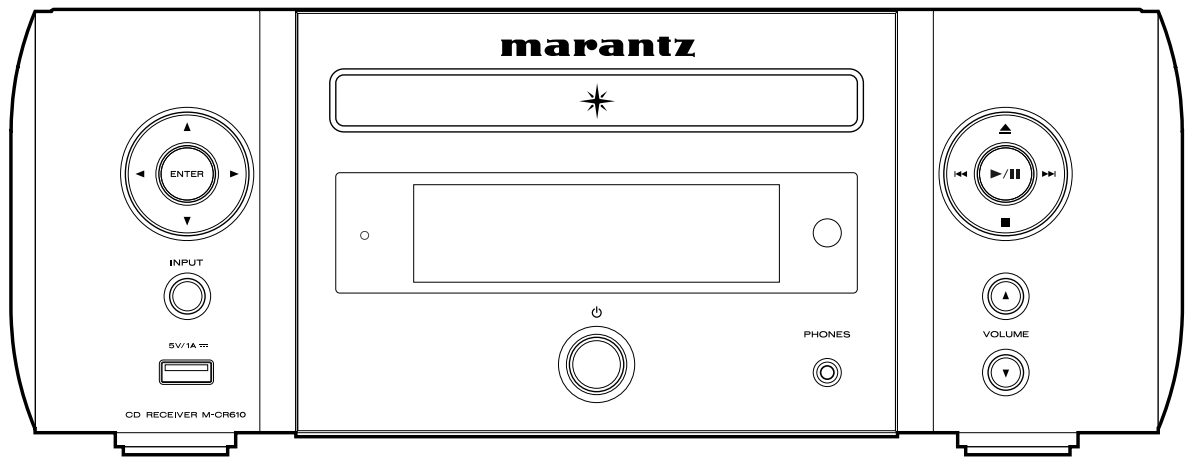


# Service Manual

M-CR610 /N1B/N1W/U1B

NETWORK CD RECEIVER



• For purposes of improvement, specifications and design are subject to change without notice.

• Please use this service manual with referring to the operating instructions without fail.

• Some illustrations using in this service manual are slightly different from the actual set.

# marantz®

## M-CR610

**Ver. 2**

Please refer to the  
MODIFICATION NOTICE.

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# ABOUT THIS MANUAL

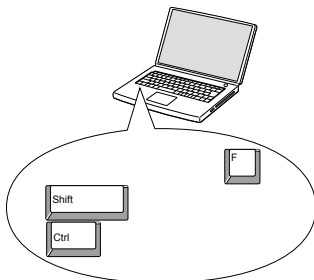
Read the following information before using the service manual.

## What you can do with this manual

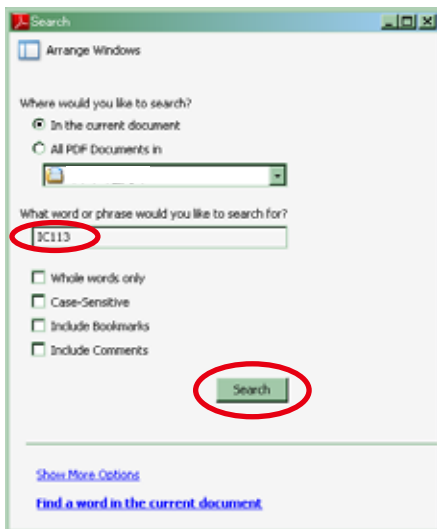
### Search for a Ref. No. (phrase) (Ctrl+Shift+F)

You can use the search function in Acrobat Reader to search for a Ref. No. in schematic diagrams, printed wiring board diagrams, block diagrams, and parts lists.

1. Press **Ctrl+Shift+F** on the keyboard.
- The Search window appears.



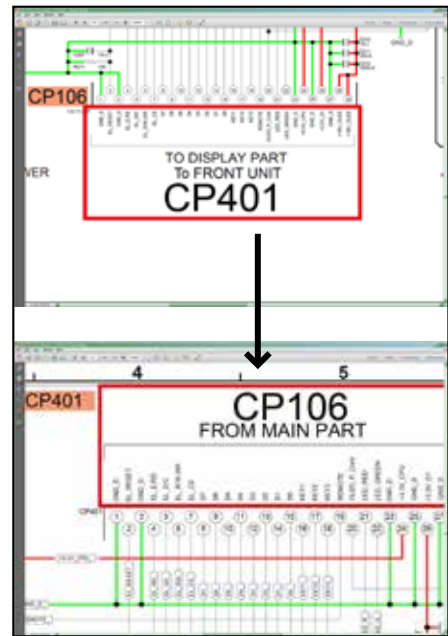
2. Enter the Ref. No. you want to search for in the Search window, and then click the **Search** button.
- A list of search results appears.



3. Click an item on the list.
- The screen jumps to the page for that item, and the search phrase is displayed.

### Jump to the target of a schematic diagram connector

- Click the Ref. No. of the target connector in the red box around a schematic diagram connector.
- The screen jumps to the target connector.



- Page magnification stays the same as before the jump.

## Using Adobe Reader (Windows version)

### Add notes to this data (Sign)

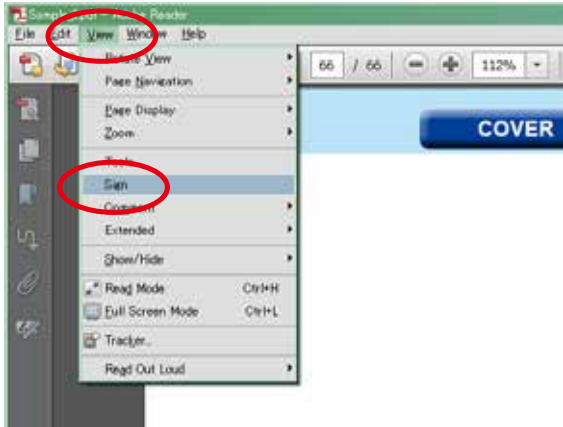
The Sign function lets you add notes to the data in this manual.

Save the file once you have finished adding notes.

#### [Example using Adobe Reader X]

On the "View" menu, click "Sign".

- The Sign pane appears.



#### [Example using Adobe Reader 9]

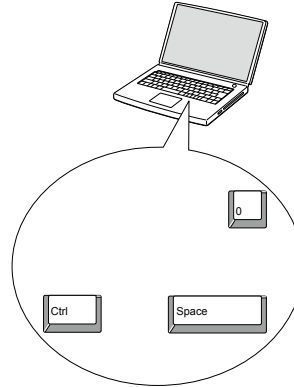
On the "Document" menu, click "Sign".

### Magnify schematic / printed wiring board diagrams - 1

#### (Ctrl+Space, mouse operation)

Press **Ctrl+Space** on the keyboard and drag the mouse to select the area you want to view.

- The selected area is magnified.

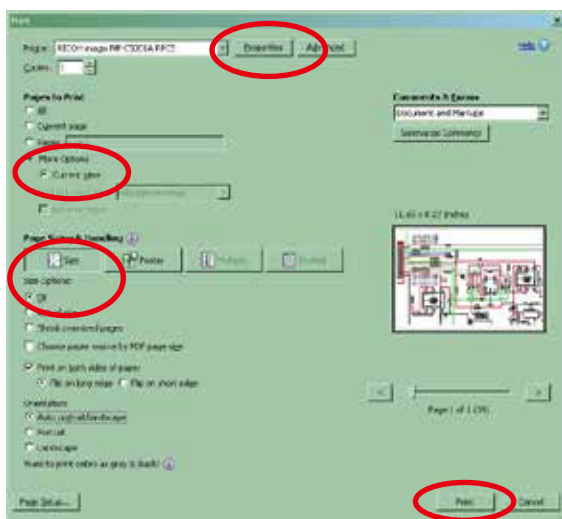


- When you want to move the area shown, hold down **Space** and drag the mouse.
- When you want to show a full page view, press **Ctrl+0** on the keyboard.

### Print a magnified part of the manual

The Properties dialog box and functions will vary depending on your printer.

1. Drag the mouse to magnify the part you want to print.
2. On the "File" menu, click "Print".
3. Configure the following settings in the Print dialog box.



4. Click the **Print** button to start printing.

#### • Properties

Click this button and check that the printer is set to a suitable paper size.

#### • Page to print

Select the following checkbox.

**"More Options" : "Current View"**

#### • Page Sizing & Handling

Select the following checkbox.

**"Size" / "Size Options" : "Fit"**



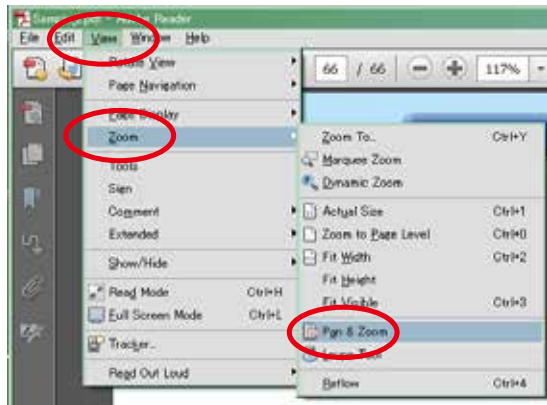
## Magnify schematic / printed wiring board diagrams - 2

### (Pan & Zoom function)

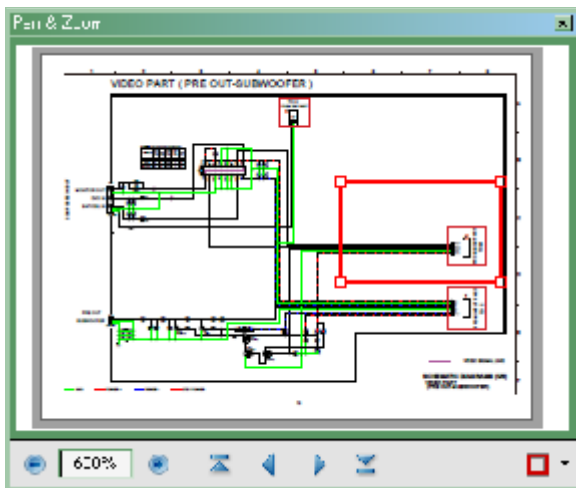
The Pan & Zoom function lets you see which part of a magnified diagram is being shown in a separate window.

#### [Example using Adobe Reader X]

On the "View" menu, point to "Zoom", and then click "Pan & Zoom".



- The Pan & Zoom window appears on the screen.



#### [Example using Adobe Reader 9]

On the "Tools" menu, point to "Select & Zoom", and then click "Pan & Zoom Window".

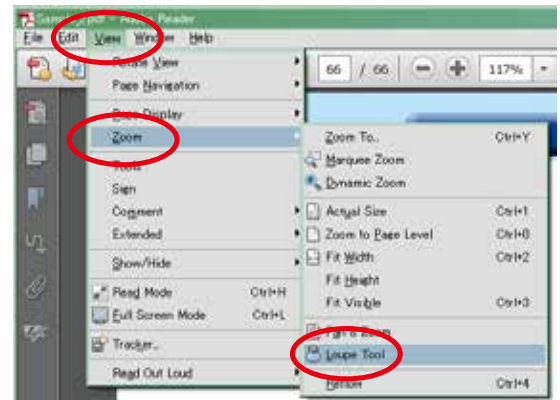
## Magnify schematic / printed wiring board diagrams - 3

### (Loupe Tool function)

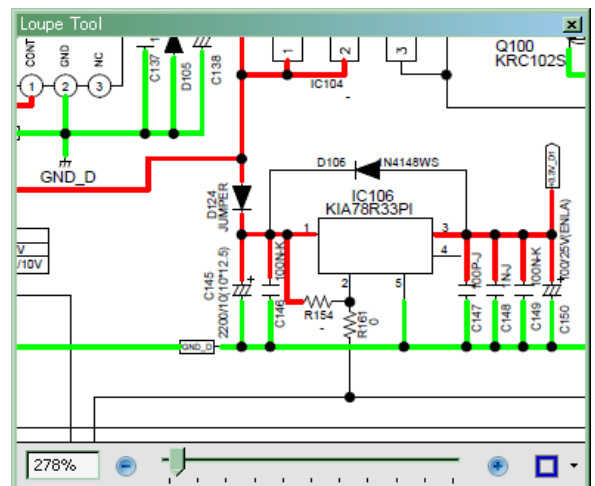
The Loupe Tool function lets you magnify a specific part of a diagram in a separate window.

#### [Example using Adobe Reader X]

On the "View" menu, point to "Zoom", and then click "Loupe Tool".



- The Loupe Tool window appears on the screen.



#### [Example using Adobe Reader 9]

On the "Tools" menu, point to "Select & Zoom", and then click "Loupe Tool Window".

## SAFETY PRECAUTIONS

The following items should be checked for continued protection of the customer and the service technician.

### leakage current check

Before returning the set to the customer, be sure to carry out either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the set is defective.

Be sure to test for leakage current with the AC plug in both polarities, in addition, when the set's power is in each state (on, off and standby mode), if applicable.

### **CAUTION** Please heed the following cautions and instructions during servicing and inspection.

#### ⊙ Heed the cautions!

Cautions which are delicate in particular for servicing are labeled on the cabinets, the parts and the chassis, etc. Be sure to heed these cautions and the cautions described in the handling instructions.

#### ⊙ Cautions concerning electric shock!

- (1) An AC voltage is impressed on this set, so if you touch internal metal parts when the set is energized, you may get an electric shock. Avoid getting an electric shock, by using an isolating transformer and wearing gloves when servicing while the set is energized, or by unplugging the power cord when replacing parts, for example.
- (2) There are high voltage parts inside. Handle with extra care when the set is energized.

#### ⊙ Caution concerning disassembly and assembly!

Through great care is taken when parts were manufactured from sheet metal, there may be burrs on the edges of parts. The burrs could cause injury if fingers are moved across them in some rare cases. Wear gloves to protect your hands.

#### ⊙ Use only designated parts!

The set's parts have specific safety properties (fire resistance, voltage resistance, etc.). Be sure to use parts which have the same properties for replacement. The burrs have the same properties. In particular, for the important safety parts that are indicated by the  $\triangle$  mark on schematic diagrams and parts lists, be sure to use the designated parts.

#### ⊙ Be sure to mount parts and arrange the wires as they were originally placed!

For safety reasons, some parts use tapes, tubes or other insulating materials, and some parts are mounted away from the surface of printed circuit boards. Care is also taken with the positions of the wires by arranging them and using clamps to keep them away from heating and high voltage parts, so be sure to set everything back as it was originally placed.

#### ⊙ Make a safety check after servicing!

Check that all screws, parts and wires removed or disconnected when servicing have been put back in their original positions, check that no serviced parts have deteriorate the area around. Then make an insulation check on the external metal connectors and between the blades of the power plug, and otherwise check that safety is ensured.

(Insulation check procedure)

Unplug the power cord from the power outlet, disconnect the antenna, plugs, etc., and on the power. Using a 500V insulation resistance tester, check that the insulation resistance value between the inplug and the externally exposed metal parts (antenna terminal, headphones terminal, input terminal, etc.) is 1M $\Omega$  or greater. If it is less, the set must be inspected and repaired.

### **CAUTION** Concerning important safety parts

Many of the electric and the structural parts used in the set have special safety properties. In most cases these properties are difficult to distinguish by sight, and the use of replacement parts with higher ratings (rated power and withstand voltage) does not necessarily guarantee that safety performance will be preserved. Parts with safety properties are indicated as shown below on the wiring diagrams and the parts list in this service manual. Be sure to replace them with the parts which have the designated part number.

- (1) Schematic diagrams.....Indicated by the  $\triangle$  mark.
- (2) Parts lists.....Indicated by the  $\triangle$  mark.

The use of parts other than the designated parts could cause electric shocks, fires or other dangerous situations.

## NOTE FOR SCHEMATIC DIAGRAM

### WARNING:

Parts indicated by the  $\triangle$  mark have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

### CAUTION:

Before returning the set to the customer, be sure to carry out either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the set is defective.

### WARNING:

DO NOT return the set to the customer unless the problem is identified and remedied.

### NOTICE:

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM / M=1,000,000 OHM

ALL CAPACITANCE VALUES ARE EXPRESSED IN MICRO FARAD, UNLESS OTHERWISE INDICATED. P INDICATES MICRO-MICRO FARAD. EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION. CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

## NOTE FOR PARTS LIST

1. Parts indicated by "nsp" on this table cannot be supplied.
2. When ordering a part, make a clear distinction between "1" and "I" (i) to avoid mis-supplying.
3. A part ordered without specifying its part number can not be supplied.
4. Part indicated by "★" mark is not illustrated in the exploded view.
5. General-purpose Carbon Film Resistor in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)
6. General-purpose Carbon Chip Resistors are not included are not included in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

**WARNING:** Parts indicated by the  $\triangle$  mark have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

## INSTRUCTIONS FOR HANDLING SEMI-CONDUCTORS AND OPTICAL UNIT

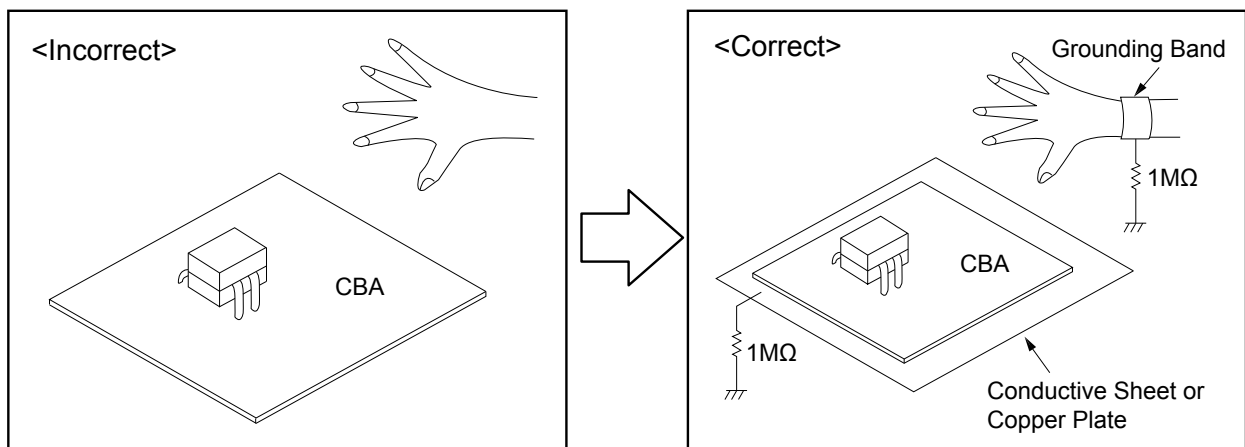
Electrostatic breakdown of the semi-conductors or optical pickup may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

### 1. Ground for Human Body

Be sure to wear a grounding band (1 M $\Omega$ ) that is properly grounded to remove any static electricity that may be charged on the body.

### 2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1 M $\Omega$ ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing



## WARNING AND LASER SAFETY INSTRUCTIONS

### **GB** WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.  
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.  
Keep components and tools also at this potential.

### ESD



### **NL** WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor elektrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.  
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met apparaat.  
Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

### **F** ATTENTION

Tous les IC et beaucoup d'autres semiconducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.  
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.  
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

### **D** WARNUNG

Alle IC und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD).  
Unvorsichtige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern.  
Sorgen sie dafür, das Sie im Reparaturfall dem Massepotential des Gerätes verbunden sind.  
Halten Sie Bauteile und Hilfsmittel ebenfalls über ein Pulsarmband mit Widerstand mit auf diesem Potential.

### **I** AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).  
La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cautela alla loro manipolazione.  
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.  
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

### **GB**

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

### **D**

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten.  
Der Originalzustand des Gerats darf nicht verändert werden.  
Für Reparaturen sind Original-Ersatzteile zu verwenden.

### **NL**

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt terug gebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

### **I**

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambio identici a quelli specificati.

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne."

### **F**

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

## LASER SAFETY

This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.



**USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURE OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.**

**AVOID DIRECT EXPOSURE TO BEAM**

### WARNING

**The use of optical instruments with this product will increase eye hazard.  
Repair handling should take place as much as possible with a disc loaded inside the player**

### WARNING LOCATION: INSIDE ON LASER COVERSIELD

**CAUTION** VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM  
**ADVARSEL** SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING UNDGÅ UDSÆTTELSE FOR STRÅLING  
**ADVARSEL** SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL Å PNE UNNGÅ EKSPONERING FOR STRÅLEN  
**VARNING** SYNLIG OCH OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÅR ÖPPNAD BETRakta EJ STRÅLEN  
**VARO!** AVATT AESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN  
**VORSICHT** SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETSEN  
**DANGER** VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM  
**ATTENTION** RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE EXPOSITION DANGEREUSE AU FAISCEAU

100301DM

# TECHNICAL SPECIFICATIONS

## Audio section

### CD player

**Playback frequency response:** 10 Hz – 20 kHz  
**Wow & flutter:** Below measurable limits ( $\pm 0.001\%$ )  
**Sampling frequency:** 44.1 kHz

### Audio amplifier

**Rated output:** 2-channel driving  
 50 W + 50 W (6  $\Omega$ /ohms, 1 kHz, THD+N 0.7 %)  
**Dynamic power:** 60 W + 60 W (6  $\Omega$ /ohms, 1 kHz, THD+N 10 %)  
**Output terminals:** Speaker 6 – 8  $\Omega$ /ohms  
 Suited for headphones/stereo headphones  
**Input sensitivity/impedance:** Analog In 1/2 : 200 mV/22 k $\Omega$ /kohms  
**THD+N (1 kHz, 5 W, 6  $\Omega$ /ohms):** Analog In 1/2 : 0.1 %  
**S/N ratio (10 W, 6  $\Omega$ /ohms, IHF-A):** Analog In 1/2 : 86 dB  
**Tone control:** Dynamic Bass Boost : 100 Hz + 8 dB  
 BASS : 100 Hz  $\pm$  10 dB  
 TREBLE : 10 kHz  $\pm$  10 dB  
**Frequency response:** Analog In 1/2 : 5 Hz – 22 kHz ( $\pm$  3dB)

## Tuner section (U only)

**Receiving Range:** FM 87.5 MHz – 107.9 MHz  
 AM 520 kHz – 1710 kHz  
**Usable Sensitivity:** FM 1.2  $\mu$ V / 75  $\Omega$ /ohms  
 AM 20  $\mu$ V  
**Channel separation:** 30 dB (1 kHz)  
**S/N ratio:** MONO 74 dB  
 STEREO 70 dB  
**THD+N:** MONO 0.3 % (1 kHz)  
 STEREO 0.4 % (1 kHz)

## Tuner section (N Only)

**Receiving Range:** 87.50 MHz – 108.00 MHz  
**Usable Sensitivity:** 1.2  $\mu$ V / 75  $\Omega$ /ohms  
**Channel separation:** 30 dB (1 kHz)  
**S/N ratio:** Monaural : 74 dB / Stereo : 70 dB  
**THD+N (1 kHz):** Monaural : 0.3 % / Stereo : 0.4 %

## DAB tuner section (N Only)

**Frequency Range:** 174.928 (5A) – 239.200 (13F) MHz (BAND III)  
**Sensitivity:** –85 dBm  
**S/N ratio:** 95 dB  
**THD+N (1 kHz):** 0.03 %  
**Channel separation:** 80 dB (1 kHz)

## Wireless LAN

**Network type (wireless LAN standards):** Conforming to IEEE 802.11b  
 Conforming to IEEE 802.11g  
 (Conforming to Wi-Fi®)\*  
**Transfer rate:** DS-SS: 11 / 5.5 / 1 Mbps (Automatic switching)  
 OFDM: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbps  
 (Automatic switching)  
**Security:** SSID (Network name)  
 WEP key (network key) (64/128 bits)  
 WPA-PSK (TKIP/AES)  
 WPA2-PSK (TKIP/AES)  
**Used frequency range:** 2.412 GHz – 2.462 GHz  
**No. of channels:** Conforming to IEEE 802.11b : 11ch (DS-SS) (Of which 1 channel used)  
 Conforming to IEEE 802.11g : 11ch (OFDM) (Of which 1 channel used)

\*Wi-Fi® conformity indicates tested and proven interoperability by the "Wi-Fi Alliance", a group certifying interoperability among wireless LAN devices.

## Clock/Alarm

**Clock type:** Power line frequency synchronized method (Within  $\pm$ 60 seconds per month)  
**Alarm:** Everyday alarm / Once alarm : One system each  
 Sleep timer : Max. 90 minutes

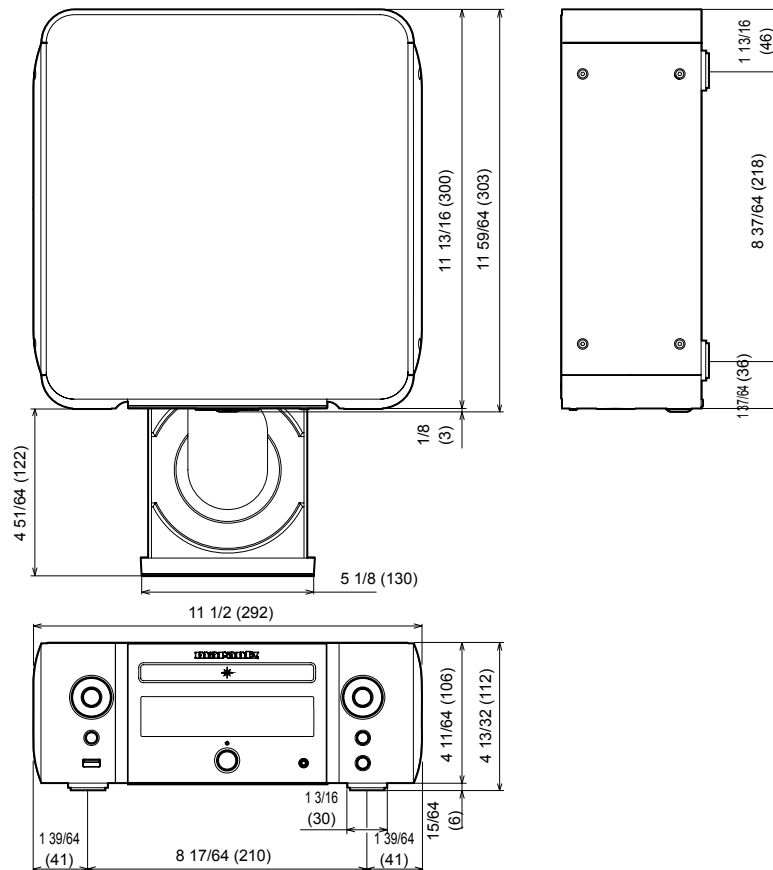
## General

**Power supply:** AC 120 V, 60 Hz  
 AC 230 V, 50/60 Hz  
**Power consumption:** 55 W  
**Power consumption in standby mode:** 0.3 W  
**Power consumption in "Network Control" – "On" mode:** 3 W

# DIMENSION

Unit : in. (mm)

Weight : 7 lbs 8 oz (3.4 kg)



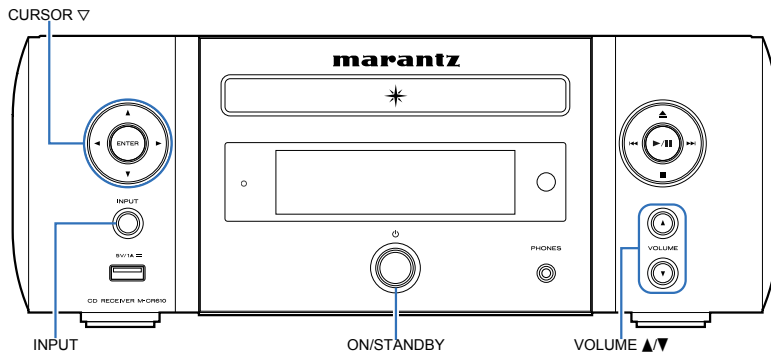
# CAUTION IN SERVICING

## Initializing NETWORK CD RECEIVER

NETWORK CD RECEIVER initialization should be performed when the  $\mu$ -COM, peripheral parts of  $\mu$ -COM, and Digital PWB were replaced.

1. Turn off the power using "ON/STANDBY" button, unplug the power cord.
2. Plug the power cord into a power outlet while pressing "INPUT" and "CURSOR  $\nabla$ " button simultaneously.  
(Factory Reset)
3. Turn off the power using "ON/STANDBY" button, unplug the power cord.
4. Plug the power cord into a power outlet while pressing "VOLUME  $\blacktriangle$ " and " $\blacktriangledown$ " button simultaneously.  
(Initialized)

**Note:** •All user settings will be lost and this factory setting will be recovered when this initialization mode. So make sure to memorize your setting for restoring after the initialization.



## Service tools

Measuring Disc: CD/TCD-784  
CD-R/TCD-R082W  
CD-RW/TCD-W082W

\* Refer to "MEASURING METHOD AND WAVEFORMS".

## ABOUT REPLACE THE WLAN MODULE WITH A NEW ONE

When replaced of the WLAN MODULE(CX870-3D-D60), confirm contents of the following.

- (1) Part numbers differ depending on the destination country of the WLAN MODULE. Be sure to follow the table below when replacing the parts.

MODULE Name	Remarks	Part No.
CX870-3D-D60 ROM ASSY MCR610	N(EU)	943189100611S
CX870-3D-D60 ROM ASSY MCR610	U(NA)	943189100610S
CX870-3D-D60 ROM ASSY MCR610	F(JP)	943189100612S

- (2) The firmware is updated by DPMS or USB Memory. Refer to [ **VERSION UPGRADE PROCEDURE OF FIRMWARE "1. How to update by DPMS" or "2. How to update by USB Memory"** ] (36 page) for the details of the Version up.
- (3) MAC Address Label pasted to Bottom is pasted to Mac Address Label (GEN8341; MAC ADDRESS SUB ASSY) of exchanged WLAN MODULE and it substitutes it.

## Measurement of Board Test Points for Servicing

When measuring the board test points during servicing, the measurements can be performed easily by turning over the MAIN board with the back panel still attached by screws, as shown in the figure below.

### Disassembly Procedure (See "DISASSEMBLY" for details on the disassembly procedure)

1. Remove all of the screws from the MAIN PWB, SMPS PWB, CD Mecha, CD Foot, NET PWB, USB PWB and chassis (CD Mecha and CD Foot are for the M-CR610 only).
2. Remove the SMPS PWB, CD Mecha and CD Foot (CD Mecha and CD Foot are for the M-CR610 only).
3. Remove the wire and FFC connected to the FRONT PWB.
4. Remove the molded parts from the back panel.
5. Raise the MAIN board, slide the entire back panel to the rear, and remove everything from the back panel to PWB as a set.



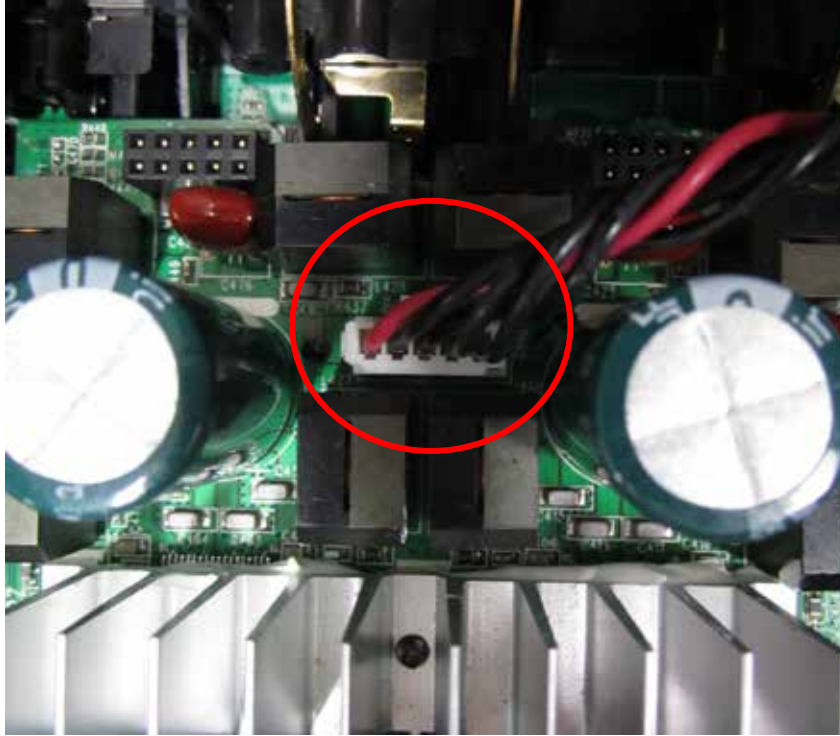


## Removing the AMP PWB from the MAIN PWB

Pay close attention to the following two points when removing/attaching the AMP PWB to the MAIN PWB during servicing.

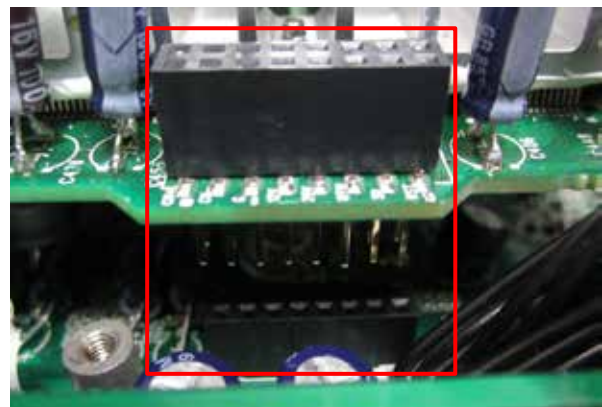
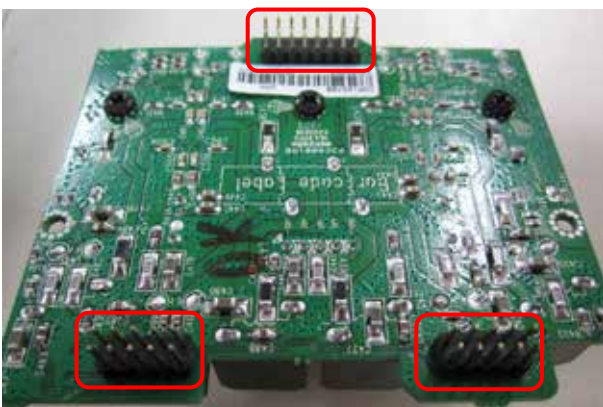
1. Wait for approximately 5 minutes after turning the power off before removing the wire connector that connects the SMPS PWB and AMP PWB.

When connected to the SMPS PWB wire connector, a surge current may occur due to the charge stored in the AMP PWB causing damage to the D-AMP IC41 and IC42 (IC41 only for the M-CR510).



2. When attaching the AMP PWB to the MAIN PWB connector, insert the connector pins into the AMP PWB beforehand, and securely connect while checking that the position is correct.

If the MAIN PWB and AMP PWB terminals are connected incorrectly (if the connection pins are misaligned), the PWM Processor IC56, D-AMP IC41 and IC42 (IC41 only for the M-CR510) may be damaged by the charge stored in the condenser.





# NOTE HANDLING AND REPLACEMENT OF THE LASER PICK-UP

## 1. Protection of the LD

Short a part of the LD circuit by soldering. After connection to a circuit, remove the short solder.

## 2. Precautions when handling the laser CD mechanism

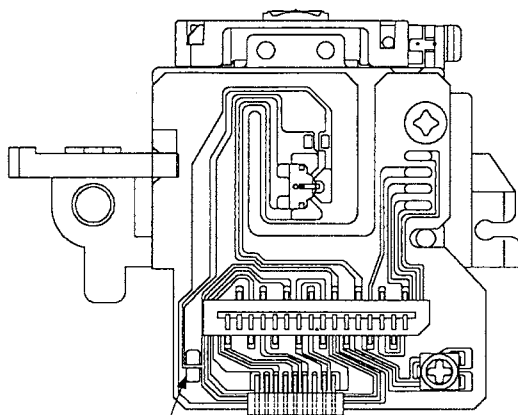
- Handle the laser pick-up so that it is not exposed to dust.
- Do not leave the laser pick-up bare. Be sure to cover it.
- If dust adheres on lens of the pick-up, blow it off with a blower brush.
- Do not shock the laser pick-up.
- Do not watch the light of the laser pick-up.

## 3. Cautions on assembling and adjustment

- Be sure that to the bench, jig, head of soldering iron (with ceramic) and measuring instruments are well grounded.
- Workers who handle the laser pick-up must be grounded.
- The finished mechanism (prior to anchoring in the set) should be protected against static electricity and dust. The mechanism must be stored that damaging outside forces are not received.
- When carrying the finished mechanism, hold it by the chassis body
- For proper operation, storage and operating environment should not contain corrosive gases. For example H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>2</sub>, Cl<sub>2</sub> etc. In addition storage environment should not have materials that emit corrosive gases especially from silicic, cyanic, formalin and phenol group. I the mechanism or the set, existence of corrosive gases may cause no rotation in motor.

## 4. Determining whether the laser pick-up is defective

- Check the Iop(Laser drive current). Check Iop in "SPECIAL MODE". (Refer to [21 page.](#))
- If the present Iop (current) value becomes more than 50mA, replace the Traverse unit with a new one.
- No mechanical adjustment is necessary after the replacement.

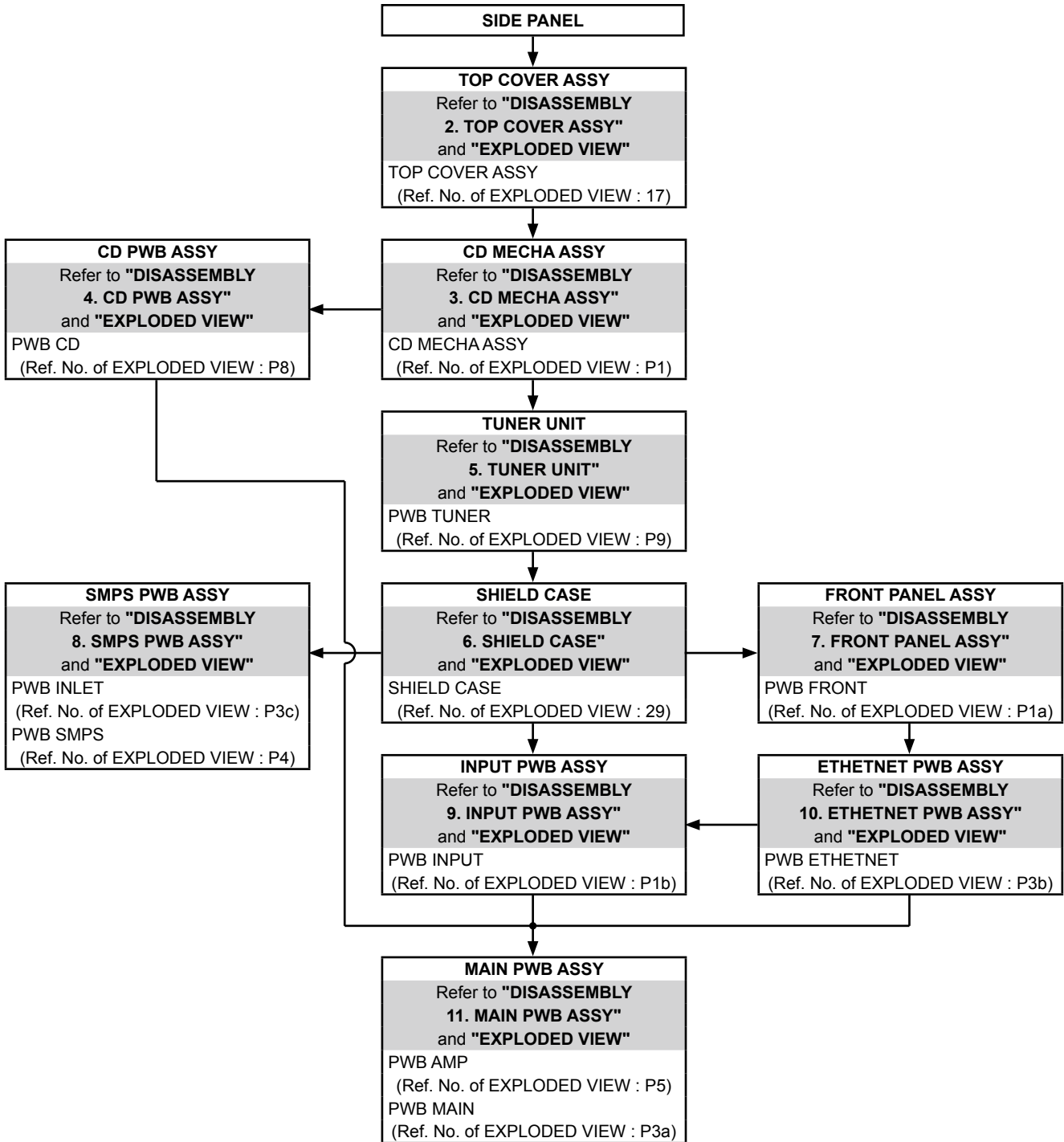


Protective soldering place for laser diode.

# DISASSEMBLY

- Disassemble in order of the arrow in the following figure.
- In the case of the re-assembling, assemble it in order of the reverse of the following flow.
- In the case of the re-assembling, observe "attention of assembling".
- If wire bundles are untied or moved to perform adjustment or replace parts etc., be sure to rearrange them neatly as they were originally bundled or placed afterward.

Otherwise, incorrect arrangement can be a cause of noise generation.

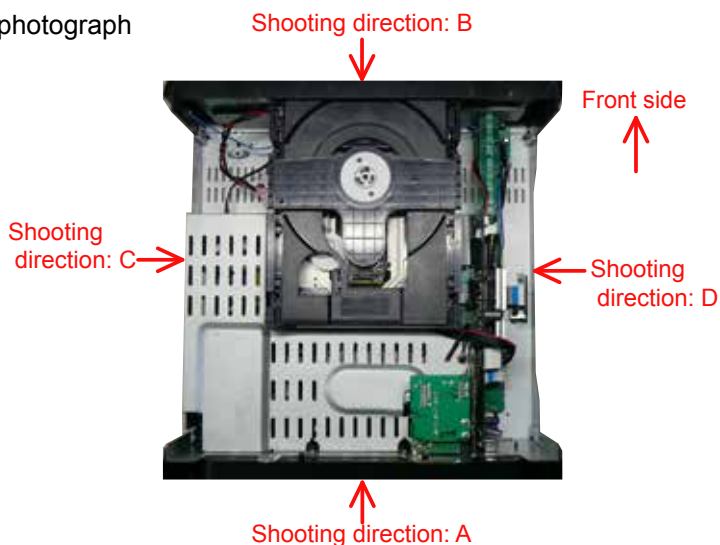


## About the photos used for "descriptions of the DISASSEMBLY" section

- The shooting direction of each photograph used herein is indicated on the left side of the respective photograph as "Shooting direction: \*\*\*\*".
- Refer to the diagram below about the shooting direction of each photograph.
- Photographs with no shooting direction indicated were taken from the top of the set.

The viewpoint of each photograph  
(Shooting direction X)

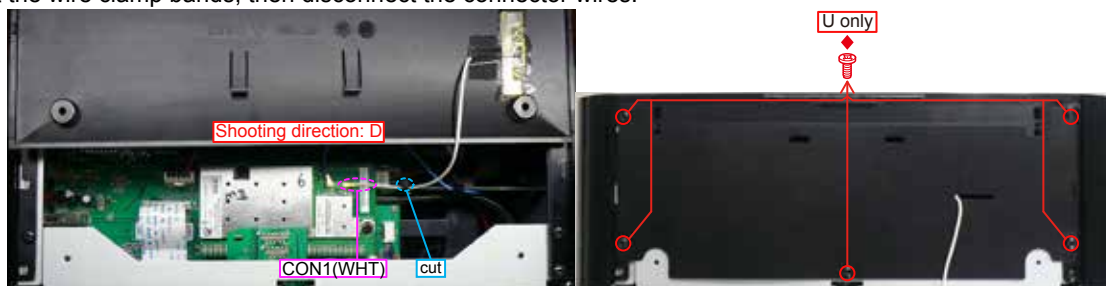
[View from the top]



### 1. SIDE PANEL

Proceeding : **SIDE PANEL**

- (1) Remove the screws.
- (2) Cut the wire clamp bands, then disconnect the connector wires.



### 2. TOP COVER ASSY

Proceeding : **SIDE PANEL** → **TOP COVER ASSY**

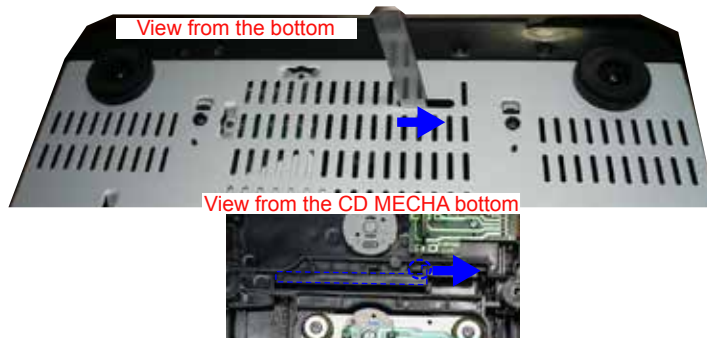
- (1) Remove the screws.



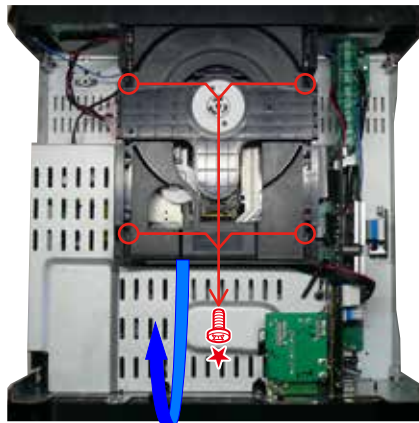
### 3. CD MECHA ASSY

Proceeding : **SIDE PANEL** → **TOP COVER ASSY** → **CD MECHA ASSY**

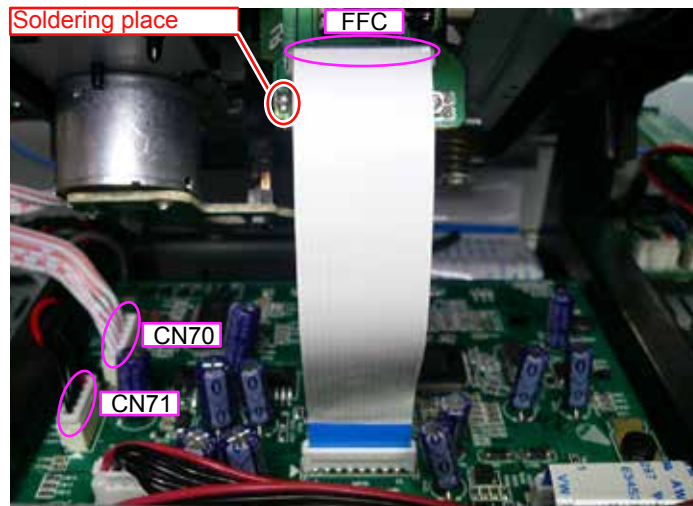
(1) Tray is opened and CD DOOR is removed.



(2) Remove the screws.



(3) Laser short-circuit in Pick-up of CD MECHANISM ASS'Y, then disconnect the connector wires and FFC cable. Be sure to wear a grounding band. Disconnect the connector wire.



#### 4. CD PWB ASSY

Proceeding : **SIDE PANEL** → **TOP COVER ASSY** → **CD MECHA ASSY** → **CD PWB ASSY**

(1) Remove the screw. Disconnect the connector wire.



#### 5. TUNER UNIT

Proceeding : **SIDE PANEL** → **TOP COVER ASSY** → **CD MECHA ASSY** → **TUNER UNIT**

(1) Remove the screw and NUT. Disconnect the connector board.



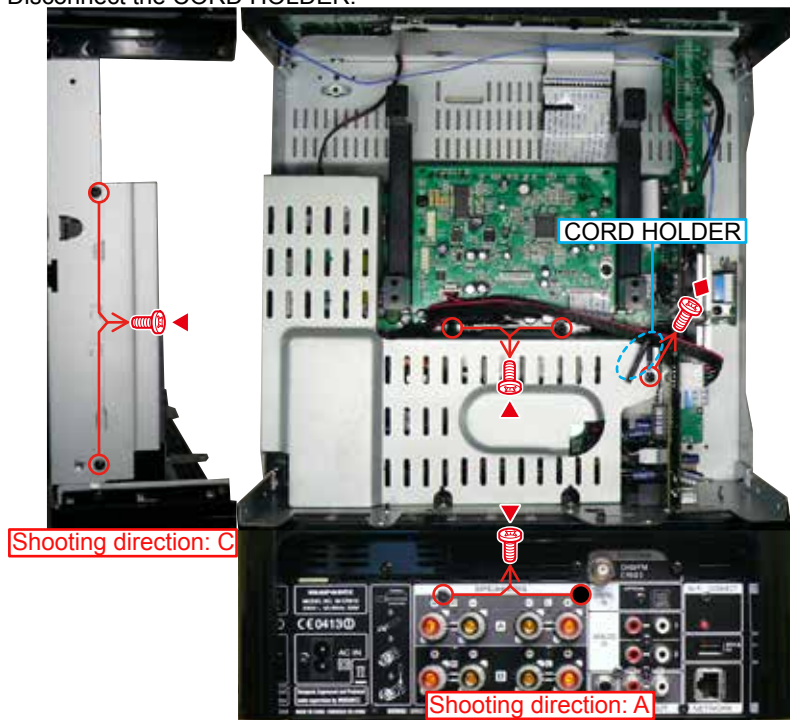
Shooting direction: A



## 6. SHIELD CASE

Proceeding : **SIDE PANEL** → **TOP COVER ASSY** → **CD MECHA ASSY** → **TUNER UNIT** → **SHIELD CASE**

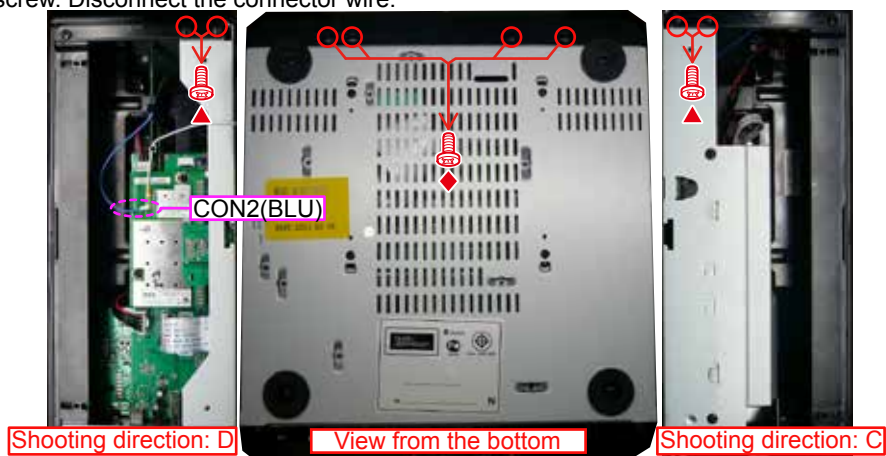
(1) Remove the screw. Disconnect the CORD HOLDER.



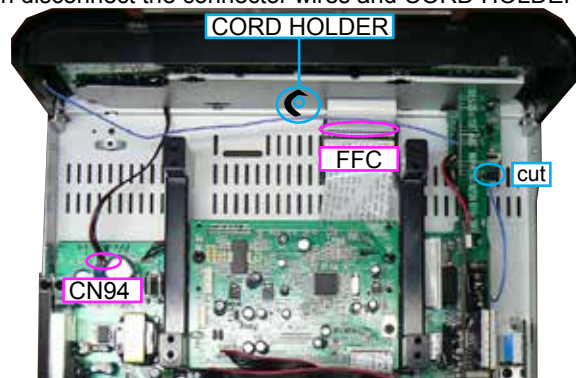
## 7. FRONT PANEL ASSY

Proceeding : **SIDE PANEL** → **TOP COVER ASSY** → **CD MECHA ASSY** → **TUNER UNIT** → **SHIELD CASE**  
→ **FRONT PANEL ASSY**

(1) Remove the screw. Disconnect the connector wire.



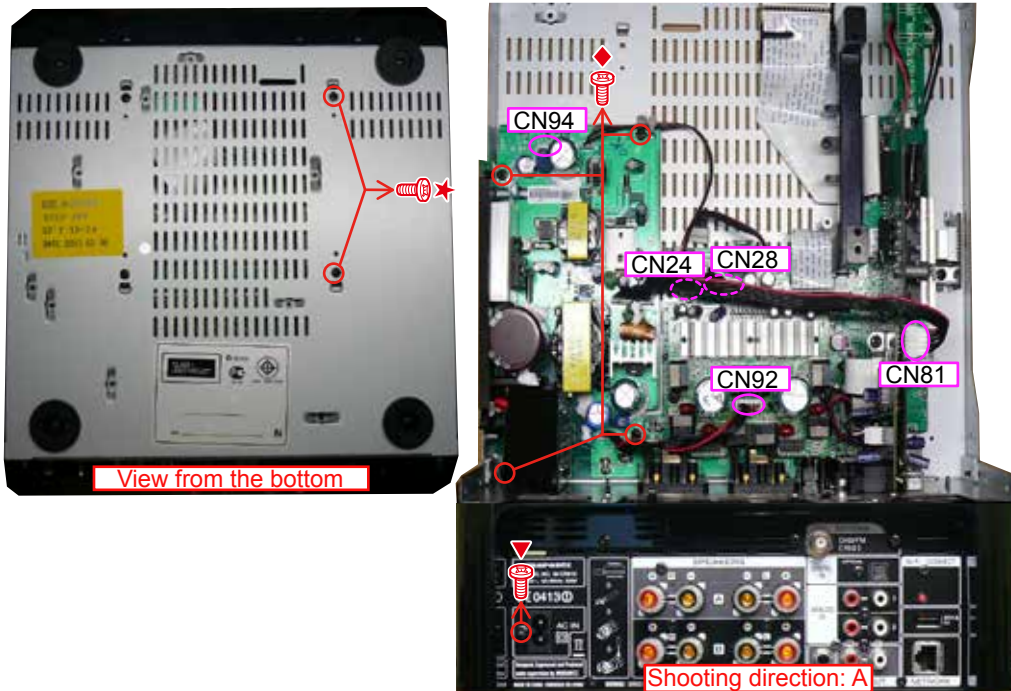
(2) Cut the wire clamp band, then disconnect the connector wires and CORD HOLDER.



## 8. SMPS PWB ASSY

Proceeding : **SIDE PANEL** → **TOP COVER ASSY** → **CD MECHA ASSY** → **TUNER UNIT** → **SHIELD CASE**  
 → **SMPS PWB ASSY**

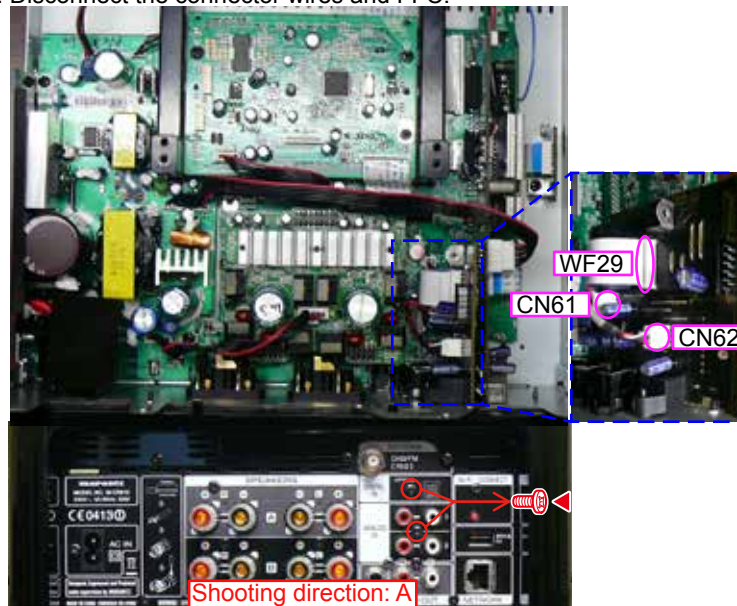
(1) Remove the screw. Disconnect the connector wires.



## 9. INPUT PWB ASSY

Proceeding : **SIDE PANEL** → **TOP COVER ASSY** → **CD MECHA ASSY** → **TUNER UNIT** → **SHIELD CASE**  
 → **INPUT PWB ASSY**

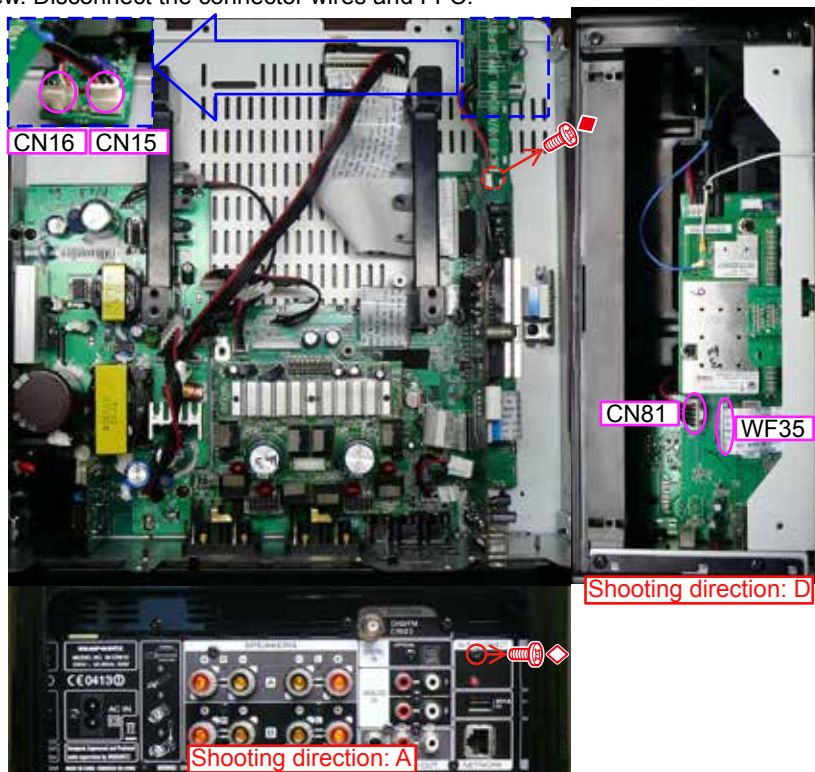
(1) Remove the screw. Disconnect the connector wires and FFC.



## 10. ETHETNET PWB ASSY

Proceeding : **SIDE PANEL** → **TOP COVER ASSY** → **CD MECHA ASSY** → **TUNER UNIT** → **SHIELD CASE**  
 → **INPUT PWB ASSY** → **FRONT PANEL ASSY** → **ETHETNET PWB ASSY**

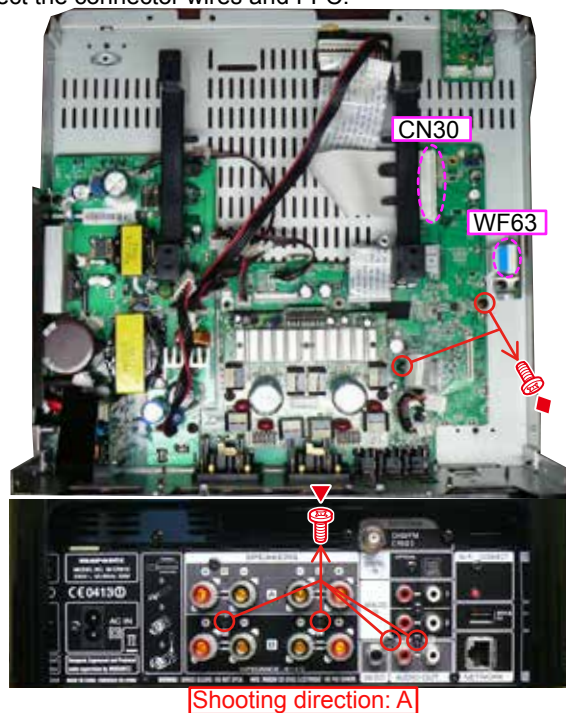
(1) Remove the screw. Disconnect the connector wires and FFC.



## 11. MAIN PWB ASSY

Proceeding : **SIDE PANEL** → **TOP COVER ASSY** → **CD MECHA ASSY** → **CD PWB ASSY**  
 → **TUNER UNIT** → **SHIELD CASE** → **FRONT PANEL ASSY**  
 → **INPUT PWB ASSY** → **ETHETNET PWB ASSY** → **MAIN PWB ASSY**

(1) Remove the screw. Disconnect the connector wires and FFC.





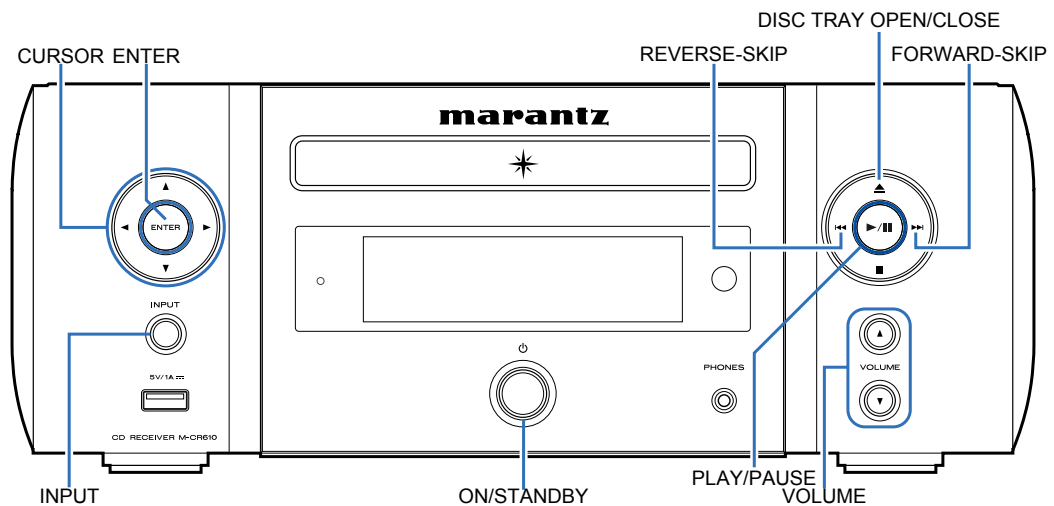
# SPECIAL MODE

## Special mode setting button

Plug AC cord into power outlet while pressing buttons A and B.

Each button continue to press until the lit of "ON/STANDBY".

No.	Mode	Button A	Button B	Contents
1	Initialization mode (Factory Reset)	INPUT	CURSOR DOWN	Initializing. Factory Reset Defaults to the setting value ※Can't erase the Recently Played list
2	Initialization mode ( User Reset)	VOLUME UP	VOLUME DOWN	Initializing. (Contents User's Guide is published) Except that it does not clear the version up information and the history of protection is the same as the factory initialization. ※Can erase the Recently Played list
3	Version display	CURSOR UP	-	Version Display
4	CD test mode	VOLUME UP	PLAY/ PAUSE	Servo adjustment, Leaser current, ON time
5	Heat Run mode	VOLUME DOWN	DISC TRAY OPEN/ CLOSE	Heat run
6	Product mode 1	INPUT	CURSOR RIGHT	Factory use.
7	Product mode 2	INPUT	CURSOR LEFT	Factory use.
8	Protection history mode	VOLUME DOWN	PLAY/ PAUSE	To view a history of only one of the most recent protection.
9	USB UPDATE	CURSOR DOWN	-	Development/Factory use. The details cannot be disclosed.
10	DPMS forced up date mode	PLAY/ PAUSE	FORWARD- DKIP	DPMS UP date Mode
11	MAC Address rewrite mode	CURSOR DOWN	ENTER	Development/Factory use. The details cannot be disclosed.
12	Access to development server mode	CURSOR DOWN	ENTER	Development/Factory use. The details cannot be disclosed.



## 1. Initialization mode (Factory Reset)

Backup data initialization is carried out. Refer to Initialization Items (Default setting).

After initialization, move on to normal mode.

### CAUTION

Version information (such as rewriting failed log) Clear.

Clear the history of protection. "Initial value of laser current" and "The accumulated laser on time" not cleared.

Power failure flag is not cleared.

Can't erase the Recently Played list.

### Startup display

Lighting of the standby indicator LED(Green).



Full lighting of all dots(2 seconds) & Lighting of the standby indicator LED(Orange) (2 seconds).



"Factory Reset" displayed for 5 seconds.



### Initialization Items (Default setting)

	Default
source	Internet Radio
TUNER(band)	FM
DBB	OFF
BASS	0 dB
TREBLE	0 dB
BALANCE	CENTER
DIMMER	100%
VOLUME	5
TUNER Preset (Favorite list)	Clear all
Favorite list	Clear all
Clock	00:00 (Except NA) 12:00AM (NA)
TIMER (EVERYDAY/ONCE)	Timer function CD
	ON TIME 0:00 (Except NA) 12:00AM (NA)
	OFF TIME 0:00
Speaker Response	Flat
Volume Offset	0dB
Bi-Amp	Disable
iPod mode	Remote mode
Auto-Standby	ON (EU), OFF (Except EU)
Protection history	NO PROTECT
Auto Adjust	Time Zone:+1h (EU), +9h (JP) Summer Time:Off (0h)
Network setting	DHCP (On)
Network Control	OFF

## 2. Initialization mode (User Reset)

Backup data initialization is carried out. Refer to Initialization Items (Default setting).  
After initialization, move on to normal mode.

### CAUTION

The difference is the following three points.

- Version information (such as rewriting failed log) not cleared.
- History of protection not cleared.
- Can erase the Recently Played list.

### Startup display

Lighting of the standby indicator LED(Green).



"Initialized" displayed for 5 seconds.



## 3. Version display

Menu items appear in the Add Version. Otherwise, normal operation.  
To exit this mode, unplug the power cord.

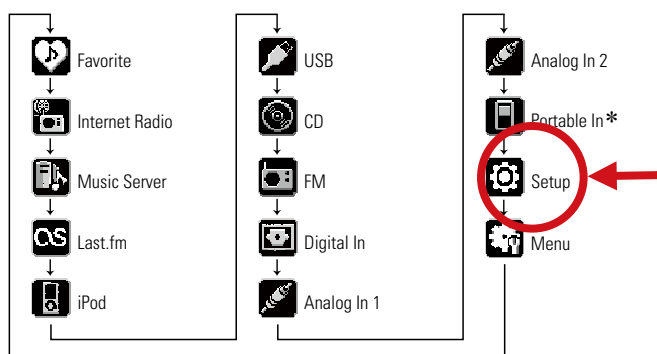
### Startup display

"Version" displayed for 5 seconds.



### How to Display Version

Press "**SOURCE**" and "**Cursor >**", "**Cursor <**" to select the Setup.  
Press "**ENTER**" button.



Select the "Version" in the "Setup".



Press "ENTER" button



The version of the System u-com.

Press "Cursor ▾"



The version of the boot loader System u-com.

Press "Cursor ▾"



The version of the boot loader Network u-com.

Press "Cursor ▾"



The version of the image Network u-com.

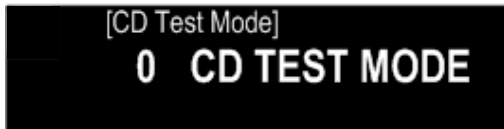
## 4. CD test mode

### Startup display

"CD Test Mode" displayed for 5 seconds.



CD TEST MODE display



To exit this mode, unplug the power cord.

### 4.1. Before starting the test

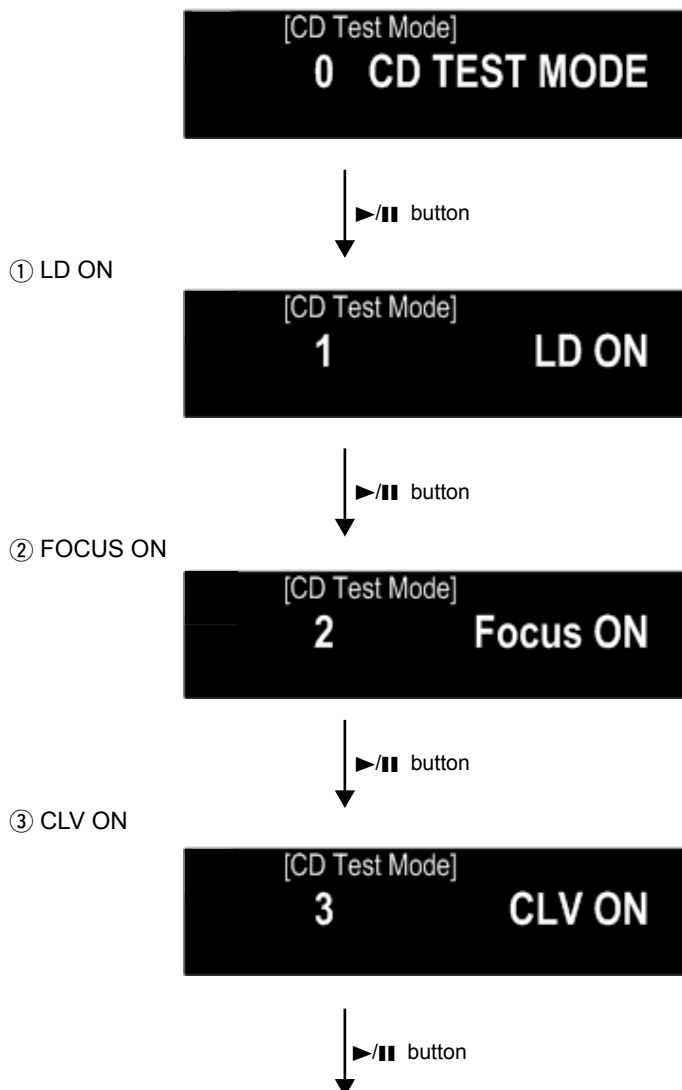
Open the tray and set the disc.

Even if the disc is, the tray must let OPEN → CLOSE.

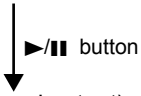
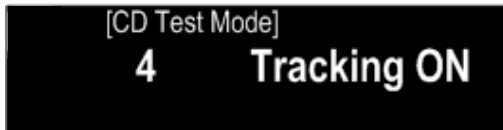
### 4.2. Servo check

Press "▶/||" button. Execute the following steps.

\* "▶/||" button continuously for over 1 second to switch directly to SUB CODE readout in step ⑤. Press the "INPUT" button to return to "0 CD TEST MODE".

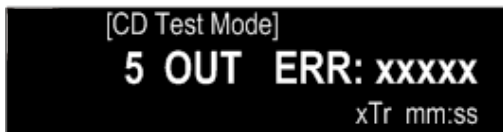
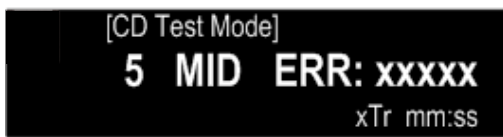
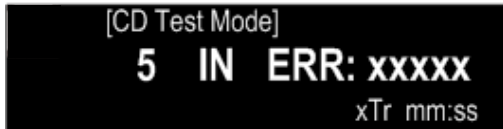


④ TRACKING ON



⑤ SUB CODE readout (playback sound output)

The BER (Block Error Rate) generated in 1second's time is displayed of the display.



Inner (IN), Ataru Amane (MID), outer (OUT) to play go to three places, make the error count.

### 4.3. Pickup movement

In the stop mode, pickup moves in FWD (outwards) or REV (inwards) direction when "**Cursor >**" or "**Cursor <**" button pressed.

Pickup movement stops when button released.(Pickup moves while button is pressed.)

When "**Cursor <**" button pressed, move to stop operation after detection that inner switch has turned on.

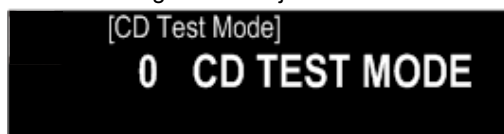
#### 4.4. All servo on and Auto Adjustment

When "Cursor  $\Delta$ " button is pressed, all servos turn on, auto adjustment is performed and switch to playback operation. (Playback sound output)

##### Stop (stop to the playback state after auto adjustment)

When "SOURCE" button is pressed, play operation and servo stop. The following will be displayed.

After stopping, conduct reading of auto adjust values.



##### Adjustment value display (After All Servo on and Auto Adjustment)

Press the "SOURCE" button, after All servo on and Auto Adjustment.

When "Cursor  $\Delta/\nabla$ " button is pressed, the adjustment values are displayed in the following order.

- ① FOCUS BALANCE
- ② FOCUS GAIN
- ③ TRACKING BALANCE
- ④ TRACKING GAIN
- ⑤ FOCUS OFFSET
- ⑥ TRACKING OFFSET
- ⑦ RFRP

(Caution) If you have not completed the adjustment, the value is not correct.

#### 4.5. All servo on and auto adjustment.

When "VOLUME  $\blacktriangle$ " button is pressed for over 1 second while the Unit is in the CD TEST MODE, the laser turns on and the laser current is measured.



The laser drive current undergoes A/D conversion for calculation. The decimal point is omitted.

The current value is updated every 3 seconds.

Press the "SOURCE" button, CD TEST MODE display reappears.

Stored data is not cleared, even when the Unit is reset(Factory/User).

##### Overwriting the stored data

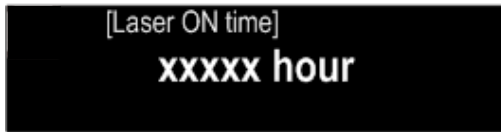
When the " $\blacktriangleright$ /|||" button is pressed for over 5 seconds while the laser current is displayed, the current value is stored in the EEPROM (overwriting the stored data).



Once rewriting is completed, the display in "Laser current display" reappears. Rewriting is performed upon shipment from the factory and when the mechanism is replaced.

## 4.6. Accumulated laser on time display

When the "**Volume▼**" button is pressed while this Unit is in the "**CD TEST MODE**" displayed, the accumulated laser on time is displayed.



The laser drive times are added and the result is displayed.

One count corresponds to 10 minutes. The accumulated laser on time is displayed in hours. Displays up to 10922 hours.

Press the "**SOURCE**" button, CD TEST MODE display reappears.

The count values are not cleared, even when the set is reset (Factory/User).

### Count value is reset

When the "**▶/||**" button is pressed for over 5 seconds while the accumulated laser on time is displayed, the count value is reset.



Count value is reset upon shipment from the factory and when the mechanism is replaced.

## 5. CD heat run mode

### Heat run mode Startup display

"Heatrun Mode" displayed for 5 seconds.



Press the "**Cursor△/▽**" button to switch the mode. (H.R. Normal, H.R. Short, H.R. Chacking)

After loading the disc, press "**▶/||**" button.

While heat run, the operation of each button is not valid. If an error occurs, display the error and stop operation at that point. Refer to Heat run error code table.

To exit this mode, unplug the power cord.

### 5.1. Normal heat run mode

Playing from the first track to last track on disc. After disc playback has finished, then tray open and close. And playback again.

The heat run repetition no. is incremented (increased by 1) when the tray is opened.

Repeat this operation.

[H.R. Normal] displayed.



Select "**H.R.Normal**", and press "**▶/||**" button.

Press the "**Cursor△**" button to display the count.



## 5.2. Heat run Short mode

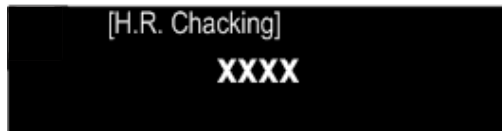
Playing last track on disc. After disc playback has finished, then tray open and close. And playback again. The heat run repetition no. is incremented (increased by 1) when the tray is opened. Repeat this operation.  
[H.R. Short] displayed.



Select "H.R.Short", and press "▶/||" button.  
Press the "Cursor Δ" button to display the count.

## 5.3. Heat run chacking mode

TOC read the CD, the first song disk search, open / closed later, and again read TOC. The heat run repetition no. is incremented (increased by 1) when the tray is opened. Repeat this operation.  
[H.R. Chacking] displayed.



Select "H.R.Chacking", and press "▶/||" button.  
Press the "Cursor Δ" button to display the count.

## 5.4. Error display

Press the "Cursor Δ/▽" to display the error information.



Heat run error code table

Error Code	Details of Error code
E1-00	Disc cannot be detected
E1-01	Tracking offset adjustment not possible
E1-02	Focus offset adjustment not possible
E2-00	Focus servo dropped during playback.
E2-01	Focus servo dropped during searching.
E2-03	Focus servo dropped during TOC reading.
E2-05	Focus servo dropped during manual search.
E2-10	Subcode can no longer be read during playback
E2-11	Subcode can no longer be read during searching
E2-12	Subcode can no longer be read during TOC reading
E2-14	Subcode cannot be read during pause
E2-15	Subcode cannot be read during manual search
E3-00	TOC could not be read within specified time
E3-01	PVD/SVD analysis could not be completed within specified time
E4-04	Search time out (The search was not completed within the stipulated time)
E4-05	Decoder bus error (Error in communications with CD decoder)
E5-00	Inner switch not on
E6-00	Inner switch not off
E8-00	Tray is not opened by the specified time.
E8-01	Tray is not closed by the specified time.
E9-00	CD Microprocessor error
E9-01	Other error

## 6. Product Mode 1

### Startup display

"Product Mode1" displayed for 5 seconds.



To exit this mode, unplug the power cord.

## 7. Product Mode 2

### Startup display

"Product Mode2" displayed for 5 seconds.



Tested during production to perform the following settings automatically.

Sleep setting : 4 minutes

Auto Standby :4 minutes

Sleep setting and timer started.

Auto Standby to set up and will stand under the following conditions.

### Auto Standby Conditions

CD : No Disc, Tray Open, Unsupported Disc or continue no operation and Stop state.

USB/iPod : No Connection or Unsupported Disc or continue no operation and Stop state.

Network : No Connection or Unsupported Disc or continue no operation and Stop state.

DIGITAL IN : No Input(unlock). And continue no operation.

ANALOG IN : Continue no operation.

To exit this mode, unplug the power cord.

## 8. Protection history display mode

### Startup display

"Detect Protection" displayed for 5 seconds.



To exit this mode, unplug the power cord.

### Protection history display mode



### Thermal protection



### Speaker short protection



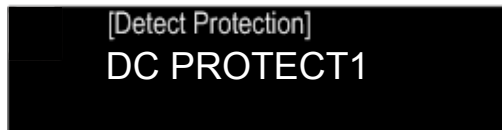
Potential difference across the terminal detects that the speaker was more than DC±3V.

### Over current



Over-current detection digital amplifier

### DC protect 1



Short of fail.(+29V(D-AMP power))

### DC protect 2



Short of fail.(±12V\_A, +12V\_D, +5V\_A, ST+5V, +3.3V\_D1)

### Protection history is reset.

When the "Cursor△" button is pressed for over 5 seconds while the protection history is displayed, the count value is reset.



After the reset is complete, the display "No Protection".



Protection history is not cleared, even when the set is reset User Reset.

## 9. USB UPDATE

Firmware update USB memory.

When you replace this Unit's WLAN MODULE (CX870), you need software updates.

Refer to [ VERSION UPGRADE PROCEDURE OF FIRMWARE "2. How to update by USB Memory" ].

Upgrade by DPMS. This mode describes a display only.

To exit this mode, unplug the power cord.

### Startup display

Insert the USB flash drive that contains the firmware to the Front USB terminal.

Press and hold the "CURSOR DOWN" button on the unit and connect the AC power cord to the power supply.

When the following message is displayed, press "ENTER" to start the update.

Instead of pressing "ENTER", press and hold the "INPUT" button for 3 seconds to switch to the "USB Rewrite All Devices mode" and perform the update (used to rollback the version).

```
[Firmware]
USB Update:Start
```

After this operation, the file check message is displayed.

```
[Firmware]
Update File Check
Please wait...
```

The following states are displayed.

Display update file.

```
[Update] 1/3
▶ System      xxxxxxxx
  Net (BL)      None
  Net (IMG)     xxxxxxxx
-----
```

Updating display.

```
[Updating] 1/3
  xx min      yy %
  System      xxxxxxxx
```

## 10. DPMS Update mode

Update the firmware of DPMS.

Refer to [ VERSION UPGRADE PROCEDURE OF FIRMWARE "1. How to update by DPMS" ].

Error code table

- Preparation operation rewritten, Update error code checking. (Check ETHERNET unit)

Error Code	Details of Error code	Coping strategies
01	Login failed(DPMS Access Login Incorrect notification)	Reset and update again. Carry out the update in an environment that has little network load.
02	Login failed(DPMS Access Server Busy information)	Carry out the update in an environment that has little network load.
03	Login failed(DPMS Access link failure information)	Check the network connection. Carry out the update in an environment that has little network load.
04	Firm Info response acquisition error recieved	Check the network connection. Carry out the update in an environment that has little network load.
05	Firm Info response acquisition TimeOut	Check the network connection. Carry out the update in an environment that has little network load.
06	All Firm Info response acquisition error recieved	Check the network connection. Carry out the update in an environment that has little network load.
07	All Firm Info response acquisitionTimeOut	Check the network connection. Carry out the update in an environment that has little network load.
08	Main Firm Info response acquisition error recieved	Check the network connection. Carry out the update in an environment that has little network load.
09	Main Firm Info response acquisition TimeOut	Check the network connection. Carry out the update in an environment that has little network load.
0A	DownLoad failed ((NG)information recieved)	Check the network connection. Carry out the update in an environment that has little network load.
0B	DownLoad failed((ServerBusy) information recieved)	Check the network connection. Carry out the update in an environment that has little network load.
0C	DownLoad failed((connection failed)information recieved)	Check the network connection. Carry out the update in an environment that has little network load.

- Firm error codes at the main microprocessor rewritten. (Check main microprocessor)

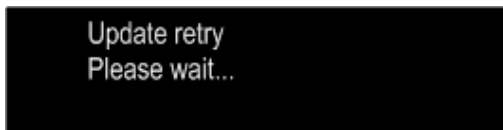
Error Code	Details of Error code	Coping strategies
10	Firm Info response acquisition TimeOut(Main rewrite Firmware recieved failure(TimeOut))	Turn off and on the power. Updating starts automatically.
11	Firm Info response acquisition recieved error(Main rewrite Firmware recieved failure(Error))	Turn off and on the power. Updating starts automatically.
12	Firm Info response acquisition recieved error (Main rewrite Firmware recieved data incorrect(CheckSumError))	Turn off and on the power. Updating starts automatically.
13	Rewrite failure (BlockErase failed before Main rewriting )	Turn off and on the power. Updating starts automatically.
14	Rewrite failure (BlockWrite failed before Main rewriting)	Turn off and on the power. Updating starts automatically.
15	Rewrite failure (Verify incorrect after Main rewriting)	Turn off and on the power. Updating starts automatically.
1A	Failed to acquire the IP Address after transitioning to the Boot Loader Mode(AutoIP)	Carry out the update in an environment that has little network load.
1B	Failed to acquire the IP Address after transitioning to the Boot Loader Mode(TimeOut)	Carry out the update in an environment that has little network load.
1C	Login failed (DPMS Access Login Incorrect notification), after moved BootLoaderMode. (AutoIP)	Carry out the update in an environment that has little network load.
1D	Received "Server congestion" notification, after moved BootLoaderMode. (AutoIP)	Carry out the update in an environment that has little network load.
1E	Received "connection failed", after moved BootLoaderMode. (AutoIP)	Check the network connection. Carry out the update in an environment that has little network load.
36	Login failure(DPMSAccess Login incorrect infomation)	Carry out the update in an environment that has little network load.
37	Login failure(DPMSAccess Server busy infomation)	Carry out the update in an environment that has little network load.
38	Login failure(DPMSAccess connection failed infomation)	Check the network connection. Carry out the update in an environment that has little network load.
39	Login failure(DPMSAccess access TimeOut)	Check the network connection. Carry out the update in an environment that has little network load.
3A	DownLoad failure(Download error (NG)information recieved)	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
3B	DownLoad failure(Download error (ServerBusy) information recieved)	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.

3C	DownLoad failure(Download error (connection failed) information recived)	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
3D	Failed to acquire the IP Address after transitioning to the Boot Loader Mode (AutoIP)	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
3E	Failed to acquire the IP Address after transitioning to the Boot Loader Mode (TimeOut)	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.

- CX870 system Firm error codes when rewriting. (Check ETHERNET unit)

Error Code	Details of Error code	Coping strategies
A0	Net not connected	Check the network connection. Carry out the update in an environment that has little network load.
A1	Net Connection TimeOut can not get status	Check the network connection. Carry out the update in an environment that has little network load.
A2	Login failed	Check the network connection. Carry out the update in an environment that has little network load.
A3	Login failed	Check the network connection. Carry out the update in an environment that has little network load.
A4	Login failed	Check the network connection. Carry out the update in an environment that has little network load.
A6	Error receiving response FirmInfo acquisition	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
A7	FirmInfo Get Response TimeOut	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
A8	Net not connected	Check the network connection. Carry out the update in an environment that has little network load.
A9	Net Connection TimeOut can not get status	Check the network connection. Carry out the update in an environment that has little network load.
AA	After download request, Login Failed	Check the network connection. Carry out the update in an environment that has little network load.
AB	After download request, Login Failed	Check the network connection. Carry out the update in an environment that has little network load.
AC	After download request, Login Failed	Check the network connection. Carry out the update in an environment that has little network load.
AE	Failure of DownLoad	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
AF	Failure of DownLoad	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
B0	Failure of DownLoad	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
B2	Update error	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.

Failure to update, After the move again CX870 self display retry processing.



## 11. MAC Address rewrite mode

Rewriting the MAC address mode.

Production / development for, there is no detailed description.

To exit this mode, unplug the power cord.

## 12. Access to development server mode

Production / development for, there is no detailed description.

To exit this mode, unplug the power cord.

## ABOUT REPLACE THE MICROPROCESSOR WITH A NEW ONE

When replaced of the  $\mu$ -COM (Microprocessor) or the Flash ROM, confirm contents of the following.

PWB Name	Ref. No.	Description	After replaced	Remark
MAIN	IC21	R5F56108VNFP	B	
-	PF80	CX870-3B-D60 JUKEBOX NETWORK 24ANT 64M SDRAM NEW F/W	B	

After replaced

- A** : Mask ROM (With software). No need write-in of software to the microprocessor.
- B** : Flash ROM (With software). Usually, no need write-in of software. But, when the software was updated, you should be write-in of the new software to the microprocessor or flash ROM. Please check the software version.
- C** : Empty Flash ROM (Without software). You should be write-in of the software to the microprocessor or flash ROM. Refer to "Update procedure" or "writing procedure", when you should be write-in the software.
- D** : Flash ROM (With software). But you should write to the latest version of each region.

# VERSION UPGRADE PROCEDURE OF FIRMWARE

**NOTE:** When you replace the (CX870-3D-D60), you need software updates.

Refer to [CAUTION IN SERVICING "ABOUT REPLACE THE WLAN MODULE WITH A NEW ONE"].

## 1. How to update by DPMS

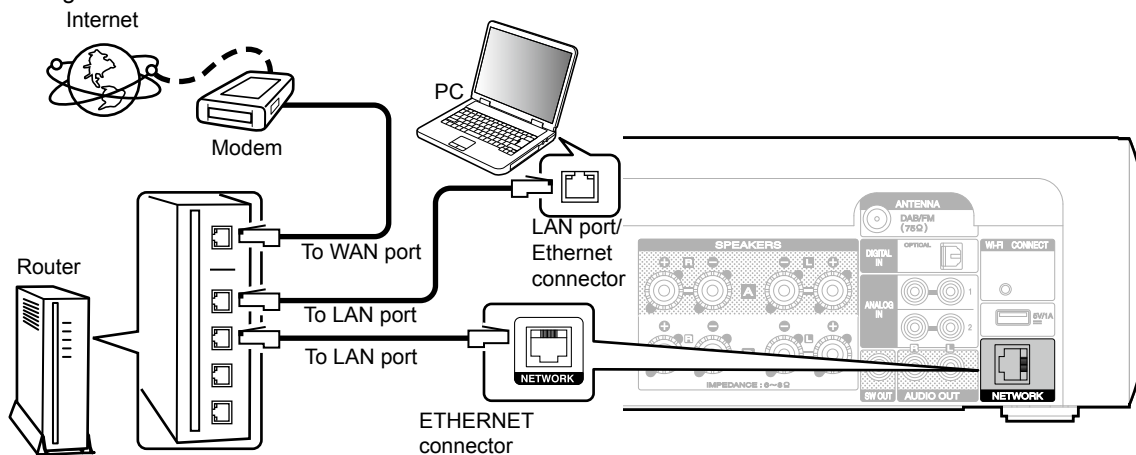
You can update the firmware by downloading the latest version from the Internet.

### 1.1. Connecting to the Network

(1) System Requirement

- Internet Connection by Broadband Circuit
- Modem
- Router
- Ethernet cable (CAT-5 or greater recommended)

(2) Setting



### 1.2. Check for Update and Update

Check if the latest firmware exists. You can also check approximately how long it will take to complete an update.

- (1) Turn on the power pressing "**ON/STANDBY**" button.
- (2) Press "**INPUT**" and "**Cursor </>**" buttons select to "**Setup**". Press "**ENTER**" button.
  - Press "**Cursor Δ/▽**" buttons select to General For "**UPDATE**". Press "**ENTER**" button.
  - Press "**Cursor Δ/▽**" buttons select to "**Firmware**". Press "**ENTER**" button.
  - Press "**Cursor Δ/▽**" buttons select to "**Update**". Press "**ENTER**" button.
  - Press "**Cursor Δ/▽**" buttons select to "**Check for Update**".
- (3) Press the "**ENTER**" button.
  - The latest version of the firmware uploaded to the web is displayed.
  - If the latest firmware version is on the web, proceed to (4).
  - If the latest firmware is already installed, press the "**INPUT**" button to close the Update menu.
- (4) Press "**ENTER**" button. Select "**YES**", then press "**ENTER**" button.
- (5) Firmware Update will be started.

#### --- Cautions on Firmware Update ---

- In order to use these functions, you must have the correct system requirements and settings for a broadband Internet connection.
- Do not turn off the power until updating is completed.
- Even with a broadband connection to the Internet, approximately about 1 hour is required for the updating procedure to be completed.

Once updating starts, normal operations on the this unit cannot be performed until updating is completed.

Also, setting items may be initialized.

Make a note of the settings before updating, and set them again after updating.



## 2. How to update by USB Memory

You can update the firmware by downloading the latest version with USB Memory.

### 2.1. Connecting to the USB Memory

(1) Requirements

- The USB memory device format should be set to FAT16 or FAT32.
- USB memory devices will not work via a USB hub.
- It is not possible to use this unit by connecting the unit's USB port to a PC via a USB cable.
- Do not use an extension cable when connecting a USB memory device.

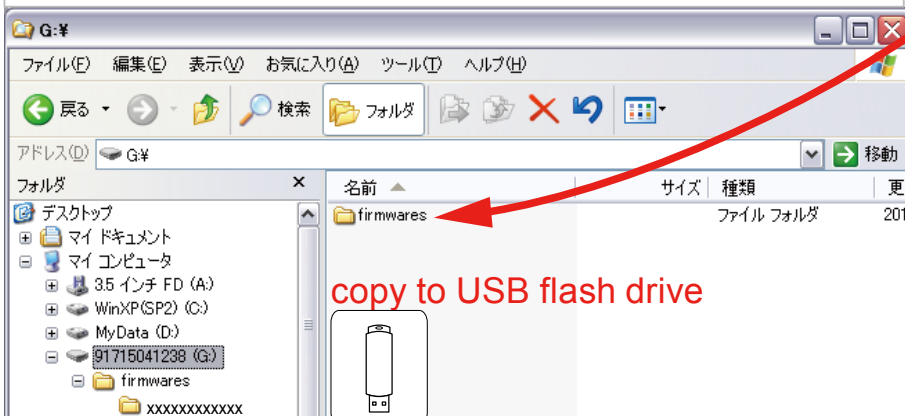
### 2.2. Unzip Download File

Please unzip the downloaded file on PC.

M-CR610 USB\_M-CR610JP\_100200050xxx-xxxx.zip



You can find "firmwares" folder after unzipped. Please copy that folder to USB flash drive. You have to put "firmwares" folder on root directly on USB flash drive(memory).



**USB location is below**

USB memory root

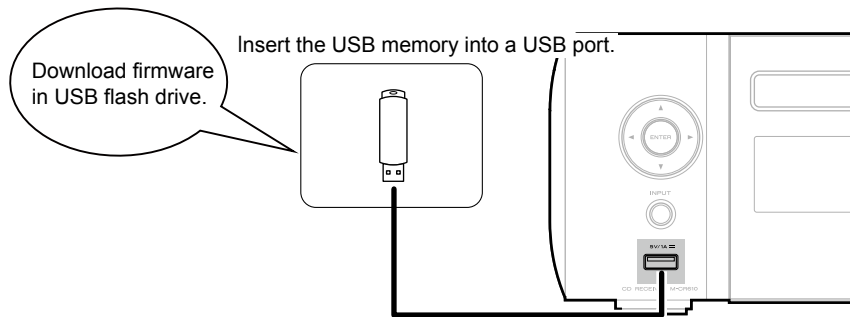
Model Name	Model Area	Product ID
NCR610	North America (U)	100200050100
	Europe (N)	100200050200
	Japan (F)	100200050400

- + firmwares
- + 10020005xxxx
- + enc\_update.xml
- + IMG.bcd
- + SYS.bin
- + SBL.bcd



### 2.3. Insert the USB memory into a USB port

**NOTE:** Please UNPLUG LAN cable from the unit during update.



### 2.4. Start update

Press and hold the "CURSOR▽" button on the unit and connect the AC power cord to the power supply.

### 2.5. "USB Update Start" on FL Display

After around half minutes, FL display shows the following message.

FL Display

[Firmware]  
**USB Update:Start**

### 2.6. Push "ENTER" key on Main unit

\*When rolling back the version

Press and hold the "INPUT" button for 3 seconds to switch to the "USB Rewrite All Devices Mode" and perform the update.

Then start Firmware Update.

FL Display

[Firmware]  
**Update File Check**  
Please wait...

### 2.7. If there is no firmware to update, ["Error Code:0x02"] is displayed.

•Check whether the "firmwares" UPDATE folder has been correctly written to the USB memory.

### 2.8. UPDATE completes within 20 minutes, and the unit automatically restarts.

•Remove the USB memory, and then unplug the power cord.

•After performing the update, initialize the unit. To initialize the unit, run the "Factory Reset" and "User Reset".

#### --- Cautions on Firmware Update ---

- Do not remove a USB memory until updating is completed.
- Do not turn off the power until updating is completed.

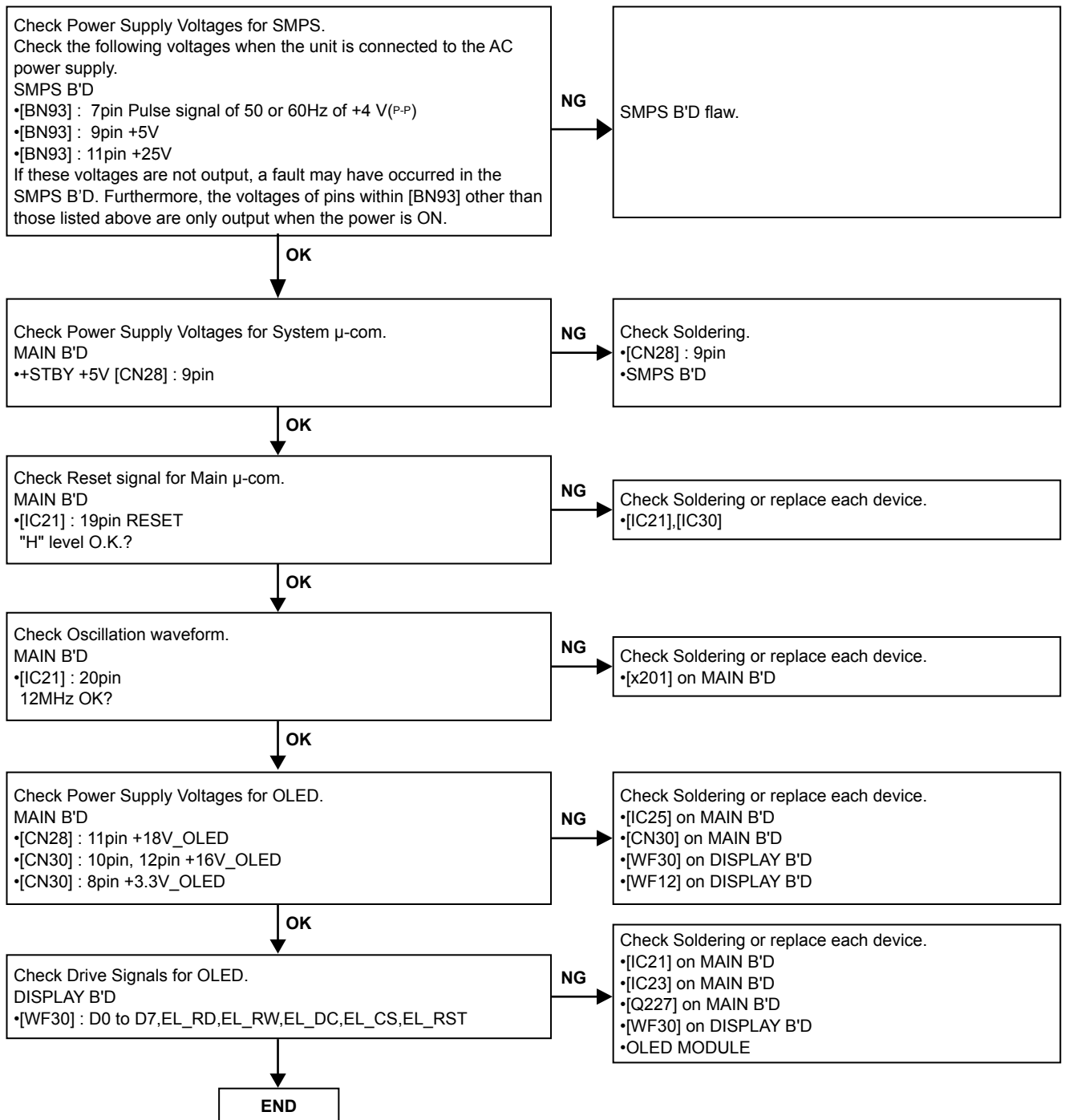
Approximately 20 minutes is required for the updating procedure to be completed.

Once updating starts, normal operations on the this unit cannot be performed until updating is completed. Also, setting items of the GUI menu of this unit or setting items of the image adjustment may be initialized.

Note down the settings before updating, and set them again after updating.

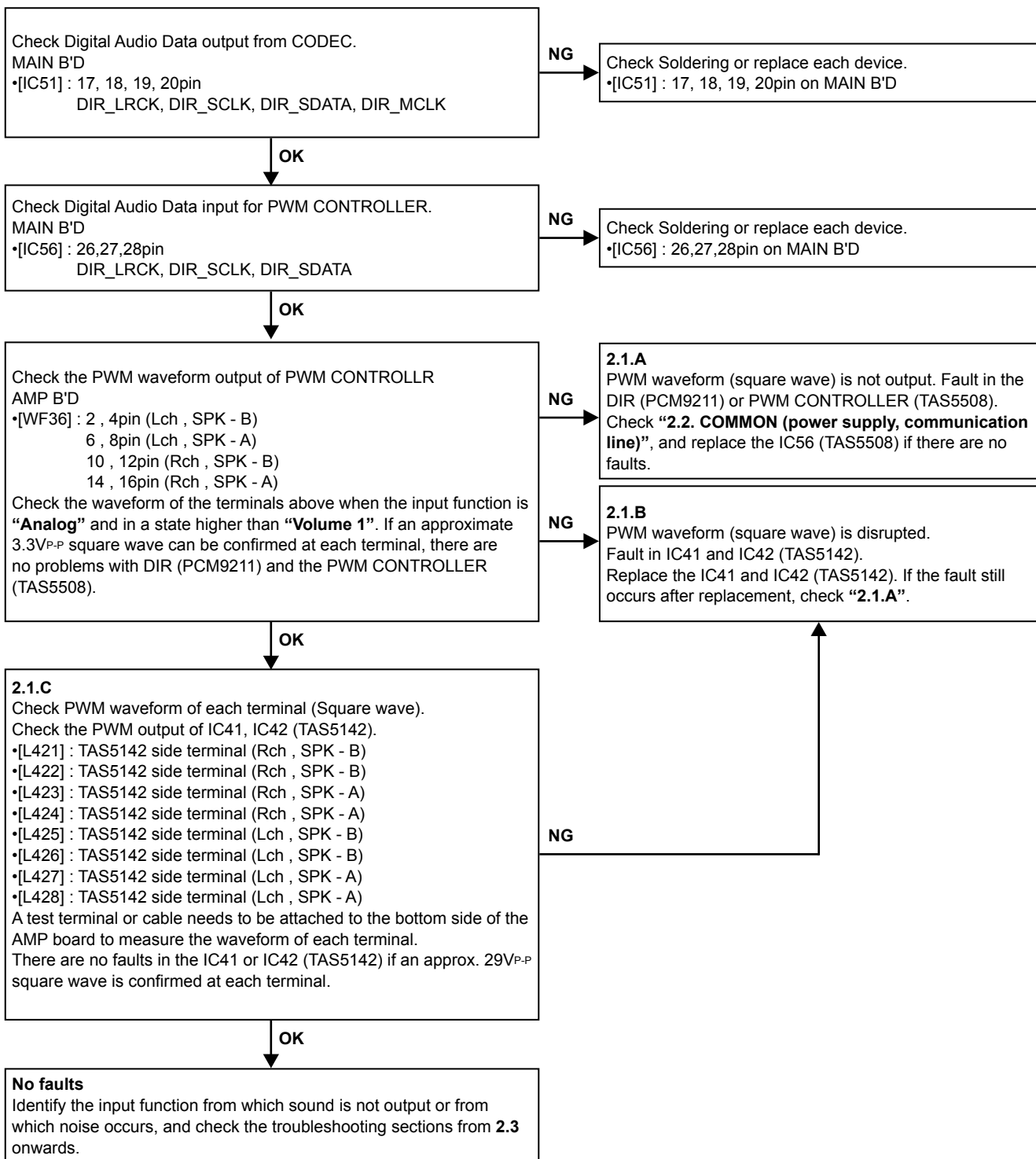
# TROUBLE SHOOTING

## 1. OLED dosen't light

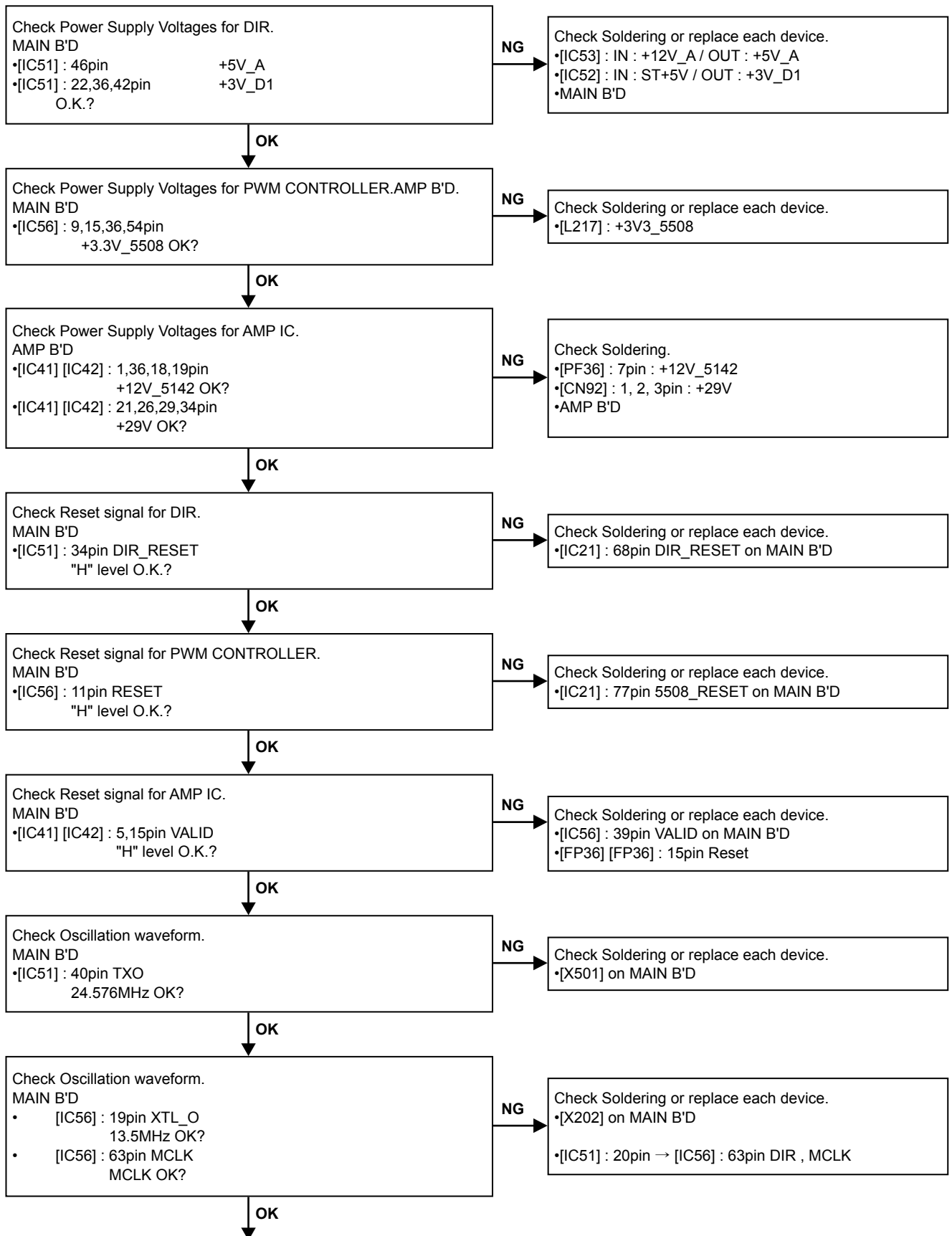


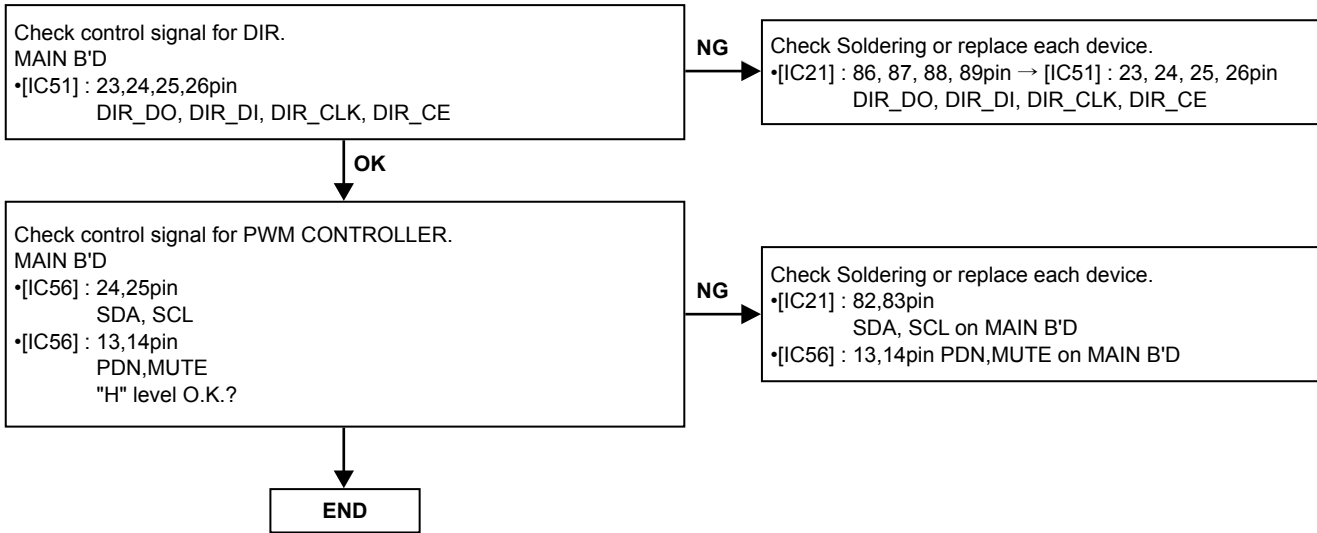
## 2. No Sound, Noise generated

### 2.1. COMMON(signal)

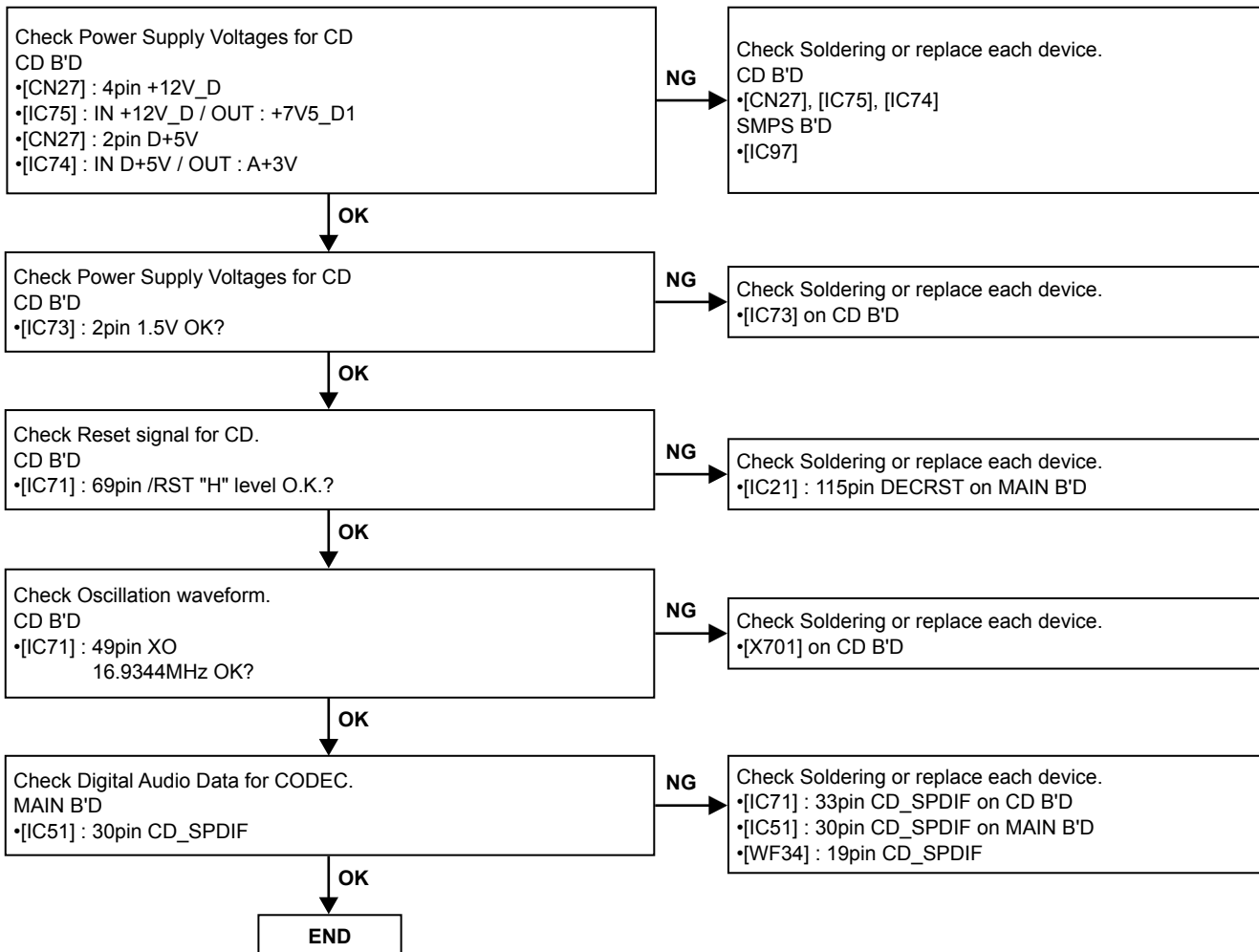


## 2.2. COMMON(POWER Control signal)

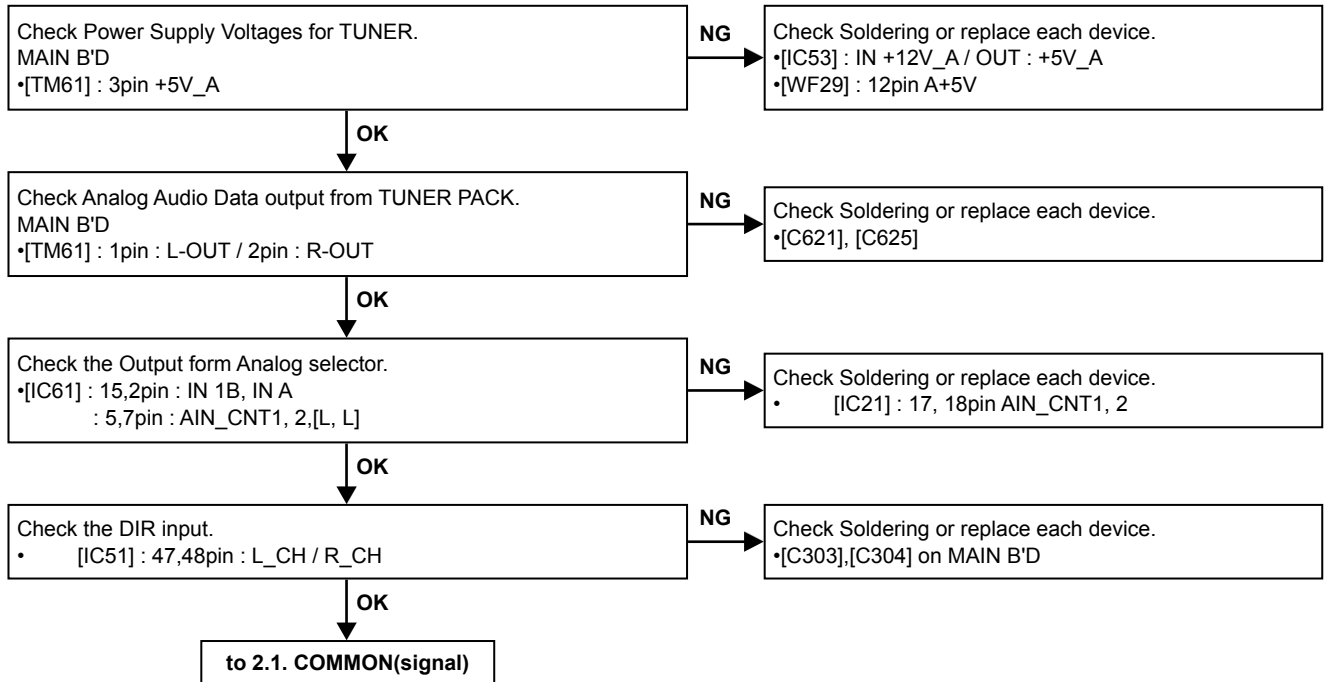




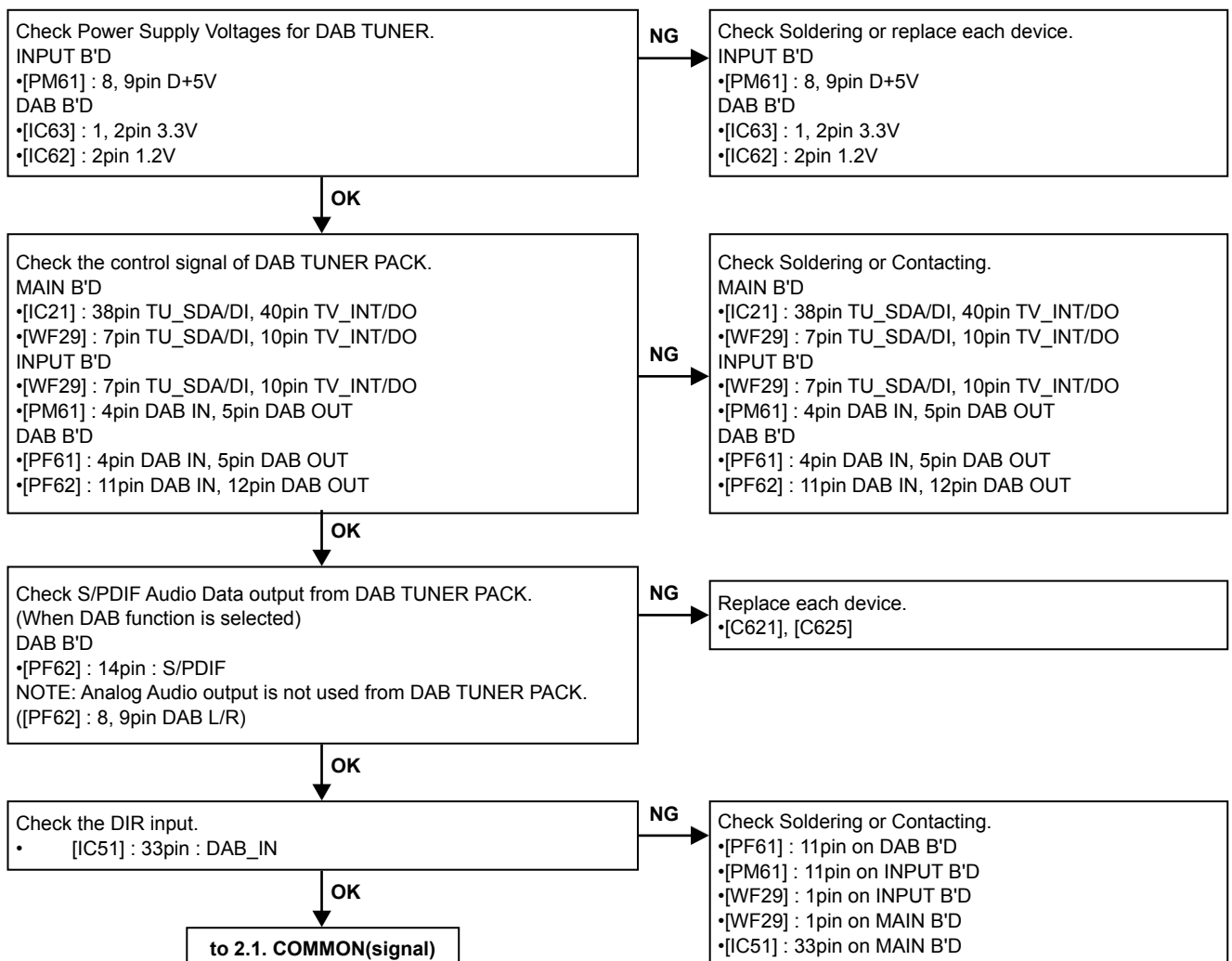
### 2.3. CD PLAY BACK



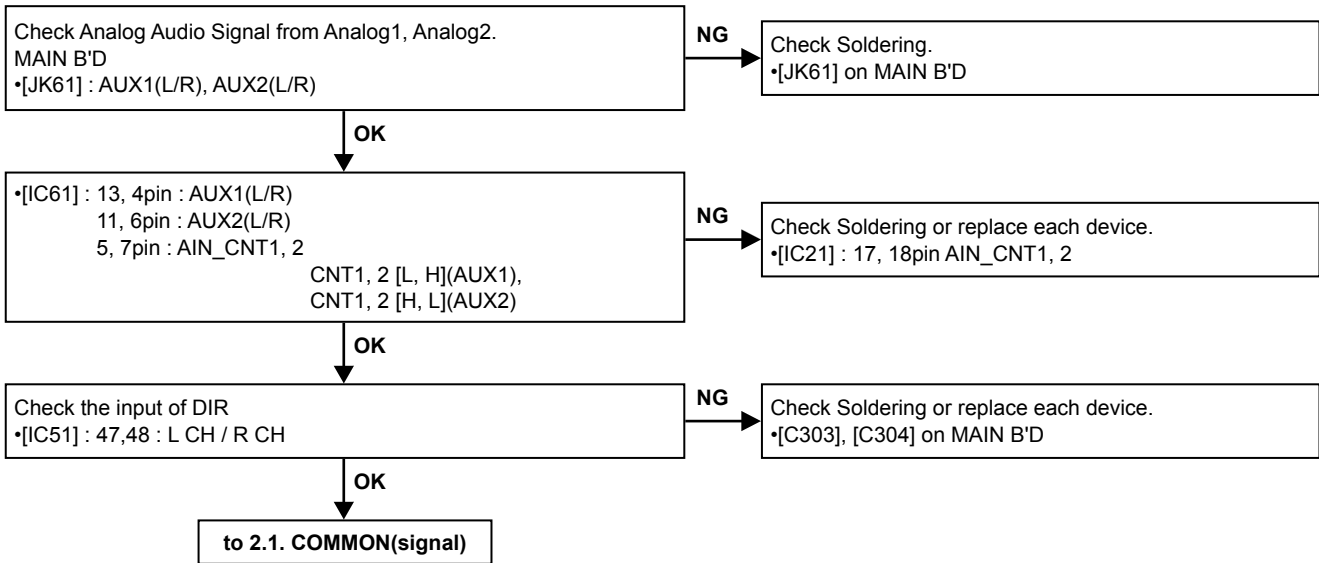
## 2.4 . TUNER (U / F Only)



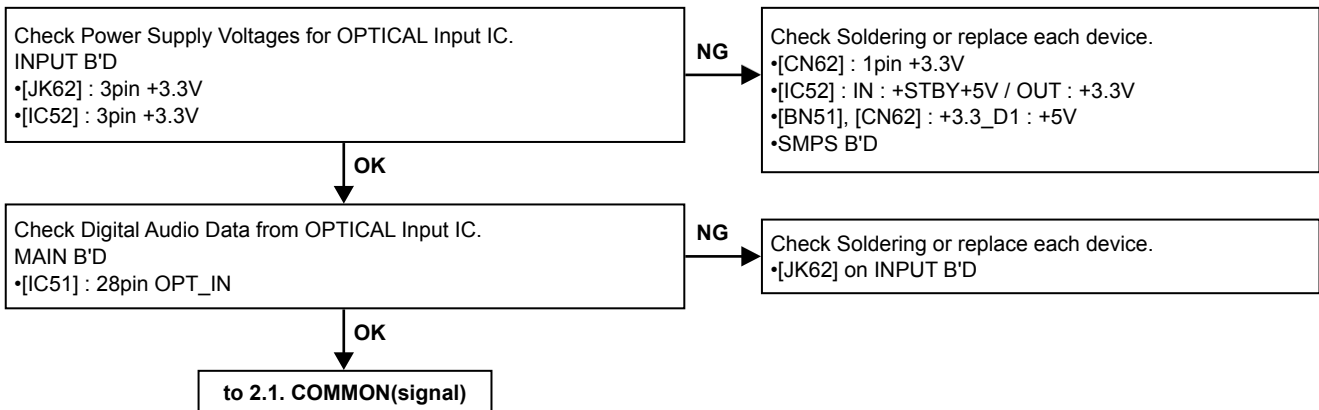
## 2.5 . DAB TUNER (N Only)



## 2.6 . Analog In 1/2

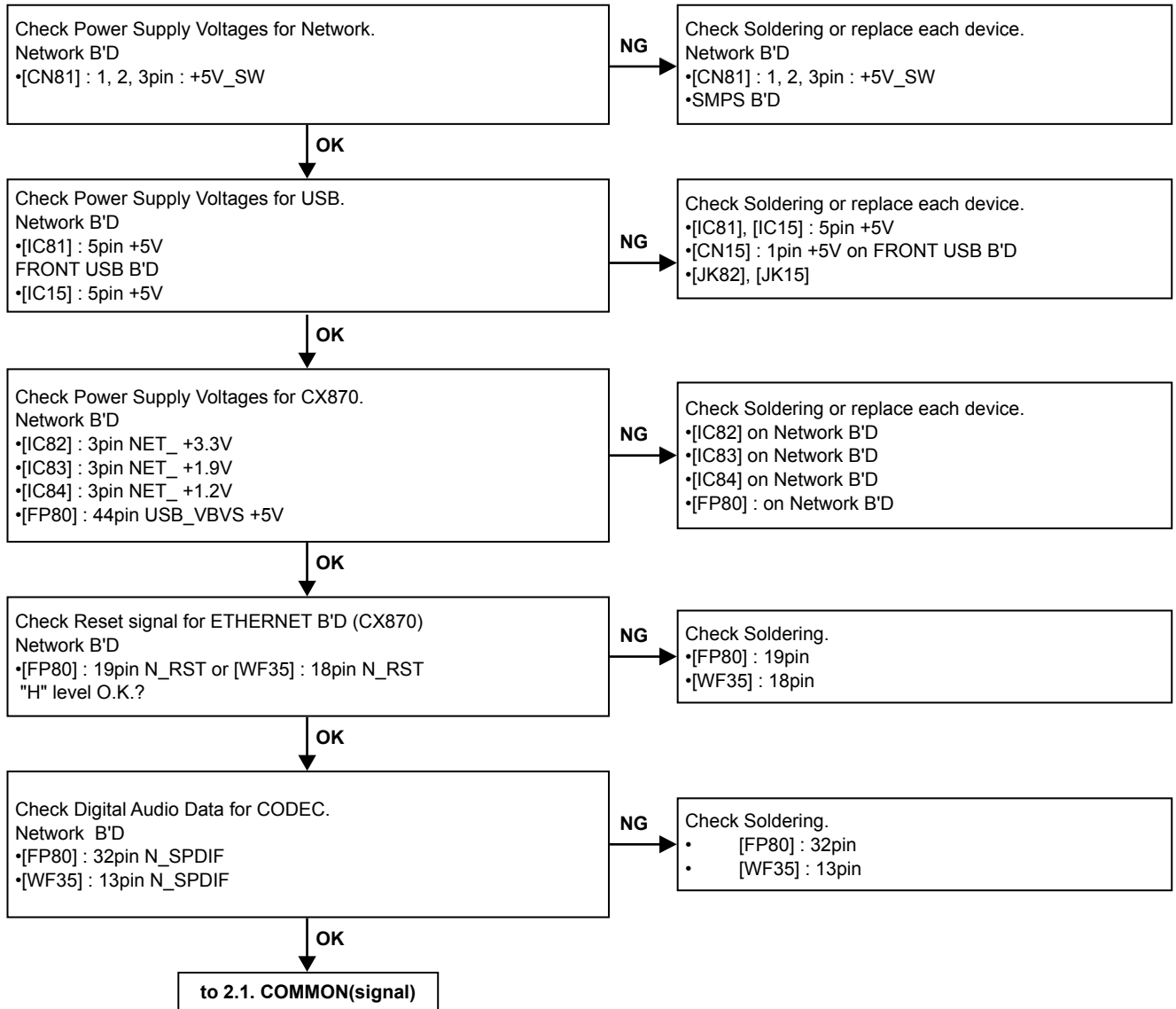


## 2.7. Digital In

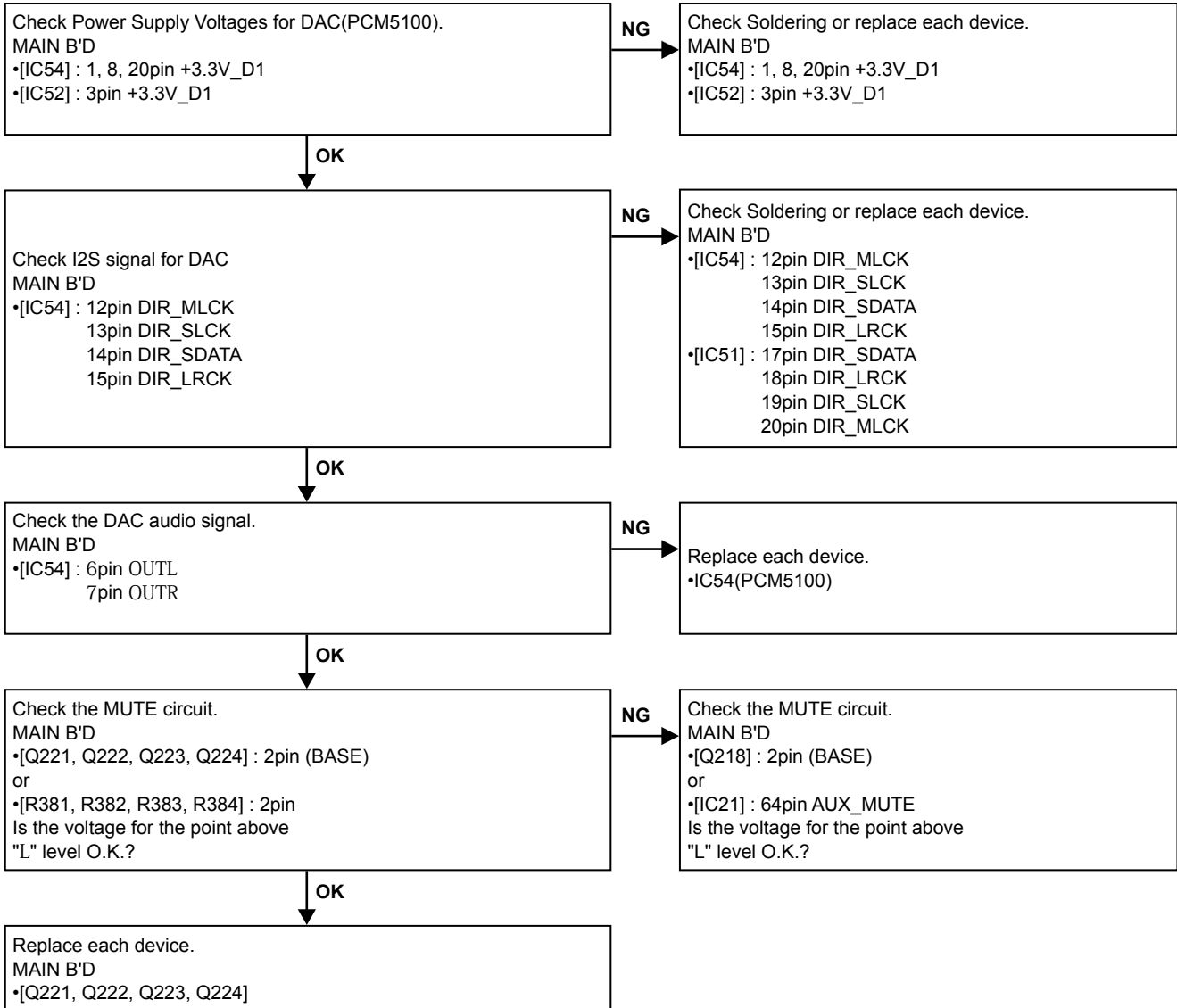




## 2.8 . USB / ETHERNET / Wi-Fi



## 2.9 . ANALOG AUDIO OUT



# MEASURING METHOD AND WAVEFORMS

To check the waveforms, the GND (-) probe of the oscilloscope to specified reference voltage.  
(Except for Inner SW, TRVSW)

## NOTES

Measuring Disc: CD/TCD-784

CD-R/TCD-R082W

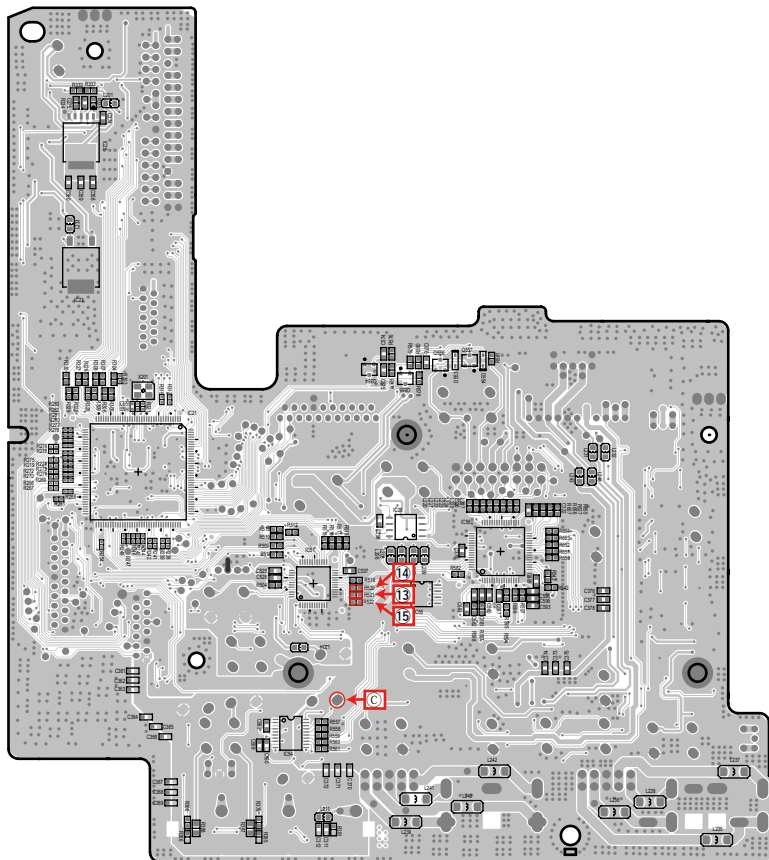
CD-RW/TCD-W082W

(It is better to use wires for extending between the probe and test points.)

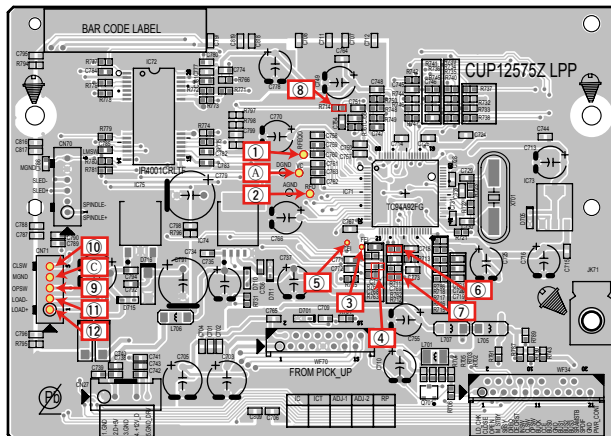
- When watching the HF waveform, use the extending wire as short as possible.
- When HF waveform is noisy or cannot discriminate the eye-pattern, replace the Traverse Unit after measuring the lop.
- Point ①-⑮ is measured with the point shown below.

## 1. TEST POINT

### MAIN PWB : Bside

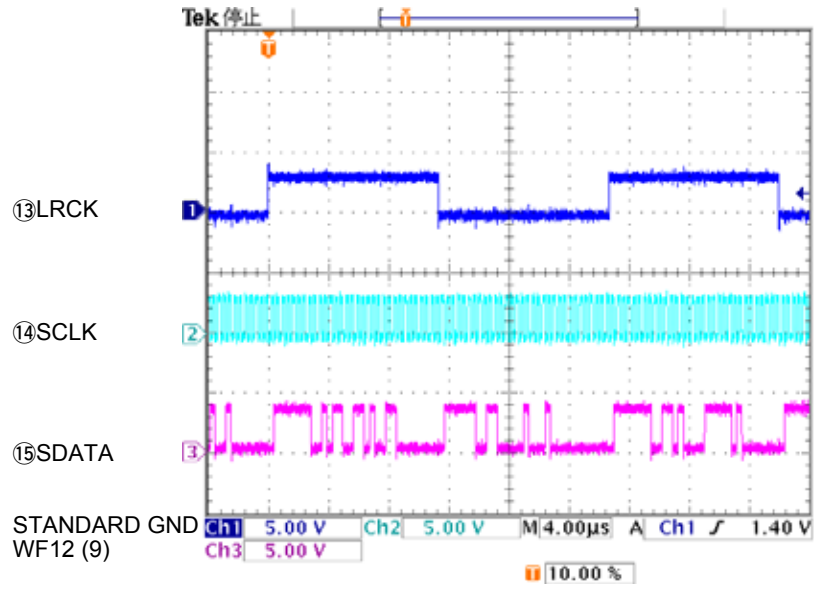


### CD PWB : Aside

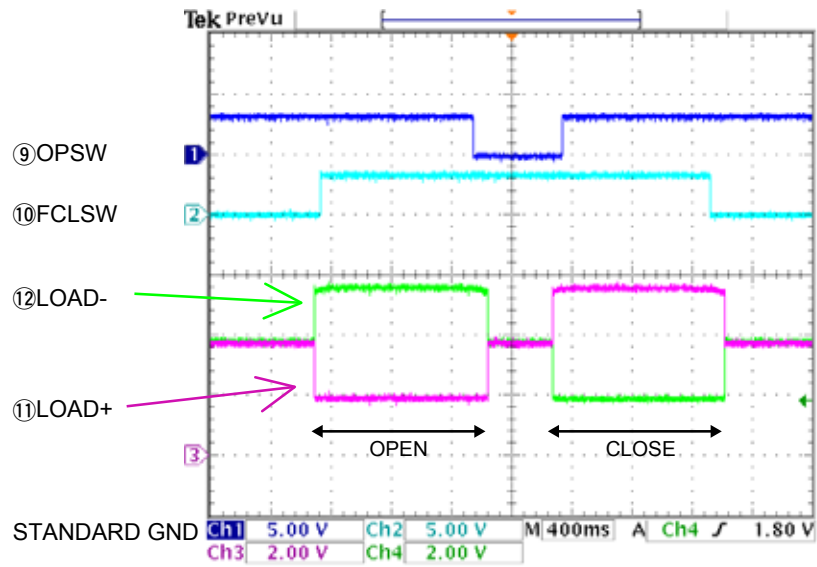




## 4. CD Playback



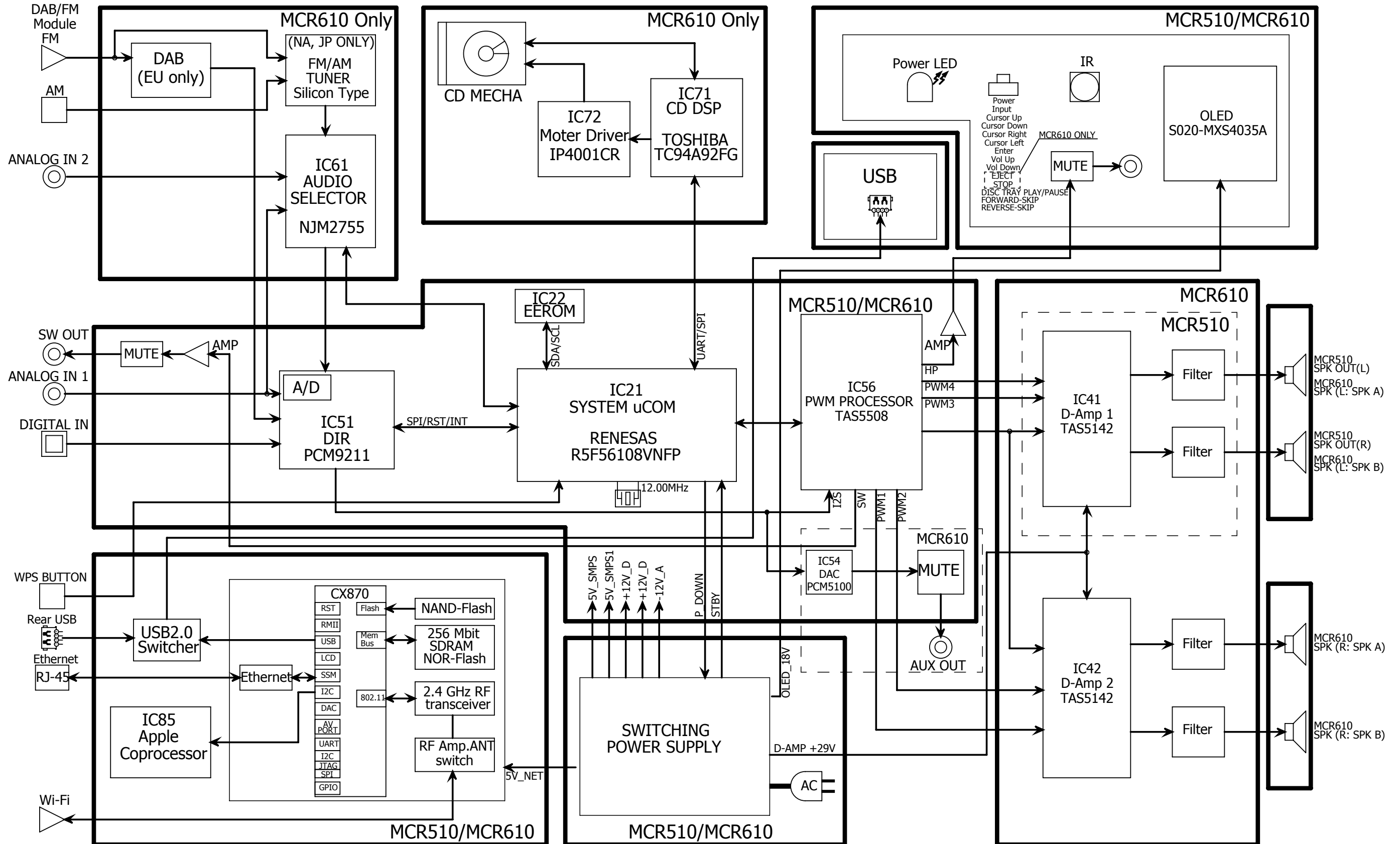
## 5. LOADER OPEN-CLOSE



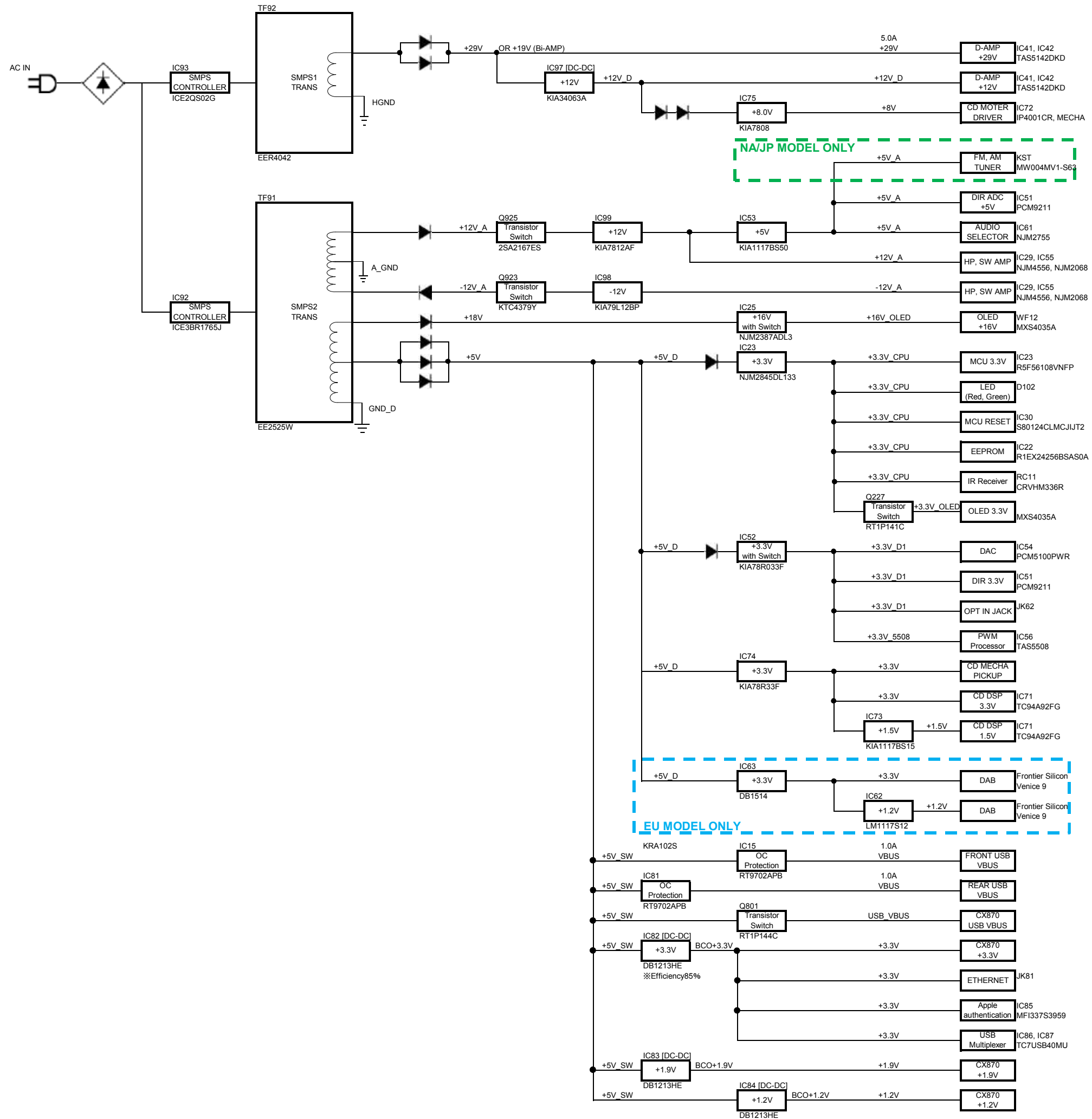


BLOCK DIAGRAM

# MCR510 & 610 BLOCK DIAGRAM

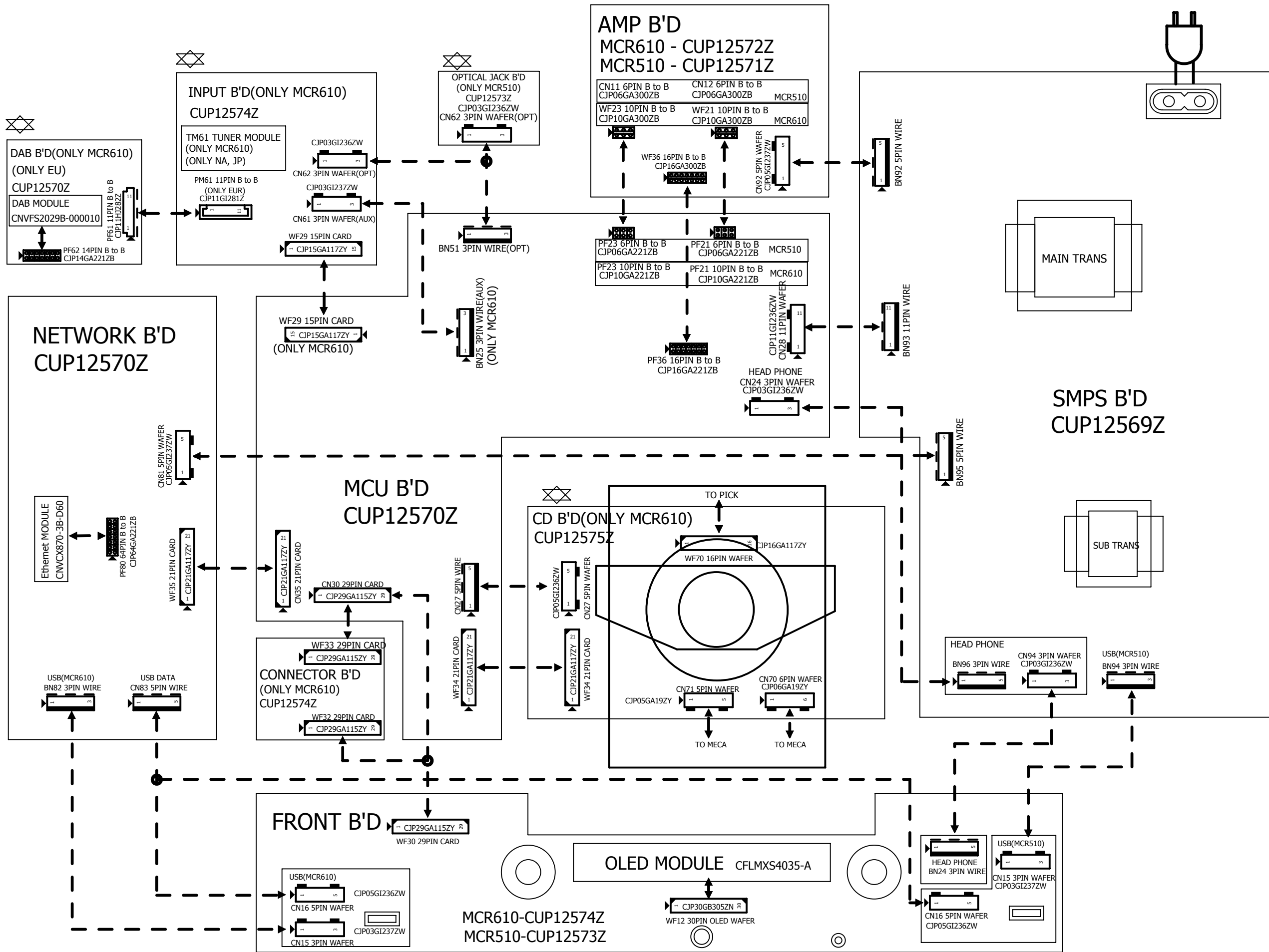


# POWER DIAGRAM





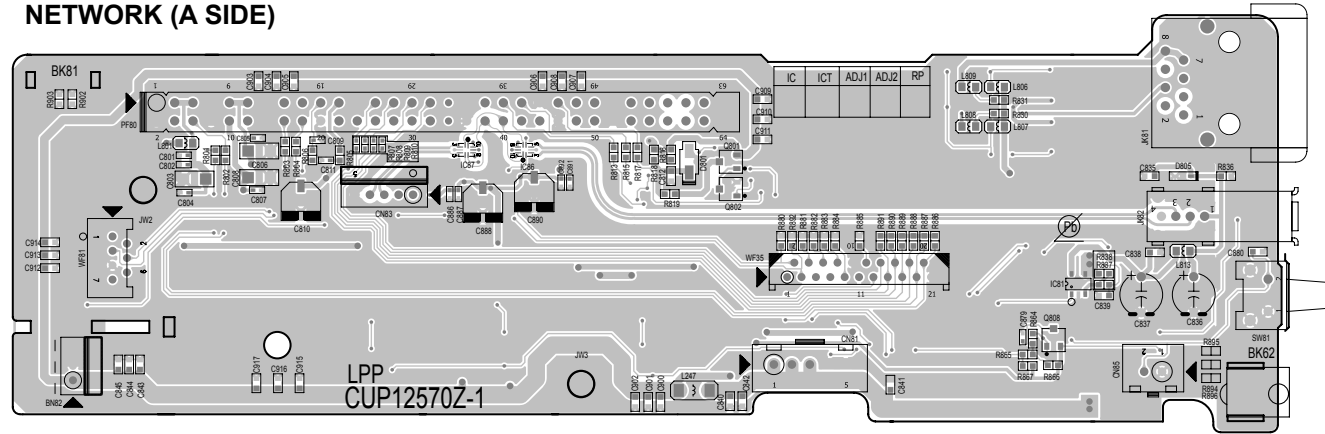
# WIRING DIAGRAM



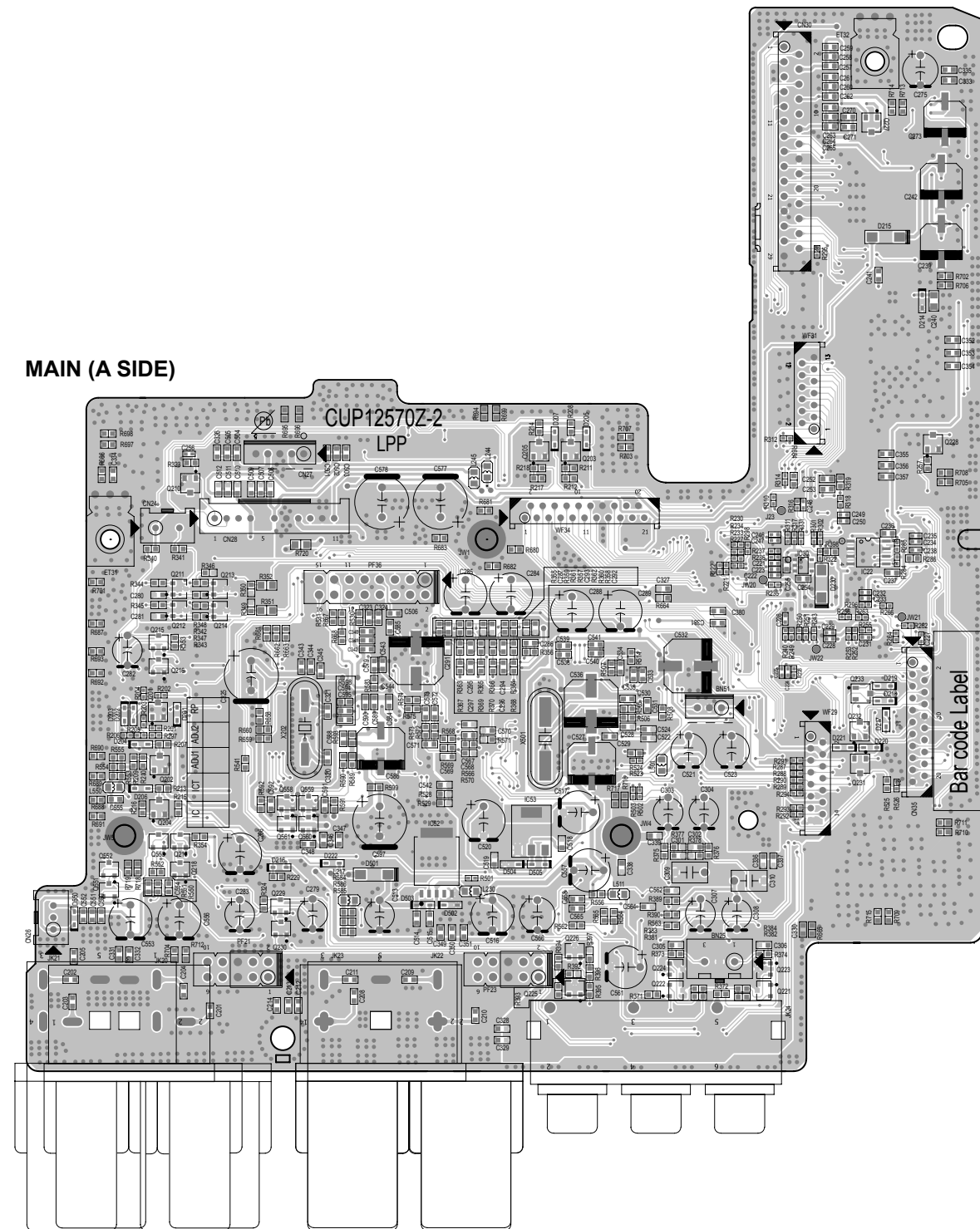
# PRINTED WIRING BOARDS

**Lead-free Solder**  
When soldering, use the Lead-free Solder (Sn-Ag-Cu).

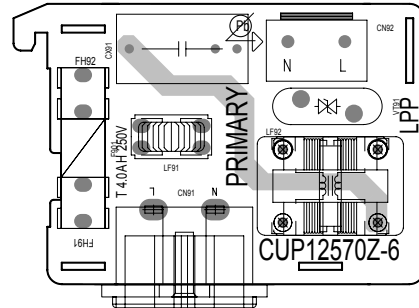
## NETWORK (A SIDE)



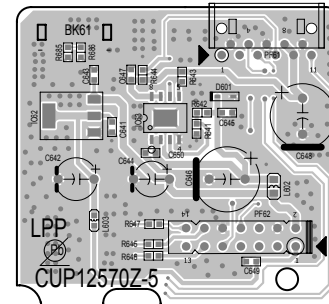
## MAIN (A SIDE)



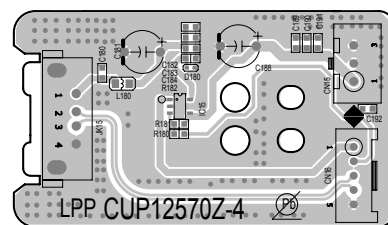
### (A SIDE)



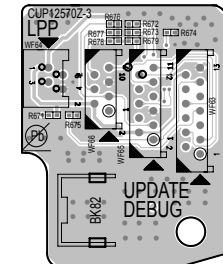
### DAB (A SIDE)

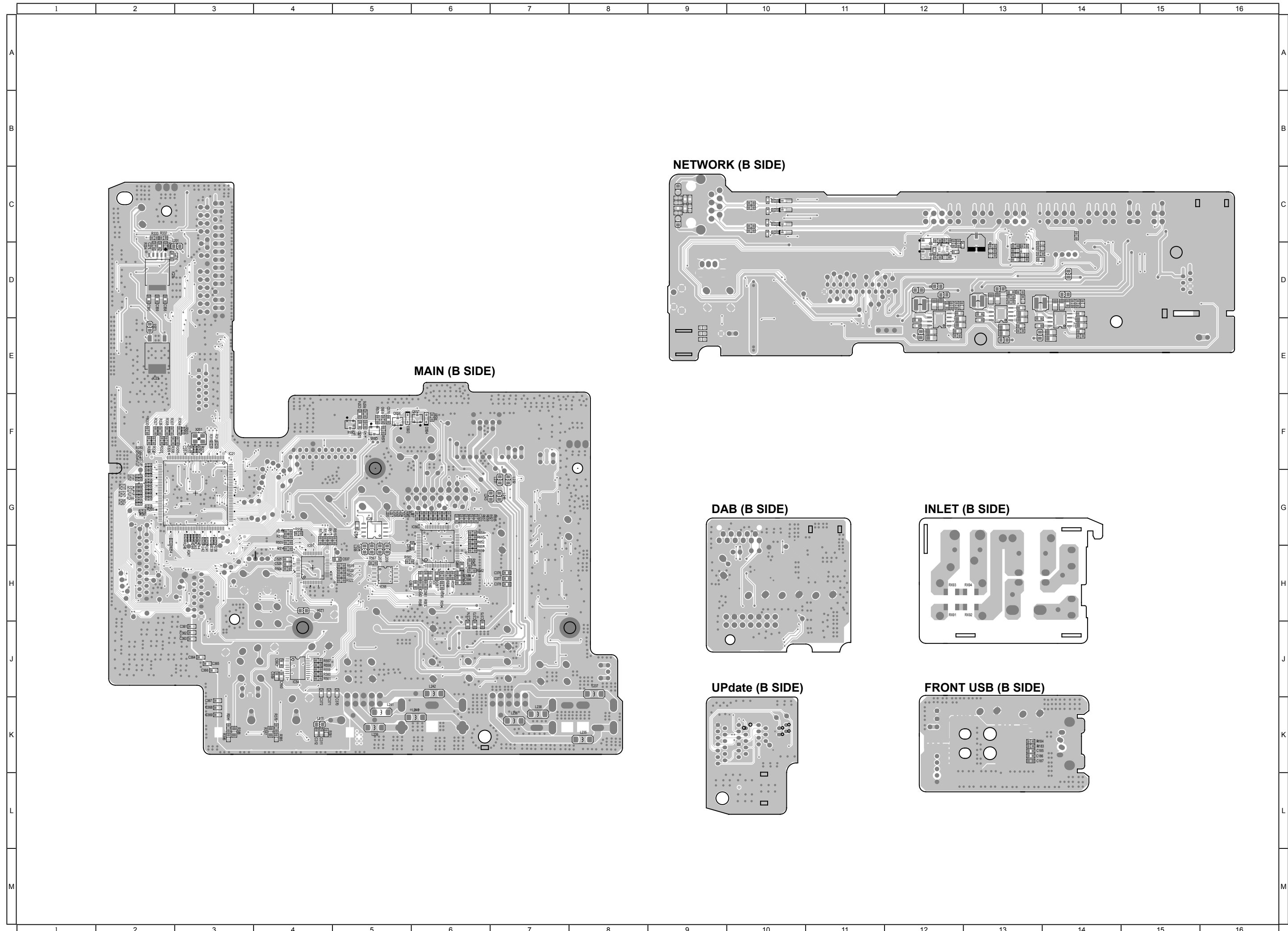


### FRONT USB (A SIDE)



### UPdate (A SIDE)





**MAIN (B SIDE)**

**NETWORK (B SIDE)**

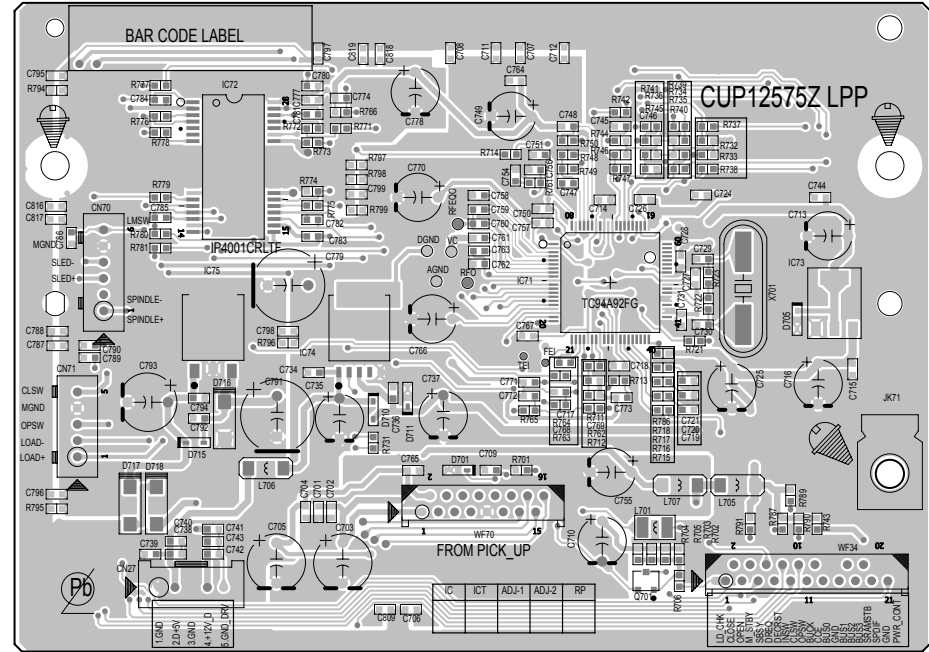
**DAB (B SIDE)**

**INLET (B SIDE)**

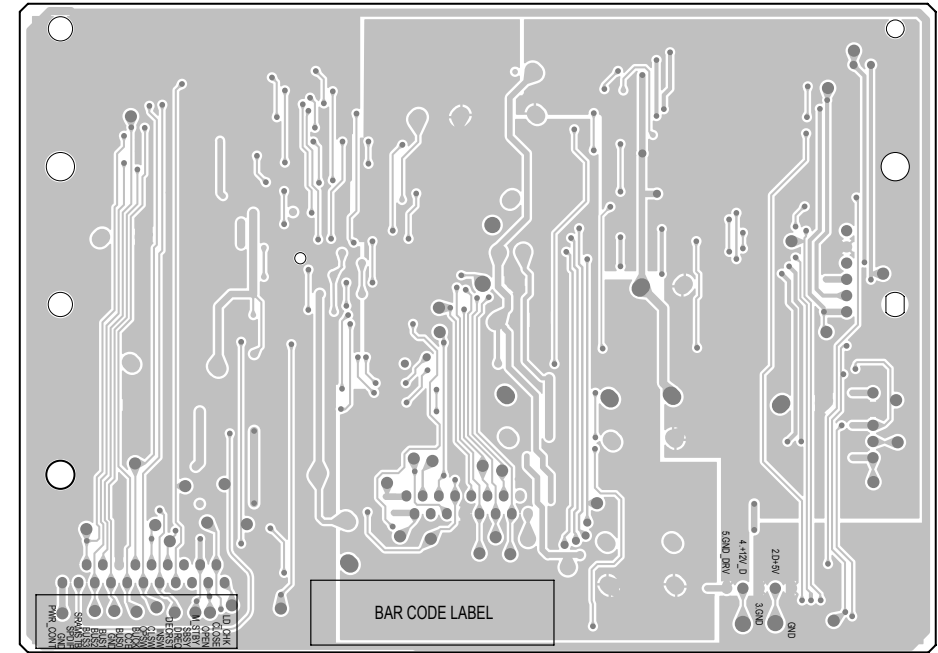
**UPdate (B SIDE)**

**FRONT USB (B SIDE)**

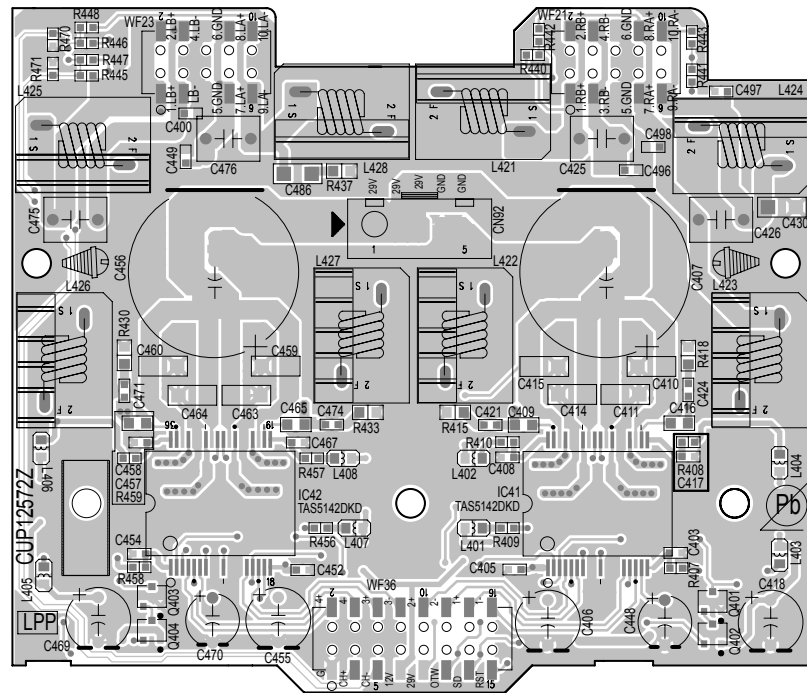
CD (A SIDE)



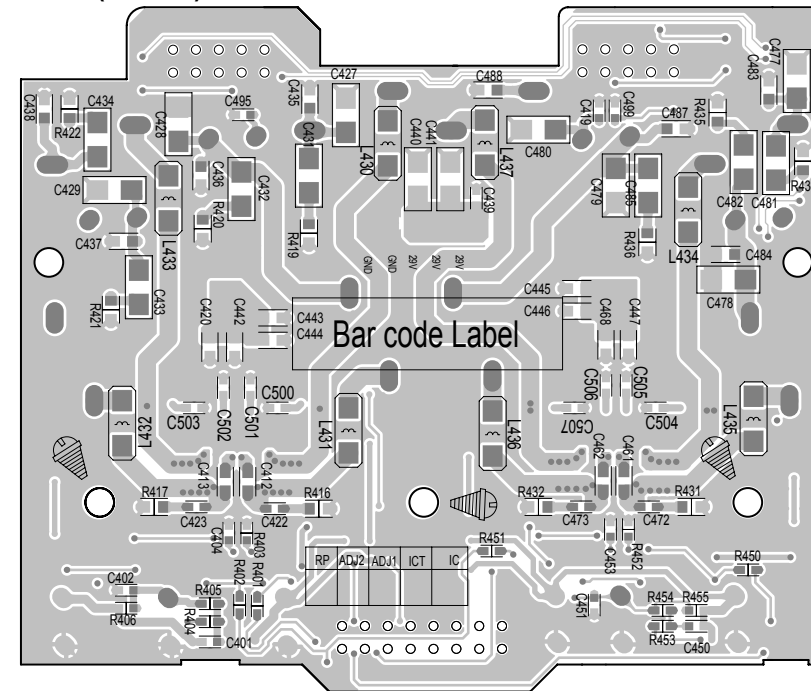
CD (B SIDE)

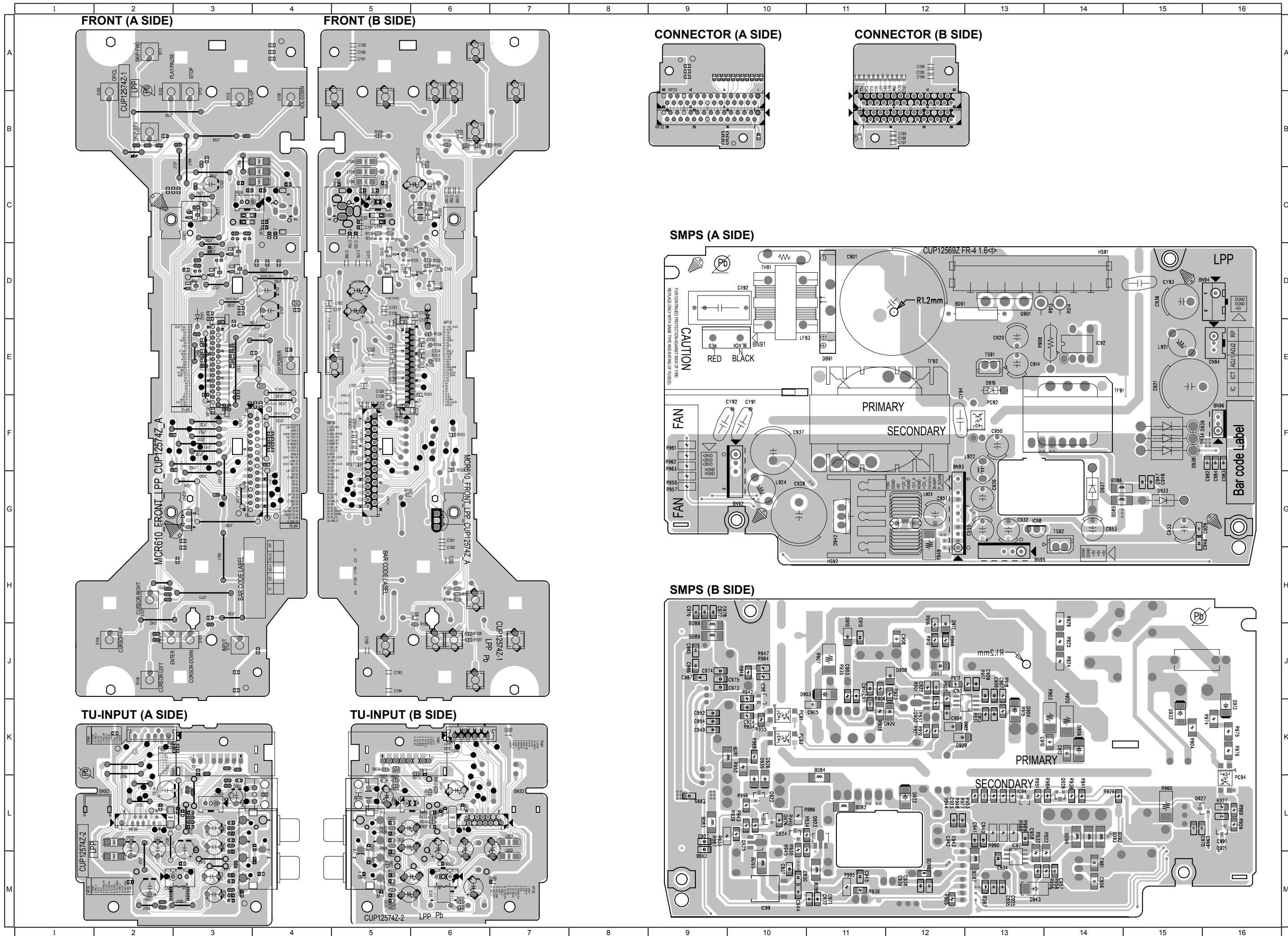


AMP (A SIDE)

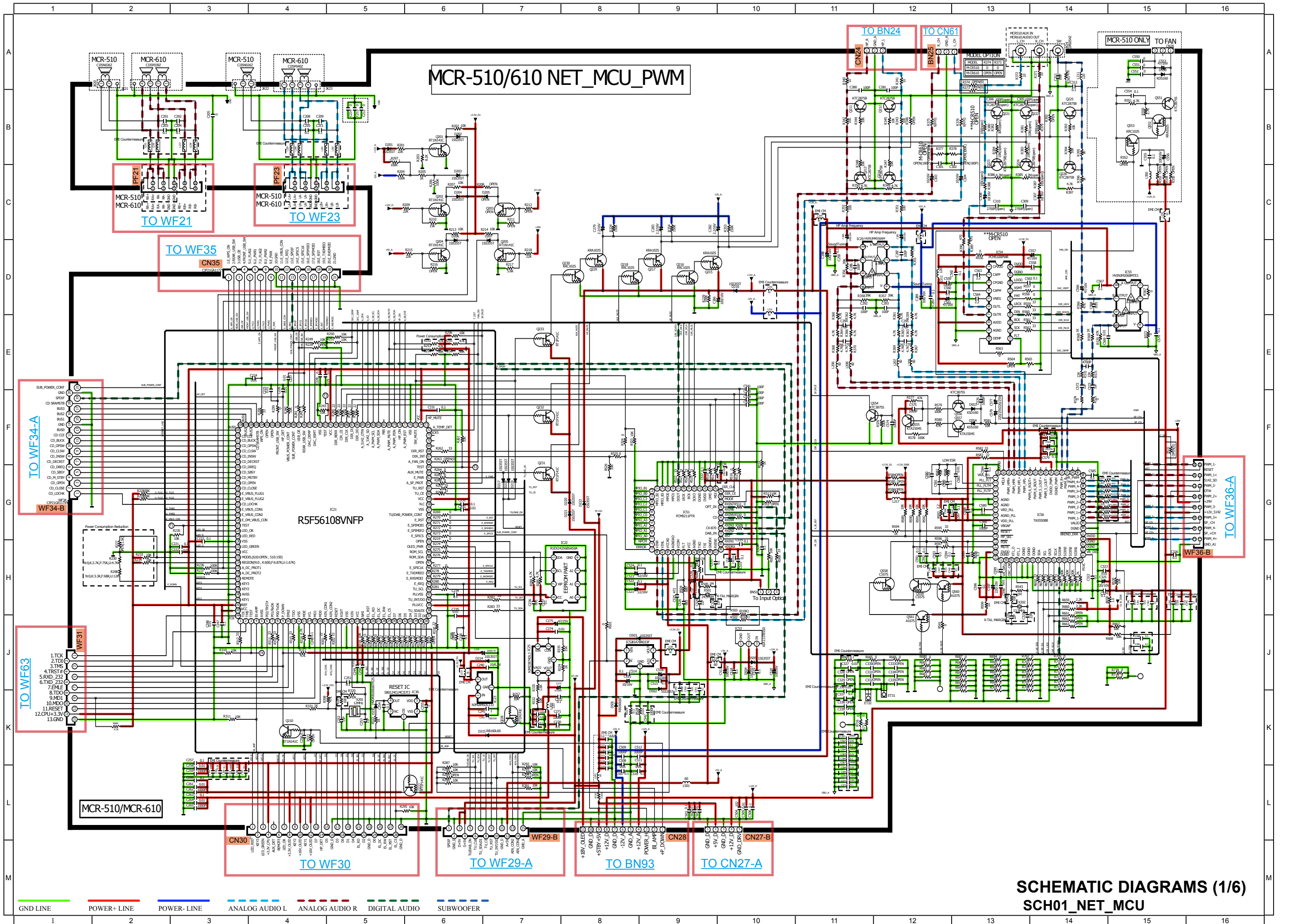


AMP (B SIDE)







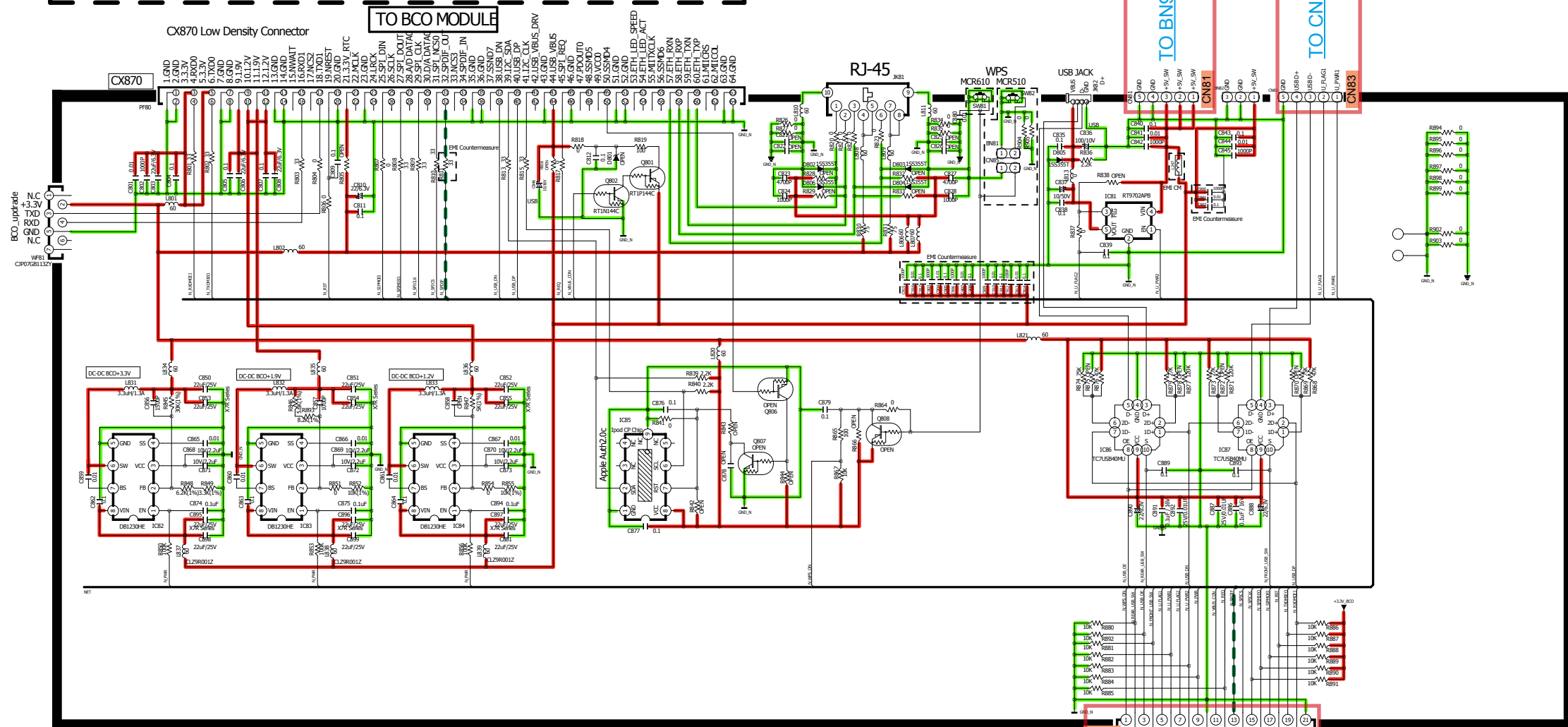


MCR-510/610 NET\_MCU\_PWM

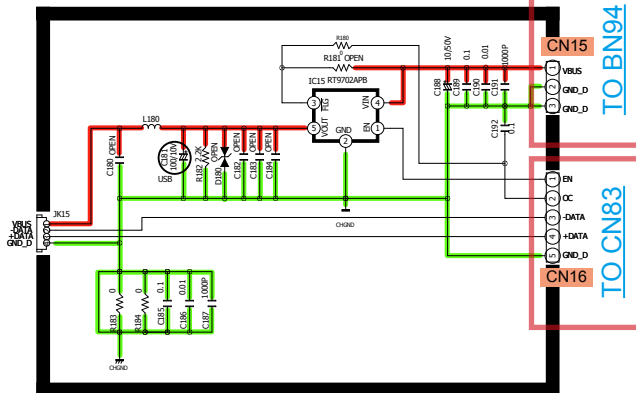
**SCHEMATIC DIAGRAMS (1/6)**  
SCH01\_NET\_MCU

WI-FI MODULE(CX870-3B-16D)

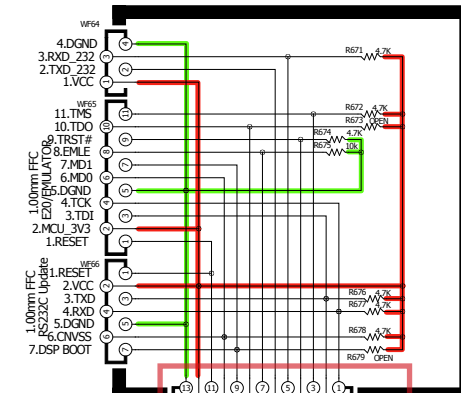
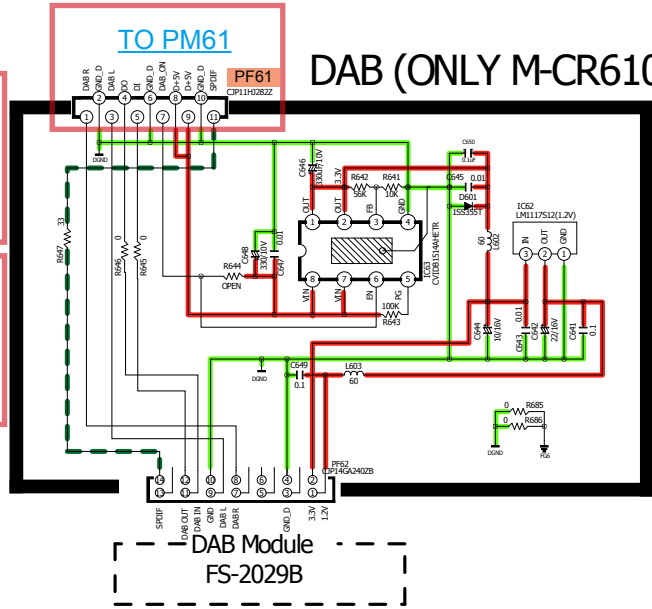
MCR-510/610 NETWORK B'D



MCR-510/610 FRONT USB

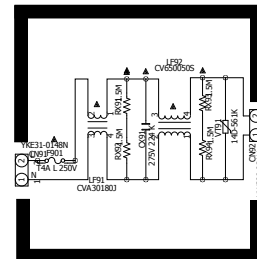


DAB (ONLY M-CR610)

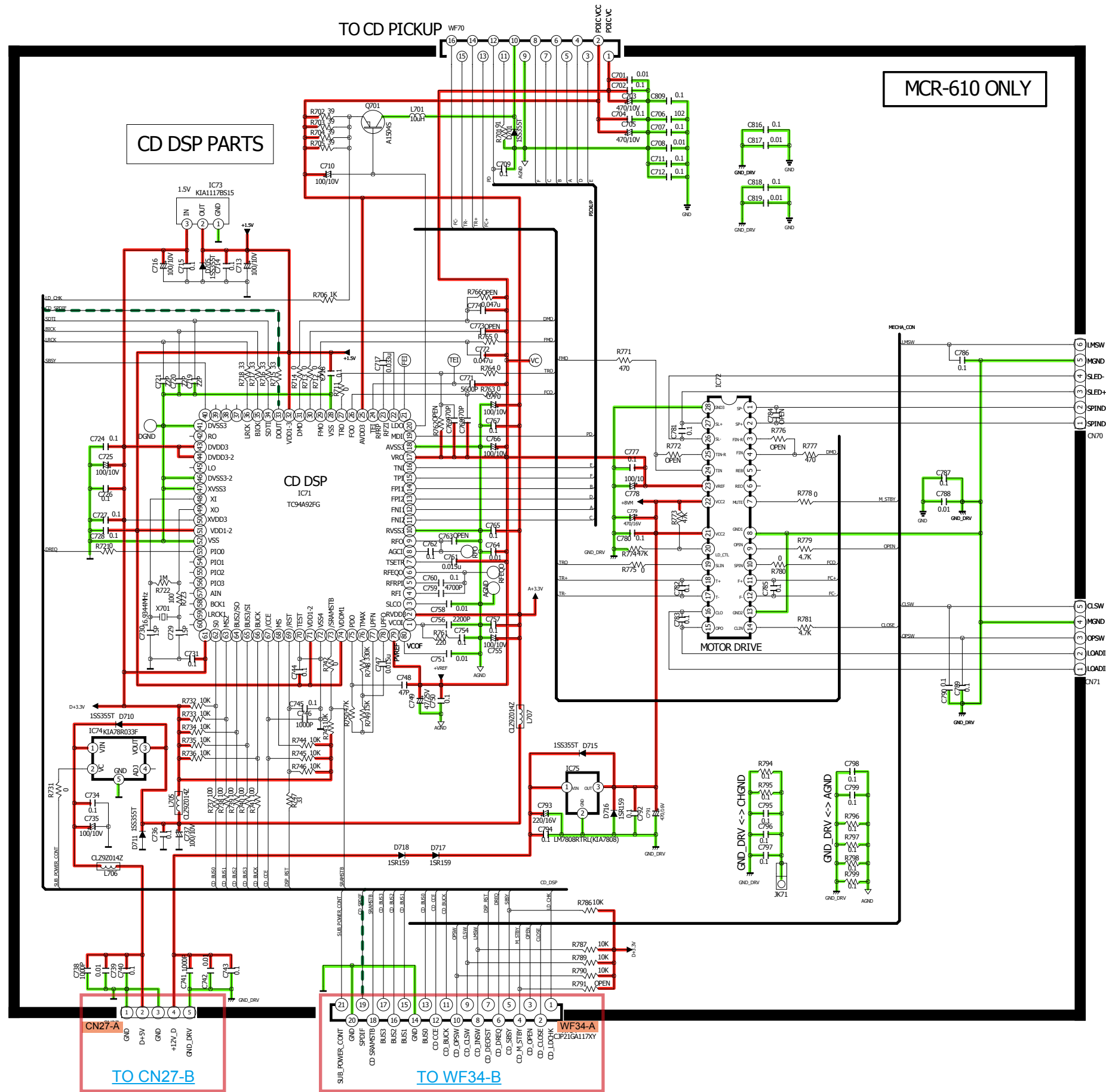


MCR-510/610 Update B'D

MCR-510/610 INLET



— GND LINE  
— POWER+ LINE  
— POWER- LINE  
— ANALOG AUDIO L  
— ANALOG AUDIO R  
— DIGITAL AUDIO  
- - - SUBWOOFER



MCR-610 ONLY

CD DSP PARTS

CD DSP  
IC71  
TC94A92FG

MOTOR DRIVE

CN27-A

WF34-A

TO CN27-B

TO WF34-B

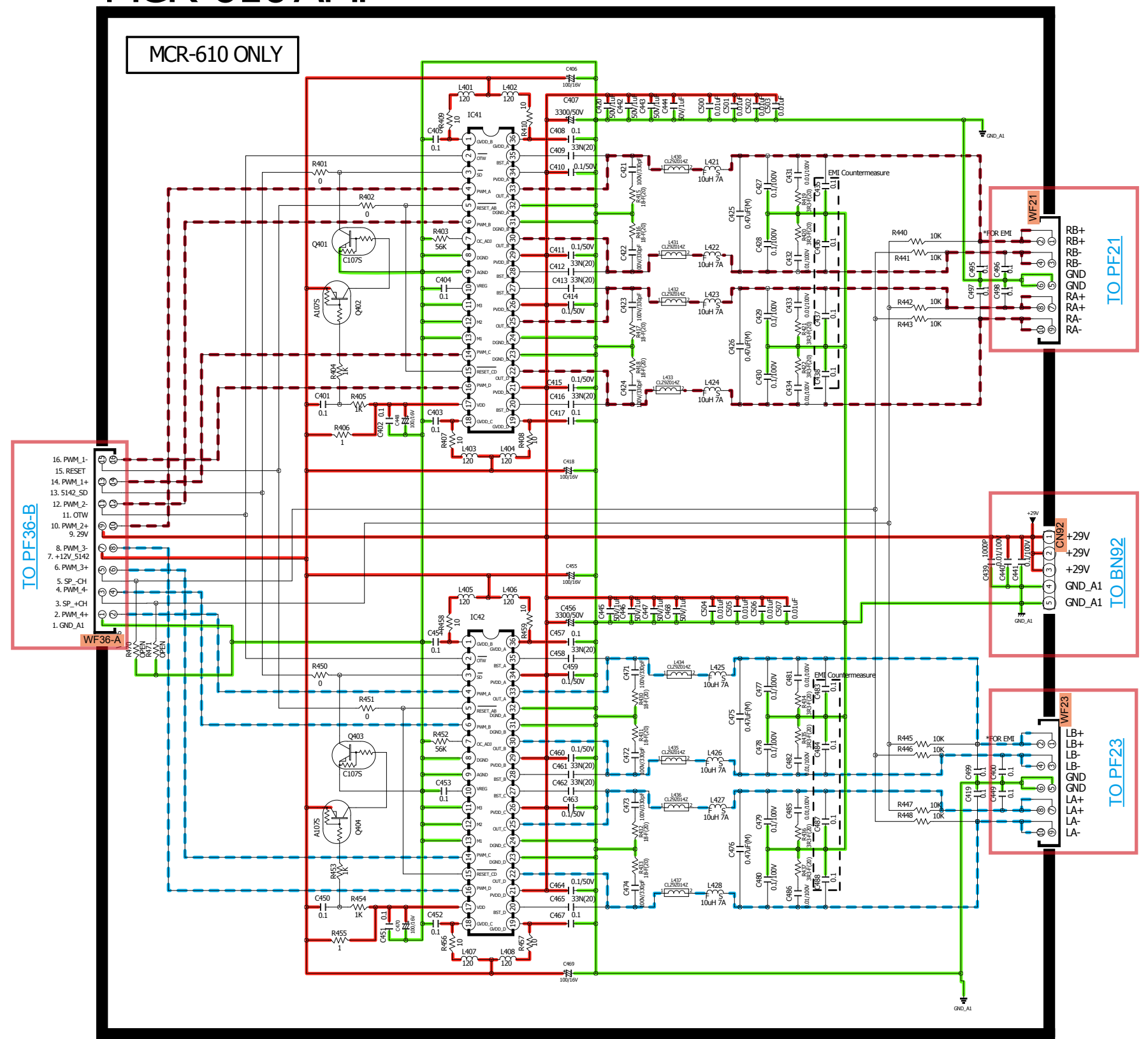
SCHEMATIC DIAGRAMS (3/6)  
SCH03\_CD

— GND LINE  
— POWER+ LINE  
— POWER- LINE  
- - - ANALOG AUDIO L  
- - - ANALOG AUDIO R  
- - - DIGITAL AUDIO  
- - - SUBWOOFER



# MCR-610 AMP

MCR-610 ONLY



TO PF36-B

- 16. PWM\_1-
- 15. RESET
- 14. PWM\_1+
- 13. 5142\_SD
- 12. PWM\_2-
- 11. OTW
- 10. PWM\_2+
- 9. 29V
- 8. PWM\_3-
- 7. +12V\_5142
- 6. PWM\_3+
- 5. SP\_-CH
- 4. PWM\_4-
- 3. SP\_+CH
- 2. PWM\_4+
- 1. GND\_A1

WF36-A

TO PF21

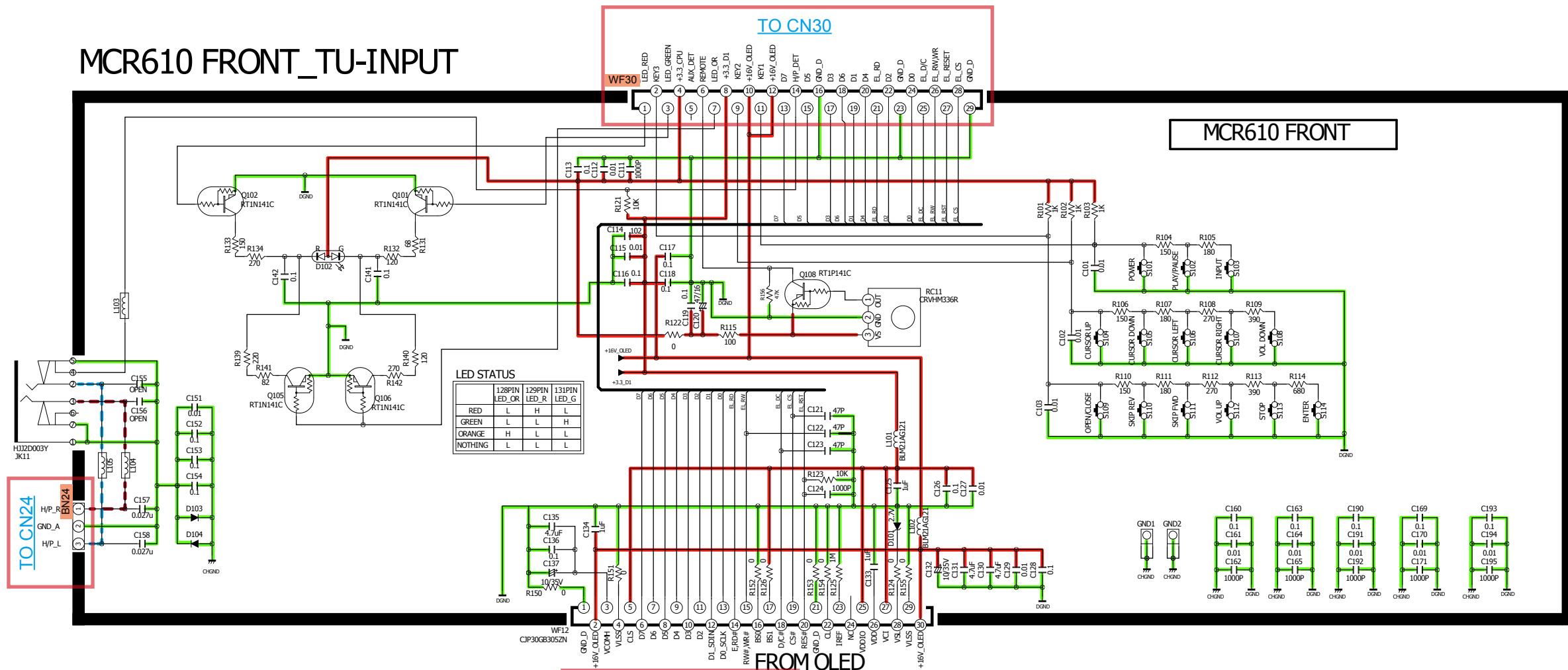
TO BN92

TO PF23

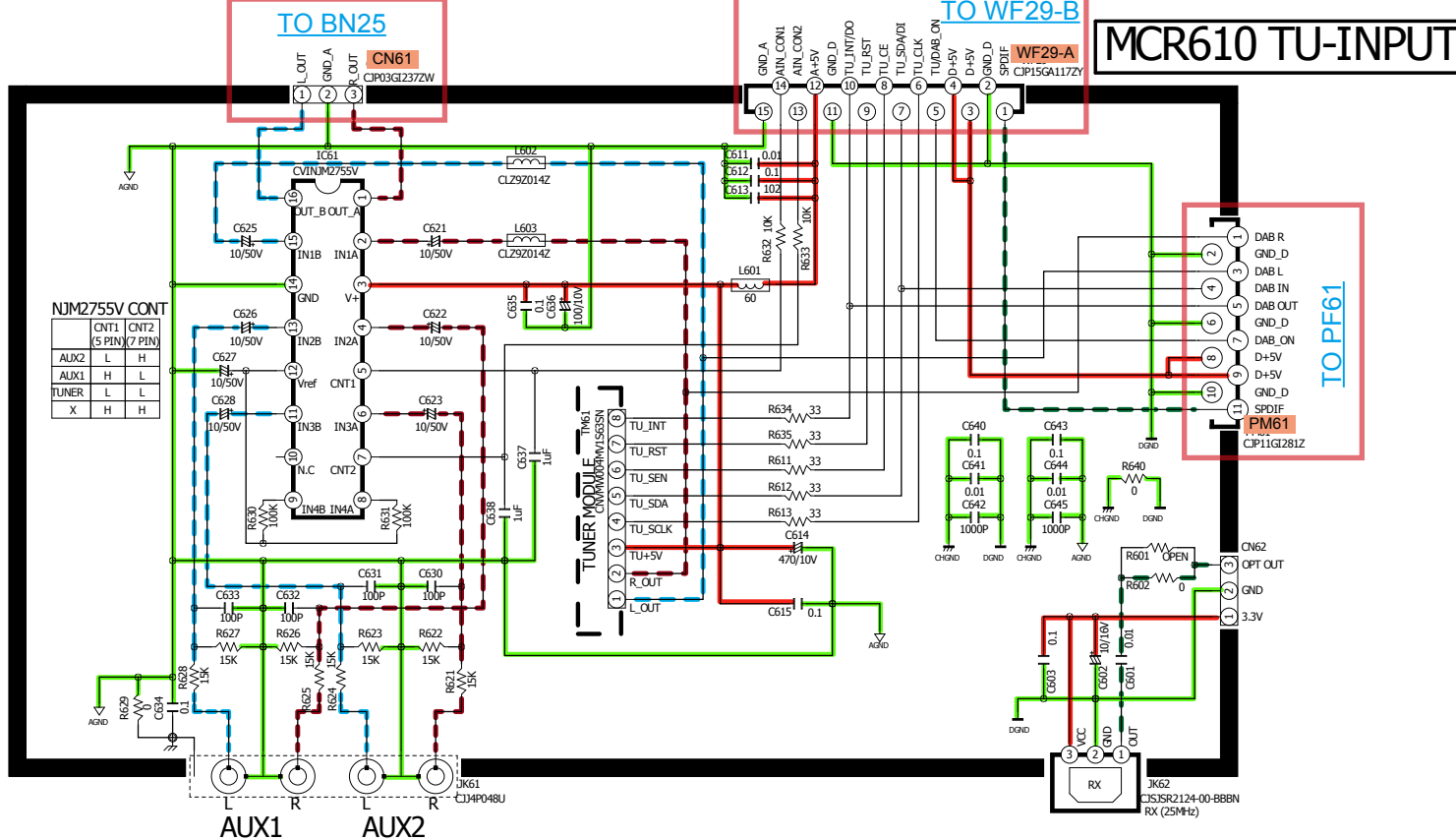
GND LINE    POWER+ LINE    POWER- LINE    ANALOG AUDIO L    ANALOG AUDIO R    DIGITAL AUDIO    SUBWOOFER

**SCHEMATIC DIAGRAMS (4/6)**  
**SCH04\_AMP**

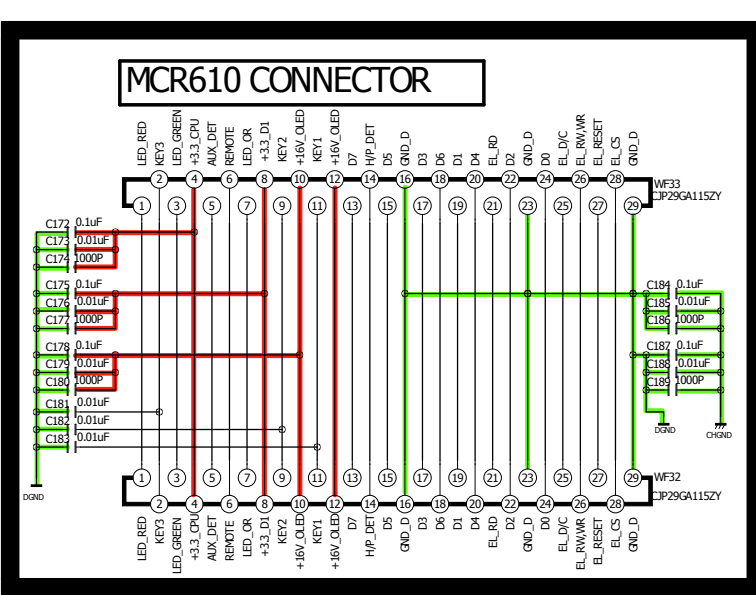
# MCR610 FRONT\_TU-INPUT



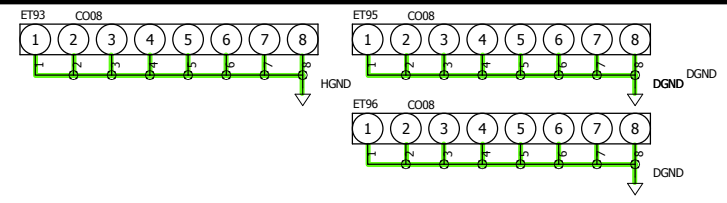
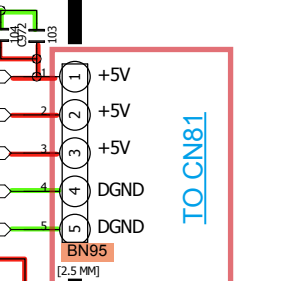
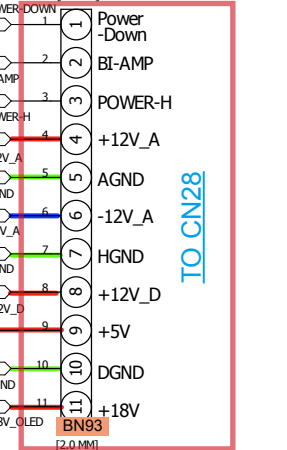
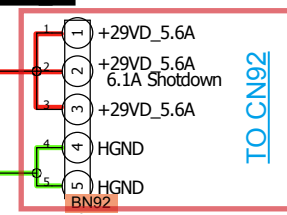
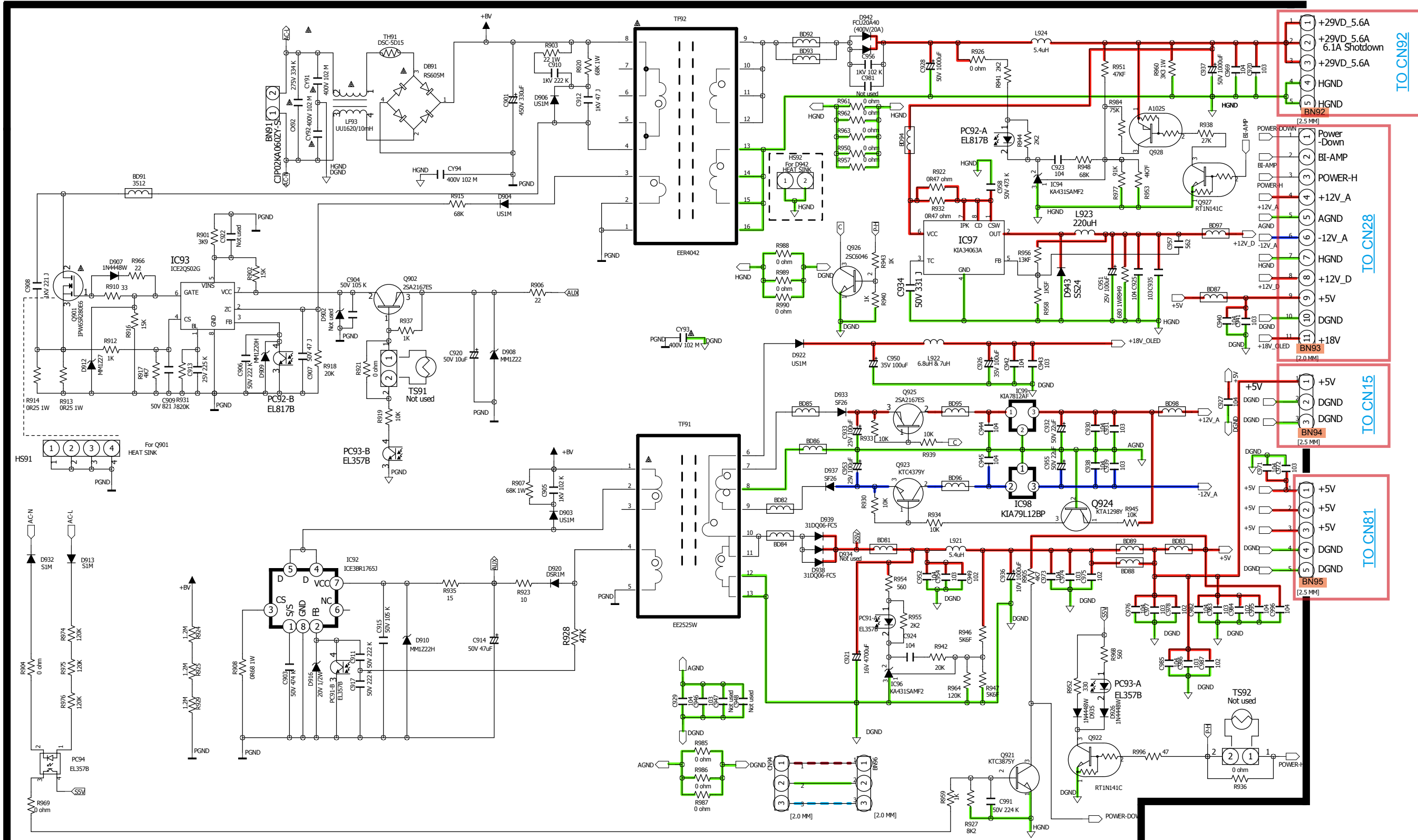
# MCR610 TU-INPUT



# MCR610 CONNECTOR



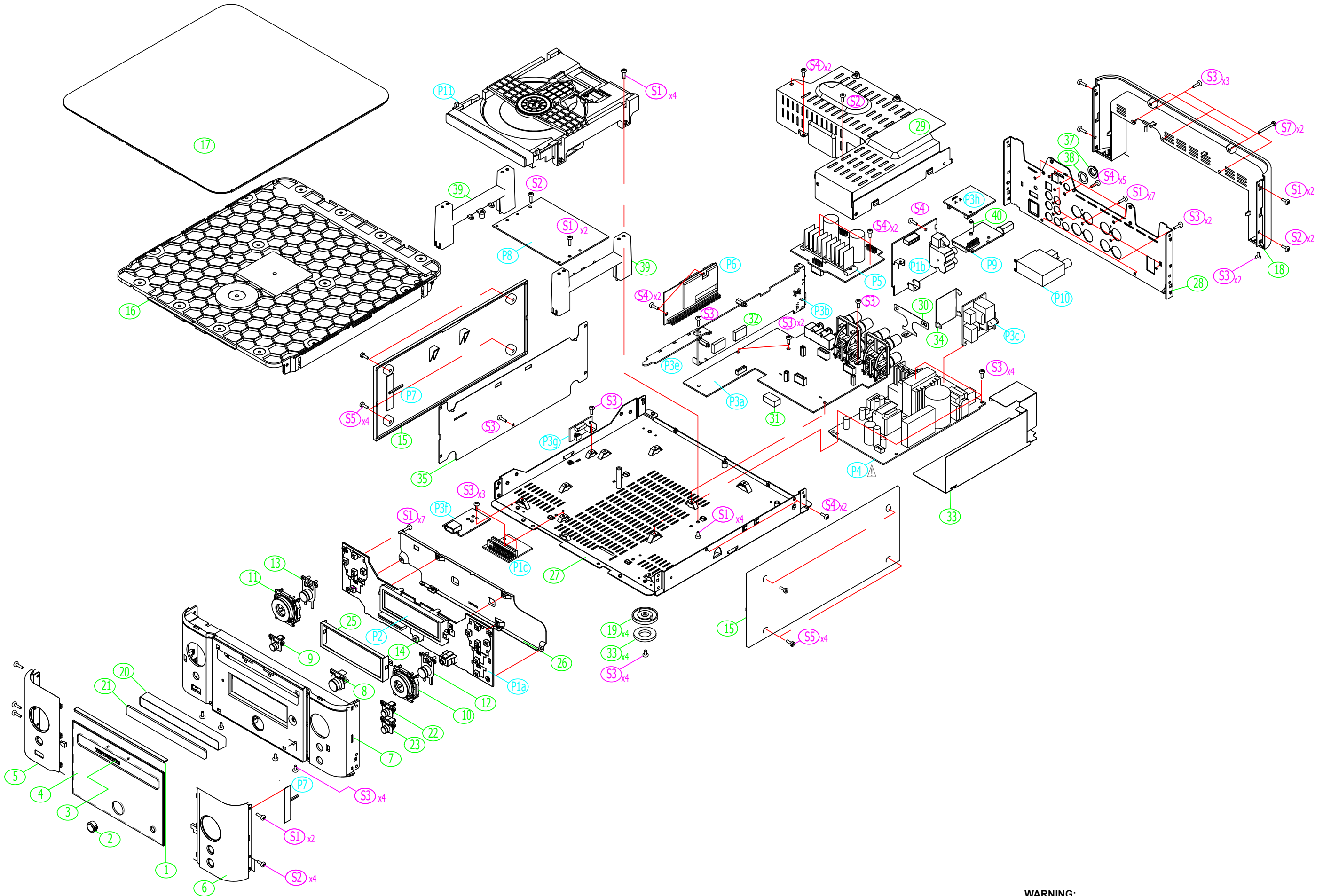
# MCR-X10 SMPS SCHEMATIC DIAGRAM




**SCHEMATIC DIAGRAMS (6/6)**  
**SCH06\_SMPS**

# EXPLODED VIEW

Please refer to the last chapter for the part list.

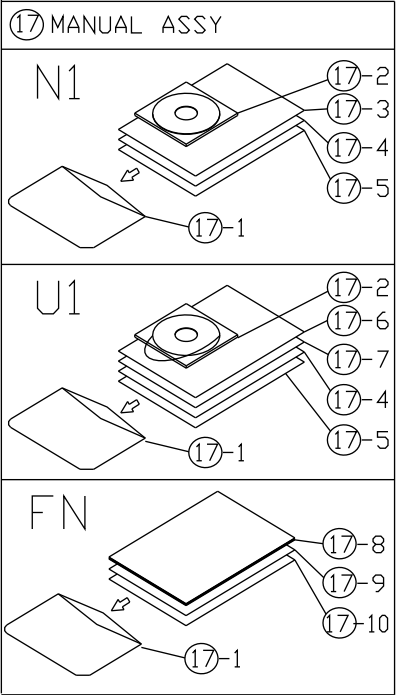
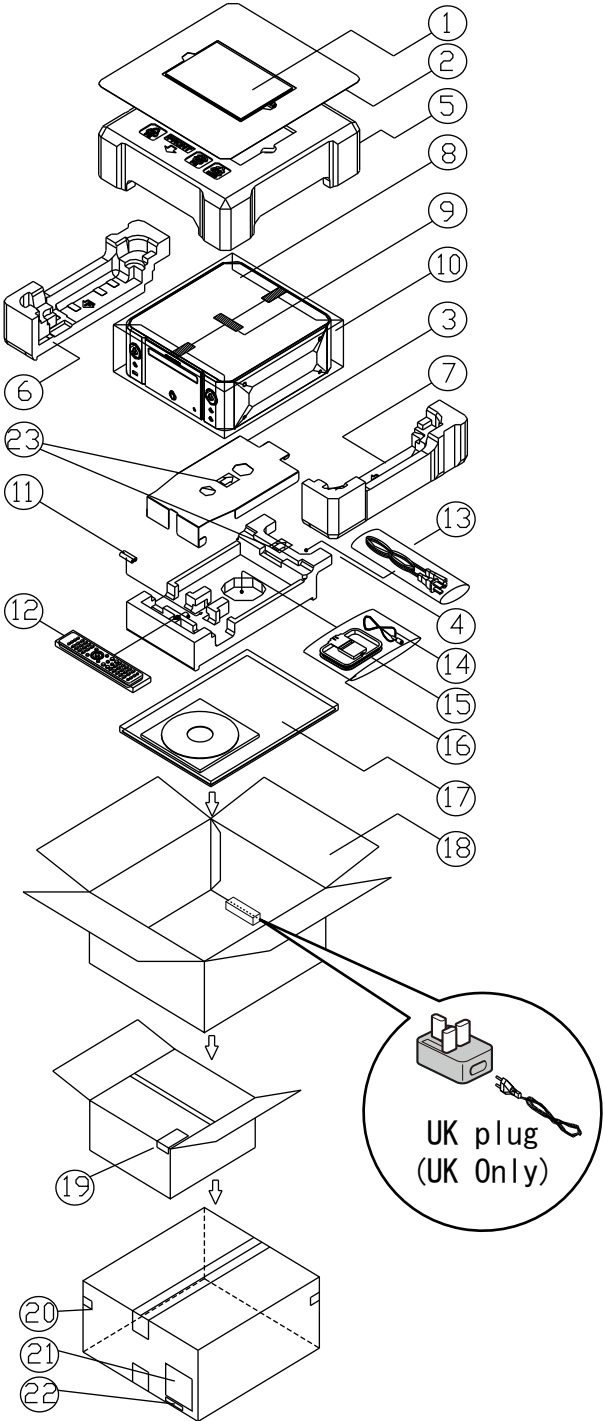


**WARNING:**  
Parts marked with this symbol  have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.



# PACKING VIEW

Please refer to the last chapter for the part list.

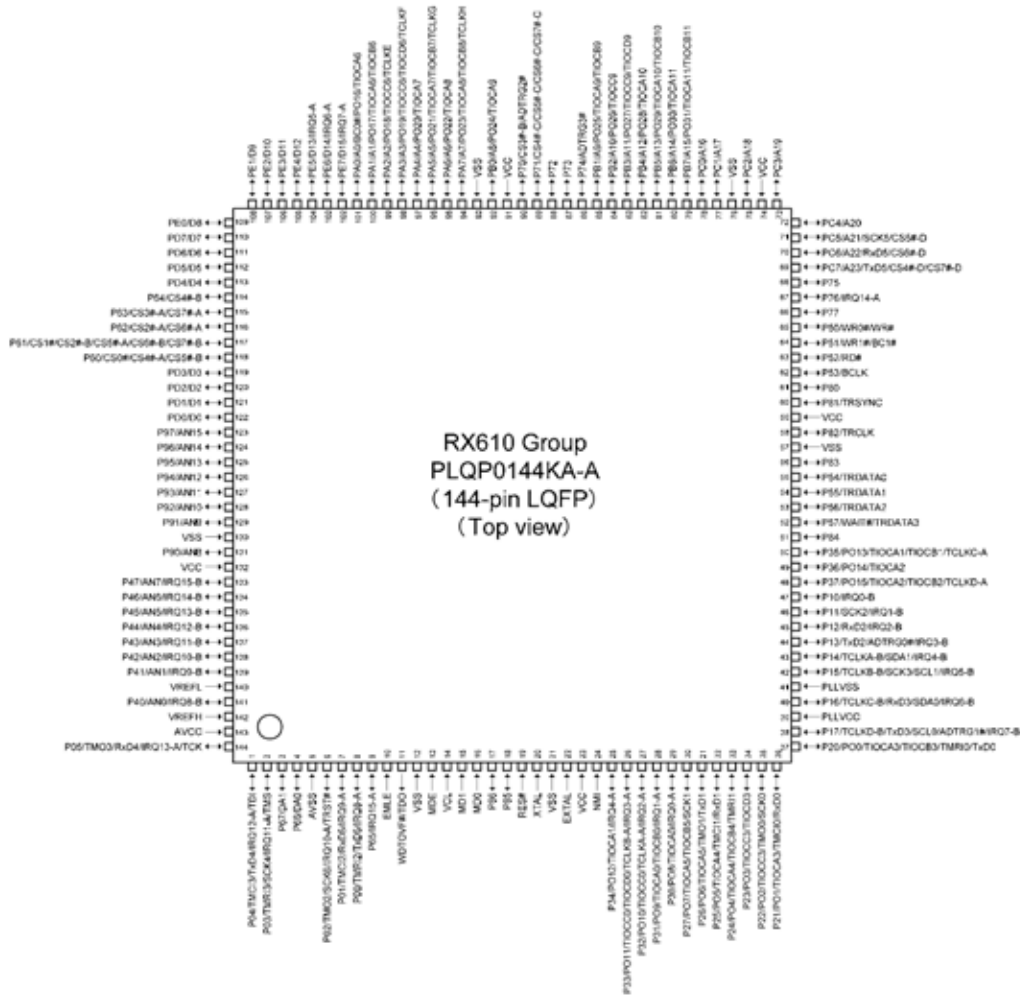


# SEMICONDUCTORS

Only major semiconductors are shown, general semiconductors etc. are omitted to list.  
The semiconductor which described a detailed drawing in a schematic diagram are omitted to list.

## 1. IC's

### R5F56108VNFP (MAIN : IC21)



## R5F56108VNFP (MAIN : IC403) Terminal Function

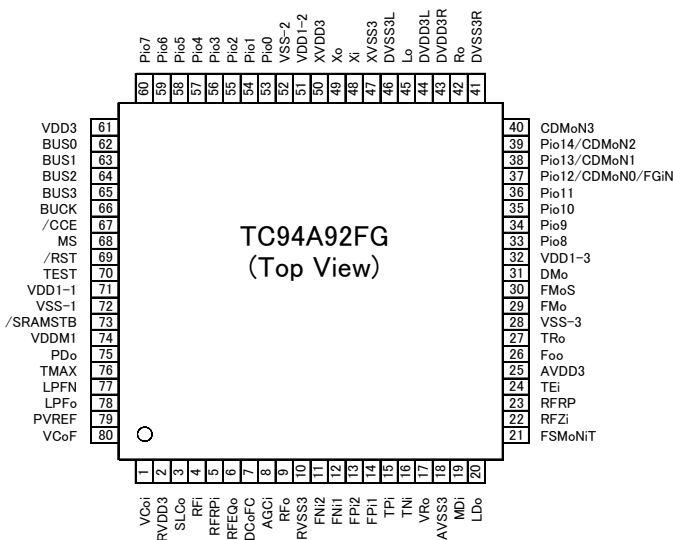
Pin	Port Name	PD/PU	I/O	STANDBY MODE					Note
				STBY	TIMER STBY	Network STBY	OLED STBY	OLED+NW STBY	
1	TDI	PU	I	I	I	I	I	I	Emulator Connection terminal
2	TMS	PU	I	I	I	I	I	I	Emulator Connection terminal
3	TEST1	PD	I	I	I	I	I	I	Boot for Check PCB mode
4	Bi-Amp	PD	O	O/L	O/L	O/L	O/L	O/L	Bi-Amp Control Terminal (to SMPS)
5	AVSS	-	-	-	-	-	-	-	GND
6	TRST#	PD	I	I	I	I	I	I	Emulator Connection terminal
7	RXD MI232O	PU	O	O/L	O/L	I	O/L	I	UPDATE
8	TXD MO232I	-	O	O/L	O/L	O/L	O/L	O/L	UPDATE
9	P.Down	PU	I	I	I	I	I	I	P.Down Detect(INT)
10	EMLE	PD	I	I	I	I	I	I	Emulator Connection terminal
11	TDO	-	O	O/L	O/L	O/L	O/L	O/L	Emulator Connection terminal
12	VSS	-	-	-	-	-	-	-	GND
13	MDE	PD	I	I	I	I	I	I	Operation Mode Setting
14	VCL	-	I	I	I	I	I	I	Smoothing capacitor (0.1uF) connection terminal
15	MD1	PU	I	I	I	I	I	I	Emulator Connection terminal
16	MD0	PU	I	I	I	I	I	I	Emulator Connection terminal
17	AIN_CNT1	PD	O	O/L	O/L	O/L	O/L	O/L	Analog Switch IC Control 1 (CNT1:2=L:L→1, L:H→2, H:L→3, H:H→4)
18	AIN_CNT2	PD	O	O/L	O/L	O/L	O/L	O/L	Analog Switch IC Control 2 (CNT1:2=L:L→1, L:H→2, H:L→3, H:H→4)
19	RESET	PU	I	I	I	I	I	I	Reset
20	X-OUT	-	-	-	-	-	-	-	Clock Output (12MHz)
21	VSS	-	-	-	-	-	-	-	GND
22	X-IN	-	-	-	-	-	-	-	Clock Input (12MHz)
23	VCC	-	-	-	-	-	-	-	+3.3V_CPU
24	NMI	PU	I	I	I	I	I	I	Basic Functions of Microcomputer
25	EL RESET	PD	O	O/L	O/L	O/L	O/H	O/H	Reset for OLED (L: Reset)
26	EL E,RD	-	O	O/L	O/L	O/L	O	O	EL Readout
27	EL D/C	-	O	O/L	O/L	O/L	O	O	Switching Data/Commando (H : Data, L : Command)
28	EL R/W,WR	-	O	O/L	O/L	O/L	O	O	EL Writing
29	EL CS	-	O	O/L	O/L	O/L	O/L	O/L	EL Chip Select (L : I/F communication)
30	D7	-	O	O/L	O/L	I	O	O	Data Bus for OLED
31	D6	-	O	O/L	O/L	I	O	O	Data Bus for OLED
32	D5	-	O	O/L	O/L	I	O	O	Data Bus for OLED
33	D4	-	O	O/L	O/L	I	O	O	Data Bus for OLED
34	D3	-	O	O/L	O/L	I	O	O	Data Bus for OLED
35	D2	-	O	O/L	O/L	I	O	O	Data Bus for OLED
36	D1	-	O	O/L	O/L	I	O	O	Data Bus for OLED
37	D0	-	O	O/L	O/L	I	O	O	Data Bus for OLED
38	TU_SDA / DAB_DI	PU	O	O/L	O/L	O/L	O/L	O/L	(NA, JP) I2C Data for Tuner / (EU) UART Data for DAB Tuner
39	PLLVCC	-	-	-	-	-	-	-	+3.3V_CPU
40	TU_INT / DAB_DO	-	I	I	I	I	I	I	(NA, JP) TUNER Interrupt / (EU) UART Data for DAB Tuner
41	PLLVSS	-	-	-	-	-	-	-	GND
42	TU_SCL	PU	O	O/L	O/L	O/L	O/L	O/L	I2C Clock for TUNER
43	E_REQ	PD	I	I	I	I	I	I	DM870 Interrupt
44	E_RXDMOEI	PU(CX870)	O	O/L	O/L	O	O/L	O	Network Serial Data input (DM870 RXD)
45	E_TXDMIEO	PU(CX870)	I	O/L	O/L	I	O/L	I	Network Serial Data Output (DM870 TXD)
46	E_SPICLK	PU(CX870)	O	O/L	O/L	O	O/L	O	Clock for ETHERNET
47	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
48	EEPROM SDA	PU	I/O	I	I	I	I	I	EEPROM Control
49	EEPROM SCL	PU	O	I	I	I	I	I	EEPROM Control
50	OLED_Power_Cont	PD	O	O/L	O/L	O/L	O/H	O/H	Power Control for OLED +18V
51	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
52	/E_SPICS	PU(CX870)	O	O/L	O/L	O	O/L	O	SCI or CS Signal Output to the DM870
53	E_SPIMIEO	PU(CX870)	I	I	I	I	I	I	Data for ETHERNET
54	E_SPIMOEI	PU(CX870)	O	O/L	O/L	O/L	O/L	O/L	Data for ETHERNET
55	E_RESET	PU(CX870)	O	O/L	O/L	O/H	O/L	O/H	Reset for DM870
56	TUNER_DAB_P-Cont	-	O	O/L	O/L	O/L	O/L	O/L	Power Control for DAB Tuner
57	VSS	-	-	-	-	-	-	-	GND



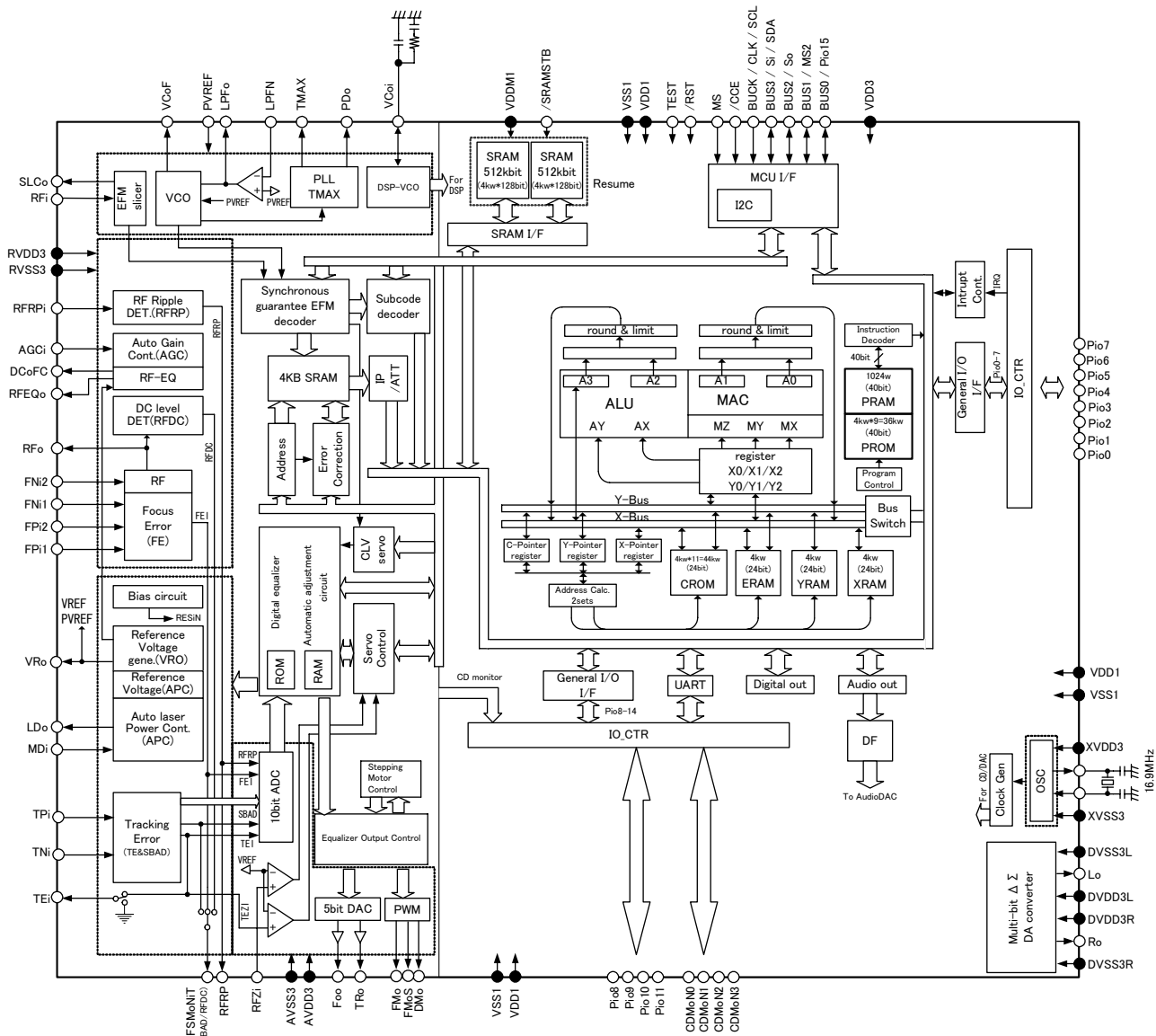
Pin	Port Name	PD/PU	I/O	STANDBY MODE					Note
				STBY	TIMER STBY	Network STBY	OLED STBY	OLED+NW STBY	
58	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
59	VCC	-	-	-	-	-	-	-	+3.3V_CPU
60	TU_CE	-	O	O/L	O/L	O/L	O/L	O/L	Tuner Control (CE)
61	TU_RST	PU	O	O/L	O/L	O/L	O/L	O/L	Reset Tuner
62	SP_PROTECT	PU	I	I	I	I	I	I	DC Power Detect (SPK OUT)
63	Ether_Power_Cont	PD	O	O/L	O/L	O/H	O/L	O/H	Power Control for ETHERNET
64	AUX_MUTE	PD	O	O/L	O/L	O/L	O/L	O/L	AUX OUT Mute Control
65	TEST2	PD	I	I	I	I	I	I	Boot for Check PCB mode
66	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
67	DIR_INT	PD	I	I	I	I	I	I	PCM9211(DIR) Control
68	DIR_RST	PD	O	O/L	O/L	O/L	O/L	O/L	PCM9211(DIR) Control
69	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
70	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
71	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
72	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
73	/H/P_MUTE	PD	O	O/L	O/L	O/L	O/L	O/L	H/P MUTE (L:MUTE, H: PLAY)
74	VCC	-	-	-	-	-	-	-	+3.3V_CPU
75	SW_MUTE	PD	O	O/L	O/L	O/L	O/L	O/L	SW MUTE
76	VSS	-	-	-	-	-	-	-	GND
77	/5508_RESET	PU	O	O/L	O/L	O/L	O/L	O/L	TAS5508 System Reset Input (11 pin)
78	/H/P_ON	PU	O	O/L	O/L	O/L	O/L	O/L	TAS5508 Headphone In/Out Selector (12 pin)
79	/5508_PDN	PU(DTA)	O	O/L	O/L	O/L	O/L	O/L	TAS5508 Power Down (12 pin)
80	/5508_MUTE	PU(DTA)	O	O/L	O/L	O/L	O/L	O/L	TAS5508 Soft Mute of Outputs (14 pin)
81	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
82	5508_SDA	PU	I/O	I	I	I	I	I	TAS5508 I2C Serial-Control Data-Interface Input/Output (24 pin)
83	5508_SCL	PU	I/O	I	I	I	I	I	TAS5508 I2C Serial (25 pin)
84	/5142_SD	PU	I	I	I	I	I	I	TAS5142 Shutdown Signal
85	/5142_OTW	PU	I	I	I	I	I	I	TAS5142 Overtemperature Warning Signal
86	DIR_DO	-	I	I	I	I	I	I	PCM9211(DIR) Control
87	DIR_DI	-	O	O/L	O/L	O/L	O/L	O/L	PCM9211(DIR) Control
88	DIR_CL	-	O	O/L	O/L	O/L	O/L	O/L	PCM9211(DIR) Control
89	DIR_CE	-	O	O/L	O/L	O/L	O/L	O/L	PCM9211(DIR) Control
90	DIR_RERR	PD	I	I	I	I	I	I	PCM9211(DIR) Control
91	VCC	-	-	-	-	-	-	-	+3.3V_CPU
92	TEST3	PD	I	I	I	I	I	I	Boot for Check PCB mode
93	VSS	-	-	-	-	-	-	-	GND
94	DAC_XSMT	PD	O	O/L	O/L	O/L	O/L	O/L	DAC(PCM5100) Soft mute control, (L= Soft mute / H= Soft un-mute)
95	DAC_DEMP	PD	O	O/L	O/L	O/L	O/L	O/L	DAC(PCM5100) De-emphasis control, (L= off / H= on)
96	REAR_USB_SW	PD	O	O/L	O/L	O/L	O/L	O/L	Rear USB Switch IC Control
97	USB_OE	PD	O	O/L	O/L	O/L	O/L	O/L	Mute Control When Switching USB Route (H : MUTE / L : Enable)
98	SUB_Power_Cont	PD	O	O/L	O/L	O/L	O/L	O/L	Power Control (+3.3V_D1 / +12V_A)
99	VBUS_Power_Cont	-	O	O/L	O/L	O/L	O/L	O/L	Unused (L: input set)
100	HP/DET	PU	I	I	I	I	I	I	H/P detect
101	FRONT_USB_SW	PD	O	O/L	O/L	O/L	O/L	O/L	Front USB Switch IC Control
102	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
103	OPEN	-	O	O/L	O/L	O/L	O/L	O/L	OPEN
104	WPS	PU	I	I	I	I	I	I	WPS start (L: continued for 3 seconds)
105	SRAMSTB	PU	O	O/L	O/L	O/L	O/L	O/L	SRAMSTB Control for CD DSP
106	BUS3	PU	I/O	O/L	O/L	O/L	O/L	O/L	CD DSP (TC94A92FG) Control
107	BUS2	PU	I/O	O/L	O/L	O/L	O/L	O/L	CD DSP (TC94A92FG) Control
108	BUS1	PU	I/O	O/L	O/L	O/L	O/L	O/L	CD DSP (TC94A92FG) Control
109	BUS0	PU	I/O	O/L	O/L	O/L	O/L	O/L	CD DSP (TC94A92FG) Control
110	CCE	PU	O	O/L	O/L	O/L	O/L	O/L	CD DSP Control (Chip Enable)
111	BUCK	PU	O	O/L	O/L	O/L	O/L	O/L	CD DSP Control (BUS CLK)
112	OPSW	PU	I	I	I	I	I	I	Open SW from CD Mecha
113	CLSW	PU	I	I	I	I	I	I	Close SW from CD Mecha
114	INSW	PU	I	I	I	I	I	I	Limit SW from CD Mecha
115	DECRST	PU	O	O/L	O/L	O/L	O/L	O/L	Reset for CD DSP (TC94A92FG)
116	DREQ	-	I	I	I	I	I	I	CD DSP (TC94A92FG) DREQ

Pin	Port Name	PD/PU	I/O	STANDBY MODE					Note
				STBY	TIMER STBY	Network STBY	OLED STBY	OLED+NW STBY	
117	SBSY	PU	I	I	I	I	I	I	CD Monitor (Default: SBSY) from CD DSP (TC94A92FG)
118	DRVMUTE	-	O	O/L	O/L	O/L	O/L	O/L	CD Driver Mute (H: Mute Off, L: Mute On)
119	CD_OPEN	-	O	O/L	O/L	O/L	O/L	O/L	Open CD Tray
120	CD_CLOSE	-	O	O/L	O/L	O/L	O/L	O/L	Close CD Tray
121	VBUS_FLUG1	PU	I	I	I	I	I	I	Check VBUS Voltage 1 (Front USB), L : Error
122	VBUS_FLUG2	PU	I	I	I	I	I	I	Check VBUS Voltage 2 (Rear USB), L : Error
123	LD_CHK	AD	I	I	I	I	I	I	Check CD Laser Diode Current
124	VBUS_CTL1	PD	O	O/L	O/L	O/L	O/L	O/L	VBUS Control 1 (Front USB)
125	VBUS_CTL2	PD	O	O/L	O/L	O/L	O/L	O/L	VBUS Control 2 (Rear USB)
126	DM_VBUS_CONT	-	O	O/L	O/L	O/H	O/L	O/H	DM870 VBUS Control
127	TEST4	PD	I	I	I	I	I	I	Boot for Check PCB mode
128	LED_ORANGE	PD	O	O/L	O/H	O/L	O/L	O/L	Control the Orange (Red and Green) LED
129	LED_RED	PD	O	O/L	O/L	O/H	O/L	O/H	Control the Red LED
130	VSS	-	-	-	-	-	-	-	GND
131	LED_GREEN	PD	O	O/L	O/L	O/L	O/L	O/L	Control the Green LED
132	VCC	-	-	-	-	-	-	-	+3.3V_CPU
133	MODEL	AD	I	I	I	I	I	I	Model Select (L: M-CR510, H: M-CR610)
134	REGION	AD	I	I	I	I	I	I	Region Select (0V: EU, 1.2V: CN, 2.1V: NA, 3.1V: JP)
135	DC Protect 1	PU	I	I	I	I	I	I	Power Down Detect (+29V LINE)
136	DC Protect 2	PU	I	I	I	I	I	I	Power Down Detect
137	REMOTE	-	I	I	I	I	I	I	Remote Input
138	KEY3	PU	I	I	I	I	I	I	Key Input 3 (A/D Port)
139	KEY2	PU	I	I	I	I	I	I	Key Input 2 (A/D Port)
140	VREFL	-	-	-	-	-	-	-	GND
141	KEY1	PU	I	I	I	I	I	I	Key Input 1 (A/D Port)
142	VREFH	-	-	-	-	-	-	-	+3.3V_CPU
143	AVCC	-	-	-	-	-	-	-	+3.3V_CPU
144	TCK	PU	I	I	I	I	I	I	Emulator Connection terminal

# TC94A92FG (CD : IC71)



# TC94A92FG Block Diagram



### TC94A92FG Terminal Function

Pin No.	Symbol	I/O	Description	Default	Remarks
1	VCoi	O 3AI/F	DSP VCO - EFM and PLCK Phase difference signal output pin. (DSP VCO control voltage input pin.)	O	3 state output
2	RVDD3	-	CD-DSP-Power supply for 3.3V RF amplifier core and PLL circuit	-	
3	SLCo	O 3AI/F	EFM slice level output pin	O	Connect capacitor according with servo frequency band.
4	RFi	I 3AI/F	RF signal input pin	I	Selectable Zin 20/10 kΩ
5	RFRPi	I 3AI/F	RF ripple signal input pin	I	
6	RFEQo	O 3AI/F	RF equalizer circuit output pin.	O	Connect to RFRPi by 0.1uF, to RFi by 4700pF.
7	DCoFC	O 3AI/F	RFEQo offset compensation LPF output	O	Connect to Vro by more than 0.015uF
8	AGCi	I 3AI/F	RF signal AGC amplifier input pin	I	
9	RFo	O 3AI/F	RF signal generation amplifier output pin	O	
10	RVSS3	-	Grounding pin for 3.3 RF amplifier core and PLL circuit	-	
11	FNI2	I 3AI/F	Main beam signal input pin. To be connected to PIN diode C.	I	
12	FNI1	I 3AI/F	Main beam signal input pin. To be connected to PIN diode A.	I	
13	FPI2	I 3AI/F	Main beam signal input pin. To be connected to PIN diode D.	I	
14	FPI1	I 3AI/F	Main beam signal input pin. To be connected to PIN diode B.	I	
15	TPi	I 3AI/F	Sub beam signal input pin. To be connected to PIN diode F.	I	
16	TNi	I 3AI/F	Sub beam signal input pin. To be connected to PIN diode E.	I	
17	VRo	O 3AI/F	1.65 V reference voltage output pin.	O	Connected to PVREF, And connect to GNG by 0.1uF+100uF.
18	AVSS3	-	Grounding pin for 3.3V CD analog circuits.	-	
19	MDi	I 3AI/F	Monitor photodiode amplifier input pin.	I	Reference Voltage=178mVtyp.
20	LDo	O 3AI/F	Laser diode amplifier output pin	O	
21	FSMoNiT	O 3AI/F	Focus Error signal / Sub beam add signal output pin(monitor pin/GND)	O	
22	RFZi	I 3AI/F	RF ripple zero-cross signal Input pin	I	
23	RFRP	O 3AI/F	RF ripple signal output pin.	O	
24	TEi	O 3AI/F	Tracking error signal output pin.	O	Built-in series R=500Ω. Connect to VRo by capacitor.
25	AVDD3	-	Power supply pin for 3.3 V CD analog circuits.	-	
26	FOo	O 3AI/F	Focus servo equalizer output pin.	O	Built-in series R=3.3 kΩ
27	TRo	O 3AI/F	Tracking servo equalizer output pin.	O	Built-in output R=3.3 kΩ
28	VSS-3	-	Grounding pin for 1.5V Decoder-DSP CD circuit	-	
29	FMo	O 3AI/F	Feed servo equalizer output pin.	O	Built-in output R=3.3 kΩ
30	FMoS	O 3AI/F	Feed servo equalizer output pin. (Stepper motor application)	O	Built-in output R=3.3 kΩ
31	DMo	O 3AI/F	Disc servo equalizer output pin	O	Built-in output R=3.3 kΩ
32	VDD1-3	I/O 3I/F	Power supply pin for 1.5V Decoder-DSP /CD circuit	-	

Pin No.	Symbol	I/O	Description	Default	Remarks
33	Pio8	I/O 3I/F	Port 8(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
34	Pio9	I/O 3I/F	Port 9(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
35	Pio10	I/O 3I/F	Port 10(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
36	Pio11	I/O 3I/F	Port 11(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
37	Pio12/ CDMoN0/ FGiN	I/O 3I/F	Port 12(General Input/Output Port ) / CD Monitor 0 / FG signal input	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
38	Pio13/ CDMoN1	I/O 3I/F	Port 13(General Input/Output Port ) / CD Monitor1	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
39	Pio14/ CDMoN2	I/O 3I/F	Port 14(General Input/Output Port ) / CD Monitor 2	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
40	CDMoN3	I/O 3I/F	CD Monitor3 (Default output : SBSY)	O	CMOS Port Refer to [1.2 Pin Assinment Table]
41	DVSS3R	-	Grounding pin for 3.3V Muiiti-Bit DAC circuit	-	
42	Ro	O 3A/I/F	R channel audio output pin of Audio DAC.	O	
43	DVDD3R	-	Power supply pin for 3.3V Audio DAC circuit.	-	
44	DVDD3L	-	Power supply pin for 3.3V Audio DAC circuit.	-	
45	Lo	O 3A/I/F	L channel audio output pin of Audio DAC	O	
46	DVSS3L	-	Grounding pin for 3.3V Muiiti-Bit DAC Circuit	-	
47	XVSS3	-	Grounding pin for 3.3V clock oscillator circuit	-	
48	Xi	I 3A/I/F	System clock Input pin	I	Xtal oscillation circuit. Connect feedback resistor 1 MΩ between Xo and Xi
49	Xo	O 3A/I/F	System clock Output pin	O	
50	XVDD3	-	Power Supply pin for 3.3V clock oscillator circuit	-	
51	VDD1-2	-	Power Supply pin for 1.5V Digital circuit	-	
52	VSS-2	-	Grounding pin for 1.5V digital circuit	-	
53	Pio0	I/O 3I/F	Port 0(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
54	Pio1	I/O 3I/F	Port 1(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
55	Pio2	I/O 3I/F	Port 2(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
56	Pio3	I/O 3I/F	Port 3(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
57	Pio4	I/O 3I/F	Port 4(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
58	Pio5	I/O 3I/F	Port 5(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
59	Pio6	I/O 3I/F	Port 6(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
60	Pio7	I/O 3I/F	Port 7(General Input/Output Port )	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
61	VDD3	-	Power Supply pin for 3.3V Digital circuit	-	
62	BUS0	I/O 3I/F	Microprocessor I/F data input/output pin 0	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]

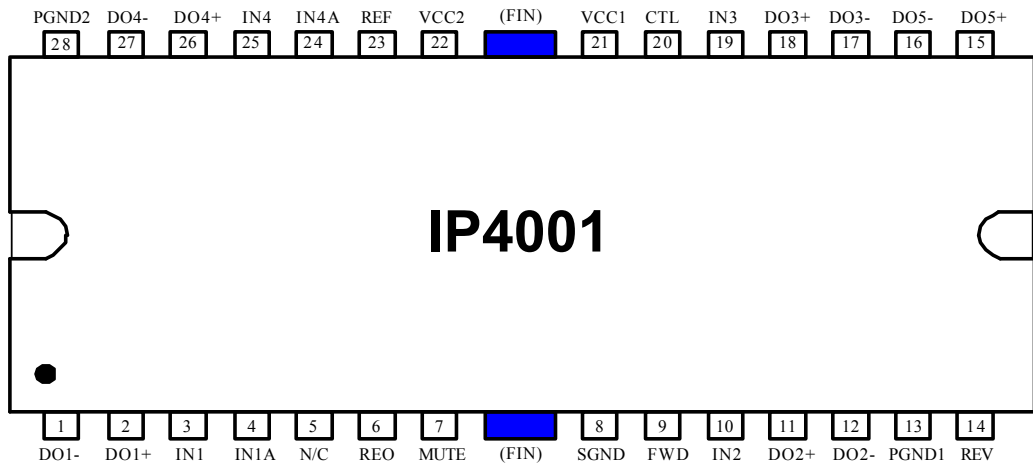
Pin No.	Symbol	I/O	Description	Default	Remarks
63	BUS1	I/O 3I/F	Microprocessor I/F data input/output pin 1	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
64	BUS2	I/O 3I/F	Microprocessor I/F data input/output pin 2	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
65	BUS3	I/O 3I/F	Microprocessor I/F data input/output pin 3	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
66	BUCK	I 3I/F	Microprocessor I/F BUS clock Input pin	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
67	/CCE	I 3I/F	Microprocessor I/F chip enable input pin	I	CMOS Port Schmitt input Refer to [1.2 Pin Assinment Table]
68	MS	I 3I/F	Microprocessor I/F mode selection pin. "H": Parallel I/F, "L": Serial I/F	I	Refer to [1.2 Pin Assinment Table]
69	/RST	I 3I/F	Reset Input pin	I	Schmitt input
70	Test	I 3I/F	Test pin ("L" fixed)	I	Connect to GND for normal operation
71	VDD1-1	-	Power Supply pin for 1.5V Digital circuit	-	
72	VSS-1	-	Grounding pin for 1.5V Digital circuit	-	
73	/SRAMSTB	I 3I/F	1Mbit SRAM stand by pin(/SRAMSTB="L")	I	
74	VDDM1	-	Power Supply for 1.5V 1Mbit SRAM circuit	-	
75	PDo	O 3AI/F	EFM and PLCK Phase difference signal output pin.	O	4-state output ( RVDD3, RVSS3,PVREF, Hiz)
76	TMAX	O 3AI/F	TMAX detection result output pin	O	3-state output ( RVDD3, RVSS3, Hiz)
77	LPFN	I 3AI/F	PLL circuit LPF amplifier inversion input pin	I	
78	LPFo	O 3AI/F	PLL circuit LPF amplifier Output pin	O	
79	PVREF	-	PLL circuit 1.65 V reference voltage pin.	-	Connected to VRO. Connect to GND by 0.1uF and 100uF.
80	VCoF	O 3AI/F	VCO filter pin	O	Connect to GND by 0.01uF

3A I/F : 3 V analog circuit input/output pin.

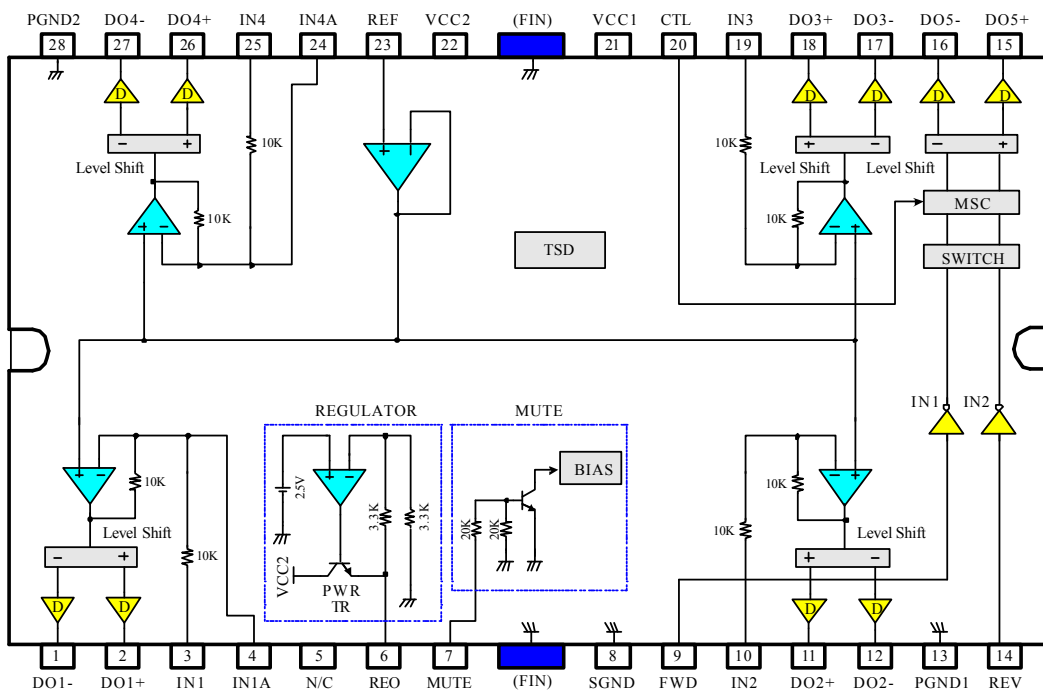
1.5 I/F : 1.5Vdigital input/output pin.

3 I/F : 3 V digital input/output pin.

## IP4001CR (CD : IC72)



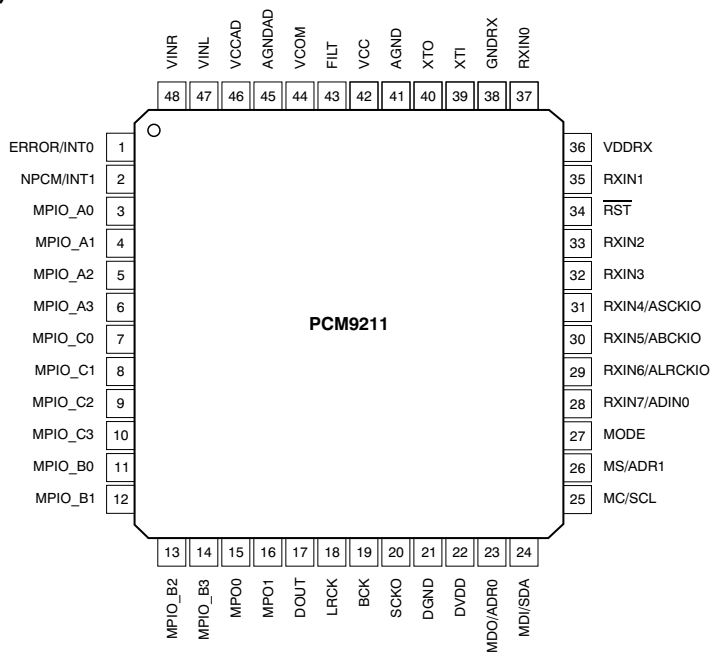
## IP4001CR Block Diagram



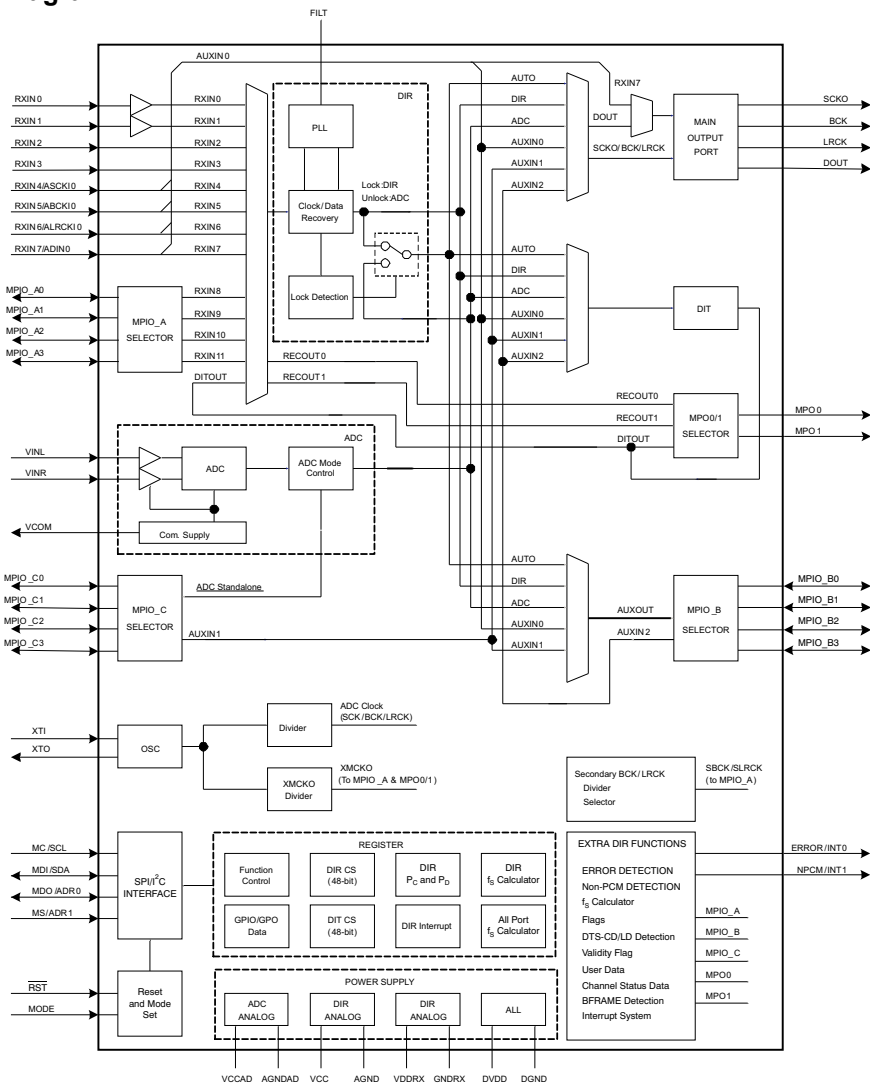
## IP4001CR Pin Discriptions

NO	SYMBOL	I/O	DESCRIPTION	NO	SYMBOL	I/O	DESCRIPTION
1	DO1-	O	CH1 OUTPUT (-)	15	DO5+	O	CH5 OUTPUT (+)
2	DO1+	O	CH1 OUTPUT (+)	16	DO5-	O	CH5 OUTPUT (-)
3	IN1	I	CH1 INPUT 1	17	DO3-	O	CH3 OUTPUT (-)
4	IN1A	I	CH1 INPUT 2	18	DO3+	O	CH3 OUTPUT (+)
5	N / C	-	NO-CONNECTION	19	IN3	I	CH3 INPUT
6	REO	O	REGULATOR OUTPUT	20	CTL	I	CH5 MOTOR SPEED CONTROL
7	MUTE	I	MUTE INPUT	21	VCC1	I	SUPPLY VOLTAGE 1 (CH2,CH3,CH5)
8	SGND	-	SIGNAL GROUND	22	VCC2	I	SUPPLY VOLTAGE 2 (CH1,CH4,SIGNAL,REG)
9	FWD	I	CH5 INPUT 1	23	REF	I	CH BIAS INPUT
10	IN2	I	CH2 INPUT	24	IN4A	I	CH4 INPUT 1
11	DO2+	O	CH2 OUTPUT (+)	25	IN4	I	CH4 INPUT 2
12	DO2-	O	CH2 OUTPUT (-)	26	DO4+	O	CH4 OUTPUT (+)
13	PGND1	-	POWER GROUND 1	27	DO4-	O	CH4 OUTPUT (-)
14	REV	I	CH5 INPUT 2	28	PGND2	-	POWER GROUND 2

# PCM9211 (MAIN : IC51)



# PCM9211 Block Diagram





## PCM9211 Pin Discriptions

NO.	PIN			DESCRIPTION
	NAME	I/O	5-V TOLERANT	
1	ERROR/INT0	O	No	DIR Error detection output / Interrupt0 output
2	NPCM/INT1	O	No	DIR Non-PCM detection output / Interrupt1 output
3	MPIO_A0	I/O	Yes	Multipurpose I/O, Group A(1)
4	MPIO_A1	I/O	Yes	Multipurpose I/O, Group A(1)
5	MPIO_A2	I/O	Yes	Multipurpose I/O, Group A(1)
6	MPIO_A3	I/O	Yes	Multipurpose I/O, Group A(1)
7	MPIO_C0	I/O	Yes	Multipurpose I/O, Group C(1)
8	MPIO_C1	I/O	Yes	Multipurpose I/O, Group C(1)
9	MPIO_C2	I/O	Yes	Multipurpose I/O, Group C(1)
10	MPIO_C3	I/O	Yes	Multipurpose I/O, Group C(1)
11	MPIO_B0	I/O	Yes	Multipurpose I/O, Group B(1)
12	MPIO_B1	I/O	Yes	Multipurpose I/O, Group B(1)
13	MPIO_B2	I/O	Yes	Multipurpose I/O, Group B(1)
14	MPIO_B3	I/O	Yes	Multipurpose I/O, Group B(1)
15	MPO0	O	No	Multipurpose output 0
16	MPO1	O	No	Multipurpose output 1
17	DOUT	O	No	Main output port, serial digital audio data output
18	LRCK	O	No	Main output port, LR clock output
19	BCK	O	No	Main output port, Bit clock output
20	SCKO	O	No	Main output port, System clock output
21	DGND	-	-	Ground, for digital
22	DVDD	-	-	Power supply, 3.3 V (typ.), for digital
23	MDO/ADR0	I/O	Yes	Software control I/F, SPI data output / I2C slave address setting0(2)
24	MDI/SDA	I/O	Yes	Software control I/F, SPI data input / I2C data input/output(2) (3)
25	MC/SCL	I	Yes	Software control I/F, SPI clock input / I2C clock input(2)
26	MS/ADR1	I	Yes	Software control I/F, SPI chip select / I2C slave address setting1(2)
27	MODE	I	No	Control mode setting, (see the Serial Control Mode section, Control Mode Pin Setting)
28	RXIN7/ADIN0	I	Yes	Biphase signal, input 7 / AUXIN0, serial audio data input(2)
29	RXIN6/ALRCKI0	I	Yes	Biphase signal, input 6 / AUXIN0, LR clock input(2)
30	RXIN5/ABCKI0	I	Yes	Biphase signal, input 5 / AUXIN0, bit clock input(2)
31	RXIN4/ASCKI0	I	Yes	Biphase signal, input 4 / AUXIN0, system clock input(2)
32	RXIN3	I	Yes	Biphase signal, input 3(2)
33	RXIN2	I	Yes	Biphase signal, input 2(2)
34	RST	I	Yes	Reset Input, active low(2) (4)
35	RXIN1	I	Yes	Biphase signal, input 1, built-in coaxial amplifier
36	VDDR_X	-	-	Power supply, 3.3 V (typ.), for RXIN0 and RXIN1.
37	RXIN0	I	Yes	Biphase signal, input 0, built-in coaxial amplifier
38	GNDR_X	-	-	Ground, for RXIN
39	XTI	I	No	Oscillation circuit input for crystal resonator or external XTI clock source input(5)
40	XTO	O	No	Oscillation circuit output for crystal resonator
41	AGND	-	-	Ground, for PLL analog
42	VCC	-	-	Power supply, 3.3 V (typ.), for PLL analog
43	FILT	O	No	External PLL loop filter connection terminal; must connect recommended filter
44	VCOM	O	No	ADC common voltage output; must connect external decoupling capacitor
45	AGNDAD	-	-	Ground, for ADC analog
46	VCCAD	-	-	Power supply, 5.0 V (typ.), for ADC analog
47	VINL	I	No	ADC analog voltage input, left channel
48	VINR	I	No	ADC analog voltage input, right channel

(1) Schmitt trigger input

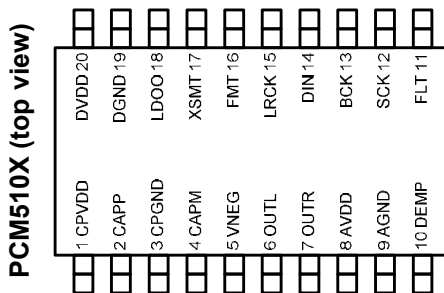
(2) Schmitt trigger input

(3) Open-drain configuration in I2C mode

(4) Onboard pull-down resistor (50 kΩ, typical)

(5) CMOS Schmitt trigger input

**PCM5100 (MAIN : IC54)**

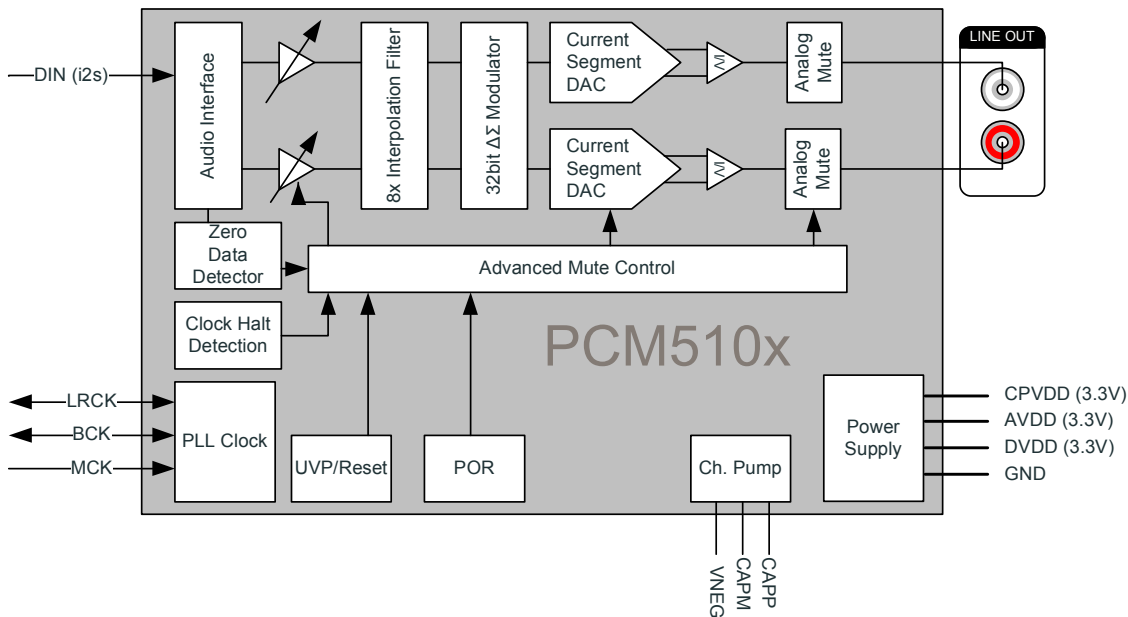


**PCM5100 Pin Discriptions**

TERMINAL		I/O	DESCRIPTION
NAME	NO.		
CPVDD	1	-	Charge pump power supply, 3.3V
CAPP	2	O	Charge pump flying capacitor terminal for positive rail
CPGND	3	-	Charge pump ground
CAPM	4	O	Charge pump flying capacitor terminal for negative rail
VNEG	5	O	Negative charge pump rail terminal for decoupling, -3.3V
OUTL	6	O	Analog output from DAC left channel
OUTR	7	O	Analog output from DAC right channel
AVDD	8	-	Analog power supply, 3.3V
AGND	9	-	Analog ground
DEMP	10	I	De-emphasis control for 44.1kHz sampling rate(1): Off (Low) / On (High)
FLT	11	I	Filter select : Normal latency (Low) / Low latency (High)
SCK	12	I	System clock input(1)
BCK	13	I	Audio data bit clock input(1)
DIN	14	I	Audio data input(1)
LRCK	15	I	Audio data word clock input(1)
FMT	16	I	Audio format selection : I2S (Low) / Left justified (High)
XSMT	17	I	Soft mute control(1): Soft mute (Low) / soft un-mute (High)
LDOO	18	-	Internal logic supply rail terminal for decoupling
DGND	19	-	Digital ground
DVDD	20	-	Digital power supply, 3.3V

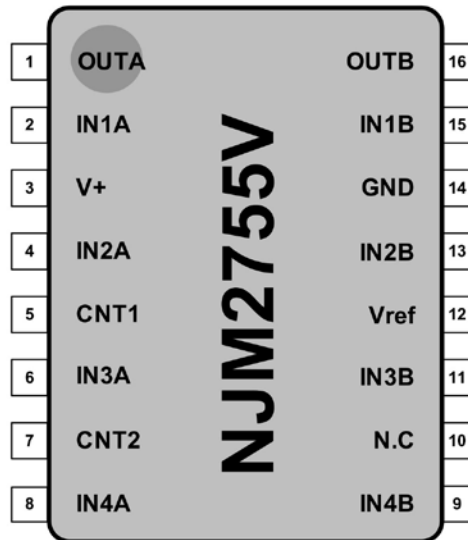
(1) Failsafe LVCMOS Schmitt trigger input

**PCM5100 Block Diagram**



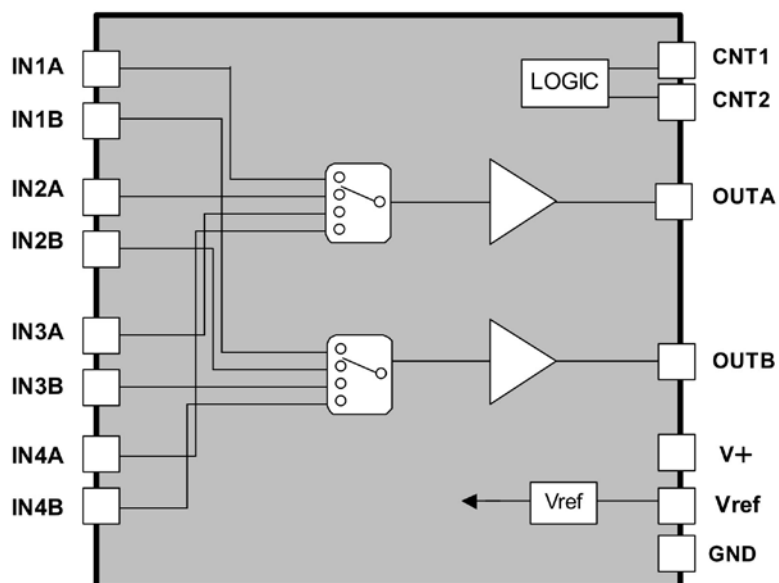
**Figure 1. PCM510x Functional Block Diagram**

**NJM2755 (TUNER-INPUT : IC61)**

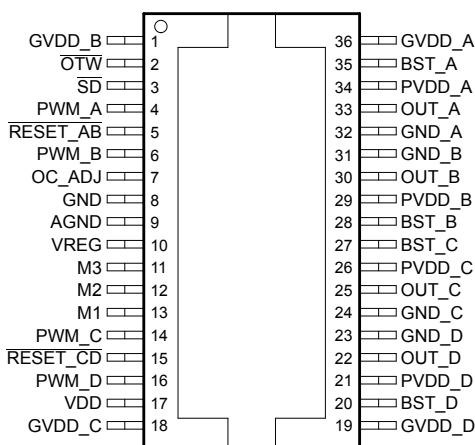


PIN.No.	SYMBOL	FUNCTION	PIN.No.	SYMBOL	FUNCTION
1	OUTA	Ach Output Terminal	9	IN4B	Bch Input Terminal4
2	IN1A	Ach Input Terminal1	10	N.C	No Connection
3	V+	Power Supply Terminal	11	IN3B	Bch Input Terminal3
4	IN2A	Ach Input Terminal2	12	Vref	Reference Terminal
5	CNT1	Control Switch Terminal1	13	IN2B	Bch Input Terminal2
6	IN3A	Ach Input Terminal3	14	GND	GND Terminal
7	CNT2	Control Switch Terminal2	15	IN1B	Bch Input Terminal1
8	IN4A	Ach Input Terminal4	16	OUTB	Bch Output Terminal

**NJM2755 Block Diagram**



## TAS5142DKD (AMP : IC41, IC42)

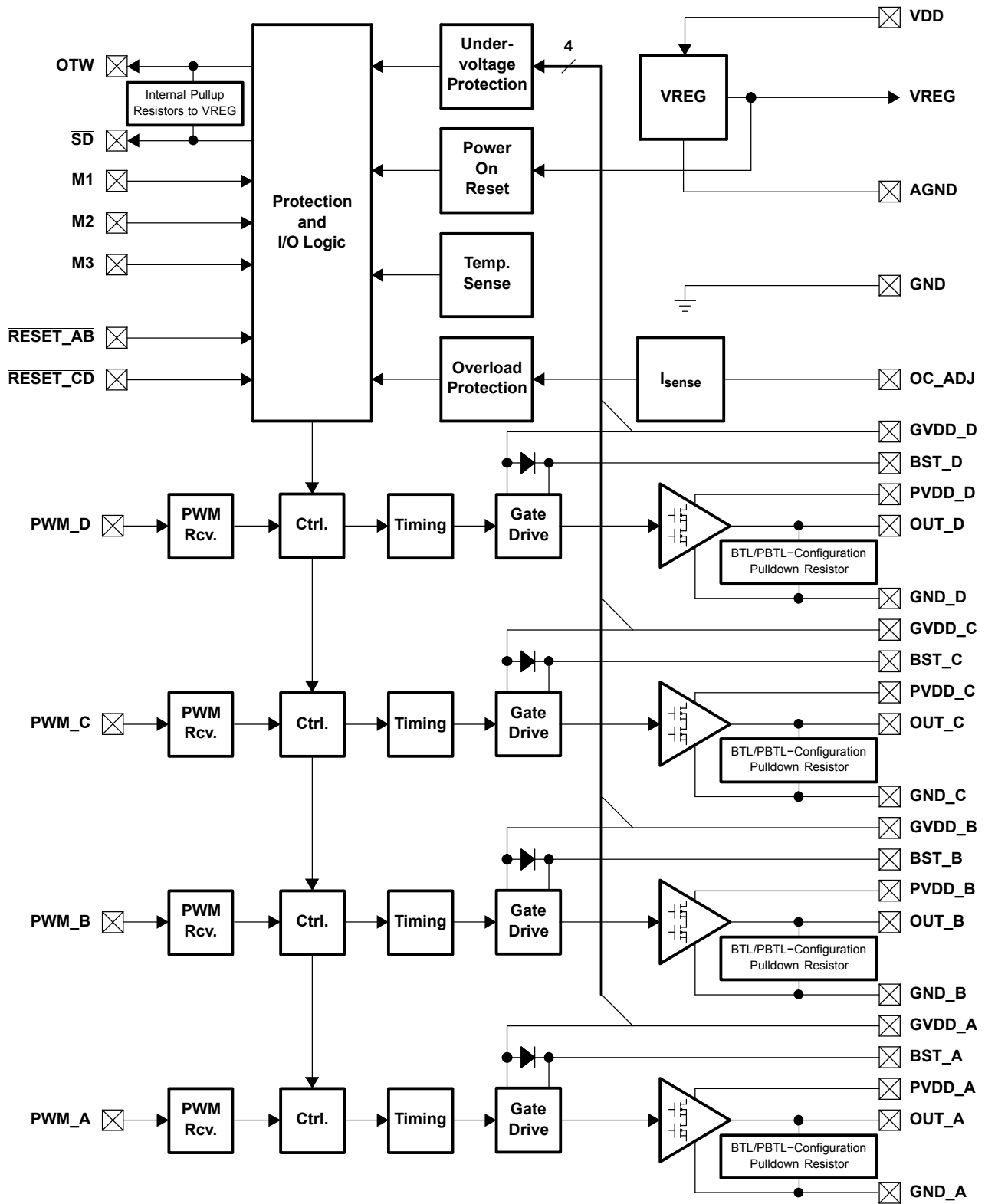


### TAS5142 Pin Discriptions

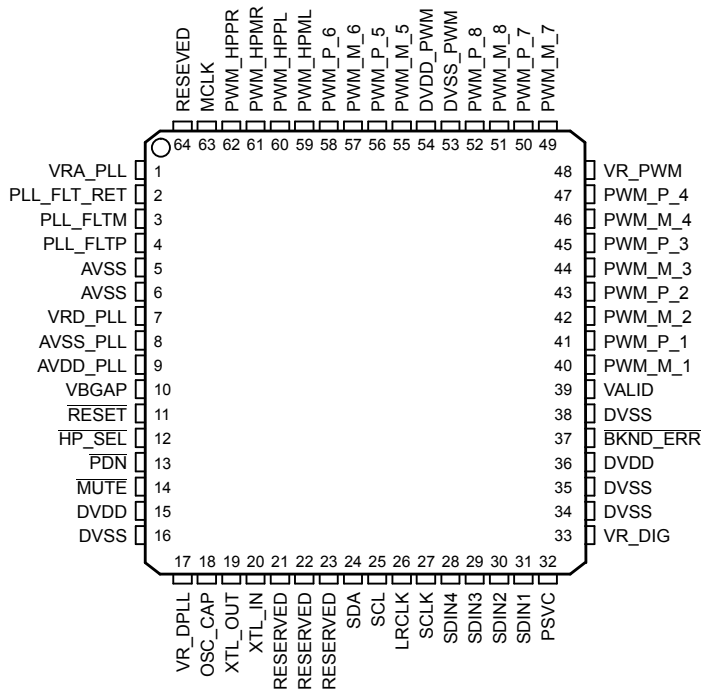
TERMINAL			FUNCTION (1)	DESCRIPTION
NAME	DKD NO.	DDV NO.		
AGND	9	11	P	Analog ground
BST_A	35	43	P	HS bootstrap supply (BST), external capacitor to OUT_A required
BST_B	28	34	P	HS bootstrap supply (BST), external capacitor to OUT_B required
BST_C	27	33	P	HS bootstrap supply (BST), external capacitor to OUT_C required
BST_D	20	24	P	HS bootstrap supply (BST), external capacitor to OUT_D required
GND	8	10	P	Ground
GND_A	32	38	P	Power ground for half-bridge A
GND_B	31	37	P	Power ground for half-bridge B
GND_C	24	30	P	Power ground for half-bridge C
GND_D	23	29	P	Power ground for half-bridge D
GVDD_A	36	44	P	Gate-drive voltage supply requires 0.1- $\mu$ F capacitor to AGND
GVDD_B	1	1	P	Gate-drive voltage supply requires 0.1- $\mu$ F capacitor to AGND
GVDD_C	18	22	P	Gate-drive voltage supply requires 0.1- $\mu$ F capacitor to AGND
GVDD_D	19	23	P	Gate-drive voltage supply requires 0.1- $\mu$ F capacitor to AGND
M1	13	15	I	Mode selection pin
M2	12	14	I	Mode selection pin
M3	11	13	I	Mode selection pin
NC	–	3, 4, 19, 20, 25, 42	–	No connect. Pins may be grounded.
OC_ADJ	7	9	O	Analog overcurrent programming pin requires resistor to ground
OTW	2	2	O	Overtemperature warning signal, open-drain, active-low
OUT_A	33	39	O	Output, half-bridge A
OUT_B	30	36	O	Output, half-bridge B
OUT_C	25	31	O	Output, half-bridge C
OUT_D	22	28	O	Output, half-bridge D
PVDD_A	34	40, 41	P	Power supply input for half-bridge A requires close decoupling of 0.1- $\mu$ F capacitor to GND_A.
PVDD_B	29	35	P	Power supply input for half-bridge B requires close decoupling of 0.1- $\mu$ F capacitor to GND_B.
PVDD_C	26	32	P	Power supply input for half-bridge C requires close decoupling of 0.1- $\mu$ F capacitor to GND_C.
PVDD_D	21	26, 27	P	Power supply input for half-bridge D requires close decoupling of 0.1- $\mu$ F capacitor to GND_D.
PWM_A	4	6	I	Input signal for half-bridge A
PWM_B	6	8	I	Input signal for half-bridge B
PWM_C	14	16	I	Input signal for half-bridge C
PWM_D	16	18	I	Input signal for half-bridge D
RESET_AB	5	7	I	Reset signal for half-bridge A and half-bridge B, active-low
RESET_CD	15	17	I	Reset signal for half-bridge C and half-bridge D, active-low
SD	3	5	O	Shutdown signal, open-drain, active-low
VDD	17	21	P	Power supply for digital voltage regulator requires 0.1- $\mu$ F capacitor to GND.
VREG	10	12	P	Digital regulator supply filter pin requires 0.1- $\mu$ F capacitor to AGND.

(1) I = input, O = output, P = power

# TAS5142 Block Diagram



TAS5508 (MAIN : IC56)



P0010-01

TAS5508 Pin Discriptions

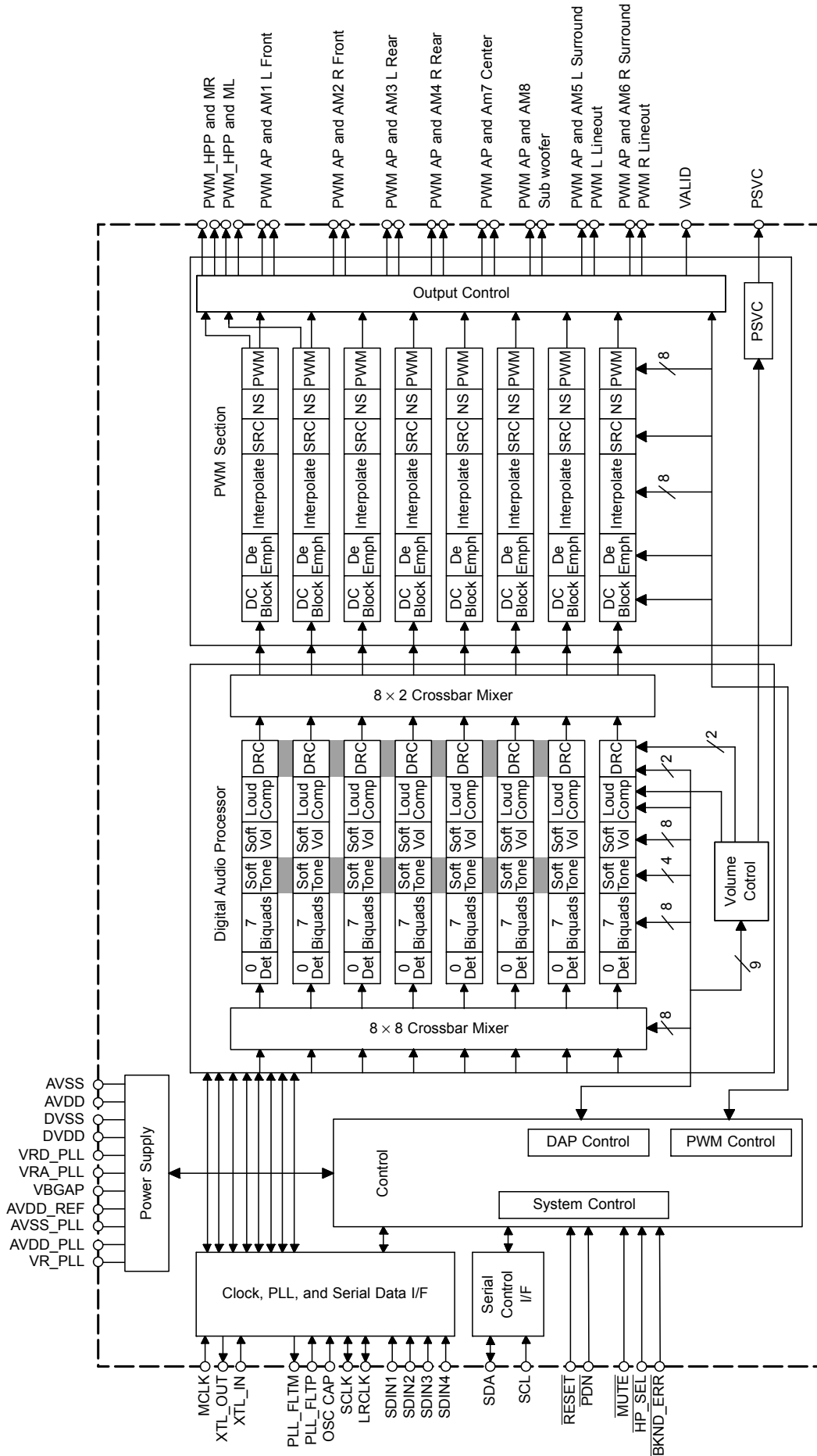
TERMINAL		TYPE <sup>(1)</sup>	5-V TOLERANT	TERMINATION <sup>(2)</sup>	DESCRIPTION
NAME	NO.				
AVDD_PLL	9	P			3.3-V analog power supply for PLL. This terminal can be connected to the same power source used to drive power terminal DVDD, but to achieve low PLL jitter, this terminal should be bypassed to AVSS_PLL with a 0.1-µF low-ESR capacitor.
AVSS	5, 6	P			Analog ground
AVSS_PLL	8	P			Analog ground for PLL. This terminal should reference the same ground as terminal DVSS, but to achieve low PLL jitter, ground noise at this terminal must be minimized. The availability of the AVSS terminal allows a designer to use optimizing techniques such as star ground connections, separate ground planes, or other quiet ground-distribution techniques to achieve a quiet ground reference at this terminal.
BKND_ERR	37	DI		Pullup	Active-low. A back-end error sequence is generated by applying logic low to this terminal. The BKND_ERR results in no change to any system parameters, with all H-bridge drive signals going to a hard-mute (M) state.
DVDD	15, 36	P			3.3-V digital power supply
DVDD_PWM	54	P			3.3-V digital power supply for PWM
DVSS	16, 34, 35, 38	P			Digital ground
DVSS_PWM	53	P			Digital ground for PWM
HP_SEL	12	DI	5 V	Pullup	Headphone in/out selector. When a logic low is applied, the headphone is selected (speakers are off). When a logic high is applied, speakers are selected (headphone is off).
LRCLK	26	DI	5 V		Serial-audio data left/right clock (sampling-rate clock)
MCLK	63	DI	5 V	Pulldown	MCLK is a 3.3-V master clock input. The input frequency of this clock can range from 4 MHz to 50 MHz.
MUTE	14	DI	5 V	Pullup	Soft mute of outputs, active-low (muted signal = a logic low, normal operation = a logic high). The mute control provides a noiseless volume ramp to silence. Releasing mute provides a noiseless ramp to previous volume.
OSC_CAP	18	AO			Oscillator capacitor
PDN	13	DI	5 V	Pullup	Power down, active-low. PDN powers down all logic and stops all clocks whenever a logic low is applied. The internal parameters are preserved through a power-down cycle, as long as RESET is not active. The duration for system recovery from power down is 100 ms.
PLL_FLT_RET	2	AO			PLL external filter return
PLL_FLTM	3	AO			PLL negative input. Connected to PLL_FLT_RTIN via an RC network
PLL_FLTP	4	AI			PLL positive input. Connected to PLL_FLT_RTIN via an RC network
PSVC	32	O			Power-supply volume control PWM output
PWM_HPML	59	DO			PWM left-channel headphone (differential -)
PWM_HPMR	61	DO			PWM right-channel headphone (differential -)
PWM_HPPL	60	DO			PWM left-channel headphone (differential +)
PWM_HPPR	62	DO			PWM right-channel headphone (differential +)
PWM_M_1	40	DO			PWM 1 output (differential -)
PWM_M_2	42	DO			PWM 2 output (differential -)
PWM_M_3	44	DO			PWM 3 output (differential -)
PWM_M_4	46	DO			PWM 4 output (differential -)
PWM_M_5	55	DO			PWM 5 output (differential -)
PWM_M_6	57	DO			PWM 6 output (differential -)
PWM_M_7	49	DO			PWM 7 (lineout L) output (differential -)
PWM_M_8	51	DO			PWM 8 (lineout R) output (differential -)
PWM_P_1	41	DO			PWM 1 output (differential +)
PWM_P_2	43	DO			PWM 2 output (differential +)

(1) Type: A = analog; D = 3.3-V digital; P = power/ground/decoupling; I = input; O = output  
 (2) All pullups are 200-mA weak pullups and all pulldowns are 200-mA weak pulldowns. The pullups and pulldowns are included to ensure proper input logic levels if the terminals are left unconnected (pullups => logic-1 input; pulldowns => logic-0 input). Devices that drive inputs with pullups must be able to sink 200 mA, while maintaining a logic-0 drive level. Devices that drive inputs with pulldowns must be able to source 200 mA, while maintaining a logic-1 drive level.

TERMINAL		TYPE <sup>(1)</sup>	5-V TOLERANT	TERMINATION <sup>(2)</sup>	DESCRIPTION
NAME	NO.				
PWM_P_3	45	DO			PWM 3 output (differential +)
PWM_P_4	47	DO			PWM 4 output (differential +)
PWM_P_5	56	DO			PWM 5 output (differential +)
PWM_P_6	58	DO			PWM 6 output (differential +)
PWM_P_7	50	DO			PWM 7 (lineout L) output (differential +)
PWM_P_8	52	DO			PWM 8 (lineout R) output (differential +)
RESERVED	21, 22, 23, 64				Connect to digital ground
RESET	11	DI	5 V	Pullup	System reset input, active-low. A system reset is generated by applying a logic low to this terminal. RESET is an asynchronous control signal that restores the TAS5508 to its default conditions, sets the valid output low, and places the PWM in the hard mute (M) state. Master volume is immediately set to full attenuation. On the release of RESET, if PDN is high, the system performs a 4- to 5-ms device initialization and sets the volume at mute.
SCL	25	DI	5 V		I <sup>2</sup> C serial-control clock input/output
SCLK	27	DI	5 V		Serial-audio data clock (shift clock) input
SDA	24	DIO	5 V		I <sup>2</sup> C serial-control data-interface input/output
SDIN1	31	DI	5 V	Pulldown	Serial-audio data input 1 is one of the serial-data input ports. SDIN1 supports four discrete (stereo) data formats and is capable of inputting data at 64 Fs.
SDIN2	30	DI	5 V	Pulldown	Serial-audio data input 2 is one of the serial-data input ports. SDIN2 supports four discrete (stereo) data formats and is capable of inputting data at 64 Fs.
SDIN3	29	DI	5 V	Pulldown	Serial-audio data input 3 is one of the serial-data input ports. SDIN3 supports four discrete (stereo) data formats and is capable of inputting data at 64 Fs.
SDIN4	28	DI	5 V	Pulldown	Serial-audio data input 4 is one of the serial-data input ports. SDIN4 supports four discrete (stereo) data formats and is capable of inputting data at 64 Fs.
VALID	39	DO			Output indicating validity of PWM outputs, active-high
VBGAP	10	P			Band-gap voltage reference. A pinout of the internally regulated 1.2-V reference. Typically has a 1-nF low-ESR capacitor between VBGAP and AVSS_PLL. This terminal must not be used to power external devices.
VR_DIG	33	P			Voltage reference for 1.8-V digital core supply. A pinout of the internally regulated 1.8-V power used by digital core logic. A 4.7- $\mu$ F low-ESR capacitor <sup>(3)</sup> should be connected between this terminal and DVSS. This terminal must not be used to power external devices.
VR_DPLL	17	P			Voltage reference for 1.8-V digital PLL supply. A pinout of the internally regulated 1.8-V power used by digital PLL logic. A 0.1- $\mu$ F low-ESR capacitor <sup>(3)</sup> should be connected between this terminal and DVSS_CORE. This terminal must not be used to power external devices.
VR_PWM	48	P			Voltage reference for 1.8-V digital PWM core supply. A pinout of the internally regulated 1.8-V power used by digital PWM core logic. A 0.1- $\mu$ F low-ESR capacitor <sup>(3)</sup> should be connected between this terminal and DVSS_PWM. This terminal must not be used to power external devices.
VRA_PLL	1	P			Voltage reference for 1.8-V PLL analog supply. A pinout of the internally regulated 1.8-V power used by PLL logic. A 0.1- $\mu$ F low-ESR capacitor <sup>(3)</sup> should be connected between this terminal and AVSS_PLL. This terminal must not be used to power external devices.
VRD_PLL	7	P			Voltage reference for 1.8-V PLL digital supply. A pinout of the internally regulated 1.8-V power used by PLL logic. A 0.1- $\mu$ F low-ESR capacitor <sup>(3)</sup> should be connected between this terminal and AVSS_PLL. This terminal must not be used to power external devices.
XTL_IN	20	AI			XTL_OUT and XTL_IN are the only LVCMOS terminals on the device. They provide a reference clock for the TAS5508 via use of an external fundamental-mode crystal. XTL_IN is the 1.8-V input port for the oscillator circuit. A 13.5-MHz crystal (HCM49) is recommended.
XTL_OUT	19	AO			XTL_OUT and XTL_IN are the only LVCMOS terminals on the device. They provide a reference clock for the TAS5508 via use of an external fundamental-mode crystal. XTL_OUT is the 1.8-V output drive to the crystal. A 13.5-MHz crystal (HCM49) is recommended.

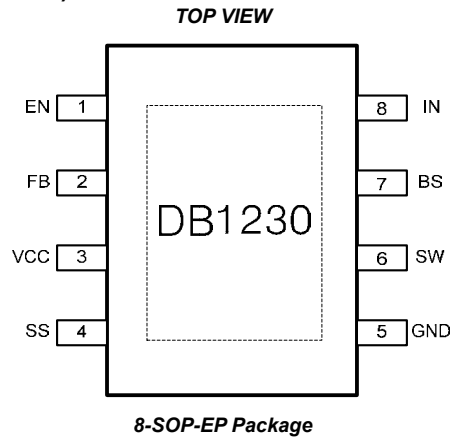
- (3) If desired, low-ESR capacitance values can be implemented by paralleling two or more ceramic capacitors of equal value. Paralleling capacitors of equal value provides an extended high-frequency supply decoupling. This approach avoids the potential of producing parallel resonance circuits that have been observed when paralleling capacitors of different values.

# TAS5508 Block Diagram





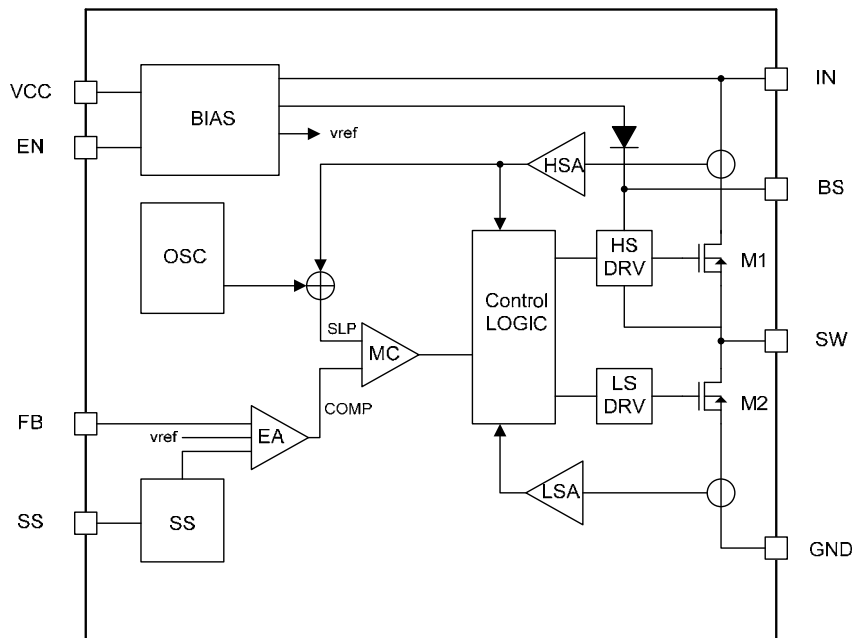
## DP1230 (NETWORK : IC82, IC83, IC84)



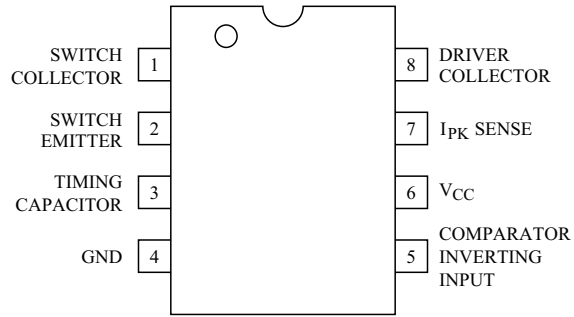
### DP1230 PIN DESCRIPTION

PIN NO.	SYMBOL	DESCRIPTION
1	EN	Enable pin. For automatic start-up, please leave it open and in case of on/off control, there should be pull-down resistor.(10K~100Kohm)
2	FB	Feedback pin. External resistors are connected between OUT and GND to set the regulated output voltage based on 0.8V reference.
3	VCC	Internal regulated output. A decoupling capacitor should be close to this pin as possible
4	SS	External soft-start program pin. An external capacitor should be connected to GND.
5	GND	Ground.
6	SW	Switching Node. An inductor, internal high-side and low-side power switches are connected
7	BS	Bootstrap pin. The bootstrap charge capacitor should be connected between BS and SW to provide a supply to gate driver of high-side power switch.
8	IN	Input power supply pin.
EP	Exposed Pad	Exposed pad. Connect the exposed pad to GND for heat sink. This pin combines thermal sink and power ground.

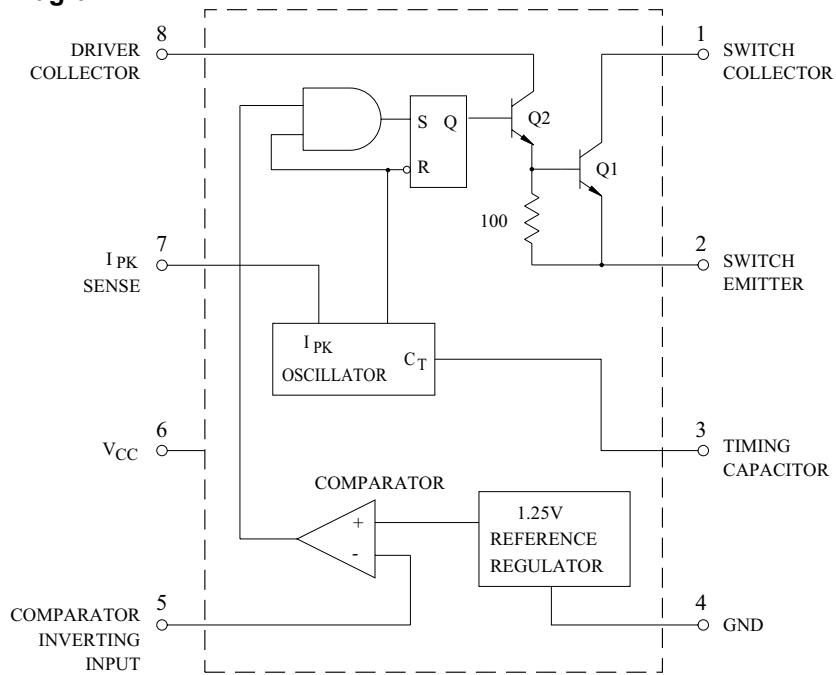
### DP1230 Block Diagram



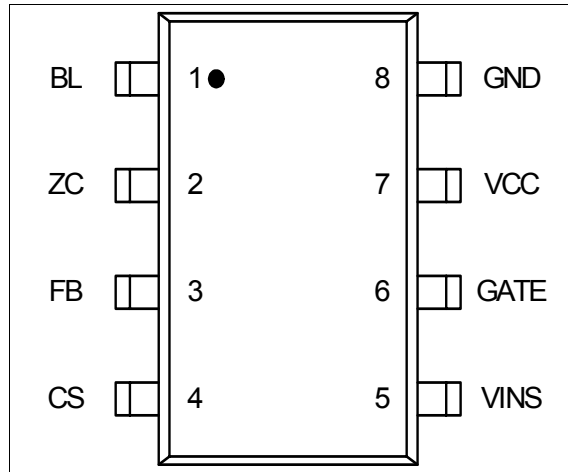
**KIA34063A (SMPS : IC97)**



**KIA34063A Block Diagram**



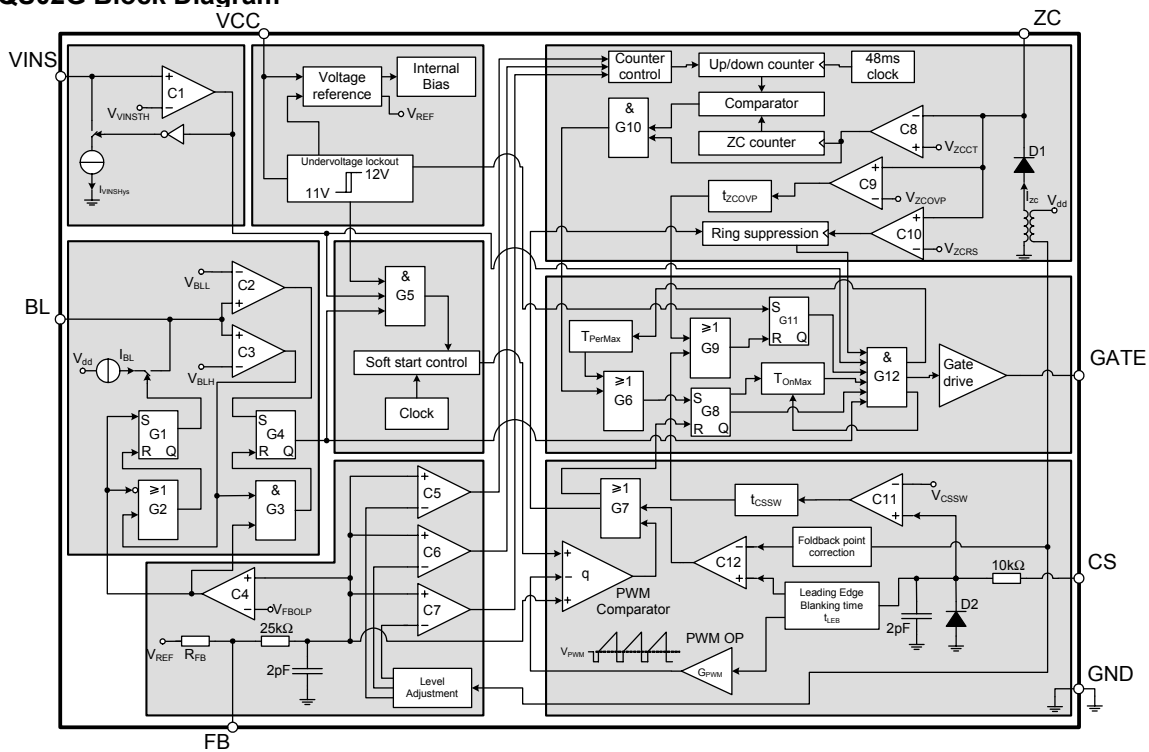
# ICE2QS02G (SMPS : IC93)



## ICE2QS02G Pin Discriptions

Pin	Symbol	Function
1	BL	Blanking Time
2	ZC	Zero Crossing
3	FB	Feedback
4	CS	Primary Current Sensing
5	VINS	Input Voltage Sensing
6	GATE	Gate Driver Output
7	VCC	Controller Supply Voltage
8	GND	Controller Ground

## ICE2QS02G Block Diagram



**ICE3BR1765J (SMPS : IC92)**

**Package PG-DIP-8**

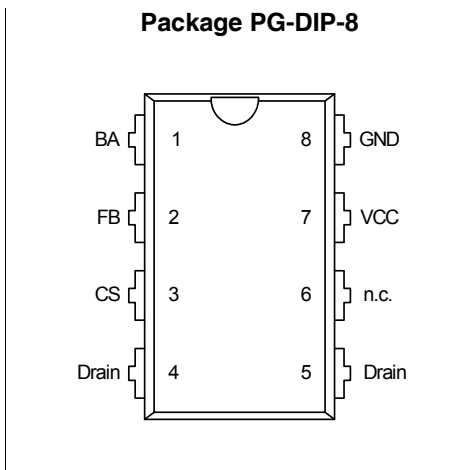


Figure 1 Pin Configuration PG-DIP-8 (top view)

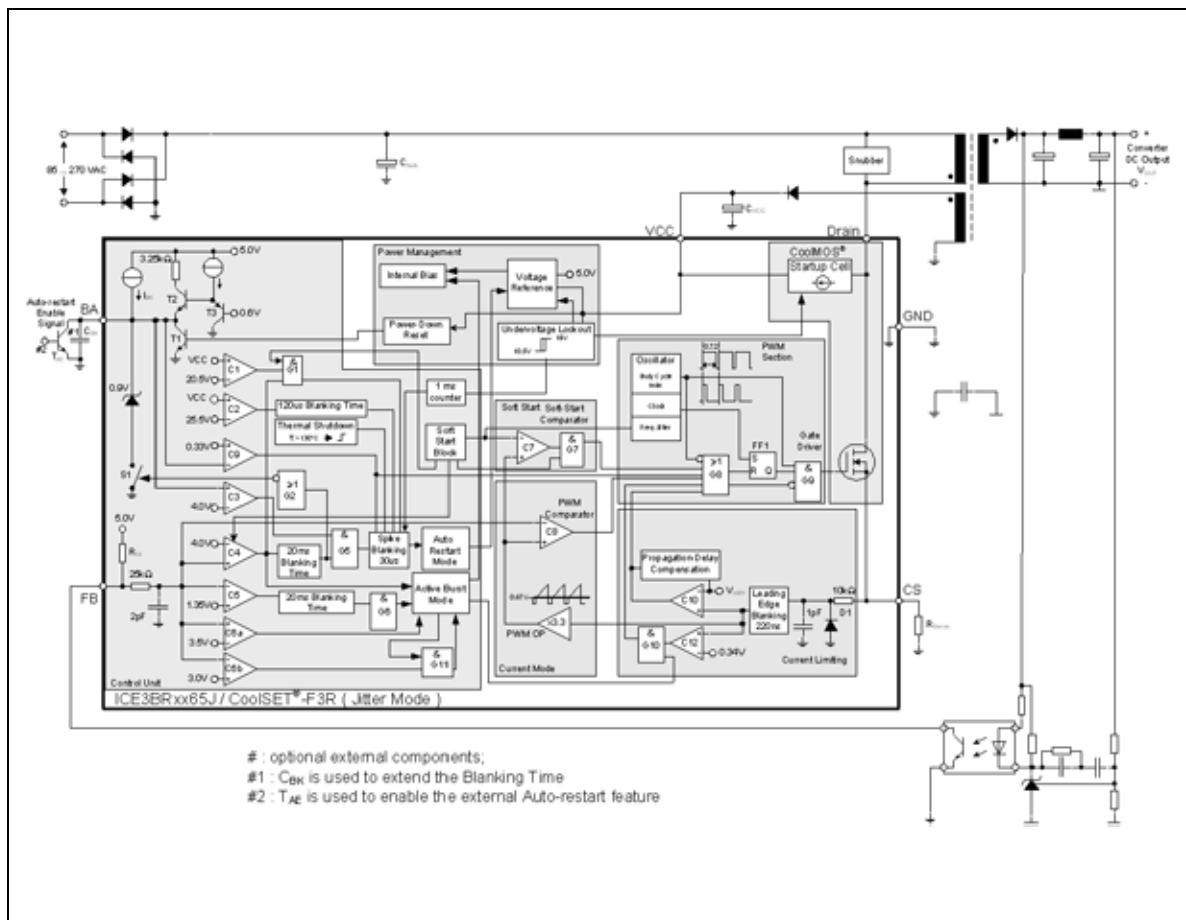
Note: Pin 4 and 5 are shorted

**ICE3BR1765J Pin Discriptions**

Pin	Symbol	Function
1	BA	extended Blanking & Auto-restart
2	FB	Feedback
3	CS	Current Sense/650V(1) CoolMOS® Source
4	Drain	650V(1) CoolMOS® Drain
5	Drain	650V(1) CoolMOS® Drain
6	NC	Not connected
7	VCC	Controller Supply Voltage
8	GND	Controller Ground

(1) at T<sub>j</sub>=110C°

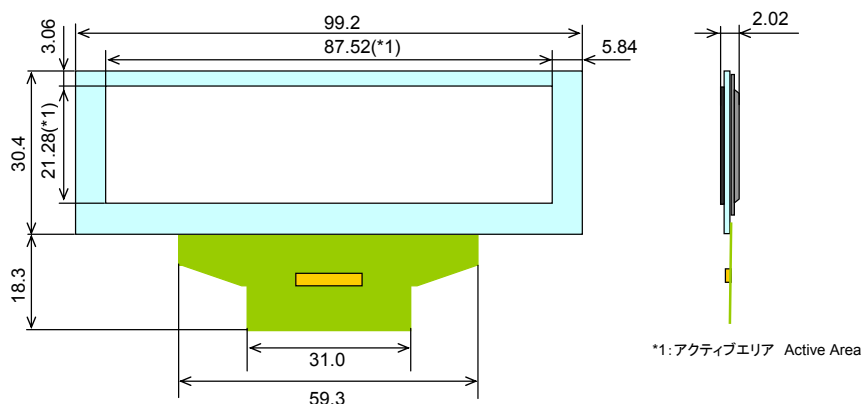
**ICE3BR1765J Block Diagram**



## 2. DISPLAY

### S020-MXS4035A-3 (FRONT : WF12)

端子番号 Pin No.	端子名 Pin Name	入出力 I/O	機能 Function
1	VSS	P	グラウンド GND
2	VCC	P	ドライブ系電源電圧 Drive System Power Voltage
3	VCOMH	P	陰極電源 Power Supply for Cathode Driver
4	VLSS	P	アナロググランド Analog System Ground
5	CLS	I	VDDIO接続 Connect to VDDIO
6	D7	I	データバス Data Bus
7	D6	I	データバス Data Bus
8	D5	I	データバス Data Bus
9	D4	I	データバス Data Bus
10	D3	I	データバス Data Bus
11	D2	I	データバス Data Bus
12	D1(SDIN)	I	データバス(シリアルデータ) Data Bus(Serial Data)
13	D0(SCLK)	I	データバス(シリアルクロック) Data Bus(Serial Clock)
14	RD#	I	読み出し Read
15	WR#	I	書き込み Write
16	BS0	I	インターフェース選択端子
17	BSI	I	Select MCU Bus Interface Setting
18	D/C#	I	データ/コマンド選択 Select Data/Command
19	CS#	I	チップセレクト Chip Select
20	RES#	I	リセット Reset
21	VSS	P	グラウンド GND
22	CL	I	VSS接続 Connect to VSS
23	IREF	O	基準電流 Reference Current Setting
24	NC	-	
25	VDDIO	P	インターフェイス系電源電圧 Interface System Power Voltage
26	VDD	O	内部ロジック電源 Internal Logic Power
27	VCI	P	ロジック系電源 Logic System Power Voltage
28	VSL	P	陽極基準電位 Anode Reference Voltage
29	VLSS	P	アナロググランド Analog System Ground
30	VCC	P	ドライブ系電源電圧 Drive System Power Voltage



MAIN PCB ASS'Y

NOTE:The symbols in the column Remarks indicate the following destinations.  
 U : North America model N : Europe model K : China model F : Japan model  
 B : Black model SG : Silver gold model

REF No.	Part No.	Part Name	Remarks	Q'ty	New	Ver
<b>SEMICONDUCTORS GROUP</b>						
D201-204	00D2760717903	DIODE,CHIP,SWITCHING		HVD1SS355T	4	
D206,207	00D2760717903	DIODE,CHIP,SWITCHING		HVD1SS355T	2	
D214	00D2760717903	DIODE,CHIP,SWITCHING		HVD1SS355T	1	
D215	90M-HD201820R	DIODE,SCHOTTKKEYBARRIER		HVDRB160L60TE25	1	
D216-222	00D2760717903	DIODE,CHIP,SWITCHING		HVD1SS355T	7	
D230	90M-HD201820R	DIODE,SCHOTTKKEYBARRIER		HVDRB160L60TE25	1	
D501	90M-HD201820R	DIODE,SCHOTTKKEYBARRIER		HVDRB160L60TE25	1	
D502-505	00D2760717903	DIODE,CHIP,SWITCHING		HVD1SS355T	4	
D553,554	201310001503S	DIODE,ULTRA-HIGHSPEED		CVDKDS160RTPK	2	
D601	00D2760717903	DIODE,CHIP,SWITCHING	N1B/N1W	HVD1SS355T	1	
D802-806	00D2760717903	DIODE,CHIP,SWITCHING		HVD1SS355T	5	
IC15	943239001120S	I.C.CURRENTLIMITER		CVIRT9702APB	1	
IC21		I.C.CPU(2M/PLQP0144KA-A)		CVIR5F56108VNF	1	
IC21	943239101120M	I.C.MAINMCU(MCR510/MCR610),2M/PLQP0144KA-A		CVIANAM1795CR	1	*
IC22	943239100720S	I.C.EEPROM(256KBIT,SOP-8P)		CVIR1EX24256BSAS0A	1	
IC23	943239014000S	I.C.REGULATOR(3.3V/TO-252)		CVINJM2845DL133	1	
IC25	943231101580S	I.C.REGULATOR(ADJ,CONT,1A,TO252-DL3)		CVINJM2387ADL3	1	* 2
IC29	943235100670M	I.C.OPAMP		HVINJM4556AMTE1	1	* 2
IC30	943234009290S	I.C.RESET2.4V(200ms,C-MOS,SOT23-5P)		CVIS80124CLMCJUT2	1	
IC51	943236101350D	I.C.DIR/DIT(WITHADC,LQFP-48P)		CVIPCM9211PTR	1	
IC52	943239007760S	I.C.REGULATOR(3.3V/DPAK-5)		CVIKIA78R033F	1	
IC53	943231101600S	I.C.REGULATOR5.0V/LDO,SOT-223		CVILM1117C-5V0	1	* 2
IC54	943239100690S	I.C.2CHDAC(32BIT,384KHZ,TSSOP-20P)		CVIPCM5100PWR	1	
IC55	00MHC10102090	I.C.OPAMP(JRC)		HVINJM2068MDTE1	1	
IC56	00MHC12273370	I.C.PWMPROCESSOR		CVITASS508BPAG	1	
IC62	943231101610S	I.C.REGULATORADJLDO,SOT-223	N1B/N1W	CVILM1117C-ADJ	1	* 2
IC63	943231101620S	I.C.REGULATOR(1.5A,ADJ,CONT,8-SOP-EP)	N1B/N1W	CVIDB1514AHETR	1	* 2
IC81	943239001120S	I.C.CURRENTLIMITER		CVIRT9702APB	1	
IC82-84	943239100820D	I.C.DCDCCONVERTER(3A,700KHZ,SOP-8P)		CVIDB1230HETR	3	
IC85	23671011050AS	I.C.IPODAUTHENTICATIONFROMD&M		CVI23671011050AS_DM	1	
IC86,87	943606502150M	I.C.USBSWITCH(DUALSPDT,UQFN10)		CVITCT7USB40MUJ	2	*
Q201,202	943216500020S	T.R.RT1N141C(10K-10K)		CVTRT1N141C	2	
Q204,205	943216500020S	T.R.RT1N141C(10K-10K)		CVTRT1N141C	2	
Q210	943216500020S	T.R.RT1N141C(10K-10K)		CVTRT1N141C	1	
Q211-214	00D9430072502	T.R.CHIP,SOT-23		HVTKTC2875B	4	
Q215	943215500020S	T.R.RT1P141C(10K-10K)		CVTRT1P141C	1	
Q216	943216500020S	T.R.RT1N141C(10K-10K)		CVTRT1N141C	1	
Q217	943215500020S	T.R.RT1P141C(10K-10K)		CVTRT1P141C	1	
Q218	943216500020S	T.R.RT1N141C(10K-10K)		CVTRT1N141C	1	
Q221-226	00D9430072502	T.R.CHIP,SOT-23		HVTKTC2875B	6	
Q227	943215500020S	T.R.RT1P141C(10K-10K)		CVTRT1P141C	1	
Q228	943216500020S	T.R.RT1N141C(10K-10K)		CVTRT1N141C	1	
Q229	943215500020S	T.R.RT1P141C(10K-10K)		CVTRT1P141C	1	
Q230	943216500020S	T.R.RT1N141C(10K-10K)		CVTRT1N141C	1	
Q231-233	943215500020S	T.R.RT1P141C(10K-10K)		CVTRT1P141C	3	
Q554	00D2730464901	T.R.CHIP,SOT-23		HVTKTC3875SYRTK	1	
Q555	00D9430058908	T.R.CHIP,SOT-23		HVTKTA1504SYRTK	1	
Q556	00D2730464901	T.R.CHIP,SOT-23		HVTKTC3875SYRTK	1	
Q557	00D9430058908	T.R.CHIP,SOT-23		HVTKTA1504SYRTK	1	
Q558,559	963216500060S	T.R.RT1N144C(10K-47K)		CVTRT1N144C	2	
Q560,561	943215500140D	T.R.RT1P144C(10K-47K)		CVTRT1P144C	2	
Q801	943215500140D	T.R.RT1P144C(10K-47K)		CVTRT1P144C	1	
Q802	963216500060S	T.R.RT1N144C(10K-47K)		CVTRT1N144C	1	
<b>RESISTOR GROUP</b>						
R180	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R182	nsp	RES,CHIP(1608/5%/2.2Kohm)		CRJ10DJ22T	1	
R183,184	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
R201	nsp	RES,CHIP(1005/5%/22Kohm)		CRJ06IJ223T	1	
R202	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	1	
R203	nsp	RES,CHIP(1005/5%/8.2Kohm)		CRJ06IJ822T	1	
R204	nsp	RES,CHIP(1005/5%/100Kohm)		CRJ06IJ104T	1	
R205	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	1	
R206	nsp	RES,CHIP(1005/5%/100Kohm)		CRJ06IJ104T	1	
R207	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	1	
R209	nsp	RES,CHIP(1608/5%/22Kohm)		CRJ10DJ223T	1	
R210	nsp	RES,CHIP(1608/5%/15Kohm)		CRJ10DJ153T	1	
R213,214	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	2	
R215	nsp	RES,CHIP(1608/5%/22Kohm)		CRJ10DJ223T	1	
R217	nsp	RES,CHIP(1608/5%/5.6Kohm)		CRJ10DJ562T	1	
R218	nsp	RES,CHIP(1608/5%/22Kohm)		CRJ10DJ223T	1	
R219	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	1	
R221,222	nsp	RES,CHIP(1005/5%/100Kohm)		CRJ06IJ104T	2	
R229	nsp	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	1	
R230	nsp	RES,CHIP(1005/5%/0ohm)	N1B/N1W	CRJ06IJ0R0T	1	
R230	nsp	RES,CHIP(1005/5%/4.7Kohm)	U1B	CRJ06IJ472T	1	
R230	nsp	RES,CHIP(1005/5%/750ohm)	FN	CRJ06IJ751T	1	
R233-235	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	3	
R236,237	nsp	RES,CHIP(1005/5%/100Kohm)		CRJ06IJ104T	2	
R238	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	1	
R239	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	1	
R240	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	1	
R241,242	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	2	
R243	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	1	
R244-248	nsp	RES,CHIP(1005/5%/22ohm)		CRJ06IJ220T	5	
R249-251	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	3	
R252,253	nsp	RES,CHIP(1005/5%/47Kohm)		CRJ06IJ473T	2	
R254	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	1	
R255	nsp	RES,CHIP(1005/5%/47Kohm)		CRJ06IJ473T	1	
R256	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	1	
R257	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	1	
R261	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	1	
R262	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	1	
R264-266	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	3	
R267,268	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	2	
R269-281	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	13	
R282,283	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	2	

REF No.	Part No.	Part Name	Remarks	Q'ty	New	Ver
R284,285	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	2	
R287,288	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	2	
R290-293	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	4	
R295,296	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	2	
R297	nsp	RES,CHIP(1005/5%/100Kohm)		CRJ06IJ104T	1	
R298	nsp	RES,CHIP(1005/5%/0ohm)	N1B/N1W	CRJ06IJ0R0T	1	
R298	nsp	RES,CHIP(1005/5%/12Kohm)	U1B	CRJ06IJ123T	1	
R298	nsp	RES,CHIP(1005/5%/68Kohm)	FN	CRJ06IJ683T	1	
R301,302	nsp	RES,CHIP(1005/5%/22ohm)		CRJ06IJ220T	2	
R303	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	1	
R304	nsp	RES,CHIP(1608/5%/22ohm)		CRJ10DJ220T	1	
R305	nsp	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	1	
R306-309	nsp	RES,CHIP(1608/5%/22ohm)		CRJ10DJ220T	4	
R310,311	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	2	
R312-315	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	4	
R316	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	1	
R317	nsp	RES,CHIP(1005/5%/47Kohm)		CRJ06IJ473T	1	
R318	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	1	
R321	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	1	
R322	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	1	
R324	nsp	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	1	
R325-330	nsp	RES,CHIP(1608/5%/22ohm)		CRJ10DJ220T	6	
R331	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	1	
R332	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	1	
R333	nsp	RES,CHIP(1608/5%/1.6Kohm)		CRJ10DJ162T	1	
R334	nsp	RES,CHIP(1608/5%/1Kohm)		CRJ10DJ102T	1	
R335	nsp	RES,CHIP(1608/5%/15Kohm)		CRJ10DJ153T	1	
R340,341	nsp	RES,CHIP(1608/5%/1ohm)		CRJ10DJ100T	2	
R342,343	nsp	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	2	
R344,345	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	2	
R347,348	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	2	
R349,350	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	2	
R351,352	nsp	RES,CHIP(2012/5%/100ohm)		CRJ18AJ101T	2	
R353,354	nsp	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	2	
R355-358	nsp	RES,CHIP(1608/5%/39Kohm)		CRJ10DJ393T	4	
R359-370	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	12	
R371,372	nsp	RES,CHIP(1608/5%/1ohm)		CRJ10DJ100T	2	
R375,376	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
R379,380	nsp	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	2	
R381-384	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	4	
R385,386	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	2	
R387,388	nsp	RES,CHIP(2012/5%/100ohm)		CRJ18AJ101T	2	
R389,390	nsp	RES,CHIP(1608/5%/470ohm)		CRJ10DJ471T	2	
R391	nsp	RES,CHIP(1608/5%/47Kohm)		CRJ10DJ473T	1	
R393,394	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	2	
R395,396	nsp	RES,CHIP(1608/5%/1Kohm)		CRJ10DJ102T	2	
R397	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	1	
R398	nsp	RES,CHIP(1608/5%/47Kohm)		CRJ10DJ473T	1	
R501-503	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	3	
R504	nsp	RES,CHIP(1608/5%/680ohm)		CRJ10DJ681T	1	
R505	nsp	RES,CHIP(1608/5%/1Mohm)		CRJ10DJ105T	1	
R506	nsp	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	1	
R507	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	1	
R508	nsp	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	1	
R509-511	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	3	
R513	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	1	
R514	nsp	RES,CHIP(1608/5%/1Kohm)		CRJ10DJ102T	1	
R515-518	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	4	
R519-522	nsp	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	4	
R523	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	1	
R524,525	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
R526	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	1	
R527	nsp	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	1	
R528	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
R529	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
R530	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	1	
R541	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R542	nsp	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	1	
R543	nsp	RES,CHIP(1608/5%/1Mohm)		CRJ10DJ105T	1	
R556-558	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	3	
R559-562	nsp	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	4	
R563	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R565	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R566	nsp	RES,CHIP(1608/5%/47Kohm)		CRJ10DJ473T	1	
R567	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R568,569	nsp	RES,CHIP(1608/5%/1Kohm)		CRJ10DJ102T	2	
R570	nsp	RES,CHIP(1608/5%/47Kohm)		CRJ10DJ473T	1	
R571	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R572,573	nsp	RES,CHIP(1608/5%/22Kohm)		CRJ10DJ223T	2	
R574,575	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
R576	nsp	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	1	
R577	nsp	RES,CHIP(1608/5%/47Kohm)		CRJ10DJ473T	1	
R578,579	nsp	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	2	
R580	nsp	RES,CHIP(1608/5%/47Kohm)		CRJ10DJ473T	1	
R581	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	1	
R582	nsp	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	1	
R583	nsp	RES,CHIP(1608/5%/22ohm)		CRJ10DJ220T	1	
R587,588	nsp	RES,CHIP(1608/5%/200ohm)		CRJ10DJ201T	2	
R589-592	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	4	
R593	nsp	RES,CHIP(1608/5%/2.2ohm)		CRJ10DJ2R2T	1	
R594	nsp	RES,CHIP(1608/5%/1Kohm)		CRJ10DJ102T	1	
R595-597	nsp	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	3	
R598	nsp	RES,CHIP(1608/5%/3.3ohm)		CRJ10DJ3R3T	1	
R599	nsp	RES,CHIP(1608/5%/1ohm)		CRJ10DJ1R0T	1	
R641	nsp	RES,CHIP(1608/5%/10Kohm)	N1B/N1W	CRJ10DJ103T	1	
R642	nsp	RES,CHIP(1608/5%/56Kohm)	N1B/N1W	CRJ10DJ563T	1	
R643	nsp	RES,CHIP(1608/5%/100Kohm)	N1B/N1W	CRJ10DJ104T	1	
R645,646	nsp	RES,CHIP(1608/5%/0ohm)	N1B/N1W	CRJ10DJ0R0T	2	
R647	nsp	RES,CHIP(1608/5%/33ohm)	N1B/N1W	CRJ10DJ330T	1	
R650-654	nsp	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	5	
R655,656	nsp	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	2	
R657	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	1	
R658	nsp	RES,CHIP(1608/5%/1ohm)		CRJ10DJ1R0T	1	
R659,660	nsp	RES,CHIP(1608/5%/2.2Kohm)		CRJ10DJ222T	2	

REF No.	Part No.	Part Name	Remarks	Q'ty	New	Ver
R664	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
R665-666	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
R667-668	nsp	RES_CHIP(1608/5%/10Kohm)		CRJ10DJ103T	2	
R671,672	nsp	RES_CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	2	
R674	nsp	RES_CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	1	
R675	nsp	RES_CHIP(1005/5%/10Kohm)		CRJ06IJ103T	1	
R676-678	nsp	RES_CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	3	
R680-683	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	4	
R684	nsp	RES_CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	1	
R685-699	nsp	RES_CHIP(1608/5%/0ohm)	N1B/N1W	CRJ10DJ0R0T	15	
R701-719	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	19	
R720	nsp	RES_CHIP(2012/5%/0ohm)		CRJ18AJ0R0T	1	
R801-803	nsp	RES_CHIP(1608/5%/33ohm)		CRJ10DJ330T	3	
R804	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R806	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R807	nsp	RES_CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	1	
R808-810	nsp	RES_CHIP(1005/5%/33ohm)		CRJ06IJ330T	3	
R811	nsp	RES_CHIP(1608/5%/33ohm)		CRJ10DJ330T	1	
R813	nsp	RES_CHIP(1608/5%/33ohm)		CRJ10DJ330T	1	
R815	nsp	RES_CHIP(1608/5%/33ohm)		CRJ10DJ330T	1	
R817,818	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
R819	nsp	RES_CHIP(1608/5%/100ohm)		CRJ10DJ101T	1	
R820-823	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	4	
R826,827	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
R830,831	nsp	RES_CHIP(1608/5%/75ohm)		CRJ10DJ750T	2	
R834,835	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
R836	nsp	RES_CHIP(1608/5%/2.2Kohm)		CRJ10DJ222T	1	
R837	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R839,840	nsp	RES_CHIP(1608/5%/2.2Kohm)		CRJ10DJ222T	2	
R841	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R845	nsp	RES_CHIP(1608/1%/30Kohm)		CRJ10DF3002T	1	
R846	nsp	RES_CHIP(1608/1%/5.6Kohm)		CRJ10DF5601T	1	
R847	nsp	RES_CHIP(1608/1%/4.99Kohm)		CRJ10DF4991T	1	
R848	nsp	RES_CHIP(1608/1%/6.2Kohm)		CRJ10DF6201T	1	
R849	nsp	RES_CHIP(1608/1%/3.3Kohm)		CRJ10DF3301T	1	
R850	nsp	RES_CHIP(1608/5%/100Kohm)		CRJ10DJ104T	1	
R851	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R852	nsp	RES_CHIP(1608/1%/10Kohm)		CRJ10DF1002T	1	
R853	nsp	RES_CHIP(1608/5%/100Kohm)		CRJ10DJ104T	1	
R854	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R855	nsp	RES_CHIP(1608/1%/10Kohm)		CRJ10DF1002T	1	
R856	nsp	RES_CHIP(1608/5%/100Kohm)		CRJ10DJ104T	1	
R864	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R865	nsp	RES_CHIP(1608/5%/100ohm)		CRJ10DJ101T	1	
R867	nsp	RES_CHIP(1608/5%/10Kohm)		CRJ10DJ103T	1	
R868	nsp	RES_CHIP(1608/5%/47Kohm)		CRJ10DJ473T	1	
R869	nsp	RES_CHIP(1608/5%/75Kohm)		CRJ10DJ753T	1	
R871	nsp	RES_CHIP(1608/5%/120Kohm)		CRJ10DJ124T	1	
R873	nsp	RES_CHIP(1608/5%/27Kohm)		CRJ10DJ273T	1	
R874	nsp	RES_CHIP(1608/5%/75Kohm)		CRJ10DJ753T	1	
R876	nsp	RES_CHIP(1608/5%/47Kohm)		CRJ10DJ473T	1	
R877	nsp	RES_CHIP(1608/5%/120Kohm)		CRJ10DJ124T	1	
R879	nsp	RES_CHIP(1608/5%/27Kohm)		CRJ10DJ273T	1	
R880-892	nsp	RES_CHIP(1608/5%/10Kohm)		CRJ10DJ103T	13	
R893	nsp	RES_CHIP(1608/1%/8.2Kohm)		CRJ10DF8201T	1	
R894-899	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	6	
R902,903	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
RX91-94	nsp	RES_CHIP(3216/5%/1.5Mohm)		CRJ14CJ155T	4	
<b>CAPACITORS GROUP</b>						
C181	nsp	CAP_ELECT(10V/100uF)-S		CCEA1AKS101T	1	
C185	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C186	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C187	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C188	nsp	CAP_ELECT(50V/10uF)		CCEA1HH100TC	1	
C189	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C190	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C191	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C192	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C201-204	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	4	
C205	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
C208-211	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	4	
C212-214	nsp	RES_CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	3	
C221	nsp	CAP_CHIP(1005,16V/0.1uF)		CCU11C104KC	1	
C222	nsp	CAP_CHIP(1005,25V/0.01uF)		CCU11E103KC	1	
C223	nsp	CAP_CHIP(1005,16V/0.1uF)		CCU11C104KC	1	
C224-227	nsp	CAP_CHIP(1005,25V/0.01uF)		CCU11E103KC	4	
C228	nsp	CAP_CHIP(1005,16V/0.1uF)		CCU11C104KC	1	
C229	nsp	CAP_CHIP(1005,25V/0.01uF)		CCU11E103KC	1	
C231,232	nsp	CAP_CHIP(1005,16V/0.1uF)		CCU11C104KC	2	
C233	nsp	CAP_CHIP(1005,25V/0.01uF)		CCU11E103KC	1	
C234	nsp	CAP_CHIP(1005,16V/0.1uF)		CCU11C104KC	1	
C235	nsp	CAP_CHIP(1005,25V/0.01uF)		CCU11E103KC	1	
C236	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C237	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C238	nsp	CAP_CHIP(1005,16V/0.1uF)		CCU11C104KC	1	
C239	nsp	CAP_ALUMINUMELECTROLYTIC(6.3V/220uF)		CCCE0JMVG221T	1	*
C240	nsp	CAP_CHIP(2012,6.3V/10uF,X7R)		CCUC0J106KC	1	
C241	nsp	CAP_CHIP(1608,10V/1uF)		CCUS1A105KC	1	
C242	nsp	CAP_ALUMINUMELECTROLYTICCAPACITORS(16V/100uF)		CCCE1CMVG101T	1	*
C246	nsp	CAP_CHIP(1005,25V/0.01uF)		CCU11E103KC	1	
C247,248	nsp	CAP_CHIP(1005,16V/0.1uF)		CCU11C104KC	2	
C249	nsp	CAP_CHIP(1005,25V/0.01uF)		CCU11E103KC	1	
C250,251	nsp	CAP_CHIP(1005,16V/0.1uF)		CCU11C104KC	2	
C252,253	nsp	CAP_CHIP(1608,50V/15pF)		CCUS1H150JA	2	
C254	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C255	nsp	CAP_CHIP(1608,10V/1uF)		CCUS1A105KC	1	
C256	nsp	CAP_CHIP(1005,16V/0.1uF)		CCU11C104KC	1	
C257	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C258	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C259	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C260	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C261	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C262	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C263	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	



REF No.	Part No.	Part Name	Remarks	Q'ty	New	Ver
C264	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C265	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C266	nsp	CAP_ELECT(16V/100uF)-S		CCEA1CK5101TC	1	
C270	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C271	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C272	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C273	nsp	CAP_CHIPELECT(47uF/50V,6.3X7.7)		CCEC1HRV2470T	1	
C274	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C275	nsp	CAP_ELECT(25V/47uF)		CCEA1EH470TC	1	
C279	nsp	CAP_ELECT(16V/2.2uF)-S(SIZE4X5)		CCEA1CK52R2TZ	1	
C280,281	nsp	CAP_CHIP(1608,50V/100pF)		CCUS1H101JA	2	
C282,283	nsp	CAP_ELECT(16V/2.2uF)-S(SIZE4X5)		CCEA1CK52R2TZ	2	
C284,285	943134501560S	CAP_ELECT(16V/100uF)-S		CCEA1CK5101T	2	
C286,287	nsp	CAP_CHIP(1608,50V/100pF)		CCUS1H101JA	2	
C288,289	943134501560S	CAP_ELECT(16V/100uF)-S		CCEA1CK5101T	2	
C290,291	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	2	
C292,293	nsp	CAP_CHIP(1608,50V/100pF)		CCUS1H101JA	2	
C294-297	nsp	CAP_CHIP(1608,50V/270pF)		CCUS1H271JA	4	
C303,304	nsp	CAP_ELECT(16V/10uF)-S		CCEA1CK5100TC	2	
C305,306	nsp	CAP_CHIP(1608,50V/100pF)		CCUS1H101JA	2	
C307,308	nsp	CAP_ELECT(16V/10uF)-S		CCEA1CK5100TC	2	
C309,310	nsp	CAP_MYLAR(50V/2700pF/J)		HQQ1H272JZT	2	
C311	nsp	CAP_CHIP(1608,50V/100pF)		CCUS1H101JA	1	
C312	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C320,321	nsp	CAP_CHIP(1608,50V/22pF)		CCUS1H220JA	2	
C322	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C323	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C324	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C325	nsp	CAP_ELECT(10V/220uF)-S		CCEA1AKS221T	1	
C326	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C327	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C336,337	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	2	
C340	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C341	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C342	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C343	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C344	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C345	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C346	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C347	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C348	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C349	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C350	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C351	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C352	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C353	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C354	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C355	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C356	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C357	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C358	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C359	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C360	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C361	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C362	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C363	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C364	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C365	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C366	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C367	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C368	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C369	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C370	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C371	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C372	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C373	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C374	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C375	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C376	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C377	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C378-381	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	4	
C501	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C502	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C503	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C504	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C505	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C506,507	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	2	
C508	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C509	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C510	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C511	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C512	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C513	nsp	CAP_ELECT(16V/10uF)-S		CCEA1CK5100TC	1	
C514,515	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	2	
C516,517	nsp	CAP_ELECT(16V/100uF)-S		CCEA1CK5101TC	2	
C518,519	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	2	
C520	nsp	CAP_ELECT(16V/100uF)-S		CCEA1CK5101TC	1	
C521	nsp	CAP_ELECT(16V/22uF)-S		CCEA1CK5220T	1	
C522	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C523	nsp	CAP_ELECT(16V/22uF)-S		CCEA1CK5220T	1	
C524	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C525	nsp	CAP_CHIP(1608,50V/4700pF)		CCUS1H472KC	1	
C526	nsp	CAP_CHIP(1608,50V/0.068uF)		CCUS1H683KC	1	
C527	943134502570M	CAP_ELECSMD(6.3V/220uF,PVWZSeries,ESR,105°C)		CCECQJPVWZ221TS	1	*
C528	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C529,530	nsp	CAP_CHIP(1608,50V/22pF)		CCUS1H220JA	2	
C531	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C532	943134502580M	CAP_ELECSMD(LOWESR,150UF/10V,ENESOL)		CCEC1AVS151TL	1	*
C533-535	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	3	
C536	943134502580M	CAP_ELECSMD(LOWESR,150UF/10V,ENESOL)		CCEC1AVS151TL	1	*
C537	nsp	CAP_CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C538-541	nsp	CAP_CHIP(1608,50V/100pF)		CCUS1H101JA	4	
C542	nsp	CAP_CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C543	nsp	CAP_CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	

REF No.	Part No.	Part Name	Remarks	Q'ty	New	Ver
C544	943134502580M	CAP_ELECSMD(LOWESR,150UF/10V,ENESOL)		1	*	
C557	nsp	CAP_ELECT(16V/47uF)-S		1		
C558	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C559	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C560	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C561	nsp	CAP_ELECT(16V/47uF)-S		1		
C562	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C563,564	nsp	CAP_CHIP(1608,6.3V/2.2uF)		2		
C565	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C566	nsp	CAP_ELECT(16V/47uF)-S		1		
C567	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C568,569	nsp	CAP_CHIP(1608,50V/0.01uF)		2		
C570	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C571	nsp	CAP_CHIP(1608,50V/4700pF)		1		
C572,573	943132500670M	CAP_CHIP(1608,25V/1uF,MURATAGRM18)		2	*	
C574-576	nsp	CAP_CHIP(1608,50V/1000pF)		3		
C577,578	nsp	CAP_ELECT(25V/220uF)		2		
C579	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C580	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C581,582	nsp	CAP_CHIP(1608,50V/0.1uF)		2		
C583	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C584,585	nsp	CAP_CHIP(1608,50V/0.1uF)		2		
C586	943134502570M	CAP_ELECSMD(6.3V/220uF,PVWZSeries,ESR,105°C)		1	*	
C587-589	nsp	CAP_CHIP(1608,50V/0.1uF)		3		
C590	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C591-596	nsp	CAP_CHIP(1608,50V/0.1uF)		6		
C597	nsp	CAP_ELECT(10V/220uF)-S		1		
C598	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C599	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C641	nsp	CAP_CHIP(1608,50V/0.1uF)	N1B/N1W	1		
C642	nsp	CAP_ELECT(16V/22uF)-S	N1B/N1W	1		
C643	nsp	CAP_CHIP(1608,50V/0.01uF)	N1B/N1W	1		
C644	nsp	CAP_ELECT(16V/10uF)-S	N1B/N1W	1		
C645	nsp	CAP_CHIP(1608,50V/0.01uF)	N1B/N1W	1		
C646	nsp	CAP_ELECT(10V/330uF)-S	N1B/N1W	1		
C647	nsp	CAP_CHIP(1608,50V/0.01uF)	N1B/N1W	1		
C648	nsp	CAP_ELECT(10V/330uF)-S	N1B/N1W	1		
C649,650	nsp	CAP_CHIP(1608,50V/0.1uF)	N1B/N1W	2		
C801	nsp	CAP_CHIP(1005,25V/0.01uF)		1		
C802	nsp	CAP_CHIP(1005,50V/1000pF)		1		
C803	nsp	CAP_CHIP(3216,6.3V/22uF)		1		
C804,805	nsp	CAP_CHIP(1005,16V/0.1uF)		2		
C806	nsp	CAP_CHIP(3216,6.3V/22uF)		1		
C807	nsp	CAP_CHIP(1005,16V/0.1uF)		1		
C808	nsp	CAP_CHIP(3216,6.3V/22uF)		1		
C809	nsp	CAP_CHIP(1005,16V/0.1uF)		1		
C810	nsp	CAP_ALUMINUMELECTROLYTIC(6.3V/22uF)		1		
C811	nsp	CAP_CHIP(1005,16V/0.1uF)		1		
C812	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C823	nsp	CAP_CHIP(1005,50V/4700pF)		1		
C824	nsp	CAP_CHIP(1005,50V/1000pF)		1		
C827	nsp	CAP_CHIP(1005,50V/4700pF)		1		
C828	nsp	CAP_CHIP(1005,50V/1000pF)		1		
C835	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C836	nsp	CAP_ELECT(10V/100uF)-S		1		
C837	nsp	CAP_ELECT(50V/10uF)		1		
C838-840	nsp	CAP_CHIP(1608,50V/0.1uF)		3		
C841	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C842	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C843	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C844	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C845	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C846	nsp	CAP_ALUMINUMELECTROLYTIC(16V/10uF)		1		
C850-855	nsp	CAP_CHIP(2012,25V/22uF,X7R)		6		
C856	nsp	CAP_CHIP(1608,50V/1500pF)		1		
C857	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C859-861	nsp	CAP_CHIP(1608,50V/0.01uF)		3		
C862-864	nsp	CAP_CHIP(1608,50V/0.1uF)		3		
C865-867	nsp	CAP_CHIP(1608,50V/0.01uF)		3		
C868-873	nsp	CAP_CHIP(2012,10V/2.2uF)		6		
C874,875	nsp	CAP_CHIP(1608,50V/0.1uF)		2		
C876,877	nsp	CAP_CHIP(1005,16V/0.1uF)		2		
C879	nsp	CAP_CHIP(1005,16V/0.1uF)		1		
C880	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C881	nsp	CAP_CHIP(2012,25V/22uF,X7R)		1		
C886	nsp	CAP_CHIP(1005,16V/0.1uF)		1		
C887	nsp	CAP_CHIP(1005,25V/0.01uF)		1		
C888	nsp	CAP_ALUMINUMELECTROLYTIC(6.3V/22uF)		1		
C889	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C890	nsp	CAP_ALUMINUMELECTROLYTIC(6.3V/22uF)		1		
C891	nsp	CAP_CHIP(1005,16V/0.1uF)		1		
C892	nsp	CAP_CHIP(1005,25V/0.01uF)		1		
C893,894	nsp	CAP_CHIP(1608,50V/0.1uF)		2		
C895-899	nsp	CAP_CHIP(2012,25V/22uF,X7R)		5		
C900	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C901	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C902	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C903	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C904	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C905	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C906	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C907	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C908	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C909	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C910	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C911	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C912	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C913	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C914	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
C915	nsp	CAP_CHIP(1608,50V/1000pF)		1		
C916	nsp	CAP_CHIP(1608,50V/0.01uF)		1		
C917	nsp	CAP_CHIP(1608,50V/0.1uF)		1		
<b>OTHER PARTS GROUP</b>						
BK61	nsp	BRACKET,PCB	N1B/N1W	CMD1A569-V1	1	

REF No.	Part No.	Part Name	Remarks	Q'ty	New	Ver
BK62	nsp	BRACKET,PCBM3		CMD1A834	1	
BK81.82	nsp	BRACKET,PCB		CMD1A629	2	
BN25	nsp	WIREASSY(LOCKING,3P,50MM,2.5MM)		CWB1B00305058	1	
BN51	nsp	WIREASSY(LOCKING,3P,50MM,2.0MM,SHIELD)		CWB1B00305047001	1	
BN82	nsp	WIREASSY(LOCKING,3P,80MM,2.5MM,ANGLE)		CWB1B00308058	1	
CN15	nsp	LOCKINGTYPE,STRAIGHTWAFER,2.5MM		CJP03G1237Z	1	
CN16	nsp	LOCKINGTYPE,STRAIGHTWAFER,2mm		CJP05G1236Z	1	
CN24	nsp	LOCKINGTYPE,STRAIGHTWAFER,2MM		CJP03G1236Z	1	
CN27	nsp	WIREASSY(LOCKING,5P,80MM,2.0MM)		CWB1B00508047001	1	
CN28	nsp	LOCKINGTYPE,STRAIGHTWAFER(2mm)		CJP11G1236Z	1	
CN30	nsp	WAFER,FFC(29P-1.25mm,STRAIGHT)		CJP29GA115ZY	1	
CN35	nsp	WAFER,FFC(21P-1mm,STRAIGHT)		CJP21GA117ZY	1	
CN81	nsp	LOCKINGTYPE,STRAIGHTWAFER,2.5MM		CJP05G1237Z	1	
CN83	nsp	WIREASSY(LOCKING,5P,150MM,2.0MM,SHIELD,ANGLE)		CWB1C90515047001	1	
CN91	943641500240D	INLET,AC,NON-POL(250V/2.5APCBMOUNTTYPE)		CJJB0A019Z	1	
CN92	nsp	WAFER,2P,3.96mm		CJP02KA060ZY	1	
CX91	nsp	CAP,X2(275VAC,0.22uF,12mm,SEORYONG)		CCQF2E224KZFS	1	
ET31.32	nsp	PLATE,EARTH(TRONICELECTRONICS)		CJT1A026	2	
FH91.92	nsp	HOLDER,FUSE		KJCF55	2	
JK15	943643102460D	JACK,USBANGLETYPE(BLACK1.5A)		CJ9X014Z	1	
JK21	943643102550M	4PSCREWSPK(RD/BK,GOLD,94V-0,Transparence)		CJ5P039Z	1	*
JK23	943643102560M	4PSCREWSPK(BK/RD,GOLD,94V-0,Transparence)		CJ5P040Z	1	*
JK24	943643102540M	JACK,3P(B/R/W),SILVER		CJ4S054Z	1	*
JK81	943643102430S	JACK,RJ-45W/TRANSFORMER		CJ9L029Z	1	
JK82	943643102570M	JACK,USBVERTICAL,BLACK		CJ9X013ZL	1	*
L180	nsp	FERRITE,CHIPBEAD(60ohm,2012)		CLZ9R001Z	1	
L201	nsp	BEAD,FERRITE(FCM2012KF-121T08,120OHM)		CLZ9R010Z	1	
L206-209	nsp	FERRITE,CHIPBEAD(60ohm,2012)		CLZ9R001Z	4	
L211	nsp	BEAD,FERRITE(FCM2012KF-121T08,120OHM)		CLZ9R010Z	1	
L217	nsp	FERRITE,CHIPBEAD(60ohm,2012)		CLZ9R001Z	1	
L220-227	nsp	FERRITE,CHIPBEAD(1Kohm,1608SIZE)		CLZ9Z166V	8	
L230-234	nsp	FERRITE,CHIPBEAD(60ohm,2012)		CLZ9R001Z	5	
L235	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1	
L236	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1	
L237	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1	
L238	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1	
L239	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1	
L240	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1	
L241	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1	
L242	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1	
L243-246	nsp	FERRITE,CHIPBEAD(60ohm,2012)		CLZ9R001Z	4	
L247	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1	
L501	nsp	FERRITE,CHIPBEAD(60ohm,2012)		CLZ9R001Z	1	
L511	nsp	BEAD,FERRITE(FCM2012KF-121T08,120OHM)		CLZ9R010Z	1	
L602.603	nsp	FERRITE,CHIPBEAD(60ohm,2012)	N1B/N1W	CLZ9R001Z	2	
L801.802	nsp	FERRITE,CHIPBEAD(60ohm,2012)		CLZ9R001Z	2	
L806-811	nsp	FERRITE,CHIPBEAD(60ohm,2012)		CLZ9R001Z	6	
L813	nsp	RES,CHIP(2012/5%/0ohm)		CRJ18AJ0R0T	1	
L820.821	nsp	FERRITE,CHIPBEAD(60ohm,2012)		CLZ9R001Z	2	
L831-833	943111100430D	COIL,SMDPOWER(3.3uH/1.3A)		CLQ18E3R3NRZ	3	
L834-839	nsp	FERRITE,CHIPBEAD(60ohm,2012)		CLZ9R001Z	6	
LF91	943111100490M	FILTER,LINE(DMC250)		CLZ9Z087Z	1	*
LF92	nsp	LINE,FILTER(5.0A/5.0mH)		CLZ9Z158Z	1	
PF21	nsp	WAFER(2.54m/m)		CJP10GA221ZB	1	
PF23	nsp	WAFER(2.54m/m)		CJP10GA221ZB	1	
PF36	nsp	PINHEADER		CJP16GA221ZB	1	
PF61	nsp	PIN SOCKET(11P,1.25mm,ANGLE,B-TO-B)	N1B/N1W	CJP11HJ282Z	1	
PF62	nsp	FEMALEHEADER(14P,2.54mm),STRAIGHTTYPE	N1B/N1W	CJP14GA221ZB	1	
PF80	nsp	WAFER,2.54MM64PINWAFER		CJP64GA221ZB	1	
SW81	943662100180M	SW,TACT,VERTICAL(3.3mm)		CST1A032ZT	1	*
VT91	943251100070M	VARISTOR(560V,14mm)		CRV5VC561D14A	1	*
WF29	nsp	WAFER,FFC(15P-1mm,STRAIGHT)		CJP15GA117ZY	1	
WF31	nsp	WAFER,CARDCABLE		CJP13GA117ZY	1	
WF34.35	nsp	WAFER,FFC(21P-1mm,STRAIGHT)		CJP21GA117ZY	2	
WF63	nsp	WAFER,CARDCABLE		CJP13GA117ZY	1	
WF64	nsp	WAFER,FFC(4P-1mm,ANGLE)		CJP04GB113ZY	1	
WF65	nsp	WAFER,FFC(11P-1mm,STRAIGHT)		CJP11GA117ZY	1	
WF66	nsp	WAFER,FFC(7P-1mm,STRAIGHT)		CJP07GA117ZY	1	
WF81	nsp	WAFER,FFC(7P-1mm,ANGLE)		CJP07GB113ZY	1	
X201	943141100610S	X-TAL,SMD3.2X2.5,12.000MHz,10PF		COX12000100ST	1	
X202	943141003490S	X-TAL,13.500MHz,HC-49/SMD,16pF,30PPM		COX13500E160S	1	
X501	943141101010M	X-TAL,24.576MHz,HC-49/SMD,18pF		COX24576E180S	1	*
★	943652500300M	FUSE,215SERIES,4A,250V		CBA2C4000TLHEY	1	*

## CD PCB ASS'Y

NOTE: The symbols in the column Remarks indicate the following destinations.  
 U : North America model N : Europe model K : China model F : Japan model  
 B : Black model SG : Silver gold model

REF No.	Part No.	Part Name	Remarks	Q'ty	New	Ver
<b>SEMICONDUCTORS GROUP</b>						
D701	00D2760717903	DIODE,CHIP,SWITCHING	HVD1SS355T	1		
D705	00D2760717903	DIODE,CHIP,SWITCHING	HVD1SS355T	1		
D710,711	00D2760717903	DIODE,CHIP,SWITCHING	HVD1SS355T	2		
D715	00D2760717903	DIODE,CHIP,SWITCHING	HVD1SS355T	1		
D716-718	00D9430060501	DIODE,RECTIFIER	HVD1SR159-200	3		
IC71	943245006980S	EOLiteml.C.CDDSP(DSP,LQFP-80P)	CVITC94A92FG	1		
IC72	943239006900S	I.C.5-CHMOTORDRIVE(REG,SSOP-28P)	CVIIP4001CRLTF_CN	1		
IC73	943231101630S	I.C.REGULATOR1.5VLD0,SOT-223	CVILM1117C-1V5	1	*	2
IC74	943239007760S	I.C.REGULATOR(3.3V/DPAK-5)	CVIKIA78R033F	1		
IC75	943231101640S	IC.REGULATOR(1A,8V)	CVILM7808RTRL	1	*	2
Q701	00D9430058908	T.R.CHIP,SOT-23	HVTKTA1504SYRTK	1		
<b>RESISTOR GROUP</b>						
R701	nsp	RES.CHIP(1608/5%/91ohm)	CRJ10DJ910T	1		
R702-705	nsp	RES.CHIP(1608/5%/39ohm)	CRJ10DJ390T	4		
R706	nsp	RES.CHIP(1608/5%/1Kohm)	CRJ10DJ102T	1		
R711-714	nsp	RES.CHIP(1608/5%/0ohm)	CRJ10DJ0R0T	4		
R715-718	nsp	RES.CHIP(1608/5%/33ohm)	CRJ10DJ330T	4		
R721	nsp	RES.CHIP(1608/5%/0ohm)	CRJ10DJ0R0T	1		
R722	nsp	RES.CHIP(1608/5%/1Mohm)	CRJ10DJ105T	1		
R723	nsp	RES.CHIP(1608/5%/100ohm)	CRJ10DJ101T	1		
R731	nsp	RES.CHIP(1608/5%/0ohm)	CRJ10DJ0R0T	1		
R732-736	nsp	RES.CHIP(1608/5%/10Kohm)	CRJ10DJ103T	5		
R737-741	nsp	RES.CHIP(1608/5%/100ohm)	CRJ10DJ101T	5		
R742	nsp	RES.CHIP(1608/5%/0ohm)	CRJ10DJ0R0T	1		
R743-746	nsp	RES.CHIP(1608/5%/10Kohm)	CRJ10DJ103T	4		
R747	nsp	RES.CHIP(1608/5%/33ohm)	CRJ10DJ330T	1		
R748	nsp	RES.CHIP(1608/5%/330Kohm)	CRJ10DJ334T	1		
R749	nsp	RES.CHIP(1608/5%/15Kohm)	CRJ10DJ153T	1		
R750	nsp	RES.CHIP(1608/5%/47Kohm)	CRJ10DJ473T	1		
R761	nsp	RES.CHIP(1608/5%/220ohm)	CRJ10DJ221T	1		
R763-765	nsp	RES.CHIP(1608/5%/0ohm)	CRJ10DJ0R0T	3		
R771	nsp	RES.CHIP(1608/5%/470ohm)	CRJ10DJ471T	1		
R773,774	nsp	RES.CHIP(1608/5%/47Kohm)	CRJ10DJ473T	2		
R775	nsp	RES.CHIP(1608/5%/0ohm)	CRJ10DJ0R0T	1		
R777	nsp	RES.CHIP(1608/5%/470ohm)	CRJ10DJ471T	1		
R778	nsp	RES.CHIP(1608/5%/0ohm)	CRJ10DJ0R0T	1		
R779	nsp	RES.CHIP(1608/5%/4.7Kohm)	CRJ10DJ472T	1		
R780	nsp	RES.CHIP(1608/5%/0ohm)	CRJ10DJ0R0T	1		
R781	nsp	RES.CHIP(1608/5%/4.7Kohm)	CRJ10DJ472T	1		
R786,787	nsp	RES.CHIP(1608/5%/10Kohm)	CRJ10DJ103T	2		
R789,790	nsp	RES.CHIP(1608/5%/10Kohm)	CRJ10DJ103T	2		
R794-799	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	6		
<b>CAPACITORS GROUP</b>						
C701	nsp	CAP.CHIP(1608,50V/0.01uF)	CCUS1H103KC	1		
C702	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C703	nsp	CAP.ELECT(10V/470uF)	CCEA1AH471TC	1		
C704	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C705	nsp	CAP.ELECT(10V/470uF)	CCEA1AH471TC	1		
C706	nsp	CAP.CHIP(1608,50V/1000pF)	CCUS1H102KC	1		
C707	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C708	nsp	CAP.CHIP(1608,50V/0.01uF)	CCUS1H103KC	1		
C709	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C710	nsp	CAP.ELECT(10V/100uF)	CCEA1AH101TC	1		
C711,712	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	2		
C713	nsp	CAP.ELECT(10V/100uF)	CCEA1AH101TC	1		
C714,715	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	2		
C716	nsp	CAP.ELECT(10V/100uF)	CCEA1AH101TC	1		
C717	nsp	CAP.CHIP(1608,50V/0.033uF)	CCUS1H333KC	1		
C718	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C719-721	nsp	CAP.CHIP(1608,50V/22pF)	CCUS1H220JA	3		
C724	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C725	nsp	CAP.ELECT(10V/100uF)	CCEA1AH101TC	1		
C726-728	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	3		
C729,730	nsp	CAP.CHIP(1608,50V/15pF)	CCUS1H150JA	2		
C731	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C734	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C735	nsp	CAP.ELECT(10V/100uF)	CCEA1AH101TC	1		
C736	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C737	nsp	CAP.ELECT(10V/100uF)-S	CCEA1AKS101TC	1		
C738	nsp	CAP.CHIP(1608,50V/1000pF)	CCUS1H102KC	1		
C739	nsp	CAP.CHIP(1608,50V/0.01uF)	CCUS1H103KC	1		
C740	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C741	nsp	CAP.CHIP(1608,50V/1000pF)	CCUS1H102KC	1		
C742	nsp	CAP.CHIP(1608,50V/0.01uF)	CCUS1H103KC	1		
C743-745	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	3		
C746	nsp	CAP.CHIP(1608,50V/1000pF)	CCUS1H102KC	1		
C747	nsp	CAP.CHIP(1608,50V/0.015uF)	CCUS1H153KC	1		
C748	nsp	CAP.CHIP(1608,50V/47pF)	CCUS1H470JA	1		
C749	nsp	CAP.ELECT(25V/47uF)-S	CCEA1EKS470TC	1		
C750	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C751	nsp	CAP.CHIP(1608,50V/0.01uF)	CCUS1H103KC	1		
C754	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C755	nsp	CAP.ELECT(10V/100uF)	CCEA1AH101TC	1		
C756	nsp	CAP.CHIP(1608,50V/2200pF)	CCUS1H222KC	1		
C757	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C758	nsp	CAP.CHIP(1608,50V/0.01uF)	CCUS1H103KC	1		
C759	nsp	CAP.CHIP(1608,50V/4700pF)	CCUS1H472KC	1		
C760	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C761	nsp	CAP.CHIP(1608,50V/0.015uF)	CCUS1H153KC	1		
C762	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C764	nsp	CAP.CHIP(1608,50V/0.01uF)	CCUS1H103KC	1		
C765	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		
C766	nsp	CAP.ELECT(10V/100uF)-S	CCEA1AKS101TC	1		
C767	nsp	CAP.CHIP(1608,50V/0.1uF)	CCUS1H104KC	1		

REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
C768,769	nsp	CAP.CHIP(1608,50V/470pF)		CCUS1H471JA	2		
C770	nsp	CAP.ELECT(10V/100uF)-S		CCEA1AKS101TC	1		
C771	nsp	CAP.CHIP(1608,50V/5600pF)		CCUS1H562KC	1		
C772	nsp	CAP.CHIP(1608,50V/0.047uF)		CCUS1H473KC	1		
C774	nsp	CAP.CHIP(1608,50V/0.047uF)		CCUS1H473KC	1		
C777	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	1		
C778	nsp	CAP.ELECT(10V/100uF)-S		CCEA1AKS101TC	1		
C779	nsp	CAP.ELECT(10V/470uF)		CCEA1AH471TC	1		
C780-783	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	4		
C785-787	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	3		
C788	nsp	CAP.CHIP(1608,50V/0.01uF)		CCUS1H103KC	1		
C789,790	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	2		
C791	nsp	CAP.ELECT(10V/470uF)		CCEA1AH471TC	1		
C792	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	1		
C793	nsp	CAP.ELECT(16V/220uF)		CCEA1CH221TC	1		
C794-799	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	6		
C809	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	1		
C816	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	1		
C817	nsp	CAP.CHIP(1608,50V/0.01uF)		CCUS1H103KC	1		
C818	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	1		
C819	nsp	CAP.CHIP(1608,50V/0.01uF)		CCUS1H103KC	1		
<b>OTHER PARTS GROUP</b>							
CN27	nsp	LOCKINGTYPE,STRAIGHTWAFER,2mm		CJP05GI236ZW	1		
CN70	nsp	WAFER,STRAIGHT(DVDLOADER)		CJP06GA19ZY	1		
CN71	nsp	WAFER,STRAIGHT		CJP05GA19ZY	1		
JK71	nsp	PLATE,EARTH(TRONICELECTRONICS)		CJT1A026	1		
L701	90M-LU000220R	INDUCTORCHIP10UH(3225PKG)		HLQ10E100KRZ	1		
L705	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1		
L706	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1		
L707	90M-FC900340R	CHIP,BEAD		HLZ9Z014Z	1		
WF34	nsp	WAFER,FFC(21P-1mm,STRAIGHT)		CJP21GA117ZY	1		
WF70	nsp	WAFER,FFC(17P-1mm,STRAIGHT)		CJP16GA117ZY	1		
X701	943141001190S	X-TAL,16.934MHz,HC-49/SMD,12pF,.25PPM		COX16934E120S	1		

## AMP PCB ASS'Y

NOTE: The symbols in the column Remarks indicate the following destinations.  
 U : North America model N : Europe model K : China model F : Japan model  
 B : Black model SG : Silver gold model

REF No.	Part No.	Part Name	Remarks	Q'ty	New	Ver
<b>SEMICONDUCTORS GROUP</b>						
IC41_42	00D2623503911	I.C.STEREO DIGITALAMP				
Q401	963216500060S	T.R.RT1N144C(10K-47K)		CVITAS5142DKDG4	2	
Q402	943215500140D	T.R.RT1P144C(10K-47K)		CVTRT1N144C	1	
Q403	963216500060S	T.R.RT1N144C(10K-47K)		CVTRT1P144C	1	
Q404	943215500140D	T.R.RT1P144C(10K-47K)		CVTRT1N144C	1	
<b>RESISTOR GROUP</b>						
R401_402	nsp	RES.CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
R403	nsp	RES.CHIP(1608/5%/56Kohm)		CRJ10DJ563T	1	
R404_405	nsp	RES.CHIP(1608/5%/1Kohm)		CRJ10DJ102T	2	
R406	nsp	RES.CHIP(1608/5%/1ohm)		CRJ10DJ1R0T	1	
R407-410	nsp	RES.CHIP(1608/5%/10ohm)		CRJ10DJ100T	4	
R415-418	nsp	RES.CHIP(2012/1%/18ohm)		CRJ18AF18R0T	4	
R419-422	nsp	RES.CHIP(2012/1%/3.3ohm)		CRJ18AF3R30T	4	
R430-433	nsp	RES.CHIP(2012/1%/18ohm)		CRJ18AF18R0T	4	
R434-437	nsp	RES.CHIP(2012/1%/3.3ohm)		CRJ18AF3R30T	4	
R440-443	nsp	RES.CHIP(1608/5%/10Kohm)		CRJ10DJ103T	4	
R445-448	nsp	RES.CHIP(1608/5%/10Kohm)		CRJ10DJ103T	4	
R450_451	nsp	RES.CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	2	
R452	nsp	RES.CHIP(1608/5%/56Kohm)		CRJ10DJ563T	1	
R453_454	nsp	RES.CHIP(1608/5%/1Kohm)		CRJ10DJ102T	2	
R455	nsp	RES.CHIP(1608/5%/1ohm)		CRJ10DJ1R0T	1	
R456-459	nsp	RES.CHIP(1608/5%/10ohm)		CRJ10DJ100T	4	
<b>CAPACITORS GROUP</b>						
C400-405	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	6	
C406	943134502540M	CAP.ELECT(16V/100uF,PUWSeries,ESR,105°C)		CCEA1CPUW101TS	1	*
C407	943134003040S	CAP.ELECT		CCET1HKLH332KK8	1	
C408	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C409	00MDK56333300	CAP.CHIP(2012,50V/0.033uF)		CCUC1H333KC	1	
C410_411	943132500630M	CAP.CHIP(3216,50V/0.1uF,MURATAGRM31)		CCUMUP1H104JAM	2	*
C412_413	00MDK56333300	CAP.CHIP(2012,50V/0.033uF)		CCUC1H333KC	2	
C414_415	943132500630M	CAP.CHIP(3216,50V/0.1uF,MURATAGRM31)		CCUMUP1H104JAM	2	*
C416	00MDK56333300	CAP.CHIP(2012,50V/0.033uF)		CCUC1H333KC	1	
C417	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C418	943134502540M	CAP.ELECT(16V/100uF,PUWSeries,ESR,105°C)		CCEA1CPUW101TS	1	*
C419	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C420	nsp	CAP.CHIP(2012,50V/1uF)		CCUC1H105KC	1	
C421-424	943132500660M	CAP.CHIP(1608,100V/330pF,MURATAGRM18)		CCUMUS2A331JAM	4	*
C425_426	nsp	CAP.METALIZEDFILM(100V/0.47UF,5%)		CCME2A474JR08T	2	
C427-430	943132500650M	CAP.CHIP(3216,100V/0.1uF,MURATAGRM31)		CCUMUP2A104JAM	4	*
C431-434	943132500640M	CAP.CHIP(3216,100V/0.01uF,MURATAGRM31)		CCUMUP2A103JAM	4	*
C435-438	nsp	CAP.CHIP(2012,50V/0.1uF)		CCUC1H104KC	4	
C439	nsp	CAP.CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C440	943132500640M	CAP.CHIP(3216,100V/0.01uF,MURATAGRM31)		CCUMUP2A103JAM	1	*
C441	943132500650M	CAP.CHIP(3216,100V/0.1uF,MURATAGRM31)		CCUMUP2A104JAM	1	*
C442-447	nsp	CAP.CHIP(2012,50V/1uF)		CCUC1H105KC	6	
C448	943134502550M	CAP.ELECT(UTWYZ,16V/100uF),105°C		CCEA1CUTWYZ101TS	1	*
C449-454	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	6	
C455	943134502540M	CAP.ELECT(16V/100uF,PUWSeries,ESR,105°C)		CCEA1CPUW101TS	1	*
C456	943134003040S	CAP.ELECT		CCET1HKLH332KK8	1	
C457	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C458	00MDK56333300	CAP.CHIP(2012,50V/0.033uF)		CCUC1H333KC	1	
C459_460	943132500630M	CAP.CHIP(3216,50V/0.1uF,MURATAGRM31)		CCUMUP1H104JAM	2	*
C461_462	00MDK56333300	CAP.CHIP(2012,50V/0.033uF)		CCUC1H333KC	2	
C463_464	943132500630M	CAP.CHIP(3216,50V/0.1uF,MURATAGRM31)		CCUMUP1H104JAM	2	*
C465	00MDK56333300	CAP.CHIP(2012,50V/0.033uF)		CCUC1H333KC	1	
C467	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C468	nsp	CAP.CHIP(2012,50V/1uF)		CCUC1H105KC	1	
C469	943134502540M	CAP.ELECT(16V/100uF,PUWSeries,ESR,105°C)		CCEA1CPUW101TS	1	*
C470	943134502550M	CAP.ELECT(UTWYZ,16V/100uF),105°C		CCEA1CUTWYZ101TS	1	*
C471-474	943132500660M	CAP.CHIP(1608,100V/330pF,MURATAGRM18)		CCUMUS2A331JAM	4	*
C475_476	nsp	CAP.METALIZEDFILM(100V/0.47UF,5%)		CCME2A474JR08T	2	
C477-480	943132500650M	CAP.CHIP(3216,100V/0.1uF,MURATAGRM31)		CCUMUP2A104JAM	4	*
C481_482	943132500640M	CAP.CHIP(3216,100V/0.01uF,MURATAGRM31)		CCUMUP2A103JAM	2	*
C483_484	nsp	CAP.CHIP(2012,50V/0.1uF)		CCUC1H104KC	2	
C485_486	943132500640M	CAP.CHIP(3216,100V/0.01uF,MURATAGRM31)		CCUMUP2A103JAM	2	*
C487_488	nsp	CAP.CHIP(2012,50V/0.1uF)		CCUC1H104KC	2	
C495-499	nsp	CAP.CHIP(1608,50V/0.1uF)		CCUS1H104KC	5	
C500-507	nsp	CAP.CHIP(1608,50V/0.01uF)		CCUS1H103KC	8	
<b>OTHER PARTS GROUP</b>						
CN92	nsp	LOCKINGTYPE,STRAIGHTWAFER,2.5MM		CJP05GI237ZW	1	
L401-408	nsp	BEAD,FERRITE(FCM2012KF-121T08,120OHM)		CLZ9R010Z	8	
L421-428	943115100330M	INDUCTOR,10uH(SAGAMI)		CLZ92161Z	8	*
L430	90M-FC900340R	EOLItemCHIP,BEAD		HLZ92014Z	1	
L431	90M-FC900340R	CHIP,BEAD		HLZ92014Z	1	
L432	90M-FC900340R	CHIP,BEAD		HLZ92014Z	1	
L433	90M-FC900340R	CHIP,BEAD		HLZ92014Z	1	
L434	90M-FC900340R	CHIP,BEAD		HLZ92014Z	1	
L435	90M-FC900340R	CHIP,BEAD		HLZ92014Z	1	
L436	90M-FC900340R	CHIP,BEAD		HLZ92014Z	1	
L437	90M-FC900340R	CHIP,BEAD		HLZ92014Z	1	
WF21	nsp	PIN SOCKET,SMD(10PIN,2.54mm,8.5mmHeight,STRAIGHT)		CJP10GA300ZB	1	
WF23	nsp	PIN SOCKET,SMD(10PIN,2.54mm,8.5mmHeight,STRAIGHT)		CJP10GA300ZB	1	
WF36	nsp	PIN SOCKET,SMD(16PIN,2.54mm,8.5mmHeight,STRAIGHT)		CJP16GA300ZB	1	
★	nsp	HEATSINK		CMY1A304-V2	1	
★	nsp	SCREW		CTB3-8JFZR	3	
★	nsp	COMPOUND,SILICONE		K8AYG6260	0.4	

FRONT PCB ASS'Y

NOTE: The symbols in the column Remarks indicate the following destinations.  
 U : North America model N : Europe model K : China model F : Japan model  
 B : Black model SG : Silver gold model

REF No.	Part No.	Part Name	Remarks	Q'ty	New	Ver
<b>SEMICONDUCTORS GROUP</b>						
D101	943202500760M	DIODE,ZENER		HVDMTJ2.7BT	1	*
D102	943263100860M	L.E.D.(GREEN/RED3PI)		CVDWEJ3290W-R2H0-BA	1	
D103,104	00D2760717903	DIODE,CHIP,SWITCHING		HVD1SS355T	2	
IC61	963239100920S	I.C,StereoAudioSwitch(SSOP-16)		CVINJM2755V	1	
Q101,102	943216500020S	T,R,RT1N141C(10K-10K)		CVTRT1N141C	2	
Q105,106	943216500020S	T,R,RT1N141C(10K-10K)		CVTRT1N141C	2	
Q108	943215500020S	T,R,RT1P141C(10K-10K)		CVTRT1P141C	1	
<b>RESISTOR GROUP</b>						
R101-103	nsp	RES,CHIP(1608/5%/1Kohm)		CRJ10DJ102T	3	
R104	nsp	RES,CHIP(1608/5%/150ohm)		CRJ10DJ151T	1	
R105	nsp	RES,CHIP(1608/5%/180ohm)		CRJ10DJ181T	1	
R106	nsp	RES,CHIP(1608/5%/150ohm)		CRJ10DJ151T	1	
R107	nsp	RES,CHIP(1608/5%/180ohm)		CRJ10DJ181T	1	
R108	nsp	RES,CHIP(1608/5%/270ohm)		CRJ10DJ271T	1	
R109	nsp	RES,CHIP(1608/5%/390ohm)		CRJ10DJ391T	1	
R110	nsp	RES,CHIP(1608/5%/150ohm)		CRJ10DJ151T	1	
R111	nsp	RES,CHIP(1608/5%/180ohm)		CRJ10DJ181T	1	
R112	nsp	RES,CHIP(1608/5%/270ohm)		CRJ10DJ271T	1	
R113	nsp	RES,CHIP(1608/5%/390ohm)		CRJ10DJ391T	1	
R114	nsp	RES,CHIP(1608/5%/680ohm)		CRJ10DJ681T	1	
R115	nsp	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	1	
R121	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	1	
R122	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R123	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	1	
R124	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R125	nsp	RES,CHIP(1608/5%/1Mohm)		CRJ10DJ105T	1	
R126	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R131	nsp	RES,CHIP(1608/5%/68ohm)		CRJ10DJ680T	1	
R132	nsp	RES,CHIP(1608/5%/120ohm)		CRJ10DJ121T	1	
R133	nsp	RES,CHIP(1608/5%/150ohm)		CRJ10DJ151T	1	
R134	nsp	RES,CHIP(1608/5%/270ohm)		CRJ10DJ271T	1	
R139	nsp	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	1	
R140	nsp	RES,CHIP(1608/5%/120ohm)		CRJ10DJ121T	1	
R141	nsp	RES,CHIP(1608/5%/82ohm)		CRJ10DJ820T	1	
R142	nsp	RES,CHIP(1608/5%/270ohm)		CRJ10DJ271T	1	
R150-155	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	6	
R156	nsp	RES,CHIP(1608/5%/47Kohm)		CRJ10DJ473T	1	
R602	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R611-613	nsp	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	3	
R621-628	nsp	RES,CHIP(1608/5%/15Kohm)		CRJ10DJ153T	8	
R629	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
R630,631	nsp	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	2	
R632,633	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	2	
R634,635	nsp	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	2	
R640	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	1	
<b>CAPACITORS GROUP</b>						
C101-103	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	3	
C111	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C112	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C113	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C114	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C115	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C116-119	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	4	
C120	nsp	CAP,ELECT(16V/47uF)-S		CCEA1CK5470TC	1	
C121-123	nsp	CAP,CHIP(1608,50V/47pF)		CCUS1H470JA	3	
C124	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C125	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	1	
C126	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C127	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C128	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C129	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C130,131	nsp	CAP,CHIP(1608,10V/4.7uF)		CCUS1A475KC	2	
C132	nsp	CAP,ELECT(35V/10uF)-S		CCEA1VK5100T	1	
C133,134	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	2	
C135	nsp	CAP,CHIP(1608,10V/4.7uF)		CCUS1A475KC	1	
C136	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C137	nsp	CAP,ELECT(35V/10uF)-S		CCEA1VK5100T	1	
C141,142	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	2	
C151	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C152-154	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	3	
C157,158	nsp	CAP,CHIP(1608,50V/0.027uF)		CCUS1H273KC	2	
C160	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C161	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C162	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C163	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C164	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C165	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C169	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C170	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C171	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C172	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C173	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C174	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C175	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C176	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C177	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C178	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C179	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C180	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C181-183	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	3	
C184	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C185	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C186	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C187	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C188	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	1	
C189	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	

REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
C190	nsp	CAP,CHIP(1608,50V/0.1uF)			1		
C191	nsp	CAP,CHIP(1608,50V/0.01uF)			1		
C192	nsp	CAP,CHIP(1608,50V/1000pF)			1		
C193	nsp	CAP,CHIP(1608,50V/0.1uF)			1		
C194	nsp	CAP,CHIP(1608,50V/0.01uF)			1		
C195	nsp	CAP,CHIP(1608,50V/1000pF)			1		
C602	nsp	CAP,CHIP(1608,50V/0.01uF)			1		
C603	nsp	CAP,ELECT(16V/10uF)			1		
C611	nsp	CAP,CHIP(1608,50V/0.1uF)			1		
C612	nsp	CAP,CHIP(1608,50V/0.01uF)			1		
C613	nsp	CAP,CHIP(1608,50V/1000pF)			1		
C614	nsp	CAP,ELECT(10V/470uF)			1		
C615	nsp	CAP,CHIP(1608,50V/0.1uF)			1		
C621	943134501930D	CAP,ELECT(50V/10uF)-S			1		
C622,623	943134502030D	CAP,ELECT(50V/10uF)			2		
C625	943134501930D	CAP,ELECT(50V/10uF)-S			1		
C626	943134502030D	CAP,ELECT(50V/10uF)			1		
C627	943134501930D	CAP,ELECT(50V/10uF)-S			1		
C628	943134502030D	CAP,ELECT(50V/10uF)			1		
C630-633	nsp	CAP,CHIP(1608,50V/100pF)			4		
C634,635	nsp	CAP,CHIP(1608,50V/0.1uF)			2		
C636	nsp	CAP,ELECT(10V/100uF)			1		
C637,638	nsp	CAP,CHIP(1608,10V/1uF)			2		
C640	nsp	CAP,CHIP(1608,50V/0.1uF)			1		
C641	nsp	CAP,CHIP(1608,50V/0.01uF)			1		
C642	nsp	CAP,CHIP(1608,50V/1000pF)			1		
C643	nsp	CAP,CHIP(1608,50V/0.1uF)			1		
C644	nsp	CAP,CHIP(1608,50V/0.01uF)			1		
C645	nsp	CAP,CHIP(1608,50V/1000pF)			1		
<b>OTHER PARTS GROUP</b>							
BK63	nsp	BRACKET,PCB			1		
BN24	nsp	WIREASS'Y(LOCKING,3P,150MM,2.0MM)			1		
CN61	nsp	LOCKINGTYPE,STRAIGHTWAFER,2.5MM			1		
CN62	nsp	LOCKINGTYPE,STRAIGHTWAFER,2MM			1		
GND1,2	nsp	PLATE,EARTH(TRONICELECTRONICS)			2		
JK11	00D9430105204	JACK,HEADPHONE(SILVER)			1		
JK61	943643102530M	JACK,RCA(4P,SILVER,R/W/R/W),SEPA-GND			1	*	
JK62	943262100150S	MODULE,OPTICAL(RX16MHz)			1		
L101,102	nsp	FERRITECHIPBEAD(2012/120R)			2		
L103	90M-FC900340R	CHIP,BEAD			1		
L104	90M-FC900340R	CHIP,BEAD			1		
L105	90M-FC900340R	CHIP,BEAD			1		
L601	90M-FC900340R	CHIP,BEAD			1		
L602	90M-FC900340R	CHIP,BEAD			1		
L603	90M-FC900340R	CHIP,BEAD			1		
PM61	nsp	PINHEADER(11P,1.25mm,STRAIGHT,B-TO-B)			1		
RC11	262010007707S	SENSOR,REMOTE(36.7KHz)			1		
S101-114	00D9430004402	SW,TACT			14		
TM61	943183010320S	TUNER(USA)FM(SCREW:FTYPE),AM(S/LAB)	U1B/FN		1		
WF12	nsp	WAFER,FPC/FFC(30P,1mmPITCH,ANGLE)			1		
WF29	nsp	WAFER,FFC(15P-1mm,STRAIGHT)			1		
WF30	nsp	WAFER,FFC(29P-1.25mm,STRAIGHT)			1		
WF32,33	nsp	WAFER,FFC(29P-1.25mm,STRAIGHT)			2		
★	nsp	CUSHION,IR			1		



## EXPLODED

NOTE:The symbols in the column Remarks indicate the following destinations.  
 U : North America model N : Europe model K : China model F : Japan model  
 B : Black model SG : Silver gold model

REF No.	Part No.	Part Name	Remarks	Q'ty	New	Ver
P1a	nsd	FRONT PCB ASSY	COP1A12574 B-B(N1B/N1W) , C-D(U1B/FN)	1		
P1b	nsd	FRONT PCB ASSY	COP1A12574 B-B(N1B/N1W) , C-D(U1B/FN)	1		
P1c	nsd	FRONT PCB ASSY	COP1A12574 B-B(N1B/N1W) , C-D(U1B/FN)	1		
P2	963179100040S	OLEDMODULE(MXS4035-A)	CFLMXS4035-A	1	*	
P3a	nsd	MAIN PCB ASSY	COP12570 E(N1B/N1W) , F(U1B), G(FN)	1		
P3b	nsd	MAIN PCB ASSY	COP12570 E(N1B/N1W) , F(U1B), G(FN)	1		
P3c	nsd	MAIN PCB ASSY	COP12570 E(N1B/N1W) , F(U1B), G(FN)	1		
P3d	nsd	MAIN PCB ASSY	COP12570 E(N1B/N1W) , F(U1B), G(FN)	1		
P3e	nsd	MAIN PCB ASSY	COP12570 E(N1B/N1W) , F(U1B), G(FN)	1		
P3f	nsd	MAIN PCB ASSY	COP12570 E(N1B/N1W) , F(U1B), G(FN)	1		
P3g	nsd	MAIN PCB ASSY	COP12570 E(N1B/N1W) , F(U1B), G(FM)	1		
P3h	nsd	MAIN PCB ASSY	COP12570 E(N1B/N1W) , F(U1B), G(FM)	1		
P4	943189100631S	SMPS UNIT ASSY(N1) COP12569E MCR610	N1B/N1W	COP12569E	1	*
P4	943189100630S	SMPS UNIT ASSY(U1) COP12569F MCR610	U1B	COP12569F	1	*
P4	943189100632S	SMPS UNIT ASSY(F) COP12569G MCR610	FN	COP12569G	1	*
P5	nsd	AMP PCB ASSY	COP12572 B(N1B/N1W) , C(U1B)	1		
P6	943189100611S	CX870-3D-D60 ROM ASSY MCR610 (N)	N1B/N1W	CNVX870-3B-D60-E	1	*
P6	943189100610S	CX870-3D-D60 ROM ASSY MCR610 (U)	U1B	CNVX870-3B-D60-F	1	*
P6	943189100612S	CX870-3D-D60 ROM ASSY MCR610 (JP)	FN	CNVX870-3B-D60-G	1	*
P7	943619100110M	ANT,WIFI(2.4GHz, 150MM,WHITE, IPEX Compatible)		CSA1A050Z	1	*
P7	943619100120M	ANT,WIFI(2.4GHz, 350MM,BLUE, IPEX Compatible)		CSA1A051Z	1	*
P8	nsd	CD PCB	COP12575 B(N1B/N1W) , C(U1B/FN)	1		
P9	943183100380M	Module,DAB(Venice9,FM-RDS,BAND3,F-TYPE,withoutDAC)	N1B/N1W	CNVFS2029B-000010	1	*
P10	943183010320S	TUNER(USA) FM(SCREW : F TYPE), AM(S/LAB)	U1B/FN	CNVMM004MV1S63SN	1	
P11	943302100130D	CJDKT690 CD MECHA ASSY DCD720		CJDKT690	1	
1	943409100590M	FRONTTOP-ORNAMENT	N1B/N1W/U1B	CGR1A559	1	*
1	943409100600M	FRONTTOP-ORNAMENT	FN	CGR1A559RMD10	1	*
2	943424100450M	RING,POWER	N1B/U1B	CGR1A557	1	*
2	943424100470M	RING,POWER	N1W	CGR1A557C81	1	*
2	943424100460M	RING,POWER	FN	CGR1A557C70	1	*
3	943421100300M	BADGE,MARANTZ		CGB1A206Y	1	*
4	943416101030M	WINDOW,OLED	N1B/U1B	CGU1A477Y	1	*
4	943416101040M	WINDOW,OLED	N1W	CGU1A477Z	1	*
4	943416101020M	WINDOW,OLED	FN	CGU1A477X	1	*
5	943402103980M	FRONTSIDE,PANEL L	N1B/N1W/U1B	CGW1A543Y	1	*
5	943402103970M	PANEL,FRONT SIDE L	FN	CGW1A543RMDZ10	1	*
6	943402104000M	FRONT SIDE,PANEL R	N1B/N1W/U1B	CGW1A544Z	1	*
6	943402103990M	FRONT SIDE,PANEL R	FN	CGW1A544RMDZ10	1	*
7	nsd	FRONT SUB,PANEL	N1B/N1W/U1B	CGW1A542RH	1	*
7	nsd	FRONT SUB,PANEL	FN	CGW1A542RZD10	1	*
8	943411102720M	POWER KNOB ASSY	N1B/U1B	CGK1A178ZA	1	*
8	943411102700M	POWER KNOB ASSY	N1W	CGK1A178XA	1	*
8	943411102710M	POWER KNOB ASSY	FN	CGK1A178YA	1	*
9	943411102670M	INPUT KNOB ASSY	N1B/N1W/U1B	CGK1A177XA	1	*
9	943411102640M	INPUT KNOB ASSY	FN	CGK1A177UA	1	*
10	943411102590M	OPEN KNOB ASSY	N1B/N1W/U1B	CGK1A175ZA	1	*
10	943411102570M	OPEN KNOB ASSY	FN	CGK1A175XA	1	*
11	943411102580M	CURSOR KNOB ASSY	N1B/N1W/U1B	CGK1A175YA	1	*
11	943411102560M	CURSOR KNOB ASSY	FN	CGK1A175WA	1	*
12	943411102630M	PLAY KNOB ASSY	N1B/N1W/U1B	CGK1A176ZA	1	*
12	943411102610M	PLAY KNOB ASSY	FN	CGK1A176XA	1	*
13	943411102620M	ENTER KNOB ASSY	N1B/N1W/U1B	CGK1A176YA	1	*
13	943411102600M	ENTER KNOB ASSY	FN	CGK1A176WA	1	*
14	nsd	HOLDER,OLED		CMH1A346	1	
15	943404100540M	PANEL,SIDE	N1B/N1W/U1B	CKD1A078	2	*
15	943404100550M	PANEL,SIDE	FN	CKD1A078RMD10	2	*
16	nsd	PANEL, TOP(SUB)		CKD1A080RH	1	*
17	nsd	PANEL, TOP	N1B/N1W	CKD1A079Y	1	*
17	nsd	PANEL, TOP	U1B/FN	CKD1A079Z	1	*
16,17	943406101390M	PANEL, TOP ASSY(MCR610N1B/N1W)	N1B/N1W	CKA1A079YA	1	*
16,17	943406101400M	PANEL, TOP ASSY(MCR610K1B/FN , MCR510 ALL)	U1B/FN	CKA1A079ZA	1	*
18	943411102730M	REAR,PANEL(MOLD)	N1B/N1W/U1B	CGP1A037	1	*
18	943411102740M	REAR,PANEL(MOLD)	FN	CGP1A037RMD10	1	*
19	nsd	FOOT		CKL1A102	4	
20	943409100580M	DOOR,CD		CGR1A558	1	*
21	943416101070M	WINDOW,CDDOOR	N1W	CGU1A478Z	1	*
21	943416101060M	WINDOW,CDDOOR	N1B/U1B	CGU1A478Y	1	*
21	943416101050M	WINDOW,CDDOOR	FN	CGU1A478X	1	*
22	943411102690M	VOLUME UP KNOB ASSY	N1B/N1W/U1B	CGK1A177ZA	1	*
22	943411102680M	VOLUME UP KNOB ASSY	FN	CGK1A177WA	1	*
23	943411102680M	VOLUME DOWN KNOB ASSY	N1B/N1W/U1B	CGK1A177YA	1	*
23	943411102650M	VOLUME DOWN KNOB ASSY	FN	CGK1A177VA	1	*
25	nsd	COVER,SHIELD,OLED		CMC1A448	1	
26	nsd	CHASSIS,FRONT		CUF1A022	1	*
27	nsd	CHASSIS,BOTTOM		CUA1A346	1	
28	nsd	PANEL,REAR	N1B/N1W	CKF1A472Z	1	*
28	nsd	PANEL,REAR	U1B	CKF2A472Z	1	*
28	nsd	PANEL,REAR	FN	CKF2A472Y	1	*
29	nsd	SHIELD, TOP COVER		CMC1A449	1	
30	nsd	PLATE,SHIELD(SPEAKER)		CMC1A458	1	
31	nsd	RUFFER,FLCRX-E320		CHG1A364	1	
32	nsd	CUSHION,SUPPORT		CHG1A305	1	
33	nsd	RUBBER,FOOT		CHG1A297	4	
34	nsd	INSULATOR,SMPS		CMX1A328	1	
35	nsd	INSULATOR,POWER		CMX1A329	1	
36	nsd	INSULATOR,SIDE(L)	U1B	CMX1A333	1	*
37	nsd	NUT,DAB	N1B/N1W	CNE1A009	1	
38	nsd	WASHER	N1B/N1W	CNW1A038	1	
39	nsd	SUPPORT,MECHA		CMH1A345	2	
40	nsd	SUPPORT,PCB	N1B/N1W/FN	CRE1A076	1	
S1	nsd	SCREW		CTB3+10JFZR	7	
S2	nsd	SCREW		CTB3+8JFZR	7	
S3	nsd	SCREW		CTB3+6JFZR	28	
S4	nsd	SCREW		CTB3+6FFZR	13	
S5	nsd	SCREW,HEXA	N1B/U1B	CHD1A063ZR	8	
S5	nsd	SCREW,HEXA	N1W/FN	CHD1A063	8	
S7	nsd	SCREW,HFXA	N1B/U1B	CHD3A063ZR	2	
S7	nsd	SCREW,HFXA	N1W/FN	CHD3A063	2	
★WF31	943606502160M	CABLE,CARD(13P,100MM,1.0MM)		CWC4F4A13A100B08	1	*
★WF29	943606502180M	CABLE,CARD(15P,80MM,1.0MM)		CWC4F4A15A080B08	1	*
★WF70	943606502190M	CABLE,CARD(16P,80MM,1.0MM)		CWC4F4A16A080A08	1	*
★CN35	943606502200M	CABLE,CARD(21P,50MM,1.0MM)		CWC4F4A21A050B08	1	*
★WF34	943606502200M	CABLE,CARD(21P,50MM,1.0MM)		CWC4F4A21A050B08	1	*
★WF30	943606502210M	CABLE,CARD(29P,100MM,1.25MM)		CWC6F4A29B100B08	1	*
★CN30	943606502220M	CABLE,CARD(29P,150MM,1.25MM)		CWC6F4A29B150B08	1	*
★CN70	nsd	WIREASSY		CWBSA906080EG	1	
★CN71	nsd	WIREASSY(LOCKING,5P,150MM,2.0MM)		CWB1B005150EG001	1	

REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
★	nsp	PIN,DIP(10PIN,2.54mmPitch,H=2.5,STRAIGHT)		CJP10GA304ZB	2		
★	nsp	PIN,DIP(16PIN,2.54mmPitch,H=2.5,STRAIGHT)		CJP16GA304ZB	1		
★	nsp	CLAMPER,WIRE		CHE36-3	3		
★	nsp	CLAMPER		CHR301-V1	2		
★	nsp	LOCKER	N1B/N1W	CRE1A037	4		
★	nsp	LOCKER,RED	N1B/N1W	CRE1A037Y	4		

## PACKING

NOTE:The symbols in the column Remarks indicate the following destinations.  
 U : North America model N : Europe model K : China model F : Japan model  
 B : Black model SG : Silver gold model

REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
1	54111105902AM	MANUAL_SETUPGUIDE	N1B/N1W	CQX1A1769Z	1	*	
1	54111105900AM	MANUAL_SETUPGUIDE	U1B	CQX1A1770Z	1	*	
1	54111105903AM	MANUAL_SETUPGUIDE	FN	CQX1A1784Z	1	*	
2	nsp	TOP SHEET(370x350)	N1B/N1W/U1B	CQE1A607Z	1	*	
3	nsp	SHEET_ACCESSORIE COVER		CQE1A609Z	1	*	
4	943533101830M	PAD_SNOW(B/C)-33.2G		CPS1A949	1	*	
5	943533101840M	PAD_SNOW(T)-83.6G		CPS1A950	1	*	
6	943533101850M	PAD_SNOW(B/L)-30.2G		CPS1A952	1	*	
7	943533101860M	PAD_SNOW(B/R)-30.2G		CPS1A953	1	*	
8	-	SET_NETWORK CD RECEIVER		-	1		
9	nsp	SHEET_OPP TAPE		CHS1A258Z	5		
10	nsp	SHEET_POLY(SET)750X750		CPB1A215Z	1		
11	nsp	BATTERY,AAA 2PCS IN PACK		CABR03PPB	2		
12	30701014900AM	RC011CR REMOTE CONTROLLER		CARTMCR610	1	*	
!	943611000190S	CORD_POWER EUR(H03VVH2-F2X0.75MMNM)	N1B/N1W	CJA2B108ZV	1		
!	943611500790M	CORD_POWER UL(NISPT-218/2105C)	U1B	CJA2A141ZH	1	*	
!	943611009390S	CORD_POWER JPN INLET TYPE(2.5A,250V)	FN	CJA2J116Z	1		
13-1	nsp	BAG,POLY		CPB1A008Z	1		
14	nsp	BAG,POLY		CPB1A219Z	1		
15	943429007990S	ANT,DAB	N1B/N1W	CSA1A036Z	1		
15	90M-ZA000230R	FM1POLEANT(UL)	U1B/FN	CSA1A019Z	1		
16	963116100070S	ANT,AMLOOP(9.5uH/5T)	U1B/FN	CSA1A039Z	1		
17	-	INSTRUCTION MANUAL ASS'Y	N1B/N1W	CQXMCR610/N1	1		
17	-	INSTRUCTION MANUAL ASS'Y	U1B	CQXMCR610/U1	1		
17	-	INSTRUCTION MANUAL ASS'Y	FN	CQXMCR610/F	1		
17-1	nsp	BAG,POLY		CPB1A216Z	1		
17-2	35201026002AM	CD MANUAL ASS'Y	N1B/N1W	CFT1A104ZA	1		
17-2	35201026000AM	CD MANUAL ASS'Y	U1B	CFT1A105ZA	1		
17-3	nsp	GOST SHEET	N1B/N1W	CQE1A627Z	1		
17-4	nsp	SAFETY MANUAL	N1B/N1W/U1B	CQE1A626Z	1		
17-5	nsp	NOTES ON RADIO		CQE1A628Z	1		
17-6	nsp	CARD,WARRANTY	U1B	CQE1A131V	1		
17-7	nsp	WARRANTY CANADA	U1B	CQE1A132V	1		
17-8	54111106100AM	MANUAL_INSTRUCTION	FN	CQX1A1768Z	1	*	
17-9	nsp	CARD_USER(JAPAN)	FN	CQE1A139S	1		
17-10	nsp	LIST,S.S	FN	CQE1A226O	1		
18	943531103790M	BOX_OUT CARTON	FN	CPG1A985X	1	*	
18	943531103810M	BOX_OUT CARTON	N1B/N1W	CPG1A985Z	1	*	
18	943531103800M	BOX_OUT CARTON	U1B	CPG1A985Y	1	*	
19	nsp	CARD,WARRANTY(JAPAN)	FN	CQE1A123W	1		
20	nsp	LABEL_BLACK	N1B	CQB1A1037Z	2		
21	nsp	CONTROL_LABEL		CQB1A993Z	1		
22	nsp	LABEL . MAC ADDRESS		CQE1A995	3		
23	nsp	LABEL_ARROW		CQB1A1208Z	2		
★	nsp	PE SHEET		CPE1D001	1,2		
★	nsp	LABEL_BARCODE(MANUAL)		CQB1A971	1		
★	nsp	LABEL_SERIALNO		CQB1A995	2		
★	nsp	BOTTOM_LABEL	N1B/N1W	CQB1A1193Z	1	*	
★	nsp	BOTTOM_LABEL	U1B	CQB1A1194Z	1	*	
★	nsp	BOTTOM_LABEL	FN	CQB1A1193Y	1	*	