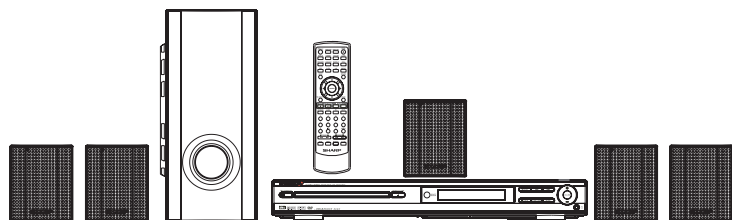


SHARP SERVICE MANUAL

No.S9502HTN410DV



HOME CINEMA WITH DVD MODEL HT-CN410DVH

(for Middle East/ Africa/ Thailand)

HT-CN410DVH Home Cinema with DVD consisting of HT-CN410DVH (main unit), CP-CN410F (front speakers), CP-CN410C (centre speaker), CP-CN410R (surround speakers) and CP-CN410SW (subwoofer).

CD-R/RW
PlayableDIVX
VIDEO

MP3

CD-R·D·S

DIGITAL
dts
SURROUNDDOLBY
DIGITAL
PRO LOGIC IIDVD
VIDEO™SAVING ENERGY
STAND-BY POWER
CONSUMPTION 0.6W

ENERGY

VIDEO CD

COMPACT
disc
SUPER VIDEOPROGRESSIVE
SCAN

- In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

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CHAPTER 1. GENERAL DESCRIPTION

[1] PRECAUTION FOR USING LEAD-FREE SOLDER

1. Employing lead-free solder

"MAIN,DISPLAY,TERMINAL,SWITCH,POWER,JACK,TUNER,DVD,MICVIDEOOUT,CDCHANGERMOTOR(PWBONLY),LED PWB" of this model employs lead-free solder.

The LF symbol indicates lead-free solder, and is attached on the PWB and service manuals. The alphabetical character following LF shows the type of lead-free solder.

Example:

LFa
Sn-Ag-Cu Indicates lead-free solder of tin, silver and copper.

2. Using lead-free wire solder

When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.

As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldering bit, contact our service station or service branch in your area.

3. Soldering

As the melting point of lead-free solder (Sn-Ag-Cu) is about 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solder wettability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.

Lead-free solder contains more tin, and the end of the soldering bit may be easily corrected. Make sure to turn on and off the power of the bit as required.

If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.

When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Be careful when replacing parts with polarity indication on the PWB silk.

Lead-free wire solder for servicing

Ref No.	Parts No.	Description
PWB-A1	92LABE10530101	CONTROL PWB ASS'Y
PWB-A2	92LABE10530301	EARPHONE PWB ASS'Y
PWB-A3	92LABE10530201	STANDBY PWB ASS'Y
PWB-B	92LABE10510003	MAIN PWB ASS'Y
PWB-C	92LABE10504004	POWER PWB ASS'Y

SAFETY PRECAUTION FOR SERVICE MANUAL

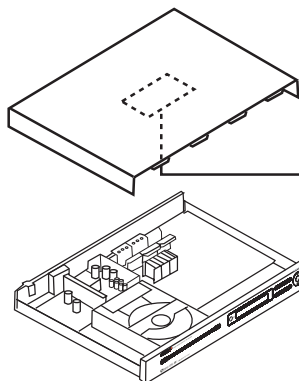
Precaution to be taken when replacing and servicing the Laser Pickup.

The AEL (Accessible Emission Level) of Laser Power Output for this model is specified to be lower than Class 1 Requirements. However, the following precautions must be observed during servicing to protect your eyes against exposure to the Laser beam.

- (1) When the cabinet has been removed, the power is turned on without a compact disc, and the Pickup is on a position outer than the lead-in position, the Laser will light for several seconds to detect a disc. Do not look into the Pickup Lens.
- (2) The Laser Power Output of the Pickup inside the unit and replacement service parts have already been adjusted prior to shipping.
- (3) No adjustment to the Laser Power should be attempted when replacing or servicing the Pickup.
- (4) Under no circumstances look directly into the Pickup Lens at any time.
- (5) CAUTION - Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser Diode Properties

Material: AlGaAs/AlGaInP
Wavelength: 785 nm/650 nm
Emission Duration: continuous
Laser Output: max. 0.6 mW

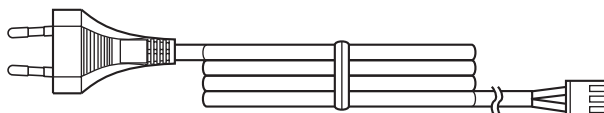


CAUTION: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

WARNUNG: SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN GERÄT GEÖFFNET. NICHT IN DIE STRAHLUNG SCHAUEN ODER DIREKT MIT OPTISCHEN HILFSMITTELN BETRACHTEN.

ATTENTION: RAYONS LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. NE PAS REGARDER LE FAISCEAU DIRECTEMENT OU AVEC DES INSTRUMENTS OPTIQUES.

AC POWER SUPPLY CORD



92LVPE1K327210

SPECIFICATIONS

As part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

● General

Power source	AC 230 V, 50 Hz
Power consumption	Power on: 45 W Power stand-by: 0.6W
Dimensions	Width: 428 mm Height: 55 mm Depth: 360 mm
Weight	3.8 kg
Audio input terminals	Analogue input (IN 1): RCA type × 1 pair (L/R) Analogue input (IN 2): RCA type × 1 pair (L/R)
Audio output terminals	Analogue output (OUT): RCA type × 1 pair (L/R) Headphone: 16-50 ohms (recommended: 32 ohms) Digital output: Coaxial type × 1
Video output terminals	S-video output: S-terminal × 1 Video output: RCA type × 1 Component video output: PB, PB, Y
Video output terminals	SCART output: SCART terminal × 1

● Amplifier

Output power	Front speakers: RMS: 42 W (21 W + 21 W) (DIN 45 324) Centre speaker: RMS: 21 W (DIN 45 324) Surround speakers: RMS: 42 W (21 W + 21 W) (DIN 45 324) Subwoofer speaker: RMS: 45 W (DIN 45 324)
---------------------	--

● DVD player

Signal system	PAL/NTSC colour	
Supported disc types	DVD (with the same region number on the back of the unit or ALL), SVCD, VCD, audio CD, CD-R, CD-RW, MP3	
Video signal	Horizontal resolution: 525 lines S/N ratio: 56 dB	
Audio signal	Frequency characteristics	Linear PCM DVD: 20 Hz to 20 kHz (sampling rate: 48 kHz) 20 Hz to 20 kHz (sampling rate: 96 kHz) CD: 20 Hz to 20 kHz
	S/N ratio	CD: 65 dB (1 kHz)
	Dynamic range	Linear PCM DVD: 95 dB CD: 94 dB
	Total harmonic distortion ratio	0.2 % maximum

● Tuner

Frequency range	FM: 87.5 - 108 MHz AM: 522 - 1620 kHz
------------------------	--

● Front speakers

Type	Full range speaker system (magnetic shield)
	7 cm speaker
Maximum input power	30 W
Impedance	4 ohms
Dimensions	Width: 90 mm Height: 110 mm Depth: 100 mm
Weight	0.46 kg/each

● Surround speakers

Type	Full range speaker system
	7 cm speaker
Maximum input power	30 W
Impedance	4 ohms
Dimensions	Width: 90 mm Height: 110 mm Depth: 100 mm
Weight	0.45 kg/each

● Centre speaker

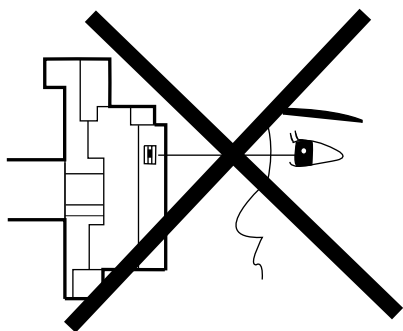
Type	Full range speaker system
	7 cm speaker
Maximum input power	30 W
Impedance	4 ohms
Dimensions	Width: 90 mm Height: 110 mm Depth: 100 mm
Weight	0.46 kg

● Subwoofer

Type	Subwoofer system
	13 cm Subwoofer
Maximum input power	60 W
Impedance	8 ohms
Dimensions	Width: 132 mm Height: 282 mm Depth: 330 mm
Weight	2.8 kg

LASER BEAM SAFETY PRECAUTIONS

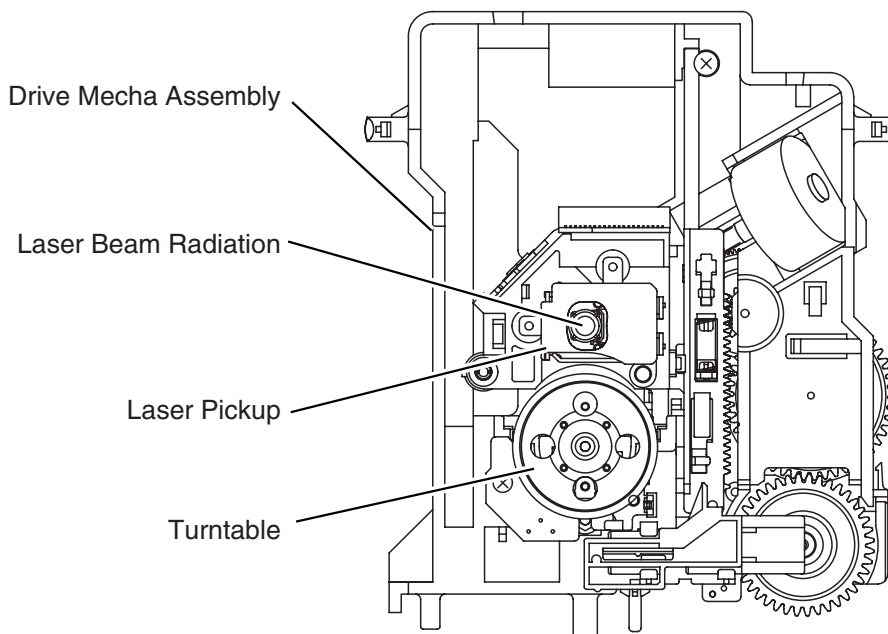
This DVD player uses a pickup that emits a laser beam.



Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 30cm away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.

Caution: Use of controls and adjustments, or doing procedures other than those specified herein, may result in hazardous radiation exposure.



STANDARD NOTES FOR SERVICING

How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

- (1) Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

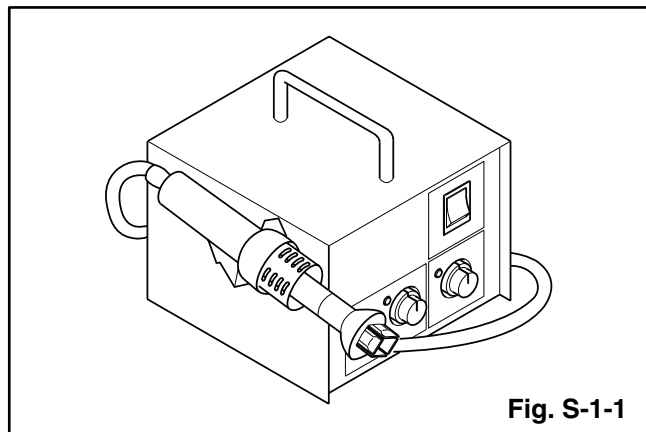


Fig. S-1-1

- (2) Remove the flat pack-IC with tweezers while applying the hot air.
- (3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to centre of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
- (4) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Caution:

1. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)
2. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

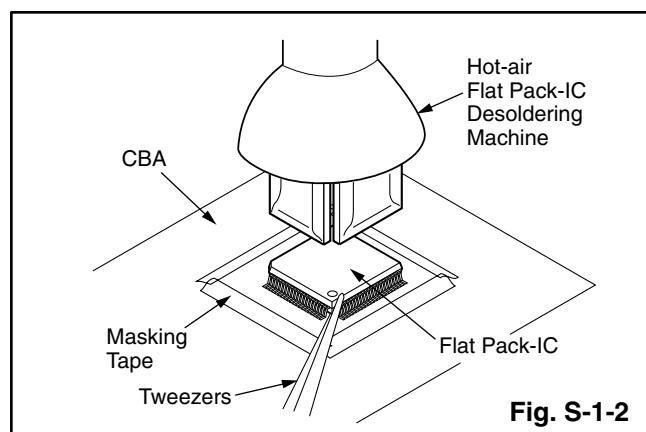


Fig. S-1-2

With Soldering Iron:

- (1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

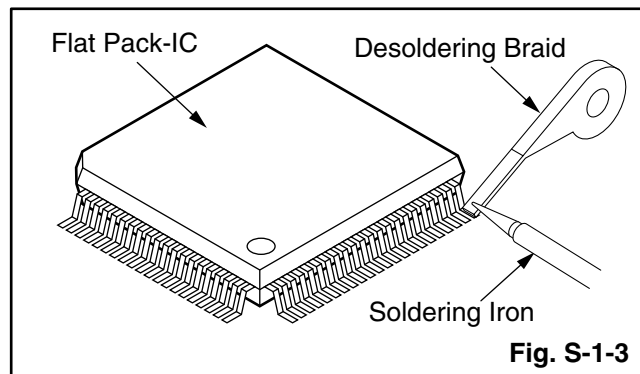


Fig. S-1-3

- (2) Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

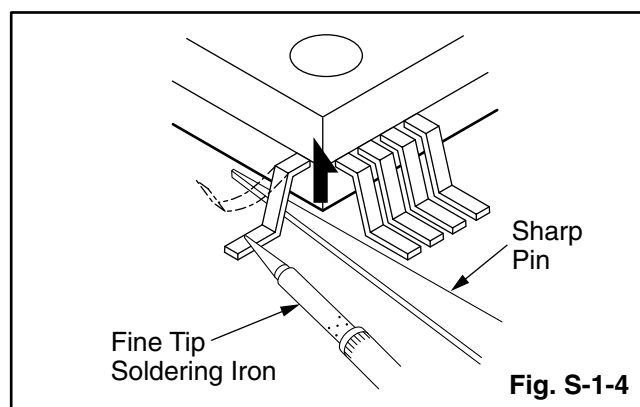


Fig. S-1-4

- (3) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to centre of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
- (4) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

With Iron Wire:

- (1) Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)
- (2) Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.
- (3) While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.

- (4) Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to centre of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
- (5) Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Note:

When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.

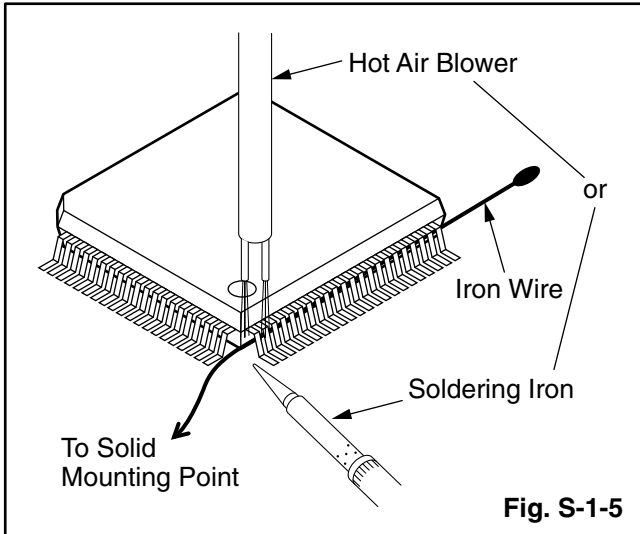


Fig. S-1-5

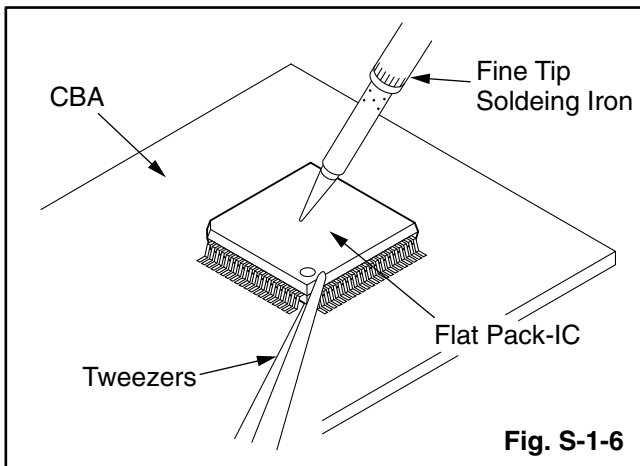
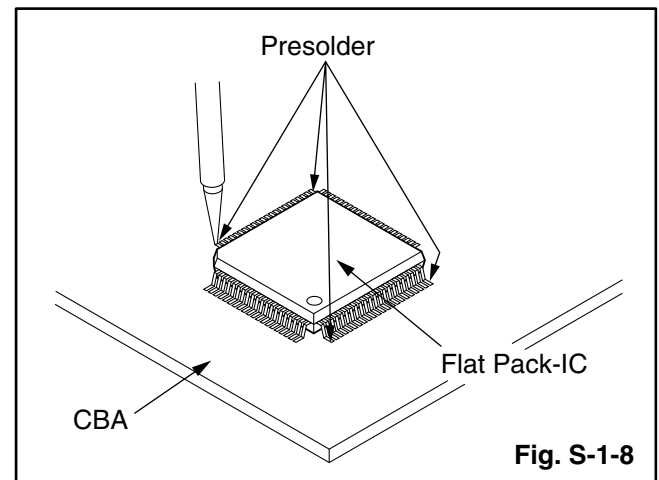
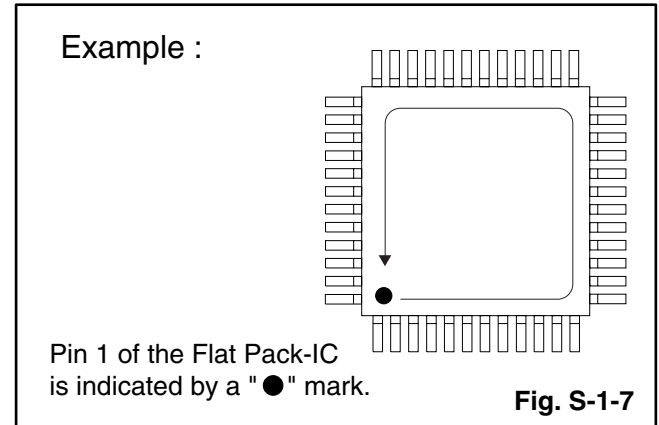


Fig. S-1-6

2. Installation

- (1) Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.
- (2) The "●" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)
- (3) Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.



Instructions for Handling Semi-conductors

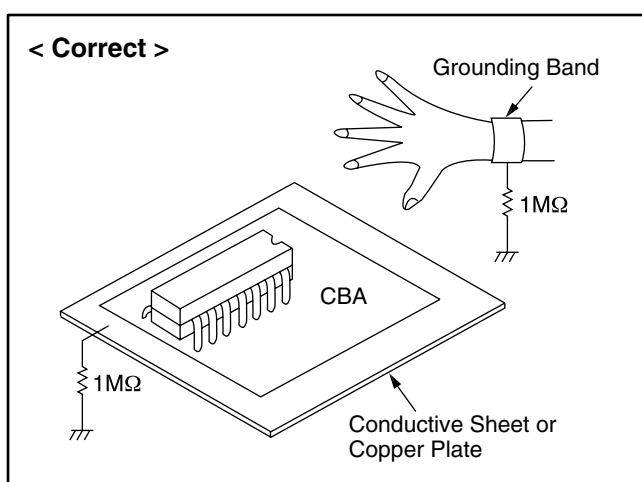
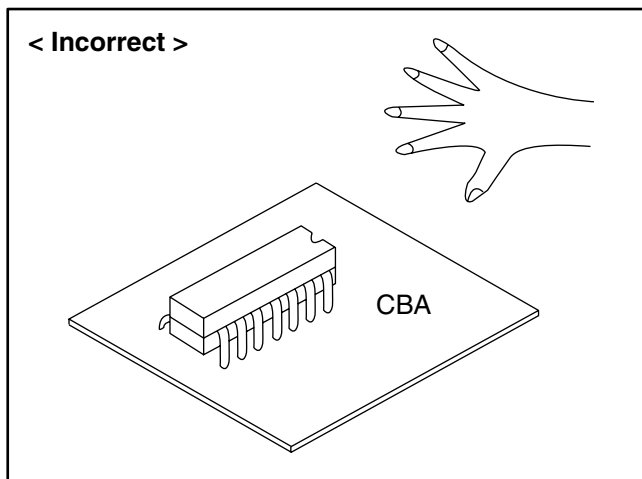
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

1. Ground for Human Body

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

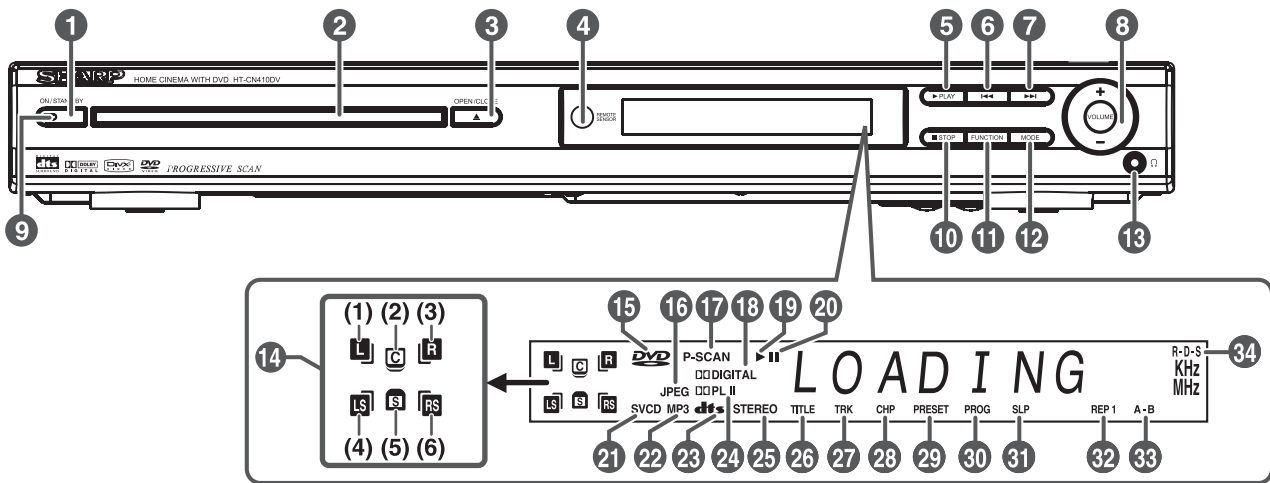
2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding ($1\text{M}\Omega$) 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.



OPERATING CONTROLS AND FUNCTIONS

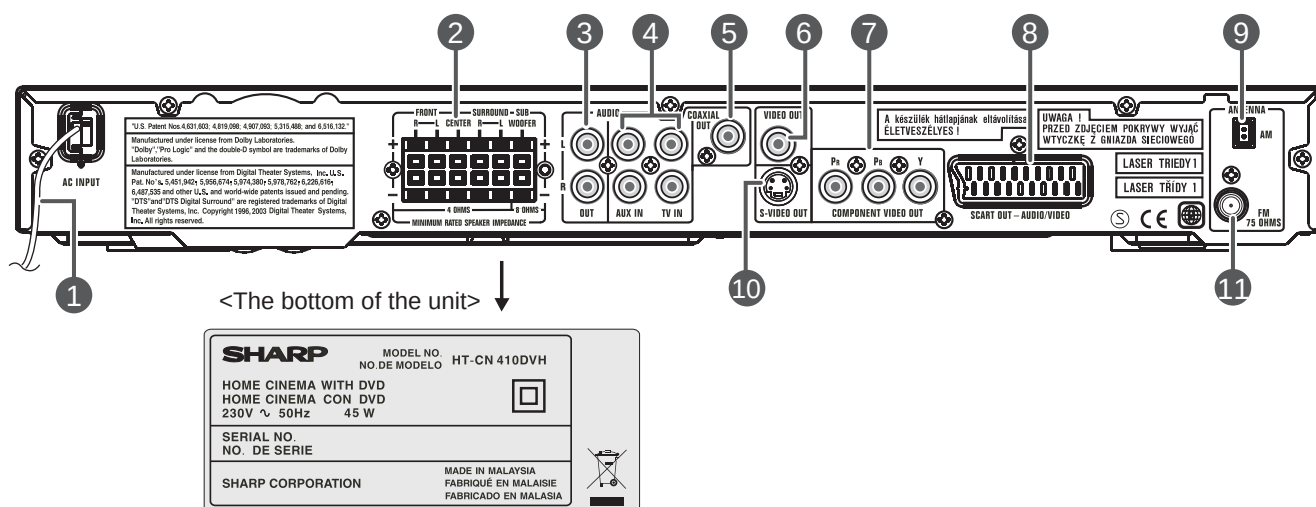
■ Main unit (front panel)



- | | |
|---|--|
| 1. On/Stand-by Button | 15. DVD Indicator |
| 2. Disc Tray | 16. JPEG Indicator |
| 3. Disc Tray Open/Close Button | 17. P - SCAN mode |
| 4. Remote Sensor | 18. Dolby Digital Signal Indicator |
| 5. Play or Pause Button | 19. Play Indicator |
| 6. Chapter (track) Skip Down or Preset/Tuning Down Button | 20. Pause Indicator |
| 7. Chapter (track) Skip Up or Preset/Tuning Up Button | 21. SVCD/VCD/CD Indicator |
| 8. Volume Up and Down or Speaker Level Adjust Buttons | 22. MP3 Indicator |
| 9. Power Stand-by Indicator | 23. DTS Signal Indicator |
| 10. Stop Button | 24. Dolby Pro Logic/Pro Logic II Indicator |
| 11. Function Button | 25. Stereo (2-ch) or FM Stereo Receiving Indicator |
| 12. Speaker Level Mode Button | 26. Title Indicator |
| 13. Headphone socket | 27. Track Indicator |
| 14. Speaker Indicators | 28. Chapter Indicator |
| (1) Left Front Speaker Indicator | 29. Tuner Preset Indicator |
| (2) Centre Speaker Indicator | 30. Programme Indicator |
| (3) Right Front Speaker Indicator | 31. Sleep Indicator |
| (4) Left Surround Speaker Indicator | 32. Repeat Indicator |
| (5) Subwoofer Indicator | 33. A - B Repeat Indicator |
| (6) Right Surround Speaker Indicator | 34. RDS Indicator |

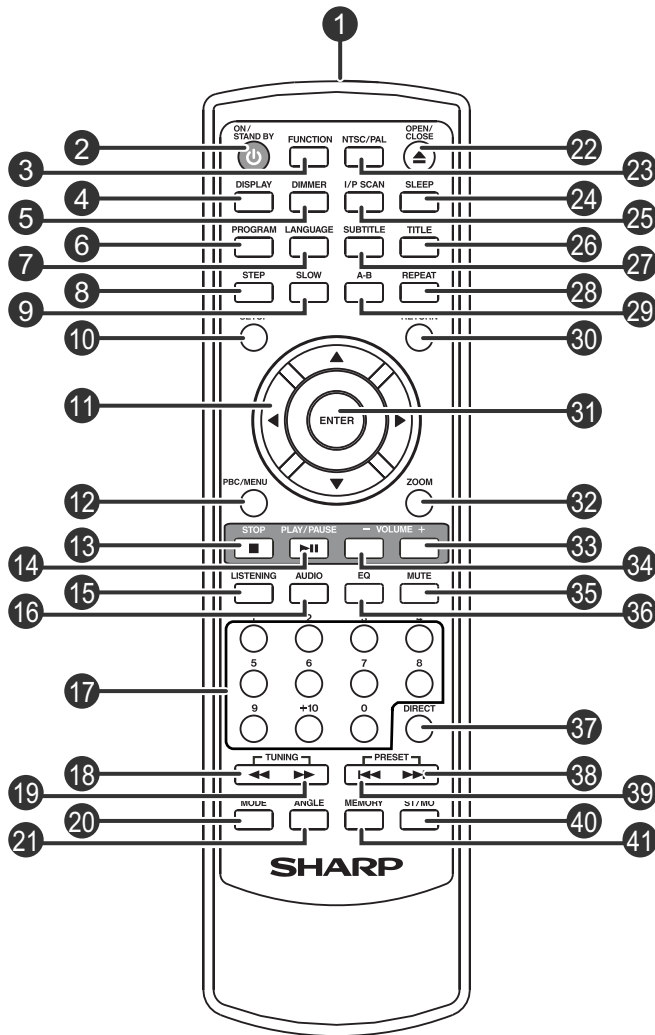
OPERATING CONTROLS AND FUNCTIONS

■ Main unit (rear panel)



1. AC Power Lead
2. Speaker Terminals
3. Audio Output Sockets
4. Audio Input Sockets (TV/AUX)
5. Digital Output Socket (Coaxial)
6. Video Output Socket
7. Component Video Output Socket
8. SCART Output Socket (Audio + Video)
9. AM Loop Aerial Socket
10. S-video Output Socket
11. FM 75 Ohms Aerial Socket

■ Remote Control



1. Remote Control Transmitter
2. On/Stand-by Button
3. Function Button
4. Display Button
5. Dimmer
6. Program Button
7. Language Select Button
8. Frame Advance Button (Step Function)
9. Slow Motion Button
10. Setup Menu Button
11. Cursor Buttons
12. PBC/MENU Button
13. Stop Button
14. Play or Pause Button .
15. Surround/Stereo (2-ch) Listening Mode Button
16. Audio Select Button.
17. Direct Number Buttons
18. Fast Reverse or Tuning Down Button
19. Fast Forward or Tuning Up Button
20. Speaker Level Mode Button
21. Angle Select Button
22. Disc Tray Open/Close Button
23. NTSC/PAL Select Button
24. Sleep Button
25. Interlace and Progressive Scan Button
26. Title Select Button
27. Subtitle Select Button
28. Repeat Play Button
29. A - B Repeat Button
30. Return Button
31. Enter Button
32. Zoom Button
33. Volume adjust up Button
34. Volume adjust down Button
35. Mute Button
36. EQ (equaliser) Button
37. Direct Button
38. Chapter (track) Skip Up or Preset Up Button
39. Chapter (track) Skip Down or Preset Down Button
40. FM Stereo/Mono Select Button
41. Memory Button

TROUBLESHOOTING

If you experience any of the following difficulties while using the system, use troubleshooting guide to help you remedy the problem. Should any problem persist, consult your nearest service centre.

No power:

- Is the power cord firmly plugged into the power outlet?
- One of the safety mechanisms may be operating. In this event, unplug the player from the power outlet briefly and then plug it in again.

No picture:

- Check that the system is connected securely.
- The video connecting system cord is damaged. Replace it with a new one.
- Make sure you connect the system to video input connector on the TV.
- Make sure you turn on the TV.
- Make sure you select the video input on the TV so that you can view the pictures from this system.

The picture noise appears:

- Clear the disc.
- If video from this system has to go through your VCR to get to your TV, the copy-protection applied to some DVD programs could affect picture quality. If you still experience problems after checking your connections, please try connecting your DVD system directly to your TV's S-Video input, if your TV is equipped with this input.

The aspect ratio of the screen cannot be changed even though you set "TV DISPLAY" in the SETUP menu when you play a wide picture:

- The aspect rate is fixed on your DVD disc.
- If you connect the system with the S-Video cable, connect directly to the TV. Otherwise, you may not change the aspect rate.
- Depending on the TV, you may not change the aspect rate.

There is no sound or only a very low-level sound is heard:

- Check that the speakers and components are connected securely.
- Make sure that you have selected the correct source on the system.
- The protective device on the system has been activated because of a short circuit. Turn off the system, eliminate the short-circuit problem and turn on the power again.
- The audio connecting cord is damaged. Replace it with a new one.
- The system or fast reverse is performed. Press PLAY/PAUSE ►/II to return to normal play mode.
- Check the speaker settings.

The left and right sounds are unbalanced or reversed:

- Check that the speakers and components are connected correctly and securely.
- Adjust front balance parameter using SELECT and VOLUME +/-.

Severe hum or noise is heard:

- Check that the speakers and components are connected correctly and securely.
- Check that the connecting cords are away from a transformer or motor, and at least 3 meters away from a TV set or fluorescent light.
- Move your TV away from the audio components.
- The plugs and jacks are dirty, wipe them with a cloth slightly moistened with alcohol.
- Clear the disc.

The sound losses stereo effect when you play a Video CD or a CD:

- Set the Audio mode to "STEREO" in the SETUP menu.
- Make sure you connect the system appropriately.
- The surround effect is difficult to hear when you are playing a Dolby Digital sound track.
- Check the speaker connections.
- Depending on the DVD disc, the output signal may not be the entire 5.1 channel but monaural or stereo even if the sound track is recorded in Dolby Digital format.

The sound comes from the centre speaker only:

- Depending on the disc, the sound may come from the centre speaker only.

No sound is heard from the centre speaker:

- Make sure the centre is set to "ON" in SETUP menu.
- You may set the listening mode to Dolby Pro Logic Phantom.
- Adjust the speaker volume.

No sound or only a very low-level sound is heard from the rear speakers:

- Make sure the rear is set to "ON" in SETUP menu.
- Adjust the speaker volume.

The language for the subtitles cannot be changed when you play a DVD:

- Multilingual subtitles are not recorded on the DVD.
- Changing the language for the subtitles is prohibited on the DVD.

The subtitles cannot turn off when you play a DVD:

- Depending on the DVD, you may not be able to turn the subtitles off.

The angles cannot be changed when you play a DVD:

- Multi-angles are not recorded on the DVD.
- Change the angles when the angle mark appears on the TV screen.
- Changing the angles is prohibited on the DVD.

The system does not operate properly:

- Static electricity, etc., may affect the system's operation.
- Press the POWER button to turn off, then press again to turn on.

BLOCK DIAGRAM

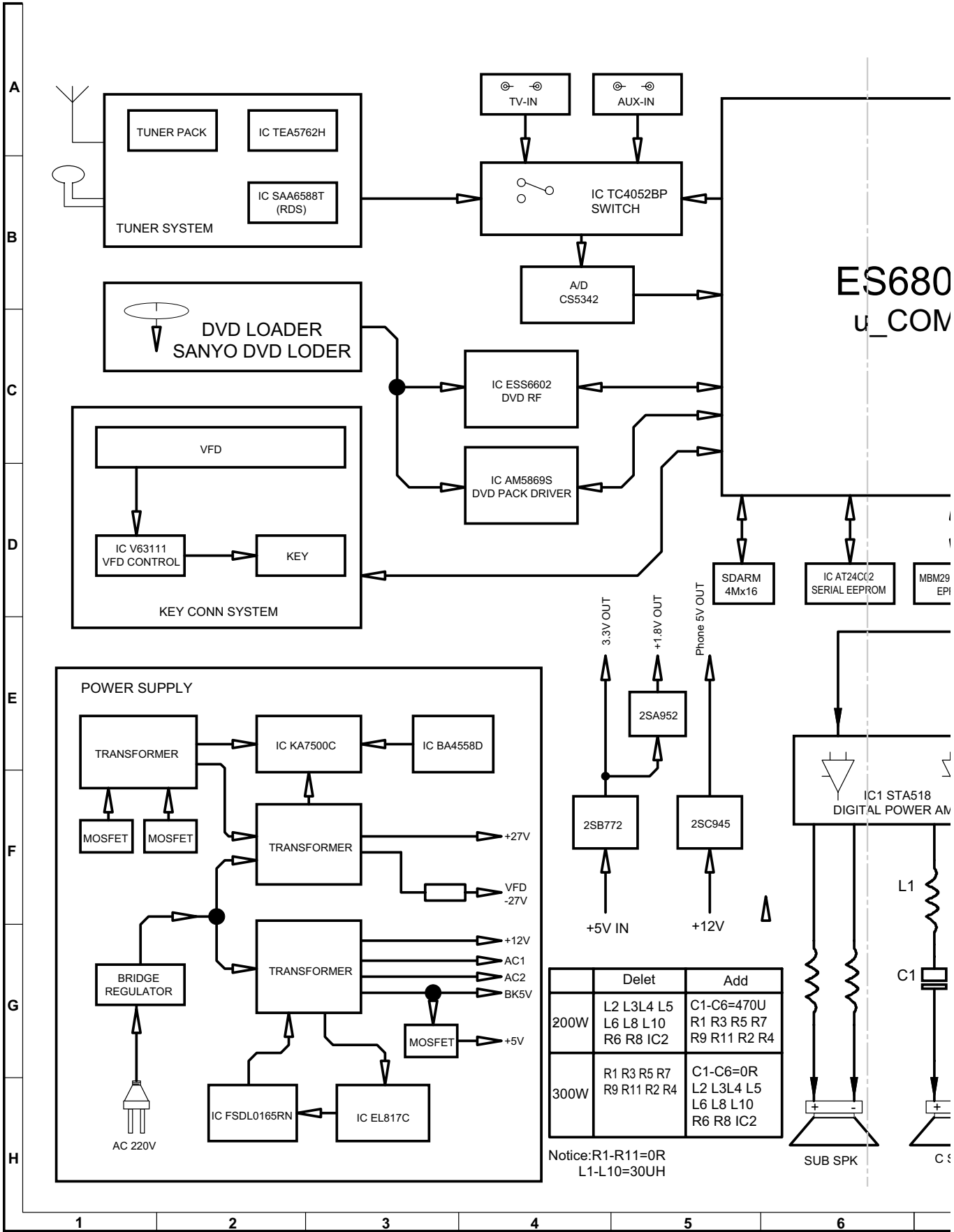


FIGURE 1. BLOCK DIAGRAM (1/2)

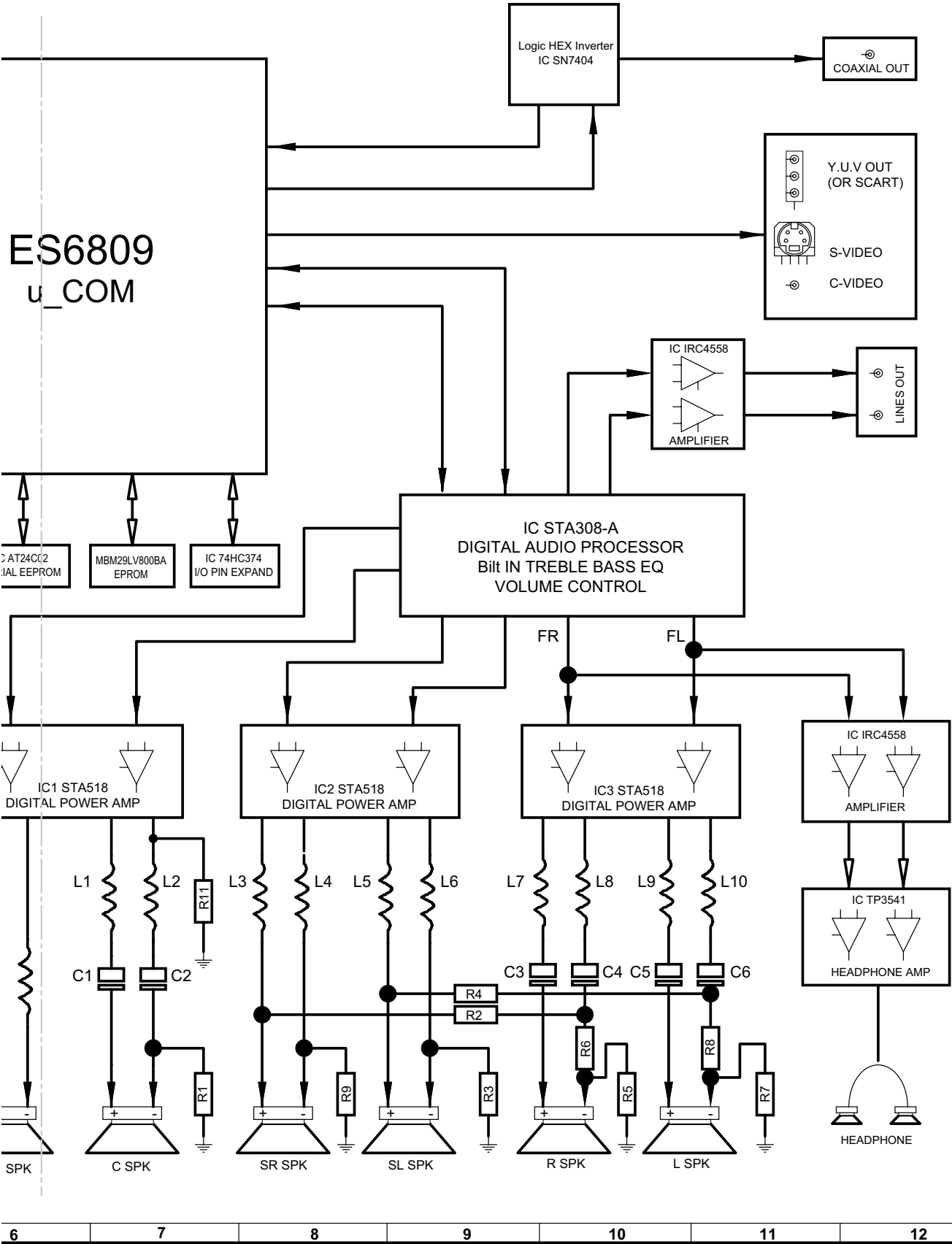


FIGURE 1. BLOCK DIAGRAM (2/2)

SCHEMATIC DIAGRAMS / IC'S PIN VOLTAGE

Standard Notes

WARNING

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark "  " in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Capacitor Temperature Markings

Mark	Capacity change rate	Standard temperature	Temperature range
(B)	±10%	20°C	-25~+85°C
(F)	+30 - 80%	20°C	-25~+85°C
(SR)	±15%	20°C	-25~+85°C
(Z)	+30 - 80%	20°C	-10~+70°C

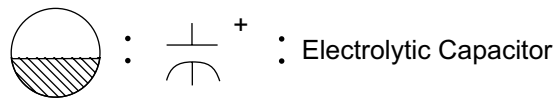
Notes:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms (K=10³, M=10⁶).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in μF (P=10⁻⁶ μF).
5. All voltages are DC voltages unless otherwise specified.
6. Electrical parts such as capacitors, connectors, diodes, IC's, transistors, resistors, switches, and fuses are identified by four digits. The first two digits are not shown for each component. In each block of the diagram, there is a note such as shown below to indicate these abbreviated two digits.

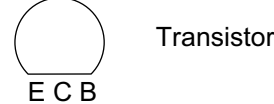
Capacitors and transistors are represented by the following symbols.

CBA Symbols

(Top View) (Bottom View)



(Top View)



(Top View)



LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. CAUTION:

FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.

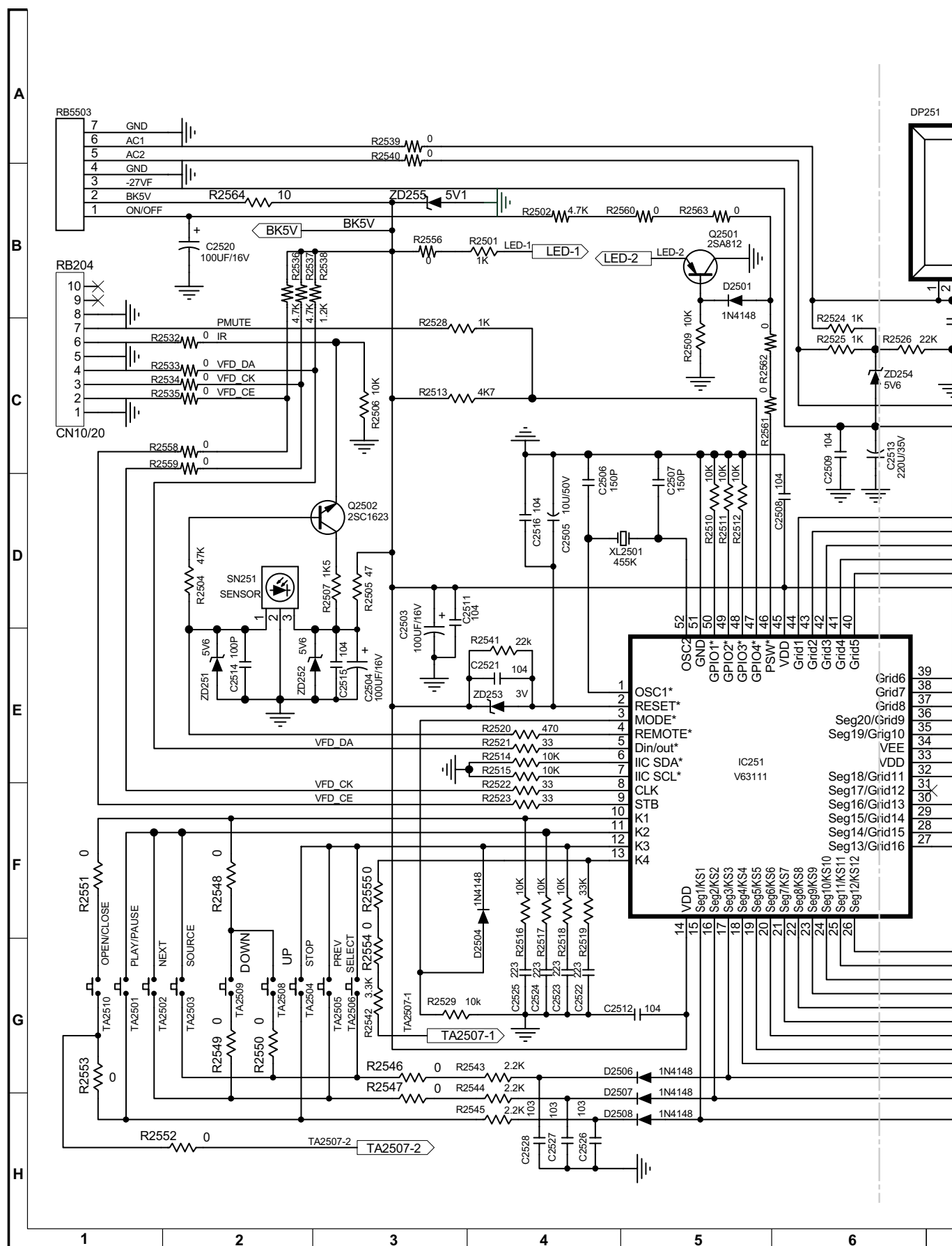
2. CAUTION:

Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.

If Main Fuse (F1001) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

3. Note:

- (1) Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.
- (2) To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.



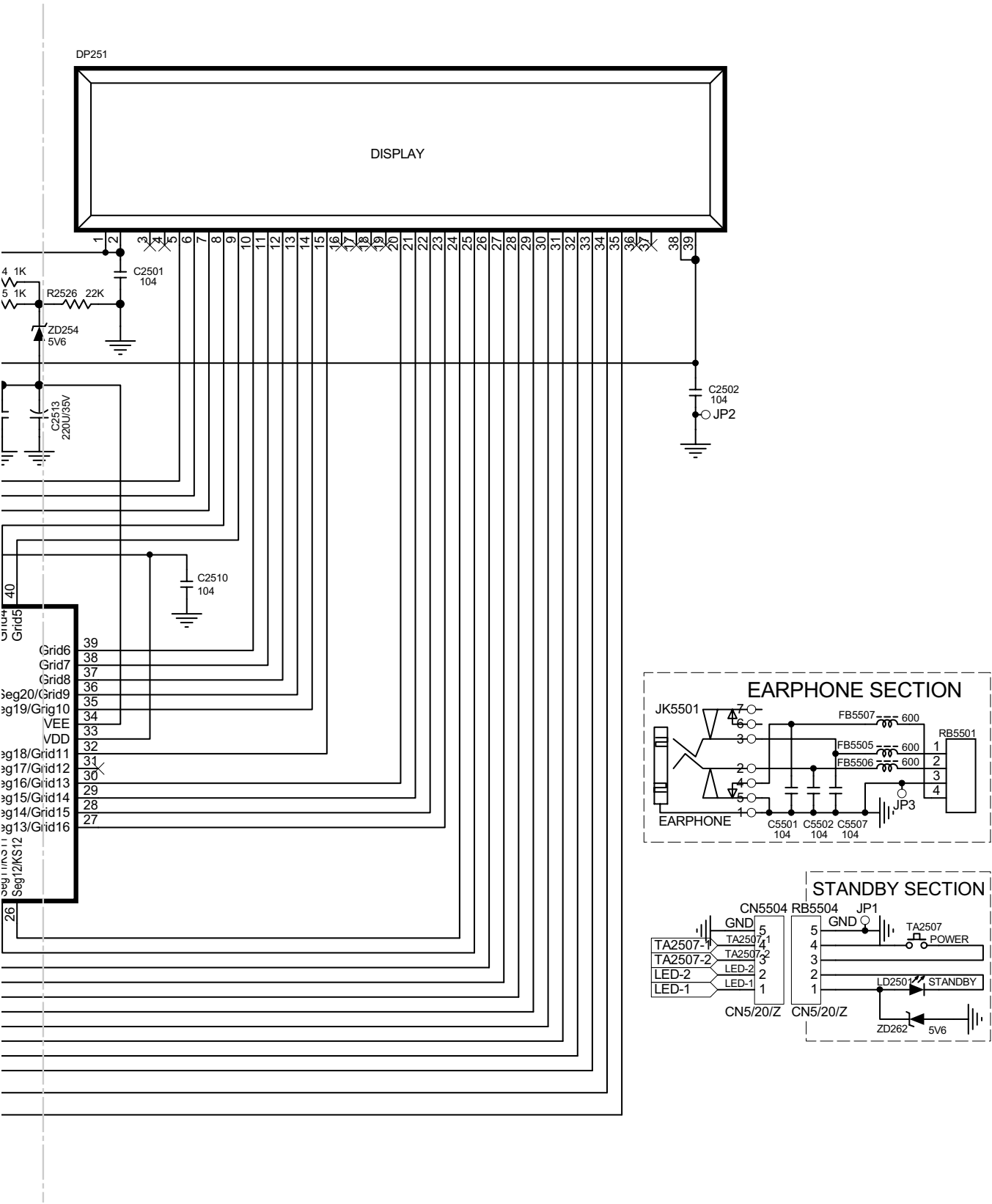


Figure 1: SCHEMATIC DIAGRAM FOR CONTROL PCB (2/2)

SCHEMATIC DIAGRAM FOR POWER PCB

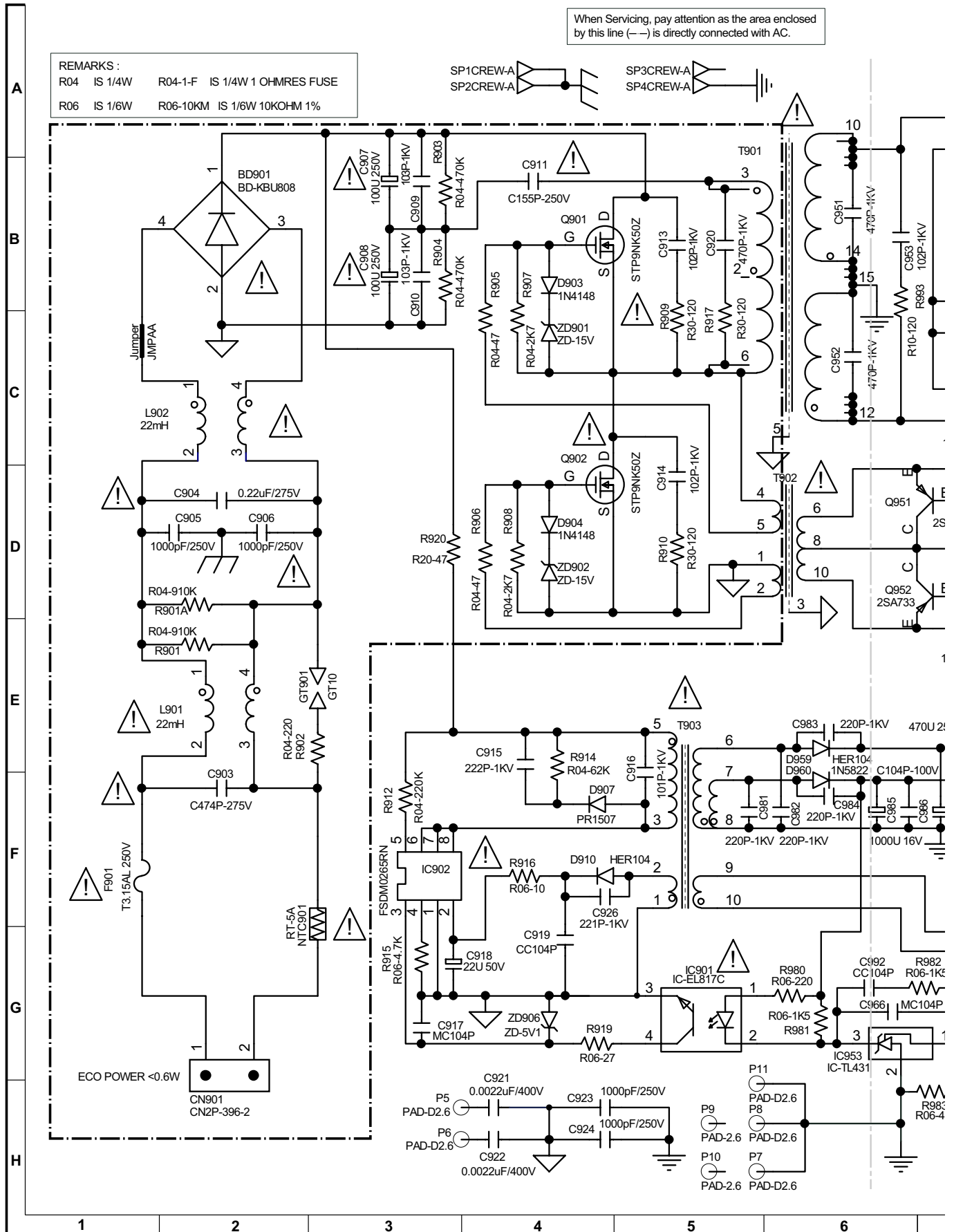
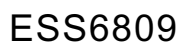


Figure 2: SCHEMATIC DIAGRAM FOR POWER PCB (1/2)

6	7	8	9	10	11	12
---	---	---	---	----	----	----

MAIN CIRCUIT DIAGRAM



22

23

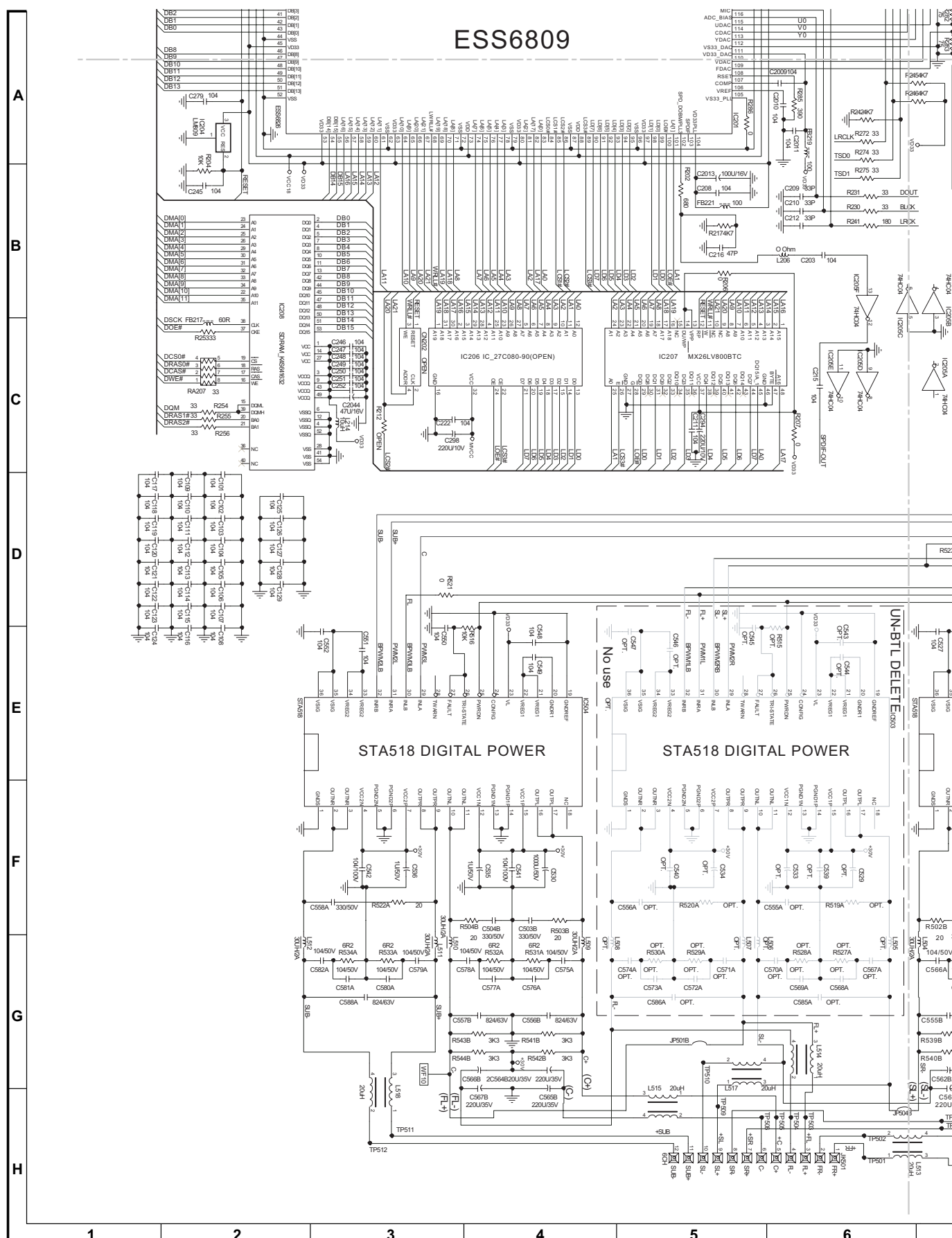


Figure 3: MAIN CIRCUIT DIAGRAM (3/4)

25

IC'S PIN VOLTAGE

IC202 (TE330)

Ref.number												
Mode	1	2	3	4	5	6	7	8	9	10	11	12
	5	3.9	0.8	0.9	4	1	1	0	0	0	0	0.9
	5	4.9	1.1	1.1	5.1	1.4	1.4	0	0	0	0	0.8
	13	14	15	16								
PLAY	0.8	4.9	0	5								
STOP	0.8	6.1	0	5								

IC203 (24C02H)

Ref.number								
Mode	1	2	3	4	5	6	7	8
PLAY	0	0	0	0	3.3	3.3	0	3.3
STOP	0	0	0	0	3.3	3.3	0	3.3

IC204 (NEKS)

Ref.number			
Mode	1	2	3
PLAY	0	3.3	3.3
STOP	0	3.3	3.3

IC205 (HCT04)

Ref.number												
Mode	1	2	3	4	5	6	7	8	9	10	11	12
PLAY	2.3	5	5	0	5	0	0	5	0	5	0	2.4
STOP	2.4	1	0.9	3.8	0.9	3.8	0	5.1	0	5.1	0	2.5
	13	14										
PLAY	0.9	5										
STOP	1.5	5.1										

IC209 (74HC374D)

Ref.number												
Mode	1	2	3	4	5	6	7	8	9	10	11	12
PLAY	0	5	1.1	1.3	5	0	1.1	0.9	0	0	3.3	5
STOP	0	0	0.7	1.3	5	4.9	0.8	0.8	5	0	3.3	5
	13	14	15	16	17	18	19	20				
PLAY	1.3	1.7	0	0	1.3	1.5	4.9	5				
STOP	1.3	1.7	0	0	1.4	1.5	4.9	5				

IC301 (4558AM)

Ref.number								
Mode	1	2	3	4	5	6	7	8
PLAY	0	0	0	-12.8	0	0	0	12.7
STOP	0	0	0	-12.8	0	0	0	12.6

IC401 (4558AM)

Ref.number								
Mode	1	2	3	4	5	6	7	8
PLAY	6.3	6.3	6.3	0	6.2	6.2	6.2	12.6
STOP	6.2	6.2	6.2	0	6.2	6.2	6.2	12.5

IC5001 (4558AM)

Ref.number								
Mode	1	2	3	4	5	6	7	8
PLAY	6.3	6.3	6.3	0	6.3	6.3	6.3	12.6
STOP	6.2	6.2	6.2	0	6.2	6.2	6.2	12.5

IC802 (AM5869)

Ref.number												
Mode	1	2	3	4	5	6	7	8	9	10	11	12
PLAY	1.6	3.6	1.2	1.7	1.2	0	0	5	0	0	2.5	0
STOP	1.6	3.6	1.2	1.6	1.2	0	0	5.1	0	0	2.4	2.4
Ref.number	13	14	15	16	17	18	19	20	21	22	23	24
PLAY	2.4	2.4	2.4	2.4	1.3	3.5	5	2.4	5	0	1.3	3.9
STOP	2.4	2.4	2.4	2.4	1.4	1.4	5.1	0.9	5.1	0	1.6	0.1
Ref.number	25	26	27	28								
PLAY	2.8	1.6	1.6	2.8								
STOP	2.8	1.6	1.6	0.4								

IC901 (EL817)

Ref.number				
Mode	1	2	3	4
PLAY	5.1	4.1	-13.1	-12.7
STOP	5.1	4.1	-13.1	-13.1

IC902 (DM0265R)

Ref.number								
Mode	1	2	3	4	5	6	7	8
PLAY	-13.2	-5.5	-12.8	-13	154.1	143.2	143.1	143.1
STOP	-13.5	-6.1	-13.1	-13	153.3	145.2	145.2	145.2

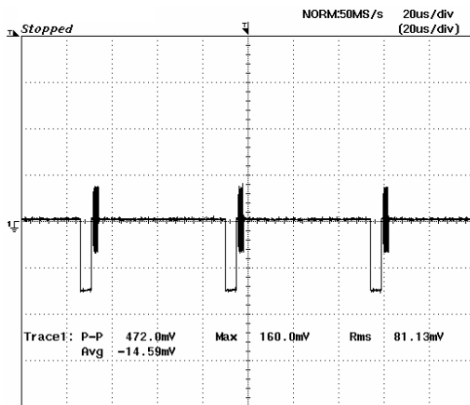
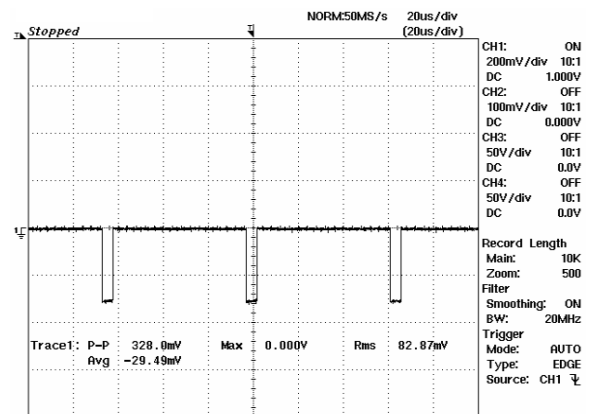
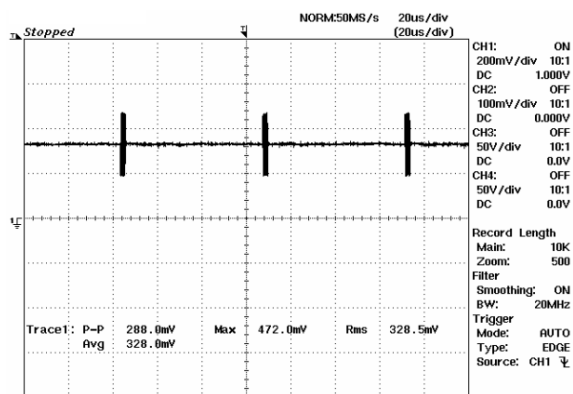
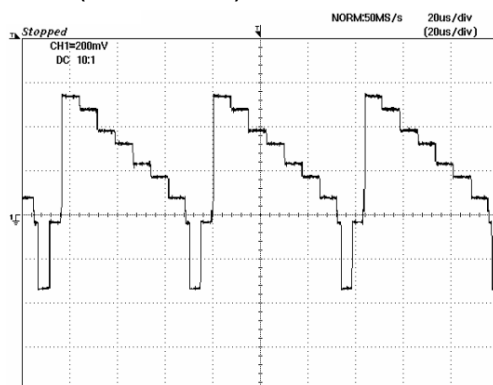
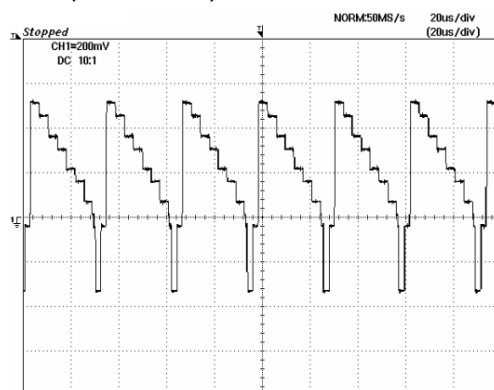
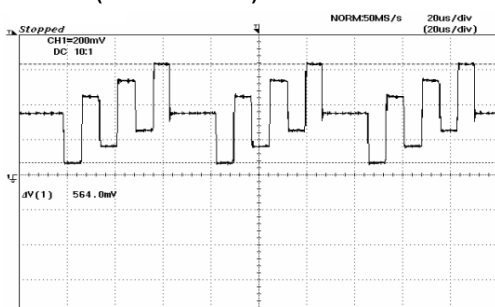
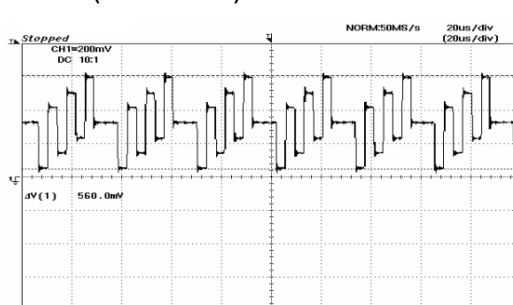
IC952 (KA7500C)

Ref.number												
Mode	1	2	3	4	5	6	7	8	9	10	11	12
PLAY	5	5	3.3	0.6	1.5	3.5	0	12.6	0.5	0.5	12.6	12.6
STOP	5	5	3.4	0.6	1.5	3.5	0	12.5	0.4	0.4	12.5	12.5
Ref.number	13	14	15	16								
PLAY	5	5	5	0								
STOP	5	5	5	0								

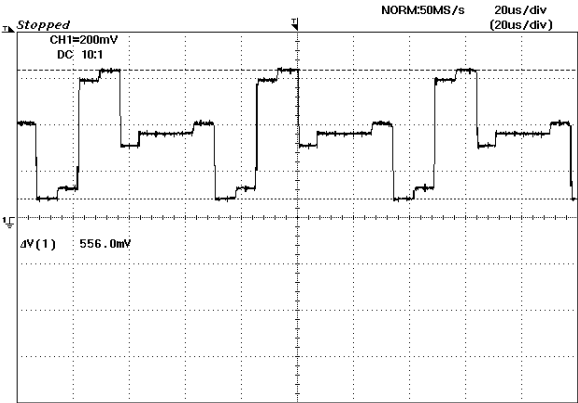
IC953 (TL431)

Ref.number			
Mode	1	2	3
PLAY	2.5	0	4.1
STOP	2.5	0	4

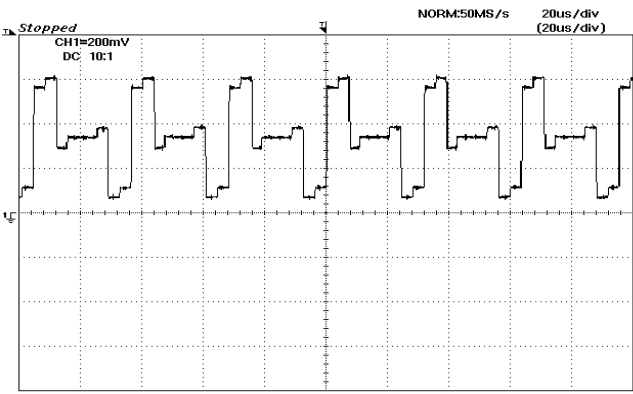
WAVEFORMS

WF1 VIDEO OUT**WF2 S-VIDEO OUT - Y Output****WF3 S-VIDEO OUT - C Output****Note :****WF1 ~ WF3 : Power On (Stop) Mode.****WF4 ~ WF7 : DVD Test Disc TDV-540A.
(Color Bar 75%)****WF4 COMPONENT VIDEO OUT - Y Output
(Interlace mode)****WF5 COMPONENT VIDEO OUT - Y Output
(P-Scan mode)****WF6 COMPONENT VIDEO OUT - Pb/Cb Output
(Interlace mode)****WF7 COMPONENT VIDEO OUT - Pb/Cb Output
(P-Scan mode)**

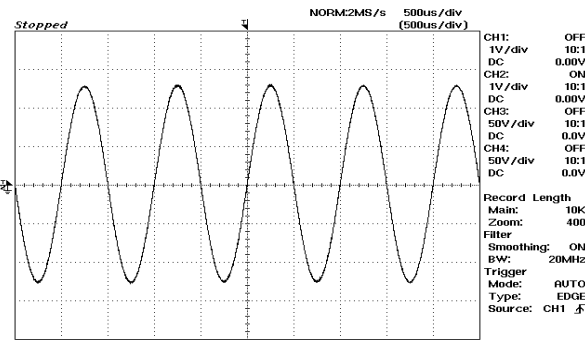
WF8 COMPONENT VIDEO OUT - Pr/Cr Output (Interlace mode)



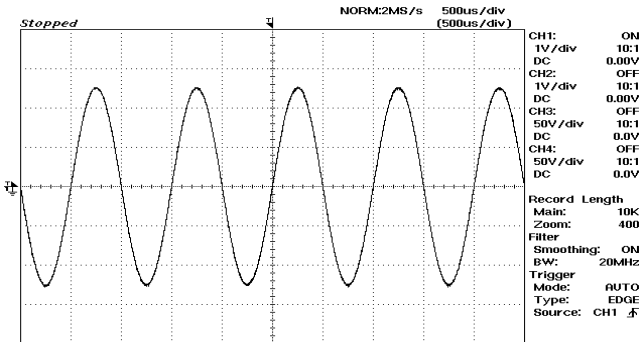
WF9 COMPONENT VIDEO OUT - Pr/Cr Output (P-Scan mode)



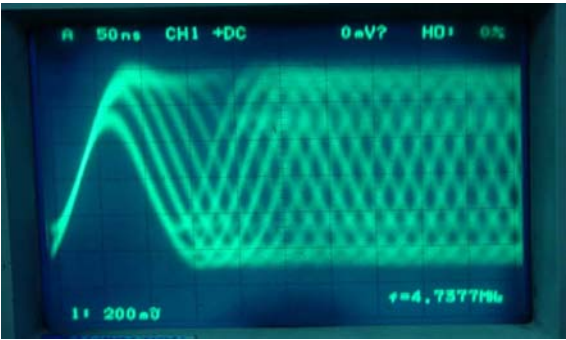
WF10 Audio Left



WF11 Audio Right



WF12 Rf Signal



Note :

**WF8 ~ WF9 : DVD Test Disc TDV-540A.
(Color Bar 75%)**

WF10 ~ WF11 : DVD/CD Test Disc 1KHz, 0dB.

WF12 : Normal Disc.

HT-CN410DVH

-MEMO-

WIRING DIAGRAM

WIRING SIDE OF POWER PCB

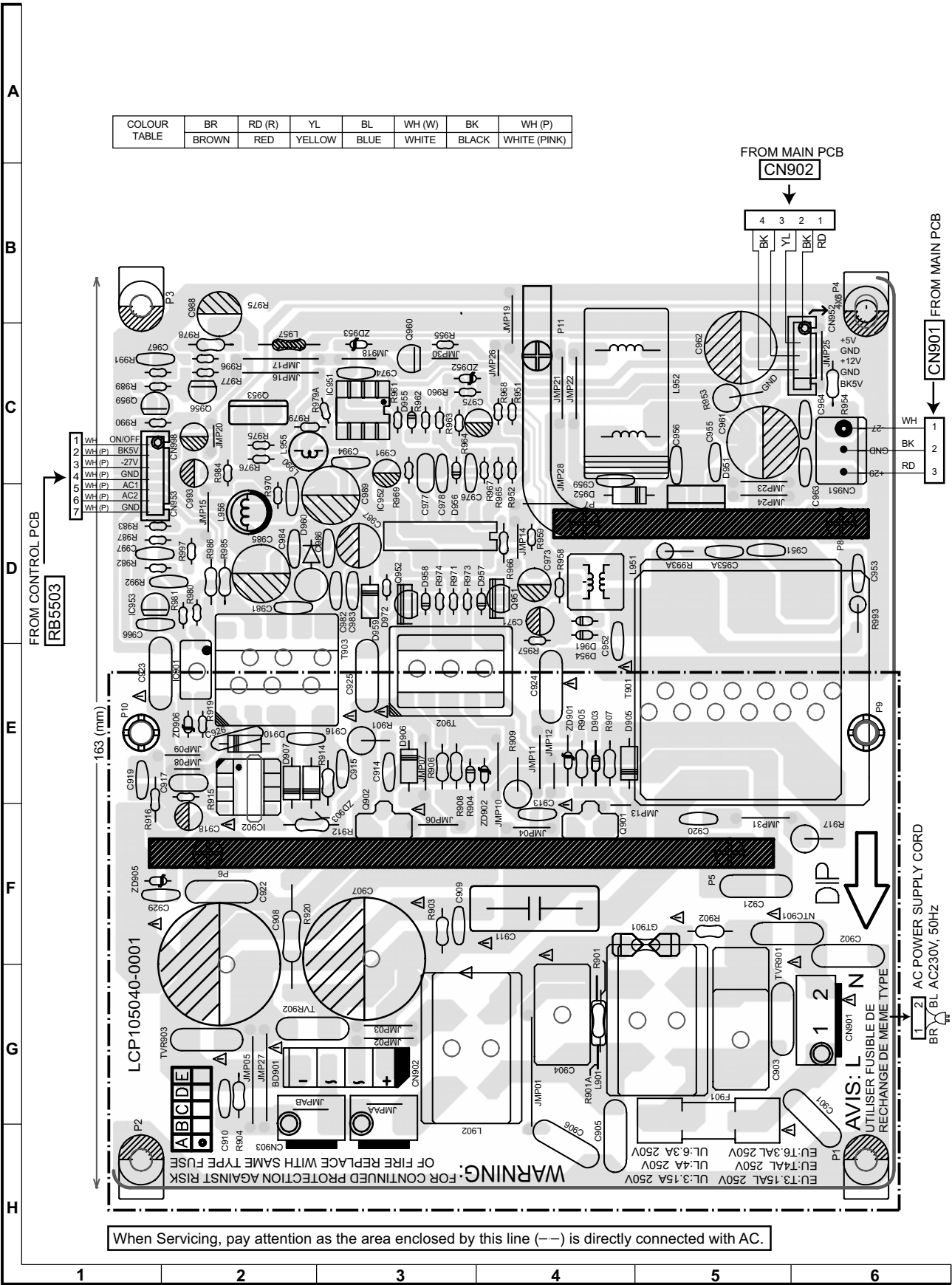
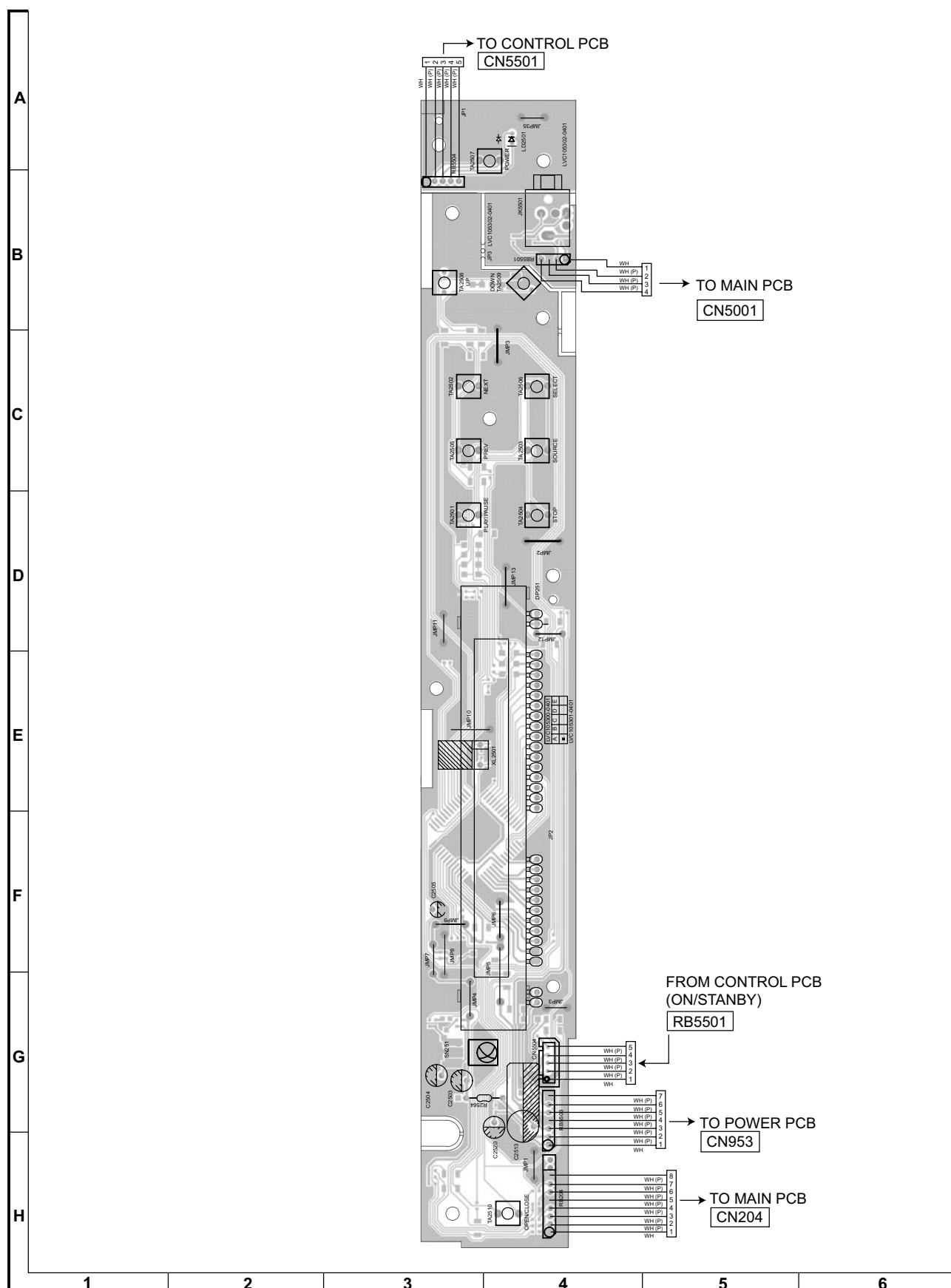


Figure 1: WIRING SIDE OF POWER PCB



WIRING SIDE OF CONTROL PCB

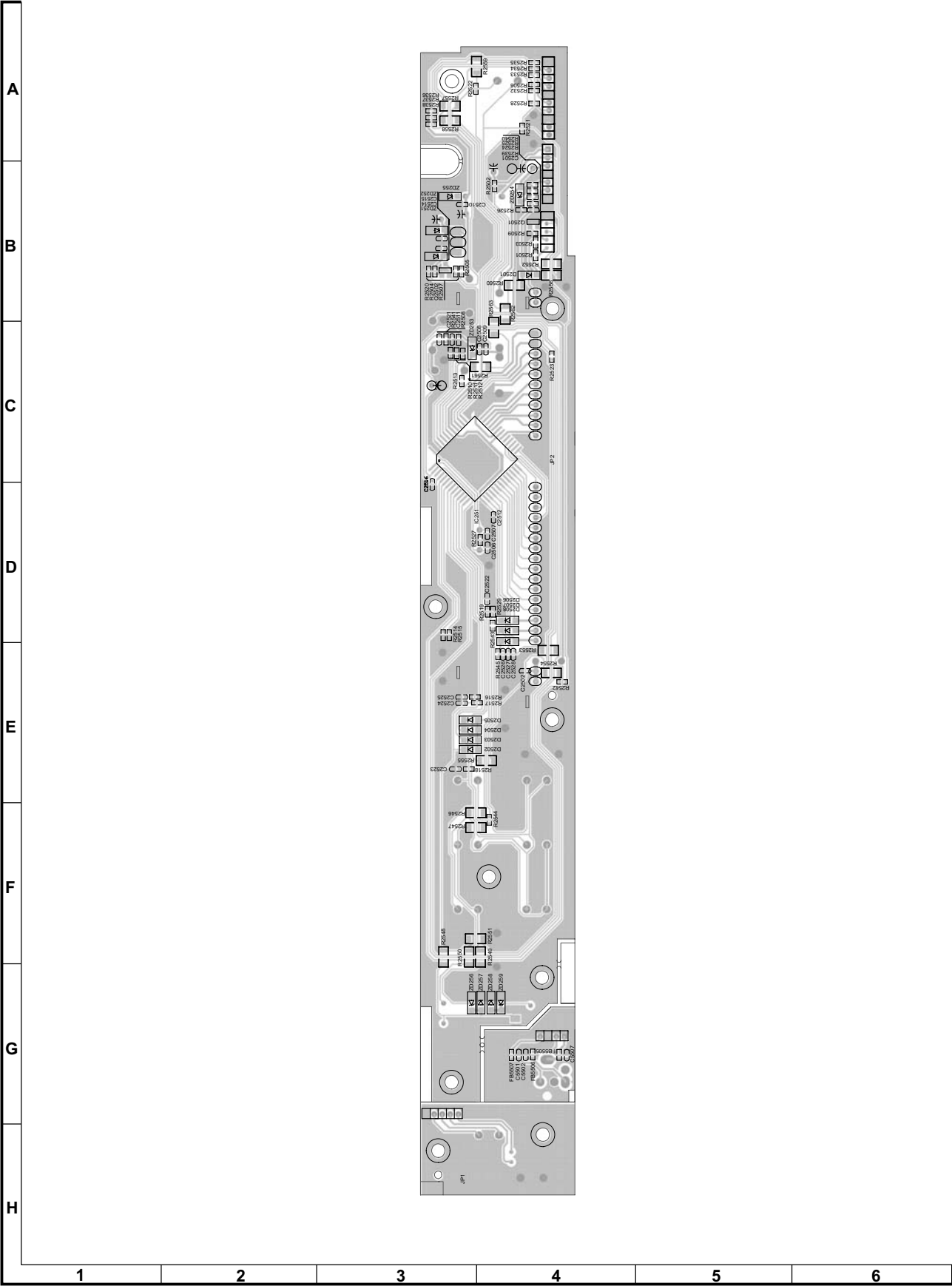


Figure 2: WIRING SIDE OF CONTROL PCB (BOTTOM VIEW) (2/2)

WIRING SIDE OF MAIN PC BOARD (TOP VIEW)

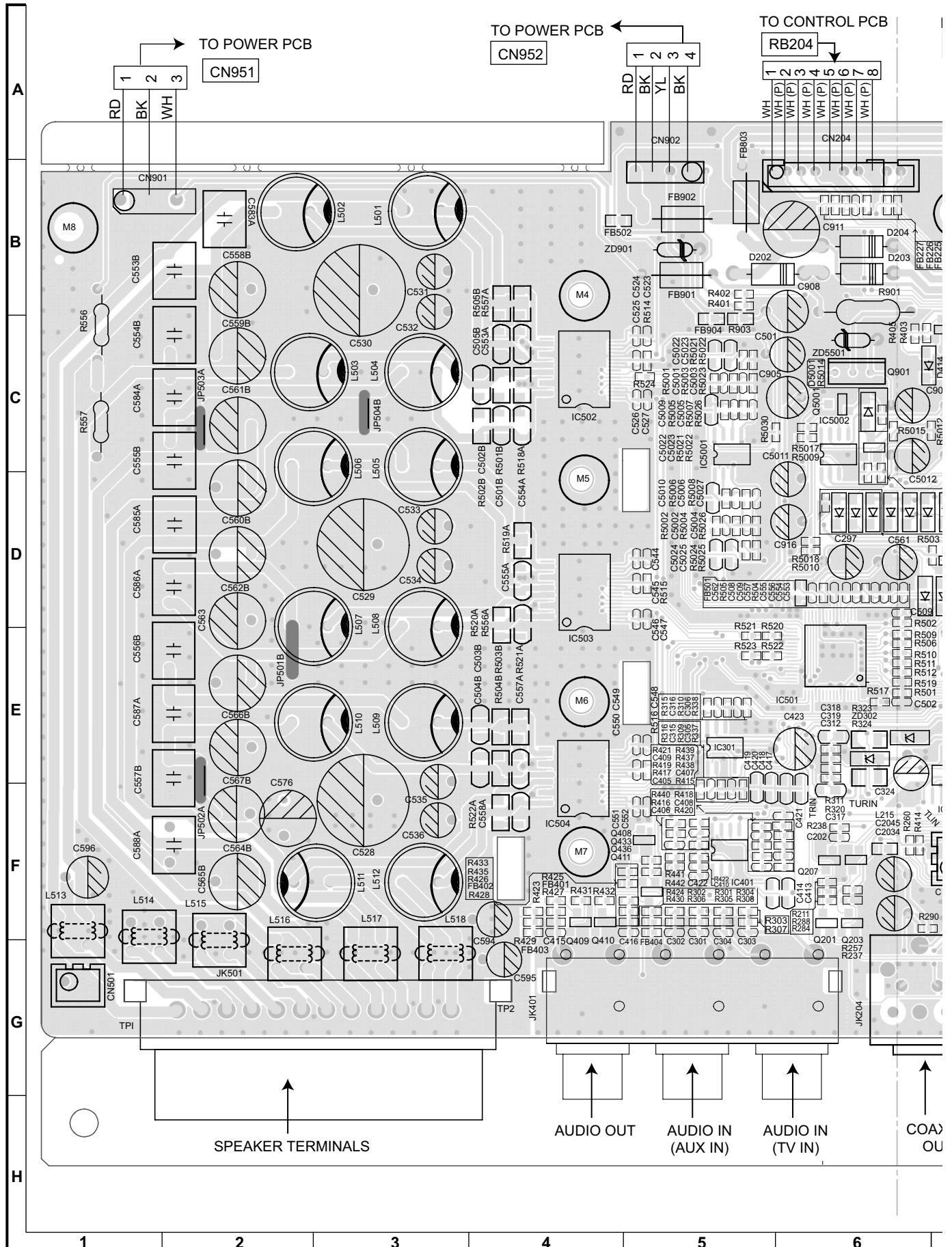


Figure 3: WIRING SIDE OF MAIN PCB (TOP VIEW) (1/2)

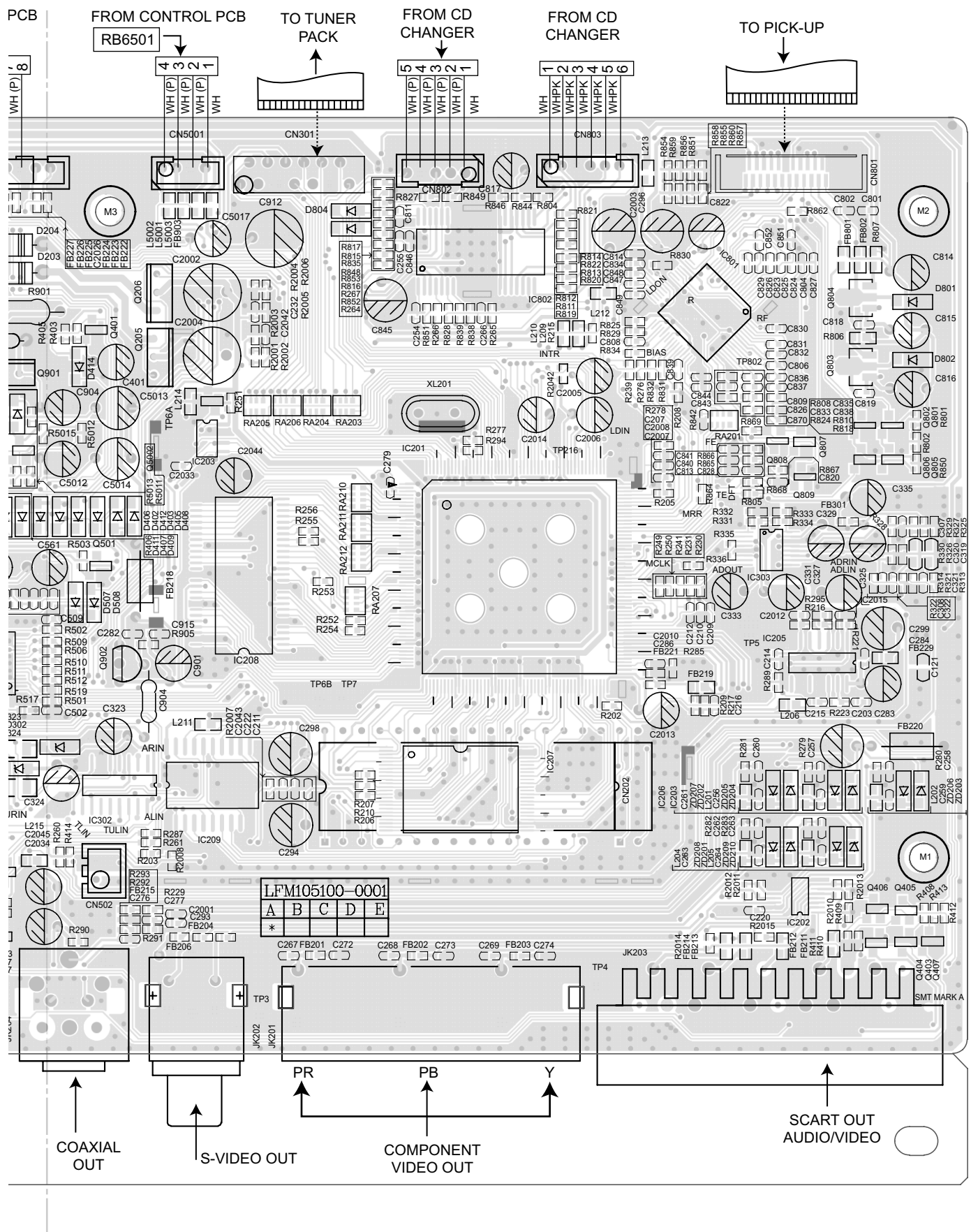


Figure 3: WIRING SIDE OF MAIN PCB (TOP VIEW) (2/2)

HT-CN410DVH

WIRING SIDE OF MAIN PC BOARD (BOTTOM VIEW)

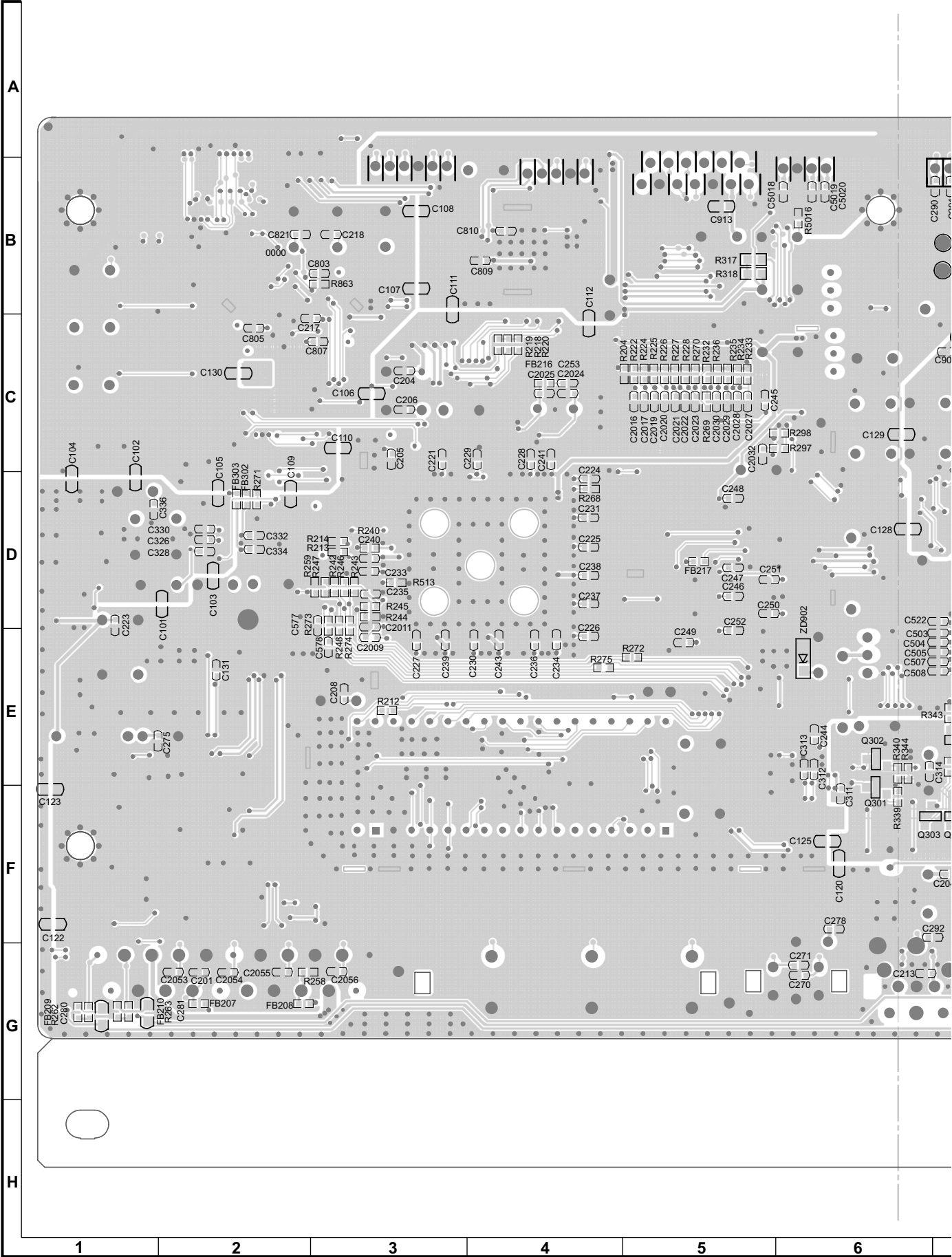


Figure 4: WIRING SIDE OF MAIN PCB (BOTTOM VIEW) (1/2)

WIRING SIDE OF MAIN PC BOARD (BOTTOM VIEW)

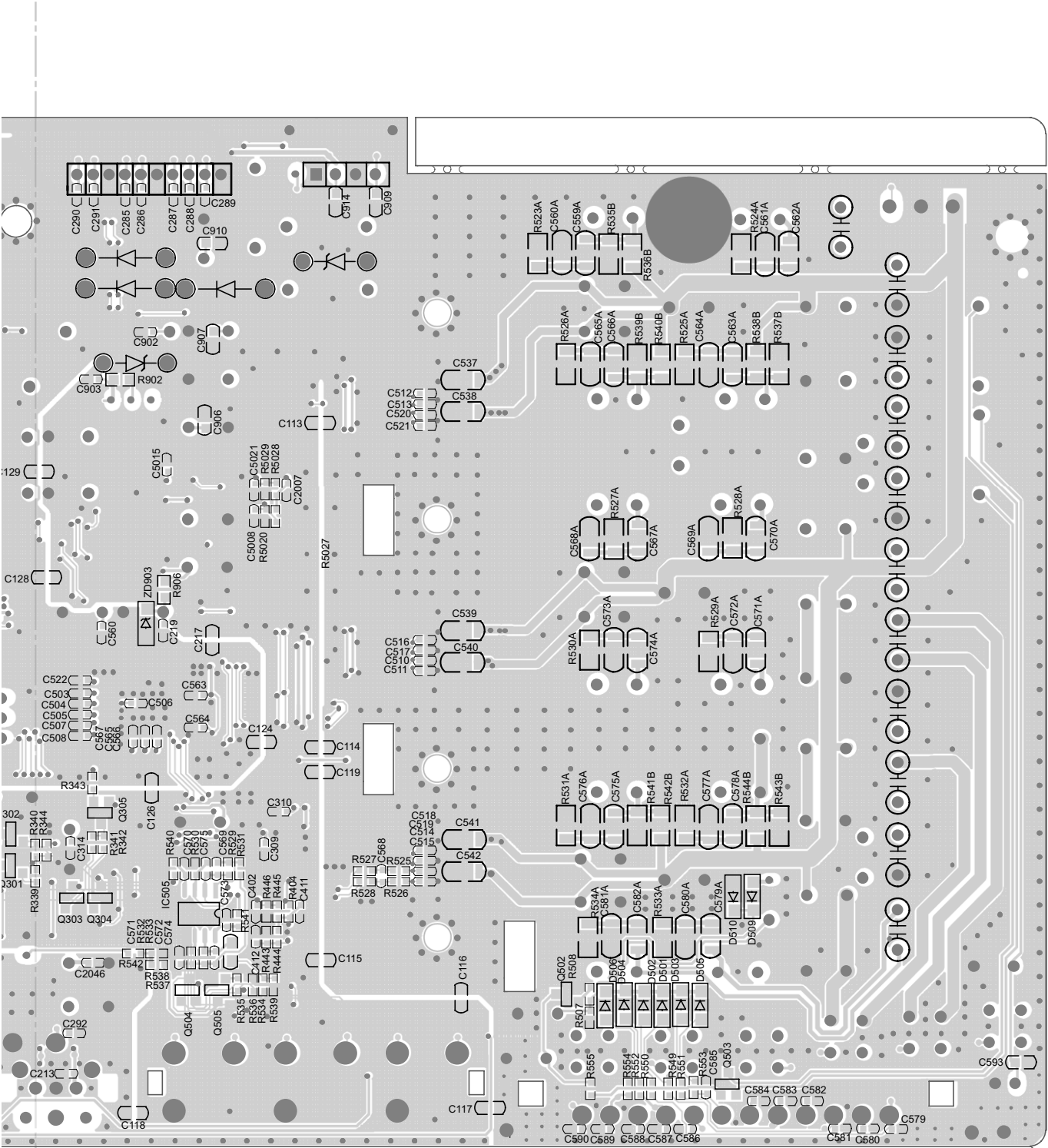
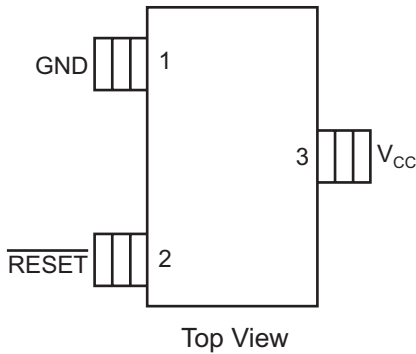


Figure 4: WIRING SIDE OF MAIN PCB (BOTTOM VIEW) (2/2)

IC PIN FUNCTION DESCRIPTIONS

IC204, Micropower Supply Voltage Supervisor (LM809)

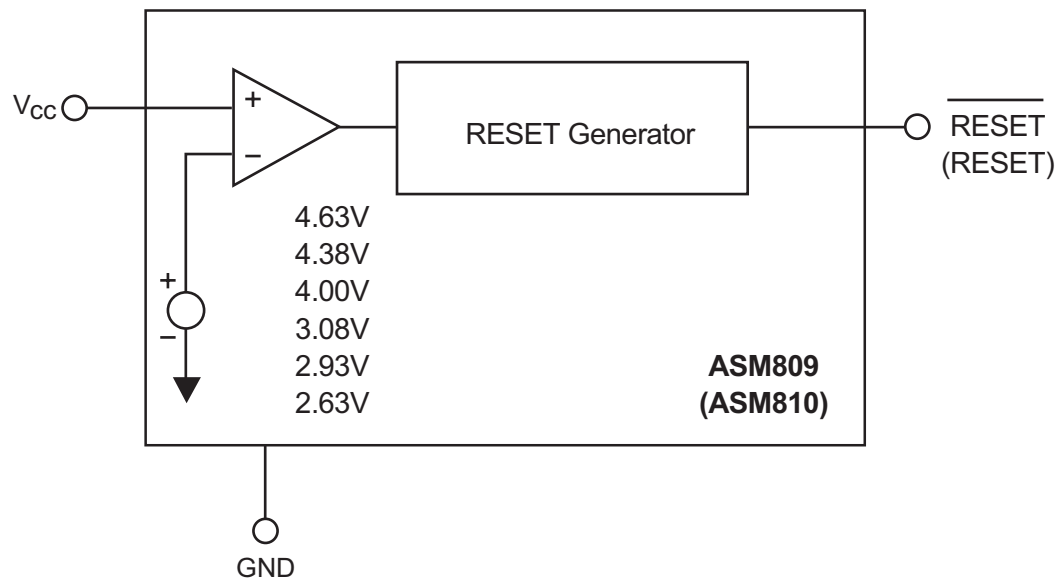
Pin Description:



Pin Description:

PIN(S)	NAME	DESCRIPTION
1	GND	Negative reference for all signals.
2	$\overline{\text{RESET}}$	Active low reset output. When the sense threshold has been exceeded, the $\overline{\text{RESET}}$ signal will remain active for an additional 140ms(min.) after which it is taken inactive. During a "brownout" condition, $\overline{\text{RESET}}$ will immediately be taken active. Internal circuitry ensures $\overline{\text{RESET}}$ will remain active even when the supply voltage is as low as 0V.
3	V _{CC}	Supply input signal which is monitored by the sense comparator. This input is compared to the 2.93V or 4.63 reference to determine the state of the output.

Schematic Diagram:



IC953, Voltage Regulator (TL431)

Pin Configuration:

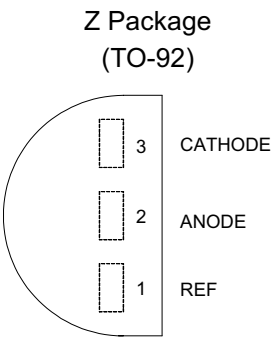


Figure 1: PIN CONFIGURATION OF TL431

Functional Block Diagram:

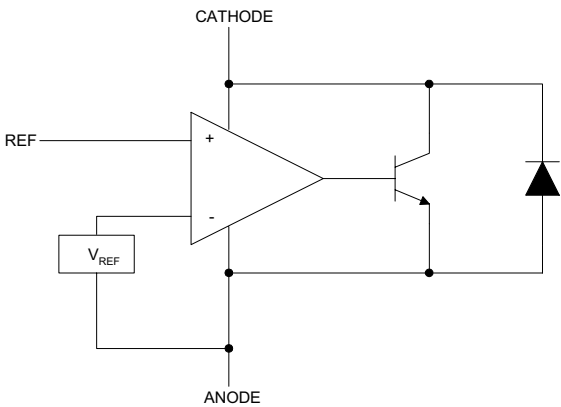
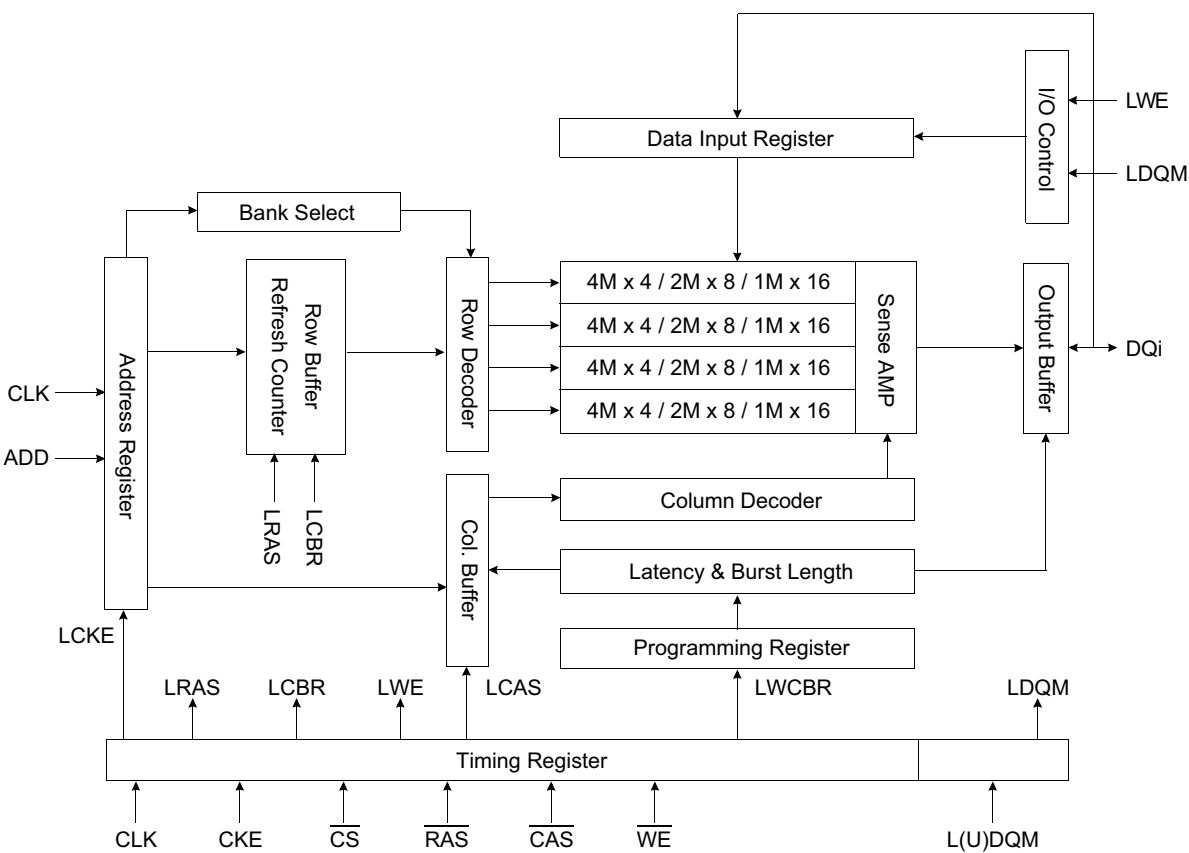


Figure 2: FUNCTIONAL BLOCK DIAGRAM OF TL431

HT-CN410DVH
IC208, High Data Rate Dynamic RAM (K4S641632H)

Functional Block Diagram:



Pin Configuration (Top view):

x16	x8	x4				x4	x8	x16	
VDD	VDD	VDD	1	o	54	Vss	Vss	Vss	
DQ0	DQ0	N.C	2		53	N.C	DQ7	DQ15	
VDDQ	VDDQ	VDDQ	3		52	VssQ	VssQ	VssQ	
DQ1	N.C	N.C	4		51	N.C	N.C	DQ14	
DQ2	DQ1	DQ0	5		50	DQ3	DQ6	DQ13	
VssQ	VssQ	VssQ	6		49	VDDQ	VDDQ	VDDQ	
DQ3	N.C	N.C	7		48	N.C	N.C	DQ12	
DQ4	DQ2	N.C	8		47	N.C	DQ5	DQ11	
VDDQ	VDDQ	VDDQ	9		46	VssQ	VssQ	VssQ	
DQ5	N.C	N.C	10		45	N.C	N.C	DQ10	
DQ6	DQ3	DQ1	11		44	DQ2	DQ4	DQ9	
VssQ	VssQ	VssQ	12		43	VDDQ	VDDQ	VDDQ	
DQ7	N.C	N.C	13		42	N.C	N.C	DQ8	
VDD	VDD	VDD	14		41	Vss	Vss	Vss	
LDQM	N.C	N.C	15		40	N.C/RFU	N.C/RFU	N.C/RFU	
WE	WE	WE	16		39	DQM	DQM	UDQM	
CAS	CAS	CAS	17		38	CLK	CLK	CLK	
RAS	RAS	RAS	18		37	CKE	CKE	CKE	
CS	CS	CS	19		36	N.C	N.C	N.C	
BA0	BA0	BA0	20		35	A11	A11	A11	
BA1	BA1	BA1	21		34	A9	A9	A9	
A10/AP	A10/AP	A10/AP	22		33	A8	A8	A8	
A0	A0	A0	23		32	A7	A7	A7	
A1	A1	A1	24		31	A6	A6	A6	
A2	A2	A2	25		30	A5	A5	A5	
A3	A3	A3	26		29	A4	A4	A4	
VDD	VDD	VDD	27		28	Vss	Vss	Vss	

54Pin TSOP (II)
(400mil x 875mil)
(0.8 mm Pin pitch)

IC208, High Data Rate Dynamic RAM (K4S641632H)

Pin Description:

Pin	Name	Input Function
CLK	System clock	Active on the positive going edge to sample all inputs.
$\overline{CS}$	Chip select	Disables or enables device operation by masking or enabling all inputs except CLK, CKE and DQM
CKE	Clock enable	Masks system clock to freeze operation from the next clock cycle. CKE should be enabled at least one cycle prior to new command. Disable input buffers for power down in standby.
A0 ~ A11	Address	Row/column addresses are multiplexed on the same pins. Row address : RA0 ~ RA11, Column address : (x4 : CA0 ~ CA9, x8 : CA0 ~ CA8, x16 : CA0 ~ CA7)
BA0 ~ BA1	Bank select address	Selects bank to be activated during row address latch time. Selects bank for read/write during column address latch time.
$\overline{RAS}$	Row address strobe	Latches row addresses on the positive going edge of the CLK with $\overline{RAS}$ low. Enables row access & precharge.
$\overline{CAS}$	Column address strobe	Latches column addresses on the positive going edge of the CLK with $\overline{CAS}$ low. Enables column access.
$\overline{WE}$	Write enable	Enables write operation and row precharge. Latches data in starting from $\overline{CAS}$, $\overline{WE}$ active.
DQM	Data input/output mask	Makes data output Hi-Z, tSHZ after the clock and masks the output. Blocks data input when DQM active.
DQ0 ~ x15	Data input/output	Data inputs/outputs are multiplexed on the same pins.
VDD/VSS	Power supply/ground	Power and ground for the input buffers and the core logic.
VDDQ/VSSQ	Data output power/ground	Isolated power supply and ground for the output buffers to provide improved noise immunity.
N.C/RFU	No connection /reserved for future use	This pin is recommended to be left No Connection on the device.

IC902, Power Switching Motor (FSDM 0265 RN)

Internal Block Diagram:

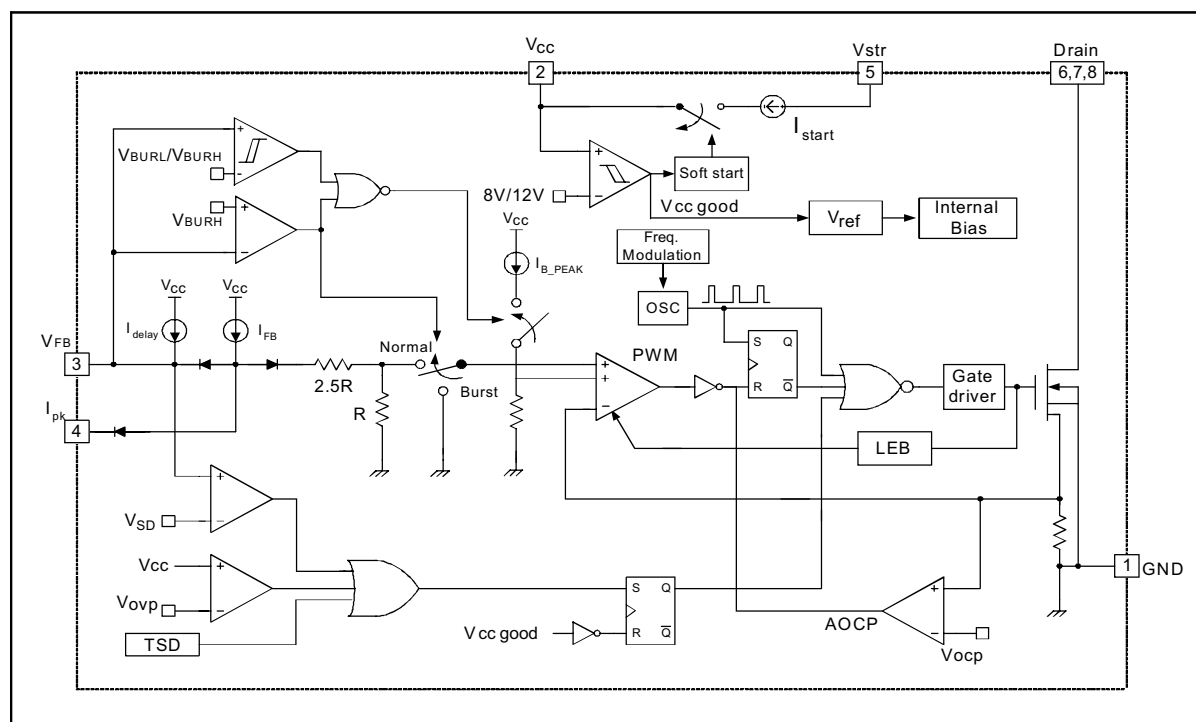


Figure 3: FUNCTIONAL BLOCK DIAGRAM

IC 902, Power Switching Motor (FSDM 0265 RN)

Pin Definitions:

Pin Number	Pin Name	Pin Function Description
1	GND	Sense FET source terminal on primary side and internal control ground.
2	Vcc	Positive supply voltage input. Although connected to an auxiliary transformer winding, current is supplied from pin 5 (Vstr) via an internal switch during startup (see Internal Block Diagram section). It is not until Vcc reaches the UVLO upper threshold (12V) that the internal start-up switch opens and device power is supplied via the auxiliary transformer winding.
3	Vfb	Feedback voltage pin is the non-inverting input to PWM comparator. It has a 0.9mA current source connected internally while a capacitor and optocoupler are typically connected externally. A feedback voltage of 6V triggers over load protection (OLP). There is a time delay while charging between 3V and 6V using an internal 5uA current source, which prevents false triggering under transient conditions but still allows the protection mechanism to operate under true overload conditions.
4	l _{pk}	Pin to adjust the current limit of the Sense FET. The feedback 0.9mA current source is diverted to the parallel combination of an internal 2.8k Ω resistor and any external resistor to GND on this pin to determine the current limit. If this pin is tied to Vcc or left floating, the typical current limit will be 1.2A.
5	Vstr	This pin connects directly to the rectified AC line voltage source. At start up the internal switch supplies internal bias and charges and external storage capacitor placed between the Vcc pin and ground. Once the Vcc reaches 12V, the internal switch is disabled.
6, 7, 8	Drain	The Drain pin is designed to connect directly to the primary lead of the transformer and is capable of switching a maximum of 650V. Minimizing the length of the trace connecting this pin to the transformer will decrease leakage inductance.

Pin Configuration:

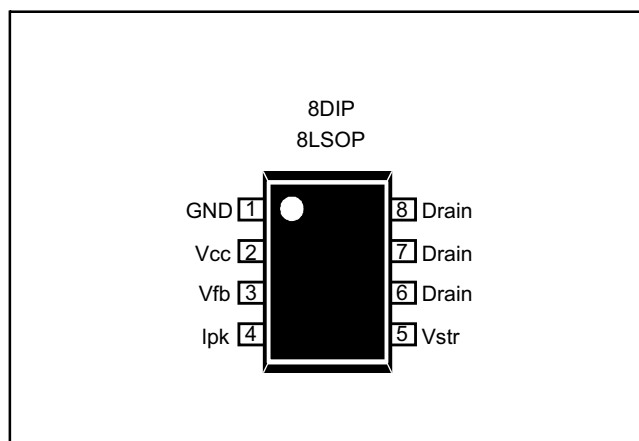
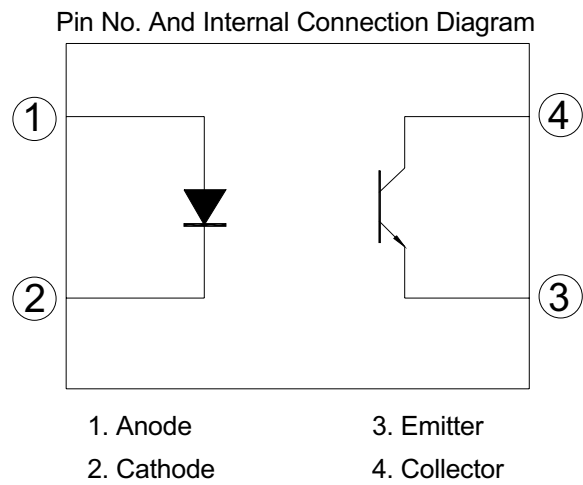


Figure 4: PIN CONFIGURATION (TOP VIEW)

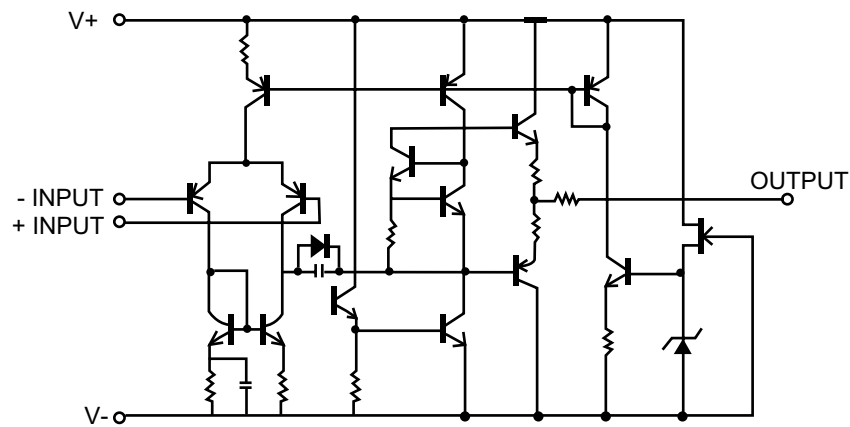
IC901, Optical Sensor (EL-817)

Pin Configuration:

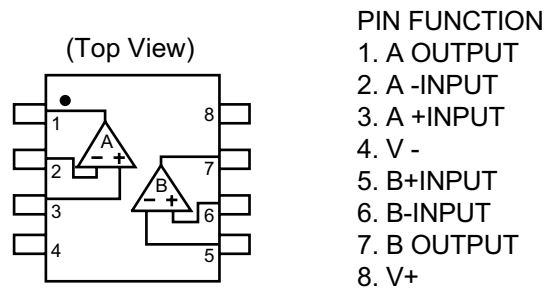


IC951, Dual Operational Amplifier (NJM4558)

Equivalent Circuit (as Shown):



Connection Diagram:

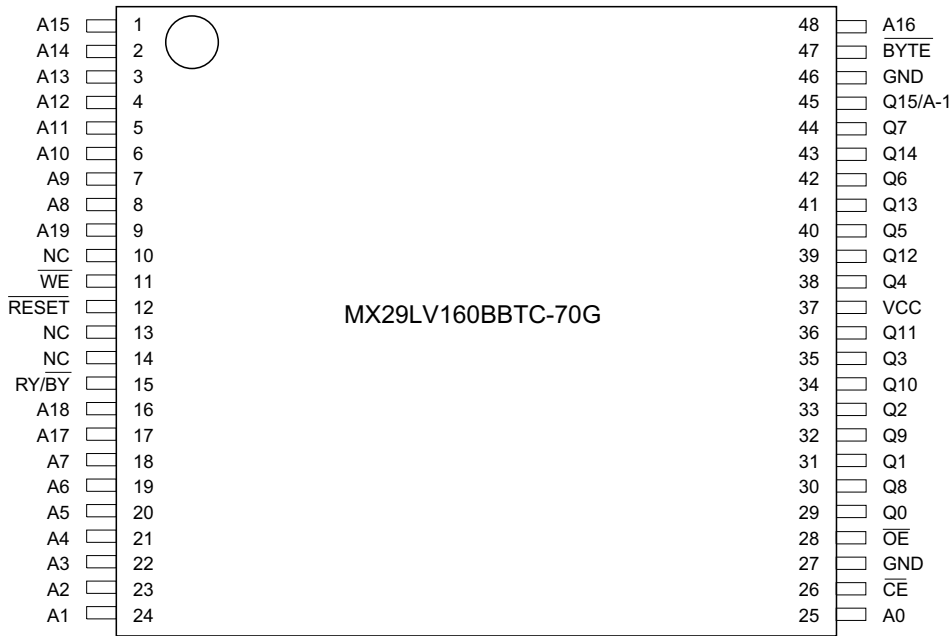


IC207, High Speed Flash Memory (MX29LV160BBTC-70G)

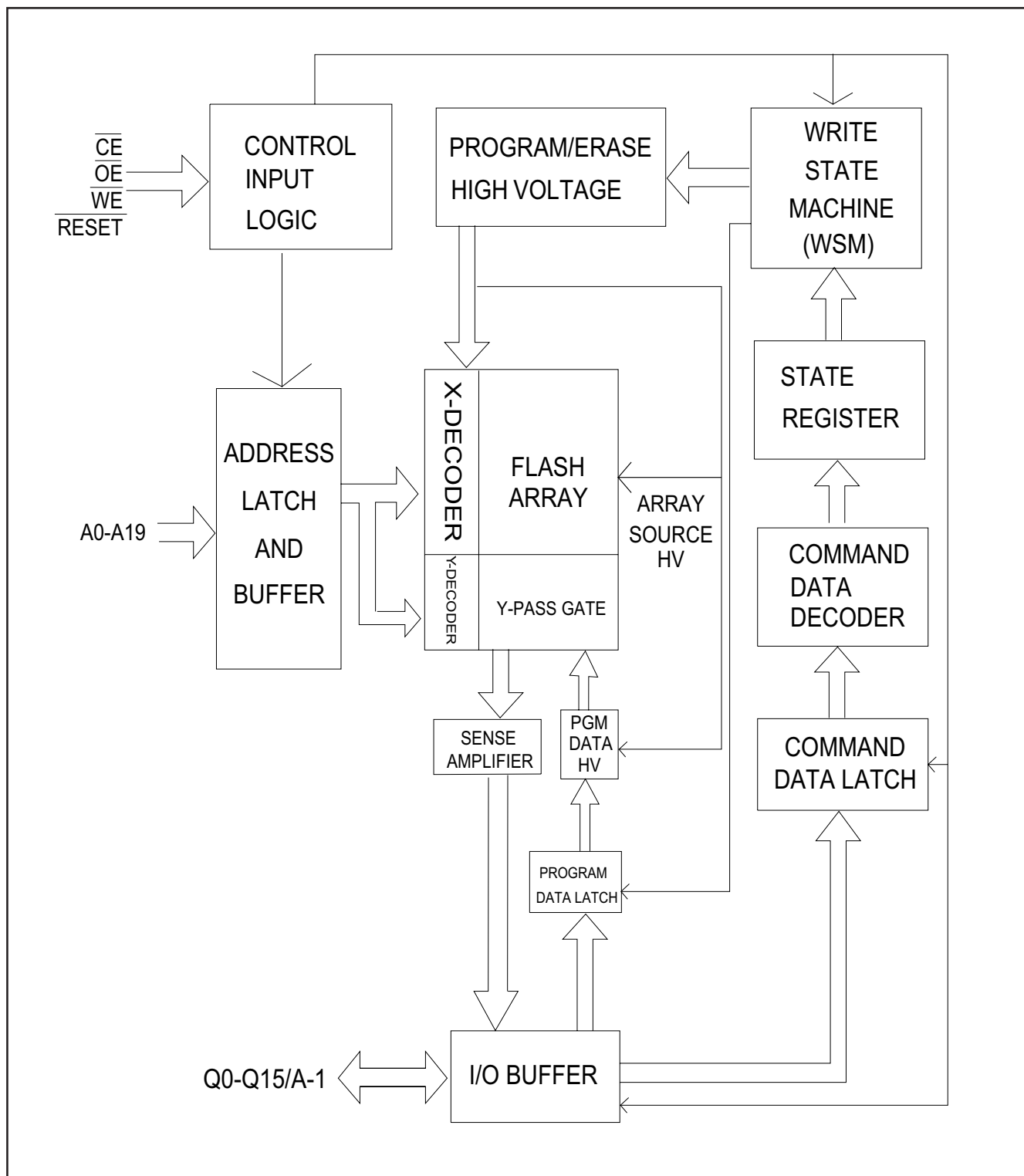
Pin Description:

SYMBOL	PIN NAME
A0~A19	Address Input
Q0~Q14	Data Input/Output
Q15/A-1	Q15(Word mode)/LSB addr(Byte mode)
$\overline{\text{CE}}$	Chip Enable Input
$\overline{\text{WE}}$	Write Enable Input
$\overline{\text{BYTE}}$	Word/Byte Selection input
$\overline{\text{RESET}}$	Hardware Reset Pin/Sector Protect Unlock
$\overline{\text{OE}}$	Output Enable Input
RY/ $\overline{\text{BY}}$	Ready/Busy Output
VCC	Power Supply Pin (2.7V~3.6V)
GND	Ground Pin

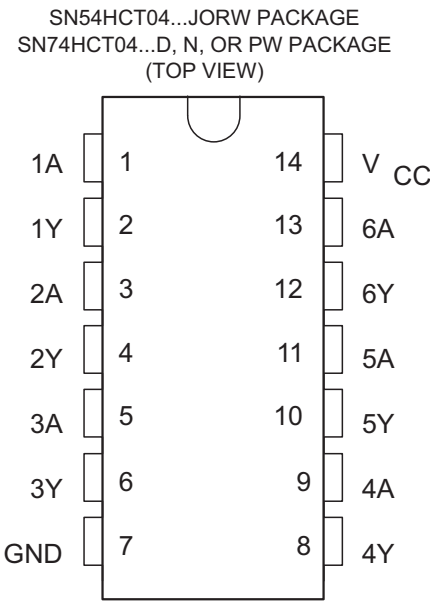
Pin Configuration:



Block Diagram:



IC205, HEX Inverters (74HCT04)



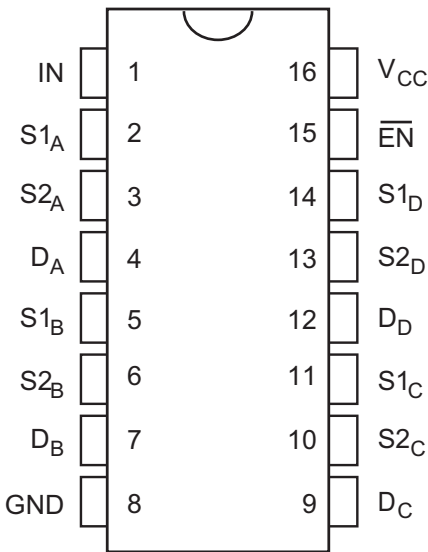
Logic Diagram (Positive Logic):



IC202, Wide-Band Video Switch (TS5V330DBQR)

Pin Configuration:

Pin Description:



Pin Name	Description
S1, S2	Analog Video I/OS
D	I/OS
IN	Select Input
$\overline{\text{EN}}$	Switch - Enable Input

D, DBQ OR PW PACKAGE (TOP VIEW)

IC201, Programmable Multimedia and DSP Processor (ES6809FADF)**ES6809 Pinout Diagram:**

The device pinout for the ES6809 is shown in Figure 1.

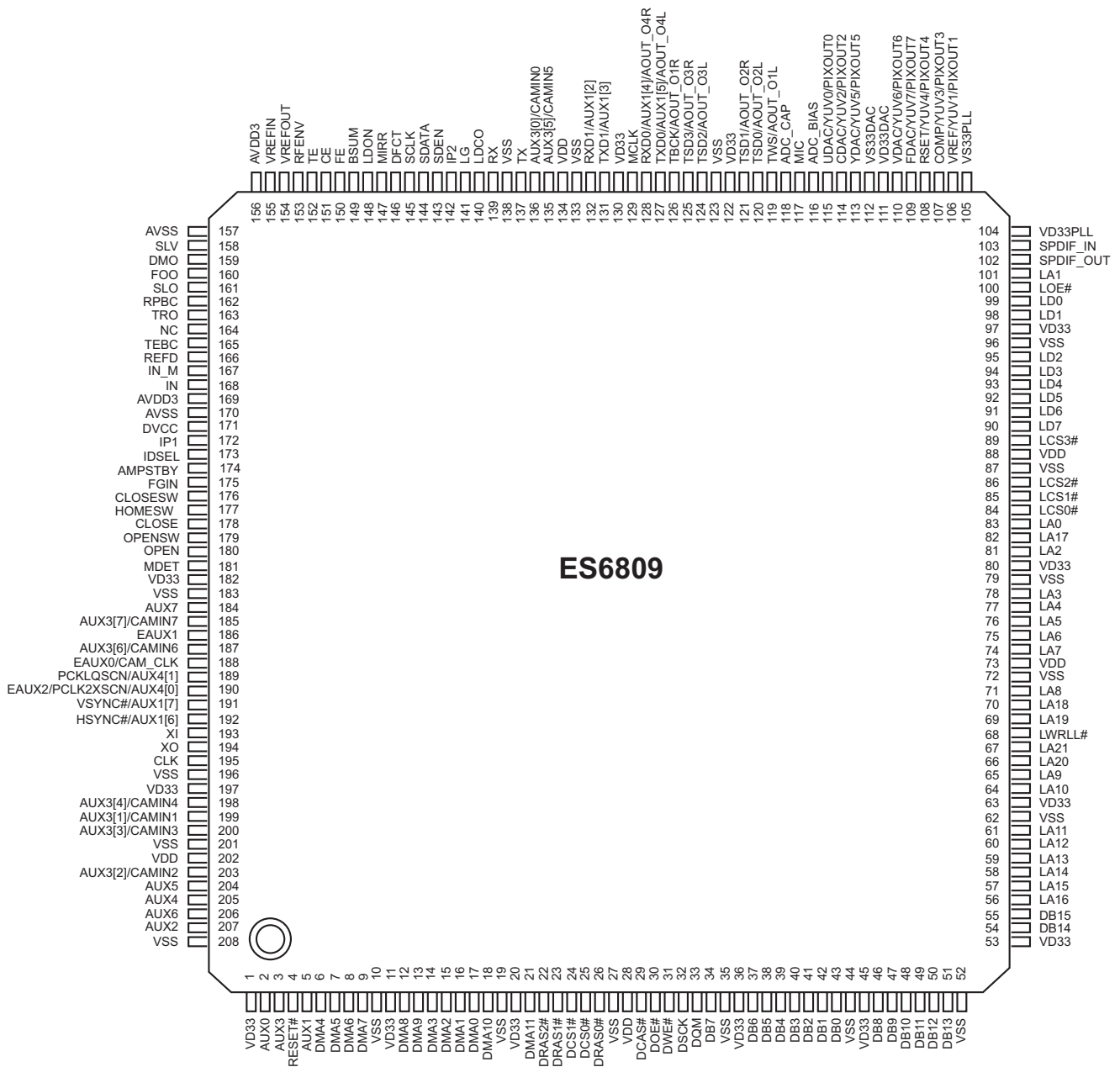


Figure 6: ES6809 DEVICE PINOUT

IC201, Programmable Multimedia and DSP Processor (ES6809PADE)**ES6809 Pin Description:**

Names	Pin Numbers	I/O	Definitions
VD33	1, 11, 20, 36, 45, 53, 63, 80, 97, 122, 130, 156, 182, 197	P	I/O power supply.
AUX0	2	I/O	Host control 0.
AUX3	3	I/O	Auxiliary port 3.
RESET#	4	I	Reset (active-low).
AUX1	5	I/O	Host control 1.
DMA11:0	6:9, 12:18, 21	O	DRAM address bus.
VSS	10, 19, 27, 35, 44, 52, 62, 72, 79, 87, 96, 123,133, 138, 183, 196, 201, 208	G	Ground.
DRAS2-0#	22, 23, 26	O	DRAM row address strobes (active-low).
DCS1-0#	24, 25	O	DRAM chip selects (active-low).
VDD	28, 73, 88, 134, 202	P	Core power supply.
DCAS#	29	O	DRAM column address strobes (active-low).
DOE#	30	O	DRAM output enable (active-low).
DWE#	31	O	DRAM write enable (active-low).
DSCK	32	O	Output clock to DRAM.
DQM	33	O	Data input/output mask.
DB15-0	34, 37:43, 46:51, 54,55	I/O	DRAM data bus.
LA21-0	56:61, 64:67, 69:71, 74:78, 81:83, 101	O	SRAM address bus.
LWRLL#	68	O	SRAM bus write enable (active-low).
LCS3-0#	84:76, 89	O	SRAM bus chip select (active-low).
LD7-0	90:95, 98, 99	I/O	SRAM data bus.
LOE#	100	O	RISC port output enable (active-low).
SPDIF_OUT	102	O	S/PDIF output.
SPDIF_IN	103	I	S/PDIF input.
VD33PLL	104	P	Power for PLL blocks.
VS33PLL	105	G	Ground for PLL blocks.
VREF	106	I	Internal voltage reference to video DAC.
YUV1		O	YUV pixel 1 output data.
PIXOUT1		O	CCIR656 output pixel 1.
COMP	107	I	Compensation input.
YUV3		O	YUV pixel 3 ouput data.
PIXOUT3		O	CCIR656 output pixel 3.
RSET	108	I	DAC current adjustment resistor input.
YUV4		O	YUV pixel 4 output data.
PIXOUT4		O	CCIR656 output pixel 4.
FDAC	109	O	VideoDAC output. Refer to description and matrix for UDAC pin 115.
YUV7		O	YUV pixel 7 ouput data.
PIXOUT7		O	CCIR656 output pixel 7.

IC201, Programmable Multimedia and DSP Processor (ES6809PADE)

Table 1 ES6809 Pin Description (Continued):

Names	Pin Numbers	I/O	Definitions																																																																																																						
VDAC	110	O	VideoDAC output. Refer to description and matrix for UDAC pin 115.																																																																																																						
YUV6		O	YUV pixel 6 ouput data.																																																																																																						
PIXOUT6		O	CCIR656 output pixel 6.																																																																																																						
VD33_DA	111	P	Poer for I/O power supply for VDAC.																																																																																																						
VS33_DA	112	G	Ground for I/O power supply for VDAC.																																																																																																						
YDAC	113	O	VideoDAC output. Refer to description and matrix for UDAC pin 115.																																																																																																						
YUV5		O	YUV pixel 5 ouput data.																																																																																																						
PIXOUT5		O	CCIR656 output pixel 5.																																																																																																						
CDAC	114	O	VideoDAC output. Refer to description and matrix for UDAC pin 115.																																																																																																						
YUV2		O	YUV pixel 2 ouput data.																																																																																																						
PIXOUT2		O	CCIR656 output pixel 2.																																																																																																						
UDAC	115	O	Video DAC ouput <table><tr><th>PIN</th><th>109</th><th>110</th><th>113</th><th>114</th><th>115</th></tr><tr><th>Value</th><th>F DAC</th><th>V DAC</th><th>Y DAC</th><th>C DAC</th><th>U DAC</th></tr><tr><td>0</td><td>CVBS/Chroma</td><td>CVBS1</td><td>Y</td><td>C</td><td>N/A</td></tr><tr><td>1</td><td>CVBS/Chroma</td><td>CVBS1</td><td>Y</td><td>C</td><td>CVBS2</td></tr><tr><td>2</td><td>CVBS/Chroma</td><td>N/A</td><td>Y</td><td>C</td><td>N/A</td></tr><tr><td>3</td><td>CVBS/Chroma</td><td>CVBS1</td><td>N/A</td><td>N/A</td><td>CVBS2</td></tr><tr><td>4</td><td>CVBS/Chroma</td><td>CVBS1</td><td>N/A</td><td>N/A</td><td>N/A</td></tr><tr><td>5</td><td>CVBS/Chroma</td><td>CVBS1</td><td>Y</td><td>Pb</td><td>Pr</td></tr><tr><td>6</td><td>CVBS/Chroma</td><td>N/A</td><td>Y</td><td>Pb</td><td>Pr</td></tr><tr><td>7</td><td>N/A</td><td>SYNC</td><td>G</td><td>B</td><td>R</td></tr><tr><td>8</td><td>CVBS/Chroma</td><td>Chroma</td><td>Y</td><td>Pb</td><td>Pr</td></tr><tr><td>9</td><td>CVBS</td><td>CVBS1</td><td>G</td><td>B</td><td>R</td></tr><tr><td>10</td><td>CVBS</td><td>CVBS1</td><td>G</td><td>R</td><td>B</td></tr><tr><td>11</td><td>N/A</td><td>SYNC</td><td>G</td><td>R</td><td>B</td></tr><tr><td>12</td><td>CVBS/Chroma</td><td>N/A</td><td>Y</td><td>Pr</td><td>Pb</td></tr><tr><td>13</td><td>CVBS/Chroma</td><td>CVBS1</td><td>Y</td><td>Pr</td><td>Pb</td></tr><tr><td>14</td><td>Chroma</td><td>Y</td><td>G</td><td>R</td><td>B</td></tr></table> F : CVBS/Chroma signal for simultaneous mode. Y : Luma component for YUV and Y/C processing. C : Chrominance signal for Y/C processing. U : Chrominance component signal for YUV mode. V : Chrominance component signal for YUV mode.	PIN	109	110	113	114	115	Value	F DAC	V DAC	Y DAC	C DAC	U DAC	0	CVBS/Chroma	CVBS1	Y	C	N/A	1	CVBS/Chroma	CVBS1	Y	C	CVBS2	2	CVBS/Chroma	N/A	Y	C	N/A	3	CVBS/Chroma	CVBS1	N/A	N/A	CVBS2	4	CVBS/Chroma	CVBS1	N/A	N/A	N/A	5	CVBS/Chroma	CVBS1	Y	Pb	Pr	6	CVBS/Chroma	N/A	Y	Pb	Pr	7	N/A	SYNC	G	B	R	8	CVBS/Chroma	Chroma	Y	Pb	Pr	9	CVBS	CVBS1	G	B	R	10	CVBS	CVBS1	G	R	B	11	N/A	SYNC	G	R	B	12	CVBS/Chroma	N/A	Y	Pr	Pb	13	CVBS/Chroma	CVBS1	Y	Pr	Pb	14	Chroma	Y	G	R	B
PIN			109	110	113	114	115																																																																																																		
Value			F DAC	V DAC	Y DAC	C DAC	U DAC																																																																																																		
0			CVBS/Chroma	CVBS1	Y	C	N/A																																																																																																		
1			CVBS/Chroma	CVBS1	Y	C	CVBS2																																																																																																		
2			CVBS/Chroma	N/A	Y	C	N/A																																																																																																		
3			CVBS/Chroma	CVBS1	N/A	N/A	CVBS2																																																																																																		
4			CVBS/Chroma	CVBS1	N/A	N/A	N/A																																																																																																		
5			CVBS/Chroma	CVBS1	Y	Pb	Pr																																																																																																		
6			CVBS/Chroma	N/A	Y	Pb	Pr																																																																																																		
7			N/A	SYNC	G	B	R																																																																																																		
8			CVBS/Chroma	Chroma	Y	Pb	Pr																																																																																																		
9			CVBS	CVBS1	G	B	R																																																																																																		
10			CVBS	CVBS1	G	R	B																																																																																																		
11			N/A	SYNC	G	R	B																																																																																																		
12			CVBS/Chroma	N/A	Y	Pr	Pb																																																																																																		
13			CVBS/Chroma	CVBS1	Y	Pr	Pb																																																																																																		
14			Chroma	Y	G	R	B																																																																																																		
YUV0			O	YUV pixel 0 output data.																																																																																																					
PIXOUT0		O	CCIR665 ouput pixel 0.																																																																																																						
ADC_BIAS	116	O	Audio ADC bias voltage out.																																																																																																						
MIC	117	I	Audio ADC MIC 1.																																																																																																						
ADC_CAP	118	O	Audio ADC output capacitance.																																																																																																						
TWS	119	O	Audio transmit frame sync output.																																																																																																						
AOUT_O1L		O	Audio left channel 1 out.																																																																																																						
TSD0	120	O	Audio transmit serial data port 0.																																																																																																						
AOUT_O2L		O	Audio left channel 2 out.																																																																																																						
TSD1	121	O	Audio transmit serial data port 1.																																																																																																						
AOUT_O2R		O	Audio right channel 2 out.																																																																																																						

IC201, Programmable Multimedia and DSP Processor (ES6809PADE)

Table 1 ES6809 Pin Description (Continued):

Names	Pin Numbers	I/O	Definitions
TSD2	124	O	Audio transmit serial data port 2.
AOUT_O3L		O	Audio left channel 3 out.
TSD3	125	O	Audio transmit serial data port 3.
AOUT_O3R		O	Audio right channel 3 out.
TBCK	126	O	Audio transmit bit clock.
AOUT_O1R		O	Audio right channel 1 out.
TXD0	127	I/O	Serial port 0 transmit.
AOUT_O4L		I/O	Audio left channel 4 out.
RXD0	128	I/O	Serial port 0 receive.
AOUT_O4R		I/O	Audio right channel 4 out.
MCLK	129	I/O	Audio master clock for audio DAC.
TXD1	131	I/O	Serial port 1 transmit.
RXD1	132	I/O	Serial port 1 receive.
AUX3[5]	135	I/O	AUX3 data I/O 5.
CAMIN[5]		I/O	Camera I/O 5.
AUX3[0]	136	I/O	AUX3 data I/O 0.
CAMIN[0]		I/O	Camera I/O 0.
TX	137	I	Zero crossing of TE.
RX	139	I	Zero crossing of RF envelope.
LDCO	140	O	CD/DVD laser diode select.
LG	141	O	DVD-RAM land/groove flag for next track.
IP2	142	I	DVD-RAM header position index 2.
SDEN	143	O	RF chip serial data enable.
SDATA	144	I/O	Data signal to/from RF chip.
SCLK	145	O	Serial clock source to RF chip.
DFCT	146	I	Detect flag input signal.
MIRR	147	I	Mirror detect input.
LDON	148	O	Laser diode on/off control.
BSUM	149	I	Photodiode subbeam addition input signal.
FE	150	I	Focus input error signal.
CE	151	I	centre error input signal.
TE	152	I	Tracking error input.
RFENV	153	I	RF ripple envelope input signal.
VREFOUT	154	I	Reference voltage for servo analog output signals.
VREFIN	155	I	Reference voltage for servo analog input signals.
DMO	159	O	Spindle drive.
FOO	160	O	Focus drive.
SLO	161	O	Sled drive.
RPBC	162	O	RF envelope balance control.
TRO	163	O	Track drive.
NC	164	O	No connect.
TEBC	165	O	Tracking error balance control.
REFD	166	I	Flash reference decouple.
IN_M	167	I	Analog RF signal (minus).
IN	168	I	Analog RF signal (plus).

IC201, Programmable Multimedia and DSP Processor (ES6809PADE)

Table 1 ES6809 Pin Description (Continued):

Names	Pin Numbers	I/O	Definitions
AVDD3	169	P	3.3V analog power for flash.
AVSS	170	G	Analog ground for flash.
DVCC	171	P	1.8V power for flash.
IP1	172	I	DVD-RAM header position index 1.
IDSEL	173	I/O	DVD-RAM detected signal of ID area.
AMPSTBY	174	O	Power amplifier standby.
FGIN	175	I	Spindle hall sensor input.
CLOSESW	176	I	Tray closed detector.
HOMESW	177	I	Sled home switch position detector.
CLOSE	178	O	Drive to open tray.
OPENSW	179	I	Tray open detector.
OPEN	180	O	Drive to open tray.
MDET	181	I	Spindle drive motor rotation direction detect.
AUX7	184	I/O	Auxiliary port 7.
AUX3[7]	185	I/O	Aux3 data I/O 7.
CAMIN7		I/O	Camera I/O 7.
EAUX1	186	I/O	Extended auxiliary port 1.
AUX3[6]	187	I/O	Aux3 data I/O 6.
CAMIN6		I/O	Camera I/O 6.
EAUX0	188	I/O	Extended auxiliary port 0.
CAM_CLK		I/O	Camera clock.
EAUX3	189	I/O	Extended auxiliary port 3.
PCLKQSCN		O	13.5-MHz video output pixel clock.
AUX4[1]		I/O	Aux4 data I/O; (5V tolerant input).
EAUX2	190	I/O	Extended auxiliary port 2.
PCLK2XSCN		I/O	27-MHz video output pixel clock.
AUX4[0]		I/O	Aux4 data I/O 0.
VSYNC#	191	I/O	Vertical sync (active-low); (5V tolerant input).
AUX1[7]		I/O	Aux1 data I/O 7.
HSYNC#	192	I/O	Horizontal sync (active-low); (5V tolerant input).
AUX1[6]		I/O	Aux1 data I/O 6.
XI	193	I	Crystal clock in.
XO	194	O	Crystal clock out.
AUX3[4]	198	I/O	Aux3 data I/O 4.
CAMIN4		I/O	Camera I/O 4.
AUX3[1]	199	I/O	Aux3 data I/O 1.
CAMIN1		I/O	Camera I/O 1.
AUX3[3]	200	I/O	Aux3 data I/O 3.
CAMIN3		I/O	Camera I/O 3.
AUX3[2]	203	I/O	Aux3 data I/O 2.
CAMIN2		I/O	Camera I/O 2.
AUX6-4, 2	204-207	I/O	Auxiliary ports 2,4,5 and 6; (5V tolerant input).

IC203, EEPROM (AT24C02N-10SU-2.7)

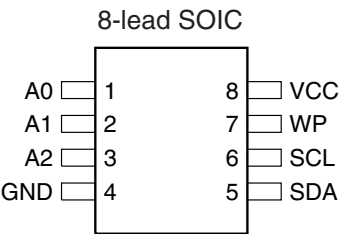


Table 1 EEPROM Pin Configuration

Pin Name	Function
A0 - A2	Address Inputs
SDA	Serial Data
SCL	Serial Clock Input
WP	Write Protect
NC	No Connect
GND	Ground
VCC	Power Supply

IC801, DVD Servo (ES6602SF)

ES6602 PINOUT

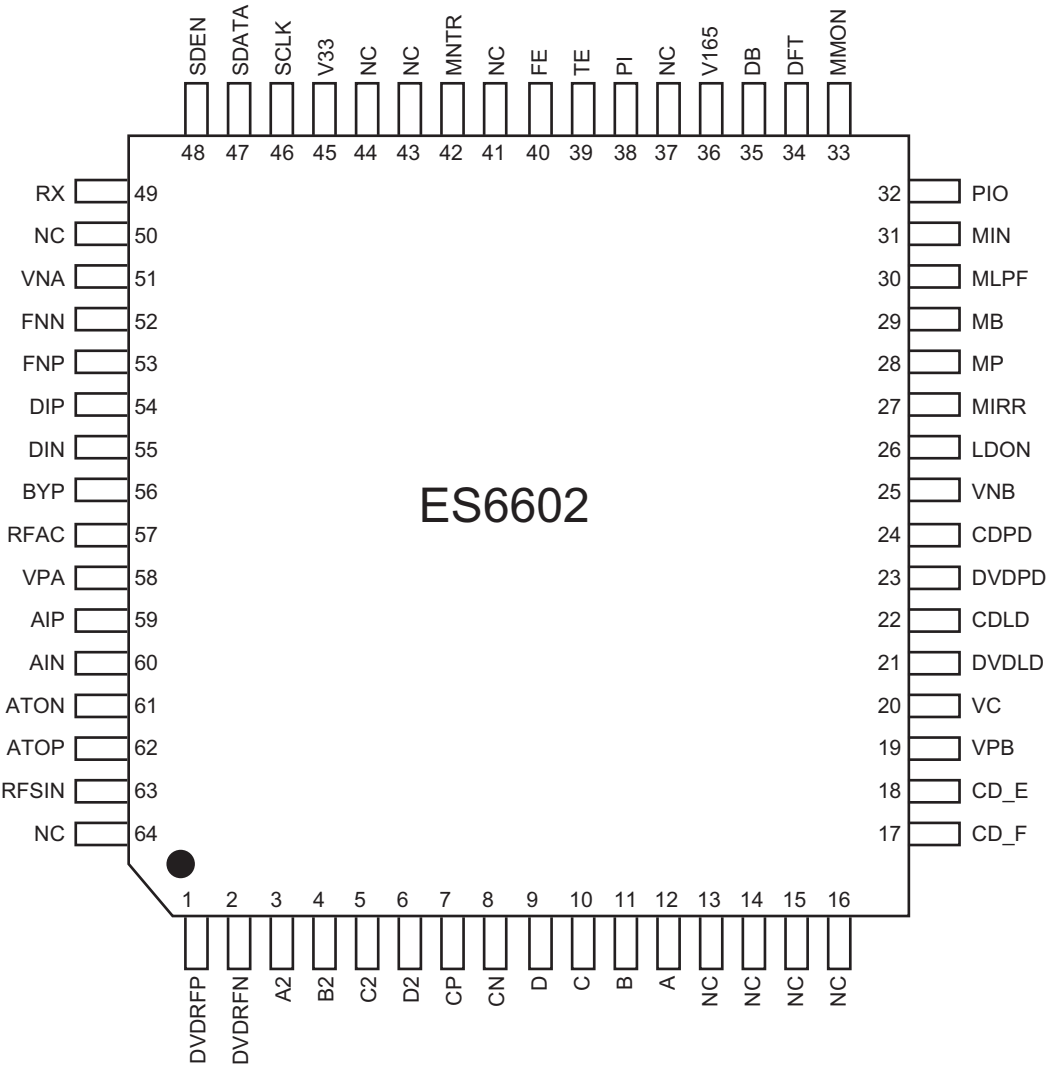


Figure 7: ES6602 DEVICE PINOUT

ES6602 PIN DESCRIPTION

Names	Pin Numbers	I/O	Definitions
DVDRFP, DVDRFN	1,2	I	Differential RF signal attenuator inputs.
A2, B2, C2, D2	3-6	I	AC coupled photo detector interface input for the differential phase detector (DPD) from the main beam photo matrix.
CP, CN	7, 8	–	Differential phase tracking low-pass filter pins. Connect CP to CN via capacitors.
D, C, B, A	9-12.	I	Photo detector interface input from the main beam photo matrix.
NC	13-16, 37, 41, 43, 44, 50, 64	I	No connect
CD_F, CD_E	17, 18	I	CD photo detector interface input from the CD side beam photo detector; used for CD tracking detection.
VPB	19	P	Servo block power supply.
VC	20	O	Reference voltage out (VPB/2). Output impedance is less than 50Ω
DVDLD	21	O	DVD APC output; controls laser power for DVD.
CDLD	22	O	CD APC output; controls laser power for CD.
DVDPD	23	I	DVD APC input
CDPD	24	I	CD APC input
VNB	25	G	Servo block ground
LDON	26	I	APC On/Off control. A high level activates LD Output. (open is low)
MIRR	27	O	Mirror detect output
MP, MB	28, 29	I	Mirror top and bottom hold pins. Connected to VPB pin 19 via capacitors.
MLPF	30	I	Mirror low-pass filter pin. Connected to VPB pin 19 via a capacitor.
MIN	31	I	RF input signal for mirror. AC coupled input for the mirror detection circuit from MEVO pin 32.
PIO	32	O	Buffered Pull-In Signal Output; This is the PI (pin 38) with gain (18 or 24dB - see CCR register 2Ch, bit 6).
MMON	33	O	Mirror Monitor Output: When the monitor output signal is selected by bits 3:0 of the CER register 3Ch, mirror-related signals can be observed.
DFT	34	O	Defect Output: When the Pull-In signal level is below the detection level, or when the RF signal level is below the detection level, the DFT output goes high. The defect output is selected by the serial port.
DB	35	I	Defect Bottom Hold: Connected to VPB pin 19 via a capacitor.
V165	36	O	1.65V servo block reference voltage output.
PI	38	O	Pull-In Signal Out: The summing signal output of A, B, C, D, or CD_A, CD_B, CD_C, or CD_D. Reference to V25/3.
TE	39	O	Tracking error output reference to V125 pin 36.
FE	40	O	Focusing error output reference to V125 pin 36.
MNTR	42	O	Monitor out signal. Output is selectable by register settings.
V33	45	P	3.3V output buffers power supply.
SCLK	46	I	Serial clock from Vibratto-II.
SDATA	47	I/O	Serial data I/O.
SDEN	48	I	Serial date enable. Enabled By an active-high signal.
RX	49	I	Reference resistor. Connected to ground via a 12,0kΩ, 1% resistor.

Table 1 ES6602 Pin Description List (Continued)

Names	Pin Numbers	I/O	Definitions
VNA	51	G	RF block and serial port ground.
FNN, FNP	52, 53	O	Differential outputs of equalizer/filter.
DIP, DIN	54, 55	I	Differential analog input to the RF single-end output buffer and full wave rectifier.
BYP	56	I	AGC amplifier gain bypass. Tied to VPA via a capacitor.
RFAC	57	O	Single-ended RF output.
VPA	58	P	RF block and serial port power supply.
AIP, AIN	59, 60	I	Differential AGC amplifier inputs.
ATON ATOP	61, 62	O	Differential attenuator outputs.
RFSIN	63	I	Single-ended RF signal attenuator input.

IC303, 192 kHz Multi-bit audio A/D Converter (CS5342)

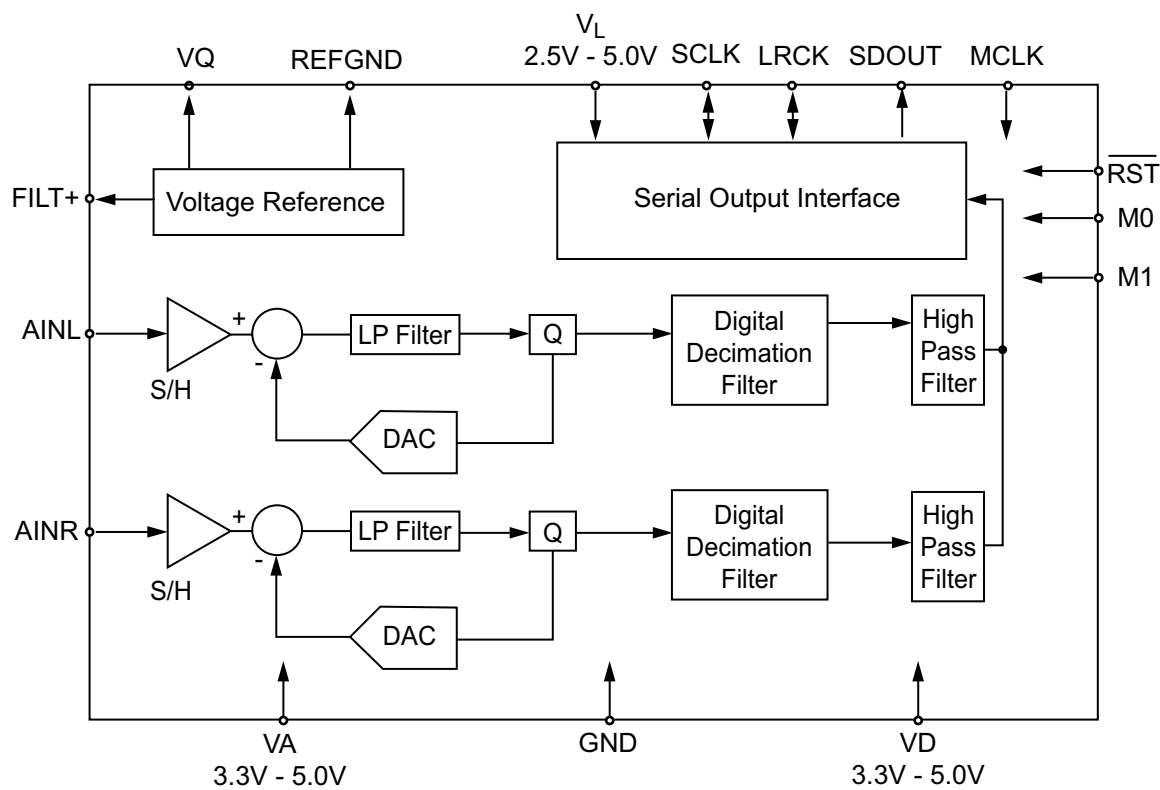
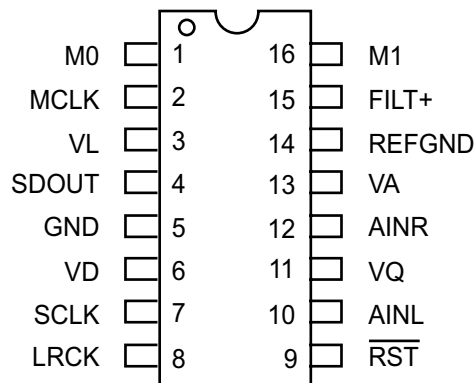


Figure 8: FUNCTIONAL BLOCK DIAGRAM

IC303, 192 kHz Multi-bit audio A/D Converter (CS5342)

Pin Description:

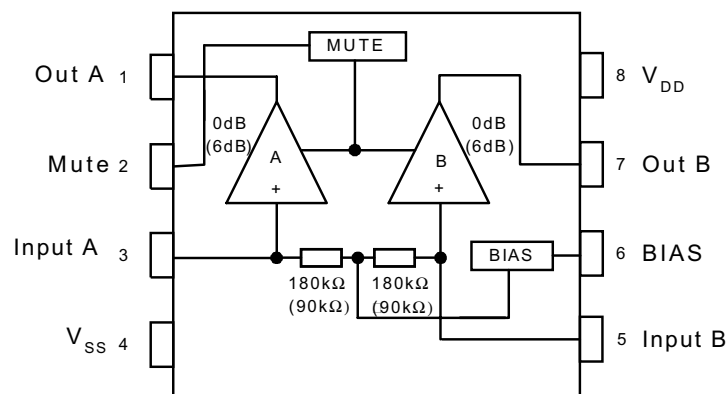


IC303, 192 kHz Multi-bit audio A/D Converter (CS5342)

Pin Name	#	Pin Description
M0	1	Mode Selection (Input) - Determines the operational mode of the device.
M1	16	
MCLK	2	Master Clock (Input) - Clock source for the delta-sigma modulator and digital filters.
VL	3	Logic Power (Input) - Positive power for the digital input/output.
SDOUT	4	Serial Audio Data Output (Output) - Output for two's complement serial audio data.
GND	5	Ground (Input) - Ground reference. Must be connected to analog ground.
VD	6	Digital Power (Input) - Positive power supply for the digital section.
SCLK	7	Serial Clock (Input/Output) - Serial clock for the serial audio interface.
LRCK	8	Left Right Clock (Input/Output) - Determines which channel, Left or Right, is currently active on the serial audio data line.
RST	9	Reset (Input) - The device enters a low power mode when low.
AINL	10	Analog Input (Input) - The Full scale analog input level is specified in the Analog Characteristics specification table.
AINR	12	
VQ	11	Quiescent Voltage (Output) - Filter connection for the internal quiescent reference voltage.
VA	13	Analog Power (Input) - Positive power supply for the analog section.
REFGND	14	Reference Ground (Output) - Ground reference for the internal sampling circuits.
FILT+	15	Positive Voltage Reference (Output) - Positive reference voltage for the internal sampling circuits.

IC5002, Headphone Driver with Mute (APA 3541-TRL)

Block Diagram



* The values in parenthesis are for the APA3544.

IC5002. Headphone Driver with Mute (APA 3541-TRL)

Function Pin Description

Pin Name	I/O	Function Description
Out A	O	A channel output pin
Mute	I	Chip disable control input, low active and high for normal operating
Input A	I	A channel input terminal
V _{SS}		Power ground pin
Input B	I	B channel input terminal
BIAS	I	Right channel bias input pin
OUT B	O	B channel output pin
V _{DD}		Power input pin

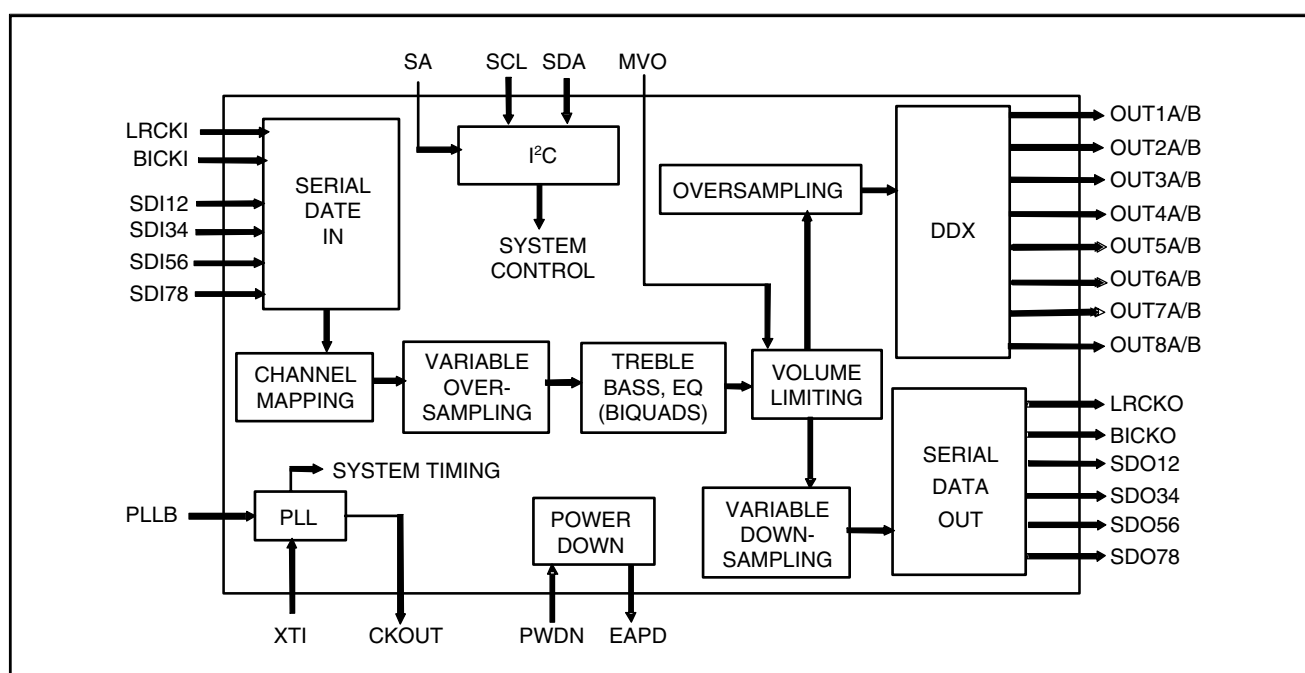
IC501. Multi Channel Digital Audio (STA308A)

Figure 9: BLOCK DIAGRAM

IC501, Multi Channel Digital Audio (STA308A)

Pin Connection (Top view)

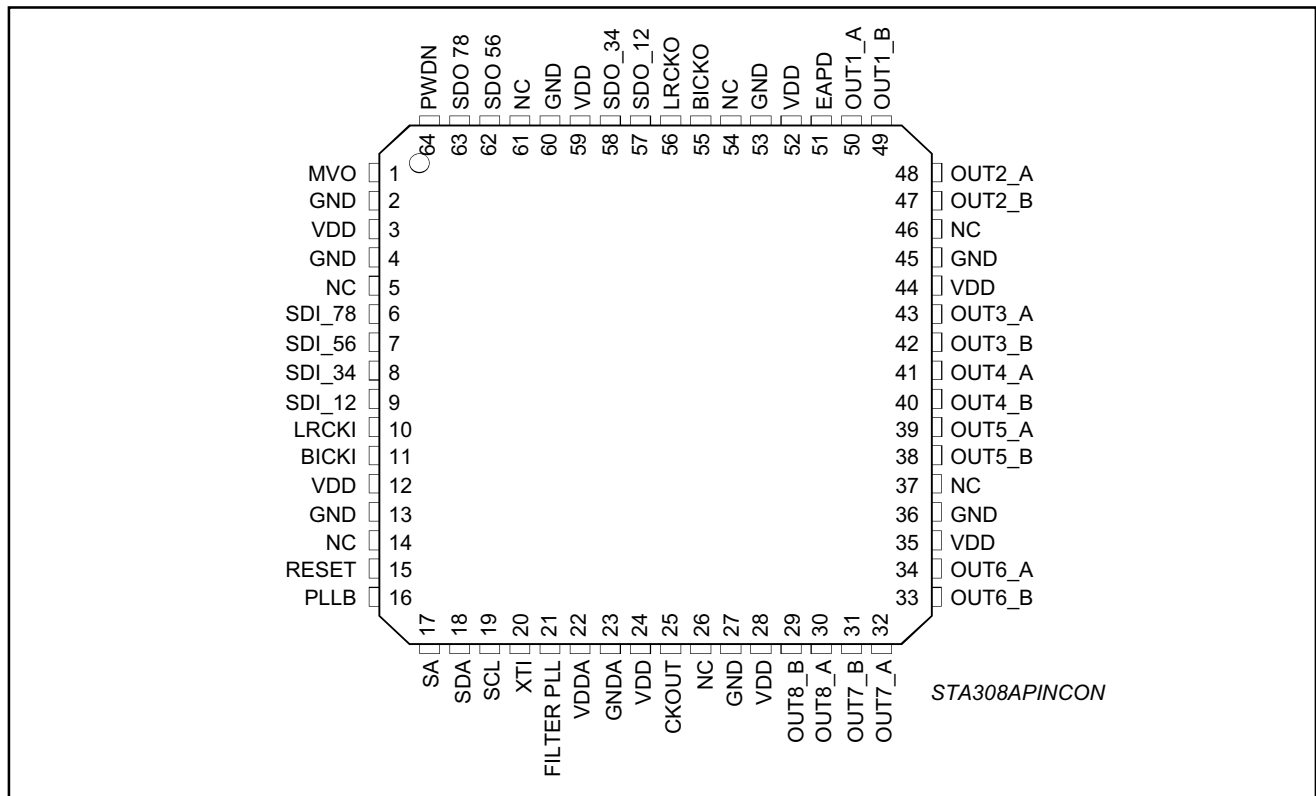


Table 1. Pin Function

Pin	Name	Description	Pad Type
1	MVO/DSD_CLK	Master Volume Override/ DSD Input Clock	5V Tolerant TTL Input Buffer
6	SDI_78/DSD_6	Input Serial Data Channels 7 & 8/ DSD Input Channel 6	5V Tolerant TTL Input Buffer
7	SDI_56/DSD_5	Input Serial Data Channels 5 & 6/ DSD Input Channel 5	5V Tolerant TTL Input Buffer
8	SDI_34/DSD_4	Input Serial Data Channels 3 & 4/ DSD Input Channel 4	5V Tolerant TTL Input Buffer
9	SDI_12/DSD_3	Input Serial Data Channels 1 & 2/ DSD Input Channel 3	5V Tolerant TTL Input Buffer
10	LRCKI/DSD_2	Input Left/Right Clock/ DSD Input Channel 2	5V Tolerant TTL Input Buffer
11	BICKI/DSD_1	Input Serial Clock/ DSD Input Channel 1	5V Tolerant TTL Input Buffer
15	RESET	Global Reset	5V Tolerant TTL Schmitt Trigger Input Buffer.
16	PLL_BYPASS	Bypass Phase Locked Loop	CMOS Input Buffer with Pull-Down
17	SA	Select Address (I ² C)	CMOS Input Buffer with Pull-Down
18	SDA	I ² C Serial Data	Bidirectional Buffer: 5V Tolerant TTL Schmitt Trigger Input; 3.3V Capable 2mA Slew-rate controlled Output.
19	SCL	I ² C Serial Clock	5V Tolerant TTLSchmitt Trigger Input Buffer
20	XTI	Crystal Oscillator Input (Clock Input)	5V Tolerant TTLSchmitt Trigger Input Buffer
21	FILTER_PLL	PLL Filter	Analog Pad
22	VDDA	PLL Supply	3.3V Analog Power Supply Voltage
23	GNDA	PLL Ground	Analog Ground
25	CKOUT	Clock Output	3.3V Capable TTL Tristate 4mA Output Buffer
29	OUT8B	PWM Channel 8 Output B	3.3V Capable TTL 2mA Output Buffer

IC501, Multi Channel Digital Audio (STA308A)

Table 1. Pin Function (Continued)

Pin	Name	Description	Pad Type
30	OUT8A	PWM Channel 8 Output A	3.3V Capable TTL 2mA Output Buffer
31	OUT7B	PWM Channel 7 Output B	3.3V Capable TTL 2mA Output Buffer
32	OUT7A	PWM Channel 7 Output A	3.3V Capable TTL 2mA Output Buffer
33	OUT6B	PWM Channel 6 Output B	3.3V Capable TTL 2mA Output Buffer
34	OUT6A	PWM Channel 6 Output A	3.3V Capable TTL 2mA Output Buffer
38	OUT5B	PWM Channel 5 Output B	3.3V Capable TTL 2mA Output Buffer
39	OUT5A	PWM Channel 5 Output A	3.3V Capable TTL 2mA Output Buffer
40	OUT4B	PWM Channel 4 Output B	3.3V Capable TTL 2mA Output Buffer
41	OUT4A	PWM Channel 4 Output A	3.3V Capable TTL 2mA Output Buffer
42	OUT3B	PWM Channel 3 Output B	3.3V Capable TTL 2mA Output Buffer
43	OUT3A	PWM Channel 3 Output A	3.3V Capable TTL 2mA Output Buffer
47	OUT2B	PWM Channel 2 Output B	3.3V Capable TTL 2mA Output Buffer
48	OUT2A	PWM Channel 2 Output A	3.3V Capable TTL 2mA Output Buffer
49	OUT1B	PWM Channel 1 Output B	3.3V Capable TTL 2mA Output Buffer
50	OUT1A	PWM Channel 1 Output A	3.3V Capable TTL 2mA Output Buffer
51	EAPD	Ext.Amp Power Down	3.3V Capable TTL 2mA Output Buffer
55	BICKO	Output Serial Clock	3.3V Capable TTL 2mA Output Buffer
56	LRCKO	Output Left/Right Clock	3.3V Capable TTL 2mA Output Buffer
57	SDO_12	Output Serial Data Channels 1&2	3.3V Capable TTL 2mA Output Buffer
58	SDO_34	Output Serial Data Channels 3&4	3.3V Capable TTL 2mA Output Buffer
3, 12, 24, 28, 35, 44, 52, 59	VDD	3.3V Supply	3.3V Digital Power Supply Voltage
2, 4, 13, 27, 36, 45, 53, 60	GND	Ground	Digital Ground
5, 14, 26, 37, 46, 54, 61	NC	No Connect	
62	SDO_56	Output Serial Data Channels 5&6	3.3V Capable TTL 2mA Output Buffer
63	SDO_78	Output Serial Data Channels 7&8	3.3V Capable TTL 2mA Output Buffer
64	PWDN	Device Power Down	5V Tolerant TTL Schmitt Trigger Input Buffer

IC502 & IC504, Power Half Bridge (STA518)

Table 1. Pin Function

No	Pin	Description
1	GND-SUB	Substrate ground
35 ; 36	Vcc Sign	Signal Positive supply
15	Vcc1A	Positive supply
12	Vcc1B	Positive supply
7	Vcc2A	Positive supply
4	Vcc2B	Positive supply
14	GND1A	Negative Supply
13	GND1B	Negative Supply
6	GND2A	Negative Supply
5	GND2B	Negative Supply
16 ; 17	OUT1A	Output half bridge 1A
10 ; 11	OUT1B	Output half bridge 1B
8 ; 9	OUT2A	Output half bridge 2A
2 ; 3	OUT2B	Output half bridge 2B
29	IN1A	Input of half bridge 1A
30	IN1B	Input of half bridge 1B
31	IN2A	Input of half bridge 2A
32	IN2B	Input of half bridge 2B
21 ; 22	Vdd	5V Regulator referred to ground
33 ; 34	Vss	5V Regulator referred to + Vcc
25	PWRDN	Stand-by pin
26	TRI-STATE	Hi-Z pin
27	FAULT	Fault pin advisor
24	CONFIG	Configuration pin
28	TH-WAR	Thermal warning advisor
19	GND-clean	Logical ground
23	VL	Logic Reference Voltage
18	NC	Not connected
20	GND-Reg	Ground for regulator Vdd

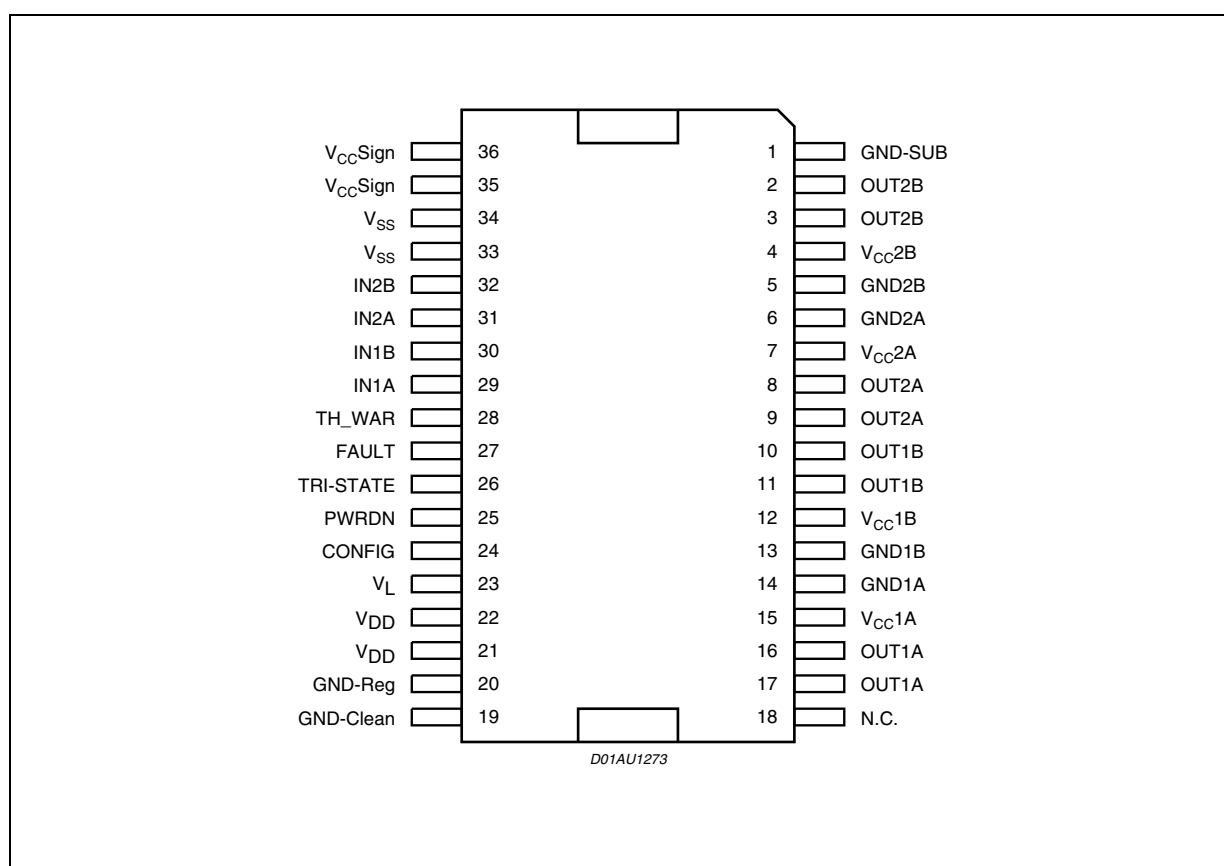
IC502 & IC504, Power Half Bridge (STA518)

Table 2. Functional Pin Status

Pin Name	Pin No	Logical value	IC-Status
FAULT	27	0	Fault detected (Short circuit, or Thermal)
FAULT*	27	1	Normal Operation
TRI-STATE	26	0	All powers in Hi-Z state
TRI-STATE	26	1	Normal Operation
PWRDN	25	0	Low consumption
PWRDN	25	1	Normal Operation
THWAR	28	0	Temperature of the IC=130C
THWAR(1)	28	1	Normal Operation
CONFIG	24	0	Normal Operation
CONFIG(2)	24	1	OUT1A=OUT1B ; OUT2A=OUT2B (IF IN1A=IN1B ; IN2A=IN2B)

Note: 1.The pin is open collector. To have the high logic value, it needs to be pulled up by a resistor.

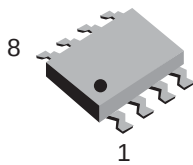
2.To put CONFIG = 1 means connect Pin 24 (CONFIG) to Pins 21, 22 (Vdd) to implemented single BTL (MONO MODE) operation for high current.

Pin Connection

HT-CN410DVH

IC301, IC401, IC5001 Dual Wide Bandwidth Operational Amplifiers (RC4558)

Pin Configuration:

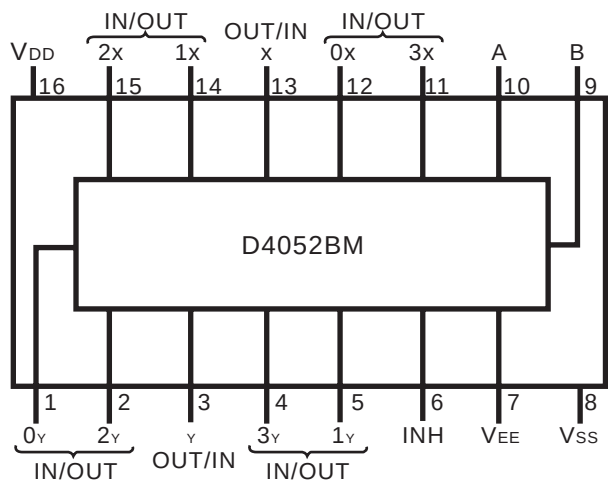


Pin Description:

Pin No.	Function
1	Output A
2	Input A
3	Input A
4	Vee
5	Input B
6	Input B
7	Output B
8	Vcc

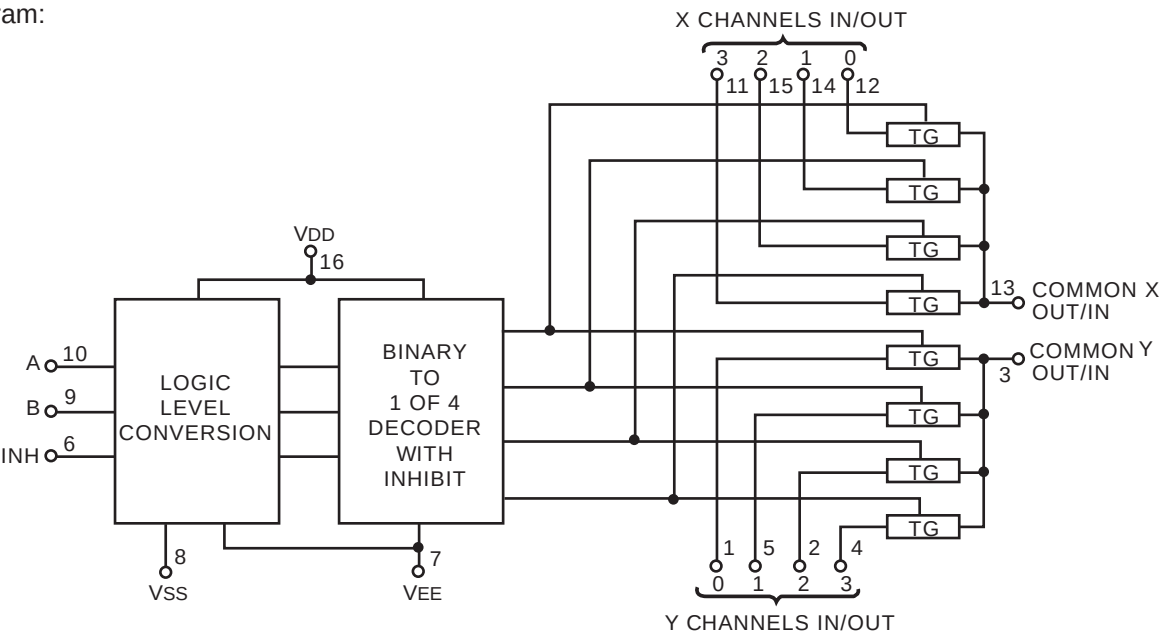
IC302, Channel Multiplexer (D4052BM)

Pin Configuration:



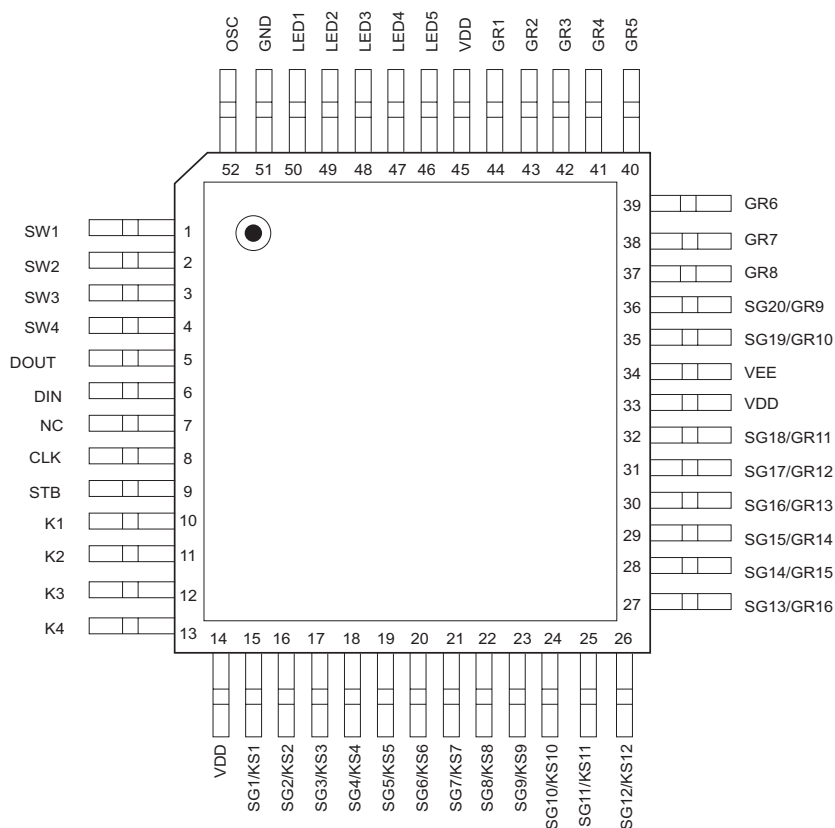
TOP VIEW

Block Diagram:

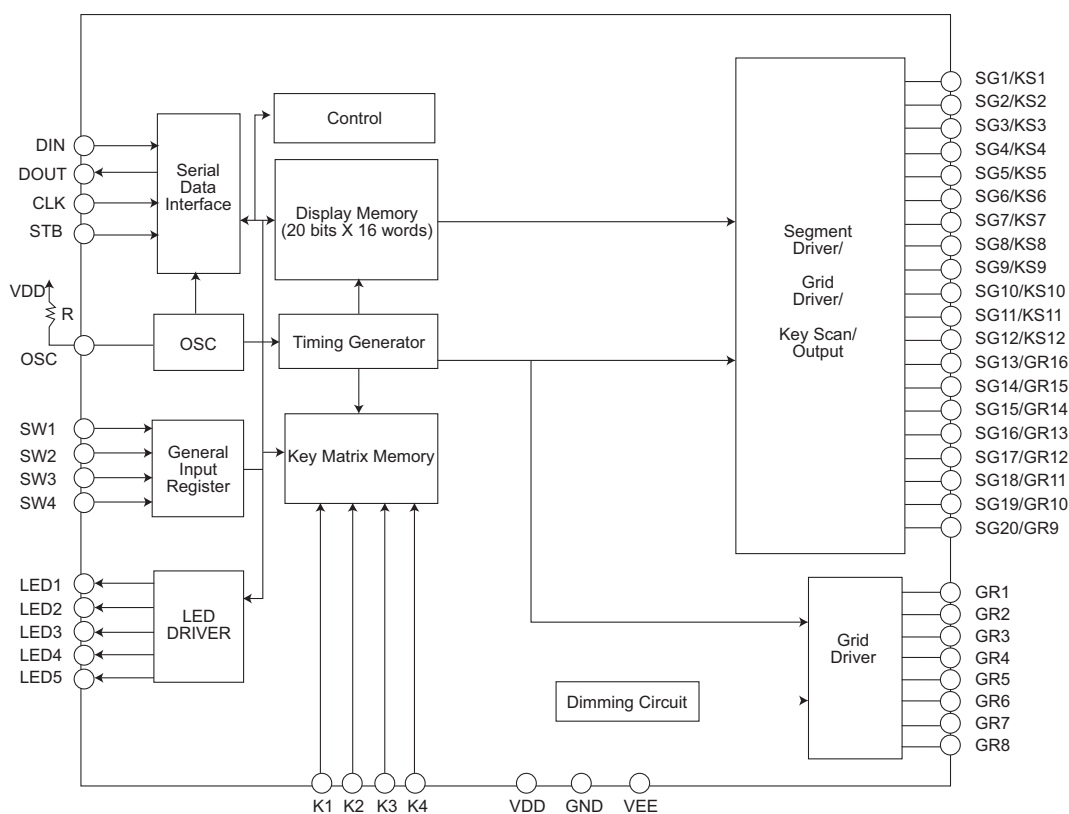


IC251, VFD Driver (TP6311)

Pin Configuration:



Block Diagram:

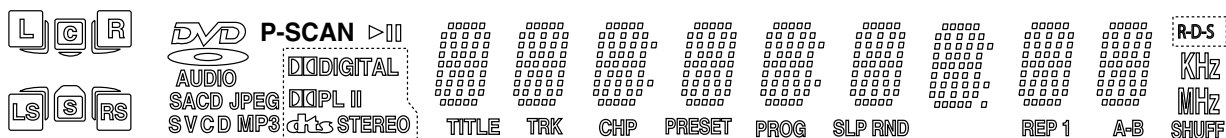


IC251, VFD Driver (PT6311)

Pin Description:

Pin Name	I/O	Function	Pin No.
SW1 to SW4	I	General Purpose Input pins	1 to 4
DOUT	O	Data Output Pin (N-Channel, Open-Drain) This pin outputs serial data at the falling edge of the shift clock (starting from the lower bit)	5
DIN	I	Data Input Pin This pin inputs serial data at the rising edge of the shift clock (starting from the lower bit)	6
NC	-	No Connection	7
CLK	I	Clock Input pin This pin reads serial data at the rising edge and outputs data at the falling edge.	8
STB	I	Serial Interface Strobe pin The data input after the STB has fallen is processed as a command. When this pin is "HIGH", CLK is ignored.	9
K1 to K4	I	Key Data Input Pins The data inputted to these pins are latched at the end of the display cycle.	10 to 13
VDD	-	Logic Power Supply	14, 33, 45
SG1/KS1 to SG12/KS12	O	High-Voltage Segment Output Pins Also acts as the Key Source	15 to 26
SG20/GR9 to SG19/GR10 SG18/GR11 to SG13/GR16	O	High Voltage Segment / Grid Output Pins	36 to 35 32 to 27
VEE	-	Pull-Down Level	34
GR1 to GR8	O	High- Voltage Grid Output Pins	44 to 37
LED1 to LED5	O	LED Output Pin	50 to 46
GND	-	Ground Pin	51
OSC	I	Oscillator Input Pin A resistor is connected to this pin to determine the oscillation frequency	52

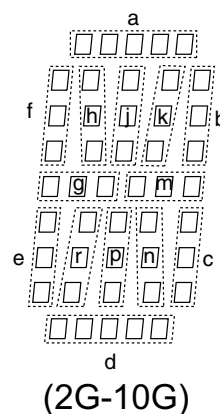
PATTERN:



1G			11G		10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
L	C	R	DVD	P-SCAN >II	000000	000000	000000	000000	000000	000000	000000	000000	000000	R-D5
			AUDIO	DIGITAL	000000	000000	000000	000000	000000	000000	000000	000000	000000	KHz
LS	S	RS	SACD JPEG	DIPL II	000000	000000	000000	000000	000000	000000	000000	000000	000000	MHz
			SVCD MP3	STEREO	000000	000000	000000	000000	000000	000000	000000	000000	000000	SHUFF
					TITLE	TRK	CHP	PRESET	PROG	SLP RND		REP 1	A-B	

Technical drawing of a rectangular pattern with dimensions and labels:

- Overall width: $110.2^{+0.8}_{-0.5}$
- Overall height: $16.2^{+0.7}_{-0.5}$
- Top edge dimensions (from left to right):
 - 13.1 ± 0.5
 - 84.0
 - (13.1)
- Left edge dimensions (from top to bottom):
 - (4.2)
 - 2.0Max
 - 7.6
 - 4.4 ± 0.5
 - 2.5 ± 0.5
- Bottom edge dimensions (from left to right):
 - 6.84 ± 0.5
 - 96.52 (P2.54X38)
 - (6.84)
- Internal features:
 - A central rectangular area labeled **Pattern Area**.
 - A small circle on the left side of the pattern area.
 - Small squares at the corners of the pattern area.
 - Small squares along the bottom edge of the pattern area.
 - Small squares at the corners of the bottom edge of the pattern area.
- Labels:
 - (1) at the bottom left corner.
 - (39) at the bottom right corner.



FL DISPLAY

PIN CONNECTION

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16-19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Connection	F1	F2	NP	NP	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	NX	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	NP	NP	F2	F2

ANODE CONNECTION

	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	STEREO	TITLE	TRK	CHP	PRESET	PROG	SLP	Dp	REP	A-	SHUFF
P2		-	-	Col	-	Col	RND	Col	1	B	-
P3	P-SCAN	a	a	a	a	a	a	a	a	a	
P4		b	b	b	b	b	b	b	b	b	
P5		f	f	f	f	f	f	f	f	f	
P6		h	h	h	h	h	h	h	h	h	
P7	AUDIO	j	j	j	j	j	j	j	j	j	
P8		k	k	k	k	k	k	k	k	k	
P9	 PL	m	m	m	m	m	m	m	m	m	R-D-S
P10	 PL II	g	g	g	g	g	g	g	g	g	KHz
P11	SACD	c	c	c	c	c	c	c	c	c	MHz
P12	MP3	e	e	e	e	e	e	e	e	e	-
P13	CD	r	r	r	r	r	r	r	r	r	-
P14	V	p	p	p	p	p	p	p	p	p	-
P15	JPEG	n	n	n	n	n	n	n	n	n	-
P16	S	d	d	d	d	d	d	d	d	d	-

SHARP PARTS GUIDE

HOME CINEMA WITH DVD MODEL **HT-CN410DVH**

CONTENTS

[1] INTEGRATED CIRCUITS	[11] OTHER CIRCUITRY PARTS
[2] TRANSISTORS	[12] DVD MECHANISM PARTS
[3] DIODES	[13] P.W.B. ASSEMBLY (Replacement Items)
[4] VIBRATORS/CRYSTALS	CABINET PARTS (MAIN UNIT)
[5] RESONATOR	ACCESSORIES PARTS
[6] TRANSFORMER [Non Replacement Parts]	PACKING PARTS
[7] COILS	FRONT SPEAKER BOX PARTS
[8] CAPACITORS	SURROUND SPEAKER BOX PARTS
[9] RESISTORS	CENTRE SPEAKER BOX PARTS
[10] ARRAY PARTS	SUBWOOFER BOX PARTS

Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[1] INTEGRATED CIRCUITS					
IC201	92LRCI00680902	BP			IC 208PIN ES6809FADF PQFP ESS LF
IC202	92LRCI05033002	AN			IC 16PIN TS5V330DBQR QSOP TI QUAD WIDE-BANDWIDTH VIDEO SWITCH
IC203	92LRCI02400202	AK			GP IC 8PIN AT24C02N-10SU-2.7 SOIC ATMEL EEPROM
IC204	92LRCI00080903	AK			GP IC3 PIN ASM809SEURF SOT23 RESET 2.93V MICROCNTPW R SUPPLY
IC205	92LRCI74000417	AF			GP IC 14PIN 74HCT04 TI HEXINVERTER IC
IC207	92LRCI29016010	AW			IC 48PIN MX29LV160BBTC-70G TSOP MXIC LEA 16MBIT CMOS 3V ONLY FLASH
IC208	92LRCI64163201	AZ			IC 54PIN K4S641632H-UC 75 TSOP SAMSUNG 3.3V 4MBX16BIT SDRAM PB<1
IC209	92LRCI74037402	AG			IC 20PIN 74HC374 PB<1000 PPM MULTICHANEL DIGITAL AUDIO PR
IC251	92LRCI06311101	AV			GP IC 52PIN V63111 QFP VAI TECH VFD DRIVER IC
IC301	92LRCI00455806	AG			GP IC 8PIN AZ4558AM-E1 SOIC-8 AAC DUAL LOW NOISE OP. AMP
IC302	92LRCI00405202	AG			GP IC 16PIN CD4052BM SOIC TI 4 CH MULTIPLEXER
IC303	92LRCI00534201	AT			GP IC 16PIN CS5342-CZZ TSSOP CIRRUS 192KHz MULTI-BIT AUDIO A/
IC401	92LRCI00455806	AG			GP IC 8PIN AZ4558AM-E1 SOIC-8 AAC DUAL LOW NOISE OP. AMP
IC501	92LRCI00800101	BF			GP IC 64P DDX-8001 TQFP APOGEE Multi-Ch Digital Audio Processor
IC502,IC504	92LRCI00534201	BC			GP IC 36P STA518 PSSO ST 40V 3.5A 50Wx2 QUAD POWER HALF BRIDGE
IC801	92LRCI00660201	AZ			GP IC 64PIN ES6602SF LQFP ESS DVD SERVO AFE
IC802	92LRCI00586901	AP			IC 28PIN AM5869S HSOP AMTEK 5-CH BTL LF DRIVER FOR DVD PLAYER
IC901	92LRHO00081702	AG			GP OPTICAL SENSOR 4P CTR:200~400 EVERLIGHT:EL-817©
IC902	92LRHI00026501	AS			IC 8PIN FSDM0265RN DIP FAIRCHILD GP PWM 2C
IC951	92LRHI00455801	AG			IC 8PIN NJM4558D JRC PB<1000PPM DUAL OP. AMP IC
IC952	92LRHI00750001	AK			IC 16PIN KA7500C DIP FAIRCHILD SMP S CONTROLLER LEAD FREE
IC953	92LRHI00431001	AE			IC 3PIN TL431 TO-92 CHANG JIANG VOLTAGE REGULATOR < 1000
IC5001	92LRCI00455806	AG			GP IC 8PIN AZ4558AM-E1 SOIC-8 AAC DUAL LOW NOISE OP. AMP
IC5002	92LRCI00354101	AK			IC 8PIN APA3541-TRL, SOP-8 Headphone Driver with Mute ANPECPB<
[2] TRANSISTORS					
Q201~Q203	92LRCN20162301	AB			GP TRANSISTOR NPN 2SC1623 HFE:200~400 L6 TRANSISTOR
Q205,Q206	92LRHP20077201	AG			XISTR PNP 2SB772P/Q NEC PB<1000PPM POWER SWITCH IC PB<1000PPM (MAIN PCB)
Q207	92LRCN20162301	AB			GP TRANSISTOR NPN 2SC1623 HFE:200~400 L6 TRANSISTOR
Q401	92LRCN20162301	AB			GP TRANSISTOR NPN 2SC1623 HFE:200~400 L6 TRANSISTOR
Q403,Q404	92LRCN00387501	AE			GP TRANSISTOR NPN KTC3875-Y SOT23 HFE:120~240 TRANSISTOR
Q405,Q406	92LRCP20073301	AC			GP TRANSISTOR PNP 2SA812 HFE:200~400 SMT TYPE (2SA733) TRANSISTOR
Q407	92LRCN20162301	AB			GP TRANSISTOR NPN 2SC1623 HFE:200~400 L6 TRANSISTOR
Q408~Q410	92LRCN00387501	AE			GP TRANSISTOR NPN KTC3875-Y SOT23 HFE:120~240 TRANSISTOR
Q411	92LRCP20073301	AC			GP TRANSISTOR PNP 2SA812 HFE:200~400 SMT TYPE (2SA733) TRANSISTOR
Q501	92LRCN00387501	AE			GP TRANSISTOR NPN KTC3875-Y SOT23 HFE:120~240 TRANSISTOR
Q801,Q802	92LRCM20301801	AD			FET 2SK3018 30V/0.1A SC ROHM N-CH MOSFET PB<1000P TRANSISTOR
Q803,Q804	92LRCP20113204	AE			GP XISTR PNP 2SB1132R SOT-89 GR HFE:180~390
Q805~Q807	92LRCN20281201	AE			TRANSISTOR NPN 2SC2812N 2204 SANYO PB<1000 PPM LOW FREQ AMP DP301
Q808,Q809	92LRCM20301801	AD			FET 2SK3018 30V/0.1A SC ROHM N-CH MOSFET PB<1000P TRANSISTOR
Q901	92LRHP20077201	AG			XISTR PNP 2SB772P/Q NEC PB<1000PPM POWER SWITCH IC PB<1000PPM (MAIN PCB)
Q901,Q902	92LRHM09005001	AP			MOSFET STP9NK50Z TO220 FAIRCHILD ST N-CH LF 7.2A / 500V (POWER PCB)
Q902	92LRAN20094501	AB			GP TRANSISTOR NPN 2SC945P NEC (MAIN PCB)
Q951,Q952	92LRAP20073301	AC			GP TRANSISTOR PNP 2SA733Q,P NEC HFE:135~400
Q953	92LRHM16000601	AM			FET TRANSISTOR STP16NF06 TO-220 ST 16A 60V LF N-CH POWER MOSFET
Q956	92LRAP20095201	AD			TRANSISTOR PNP 2SA952 NEC PB<1000 PPM HFE:200~400 (AI)
Q959	92LRAN20094501	AB			GP TRANSISTOR NPN 2SC945P NEC
Q2501	92LRCP20073301	AC			GP TRANSISTOR NPN 2SA812 HFE:200~400 SMT TYPE (2SA733)
Q2502	92LRCN20162301	AB			GP TRANSISTOR NPN 2SC1623 HFE:200~400 L6
Q5001	92LRCN20162301	AB			GP TRANSISTOR NPN 2SC1623 HFE:200~400 L6 TRANSISTOR
Q5002	92LRCN20162301	AB			GP TRANSISTOR NPN 2SC1623 HFE:200~400 L6 TRANSISTOR
[3] DIODES					
BD901	92LRHD20406014	AK			BRIDGE RECTIFIERGBU4J 4A 600V PANJIT BRIDGE LF
D202~D204	92LRAD11400110	AB			DIODE 1N4001 1A 35VRMS RECTIFIER PB<1000PPM
D402	92LRCD11414811	AB			GP DIODE CHIP BAV16W/IN4148W (SKYWELL) SOD-123 DIODE
D406,D407	92LRCD11414811	AB			GP DIODE CHIP BAV16W/IN4148W (SKYWELL) SOD-123 DIODE
D409,D412	92LRCD11414811	AB			GP DIODE CHIP BAV16W/IN4148W (SKYWELL) SOD-123 DIODE
D414	92LRCD11414811	AB			GP DIODE CHIP BAV16W/IN4148W (SKYWELL) SOD-123 DIODE
D801	92LRCD11414811	AB			GP DIODE CHIP BAV16W/IN4148W (SKYWELL) SOD-123 DIODE
D802,D804	92LRCD11414811	AB			GP DIODE CHIP BAV16W/IN4148W (SKYWELL) SOD-123 DIODE
D903,D904	92LRAD11414810	AB			GP DIODE SW 1N4148
D907	92LRAD10150710	AC			DIODE PR1507 1.5A 1000V DO-41 CTC LEAD FREE
D910	92LRAD10010410	AC			DIODE HER104 1A 300V 50nS AI PB<1000PPM
D951	92LRHD20001602	AP			RECTIFIER FEP16DT TO-220AB FAIRCHILD LF 16A 200V
D952	92LRAD10010410	AC			DIODE HER104 1A 300V 50nS AI PB<1000PPM
D954~D958	92LRAD11414810	AB			GP DIODE SW 1N4148
D959	92LRAD10010410	AC			DIODE HER104 1A 300V 50nS AI PB<1000PPM
D960	92LRAD11582220	AF			DIODE 1N5822 3A 40V DO-201AD CTC LF SCHOTTKY BARRIER RECTIFIER
D961	92LRAD11414810	AB			GP DIODE SW 1N4148
D2501,D2504	92LRCD11414811	AB			GP DIODE CHIP BAV16W/IN4148W (SKYWELL) SOD-123 DIODE
D2506~D2508	92LRCD11414811	AB			GP DIODE CHIP BAV16W/IN4148W (SKYWELL) SOD-123 DIODE
ZD201~ZD210	92LRCZ00500721	AE			GP CHIP ZENER 7.5V 5% 0.5W(F1) SKYWELL MMSZ5236B DIODE
ZD251,ZD252	92LRCZ00500611	AC			GP CHIP ZENER 5.6V 5% 0.5W(E2) SKYWELL MMSZ5232B DIODE
ZD253	92LRCZ00500330	AC			GP DIODE CHIP BAV16W/IN4148W (SKYWELL) SOD-123 DIODE
ZD254	92LRCZ00500611	AC			GP CHIP ZENER 5.6V 5% 0.5W(E2) SKYWELL MMSZ5232B DIODE
ZD255	92LRCZ00500550	AC			GP CHIP ZENER 5.1V 5% 0.5W MINI-MELF PANJIT:ZMM55-C5V1
ZD262	92LRCZ00500611	AC			GP CHIP ZENER 5.6V 5% 0.5W(E2) SKYWELL MMSZ5232B DIODE (STANDBY PCB)
ZD301,ZD302	92LRCZ00500611	AC			GP CHIP ZENER 5.6V 5% 0.5W(E2) SKYWELL MMSZ5232B DIODE
ZD901,ZD902	92LRAZ00501520	AC			DIODE ZENR 14.5-15.1V 0.5W LEAD FREE HITACHI HZ15-2 (POWER PCB)
ZD902	92LRCZ00500611	AC			GP CHIP ZENER 5.6V 5% 0.5W(E2) SKYWELL MMSZ5232B DIODE (MAIN PCB)
ZD906	92LRAZ00500530	AC			GP DIODE ZENR 5.0-5.2V 0.5W HITACHI HZ5C-2
ZD952	92LRAZ00500420	AC			GP DIODE ZENR 3.8-4.0V 0.5W HITACHI HZ4B-2
ZD5501	92LRAZ00501220	AC			DIODE ZENR 12.6-13.1V 0.5W LEAD FREE HITACHI HZ12B-2

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[4] VIBRATORS/CRYSTALS					
XL201	92LJQC02200060	AG			GP CRYSTAL 27.0000MHz HC-49US +/-20PPML=12.7MM ☐ ☐ ☐ ☐ ☐ ☐ DY-
[5] RESONATOR					
XL2501	92LJRN14000110	AG			GP Resonator MURATA CSB 455EB (455KHZ)
[6] TRANSFORMER(Non Replacement Parts)					
T901	92L TSA10001014	AR			GP SW Transformer ERL-28 / 34 100W Boulder Pitch = 30mm
T902	92L TSA10000614	AL			GP SW Transformer Doulder Ferrite Core EEL-19
T903	92L TSA10000814	AQ			GP SW Transformer Ferrite Core EE-22 / 29S 15W BOULDER DR30J0
[7] COILS					
FB201~FB206	92LSCB00603012	AC			FERRITE 120 OHM 0603 SMT
FB207~FB210	92LSCB00603012	AC			Ferrite 120 Ohm 0603 SMT Ferrite
FB211~FB214	92LSCB00805012	AC			Ferrite 120 Ohm at 100MHz QT2012RL 120-1
FB215	92LSCN02260190	AC			Ferrite 120 Ohm 0603 SMT Ferrite
FB217	92LSCB00603901	AE			GP Chip BEAD 60Ohm 100MHz 25% HUIBO 0603 SMT Type BEAD
FB218	92LSFB00100130	AC			BEAD Ferrite Dia 3.5 X 6mm 100 Ohm at 100MHz
FB219	92LSCB00805010	AC			GP Chip BEAD 100 Ohm at 100MHz 0603 SMD Type
FB220	92LSFB00100130	AC			BEAD Ferrite Dia 3.5 X 6mm 100 Ohm at 100MHz
FB221	92LSCB00603010	AC			GP Chip BEAD 100 Ohm at 100MHz SMD 0603 GTH DP301
FB222~FB227	92LSCB00603010	AC			Ferrite 600 Ohm 0603 SMT TYPE 20%
FB229	92LSCB00805010	AC			GP Chip BEAD 100 Ohm at 100MHz 0603 SMD Type
FB401~FB404	92LSCB00603010	AC			GP Chip BEAD 100 Ohm at 100MHz SMD 0603 GTH DP301
FB501	92LSCB00805010	AC			GP Chip BEAD 600 Ohm at 100MHz 0805 SMD Type
FB801,FB802	92LSCB00805010	AC			GP Chip BEAD 100 Ohm at 100MHz 0603 SMD Type
FB803,FB901	92LSFB00100130	AC			BEAD Ferrite Dia 3.5 X 6mm 100 Ohm at 100MHz
FB902	92LSFB00100130	AC			BEAD Ferrite Dia 3.5 X 6mm 100 Ohm at 100MHz
FB904	92LSCB00805010	AC			GP Chip BEAD 100 Ohm at 100MHz 0603 SMD Type
FB5505~FB5507	92LSIL106003810	AC			GP Ferrite 600 Ohm 0603 SMT Type 20%
L201~L205	92LSCN02350090	AC			GP Chip Inductor 2.4uH 5% SMD 0805 Video SW
L209,L210	92LSCN13360090	AC			GP Chip Inductor 1uH 10% 0805 Type SMD
L211	92LSCN13360090	AC			GP Chip Inductor 1uH 10% 0805 Type SMD
L212~L215	92LSCN02360000	AC			GP Chip Inductor 1uH 10% SMD 0805 SGM12012K 100KT
L501	92LSIN10260200	AG			INDUCTOR 30uH +/- 10% 1KHz 0.25V 3A 25 C RL0707-300K/G086 SAN SHEN
L503,L504	92LSIN10260200	AG			INDUCTOR 30uH +/- 10% 1KHz 0.25V 3A 25 C RL0707-300K/G086 SAN SHEN
L509~L512	92LSIN10260200	AG			INDUCTOR 30uH +/- 10% 1KHz 0.25V 3A 25 C RL0707-300K/G086 SAN SHEN
L513~L518	92LSIL10200100	AE			Common Mode Choke Coil 20uH D0.5mm 4Pin CU Wire 4x4mm Outside:7x1
L901,L902	92LSIL11700730	AP			GP COMMON COIL 22mH TC2208-22mH N1N2=1.0MM 2UEW 36.5TS
L951	92LSIL10200230	AH			GP TOROID COIL S1=2TS D=0.65mmX2 P=3.5mm S2=D0.3mmX11TSX2 HT2040
L952	92LSIL11700410	AN			LF COMMON COIL 110uH +/- 10% N1=1.0mm N2=0.6mm Yellow-White Rin
L955	92LSIL10600290	AD			INDUCTOR 6uH 13.5Ts 2UEW D=0.6MM P=3MM
L956	92LSIL16600110	AF			GP INDUCTOR 6uH +/- 15% D=1.0MM FW-D570 / PHILIPS
L957	92LSAN00160000	AC			CHOKE 10uH 10% AT INDUCTOR
L5001,L5002	92LSCN13360090	AC			GP Chip Inductor 1uH 10% 0805 Type SMD
L5003	92LSCN02360000	AC			GP Chip Inductor 1uH 10% SMD 0805 SGM12012K 100KT
R336	92LSCB00603010	AC			GP Chip BEAD 100 Ohm at 100MHz SMD 0603 GTH DP301
[8] CAPACITORS					
C101~C120	92LPYL43955040	AC			GP Chip Capacitor 0.1uF 25V 20% 0805 Type Y5V Capacitor
C121	92LPYL43955040	AC			GP Chip Capacitor 0.1uF 25V 20% 0805 Type Y5V Capacitor
C122~C124	92LPYL43955040	AC			GP Chip Capacitor 0.1uF 25V 20% 0805 Type Y5V Capacitor
C125~C129	92LPYL43955040	AC			GP Chip Capacitor 0.1uF 25V 20% 0805 Type Y5V Capacitor
C131	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C201	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C202	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C203	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C204~C206	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C207	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C208	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C209,C210	92LPXL41037000	AA			GP Chip Capacitor 33pF 50V 5% 0603 Type NPO Capacitor
C211	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C212	92LPXL41037000	AA			GP Chip Capacitor 33pF 50V 5% 0603 Type NPO Capacitor
C216	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C217	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C218,C219	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C220	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C221	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C222	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C223~C229	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C230,C231	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C232	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C233~C241	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C242	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C243	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C244	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C245~252	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C253	92LPXL45647020	AA			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R Capacitor
C254,C255	92LPXL45647030	AB			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R Capacitor
C256~C265	92LPXL41037071	AC			GP Chip Capacitor 470pF 50V 5% 0603 Type NPO Capacitor
C266	92LPXL45647074	AC			GP Chip Capacitor 0.47uF 50V 10% 0603 Type X7R Capacitor
C267~C269	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C270,C271	92LPXL41037050	AA			GP Chip Capacitor 15pF 50V 5% 0603 Type NPO Capacitor
C272~C274	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C275	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[8] CAPACITORS					
C276	92LPXL41037010	AA			GP Chip Capacitor 100pF 50V 5% 0603 Type NPO Capacitor
C278	92LPXL41037050	AA			GP Chip Capacitor 15pF 50V 5% 0603 Type NPO Capacitor
C279	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C280,C281	92LPYL43964050	AC			GP Chip Capacitor 4.7uF 16V +80%-20% 0603 Type Y5V Capacitor
C282	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C283	92LPRE03953010	AC			GP Chip Capacitor 100uF 10V 20% 85C
C284	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C285,C286	92LPXL41037027	AB			GP Chip Capacitor 27pF 50V 5% 0603 Type NPO Capacitor
C288~C291	92LPXL41037027	AB			GP Chip Capacitor 27pF 50V 5% 0603 Type NPO Capacitor
C292	92LPXL41037010	AA			GP Chip Capacitor 100pF 50V 10% 0603 Type NPO Capacitor
C294~C296	92LPRE03953022	AC			GP COND ELECT Capacitor 220uF 10V 20% 85C
C297	92LPRE03953010	AC			GP Chip Capacitor 100uF 10V 20% 85C
C298,C299	92LPRE03953022	AC			GP COND ELECT Capacitor 220uF 10V 20% 85C
C301~C304	92LPXL41037010	AA			GP Chip Capacitor 100pF 50V 5% 0603 Type NPO Capacitor
C305,C306	92LPXL45647020	AA			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R Capacitor
C309~C313	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C315,C316	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C317~C320	92LPYL43964050	AC			GP Chip Capacitor 4.7uF 16V +80%-20% 0805 Type Y5V Capacitor
C321,C322	92LPXL41037071	AC			GP Chip Capacitor 470pF 50V 5% 0603 Type NPO Capacitor
C323,C324	92LPRE03954000	AC			GP COND ELECT Capacitor 47uF 16V 85C
C325	92LPRE03954010	AC			GP Chip Capacitor 100pF 16V 20% 85C
C326	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C327	92LPRE03954021	AC			GP COND ELECT Capacitor 10uF 16V 85C
C328	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C329	92LPRE03954021	AC			GP COND ELECT Capacitor 10uF 16V 85C
C330	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C331	92LPRE03954010	AC			GP Chip Capacitor 100pF 16V 20% 85C
C332	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C333	92LPRE03954010	AC			GP Chip Capacitor 100pF 16V 20% 85C
C334	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C335	92LPRE03954010	AC			GP Chip Capacitor 100pF 16V 20% 85C
C401	92LPRE03954000	AC			GP COND ELECT Capacitor 47uF 16V 85C
C402	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C405,C406	92LPXL41037071	AC			GP Chip Capacitor 470pF 50V 5% 0603 Type NPO Capacitor
C407,C408	92LPXL41037033	AB			GP Chip Capacitor 330pF 50V 5% 0603 Type NPO Capacitor
C409,C410	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C411	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C412	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C413,C414	92LPYL43964050	AC			GP Chip Capacitor 4.7uF 16V +80%-20% 0805 Type Y5V Capacitor
C415,C416	92LPXL41037010	AA			GP Chip Capacitor 100pF 50V 5% 0603 Type NPO Capacitor
C417~C420	92LPYL43964050	AC			GP Chip Capacitor 4.7uF 16V +80%-20% 0805 Type Y5V Capacitor
C421,C422	92LPXL45647020	AA			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R Capacitor
C423	92LPRE03954022	AC			GP COND ELECT Capacitor 220uF 16V 20% 85C (MAIN PCB)
C501B~C505B	92LPZL45647010	AC			GP Chip Capacitor 330uF 50V 10% 1206 Type X7R Capacitor
C502	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C503	92LPXL41037050	AA			GP Chip Capacitor 15pF 50V 5% 0603 Type NPO Capacitor
C504	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C505	92LPXL41037050	AA			GP Chip Capacitor 15pF 50V 5% 0603 Type NPO Capacitor
C506	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C507,C508	92LPXL41037050	AA			GP Chip Capacitor 15pF 50V 5% 0603 Type NPO Capacitor
C509	92LPXL45647020	AA			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R Capacitor
C512~C515	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C518~C521	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C522	92LPXL41037000	AA			GP Chip Capacitor 33uF 50V 5% 0603 Type Y5V Capacitor
C523~C527	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C528	92LPVE09957020	AH			GP COND ELECT 1000uF 50V 20% 105C Size:D13XL26mm P=5.0mm
C530	92LPVE09957020	AH			GP COND ELECT 1000uF 50V 20% 105C Size:D13XL26mm P=5.0mm
C531,C532	92LPRE03957090	AC			GP COND ELECT Capacitor 1uF 50V 20% 85C P=5mm
C535,C536	92LPRE03957090	AC			GP COND ELECT Capacitor 1uF 50V 20% 85C P=5mm
C537,C538	92LPZL4564A440	AF			GP Chip Capacitor 0.1uF/100V X7R+/-10% JERRO 1206 Type X7R Capacitor
C541,C542	92LPZL4564A440	AF			GP Chip Capacitor 0.1uF/100V X7R+/-10% JERRO 1206 Type X7R Capacitor
C548~C552	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C553	92LPXL41037000	AA			GP Chip Capacitor 33pF 50V 5% 0603 Type NPO Capacitor
C553B~C557B	92LPFN22638040	AH			GP COND Metal 0.82uF 63V 5% Mini Box Size (A) DM3011
C554	92LPXL41037000	AA			GP Chip Capacitor 33pF 50V 5% 0603 Type NPO Capacitor
C555	92LPXL45647012	AC			GP Chip Capacitor 0.0012uF 50V 10% 0603 Type X7R Capacitor
C556	92LPXL41037010	AA			GP Chip Capacitor 100pF 50V 5% 0603 Type NPO Capacitor
C557	92LPXL41037022	AC			GP Chip Capacitor 220pF 50V 5% 0603 Type NPO Capacitor
C558,C559	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C558A	92LPZL45647010	AC			GP Chip Capacitor 330uF 50V 10% 1206 Type X7R Capacitor
C558B~C562B	92LPRE03956010	AC			GP COND ELECT Capacitor 220uF 35V 20% 85C P=5mm AI
C559A,C560A	92LPZL4564A040	AC			GP Chip Capacitor 0.1uF 100V 10% 1206 Type X7R Capacitor
C560	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C561	92LPRE03954000	AC			GP COND ELECT Capacitor 47uF 16V 85C
C562	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C563~C566	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C563A~C566A	92LPZL4564A040	AC			GP Chip Capacitor 0.1uF 100V 10% 1206 Type X7R Capacitor
C564B~C567B	92LPRE03956010	AC			GP COND ELECT Capacitor 220uF 35V 20% 85C P=5mm AI
C567	92LPXL45647020	AA			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R Capacitor
C575A~C582A	92LPZL4564A040	AC			GP Chip Capacitor 0.1uF 100V 10% 1206 Type X7R Capacitor
C577,C578	92LPXL41037090	AB			GP Chip Capacitor 5pF 50V 5% 0603 Type NPO Cap
C588A	92LPFN22638040	AH			GP COND Metal 0.82uF 63V 5% Mini Box Size (A) DM3011
C801,C802	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C803,C805	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C804	92LPXL45647030	AB			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R Capacitor

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[8] CAPACITORS					
C806,C807	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C808,C809	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C810	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C811,C812	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C814~C817	92LPRE03954010	AC			GP Chip Capacitor 100pF 16V 20% 85C
C818~C820	92LPXL45647020	AA			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R Capacitor
C821	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C822	92LPRE03954000	AC			GP COND ELECT Capacitor 47uF 16V 85C
C823,C824	92LPXL41037068	AC			GP Chip Capacitor 680pF 50V 5% 0603 Type NPO Capacitor
C827	92LPXL41037068	AC			GP Chip Capacitor 680pF 50V 5% 0603 Type NPO Capacitor
C829	92LPXL41037010	AA			GP Chip Capacitor 100pF 50V 5% 0603 Type NPO Capacitor
C830	92LPXL41037082	AC			GP Chip Capacitor 820pF 50V 5% 0603 Type NPO Capacitor
C831,C832	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C833	92LPXL45647030	AB			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R Capacitor
C834	92LPXL45647082	AB			GP Chip Capacitor 8200pF 50V 10% 0603 Type X7R Capacitor
C835~C838	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C839	92LPXL45647047	AC			GP Chip Capacitor 0.047uF 50V 10% 0603 Type X7R Capacitor
C840,C841	92LPXL41037033	AB			GP Chip Capacitor 330pF 50V 5% 0603 Type NPO Capacitor
C842~C844	92LPXL41037000	AA			GP Chip Capacitor 33pF 50V 5% 0603 Type NPO Capacitor
C845	92LPRE03953022	AC			GP COND ELECT Capacitor 220uF 10V 20% 85C
C846	92LPXL45647074	AC			GP Chip Capacitor 0.47uF 50V 10% 0603 Type X7R Capacitor
C847	92LPXL41037015	AB			GP Chip Capacitor 150pF 50V 5% 0603 Type NPO Capacitor
C848	92LPXL45647082	AB			GP Chip Capacitor 8200pF 50V 10% 0603 Type X7R Capacitor
C849	92LPXL45647022	AC			GP Chip Capacitor 0.22uF 50V 10% 0603 Type X7R Capacitor
C851,C852	92LPXL41037068	AC			GP Chip Capacitor 680pF 50V 5% 0603 Type NPO Capacitor
C901	92LPRE039540Z1	AC			GP COND ELECT Capacitor 10uF 16V 85C
C903	92LPVX2024G041	AH			GP 400V 0.0022uF Y1 P=10mm 125' PILKOR X2 P=22.5mm Cut 3.5mm (POWER PCB)
C903	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor (MAIN PCB)
C904	92LPRE039540Z1	AC			GP COND ELECT Capacitor 10uF 16V 85C (MAIN PCB)
C904	92LPVX2025G040	AF			GP Cap-SAFETY 0.22uF 275V X2P 20% DSC500 JBL (POWER PCB)
C905,C906	92LPVY1025F023	AD			GP Cap-SAFETY Y1 102PF 250V 20% Y5U PAN OVERSEAS Cut 3.5mm PIT (POWER PCB)
C905,C908	92LPRE03954022	AC			GP COND ELECT Capacitor 220uF 16V 20% 85C (MAIN PCB)
C906,C907	92LPYL43955040	AC			GP Chip Capacitor 0.1uF 25V 20% 0805 Type Y5V Capacitor (MAIN PCB)
C907,C908	92LPVE5995F011	AL			GP Cap ELECT 100uF 250V 105' 20% SUSCON D16XL32 Pitch=7.5mm (POWER PCB)
C909,C910	92LPRL2355Q030	AC			GP COND Disc 0.01uF 1KV 20% (Forming & Taping) KCK 15SJ (POWER PCB)
C909,C910	92LPYL43955040	AC			GP Chip Capacitor 0.1uF 25V 20% 0805 Type Y5V Capacitor (MAIN PCB)
C911	92LPRE03953047	AC			GP COND ELECT Capacitor 470uF 10V 20% 85C (MAIN PWB)
C911	92LPVN7264F052	AF			GP COND Metal 1.5uF 250V DC +/- 10% (CAMEL) W23XH18XT10mm P=2 (POWER PCB)
C912	92LPRE03954047	AD			GP COND ELECT Capacitor 470uF 16V 20% 85C
C913,C914	92LPRL2355Q020	AC			GP COND Disc Capacitor 0.001uF 1KV 20% Forming & Taping Y5P (POWER PCB)
C913,C914	92LPYL43955040	AC			GP Chip Capacitor 0.1uF 25V 20% 0805 Type Y5V Capacitor (MAIN PCB)
C915	92LPRL2355Q022	AC			GP COND Disc Capacitor 0.0022uF 1KV 20% Forming & Taping (POWER PCB)
C915	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor (MAIN PCB)
C916	92LPRL2354Q010	AC			GP COND Disc 100pF 1KV 10% Y5P (POWER PCB)
C916	92LPRE03954010	AC			GP Chip Capacitor 100pF 16V 20% 85C (MAIN PCB)
C917	92LPRM0373A040	AC			GP COND Mylar Capacitor 0.1uF 100V 5% AI
C918	92LPRE03957000	AC			GP COND ELECT CAPACITOR 22uF 50V 20% 85C
C919	92LPRL2396A040	AC			GP COND Disc 0.1uF 100V +80-20% Y5V / Z5V
C920	92LPRL2354Q047	AC			GP COND Disc Capacitor 470pF 1KV 10% Y5P
C921,C922	92LPVY1025K022	AH			GP Chip BEAD 600 Ohm at 100MHz Cut 3.5mm +/- 20% PAN OVERSEAS
C923,C924	92LPVY1025F023	AD			GP Cap-SAFETY Y1 102PF 250V 20% Y5U PAN OVERSEAS Cut 3.5mm PIT (POWER PCB)
C926	92LPRL2354Q022	AC			GP COND Disc Capacitor 220pF 1KV 10% Y5P
C951,C952	92LPRL2354Q047	AC			GP COND Disc Capacitor 470pF 1KV 10% Y5P
C953	92LPRL2355Q020	AC			GP COND Disc Capacitor 0.001uF 1KV 20% Forming & Taping Y5P
C955,C956	92LPRL2354Q047	AC			GP COND Disc Capacitor 470pF 1KV 10% Y5P
C959	92LPRL2354Q047	AC			GP COND Disc Capacitor 470pF 1KV 10% Y5P
C961,C962	92LPVE03957020	AM			GP COND ELECT CAPACITOR 1000uF 50V 20% -30 ~ +85C
C963,C964	92LPRL2396A040	AC			GP COND Disc 0.1uF 100V +80-20% Y5V / Z5V
C966	92LPRM0373A040	AC			GP COND Mylar Capacitor 0.1uF 100V 5% AI
C967	92LPRL23967040	AC			GP COND Disc Capacitor 0.1uF 50V +80-20% Y5V / Z5V
C971	92LPRE03957010	AC			GP COND ELECT CAPACITOR 10uF 50V 20% 85C P=5mm
C973	92LPRE03957047	AC			GP COND ELECT CAPACITOR 47uF 50V 20% 85C
C974	92LPRL23967040	AC			GP COND Disc Capacitor 0.1uF 50V +80-20% Y5V / Z5V
C975	92LPRE03954010	AC			GP COND ELECT CAPACITOR 100uF 16V 20% 85C P=5mm
C976	92LPRL23967040	AC			GP COND Disc Capacitor 0.1uF 50V +80-20% Y5V / Z5V
C977	92LPRM0373A020	AC			GP COND Mylar Capacitor 0.001uF 100V 20% AI
C978	92LPRL23967040	AC			GP COND Disc Capacitor 0.1uF 50V +80-20% Y5V / Z5V
C981~C984	92LPRL2354Q022	AC			GP COND Disc Capacitor 220pF 1KV 10% Y5P
C985	92LPVE03954020	AE			GP COND ELECT CAPACITOR 1000uF 16V 20% 85C 10X16mm Cut 3.5mm
C986	92LPRL2396A040	AC			GP COND Disc 0.1uF 100V +80-20% Y5V / Z5V
C987,C988	92LPME03955010	AE			GP COND ELECT CAPACITOR 470uF 25V 20% 85C
C989	92LPVE03954020	AE			GP COND ELECT CAPACITOR 1000uF 16V 20% 85C 10X16mm Cut 3.5mm
C990	92LPRL23967040	AC			GP COND Disc Capacitor 0.1uF 50V +80-20% Y5V / Z5V
C991	92LPRE03954000	AC			GP COND ELECT CAPACITOR 47uF 16V 20% 85C
C992	92LPRL23967040	AC			GP COND Disc Capacitor 0.1uF 50V +80-20% Y5V / Z5V
C993	92LPRE03954010	AC			GP COND ELECT CAPACITOR 100uF 16V 20% 85C P=5mm
C994	92LPRL2396A040	AC			GP COND Disc 0.1uF 100V +80-20% Y5V / Z5V
C997	92LPRL23967040	AC			GP COND Disc Capacitor 0.1uF 50V +80-20% Y5V / Z5V
C998	92LPRE03954010	AC			GP COND ELECT CAPACITOR 100uF 16V 20% 85C P=5mm
C2002	92LPRE03953047	AC			GP COND ELECT Capacitor 470uF 10V 20% 85C (MAIN PCB)
C2003	92LPRE03953022	AC			GP COND ELECT Capacitor 220uF 10V 20% 85C
C2004	92LPRE03953047	AC			GP COND ELECT Capacitor 470uF 10V 20% 85C (MAIN PCB)
C2005,C2006	92LPRE03957010	AC			GP COND ELECT Capacitor 10uF 50V 20% 85C P=5mm
C2007	92LPXL45647068	AA			GP Chip Capacitor 0.0068uF 50V 10% 0603 Type X7R Capacitor
C2008	92LPXL43964050	AD			GP Chip Capacitor 1uF 16V +80-20% 0603 Type Y5V Capacitor

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[8] CAPACITORS					
C2009	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C2010	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C2011	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C2013~C2014	92LPRE03954010	AC			GP Chip Capacitor 100pF 16V 20% 85C
C2016,C2017	92LPXL41037027	AB			GP Chip Capacitor 27pF 50V 5% 0603 Type NPO Capacitor
C2019	92LPXL41037027	AB			GP Chip Capacitor 27pF 50V 5% 0603 Type NPO Capacitor
C2020~C2023	92LPXL41037010	AA			GP Chip Capacitor 100pF 50V 10% 0603 Type NPO Capacitor
C2024,C2025	92LPXL41037027	AB			GP Chip Capacitor 27pF 50V 5% 0603 Type NPO Capacitor
C2026	92LPXL41037027	AB			GP Chip Capacitor 27pF 50V 5% 0603 Type NPO Capacitor
C2027	92LPXL41037027	AB			GP Chip Capacitor 0.1uF 50V 10% 0603 Type NPO Capacitor
C2028~C2030	92LPXL41037027	AB			GP Chip Capacitor 0.1uF 50V 10% 0603 Type NPO Capacitor
C2032	92LPXL41037010	AA			GP Chip Capacitor 100pF 50V 10% 0603 Type NPO Capacitor
C2033	92LPXL41037010	AA			GP Chip Capacitor 100pF 50V 5% 0603 Type NPO Capacitor
C2044	92LPRE03954000	AC			GP COND ELECT Capacitor 47uF 16V 85C
C2045	92LPRE03957010	AC			GP COND ELECT Capacitor 10uF 50V 20% 85C P=5mm
C2046	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C2053~C2056	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C2501,C2502	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C2503,C2504	92LPVE83954010	AC			GP COND ELECT 100uF 16V 20% DIA 6mm<=6mm P=2.5
C2505	92LPME83954000	AC			GP COND ELECT 10uF 16V 20% AI H=5mm P=2.5mm
C2506,C2507	92LPXL41037015	AB			GP Chip Capacitor 150uF 50V 5% 0603 Type NPO Capacitor
C2508~C2512	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C2513	92LPVE03956010	AC			GP COND ELECT 220uF 35V 20%
C2514	92LPXL41037010	AA			GP Chip Capacitor 100uF 50V 5% 0603 Type NPO Capacitor
C2515,C2516	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C2520	92LPVE83954010	AC			GP COND ELECT 100uF 16V 20% DIA 6mm<=6mm P=2.5
C2522~C2525	92LPXL45647023	AC			GP Chip Capacitor 0.022uF 50V 10% 0603 Type X7R Capacitor
C2526~C2528	92LPXL45647030	AB			GP Chip Capacitor 0.01uF 50V 10% 0603 Type X7R Capacitor
C5001,C5002	92LPXL41037071	AC			GP Chip Capacitor 470pF 50V 5% 0603 Type NPO Capacitor
C5003,C5004	92LPXL41037033	AB			GP Chip Capacitor 330pF 50V 5% 0603 Type NPO Capacitor
C5005,C5006	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C5007	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C5008	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C5009,C5010	92LPYL43964050	AC			GP Chip Capacitor 4.7uF 16V +80%-20% 0805 Type Y5V Capacitor
C5011	92LPRE03957010	AC			GP COND ELECT Capacitor 10uF 50V 20% 85C P=5mm
C5012	92LPRE03954010	AC			GP Chip Capacitor 100pF 16V 20% 85C
C5013,C5014	92LPRE03954022	AC			GP COND ELECT Capacitor 220uF 16V 20% 85C (MAIN PCB)
C5015	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C5017	92LPRE03957010	AC			GP COND ELECT Capacitor 10uF 50V 20% 85C P=5mm
C5018~C5020	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
C5021	92LPXL41037047	AB			GP Chip Capacitor 47pF 50V 5% 0603 Type NPO Capacitor
C5022~C5025	92LPYL43964050	AC			GP Chip Capacitor 4.7uF 16V +80%-20% 0805 Type Y5V Capacitor
C5026,C5027	92LPXL45647020	AA			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R Capacitor
C5028	92LPRE03954010	AC			GP Chip Capacitor 100pF 16V 20% 85C
C5501,C5502	92LPXL45647020	AA			GP Chip Capacitor 0.001uF 50V 10% 0603 Type X7R
C5507	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R
R229	92LPXL45647040	AC			GP Chip Capacitor 0.1uF 50V 10% 0603 Type X7R Capacitor
[9] RESISTORS					
FB301~FB303	92LQCF01503000	AA			GP Chip Res 10 Ohm 1/10W 5% 0603 SMT Type
FB903	92LQCF01502033	AA			GP Chip Res 33K Ohm 1/10W 5% 0805 SMT Type
L206	92LQCF08502000	AA			GP Resistor 0 Ohm JUMP WIRE 0805 SMT Type
R202	92LQCF01503081	AA			GP Chip Res 680 Ohm 1/10W 5% 0603 SMT Type
R203	92LQCF01503002	AA			GP Chip Res 1K Ohm 1/10W 5% 0603 SMT Type
R204	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R205~R207	92LQCF01503000	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R211	92LQCF01503015	AA			GP Chip Res 1.5K Ohm 1/10W 5% 0603 SMT Type
R213,R214	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R215	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R217,R218	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R220,R222	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R224~R228	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R230,R231	92LQCF015030Y0	AA			GP Chip Res 33 Ohm 1/10W 5% 0603 SMT Type
R232,R233	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R235,R236	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R237	92LQCF01503033	AA			GP Resistor 3.3K Ohm 1/10W 5% 0603 SMT Type
R238	92LQCF01503010	AA			GP Chip Res 100 Ohm 1/10W 5% 0603 SMT Type
R239	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10W 5% 0603 SMT Type
R240	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R241	92LQCF16503018	AA			GP Chip Resistor 180 Ohm 1/16W 5% 0603 SMT Type Resistor
R242	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R245,R246	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R248	92LQCF015030Y0	AA			GP Chip Res 33 Ohm 1/10W 5% 0603 SMT Type
R249,R250	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R251~R256	92LQCF015030Y0	AA			GP Chip Res 33 Ohm 1/10W 5% 0603 SMT Type
R257	92LQCF01503090	AA			GP Resistor 4.7 Ohm 1/10W 5% 0603 SMT Type
R258	92LQCF015030Z1	AA			GP Resistor 150 Ohm 1/10W 5% 0603 SMT Type
R259	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R260	92LQCF01503002	AA			GP Chip Res 1K Ohm 1/10W 5% 0603 SMT Type
R261	92LQCF01503020	AA			GP Resistor 1.8K Ohm 1/10W 5% 0603 SMT Type
R262,R263	92LQCF01503002	AA			GP Resistor 1K Ohm 1/10W 5% 0603 SMT Type
R264	92LQCF01503002	AA			GP Chip Res 1K Ohm 1/10W 5% 0603 SMT Type
R265	92LQCF01503012	AA			GP Chip Res 1.2K Ohm 1/10W 5% 0603 SMT Type
R266	92LQCF01503002	AA			GP Chip Res 1K Ohm 1/10W 5% 0603 SMT Type
R267	92LQCF01503012	AA			GP Chip Res 1.2K Ohm 1/10W 5% 0603 SMT Type

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[9] RESISTORS					
R268	92LQCF01503002	AA			GP Resistor 1K Ohm 1/10W 5% 0603 SMT Type
R269	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R26A	92LQCF04501090	AA			GP Chip Resistor 6.2 Ohm 1/4 W 5% 1206 SMT Type
R270	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R272~R275	92LQCF015030Y0	AA			GP Chip Res 33 Ohm 1/10W 5% 0603 SMT Type
R276	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10W 5% 0603 SMT Type
R277	92LQCF01503040	AA			GP Chip Res 100K Ohm 1/10W 5% 0603 SMT Type
R278	92LQCF01503039	AA			GP Chip Res 39K Ohm 1/10W 5% 0603 SMT Type
R284	92LQCF01503022	AA			GP Chip Res 2.2K Ohm 1/10W 5% 0603 SMT Type
R285	92LQCF01503091	AA			GP Chip Res 390 Ohm 1/10W 5% 0603 SMT Type
R286	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10W 5% 0603 SMT Type
R287	92LQCF01503002	AA			GP Chip Res 1K Ohm 1/10W 5% 0603 SMT Type
R288	92LQCF01503022	AA			GP Chip Res 2.2K Ohm 1/10W 5% 0603 SMT Type
R292	92LQCF01503010	AA			GP Chip Res 100 Ohm 1/10W 5% 0603 SMT Type
R293,R294	92LQCF01503031	AA			GP Chip Res 330 Ohm 1/10W 5% 0603 SMT Type
R297,R298	92LQCF01503056	AA			GP Chip Res 5.6K Ohm 1/10W 5% 0603 SMT Type
R301~R304	92LQCF01503023	AA			GP Chip Res 12K Ohm 1/10W 5% 0603 SMT Type
R305~R308	92LQCF01503073	AA			GP Chip Res 47K Ohm 1/10W 5% 0603 SMT Type
R309~R310	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R311,R312	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R313,R314	92LQCF01503081	AA			GP Chip Res 680 Ohm 1/10W 5% 0603 SMT Type
R315,R316	92LQCF01503053	AA			GP Chip Res 15K Ohm 1/10W 5% 0603 SMT Type
R317	92LQCF08502000	AA			GP Chip Res 0 Ohm JUMP WIRE 0805 SMT Type
R319,R320	92LQCF01503082	AA			GP Chip Res 8.2K Ohm 1/10W 5% 0603 SMT Type
R321,R322	92LQCF01503040	AA			GP Chip Res 100K Ohm 1/10W 5% 0603 SMT Type
R323,R324	92LQCF04501033	AA			GP Chip Res 330 Ohm 1/4 W 5% CF 1206 SMT Type
R325~R328	92LQCF01503040	AA			GP Chip Res 100K Ohm 1/10W 5% 0603 SMT Type
R329,R330	92LQCF015030Z1	AA			GP Chip Res 150 Ohm 1/10W 5% 0603 SMT Type
R332,R333	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R335,R337	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R338	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R401	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R403	92LQCF01503073	AA			GP Chip Res 47K Ohm 1/10W 5% 0603 SMT Type
R404	92LQCF01503060	AA			GP Chip Res 56 Ohm 1/10W 5% 0603 SMT Type
R405	92LQCF01503024	AA			GP Chip Res 220K Ohm 1/10W 5% 0603 SMT Type
R406	92LQCF01503082	AA			GP Chip Res 8.2K Ohm 1/10W 5% 0603 SMT Type
R408,R409	92LQCF01503002	AA			GP Chip Res 1K Ohm 1/10W 5% 0603 SMT Type
R410,R411	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R412	92LQCF01503068	AA			GP Chip Res 6.8K Ohm 1/10W 5% 0603 SMT Type
R413,R414	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R415~R420	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R421,R422	92LQCF01503053	AA			GP Chip Res 15K Ohm 1/10W 5% 0603 SMT Type
R423~R426	92LQCF01503002	AA			GP Chip Res 1K Ohm 1/10W 5% 0603 SMT Type
R427,R428	92LQCF01503073	AA			GP Chip Res 47K Ohm 1/10W 5% 0603 SMT Type
R429,R430	92LQCF01503056	AA			GP Chip Res 5.6K Ohm 1/10W 5% 0603 SMT Type
R431,R432	92LQCF01503002	AA			GP Chip Res 1K Ohm 1/10W 5% 0603 SMT Type
R433	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R434	92LQCF01503073	AA			GP Chip Res 47K Ohm 1/10W 5% 0603 SMT Type
R435	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R436	92LQCF01503000	AA			GP Chip Res 10 Ohm 1/10W 5% 0603 SMT Type
R437~R442	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R443~R446	92LQCF01503030	AA			GP Chip Res 30K Ohm 1/10W 5% 0603 SMT Type
R501,R502	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R501B~R505B	92LQCF04501000	AA			GP Chip Resistor 20 Ohm 1/4W 5% 1206 SMT Type Resistor
R503	92LQCF01503015	AA			GP Chip Res 1.5K Ohm 1/10W 5% 0603 SMT Type
R504	92LQCF01503033	AA			GP Resistor 3.3K Ohm 1/10W 5% 0603 SMT Type
R505	92LQCF01503000	AA			GP Chip Res 10 Ohm 1/10W 5% 0603 SMT Type
R506	92LQCF01503022	AA			GP Chip Res 220 Ohm 1/10W 5% 0603 SMT Type
R509	92LQCF015030Y0	AA			GP Chip Res 33 Ohm 1/10W 5% 0603 SMT Type
R510~R512	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R513	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R514,R516	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R517	92LQCF01503073	AA			GP Chip Res 47K Ohm 1/10W 5% 0603 SMT Type
R519	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R521,R523	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R522A	92LQCF04501000	AA			GP Chip Resistor 20 Ohm 1/4W 5% 1206 SMT Type Resistor
R523A,R525A	92LQCF04501090	AA			GP Chip Resistor 6.2 Ohm 1/4 W 5% 1206 SMT Type
R531A~R534A	92LQCF04501090	AA			GP Chip Resistor 6.2 Ohm 1/4 W 5% 1206 SMT Type
R535B~R544B	92LQCF04501020	AA			GP Resistor 3.3K Ohm 1/4W 5% CF 1206 SMT Type Resistor
R801	92LQCF01503083	AA			GP Chip Res 18K Ohm 1/10W 5% 0603 SMT Type
R802	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R804~R805	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R806,R807	92LQCF08502010	AA			GP Chip Res 10 Ohm 1/8 W 5% 0805 SMT Type
R808	92LQCF01503023	AA			GP Chip Res 12K Ohm 1/10W 5% 0603 SMT Type
R809,R810	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10W 5% 0603 SMT Type
R811~R814	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R815	92LQCF015030Y0	AA			GP Chip Res 33 Ohm 1/10W 5% 0603 SMT Type
R816	92LQCF01503032	AA			GP Chip Res 3K Ohm 1/10W 5% 0603 SMT Type
R817	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R824~R830	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R832,R834	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R835	92LQCF015030Y3	AA			GP Chip Res 33K Ohm 1/10W 5% 0603 SMT Type
R838,R839	92LQCF01503002	AA			GP Chip Res 1K Ohm 1/10W 5% 0603 SMT Type
R844	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R846,R848	92LQCF015030Z3	AA			GP Chip Res 22K Ohm 1/10W 5% 0603 SMT Type

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[9] RESISTORS					
R849	92LQCF01503050	AA			GP Chip Res 1M Ohm 1/10W 5% 0603 SMT Type
R850	92LQCF01503040	AA			GP Chip Res 100K Ohm 1/10W 5% 0603 SMT Type
R851	92LQCF01503043	AA			GP Chip Res 4.3K Ohm 1/10W 5% 0603 SMT Type
R852	92LQCF01503073	AA			GP Chip Res 47K Ohm 1/10W 5% 0603 SMT Type
R854~R857	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R862	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R864	92LQCF01503000	AA			GP Chip Res 0 Ohm 1/10 W 5% TF 0603 SMT Type
R865,R866	92LQCF01503051	AA			GP Chip Res 5.1K Ohm 1/10W 5% 0603 SMT Type
R867	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R868	92LQCF01503033	AA			GP Resistor 3.3K Ohm 1/10W 5% 0603 SMT Type
R870	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R901	92LQAF02500010	AB			GP Resistor 100 Ohm 1/2 W 5% CF (MAIN PCB)
R901	92LQAF04500091	AA			GP Resistor 910K Ohm 1/4 W 5% CF (POWER PCB)
R901A	92LQAF04500091	AA			GP Resistor 910K Ohm 1/4W 5% CF
R902	92LQAF04500010	AA			GP Resistor 220 Ohm 1/4 W 5% CF 340X2221934 (POWER PCB)
R902	92LQCF08502020	AA			GP Chip Res 2.2K Ohm 1/8 W 5% 0805 SMT Type (MAIN PCB)
R903	92LQAF04500047	AA			GP Resistor 470K Ohm 1/4 W 5% CF 340X2474934 (POWER PCB)
R903	92LQCF08502000	AA			GP Resistor 0 Ohm JUMP WIRE 0805 SMT Type (MAIN PCB)
R904	92LQAF04500047	AA			GP Resistor 470K Ohm 1/4 W 5% CF 340X2474934 (POWER PCB)
R904	92LQAF045000Z1	AA			GP Resistor 10 Ohm 1/4 W 5% CF 340X2100934 (MAIN PCB)
R905	92LQCF01503022	AA			GP Chip Res 2.2K Ohm 1/10W 5% 0603 SMT Type
R905,R906	92LQAF04500000	AA			GP Resistor 47 Ohm 1/4W 5% CF 340X2470934
R907,R908	92LQAF04500020	AA			GP Resistor 2.7K Ohm 1/4W 5% CF 340X2272934
R909,R910	92LKKN30500Z10	AC			GP Res. Metal Oxide Film 120 Ohm 3W 5% Mini Size W/KINK Non - Flame
R912	92LQAF04500040	AA			GP Resistor 220K Ohm 1/4W 5% CF 340X2224934
R914	92LQAF04500Z30	AA			GP Resistor 62K Ohm 1/4W 5% CF
R915	92LQAF06500047	AA			GP Resistor 4.7K Ohm 1/6W 5% CF
R916	92LQAF06500000	AA			GP Resistor 10 Ohm 1/6W 5% CF
R917	92LKKN30500Z10	AC			GP Res. Metal Oxide Film 120 Ohm 3W 5% Mini Size W/KINK Non - Flame
R919	92LQAF06500027	AA			GP Resistor 27 Ohm 1/6W 5% CF
R920	92LQHF20500000	AC			GP Resistor 47 Ohm 2W 5% CF HI
R951	92LQAF06500033	AA			GP Resistor 30K Ohm 1/6W 5% CF
R952	92LQAF06500062	AA			GP Resistor 6.2K Ohm 1/6W 5% CF
R953	92LQAF02500020	AB			GP Resistor 4.7K Ohm 1/2W 5% CF
R954	92LQAF04500030	AA			GP Resistor 22K Ohm 1/4W 5% CF 340X2223934
R957	92LQAM06100002	AB			GP Resistor 10K Ohm 1/6W 1% MF
R958	92LQAF06500001	AA			GP Resistor 100 Ohm 1/6W 5% CF
R959	92LQAM06100002	AB			GP Resistor 10K Ohm 1/6W 1% MF
R960	92LQAF065000Z3	AA			GP Resistor 33K Ohm 1/6W 5% CF
R961	92LQAF06500015	AA			GP Resistor 15K Ohm 1/6W 5% CF
R962	92LQAF06500012	AA			GP Resistor 1.2K Ohm 1/6W 5% CF
R963	92LQAF06500031	AA			GP Resistor 330 Ohm 1/6W 5% CF
R964,R966	92LQAF06500047	AA			GP Resistor 4.7K Ohm 1/6W 5% CF
R967	92LQAF06500039	AA			GP Resistor 3.9K Ohm 1/6W 5% CF
R968	92LQAF06500012	AA			GP Resistor 1.2K Ohm 1/6W 5% CF
R969	92LQAF06500030	AA			GP Resistor 12K Ohm 1/6W 5% CF
R970	92LQAF06500020	AA			GP Resistor 1K Ohm 1/6W 5% CF
R971,R972	92LQAF06500056	AA			GP Resistor 56 Ohm 1/6W 5% CF
R973,R974	92LQAF06500061	AA			GP Resistor 560 Ohm 1/6W 5% CF
R975	92LQAF06500020	AA			GP Resistor 1K Ohm 1/6W 5% CF
R976	92LQAF06500003	AA			GP Resistor 10K Ohm 1/6W 5% CF
R977	92LQAF06500068	AA			GP Resistor 6.8K Ohm 1/6W 5% CF
R978	92LQFS04510090	AC			GP Fuseable Res. 10Ohm 1/4W 5% " #MG " H/I Standard Axial W/KINK (TZA
R979	92LQAF06500000	AA			GP Resistor 10 Ohm 1/6W 5% CF
R980	92LQAF06500010	AA			GP Resistor 220 Ohm 1/6W 5% CF
R981,R982	92LQAF06500015	AA			GP Resistor 1.5K Ohm 1/6W 5% CF
R983	92LQAF06500047	AA			GP Resistor 4.7K Ohm 1/6W 5% CF
R984	92LQAF06500027	AA			GP Resistor 27 Ohm 1/6W 5% CF
R985,R986	92LQFS04510047	AC			GP Fuseable Res. 4.7Ohm 1/4W 5% " #MG " H/I Standard Axial W/KINK (TZA
R987	92LQAF06500051	AA			GP Resistor 5.1K Ohm 1/6W 5% CF
R989,R990	92LQAF06500020	AA			GP Resistor 1K Ohm 1/6W 5% CF
R991	92LQAF06500003	AA			GP Resistor 10K Ohm 1/6W 5% CF
R993	92LQGN10500010	AC			GP Resistor 120 Ohm 1W 5% W/KINK Non - Flame Metal Film
R996	92LQAF06500015	AA			GP Resistor 15K Ohm 1/6W 5% CF
R997	92LQAF06500033	AA			GP Resistor 30K Ohm 1/6W 5% CF
R2002	92LQCF01503075	AA			GP Chip Resistor 7.5K Ohm 1/10 W 5% 0603 SMT Type
R2003,R2004	92LQCF01503023	AA			GP Chip Res 12K Ohm 1/10W 5% 0603 SMT Type
R2005~R2008	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R2042	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R2501	92LQCF01503002	AA			GP Chip Resistor 1K Ohm 1/10 W 5% 0603 SMT Type
R2502	92LQCF01503047	AA			GP Chip Resistor 4.7K Ohm 1/10 W 5% 0603 SMT Type
R2504	92LQCF01503073	AA			GP Chip Resistor 47K Ohm 1/10 W 5% 0603 SMT Type
R2505	92LQCF01503070	AA			GP Chip Resistor 47 Ohm 1/10 W 5% 0603 SMT Type
R2506	92LQCF01503003	AA			GP Chip Resistor 10K Ohm 1/10 W 5% 0603 SMT Type
R2507	92LQCF01503015	AA			GP Chip Resistor 1.5K Ohm 1/10 W 5% 0603 SMT Type
R2509~R2512	92LQCF01503003	AA			GP Chip Resistor 10K Ohm 1/10 W 5% 0603 SMT Type
R2513	92LQCF01503047	AA			GP Chip Resistor 4.7K Ohm 1/10 W 5% 0603 SMT Type
R2514~R2518	92LQCF01503003	AA			GP Chip Resistor 10K Ohm 1/10 W 5% 0603 SMT Type
R2519	92LQCF015030Z3	AA			GP Chip Resistor 33K Ohm 1/10 W 5% 0603 SMT Type
R2520	92LQCF01503071	AA			GP Chip Resistor 470 Ohm 1/10 W 5% 0603 SMT Type
R2521~R2523	92LQCF015030Y0	AA			GP Chip Resistor 33 Ohm 1/10 W 5% 0603 SMT Type
R2524,R2525	92LQCF01503002	AA			GP Chip Resistor 1K Ohm 1/10 W 5% 0603 SMT Type
R2526	92LQCF015030Z3	AA			GP Chip Resistor 22K Ohm 1/10 W 5% 0603 SMT Type
R2528	92LQCF01503002	AA			GP Chip Resistor 1K Ohm 1/10 W 5% 0603 SMT Type
R2529	92LQCF01503003	AA			GP Chip Resistor 10K Ohm 1/10 W 5% 0603 SMT Type

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[9] RESISTORS					
R2532~R2535	92LQCF01503000	AA			GP Chip Resistor 0 Ohm 1/10 W 5% 0603 SMT Type
R2536,R2537	92LQCF01503047	AA			GP Chip Resistor 4.7K Ohm 1/10 W 5% 0603 SMT Type
R2538	92LQCF01503012	AA			GP Chip Resistor 1.2K Ohm 1/10 W 5% 0603 SMT Type
R2539,R2540	92LQCF01503000	AA			GP Chip Resistor 0 Ohm 1/10 W 5% 0603 SMT Type
R2541	92LQCF015030Z3	AA			GP Chip Resistor 22K Ohm 1/10 W 5% 0603 SMT Type
R2542	92LQCF01503033	AA			GP Chip Resistor 3.3K Ohm 1/10 W 5% 0603 SMT Type
R2546~R2563	92LQCF0450100A	AA			GP Chip Resistor 0 Ohm JUMP WIRE 1206 SMT Type
R2564	92LQAF06500000	AA			GP Resistor 10 Ohm 1/6 W 5% CF
R2565	92LQCF0450100A	AA			GP Chip Resistor 0 Ohm JUMP WIRE 1206 SMT Type
R5001,R5002	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R5003,R5004	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R5005,R5006	92LQCF01503053	AA			GP Chip Res 15K Ohm 1/10W 5% 0603 SMT Type
R5007,R5008	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R5009,R5010	92LQCF015030Z2	AA			GP Chip Res 2.2K Ohm 1/10W 5% 0603 SMT Type
R5011,R5012	92LQCF01503003	AA			GP Chip Res 10K Ohm 1/10W 5% 0603 SMT Type
R5013	92LQCF01503073	AA			GP Chip Res 47K Ohm 1/10W 5% 0603 SMT Type
R5014	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R5015	92LQCF01503027	AA			GP Chip Resistor 27K Ohm 1/10 W 5% 0603 SMT Type
R5016	92LQCF01503063	AA			GP Chip Resistor 56K Ohm 1/10 W 5% 0603 SMT Type
R5020	92LQCF01503030	AA			GP Chip Res 30K Ohm 1/10W 5% 0603 SMT Type
R5021~R5026	92LQCF01503047	AA			GP Chip Res 4.7K Ohm 1/10W 5% 0603 SMT Type
R5027~R5029	92LQCF01503030	AA			GP Chip Res 30K Ohm 1/10W 5% 0603 SMT Type
R5030	92LQCF01503060	AA			GP Chip Resistor 56 Ohm 1/10 W 5% 0603 SMT Type
[10] ARRAY PARTS					
RA201~RA207	92LQCP01508133	AC			GP Res. Array 4x33 Ohm 1/10W 5% 8 Pin Chip Array
RA210~RA212	92LQCP01508100	AC			GP Chip Array 10 Ohm 1/10W 5% 8 Pin Chip Array
[11] OTHER CIRCUITRY PARTS					
CN204	92LCCN20000008	AD			GP Connector 8Pin Pitch = 2.0mm B8B-PH-K Top Base
CN301	92LCCN12506013	AF			GP Connector 13Pin P1.25mmXH8mm 180 DR31D0/THOMSON
CN652	92LCCN25000004	AC			GP Connector B4B-XH-A 4 Pin Post Base Top P = 2.5
CN801	92LCHC05005024	AK			GP Chip Connector 24Pin Pitch = 0.5mm 90 DR101 / REGENT
CN802	92LCCN20000005	AC			GP Connector 5Pin Pitch = 2.0mm B5B-PH-K Top Base
CN803	92LCCN20000006	AC			GP Connector 6Pin Pitch = 2.0mm B6B-PH-K Top Base
CN901	92LCCN39602104	AC			GP C/W 3P 60mm 1007#18 RD-BK-WT A=3.96VH B=3.96EW
CN902	92LVVA01004037	AH			GP C/W 4P 70mm 1007#22 RD-BK-YL-W/GND A=2.5mm B=2512V
CN951	92LCCN39602003	AC			GP Connector 3 Pin CL3962WVO Post Base Top P = 3.96
CN952	92LCCN25000004	AC			GP Connector B4B-XH-A 4 Pin Post Base Top P=2.5
CN953	92LCCN20000007	AC			GP Connector 7 Pin Pitch = 2.0mm
CN5001	92LCCN20000004	AC			GP Connector 4Pin Pitch = 2.0mm
CN5504	92LCCN20000005	AC			GP Connector 5Pin Pitch = 2.0mm
DP251	92LKL000003410	AX			GP VFD 84X8.5mm HNA-11SM51T
F901	92LKSA02031521	AE			Fuse 3.15A 250V Slow (Walter TSD) LF
JK201	92LCJR00330120	AH			GP RCA Jack 3P RED/BLU/GRN AXIAL
JK202	92LCJC01000430	AG			GP RCA+DIN JK 1RCA+4P DIN YEL W/Gnd
JK203	92LCS02100410	AG			GP SCART Socket 21P P=3.8mm
JK204	92LCJR00160120	AF			GP RCA Jack 1P Orange W / Gnd
JK401	92LCJR00630140	AK			GP RCA Jack 6P Whtx3 / RedX3 / Axial W/Gnd
JK501	92LCJS01210310	AM			GP Spk Jack 12P Rd-Wt-Grn-Gry-Blu-Pur/Bk
JK5501	92LCJM03501110	AG			GP Phone Jack D3.5 7P BlackCKX3-3.5-07
JMP01~JMP24	92LXJP22000001	AB			GP WIRE BARE 22 GA TINNED
JMP1~JMP15	92LXJP22000001	AB			GP WIRE BARE 22 GA TINNED (Jumper wire)
JMP26	92LXJP22000001	AB			GP WIRE BARE 22 GA TINNED
JMP28~JMP31	92LXJP22000001	AB			GP WIRE BARE 22 GA TINNED
JMPAA	92LXJP22000001	AB			GP WIRE BARE 22 GA TINNED
JP1	92LCSL20703503	AD			GP Solder Lug OD7.0xID3.5xT0.3mm 80mm W / 1007# 18 BLK STP
JP2,JP3	92LVWT30012150	AF			GP Wire Term L=50mm 1007#18 BLK A=3.7mm B=STP 4mm
JP501B,JP504B	92LXJP22000001	AB			GP WIRE BARE 22 GA TINNED
LD2501	92LKED20000330	AC			GP Led 3 DIA Super Red Lens:Water Clear EVERLIGHT 494SRC/L2
NTC901	92LRNT00513092	AF			THERMIST NTC 5 Ohm 5A TKS:SKC13055MSY LF DIA = 13mm
RB204	92LVFL80124500	AN			GP C / Wire 8Pin 260mm 2468#26 Rainbow A=2.0mm B=2012V DR31D0/TH
RB5501	92LVFL40124300	AH			GP C / Wire 4Pin 430mm 2468#26 Rainbow A=2.0mm B=2012V
RB5503	92LVFL70124500	AM			GP C / Wire 7Pin 180mm 2468#26 Rainbow A=2.0mm B=2012V
RB5504	92LVFL50124500	AH			GP Flat Cable 5P 230mm 2468#26 Rainbow A=2.0mm B=2012V
SN251	92LRHO26389401	AM			IRT Receiver IRM-2638AS9F4 EVERLIGHT
TA2501~TA2510	92LMAW06000110	AC			GP AI TACT SW SKHVBE3520 ALPS 5.0mm 160GF
TUNER PACK	92LWTP00001113	BP			TUNER PACK KST-ML104MA1-32 KWANG SUNG LF MW/FM TUNER MODULE DR30K0 A=3.7mm B=STP 4mm
AC CORD	92LVPE1K327210	AV			GP L CORD 2200mm 2P BLK VDE W / 3.96 VH 4P H05VVH2-F DR31C2 SCOTT
CONE WIRE	92LVSW5234446A	AP			GP C / W 5P 260mm 2854#26 GRY REVERSE A, B=2mm R-Y-GRN-GND-BK
CONE WIRE	92LVSW6234434A	AQ			GP C / W 6P 260mm 2854#26 GRY REVERSE A, B=2mm R-Y-GRN-G-B-W
[12] DVD MECHANISM PARTS					
	92LABN04R34301	BY			DVD LOADER
[13] P.W.B. ASSEMBLY (Replacement Items)					
PWB-A1	92LABE10530101	BL			SKD GP CONTROL PCB ASSY DR30K0
PWB-A2	92LABE10530301	AR			SKD GP PHONE PCB ASSY DR30K0
PWB-A3	92LABE10530201	AN			SKD GP STANDBY PCB ASSY DR30K0
PWB-B	92LABE10510003	BY			SKD MAIN PCB ASSY LF DR30K0
PWB-C	92LABE10504004	BY			SKD POWER PCB ASSY 230V 150W DR30K0

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
CABINET PARTS (MAIN UNIT)					
201	92LBPL20000601	AL			SHARP BADGE
202	92LBPF10603201	BB			FRONT PANEL
203	92LBRF10003303	AE			LEG CUSHION
204	92LBPN10024401	AW			FL WINDOW
205	92LBPK10508701	AS			VOLUME KNOB
206	92LBPK10607201	AQ			POWER KNOB
207	92LIVE30100303	AC			SUPPORT CUSHION
208	92LBPK11607201	AQ			OPEN/CLOSE KNOB
209	92LBPK12607201	AS			OPERATION KNOB
210	92LBPN10024501	AH			LED INDICATOR
211	92LBPH10016301	AC			LED HOLDER
212	92LGTP10012801	AE			FL GROUND SHIELD
213	92LGTP10012601	AE			FL HOLDER
214	92LGTP10012701	AD			VOLUME GROUND SHIELD
215	92LGSE10052801	BF			TOP CABINET
216	92LBFP12107101	AT			INSULATION SHEET
217	92LBDP10110501	AS			DOOR COVER
218	92LABN04R34301	BY			DVD LOADER
219	92LIVE17000904	AE			EMI SPONGE
220	92LGSE10055101	AG			SUPPORT BRACKET
221	92LIVE30100303	AC			FFC CUSHION
222	92LDFM01000101	AE			WIRE HOLDER
223	92LBFP12106203	AE			COVER SHEET
224	92LBFP12106202	AE			COVER SHEET
225	92LBFP12106402	AE			COVER SHEET
226	92LBFP12106502	AE			COVER SHEET
227	92LGSE10052901	BC			BOTTOM CHASSIC
228	92LBFP12106802	AC			INSULATION SHEET
229	92LDSS10002201	AC			SNAP LOCK
230	92LIVE17001101	AF			EMI SPONGE
231	92LHWT46603020	AC			WASER (0d6xID3xT1.2mm)
232	92LIVE17000104	AD			EMI SPONGE
233	92LBFP12107001	AQ			INSULATION SHEET
234	92LGTP10011701	AF			IC SHIELD
235	92GTP10012201	AE			JACK SHIELD
236	92LDCR03000101	AD			FUSE COVER
237	92LGSE10052206	AR			BACK PLATE-EUROPE
	92LGSE10052208	AT			BACK PLATE-ASIA
238	92LDBU00100520	AE			CORD BUSH
601	92LHST4E308460	AB			M3.0xP0.5x6mm
602	92LHSF05308460	AB			M3.0xP0.5xL6mm
603	92LHSW04021380	AC			T3.0x1.27RHxL8mm
604	92LHSP05005480	AB			T3.0x1.06pxL8mm
605	92LHSW05308480	AB			M3.0x0.5xL8mm
606	92LHST4E308440	AB			M3.0xL4mm
	92LGAL10021401	AY			HEAT SINK A
	92LGAL10022101	AL			HEAT SINK B
ACCESSORIES PARTS					
	92LVTA40000210	AQ			AM ANTENNA
	92LVTA40000341	AH			FM ANTENNA
	92LWIR151001D7	AZ			REMOTE CONTROL UNIT
	92LVSC00000220	AW			SCART CABLE-AV
	92LYOM10033703	AX			OPERATION MANUAL-Arabic (for Middle East & Africa)
	92LYOM10033704	AX			OPERATION MANUAL-Thai (for Thailand)
	92LYOM10033707	AX			OPERATION MANUAL-English
	92LVRC10100831	AL			VIDEO CABLE
PACKING PARTS					
	92LIVA40200410	AF			PE BAG (MAIN UNIT)
	92LIVA80310403	AC			PE BAG (SATELITE)
	92LIVA80310404	AE			PE BAG (SUB-WOOFER)
	92LIVA40700110	AF			MIRAMAT (MAIN UNIT)
	92LIVA80200311	AD			MIRAMAT (SUB-WOOFER)
	92LITF13041101	AR			POLYFOAM (TOP)
	92LITF13141101	AV			POLYFOAM (MIDDLE)
	92LITF13241101	AT			POLYFOAM (BOTTOM)
	92LICG10007601	AY			PACKING CASE
	92LYLB42407801	AC			BAR CODE LABEL (EAN)
FRONT SPEAKER BOX PARTS (CP-CN410F)					
901	92LASW50300393	AT			FRONT PANEL ASSEMBLY
902	92LSNR54005281	AA			SCREW
903	92LIVE52000202	AA			CUSHION
904	92LASW50300892	AP			SPEAKER LEAD (RIGHT)
	92LASW50300891	AP			SPEAKER LEAD (LEFT)
905	92LANF20000403	AT			BACK CAB ASSEMBLY
906	92LSNR54006221	AB			SCREW
907	92LYLB811004MR	AC			SPEC LABLE (RIGHT)
	92LYLB811004ML	AC			SPEC LABLE (LEFT)
908	92LBRF10005301	AC			LEG CUSHION
SP 1,2	92LAUP60070530	AX			SPEAKER (MAGNETIC SHIELD)
SURROUND SPEAKER BOX PARTS (CP-CN410R)					
901	92LASW50300393	AT			FRONT PANEL ASSEMBLY

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
SURROUND SPEAKER BOX PARTS (CP-CN410R)					
902	92LNSR54005281	AA			SCREW
903	92LIVE52000202	AA			CUSHION
904	92LASW50300894	AX			SPEAKER LEAD (RIGHT)
	92LASW50300893	AX			SPEAKER LEAD (LEFT)
905	92LANF20000403	AT			BACK CAB ASSEMBLY
906	92LNSR54006221	AB			SCREW
907	92LYLB811004SR	AC			SPEC LABEL (RIGHT)
	92LYLB811004SL	AC			SPEC LABEL (LEFT)
908	92LBRF10005301	AC			LEG CUSHION
SP 1,2	92LAUK60070540	AV			SPEAKER
CENTRE SPEAKER BOX PARTS (CP-CN410C)					
901	92LASW50300393	AT			FRONT PANEL ASSEMBLY
902	92LNSR54005281	AA			SCREW
903	92LIVE52000202	AA			CUSHION
904	92LASW50300895	AP			SPEAKER LEAD (GREEN)
905	92LANF20000403	AT			BACK CAB ASSEMBLY
906	92LNSR54006221	AB			SCREW
907	92LYLB811004C0	AC			SPEC LABEL
908	92LBRF10005301	AC			LEG CUSHION
SP 1	92LAUP60070530	AX			SPEAKER (MAGNETIC SHIELD)
SUBWOOFER BOX PARTS (CP-CN410SW)					
901	92LBPF10603301	AV			FRONT PANEL
902	92LASW80900102	AF			POT TUBE
903	92LIVE50000352	AC			GASKET
904	92LANK5W30K001	BK			WOODEN CABINET
905	92LYLB811004W0	AC			SPEC LABEL
906	92LASW50300896	AQ			SPEAKER LEAD (VOILET)
907	92LNSR54008141	AB			SCREW
908	92LASW50300109	AM			GRILLE ASSEMBLY
909	92LBRF80002801	AE			LEG CUSHION
SP 1	92LAUL60130536	BD			WOOFER

EXPLODED VIEW

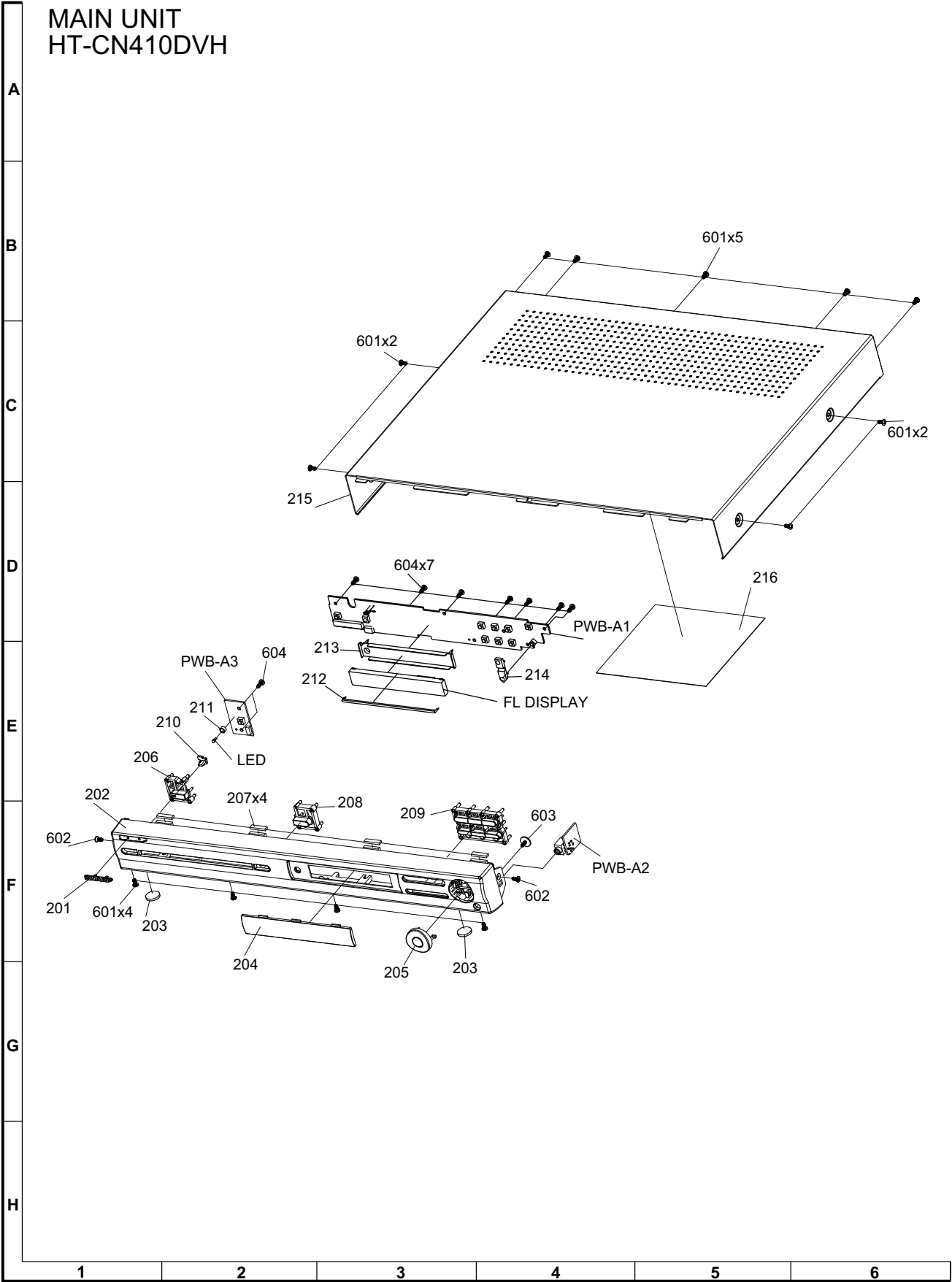


Figure 1: CABINET EXPLODED VIEW

MAIN UNIT
HT-CN410DVH

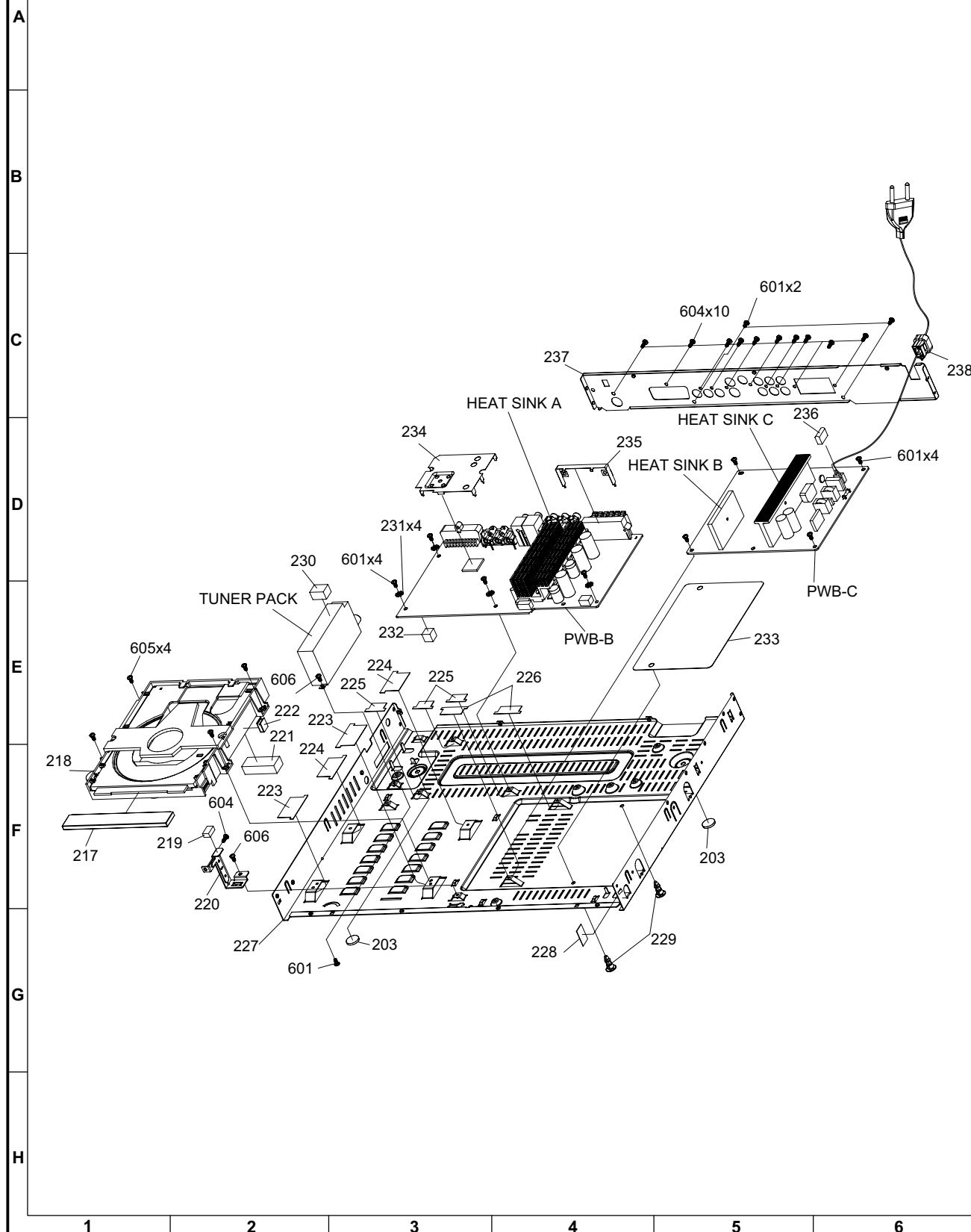


Figure 2: CABINET EXPLODED VIEW

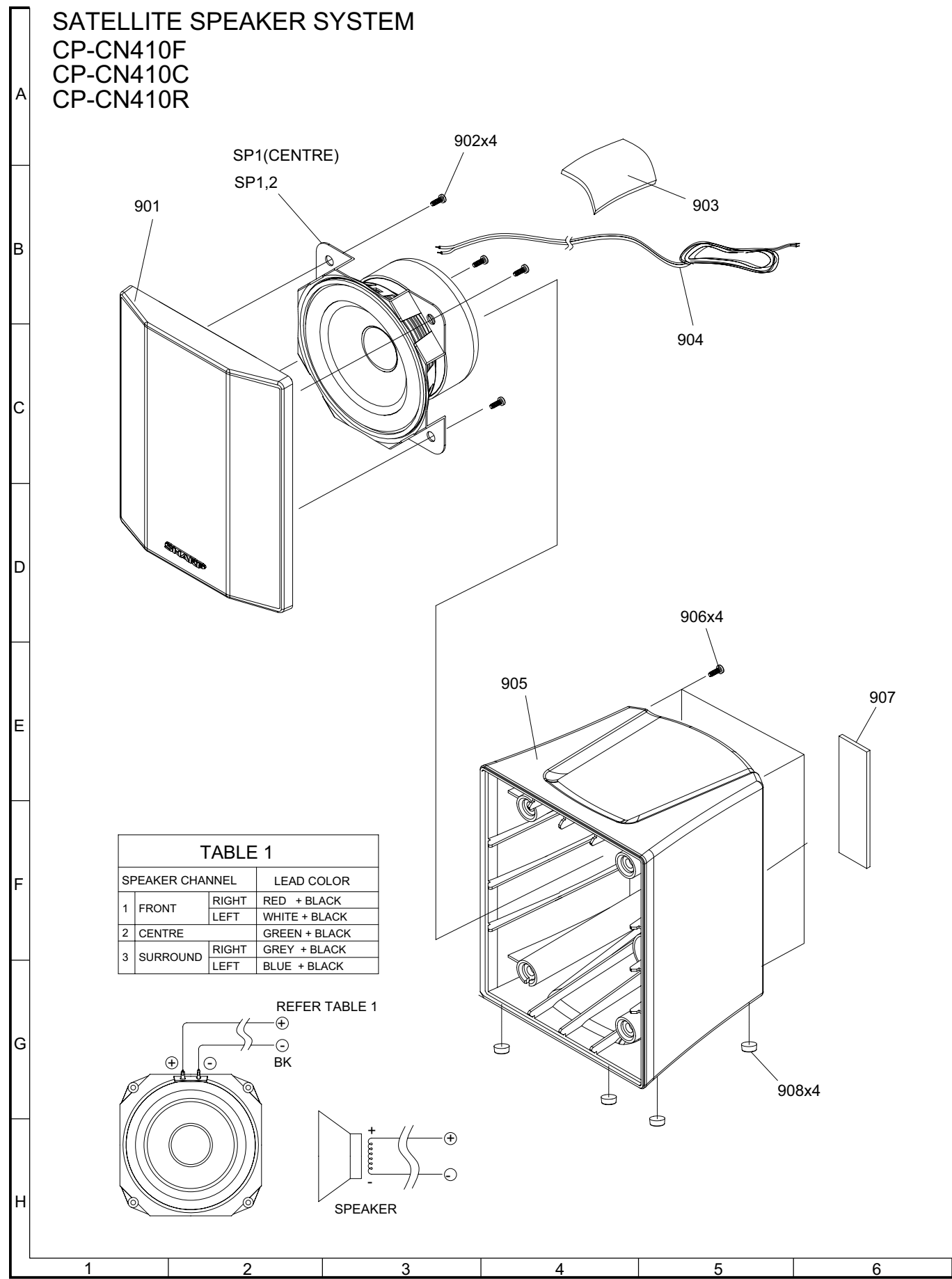


Figure 1: SATELLITE SPEAKER SYSTEM BOX PARTS

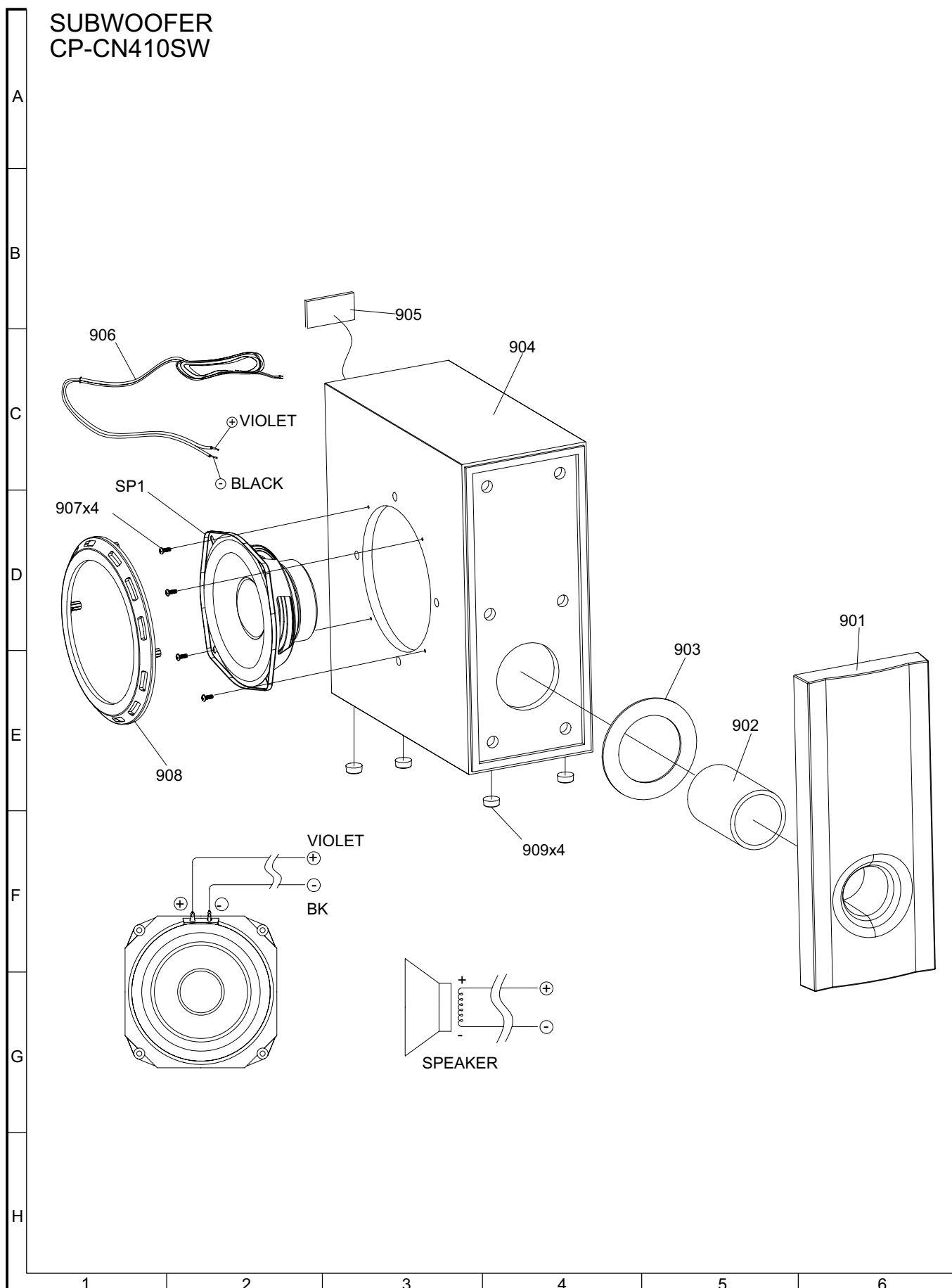
**SUBWOOFER
CP-CN410SW**

Figure 2: SUBWOOFER BOX PARTS

-MEMO-

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