Harman Kardon Service Manual

HK 3770

2x120 W stereo receiver

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Released EU2014

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Rev 0, 00/20XX

Introduction

Thank you for purchasing the Harman Kardon® HK 3700/3770 stereo receiver with which, you are about to begin many years of listening enjoyment. The HK 3700/3770 stereo receiver has been custom-designed to provide excitement and power of the cinema experience in your living room.

To obtain maximum enjoyment from your new soundbar speaker system, we urge you to take a few minutes to read through this manual, which:

- Contains a description of the features of HK 3700/3770 stereo receiver
- Lists the items included in the box
- Describes the HK 3700/3770 stereo receiver and its components
- Includes step-by-step instructions that will help you set up and get started with the HK 3700/3770 stereo receiver

In addition, a few minutes spent learning the functions of the various controls will allow you to take advantage of all the power and refinement of the HK 3700/3770 stereo receiver.

CONTACT US: If you have any questions about HK 3700/3770 receiver, its installation or its operation, please contact your retailer or custom installer, or visit our website at:

www.harmankardon.com

Description and Features

Harman Kardon heritage and brand legacy has been its two-channel audio for many years.

As more and more audio content comes from multiple digital-based sources, such as a 'smart' TV, smartphone or tablet, playback convenience becomes the driving factor in entertainment while sound quality remains the foundation of Harman Kardon. The new Harman Kardon HK stereo receivers try to bring the best of both the worlds: beautiful two channel stereo sound and latest digital-based sources access.

The following are the features and benefits of the Harman Kardon 3700/3770 stereo receivers:

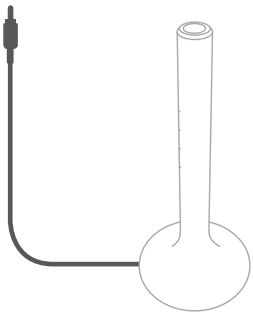
- Harman Kardon sound — This has been the foundation of the brand for many years. High power high current capability with stable power output even with variation of the load impedance of the speaker drivers.
- Connectivity — HK stereo receivers feature the best of both the worlds: classic analog inputs including phono input, FM/AM radio as well as new digital connectivity with Bluetooth, network DLNA, vTuner internet radio, USB, iOS direct thru USB with built in superior DAC and optical digital input.
- Distinctive and elegant design — Based on the current design and chassis of AVR1x1 series.
- Advance remote control — The new stereo receivers also support iOS and Android app to fully control the stereo receiver from Harman Kardon Remote app for maximum ease and enjoyment.

Included Items

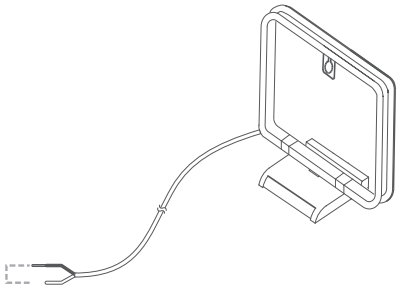
The HK 3700/3770 stereo receiver consists of the following accessories:

- System remote control

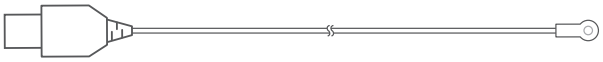
- EzSet/EQ™ microphone



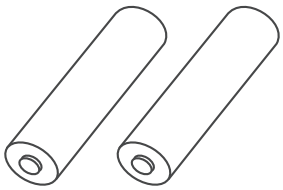
- AM loop antenna



- FM Loop antenna



- Two AAA batteries



- AC power cord

IMPORTANT: If any of these accessories is missing or if any part of your HK 3700/3770 system fails to operate properly, contact your dealer immediately.

Important Safety Information

Verify Line Voltage before Use

The HK 3700/3770 has been designed for use with 100- 240 Volt Alternating Current (AC). Connection to a line voltage other than that for which your HK 3700/3770 is intended can create a safety and fire hazard, and may damage the unit. If you have any questions about the voltage requirements for your specific model or about the line voltage in your area, contact your selling dealer before plugging the unit into a wall outlet.

Do Not Use Extension Cords

To avoid safety hazards, use only the power cord supplied with your unit. We do not recommend the use of extension cords with this product. Do not run power cords under rugs or carpets, or place heavy objects on them. Damaged power cords should be replaced immediately by an authorized service center, with a cord, meeting factory specifications.

Handle the AC Power Cord Gently

When disconnecting the power cord from an AC outlet, always pull the plug; never pull the cord. If you do not intend to use your HK 3700/3770 for any considerable length of time, disconnect the plug from the AC outlet.

Do Not Open the Cabinet

There are no user-serviceable components inside this product. Opening the cabinet may present a shock hazard, and any modification to the product will void your warranty. If water or any metal object such as a paper clip, wire or staple accidentally falls inside the unit, disconnect it from the AC power source immediately, and consult an authorized service center.

CATV or Antenna Grounding

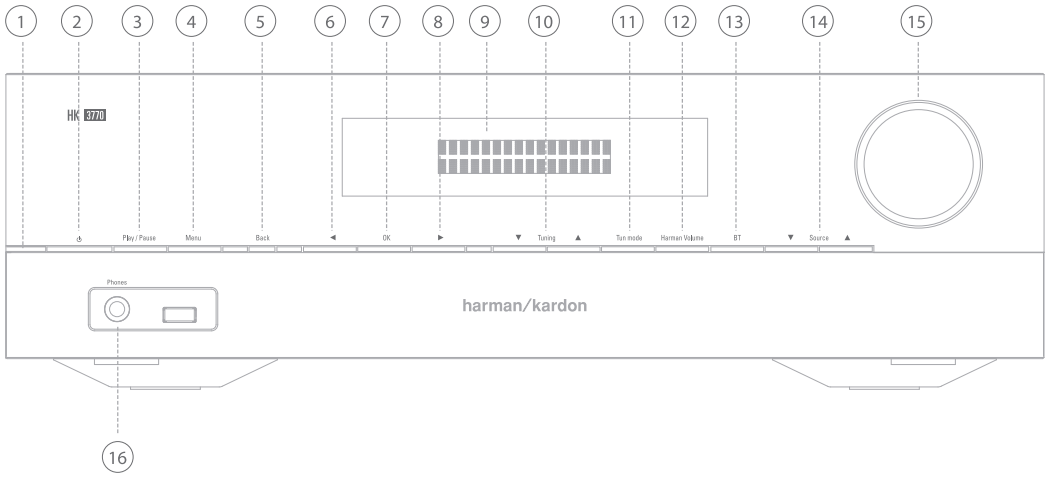
If an outside antenna or cable system is connected to this product, be certain that it is grounded so as to provide some protection against voltage surges and static charges. Section 810 of the United States National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements of the grounding electrode.

Note to CATV System Installer: This reminder is provided to call the CATV (Cable TV) system installer's attention to article 820-40 of the NEC, which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

Placing the Stereo Receiver

- Place the Stereo receiver on a firm and level surface. Be certain that the surface and any mounting hardware can support the Stereo receiver's weight.
- Provide proper space above, below, behind and to the sides of the Stereo receiver for ventilation. Maintain a clearance of at least 12" (30 cm) on each side of, above and behind the unit.
- If you install the Stereo receiver in a cabinet or other enclosed area, provide cooling air within the cabinet. Under some circumstances, a fan may be required.
- Do not obstruct the ventilation slots on the top of the Stereo receiver or place objects directly over them.
- Do not place the Stereo receiver directly on a carpeted surface.
- Do not place the Stereo receiver in moist or humid locations, in extremely hot or cold locations, in areas near heaters or heat registers, or in direct sunlight.

HK 3700/3700 Receiver Front Panel Controls



The following are the fron panel controls available in the HK 3700/3770 stereo receiver:

1. Power indicator
2. Power switch
3. Play/Pause
4. Menu
5. Back
6. Select previous
7. OK
8. Select Next
9. Message display
10. Tuning
11. Tuner mode selector
12. Harman Volume
13. Bluetooth
14. Source selector
15. Volume control
16. Phono input

1. **Power indicator**: This indicates the status of the stereo receiver whether it is in Operational, OFF, or sleep mode.

2. **Power switch**: Press this button to turn the stereo receiver ON. When the HK 3700/3770 is in Standby mode (the Power Indicator is amber), short press this button to turn the system ON (the Power Indicator turns white).

The receiver goes to Standby mode automatically through the following:

- 30 minutes of inactivity in Operational mode
- Short press the power button on the front panel
- Short press the OFF button on the remote control or remote app

The receiver can be brought back to Operational mode through the following:

- Short press on the power button on the front panel
- Short press on the source button
- Audio signal from Bluetooth device (HK 3770 Only)

3. **Play/Pause**: Press this button to play or pause the audio stream.

4. **Menu**: Press his button to choose from different menu options.

5. **Back**: Press this button to go back to the previous menu.

6. **Select previous**: Press this button to select the previous file to play.

7. **OK** : This button is used to make selections within the on-screen menu system for some source devices.

8. **Select next**: Press this button to play the next file.

9. **Message Display**: Various messages appear in this display in response to commands. In normal use, the Upper Line will display the current source and audio input (analog or one of the digital audio inputs). The Lower Line displays the current speaker group (if any are active) and the DSP mode. Other messages may appear for some sources, such as The Bridge docking station and the tuner.

10. **Tuning**: Use these buttons to navigate the receiver's menus. When the radio is the active source, use these buttons to tune stations according to the settings of the Tuning Mode button.

11. **Tuner Mode selector**: This button toggles between manual (one frequency step at a time) and automatic (seeks frequencies with acceptable signal strength) tuning mode. It also toggles between stereo and mono modes when an FM station is tuned in.

12. **Harman Volume**: This button cycles the Harman Volume function between high, low and off.

13. **Bluetooth**: The Bluetooth button is used to set the stereo receiver into Bluetooth mode. You can pair system with Bluetooth-enabled devices using this button.

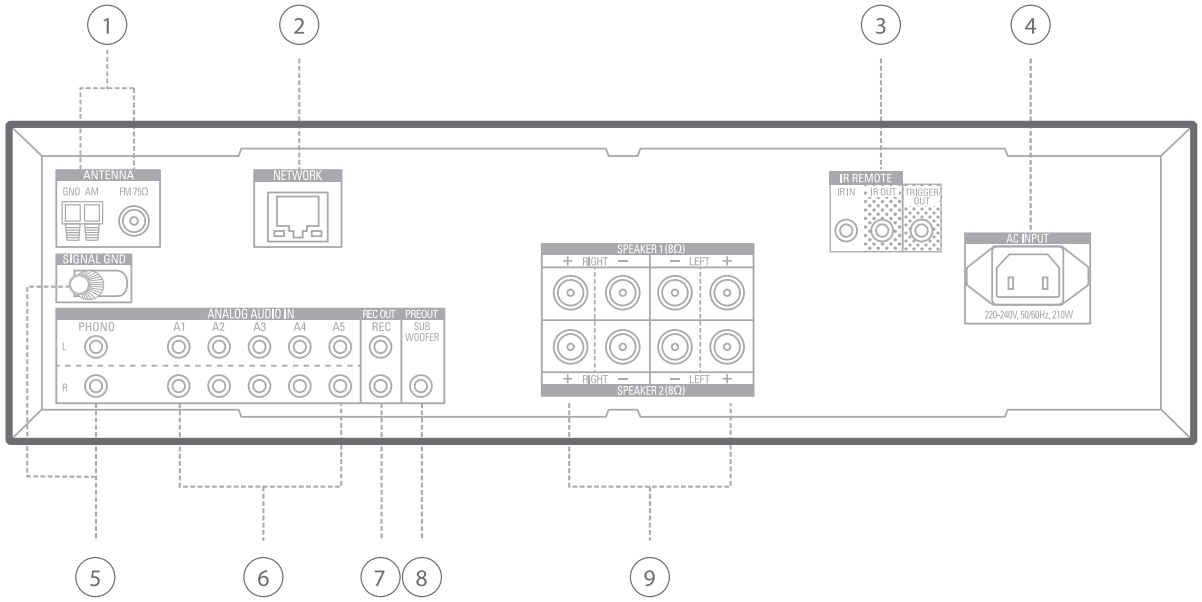
14. **Source selector**: Press these buttons to select the active source.

15. **Volume Control**: Turn this knob clockwise to raise the volume and anticlockwise to lower the volume, which will be shown in decibels (dB) in the Message Display.

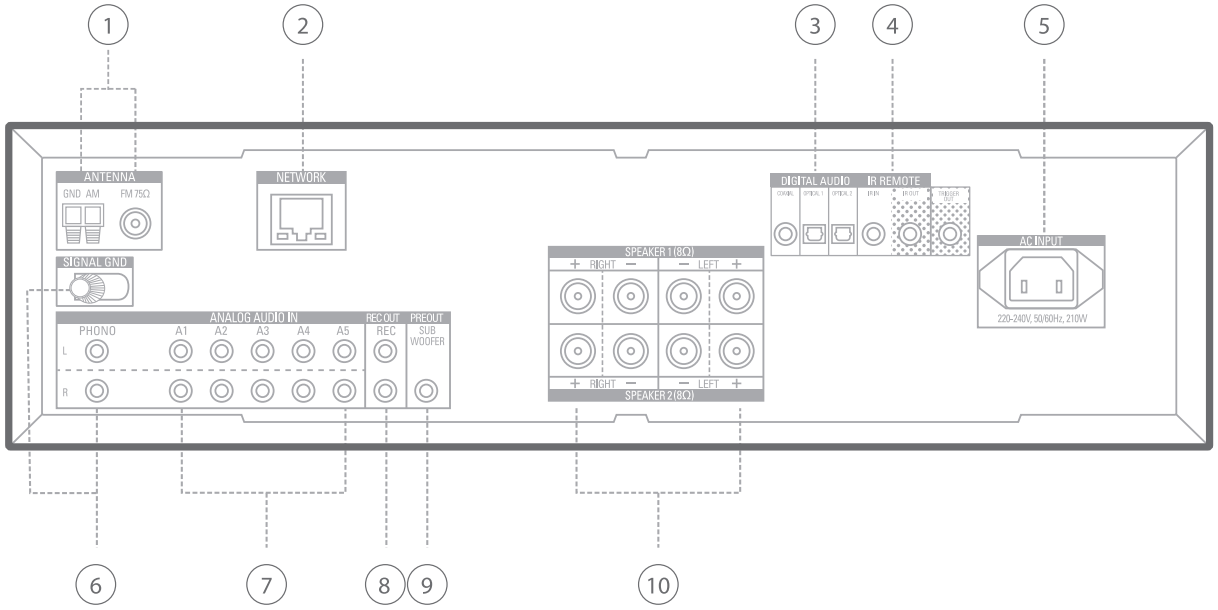
16. **Phono input**: This has a built-in preamp. You can only plug a record player into a phono input to connect it to the amplifier.

HK 3700/3770 Receiver Rear Panel Connections

HK 3700



HK 3770



The front panel controls of the HK 3700/3770 stereo receiver includes the following:

1. Radio Antenna connector
2. Network Connector
3. Digital audio input connector(HK 3770 only)
4. IR and trigger connector
5. AC input connector
6. Signal GND
7. Phono
8. Analog Audio input connector
9. Recorder
10. Subwoofer connector
11. Speaker Connector

1. **Radio Antenna connector**: Connect the included AM and FM antennas to their respective terminals for radio signal reception.

2. **Network Connector**: Connect to your home network using RJ45 connector.

3. **Digital audio input connector (HK 3770 only)**: If your non-HDMI source devices have digital outputs, connect them to the receiver's digital audio connectors.

NOTE: Make only one type of digital connection (HDMI, optical or coaxial) from each device.

4. **IR in and trigger connector**: When the IR remote receiver on the front panel of the HK 3700/3770 receiver is blocked, connect an optional IR receiver to the IR Remote Input jack for use with the remote control. The Remote IR Output may be connected to the IR Remote Input of a compatible source device (or other product) to enable remote control through the HK 3700/3770. When several source devices are used, connect them in a "daisy chain" fashion.

Trigger Connector: Connect these outputs to a compatible trigger input on the subwoofer connected to the Subwoofer Output immediately to the right of the Trigger Output. Consult the owner's manual for the subwoofer to set its trigger input correctly, and the subwoofer will automatically turn ON or OFF when the HK 3700/3770 is turned ON or OFF. In addition, the Trigger Outputs are used with the Subwoofer Link Switches to conserve energy by powering off the subwoofer's amplifier when it is not needed. The Subwoofer Trigger Outputs send a signal of 15 volts DC.

5. **AC input connector**: After you have made all other connections, plug the supplied AC power cord into an unswitched wall outlet.

6. **Signal GND**: This is used to connect the ground wire of an analog player. This reduces noise when an analog player is connected.

7. **Phono in**: Connect the outputs of your turntable to these jacks, and connect the ground wire from the turntable to this Ground Connector to reduce system hum. Only moving magnet (MM-type) cartridges are compatible with the Phono Inputs. If your turntable is equipped with its own on board phono preamp, you may connect it to any of the HK 3700/3770's other audio inputs.

8. **Analog audio input connector**: Use the receiver's Analog Audio Input/Output connectors for source devices that don't have HDMI or digital audio connectors. Use the Video 2 Out and Tape Out connectors to connect to the audio inputs of a VCR and tape deck.

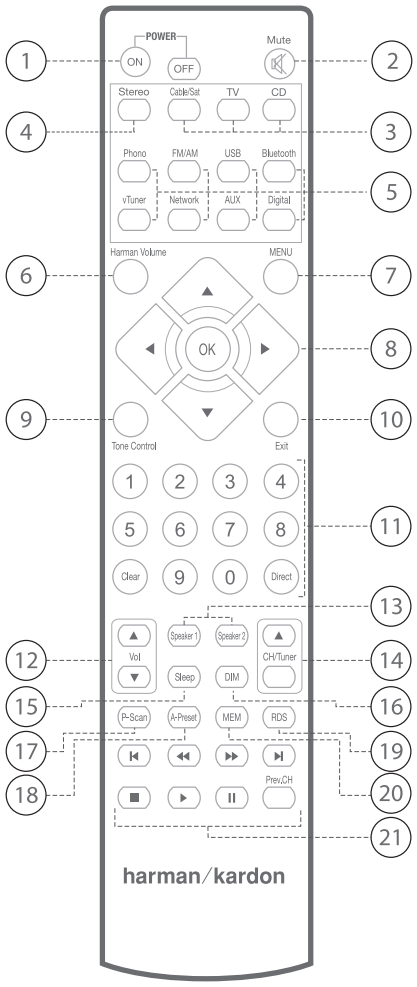
9. **Recorder**: Two-channel analog audio signals, as well as composite video signals, are normally available at the appropriate recording outputs. Thus, to make a recording, you need only make sure to connect your audio or video recorder to the appropriate output jacks. Insert blank media and make sure the recorder is turned on and recording while the source is playing.

NOTE: Please make certain that you are aware of any copyright restrictions on any material you record. Unauthorized duplication of copyrighted materials is prohibited by federal law.

10. **Subwoofer connector**: If you have a powered subwoofer, connect these jacks to the line-level inputs on the subwoofer.

11. **Speaker connector**: Use two-conductor speaker wire to connect each set of terminals to the correct speaker. Observe the correct polarity (positive and negative connections). Use the Speaker 1/2 Selectors on the front panel or remote to select either or both pairs of speakers for playback.

Remote Control Functions



The following remote control functions are available in the remote provided with the HK 3700/3770 remote:

1. Power On/Off
2. Mute
3. External device direct remote control (programmable)
4. Stereo (to shift from external devices back to stereo receivers)
5. Source selection
6. Harman Volume
7. Menu access
8. Navigation pad
9. Tone control
10. Exit
11. Numeric keys
12. Volume control
13. Speaker 1/2 selection
14. Preset selection
15. Sleep
16. Dimmer
17. Preset scan
18. Auto preset
19. RDS function
20. Memory
21. External device control

Power ON and OFF buttons: Press these buttons to turn the stereo receiver ON and OFF.

Mute: Press this button to mute or unmute the system.

Source selector button: Press one of these buttons to select a source device, which is a component where a playback signal originates, e.g., DVD, CD or the tuner. This will also turn ON the receiver and switch the remote to the codes that operate the source device.
Harman Volume (HK 3770 Only): This button cycles the Harman Volume function between high, low and off. Harman volume is an advanced digital signal processing technology to control playback volume. It evens out the volume level on everything you watch, improving your listening experience. Once you choose the volume level, Harman Volume does the rest. It helps you avoid volume increase from commercials, volume differences when you change channels or switch sources. It helps you listen to the perfect sound of the dialogs.

Menu: This button helps you navigate through the source's setup menu.

Tone Control: Press this button to access the bass and treble controls. Use the OK button to select an adjustment and use the Up/Down buttons to change the settings.

Exit: Use this key to go back from the source's setup menu.

OK: This button is used to select items from the menu system.

Left/Right/Up/Down Buttons: These buttons are used to navigate the menu systems.

Numeric keys: Use these buttons to enter radio station frequencies when using the tuner (after pressing the Direct button), or to select station presets.

9. **Clear**: Press this button to clear a radio station frequency you have entered.

Direct: Press this button before using the numeric keys to enter a radio station frequency.

Volume Up/Down buttons: Press these buttons to increase or decrease the volume level.

Speaker 1/2: Press the Speaker 1 button to enable the HK 3700/3770 Speaker 1 outputs, and press the Speaker 2 button to enable the Speaker 2 Outputs. You may enable or disable both sets of speaker outputs simultaneously. This feature is a convenient way of hearing audio in more than one room at a time, although the same source material will be played through both sets of speakers.

CH/Tuner: Use this control to tune a radio station. Tap one end of the button briefly to tune one frequency step at a time, or press and hold it to seek the next frequency with an acceptably strong signal.

P-Scan: Press this button once to scan through the stations you have previously programmed as presets. Each station will play for five seconds before the tuner skips to the next preset station. Press the button second time to select the current station. If no presets have been programmed, the 0 PRESET message will be displayed.

A-Preset: The Auto Preset feature enables you to automatically set presets for all available FM radio stations in your area with a single button press. To start the process, make sure that the FM tuner has been selected as the source. Press and hold this button. The AUTO PRESET message will appear as the HK 3700/3770 tuner scans through all FM stations with acceptable signal quality and programs them into the presets. If there are fewer than 30 stations, the tuner will cycle through again, filling up the higher preset slots with the same stations. The scan will stop when all 30 presets have been filled, or after two scans through the FM band.

MEM: After you have tuned a particular radio station, press this button, then the Numeric Keys, to save that station as a radio preset.

RDS: When listening to an FM radio station that broadcasts RDS information, this button activates the various RDS functions.

Transport Control buttons: These buttons are used to control many source components. When the remote is operating the receiver by default, these buttons will control a Harman Kardon Blu-ray Disc player or DVD player.

Troubleshooting

If your HK 3700/3770 receiver does not perform the way you think it should, check whether the problem is covered in this section before contacting your dealer or a Harman/Kardon representative.

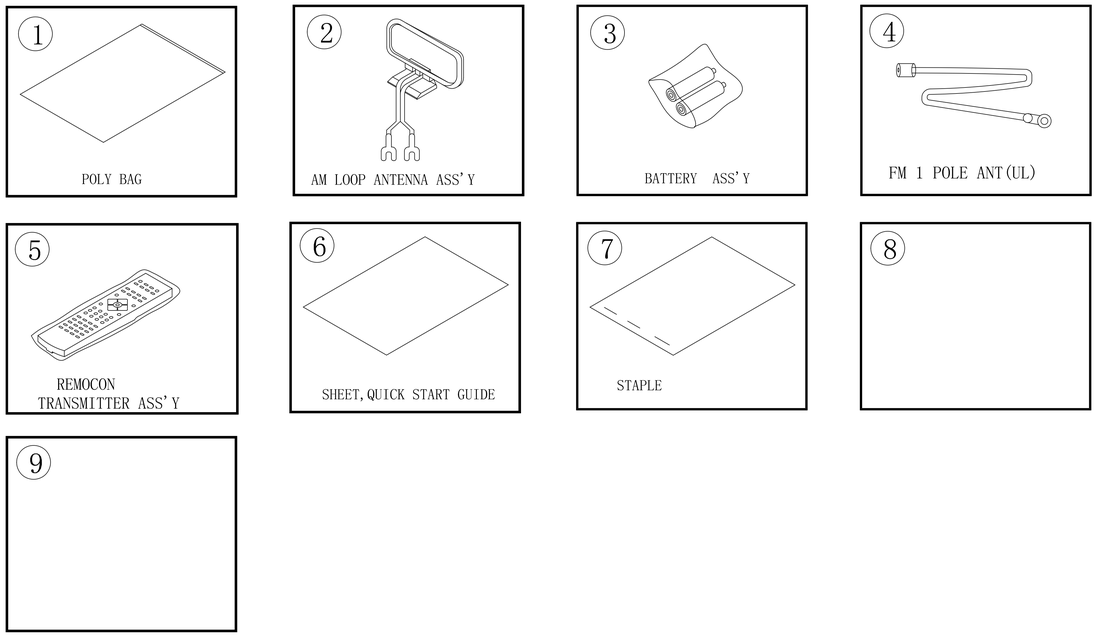
Problems	Solutions
Unit does not function when main Power button is turned ON	• Make sure AC power cord is plugged into a live outlet • Check to see whether outlet is switch-controlled
No sound from the receiver	• Make certain that all input and speaker connections are secure. • Press Mute Button • Turn up Volume Control • Press correct Source Selector • Press Speaker 1 or Speaker 2 Button • Unplug headphones • Replace jumper pins or, if external amplifier is in use, make sure it is turned ON
No sound from any speaker	• Check speaker-wire connections for shorts at receiver and speaker ends • Contact your local Harman Kardon service center
Unit does not respond to remote commands	• Change remote batteries • Make certain front-panel sensor is visible to remote or connect an optional remote sensor
Intermittent buzzing in tuner	• Move unit or antenna away from computers, fluorescent lights, motors or other electrical appliances
No video image	• Connect the source's composite video output to the correct video input on the HK 3700/3770 • Press the correct Source Selector on the HK 3700/3770 • Connect the HK 3700/3770's Video Monitor Output to a composite video input on your television or video display • Consult the manual for your television for instructions on selecting the correct video input • It is not possible to view video while listening to the Phono, Tape/CDR or CD sources or to the tuner
Audio sources sound distorted	• Only plug a device into the Phono Inputs if it is a turntable with a moving-magnet cartridge, or if it is a turntable with a moving-coil cartridge with a phono preamp • Do not use a turntable with any inputs other than the Phono Inputs, unless it has a moving-magnet-type cartridge and includes a phono preamp

Specifications

	HK 3700 Stereo Receiver	HK 3770 Stereo Receiver
Feature Description		
GENERAL FEATURES		
Output Power at 8Ω	85W @ 8Ω/<0.07%THD	120W @ 8Ω/<0.07%THD
Amplification Type	Class A/B	Class A/B
Internet Radio	Yes	Yes
Ethernet Connectivity via RJ-45	Yes	Yes
MP3/WMA File Play from USB	with built in 48kHz/24bit DAC decoder	with built in 96kHz/24bit DAC decoder
USB Upgrade	Yes	Yes
iPod/Phone/Pad/Touch Play from USB	with built in 48kHz/24bit DAC decoder	with built in 96kHz/24bit DAC decoder
DLNA 1.5 Certified (Audio Streaming Only)	Yes	Yes
Speaker Assign A/B	Yes	Yes
Key Components/Cost Factors		
Audio DSP / Harman Volume	Yes	Yes
DACs	Mid Range	Higher end
PSU	SMPS	SMPS
CONNECTIVITY		
AUDIO INPUTS		
iPod audio	Yes with internal DAC	Yes with internal DAC
Front USB Input	Yes	Yes
AM/FM	Yes	Yes
Analog Input on Rear	5	5
Analog Input on Front	No	No
DAB	No	No
Phono input	Yes	Yes
AUDIO OUTPUTS		
Analog Outputs	Yes x1	Yes x1
Subwoofer Outputs	One	One
DIGITAL INPUTS/OUTPUTS		
USB Input	1	1
Digital Audio Inputs, Rear	No	1 coax/2 optical

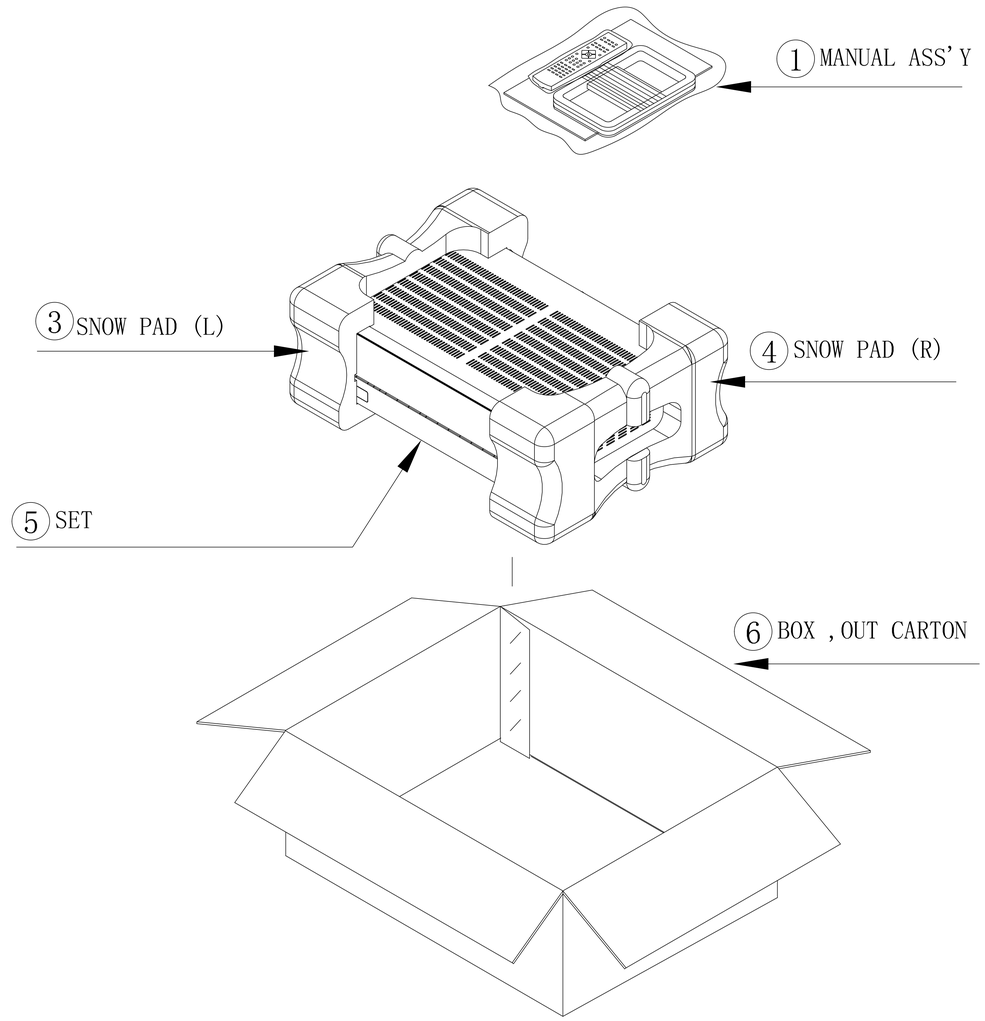
	HK 3700 Stereo Receiver	HK 3770 Stereo Receiver
Feature Description		
ETHERNET / USB /STREAMING FEATURES		
Ethernet Connectivity via RJ-45	Yes	Yes
Internet Radio	Yes	Yes
USB, MP3, WMA, AAC, WAV	Yes	Yes
AirPlay	No	No
DLNA 1.5 Certified (Audio Streaming Only)	Yes	Yes
Metdata to VFD	Yes	Yes
WIRELESS		
WiFi 802.11 b/g/n	No	No
Bluetooth	No	Yes

1. Instruction manual ass'y - Accessories(CQXHK3770/230)



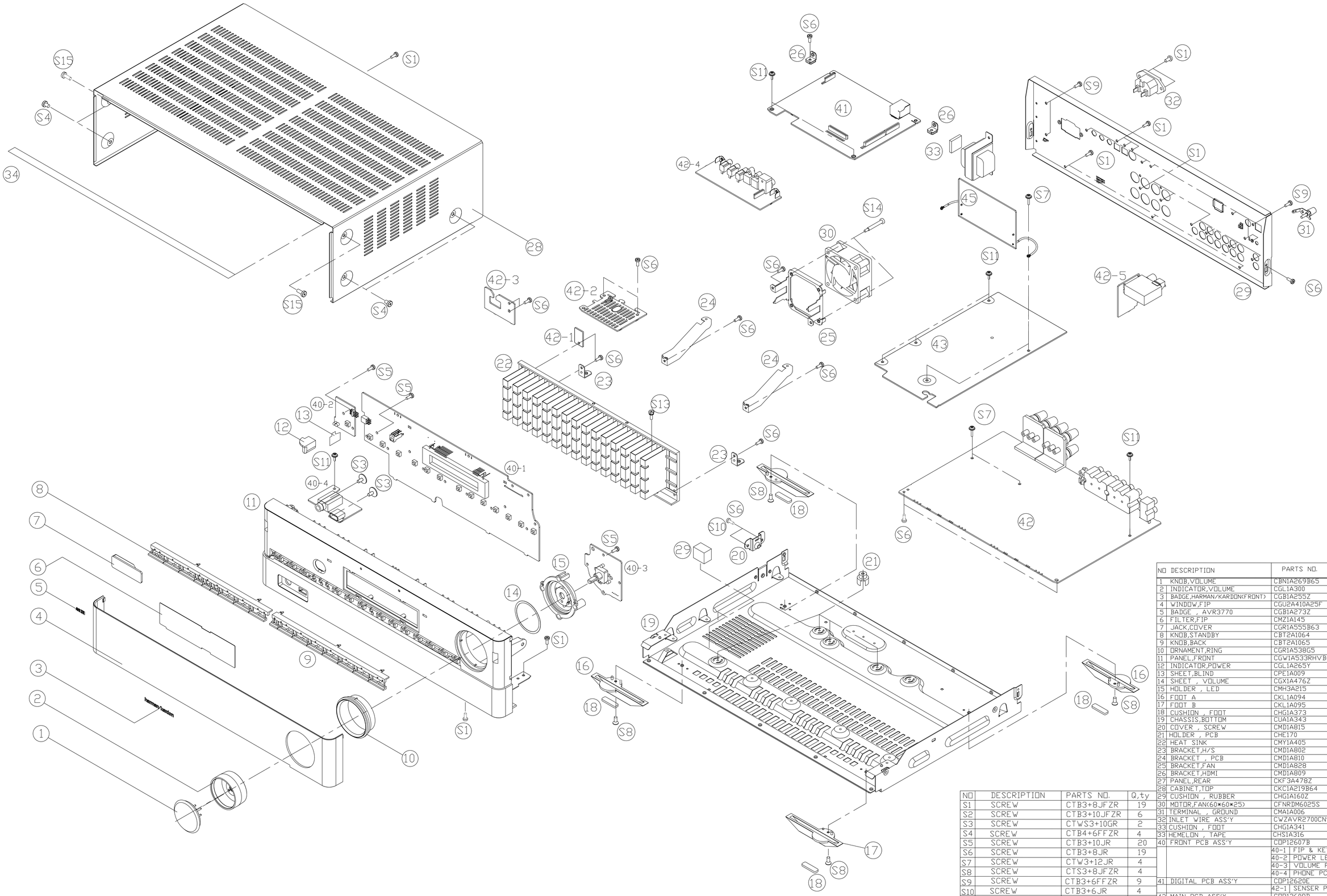
NO	DESCRIPTION	PARTS NO.	Q,ty
1	POLY BAG	CPB1A190Z	1
2	ANT, AM LOOP(9.5uH/5T)	CSA1A039Z	1
3	BATTERY	CABR03PPB	2
4	FM 1 POL ANT(UL)	CSA1A019Z	1
5	REMOCON ASS'Y	CARTHK3700	1
6	SHEET,QUICK START GUIDE	CQE1A651Z	1
7	STAPLE	CPL0905	3
8			
9			

2. Package Drawing



NO	DESCRIPTION	PARTS NO.	Q,ty
1	MANUAL ASS'Y	CQXHK3770/230	1
2	PAD,LEFT	CPS1A930	1
3	PAD,RIGHT	CPS2A931	1
4	SET	HK3770/230SET	1
5	BOX,OUT CARTON	CPG1A972H	1

HK3770/230 EXPLODE VIEW



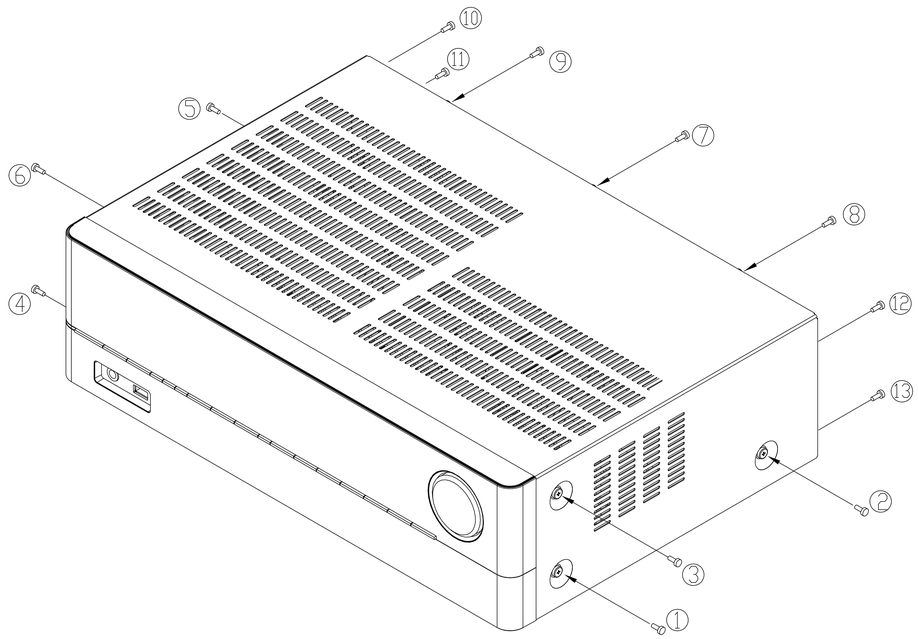
NO	DESCRIPTION	PARTS NO.	Q,ty	REMARK
1	KNOB,VOLUME	CBN1A269B65	1	
2	INDICATOR,VOLUME	CGL1A300	1	
3	BADGE,HARMAN/KARDON(FRONT)	CGB1A255Z	1	
4	WINDOW,FIP	CGU2A410A25F	1	
5	BADGE , AVR3770	CGB1A273Z	1	
6	FILTER,FIP	CMZ1A145	1	
7	JACK,COVER	CGR1A555B63	1	
8	KNOB,STANDBY	CBT2A1064	1	
9	KNOB,BACK	CBT2A1065	1	
10	ORNAMENT,RING	CGR1A538G5	1	
11	PANEL,FRONT	CGW1A533RHVB63	1	
12	INDICATOR,POWER	CGL1A265Y	1	
13	SHEET,BLIND	CPE1A009	1	
14	SHEET , VOLUME	CGX1A476Z	1	
15	HOLDER , LED	CMH3A215	1	
16	FOOT A	CKL1A094	2	
17	FOOT B	CKL1A095	2	
18	CUSHION , FOOT	CHG1A373	4	
19	CHASSIS,BOTTOM	CUA1A343	1	
20	COVER , SCREW	CMD1A815	1	
21	HOLDER , PCB	CHE170	4	
22	HEAT SINK	CMY1A405	1	
23	BRACKET,H/S	CMD1A802	2	
24	BRACKET , PCB	CMD1A810	2	
25	BRACKET,FAN	CMD1A828	1	
26	BRACKET,HDMI	CMD1A809	2	
27	PANEL,REAR	CKF3A478Z	1	
28	CABINET,TOP	CKC1A219B64	1	
29	CUSHION , RUBBER	CHG1A160Z	2	
30	MOTOR,FAN(60*60*25)	CFNRDM6025S	1	
31	TERMINAL , GROUND	CMA1A006	1	
32	INLET WIRE ASS'Y	CWZAVR2700CN90A	1	
33	CUSHION , FOOT	CHG1A341	1	
33	HEMELON , TAPE	CHS1A316	1	
40	FRONT PCB ASS'Y	CDP12607B	1	
		40-1 FIP & KEY PCB	1	
		40-2 POWER LED PCB	1	
		40-3 VOLUME PCB	1	
		40-4 PHONE PCB	1	
41	DIGITAL PCB ASS'Y	CDP12620E	1	
		42-1 SENSER PCB	1	
42	MAIN PCB ASS'Y	CDP12609D	1	
		42-1 MAIN PCB	1	
		42-2 GUIDE PCB(CARD)	1	
		42-3 GUIDE PCB(CARD)	1	
		42-4 JACK PCB ASS'Y	1	
		42-5 TUNER PCB	1	
43	SMPS PCB ASS'Y	CDP12610E	1	
44	BT PCB ASS'Y	CDP12612D	1	
45	INDUCTOR , PFC	CLZ9Z148Z	1	

NO	DESCRIPTION	PARTS NO.	Q,ty
S1	SCREW	CTB3+8JFZR	19
S2	SCREW	CTB3+10JFZR	6
S3	SCREW	CTWS3+10GR	2
S4	SCREW	CTB4+6FFZR	4
S5	SCREW	CTB3+10JR	20
S6	SCREW	CTB3+8JR	19
S7	SCREW	CTW3+12JR	4
S8	SCREW	CTS3+8JFZR	4
S9	SCREW	CTB3+6FFZR	9
S10	SCREW	CTB3+6JR	4
S11	SCREW	CTW3+8JR	6
S12	SCREW	CHD1A012R	10
S13	SCREW	CHD4A012R	5
S14	SCREW, SPECIAL	CHD1A036R	2
S15	SCREW	CTB4+10JFZR	2
S16			

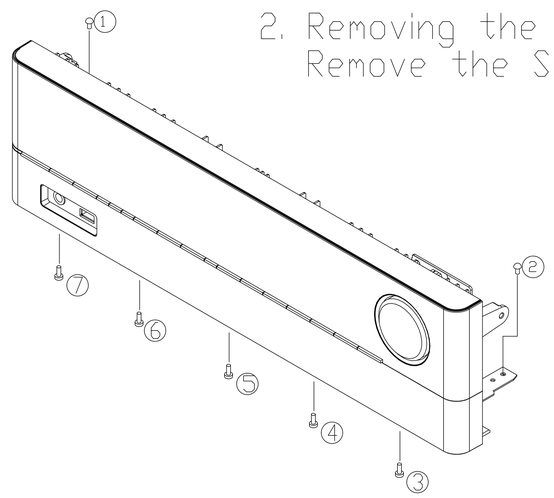
DISASSEMBLY

HK3770/230

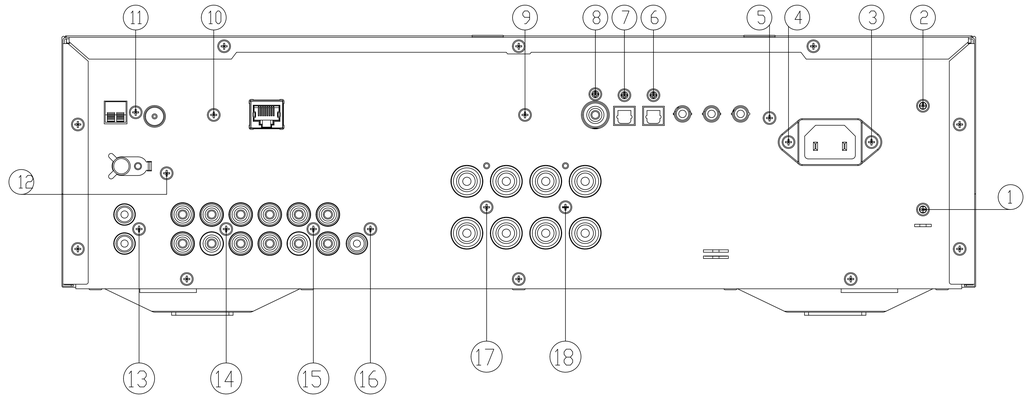
1. Removing the Top Cabinet
Remove the Screws ①~⑬



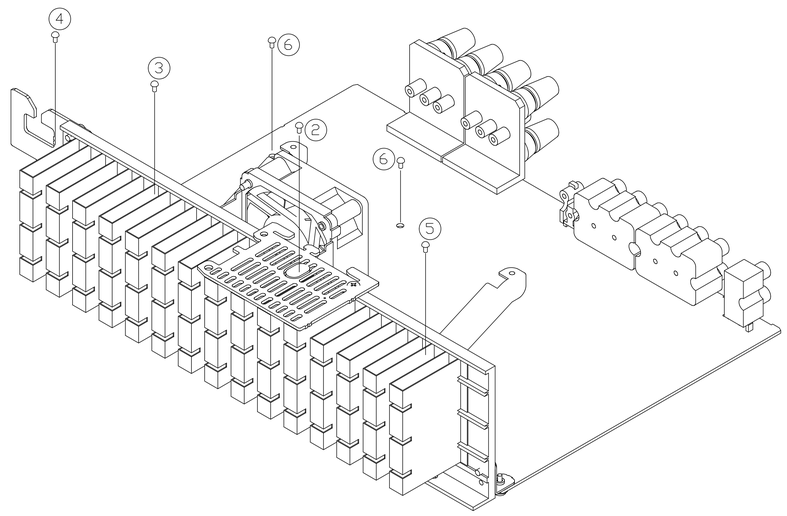
2. Removing the Front Panel
Remove the Screws ①~⑦



3. Removing the Rear Panel
Remove the Screws ①~⑱



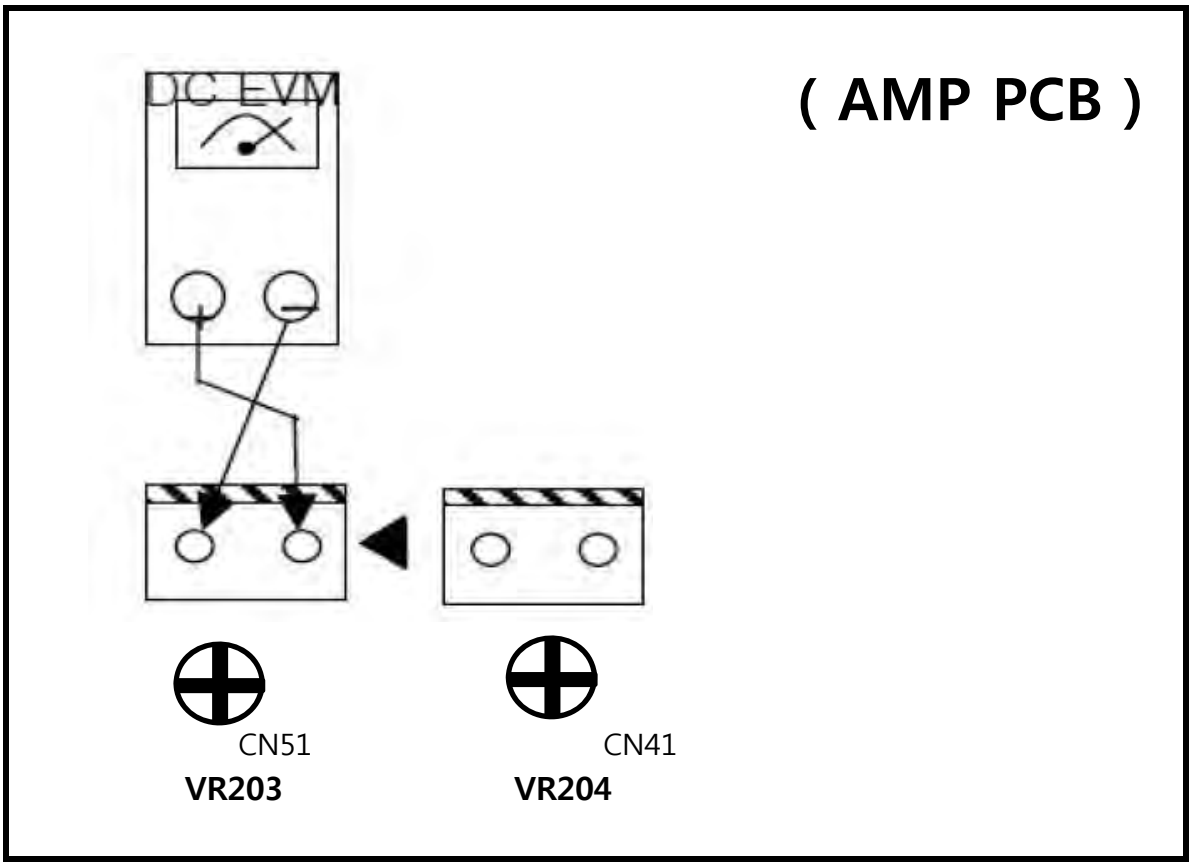
4. Removing the Main PCB
Remove the Screws ①~⑥



AMPLIFIER SECTION BIAS ADJUSTMENT

Measurement condition
.No input signal or volume position is minium.
.Do not adjust at FM/AM.

Standard value
.Ideal current = 48mA (±7%)
.Ideal DC Voltage = 22.5mA (±7%)



DC VOLTMETER : Connect to
CN51 (L-CH), CN41 (R-CH)

No.	Channel	Adjust for	Adjust
1	Left	22.5mV(±7%)	CN51
2	Right	22.5mV(±7%)	CN41

[HK3700/3770 Reset Procedure]

1. Standby mode.
2. Press the Tun mode key for a few seconds.

3. VFD will show as below.

4. Complete reset.

[HK3700 Firmware Upgrade Instructions]

1. Copy the latest firmware files(*.fw and *.ve) to a USB stick's root directory.

2. Plug a USB stick into the front panel.

3. Power ON by using the remote control or the set button.

4. After 30 seconds, press 'STEREO' key and 1,7,1,8 + 'ok' buttons on R/C.

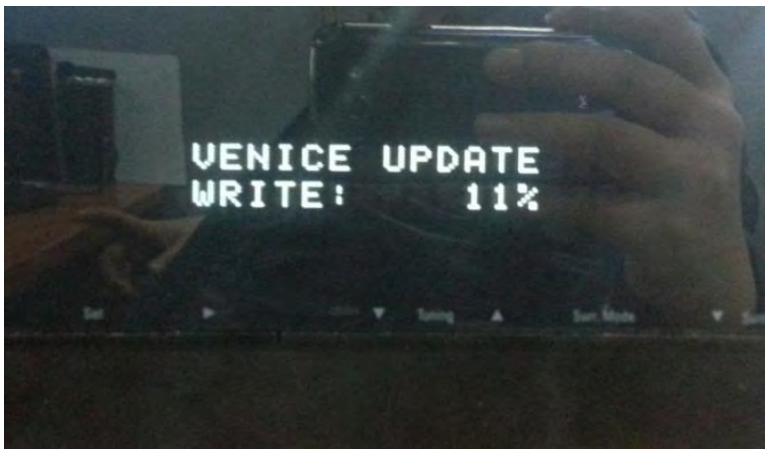
   Followings will be shown on the VFD.

VFD 1st line : SYSTEM UPGRADE
VFD 2nd line : Searching..

5. After USB searching, Venice upgrade begins.
   Followings will be shown on the VFD.

VFD 1st line : VENICE UPDATE
VFD 2nd line : [Updating %]

It takes about 6~8 minutes to upgrade the firmware.



6. After Venice upgrade, MCU upgrade begins.
Followings will be shown on the VFD.

VFD 1st line : MCU UPDATE
VFD 2nd line : [Updating %]

It takes about 25~30 seconds to upgrade the firmware.

7. Completing MCU upgrade, Set will automatically reboots.
"UPGRADE SUCCESS" will be shown on the VFD.

8. VFD will display followings after dispaying "UPGRADE SUCCESS".

VFD 1st line : FM 87.50 01
VFD 2nd line : 2 CH STEREO

Harman Kardon HK 3770 Bill of Materials

Level	Ref#	Component	Description	REQ-Qty	UM
1		CHE154	CLAMPER , ARM	0,12	M
1		CPG1A972H	BOX , OUT CARTON HK3770	1	EA
1		CPS1A930	PAD , LEFT	1	EA
1		CPS2A931	PAD , RIGHT	1	EA
1		CQB1A907Z	LABEL , BAR CODE AVR154	1	EA
1		CQB1A978	LABEL , BAR CODE(SET)	1	EA
1		CQXHK3770/230	INSTRUCTION MANUAL ASS'Y	1	EA
0,2		CABR03PPB	BATTERY , AAA 2PCS IN PACK	2	EA
0,2		CARTHK3700	REMOTE CONTROLLER (HK37x0)	1	EA
0,2		CJA2B144Z	CORD , POWER (16A-250V)	1	EA
0,2		CSA1A018Z	FM 1 POLE ANT	1	EA
0,2		CSA1A039Z	ANT, AM LOOP(9.5uH/5T)	1	EA
1		CRE1A037	LOCKER	14	EA
0,2		CBN1A269B65	KNOB , VOLUME	1	EA
0,2		CGL1A300	INDICATOR , VOLUME	1	EA
0,2		CGR1A555B63	COVER , JACK AVR1510	1	EA
0,2		CGWHK3770/230	FRONT PANEL ASS`Y	1	EA
..3		CBT2A1064	KNOB , STANDBY	1	EA
..3		CBT2A1065	KNOB , BACK	1	EA
..3		CGB1A273Z	BADGE , AVR3770	1	EA
..3		CGB3A158Z	BADGE , HARMAN/KARDON (FRONT)	1	EA
..3		CGL1A265Y	INDICATOR , POWER AVR155	1	EA
..3		CGR1A538G5	ORNAMENT , RING	1	EA
..3		CGU2A410A25F	WINDOW , FIP HK3770	1	EA
..3		CGW1A533RHVB63	PANEL , FRONT HK3770	1	EA
..3		CGX1A476Z	SHEET , VOLUME	1	EA
..3		CMH3A215	HOLDER , LED	1	EA
..3		CMZ1A145Z	FILTER , FIP AVR1510	1	EA
..3		**COP12607B**	**HK3770 FRONT PCB ASS'Y**	1	EA
....6	C109	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C121	CCUS1H151JAS	CAP, CHIP(1608, 50V/150pF, C0G)_SAMSUNG	1	EA
....6	C151	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C213	CCUS1H223KCS	CAP, CHIP(1608, 50V/0.022uF, X7R)_SAMSUNG	1	EA
....6	C214	CCUS1H223KCS	CAP, CHIP(1608, 50V/0.022uF, X7R)_SAMSUNG	1	EA
....6	C311	CCUS1H102KCS	CAP, CHIP(1608, 50V/1000pF, X7R)_SAMSUNG	1	EA
....6	C322	CCUS1H102KCS	CAP, CHIP(1608, 50V/1000pF, X7R)_SAMSUNG	1	EA
....6	C431	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C441	CCUS1H223KCS	CAP, CHIP(1608, 50V/0.022uF, X7R)_SAMSUNG	1	EA
....6	C442	CCUS1H223KCS	CAP, CHIP(1608, 50V/0.022uF, X7R)_SAMSUNG	1	EA
....6	C451	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C456	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C557	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C558	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C601	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C602	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C603	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C604	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C605	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C644	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C645	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C646	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C647	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C714	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C715	CCUS0J475KCS	CAP, CHIP(1608, 6.3V/4.7uF, X5R)_SAMSUNG	1	EA
....6	C732	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C751	CCUS1H222KCS	CAP, CHIP(1608, 50V/2200pF, X7R)_SAMSUNG	1	EA
....6	C752	CCUS1H102KCS	CAP, CHIP(1608, 50V/1000pF, X7R)_SAMSUNG	1	EA
....6	C753	CCUS1H102KCS	CAP, CHIP(1608, 50V/1000pF, X7R)_SAMSUNG	1	EA
....6	C754	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA

....6	C911	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C912	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C923	CCUS1H681JAS	CAP, CHIP(1608, 50V/680pF, C0G)_SAMSUNG	1	EA
....6	C924	CCUS1H681JAS	CAP, CHIP(1608, 50V/680pF, C0G)_SAMSUNG	1	EA
....6	C951	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C952	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	D643	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D644	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	IC13	CVISN74ACT04DR	I.C , HEX INVERTERS(SOIC/D-14P)	1	EA
....6	IC91	HVTKTC812TB	EOL item T.R , CHIP(TS6)	1	EA
....6	IC92	HVTKTC812TB	EOL item T.R , CHIP(TS6)	1	EA
....6	L451	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....6	Q111	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....6	Q112	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....6	Q113	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....6	Q114	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....6	Q252	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....6	Q721	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....6	Q906	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....6	Q907	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....6	R101	CRJ10DJ331T	RES, CHIP(1608/5%/330ohm)	1	EA
....6	R102	CRJ10DJ681T	RES, CHIP(1608/5%/680ohm)	1	EA
....6	R104	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R108	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R109	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R110	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R111	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R112	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R113	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R114	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R122	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
....6	R151	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R201	CRJ10DJ181T	RES, CHIP(1608/5%/180ohm)	1	EA
....6	R202	CRJ10DJ181T	RES, CHIP(1608/5%/180ohm)	1	EA
....6	R203	CRJ10DJ181T	RES, CHIP(1608/5%/180ohm)	1	EA
....6	R211	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R213	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....6	R214	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....6	R251	CRJ10DJ222T	RES, CHIP(1608/5%/2.2Kohm)	1	EA
....6	R252	CRJ10DJ393T	RES, CHIP(1608/5%/39Kohm)	1	EA
....6	R312	CRJ10DF1001T	RES, CHIP(1608/1%/1Kohm)	1	EA
....6	R313	CRJ10DF1501T	RES, CHIP(1608/1%/1.5Kohm)	1	EA
....6	R314	CRJ10DF1801T	RES, CHIP(1608/1%/1.8Kohm)	1	EA
....6	R315	CRJ10DF2701T	RES, CHIP(1608/1%/2.7Kohm)	1	EA
....6	R316	CRJ10DF3301T	RES, CHIP(1608/1%/3.3Kohm)	1	EA
....6	R322	CRJ10DF1001T	RES, CHIP(1608/1%/1Kohm)	1	EA
....6	R323	CRJ10DF1501T	RES, CHIP(1608/1%/1.5Kohm)	1	EA
....6	R324	CRJ10DF1801T	RES, CHIP(1608/1%/1.8Kohm)	1	EA
....6	R325	CRJ10DF2701T	RES, CHIP(1608/1%/2.7Kohm)	1	EA
....6	R326	CRJ10DF3301T	RES, CHIP(1608/1%/3.3Kohm)	1	EA
....6	R327	CRJ10DF5601T	RES, CHIP(1608/1%/5.6Kohm)	1	EA
....6	R328	CRJ10DF5601T	RES, CHIP(1608/1%/5.6Kohm)	1	EA
....6	R402	CRJ14CJ4R7T	RES, CHIP(3216/5%/4.7ohm)	1	EA
....6	R404	CRJ14CJ4R7T	RES, CHIP(3216/5%/4.7ohm)	1	EA
....6	R431	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
....6	R432	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
....6	R451	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R452	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R453	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R454	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R455	CRJ14CJ101T	RES, CHIP(3216/5%/100ohm)	1	EA
....6	R456	CRJ14CJ101T	RES, CHIP(3216/5%/100ohm)	1	EA

....6	R457	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R601	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R602	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R603	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R604	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R605	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R641	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R643	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R644	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R701	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R702	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R703	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R711	CRJ10DJ470T	RES, CHIP(1608/5%/47ohm)	1	EA
....6	R712	CRJ10DJ470T	RES, CHIP(1608/5%/47ohm)	1	EA
....6	R713	CRJ10DJ470T	RES, CHIP(1608/5%/47ohm)	1	EA
....6	R721	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R722	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R731	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
....6	R735	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
....6	R741	CRJ10DJ123T	RES, CHIP(1608/5%/12Kohm)	1	EA
....6	R742	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R901	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R902	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R921	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R922	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R923	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
....6	R924	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
....6	R925	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R926	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R931	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R932	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R933	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R934	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R935	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R936	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R941	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R942	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R943	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R944	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R951	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R952	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	ZD451	HVDUDZS5.6BSR	DIODE , ZENER(CHIP,5.6V)	1	EA
....6	ZD452	HVDUDZS5.6BSR	DIODE , ZENER(CHIP,5.6V)	1	EA
....6	ZD453	HVDUDZS5.6BSR	DIODE , ZENER(CHIP,5.6V)	1	EA
....5	C108	CCEA1AH471TC	CAP, ELECT(10V/470uF)	1	EA
....5	C122	CCEA1AKS331TC	CAP, ELECT(10V/330uF)-S	1	EA
....5	C152	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C251	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
....5	C252	CCEA1HKS2R2TC	CAP, ELECT(50V/2.2uF)-S	1	EA
....5	C401	CCEA1HH470TC	CAP , ELECT (50V/47uF)	1	EA
....5	C452	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
....5	C453	CCEA1JH470TCS	CAP , ELECT(63V/47uF),105'C	1	EA
....5	C454	CCME2E273JX14T	CAP , POLYESTER FILM(250V/0.027UF, 5%)	1	EA
....5	C455	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
....5	C556	CCEA1AKS331TC	CAP, ELECT(10V/330uF)-S	1	EA
....5	C559	CCEA1AKS331TC	CAP, ELECT(10V/330uF)-S	1	EA
....5	C721	CCEA1HKS2R2TC	CAP, ELECT(50V/2.2uF)-S	1	EA
....5	C731	CCEA1AH471TC	CAP, ELECT(10V/470uF)	1	EA
....5	C901	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C902	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C931	CCEA1CH331TC	CAP, ELECT(16V/330uF)	1	EA
....5	C932	CCEA1CH331TC	CAP, ELECT(16V/330uF)	1	EA

....5	C933	CCEA1EH470TC	CAP, ELECT(25V/47uF)	1	EA
....5	C944	CCEA1EH470TC	CAP, ELECT(25V/47uF)	1	EA
....5	ET90	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
....5	L452	CLZ9Z112Z	COIL , CHOKE (220uH)	1	EA
....5	Q251	HVTKTA1271YT	T.R	1	EA
....5	Q451	CVTKTC1027YT	T.R	1	EA
....5	Q452	CVTKTC1027YT	T.R	1	EA
....5	S311	CST1A024ZT	SW , TACT	1	EA
....5	S312	CST1A024ZT	SW , TACT	1	EA
....5	S313	CST1A024ZT	SW , TACT	1	EA
....5	S314	CST1A024ZT	SW , TACT	1	EA
....5	S315	CST1A024ZT	SW , TACT	1	EA
....5	S316	CST1A024ZT	SW , TACT	1	EA
....5	S317	CST1A024ZT	SW , TACT	1	EA
....5	S318	CST1A024ZT	SW , TACT	1	EA
....5	S319	CST1A024ZT	SW , TACT	1	EA
....5	S320	CST1A024ZT	SW , TACT	1	EA
....5	S321	CST1A024ZT	SW , TACT	1	EA
....5	S322	CST1A024ZT	SW , TACT	1	EA
....5	S323	CST1A024ZT	SW , TACT	1	EA
....5	S330	CST1A024ZT	SW , TACT	1	EA
...4	BK71	CMD1A572-V1	BRACKET , FIP	1	EA
...4	BK72	CMD1A572-V1	BRACKET , FIP	1	EA
...4	BN71	CWB1B007150HC	WIRE ASS'Y Locking (YH) (7P,2MM,150MM,#26)	1	EA
...4	BN72	CWB1B005100HC	WIRE ASS'Y Locking (YH) (5P,2MM,100MM,26#)	1	EA
...4	BN73	CJP06GB142ZB	PIN HEADER(6P, 2.54mm)	1	EA
...4	BN76	CWB1C207300H6001	WIRE ASS'Y (7P,2.0mm,300mm,Shield_ANGLE)_usb	1	EA
...4	BN78	CWB1B005100HC	WIRE ASS'Y Locking (YH) (5P,2MM,100MM,26#)	1	EA
...4	CN72	CJP05GJ288ZY	LOCK-WAFER/ANGLE/2MM PITCH/5PIN	1	EA
...4	CN73	CJP06GB143ZB	FEMALE HEADER(6P, 2.54mm)	1	EA
...4	CN78	CJP05GI236ZW	LOCKING TYPE , STRAIGHT WAFER , 2mm	1	EA
...4	D101	CVD1L0345W31BOCT201V	L.E.D , WHITE	1	EA
...4	D102	CVD30ASOGCAA-S7	L.E.D , ORANGE	1	EA
...4	D201	CVD1L0345W31BOCT201V	L.E.D , WHITE	1	EA
...4	D202	CVD1L0345W31BOCT201V	L.E.D , WHITE	1	EA
...4	D203	CVD1L0345W31BOCT201V	L.E.D , WHITE	1	EA
...4	FIP1	CFL162SD19GINK	V.F.D , (FUTABA, 162-SD-19GINK)	1	EA
...4	IC12	CRVKSM603TE5B	SENSOR , REMOCON	1	EA
...4	IC15	HVINJM4556AL	I.C , HEADPHONE (JRC)	1	EA
...4	JK53	CJJ9X016Z	JACK , USB ANGLE TYPE (2.1A)	1	EA
...4	JK64	CJJ2E026Z	JACK, PHONES(6.35mm,SILVER)	1	EA
...4	JW19	CWE8202150RV	WIRE ASS'Y	1	EA
...4	JW20	CWE8202120RV	WIRE ASS'Y	1	EA
...4	TF94	CLT9Z092ZE	TRANS , DC-AC (AVR1X1)	1	EA
...4	VR74	CSR2A037Z	ENCODER	1	EA
...4	WF70	CJP23GA285ZN	WAFER,FPC 1.25mm,stright	1	EA
..3		**COP12612D**	**HK3770 BT PCB ASS'Y**	1	EA
....7	AN1101	CLA9V003Z	BLUETOOTH ANT , CHIP(3.0*1.5) 2.425MHz	1	EA
....7	C1101	CCUS1A105KCS	CAP, CHIP(1608, 10V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1109	CCUI1H101JAS	CAP, CHIP(1005, 50V/100pF, C0G)_SAMSUNG	1	EA
....7	C1111	CCUI1H101JAS	CAP, CHIP(1005, 50V/100pF, C0G)_SAMSUNG	1	EA
....7	C1112	CCUI1H1R2CAS	CAP, CHIP(1005, 50V/1.2pF, C0G)_SAMSUNG	1	EA
....7	C1134	CCUS0J225KCS	CAP, CHIP(1608, 6.3V/2.2uF, X7R)_SAMSUNG	1	EA
....7	C1135	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1136	CCUC0J106KCS	CAP, CHIP(2012, 6.3V/10uF, X5R)_SAMSUNG	1	EA
....7	D1100	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	D1101	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	IC1101	CVIMX25L8006EM2I-12G	I.C , SERIAL FLASH(8M)	1	EA
....7	R1113	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....7	R1119	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....7	R1120	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....7	R1121	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA

....7	R1122	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....7		**CUP12510Z**	**PCB,AVR1710 BT(FR-4/2L/293X181)**	0,07	EA
....7	CN1101	CJP17GB210ZY	WAFER, (CARD CABLE,ANGLE, SMT, 1MM,10008HR-17L(P)	1	EA
....7	CN1102	CJP07GA193ZY	WAFER, FFC, SMD(07P-1mm, STRAIGHT)	1	EA
....7	C1100	CCUI1C104KCS	CAP, CHIP(1005, 16V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1102	CCUC0J106KCS	CAP, CHIP(2012, 6.3V/10uF, X5R)_SAMSUNG	1	EA
....7	C1103	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1104	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1130	CCUI1C104KCS	CAP, CHIP(1005, 16V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1131	CCUI1C104KCS	CAP, CHIP(1005, 16V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1132	CCUS0J225KCS	CAP, CHIP(1608, 6.3V/2.2uF, X7R)_SAMSUNG	1	EA
....7	C1133	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1137	CCUS1H222KCS	CAP, CHIP(1608, 50V/2200pF, X7R)_SAMSUNG	1	EA
....7	C1138	CCUS1H222KCS	CAP, CHIP(1608, 50V/2200pF, X7R)_SAMSUNG	1	EA
....7	C1139	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1140	CCUC0J106KCS	CAP, CHIP(2012, 6.3V/10uF, X5R)_SAMSUNG	1	EA
....7	C1141	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
....7	C1142	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
....7	IC1100	CNVBM840-HK3770	MODULE, BLUETOOTH SPEC 4.0	1	EA
....7	IC1102	CVIPCM5100PWR	I.C , 2CH DAC(32BIT,384KHZ,TSSOP-20P)	1	EA
....7	L1130	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
....7	RN1100	CRJ104DJ330T	RES, CHIP(1608/5%/33ohm*4)	1	EA
....7	R1100	CRJ06IJ332T	RES, CHIP(1005/5%/3.3Kohm)	1	EA
....7	R1101	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
....7	R1102	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
....7	R1103	CRJ06IJ332T	RES, CHIP(1005/5%/3.3Kohm)	1	EA
....7	R1104	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
....7	R1105	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1106	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1107	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1108	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1114	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1115	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....7	R1116	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....7	R1117	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1118	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1129	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
....7	R1130	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
....7	R1132	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1133	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1134	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
....7	R1135	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
....7	R1136	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1137	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
...4		C2K86102	SOLDER , FLUX WIRE PB FREE(PIE 1.0)	1,6	G
...4	BK21	CMD1A629	BRACKET , PCB	1	EA
...4	BK22	CMD1A629	BRACKET , PCB	1	EA
..3		CPE2A009	SHEET , BLIND	1	EA
..3		CTB3+10JR	SCREW	28	EA
..3		CTWS3+10GR	SCREW	2	EA
..3		CWC4F2A17A180B10	CARD , CABLE (17P,1.0mm,180mm,B,10mm)	1	EA
..3		CWC6C4A23B220B10	CARD , CABLE (23P,1.25mm,220mm,B,10mm)	1	EA
0,2		CHS1A316	TAPE, HEMELON	1	EA
0,2		CKC3A219B64	CABINET, TOP AVR1510	1	EA
0,2		CQB1A549Y	LABEL , ATTENTION DVD48	1	EA
0,2		CQB1A622	LABEL , SERIAL NO	1	EA
0,2		CQB1A906Z	LABEL , HOT	1	EA
0,2		CTB3+8JFZR	SCREW	7	EA
0,2		CTB4+10JFZR	SCREW	2	EA
0,2		CTB4+6FFZR	SCREW	4	EA
0,2		CUAHK3770/230	BOTTOM CHASSIS ASS'Y	1	EA
..3		CHD1A036FZR	SCREW , SPECIAL	2	EA

..3		CHD4A012R	SCREW , SPECIAL	5	EA
..3		CHE170	HOLDER , PCB	5	EA
..3		CHE36-3	CLAMPER , WIRE	1	EA
..3		CHG1A160Z	CUSHION , RUBBER	2	EA
..3		CHG1A341	CUSHION , FOOT	1	EA
..3		CHG1A373	EOL item CUSHION , FOOT AVR350	4	EA
..3		CHR301-V1	CLAMPER	2	EA
..3		CHS1A032	TAPE , HEMELON	4	EA
..3		CKF3A478Z	PANEL , REAR HK3770/3700	1	EA
..3		CKL1A094	FOOT , A AVR350	2	EA
..3		CKL1A095	FOOT , B AVR350	2	EA
..3		CLZ9Z180Z	INDUCTOR , PFC(2.3mH MIN) WIRE(100MM)	1	EA
..3		CMA1A006	TERMINAL , GROUND	1	EA
..3		CMD1A809	BRACKET , HDMI	2	EA
..3		CMD1A815	COVER , SCREW	1	EA
..3		CMD1A828	BRACKET , FAN	1	EA
..3		CMD2A506	BRACKET , FAN	1	EA
..3		**COP12609E**	**HK3770/230 MAIN PCB ASS'Y**	1	EA
....6	C252	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C253	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C255	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C301	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C302	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C305	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C306	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C322	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C326	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C327	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C328	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C340	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C341	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C342	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C343	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C344	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C345	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C346	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C347	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C348	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C349	CCUS1H471JAS	CAP, CHIP(1608, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C350	CCUS1H221JAS	CAP, CHIP(1608, 50V/220pF, C0G)_SAMSUNG	1	EA
....6	C351	CCUS1H221JAS	CAP, CHIP(1608, 50V/220pF, C0G)_SAMSUNG	1	EA
....6	C380	CCUS1H220JAS	CAP, CHIP(1608, 50V/22pF, C0G)_SAMSUNG	1	EA
....6	C381	CCUS1H220JAS	CAP, CHIP(1608, 50V/22pF, C0G)_SAMSUNG	1	EA
....6	C382	CCUS1H223KCS	CAP, CHIP(1608, 50V/0.022uF, X7R)_SAMSUNG	1	EA
....6	C383	CCUS1H223KCS	CAP, CHIP(1608, 50V/0.022uF, X7R)_SAMSUNG	1	EA
....6	C384	CCUS1H220JAS	CAP, CHIP(1608, 50V/22pF, C0G)_SAMSUNG	1	EA
....6	C385	CCUS1H220JAS	CAP, CHIP(1608, 50V/22pF, C0G)_SAMSUNG	1	EA
....6	C390	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C391	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C395	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C397	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C399	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C400	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C403	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C425	CCUS1H332KCS	CAP, CHIP(1608, 50V/3300pF, X7R)_SAMSUNG	1	EA
....6	C426	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C430	CCUS1H332KCS	CAP, CHIP(1608, 50V/3300pF, X7R)_SAMSUNG	1	EA
....6	C431	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C441	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C442	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C443	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C444	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA

....6	C445	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C446	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C447	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C448	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C455	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C456	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C457	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C460	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C461	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C462	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C463	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C470	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C471	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C472	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C473	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....6	C490	CCUS1H221JAS	CAP, CHIP(1608, 50V/220pF, C0G)_SAMSUNG	1	EA
....6	C500	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	C600	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C601	CCUS1H181JAS	CAP, CHIP(1608, 50V/180pF, C0G)_SAMSUNG	1	EA
....6	C602	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C603	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C605	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C610	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C615	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C618	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....6	C619	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....6	C700	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	C924	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	D305	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D306	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D307	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D308	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D309	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D310	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D325	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D326	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D327	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D328	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D361	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D362	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D363	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D365	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D408	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D409	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D600	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D601	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D964	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D965	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D966	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D967	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D968	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D970	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D973	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D974	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	D981	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....6	IC10	CVINJW1112V	I.C , AUDIO SELECTOR(8-IN 4-OUT,SSOP-32P)	1	EA
....6	IC25	HVINJM2068MDTE1	I.C , OP AMP (JRC)	1	EA
....6	IC30	HVINJM2068MDTE1	I.C , OP AMP (JRC)	1	EA
....6	IC34	CVINJW1194V	I.C , 2CH VOLUME	1	EA
....6	IC35	HVINJM2068MDTE1	I.C , OP AMP (JRC)	1	EA
....6	IC36	HVTKTC812TB	EOL item T.R , CHIP(TS6)	1	EA
....6	IC40	HVTKTC812TB	EOL item T.R , CHIP(TS6)	1	EA

....6	IC50	HVTKTC812TB	EOL item T.R , CHIP(TS6)	1	EA
....6	IC60	HVTKTC812TB	EOL item T.R , CHIP(TS6)	1	EA
....6	Q532	HVTKRA107S	T.R , CHIP , SOT-23	1	EA
....6	Q533	HVTKRC107S	T.R , CHIP , SOT-23	1	EA
....6	Q534	HVTKRC107S	T.R , CHIP , SOT-23	1	EA
....6	Q536	HVTKRA107S	T.R , CHIP , SOT-23	1	EA
....6	Q602	CVTRT1P141C	T.R,RT1P141C(10K-10K)	1	EA
....6	Q603	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
....6	Q604	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....6	Q915	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
....6	Q916	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....6	Q917	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....6	Q937	CVTMMBT5401	High Voltage PNP Transistors(SOT-23)	1	EA
....6	Q940	CVTMMBT5401	High Voltage PNP Transistors(SOT-23)	1	EA
....6	R251	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R252	CRJ10DJ273T	RES, CHIP(1608/5%/27Kohm)	1	EA
....6	R253	CRJ10DJ273T	RES, CHIP(1608/5%/27Kohm)	1	EA
....6	R254	CRJ10DJ333T	RES, CHIP(1608/5%/33Kohm)	1	EA
....6	R255	CRJ10DJ153T	RES, CHIP(1608/5%/15Kohm)	1	EA
....6	R256	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R257	CRJ10DJ153T	RES, CHIP(1608/5%/15Kohm)	1	EA
....6	R258	CRJ10DJ153T	RES, CHIP(1608/5%/15Kohm)	1	EA
....6	R301	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R302	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R303	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R304	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R305	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R306	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R307	CRJ10DJ564T	RES, CHIP(1608/5%/560Kohm)	1	EA
....6	R308	CRJ10DJ564T	RES, CHIP(1608/5%/560Kohm)	1	EA
....6	R309	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	R310	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	R311	CRJ10DJ681T	RES, CHIP(1608/5%/680ohm)	1	EA
....6	R312	CRJ10DJ681T	RES, CHIP(1608/5%/680ohm)	1	EA
....6	R313	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
....6	R314	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
....6	R315	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	R316	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	R317	CRJ10DJ821T	RES, CHIP(1608/5%/820ohm)	1	EA
....6	R318	CRJ10DJ821T	RES, CHIP(1608/5%/820ohm)	1	EA
....6	R320	CRJ10DJ4R7T	RES, CHIP(1608/5%/4.7ohm)	1	EA
....6	R321	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R322	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R323	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R324	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R325	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R326	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R327	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R328	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R329	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R330	CRJ10DJ393T	RES, CHIP(1608/5%/39Kohm)	1	EA
....6	R331	CRJ10DJ393T	RES, CHIP(1608/5%/39Kohm)	1	EA
....6	R332	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
....6	R333	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
....6	R334	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R335	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R344	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R346	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R347	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R348	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R349	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R350	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA

....6	R351	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R352	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R353	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R354	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R355	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R356	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R357	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R358	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R359	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R360	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R363	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R369	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
....6	R370	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
....6	R371	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R372	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R373	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R374	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R375	CRJ10DJ4R7T	RES, CHIP(1608/5%/4.7ohm)	1	EA
....6	R377	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R378	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R379	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R380	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R381	CRJ10DJ4R7T	RES, CHIP(1608/5%/4.7ohm)	1	EA
....6	R382	CRJ10DJ561T	RES, CHIP(1608/5%/560ohm)	1	EA
....6	R383	CRJ10DJ561T	RES, CHIP(1608/5%/560ohm)	1	EA
....6	R387	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R388	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R451	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R452	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R455	CRJ10DJ1R0T	RES, CHIP(1608/5%/1ohm)	1	EA
....6	R456	CRJ10DJ1R0T	RES, CHIP(1608/5%/1ohm)	1	EA
....6	R457	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R459	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R460	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R467	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R468	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R469	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	R470	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	R471	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R472	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R473	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	R474	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
....6	R475	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
....6	R476	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	R477	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	R478	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
....6	R479	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
....6	R484	CRJ10DJ561T	RES, CHIP(1608/5%/560ohm)	1	EA
....6	R485	CRJ10DJ561T	RES, CHIP(1608/5%/560ohm)	1	EA
....6	R486	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
....6	R487	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
....6	R488	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R500	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R550	CRJ10DJ470T	RES, CHIP(1608/5%/47ohm)	1	EA
....6	R566	CRJ14CJ473T	RES, CHIP(3216/5%/47Kohm)	1	EA
....6	R567	CRJ14CJ473T	RES, CHIP(3216/5%/47Kohm)	1	EA
....6	R568	CRJ14CJ473T	RES, CHIP(3216/5%/47Kohm)	1	EA
....6	R569	CRJ14CJ473T	RES, CHIP(3216/5%/47Kohm)	1	EA
....6	R570	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R580	CRJ10DJ470T	RES, CHIP(1608/5%/47ohm)	1	EA
....6	R583	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R600	CRJ10DJ750T	RES, CHIP(1608/5%/75ohm)	1	EA

....6	R601	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R602	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R610	CRJ10DJ1R0T	RES, CHIP(1608/5%/1ohm)	1	EA
....6	R611	CRJ10DJ1R0T	RES, CHIP(1608/5%/1ohm)	1	EA
....6	R613	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R614	CRJ10DJ4R7T	RES, CHIP(1608/5%/4.7ohm)	1	EA
....6	R615	CRJ10DJ4R7T	RES, CHIP(1608/5%/4.7ohm)	1	EA
....6	R616	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R617	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....6	R618	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....6	R619	CRJ10DJ470T	RES, CHIP(1608/5%/47ohm)	1	EA
....6	R620	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....6	R621	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....6	R630	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R631	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R632	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R633	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R634	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R635	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R636	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R637	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R638	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R639	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....6	R640	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R641	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R644	CRJ10DJ2R2T	RES, CHIP(1608/5%/2.2ohm)	1	EA
....6	R645	CRJ10DJ111T	RES, CHIP(1608/5%/110ohm)	1	EA
....6	R646	CRJ10DJ111T	RES, CHIP(1608/5%/110ohm)	1	EA
....6	R647	CRJ10DJ111T	RES, CHIP(1608/5%/110ohm)	1	EA
....6	R657	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....6	R659	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R660	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....6	R746	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R747	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R933	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....6	R952	CRJ10DJ223T	RES, CHIP(1608/5%/22Kohm)	1	EA
....6	R953	CRJ10DJ223T	RES, CHIP(1608/5%/22Kohm)	1	EA
....6	R958	CRJ10DJ563T	RES, CHIP(1608/5%/56Kohm)	1	EA
....6	R959	CRJ10DJ563T	RES, CHIP(1608/5%/56Kohm)	1	EA
....5	C254	CCEA1HH100T	CAP, ELECT(50V/10uF)	1	EA
....5	C257	CCME2A224JXT	CAP,METAL-FILM(100V/0.22uF)	1	EA
....5	C258	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
....5	C259	CCEA1HH100T	CAP, ELECT(50V/10uF)	1	EA
....5	C303	CCEA1HH100T	CAP, ELECT(50V/10uF)	1	EA
....5	C304	CCEA1HH100T	CAP, ELECT(50V/10uF)	1	EA
....5	C307	CCEA1EH470T	CAP, ELECT(25V/47uF)	1	EA
....5	C308	CCEA1EH470T	CAP, ELECT(25V/47uF)	1	EA
....5	C309	HCQI1H102JZT	CAP, MYLAR(50V/1000pF/J)	1	EA
....5	C310	HCQI1H102JZT	CAP, MYLAR(50V/1000pF/J)	1	EA
....5	C311	CCEA1CH101T	CAP, ELECT(16V/100uF)	1	EA
....5	C312	CCEA1CH101T	CAP, ELECT(16V/100uF)	1	EA
....5	C313	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA
....5	C314	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA
....5	C315	HCQI1H152JZT	CAP, MYLAR(50V/1500pF/J)	1	EA
....5	C316	HCQI1H152JZT	CAP, MYLAR(50V/1500pF/J)	1	EA
....5	C317	CCEA1HH100T	CAP, ELECT(50V/10uF)	1	EA
....5	C318	CCEA1HH100T	CAP, ELECT(50V/10uF)	1	EA
....5	C319	HCQI1H183JZT	CAP, MYLAR(50V/0.018pF/J)	1	EA
....5	C320	HCQI1H183JZT	CAP, MYLAR(50V/0.018pF/J)	1	EA
....5	C321	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
....5	C331	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA
....5	C332	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA

....5	C333	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA
....5	C334	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA
....5	C335	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
....5	C336	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
....5	C352	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C353	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C354	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C355	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C378	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C379	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C394	CCEA1CH101T	CAP, ELECT(16V/100uF)	1	EA
....5	C396	CCEA1CH101T	CAP, ELECT(16V/100uF)	1	EA
....5	C398	CCEA1HH100T	CAP, ELECT(50V/10uF)	1	EA
....5	C401	CCEA1HROB470T	CAP , ELEC(ELNA ROB SERIES, 47uF/50V)	1	EA
....5	C402	CCKT1H331KB	CAP, CERAMIC(50V/330pF/K)	1	EA
....5	C404	CCKT1H271KB	CAP, CERAMIC(50V/270pF/K)	1	EA
....5	C409	CCCT1H180JC	CAP, CERAMIC(50V/18pF/J)	1	EA
....5	C410	CCKT1H181KB	CAP, CERAMIC(50V/180pF/K)	1	EA
....5	C411	CCEA1HH100T	CAP, ELECT(50V/10uF)	1	EA
....5	C412	CCBS1H103ZFT	CAP , CERAMIC	1	EA
....5	C413	CCEA2AH100T	CAP, ELECT(100V/10uF)	1	EA
....5	C421	CCEA1EH101T	CAP, ELECT(25V/100uF)	1	EA
....5	C422	CCEA1HH470T	CAP, ELECT(50V/47uF)	1	EA
....5	C427	CCEA1HH4R7T	CAP, ELECT(50V/4.7uF)	1	EA
....5	C428	CCEA1HH470T	CAP, ELECT(50V/47uF)	1	EA
....5	C432	CCEA1HH4R7T	CAP, ELECT(50V/4.7uF)	1	EA
....5	C440	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
....5	C449	CCEA1EH101T	CAP, ELECT(25V/100uF)	1	EA
....5	C450	CCEA1EH101T	CAP, ELECT(25V/100uF)	1	EA
....5	C451	CCEA1HH470T	CAP, ELECT(50V/47uF)	1	EA
....5	C452	CCEA1HH470T	CAP, ELECT(50V/47uF)	1	EA
....5	C453	CCEA1HH100T	CAP, ELECT(50V/10uF)	1	EA
....5	C454	CCEA1EH101T	CAP, ELECT(25V/100uF)	1	EA
....5	C501	CCEA1HROB470T	CAP , ELEC(ELNA ROB SERIES, 47uF/50V)	1	EA
....5	C502	CCKT1H331KB	CAP, CERAMIC(50V/330pF/K)	1	EA
....5	C503	CCKT1H271KB	CAP, CERAMIC(50V/270pF/K)	1	EA
....5	C507	CCCT1H180JC	CAP, CERAMIC(50V/18pF/J)	1	EA
....5	C508	CCKT1H181KB	CAP, CERAMIC(50V/180pF/K)	1	EA
....5	C509	CCEA1HH100T	CAP, ELECT(50V/10uF)	1	EA
....5	C510	CCEA2AH100T	CAP, ELECT(100V/10uF)	1	EA
....5	C511	CCBS1H103ZFT	CAP , CERAMIC	1	EA
....5	C516	CCEA1CH220TC	CAP, ELECT(16V/22uF)	1	EA
....5	C520	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
....5	C567	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C568	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
....5	C604	CCEA1EH101T	CAP, ELECT(25V/100uF)	1	EA
....5	C917	CCEA1HH470TC	CAP , ELECT (50V/47uF)	1	EA
....5	C931	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
....5	C932	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
....5	C936	CCEA1EH221T	CAP, ELECT(25V/220uF)	1	EA
....5	C950	CCEA1AH471TC	CAP, ELECT(10V/470uF)	1	EA
....5	D402	CVD1SS133MT	DIODE , SWITCHING	1	EA
....5	D403	CVD1SS133MT	DIODE , SWITCHING	1	EA
....5	D405	CVD1SS133MT	DIODE , SWITCHING	1	EA
....5	D406	CVD1SS133MT	DIODE , SWITCHING	1	EA
....5	D502	CVD1SS133MT	DIODE , SWITCHING	1	EA
....5	D503	CVD1SS133MT	DIODE , SWITCHING	1	EA
....5	D505	CVD1SS133MT	DIODE , SWITCHING	1	EA
....5	D506	CVD1SS133MT	DIODE , SWITCHING	1	EA
....5	ET901	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
....5	ET902	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
....5	ET903	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA

....5	ET904	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
....5	Q400	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q408	HVTKTA1024YT	T.R	1	EA
....5	Q409	HVTKTC3206YAT	T.R	1	EA
....5	Q410	HVTKTA1024YT	T.R	1	EA
....5	Q411	HVTKTC3206YAT	T.R	1	EA
....5	Q412	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q413	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q414	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q415	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q416	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q417	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q500	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q508	HVTKTA1024YT	T.R	1	EA
....5	Q509	HVTKTC3206YAT	T.R	1	EA
....5	Q510	HVTKTA1024YT	T.R	1	EA
....5	Q511	HVTKTC3206YAT	T.R	1	EA
....5	Q512	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q513	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q514	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q515	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q516	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q517	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
....5	Q601	HVTKTA1266YT	T.R	1	EA
....5	Q911	HVTKTA1271YT	T.R	1	EA
....5	Q912	HVTKTA1271YT	T.R	1	EA
....5	Q913	HVTKTA1271YT	T.R	1	EA
....5	R401	CRG1SANJ100RT	RES, M-OXIDE FILM(1W/10ohm)	1	EA
....5	R402	CRD20TJ2R2T	RES, CARBON(1/5W,2.2ohm,J)	1	EA
....5	R403	CRD20TJ2R2T	RES, CARBON(1/5W,2.2ohm,J)	1	EA
....5	R408	CRD25FJ100T	RES , CARBON	1	EA
....5	R409	CRD25FJ100T	RES , CARBON	1	EA
....5	R410	CRD20TJ221T	RES, CARBON(1/5W,220ohm,J)	1	EA
....5	R411	CRD20TJ221T	RES, CARBON(1/5W,220ohm,J)	1	EA
....5	R412	CRD20TJ221T	RES, CARBON(1/5W,220ohm,J)	1	EA
....5	R413	CRD20TJ221T	RES, CARBON(1/5W,220ohm,J)	1	EA
....5	R414	CRD20TJ153T	RES, CARBON(1/5W,15Kohm,J)	1	EA
....5	R415	CRD20TJ153T	RES, CARBON(1/5W,15Kohm,J)	1	EA
....5	R416	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R417	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R418	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R419	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R420	CRD20TJ162T	RES, CARBON(1/5W,1.6Kohm,J)	1	EA
....5	R421	CRD20TJ162T	RES, CARBON(1/5W,1.6Kohm,J)	1	EA
....5	R422	CRD20TJ471T	RES, CARBON(1/5W,470ohm,J)	1	EA
....5	R423	CRD20TJ333T	RES, CARBON(1/5W,33Kohm,J)	1	EA
....5	R424	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
....5	R425	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
....5	R426	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
....5	R428	CRD20TJ473T	RES, CARBON(1/5W,47Kohm,J)	1	EA
....5	R429	CRD20TJ271T	RES, CARBON(1/5W,270ohm,J)	1	EA
....5	R430	CRD20TJ333T	RES, CARBON(1/5W,33Kohm,J)	1	EA
....5	R431	CRD20TJ100T	RES, CARBON(1/5W,10ohm,J)	1	EA
....5	R432	CRD20TJ331T	RES, CARBON(1/5W,330ohm,J)	1	EA
....5	R433	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R437	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
....5	R438	CRD25FJ100T	RES , CARBON	1	EA
....5	R439	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
....5	R442	CRD20TJ242T	RES, CARBON(1/5W,2.4Kohm,J)	1	EA
....5	R445	CRD20TJ751T	RES, CARBON(1/5W,750ohm,J)	1	EA
....5	R446	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
....5	R447	CRD20TJ274T	RES, CARBON(1/5W,270Kohm,J)	1	EA

....5	R448	CRD20TJ752T	RES, CARBON(1/5W,7.5Kohm,J)	1	EA
....5	R449	CRD20TJ102T	RES, CARBON(1/5W,1Kohm,J)	1	EA
....5	R450	CRD20TJ472T	RES, CARBON(1/5W,4.7Kohm,J)	1	EA
....5	R453	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
....5	R454	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
....5	R461	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R495	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
....5	R496	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
....5	R497	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
....5	R498	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
....5	R499	CRD25FJ100T	RES , CARBON	1	EA
....5	R501	CRG1SANJ100RT	RES, M-OXIDE FILM(1W/10ohm)	1	EA
....5	R502	CRD20TJ2R2T	RES, CARBON(1/5W,2.2ohm,J)	1	EA
....5	R503	CRD20TJ2R2T	RES, CARBON(1/5W,2.2ohm,J)	1	EA
....5	R504	CRD25FJ100T	RES , CARBON	1	EA
....5	R505	CRD25FJ100T	RES , CARBON	1	EA
....5	R506	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
....5	R507	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
....5	R508	CRD25FJ100T	RES , CARBON	1	EA
....5	R509	CRD25FJ100T	RES , CARBON	1	EA
....5	R510	CRD20TJ221T	RES, CARBON(1/5W,220ohm,J)	1	EA
....5	R511	CRD20TJ221T	RES, CARBON(1/5W,220ohm,J)	1	EA
....5	R512	CRD20TJ221T	RES, CARBON(1/5W,220ohm,J)	1	EA
....5	R513	CRD20TJ221T	RES, CARBON(1/5W,220ohm,J)	1	EA
....5	R514	CRD20TJ153T	RES, CARBON(1/5W,15Kohm,J)	1	EA
....5	R515	CRD20TJ153T	RES, CARBON(1/5W,15Kohm,J)	1	EA
....5	R516	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R517	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R518	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R519	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R520	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R521	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
....5	R522	CRD20TJ162T	RES, CARBON(1/5W,1.6Kohm,J)	1	EA
....5	R523	CRD20TJ162T	RES, CARBON(1/5W,1.6Kohm,J)	1	EA
....5	R524	CRD20TJ471T	RES, CARBON(1/5W,470ohm,J)	1	EA
....5	R525	CRD20TJ333T	RES, CARBON(1/5W,33Kohm,J)	1	EA
....5	R526	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
....5	R527	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
....5	R528	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
....5	R529	CRD20TJ271T	RES, CARBON(1/5W,270ohm,J)	1	EA
....5	R530	CRD20TJ473T	RES, CARBON(1/5W,47Kohm,J)	1	EA
....5	R532	CRD20TJ333T	RES, CARBON(1/5W,33Kohm,J)	1	EA
....5	R533	CRD20TJ331T	RES, CARBON(1/5W,330ohm,J)	1	EA
....5	R534	CRD20TJ100T	RES, CARBON(1/5W,10ohm,J)	1	EA
....5	R536	CRD20TJ242T	RES, CARBON(1/5W,2.4Kohm,J)	1	EA
....5	R538	CRD20TJ751T	RES, CARBON(1/5W,750ohm,J)	1	EA
....5	R540	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
....5	R541	CRD20TJ274T	RES, CARBON(1/5W,270Kohm,J)	1	EA
....5	R542	CRD20TJ752T	RES, CARBON(1/5W,7.5Kohm,J)	1	EA
....5	R543	CRD20TJ102T	RES, CARBON(1/5W,1Kohm,J)	1	EA
....5	R545	CRD20TJ472T	RES, CARBON(1/5W,4.7Kohm,J)	1	EA
....5	R546	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
....5	R547	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
....5	R548	CRD25TJ820T	RES, CARBON(1/4W,82ohm,J)	1	EA
....5	R549	CRD25TJ820T	RES, CARBON(1/4W,82ohm,J)	1	EA
....5	R557	CRD20TJ1R0T	RES, CARBON(1/5W,1ohm,J)	1	EA
....5	R558	CRD20TJ102T	RES, CARBON(1/5W,1Kohm,J)	1	EA
....5	R559	CRD20TJ564T	RES, CARBON(1/5W,560Kohm,J)	1	EA
....5	R560	CRD20TJ753T	RES, CARBON(1/5W,75Kohm,J)	1	EA
....5	R561	CRD20TJ333T	RES, CARBON(1/5W,33Kohm,J)	1	EA
....5	R562	CRD20TJ333T	RES, CARBON(1/5W,33Kohm,J)	1	EA
....5	R563	CRD20TJ333T	RES, CARBON(1/5W,33Kohm,J)	1	EA

....5	R564	CRD20TJ333T	RES, CARBON(1/5W,33Kohm,J)	1	EA
....5	R565	CRD20TJ103T	RES, CARBON(1/5W,10Kohm,J)	1	EA
....5	R571	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
....5	R572	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
....5	R573	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
....5	R574	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
....5	R921	CRG1SANJ220RT	RES, M-OXIDE FILM(1W/22ohm)	1	EA
....5	R922	CRG1SANJ100RT	RES, M-OXIDE FILM(1W/10ohm)	1	EA
....5	R923	CRG1SANJ1R0RT	RES, M-OXIDE FILM(1W/1ohm)	1	EA
....5	R924	CRD20TJ473T	RES, CARBON(1/5W,47Kohm,J)	1	EA
....5	R925	CRD20TJ473T	RES, CARBON(1/5W,47Kohm,J)	1	EA
....5	R926	CRD20TJ473T	RES, CARBON(1/5W,47Kohm,J)	1	EA
....5	R928	CRD20TJ222T	RES, CARBON(1/5W,2.2Kohm,J)	1	EA
....5	R929	CRD20TJ222T	RES, CARBON(1/5W,2.2Kohm,J)	1	EA
....5	R930	CRD20TJ222T	RES, CARBON(1/5W,2.2Kohm,J)	1	EA
....5	VR203	CVN12A221B03T	RES , SEMI FIXED (220 OHM)	1	EA
....5	VR204	CVN12A221B03T	RES , SEMI FIXED (220 OHM)	1	EA
...4		CMYHK3770	HEAT SINK ASS'Y	1	EA
....5		CFNRDM6025S	MOTOR , FAN (60X60X25) 12V, 0.1A	1	EA
....5		CHD1A012R	SCREW , SPECIAL	10	EA
....5		CHD1A036R	SCREW , SPECIAL	2	EA
....5		CMD1A802	BRACKET,H/S PCB	2	EA
....5		CMD1A810	BRACKET , PCB	2	EA
....5		CMY1A405	HEAT SINK HK3770	1	EA
....5	Q401	HVTKTC3114A	T.R , BIAS	1	EA
....5	Q402	HVT2SC3856	T.R , POWER	1	EA
....5	Q403	HVT2SA1492	T.R , POWER	1	EA
....5	Q404	HVT2SA1859A	T.R , DRIVER	1	EA
....5	Q405	HVT2SC4883A	T.R , DRIVER	1	EA
....5	Q501	HVTKTC3114A	T.R , BIAS	1	EA
....5	Q502	HVT2SC3856	T.R , POWER	1	EA
....5	Q503	HVT2SA1492	T.R , POWER	1	EA
....5	Q504	HVT2SA1859A	T.R , DRIVER	1	EA
....5	Q505	HVT2SC4883A	T.R , DRIVER	1	EA
...4	BK10	CMD1A569-V1	BRACKET , PCB	1	EA
...4	BK11	CMD1A569-V1	BRACKET , PCB	1	EA
...4	BK12	CMD1A569-V1	BRACKET , PCB	1	EA
...4	BN10	CJP23GA115ZY	WAFER, FFC(23P-1.25mm, STRAIGHT)	1	EA
...4	BN20	CWB1B009080HC	WIRE ASS'Y LOCKING (9P,2.0MM,80MM,UL1007#26)	1	EA
...4	BN30	CWB1B00312077	Wire Ass'y (120mm, 3P 2.00mm pitch)	1	EA
...4	BN50	CWB1B013180LC	WIRE ASS'Y (13P,2.0MM,180MM,UL1007#26)	1	EA
...4	BN60	CWB3FE03320UZ	WIRE ASS'Y (3P, 320mm)	1	EA
...4	CN20	CJP09GI236ZW	LOCKING TYPE , STRAIGHT WAFER , 2MM	1	EA
...4	CN41	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
...4	CN51	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
...4	CN60	CJP11GA115ZY	WAFER, FFC(11P-1.25mm, STRAIGHT)	1	EA
...4	CN93	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
...4	C405	CCEA1HH221E	CAP, ELECT(50V/220uF)	1	EA
...4	C407	CCEA1JH331EC	CAP , ELECT(63V/330uF)	1	EA
...4	C408	CCEA1JH331EC	CAP , ELECT(63V/330uF)	1	EA
...4	C419	CCEA1AH222ES	CAP, ELECT(10V/2200uF),105'C,10X20L	1	EA
...4	C504	CCEA1HH221E	CAP, ELECT(50V/220uF)	1	EA
...4	C505	CCEA1JH331EC	CAP , ELECT(63V/330uF)	1	EA
...4	C506	CCEA1JH331EC	CAP , ELECT(63V/330uF)	1	EA
...4	C915	CCET63VLAO682NB	CAP,ELECT (ELNA,6800UF/63V,30X40)	1	EA
...4	C916	CCET63VLAO682NB	CAP,ELECT (ELNA,6800UF/63V,30X40)	1	EA
...4	IC601	BVIKP1010B	IC, PHOTO COUPLER (COSMO)	1	EA
...4	JK10	CJJ4N034U	JACK, 2P(W/R),SEPA-GND, SILVER	1	EA
...4	JK20	CJJ4R019W	TERMINAL , IN/OUT	1	EA
...4	JK30	CJJ5Q006Z	TERMINAL , SPEAKER	1	EA
...4	JK40	CJJ4R019W	TERMINAL , IN/OUT	1	EA
...4	JK50	CJJ4M040Z	JACK , BOARD (SW)	1	EA

...4	JK60	CJJ4M044X	JACK , RCA (1P,RCA-115A-04)	1	EA
...4	JK61	CJSJSR2124-00-BBBN	MODULE , OPTICAL(RX 25MHz)	1	EA
...4	JK62	CJSJSR2124-00-BBBN	MODULE , OPTICAL(RX 25MHz)	1	EA
...4	JK63	CJJ2D008Z	JACK, STEREO (BLK MOLD)	1	EA
...4	JK64	CJJ2D008Z	JACK, STEREO (BLK MOLD)	1	EA
...4	JK65	CJJ2D008Z	JACK, STEREO (BLK MOLD)	1	EA
...4	L202	CLEY0R5KAK	COIL , SPEAKER(0.5uH)	1	EA
...4	L204	CLEY0R5KAK	COIL , SPEAKER(0.5uH)	1	EA
...4	L301	CLU9S004Z	COIL, TOROIDAL	1	EA
...4	L302	CLU9S004Z	COIL, TOROIDAL	1	EA
...4	Q406	HVTKTD2061Y	T.R , DRIVE	1	EA
...4	Q407	HVTKTB1369Y	T.R , DRIVE	1	EA
...4	Q506	HVTKTD2061Y	T.R , DRIVE	1	EA
...4	Q507	HVTKTB1369Y	T.R , DRIVE	1	EA
...4	RY32	CSL3A022ZU	RELAY,981-2A-12DS,DC12V,2C1P	1	EA
...4	RY33	CSL3A022ZU	RELAY,981-2A-12DS,DC12V,2C1P	1	EA
...4	R555	CRF5EKR10HS	RES , CEMENT (SMALL SIZE)	1	EA
...4	R556	CRF5EKR10HS	RES , CEMENT (SMALL SIZE)	1	EA
...4	TUN1	CNVMW104MV1R78I-1	MODULE , TUNER (AM/FM WITH RDS, EUR)	1	EA
..3		**COP12610E**	**HK3770/230 SMPS PCB ASS'Y**	1	EA
....6	C903	CCUC1H471JAS	CAP, CHIP(2012, 50V/470pF, C0G)_SAMSUNG	1	EA
....6	C904	CCUC1H105KCS	CAP, CHIP(2012, 50V/1uF, X7R, X7S)_SAMSUNG	1	EA
....6	C905	CCUP3A102KCS	CAP, CHIP(3216, 1KV/1000pF, X7R)_SAMSUNG	1	EA
....6	C906	CCUC1H222KCS	CAP, CHIP(2012, 50V/2200pF, X7R)_SAMSUNG	1	EA
....6	C907	CCUC1H470JAS	CAP, CHIP(2012, 50V/47pF, C0G)_SAMSUNG	1	EA
....6	C909	CCUC1H821JAS	CAP, CHIP(2012, 50V/820pF, C0G)_SAMSUNG	1	EA
....6	C910	CCUP3A222KCS	CAP, CHIP(3216, 1KV/2200pF, X7R)_SAMSUNG	1	EA
....6	C912	CCUP3A470JAS	CAP, CHIP(3216, 1KV/47pF, C0G)_SAMSUNG	1	EA
....6	C913	CCUC1E225KCS	CAP, CHIP(2012, 25V/2.2uF, X7R, X7S)_SAMSUNG	1	EA
....6	C914	CCUC1H472KCS	CAP, CHIP(2012, 50V/4700pF, X7R)_SAMSUNG	1	EA
....6	C915	CCUC1H105KCS	CAP, CHIP(2012, 50V/1uF, X7R, X7S)_SAMSUNG	1	EA
....6	C917	CCUC1H102KCS	CAP, CHIP(2012, 50V/1000pF, X7R)_SAMSUNG	1	EA
....6	C919	CCUP3A470JAS	CAP, CHIP(3216, 1KV/47pF, C0G)_SAMSUNG	1	EA
....6	C923	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C924	CCUC1H222KCS	CAP, CHIP(2012, 50V/2200pF, X7R)_SAMSUNG	1	EA
....6	C925	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C926	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C927	CCUC1H105KCS	CAP, CHIP(2012, 50V/1uF, X7R, X7S)_SAMSUNG	1	EA
....6	C934	CCUC1H105KCS	CAP, CHIP(2012, 50V/1uF, X7R, X7S)_SAMSUNG	1	EA
....6	C945	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C956	CCUP3A102KCS	CAP, CHIP(3216, 1KV/1000pF, X7R)_SAMSUNG	1	EA
....6	C957	CCUP3A102KCS	CAP, CHIP(3216, 1KV/1000pF, X7R)_SAMSUNG	1	EA
....6	C958	CCUC1H103KCS	CAP, CHIP(2012, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....6	C959	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C960	CCUC1H103KCS	CAP, CHIP(2012, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....6	C961	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C962	CCUC1H103KCS	CAP, CHIP(2012, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....6	C963	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C964	CCUC1H103KCS	CAP, CHIP(2012, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....6	C967	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C968	CCUC1H103KCS	CAP, CHIP(2012, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....6	C969	CCUC1H224KCS	CAP, CHIP(2012, 50V/0.22uF, X7R)_SAMSUNG	1	EA
....6	C971	CCUC1H224KCS	CAP, CHIP(2012, 50V/0.22uF, X7R)_SAMSUNG	1	EA
....6	C973	CCUC1H224KCS	CAP, CHIP(2012, 50V/0.22uF, X7R)_SAMSUNG	1	EA
....6	C975	CCUC1H224KCS	CAP, CHIP(2012, 50V/0.22uF, X7R)_SAMSUNG	1	EA
....6	C977	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C978	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	C979	CCUC1H104KCS	CAP, CHIP(2012, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....6	D901	CVDS1M	DIODE, SURFACE MOUNT RECTIFIER(1000V/1A)	1	EA
....6	D902	CVDS1M	DIODE, SURFACE MOUNT RECTIFIER(1000V/1A)	1	EA
....6	D903	CVDUS1M	DIODE , ULTRA FAST RECTIFIER	1	EA
....6	D904	CVDUS1M	DIODE , ULTRA FAST RECTIFIER	1	EA

....6	D906	CVDUS1M	DIODE , ULTRA FAST RECTIFIER	1	EA
....6	D907	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	D908	CVDMM1Z24H	DIODE , ZENER(24V/0.5W, SOD-123)	1	EA
....6	D909	CVDMM1Z20H	DIODE , ZENER(20V/0.5W, SOD-123)	1	EA
....6	D911	CVDUS1M	DIODE , ULTRA FAST RECTIFIER	1	EA
....6	D912	CVDMM1Z27H	DIODE , ZENER(27V/0.5W, SOD-123)	1	EA
....6	D913	CVDS1M	DIODE, SURFACE MOUNT RECTIFIER(1000V/1A)	1	EA
....6	D914	CVDMM1Z20H	DIODE , ZENER(20V/0.5W, SOD-123)	1	EA
....6	D916	CVDMM1Z12H	DIODE , ZENER(12V/0.5W, SOD-123)	1	EA
....6	D917	CVDMM1Z18H	DIODE , ZENER(18V/0.5W, SOD-123)	1	EA
....6	D918	CVDMM1Z20H	DIODE , ZENER(20V/0.5W, SOD-123)	1	EA
....6	D920	CVDFFM107M	DIODE , RECTIFIER(FFM107-M, SOD-123FL)	1	EA
....6	D922	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	D923	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	D924	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	D925	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	D926	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	D927	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	D929	CVDMM1Z12H	DIODE , ZENER(12V/0.5W, SOD-123)	1	EA
....6	D930	CVDMM1Z27H	DIODE , ZENER(27V/0.5W, SOD-123)	1	EA
....6	D931	CVDMM1Z22H	DIODE , ZENER(22V/0.5W, SOD-123)	1	EA
....6	D932	CVDS1M	DIODE, SURFACE MOUNT RECTIFIER(1000V/1A)	1	EA
....6	D935	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	D936	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	D944	CVDUS1M	DIODE , ULTRA FAST RECTIFIER	1	EA
....6	D950	CVDMM1Z22H	DIODE , ZENER(22V/0.5W, SOD-123)	1	EA
....6	D951	CVDMM1Z22H	DIODE , ZENER(22V/0.5W, SOD-123)	1	EA
....6	D953	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	D954	CVDMM1Z22H	DIODE , ZENER(22V/0.5W, SOD-123)	1	EA
....6	D955	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
....6	IC92	CVIOB2263MPA	I.C , PWM CONTROLLER (SOT23-6)	1	EA
....6	IC93	CVIICE2QS02G	I.C , PWM CONTROLLER(PG-DSO-8)	1	EA
....6	IC94	CVIKA431SAMF2	I.C , SHUNT REGULATOR(SOT-23F)	1	EA
....6	IC95	CVIKA431SAMF2	I.C , SHUNT REGULATOR(SOT-23F)	1	EA
....6	IC96	CVIKA431SAMF2	I.C , SHUNT REGULATOR(SOT-23F)	1	EA
....6	L922	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....6	L923	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....6	PC90	CVIEL357NB	I.C , PHOTO COUPLER (4P, SMD)	1	EA
....6	PC91	CVIEL357NB	I.C , PHOTO COUPLER (4P, SMD)	1	EA
....6	PC92	CVIEL357NB	I.C , PHOTO COUPLER (4P, SMD)	1	EA
....6	PC93	CVIEL357NB	I.C , PHOTO COUPLER (4P, SMD)	1	EA
....6	PC94	CVIEL357NB	I.C , PHOTO COUPLER (4P, SMD)	1	EA
....6	PC96	CVIEL357NB	I.C , PHOTO COUPLER (4P, SMD)	1	EA
....6	PC99	CVIEL357NB	I.C , PHOTO COUPLER (4P, SMD)	1	EA
....6	Q909	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
....6	Q915	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
....6	Q916	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
....6	Q917	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
....6	Q918	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
....6	Q921	CVTKN2907AS	T.R , KN2907AS, PNP, SOT-23, KEC	1	EA
....6	Q926	CVT2SC6046T1121W	T.R (NPN, SOT-23, ISAHAYA)	1	EA
....6	Q927	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
....6	Q928	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
....6	R766	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
....6	R768	CRJ18AF3002T	RES, CHIP(2012/1%/30Kohm)	1	EA
....6	R770	CRJ18AJ470T	RES, CHIP(2012/5%/47ohm)	1	EA
....6	R771	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
....6	R772	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
....6	R773	CRJ18AJ182T	RES, CHIP(2012/5%/1.8Kohm)	1	EA
....6	R774	CRJ18AJ181T	RES, CHIP(2012/5%/180ohm)	1	EA
....6	R775	CRJ14CJ0R0T	RES, CHIP(3216/5%/0ohm)	1	EA
....6	R776	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA

....6	R777	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
....6	R779	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
....6	R881	CRJ18AJ101T	RES, CHIP(2012/5%/100ohm)	1	EA
....6	R891	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
....6	R892	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
....6	R893	CRJ18AJ470T	RES, CHIP(2012/5%/47ohm)	1	EA
....6	R894	CRJ18AJ470T	RES, CHIP(2012/5%/47ohm)	1	EA
....6	R896	CRJ18AJ471T	RES, CHIP(2012/5%/470ohm)	1	EA
....6	R897	CRJ18AJ153T	RES, CHIP(2012/5%/15Kohm)	1	EA
....6	R898	CRJ18AJ220T	RES, CHIP(2012/5%/22ohm)	1	EA
....6	R901	CRJ18AJ392T	RES, CHIP(2012/5%/3.9Kohm)	1	EA
....6	R902	CRJ18AJ153T	RES, CHIP(2012/5%/15Kohm)	1	EA
....6	R904	CRJ14CJ0R0T	RES, CHIP(3216/5%/0ohm)	1	EA
....6	R906	CRJ18AJ390T	RES, CHIP(2012/5%/39ohm)	1	EA
....6	R907	CRJ01HJ683T	RES, CHIP(6432/5%/68Kohm)	1	EA
....6	R909	CRJ18AJ104T	RES, CHIP(2012/5%/100Kohm)	1	EA
....6	R910	CRJ18AJ330T	RES, CHIP(2012/5%/33ohm)	1	EA
....6	R911	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
....6	R912	CRJ18AJ112T	RES, CHIP(2012/5%/1.1Kohm)	1	EA
....6	R915	CRJ18AJ683T	RES, CHIP(2012/5%/68Kohm)	1	EA
....6	R916	CRJ18AJ153T	RES, CHIP(2012/5%/15Kohm)	1	EA
....6	R918	CRJ18AJ203T	RES, CHIP(2012/5%/20Kohm)	1	EA
....6	R919	CRJ18AJ103T	RES, CHIP(2012/5%/10Kohm)	1	EA
....6	R921	CRJ14CF5602T	RES, CHIP(3216/1%/56Kohm)	1	EA
....6	R922	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
....6	R923	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
....6	R924	CRJ14CJ125T	RES, CHIP(3216/5%/1.2Mohm)	1	EA
....6	R925	CRJ14CJ125T	RES, CHIP(3216/5%/1.2Mohm)	1	EA
....6	R926	CRJ14CJ125T	RES, CHIP(3216/5%/1.2Mohm)	1	EA
....6	R927	CRJ14CJ125T	RES, CHIP(3216/5%/1.2Mohm)	1	EA
....6	R928	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
....6	R929	CRJ14CJ125T	RES, CHIP(3216/5%/1.2Mohm)	1	EA
....6	R930	CRJ18AF3742T	RES, CHIP(2012/1%/37.4Kohm)	1	EA
....6	R931	CRJ18AJ824T	RES, CHIP(2012/5%/820Kohm)	1	EA
....6	R932	CRJ14CJ4R7T	RES, CHIP(3216/5%/4.7ohm)	1	EA
....6	R933	CRJ18AJ181T	RES, CHIP(2012/5%/180ohm)	1	EA
....6	R934	CRJ18AJ561T	RES, CHIP(2012/5%/560ohm)	1	EA
....6	R935	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
....6	R936	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
....6	R937	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
....6	R938	CRJ18AJ561T	RES, CHIP(2012/5%/560ohm)	1	EA
....6	R939	CRJ18AJ470T	RES, CHIP(2012/5%/47ohm)	1	EA
....6	R940	CRJ18AJ153T	RES, CHIP(2012/5%/15Kohm)	1	EA
....6	R941	CRJ18AJ622T	RES, CHIP(2012/5%/6.2Kohm)	1	EA
....6	R942	CRJ18AJ222T	RES, CHIP(2012/5%/2.2Kohm)	1	EA
....6	R943	CRJ18AJ622T	RES, CHIP(2012/5%/6.2Kohm)	1	EA
....6	R944	CRJ18AJ472T	RES, CHIP(2012/5%/4.7Kohm)	1	EA
....6	R945	CRJ18AJ561T	RES, CHIP(2012/5%/560ohm)	1	EA
....6	R946	CRJ18AF1002T	RES, CHIP(2012/1%/10Kohm)	1	EA
....6	R947	CRJ18AF1002T	RES, CHIP(2012/1%/10Kohm)	1	EA
....6	R948	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
....6	R950	CRJ18AJ224T	RES, CHIP(2012/5%/220Kohm)	1	EA
....6	R952	CRJ01HJ101T	RES, CHIP(6432/5%/100ohm)	1	EA
....6	R953	CRJ18AF1132T	RES, CHIP(2012/1%/11.3Kohm)	1	EA
....6	R954	CRJ18AJ472T	RES, CHIP(2012/5%/4.7Kohm)	1	EA
....6	R955	CRJ14CF5602T	RES, CHIP(3216/1%/56Kohm)	1	EA
....6	R956	CRJ18AJ473T	RES, CHIP(2012/5%/47Kohm)	1	EA
....6	R957	CRJ18AJ181T	RES, CHIP(2012/5%/180ohm)	1	EA
....6	R958	CRJ18AF1002T	RES, CHIP(2012/1%/10Kohm)	1	EA
....6	R959	CRJ18AF5601T	RES, CHIP(2012/1%/5.6Kohm)	1	EA
....6	R960	CRJ01HJ752T	RES, CHIP(6432/5%/7.5Kohm)	1	EA
....6	R961	CRJ18AJ103T	RES, CHIP(2012/5%/10Kohm)	1	EA

....6	R962	CRJ18AF4302T	RES , CHIP	1	EA
....6	R963	CRJ14CJ0R0T	RES, CHIP(3216/5%/0ohm)	1	EA
....6	R966	CRJ18AJ220T	RES, CHIP(2012/5%/22ohm)	1	EA
....6	R967	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
....6	R968	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
....6	R969	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
....6	R970	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
....6	R971	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
....6	R972	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
....6	R973	CRJ01HJ221T	RES, CHIP(6432/5%/220ohm)	1	EA
....6	R974	CRJ14CJ154T	RES, CHIP(3216/5%/150Kohm)	1	EA
....6	R975	CRJ14CJ154T	RES, CHIP(3216/5%/150Kohm)	1	EA
....6	R976	CRJ14CJ154T	RES, CHIP(3216/5%/150Kohm)	1	EA
....6	R977	CRJ18AF6802T	RES, CHIP(2012/1%/68Kohm)	1	EA
....6	R978	CRJ01HJ221T	RES, CHIP(6432/5%/220ohm)	1	EA
....6	R979	CRJ14CJ474T	RES, CHIP(3216/5%/470Kohm)	1	EA
....6	R980	CRJ14CJ474T	RES, CHIP(3216/5%/470Kohm)	1	EA
....6	R981	CRJ14CJ474T	RES, CHIP(3216/5%/470Kohm)	1	EA
....6	R982	CRJ14CJ474T	RES, CHIP(3216/5%/470Kohm)	1	EA
....6	R984	CRJ18AJ470T	RES, CHIP(2012/5%/47ohm)	1	EA
....6	R985	CRJ18AJ182T	RES, CHIP(2012/5%/1.8Kohm)	1	EA
....6	R986	CRJ18AJ561T	RES, CHIP(2012/5%/560ohm)	1	EA
....6	R988	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
....6	R989	CRJ18AJ182T	RES, CHIP(2012/5%/1.8Kohm)	1	EA
....6	R990	CRJ01HJ100T	RES , CHIP	1	EA
....6	R991	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
....6	R992	CRJ14CJ0R0T	RES, CHIP(3216/5%/0ohm)	1	EA
....6	R993	CRJ01HJ752T	RES, CHIP(6432/5%/7.5Kohm)	1	EA
....6	R994	CRJ01HJ361T	RES, CHIP(6432/5%/360ohm)	1	EA
....6	R995	CRJ01HJ361T	RES, CHIP(6432/5%/360ohm)	1	EA
....6	R996	CRJ18AJ470T	RES, CHIP(2012/5%/47ohm)	1	EA
....6	R997	CRJ14CF5602T	RES, CHIP(3216/1%/56Kohm)	1	EA
....6	R999	CRJ14CF5602T	RES, CHIP(3216/1%/56Kohm)	1	EA
....5	C911	CCKT3A102KBL	CAP, CERAMIC(1kV/1000pF/K)	1	EA
....5	C918	CCEA1HH100TCS	CAP, ELECT(50V/10uF),105'C	1	EA
....5	C920	CCEA1HH470TCS	CAP, ELECT(50V/47uF),105'C	1	EA
....5	C921	CCEA1HH220TCS	CAP, ELECT(50V/22uF),105'C	1	EA
....5	C929	CCEA0JH471TCS	CAP, ELECT(6.3V/470uF),105'C	1	EA
....5	C932	CCEA1HH470TCS	CAP, ELECT(50V/47uF),105'C	1	EA
....5	C944	CCEA0JH102TCS	CAP, ELECT(6.3V/1000uF),105'C	1	EA
....5	C949	CCEA2AH100TCS	CAP, ELECT(100V/10uF),105'C	1	EA
....5	C953	CCEA1EH101TCS	CAP, ELECT(25V/100uF),105'C	1	EA
....5	C955	CCEA1HH220TCS	CAP, ELECT(50V/22uF),105'C	1	EA
....5	C984	CCEA0JH471TCS	CAP, ELECT(6.3V/470uF),105'C	1	EA
....5	D910	HVDUF4007T	DIODE , SCHOTTKY	1	EA
....5	D919	HVD1N4007T	DIODE	1	EA
....5	D921	HVD11EQ06T	DIODE , SCHOTTKY (60V/1A)	1	EA
....5	D928	CVDZJ20BT	DIODE , ZENER ,1/2W, 20V	1	EA
....5	D933	CVDSF26	DIODE , SUPER FAST RECTIFIER	1	EA
....5	D937	CVDSF26	DIODE , SUPER FAST RECTIFIER	1	EA
....5	D943	HVDUF4004T	DIODE , SCHOTTKY	1	EA
....5	ET91	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
....5	ET92	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
....5	ET93	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
....5	ET95	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
....5	FH91	KJCFC5S	HOLDER , FUSE	1	EA
....5	FH92	KJCFC5S	HOLDER , FUSE	1	EA
....5	IC99	CVIL78L24AB	IC, REGULATOR (24V, TO-92L)	1	EA
....5	Q902	HVTKSA708YT	T.R	1	EA
....5	Q903	HVTKSA708YT	T.R	1	EA
....5	Q914	HVTKSA708YT	T.R	1	EA
....5	RX93	CRO50TJ155T	RES , SURGE ,(1.5M OHM, 5%, 1/2W, PRC TYPE)	1	EA

....5	R908	CRW1PJ0R6T	RES , WIRE WOUND (1W/0.6OHM)	1	EA
...4		**COP12654BA**	**COPPER SHIELD PCB ASS'Y (HK37X0)**	1	EA
....5		CWE8102070SV001	WIRE ASS'Y 1P, UL1617#18, Double-insulated	2	EA
....5		C4B400125	TUBE , UL (40PIE , 125mm , BLACK)	0,125	M
...4		C4B050020	TUBE , UL (5 PIE , 20mm , BLACK)	0,02	M
...4	BD91	CLZ9H002Z	BEAD , CORE(100MHz MIN 120ohm)	1	EA
...4	BN65	CWB1C01525047	WIRE ASSY (LOCK, 15P, 250mm, 2.0mm)	1	EA
...4	CN20	CJP03GA90ZY	WAFER,YW396-03B(3.96mm)	1	EA
...4	CN66	CJP07GI236ZW	LOCKING TYPE , STRAIGHT WAFER , 2MM	1	EA
...4	CN90	CJP02KA060ZY	WAFER, 2P, 3.96mm	1	EA
...4	CN91	CJP02KA060ZY	WAFER, 2P, 3.96mm	1	EA
...4	CX91	CCQF2E224KZFS	CAP , X2(275VAC, 0.22uF, 12mm, SEORYONG)	1	EA
...4	CX92	CCQF2E334KZES	CAP , X2(275VAC, 0.33uF, 15mm, SEORYONG)	1	EA
...4	CY91	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	1	EA
...4	CY92	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	1	EA
...4	CY93	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	1	EA
...4	CY94	CCKDHS471ME	CAP , CERAMIC (400V Y-CAP)	1	EA
...4	CY95	CCKDHS471ME	CAP , CERAMIC (400V Y-CAP)	1	EA
...4	C902	CCET450VKM220NCS	CAP, ELECT(450V/22uF),105'C,13X20	1	EA
...4	C928	CCEA1JGF222ECS	CAP, ELECT(63V/2200uF/105'C), 18X40	1	EA
...4	C930	CCET450VK3J151NKS	CAP , ELECT(K3J, 150uF/450V, 25 X 40)	1	EA
...4	C933	CCEA1EH471ECS	CAP, ELECT(25V/470uF),105'C	1	EA
...4	C936	CCEA1JGF222ECS	CAP, ELECT(63V/2200uF/105'C), 18X40	1	EA
...4	C937	CCEA1JH471ECS	CAP , ELECT(63V/470uF),105'C	1	EA
...4	C939	CCEA1JH471ECS	CAP , ELECT(63V/470uF),105'C	1	EA
...4	C941	CCEA1AGF562ECS	CAP, ELECT(10V/5600uF/105'C), 13X30	1	EA
...4	C943	CCEA1AH102ECS	CAP, ELECT(10V/1000uF),105'C	1	EA
...4	DB91	CVDRS1005M	DIODE , BRIDGE (600V/10A,RS-10M)	1	EA
...4	D938	HVD31DQ06H	DIODE	1	EA
...4	D939	HVD31DQ06H	DIODE	1	EA
...4	HS91	CVTSPW17N80C3ZA	FET HEAT SINK ASS'Y (AVR170, CMY2A327ZA)	1	EA
....5		CMD1A720	BRACKET , THERMAL SENSOR	1	EA
....5		CMX1A164	INSULATOR , SILICON	1	EA
....5		CMY2A327ZA-V2	HEAT SINK	1	EA
....5		CRTST22110070WZA	PROTECTOR , THERMAL ASS'Y	1	EA
....6		CRTST22110070W	PROTECTOR , THERMAL (110'C, 70mm)	1	EA
....6		CRTST22110070WA	PROTECTOR , THERMAL ASS'Y (110'C, 70mm)	1	EA
....5		CTB3+10JR	SCREW	1	EA
....5		CVTSPW17N80C3	F.E.T , SPW17N80C3 (800V/17A, PG-TO247-3)	1	EA
...4	HS92	CVDFCU20A40XA	DIODE HEAT SINK ASS'Y (CMY3A222)	1	EA
....5		CMY3A222-V2	HEAT SINK	1	EA
....5		CTB3+10JR	SCREW	1	EA
....5		CVDFCU20A40	DIODE , FAST RECOVERY (400V/20A,TO-220)	1	EA
....5		K8AYG6260	COMPOUND , SILICONE	0,2	G
...4	HS93	CVDFCU20A40XA	DIODE HEAT SINK ASS'Y (CMY3A222)	1	EA
....5		CMY3A222-V2	HEAT SINK	1	EA
....5		CTB3+10JR	SCREW	1	EA
....5		CVDFCU20A40	DIODE , FAST RECOVERY (400V/20A,TO-220)	1	EA
....5		K8AYG6260	COMPOUND , SILICONE	0,2	G
...4	HS94	CVINJM7812FAXA	HEAT SINK ASS'Y(HVINJM7812FA+CMY2A223)	1	EA
....5		CMY2A223-V2	HEAT SINK	1	EA
....5		CTB3+8JR	SCREW	1	EA
....5		HVINJM7812FA	I.C , REGULATOR	1	EA
....5		K8AYG6260	COMPOUND , SILICONE	0,2	G
...4	HS96	CVT10N65KLYA	HEAT SINK ASS'Y(CMY2A223-V2)	1	EA
....5		CMY2A223-V2	HEAT SINK	1	EA
....5		CTB3+8JR	SCREW	1	EA
....5		CVT10N65KL	FET, 10N65K, N-CH, TO-220F, UTC	1	EA
....5		K8AYG6260	COMPOUND , SILICONE	0,2	G
...4	IC91	CVIOB2358LAP	I.C , PWM	1	EA
...4	IC98	HVINJM7912FA	I.C , REGULATOR	1	EA
...4	LF91	CLZ9Z135Z	FILTER , LINE (SQE2930, 8mH)	1	EA

...4	LF92	CLZ9Z135Z	FILTER , LINE (SQE2930, 8mH)	1	EA
...4	LF93	CLZ9Z121Z	LINE, FILTER (150uH, RING-616)	1	EA
...4	L924	CLZ9Z175Z	COIL , BAR CHOKE	1	EA
...4	L925	CLZ9Z090Z	COIL , CHOKE(7UH)	1	EA
...4	L928	CLZ9Z175Z	COIL , BAR CHOKE	1	EA
...4	L929	CLZ9Z175Z	COIL , BAR CHOKE	1	EA
...4	L930	CLZ9Z175Z	COIL , BAR CHOKE	1	EA
...4	PC89	CVIEL817B	I.C , PHOTO COUPLER	1	EA
...4	PC95	CVIEL817B	I.C , PHOTO COUPLER	1	EA
...4	PC97	CVIEL817B	I.C , PHOTO COUPLER	1	EA
...4	PC98	CVIEL817B	I.C , PHOTO COUPLER	1	EA
...4	R765	CRW1PJ1R5V	WIRE WOUND (1W/1.5 OHM)	1	EA
...4	R778	CRF5EJR01HS	RES , CEMENT (5W, 0.01 OHM, 5% SMALL SIZE)	1	EA
...4	R903	CRG2ANJ470H	RES , METAL OXIDE FILM	1	EA
...4	R913	CRW1PJ0R1V	RES , WIRE WOUND (1W/0.1OHM)	1	EA
...4	R914	CRW1PJ0R1V	RES , WIRE WOUND (1W/0.1OHM)	1	EA
...4	R920	CRG2ANJ683H	RES , METAL OXIDE FILM	1	EA
...4	TF91	CLT9Z087ZE	TRANS , STBY (AVR1X1)	1	EA
...4	TF92	CLT9Z105ZE	TRANS , SWITCHING	1	EA
...4	TF93	CLT9Z106ZE	TRANS , SWITCHING	1	EA
...4	TH91	CRT2R5D20MSFC	NTC , THERMISTOR (10MM PITCH, 2.5D-20)	1	EA
...4	TS92	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
...4	VT91	CRVSVC561D14A	VARISTOR(560V, 14mm)	1	EA
...4	VT92	CRVSVC561D14A	VARISTOR(560V, 14mm)	1	EA
..3		**COP12620E**	**HK3770/230 DIGITAL PCB ASS'Y**	1	EA
....7	C1102	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1103	CCUS1H102KCS	CAP, CHIP(1608, 50V/1000pF, X7R)_SAMSUNG	1	EA
....7	C1104	CCUI1C104KCS	CAP, CHIP(1005, 16V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1107	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1110	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1111	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1115	CCUI1C104KCS	CAP, CHIP(1005, 16V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1116	CCUI1C104KCS	CAP, CHIP(1005, 16V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1117	CCUS0J225KCS	CAP, CHIP(1608, 6.3V/2.2uF, X7R)_SAMSUNG	1	EA
....7	C1119	CCUS0J225KCS	CAP, CHIP(1608, 6.3V/2.2uF, X7R)_SAMSUNG	1	EA
....7	C1120	CCUI1C104KCS	CAP, CHIP(1005, 16V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1121	CCUC1C106KCS	CAP, CHIP(2012, 16V/10uF, X5R)_SAMSUNG	1	EA
....7	C1124	CCUS1H220JAS	CAP, CHIP(1608, 50V/22pF, C0G)_SAMSUNG	1	EA
....7	C1125	CCUS1H220JAS	CAP, CHIP(1608, 50V/22pF, C0G)_SAMSUNG	1	EA
....7	C1130	CCUP0J226KCS	CAP, CHIP(3216, 6.3V/22uF, X5R)_SAMSUNG	1	EA
....7	C1132	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1135	CCUS1A105KCS	CAP, CHIP(1608, 10V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1136	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1142	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1143	CCUS1A105KCS	CAP, CHIP(1608, 10V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1145	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1146	CCUS1H100JAS	CAP, CHIP(1608, 50V/10pF, C0G)_SAMSUNG	1	EA
....7	C1147	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1149	CCUS1A105KCS	CAP, CHIP(1608, 10V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1150	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1151	CCUS1A105KCS	CAP, CHIP(1608, 10V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1152	CCUS1H680JAS	CAP, CHIP(1608, 50V/68pF, C0G)_SAMSUNG	1	EA
....7	C1153	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1154	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1155	CCUS1H680JAS	CAP, CHIP(1608, 50V/68pF, C0G)_SAMSUNG	1	EA
....7	C1156	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1157	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1159	CCUS0J225KCS	CAP, CHIP(1608, 6.3V/2.2uF, X7R)_SAMSUNG	1	EA
....7	C1160	CCUS1H680JAS	CAP, CHIP(1608, 50V/68pF, C0G)_SAMSUNG	1	EA
....7	C1161	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1162	CCUS1H680JAS	CAP, CHIP(1608, 50V/68pF, C0G)_SAMSUNG	1	EA
....7	C1163	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA

....7	C1164	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1165	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1190	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1191	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1202	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1204	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1206	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1208	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1213	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1214	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1248	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1301	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....7	C1302	CCUS1H272KCS	CAP, CHIP(1608, 50V/2700pF, X7R)_SAMSUNG	1	EA
....7	C1303	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1304	CCUS1H151JAS	CAP, CHIP(1608, 50V/150pF, C0G)_SAMSUNG	1	EA
....7	C1307	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1308	CCUS1H101JAS	CAP, CHIP(1608, 50V/100pF, C0G)_SAMSUNG	1	EA
....7	C1309	CCUS1H272KCS	CAP, CHIP(1608, 50V/2700pF, X7R)_SAMSUNG	1	EA
....7	C1310	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1311	CCUS1H151JAS	CAP, CHIP(1608, 50V/150pF, C0G)_SAMSUNG	1	EA
....7	C1313	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1314	CCUS1H102KCS	CAP, CHIP(1608, 50V/1000pF, X7R)_SAMSUNG	1	EA
....7	C1315	CCUC1C106KCS	CAP, CHIP(2012, 16V/10uF, X5R)_SAMSUNG	1	EA
....7	C1317	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1319	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1322	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1323	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1324	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1325	CCUS1H102KCS	CAP, CHIP(1608, 50V/1000pF, X7R)_SAMSUNG	1	EA
....7	C1326	CCUS1H223KCS	CAP, CHIP(1608, 50V/0.022uF, X7R)_SAMSUNG	1	EA
....7	C1327	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1328	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1330	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1331	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1333	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1341	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1342	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1344	CCUC1C106KCS	CAP, CHIP(2012, 16V/10uF, X5R)_SAMSUNG	1	EA
....7	C1347	CCUC1C106KCS	CAP, CHIP(2012, 16V/10uF, X5R)_SAMSUNG	1	EA
....7	C1350	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1354	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1355	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1364	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1365	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1366	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1367	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1369	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1370	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1371	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1373	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1374	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1375	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1377	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1378	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1379	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1380	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1382	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1384	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1389	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1406	CCUC1A225KCS	CAP, CHIP(2012, 10V/2.2uF, X5R)_SAMSUNG	1	EA
....7	C1407	CCUC1A225KCS	CAP, CHIP(2012, 10V/2.2uF, X5R)_SAMSUNG	1	EA
....7	C1411	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA

....7	C1414	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1417	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1418	CCUS1H102KCS	CAP, CHIP(1608, 50V/1000pF, X7R)_SAMSUNG	1	EA
....7	C1427	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1428	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1429	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1430	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1431	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1432	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1433	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1434	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1435	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1436	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1437	CCUS1H151JAS	CAP, CHIP(1608, 50V/150pF, C0G)_SAMSUNG	1	EA
....7	C1450	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1451	CCUC1C106KCS	CAP, CHIP(2012, 16V/10uF, X5R)_SAMSUNG	1	EA
....7	C1500	CCUS1H391JAS	CAP, CHIP(1608, 50V/390pF, C0G)_SAMSUNG	1	EA
....7	C1503	CCUS1H272KCS	CAP, CHIP(1608, 50V/2700pF, X7R)_SAMSUNG	1	EA
....7	C1506	CCUS1H272KCS	CAP, CHIP(1608, 50V/2700pF, X7R)_SAMSUNG	1	EA
....7	C1508	CCUS1H391JAS	CAP, CHIP(1608, 50V/390pF, C0G)_SAMSUNG	1	EA
....7	C1511	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1512	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1550	CCUS1H102KCS	CAP, CHIP(1608, 50V/1000pF, X7R)_SAMSUNG	1	EA
....7	C1553	CCUS1H102KCS	CAP, CHIP(1608, 50V/1000pF, X7R)_SAMSUNG	1	EA
....7	C1556	CCUC1H105KCS	CAP, CHIP(2012, 50V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1558	CCUC1H105KCS	CAP, CHIP(2012, 50V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1559	CCUS1H220JAS	CAP, CHIP(1608, 50V/22pF, C0G)_SAMSUNG	1	EA
....7	C1567	CCUS1H220JAS	CAP, CHIP(1608, 50V/22pF, C0G)_SAMSUNG	1	EA
....7	D1403	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	D1404	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	D1500	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	D1501	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	D1506	HVDUDZS3.3BSR	DIODE , ZENER(CHIP,3.3V)	1	EA
....7	D1561	HVDUDZS9.1BSR	DIODE , ZENER(CHIP,9.1V)	1	EA
....7	IC1101	CVIMFI337S3959-HK	IC, Apple iPod Authentication coprocessor 2.0c	1	EA
....7	IC1105	CVIAT45DB321E-SHF-T	I.C , SERIAL DATA FLASH(32M,SOIC-8P)	1	EA
....7	IC1305	CVIMX25L8006EM2I-12G	I.C , SERIAL FLASH(8M)	1	EA
....7	IC1306	HVINJM2115MTE1	I.C , OP AMP	1	EA
....7	IC1307	HVINJM2115MTE1	I.C , OP AMP	1	EA
....7	IC1403	CVIM24C32WMN6TP	I.C , EEPROM (32 Kbit) ST	1	EA
....7	IC1405	CVICAT809RTBI-GT3	I.C , RESET IC (2.63V, SOT-23-3)	1	EA
....7	L1105	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
....7	L1106	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
....7	L1107	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
....7	L1109	CLZ9R018V	FERRITE CHIP BEAD(2012/220R, CB05YTYH221)	1	EA
....7	L1111	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1120	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
....7	L1121	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
....7	L1203	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1204	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1205	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1208	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1217	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1304	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
....7	Q1100	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1401	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
....7	Q1403	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1404	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1405	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1406	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
....7	Q1407	HVTKTA1504SYRTK	T.R , CHIP , SOT-23	1	EA
....7	Q1408	HVTKTC3875SYRTK	T.R , CHIP , SOT-23	1	EA

....7	Q1500	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1501	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....7	Q1502	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....7	Q1503	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1504	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....7	Q1505	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....7	Q1506	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....7	Q1507	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
....7	Q1508	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1509	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1514	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1515	CVTMMBT5401	High Voltage PNP Transistors(SOT-23)	1	EA
....7	Q1516	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
....7	R1108	CRJ06IJ100T	RES, CHIP(1005/5%/10ohm)	1	EA
....7	R1125	CRJ10DJ301T	RES, CHIP(1608/5%/300ohm)	1	EA
....7	R1126	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
....7	R1127	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
....7	R1128	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1131	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1132	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1135	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
....7	R1136	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
....7	R1137	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
....7	R1142	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1143	CRJ10DF6041T	RES, CHIP(1608/1%/6.04Kohm)	1	EA
....7	R1144	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1151	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1152	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1153	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1155	CRJ10DJ224T	RES, CHIP(1608/5%/220Kohm)	1	EA
....7	R1162	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1170	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA
....7	R1205	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1206	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1209	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1210	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1213	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1215	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1216	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1217	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1218	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1236	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	R1251	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1258	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1259	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1260	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1261	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1262	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1301	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1302	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1303	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....7	R1305	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1306	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....7	R1308	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
....7	R1309	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1310	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1311	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1313	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....7	R1314	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1315	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....7	R1317	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1318	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA

....7	R1321	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1323	CRJ10DF1371T	RES, CHIP(1608/1%/1.37Kohm)	1	EA
....7	R1324	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1328	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1329	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....7	R1330	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....7	R1331	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1339	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1340	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1341	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1342	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1347	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1348	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
....7	R1350	CRJ10DF5101T	RES, CHIP(1608/1%/5.1Kohm)	1	EA
....7	R1352	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1353	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1357	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1358	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1402	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1412	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1413	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1414	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1424	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1425	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1438	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1442	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1450	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1451	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1452	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1456	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....7	R1457	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....7	R1458	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....7	R1459	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1462	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1467	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1469	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1473	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1480	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1481	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1486	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1487	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....7	R1488	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1489	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1490	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1491	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1500	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1503	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
....7	R1504	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1505	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
....7	R1506	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1509	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1510	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1511	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1514	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1515	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
....7	R1516	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
....7	R1517	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1554	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....7	R1555	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1556	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
....7	R1557	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1558	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA

....7	R1561	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1562	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
....7	R1563	CRJ10DJ302T	RES, CHIP(1608/5%/3Kohm)	1	EA
....7	R1564	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....7	R1567	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1568	CRJ10DF1002T	RES, CHIP(1608/1%/10Kohm)	1	EA
....7	R1569	CRJ10DF1002T	RES, CHIP(1608/1%/10Kohm)	1	EA
....7	R1572	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1573	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	R1575	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1576	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1577	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1578	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1579	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1581	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1582	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1583	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1590	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1591	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
....7	R1595	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
....7	R1596	CRJ10DJ302T	RES, CHIP(1608/5%/3Kohm)	1	EA
....7	R1599	CRJ18AJ151T	RES, CHIP(2012/5%/150ohm)	1	EA
....7		**CUP12620Z**	**PCB , DIGITAL (FR-4, 4L,160 X 124)**	1	EA
....7	BN1400	CJP03GA208ZY	WAFER , SMD (2MM PITCH)-3P	1	EA
....7	CN1100	CJP07GA208ZY	WAFER, 2mm, SMD, Vertical, 07p	1	EA
....7	CN1201	CJP15GB276ZY	WAFER, 20037WR-NN Series, 2mm, SMD, ANGLE, 15P	1	EA
....7	CN1400	CJP03GA208ZY	WAFER , SMD (2MM PITCH)-3P	1	EA
....7	CN1511	CJP13GA208ZY	WAFER, 2mm, SMD, Vertical, 13p	1	EA
....7	C1100	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1101	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1105	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1106	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1108	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1109	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1112	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1113	CCUS1H180JAS	CAP, CHIP(1608, 50V/18pF, C0G)_SAMSUNG	1	EA
....7	C1114	CCUS1H180JAS	CAP, CHIP(1608, 50V/18pF, C0G)_SAMSUNG	1	EA
....7	C1118	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1122	CCUS1H222KCS	CAP, CHIP(1608, 50V/2200pF, X7R)_SAMSUNG	1	EA
....7	C1123	CCUS1H222KCS	CAP, CHIP(1608, 50V/2200pF, X7R)_SAMSUNG	1	EA
....7	C1126	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1127	CCUC1C106KCS	CAP, CHIP(2012, 16V/10uF, X5R)_SAMSUNG	1	EA
....7	C1128	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1129	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1131	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1133	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1134	CCUS1A105KCS	CAP, CHIP(1608, 10V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1137	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1138	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1139	CCUS1A105KCS	CAP, CHIP(1608, 10V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1140	CCUS1A105KCS	CAP, CHIP(1608, 10V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1141	CCUS1H070DAS	CAP, CHIP(1608, 50V/7pF, C0G)_SAMSUNG	1	EA
....7	C1144	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1148	CCUS1A105KCS	CAP, CHIP(1608, 10V/1uF, X7R, X7S)_SAMSUNG	1	EA
....7	C1158	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1166	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1167	CCUS1H150JAS	CAP, CHIP(1608, 50V/15pF, C0G)_SAMSUNG	1	EA
....7	C1168	CCUS1H150JAS	CAP, CHIP(1608, 50V/15pF, C0G)_SAMSUNG	1	EA
....7	C1169	CCUS1H200JAS	CAP, CHIP(1608, 50V/20pF, C0G)_SAMSUNG	1	EA
....7	C1170	CCUS1H200JAS	CAP, CHIP(1608, 50V/20pF, C0G)_SAMSUNG	1	EA
....7	C1171	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1201	HCEC0JRV2221T	CAP, SMD ELECT(6.3V/220uF)	1	EA

....7	C1203	HCEC1CRV2101T	CAP, SMD ELECT(16V/100uF)	1	EA
....7	C1205	HCEC1CRV2101T	CAP, SMD ELECT(16V/100uF)	1	EA
....7	C1207	CCEC1CRV471T	CAP, SMD ELECT(16V/470uF)	1	EA
....7	C1209	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1210	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1211	HCEC0JRV2470T	CAP, SMD ELECT(6.3V/47uF)	1	EA
....7	C1212	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1215	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1216	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1217	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1218	CCUC1A225KCS	CAP, CHIP(2012, 10V/2.2uF, X5R)_SAMSUNG	1	EA
....7	C1219	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1220	CCUS1H152KCS	CAP, CHIP(1608, 50V/1500pF , X7R)_SAMSUNG	1	EA
....7	C1221	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1222	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1227	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1228	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1229	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1230	CCUC1A225KCS	CAP, CHIP(2012, 10V/2.2uF, X5R)_SAMSUNG	1	EA
....7	C1231	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1232	CCUS1H152KCS	CAP, CHIP(1608, 50V/1500pF , X7R)_SAMSUNG	1	EA
....7	C1233	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1235	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1244	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1245	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1246	CCUSSP1E106KC	CAP, CHIP(3216, 25V/10uF)	1	EA
....7	C1247	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1249	HCEC0JRV2470T	CAP, SMD ELECT(6.3V/47uF)	1	EA
....7	C1305	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1306	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1312	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1316	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1318	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1320	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1321	HCEC1CRV2101T	CAP, SMD ELECT(16V/100uF)	1	EA
....7	C1329	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1332	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1334	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1335	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1336	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1337	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1338	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1339	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1340	CCUC1C106KCS	CAP, CHIP(2012, 16V/10uF, X5R)_SAMSUNG	1	EA
....7	C1345	CCUC1C106KCS	CAP, CHIP(2012, 16V/10uF, X5R)_SAMSUNG	1	EA
....7	C1348	CCUC1C106KCS	CAP, CHIP(2012, 16V/10uF, X5R)_SAMSUNG	1	EA
....7	C1349	CCUC1C106KCS	CAP, CHIP(2012, 16V/10uF, X5R)_SAMSUNG	1	EA
....7	C1351	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1352	CCUS1H150JAS	CAP, CHIP(1608, 50V/15pF, C0G)_SAMSUNG	1	EA
....7	C1353	CCUS1H150JAS	CAP, CHIP(1608, 50V/15pF, C0G)_SAMSUNG	1	EA
....7	C1368	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1372	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1376	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1381	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1383	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1385	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1386	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1387	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1388	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1405	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1408	CCUC1A226KCS	CAP, CHIP(2012, 10V/22uF, X5R)_SAMSUNG	1	EA
....7	C1409	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA

....7	C1410	CCUS0J475KCS	CAP, CHIP(1608, 6.3V/4.7uF, X5R)_SAMSUNG	1	EA
....7	C1412	CCUS1H150JAS	CAP, CHIP(1608, 50V/15pF, C0G)_SAMSUNG	1	EA
....7	C1413	CCUS1H150JAS	CAP, CHIP(1608, 50V/15pF, C0G)_SAMSUNG	1	EA
....7	C1415	CCUS1H103KCS	CAP, CHIP(1608, 50V/0.01uF, X7R)_SAMSUNG	1	EA
....7	C1419	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1426	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1501	CCUS1H272KCS	CAP, CHIP(1608, 50V/2700pF, X7R)_SAMSUNG	1	EA
....7	C1502	CCUS1H391JAS	CAP, CHIP(1608, 50V/390pF, C0G)_SAMSUNG	1	EA
....7	C1504	CCUS1H272KCS	CAP, CHIP(1608, 50V/2700pF, X7R)_SAMSUNG	1	EA
....7	C1505	CCUS1H391JAS	CAP, CHIP(1608, 50V/390pF, C0G)_SAMSUNG	1	EA
....7	C1507	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1509	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1510	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1513	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1542	CCEC1CRV471T	CAP, SMD ELECT(16V/470uF)	1	EA
....7	C1543	CCEC1CRV471T	CAP, SMD ELECT(16V/470uF)	1	EA
....7	C1544	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1545	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1546	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1547	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1551	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1552	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1554	HCEC0JRV2220T	CAP, SMD ELECT(6.3V/22uF)	1	EA
....7	C1555	CCUS1H104KCS	CAP, CHIP(1608, 50V/0.1uF, X7R)_SAMSUNG	1	EA
....7	C1557	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1560	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1561	HCEC1CRV2101T	CAP, SMD ELECT(16V/100uF)	1	EA
....7	C1562	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1563	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1564	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1565	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1566	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1568	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	C1569	HCEC1CRV2100T	CAP, SMD ELECT(16V/10uF)	1	EA
....7	D1104	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	D1105	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	D1401	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	D1502	HVD1SR159-200	DIODE , RECTIFIER	1	EA
....7	D1503	HVD1SR159-200	DIODE , RECTIFIER	1	EA
....7	D1504	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	D1505	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
....7	F1301	CRTMINISMDC200F	SW , POLY (RESETTABLE 2A 0.02 OHM 1W 4532)	1	EA
....7	IC1100	CVIISL54220IUZ-T	I.C , USB2.0 Multiplexer(TQFN-10P)	1	EA
....7	IC1102	CVIKSZ8851SNLTR	I.C , ETHERNET PHY (10/100M,QFN-32P))	1	EA
....7	IC1103	CVIPCM5100PWR	I.C , 2CH DAC(32BIT,384KHZ,TSSOP-20P)	1	EA
....7	IC1104	CVIA3V28S40FTP-G6	EOL item I.C , SDRAM(128MBIT,TSOP-54P)	1	EA
....7	IC1106	CVIFS1230A	I.C , CHORUS3(NETWORK PROCESSOR)	1	EA
....7	IC1201	CVIAZ1117CH-5.0TRG1	LDO, low dropout three-terminal regulator	1	EA
....7	IC1202	CVIDB1230HETR	I.C , DC DC CONVERTER(3A,700KHZ,SOP-8P)	1	EA
....7	IC1204	CVIDB1230HETR	I.C , DC DC CONVERTER(3A,700KHZ,SOP-8P)	1	EA
....7	IC1205	CVIEML3418-00SE08GRR	I.C , DCDC CONVERTER(SOP-8FD)	1	EA
....7	IC1206	CVIAZ1117CH-1.2TRG1	LDO , low dropout three-terminal regulator	1	EA
....7	IC1301	HVICS42528-CQ	I.C , CODEC + DIR (CIRRUS LOGIC)	1	EA
....7	IC1302	CVICS495314CVZ	I.C , DSP AUDIO DECODER(LQFP-128P)	1	EA
....7	IC1309	CVINJM2845DL118	I.C, REGULATOR(1.8V/TO-252)	1	EA
....7	IC1400	CRTLM94022BIMG	SENSOR , TEMPERATURE	1	EA
....7	IC1401	CVISTM32F205ZGT6	I.C , FLASH MCU (32 BIT, 1MB, LQFP 144)	1	EA
....7	IC1404	CVIDB1510BT3TR33	I.C, REGULATOR(1.0A,3.3V,TO252-(1))	1	EA
....7	IC1500	CVIAZ4580MTR-E1	EOL item I.C , OPAMP(DUAL/LOW NOISE)	1	EA
....7	IC1502	CVILM7808RTRL	IC, REGULATOR(1A, 8V)	1	EA
....7	IC1503	CVILM7908RTRL	IC, REGULATOR(1A, -8V)	1	EA
....7	IC1511	CVINJM2753V	I.C , Stereo Audio Selector(SSOP14)	1	EA

....7	JK1100	CJJ9L026Z	JACK , RJ-45 With TR (SMT)	1	EA
....7	L1100	CLZ9R018V	FERRITE CHIP BEAD(2012/220R, CB05YTYH221)	1	EA
....7	L1101	CLZ9R018V	FERRITE CHIP BEAD(2012/220R, CB05YTYH221)	1	EA
....7	L1102	CLZ9Z127Z	COIL, CHOKE CHIP(2012/180R)	1	EA
....7	L1103	CLZ9Z128Z	COIL, CHOKE CHIP(2012/90R)	1	EA
....7	L1104	CLZ9Z128Z	COIL, CHOKE CHIP(2012/90R)	1	EA
....7	L1108	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1110	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1112	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1113	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1114	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1115	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1116	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1117	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1201	CLQ12E100MRZ	COIL , SMD POWER (10uH/3A)	1	EA
....7	L1202	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1206	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1207	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1214	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1215	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1216	CLQ18E1R5NRZ	COIL,SMD POWER(1.5uH/2A)	1	EA
....7	L1219	CLQ20E3R3NRZ	COIL,SMD POWER(3.3uH/3.2A)	1	EA
....7	L1220	CLQ20E3R3NRZ	COIL,SMD POWER(3.3uH/3.2A)	1	EA
....7	L1301	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1302	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1303	CLZ9Z014Z	FERRITE CHIP BEAD(4516/60R)	1	EA
....7	L1401	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
....7	L1500	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
....7	Q1402	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1510	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
....7	Q1511	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
....7	Q1512	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
....7	Q1513	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
....7	Q1517	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
....7	RN1302	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
....7	RN1303	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
....7	RN1400	CRJ104DJ101T	RES, CHIP(1608/5%/100ohm*4)	1	EA
....7	RN1401	CRJ104DJ101T	RES, CHIP(1608/5%/100ohm*4)	1	EA
....7	RN1402	CRJ104DJ101T	RES, CHIP(1608/5%/100ohm*4)	1	EA
....7	R1100	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1101	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1104	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1105	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1106	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1107	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1109	CRJ10DJ510T	RES, CHIP(1608/5%/51ohm)	1	EA
....7	R1110	CRJ10DJ510T	RES, CHIP(1608/5%/51ohm)	1	EA
....7	R1111	CRJ10DJ510T	RES, CHIP(1608/5%/51ohm)	1	EA
....7	R1112	CRJ10DJ510T	RES, CHIP(1608/5%/51ohm)	1	EA
....7	R1114	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1115	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1116	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1117	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
....7	R1118	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
....7	R1119	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
....7	R1120	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
....7	R1121	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
....7	R1122	CRJ06IJ105T	RES, CHIP(1005/5%/1Mohm)	1	EA
....7	R1123	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
....7	R1124	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....7	R1129	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
....7	R1130	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA

....7	R1133	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1134	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
....7	R1138	CRJ064IJ750T	RES, CHIP(1005/5%/75ohm*4)	1	EA
....7	R1139	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA
....7	R1140	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
....7	R1146	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
....7	R1147	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1148	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1149	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
....7	R1150	CRJ10DJ511T	RES, CHIP(1608/5%/510ohm)	1	EA
....7	R1201	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1207	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1208	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1211	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1212	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1214	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1222	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1223	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1224	CRJ10DF1502T	RES, CHIP(1608/1%/15Kohm)	1	EA
....7	R1225	CRJ10DF4702T	RES, CHIP(1608/1%/47Kohm)	1	EA
....7	R1226	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1231	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1232	CRJ10DF1002T	RES, CHIP(1608/1%/10Kohm)	1	EA
....7	R1233	CRJ10DF2702T	RES, CHIP(1608/1%/27Kohm)	1	EA
....7	R1234	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1237	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1238	CRJ10DF1002T	RES, CHIP(1608/1%/10Kohm)	1	EA
....7	R1239	CRJ10DF4702T	RES, CHIP(1608/1%/47Kohm)	1	EA
....7	R1250	CRJ10DF1002T	RES, CHIP(1608/1%/10Kohm)	1	EA
....7	R1254	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1255	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1263	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1264	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1265	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1266	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1288	CRJ10DF2702T	RES, CHIP(1608/1%/27Kohm)	1	EA
....7	R1299	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1304	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1307	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....7	R1312	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1316	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
....7	R1319	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1320	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1322	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1325	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1326	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
....7	R1327	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1334	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1335	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1336	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1337	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1338	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1343	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1344	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1345	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1346	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
....7	R1349	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1354	CRJ10DJ820T	RES, CHIP(1608/5%/82ohm)	1	EA
....7	R1355	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1356	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1362	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1363	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA

....7	R1375	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
....7	R1376	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1403	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1411	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1416	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1417	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1418	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1419	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1420	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
....7	R1421	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1427	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1428	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1430	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1431	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1432	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
....7	R1433	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
....7	R1434	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1435	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1436	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1437	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1443	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1444	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1445	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1446	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1447	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1448	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1449	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1453	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1461	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1464	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1465	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
....7	R1466	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1470	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1471	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1472	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1474	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1476	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1477	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1478	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1483	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
....7	R1484	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
....7	R1485	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
....7	R1493	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
....7	R1494	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
....7	R1501	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1502	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
....7	R1507	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
....7	R1508	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
....7	R1512	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
....7	R1513	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
....7	R1565	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1566	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
....7	R1570	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
....7	R1571	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
....7	WF1100	CJP15GA193ZY	WAFER, FFC, SMD(15P-1mm, STRAIGHT)	1	EA
....7	WF1400	CJP23GA299ZN	WAFER, FFC, SMD(23P-1.25mm, STRAIGHT)	1	EA
....7	WF1401	CJP07GA193ZY	WAFER, FFC, SMD(07P-1mm, STRAIGHT)	1	EA
....7	WF1402	CJP09GA193ZY	WAFER, FFC, SMD(09-1mm, STRAIGHT)	1	EA
....7	WF1403	CJP11GA299ZN	WAFER, FFC, SMD(11P-1.25mm, STRAIGHT)	1	EA
....7	WF1500	CJP17GA193ZY	WAFER, FFC, SMD(17P-1mm, STRAIGHT)	1	EA
....7	WF1502	CJP23GA299ZN	WAFER, FFC, SMD(23P-1.25mm, STRAIGHT)	1	EA
....7	X1100	COX25000I120ST	X-TAL, SMD 3.2X2.5, 25.000MHz, 12PF	1	EA

....7	X1101	COX12000I100ST	X-TAL, SMD 3.2X2.5, 12.000MHz, 10PF	1	EA
....7	X1102	COX24576I120ST	X-TAL, SMD 3.2X2.5, 24.576MHz, 12PF	1	EA
....7	X1301	COX24576I120ST	X-TAL, SMD 3.2X2.5, 24.576MHz, 12PF	1	EA
....7	X1400	COX25000I120ST	X-TAL, SMD 3.2X2.5, 25.000MHz, 12PF	1	EA
..3		CTS3+8JFZR	SCREW	4	EA
..3		CUA1A343	CHASSIS , BOTTOM AVR1510	1	EA
..3		CWB1B003200HH	WIRE ASS'Y (3P, 2.0mm, 200mm)	1	EA
..3		CWC4C4A11B080A10	CARD , CABLE (11P,1.25mm,80mm,A,10mm)	1	EA
..3		CWC4C4A23B120B10	CARD , CABLE (23P,1.25mm,120mm,B,10mm)	1	EA
..3		CWZHK3770CN90A	INLET WIRE ASS'Y	1	EA
...4		CJJ8A006ZW	RECEPTACLE , AC(15A/250V,R-301,B21)	1	EA
...4		CLZ9W003Z	FERRITE , RING	1	EA
...4		CWZHK3770CN90	WIRE ASS'Y (2P, 365mm, INLET)	1	EA
..3	F901	KBA2C6300TLHEY	FUSE(215Series, 250V/6.3)	1	EA

◎ TR Block Diagrams

Q405, Q505 HVT2SC4883A T.R , DRIVER

■Absolute maximum ratings (Ta=25°C)

Symbol	Ratings		Unit
	2SC4883	2SC4883A	
VCBO	150	180	V
VCEO	150	180	V
VEBO	6		V
IC	2		A
IB	1		A
PC	20(TC=25°C)		W
Tj	150		°C
Tstg	−55 to +150		°C

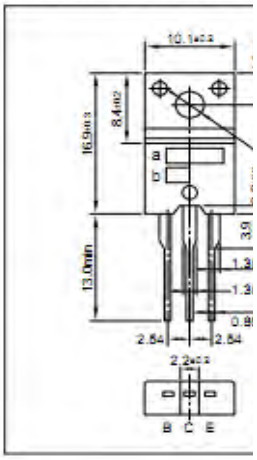
■Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings		Unit
		2SC4883	2SC4883A	
ICBO		10max		μA
	VCB=	150	180	V
IEBO	VEB=6V	10max		μA
V(BR)CEO	IC=10mA	150min	180min	V
hFE	VCE=10V, IC=0.7A	60 to 240		
VCE(sat)	IC=0.7A, IB=70mA	1.0max		V
fT	VCE=12V, IE=−0.7A	120typ		MHz
COB	VCB=10V, f=1MHz	30typ		pF

■Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	IC (A)	VBB1 (V)	VBB2 (V)	IB1 (mA)	IB2 (mA)	ton (μs)	tstg (μs)	tf (μs)
20	20	1	10	−5	100	−100	0.5typ	1.5typ	0.5typ

External Dimension



Q404, Q504 HVT2SA1859A T.R , DRIVER

■Absolute maximum ratings (Ta=25°C)

Symbol	2SA1859	2SA1859A	Unit
VCBO	−150	−180	V
VCEO	−150	−180	V
VEBO	−6		V
IC	−2		A
IB	−1		A
PC	20(TC=25°C)		W
Tj	150		°C
Tstg	−55 to +150		°C

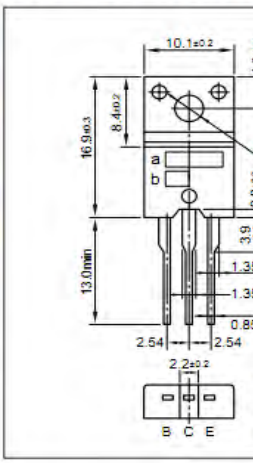
■Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SA1859	2SA1859A	Unit
ICBO		−10max		μA
	VCB=	−150	−180	V
IEBO	VEB=−6V	−10max		μA
V(BR)CEO	IC=−10mA	−150min	−180min	V
hFE	VCE=−10V, IC=−0.7A	60 to 240		
VCE(sat)	IC=−0.7A, IB=−70mA	−1.0max		V
fT	VCE=−12V, IE=0.7A	60typ		MHz
COB	VCB=−10V, f=1MHz	30typ		pF

■Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	IC (A)	VBB1 (V)	VBB2 (V)	IB1 (mA)	IB2 (mA)	ton (μs)	tstg (μs)	tf (μs)
−20	20	−1	−10	5	−100	100	0.5typ	1.0typ	0.5typ

External Dimensions



Q403, Q503 HVT2SA1492 T.R , POWER

■Absolute maximum ratings (Ta=25°C)

Symbol	2SA1492	Unit
VCBO	−180	V
VCEO	−180	V
VEBO	−6	V
IC	−15	A
IB	−4	A
PC	130(TC=25°C)	W
Tj	150	°C
Tstg	−55 to +150	°C

■Electrical Characteristics (Ta=25°C)

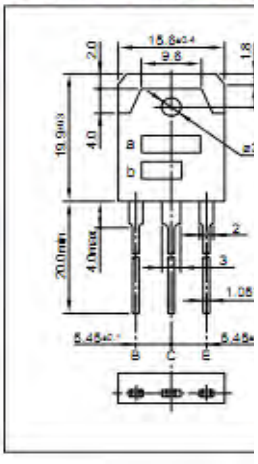
Symbol	Conditions	2SA1492	Unit
ICBO	VCB=−180V	−100max	μA
IEBO	VEB=−6V	−100max	μA
V(BR)CEO	IC=−50mA	−180min	V
hFE	VCE=−4V, IC=−3A	50min*	
VCE(sat)	IC=−5A, IB=−0.5A	−2.0max	V
fT	VCE=−12V, IE=0.5A	20typ	MHz
COB	VCB=−10V, f=1MHz	500typ	pF

*hFE Rank O(50 to 100), P(70 to 140), Y(90 to 180)

■Typical Switching Characteristics (Common Emitter)

VCC (V)	RL (Ω)	IC (A)	VBB1 (V)	VBB2 (V)	IB1 (A)	IB2 (A)	ton (μs)	tstg (μs)	tf (μs)
−40	4	−10	−10	5	−1	1	0.6typ	0.9typ	0.2typ

External Dimensio



Q402, Q502 HVT2SC3856 T.R , POWER

External Dimensio

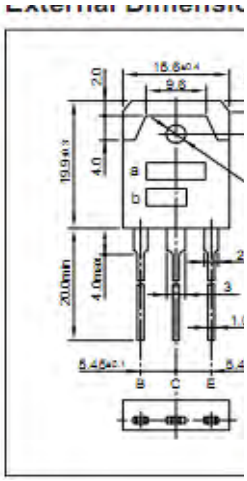
Absolute maximum ratings (Ta=25°C)

Symbol	2SC3856	Unit
V_{CBO}	200	V
V_{CEO}	180	V
V_{EBO}	6	V
I_C	15	A
I_B	4	A
P_C	130(Tc=25°C)	W
Tj	150	°C
Tstg	−55 to +150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Conditions	2SC3856	Unit
I_{CBO}	V_{CB}=200V	100max	μA
I_{EBO}	V_{EB}=6V	100max	μA
$V_{(BR)CEO}$	I_C=50mA	180min	V
h_{FE}	V_{CE}=4V, I_C=3A	50min*	
$V_{CE(sat)}$	I_C=5A, I_B=0.5A	2.0max	V
fT	V_{CE}=12V, I_E=−0.5A	20typ	MHz
C_{OB}	V_{CB}=10V, f=1MHz	300typ	pF

*h_{FE} Rank O(50 to 100), P(70 to 140), Y(90 to 180)



Typical Switching Characteristics (Common Emitter)

V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (A)	I_{B2} (A)	ton (μs)	tstg (μs)	tf (μs)
40	4	10	10	−5	1	−1	0.5typ	1.8typ	0.6typ

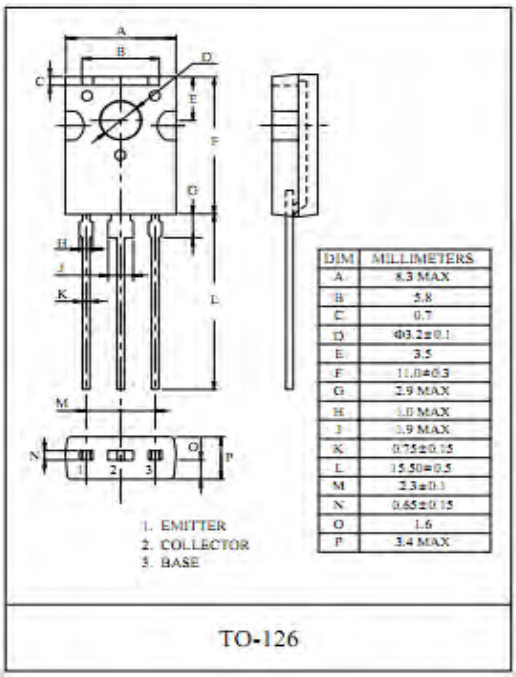
Q401, Q501 HVTKTC3114A T.R , BIAS

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURE
· High DC Current Gain : h_{FE}=600 ~ 3600.

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	30	mA
Collector Power Dissipation	P_C	1.5	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~150	℃



DIM	MILLIMETERS
A	8.3 MAX
B	5.8
C	0.7
D	Φ3.2±0.1
E	3.5
F	11.0±0.3
G	2.9 MAX
H	1.0 MAX
J	0.9 MAX
K	0.75±0.15
L	15.50±0.5
M	2.3±0.1
N	0.65±0.15
O	1.6
P	3.4 MAX

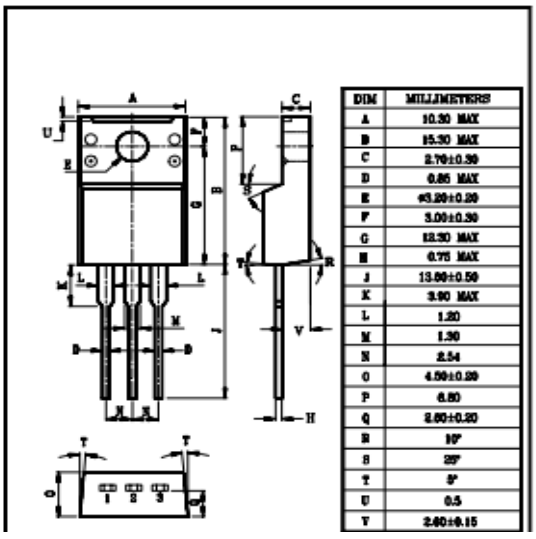
Q406,Q506 HVTKTD2061Y T.R , DRIVE

HIGH VOLTAGE APPLICATION
TV, MONITOR VERTICAL OUTPUT APPLICATION
DRIVER STAGE APPLICATION
CORDR TV CLASS B SOUND OUTPUT APPLICATION

FEATURES
· High Breakdown Voltage : V_{CEO}=180V(Min.)
· High Transition Frequency : f_T=100MHz(Typ.)
· High Current : $I_{C(max)}$=2A
· Complementary to KTB1369

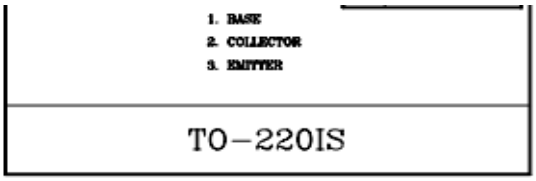
MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CEO}	180	V



DIM	MILLIMETERS
A	10.30 MAX
B	15.30 MAX
C	2.70±0.30
D	0.85 MAX
E	Φ3.20±0.20
F	3.00±0.30
G	12.30 MAX
H	0.75 MAX
J	13.00±0.50
K	3.90 MAX
L	1.20
M	1.30
N	2.54
O	4.50±0.20
P	6.80
Q	2.60±0.20
R	90°
S	25°
T	5°
U	0.5
V	2.60±0.15

Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	2	A
Base Current	I_B	0.2	A
Collector Power Dissipation (Tc=25℃)	P_C	20	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃

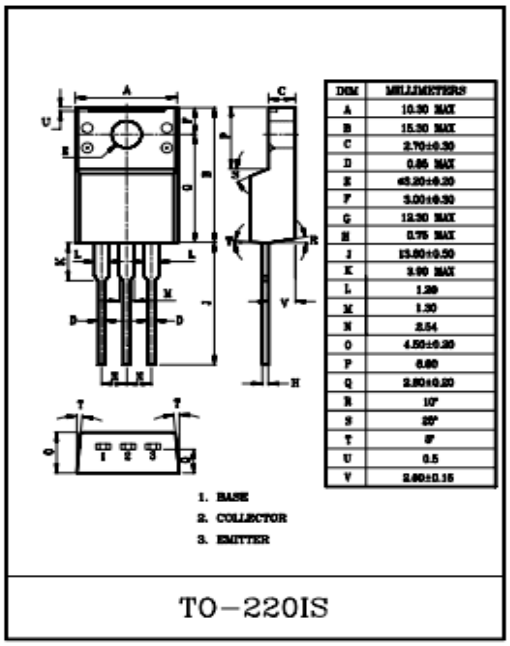


TO-220IS

Q407, Q507 HVTKTB1369Y T.R , DRIVE

HIGH VOLTAGE APPLICATION
TV, MONITOR VERTICAL OUTPUT APPLICATION
DRIVER STAGE APPLICATION
CORDR TV CLASS B SOUND OUTPUT APPLICATION

FEATURES
- High Breakdown Voltage : V_{CEO}=-180V(Min.)
- High Transition Frequency : f_T=100MHz(Typ.)
- High Current : $I_{C(max)}$=-2A
- Complementary to KTD2061



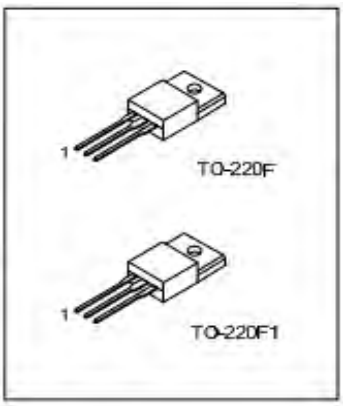
TO-220IS

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-200	V
Collector-Emitter Voltage	V_{CEO}	-180	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-2	A
Base Current	I_B	-0.2	A
Collector Power Dissipation (Tc=25℃)	P_C	20	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃

HS96 CVT10N65KL FET, 10N65K, N-CH, TO-220F, UTC

10A, 650V N-CHANNEL POWER MOSFET



■ **DESCRIPTION**

The UTC **10N65K** is an N-channel Power MOSFET using UTC's advanced technology to provide customers a minimum on-state resistance and superior switching performance, etc.

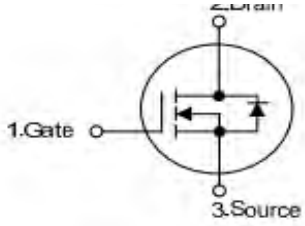
The UTC **10N65K** is generally applied in high efficient DC to DC converters, PWM motor controls and bridge circuits, etc.

■ **FEATURES**

* $R_{DS(ON)}$=1.2Ω @ V_{GS}=10V, I_D=5A
* Low Gate Charge (Typical 44nC)
* Low C_{RSS} (typical 18 pF)
* High Switching Speed
* Improved dv/dt capability

■ **SYMBOL**

2 Drain

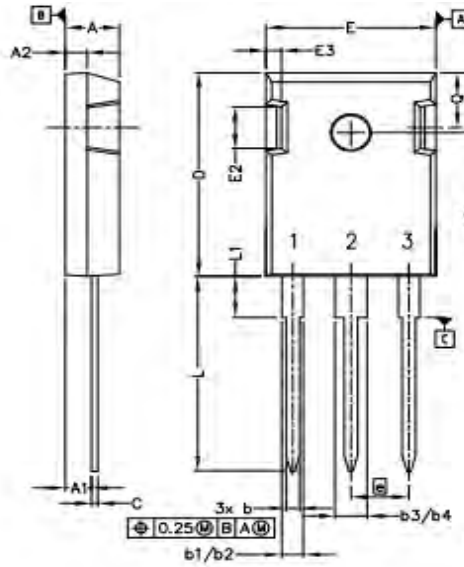


■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
10N65KL-TF3-T	10N65KG-TF3-T	TO-220F	G	D	S	Tube
10N65KL-TF1-T	10N65KG-TF1-T	TO-220F1	G	D	S	Tube

Note: Pin Assignment: G: Gate D: Drain S: Source

HS91 CVTSPW17N80C3 F.E.T , SPW17N80C3 (800V/17A, PG-TO247-3)



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.83	5.21	.90	.205
A1	2.29	2.54	.090	.100
A2	1.91	2.16	.075	.085
b	1.07	1.33	.042	.052
b1	1.91	2.41	.075	.095
b2	1.91	2.16	.075	.085
b3	2.87	3.38	.113	.133
b4	2.87	3.13	.113	.123
c	0.55	0.68	.022	.027
D	20.80	21.10	.819	.831
D1	16.25	17.65	.640	.695
D2	0.95	1.25	.037	.049
E	15.75	16.13	.620	.635
E1	13.10	14.15	.516	.557
E2	3.68	5.10	.145	.201
E3	1.00	1.90	.039	.075
E4	12.38	13.43	.487	.529
e	5.44 BSC		.214 BSC	
N	3		3	
L	19.81	20.32	.780	.800
L1	4.10	4.40	.161	.173
øP	3.51	3.65	.138	.144
Q	5.49	6.00	.216	.236
S	6.04	6.30	.238	.248

NOTE:
1. ALL METAL SURFACES: TIN PLATED EXCEPT AREA OF CUT
2. DIMENSIONING & TOLERANCING CONFIRM TO ASME Y14.5M-1994.
3. ALL DIMENSIONS ARE IN MILLIMETERS ANGLES ARE IN DEGREES.
4. THIS DRAWING WILL MEET ALL DIMENSIONS REQUIREMENT OF JEDEC outline TO-247 AD.

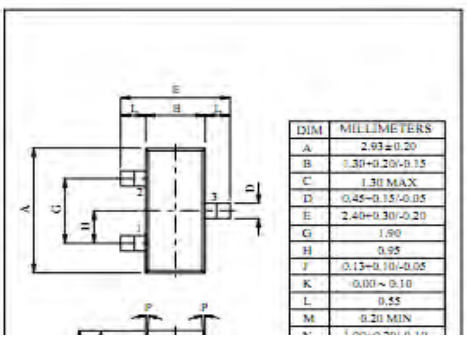
1 - GATE
2 - DRAIN (COLLECTOR)
3 - SOURCE (EMITTER)
4 - DRAIN (COLLECTOR)

Q1407 HVTKTA1504SYRTK T.R , CHIP , SOT-23

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

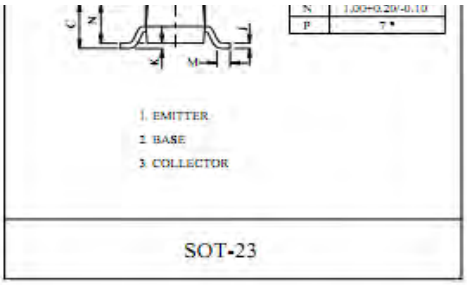
· Excellent h_{FE} Linearity
: h_{FE}(0.1mA)/h_{FE}(2mA)=0.95(Typ.).
· Low Noise : NF=1dB(Typ.), 10dB(Max.).
· Complementary to KTC3875S.



DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/-0.15
C	1.30 MAX
D	0.45~0.15/-0.05
E	2.40+0.30/-0.20
G	1.90
H	0.95
J	0.13+0.10/-0.05
K	0.00 ~ 0.10
L	0.55
M	0.20 MIN

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-150	mA
Base Current	I_B	-30	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃



SOT-23

Q1408 HVTKTC3875SYRTK T.R , CHIP , SOT-23

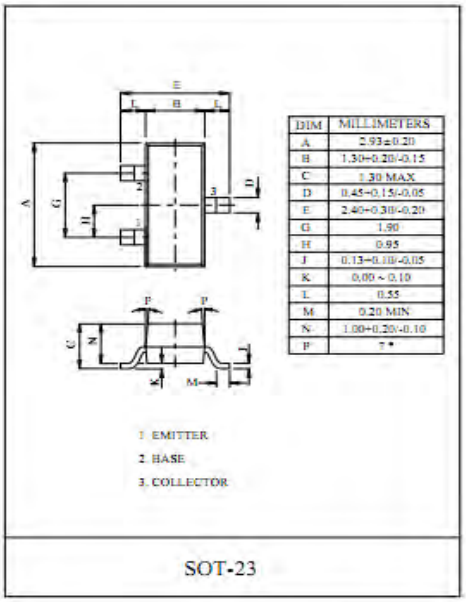
GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

- Excellent h_{FE} Linearity
  : h_{FE}(0.1mA)/h_{FE}(2mA)=0.95(Typ.).
- High h_{FE} : h_{FE}=70 ~ 700.
- Low Noise : NF=1dB(Typ.), 10dB(Max.).
- Complementary to KTA1504S.

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	30	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃



SOT-23

Q1511,Q1512,Q1511,Q1512,Q1517 CVTMMBT5551 High Voltage NPN Transistors(SOT-23)

NPN Silicon Epitaxial Planar Transistors
for high voltage amplifier applications.

1. Base 2. Emitter 3. Collector

SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Emitter Voltage	V_{CEO}	160	V
Collector Base Voltage	V_{CBO}	180	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C	600	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	-55 to +150	°C

Q1515,Q937,Q940 CVTMMBT5401 High Voltage PNP Transistors(SOT-23)

PNP Silicon Epitaxial Planar Transistor

for high voltage amplifier applications

1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	160	V
Collector Emitter Voltage	$-V_{CEO}$	150	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current Continuous	$-I_C$	600	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_s	- 55 to + 150	°C

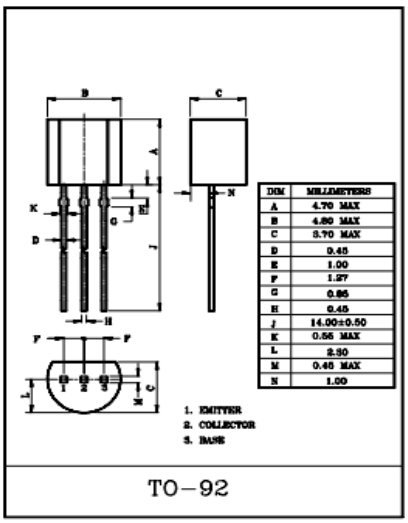
Q251, Q911, Q912, Q913 HVTKTA1271YT HIGH CURRENT APPLICATION

HIGH CURRENT APPLICATION.

FEATURES
- High h_{FE} : h_{FE}=100~320.
- Complementary to KTC3203.

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-35	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-800	mA
Emitter Current	I_E	800	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃



TO-92

Q400,Q413,Q415,Q416,Q417,Q500,Q513,Q515,Q516,Q517
CVTKSC1845FTA NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD

AUDIO FREQUENCY LOW NOISE AMPLIFIER

- **Complement to KSA992**

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	50	mA
Base Current	I_B	10	mA
Collector Dissipation	P_C	500	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~150	°C

TO-92

1. Emitter 2. Collector 3. Base

Q408,Q410,Q508,Q510 HVTKTA1024YT

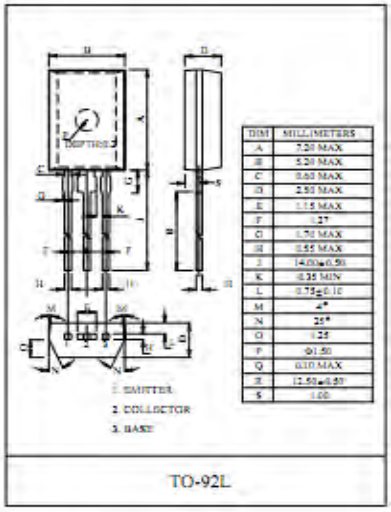
HIGH VOLTAGE APPLICATION.

FEATURES

- High Voltage : V_{CEO}=-150V.
- Low Output Capacitance : C_{ob}=5.0pF(Max.).
- High Transition Frequency : f_T=120MHz (Typ.).
- Complementary to KTC3206.

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-150	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-50	mA
Emitter Current	I_E	50	mA
Base Current	I_B	-5	mA
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃



TO-92L

Q409,Q411,Q509,Q511 HVTKTC3206YAT

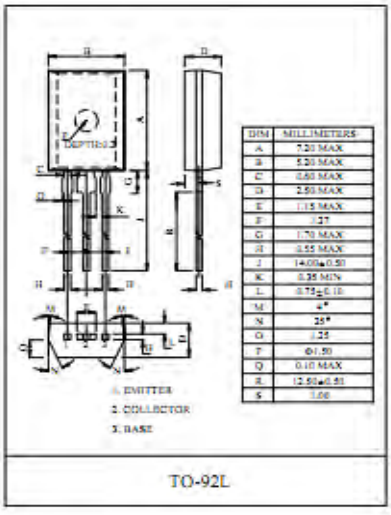
BLACK AND WHITE TV VIDEO OUTPUT APLICATION.
HIGH VOLTAGE SWITCHING APPLICATION.

FEATURES

- High Breakdown Voltage : V_{CEO}=150V(Min.).
- Low Output Capacitance : C_{ob}=5.0pF(Max.).
- High Transition Frequency : f_T=120MHz(Typ.).

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CEO}	150	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	50	mA
Emitter Current	I_E	-50	mA
Base Current	I_B	5	mA
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃



TO-92L

Q412,Q414,Q512,Q514 CVTKSA992FTA PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD

Audio Frequency Low Noise Amplifier

- Complement to KSC1845

TO-92
1. Emitter 2. Collector 3. Base

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-50	mA

I_B	Base Current	-10	mA
P_C	Collector Power Dissipation	500	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

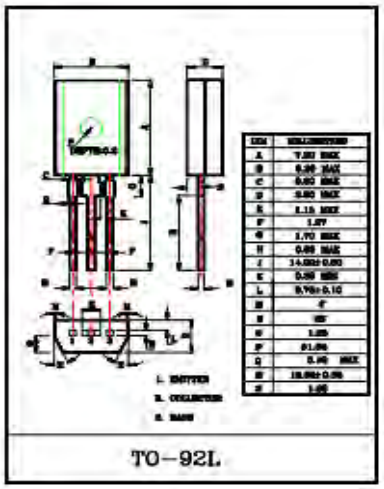
Q451, Q452 CVTKTC1027YT

HIGH VOLTAGE APPLICATION.

FEATURE
- Complementary to KTA1023.

MAXIMUM RATINGS(Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	800	mA
Emitter Current	I_E	-800	mA
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

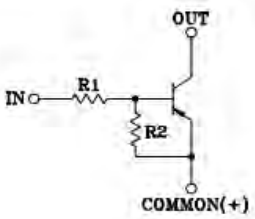


Q532,Q536,Q533,Q534 HVTKRA107S T.R , CHIP , SOT-23

SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

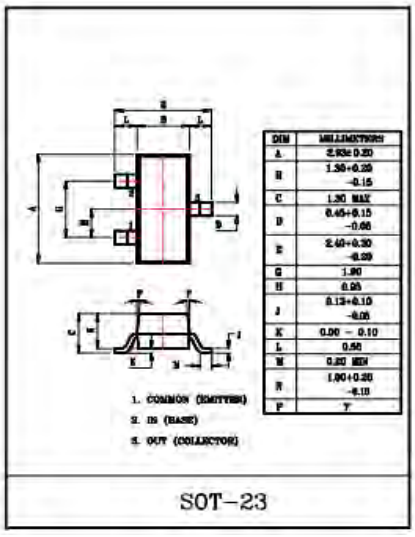
FEATURES
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

TYPE NO.	R1(kΩ)	R2(kΩ)
KRA107S	10	47
KRA108S	22	47
KRA109S	47	22

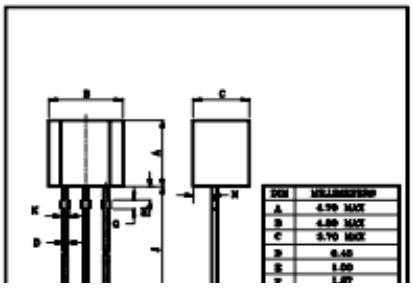


Q601 HVTKTA1266YT

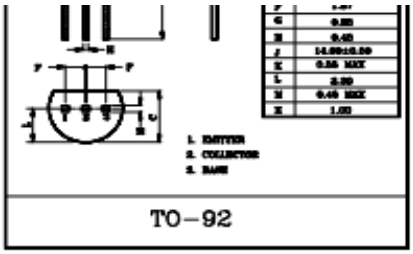
GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES
- Excellent h_{FE} Linearity
  : $h_{FE}(2)=80$(Typ.) at $V_{CE}=-6V$, $I_C=-150mA$
  : $h_{FE}(I_C=0.1mA)/h_{FE}(I_C=2mA)=0.95$(Typ.).
- Low Noise : NF=1dB(Typ.). at f=1kHz.
- Complementary to KTC3198.

MAXIMUM RATINGS (Ta=25°C)



CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-150	mA
Base Current	I_B	-50	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃



TO-92

Q902,Q903,Q914 HVTKSA708YT

KSA708

Low Frequency Amplifier & Medium Speed Switching

- Complement to KSC1008
- Collector-Base Voltage : V_{CBO}= -80V
- Collector Power Dissipation : P_C=800mW
- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)

TO-92
1. Emitter 2. Base 3. Collector

PNP Epitaxial Silicon Transistor

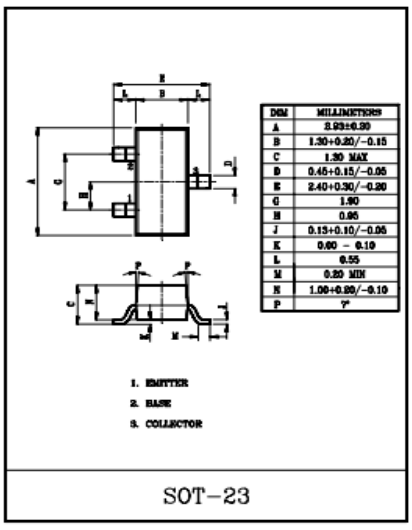
Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-8	V
I_C	Collector Current	-700	mA
P_C	Collector Power Dissipation	800	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Q921 CVTKN2907AS T.R , KN2907AS, PNP, SOT-23, KEC

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES
- Low Leakage Current
  : I_{CEX}=-50nA(Max.) ; V_{CE}=-30V, V_{EB}=-0.5V.
- Low Saturation Voltage
  : $V_{CE(sat)}$=-0.4V(Max.) ; I_C=-150mA, I_B=-15mA.
- Complementary to KN2222S/AS.



SOT-23

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING		UNIT
		KN2907S	KN2907AS	
Collector-Base Voltage	V_{CBO}	-60		V
Collector-Emitter Voltage	V_{CEO}	-40	-60	V
Emitter-Base Voltage	V_{EBO}	-5		V
Collector Current	I_C	-600		mA
Collector Power Dissipation	P_C	150		mW
	P_C *	350		
Junction Temperature	T_j	150		℃

Storage Temperature Range	T_{stg}	−55~150	℃

Q926 CVT2SC6046T1121W T.R (NPN, SOT-23, ISAHAYA)

DESCRIPTION

2SC6046 is a silicon NPN epitaxial type transistor designed with high collector current, low $V_{CE(sat)}$.

FEATURE

- High collector current
  $I_{C(MAX)}$=800mA
- Low collector to emitter saturation voltage
  $V_{CE(sat)}$<0.3V$_{max}$(IC=150mA, IB=15mA)

APPLICATION

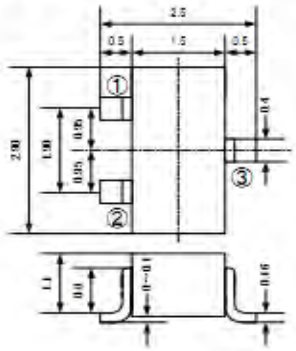
For switching application, small type motor drive application.

MAXIMUM RATINGS(Ta.=25℃)

記号	項目	定格値	単位
V_{CEO}	Collector to Emitter voltage	40	V
V_{CBO}	Collector to Base voltage	75	V
V_{EBO}	Emitter to Base voltage	6	V
I_C	Collector current	800	mA
P_C	Collector dissipation	200	mW
T_j	Junction temperature	+150	℃
T_{stg}	Storage temperature	−55~+150	℃

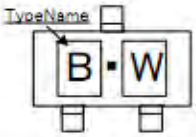
OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR
①:BASE EIAJ:SC-59
②:EMITTER JEDEC:TO-236
③:COLLECTOR Resemblance

MARKING



CVTRT1N141C T.R,RT1N141C(10K-10K)

DESCRIPTION

RT1N141X is a one chip transistor with built-in bias resistor.PNP type is RT1P141X.

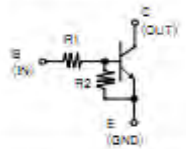
FEATURE

•Built-in bias resistor (R1=10kΩ,R2=10kΩ)

APPLICATION

Inverted circuit,switching circuit,interface circuit, driver circuit.

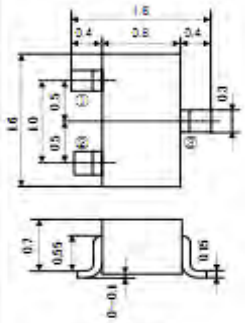
Equivalent circuit



OUTLINE DRAWING

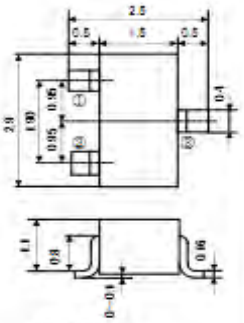
UNIT:mm

RT1N141U



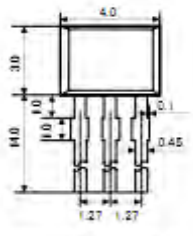
JEITA —
JEDEC —
Terminal Connector
①:Base
②:Emitter
③:Collector

RT1N141C

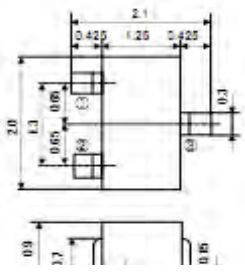


JEITA:SC-59
JEDEC:Similar to TO-236
Terminal Connector
①:Base
②:Emitter
③:Collector

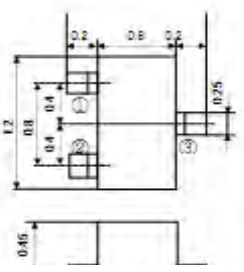
RT1N141S

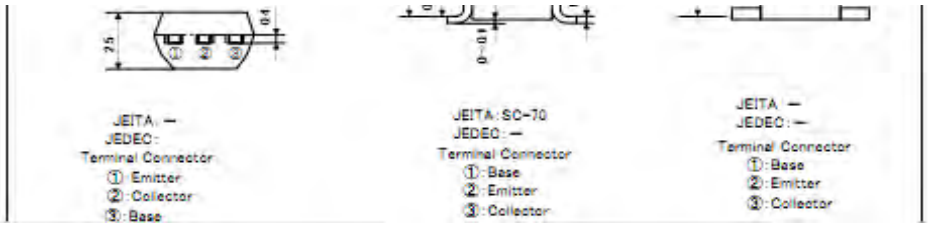


RT1N141M



RT1N141T





CVTRT1N144C T.R,RT1N144C(10K-47K)

DESCRIPTION

RT1N144X is a one chip transistor with built-in bias resistor,PNP type is RT1P144X.

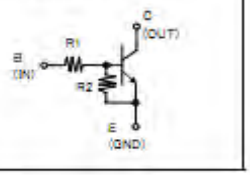
FEATURE

•Built-in bias resistor (R1=10kΩ,R2=47kΩ).

APPLICATION

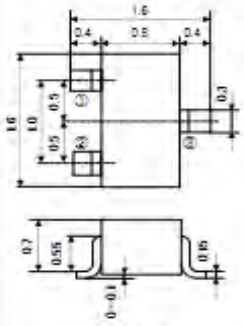
Inverted circuit,switching circuit,interface circuit, driver circuit.

Equivalent circuit



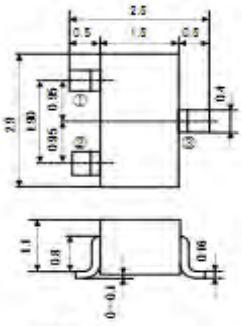
OUTLINE DRAWING UNIT: mm

RT1N144U



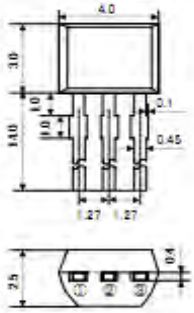
JEITA: —
JEDEC: —
Terminal Connector
① Base
② Emitter
③ Collector

RT1N144Q



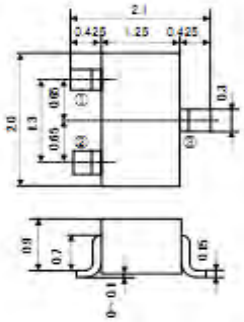
JEITA: SC-59
JEDEC: Similar to TO-236
Terminal Connector
① Base
② Emitter
③ Collector

RT1N144S



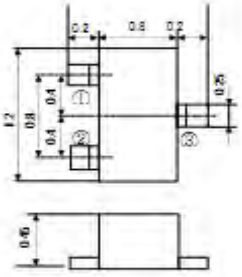
JEITA: —
JEDEC: —
Terminal Connector
① Emitter
② Collector
③ Base

RT1N144M



JEITA: SC-70
JEDEC: —
Terminal Connector
① Base
② Emitter
③ Collector

RT1N144T



JEITA: —, JEDEC: —
ISAHAYA: T-USM
Terminal Connector
① Base
② Emitter
③ Collector

CVTRT1P141C T.R,RT1P141C(10K-10K)

DESCRIPTION

RT1P141X is a one chip transistor with built-in bias resistor,NPN type is RT1N141X.

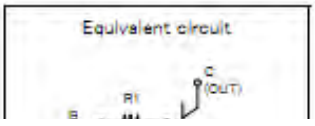
FEATURE

•Built-in bias resistor (R1=10kΩ,R2=10kΩ).

APPLICATION

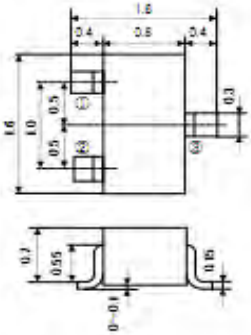
Inverted circuit,switching circuit,interface circuit, driver circuit.

Equivalent circuit



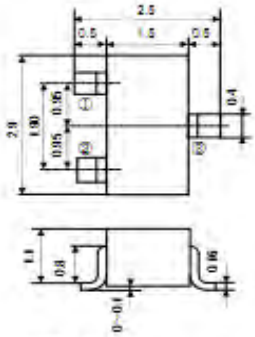
OUTLINE DRAWING UNIT: mm

RT1P141U

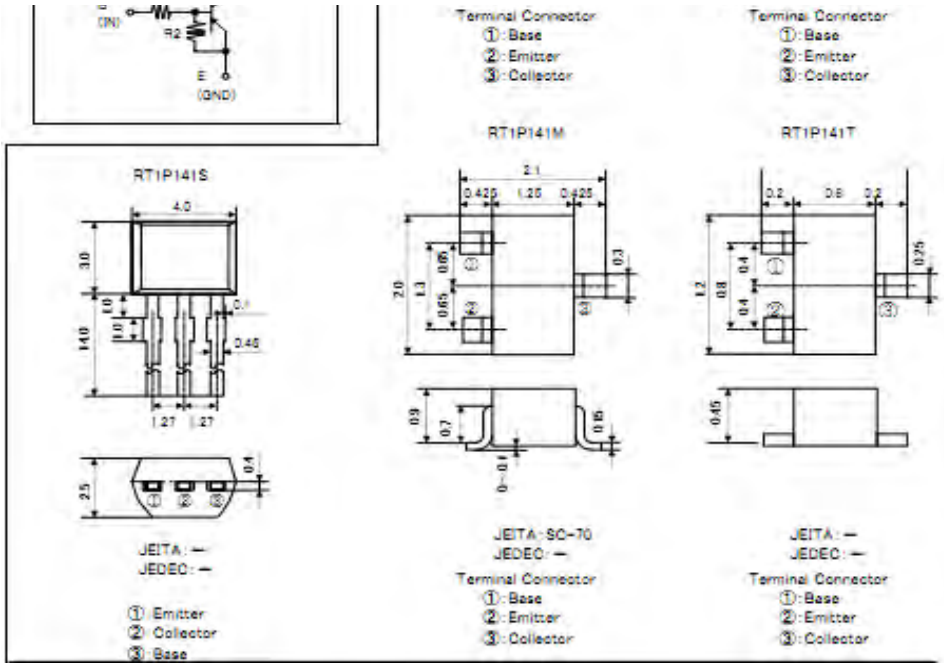


JEITA: —
JEDEC: —

RT1P141Q



JEITA: SC-59
JEDEC: Similar to TO-236



CVTRT1P144C T.R,RT1P144C(10K-47K)

DESCRIPTION

RT1P144X is a one chip transistor with built-in bias resistor,NPN type is RT1N144X.

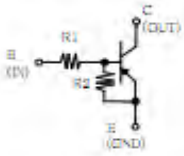
FEATURE

• Built-in bias resistor (R1=10kΩ,R2=47kΩ).

APPLICATION

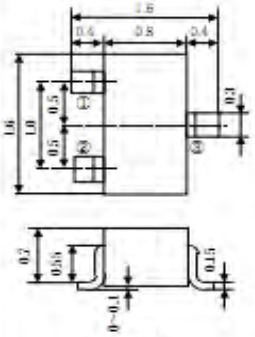
Inverted circuit,switching circuit,interface circuit, driver circuit.

Equivalent circuit



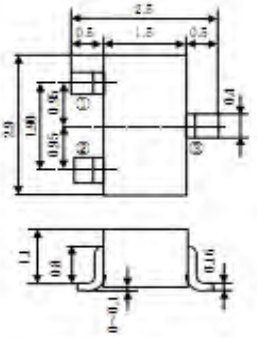
OUTLINE DRAWING UNIT: mm

RT1P144U



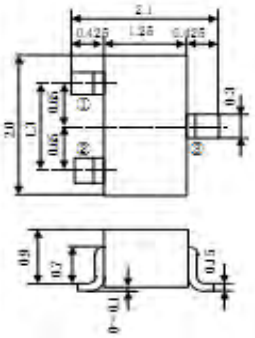
JEITA —
JEDEC —
Terminal Connector
① Base
② Emitter
③ Collector

RT1P144C



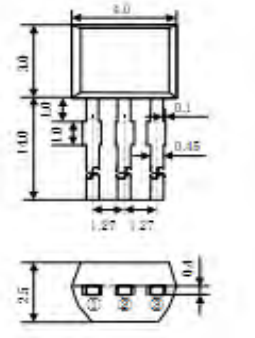
JEITA SC-59
JEDEC Similar to TO-236
Terminal Connector
① Base
② Emitter
③ Collector

RT1P144M



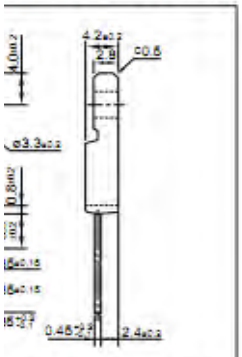
JEITA SC-70
JEDEC —
Terminal Connector
① Base
② Emitter
③ Collector

RT1P144S



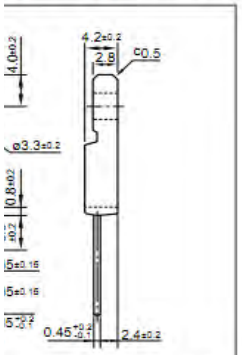
JEITA —
JEDEC —
Terminal Connector
① Emitter
② Collector
③ Base

ıs FM20(TO220F)



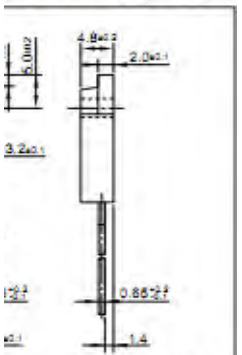
Weight : Approx 2.0g
a. Part No.
b. Lot No.

s FM20(TO220F)



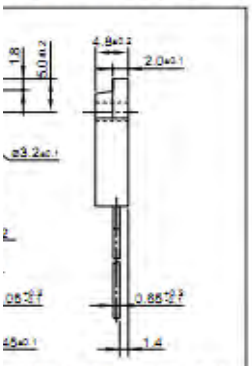
Weight : Approx 6.5g
a. Type No.
b. Lot No.

ns MT-100(TO3P)



Weight : Approx 6.0g
a. Type No.
b. Lot No.

ons MT-100(TO3P)



Weight : Approx 6.0g
a. Type No.
b. Lot No.

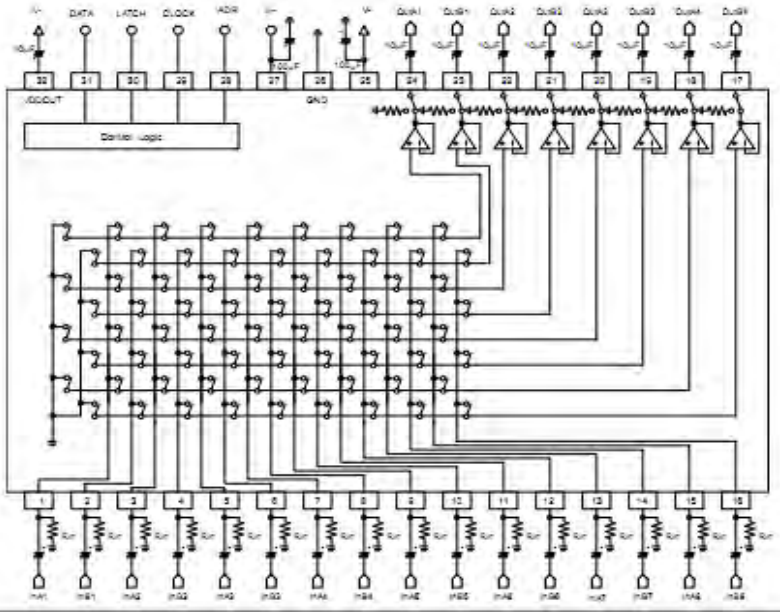
◎ IC Block Diagrams

IC10 CVINJW1112V AUDIO SELECTOR(8-IN 4-OUT,SSOP-32P)

■ FEATURES

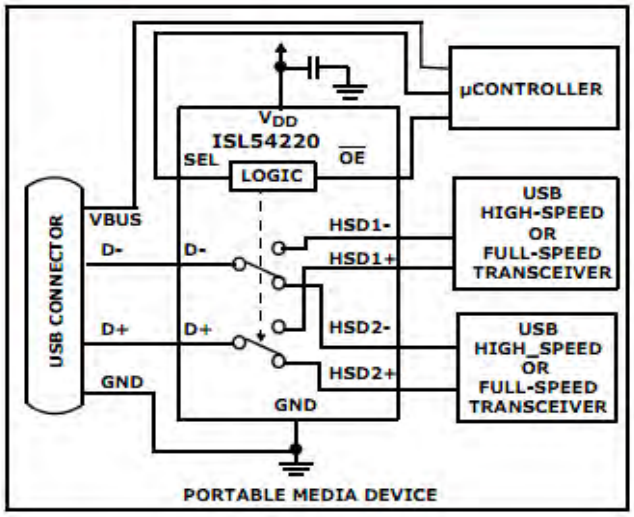
• Operating Voltage	±4.5 to ±7.5V
• 8-Input, 4-Output Stereo Audio Selector	
• Operating Current	14mA typ.
• Low On Resistance Output Switch	On Resistance :15Ω typ.
• Low Distortion	0.0007% typ.
• Low Output Noise	-119dBV typ.
• Low Crosstalk	120dB typ.
• Channel Separation	116dB typ.
• 3-Wired Serial Control	
• Bi-CMOS Technology	
• Package Outline	SSOP32

■ BLOCK DIAGRAM

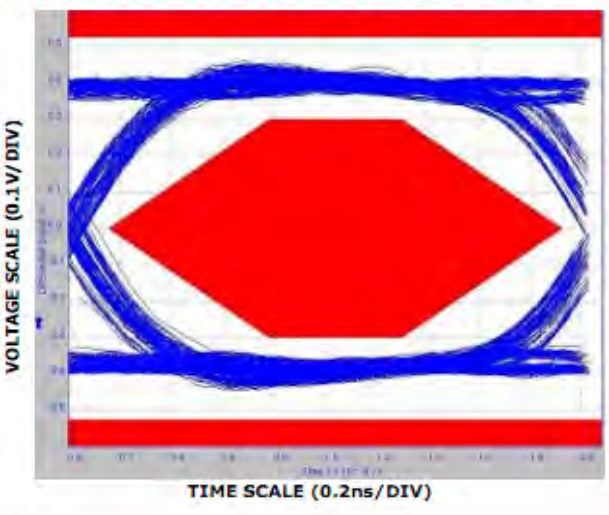


IC1100 CVIISL54220IUZ-T USB2.0 Multiplexer(TQFN-10P)

Application Block Diagram

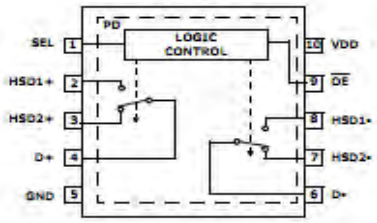


USB 2.0 HS Eye Pattern With Switches In The Signal Path

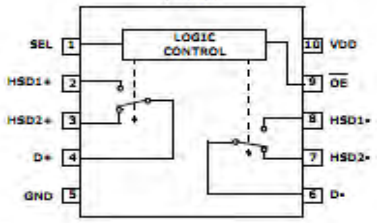


Pin Configurations

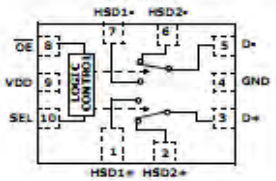
ISL54220
(10 LD 3.0X3.0 TDFN)
TOP VIEW



ISL54220
(10 LD MSOP)
TOP VIEW



ISL54220
(10 LD 1.8X1.4 µTQFN)
TOP VIEW



NOTE:
1. Switches Shown for SEL = Logic "1" and $\overline{OE}$ = Logic "0".

Truth Table

$\overline{OE}$	SEL	HSD1-, HSD1+	HSD2-, HSD2+
0	0	ON	OFF
0	1	OFF	ON
1	X	OFF	OFF

Logic "0" when ≤ 0.5V, Logic "1" when ≥ 1.4V with a 2.7V to 3.6V Supply.

Pin Descriptions

TDFN	MSOP	µTQFN	NAME	FUNCTION
10	10	9	VDD	Power Supply (2.7V to 5.5V)
1	1	10	SEL	Select Logic Control Input
2	2	1	HSD1+	USB Data Port (Channel 1 Positive Input)
3	3	2	HSD2+	USB Data Port (Channel 2 Positive Input)
4	4	3	D+	USB Data Common Positive Port
5	5	4	GND	Ground Connection
6	6	5	D-	USB Data Common Negative Port
7	7	6	HSD2-	USB Data Port (Channel 2 Negative Input)
8	8	7	HSD1-	USB Data Port (Channel 1 Negative Input)
9	9	8	$\overline{OE}$	Bus Switch Enable
PD	-	-	PD	Thermal Pad. Tie to Ground or Float

IC1101 CVIMFI337S3959-HK Apple iPod Authentication coprocessor 2.0c

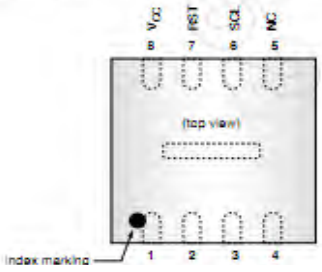
CP Signals and Pinouts

The 2.0C CP chip signal descriptions are given in Table 2-1 and its pinouts are shown in Figure 2-1.

Table 2-1 CP signals

Signal name	Pin	I/O	Description
GND	1		Supply voltage, negative terminal
SDA	2	I/O	I²C data
NC	3-5		Must not be connected
SCL	6	I	I²C clock
RST	7	I	At reset: selects I²C slave address. During operation: CP warm reset.
V_{CC}	8		Supply voltage, positive terminal

Figure 2-1 CP chip pinouts, top view



PG-USON-8-1 package

The thermal pad on the bottom of the CP may be left unconnected or optionally connected to GND.

IC1102 CVIKSZ8851SNLTR ETHERNET PHY (10/100M,QFN-32P)

Pin Configuration

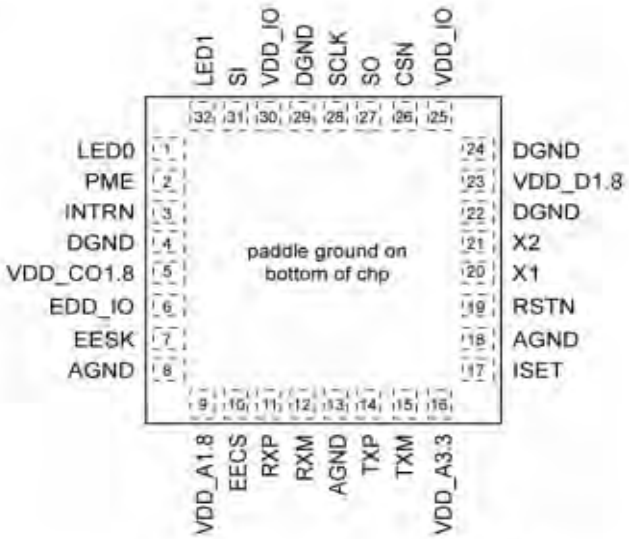


Figure 2. 32-Pin (5mm x 5mm) MLF®

Functional Diagram

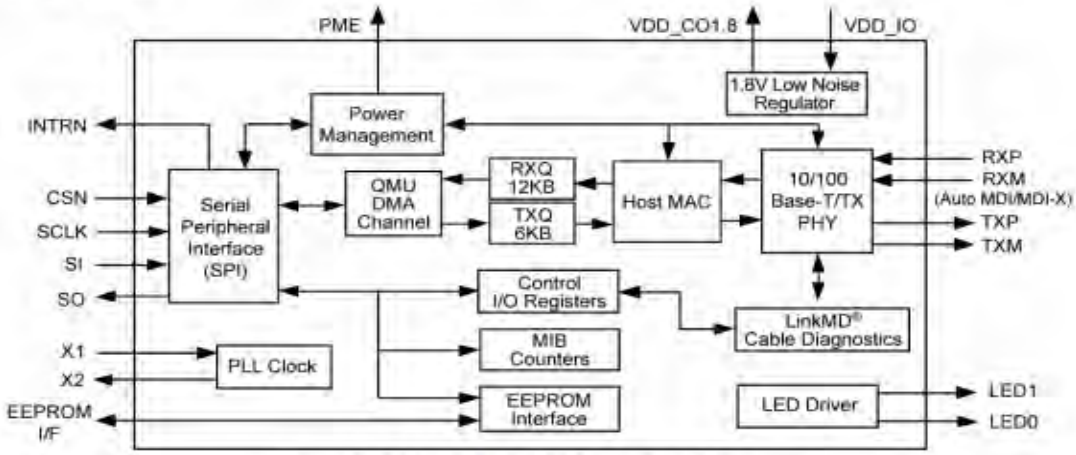


Figure 1. KSZ8851SNL/SNLI Functional Diagram

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Magic Packet is a trademark of Advanced Micro Devices, Inc.
MLF and MicroLeadFrame are registered trademarks of Amkor Technology, Inc.

Product names used in this datasheet are for identification purposes only and may be trademarks of their respective companies.

IC1103 CVIPCM5100PWR 2CH DAC(32BIT,384KHZ,TSSOP-20P)

DEVICE INFORMATION

TERMINAL FUNCTIONS, PCM510x

PCM510X (top view)

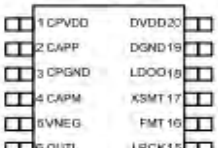


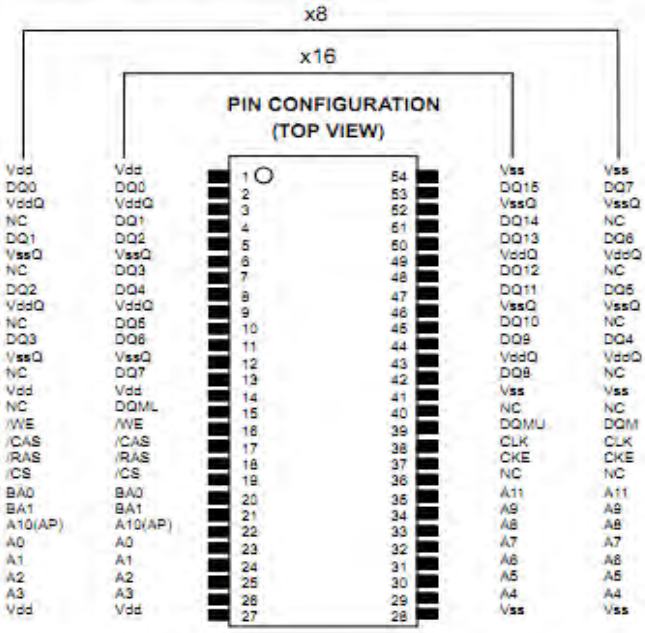
Table 2. TERMINAL FUNCTIONS, PCM510x

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

(1) Failsafe LVCMOS Schmitt trigger input

IC1104 CVIA3V28S40FTP-G6 SDRAM(128MBIT,TSOP-54P)

PIN CONFIGURATION (TOP VIEW)

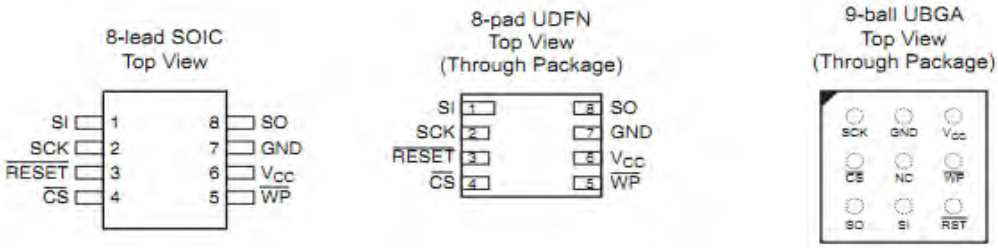


CLK	: Master Clock	DQM	: Output Disable / Write Mask (A3V28S30FTP)
CKE	: Clock Enable	DQML,U	: Output Disable / Write Mask (A3V28S40FTP)
/CS	: Chip Select	A0-11	: Address Input
/RAS	: Row Address Strobe	BA0,1	: Bank Address
/CAS	: Column Address Strobe	Vdd	: Power Supply
/WE	: Write Enable	VddQ	: Power Supply for Output
DQ0-7	: Data I/O (A3V28S30FTP)	Vss	: Ground
DQ0-15	: Data I/O (A3V28S40FTP)	VssQ	: Ground for Output

IC1105 CVIAT45DB321E-SHF-T SERIAL DATA FLASH(32M,SOIC-8P)

1. Pin Configurations and Pinouts

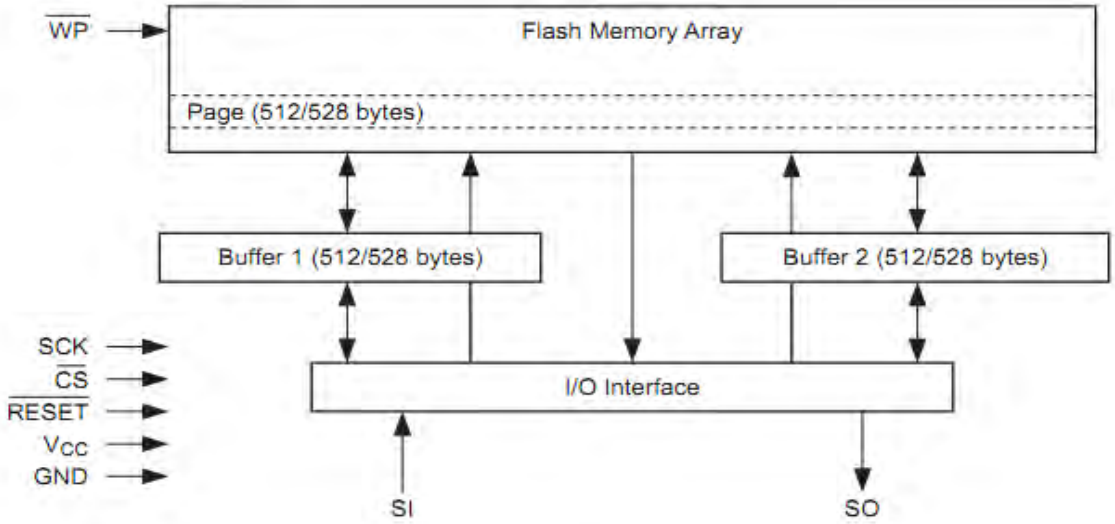
Figure 1-1. Pinouts



Note: 1. The metal pad on the bottom of the UDFN package is not internally connected to a voltage potential. This pad can be a "no connect" or connected to GND.

2. Block Diagram

Figure 2-1. Block Diagram



IC1106 CVIFS1230A CHORUS3(NETWORK PROCESSOR)

1 Package

Chorus 3 is available in a 225 TFBGA package – thin plastic BGA.
For compliance statements, see *Compliance standards on page 24*.

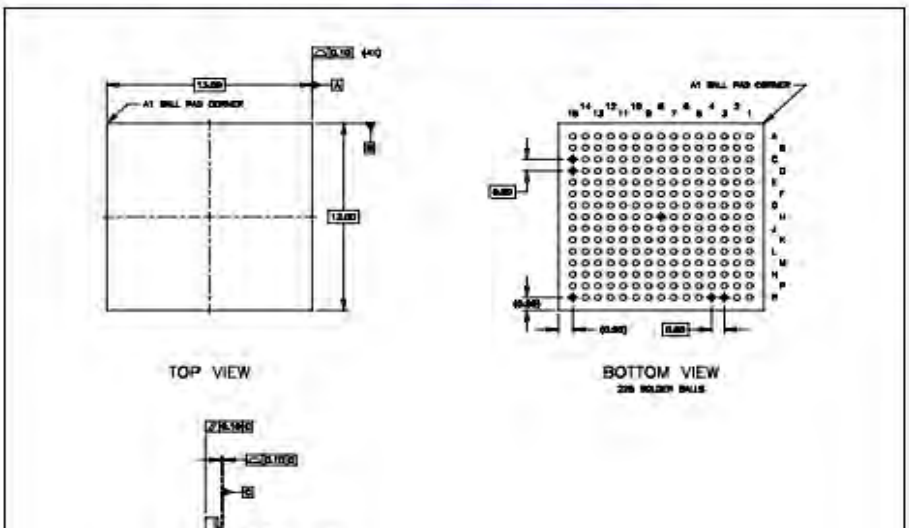


Figure 2: Chorus 3 package pin-out (top view)

2 Pin-out

2.1 Full pin list (primary functions)

Pin	Signal/function	Pin	Signal/function	Pin	Signal/function	Pin	Signal/function
A1	USBXTI	C1	USBN	E1	XTI	G1	RFIQB
A2	USBXTO	C2	LDO2V5	E2	VDDIORF	G2	AVDDCOREPLL
A3	VSSIO_8	C3	USB_ID	E3	MFIO_8	G3	MFIO_11
A4	MFIO_92	C4	VDDIODIG1_2	E4	USB_VBUS	G4	AVSSCOREADC
A5	MFIO_95	C5	MFIO_91	E5	MFIO_12	G5	MFIO_44
A6	MFIO_97	C6	MFIO_29	E6	VSSCORE_3	G6	MFIO_21
A7	MFIO_99	C7	MFIO_98	E7	MFIO_137	G7	MFIO_66
A8	MFIO_103	C8	MFIO_101	E8	MFIO_135	G8	VSSIO_5
A9	MFIO_104	C9	MFIO_132	E9	MFIO_15	G9	MFIO_55
A10	VDDCORE_4	C10	MFIO_70	E10	VSSIO_7	G10	VDDIODIG2_0
A11	VSSIO_6	C11	MFIO_64	E11	MFIO_14	G11	VDDCORE_2
A12	MFIO_56	C12	MFIO_58	E12	MFIO_60	G12	MFIO_34
A13	MFIO_69	C13	MFIO_67	E13	MFIO_63	G13	MFIO_35
A14	MFIO_62	C14	MFIO_79	E14	MFIO_49	G14	MFIO_33
A15	MFIO_46	C15	MFIO_42	E15	MFIO_40	G15	MFIO_36
B1	USBP	D1	VSSIO_0	F1	XTO	H1	RFIQ
B2	AVSSIOUSB_0	D2	MFIO_9	F2	AVSSCOREPLL	H2	AVDDCOREADC
B3	AVDDIOUSB_3V3	D3	AGND_ANA	F3	LDO3V3	H3	AVSSIOANA
B4	MFIO_90	D4	USB_RREFEXT	F4	MFIO_10	H4	GPVIN2

B5	MFIO_93	D5	VDDCORE_3	F5	MFIO_45	H5	GPVIN3
B6	MFIO_96	D6	MFIO_28	F6	MFIO_94	H6	MFIO_43
B7	TMS	D7	TDO	F7	TCK	H7	VSSIO_9
B8	MFIO_100	D8	MFIO_13	F8	TDI	H8	VDDIODIG2_2
B9	MFIO_102	D9	MFIO_134	F9	VSSCORE_4	H9	MFIO_20
B10	MFIO_133	D10	VDDIODIG1_5	F10	MFIO_65	H10	MFIO_22
B11	VDDIODIG2_1	D11	MFIO_19	F11	MFIO_71	H11	MFIO_39
B12	MFIO_57	D12	MFIO_59	F12	MFIO_80	H12	MFIO_37
B13	MFIO_68	D13	MFIO_61	F13	MFIO_50	H13	MFIO_48
B14	MFIO_77	D14	MFIO_32	F14	MFIO_78	H14	MFIO_52
B15	MFIO_47	D15	MFIO_41	F15	MFIO_38	H15	MFIO_53

Pin	Signal/function	Pin	Signal/function	Pin	Signal/function	Pin	Signal/function
J1	RFII	K13	MFIO_108	M10	MFIO_131	P7	MFIO_1
J2	AVDDIO2V5	K14	MFIO_105	M11	MFIO_6	P8	MFIO_2
J3	GPVIN1	K15	MFIO_109	M12	MFIO_125	P9	MFIO_154
J4	MFIO_112	L1	MFIO_83	M13	MFIO_121	P10	MFIO_139
J5	VDDIODIG2_3	L2	VSSIO_1	M14	MFIO_119	P11	MFIO_27
J6	VSSIO_3	L3	VDDIODIG1_0	M15	MFIO_118	P12	MFIO_136
J7	POR_N	L4	VDDCORE_0	N1	MFIO_86	P13	MFIO_159
J8	VSSCORE_2	L5	VDDIODIG1_3	N2	MFIO_7	P14	VSSIO_4
J9	MFIO_51	L6	VSSIO_2	N3	MFIO_87	P15	MFIO_126
J10	MFIO_54	L7	MFIO_127	N4	MFIO_89	R1	MFIO_144
J11	MFIO_76	L8	MFIO_18	N5	MFIO_3	R2	MFIO_140
J12	MFIO_73	L9	MFIO_124	N6	MFIO_150	R3	MFIO_142
J13	MFIO_74	L10	MFIO_114	N7	VDDIODIG1_6	R4	MFIO_25
J14	MFIO_72	L11	MFIO_123	N8	MFIO_153	R5	MFIO_147
J15	MFIO_75	L12	MFIO_117	N9	MFIO_26	R6	MFIO_149
K1	RFIIB	L13	MFIO_116	N10	VDDCORE_1	R7	VSSIO_10
K2	AVSSIO2V5	L14	MFIO_111	N11	MFIO_5	R8	MFIO_152
K3	GPVIN0	L15	MFIO_113	N12	MFIO_128	R9	MFIO_155
K4	VSSCORE_0	M1	MFIO_82	N13	MFIO_130	R10	MFIO_24
K5	MFIO_81	M2	MFIO_84	N14	MFIO_129	R11	MFIO_138
K6	MFIO_110	M3	MFIO_85	N15	MFIO_120	R12	MFIO_156
K7	MFIO_16	M4	MFIO_17	P1	MFIO_143	R13	MFIO_158
K8	VDDIODIG1_1	M5	MFIO_146	P2	MFIO_88	R14	VDDIODIG1_4
K9	MFIO_107	M6	MFIO_151	P3	MFIO_0	R15	MFIO_23
K10	MFIO_122	M7	MFIO_157	P4	MFIO_141		
K11	MFIO_115	M8	MFIO_4	P5	MFIO_145		
K12	MFIO_106	M9	VSSCORE_1	P6	MFIO_148		

Table 2: Chorus 3 full pin list (primary functions) by pin number

IC1201 CVIAZ1117CH-5.0TRG1 low dropout three-terminal regulator

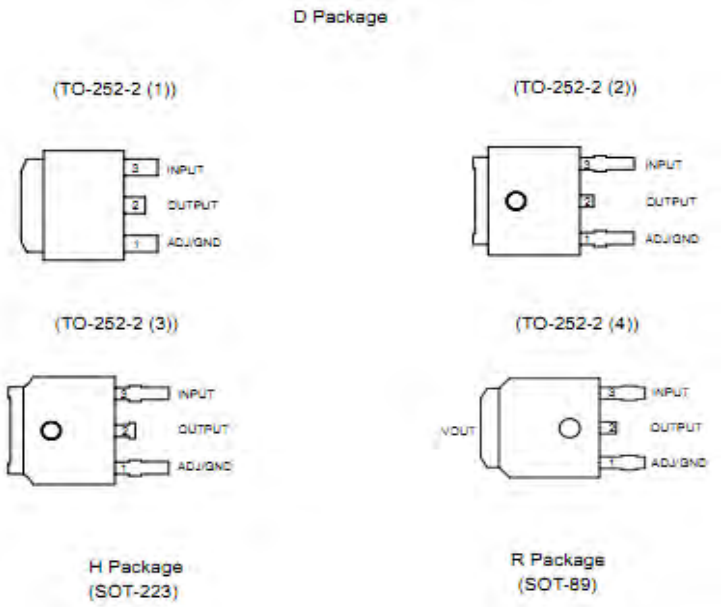


Figure 2. Pin Configuration of AZ1117C (Top View)

IC1202, IC1204 CVIDB1230HETR DC DC CONVERTER(3A,700KHZ,SOP-8P)

PIN DESCRIPTION

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

PIN CONFIGURATION

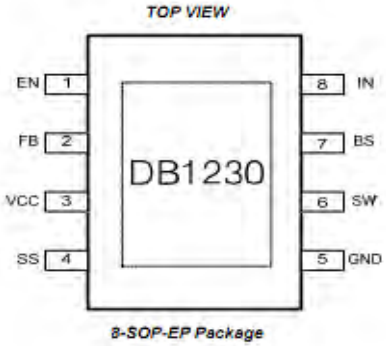
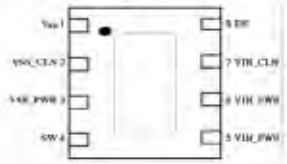


Fig.3 DB1230 PIN configuration

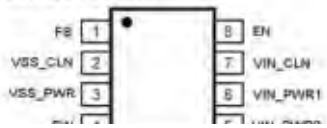
IC1205 CVIEML3418-00SE08GRR DCDC CONVERTER(SOP-8FD)

Connection Diagram

TDFN-8 Package



SOP-8FD Package



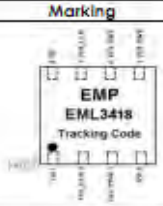
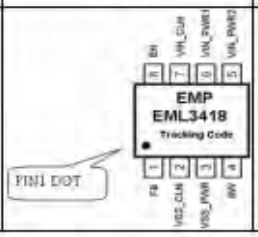
Order Information

EML3418-00FF08NRR
00 Adj Operation
FF08 TDFN-8 Package
NRR RoHS & Halogen Free
Rating: -40 to 85°C
Package in Tape & Reel

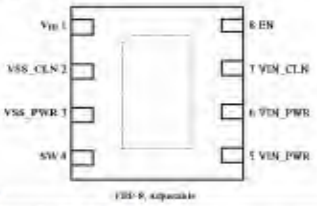
EML3418-00SE08GRR/NRR
00 Adj Operation
SE08 SOP-8FD package
GRR RoHS (Pb Free)
Rating: -40 to 85°C
Package in Tape & Reel
NRR RoHS & Halogen free (By Request)
Rating: -40 to 85°C

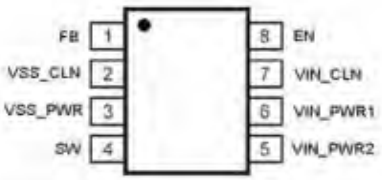
Package in Tape & Reel

Order, Mark & Packing information

Package	Vout	Product ID	Marking	Packing
TDFN-8	Adj	EML3418-00FF08NRR		5Kpcs Tape & Reel
SOP-8FD	Adj	EML3418-00SE08GRR		3Kpcs Tape & Reel

Package Configuration





Pin Funt

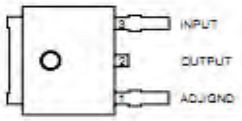
Pin #	Pin Name	Function
1	V_{FB} (Adjustable)	Feedback Pin. Receives the feedback voltage from an external resistive divider across the output.
	V_{OUT} (Fixed voltage)	Output Voltage Pin. An internal resistive divider divides the output voltage down for comparison to the internal reference voltage.
2	VSS_CLN	Analog Ground Pin.
3	VSS_PWR	Power Ground Pin.
4	SW	Switch Pin. Must be connected to inductor. This pin connects to the drains of the internal main and synchronous power MOSFET switches.
5, 6	V_{IN_PWR}	Power input Pin. Must be closely decoupled to GND pin with a 4.7uF or greater ceramic capacitor.
7	V_{IN_CLN}	Analog input Pin. Must be closely decoupled to GND pin with a 4.7uF or greater ceramic capacitor.
8	EN	Enable Pin. Minimum 1.2V to enable the device. Maximum 0.4V to shut down the device. Do not leave this pin floating and enable the chip after Vin is in the input voltage range.
Exposed pad		Connect to Ground.

IC1206 CVIAZ1117CH-1.2TRG1 low dropout three-terminal regulator

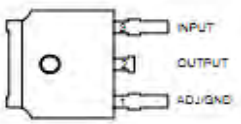
D Package

(TO-252-2 (1))

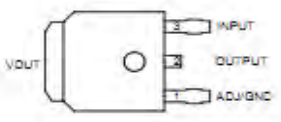
(TO-252-2 (2))



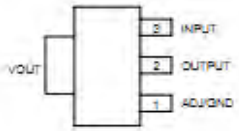
(TO-252-2 (3))



(TO-252-2 (4))



H Package
(SOT-223)



R Package
(SOT-89)

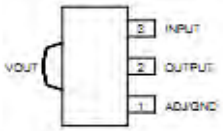
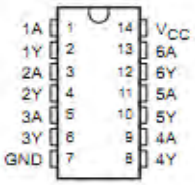


Figure 2. Pin Configuration of AZ1117C (Top View)

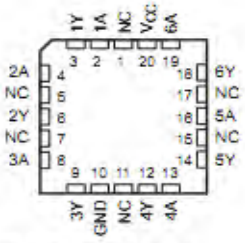
IC13 CVISN74ACT04DR HEX INVERTERS(SOIC/D-14P)

- 4.5-V to 5.5-V V_{CC} Operation
- Inputs Accept Voltages to 5.5 V
- Max t_{pd} of 8.5 ns at 5 V
- Inputs Are TTL-Voltage Compatible

SN54ACT04 . . . J OR W PACKAGE
SN74ACT04 . . . D, DB, N, NS, OR PW PACKAGE
(TOP VIEW)



SN54ACT04 . . . FK PACKAGE
(TOP VIEW)



NC – No internal connection

description/ordering information

The 'ACT04 devices contain six independent inverters. The devices perform the Boolean function $Y = \overline{A}$.

ORDERING INFORMATION

T_A	PACKAGE†		ORDERABLE PART NUMBER	TOP-SIDE MARKING
−40°C to 85°C	PDIP – N	Tube	SN74ACT04N	SN74ACT0N
	SOIC – D	Tube	SN74ACT04D	ACT04
		Tape and reel	SN74ACT04DR	
	SOP – NS	Tape and reel	SN74ACT04NSR	ACT04
	SSOP – DB	Tape and reel	SN74ACT04DBR	AD04
	TSSOP – PW	Tube	SN74ACT04PW	AD04
		Tape and reel	SN74ACT04PWR	
−55°C to 125°C	CDIP – J	Tube	SNJ54ACT04J	SNJ54ACT04J
	CFP – W	Tube	SNJ54ACT04W	SNJ54ACT04W
	LCCC – FK	Tube	SNJ54ACT04FK	SNJ54ACT04FK

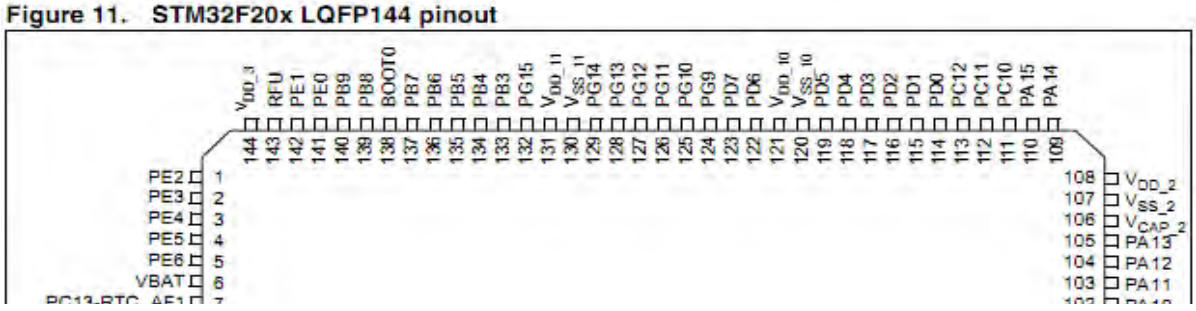
† Package drawings, standard packing quantities, thermal data, symbolization, and PCB design guidelines are available at www.ti.com/sc/package.

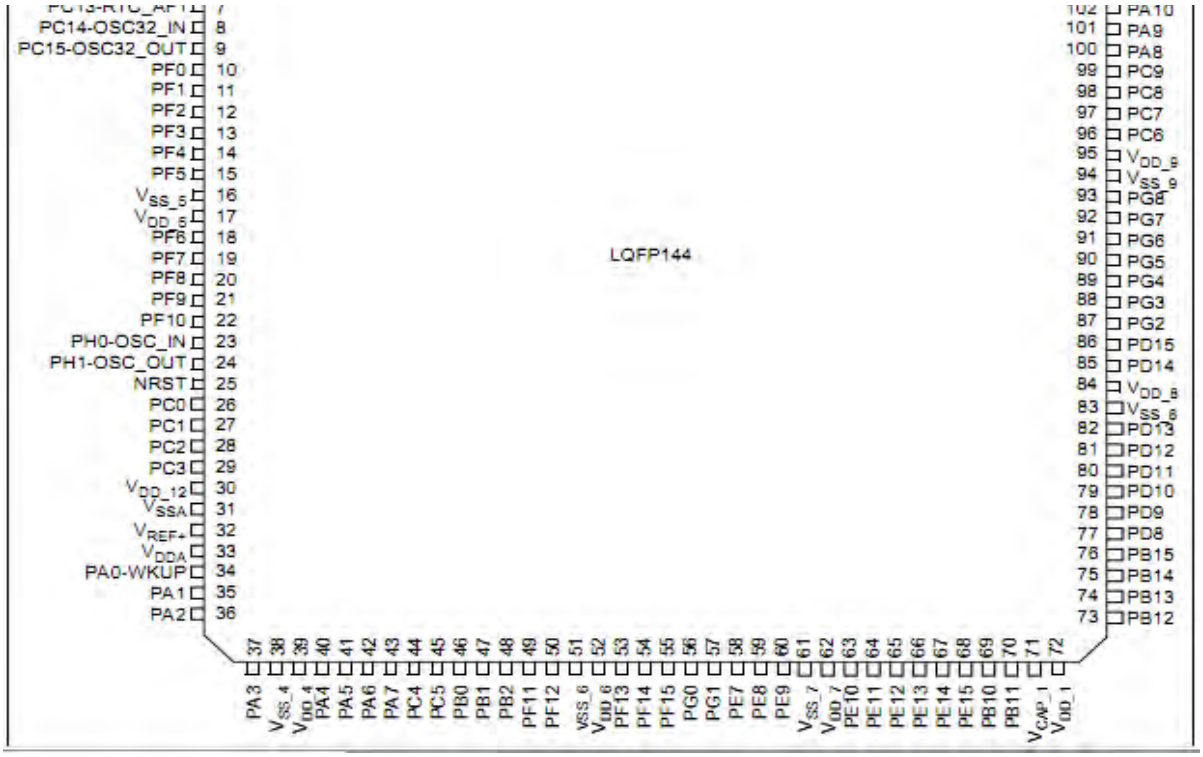
FUNCTION TABLE
(each inverter)

INPUT A	OUTPUT Y
H	L
L	H

IC1401 CVISTM32F205ZGT6 FLASH MCU (32 BIT, 1MB, LQFP 144)

Figure 11. STM32F20x LQFP144 pinout



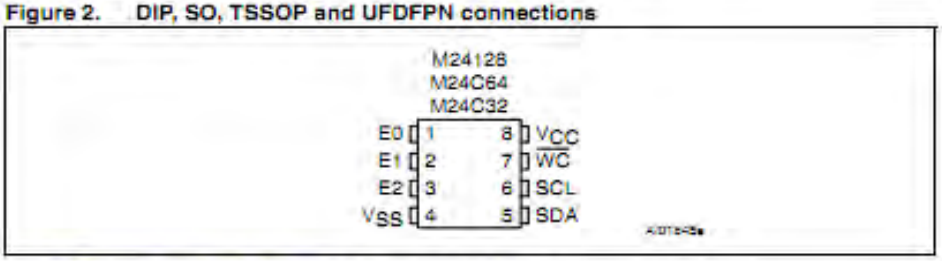


IC1403 CVIM24C32WMN6TP EEPROM (32 Kbit) ST

Table 2. Signal names

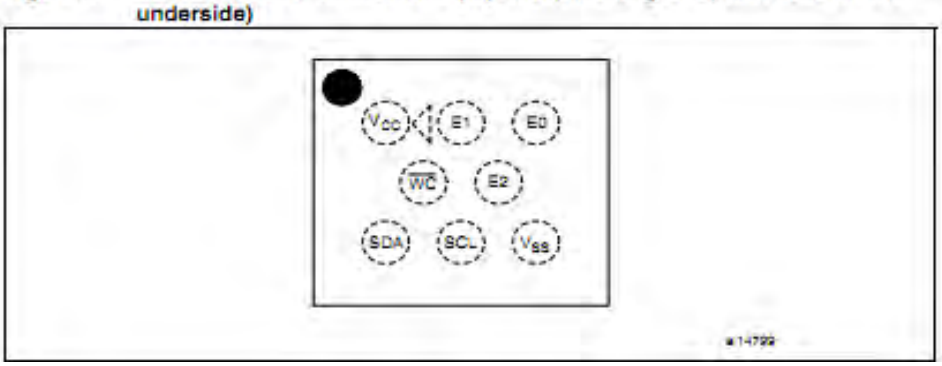
Signal name	Function	Direction
E0, E1, E2	Chip Enable	Input
SDA	Serial Data	I/O
SCL	Serial Clock	Input
WC	Write Control	Input
V_{CC}	Supply voltage	
V_{SS}	Ground	

Figure 2. DIP, SO, TSSOP and UFDFPN connections



1. See *Package mechanical data* section for package dimensions, and how to identify pin-1.

Figure 3. M24128 WLCSP connections (top view, marking side, with balls on the underside)

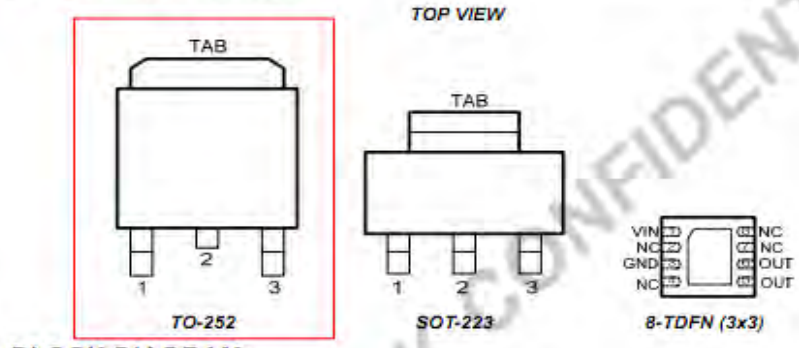


IC1404 CVIDB1510BT3TR33 REGULATOR(1.0A,3.3V,TO252-(1))

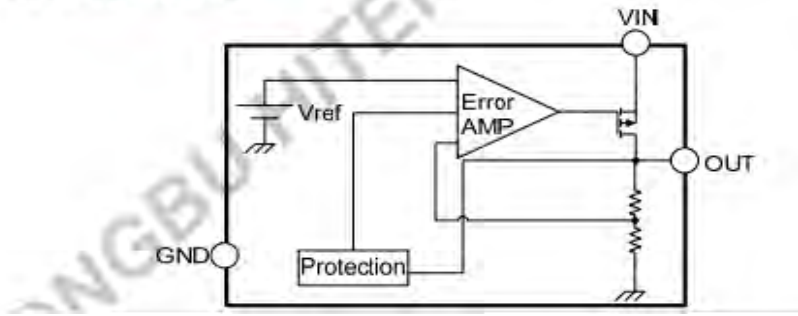
PIN DESCRIPTION

PIN NO			SYMBOL	DESCRIPTION
TO-252 (I) SOT-223 (I)	TO-252 (II) SOT-223 (II)	8-TDFN		
1	3	1	VIN	Input Voltage
2, TAB	1	3	GND	Ground
3	2, TAB	5, 6	OUT	Output Voltage
-	-	2, 4, 7, 8	NC	No Connection

PIN CONFIGURATION



BLOCK DIAGRAM



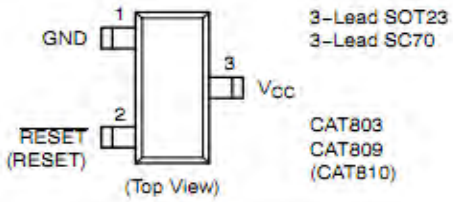
IC1405 CVICAT809RTBI-GT3 RESET IC (2.63V, SOT-23-3)

Features

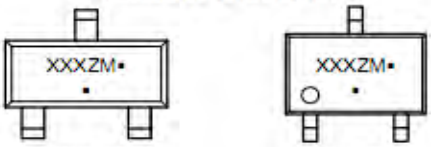
- Precision Monitoring of
  +5.0 V (−5%, −10%, −20%),
  +3.3 V (−5%, −10%),
  +3.0 V (−10%) and
  +2.5 V (−5%) Power Supplies
- Offered in Three Output Configurations:
  – CAT803: Open−Drain Active LOW Reset
  – CAT809: Push−Pull Active LOW Reset
  – CAT810: Push−Pull Active HIGH Reset
- Direct Replacements for the MAX803, MAX809 and MAX810 in Applications Operating over the Industrial Temperature Range
- Reset Valid down to V_{CC} = 1.0 V
- 6 μA Power Supply Current
- Power Supply Transient Immunity
- Industrial Temperature Range: −40°C to +85°C
- Available in SOT−23 and SC−70 Packages
- These Devices are Pb−Free and are RoHS Compliant

Applications

- Computers, Servers, Laptops, Cable Modems
- Wireless Communications
- Embedded Control Systems
- White Goods, Power Meters
- Intelligent Instruments
- PDAs and Handheld Equipment



MARKING DIAGRAMS



XXX = Specific Device Code
Z = Assembly Lot Code
M = Month Code
▪ = Pb−Free Package

(*Note: Microdot may be in either location)

ORDERING INFORMATION

See detailed ordering and shipping information in the package dimensions section on page 8 of this data sheet.

IC15 HVINJM4556AL HEADPHONE (JRC)

■ GENERAL DESCRIPTION

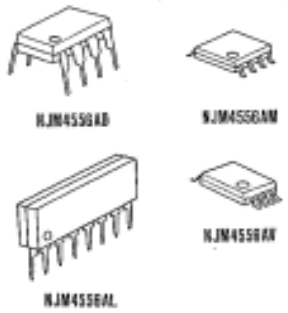
The NJM4556A integrated circuit is a high-gain, high output current dual operational amplifier capable of driving ±70mA into 150 Ω loads (±10.5V output voltage), and operating low supply voltage (V^+/V^-=±2V~).

The NJM4556A combines many of the fetures of the popular NJM4558 as well as having the capability of driving 150Ω loads. In addition, the wide band-width, low noise, high slew rate and low distortion of the NJM4556A make it ideal for many audio, telecommunications and instrumentation applications.

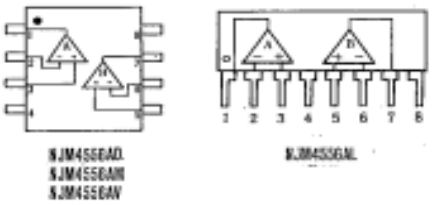
■ FEATURES

- Operating Voltage (±2V~±18V)
- High Output Current (Io=70mA)
- Slew Rate (3V/μs typ.)
- Gain Band Width Product (8MHz typ.)
- Package Outline DIP8, DMP8, SIP8, SSOP8
- Bipolar Technology

■ PACKAGE OUTLINE

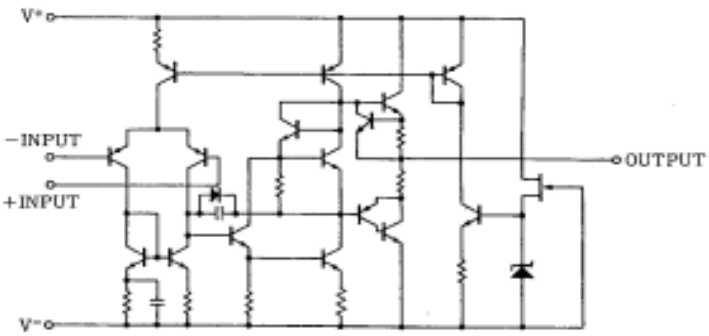


■ PIN CONFIGURATION

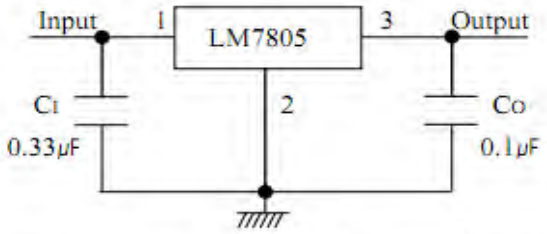


PIN FUNCTION
1. A OUTPUT
2. A−INPUT
3. A+INPUT
4. V⁻
5. B+INPUT
6. B−INPUT
7. B OUTPUT
8. V⁺

■ EQUIVALENT CIRCUIT (1/2 Shown)



IC1502, IC1503 CVILM7808RTRL REGULATOR(1A, 8V)



The input voltage must remain typically 2.0V above the output voltage even during the low point on the ripple voltage.

- CI is required if regulator is located an appreciable distance from power filter.
- CO improves transient response. Value of ≤0.1μF could cause instability.

1.4 Package Type

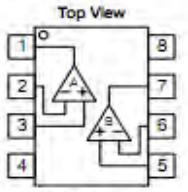
TO-220F TO-220 D-PAK(TO-252)

IC25,IC30,IC35 HVINJM2068MDTE1 OP AMP (JRC)

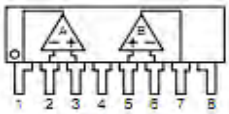
■ FEATURES

• Operating Voltage	±4V~±18V
• Low Total Harmonic Distortion	0.001%
• Low Noise Voltage	0.56μV (FLAT+JISA)
• High Slew Rate	6V/μs
• Unity Gain Bandwidth	27MHz (f=10kHz)
• Bipolar Technology	
• Package Outline	DIP8, DMP8, SIP8, SSOP8

■ PIN CONFIGURATION



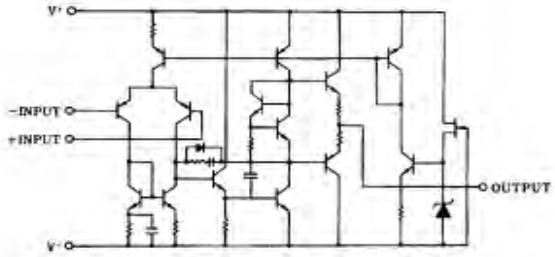
DIP8, DMP8, SSOP8 Package



SIP8 Package

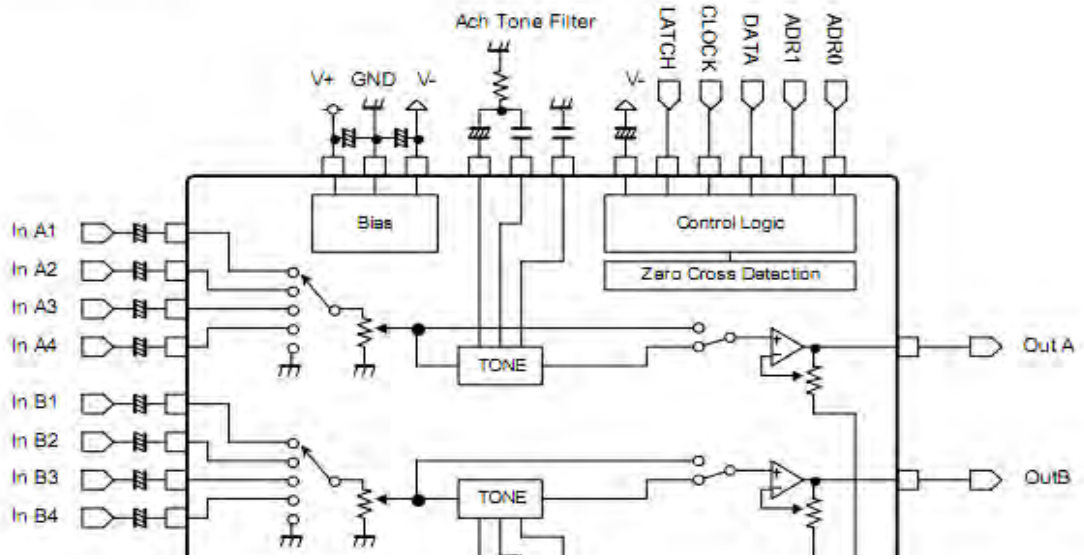
PIN FUNCTION
1.A OUTPUT
2.A –INPUT
3.A +INPUT
4.V⁻
5.B +INPUT
6.B –INPUT
7.B OUTPUT
8.V⁺

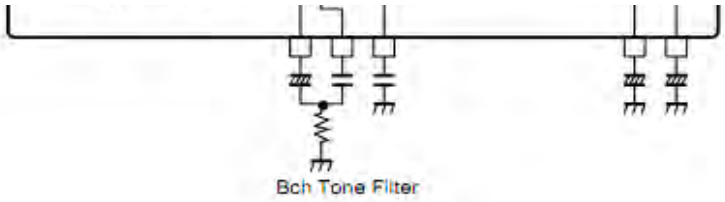
■ EQUIVALENT CIRCUIT (1/2 Shown)



IC34 CVINJW1194V 2CH VOLUME

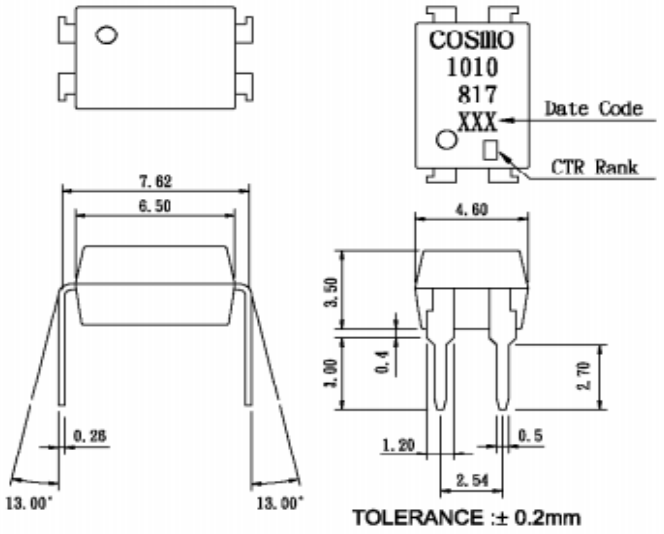
■ BLOCK DIAGRAM



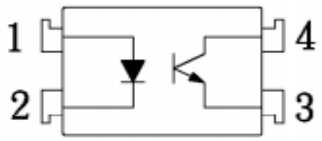


IC601 BVIKP1010B PHOTO COUPLER (COSMO)

Outside Dimension : Unit (mm)



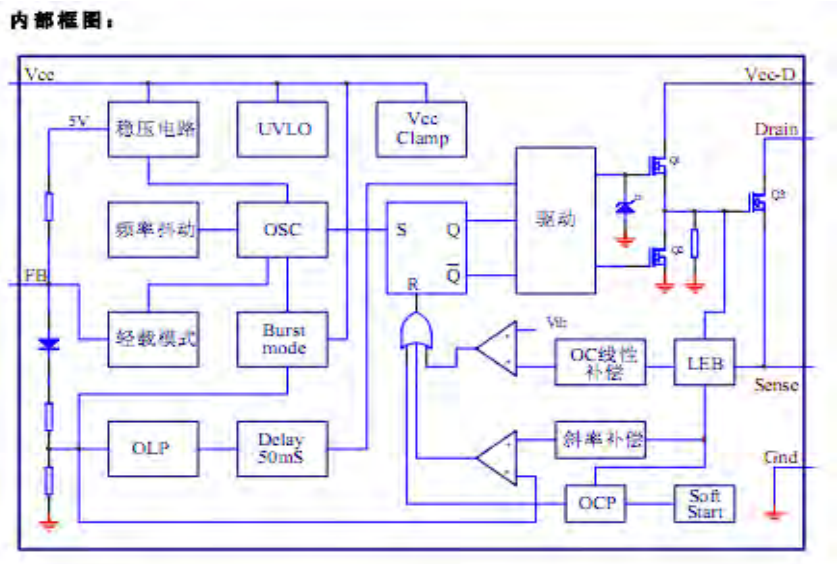
Schematic : Top View



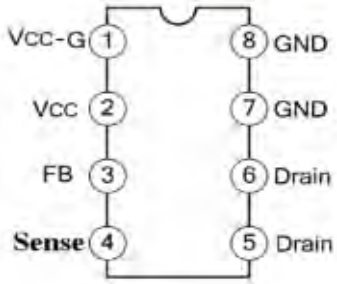
1. Anode
2. Cathode
3. Emitter
4. Collector

IC91 CVIOB2358LAP PWM

内部框图：



管脚排列图：

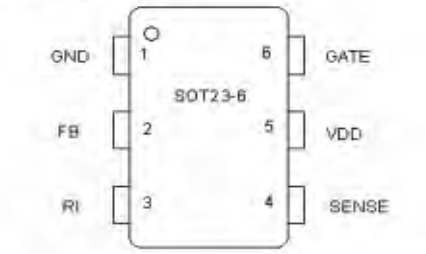


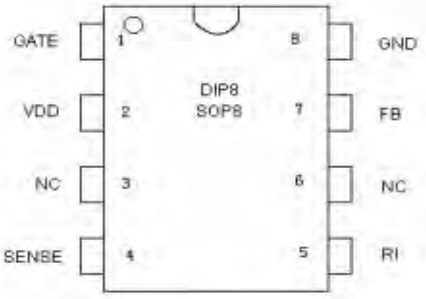
IC92 CVIOB2263MPA PWM CONTROLLER (SOT23-6)

GENERAL INFORMATION

Pin Configuration

The OB2263 is offered in SOT23-6, DIP8 and SOP8 packages, shown as below.





Ordering Information

Part Number	Description
OB2263MP	SOT23-6, Pb-free
OB2263AP	DIP8, Pb-free
OB2263CP	SOP8, Pb-free

Package Dissipation Rating

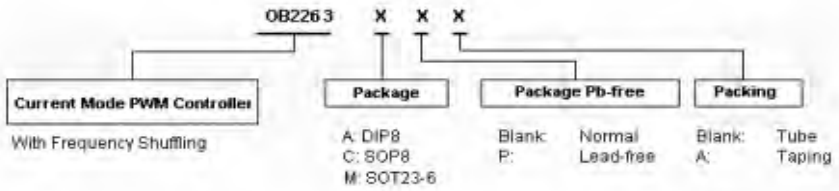
Package	RθJA (°C/W)
DIP8	90
SOP8	150
SOT23-6	200

Absolute Maximum Ratings

Parameter	Value
VDD DC Supply Voltage	30 V
VDD Zener Clamp Voltage[Note]	VDD_Clamp+0.1V
VDD DC Clamp Current	10 mA
V_{FB} Input Voltage	-0.3 to 7V
V_{SENSE} Input Voltage to Sense Pin	-0.3 to 7V
V_{RI} Input Voltage to RI Pin	-0.3 to 7V
Min/Max Operating Junction Temperature T_J	-20 to 150 °C
Min/Max Storage Temperature T_{stg}	-55 to 160 °C

Note: VDD_Clamp has a nominal value of 34V.

Stresses beyond those listed under "absolute maximum ratings" may cause permanent damage to the device. These are stress ratings only, functional operation of the device at these or any other conditions beyond those indicated under "recommended operating conditions" is not implied. Exposure to absolute maximum-rated conditions for extended periods may affect device reliability.



IC93 CVIICE2QS02G PWM CONTROLLER(PG-DSO-8)

1.1 Pin Configuration

Pin	Symbol	Function
1	BL	Blanking Time
2	ZC	Zero Crossing
3	FB	Feedback
4	CS	Primary Current Sensing
5	VINS	Input Voltage Sensing

6	GATE	Gate Driver Output
7	VCC	Controller Supply Voltage
8	GND	Controller Ground

1.2 Package

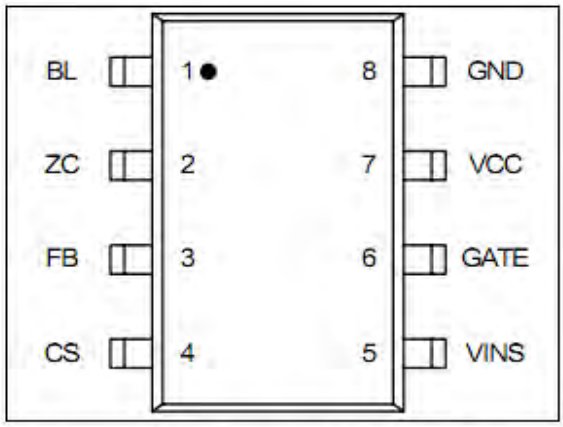
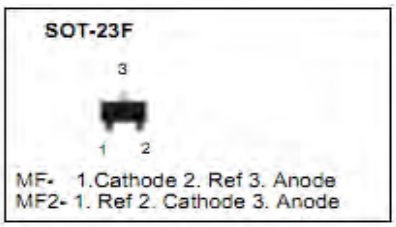
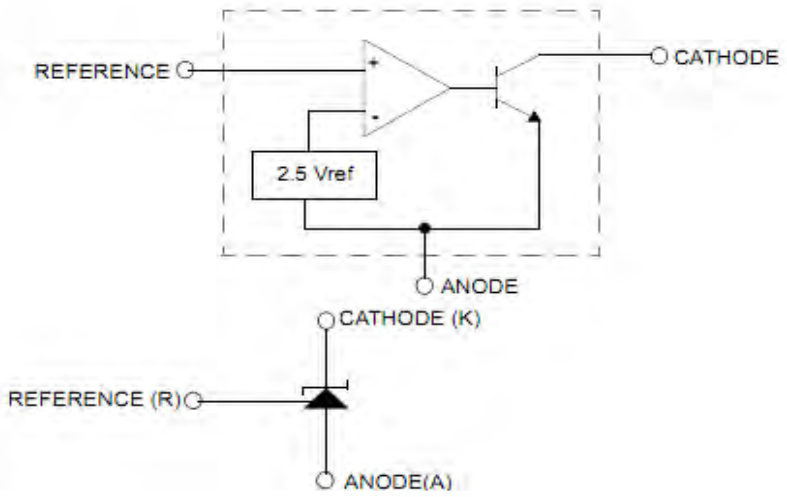


Figure 1 Pin configuration PG-DSO-8-8 (top view)

IC94, IC95,IC96 CVIKA431SAMF2 SHUNT REGULATOR(SOT-23F)

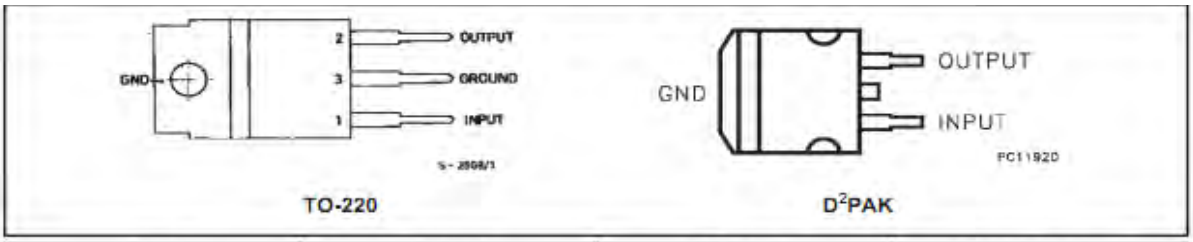


Internal Block Diagram



IC98 HVINJM7912FA REGULATOR

CONNECTION DIAGRAM AND ORDERING NUMBERS (top view)

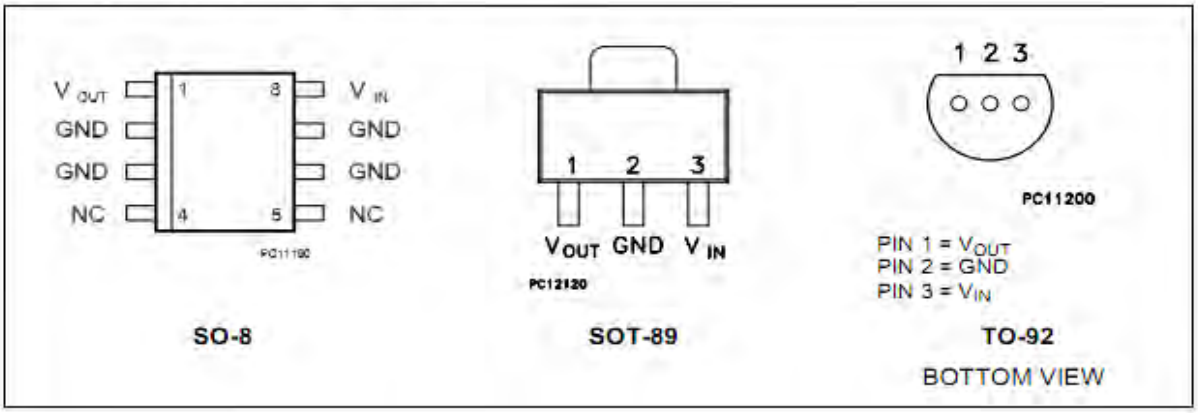


Type	TO-220	D²PAK (*)	Output Voltage
L7805AB	L7805ABV	L7805ABD2T	5V
L7805AC	L7805ACV	L7805ACD2T	5V
L7806AB	L7806ABV	L7806ABD2T	6V
L7806AC	L7806ACV	L7806ACD2T	6V
L7808AB	L7808ABV	L7808ABD2T	8V
L7808AC	L7808ACV	L7808ACD2T	8V
L7809AB	L7809ABV	L7809ABD2T	9V
L7809AC	L7809ACV	L7809ACD2T	9V
L7812AB	L7812ABV	L7812ABD2T	12V
L7812AC	L7812ACV	L7812ACD2T	12V
L7815AB	L7815ABV	L7815ABD2T	15V
L7815AC	L7815ACV	L7815ACD2T	15V
L7818AB	L7818ABV		18V
L7818AC	L7818ACV		18V
L7820AB	L7820ABV		24V
L7820AC	L7820ACV		24V
L7824AB	L7824ABV		
L7824AC	L7824ACV		

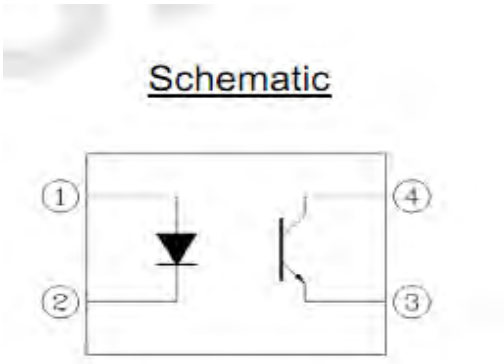
(*) AVAILABLE IN TAPE AND REEL WITH "-TR" SUFFIX

IC99 CVIL78L24AB REGULATOR (24V, TO-92L)

CONNECTION DIAGRAM (top view)



PC89 CVIEL817B PHOTO COUPLER

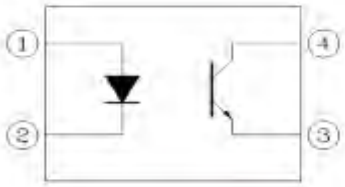


Pin Configuration
1. Anode
2. Cathode

3. Emitter
4. Collector

PC90 CVIEL357NB PHOTO COUPLER (4P, SMD)

Schematic



Pin Configuration
1. Anode
2. Cathode
3. Emitter
4. Collector

IC1500 CVIAZ4580MTR-E1 OPAMP(DUAL/LOW NOISE)

Pin Configuration

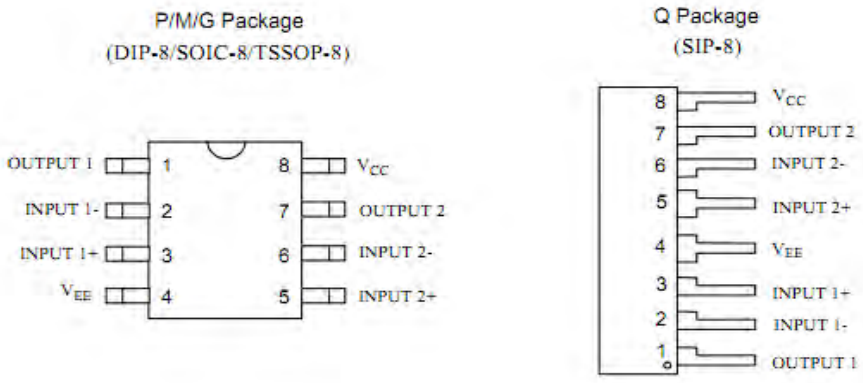


Figure 2. Pin Configuration of AZ4580 (Top View)

Pin Description

Pin No.	Function	Pin No.	Function	Pin No.	Function	Pin No.	Function
1	OUTPUT 1	2	INPUT 1-	3	INPUT 1+	4	V_{EE}
5	INPUT 2+	6	INPUT 2-	7	OUTPUT 2	8	V_{CC}

IC1302 CVICS495314CVZ DSP AUDIO DECODER(LQFP-128P)

8.2 128-pin LQFP Pinout Diagrams (CS495304/CS495314)

The CS495304/CS495314 DSP with a 128-pin package is recommended for new designs. See Section 2. for details about this Cirrus Logic recommendation.

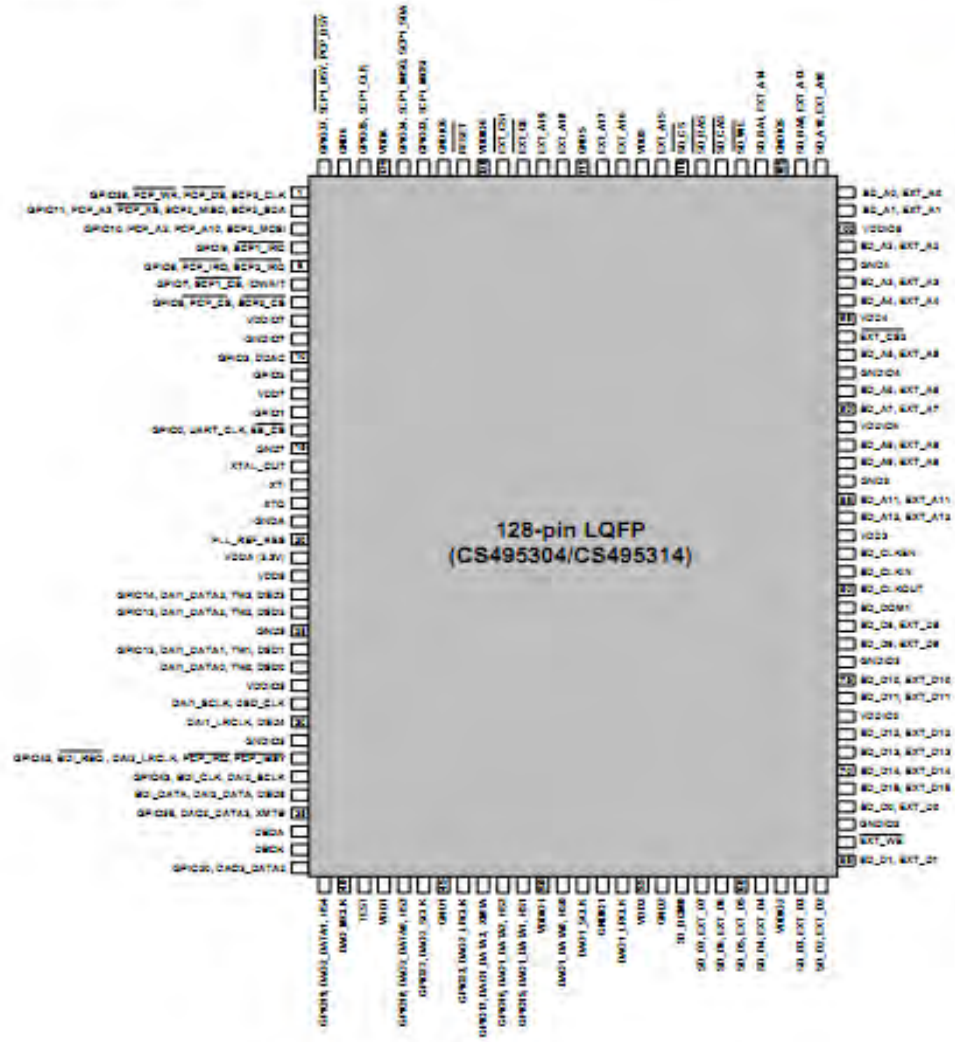
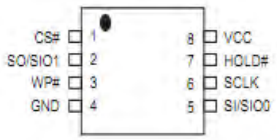


Figure 20. 128-pin LQFP Pin-Out Drawing (CS495304/CS495314)

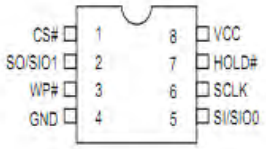
IC1101,IC1305 CVIMX25L8006EM2I-12G SERIAL FLASH(8M)

PIN CONFIGURATIONS

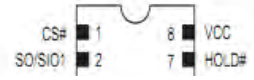
8-PIN SOP (200mil, 150mil)



8-PIN PDIP (300mil)



8-LAND WSON (6x5mm), USON (4x4mm)



PIN DESCRIPTION

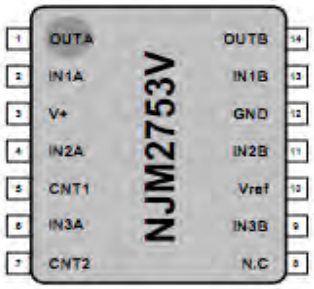
SYMBOL	DESCRIPTION
CS#	Chip Select
SO/SIO1	Serial Data Input (for 1 x I/O)/ Serial Data

SI/SIO0	Input & Output (for Dual Output mode)
SO/SIO1	Serial Data Output (for 1 x I/O)/ Serial Data Output (for Dual Output mode)
SCLK	Clock Input
WP#	Write protection
HOLD#	Hold, to pause the device without deselecting the device
VCC	+ 3.3V Power Supply
GND	Ground

IC1511 CVINJM2753V Stereo Audio Selector(SSOP14)

■ **PIN CONFIGURATIONS**
NJM2753 SSOP14

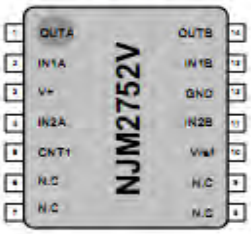
SSOP14



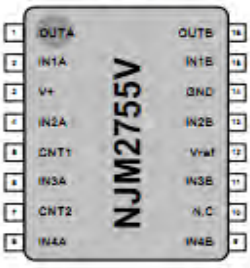
PIN.No.	SYMBOL	FUNCTION	PIN.No	SYMBOL	FUNCTION
1	OUTA	Ach Output Terminal	8	N.C	No Connection
2	IN1A	Ach Input Terminal1	9	IN3B	Bch Input Terminal3
3	V+	Power Supply Terminal	10	Vref	Reference Terminal
4	IN2A	Ach Input Terminal2	11	IN2B	Bch Input Terminal2
5	CNT1	Control Switch Terminal1	12	GND	GND Terminal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

[Reference]
The NJM2753 contains compatibility with NJM2752 (2in-1out SW),NJM2755 (4in-1out SW).

NJM2752

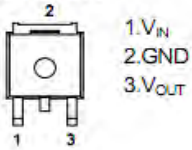


NJM2755



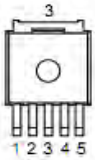
IC1309 CVINJM2845DL118 REGULATOR(1.8V/TO-252)

■ PIN CONFIGURATION



1.V_{IN}
2.GND
3.V_{OUT}

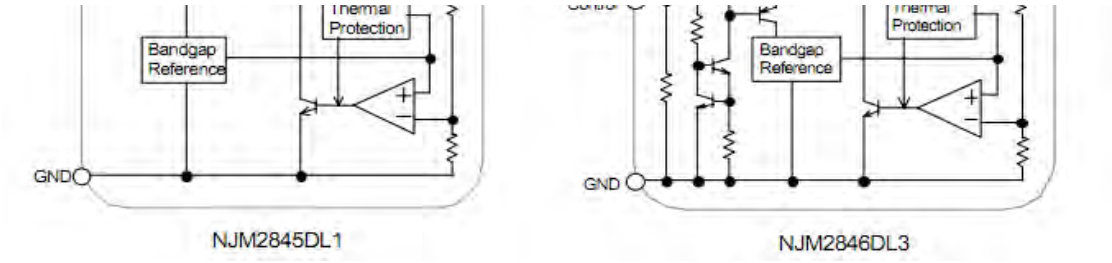
NJM2845DL1



1.CONTROL
2.V_{IN}
3.GND
4.Vo
5.NC

NJM2846DL3

■ EQUIVALENT CIRCUIT



IC1301 HVICS42528-CQ CODEC + DIR (CIRRUS LOGIC)

3 TYPICAL CONNECTION DIAGRAMS

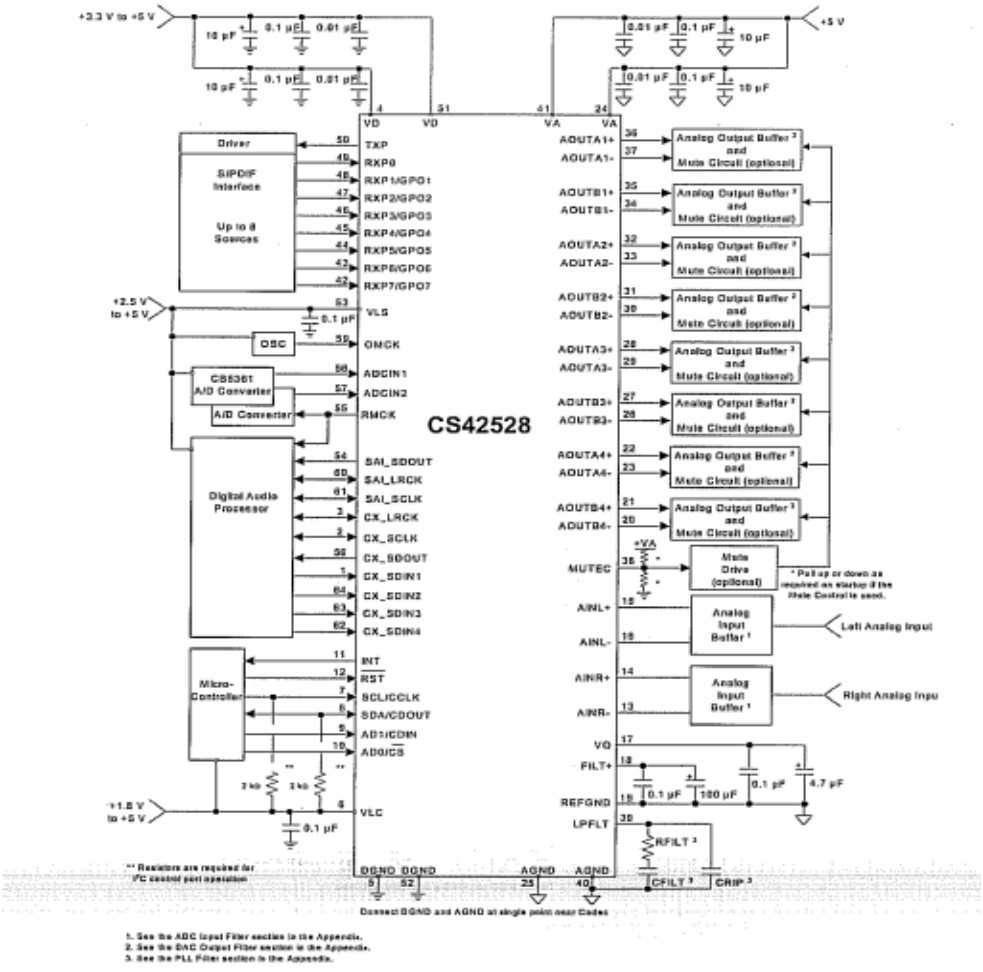
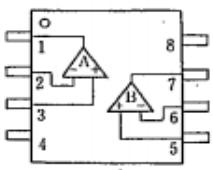
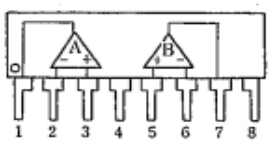


Figure 5. Typical Connection Diagram

IC1306, IC1307 HVINJM2115MTE1 OP AMP

■ PIN CONFIGURATION



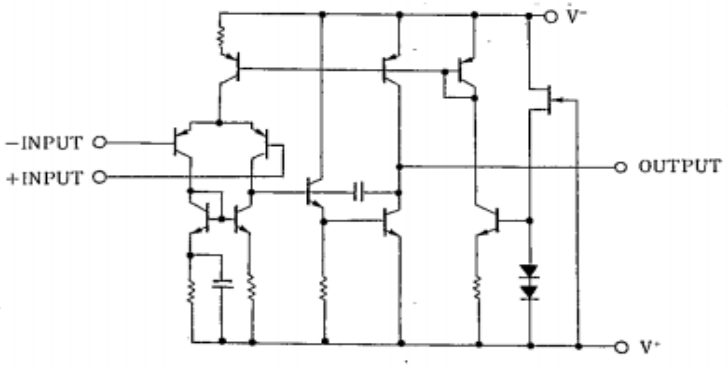


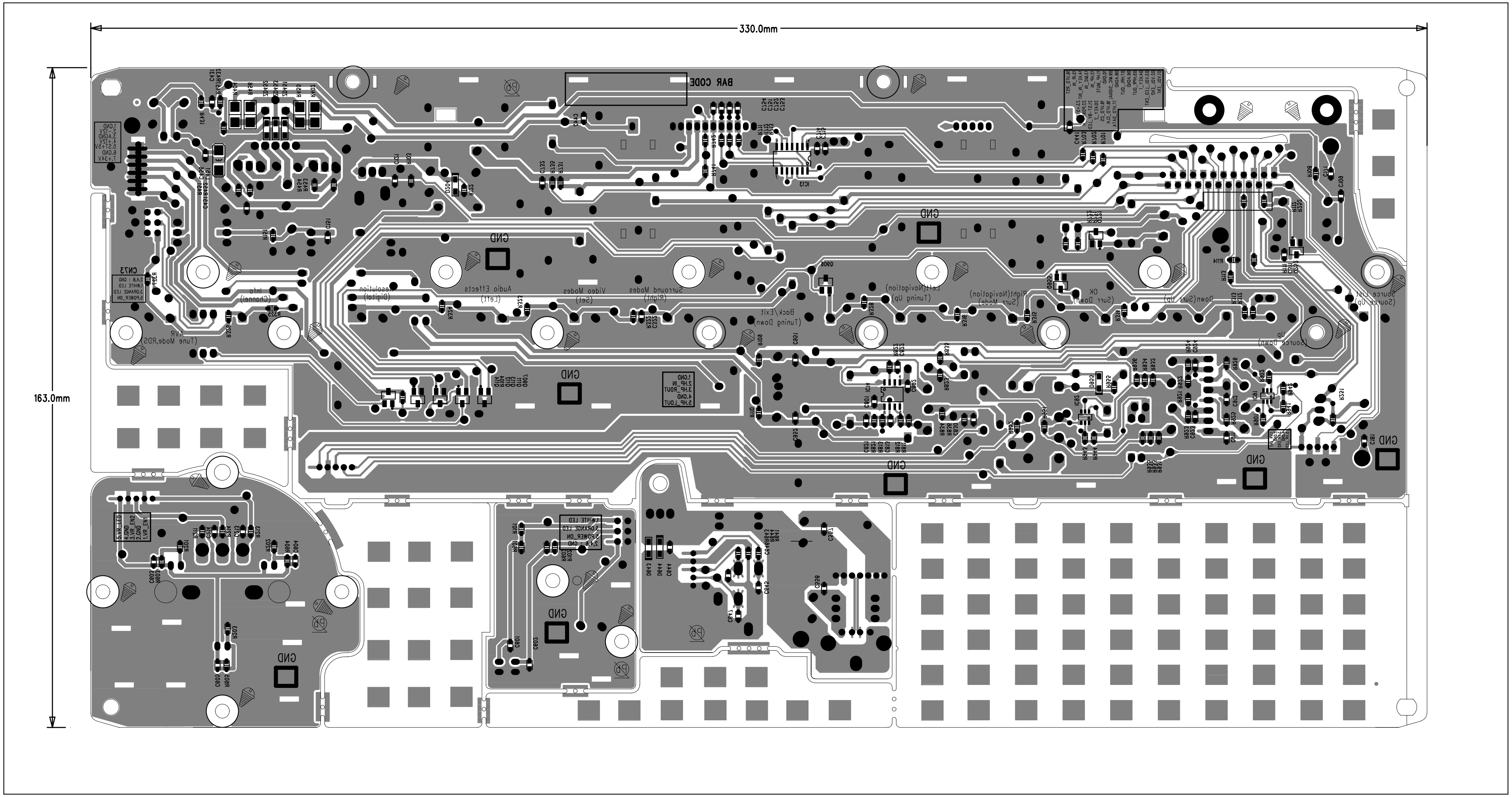
PIN FUNCTION

1. A OUTPUT
2. A −INPUT
3. A +INPUT
4. V⁻
5. B +INPUT
6. B −INPUT
7. B OUTPUT
8. V⁺

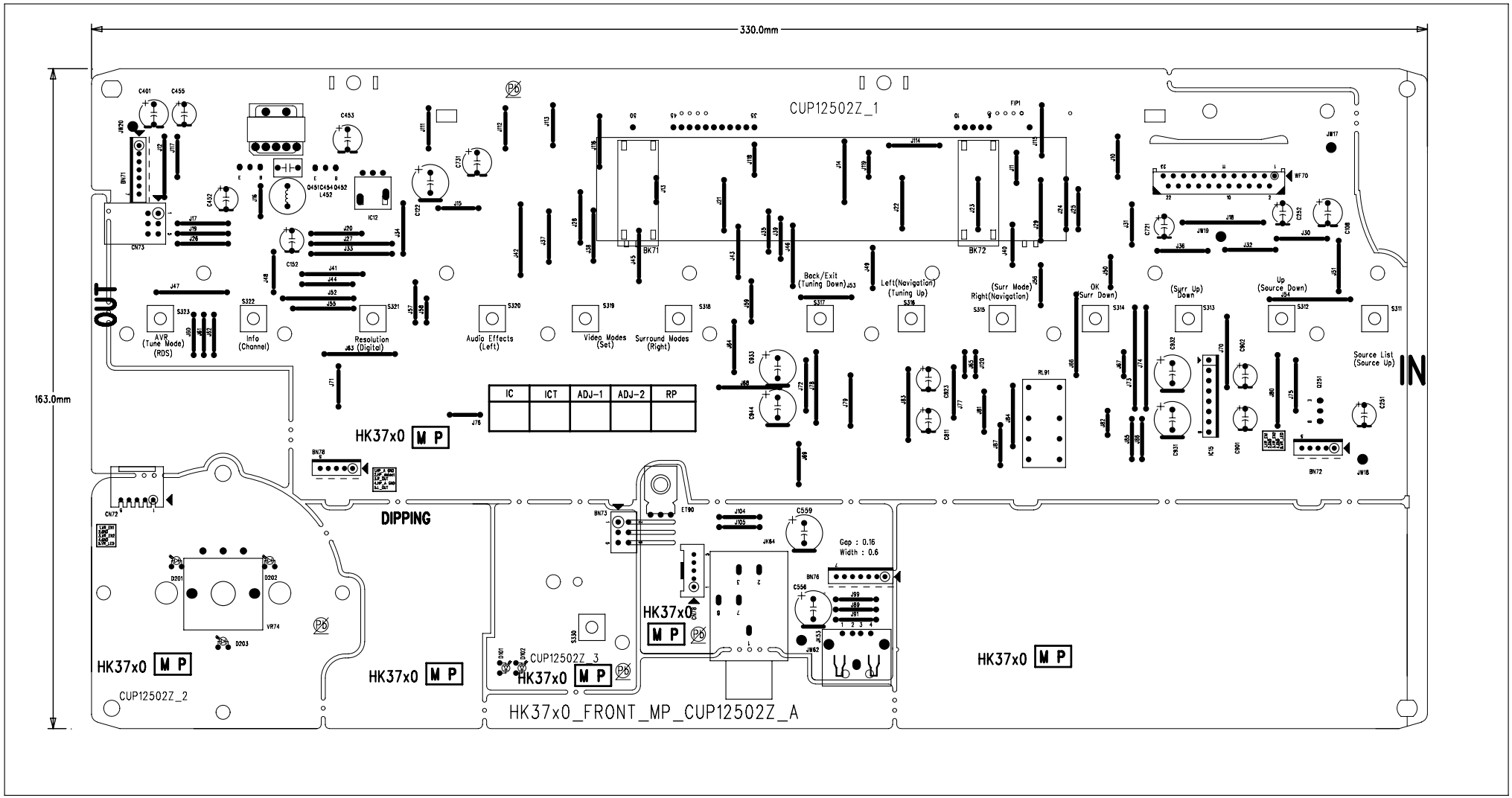
■ EQUIVALENT CIRCUIT (1/2 Shown)

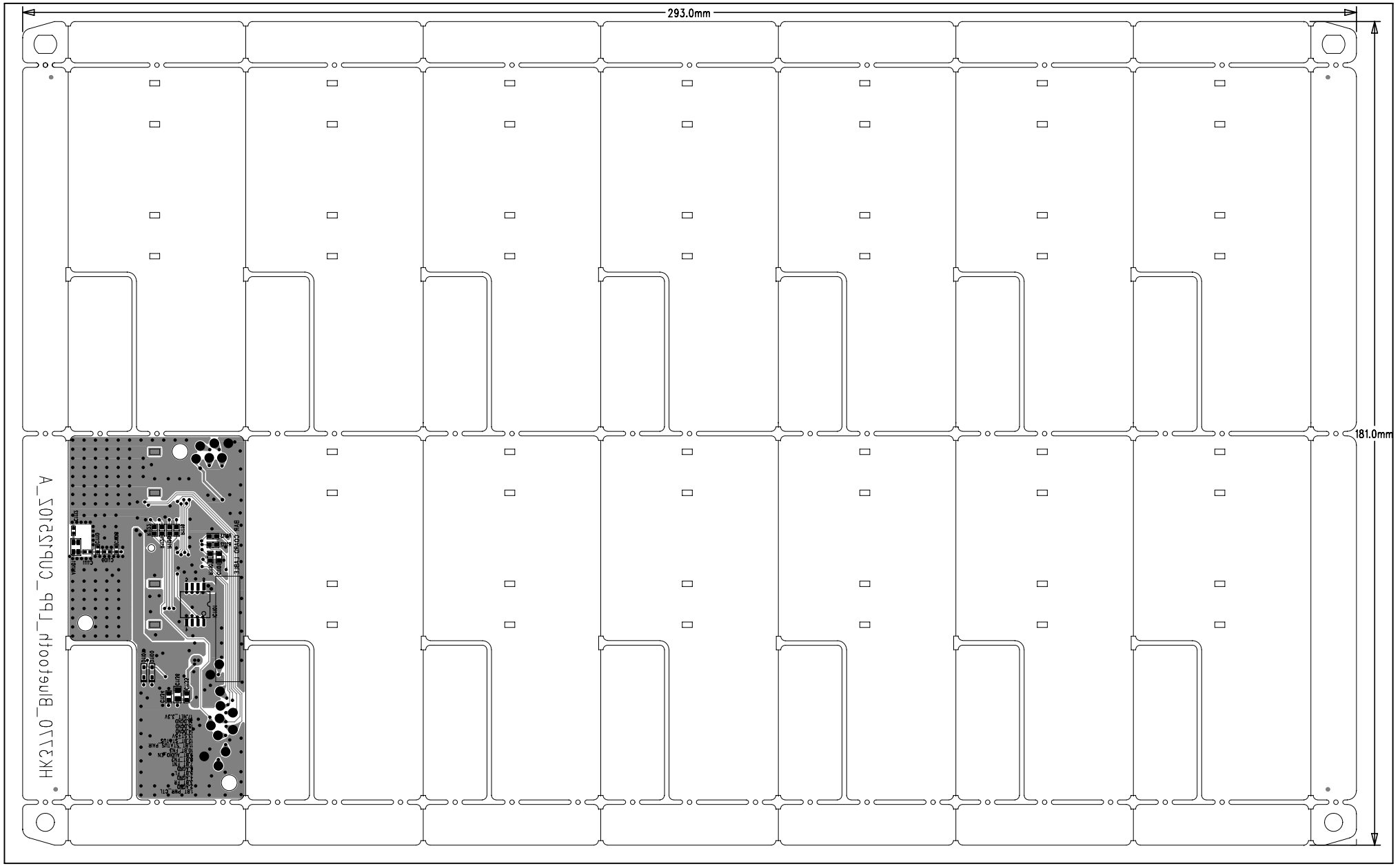
■ EQUIVALENT CIRCUIT (1/2 Shown)

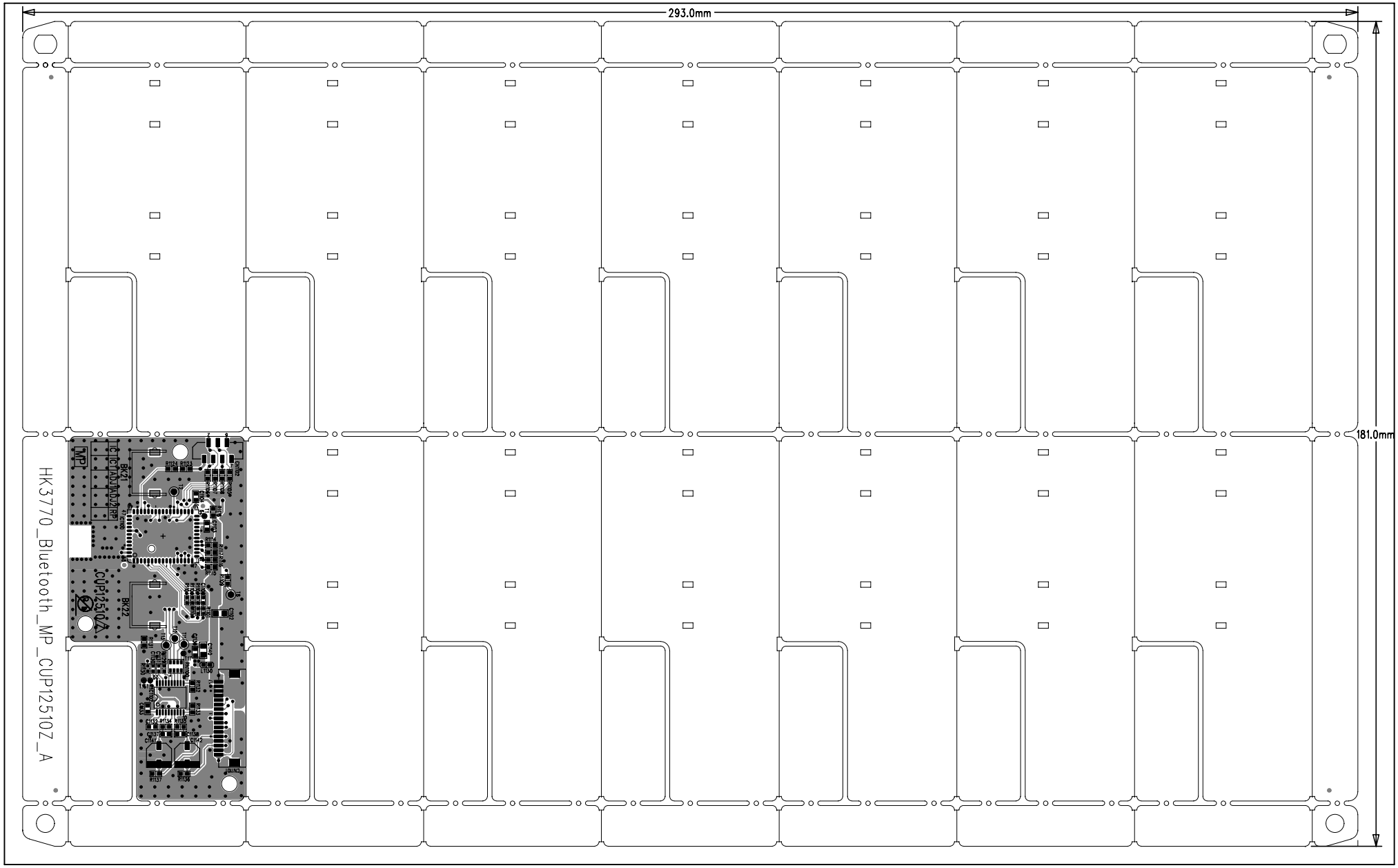


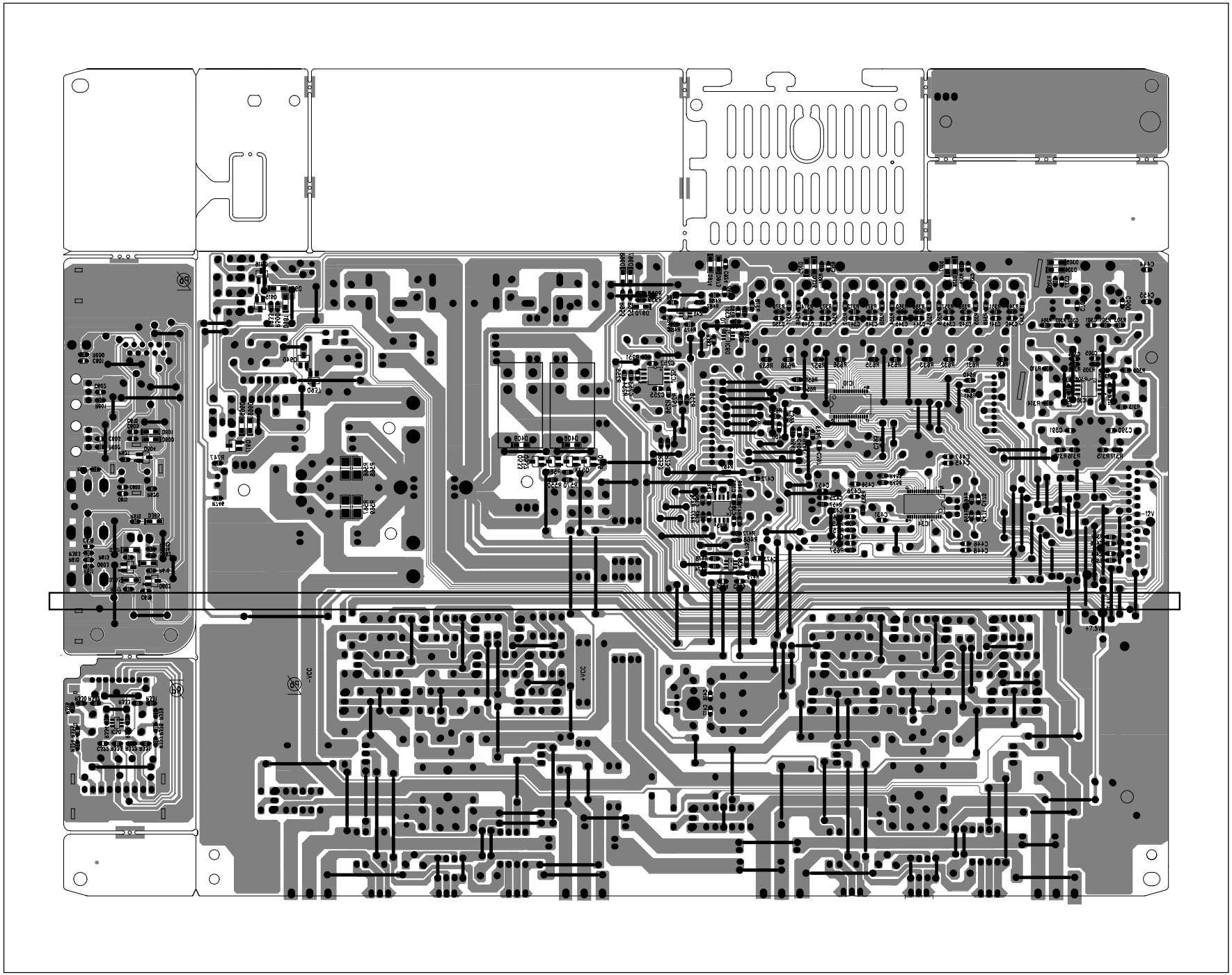


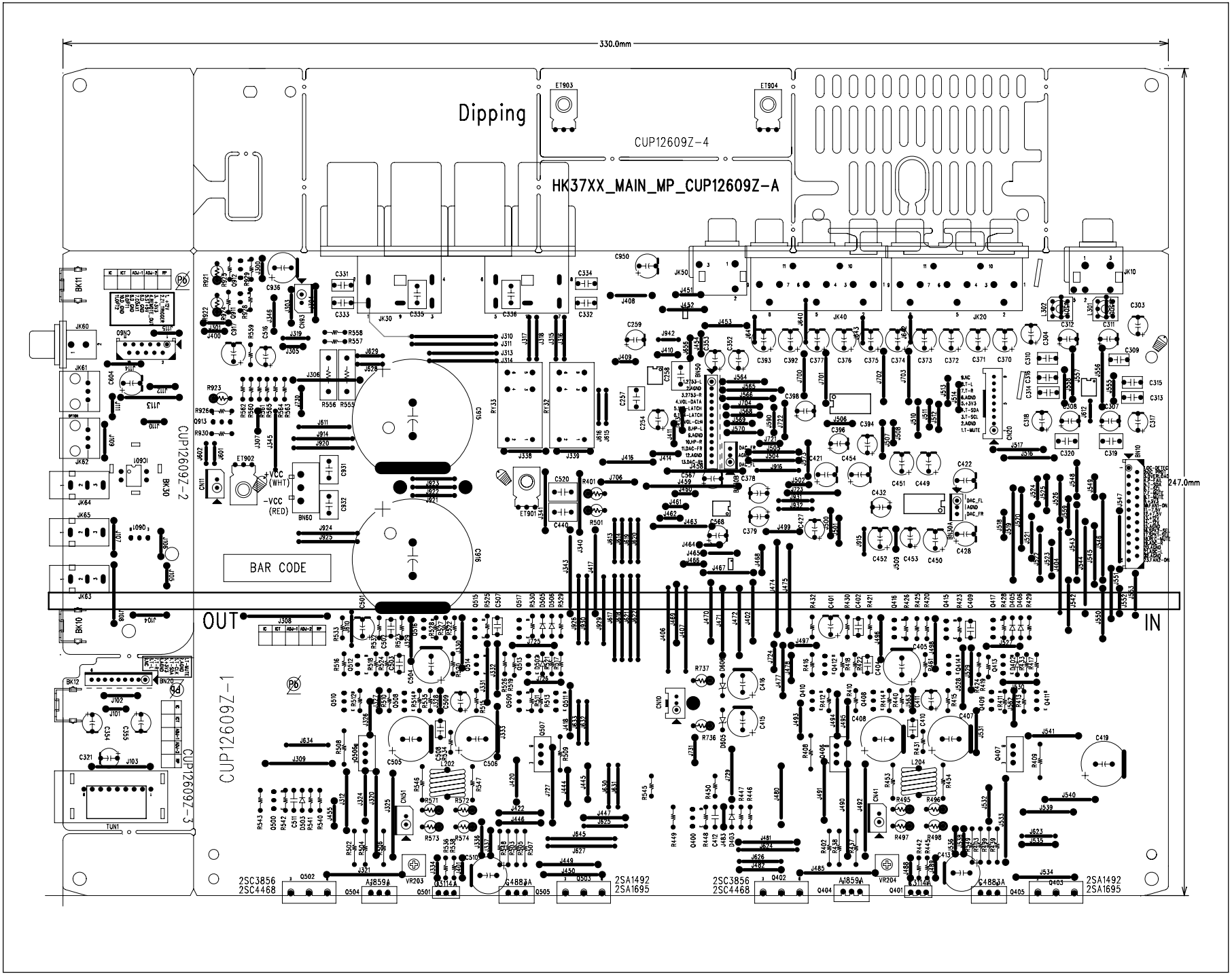
HK37x0_FRONT_ES_CUP1250 - Thu Nov 07 09:28:00 2013

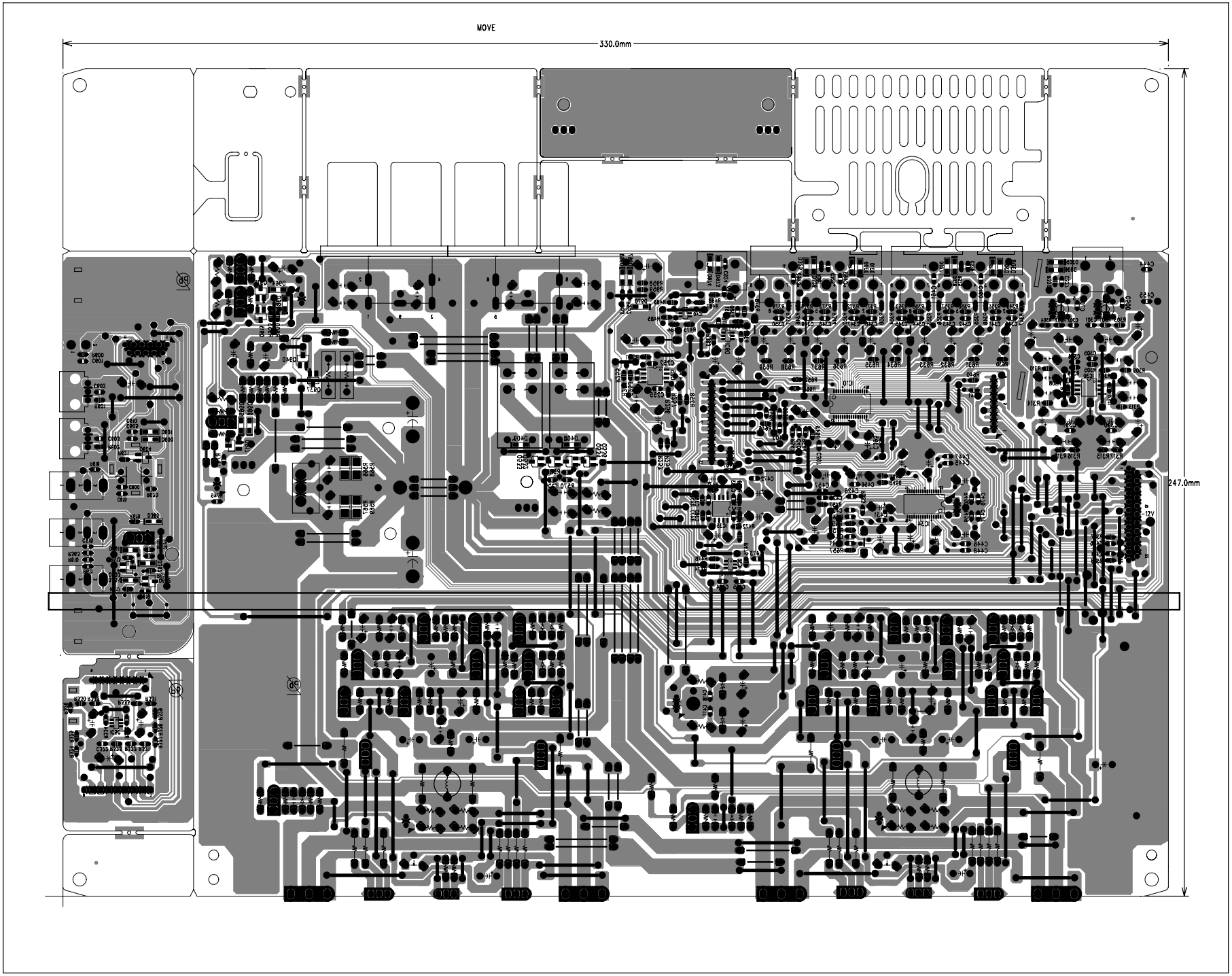

330.0mm
163.0mm
CUP12502Z_1
OUT
IN
AVR (Tune Mode) (RDS)
Info (Channel)
Resolution (Digital)
Audio Effects (Left)
Video Modes (Set)
Surround Modes (Right)
Back/Exit (Tuning Down)
Left(Navigation) (Tuning Up)
(Surr Mode) Right(Navigation)
OK Surr Down)
(Surr Up) Down
Up (Source Down)
Source List (Source Up)
IC
ICT
ADJ-1
ADJ-2
RP
HK37x0 M P
DIPPING
Gap : 0.16
Width : 0.6
CUP12502Z_2
CUP12502Z_3
HK37x0_FRONT_MP_CUP12502Z_A

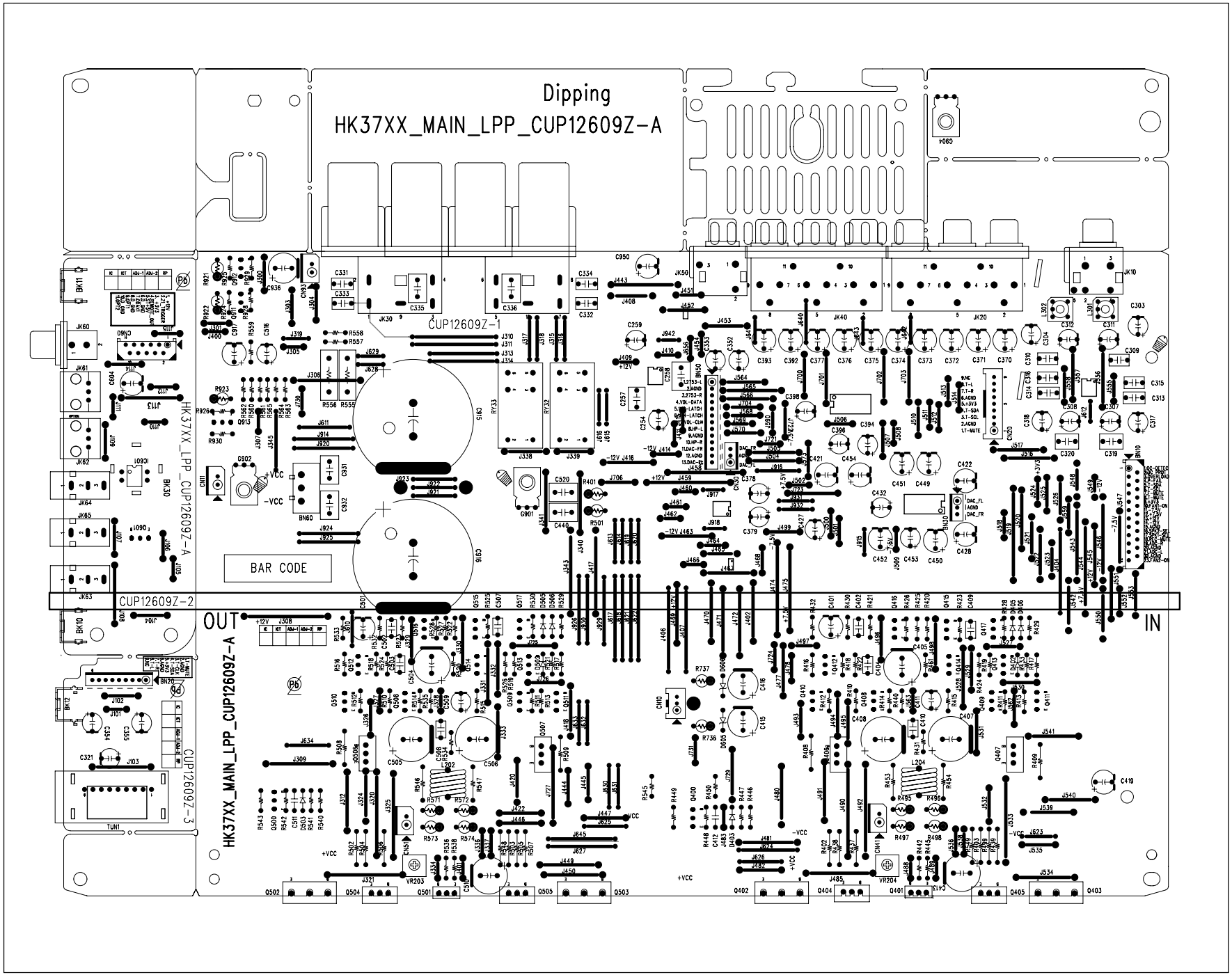

293.0mm
181.0mm

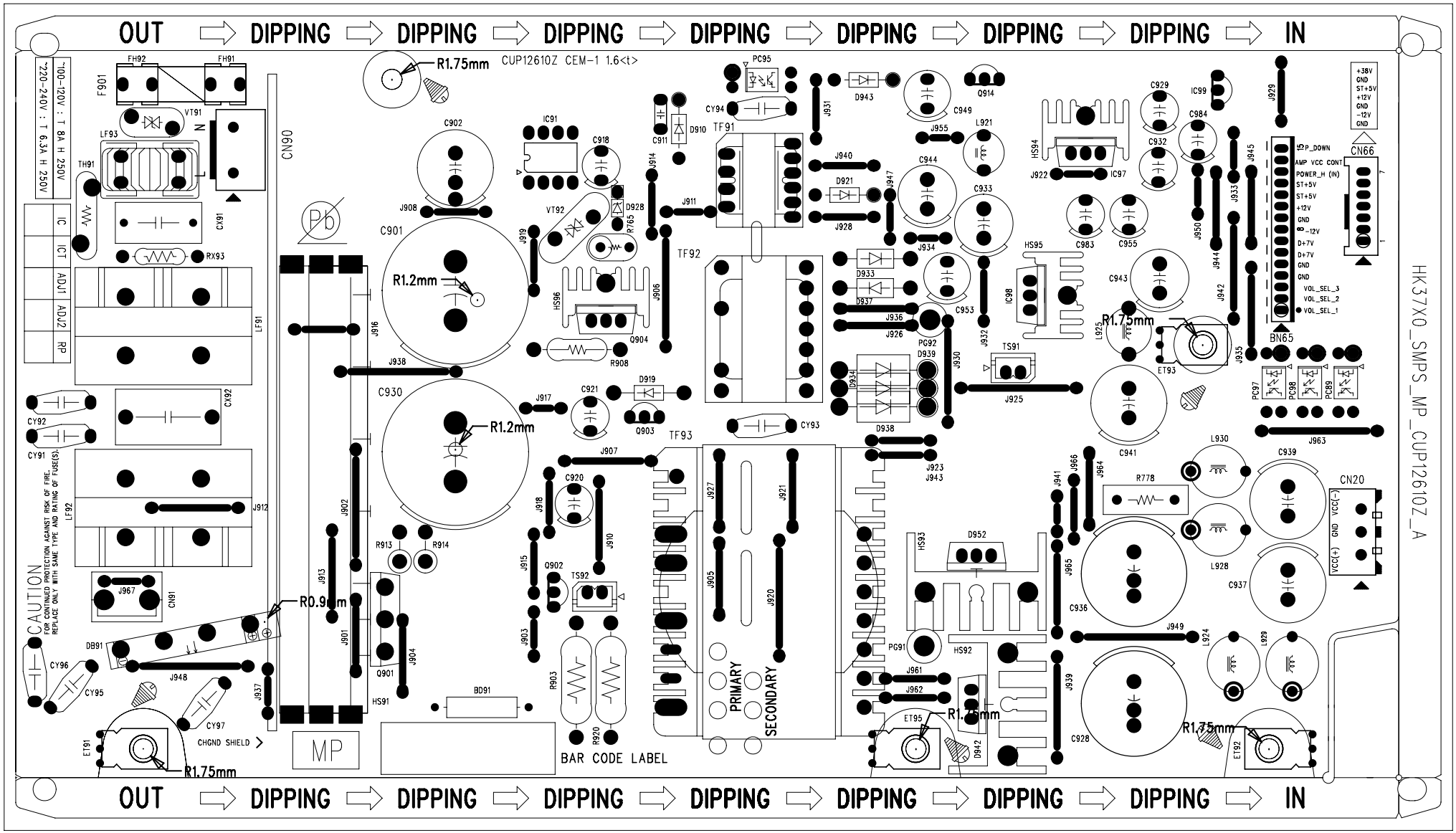

293.0mm
181.0mm
HK3770_Bluetooth_MP_CUP12510Z_A

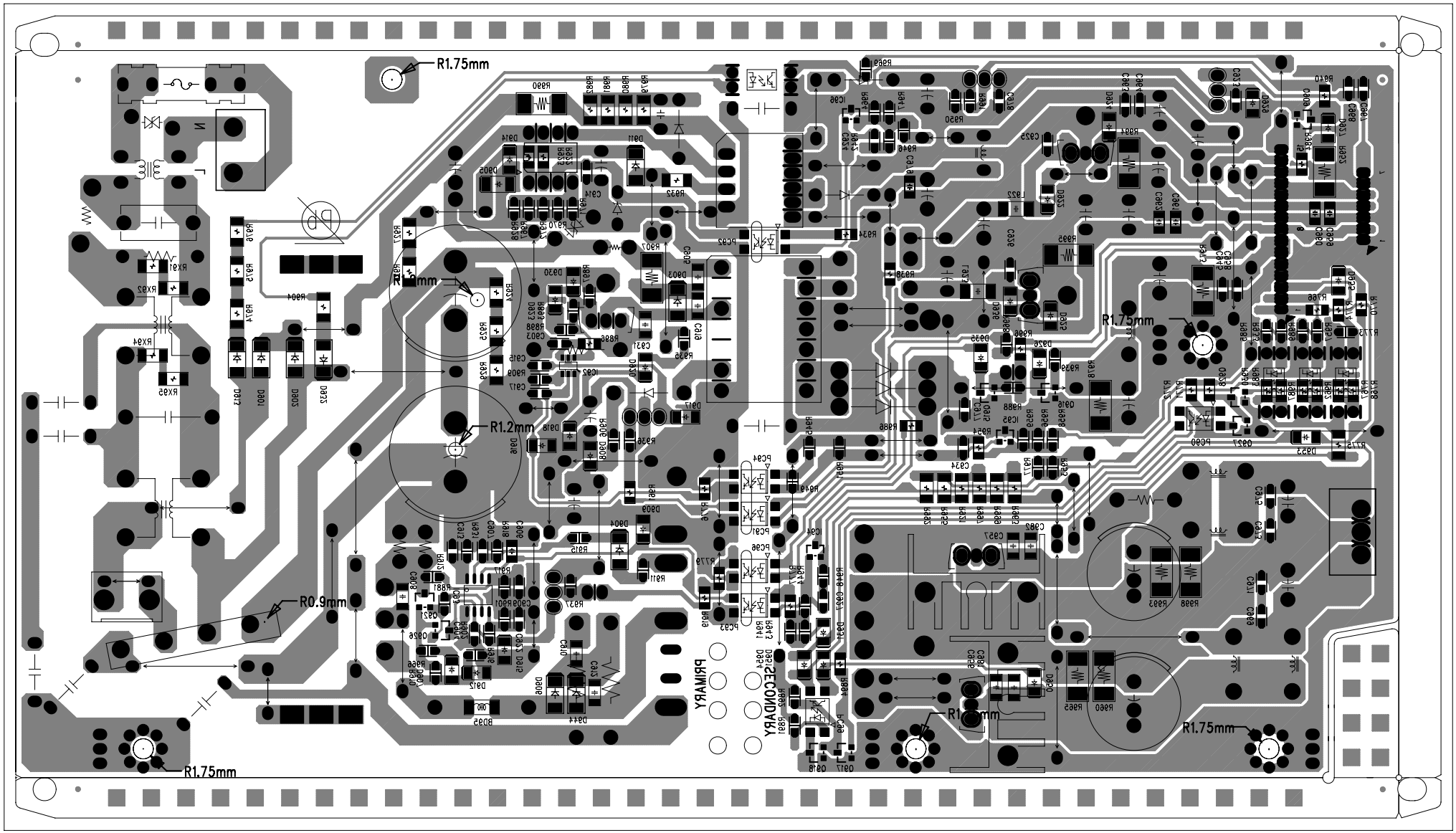


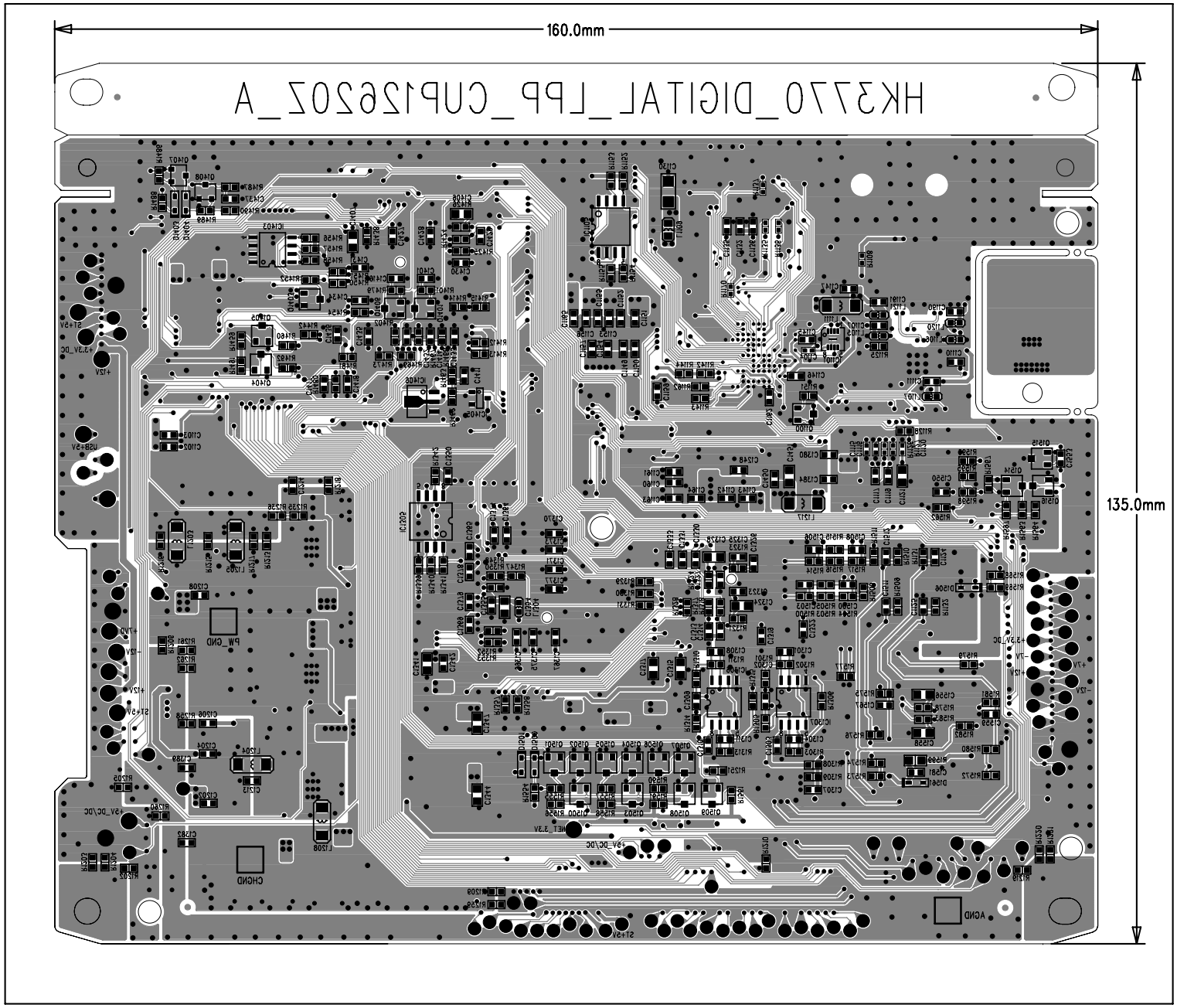

330.0mm
247.0mm
Dipping
CUP12609Z-4
HK37XX_MAIN_MP_CUP12609Z-A
CUP12609Z-2
CUP12609Z-1
CUP12609Z-3
BAR CODE
OUT
IN
VCC (WHT)
-VCC (RED)
2SC3856
2SC4468
2SA1492
2SA1695
A1859A
C4883A

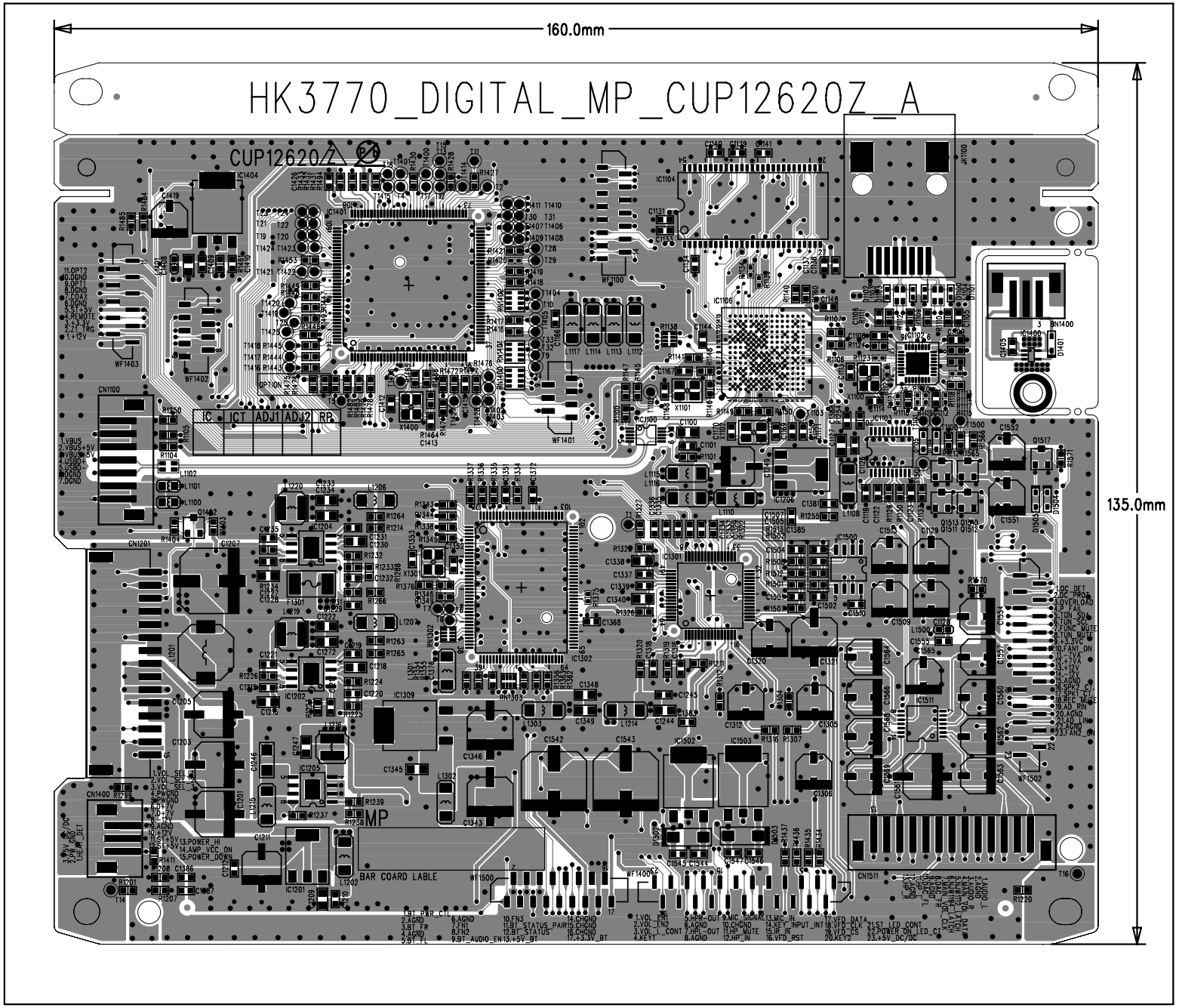

MOVE
330.0mm
247.0mm

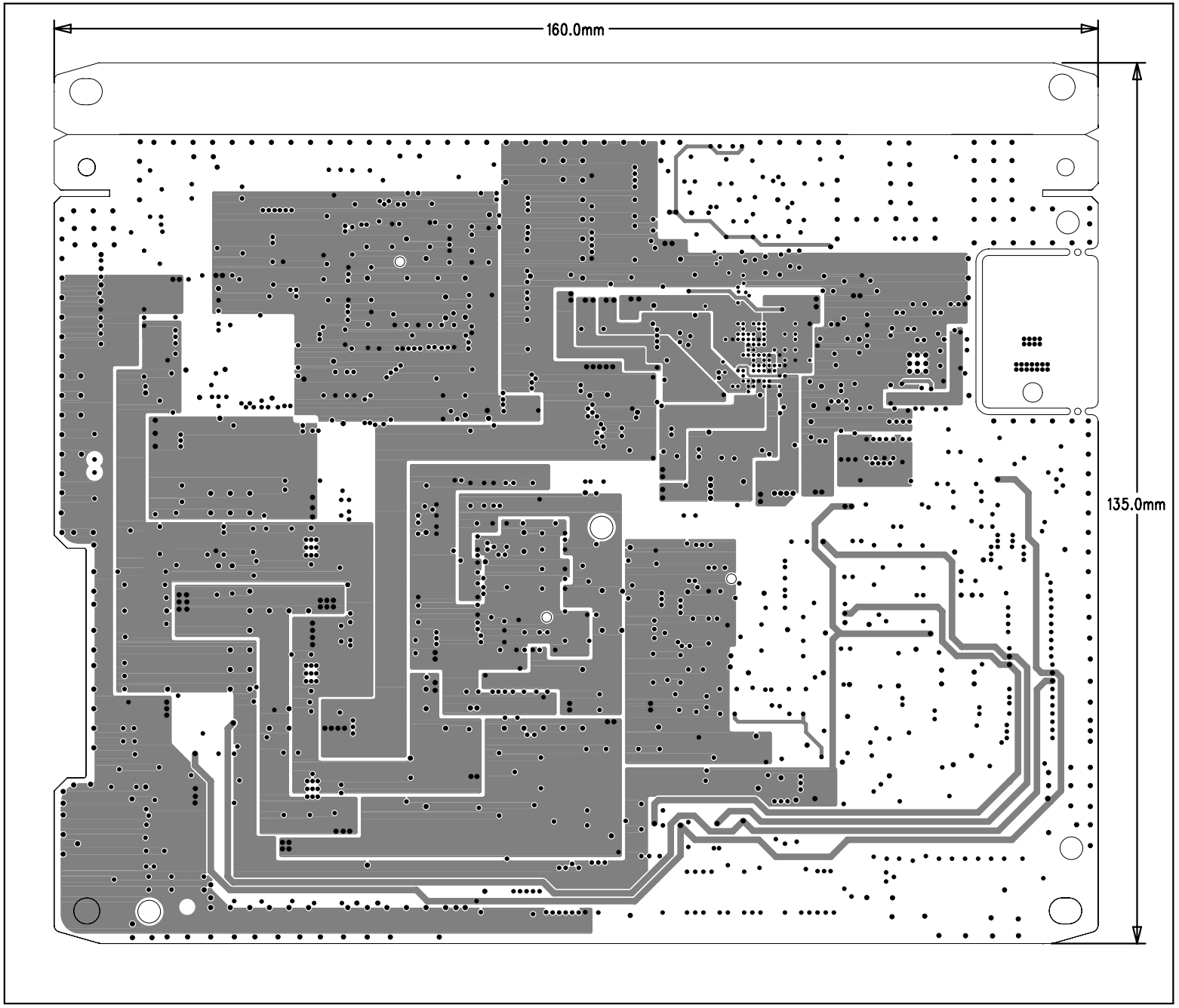

Dipping
HK37XX_MAIN_LPP_CUP12609Z-A
CUP12609Z-1
CUP12609Z-2
CUP12609Z-3
HK37XX_LPP_CUP12609Z-A
HK37XX_MAIN_LPP_CUP12609Z-A
BAR CODE
OUT
IN

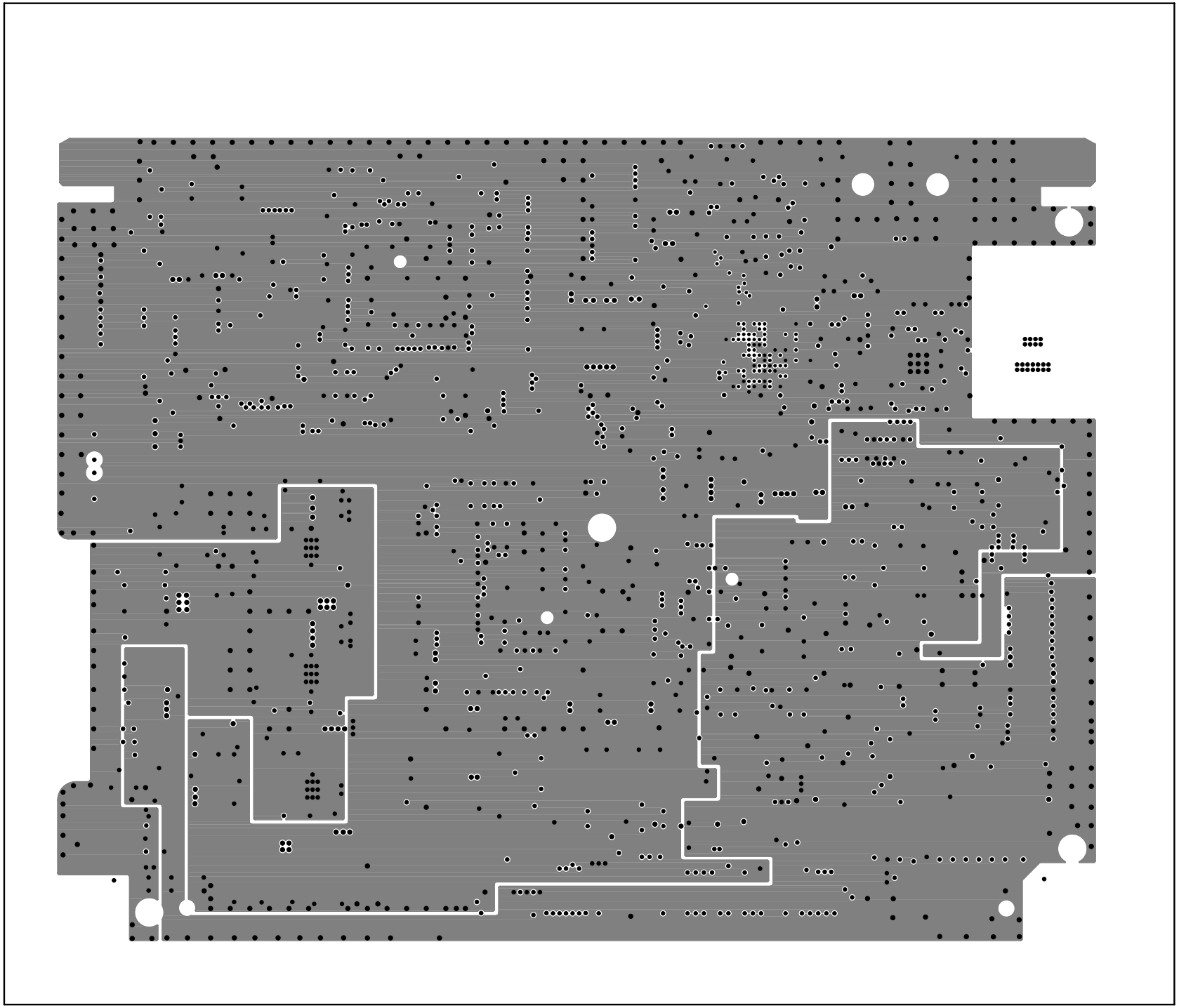

OUT
DIPPING
DIPPING
DIPPING
DIPPING
DIPPING
DIPPING
DIPPING
IN
CUP12610Z CEM-1 1.6<t>
R1.75mm
R1.2mm
R1.2mm
R0.9mm
R1.75mm
R1.75mm
R1.75mm
R1.75mm
CAUTION
FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE(S).
"220-240V : T 6.3A H 250V
"100-120V : T 8A H 250V
PRIMARY
SECONDARY
BAR CODE LABEL
CHGND SHIELD
MP
HK37X0_SMPS_MP_CUP12610Z_A

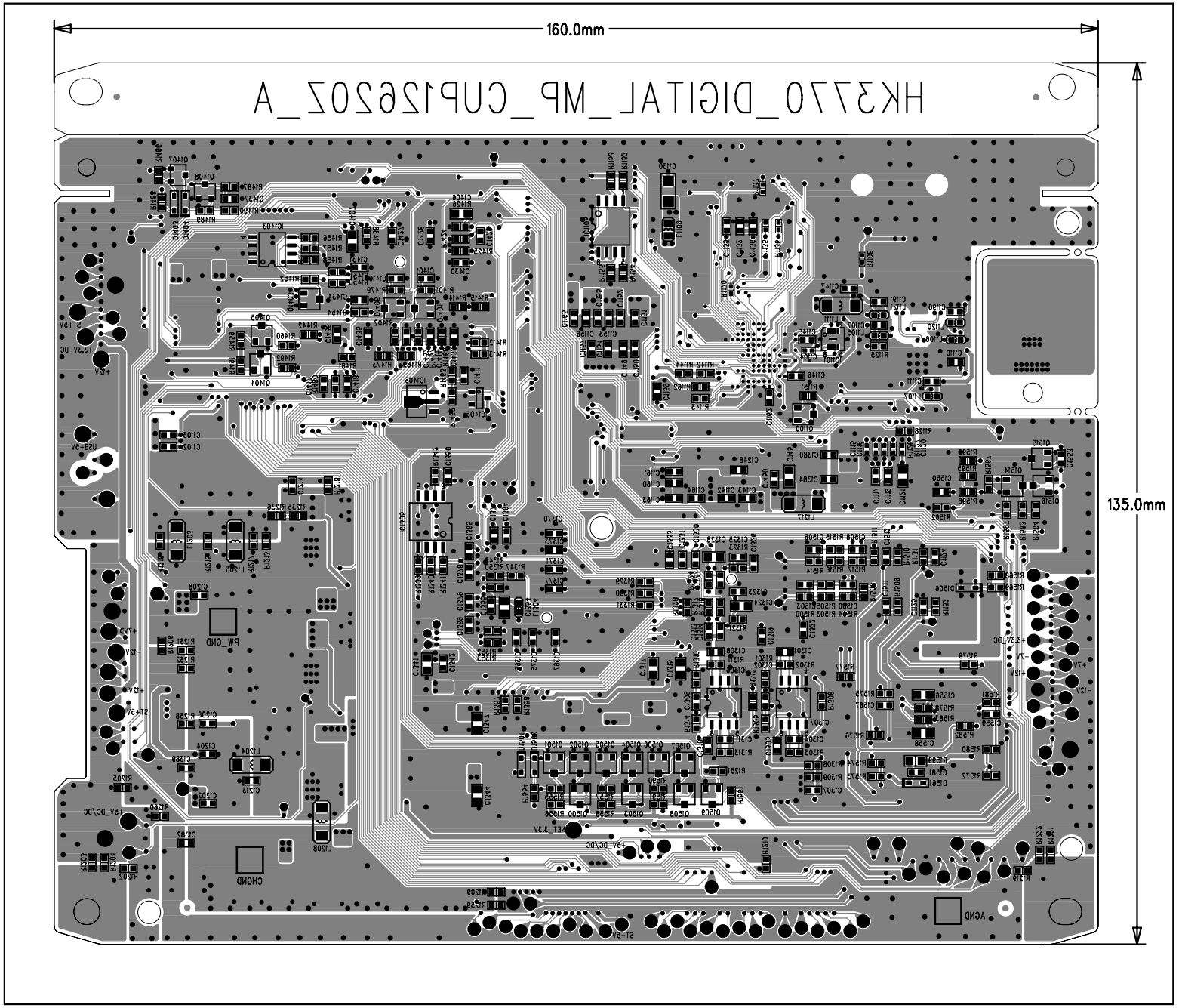

R1.75mm
R1.2mm
R0.9mm
R1.75mm
R1.75mm
R1.75mm
PRIMARY
SECONDARY

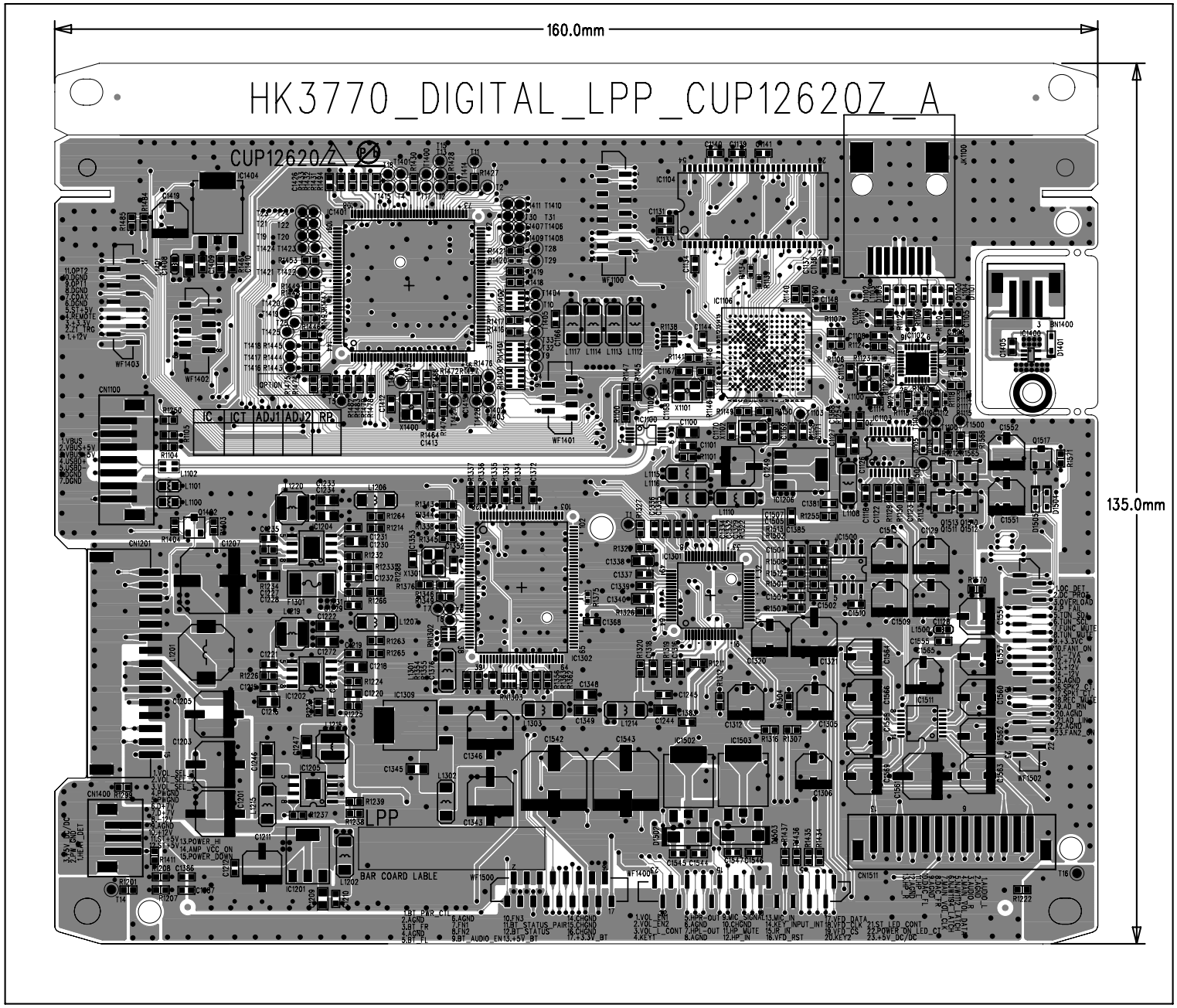

160.0mm
135.0mm
HK3770_DIGITAL_LPP_CUP1260202_A

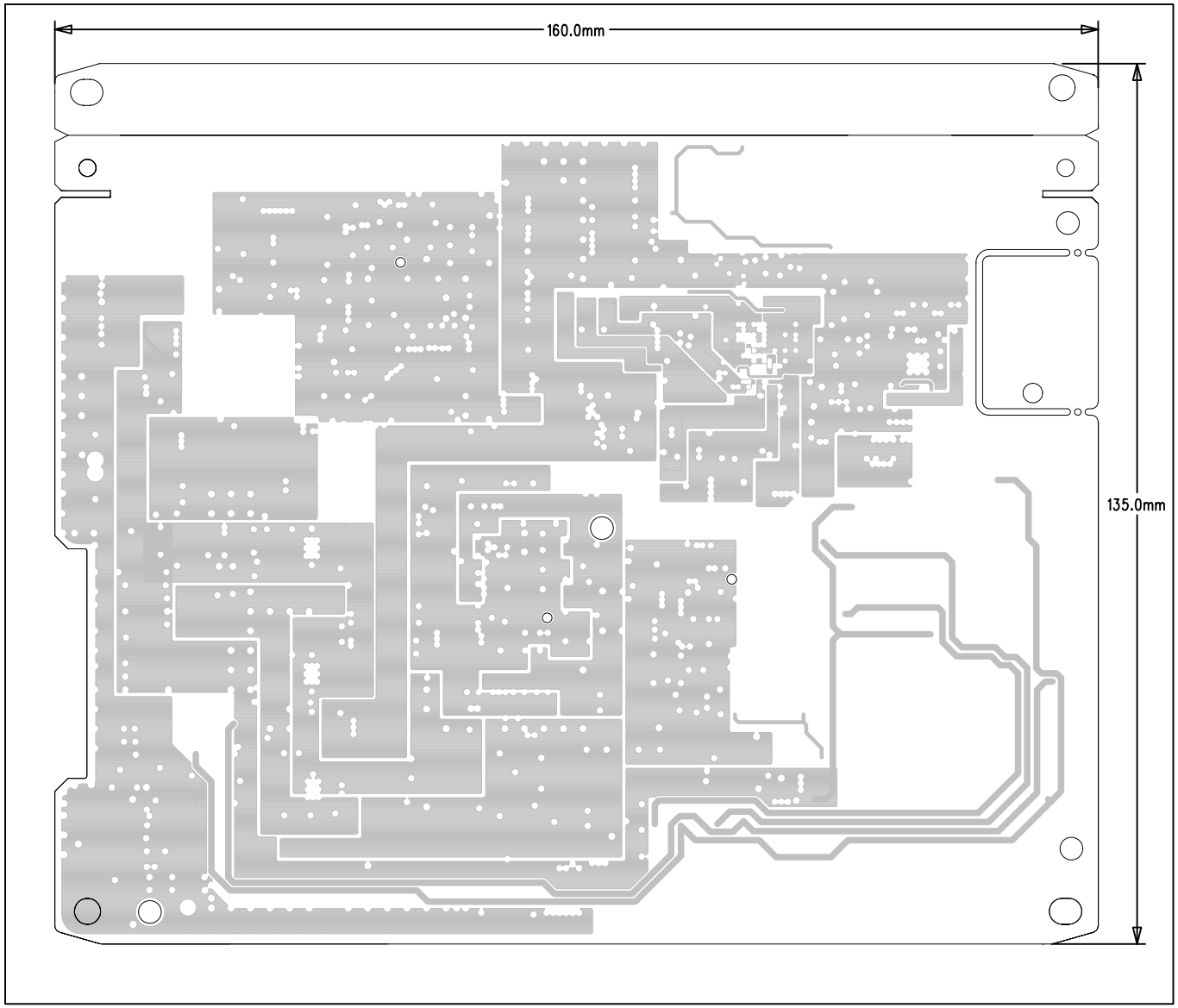

160.0mm
135.0mm
HK3770_DIGITAL_MP_CUP12620Z_A
CUP12620Z


160.0mm
135.0mm




160.0mm
135.0mm
HK3770_DIGITAL_MP_CUP12620Z_A

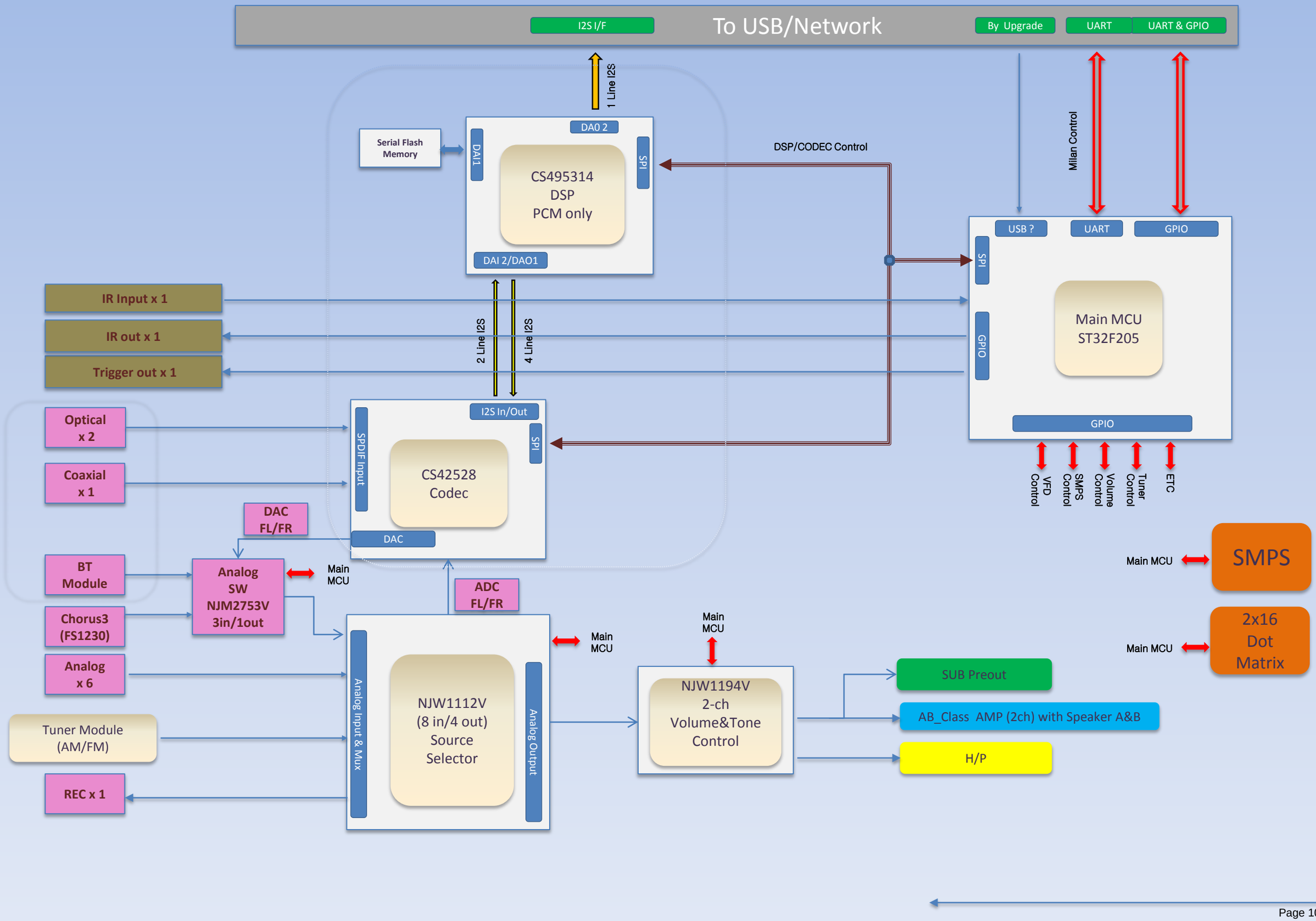

160.0mm
135.0mm
HK3770_DIGITAL_LPP_CUP12620Z_A
CUP12620Z
LPP
BAR COARD LABLE


160.0mm
135.0mm

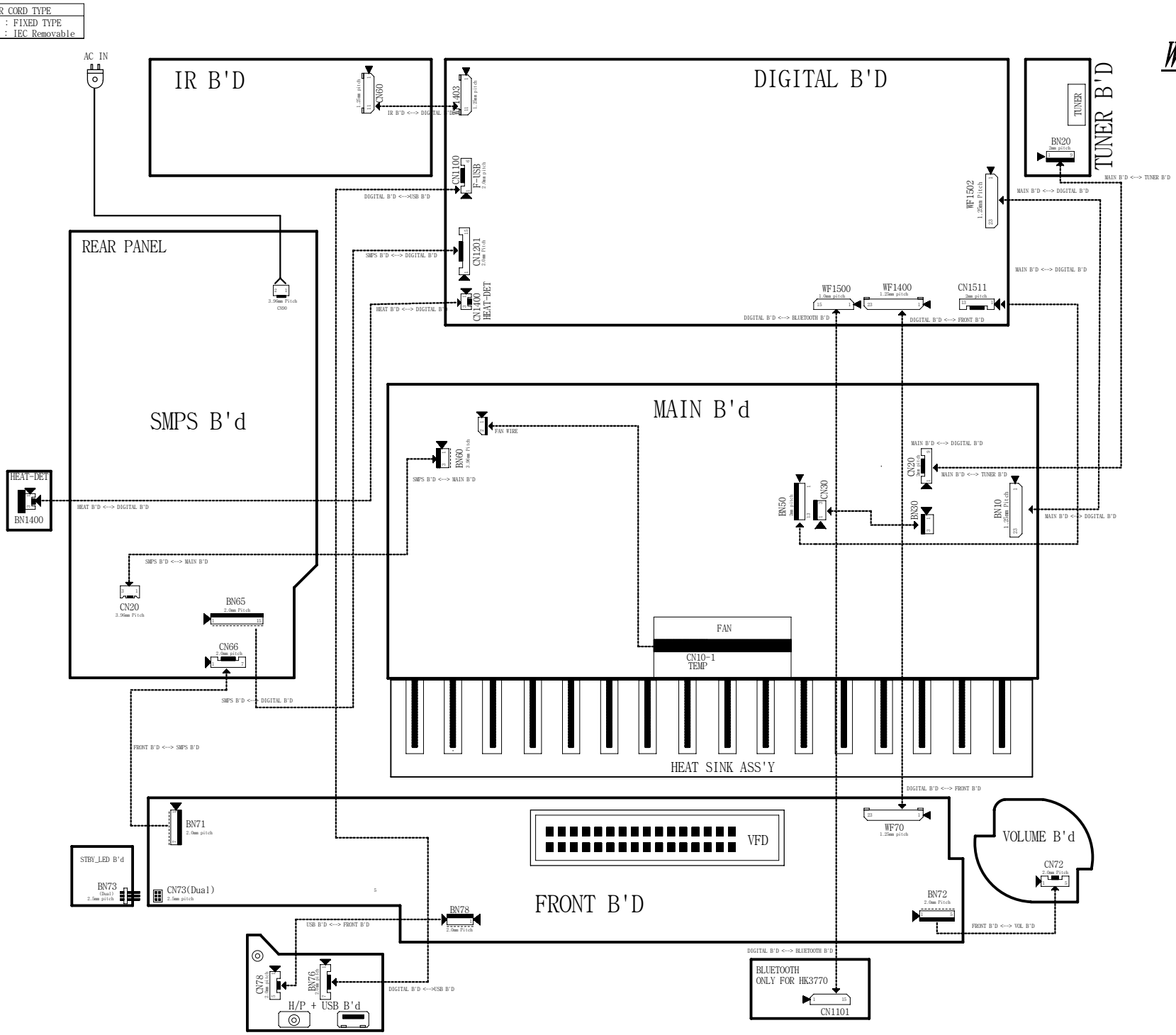

160.0mm
135.0mm

HK37xx Block Diagram (USB + Network)

HK37xx Block Diagram (Audio + MCU)



WIRING DIAGRAM



MP

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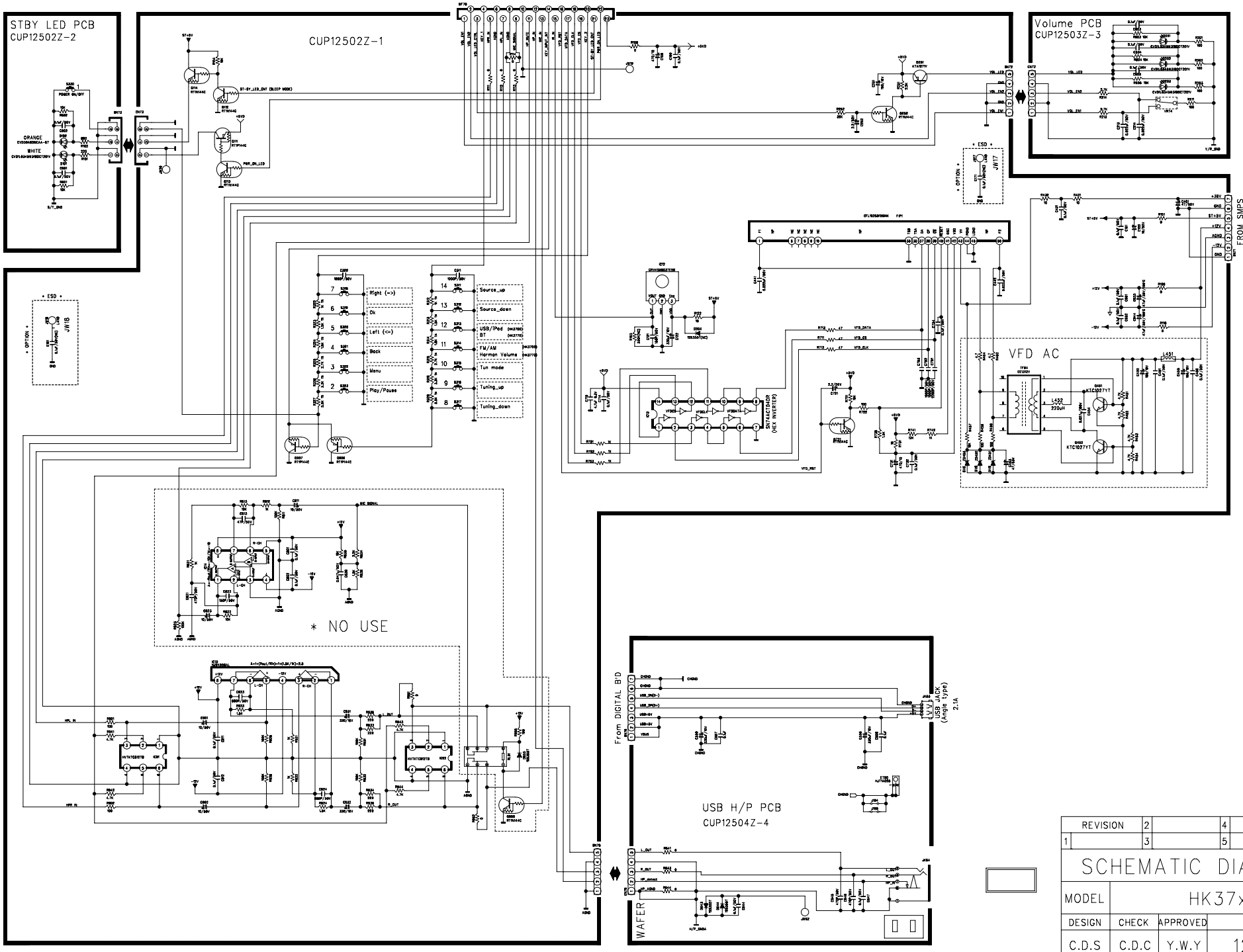
ANAM
MULTI. LAB
2013.07.03

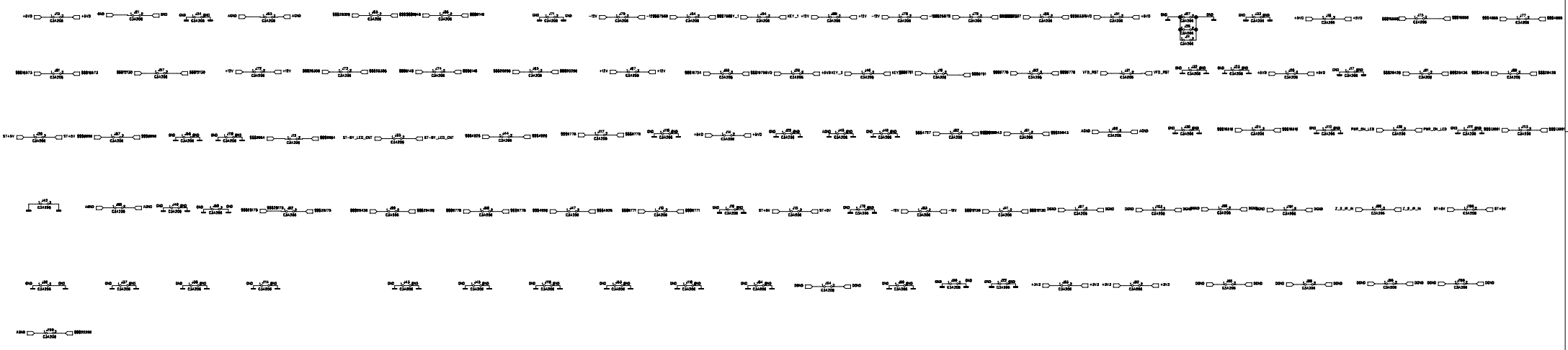
REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM			SHEET
MODEL	HK3770, HK3700		1 / 1
DESIGN	CHECK	APPROVE	DRAWING NO
C.D.S			12502WCWZ



REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM			SHEET
MODEL	HK37x0		1/27
DESIGN	CHECK	APPROVED	DRAWING NO
C.D.S	C.D.C	Y.W.Y	12502SCMZ
13.08.30	00.00.00	00.00.00	(FRONT) 2/2



REVISION	2		4		6	
1		3		5		7	

LPP

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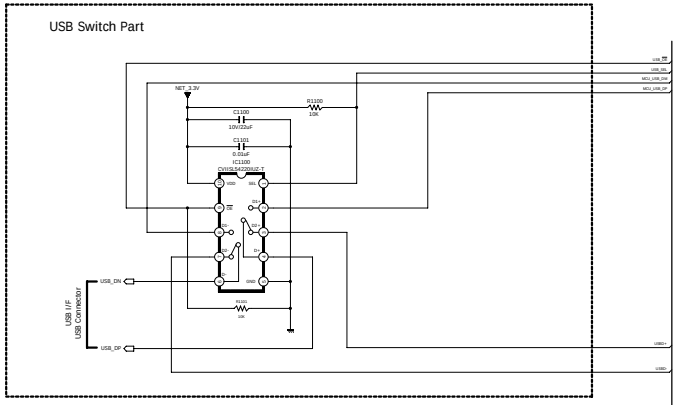
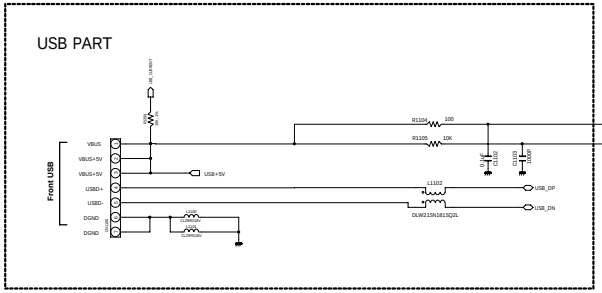
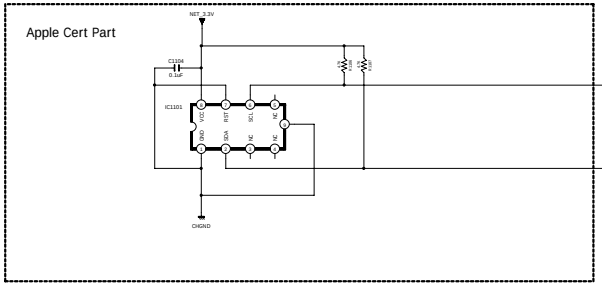
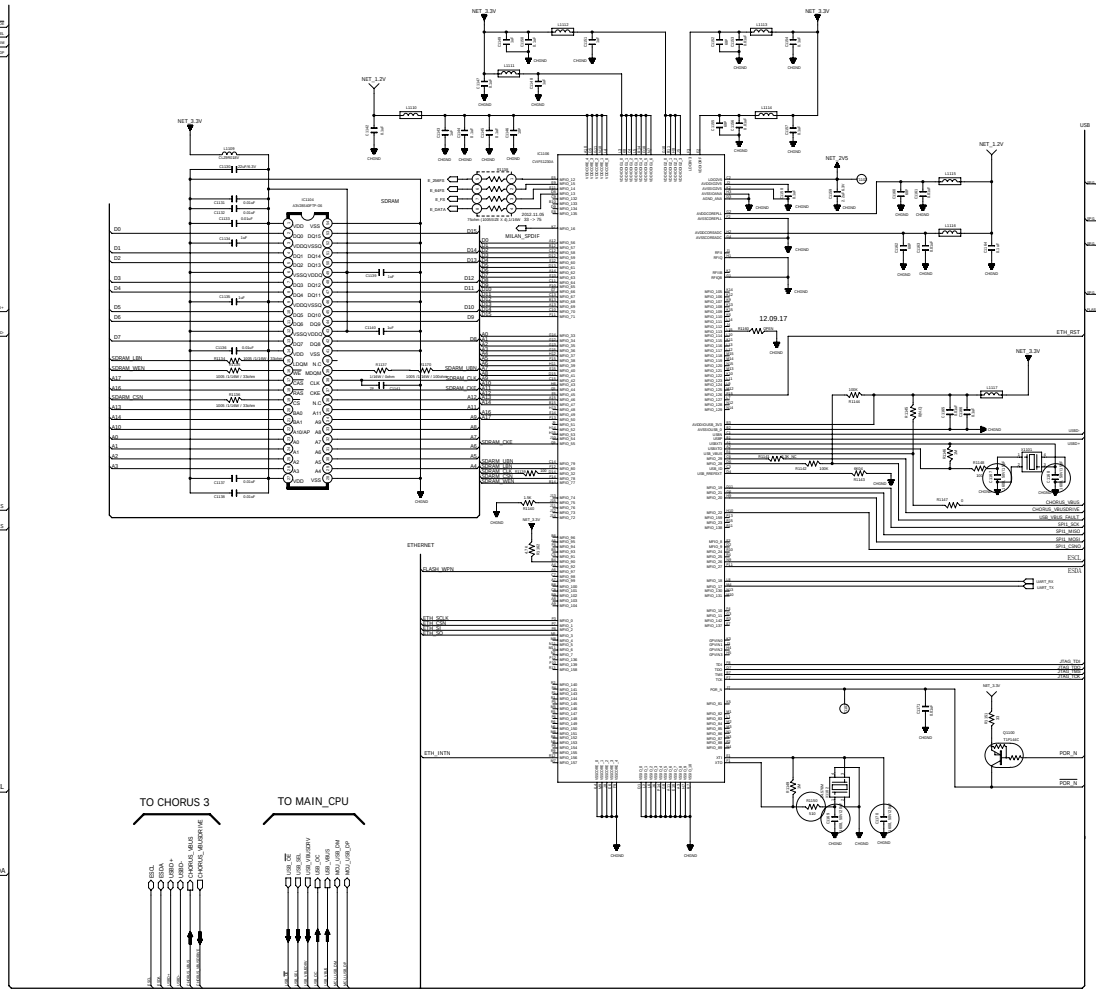
ANAM
MULTI. LAB
2012.06.12

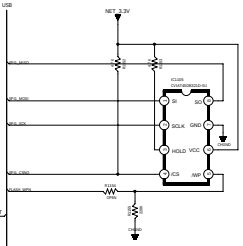
SCHEMATIC DIAGRAM				SHEET
MODEL	HK37x0			0 27
DESIGN	CHECK	APPROVE	DRAWING NO	
C.D.S	C.D.C	Y.W.Y	12502SCMZ	
12.12.24	0.0.0	0.0.0		0

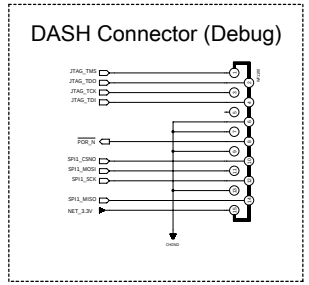


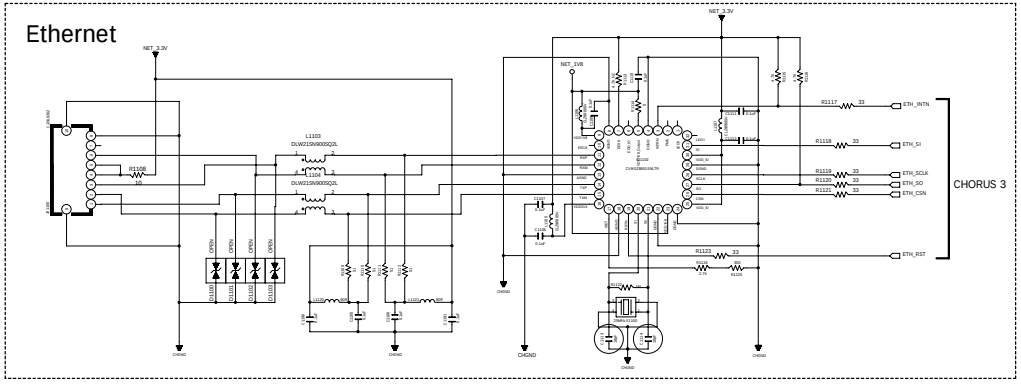


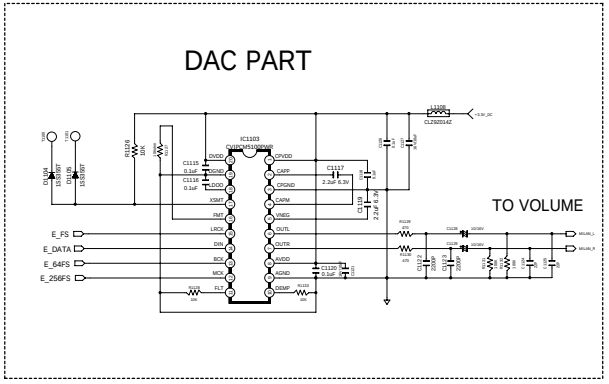












MP

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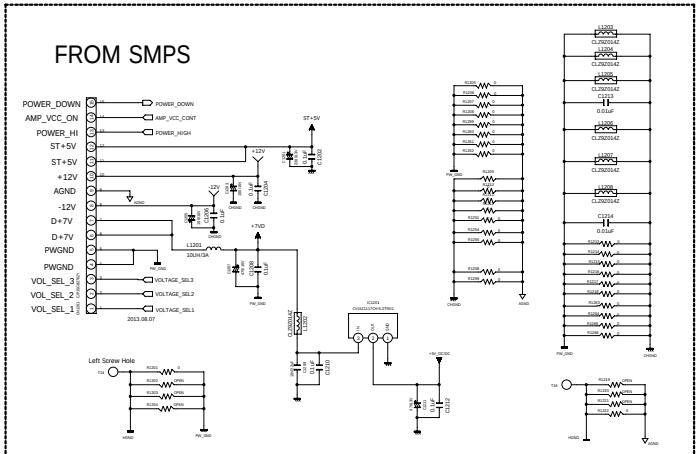
MULTI. LAB
2013.11.27

REVISION	2	4	6	
1	3	5	7	

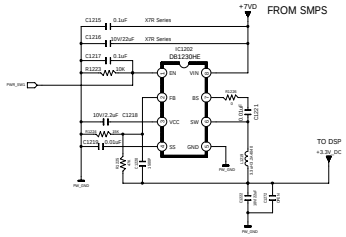
SCHEMATIC DIAGRAM — SHEET 10 / 27

MODEL	HK3700 /3770	
DESIGN	CHECK	APPROVE	DRAWING NO
C.D.W	S.K.S	K.J.K	(NETWORK_MILAN)
2013.11.27	2013.11.27	2013.11.27	6

FROM SMPS

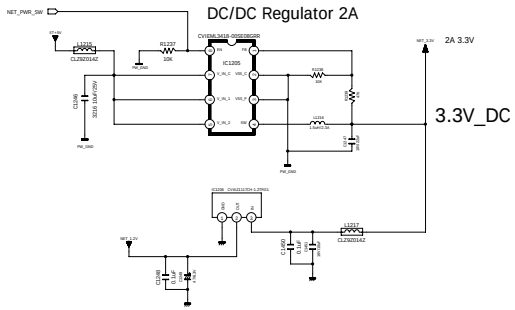


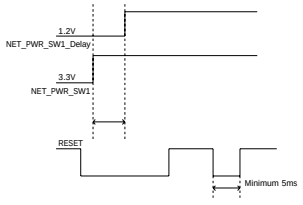
DSP POWER PART



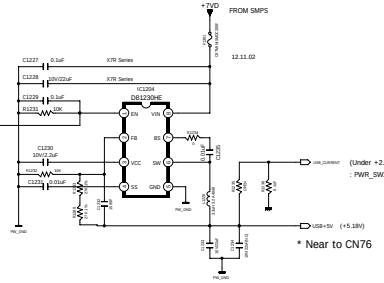
NETWORK_Power Control

DC/DC (Milan +3.3V)

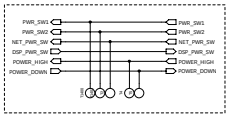




USB/IPOD POWER PART



POWER TO MCU



REVISION	2	4	6
1	3	5	7

MP

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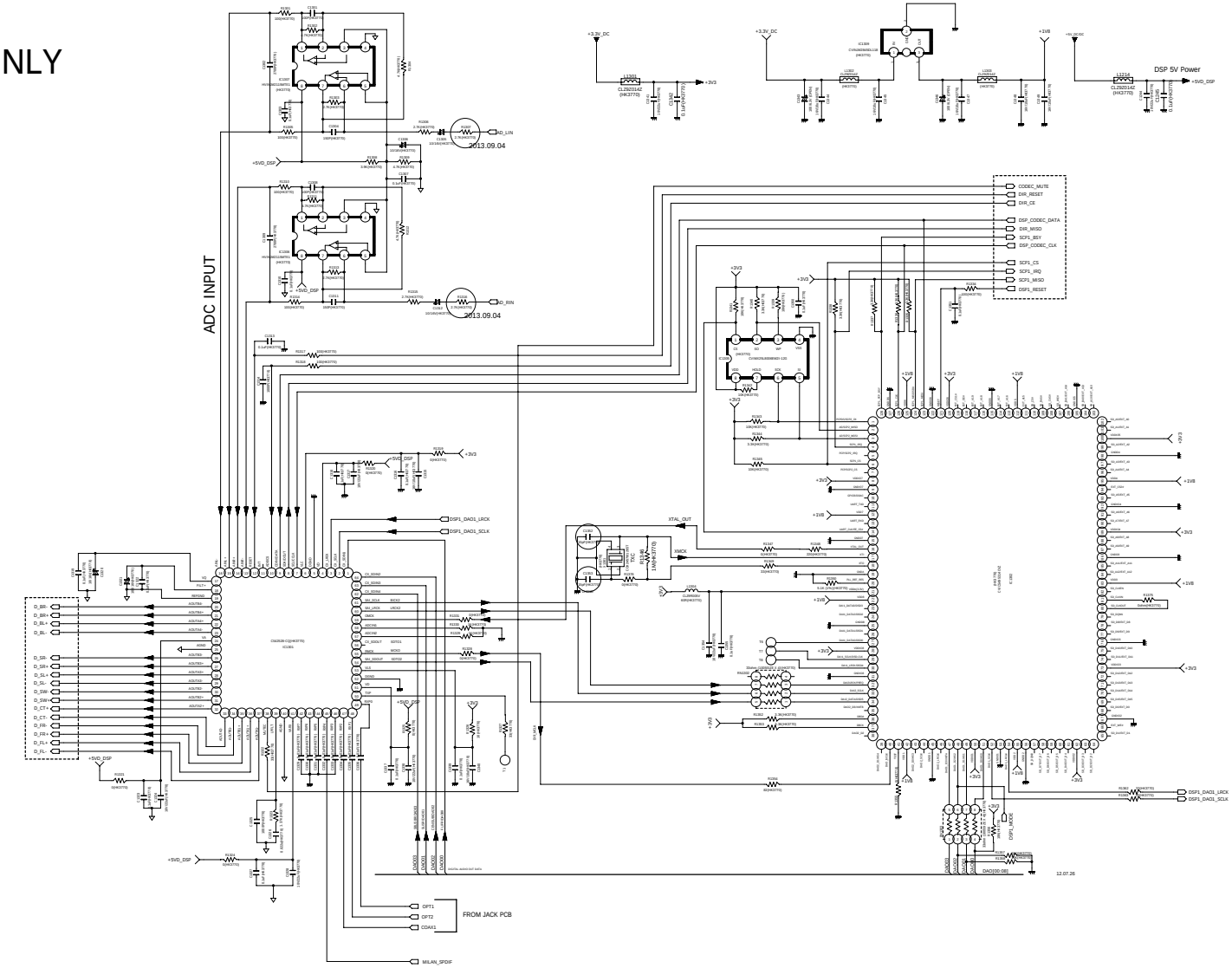
ANAM
MULTI. LAB
2013.11.27

SCHEMATIC DIAGRAM				SHEET
MODEL	HK3700 /3770			5 / 27
DESIGN	CHECK	APPROVE	DRAWING NO	
C.D.W	S.K.S	K.J.K	(DC_DC_POWER)	
2013.11.27	2013.11.27	2013.11.27		6

HK3770 ONLY



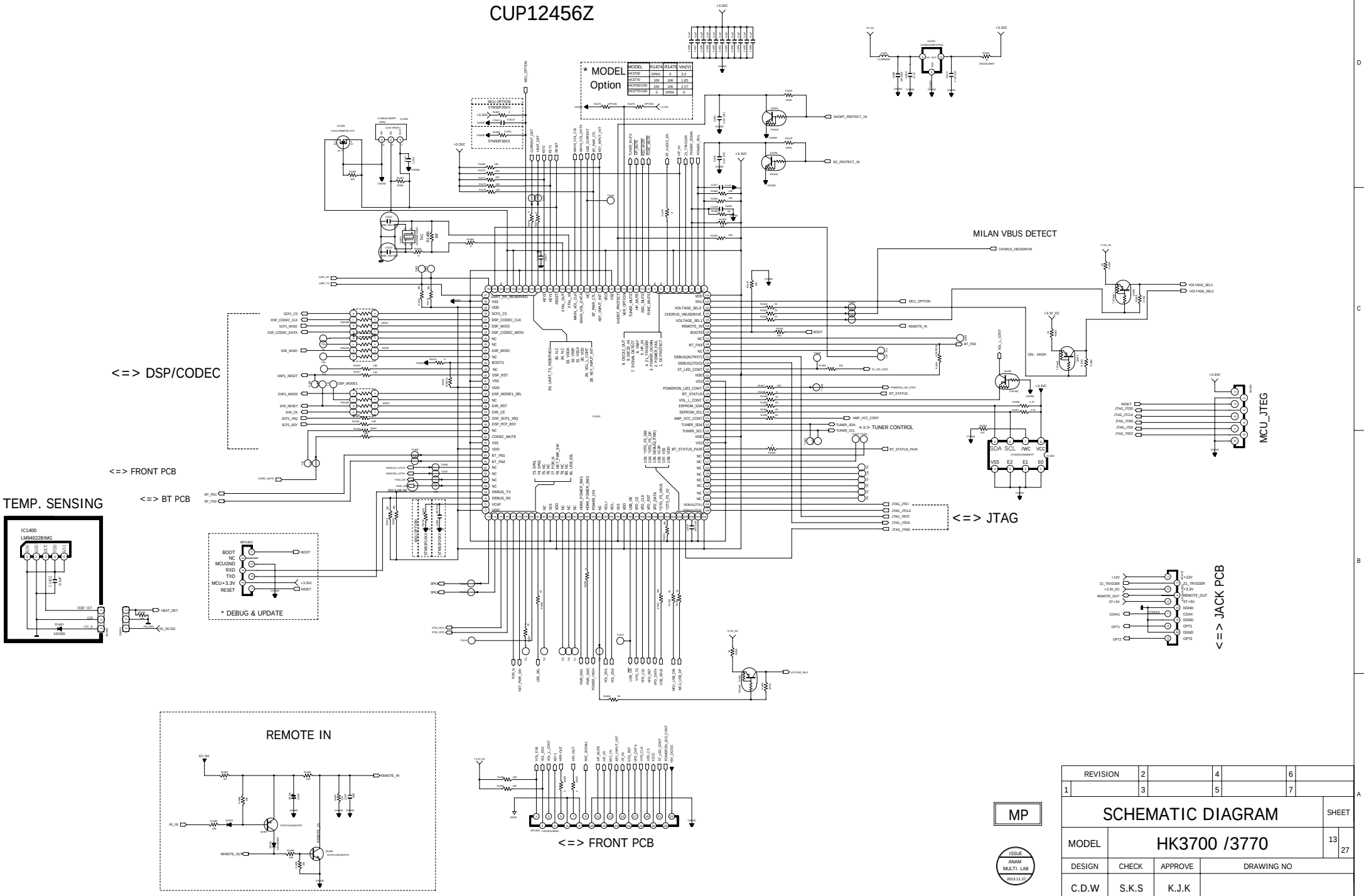
MP

ISSUE
ANAM
MULTI. LAB
2013.11.27

REVISION	2	4	6	
1	3	5	7	

SCHEMATIC DIAGRAM			SHEET
MODEL	HK3700 /3770		6 / 27
DESIGN	CHECK	APPROVE	DRAWING NO
C.D.W	S.K.S	K.J.K	
2013.11.27	2013.11.27	2013.11.27	(DSP_CODEC)

CUP12456Z

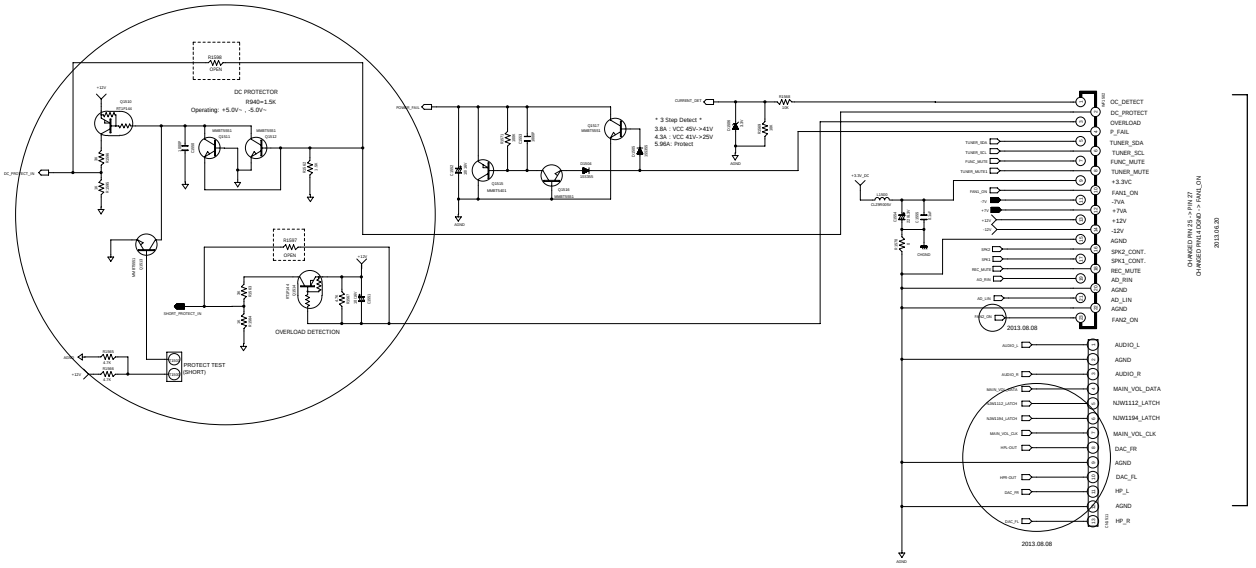


REVISION	2		4		6		
1		3		5		7	

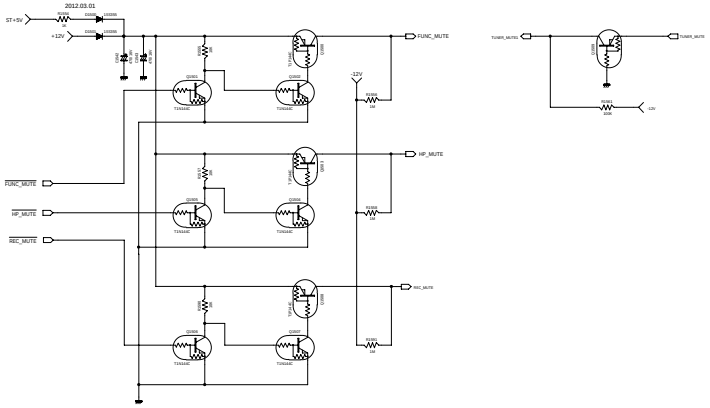
MP

ISSUE
ANAM
MULTI. LAB
2013.11.27

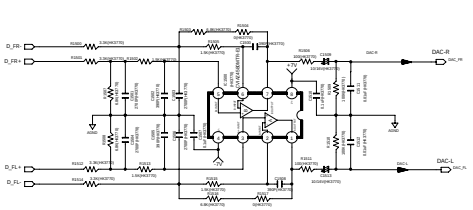
SCHEMATIC DIAGRAM			SHEET
MODEL	HK3700 /3770		13 / 27
DESIGN	CHECK	APPROVE	DRAWING NO
C.D.W	S.K.S	K.J.K	
2013.11.27	2013.11.27	2013.11.27	(ST_MCU)



MUTE CONTROL

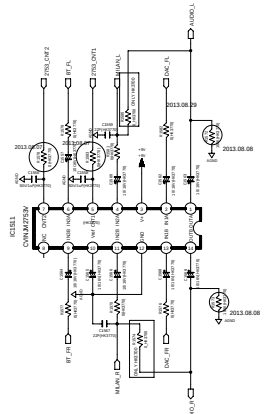


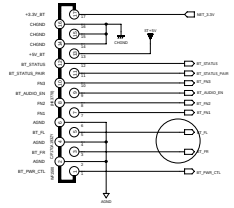
FROM CODEC

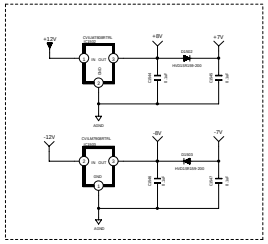


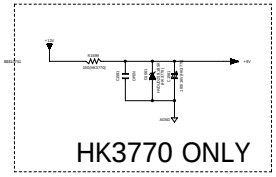
HK3770 ONLY

Bluetooth









HK3770 ONLY

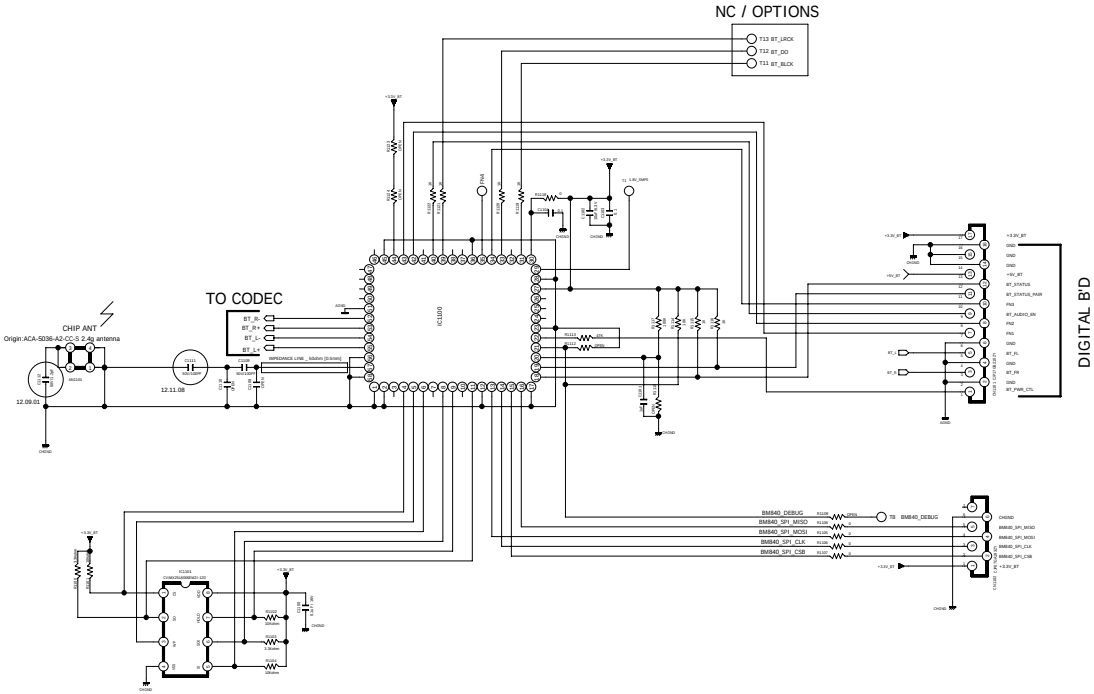
MP

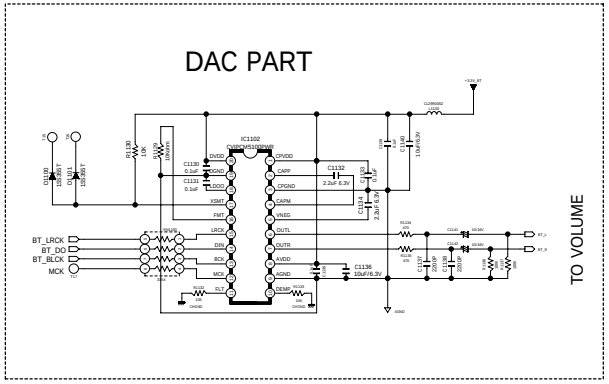
ISSUE
ANAM
MULTI. LAB
2013.11.27

REVISION	2		4		6	
1		3		5		7

SCHEMATIC DIAGRAM			SHEET
MODEL	HK3700 /3770		14 / 27
DESIGN	CHECK	APPROVE	DRAWING NO
C.D.W	S.K.S	K.J.K	(VOLTAGE_TABLE)
2013.11.27	2013.11.27	2013.11.27	6

Bluetooth_BM840





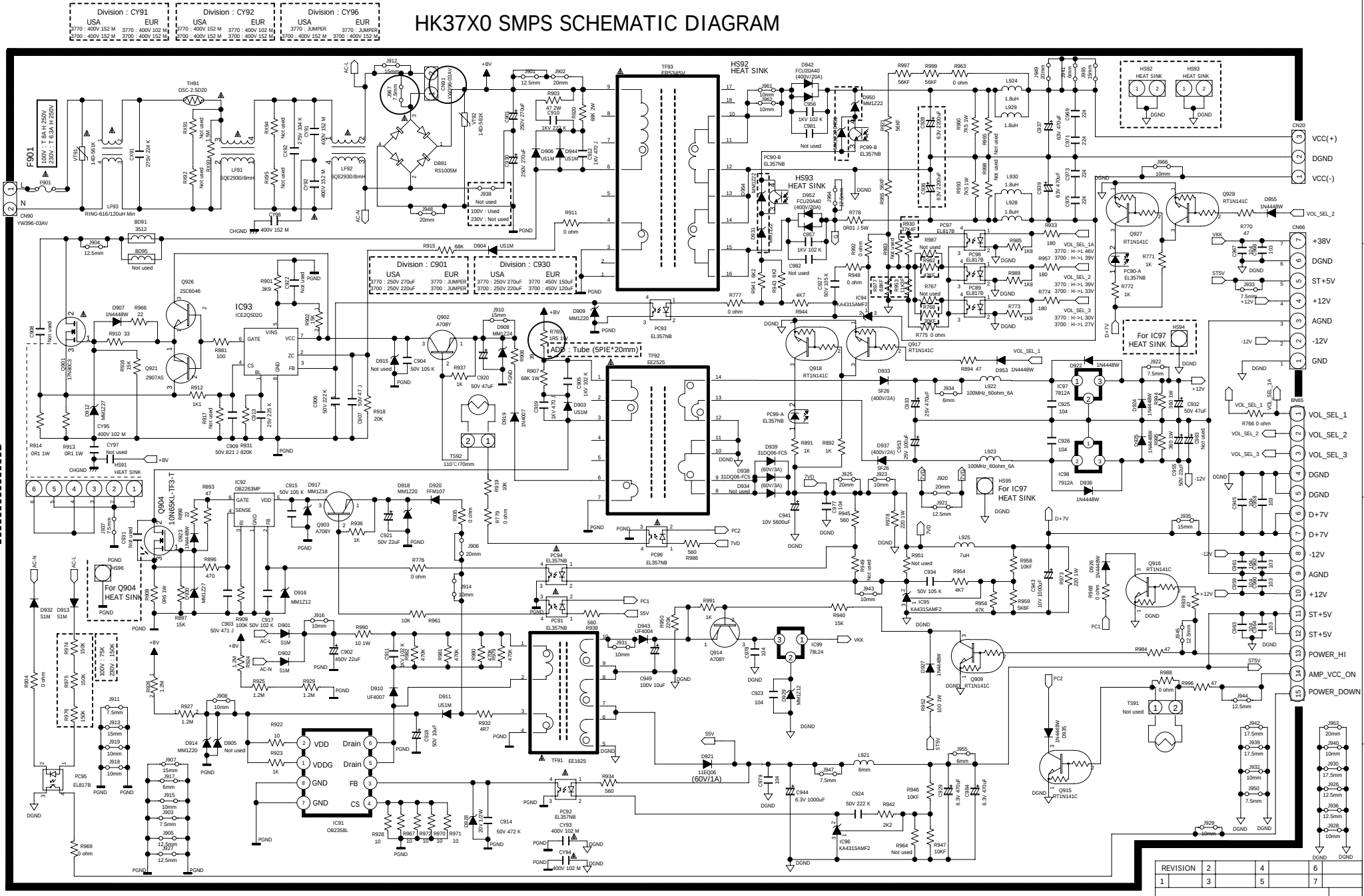
REVISION	2		4		6		
1		3		5		7	

MP

ISSUE
ANAM
MULTI. LAB
12.11.09

SCHEMATIC DIAGRAM				SHEET
MODEL	HK37x0_BT			27 / 27
DESIGN	CHECK	APPROVE	DRAWING NO	
C.D.W	S.K.S	C.D.C	Bluetooth	
12.11.09				1

HK37X0 SMPS SCHEMATIC DIAGRAM



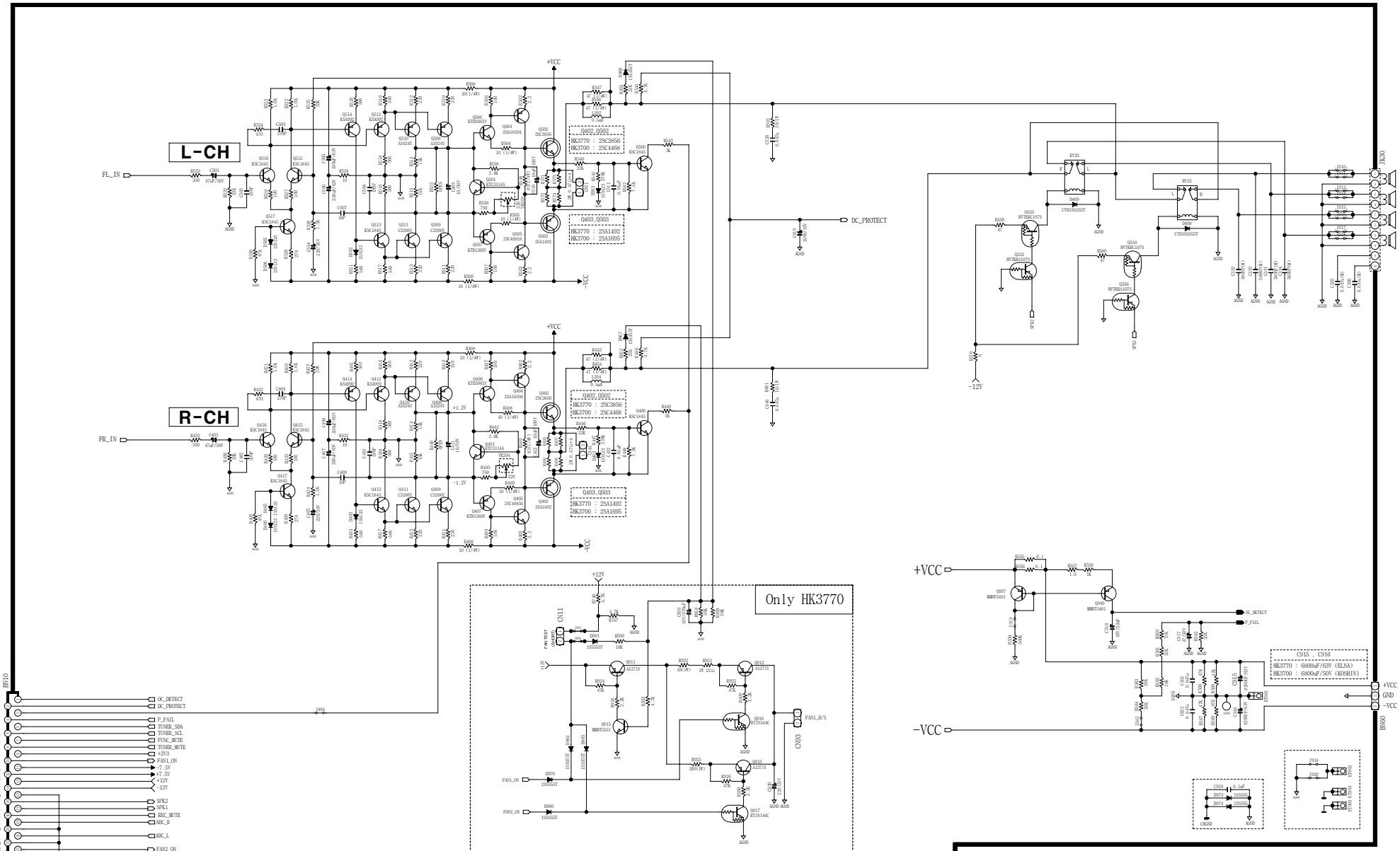
**IMPORTANT SAFETY NOTICE.
COMPONENTS IDENTIFIED BY ⚠ MARK HAVE SPECIAL CHARACTERISTICS.
IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS.
USE ONLY MANUFACTUREY'S SPECIFIED PARTS.
**THE UNIT OF RESISTANCE IS OHM. K=1000 OHM, M=1000 KOHM
**THE UNIT OF CAPACITANCE IS MICROFARAD (uF)pF=10^{6}uF
**THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE IMPROVEMENT OF PERFORMANCE

MP

ISSUE
ANAM
MULTI. LAB
2013.07.22

REVISION	2		4		6	
1		3		5		7

SCHEMATIC DIAGRAM			SHEET
MODEL	HK37X0		26 / 27
DESIGN	CHECK	APPROVE	DRAWING NO
X.X.X	X.X.X	Y.W.Y	12610SCMZ (SMPS) 1
13.07.22	13.07.22	13.07.22	



**IMPORTANT SAFETY NOTICE.
COMPONENTS IDENTIFIED BY ⚠ MARK HAVE SPECIAL CHARACTERISTICS
IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY MANUFACTURER'S SPECIFIED PARTS.
**THE UNIT OF RESISTANCE IS OHM.
K=1000 OHM, M=1000 KOHM
**THE UNIT OF CAPACITANCE IS MICROFARAD (uF).
1pF = 10 $^{-6}$uF
**THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANYTIME
WITH THE IMPROVEMENT OF PERFORMANCE.

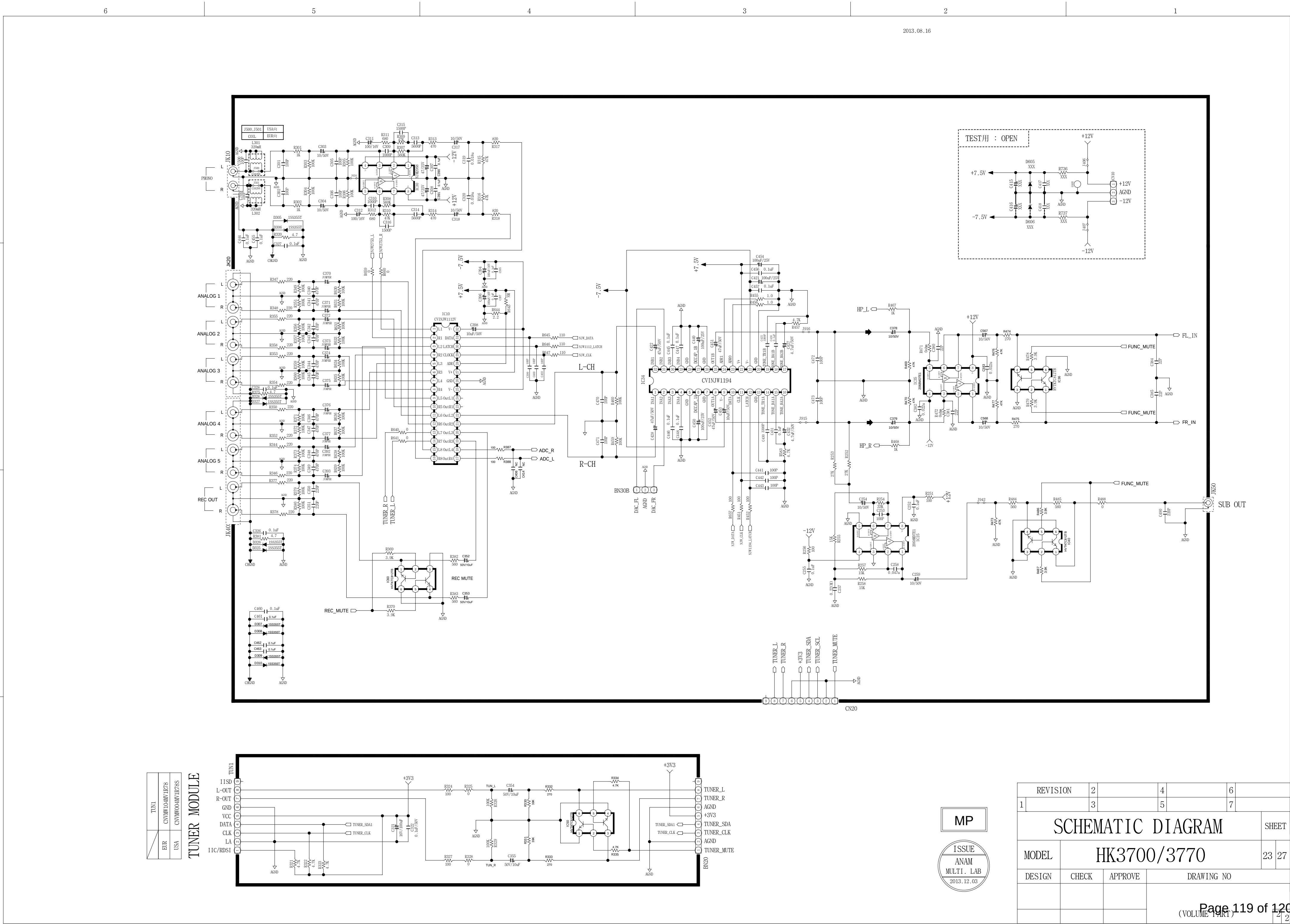
MP

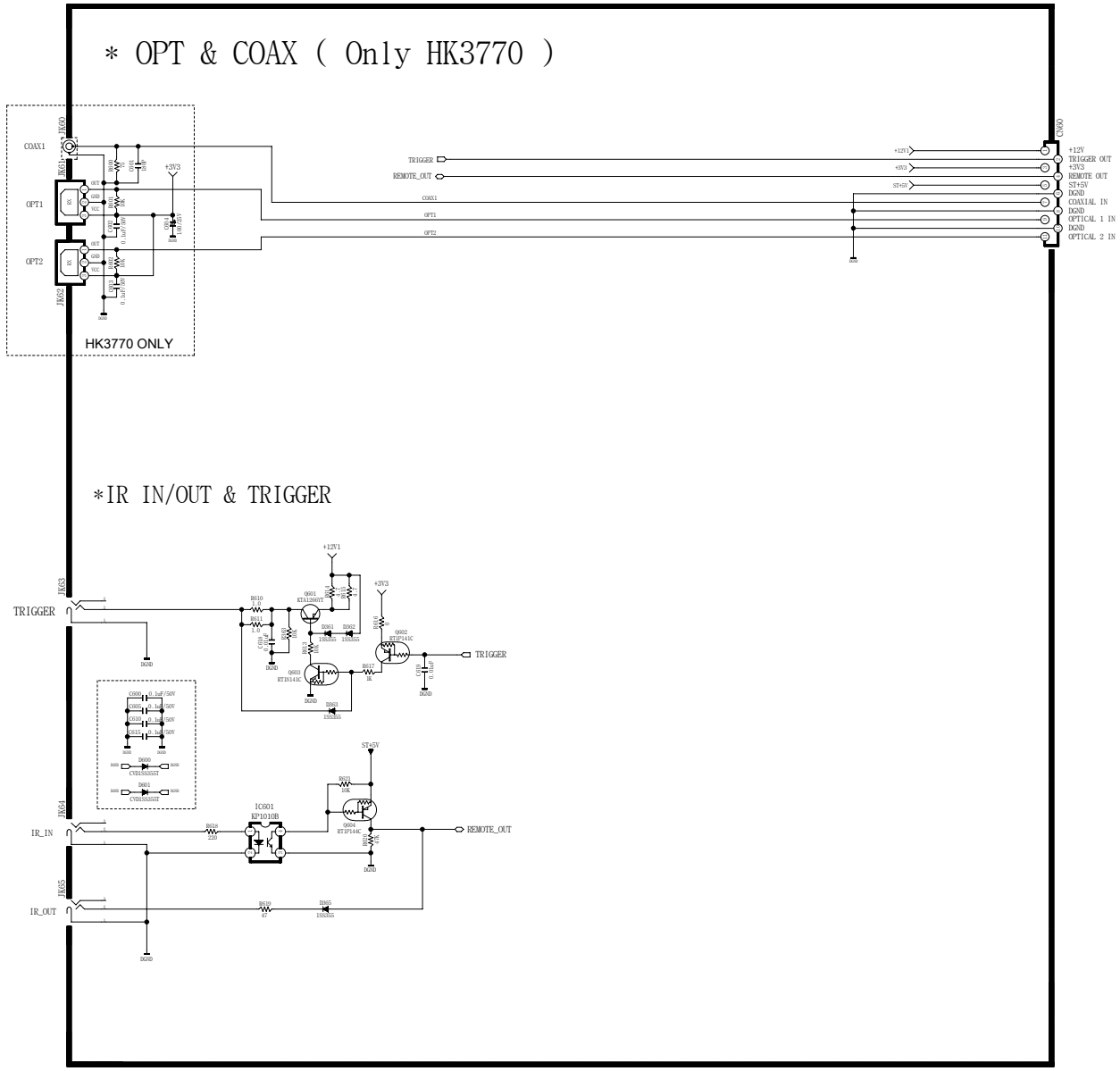
REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM — SHEET A

MODEL	HK3700/3770	22	27

DESIGN	CHECK	APPROVE	DRAWING NO
			(AMP)


2013.08.16
TEST用 : OPEN
PHONO
ANALOG 1
ANALOG 2
ANALOG 3
ANALOG 4
ANALOG 5
REC OUT
REC MUTE
REC_MUTE
CVINJW1112V
CVINJW1194
ADC_R
ADC_L
L-CH
R-CH
HP_L
HP_R
FUNC_MUTE
FL_IN
FR_IN
SUB OUT
DAC_FL
AGND
DAC_FR
TUNER_L
TUNER_R
+3V3
TUNER_SDA
TUNER_SCL
TUNER_MUTE
CN20
TUNER MODULE
TUN1
EUR CNVMF104MV1R78
USA CNVMF004MV1R78S
MP
ISSUE
ANAM
MULTI. LAB
2013.12.03
REVISION
SCHEMATIC DIAGRAM
SHEET
MODEL
HK3700/3770
23
27
DESIGN
CHECK
APPROVE
DRAWING NO
(VOLUME PART)



REVISION	2		4		6		
1		3		5		7	

MP

ISSUE
ANAM
MULTI. LAB
20013.12.03

SCHEMATIC DIAGRAM			SHEET
MODEL	HK3700/3770		2 / 27
DESIGN	CHECK	APPROVE	DRAWING NO