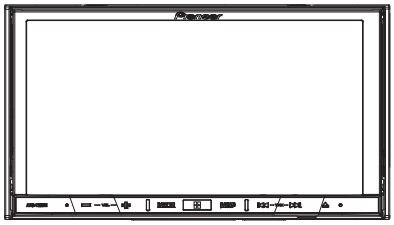
Pioneer

Service Manual



AVIC-Z150BH/XNUC

ORDER NO.
CRT5330

MULTIMEDIA NAVIGATION RECEIVER

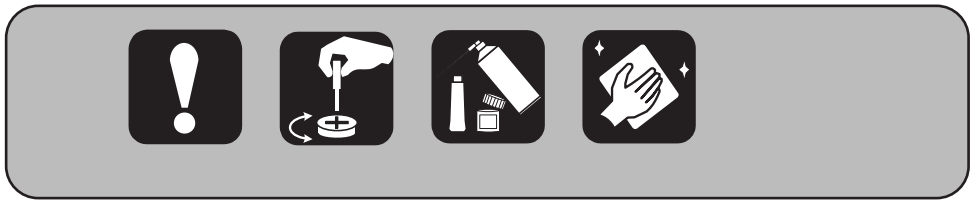
AVIC-Z150BH/XNUC

NAVIGATION AV SYSTEM

AVIC-F50BT/XNEU5
AVIC-F50BT/XNAU

This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech.Module	Remarks
CX-3283	CRT4843	LS2	DVD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly



K-ZZZ MAR. 2013 Printed in Japan

SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product may contain a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

Where in a manufacturer's service documentation, for example in circuit diagrams or lists of components, a symbol is used to indicate that a specific component shall be replaced only by the component specified in that documentation for safety reasons, the following symbol shall be used:

⚠

- **Safety Precautions for those who Service this Unit.**
  When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.

Caution:

1. **During repair or tests, minimum distance of 13 cm from the focus lens must be kept.**
2. **During repair or tests, do not view laser beam for 10 seconds or longer.**

CAUTION:
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION
This product is a class 1 laser product classified under the Safety of laser products, IEC 60825-1:2007, and contains a class 1M laser module. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.

CLASS 1 LASER PRODUCT

CAUTION—CLASS 1M INVISIBLE LAS R RADIATION WHEN OPEN, DO NOT VI W DIRECTLY WITH OPTICAL INSTRUME TS.

WARNING!

The AEL (accessible emission level)of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.
A specially instructed person should do servicing operation of the apparatus.

Laser diode characteristics

Wave length:

DVD:660 nm to 670 nm
CD:780 nm to 800 nm

Focus lens on Maximum output:

CD:6.26 mW(Emitting period :9 sec.)
DVD:1.27 mW (Emitting period : unlimited)

Additional Laser Caution

Transistors Q1103 and Q1104 in PCB drive the laser diodes for DVD and CD respectively. When Q1103 or Q1104 is shorted between their terminals, the laser diodes for DVD or CD will radiate beam. If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

CONTENTS

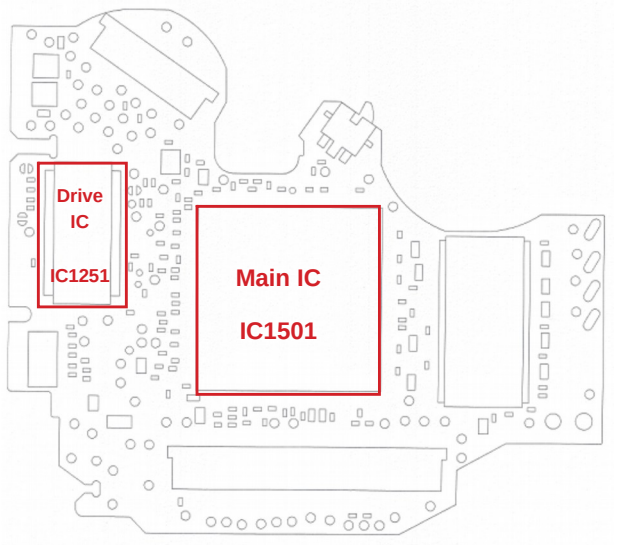
SAFETY INFORMATION 2
1. SERVICE PRECAUTIONS 6
1.1 SERVICE PRECAUTIONS 6
1.2 NOTES ON SOLDERING 7
2. SPECIFICATIONS 8
2.1 SPECIFICATIONS 8
2.2 DISC/CONTENT FORMAT 15
3. BASIC ITEMS FOR SERVICE 16
3.1 CHECK POINTS AFTER SERVICING 16
3.2 PCB LOCATIONS 17
3.3 JIGS LIST 18
3.4 CLEANING 19
4. BLOCK DIAGRAM 20
4.1 OVERALL CONNECTION DIAGRAM 20
4.2 BLOCK DIAGRAM 22
4.3 POWER SUPPLY SYSTEM FIGURE 36
5. DIAGNOSIS 50
5.1 OPERATIONAL FLOWCHART 50
5.2 FUSE CHECK 51
5.3 INSPECTION METHOD OF PICKUP UNIT 52
5.4 DIAGNOSIS FLOWCHART FOR DVD UNIT 55
5.5 DIAGNOSIS OF BACK LIGHT 72
5.6 ERROR CODE LIST 73
5.7 CONNECTOR FUNCTION DESCRIPTION 77
5.8 CONNECTOR FUNCTION DESCRIPTION OF CC ASSY(SERVICE) 78
6. SERVICE MODE 81
6.1 TEST MODE 81
6.2 DVD TEST MODE 172
7. DISASSEMBLY 178
8. EACH SETTING AND ADJUSTMENT 186
8.1 DVD ADJUSTMENT 186
8.2 PCL OUTPUT CONFIRMATION 191
9. EXPLODED VIEWS AND PARTS LIST 192
9.1 PACKING 192
9.2 EXTERIOR (1) 196
9.3 EXTERIOR (2) 198
9.4 EXTERIOR (3) 200
9.5 EXTERIOR (4) 202
9.6 DVD MECHANISM MODULE (1) 204
9.7 DVD MECHANISM MODULE (2) 206
10. SCHEMATIC DIAGRAM 208
10.1 AV UNIT (S_VEHICLE IF SECTION) 208
10.2 AV UNIT (S_POWER AMP SECTION) 210
10.3 AV UNIT (POWER SECTION) 212
10.4 AV UNIT (SYSTEM uCOM SECTION) (GUIDE PAGE) 214
10.5 AV UNIT (S_AVSEL SECTION) 220
10.6 AV UNIT (S_E-VOL SECTION) 222
10.7 AV UNIT (GUIDE SECTION) 224
10.8 AV UNIT (RDS-TMC POWER SECTION) 226
10.9 AV UNIT (DISTRIBUTION SECTION) 228
10.10 AV UNIT (S FMAM TUNER SECTION) 230
10.11 AV UNIT (RDS-TMC TUNER SECTION) 232
10.12 AV UNIT (WWR POWER SECTION) 234
10.13 AV UNIT (WWR SECTION) 236
10.14 AV UNIT (S_SENSOR SECTION) 238
10.15 AV UNIT (FLAP MECHA SECTION) 240
10.16 AV UNIT (EXTERNAL IF SECTION) (GUIDE PAGE) 242
10.17 AV UNIT (AV-NAVI IF SECTION) (GUIDE PAGE) 248
10.18 AV UNIT (APP MODE MIX SECTION) 254
10.19 AV UNIT (S DDCON SECTION) 256
10.20 NAVI UNIT (SERVICE) (AV_IF SECTION) (GUIDE PAGE) 258
10.21 NAVI UNIT (SERVICE) (MIC SECTION) 264
10.22 NAVI UNIT (SERVICE) (ECHO CANCELLER SECTION) 266
10.23 NAVI UNIT (SERVICE) (DAC SECTION) 268

10.24 NAVI UNIT (SERVICE) (GUIDE MIX SECTION).....270
10.25 NAVI UNIT (SERVICE) (HDMI SECTION) (GUIDE PAGE).....272
10.26 NAVI UNIT (SERVICE) (GRAPHIC IC SECTION) (GUIDE PAGE) 278
10.27 NAVI UNIT (SERVICE) (LVDS SECTION).....284
10.28 NAVI UNIT (SERVICE) (MONITOR_IF SECTION).....286
10.29 NAVI UNIT (SERVICE) (ASIC SECTION) 288
10.30 NAVI UNIT (SERVICE) (CC_IF SECTION) 290
10.31 NAVI UNIT (SERVICE) (SD SECTION).....292
10.32 NAVI UNIT (SERVICE) (S_GPS SECTION).....294
10.33 NAVI UNIT (SERVICE) (BT SECTION) 296
10.34 NAVI UNIT (SERVICE) (iPod SECTION) 298
10.35 NAVI UNIT (SERVICE) (USB SECTION) 300
10.36 NAVI UNIT (SERVICE) (CANBUS SECTION).....302
10.37 NAVI UNIT (SERVICE) (SXi SECTION) 304
10.38 NAVI UNIT (SERVICE) (LS2_IF SECTION) 306
10.39 DVD CORE UNIT (GUIDE PAGE).....308
10.40 MONITOR UNIT (NAVI IF SECTION).....314
10.41 MONITOR UNIT (LED-BL SECTION) 316
10.42 MONITOR UNIT (LCD-POWER SECTION) 318
10.43 MONITOR UNIT (LVDS SECTION).....320
10.44 KEY UNIT (SERVICE) 322
10.45 PCB UNIT(SERVICE).....324
10.46 WAVEFORMS.....326
11. PCB CONNECTION DIAGRAM 328
11.1 AV UNIT 328
11.2 NAVI UNIT (SERVICE) 332
11.3 DVD CORE UNIT.....336
11.4 MONITOR UNIT.....338
11.5 PCB UNIT(SERVICE) 342
11.6 KEY UNIT (SERVICE) 344
12. ELECTRICAL PARTS LIST.....345

1. SERVICE PRECAUTIONS

1.1 SERVICE PRECAUTIONS

1. You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.
2. Be careful in handling ICs. Some ICs such as MOS type are so fragile that they can be damaged by electrostatic induction.
3. Please be sure to conduct line process to original status if you make assembling after repair.
4. Please be careful of not to imply static charge onto integrated circuits, etc, when you conduct repair work.
   Especially, please use soldering iron with its tip grounded.
   Also, please use a pair of tweezers with static charge protection capability if there is the possibility of contacting to device terminals, and avoid the use of metal-made tweezers.
5. Before disassembling the unit, be sure to turn off the power. Unplugging and plugging the connectors during power-on mode may damage the ICs inside the unit.
6. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) by referring to "the DISASSEMBLY".
7. Please keep the distance of more than 13 cm from focus lens for safety when you check pickup and make adjustment, and do not look straight at Laser Beam for more than 10 seconds.
8. Please power adjustment when you replaced mechanical area of DVD Mecha Module or DVD core unit.
9. Graphically-illustrated areas become hot. Be careful not to burn yourself.



10. The part listed below is difficult to replace as a discrete component part.
    When the part listed in the table is defective, replace whole Assy.

AV UNIT	IC3153	LT1912EMSE	Heat pad
NAVI UNIT(SERVICE)	IC501	MN864779KT	BGA
	IC602	DT090197S	BGA
MONITOR UNIT	IC4201	R1290K103A	Heat pad
	IC4101	OZ527ILN	Heat pad
	IC4002	AK4188VN	Heat pad

11. On this mechanism, Pickup and Spindle Motor can not be replaced at the service site, because a special facility is required for the adjustment after replacing them.
    So, if Pickup or Spindle Motor is defective, replace the Mechanism Unit.

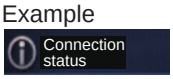
12. EJECT LOCK MODE for DVD mechanism

On the screen shown below, eject lock can be turned ON/OFF.
Connection status screen
Example

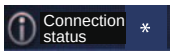
< Procedure >
Short push area "1 " -> Short push area "2 " -> Long push area "3 " on above screen.
(In order to change the status, follow the same operation.)

BEEP sound is not output at operation.
However, if the eject lock is turned ON by "3 Long push", "Tone 2 HIGH" is sounded. If it is turned OFF, "Tone 2 LOW" is sounded.

< Current status >
Example



Eject Lock: OFF



Eject Lock: ON
("*" is drawn after the title)

<Initial value>
Eject lock is turned OFF.

<Restriction when the eject is locked>
DISC EJECT - operation is disabled
DISC LOAD - operation is enabled
FULL OPEN - operation is disabled
CLOSE - operation is enabled
ANGLE ADJUSTMENT - operation is enabled

1.2 NOTES ON SOLDERING

- For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit.
  Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.

- Compared with conventional eutectic solders, lead-free solders have higher melting points, by approximately 40° C.
  Therefore, for lead-free soldering, the tip temperature of a soldering iron must be set to around 350° C in general, although the temperature depends on the heat capacity of the PC board on which reworking is required and the weight of the tip of the soldering iron.

Compared with eutectic solders, lead-free solders have higher bond strengths but slower wetting times and higher melting temperatures (hard to melt/easy to harden).

The following lead-free solders are available as service parts:
- Parts numbers of lead-free solder:
  GYP1006 1.0 in dia.
  GYP1007 0.6 in dia.
  GYP1008 0.3 in dia.

2. SPECIFICATIONS

2.1 SPECIFICATIONS

• UC Type

General

Rated power source.....14.4 V DC
(allowable voltage range: 10.8 V to 15.1 V DC)
Grounding system.....Negative type
Maximum current consumption
.....10.0 A
Backup current .....3 mA or less

Dimensions (W × H × D):
Chassis .....178 mm × 100 mm × 167 mm
(7 in. × 3-7/8 in. × 6-5/8 in.)
Nose .....170 mm × 96 mm × 20 mm
(6-3/4 in. × 3-3/4 in. × 3/4 in.)

Weight ..... 2.15 kg (4.7 lbs)

NAND flash memory .....8 GB

Navigation

GPS receiver:
System .....L1, C/Acode GPS SPS (Standard Positioning Service)
Reception system.....12-channel multi-channel reception system
Reception frequency.... 1 575.42 MHz
Sensitivity ..... –140 dBm (typ)
Position update frequency
..... Approx. once per second

GPS antenna:
Antenna .....Micro strip flat antenna/ right -handed helical polarization
Antenna cable ..... 3.55 m (11 ft. 7 in.)
Dimensions (W × H × D)
.....33 mm × 14.7 mm × 36 mm
(1-1/4 in. × 4/7 in. × 1-3/8 in.)
Weight ..... 73.7 g (0.211 lbs)

Display

Screen size/aspect ratio:
..... 7 inch wide/16:9
Effective display area:
.....155.2 mm × 81.3 mm

Pixels ..... 384 000 (800 × 480)
Display method .....TFT Active matrix driving
Backlight .....LED
Color system ..... NTSC compatible
Tolerable temperature range:
Power on ..... +14 °F to +140 °F
Power off ..... –4 °F to +176 °F
Angle adjustment ..... 0° to 22°

Audio

Maximum power output .....50 W × 4
50 W × 2 ch/4Ω + 70 W × 1 ch/2 Ω (for subwoofer)
Continuous power output ... 22 W × 4 (50 Hz to 15 kHz, 5 %THD, 4 Ω LOAD, Both Channels Driven)
Load impedance .....4 Ω (4 Ω to 8 Ω [2 Ω for 1 ch] allowable)
Preout output level (max).... 4.0 V
Preout impedance.....100 Ω

Equalizer (8-Band Graphic Equalizer):
Frequency..... 40 Hz/80 Hz/200 Hz/400 Hz/ 1 kHz/2.5 kHz/8 kHz/10 kHz
Gain ..... ±12 dB
Loudness contour:
Low .....+3.5 dB (100 Hz), +3 dB (10 kHz)
Mid .....+10 dB (100 Hz), +6.5 dB (10 kHz)
High .....+11 dB (100 Hz), +11 dB (10 kHz)
(volume: –30 dB)

HPF:
Frequency..... 50 Hz/63 Hz/80 Hz/100 Hz/ 125 Hz
Slope .....–12 dB/oct
Subwoofer:
Frequency.....50 Hz/63 Hz/80 Hz/100 Hz/ 125 Hz
Slope .....–18 dB/oct
Gain .....–24/+6 dB
Phase .....Normal/Reverse
Bass boost:
Gain ..... 0 dB to +12 dB

DVD drive

System .....DVD-Video, CD, MP3, WMA, AAC, DivX system
Usable discs ..... DVD-Video, DVD-R(SL/DL), DVD-RW, CD-ROM, CD-DA, CD-R/RW
Region number 1
Signal format:
Sampling frequency .....44.1 kHz/48 kHz/96 kHz
Number of quantization bits .....16 bit/20 bit/24 bit; linear
Frequency response.....5 Hz to 44 000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio.....97 dB (1 kHz) (IHF-A network) (CD: 96 dB (1 kHz) (IHF-A network))
Dynamic range ..... 95 dB (1 kHz) (CD: 94 dB (1 kHz))
Distortion ..... 0.008 % (1 kHz)
Output level:
Video.....1.0 Vp-p (0.7 ± 0.2 V)
Audio .....1.0 V (1 kHz, 0 dB)
Number of channels ..... 2 (stereo)
MP3 decoding format .....MPEG-1, 2 & 2.5 Audio Layer 3
WMA decoding format .....Ver. 7, 8 & 9
AAC decoding format.....MPEG-4 AAC (only encoded by iTunes): .m4a
DivX decoding format.....Home Theater Ver.3.11, Ver.4.X, Ver.5.X, Ver.6.X : .avi, .divx

USB

USB standard spec.....USB 2.0 High Speed
Max current supply .....1 A
File system.....FAT16, FAT32
USB class .....Mass storage class
Decoding format MP3/WMA/AAC/WAVE/ H.264/MPEG4/WMV

SD

SD memory card, SDHC memory card
Compatible physical format .....Version 2.00
File system..... FAT16, FAT32
Decoding format MP3/WMA/AAC/WAVE/ H.264/MPEG4/WMV

Bluetooth

Version .....Bluetooth 2.1+EDR
Output power ..... +4 dBm Max. (Power class 2)

FM tuner

Frequency range.....87.9 MHz to 107.9 MHz
Usable sensitivity.....9 dBf (0.8 µV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio..... 80 dB (digital broadcasting) (IHF-A network)
72 dB (analog broadcasting) (IHF-A network)

AM tuner

Frequency range.....530 kHz to 1 710 kHz (10 kHz)
Usable sensitivity.....25 µV (S/N: 20 dB)
Signal-to-noise ratio..... 80 dB (digital broadcasting) (IHF-A network)
62 dB (analog broadcasting) (IHF-A network)

CEA2006 Specifications

Power output .....14 W RMS × 4 Channels (4 Ω and ≦ 1 % THD+N)
S/N ratio ..... 91 dBA (reference: 1 W into 4 Ω)

Note

Specifications and design are subject to possible modifications without notice due to improvements.

• EU5 Type

General

Rated power source.....14.4 V DC
(allowable voltage range: 12.0 V to 14.4 V DC)
Earthing system ..... Negative type
Maximum current consumption
.....10.0 A
Backup current .....3.mA or less

Dimensions (W × H × D):

DIN
Chassis .....188 mm × 118 mm × 159 mm
Nose .....170 mm × 96 mm × 28 mm
D
Chassis .....178 mm × 100 mm × 167 mm
Nose .....170 mm × 96 mm × 20 mm

Weight .....2.46 kg

NAND flash memory ..... 8 GB

Navigation

GPS receiver:
System .....L1, C/Acode GPS SPS (Standard Positioning Service)
Reception system.....12-channel multi-channel reception system
Reception frequency.... 1 575.42 MHz
Sensitivity ..... –140 dBm (typ)
Position update frequency
..... Approx. once per second
GPS aerial:
Aerial .....Micro strip flat aerial/right-handed helical polarisation
Aerial cable ..... 3.55 m
Dimensions (W × H × D)
..... 33 mm × 14.7 mm × 36 mm
Weight ..... 73.7 g

Display

Screen size/aspect ratio .....7 inch wide/16:9
Effective display area .....155.2 mm × 81.3 mm
Pixels ..... 384 000 (800 × 480)
Display method .....TFT Active matrix driving
Backlight .....LED
Colour system ..... PAL/NTSC compatible
Tolerable temperature range:
Power on ..... –10 °C to +60 °C
Power off ..... –20 °C to +80 °C
Angle adjustment
..... 0° to 22°

Audio

Maximum power output .....50 W × 4
50 W × 2 ch/4Ω + 70 W × 1 ch/2 Ω (for subwoofer)
Continuous power output ... 22 W × 4 (50 Hz to 15 kHz, 5 %THD, 4 Ω LOAD, Both Channels Driven)
Load impedance .....4Ω (4 Ω to 8 Ω [2 Ω for 1 ch] allowable)
Preout output level (max):
..... 4.0 V

Preout impedance:
.....100 Ω

Equaliser (8-Band Graphic Equaliser):
Frequency..... 40 Hz/80 Hz/200 Hz/400 Hz/1 kHz/2.5 kHz/8 kHz/10 kHz
Gain .....±12 dB
Loudness contour:
Low .....+3.5 dB (100 Hz), +3 dB (10 kHz)
Mid .....+10 dB (100 Hz), +6.5 dB (10 kHz)
High .....+11 dB (100 Hz), +11 dB (10 kHz) (volume: –30 dB)
HPF:
Frequency..... 50 Hz/63 Hz/80 Hz/100 Hz/125 Hz
Slope .....–12 dB/oct
Subwoofer:
Frequency..... 50 Hz/63 Hz/80 Hz/100 Hz/125 Hz
Slope .....–18 dB/oct
Gain .....–24/+6 dB
Phase .....Normal/Reverse
Bass boost:
Gain .....0 dB to +12 dB

DVD drive

System .....DVD-Video, CD, MP3, WMA, AAC, DivX system
Usable discs ..... DVD-Video, DVD-R(SL/DL), DVD-RW, CD-ROM, CD-DA, CD-R/RW
Region number 2
Signal format:
Sampling frequency .....44.1 kHz/48 kHz/96 kHz
Number of quantisation bits
.....16 bit/20 bit/24 bit; linear
Frequency response.....5 Hz to 44 000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio.....97 dB (1 kHz) (IEC-A network) (CD: 96 dB (1 kHz) (IEC-A network))
Dynamic range ..... 95 dB (1 kHz) (CD: 94 dB (1 kHz))
Distortion ..... 0.008 % (1 kHz)

Output level:
Video.....1.0 Vp-p (0.7 ±0.2 V)
Audio .....1.0 V (1 kHz, 0 dB)
Number of channels ..... 2 (stereo)
MP3 decoding format .....MPEG-1, 2 & 2.5 Audio Layer 3
WMA decoding format .....Ver. 7, 8 & 9
AAC decoding format.....MPEG-4 AAC (only encoded by iTunes): .m4a
DivX decoding format.....Home Theater Ver.3.11, Ver.4.X, Ver.5.X, Ver.6.X : .avi, .divx

USB

USB standard spec.....USB 2.0 High Speed
Max current supply .....1 A
File system.....FAT16, FAT32
USB class .....Mass storage class
Decoding format MP3/WMA/AAC/WAVE/H.264/MPEG4/WMV

SD

SD memory card, SDHC memory card
Compatible physical format
.....Version 2.00
File system..... FAT16, FAT32
Decoding format MP3/WMA/AAC/WAVE/H.264/MPEG4/WMV

Bluetooth

Version ..... Bluetooth 2.1+EDR
Output power ..... +4 dBm Max. (Power class 2)

FM tuner

Frequency range..... 87.5 MHz to 108.0 MHz
Usable sensitivity..... 9 dBf (0.8 µV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio.....72 dB (IEC-A network)

MW tuner

Frequency range..... 531 kHz to 1 602 kHz (9 kHz)
Usable sensitivity..... 25 µV (S/N: 20 dB)
Signal-to-noise ratio..... 62 dB (IEC-A network)

LW tuner

Frequency range.....153 kHz to 281 kHz
Usable sensitivity..... 28 µV (S/N: 20 dB)
Signal-to-noise ratio..... 62 dB (IEC-A network)

Note

Specifications and design are subject to possible modifications without notice due to improvements.

• AU Type

General

Rated power source.....14.4 V DC
(allowable voltage range:
10.8 V to 15.1 V DC)
Earthing system ..... Negative type
Maximum current consumption
..... 10.0 A
Backup current .....3.mA or less
Dimensions (W × H × D):

D
Chassis .....178 mm × 100 mm ×
167 mm
Nose .....170 mm × 96 mm × 20 mm

Weight .....2.13 kg

NAND flash memory .....4 GB

Navigation

GPS receiver:
System .....L1, C/Acode GPS
SPS (Standard Positioning
Service)
Reception system.....12-channel multi-channel
reception system
Reception frequency.... 1 575.42 MHz
Sensitivity ..... –140 dBm (typ)
Position update frequency
..... Approx. once per second
GPS aerial:
Aerial .....Micro strip flat aerial/right-
handed helical polarisation
Aerial cable ..... 3.55 m
Dimensions (W × H × D)
..... 33 mm × 14.7 mm × 36 mm
Weight ..... 73.7 g

Display

Screen size/aspect ratio:
..... 7 inch wide/16:9
Effective display area:
.....155.2 mm × 81.3 mm
Pixels ..... 384 000 (800 × 480)
Display method ..... TFT Active matrix driving
Backlight .....LED
Colour system ..... PAL/NTSC compatible
Tolerable temperature range:
Power on ..... –10 °C to +60 °C
Power off ..... –20 °C to +80 °C
Angle adjustment ..... 0° to 22°

Audio

Maximum power output .....50 W × 4
50 W × 2 ch/4Ω + 70 W ×
1 ch/2 Ω (for subwoofer)
Continuous power output ... 22 W × 4 (50 Hz to 15 kHz,
5 %THD, 4 Ω LOAD, Both
Channels Driven)
Load impedance .....4 Ω (4 Ω to 8 Ω [2 Ω for 1 ch]
allowable)
Preout output level (max):
..... 4.0 V
Preout impedance:
..... 100 Ω
Equaliser (8-Band Graphic Equaliser):
Frequency..... 40 Hz/80 Hz/200 Hz/400 Hz/
1 kHz/2.5 kHz/8 kHz/10 kHz
Gain ..... ±12 dB
Loudness contour:
Low .....+3.5 dB (100 Hz), +3 dB
(10 kHz)
Mid .....+10 dB (100 Hz), +6.5 dB
(10 kHz)
High .....+11 dB (100 Hz), +11 dB
(10 kHz)
(volume: –30 dB)
HPF:
Frequency..... 50 Hz/63 Hz/80 Hz/100 Hz/
125 Hz
Slope .....–12 dB/oct

Subwoofer:
- Frequency..... 50 Hz/63 Hz/80 Hz/100 Hz/125 Hz
- Slope .....–18 dB/oct
- Gain .....–24/+6 dB
- Phase .....Normal/Reverse

Bass boost:
- Gain .....0 dB to +12 dB

DVD drive

System .....DVD-Video, CD, MP3, WMA, AAC, DivX system
Usable discs ..... DVD-Video, DVD-R(SL/DL), DVD-RW, CD-ROM, CD-DA, CD-R/RW
Region number 4
Signal format:
- Sampling frequency .....44.1 kHz/48 kHz/96 kHz
- Number of quantisation bits .....16 bit/20 bit/24 bit; linear

Frequency response.....5 Hz to 44 000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio.....97 dB (1 kHz) (IEC-A network) (CD: 96 dB (1 kHz) (IEC-A network))
Dynamic range ..... 95 dB (1 kHz) (CD: 94 dB (1 kHz))
Distortion ..... 0.008 % (1 kHz)
Output level:
- Video.....1.0 Vp-p (75 Ω) (±0.2 V)
- Audio .....1.0 V (1 kHz, 0 dB)

Number of channels .....2 (stereo)
MP3 decoding format .....MPEG-1, 2 & 2.5 Audio Layer 3
WMA decoding format .....Ver. 7, 8 & 9
AAC decoding format.....MPEG-4 AAC (only encoded by iTunes): .m4a
DivX decoding format.....Home Theater Ver.3.11, Ver.4.X, Ver.5.X, Ver.6.X : .avi, .divx

USB

USB standard spec.....USB 2.0 High Speed
Max current supply .....1 A
File system.....FAT16, FAT32
USB class .....Mass storage class
Decoding format MP3/WMA/AAC/WAVE/H.264/MPEG4/WMV

SD

SD memory card, SDHC memory card
- Compatible physical format .....Version 2.00
- File system..... FAT16, FAT32
- Decoding format MP3/WMA/AAC/WAVE/H.264/MPEG4/WMV

Bluetooth

Version .....Bluetooth 2.1+EDR
Output power ..... +4 dBm Max. (Power class 2)

FM tuner

Frequency range..... 87.5 MHz to 108.0 MHz
Usable sensitivity..... 9 dBf (0.8 µV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio.....72 dB (IEC-A network)

AM tuner

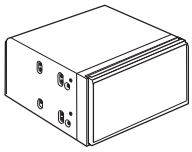
Frequency range..... 531 kHz to 1 602 kHz (9 kHz)
Usable sensitivity..... 25 µV (S/N: 20 dB)
Signal-to-noise ratio.....62 dB (IEC-A network)

Note

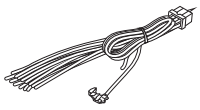
Specifications and design are subject to possible modifications without notice due to improvements.

Parts supplied

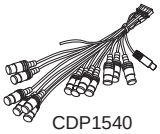
AVIC-Z150BH/XNUC



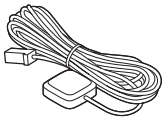
The navigation unit



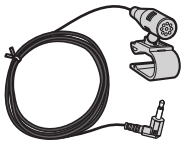
CDP1546
Power cord



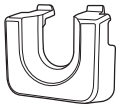
CDP1540
RCA connector



CXE3204
GPS antenna

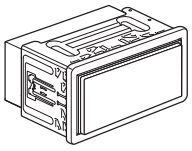


CPM1083
Microphone

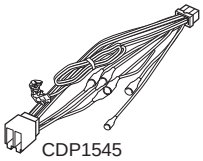


CNW2508
HDMI cable holder

AVIC-F50BT/XNEU5

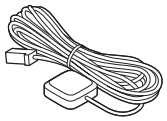


The navigation unit

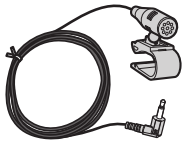


CDP1545
Power cord

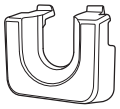
CDP1540
RCA connector



CXE3204
GPS aerial

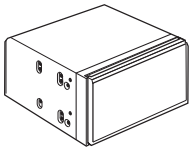


CPM1083
Microphone

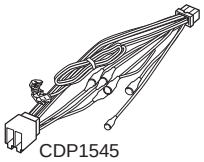


CNW2508
HDMI cable holder

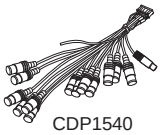
AVIC-F50BT/XNAU



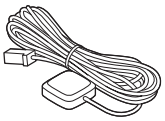
The navigation unit



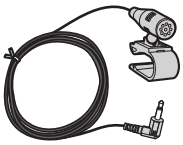
CDP1545
Power cord



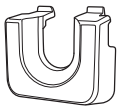
CDP1540
RCA connector



CXE3204
GPS aerial

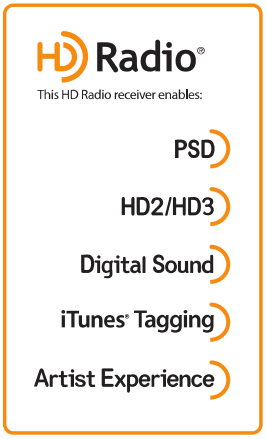


CPM1083
Microphone



CNW2508
HDMI cable holder

2.2 DISC/CONTENT FORMAT



The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by PIONEER CORPORATION is under license.
Other trademarks and trade names are those of their respective owners.

3. BASIC ITEMS FOR SERVICE

3.1 CHECK POINTS AFTER SERVICING

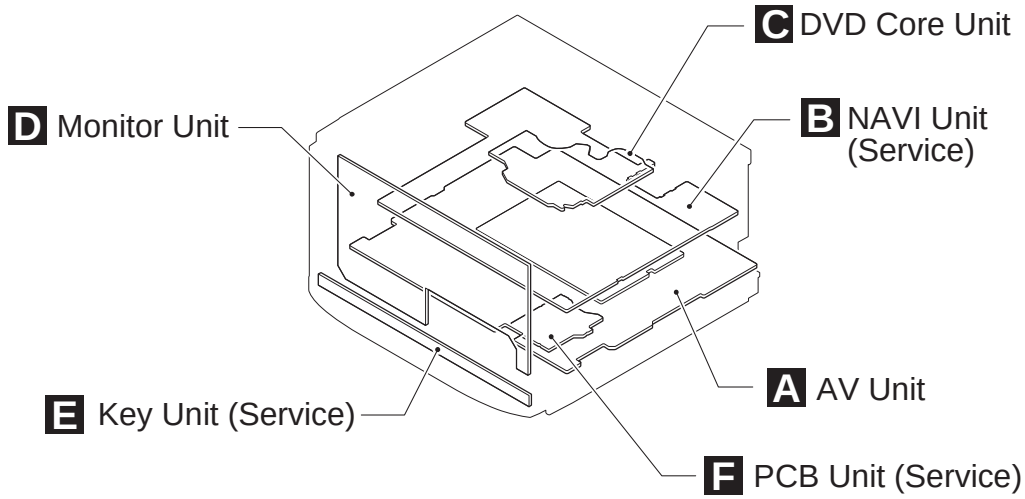
To keep the product quality after servicing, please confirm following check points.

No.		Procedures	Item to be confirmed
1		Confirm whether the customer complain has been solved. If the customer complain occurs with the specific media, use it for the operation check.	The customer complain must not be reappeared. Display, video, audio and operations must be normal.
2	Flap-mecha	Check the operation of the flap mechanism.	The flap mechanism operation must be smooth without making the noise and scratches.
3	DVD	Measure playback error rates at the innermost and outermost tracks by using the test mode with the following disc. DVD test disc (GGV1025)	Deterioration of mecha-drive can be checked. The error rate must be less than the threshold value. (Refer to the chapter of DIAGNOSIS for the threshold value.)
4	DVD	Play back a DVD. (Menu operation; Title/chapter search)	Display, video, audio and operations must be normal.
5	CD	Play back a CD. (Track search)	Display, audio and operations must be normal.
6	FM/AM tuner	Check FM/AM tuner action. (Seek, Preset) Switch band to check both FM and AM.	Display, audio and operations must be normal.
7	GPS positioning	Connect GPS antenna to the product, and check whether the current location is correct.	Current location must be correct. Display and operations must be normal.
8	Gyro action	On "3D Calibration Status", check whether the gyro sensor works well by moving the front face of the product from left to right and up and down.	Gyro-sensing, display and operations must be normal.
9	Map display Touch-panel operation Remote-control operation	Check functions of map scale change and map scroll.	Display and operations must be normal.
10		Delete data added during the operating check. Check whether no media (CD etc.) is inside the product.	Make sure to delete data added during the operating check. The media used for the operating check must be ejected.
11		Appearance check	No scratches or dirt on its appearance after receiving it for service.

See the table below for the items to be checked regarding video and audio:

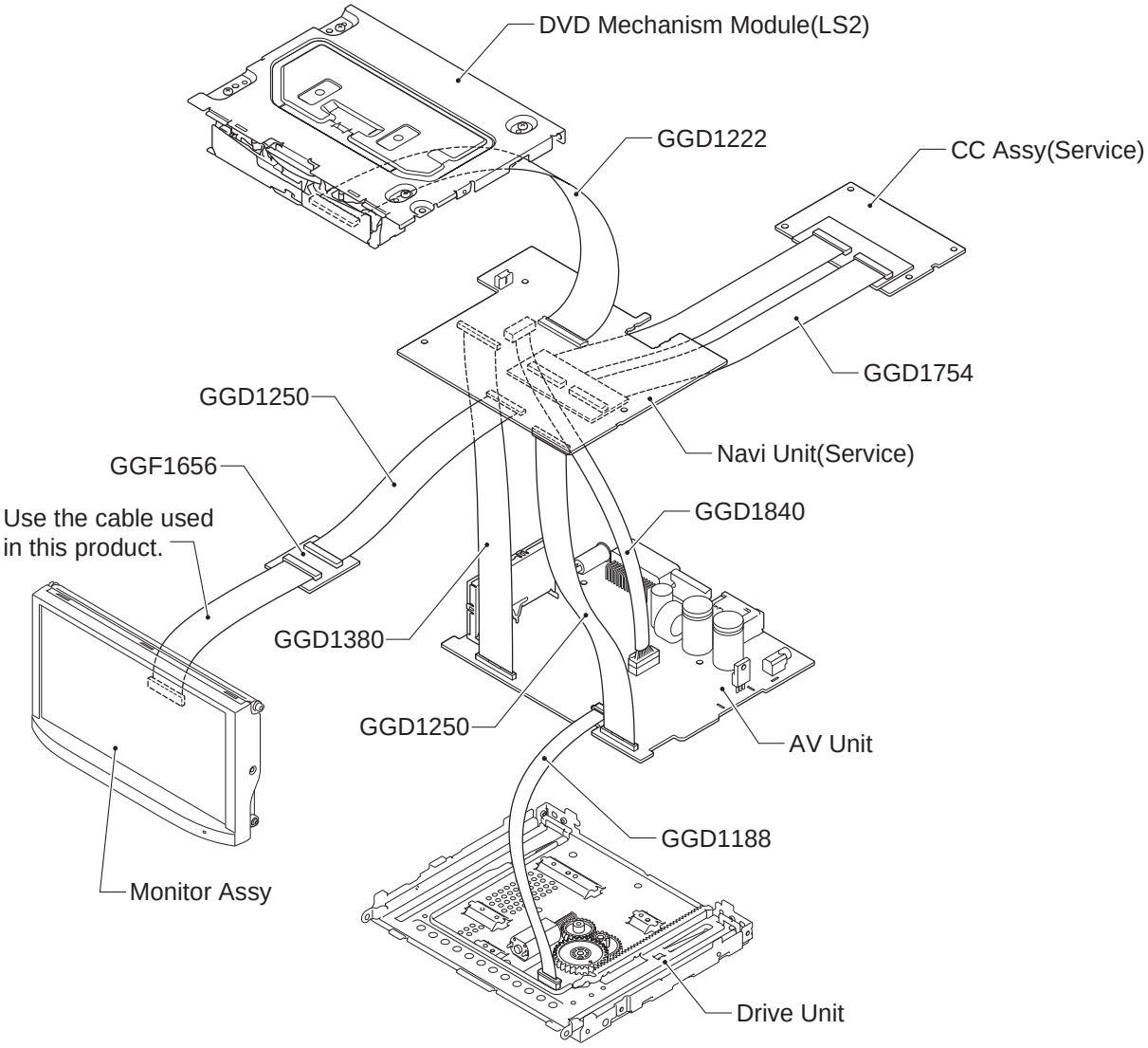
Item to be checked regarding video	**Item to be checked regarding audio**
Block-noise	Distortion
Horizontal noise	Noise
Dot noise	Volume too low
Disturbed image (video jumpiness)	Volume too high
Too dark	Volume fluctuating
Too bright	Sound interrupted
Mottled color	

3.2 PCB LOCATIONS



A:AVIC-Z150BH/XNUC
B:AVIC-F50BT/XNEU5
C:AVIC-F50BT/XNAU
Unit Number : CWN7367(A)
Unit Number : CWN7368(B)
Unit Number : CWN7369(C)
Unit Name : AV Unit
Unit Number : CXX5396(A)
Unit Number : CXX5397(B)
Unit Number : CXX5398(C)
Unit Name : Navi Unit(Service)
Unit Number : YWX5033
Unit Name : DVD Core Unit
Unit Number : CWN7383
Unit Name : Monitor Unit
Unit Number : CXX5403
Unit Name : Key Unit(Service)
Unit Number : EXX2001
Unit Name : PCB Unit(Service)

3.3 JIGS LIST



Jigs List

Name	Jig No.	Remarks
DISC	GGV1025	Check points after servicing, Inspection method of Pickup Unit
DISC	TCD-782	Inspection method of Pickup Unit
30P FFC Extension Cable	GGD1222	NAVI UNIT(SERVICE) <--> DVD MECHANISM MODULE(LS2)
100Px2 B to B Extension	GGD1754	NAVI UNIT(SERVICE) <--> CC ASSY (SERVICE)
20P Extension Cable	GGD1840	NAVI UNIT(SERVICE) <--> AV UNIT
60P FFC Extension Cable	GGD1380	NAVI UNIT(SERVICE) <--> AV UNIT
50P FFC Extension Cable	GGD1250	NAVI UNIT(SERVICE) <--> AV UNIT
50P Extension Board	GGF1656	NAVI UNIT(SERVICE) <--> MONITOR ASSY
50P FFC Extension Cable	GGD1250	NAVI UNIT(SERVICE) <--> MONITOR ASSY
10P FFC Extension Cable	GGD1188	AV UNIT <--> DRIVE UNIT
Test Mode File	GGS1137	Test Mode

Grease List

Name	Jig No.	Remarks
Grease	GEM1024	DVD Mechanism Module
Grease	GEM1038	DVD Mechanism Module
Grease	GEM1045	DVD Mechanism Module
Grease	GEM1024	Drive Unit
Grease	GEM1043	Drive Unit

3.4 CLEANING

Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
DVD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

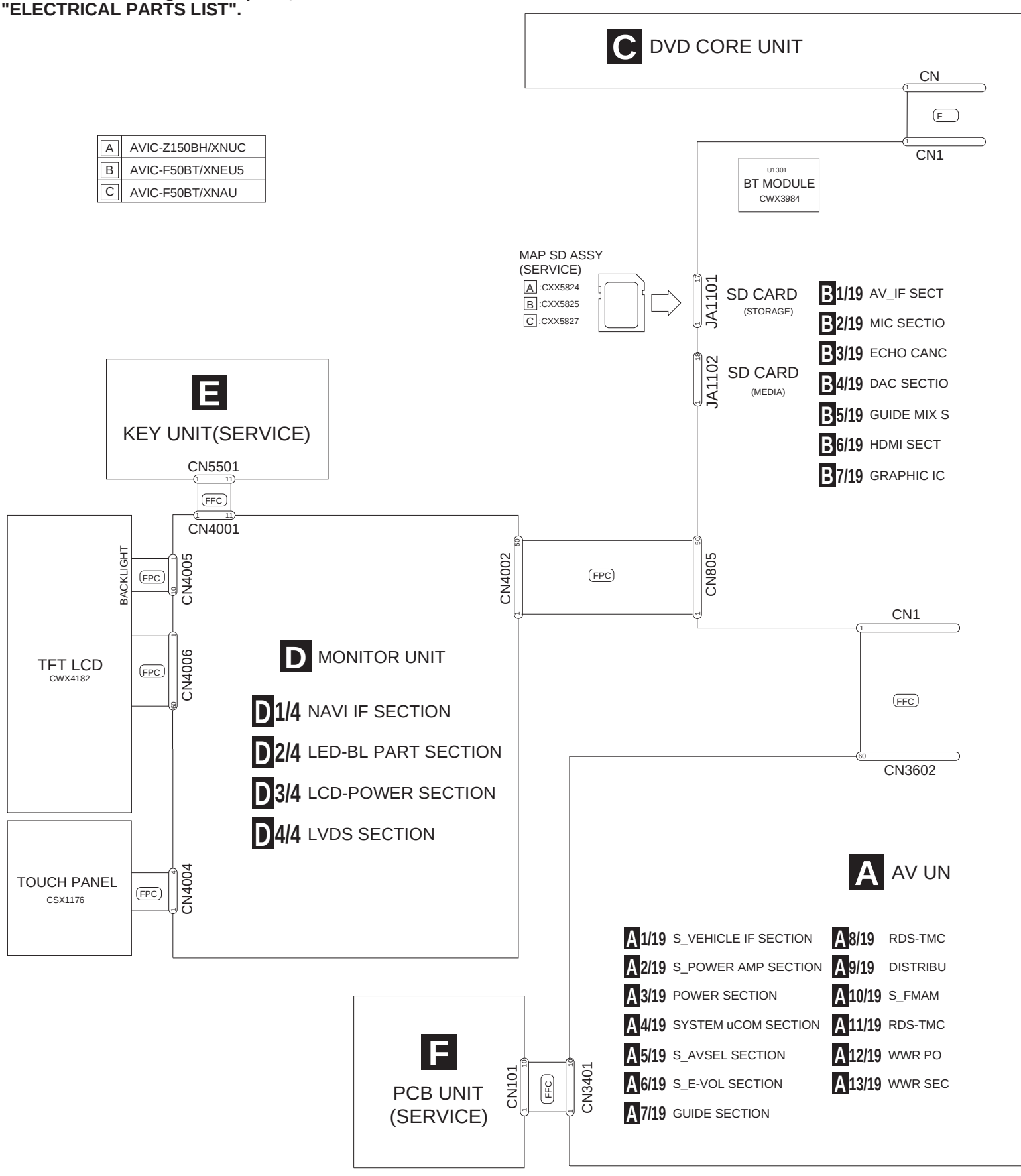
Portions to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

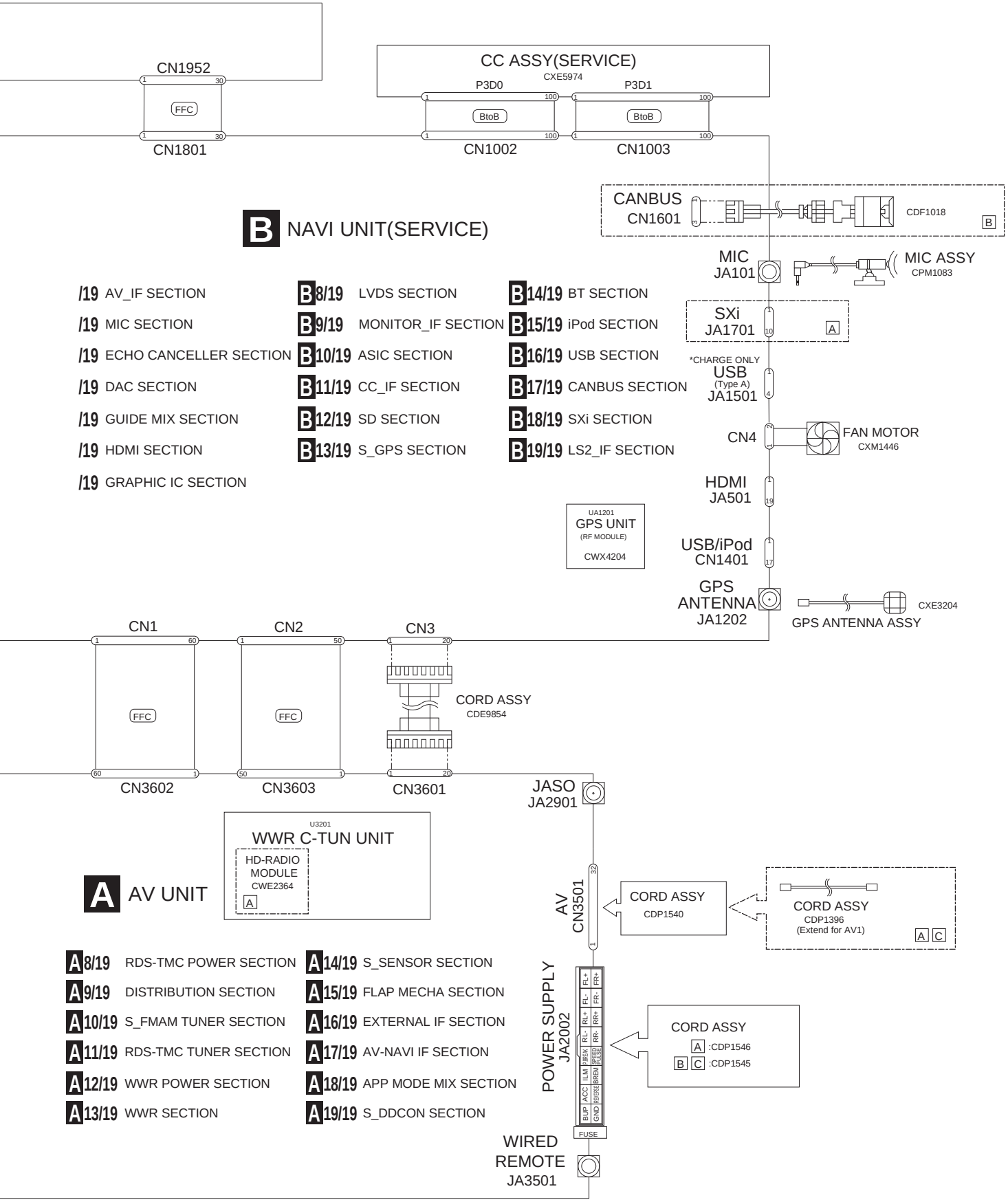
4. BLOCK DIAGRAM

4.1 OVERALL CONNECTION DIAGRAM

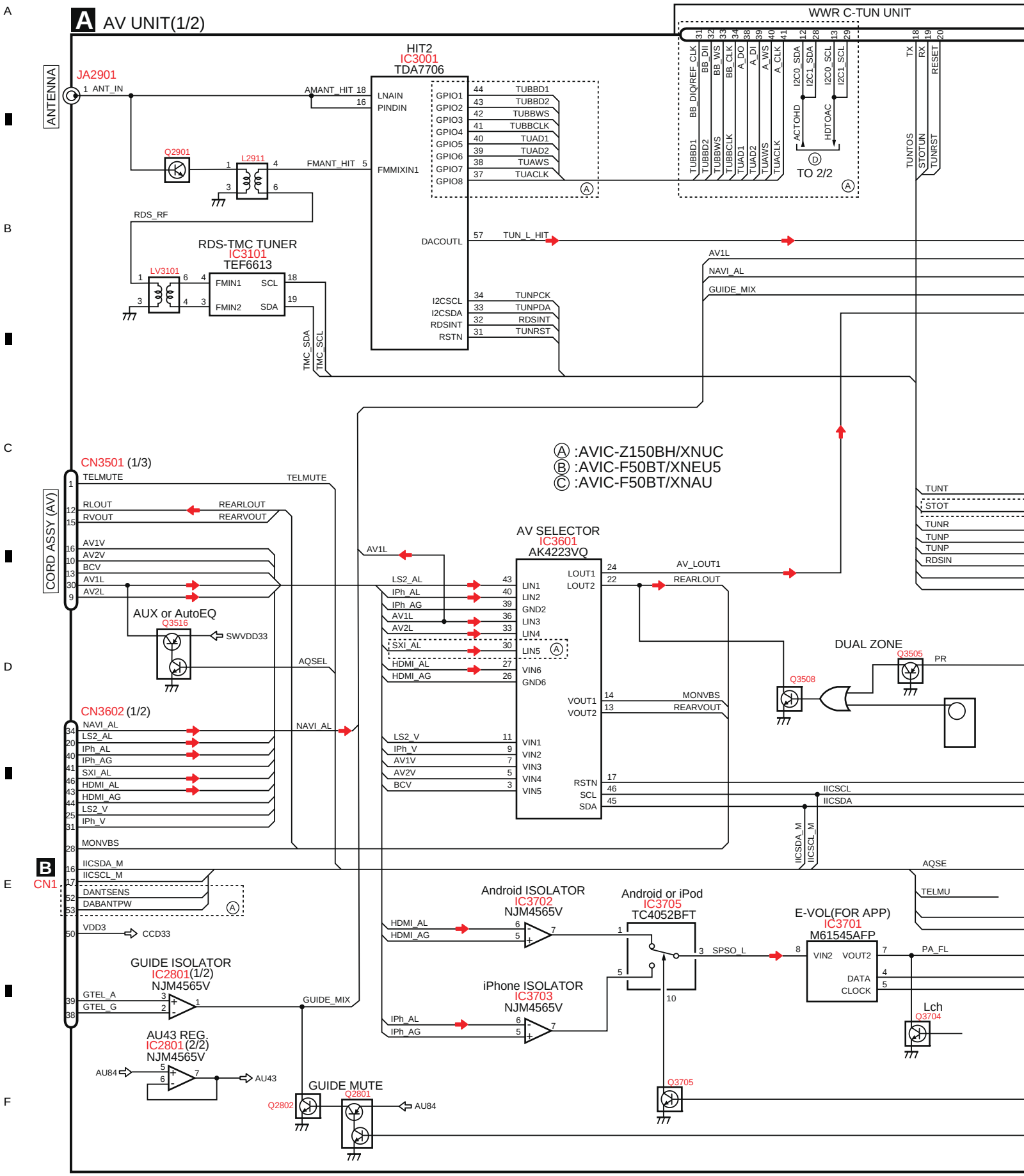
Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

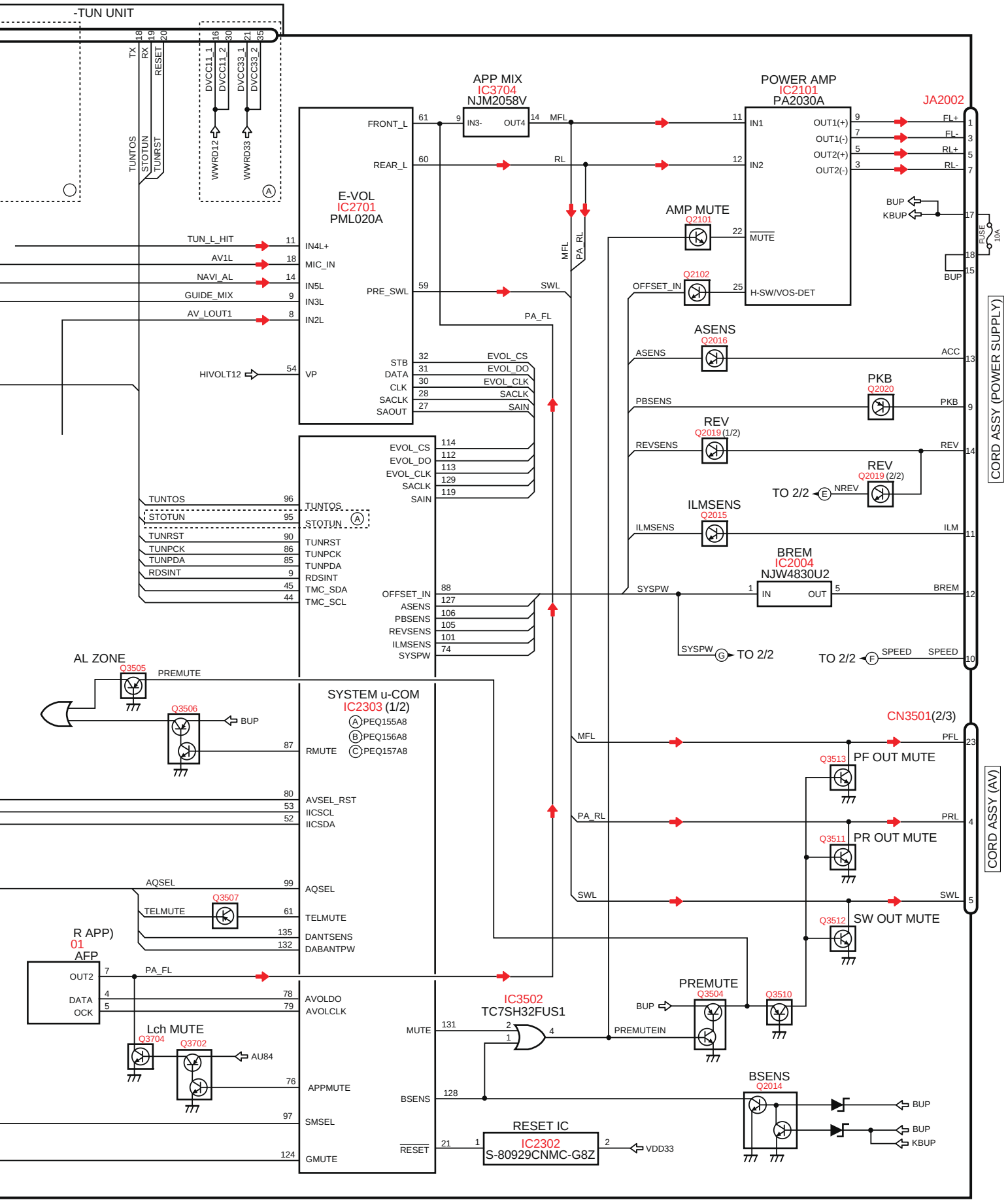
A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



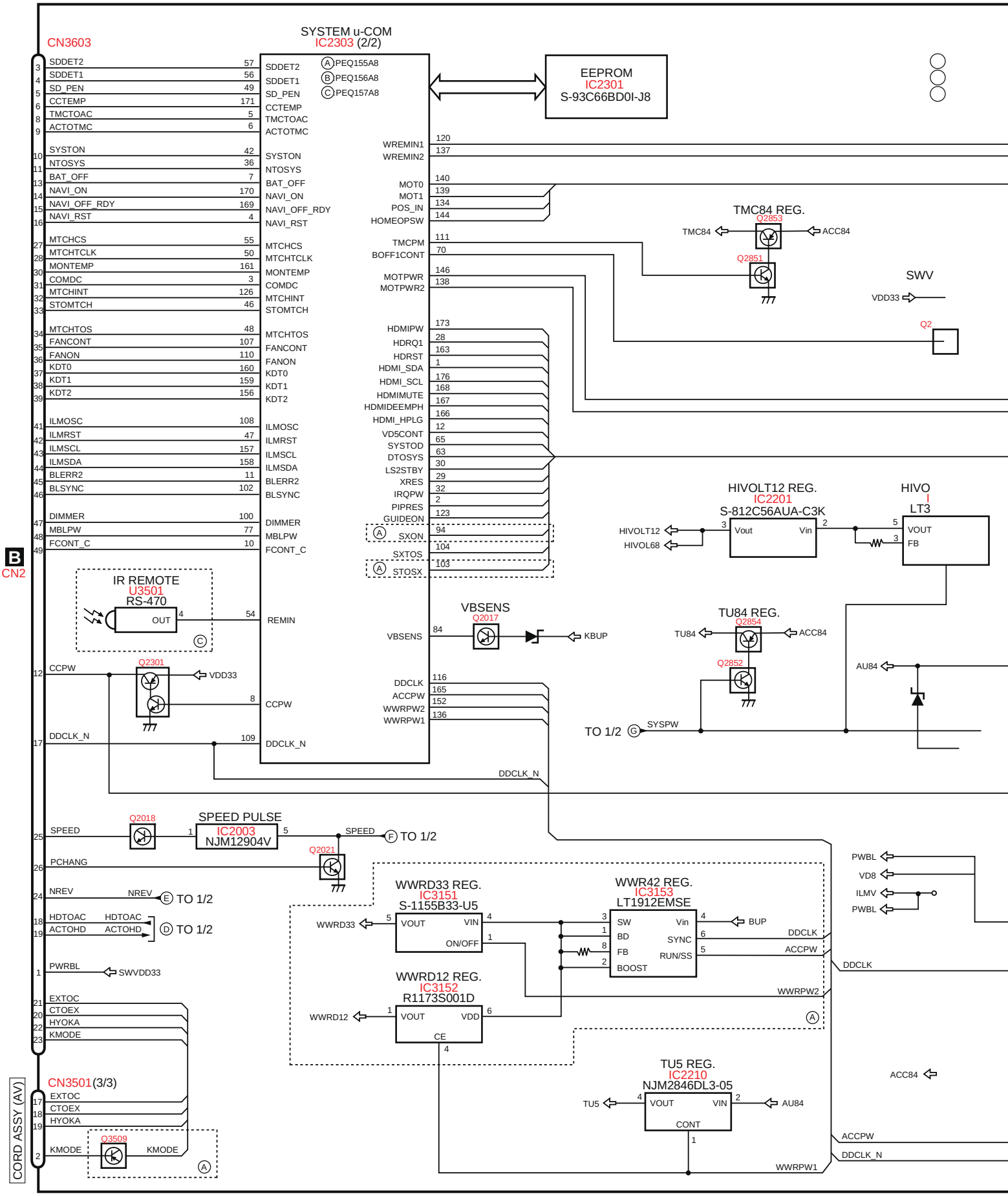

CN1952
FFC
CN1801
CC ASSY(SERVICE)
CXE5974
P3D0
P3D1
BtoB
BtoB
CN1002
CN1003
CANBUS
CN1601
CDF1018
B NAVI UNIT(SERVICE)
MIC
JA101
MIC ASSY
CPM1083
/19 AV_IF SECTION
/19 MIC SECTION
/19 ECHO CANCELLER SECTION
/19 DAC SECTION
/19 GUIDE MIX SECTION
/19 HDMI SECTION
/19 GRAPHIC IC SECTION
B 8/19 LVDS SECTION
B 9/19 MONITOR_IF SECTION
B 10/19 ASIC SECTION
B 11/19 CC_IF SECTION
B 12/19 SD SECTION
B 13/19 S_GPS SECTION
B 14/19 BT SECTION
B 15/19 iPod SECTION
B 16/19 USB SECTION
B 17/19 CANBUS SECTION
B 18/19 SXi SECTION
B 19/19 LS2_IF SECTION
SXi
JA1701
*CHARGE ONLY
USB
(Type A)
JA1501
CN4
FAN MOTOR
CXM1446
HDMI
JA501
UA1201
GPS UNIT
(RF MODULE)
CWX4204
USB/iPod
CN1401
GPS
ANTENNA
JA1202
CXE3204
GPS ANTENNA ASSY
CN1
CN2
CN3
FFC
FFC
CORD ASSY
CDE9854
CN3602
CN3603
CN3601
JASO
JA2901
U3201
WWR C-TUN UNIT
HD-RADIO
MODULE
CWE2364
A AV UNIT
AV
CN3501
CORD ASSY
CDP1540
CORD ASSY
CDP1396
(Extend for AV1)
A 8/19 RDS-TMC POWER SECTION
A 9/19 DISTRIBUTION SECTION
A 10/19 S_FMAM TUNER SECTION
A 11/19 RDS-TMC TUNER SECTION
A 12/19 WWR POWER SECTION
A 13/19 WWR SECTION
A 14/19 S_SENSOR SECTION
A 15/19 FLAP MECHA SECTION
A 16/19 EXTERNAL IF SECTION
A 17/19 AV-NAVI IF SECTION
A 18/19 APP MODE MIX SECTION
A 19/19 S_DDCON SECTION
POWER SUPPLY
JA2002
FL+
FL-
RL+
RL-
PSEN
ILLM
ACC
BUP
FR+
FR-
RR+
RR-
SPEED PULSE
BREM
GND
FUSE
CORD ASSY
A :CDP1546
B C :CDP1545
WIRED
REMOTE
JA3501

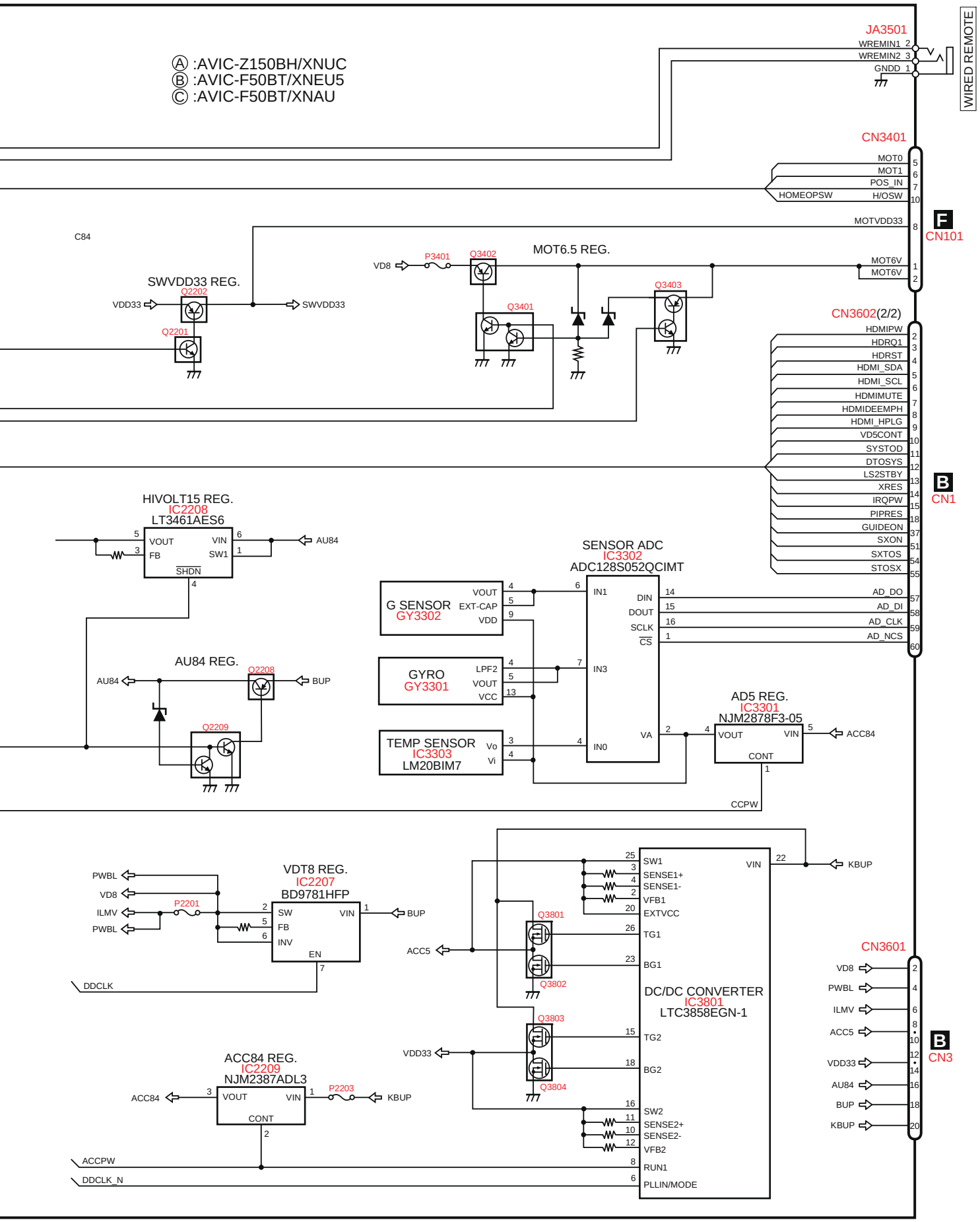
4.2 BLOCK DIAGRAM

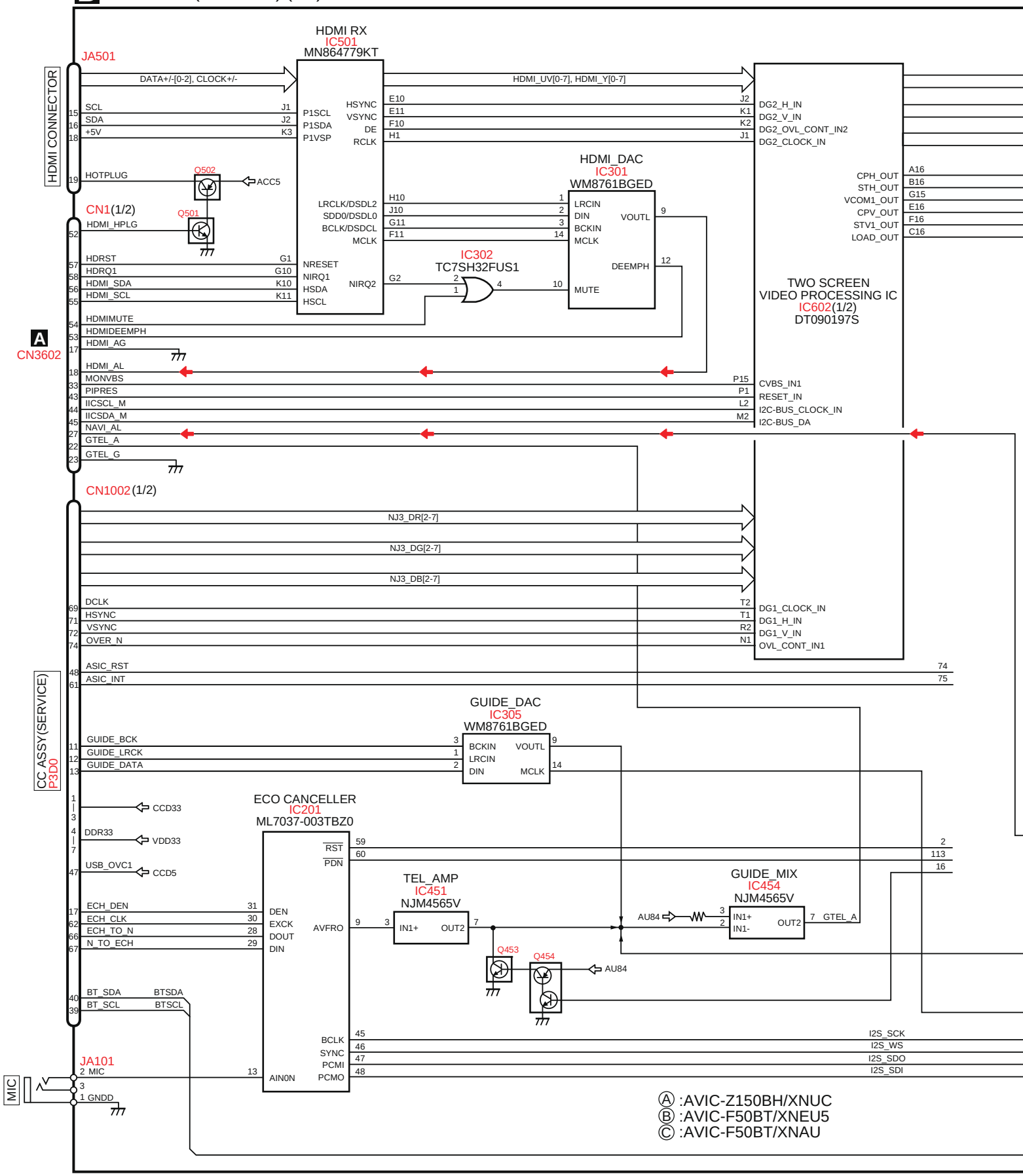


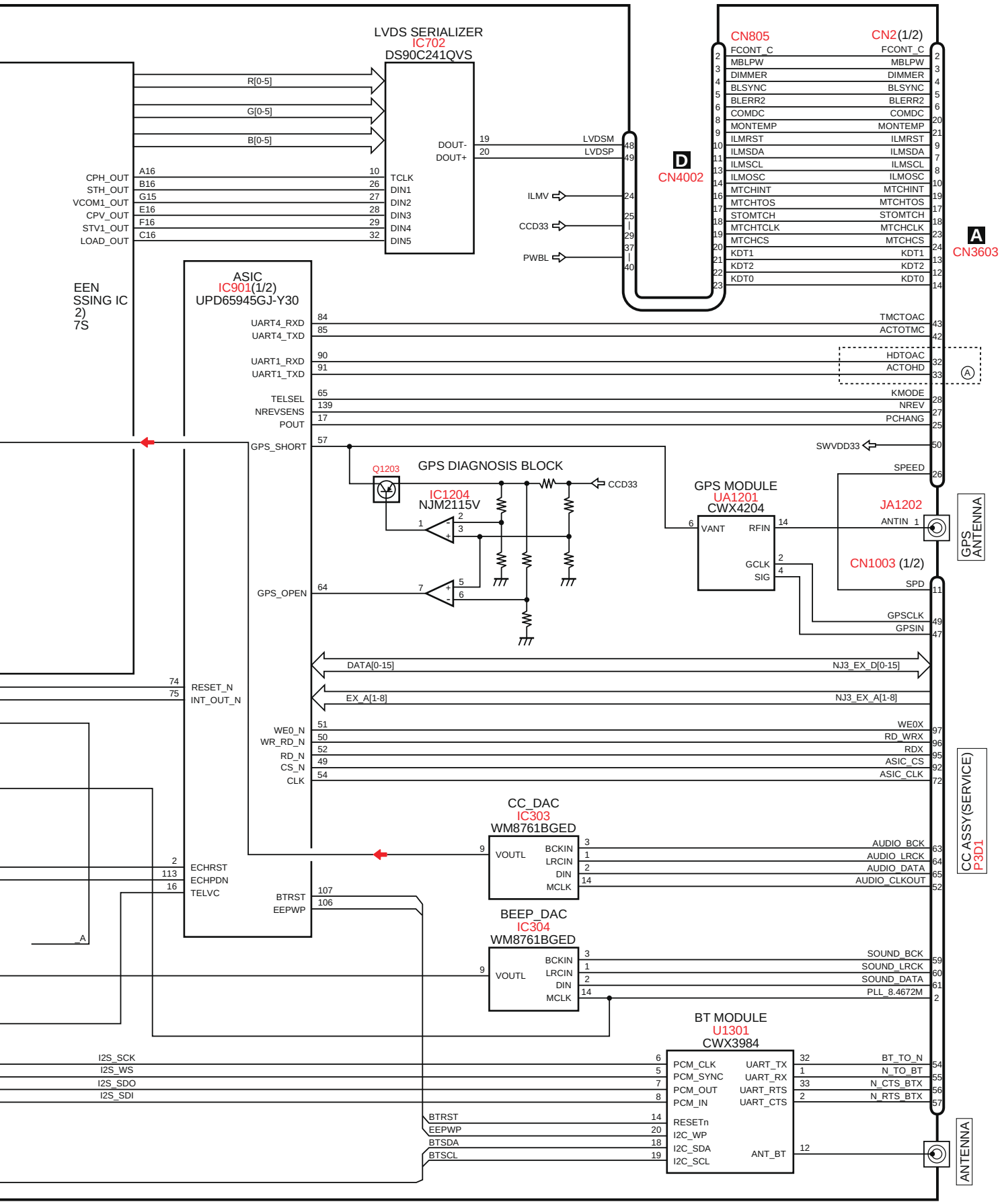

-TUN UNIT
TX
RX
RESET
TUNTOS
STOTUN
TUNRST
DVCC11_1
DVCC11_2
DVCC33_1
DVCC33_2
WWRD12
WWRD33
APP MIX
IC3704
NJM2058V
POWER AMP
IC2101
PA2030A
JA2002
FRONT_L
REAR_L
MFL
RL
E-VOL
IC2701
PML020A
AMP MUTE
Q2101
Q2102
OFFSET_IN
H-SW/VOS-DET
BUP
KBUP
FUSE
10A
TUN_L_HIT
AV1L
NAVI_AL
GUIDE_MIX
AV_LOUT1
HIVOLT12
PRE_SWL
SWL
PA_FL
PA_RL
ASENS
Q2016
PKB
Q2020
REV
Q2019 (1/2)
Q2019 (2/2)
TO 2/2
NREV
ILMSENS
Q2015
BREM
IC2004
NJW4830U2
SYSPW
SPEED
CORD ASSY (POWER SUPPLY)
CORD ASSY (AV)
CN3501(2/3)
PFL
PRL
SWL
PF OUT MUTE
Q3513
PR OUT MUTE
Q3511
SW OUT MUTE
Q3512
AL ZONE
Q3505
PREMUTE
Q3506
SYSTEM u-COM
IC2303 (1/2)
PEQ155A8
PEQ156A8
PEQ157A8
RMUTE
AVSEL_RST
IICSCL
IICSDA
AQSEL
Q3507
TELMUTE
DANTSENS
DABANTPW
R APP)
01
AFP
OUT2
DATA
OCK
AVOLDO
AVOLCLK
Lch MUTE
Q3704
Q3702
AU84
APPMUTE
SMSEL
GMUTE
IC3502
TC7SH32FUS1
MUTE
PREMUTEIN
Q3504
Q3510
BSENS
Q2014
RESET IC
IC2302
S-80929CNMC-G8Z
VDD33
TUNPCK
TUNPDA
RDSINT
TMC_SDA
TMC_SCL
EVOL_CS
EVOL_DO
EVOL_CLK
SACLK
SAIN
STB
DATA
CLK
SAOUT

A AV UNIT (2/2)

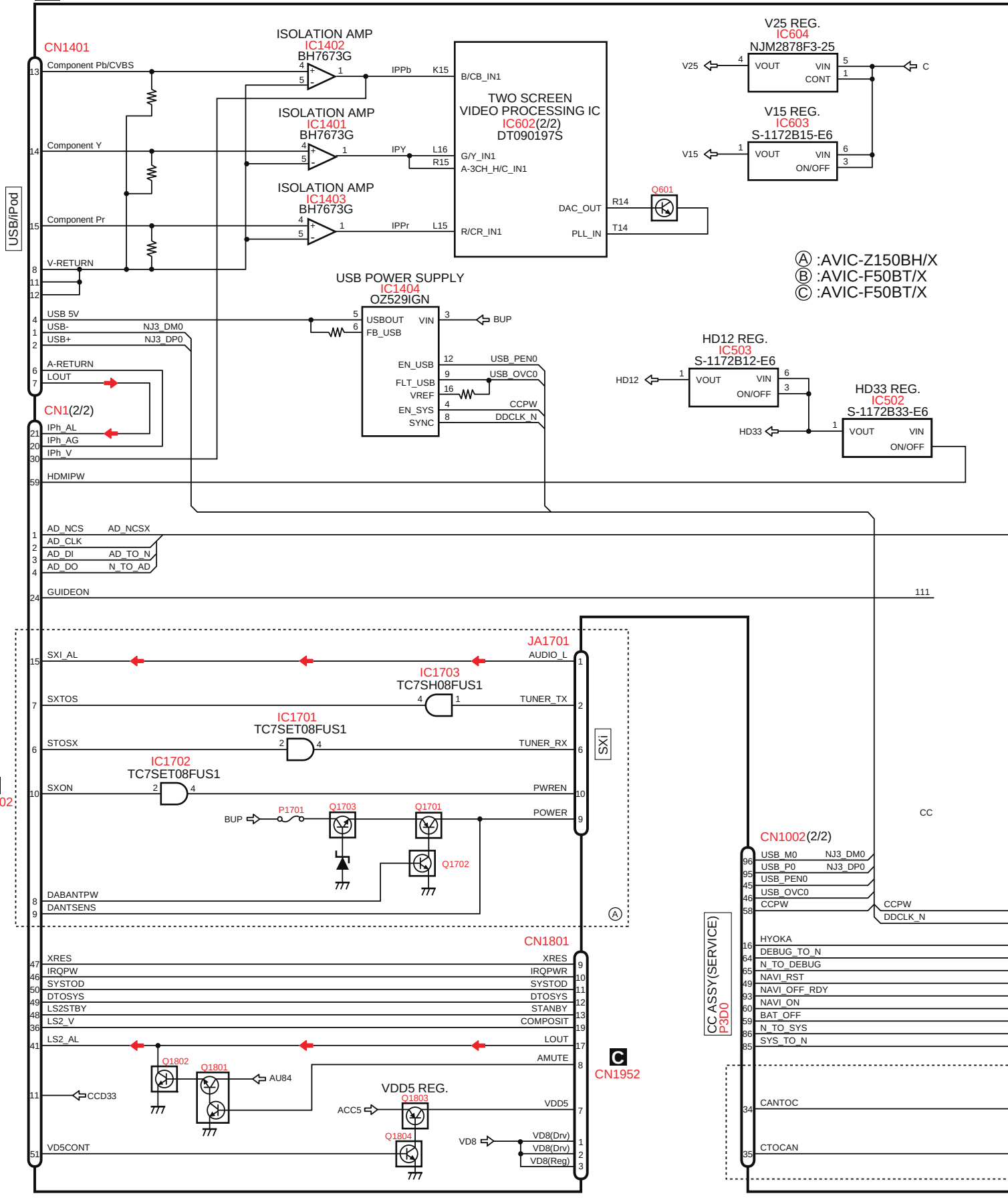

CN3603
SYSTEM u-COM
IC2303 (2/2)
EEPROM
IC2301
S-93C66BD0I-J8
SDDET2
SDDET1
SD_PEN
CCTEMP
TMCTOAC
ACTOTMC
SYSTON
NTOSYS
BAT_OFF
NAVI_ON
NAVI_OFF_RDY
NAVI_RST
MTCHCS
MTCHTCLK
MONTEMP
COMDC
MTCHINT
STOMTCH
MTCHTOS
FANCONT
FANON
KDT0
KDT1
KDT2
ILMOSC
ILMRST
ILMSCL
ILMSDA
BLERR2
BLSYNC
DIMMER
MBLPW
FCONT_C
WREMIN1
WREMIN2
MOT0
MOT1
POS_IN
HOMEOPSW
TMCPM
BOFF1CONT
MOTPWR
MOTPWR2
HDMIPW
HDRQ1
HDRST
HDMI_SDA
HDMI_SCL
HDMIMUTE
HDMIDEEMPH
HDMI_HPLG
VD5CONT
SYSTOD
DTOSYS
LS2STBY
XRES
IRQPW
PIPRES
GUIDEON
SXON
SXTOS
STOSX
TMC84 REG.
Q2853
Q2851
TMC84
ACC84
SWV
VDD33
Q2
HIVOLT12 REG.
IC2201
S-812C56AUA-C3K
HIVOLT12
HIVOL68
Vout
Vin
HIVO
I
LT3
VOUT
FB
IR REMOTE
U3501
RS-470
OUT
REMIN
VBSENS
Q2017
KBUP
TU84 REG.
Q2854
Q2852
TU84
AU84
CCPW
Q2301
VDD33
DDCLK_N
TO 1/2
SYSPW
DDCLK
ACCPW
WWRPW2
WWRPW1
SPEED PULSE
IC2003
NJM12904V
Q2018
Q2021
SPEED
PCHANG
NREV
HDTOAC
ACTOHD
PWRBL
SWVDD33
EXTOC
CTOEX
HYOKA
KMODE
WWRD33 REG.
IC3151
S-1155B33-U5
WWRD33
VOUT
VIN
ON/OFF
WWR42 REG.
IC3153
LT1912EMSE
SW
BD
FB
BOOST
Vin
SYNC
RUN/SS
BUP
WWRD12 REG.
IC3152
R1173S001D
WWRD12
VDD
CE
TU5 REG.
IC2210
NJM2846DL3-05
TU5
CONT
PWBL
VD8
ILMV
CN3501(3/3)
CORD ASSY (AV)
Q3509

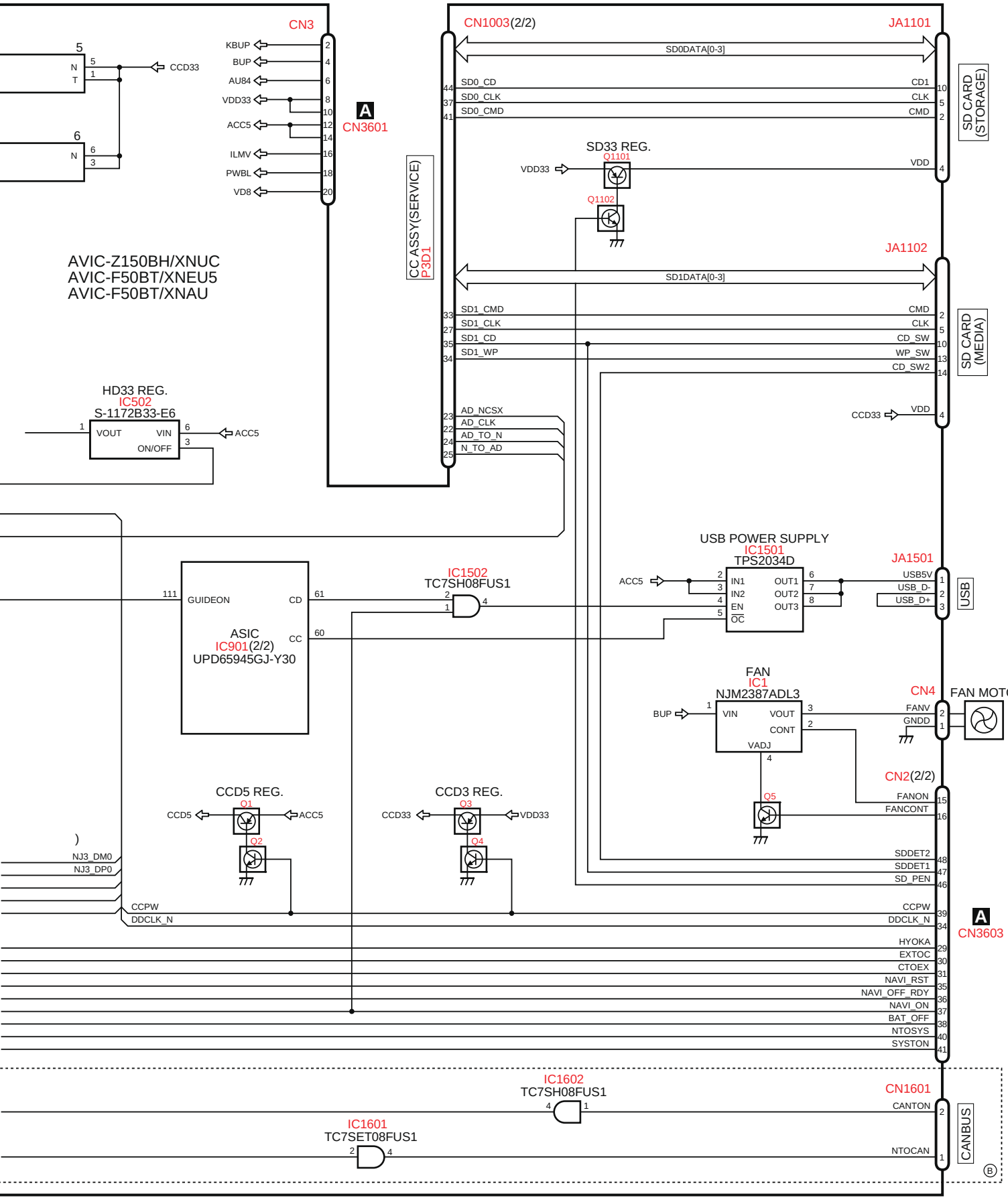

Ⓐ :AVIC-Z150BH/XNUC
Ⓑ :AVIC-F50BT/XNEU5
Ⓒ :AVIC-F50BT/XNAU
JA3501
WREMIN1 2
WREMIN2 3
GNDD 1
WIRED REMOTE
CN3401
MOT0
MOT1
POS_IN
HOMEOPSW
H/OSW
MOTVDD33
F
CN101
C84
SWVDD33 REG.
VDD33
Q2202
SWVDD33
Q2201
MOT6.5 REG.
VD8
P3401
Q3402
Q3401
Q3403
MOT6V
MOT6V
CN3602(2/2)
HDMIPW
HDRQ1
HDRST
HDMI_SDA
HDMI_SCL
HDMIMUTE
HDMIDEEMPH
HDMI_HPLG
VD5CONT
SYSTOD
DTOSYS
LS2STBY
XRES
IRQPW
PIPRES
GUIDEON
SXON
SXTOS
STOSX
B
CN1
HIVOLT15 REG.
IC2208
LT3461AES6
VOUT
VIN
FB
SW1
SHDN
AU84
SENSOR ADC
IC3302
ADC128S052QCIMT
G SENSOR
GY3302
VOUT
EXT-CAP
VDD
GYRO
GY3301
LPF2
VOUT
VCC
TEMP SENSOR
IC3303
LM20BIM7
Vo
Vi
IN1
IN3
IN0
DIN
DOUT
SCLK
CS
VA
AD_DO
AD_DI
AD_CLK
AD_NCS
AU84 REG.
AU84
Q2208
BUP
Q2209
AD5 REG.
IC3301
NJM2878F3-05
VOUT
VIN
CONT
ACC84
CCPW
PWBL
VD8
ILMV
PWBL
P2201
VDT8 REG.
IC2207
BD9781HFP
SW
VIN
FB
INV
EN
BUP
DDCLK
ACC5
Q3801
Q3802
Q3803
Q3804
DC/DC CONVERTER
IC3801
LTC3858EGN-1
SW1
SENSE1+
SENSE1-
VFB1
EXTVCC
TG1
BG1
TG2
BG2
SW2
SENSE2+
SENSE2-
VFB2
RUN1
PLLIN/MODE
VIN
KBUP
CN3601
VD8
PWBL
ILMV
ACC5
VDD33
AU84
BUP
KBUP
B
CN3
VDD33
ACC84 REG.
IC2209
NJM2387ADL3
ACC84
VOUT
VIN
CONT
P2203
KBUP
ACCPW
DDCLK_N


B NAVI UNIT(SERVICE) (1/2)
HDMI RX
IC501
MN864779KT
JA501
HDMI CONNECTOR
DATA+/-[0-2], CLOCK+/-
SCL
SDA
+5V
HOTPLUG
ACC5
Q502
Q501
CN1(1/2)
HDMI_HPLG
HDRST
HDRQ1
HDMI_SDA
HDMI_SCL
P1SCL
P1SDA
P1VSP
HSYNC
VSYNC
DE
RCLK
HDMI_UV[0-7], HDMI_Y[0-7]
HDMI_DAC
IC301
WM8761BGED
LRCLK/DSDL2
SDD0/DSDL0
BCLK/DSDCL
MCLK
LRCIN
DIN
BCKIN
MCLK
VOUTL
DEEMPH
MUTE
IC302
TC7SH32FUS1
NRESET
NIRQ1
HSDA
HSCL
NIRQ2
HDMIMUTE
HDMIDEEMPH
HDMI_AG
HDMI_AL
A
CN3602
TWO SCREEN
VIDEO PROCESSING IC
IC602(1/2)
DT090197S
DG2_H_IN
DG2_V_IN
DG2_OVL_CONT_IN2
DG2_CLOCK_IN
CPH_OUT
STH_OUT
VCOM1_OUT
CPV_OUT
STV1_OUT
LOAD_OUT
MONVBS
PIPRES
IICSCL_M
IICSDA_M
NAVI_AL
GTEL_A
GTEL_G
CVBS_IN1
RESET_IN
I2C-BUS_CLOCK_IN
I2C-BUS_DA
CN1002(1/2)
NJ3_DR[2-7]
NJ3_DG[2-7]
NJ3_DB[2-7]
DCLK
HSYNC
VSYNC
OVER_N
DG1_CLOCK_IN
DG1_H_IN
DG1_V_IN
OVL_CONT_IN1
ASIC_RST
ASIC_INT
CC ASSY(SERVICE)
P3D0
GUIDE_DAC
IC305
WM8761BGED
GUIDE_BCK
GUIDE_LRCK
GUIDE_DATA
BCKIN
LRCIN
DIN
VOUTL
MCLK
ECO CANCELLER
IC201
ML7037-003TBZ0
CCD33
DDR33
VDD33
USB_OVC1
CCD5
RST
PDN
ECH_DEN
ECH_CLK
ECH_TO_N
N_TO_ECH
DEN
EXCK
DOUT
DIN
AVFRO
TEL_AMP
IC451
NJM4565V
IN1+
OUT2
AU84
GUIDE_MIX
IC454
NJM4565V
IN1+
IN1-
OUT2
GTEL_A
Q453
Q454
BT_SDA
BT_SCL
BTSDA
BTSCL
BCLK
SYNC
PCMI
PCMO
I2S_SCK
I2S_WS
I2S_SDO
I2S_SDI
JA101
MIC
2 MIC
1 GNDD
AIN0N
Ⓐ :AVIC-Z150BH/XNUC
Ⓑ :AVIC-F50BT/XNEU5
Ⓒ :AVIC-F50BT/XNAU

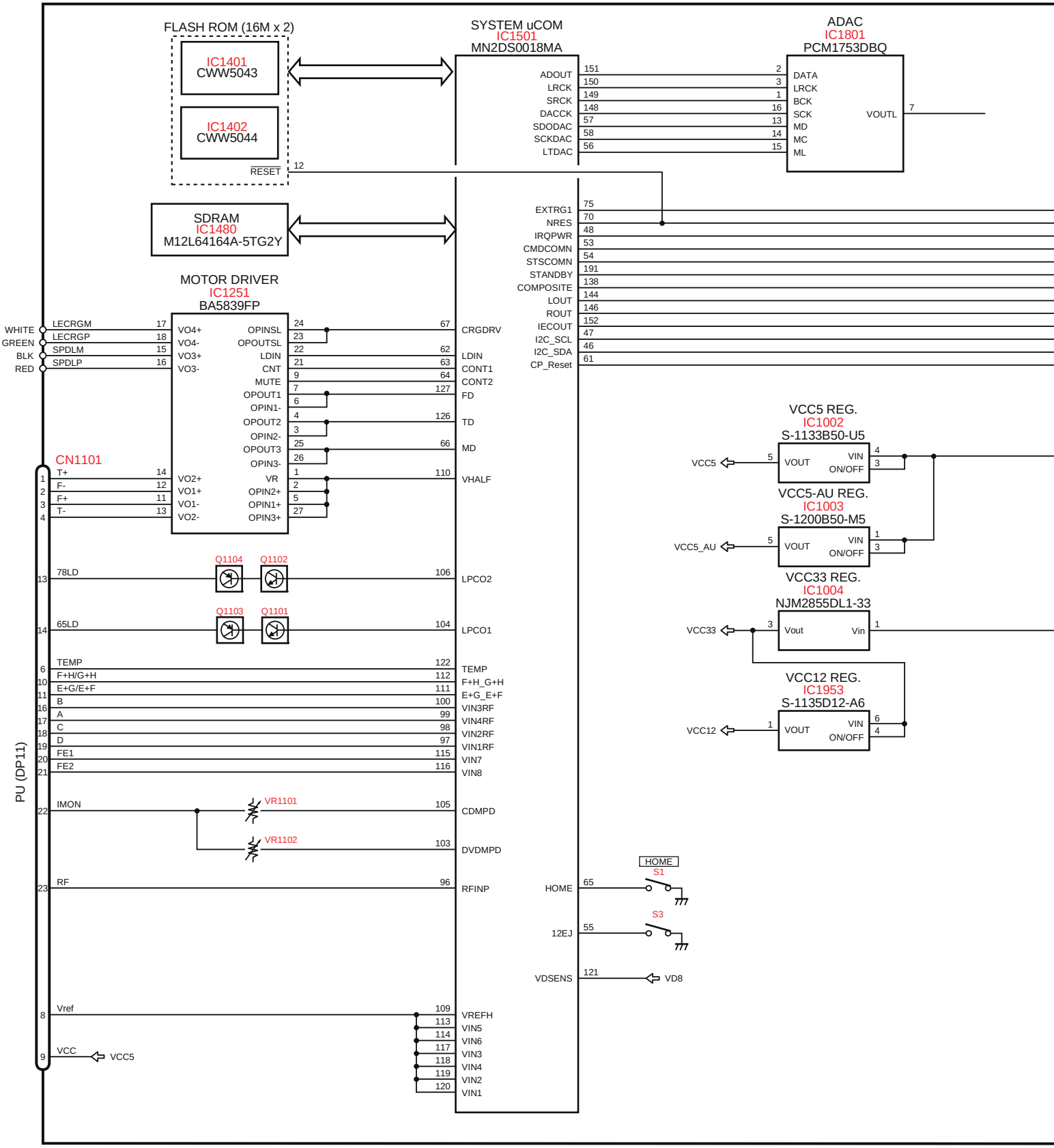

LVDS SERIALIZER
IC702
DS90C241QVS
R[0-5]
G[0-5]
B[0-5]
DOUT-
DOUT+
TCLK
DIN1
DIN2
DIN3
DIN4
DIN5
CPH_OUT
STH_OUT
VCOM1_OUT
CPV_OUT
STV1_OUT
LOAD_OUT
A16
B16
G15
E16
F16
C16
LVDSM
LVDSP
ILMV
CCD33
PWBL
D
CN4002
CN805
CN2(1/2)
FCONT_C
MBLPW
DIMMER
BLSYNC
BLERR2
COMDC
MONTEMP
ILMRST
ILMSDA
ILMSCL
ILMOSC
MTCHINT
MTCHTOS
STOMTCH
MTCHTCLK
MTCHCS
KDT1
KDT2
KDT0
A
CN3603
ASIC
IC901(1/2)
UPD65945GJ-Y30
UART4_RXD
UART4_TXD
UART1_RXD
UART1_TXD
TELSEL
NREVSENS
POUT
GPS_SHORT
GPS_OPEN
TMCTOAC
ACTOTMC
HDTOAC
ACTOHD
KMODE
NREV
PCHANG
SWVDD33
SPEED
GPS DIAGNOSIS BLOCK
Q1203
IC1204
NJM2115V
GPS MODULE
UA1201
CWX4204
VANT
RFIN
GCLK
SIG
JA1202
ANTIN
GPS ANTENNA
CN1003 (1/2)
SPD
GPSCLK
GPSIN
DATA[0-15]
NJ3_EX_D[0-15]
EX_A[1-8]
NJ3_EX_A[1-8]
RESET_N
INT_OUT_N
WE0_N
WR_RD_N
RD_N
CS_N
CLK
WE0X
RD_WRX
RDX
ASIC_CS
ASIC_CLK
CC_DAC
IC303
WM8761BGED
VOUTL
BCKIN
LRCIN
DIN
MCLK
AUDIO_BCK
AUDIO_LRCK
AUDIO_DATA
AUDIO_CLKOUT
CC ASSY(SERVICE)
P3D1
ECHRST
ECHPDN
TELVC
BTRST
EEPWP
BEEP_DAC
IC304
WM8761BGED
SOUND_BCK
SOUND_LRCK
SOUND_DATA
PLL_8.4672M
BT MODULE
U1301
CWX3984
I2S_SCK
I2S_WS
I2S_SDO
I2S_SDI
PCM_CLK
PCM_SYNC
PCM_OUT
PCM_IN
UART_TX
UART_RX
UART_RTS
UART_CTS
BT_TO_N
N_TO_BT
N_CTS_BTX
N_RTS_BTX
RESETn
I2C_WP
I2C_SDA
I2C_SCL
BTSDA
BTSCL
ANT_BT
ANTENNA

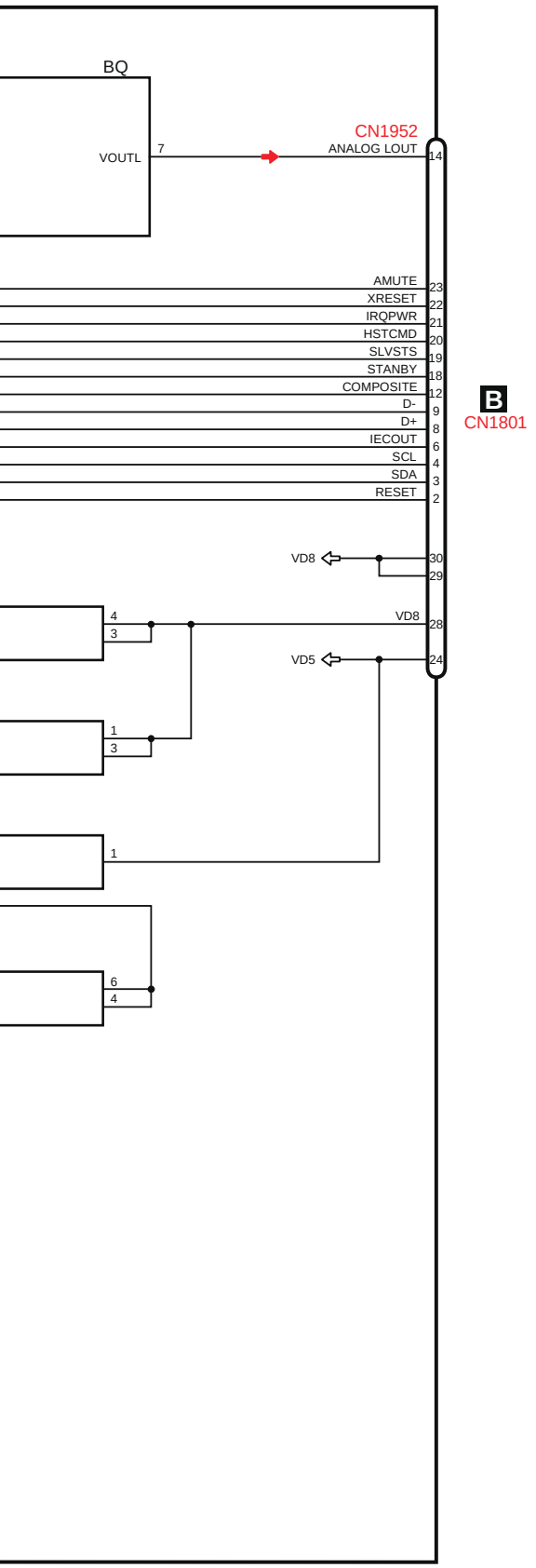
B NAVI UNIT(SERVICE) (2/2)

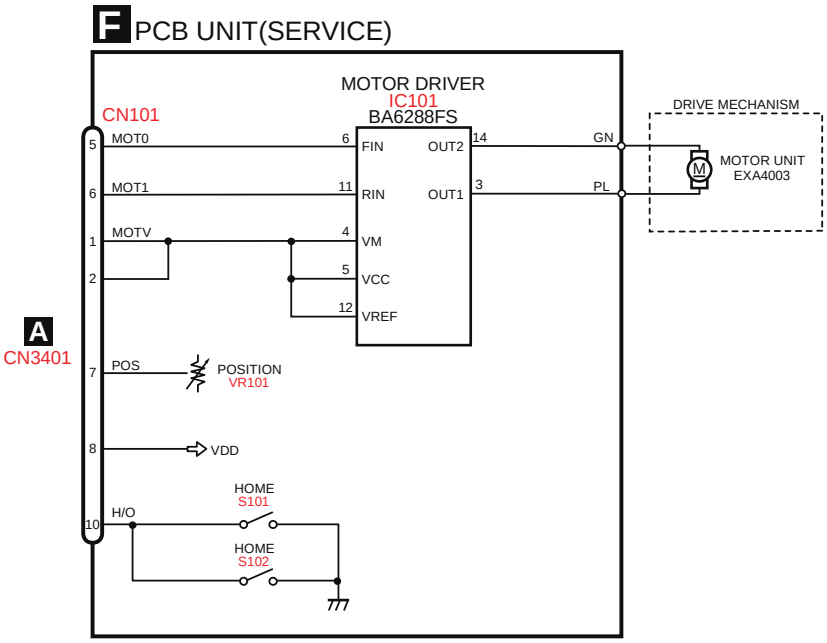



CN3
KBUP
BUP
AU84
VDD33
ACC5
ILMV
PWBL
VD8
A
CN3601
CCD33
AVIC-Z150BH/XNUC
AVIC-F50BT/XNEU5
AVIC-F50BT/XNAU
CC ASSY(SERVICE)
P3D1
CN1003(2/2)
JA1101
SD0DATA[0-3]
SD0_CD
SD0_CLK
SD0_CMD
CD1
CLK
CMD
SD CARD (STORAGE)
SD33 REG.
Q1101
Q1102
VDD33
VDD
JA1102
SD1DATA[0-3]
SD1_CMD
SD1_CLK
SD1_CD
SD1_WP
CD_SW
WP_SW
CD_SW2
SD CARD (MEDIA)
HD33 REG.
IC502
S-1172B33-E6
VOUT
VIN
ON/OFF
AD_NCSX
AD_CLK
AD_TO_N
N_TO_AD
USB POWER SUPPLY
IC1501
TPS2034D
IN1
IN2
EN
OC
OUT1
OUT2
OUT3
USB5V
USB_D-
USB_D+
JA1501
USB
IC1502
TC7SH08FUS1
GUIDEON
ASIC
IC901(2/2)
UPD65945GJ-Y30
CD
CC
FAN
IC1
NJM2387ADL3
VIN
VOUT
CONT
VADJ
BUP
CN4
FAN MOTOR
FANV
GNDD
CN2(2/2)
FANON
FANCONT
Q5
CCD5 REG.
Q1
Q2
CCD5
ACC5
CCD3 REG.
Q3
Q4
CCD33
VDD33
NJ3_DM0
NJ3_DP0
CCPW
DDCLK_N
SDDET2
SDDET1
SD_PEN
A
CN3603
HYOKA
EXTOC
CTOEX
NAVI_RST
NAVI_OFF_RDY
NAVI_ON
BAT_OFF
NTOSYS
SYSTON
IC1602
TC7SH08FUS1
IC1601
TC7SET08FUS1
CN1601
CANTON
NTOCAN
CANBUS
B

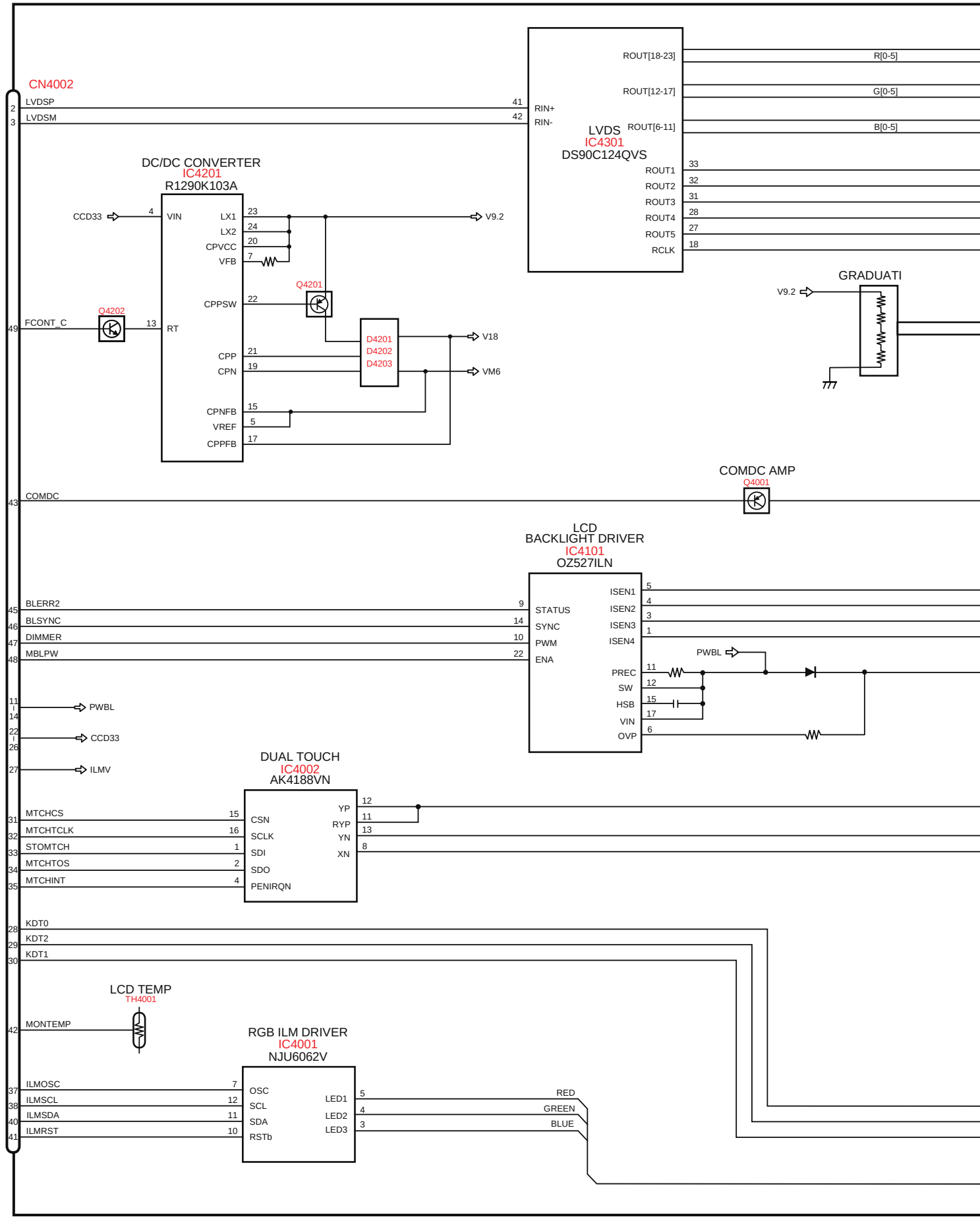
C DVD CORE UNIT

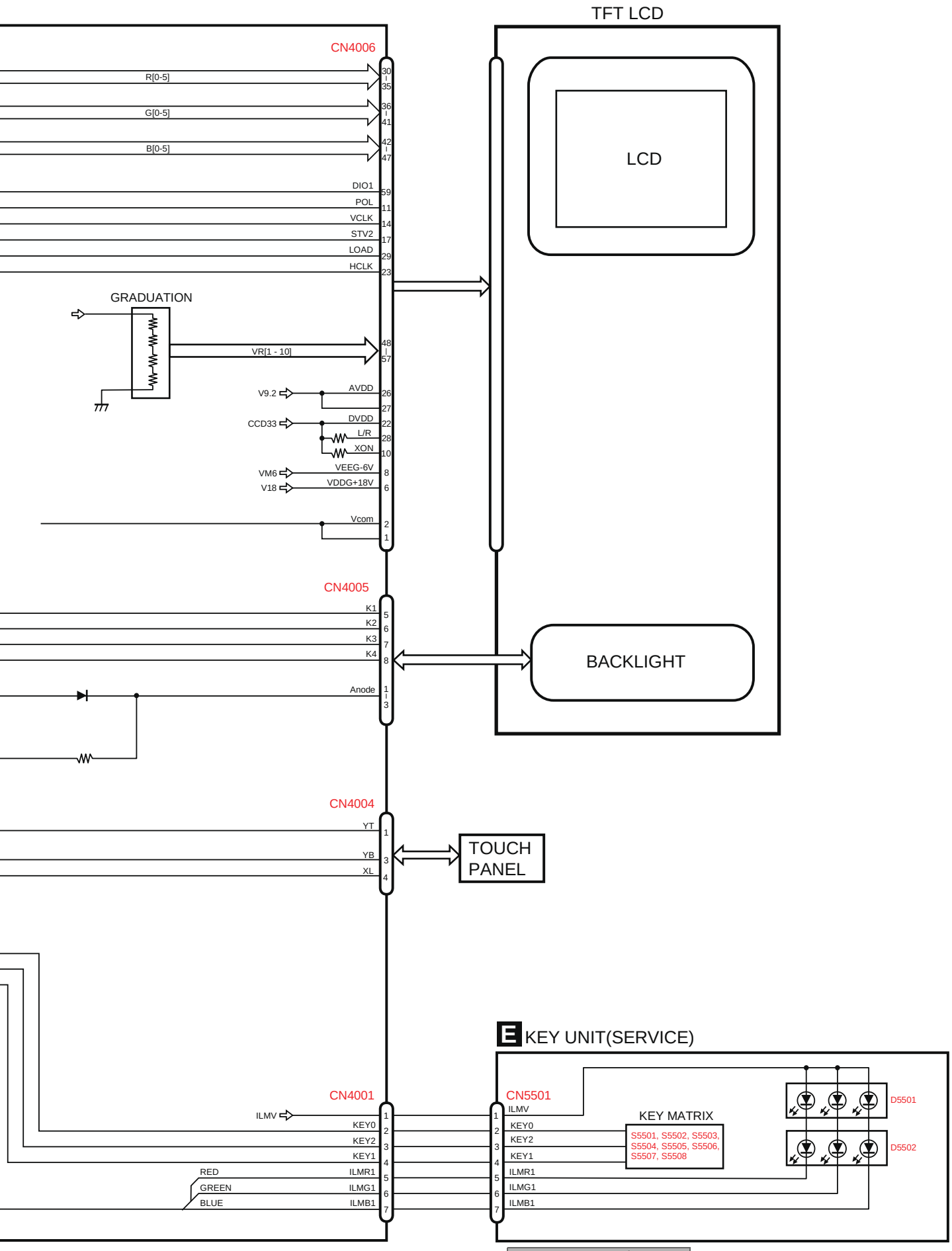



BQ
VOUTL
7
CN1952
ANALOG LOUT
14
AMUTE
XRESET
IRQPWR
HSTCMD
SLVSTS
STANBY
COMPOSITE
D-
D+
IECOUT
SCL
SDA
RESET
23
22
21
20
19
18
12
9
8
6
4
3
2
B
CN1801
VD8
30
29
VD8
28
VD5
24
4
3
1
3
1
6
4

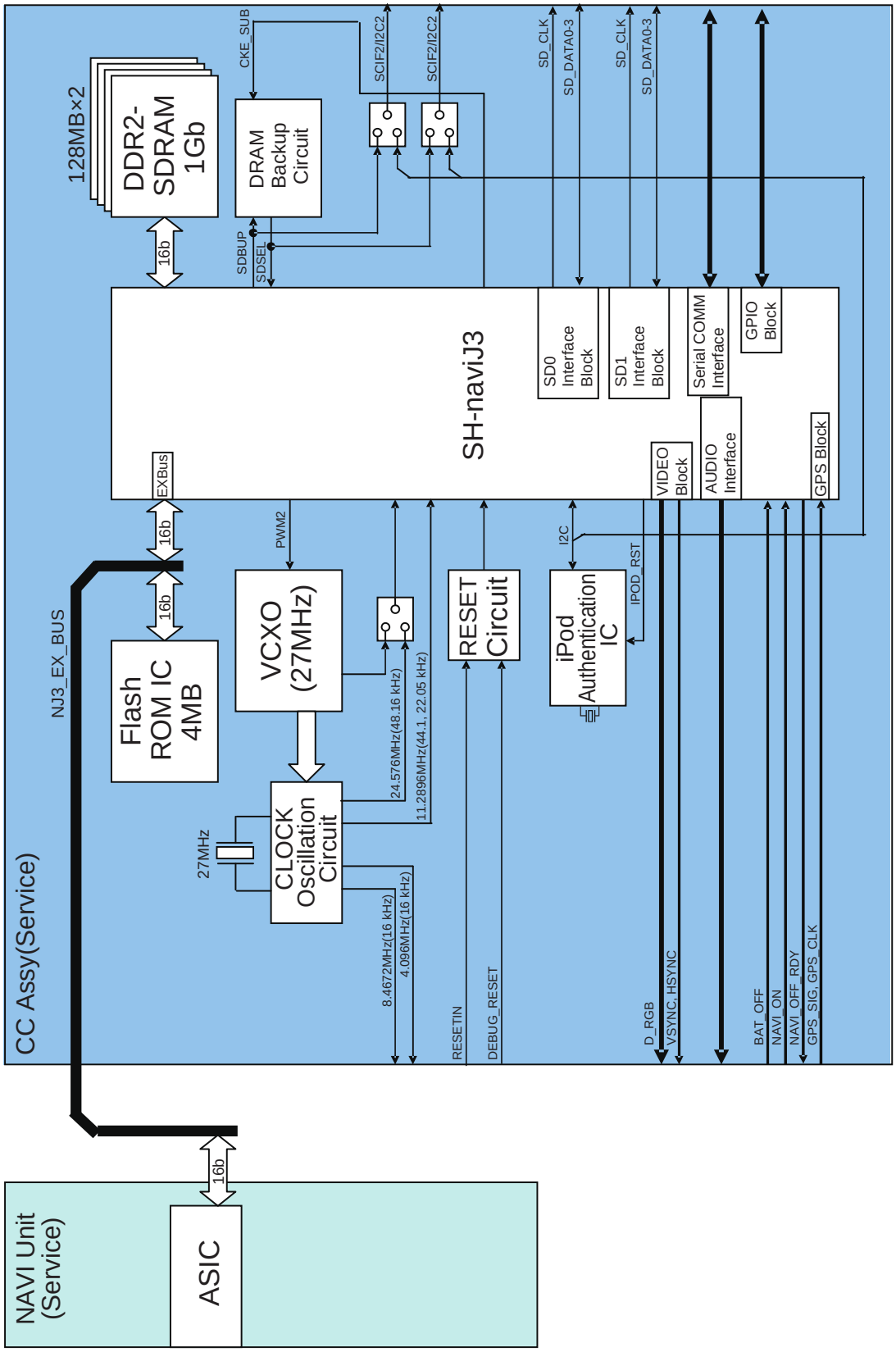

F PCB UNIT(SERVICE)
MOTOR DRIVER
IC101
BA6288FS
CN101
MOT0
MOT1
MOTV
POS
VDD
H/O
FIN
RIN
VM
VCC
VREF
OUT2
OUT1
GN
PL
DRIVE MECHANISM
MOTOR UNIT
EXA4003
POSITION
VR101
HOME
S101
HOME
S102
A
CN3401

D MONITOR UNIT




TFT LCD
LCD
BACKLIGHT
CN4006
R[0-5]
G[0-5]
B[0-5]
DIO1
POL
VCLK
STV2
LOAD
HCLK
GRADUATION
VR[1 - 10]
V9.2
AVDD
CCD33
DVDD
L/R
XON
VM6
VEEG-6V
V18
VDDG+18V
Vcom
CN4005
K1
K2
K3
K4
Anode
CN4004
YT
YB
XL
TOUCH PANEL
E KEY UNIT(SERVICE)
CN4001
ILMV
KEY0
KEY2
KEY1
RED
GREEN
BLUE
ILMR1
ILMG1
ILMB1
CN5501
KEY MATRIX
S5501, S5502, S5503, S5504, S5505, S5506, S5507, S5508
D5501
D5502

CC Assy(Service) Block Diagram (Simplified Version)



A

B

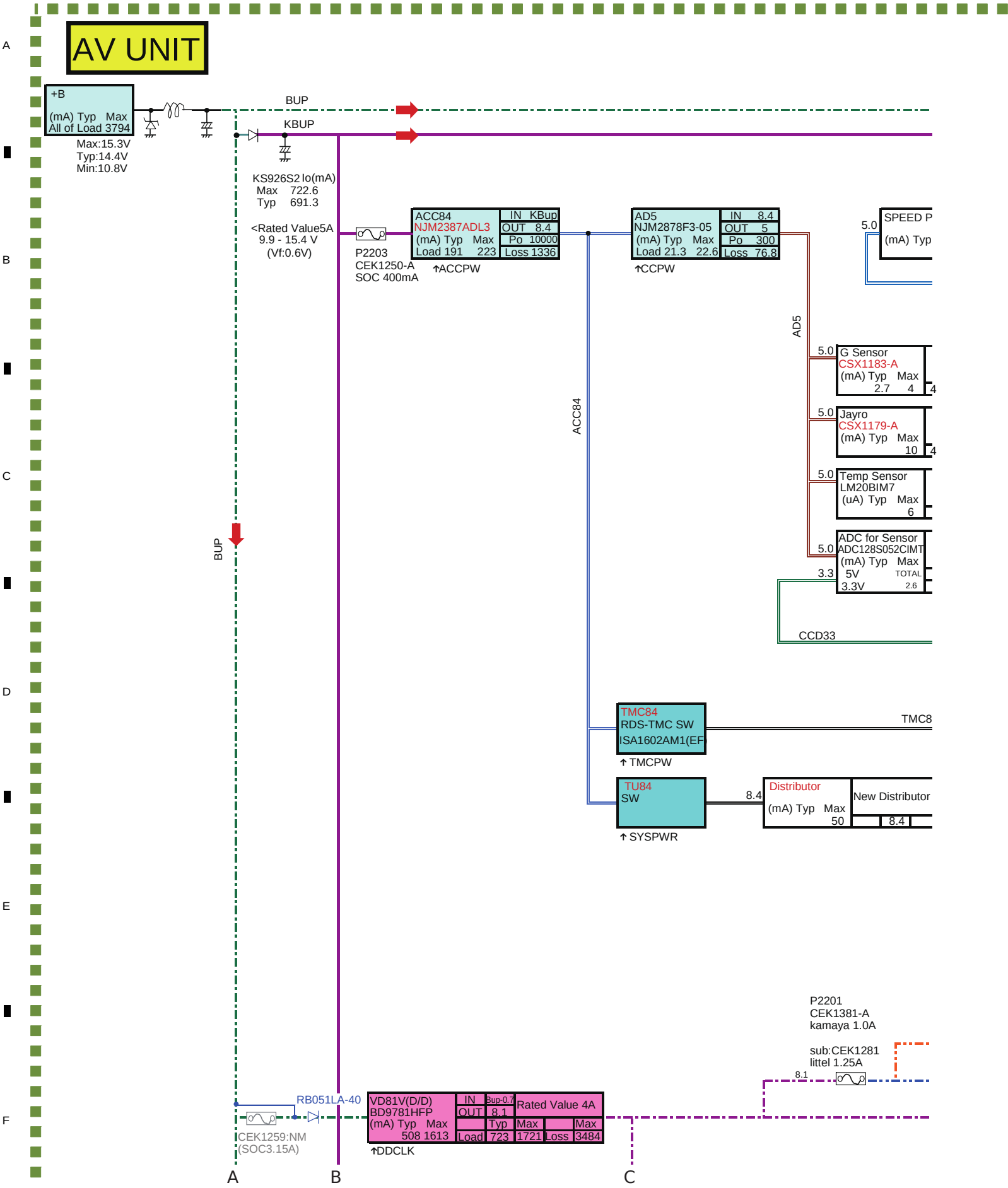
C

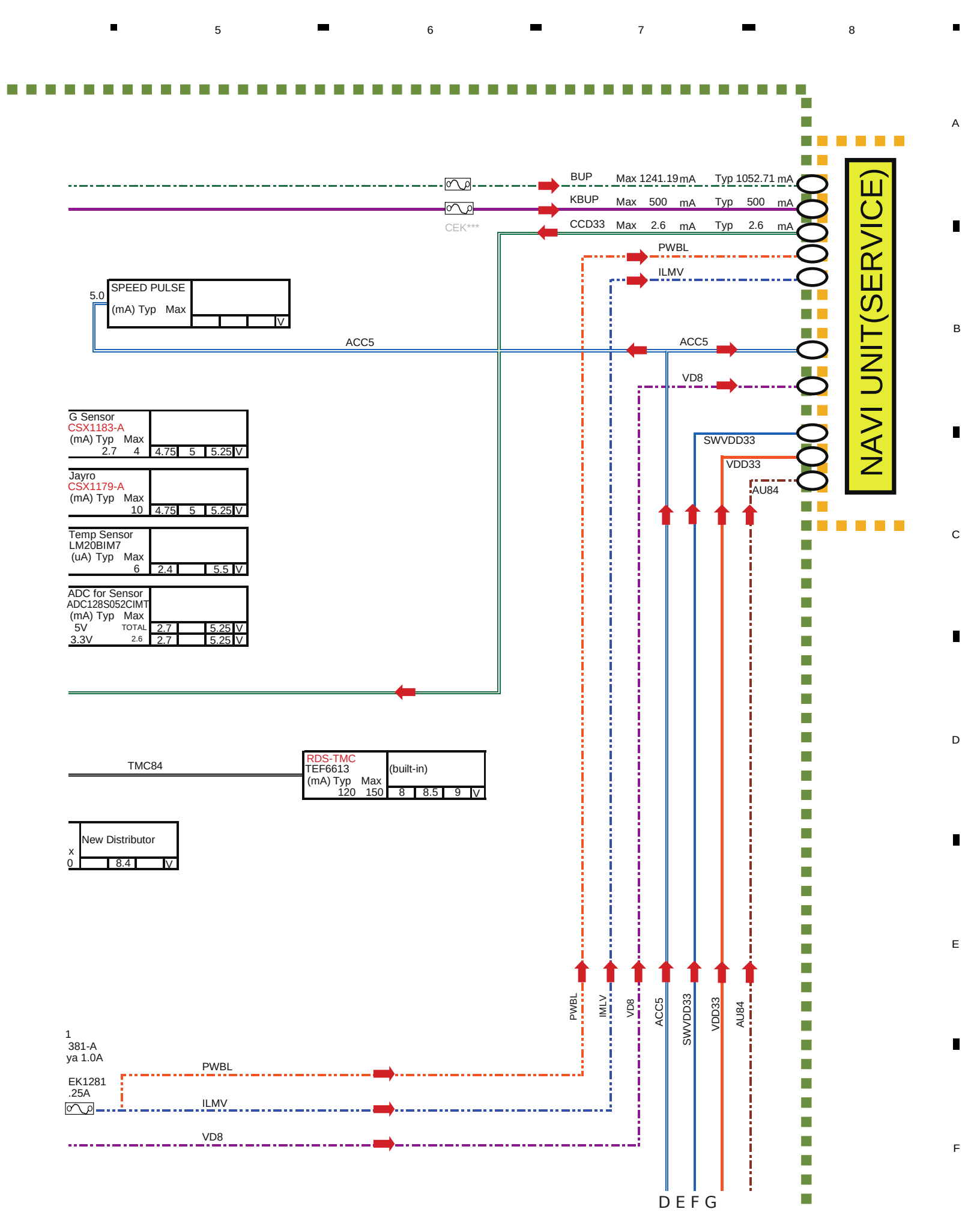
D

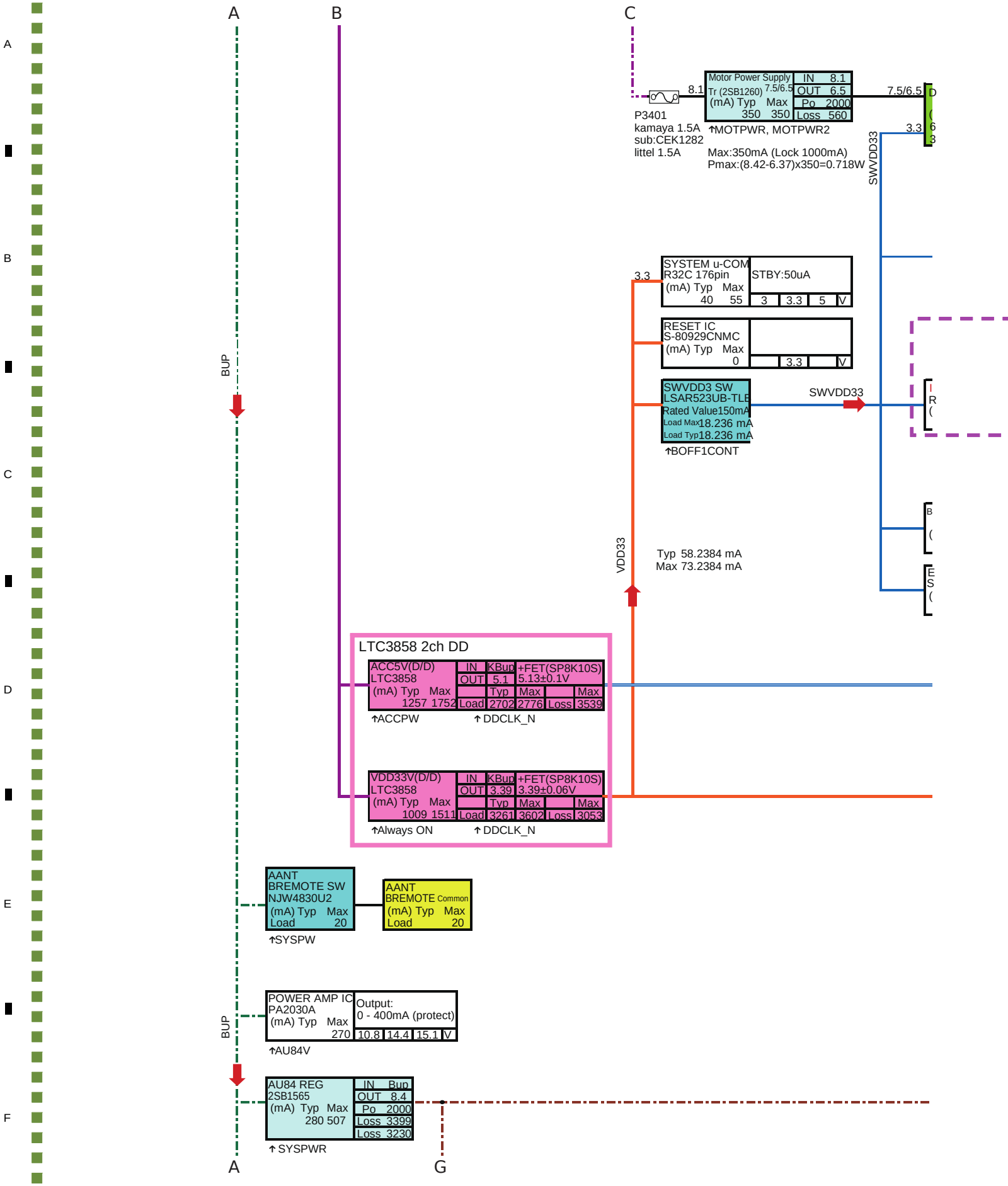
E

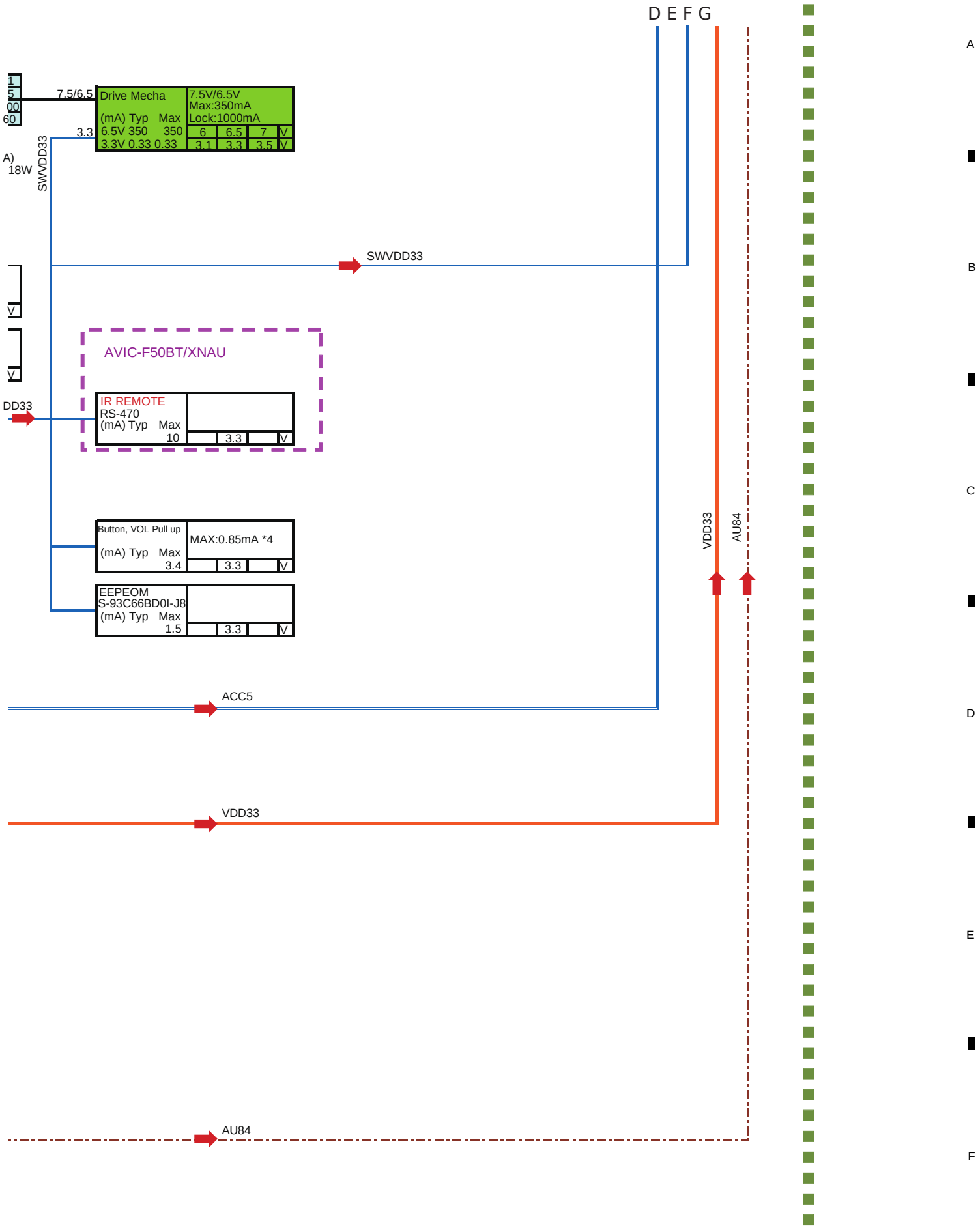
F

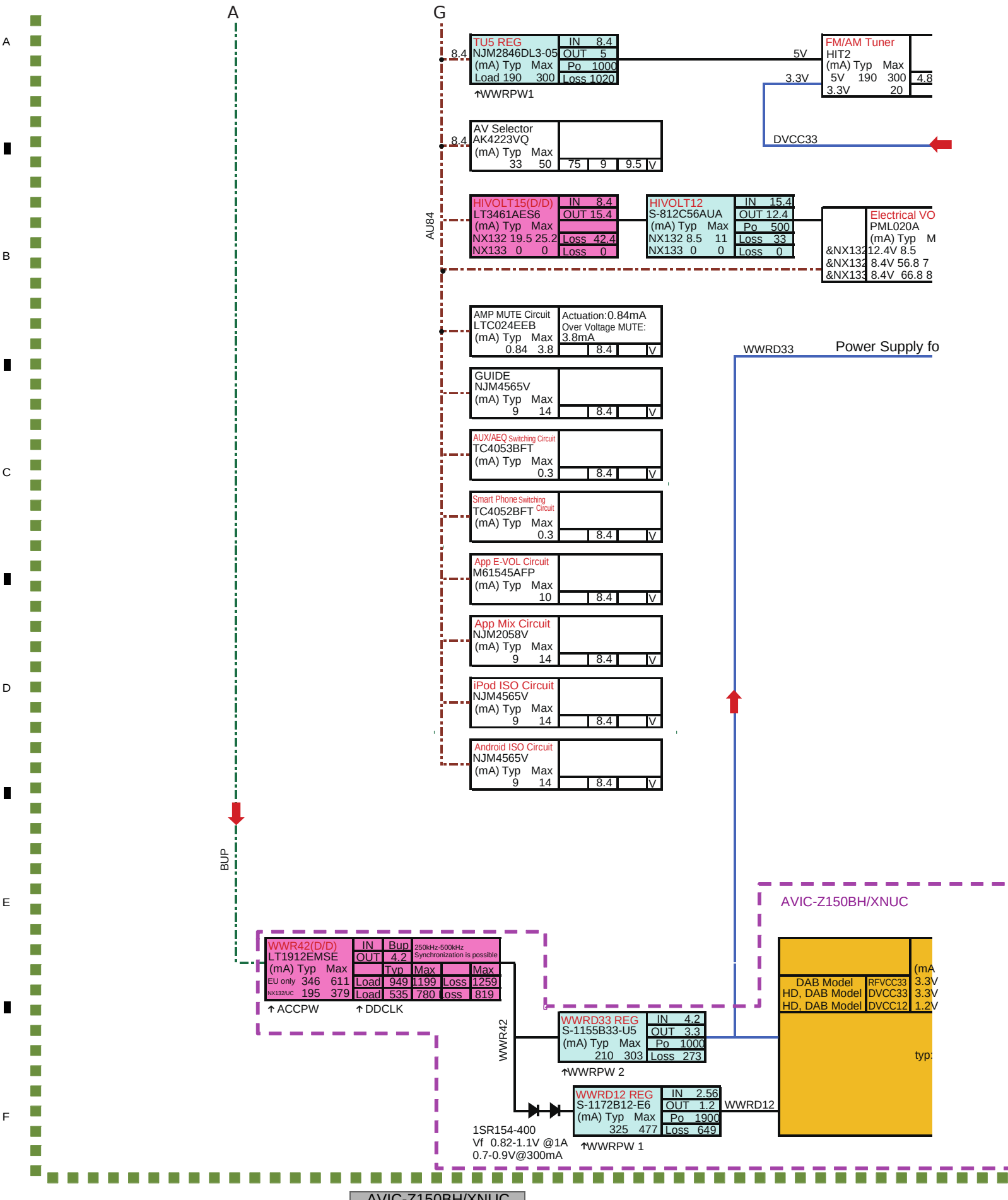
4.3 POWER SUPPLY SYSTEM FIGURE

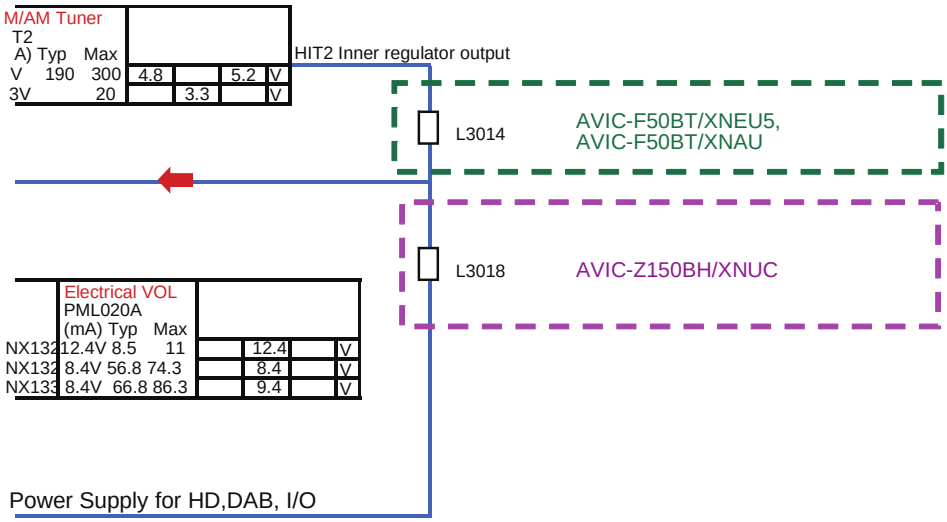



NAVI UNIT(SERVICE)
BUP Max 1241.19 mA Typ 1052.71 mA
KBUP Max 500 mA Typ 500 mA
CCD33 Max 2.6 mA Typ 2.6 mA
CEK***
PWBL
ILMV
ACC5
VD8
SWVDD33
VDD33
AU84
SPEED PULSE
(mA) Typ Max
5.0
G Sensor
CSX1183-A
(mA) Typ Max
2.7 4
4.75 5 5.25 V
Jayro
CSX1179-A
(mA) Typ Max
10
4.75 5 5.25 V
Temp Sensor
LM20BIM7
(uA) Typ Max
6
2.4 5.5 V
ADC for Sensor
ADC128S052CIMT
(mA) Typ Max
5V TOTAL
3.3V 2.6
2.7 5.25 V
2.7 5.25 V
TMC84
RDS-TMC
TEF6613
(mA) Typ Max
120 150
(built-in)
8 8.5 9 V
New Distributor
8.4 V
EK1281
.25A
D E F G
AVIC-Z150BH/XNUC


A
B
C
BUP
8.1
P3401
kamaya 1.5A
sub:CEK1282
littel 1.5A
Motor Power Supply
Tr (2SB1260)
(mA) Typ Max
350 350
IN 8.1
OUT 6.5
Po 2000
Loss 560
7.5/6.5
↑MOTPWR, MOTPWR2
Max:350mA (Lock 1000mA)
Pmax:(8.42-6.37)x350=0.718W
3.3
SWVDD33
SYSTEM u-COM
R32C 176pin
(mA) Typ Max
40 55
STBY:50uA
3 3.3 5 V
RESET IC
S-80929CNMC
(mA) Typ Max
0
3.3 V
SWVDD3 SW
LSAR523UB-TLE
Rated Value150mA
Load Max18.236 mA
Load Typ18.236 mA
↑BOFF1CONT
VDD33
Typ 58.2384 mA
Max 73.2384 mA
LTC3858 2ch DD
ACC5V(D/D)
LTC3858
(mA) Typ Max
1257 1752
IN KBup +FET(SP8K10S)
OUT 5.1 5.13±0.1V
Typ Max Max
Load 2702 2776 Loss 3539
↑ACCPW
↑DDCLK_N
VDD33V(D/D)
LTC3858
(mA) Typ Max
1009 1511
IN KBup +FET(SP8K10S)
OUT 3.39 3.39±0.06V
Typ Max Max
Load 3261 3602 Loss 3053
↑Always ON
↑DDCLK_N
AANT
BREMOTE SW
NJW4830U2
(mA) Typ Max
Load 20
↑SYSPW
AANT
BREMOTE Common
(mA) Typ Max
Load 20
POWER AMP IC
PA2030A
(mA) Typ Max
270
Output:
0 - 400mA (protect)
10.8 14.4 15.1 V
↑AU84V
AU84 REG
2SB1565
(mA) Typ Max
280 507
IN Bup
OUT 8.4
Po 2000
Loss 3399
Loss 3230
↑SYSPWR
A
G


5
6
7
8
D E F G
A
B
C
D
E
F
7.5/6.5
Drive Mecha
(mA) Typ Max
6.5V 350 350
3.3V 0.33 0.33
7.5V/6.5V
Max:350mA
Lock:1000mA
6 6.5 7 V
3.1 3.3 3.5 V
3.3
SWVDD33
A)
18W
SWVDD33
AVIC-F50BT/XNAU
IR REMOTE
RS-470
(mA) Typ Max
10
3.3 V
DD33
Button, VOL Pull up
(mA) Typ Max
3.4
MAX:0.85mA *4
3.3 V
EEPEOM
S-93C66BD0I-J8
(mA) Typ Max
1.5
3.3 V
VDD33
AU84
ACC5
VDD33
AU84


A
G
TU5 REG
NJM2846DL3-05
(mA) Typ Max
Load 190 300
IN 8.4
OUT 5
Po 1000
Loss 1020
8.4
WWRPW1
5V
3.3V
FM/AM Tuner
HIT2
(mA) Typ Max
5V 190 300
3.3V 20
4.8
DVCC33
AV Selector
AK4223VQ
(mA) Typ Max
33 50
8.4
75 9 9.5 V
AU84
HIVOLT15(D/D)
LT3461AES6
(mA) Typ Max
NX132 19.5 25.2
NX133 0 0
IN 8.4
OUT 15.4
Loss 42.4
Loss 0
HIVOLT12
S-812C56AUA
(mA) Typ Max
NX132 8.5 11
NX133 0 0
IN 15.4
OUT 12.4
Po 500
Loss 33
Loss 0
Electrical VO
PML020A
(mA) Typ M
&NX132 12.4V 8.5
&NX132 8.4V 56.8 7
&NX133 8.4V 66.8 8
AMP MUTE Circuit
LTC024EEB
(mA) Typ Max
0.84 3.8
Actuation:0.84mA
Over Voltage MUTE:
3.8mA
8.4 V
GUIDE
NJM4565V
(mA) Typ Max
9 14
AUX/AEQ Switching Circuit
TC4053BFT
(mA) Typ Max
0.3
Smart Phone Switching Circuit
TC4052BFT
(mA) Typ Max
0.3
App E-VOL Circuit
M61545AFP
(mA) Typ Max
10
App Mix Circuit
NJM2058V
(mA) Typ Max
9 14
iPod ISO Circuit
NJM4565V
(mA) Typ Max
9 14
Android ISO Circuit
NJM4565V
(mA) Typ Max
9 14
WWRD33
Power Supply fo
BUP
AVIC-Z150BH/XNUC
WWR42(D/D)
LT1912EMSE
(mA) Typ Max
EU only 346 611
NX132/UC 195 379
IN Bup
OUT 4.2
250kHz-500kHz
Synchronization is possible
Typ Max Max
Load 949 1199 Loss 1259
Load 535 780 Loss 819
ACCPW
DDCLK
WWR42
WWRD33 REG
S-1155B33-U5
(mA) Typ Max
210 303
IN 4.2
OUT 3.3
Po 1000
Loss 273
WWRPW 2
WWRD12 REG
S-1172B12-E6
(mA) Typ Max
325 477
IN 2.56
OUT 1.2
Po 1900
Loss 649
WWRD12
WWRPW 1
1SR154-400
Vf 0.82-1.1V @1A
0.7-0.9V@300mA
DAB Model
HD, DAB Model
HD, DAB Model
RFVCC33
DVCC33
DVCC12
(mA
3.3V
3.3V
1.2V
typ:
AVIC-Z150BH/XNUC



50BH/XNUC

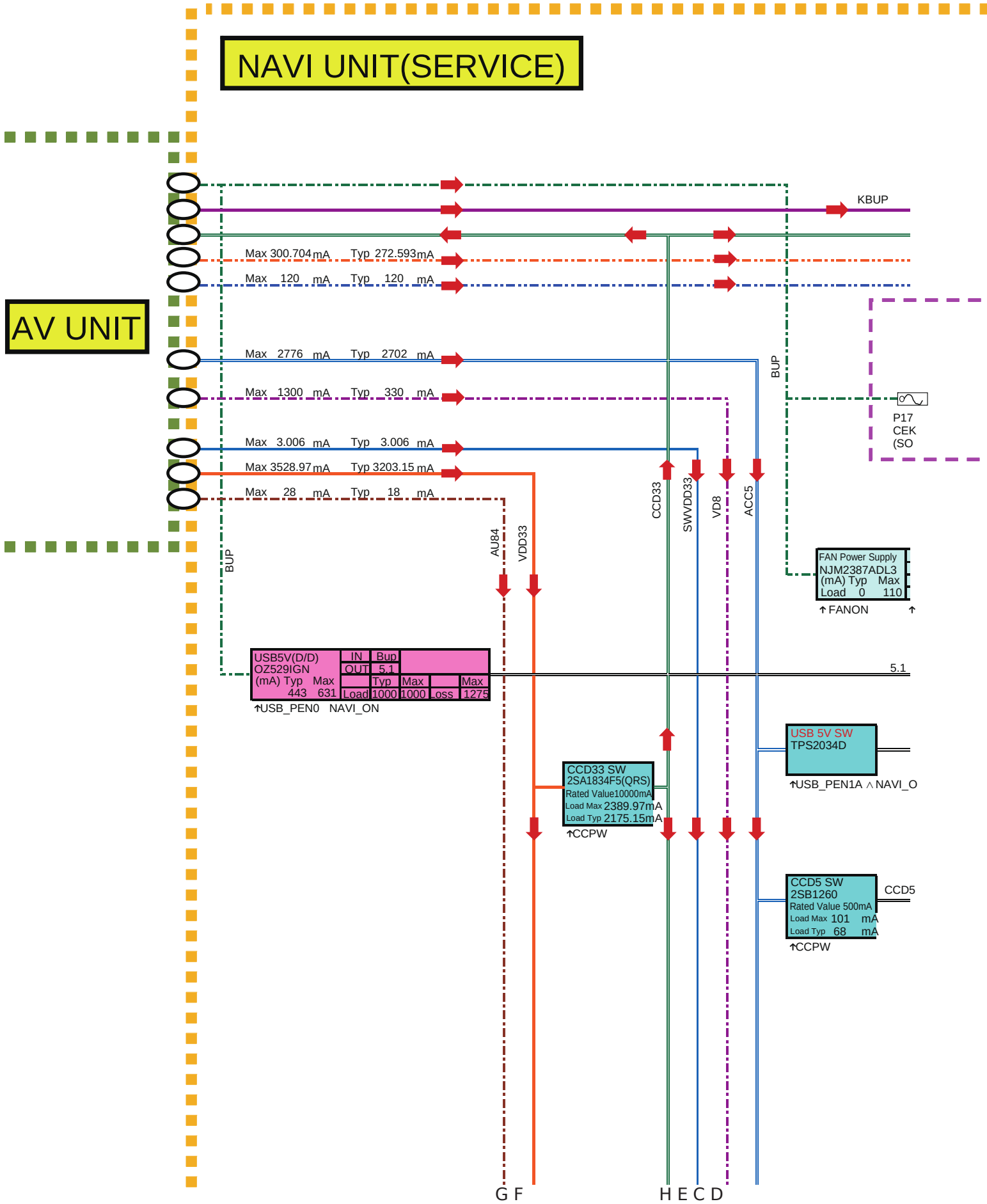
		(mA) Typ	Max	HD			
del	RFVCC33	3.3V 414	419	3.2	3.3	3.4	V
odel	DVCC33	3.3V 190	283	3.2	3.3	3.4	V
odel	DVCC12	1.2V 325	477	1.17	1.2	1.23	V

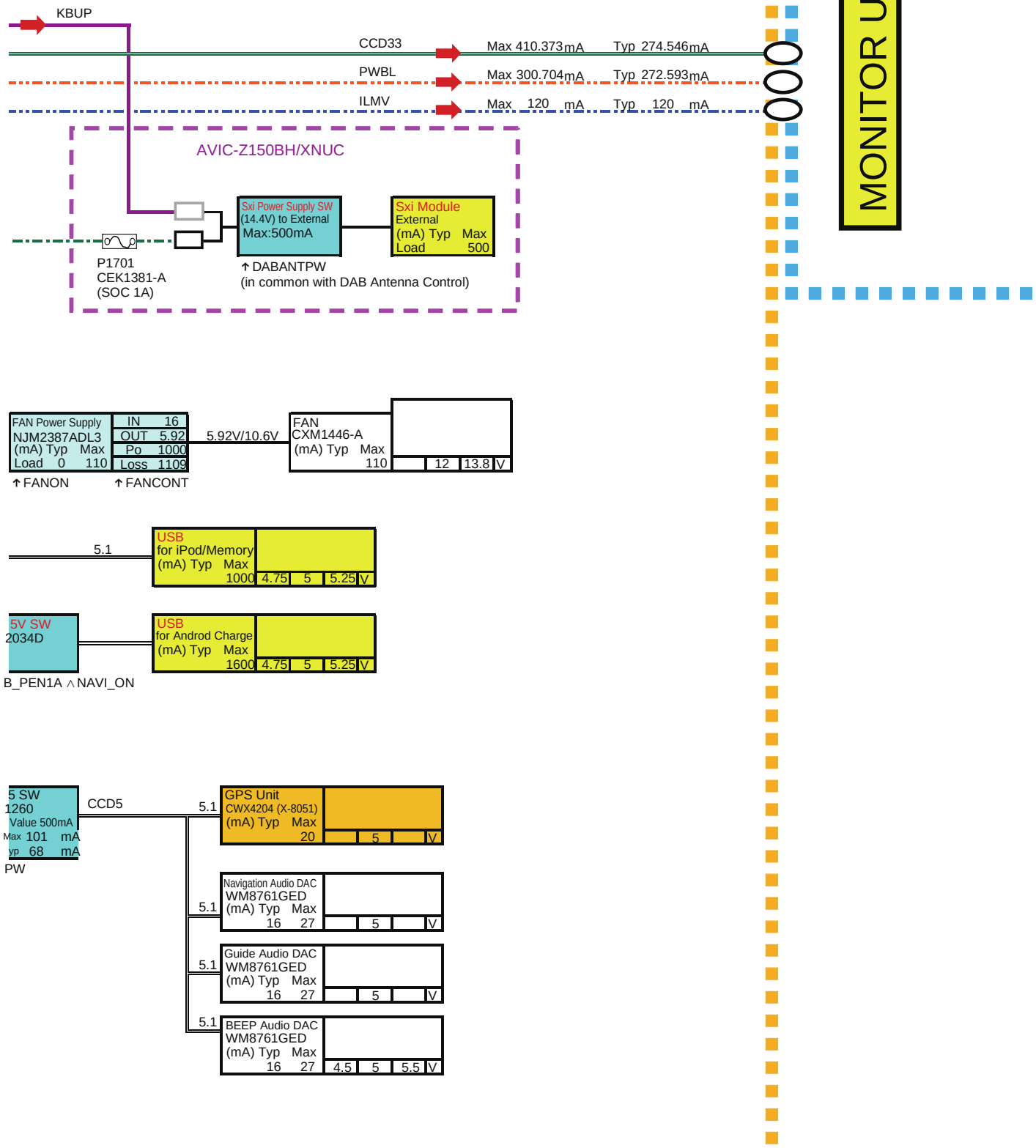
X-2056 (in case of 1.5HD)

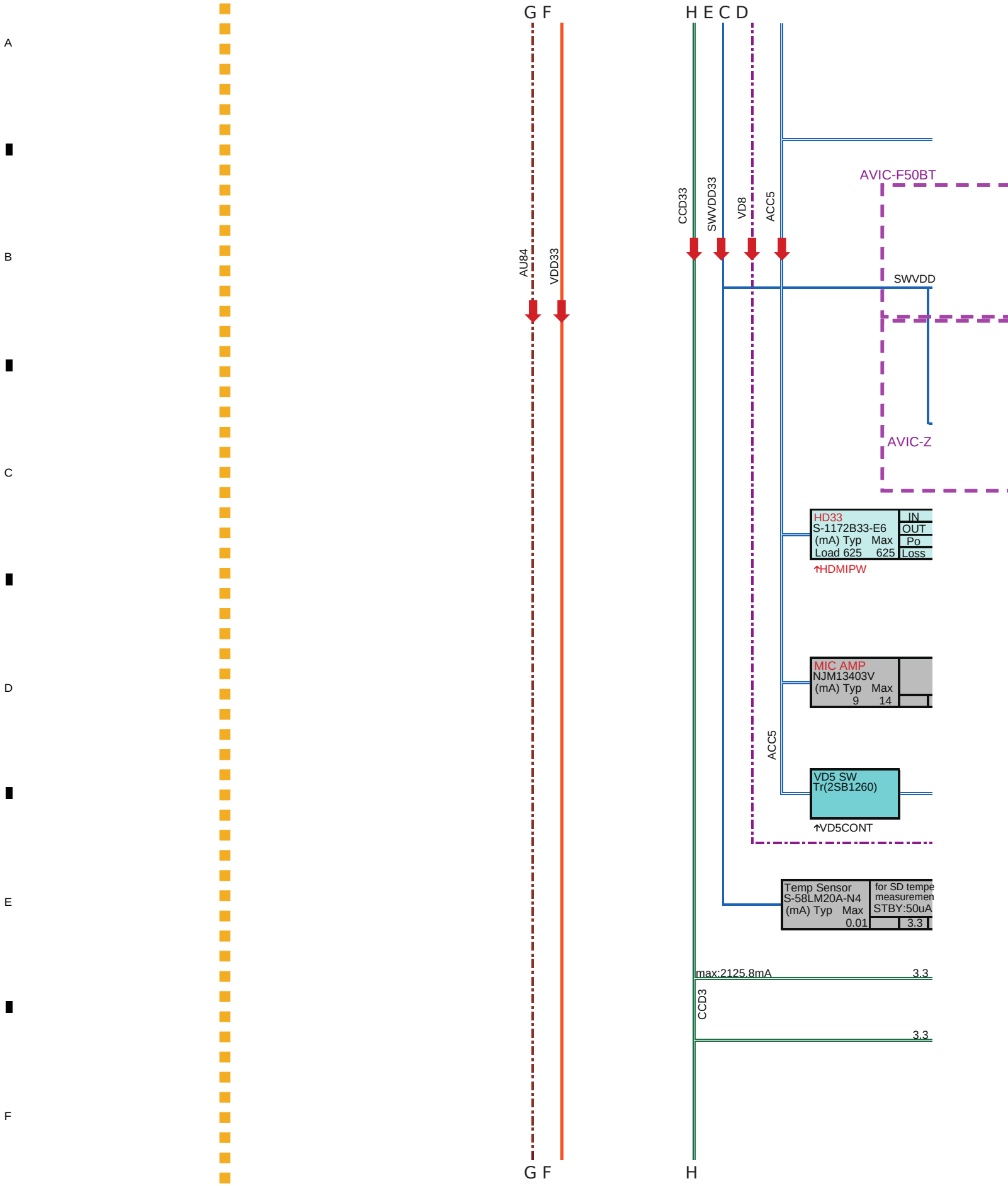
RFVCC5 5V
typ:190mA max:300mA(Provisional)

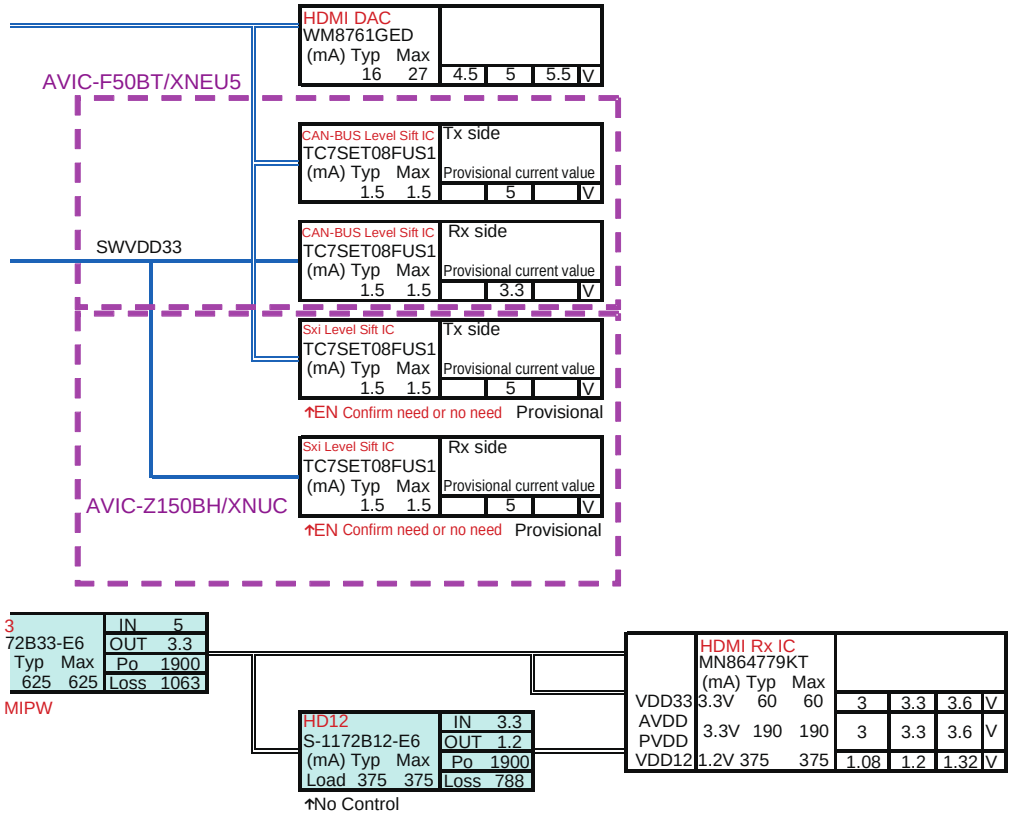
DVCC33 3.3V
max:340mA

DVCC11 1.1V
typ:325mA max:600mA


NAVI UNIT(SERVICE)
AV UNIT
KBUP
Max 300.704mA Typ 272.593mA
Max 120 mA Typ 120 mA
Max 2776 mA Typ 2702 mA
Max 1300 mA Typ 330 mA
Max 3.006 mA Typ 3.006 mA
Max 3528.97mA Typ 3203.15 mA
Max 28 mA Typ 18 mA
BUP
AU84
VDD33
CCD33
SWVDD33
VD8
ACC5
BUP
P17
CEK
(SO
FAN Power Supply
NJM2387ADL3
(mA) Typ Max
Load 0 110
FANON
USB5V(D/D)
OZ529IGN
(mA) Typ Max
443 631
IN Bup
OUT 5.1
Typ Max Max
Load 1000 1000 oss 1275
USB_PEN0 NAVI_ON
5.1
USB 5V SW
TPS2034D
USB_PEN1A NAVI_O
CCD33 SW
2SA1834F5(QRS)
Rated Value10000mA
Load Max 2389.97mA
Load Typ 2175.15mA
CCPW
CCD5 SW
2SB1260
Rated Value 500mA
Load Max 101 mA
Load Typ 68 mA
CCPW
CCD5
G F
H E C D

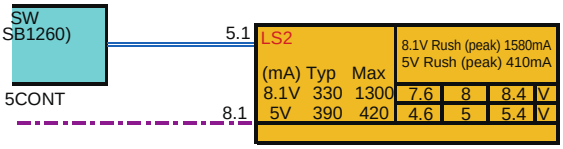

KBUP
CCD33
Max 410.373mA
Typ 274.546mA
PWBL
Max 300.704mA
Typ 272.593mA
ILMV
Max 120 mA
Typ 120 mA
MONITOR UNIT
AVIC-Z150BH/XNUC
Sxi Power Supply SW
(14.4V) to External
Max:500mA
Sxi Module
External
(mA) Typ Max
Load 500
P1701
CEK1381-A
(SOC 1A)
DABANTPW
(in common with DAB Antenna Control)
FAN Power Supply
NJM2387ADL3
(mA) Typ Max
Load 0 110
IN 16
OUT 5.92
Po 1000
Loss 1109
5.92V/10.6V
FAN
CXM1446-A
(mA) Typ Max
110
12 13.8 V
FANON
FANCONT
5.1
USB
for iPod/Memory
(mA) Typ Max
1000
4.75 5 5.25 V
5V SW
2034D
USB
for Androd Charge
(mA) Typ Max
1600
4.75 5 5.25 V
B_PEN1A ∧ NAVI_ON
5 SW
1260
Value 500mA
Max 101 mA
yp 68 mA
PW
CCD5
5.1
GPS Unit
CWX4204 (X-8051)
(mA) Typ Max
20
5 V
Navigation Audio DAC
WM8761GED
(mA) Typ Max
16 27
5 V
Guide Audio DAC
WM8761GED
(mA) Typ Max
16 27
5 V
BEEP Audio DAC
WM8761GED
(mA) Typ Max
16 27
4.5 5 5.5 V

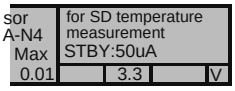

G F
H E C D
AU84
VDD33
CCD33
SWVDD33
VD8
ACC5
AVIC-F50BT
SWVDD
AVIC-Z
HD33
S-1172B33-E6
(mA) Typ Max
Load 625 625
IN
OUT
Po
Loss
HDMIPW
MIC AMP
NJM13403V
(mA) Typ Max
9 14
ACC5
VD5 SW
Tr(2SB1260)
VD5CONT
Temp Sensor
S-58LM20A-N4
(mA) Typ Max
0.01
for SD tempe
measuremen
STBY:50uA
3.3
max:2125.8mA
3.3
CCD3
3.3
G F
H

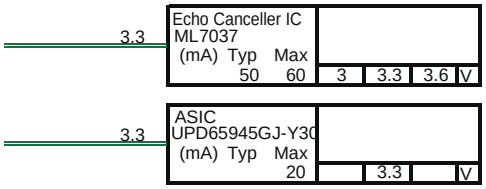

HDMI DAC
WM8761GED
(mA) Typ Max
16 27
4.5 5 5.5 V
AVIC-F50BT/XNEU5
CAN-BUS Level Sift IC
TC7SET08FUS1
(mA) Typ Max
1.5 1.5
Tx side
Provisional current value
5 V
CAN-BUS Level Sift IC
TC7SET08FUS1
(mA) Typ Max
1.5 1.5
Rx side
Provisional current value
3.3 V
SWVDD33
Sxi Level Sift IC
TC7SET08FUS1
(mA) Typ Max
1.5 1.5
Tx side
Provisional current value
5 V
↑EN Confirm need or no need Provisional
Sxi Level Sift IC
TC7SET08FUS1
(mA) Typ Max
1.5 1.5
Rx side
Provisional current value
5 V
↑EN Confirm need or no need Provisional
AVIC-Z150BH/XNUC

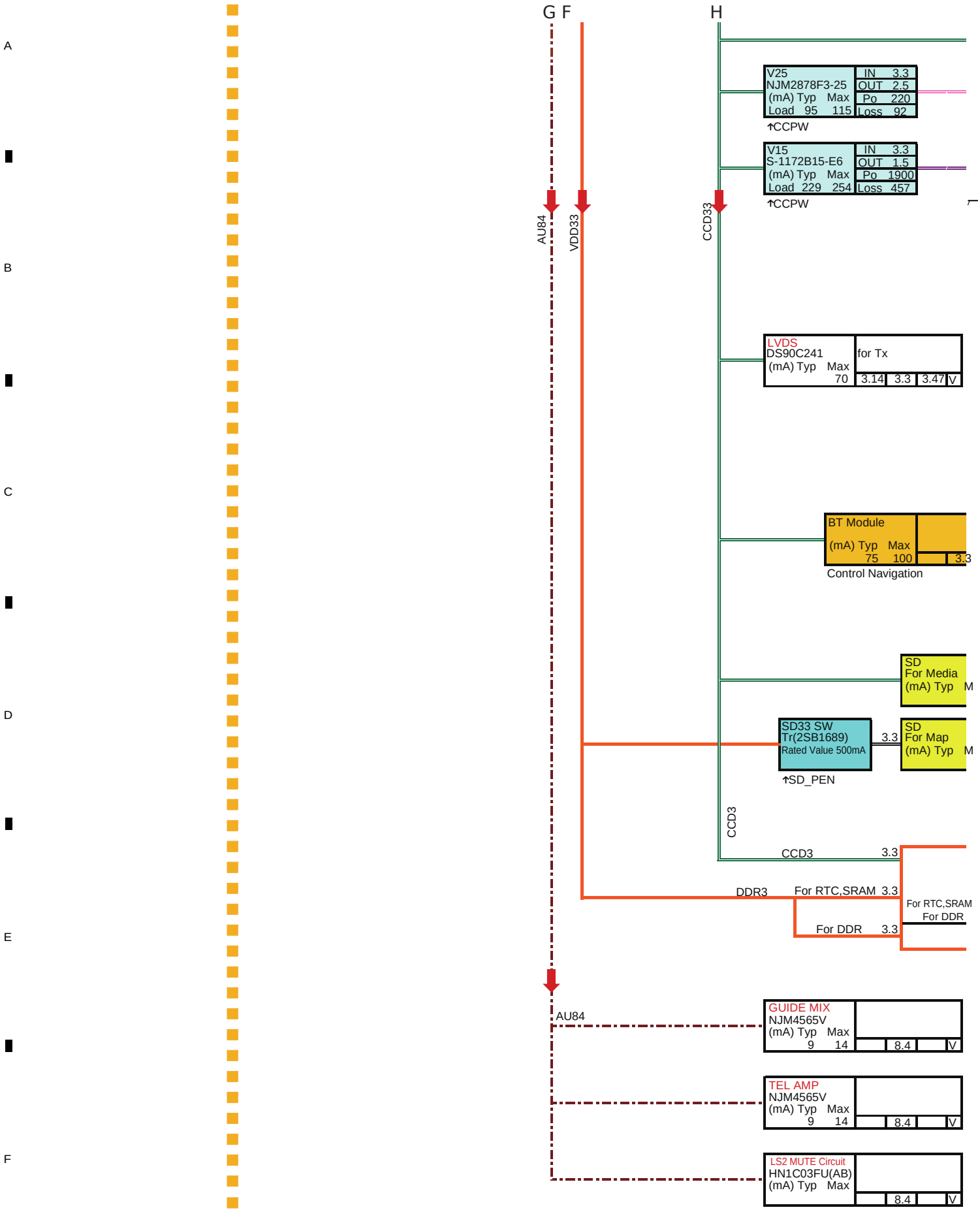
3
72B33-E6
Typ Max
625 625
IN 5
OUT 3.3
Po 1900
Loss 1063
MIPW
HD12
S-1172B12-E6
(mA) Typ Max
Load 375 375
IN 3.3
OUT 1.2
Po 1900
Loss 788
↑No Control
HDMI Rx IC
MN864779KT
(mA) Typ Max
VDD33 3.3V 60 60 3 3.3 3.6 V
AVDD PVDD 3.3V 190 190 3 3.3 3.6 V
VDD12 1.2V 375 375 1.08 1.2 1.32 V

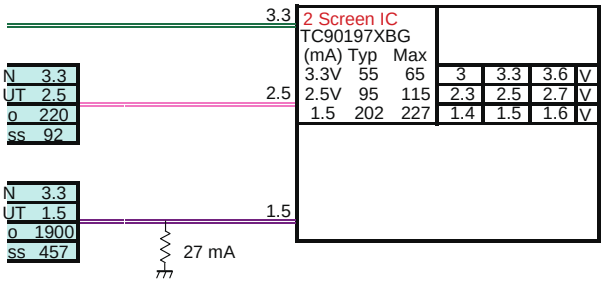
AMP
13403V
Typ Max
9 14
5 V

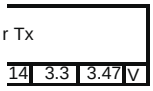

SW
SB1260)
5CONT
5.1
8.1
LS2
(mA) Typ Max
8.1V 330 1300
5V 390 420
8.1V Rush (peak) 1580mA
5V Rush (peak) 410mA
7.6 8 8.4 V
4.6 5 5.4 V

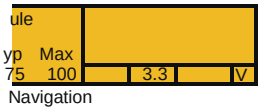

sor
A-N4
Max
0.01
for SD temperature measurement
STBY:50uA
3.3 V

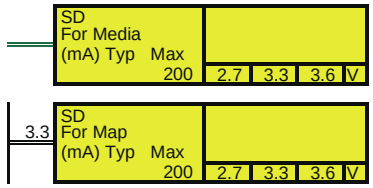

3.3
Echo Canceller IC
ML7037
(mA) Typ Max
50 60
3 3.3 3.6 V
3.3
ASIC
UPD65945GJ-Y30
(mA) Typ Max
20
3.3 V

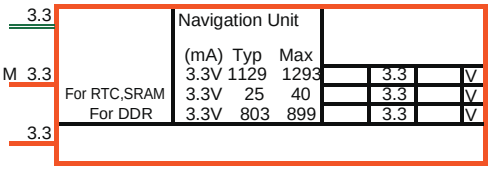

G F
H
V25
NJM2878F3-25
(mA) Typ Max
Load 95 115
IN 3.3
OUT 2.5
Po 220
Loss 92
↑CCPW
V15
S-1172B15-E6
(mA) Typ Max
Load 229 254
IN 3.3
OUT 1.5
Po 1900
Loss 457
↑CCPW
AU84
VDD33
CCD33
LVDS
DS90C241
(mA) Typ Max
70
for Tx
3.14 3.3 3.47 V
BT Module
(mA) Typ Max
75 100
3.3
Control Navigation
SD
For Media
(mA) Typ M
SD33 SW
Tr(2SB1689)
Rated Value 500mA
3.3
SD
For Map
(mA) Typ M
↑SD_PEN
CCD3
CCD3 3.3
DDR3
For RTC,SRAM 3.3
For RTC,SRAM
For DDR
For DDR 3.3
AU84
GUIDE MIX
NJM4565V
(mA) Typ Max
9 14
8.4 V
TEL AMP
NJM4565V
(mA) Typ Max
9 14
8.4 V
LS2 MUTE Circuit
HN1C03FU(AB)
(mA) Typ Max
8.4 V

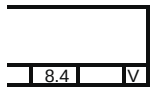

3.3
2 Screen IC
TC90197XBG
(mA) Typ Max
3.3V 55 65 3 3.3 3.6 V
2.5V 95 115 2.3 2.5 2.7 V
1.5 202 227 1.4 1.5 1.6 V
2.5
1.5
27 mA

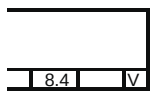

r Tx
14 3.3 3.47 V

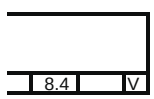

ule
yp Max
75 100
3.3
V
Navigation

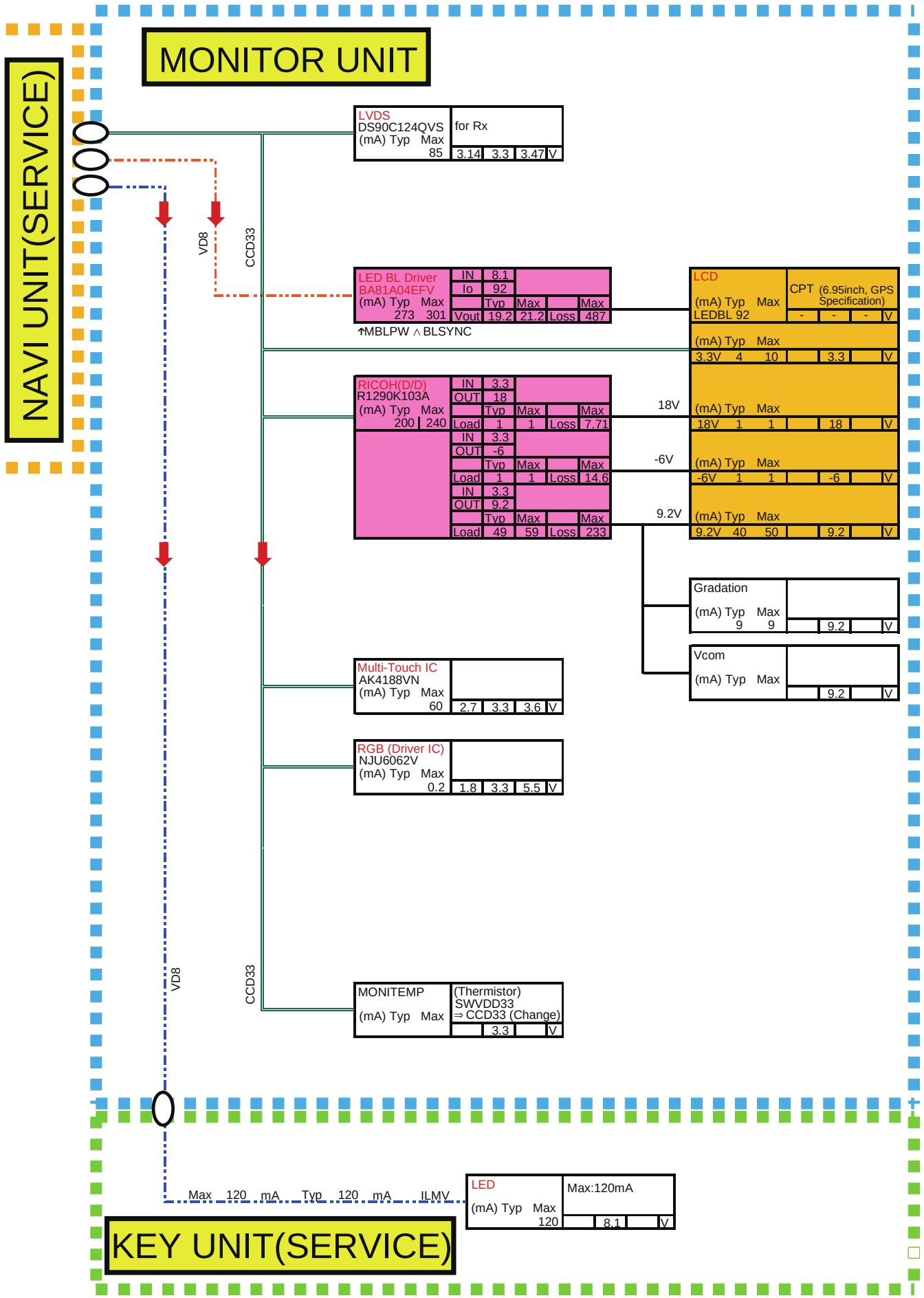

SD
For Media
(mA) Typ Max
200
2.7 3.3 3.6 V
3.3
SD
For Map
(mA) Typ Max
200
2.7 3.3 3.6 V


3.3
M 3.3
3.3
Navigation Unit
(mA) Typ Max
3.3V 1129 1293 3.3 V
For RTC,SRAM 3.3V 25 40 3.3 V
For DDR 3.3V 803 899 3.3 V


8.4 V

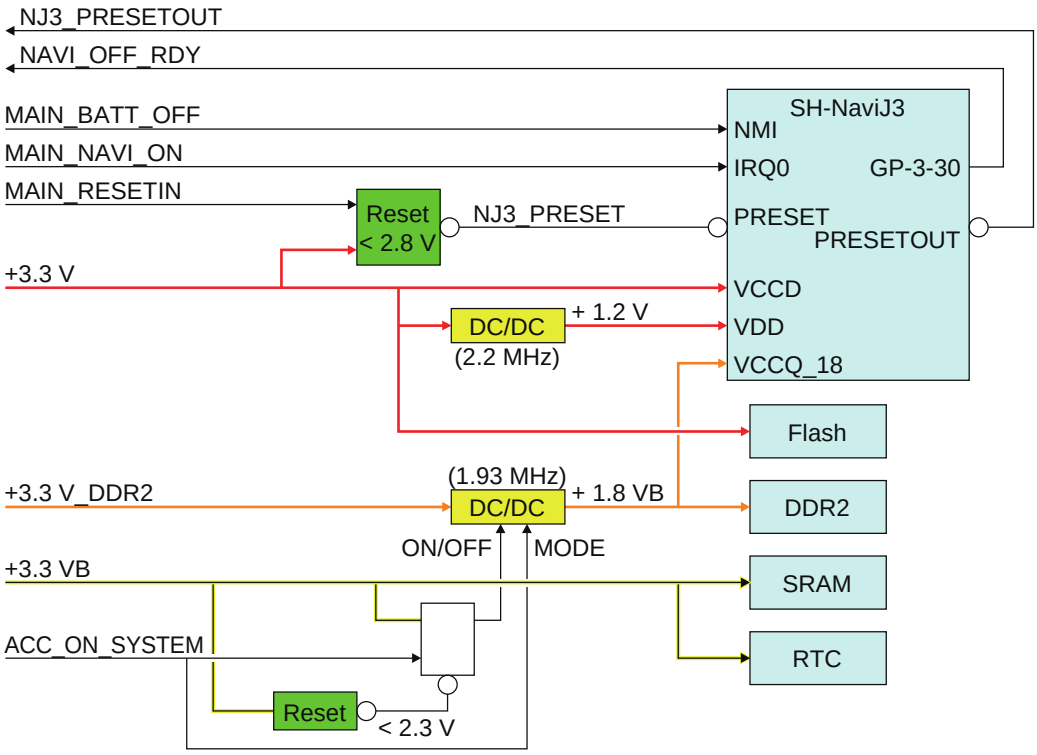

8.4 V


8.4 V

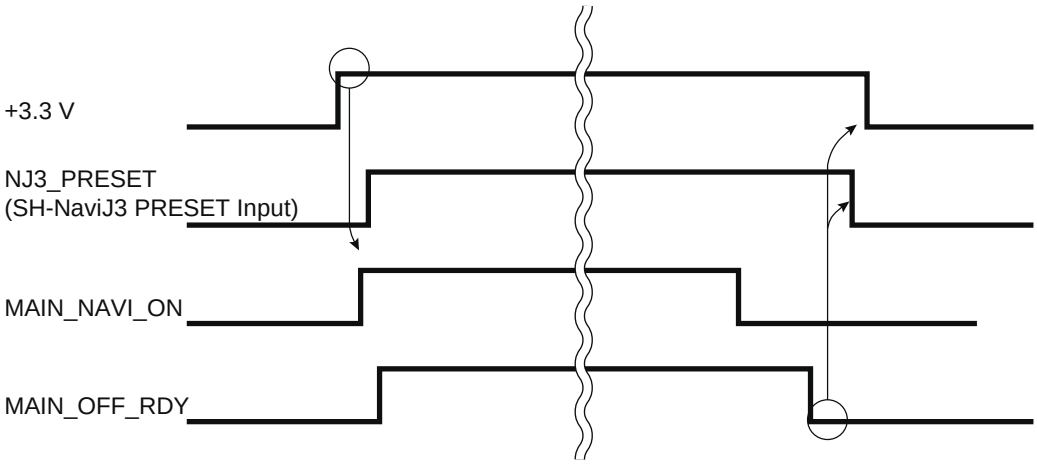

MONITOR UNIT
NAVI UNIT(SERVICE)
LVDS
DS90C124QVS
(mA) Typ Max
85
for Rx
3.14 3.3 3.47 V
VD8
CCD33
LED BL Driver
BA81A04EFV
(mA) Typ Max
273 301
IN 8.1
Io 92
Typ Max Max
Vout 19.2 21.2 Loss 487
↑MBLPW ∧ BLSYNC
LCD
(mA) Typ Max
LEDBL 92
CPT (6.95inch, GPS Specification)
- - - V
(mA) Typ Max
3.3V 4 10 3.3 V
RICOH(D/D)
R1290K103A
(mA) Typ Max
200 240
IN 3.3
OUT 18
Typ Max Max
Load 1 1 Loss 7.71
18V
(mA) Typ Max
18V 1 1 18 V
IN 3.3
OUT -6
Typ Max Max
Load 1 1 Loss 14.6
-6V
(mA) Typ Max
-6V 1 1 -6 V
IN 3.3
OUT 9.2
Typ Max Max
Load 49 59 Loss 233
9.2V
(mA) Typ Max
9.2V 40 50 9.2 V
Gradation
(mA) Typ Max
9 9
9.2 V
Vcom
(mA) Typ Max
9.2 V
Multi-Touch IC
AK4188VN
(mA) Typ Max
60
2.7 3.3 3.6 V
RGB (Driver IC)
NJU6062V
(mA) Typ Max
0.2
1.8 3.3 5.5 V
MONITEMP
(mA) Typ Max
(Thermistor)
SWVDD33
⇒ CCD33 (Change)
3.3 V
Max 120 mA Typ 120 mA ILMV
LED
(mA) Typ Max
120
Max:120mA
8.1 V
KEY UNIT(SERVICE)

CC Assy(Service) Power System Diagram

Power / reset system



NAVI_ON and NAVI_OFF_RDY



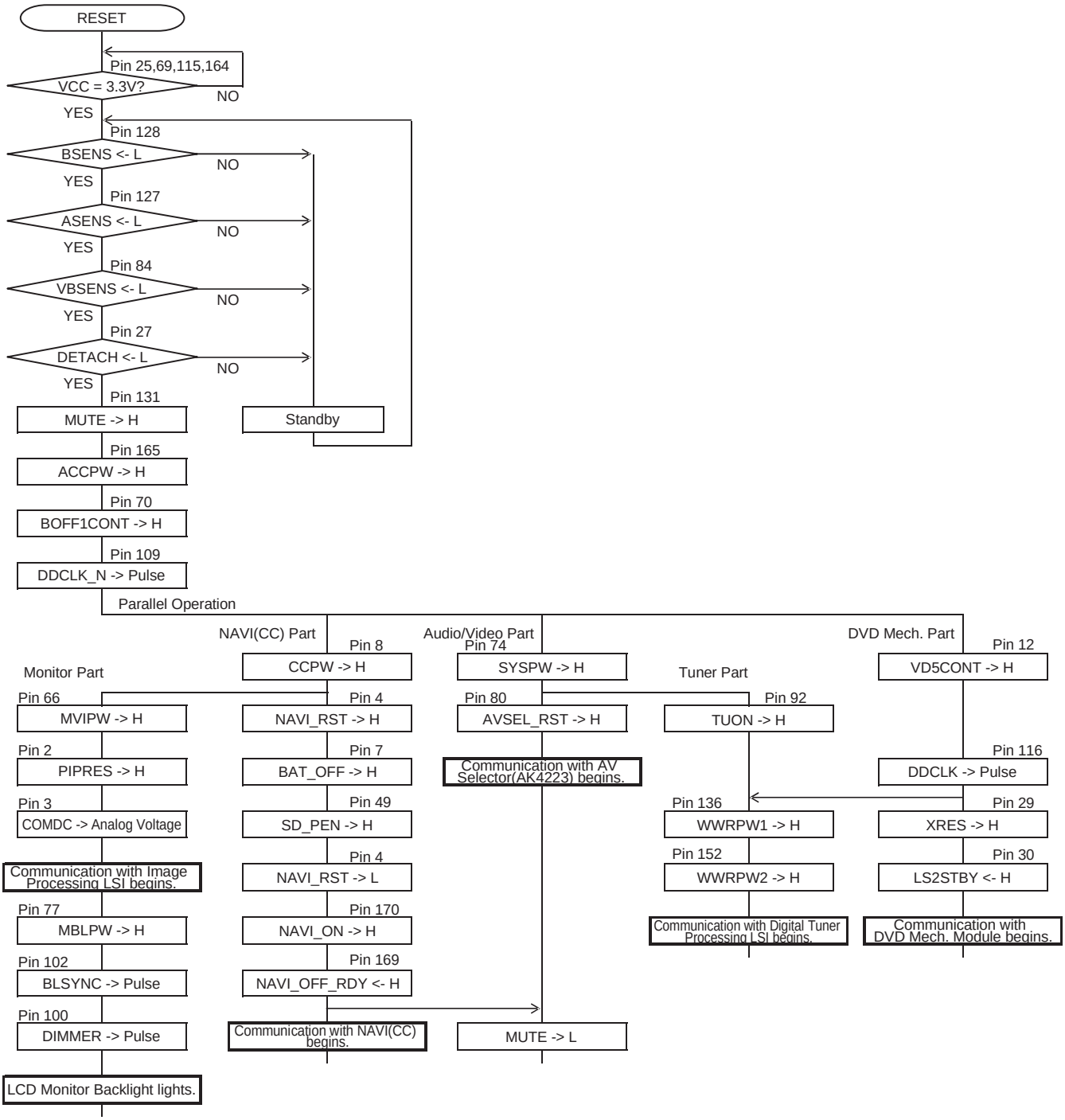
MAIN_NAVI_ON can be turned ON (H) any time as long as +3.3V is input.

The following procedures shall be followed before cutting +3.3V:
(1) Check that NAVI_OFF_RDY is L
(2) Output MAIN_RESETIN to reset SH-NaviJ3 (recommended).

5. DIAGNOSIS

5.1 OPERATIONAL FLOWCHART

Check Point : SYSTEM uCOM on AV UNIT

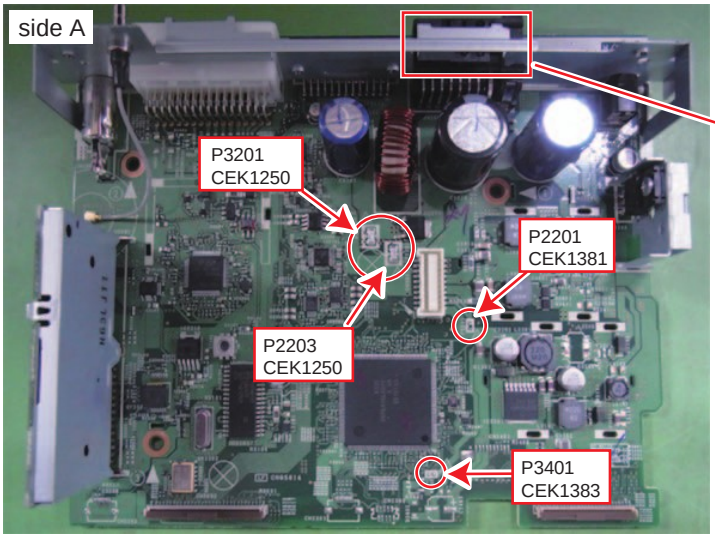


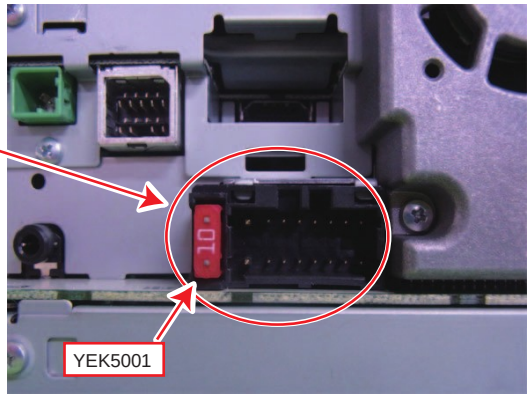
5.2 FUSE CHECK

FUSE CHECK LIST

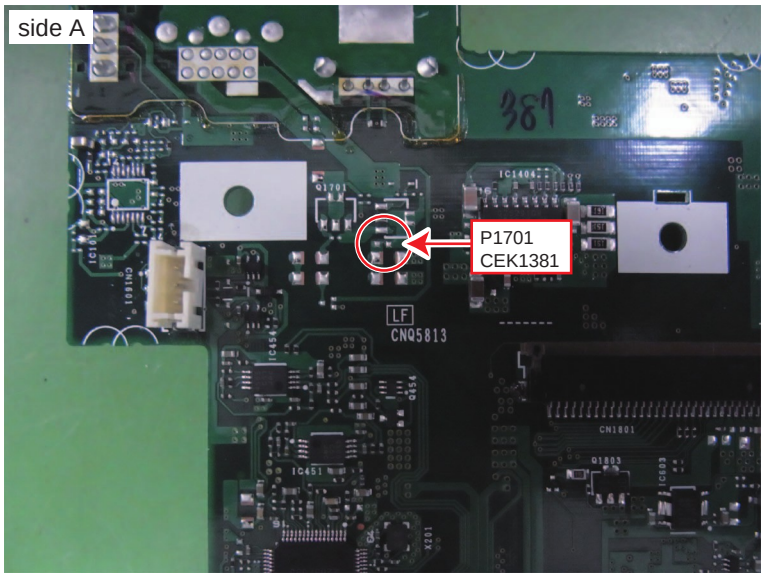
UNIT	Reference No.	Parts No.	Function	Symptom when fuse cuts.
AV	P2203	CEK1250	1 Power supply(8.4V) for TMC Tunner and Tunner. 2 Power supply for G Sensor / GYRO	1 Cannot receive Tunnner Signal. 2 Sensor error.
	P3201	CEK1250	1 Power supply for DAB.	1 Cannot receive DAB Signal.
	P3401	CEK1383	1 Power supply for Flap Mecha.	1 Cannot move Flap Mecha.
	P2201	CEK1381	1 Power supply(PWRBL and Illumination) for backlight.	1 Monitor backlight does not light up. (Black screen)
NAVI	P1701	CEK1381	1 Power supply for Sxi.	1 Cannot receive SXi Signal.

AV UNIT FUSE





NAVI UNIT FUSE



5.3 INSPECTION METHOD OF PICKUP UNIT

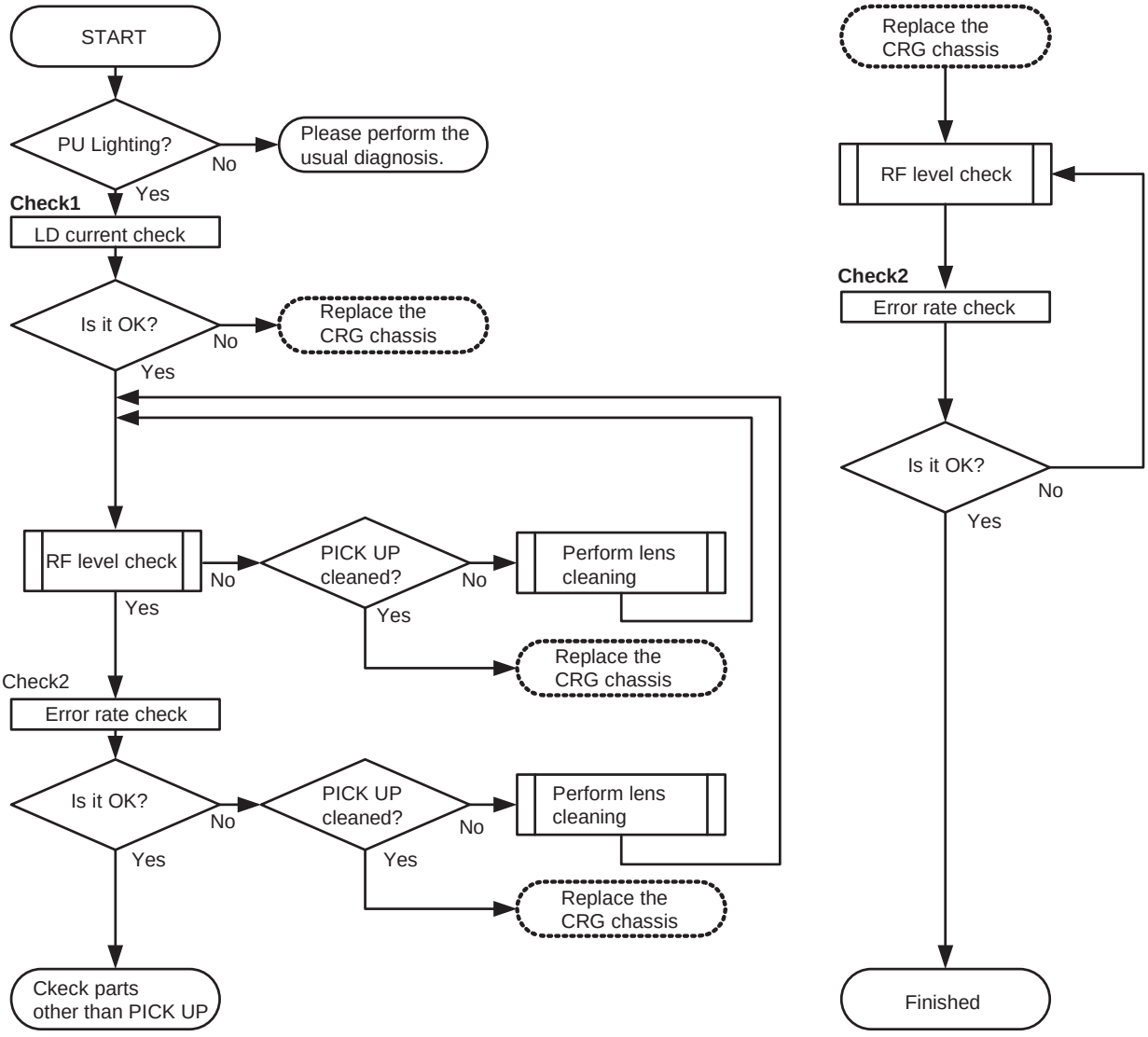
Disc to be used

CD-DA : TCD-782
DVD-Video : TDV-582(GGV1025)

Exact judgment cannot be performed if the disk to be used has a crack and dirt.
Be careful of handling of a disk enough.

Execution method

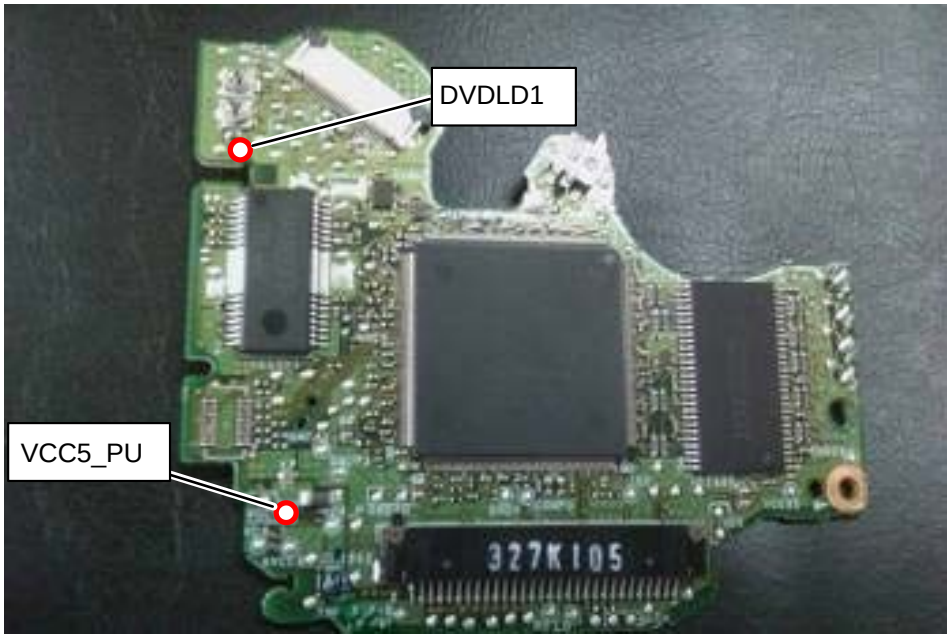
Refer to the following page for the details of the check 1 and the check 2.



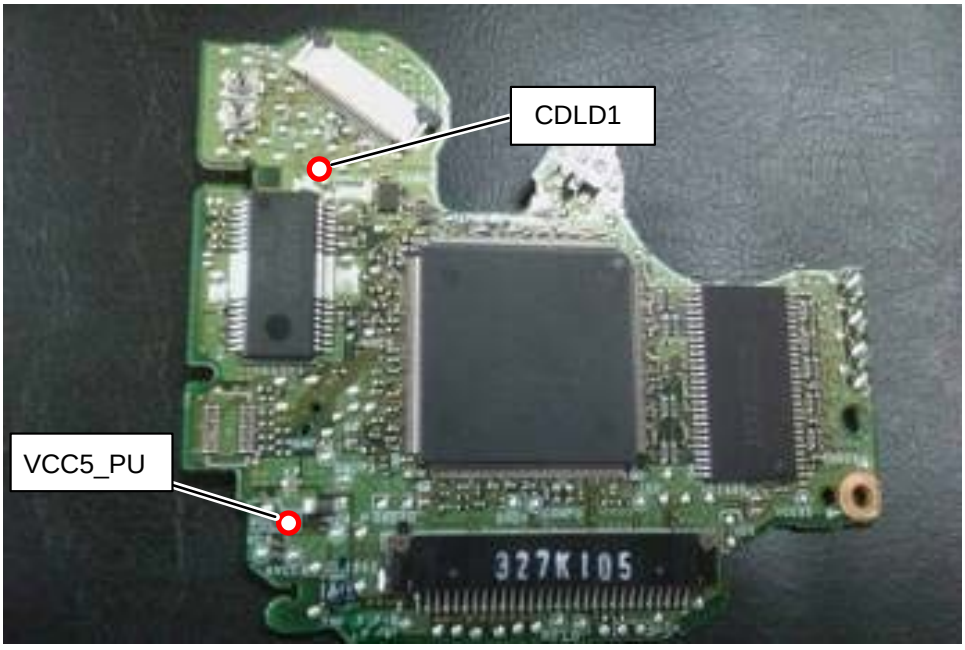
Check1 : LD current check

<Check>
Status: [Foucs closed] of TEST MODE

No.	Disc	Check Point	Threshold	Remarks: LD current
1	GGV1025	DVDLD1 - VCC5_PU	120 - 780 (mV)	10 - 65 (mA)



No.	Disc	Check Point	Threshold	Remarks: LD current
2	TCD-782	CDLD1 - VCC5_PU	150 - 900 (mV)	10 - 60 (mA)

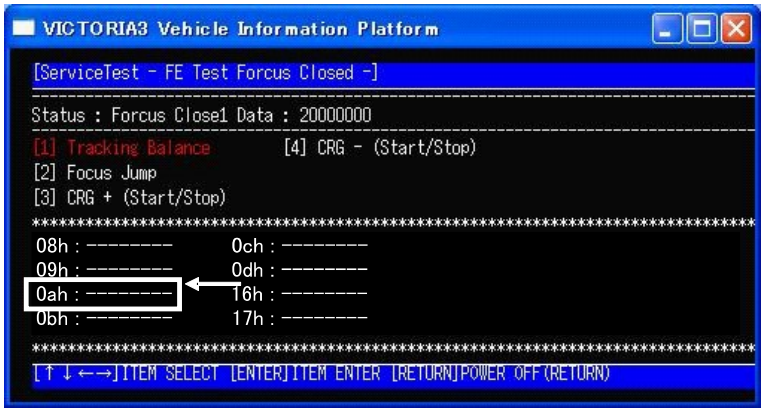


Notes: Please pay attention to the laser diode damage by static electricity.

Check : RF level

<Check>
ASMAX value shows the value of RF level.
Status: [Foucs closed] of TEST MODE

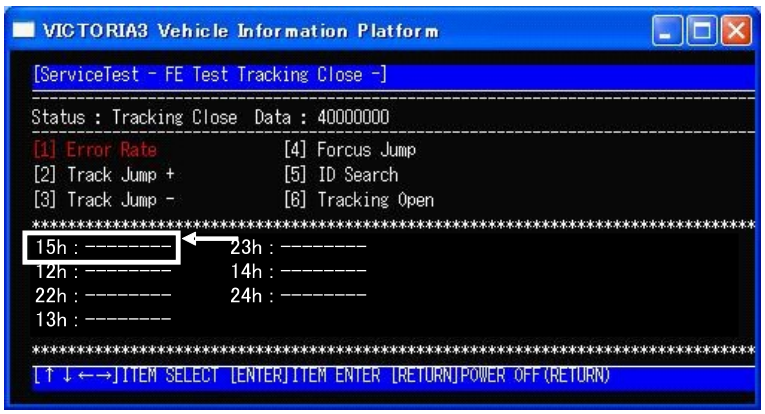
No.	Disc	Check Point	Threshold	Remarks
1	GGV1025	8 digits value of ASMAX on display	more than 0000 0B00	
2	TCD-782	8 digits value of ASMAX on display	more than 0000 0E00	



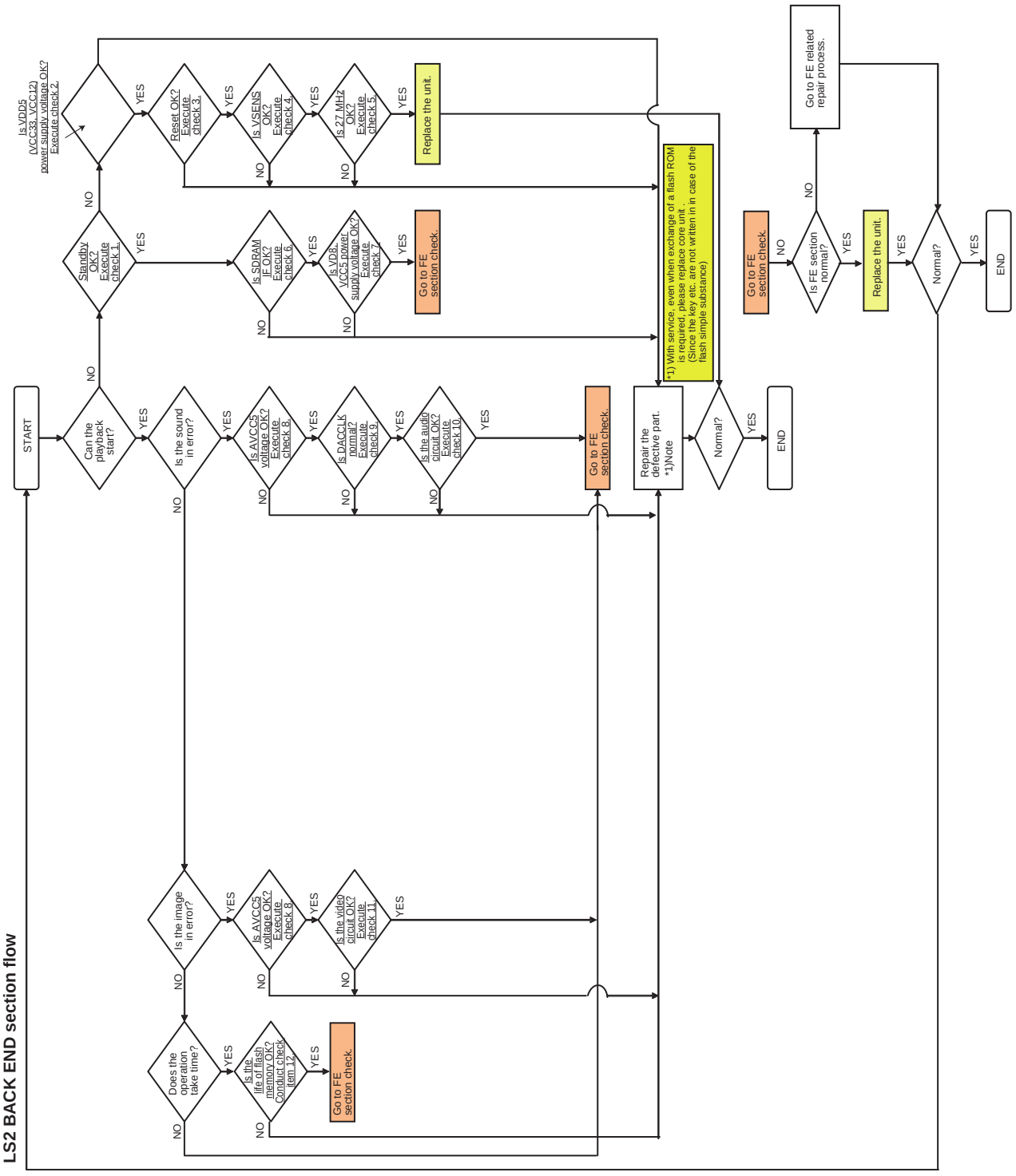
Check2 : Error rate check

<Check>
Status: [Tracking Closed] of TEST MODE

No.	Disc	Check Point	Threshold	Remarks
1	GGV1025	ID:40000	less than 1.000E-3	
2	GGV1025	ID:200000	less than 1.000E-3	
3	TCD-782	ID:HOME Position	less than 2.500E-3	



5.4 DIAGNOSIS FLOWCHART FOR DVD UNIT



Check 1: Standby OK?

<Check> Check the voltage at the “STANBY” test point while the power is on.
Use the “DGND1” test point at the reference.

No.	Check point	Module No.	Specification value	Unit
1	STANBY - DGND1	ALL	VCC33 - 0.6 V or more	V

Side A

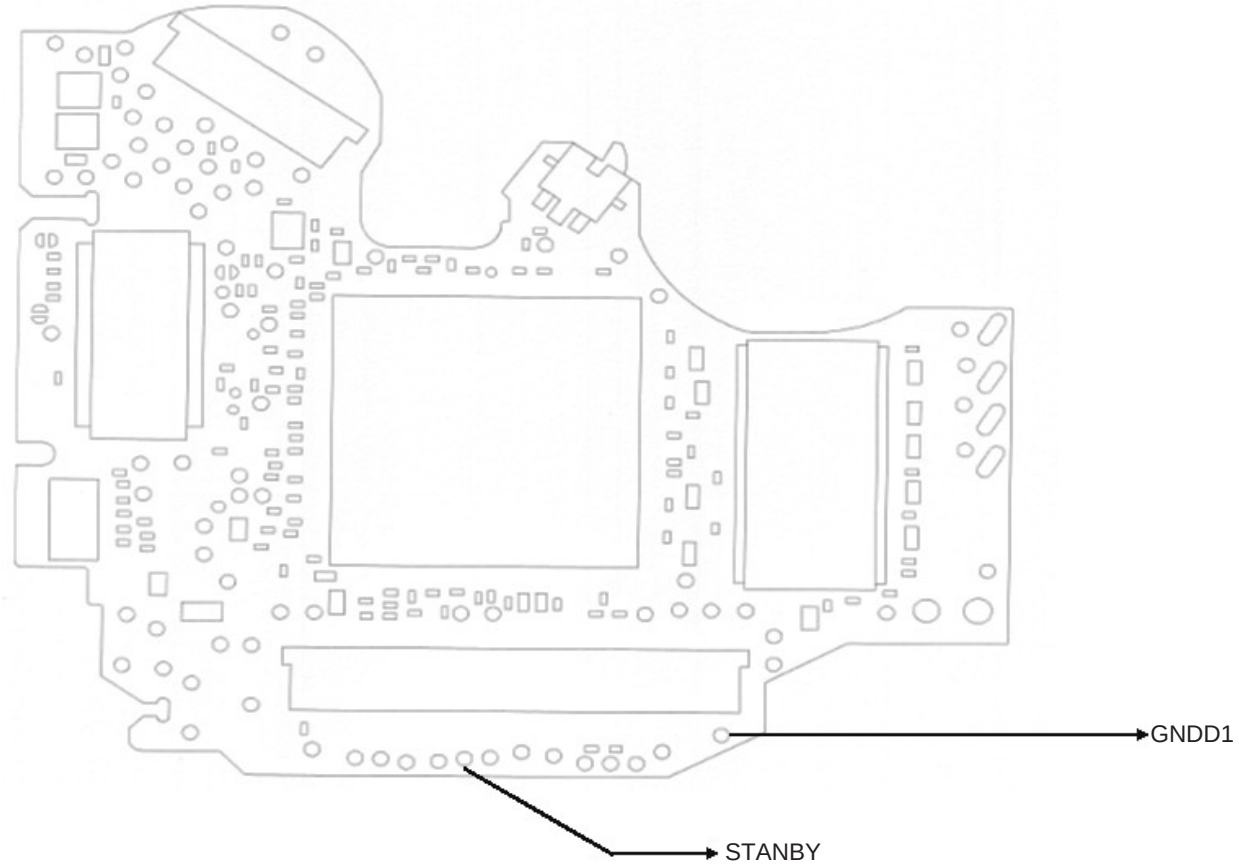


Fig 1.1: STANBY check point

Check 2: Is VDD5 (VCC33, VCC12) power supply voltage OK?

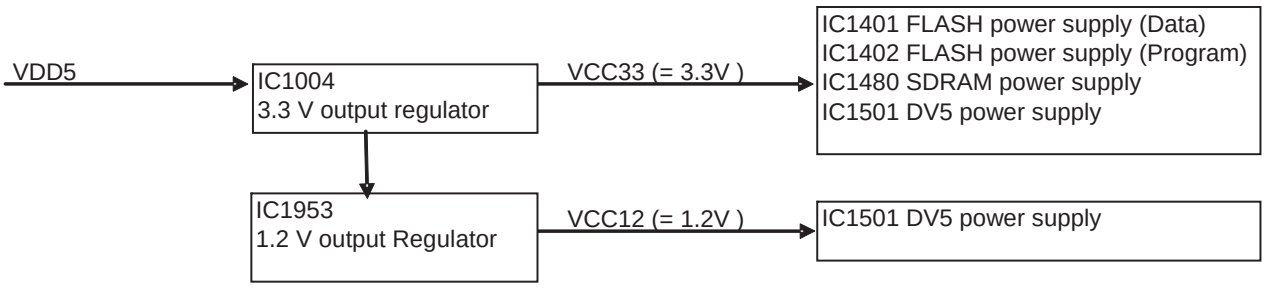


Fig 2.1: Power supply configuration

<Check> Check the voltage at the “VDD5_1, VCC33_1 and VCC12_1” test point while the power is on.
Use the “DGND1” test point at the reference.

No.	Check point	Module No.	Specification value	Unit
1	VDD5_1 - DGND1	ALL	5.0 ± 0.4	V
2	VCC33_1 - DGND1	ALL	3.3 ± 0.033	V
3	VCC12_1 - DGND1	ALL	1.2 ± 0.015	V

Side A

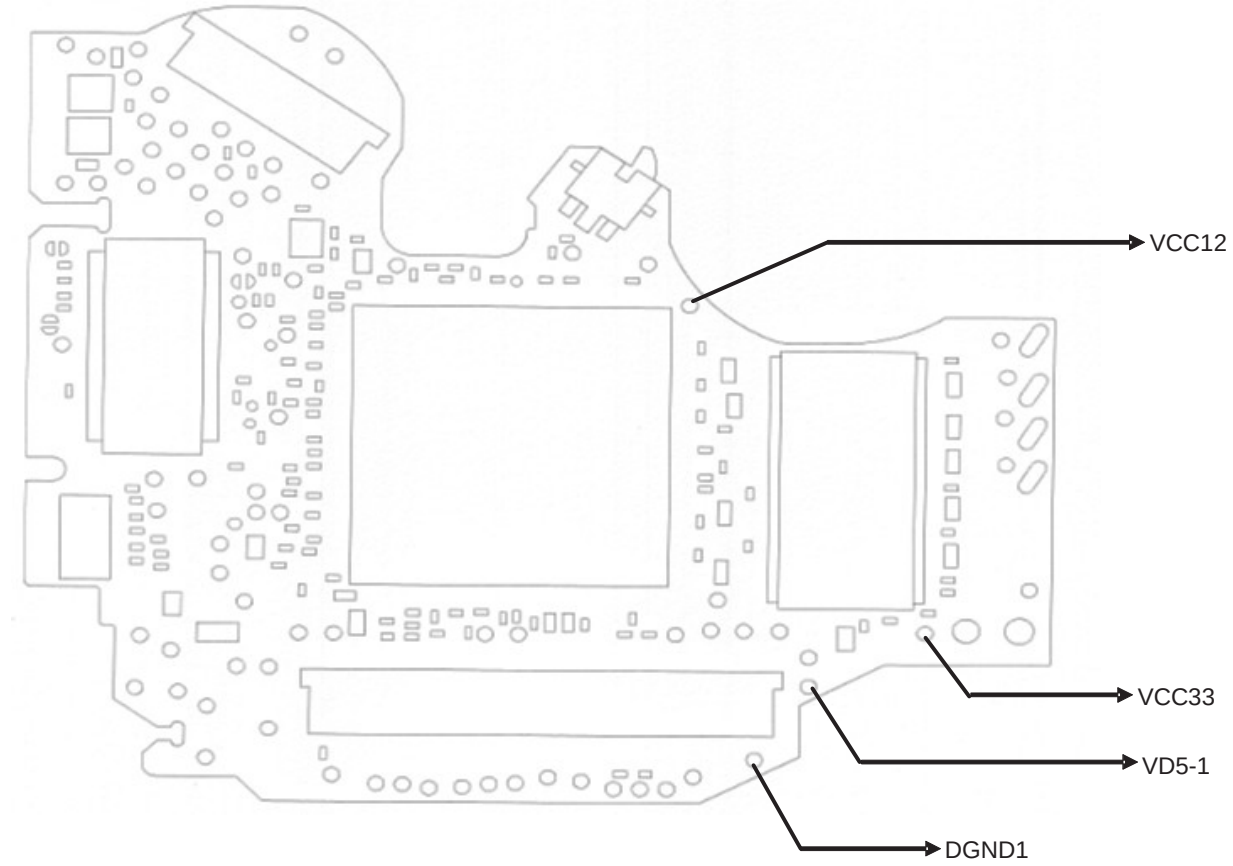


Fig 2.2: VDD5, VCC33, VCC12 voltage check points

Check 3: Reset OK?

<Check> Check the voltage at the “XRES” test point while the power is on.
Use the “DGND1” test point at the reference.

No.	Check point	Module No.	Specification value	Unit
1	NRES - DGND1	ALL	VCC33 × 0.7 or more	V

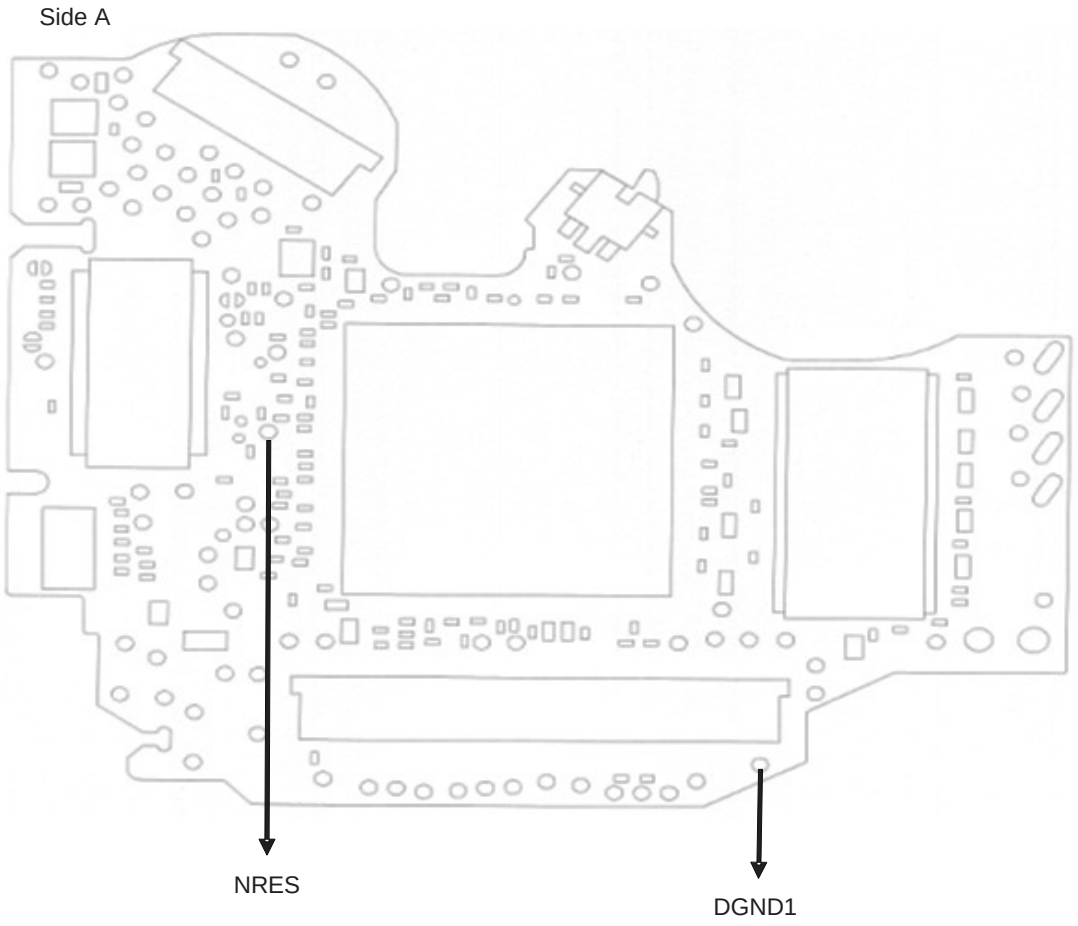


Fig 3.1: RESET check point

Check 4: Is VSENS OK?

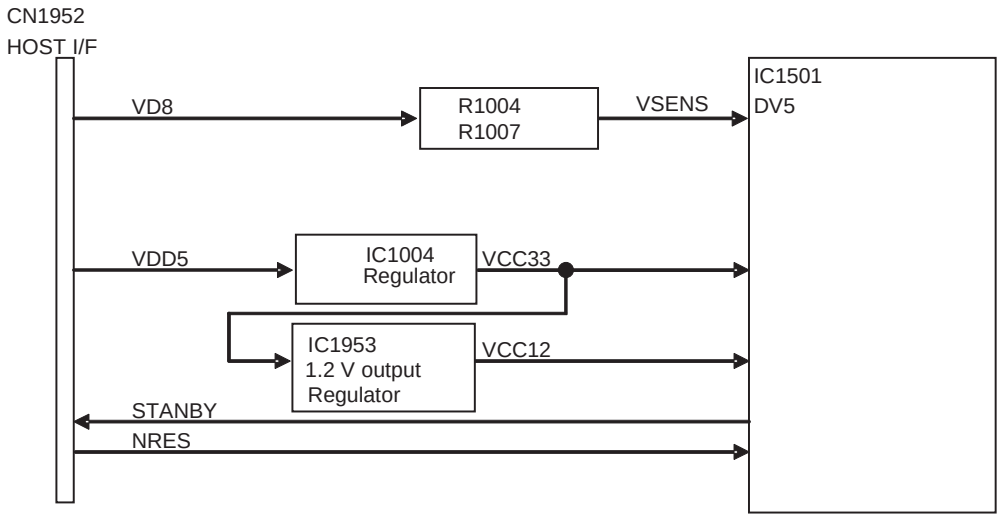


Fig 4.1: Power supply configuration and VSENS

<Check> Check the voltage at the “VSENS” test point while the power is on.
Use the “DGND1” test point at the reference.

No.	Check point	Module No.	Specification value	Unit
1	VSENS - DGND1	ALL	0.95 - 1.07	V

VD8 = 8.0 ± 0.4 V

Side A

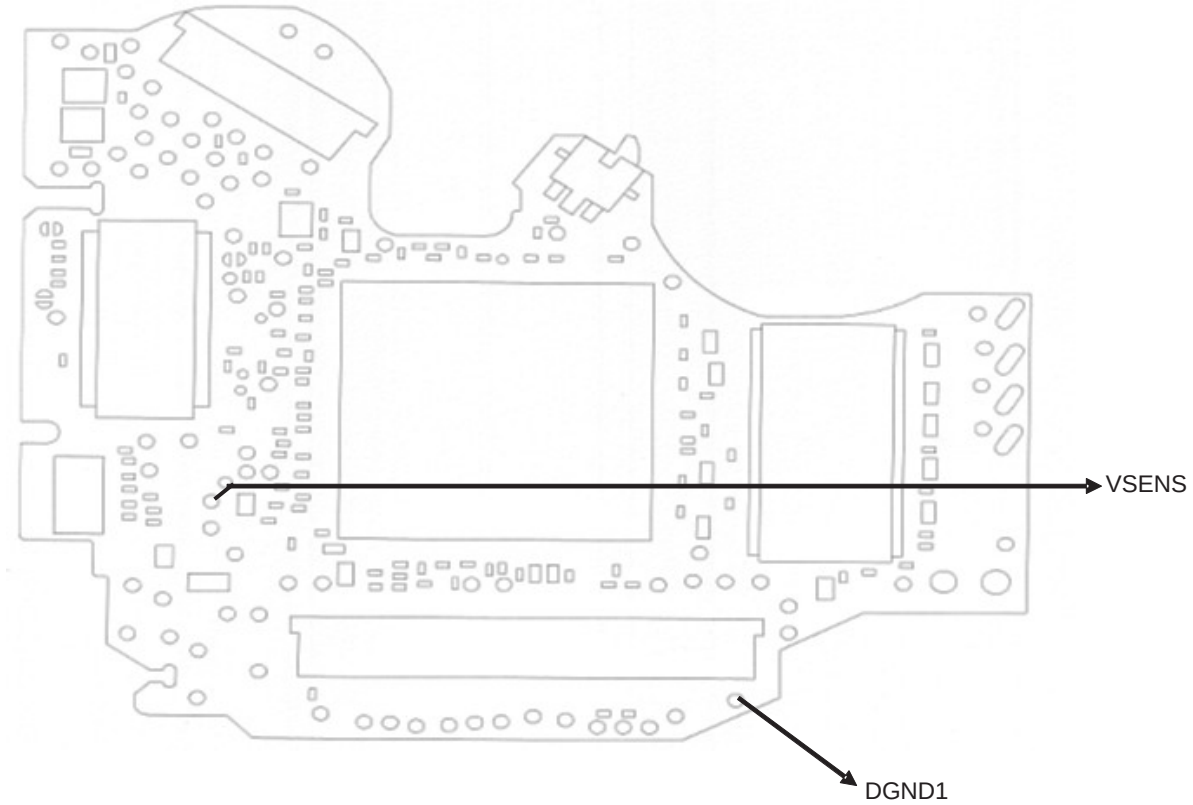


Fig 4.2: VSENS check point

Check 5: 27 MHz Normal?

<Outline> Each clock is created inside the IC1501 using the 27 MHz master crystal oscillator (X1501).

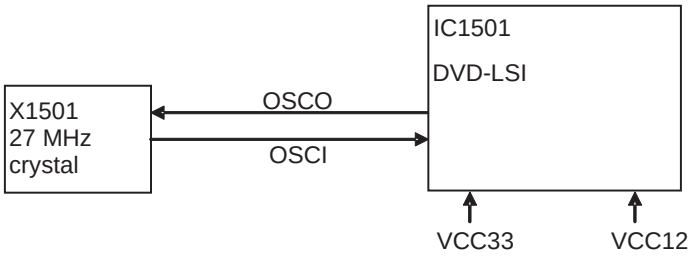


Fig 5.1: Clock configuration

<Check method> Turn the power on, and check with DGND being the reference.
In case of NG, check the applicable line, periphery of IC1501,
soldering of the peripheral components and defective components.

No.	Check point	Module No.	Specification value	Unit
2	IC1501 156pin - DGND1	ALL	27 MHz ± 50 ppm	ppm

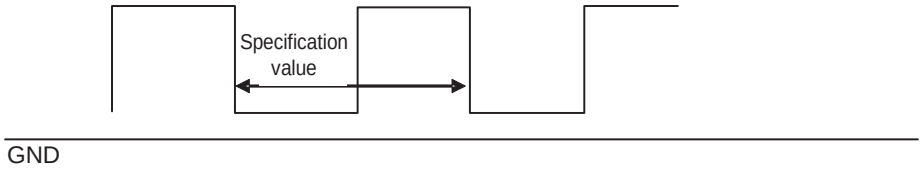


Fig 5.2: Clock specification value

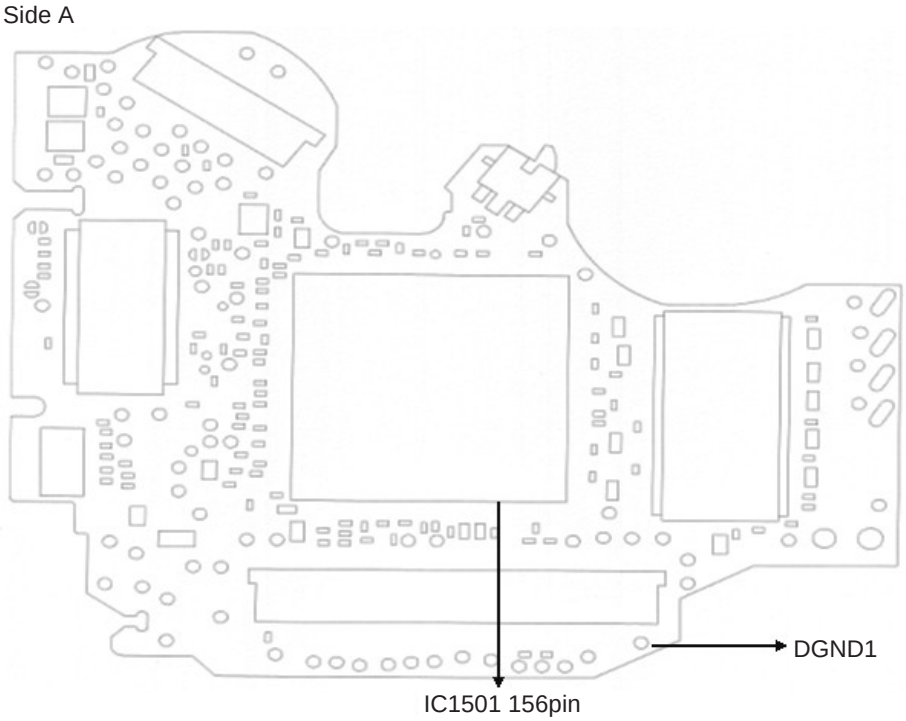


Fig 5.3: 27 MHz check point

Check 6: Is SDRAM I/F OK?

<Outline> In order to secure the MPEG stream data as the buffer,
the capacity of communication I/F SDRAM between the LSI and the memory is 64Mbit.
Be careful as XCSM, XWE, XCAS and XRAS of IC1480 are called differently in IC1501,
namely NCSM, NWE, NCAS, NRAS.

Fig 6.1: SDRAM I/F

<Check> Check the conductivity at “check point 1” and “check point 2” without power.
In case of NG, check the soldering and defective components throughout the
“output t input” of the applicable section.

No.	Signal name	Check point 1	Check point 2	Specification value
1	MA0	IC1480 23pin	IC1501 201pin	56 ohm ± 5%
2	MA1	IC1480 24pin	IC1501 203pin	56 ohm ± 5%
3	MA2	IC1480 25pin	IC1501 207pin	56 ohm ± 5%
4	MA3	IC1480 26pin	IC1501 209pin	56 ohm ± 5%
5	MA4	IC1480 29pin	IC1501 208pin	56 ohm ± 5%
6	MA5	IC1480 30pin	IC1501 206pin	56 ohm ± 5%
7	MA6	IC1480 31pin	IC1501 202pin	56 ohm ± 5%
8	MA7	IC1480 32pin	IC1501 200pin	56 ohm ± 5%
9	MA8	IC1480 33pin	IC1501 198pin	56 ohm ± 5%
10	MA9	IC1480 34pin	IC1501 194pin	56 ohm ± 5%
11	MA10	IC1480 22pin	IC1501 199pin	56 ohm ± 5%
12	MA11	IC1480 35pin	IC1501 192pin	56 ohm ± 5%
13	MDQ0	IC1480 2pin	IC1501 160pin	56 ohm ± 5%
14	MDQ1	IC1480 4pin	IC1501 162pin	56 ohm ± 5%
15	MDQ2	IC1480 5pin	IC1501 164pin	56 ohm ± 5%
16	MDQ3	IC1480 7pin	IC1501 168pin	56 ohm ± 5%
17	MDQ4	IC1480 8pin	IC1501 170pin	56 ohm ± 5%
18	MDQ5	IC1480 10pin	IC1501 172pin	56 ohm ± 5%
19	MDQ6	IC1480 11pin	IC1501 176pin	56 ohm ± 5%
20	MDQ7	IC1480 13pin	IC1501 178pin	56 ohm ± 5%
21	MDQ8	IC1480 42pin	IC1501 177pin	56 ohm ± 5%
22	MDQ9	IC1480 44pin	IC1501 175pin	56 ohm ± 5%
23	MDQ10	IC1480 45pin	IC1501 171pin	56 ohm ± 5%
24	MDQ11	IC1480 47pin	IC1501 169pin	56 ohm ± 5%
25	MDQ12	IC1480 48pin	IC1501 167pin	56 ohm ± 5%
26	MDQ13	IC1480 50pin	IC1501 163pin	56 ohm ± 5%
27	MDQ14	IC1480 51pin	IC1501 161pin	56 ohm ± 5%
28	MDQ15	IC1480 53pin	IC1501 159pin	56 ohm ± 5%
29	MCK	IC1480 38pin	IC1501 183pin	47 ohm ± 5%
30	XWE	IC1480 16pin	IC1501 181pin	56 ohm ± 5%
31	XCAS	IC1480 17pin	IC1501 188pin	56 ohm ± 5%
32	XRAS	IC1480 18pin	IC1501 189pin	56 ohm ± 5%
33	XCSM	IC1480 19pin	IC1501 190pin	56 ohm ± 5%
34	DQM0	IC1480 15pin	IC1501 179pin	56 ohm ± 5%
35	DQM1	IC1480 39pin	IC1501 180pin	56 ohm ± 5%
36	BA0	IC1480 20pin	IC1501 193pin	56 ohm ± 5%
37	BA1	IC1480 21pin	IC1501 197pin	56 ohm ± 5%

Side A

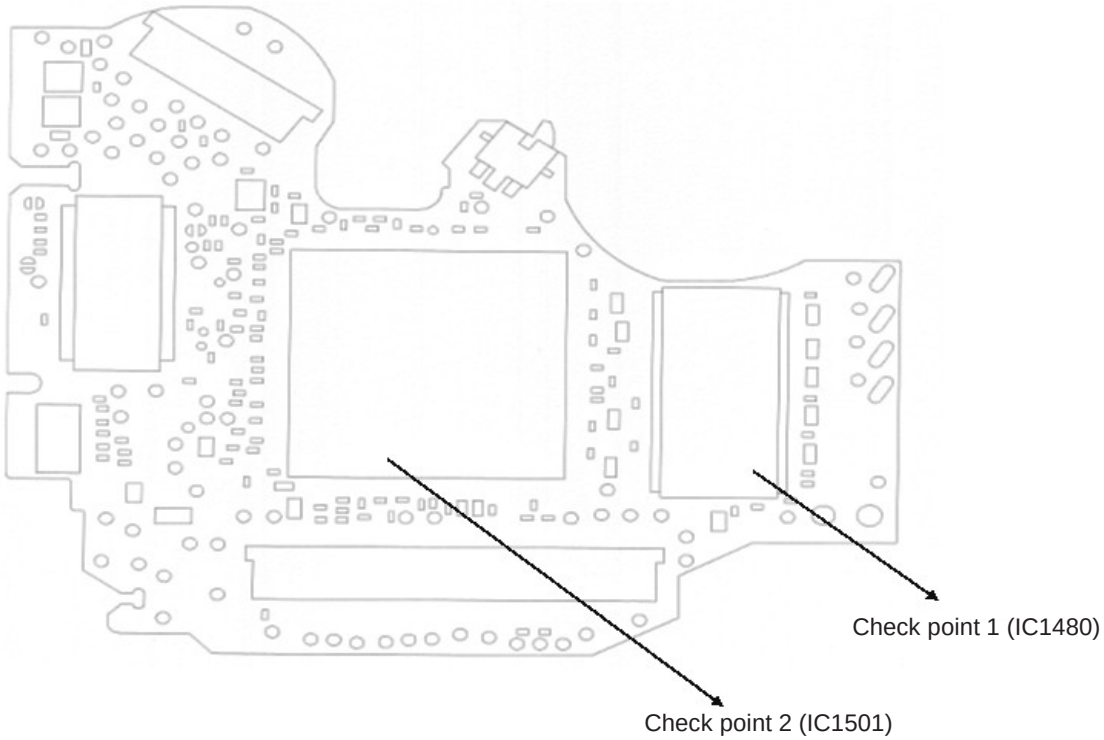


Fig 6.2: SDRAM I/F check point

Check 7: Is VD8, VCC5 power supply voltage OK?

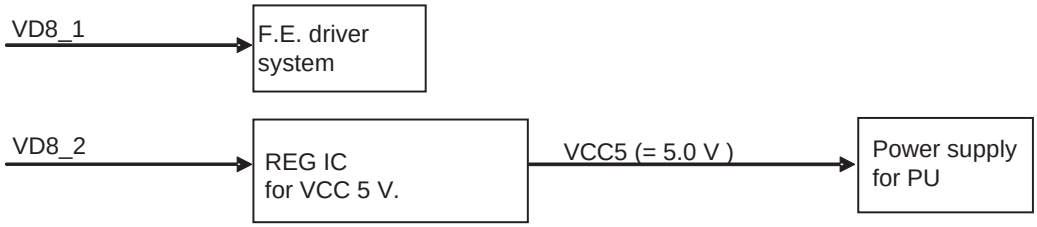


Fig 7.1: Power supply configuration

<Check> Check the voltage at the “VD8_P, VD8_A and VCC5_1” test point while the power is on.
Use the “PGND1 and AGND1” test point at the reference.

No.	Check point	Module No.	Specification value	Unit
1	VD8_P - PGND1	ALL	8.0 ± 0.4	V
2	VD8_A - AGND1	ALL	8.0 ± 0.4	V
3	VCC5_1 - AGND1	ALL	5.0 ± 0.05	V

Side A

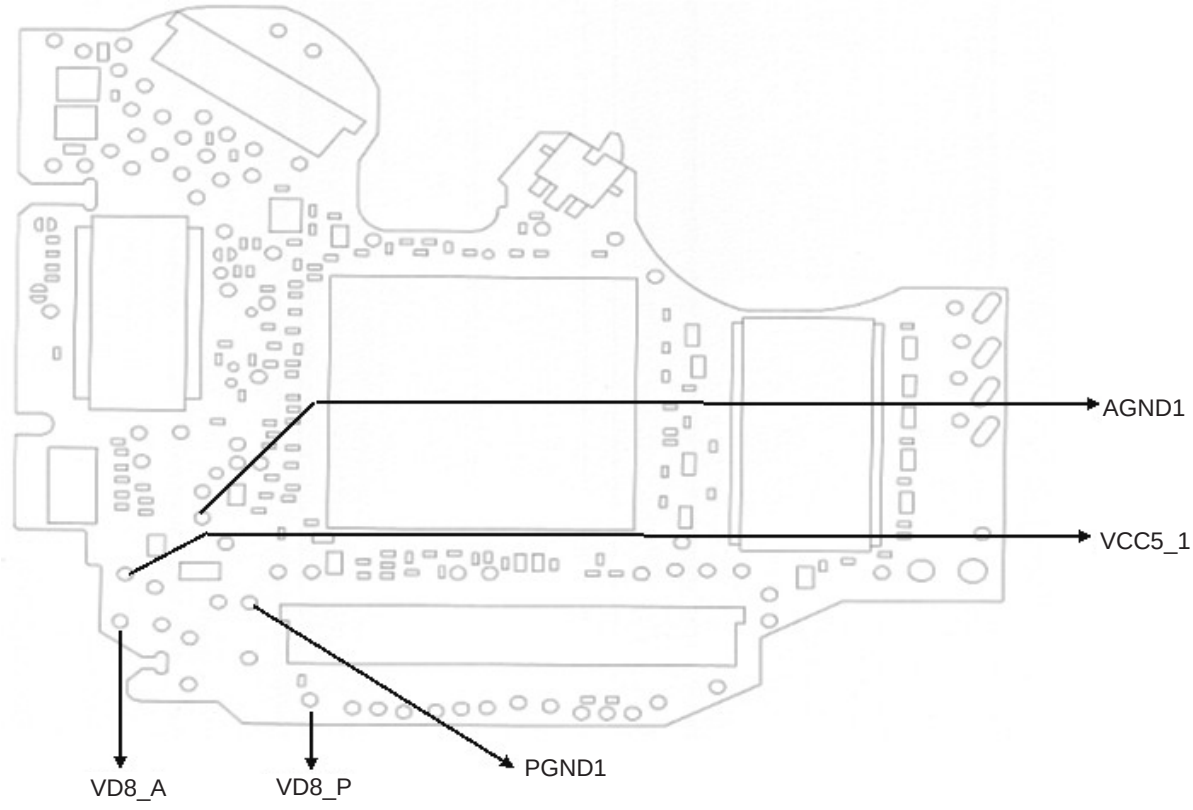


Fig 7.2: VD8, VCC5 voltage check points

Check 8: Is AVCC5 voltage OK?

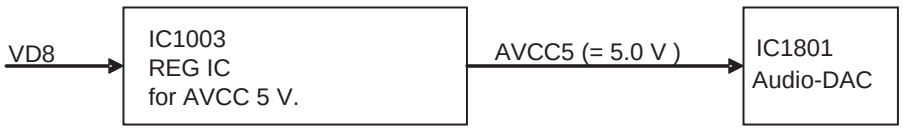


Fig 8.1: Power supply configuration

<Check> Playback DVD-REF-A1 TITLE 1 and check the voltage at the stylus.
Check with PGND_3 and GNDAU1 being the reference.

No.	Check point	Module No.	Specification value	Unit
1	VD8_A - PGND_3	ALL	8.0 ± 0.4	V
2	AVCC5 - GNDAU1	ALL	5.0 ± 0.05	V

Side A

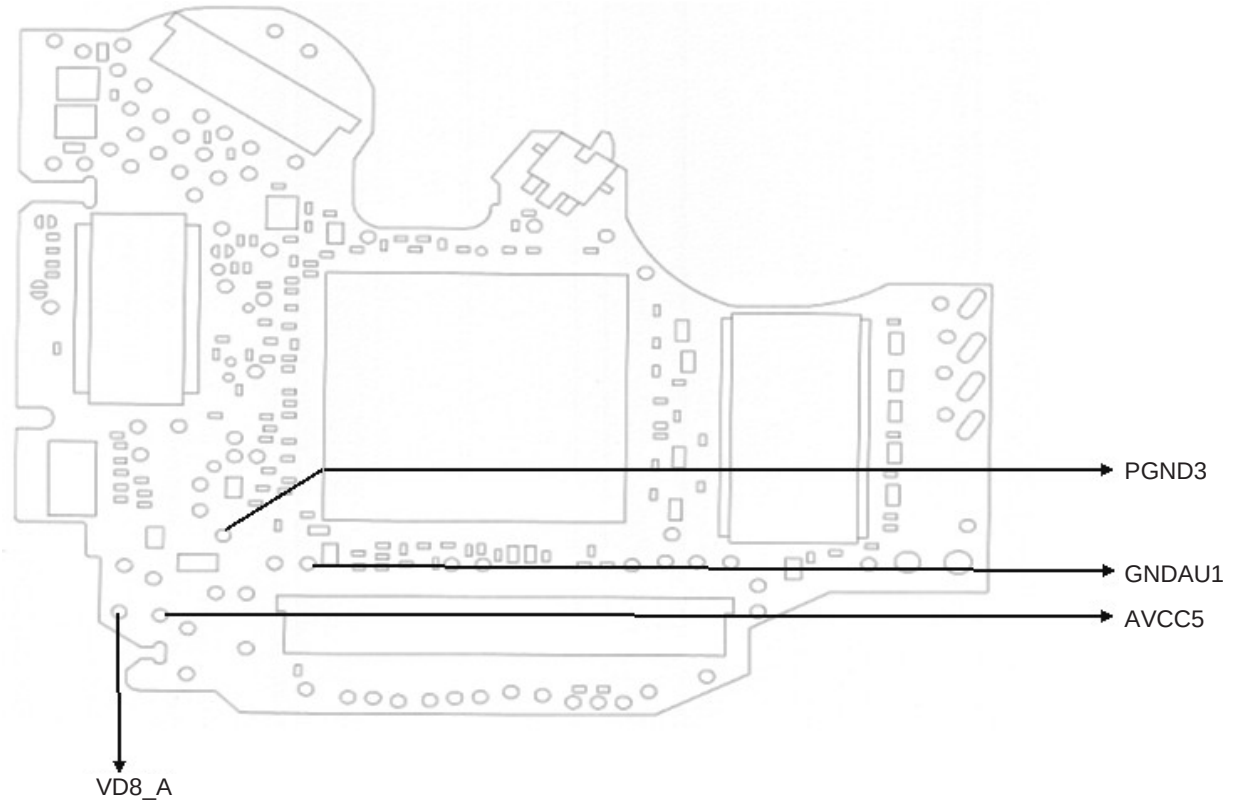


Fig 8.2: VD8, AVCC5 voltage check points

Check 9: Is DACCLK normal?

<Outline> DACCLK for Audio-DAC is created by IC1501 using the 27 MHz master crystal oscillator (X1501).

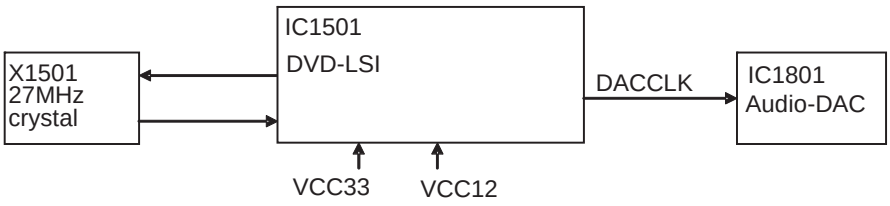


Fig 9.1: Clock configuration

<Check method>
DVD: DVD-REF-A1 TITLE 1
CD: Playback a normal CDDA.
Common to all DVD-V compatible modules.
Check with DGND being the reference.
In case of NG, check the applicable line, the periphery of IC1501, soldering of the peripheral components and defective components.

No.	Check point 1 (stylus)	Media	Specification value 1	Specification value 2	Specification value 3
1	DACCK	DVD	2.0 V - VCC33V	DGND - 0.8 V	36.8640 MHz ± 300 ppm
2	DACCK	CD	2.0 V - VCC33V	DGND - 0.8 V	33.8688 MHz ± 300 ppm

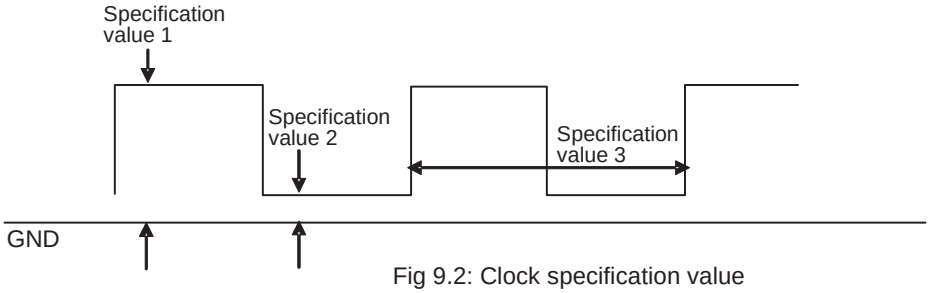


Fig 9.2: Clock specification value

Side A

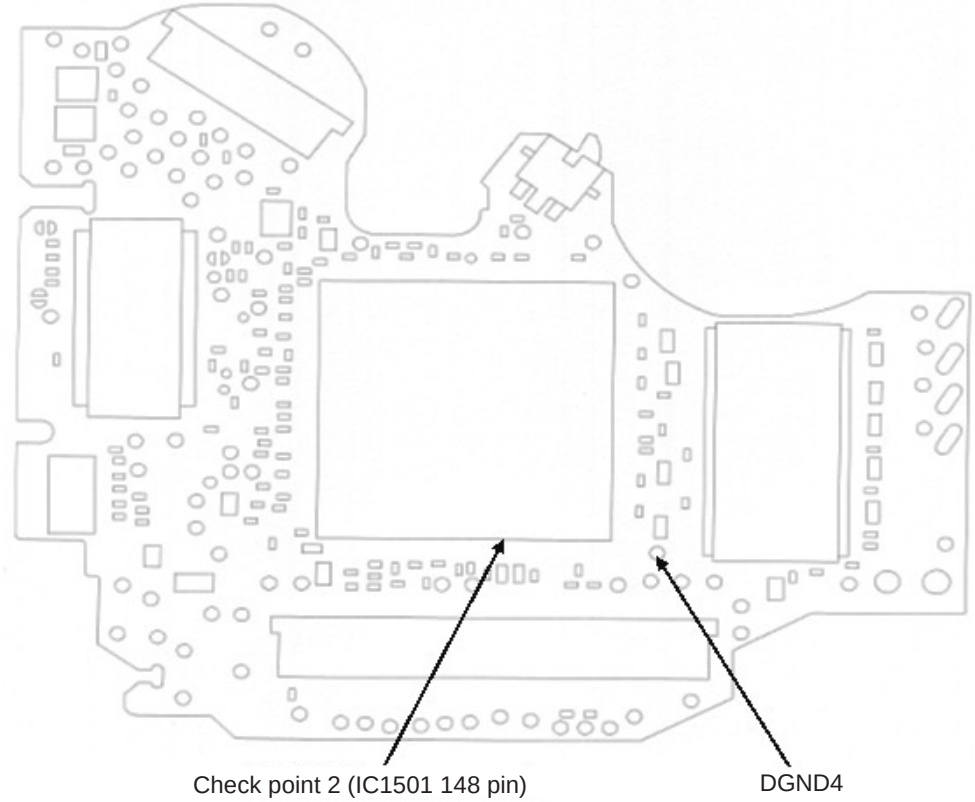


Fig 9.3: DACCLK check point

Check 10: Is the audio circuit OK?

<Outline> The serial 3 lines digital output + DACCLK, output from DVD-LSI (IC1501), are converted to analog audio signal at Audio-DAC (IC1801) and are output from the HOST I/F (CN1952).
Simultaneously, the analog MUTE signal is also output from DVD-LSI (IC1501) via the HOST I/F.
The digital audio signal (IECOUT), output from DVD-LSI (IC1501).

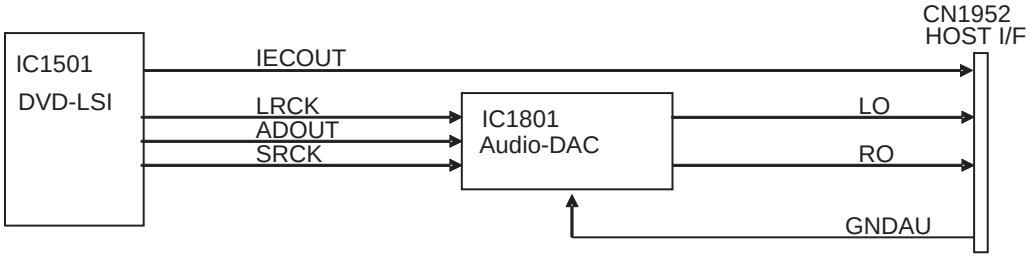


Fig 10.1: Audio circuit

<Check method> Playback DVD-REF-A1 TITLE 2 CHAPTER 1 (48 k/16 bit 1 kHz 0 dB), and check with DGND1 being the reference.
In case of NG, check the applicable line, periphery of major components as described in the above drawing, soldering of the peripheral components and defective components.

No.	Check point 1 (stylus)	Specification value 1	Specification value 2	Reference waveform
1	ADOUT	VCC33V - 0.6 V or higher	0.4 V or lower	Waveform 1
2	SRCK	VCC33V - 0.6 V or higher	0.4 V or lower	Waveform 2
3	LRCK	VCC33V - 0.6 V or higher	0.4 V or lower	Waveform 3

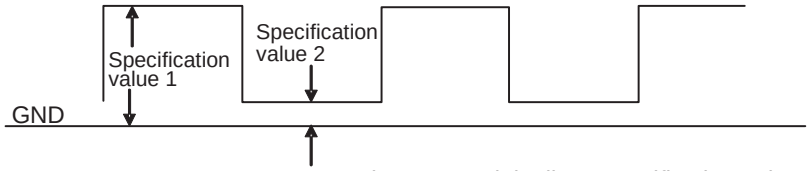


Fig 10.2: Serial 3 lines specification value

Side A

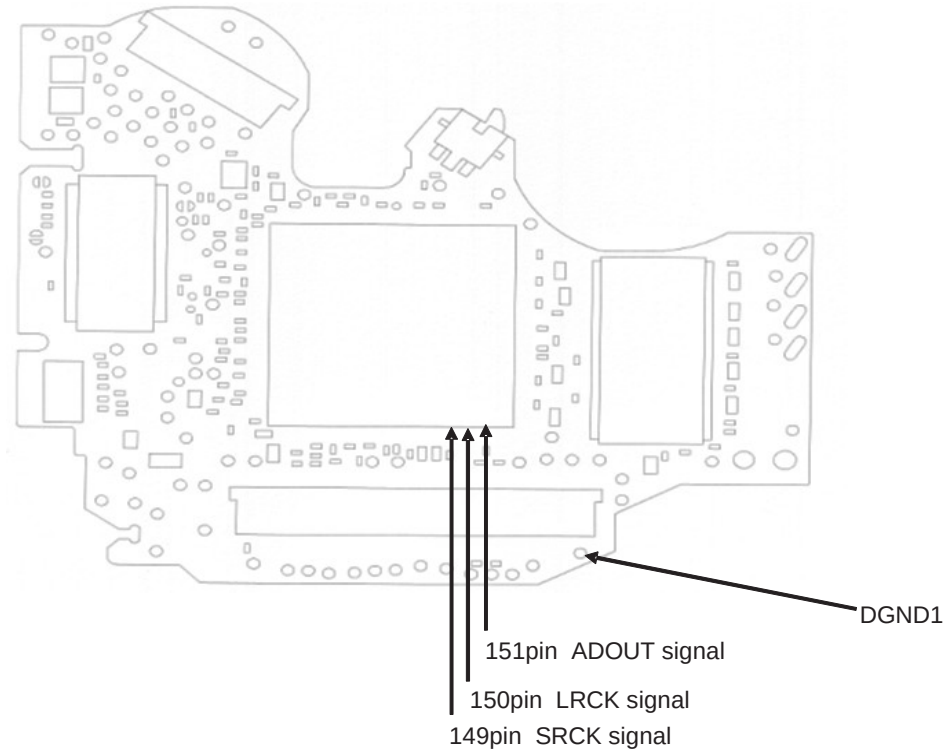
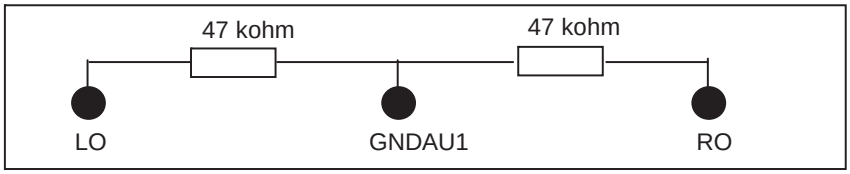


Fig 10.3: Serial 3 lines check points

The following checks shall be conducted using the following measurement circuits with GNDAU1 being the reference.



No.	Check point 1 (stylus)	Specification value (rms)	Reference waveform
4	LO	1400 ± 150 mV	Waveform 4
5	RO	1400 ± 150 mV	Waveform 4

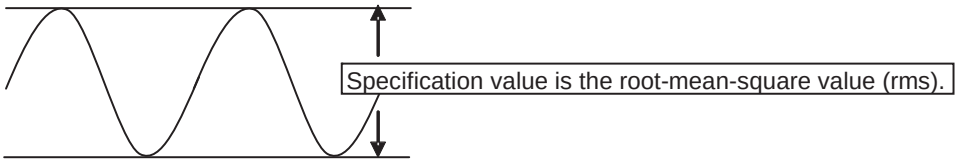


Fig 10.4: Analog audio out (LO, RO) specification value.

Side A

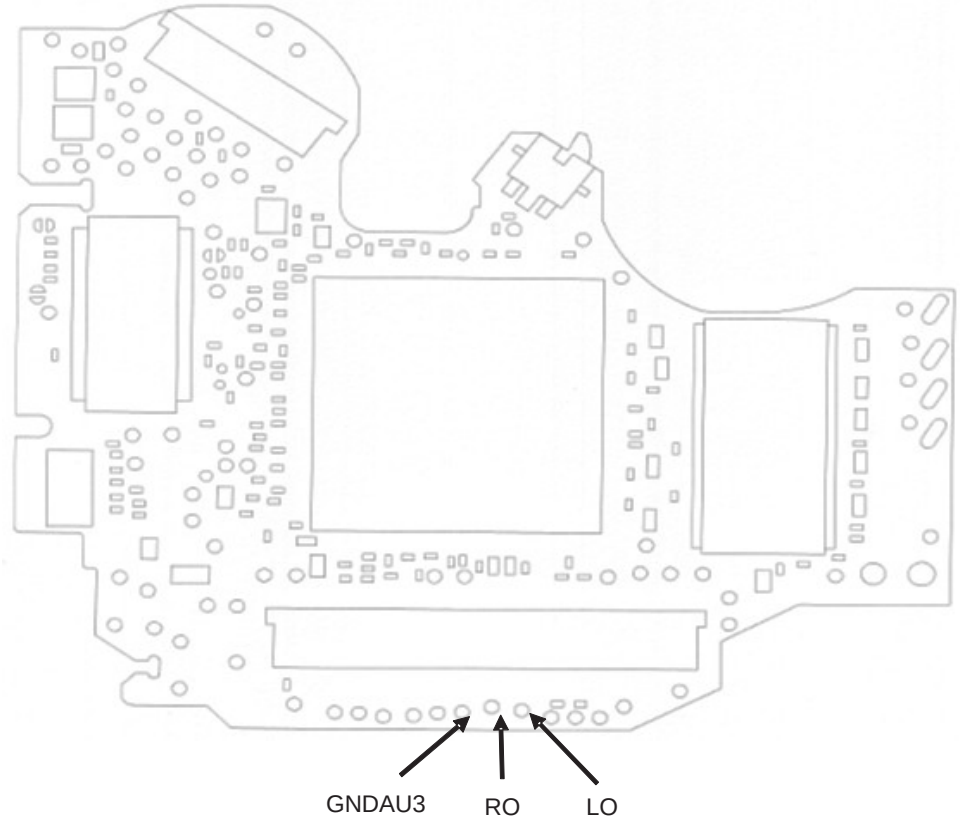
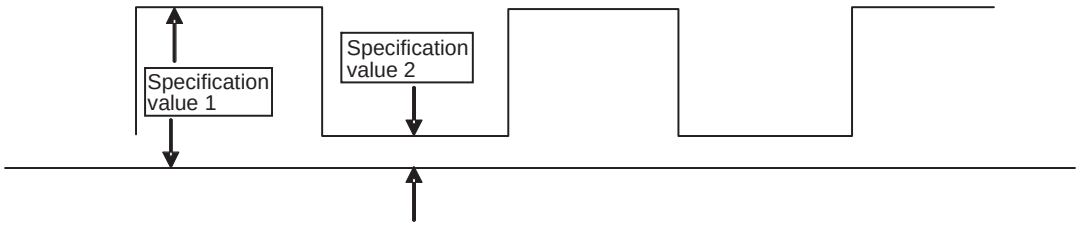


Fig 10.5: Analog audio out check point

Check with DGND1 being the reference.

No.	Check point 1 (stylus)	Specification value 1	Specification value 2	Reference waveform
6	IEC	VCC33V - 0.6 V or higher	0.4 V or lower	Waveform 5



10.6: Digital audio signal (IECOUT) specification value

Side A

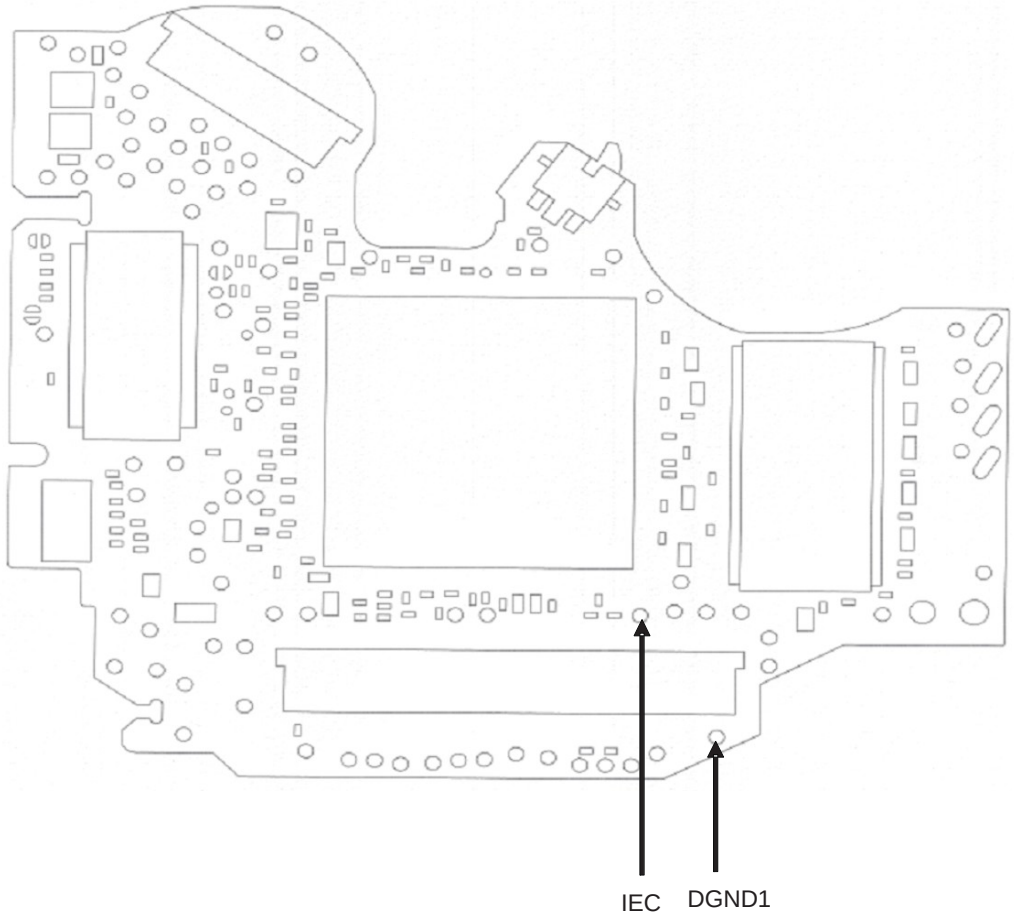


Fig 10.7: Digital audio signal (IECOUT) check point

Check 11: Is the video circuit OK?

<Outline> Composite signal and component signal are output from DVD-LSI (IC1501), and are output from the HOST I/F (CN1952) via a buffer circuit.

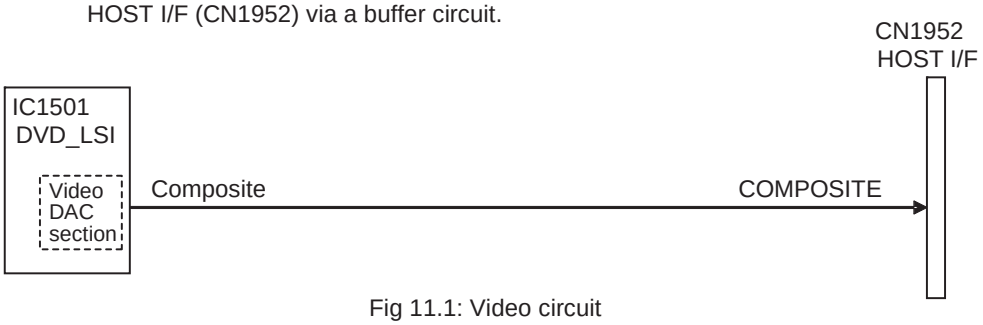


Fig 11.1: Video circuit

<Checking method> Playback DVD-REF-A1 TITLE2 CHAPTER5 (WHITE 100%), and monitor COMPOSITE signal with an oscilloscope with GNDV (stylus) being the reference. Set the trigger mode to “TV trigger” and the trigger line to “150 line”.

No.	Check point 1 (stylus)	Specification value	Reference waveform
1	COMPOSITE	1000 mVpp ± 5%	Waveform 6

In case of NG, check the applicable line, the periphery of the major components in the drawing above, soldering of the peripheral components and defective components.

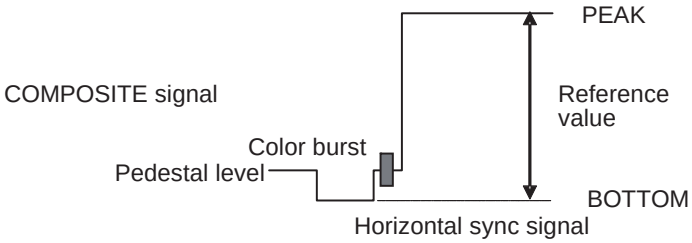


Fig 11.2: Waveform for the case of composite white 100% output

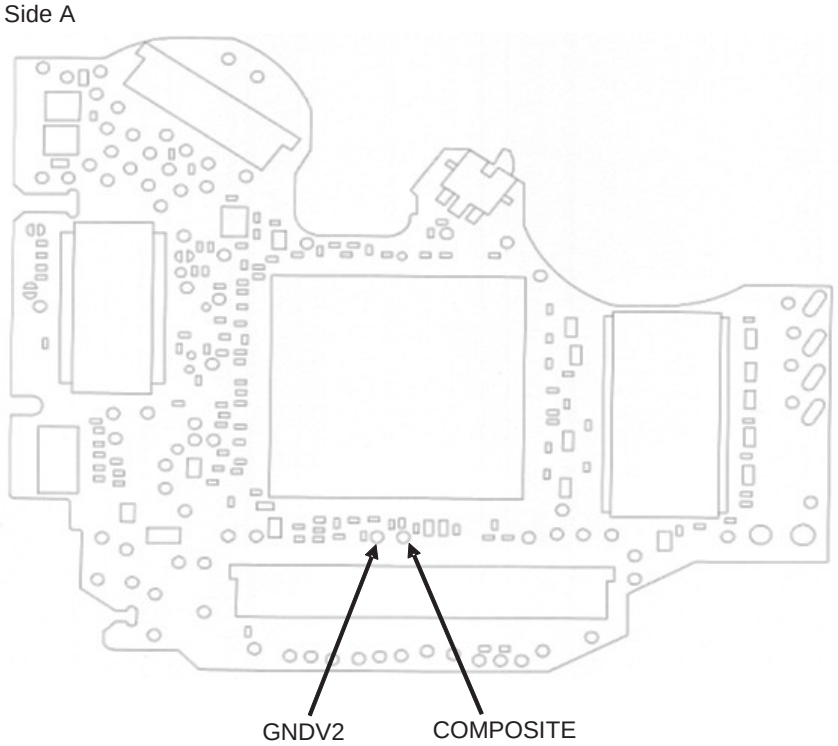


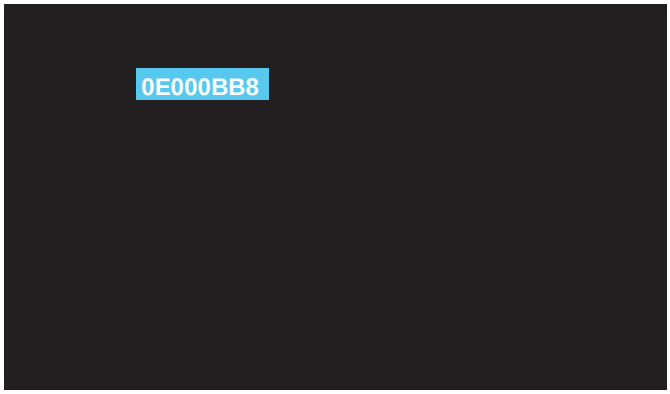
Fig 11.3: VIDEO signal check point

Check 12:How to judge whether the flash memory has reached its life or not.

If the reaction to user operation is slow or operation is slow in general, there is a possibility that the flash memory has reached its life.
Make judgment regarding the flash memory life by looking at the display of the LD power on time mode.

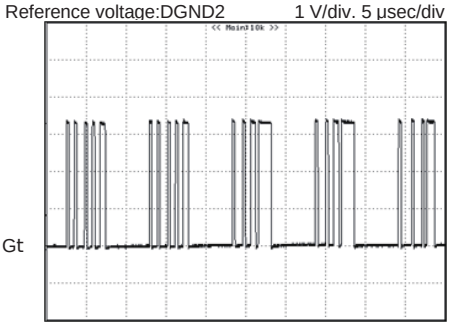
1. Let the LD energizing time displayed.
   (Refer to the LD power on time mode for the method of displaying the LD energizing time.)
2. If the second digit from the left of the energizing time display is showing E,
   such as " E ", it means that the flash memory has reached its life.

Example:



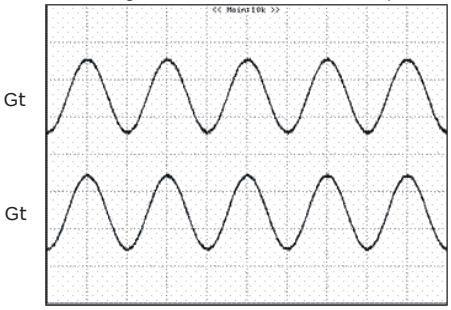
AUDIO

CH1 : ADOUT3
Reference voltage:DGND2 1 V/div. 5 µsec/div



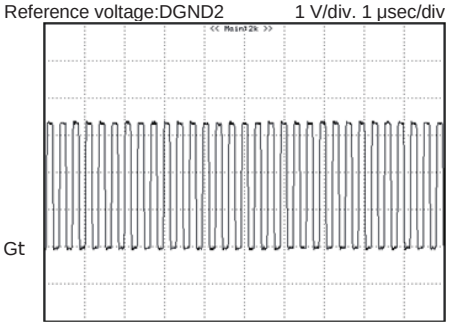
Waveform 1

CH1 : LO
CH2 : RO
Reference voltage:GNDAU2 2 V/div. 500 µsec/div



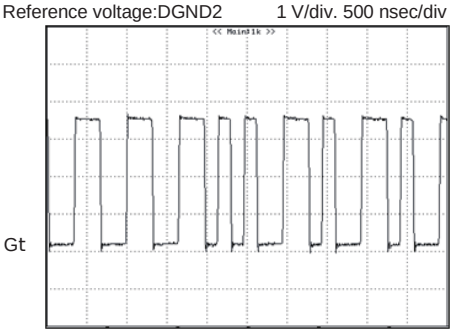
Waveform 4

CH1 : SRCK
Reference voltage:DGND2 1 V/div. 1 µsec/div



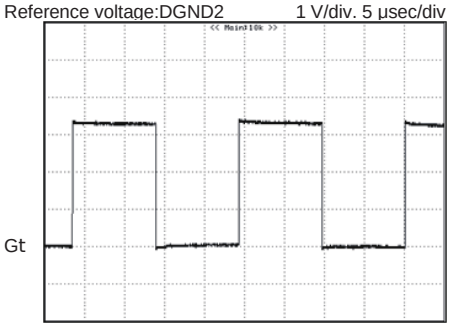
Waveform 2

CH1 : IECOUT
Reference voltage:DGND2 1 V/div. 500 nsec/div



Waveform 5

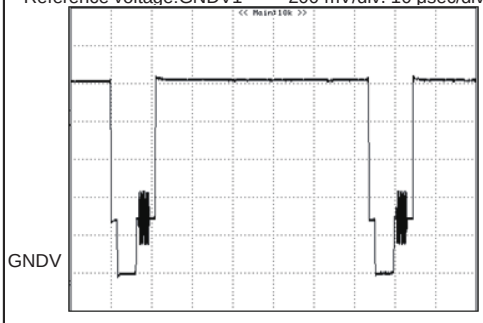
CH1 : LRCK
Reference voltage:DGND2 1 V/div. 5 µsec/div



Waveform 3

VIDEO

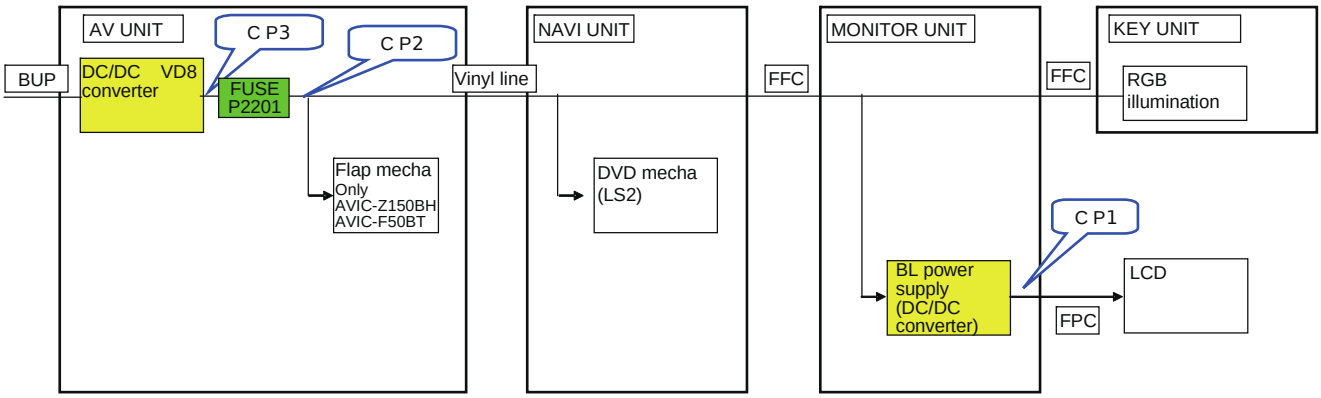
[WHITE 100IRE]
CH1 : COMPO
Reference voltage:GNDV1 200 mV/div. 10 µsec/div



Waveform 6

5.5 DIAGNOSIS OF BACK LIGHT

A Analysis method when the backlight cannot light up



B

First, check the following 3 operations.

1. **Is the illumination lighting?**
2. **Does DVD mecha operate?**
3. **Does flap mecha operate?**

Check result : All check is OK.

Suspected failure;
LCD, DC/DC converter for BL, FPC or connector for BL-LCD

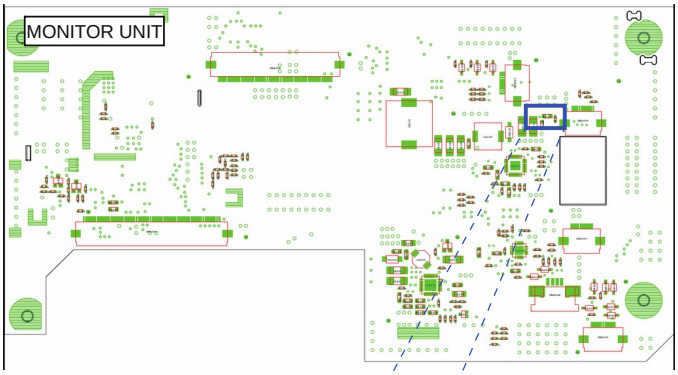
C

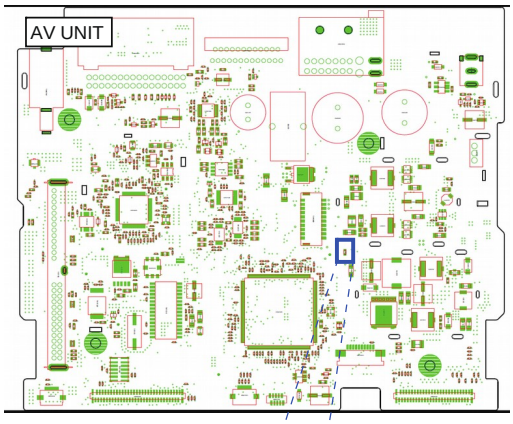
CP 1 Is 19V output?
YES LCD failure. BL-LCD, flexible cable or connector failure
NO BL DC/DC converter failure

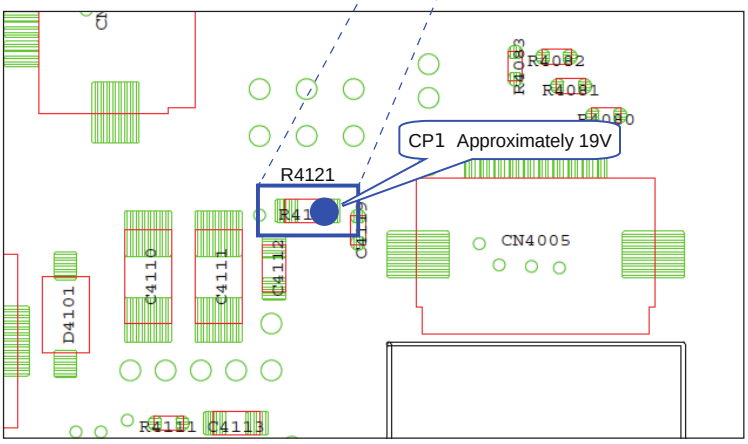
Check result :
Only the illumination lights up.

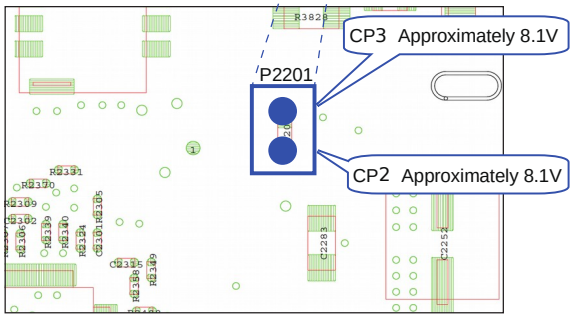
VD8 fuse breaking (P2201)
CP2 (power supply side) Is 8.1V output?
CP3 (backlight side) Is 8.1V output?

D









E

F **Check result :**
All devices do not operate

DC/DC converter failure
CP 3 (backlight side) Is 8.1V output?

5.6 ERROR CODE LIST

Error Code for DVD Mech. Module

Error status	OSD *1	UART *2	Meaning	Method of reset			
				ACC Off/On	Source Off/On	Eject/ With no device	Play Key
Media Error	UNPLAYABLE DISC	00h	A disc containing the unplayable format only	X	X	X	-
Open	(No display)	10h	Door open error	*	*	*	*
Read Error	ERROR-02-99	20h	Transfer start error	X	X	X	X
Focus Error(Focus Error in mechanism set up)	ERROR-02-90	21h	Focus error	X	X	X	X
Surface Error	ERROR-02-9E	22h	Focus error during set up (A focus has never been achieved with that disc.)	-	-	X	-
Address not found (Invalid Track)	ERROR-02-80	23h	Address not found.	X	X	X	X
Spindle Lock	ERROR-02-91	24h	Spindle lock NG(the disc cannot rotate)	X	X	X	X
Carriage HOME	ERROR-02-92	25h	Carriage home NG (The pick up tries to return to carriage home, but it cannot go back and stopped.)	X	X	X	X
ID/SUBCODE Read Error	ERROR-02-94	26h	ID/SUBCODE Read Error (ID/SUBCODE cannot be read due to scratch or stain.)	X	X	X	X
AV CHIP decode Error	ERROR-02-9A	2Ah	AV CHIP decode NG(AV chip cannot be decoded.)	X	X	X	X
AV CHIP Recovery NG	ERROR-02-9B	2Bh	AV CHIP recovery NG	X	X	X	X
Error of PLAY BACK Mode Status	ERROR-02-9C	2Ch	Playback state error (An error due to software bug.)	X	X	X	X
Disc Data Error	ERROR-02-9D	2Dh	Disc Data NG	X	X	X	X
Temp Error(In Case of High Temperature)	THERMAL PROTECTION IN MOTION	30h	High temperature(Playback is stopped because the pick up temperature is 89 C or higher.)	X	-	-	-
No Disc (including Disc loading and ejecting)	(No display)	40h	Disc has not been inserted. (Including Load in process or Eject in process.)	*	*	*	*
Loading_Mecha Error	(No display)	50h	Loading mechanism error (The disc cannot be clamped.)	X	-	X	-
DRM Error	PROTECTED DISC	70h	DRM error (All music cannot be played back due to DRM.)	X	X	X	-
Region code Error	DIFFERENT REGION DISC	90h	Region code NG (Unable to be played back due to incorrect mechanism region.)	X	X	X	-
REQUEST Error	ERROR-02-A0	A0h	REQUEST error	X	X	X	X
Failure in issuing read command (chip dependent)	ERROR-02-A1	A1h	Failure in issuing the read command	X	X	X	X
Adjustment of L0 is NG.	ERROR-02-A2	A2h	L0 adjustment is NG.	X	X	X	X
Adjustment of L1 is NG.	ERROR-02-A3	A3h	L1 adjustment is NG.	X	X	X	X
LD system NG	ERROR-02-A4	A4h	LD system NG	X	X	X	X
Gain adjustment system NG.	ERROR-02-A5	A5h	Gain adjustment system NG.	X	X	X	X
Gain determining system NG.	ERROR-02-A6	A6h	Gain determining system NG.	X	X	X	X
Servo initial setting related items NG	ERROR-02-A7	A7h	Servo initial setting related items NG.	X	X	X	X
Disc is not clamped yet.	ERROR-02-A8	A8h	Disc is not clamped yet.	X	X	X	X
Tracking system NG.	ERROR-02-A9	A9h	Tracking system NG	X	X	X	X
Media setting system NG.	ERROR-02-AA	AAh	Media setting system NG	X	X	X	X
Focus Error	ERROR-02-AB	ABh	JUMP over layers NG	X	X	X	X
Error of PLAY BACK Mode Status	ERROR-02-B0	B0h	Navigation command error	X	X	X	X
Error of PLAY BACK Mode Status	ERROR-02-B1	B1h	Retry over	X	X	X	X
DivX DRM Information Update Error *3	ERROR-02-C1	C1h	DivX DRM information update error	X	-	-	-
Undefined Error	ERROR-FF-FF	FFh	Undefined error	X	X	X	X

X : Cancel the error by operation. - : Error is not cancelled by operation. * : No setting

*1 A content displayed on OSD.

*2 A parameter of UART command, such as “receipt error notice”, that the DVD mechanism transmits.

*3 This occurs when the DRM information update notice is sent from the DVD mecha but no DRM information update response is returned.

List of error messages requiring consultation with dealer or Pioneer Service Center

Type	Message (UC)	Message (AU,EU5)	Remedy
Error message for charging USB power supply OFF	An error occurred and USB charging was disabled. To recover USB charging, try restarting the unit when it is safe and lawful for you to do so. If it does not recover, please contact your service center.	An error occurred; USB charging was disabled. To restart USB charging, restart the unit when it is safe and lawful for you to do so. If charging does not restart, contact an authorised dealer.	Detecting overcurrent of 5V from the charging USB Unplug the USB cable Check the USB supply circuit if the abnormality continues. A message appears when the signal USB_OVC1A is L. Circuit diagram NAVI UNIT
Confirmation message for LED backlight abnormality	Backlight LCD problem detected. Contact your dealer or Pioneer service center.	Backlight LCD problem detected. Contact your dealer or Pioneer service centre.	The backlight supply is short-circuited / open Circuit diagram MONITOR UNIT or The signal line BLERR2 is short-circuited or Defective mount of BLERR2 pull-up resistor R2469 Circuit diagram AV UNIT
Message for disabled positioning	Positioning is not possible due to the hardware. Please contact your dealer or Pioneer service center.	Positioning is not possible due to the hardware. Please contact your dealer or Pioneer service centre.	Abnormality in the GPS circuit or in communication between GPS and CC. Circuit diagram NAVI UNIT
Message for abnormality in GPS antenna	GPS antenna problem detected. Contact dealer or service center.	GPS antenna problem detected. Please contact your dealer or Pioneer service centre.	Detecting the short-circuited GPS antenna line. Pull out the GPS antenna. Check the GPS circuit if the abnormality continues. Circuit diagram NAVI UNIT Short-circuit is detected with the signal line GPS_SHORT L
Confirmation message for abnormality in built-in sensor	Sensor error. Please contact your dealer or Pioneer Service Center.	Sensor error. Please contact your dealer or Pioneer Service Centre.	This error message appears when an abnormality is detected from any of the built-in sensor (GYRO sensor, G sensor, temperature sensor or ADC). Check the sensor circuit or communication between the sensor and CC. Between AV and NAVI: 60 pin flexible connector CN3602 Sensor circuit (circuit diagram AV UNIT)
Confirmation message for abnormality in 3D hybrid sensor	G Sensor error. Contact dealer or service center.	Gyro Sensor is not working properly. Please consult your dealer or Pioneer service centre.	This message appears when an abnormality of the installing direction is detected. It is impossible to identify whether the abnormality results from an improper installing direction or from failure. If installed in a proper direction, check the GYRO sensor circuit. Sensor circuit (circuit diagram AV UNIT)
Message for wrong password	The password is different. When you forget the password Please consult the shop.	The password is different. When you forget the password Please consult the shop.	
Confirmation message for reading error	Failed to load password. Please contact your dealer or Pioneer Service Center.	Failed to load password. Please contact your dealer or Pioneer Service Centre.	Replace SD card.
Message for failure to security unlock	If you are unable to unlock device, please check upper and lower case letters entered. If you've forgotten your password please ask the user registration helpdesk for assistance. Please see the instruction manual for further details.	If you are unable to unlock device, please check uppercase and lowercase for password. If you have forgotten your password, please contact an authorised dealer for assistance. For further details, please refer to the instruction manual.	
Message for failure to read navi data version	Incorrect format. Contact the service center.	Incorrect format. Contact the service centre.	Replace SD card.
Message for cancelled processing	The process was interrupted due to an unknown error. Please note the following Device Numer and contact Pioneer Service Center. Device Number: %s	Process interrupted due to unknown error. Please note following device number and contact Pioneer Service Centre. Device number: %s	

Messages for navigation functions

Message	Cause	Action (Reference)
Route calculation was not possible.	Route calculation has failed because of a malfunction in the map data, software, or hardware.	Change the destination. Consult the Pioneer Local dealer if this message persists.
Route calculation not possible. Destination too far.	The destination is too far.	Set a destination closer to the starting point.
Route calculation not possible. Destination too close.	The destination is too close.	Set a destination farther from the starting point.
Route calculation not possible. Navigation cannot be provided around destination or starting point.	The destination, waypoint(s), or starting point are in an area where no road exists (e.g. a mountain) and the route calculation is impossible.	Set a destination and waypoint(s) on roads. Reset the destination after you drive the vehicle to any road.
Unable to find any road leading to the destination.	The destination or waypoint(s) are in an isolated island, etc. without a ferry and the route calculation is impossible. If there is no road connected to your starting point or destination, this message will appear.	Change the destination.
Failed to create route profile	In rare cases, a route calculation error may occur.	Retry. Consult the Pioneer Local dealer if this message persists.
No image file.	"**Pictures**" folder exists on the SD memory card but there is no loadable data in the folder.	Use appropriate data and store it correctly.
Unsupported file format.	An image file was not made to specifications as the splash screen.	Use appropriate data and store it correctly.
Abnormal status on speaker connection or main unit was detected. If it does not return to normal status after ACC off/on, consult Pioneer authorized dealer or Pioneer service.	This unit fails to operate or the speaker connection is incorrect; the protective circuit is activated.	Check the speaker connection. If the message fails to disappear even after the engine is switched off/on, contact your dealer or an authorized Pioneer Service Station for assistance.

Messages for AV functions

SD/USB/iPod

Message	Cause	Action (Reference)
Tracks that cannot be played back will be skipped	Files that are protected by digital rights management (DRM).	The protected files are skipped.
	This type of file cannot be played by this unit.	Replace it with a playable file.
Cannot play back all tracks	All the files on the inserted external storage device are secured by DRM.	Store playable files.
	None of the files can be played by this unit.	Replace it with a playable file.
USB flash drive was disconnected for device protection. Do not connect this USB flash drive to the unit. To restart USB, restart the unit.	The USB connector or USB cable is short-circuited.	Confirm that the USB connector or USB cable is not caught in something or damaged.
	The connected USB storage device consumes more than the maximum allowable current.	Disconnect the USB storage device and do not use it. Turn the ignition switch to off, then turn ACC back on or turn the ignition switch on and then connect the compliant USB storage device.
	The USB interface cable for iPod is short-circuited.	Confirm that the USB interface cable for iPod or USB cable is not caught in something or damaged.
Authorization failure. iPod is not connected.	The iPod is not compatible with this navigation system.	Use a compatible iPod.
	Communication failure	Disconnect the cable from the iPod. Once the iPod main menu is displayed, reconnect the cable. If the message appears frequently, consult your dealer.

SiriusXM Satellite Radio

Message	Cause	Action (Reference)
Check Antenna	The antenna connection is incorrect.	Check the antenna connection. If the message fails to disappear even after the engine is switched off/on, contact your dealer or the nearest authorized Pioneer service center for assistance.

SiriusXM Satellite Radio

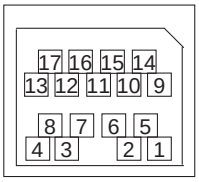
Message	Cause	Action (Reference)
Check Tuner	The SiriusXM Connect Vehicle Tuner connection is incorrect.	Check the tuner connection and battery voltage. If the message fails to disappear even after the engine is switched off/on, contact your dealer or the nearest authorized Pioneer service center for assistance.
No Signal	The SiriusXM Connect Vehicle Tuner is having difficulty receiving the SiriusXM satellite signal.	☞ Verify that your vehicle is outdoors with a clear view of the southern sky. ☞ Verify that the SiriusXM magnetic mount antenna is mounted on a metal surface on the outside the vehicle. ☞ Move the SiriusXM antenna away from any obstructions.
Subscription updated. Press OK to continue.	This product has detected a change in your SiriusXM subscription status.	Touch [**OK**] to clear the message.
Channel not available.	The channel that you have requested is not a valid SiriusXM channel.	Check the SiriusXM channel lineup.
Channel not subscribed. Contact SiriusXM to subscribe.	The channel that you have requested is not included in your SiriusXM subscription package.	Check the content of your SiriusXM subscription package.
Channel locked.	Locked by the radio Parental Control feature.	Release the channel lock.

Messages for Bluetooth functions

Message	Cause	Action (Reference)
Currently unable to register.	The Bluetooth device that you want to register is under communication such as transferring phone book.	After finishing the communication, register the Bluetooth device again.
Unable to connect the device. Try again later.	This navigation system is trying to connect to the Bluetooth device while performing the following operations with another device. ☞ Registering the Bluetooth device ☞ Setting to connect the Bluetooth device ☞ Transferring the phone book	After the operation of another device is complete, reconnect the Bluetooth device.
Unable to register the Bluetooth device.	An error has occurred.	Set the "**Bluetooth On/Off**" to "**Off**", and then set to "**On**". Subsequently, operate to register again.
Could not find any available phone.	No available phone is in the surrounding area when the system searches for connectable cellular phones featuring Bluetooth wireless technology.	☞ Activate the target phone's Bluetooth wireless technology. ☞ Check whether your cellular phone is activated and, whether the distance to your cellular phone is too far.
Unable to search for available devices.	This navigation system is trying to search for available device while performing following operations. ☞ Registering the Bluetooth device ☞ Setting to connect the Bluetooth device ☞ Transferring the phone book ☞ Deleting the registered Bluetooth device	After finishing the operation, search for available devices again.
Device search failed.	An error has occurred.	Set the "**Bluetooth On/Off**" to "**Off**", and then set to "**On**". Subsequently, search for available devices again.
Unable to change the device name.	An error has occurred.	Set the "**Bluetooth On/Off**" to "**Off**", and then set to "**On**". Subsequently, operate to change the device name again.
Currently unable to delete.	This navigation system is trying to delete the registered Bluetooth device while performing the following operations. ☞ Using the hands-free phoning ☞ Registering Bluetooth device ☞ Setting to connect the Bluetooth device ☞ Transferring the phone book	After finishing the operation, delete the Bluetooth device again.
Delete failed	An error has occurred.	Set the "**Bluetooth On/Off**" to "**Off**", and then set to "**On**". Subsequently, operate to delete the Bluetooth device again.

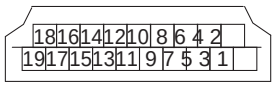
5.7 CONNECTOR FUNCTION DESCRIPTION

D iPod direct



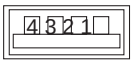
1 : USB-	11 : V-RETURN
2 : USB+	12 : V-RETURN
3 : NC	13 : Pb/CVBS
4 : USB 5V	14 : Y
5 : USB GND	15 : Pr
6 : A-RETURN	16 : R OUT
7 : L OUT	17 : NC
8 : V-RETURN	
9 : NC	
10 : NC	

E HDMI



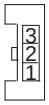
1 : DATA2+	11 : CLOCK GND
2 : DATA2 GND	12 : CLOCK-
3 : DATA2-	13 : CEC
4 : DATA1+	14 : NC
5 : DATA1 GND	15 : SCL
6 : DATA1-	16 : SDA
7 : DATA0+	17 : CEC GND
8 : DATA0 GND	18 : +5V
9 : DATA0-	19 : HOT PLUG
10 : CLOCK+	

F USB

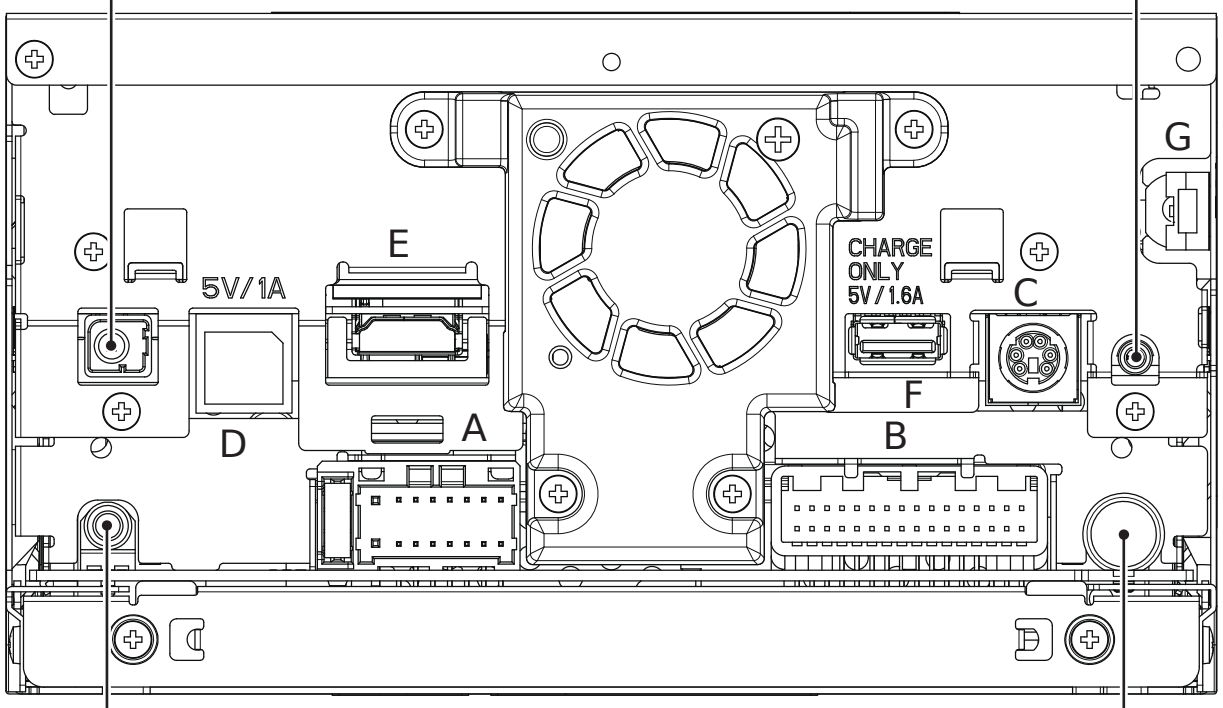


1 : USB5V
2 : USB D-
3 : USB D+
4 : GND

G CAN-BUS adaptor (AVIC-F50BT/XNEU5)



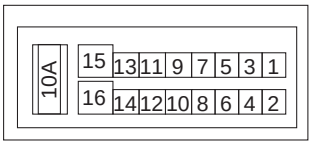
1 : NTOCAN
2 : CANTON
3 : GND



WIRED REMOTE CONTROL

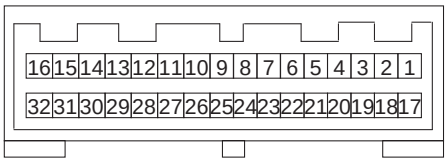
FM/AM ANTENNA

A Power connector



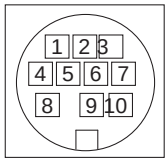
1 : FL+	9 : PKB
2 : FR+	10 : SPEED
3 : FL-	11 : ILM
4 : FR-	12 : BREM
5 : RL+	13 : ACC
6 : RR+	14 : REV
7 : RL-	15 : BUP
8 : RR-	16 : GND

B AV I/O



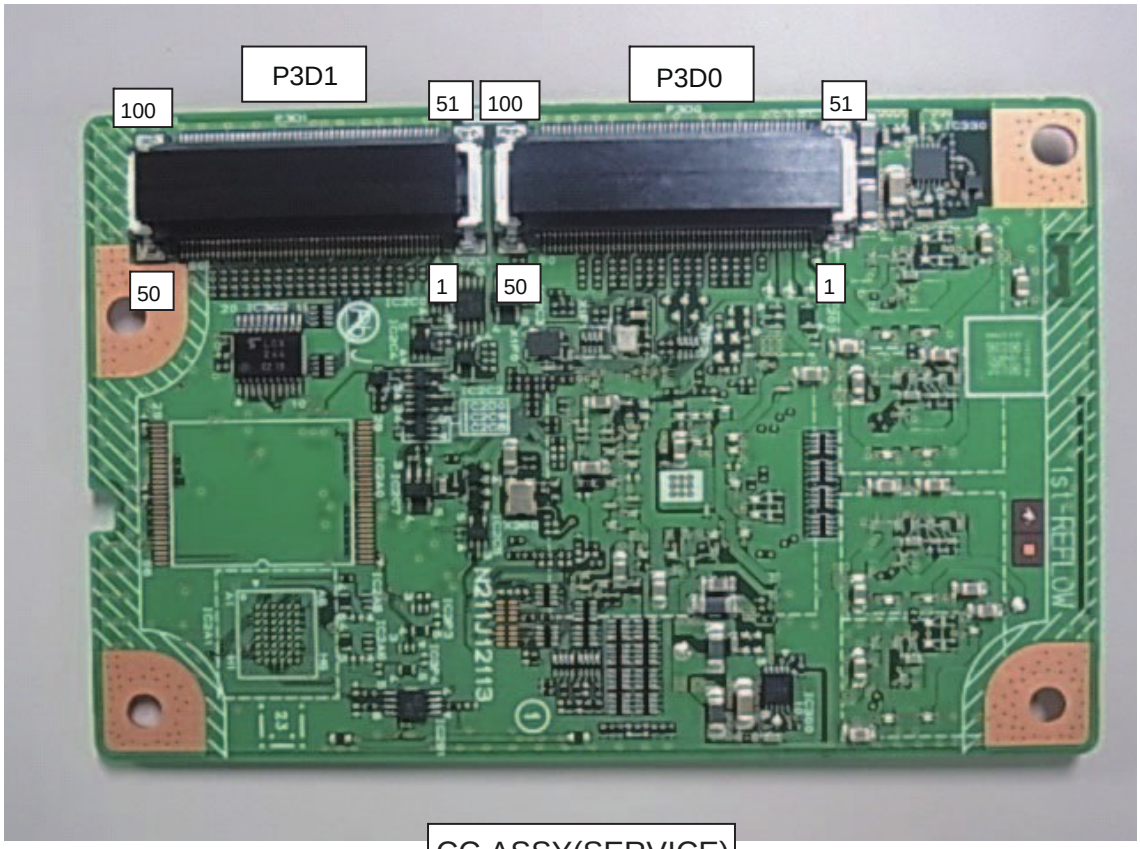
1 : TEL MUTE	12 : RL OUT	23 : P FL
2 : K MODE	13 : BCV	24 : AV2 R G
3 : P RR	14 : AV1 G	25 : AV2 L G
4 : P RL	15 : RV OUT	26 : AV2 V G
5 : SW L	16 : AV1 V	27 : RR OUT G
6 : SW R	17 : EXTOC	28 : RL OUT G
7 : P FR	18 : CTOEX	29 : BC V G
8 : AV2 R	19 : HYOKA	30 : AV1 L
9 : AV2 L	20 : HR GND	31 : RV OUT G
10 : AV2 V	21 : SW G	32 : AV1 R
11 : RR OUT	22 : HF GND	

C Sirius-XM (AVIC-Z150BH/XNUC)



1 : AUDIO_L	6 : TUNER_RX
2 : TUNER_TX	7 : RESERVED
3 : RESERVED	8 : GND_D
4 : AUDIO_R	9 : POWER
5 : GND_A	10 : PWREN

5.8 CONNECTOR FUNCTION DESCRIPTION OF CC ASSY(SERVICE)



CC ASSY(SERVICE)

P3D0					
Pin number	Name of pin	Description	Pin number	Name of pin	Description
1	CCD3	NJ3 core power supply	51	+3.3V_2	Not used
2	CCD3	NJ3 core power supply	52	GND	-
3	CCD3	NJ3 core power supply	53	GND	-
4	DDR3	DRAM power supply circuit	54	GND	-
5	DDR3	DRAM power supply circuit	55	GND	-
6	DDR3	DRAM power supply circuit	56	GND	-
7	SRVDD	DRAM backup power supply	57	GND	-
8	GND	-	58	CCPW	CC power supply control input
9	NC	-	59	BAT_OFF	BUP status notification input
10	GND	-	60	NAVI_ON	CC startup/shutdown input
11	GUIDE_BCK	Guide voice	61	ASIC_INT	ASIC interrupt
12	GUIDE_LRCK	Guide voice	62	ECHCLK	Echo canceller clock
13	GUIDE_DATA	Guide voice	63	GND	-
14	NC	-	64	EXTOC	Debugging (UART)
15	NC	-	65	CTOEX	Debugging (UART)
16	HYOKA	Debug port	66	ECHTOC	Echo canceller (UART)
17	ECHDEN	Echo canceller	67	CTOECH	Echo canceller (UART)
18	FUKKA2	Debug port	68	GND	-
19	GND	-	69	DCLK_N	DOTCLK output
20	NJ3_DR2	D-RGB	70	GND	-
21	NJ3_DR3	D-RGB	71	HSYNC	HSYNC output
22	NJ3_DR4	D-RGB	72	VSYNC	VSYNC output
23	NJ3_DR5	D-RGB	73	NC	-
24	NJ3_DR6	D-RGB	74	OVER_N	CDE output
25	NJ3_DR7	D-RGB	75	GND	-
26	GND	-	76	NJ3_DB2	D-RGB
27	NJ3_DG2	D-RGB	77	NJ3_DB3	D-RGB
28	NJ3_DG3	D-RGB	78	NJ3_DB4	D-RGB
29	NJ3_DG4	D-RGB	79	NJ3_DB5	D-RGB
30	NJ3_DG5	D-RGB	80	NJ3_DB6	D-RGB
31	NJ3_DG6	D-RGB	81	NJ3_DB7	D-RGB
32	NJ3_DG7	D-RGB	82	GND	-
33	GND	-	83	NC	-
34	ETCTOC	ETC(UART)	84	SDSELF	DRAM backup
35	CTOETC	ETC(UART)	85	PTOC	System microcontroller (UART)
36	BTOC	BEACON(UART)	86	CTOP	System microcontroller (UART)
37	CTOB	BEACON(UART)	87	GND	-
38	GND	-	88	NC	-
39	BTSCL	BT(I2C)	89	NC	-
40	BTSDA	BT(I2C)	90	GND	-
41	GND	-	91	NC	-
42	NC	-	92	NC	-
43	NC	-	93	NAVI_OFF_RDY	NAVI OFF process notification output
44	GND	-	94	GND	-
45	USBPEN	USB	95	NJ3_DP0	USB+
46	NJ3_USB_OVC0	Not used (CCD5 pull-up)	96	NJ3_DM0	USB-
47	NJ3_OVC1_VBUS1	Not used (CCD5 pull-up)	97	GND	-
48	ASIC_RST	CC reset output (to ASIC)	98	NJ3_DP1	USB+
49	NAVI_RST	CC reset input	99	NJ3_DM1	USB-
50	GND	-	100	GND	-

P3D1					
Pin number	Name of pin	Description	Pin number	Name of pin	Description
1	GND	-	51	GND	-
2	PLL_8.4672	AudioCLK(8.4672MHz)	52	AUDIO_CLKOUT	CC unit Audio
3	GND	-	53	GND	-
4	NC	-	54	BTTOC	BT(UART)
5	GND	-	55	CTOBT	BT(UART)
6	NC	-	56	BTRTS	BT
7	NC	-	57	BTCTS	BT
8	NC	Not used (GND)	58	GND	-
9	NC	-	59	BEEPBCK	BEEP voice (I2S)
10	GND	-	60	BEEPLRCK	BEEP voice (I2S)
11	SPD_N	Vehicle speed signal input	61	BEEPDATA	BEEP voice (I2S)
12	GND	-	62	GND	-
13	NJ3_EX_A1	Address (ASIC, HDD)	63	AUDIO_BCK	CC unit AUDIO
14	NJ3_EX_A2	Address (ASIC, HDD)	64	AUDIO_LRCK	CC unit AUDIO
15	NJ3_EX_A3	Address (ASIC, HDD)	65	AUDIO_DATA	CC unit AUDIO
16	NJ3_EX_A4	Address (ASIC)	66	GND	-
17	NJ3_EX_A5	Address (ASIC)	67	NC	Not used (GND)
18	NJ3_EX_A6	Address (ASIC)	68	NC	Not used (GND)
19	NJ3_EX_A7	Address (ASIC)	69	NC	Not used (GND)
20	NJ3_EX_A8	Address (ASIC)	70	NC	Not used (GND)
21	GND	-	71	GND	-
22	AD_CLK	Sensor	72	ASIC_CLK	ASIC clock
23	AD_NCS	Sensor	73	GND	-
24	AD_DI	Sensor	74	NJ3_EX_D15	Data (ASIC, HDD)
25	AD_DO	Sensor	75	NJ3_EX_D14	Data (ASIC, HDD)
26	GND	-	76	NJ3_EX_D13	Data (ASIC, HDD)
27	SD1_CLK	SD1 clock	77	NJ3_EX_D12	Data (ASIC, HDD)
28	GND	-	78	NJ3_EX_D11	Data (ASIC, HDD)
29	SD1_DATA0	SD1 data	79	NJ3_EX_D10	Data (ASIC, HDD)
30	SD1_DATA1	SD1 data	80	NJ3_EX_D9	Data (ASIC, HDD)
31	SD1_DATA2	SD1 data	81	NJ3_EX_D8	Data (ASIC, HDD)
32	SD1_DATA3	SD1 data	82	GND	-
33	SD1_CMD	SD1 command	83	NJ3_EX_D7	Data (ASIC, HDD)
34	SD1_WP	SD1 write protect	84	NJ3_EX_D6	Data (ASIC, HDD)
35	SD1_CD	SD1 card detect	85	NJ3_EX_D5	Data (ASIC, HDD)
36	GND	-	86	NJ3_EX_D4	Data (ASIC, HDD)
37			87	NJ3_EX_D3	Data (ASIC, HDD)
38	GND	-	88	NJ3_EX_D2	Data (ASIC, HDD)
39	SD0_DATA2	SD0 data	89	NJ3_EX_D1	Data (ASIC, HDD)
40	SD0_DATA3	SD0 data	90	NJ3_EX_D0	Data (ASIC, HDD)
41	SD0_CMD	SD0 command	91	GND	-
42	SD0_DATA0	SD0 data	92	ASIC_CS0	ASIC_CS0
43	SD0_DATA1	SD0 data	93	NC	-
44	SD0_CD	SD0 card detect	94	NC	-
45	SD0_WP	SD0 write protect	95	NJ3_RD_D	Read strobe
46	GND	-	96	NJ3_RD_WR_D	Write strobe
47	GPSIN	GPS input	97	NJ3_WE0_D	Write enable 0
48	GND	-	98	NC	-
49	GPSCLK	GPS clock	99	NC	-
50	GND	-	100	GND	-

6. SERVICE MODE
6.1 TEST MODE

●Method for starting up the Test Mode for service

[Method for starting up by SD card.]

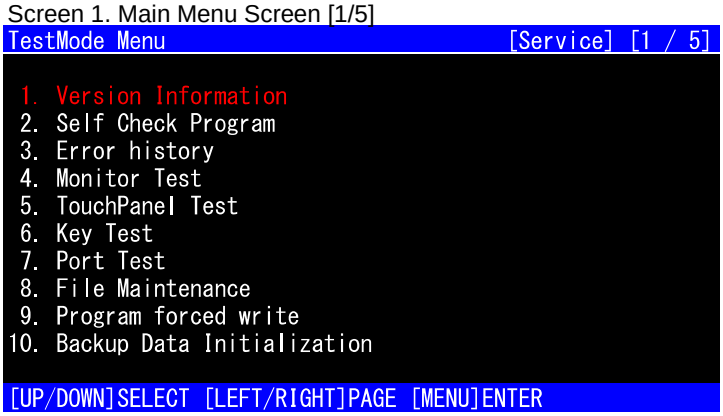
Download GGS1137 from the Service site.
Decompress the file.
Copy the decompressed file to the SD card root.
Insert the SD card to the product.

●Allocation of Main Menu Key Operation

VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
TRACK+ : Changing of page (next page)
TRACK- : Changing of page (previous page)
MENU : Selected item is executed

●Main Menu Screen Specifications

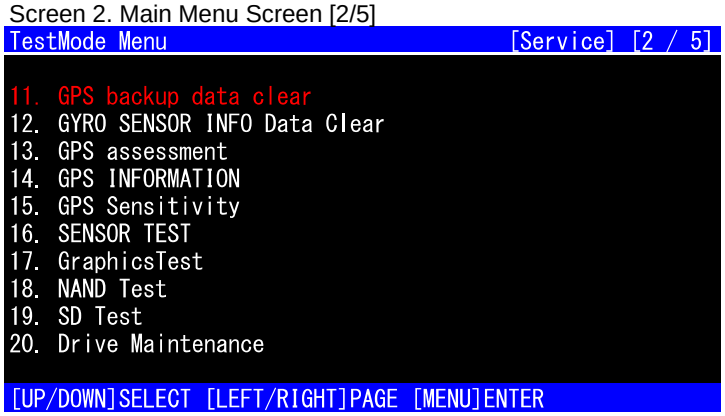
Screen 1. Main Menu Screen [1/5]



PAGE1

1. Version Information
2. Self Check Program
3. Error history
4. Monitor Test
5. TouchPanel Test
6. Key Test
7. Port Test
8. File Maintenance
9. Program forced write
10. Backup Data Initialization

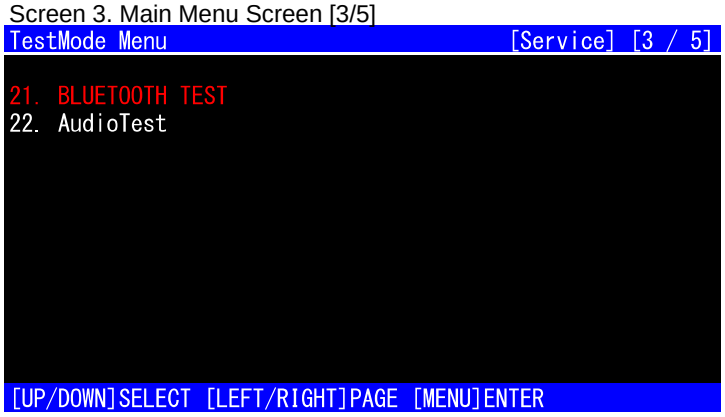
Screen 2. Main Menu Screen [2/5]



PAGE2

11. GPS backup data clear
12. GYRO SENSOR INFO Data Clear
13. GPS assessment
14. GPS INFORMATION
15. GPS Sensitivity
16. SENSOR TEST
17. GraphicsTest
18. NAND Test
19. SD Test
20. Drive Maintenance

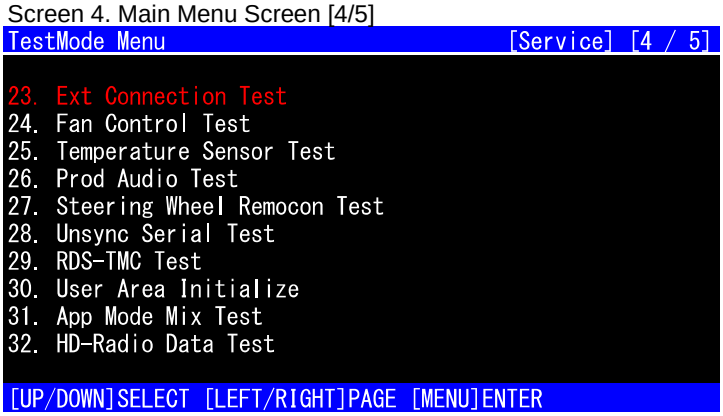
Screen 3. Main Menu Screen [3/5]



PAGE3

21. BLUETOOTH TEST
22. AudioTest

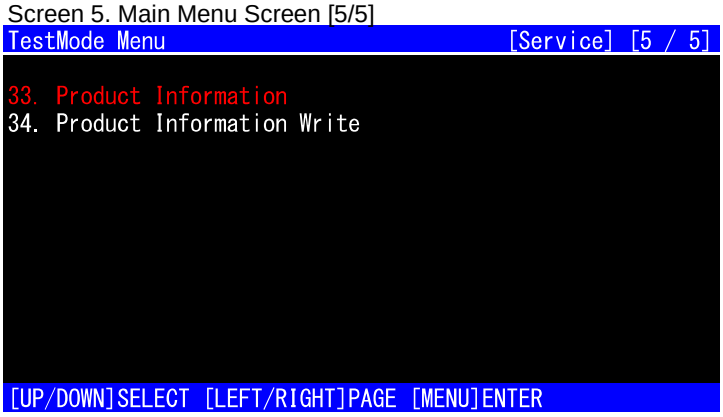
Screen 4. Main Menu Screen [4/5]



PAGE4

23. Ext Connection Test
24. Fan Control Test
25. Temperature Sensor Test
26. Prod Audio Test
27. Steering Wheel Remocon Test
28. Unsync Serial Test
29. RDS-TMC Test
30. User Area Initialize
31. App Mode Mix Test
32. HD-Radio Data Test

Screen 5. Main Menu Screen [5/5]



PAGE5

33. Product Information
34. Product Information Write

1. Version Information

●Outline of Inspection

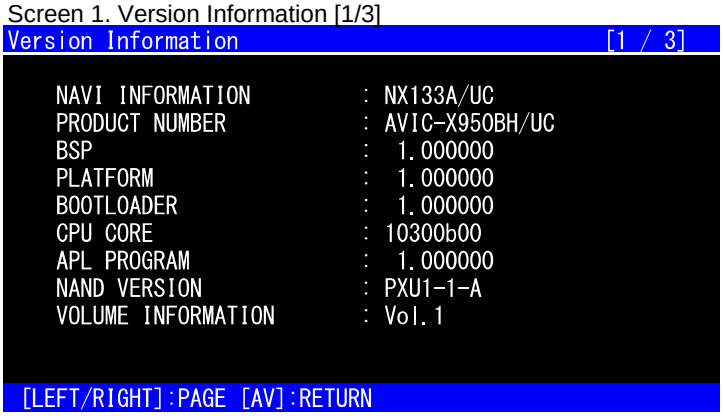
This is an item for acquiring the Program Version of the product, the model, destination information of the product, and the version of hardware / MCU to display them on the screen.

●Allocation of Key Operation

TRACK+ : Changing of page (next page)
TRACK- : Changing of page (previous page)
Audio/AV : Return to Main Menu

●Screen

Screen 1. Version Information [1/3]

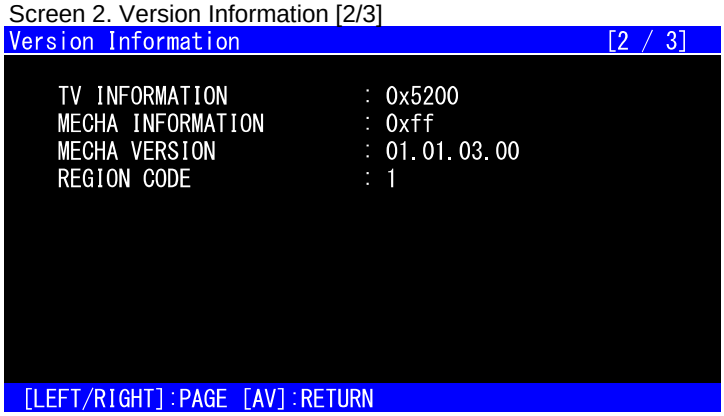


Version when MP is manufactured

	AVIC-F50BT/XNEU5	AVIC-Z150BH/XNUC	AVIC-F50BT/XNAU
NAVI INFORMATION	NX132/EU5	NX132/UC	NX132/AU
PRODUCT NUMBER	AVIC-F50BT/EU5	AVIC-Z150BH/UC	AVIC-F50BT/AU
BSP	1.000000	1.000000	1.000000
PLATFORM1	1.000000	1.000000	1.000000
BOOTLOADER	1.000000	1.000000	1.000000
CPU CORE	10300b00	10300b00	10300b00
APL PROGRAM	1.000000	1.000000	1.000000
NAND VERSION	PXE1-1-A	PXU1-1-A	PXA1-1-A
VOLUME INFORMATION	1	1	1

NO_SET : Information is not set.
ERROR! : The acquisition of the version results in failure (abnormal).

Screen 2. Version Information [2/3]



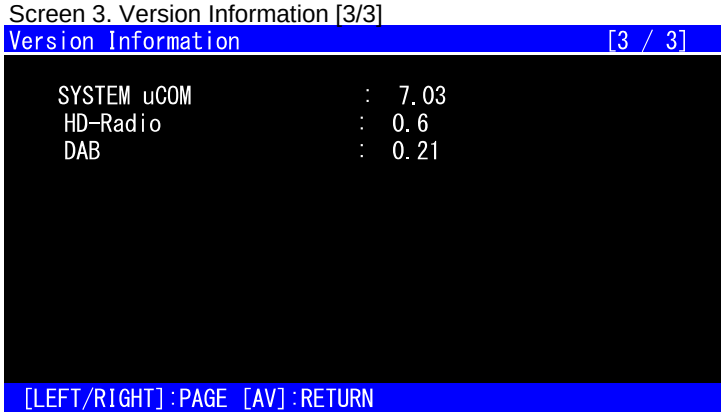
Version when TP is manufactured

* MECHA INFORMATION refers to the MECHA model discrimination information.
It intends to the MECHA hardware version.

	AVIC-F50BT/XNEU5	AVIC-Z150BH/XNUC	AVIC-F50BT/XNAU
TV INFORMATION	0x5000	0x4F00	0x5100
MECHA INFORMATION	0xff	0xff	0xff
MECHA VERSION	01.01.03.00	01.01.03.00	01.01.03.00
REGION CODE	2	1	4

NO_SET : Information is not set.
ERROR! : The acquisition of the version results in failure (abnormal).

Screen 3. Version Information [3/3]



Version when TP is manufactured

SYSTEM uCOM	7.03
HD-Radio	0.6
DAB	0.21

NO_SET : Information is not set.
ERROR! : The acquisition of the version results in failure (abnormal).

2. Self Check Program

● Outline of Inspection

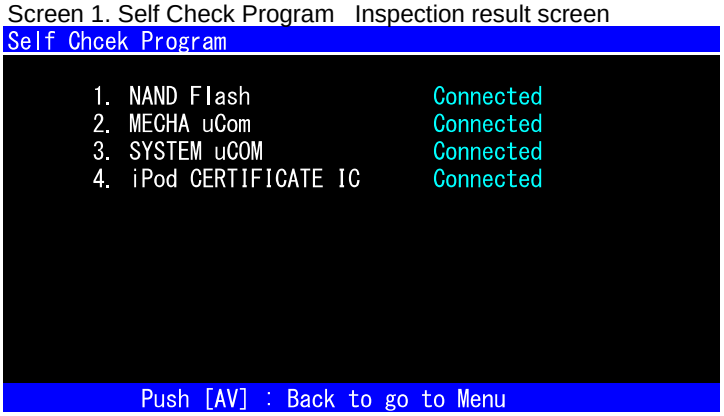
It is an item for quickly inspecting the connection status of a device in the product.
It is used for simply evaluating whether the device is broken when the inspection for the target device results in failure.

● Allocation of Key Operation

Audio/AV: return to Main Menu

● Screen

Screen 1. Self Check Program Inspection result screen



Connected : normal
!!ERROR!! : abnormal

3. Error history

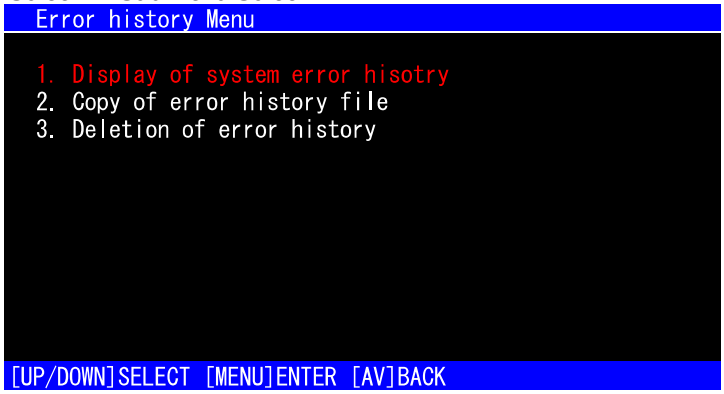
● Outline of Inspection
- The warning information of software is displayed.
- The error history file is copied to the external media.
- The error history in the main media is deleted.

● Item to be prepared
USB/SD card is connected (when the error history file is copied)

● Allocation of Sub Menu Key Operation
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
Menu : Selected item is executed
Audio/AV : Return to Main Menu

● Sub Menu Screen

Screen 1. Sub Menu Screen



● Details on Each Inspection Item

1. Display of system error history
The warning information of software saved in RAM is displayed.

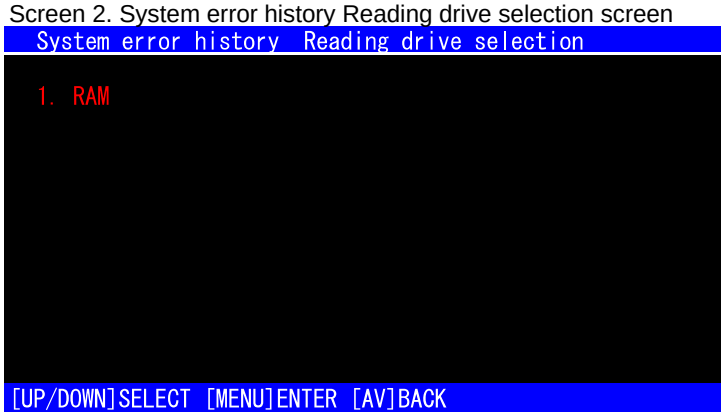
2. Copy of error history file
The error history stored in RAM, main media, and Flash is stored in the external media.

3. Deletion of error history
The error history stored in the main media is deleted.

● Allocation of Key Operation
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
TRACK+ : Moves Error History upward
TRACK- : Moves Error History downward
Menu : Enter / Yes
Audio/AV : Back / No

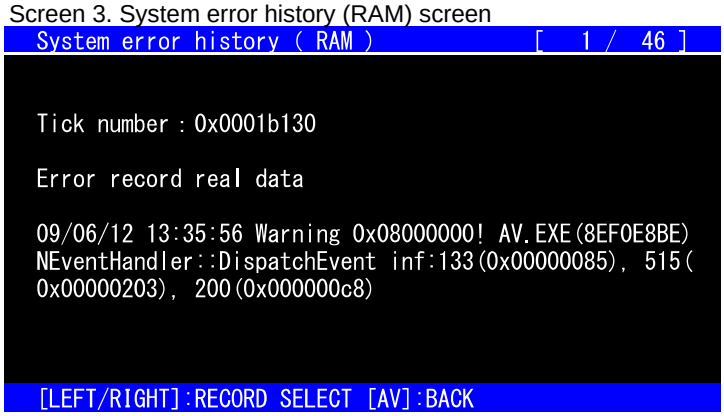
● Screen

Screen 2. System error history Reading drive selection screen



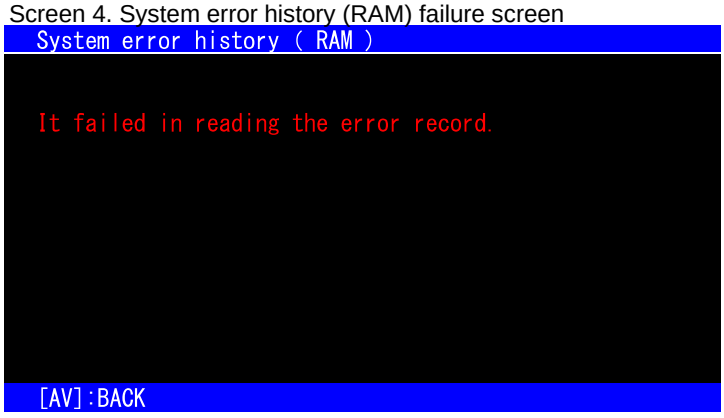
Select the location for storing the error history to be displayed.
RAM: The error history stored in RAM area is displayed

Screen 3. System error history (RAM) screen



- The error history on RAM is displayed.
  Number of tics: Value of counter that has started the count when OS was started up
  (1 count is equivalent to 10msec)

Screen 4. System error history (RAM) failure screen

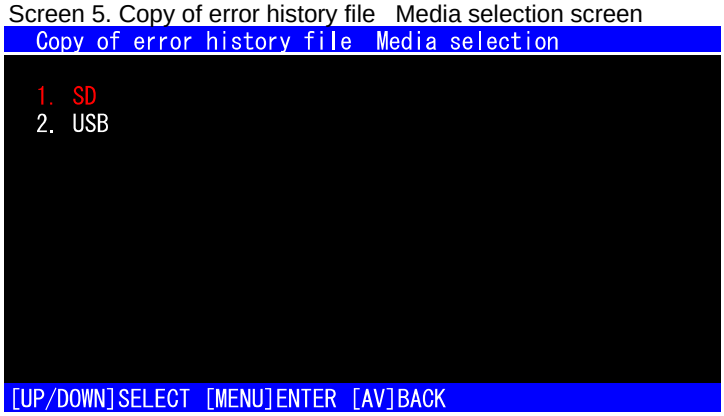


When the display of the error history results in failure, an error message is displayed.

Table 1. "System error history" error message

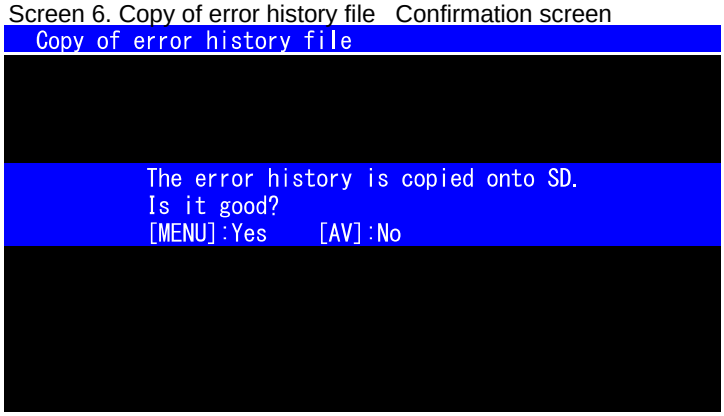
Error message	Description
It failed in the opening of the file.	Opening of the error history file results in failure
There is no error record in the file.	No error history
It failed in reading the error record.	Reading of the error history results in failure

Screen 5. Copy of error history file Media selection screen



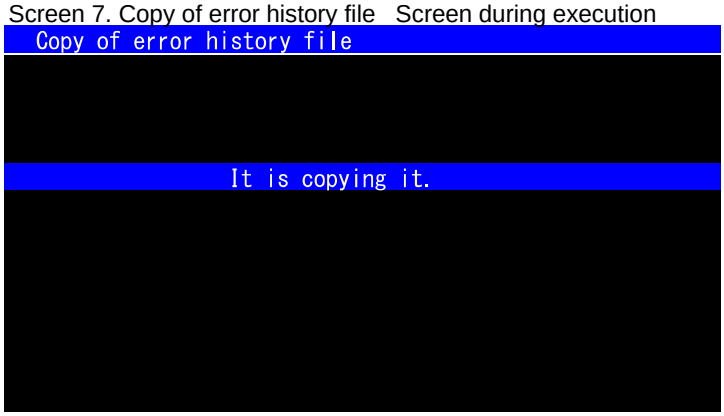
Select the media in which the error history is copied.
SD: SD card
USB: USB memory (USB-compliant model only)

Screen 6. Copy of error history file Confirmation screen



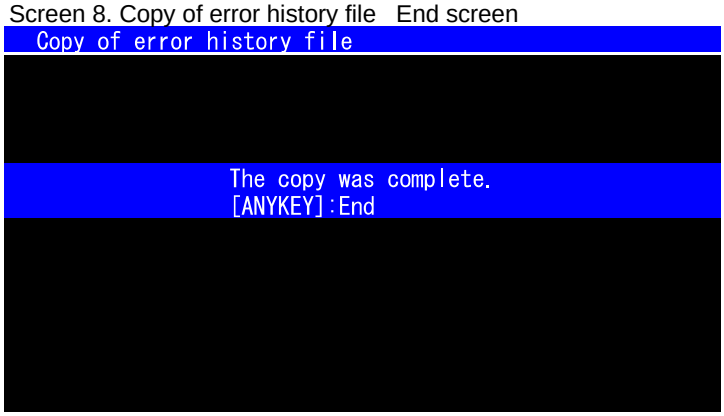
Check whether the copy of the error history is started.

Screen 7. Copy of error history file Screen during execution



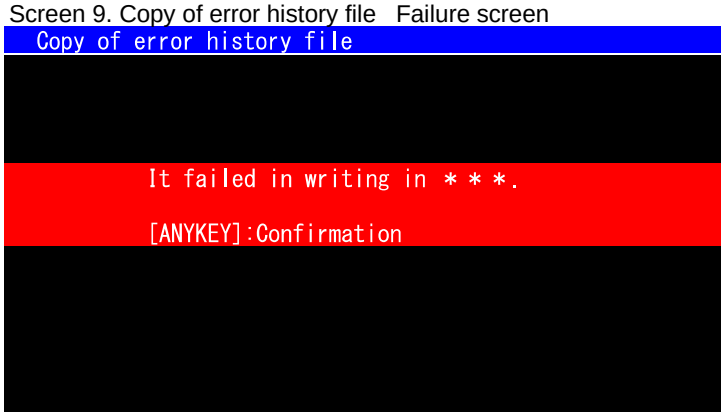
This screen is displayed while the error history is copied.
While the screen is displayed, the key operation is disabled.

Screen 8. Copy of error history file　End screen



This screen is displayed when the copy of the error history to be copied is completely terminated.
If an arbitrary key is pressed, the screen returns to "media selection screen".

Screen 9. Copy of error history file　Failure screen



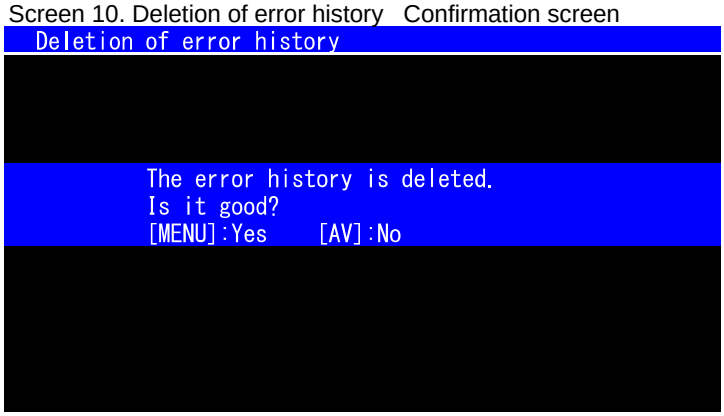
When the copy of the error history results in failure, an error message is displayed.
If an arbitrary key is pressed, the copy of following error history is started.

Table 2. "Copy of error history file" error message

Error message	Description
It failed in the opening of ＊＊＊.	Opening of an original file to be copied results in failure
It failed in reading from ＊＊＊.	Reading of an original file to be copied results in failure
It failed in the opening of ＊＊＊.	Opening of a newly copied file results in failure
It failed in writing in ＊＊＊.	Writing of a newly copied file results in failure
It failed in making ??? Folder.	Creation of a newly copied folder results in failure
Please confirm media and the connection.	
It failed in making ??? Folder.	When a media is not inserted
Please confirm media and the connection.	
It failed in making ??? Folder.	When USB is selected for the model that does not support USB
Please confirm media and the connection.	

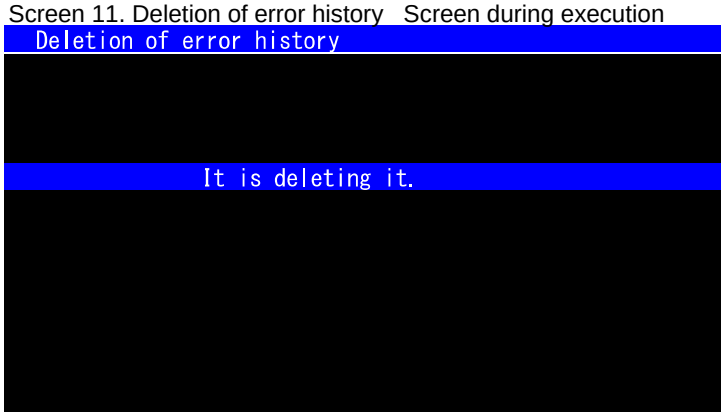
* "＊＊＊" is "file name" and "???" is "folder name"

Screen 10. Deletion of error history Confirmation screen



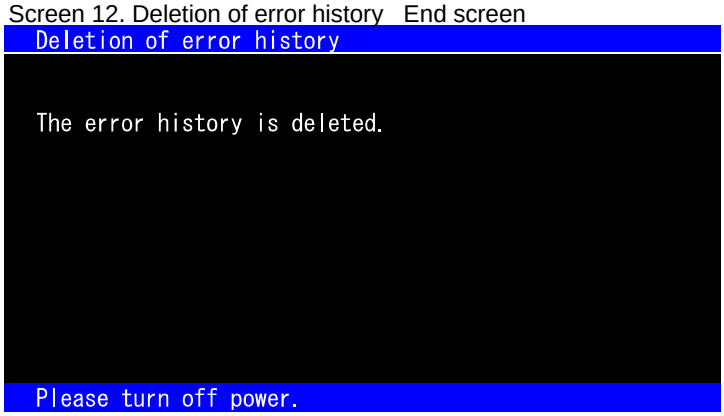
Check whether the error history is deleted.

Screen 11. Deletion of error history Screen during execution



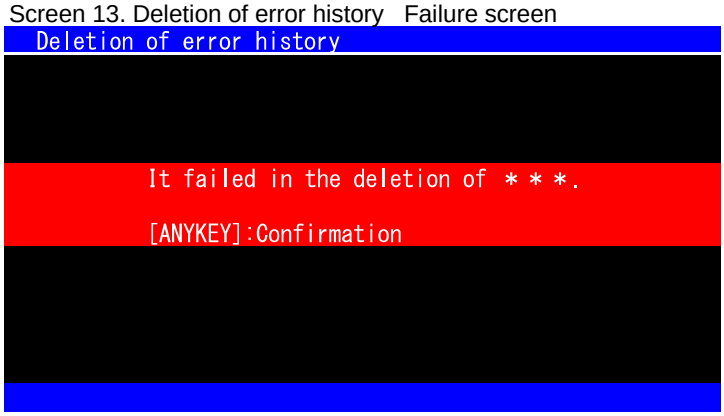
This screen is displayed while the error history is deleted.
While the screen is displayed, the key operation is disabled.

Screen 12. Deletion of error history End screen



This screen is displayed when the delete of the error history is completely terminated.
The key operation is disabled.
Be sure to turn OFF the power supply.

Screen 13. Deletion of error history　Failure screen



When the delete of the error history results in failure, an error message is displayed.
If an arbitrary key is pressed, the delete of the error history is started.

Table 3. "Deletion of error history" error message

Error message	Description
It failed in the deletion of ＊＊＊.	Delete of history results in failure

＊"＊＊＊" is "file name" or "folder name"

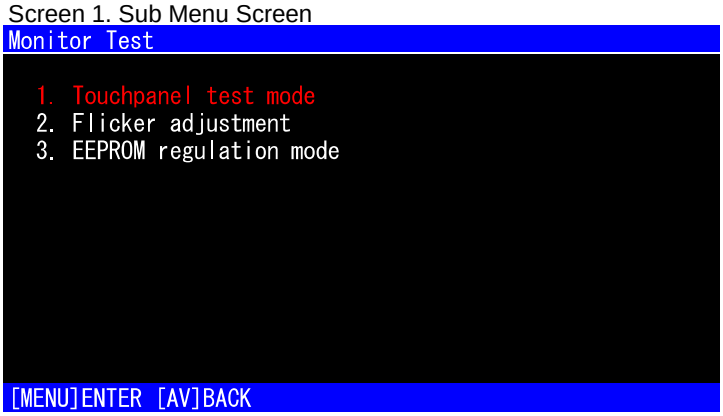
4. Monitor Test

● Outline of Inspection
Conducts adjustments for touch panel, flicker and EEPROM value.

● Allocation of Sub Menu Key Operation
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
Menu : Selected item is executed
Audio/AV : Return to Main Menu

● Sub Menu Screen

Screen 1. Sub Menu Screen



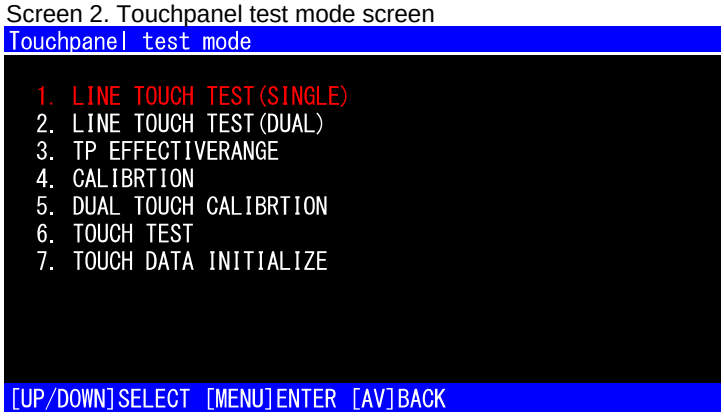
● Details on Each Inspection Item
1. Touchpanel test mode
The touch panel is adjusted.
2. Flicker adjustment
Conducts Flicker adjustment.
3. EEPROM regulation mode
EEPROM value is adjusted.

1. Touchpanel test mode

● Allocation of Key Operation
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
Menu : Selected item is executed
Audio/AV : Return to Sub Menu

● Screen

Screen 2. Touchpanel test mode screen



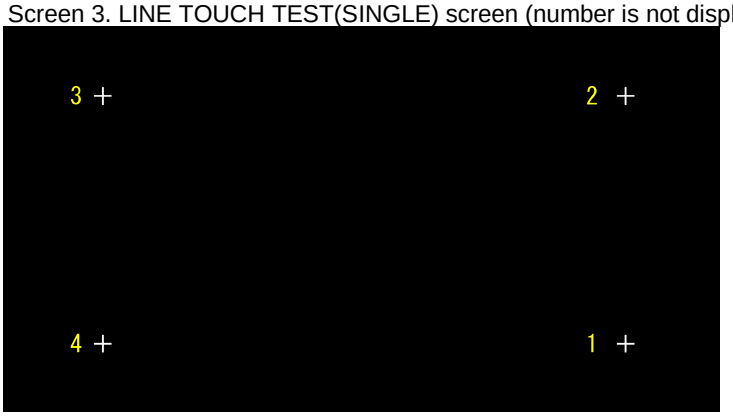
1. LINE TOUCH TEST(SINGLE)
   The operation is checked for confirming whether the coordinate of the single-touch panel is normally corrected.
2. LINE TOUCH TEST(DUAL)
   The operation is checked for confirming whether the coordinate of the multi-touch panel is normally corrected.
3. TP EFFECTIVERANGE
   The outermost circumferential portion is adjusted.
4. CALIBRTION
   The coordinate of the single-touch panel is corrected.
5. DUAL TOUCH CALIBRATION
   The coordinate of the multi-touch panel is corrected.
6. TOUCH TEST
   The coordinates of the touched point before and after the correction are displayed.
7. TOUCH DATA INITIALIZE
   The touch panel data is initialized.

1-1. LINE TOUCH TEST(SINGLE)

● Allocation of Key Operation
Audio/AV : Input is interrupted

● Screen

Screen 3. LINE TOUCH TEST(SINGLE) screen (number is not displayed)



Four input target points are displayed in the order of number shown in the figure above one at once.
If one target point is touched, the next target point is displayed.
If the input coordinate is away from the coordinate that indicates the input target point,
the input target point is displayed in red and the next target point is not displayed.
After input target point displayed in red and failed for two times, then the screen becomes “NG” and returns to Menu Screen automatically.
(Each input target point is allowed for up to two times of failure.)
If you are failed even if you touch on the input target point correctly, please conduct the next item, “CALIBRATION”, for required additional calibration.

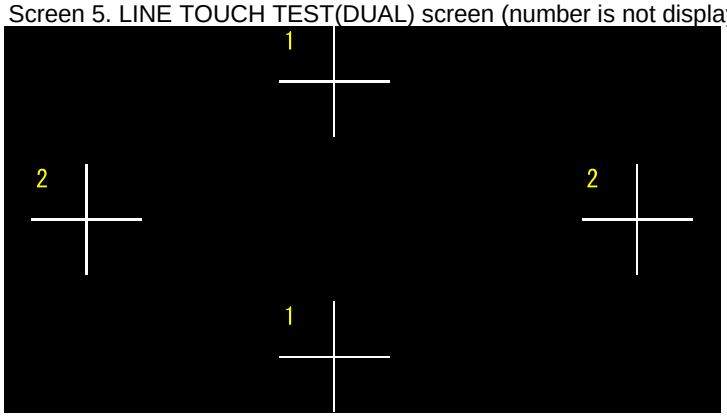
Screen 4. LINE TOUCH TEST(SINGLE) - NG screen

1-2. LINE TOUCH TEST(DUAL)

● Allocation of Key Operation
Audio/AV : Input is interrupted

● Screen

Screen 5. LINE TOUCH TEST(DUAL) screen (number is not displayed)



Two input target points are displayed in the order of number shown in the figure above two at once.
If two target point is touched, the next target point is displayed.
If the input coordinate is away from the coordinate that indicates the input target point,
the input target point is displayed in red and the next target point is not displayed.
After input target point displayed in red and failed for two times, then the screen becomes “NG” and returns to Menu Screen automatically.
(Each input target point is allowed for up to two times of failure.)
If you are failed even if you touch on the input target point correctly, please conduct the next item, “DUAL TAUCH CALIBRATION”, for required additional calibration.

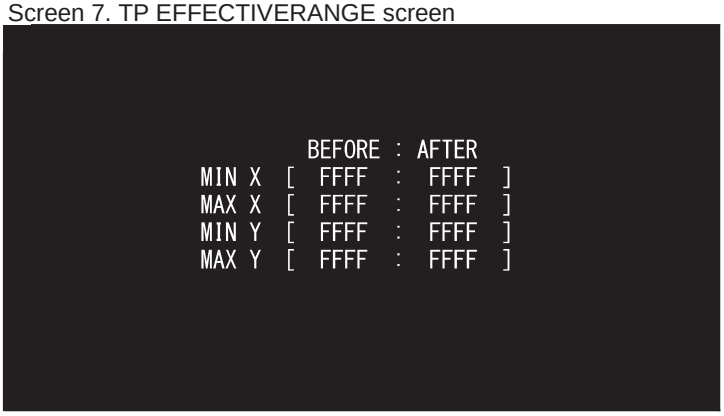
Screen 6. LINE TOUCH TEST(DUAL) - NG screen

1-3. TP EFFECTIVERANGE

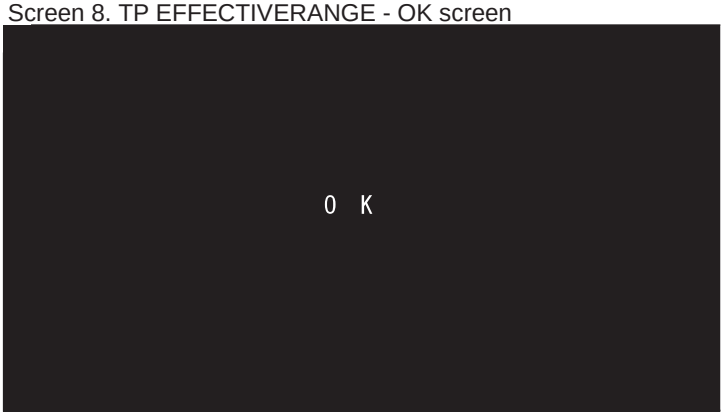
● Allocation of Key Operation
Menu : Input is terminated

● Screen

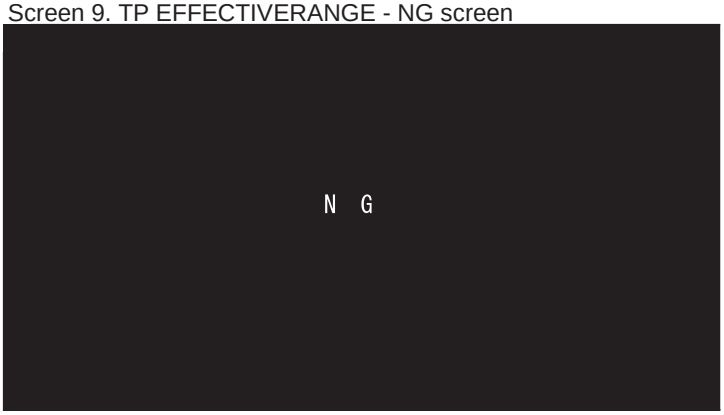
Screen 7. TP EFFECTIVERANGE screen



Screen 8. TP EFFECTIVERANGE - OK screen



Screen 9. TP EFFECTIVERANGE - NG screen



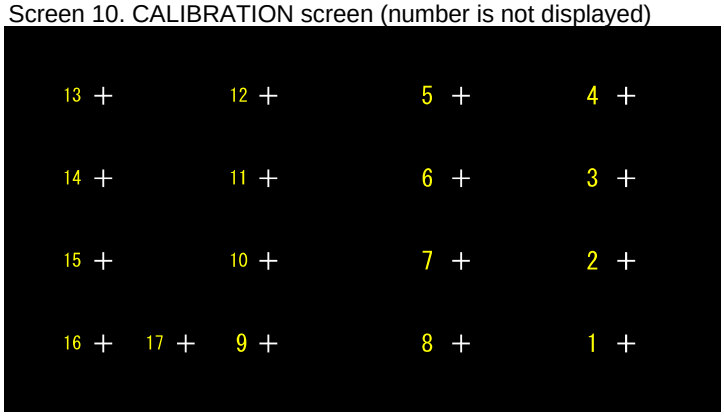
The outermost circumferential coordinate is input by touching the outermost circumferential portion on the screen.
If the input coordinate is correct, the input is OK. If it is not correct, the input is NG.
The input does not become OK without touching at least four corners on the screen.

1-4. CALIBRTION

● Allocation of Key Operation
Audio/AV : Input is interrupted

● Screen

Screen 10. CALIBRATION screen (number is not displayed)



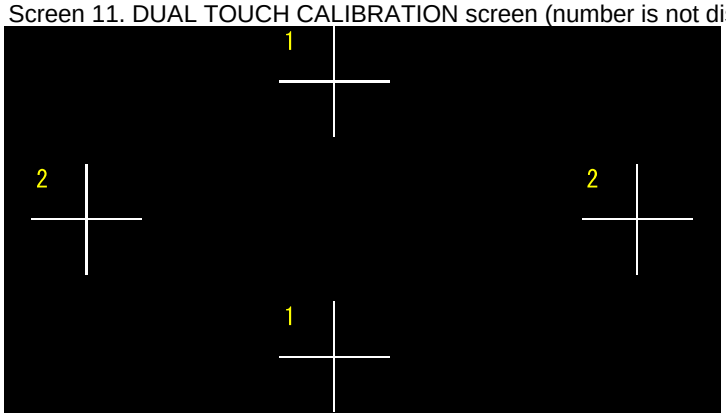
Seventeen input target points are displayed in the order of number shown in the figure above one at once.
If one target point is touched, the next target point is displayed.
If the input coordinate is away from the coordinate that indicates the input target point,
the input target point is displayed in red and the next target point is not displayed.

1-5. DUAL TOUCH CALIBRTION

● Allocation of Key Operation
Audio/AV : Input is interrupted

● Screen

Screen 11. DUAL TOUCH CALIBRATION screen (number is not displayed)



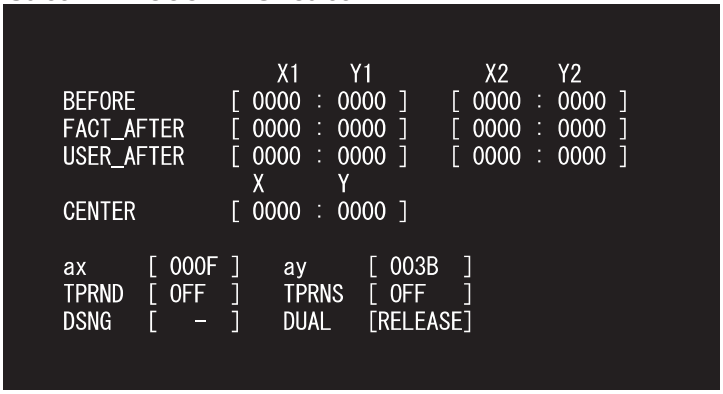
Two input target points are displayed in the order of number shown in the figure above two at once.
If two target point is touched, the next target point is displayed.
If the input coordinate is away from the coordinate that indicates the input target point,
the input target point is displayed in red and the next target point is not displayed.

1-6. TOUCH TEST

●Allocation of Key Operation
Audio/AV : Back

●Screen

Screen 12. TOUCH TEST screen



The following values are displayed in hexadecimal notation according to the touched coordinates.

BEFORE : Coordinate before correction
FACT_AFTER : Coordinate after correction at factory
USER_AFTER : Coordinate after correction by user
X1 : Horizontal coordinate of first point
Y1 : Vertical coordinate of first point
X2 : Horizontal coordinate of second point
Y2 : Vertical coordinate of second point

CENTER : Middle point of first point and second point
X : Horizontal coordinate of middle point of first point and second point
Y : Vertical coordinate of middle point of first point and second point

ax : Correction value in X direction
ay : Correction value in Y direction
TPRND : Indicates whether pushing pressure is sufficient or insufficient for touching of two points
ON : pushed sufficiently
OFF : pushed insufficiently
TPRNS : Indicates whether pushing pressure is sufficient or insufficient for touching of one point
ON : pushed sufficiently
OFF : pushed insufficiently
DSNG : Code of ΔY when coordinates of $\Delta X \geq 0$ and two points (+/- display)
DUAL : Indicates whether the touching is judged as two-point touching
SINGLE : Judged as one point is touched
DUAL : Judged as two points are touched
RELEASE : Judged as no point is touched

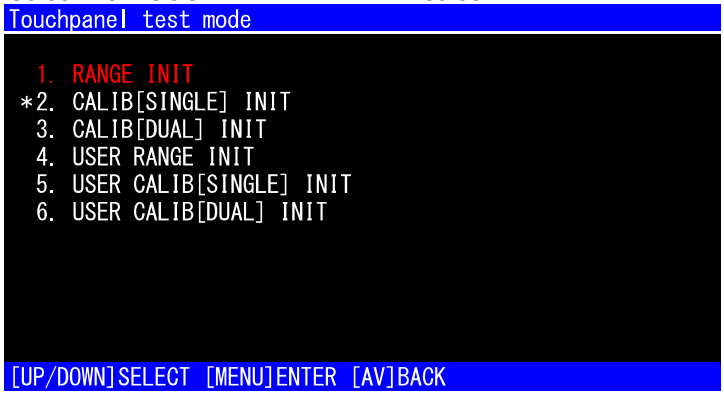
1-7. TOUCH DATA INITIALIZE

●Allocation of Key Operation

VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
Menu : Selected item is executed
Audio/AV : Return to Sub Menu

●Screen

Screen 13. TOUCH DATA INITIALIZE screen



1. RANGE INIT
   The outermost circumferential portion adjustment data on TestMode is initialized.
2. CALIB[SINGLE] INIT
   CALIBRTION data of the single-touch on TestMode is initialized.
3. CALIB[DUAL] INIT
   CALIBRTION data of the multi-touch on TestMode is initialized.
4. USER RANGE INIT
   The outermost circumferential portion adjustment data on the application is initialized.
5. USER CALIB[SINGLE] INIT
   CALIBRTION data of the single-touch on the application is initialized.
6. USER CALIB[DUAL] INIT
   CALIBRTION data of the multi-touch on the application is initialized.

For the item that has been adjusted, "*" mark is attached to the beginning.
If the initialization is terminated successfully, "*" mark at the beginning disappears.

2. Flicker adjustment

●Allocation of Key Operation
VOLUME+ : Flicker adjustment value increases
VOLUME- : Flicker adjustment value decreases
MENU : Change of background is executed
Audio/AV : Return to Sub Menu

●Screen

Screen 14. Flicker adjustment screen

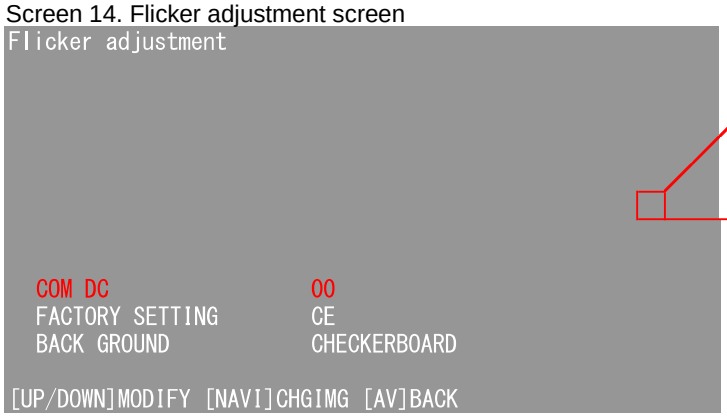
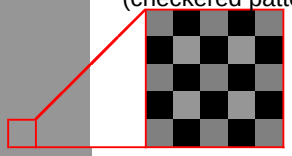


Image of flicker adjustment (checkered pattern)



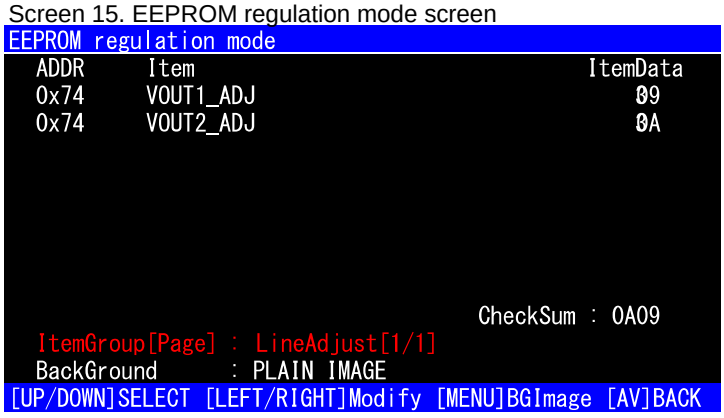
Carry out the flicker adjustment.
COM DC : Flicker adjustment value
FACTORY SETTING : Initial value (factory setting)
BACK GROUND : Image of background

3. EEPROM regulation mode

●Allocation of Key Operation
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
TRACK+ : Setting value increases
TRACK- : Setting value decreases
MENU : Change of background is executed
Audio/AV : Return to Sub Menu

●Screen Specifications

Screen 15. EEPROM regulation mode screen



EEPROM is adjusted.
If ItemGroup is selected and TRAC + and - keys are input, the page shifts.
If BackGround is selected and TRAC + and - keys are input, the type of the background is changed.

Table 1. Value that can be adjusted

AD	Section	Value name	Name
74	—	VOUT1_ADJ	VOUT1 Adjustment(VGCA1)
74	—	VOUT2_ADJ	VOUT2 Adjustment(VGCA2)

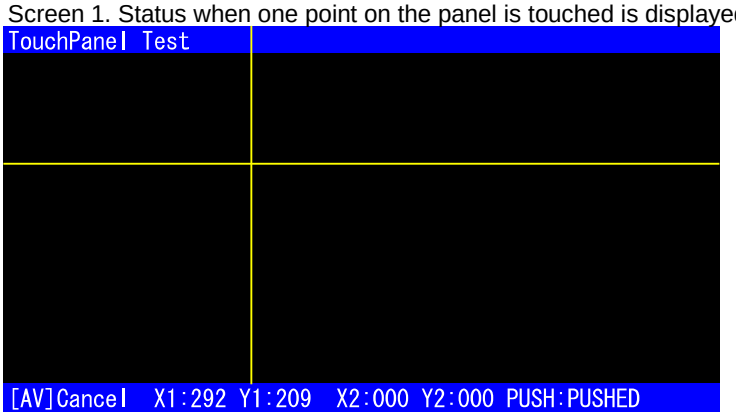
5. TouchPanel Test

●Outline of Inspection
It is possible to check the operation of the touch panel.

●Allocation of Key Operation
Audio/AV : Return to Main Menu

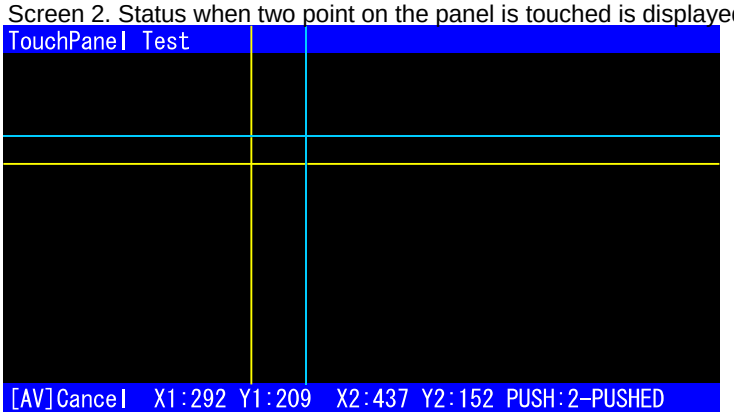
●Screen

Screen 1. Status when one point on the panel is touched is displayed



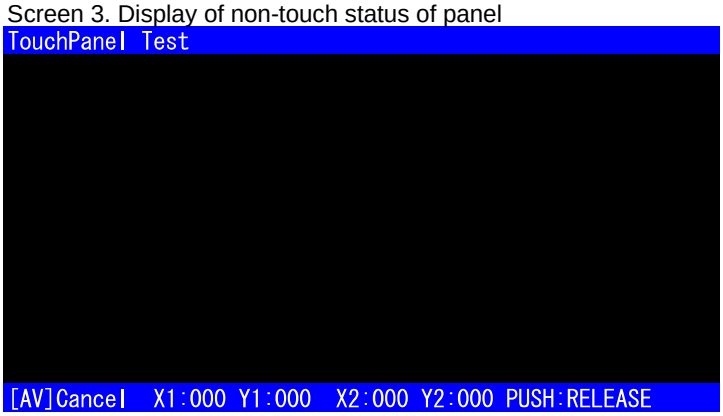
One-point touching status on the panel is displayed.
The touched point is displayed as a cross-point of yellow lines.
The coordinate is displayed as X1/Y1 at the bottom line on the screen.
X2/Y2 is fixed to 0 and the pushing status is displayed as PUSHED.

Screen 2. Status when two point on the panel is touched is displayed



Two-point touching status on the panel is displayed.
The first touched point is displayed as a cross-point of yellow lines.
The coordinate is displayed as X1/Y1 at the bottom line on the screen.
The second touched point is displayed as a cross-point of pale blue lines
The coordinate is displayed as X2/Y2 at the bottom line on the screen.
The pushing status is displayed as 2-PUSHED.

Screen 3. Display of non-touch status of panel



The Non-touch status of the panel is displayed.
If the panel is not touched, the yellow cross lines are not displayed.
The coordinate at the lowest line is displayed as 0 and the pressing status is displayed as RELEASE.

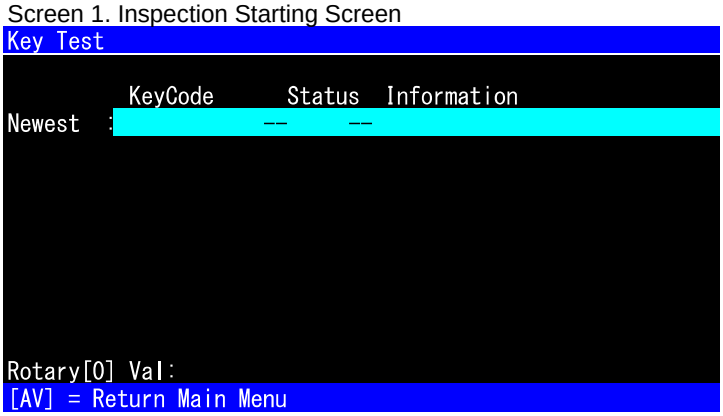
6. Key Test

● Outline of Inspection
The operation of a key is displayed on the screen.

● Allocation of Key Operation
Audio/AV : Return to Main Menu

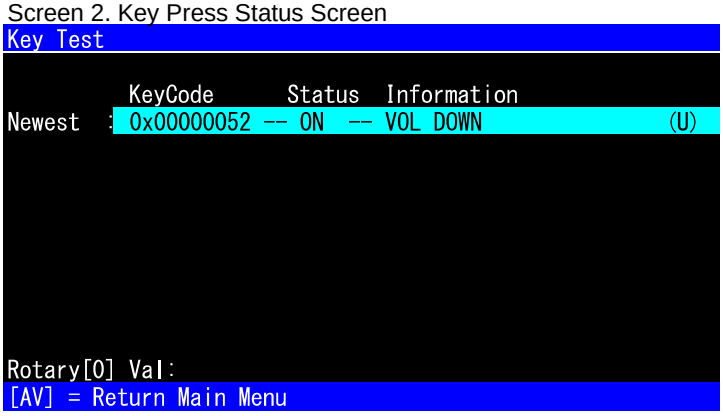
● Screen

Screen 1. Inspection Starting Screen



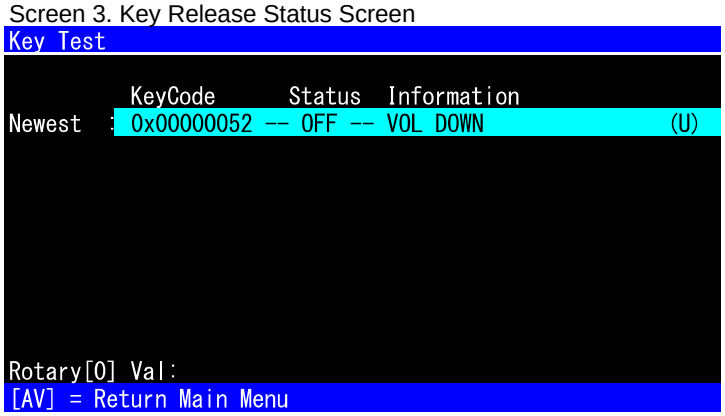
On this screen, a key is operated.
A test of key other than AV key can be conducted.
If a key is operated on "Screen 1. Sub Menu Screen", the screen is updated as shown in Screen 2 to Screen 4.
The rotary key is also updated as shown in Screen 5 to Screen 6.

Screen 2. Key Press Status Screen



Key press status
Key Code : The pressed key code is displayed.
Status : While a key is pressed, "ON" is displayed.
Information : The name of the pressed key is displayed.

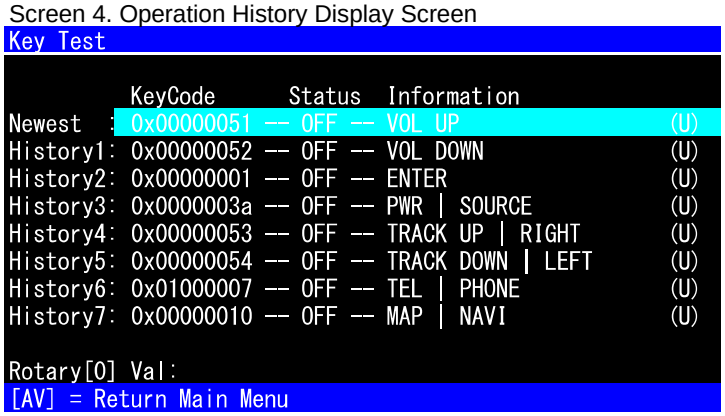
Screen 3. Key Release Status Screen



Key release status

Key Code : The key code that was pressed before the key was released is displayed.
Status : If a key is released, "OFF" is displayed.
Information : The name of key that was pressed before the key was released is displayed.

Screen 4. Operation History Display Screen



Display of operation history

If the key is operated continuously, up to 7 records are displayed.
Newest : Final key operation
History 7 : key operation before 7 operations

7. Port Test

●Outline of Inspection

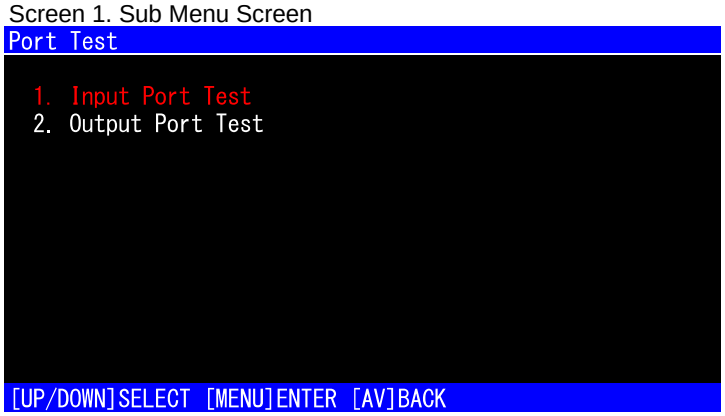
For the Input Port Test, the status of the input port is acquired and displayed on the screen.
For the Output Port Test, the status is set for the output port.

●Allocation of Sub Menu Key Operation

VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
MENU : Selected item is executed
Audio/AV : Return to Main Menu

●Sub Menu Screen

Screen 1. Sub Menu Screen



●Details on Each Inspection Item

1. Input Port Test
The status of the Input Port is acquired and displayed.

2. Output Port Test
For the Output Port, set an arbitrary HI/LOW.

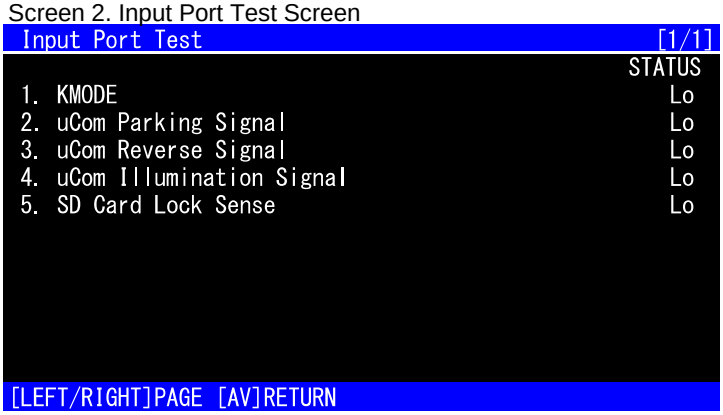
1. Input Port Test

●Allocation of Key Operation

TRACK+ : Changing of page (next page)
TRACK- : Changing of page (previous page)
Audio/AV : Return to Sub Menu

●Screen

Screen 2. Input Port Test Screen



For the following ports, the current status is displayed.

Port name	Application
KMODE	Test Input Terminal
uCom Parking Signal	Reverse Terminal on uCom Side
uCom Reverse Signal	Reverse Terminal on uCom Side
uCom Illumination Signal	Illumination Terminal on uCom Side
SD Card Lock Sense	SD Card Insertion Detection Terminal

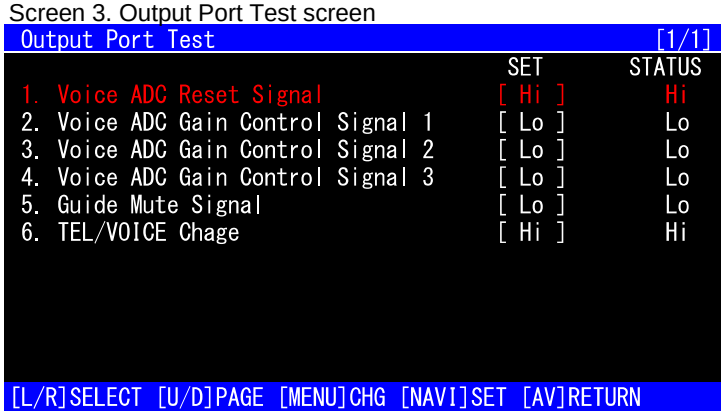
2. Output Port Test

●Allocation of Key Operation

VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
TRACK+ : Changing of page (next page)
TRACK- : Changing of page (previous page)
MENU : Change value
NAVI : Reflect value
Audio/AV : Return to Sub Menu

●Screen

Screen 3. Output Port Test screen



If the MENU key is pressed, the SET value of the selected terminal is switched.
If the NAVI key is pressed, SET values of all terminals are reflected.

The status of following ports is displayed and controlled.

Port name	Application
Voice ADC Reset Signal	Voice recognition ADC reset
Voice ADC Gain Control Signal 1	Voice recognition ATT Gain 1
Voice ADC Gain Control Signal 2	Voice recognition ATT Gain 2
Voice ADC Gain Control Signal 3	Voice recognition ATT Gain 3
Guide Mute Signal	Guide Mute Signal
TEL/VOICE Change	Telephone Call / Voice Recognition Change

8. File Maintenance

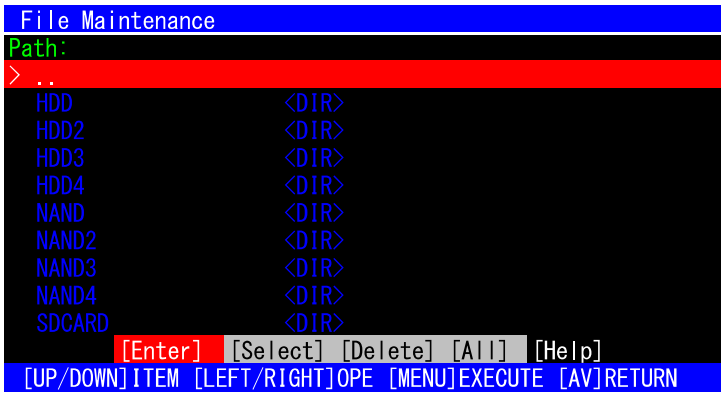
● Outline of Inspection

This inspection provides the function for managing files in each directory.
Concretely, the file dump can be executed.

● Allocation of Key Operation

VOLUME+ : Upper item of list is selected
VOLUME- : Lower item of list is selected
TRACK+ : Right item of function (13th line on screen) is selected
TRACK- : Left item of function (13th line on screen) is selected
MENU : Setting of item
Audio/AV : Return to Main Menu / Upper Directory

● First Hierarchy Operation Screen



There are 12 upper directories shown below.
HDD/HDD2/HDD3/HDD4/NAND/NAND2/NAND3/NAND4/SDCARD/USB/Ramdisk/DVDCD

At the second line, the current file pass is displayed.
The currently selected directory becomes red and " > " is displayed at the left side of directory name.
Select a function to be executed for the item at 13th line.
If an operation item is white, the operation cannot be executed.

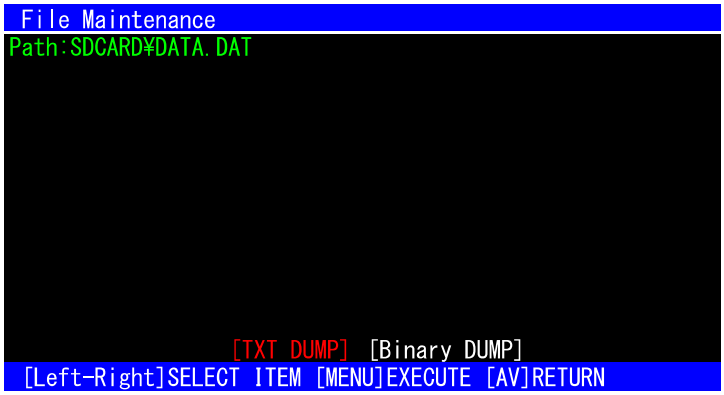
[Enter]	Enter into the next hierarchy in the selected directory. While a file is selected, the content of the file is displayed.

● Display Method

①Directory / File Name
②For directory : <DIR> is displayed For file: extension is displayed
③Display of file attribute (for file only) W : Writing permission attribute R : Writing prohibition attribute H : Hidden attribute A : Archive attribute S : System attribute
④File Size (for file only) B is an abbreviation of Byte. The unit display changes as K, M... according to the file size.
⑤Update Time (for file only)

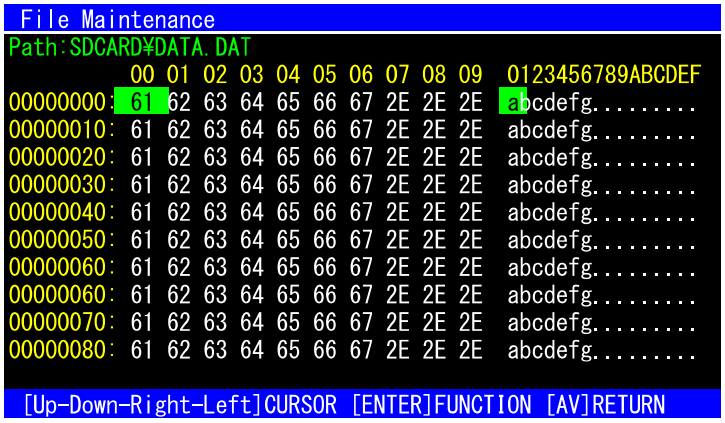
● Note on Dump Function

When a file is selected, the file selected for [MENU] can be dumped.
The display can be switched by pressing item change key.
It is possible to return to the original display from the display of each item by pressing the Audio/AV key.

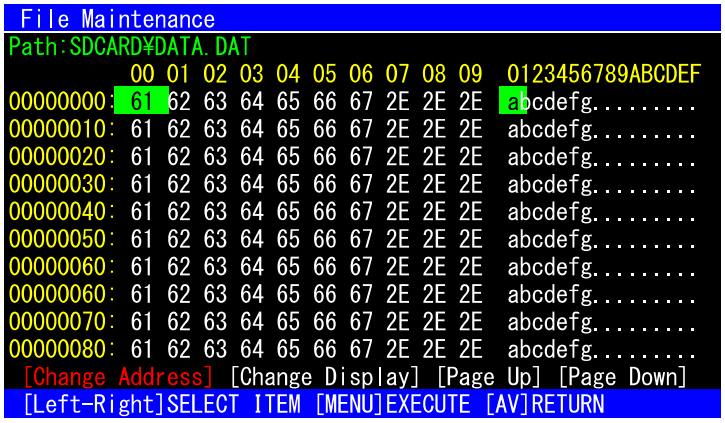


Example of [TXT DUMP]

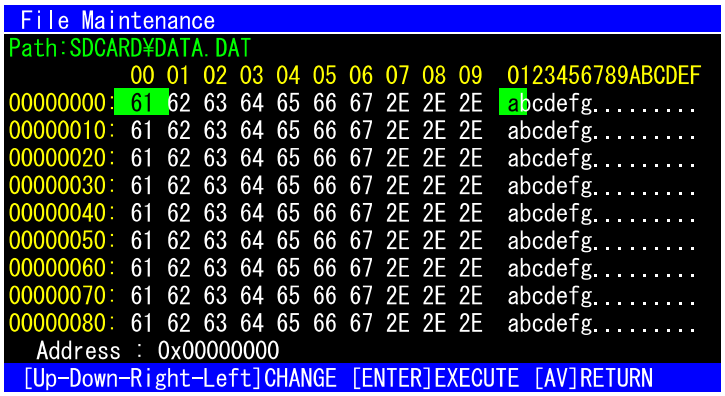
Example of [Binary DUMP]



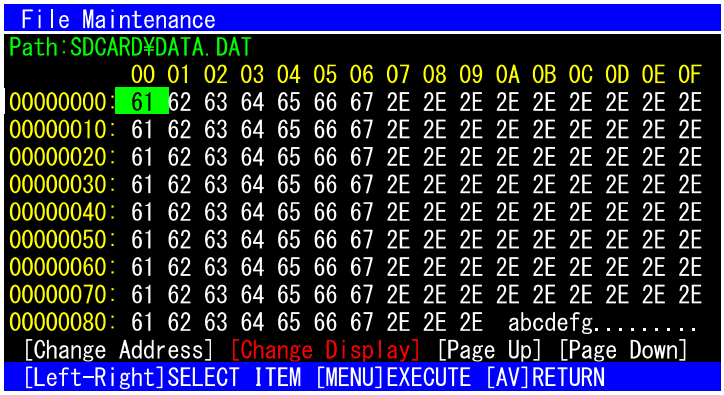
The setting related to [MENU] display can be changed during Binary DUMP.



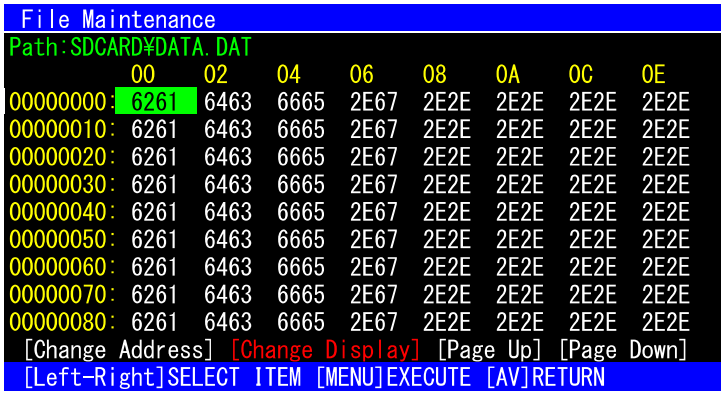
Example of [Change Address]: The content of the address that is specified by setting operation is displayed.



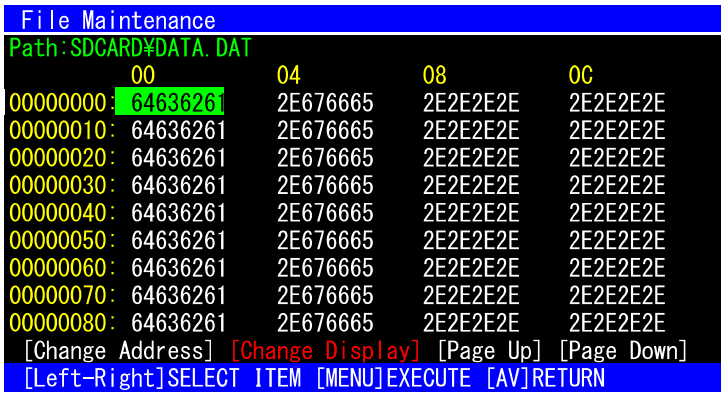
Example of [Change Display] 1



Example of [Change Display] 2



Example of [Change Display] 3



9. Program forced write

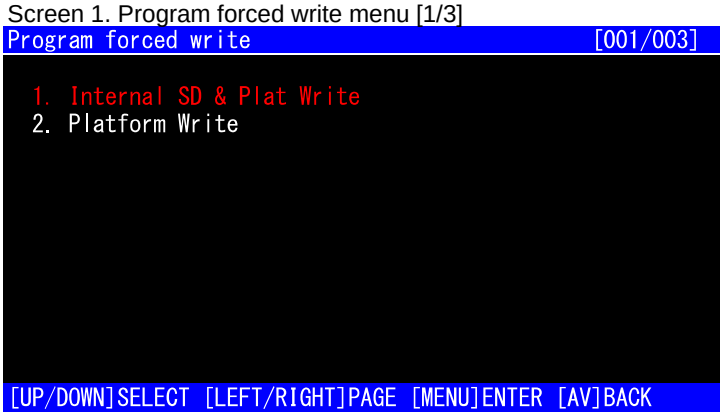
●Outline of Inspection
The program in FLASH or SD can be forcibly updated.

●Item to be prepared
Insert USB or SD in which the program file that is used for forcible writing is stored

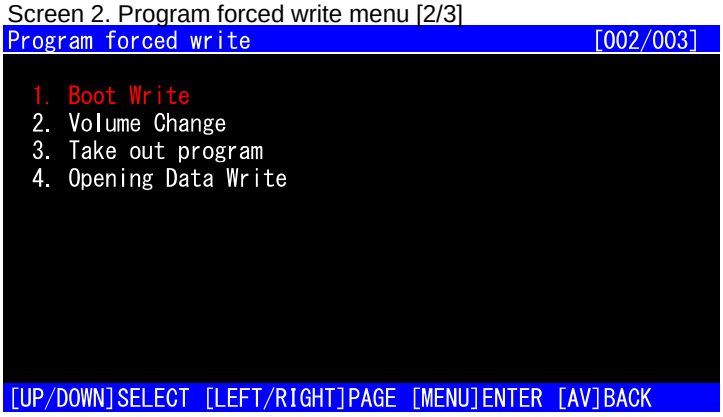
●Allocation of Key Operation (Common to Sub Menu)
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
TRACK+ : Media selection / changing of page
TRACK- : Media selection / changing of page
MENU : Execution of setting / writing
Audio/AV : Return to Sub Menu / Main Menu

●Screen

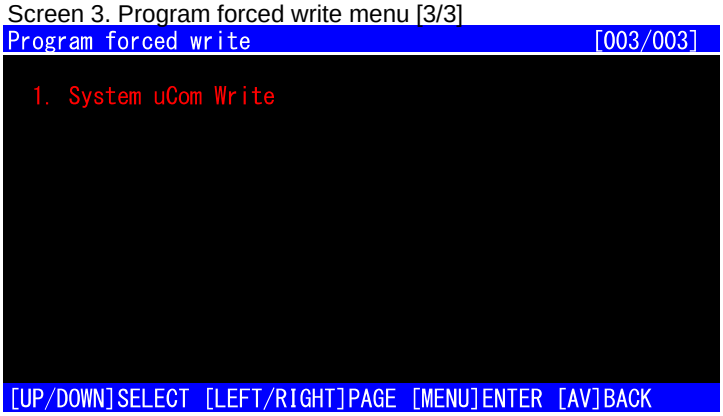
Screen 1. Program forced write menu [1/3]



Screen 2. Program forced write menu [2/3]



Screen 3. Program forced write menu [3/3]

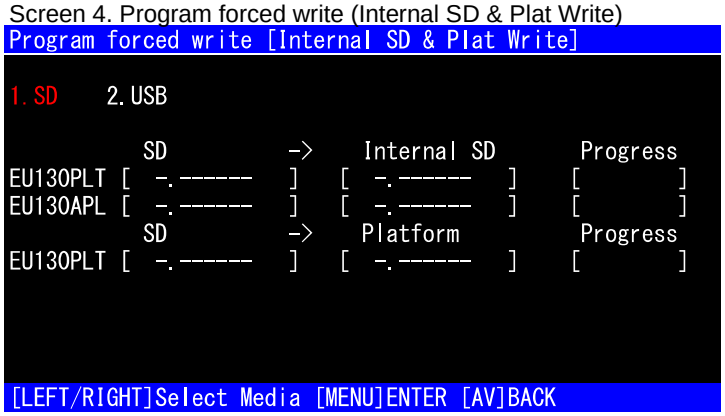


Description of item

1.Internal SD & Plat Write	: The program and the program of Platform are written into Internal SD and FLASH, respectively
2.Platform Write	: The program of Platform is written into FLASH
3.Boot Write	: BootLoader is written into FLASH
4.Volume Change	: Volume is changed
5.Take out program	: The program of Internal SD is rewritten into USB or SD
6.Opening Data Write	: Opening Image is written into FLASH
7.System uCom Write	: The program is written into the System MCU

1st page

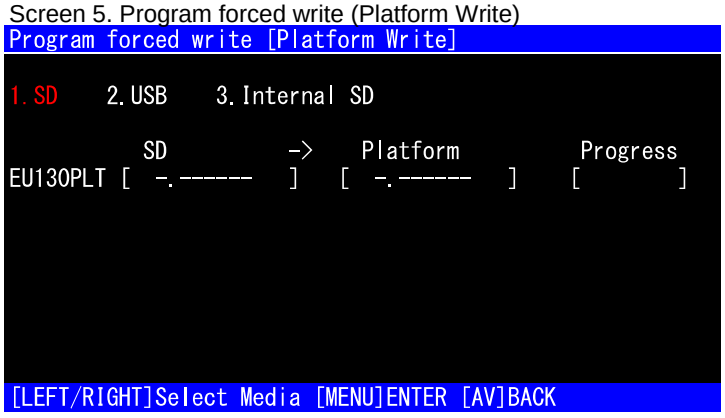
Screen 4. Program forced write (Internal SD & Plat Write)



The program and the program of Platform can be written into Internal SD and FLASH, respectively.
In order to execute this operation, it is necessary to store all program files in USB or SD.

- Display during update
  The percentage is displayed for the Progress.
  "Updating. Please don't turn the power off." is displayed.
- Display when the update is completed
  "100%" is displayed for the Progress.
  "Update completed. Please restart." is displayed.
- Display when the update results in failure
  "Update Failed." is displayed.
  "Fail" is displayed for the Progress.

Screen 5. Program forced write (Platform Write)

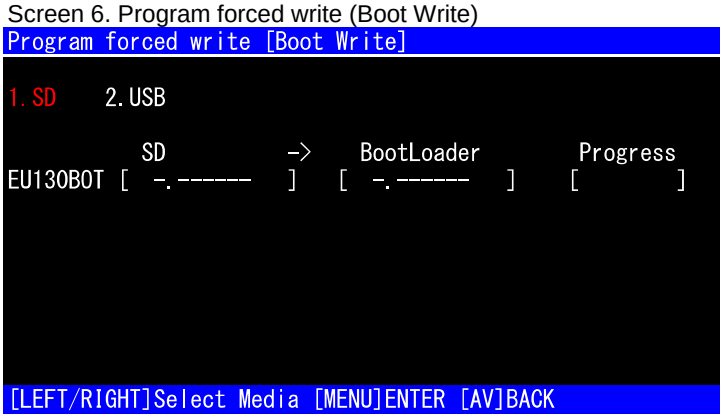


The program of Platform can be written into FLASH.

- Display during update
  The percentage is displayed for the Progress.
  "Updating. Please don't turn the power off." is displayed.
- Display when the update is completed
  "100%" is displayed for the Progress.
  "Update completed. Please restart." is displayed.
- Display when the update results in failure
  "Update Failed." is displayed.
  "Fail" is displayed for the Progress.

2nd page

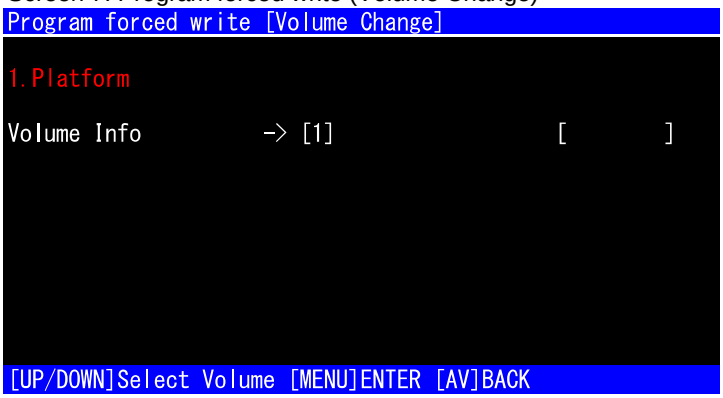
Screen 6. Program forced write (Boot Write)



BootLoader can be written into FLASH.

- Display during update
  The percentage is displayed for the Progress.
  "Updating. Please don't turn the power off." is displayed.
- Display when the update is completed
  "100%" is displayed for the Progress.
  "Update completed. Please restart." is displayed.
- Display when the update results in failure
  "Update Failed." is displayed.
  "Fail" is displayed for the Progress.

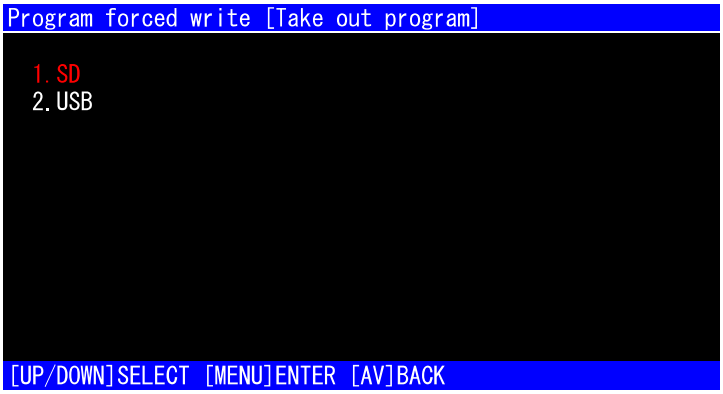
Screen 7. Program forced write (Volume Change)



The volume can be changed.
The volume value can be changed with ↑ ↓.

- Display during update
  “Running” is displayed for the Progress.
  "Changing. Please don't turn the power off." is displayed.
- Display when the update is completed
  "Success" is displayed for the Progress.
  "Changing completed." is displayed.
- Display when the update results in failure
  "Update Failed." is displayed.
  "Fail" is displayed for the Progress.

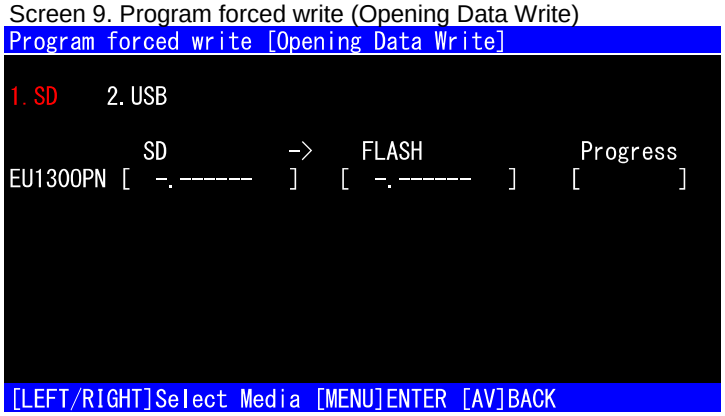
Screen 8. Program forced write (Take out program)



The program of SD can be rewritten into USB or SD.

- Display during update
  "just a moment....." is displayed.
- Display when the update is completed
  The background of the screen is blue and "HIT ANY KEY!!" is displayed.
- Display when the update results in failure
  The background of the screen is red and "HIT ANY KEY!!" is displayed.

Screen 9. Program forced write (Opening Data Write)

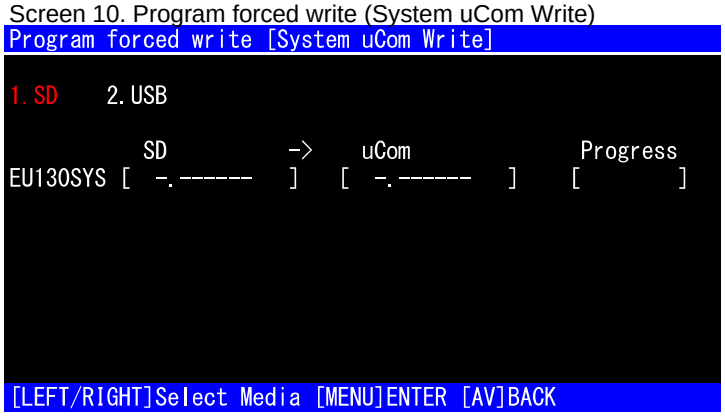


Able to write Opening Image into FLASH.

- Display during update
  The percentage is displayed for the Progress.
  "Updating. Please don't turn the power off." is displayed.
- Display when the update is completed
  "100%" is displayed for the Progress.
  "Update completed. Restarting" is displayed.
- Display when the update results in failure
  "Update Failed." is displayed.
  "Fail" is displayed for the Progress.

3rd page

Screen 10. Program forced write (System uCom Write)



The program can be written into the System MCU.

- Display during update
  The percentage is displayed for the Progress.
  "Updating. Please don't turn the power off." is displayed.
- Display when the update is completed
  "100%" is displayed for the Progress.
  "Update completed. Restarting" is displayed.
- Display when the update results in failure
  "Update Failed." is displayed.
  "Fail" is displayed for the Progress.

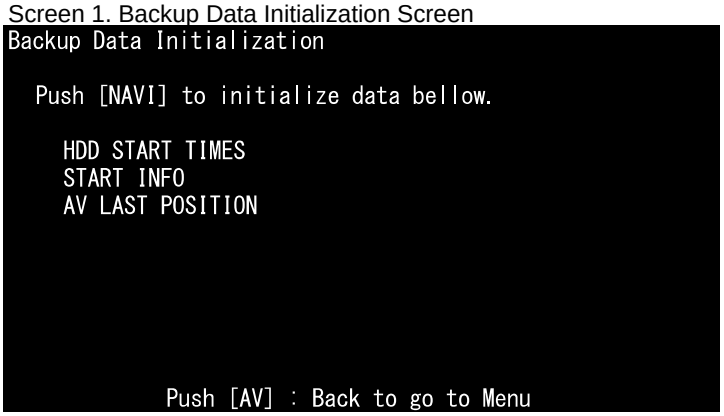
10. Backup Data Initialization

● Outline of Inspection
The data in the backup area is initialized.

● Allocation of Key Operation
NAVI : Start of Initialization
Audio/AV : Return to Main Menu

● Screen

Screen 1. Backup Data Initialization Screen

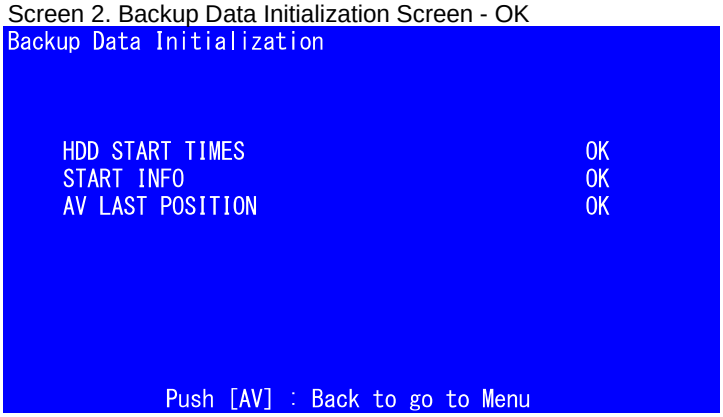


If the NAVI key is pressed, the backup data displayed on the screen is initialized.
The target backup data is shown below.

Backup data for the initialization

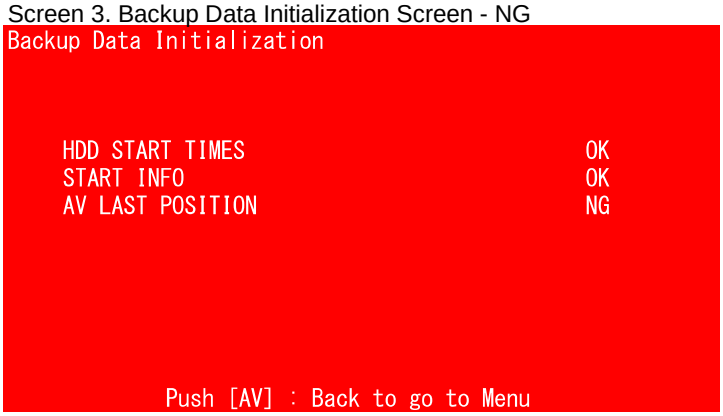
Key name		
HDDInfo	Description	If the value is not set to 1 when a problem is generated in HDD, it is set to 1 and restart the product. When the HDD is normally started, the value is set to 0.
	Method of initialization	0x00 is written into all areas.
	Application	Execute the initialization if you want to restart the product when a problem is generated in HDD.
	Storage place	DDR memory
SystemInfo	Description	Startup mode information (Upgrading, startup of Test Mode etc.)
	Method of initialization	0x00 is written into all areas.
	Application	Execute the initialization when the product is started in normal mode at the next startup.
	Storage place	DDR memory
AVLastPosHdr	Description	Previously played audio file and playback position information
	Method of initialization	0x00 is written into all areas.
	Application	Execute the initialization when you want to reset the audio playback position to the initial position.
	Storage place	DDR memory

Screen 2. Backup Data Initialization Screen - OK



If the Initialization of all items is terminated successfully, the screen becomes blue.

Screen 3. Backup Data Initialization Screen - NG



If the Initialization of any item results in failure, the screen becomes red.

11. GPS backup data clear

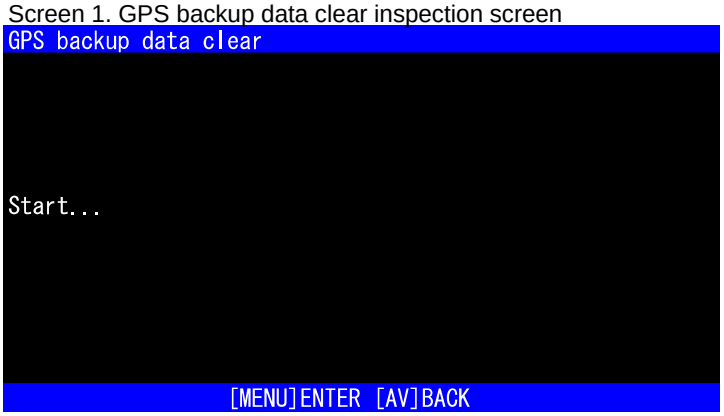
● Outline of Inspection
The GPS driver is reset and the backup data is cleared, and the result is displayed on the screen.

● Allocation of Key Operation
MENU : Setting of item
Audio/AV : Return to Main Menu

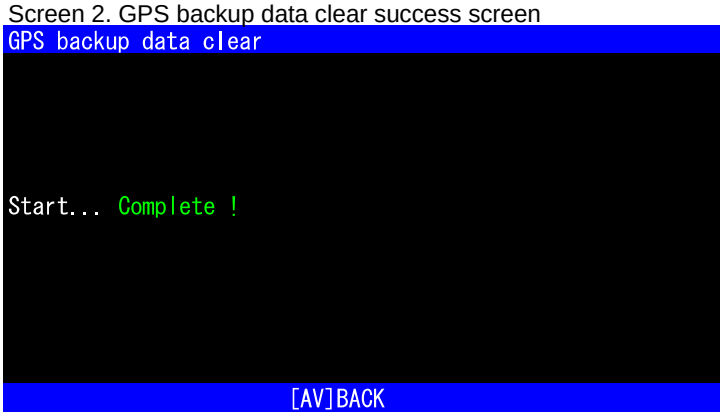
● Screen

When the inspection is successfully terminated: Screen shifts to "Screen 2. GPS backup data clear success screen"
When the inspection results in failure: Screen shift to "Screen 3. GPS backup data clear failure screen"

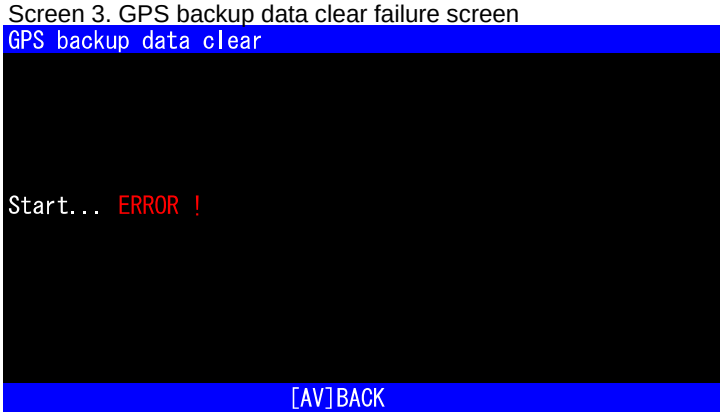
Screen 1. GPS backup data clear inspection screen



Screen 2. GPS backup data clear success screen



Screen 3. GPS backup data clear failure screen



12. GYRO SENSOR INFO Data Clear

● Outline of Inspection

The leaning level in the gyro sensor is cleared and the result is displayed on the screen.

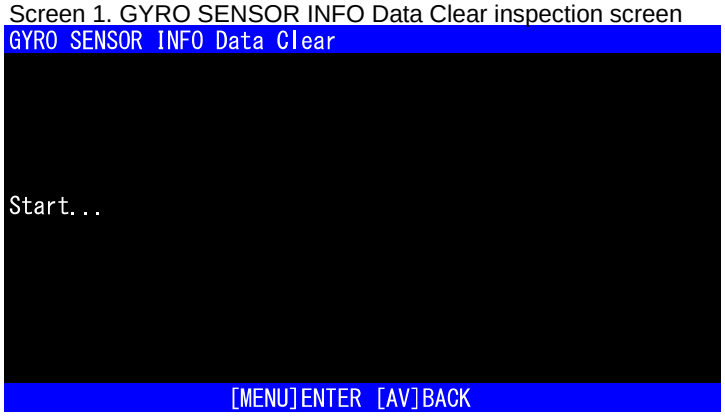
● Allocation of Key Operation

MENU : Setting of item
Audio/AV : Return to Main Menu

● Screen

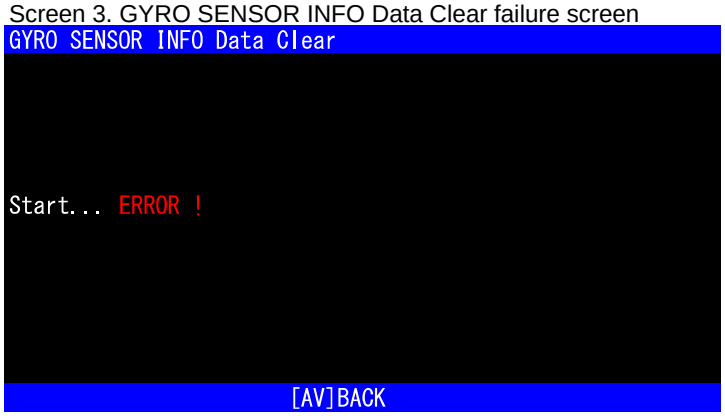
When the inspection is successfully terminated: Screen shifts to "Screen 2. GYRO SENSOR INFO Data Clear success screen"
When the inspection results in failure: Screen shift to "Screen 3. GYRO SENSOR INFO Data Clear failure screen"

Screen 1. GYRO SENSOR INFO Data Clear inspection screen



Screen 2. GYRO SENSOR INFO Data Clear success screen

Screen 3. GYRO SENSOR INFO Data Clear failure screen



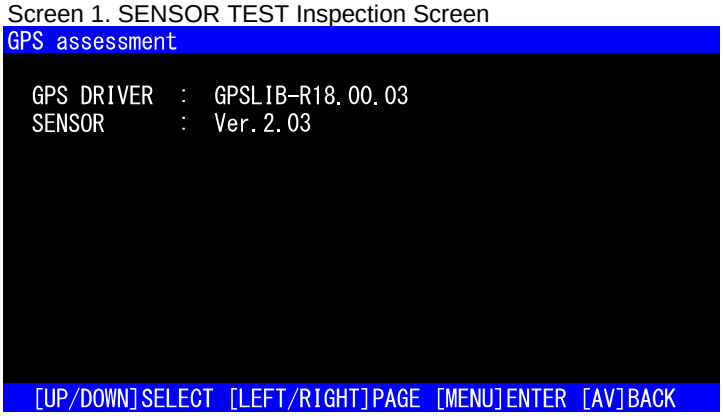
13. GPS assessment

● Outline of Inspection
The version information of GPS and sensor module is displayed on the screen.

● Allocation of Key Operation
Audio/AV : Return to Main Menu

● Screen

Screen 1. SENSOR TEST Inspection Screen



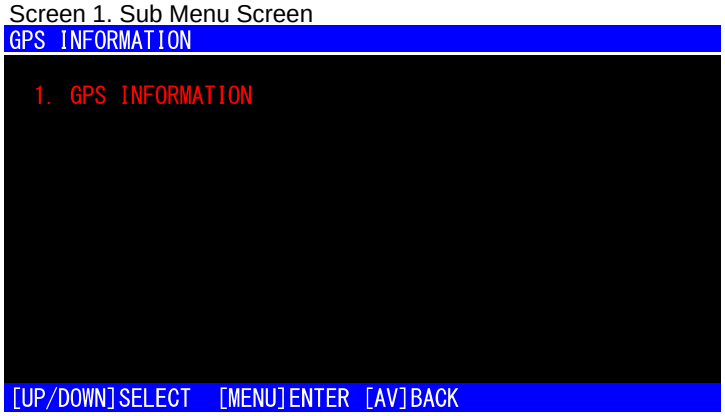
14. GPS INFORMATION

● Outline of Inspection
GPS satellite information, GPS location information, version information & self diagnosis information, and GYRO error history are displayed.

● Allocation of Sub Menu Key Operation
MENU : Item is executed
Audio/AV : Return to Main Menu

● Sub Menu Screen

Screen 1. Sub Menu Screen



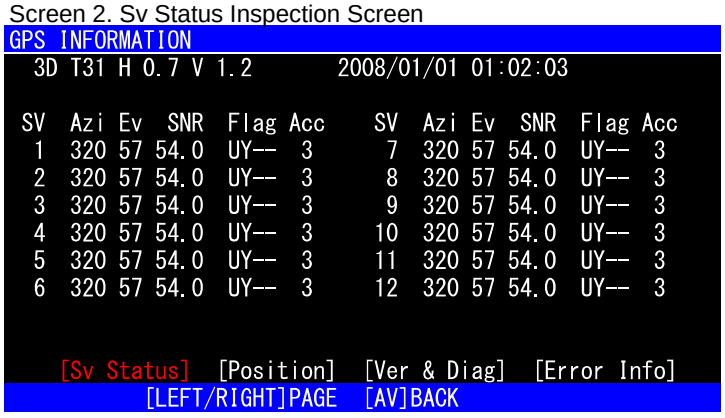
● Details on Each Inspection Item
1. GPS INFORMATION Inspection
Following information is displayed.
- [Position] : GPS location information
- [Sv Status] : GPS satellite information
- [Ver & Diag] : Version information & self diagnosis information
- [Error Info] : GYRO error history

1. GPS INFORMATION Inspection

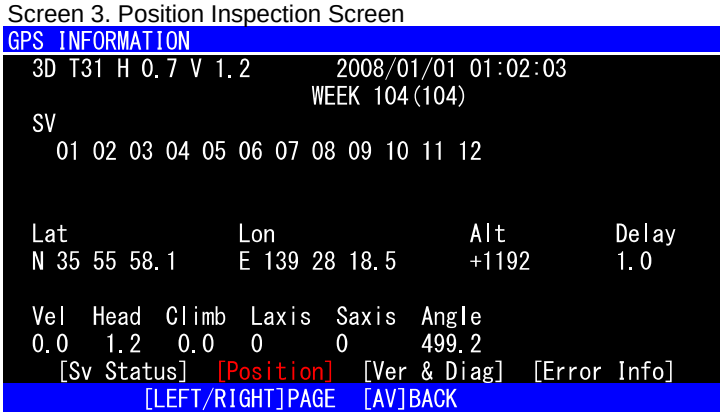
● Allocation of Key Operation
TRACK+ : Changing of displayed item (next item)
TRACK- : Changing of displayed item (previous item)
Audio/AV : Return to Main Menu

● Screen Specifications
The list of displayed items is displayed at 13th line and the character color of the currently displayed item is changed.
At the transition from the Sub Menu, the first page of GPS satellite information is displayed

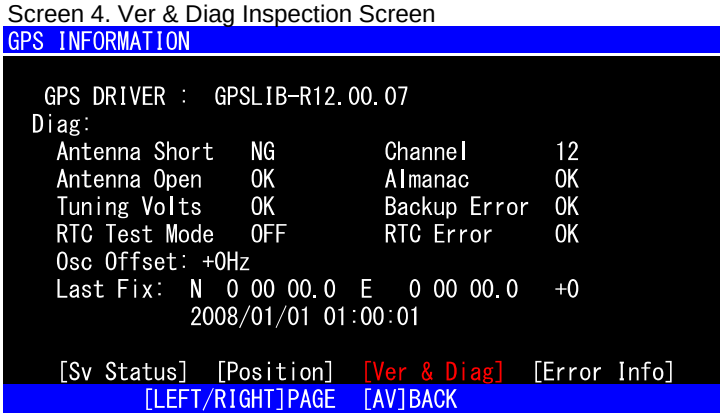
Screen 2. Sv Status Inspection Screen



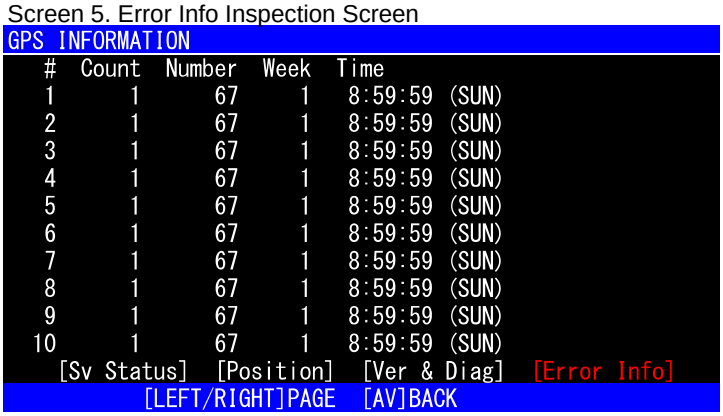
Screen 3. Position Inspection Screen



Screen 4. Ver & Diag Inspection Screen



Screen 5. Error Info Inspection Screen



15. GPS Sensitivity

● Outline of Inspection

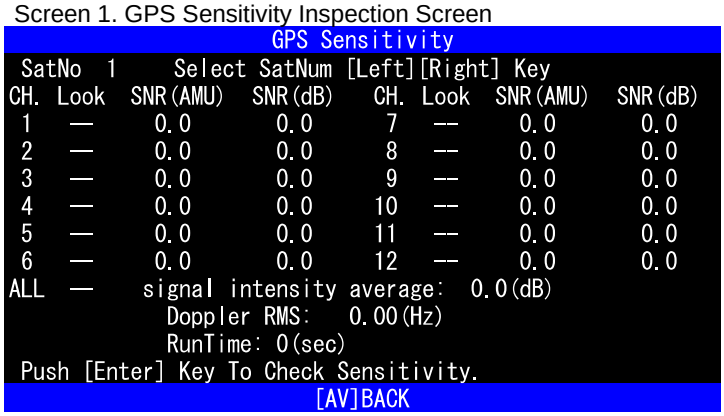
The sensitivity of all channels (12 channels) of GPS unit is inspected and the result is displayed on the screen.

● Allocation of Key Operation

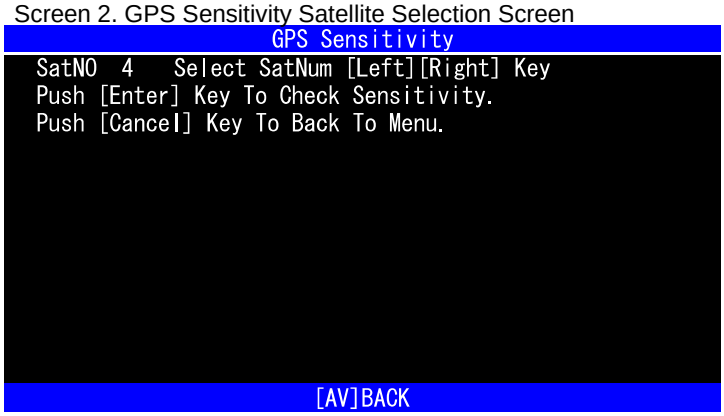
TRACK+ : Selection of GPS satellite number
TRACK- : Selection of GPS satellite number
MENU : Setting of item
Audio/AV : Return to Main Menu

● Screen

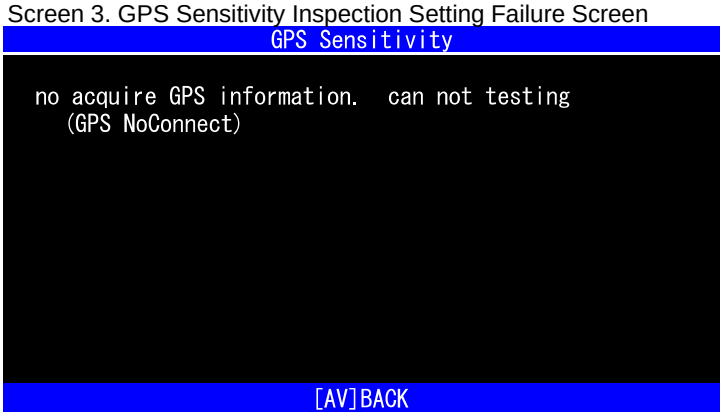
Screen 1. GPS Sensitivity Inspection Screen



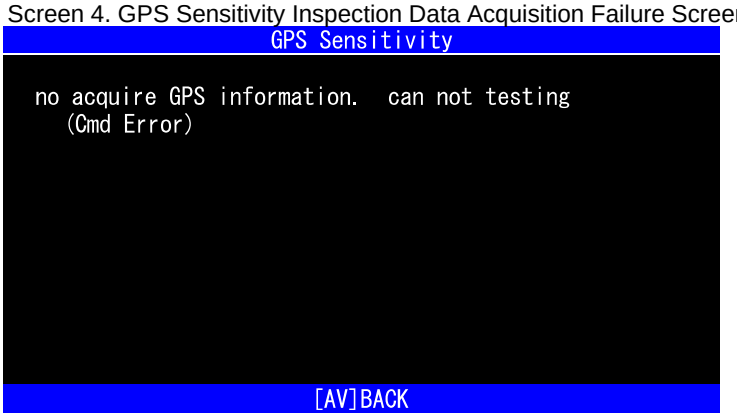
Screen 2. GPS Sensitivity Satellite Selection Screen



Screen 3. GPS Sensitivity Inspection Setting Failure Screen



Screen 4. GPS Sensitivity Inspection Data Acquisition Failure Screen



By pressing [TRACK+] or [TRACK-], the screen shifts to "Screen 2. GPS Sensitivity Satellite Selection Screen".
By pressing [MENU], the screen shifts to "Screen 1. GPS Sensitivity Inspection Screen".

When the inspection is started, "Screen 3. GPS Sensitivity Inspection Setting Failure Screen" is displayed if "GPS Sensitivity Inspection Mode Setting" to be set for GPS unit results in failure.

During the inspection, "Screen 4. GPS Sensitivity Inspection Data Acquisition Failure Screen" is displayed if the acquisition of sensitivity information of each channel results in failure.

16. SENSOR TEST

● Outline of Inspection

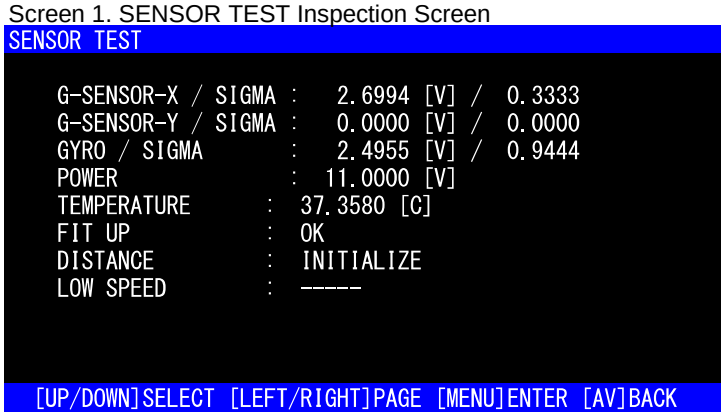
The sensor information (AD value, driving status, attachment status of main unit, error at sensor learning) is displayed on the screen.

● Allocation of Key Operation

Audio/AV : Return to Main Menu

● Screen

Screen 1. SENSOR TEST Inspection Screen



G-SENSOR-X / SIGMA	: Display of voltage value / Σ of G sensor X-axis
G-SENSOR-Y / SIGMA	: Display of voltage value / Σ of G sensor Y-axis
GYRO / SIGMA	: Display of voltage value / Σ of GYRO gyroscope
POWER	: Display of voltage value of power supply (This model is non-support)
TEMPERATURE	: Display of temperature
FIT UP	: Display of attachment status
DISTANCE	: Display of distance calculation status
LOW SPEED	: Display of minimum output speed of low-sped NG vehicle (Depends on status of DISTANCE)

* G-SENSOR of this model indicates G-SENSOR-X / SIGMA value correctly because the sensor is a single-axis style but the G-SENSOR-Y / SIGMA value is always indicated as 0.0000.

Displayed content of FIT UP

Display	Status
NG	Attachment position NG
OK	Attachment position OK (third best)
OK(Better)	Attachment position OK (second best)
OK(Best)	Attachment position OK (best)

Displayed content of DISTANCE

Display	Status
INITIALIZE	During initial learning of sensor
GPS	GPS distance (model without G sensor, pulse is not connected)
G-SENSOR	G sensor distance (simple hybrid)
ND-PG1	ND-PG1 distance
SPEED PULSE	Vehicle speed pulse distance

Displayed content of LOW SPEED

DISTANCE	SPEED PULSE Status	Display
SPEED PULSE	During low-speed vehicle speed pulse learning	CHECK
	Low-speed vehicle speed pulse OK	OK
	Low-speed vehicle speed pulse NG	NG
Other than above		-----

17. GraphicsTest

● Outline of Inspection

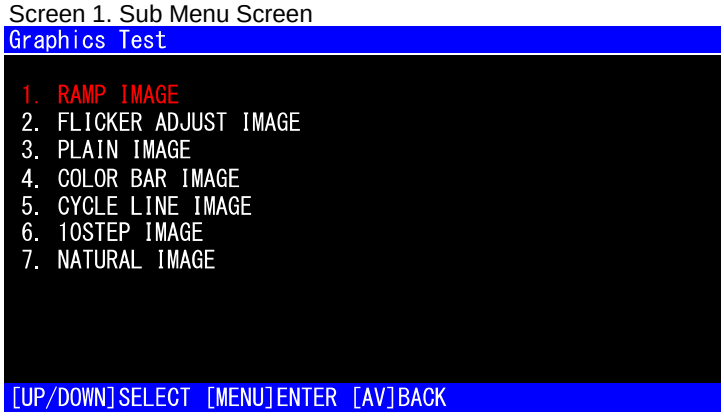
It is used for checking the display function of the navigation display.
The inspection for service is configured with total seven inspection items.

● Allocation of Sub Menu Key Operation

VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
MENU : Selected item is executed
Audio/AV : Return to Main Menu

● Sub Menu Screen

Screen 1. Sub Menu Screen



● Details on Each Inspection Item

1. RAMP IMAGE:
   It is an item for displaying 32-gradation grayscale bar.

2. FLICKER ADJUST IMAGE:
   It is an item for checking the flicker level of the screen (valid area).

3. PLAIN IMAGE:
   It is an item for checking the display function of 3 RGB colors by displaying the monotone screen.

4. COLOR BAR IMAGE:
   It is an item for displaying the color bar, which is the reference screen for evaluating the video system.

5. CYCLE LINE IMAGE:
   It is an item for checking the resolution function of the screen.

6. 10STEP IMAGE:
   It is an item for displaying 11-gradation grayscale bar.

7. NATURAL PICTURE:
   It is an item for checking the color tone centering on skin color by displaying an image prepared for the test.
   For an image, a file stored in the product is read out and displayed.

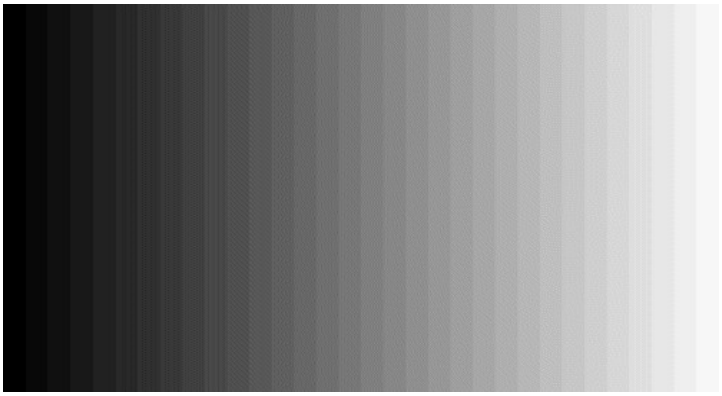
1. RAMP IMAGE

●Allocation of Key Operation

Audio/AV : Return to Sub Menu

●Screen

Screen 2. RAMP IMAGE Displayed Screen



2. FLICKER ADJUST IMAGE

●Allocation of Key Operation

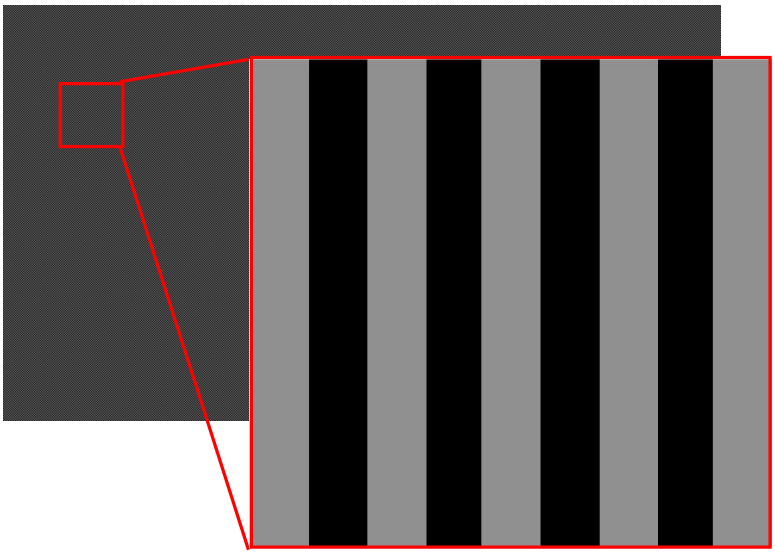
TRACK+ : Changing of screen

TRACK- : Changing of screen

Audio/AV : Return to Sub Menu

●Screen

Screen 3. FLICKER ADJUST IMAGE VERTICAL STRIPE SCREEN

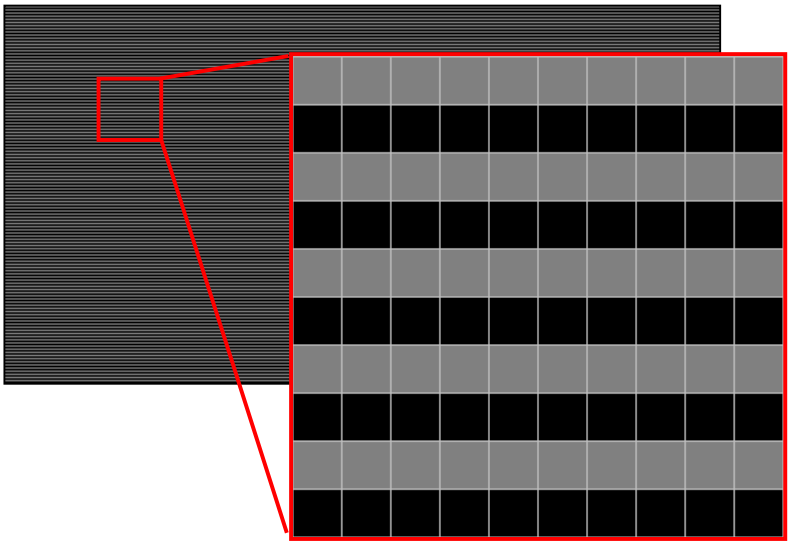


Description:

Vertical Stripe Screen:

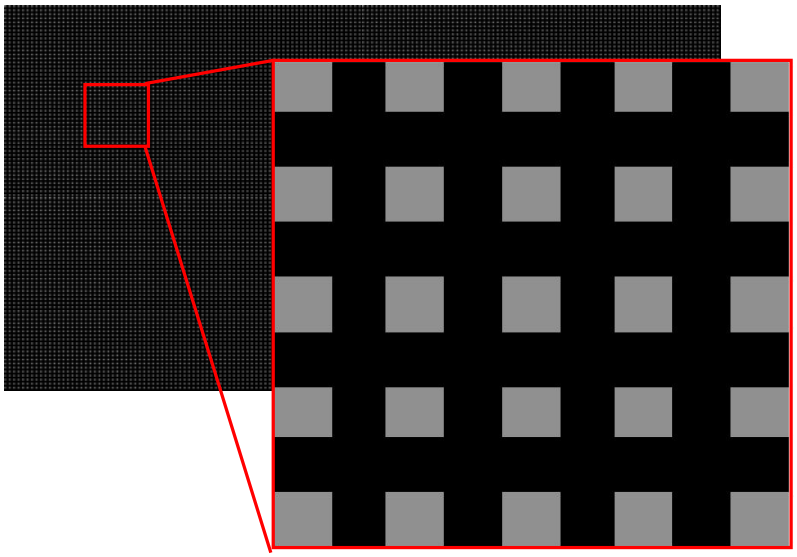
Gray of an RGB setting value of 128 and black are drawn alternately in one pixel-wide vertical stripes.

Screen 4. FLICKER ADJUST IMAGE HORIZONTAL STRIPE SCREEN



Description:
Horizontal Stripe Screen:
Gray of an RGB setting value of 128 and black are drawn alternately in one pixel-wide horizontal stripes.

Screen 5. FLICKER ADJUST IMAGE MESH SCREEN



Description:
Mesh Screen:
A combination of horizontal and vertical stripes is displayed.
Horizontal and vertical lines are drawn in black, and the clearance between each line is drawn in one pixel-wide gray of an RGB setting value of 128.

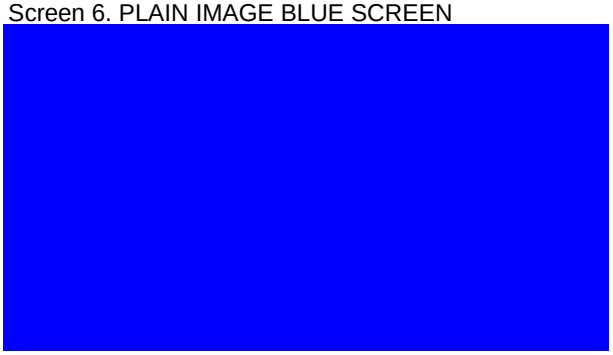
3. PLAIN IMAGE

●Allocation of Key Operation

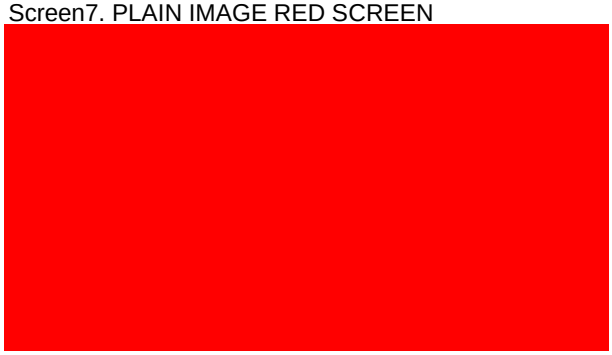
Audio/AV : Return to Sub Menu

●Screen

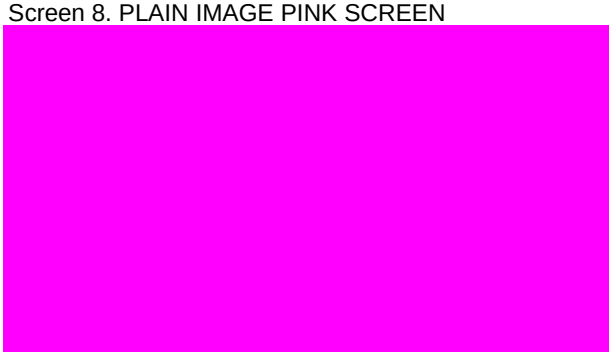
Screen 6. PLAIN IMAGE BLUE SCREEN



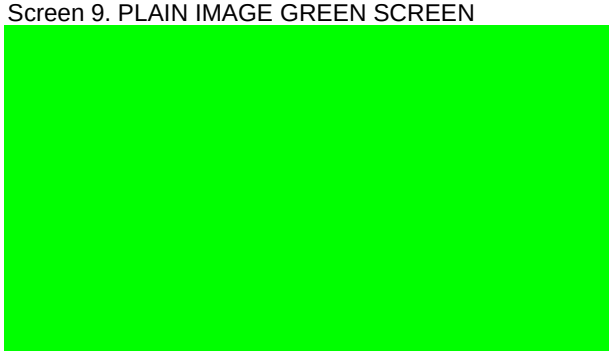
Screen7. PLAIN IMAGE RED SCREEN



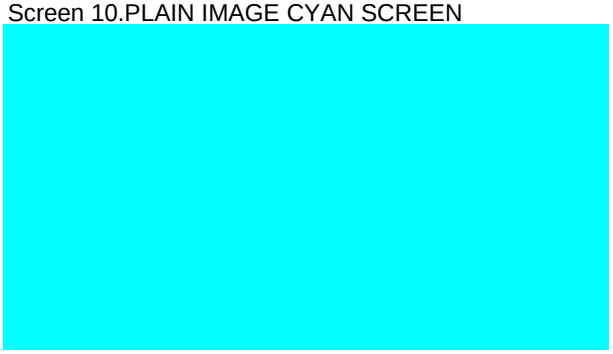
Screen 8. PLAIN IMAGE PINK SCREEN



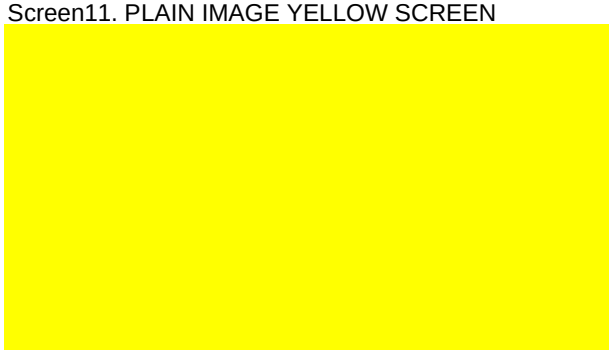
Screen 9. PLAIN IMAGE GREEN SCREEN



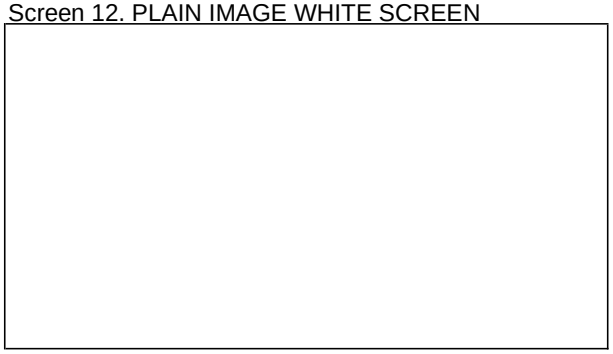
Screen 10.PLAIN IMAGE CYAN SCREEN



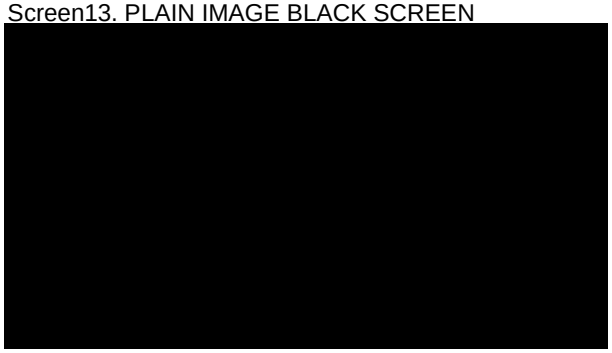
Screen11. PLAIN IMAGE YELLOW SCREEN



Screen 12. PLAIN IMAGE WHITE SCREEN



Screen13. PLAIN IMAGE BLACK SCREEN



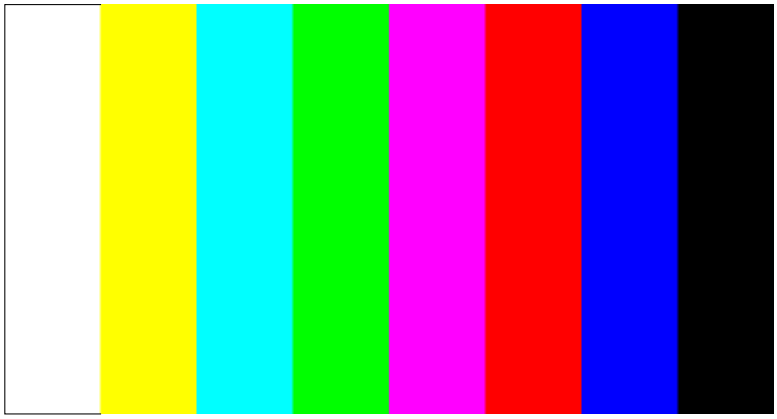
4. COLOR BAR IMAGE

●Allocation of Key Operation

Audio/AV : Return to Sub Menu

●Screen

Screen 14. COLOR BAR IMAGE COLOR BAR SCREEN



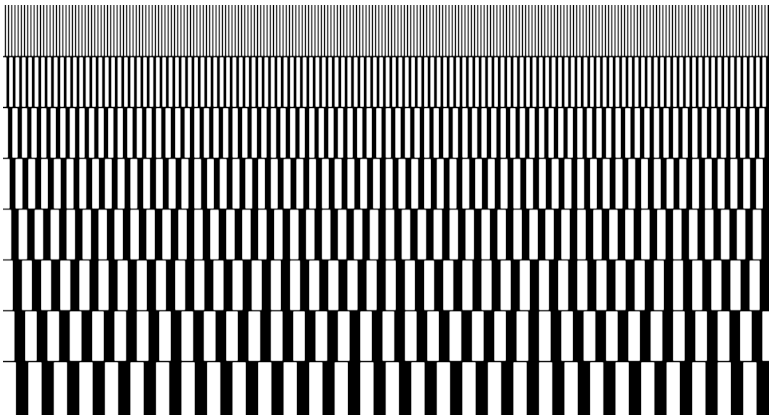
5. CYCLE LINE IMAGE

●Allocation of Key Operation

Audio/AV : Return to Sub Menu

●Screen

Screen 15. CYCLE LINE IMAGE SCREEN



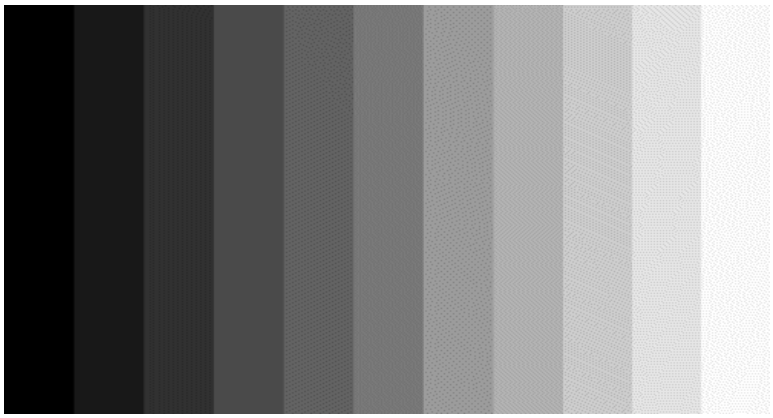
6. 10STEP IMAGE

●Allocation of Key Operation

Audio/AV : Return to Sub Menu

●Screen

Screen 16. 10STEP IMAGE SCREEN



7. NATURAL PICTURE

●Allocation of Key Operation

Audio/AV : Return to Sub Menu

●Screen

Screen 17. NATURAL PICTURE SCREEN

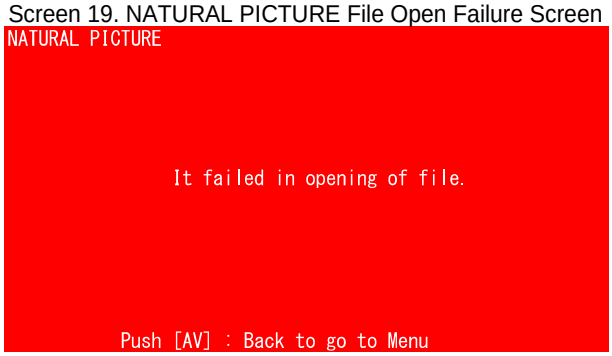
[NATURAL PICTURE ERROR CASES]

• File Check Failure

Screen 18. NATURAL PICTURE File Search Failure Screen

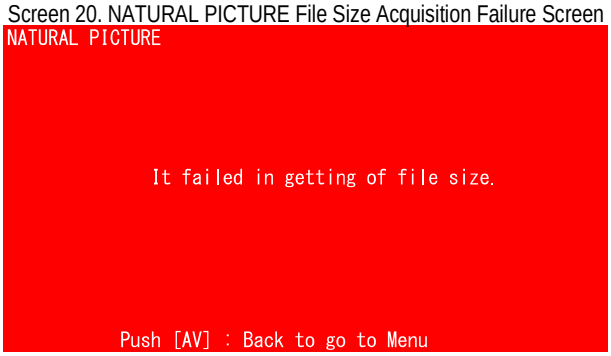
• File Open Failure

Screen 19. NATURAL PICTURE File Open Failure Screen



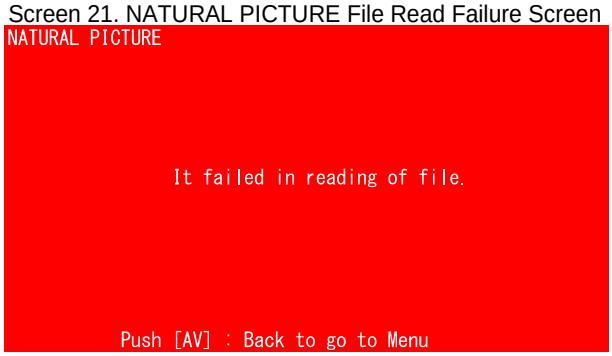
• File Size Acquisition Failure

Screen 20. NATURAL PICTURE File Size Acquisition Failure Screen



• File Read Failure

Screen 21. NATURAL PICTURE File Read Failure Screen



• File Close Failure

Screen 22. NATURAL PICTURE File Close Failure Screen

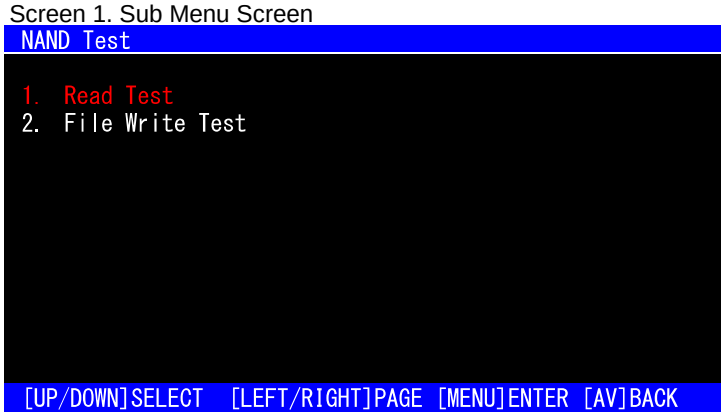
18. NAND Test

● Outline of Inspection
Reading / writing of NAND Flash is inspected.

● Allocation of Sub Menu Key Operation
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
MENU : Selected item is executed
Audio/AV : Return to Main Menu

● Sub Menu Screen

Screen 1. Sub Menu Screen



Read Test:
The reading is carried out from NAND Flash one sector at once by specifying the start sector number.
File Write Test:
A file is written into NAND Flash using the file system.
The written file is stored in the pass shown below.
USER¥SYSTEM¥TM¥WRITETST.DAT

● Details on Each Inspection Item

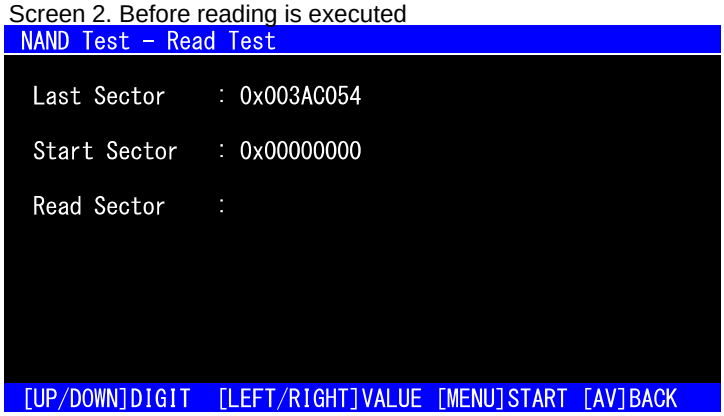
1. Read Test

- Allocation of Key Operation

TRACK+, TRACK-	: Digit movement
VOLUME+, VOLUME-	: Change of value
MENU	: Start of Read Test
Audio/AV	: Return to Sub Menu

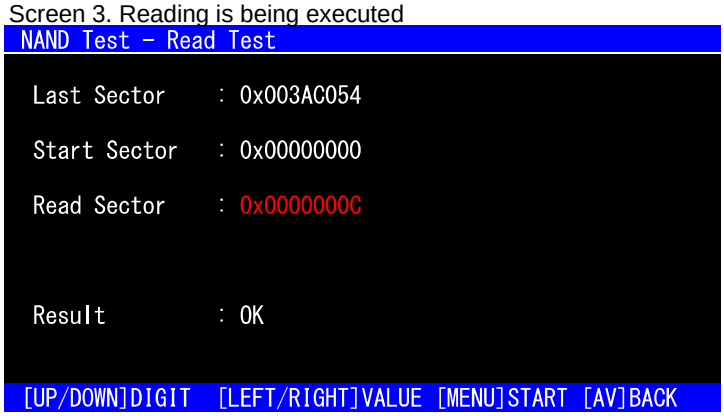
- Screen

Screen 2. Before reading is executed



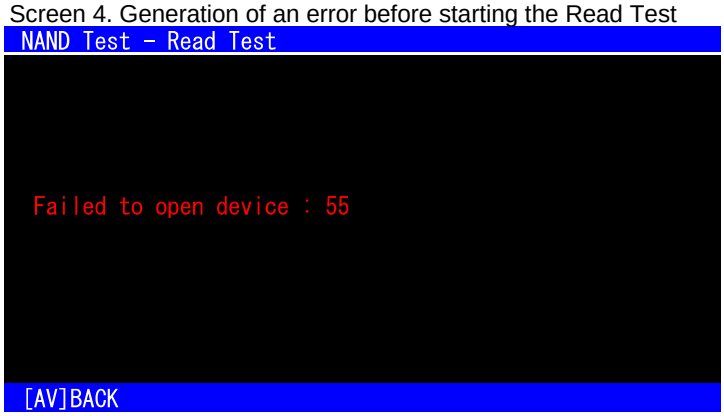
On this screen, the sector number for starting the reading is set.

Screen 3. Reading is being executed



This screen displays the update of the sector number that is being read out and the result of the reading.
If Audio/AV key is pressed during the reading or after the reading from the final sector number is completed, the screen Returns to Screen 2.

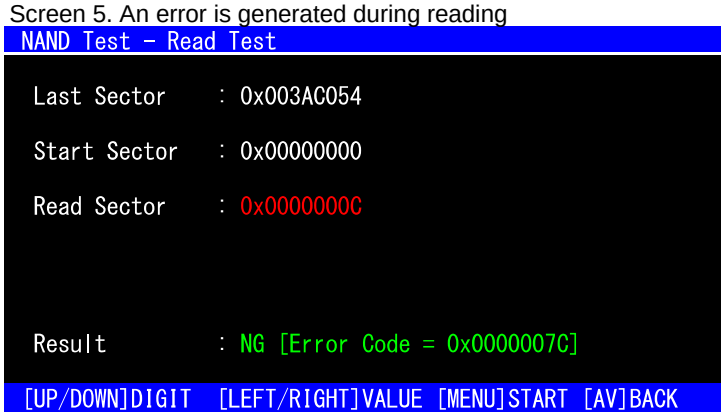
Screen 4. Generation of an error before starting the Read Test



This screen displays the following content if an error is generated before starting the Read Test.

- When the opening of the device results in failure
  Opening of device results in failure
- When the acquisition of device information results in failure
  Acquisition of device information results in failure
- When the generation of internal buffer results in failure
  Buffer generation results in failure

Screen 5. An error is generated during reading



This screen is displayed when the read processing results in failure.

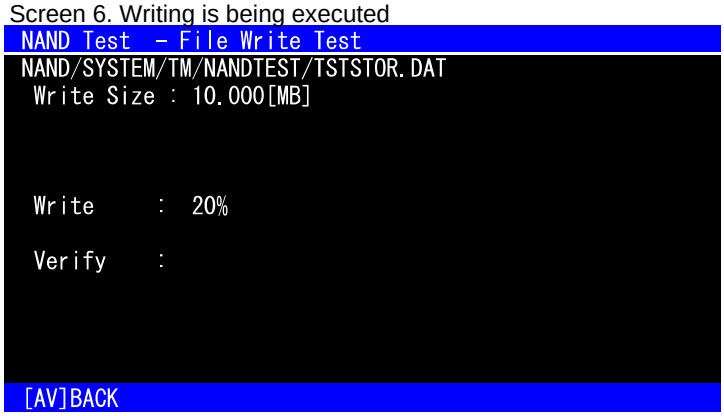
2. File Write Test

- Allocation of Key Operation

  Audio/AV : Return to Sub Menu

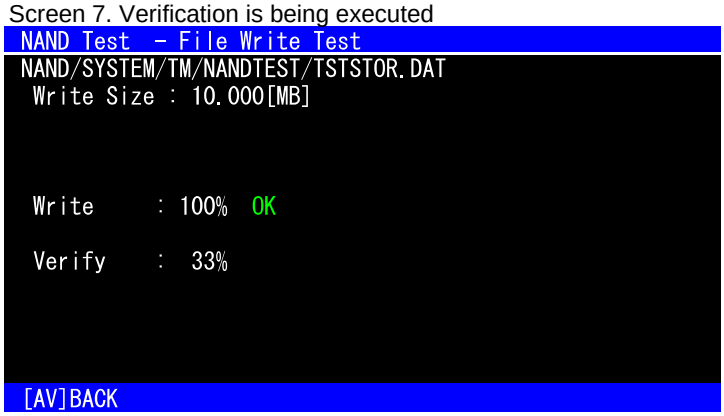
- Screen

Screen 6. Writing is being executed



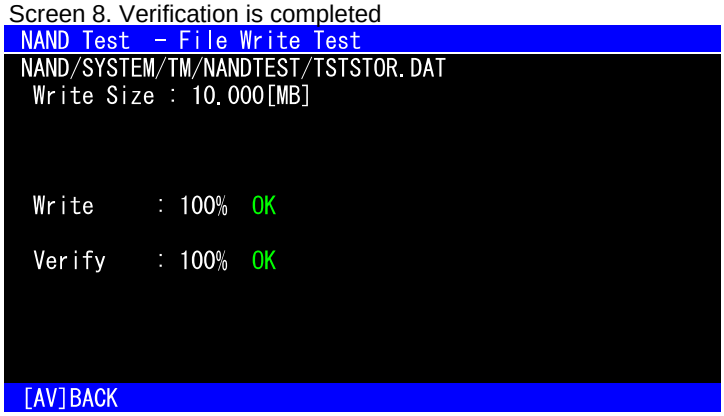
This screen is displayed during the writing into a file.

Screen 7. Verification is being executed



This screen is displayed during the verification.

Screen 8. Verification is completed



This screen is displayed when the verification is completed.

Screen 9. An error is generated

This screen displays the following content when an error is generated in the File Write Test.

- When the opening of the device results in failure
  Opening of device results in failure
- When the acquisition of device information results in failure
  Acquisition of device information results in failure
- When the generation of internal buffer results in failure
  Buffer generation results in failure
- When the writing into a file results in failure
  Writing into a file results in failure
- When the verification results in failure
  Verification results in failure

19. SD Test

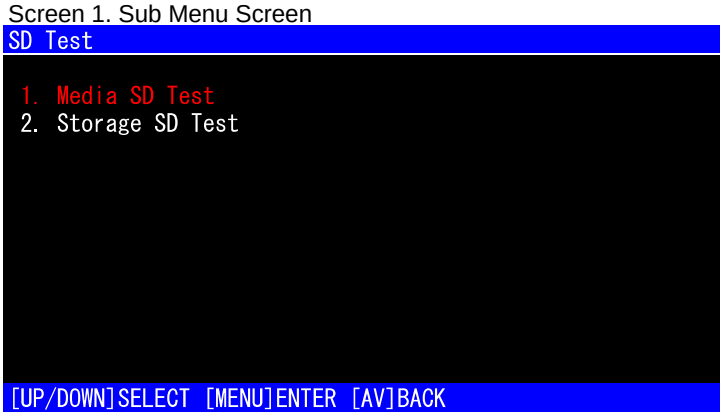
● Outline of Inspection
Whether an SD card and SD slot can be normally used is inspected.

● Item to be prepared
Insert an SD card with 1KB or more free space that can be read or written into the slot to be inspected.

● Allocation of Sub Menu Key Operation
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
MENU : Selected item is executed
Audio/AV : Return to Main Menu

● Sub Menu Screen

Screen 1. Sub Menu Screen



● Details on Each Inspection Item
1. Media SD Test
Whether an SD card in the SD slot used by a user can be normally used is inspected.

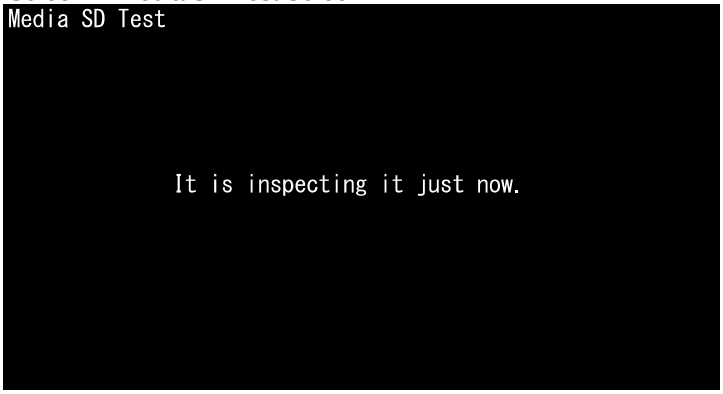
2. Storage SD Test
Whether an SD card that contains NAVI program or other data in the SD slot, which cannot be used by a user, can be normally used is inspected.

1. Media SD Test

● Allocation of Key Operation
Audio/AV : Return to Main Menu

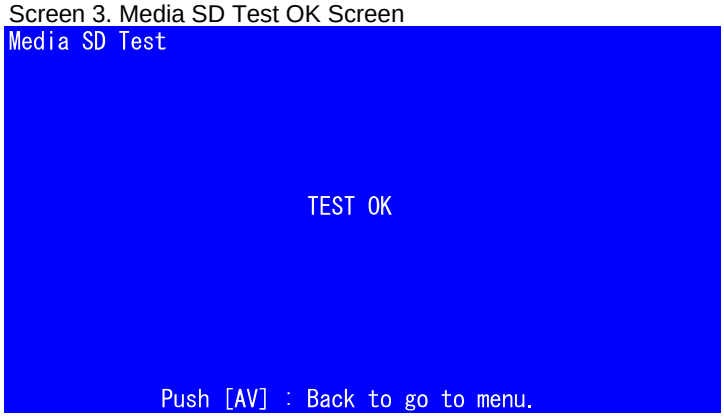
● Screen

Screen 2. Media SD Test Screen



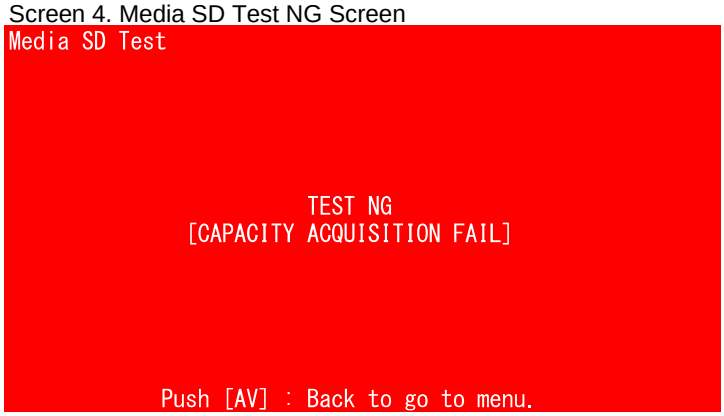
While the screen above is displayed, Read/Write processing is carried out for an SD card.

Screen 3. Media SD Test OK Screen



If the screen shown above is displayed, the relevant SD slot and the SD card can be used without a problem.

Screen 4. Media SD Test NG Screen



If the screen shown above is displayed, the relevant SD slot or SD card may have a problem. The types of errors are shown in the table below.

Table 1. Error Types of SD Test

Display of error	Description
CAPACITY ACQUISITION FAIL	An SD card cannot be recognized. Or, remaining capacity cannot be acquired.
CAPACITY SHORTAGE	Remaining capacity is less than 1KB.
WRITE PROTECTED	Write-protect functions.
PROTECTION UNKNOWN	Status of write-protect is unknown.
PROTECTION GET ERROR	Status of write-protect cannot be acquired.
FILE DELETE ERROR 1	An existing file for inspection cannot be deleted.
FILE CREATION ERROR	A file for inspection cannot be generated.
DATA WRITE ERROR	Data cannot be written into a file for inspection.
FILE SEEK ERROR	A file for inspection cannot be operated.
DATA READ ERROR	Data cannot be read from a file for inspection.
DATA VERIFY ERROR	A value written into a file for inspection is not correct.
FILE CLOSE ERROR	A file for inspection cannot be closed.
FILE DELETE ERROR 2	Delete of file for inspection results in failure.
UNKNOWN ERROR	An unexpected error is generated.

2. Storage SD Test

The Storage SD Test is omitted here because it is similar to Media SD Test excluding the inspection name.

20. Drive Maintenance

● Outline of Inspection

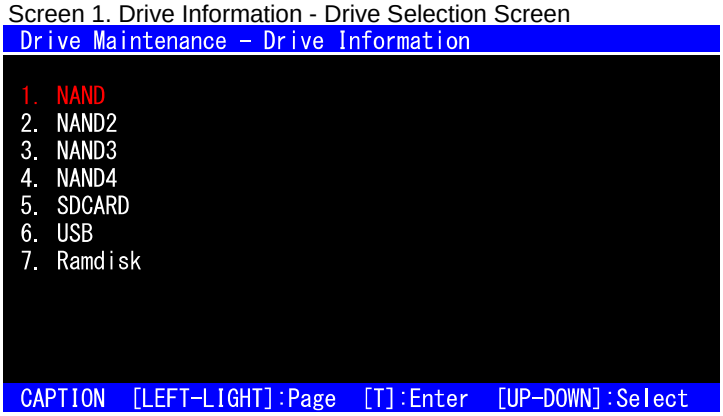
The information of the storage drive including the main storage is acquired.

● Allocation of Key Operation

VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
MENU : Selected item is executed
Audio/AV : Return to Main Menu

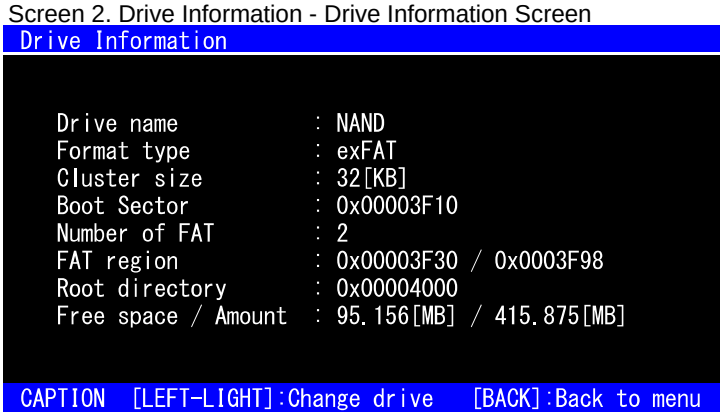
● Details on Item

Screen 1. Drive Information - Drive Selection Screen



The list of drives for which information should be displayed is displayed.
Select the target drive and decide it.

Screen 2. Drive Information - Drive Information Screen



If a drive is decided, the following information is displayed for the target drive.

- Drive name
- Format type (Kind of FAT: FAT12/FAT16/FAT32/exFAT/Extend/EntierFS)
- Cluster size (byte count per cluster)
- Partition start address of Boot Sector (LBA)
- Number of FAT
- Start address of FAT region (LBA)
- Start address of Route directory (LBA)
- Free space / Amount

21. BLUETOOTH TEST

● Outline of Inspection

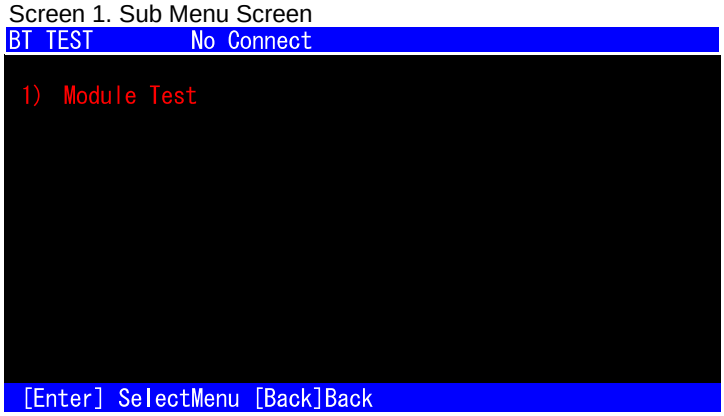
It is an inspection item for inspecting a Bluetooth Module.

● Allocation of Sub Menu Key Operation

MENU : selected item is executed
Audio/AV : Return to Main Menu

● Sub Menu Screen

Screen 1. Sub Menu Screen

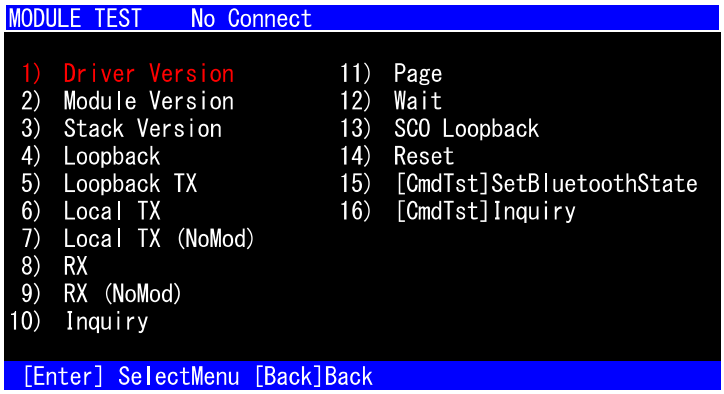


● Details on Each Inspection Item

1) Module Test (For inspecting BT Module)

● Module Test Menu Screen

Screen 2. Module Test Menu Screen



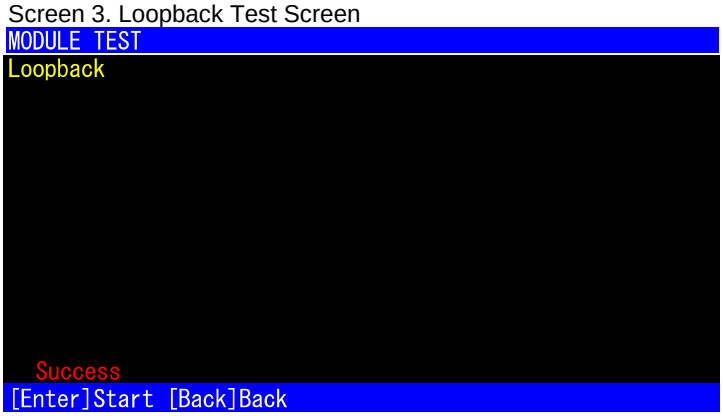
● Details on Each Inspection Item

1)	Driver Version	Bluetooth HCI Driver Version request
2)	Module Version	Bluetooth HCI Module Version request
3)	Stack Version	Bluetooth Stack Version request
4)	Loopback	Loop-back Communication Test with other device
5)	Loopback TX	Sending Test with other device
6)	Local TX	Burst Signal Sending Test
7)	Local TX (NoMod)	No-Modulation Carrier Sending Test
8)	RX	Reception Test
9)	RX (NoMod)	No-Modulation Carrier Reception Test
10)	Inquiry	INQUIRY (inquiry) Test
11)	Page	PAGE (connection request) Test
12)	Wait	WAIT (connection waiting) Test
13)	SCO Loopback	Return Audio Test
14)	Reset	Stop of Test Mode
15)	[CmdTst]SetBluetoothState	Bluetooth On/Off setting
16)	[CmdTst]Inquiry	Device search (for acquiring BD address for 11. Page)

● Screen

• No Parameter

Screen 3. Loopback Test Screen



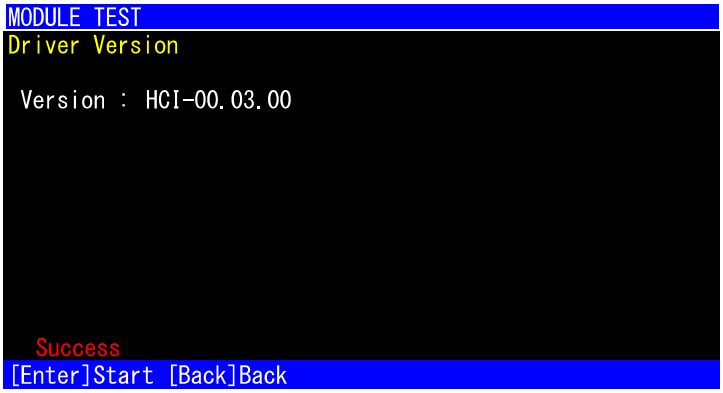
The currently executed test name is displayed at 2nd line on the screen and the execution status is displayed at 13th line.

The execution status is described below.

Execution status	Description
Running	During execution
Success	Succeeded
Error	Error is generated
Invalid	Fail (event notification)
Return FALSE	Fail (return value)
Reset..	During reset (after the test is executed, Reset is executed before returning to the menu)

• Acquisition of Version Information

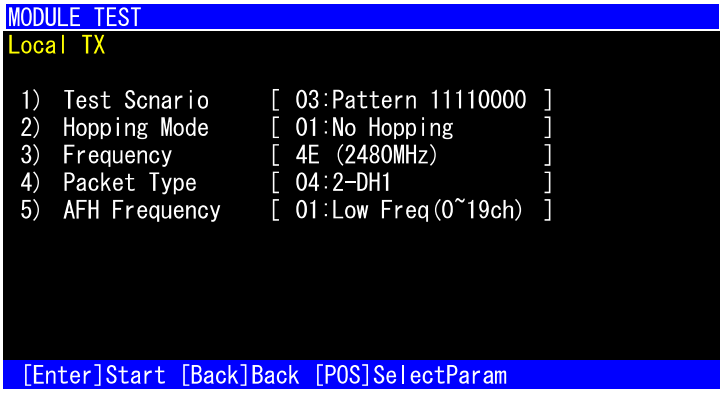
Screen 4. Driver Version Test Screen



The acquired version information is displayed at 4th line.
The version information is displayed only when it is acquired successfully (execution status is Success).

• With Parameter

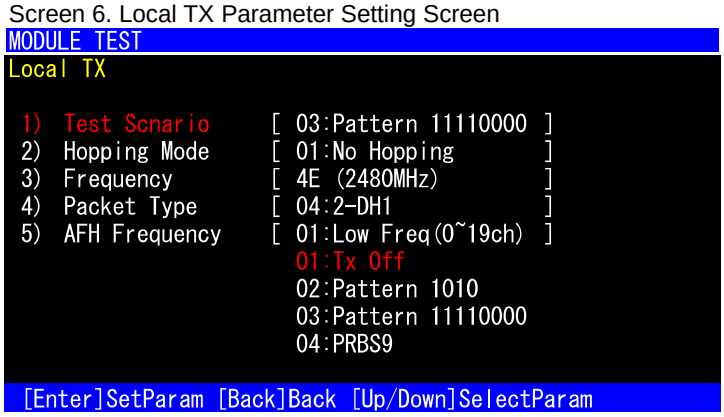
Screen 5. Local TX Test Screen



For the test with a parameter, a parameter can be selected.
If POS key is pressed in the status shown in Screen 5, the Parameter Selection Mode starts.

- Parameter is being selected

Screen 6. Local TX Parameter Setting Screen



Select a parameter to be set with Up/Down key and press the Enter key. The parameters that can be set are displayed at the lower part of the page.
Select a setting value with keys and press the Enter key. The selected parameter is set.

After the parameter is set, return to the status shown in Screen 5 with Back key, and then press the Enter key. The test is executed.

* Caution when an argument is input

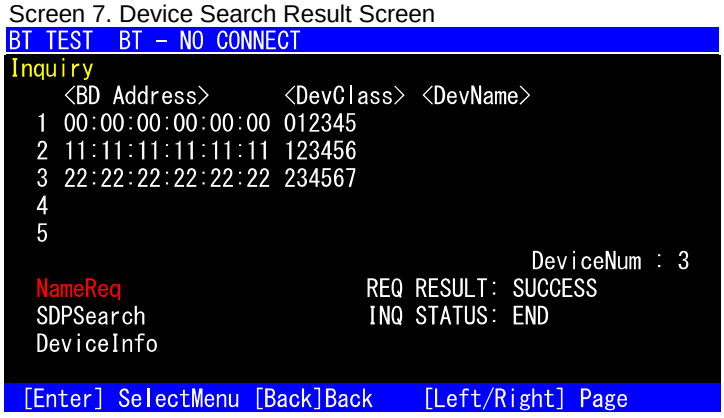
- The setting value of "AFH Frequency" for 6) Local TX and 8) RX is available only when "Hopping Mode" is set to [03: Hopping (with AFH)].
- If "Paste" is selected when "BD Address" in 11) Page is set, the BD address of the device that is searched in 16) [CmdTst] Inquiry can be input.

* Description of operation of 16) [CmdTst] Inquiry
With "Inquiry", a peripheral Bluetooth device can be searched.
The procedure is shown below.

Step 1: Specify a type of a device to be searched.
Step 2: Input the number of devices to be searched and the timeout time (input the specified value with POS key).
Step 3: Check the result screen and confirm whether there is a target device.

- Inquiry Result

Screen 7. Device Search Result Screen



If the number of devices is five or more, you can switch the pages with Right and Left keys.
If there is no target device in the list, execute 16) [CmdTst] Inquiry again.

22. AudioTest

● Outline of Inspection

Play an Audio File that is stored in the Storage SD / Media SD / USB memory and check various audio output routes.
The audio routes that can be checked are shown below.

1. Guide Audio Output [SSI 0ch]
2. Operation Sound Output [FSI Ach]
3. Compressed Audio Output [SSI 1ch]

The Compressed Audio Output is a function for engineers. When you check the audio output from a speaker, it is necessary to use the item that has been released in the test mode for engineers.
As a result, the output of Compressed Audio from a speaker cannot be checked for the item for services.

● Item to be prepared

1. Connect speakers.
   * The Guide Audio and the Operation Sound are not output from a rear speaker.
2. When Audio Files in the Media SD / USB memory is played, allocate Audio Files so that the directory configuration shown below is ensured.

```
[Directory configuration]
   SDCARD/USB
      ├── AudioFile
      │      ├── xxx.wav
      │      ├── yyy.wav
```

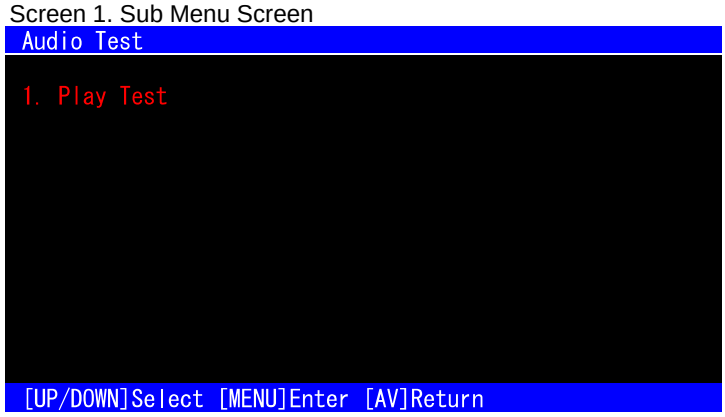
* Allocate Audio Files in Audio File folder.
* Only Audio Files whose extension is .wav can be played (mp3 file or other file cannot be played).
* An arbitrary file name is available.

● Allocation of Sub Menu Key Operation

VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
MENU : selected item is executed
Audio/AV : Return to Main Menu

● Sub Menu Screen

Screen 1. Sub Menu Screen



● Details on Each Inspection Item

1. Play Test

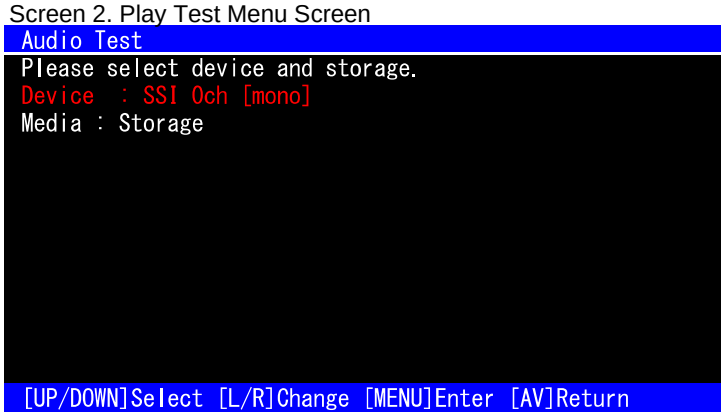
It is an inspection for playing an Audio File.
If this inspection is selected, the screen shifts to Screen 2.

● Allocation of Key Operation

VOLUME+ : Item selection
VOLUME- : Item selection
TRACK+ : Changing of item element
TRACK- : Changing of item element
MENU : Enter
Audio/AV : Return to full screen
NAVI : Playback start / stop (used for some screens)

● Screen

Screen 2. Play Test Menu Screen



On Screen 2, an audio output route is set and the reading destination of a file to be played is selected.

Device

Set an audio route. Elements are toggled in the order shown below.

SSI 0ch [mono] * Guide Audio Output
↓ ↑
FSI Ach [mono] * Operation Sound Output
↓ ↑
SSI 1ch [stereo] * Compressed Audio Output
↓ ↑
SSI 0ch [mono]

→ Right key operation
→ Left key operation

Media

Specify the direction for reading an Audio File to be played.
The element can be selected from three types; Storage, SD and USB.

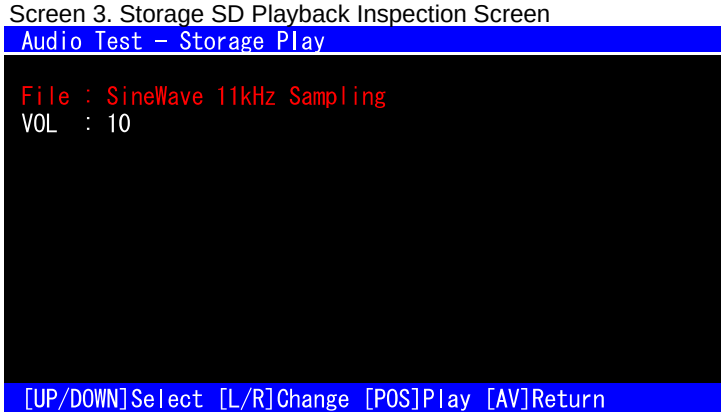
Storage : An Audio File that has been stored in the Storage SD is read.
If you enter the setting (press MENU key) while "Storage" is selected,
the screen shifts to Screen 3.

SD : An Audio File stored in the Media SD is read.
If you enter the setting (press MENU key) while "SD" is selected,
the screen shifts to Screen 6.

USB : An Audio File stored in the USB memory is read.
If you enter the setting (press MENU key) while "USB" is selected,
the screen shifts to Screen 11.

[Playback from Storage SD]

Screen 3. Storage SD Playback Inspection Screen



On Screen 3, a file to be played is specified and the volume is adjusted.

File

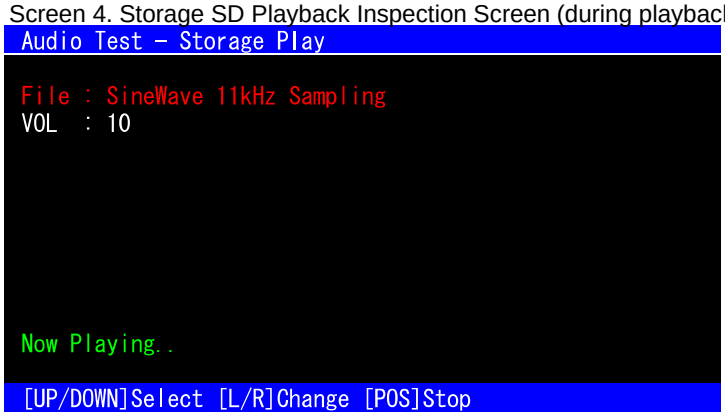
Select a file to be played.
Six files shown below are prepared.
All Audio Files are created in monaural format.

Screen display	Details on file
SineWave 11 kHz Sampling	11.025 kHz sampling: sine wave file
SineWave 22 kHz Sampling	22.05 kHz sampling: sine wave file
Music 11 kHz Sampling	11.025 kHz sampling: music file
Music 22 kHz Sampling	22.05 kHz sampling: music file
Narration 11 kHz Sampling	11.025 kHz sampling: narration
Narration 22 kHz Sampling	22.05 kHz sampling: narration

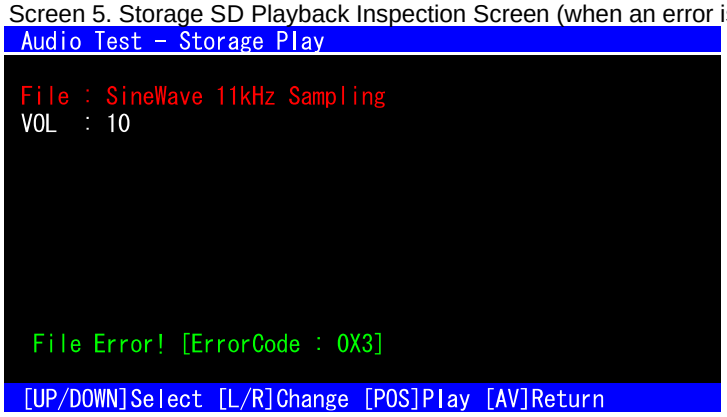
VOL

Adjust the volume value of Guide Audio Output and Operation Sound Output parts.
The adjustment at 32 stages from 0 to 31 can be carried out and 0 is equivalent to mute.
* If the Compressed Audio Output is selected, VOL is not displayed on the screen.

Screen 4. Storage SD Playback Inspection Screen (during playback)



Screen 5. Storage SD Playback Inspection Screen (when an error is generated)



While an Audio File is played, Screen 4 is displayed.
During the playback, only the volume adjustment can be changed.
(The file cannot be changed)

If an error is generated during the playback on the device side, the screen shifts to Screen 5 and the cause of the error and the error code are output.

If "File Error" is displayed, it means that an error is generated in the operation of an Audio File on the Storage SD.
The representative error codes are shown below. If other error code is displayed, contact an engineer.

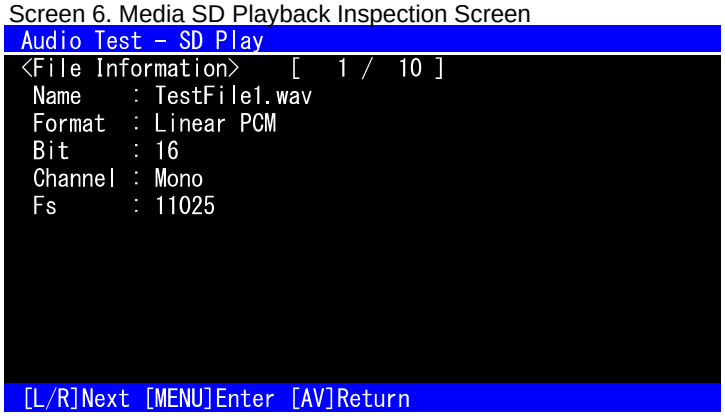
Displayed error	Details
0X2	There is no file in the specified folder pass
0X3	There is no specified folder pass

If "Play Error" is displayed, it means that an error is generated in the processing on the regenerative device side.
The representative error codes are shown below. If other error code is displayed, contact an engineer.

Displayed error	Details
0X4	The device is used for other inspection
0X20	The audio format of the specified file cannot be played * If an Audio File of 11 kHz sampling is specified for the Operation Sound Output, this error is displayed.

[Playback from Media SD]

Screen 6. Media SD Playback Inspection Screen



If the playback from a Media SD is selected on Screen 2, the screen shifts to Screen 6.

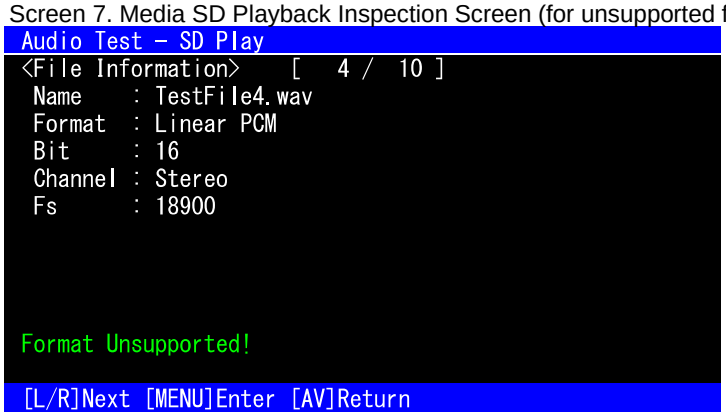
This screen displays .wav format files stored in Audio File folder in a Media SD (SDCARD) as a list.
The number at the second line indicates the total number of .wav files in Audio File folder and what number of file it is.

At third line to seventh line, the audio format information of .wav file is displayed.
The meaning of each item is shown below.

Name : File name
Format : Format type
Bit : Bit count per sample data
Channel : Number of audio channels
Fs : Sampling frequency

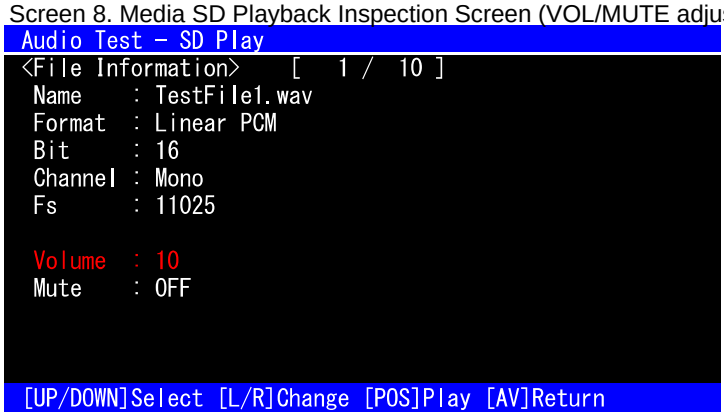
If the information of a file to be played is displayed, Enter the setting (press MENU key).

Screen 7. Media SD Playback Inspection Screen (for unsupported format)



If the device selected on Screen 2 does not support the format of the file, Screen 7 is displayed.

Screen 8. Media SD Playback Inspection Screen (VOL/MUTE adjustment)

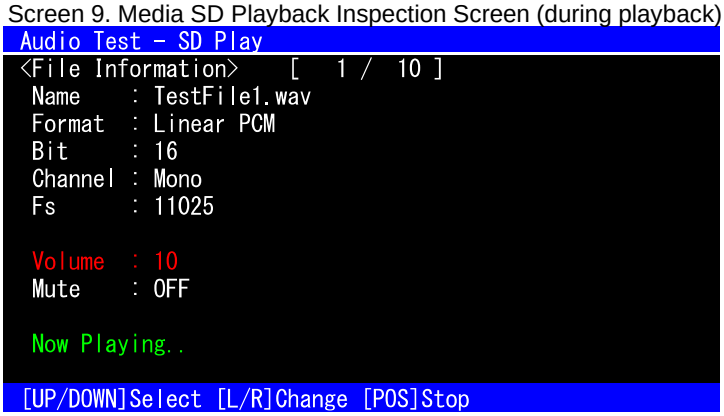


If there is no problem in the file format, Screen 8 is displayed.
On this screen, the volume adjustment and the mute control are available.

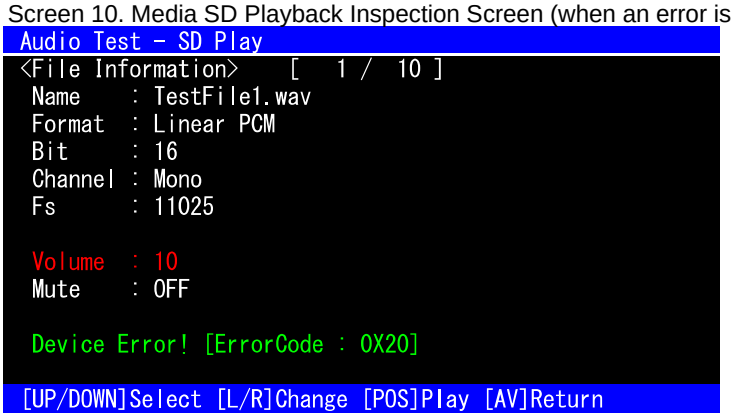
Volume
Adjust the volume value of Guide Audio Output and Operation Sound Output parts.
The adjustment at 32 stages from 0 to 31 can be carried out and 0 is equivalent to mute.
* If the Compressed Audio Output is selected, VOL is not displayed on the screen.

Mute
Carry out the mute control on Guide Audio Output and Operation Sound Output routes.
If it is set to ON, the audio route is muted and the audio is not output from a speaker.
* If the Compressed Audio Output is selected, VOL is not displayed on the screen.

Screen 9. Media SD Playback Inspection Screen (during playback)



Screen 10. Media SD Playback Inspection Screen (when an error is generated)



While an Audio File is played, the screen is displayed as shown in Screen 9.
During the playback, both of volume and mute can be changed.

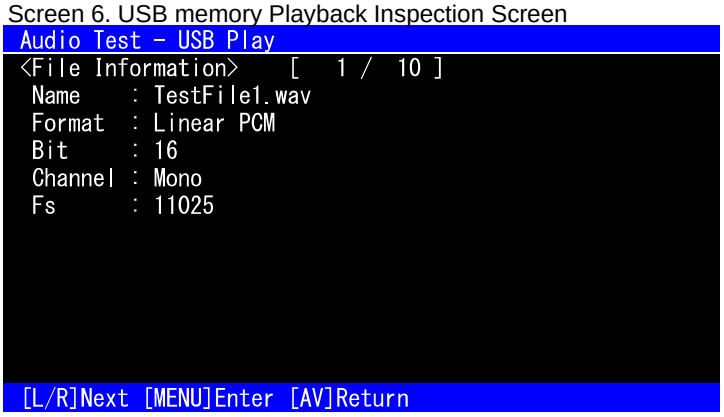
If an error is generated on the device during the playback, the screen shifts to Screen 10 and the cause of the error and the error code are output.

If "File Error" is displayed, it means that an error is generated in the operation of an Audio File on the Storage SD.
The content of the error code is same as that of playback of Storage SD.

If "Device Error" is displayed, it means that an error is generated in the processing on the regenerative device side.
The content of the error code is same as that of playback of Storage SD.

[Playback from USB memory]

Screen 6. USB memory Playback Inspection Screen



If the playback from a USB memory is selected on Screen 2, the screen shifts to Screen 11.

This screen displays .wav format files stored in Audio File folder in a USB memory as a list.

Screen transition and specifications of operation are same as those of playback from media SD.

23. Ext Connection Test

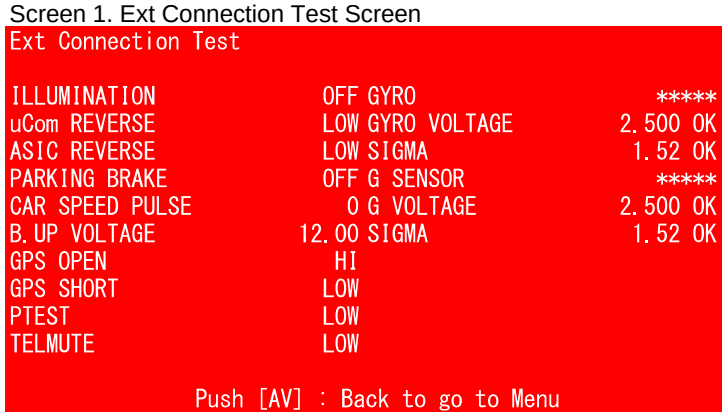
● Outline of Inspection
The Input Terminal status, Gyro Sensor, and value of G Sensor are displayed.

● Item to be prepared
If an internal SD is not inserted, ASIC REVERSE, CAR SPEED PULSE, B.UP VOLTAGE, GPS OPEN, GPS SHORT, GYRO, and G SENSOR do not operate.

● Allocation of Key Operation
Audio/AV : Return to Main Menu

● Screen

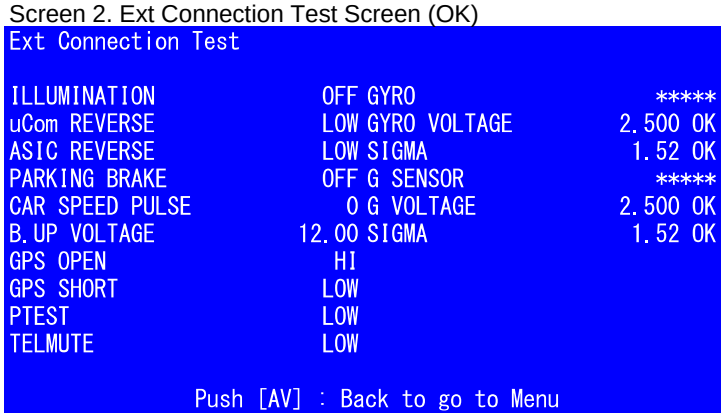
Screen 1. Ext Connection Test Screen



Following information is displayed.

Item name	Description
ILLUMINATION	Illumination ON/OFF
uCom REVERSE	Reverse terminal status LOW/HIGH acquired from uCom
ASIC REVERSE	Reverse terminal status LOW/HIGH acquired from ASIC
PARKING BRAKE	Parking brake ON/OFF
GPS OPEN	GPS antenna connecting status is displayed. (LOW = Connected; HI = Not connected)
GPS SHORT	GPS antenna short-circuited status is displayed. (LOW = Open; HI = Short-circuiting)
PTEST	TEST terminal status LOW/HIGH
TELMUTE	TELMUTE terminal status LOW/HIGH
CAR SPEED PULSE	Vehicle speed pulse count
B.UP VOLTAGE	Backup voltage
GYRO	Angular acceleration level, sensor voltage, variability If three items shown below are fulfilled, the inspection result is OK. • One or more clockwise rotation and one or more anticlockwise rotation can be detected. • The middle point potential value is within the specified range. • When the product is stopped, the variability is stabilized at the value 30.0 or less for 5 seconds. [Reference] The specified range of the middle point potential is within standard value 2.5 [V] ± 0.15 [V].
G SENSOR	Incline level, sensor voltage, variability If three items shown below are fulfilled, the inspection result is OK. • Upstream 1 or more and downstream 1 or more can be detected • The middle point potential value is within the specified range. • When the product is stopped, the variability is stabilized at the value 30.0 or less for 5 seconds. [Reference] The specified range of the middle point potential is within standard value 2.5 [V] ± 0.25 [V].

Screen 2. Ext Connection Test Screen (OK)



If items Gyro and G Sensor become OK, the background of the screen changes to blue.
If the background of the screen changes to blue after executing following procedure, the product is a conforming item.

1) The product is rotated in clockwise and anticlockwise directions and the Gyro detects 1 or more level in clockwise and anticlockwise directions.
2) The product is declined upper and lower sides, and G Sensor detects 1 or more level on upper and lower sides.
3) The product is placed horizontally and not moved for 5 seconds or more.

24. Fan Control Test

● Outline of Inspection

The rotation speed of FAN is arbitrarily controlled.
When the inspection is terminated, the operation returns to the automatic control of MCU.

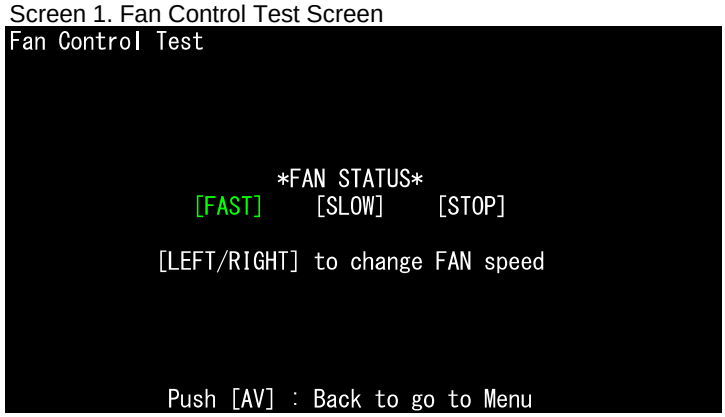
* The function of FAN high speed rotation is deleted from this model.
  Even if you set it to high speed during test, it rotates at low speed.

● Allocation of Key Operation

TRACK+ : Change of rotation speed
TRACK- : Change of rotation speed
Audio/AV : Return to Main Menu

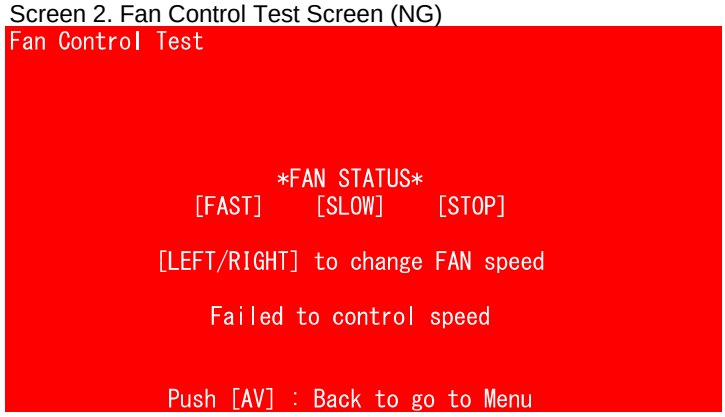
● Screen

Screen 1. Fan Control Test Screen



The current status of FAN is displayed with green characters.
The status can be arbitrary changed to high speed, low speed, and stop with TRACK+ and – keys.
* FAN rotates at [Low Speed] in this model when the model is set to [High Speed].
  It is because the function of high speed rotation is deleted from this model.

Screen 2. Fan Control Test Screen (NG)



When an NG is generated, the background becomes red and the content of NG is displayed at 11th line.

[Types of NG Content]
- Failed to control speed (MCU communications between high speed and low speed changing are failed)
- Failed to control power (MCU communications between operation and stop changing are failed)

25. Temperature Sensor Test

● Outline of Inspection

The temperatures of MOTHER UNIT, LCD UNIT, and SD UNIT are displayed.

* With this model, the temperature inspection of SD UNIT is not supported. An invalid value is displayed.

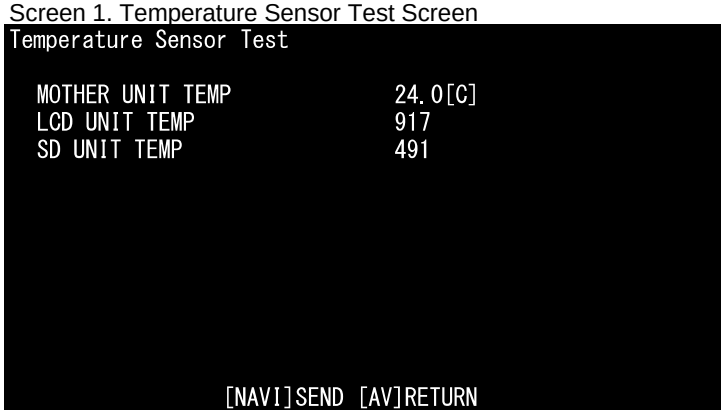
● Allocation of Key Operation

NAVI : Jig communication (does not operate in the service mode)

Audio/AV : Return to Main Menu

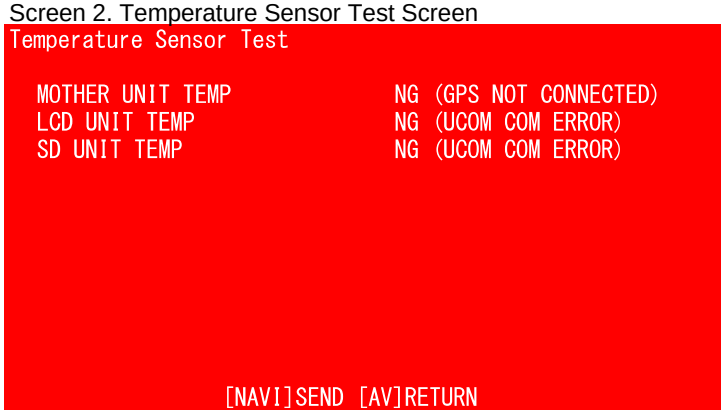
● Screen

Screen 1. Temperature Sensor Test Screen



MOTHER UNIT TEMP is displayed with °C and LCD/SD UNIT TEMP display an AD value.
For the AD value, convert the temperature based on the temperature conversion table shown below.

Screen 2. Temperature Sensor Test Screen



If the acquisition of the temperature results in failure, the content of the failure is displayed.

[Types of MOTHER UNIT TEMP Error]
- GPS NOT CONNECTED
- COMMAND ERROR

[Types of LCD/SD UNIT TEMP Error]
- UCOM COM ERROR

LCD UNIT Temperature Conversion Table

°C	AD value	°C	AD value	°C	AD value	°C	AD value	°C	AD value
125.0849	138	90.0067	311	54.9861	618	19.9379	899	-15.1367	1005
120.0800	155	84.9368	348	49.9881	666	14.9836	924	-19.7650	1010
114.8782	175	80.0091	387	45.0532	712	10.0565	945	-24.6009	1014
110.0307	196	75.0565	429	39.9751	757	4.9546	963	-29.4329	1017
105.0835	220	70.0436	474	35.0043	798	0.0833	977	-33.7131	1019
99.9253	248	65.0265	521	29.9503	836	-5.1388	989	-39.6765	1021
94.9591	278	60.0362	569	25.0387	869	-10.1331	998		

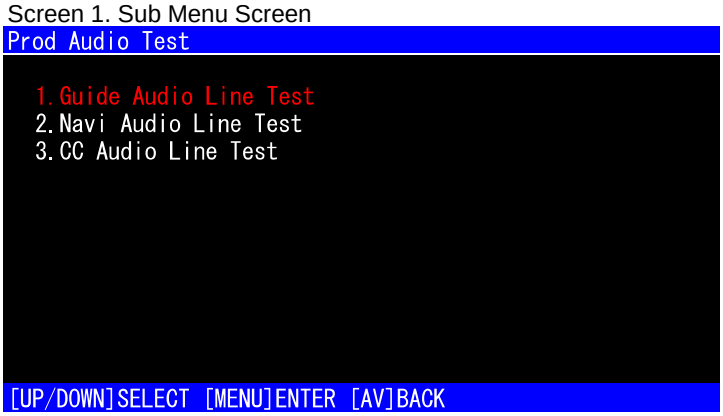
26. Prod Audio Test

● Outline of Inspection
A sine wave is output from guide audio line(SSI 0CH), operation sound line(FSA ACH) and CC AUDIO line(SSI 1CH).

● Allocation of Sub Menu Key Operation
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
MENU : selected item is executed
Audio/AV : Return to Main Men

● Sub Menu Screen

Screen 1. Sub Menu Screen

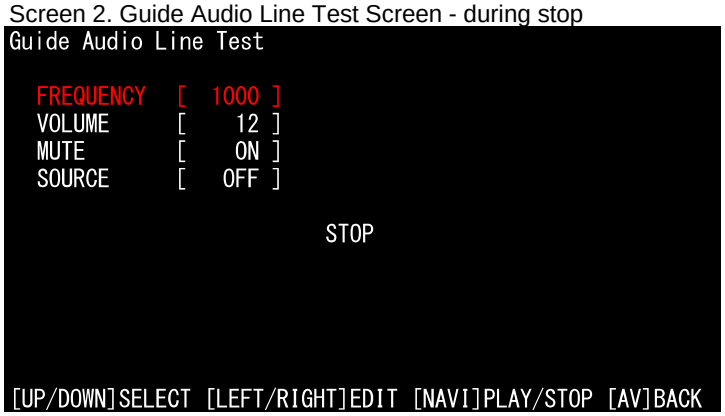


● Details on Each Inspection Item
1. Guide Audio Line Test
A sine wave is output for the guide audio line.
2. Navi Audio Line Test
A sine wave is output for the operation sound line.
3. CC AUDIO Line Test
A sine wave is output for the CC AUDIO line.

1. Guide Audio Line Test
● Allocation of Key Operation
VOLUME+ : Item selection
VOLUME- : Item selection
TRACK+ : Change of setting
TRACK- : Change of setting
NAVI : audio playback / stop
Audio/AV : Return to Sub Menu

● Screen

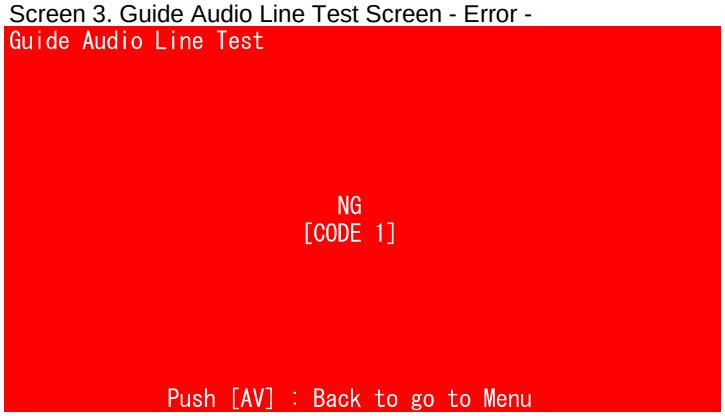
Screen 2. Guide Audio Line Test Screen - during stop



Selection item	Adjustment range
Frequency[Hz](*)	0/50/100/200/250/500/1000/2000/4000/5000/8000/10000/12500/16000/18000/20000
VOLUME	0-31
MUTE	OFF/ON
SOURCE	Unchangeable

(*) Frequency is only changeable during stop.

Screen 3. Guide Audio Line Test Screen - Error -



Error type

Indication	Cause
CODE 1	Failed VOL Setting (Incorrect Argument)
CODE 2	Failed VOL Setting (Failed Transmission between Processes)
CODE 3	Failed VOL Setting (Failed H/W Control)
CODE 4	Failed MUTE Setting (Incorrect Argument)
CODE 5	Failed MUTE Setting (Failed Transmission between Processes)
CODE 6	Failed MUTE Setting (Failed H/W Control)
CODE 7	Failed Reproduce (Event Production Error)
CODE 8	Failed Reproduce (Device Open Error)
CODE 9	Failed Reproduce (Buffer Creation Error)
CODE 10	Failed Reproduce (Buffer Initialization Error)
CODE 11	Failed Reproduce (Buffer Clean-up Error)
CODE 12	Failed Reproduce (Buffer Addition Error)
CODE 13	Failed Reproduce (Pause Error)
CODE 14	Failed Reproduce (Pause Releasing Error)
CODE 15	Failed Reproduce (Callback Time-out)
CODE 16	Failed Source Transfer
CODE 17	Failed Receiving NAVI Source OFF Command
CODE 18	Failed Receiving NAVI Source ON Command
CODE 19	Failed Selector Transfer
CODE 20	Failed Audio Property Setting
CODE 21	Failed Audio VOLUME Acquisition
CODE 22	Failed Audio VOLUME UP
CODE 23	Failed Audio VOLUME DOWN

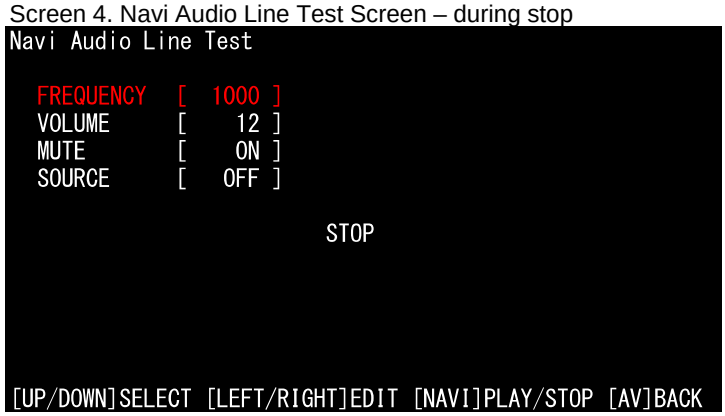
2. Navi Audio Line Test

● Allocation of Key Operation

VOLUME+ : Item selection
VOLUME- : Item selection
TRACK+ : Change of setting
TRACK- : Change of setting
NAVI : Audio playback / stop
Audio/AV : Return to Sub Menu

● Screen

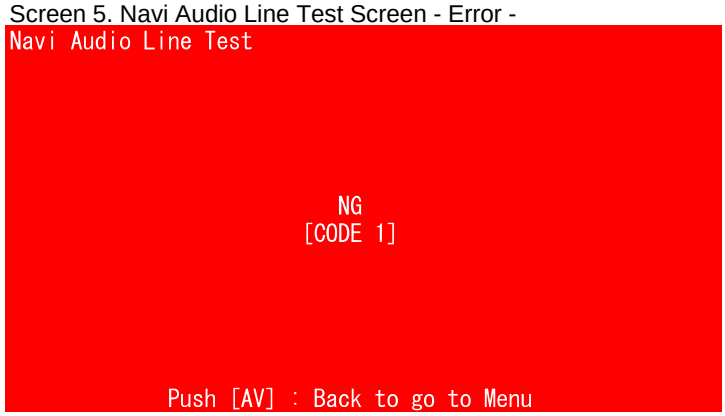
Screen 4. Navi Audio Line Test Screen – during stop



Selection item	Adjustment range
Frequency[Hz](*)	0/50/100/200/250/500/1000/2000/4000/5000/8000/10000
VOLUME	0-31
MUTE	OFF/ON
SOURCE	Unchangeable

(*) Frequency is only changeable during stop.

Screen 5. Navi Audio Line Test Screen - Error -



Error type

Indication	Cause
CODE 1	Failed VOL Setting (Incorrect Argument)
CODE 2	Failed VOL Setting (Failed Transmission between Processes)
CODE 3	Failed VOL Setting (Failed H/W Control)
CODE 4	Failed MUTE Setting (Incorrect Argument)
CODE 5	Failed MUTE Setting (Failed Transmission between Processes)
CODE 6	Failed MUTE Setting (Failed H/W Control)
CODE 7	Failed Reproduce (Event Production Error)
CODE 8	Failed Reproduce (Device Open Error)
CODE 9	Failed Reproduce (Buffer Creation Error)
CODE 10	Failed Reproduce (Buffer Initialization Error)
CODE 11	Failed Reproduce (Buffer Clean-up Error)
CODE 12	Failed Reproduce (Buffer Addition Error)
CODE 13	Failed Reproduce (Pause Error)
CODE 14	Failed Reproduce (Pause Releasing Error)
CODE 15	Failed Reproduce (Callback Time-out)
CODE 16	Failed Source Transfer
CODE 17	Failed Receiving NAVI Source OFF Command
CODE 18	Failed Receiving NAVI Source ON Command
CODE 19	Failed Selector Transfer
CODE 20	Failed Audio Property Setting
CODE 21	Failed Audio VOLUME Acquisition
CODE 22	Failed Audio VOLUME UP
CODE 23	Failed Audio VOLUME DOWN

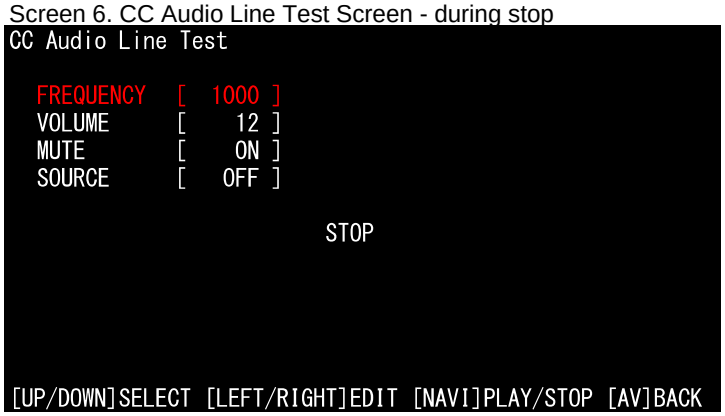
3. CC Audio Line Test

Allocation of Key Operation

VOLUME+ : Item selection
VOLUME- : Item selection
TRACK+ : Change of setting
TRACK- : Change of setting
NAVI : audio playback / stop
Audio/AV : Return to Sub Menu

● Screen

Screen 6. CC Audio Line Test Screen - during stop

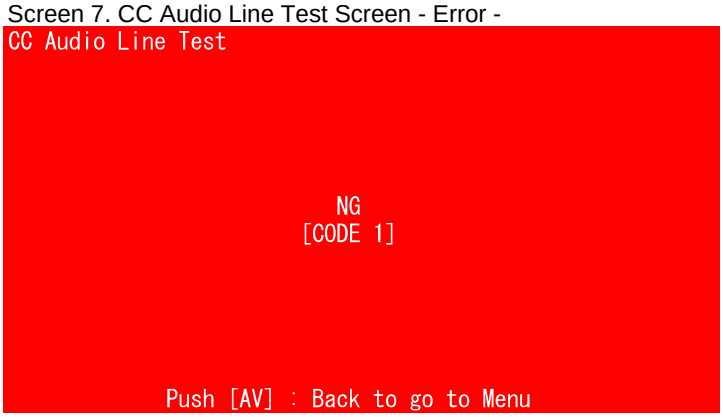


Selection item	Adjustment range
Frequency[Hz](*1)	0/50/100/200/250/500/1000/2000/4000/5000/8000/10000/12500/16000/18000/20000
VOLUME(*2)	0-40
MUTE	Unchangeable
SOURCE(*3)	OFF/IPOD/SD/BT

(*1) Frequency is only changeable during stop.
(*2) VOLUME is only changeable during playback except SOURCE OFF.
(*3) SOURCE is only changeable during stop.

If any error is occurred, an error code is displayed on red screen.

Screen 7. CC Audio Line Test Screen - Error -



Error type

Indication	Cause
CODE 1	Failed VOL Setting (Incorrect Argument)
CODE 2	Failed VOL Setting (Failed Transmission between Processes)
CODE 3	Failed VOL Setting (Failed H/W Control)
CODE 4	Failed MUTE Setting (Incorrect Argument)
CODE 5	Failed MUTE Setting (Failed Transmission between Processes)
CODE 6	Failed MUTE Setting (Failed H/W Control)
CODE 7	Failed Reproduce (Event Production Error)
CODE 8	Failed Reproduce (Device Open Error)
CODE 9	Failed Reproduce (Buffer Creation Error)
CODE 10	Failed Reproduce (Buffer Initialization Error)
CODE 11	Failed Reproduce (Buffer Clean-up Error)
CODE 12	Failed Reproduce (Buffer Addition Error)
CODE 13	Failed Reproduce (Pause Error)
CODE 14	Failed Reproduce (Pause Releasing Error)
CODE 15	Failed Reproduce (Callback Time-out)
CODE 16	Failed Source Transfer
CODE 17	Failed Receiving NAVI Source OFF Command
CODE 18	Failed Receiving NAVI Source ON Command
CODE 19	Failed Selector Transfer
CODE 20	Failed Audio Property Setting
CODE 21	Failed Audio VOLUME Acquisition
CODE 22	Failed Audio VOLUME UP
CODE 23	Failed Audio VOLUME DOWN

27. Steering Wheel Remocon Test

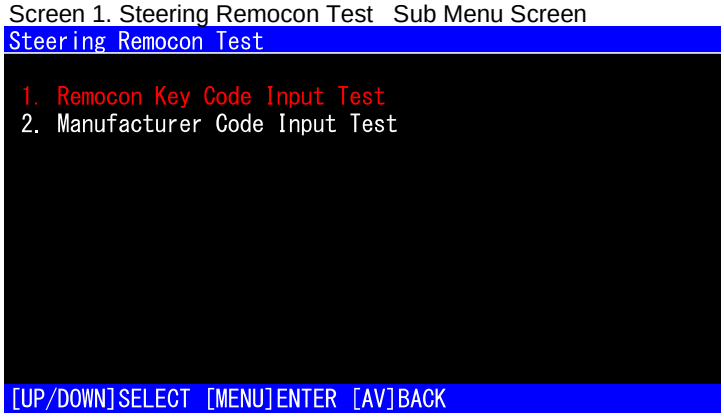
● Outline of Inspection
When a key on the steering remocon is pressed, the key code is displayed on the screen.

● Item to be prepared
Connect the steering remocon to the product.

● Allocation of Sub Menu Key Operation
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
MENU : selected item is executed
Audio/AV : Return to Main Menu

● Sub Menu Screen

Screen 1. Steering Remocon Test Sub Menu Screen



Description: It is the sub menu screen of the Steering Remocon Test.

● Details on Each Inspection Item
1. Remocon Key Code Input Information
When each button of the steering (wired) remocon is pressed, the key bode is displayed.

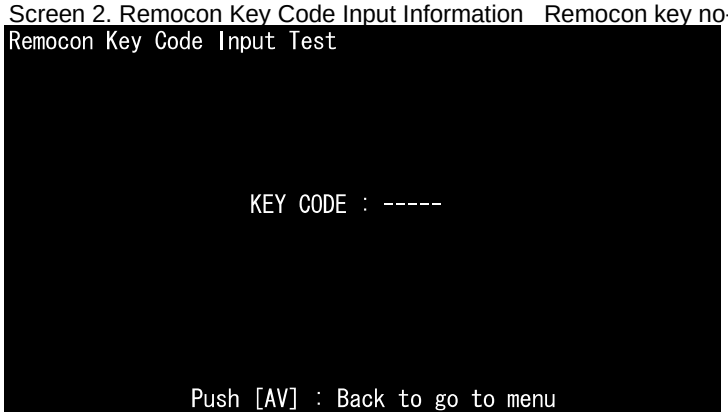
2. Manufacturer Code Input Information:
The manufacturer code of the steering (wired) remocon is displayed.
* This item is not used for this model.

1. Remocon Key Code Input Information

● Allocation of Key Operation
Audio/AV : Return to Sub Menu

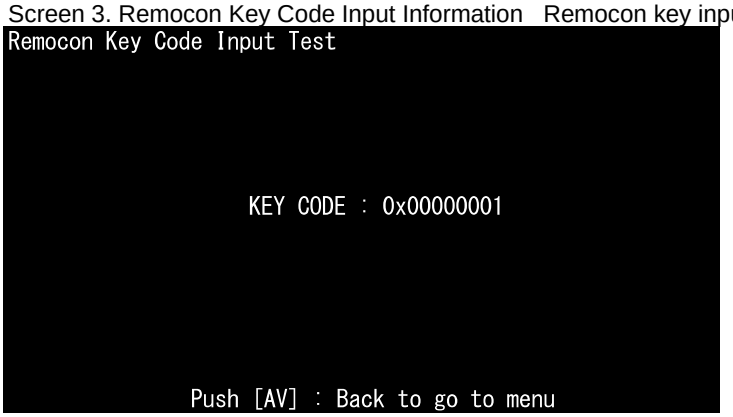
● Screen

Screen 2. Remocon Key Code Input Information Remocon key no-input screen



Description: If a key is not pressed, this screen is displayed.

Screen 3. Remocon Key Code Input Information Remocon key input screen



Description: While a key is pressed, the key code corresponding to the key is displayed.
The correspondence table of key and key code is attached to the bottom of this sheet.

● Key Code Correspondence Table

The keys existing on the remocon vary depending on the model.
List of key codes are described in the table shown below.

List of key codes of steering remocon

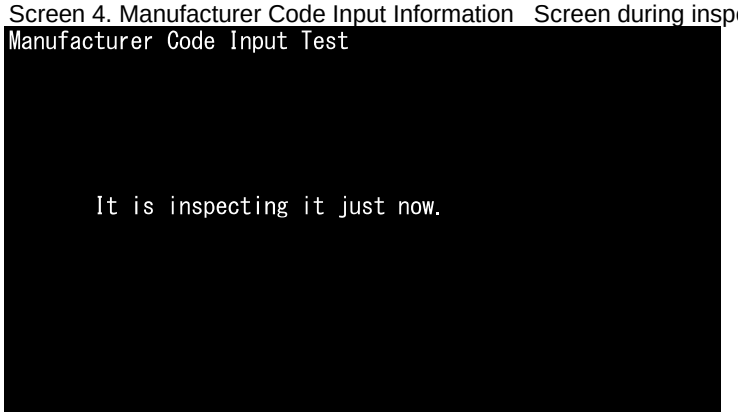
Key name	Key code
No operation (not pressed)	----------
ATT	0x01030001
VolUp, VOL+	0x01030002
VolDown, VOL-	0x01030003
Cross Key UP (Track Up), SEEK+	0x01030004
Cross Key DOWN (Track Down), SEEK-	0x01030005
Cross Key Left	0x01030006
Cross Key Right	0x01030007
mode, MODE	0x01030008
PHONE	0x01030009
MUTE	0x0103000a
VOICE	0x0103000b
ENTER	0x0103000c
CLEAR	0x0103000d
BAND	0x0103000e
On Hook	0x0103000f
Off Hook	0x01030010
SAT_TEXT	0x01030011
Present Location	0x01030012
Outing (Destination)	0x01030013
TILT	0x01030014
Details	0x01030015
Broad Area	0x01030016
MENU	0x01030017
H/F (Hands-Free)	0x01030018

2. Manufacturer Code Input Information * Not used for this model

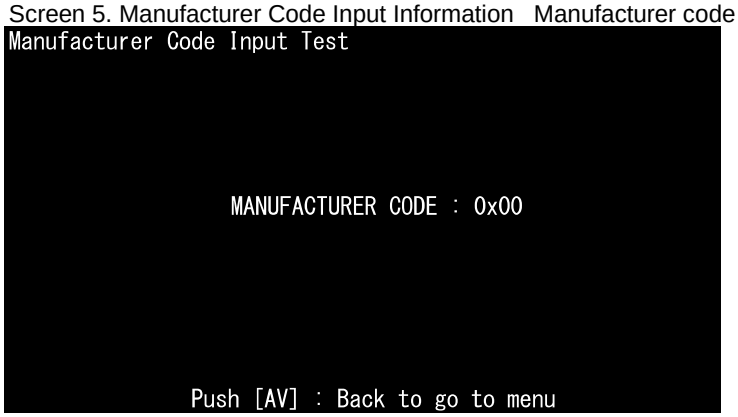
● Allocation of Key Operation
Audio/AV : Return to Sub Menu

● Screen

Screen 4. Manufacturer Code Input Information Screen during inspection

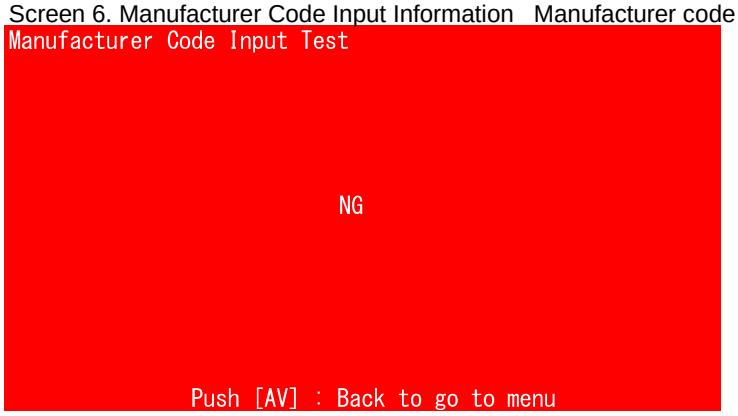


Screen 5. Manufacturer Code Input Information Manufacturer code display screen



[Error case of Manufacturer Code Input Information]

Screen 6. Manufacturer Code Input Information Manufacturer code acquisition NG screen



28. Unsync Serial Test

● Outline of Inspection

This is an item for inspecting a status of serial communication terminal.

For this reason, only CANBUS is inspected for this model.

● Item to be prepared

If open status is inspected, nothing needs to be prepared especially.

When the short inspection is carried out, it is necessary to connect input line and output line of serial communication line of the CAN-BUS port.

If there is a jig that connects them, the short inspection can be carried out.

● Allocation of Sub Menu Key Operation

VOLUME+ : Moves the selected item upward

VOLUME- : Moves the selected item downward

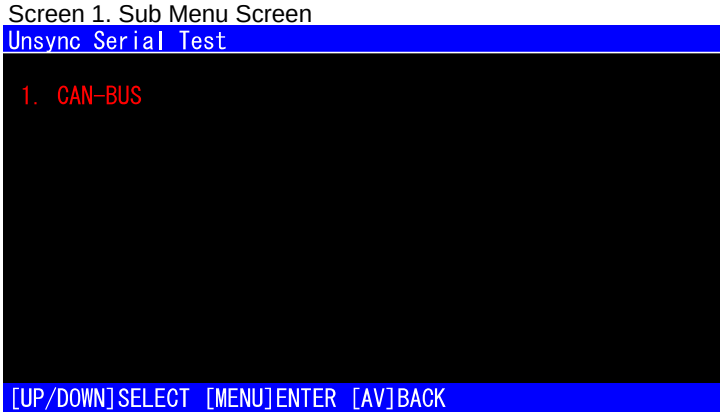
MENU : Selected item is executed

Audio/AV : Return to Main Menu

(There is only CAN-BUS, which can be inspected for this model, so it is not necessary to select an item)

● Sub Menu Screen

Screen 1. Sub Menu Screen



Description:

The Short Test is an item for inspecting a breaking of the serial communication line.

The Open Test is an item for inspecting a short circuit of the serial communication line.

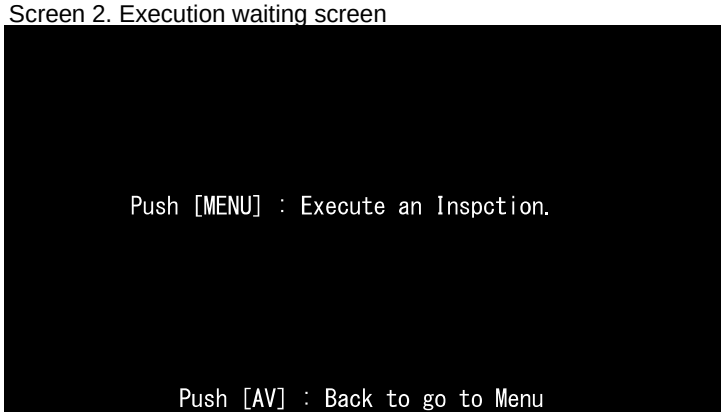
● Details on Each Inspection Item

1. CAN-BUS Test

● Allocation of Key Operation
Audio/AV : Return to Main Menu

● Screen

Screen 2. Execution waiting screen



Description: If CAN-BUS is selected on Screen 1, this screen is displayed.
If NAVI key is pressed, the test is started.

Screen 3. Screen during inspection

Description: If MENU key is pressed on Screen 2, this screen is displayed.
The key is disabled.

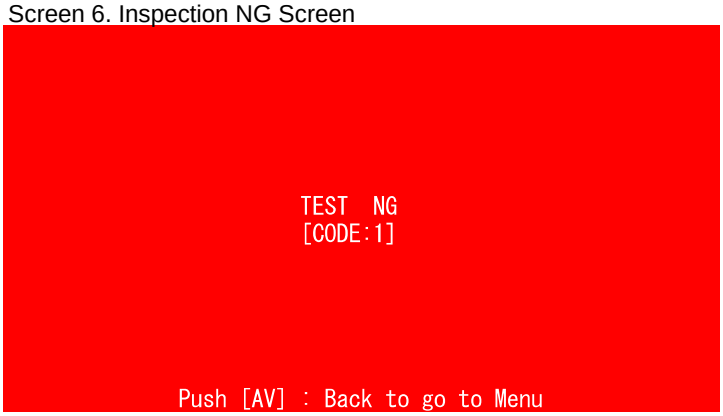
Screen 4. Inspection OK Screen

Description: The screen automatically shifts to this screen via Screen 3.
This result is displayed when the status of CAN-BUS port is open.

Screen 5. Inspection OK Screen

Description: The screen automatically shifts to this screen via Screen 3.
This result is displayed when the status of CAN-BUS port is short.

Screen 6. Inspection NG Screen



Description: The screen automatically shifts to this screen via Screen 3.
This result is displayed when the status of CAN-BUS port cannot be obtained.

Table 1. Error message

Indication	Cause
CODE:1	After the data for inspection is sent, the data other than inspection data is received within 1000msec
CODE:2	Failed in port open processing
CODE:3	Failed in timeout setting
CODE:4	Failed in acquisition of port setting
CODE:5	Failed in update of port setting
CODE:6	Failed in data sending
CODE:7	Data sending is not completed
CODE:8	Failed in receiving of data

29. RDS-TMC Test

● Outline of Inspection

This is the item to measure receiving sensitivity at RDS-TMC assigned frequency.

1. Outline of Sensitivity Measurement
2. Outline of Seek Test

Perform seek action by sending seek request to TMC Tuner.
TMC Tuner (AtomIC) used in this equipment, displays the Electric Field Intensity at the completion of seek.

● Item to be prepared

Connect antenna prior to the test mode booting up. (* Not mandatory)

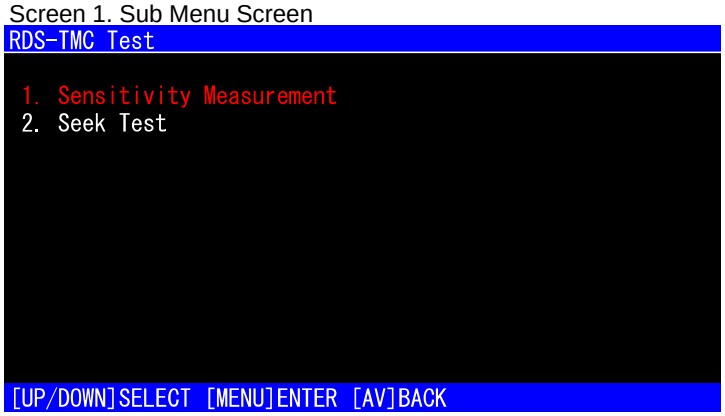
* This inspection starts measurement with pre-assigned frequency, 98.1 MHz, just after the Test Mode boot-up and the measurement result at 98.1 MHz is displayed first at the inspection execution. Perform re-measurement operation and then measure when changing frequency or connecting antenna along the way.

● Allocation of Sub Menu Key Operation

MENU : Selected item is executed
Audio/AV : Return to Main Men

● Sub Menu Screen

Screen 1. Sub Menu Screen



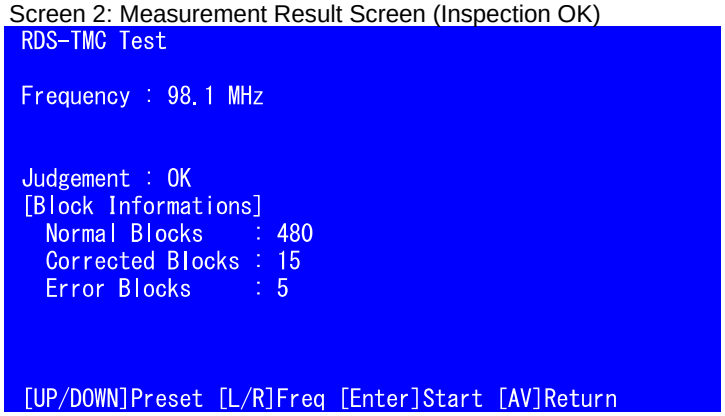
● Details for Inspection Item

● Allocation of Sub Menu Key Operation

VOLUME+ : Let Preset Frequency to be DOWN
VOLUME- : Let Preset Frequency to be UP
TRACK+ : Let Frequency to be UP manually
TRACK- : Let Frequency to be DOWN manually
MENU : Start measurement
Audio/AV : Return to Sub Menu

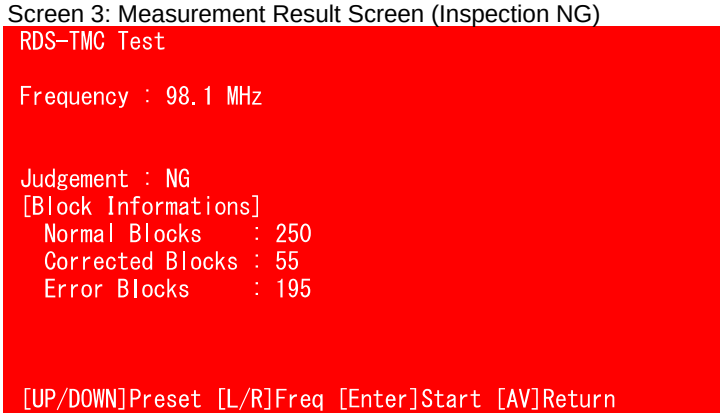
● Screen

Screen 2: Measurement Result Screen (Inspection OK)



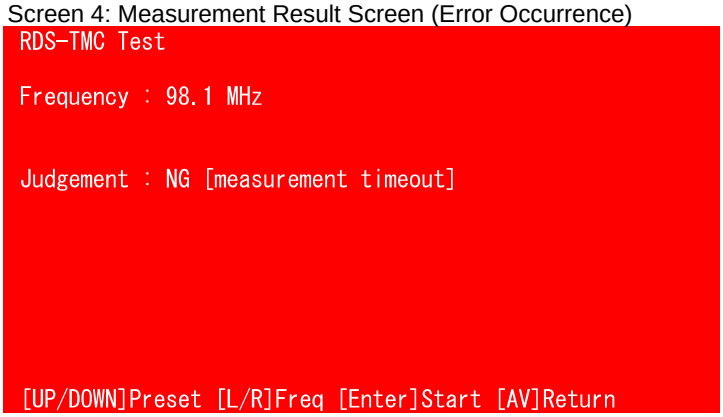
Description: This is the screen when measurement result is OK.
Receive 500 blocks of data at measurement and the inspection becomes OK if the following condition is satisfied.
(Corrected Blocks + Error Blocks) ≦ 500 × 10%

Screen 3: Measurement Result Screen (Inspection NG)



Description: This is the screen when measurement result is NG.
Receive 500 blocks of data at measurement and the inspection becomes OK if the following condition is satisfied.
(Corrected Blocks + Error Blocks) > 500 x 10%

Screen 4: Measurement Result Screen (Error Occurrence)

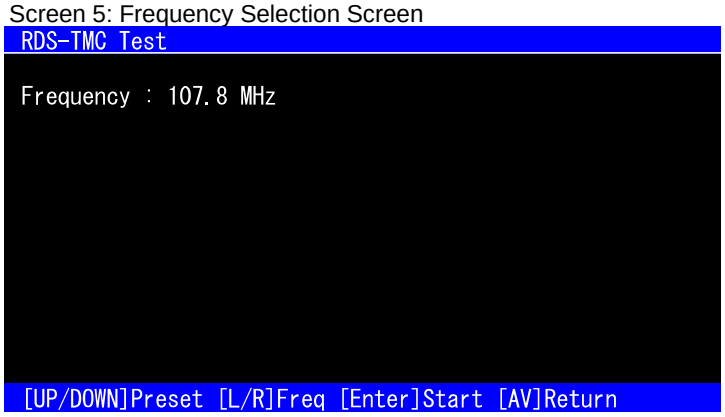


Description: This is the screen when error is occurred during measurement.
Please refer to Table-1 for error messages and cause of errors.

Table 1. Error message

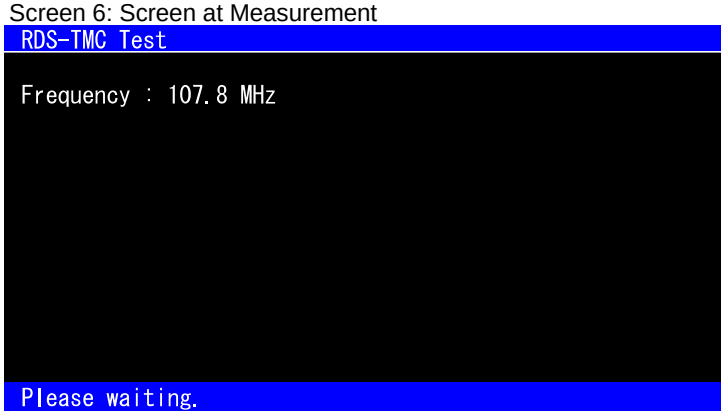
Error message	Description
initialize error	Failed to initialize
frequency request error	Failed to request Frequency Setting
frequency set error	No response against Frequency Setting Request
measurement request error	Failed to request Error Measurement Start
measurement timeout	Error Measurement Results did not arrive from the System Microcomputer

Screen 5: Frequency Selection Screen



Description: This screen shows up when frequency change operation is performed from any one of Screen 2 through 4. Set to an arbitrary frequency.

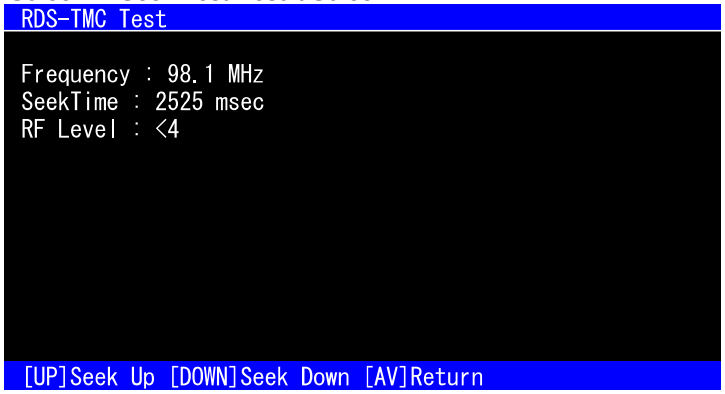
Screen 6: Screen at Measurement



Description: This screen shows up while shifting from Screen 1 to Screen 2 through 4 or taking measurement starting operation from Screen 5. Please wait for a while until measurement finished.

●Seek Test

Screen 7: Seek Test Result Screen



30. User Area Initialize

● Outline of Inspection

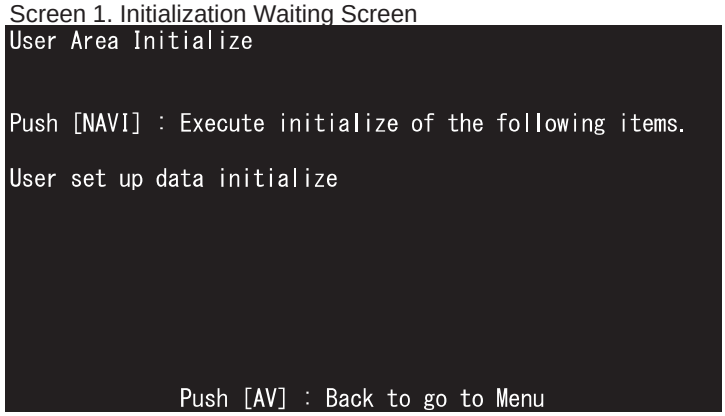
This is the item to execute initialization on user data to be set at Navigation Application among user data stored in the product.
In addition, what is actually performed in this item is the deletion of flag file for initialization execution only.
By deleting this file, the initialization is executed when the product (application) starts up next time, and the initialization is completed after the product starts up.

● Allocation of Key Operation

NAVI : Initialization is started
Audio/AV : Return to Main Menu

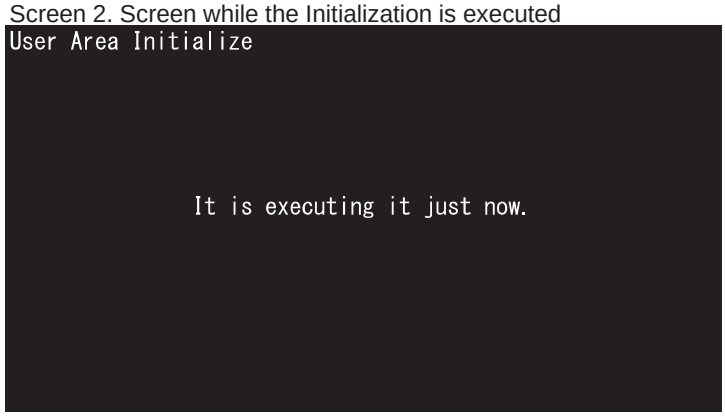
● Screen

Screen 1. Initialization Waiting Screen



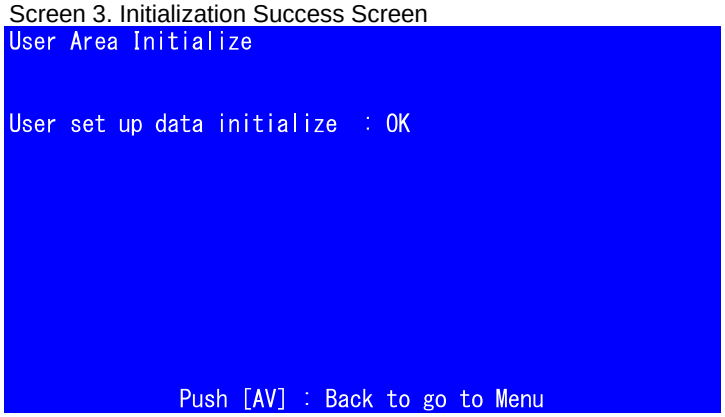
Description:
If this item is executed on the Main Menu, the execution waiting screen is displayed first.
If the NAVI key is pressed on this screen, the initialization is executed.

Screen 2. Screen while the Initialization is executed



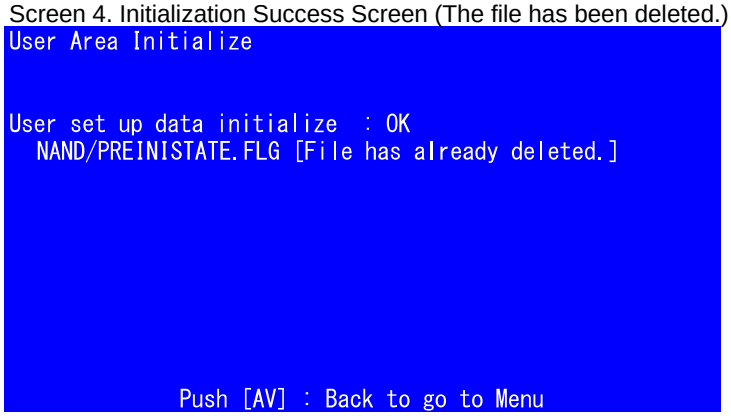
Description:
If the NAVI key is pressed on Screen 1, this screen is displayed.
The key is disabled.

Screen 3. Initialization Success Screen



Description:
If the initialization is completed successfully via Screen 2, this screen is displayed.
The initialization flag file has been successfully deleted.
After this step, be sure to restart the product.

Screen 4. Initialization Success Screen (The file has been deleted.)

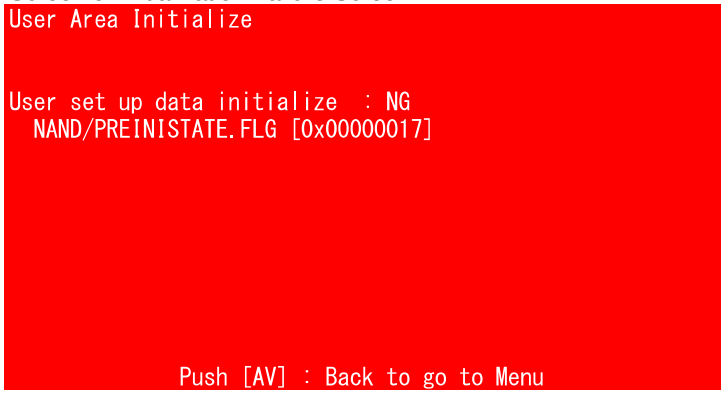


Description:
Even if the initialization is completed successfully via Screen 2, this screen is sometimes displayed.
If the initialization flag file has already been deleted, this screen is displayed.
After this step, be sure to restart the product.

[Error Case]

User area initialization failed

Screen 5. Initialization Failure Screen



Description:
If the initialization results in failure via Screen 2, this screen is displayed.
An error code is displayed.
The error code displayed here is an error code of Windows. There are millions of types and all of them cannot be described here, so they are omitted here.
Please contact an engineer.

31. App Mode Mix Test

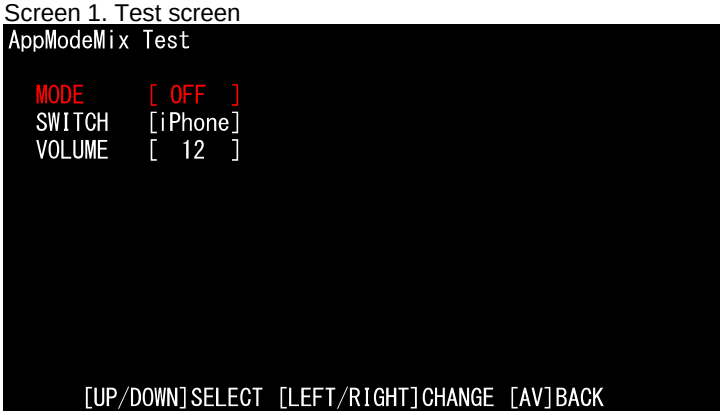
● Outline of Inspection
Activates App Mode Mix mode and controls volume and input route.

● Item to be prepared
HDMI device or iPhone

● Allocation of Sub Menu Key Operation
VOLUME+ : Moves the selected item upward
VOLUME- : Moves the selected item downward
TRACK+ : Change of the setting
TRACK- : Change of the setting
Audio/AV : Return to Main Men

● Screen

Screen 1. Test screen



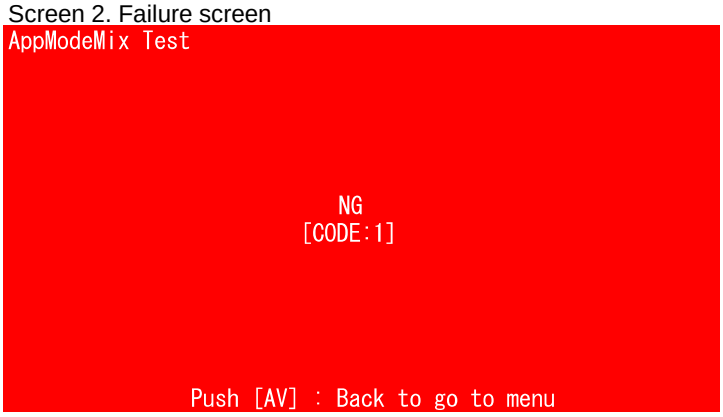
Description: The current status is displayed
Selection Item: shown below

Selection item	Function	Selection range	Initial value
MODE	Switches App Mode Mix ON/OFF	OFF, ON	OFF
SWITCH	Controls HDMI/iPhone selector switch	HDMI, iPhone	iPhone
VOLUME	Controls VOLUME	0-31	12

[Error Case]

Reading failed

Screen 2. Failure screen



Description: [CODE:X] is an error code. It is described shown below.

Indication	Cause
CODE 1	Failed in App Mode ON or OFF
CODE 2	Failed in Mix Mode ON or OFF
CODE 3	Failed in control of HDMI/iPhone selector switch
CODE 4	Failed in control of E-VOL

32. HD-Radio Data Test

● Outline of Inspection

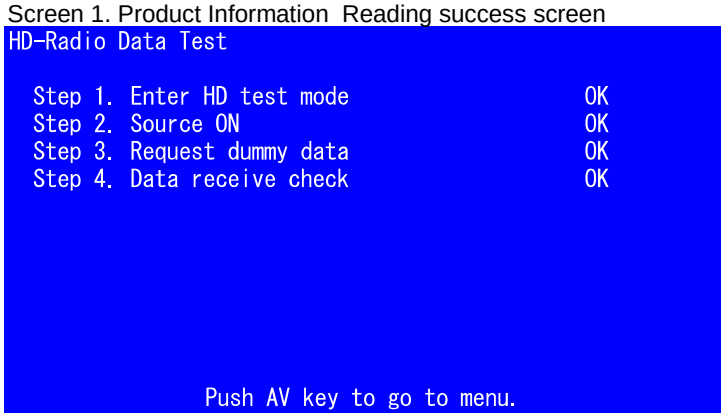
Item for checking whether the device is operating if radio waves are not actually received by HD-Radio Tuner

● Allocation of Key Operation

Audio/AV: Return to Main Menu

● Screen

Screen 1. Product Information Reading success screen

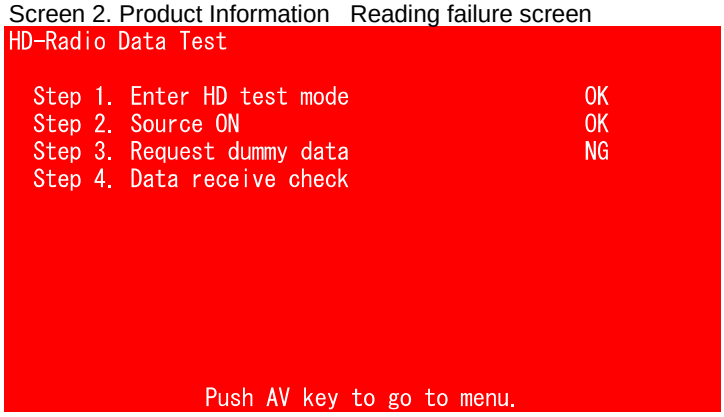


Description: The result of inspection item for each step is displayed.
If all steps are judged as OK, the inspection is terminated.

[Error Case]

Reading failed

Screen 2. Product Information Reading failure screen



Description: Screen that is displayed when reading of Product Information results in failure
The inspection is stopped if any step is judged as NG.

33. Product Information

● Outline of Inspection

It is an item for displaying 16-digit Product Information that is written into NOR FLASH of the product (product number for each model: 4 digits / manufacture year number: 4 digits / serial number: 8 digits) on the screen.

● Item to be prepared

Nothing especially

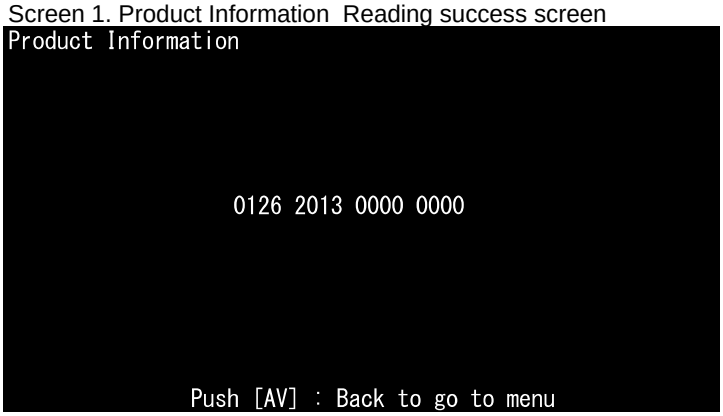
* Only after the writing of the product information is executed, it is necessary to restart the product.

● Allocation of Key Operation

Audio/AV : Return to Main Menu

● Screen

Screen 1. Product Information Reading success screen



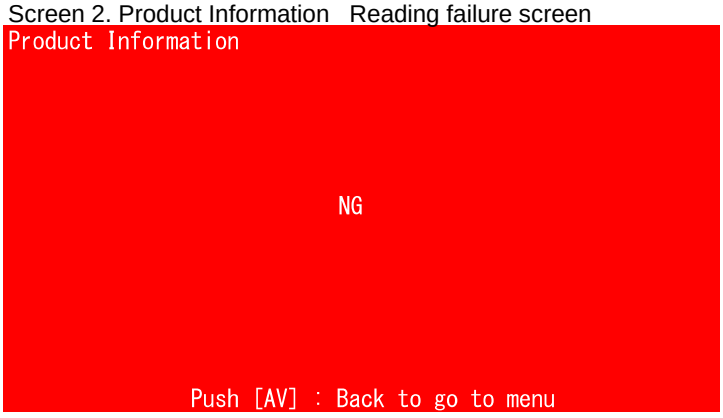
Description: 16 digits of Product Information are displayed delimiting it by 4 digits.
Product Information is configured with product number for each mode, manufacture year number, and serial number, in this order.

* If a FLASH image is rewritten, the serial number that has been written is cleared.
In this case, the serial number is displayed as "36280 7295".
Write the serial number for the item of product information writing.
The product number for each model and the manufacturer year number do not change.

[Error Case]

Reading failed

Screen 2. Product Information Reading failure screen



Description: Screen that is displayed when reading of Product Information results in failure

34. Product Information Write

● Outline of Inspection

It is an item for rewriting lower 8 digits of serial number of 16 digits of Product Information, which is written into NOR FLASH of the product, to an arbitrary value.

● Item to be prepared

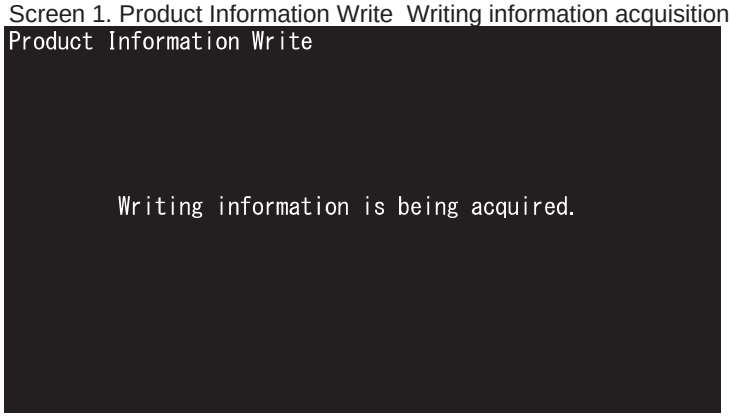
Connect an inspection jig for writing to the product.
If there is no inspection jig for writing, the writing cannot be carried out.

● Allocation of Key Operation

Audio/AV : Return to Main Menu

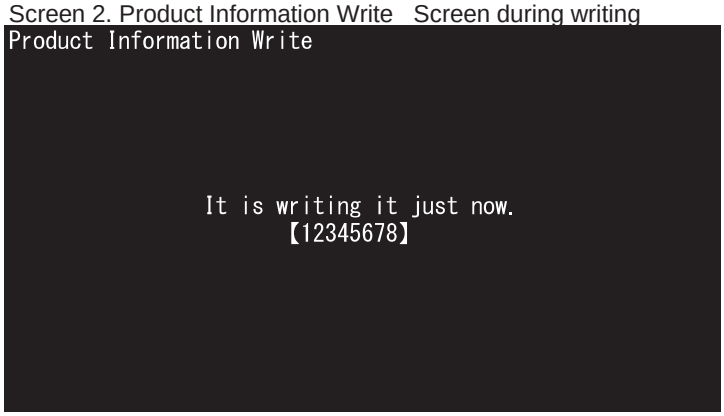
● Screen

Screen 1. Product Information Write Writing information acquisition screen



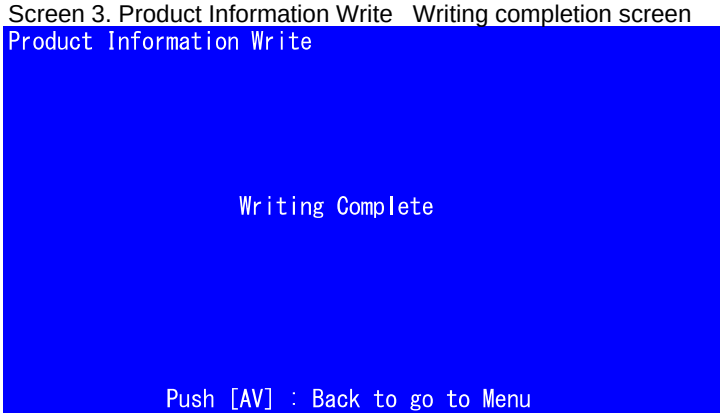
Description: If writing of product information is selected on the main menu, this screen is displayed.
Input the serial number (8 digits) to be written from the inspection jig.
(Only writing dedicated jig is able to write-in. Writing is unable with product alone.)

Screen 2. Product Information Write Screen during writing



Description: If the input serial number is correctly recognized via Screen 1,
the writing is automatically started. This screen is displayed.

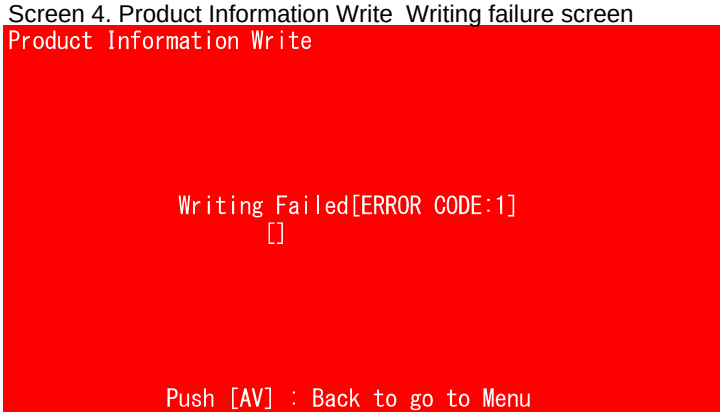
Screen 3. Product Information Write　Writing completion screen



Description: If the writing is properly terminated via Screen 2, this screen is displayed.

[Error Case]

Screen 4. Product Information Write　Writing failure screen



Description: If there is a problem via Screen 1 or Screen 2, this screen is displayed.

Error Code

0	No writing information could be received
1	Number of digits of the received content is not correct (not 8 digits)
2	Characters of the received content are not correct (not numbers)
3	Writing processing results in failure

6.2 DVD TEST MODE

The service test mode is used to check functions in fault diagnosis by a serviceman in case of any defect found in the DVD mecha.
This mode is enabled only when the test mode is activated. At this time, no normal operation is executed.

1. Outline

The service test mode is used to check functions in fault diagnosis by a serviceman in case of any defect found in the DVD mecha. No general user goes into this mode.
The mode is implemented mainly to check the FE part. It is originally the test mode at the FE part implemented in the PC communication, which is modified to allow implementation in the HOST communication.
The command for the test mode received in the HOST communication is interpreted by the application part, converted to the PC communication command and transferred to the OS.
The OS transfers this command to the PC task as if it received the command in the PC communication.
The execution result is noticed to the application part by an e-mail instead of the PC communication.
The application part then transmits the result in the HOST communication to display OSD.

2. Conditions for operation

(1) This service test mode is enabled only when the test mode is activated. At this time, no normal operation is executed.

3. To enter the test mode.

Before shifting to the test mode, please insert the "DISC (CD-DA)".

Display the source OFF screen.

1 , 2 and 3 are invisible buttons.

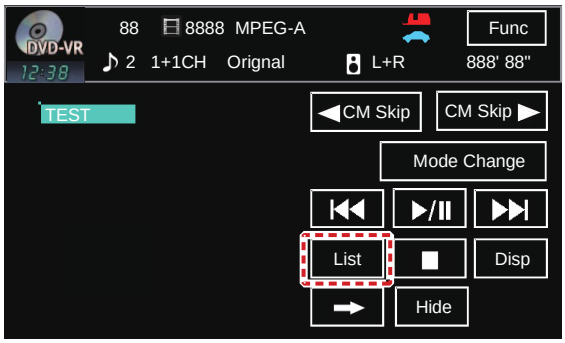
Display the test mode screen by carrying out following operations on this screen.
Press areas of 1 , 2 and 3 long in order.

Detailed procedure
1. Display the connected condition screen.
2. Press the area of 1 long.
3. Press the area of 2 long.
4. Press the area of 3 long.

If the operations are completed successfully,
the screen shifts to the test mode screen after pressing 3 long.

The test mode is released by ACC-OFF operation.

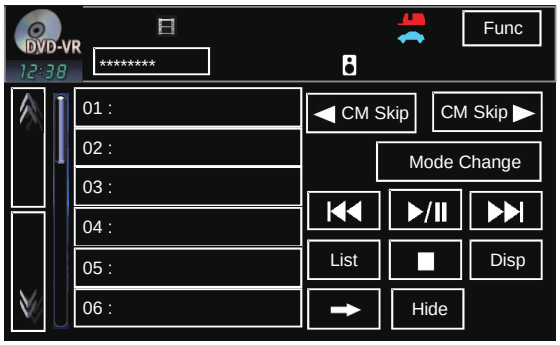
In order to enter the DVD mechanism module test mode, select "Slave Test Mode".



Switch the source to "DISC".

If you select the DVD source, the test mode screen shown in the left figure is displayed.

Press "List" to display the list on the screen.



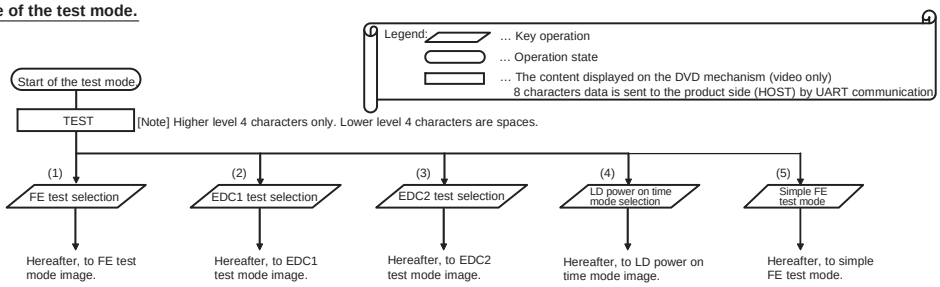
Operate the flow chart of the mechanism test mode with buttons shown in the left screen.

Up to lists 01 to 08

Execute the test mode using each key.

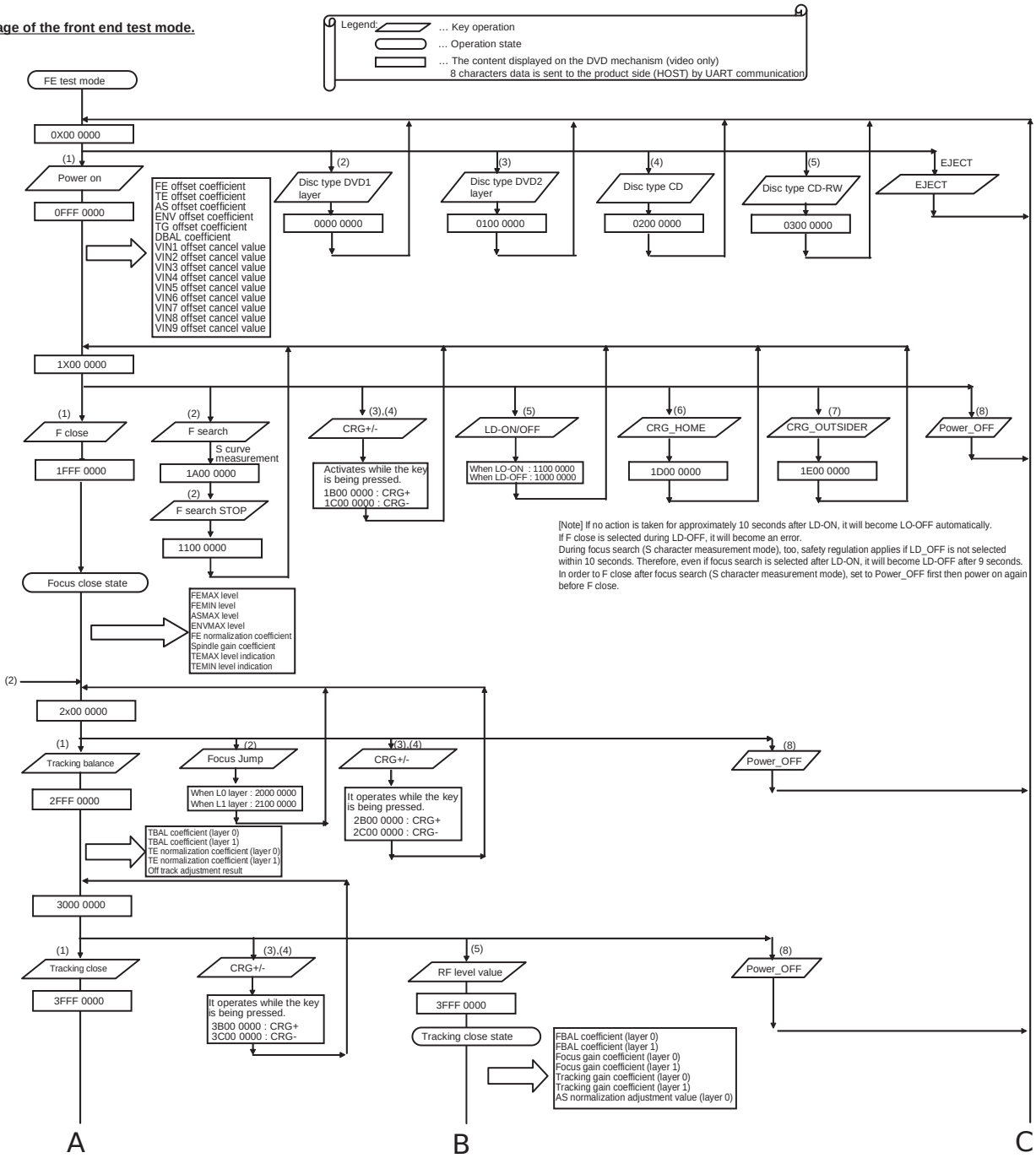
01 :	TEST KEY (1)
02 :	TEST KEY (2)
03 :	TEST KEY (3)
04 :	TEST KEY (4)
05 :	TEST KEY (5)
06 :	TEST KEY (6)
07 :	TEST KEY (7)
08 :	TEST KEY (8)

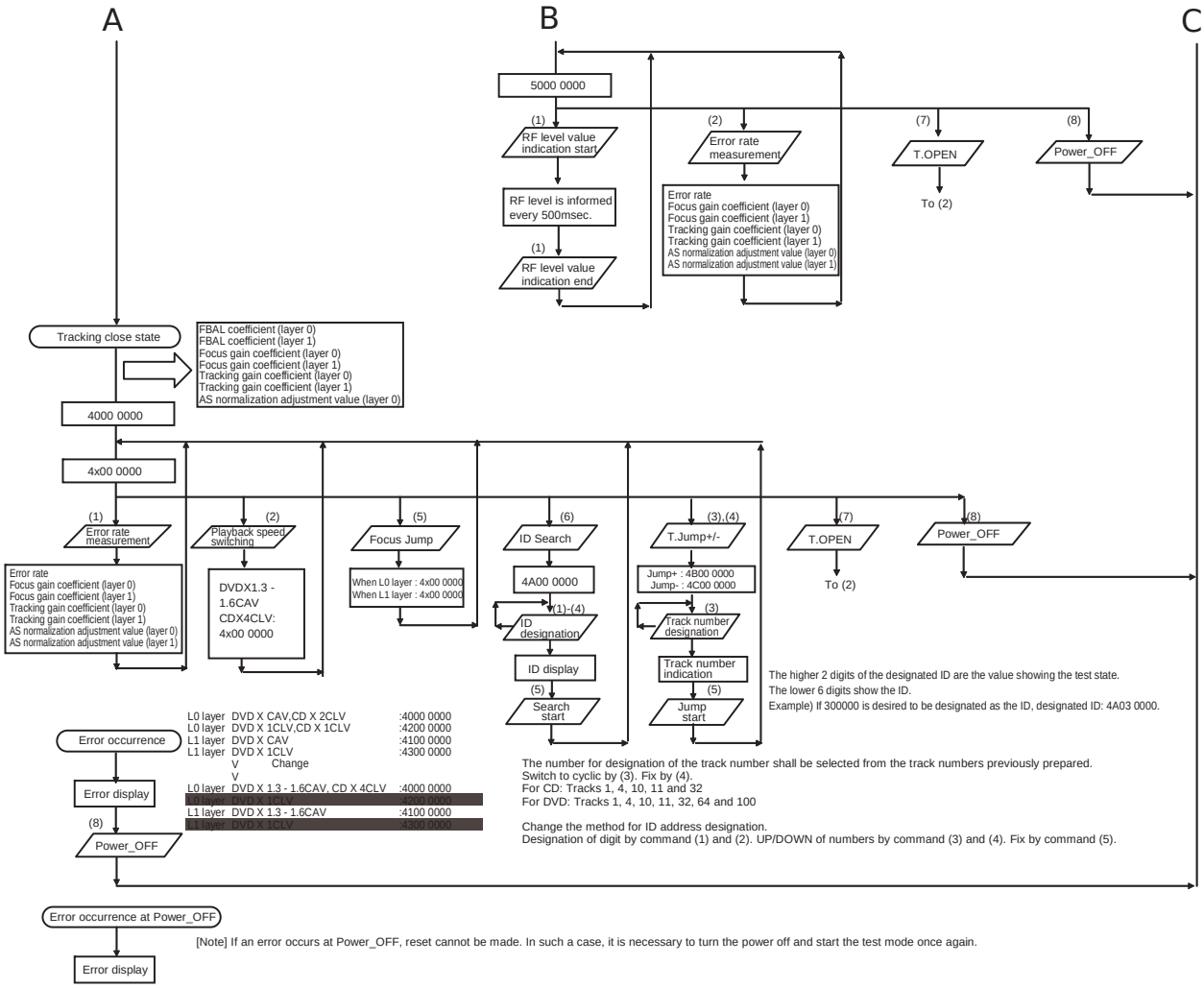
Image of the test mode.



[Note] In order to move on to another test after selecting a test (FE/EDC1/EDC2), it is necessary to restart the DVD mechanism in the test mode.

Image of the front end test mode.




A
B
C
5000 0000
(1)
RF level value indication start
RF level is informed every 500msec.
(1)
RF level value indication end
(2)
Error rate measurement
Error rate
Focus gain coefficient (layer 0)
Focus gain coefficient (layer 1)
Tracking gain coefficient (layer 0)
Tracking gain coefficient (layer 1)
AS normalization adjustment value (layer 0)
AS normalization adjustment value (layer 1)
(7)
T.OPEN
To (2)
(8)
Power_OFF
Tracking close state
FBAL coefficient (layer 0)
FBAL coefficient (layer 1)
Focus gain coefficient (layer 0)
Focus gain coefficient (layer 1)
Tracking gain coefficient (layer 0)
Tracking gain coefficient (layer 1)
AS normalization adjustment value (layer 0)
4000 0000
4x00 0000
(1)
Error rate measurement
Error rate
Focus gain coefficient (layer 0)
Focus gain coefficient (layer 1)
Tracking gain coefficient (layer 0)
Tracking gain coefficient (layer 1)
AS normalization adjustment value (layer 0)
AS normalization adjustment value (layer 1)
(2)
Playback speed switching
DVDX1.3 - 1.6CAV
CDX4CLV:
4x00 0000
(5)
Focus Jump
When L0 layer : 4x00 0000
When L1 layer : 4x00 0000
(6)
ID Search
4A00 0000
(1)-(4)
ID designation
ID display
(5)
Search start
(3),(4)
T.Jump+/-
Jump+ : 4B00 0000
Jump- : 4C00 0000
(3)
Track number designation
Track number indication
(5)
Jump start
(7)
T.OPEN
To (2)
(8)
Power_OFF
The higher 2 digits of the designated ID are the value showing the test state.
The lower 6 digits show the ID.
Example) If 300000 is desired to be designated as the ID, designated ID: 4A03 0000.
L0 layer DVD X CAV,CD X 2CLV :4000 0000
L0 layer DVD X 1CLV,CD X 1CLV :4200 0000
L1 layer DVD X CAV :4100 0000
L1 layer DVD X 1CLV :4300 0000
V Change
V
L0 layer DVD X 1.3 - 1.6CAV, CD X 4CLV :4000 0000
L1 layer DVD X 1.3 - 1.6CAV :4100 0000
The number for designation of the track number shall be selected from the track numbers previously prepared.
Switch to cyclic by (3). Fix by (4).
For CD: Tracks 1, 4, 10, 11 and 32
For DVD: Tracks 1, 4, 10, 11, 32, 64 and 100
Change the method for ID address designation.
Designation of digit by command (1) and (2). UP/DOWN of numbers by command (3) and (4). Fix by command (5).
Error occurrence
Error display
(8)
Power_OFF
Error occurrence at Power_OFF
Error display
[Note] If an error occurs at Power_OFF, reset cannot be made. In such a case, it is necessary to turn the power off and start the test mode once again.

EDC. Image of the test mode

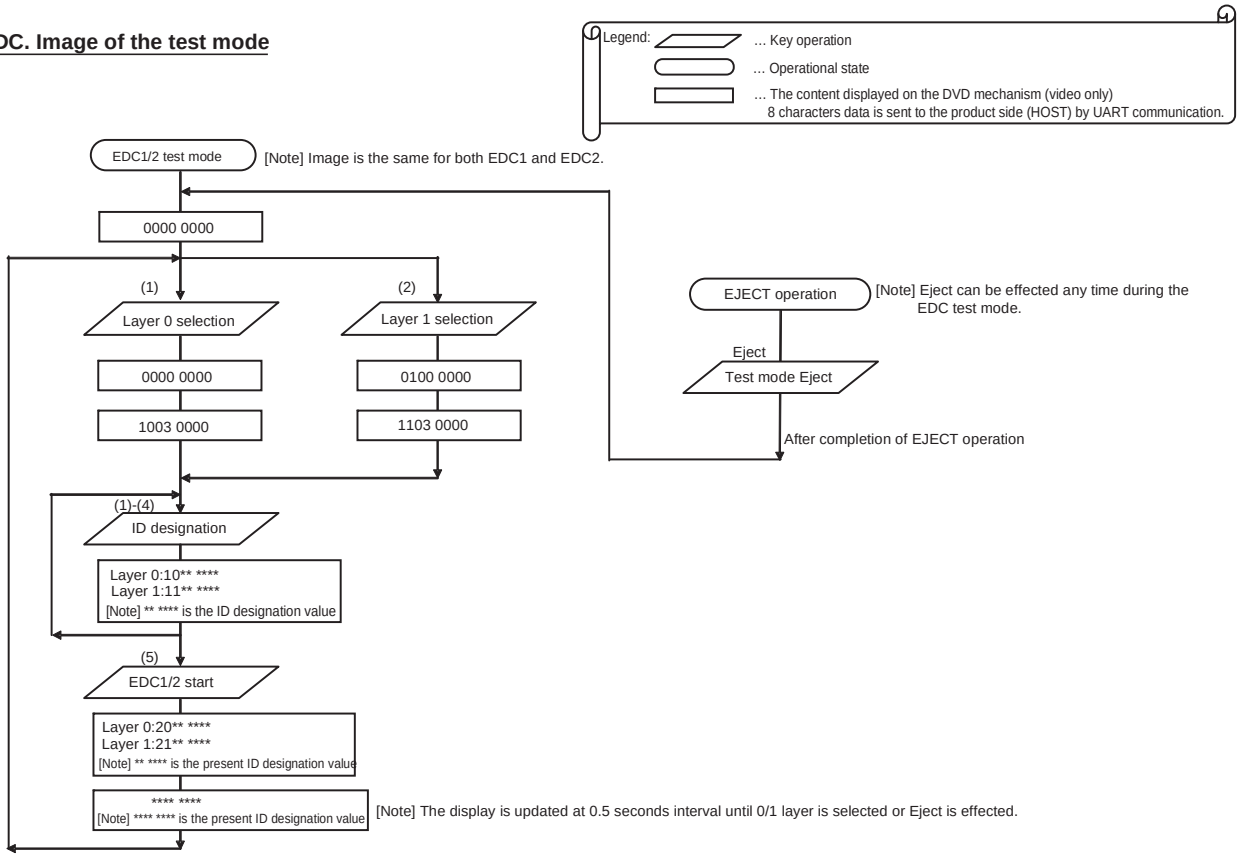
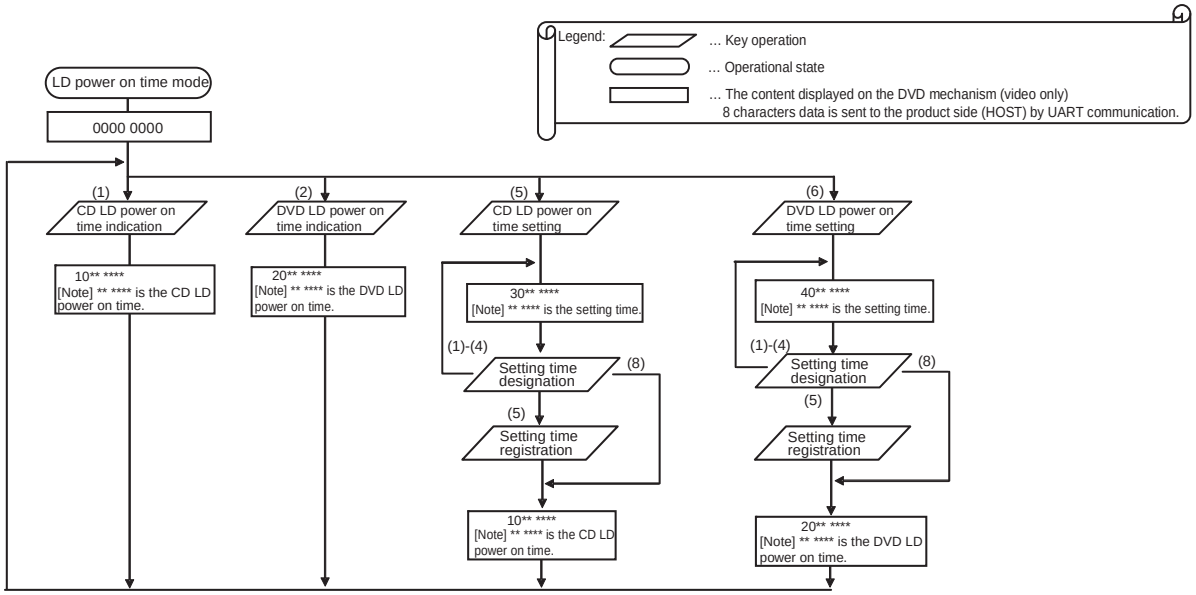


Image of the LD power on time mode.



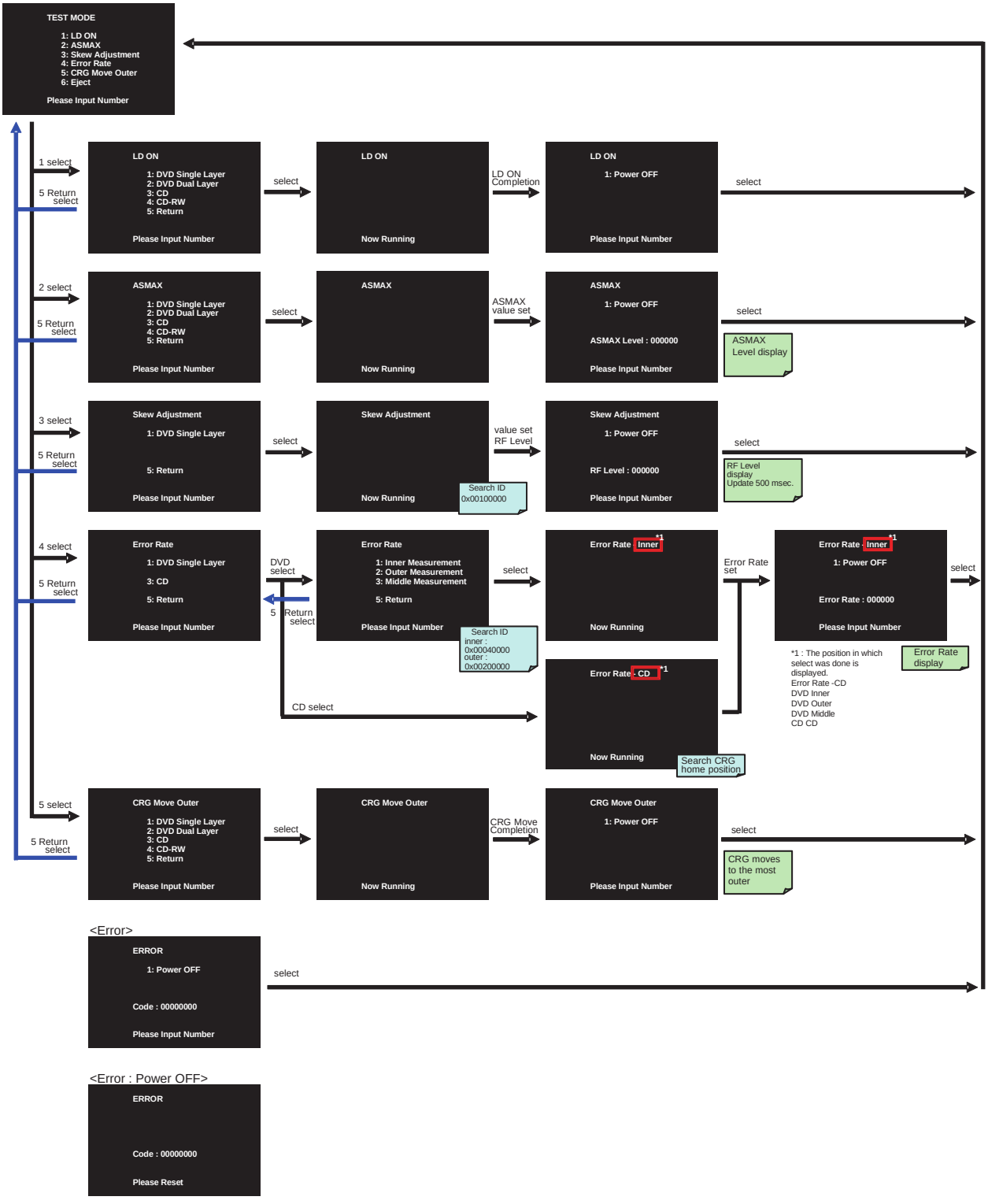
[Method of setting time designation]
Designate the digit by command (1) and (2). UP/DOWN of numbers by command (3) and (4).
Fix by command (5). Cancel by command (8).

[Note] If the power on time is 999999 hours or more, it is always reported as 999999 hours.
[Note] If the power on time is "*E** ****", the value may not be correct due to the life of the flash memory.

Simple test mode

The selection of the figure of each screen can be selected by "Key command for the test".

<Flow chart>



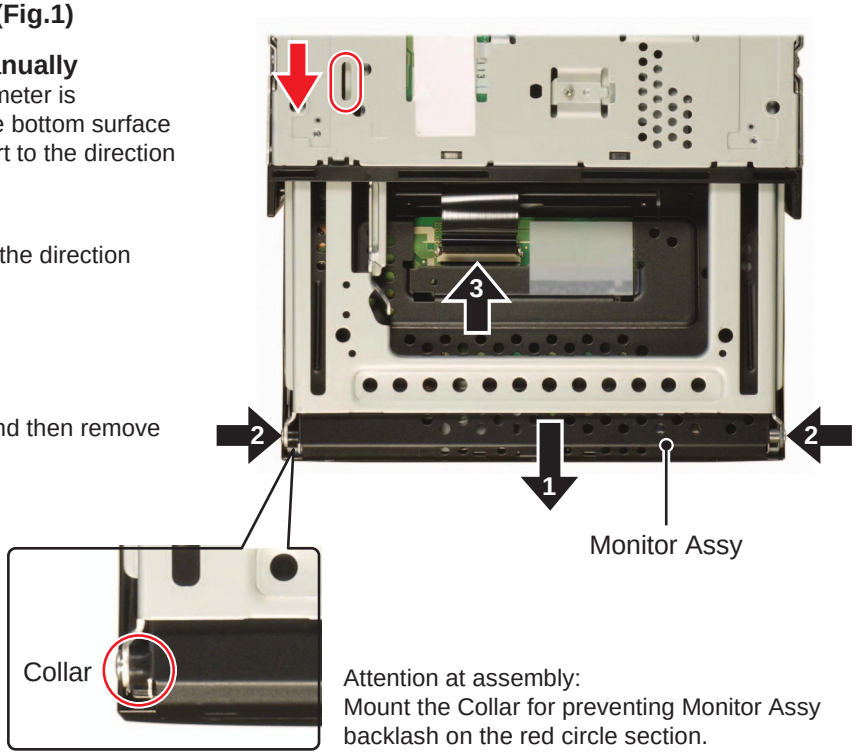
7. DISASSEMBLY

While the photograph shown is slightly different from this model in shape, the disassembly procedure is the same.

● Removing the Monitor Assy (Fig.1)

Method for opening the flap manually
Insert a tip of screwdriver whose diameter is approximately 2mm into the slit at the bottom surface of the product and slide the flame part to the direction indicated by an arrow.

1. Pull out the Monitor Assy in the direction indicated by an arrow.
2. Remove the two screws.
3. Disconnect the connector and then remove the Monitor Assy.



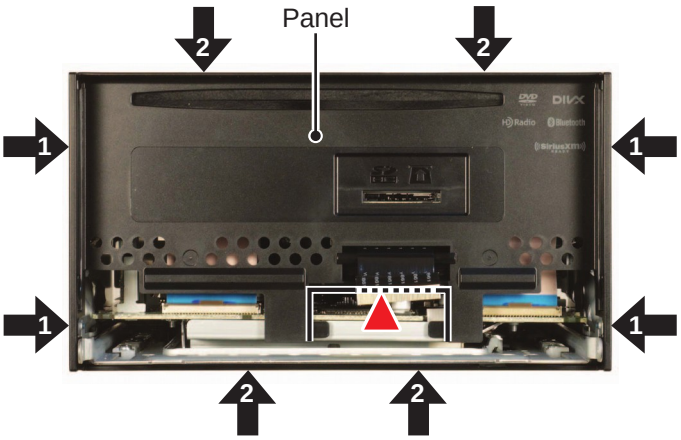
Attention at assembly:
Mount the Collar for preventing Monitor Assy backlash on the red circle section.

Fig.1

● Removing the Panel (Fig.2)

1. Remove the four screws.
2. Release the four latches and then remove the Panel.

▶ Attention at assembly:
Pay attention not to take out the FFC from the opening part below when mounting the Panel.



Attention at assembly:
Pay attention to the styling of FFC when mounting the Monitor Assy on the Main Body. If you mount the Monitor Assy under the NG status, abnormal reform is attached on the FFC.

▶ If you close the Monitor Assy under this status, reform is attached on the unintentional portion of FFC. Do not use the FFC with abnormal reform but replace it to a new one.

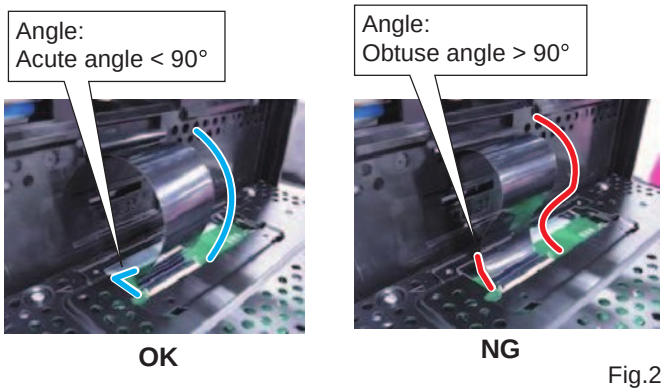


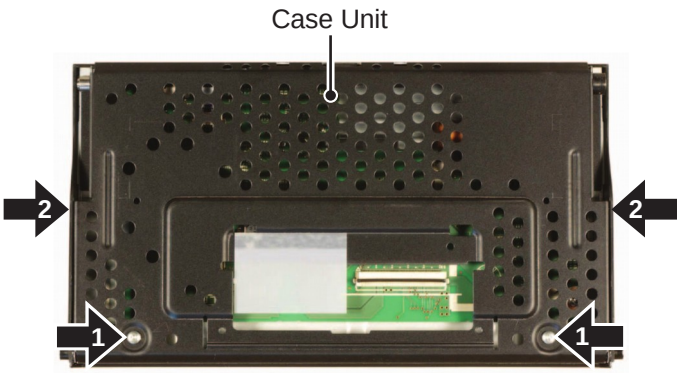
Fig.2

● Removing the Case Unit (Fig.3)

Remove the Case Unit according to the following procedures, as it is difficult to release the latches on the lower side of the Grille Assy.

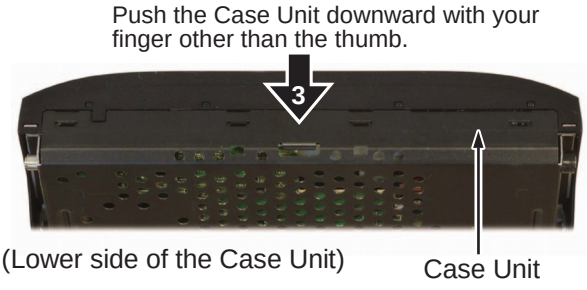
1 Remove the two screws.

2 Remove the two screws.

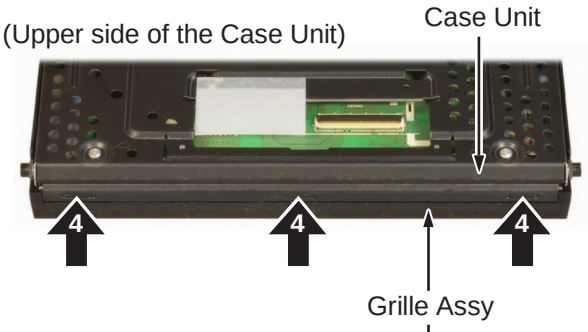


(Upper side of the Case Unit)

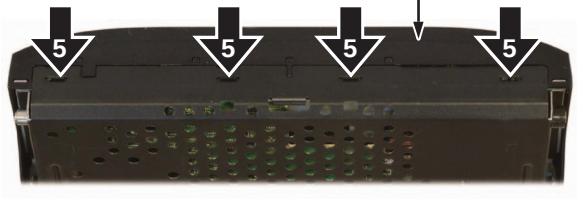
3 Push upward/downward the Grille Assy with your right thumb and the Case Unit with your finger other than the thumb.



4 Release the three latches on the upper side of the Grille Assy with your left hand.



5 Release the four latches on the lower side of the Grille Assy and then remove the Case Unit.



(Lower side of the Case Unit)

Fig.3

●Removing the Monitor Unit (Fig.4)

1 Disconnect the four connectors.

2 Remove the four screws and then remove the Monitor Unit.

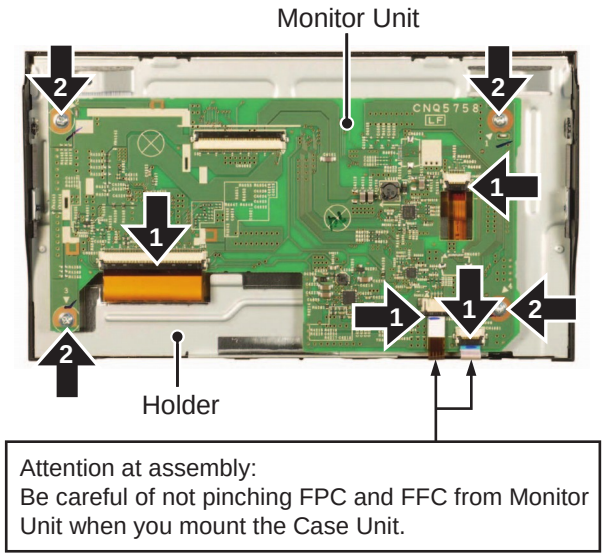


Fig.4

●Removing the Holder (Fig.5)

1 Release the two latches and then remove the Holder, LCD and the Touch Panel.

Note:
With this model, the Cushion of Touch Panel was attached using a jig in the factory line.

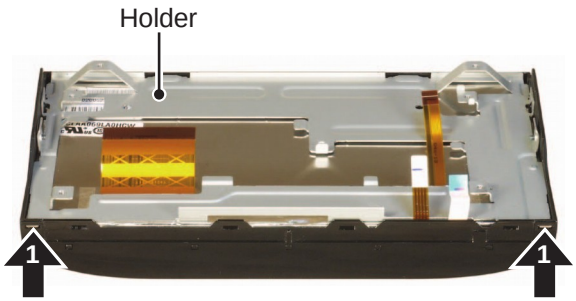


Fig.5

●Removing the Key Unit (Service) (Fig.6)

1 Remove the Spacer from left edge in the direction indicated by an arrow.

Remove the Key Unit (Service).

After the Key Unit (Service) is replaced, check the following items.

- ●Check whether all LED's light up
- ●Check the operation of all switches

▶ Attention at assembly:
Take out the FFC from notch part under Spacer, not going through the Spacer Hole.

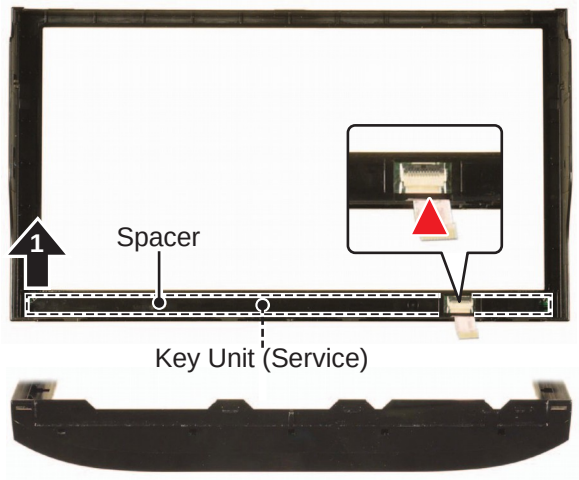


Fig.6

●Removing the DVD Mechanism Module (Fig.7)

1 Remove the four screws.

2 Disconnect the connector and then remove the DVD Mechanism Module.

● Attention of removing

▶ Don't remove this screws excluding the dismantlement of the DVD Mechanism Module.

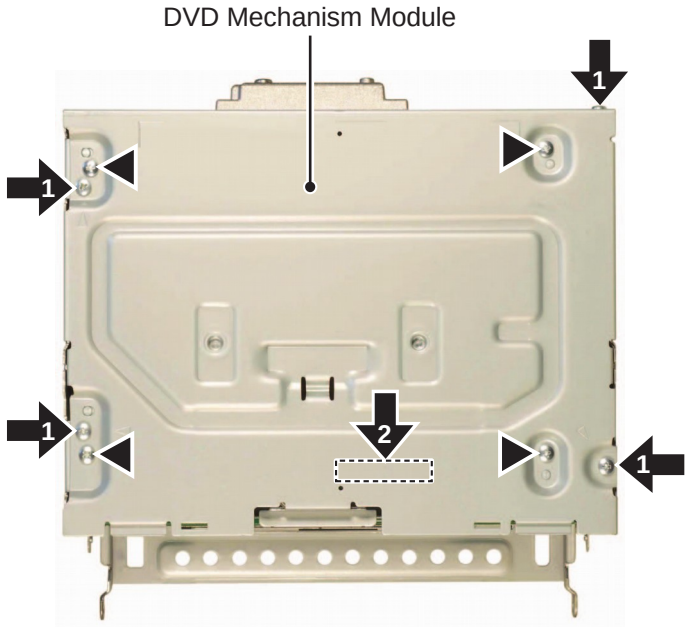


Fig.7

● Removing the Holder and the Heat Sink (Fig.8)

1 Remove the four screws.

2 Remove the two screws.

3 Disconnect the connector and then remove the Holder and the Heat Sink.

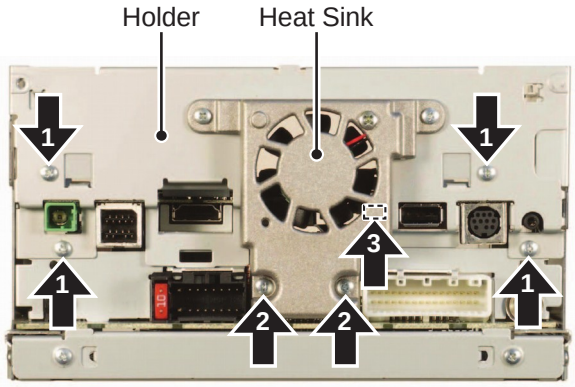
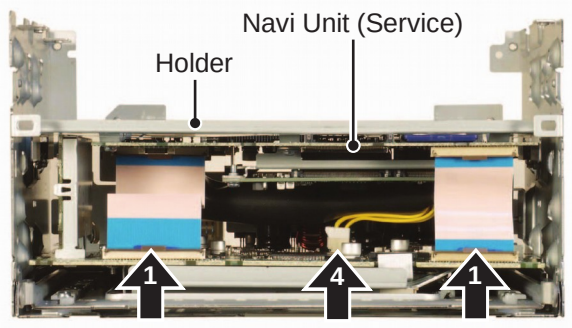


Fig.8

● Removing the Navi Unit (Service) (1/2) (Fig.9)

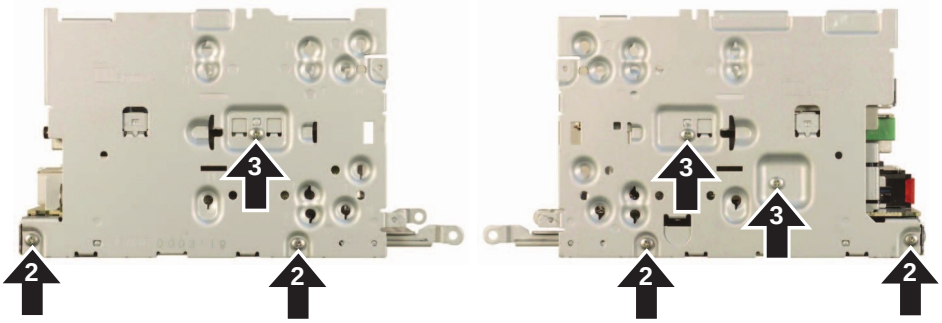
1 Disconnect the two connectors.

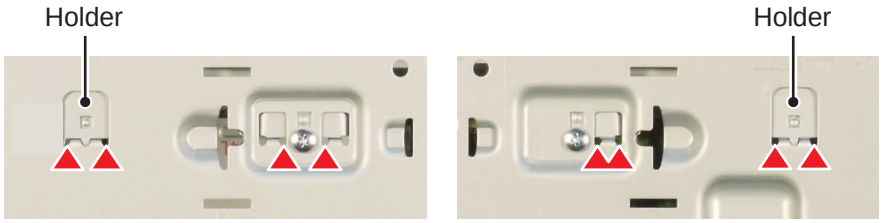


2 Remove the four screws.

3 Remove the three screws.

4 Disconnect the connector and then remove the Navi Unit (Service).

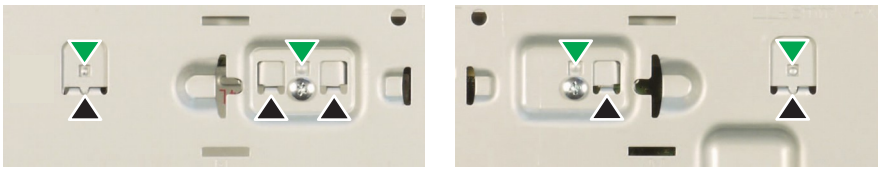




Note)
Remove the Holder with tweezers.
If forcefully removed, it may be deformed.

Attention at assembly)

When you assemble the Holder and the Bracket,
the Claw enters the hole.
They are hardly separated, so pay attention to the deformation.



The Holder should contact the Bracket.

Fig.9

● Removing the Navi Unit (Service) (2/2) (Fig.10)

1. Remove the four screws and then remove the CC Assy(Service).
2. Remove the four screws and then remove the Holder.
3. Remove the two screws and then remove the Navi Unit (Service).

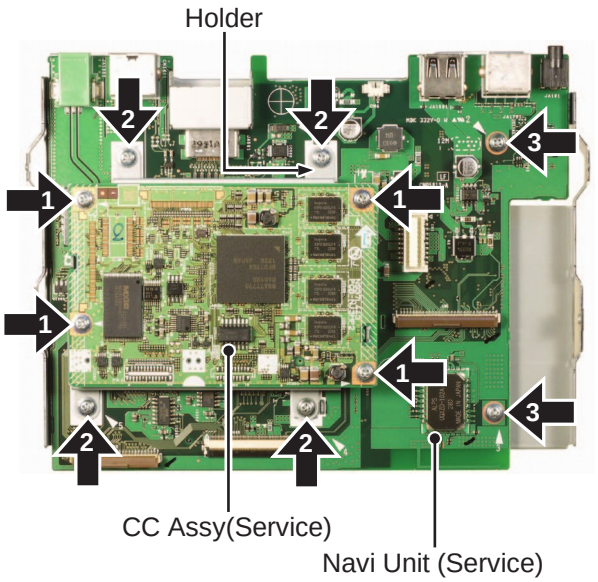


Fig.10

● Removing the AV Unit (Fig.11)

1. Disconnect the connector.
2. Remove the four screws and then remove the AV Unit.

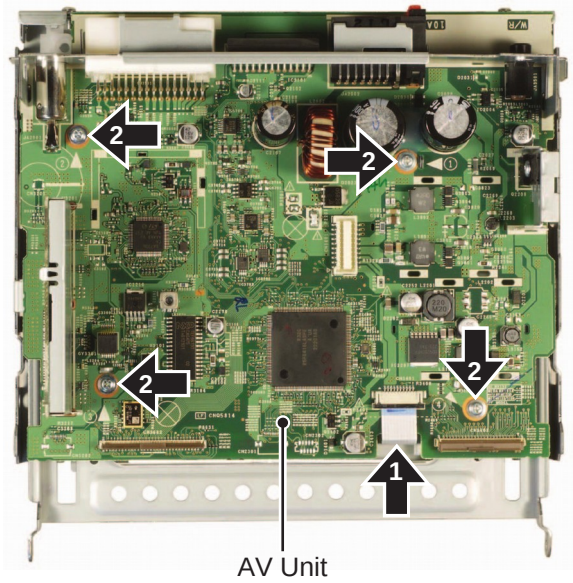
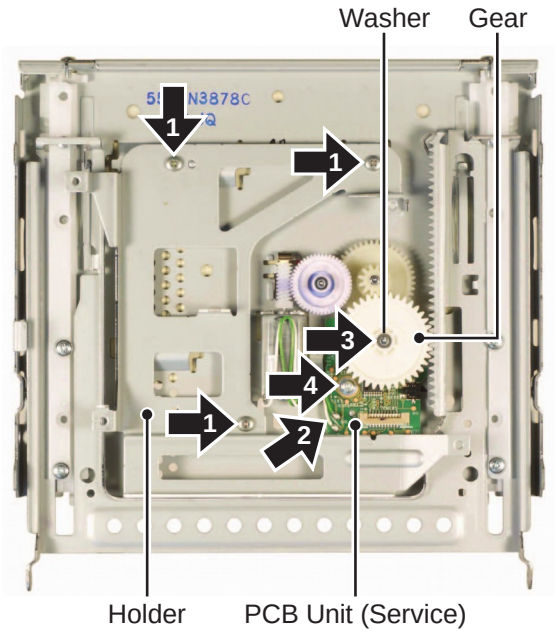


Fig.11

● Removing the PCB Unit (Service) (Fig.12)

1. Remove the three screws and then remove the Holder.
2. Remove the two solders and then remove the two cords.
3. Remove the Washer and then remove the Gear.
4. Remove the screw and then remove the PCB Unit (Service).



Precautions on attachment of Motor Unit.

While withdrawing a Motor Unit to the direction indicated by an arrow and tighten the screw to fix it. If you tighten the screw after withdrawing it to the opposite direction of the arrow, the pitch between Worm Gear and Worm Wheel opens up and the gear jumps due to drop of package and abnormal sound may be generated.

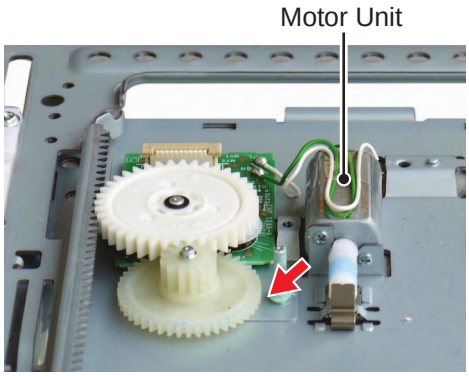
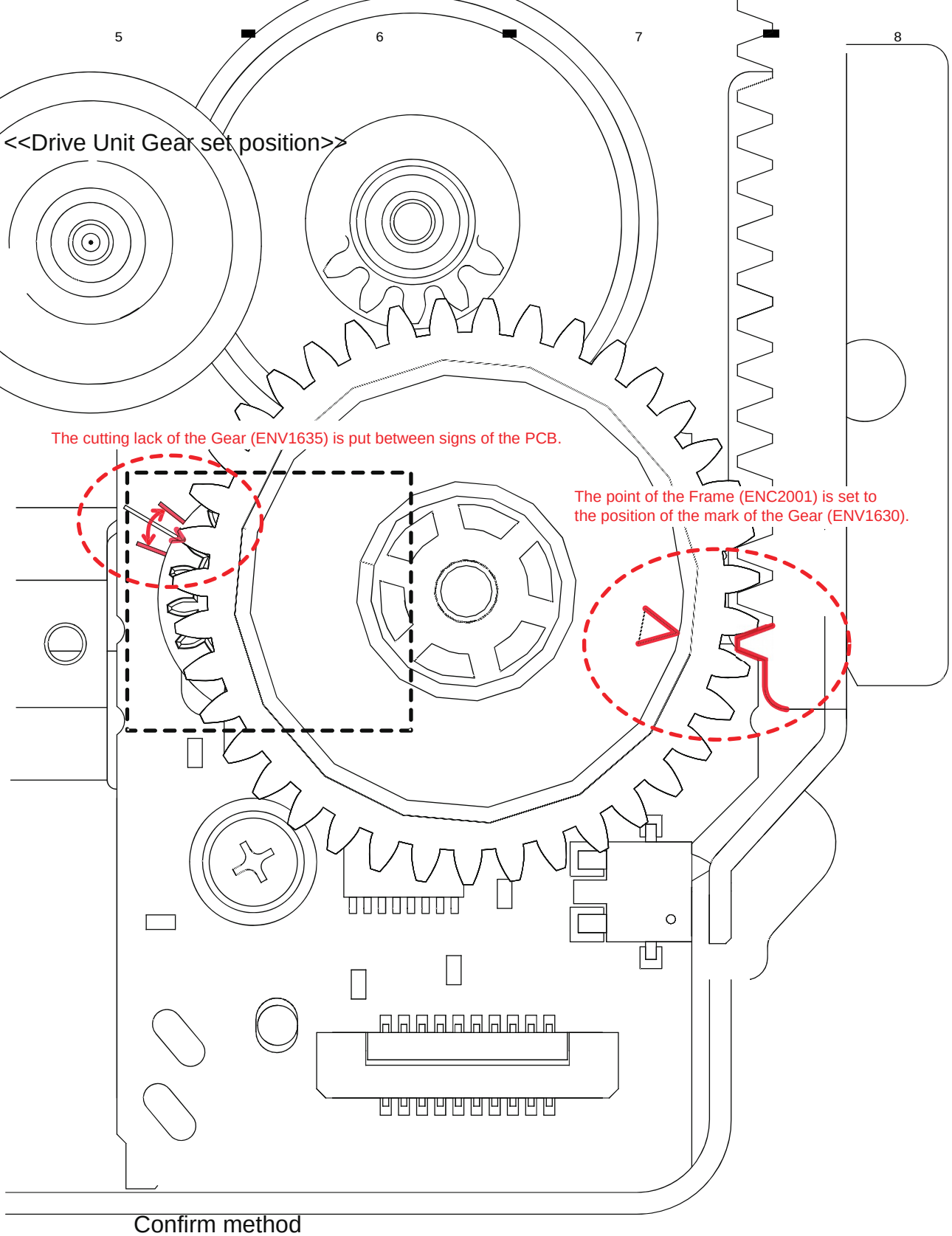


Fig.12

<<Drive Unit Gear set position>>



Confirm method

1. The Test mode is started.
2. "36. Confirmation of Drive Mechanism Close Position" is selected.
3. It is confirmed that check results are "OK".
   Please set position of the gear again for "NG".

8. EACH SETTING AND ADJUSTMENT
8.1 DVD ADJUSTMENT

This product uses 5 V and 3.3 V as standard voltages.
The electrical potential that is the reference for signals, is not GND, but VREF (approximately 2.2 V) and VHALF (approximately 1.65 V) .
During product adjustments, if the reference voltage is mistakenly taken as GND, and a grounding contact is made, not only would it be impossible to measure the accurate electrical potential, but also the servo motor would malfunction, resulting in the application of a strong impact on the pick up.
The following precautionary measures should be strictly adhered to, in order to avoid such problems.
The reference voltage and GND should not be confused when using the minus probe of a measurement device.
When an oscilloscope is being used special care should be taken to make sure that the reference voltage is not connected to the probe of ch1 (on the minus side), while the probe of ch2 (on the minus side), is connected to GND.
Further, since the body frame of most measurement devices have the same electrical potential as the minus side of the probe, the body frame of the measurement device should be set to floating ground.
If the reference voltage is connected to GND by mistake, turn the regulator OFF immediately, or turn the power OFF.

- Remove the filters and wires used for measurements only after the regulator has been turned OFF.
- After the power supply is turned on, regulator ON the following adjustment and measurement are promptly done.
- Whenever the product is in the test mode, the software will not take any protective action. For this reason, special care should be taken to make sure that no mechanical or electrical shock could be applied to the product when taking measurements in the test mode.
- Whenever the EJECT key is pressed to eject the disk, no other keys, other than the EJECT key, should be pressed until the disk eject action has been completed.
- Press the EJECT key only after the disk has stopped completely.
- If the product hangs up turn the power OFF immediately.
- Don't touch the volume for laser power adjustment other than the time of POWER adjustment. (Laser diode may be damaged.)

- Power Adjustment

■ Power Adjustment

To turn VR of the circuit for Power adjustment and adjust the optical output level of PU laser diode to make the level of signal (RF signal) read from the media appropriate level during the reproduction of media, CD and DVD.
It has been decided that Power adjustment circuit (circuit from IMON to CDMP, DVDMP) which adjusts the optical output level of PU laser diode should be installed on DVD Core Unit in the DVD mecha module.
Therefore, in the replacement of CRG mecha (with PU unit) and DVD Core Unit, Power adjustment should be implemented.
The Power adjustment method of mecha module is shown below.

■ Items to be Prepared

Measuring instrument: Oscilloscope (digital or analog)
Frequency band of oscilloscope in DVD whose frequency is higher than CD Adjustable 10 MHz and higher (enough to check the level)
(In LS2, DVD (x 1.5CLV) MAX RF 6.55 MHz / DVD (x 1.5CLV) MIN RF 1.40 MHz)
DISC: DVD TEST DISC (TDV-582 or TDV-520) Almedio
CD TEST DISC (TCD-782 or TCD-792) Almedio
Adjustment screwdriver : crosshead, No.0, nonmetal (ceramic screwdriver for adjustment)

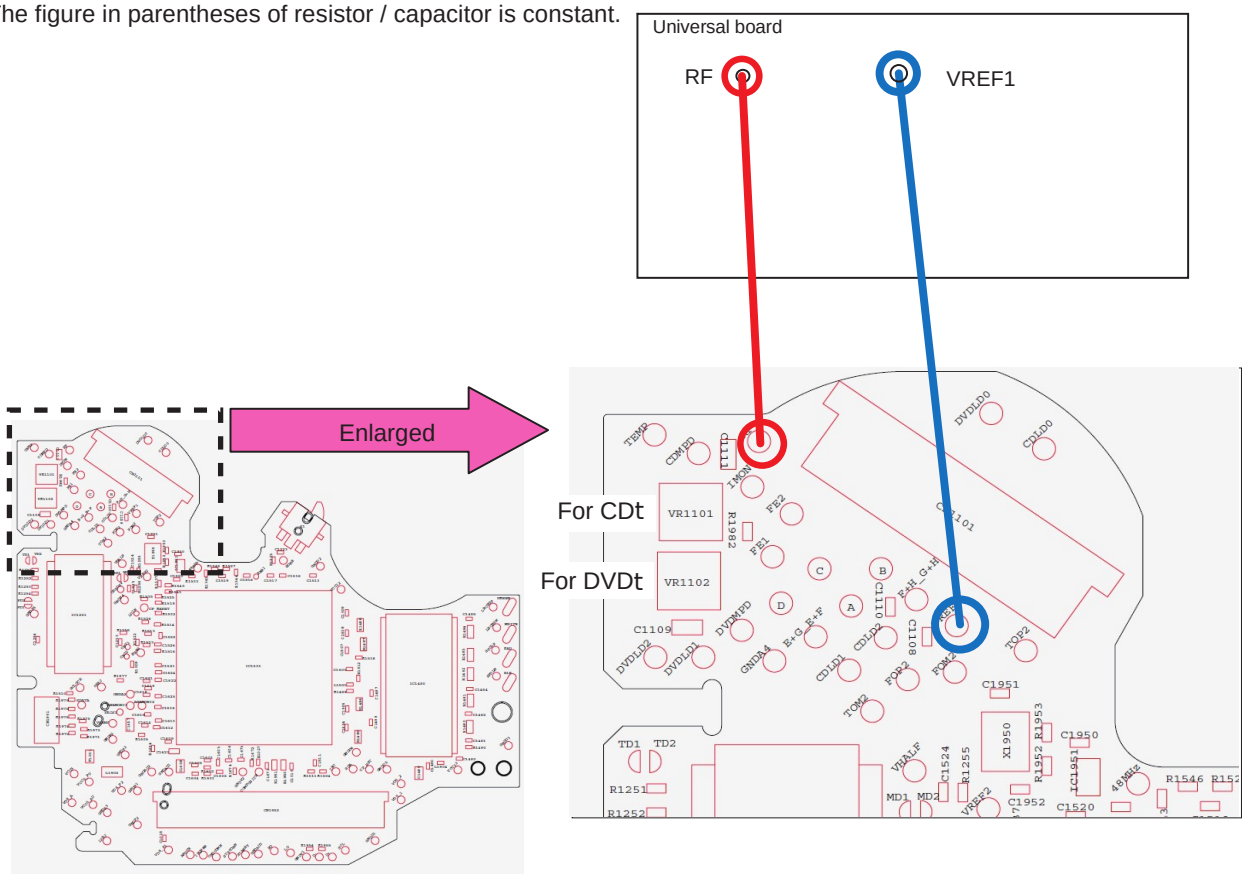
■ Line Locating

The following line locating is required.

1	RF	Power adjustment
2	VREF1	Power adjustment

■ Connection Diagram

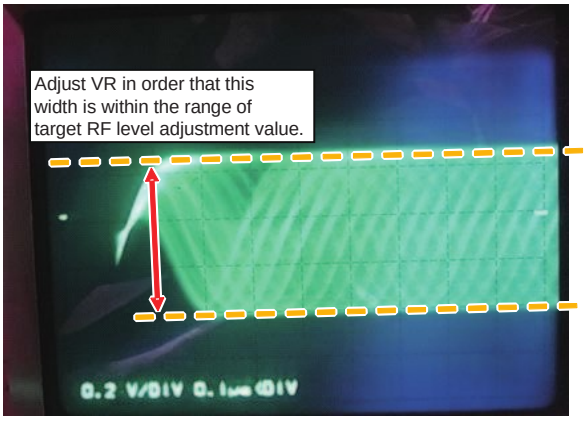
◯ : Checking terminal for oscilloscope
The figure in parentheses of resistor / capacitor is constant.



■ Method of Power Adjustment

1. Monitor RF by using the analog oscilloscope. (line locating of RF and VREF1)
2. Turn VR1101 and VR1102 to set the PP value of RF at the value shown in the right lower table.

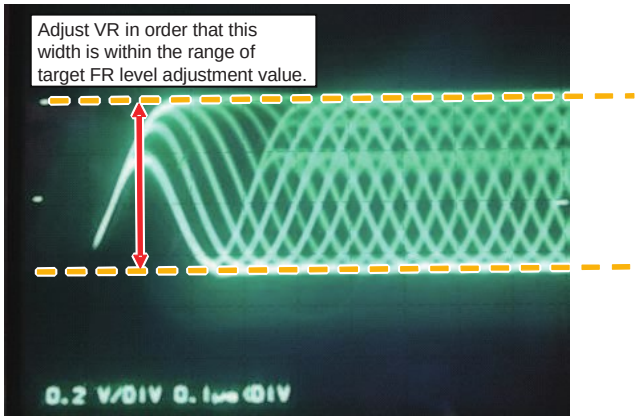
▼ RF waveform after F-ON / before T-ON (waveform measured by analog oscilloscope)



Power adjustment standard
RF level adjustment value
(F-ON STEP 10, 24)

DVD	200 mV to 1200 mV
CD	200 mV to 1200 mV

▼ RF waveform after the completion of all adjustment (waveform measured by analog oscilloscope)



Power adjustment standard
RF level adjustment value
(The setup is completed. STEP 12, 26)

DVD	848 mV to 892 mV
CD	658 mV to 702 mV

■ Procedure of Power Adjustment

■ Flow
1. DVD Power adjustment in the state where F is ON
2. DVD Power adjustment in the state where the setup is completed
3. CD Power adjustment in the state where F is ON
4. CD Power adjustment in the state where the setup is completed

■ Procedure of Adjustment

STEP No.

1. Set the mecha to clockwise.

2. Turn on power.

3. Test Mode In

Refer to FE test mode function flow.

4. Insert DVD TDV-582 (or TDV-520).

5. Set the mecha to counterclockwise.

6. Adjustment of the initial position of VR for Power adjustment

Adjust the angle at the D cut position to the initial position (initial position shown in Fig.1).

	1st	2nd	3rd
CD (VR1101)	-30°		
DVD (VR1102)	-30°	-45°	-90°

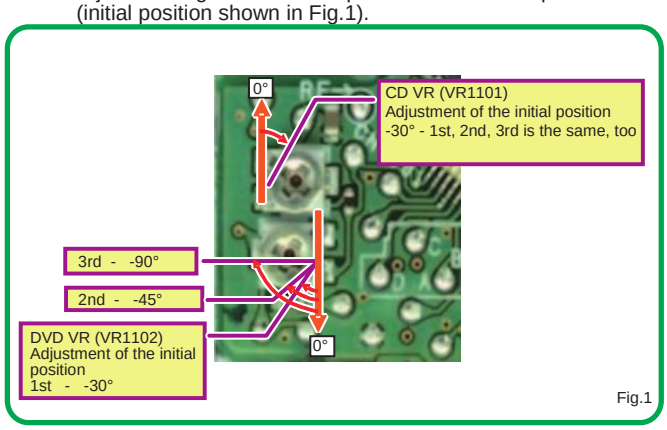


Fig.1

7. Set DISC TYPE to DVD single layer.

8. Power on.

Refer to FE test mode function flow.

9. LD-ON

Refer to FE test mode function flow.

10. Execute until Focus close state is reached.

Refer to FE test mode function flow.

▼ If the waveform is similar to RF waveform after F-ON and before T-ON (waveform measured by analog oscilloscope), Focus Close is reached.
Go to STEP 9.
If the RF waveform does not appear, Focus Close is not reached.
Return to STEP 7 and change the angle of initial position of DVD VR (VR 1102). If Focus Close is not reached after the 3rd VR adjustment, replace the whole CRG mecha (including PU unit) and start again from STEP 1.

DVD	200 mV to 1200 mV

11. Conduct Power adjustment. (Conduct the adjustment in the state of Focus Close.)

DVD	848 mV to 892 mV

12. Execute until Tracking Close is reached.

13. Conduct Power adjustment. (Conduct the adjustment in the state of Tracking Close.)

DVD	2.0E – 4 and under

14. Check the ERR rate after Power adjustment.

DVD	820 mV to 917 mV
DVD	2.0E – 4 and under

15. Power off.

16. Return the state of mecha to clockwise.

17. Set up again (state of mecha to clockwise / setting of DVD single layer) and conduct the final check of RF level and ERR rate. (Check in the state of Tracking Close)

18. Eject.

19. Take out DVD TDV-582 (or TDV-520).
Insert CD TCD-782 (or TCD-792).

20. Set the mecha counterclockwise.

21. Adjustment of the initial position of VR for Power adjustment

	1st	2nd	3rd
CD (VR1101)	-30°	-45°	-90°
DVD (VR1102)	As the adjustment is completed, never change.		

Adjust the angle at the D cut position to the initial position (initial position shown in Fig.2).

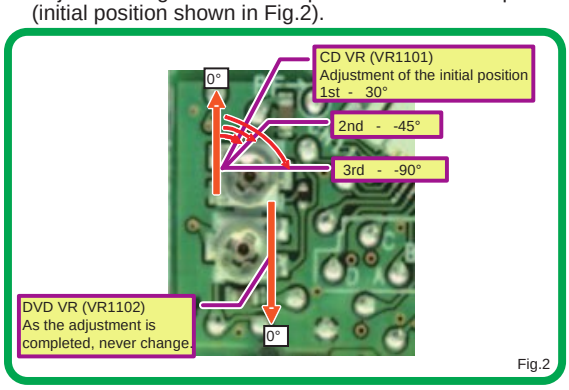


Fig.2

22. Set DISC TYPE to CD. Refer to FE test mode function flow.

23. Power on. Refer to FE test mode function flow.

24. Execute until Focus Close 1 is reached. Refer to FE test mode function flow.

▼If the waveform is similar to RF waveform after F-ON and before T-ON (waveform measured by analog oscilloscope), Focus Close is reached.
Go to STEP 20.
If the RF waveform does not appear, Focus Close is not reached. Return to STEP 21 and change the angle of initial position of CD VR (VR1101).
If Focus Close is not reached after the 3rd VR adjustment, replace the whole CRG mecha (including PU unit) and start again from STEP 1.

25. Conduct Power adjustment. (Conduct the adjustment in the state of Focus Close.)

CD	200 mV to 1200 mV

26. Execute until Tracking Close is reached. Refer to FE test mode function flow.

27. Conduct Power adjustment. (Conduct the adjustment in the state of Focus Close.)

CD	658 mV to 702 mV

28. Check ERR rate.

CD	1.0E – 2 and under

Refer to FE test mode function flow.

29. Power off. Refer to FE test mode function flow.

30. Return the state of mecha to clockwise.

31. Set up again (state of mecha to clockwise / setting of CD layer), and conduct the final check of RF level and ERR rate.
(Check in the state of Tracking Close)

CD	528 mV to 832 mV
CD	1.0E – 2 and under

Refer to FE test mode function flow.

32. Eject. Refer to FE test mode function flow.

33. Take out CD TCD-782 (or TCD-792).

34. Power off.

8.2 PCL OUTPUT CONFIRMATION

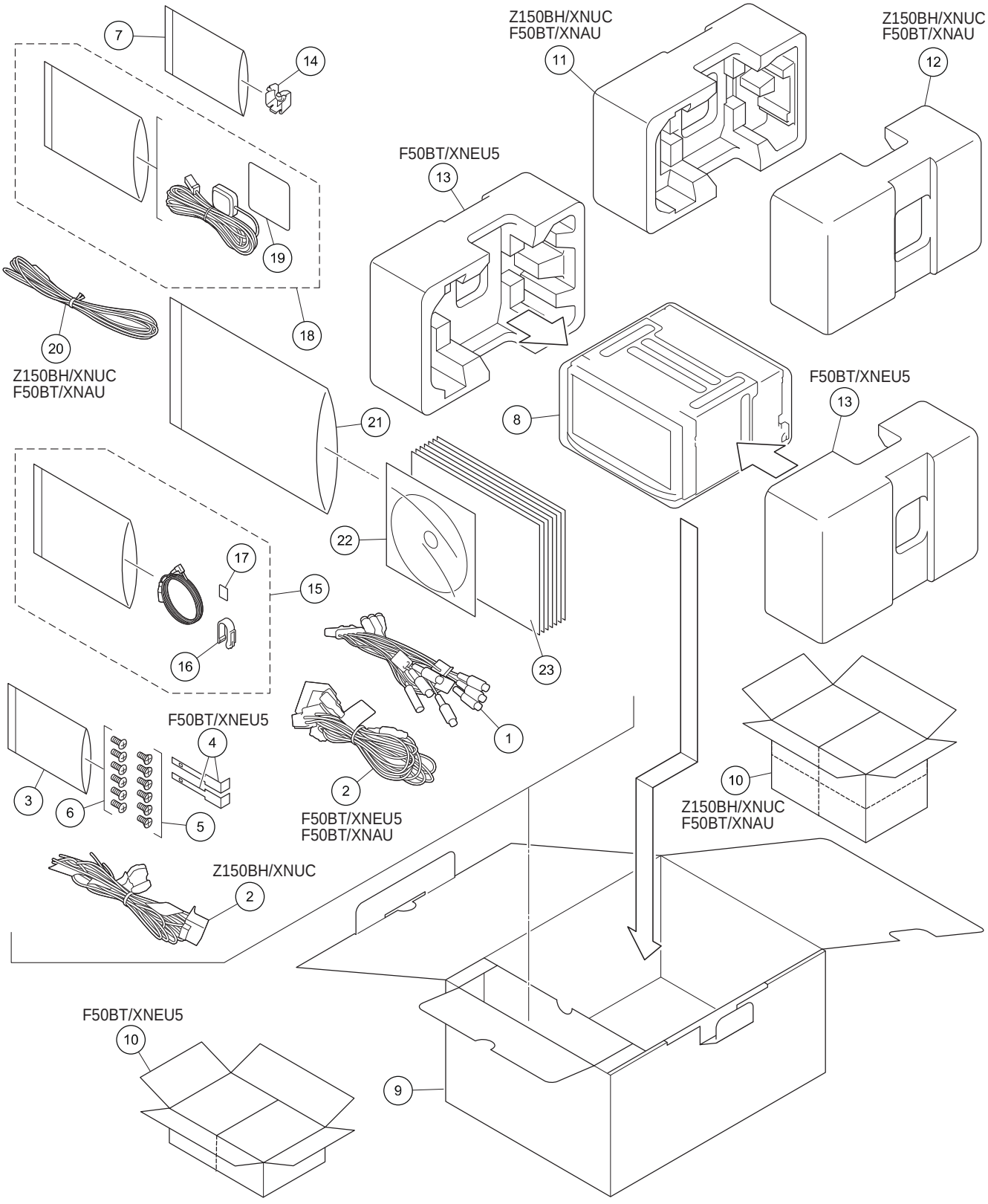
- **PCL Output**

With the TESTIN (Pin 19) (TP : TSTIN) status of IC2303 to be “H”, it is shifted to PCL Output Test mode after reset started.
The clock signal is output from the CLKOUT terminal IC2303(Pin 72) (TP : TSCK).
The frequency of the clock signal is 937 500 Hz that is one 32th of the fundamental frequency.
If clock signal is out of this range, this resonator (X2301) must be changed for a new one.

9. EXPLODED VIEWS AND PARTS LIST

NOTES : • *Parts marked by "* " are generally unavailable because they are not in our Master Spare Parts List.*
• *The > mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
• *Screw adjacent to „ mark on the product are used for disassembly.*
• *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions,apply as you think it appropriate.)*

9.1 PACKING



(1) PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Cord Assy	CDP1540
	2	Cord Assy	See Contrast table (2)
	3	Polyethylene Bag	CEG1160
	4	Handle	See Contrast table (2)
	5	Screw	CRZ50P090FTC
	6	Screw	TRZ50P080FTC
	7	Polyethylene Bag	CEG1160
	8	Cover	See Contrast table (2)
	9	Unit Box	See Contrast table (2)
	10	Contain Box	See Contrast table (2)
	11	Protector	See Contrast table (2)
	12	Protector	See Contrast table (2)
	13	Protector	See Contrast table (2)
	14	Holder	CNW2508
	15	Microphone Assy	CPM1083
	16	Holder	CZN7192
	17	Cushion	CZN7193
	18	GPS Antenna Assy	CXE3204
	19	Sheet	CZN8510
	20	Cable Assy	See Contrast table (2)
	21	Polyethylene Bag	CEG1116
	22	IM CD-ROM	CPJ1451
	23-1	Quick Start Guide	See Contrast table (2)
	23-2	Quick Start Guide/POC/FRE	See Contrast table (2)
	23-3	Quick Start Guide	See Contrast table (2)
	23-4	Quick Start Guide	See Contrast table (2)
	23-5	Quick Start Guide	See Contrast table (2)
	23-6	Owner's Manual	See Contrast table (2)
	23-7	Installation Manual	See Contrast table (2)
*	23-8	Registration Card	See Contrast table (2)
*	23-9	Registration Card	See Contrast table (2)
*	23-10	Warranty Card	See Contrast table (2)
*	23-11	Caution Card	CRP1468

(2) CONTRAST TABLE

AVIC-Z150BH/XNUC, AVIC-F50BT/XNEU5 and AVIC-F50BT/XNAU are constructed the same except for the following:

Mark	No.	Description	AVIC-Z150BH/XNUC	AVIC-F50BT/XNEU5	AVIC-F50BT/XNAU
	2	Cord Assy	CDP1546	CDP1545	CDP1545
	4	Handle	Not used	CND6289	Not used
	8	Cover	CEG1359	CEG1356	CEG1356
	9	Unit Box	CHG8257	CHG8259	CHG8258
	10	Contain Box	CHL8257	CHL8259	CHL8258
	11	Protector	CHP4275	Not used	CHP4275
	12	Protector	CHP4276	Not used	CHP4276
	13	Protector	Not used	CHP4696	Not used
	20	Cable Assy	CDP1396	Not used	CDP1396
	23-1	Quick Start Guide	CRB4157	Not used	CRB4172
	23-2	Quick Start Guide/POC/FRE	CRB4158	Not used	Not used
	23-3	Quick Start Guide	Not used	CRD4718	Not used
	23-4	Quick Start Guide	Not used	CRD4719	Not used
	23-5	Quick Start Guide	Not used	CRD4720	Not used
	23-6	Owner's Manual	CRD4696	CRD4698	CRB4173
	23-7	Installation Manual	CRD4697	CRD4699	CRB4174
*	23-8	Registration Card	CRY1271	Not used	Not used
*	23-9	Registration Card	CRY1373	CRY1375	Not used
*	23-10	Warranty Card	QRY3001	CRY1376	Not used

Owner's Manual,Installation Manual

Part No.	Language
CRB4157	English
CRB4158	French
CRB4172	English
CRB4173	English
CRB4174	English
CRD4696	English, French
CRD4697	English, French
CRD4698	English(Great Britain), French, Italian, Spanish(Espanol), German, Dutch
CRD4699	English(Great Britain), French, Italian, Spanish(Espanol), German, Dutch
CRD4718	English(Great Britain), French
CRD4719	Italian, Spanish(Espanol)
CRD4720	German, Dutch

CONTENTS OF CD-ROM (Operation Manual), CPJ1451

Part No.	Language
* CRB4155	English
* CRB4156	French
* CRB4159	English(Great Britain)
* CRB4160	French
* CRB4161	Italian
* CRB4162	Spanish(Espanol)
* CRB4163	German
* CRB4164	Dutch
* CRB4171	English(Great Britain)
* CRB4192	Russian

All operation manuals are supplied in PDF files by the CD-ROM.
Regarding the availability of paper manual, contact Pioneer Service representative in your region.

A

B

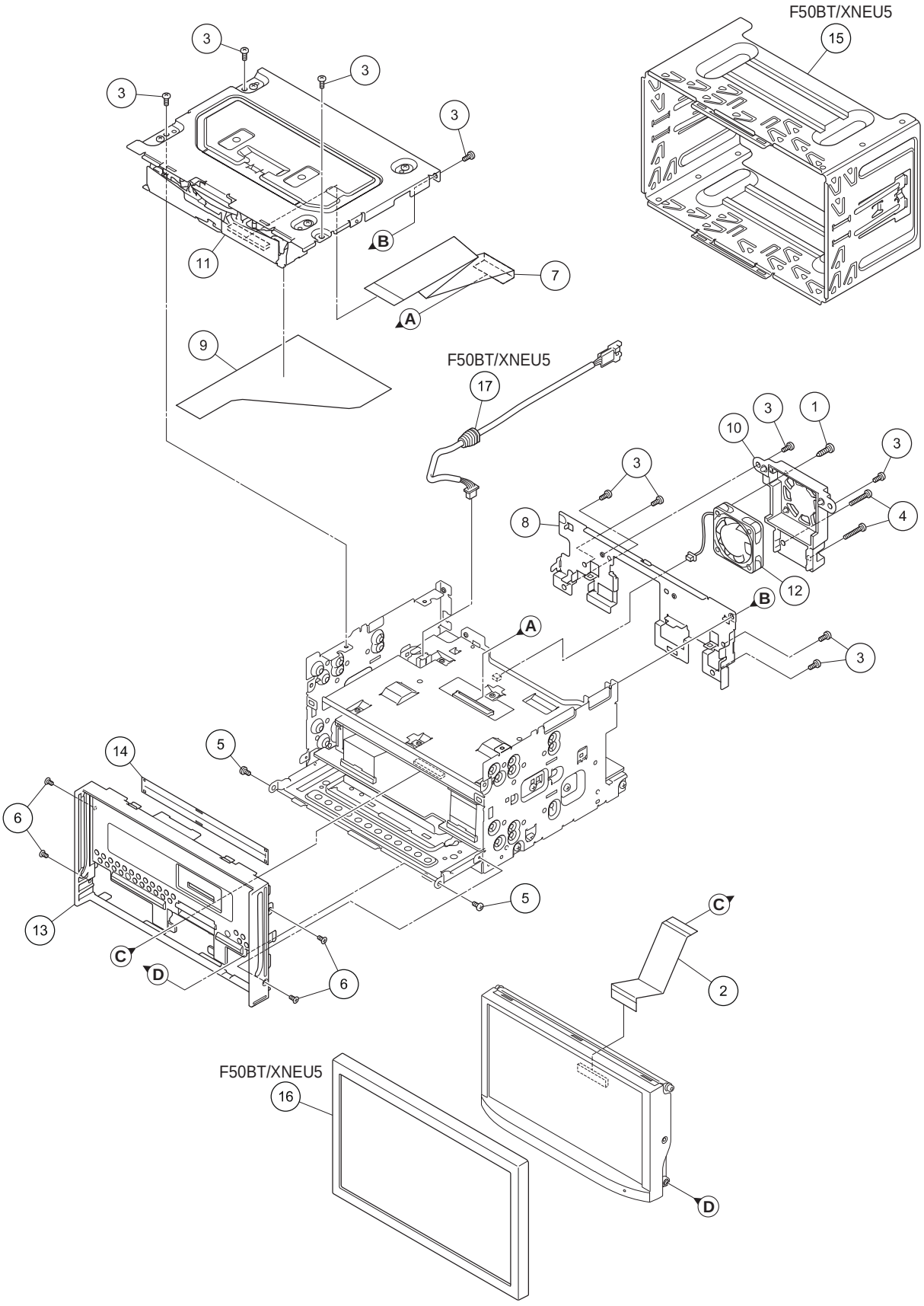
C

D

E

F

9.2 EXTERIOR (1)



(1) EXTERIOR (1) SECTION PARTS LIST

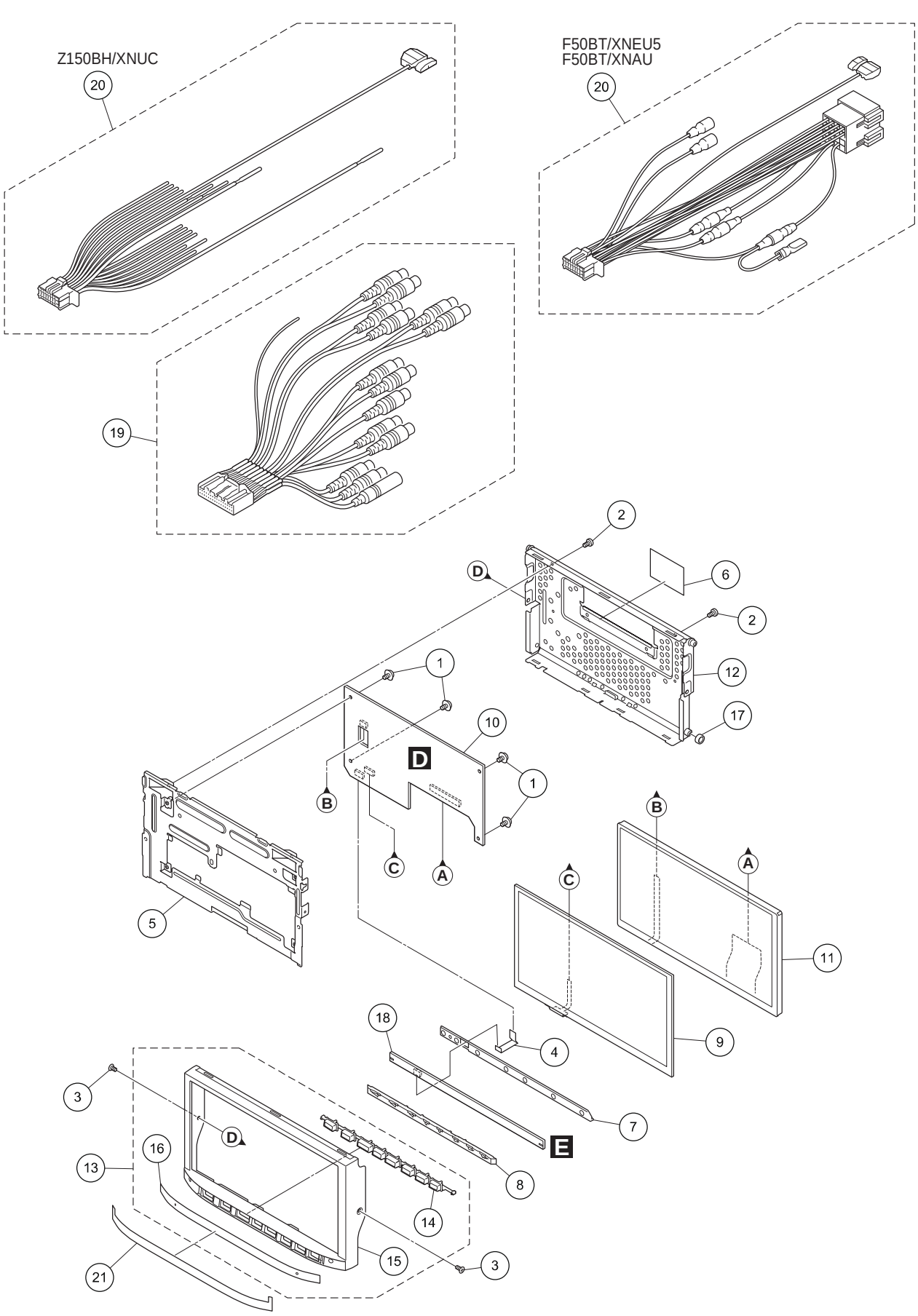
Mark	No.	Description	Part No.
	1	Screw	BPZ30P080FTC
	2	FFC	CDE9848
	3	Screw	BSZ26P060FTC
	4	Screw	BSZ26P160FTC
	5	Screw	CBA1735
	6	Screw	CBA1877
	7	FFC	CDE9847
	8	Holder	CND6687
	9	Insulator	CNN4330
	10	Heat Sink	CNR2152
	11	DVD Mechanism Module(LS2)	CXK8005
	12	Fan Motor	CXM1446
	13	Panel	See Contrast table (2)
	14	Cover	QNM3029
	15	Holder	See Contrast table (2)
	16	Panel	See Contrast table (2)
	17	Cord Assy	See Contrast table (2)

(2) CONTRAST TABLE

AVIC-Z150BH/XNUC, AVIC-F50BT/XNEU5 and AVIC-F50BT/XNAU are constructed the same except for the following:

Mark	No.	Description	AVIC-Z150BH/XNUC	AVIC-F50BT/XNEU5	AVIC-F50BT/XNAU
	13	Panel	CNU2200	CNU2201	CNU2201
	15	Holder	Not used	CND6288	Not used
	16	Panel	Not used	CNS9952	Not used
	17	Cord Assy	Not used	CDF1018	Not used

9.3 EXTERIOR (2)



(1) EXTERIOR (2) SECTION PARTS LIST

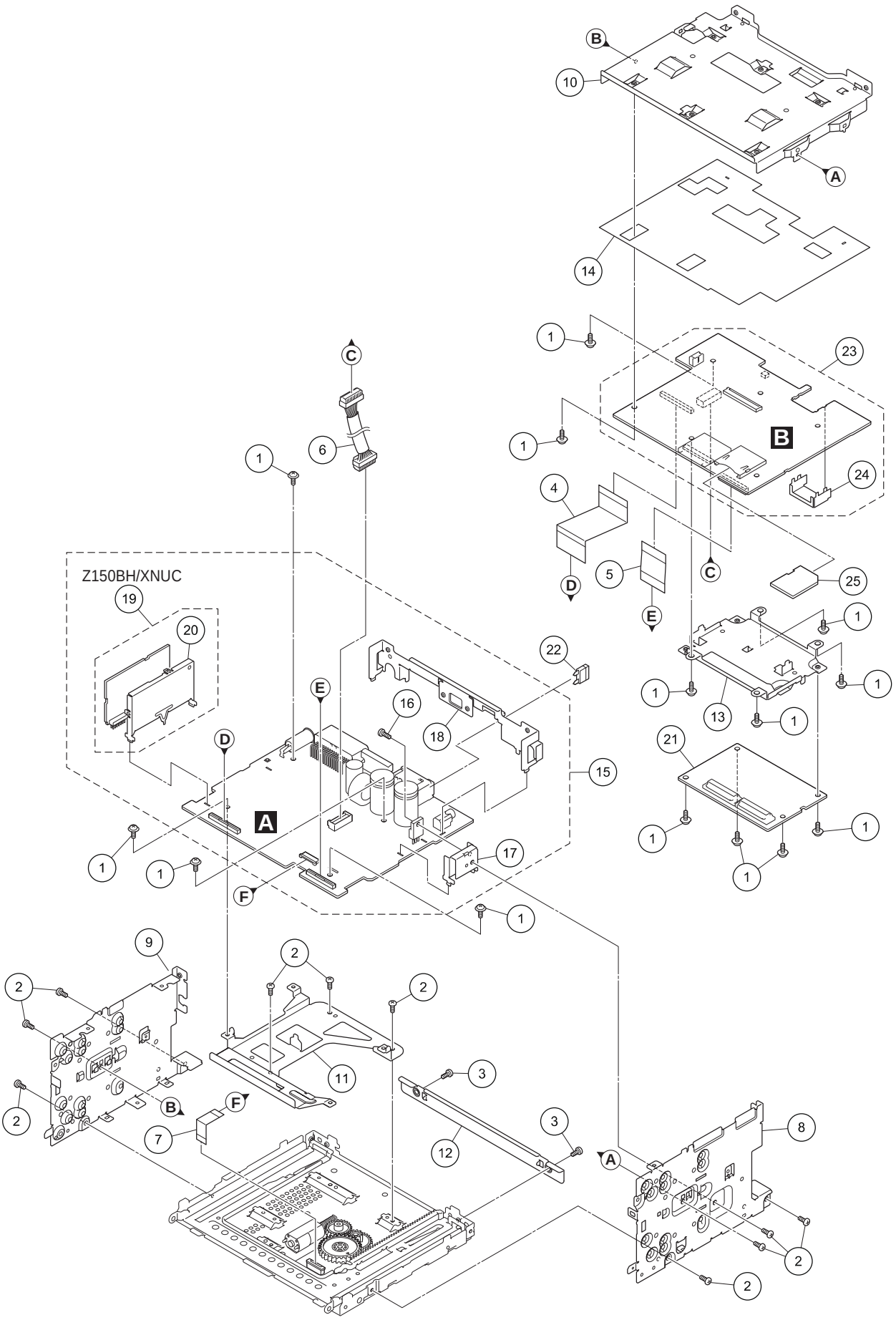
Mark	No.	Description	Part No.
	1	Screw	AMZ20P040FTC
	2	Screw	BMZ20P030FTC
	3	Screw	CBA2265
	4	FFC	CDE9945
	5	Holder	CND6338
	6	Sheet	CNN4232
	7	Spacer	CNW2111
	8	Lighting Conductor	CNW2705
	9	Touch Panel	CSX1176
	10	Monitor Unit	CWN7383
	11	TFT LCD	CWX4182
	12	Case Unit	CXE4761
	13	Grille Assy	See Contrast table (2)
*	14	Button	CAI4016
*	15	Grille	CNU2199
*	16	Plate	See Contrast table (2)
	17	Collar	CNW2038
	18	Key Unit (Service)	CXX5403
	19	Cord Assy	CDP1540
	20	Cord Assy	See Contrast table (2)
	21	Sheet	CNN4508

(2) CONTRAST TABLE

AVIC-Z150BH/XNUC, AVIC-F50BT/XNEU5 and AVIC-F50BT/XNAU are constructed the same except for the following:

Mark	No.	Description	AVIC-Z150BH/XNUC	AVIC-F50BT/XNEU5	AVIC-F50BT/XNAU
	13	Grille Assy	CXE5967	CXE5968	CXE5968
*	16	Plate	CNU2202	CNU2203	CNU2203
	20	Cord Assy	CDP1546	CDP1545	CDP1545

9.4 EXTERIOR (3)



(1) EXTERIOR (3) SECTION PARTS LIST

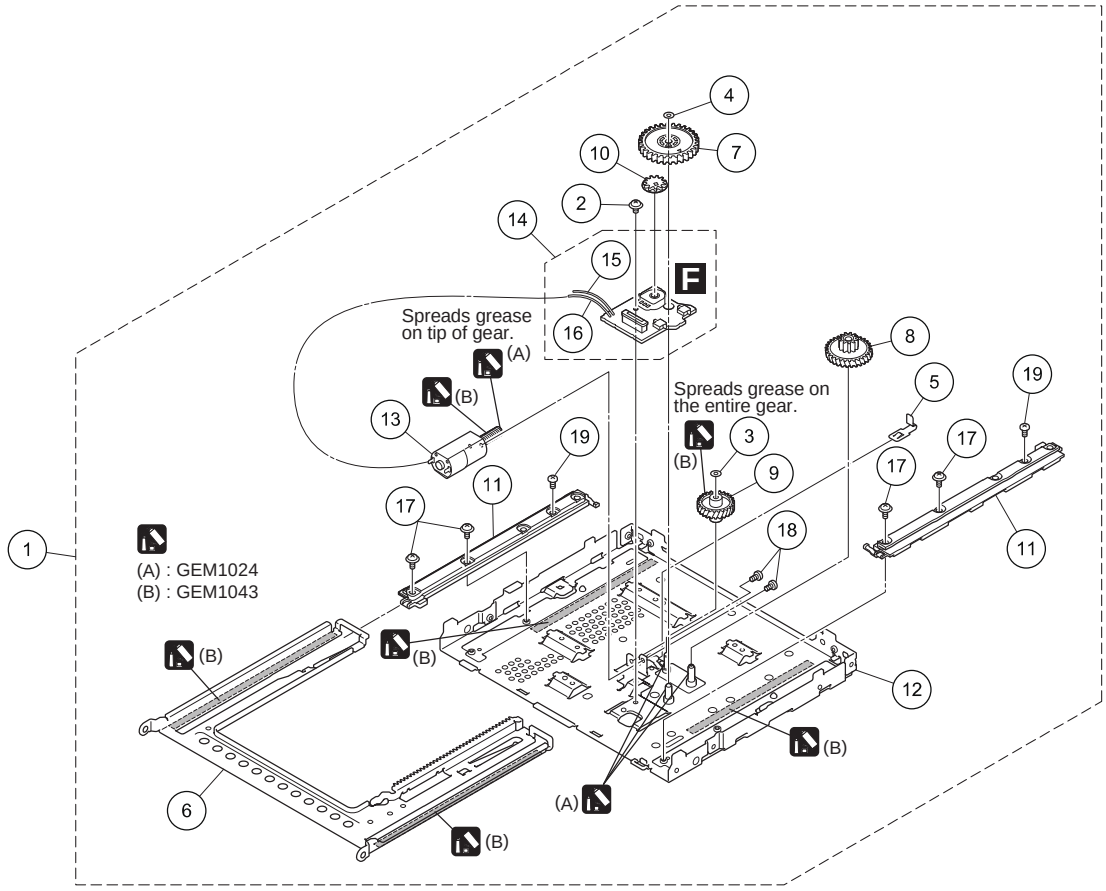
Mark	No.	Description	Part No.
	1	Screw	ASZ26P060FTC
	2	Screw	BSZ26P050FTC
	3	Screw	BSZ26P060FTC
	4	FFC	CDE9845
	5	FFC	CDE9846
	6	Cord Assy	CDE9854
	7	FFC	CDE9387
	8	Bracket	CND6335
	9	Bracket	See Contrast table (2)
	10	Holder	CND6684
	11	Holder	CND6685
	12	Holder	CND6686
	13	Holder	CND6907
	14	Insulator	CNN4329
	15	AV Unit	See Contrast table (2)
	16	Screw	BSZ26P060FTC
	17	Holder	CND6354
	18	Holder	See Contrast table (2)
	19	WWR Core TUN Unit	See Contrast table (2)
	20	Holder	See Contrast table (2)
	21	CC Assy(Service)	See Contrast table (2)
>	22	Fuse (10 A)	YEK5001
	23	Navi Unit (Service)	See Contrast table (2)
	24	Holder	CND6692
	25	Map SD Assy(Service)	See Contrast table (2)

(2) CONTRAST TABLE

AVIC-Z150BH/XNUC, AVIC-F50BT/XNEU5 and AVIC-F50BT/XNAU are constructed the same except for the following:

Mark	No.	Description	AVIC-Z150BH/XNUC	AVIC-F50BT/XNEU5	AVIC-F50BT/XNAU
	9	Bracket	CND6351	CND6340	CND6351
	15	AV Unit	CWN7367	CWN7368	CWN7369
	18	Holder	CND6690	CND6691	CND6691
	19	WWR Core TUN Unit	CWE2364	Not used	Not used
	20	Holder	CND6449	Not used	Not used
	21	Service CC Assy	CXX5375	CXX5376	CXX5375
	23	Navi Unit (Service)	CXX5396	CXX5397	CXX5398
	25	Map SD Assy(Service)	CXX5824	CXX5825	CXX5827

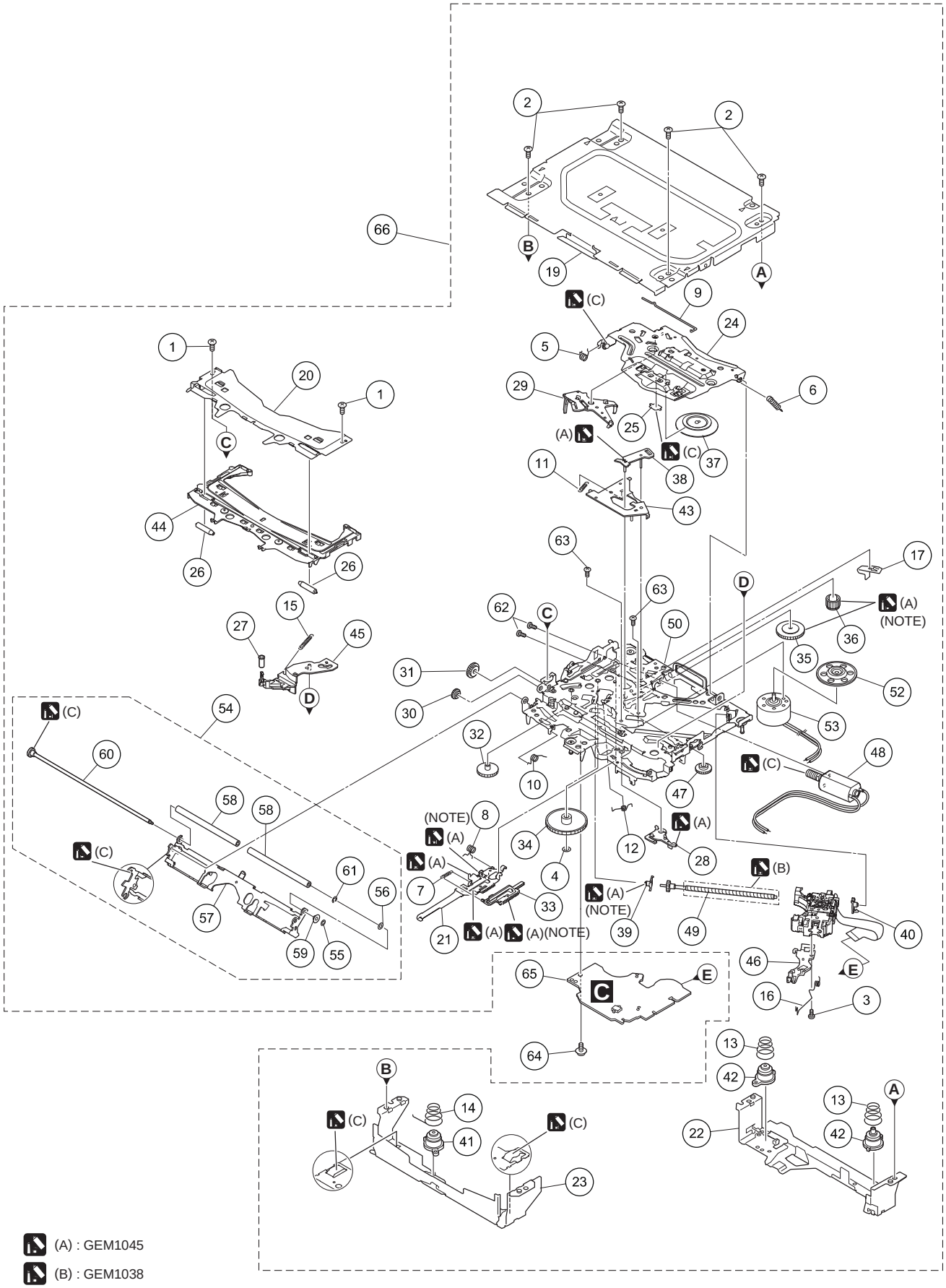
9.5 EXTERIOR (4)



EXTERIOR (4) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Drive Unit	CXE3878
	2	Screw	AMZ26P030FTC
	3	Washer	CBF1039
	4	Washer	CBF1064
	5	Spring	EBL1034
	6	Frame	ENC2001
	7	Gear	ENV1630
	8	Gear	ENV1631
	9	Gear	ENV1632
	10	Gear	ENV1635
	11	Guide	ENV3001
	12	Chassis Unit	EXA4001
	13	Motor Unit	EXA4003
	14	PCB Assy (Service)	EXX2001
*	15	Cord (Green)	CDC1056
*	16	Cord (White)	CDC1057
	17	Screw	IMS26P060FTC
	18	Screw	JFZ20P025FTC
	19	Screw	EBA2002

9.6 DVD MECHANISM MODULE (1)



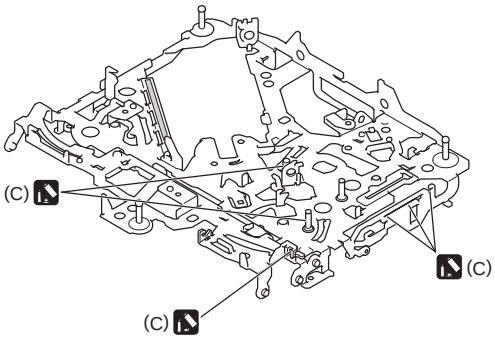
(NOTE) Apply grease to the whole part.

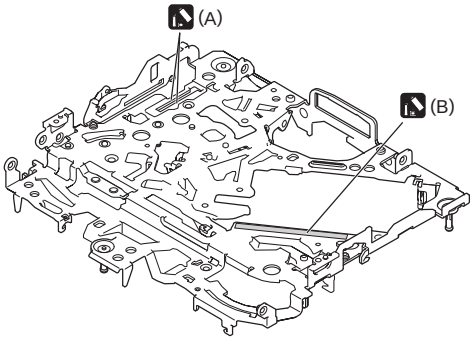
DVD MECHANISM MODULE (1) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BSZ20P040FTC
	2	Screw	BSZ26P060FTC
	3	Screw (M2 x 4)	CBA1835
	4	Washer	CBF1038
	5	Spring	CBH2855
	6	Spring	CBH2860
	7	Spring	CBH3010
	8	Spring	CBH3011
	9	Spring	CBH3014
	10	Spring	CBH3015
	11	Spring	CBH3016
	12	Spring	CBH3017
	13	Spring	CBH3019
	14	Spring	CBH3086
	15	Spring	CBH3095
	16	Spring	CBH3096
	17	Plate Spring	CBL1824
	18	•••••	
	19	Case	CNB3760
	20	Bracket	CND4553
	21	Lever	CND5398
	22	Bracket	CND5710
	23	Bracket	CND6127
	24	Arm	CND6406
	25	Sheet	CNN3678
	26	Roller	CNW1172
	27	Roller	CNW1175
	28	Arm	CNW1177
	29	Arm	CNW1178
	30	Gear	CNW1180
	31	Gear	CNW1181
	32	Gear	CNW1183
	33	Rack	CNW1184
	34	Gear	CNW1185
	35	Gear	CNW1186
	36	Gear	CNW1187
	37	Clamper	CNW1190
	38	Arm	CNW1192
	39	Holder	CNW1193
	40	Holder	CNW1194
	41	Damper	CNW1197
	42	Damper	CNW1198
	43	Arm	CNW1726
	44	Guide	CNW2240
	45	Arm	CNW2241
	46	Rack	CNW2265
	47	Gear	CNW2287
	48	Motor Unit(M1)(CRG(L/E))	CXC4026
	49	Screw Unit	CXC8894
*	50	Chassis Unit	CXE4047
	51	•••••	
*	52	Support Wheel	CNW2052
*	53	Spindle Motor(M2)(SPINDLE)	EXM2002
	54	Arm Assy	CXE5027
	55	Washer	CBF1037
	56	Washer	CBF1038
	57	Arm	CND6242
	58	Roller	CNW1196
	59	Collar	CNW2444
	60	Gear Unit	CXC8893
	61	Washer	YE15FTC
	62	Screw	JFZ20P025FTC
	63	Screw	JGZ17P020FTC
	64	Screw (M2 x 5)	EBA1028
	65	DVD Core Unit	YWX5033
	66	Mechanism Unit(Service)	CXX4547

Pickup, Spindle Motor and Support Wheel are not available as service parts, because they need adjustment by special equipment after replacing.

9.7 DVD MECHANISM MODULE (2)





(A) : GEM1045
(B) : GEM1038
(C) : GEM1024

A

B

C

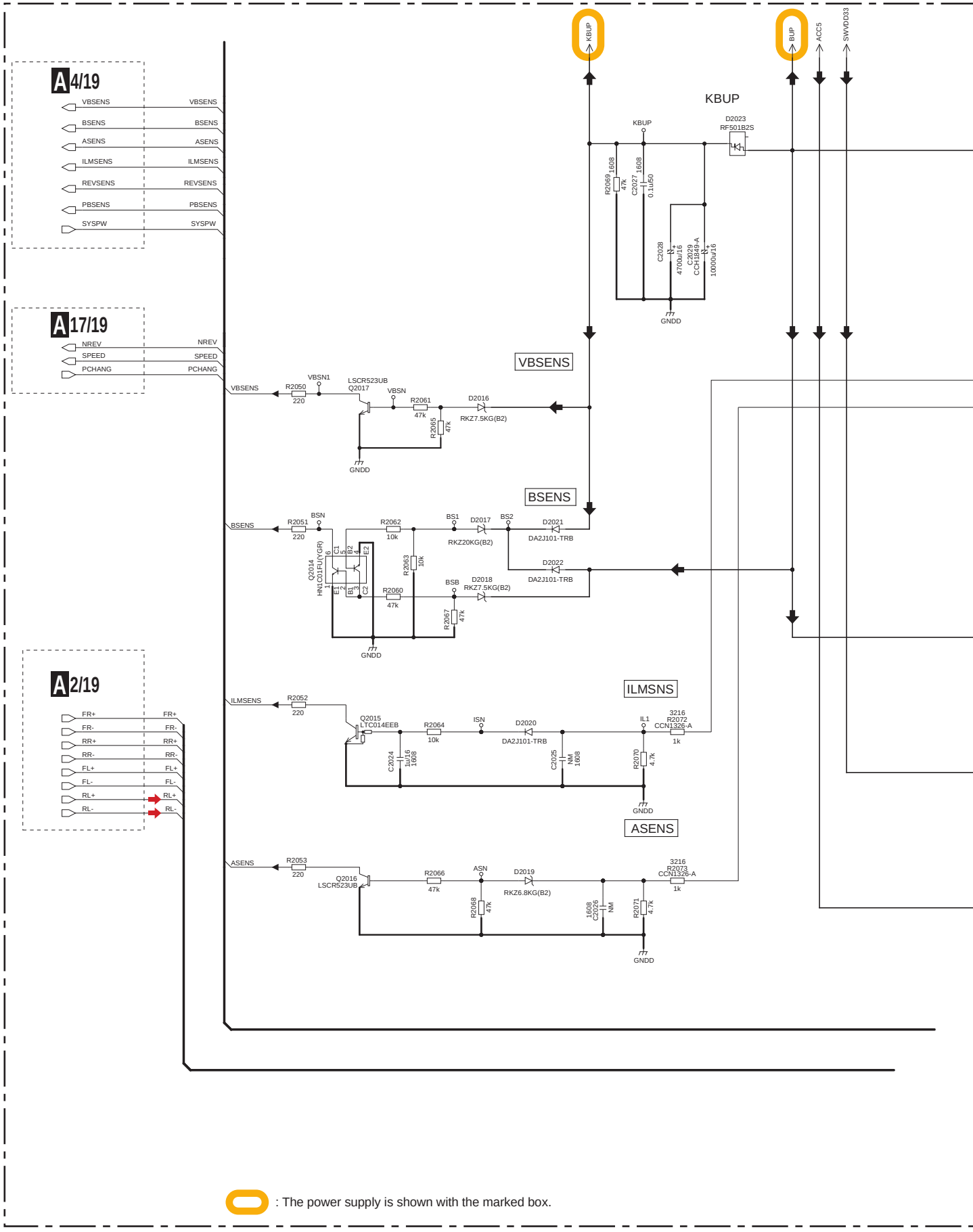
D

E

F

10. SCHEMATIC DIAGRAM

10.1 AV UNIT (S_VEHICLE IF SECTION)

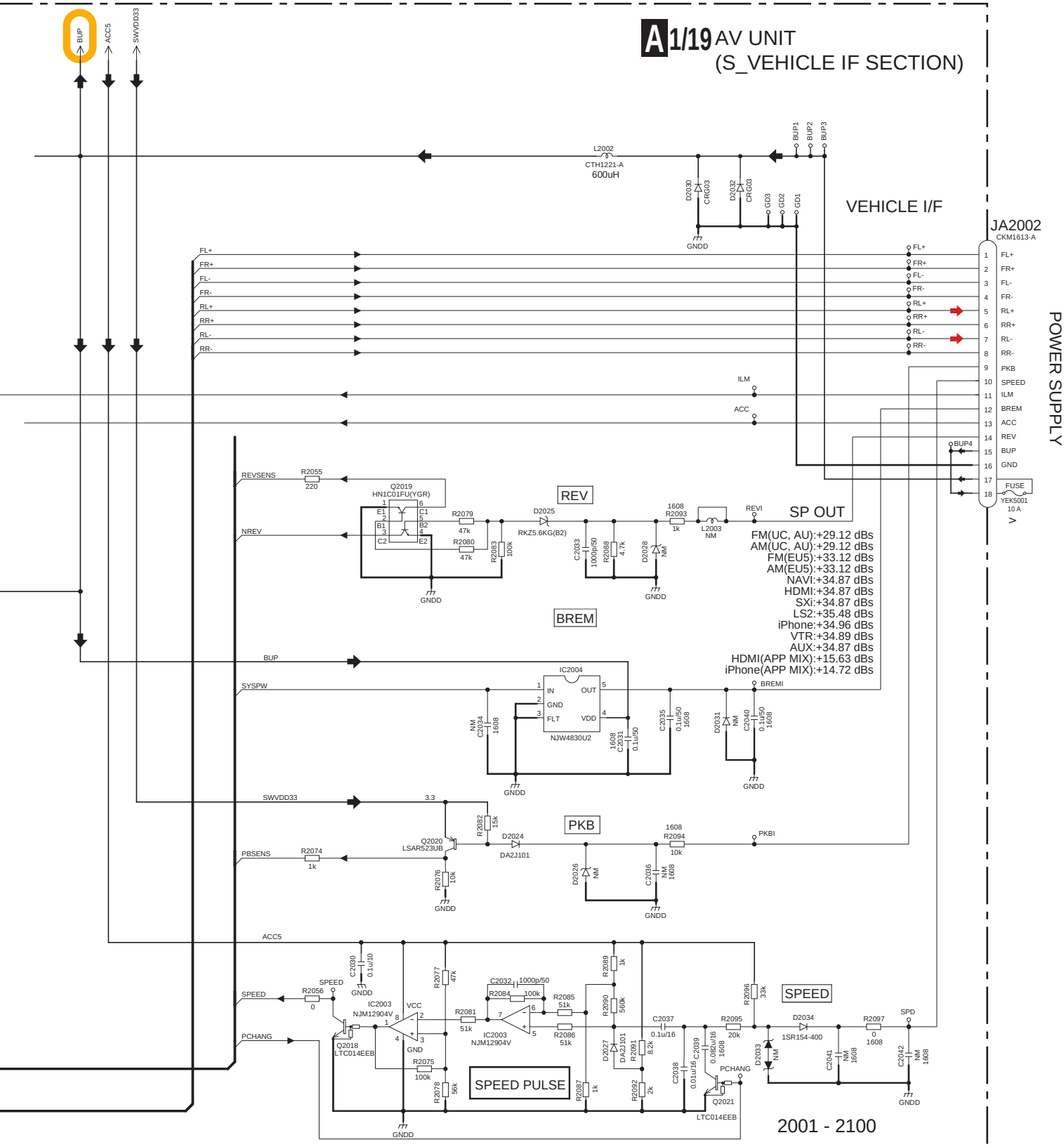


: The power supply is shown with the marked box.

A 1/19

Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

A1/19 AV UNIT (S_VEHICLE IF SECTION)

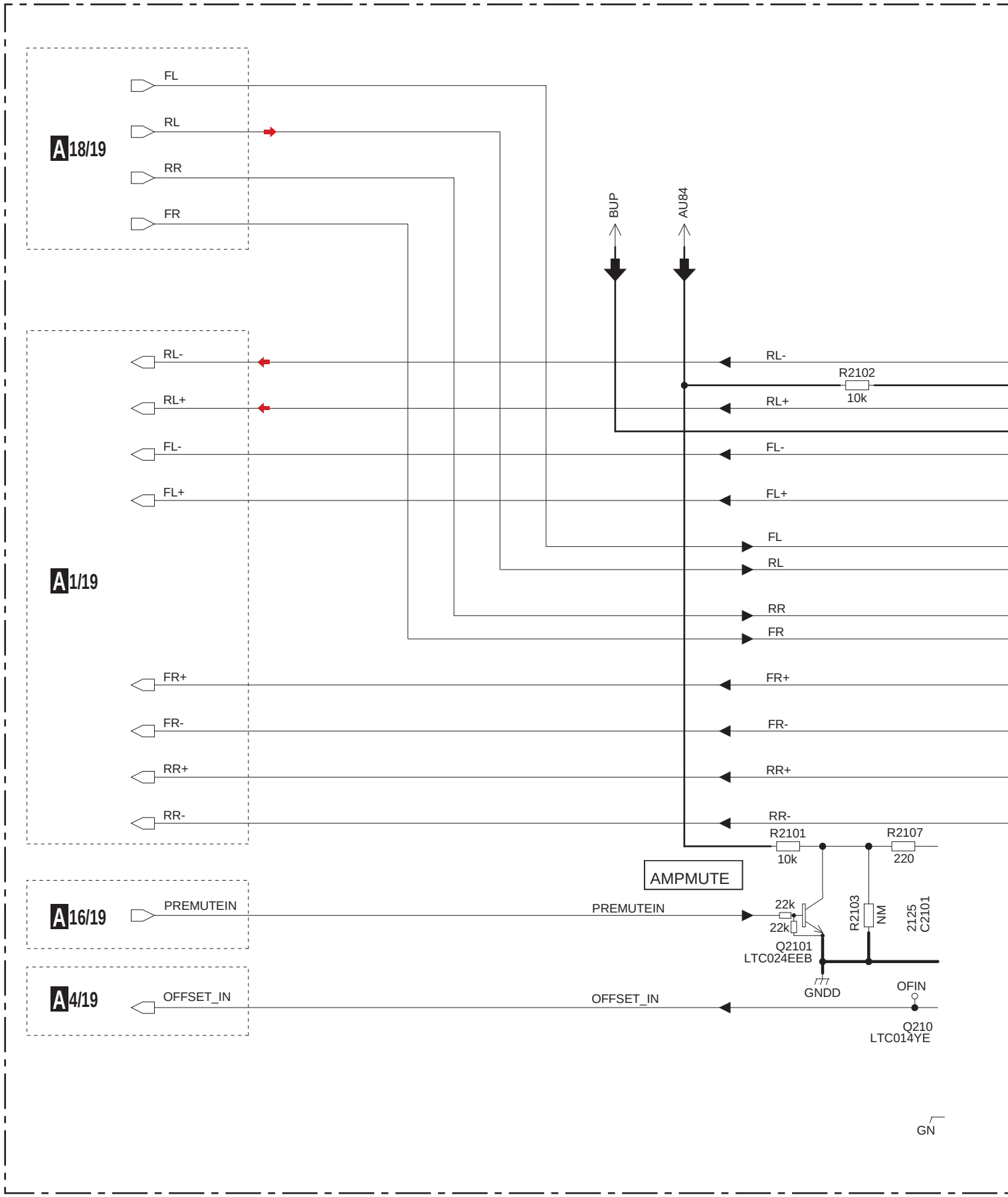


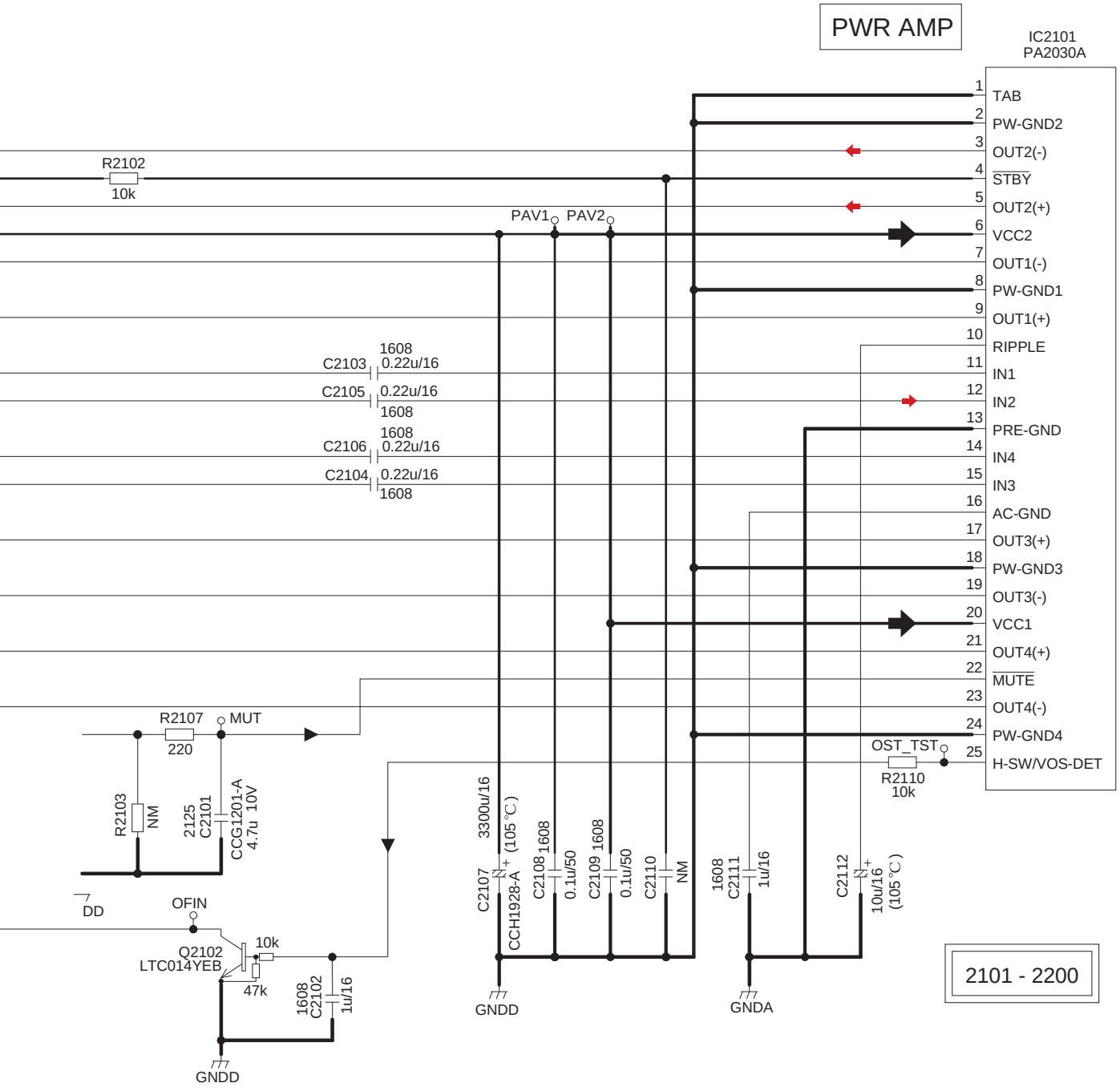
NOTE :

- Symbol indicates a resistor.
  No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor.
  No differentiation is made between chip capacitors and discrete capacitors.

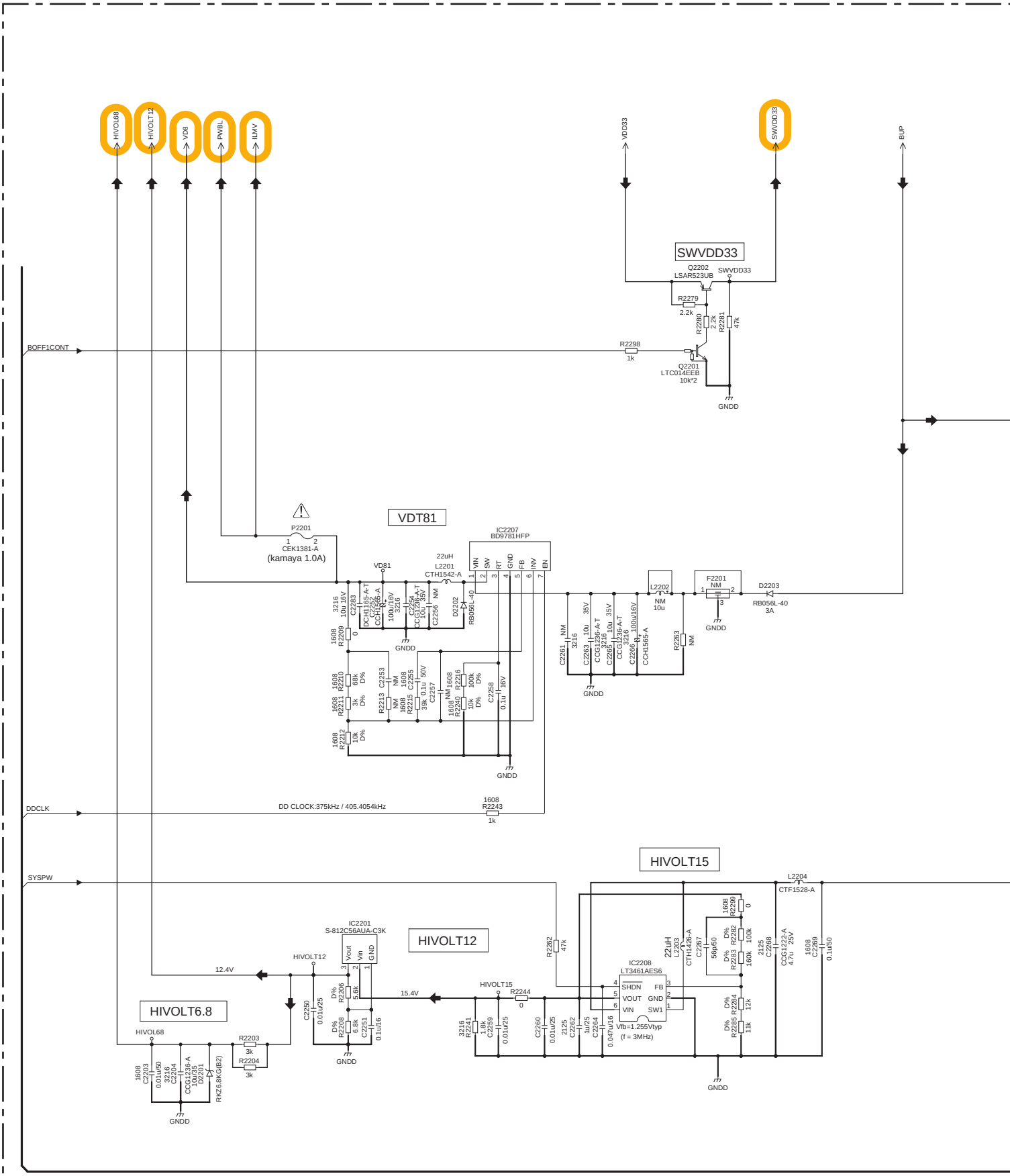
NM : No Mount

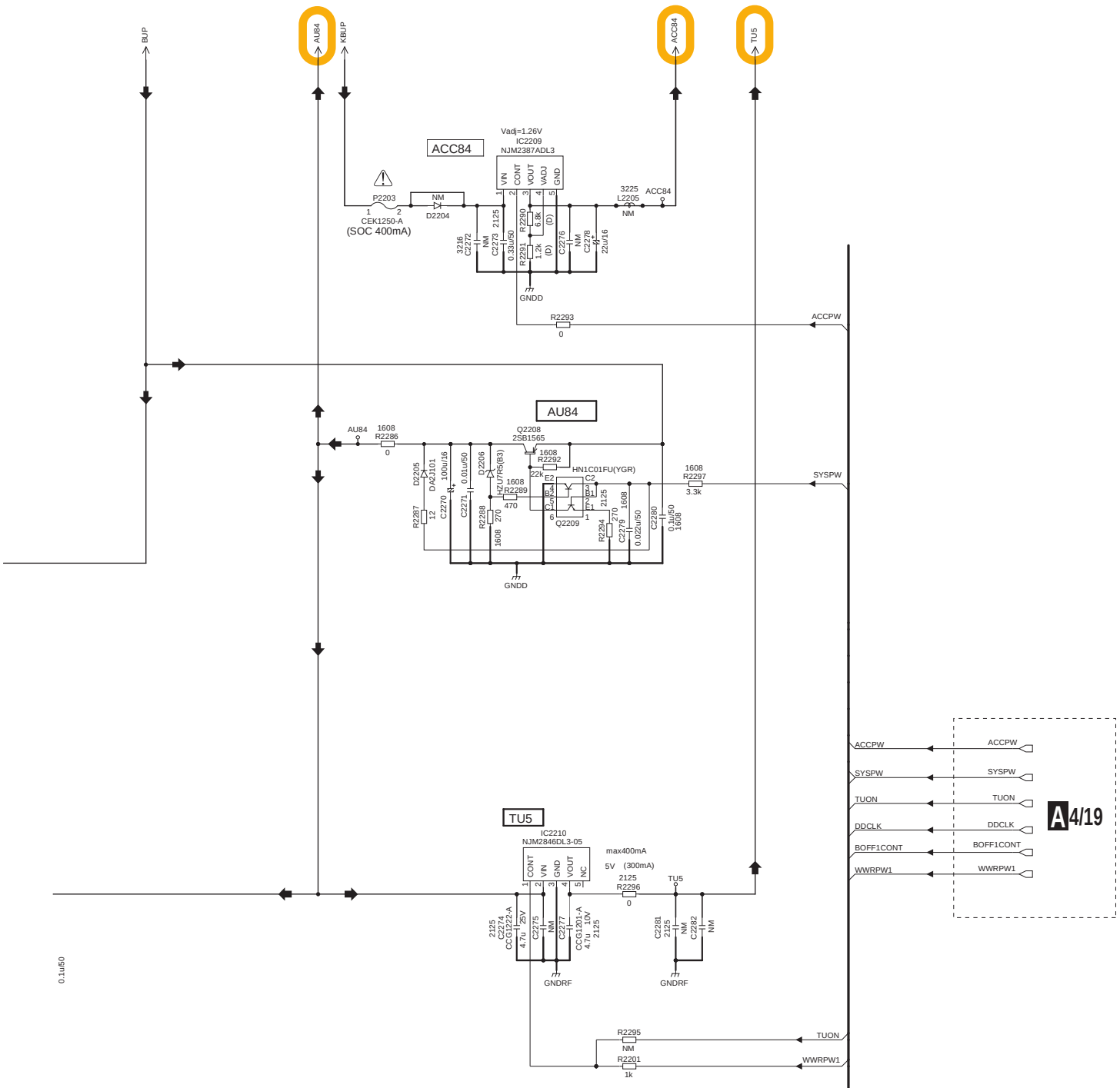
10.2 AV UNIT (S_POWER AMP SECTION)




PWR AMP
IC2101
PA2030A
1 TAB
2 PW-GND2
3 OUT2(-)
4 STBY
5 OUT2(+)
6 VCC2
7 OUT1(-)
8 PW-GND1
9 OUT1(+)
10 RIPPLE
11 IN1
12 IN2
13 PRE-GND
14 IN4
15 IN3
16 AC-GND
17 OUT3(+)
18 PW-GND3
19 OUT3(-)
20 VCC1
21 OUT4(+)
22 MUTE
23 OUT4(-)
24 PW-GND4
25 H-SW/VOS-DET
R2102 10k
PAV1
PAV2
C2103 1608 0.22u/16
C2105 0.22u/16 1608
C2106 1608 0.22u/16
C2104 0.22u/16 1608
R2107 220
MUT
R2103 NM
2125 C2101 CCG1201-A 4.7u 10V
DD
OFIN
Q2102 LTC014YEB
10k
47k
1608 C2102 1u/16
GNDD
C2107 3300u/16 CCH1928-A (105 ℃)
C2108 1608 0.1u/50
C2109 1608 0.1u/50
C2110 NM
GNDD
1608 C2111 1u/16
GNDA
C2112 10u/16 (105 ℃)
OST_TST
R2110 10k
2101 - 2200

10.3 AV UNIT (POWER SECTION)

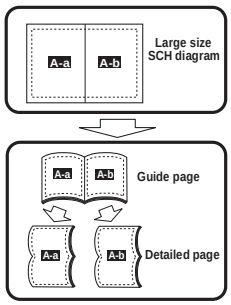




The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

2201 - 2300

10.4 AV UNIT (SYSTEM uCOM SECTION) (GUIDE PAGE)



A-a 4/19

*

	A	B	C
C2334	0.1u/10	NM	NM
R2368	100	NM	NM
R2365	1k	NM	NM
R2377	100	NM	NM
R2431	47k	NM	NM

A3/19 A12/19 A19/19
A1/19
A1/19 A3/19 A8/19
A16/19
A3/19
A18/19
A16/19
A5/19
A13/19
A12/19
A6/19
A15/19
A10/19
A16/19
A8/19
A11/19
A2/19
A7/19

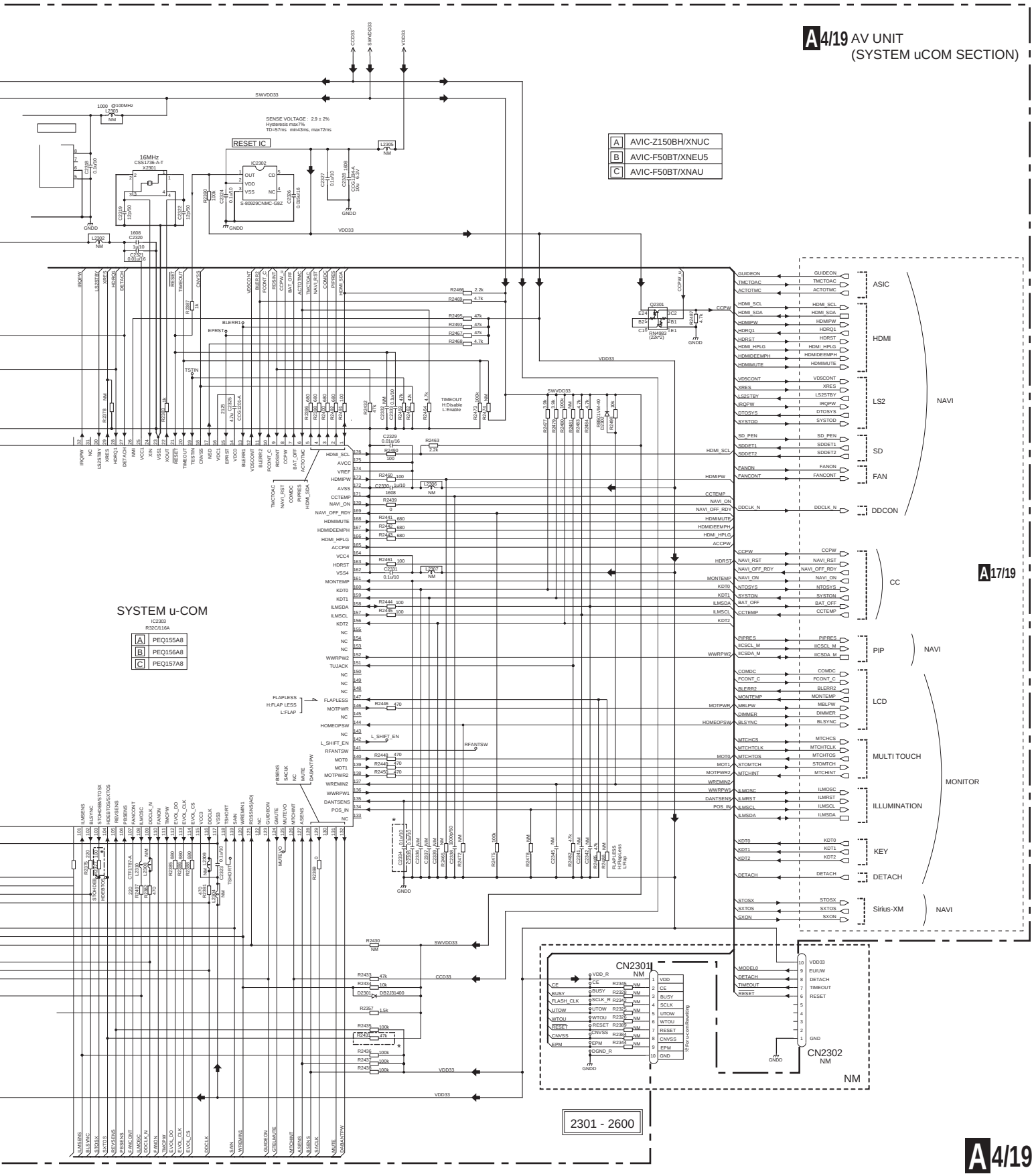
ACCPW
VBSENS
ILMSENS
REVSENS
PBSENS
ASENS
BSENS
SYSPW
TELMUTE
RMUTE
MUTE
WREMIN1
WREMIN2
BOFF1CONT
TUON
DDCLK
APPMUTE
AVOLDO
AVOLCLK
SMSEL
AQSEL
AMICSNS
IICSDA
IICSCL
AVSEL_RST
STOTUN
TUNTOS
DABANTPW
DANTSENS
WWRPW1
WWRPW2
EVOL_DO
EVOL_CLK
EVOL_CS
SAIN
SACLK
POS_IN
MOT1
MOT0
HOMEOPSW
MOTPWR2
MOTPWR
RDSINT
TUNPDA
TUNPCK
TUNRST
BLEND
REMIN
TMCPW
TMC_SCL
TMC_SDA
OFFSET_IN
GTELMUTE

SYSTEM u

IC2303 R32C/116A

A	PEQ155
B	PEQ156
C	PEQ157

A4/19


A 4/19 AV UNIT
(SYSTEM uCOM SECTION)
A AVIC-Z150BH/XNUC
B AVIC-F50BT/XNEU5
C AVIC-F50BT/XNAU
SYSTEM u-COM
IC2303
R32C/116A
A PEQ155A8
B PEQ156A8
C PEQ157A8
RESET IC
16MHz
CSS1736-A-T
X2301
IC2302
S-80929CNMC-G8Z
SENSE VOLTAGE : 2.9 ± 2%
Hysteresis max7%
TD=57ms min43ms, max72ms
ASIC
HDMI
LS2
SD
FAN
DDCON
NAVI
CC
PIP
LCD
MULTI TOUCH
ILLUMINATION
KEY
DETACH
MONITOR
Sirius-XM
A 17/19
CN2301
NM
CN2302
NM
2301 - 2600
A 4/19

A 4/19 AV UNIT (SYSTEM uCOM SECTION)

A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU

AVIC-Z150BH/XNUC

SENSE VOLTAGE : 2.9 ± 2%
Hysteresis max7%
TD=57ms min43ms, max72ms

RESET IC

IC2302 S-80929CNMC-G8Z

L2305 NM

SWVDD33 VDD33 CCD33 GNDD

Q2301 RN4983 (22k*2)

TSTIN

TIMEOUT H:Disable L:Enable

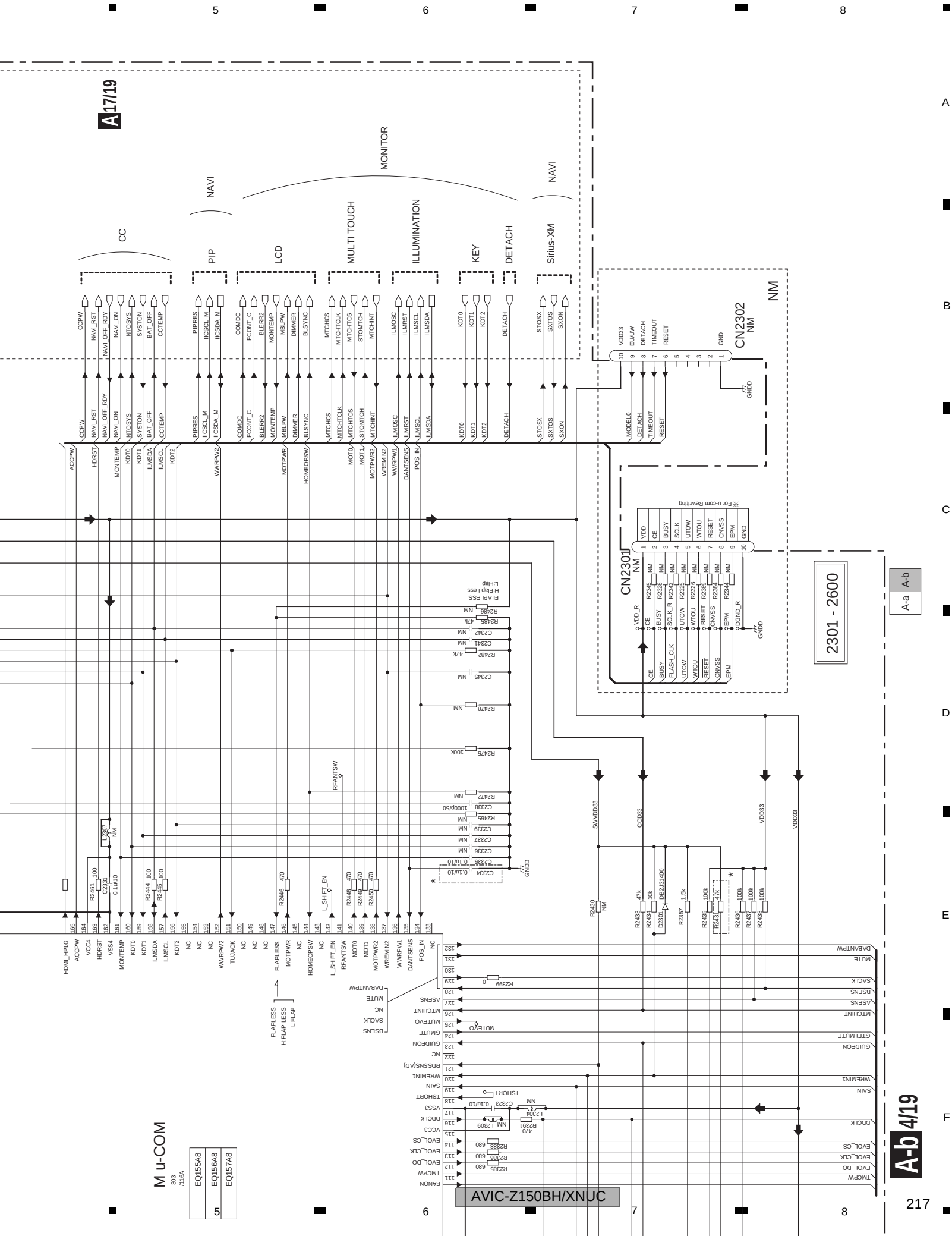
BLERR1 EPRST

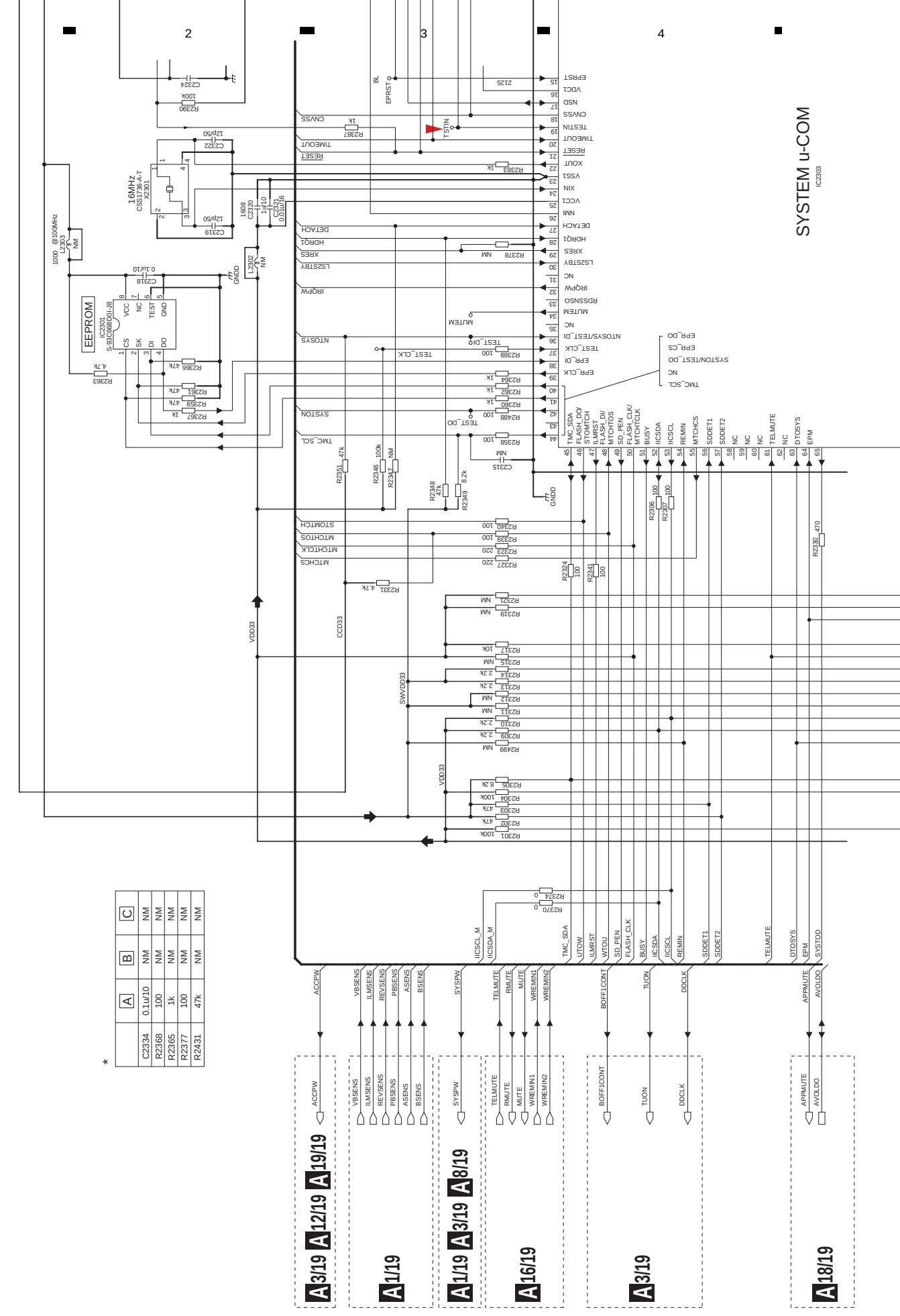
M u-COM 303

A 17/19

ASIC	GUIDEON, TMCTOAC, ACTOTMC
HDMI	HDMI_SCL, HDMI_SDA, HDMIPW, HDRQ1, HDRST, HDMI_HPLG, HDMIDEEMPH, HDMIMUTE
LS2	VD5CONT, XRES, LS2STBY, IRQPW, DTOSYS, SYSTOD
SD	SD_PEN, SDDET1, SDDET2
FAN	FANON, FANCONT
DDCON	DDCLK_N
CC	CCPW, NAVI_RST, NAVI_OFF_RDY, NAVI_ON, NTOSYS, SYSTON, BAT_OFF, CCTEMP

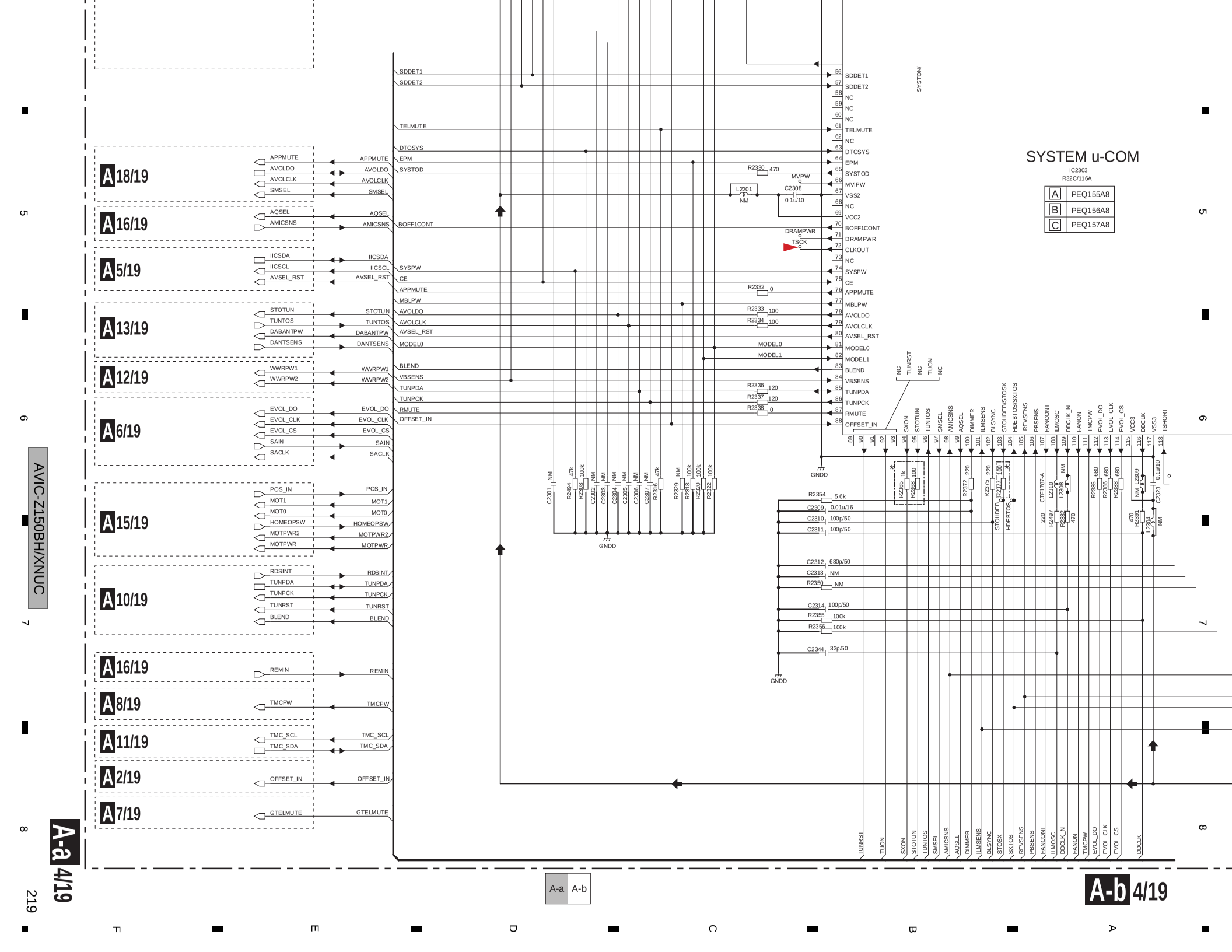
NAVI


A17/19
MONITOR
NAVI
NAVI
CC
PIP
LCD
MULTI TOUCH
ILLUMINATION
KEY
DETACH
Sirius-XM
CN2302
NM
CN2301
NM
2301 - 2600
A-a
A-b
M u-COM
303
/116A
EQ155A8
EQ156A8
EQ157A8
AVIC-Z150BH/XNUC
A-b 4/19

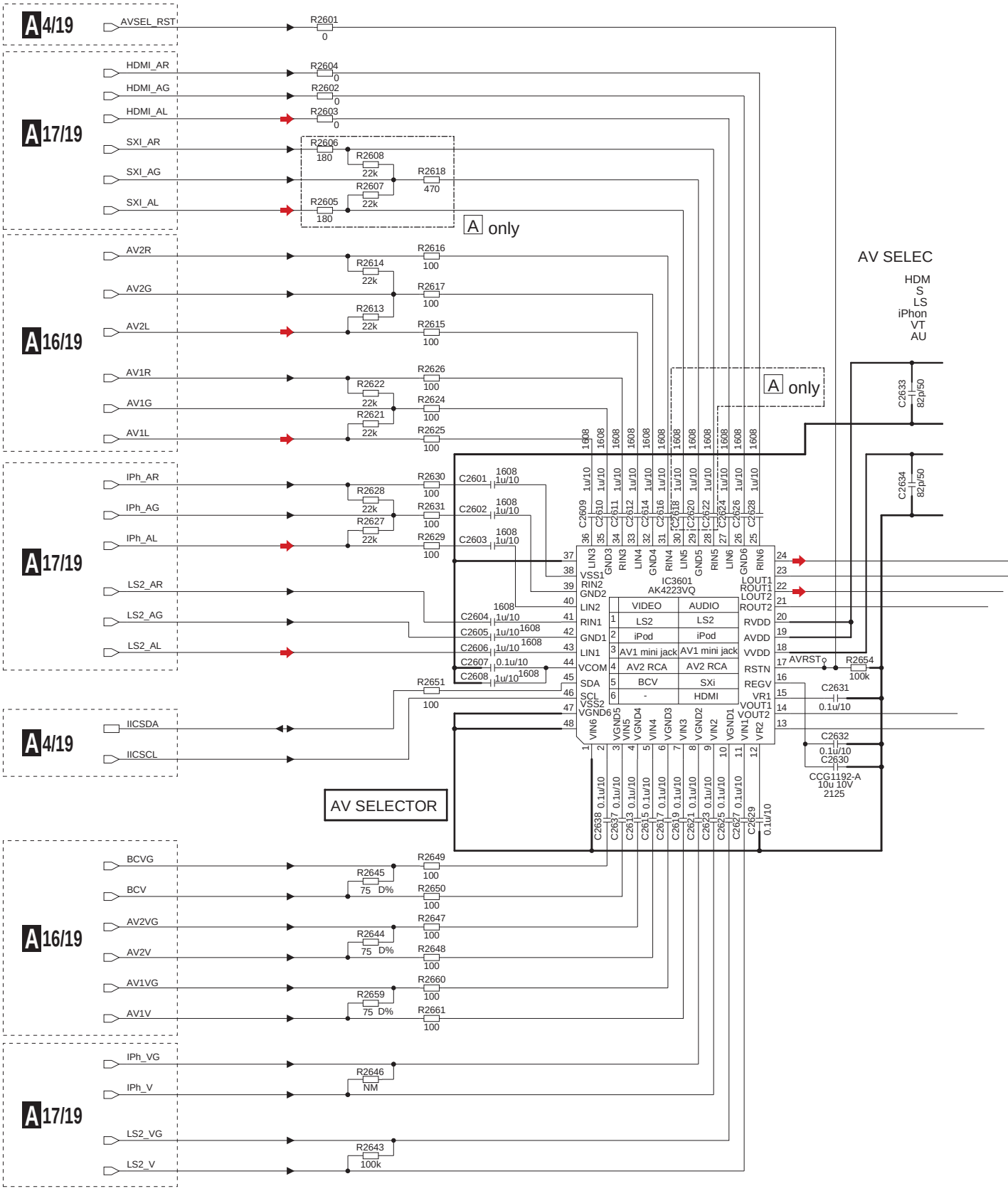


	A	B	C
C2334	0.1u/10	NM	NM
R2368	100	NM	NM
R2365	1k	NM	NM
R2377	100	NM	NM
R2431	47k	NM	NM

*


SYSTEM u-COM
IC2303
R32C/116A
A PEQ155A8
B PEQ156A8
C PEQ157A8
SYSTON/
A 18/19
A 16/19
A 5/19
A 13/19
A 12/19
A 6/19
A 15/19
A 10/19
A 16/19
A 8/19
A 11/19
A 2/19
A 7/19
APPMUTE
AVOLDO
AVOLCLK
SMSEL
AQSEL
AMICSNS
IICSDA
IICSCL
AVSEL_RST
STOTUN
TUNTOS
DABANTPW
DANTSENS
WWRPW1
WWRPW2
EVOL_DO
EVOL_CLK
EVOL_CS
SAIN
SACLK
POS_IN
MOT1
MOT0
HOMEOPSW
MOTPWR2
MOTPWR
RDSINT
TUNPDA
TUNPCK
TUNRST
BLEND
REMIN
TMCPW
TMC_SCL
TMC_SDA
OFFSET_IN
GTELMUTE
SDDET1
SDDET2
TELMUTE
DTOSYS
EPM
SYSTOD
BOFF1CONT
SYSPW
CE
MBLPW
VBSENS
TUNPDA
TUNPCK
RMUTE
OFFSET_IN
MVPW
DRAMPWR
TSCK
CLKOUT
VSS2
VCC2
MVIPW
MODEL0
MODEL1
NC
TUNRST
TUON
SXON
STOTUN
TUNTOS
SMSEL
AMICSNS
AQSEL
DIMMER
ILMSENS
BLSYNC
STOSX
SXTOS
REVSENS
PBSENS
FANCONT
ILMOSC
DDCLK_N
FANON
TMCPW
EVOL_DO
EVOL_CLK
EVOL_CS
VCC3
DDCLK
VSS3
TSHORT
STOHDEB/STOSX
HDEBTOS/SXTOS
R2330 470
L2301 NM
C2308 0.1u/10
R2332 0
R2333 100
R2334 100
R2336 120
R2337 120
R2338 0
R2354 5.6k
C2309 0.01u/16
C2310 100p/50
C2311 100p/50
C2312 680p/50
C2313 NM
R2350 NM
C2314 100p/50
R2355 100k
R2356 100k
C2344 33p/50
GNDD
A-a 4/19
A-b 4/19
A-a
A-b
AVIC-Z150BH/XNUC

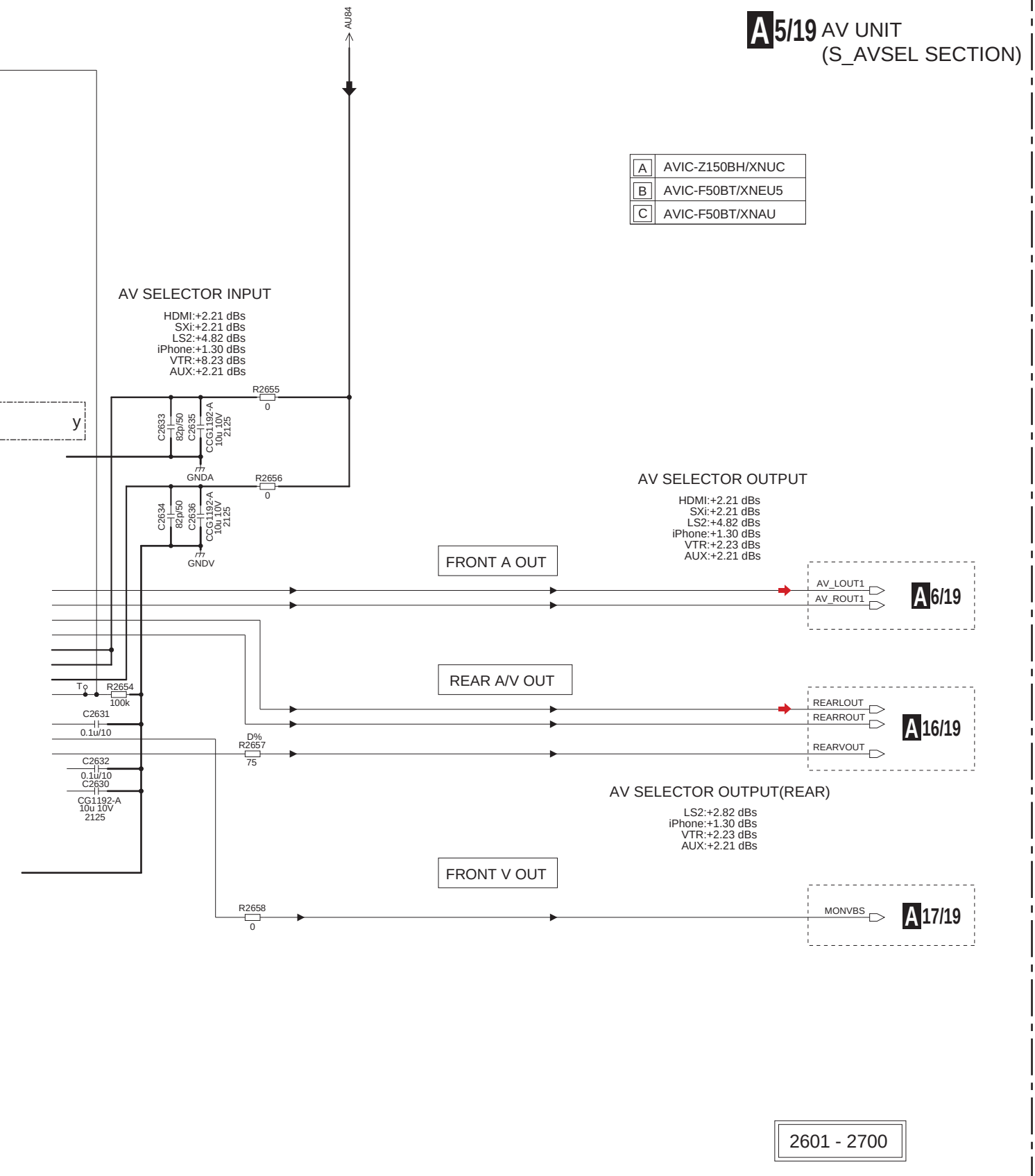
10.5 AV UNIT (S_AVSEL SECTION)



A 5/19

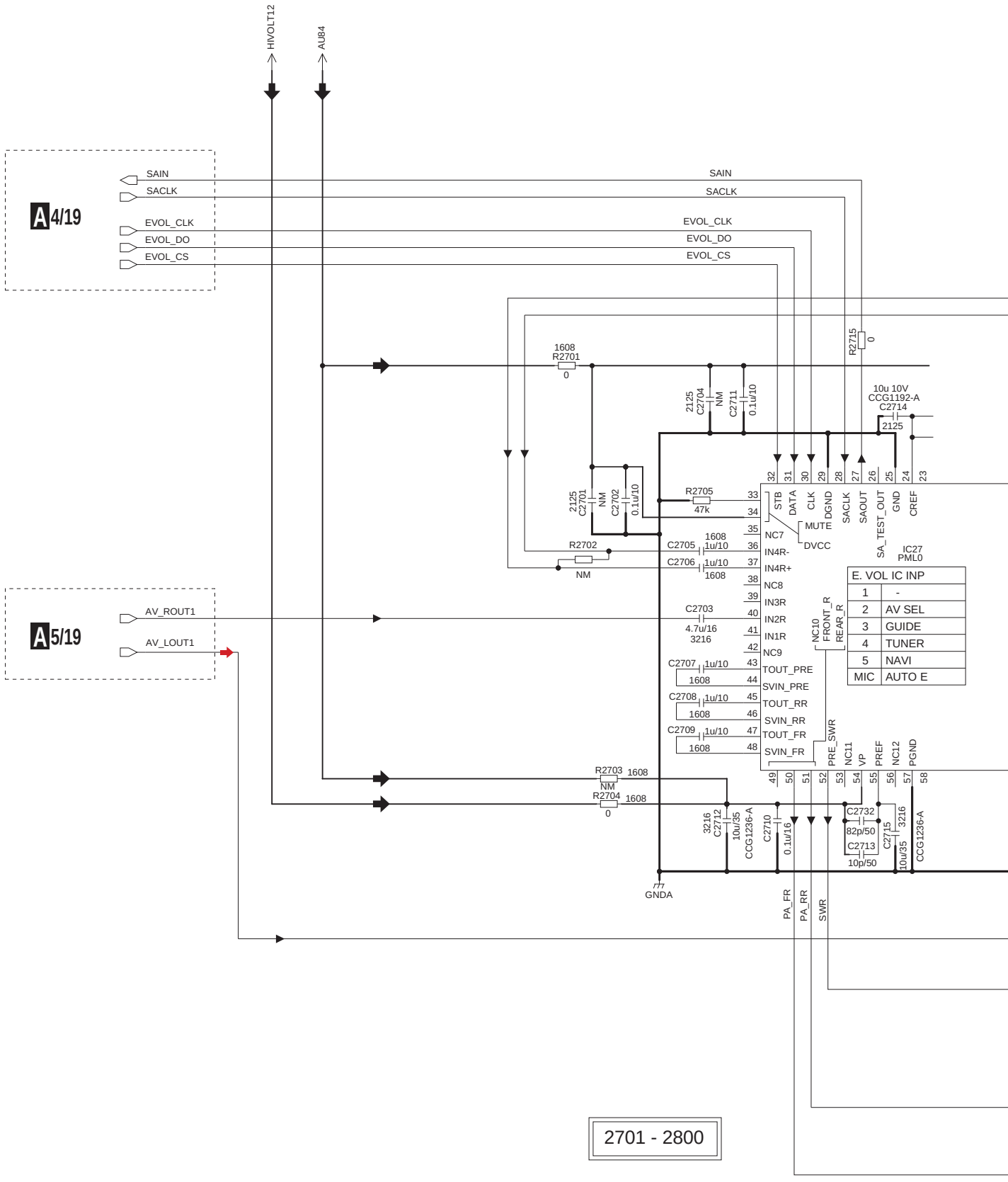
A5/19 AV UNIT (S_AVSEL SECTION)

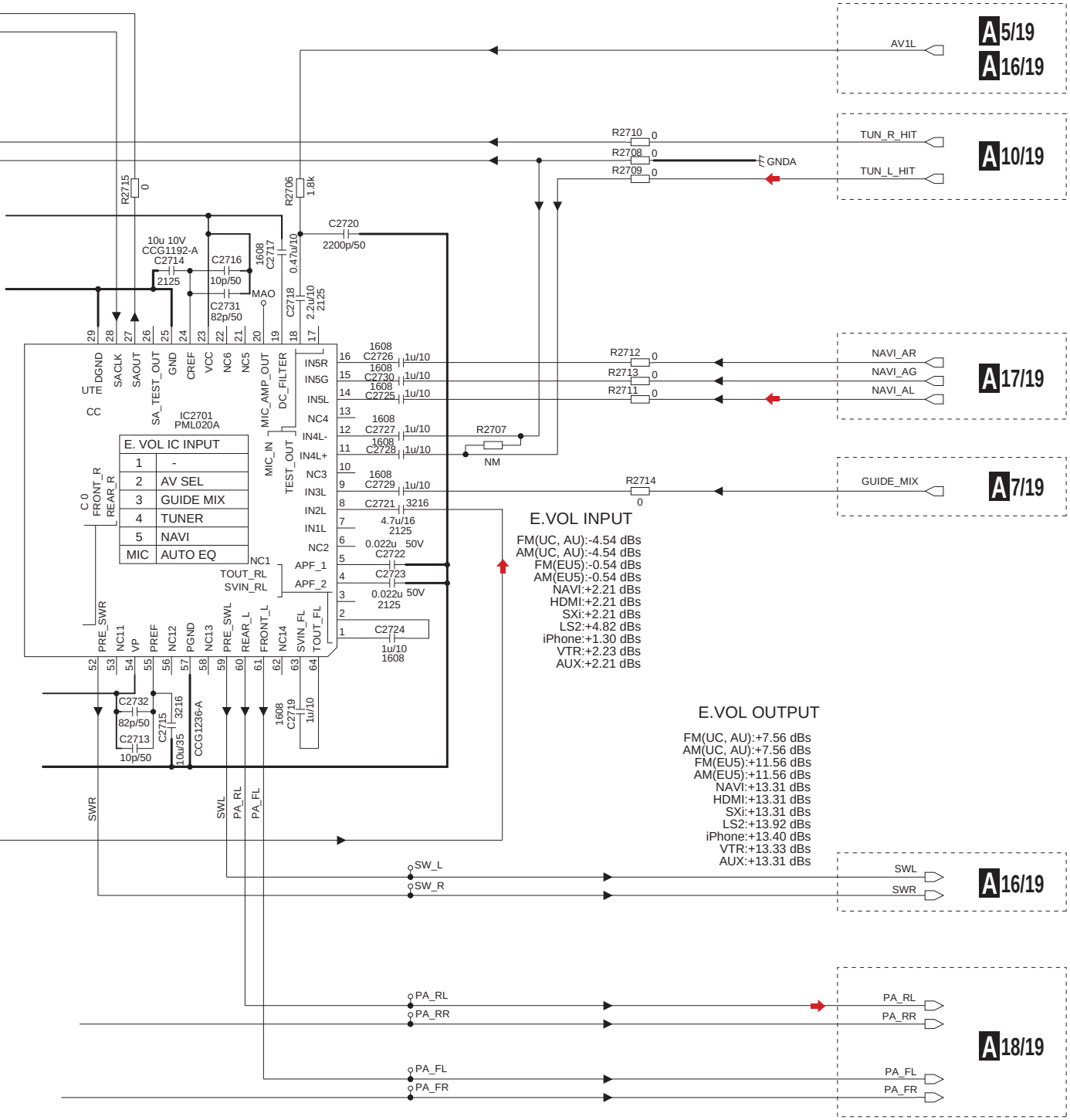
A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



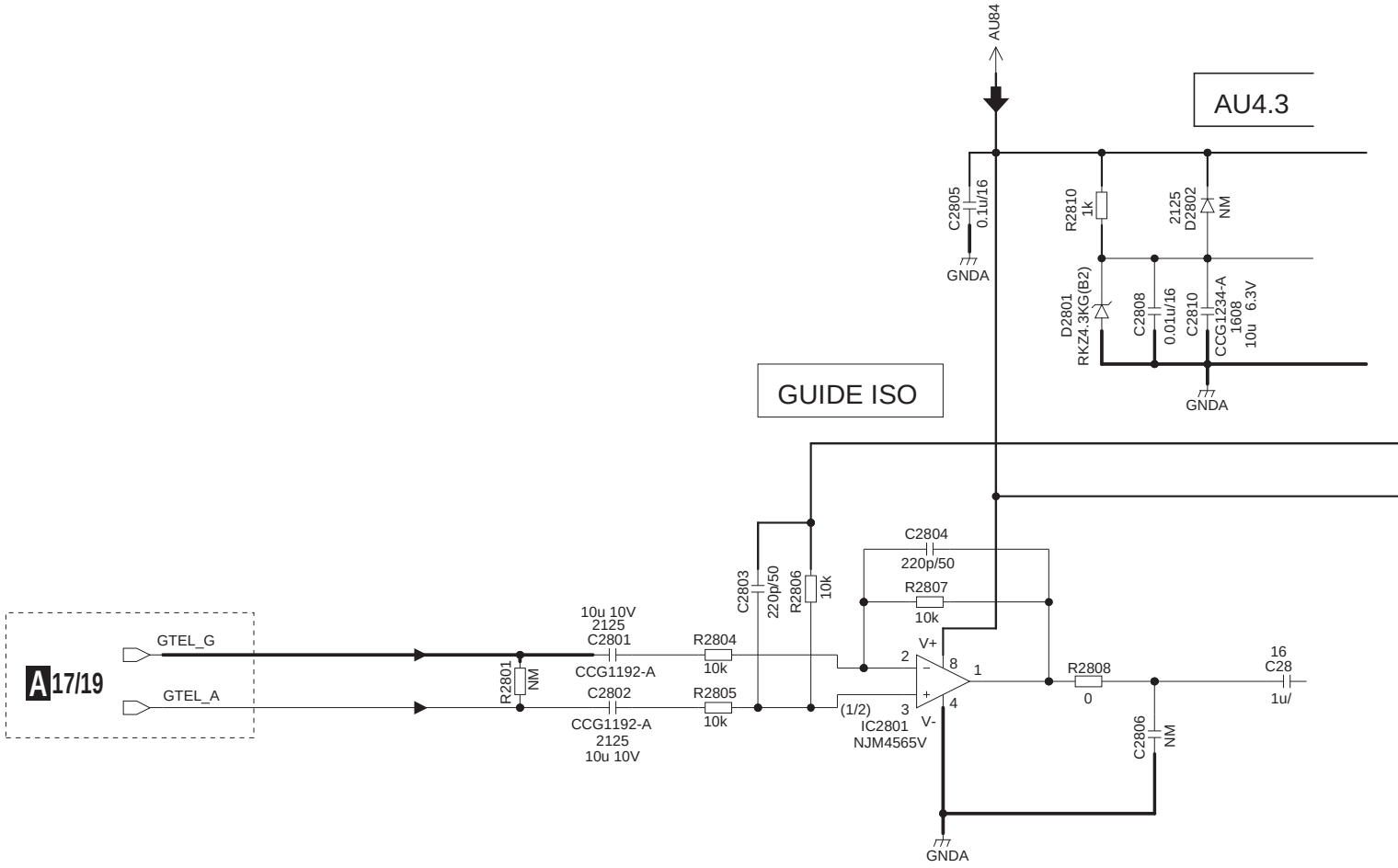
2601 - 2700

10.6 AV UNIT (S_E-VOL SECTION)

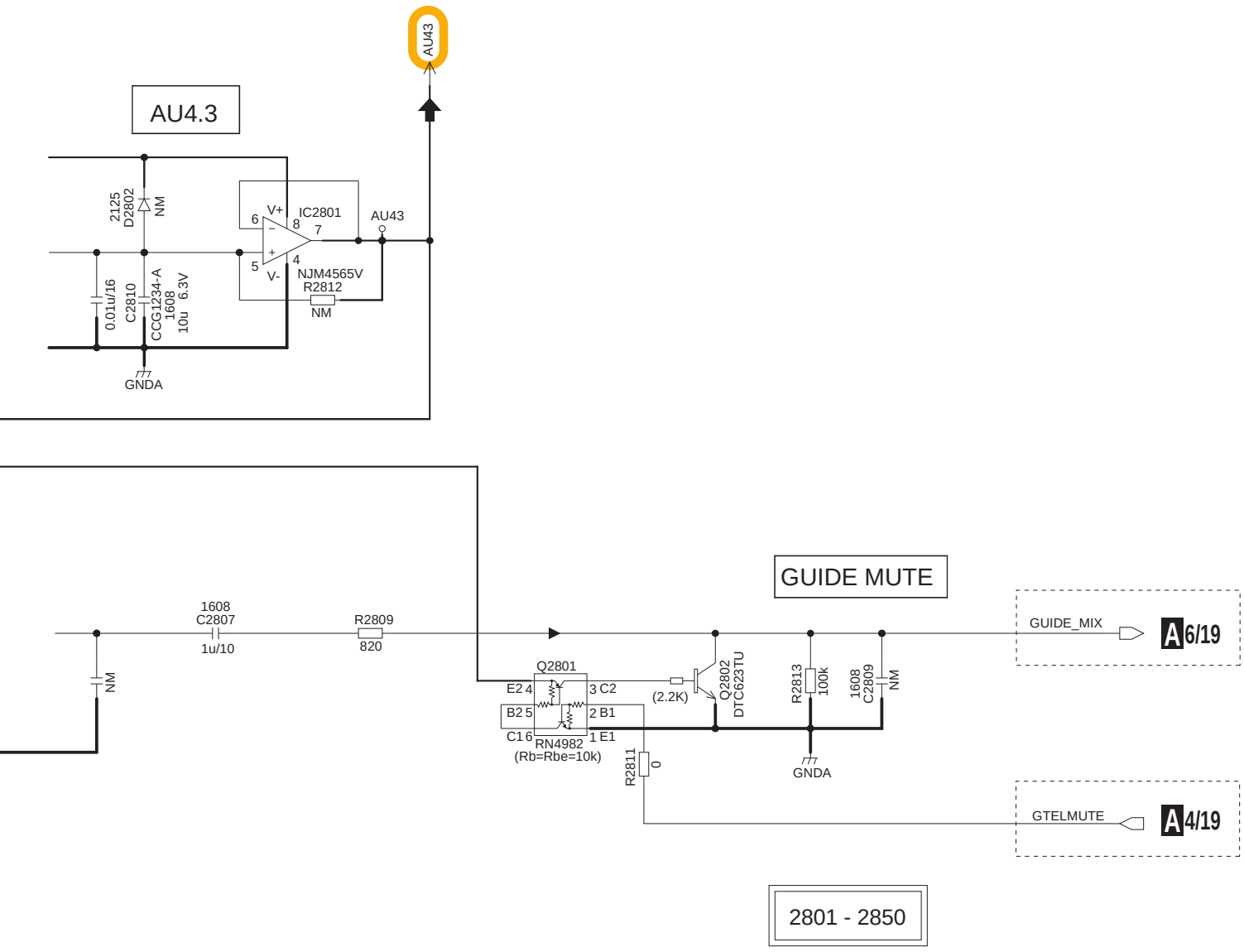



AV1L
A5/19
A16/19
TUN_R_HIT
TUN_L_HIT
A10/19
GNDA
R2710 0
R2708 0
R2709 0
R2715 0
R2706 1.8k
C2720 2200p/50
10u 10V CCG1192-A C2714 2125
C2716 10p/50
C2731 82p/50
1608 C2717 0.47u/10
C2718 2.2u/10 2125
MAO
IC2701 PML020A
DGND SACLK SAOUT SA_TEST_OUT GND CREF VCC NC6 NC5 MIC_AMP_OUT DC_FILTER
IN5R IN5G IN5L NC4 IN4L- IN4L+ NC3 IN3L IN2L IN1L NC2 APF_1 APF_2
MIC_IN TEST_OUT
1608 C2726 1u/10
1608 C2730 1u/10
1608 C2725 1u/10
1608 C2727 1u/10
1608 C2728 1u/10
1608 C2729 1u/10
C2721 3216
4.7u/16 2125
0.022u 50V C2722
C2723
0.022u 50V 2125
C2724 1u/10 1608
R2712 0
R2713 0
R2711 0
NAVI_AR
NAVI_AG
NAVI_AL
A17/19
R2707
NM
R2714 0
GUIDE_MIX
A7/19
E. VOL IC INPUT
1 -
2 AV SEL
3 GUIDE MIX
4 TUNER
5 NAVI
MIC AUTO EQ
NC1
TOUT_RL
SVIN_RL
C 0 FRONT_R REAR_R
PRE_SWR NC11 VP PREF NC12 PGND NC13 PRE_SWL REAR_L FRONT_L NC14 SVIN_FL TOUT_FL
C2732 82p/50
C2713 10p/50
C2715 10u/35 3216
CCG1236-A
1608 C2719 1u/10
SWR SWL PA_RL PA_FL
E.VOL INPUT
FM(UC, AU):-4.54 dBs
AM(UC, AU):-4.54 dBs
FM(EU5):-0.54 dBs
AM(EU5):-0.54 dBs
NAVI:+2.21 dBs
HDMI:+2.21 dBs
SXi:+2.21 dBs
LS2:+4.82 dBs
iPhone:+1.30 dBs
VTR:+2.23 dBs
AUX:+2.21 dBs
E.VOL OUTPUT
FM(UC, AU):+7.56 dBs
AM(UC, AU):+7.56 dBs
FM(EU5):+11.56 dBs
AM(EU5):+11.56 dBs
NAVI:+13.31 dBs
HDMI:+13.31 dBs
SXi:+13.31 dBs
LS2:+13.92 dBs
iPhone:+13.40 dBs
VTR:+13.33 dBs
AUX:+13.31 dBs
SW_L
SW_R
SWL
SWR
A16/19
PA_RL
PA_RR
PA_FL
PA_FR
A18/19

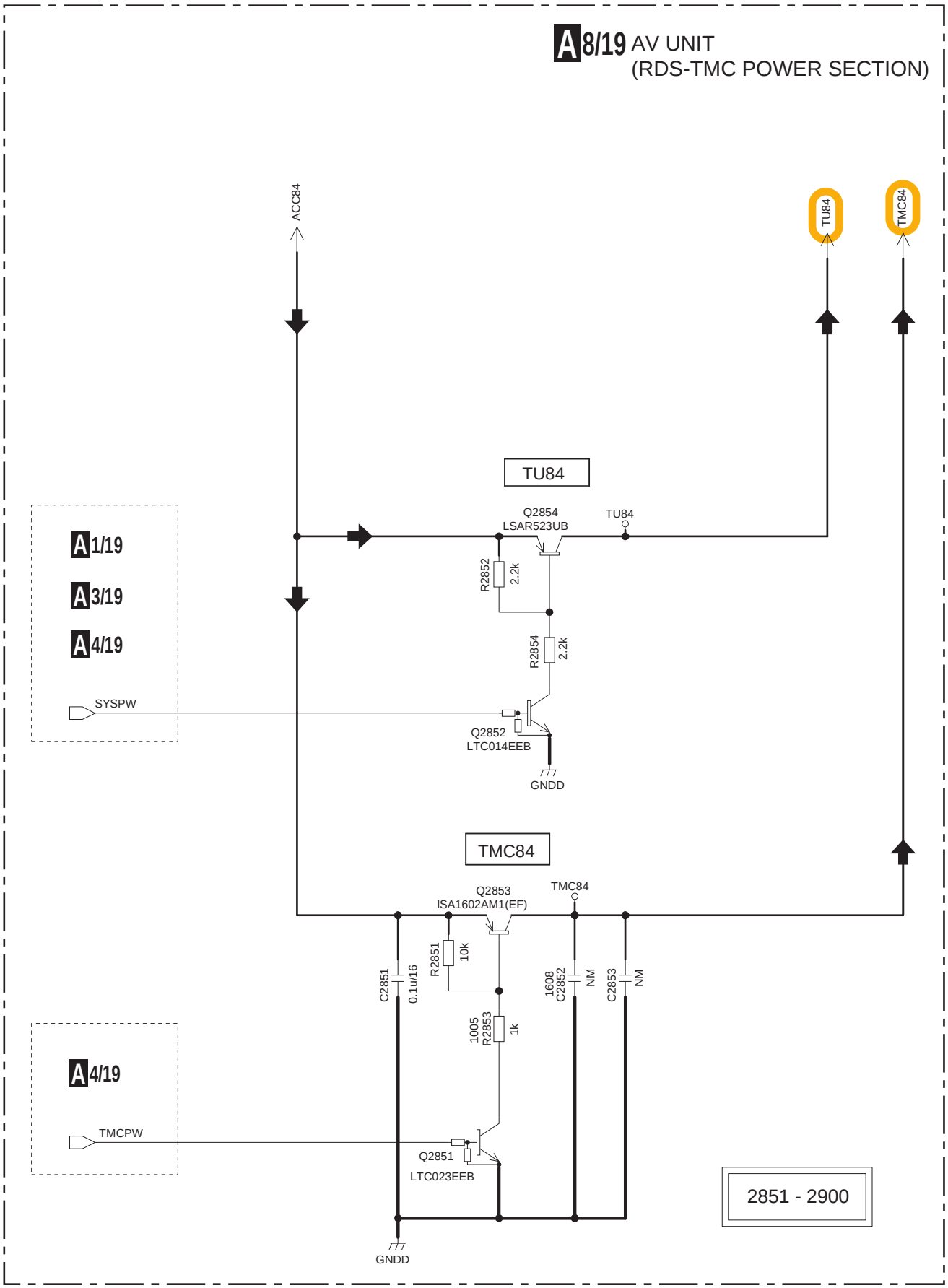
10.7 AV UNIT (GUIDE SECTION)



A7/19


AU43
AU4.3
2125
D2802
NM
IC2801
V+
V-
NJM4565V
R2812
NM
AU43
0.01u/16
C2810
CCG1234-A
1608
10u 6.3V
GNDA
GUIDE MUTE
1608
C2807
1u/10
R2809
820
NM
Q2801
E2 4
B2 5
C1 6
3 C2
2 B1
1 E1
RN4982
(Rb=Rbe=10k)
(2.2K)
Q2802
DTC623TU
R2811
0
R2813
100k
1608
C2809
NM
GNDA
GUIDE_MIX
A6/19
GTELMUTE
A4/19
2801 - 2850

10.8 AV UNIT (RDS-TMC POWER SECTION)



A8/19

A

B

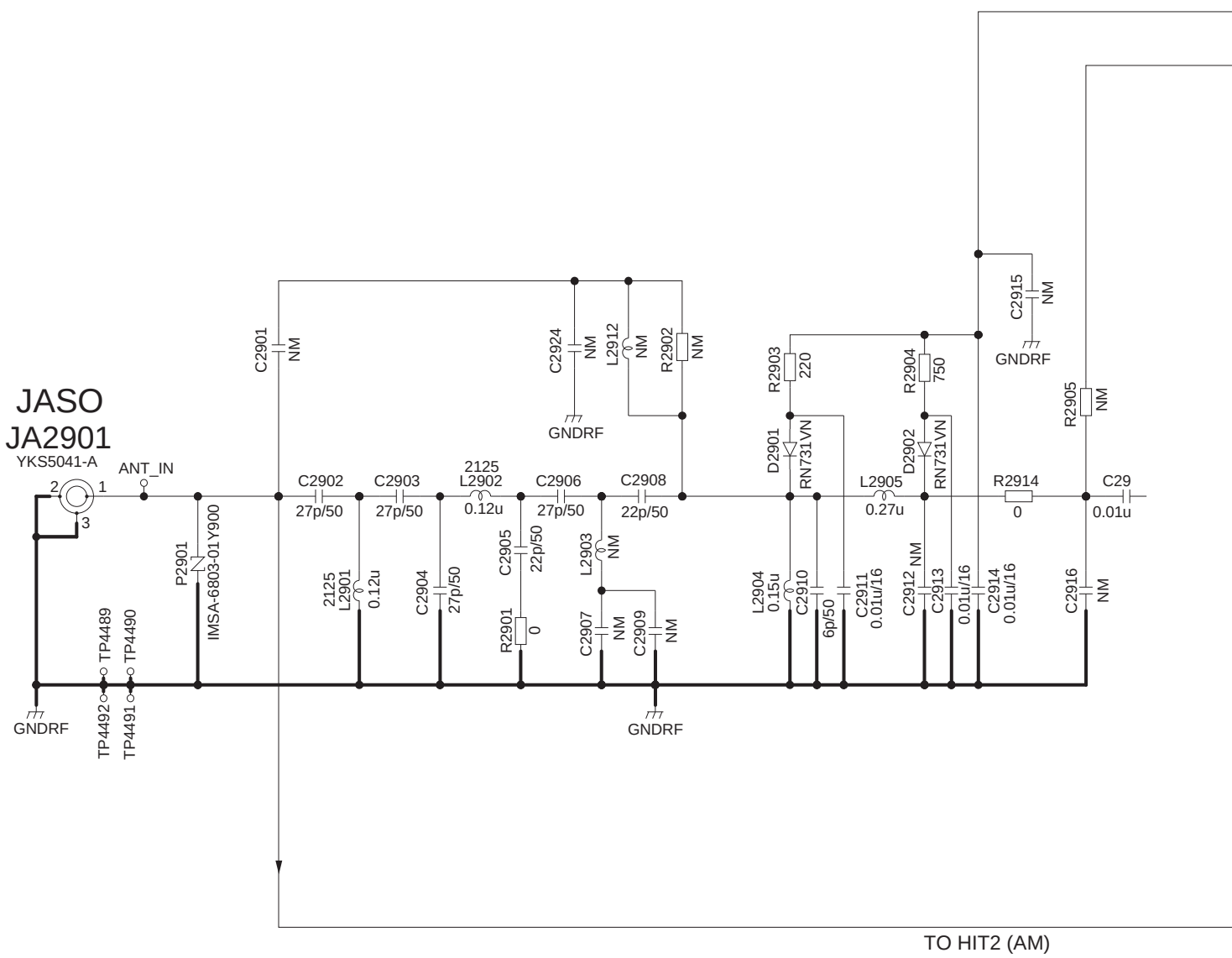
C

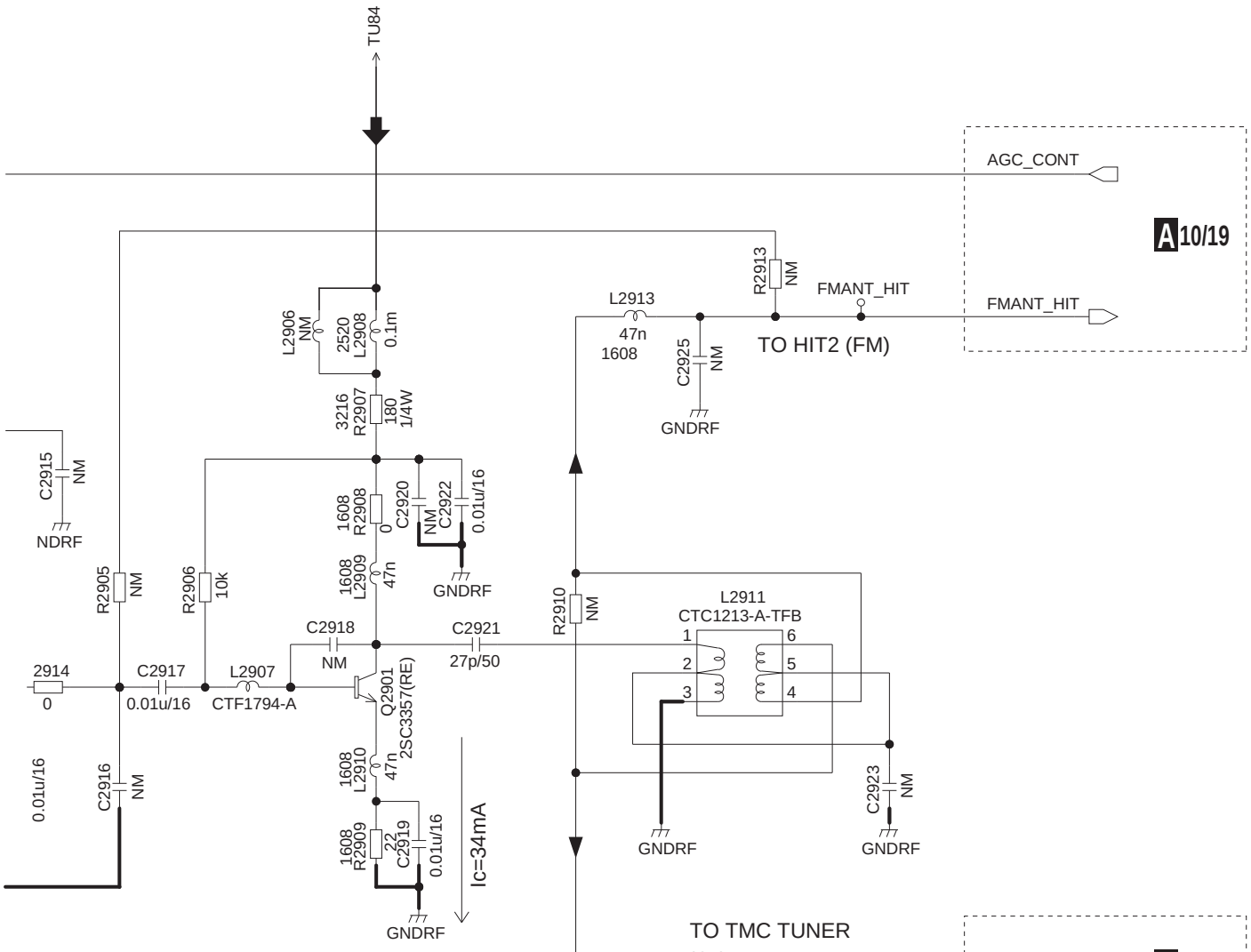
D

E

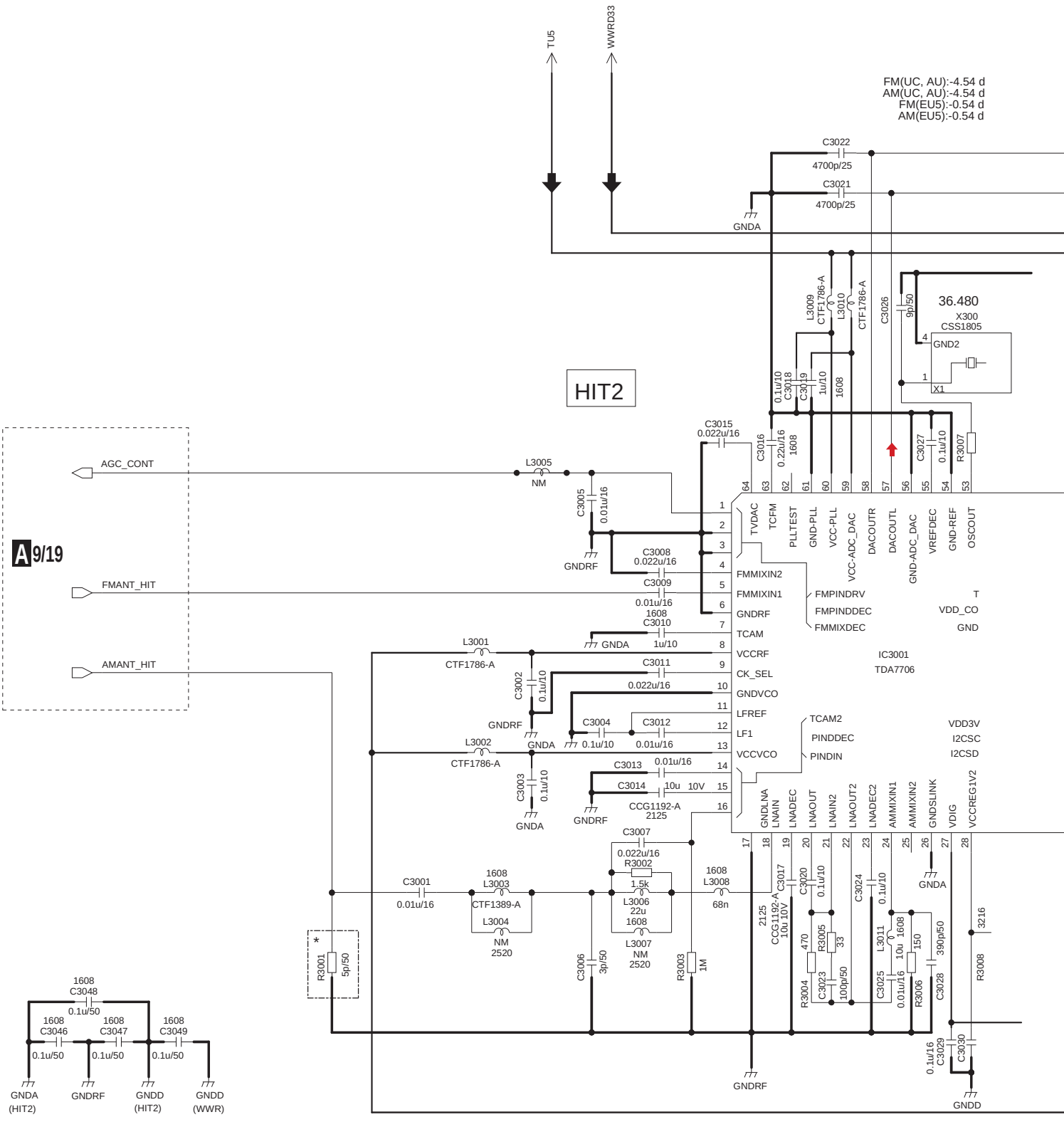
F

10.9 AV UNIT (DISTRIBUTION SECTION)




TU84
AGC_CONT
A10/19
FMANT_HIT
FMANT_HIT
TO HIT2 (FM)
L2913
47n
1608
R2913
NM
C2925
NM
GNDRF
L2906
NM
2520
L2908
0.1m
3216
R2907
180
1/4W
C2915
NM
NDRF
1608
R2908
0
C2920
NM
C2922
0.01u/16
GNDRF
1608
L2909
47n
R2905
NM
R2906
10k
R2910
NM
L2911
CTC1213-A-TFB
1
2
3
6
5
4
C2918
NM
C2921
27p/50
2914
0
C2917
0.01u/16
L2907
CTF1794-A
Q2901
2SC3357(RE)
1608
L2910
47n
0.01u/16
C2916
NM
1608
R2909
22
C2919
0.01u/16
GNDRF
Ic=34mA
GNDRF
C2923
NM
GNDRF
TO TMC TUNER
R2912
0
RDS_RF
A11/19
AMANT_HIT
A10/19
(AM)
2901 - 3000

10.10 AV UNIT (S FMAM TUNER SECTION)



A 10/19 AV UNIT (S FMAM TUNER SECTION)

A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU

FM(UC, AU):-4.54 dBs
AM(UC, AU):-4.54 dBs
FM(EU5):-0.54 dBs
AM(EU5):-0.54 dBs

TUN_R_HIT
TUN_L_HIT
A 6/19

36.480 MHz
X3001
CSS1805-A
C3026 9p/50
C3033 9p/50
C3034 NM
C3037 1608 NM
C3038 NM
C3040 0.1u/10
GNDA
GNDD
GND2
GND1
X1
X2

L3015 CTF1786-A
R3011 68
L3016 NM
C3027 0.1u/10
R3007 0
R3012 NM
L3017 CTF1786-A
C3042 1608 6.3V
CCG1212-A 4.7u
C3043 0.1u/10

IC3001
TDA7706

DACOUTR DACOUTL GND-ADC_DAC VREFDEC GND-REF OSCOUT OSCIN VCC-REF VDDIO1V2 VDDPLL1V2
TEST VDD_CORE GND1V2
GPIO0 GPIO1 GPIO2 GPIO3 GPIO4 GPIO5 GPIO6 GPIO7 GPIO8
VDD3V3 I2CSCL I2CSDA GND3V3
LNADEC2 AMMIXIN1 AMMIXIN2 GNDSLINK VDIG VCCREG1V2 REG1V2 VREG3V3 RSTN RDSINT

	A	B	C
L3014	NM	CTF1786-A	CTF1786-A
L3018	CTF1786-A	NM	NM
L3019 - L3022	CTF1787-A	NM	NM
R3001	5p/50	1M	1M
R3018	100	NM	NM
R3019 - R3021	0	NM	NM
R3013	10k	NM	NM

R3013 10k
L3019 CTF1787-A
L3020 CTF1787-A
L3021 CTF1787-A
L3022 CTF1787-A
R3018 100
R3019 0
R3020 0
R3021 0
A 13/19
TUBBD1 TUBBD2 TUBBWS TUBBCLK TUAD1 TUAD2 TUAWS TUACLK

C3044 0.1u/10
R3025 NM
R3022 100
L3018 CTF1786-A
L3014 NM
L3013 NM
R3023 0
R3024 1k
A 4/19
BLEND TUNPCK TUNPDA
RDSINT TUNRST

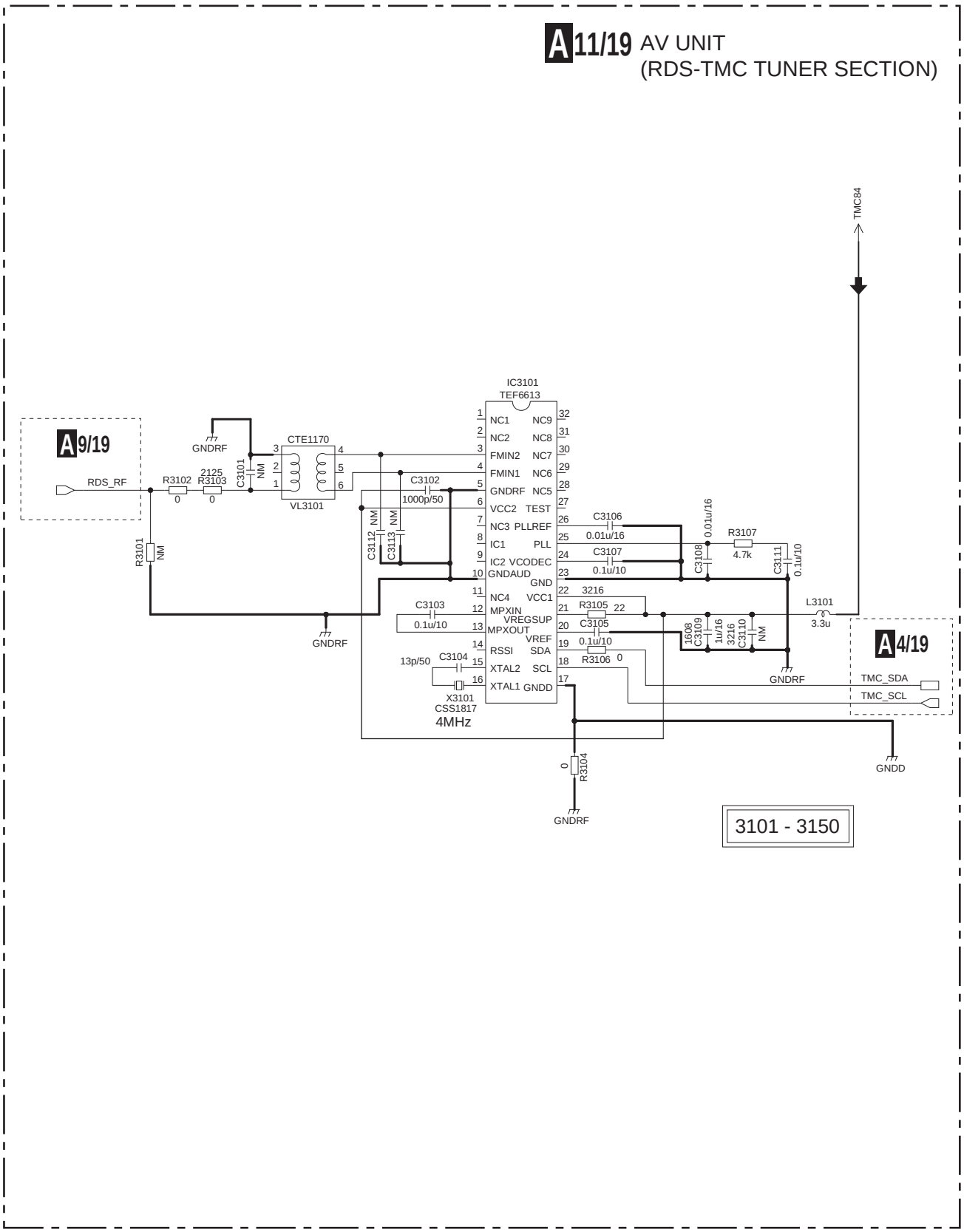
C3045 100p/50
R3026 R3027 R3028 R3029 NM

L3011 10u 1608
C3025 0.01u/16
R3006 150
C3028 390p/50
R3008 5.6 3216
C3032 0.1u/10 1608
C3035 NM
C3039 0.1u/10
C3041 NM 1608
R3009 5.6 3216
R3010 5.6 3216
L3012 CTF1786-A
C3029 0.1u/16
C3030 0.47u/10 1608
C3031 0.1u/16
C3036 0.1u/16

GNDD GNDRF GNDD

3001 - 3100

10.11 AV UNIT (RDS-TMC TUNER SECTION)



A11/19

A

B

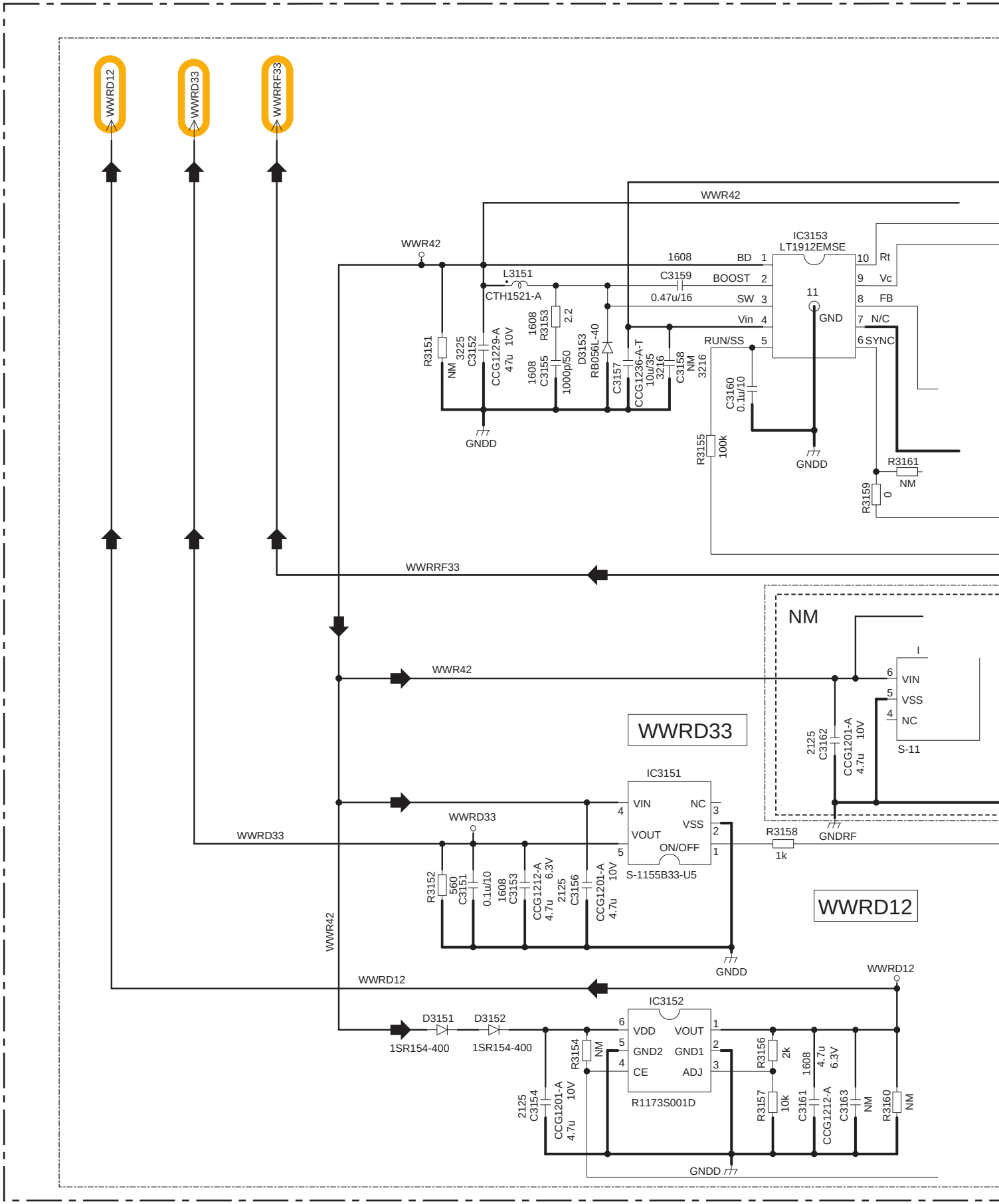
C

D

E

F

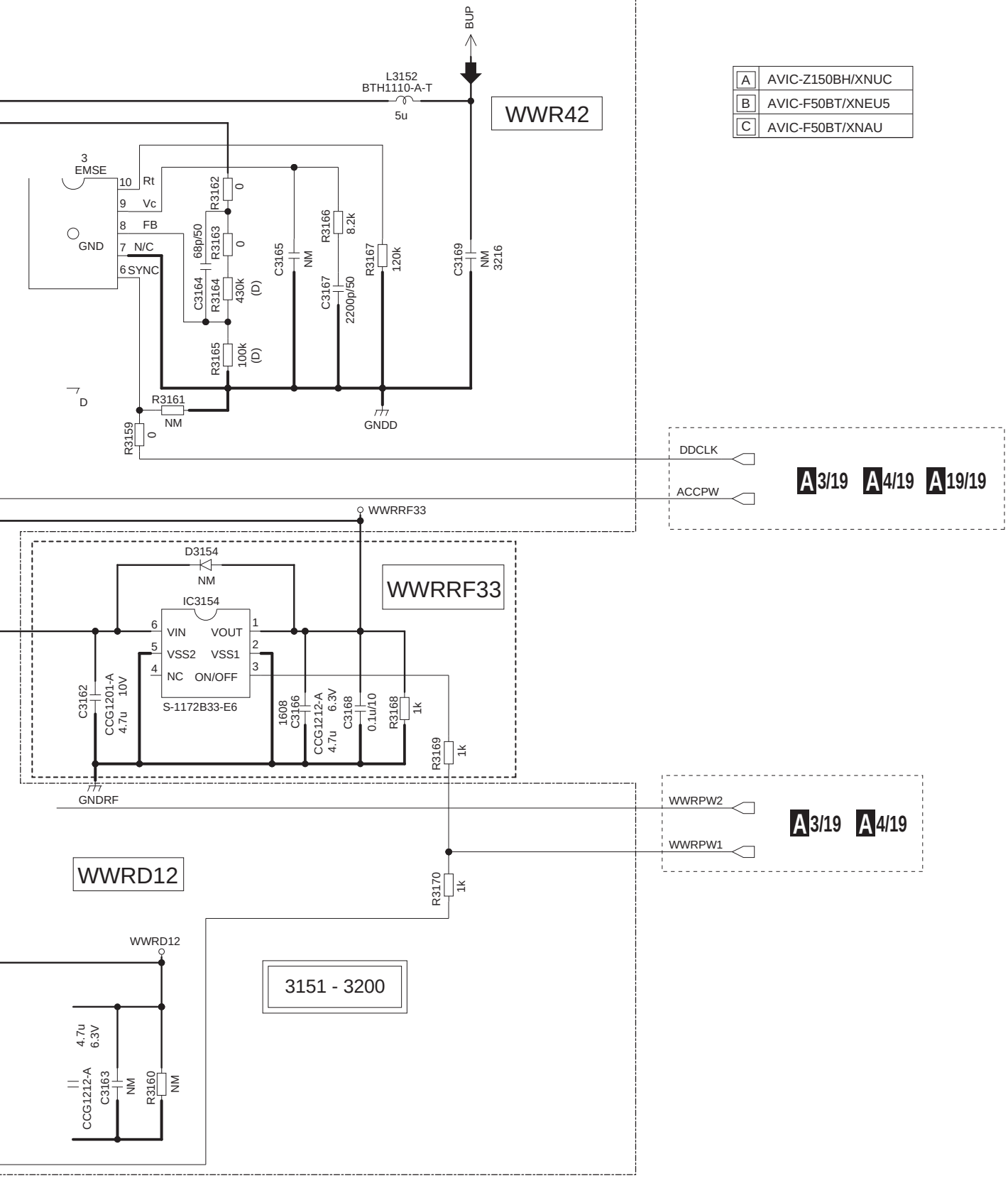
10.12 AV UNIT (WWR POWER SECTION)



A only

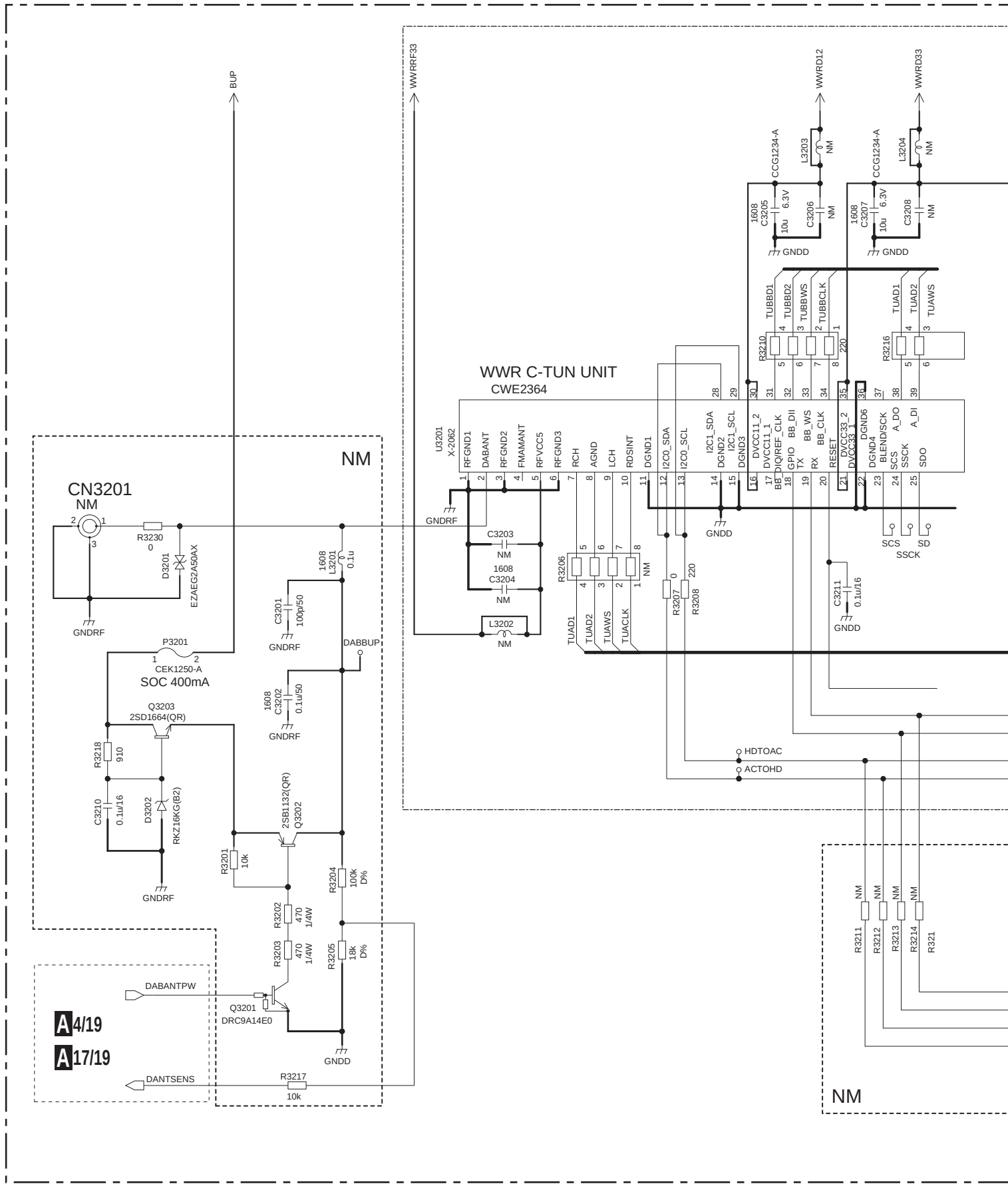
A12/19 AV UNIT
(WWR POWER SECTION)

A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



A12/19

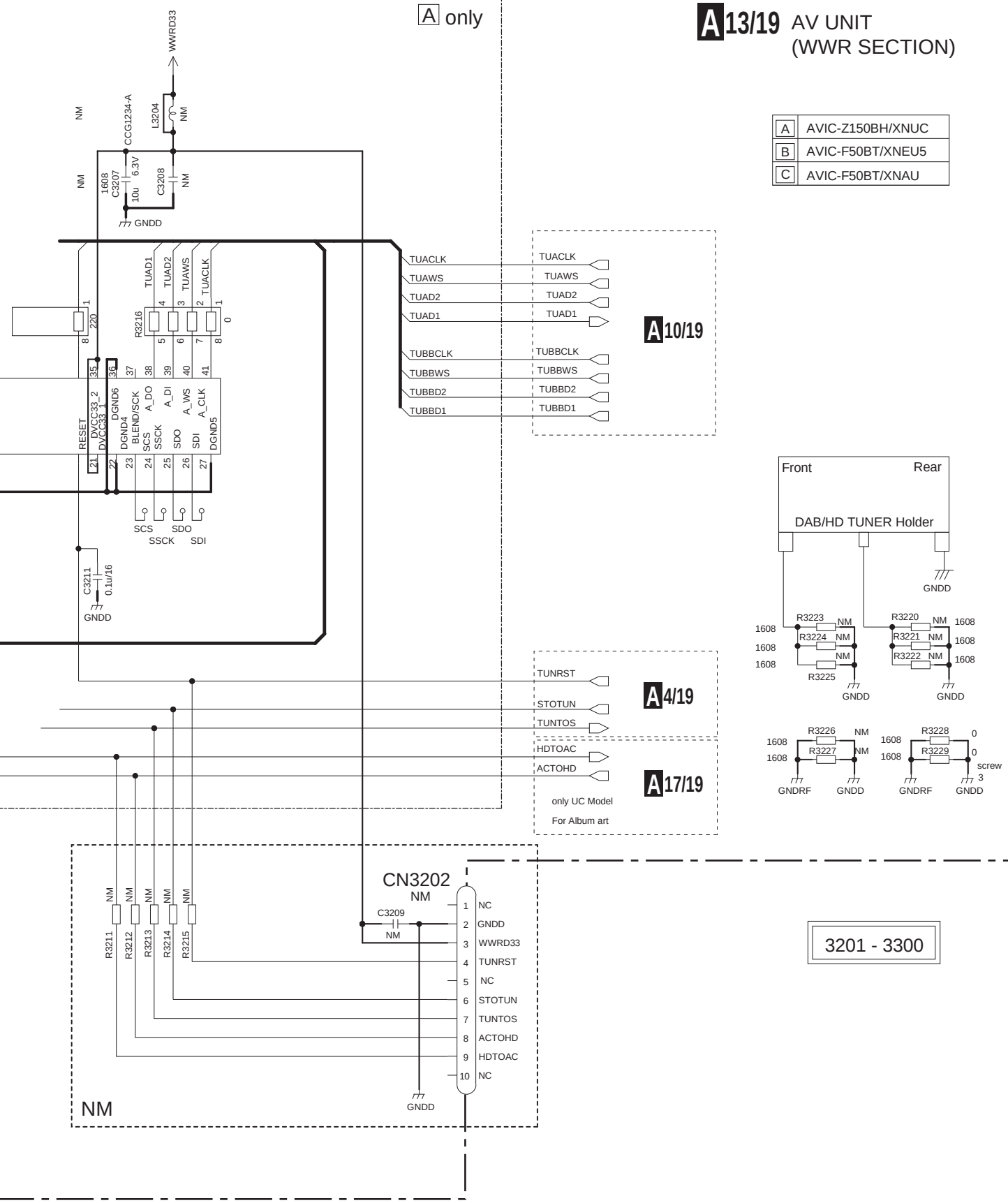
10.13 AV UNIT (WWR SECTION)



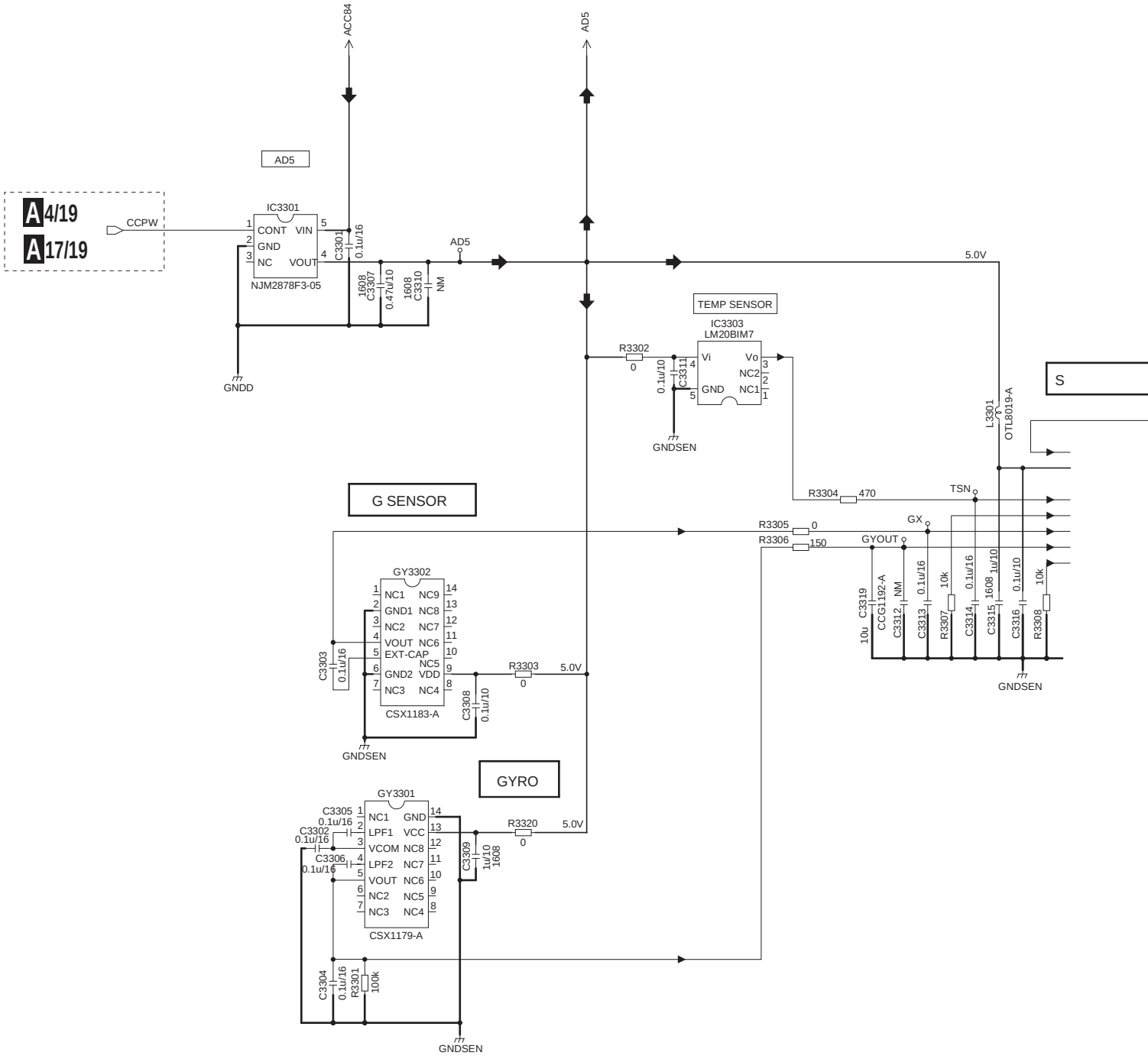
A only

A13/19 AV UNIT (WWR SECTION)

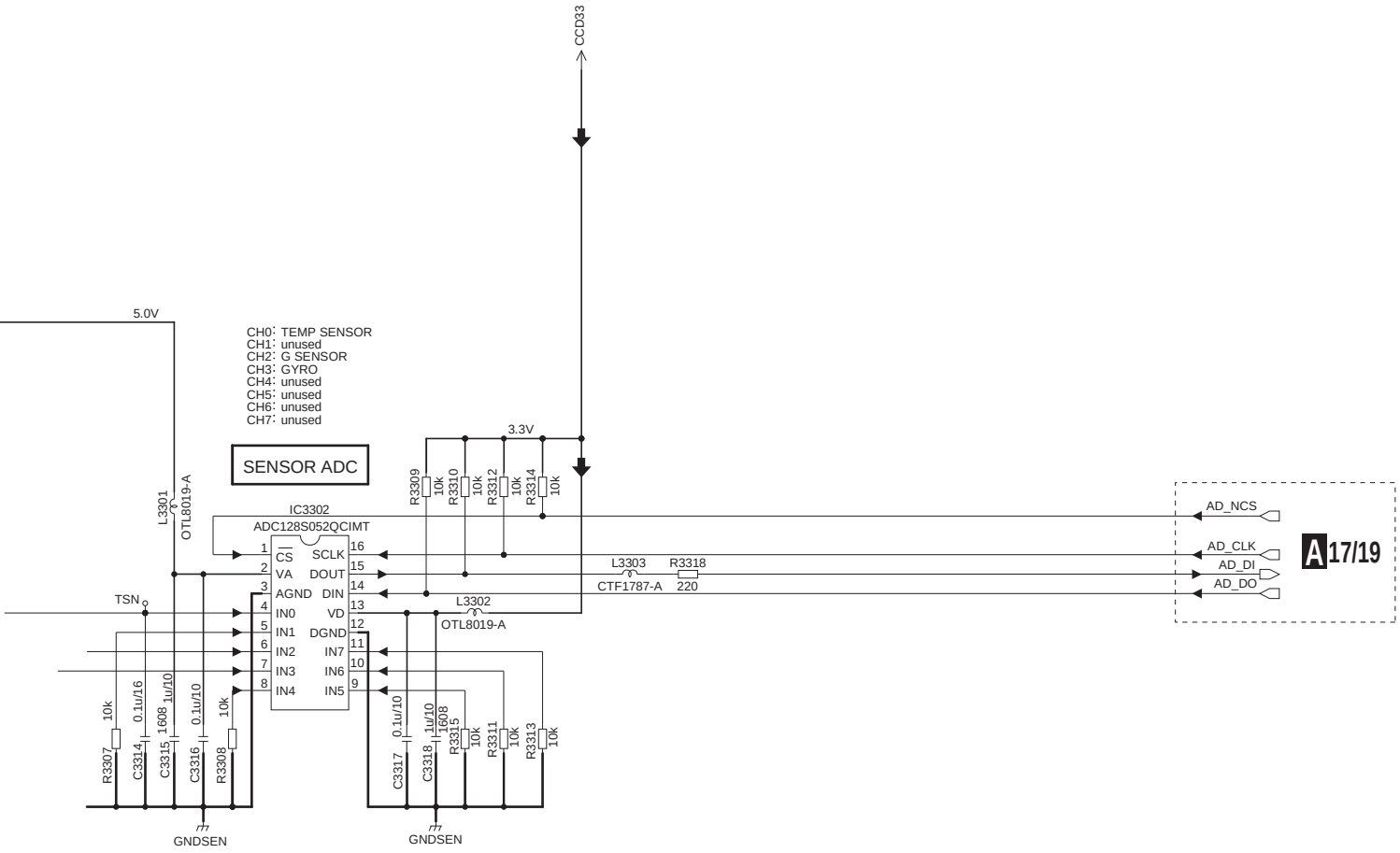
A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



10.14 AV UNIT (S_SENSOR SECTION)

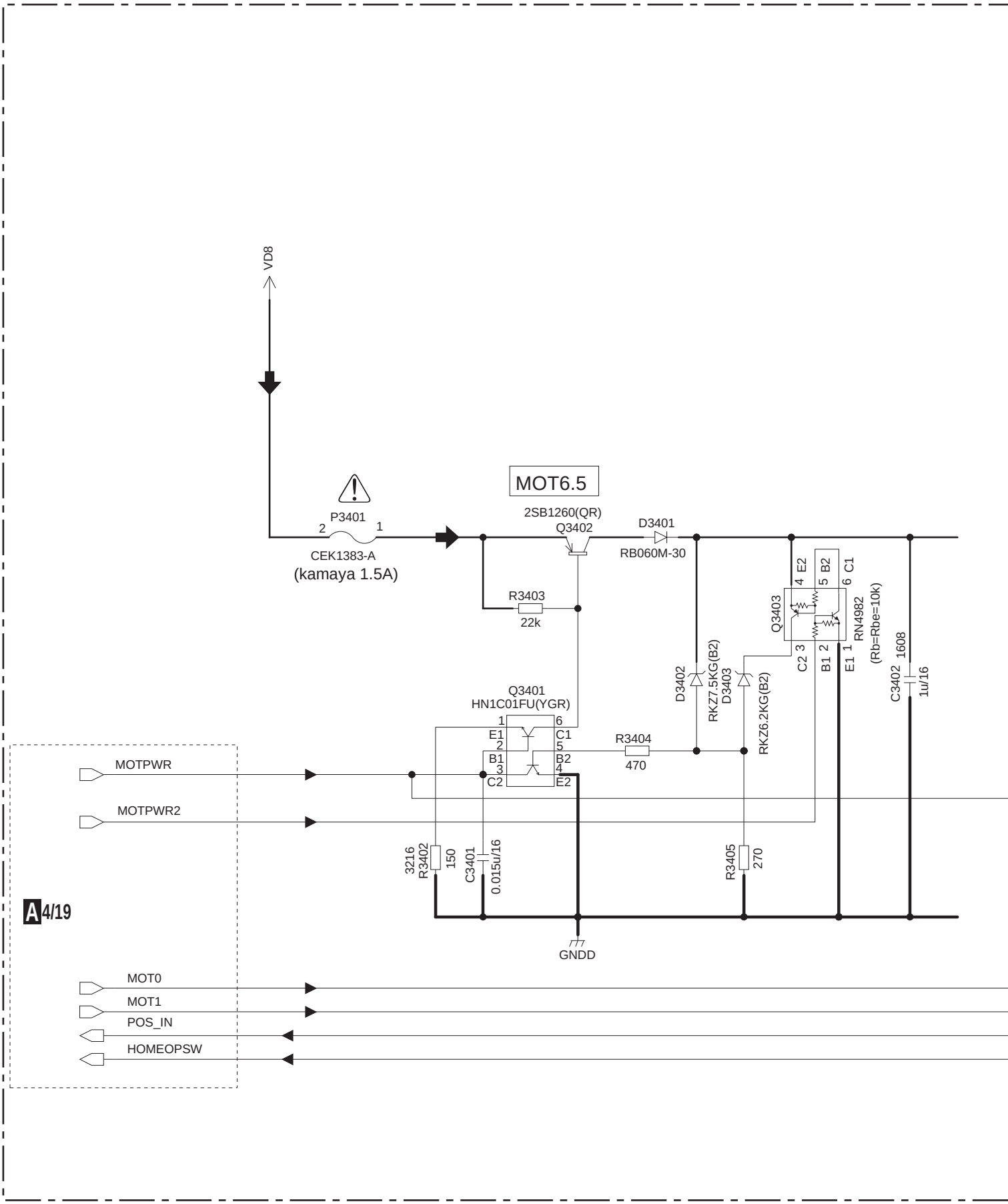


A 14/19

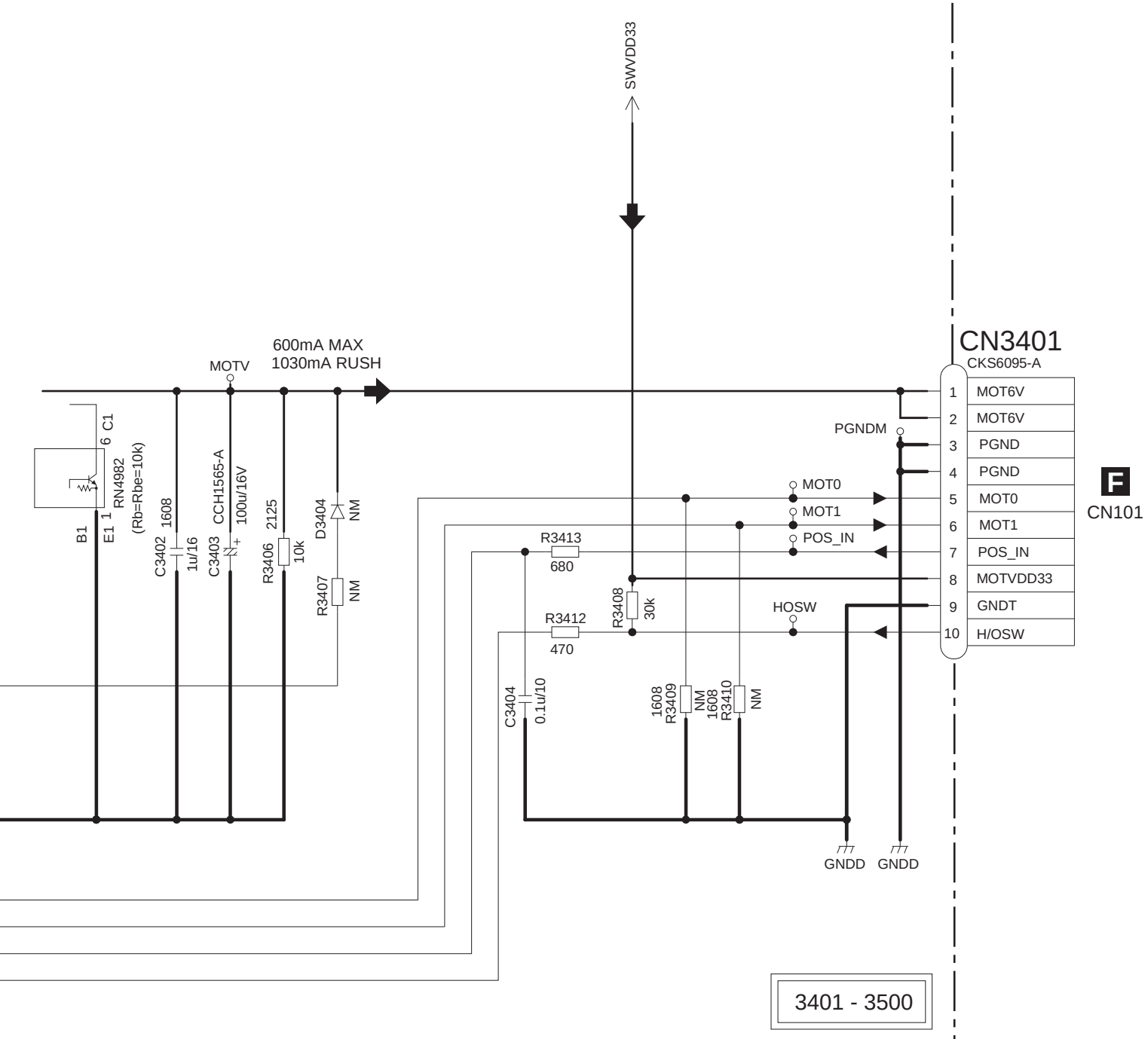

CCD33
5.0V
CH0: TEMP SENSOR
CH1: unused
CH2: G SENSOR
CH3: GYRO
CH4: unused
CH5: unused
CH6: unused
CH7: unused
SENSOR ADC
3.3V
IC3302
ADC128S052QCIMT
L3301
OTL8019-A
L3302
OTL8019-A
L3303
CTF1787-A
R3318
220
TSN
AD_NCS
AD_CLK
AD_DI
AD_DO
A17/19
GNDSEN
GNDSEN

3301 - 3400

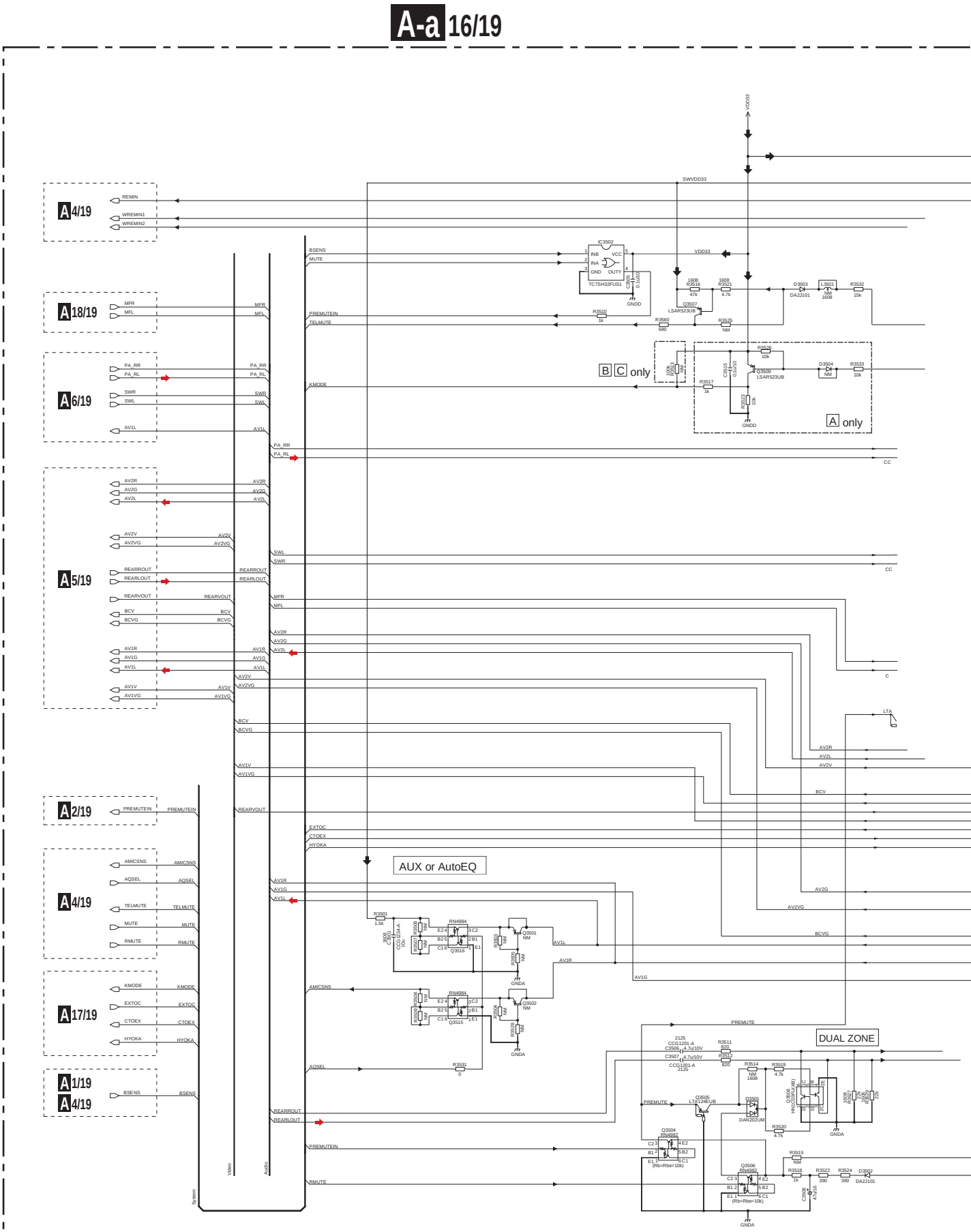
10.15 AV UNIT (FLAP MECHA SECTION)



A15/19 AV UNIT (FLAP MECHA SECTION)

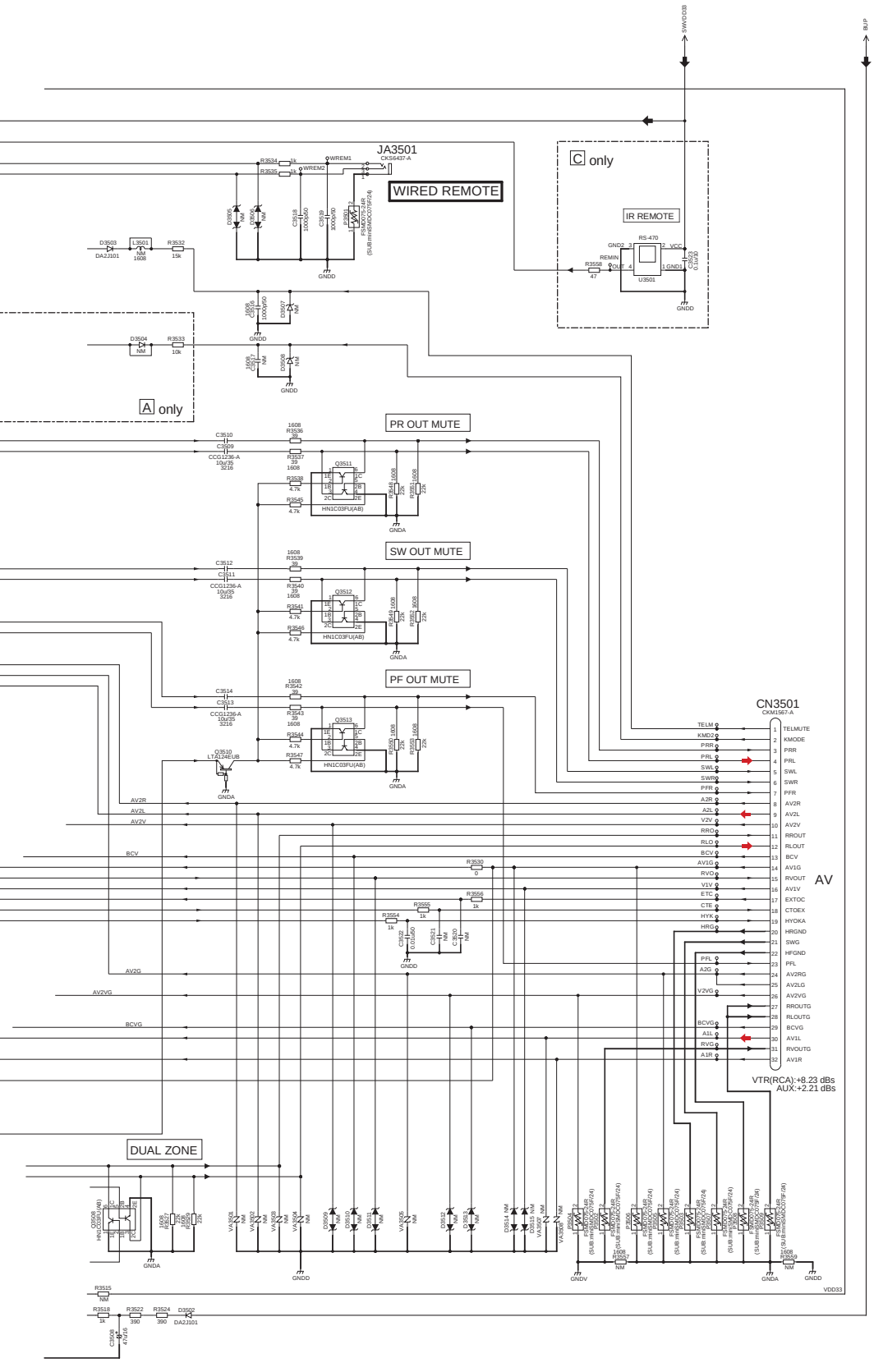


10.16 AV UNIT (EXTERNAL IF SECTION) (GUIDE PAGE)



A16/19 AV UNIT
(EXTERNAL IF SECTION)

A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



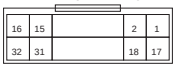
PREOUT

FM(UC, AU):+7.55 dBs
AM(UC, AU):+7.55 dBs
FM(EU5):+11.55 dBs
AM(EU5):+11.55 dBs
NAVI:+13.30 dBs
HDMI:+13.30 dBs
SXi:+13.29 dBs
LS2:+13.91 dBs
iPhone:+13.39 dBs
VTR:+13.32 dBs
AUX:+13.30 dBs
HDMI(APP MIX): -5.95 dBs
iPhone(APP MIX): -6.86 dBs

REAR OUT(DUAL ZONE)

LS2:+2.51 dBs
iPhone:+0.99 dBs
VTR:+1.92 dBs
AUX:+1.90 dBs

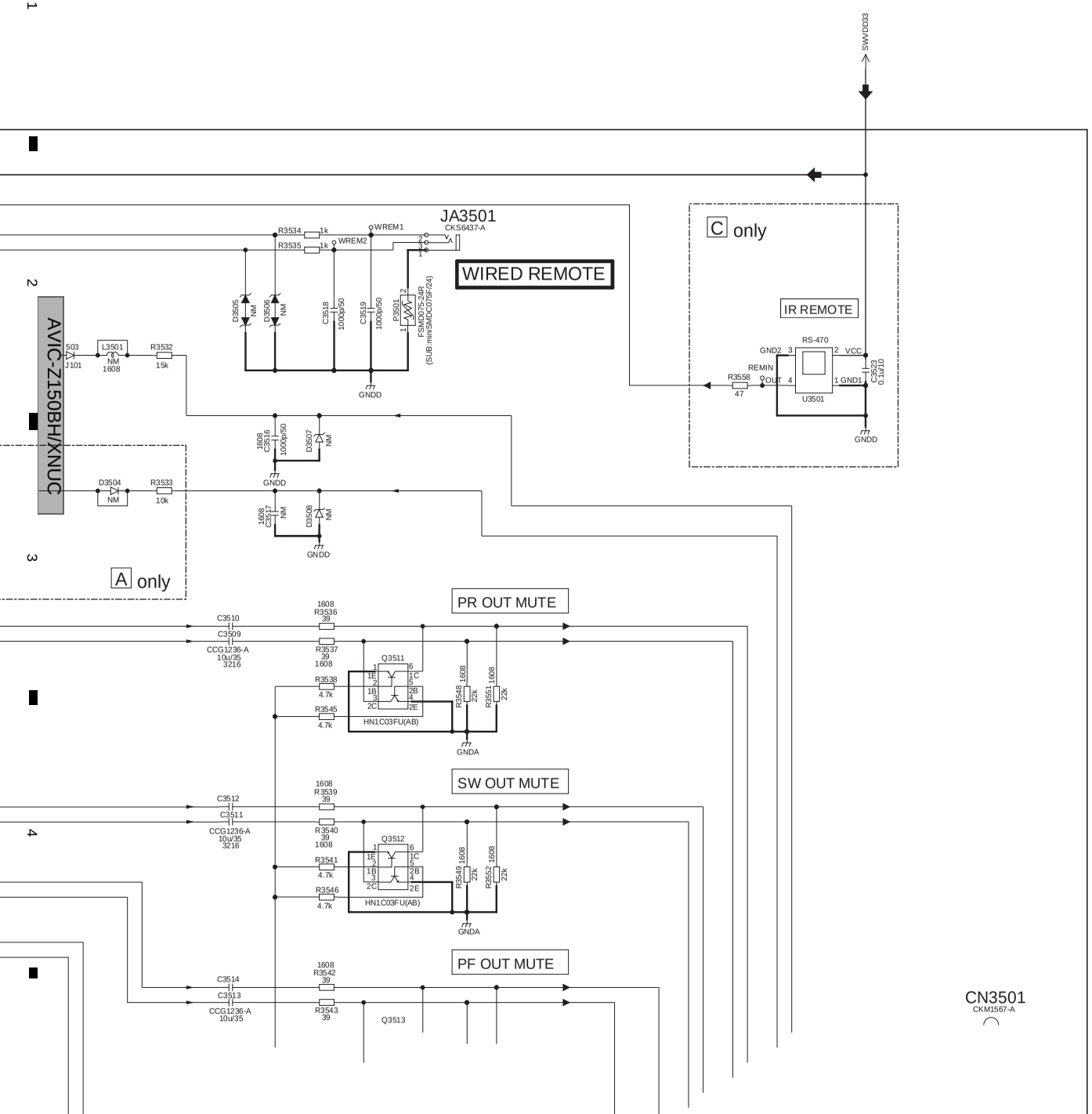
AV CN REAR SIDE DRAWING



3501 - 3600

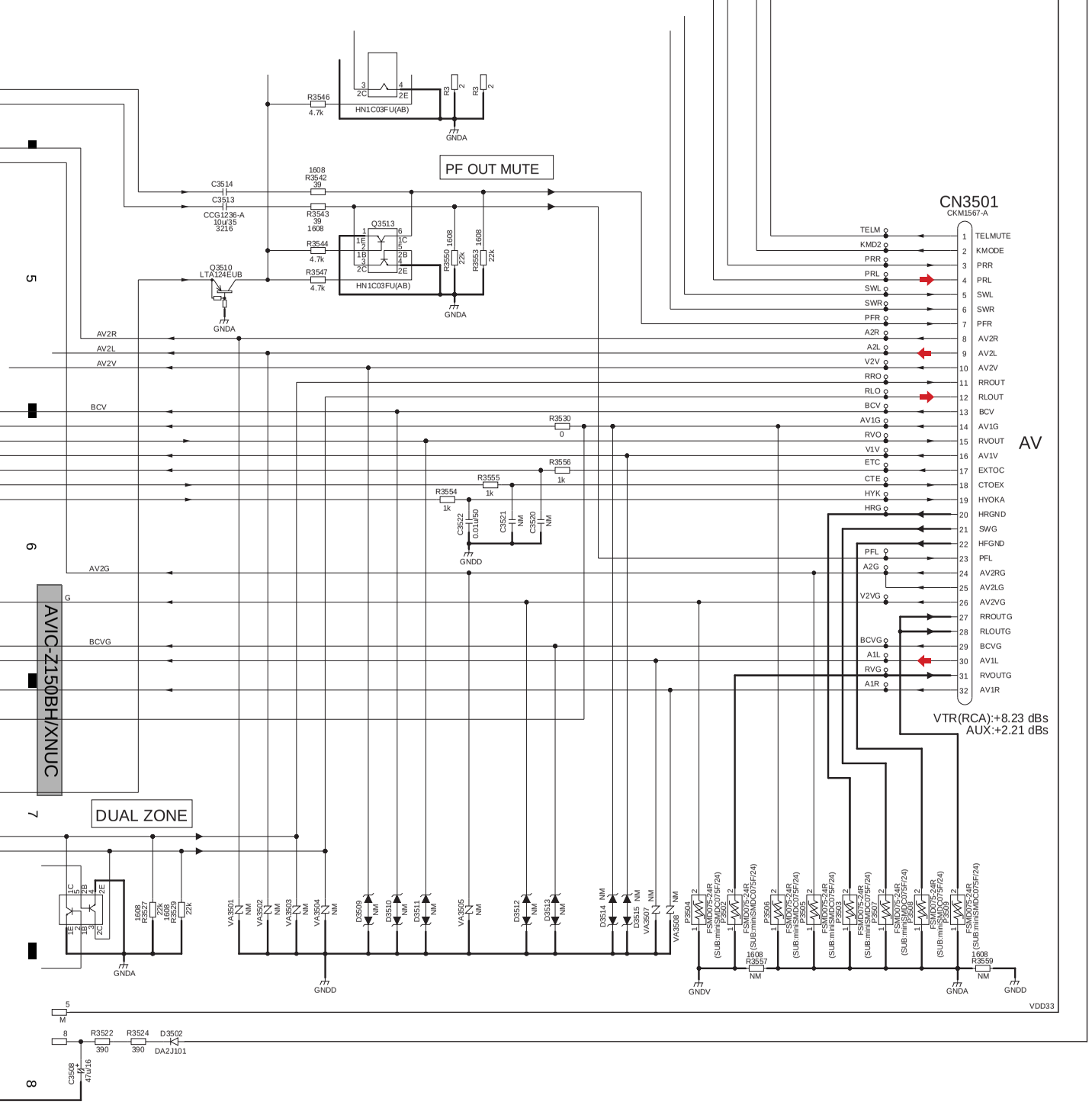
A 16/19 AV UNIT (EXTERNAL IF SECTION)

A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



PREOUT

FM(UC, AU):+7.55 dBs
AM(UC, AU):+7.55 dBs
FM(EU5):+11.55 dBs
AM(EU5) 11 55 dB



PREOUT

FM(UC, AU):+7.55 dBs
AM(UC, AU):+7.55 dBs
FM(EU5):+11.55 dBs
AM(EU5):+11.55 dBs
NAVI:+13.30 dBs
HDMI:+13.30 dBs
SXi:+13.29 dBs
LS2:+13.91 dBs
iPhone:+13.39 dBs
VTR:+13.32 dBs
AUX:+13.30 dBs
HDMI(APP MIX): -5.95 dBs
iPhone(APP MIX): -6.86 dBs

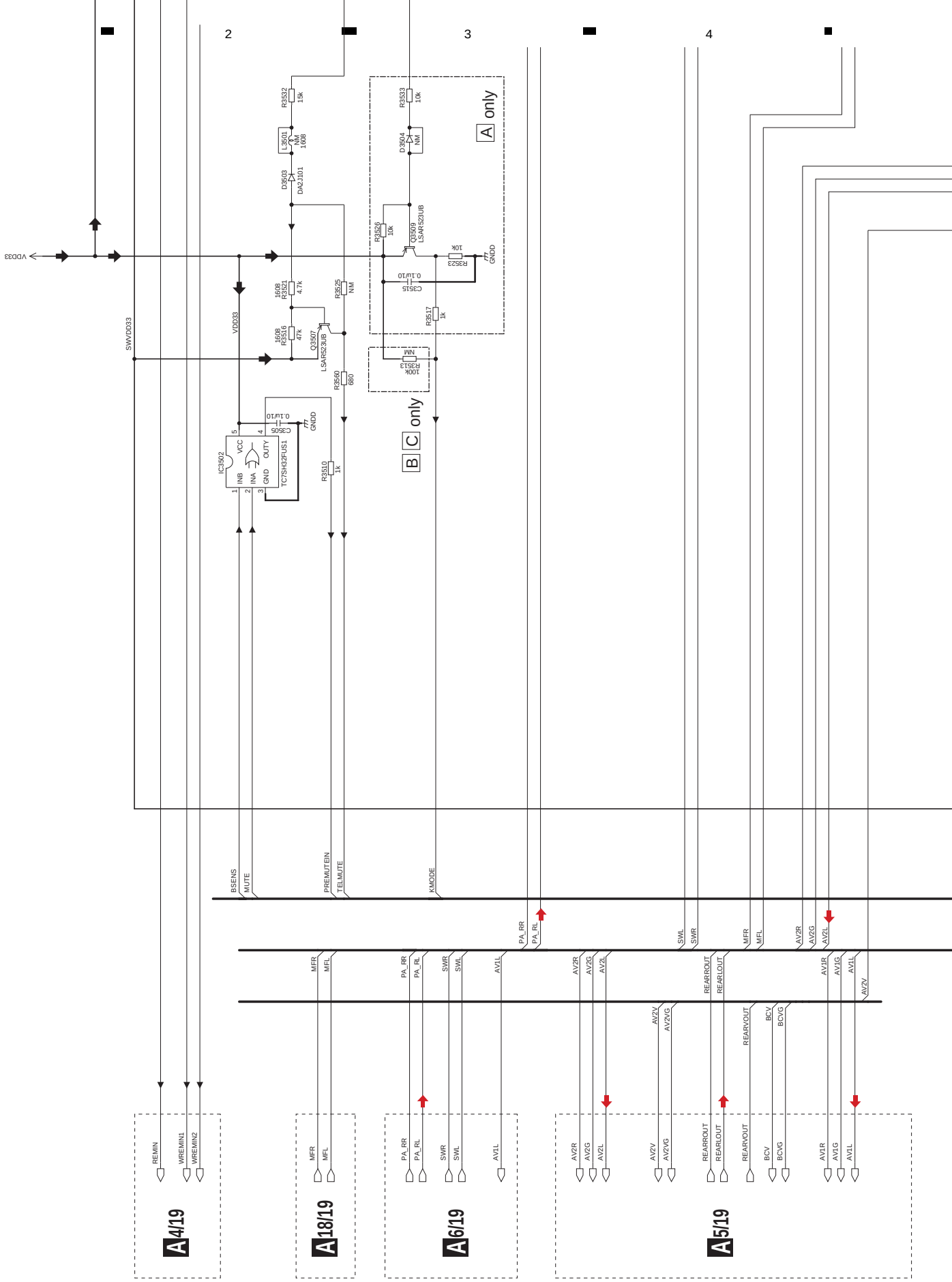
REAR OUT(DUAL ZONE)

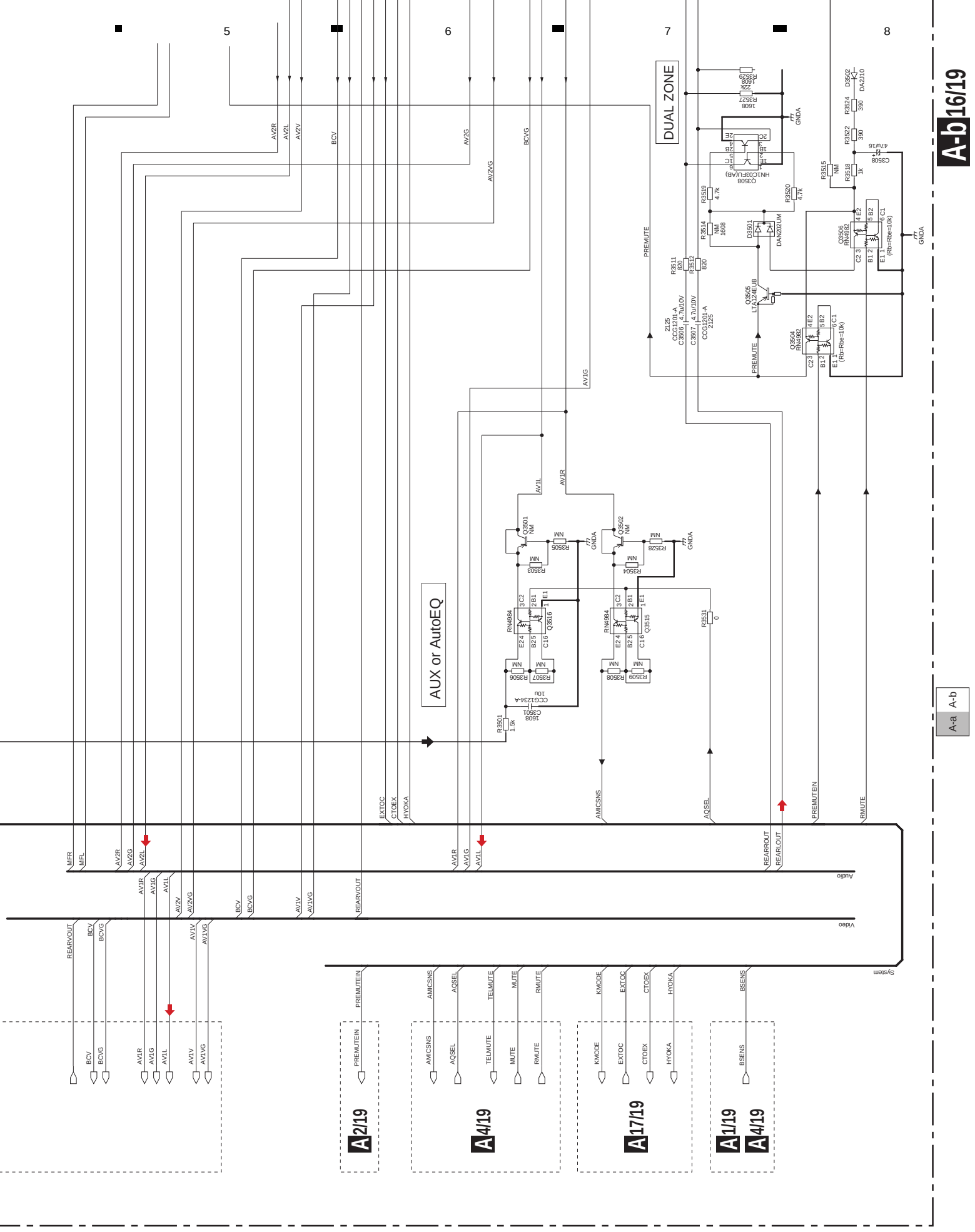
LS2:+2.51 dBs
iPhone:+0.99 dBs
VTR:+1.92 dBs
AUX:+1.90 dBs

AV CN REAR SIDE DRAWING

16	15		2	1
32	31		18	17

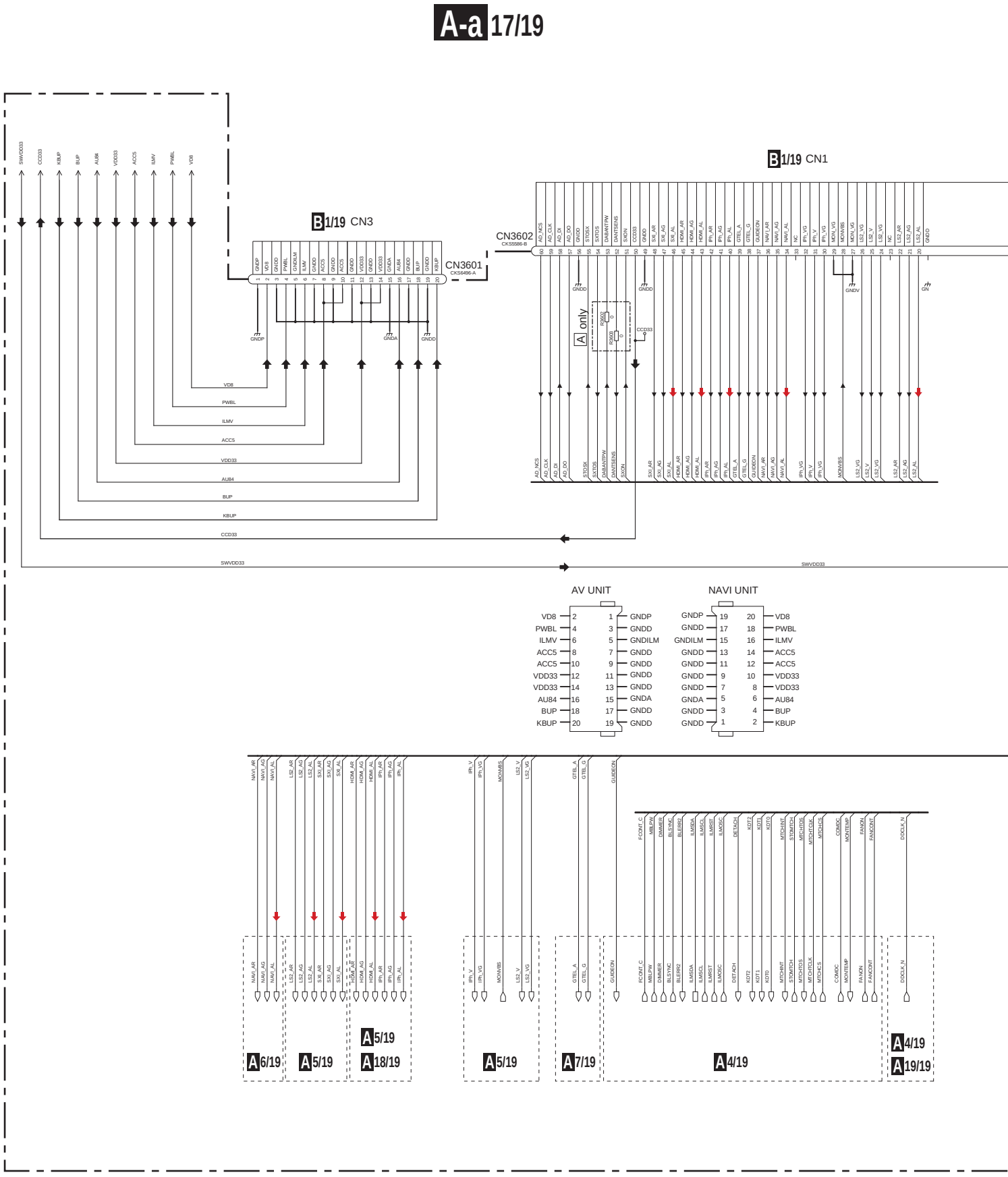
3501 - 3600


A only
B C only
VDD33
SWVDD33
R3532 15k
R3533 10k
L3501 NM 1608
D3503 DA2J101
D3504 NM
R3526 10k
Q3509 LSAR523UB
R3523 10k
GNDD
C3515 0.1U/10
R3517 1k
R3521 4.7k
R3516 47k
Q3507 LSAR523UB
R3525 NM
R3513 100k NM
R3560 680
C3505 0.1U/10
IC3502 TC7SH32FUS1
R3510 1k
BSENS
MUTE
PREMUTEIN
TELMUTE
KMODE
PA_RR
PA_RL
MFR
MFL
SWR
SWL
AV1L
AV2R
AV2G
AV2L
AV2V
AV2VG
REARROUT
REARLOUT
REARVOUT
BCV
BCVG
AV1R
AV1G
REMIN
WREMIN1
WREMIN2
A4/19
A18/19
A6/19
A5/19



DUAL ZONE
AUX or AutoEQ
A-b 16/19
A-a 16/19
A2/19
A4/19
A17/19
A1/19
A4/19
Audio
Video
System

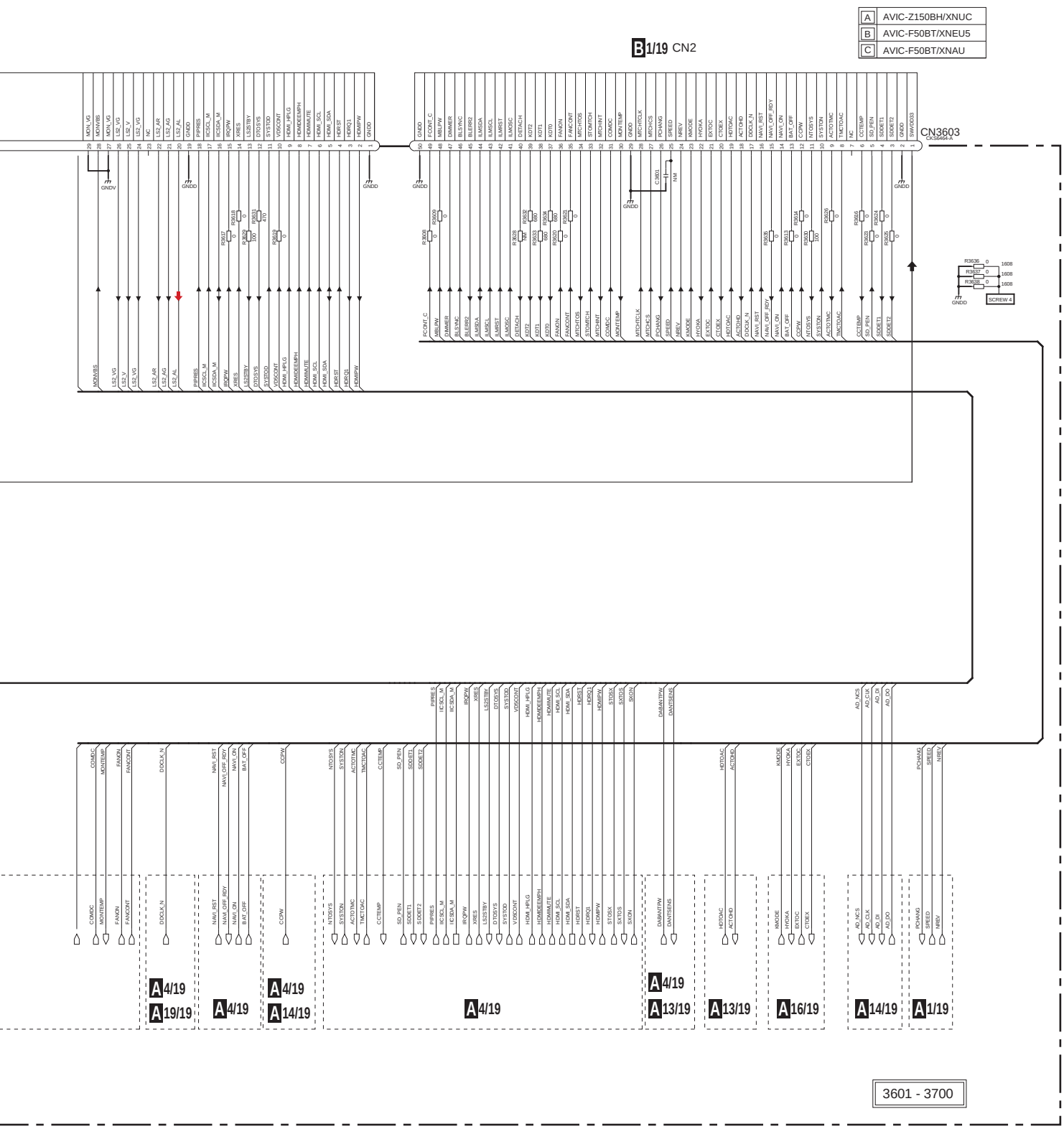
10.17 AV UNIT (AV-NAVI IF SECTION) (GUIDE PAGE)



A-b 17/19

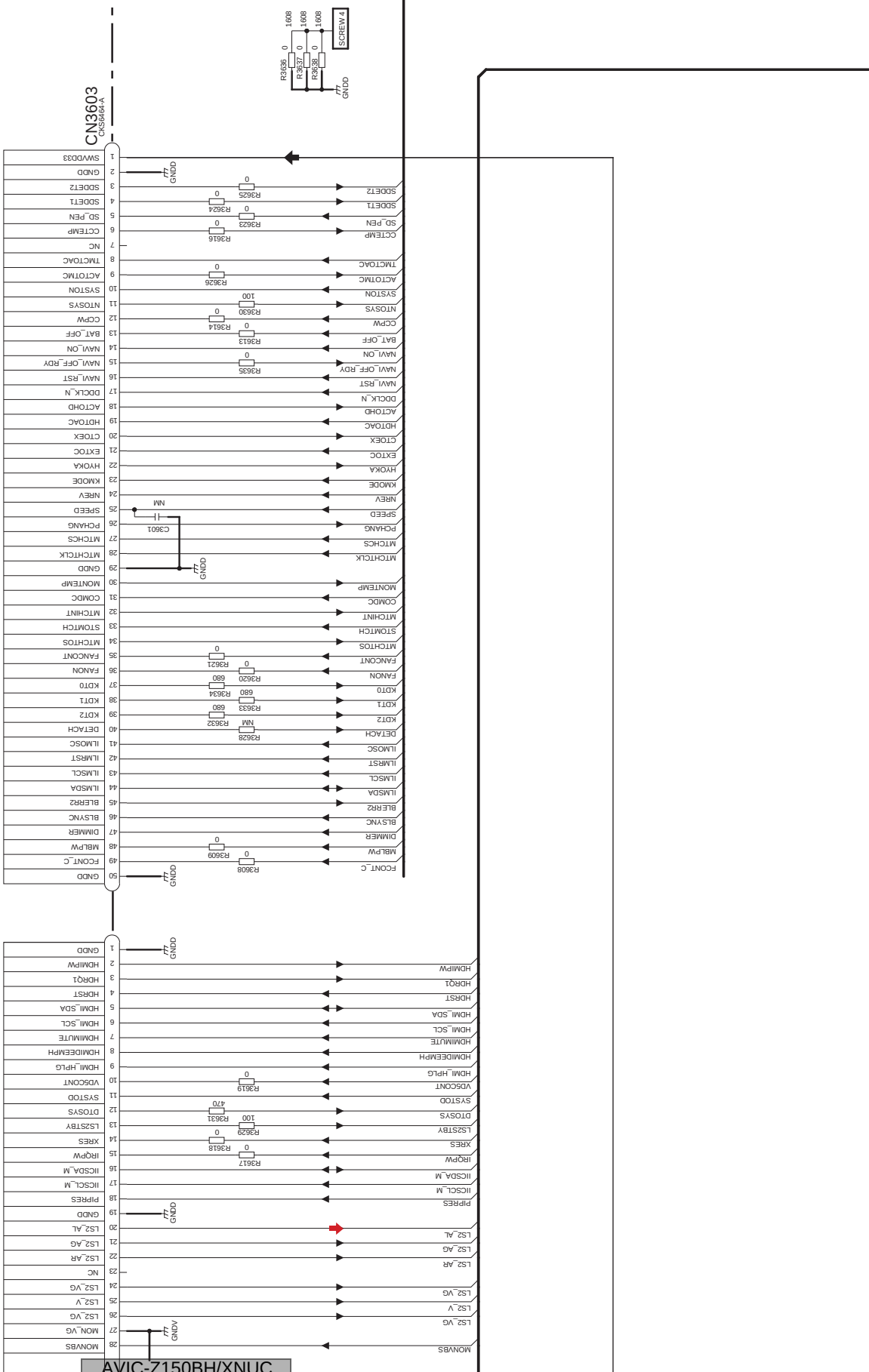
A 17/19 AV UNIT (AV-NAVI IF SECTION)

A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU

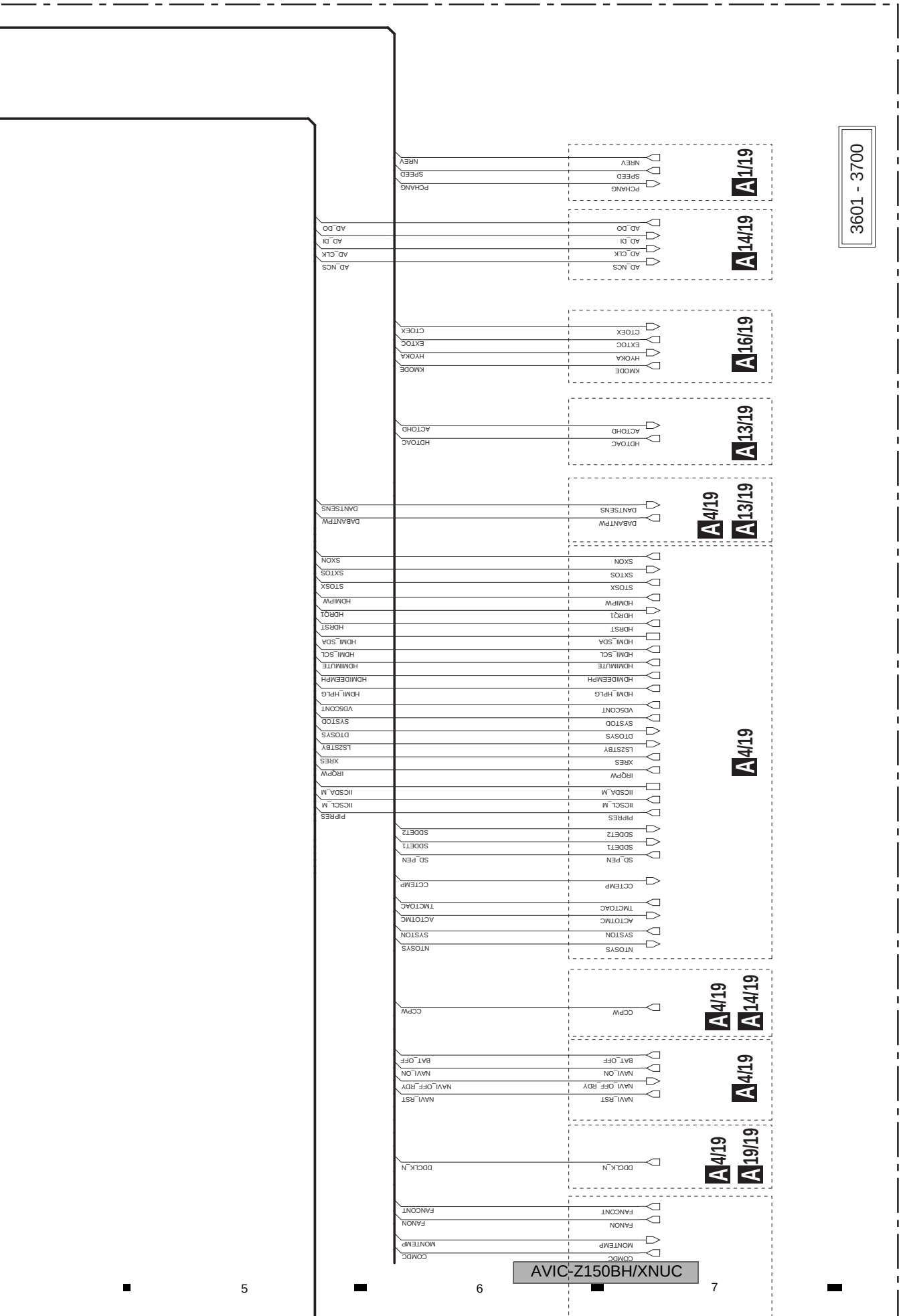


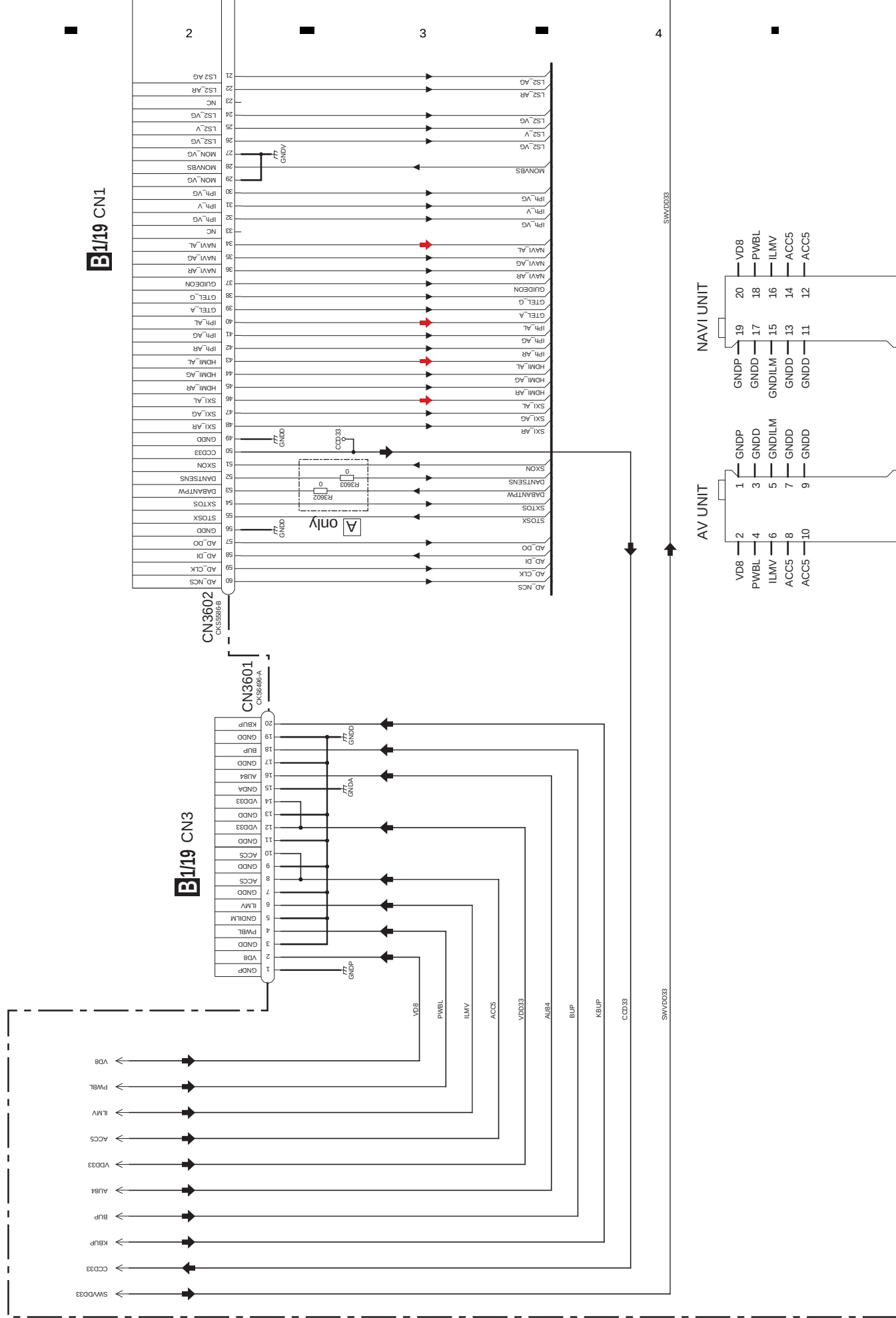
A 17/19

A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU

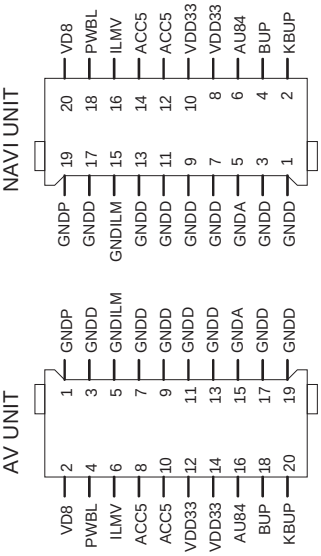


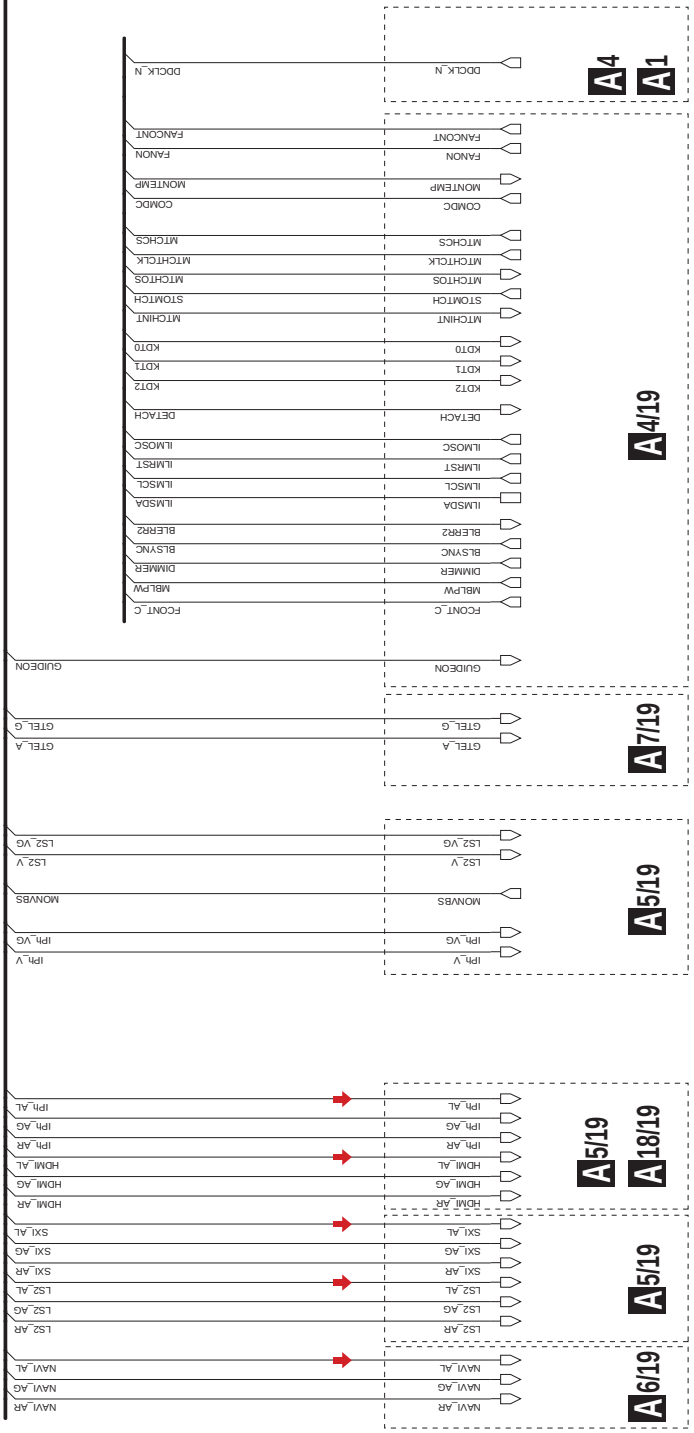
A-b 17/19


3601 - 3700
A 1/19
NREV
SPEED
PCHANG
A 14/19
AD_DO
AD_DI
AD_CLK
AD_NCS
A 16/19
CTOEX
EXTOC
HYOKA
KMODE
A 13/19
ACTOHD
HDTOAC
A 4/19 A 13/19
DANTSENS
DABANTPW
A 4/19
SXON
SXTOS
STOSX
HDMIPW
HDRQ1
HDRST
HDMI_SDA
HDMI_SCL
HDMIMUTE
HDMIDEEMPH
HDMI_HPLG
VD5CONT
SYSTOD
DTOSYS
LS2STBY
XRES
IRQPW
IICSDA_M
IICSCL_M
PIPRES
SDDET2
SDDET1
SD_PEN
CCTEMP
TMCTOAC
ACTOTMC
SYSTON
NTOSYS
A 4/19 A 14/19
CCPW
A 4/19
BAT_OFF
NAVI_ON
NAVI_OFF_RDY
NAVI_RST
A 4/19 A 19/19
DDCLK_N
A
FANCONT
FANON
MONTEMP
COMDC
AVIC-Z150BH/XNUC

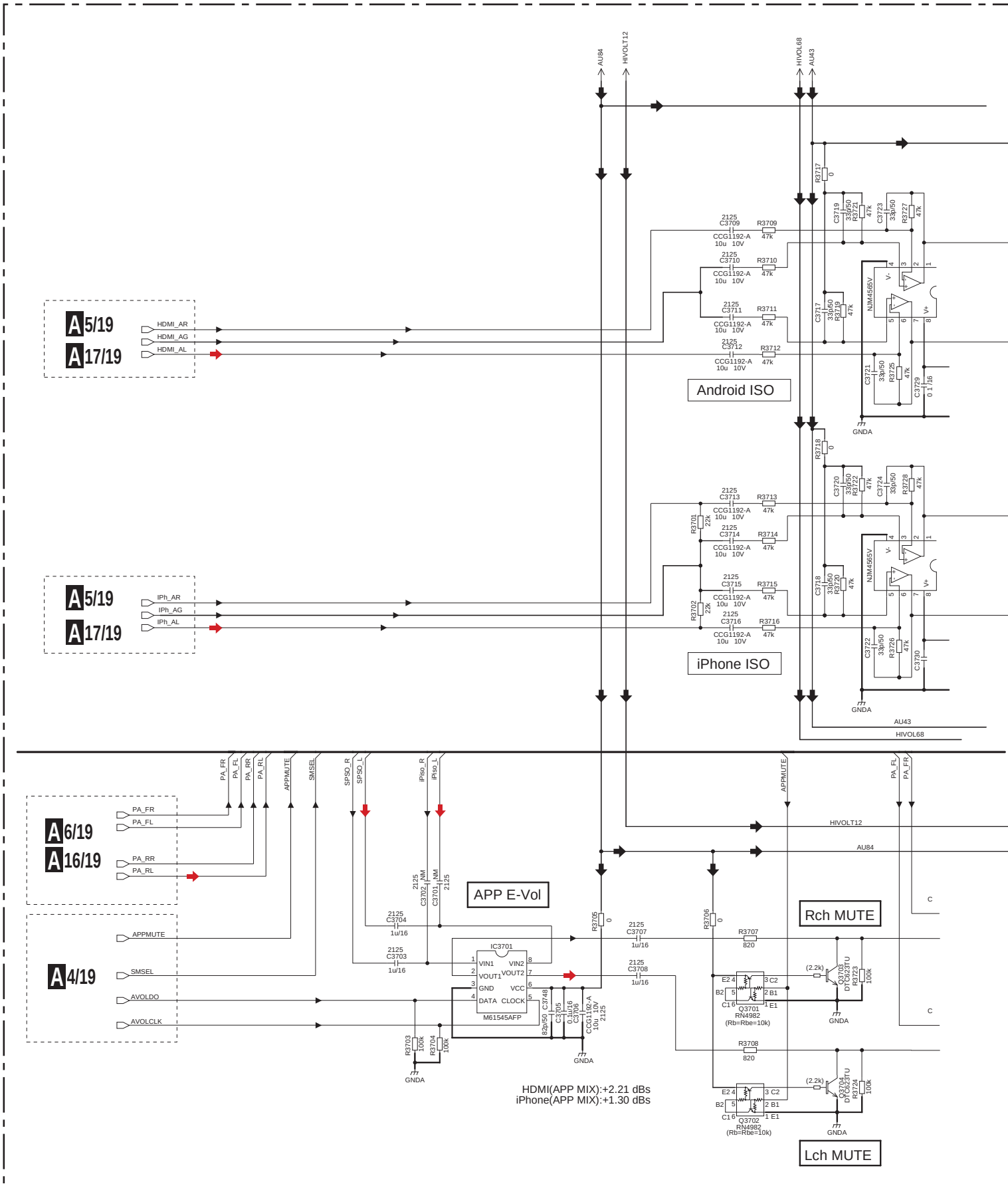

B1/19 CN1
CN3602
CKS5896-B
CN3601
CKS6496-A
B1/19 CN3
NAVI UNIT
AV UNIT
A only
R3602
R3603
SWVDD33
CCD33
VD8
PWBL
ILMV
ACC5
VDD33
AU84
BUP
KBUP
GNDD
GNDA
GNDP
GNDILM

A-a A-b

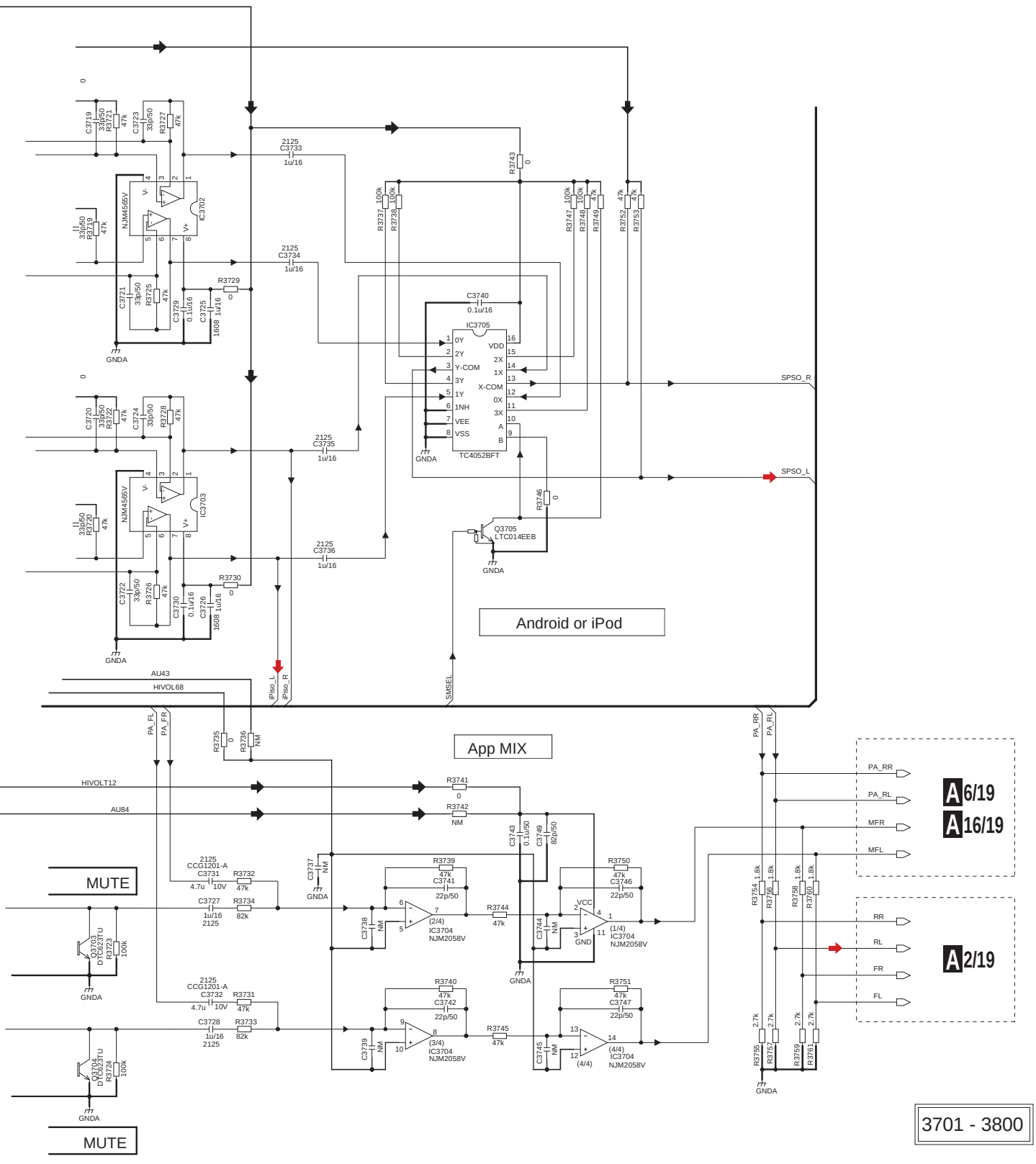

NAVI UNIT
VD8 PWBL ILMV ACC5 ACC5 VDD33 VDD33 AU84 BUP KBUP
20 18 16 14 12 10 8 6 4 2
19 17 15 13 11 9 7 5 3 1
GNDP GNDD GNDILM GNDD GNDD GNDD GNDD GNDA GNDD GNDD
AV UNIT
GNDP GNDD GNDILM GNDD GNDD GNDD GNDD GNDA GNDD GNDD
1 3 5 7 9 11 13 15 17 19
2 4 6 8 10 12 14 16 18 20
VD8 PWBL ILMV ACC5 ACC5 VDD33 VDD33 AU84 BUP KBUP


A4 A1
DDCLK_N
A4/19
FANCONT
FANON
MONTEMP
COMDC
MTCHCS
MTCHTCLK
MTCHTOS
STOMTCH
MTCHINT
KDT0
KDT1
KDT2
DETACH
ILMOSC
ILMRST
ILMSCL
ILMSDA
BLERR2
BLSYNC
DIMMER
MBLPW
FCONT_C
GUIDEON
A7/19
GTEL_G
GTEL_A
A5/19
LS2_VG
LS2_V
MONVBS
IPH_VG
IPH_V
A5/19 A18/19
IPH_AL
IPH_AG
IPH_AR
HDMI_AL
HDMI_AG
HDMI_AR
A5/19
SXI_AL
SXI_AG
SXI_AR
LS2_AL
LS2_AG
LS2_AR
A6/19
NAVI_AL
NAVI_AG
NAVI_AR

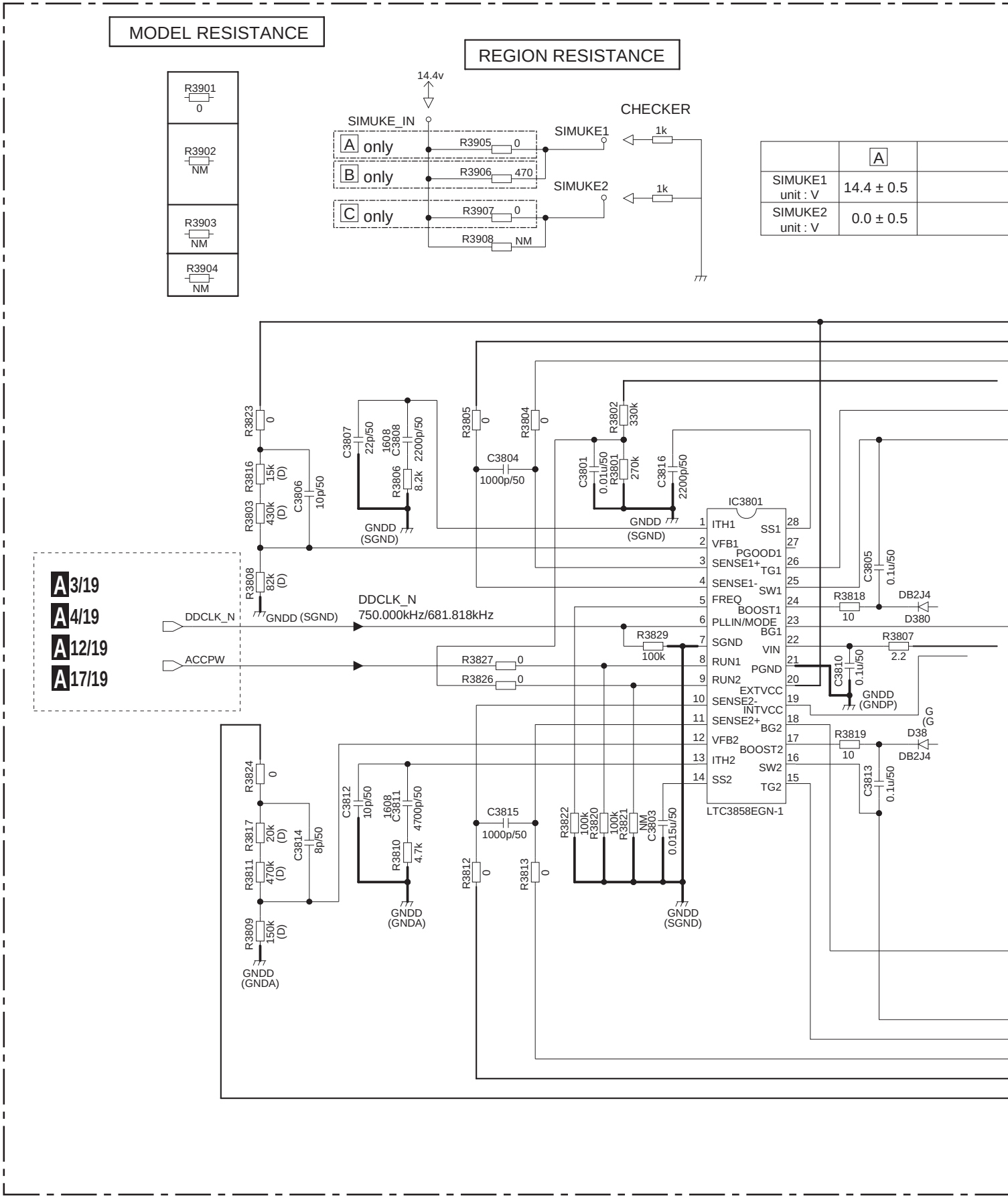
10.18 AV UNIT (APP MODE MIX SECTION)



A18/19 AV UNIT (APP MODE MIX SECTION)



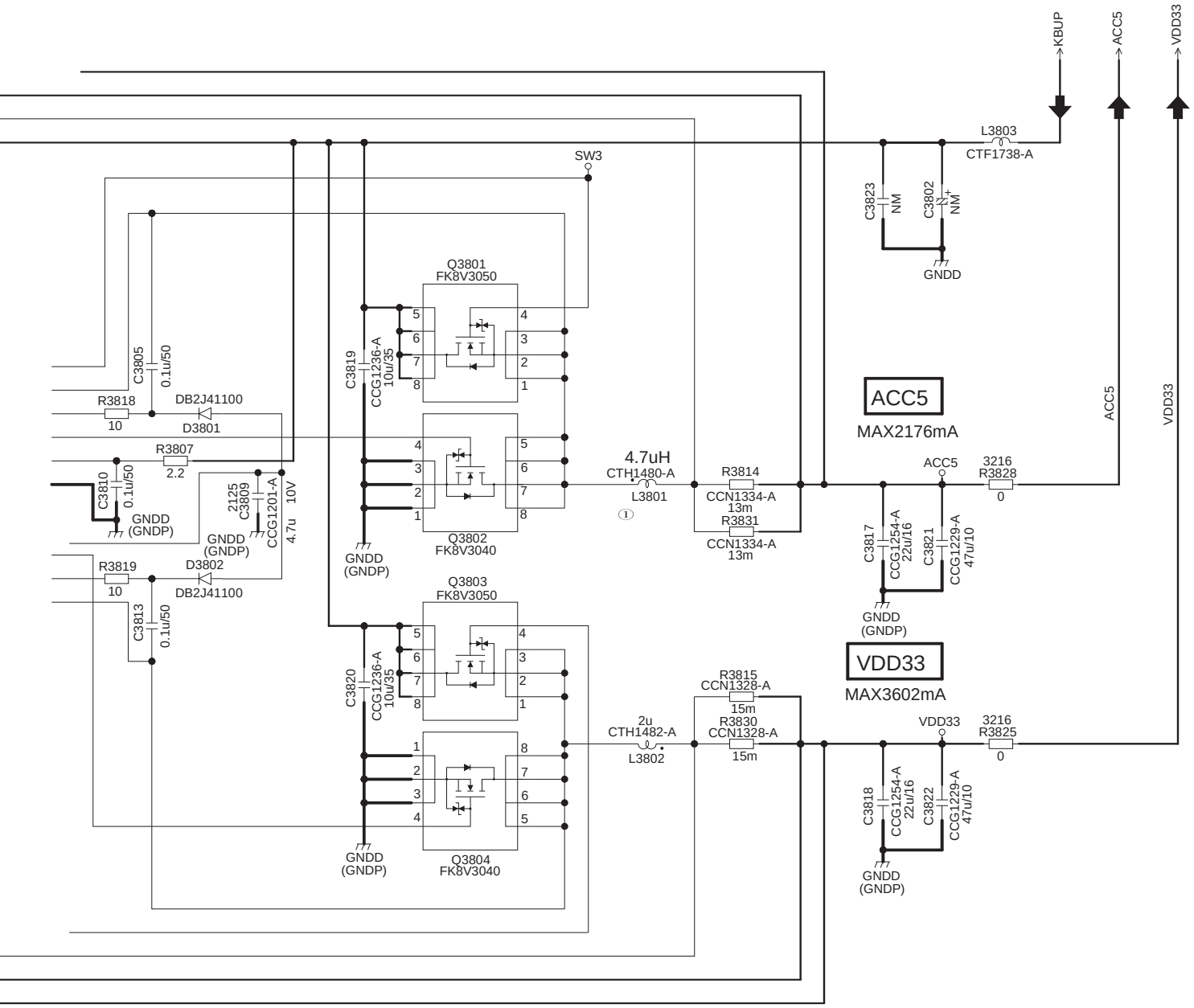
10.19 AV UNIT (S DDCON SECTION)



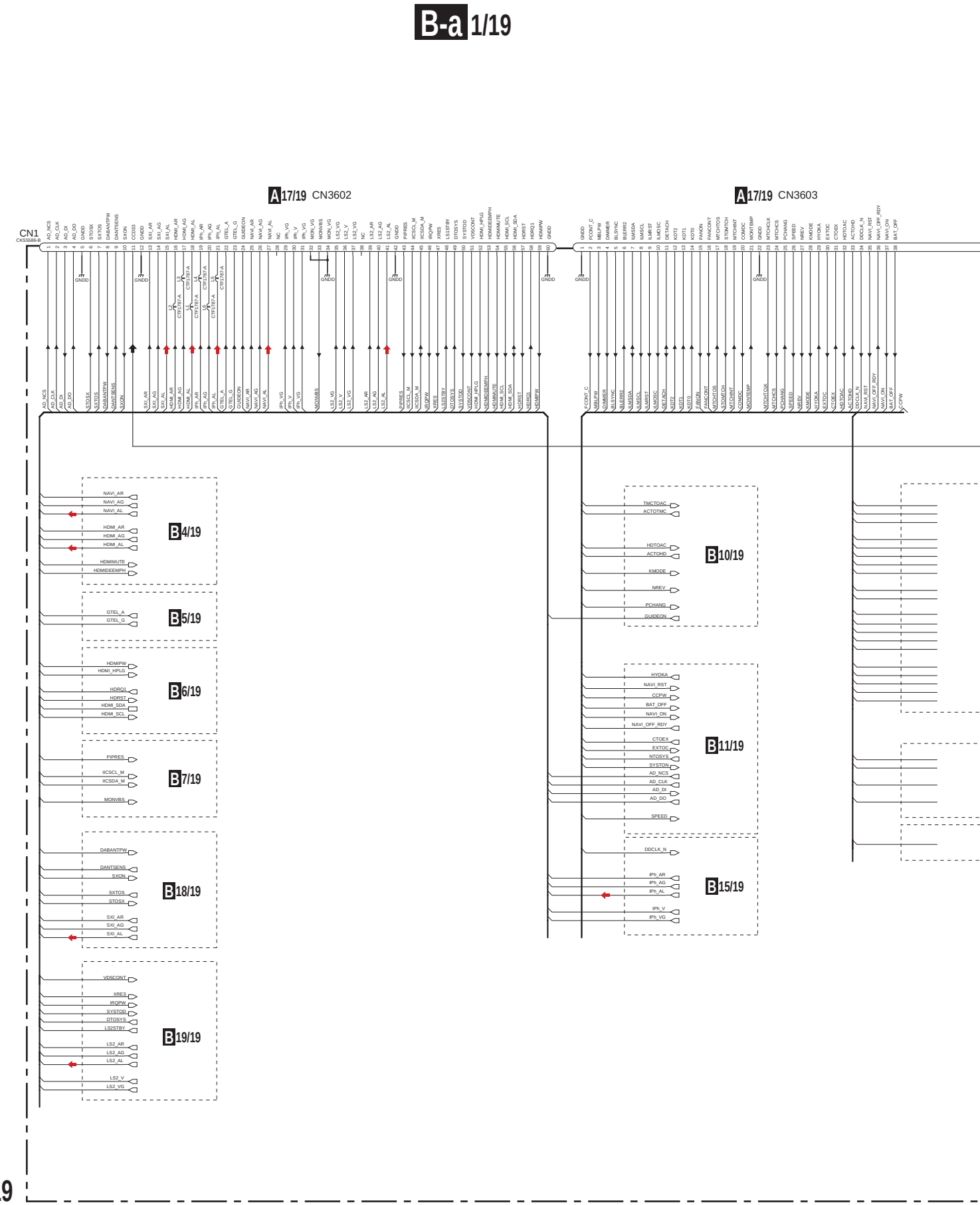
A 19/19 AV UNIT (S DDCON SECTION)

	A	B	C
	14.4 ± 0.5	9.8 ± 0.5	0.0 ± 0.5
	0.0 ± 0.5	0.0 ± 0.5	14.4 ± 0.5

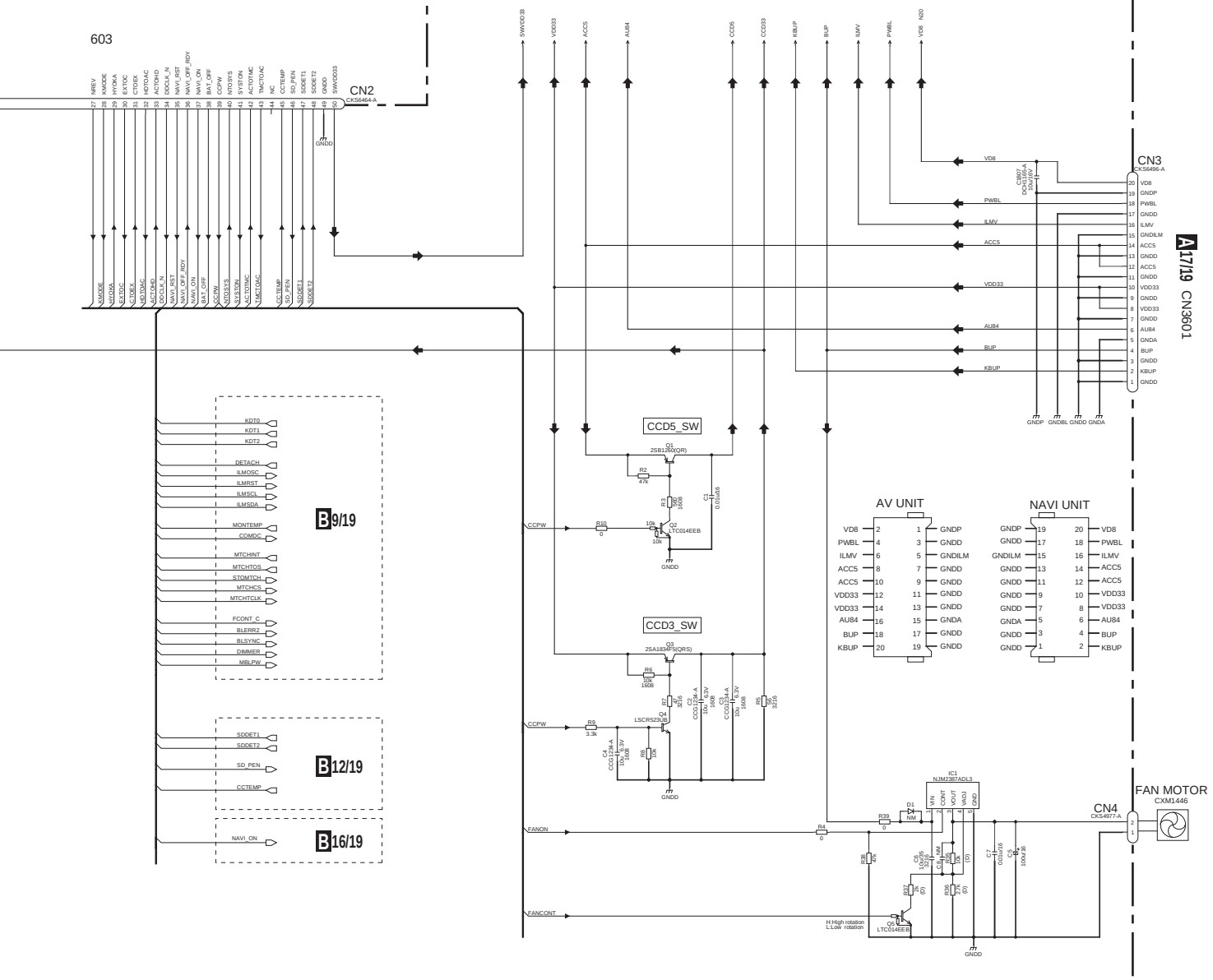
A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



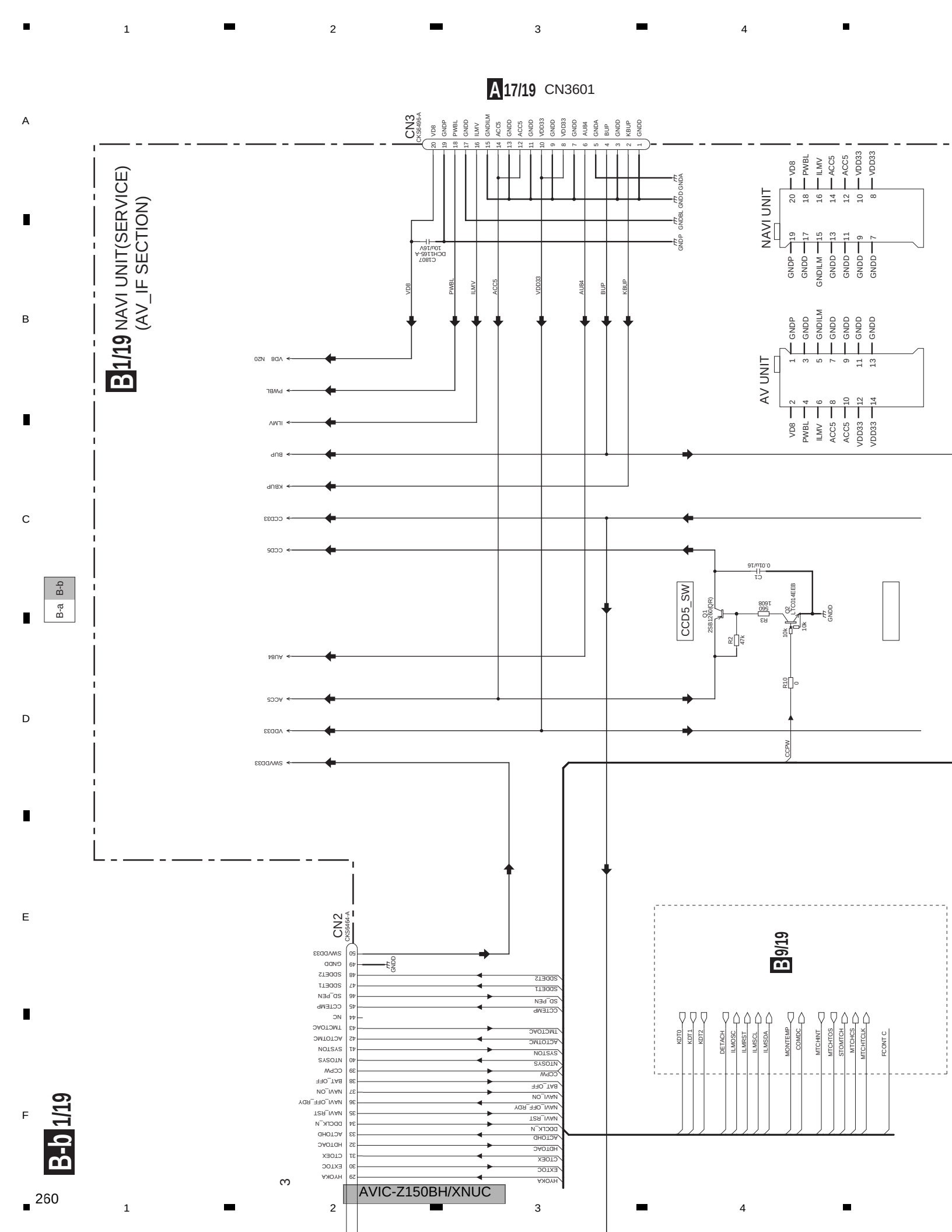
10.20 NAVI UNIT (SERVICE) (AV_IF SECTION) (GUIDE PAGE)

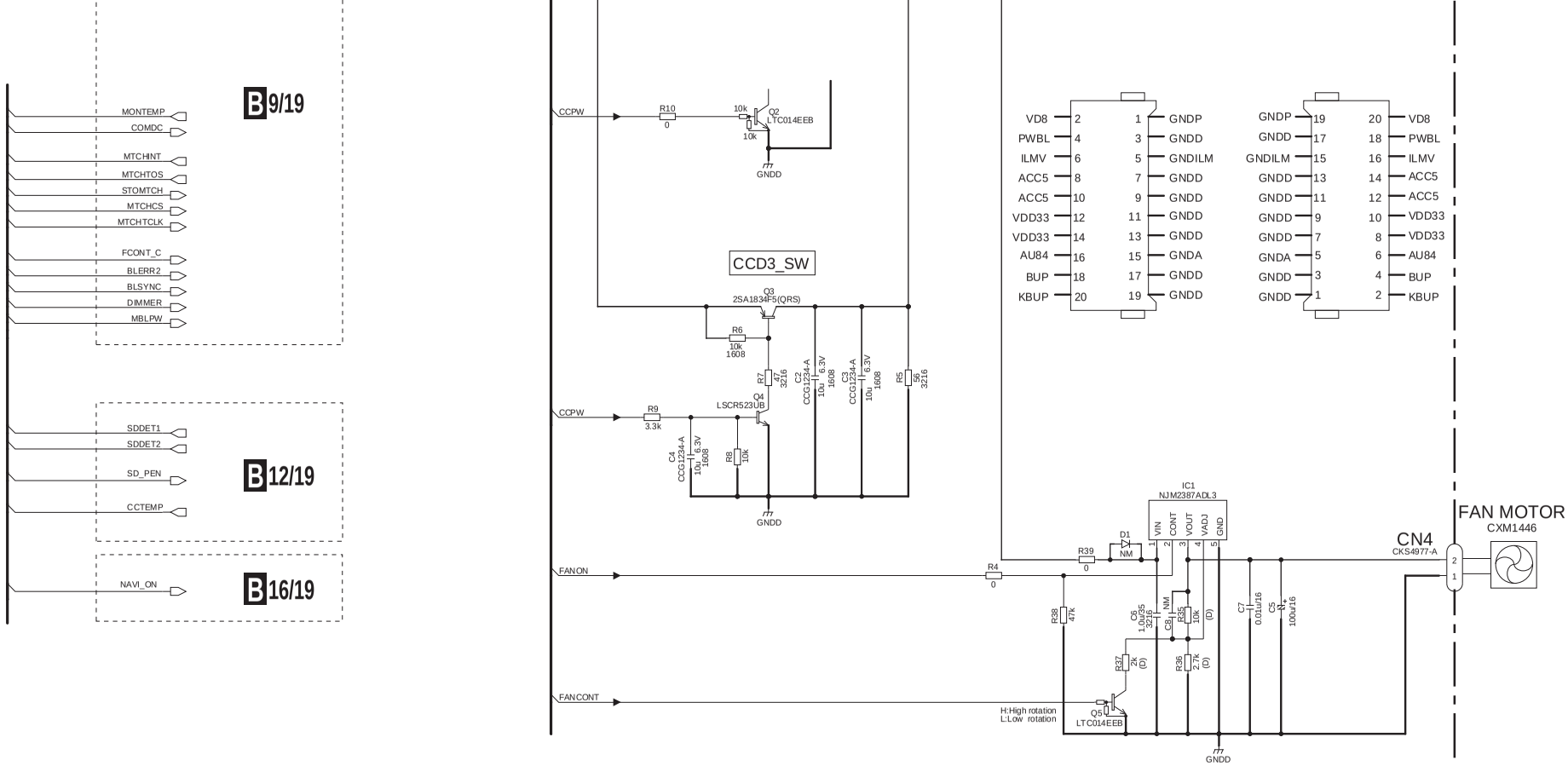


B1/19 NAVI UNIT(SERVICE)
(AV_IF SECTION)



1 - 100


A 17/19 CN3601
B 1/19 NAVI UNIT(SERVICE)
(AV_IF SECTION)
CN3
CKS6496-A
NAVI UNIT
AV UNIT
CCD5_SW
CN2
CKS6464-A
B 9/19
B-a
B-b
B-b 1/19
AVIC-Z150BH/XNUC



AVIC-Z150BH/XNUC

B-b 1/19

B-a B-b

A17/19 CN3603
A17/19 CN3602
CN1
B10/19
B4/19
B5/19
NAVI_ON
NAVI_OFF_RDY
NAVI_RST
DDCLK_N
ACTOHD
HDTOAC
CTOEX
EXTOC
HYOKA
KMODE
NREV
SPEED
PCHANG
MTCHCS
MTCHTCLK
MONTEMP
COMDC
MTCHINT
STOMTCH
MTCHTOS
FANCONT
FANON
KDT0
KDT1
KDT2
DETACH
ILMOSC
ILMRST
ILMSCL
ILMSDA
BLERR2
BLSYNC
DIMMER
MBLPW
FCONT_C
GNDD
HDMIPW
HDRQ1
HDRST
HDMI_SDA
HDMI_SCL
HDMIMUTE
HDMIDEEMPH
HDMI_HPLG
VDSCONT
SYSTOD
DTOSYS
LS2STBY
XRES
IRQPW
IICSDA_M
IICSCL_M
PIPRES
LS2_AL
LS2_AG
LS2_AR
NC
LS2_VG
LS2_V
MONVBS
IPh_VG
IPh_V
NAVI_AL
NAVI_AG
NAVI_AR
GUIDEON
GTEL_G
GTEL_A
IPh_AL
IPh_AG
IPh_AR
HDMI_AL
HDMI_AG
HDMI_AR
SXI_AL
SXI_AG
SXI_AR
CCD33
SXON
DANTSENS
DABANTPW
SXTOS
STOSX
AD_DO
AD_DI
AD_CLK
AD_NCS
CTF1787-A
L1
L2
L3
L4
L5
L6
TMCTOAC
ACTOTMC
HDTOAC
ACTOHD
KMODE
NREV
PCHANG
GUIDEON
NAVI_AR
NAVI_AG
NAVI_AL
HDMI_AR
HDMI_AG
HDMI_AL
HDMIMUTE
HDMIDEEMPH
GTEL_A
GTEL_G

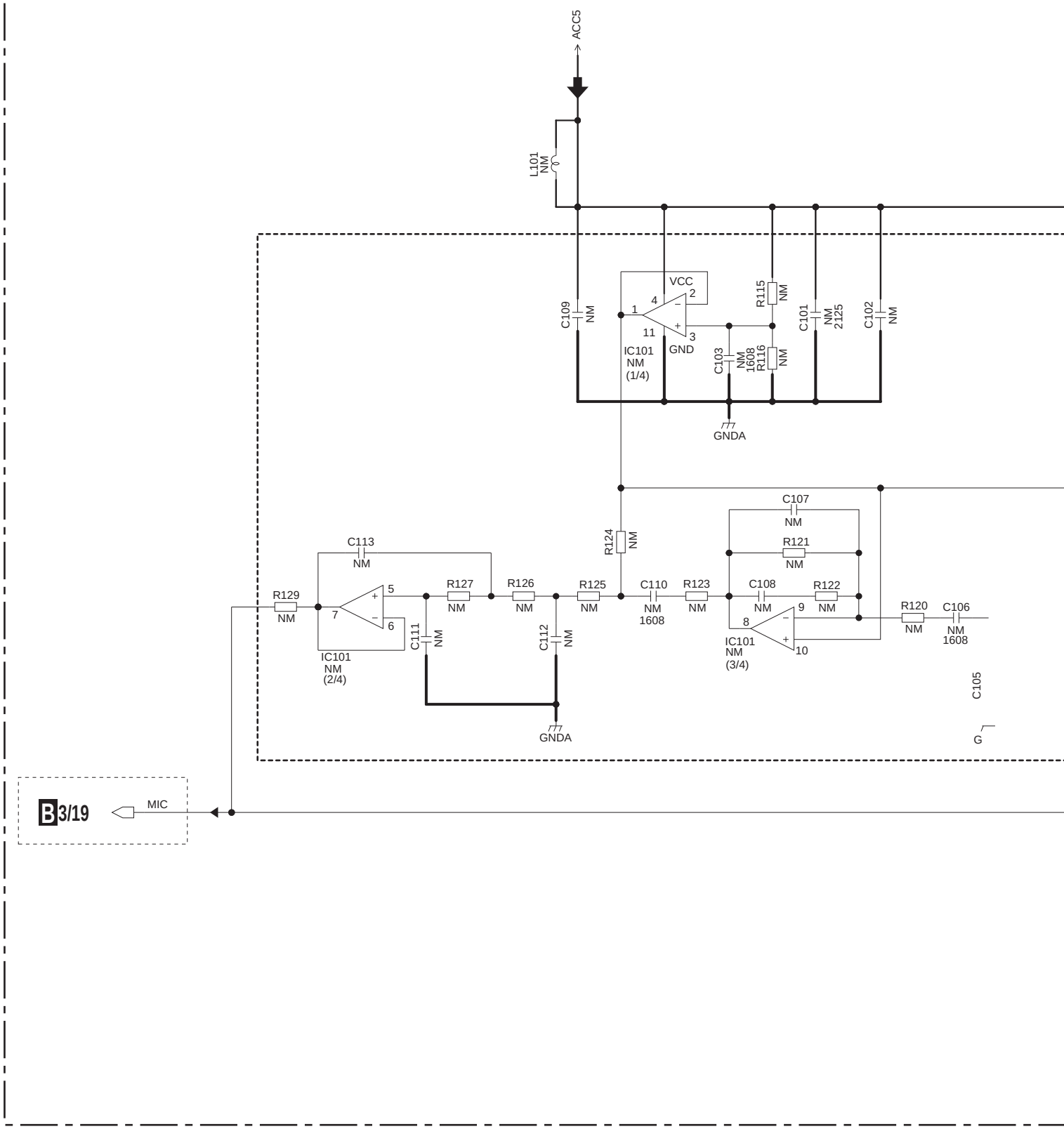
B-a B-b

B-b 1/19

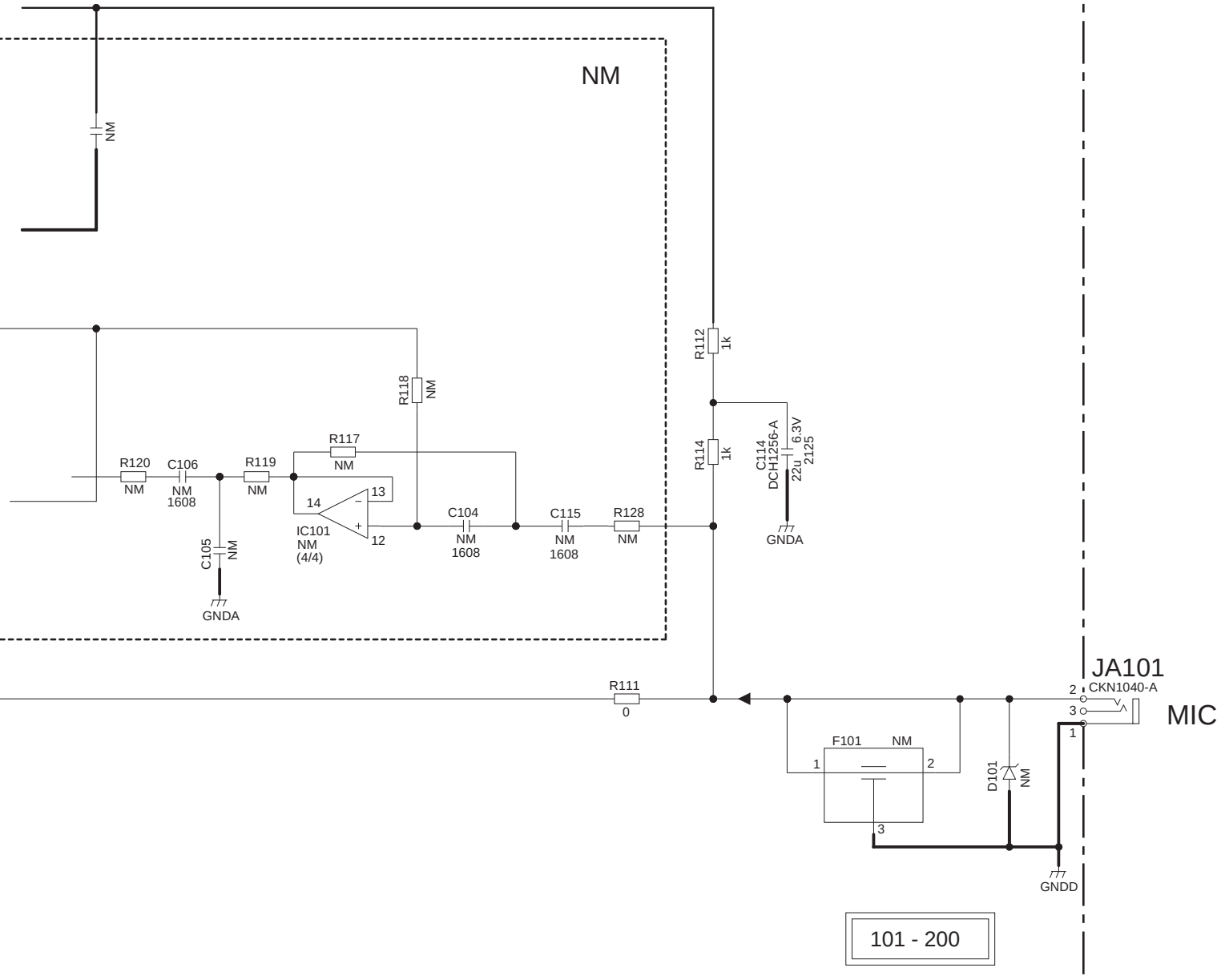
B-a B-b

B-a 1/19

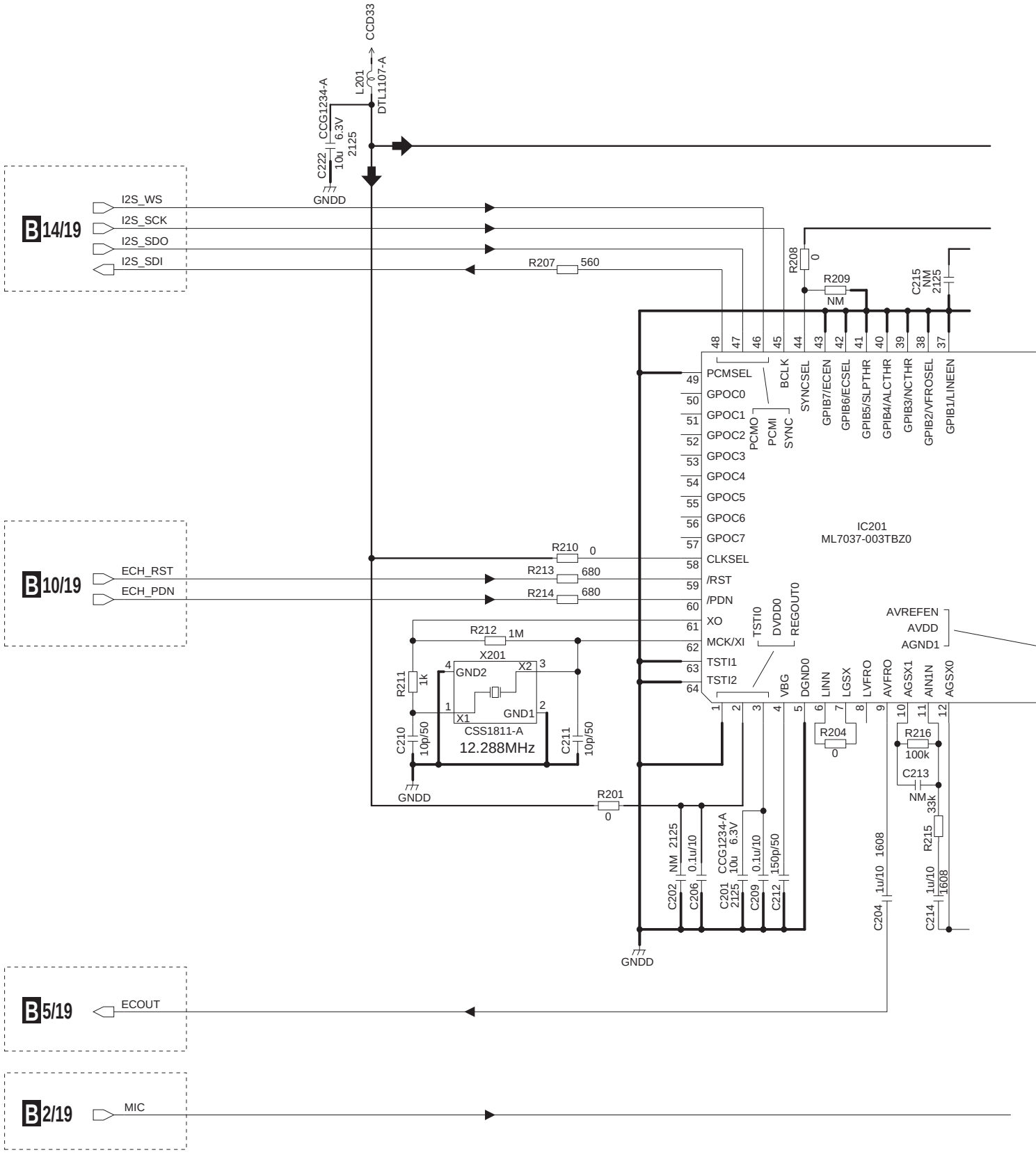
10.21 NAVI UNIT (SERVICE) (MIC SECTION)

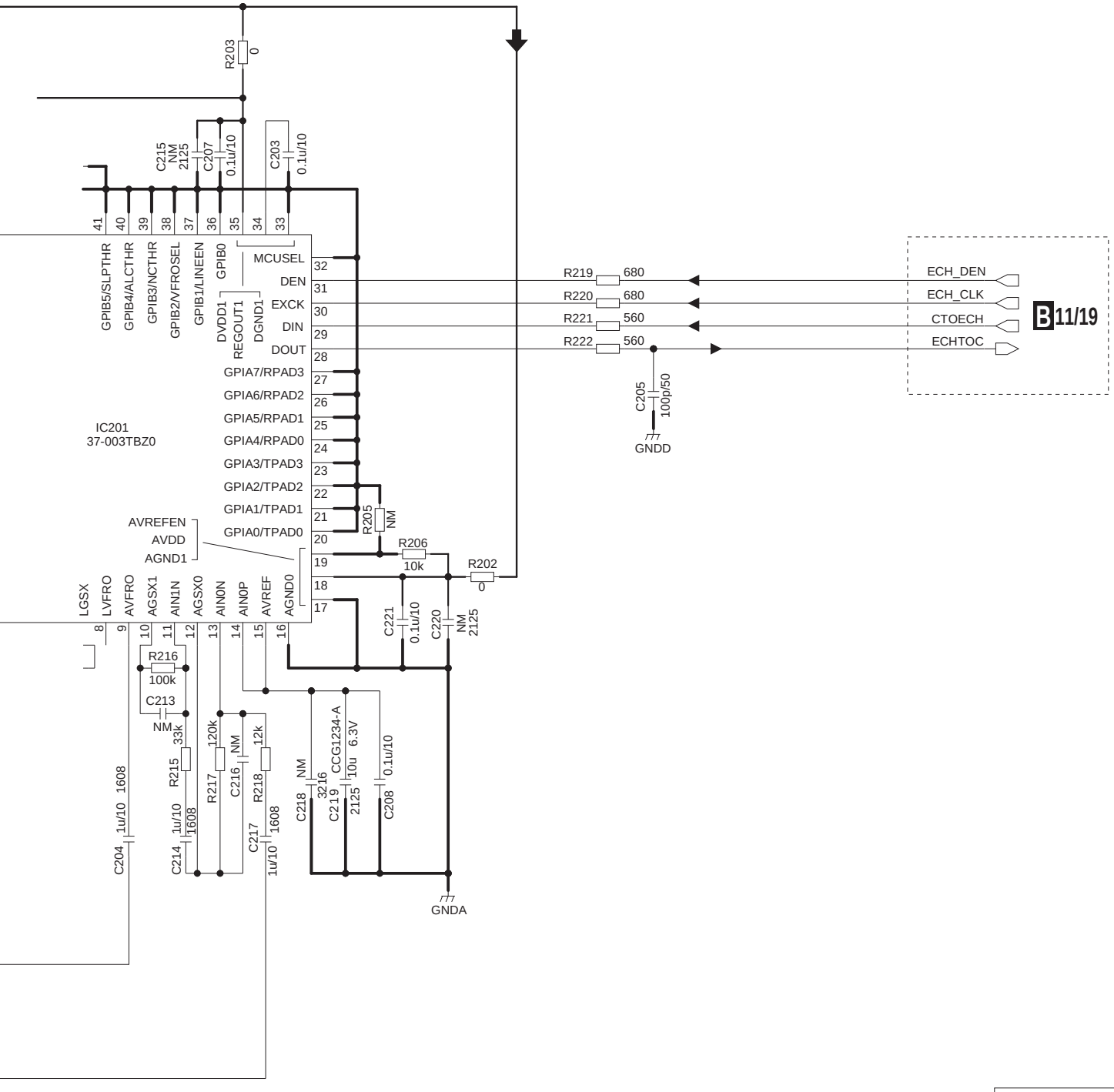


B2/19 NAVI UNIT(SERVICE) (MIC SECTION)



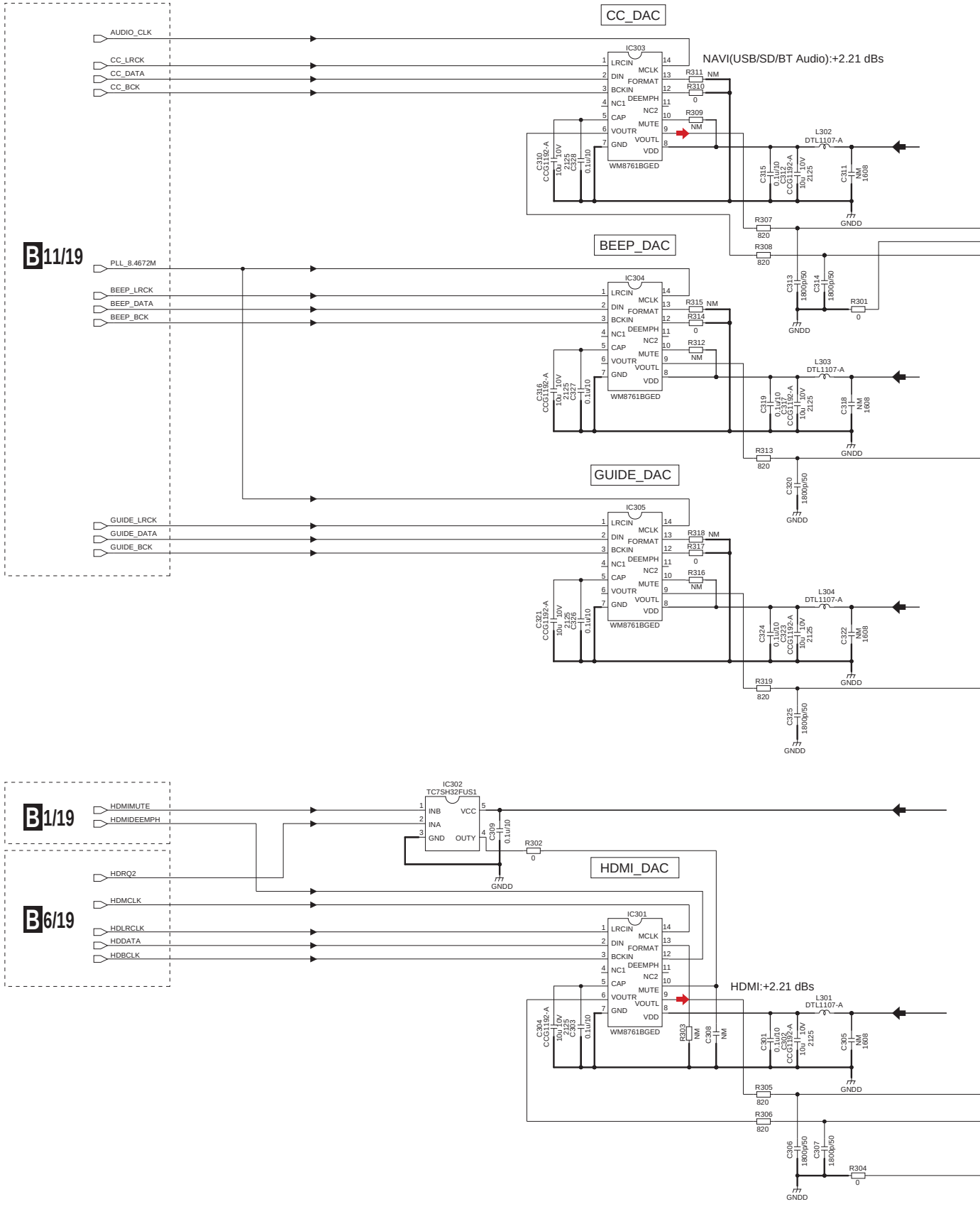
10.22 NAVI UNIT (SERVICE) (ECHO CANCELLER SECTION)



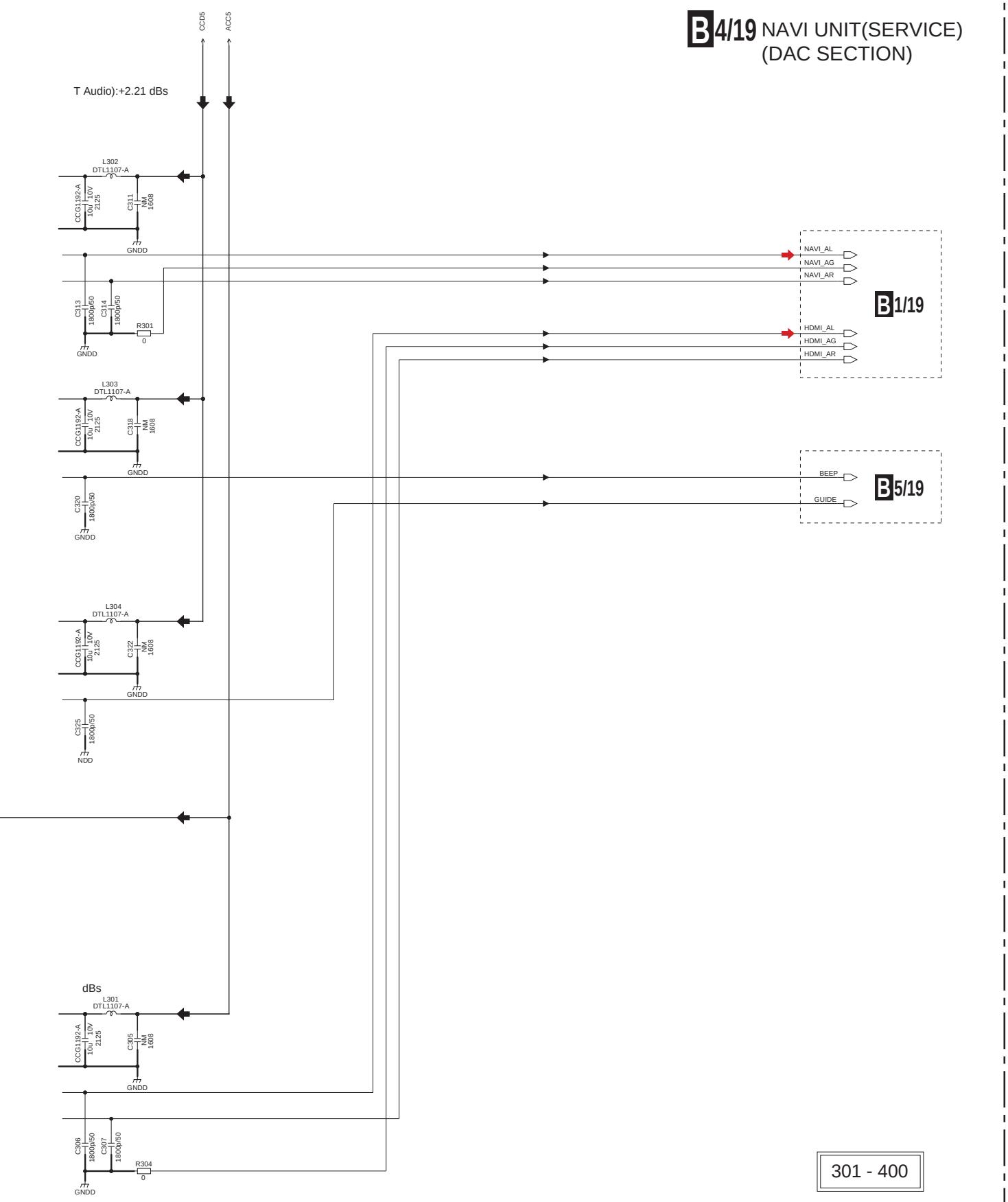

R203 0
C215 NM 2125
C207 0.1u/10
C203 0.1u/10
IC201
37-003TBZ0
MCUSEL
DEN
EXCK
DIN
DOUT
GPIA7/RPAD3
GPIA6/RPAD2
GPIA5/RPAD1
GPIA4/RPAD0
GPIA3/TPAD3
GPIA2/TPAD2
GPIA1/TPAD1
GPIA0/TPAD0
GPIB5/SLPTHR
GPIB4/ALCTHR
GPIB3/NCTHR
GPIB2/VFROSEL
GPIB1/LINEEN
GPIB0
DVDD1
REGOUT1
DGND1
AVREFEN
AVDD
AGND1
LGSX
LVFRO
AVFRO
AGSX1
AIN1N
AGSX0
AIN0N
AIN0P
AVREF
AGND0
R219 680
R220 680
R221 560
R222 560
ECH_DEN
ECH_CLK
CTOECH
ECHTOC
B11/19
C205 100p/50
GNDD
R205 NM
R206 10k
R202 0
C221 0.1u/10
C220 NM 2125
R216 100k
C213 NM
R215 33k
R217 120k
C216 NM
R218 12k
C217 1u/10 1608
C214 1u/10 1608
C204 1u/10 1608
C218 NM 3216
C219 CCG1234-A 10u 6.3V 2125
C208 0.1u/10
GNDA

201 - 300

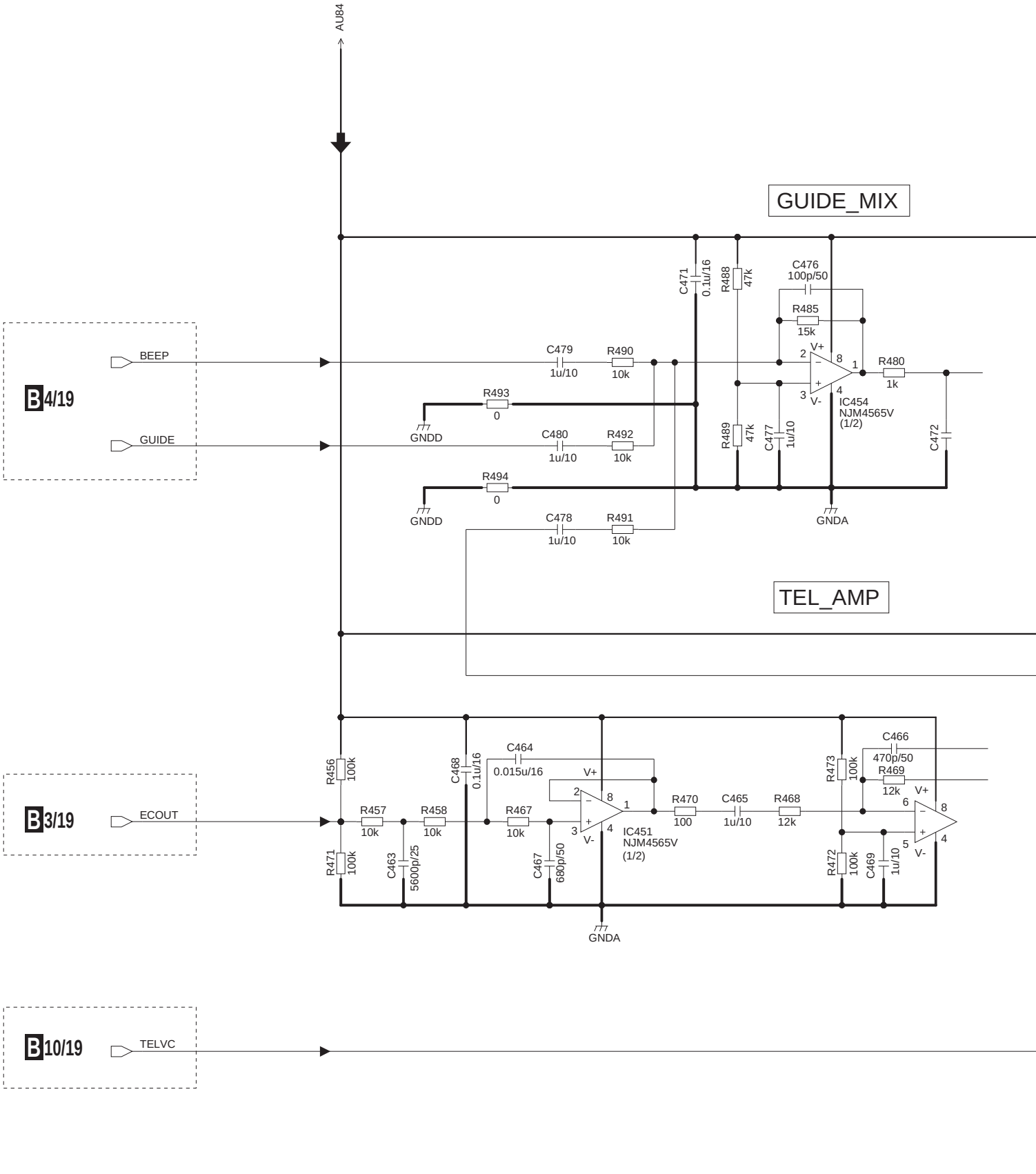
10.23 NAVI UNIT (SERVICE) (DAC SECTION)



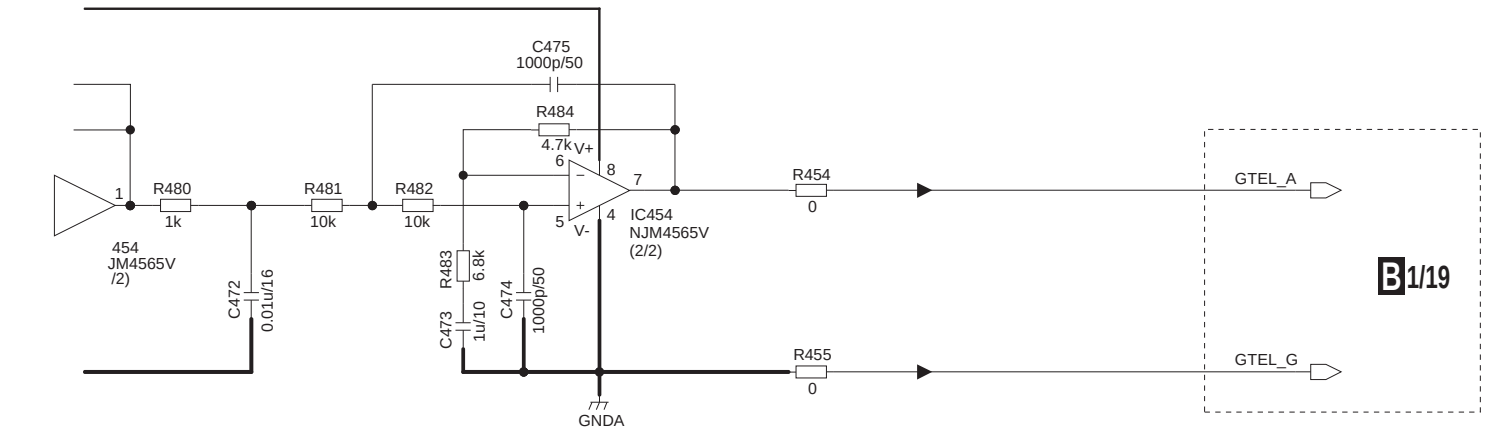
B4/19 NAVI UNIT(SERVICE) (DAC SECTION)



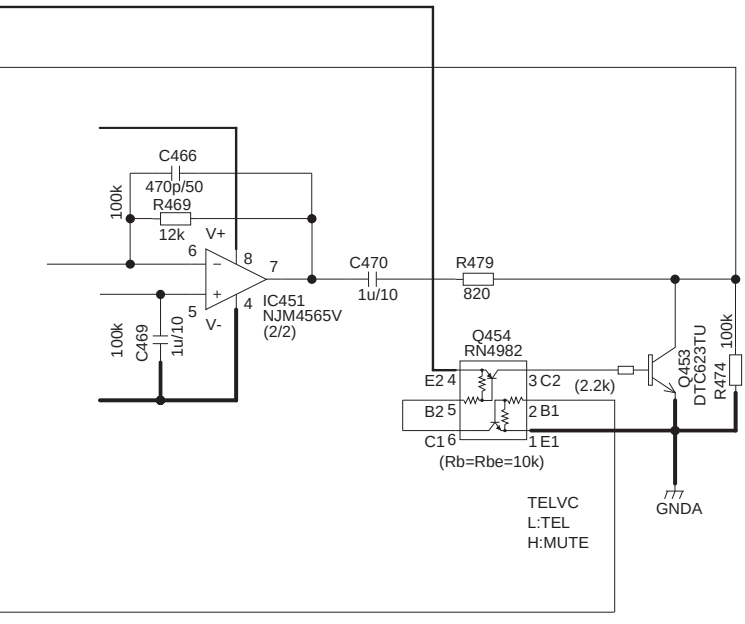
10.24 NAVI UNIT (SERVICE) (GUIDE MIX SECTION)



_MIX

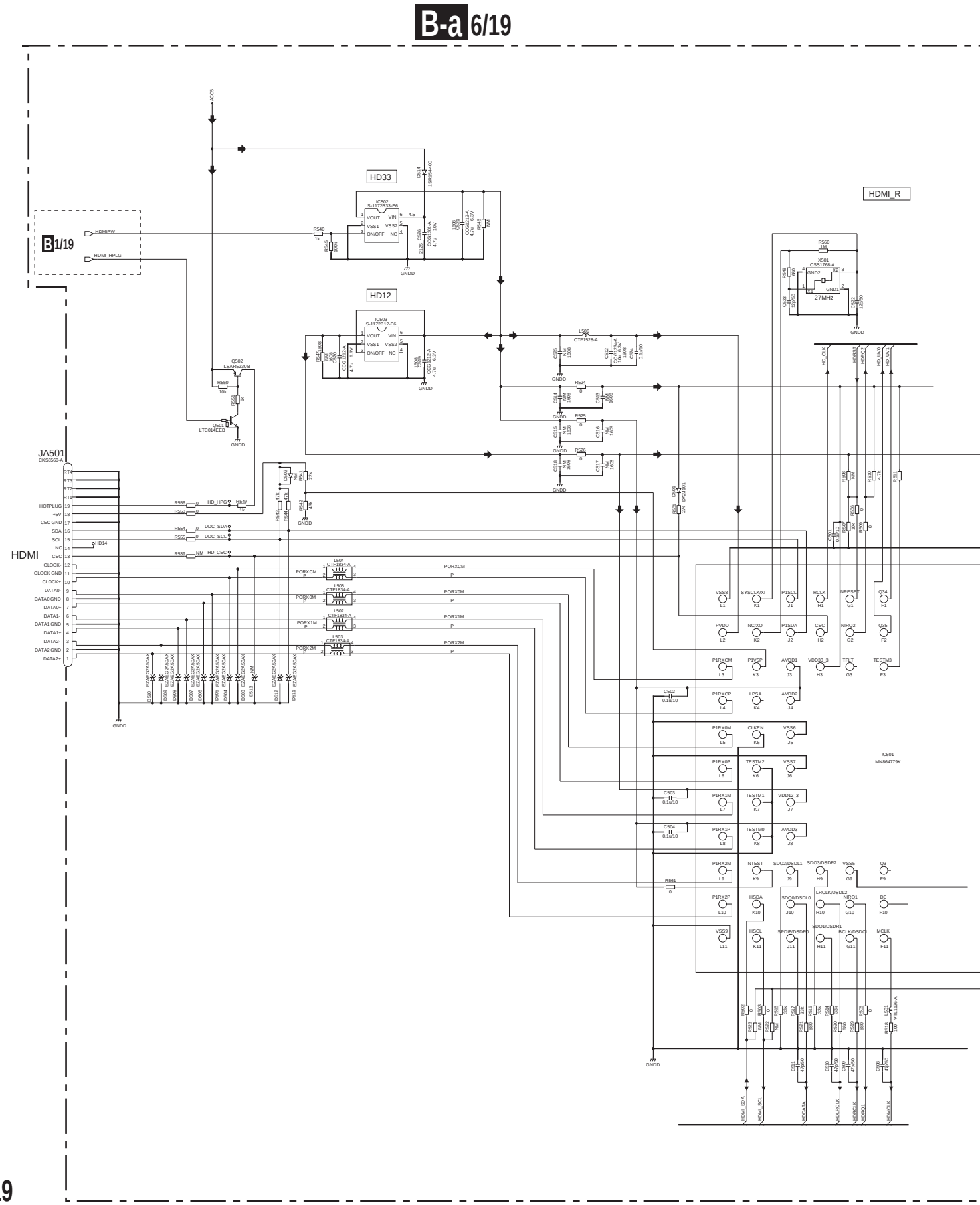


MP

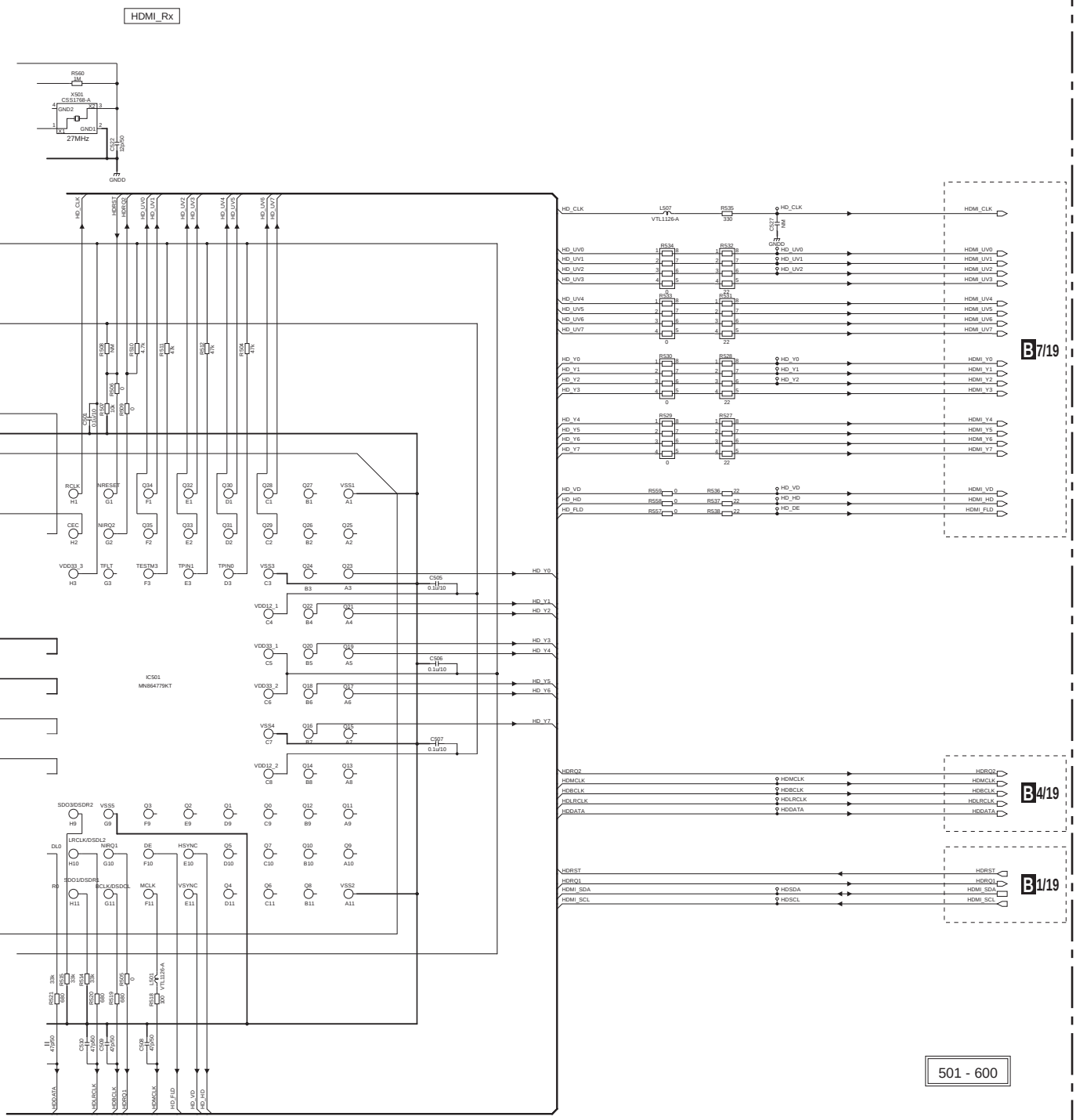


401 - 500

10.25 NAVI UNIT (SERVICE) (HDMI SECTION) (GUIDE PAGE)



B 6/19 NAVI UNIT(SERVICE)
(HDMI SECTION)



B 6/19 NAVI UNIT(SERVICE) (HDMI SECTION)

HDMI_Rx

AVIC-Z150BH/XNUC

R560 1M

X501 CSS1768-A 27MHz

C522 12p/50

GNDD

HD_CLK HDRST HDRQ2 HD_UV0 HD_UV1 HD_UV2 HD_UV3 HD_UV4 HD_UV5 HD_UV6 HD_UV7

R508 NM R510 4.7k R511 47k R512 47k R504 47k

R506 0 R507 10k R509 0 C501 0.1u/10

RCLK H1 NRESET G1 Q34 F1 Q32 E1 Q30 D1 Q28 C1 Q27 B1 VSS1 A1

CEC H2 NIRQ2 G2 Q35 F2 Q33 E2 Q31 D2 Q29 C2 Q26 B2 Q25 A2

VDD33_3 TFLT TESTM3 TPIN1 TPIN0 VSS3 Q24 Q23

HD Y0

HD_CLK L507 VTL1126-A R535 330 C527 NM GNDD HDMI_CLK

HD_UV0 HD_UV1 HD_UV2 HD_UV3 R534 0 R532 22 HDMI_UV0 HDMI_UV1 HDMI_UV2 HDMI_UV3

HD_UV4 HD_UV5 HD_UV6 HD_UV7 R533 0 R531 22 HDMI_UV4 HDMI_UV5 HDMI_UV6 HDMI_UV7

HD_Y0 HD_Y1 HD_Y2 HD_Y3 R530 0 R528 22 HDMI_Y0 HDMI_Y1 HDMI_Y2 HDMI_Y3

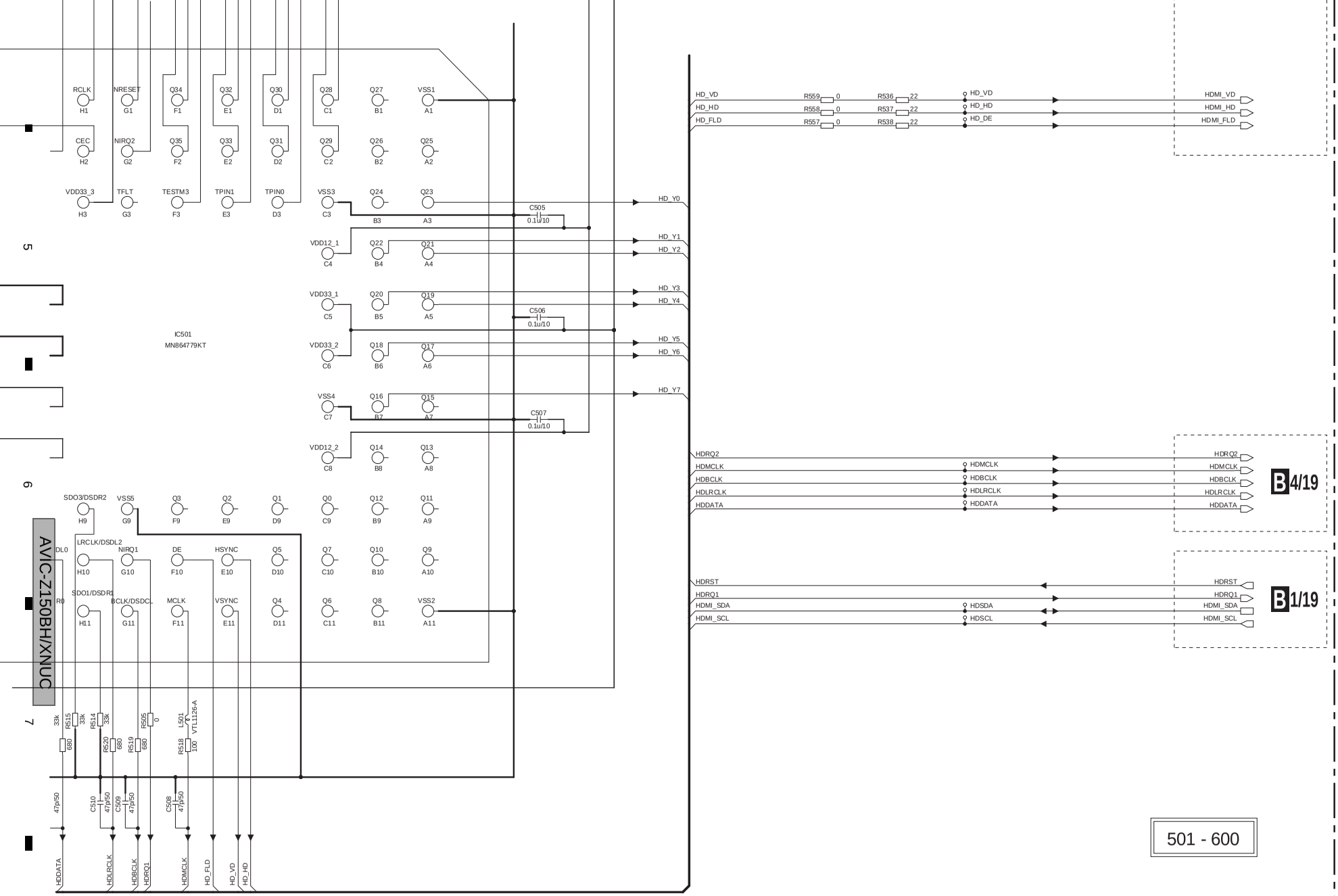
HD_Y4 HD_Y5 HD_Y6 HD_Y7 R529 0 R527 22 HDMI_Y4 HDMI_Y5 HDMI_Y6 HDMI_Y7

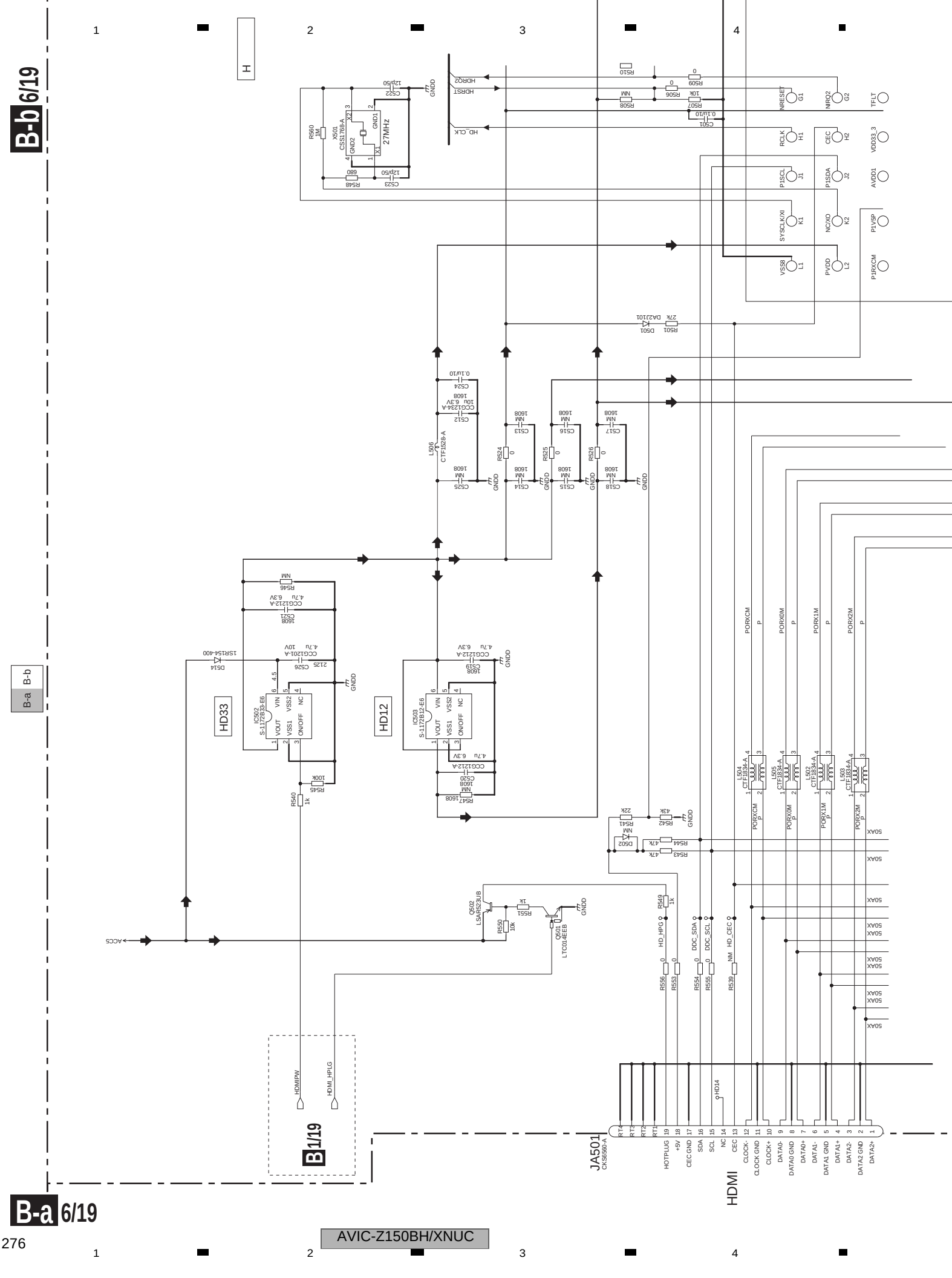
HD_VD R559 0 R536 22 HDMI_VD

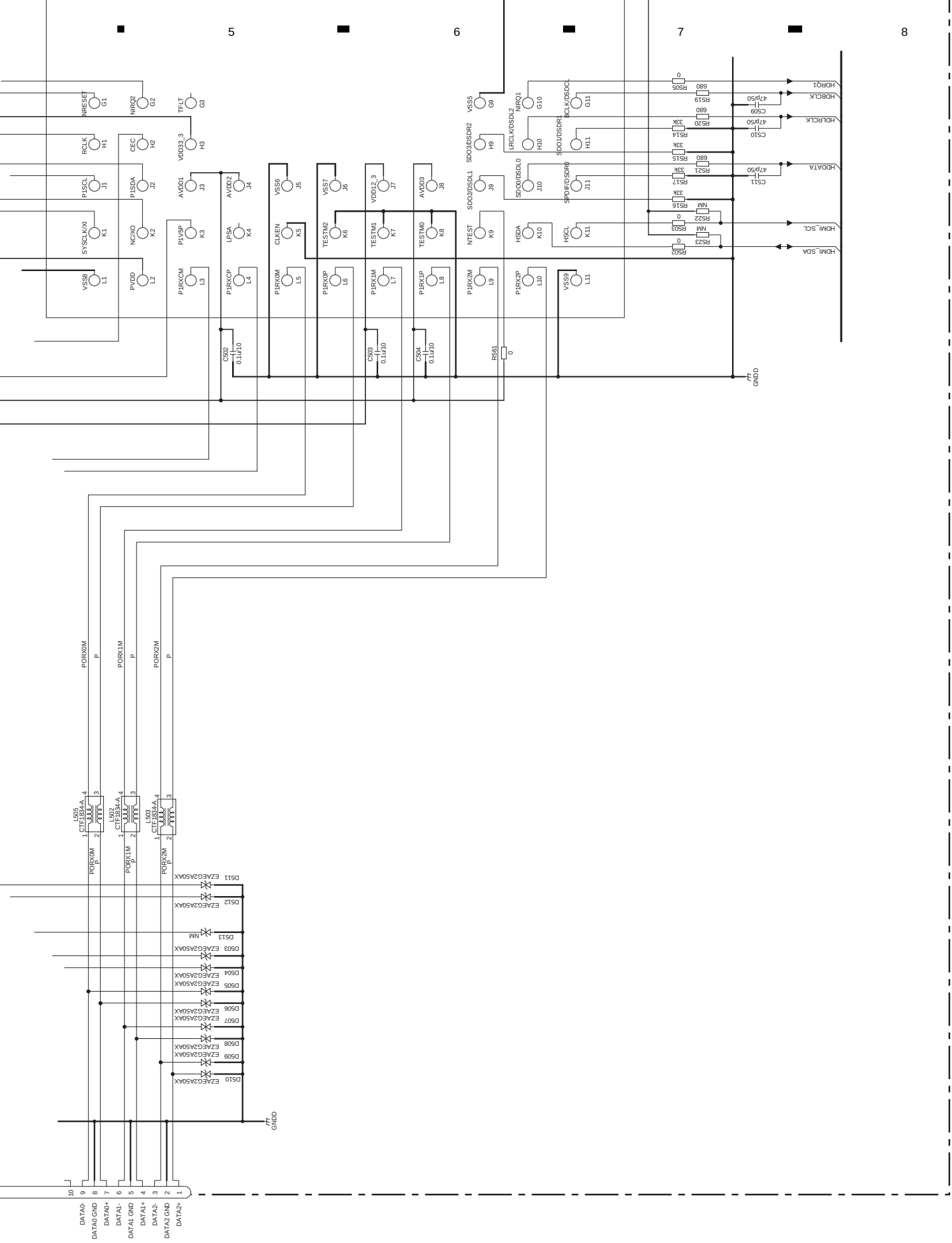
HD_HD R558 0 R537 22 HDMI_HD

HD_FLD R557 0 R538 22 HDMI_FLD

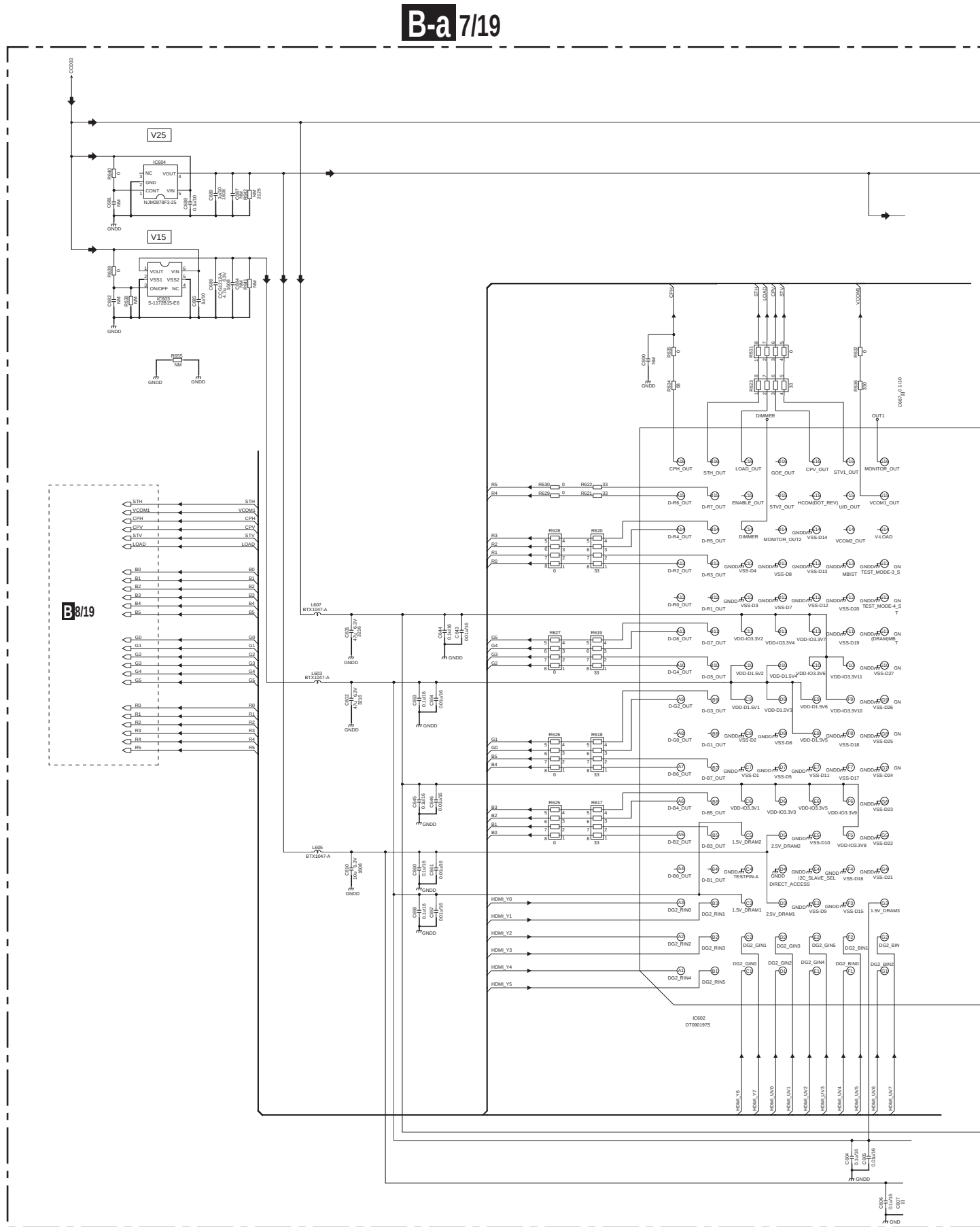
B 7/19


IC501
MN864779KT
RCLK H1
NRESET G1
Q34 F1
Q32 E1
Q30 D1
Q28 C1
Q27 B1
VSS1 A1
CEC H2
NIRQ2 G2
Q35 F2
Q33 E2
Q31 D2
Q29 C2
Q26 B2
Q25 A2
VDD33_3 H3
TFLT G3
TESTM3 F3
TPIN1 E3
TPIN0 D3
VSS3 C3
Q24 B3
Q23 A3
VDD12_1 C4
Q22 B4
Q21 A4
VDD33_1 C5
Q20 B5
Q19 A5
VDD33_2 C6
Q18 B6
Q17 A6
VSS4 C7
Q16 B7
Q15 A7
VDD12_2 C8
Q14 B8
Q13 A8
SDO3/DSDR2 H9
VSS5 G9
Q3 F9
Q2 E9
Q1 D9
Q0 C9
Q12 B9
Q11 A9
LRCLK/DSDL2 H10
NIRQ1 G10
DE F10
HSYNC E10
Q5 D10
Q7 C10
Q10 B10
Q9 A10
SDO1/DSDR1 H11
BCLK/DSDCL G11
MCLK F11
VSYNC E11
Q4 D11
Q6 C11
Q8 B11
VSS2 A11
C505 0.1u/10
C506 0.1u/10
C507 0.1u/10
HD_Y0
HD_Y1
HD_Y2
HD_Y3
HD_Y4
HD_Y5
HD_Y6
HD_Y7
HD_VD
HD_HD
HD_FLD
R559 0
R558 0
R557 0
R536 22
R537 22
R538 22
HD_VD
HD_HD
HD_DE
HDMI_VD
HDMI_HD
HDMI_FLD
HDRQ2
HDMCLK
HDBCLK
HDLRCLK
HDDATA
HDRQ2
HDMCLK
HDBCLK
HDLRCLK
HDDATA
B 4/19
HDRST
HDRQ1
HDMI_SDA
HDMI_SCL
HDSDA
HDSCL
HDRST
HDRQ1
HDMI_SDA
HDMI_SCL
B 1/19
AVIC-Z150BH/XNUC
33k
R515 33k
R514 33k
680
R520 680
R519 680
R505 0
L501 VTL1126-A
R518 100
47p/50
C510 47p/50
C509 47p/50
C508 47p/50
HDDATA
HDLRCLK
HDBCLK
HDRQ1
HDMCLK
HD_FLD
HD_VD
HD_HD
501 - 600

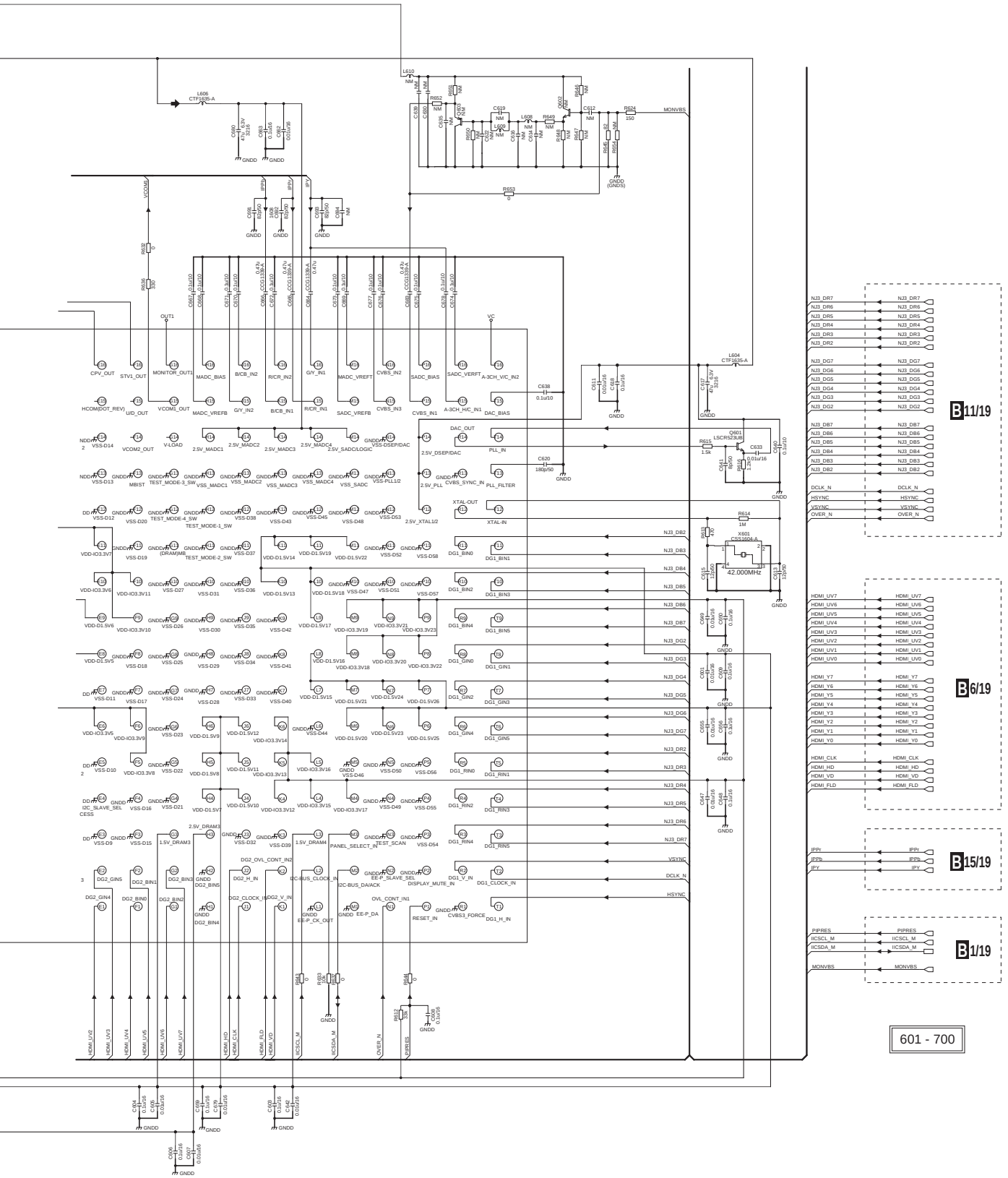

B-b 6/19
B-a 6/19
B1/19
HD33
HD12
JA501
HDMI
27MHz
X501
CSS1768-A
IC502
S-1172B33-E6
IC503
S-1172B12-E6
Q502
LSAR523UB
Q501
LTC014EEB
L506
CTF1528-A
L504
CTF1834-A
L505
CTF1834-A
L502
CTF1834-A
L503
CTF1834-A
NRESET
NIRQ2
TFLT
RCLK
CEC
VDD33_3
P1SCL
P1SDA
AVDD1
SYSCLK/XI
NC/XO
P1V5P
VSS8
PVDD
P1RXCM
HDRQ2
HDRST
HD_CLK
HDMIPW
HDMI_HPLG
HD_HPG
DDC_SDA
DDC_SCL
HD_CEC
PORXCM
PORX0M
PORX1M
PORX2M
ACC5
GNDD
50AX
HOTPLUG
+5V
CEC GND
SDA
SCL
NC
CEC
CLOCK-
CLOCK GND
CLOCK+
DATA0-
DATA0 GND
DATA0+
DATA1-
DATA1 GND
DATA1+
DATA2-
DATA2 GND
DATA2+


5
6
7
8
NRESET G1
NIRQ2 G2
TFLT G3
RCLK H1
CEC H2
VDD33_3 H3
P1SCL J1
P1SDA J2
AVDD1 J3
AVDD2 J4
VSS6 J5
VSS7 J6
VDD12_3 J7
AVDD3 J8
SYSCLK/XI K1
NC/XO K2
P1VGP K3
LPSA K4
CLKEN K5
TESTM2 K6
TESTM1 K7
TESTM0 K8
NTEST K9
HSDA K10
HSCL K11
VSS8 L1
PVDD L2
P1IRXCM L3
P1IRXCP L4
P1IRX0M L5
P1IRX0P L6
P1IRX1M L7
P1IRX1P L8
P1IRX2M L9
P1IRX2P L10
VSS9 L11
VSS5 G9
NIRQ1 G10
BCLK/DSDCL G11
LRCLK/DSDL2 H10
SDO1/DSDR1 H11
SDO3/DSDR2 H9
SDO2/DSDL1 J9
SDO0/DSDL0 J10
SPDIF/DSDR0 J11
R506 0
R519 680
C509 47µ/50
R520 680
C510 47µ/50
R514 33k
R515 680
C511 47µ/50
R517 33k
R521 33k
R516 33k
R522 0
R503 NM
R523 0
R502 0
HDRQ1
HDBCLK
HDLRCLK
HDDATA
HDMI_SCL
HDMI_SDA
C502 0.1u/10
C503 0.1u/10
C504 0.1u/10
R561 0
GNDD
L505 CTF1834-A
L502 CTF1834-A
L503 CTF1834-A
PORX0M
PORX1M
PORX2M
D511 EZAEG2A50AX
D512 EZAEG2A50AX
D513 NM
D503 EZAEG2A50AX
D504 EZAEG2A50AX
D505 EZAEG2A50AX
D506 EZAEG2A50AX
D507 EZAEG2A50AX
D508 EZAEG2A50AX
D509 EZAEG2A50AX
D510 EZAEG2A50AX
GNDD
10
9 DATA0-
8 DATA0 GND
7 DATA0+
6 DATA1-
5 DATA1 GND
4 DATA1+
3 DATA2-
2 DATA2 GND
1 DATA2+

10.26 NAVI UNIT (SERVICE) (GRAPHIC IC SECTION) (GUIDE PAGE)



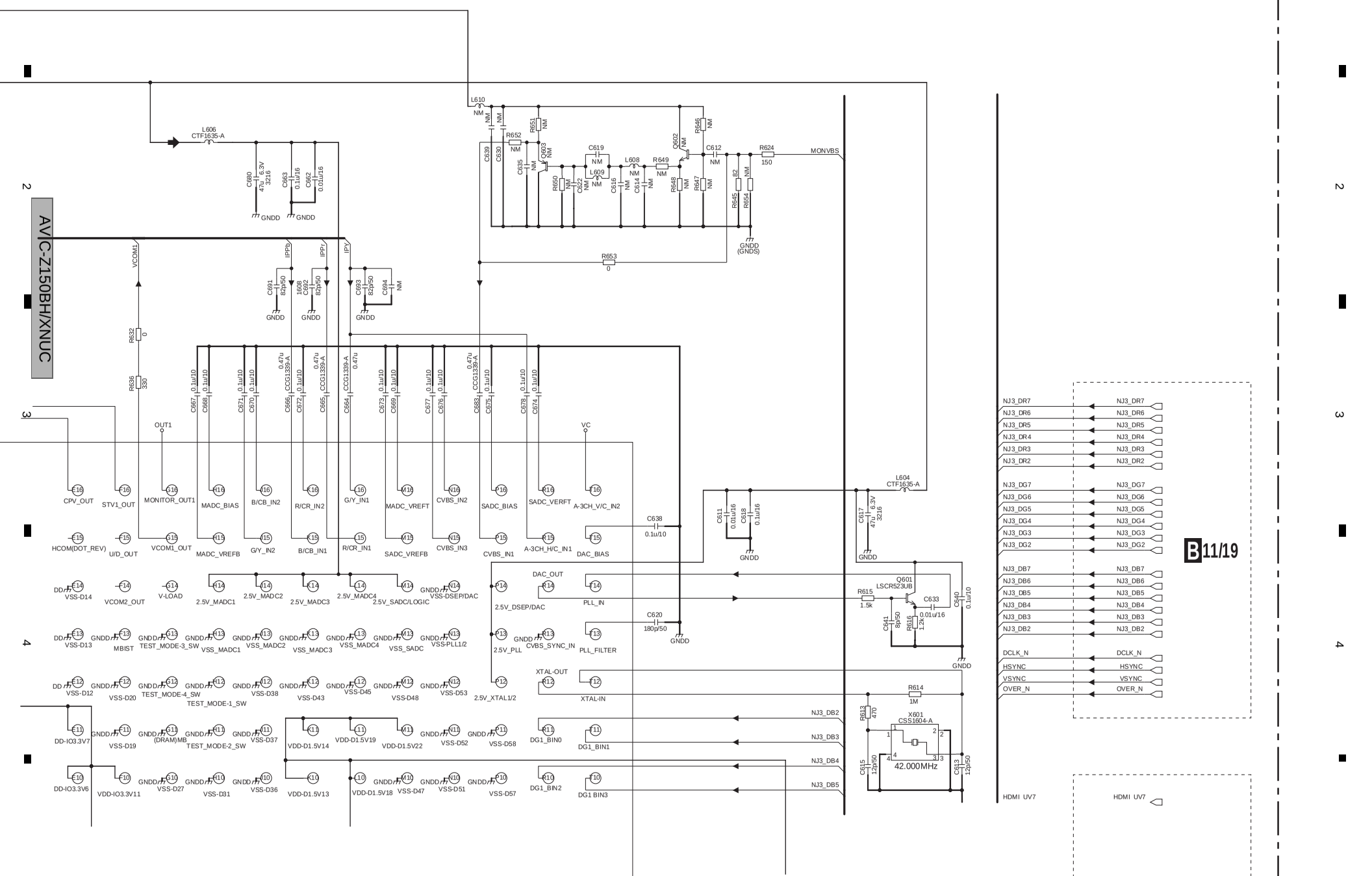
B 7/19 NAVI UNIT(SERVICE)
(GRAPHIC IC SECTION)

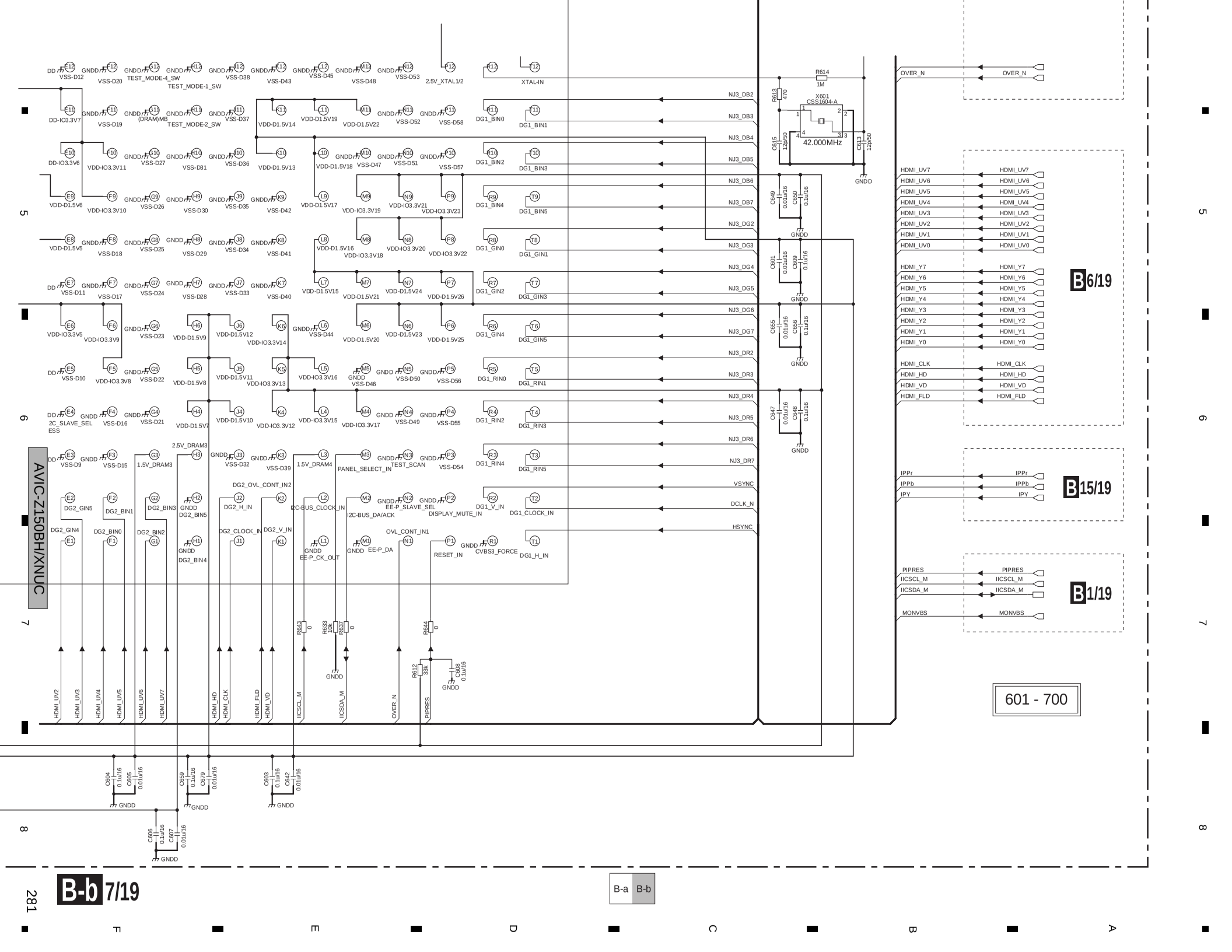


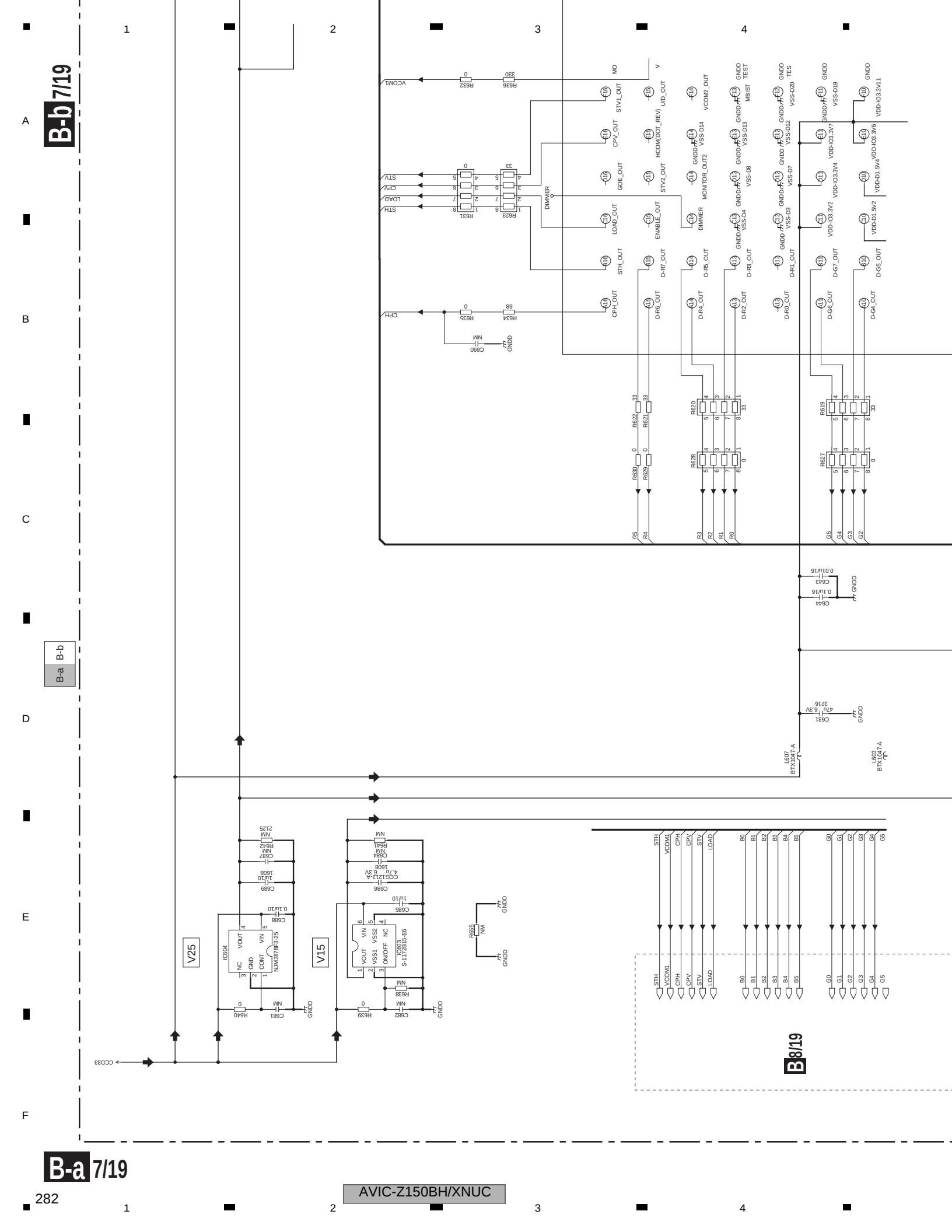
B 11/19
B 6/19
B 15/19
B 1/19
601 - 700

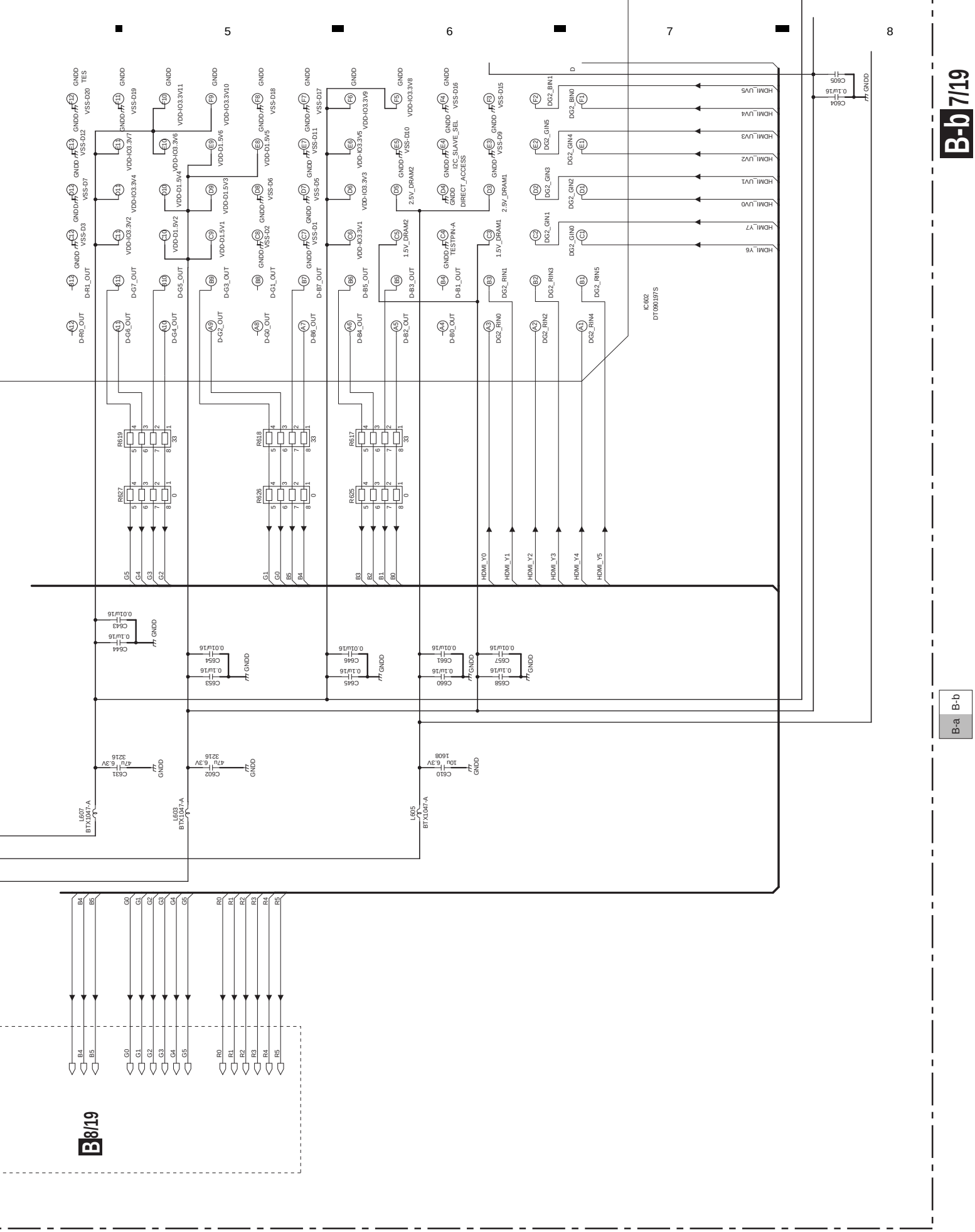
B 7/19 NAVI UNIT(SERVICE) (GRAPHIC IC SECTION)

AVIC-Z150BH/XNUC



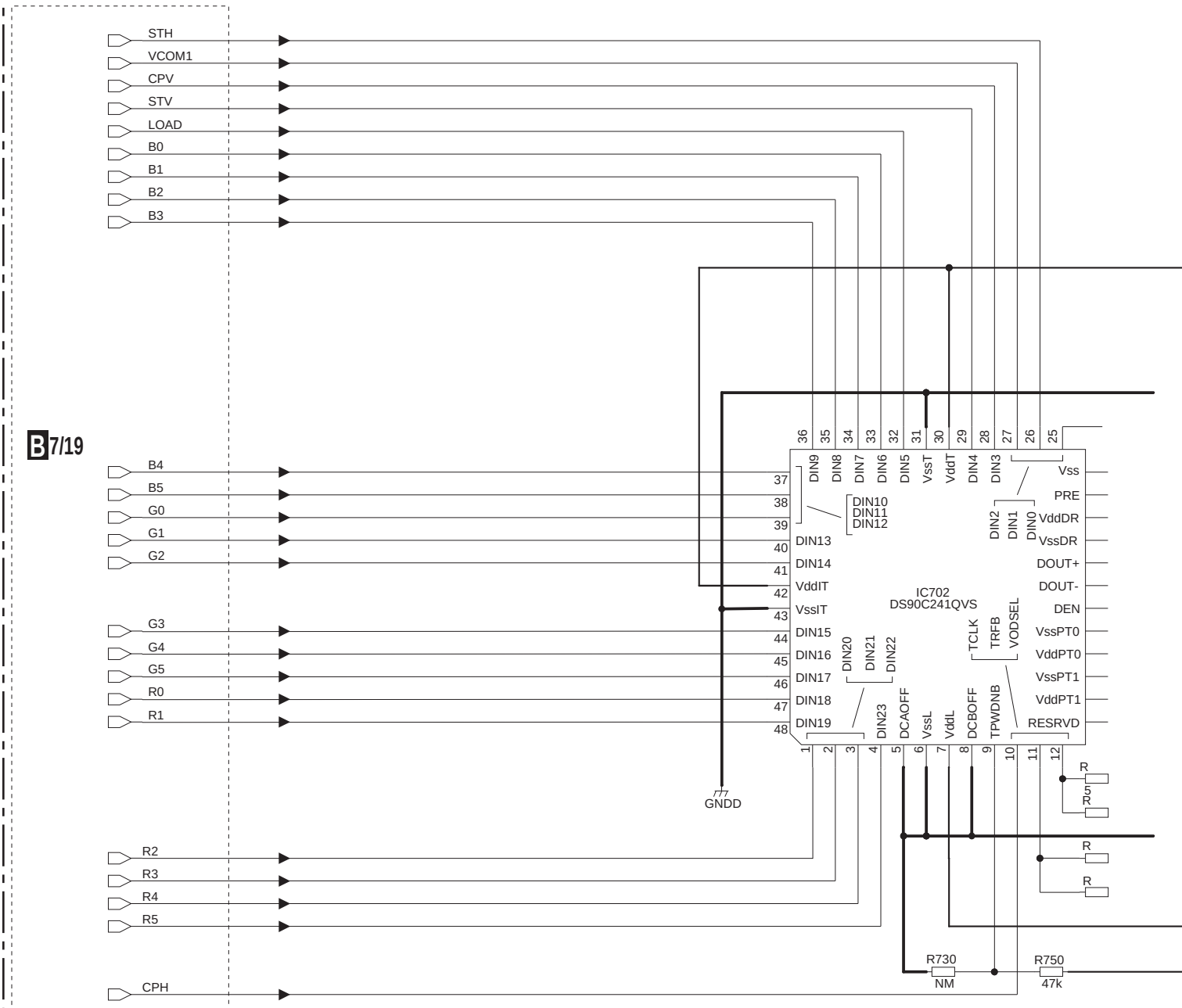

AVIC-Z150BH/XNUC
B-b 7/19
B-a B-b
601 - 700
B6/19
B15/19
B1/19
X601
CSS1604-A
42.000MHz
R614
1M
R613
470
C615
12p50
C613
12p50
C649
C650
C601
C609
C655
C656
C647
C648
C604
C605
C659
C679
C603
C642
C606
C607
R643
R633
10k
R637
R644
R612
33k
C608
OVER_N
HDMI_UV7
HDMI_UV6
HDMI_UV5
HDMI_UV4
HDMI_UV3
HDMI_UV2
HDMI_UV1
HDMI_UV0
HDMI_Y7
HDMI_Y6
HDMI_Y5
HDMI_Y4
HDMI_Y3
HDMI_Y2
HDMI_Y1
HDMI_Y0
HDMI_CLK
HDMI_HD
HDMI_VD
HDMI_FLD
IPPr
IPPb
IPY
PIPRES
IICSCL_M
IICSDA_M
MONVBS
NJ3_DB2
NJ3_DB3
NJ3_DB4
NJ3_DB5
NJ3_DB6
NJ3_DB7
NJ3_DG2
NJ3_DG3
NJ3_DG4
NJ3_DG5
NJ3_DG6
NJ3_DG7
NJ3_DR2
NJ3_DR3
NJ3_DR4
NJ3_DR5
NJ3_DR6
NJ3_DR7
VSYNC
DCLK_N
HSYNC
XTAL-IN
2.5V_XTAL1/2
DG1_BIN0
DG1_BIN1
DG1_BIN2
DG1_BIN3
DG1_BIN4
DG1_BIN5
DG1_GIN0
DG1_GIN1
DG1_GIN2
DG1_GIN3
DG1_GIN4
DG1_GIN5
DG1_RIN0
DG1_RIN1
DG1_RIN2
DG1_RIN3
DG1_RIN4
DG1_RIN5
DG1_V_IN
DG1_CLOCK_IN
DG1_H_IN
DG2_GIN5
DG2_BIN1
DG2_BIN3
DG2_BIN5
DG2_H_IN
DG2_OVL_CONT_IN2
I2C-BUS_CLOCK_IN
I2C-BUS_DA/ACK
EE-P_SLAVE_SEL
DISPLAY_MUTE_IN
DG2_GIN4
DG2_BIN0
DG2_BIN2
DG2_BIN4
DG2_CLOCK_IN
DG2_V_IN
EE-P_CK_OUT
EE-P_DA
OVL_CONT_IN1
RESET_IN
CVBS3_FORCE
PANEL_SELECT_IN
TEST_SCAN
2.5V_DRAM3
1.5V_DRAM3
1.5V_DRAM4
2C_SLAVE_SEL
ESS
TEST_MODE-4_SW
TEST_MODE-1_SW
TEST_MODE-2_SW
(DRAM)MB
GNDD
VSS-D12
VSS-D20
VSS-D38
VSS-D43
VSS-D45
VSS-D48
VSS-D53
VSS-D19
VSS-D37
VSS-D52
VSS-D58
VSS-D27
VSS-D31
VSS-D36
VSS-D57
VSS-D26
VSS-D30
VSS-D35
VSS-D42
VSS-D51
VSS-D18
VSS-D25
VSS-D29
VSS-D34
VSS-D41
VSS-D11
VSS-D17
VSS-D24
VSS-D28
VSS-D33
VSS-D40
VSS-D10
VSS-D22
VSS-D46
VSS-D50
VSS-D56
VSS-D9
VSS-D15
VSS-D32
VSS-D39
VSS-D54
VSS-D16
VSS-D21
VSS-D23
VSS-D44
VDD-IO3.3V11
VDD-IO3.3V10
VDD-IO3.3V9
VDD-IO3.3V8
VDD-IO3.3V13
VDD-IO3.3V12
VDD-IO3.3V16
VDD-IO3.3V15
VDD-IO3.3V17
VDD-IO3.3V18
VDD-IO3.3V19
VDD-IO3.3V21
VDD-IO3.3V23
VDD-IO3.3V20
VDD-IO3.3V22
VDD-D1.5V14
VDD-D1.5V19
VDD-D1.5V22
VDD-D1.5V13
VDD-D1.5V18
VDD-D1.5V17
VDD-D1.5V16
VDD-D1.5V15
VDD-D1.5V21
VDD-D1.5V26
VDD-D1.5V20
VDD-D1.5V23
VDD-D1.5V25
VDD-D1.5V9
VDD-D1.5V12
VDD-D1.5V8
VDD-D1.5V11
VDD-D1.5V7
VDD-D1.5V10
VDD-IO3.3V14
VDD-IO3.3V3
VDD-IO3.3V6
VDD-IO3.3V5
VDD-D1.5V5
VDD-IO3.3V4
VDD-D1.5V6
VDD-IO3.3V7
VDD-IO3.3V2
VDD-D1.5V4
VDD-IO3.3V1
VDD-D1.5V3
VDD-IO3.3V0
VDD-D1.5V2
VDD-D1.5V1
VDD-D1.5V0
GNDD
(DRAM)MB
HDMI_UV2
HDMI_UV3
HDMI_UV4
HDMI_UV5
HDMI_UV6
HDMI_UV7
HDMI_HD
HDMI_CLK
HDMI_FLD
HDMI_VD
IICSCL_M
IICSDA_M
OVER_N
PIPRES


B-b 7/19
B-a
B-b
B 8/19
V25
V15
IC604
NJM2878F3-25
IC603
S-1172B15-E6
L607
BTX1047-A
L603
BTX1047-A
CCD33
GNDD
DIMMER
VCOM1
STV
CPV
LOAD
STH
CPH
R632
R636
R631
R623
R635
R634
C690
R622
R621
R630
R629
R620
R628
R619
R627
C643
C644
C631
R640
C681
R639
C682
R638
R655
NM
STH
VCOM1
CPH
CPV
STV
LOAD
B0
B1
B2
B3
B4
B5
G0
G1
G2
G3
G4
G5

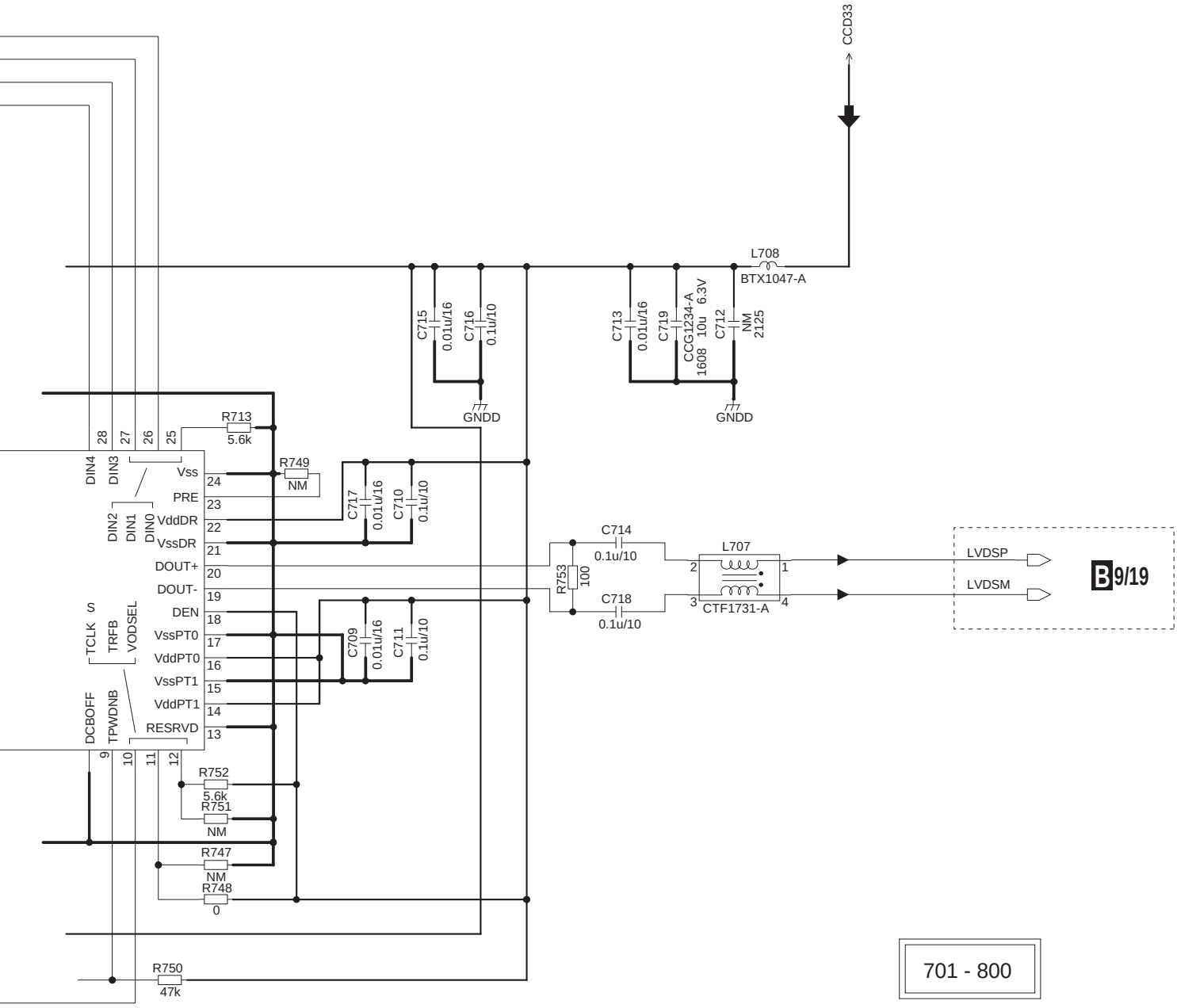


B-b 7/19
B-a B-b
B8/19
IC602
DT09019TS
HDMI_Y0
HDMI_Y1
HDMI_Y2
HDMI_Y3
HDMI_Y4
HDMI_Y5
HDMI_Y6
HDMI_Y7
HDMI_UV0
HDMI_UV1
HDMI_UV2
HDMI_UV3
HDMI_UV4
HDMI_UV5
L607
BTX1047-A
L603
BTX1047-A
L605
BTX1047-A

10.27 NAVI UNIT (SERVICE) (LVDS SECTION)

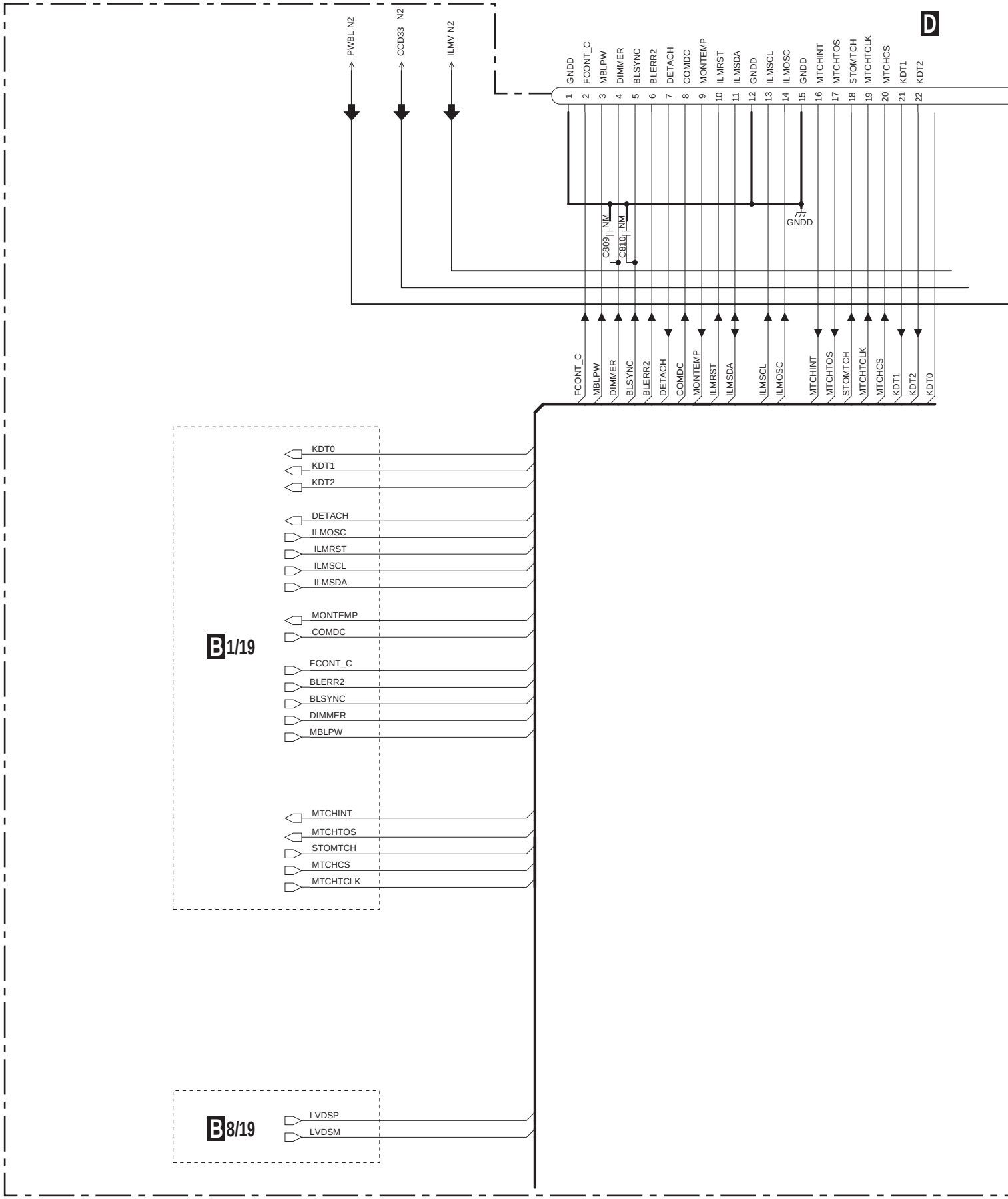


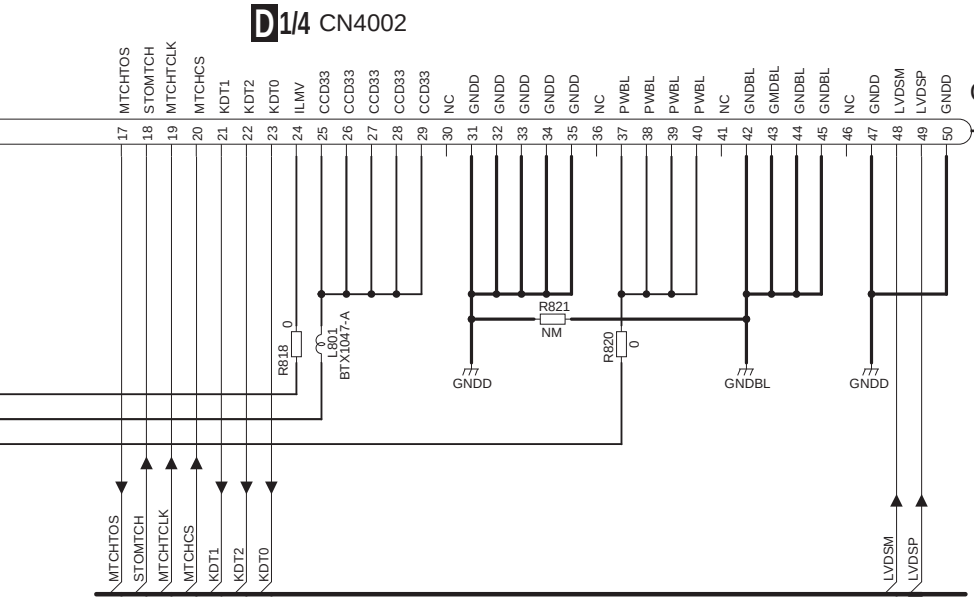
B8/19 NAVI UNIT(SERVICE) (LVDS SECTION)



701 - 800

10.28 NAVI UNIT (SERVICE) (MONITOR_IF SECTION)



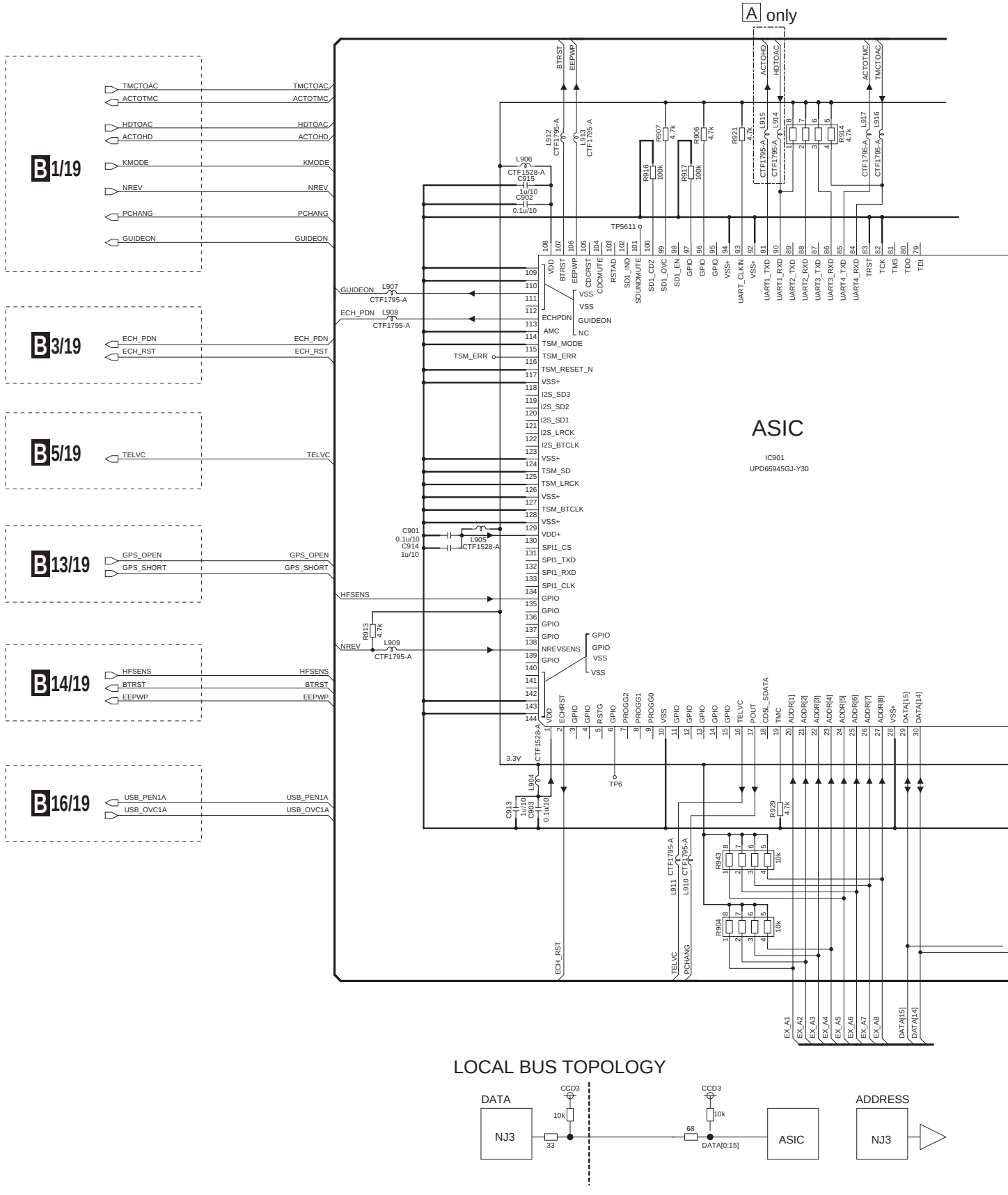


B 9/19 NAVI UNIT(SERVICE)
(MONITOR_IF SECTION)

801 - 900

B 9/19

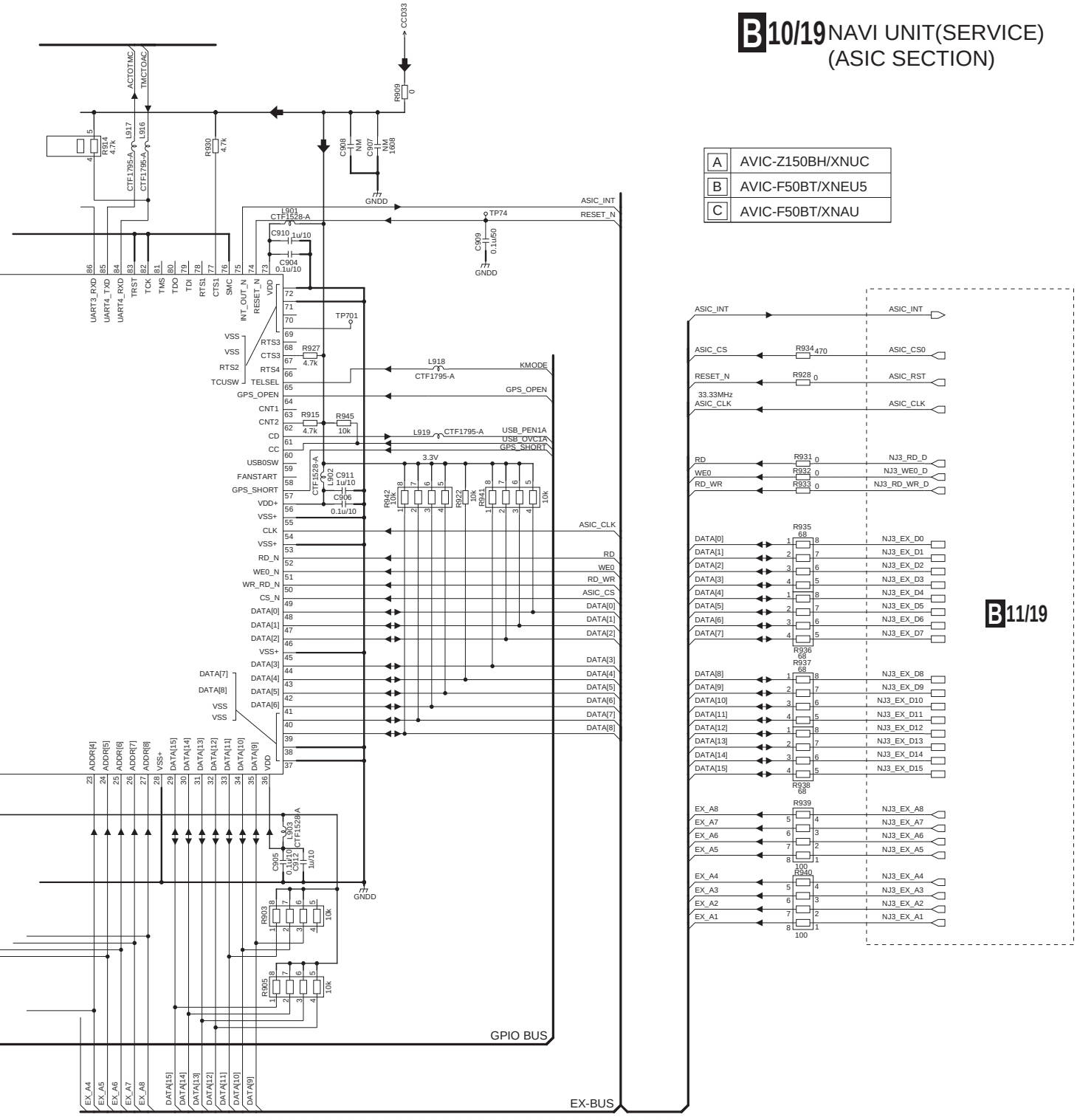
10.29 NAVI UNIT (SERVICE) (ASIC SECTION)



B 10/19

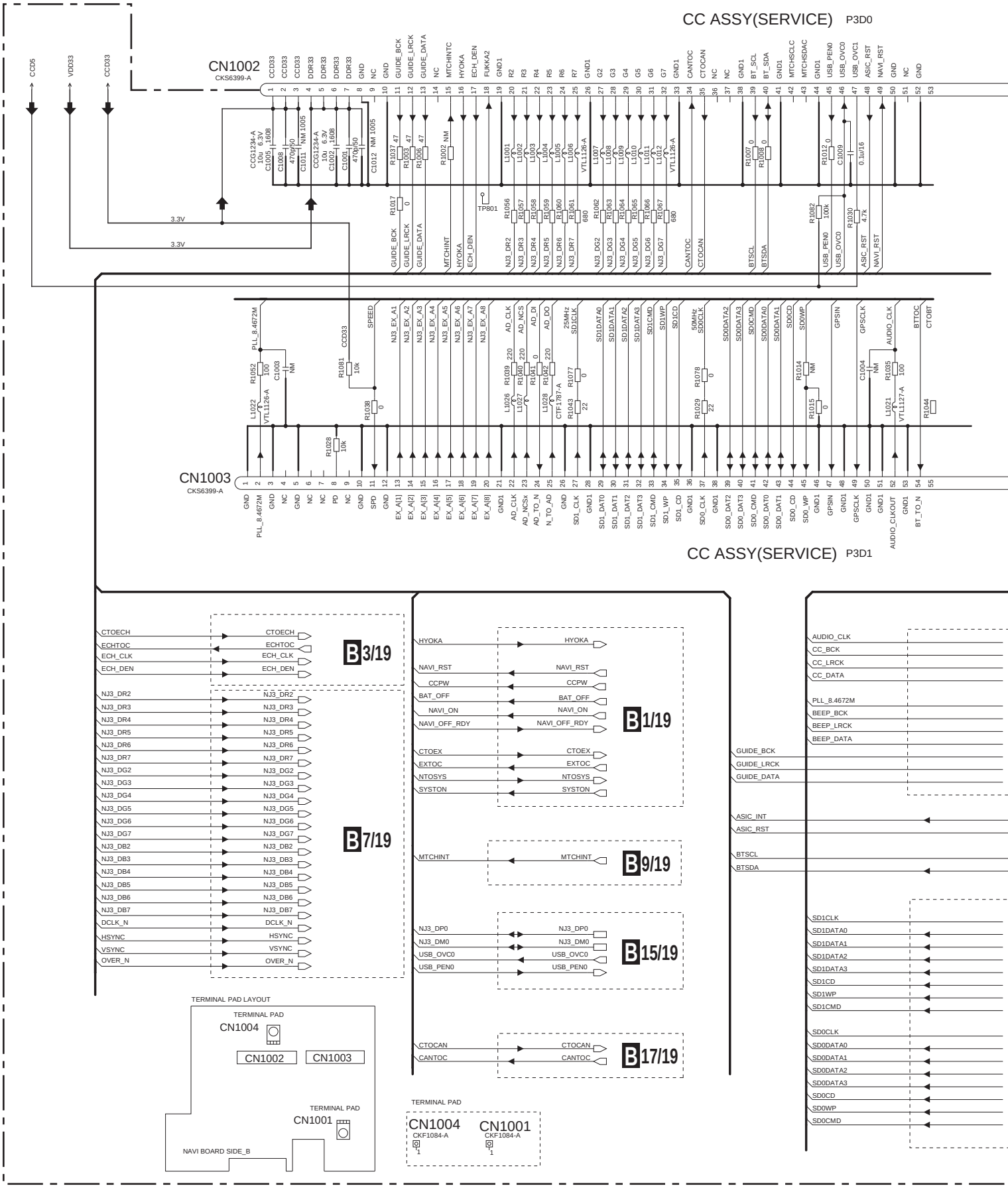
B10/19 NAVI UNIT(SERVICE) (ASIC SECTION)

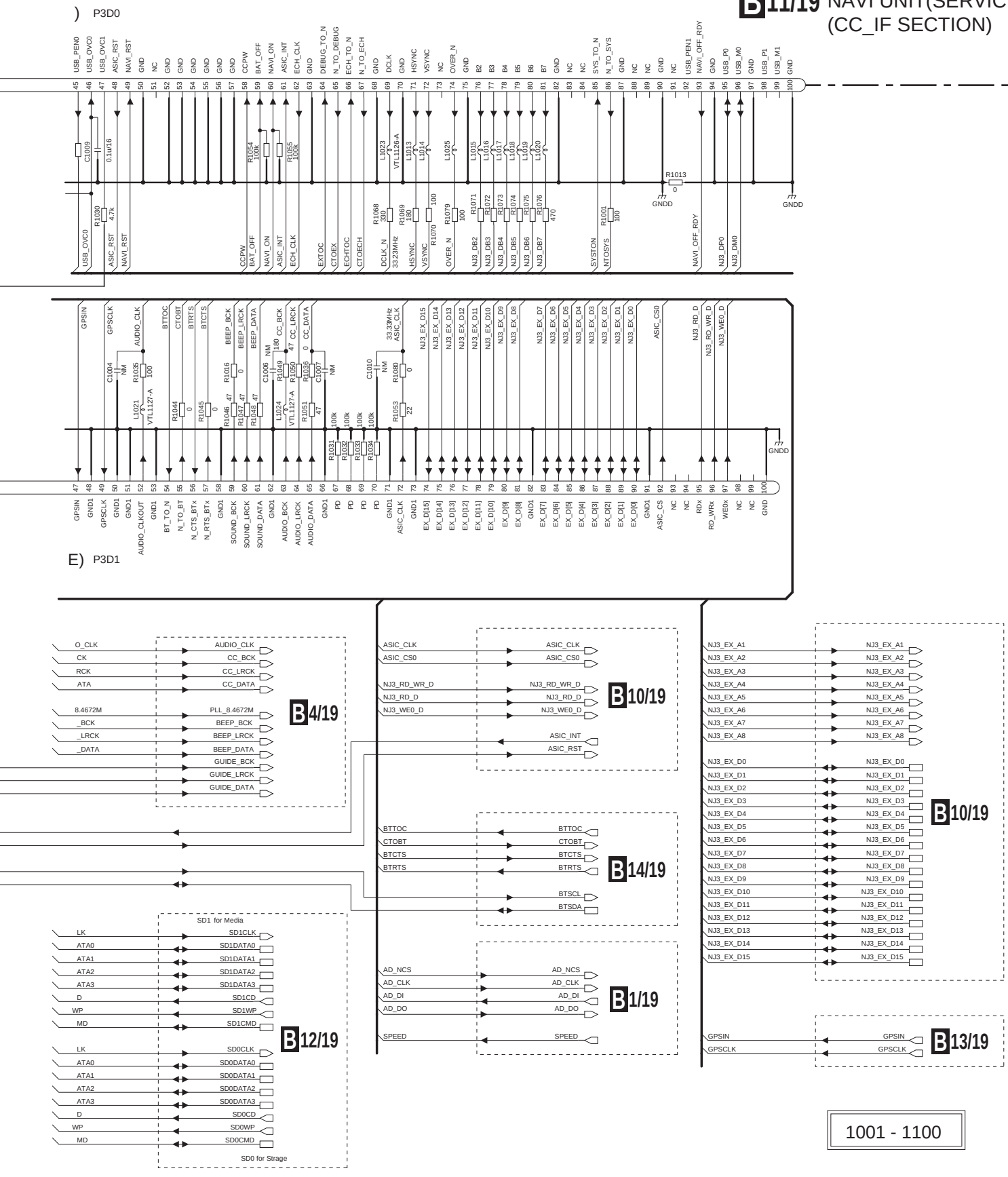
A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



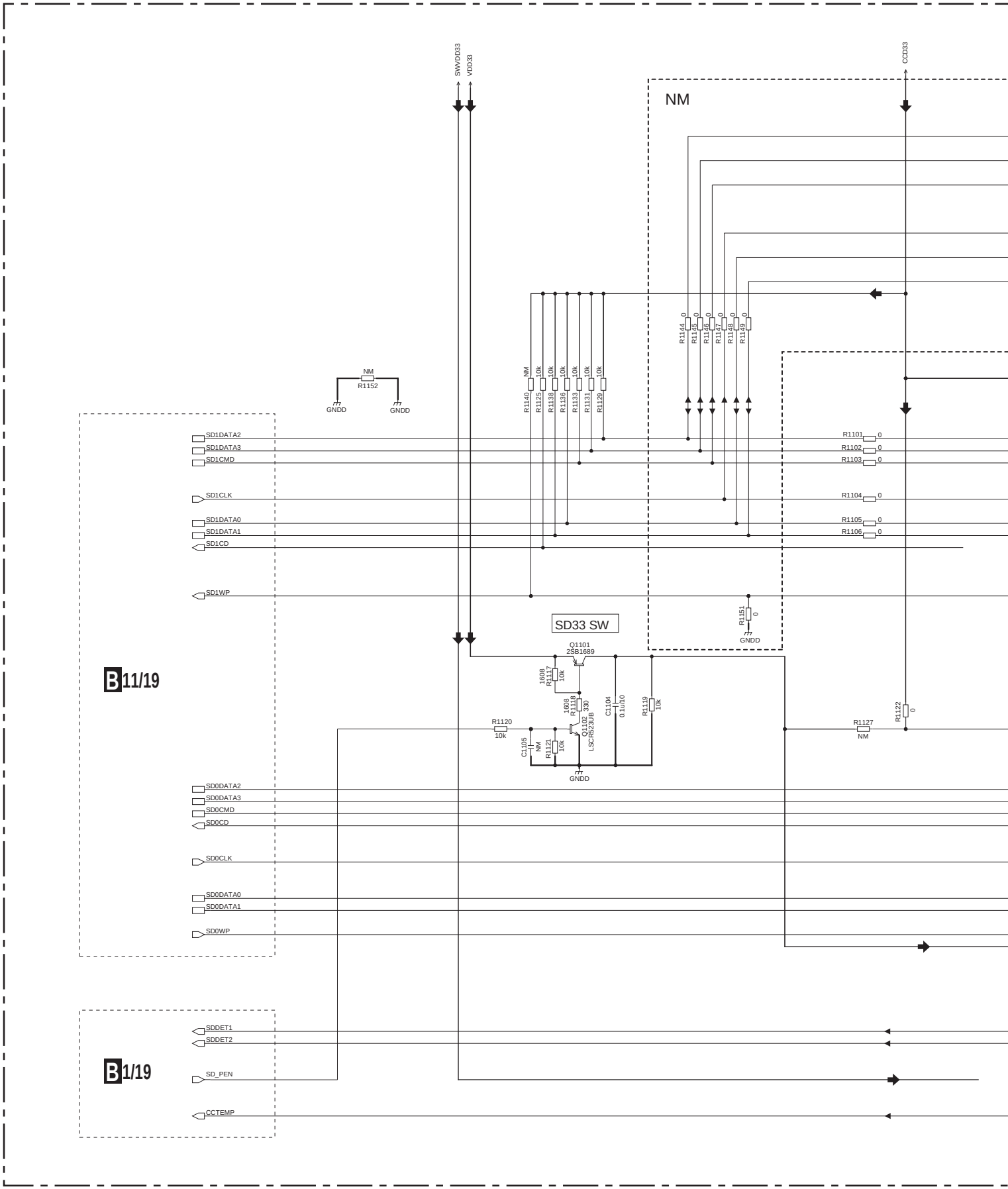
901 - 1000

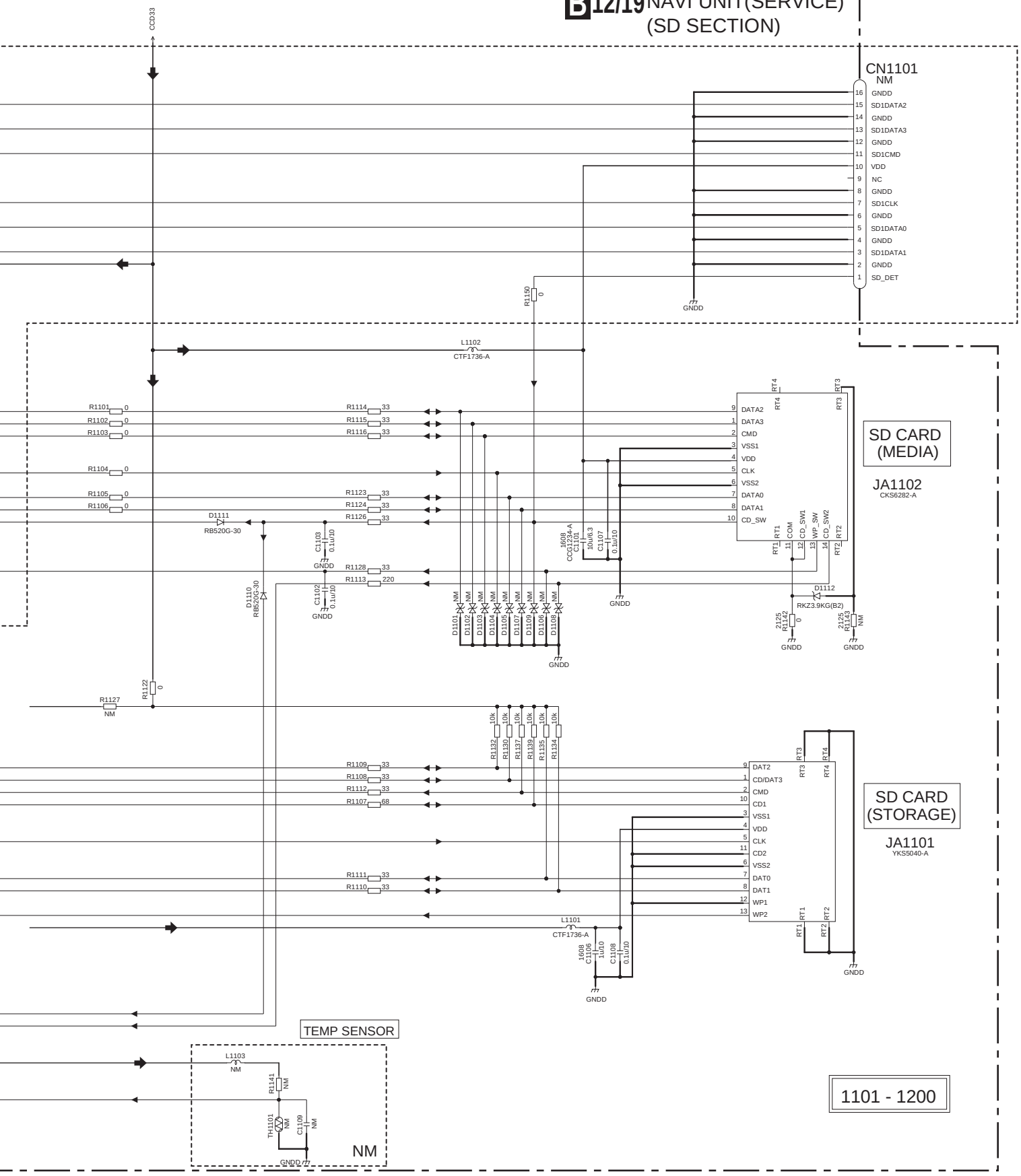
10.30 NAVI UNIT (SERVICE) (CC_IF SECTION)



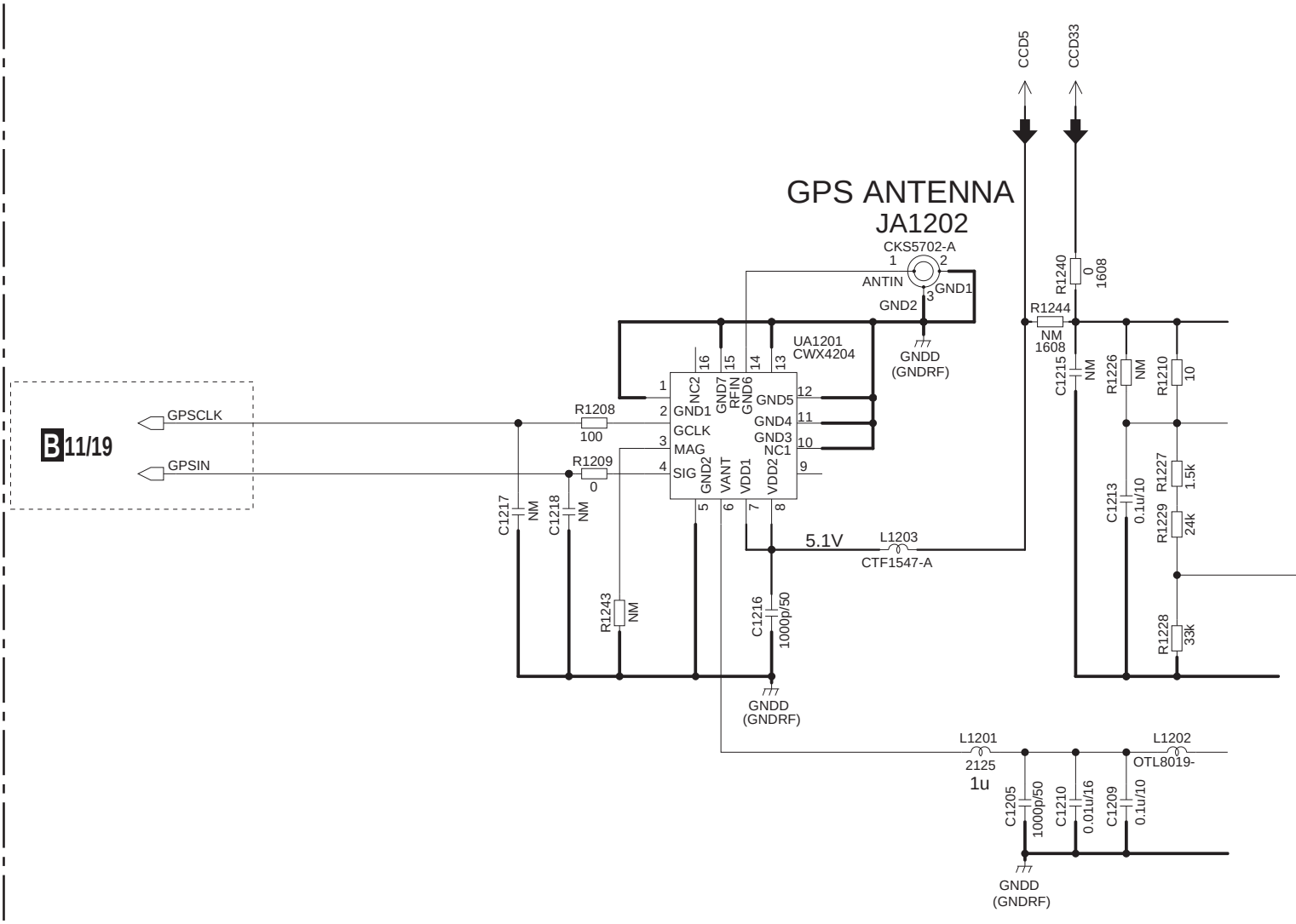

) P3D0
E) P3D1
B4/19
B10/19
B14/19
B1/19
B12/19
B13/19
SD1 for Media
SD0 for Strage
1001 - 1100

10.31 NAVI UNIT (SERVICE) (SD SECTION)



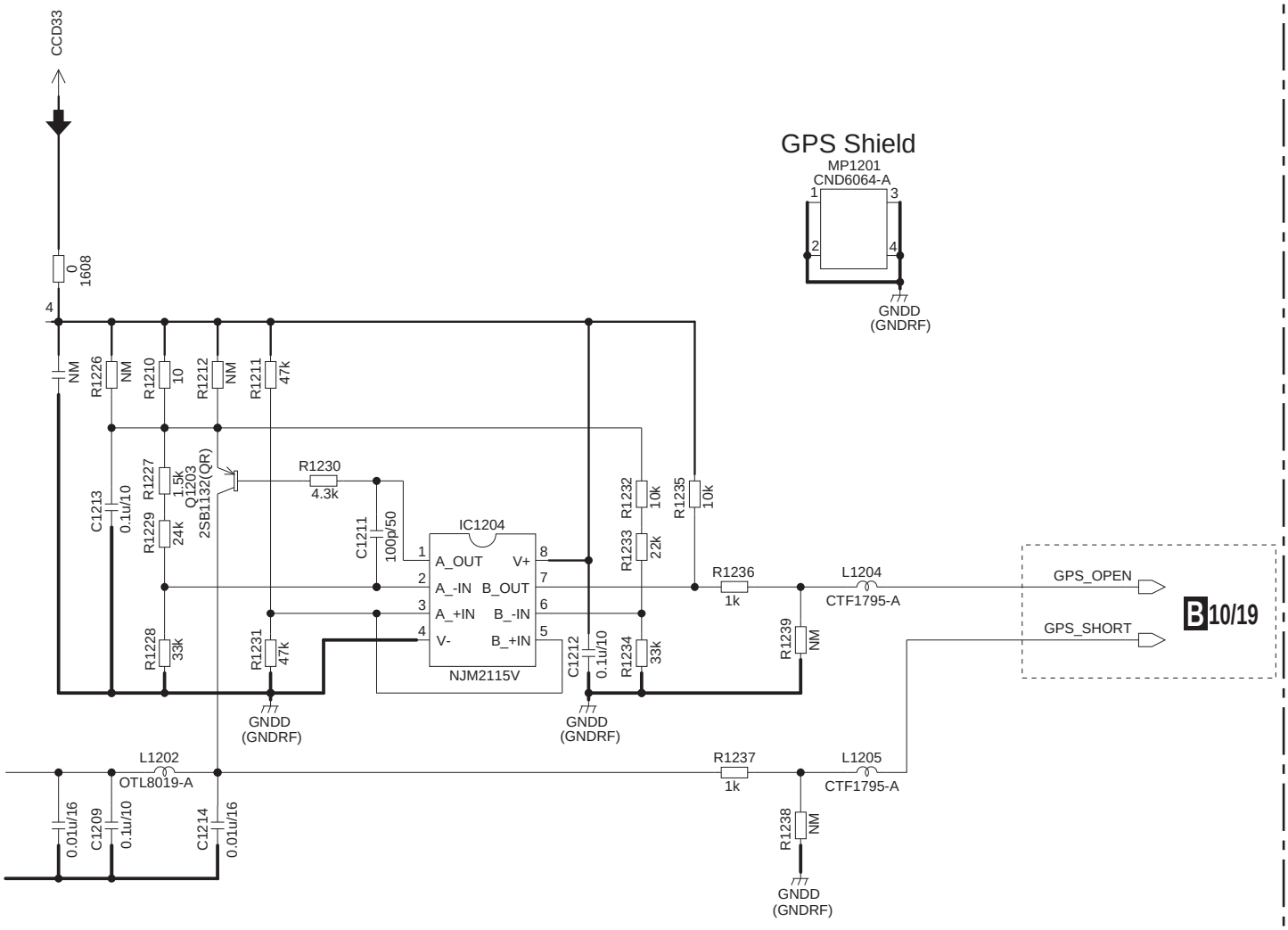

CD33
CN1101
NM
16 GNDD
15 SD1DATA2
14 GNDD
13 SD1DATA3
12 GNDD
11 SD1CMD
10 VDD
9 NC
8 GNDD
7 SD1CLK
6 GNDD
5 SD1DATA0
4 GNDD
3 SD1DATA1
2 GNDD
1 SD_DET
R1150 0
L1102 CTF1736-A
SD CARD (MEDIA)
JA1102
CKS6282-A
DATA2
DATA3
CMD
VSS1
VDD
CLK
VSS2
DATA0
DATA1
CD_SW
D1111 RB520G-30
D1110 RB520G-30
D1112 RKZ3.9KG(B2)
SD CARD (STORAGE)
JA1101
YKS5040-A
DAT2
CD/DAT3
CMD
CD1
VSS1
VDD
CLK
CD2
VSS2
DAT0
DAT1
WP1
WP2
L1101 CTF1736-A
TEMP SENSOR
L1103 NM
R1141 NM
TH1101 NM
C1109 NM
GNDD
1101 - 1200

10.32 NAVI UNIT (SERVICE) (S_GPS SECTION)

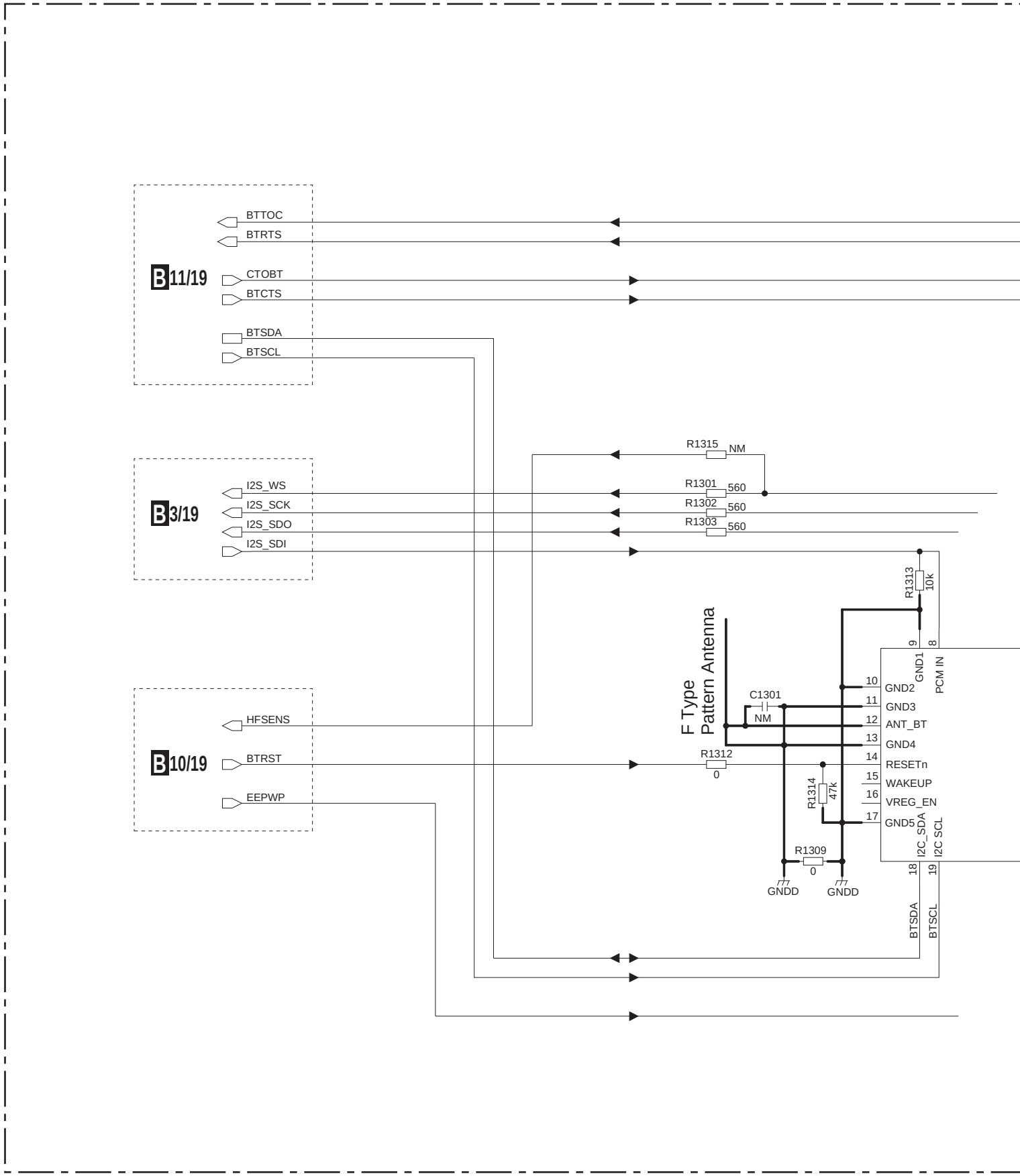


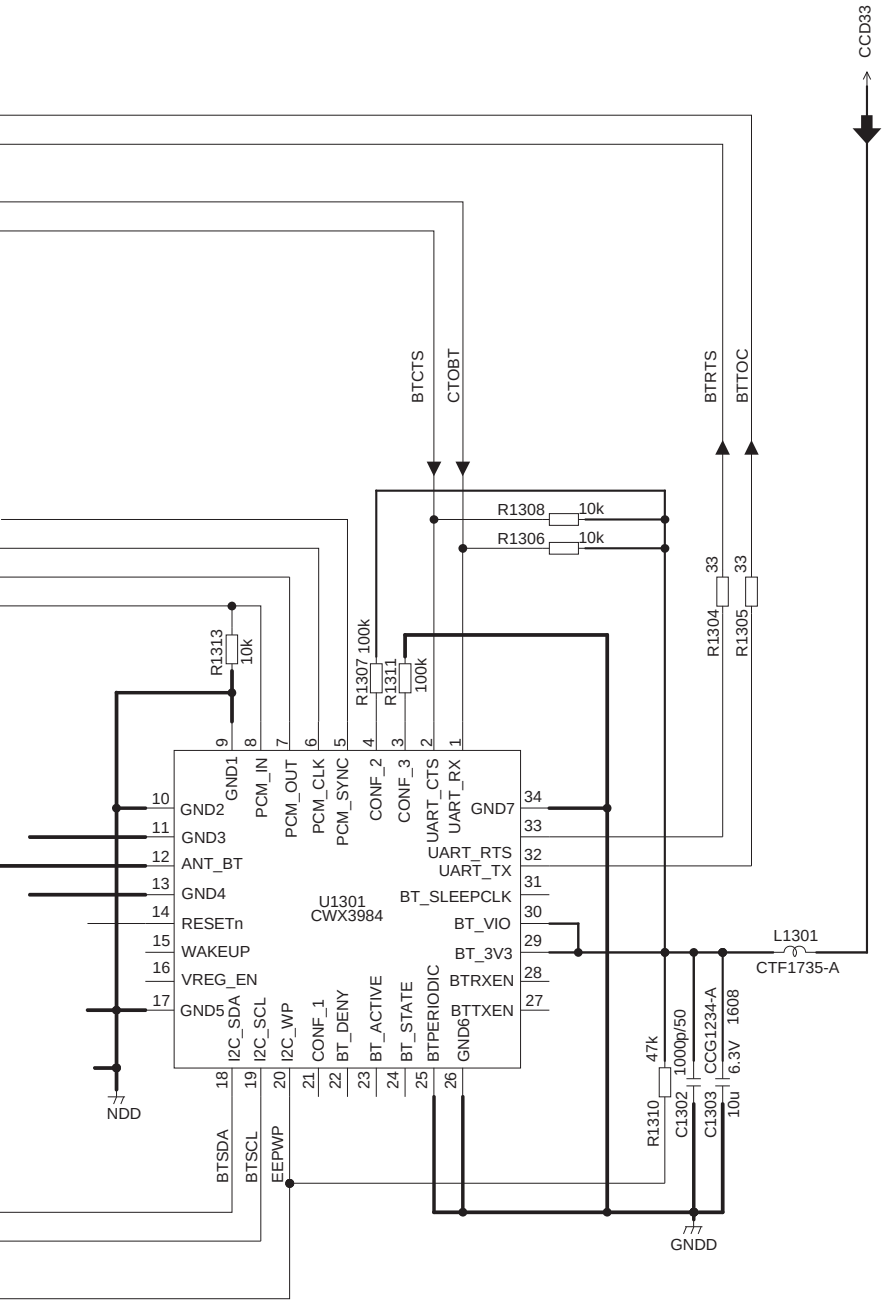
B 13/19

B13/19 NAVI UNIT(SERVICE) (S_GPS SECTION)



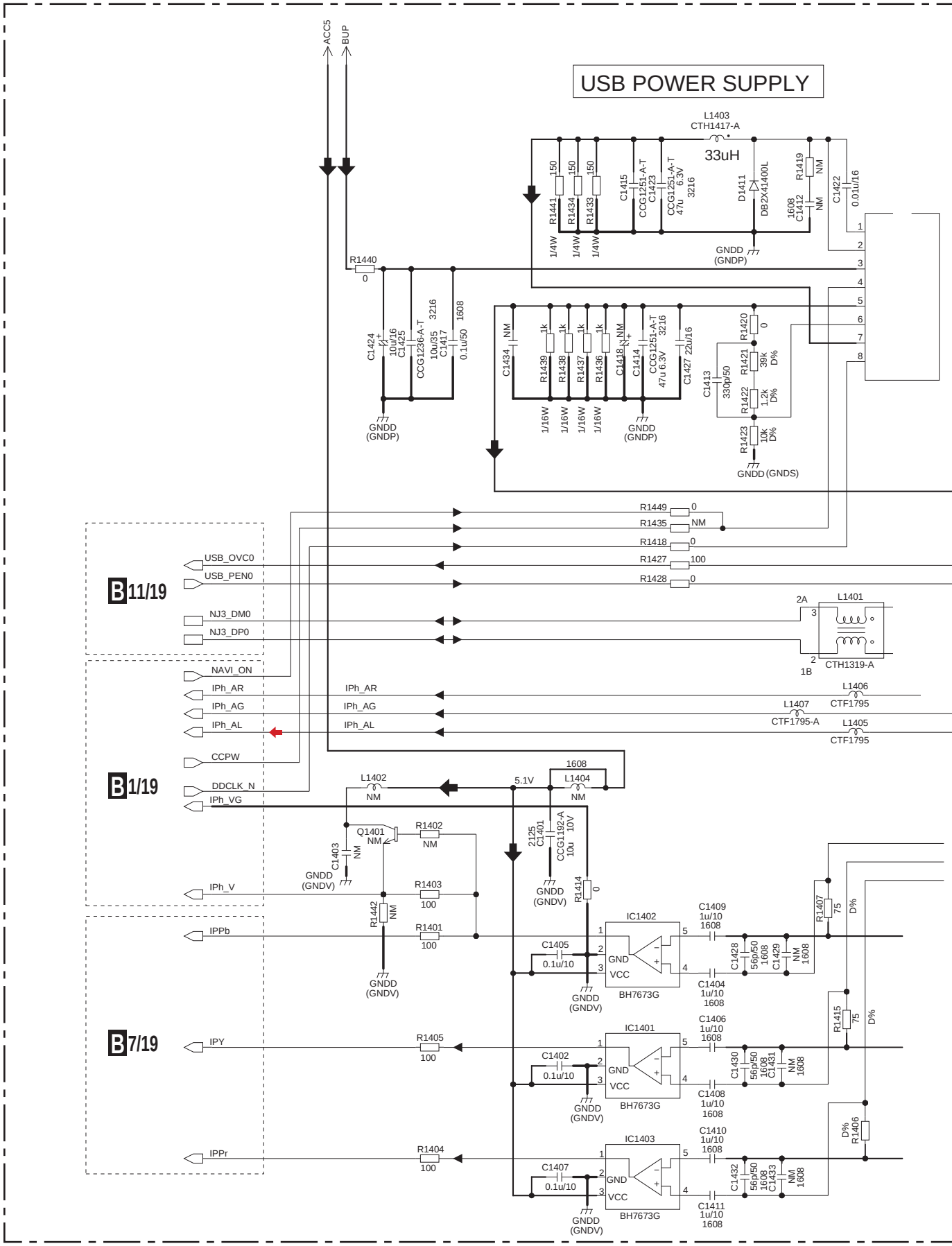
10.33 NAVI UNIT (SERVICE) (BT SECTION)



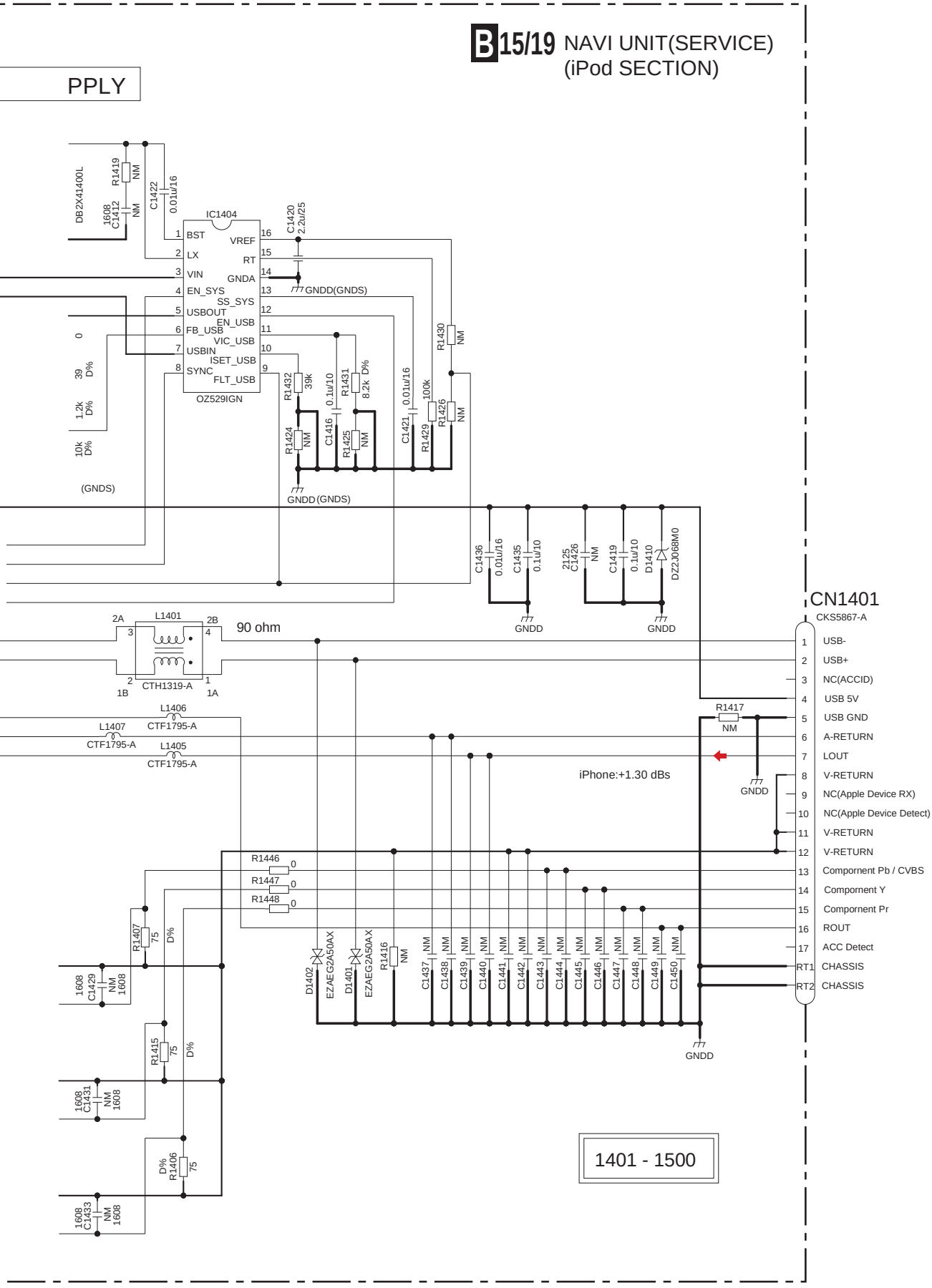

CCD33
BTCTS
CTOBT
BTRTS
BTTOC
R1308 10k
R1306 10k
R1313 10k
R1307 100k
R1311 100k
R1304 33
R1305 33
U1301
CWX3984
GND1
PCM_IN
PCM_OUT
PCM_CLK
PCM_SYNC
CONF_2
CONF_3
UART_CTS
UART_RX
GND2
GND3
ANT_BT
GND4
RESETn
WAKEUP
VREG_EN
GND5
GND7
UART_RTS
UART_TX
BT_SLEEPCLK
BT_VIO
BT_3V3
BTRXEN
BTTXEN
GND6
I2C_SDA
I2C_SCL
I2C_WP
CONF_1
BT_DENY
BT_ACTIVE
BT_STATE
BTPERIODIC
L1301
CTF1735-A
47k
1000p/50
CCG1234-A
1608
6.3V
10u
R1310
C1302
C1303
NDD
GNDD
BTSDA
BTSCL
EEPWP

1301 - 1400

10.34 NAVI UNIT (SERVICE) (iPod SECTION)

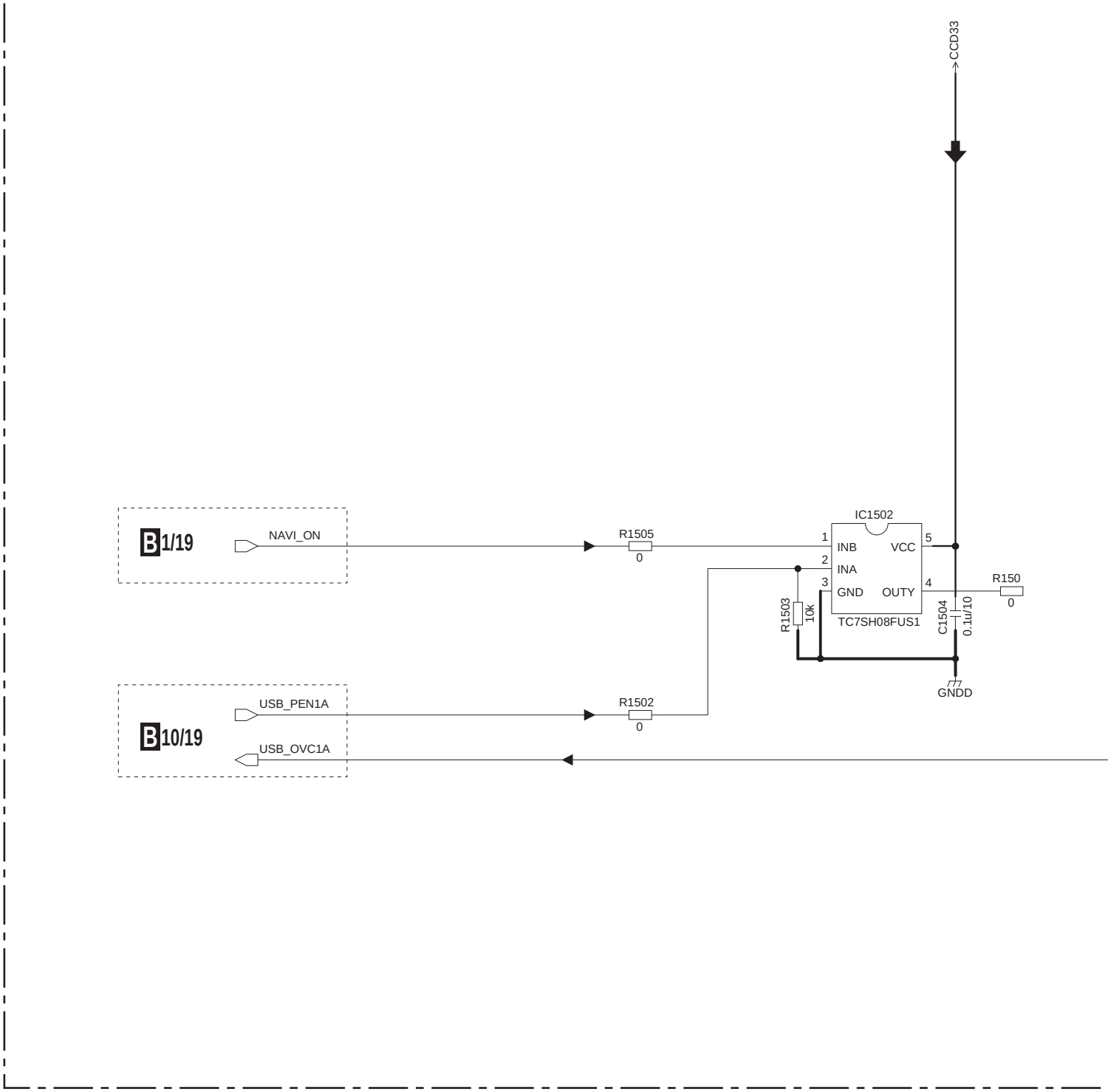


PPLY



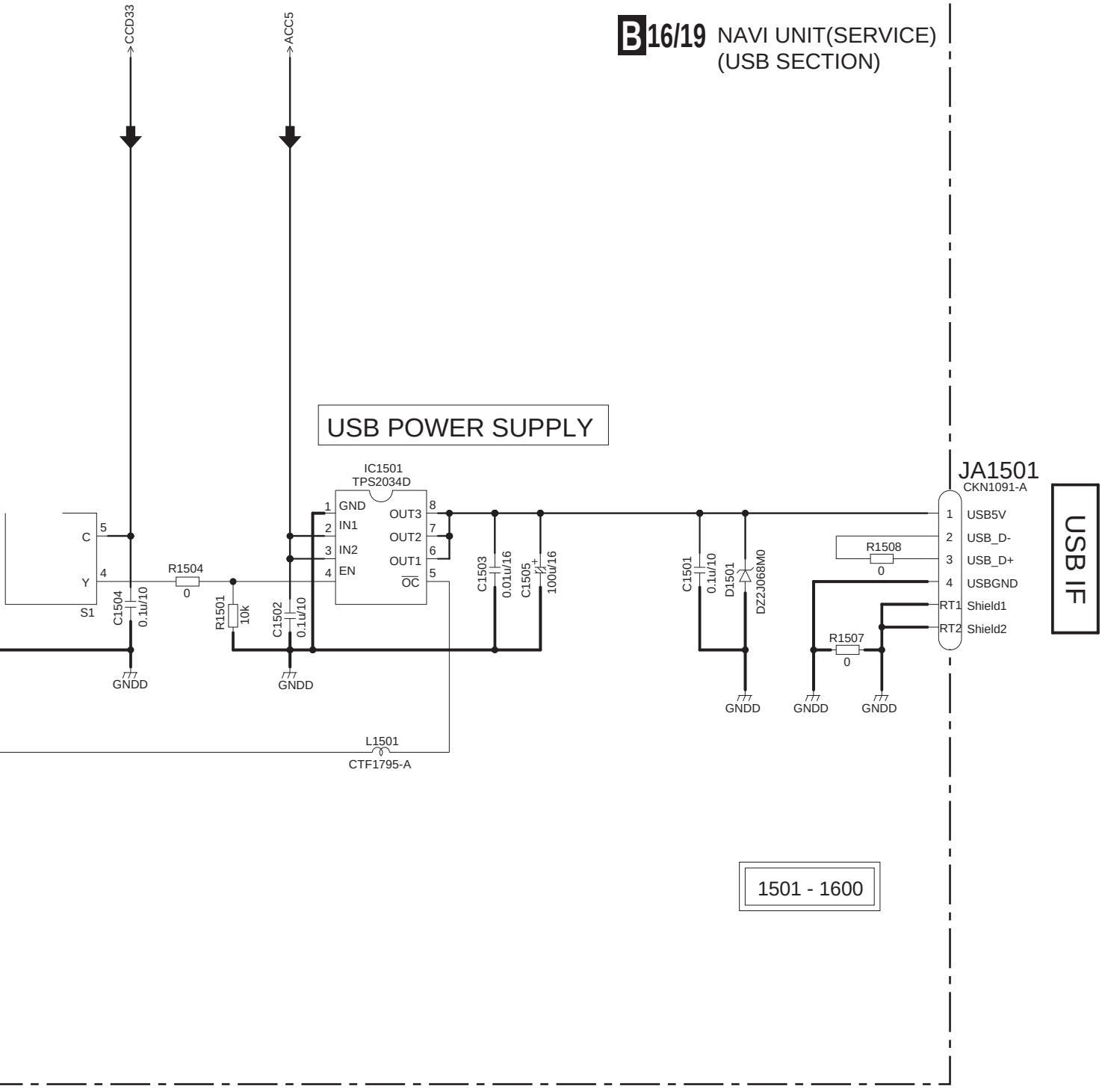
USB/iPod Connector

10.35 NAVI UNIT (SERVICE) (USB SECTION)

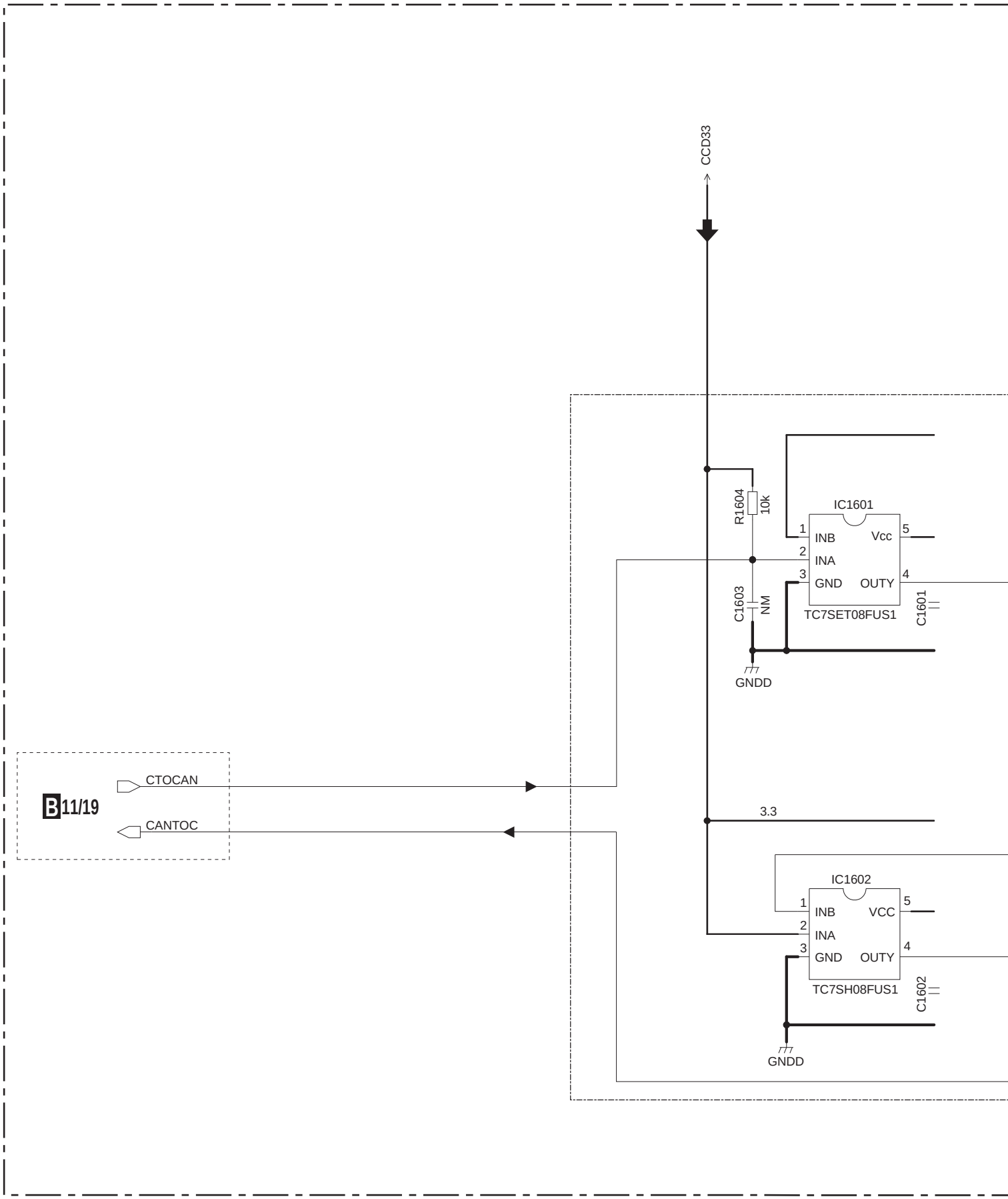


B16/19

B16/19 NAVI UNIT(SERVICE) (USB SECTION)

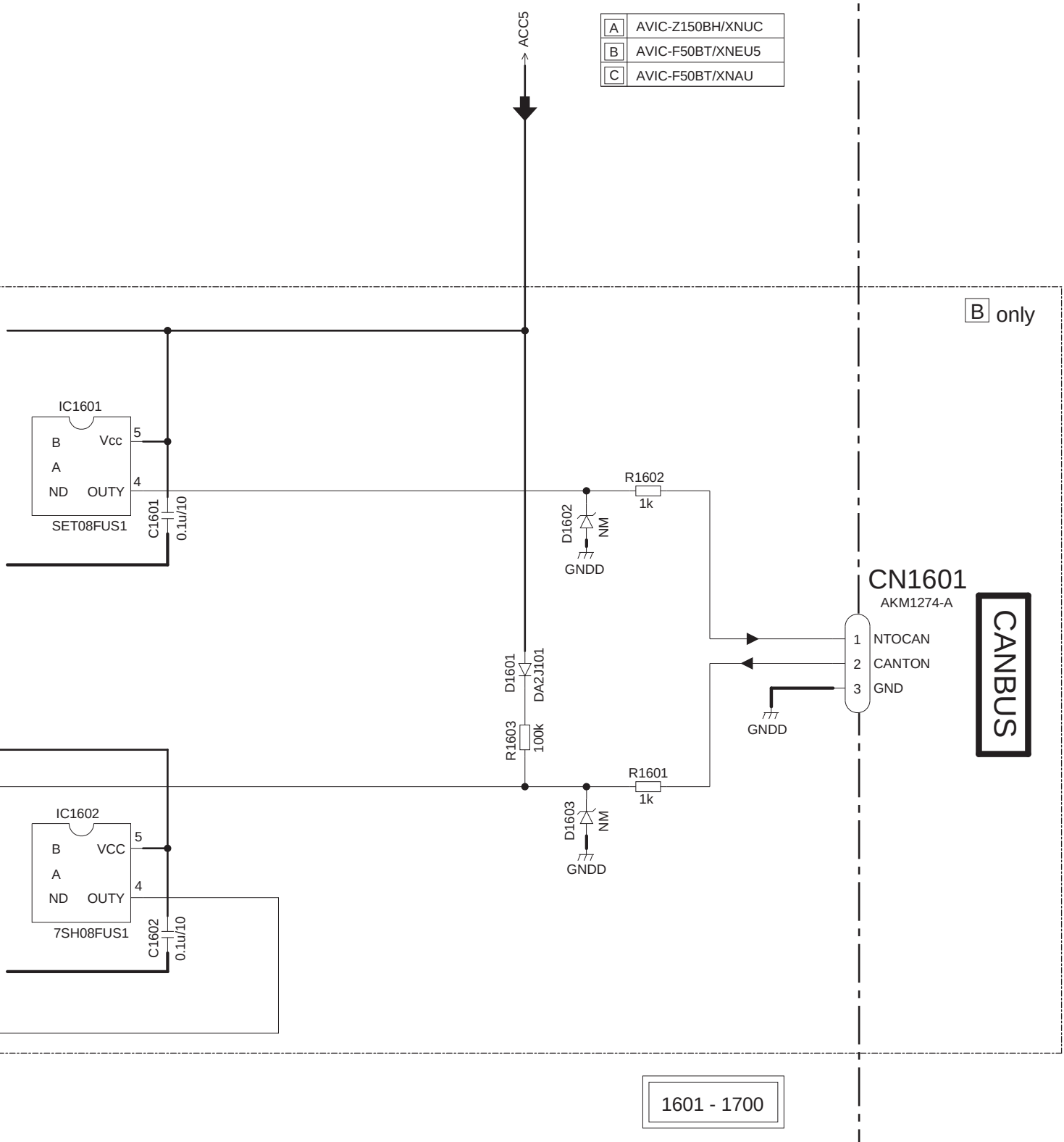


10.36 NAVI UNIT (SERVICE) (CANBUS SECTION)



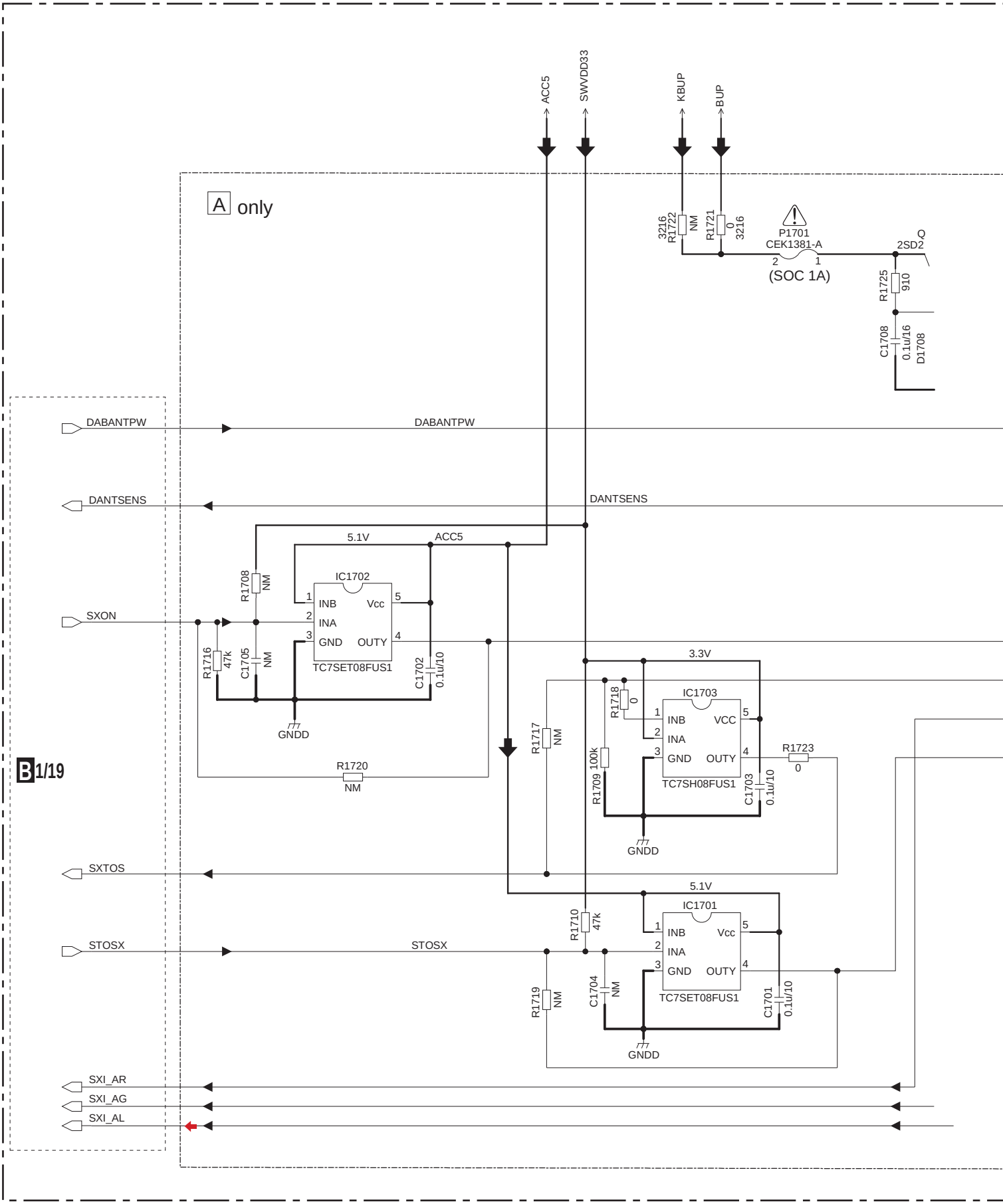
B17/19 NAVI UNIT(SERVICE) (CANBUS SECTION)

A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



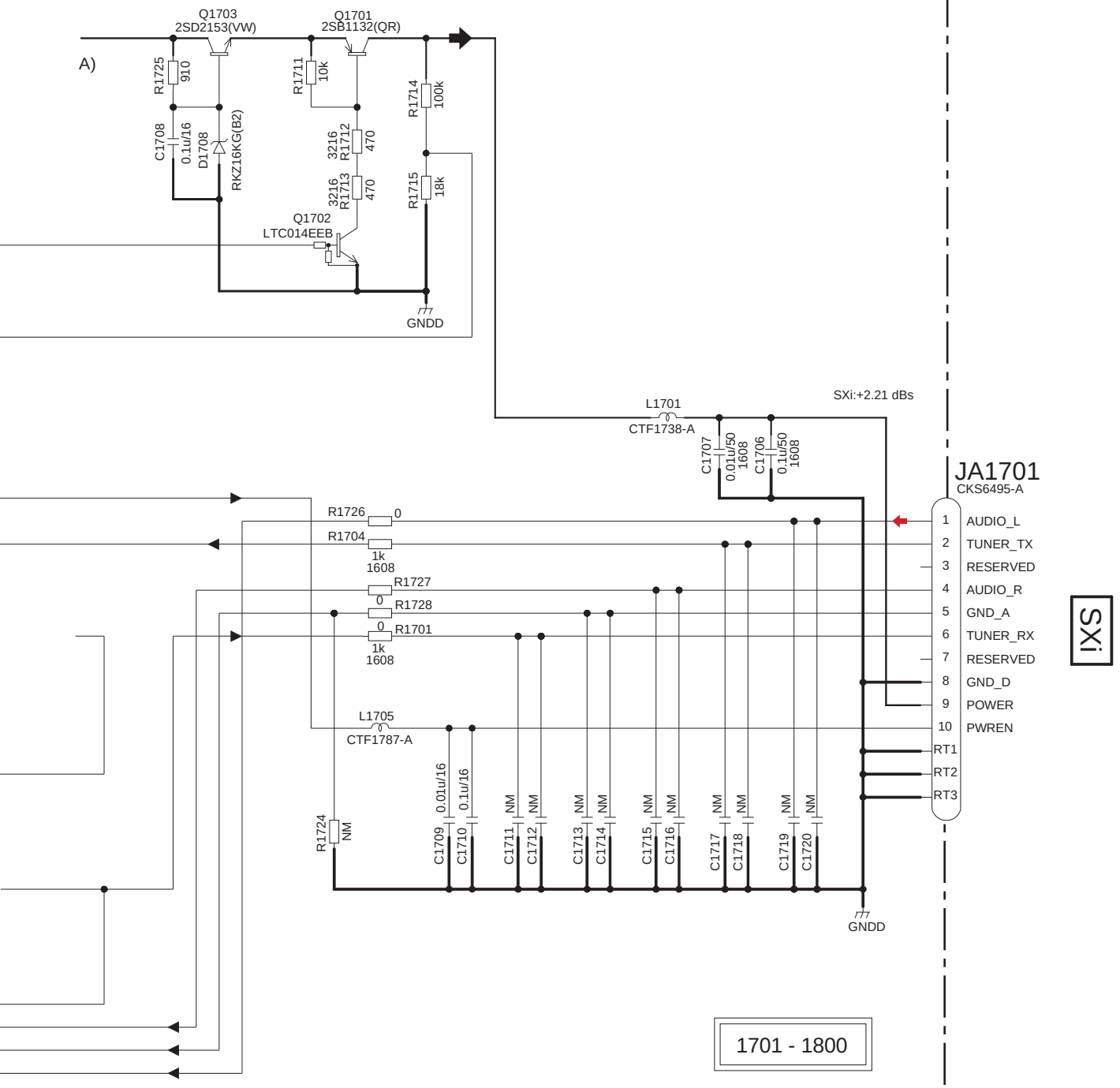
1601 - 1700

10.37 NAVI UNIT (SERVICE) (SXi SECTION)

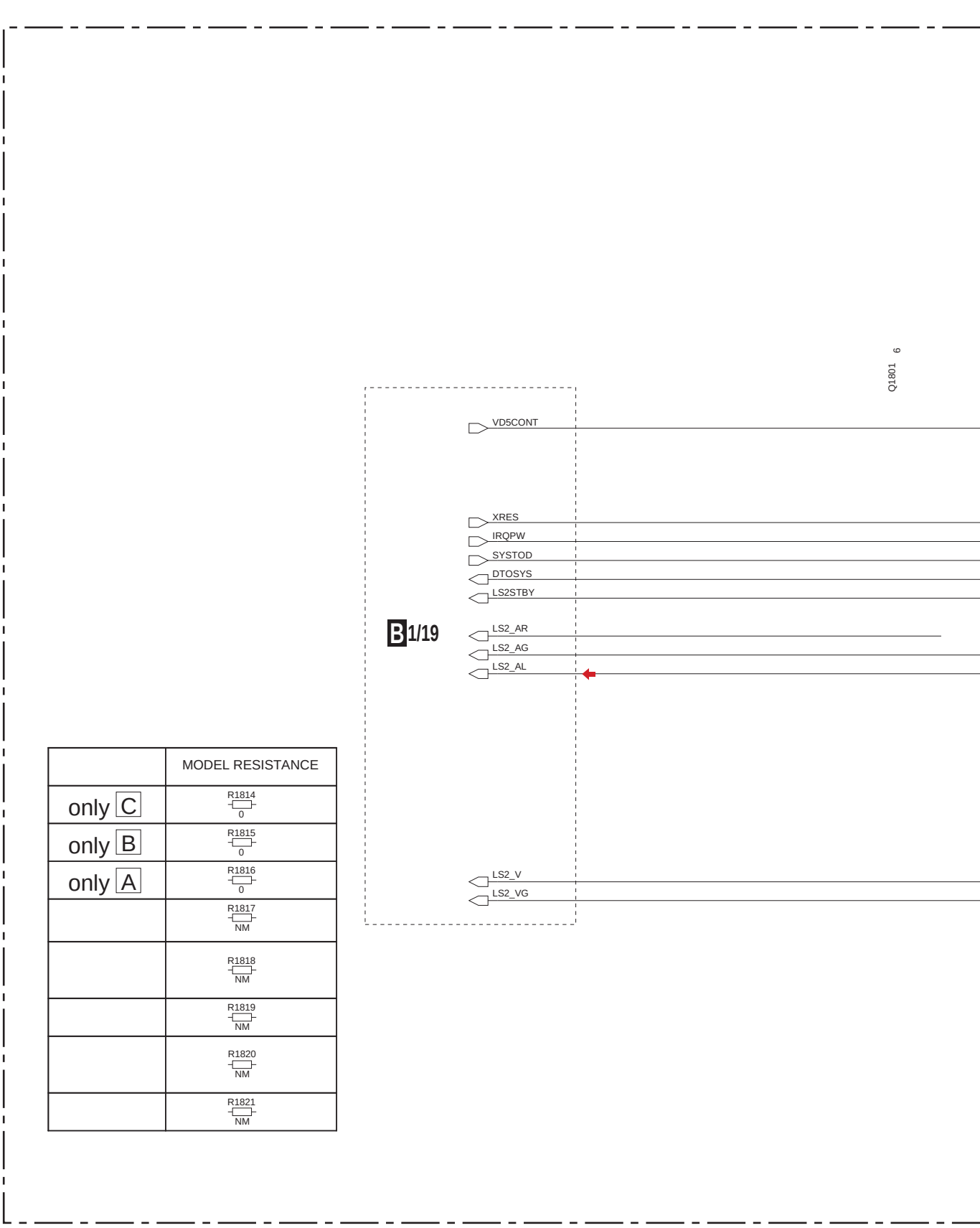


B18/19 NAVI UNIT(SERVICE) (SXi SECTION)

A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



10.38 NAVI UNIT (SERVICE) (LS2_IF SECTION)

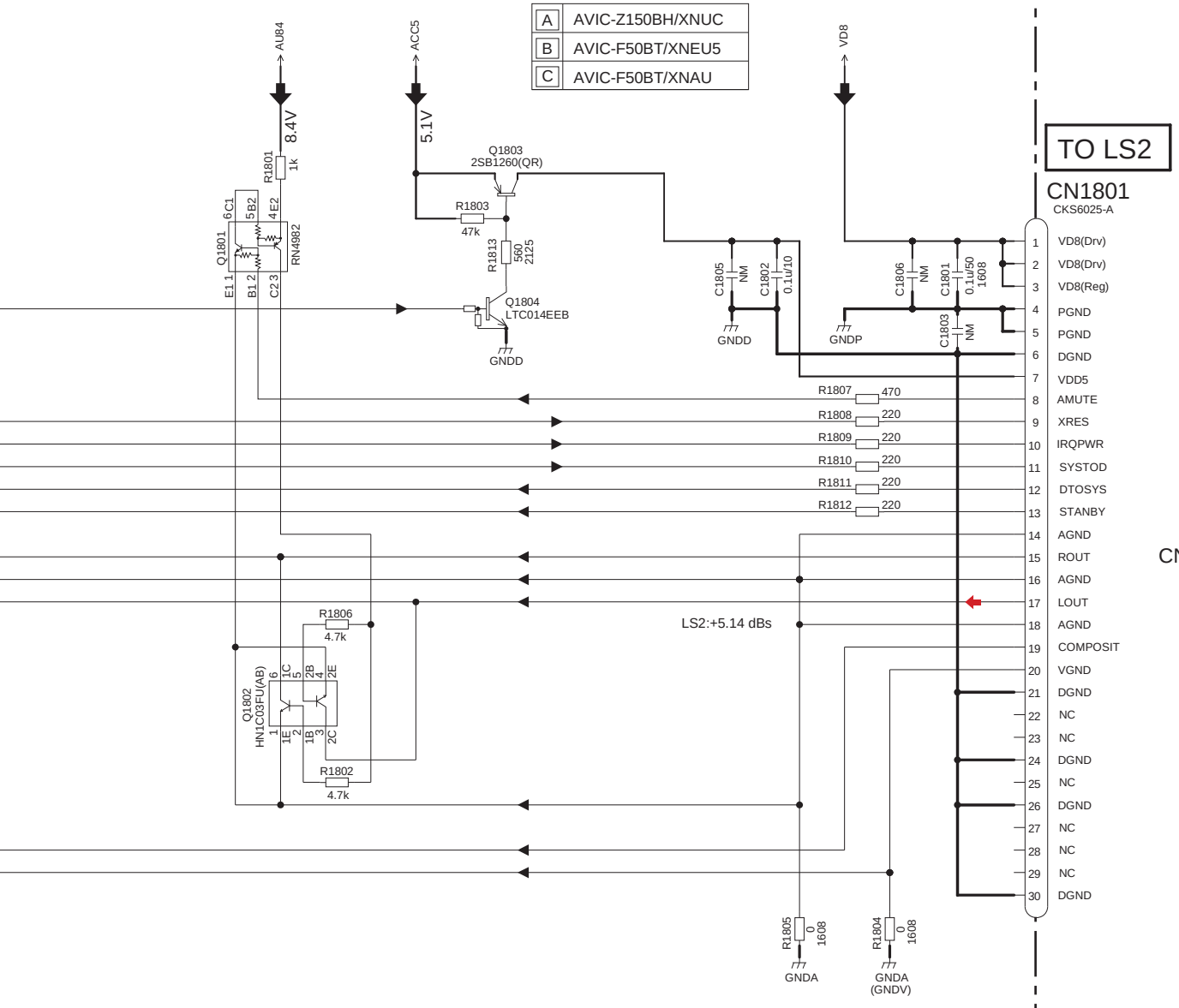


	MODEL RESISTANCE
only C	R1814 0
only B	R1815 0
only A	R1816 0
	R1817 NM
	R1818 NM
	R1819 NM
	R1820 NM
	R1821 NM

B19/19

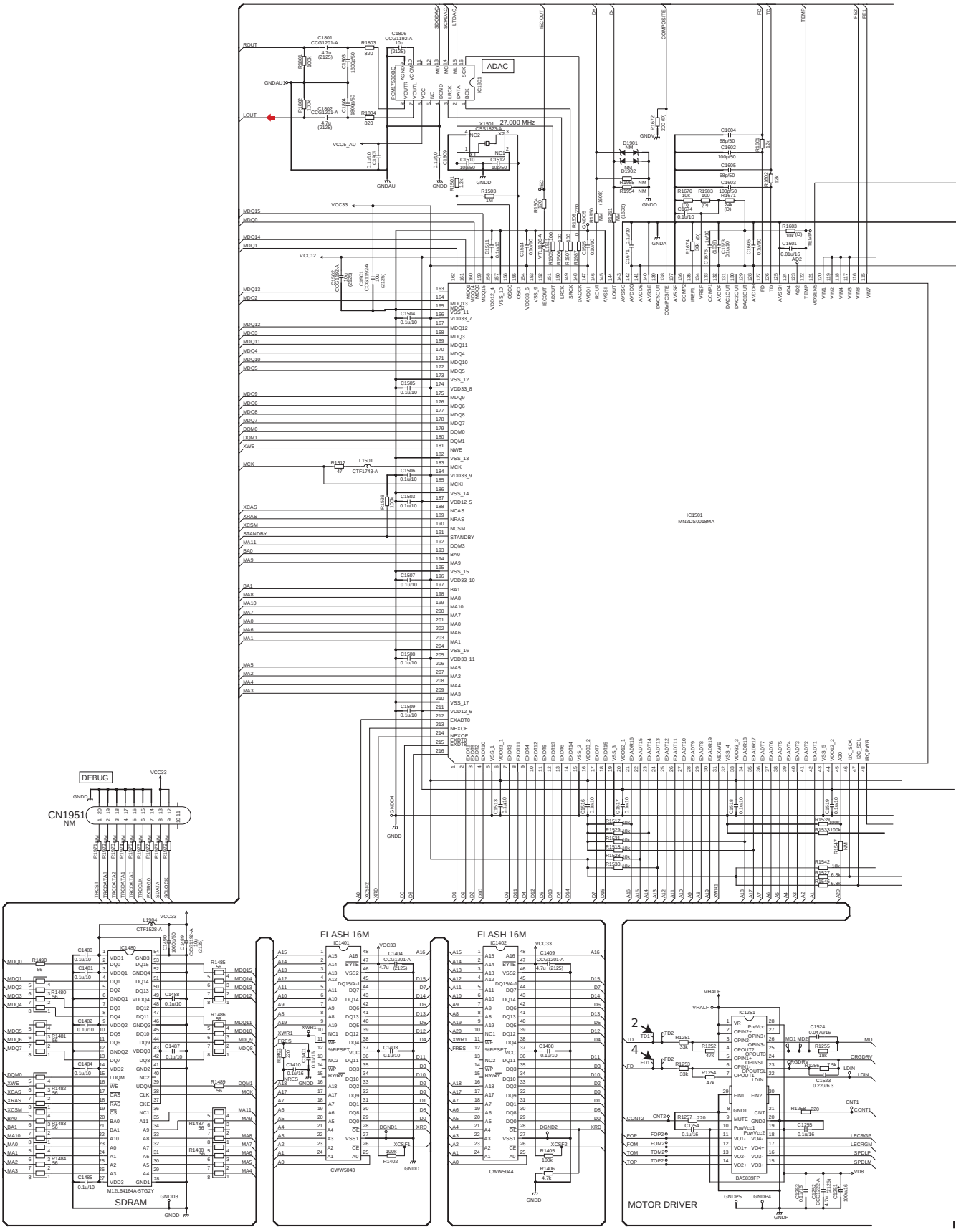
B19/19 NAVI UNIT(SERVICE) (LS2_IF SECTION)

A	AVIC-Z150BH/XNUC
B	AVIC-F50BT/XNEU5
C	AVIC-F50BT/XNAU



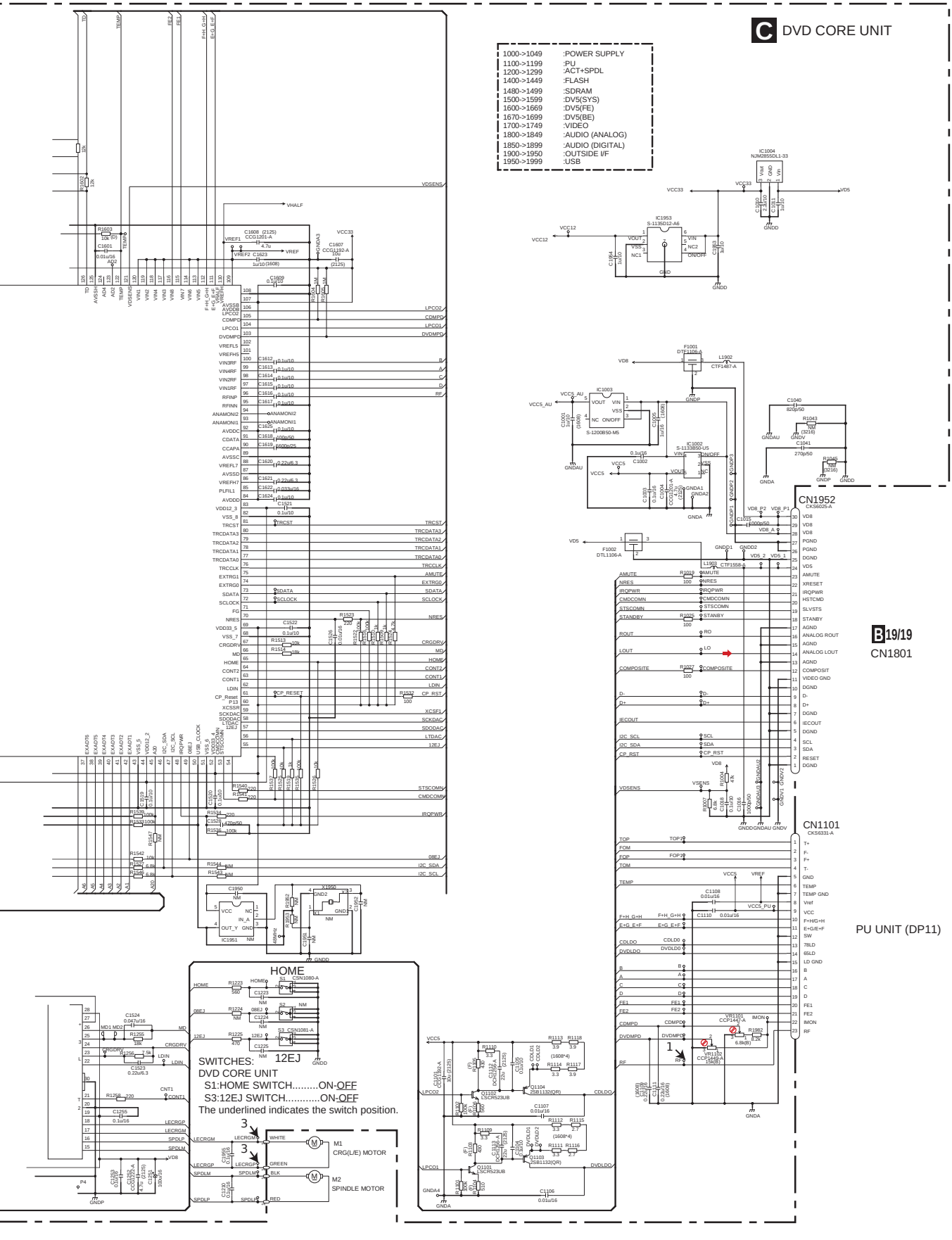
10.39 DVD CORE UNIT (GUIDE PAGE)

C-a



C DVD CORE UNIT

1000->1049	:POWER SUPPLY
1100->1199	:PU
1200->1299	:ACT+SPDL
1400->1449	:FLASH
1480->1499	:SDRAM
1500->1599	:DV5(SYS)
1600->1669	:DV5(FE)
1670->1699	:DV5(BE)
1700->1749	:VIDEO
1800->1849	:AUDIO (ANALOG)
1850->1899	:AUDIO (DIGITAL)
1900->1950	:OUTSIDE I/F
1950->1999	:USB



B 19/19

C DVD CORE UNIT

1000->1049	:POWER SUPPLY
1100->1199	:PU
1200->1299	:ACT+SPDL
1400->1449	:FLASH
1480->1499	:SDRAM
1500->1599	:DV5(SYS)
1600->1669	:DV5(FE)
1670->1699	:DV5(BE)
1700->1749	:VIDEO
1800->1849	:AUDIO (ANALOG)
1850->1899	:AUDIO (DIGITAL)
1900->1950	:OUTSIDE I/F
1950->1999	:USB

AVIC-Z150BH/XNUC

IC1004 NJM2855DL1-33

IC1953 S-1135D12-A6

F1001 DTF1106-A

L1902 CTF1487-A

IC1003 S-1200B50-M5

IC1002 S-1133B50-U5

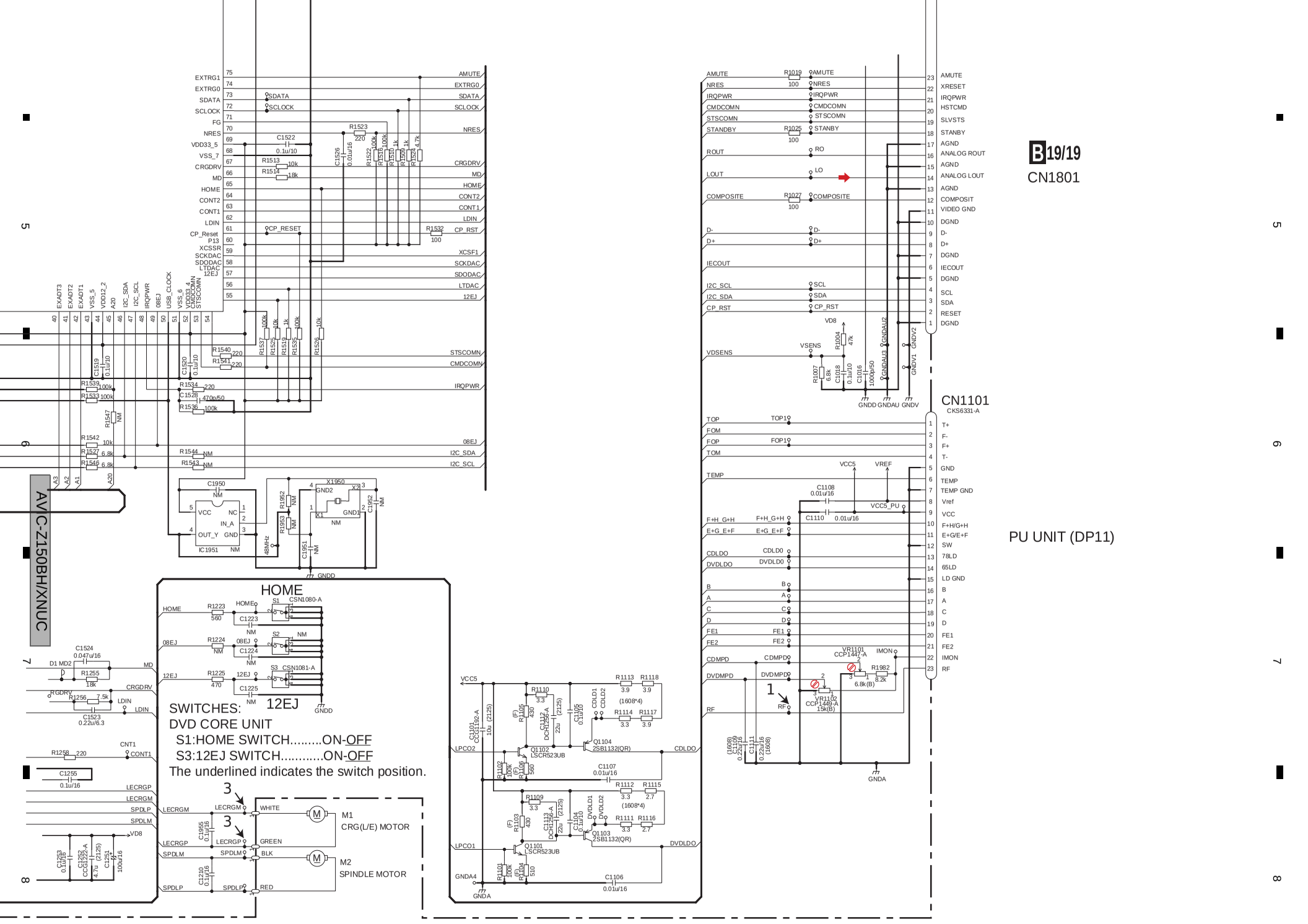
F1002 DTL1106-A

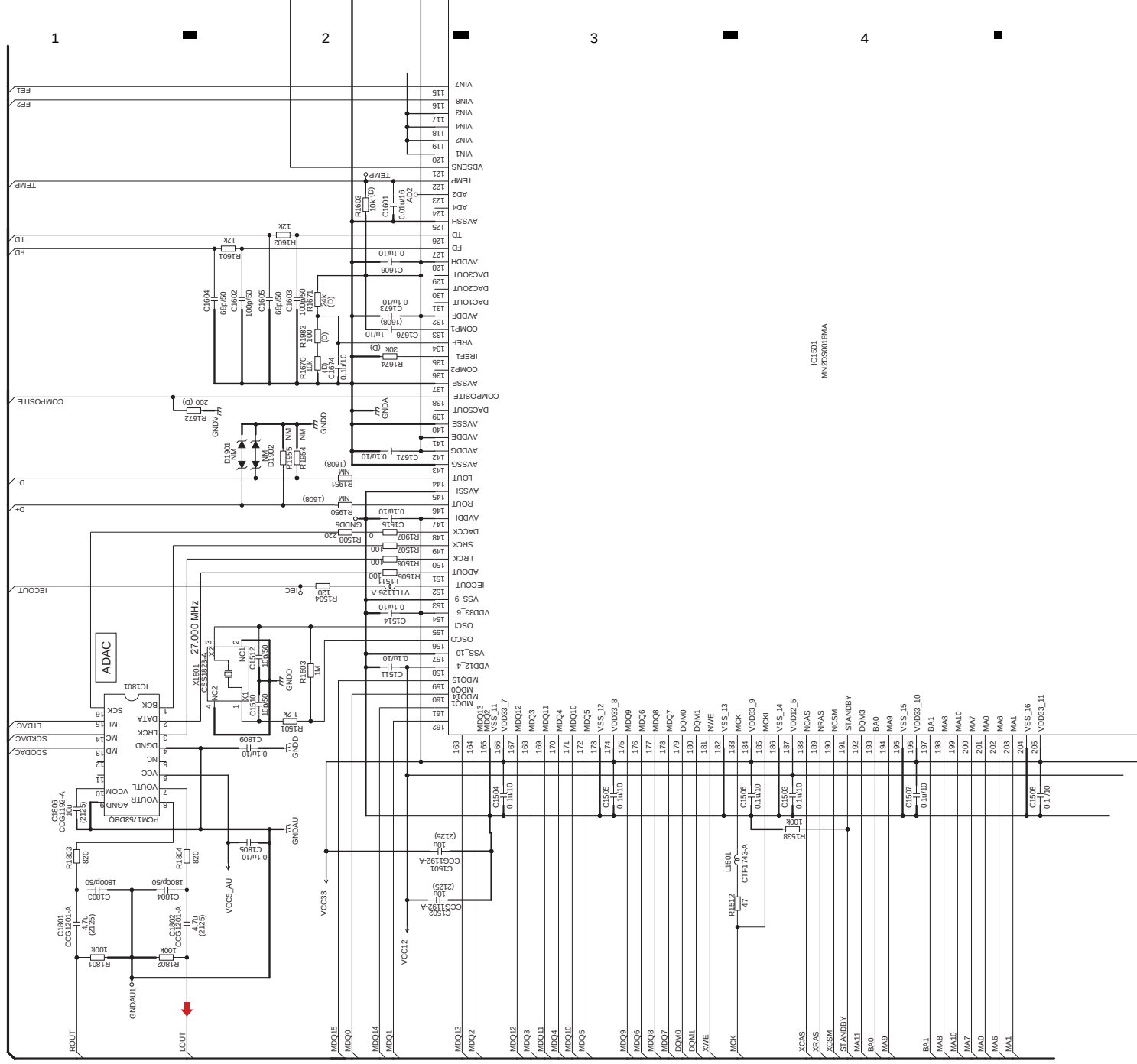
L1903 CTF1558-A

CN1952 CKS6025-A

B 19/19

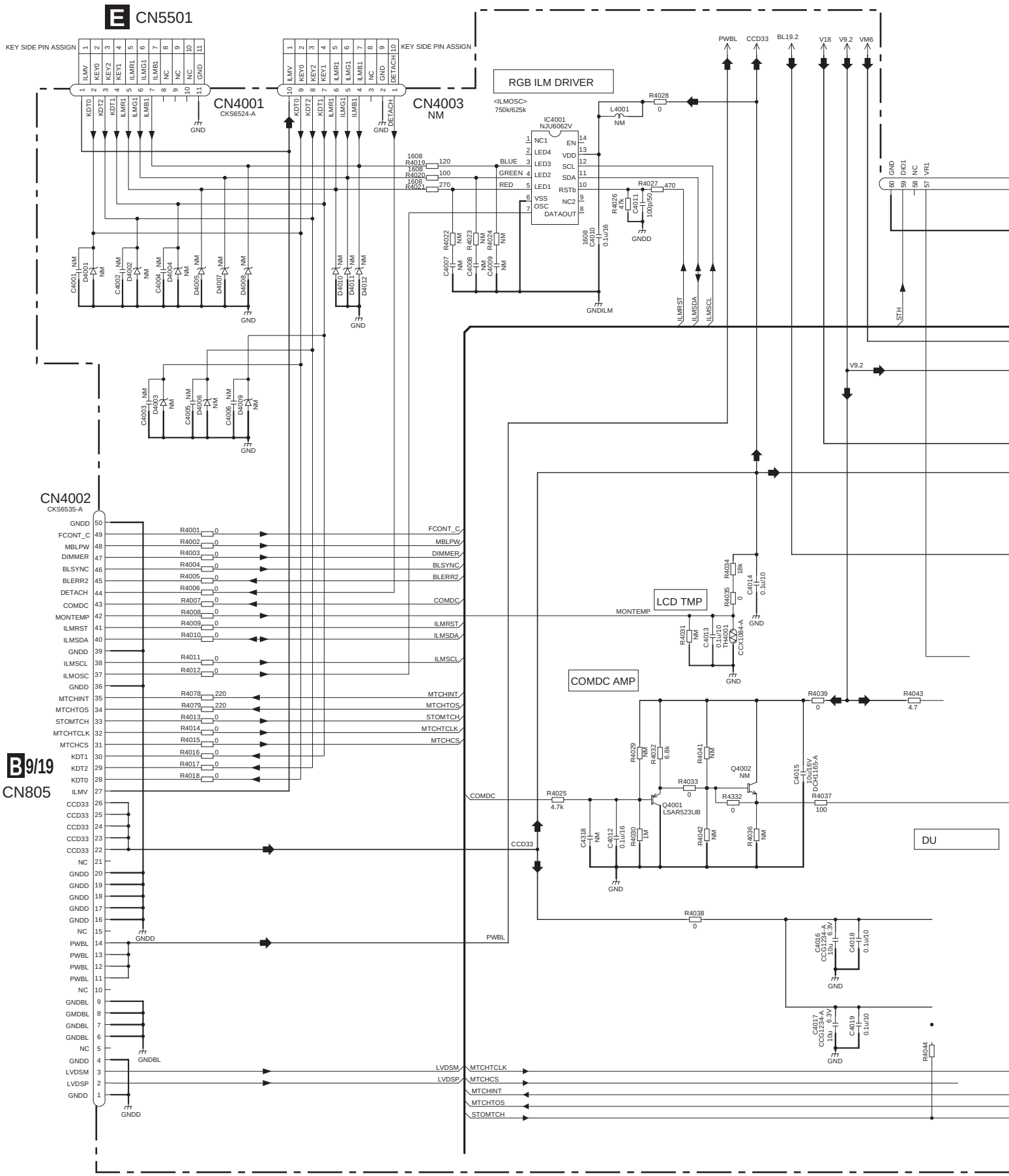
CN1801


B19/19
CN1801
CN1101
CKS6331-A
PU UNIT (DP11)
AV/C-Z150BH/XNUC
HOME
SWITCHES:
DVD CORE UNIT
S1:HOME SWITCH.....ON-OFF
S3:12EJ SWITCH.....ON-OFF
The underlined indicates the switch position.
M1
CRG(L/E) MOTOR
M2
SPINDLE MOTOR
C-b
C-a
C-b
311

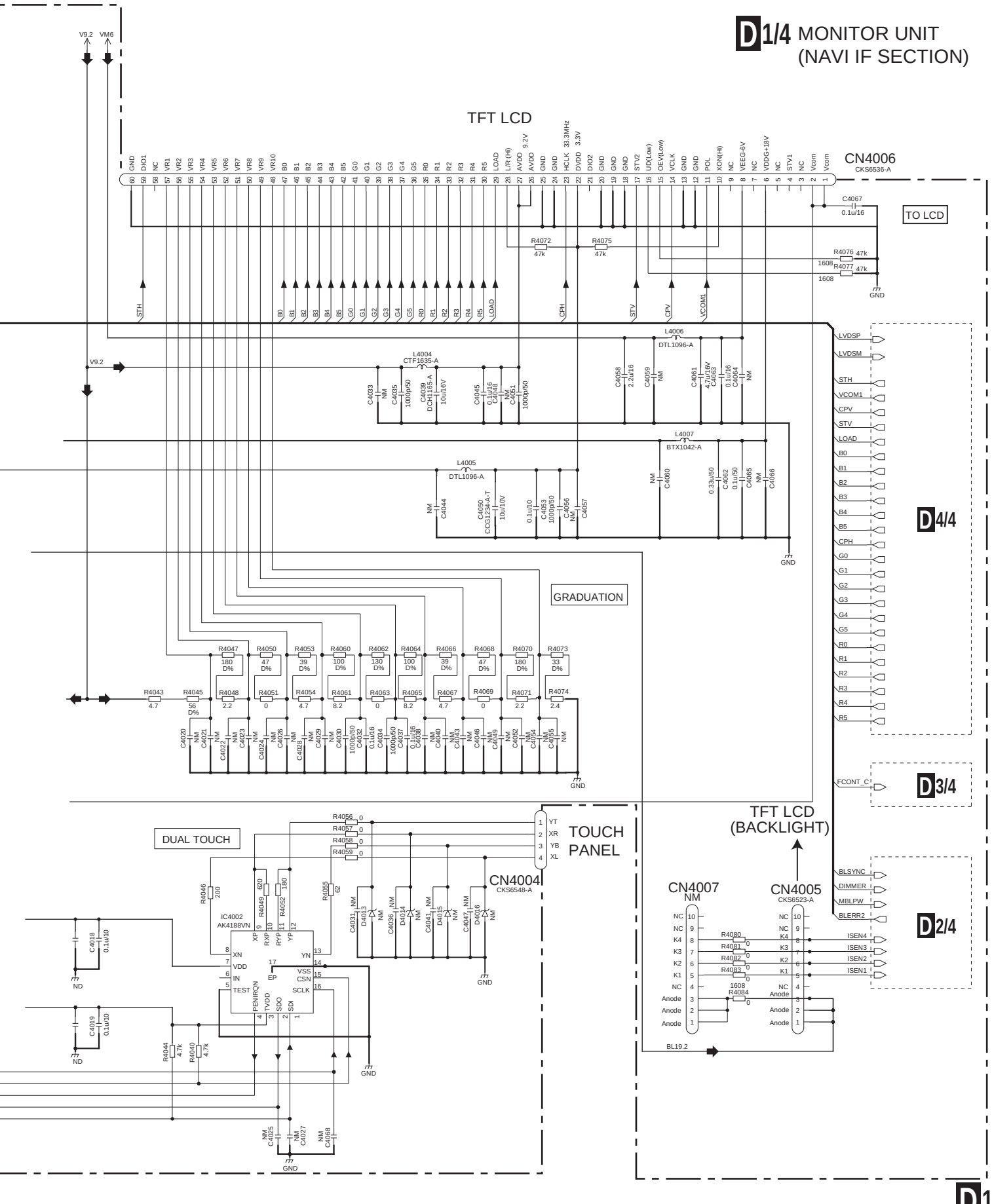

C-b
C-a
ADAC
IC1801
IC1501
MN2DS0018MA
27.000 MHz
X1901
C1806
PCM1753DBQ
C1801
C1802
C1803
C1804
C1805
C1807
C1808
C1809
C1501
C1502
C1503
C1504
C1505
C1506
C1507
C1508
L1501
CTF2743-A
R1801
R1802
R1803
R1804
R1805
R1806
R1807
R1808
R1809
R1810
R1811
R1812
R1813
R1814
R1815
R1816
R1817
R1818
R1819
R1820
R1821
R1822
R1823
R1824
R1825
R1826
R1827
R1828
R1829
R1830
R1831
R1832
R1833
R1834
R1835
R1836
R1837
R1838
R1839
R1840

MOTOR DRIVER
IC1251
BA5839FP
FLASH 16M
IC1402
IC1401
CWW5044
CWW5043
SDRAM
IC1487
M12L64164A-5TG2Y
CN1951
NM
DEBUG

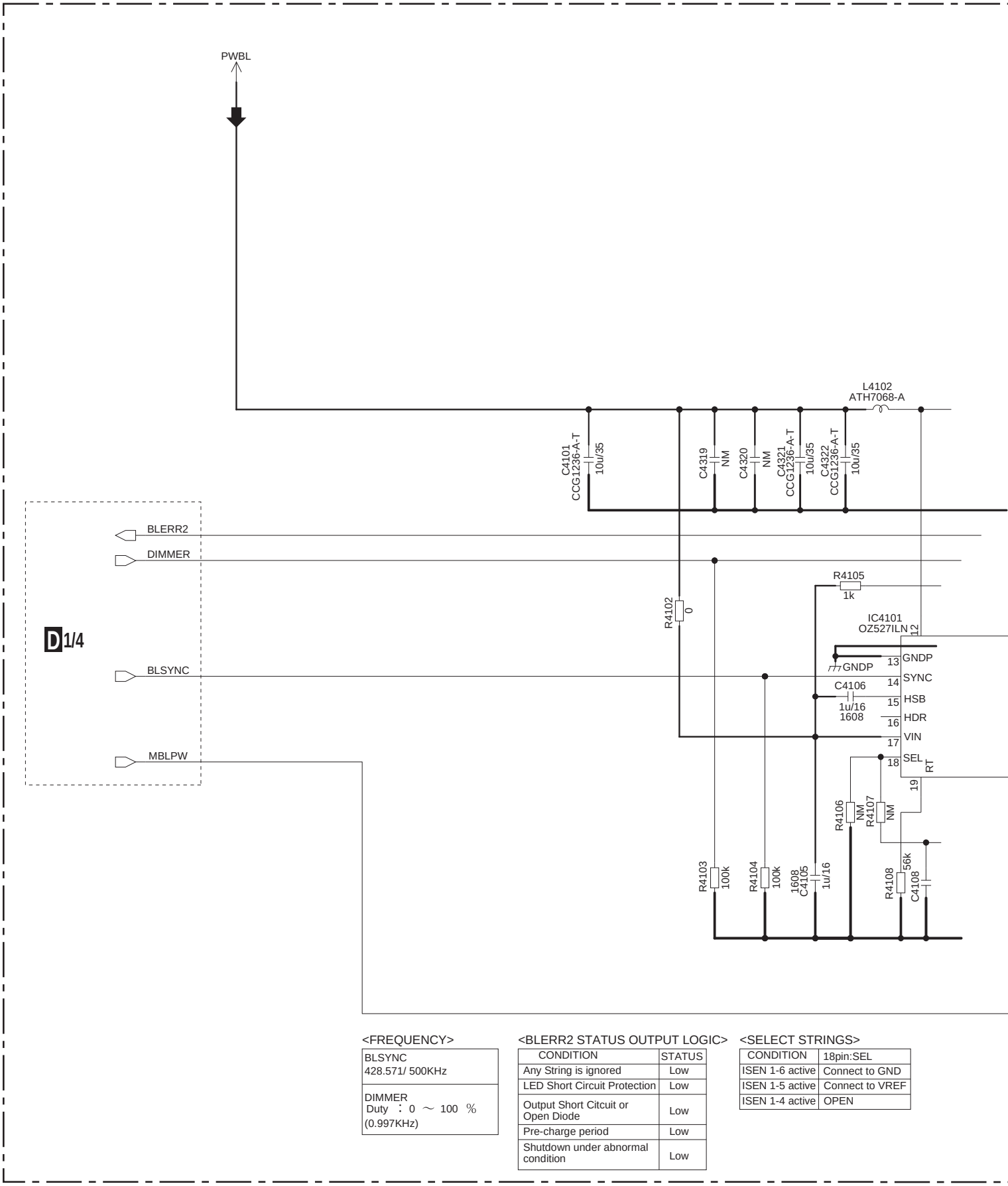
10.40 MONITOR UNIT (NAVI IF SECTION)



D1/4 MONITOR UNIT (NAVI IF SECTION)



10.41 MONITOR UNIT (LED-BL SECTION)



<FREQUENCY>

BLSYNC 428.571/ 500KHz
DIMMER Duty ： 0 ～ 100 ％ (0.997KHz)

<BLERR2 STATUS OUTPUT LOGIC>

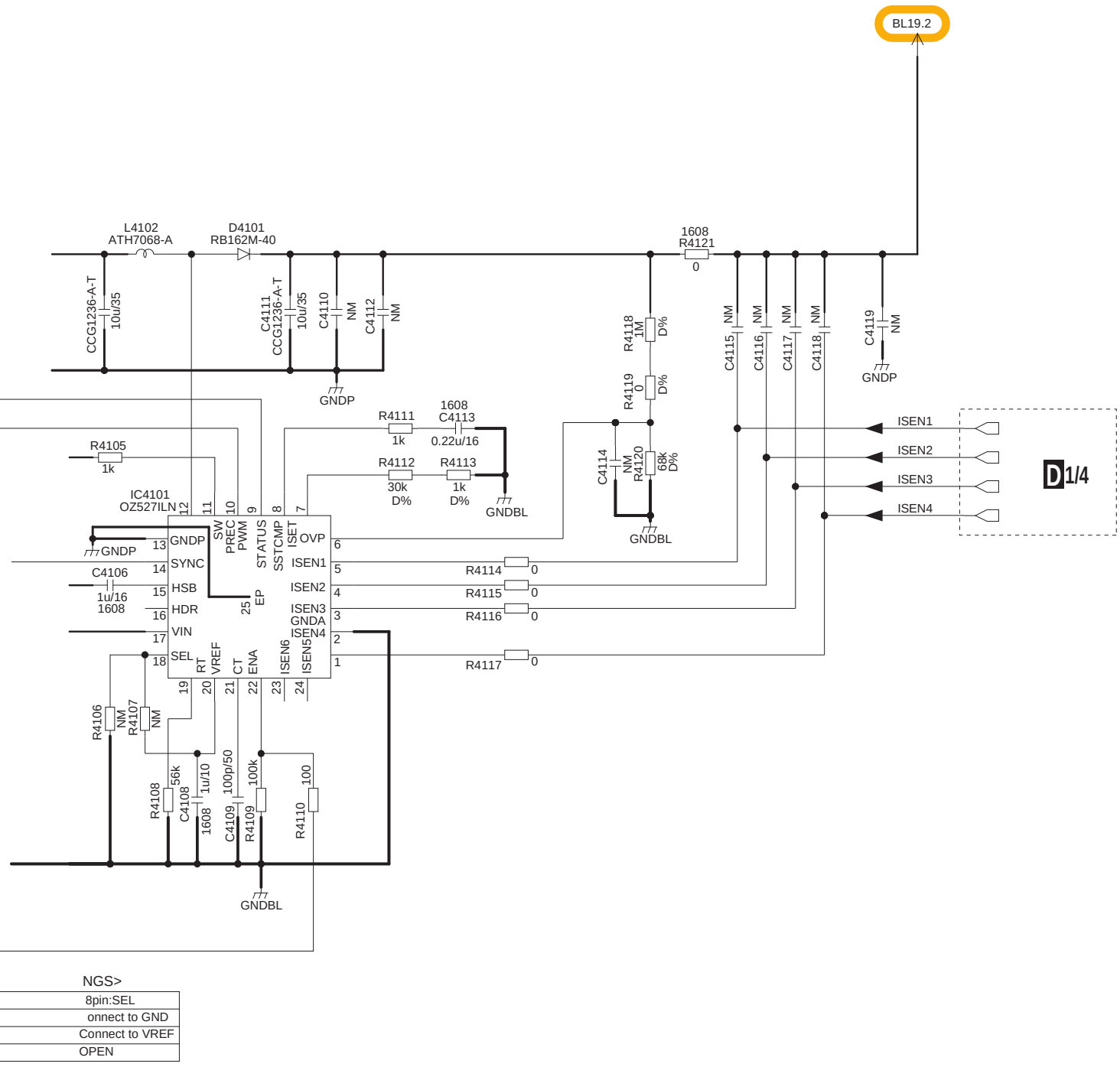
CONDITION	STATUS
Any String is ignored	Low
LED Short Circuit Protection	Low
Output Short Citcuit or Open Diode	Low
Pre-charge period	Low
Shutdown under abnormal condition	Low

<SELECT STRINGS>

CONDITION	18pin:SEL
ISEN 1-6 active	Connect to GND
ISEN 1-5 active	Connect to VREF
ISEN 1-4 active	OPEN

D 2/4

D2/4 MONITOR UNIT (LED-BL SECTION)

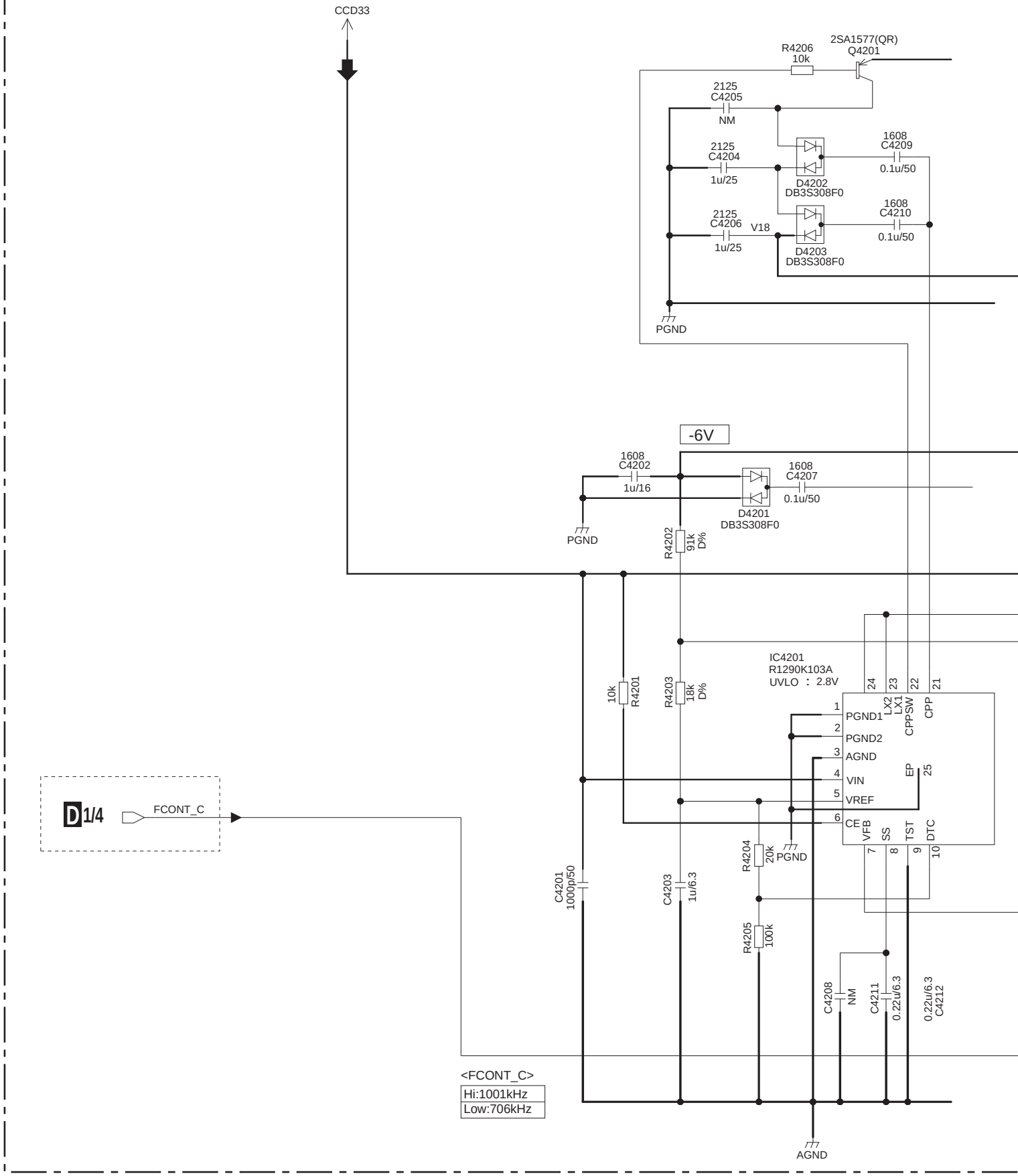


NGS>

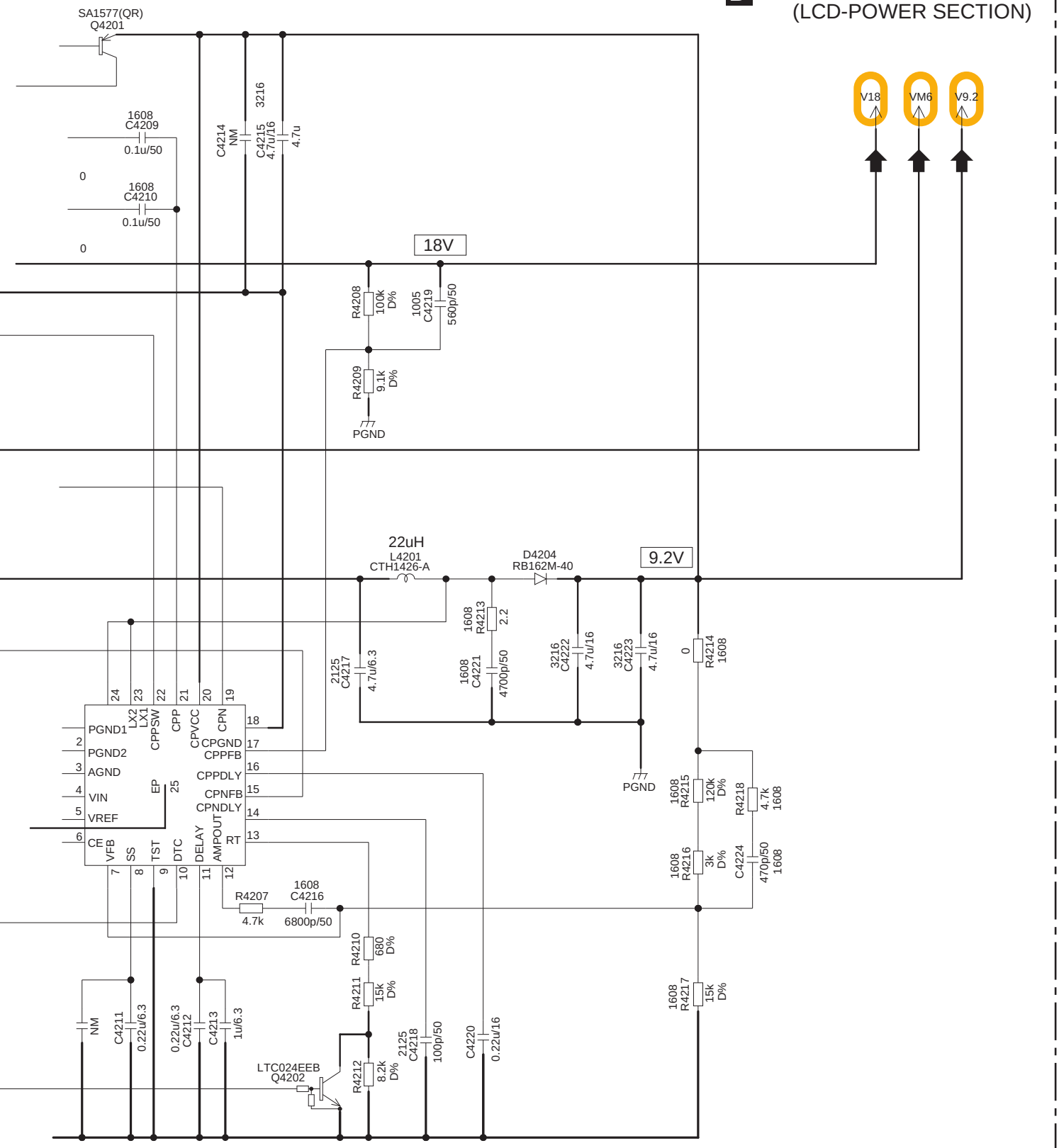
8pin:SEL
onnect to GND
Connect to VREF
OPEN

D2/4

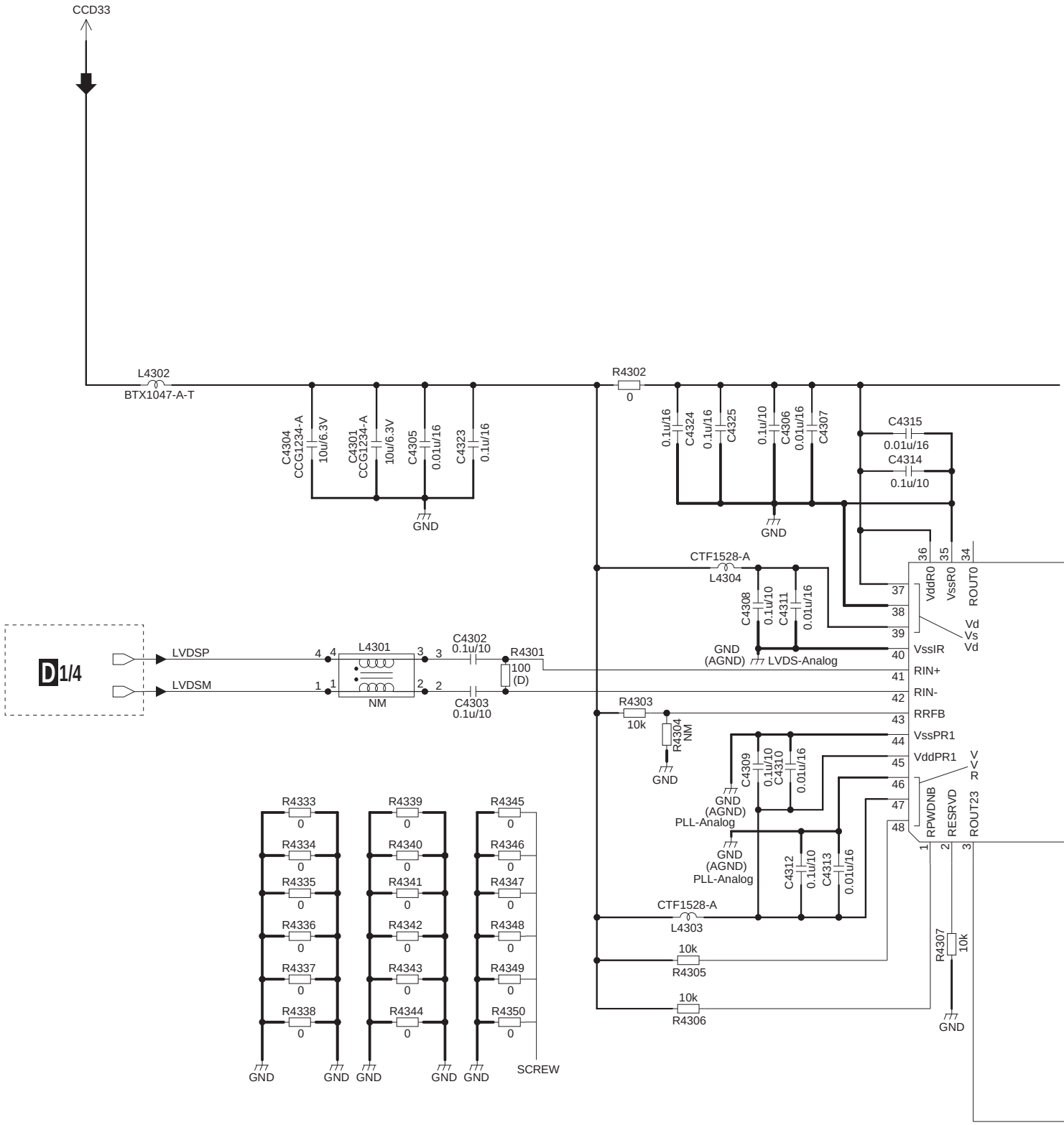
10.42 MONITOR UNIT (LCD-POWER SECTION)



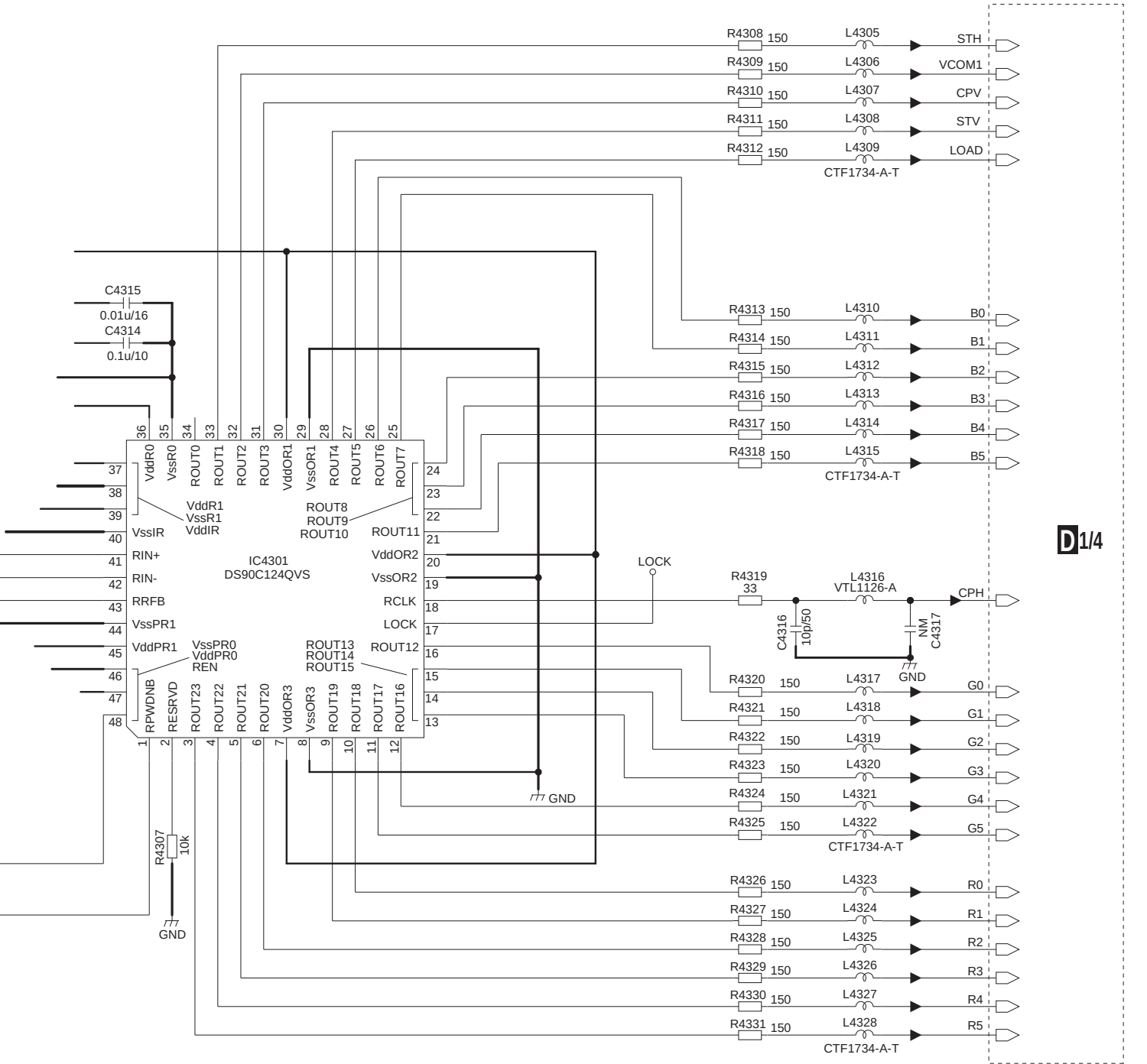
D3/4 MONITOR UNIT (LCD-POWER SECTION)



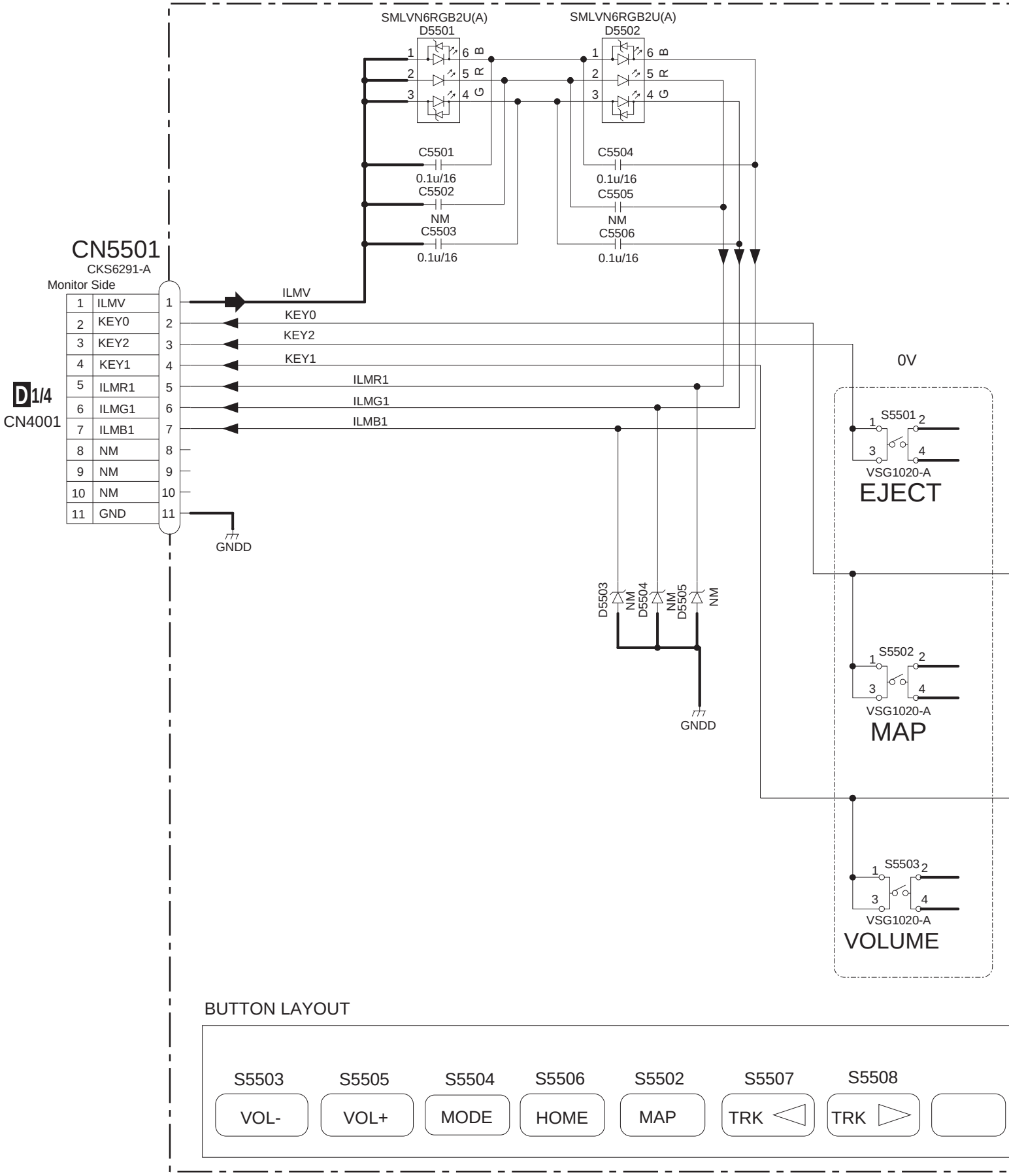
10.43 MONITOR UNIT (LVDS SECTION)



D 4/4


IC4301
DS90C124QVS
VddR0
VssR0
ROUT0
ROUT1
ROUT2
ROUT3
VddOR1
VssOR1
ROUT4
ROUT5
ROUT6
ROUT7
VddR1
VssR1
VddIR
ROUT8
ROUT9
ROUT10
ROUT11
VssIR
RIN+
RIN-
RRFB
VssPR1
VddPR1
VddOR2
VssOR2
RCLK
LOCK
VssPR0
VddPR0
REN
ROUT13
ROUT14
ROUT15
ROUT12
RPWDNB
RESRVD
ROUT23
ROUT22
ROUT21
ROUT20
VddOR3
VssOR3
ROUT19
ROUT18
ROUT17
ROUT16
C4315
0.01u/16
C4314
0.1u/10
R4307
10k
GND
LOCK
R4308 150 L4305 STH
R4309 150 L4306 VCOM1
R4310 150 L4307 CPV
R4311 150 L4308 STV
R4312 150 L4309 LOAD
CTF1734-A-T
R4313 150 L4310 B0
R4314 150 L4311 B1
R4315 150 L4312 B2
R4316 150 L4313 B3
R4317 150 L4314 B4
R4318 150 L4315 B5
CTF1734-A-T
R4319 33 L4316 VTL1126-A CPH
C4316 10p/50
NM C4317
GND
R4320 150 L4317 G0
R4321 150 L4318 G1
R4322 150 L4319 G2
R4323 150 L4320 G3
R4324 150 L4321 G4
R4325 150 L4322 G5
CTF1734-A-T
R4326 150 L4323 R0
R4327 150 L4324 R1
R4328 150 L4325 R2
R4329 150 L4326 R3
R4330 150 L4327 R4
R4331 150 L4328 R5
CTF1734-A-T
D1/4

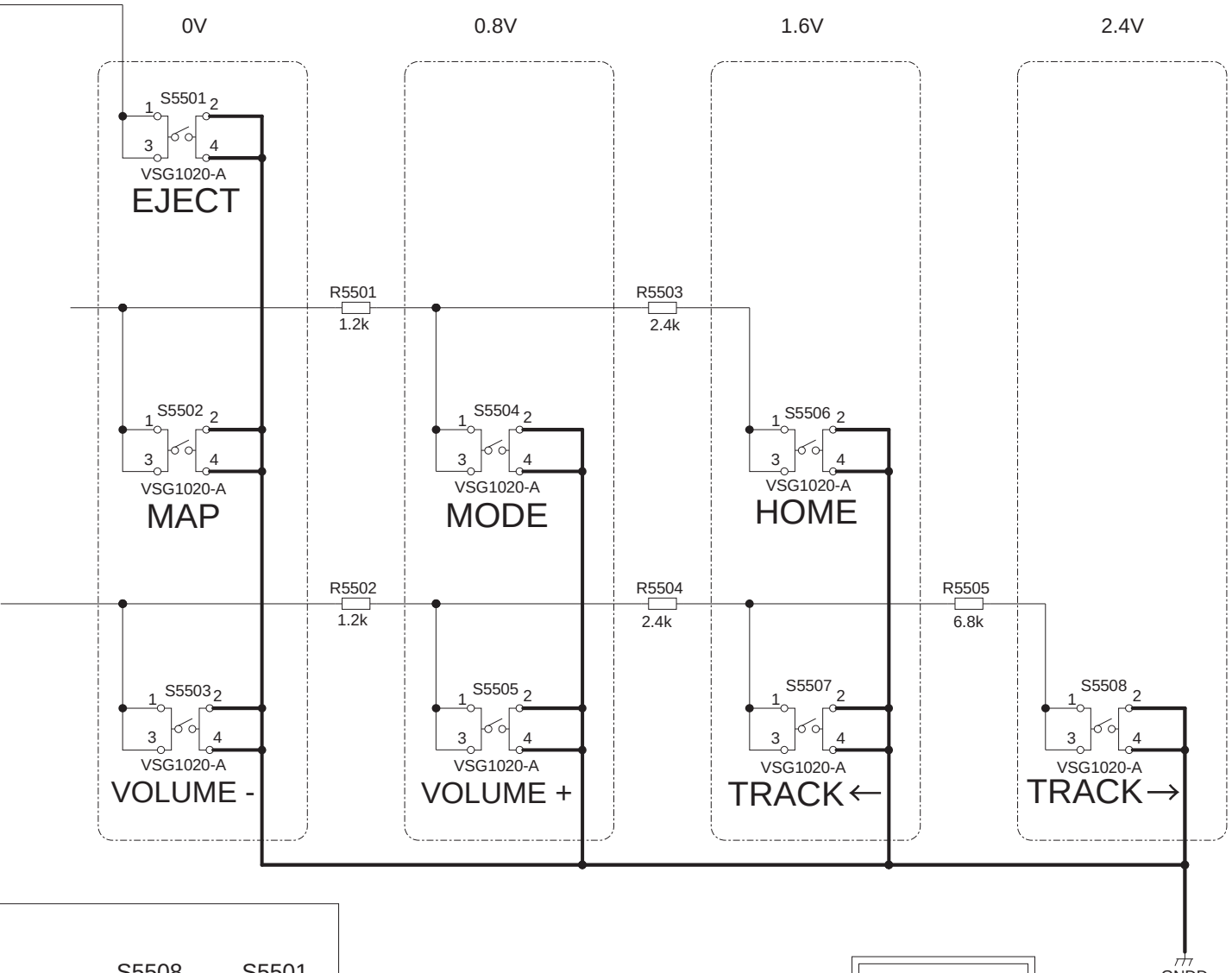
10.44 KEY UNIT (SERVICE)

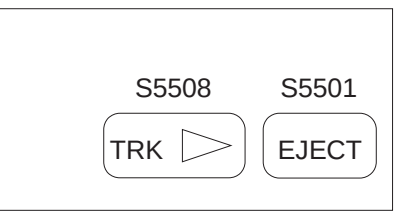


E KEY UNIT(SERVICE)

THRESHOLD LEVEL(V)

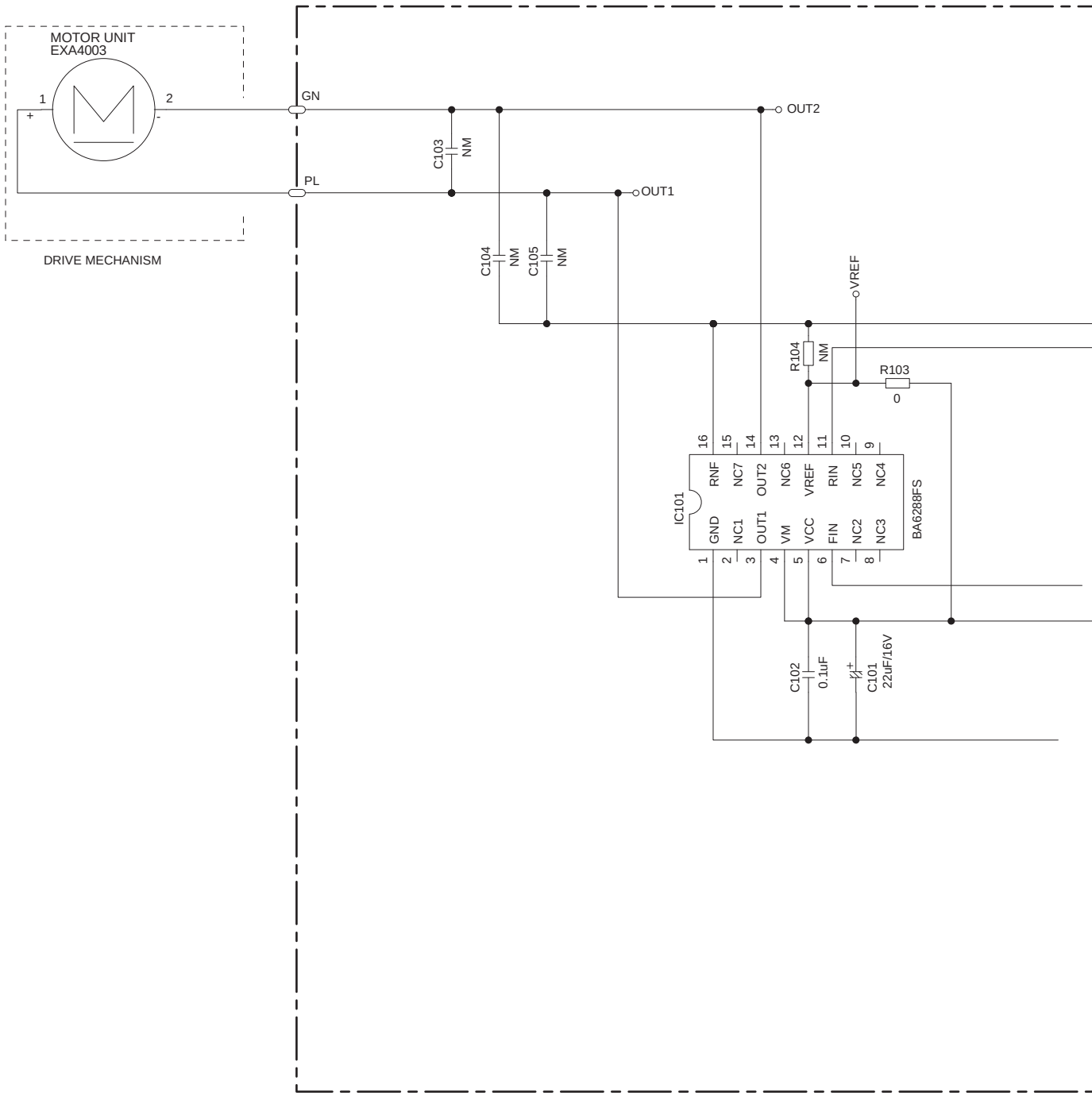
0	~0.4
0.4	~1.2
1.2	~2.0
2.0	~2.8



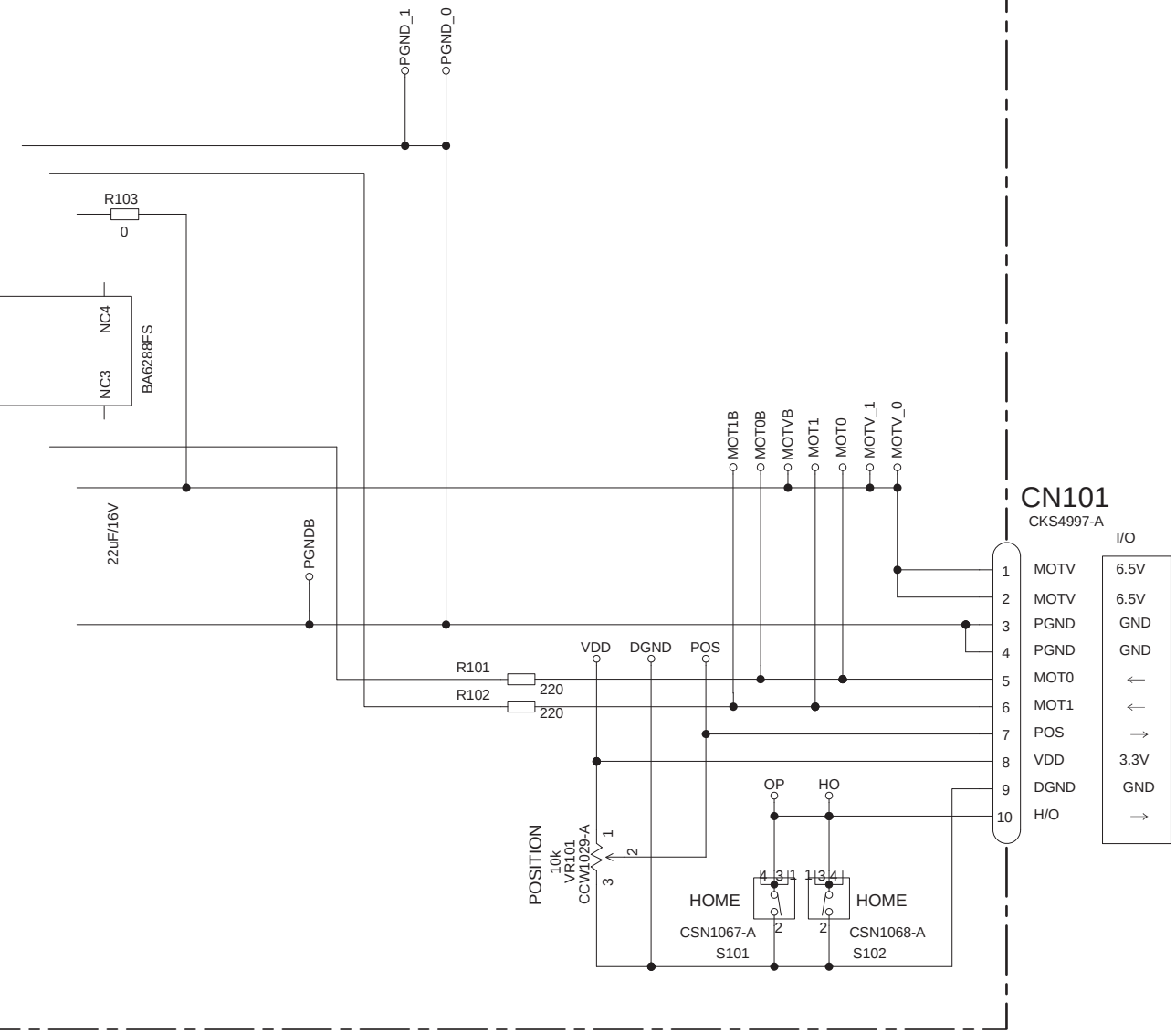


5501 - 5600

10.45 PCB UNIT(SERVICE)



F PCB UNIT(SERVICE)



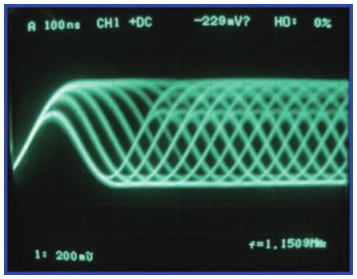
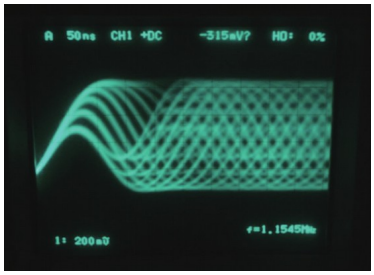
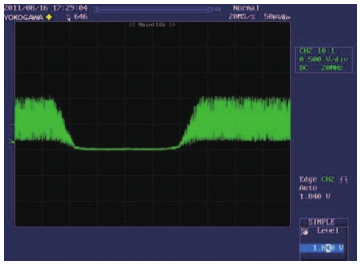
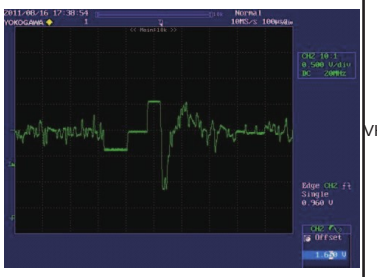
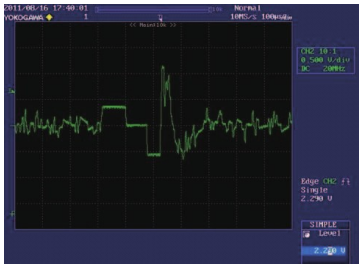
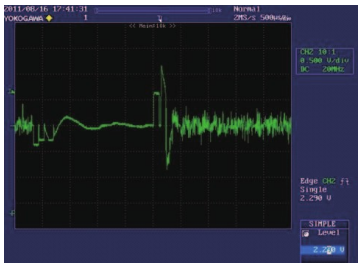
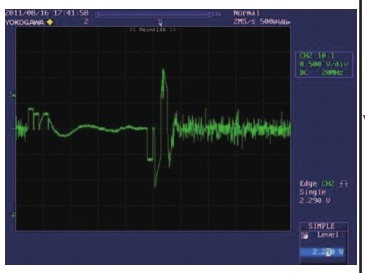
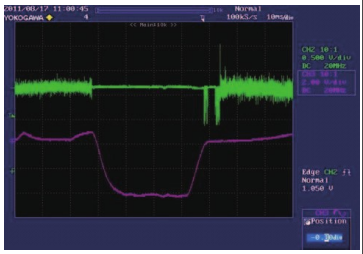
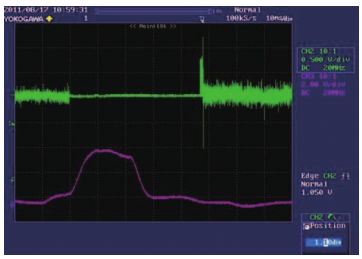
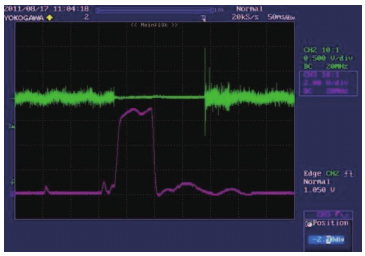
A15/19
CN3401

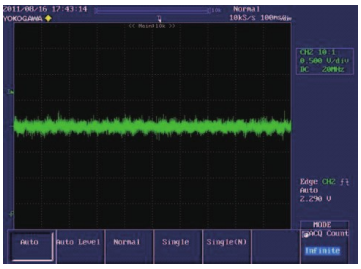
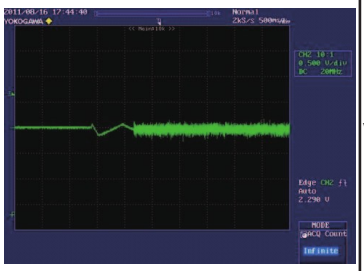
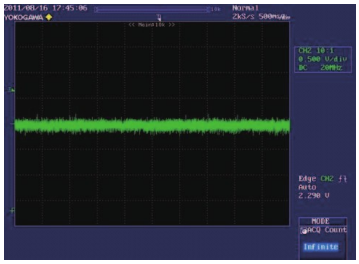
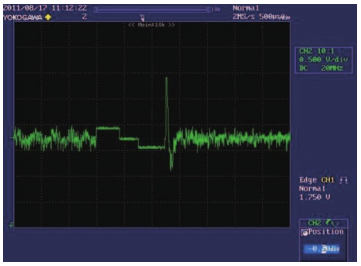
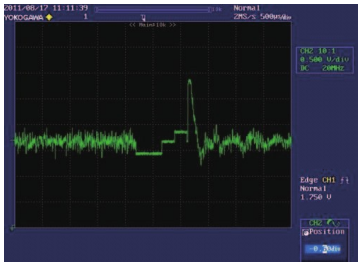
10.46 WAVEFORMS

- DVD Core Unit

Note:1. The encircled number denote measuring points in the circuit diagram.
2. Reference voltage: 1.65 V(TD1,FD1)(=VHALF)
2.2 V(RF)(=VREF)

In the waveform, it is seeing on the GND standard.
Offset of 1.65 V or 2.2 V is put in.

1 RF 0.2 V/div 100 s/div CDRF(x4CLV) 	1 RF 0.2 V/div 50 s/div DVDRF(x1.5CLV) 	1 RF 0.5 V/div 50 us/div DVDRF(BD1mm) VREF1t 
2 TD1 0.5 V/div 100 us/div Interval FWD(DVD) VHALFt 	2 TD1 0.5 V/div 100 us/div Interval REV(DVD) VHALFt 	2 TD1 0.5 V/div 500 us/div Multi 32FWD(DVD) VHALFt 
2 TD1 0.5 V/div 500 us/div Multi 32REV(DVD) VHALFt 	CH1 : 2 TD1 0.5 V/div 10 ms/div CH2 : 3 LECRGM-LECRGP 2.0 V/div 10 ms/div Traverse 1001FWD(short)(DVD) VHALFt GNDt 	CH1 : 2 TD1 0.5 V/div 10 ms/div CH2 : 3 LECRGM-LECRGP 2.0 V/div 10 ms/div Traverse 1001REV(short)(DVD) VHALFt GNDt 
CH1 : 2 TD1 0.5 V/div 50 ms/div CH2 : 3 LECRGM-LECRGP 2.0 V/div 50 ms/div Traverse 5001FWD(long)(DVD) VHALFt GNDt 	CH1 : 2 TD1 0.5 V/div 50 ms/div CH2 : 3 LECRGM-LECRGP 2.0 V/div 50 ms/div Traverse 5001REV(long)(DVD) VHALFt GNDt 	CH2 : 3 LECRGM-LECRGP 2.0 V/div 200 ms/div ID search Inside t Outside(DVD) GNDt

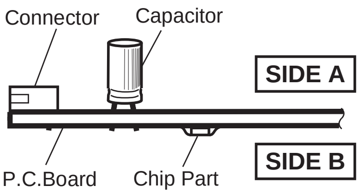
2 TD1 0.5 V/div 100 ms/div Play TD(DVD) VHALFt 	4 FD1 0.5 V/div 100 ms/div Focus Close(DVD) VHALFt 	4 FD1 0.5 V/div 500 us/div Play FD(DVD) VHALFt 
4 FD1 0.5 V/div 500 us/div Focus Jump L0t L1 VHALFt 	4 FD1 0.5 V/div 500 us/div Focus Jump L1t L0 VHALFt 	

11. PCB CONNECTION DIAGRAM

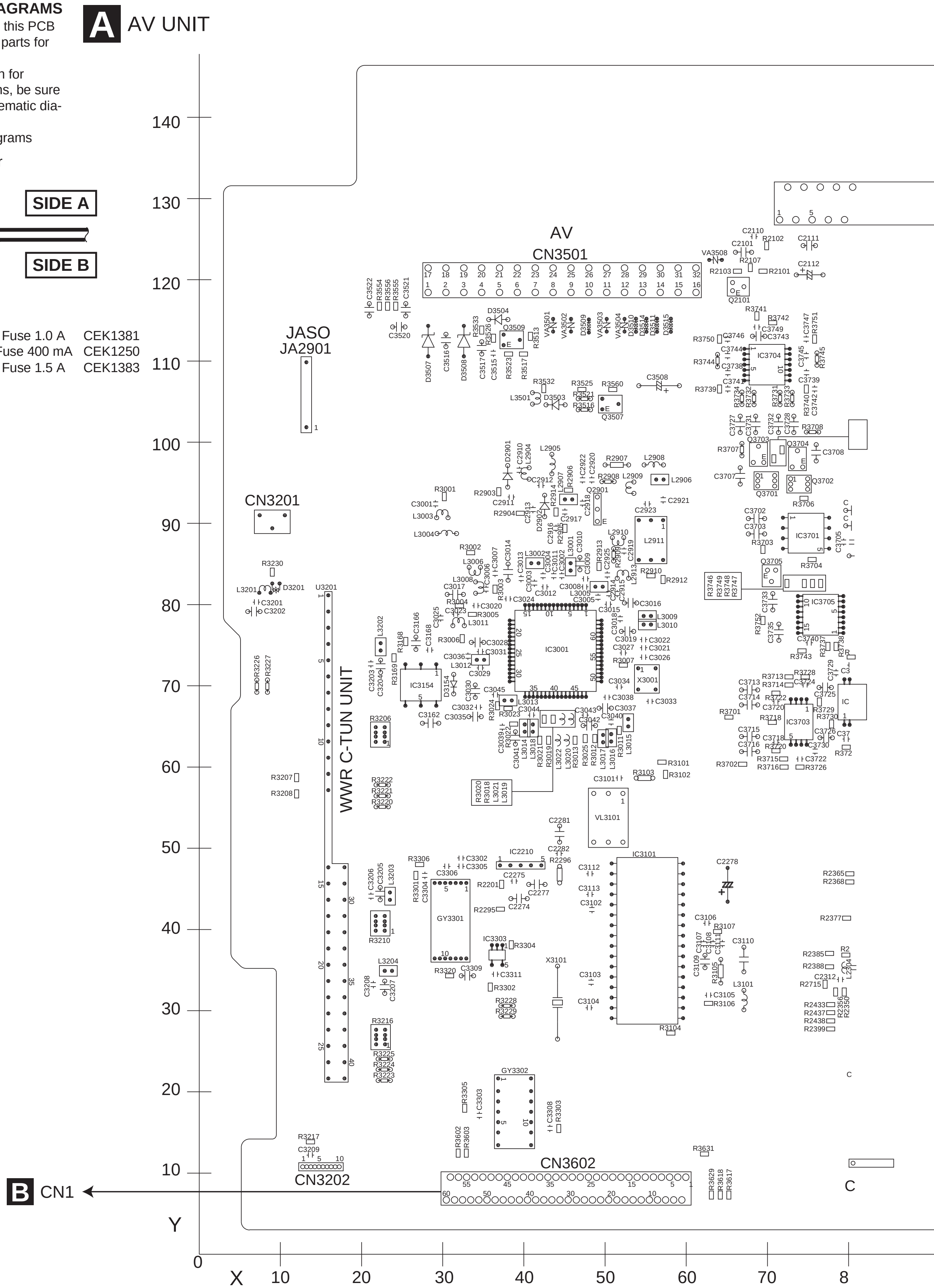
11.1 AV UNIT

NOTE FOR PCB DIAGRAMS

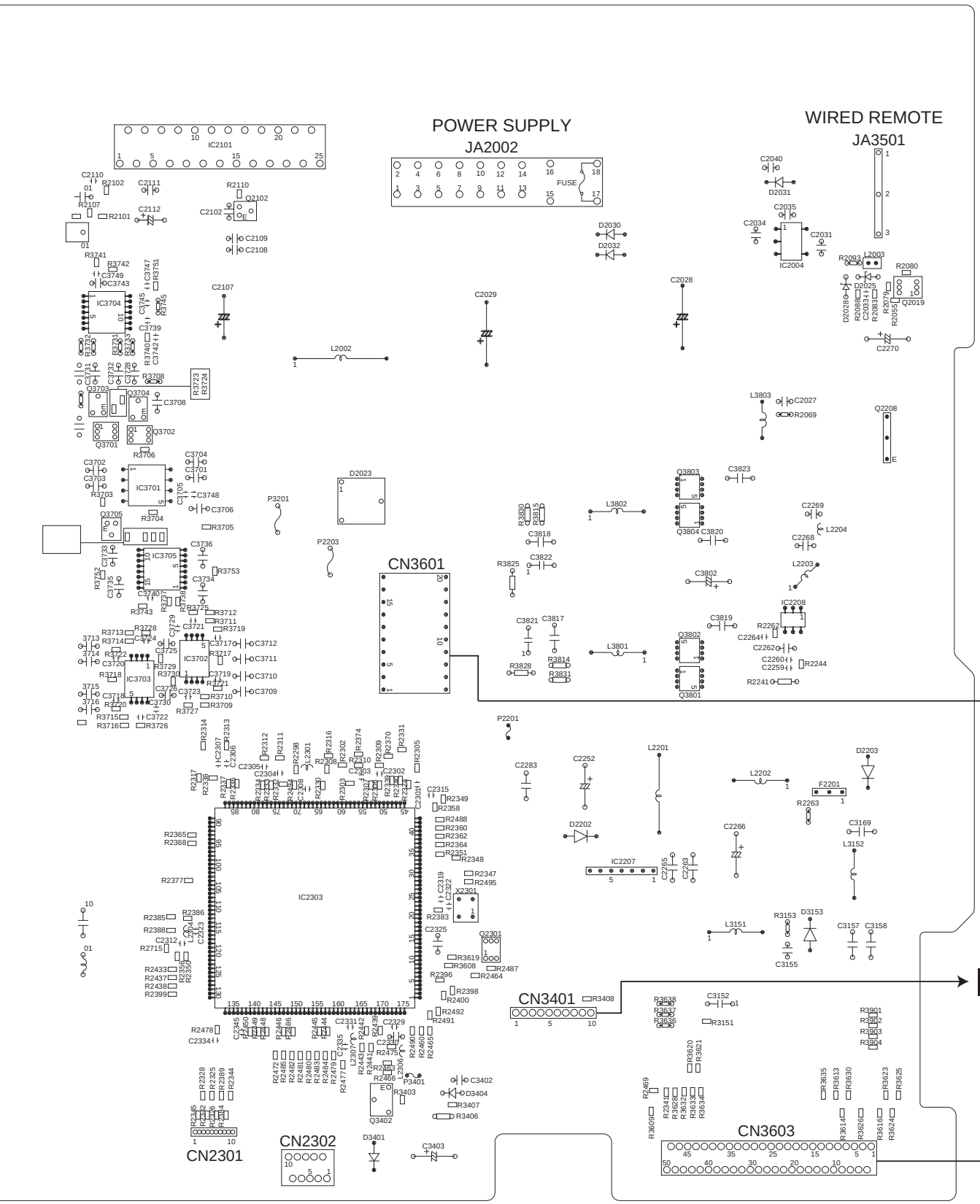
1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



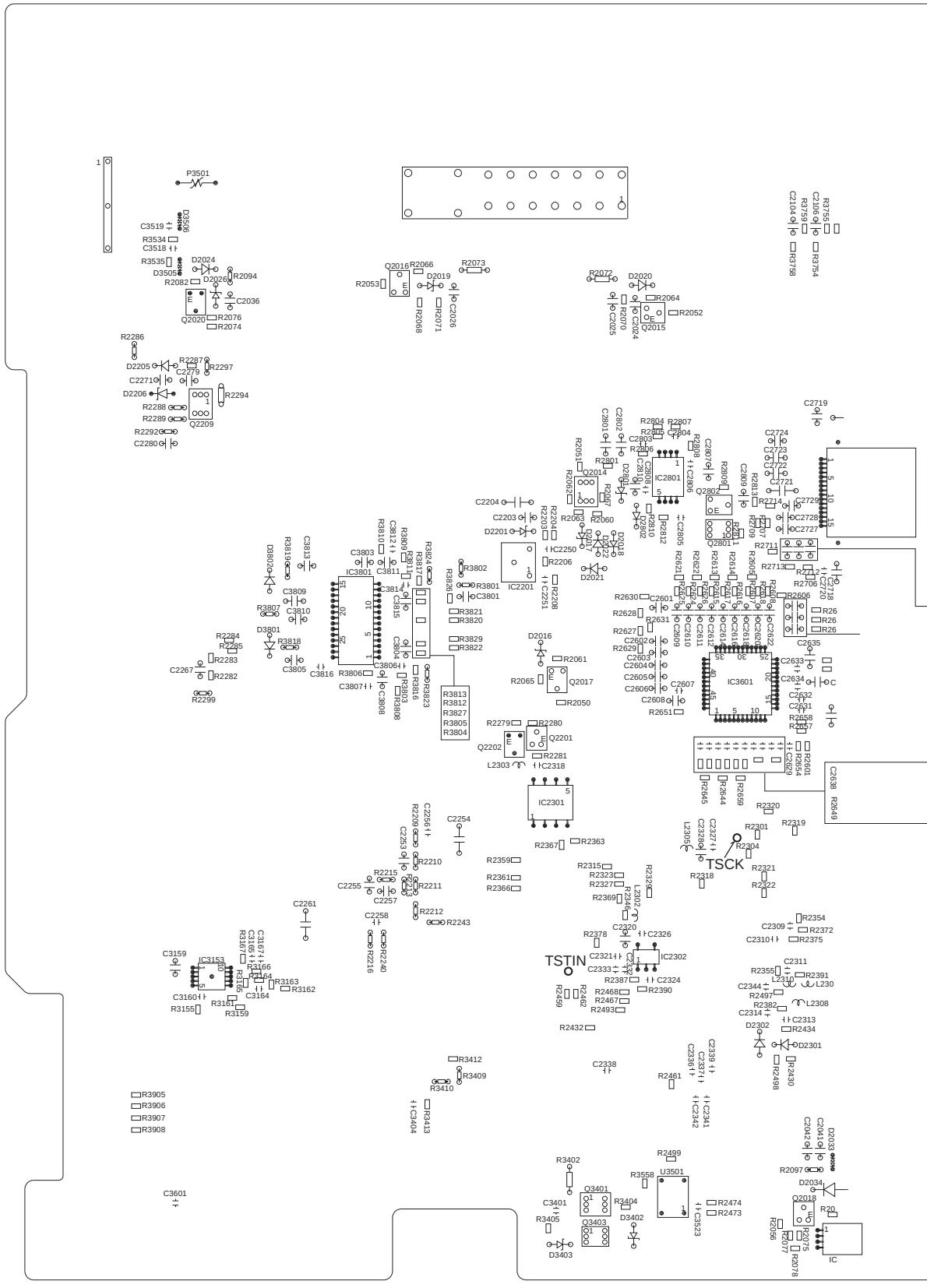
> P 2201 (A,118,59) Fuse 1.0 A CEK1381
> P 2203 (A,97,80) Fuse 400 mA CEK1250
> P 3401 (A,107,18) Fuse 1.5 A CEK1383



SIDE A


POWER SUPPLY
JA2002
WIRED REMOTE
JA3501
IC2101
IC2004
FUSE
CN3601
CN3401
CN2301
CN2302
CN3603
B CN3
F CN101
B CN2
FRONT

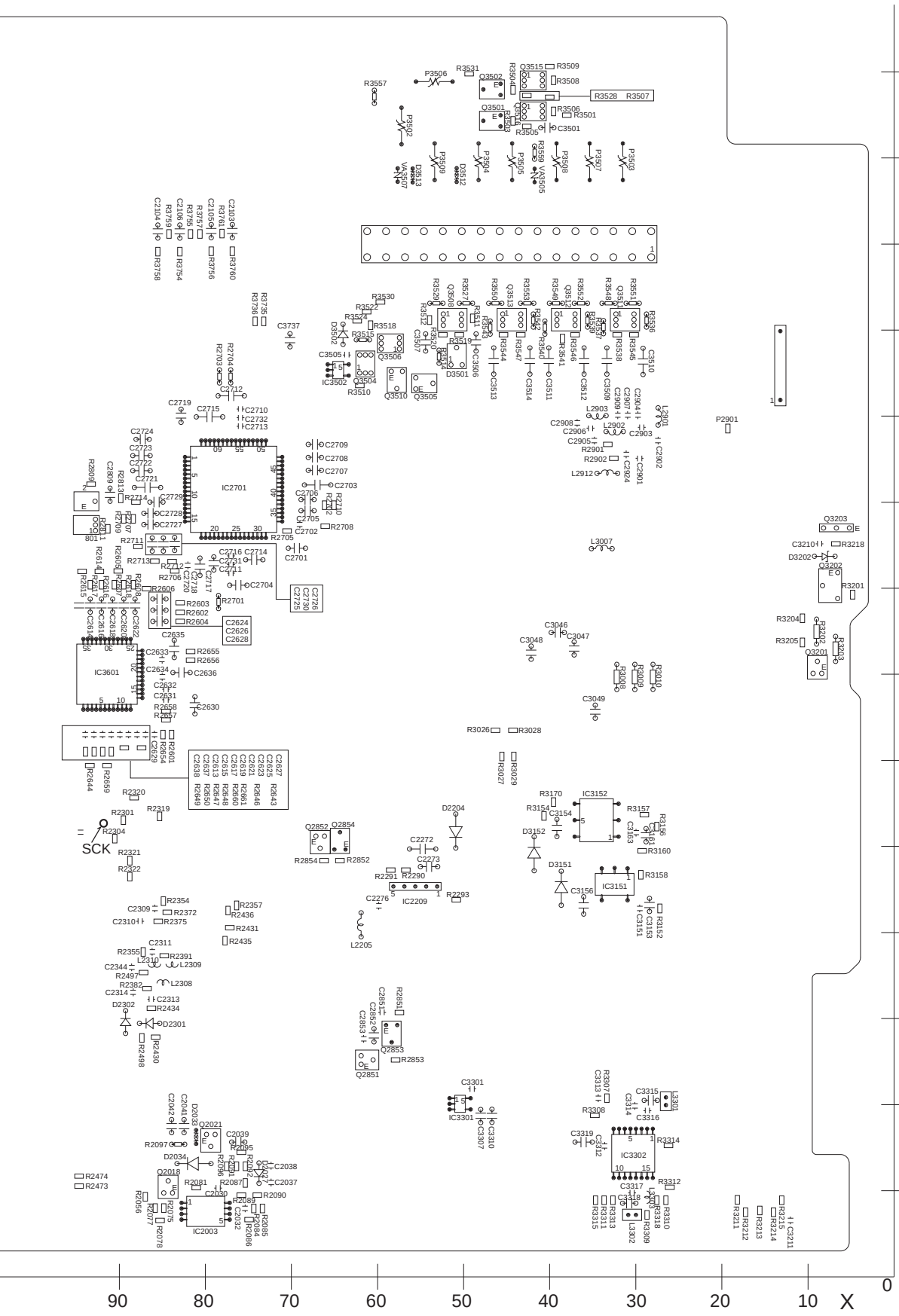
A AV UNIT



A

AVIC-Z150BH/XNUC

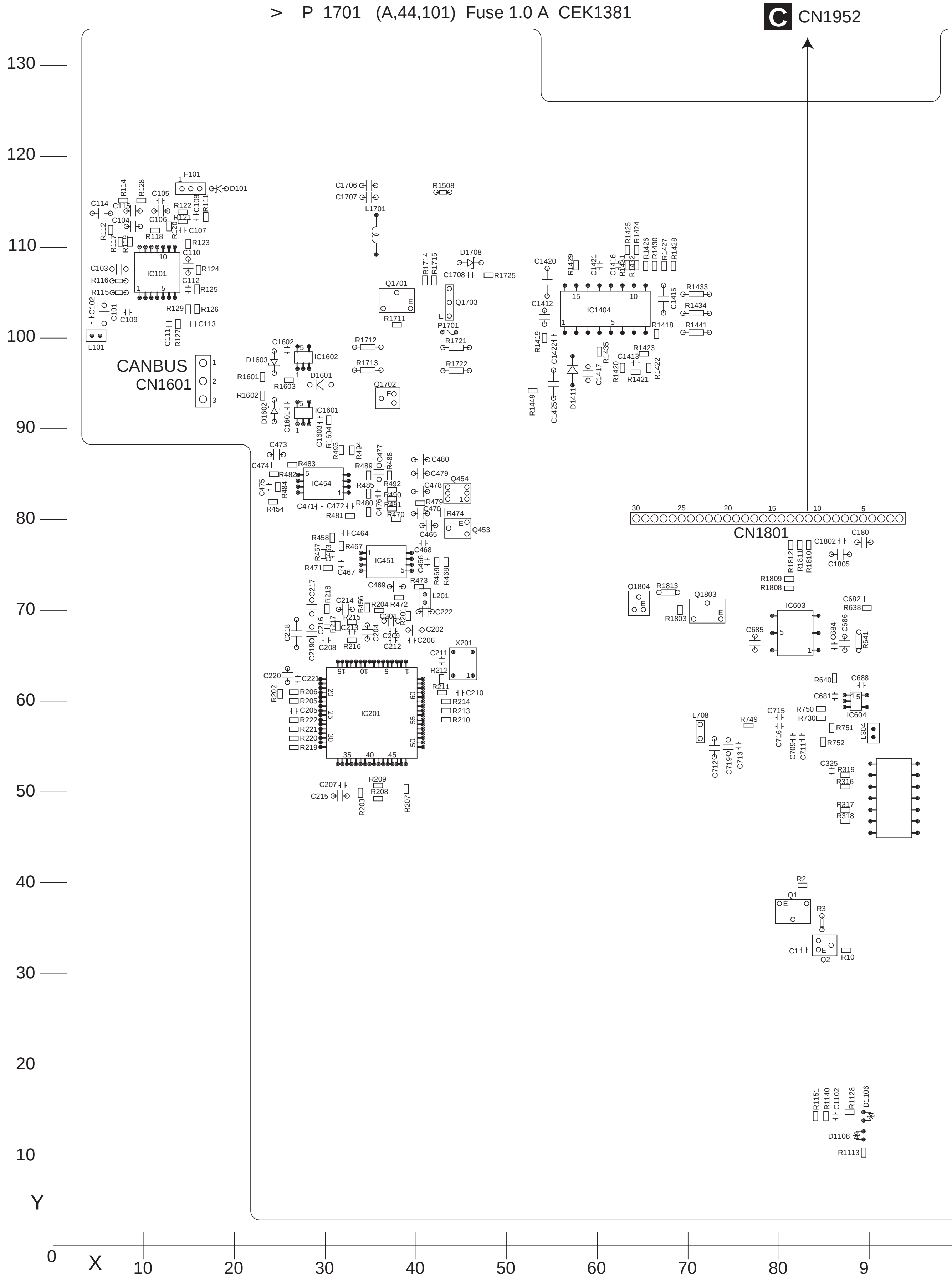
SIDE B

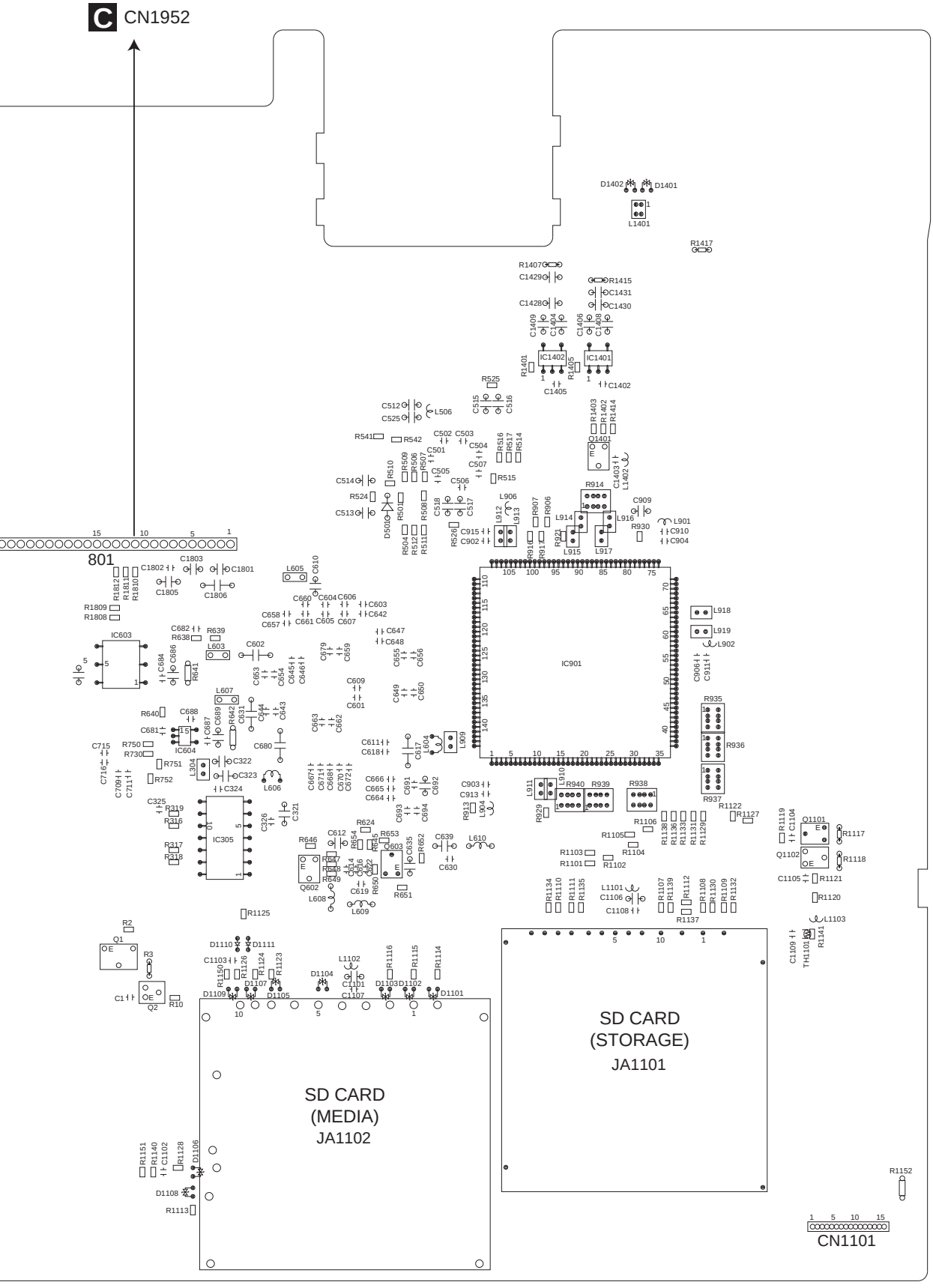


AVIC-Z150BH/XNUC

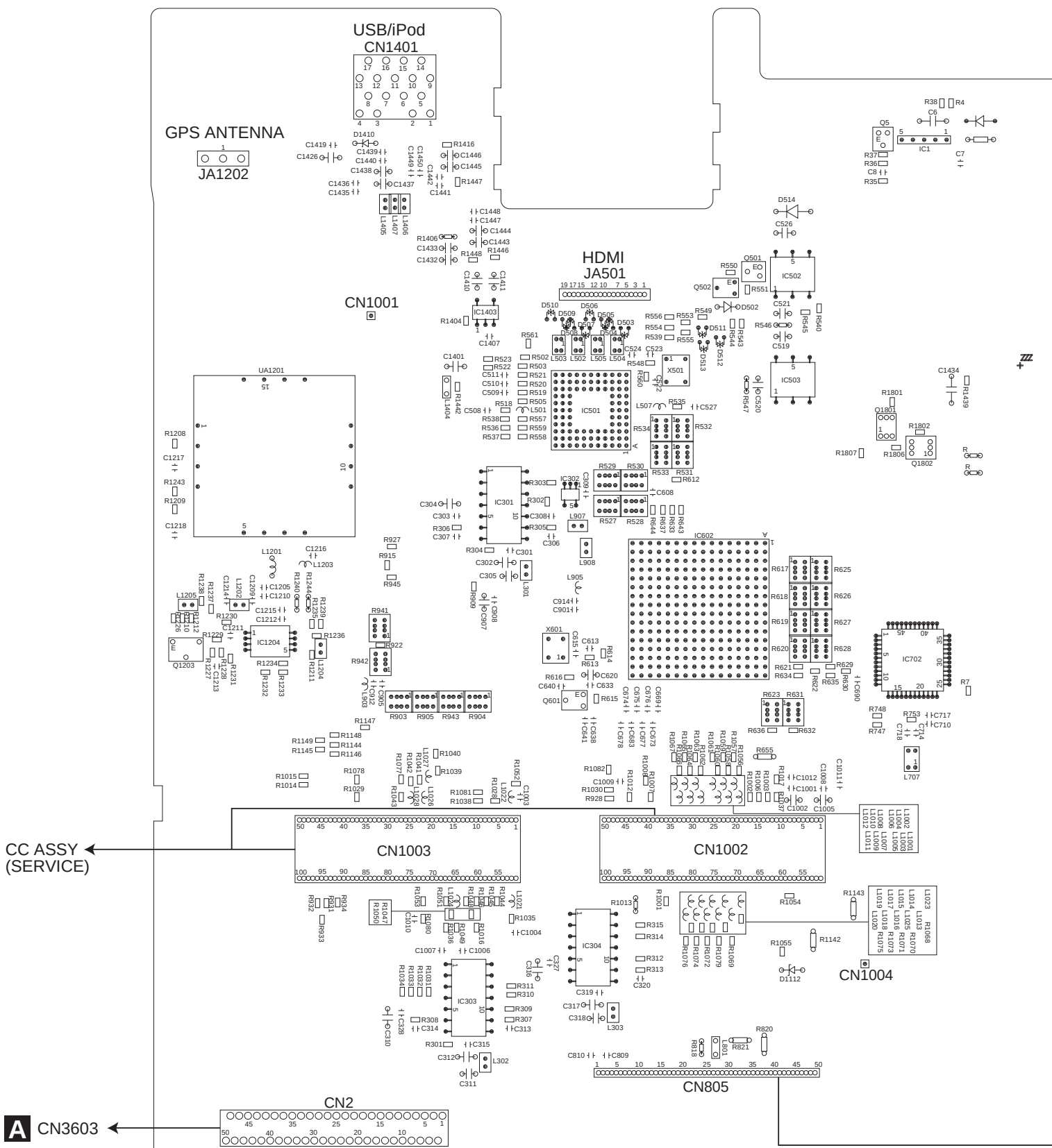
11.2 NAVI UNIT (SERVICE)

B NAVI UNIT(SERVICE)

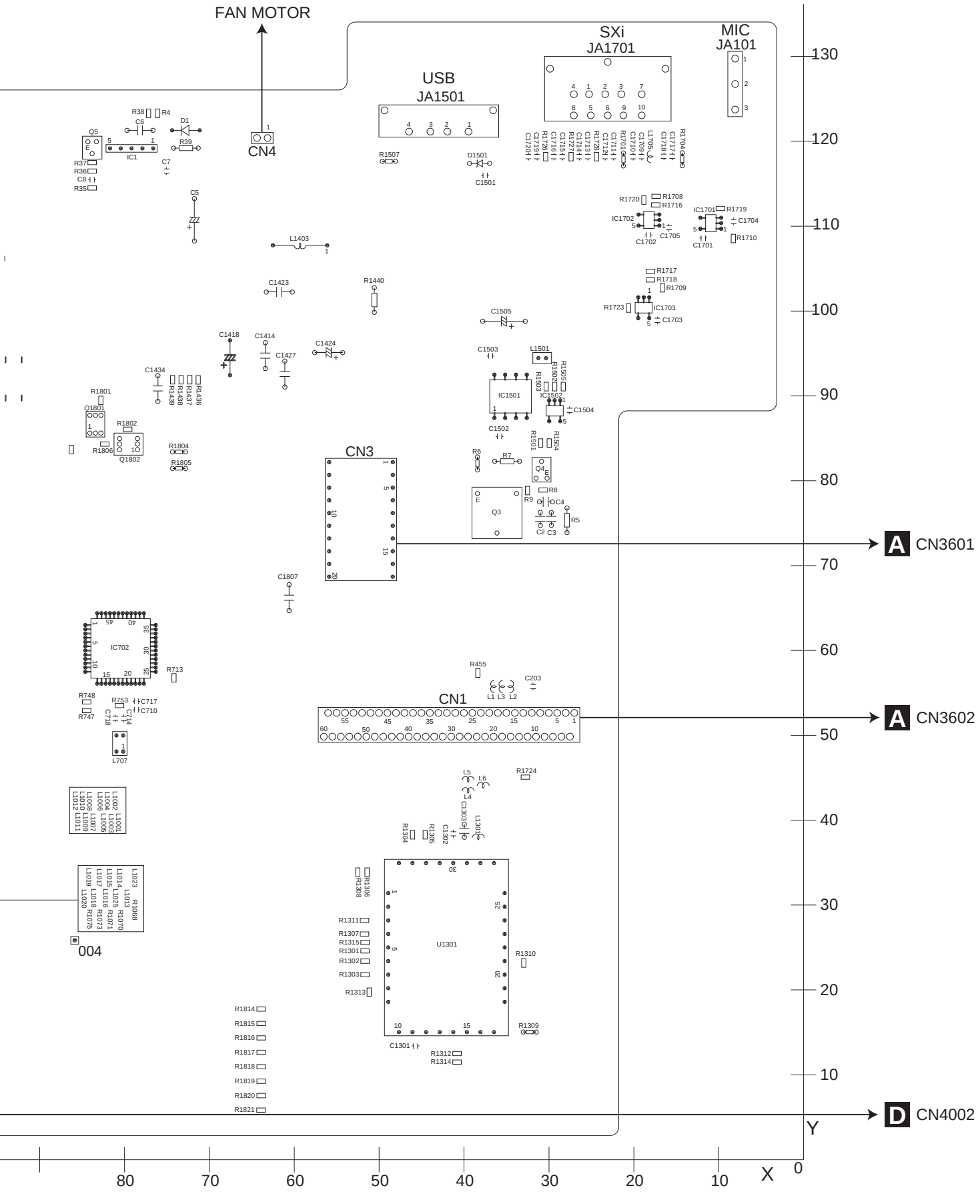



C CN1952
801
IC901
IC1401
IC1402
IC603
IC604
IC305
Q1401
Q602
Q1101
Q1102
Q1
Q2
D1401
D1402
L1401
SD CARD
(MEDIA)
JA1102
SD CARD
(STORAGE)
JA1101
CN1101

B NAVI UNIT(SERVICE)



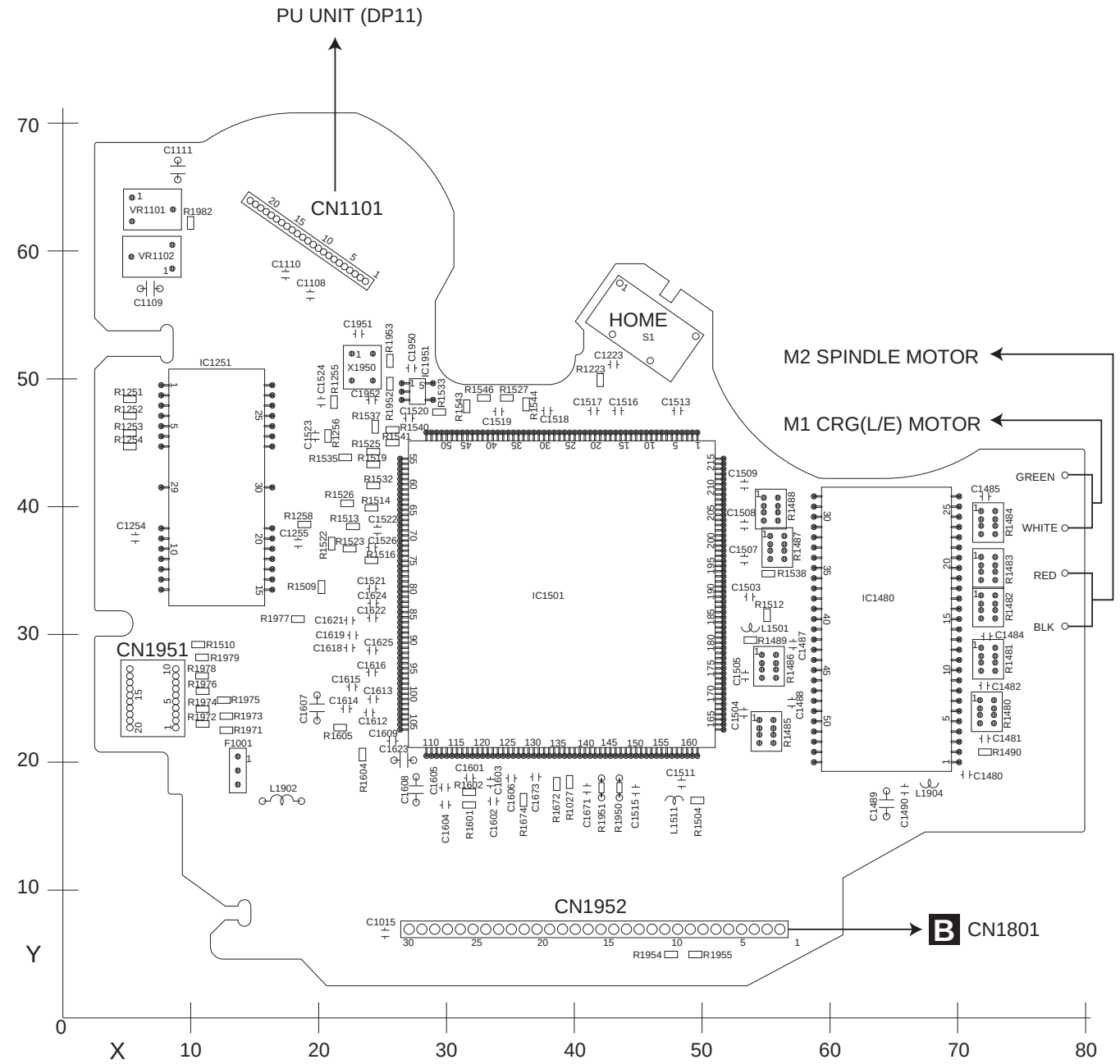
SIDE B


FAN MOTOR
CN4
SXi
JA1701
MIC
JA101
USB
JA1501
CN3
CN1
IC702
IC1501
IC1701
IC1702
IC1703
U1301
Q1801
Q1802
Q3
Q4
L707
004
A CN3601
A CN3602
D CN4002
X
Y
0
10
20
30
40
50
60
70
80
90
100
110
120
130

11.3 DVD CORE UNIT

C DVD CORE UNIT

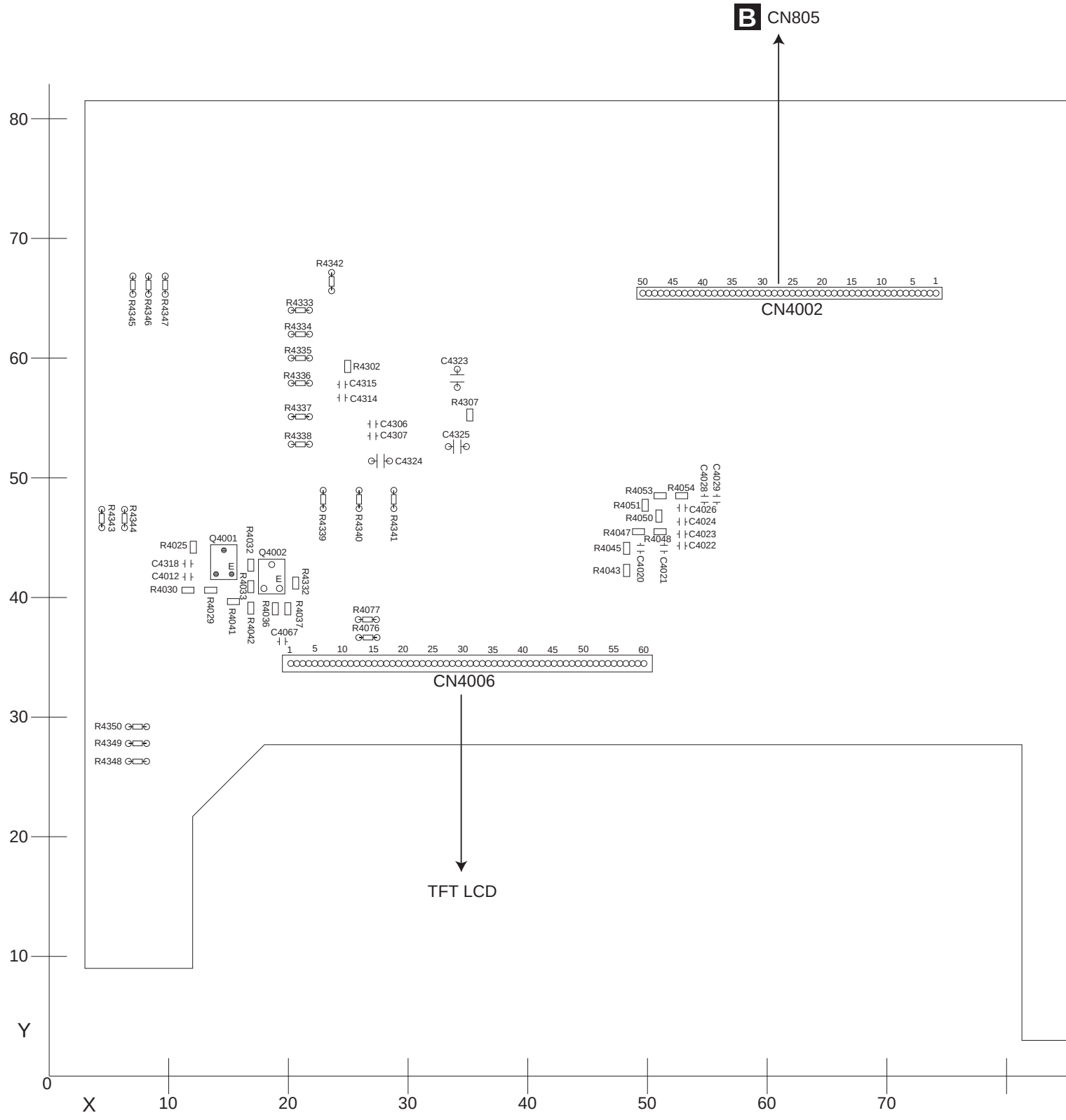
SIDE A



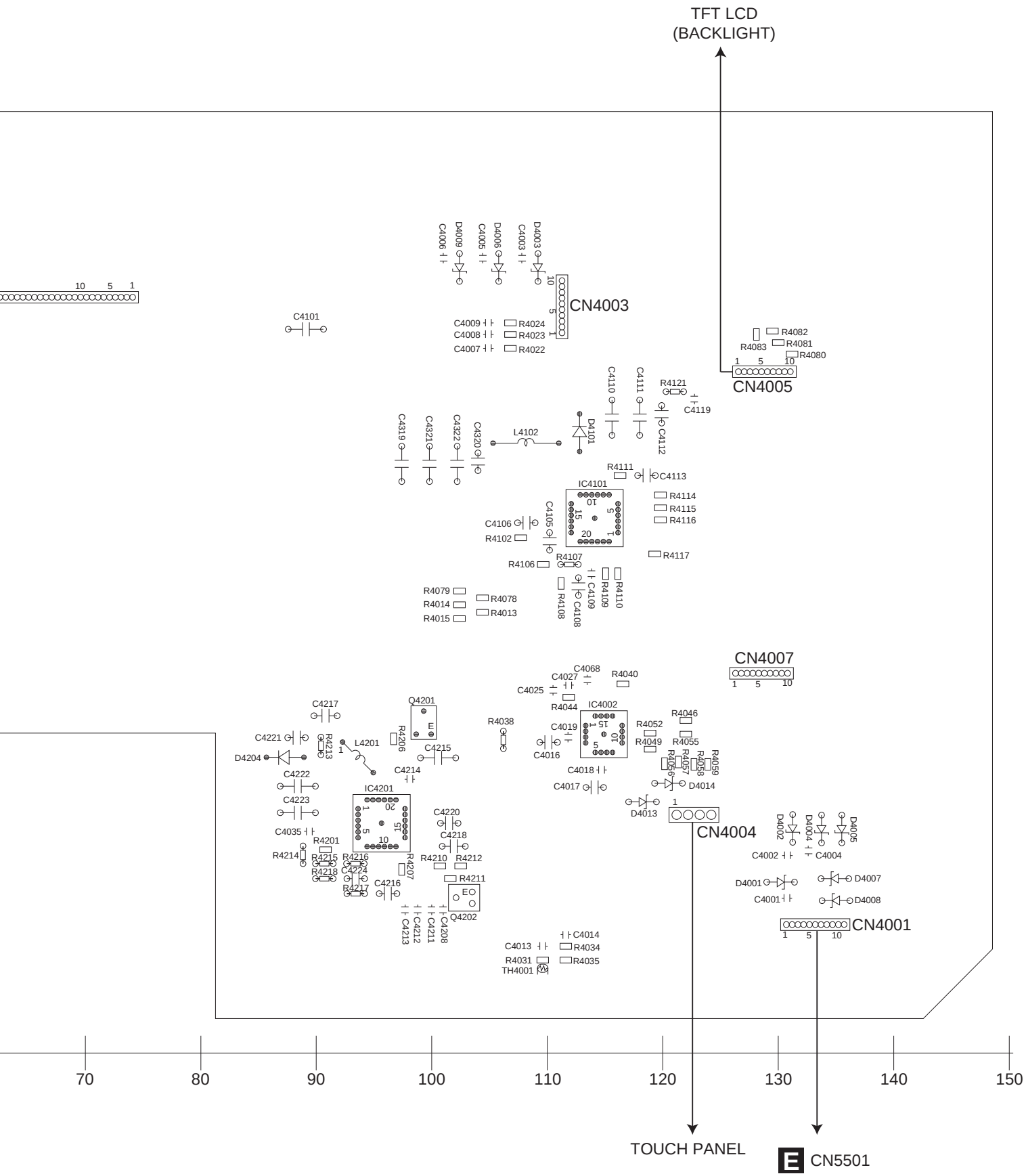
C1106
Q1103
R1111
R1116
R1115
R1103
Q1101
R1113
R1104
C1113
R1112
R1117
R1114
R1101
Q1102
C1104
R1109
Q1104
C1105
R1110
R1106
R1102
C1107
C1112
C1101
R1539
R1534
R1528
R1536
R1402
R1406
C1404
C1403
IC1401
C1251
C1252
C1253
R1257
C1955
C1210
R1405
C1506
R1524
R1542
R1528
R1530
R1224
C1224
C1409
C1408
IC1004
IC1402
R1518
R1531
C1410
R1401
C1401
R1547
C1620
C1617
S2
C1010
R1517
C1011
C1501
C1502
R1501
R1503
C1514
R1587
C1674
R1670
R1983
C1676
R1529
R1603
C1018
R1007
R1004
F1002
IC1953
C1512
X1501
R1671
R1508
R1507
C1809
R1505
R1506
R1804
IC1801
R1803
C1805
C1806
R1045
C1003
C1002
C1004
IC1002
L1903
C1016
C1953
C1954
C1510
C1804
C1803
C1802
C1801
D1901
D1902
C1040
R1043
R1802
R1801
C1005
IC1003
C1001
R1025
R1019
12EJ
S3
C1041
R1225
C1225
70
60
50
40
30
20
10
0
Y
80
70
60
50
40
30
20
10
X

11.4 MONITOR UNIT

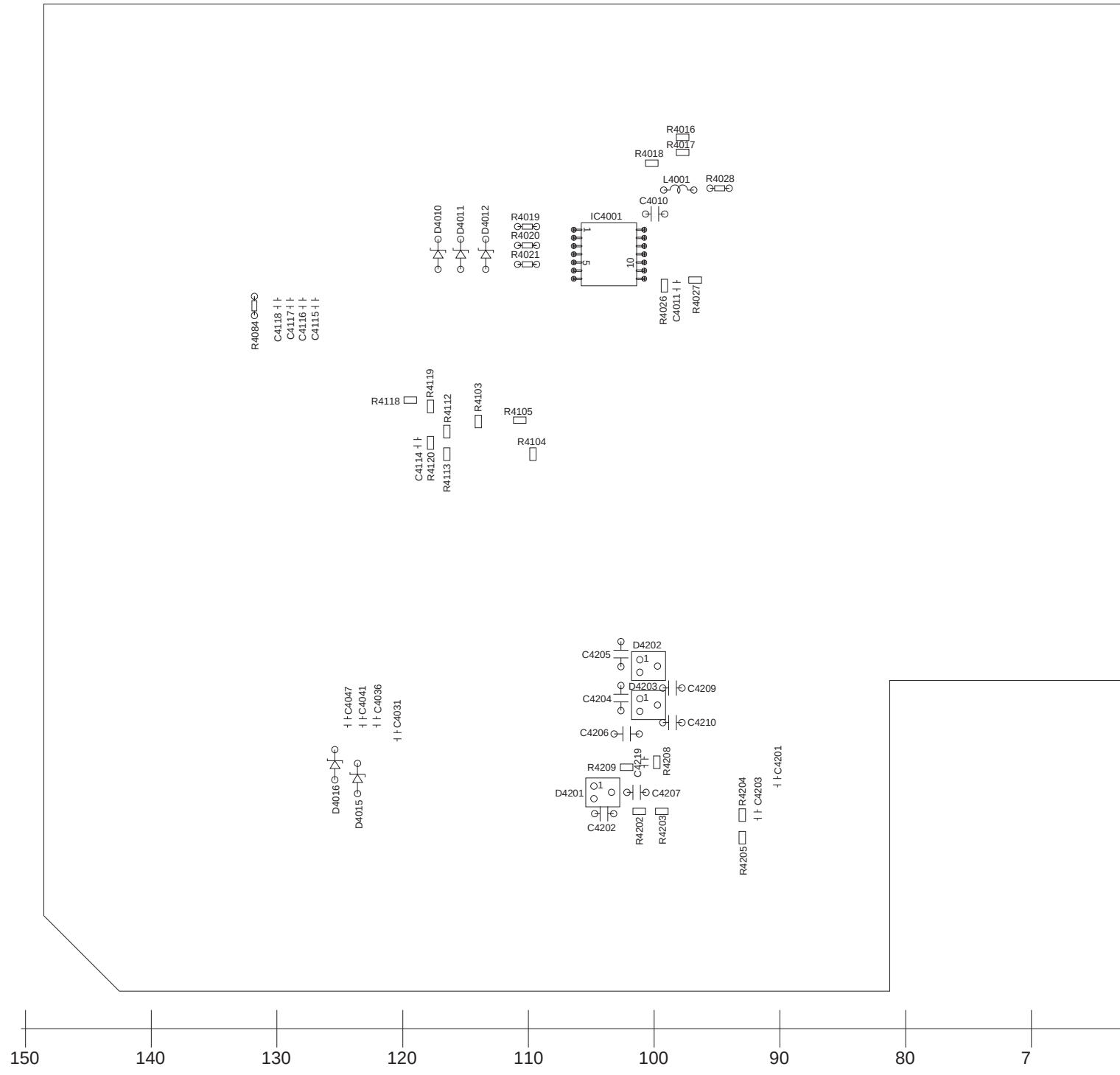
D MONITOR UNIT



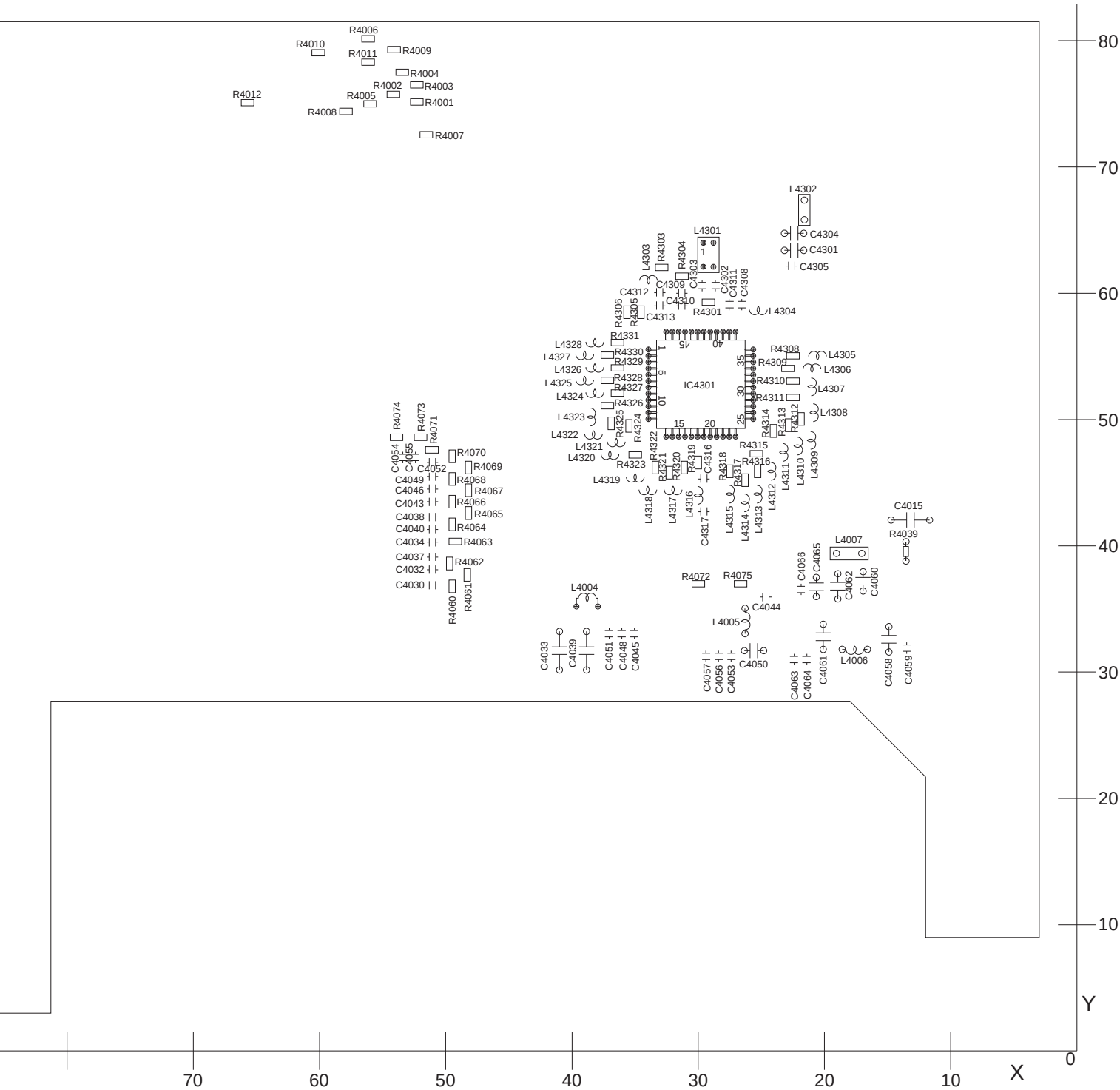
SIDE A


TFT LCD
(BACKLIGHT)
CN4005
CN4003
CN4007
CN4004
CN4001
IC4101
IC4201
IC4002
L4102
L4201
Q4201
Q4202
D4101
TH4001
TOUCH PANEL
CN5501

D MONITOR UNIT



SIDE B


R4006
R4010
R4011
R4009
R4004
R4002
R4003
R4012
R4005
R4001
R4008
R4007
L4302
C4304
C4301
C4305
L4301
L4303
R4303
R4304
C4303
C4302
C4311
C4308
C4312
C4309
C4310
R4301
L4304
R4306
R4305
C4313
R4331
L4328
R4330
L4327
R4329
L4326
R4328
L4325
R4327
L4324
R4326
L4323
R4325
R4324
L4322
L4321
L4320
R4323
L4319
IC4301
R4308
L4305
R4309
L4306
R4310
L4307
R4311
L4308
R4314
R4313
R4312
R4315
R4316
R4322
R4321
R4320
R4319
C4316
R4318
R4317
L4311
L4310
L4309
L4318
L4317
L4316
C4317
L4315
L4314
L4313
L4312
C4015
R4039
L4007
C4066
C4065
C4062
C4060
R4072
R4075
L4004
C4044
L4005
C4033
C4039
C4051
C4048
C4045
C4057
C4056
C4053
C4050
C4063
C4064
C4061
L4006
C4058
C4059
R4074
R4073
R4071
C4054
C4055
R4070
C4052
R4069
C4049
R4068
C4046
R4067
C4043
R4066
C4038
R4065
C4040
R4064
C4034
R4063
C4037
R4062
C4032
C4030
R4060
R4061
80
70
60
50
40
30
20
10
Y
0
70
60
50
40
30
20
10
X

D

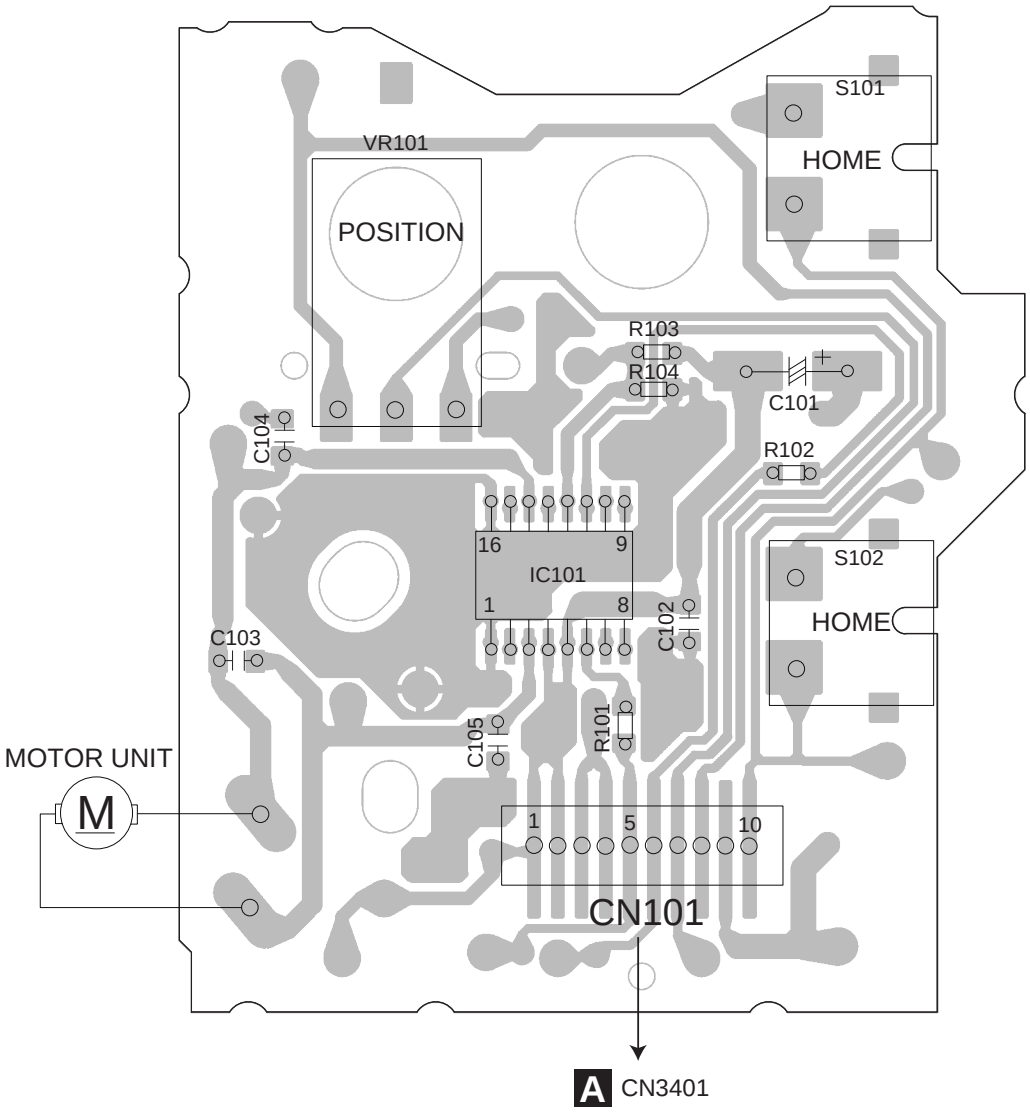
11.5 PCB UNIT(SERVICE)

A

F PCB UNIT(SERVICE)

SIDE A

B



C

D

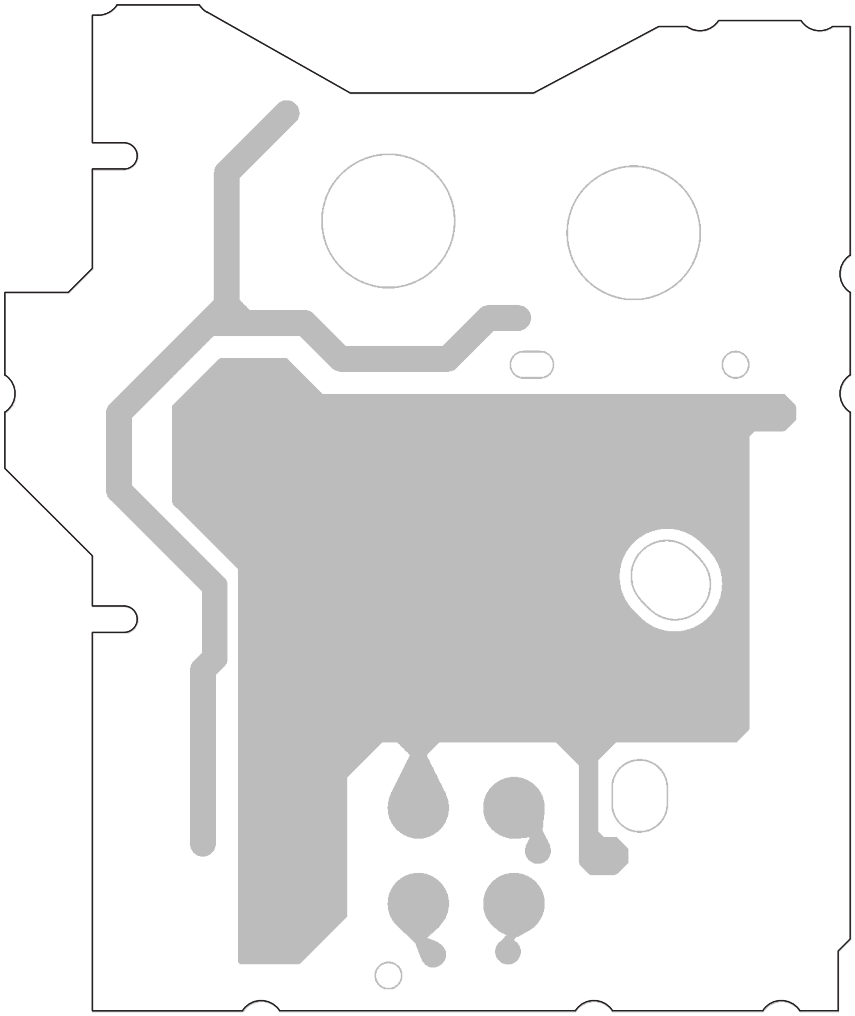
E

F

F

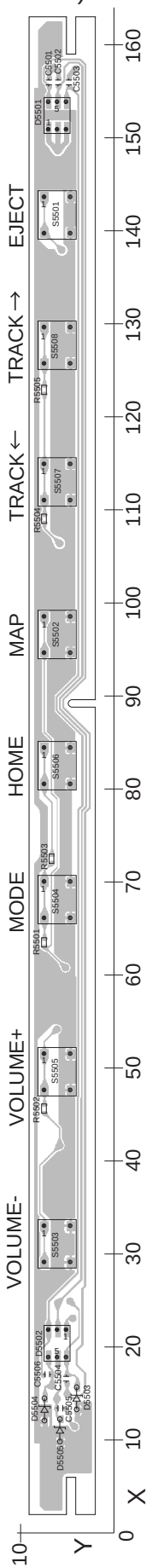
F PCB UNIT(SERVICE)

SIDE B

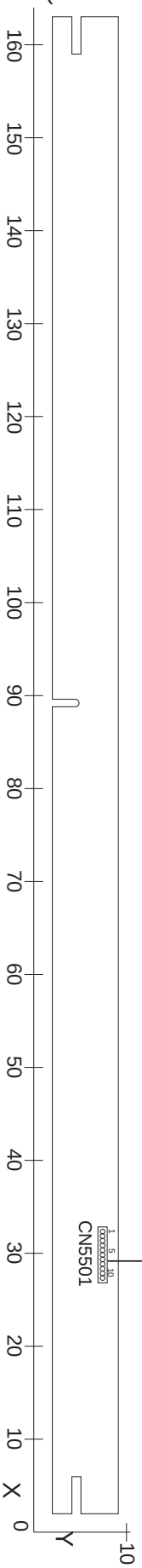


11.6 KEY UNIT (SERVICE)

E KEY UNIT(SERVICE) SIDE A



E KEY UNIT(SERVICE) SIDE B



D CN4001

E

12. ELECTRICAL PARTS LIST

NOTE:

- *Parts whose parts numbers are omitted are subject to being not supplied.*
- *The part numbers shown below indicate chip components.*

  Chip Resistor

  RS1/_ S___ J,RS1/__ S___ J

  Chip Capacitor (except for CQS.....)

  CKS....., CCS....., CSZS.....
- *The > mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Meaning of the figures and others in the parentheses in the parts list.*

  Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.

  IC 301 (A, 91, 111) IC NJM2068V
- *The expression of the unit in this manual is shown by u instead of μ. Please do not make a mistake.*

A:AVIC-Z150BH/XNUC

B:AVIC-F50BT/XNEU5

C:AVIC-F50BT/XNAU

Unit Number : CWN7367(A)

Unit Number : CWN7368(B)

Unit Number : CWN7369(C)

Unit Name : AV Unit

Unit Number : CXX5396(A)

Unit Number : CXX5397(B)

Unit Number : CXX5398(C)

Unit Name : Navi Unit(Service)

Unit Number : YWX5033

Unit Name : DVD Core Unit

Unit Number : CWN7383

Unit Name : Monitor Unit

Unit Number : CXX5403

Unit Name : Key Unit(Service)

Unit Number : EXX2001

Unit Name : PCB Unit(Service)

A

Unit Number : CWN7367(A)

Unit Number : CWN7368(B)

Unit Number : CWN7369(C)

Unit Name : AV Unit

MISCELLANEOUS

Circuit Symbol and No.		Part No.
IC 2003	(B,80,8) IC	NJM12904V
IC 2004	(A,152,118) IC	NJW4830U2
IC 2101	(A,84,133) IC	PA2030A
IC 2201	(B,117,84) IC	S-812C56AUA-C3K
IC 2207	(A,132,38) Regulator IC	BD9781HFP
IC 2208	(A,152,73) IC	LT3461AES6
IC 2209	(B,56,40) IC	NJM2387ADL3
IC 2210	(A,40,53) Regulator IC	NJM2846DL3-05
IC 2301	(B,113,57) IC	S-93C66BD0I-J8
IC 2302	(B,102,39) Reset IC	S-80929CNMC-G8Z
IC 2303	(A,95,38) IC(A)	PEQ155A8
	(A,95,38) IC(B)	PEQ156A8
	(A,95,38) IC(C)	PEQ157A8
IC 2701	(B,77,92) IC	PML020A
IC 2801	(B,100,93) Dual OP-AMP	NJM4565V
IC 3001	(A,44,74) IC	TDA7706
IC 3101	(A,55,39) IC	TEF6613
IC 3151	(B,32,46) Regulator IC(A)	S-1155B33-U5
IC 3152	(B,35,53) IC(A)	R1173S001D
IC 3153	(B,151,37) IC(A)	LT1912EMSE
IC 3301	(B,50,20) Regulator IC	NJM2878F3-05
IC 3302	(B,30,14) IC	ADC128S052QCIMT
IC 3303	(A,37,37) IC	LM20BIM7
IC 3502	(B,65,105) 1 Chip or Gate	TC7SH32FUS1
IC 3601	(B,91,70) IC	AK4223VQ
IC 3701	(A,75,89) IC	M61545AFP
IC 3702	(A,80,68) Dual OP-AMP	NJM4565V
IC 3703	(A,74,66) Dual OP-AMP	NJM4565V
IC 3704	(A,70,110) IC	NJM2058V
IC 3705	(A,77,79) IC	TC4052BFT
IC 3801	(B,135,77) IC	LTC3858EGN-1
Q 2014	(B,109,92) Chip Transistor	HN1C01FU
Q 2015	(B,101,112) Transistor	LTC014EEB
Q 2016	(B,130,115) Transistor	LSCR523UB
Q 2017	(B,112,70) Transistor	LSCR523UB
Q 2018	(B,84,10) Transistor	LTC014EEB
Q 2019	(A,166,113) Chip Transistor	HN1C01FU
Q 2020	(B,153,113) Transistor	LSAR523UB

Circuit Symbol and No.		Part No.
Q 2021	(B,79,16) Transistor	LTC014EEB
Q 2101	(A,66,119) Transistor	LTC024EEB
Q 2102	(A,87,122) Transistor	LTC014YEB
Q 2201	(B,114,64) Transistor	LTC014EEB
Q 2202	(B,117,63) Transistor	LSAR523UB
Q 2208	(A,164,95) Transistor	2SB1565
Q 2209	(B,152,101) Chip Transistor	HN1C01FU
Q 2301	(A,116,33) Chip Transistor	RN4983
Q 2801	(B,94,87) Chip Transistor	RN4982
Q 2802	(B,94,90) Transistor	DTC623TU
Q 2851	(B,61,25) Transistor	LTC023EEB
Q 2852	(B,67,51) Transistor	LTC014EEB
Q 2853	(B,58,28) Transistor	ISA1602AM1
Q 2854	(B,64,51) Transistor	LSAR523UB
Q 2901	(A,51,92) Transistor	2SC3357
Q 3401	(B,108,12) Chip Transistor	HN1C01FU
Q 3402	(A,102,15) Transistor	2SB1260
Q 3403	(B,108,8) Chip Transistor	RN4982
Q 3504	(B,61,106) Chip Transistor	RN4982
Q 3505	(B,55,104) Chip Digital Transistor	LTA124EUB
Q 3506	(B,59,108) Chip Transistor	RN4982
Q 3507	(A,51,105) Transistor	LSAR523UB
Q 3508	(B,51,111) Chip Transistor	HN1C03FU
Q 3509	(A,39,113) Transistor(A)	LSAR523UB
Q 3510	(B,58,104) Chip Digital Transistor	LTA124EUB
Q 3511	(B,31,111) Chip Transistor	HN1C03FU
Q 3512	(B,38,111) Chip Transistor	HN1C03FU
Q 3513	(B,44,111) Chip Transistor	HN1C03FU
Q 3515	(B,42,139) Transistor	RN4984
Q 3516	(B,42,135) Transistor	RN4984
Q 3701	(A,70,95) Chip Transistor	RN4982
Q 3702	(A,74,95) Chip Transistor	RN4982
Q 3703	(A,69,99) Transistor	DTC623TU
Q 3704	(A,74,98) Transistor	DTC623TU
Q 3705	(A,71,84) Transistor	LTC014EEB
Q 3801	(A,140,66) FET	FK8V03050
Q 3802	(A,140,69) FET	FK8V03040
Q 3803	(A,140,89) FET	FK8V03050
Q 3804	(A,140,85) FET	FK8V03040
D 2016	(B,114,73) Diode	RKZ7.5KG(B2)
D 2017	(B,109,87) Diode	RKZ20KG(B2)
D 2018	(B,106,86) Diode	RKZ7.5KG(B2)
D 2019	(B,126,115) Diode	RKZ6.8KG(B2)
D 2020	(B,102,115) Diode	DA2J101
D 2021	(B,108,83) Diode	DA2J101
D 2022	(B,107,86) Diode	DA2J101
D 2023	(A,103,87) Diode	RF501B2S
D 2024	(B,152,117) Diode	DA2J101
D 2025	(A,161,114) Diode	RKZ5.6KG(B2)
D 2027	(B,74,12) Diode	DA2J101
D 2030	(A,130,119) Diode	CRG03
D 2032	(A,130,116) Diode	CRG03
D 2034	(B,81,13) Diode	1SR154-400
D 2201	(B,116,87) Diode	RKZ6.8KG(B2)
D 2202	(A,127,47) Diode	RB056L-40
D 2203	(A,161,54) Diode	RB056L-40
D 2205	(B,156,106) Diode	DA2J101
D 2206	(B,156,103) Diode	HZU7R5(B3)
D 2301	(B,86,29) Diode	DB2J31400
D 2302	(B,89,30) Diode	RB501VM-40
D 2801	(B,105,92) Diode	RKZ4.3KG(B2)

Circuit Symbol and No.		Part No.
D 2901	(A,38,96) Diode	RN731VN
D 2902	(A,43,92) Diode	RN731VN
D 3151	(B,39,45) Diode(A)	1SR154-400
D 3152	(B,42,49) Diode(A)	1SR154-400
D 3153	(A,154,35) Diode(A)	RB056L-40
D 3401	(A,102,8) Diode	RB060M-30
D 3402	(B,103,8) Diode	RKZ7.5KG(B2)
D 3403	(B,112,7) Diode	RKZ6.2KG(B2)
D 3501	(B,51,107) Diode	DAN202UM
D 3502	(B,64,110) Diode	DA2J101
D 3503	(A,44,105) Diode	DA2J101
D 3801	(B,144,74) Diode	DB2J41100
D 3802	(B,144,82) Diode	DB2J41100
L 2002	(A,98,104) Choke Coil 600 uH	CTH1221
L 2201	(A,136,52) Inductor	CTH1542
L 2203	(A,154,78) Choke Coil 22 uH	CTH1426
L 2204	(A,156,84) Ferrite Bead	CTF1528
L 2310	(B,86,36) Inductor	CTF1787
L 2901	(B,27,100) Inductor	LCTCR12K2125
L 2902	(B,32,98) Inductor	LCTCR12K2125
L 2904	(A,41,96) Inductor	LCTCR15K1608
L 2905	(A,43,97) Chip Coil	LCTAWR27J2520
L 2907	(A,46,93) Inductor	CTF1794
L 2908	(A,56,97) Inductor	LCTAW101J2520
L 2909	(A,54,94) Inductor	LCYB47NJ1608
L 2910	(A,52,88) Inductor	LCYB47NJ1608
L 2911	(A,56,88) Coil	CTC1213
L 2913	(A,52,83) Inductor	LCYB47NJ1608
L 3001	(A,46,85) Inductor	CTF1786
L 3002	(A,41,85) Inductor	CTF1786
L 3003	(A,30,91) Inductor	CTF1389
L 3006	(A,34,85) Inductor	LCYC220K1608
L 3008	(A,34,82) Inductor	LCYB68NJ1608
L 3009	(A,55,79) Inductor	CTF1786
L 3010	(A,55,78) Inductor	CTF1786
L 3011	(A,32,77) Inductor	LCTC100K1608
L 3012	(A,35,73) Inductor	CTF1786
L 3014	(A,40,65) Inductor(B,C)	CTF1786
L 3015	(A,53,65) Inductor	CTF1786
L 3017	(A,50,64) Inductor	CTF1786
L 3018	(A,41,65) Inductor(A)	CTF1786
L 3019	(A,46,66) Inductor(A)	CTF1787
L 3020	(A,45,63) Inductor(A)	CTF1787
L 3021	(A,45,66) Inductor(A)	CTF1787
L 3022	(A,44,63) Inductor(A)	CTF1787
L 3101	(A,67,31) Chip Coil	LCTAW3R3J2520
L 3151	(A,145,35) Inductor(A)	CTH1521
L 3152	(A,160,42) Inductor(A)	BTH1110
L 3301	(B,27,20) Chip Ferrite Bead	OTL8019
L 3302	(B,30,7) Chip Ferrite Bead	OTL8019
L 3303	(B,29,9) Inductor	CTF1787
L 3801	(A,131,69) Choke Coil 4.7 uH	CTH1480
L 3802	(A,131,86) Inductor	CTH1482
L 3803	(A,149,97) Inductor	CTF1738
X 2301	(A,113,38) Crystal Resonator 16.000 MHz	CSS1736
X 3001	(A,55,71) Resonator 36.480 MHz	CSS1805
X 3101	(A,44,31) Resonator 4 MHz	CSS1817
> P2201	(A,118,59) Fuse 1.0 A	CEK1381
> P2203	(A,97,80) Fuse 400 mA	CEK1250
P 2901	(B,19,99) Surge Absorber	IMSA-6803-01Y900

Circuit Symbol and No.		Part No.
> P3401	(A,107,18) Fuse 1.5 A	CEK1383
P 3501	(B,153,126) Poly Switch	FSMD075-24R
P 3502	(B,57,134) Poly Switch	FSMD075-24R
P 3503	(B,32,130) Poly Switch	FSMD075-24R
P 3504	(B,48,130) Poly Switch	FSMD075-24R
P 3505	(B,44,130) Poly Switch	FSMD075-24R
P 3506	(B,53,139) Poly Switch	FSMD075-24R
P 3507	(B,35,130) Poly Switch	FSMD075-24R
P 3508	(B,39,130) Poly Switch	FSMD075-24R
P 3509	(B,53,130) Poly Switch	FSMD075-24R
U 3501	(B,99,12) Remote Receiver Unit(C)	RS-470
GY3301	(A,31,40) Sensor	CSX1179
GY3302	(A,39,18) Sensor	CSX1183
CN3401	(A,124,22) Connector	CKS6095
CN3501	(A,45,133) Plug	CKM1567
CN3601	(A,106,71) Connector	CKS6496
CN3602	(A,45,8) Connector	CKS5586
CN3603	(A,149,8) Connector	CKS6464
JA2002	(A,117,133) Connector	CKM1613
JA2901	(A,13,117) Antenna Jack	YKS5041
JA3501	(A,163,124) Jack	CKS6437
VL3101	(A,50,54) Variable Coil	CTE1170
	WWR C-TUN Unit(A)	CWE2364

RESISTORS

R 2050	(B,112,68)	RS1/16SS221J
R 2051	(B,109,94)	RS1/16SS221J
R 2052	(B,99,112)	RS1/16SS221J
R 2053	(B,132,115)	RS1/16SS221J
R 2055	(A,165,111)	RS1/16SS221J
R 2056	(B,87,9)	RS1/16SS0R0J
R 2060	(B,108,89)	RS1/16SS473J
R 2061	(B,112,73)	RS1/16SS473J
R 2062	(B,111,91)	RS1/16SS103J
R 2063	(B,110,89)	RS1/16SS103J
R 2064	(B,102,113)	RS1/16SS103J
R 2065	(B,114,71)	RS1/16SS473J
R 2066	(B,128,116)	RS1/16SS473J
R 2067	(B,107,91)	RS1/16SS473J
R 2068	(B,127,113)	RS1/16SS473J
R 2069	(A,151,97)	RS1/10SR473J
R 2070	(B,105,113)	RS1/16SS472J
R 2071	(B,125,113)	RS1/16SS472J
R 2072	(B,107,116) 1 kohm	CCN1326
R 2073	(B,121,117) 1 kohm	CCN1326
R 2074	(B,151,110)	RS1/16SS102J
R 2075	(B,85,8)	RS1/16SS104J
R 2076	(B,151,111)	RS1/16SS103J
R 2077	(B,86,8)	RS1/16SS473J
R 2078	(B,85,7)	RS1/16SS563J
R 2079	(A,164,113)	RS1/16SS473J
R 2080	(A,166,114)	RS1/16SS473J
R 2081	(B,81,10)	RS1/16SS513J
R 2082	(B,153,115)	RS1/16SS153J
R 2083	(A,162,112)	RS1/16SS104J
R 2084	(B,74,8)	RS1/16SS104J
R 2085	(B,73,8)	RS1/16SS513J
R 2086	(B,75,7)	RS1/16SS513J
R 2087	(B,75,11)	RS1/16SS102J
R 2088	(A,160,112)	RS1/16SS472J
R 2089	(B,76,10)	RS1/16SS102J
R 2090	(B,74,10)	RS1/16SS564J
R 2091	(B,76,13)	RS1/16SS822J
R 2092	(B,75,13)	RS1/16SS202J
R 2093	(A,160,115)	RS1/10SR102J
R 2094	(B,149,116)	RS1/10SR103J
R 2095	(B,76,14)	RS1/16SS203J
R 2096	(B,78,13)	RS1/16SS333J
R 2097	(B,83,15)	RS1/10SR0R0J
R 2101	(A,69,121)	RS1/16SS103J
R 2102	(A,70,124)	RS1/16SS103J
R 2107	(A,68,122)	RS1/16SS221J
R 2110	(A,86,124)	RS1/16SS103J
R 2201	(A,37,46)	RS1/16SS102J
R 2203	(B,113,87)	RS1/16SS302J
R 2204	(B,112,87)	RS1/16SS302J
R 2206	(B,113,84)	RS1/16SS5601D
R 2208	(B,112,82)	RS1/16SS6801D
R 2209	(B,128,53)	RS1/10SR0R0J
R 2210	(B,128,50)	RS1/10SR6802D
R 2211	(B,128,47)	RS1/10SR3001D
R 2212	(B,128,45)	RS1/10SR1002D
R 2215	(B,131,48)	RS1/10SR393J
R 2216	(B,133,41)	RS1/10SR1003D
R 2240	(B,132,41)	RS1/10SR1002D
R 2241	(A,151,65)	RS1/4SA182J
R 2243	(B,126,43)	RS1/10SR102J
R 2244	(A,153,67)	RS1/16SS0R0J
R 2262	(A,150,71)	RS1/16SS473J
R 2279	(B,117,66)	RS1/16SS222J
R 2280	(B,115,66)	RS1/16SS222J
R 2281	(B,114,62)	RS1/16SS473J
R 2282	(B,151,71)	RS1/16SS1003D
R 2283	(B,151,73)	RS1/16SS1603D
R 2284	(B,149,75)	RS1/16SS1202D
R 2285	(B,149,74)	RS1/16SS1102D
R 2286	(B,160,107)	RS1/10SR0R0J
R 2287	(B,153,106)	RS1/16SS120J
R 2288	(B,155,101)	RS1/10SR271J
R 2289	(B,155,100)	RS1/10SR471J
R 2290	(B,57,47)	RS1/16SS6801D
R 2291	(B,58,47)	RS1/16SS1201D
R 2292	(B,156,98)	RS1/10SR223J
R 2293	(B,51,44)	RS1/16SS0R0J
R 2294	(B,150,102)	RS1/8SQ271J
R 2296	(A,44,47)	RS1/8SQ0R0J
R 2297	(B,151,106)	RS1/10SR332J
R 2298	(A,93,55)	RS1/16SS102J
R 2299	(B,152,69)	RS1/10SR0R0J
R 2301	(B,90,53)	RS1/16SS104J
R 2302	(A,98,55)	RS1/16SS473J
R 2303	(A,99,53)	RS1/16SS473J
R 2304	(B,91,51)	RS1/16SS104J
R 2305	(A,107,55)	RS1/16SS822J
R 2306	(A,103,53)	RS1/16SS101J
R 2307	(A,102,53)	RS1/16SS101J
R 2308	(A,96,55)	RS1/16SS104J
R 2309	(A,103,55)	RS1/16SS222J
R 2310	(A,100,55)	RS1/16SS222J
R 2313	(A,84,58)	RS1/16SS222J

Circuit Symbol and No.		Part No.
R 2314	(A,82,58)	RS1/16SS222J
R 2316	(A,97,56)	RS1/16SS473J
R 2317	(A,81,54)	RS1/16SS103J
R 2318	(B,96,48)	RS1/16SS104J
R 2320	(B,88,56)	RS1/16SS104J
R 2322	(B,89,47)	RS1/16SS104J
R 2323	(B,105,49)	RS1/16SS221J
R 2324	(A,106,53)	RS1/16SS101J
R 2327	(B,105,48)	RS1/16SS221J
R 2330	(A,96,53)	RS1/16SS471J
R 2331	(A,105,57)	RS1/16SS472J
R 2332	(A,91,53)	RS1/16SS0R0J
R 2333	(A,90,53)	RS1/16SS101J
R 2334	(A,89,53)	RS1/16SS101J
R 2336	(A,86,53)	RS1/16SS121J
R 2337	(A,85,53)	RS1/16SS121J
R 2338	(A,83,54)	RS1/16SS0R0J
R 2339	(A,104,53)	RS1/16SS101J
R 2340	(A,105,53)	RS1/16SS101J
R 2341	(A,137,16)	RS1/16SS101J
R 2346	(B,104,44)	RS1/16SS104J
R 2348	(A,112,44)	RS1/16SS473J
R 2349	(A,110,51)	RS1/16SS822J
R 2351	(A,110,45)	RS1/16SS473J
R 2354	(B,85,44)	RS1/16SS562J
R 2355	(B,87,38)	RS1/16SS104J
R 2356	(A,78,32)	RS1/16SS104J
R 2357	(B,76,43)	RS1/16SS152J
R 2358	(A,109,50)	RS1/16SS101J
R 2359	(B,117,50)	RS1/16SS473J
R 2360	(A,110,48)	RS1/16SS102J
R 2361	(B,117,48)	RS1/16SS473J
R 2362	(A,110,47)	RS1/16SS102J
R 2363	(B,110,52)	RS1/16SS472J
R 2364	(A,110,46)	RS1/16SS102J
R 2365	(A,80,47) (A)	RS1/16SS102J
R 2366	(B,117,47)	RS1/16SS473J
R 2367	(B,112,52)	RS1/16SS102J
R 2368	(A,80,46) (A)	RS1/16SS101J
R 2369	(B,105,46)	RS1/16SS101J
R 2370	(A,104,56)	RS1/16SS0R0J
R 2372	(B,84,42)	RS1/16SS221J
R 2374	(A,100,57)	RS1/16SS0R0J
R 2375	(B,85,41)	RS1/16SS221J
R 2377	(A,80,41) (A)	RS1/16SS101J
R 2382	(B,87,34)	RS1/16SS471J
R 2383	(A,110,38)	RS1/16SS102J
R 2385	(A,78,37)	RS1/16SS681J
R 2386	(A,80,37)	RS1/16SS681J
R 2387	(B,103,37)	RS1/16SS102J
R 2388	(A,78,35)	RS1/16SS681J
R 2390	(B,102,36)	RS1/16SS104J
R 2391	(B,85,37)	RS1/16SS471J
R 2396	(A,110,29)	RS1/16SS681J
R 2398	(A,111,28)	RS1/16SS681J
R 2399	(A,78,28)	RS1/16SS0R0J
R 2400	(A,110,28)	RS1/16SS681J
R 2431	(B,77,41) (A)	RS1/16SS473J
R 2432	(B,108,31)	RS1/16SS473J
R 2433	(A,78,31)	RS1/16SS473J
R 2434	(B,86,31)	RS1/16SS103J
R 2435	(B,78,39)	RS1/16SS104J
R 2436	(B,77,43)	RS1/16SS104J
R 2437	(A,78,30)	RS1/16SS104J
R 2438	(A,78,29)	RS1/16SS104J
R 2439	(A,103,23)	RS1/16SS0R0J
R 2441	(A,102,21)	RS1/16SS681J
R 2442	(A,101,23)	RS1/16SS681J
R 2443	(A,101,21)	RS1/16SS681J
R 2444	(A,96,23)	RS1/16SS101J
R 2445	(A,95,23)	RS1/16SS101J
R 2446	(A,91,23)	RS1/16SS471J
R 2448	(A,89,23)	RS1/16SS471J
R 2449	(A,88,23)	RS1/16SS471J
R 2450	(A,87,23)	RS1/16SS471J
R 2459	(B,111,35)	RS1/16SS473J
R 2460	(A,108,23)	RS1/16SS101J
R 2461	(B,99,25)	RS1/16SS101J
R 2462	(B,110,35)	RS1/16SS473J
R 2463	(A,104,20)	RS1/16SS222J
R 2464	(A,114,30)	RS1/16SS472J
R 2466	(A,104,18)	RS1/16SS222J
R 2467	(B,104,34)	RS1/16SS473J
R 2468	(B,104,35)	RS1/16SS472J
R 2469	(A,136,16)	RS1/16SS472J
R 2473	(B,95,11)	RS1/16SS104J
R 2475	(A,104,21)	RS1/16SS104J
R 2477	(A,98,19)	RS1/16SS392J
R 2479	(A,97,20)	RS1/16SS392J
R 2480	(A,94,20)	RS1/16SS104J
R 2482	(A,92,20)	RS1/16SS473J
R 2483	(A,95,20)	RS1/16SS472J
R 2484	(A,96,20)	RS1/16SS472J
R 2485	(A,91,20)	RS1/16SS473J
R 2487	(A,116,31)	RS1/16SS472J
R 2488	(A,110,49)	RS1/16SS101J
R 2490	(A,107,23)	RS1/16SS101J
R 2491	(A,109,25)	RS1/16SS101J
R 2492	(A,110,26)	RS1/16SS681J
R 2493	(B,105,33)	RS1/16SS473J
R 2494	(A,92,53)	RS1/16SS473J
R 2495	(A,113,41)	RS1/16SS473J
R 2497	(B,87,35)	RS1/16SS221J
R 2498	(B,87,28)	RS1/16SS103J
R 2601	(B,84,63)	RS1/16SS0R0J
R 2602	(B,83,77)	RS1/16SS0R0J
R 2603	(B,83,78)	RS1/16SS0R0J
R 2604	(B,83,76)	RS1/16SS0R0J
R 2605	(B,90,82) (A)	RS1/16SS181J
R 2606	(B,87,80) (A)	RS1/16SS181J
R 2607	(B,91,80) (A)	RS1/16SS223J
R 2608	(B,88,80) (A)	RS1/16SS223J
R 2613	(B,94,82)	RS1/16SS223J
R 2614	(B,92,82)	RS1/16SS223J
R 2615	(B,95,80)	RS1/16SS101J
R 2616	(B,92,80)	RS1/16SS101J
R 2617	(B,93,80)	RS1/16SS101J
R 2618	(B,89,80) (A)	RS1/16SS471J
R 2621	(B,98,82)	RS1/16SS223J

Circuit Symbol and No.		Part No.
R 2622	(B,96,82)	RS1/16SS223J
R 2624	(B,97,80)	RS1/16SS101J
R 2625	(B,99,80)	RS1/16SS101J
R 2626	(B,96,80)	RS1/16SS101J
R 2627	(B,103,76)	RS1/16SS223J
R 2628	(B,103,78)	RS1/16SS223J
R 2629	(B,103,74)	RS1/16SS101J
R 2630	(B,102,80)	RS1/16SS101J
R 2631	(B,102,76)	RS1/16SS101J
R 2643	(B,87,61)	RS1/16SS104J
R 2644	(B,93,59)	RS1/16SS75R0D
R 2645	(B,95,59)	RS1/16SS75R0D
R 2647	(B,94,61)	RS1/16SS101J
R 2648	(B,93,61)	RS1/16SS101J
R 2649	(B,96,61)	RS1/16SS101J
R 2650	(B,95,61)	RS1/16SS101J
R 2651	(B,98,67)	RS1/16SS101J
R 2654	(B,85,63)	RS1/16SS104J
R 2655	(B,82,73)	RS1/16SS0R0J
R 2656	(B,82,72)	RS1/16SS0R0J
R 2657	(B,85,65)	RS1/16SS75R0D
R 2658	(B,85,66)	RS1/16SS0R0J
R 2659	(B,91,59)	RS1/16SS75R0D
R 2660	(B,92,61)	RS1/16SS101J
R 2661	(B,91,61)	RS1/16SS101J
R 2701	(B,78,78)	RS1/10SR0R0J
R 2704	(B,77,105)	RS1/10SR0R0J
R 2705	(B,71,87)	RS1/16SS473J
R 2706	(B,84,82)	RS1/16SS182J
R 2708	(B,66,87)	RS1/16SS0R0J
R 2709	(B,89,88)	RS1/16SS0R0J
R 2710	(B,65,90)	RS1/16SS0R0J
R 2711	(B,88,85)	RS1/16SS0R0J
R 2712	(B,84,83)	RS1/16SS0R0J
R 2713	(B,86,83)	RS1/16SS0R0J
R 2714	(B,88,90)	RS1/16SS0R0J
R 2715	(A,77,33)	RS1/16SS0R0J
R 2804	(B,101,99)	RS1/16SS103J
R 2805	(B,101,98)	RS1/16SS103J
R 2806	(B,102,96)	RS1/16SS103J
R 2807	(B,99,99)	RS1/16SS103J
R 2808	(B,97,97)	RS1/16SS0R0J
R 2809	(B,93,92)	RS1/16SS821J
R 2810	(B,102,90)	RS1/16SS102J
R 2811	(B,91,87)	RS1/16SS0R0J
R 2813	(B,90,90)	RS1/16SS104J
R 2851	(B,57,31)	RS1/16SS103J
R 2852	(B,64,48)	RS1/16SS222J
R 2853	(B,58,25)	RS1/16SS102J
R 2854	(B,66,48)	RS1/16SS222J
R 2901	(B,33,97)	RS1/16SS0R0J
R 2903	(A,37,94)	RS1/16SS221J
R 2904	(A,40,91)	RS1/16SS751J
R 2906	(A,46,94)	RS1/16SS103J
R 2907	(A,51,97)	RS1/4SA181J
R 2908	(A,50,95)	RS1/10SR0R0J
R 2909	(A,51,86)	RS1/10SR220J
R 2912	(A,57,83)	RS1/16SS0R0J
R 2914	(A,44,91)	RS1/16SS0R0J
R 3001	(A,30,93) (A)	CCSSCH5R0C50
	(A,30,93) (B,C)	RS1/16SS105J
R 3002	(A,33,86)	RS1/16SS152J
R 3003	(A,36,82)	RS1/16SS105J
R 3004	(A,32,80)	RS1/16SS471J
R 3005	(A,34,79)	RS1/16SS330J
R 3006	(A,32,76)	RS1/16SS151J
R 3007	(A,52,73)	RS1/16SS0R0J
R 3008	(B,32,70)	RS1/4SA5R6J
R 3009	(B,30,70)	RS1/4SA5R6J
R 3010	(B,28,70)	RS1/4SA5R6J
R 3011	(A,52,65)	RS1/16SS680J
R 3013	(A,46,63) (A)	RS1/16SS103J
R 3018	(A,44,66) (A)	RS1/16SS101J
R 3019	(A,43,63) (A)	RS1/16SS0R0J
R 3020	(A,43,66) (A)	RS1/16SS0R0J
R 3021	(A,42,63) (A)	RS1/16SS0R0J
R 3022	(A,39,65)	RS1/16SS101J
R 3023	(A,38,67)	RS1/16SS0R0J
R 3024	(A,37,68)	RS1/16SS102J
R 3102	(A,57,59)	RS1/16SS0R0J
R 3103	(A,55,59)	RS1/8SQ0R0J
R 3104	(A,58,27)	RS1/16SS0R0J
R 3105	(A,64,35)	RS1/4SA220J
R 3106	(A,63,31)	RS1/16SS0R0J
R 3107	(A,64,40)	RS1/16SS472J
R 3152	(B,27,43) (A)	RS1/16SS561J
R 3153	(A,152,36) (A)	RS1/10SR2R2J
R 3155	(B,152,33) (A)	RS1/16SS104J
R 3156	(B,28,52) (A)	RS1/16SS2001D
R 3157	(B,29,54) (A)	RS1/16SS1002D
R 3158	(B,29,47) (A)	RS1/16SS102J
R 3159	(B,148,34) (A)	RS1/16SS0R0J
R 3162	(B,143,36) (A)	RS1/16SS0R0J
R 3163	(B,144,36) (A)	RS1/16SS0R0J
R 3164	(B,146,37) (A)	RS1/16SS4303D
R 3165	(B,147,36) (A)	RS1/16SS1003D
R 3166	(B,146,38) (A)	RS1/16SS822J
R 3167	(B,147,39) (A)	RS1/16SS124J
R 3170	(B,40,55) (A)	RS1/16SS102J
R 3207	(A,12,59) (A)	RS1/16SS0R0J
R 3208	(A,12,57) (A)	RS1/16SS221J
R 3210	(A,22,41) (A)	RAB4CQ221J
R 3216	(A,22,27) (A)	RAB4CQ0R0J
R 3228	(A,38,31)	RS1/10SR0R0J
R 3229	(A,38,29)	RS1/10SR0R0J
R 3301	(A,27,47)	RS1/16SS104J
R 3302	(A,36,33)	RS1/16SS0R0J
R 3303	(A,44,16)	RS1/16SS0R0J
R 3304	(A,38,38)	RS1/16SS471J
R 3305	(A,33,18)	RS1/16SS0R0J
R 3306	(A,27,48)	RS1/16SS151J
R 3307	(B,33,21)	RS1/16SS103J
R 3308	(B,35,19)	RS1/16SS103J
R 3309	(B,29,7)	RS1/16SS103J
R 3310	(B,27,9)	RS1/16SS103J
R 3311	(B,34,9)	RS1/16SS103J
R 3312	(B,26,10)	RS1/16SS103J
R 3313	(B,33,9)	RS1/16SS103J
R 3314	(B,26,15)	RS1/16SS103J
R 3315	(B,35,9)	RS1/16SS103J

Circuit Symbol and No.		Part No.
R 3318	(B,28,9)	RS1/16SS221J
R 3320	(A,31,34)	RS1/16SS0R0J
R 3402	(B,111,14)	RS1/4SA151J
R 3403	(A,105,15)	RS1/16SS223J
R 3404	(B,104,11)	RS1/16SS471J
R 3405	(B,113,9)	RS1/16SS271J
R 3406	(A,110,13)	RS1/8SQ103J
R 3408	(A,128,27)	RS1/16SS303J
R 3412	(B,124,28)	RS1/16SS471J
R 3413	(B,127,23)	RS1/16SS681J
R 3501	(B,38,135)	RS1/16SS152J
R 3510	(B,62,104)	RS1/16SS102J
R 3511	(B,49,111)	RS1/16SS821J
R 3512	(B,54,111)	RS1/16SS821J
R 3513	(A,41,113) (B,C)	RS1/16SS104J
R 3516	(A,47,104)	RS1/10SR473J
R 3517	(A,40,111) (A)	RS1/16SS102J
R 3518	(B,61,111)	RS1/16SS102J
R 3519	(B,51,109)	RS1/16SS472J
R 3520	(B,52,109)	RS1/16SS472J
R 3521	(A,47,105)	RS1/10SR472J
R 3522	(B,61,112)	RS1/16SS391J
R 3523	(A,38,111) (A)	RS1/16SS103J
R 3524	(B,62,111)	RS1/16SS391J
R 3526	(A,36,113) (A)	RS1/16SS103J
R 3527	(B,50,113)	RS1/10SR223J
R 3529	(B,53,113)	RS1/10SR223J
R 3530	(B,60,113)	RS1/16SS0R0J
R 3531	(B,49,140)	RS1/16SS0R0J
R 3532	(A,42,107)	RS1/16SS153J
R 3533	(A,35,114) (A)	RS1/16SS103J
R 3534	(B,155,120)	RS1/16SS102J
R 3535	(B,156,117)	RS1/16SS102J
R 3536	(B,29,111)	RS1/10SR390J
R 3537	(B,34,110)	RS1/10SR390J
R 3538	(B,32,109)	RS1/16SS472J
R 3539	(B,36,111)	RS1/10SR390J
R 3540	(B,41,110)	RS1/10SR390J
R 3541	(B,39,109)	RS1/16SS472J
R 3542	(B,42,111)	RS1/10SR390J
R 3543	(B,47,110)	RS1/10SR390J
R 3544	(B,45,109)	RS1/16SS472J
R 3545	(B,30,109)	RS1/16SS472J
R 3546	(B,37,109)	RS1/16SS472J
R 3547	(B,43,109)	RS1/16SS472J
R 3548	(B,33,113)	RS1/10SR223J
R 3549	(B,39,113)	RS1/10SR223J
R 3550	(B,46,113)	RS1/10SR223J
R 3551	(B,30,113)	RS1/10SR223J
R 3552	(B,36,113)	RS1/10SR223J
R 3553	(B,43,113)	RS1/10SR223J
R 3554	(A,22,117)	RS1/16SS102J
R 3555	(A,24,117)	RS1/16SS102J
R 3556	(A,23,117)	RS1/16SS102J
R 3558	(B,102,14) (C)	RS1/16SS470J
R 3560	(A,51,107)	RS1/16SS681J
R 3602	(A,32,12) (A)	RS1/16SS0R0J
R 3603	(A,33,12) (A)	RS1/16SS0R0J
R 3608	(A,111,31)	RS1/16SS0R0J
R 3609	(A,135,14)	RS1/16SS0R0J
R 3613	(A,157,16)	RS1/16SS0R0J
R 3614	(A,158,14)	RS1/16SS0R0J
R 3616	(A,163,14)	RS1/16SS0R0J
R 3617	(A,65,7)	RS1/16SS0R0J
R 3618	(A,64,7)	RS1/16SS0R0J
R 3619	(A,111,32)	RS1/16SS0R0J
R 3620	(A,140,19)	RS1/16SS0R0J
R 3621	(A,141,19)	RS1/16SS0R0J
R 3623	(A,163,16)	RS1/16SS0R0J
R 3624	(A,164,14)	RS1/16SS0R0J
R 3625	(A,165,16)	RS1/16SS0R0J
R 3626	(A,160,14)	RS1/16SS0R0J
R 3629	(A,63,7)	RS1/16SS101J
R 3630	(A,159,16)	RS1/16SS101J
R 3631	(A,62,12)	RS1/16SS471J
R 3632	(A,139,16)	RS1/16SS681J
R 3633	(A,140,16)	RS1/16SS681J
R 3634	(A,141,16)	RS1/16SS681J
R 3635	(A,156,16)	RS1/16SS0R0J
R 3636	(A,137,24)	RS1/10SR0R0J
R 3637	(A,137,25)	RS1/10SR0R0J
R 3638	(A,137,27)	RS1/10SR0R0J
R 3701	(A,65,66)	RS1/16SS223J
R 3702	(A,67,60)	RS1/16SS223J
R 3703	(A,69,87)	RS1/16SS104J
R 3704	(A,76,86)	RS1/16SS104J
R 3705	(A,82,84)	RS1/16SS0R0J
R 3706	(A,75,93)	RS1/16SS0R0J
R 3707	(A,67,99)	RS1/10SR821J
R 3708	(A,76,101)	RS1/10SR821J
R 3709	(A,82,62)	RS1/16SS473J
R 3710	(A,82,63)	RS1/16SS473J
R 3711	(A,82,73)	RS1/16SS473J
R 3712	(A,82,74)	RS1/16SS473J
R 3713	(A,73,71)	RS1/16SS473J
R 3714	(A,73,70)	RS1/16SS473J
R 3715	(A,72,61)	RS1/16SS473J
R 3716	(A,72,60)	RS1/16SS473J
R 3717	(A,84,68)	RS1/16SS0R0J
R 3718	(A,71,66)	RS1/16SS0R0J
R 3719	(A,83,72)	RS1/16SS473J
R 3720	(A,71,62)	RS1/16SS473J
R 3721	(A,83,64)	RS1/16SS473J
R 3722	(A,71,69)	RS1/16SS473J
R 3723	(A,71,98)	RS1/16SS104J
R 3724	(A,72,99)	RS1/16SS104J
R 3725	(A,80,74)	RS1/16SS473J
R 3726	(A,74,60)	RS1/16SS473J
R 3727	(A,80,62)	RS1/16SS473J
R 3728	(A,75,71)	RS1/16SS473J
R 3729	(A,76,68)	RS1/16SS0R0J
R 3730	(A,78,65)	RS1/16SS0R0J
R 3731	(A,72,105)	RS1/10SR473J
R 3732	(A,68,105)	RS1/10SR473J
R 3733	(A,73,105)	RS1/10SR823J
R 3734	(A,67,105)	RS1/10SR823J
R 3735	(B,73,111)	RS1/16SS0R0J
R 3737	(A,77,75)	RS1/16SS104J
R 3738	(A,78,75)	RS1/16SS104J
R 3739	(A,64,107)	RS1/16SS473J
R 3740	(A,75,107)	RS1/16SS473J

Circuit Symbol and No.		Part No.
R 3741	(A,69,116)	RS1/16SS0R0J
R 3743	(A,74,74)	RS1/16SS0R0J
R 3744	(A,64,110)	RS1/10SR473J
R 3745	(A,76,110)	RS1/10SR473J
R 3746	(A,72,83)	RS1/16SS0R0J
R 3747	(A,77,83)	RS1/16SS104J
R 3748	(A,76,83)	RS1/16SS104J
R 3749	(A,75,83)	RS1/16SS473J
R 3750	(A,64,113)	RS1/16SS473J
R 3751	(A,76,113)	RS1/16SS473J
R 3752	(A,69,78)	RS1/16SS473J
R 3753	(A,83,79)	RS1/16SS473J
R 3754	(B,83,119)	RS1/16SS182J
R 3755	(B,82,121)	RS1/16SS272J
R 3756	(B,79,119)	RS1/16SS182J
R 3757	(B,81,121)	RS1/16SS272J
R 3758	(B,86,119)	RS1/16SS182J
R 3759	(B,84,121)	RS1/16SS272J
R 3760	(B,77,119)	RS1/16SS182J
R 3761	(B,78,121)	RS1/16SS272J
R 3801	(B,122,81)	RS1/10SR274J
R 3802	(B,123,83)	RS1/10SR334J
R 3803	(B,129,71)	RS1/16SS4303D
R 3804	(B,127,73)	RS1/16SS0R0J
R 3805	(B,127,75)	RS1/16SS0R0J
R 3806	(B,133,71)	RS1/16SS822J
R 3807	(B,144,78)	RS1/10SR2R2J
R 3808	(B,130,69)	RS1/16SS8202D
R 3809	(B,129,84)	RS1/16SS1503D
R 3810	(B,132,85)	RS1/16SS472J
R 3811	(B,129,82)	RS1/16SS4703D
R 3812	(B,127,79)	RS1/16SS0R0J
R 3813	(B,127,80)	RS1/16SS0R0J
R 3814	(A,124,67) 13 mohm	CCN1334
R 3815	(A,122,85) 15 mohm	CCN1328
R 3816	(B,128,72)	RS1/16SS1502D
R 3817	(B,128,82)	RS1/16SS2002D
R 3818	(B,142,74)	RS1/10SR100J
R 3819	(B,142,83)	RS1/10SR100J
R 3820	(B,124,77)	RS1/16SS104J
R 3822	(B,124,74)	RS1/16SS104J
R 3823	(B,127,71)	RS1/10SR0R0J
R 3824	(B,126,82)	RS1/10SR0R0J
R 3825	(A,119,77)	RS1/4SA0R0J
R 3826	(B,124,80)	RS1/16SS0R0J
R 3827	(B,127,77)	RS1/16SS0R0J
R 3828	(A,120,66)	RS1/4SA0R0J
R 3829	(B,124,75)	RS1/16SS104J
R 3830	(A,120,85) 15 mohm	CCN1328
R 3831	(A,124,65) 13 mohm	CCN1334
R 3901	(A,162,25)	RS1/16SS0R0J
R 3905	(B,159,24) (A)	RS1/16SS0R0J
R 3906	(B,159,23) (B)	RS1/16SS471J
R 3907	(B,159,21) (C)	RS1/16SS0R0J

CAPACITORS

C 2024	(B,103,113)	CKSRYB105K16
C 2027	(A,151,99)	CKSRYB104K50
C 2028	(A,139,109)	CEAT472M16
C 2029	(A,116,107) 10 000 uF/16 V	CCH1849
C 2030	(B,79,10)	CKSSYB104K10
C 2031	(A,156,117)	CKSRYB104K50
C 2032	(B,75,8)	CKSSYB102K50
C 2033	(A,161,112)	CKSSYB102K50
C 2035	(A,152,121)	CKSRYB104K50
C 2037	(B,72,11)	CKSSYB104K16
C 2038	(B,72,13)	CKSSYB103K16
C 2039	(B,76,16)	CKSRYB823K16
C 2040	(A,150,127)	CKSRYB104K50
C 2101	(A,67,123) 4.7 uF	CCG1201
C 2102	(A,85,122)	CKSRYB105K16
C 2103	(B,77,122)	CKSRYB224K16
C 2104	(B,86,121)	CKSRYB224K16
C 2105	(B,79,122)	CKSRYB224K16
C 2106	(B,83,121)	CKSRYB224K16
C 2107	(A,84,109) 3 300 uF/16 V	CCH1928
C 2108	(A,85,117)	CKSRYB104K50
C 2109	(A,85,118)	CKSRYB104K50
C 2111	(A,75,124)	CKSRYB105K16
C 2112	(A,75,121) Capacitor	CEHVW100M16
C 2203	(B,115,89)	CKSRYB103K50
C 2204	(B,116,90) 10 uF	CCG1236
C 2250	(B,113,85)	CKSSYB103K25
C 2251	(B,113,82)	CKSSYB104K16
C 2252	(A,127,53) 100 uF/16 V	CCH1565
C 2254	(B,123,53) 10 uF	CCG1236
C 2255	(B,133,47)	CKSRYB104K50
C 2258	(B,132,43)	CKSSYB104K16
C 2259	(A,152,67)	CKSSYB103K25
C 2260	(A,152,68)	CKSSYB103K25
C 2262	(A,151,69)	CKSQYB105K25
C 2263	(A,140,43) 10 uF	CCG1236
C 2264	(A,149,71)	CKSSYB473K16
C 2265	(A,138,43) 10 uF	CCG1236
C 2266	(A,145,45) 100 uF/16 V	CCH1565
C 2267	(B,152,72)	CCSRCH560J50
C 2268	(A,154,82) 4.7 uF	CCG1222
C 2269	(A,155,85)	CKSRYB104K50
C 2270	(A,164,106)	XCEVW101M16
C 2271	(B,156,104)	CKSRYB103K50
C 2273	(B,54,48)	CKSQYB334K50
C 2274	(A,39,44) 4.7 uF	CCG1222
C 2277	(A,42,46) 4.7 uF	CCG1201
C 2278	(A,65,46)	XCEVW220M16
C 2279	(B,153,104)	CKSRYB223K50
C 2280	(B,156,97)	CKSRYB104K50
C 2283	(A,120,53) 10 uF	DCH1165
C 2308	(A,94,52)	CKSSYB104K10
C 2309	(B,86,43)	CKSSYB103K16
C 2310	(B,88,41)	CCSSCH101J50
C 2311	(B,86,38)	CCSSCH101J50
C 2312	(A,79,34)	CKSSYB681K50
C 2314	(B,88,33)	CCSSCH101J50
C 2318	(B,114,61)	CKSSYB104K10
C 2319	(A,110,39)	CCSSCH120J50
C 2320	(B,104,41)	CKSRYB105K10
C 2321	(B,105,39)	CKSSYB103K16
C 2322	(A,111,38)	CCSSCH120J50
C 2323	(A,81,35)	CKSSYB104K10

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
C 2324	(B,102,37)	CKSSYB104K10	C 2712	(B,77,102) 10 uF	CCG1236
C 2325	(A,110,34) 4.7 uF	CCG1201	C 2713	(B,76,99)	CCSSCH100D50
C 2326	(B,102,42)	CKSSYB153K16	C 2714	(B,74,83) 10 uF	CCG1192
C 2327	(B,95,52)	CKSSYB104K10	C 2715	(B,80,100) 10 uF	CCG1236
C 2328	(B,96,51) 10 uF	CCG1234	C 2716	(B,77,84)	CCSSCH100D50
C 2329	(A,104,24)	CKSSYB103K16	C 2717	(B,79,83)	CKSRYB474K10
C 2330	(A,105,23)	CKSRYB105K10	C 2718	(B,81,83)	CKSQYB225K10
C 2331	(A,99,24)	CKSSYB104K10	C 2719	(B,83,100)	CKSRYB105K10
C 2333	(B,105,38)	CKSSYB104K10	C 2720	(B,82,83)	CKSSYB222K50
C 2334	(A,83,22) (A)	CKSSYB104K10	C 2721	(B,87,92)	CKSYB475K16
C 2335	(A,99,21)	CKSSYB104K10	C 2722	(B,87,94)	CCSQCH223J50
C 2338	(B,106,27)	CKSSYB102K50	C 2723	(B,87,95)	CCSQCH223J50
C 2344	(B,89,36)	CCSSCH330J50	C 2724	(B,87,97)	CKSRYB105K10
C 2601	(B,101,79)	CKSRYB105K10	C 2725	(B,86,85)	CKSRYB105K10
C 2602	(B,101,75)	CKSRYB105K10	C 2726	(B,84,85)	CKSRYB105K10
C 2603	(B,101,74)	CKSRYB105K10	C 2727	(B,86,87)	CKSRYB105K10
C 2604	(B,101,72)	CKSRYB105K10	C 2728	(B,86,89)	CKSRYB105K10
C 2605	(B,101,71)	CKSRYB105K10	C 2729	(B,86,90)	CKSRYB105K10
C 2606	(B,101,70)	CKSRYB105K10	C 2730	(B,85,85)	CKSRYB105K10
C 2607	(B,98,69)	CKSSYB104K10	C 2731	(B,77,83)	CCSSCH820J50
C 2608	(B,99,68)	CKSRYB105K10	C 2732	(B,76,100)	CCSSCH820J50
C 2609	(B,99,78)	CKSRYB105K10	C 2801	(B,107,97) 10 uF	CCG1192
C 2610	(B,97,78)	CKSRYB105K10	C 2802	(B,105,97) 10 uF	CCG1192
C 2611	(B,96,78)	CKSRYB105K10	C 2803	(B,102,97)	CCSSCH221J50
C 2612	(B,95,78)	CKSRYB105K10	C 2804	(B,99,98)	CCSSCH221J50
C 2613	(B,94,63)	CKSSYB104K10	C 2805	(B,98,89)	CKSSYB104K16
C 2614	(B,93,78)	CKSRYB105K10	C 2807	(B,95,94)	CKSRYB105K10
C 2615	(B,93,63)	CKSSYB104K10	C 2808	(B,102,92)	CKSSYB103K16
C 2616	(B,92,78)	CKSRYB105K10	C 2810	(B,103,92) 10 uF	CCG1234
C 2617	(B,92,63)	CKSSYB104K10	C 2851	(B,59,31)	CKSSYB104K16
C 2618	(B,91,78) (A)	CKSRYB105K10	C 2902	(B,27,97)	CCSSCH270J50
C 2619	(B,91,63)	CKSSYB104K10	C 2903	(B,29,99)	CCSSCH270J50
C 2620	(B,89,78) (A)	CKSRYB105K10	C 2904	(B,30,100)	CCSSCH270J50
C 2621	(B,90,63)	CKSSYB104K10	C 2905	(B,35,97)	CCSSCH220J50
C 2622	(B,88,78) (A)	CKSRYB105K10	C 2906	(B,35,99)	CCSSCH270J50
C 2623	(B,89,63)	CKSSYB104K10	C 2908	(B,37,99)	CCSSCH220J50
C 2624	(B,85,79)	CKSRYB105K10	C 2910	(A,39,97)	CCSSCH6R0D50
C 2625	(B,88,63)	CKSSYB104K10	C 2911	(A,38,93)	CKSSYB103K16
C 2626	(B,85,77)	CKSRYB105K10	C 2913	(A,41,92)	CKSSYB103K16
C 2627	(B,87,63)	CKSSYB104K10	C 2914	(A,51,81)	CKSSYB103K16
C 2628	(B,85,76)	CKSRYB105K10	C 2917	(A,45,91)	CKSSYB103K16
C 2629	(B,86,63)	CKSSYB104K10	C 2919	(A,52,87)	CKSSYB103K16
C 2630	(B,81,66) 10 uF	CCG1192	C 2921	(A,57,93)	CCSSCH270J50
C 2631	(B,85,67)	CKSSYB104K10	C 2922	(A,47,95)	CKSSYB103K16
C 2632	(B,85,68)	CKSSYB104K10	C 3001	(A,29,92)	CKSSYB103K16
C 2633	(B,85,72)	CCSSCH820J50	C 3002	(A,45,84)	CKSSYB104K10
C 2634	(B,85,70)	CCSSCH820J50	C 3003	(A,41,83)	CKSSYB104K10
C 2635	(B,84,73) 10 uF	CCG1192	C 3004	(A,42,84)	CKSSYB104K10
C 2636	(B,83,70) 10 uF	CCG1192	C 3005	(A,49,81)	CKSSYB103K16
C 2637	(B,95,63)	CKSSYB104K10	C 3006	(A,35,82)	CCSSCJ3R0C50
C 2638	(B,96,63)	CKSSYB104K10	C 3007	(A,36,84)	CKSSYB223K16
C 2702	(B,69,87)	CKSSYB104K10	C 3008	(A,48,82)	CKSSYB223K16
C 2703	(B,67,92)	CKSYB475K16	C 3009	(A,48,83)	CKSSYB103K16
C 2705	(B,68,89)	CKSRYB105K10	C 3010	(A,47,85)	CKSRYB105K10
C 2706	(B,68,90)	CKSRYB105K10	C 3011	(A,44,84)	CKSSYB223K16
C 2707	(B,67,94)	CKSRYB105K10	C 3012	(A,43,82)	CKSSYB103K16
C 2708	(B,67,95)	CKSRYB105K10	C 3013	(A,40,83)	CKSSYB103K16
C 2709	(B,67,97)	CKSRYB105K10	C 3014	(A,38,84) 10 uF	CCG1192
C 2710	(B,76,101)	CKSSYB104K16	C 3015	(A,50,80)	CKSSYB223K16
C 2711	(B,77,82)	CKSSYB104K10	C 3016	(A,53,80)	CKSRYB224K16

Circuit Symbol and No.		Part No.
C 3017	(A,32,81) 10 uF	CCG1192
C 3018	(A,52,78)	CKSSYB104K10
C 3019	(A,53,77)	CKSRYB105K10
C 3020	(A,34,80)	CKSSYB104K10
C 3021	(A,55,75)	CKSSYB472K25
C 3022	(A,55,76)	CKSSYB472K25
C 3023	(A,32,79)	CCSSCH101J50
C 3024	(A,38,81)	CKSSYB104K10
C 3025	(A,30,78)	CKSSYB103K16
C 3026	(A,55,74)	CCSSCH9R0D50
C 3027	(A,52,74)	CKSSYB104K10
C 3028	(A,34,75)	CKSRYB391K50
C 3029	(A,35,72)	CKSSYB104K16
C 3030	(A,34,69)	CKSRYB474K10
C 3031	(A,35,74)	CKSSYB104K16
C 3032	(A,34,67)	CKSSYB104K10
C 3033	(A,56,68)	CCSSCH9R0D50
C 3036	(A,33,74)	CKSSYB104K16
C 3039	(A,37,65)	CKSSYB104K10
C 3040	(A,51,66)	CKSSYB104K10
C 3042	(A,48,65) 4.7 uF	CCG1212
C 3043	(A,48,66)	CKSSYB104K10
C 3044	(A,41,66)	CKSSYB104K10
C 3045	(A,37,69)	CKSSYB102K50
C 3046	(B,39,75)	CKSRYB104K50
C 3047	(B,37,73)	CKSRYB104K50
C 3048	(B,42,73)	CKSRYB104K50
C 3049	(B,35,66)	CKSRYB104K50
C 3102	(A,48,42)	CKSSYB102K50
C 3103	(A,48,34)	CKSSYB104K10
C 3104	(A,48,30)	CCSSCH130J50
C 3105	(A,63,32)	CKSSYB104K10
C 3106	(A,63,41)	CKSSYB103K16
C 3107	(A,62,38)	CKSSYB104K10
C 3108	(A,63,38)	CKSSYB103K16
C 3109	(A,62,36)	CKSRYB105K16
C 3111	(A,64,38)	CKSSYB104K10
C 3151	(B,30,43) (A)	CKSSYB104K10
C 3152	(A,144,27) 47 uF(A)	CCG1229
C 3153	(B,28,43) 4.7 uF(A)	CCG1212
C 3154	(B,39,52) 4.7 uF(A)	CCG1201
C 3155	(A,152,33) (A)	CKSRYB102K50
C 3156	(B,36,43) 4.7 uF(A)	CCG1201
C 3157	(A,159,34) 10 uF(A)	CCG1236
C 3159	(B,155,38) (A)	CKSRYB474K16
C 3160	(B,152,35) (A)	CKSSYB104K10
C 3161	(B,29,51) 4.7 uF(A)	CCG1212
C 3164	(B,146,36) (A)	CCSSCH680J50
C 3167	(B,145,39) (A)	CKSSYB222K50
C 3205	(A,22,44) 10 uF(A)	CCG1234
C 3207	(A,23,33) 10 uF(A)	CCG1234
C 3211	(B,12,7) (A)	CKSSYB104K16
C 3301	(B,49,22)	CKSSYB104K16
C 3302	(A,32,49)	CKSSYB104K16
C 3303	(A,35,17)	CKSSYB104K16
C 3304	(A,28,47)	CKSSYB104K16
C 3305	(A,32,48)	CKSSYB104K16
C 3306	(A,31,48)	CKSSYB104K16
C 3307	(B,48,19)	CKSRYB474K10
C 3308	(A,43,16)	CKSSYB104K10

Circuit Symbol and No.		Part No.
C 3309	(A,33,34)	CKSRYB105K10
C 3311	(A,37,35)	CKSSYB104K10
C 3313	(B,34,21)	CKSSYB104K16
C 3314	(B,30,20)	CKSSYB104K16
C 3315	(B,28,21)	CKSRYB105K10
C 3316	(B,29,19)	CKSSYB104K10
C 3317	(B,30,10)	CKSSYB104K10
C 3318	(B,31,9)	CKSRYB105K10
C 3319	(B,36,16) 10 uF	CCG1192
C 3401	(B,112,11)	CKSSYB153K16
C 3402	(A,112,17)	CKSRYB105K16
C 3403	(A,109,8) 100 uF/16 V	CCH1565
C 3404	(B,128,23)	CKSSYB104K10
C 3501	(B,40,134) 10 uF	CCG1234
C 3505	(B,64,107)	CKSSYB104K10
C 3506	(B,49,109) 4.7 uF	CCG1201
C 3507	(B,54,109) 4.7 uF	CCG1201
C 3508	(A,57,107)	XCEVW470M16
C 3509	(B,33,106) 10 uF	CCG1236
C 3510	(B,29,106) 10 uF	CCG1236
C 3511	(B,40,106) 10 uF	CCG1236
C 3512	(B,36,106) 10 uF	CCG1236
C 3513	(B,47,106) 10 uF	CCG1236
C 3514	(B,42,106) 10 uF	CCG1236
C 3515	(A,36,111) (A)	CKSSYB104K10
C 3516	(A,30,113)	CKSRYB102K50
C 3518	(B,155,119)	CKSSYB102K50
C 3519	(B,156,121)	CKSSYB102K50
C 3522	(A,21,116)	CKSRYB103K50
C 3523	(B,96,11) (C)	CKSSYB104K10
C 3703	(A,69,89)	CKSQYB105K16
C 3704	(A,81,92)	CKSQYB105K16
C 3705	(A,79,88)	CKSSYB104K16
C 3706	(A,81,86) 10 uF	CCG1192
C 3707	(A,67,96)	CKSQYB105K16
C 3708	(A,76,99)	CKSQYB105K16
C 3709	(A,86,64) 10 uF	CCG1192
C 3710	(A,86,66) 10 uF	CCG1192
C 3711	(A,86,68) 10 uF	CCG1192
C 3712	(A,86,70) 10 uF	CCG1192
C 3713	(A,68,70) 10 uF	CCG1192
C 3714	(A,68,68) 10 uF	CCG1192
C 3715	(A,68,64) 10 uF	CCG1192
C 3716	(A,68,62) 10 uF	CCG1192
C 3717	(A,83,71)	CCSSCH330J50
C 3718	(A,71,63)	CCSSCH330J50
C 3719	(A,83,65)	CCSSCH330J50
C 3720	(A,71,68)	CCSSCH330J50
C 3721	(A,80,73)	CCSSCH330J50
C 3722	(A,74,61)	CCSSCH330J50
C 3723	(A,80,63)	CCSSCH330J50
C 3724	(A,75,70)	CCSSCH330J50
C 3725	(A,77,70)	CKSRYB105K16
C 3726	(A,77,64)	CKSRYB105K16
C 3727	(A,67,102)	CKSQYB105K16
C 3728	(A,73,102)	CKSQYB105K16
C 3729	(A,78,72)	CKSSYB104K16
C 3730	(A,76,62)	CKSSYB104K16
C 3731	(A,69,102) 4.7 uF	CCG1201
C 3732	(A,71,102) 4.7 uF	CCG1201

Circuit Symbol and No.			Part No.
C 3733	(A,71,80)		CKSQYB105K16
C 3734	(A,81,76)		CKSQYB105K16
C 3735	(A,71,77)		CKSQYB105K16
C 3736	(A,81,80)		CKSQYB105K16
C 3740	(A,75,75)		CKSSYB104K16
C 3741	(A,65,107)		CCSSCH220J50
C 3742	(A,76,107)		CCSSCH220J50
C 3743	(A,69,113)		CKSRYB104K50
C 3746	(A,65,113)		CCSSCH220J50
C 3747	(A,75,113)		CCSSCH220J50
C 3748	(A,80,88)		CCSSCH820J50
C 3749	(A,69,114)		CCSSCH820J50
C 3801	(B,122,80)		CKSRYB103K50
C 3803	(B,134,84)		CKSRYB153K50
C 3804	(B,129,74)		CCSRCH102J50
C 3805	(B,142,73)		CKSRYB104K50
C 3806	(B,129,72)		CCSSCH100D50
C 3807	(B,133,70)		CCSSCH220J50
C 3808	(B,132,70)		CKSRYB222K50
C 3809	(B,142,79)	4.7 uF	CCG1201
C 3810	(B,141,77)		CKSRYB104K50
C 3811	(B,131,84)		CKSRYB472K50
C 3812	(B,131,85)		CCSSCH100D50
C 3813	(B,140,83)		CKSRYB104K50
C 3814	(B,129,81)		CCSSCH8R0D50
C 3815	(B,129,79)		CCSRCH102J50
C 3816	(B,139,72)		CKSSYB222K50
C 3817	(A,124,71)	22 uF	CCG1254
C 3818	(A,122,82)	22 uF	CCG1254
C 3819	(A,144,72)	10 uF	CCG1236
C 3820	(A,143,82)	10 uF	CCG1236
C 3821	(A,121,70)	47 uF	CCG1229
C 3822	(A,122,79)	47 uF	CCG1229

B

Unit Number : CXX5396(A)
Unit Number : CXX5397(B)
Unit Number : CXX5398(C)
Unit Name : Navi Unit(Service)

MISCELLANEOUS

IC 1	(B,79,114)	IC	NJM2387ADL3
IC 201	(A,35,59)	IC	ML7037-003TBZ0
IC 301	(B,127,78)	IC	WM8761BGED
IC 302	(B,119,79)	1 Chip or Gate	TC7SH32FUS1
IC 303	(B,131,22)	IC	WM8761BGED
IC 304	(B,117,28)	IC	WM8761BGED
IC 305	(A,93,49)	IC	WM8761BGED
IC 451	(A,37,75)	Dual OP-AMP	NJM4565V
IC 454	(A,30,84)	Dual OP-AMP	NJM4565V
IC 501	(B,117,89)	IC	MN864779KT
IC 502	(B,94,104)	Regulator IC	S-1172B33-E6
IC 503	(B,94,92)	Regulator IC	S-1172B12-E6
IC 602	(B,105,66)	IC	DT090197S
IC 603	(A,82,68)	Regulator IC	S-1172B15-E6
IC 604	(A,88,60)	Regulator IC	NJM2878F3-25
IC 702	(B,80,60)	IC	DS90C241QVS
IC 901	(A,129,68)	ASIC	UPD65945GJ-Y30
IC 1204	(B,153,62)	IC	NJM2115V

Circuit Symbol and No.			Part No.
IC 1401	(A,132,100)	IC	BH7673G
IC 1402	(A,127,100)	IC	BH7673G
IC 1403	(B,129,100)	IC	BH7673G
IC 1404	(A,61,103)	IC	OZ529IGN
IC 1501	(B,35,90)	IC	TPS2034D
IC 1502	(B,29,88)	IC	TC7SH08FUS1
IC 1601	(A,28,92)	L-MOS And Gate(B)	TC7SET08FUS1
IC 1602	(A,28,98)	IC(B)	TC7SH08FUS1
IC 1701	(B,11,110)	L-MOS And Gate(A)	TC7SET08FUS1
IC 1702	(B,18,111)	L-MOS And Gate(A)	TC7SET08FUS1
IC 1703	(B,19,100)	IC(A)	TC7SH08FUS1
Q 1	(A,82,36)	Transistor	2SB1260
Q 2	(A,85,33)	Transistor	LTC014EEB
Q 3	(B,36,74)	Transistor	2SA1834F5
Q 4	(B,31,81)	Transistor	LSCR523UB
Q 5	(B,84,119)	Transistor	LTC014EEB
Q 453	(A,45,79)	Transistor	DTC623TU
Q 454	(A,45,83)	Chip Transistor	RN4982
Q 501	(B,98,104)	Transistor	LTC014EEB
Q 502	(B,102,102)	Transistor	LSAR523UB
Q 601	(B,119,56)	Transistor	LSCR523UB
Q 1101	(A,155,50)	Chip Transistor	2SB1689
Q 1102	(A,155,47)	Transistor	LSCR523UB
Q 1203	(B,163,61)	Transistor	2SB1132
Q 1701	(A,38,105)	Transistor(A)	2SB1132
Q 1702	(A,37,93)	Transistor(A)	LTC014EEB
Q 1703	(A,45,104)	Transistor(A)	2SD2153
Q 1801	(B,83,87)	Chip Transistor	RN4982
Q 1802	(B,80,84)	Chip Transistor	HN1C03FU
Q 1803	(A,72,71)	Transistor	2SB1260
Q 1804	(A,65,71)	Transistor	LTC014EEB
D 501	(A,110,84)	Diode	DA2J101
D 503	(B,113,98)	Diode	EZAEG2A50AX
D 504	(B,115,98)	Diode	EZAEG2A50AX
D 505	(B,115,99)	Diode	EZAEG2A50AX
D 506	(B,117,99)	Diode	EZAEG2A50AX
D 507	(B,117,98)	Diode	EZAEG2A50AX
D 508	(B,119,98)	Diode	EZAEG2A50AX
D 509	(B,120,99)	Diode	EZAEG2A50AX
D 510	(B,121,99)	Diode	EZAEG2A50AX
D 511	(B,104,98)	Diode	EZAEG2A50AX
D 512	(B,102,97)	Diode	EZAEG2A50AX
D 514	(B,94,111)	Diode	1SR154-400
D 1110	(A,94,38)	Diode	RB520G-30
D 1111	(A,95,38)	Diode	RB520G-30
D 1112	(B,94,25)	Diode	RKZ3.9KG(B2)
D 1401	(A,137,117)	Diode	EZAEG2A50AX
D 1402	(A,135,117)	Diode	EZAEG2A50AX
D 1410	(B,142,119)	Diode	DZ2J068M0
D 1411	(A,57,96)	Diode	DB2X41400
D 1501	(B,38,117)	Diode	DZ2J068M0
D 1601	(A,29,95)	Diode(B)	DA2J101
D 1708	(A,46,108)	Diode(A)	RKZ16KG(B2)
L 1	(B,37,56)	Inductor	CTF1787
L 2	(B,35,56)	Inductor	CTF1787
L 3	(B,36,56)	Inductor	CTF1787
L 4	(B,40,44)	Inductor	CTF1787
L 5	(B,40,45)	Inductor	CTF1787
L 6	(B,38,44)	Inductor	CTF1787
L 201	(A,41,71)	Chip Ferrite Bead	DTL1107

Circuit Symbol and No.		Part No.
L 301	(B,124,70) Chip Ferrite Bead	DTL1107
L 302	(B,129,15) Chip Ferrite Bead	DTL1107
L 303	(B,114,20) Chip Ferrite Bead	DTL1107
L 304	(A,90,56) Chip Ferrite Bead	DTL1107
L 501	(B,125,89) Chip Beads	VTL1126
L 502	(B,118,96) Filter	CTF1834
L 503	(B,121,96) Filter	CTF1834
L 504	(B,114,96) Filter	CTF1834
L 505	(B,116,96) Filter	CTF1834
L 506	(A,114,94) Ferrite Bead	CTF1528
L 507	(B,109,89) Chip Beads	VTL1126
L 603	(A,92,68) Chip Ferrite Bead	BTX1047
L 604	(A,114,59) Inductor	CTF1635
L 605	(A,100,77) Chip Ferrite Bead	BTX1047
L 606	(A,98,55) Inductor	CTF1635
L 607	(A,93,64) Chip Ferrite Bead	BTX1047
L 707	(B,81,49) Inductor	CTF1731
L 708	(A,71,57) Chip Ferrite Bead	BTX1047
L 801	(B,103,16) Chip Ferrite Bead	BTX1047
L 901	(A,139,82) Ferrite Bead	CTF1528
L 902	(A,144,70) Ferrite Bead	CTF1528
L 903	(B,143,58) Ferrite Bead	CTF1528
L 904	(A,121,52) Ferrite Bead	CTF1528
L 905	(B,118,68) Ferrite Bead	CTF1528
L 906	(A,122,84) Ferrite Bead	CTF1528
L 907	(B,118,75) Inductor	CTF1795
L 908	(B,117,73) Inductor	CTF1795
L 909	(A,116,59) Inductor	CTF1795
L 910	(A,127,54) Inductor	CTF1795
L 911	(A,126,54) Inductor	CTF1795
L 912	(A,122,81) Inductor	CTF1795
L 913	(A,123,81) Inductor	CTF1795
L 914	(A,130,82) Inductor(A)	CTF1795
L 915	(A,129,81) Inductor(A)	CTF1795
L 916	(A,133,82) Inductor	CTF1795
L 917	(A,132,81) Inductor	CTF1795
L 918	(A,143,73) Inductor	CTF1795
L 919	(A,143,71) Inductor	CTF1795
L 1001	(B,100,45) Chip Beads	VTL1126
L 1002	(B,101,46) Chip Beads	VTL1126
L 1003	(B,101,45) Chip Beads	VTL1126
L 1004	(B,102,46) Chip Beads	VTL1126
L 1005	(B,103,45) Chip Beads	VTL1126
L 1006	(B,103,46) Chip Beads	VTL1126
L 1007	(B,104,45) Chip Beads	VTL1126
L 1008	(B,105,46) Chip Beads	VTL1126
L 1009	(B,106,45) Chip Beads	VTL1126
L 1010	(B,106,46) Chip Beads	VTL1126
L 1011	(B,107,45) Chip Beads	VTL1126
L 1012	(B,107,46) Chip Beads	VTL1126
L 1013	(B,101,31) Chip Beads	VTL1126
L 1014	(B,102,33) Chip Beads	VTL1126
L 1015	(B,103,33) Chip Beads	VTL1126
L 1016	(B,104,31) Chip Beads	VTL1126
L 1017	(B,104,33) Chip Beads	VTL1126
L 1018	(B,105,31) Chip Beads	VTL1126
L 1019	(B,106,33) Chip Beads	VTL1126
L 1020	(B,106,31) Chip Beads	VTL1126
L 1021	(B,126,33) Chip Beads	VTL1127
L 1022	(B,126,45) Chip Beads	VTL1126
L 1023	(B,100,33) Chip Beads	VTL1126
L 1024	(B,132,33) Chip Beads	VTL1127
L 1025	(B,102,32) Chip Beads	VTL1126
L 1026	(B,136,45) Inductor	CTF1787
L 1027	(B,135,47) Inductor	CTF1787
L 1028	(B,137,45) Inductor	CTF1787
L 1101	(A,135,44) Inductor	CTF1736
L 1102	(A,106,36) Inductor	CTF1736
L 1201	(B,153,71) Inductor	LCYC1R0K2125
L 1202	(B,157,67) Chip Ferrite Bead	OTL8019
L 1203	(B,149,71) Inductor	CTF1547
L 1204	(B,147,62) Inductor	CTF1795
L 1205	(B,162,67) Inductor	CTF1795
L 1301	(B,38,38) Inductor	CTF1735
L 1401	(A,136,115) Choke Coil 90 ohm	CTH1319
L 1403	(B,59,108) Choke Coil 33 uH	CTH1417
L 1405	(B,140,112) Inductor	CTF1795
L 1406	(B,138,112) Inductor	CTF1795
L 1407	(B,139,112) Inductor	CTF1795
L 1501	(B,31,94) Inductor	CTF1795
L 1701	(A,36,111) Inductor(A)	CTF1738
L 1705	(B,18,118) Inductor(A)	CTF1787
X 201	(A,45,64) Resonator 12.288 MHz	CSS1811
X 501	(B,107,93) Resonator 27.000 MHz	CSS1768
X 601	(B,121,62) Crystal Resonator 42 MHz	CSS1604
> P1701	(A,44,101) Fuse 1.0 A(A)	CEK1381
U 1301	(B,42,25) BT Module	CWX3984
CN1	(B,42,51) Connector	CKS5586
CN2	(B,146,7) Connector	CKS6464
CN3	(B,52,75) Connector	CKS6496
CN4	(B,64,123) Connector	CKS4977
CN805	(B,104,10) Connector	CKS6535
CN1001	(B,142,102) Terminal	CKF1084
CN1002	(B,103,39) Connector	CKS6399
CN1003	(B,138,39) Connector	CKS6399
CN1004	(B,86,23) Terminal	CKF1084
CN1401	(B,139,127) Connector	CKS5867
CN1601	(A,19,95) Connector(B)	AKM1274
CN1801	(A,79,84) Connector	CKS6025
JA101	(B,8,127) Jack	CKN1040
JA501	(B,115,107) Connector	CKS6560
JA1101	(A,136,25) Connector	YKS5040
JA1102	(A,105,18) Connector	CKS6282
JA1202	(B,158,127) Connector	CKS5702
JA1501	(B,43,127) USB Jack	CKN1091
JA1701	(B,23,129) Connector(A)	CKS6495
UA1201	(B,153,83) GPS Unit	CWX4204

RESISTORS

R 2	(A,83,40)	RS1/16SS473J
R 3	(A,85,36)	RS1/10SR561J
R 4	(B,76,123)	RS1/16SS0R0J
R 5	(B,28,75)	RS1/4SA560J
R 6	(B,38,82)	RS1/10SR103J
R 7	(B,35,82)	RS1/4SA470J
R 8	(B,31,79)	RS1/16SS103J
R 9	(B,33,79)	RS1/16SS332J
R 10	(A,87,33)	RS1/16SS0R0J
R 35	(B,84,115)	RS1/16SS1002D

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
R 36	(B,84,117)	RS1/16SS2701D	R 489	(A,35,85)	RS1/16SS473J
R 37	(B,84,118)	RS1/16SS2001D	R 490	(A,37,82)	RS1/16SS103J
R 38	(B,77,123)	RS1/16SS473J	R 491	(A,37,81)	RS1/16SS103J
R 39	(B,73,119)	RS1/4SA0R0J	R 492	(A,37,83)	RS1/16SS103J
R 111	(A,17,113)	RS1/16SS0R0J	R 493	(A,32,88)	RS1/16SS0R0J
R 112	(A,6,112)	RS1/16SS102J	R 494	(A,33,88)	RS1/16SS0R0J
R 114	(A,8,115)	RS1/16SS102J	R 501	(A,111,85)	RS1/16SS273J
R 201	(A,39,69)	RS1/16SS0R0J	R 502	(B,124,95)	RS1/16SS0R0J
R 202	(A,25,61)	RS1/16SS0R0J	R 503	(B,125,94)	RS1/16SS0R0J
R 203	(A,34,50)	RS1/16SS0R0J	R 504	(A,112,82)	RS1/16SS473J
R 204	(A,36,70)	RS1/16SS0R0J	R 505	(B,125,90)	RS1/16SS0R0J
R 206	(A,27,61)	RS1/16SS103J	R 506	(A,113,87)	RS1/16SS0R0J
R 207	(A,39,50)	RS1/16SS561J	R 507	(A,114,87)	RS1/16SS103J
R 208	(A,36,49)	RS1/16SS0R0J	R 509	(A,112,87)	RS1/16SS0R0J
R 210	(A,43,58)	RS1/16SS0R0J	R 510	(A,110,87)	RS1/16SS472J
R 211	(A,43,61)	RS1/16SS102J	R 511	(A,114,82)	RS1/16SS473J
R 212	(A,43,62)	RS1/16SS105J	R 512	(A,113,82)	RS1/16SS473J
R 213	(A,43,59)	RS1/16SS681J	R 514	(A,123,89)	RS1/16SS333J
R 214	(A,43,60)	RS1/16SS681J	R 515	(A,121,87)	RS1/16SS333J
R 215	(A,33,69)	RS1/16SS333J	R 516	(A,121,89)	RS1/16SS333J
R 216	(A,33,67)	RS1/16SS104J	R 517	(A,122,89)	RS1/16SS333J
R 217	(A,31,68)	RS1/16SS124J	R 518	(B,127,89)	RS1/16SS101J
R 218	(A,30,70)	RS1/16SS123J	R 519	(B,125,91)	RS1/16SS681J
R 219	(A,27,55)	RS1/16SS681J	R 520	(B,125,92)	RS1/16SS681J
R 220	(A,27,56)	RS1/16SS681J	R 521	(B,125,93)	RS1/16SS681J
R 221	(A,27,57)	RS1/16SS561J	R 524	(A,108,85)	RS1/16SS0R0J
R 222	(A,27,58)	RS1/16SS561J	R 525	(A,121,97)	RS1/16SS0R0J
R 301	(B,133,17)	RS1/16SS0R0J	R 526	(A,117,82)	RS1/16SS0R0J
R 302	(B,122,78)	RS1/16SS0R0J	R 527	(B,115,78)	RAB4CQ220J
R 304	(B,128,73)	RS1/16SS0R0J	R 528	(B,112,78)	RAB4CQ220J
R 305	(B,121,75)	RS1/16SS821J	R 529	(B,115,81)	RAB4CQ0R0J
R 306	(B,132,75)	RS1/16SS821J	R 530	(B,112,81)	RAB4CQ0R0J
R 307	(B,126,20)	RS1/16SS821J	R 531	(B,107,84)	RAB4CQ220J
R 308	(B,137,20)	RS1/16SS821J	R 532	(B,107,87)	RAB4CQ220J
R 310	(B,126,22)	RS1/16SS0R0J	R 533	(B,109,84)	RAB4CQ0R0J
R 313	(B,111,25)	RS1/16SS821J	R 534	(B,109,87)	RAB4CQ0R0J
R 314	(B,111,29)	RS1/16SS0R0J	R 535	(B,107,89)	RS1/16SS331J
R 317	(A,87,48)	RS1/16SS0R0J	R 536	(B,127,87)	RS1/16SS220J
R 319	(A,87,52)	RS1/16SS821J	R 537	(B,127,86)	RS1/16SS220J
R 454	(A,24,82)	RS1/16SS0R0J	R 538	(B,127,88)	RS1/16SS220J
R 455	(B,38,57)	RS1/16SS0R0J	R 540	(B,91,100)	RS1/16SS102J
R 456	(A,35,70)	RS1/16SS104J	R 541	(A,109,91)	RS1/16SS223J
R 457	(A,30,76)	RS1/16SS103J	R 542	(A,111,91)	RS1/16SS433J
R 458	(A,31,78)	RS1/16SS103J	R 543	(B,100,98)	RS1/16SS473J
R 467	(A,32,77)	RS1/16SS103J	R 544	(B,101,98)	RS1/16SS473J
R 468	(A,43,75)	RS1/16SS123J	R 545	(B,93,100)	RS1/16SS104J
R 469	(A,42,75)	RS1/16SS1202D	R 548	(B,110,94)	RS1/16SS681J
R 470	(A,38,80)	RS1/16SS101J	R 549	(B,104,99)	RS1/16SS102J
R 471	(A,30,75)	RS1/16SS104J	R 550	(B,101,104)	RS1/16SS103J
R 472	(A,38,71)	RS1/16SS104J	R 551	(B,99,102)	RS1/16SS102J
R 473	(A,40,73)	RS1/16SS104J	R 553	(B,106,99)	RS1/16SS0R0J
R 474	(A,43,81)	RS1/16SS104J	R 554	(B,108,98)	RS1/16SS0R0J
R 479	(A,40,82)	RS1/16SS821J	R 555	(B,106,97)	RS1/16SS0R0J
R 480	(A,35,81)	RS1/16SS102J	R 556	(B,108,99)	RS1/16SS0R0J
R 481	(A,33,80)	RS1/16SS103J	R 557	(B,125,88)	RS1/16SS0R0J
R 482	(A,24,85)	RS1/16SS103J	R 558	(B,125,86)	RS1/16SS0R0J
R 483	(A,26,86)	RS1/16SS682J	R 559	(B,125,87)	RS1/16SS0R0J
R 484	(A,25,84)	RS1/16SS472J	R 560	(B,111,92)	RS1/16SS105J
R 485	(A,35,83)	RS1/16SS153J	R 561	(B,124,96)	RS1/16SS0R0J
R 488	(A,37,85)	RS1/16SS473J	R 612	(B,107,81)	RS1/16SS333J

Circuit Symbol and No.		Part No.
R 613	(B,117,61)	RS1/16SS471J
R 614	(B,115,61)	RS1/16SS105J
R 615	(B,116,56)	RS1/16SS152J
R 616	(B,119,58)	RS1/16SS122J
R 617	(B,93,70)	RAB4CQ330J
R 618	(B,93,68)	RAB4CQ330J
R 619	(B,93,65)	RAB4CQ330J
R 620	(B,93,62)	RAB4CQ330J
R 621	(B,93,60)	RS1/16SS330J
R 622	(B,92,59)	RS1/16SS330J
R 623	(B,96,54)	RAB4CQ330J
R 624	(A,107,50)	RS1/16SS1500D
R 625	(B,91,70)	RAB4CQ0R0J
R 626	(B,91,68)	RAB4CQ0R0J
R 627	(B,91,65)	RAB4CQ0R0J
R 628	(B,91,62)	RAB4CQ0R0J
R 629	(B,90,60)	RS1/16SS0R0J
R 630	(B,88,59)	RS1/16SS0R0J
R 631	(B,94,54)	RAB4CQ0R0J
R 632	(B,94,52)	RS1/16SS0R0J
R 633	(B,108,77)	RS1/16SS103J
R 634	(B,93,59)	RS1/16SS680J
R 635	(B,90,59)	RS1/16SS0R0J
R 636	(B,96,52)	RS1/16SS331J
R 637	(B,109,77)	RS1/16SS0R0J
R 639	(A,92,70)	RS1/16SS0R0J
R 640	(A,86,63)	RS1/16SS0R0J
R 643	(B,107,77)	RS1/16SS0R0J
R 644	(B,110,77)	RS1/16SS0R0J
R 645	(A,108,49)	RS1/16SS82R0D
R 653	(A,109,49)	RS1/16SS0R0J
R 713	(B,74,57)	RS1/16SS562J
R 748	(B,84,54)	RS1/16SS0R0J
R 750	(A,85,59)	RS1/16SS473J
R 752	(A,85,56)	RS1/16SS562J
R 753	(B,81,54)	RS1/16SS1000D
R 818	(B,104,16)	RS1/10SR0R0J
R 820	(B,97,17)	RS1/8SQ0R0J
R 903	(B,139,56)	RAB4CQ103J
R 904	(B,130,56)	RAB4CQ103J
R 905	(B,136,56)	RAB4CQ103J
R 906	(A,126,82)	RS1/16SS472J
R 907	(A,125,82)	RS1/16SS472J
R 909	(B,130,69)	RS1/16SS0R0J
R 913	(A,119,52)	RS1/16SS472J
R 914	(A,132,85)	RAB4CQ472J
R 915	(B,140,71)	RS1/16SS472J
R 916	(A,125,81)	RS1/16SS104J
R 917	(A,126,81)	RS1/16SS104J
R 921	(A,128,81)	RS1/16SS472J
R 922	(B,141,62)	RS1/16SS103J
R 927	(B,139,73)	RS1/16SS472J
R 928	(B,115,45)	RS1/16SS0R0J
R 929	(A,126,52)	RS1/16SS472J
R 930	(A,136,81)	RS1/16SS472J
R 931	(B,147,33)	RS1/16SS0R0J
R 932	(B,148,33)	RS1/16SS0R0J
R 933	(B,147,31)	RS1/16SS0R0J
R 934	(B,146,33)	RS1/16SS471J
R 935	(A,144,62)	RAB4CQ680J

Circuit Symbol and No.		Part No.
R 936	(A,144,59)	RAB4CQ680J
R 937	(A,144,56)	RAB4CQ680J
R 938	(A,136,53)	RAB4CQ680J
R 939	(A,132,53)	RAB4CQ101J
R 940	(A,129,53)	RAB4CQ101J
R 941	(B,141,64)	RAB4CQ103J
R 942	(B,141,60)	RAB4CQ103J
R 943	(B,133,56)	RAB4CQ103J
R 945	(B,139,70)	RS1/16SS103J
R 1001	(B,108,33)	RS1/16SS101J
R 1003	(B,97,45)	RS1/16SS470J
R 1006	(B,98,45)	RS1/16SS470J
R 1007	(B,110,45)	RS1/16SS0R0J
R 1008	(B,111,47)	RS1/16SS0R0J
R 1012	(B,113,45)	RS1/16SS0R0J
R 1013	(B,112,33)	RS1/10SR0R0J
R 1015	(B,149,47)	RS1/16SS0R0J
R 1016	(B,130,30)	RS1/16SS0R0J
R 1017	(B,96,47)	RS1/16SS0R0J
R 1028	(B,128,44)	RS1/16SS103J
R 1029	(B,143,45)	RS1/16SS220J
R 1030	(B,115,46)	RS1/16SS472J
R 1031	(B,135,23)	RS1/16SS104J
R 1032	(B,136,23)	RS1/16SS104J
R 1033	(B,137,23)	RS1/16SS104J
R 1034	(B,138,23)	RS1/16SS104J
R 1035	(B,126,31)	RS1/16SS101J
R 1036	(B,133,30)	RS1/16SS0R0J
R 1037	(B,96,45)	RS1/16SS470J
R 1038	(B,130,44)	RS1/16SS0R0J
R 1039	(B,134,48)	RS1/16SS221J
R 1040	(B,134,50)	RS1/16SS221J
R 1041	(B,136,47)	RS1/16SS0R0J
R 1042	(B,137,47)	RS1/16SS221J
R 1043	(B,138,45)	RS1/16SS220J
R 1044	(B,128,33)	RS1/16SS0R0J
R 1045	(B,129,33)	RS1/16SS0R0J
R 1046	(B,130,33)	RS1/16SS470J
R 1047	(B,130,31)	RS1/16SS470J
R 1048	(B,131,33)	RS1/16SS470J
R 1049	(B,132,30)	RS1/16SS181J
R 1050	(B,133,31)	RS1/16SS470J
R 1051	(B,133,33)	RS1/16SS470J
R 1052	(B,125,46)	RS1/16SS101J
R 1053	(B,136,33)	RS1/16SS220J
R 1054	(B,94,34)	RS1/16SS104J
R 1055	(B,95,27)	RS1/16SS104J
R 1056	(B,100,48)	RS1/16SS681J
R 1057	(B,101,49)	RS1/16SS681J
R 1058	(B,101,48)	RS1/16SS681J
R 1059	(B,102,49)	RS1/16SS681J
R 1060	(B,103,48)	RS1/16SS681J
R 1061	(B,103,49)	RS1/16SS681J
R 1062	(B,104,48)	RS1/16SS681J
R 1063	(B,105,49)	RS1/16SS681J
R 1064	(B,106,48)	RS1/16SS681J
R 1065	(B,106,49)	RS1/16SS681J
R 1066	(B,107,48)	RS1/16SS681J
R 1067	(B,107,49)	RS1/16SS681J
R 1068	(B,100,31)	RS1/16SS331J

Circuit Symbol and No.		Part No.
R 1069	(B,101,28)	RS1/16SS181J
R 1070	(B,102,30)	RS1/16SS101J
R 1071	(B,103,30)	RS1/16SS471J
R 1072	(B,104,28)	RS1/16SS471J
R 1073	(B,104,30)	RS1/16SS471J
R 1074	(B,105,28)	RS1/16SS471J
R 1075	(B,106,30)	RS1/16SS471J
R 1076	(B,106,28)	RS1/16SS471J
R 1077	(B,138,47)	RS1/16SS0R0J
R 1078	(B,143,47)	RS1/16SS0R0J
R 1079	(B,102,28)	RS1/16SS101J
R 1080	(B,136,31)	RS1/16SS0R0J
R 1081	(B,130,45)	RS1/16SS103J
R 1082	(B,115,48)	RS1/16SS104J
R 1101	(A,131,47)	RS1/16SS0R0J
R 1102	(A,133,47)	RS1/16SS0R0J
R 1103	(A,131,48)	RS1/16SS0R0J
R 1104	(A,136,49)	RS1/16SS0R0J
R 1105	(A,135,50)	RS1/16SS0R0J
R 1106	(A,137,50)	RS1/16SS0R0J
R 1107	(A,138,42)	RS1/16SS680J
R 1108	(A,143,42)	RS1/16SS330J
R 1109	(A,145,42)	RS1/16SS330J
R 1110	(A,128,42)	RS1/16SS330J
R 1111	(A,129,42)	RS1/16SS330J
R 1112	(A,141,43)	RS1/16SS330J
R 1113	(A,89,10)	RS1/16SS221J
R 1114	(A,115,35)	RS1/16SS330J
R 1115	(A,112,35)	RS1/16SS330J
R 1116	(A,110,35)	RS1/16SS330J
R 1117	(A,157,50)	RS1/10SR103J
R 1118	(A,157,47)	RS1/10SR331J
R 1119	(A,151,49)	RS1/16SS103J
R 1120	(A,155,43)	RS1/16SS103J
R 1121	(A,155,45)	RS1/16SS103J
R 1122	(A,146,52)	RS1/16SS0R0J
R 1123	(A,98,35)	RS1/16SS330J
R 1124	(A,96,35)	RS1/16SS330J
R 1125	(A,95,41)	RS1/16SS103J
R 1126	(A,94,35)	RS1/16SS330J
R 1128	(A,88,15)	RS1/16SS330J
R 1129	(A,143,52)	RS1/16SS103J
R 1130	(A,144,42)	RS1/16SS103J
R 1131	(A,142,52)	RS1/16SS103J
R 1132	(A,146,42)	RS1/16SS103J
R 1133	(A,141,52)	RS1/16SS103J
R 1134	(A,127,42)	RS1/16SS103J
R 1135	(A,130,42)	RS1/16SS103J
R 1136	(A,140,52)	RS1/16SS103J
R 1137	(A,141,42)	RS1/16SS103J
R 1138	(A,139,52)	RS1/16SS103J
R 1139	(A,139,42)	RS1/16SS103J
R 1142	(B,92,29)	RS1/8SQ0R0J
R 1208	(B,164,85)	RS1/16SS101J
R 1209	(B,164,77)	RS1/16SS0R0J
R 1210	(B,163,65)	RS1/16SS10R0D
R 1211	(B,148,61)	RS1/16SS4702D
R 1227	(B,160,61)	RS1/16SS1501D
R 1228	(B,159,61)	RS1/16SS3302D
R 1229	(B,159,63)	RS1/16SS2402D

Circuit Symbol and No.		Part No.
R 1230	(B,158,65)	RS1/16SS432J
R 1231	(B,158,60)	RS1/16SS4702D
R 1232	(B,154,59)	RS1/16SS1002D
R 1233	(B,152,59)	RS1/16SS2202D
R 1234	(B,152,60)	RS1/16SS3302D
R 1235	(B,148,64)	RS1/16SS103J
R 1236	(B,148,63)	RS1/16SS102J
R 1237	(B,160,66)	RS1/16SS102J
R 1240	(B,150,67)	RS1/10SR0R0J
R 1301	(B,52,25)	RS1/16SS561J
R 1302	(B,52,23)	RS1/16SS561J
R 1303	(B,52,22)	RS1/16SS561J
R 1304	(B,46,38)	RS1/16SS330J
R 1305	(B,45,38)	RS1/16SS330J
R 1306	(B,51,34)	RS1/16SS103J
R 1307	(B,52,27)	RS1/16SS104J
R 1308	(B,53,34)	RS1/16SS103J
R 1309	(B,32,15)	RS1/10SR0R0J
R 1310	(B,33,23)	RS1/16SS473J
R 1311	(B,52,28)	RS1/16SS104J
R 1312	(B,41,13)	RS1/16SS0R0J
R 1313	(B,51,20)	RS1/16SS103J
R 1314	(B,41,12)	RS1/16SS473J
R 1401	(A,125,99)	RS1/16SS101J
R 1403	(A,131,92)	RS1/16SS101J
R 1404	(B,131,99)	RS1/16SS101J
R 1405	(A,130,99)	RS1/16SS101J
R 1406	(B,133,108)	RS1/10SR75R0D
R 1407	(A,127,109)	RS1/10SR75R0D
R 1414	(A,133,92)	RS1/16SS0R0J
R 1415	(A,132,108)	RS1/10SR75R0D
R 1418	(A,67,100)	RS1/16SS0R0J
R 1420	(A,63,97)	RS1/16SS0R0J
R 1421	(A,64,96)	RS1/16SS3902D
R 1422	(A,66,97)	RS1/16SS1201D
R 1423	(A,65,98)	RS1/16SS1002D
R 1427	(A,67,108)	RS1/16SS101J
R 1428	(A,68,108)	RS1/16SS0R0J
R 1429	(A,58,108)	RS1/16SS104J
R 1431	(A,63,108)	RS1/16SS8201D
R 1432	(A,64,108)	RS1/16SS393J
R 1433	(A,71,105)	RS1/4SA151J
R 1434	(A,71,103)	RS1/4SA151J
R 1436	(B,71,92)	RS1/16SS102J
R 1437	(B,72,92)	RS1/16SS102J
R 1438	(B,73,92)	RS1/16SS102J
R 1439	(B,74,92)	RS1/16SS102J
R 1440	(B,51,101)	RS1/4SA0R0J
R 1441	(A,71,101)	RS1/4SA151J
R 1446	(B,128,106)	RS1/16SS0R0J
R 1447	(B,132,114)	RS1/16SS0R0J
R 1448	(B,130,106)	RS1/16SS0R0J
R 1449	(A,53,94)	RS1/16SS0R0J
R 1501	(B,31,84)	RS1/16SS103J
R 1502	(B,29,91)	RS1/16SS0R0J
R 1503	(B,30,91)	RS1/16SS103J
R 1504	(B,30,84)	RS1/16SS0R0J
R 1505	(B,28,91)	RS1/16SS0R0J
R 1507	(B,49,118)	RS1/10SR0R0J
R 1508	(A,43,116)	RS1/10SR0R0J

Circuit Symbol and No.		Part No.
R 1601	(A,23,96) (B)	RS1/16SS102J
R 1602	(A,23,94) (B)	RS1/16SS102J
R 1603	(A,26,95) (B)	RS1/16SS104J
R 1604	(A,30,91) (B)	RS1/16SS103J
R 1701	(B,21,118) (A)	RS1/10SR102J
R 1704	(B,14,118) (A)	RS1/10SR102J
R 1709	(B,17,103) (A)	RS1/16SS104J
R 1710	(B,8,109) (A)	RS1/16SS473J
R 1711	(A,38,101) (A)	RS1/16SS103J
R 1712	(A,35,99) (A)	RS1/4SA471J
R 1713	(A,35,96) (A)	RS1/4SA471J
R 1714	(A,41,106) (A)	RS1/16SS1003D
R 1715	(A,42,106) (A)	RS1/16SS1802D
R 1716	(B,17,113) (A)	RS1/16SS473J
R 1718	(B,18,104) (A)	RS1/16SS0R0J
R 1721	(A,44,99) (A)	RS1/4SA0R0J
R 1723	(B,21,100) (A)	RS1/16SS0R0J
R 1725	(A,48,107) (A)	RS1/16SS911J
R 1726	(B,30,118) (A)	RS1/16SS0R0J
R 1727	(B,27,118) (A)	RS1/16SS0R0J
R 1728	(B,24,118) (A)	RS1/16SS0R0J
R 1801	(B,83,89)	RS1/16SS102J
R 1802	(B,80,86)	RS1/16SS472J
R 1803	(A,69,70)	RS1/16SS473J
R 1804	(B,74,83)	RS1/10SR0R0J
R 1805	(B,74,81)	RS1/10SR0R0J
R 1806	(B,82,84)	RS1/16SS472J
R 1807	(B,86,84)	RS1/16SS471J
R 1808	(A,81,72)	RS1/16SS221J
R 1809	(A,81,73)	RS1/16SS221J
R 1810	(A,83,77)	RS1/16SS221J
R 1811	(A,82,77)	RS1/16SS221J
R 1812	(A,81,77)	RS1/16SS221J
R 1813	(A,68,72)	RS1/8SQ561J
R 1814	(B,64,18) (C)	RS1/16SS0R0J
R 1815	(B,64,16) (B)	RS1/16SS0R0J
R 1816	(B,64,14) (A)	RS1/16SS0R0J

CAPACITORS

C 1	(A,83,33)	CKSSYB103K16
C 2	(B,31,76) 10 uF	CCG1234
C 3	(B,30,76) 10 uF	CCG1234
C 4	(B,30,78) 10 uF	CCG1234
C 5	(B,72,111)	XCEVW101M16
C 6	(B,78,121)	CKSYB105K35
C 7	(B,75,117)	CKSSYB103K16
C 114	(A,5,114) 22 uF	DCH1256
C 201	(A,37,69) 10 uF	CCG1234
C 203	(B,32,56)	CKSSYB104K10
C 204	(A,35,68)	CKSRYB105K10
C 205	(A,27,59)	CCSSCH101J50
C 206	(A,40,67)	CKSSYB104K10
C 207	(A,32,51)	CKSSYB104K10
C 208	(A,30,67)	CKSSYB104K10
C 209	(A,38,68)	CKSSYB104K10
C 210	(A,45,61)	CCSSCH100D50
C 211	(A,43,64)	CCSSCH100D50
C 212	(A,38,67)	CCSSCH151J50
C 214	(A,32,70)	CKSRYB105K10
C 217	(A,29,70)	CKSRYB105K10
C 219	(A,29,67) 10 uF	CCG1234
C 221	(A,27,62)	CKSSYB104K10
C 222	(A,41,70) 10 uF	CCG1234
C 301	(B,126,73)	CKSSYB104K10
C 302	(B,127,71) 10 uF	CCG1192
C 303	(B,132,77)	CKSSYB104K10
C 304	(B,133,78) 10 uF	CCG1192
C 306	(B,121,74)	CKSSYB182K50
C 307	(B,132,74)	CKSSYB182K50
C 309	(B,117,79)	CKSSYB104K10
C 310	(B,140,20) 10 uF	CCG1192
C 312	(B,131,15) 10 uF	CCG1192
C 313	(B,126,19)	CKSSYB182K50
C 314	(B,137,19)	CKSSYB182K50
C 315	(B,131,17)	CKSSYB104K10
C 316	(B,123,25) 10 uF	CCG1192
C 317	(B,117,21) 10 uF	CCG1192
C 319	(B,116,23)	CKSSYB104K10
C 320	(B,111,24)	CKSSYB182K50
C 321	(A,99,52) 10 uF	CCG1192
C 323	(A,93,56) 10 uF	CCG1192
C 324	(A,92,54)	CKSSYB104K10
C 325	(A,86,52)	CKSSYB182K50
C 326	(A,98,51)	CKSSYB104K10
C 327	(B,122,26)	CKSSYB104K10
C 328	(B,138,20)	CKSSYB104K10
C 463	(A,31,76)	CKSSYB562K25
C 464	(A,32,79)	CKSSYB153K16
C 465	(A,41,79)	CKSRYB105K10
C 466	(A,41,75)	CKSSYB471K50
C 467	(A,32,75)	CKSSYB681K50
C 468	(A,41,77)	CKSSYB104K16
C 469	(A,38,73)	CKSRYB105K10
C 470	(A,40,81)	CKSRYB105K10
C 471	(A,29,81)	CKSSYB104K16
C 472	(A,33,81)	CKSSYB103K16
C 473	(A,25,87)	CKSRYB105K10
C 474	(A,24,86)	CKSSYB102K50
C 475	(A,24,84)	CKSSYB102K50
C 476	(A,36,83)	CCSSCH101J50
C 477	(A,36,85)	CKSRYB105K10
C 478	(A,41,83)	CKSRYB105K10
C 479	(A,40,85)	CKSRYB105K10
C 480	(A,41,87)	CKSRYB105K10
C 501	(A,114,89)	CKSSYB104K10
C 502	(A,116,91)	CKSSYB104K10
C 503	(A,118,91)	CKSSYB104K10
C 504	(A,119,90)	CKSSYB104K10
C 505	(A,115,87)	CKSSYB104K10
C 506	(A,118,86)	CKSSYB104K10
C 507	(A,119,88)	CKSSYB104K10
C 508	(B,129,89)	CCSSCH470J50
C 509	(B,127,91)	CCSSCH470J50
C 510	(B,127,92)	CCSSCH470J50
C 511	(B,127,93)	CCSSCH470J50
C 512	(A,112,95) 10 uF	CCG1234
C 519	(B,95,97) 4.7 uF	CCG1212
C 520	(B,98,91) 4.7 uF	CCG1212
C 521	(B,95,100) 4.7 uF	CCG1212

Circuit Symbol and No.		Part No.
C 522	(B,110,92)	CCSSCH120J50
C 523	(B,110,95)	CCSSCH120J50
C 524	(B,112,95)	CKSSYB104K10
C 526	(B,95,109) 4.7 uF	CCG1201
C 601	(A,107,64)	CKSSYB103K16
C 602	(A,96,68) 47 uF	CCG1251
C 603	(A,107,74)	CKSSYB104K16
C 604	(A,103,74)	CKSSYB104K16
C 605	(A,103,73)	CKSSYB103K16
C 606	(A,105,74)	CKSSYB104K16
C 607	(A,105,73)	CKSSYB103K16
C 608	(B,110,79)	CKSSYB104K16
C 609	(A,107,65)	CKSSYB104K16
C 610	(A,102,76) 10 uF	CCG1234
C 611	(A,109,59)	CKSSYB103K16
C 613	(B,117,62)	CCSSCH120J50
C 615	(B,119,61)	CCSSCH120J50
C 617	(A,112,58) 47 uF	CCG1251
C 618	(A,109,58)	CKSSYB104K16
C 620	(B,117,59)	CCSRCH181J50
C 631	(A,95,62) 47 uF	CCG1251
C 633	(B,117,57)	CKSSYB103K16
C 638	(B,117,53)	CKSSYB104K10
C 640	(B,120,57)	CKSSYB104K10
C 641	(B,118,53)	CCSSCH8R0D50
C 642	(A,107,73)	CKSSYB103K16
C 643	(A,98,63)	CKSSYB103K16
C 644	(A,97,63)	CKSSYB104K16
C 645	(A,100,68)	CKSSYB104K16
C 646	(A,101,68)	CKSSYB103K16
C 647	(A,109,71)	CKSSYB103K16
C 648	(A,109,70)	CKSSYB104K16
C 649	(A,111,65)	CKSSYB103K16
C 650	(A,112,65)	CKSSYB104K16
C 653	(A,97,66)	CKSSYB104K16
C 654	(A,98,66)	CKSSYB103K16
C 655	(A,111,68)	CKSSYB103K16
C 656	(A,112,68)	CKSSYB104K16
C 657	(A,99,72)	CKSSYB103K16
C 658	(A,99,73)	CKSSYB104K16
C 659	(A,105,69)	CKSSYB104K16
C 660	(A,101,74)	CKSSYB104K16
C 661	(A,101,73)	CKSSYB103K16
C 662	(A,104,61)	CKSSYB103K16
C 663	(A,103,61)	CKSSYB104K16
C 664	(A,110,53) 0.47 uF	CCG1339
C 665	(A,110,54) 0.47 uF	CCG1339
C 666	(A,110,55) 0.47 uF	CCG1339
C 667	(A,102,57)	CKSSYB104K10
C 668	(A,104,57)	CKSSYB104K10
C 669	(B,109,55)	CKSSYB104K10
C 670	(A,105,57)	CKSSYB104K10
C 671	(A,103,57)	CKSSYB104K10
C 672	(A,106,57)	CKSSYB104K10
C 673	(B,110,53)	CKSSYB104K10
C 674	(B,113,55)	CKSSYB104K10
C 675	(B,112,55)	CKSSYB104K10
C 676	(B,111,55)	CKSSYB104K10
C 677	(B,111,53)	CKSSYB104K10
C 678	(B,114,53)	CKSSYB104K10

Circuit Symbol and No.		Part No.
C 679	(A,104,69)	CKSSYB103K16
C 680	(A,98,59) 47 uF	CCG1251
C 683	(B,112,53) 0.47 uF	CCG1339
C 685	(A,77,66)	CKSRYB105K10
C 686	(A,87,66) 4.7 uF	CCG1212
C 688	(A,89,62)	CKSSYB104K10
C 689	(A,92,60)	CKSRYB105K10
C 691	(A,113,55)	CCSSCH820J50
C 692	(A,114,55)	CCSRCH820J50
C 693	(A,112,52)	CCSSCH820J50
C 709	(A,82,56)	CKSSYB103K16
C 710	(B,79,53)	CKSSYB104K10
C 711	(A,83,56)	CKSSYB104K10
C 713	(A,76,55)	CKSSYB103K16
C 714	(B,80,52)	CKSSYB104K10
C 715	(A,80,58)	CKSSYB103K16
C 716	(A,80,57)	CKSSYB104K10
C 717	(B,79,54)	CKSSYB103K16
C 718	(B,81,52)	CKSSYB104K10
C 719	(A,74,55) 10 uF	CCG1234
C 901	(B,119,66)	CKSSYB104K10
C 902	(A,120,80)	CKSSYB104K10
C 903	(A,120,55)	CKSSYB104K10
C 904	(A,139,80)	CKSSYB104K10
C 905	(B,141,58)	CKSSYB104K10
C 906	(A,142,68)	CKSSYB104K10
C 909	(A,136,84)	CKSRYB104K50
C 910	(A,139,81) 1 uF	DCH1246
C 911	(A,143,68) 1 uF	DCH1246
C 912	(B,142,58) 1 uF	DCH1246
C 913	(A,120,54) 1 uF	DCH1246
C 914	(B,119,67) 1 uF	DCH1246
C 915	(A,120,81) 1 uF	DCH1246
C 1001	(B,94,46)	CCSSCH471J50
C 1002	(B,94,44) 10 uF	CCG1234
C 1005	(B,91,44) 10 uF	CCG1234
C 1008	(B,91,46)	CCSSCH471J50
C 1009	(B,114,47)	CKSSYB104K16
C 1101	(A,106,35) 10 uF	CCG1234
C 1102	(A,86,14)	CKSSYB104K10
C 1103	(A,94,36)	CKSSYB104K10
C 1104	(A,152,49)	CKSSYB104K10
C 1106	(A,136,43)	CKSRYB105K10
C 1107	(A,106,33)	CKSSYB104K10
C 1108	(A,136,42)	CKSSYB104K10
C 1205	(B,154,68)	CKSSYB102K50
C 1209	(B,155,67)	CKSSYB104K10
C 1210	(B,154,67)	CKSSYB103K16
C 1211	(B,158,63)	CCSSCH101J50
C 1212	(B,152,65)	CKSSYB104K10
C 1213	(B,159,60)	CKSSYB104K10
C 1214	(B,158,67)	CKSSYB103K16
C 1216	(B,148,72)	CKSSYB102K50
C 1302	(B,41,38)	CKSSYB102K50
C 1303	(B,40,39) 10 uF	CCG1234
C 1401	(B,132,94) 10 uF	CCG1192
C 1402	(A,132,97)	CKSSYB104K10
C 1404	(A,128,103)	CKSRYB105K10
C 1405	(A,127,97)	CKSSYB104K10

Circuit Symbol and No.		Part No.
C 1406	(A,131,103)	CKSRYB105K10
C 1407	(B,128,97)	CKSSYB104K10
C 1408	(A,133,103)	CKSRYB105K10
C 1409	(A,126,103)	CKSRYB105K10
C 1410	(B,130,103)	CKSRYB105K10
C 1411	(B,128,103)	CKSRYB105K10
C 1413	(A,64,97)	CKSSYB331K50
C 1414	(B,63,95) 47 uF	CCG1251
C 1415	(A,67,104) 47 uF	CCG1251
C 1416	(A,62,108)	CKSSYB104K10
C 1417	(A,59,96)	CKSRYB104K50
C 1419	(B,146,119)	CKSSYB104K10
C 1420	(A,54,106)	CKSYB225K25
C 1421	(A,60,108)	CKSSYB103K16
C 1422	(A,55,100)	CKSSYB103K16
C 1423	(B,62,102) 47 uF	CCG1251
C 1424	(B,56,95)	XCEVW100M16
C 1425	(A,55,95) 10 uF	CCG1236
C 1427	(B,61,93) 22 uF	CCG1254
C 1428	(A,127,105)	CCSRCH560J50
C 1430	(A,132,105)	CCSRCH560J50
C 1432	(B,133,106)	CCSRCH560J50
C 1435	(B,144,113)	CKSSYB104K10
C 1436	(B,144,114)	CKSSYB103K16
C 1501	(B,38,116)	CKSSYB104K10
C 1502	(B,36,85)	CKSSYB104K10
C 1503	(B,37,95)	CKSSYB103K16
C 1504	(B,28,88)	CKSSYB104K10
C 1505	(B,35,99)	XCEVW101M16
C 1601	(A,26,93) (B)	CKSSYB104K10
C 1602	(A,26,99) (B)	CKSSYB104K10
C 1701	(B,12,109) (A)	CKSSYB104K10
C 1702	(B,18,109) (A)	CKSSYB104K10
C 1703	(B,17,99) (A)	CKSSYB104K10
C 1706	(A,35,117) (A)	CKSRYB104K50
C 1707	(A,35,116) (A)	CKSRYB103K50
C 1708	(A,46,107) (A)	CKSSYB104K16
C 1709	(B,19,118) (A)	CKSSYB103K16
C 1710	(B,20,118) (A)	CKSSYB104K16
C 1801	(A,92,78)	CKSRYB104K50
C 1802	(A,87,78)	CKSSYB104K10
C 1807	(B,61,66) 10 uF	DCH1165

C

Unit Number : YWX5033
Unit Name : DVD Core Unit

MISCELLANEOUS

IC 1002	(B,15,13)	Regulator IC	S-1133B50-U5
IC 1003	(B,37,11)	IC	S-1200B50-M5
IC 1004	(B,64,28)	IC	NJM2855DL1-33
IC 1251	(A,12,42)	IC	BA5839FP
IC 1401	(B,27,41)	Flash ROM Unit	CWW5043
IC 1402	(B,45,28)	Flash ROM Unit	CWW5044
IC 1480	(A,64,30)	RAM IC	M12L64164A-5TG2Y
IC 1501	(A,39,33)	IC	MN2DS0018MA
IC 1801	(B,34,16)	D/A Converter	PCM1753DBQ
IC 1953	(B,57,17)	IC	S-1135D12-A6

Circuit Symbol and No.			Part No.
Q 1101	(B,13,59)	Transistor	LSCR523UB
Q 1102	(B,13,56)	Transistor	LSCR523UB
Q 1103	(B,10,63)	Transistor	2SB1132
Q 1104	(B,22,54)	Transistor	2SB1132
L 1501	(A,54,31)	Inductor	CTF1743
L 1511	(A,48,17)	Chip Beads	VTL1126
L 1902	(A,17,17)	Inductor	CTF1487
L 1903	(B,63,16)	Inductor	CTF1558
L 1904	(A,68,18)	Ferrite Bead	CTF1528
X 1501	(B,48,18)	Oscillator 27.000 MHz	CSS1823
F 1001	(A,14,19)	Chip EMI Filter	DTF1106
F 1002	(B,63,18)	Chip EMI Filter	DTL1106
S 1	(A,47,55)	Spring Switch(HOME)	CSN1080
S 3	(B,25,13)	Spring Switch(12EJ)	CSN1081
VR1101	(A,7,63)	Semi-fixed 6.8 kohm(B)	CCP1447
VR1102	(A,7,60)	Semi-fixed 15 kohm(B)	CCP1449
CN1101	(A,21,63)	Connector	CKS6331
CN1952	(A,42,11)	Connector	CKS6025

RESISTORS

R 1004	(B,12,20)	RS1/16SS4702D
R 1007	(B,12,21)	RS1/16SS6801D
R 1019	(B,34,7)	RS1/16SS101J
R 1025	(B,36,6)	RS1/16SS101J
R 1027	(A,40,18)	RS1/16SS101J
R 1101	(B,15,57)	RS1/16SS104J
R 1102	(B,10,56)	RS1/16SS104J
R 1103	(B,14,61)	RS1/16SS4300F
R 1104	(B,11,59)	RS1/16SS5100F
R 1105	(B,17,54)	RS1/16SS4300F
R 1106	(B,10,57)	RS1/16SS5600F
R 1109	(B,6,57)	RS1/16SS3R3J
R 1110	(B,16,54)	RS1/16SS3R3J
R 1111	(B,6,63)	RS1/10SR3R3J
R 1112	(B,5,58)	RS1/10SR3R3J
R 1113	(B,15,59)	RS1/10SR3R9J
R 1114	(B,19,57)	RS1/10SR3R3J
R 1115	(B,6,61)	RS1/10SR2R7J
R 1116	(B,6,62)	RS1/10SR2R7J
R 1117	(B,17,59)	RS1/10SR3R9J
R 1118	(B,16,59)	RS1/10SR3R9J
R 1223	(A,42,50)	RS1/16SS561J
R 1225	(B,29,8)	RS1/16SS471J
R 1251	(A,5,48)	RS1/16SS333J
R 1252	(A,5,47)	RS1/16SS473J
R 1253	(A,5,46)	RS1/16SS333J
R 1254	(A,5,45)	RS1/16SS473J
R 1255	(A,21,48)	RS1/16SS183J
R 1256	(A,21,46)	RS1/16SS752J
R 1257	(B,8,37)	RS1/16SS221J
R 1258	(A,19,39)	RS1/16SS221J
R 1401	(B,34,28)	RS1/16SS221J
R 1402	(B,34,47)	RS1/16SS104J
R 1405	(B,55,35)	RS1/16SS104J
R 1406	(B,39,45)	RS1/16SS472J
R 1480	(A,72,24)	RAB4CQ560J
R 1481	(A,72,28)	RAB4CQ560J
R 1482	(A,72,32)	RAB4CQ560J
R 1483	(A,72,35)	RAB4CQ560J
R 1484	(A,72,39)	RAB4CQ560J

Circuit Symbol and No.		Part No.
R 1485	(A,55,22)	RAB4CQ560J
R 1486	(A,55,28)	RAB4CQ560J
R 1487	(A,56,37)	RAB4CQ560J
R 1488	(A,55,40)	RAB4CQ560J
R 1489	(A,54,30)	RS1/16SS560J
R 1490	(A,72,21)	RS1/16SS560J
R 1501	(B,48,21)	RS1/16SS122J
R 1503	(B,46,21)	RS1/16SS105J
R 1504	(A,50,17)	RS1/16SS121J
R 1505	(B,45,15)	RS1/16SS101J
R 1506	(B,45,14)	RS1/16SS101J
R 1507	(B,43,17)	RS1/16SS101J
R 1508	(B,42,18)	RS1/16SS221J
R 1509	(A,20,34)	RS1/16SS102J
R 1510	(A,11,29)	RS1/16SS102J
R 1512	(A,55,32)	RS1/16SS470J
R 1513	(A,23,38)	RS1/16SS103J
R 1514	(A,24,40)	RS1/16SS183J
R 1516	(A,24,36)	RS1/16SS104J
R 1517	(B,57,22)	RS1/16SS103J
R 1518	(B,33,31)	RS1/16SS103J
R 1519	(A,24,43)	RS1/16SS102J
R 1522	(A,21,37)	RS1/16SS104J
R 1523	(A,22,37)	RS1/16SS221J
R 1524	(B,29,33)	RS1/16SS472J
R 1525	(A,24,44)	RS1/16SS103J
R 1526	(A,22,40)	RS1/16SS103J
R 1527	(A,35,49)	RS1/16SS682J
R 1528	(B,19,34)	RS1/16SS103J
R 1529	(B,35,21)	RS1/16SS103J
R 1530	(B,17,34)	RS1/16SS103J
R 1531	(B,33,30)	RS1/16SS103J
R 1532	(A,24,42)	RS1/16SS101J
R 1533	(A,29,47)	RS1/16SS104J
R 1534	(B,29,48)	RS1/16SS221J
R 1535	(A,22,44)	RS1/16SS104J
R 1536	(B,32,48)	RS1/16SS104J
R 1537	(A,24,46)	RS1/16SS104J
R 1538	(A,55,35)	RS1/16SS104J
R 1539	(B,33,48)	RS1/16SS104J
R 1540	(A,26,46)	RS1/16SS221J
R 1541	(A,26,45)	RS1/16SS221J
R 1542	(B,26,34)	RS1/16SS103J
R 1546	(A,33,49)	RS1/16SS682J
R 1601	(A,32,17)	RS1/16SS123J
R 1602	(A,32,18)	RS1/16SS123J
R 1603	(B,31,21)	RS1/16SS1002D
R 1604	(A,23,21)	RS1/16SS105J
R 1605	(A,22,23)	RS1/16SS105J
R 1670	(B,40,21)	RS1/16SS1002D
R 1671	(B,42,19)	RS1/16SS2402D
R 1672	(A,39,18)	RS1/16SS2000D
R 1674	(A,36,17)	RS1/16SS3002D
R 1801	(B,41,8)	RS1/16SS104J
R 1802	(B,43,8)	RS1/16SS104J
R 1803	(B,37,13)	RS1/16SS821J
R 1804	(B,39,14)	RS1/16SS821J
R 1982	(A,10,62)	RS1/16SS822J
R 1983	(B,40,20)	RS1/16SS1000D
R 1987	(B,43,21)	RS1/16SS0R0J

CAPACITORS

Circuit Symbol and No.		Part No.
C 1001	(B,34,10)	CKSRYB105K10
C 1002	(B,12,17)	CKSSYB104K16
C 1003	(B,15,19)	CKSSYB104K16
C 1004	(B,15,17) 4.7 uF	CCG1201
C 1005	(B,40,11)	CKSRYB105K16
C 1010	(B,60,23)	CKSQYB225K10
C 1011	(B,64,22)	CKSRYB105K10
C 1015	(A,25,7)	CKSSYB102K50
C 1016	(B,64,15)	CKSSYB102K50
C 1018	(B,14,21)	CKSSYB104K10
C 1040	(B,51,7)	CCSRCH821J50
C 1041	(B,19,11)	CCSRCH271J50
C 1101	(B,14,53) 10 uF	CCG1192
C 1104	(B,7,57)	CKSSYB104K10
C 1105	(B,18,54)	CKSSYB104K10
C 1106	(B,8,66)	CKSSYB103K16
C 1107	(B,25,53)	CKSSYB103K16
C 1108	(A,19,57)	CKSSYB103K16
C 1109	(A,7,57)	CKSRYB224K16
C 1110	(A,17,58)	CKSSYB103K16
C 1111	(A,9,66)	CKSRYB224K16
C 1112	(B,17,52) 22 uF	DCH1256
C 1113	(B,8,58) 22 uF	DCH1256
C 1210	(B,77,34)	CKSSYB104K16
C 1251	(B,12,41)	CEVW101M16
C 1252	(B,7,41) 4.7 uF	CCG1222
C 1253	(B,7,39)	CKSSYB104K16
C 1254	(A,6,38)	CKSSYB104K16
C 1255	(A,18,37)	CKSSYB104K16
C 1401	(B,34,27)	CKSSYB104K16
C 1403	(B,39,40)	CKSSYB104K10
C 1404	(B,40,40) 4.7 uF	CCG1201
C 1408	(B,57,27)	CKSSYB104K10
C 1409	(B,58,29) 4.7 uF	CCG1201
C 1410	(B,33,29)	CKSSYB104K16
C 1480	(A,71,19)	CKSSYB104K10
C 1481	(A,72,22)	CKSSYB104K10
C 1482	(A,72,26)	CKSSYB104K10
C 1484	(A,72,30)	CKSSYB104K10
C 1485	(A,72,41)	CKSSYB104K10
C 1487	(A,57,29)	CKSSYB104K10
C 1488	(A,57,25)	CKSSYB104K10
C 1489	(A,64,17) 10 uF	CCG1192
C 1490	(A,66,18)	CKSSYB102K50
C 1501	(B,61,20) 10 uF	CCG1192
C 1502	(B,54,20) 10 uF	CCG1192
C 1503	(A,54,33)	CKSSYB104K10
C 1504	(A,53,24)	CKSSYB104K10
C 1505	(A,53,27)	CKSSYB104K10
C 1506	(B,52,35)	CKSSYB104K10
C 1507	(A,53,36)	CKSSYB104K10
C 1508	(A,53,39)	CKSSYB104K10
C 1509	(A,53,42)	CKSSYB104K10
C 1510	(B,51,18)	CCSSCH100D50
C 1511	(A,48,18)	CKSSYB104K10
C 1512	(B,45,18)	CCSSCH100D50

Circuit Symbol and No.			Part No.
C 1513	(A,48,48)		CKSSYB104K10
C 1514	(B,45,21)		CKSSYB104K10
C 1515	(A,45,18)		CKSSYB104K10
C 1516	(A,43,48)		CKSSYB104K10
C 1517	(A,42,48)		CKSSYB104K10
C 1518	(A,38,48)		CKSSYB104K10
C 1519	(A,34,47)		CKSSYB104K10
C 1520	(A,27,47)		CKSSYB104K10
C 1521	(A,24,34)		CKSSYB104K10
C 1522	(A,25,38)		CKSSYB104K10
C 1523	(A,20,46)		CKSSYB224K6R3
C 1524	(A,20,48)		CKSSYB473K16
C 1526	(A,24,37)		CKSSYB103K16
C 1528	(B,30,48)		CCSSCH471J50
C 1601	(A,32,19)		CKSSYB103K16
C 1602	(A,34,17)		CCSSCH101J50
C 1603	(A,33,18)		CCSSCH101J50
C 1604	(A,30,17)		CCSSCH680J50
C 1605	(A,30,18)		CCSSCH680J50
C 1606	(A,35,19)		CKSSYB104K10
C 1607	(A,20,24)	10 uF	CCG1192
C 1608	(A,28,18)	4.7 uF	CCG1201
C 1609	(A,26,22)		CKSSYB104K10
C 1612	(A,24,24)		CKSSYB104K10
C 1613	(A,24,25)		CKSSYB104K10
C 1614	(A,22,24)		CKSSYB104K10
C 1615	(A,23,26)		CKSSYB104K10
C 1616	(A,24,27)		CKSSYB104K10
C 1617	(B,27,28)		CKSSYB104K10
C 1618	(A,22,29)		CCSSCH101J50
C 1619	(A,23,30)		CKSSYB562K25
C 1620	(B,27,30)		CKSSYB224K6R3
C 1621	(A,22,31)		CKSSYB224K6R3
C 1622	(A,24,31)		CKSSYB333K16
C 1623	(A,27,20)		CKSRYB105K10
C 1624	(A,24,32)		CKSSYB104K10
C 1625	(A,24,29)		CKSSYB104K10
C 1671	(A,41,18)		CKSSYB104K10
C 1673	(A,37,19)		CKSSYB104K10
C 1674	(B,42,20)		CKSSYB104K10
C 1676	(B,38,21)		CKSRYB105K10
C 1801	(B,42,10)	4.7 uF	CCG1201
C 1802	(B,46,10)	4.7 uF	CCG1201
C 1803	(B,42,12)		CCSRCH182J50
C 1804	(B,45,12)		CCSRCH182J50
C 1805	(B,34,13)		CKSSYB104K10
C 1806	(B,32,13)	10 uF	CCG1192
C 1809	(B,39,16)		CKSSYB104K10
C 1953	(B,60,17)		CKSRYB105K10
C 1954	(B,54,17)		CKSRYB105K10
C 1955	(B,77,40)		CKSSYB104K16

D

Unit Number : CWN7383
Unit Name : Monitor Unit

MISCELLANEOUS

Circuit Symbol and No.			Part No.
IC 4001	(B,104,62)	IC	NJU6062V
IC 4002	(A,115,28)	IC	AK4188VN
IC 4101	(A,114,46)	IC	OZ527ILN
IC 4201	(A,96,20)	IC	R1290K103A
IC 4301	(B,30,53)	IC	DS90C124QVS
Q 4001	(A,15,43)	Transistor	LSAR523UB
Q 4201	(A,99,29)	Transistor	2SA1577
Q 4202	(A,103,13)	Transistor	LTC024EEB
D 4101	(A,113,54)	Diode	RB162M-40
D 4201	(B,104,19)	Diode	DB3S308F0
D 4202	(B,100,29)	Diode	DB3S308F0
D 4203	(B,100,26)	Diode	DB3S308F0
D 4204	(A,87,26)	Diode	RB162M-40
L 4004	(B,39,35)	Inductor	CTF1635
L 4005	(B,26,34)	Inductor	DTL1096
L 4006	(B,18,32)	Inductor	DTL1096
L 4007	(B,18,39)	Chip Ferrite Bead	BTX1042
L 4102	(A,108,53)	Inductor	ATH7068
L 4201	(A,94,26)	Choke Coil 22 uH	CTH1426
L 4302	(B,22,67)	Chip Ferrite Bead	BTX1047
L 4303	(B,34,61)	Ferrite Bead	CTF1528
L 4304	(B,25,59)	Ferrite Bead	CTF1528
L 4305	(B,21,55)	Inductor	CTF1734
L 4306	(B,21,54)	Inductor	CTF1734
L 4307	(B,21,53)	Inductor	CTF1734
L 4308	(B,21,51)	Inductor	CTF1734
L 4309	(B,21,48)	Inductor	CTF1734
L 4310	(B,22,48)	Inductor	CTF1734
L 4311	(B,23,47)	Inductor	CTF1734
L 4312	(B,24,46)	Inductor	CTF1734
L 4313	(B,25,44)	Inductor	CTF1734
L 4314	(B,26,43)	Inductor	CTF1734
L 4315	(B,28,44)	Inductor	CTF1734
L 4316	(B,30,44)	Chip Beads	VTL1126
L 4317	(B,32,44)	Inductor	CTF1734
L 4318	(B,34,44)	Inductor	CTF1734
L 4319	(B,35,45)	Inductor	CTF1734
L 4320	(B,37,47)	Inductor	CTF1734
L 4321	(B,37,48)	Inductor	CTF1734
L 4322	(B,38,49)	Inductor	CTF1734
L 4323	(B,39,50)	Inductor	CTF1734
L 4324	(B,38,52)	Inductor	CTF1734
L 4325	(B,39,53)	Inductor	CTF1734
L 4326	(B,38,54)	Inductor	CTF1734
L 4327	(B,39,55)	Inductor	CTF1734
L 4328	(B,38,56)	Inductor	CTF1734
TH4001	(A,110,7)	Thermistor	CCX1084
CN4001	(A,133,8)	Connector	CKS6524
CN4002	(A,62,69)	Connector	CKS6535
CN4004	(A,123,17)	Connector	CKS6548
CN4005	(A,129,56)	Connector	CKS6523
CN4006	(A,35,31)	Connector	CKS6536

RESISTORS

R 4001	(B,52,75)	RS1/16SS0R0J
R 4002	(B,54,76)	RS1/16SS0R0J
R 4003	(B,52,77)	RS1/16SS0R0J
R 4004	(B,53,78)	RS1/16SS0R0J
R 4005	(B,56,75)	RS1/16SS0R0J

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
R 4006	(B,56,80)	RS1/16SS0R0J	R 4074	(B,54,49)	RS1/16SS2R4J
R 4007	(B,52,73)	RS1/16SS0R0J	R 4075	(B,27,37)	RS1/16SS473J
R 4008	(B,58,74)	RS1/16SS0R0J	R 4076	(A,27,37)	RS1/10SR473J
R 4009	(B,54,79)	RS1/16SS0R0J	R 4077	(A,27,38)	RS1/10SR473J
R 4010	(B,60,79)	RS1/16SS0R0J	R 4078	(A,104,39)	RS1/16SS221J
R 4011	(B,56,78)	RS1/16SS0R0J	R 4079	(A,102,40)	RS1/16SS221J
R 4012	(B,66,75)	RS1/16SS0R0J	R 4102	(A,108,45)	RS1/16SS0R0J
R 4013	(A,104,38)	RS1/16SS0R0J	R 4103	(B,114,48)	RS1/16SS104J
R 4014	(A,102,39)	RS1/16SS0R0J	R 4104	(B,110,46)	RS1/16SS104J
R 4015	(A,102,38)	RS1/16SS0R0J	R 4105	(B,111,48)	RS1/16SS102J
R 4016	(B,98,71)	RS1/16SS0R0J	R 4108	(A,111,41)	RS1/16SS563J
R 4017	(B,98,70)	RS1/16SS0R0J	R 4109	(A,115,42)	RS1/16SS104J
R 4018	(B,100,69)	RS1/16SS0R0J	R 4110	(A,116,42)	RS1/16SS101J
R 4019	(B,110,64)	RS1/10SR121J	R 4111	(A,116,50)	RS1/16SS102J
R 4020	(B,110,62)	RS1/10SR101J	R 4112	(B,117,48)	RS1/16SS3002D
R 4021	(B,110,61)	RS1/10SR271J	R 4113	(B,117,46)	RS1/16SS1001D
R 4025	(A,12,44)	RS1/16SS472J	R 4114	(A,120,48)	RS1/16SS0R0J
R 4026	(B,99,59)	RS1/16SS473J	R 4115	(A,120,47)	RS1/16SS0R0J
R 4027	(B,97,60)	RS1/16SS471J	R 4116	(A,120,46)	RS1/16SS0R0J
R 4028	(B,95,67)	RS1/10SR0R0J	R 4117	(A,119,43)	RS1/16SS0R0J
R 4030	(A,12,41)	RS1/16SS105J	R 4118	(B,119,50)	RS1/16SS1004D
R 4032	(A,17,43)	RS1/16SS682J	R 4119	(B,118,50)	RS1/16SS0R0J
R 4033	(A,17,41)	RS1/16SS0R0J	R 4120	(B,118,47)	RS1/16SS6802D
R 4034	(A,112,9)	RS1/16SS183J	R 4121	(A,121,57)	RS1/10SR0R0J
R 4035	(A,112,8)	RS1/16SS0R0J	R 4201	(A,91,18)	RS1/16SS103J
R 4037	(A,20,39)	RS1/16SS101J	R 4202	(B,101,17)	RS1/16SS9102D
R 4038	(A,106,27)	RS1/10SR0R0J	R 4203	(B,99,17)	RS1/16SS1802D
R 4039	(B,14,40)	RS1/10SR0R0J	R 4204	(B,93,17)	RS1/16SS203J
R 4040	(A,117,32)	RS1/16SS472J	R 4205	(B,93,15)	RS1/16SS104J
R 4043	(A,48,42)	RS1/16SS4R7J	R 4206	(A,97,27)	RS1/16SS103J
R 4044	(A,112,31)	RS1/16SS472J	R 4207	(A,97,16)	RS1/16SS472J
R 4045	(A,48,44)	RS1/16SS56R0D	R 4208	(B,100,21)	RS1/16SS1003D
R 4046	(A,122,29)	RS1/16SS201J	R 4209	(B,102,21)	RS1/16SS9101D
R 4047	(A,49,46)	RS1/16SS1800D	R 4210	(A,101,16)	RS1/16SS6800D
R 4048	(A,51,46)	RS1/16SS2R2J	R 4211	(A,102,15)	RS1/16SS1502D
R 4049	(A,119,26)	RS1/16SS621J	R 4212	(A,103,16)	RS1/16SS8201D
R 4050	(A,51,47)	RS1/16SS47R0D	R 4213	(A,90,27)	RS1/10SR2R2J
R 4051	(A,50,48)	RS1/16SS0R0J	R 4214	(A,89,17)	RS1/10SR0R0J
R 4052	(A,119,28)	RS1/16SS181J	R 4215	(A,91,16)	RS1/10SR1203D
R 4053	(A,51,49)	RS1/16SS39R0D	R 4216	(A,93,16)	RS1/10SR3001D
R 4054	(A,53,49)	RS1/16SS4R7J	R 4217	(A,93,14)	RS1/10SR1502D
R 4055	(A,122,28)	RS1/16SS620J	R 4218	(A,91,15)	RS1/10SR472J
R 4056	(A,120,25)	RS1/16SS0R0J	R 4301	(B,29,59)	RS1/16SS1000D
R 4057	(A,121,25)	RS1/16SS0R0J	R 4302	(A,25,59)	RS1/16SS0R0J
R 4058	(A,123,25)	RS1/16SS0R0J	R 4303	(B,33,62)	RS1/16SS103J
R 4059	(A,124,25)	RS1/16SS0R0J	R 4305	(B,35,59)	RS1/16SS103J
R 4060	(B,50,37)	RS1/16SS1000D	R 4306	(B,36,59)	RS1/16SS103J
R 4061	(B,48,38)	RS1/16SS8R2J	R 4307	(A,35,55)	RS1/16SS103J
R 4062	(B,50,39)	RS1/16SS1300D	R 4308	(B,23,55)	RS1/16SS151J
R 4063	(B,49,40)	RS1/16SS0R0J	R 4309	(B,23,54)	RS1/16SS151J
R 4064	(B,50,42)	RS1/16SS1000D	R 4310	(B,23,53)	RS1/16SS151J
R 4065	(B,48,43)	RS1/16SS8R2J	R 4311	(B,23,52)	RS1/16SS151J
R 4066	(B,50,44)	RS1/16SS39R0D	R 4312	(B,22,50)	RS1/16SS151J
R 4067	(B,48,44)	RS1/16SS4R7J	R 4313	(B,23,50)	RS1/16SS151J
R 4068	(B,50,45)	RS1/16SS47R0D	R 4314	(B,24,49)	RS1/16SS151J
R 4069	(B,48,46)	RS1/16SS0R0J	R 4315	(B,25,47)	RS1/16SS151J
R 4070	(B,50,47)	RS1/16SS1800D	R 4316	(B,25,46)	RS1/16SS151J
R 4071	(B,51,48)	RS1/16SS2R2J	R 4317	(B,26,45)	RS1/16SS151J
R 4072	(B,30,37)	RS1/16SS473J	R 4318	(B,28,46)	RS1/16SS151J
R 4073	(B,52,49)	RS1/16SS33R0D	R 4319	(B,30,47)	RS1/16SS330J

Circuit Symbol and No.		Part No.
R 4320	(B,31,46)	RS1/16SS151J
R 4321	(B,32,46)	RS1/16SS151J
R 4322	(B,33,46)	RS1/16SS151J
R 4323	(B,35,47)	RS1/16SS151J
R 4324	(B,36,50)	RS1/16SS151J
R 4325	(B,37,50)	RS1/16SS151J
R 4326	(B,37,51)	RS1/16SS151J
R 4327	(B,36,52)	RS1/16SS151J
R 4328	(B,37,53)	RS1/16SS151J
R 4329	(B,36,54)	RS1/16SS151J
R 4330	(B,37,55)	RS1/16SS151J
R 4331	(B,36,56)	RS1/16SS151J
R 4332	(A,21,41)	RS1/16SS0R0J
R 4333	(A,21,64)	RS1/10SR0R0J
R 4334	(A,21,62)	RS1/10SR0R0J
R 4335	(A,21,60)	RS1/10SR0R0J
R 4336	(A,21,58)	RS1/10SR0R0J
R 4337	(A,21,55)	RS1/10SR0R0J
R 4338	(A,21,53)	RS1/10SR0R0J
R 4339	(A,23,48)	RS1/10SR0R0J
R 4340	(A,26,48)	RS1/10SR0R0J
R 4341	(A,29,48)	RS1/10SR0R0J
R 4342	(A,24,66)	RS1/10SR0R0J
R 4343	(A,4,47)	RS1/10SR0R0J
R 4344	(A,6,47)	RS1/10SR0R0J
R 4345	(A,7,66)	RS1/10SR0R0J
R 4346	(A,8,66)	RS1/10SR0R0J
R 4347	(A,10,66)	RS1/10SR0R0J
R 4348	(A,7,26)	RS1/10SR0R0J
R 4349	(A,7,28)	RS1/10SR0R0J
R 4350	(A,7,29)	RS1/10SR0R0J

CAPACITORS

C 4010	(B,100,65)	CKSRYB104K16
C 4011	(B,98,59)	CCSSCH101J50
C 4012	(A,12,42)	CKSSYB104K16
C 4013	(A,110,9)	CKSSYB104K10
C 4014	(A,112,10)	CKSSYB104K10
C 4015	(B,13,42) 10 uF	DCH1165
C 4016	(A,110,27) 10 uF	CCG1234
C 4017	(A,114,23) 10 uF	CCG1234
C 4018	(A,115,25)	CKSSYB104K10
C 4019	(A,112,27)	CKSSYB104K10
C 4030	(B,51,37)	CKSSYB102K50
C 4032	(B,51,38)	CKSSYB104K16
C 4034	(B,51,40)	CKSSYB102K50
C 4035	(A,89,19)	CKSSYB102K50
C 4037	(B,51,39)	CKSSYB104K16
C 4039	(B,39,32) 10 uF	DCH1165
C 4045	(B,35,33)	CKSSYB104K16
C 4050	(B,26,32) 10 uF	CCG1234
C 4051	(B,37,33)	CKSSYB102K50
C 4053	(B,27,31)	CKSSYB104K10
C 4056	(B,28,31)	CKSSYB102K50
C 4058	(B,15,33)	CKSQYB225K16
C 4061	(B,20,33) 4.7 uF	CCG1201
C 4062	(B,19,37)	CKSQYB334K50
C 4063	(B,22,31)	CKSSYB104K16
C 4065	(B,21,37)	CKSRYB104K50

Circuit Symbol and No.		Part No.
C 4067	(A,20,36)	CKSSYB104K16
C 4101	(A,89,63) 10 uF	CCG1236
C 4105	(A,110,44)	CKSRYB105K16
C 4106	(A,108,46)	CKSRYB105K16
C 4108	(A,113,40)	CKSRYB105K10
C 4109	(A,114,42)	CCSSCH101J50
C 4111	(A,118,55) 10 uF	CCG1236
C 4113	(A,119,50)	CKSRYB224K16
C 4201	(B,90,20)	CKSSYB102K50
C 4202	(B,104,17)	CKSRYB105K16
C 4203	(B,92,17)	CKSSYB105K6R3
C 4204	(B,103,26)	CKSQYB105K25
C 4206	(B,102,23)	CKSQYB105K25
C 4207	(B,101,19)	CKSRYB104K50
C 4209	(B,99,27)	CKSRYB104K50
C 4210	(B,99,24)	CKSRYB104K50
C 4211	(A,100,12)	CKSSYB224K6R3
C 4212	(A,99,12)	CKSSYB224K6R3
C 4213	(A,98,12)	CKSSYB105K6R3
C 4215	(A,101,26)	CKSYB475K16
C 4216	(A,96,14)	CKSRYB682K50
C 4217	(A,91,29)	CKSQYB475K6R3
C 4218	(A,102,18)	CCSQCH101J50
C 4219	(B,101,21)	CKSSYB561K50
C 4220	(A,102,20)	CKSRYB224K16
C 4221	(A,88,27)	CKSRYB472K50
C 4222	(A,88,23)	CKSYB475K16
C 4223	(A,88,21)	CKSYB475K16
C 4224	(A,93,15)	CKSRYB471K50
C 4301	(B,22,63) 10 uF	CCG1234
C 4302	(B,29,61)	CKSSYB104K10
C 4303	(B,30,61)	CKSSYB104K10
C 4304	(B,22,65) 10 uF	CCG1234
C 4305	(B,23,62)	CKSSYB103K16
C 4306	(A,27,55)	CKSSYB104K10
C 4307	(A,27,54)	CKSSYB103K16
C 4308	(B,27,59)	CKSSYB104K10
C 4309	(B,31,60)	CKSSYB104K10
C 4310	(B,31,59)	CKSSYB103K16
C 4311	(B,28,59)	CKSSYB103K16
C 4312	(B,33,60)	CKSSYB104K10
C 4313	(B,33,59)	CKSSYB103K16
C 4314	(A,25,57)	CKSSYB104K10
C 4315	(A,25,58)	CKSSYB103K16
C 4316	(B,30,45)	CCSSCH100D50
C 4321	(A,100,51) 10 uF	CCG1236
C 4322	(A,102,51) 10 uF	CCG1236
C 4323	(A,34,58)	CKSRYB104K16
C 4324	(A,28,51)	CKSRYB104K16
C 4325	(A,34,53)	CKSRYB104K16

E

Unit Number : CXX5403
Unit Name : Key Unit(Service)

MISCELLANEOUS

D 5501	(A,152,6) LED	SMLVN6RGB2U(A)
D 5502	(A,20,6) LED	SMLVN6RGB2U(A)
S 5501	(A,142,6) Switch	VSG1020

Circuit Symbol and No.		Part No.
S 5502	(A,97,6) Switch	VSG1020
S 5503	(A,31,6) Switch	VSG1020
S 5504	(A,68,6) Switch	VSG1020
S 5505	(A,50,6) Switch	VSG1020
S 5506	(A,83,6) Switch	VSG1020
S 5507	(A,113,6) Switch	VSG1020
S 5508	(A,128,6) Switch	VSG1020
CN5501	(B,30,6) Connector	CKS6291

RESISTORS

R 5501	(A,64,8)	RS1/16SS122J
R 5502	(A,46,8)	RS1/16SS122J
R 5503	(A,73,7)	RS1/16SS242J
R 5504	(A,109,8)	RS1/16SS242J
R 5505	(A,123,8)	RS1/16SS682J

CAPACITORS

C 5501	(A,156,7)	CKSSYB104K16
C 5503	(A,156,5)	CKSSYB104K16
C 5504	(A,17,5)	CKSSYB104K16
C 5506	(A,17,7)	CKSSYB104K16

F

Unit Number : EXX2001
Unit Name : PCB Unit(Service)

MISCELLANEOUS

IC 101	Driver IC	BA6288FS
VR101	Volume 10 kohm	CCW1029
S 101	Switch(HOME)	CSN1067
S 102	Switch(HOME)	CSN1068
CN101	Connector	CKS4997

RESISTORS

R 101		RS1/16S221J
R 102		RS1/16S221J
R 103		RS1/16S0R0J

CAPACITORS

C 101		CEVW220M16
C 102		CKSRYB104K16