harman/kardon Service Manual

AVR1700

Audio/Video Receiver

CONTENTS

Released 2012

Discontinued XXXX

harman/kardon
8500 Balboa Blvd.
Northridge, CA. 91329

Rev0 9/2012

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor "chip" components.

The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge build-up or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical change sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together or your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES devices.

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing.

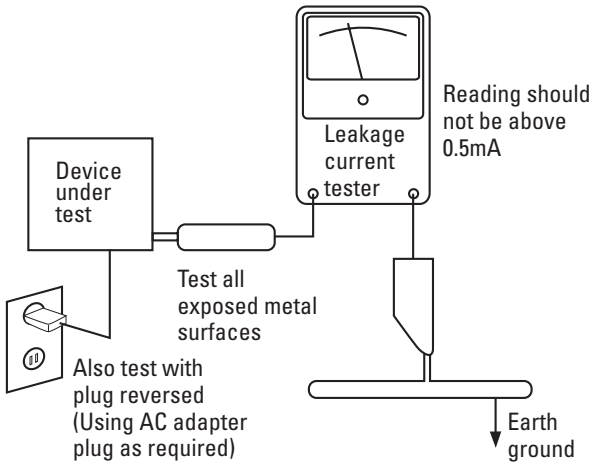
Components identified with the IEC symbol ⚠ in the parts list are special significance to safety. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings or resistance, wattage, or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before retuming the product to the customer.

SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed o.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

Specifications

Audio Section

Stereo power:	100W per channel, two channels driven @6/8 ohms, 1kHz, <1.0% THD
Multichannel power:	100 watts per channel two channels driven @ 6/8 ohms, 1 kHz, <1.0% THD
Input sensitivity/impedance:	250mV/27k ohms
Signal-to-noise ratio (IHF-A):	100dB
Surround system adjacent-channel separation:	Dolby Pro Logic/PLII: 40dB Dolby Digital: 55dB DTS: 55dB
Frequency response:	10Hz – 100kHz
High instantaneous-current capability (HCC):	±34 amps
Transient intermodulation distortion (TIM):	Unmeasurable

FM Tuner Section

Frequency range:	87.5 – 108.0MHz
Usable sensitivity IHF:	1.3µV/13.2dBf
Signal-to-noise ratio (mono/stereo):	70dB/68dB
Distortion (mono/stereo):	0.2%/0.3%
Stereo separation:	40dB @ 1kHz
Selectivity (±400kHz):	70dB
Image rejection:	80dB
IF rejection:	80dB

AM Tuner Section

Frequency range:	520kHz – 1710kHz (AVR 1700) 522kHz – 1620kHz (AVR 170/AVR 170/230C)
Signal-to-noise ratio:	38dB
Usable sensitivity (loop):	500µV
Distortion (1kHz, 50% mod):	1.0%
Selectivity (±10kHz):	30dB

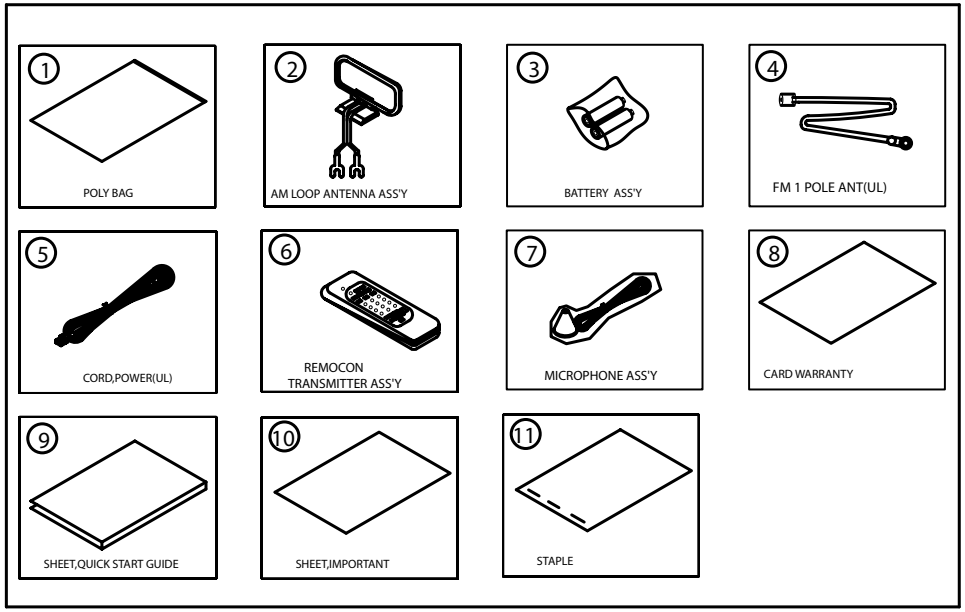
Video Section

Television format:	NTSC (AVR 1700); PAL (AVR 170/AVR 170/230C)
Input level/impedance:	1Vp-p/75 ohms
Output level/impedance:	1Vp-p/75 ohms
Video frequency response (composite video):	10Hz – 8MHz (–3dB)
HDMI:	witn 3D and 12-bit Deep Color

General Specifications

Power requirement:	120V AC/60Hz (AVR 1700); 220V – 240V AC/50Hz (AVR 170/AVR 170/230C)
Power consumption (maximum):	260W (AVR 1700) 240W (AVR 170/ AVR 170/230C) <0.5W/Eco Standby mode
Dimensions (W x H x D):	17-5/16" x 6-1/2" x 14-13/16" (440mm x 165mm x 377mm)
Weight	12.8 lb (5.8kg)

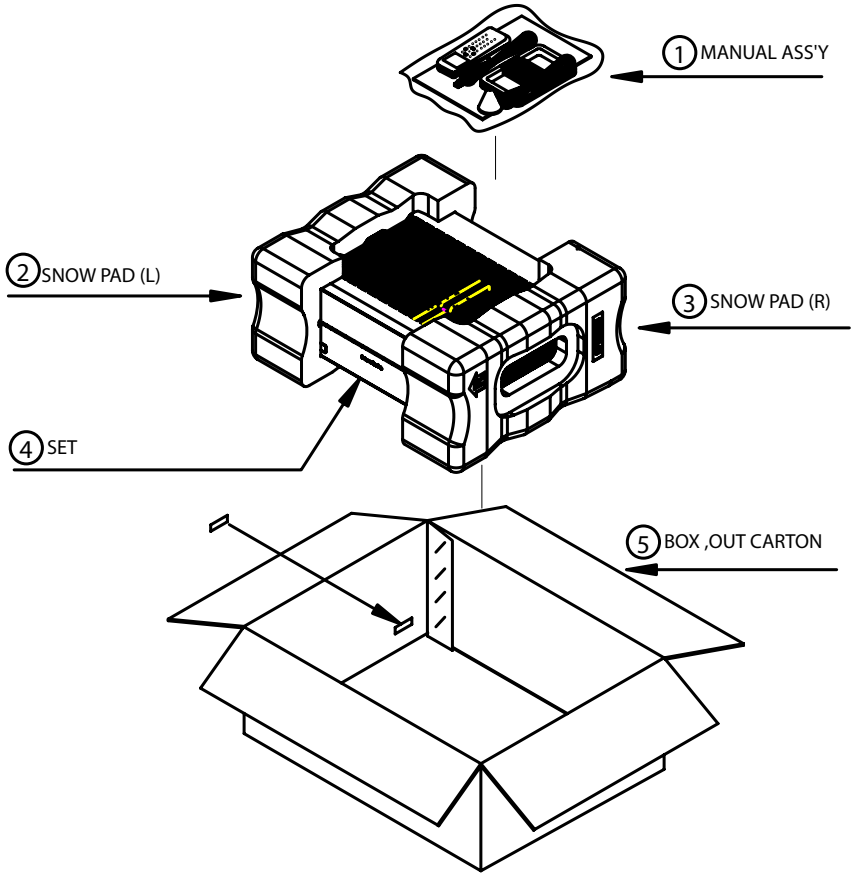
1. Instruction manual ass'y - Accessories(CQXAVR1700)



NO	DESCRIPTION	PARTS NO.	Q,ty
1	POLY BAG	CPB1A190Z	1
2	ANT, AM LOOP	CSA1A039Z	1
3	BATTERY	CABR03P3PB	3
4	FM 1 POL ANT	CSA1A018Z	1
5	CORD,POWER	CJA2A119Z	1
6	REMOCON ASS'Y	CARTAVR1700-HK	1
7	MICRO PHONE ASS'Y	CJXAVR365MICRO	1
8	CARD WARRANTY	CQE1A172X	1
9	SHEET,QUICK START GUIDE	CQE1A560Z	1
10	SHEET,IMPORTANT	CQE1A522Z	1
11	STAPLE	CPL0905	3

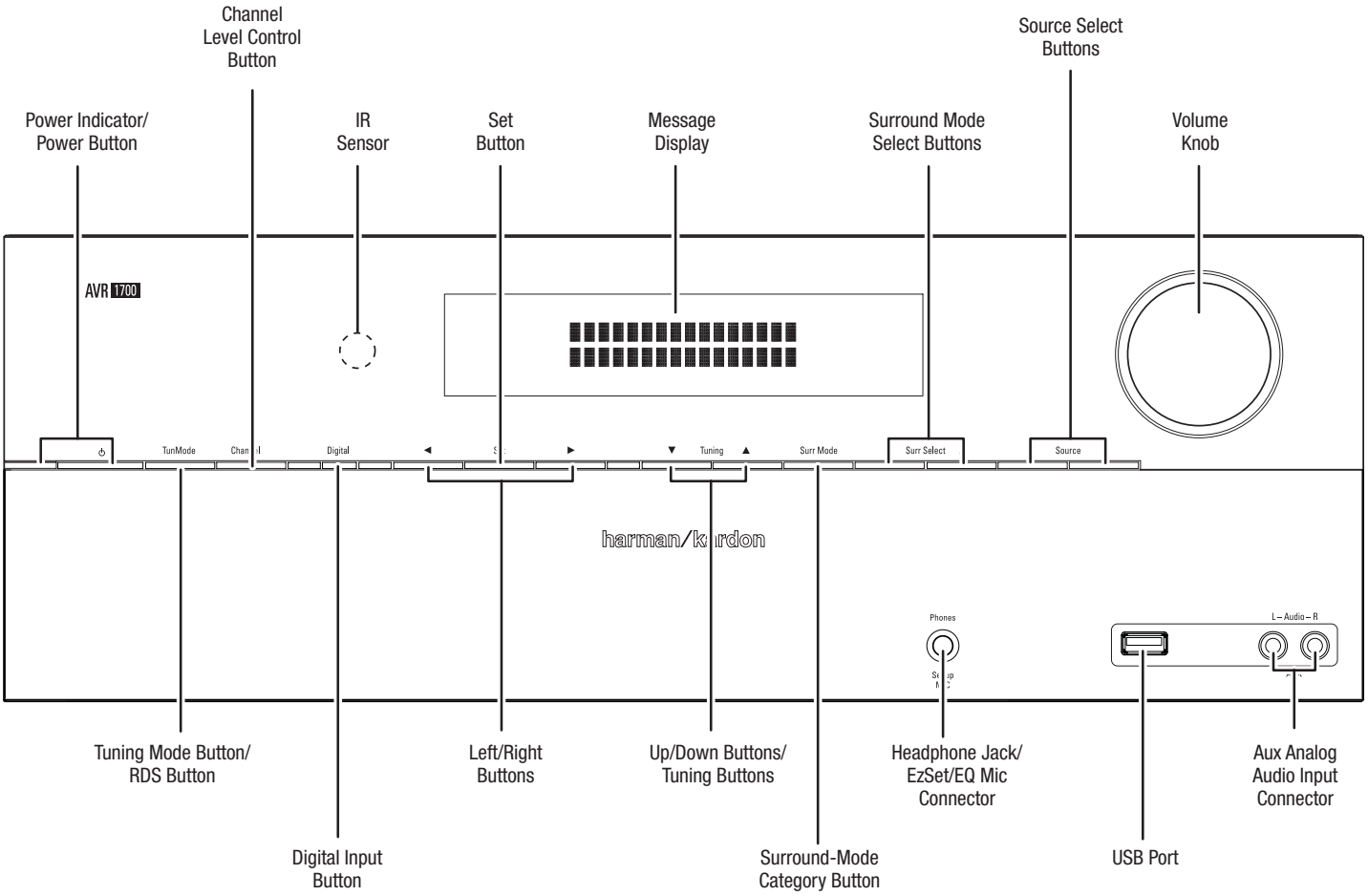
AVR1700

2. Package Drawing



NO	DESCRIPTION	PARTS NO.	Q,ty
1	ACCESSORY	CQXAVR1700	1
2	PAD,LEFT	CPS1A920	1
3	PAD,RIGHT	CPS1A921	1
4	SET	AVR1700SET	1
5	BOX,OUT CARTON	CPG1A967W	1

Front-Panel Controls



Front-Panel Controls, continued

Power indicator/Power button: The AVR has four different power modes:

- **Off (Power indicator not illuminated):** When the rear-panel Main Power switch is in the Off position or the power cord is unplugged the AVR is off and will not respond to any commands. Plugging the power cord into a live AC outlet and setting the Main Power switch in the On position will put the AVR into the Eco Standby mode.
- **Eco Standby (Power indicator glows solid amber):** The Eco Standby mode minimizes energy consumption when you're not using the AVR. When the AVR is in Eco Standby, it will not automatically turn on or play audio in response to an AirPlay signal from a networked device. When the AVR is in Eco Standby, pressing the Power button turns it on. To put the AVR into Eco Standby when it is on, press the Power button for more than three seconds. **NOTE: The AVR will not automatically enter the Eco Standby mode.**
- **Standby (Power indicator glows solid amber):** The Standby mode mutes the AVR and shuts off its front-panel display, but allows the AVR to automatically turn on and play audio in response to an AirPlay signal from a networked device. See *Listening to Media via AirPlay,* on page 22, for more information. When the AVR is in Standby, pressing the Power button turns it on. To put the AVR into Standby when it is on, press the Power button for less than three seconds. **NOTE: The AVR will automatically enter the Standby mode whenever no control buttons have been pressed and no audio signal has been present for 30 minutes.**
- **On (Power indicator glows solid white):** When the AVR is on it is fully operational.

IMPORTANT NOTE: If the PROTECT message ever appears on the AVR's front-panel Message display, turn off the AVR and unplug it from the AC outlet. Check all speaker wires for a possible short circuit (the "+" and "–" conductors touching each other or both touching the same piece of metal). If a short circuit is not found, bring the unit to an authorized Harman Kardon service center for inspection and repair before using it again.

Tuning Mode button (AVR 1700 only): 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.

RDS button (AVR 170 only): When listening to an FM radio station that broadcasts RDS information, this button activates the various RDS functions. NOTE: RDS service may not be available in all areas.

Channel Level Control button: Press this button to activate the channel-level adjustment feature. After pressing this button, use the Up/Down buttons to select the channel for adjustment and use the Left/Right buttons to adjust the channel's level.

Digital Input button: Press this button to change the audio input for the current source. Use the Left/Right buttons to cycle through the available input connections, and press the Set button to assign the currently-displayed connection to the source.

IR sensor: This sensor receives infrared (IR) commands from the remote control. It is important to ensure that the sensor is not blocked.

Set button: Press this button to select the currently highlighted menu item.

Left/Right buttons: Use these buttons to navigate the AVR's menus.

Message display: Various messages appear in this two-line display in response to commands and changes in the incoming signal. In normal operation, the current source name appears on the upper line, while the surround mode is displayed on the lower line. When the on-screen display menu system (OSD) is in use, the current menu settings appear.

Up/Down buttons/Tuning buttons: Use these buttons to navigate the AVR's menus. When the radio is the active source, use these buttons to tune stations according to the setting of the Tuning Mode button (see above).

Surround-Mode Category button: Press this button to select a surround-sound category. Each press changes the surround-mode category: Auto Select, Virtual, Stereo, Movie, Music and Video Game. To change the specific surround-sound mode within the category, use the Surround Mode Select buttons. See *Audio Processing and Surround Sound,* on page 23, for more information on surround modes.

Surround-Mode Select buttons: After you have selected the desired surround-mode category, press these buttons to select a specific mode within the category, such as to change from Dolby® Pro Logic® II Movie mode to Logic 7® Movie mode. Surround-mode availability depends on the nature of the source input signal, i.e., digital versus analog, and the number of channels encoded within the signal.

Source Select buttons: Press these buttons to select the active source.

Headphone jack/EzSet/EQ Mic connector: Connect a 1/4" stereo headphone plug to this jack for private listening. This jack is also used to connect the supplied microphone for the EzSet/EQ procedure described in *Configure the AVR for Your Speakers,* on page 17.

USB port: The USB port can be used to play audio files from an Apple iOS® device connected to the port, and can also be used to play MP3 and WMA audio files from a USB device inserted into the port. Insert the connector or device into the USB port oriented so it fits all the way into the port. You may insert or remove the connector or device at any time - there is no installation or ejection procedure.

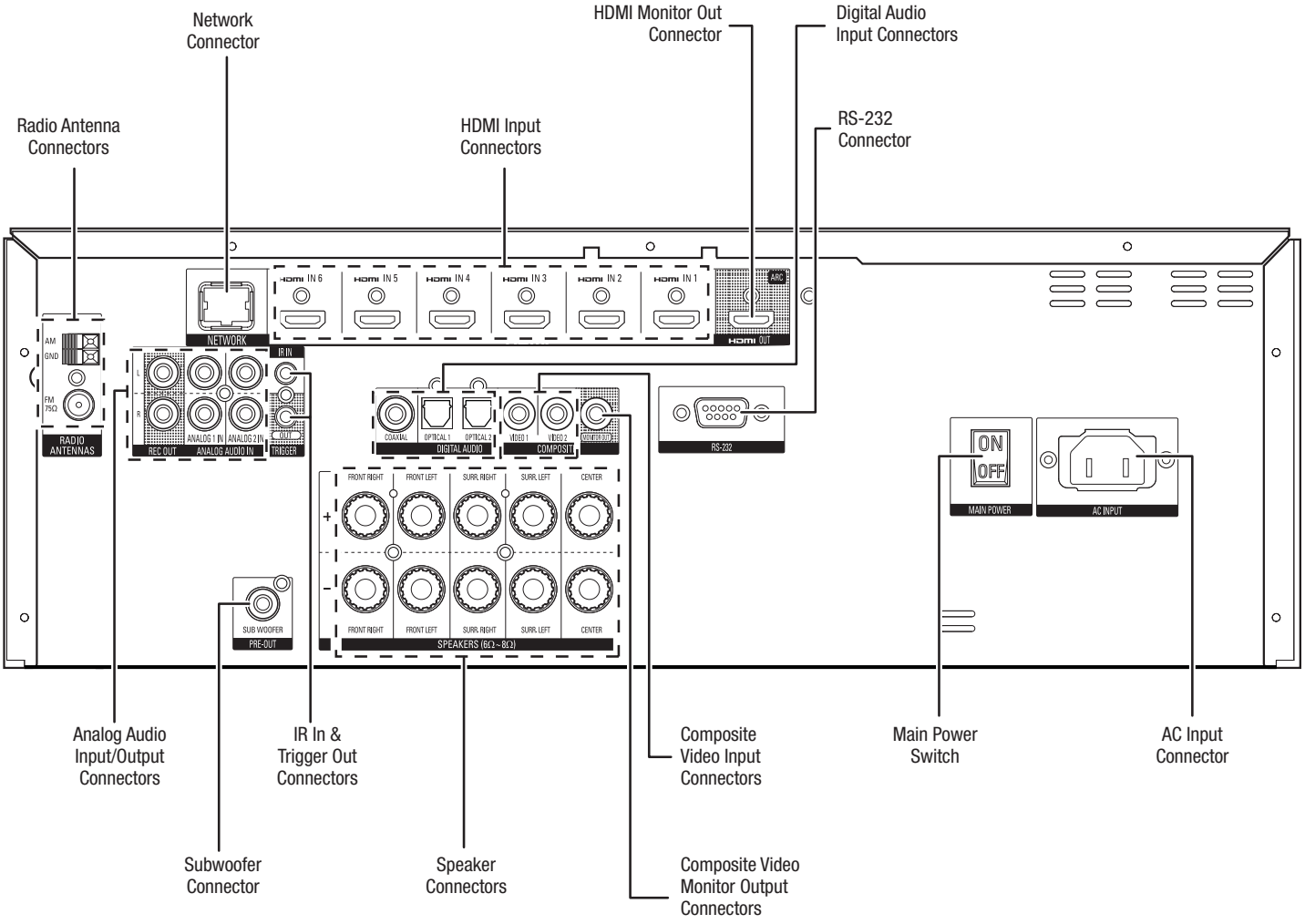
You can also use the USB port to perform firmware upgrades. If an upgrade for the AVR's operating system is released in the future, you will be able to download it to the AVR using this port. Complete instructions will be provided at that time.

IMPORTANT: Do not connect a PC or other USB host/controller to this port, or you may damage both the AVR and the other device. HDD is not supported.

Volume knob: Turn this knob to raise or lower the volume.

Aux Analog Audio Input connector: Connect an auxiliary source component that will be used only temporarily, such as a camcorder, portable music player or game console, here.

Rear-Panel Connectors



Rear-Panel Connectors, continued

Radio Antenna connectors: Connect the included AM and FM antennas to their respective terminals for radio reception.

Analog Audio Input/Output connectors: Use the AVR's Analog Audio Input/Output connectors for source devices that don't have HDMI or digital audio connectors. Use the Rec Out connectors to connect to the audio inputs of a VCR or tape deck. See *Connect Your Audio and Video Source Devices,* on page 13, for more information.

Network connector: Use a Cat. 5 or Cat. 5E cable (not supplied) to connect the AVR's Network connector to your home network to enjoy Internet radio and content from DLNA-compatible devices that are joined to the network. See *Connect to Your Home Network,* on page 15, for more information.

Subwoofer connector: Connect this jack to a powered subwoofer with a line-level input. See *Connect Your Subwoofer,* on page 13, for more information.

IR In and Trigger Out connectors: When the IR sensor on the front panel is blocked (such as when the AVR is installed inside a cabinet), connect an optional IR receiver to the IR In jack. The Trigger Out connector provides 12V DC whenever the AVR is on. Connect it to the trigger input of a device such as a powered subwoofer.

Speaker connectors: Use two-conductor speaker wire to connect each set of terminals to the correct speaker. See *Connect Your Speakers,* on page 13, for more information.

HDMI® Input connectors: The HDMI (High-Definition Multimedia Interface) feature is a connection for transmitting digital audio and video signals between devices. If your source devices have HDMI connectors, using them will provide the best possible video and audio performance quality. Since the HDMI cable carries both digital video and digital audio signals, you do not have to make any additional audio connections for devices you connect via HDMI connections. See *Connect Your Audio and Video Source Devices,* on page 13, for more information.

HDMI Monitor Out connector: If your TV has an HDMI connector and you have HDMI source devices, use an HDMI cable (not included) to connect it to the AVR's HDMI Monitor Out connector.

Notes on using the HDMI Monitor Out connector:

- When connecting a DVI-equipped display to the HDMI Monitor Out connector, use an HDMI-to-DVI adapter and make a separate audio connection.
- Make sure the HDMI-equipped display is HDCP-compliant. If it isn't, do not connect it via HDMI; use a composite analog video connection instead and make a separate audio connection.

Composite Video Input connectors: Use composite video connectors for video source devices that don't have HDMI or component video connectors. You will also need to make an audio connection from the source device to the AVR. See *Connect Your Audio and Video Source Devices,* on page 13, for more information.

Composite Video Monitor Output connector: If your TV or video display does not have an HDMI connector, or if your TV does have an HDMI connector *but you are connecting some source devices with only composite video connectors,* use a composite video cable (not included) to connect the AVR's Composite Video Monitor Out connector to your TV's composite video input connector.

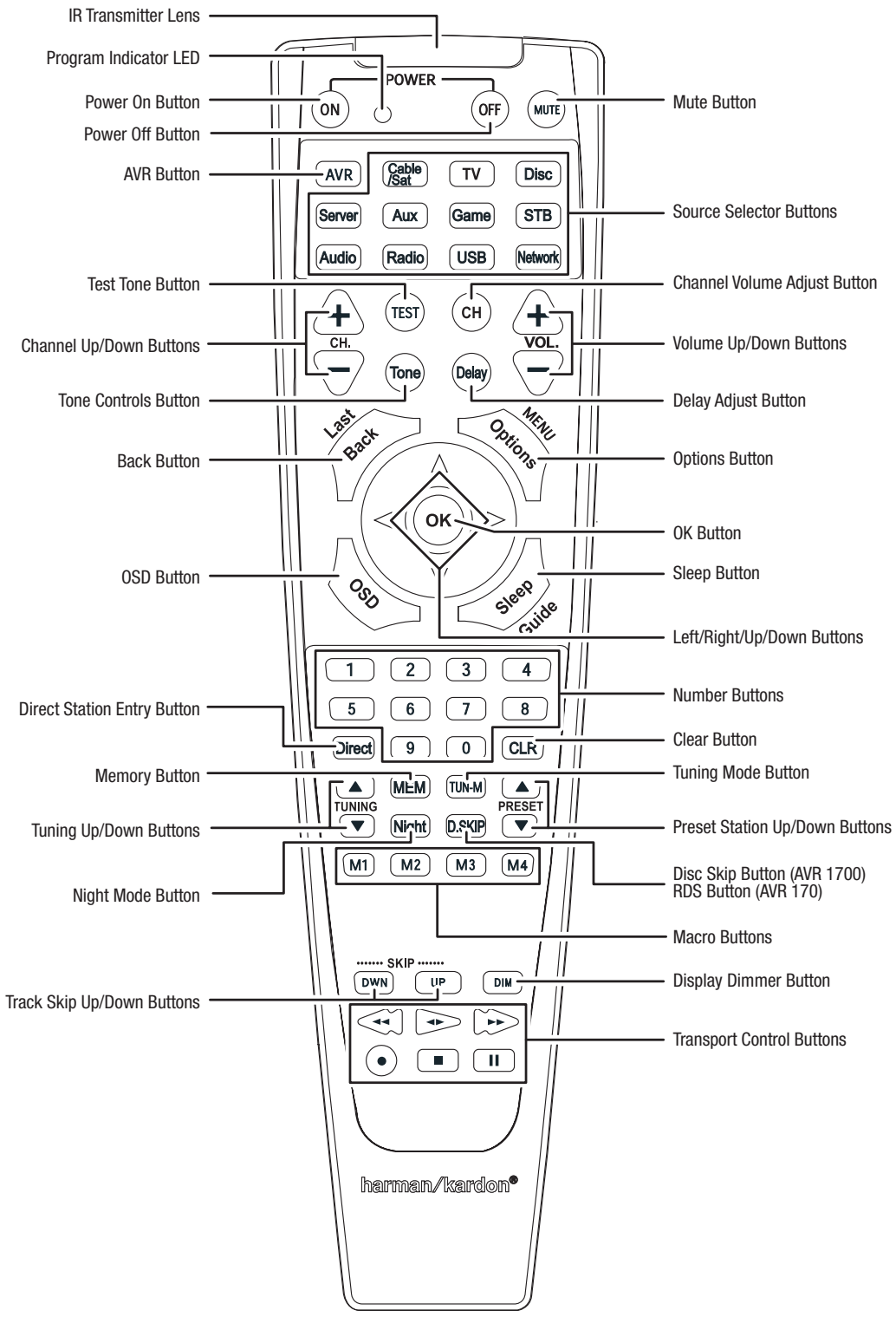
Digital Audio Input connectors: If your non-HDMI source devices have digital outputs, connect them to the AVR's digital audio connectors. NOTE: Make only one type of digital connection (HDMI, optical or coaxial) from each device. See *Connect Your Audio and Video Source Devices,* on page 13, for more information.

RS-232 connector: This connector is used to connect to external control hardware. Consult a certified professional installer for more information.

Main Power switch: This mechanical switch turns the AVR's power supply on or off. It is usually left on and cannot be turned on or off using the remote control.

AC Input connector: After you have made all other connections, plug the supplied AC power cord into this receptacle and into an unswitched wall outlet.

System Remote Control Functions



System Remote Control Functions, continued

In addition to controlling the AVR, the AVR remote is capable of controlling five other devices, plus your TV and an iPod/iPhone that is docked in the AVR's front-panel USB port. During the installation process, you may program the codes for each of your source components into the remote. (See *Program the Remote to Control Your Source Devices and TV,* on page 16, for programming information.) To operate a component, press its Source Selector button to change the remote's control mode.

A button's function depends on which component is being controlled. See Table A9 in the Appendix for listings of the functions for each type of component. Most of the buttons on the remote have dedicated functions, although the precise codes transmitted vary depending on the specific device being controlled. Due to the wide variety of functions for various source devices, we have included only a few of the most often-used functions on the remote: alphanumeric keys, transport controls, television-channel control, menu access and power on and off. To return the remote to the AVR control mode at any time, press the AVR button.

IR Transmitter lens: As buttons are pressed on the remote, infrared codes are emitted through this lens.

Program Indicator LED: This LED lights up to indicate various procedures when the remote is in the Programming mode.

Power On/Off buttons: Press these buttons to turn the AVR or the device being controlled on and off. The Main Power switch on the AVR's rear panel must be on for this button to turn the AVR on and off.

NOTE: When the AVR is on, pressing the Power Off button for more than three seconds will put it into the Eco Standby mode. See *Power indicator/Power button,* on page 5 for more information.

Mute button: Press this button to mute the AVR's speaker-output connectors and Headphone jack. To restore the sound, press this button or adjust the volume.

AVR button: Press this button to switch the remote's control mode to operate the AVR.

Source Selector buttons: Press one of these buttons to select a source device, e.g., cable/satellite tuner, radio, etc. This action will also turn on the AVR and switch the remote's control mode to operate the selected source device.

- The first press of the Radio Source Selector button switches the AVR to the last-used tuner band (AM or FM). Each successive press changes the band.
- The first press of the USB button switches the AVR to the last-used source (USB or iPod). Each successive press cycles between the two sourcee.
- The first press of the Network button switches the AVR to the last-used source (Network or vTuner). Each successive press cycles between the two sources.

Test Tone button: Press this button to activate the test tone for calibrating channel volume levels by ear.

Channel Volume Adjust button: Press this button to activate the individual channel-level adjustment. It lets you easily change the channel balance to suit different programs or seating arrangements. See *Manual Speaker Setup,* on page 24, for more information.

Channel Up/Down buttons: The Channel Up/Down buttons have no effect on the AVR but are used to change channels on TVs and some video sources.

Volume Up/Down buttons: Press these buttons to raise or lower the volume.

Tone Controls button: 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.

Delay Adjust button: Pressing this button lets you adjust two different types of delay settings (use the Up/Down buttons to cycle through the settings):

- A/V Sync: This setting lets you resynchronize the audio and video signals from a source to eliminate a "lip sync" problem. Lip-sync issues can occur when the video portion of a signal undergoes additional processing in either the source device or the video display. Use the Left/Right buttons to delay the audio by up to 180ms.
- Front L/Center/Front R/Surr R/Surr L/Subwoofer: These settings let you set the delay for each speaker to compensate for the different distances they may be from the listening position. Use the Up/Down buttons to cycle through each of the system's speakers, and use the Left/Right buttons to set the distance each speaker is from the listening position. See *Manual Speaker Setup,* on page 24, for more information.

Back button: Press this button to return to the previous menu screen when you're using the on-screen menu (OSD) system.

Options button: This button allows you to adjust playback and various other options for the AVR's built-in sources and when controlling other components.

OSD button: Press this button to activate the on-screen display menu system.

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

Sleep button: Press this button to activate the sleep timer, which turns off the AVR after a programmed period of time (up to 90 minutes).

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

Number buttons: Use these buttons to enter numbers for radio-station frequencies or to select station presets.

Direct Station Entry button: Press this button before using the Number buttons to enter a radio station frequency.

Clear button: Press this button to clear a radio station frequency you have started to enter.

Memory button: To save the currently tuned radio station as a preset, press this button, then a Number button.

Tuning Mode button: Press this button to toggle the radio 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.

Tuning Up/Down buttons: Press these buttons to tune a radio station. Depending on whether the tuning mode has been set to manual or automatic, each press will either change one tuning frequency increment at a time or seek the next higher or lower station with acceptable signal strength.

Preset Station Up/Down buttons: Press these buttons to cycle through your preset radio stations.

Night Mode button: Press this button to activate Night mode with specially encoded Dolby Digital discs or broadcasts. Night mode compresses the audio so that louder passages are reduced in volume to avoid disturbing others, while dialogue remains intelligible. Each press of the button advances through the following settings:

- Off: No compression is applied. Loud passages in the program remain as they were recorded.
- Mid: Loud passages in the program are reduced moderately in volume.
- Max: Loud passages in the program are reduced more in volume.

Disc Skip button (AVR 1700): This button is used with some optical disc changers to skip to the next disc.

RDS button (AVR 170): When listening to an FM radio station that broadcasts RDS information, this button activates the various RDS functions.

Macro buttons: These buttons may be programmed to execute a series of up to 19 commands with a single button press. They are useful for programming the command to turn on or off all of your components or for accessing specialized functions for a different component from the one that you are currently operating. See *Programming Macro Commands,* on page 27, for information about programming macros.

Track Skip Up/Down buttons: These buttons are used with the AVR's built-in sources (USB, iPod, Network, AirPlay, etc) and many source components to change tracks or chapters.

Display Dimmer button: Press this button to dim the AVR's front-panel display partially or fully.

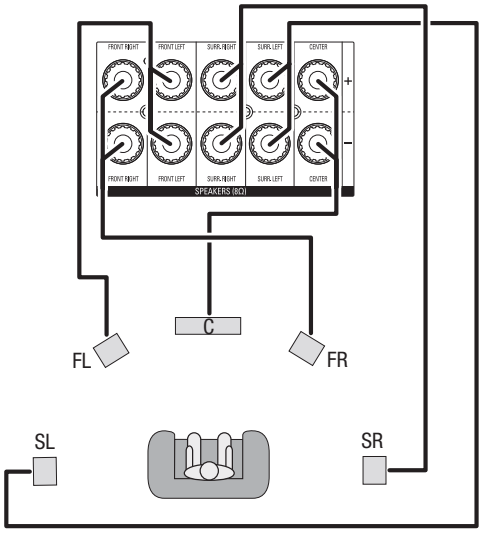
Transport Control buttons: These buttons have no effect on the AVR but are used to control many source components. By default, when the remote is operating the AVR, these buttons will control a Harman Kardon Blu-ray Disc™ player or DVD player.

Making Connections

CAUTION: Before making any connections to the AVR, ensure that the AVR's AC cord is unplugged from the AVR and the AC outlet. Making connections with the AVR plugged in and turned on could damage the speakers.

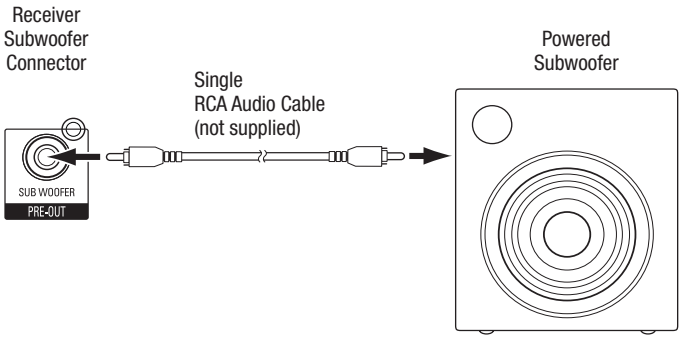
Connect Your Speakers

After you have placed your loudspeakers in the room as explained in *Place Your Speakers,* on page 10, connect each speaker to its color-coded terminal on the AVR as explained in *Speaker Connections,* on page 11. Connect the speakers as shown in the illustration.



Connect Your Subwoofer

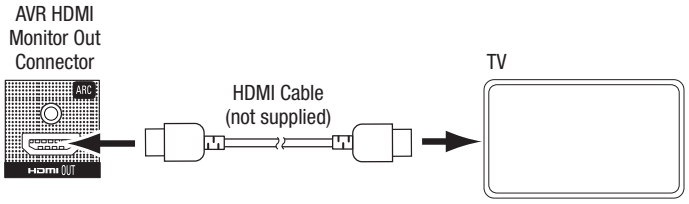
Use a single RCA audio cable to connect the AVR's Subwoofer Pre-Out connector to your subwoofer. Consult your subwoofer's user manual for specific information about making connections to it.



Connect Your TV or Video Display

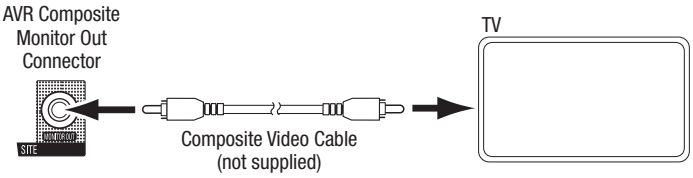
HDMI Monitor Out connector

If your TV has an HDMI connector and you have HDMI or component video source devices, use an HDMI cable (not included) to connect your TV to the AVR's HDMI Monitor Out connector. It will provide the best possible picture quality.



Composite Video Monitor Out connector

If your TV does not have an HDMI connector, or if your TV does have an HDMI connector but you are connecting some source devices with only composite video connectors, use a composite video cable (not included) to connect the AVR's Composite Monitor Out connector to your TV's composite video connector.



Connect Your Audio and Video Source Devices

Source devices are components where a playback signal originates, e.g. a Blu-ray Disc or DVD player; a cable, satellite or HDTV tuner; etc. Your AVR has several different types of input connectors for your audio and video source devices: HDMI, composite video, optical digital audio, coaxial digital audio and analog audio.

Your AVR's various Source Selector buttons have default assignments to different input connectors (listed in the "Default AVR Input Connector" column of the table below). For ease of setup and remote control programming, you should connect each source device to the connector where the corresponding default source button is assigned (e.g., connect your Cable/Satellite tuner box to HDMI 1).

However, you can connect your source devices as you wish and re-assign any of the video and audio input connectors to any of the Source Selector buttons listed in the table according to where you actually connect each of your source devices.

As you connect your various source components, fill out the "Connected Device" and "Assigned AVR Input Connector(s)" columns in the table – it will make it easier for you to assign the connectors to the Source Selector buttons after you have completed making all of the connections. (You will make any changes to the connector assignments later in the setup process.)

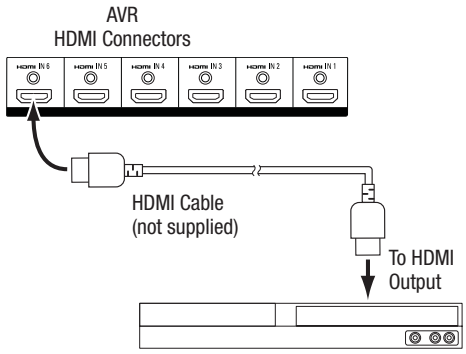
Source Selector Button	Default AVR Input Connector	Connected Device	Assigned AVR Input Connector(s)	
			Video	Audio
Cable/Sat	HDMI 1			
TV	HDMI ARC			
Disc	HDMI 2			
Server	HDMI 3			
Aux	COMP. VID. 1/AUX AUDIO			
Game	HDMI 5			
STB	HDMI 6			
Audio	ANALOG AUDIO 2			
Network	NETWORK	Home Network	——	——

Input Connections and Source Buttons

HDMI devices

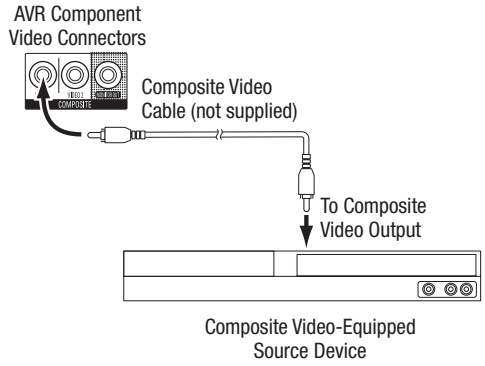
If any of your source devices have HDMI connectors, using those connectors will provide the best possible video and audio performance quality. Since the HDMI cable carries both digital video and digital audio signals, you do not have to make any additional audio connections for devices you connect via HDMI cables.

If you have a TV or other source device equipped with the HDMI Audio Return Channel function, you can feed its sound to the AVR via the HDMI Monitor Out connector's Audio Return Channel, and it will not require additional audio connections to the AVR.



Composite video devices

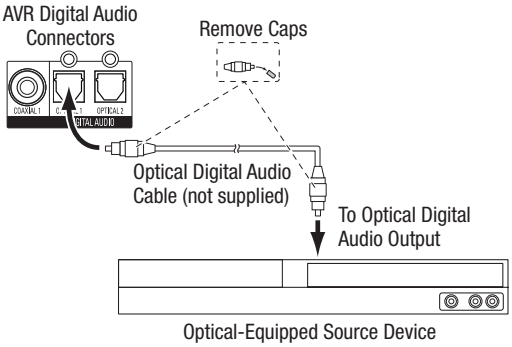
Use composite video connectors for video source devices that don't have HDMI connectors. You will also need to make an audio connection from the source device to the AVR.



Optical digital audio devices

If your non-HDMI source devices have optical digital outputs, connect them to the AVR's Optical Digital Audio connectors. NOTE: Make only one type of digital connection (HDMI, optical or coaxial) from each device.

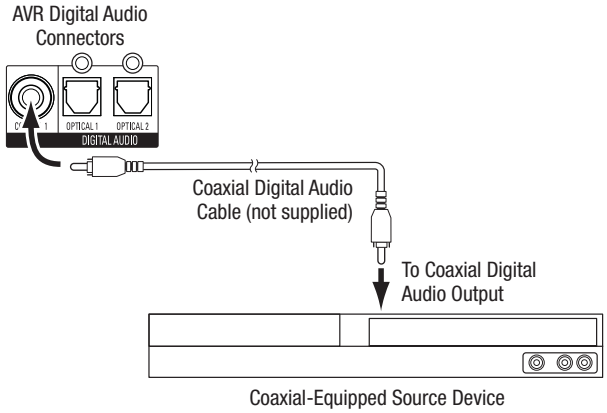
NOTE: Be sure to remove the caps from the tips of the optical cable before inserting them into the AVR and your source device.



Coaxial digital audio devices

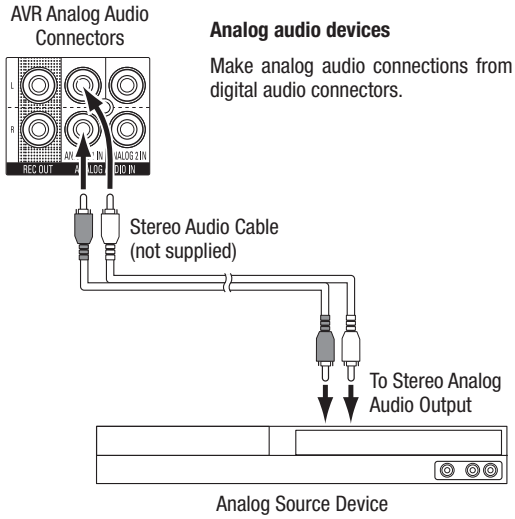
If your non-HDMI source devices have coaxial digital outputs, connect them to the AVR's Coaxial Digital Audio connectors.

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



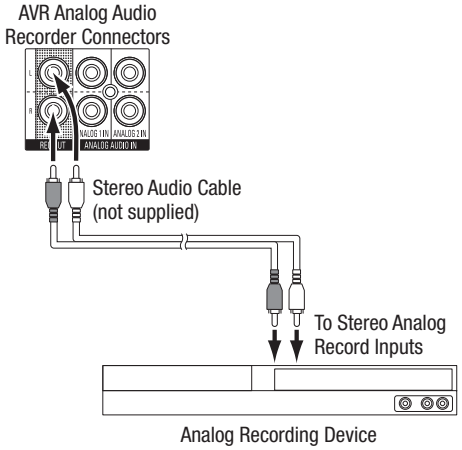
Analog audio devices

Make analog audio connections from your source devices that do not have HDMI or digital audio connectors.



Audio recorders

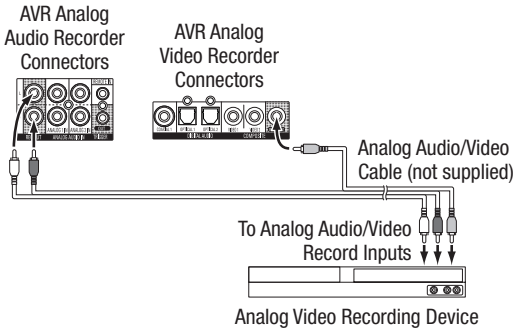
Connect an analog audio recorder's inputs to the AVR's analog audio Rec Out connectors. The recorded signal is determined by the source's Record Out setting in the Source Setup menu. See *Additional Source Setup Menu Items,* on page 19, for more information.



Video recorders

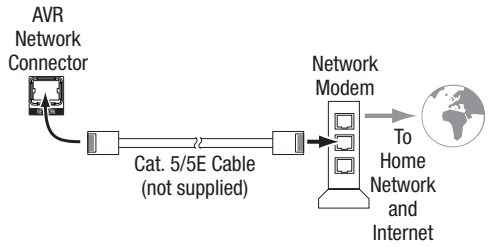
Connect an analog video recorder's video input connector to the AVR's Composite Monitor Out connector. You can record any composite video signal. To record the audio and video from the source device, connect the AVR's Analog Rec Out connectors to the analog video recorder's audio inputs.

NOTE: If you have connected the AVR's Composite Monitor Out video connector to your TV, you cannot connect a VCR to the AVR for recording.



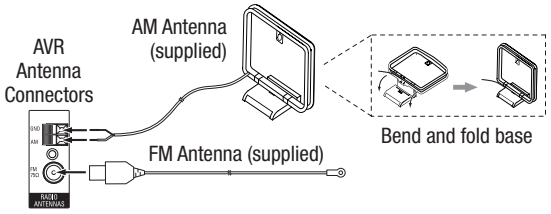
Connect to Your Home Network

Use a Cat. 5 or Cat. 5E cable (not supplied) to connect the AVR's Network connector to your home network to enjoy Internet radio and content from DLNA®-compatible devices that are connected to the network.



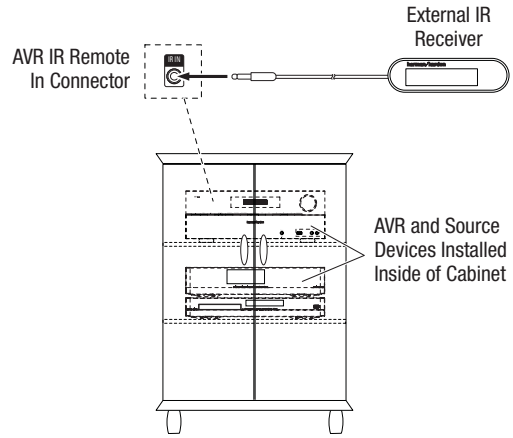
Connect the Radio Antennas

- Connect the supplied FM antenna to the AVR's FM 75Ω Radio Antenna connector. For the best reception, extend the FM antenna as far as possible.
- Bend and fold the base of the supplied AM antenna as shown and connect the antenna wires to the AVR's AM and Gnd connectors. Rotate the antenna as necessary to minimize background noise.



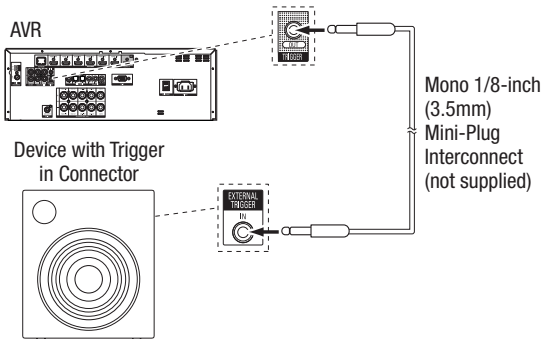
Connect IR Equipment

If you place the AVR inside a cabinet or facing away from the listener so that the AVR's IR sensor is not within line-of-sight of the remote control, connect an external IR receiver, such as the Harman Kardon HE 1000 (available separately) to the AVR's IR In connector.



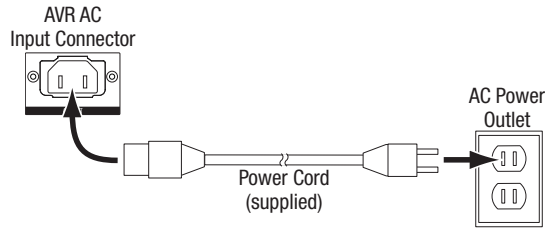
Connect the Trigger Output

If your system has equipment that can be controlled by a DC trigger signal, connect it to the AVR's Trigger Out connector with a mono 1/8-inch (3.5mm) mini-plug interconnect cable. The AVR will supply a 12V DC (100mA) trigger signal at this connection whenever it is powered on.



Connect to AC Power

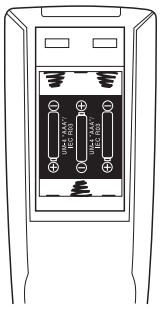
Connect the AC power cord to the AVR's AC Input connector and then to a working AC power outlet.



Set Up the Remote Control

Install the Batteries in the Remote Control

Remove the remote control's battery cover, insert the three supplied AAA batteries as shown in the illustration, and replace the battery cover.



NOTE: Remove the protective film from the AVR's front panel to keep it from reducing the remote control's effectiveness.

Program the Remote to Control Your Source Devices and TV

In addition to using the remote to control the AVR itself and the AM/FM radio, you can program the remote to control up to five additional audio/video source devices plus your TV via the Cable/Sat, Disc, Server, Game, STB and TV Source Selector buttons. The remote is also ready to operate your iPod or iPhone device when the device is connected to the AVR's front-panel USB port.

Once you have programmed the remote, you can switch the remote's control mode to access the functions for a particular source device by pressing the remote's Source Selector button for that device. To control the AVR, press the remote's AVR button.

Before you begin programming the remote, review the connections you filled in on the Input Connections and Source Buttons table on page 13. The Source Selector buttons are assigned to the components that you listed in the table's "Connected Device" column.

Each of the programmable Source Selector buttons is set at the factory to control that specific type of device: the Cable/Sat button is set to control cable/satellite tuners, the Disc button is set to control DVD and Blu-ray Disc players, the Server button is set to control digital music servers, the Game button is set to control game consoles, the STB box is set to control DVRs and TiVo® devices, and the TV button is set to control TVs.

You can program an unused Source Selector button to control a source device that is different from that button's factory setting (such as programming the Server button to control a DVD player or a second TV), but completely different types of devices, such as CD players and VCRs, cannot be controlled at all. See *Advanced Remote Control Programming,* on page 26, for more information.

1. Turn on the source device you want to program the remote to control.
2. Look up the code numbers for the device in Tables A10 – A17 in the Appendix. Write all the applicable code numbers in a convenient place.
3. Press and hold the Source Selector button for that source device until the Program Indicator LED on the remote starts to flash, then release it. (This procedure places the remote in the Programming mode.)
4. Aim the remote at the source device and use the remote's Number buttons to enter a code number from Step 2, above.
   a) If the device turns off, press the Source Selector button again to save its code. The Source Selector button will flash, and the remote will exit the Programming mode.
   b) If the device does not turn off, enter another code number.
   c) If you run out of code numbers for a device, you can search through all of the codes in the remote's library for devices of its type by pressing the Up or Down button repeatedly until the device turns off. When it does, press the Source Selector button to save the code.
5. Check that other functions control the device correctly. Sometimes manufacturers use the same Power code for several models, while other function codes vary. Repeat this process until you've programmed a satisfactory code set that operates most of the device's functions.
6. If you searched through the remote's code library to find the code, you can find out which code number you have programmed by pressing and holding the Source Selector button to re-enter the Programming Mode. Then press the remote's OK button, and the Program Indicator LED will flash in the code sequence. One flash represents "1," two flashes represent "2," and so forth. A series of quick flashes represents "0." Record the code number programmed for each device in Table A6 in the Appendix.

Repeat Steps 3 – 6 for each source device you want to control with the AVR remote.

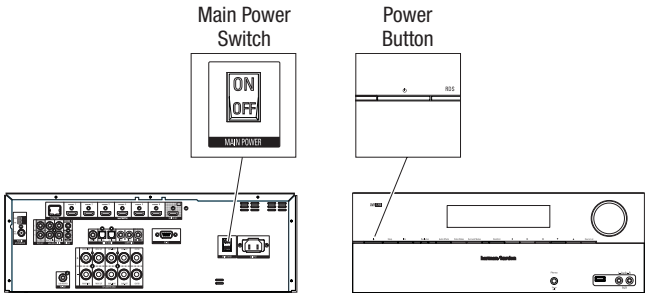
In general, the label for each button on the remote describes the button's function when used to control the AVR. However, the button may perform a very different function when used to control another device. Refer to the *Remote Control Function List,* Table A9 in the Appendix, for each button's functions with the various product types.

You can also program the remote to perform macros (preprogrammed code sequences that execute many code commands with a single button press) and "punch-through" programming (allowing the remote to operate a device's channel or transport controls when the remote is in another device's mode). See *Advanced Remote Control Programming,* on page 26, for instructions on these functions.

Set Up the AVR

Turn On the AVR

1. Set the rear-panel Main Power switch to "On." (The front-panel Power indicator will glow amber.)
2. Press the front-panel Power button.



Unless you will not be using the AVR for an extended period of time, leave the Main Power switch set to "On." When the Main Power switch is turned off, any settings you have programmed will be preserved for up to four weeks.

IMPORTANT NOTE: If the PROTECT message ever appears in the Message display, turn off the AVR and unplug it. Check all speaker wires for a short circuit ("+" and "–" wires touching). If none is found, bring the unit to an authorized Harman Kardon service center for inspection and repair before using it again.

Using the On-Screen Menu System

Although it's possible to configure the AVR using only the remote and the front-panel Message display, it is easier to use the on-screen menu system.

To access the menu system, press the OSD button on the remote. The Master Menu will appear. (Note: If you have only used a composite video connection to your TV, the OSD menus will not appear on your TV. Follow the steps below using the receiver's front-panel display.)

NOTE: The OSD screens shown in this manual may differ slightly from the actual screens.

The Master menu consists of seven submenus: Source Select, Source Setup, Surround Mode, EzSet/EQ, Manual Setup, Network and System Setup.

Use the Up/Down/Left/Right buttons on the remote to navigate the menu system, and press the OK button to select a menu or setting line, or to enter a new setting.

The current menu, setting line or setting will appear in the front-panel Message display, as well as on screen.

To return to the previous menu, press the remote control's Back button.

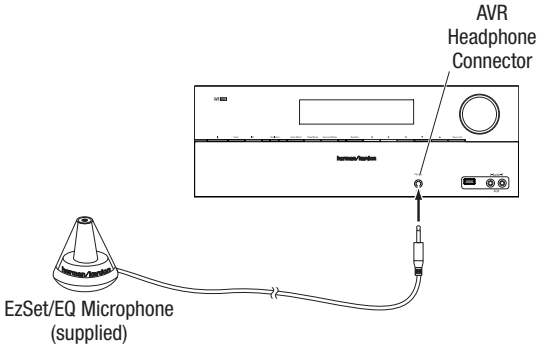
Most users should follow the instructions in this *Set Up the AVR* section to configure a basic home theater system. You may return to these menus at any time to make additional adjustments, such as those described in the *Advanced Functions* section, on pages 23 through 27.

Before you begin initial setup, all loudspeakers, a video display and all source devices should be connected to the AVR. You should be able to turn on the AVR and view the Master menu when you press the OSD button. If necessary, reread the *Making Connections* section and the beginning of this section before continuing.

Configure the AVR for Your Speakers

NOTE: If there are fewer than five main speakers in your system, do not use the EzSet/EQ process. Instead, proceed as described in *Manual Speaker Setup,* on page 24.

1. Plug the supplied EzSet/EQ microphone into the AVR's Headphone connector.

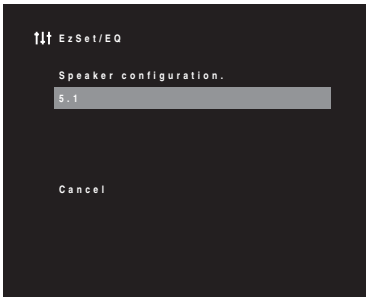


2. Place the microphone at ear height in your listening position. The microphone features a threaded insert on the bottom for mounting on a camera tripod.
3. Set the volume control on your subwoofer to approximately the halfway point.
4. Turn on your TV and select the TV input where you connected the AVR in *Connect Your TV or Video Display,* on page 13.
5. Press the remote control's OSD button. The AVR's on-screen display (OSD) Master Menu will appear on the TV.

NOTE: If you have only used a composite video connection to your TV, the OSD menus will not appear on your TV. Follow the steps below using the receiver's front-panel display.

6. Use the remote's arrow and OK buttons to select "EzSet/EQ."

7. Select "YES." The Speaker Configuration menu will appear.

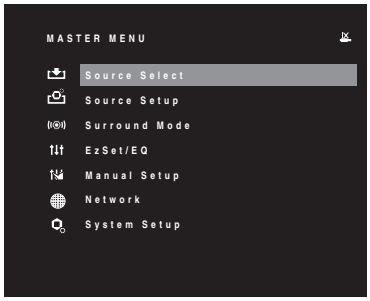


8. Select "5.1."
9. The test will begin. Make sure that the room is quiet while the test noise is playing through the speakers.
10. When the test finishes, press the remote's OSD button to exit.

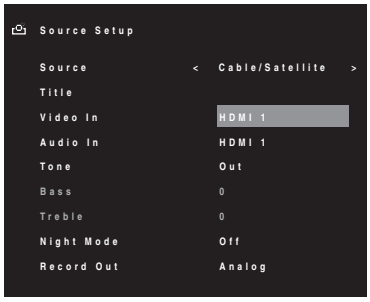
Assign the AVR Input Connectors

1. Review the input connections you listed on the connection table, on page 13. Note what changes (if any) you have made from the default AVR Input Connector assignments that appear on the list. If you connected your so urce devices according to the entries in the "Default AVR Input Connector" column of the table on page 13, you can skip this section.
2. Turn on your TV and select the TV input where you connected the AVR in *Connect Your TV or Video Display,* on page 13.
3. Press the remote control's OSD button. The AVR's on-screen display (OSD) Master Menu will appear on the TV.

NOTE: If you have used a composite video connection to your TV, the OSD menus will not appear on your TV. Follow the steps below using the AVR's front-panel display.

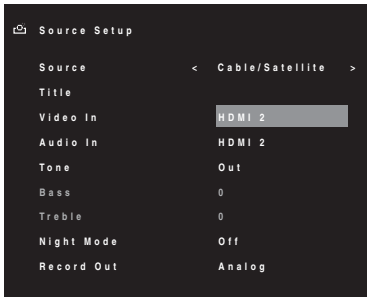


4. Use the remote's arrow and OK buttons to select "Source Setup." If there is a Source Selector for which you want to assign different video or audio connections. use the left/right arrow buttons to select it, and press the OK button.



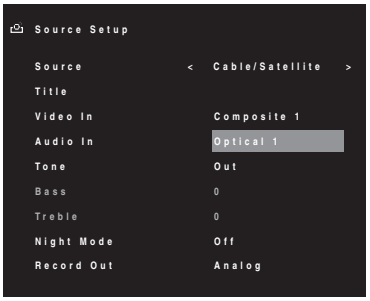
5. Select "Video In" and use the left/right arrow buttons to select the video input connector you want to assign to the Source Selector button. Press the OK button.

NOTE: If you select an HDMI connector for the Video connection the Audio connection will automatically change to the same HDMI connector.



6. Select "Audio In" and use the left/right arrow buttons to select the audio input connector you want to assign to the Source button.

NOTE: If you have assigned an HDMI Video connector for the Source button you cannot assign a different Audio connector.



7. Repeat steps 4 – 6 for the remaining audio/video connections that you want to re-assign.

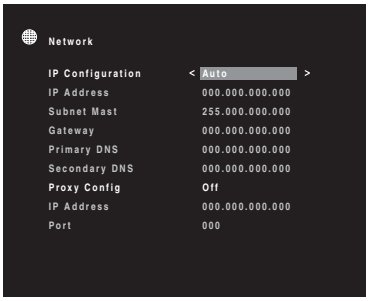
Set Up the Network

To play MP3 or WMA media located on DLNA-compatible devices connected to the network, to use the AVR's internal Internet radio tuner (vTuner) to listen to audio streams or to stream audio to the AVR via AirPlay, connect the AVR's Network connector to the Ethernet port on a router or modem that has Internet access, to a home network, or to a PC. (See *Connect to Your Home Network,* on page 15.)

We recommend that you connect the AVR directly to a home-network router so that it can directly access the Internet for Internet radio and access other devices on the network for playback of shared content (see *Listening to Media on Your Home Network,* on page 21, for more information).

If your network uses an automatic IP address, you should not have to perform any network setup procedures. Once you connect the AVR to your home network, the network should automatically assign the AVR an IP address, and the AVR should automatically connect to your network. If your AVR does not automatically connect to your network (in which case the AVR will display a "Not Connected" message when you press the Network source button):

1. Press the OSD button and select Network. The Network setup menu will appear.



2. Select IP Configuration, then press the Left or Right button twice to cycle the setting from "Auto" to "Manual" and back to "Auto."
3. Scroll to the bottom of the list and select "Apply & Save." The AVR will enter the Standby mode. When you turn the AVR back on, it will attempt to connect to the network.
4. If the AVR again fails to connect to the network, you may need to enter your network's settings manually. In this case, you must obtain these settings from your ISP or network administrator. After obtaining your network's settings:

   a) Select IP Address and use the Left or Right button to change the setting to "Manual." The following settings will become active: IP Address, Subnet Mask, Gateway, Primary DNS and Secondary DNS.

   b) Use the Up/Down arrow buttons to select the correct numbers and make the entries for all of these settings.

c) When you have finished, select "Apply & Save," and press the OK button. The AVR will refresh the network connection while it remains on. If the AVR cannot connect to the network using the manual settings, contact your ISP or network administrator for assistance.

- Proxy Config: If you have connected the AVR's Network connection to a proxy network, use the Left/Right buttons to set this to "On", and use the number buttons to enter tne proxy network's IP address and port.
- Network Status: This line indicates the AVR's current network-connection status (Connected/Not Connected/Network Problem).
- Apply & Save: Any time you make a change in any of the Network settings, the Apply & Save line will become available. Select this line and press the OK button. The AVR will go into the Standby mode. After you turn the AVR back on, the new network settings will be in effect. **IMPORTANT: You must select "Apply & Save" for your network settings to take effect.**

NOTE: If you have trouble connecting to the network at any time, cycle the AVR into the Standby mode, and then turn it back on.

Additional Source Setup Menu Items

You can also adjust the following settings independently for each source:

Title: You may change the display name for any source (except the radio). This feature may help you to select the correct source device even when you have forgotten which physical connections you used.

1. Move the cursor to the Title line and press the OK button. A block cursor will blink.
2. Use the Up/Down buttons to scroll through the alphabet in upper and lower case, the numbers and many punctuation marks. When you have selected the desired character, press the Right button to move to the next space. Press the Right button twice to leave a blank space.
3. Press the OK button when you have finished.

Tone: This setting determines whether the treble and bass controls are active. When this line is set to Out, the tone controls are out of the circuit, with no changes to the sound. When this line is set to In, the bass and treble frequencies are boosted or cut, depending upon the Bass and Treble settings (see below).

Bass and Treble: Boost or cut the low or high frequencies by up to 10dB by using the Left/Right buttons to change the setting by 2dB at a time.

Night Mode: This setting activates Night mode with specially encoded Dolby Digital discs or broadcasts. Night mode compresses the audio so that louder passages are reduced in volume to avoid disturbing others, while dialogue remains intelligible. Each press of the right arrow button advances through the following settings:

- Off: No compression is applied. Loud passages in the program remain as they were recorded.
- Mid: Loud passages in the program are reduced moderately in volume.
- Max: Loud passages in the program are reduced more in volume.

Record Out: This setting determines the source of the signal that appears at the Analog Audio Rec Out connectors for the Cable/Sat, TV, Disc, Server, Aux, Game, STB and Audio sources:

- DSP Down mix: This setting outputs audio from digital audio input connections (HDMI, optical, coaxial) and analog audio input connections (Analog 1/2, Aux).
- Analog: This setting outputs audio only from the analog audio input connections (Analog 1/2, Aux).

NOTE: Although the USB, FM/AM, AirPlay, DLNA, and Internet Radio sources do not have Record Out settings, they are also available for recording.

When you're finished, press the remote's OSD button to turn off the on-screen menu.

Operating Your AVR

Now that you have installed your components and completed a basic configuration, you are ready to begin enjoying your home theater system.

Controlling the Volume

Adjust the volume either by turning the front-panel Volume knob (clockwise to increase volume or counterclockwise to decrease volume) or by pressing the Volume Up/Down buttons on the remote. The volume is displayed as a negative number of decibels (dB) below the 0dB reference point.

0dB is the maximum recommended volume for your AVR. Although it's possible to turn the volume to a higher level, doing so may damage your hearing and your speakers. For certain more dynamic audio materials, even 0dB may be too high, allowing for damage to equipment. Use caution with regard to volume levels.

Muting the Sound

To mute all speakers and the headphones, press the Mute button on the remote. Any recording in progress will not be affected. The MUTE message will appear in the front-panel display as a reminder. To restore the sound, press the Mute button again, or adjust the volume.

Listening Through Headphones

Plug the 1/4-inch stereo plug on a pair of headphones into the front-panel Phones jack for private listening. The default headphone surround mode for all sources except FM and AM is HARMAN Headphone, which will emulate a 5.1-channel speaker system. The default surround mode for FM and AM is 2-Ch Stereo. Press the Surround Mode button on the front panel or use the remote and OSD to switch between HARMAN Headphone and 2-Ch Stereo. No other surround modes are available for headphone listening.

Selecting a Source

There are three different ways to select a source:

- Press the front-panel Source Select buttons.
- Directly select any source by pressing its Source Selector button on the remote.
- Select a source from the Source Select menu in the OSD menu system.

The AVR selects the audio and video inputs you assigned to the source and any other settings you made during setup.

The source name and the surround mode will appear on the front panel.

Video Troubleshooting Tips

If there is no picture:

- Check the source selection.
- Check all connections for a loose or incorrect connection.
- Check the video-input selection on the TV/display device.

Additional Tips for Troubleshooting HDMI Connections

- Turn off all devices (including the TV, the AVR and any source components).
- Unplug the HDMI cables, starting with the cable between the AVR and the TV, and continuing with the cables between the AVR and each source device.
- Carefully reconnect the cables from the source devices to the AVR. Connect the cable from the AVR to the TV last.
- Turn on the devices in this order: TV, AVR, source devices.

NOTE: Depending upon the particular components involved, the complexity of the required communication between HDMI components may cause delays of up to a minute in the completion of some actions, such as input switching or switching between SD and HD channels.

Listening to FM and AM Radio

Select the Radio source. Use the Tuning Up/Down buttons to tune a station, which will be shown on the front-panel display and the TV screen.

The AVR defaults to automatic tuning, meaning each press of the Tuning Up/Down buttons scans until a station with acceptable signal strength is found. To switch to manual tuning, in which each press of a Tuning button steps through a single frequency increment, press the Tuning Mode button. Each press of the Tuning Mode button toggles between the automatic and manual tuning modes.

Once you have tuned an FM station, toggling the Tuning Mode setting also switches the radio between stereo and monaural reception. (Mono reception may improve reception of weaker stations.)

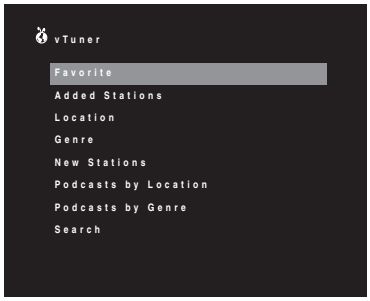
Preset Stations

A total of 30 stations (AM and FM combined) may be stored as presets. When the desired station has been tuned in, press the Memory button on the remote, and two dashes will flash on the front-panel Message display. Use the Number buttons to enter the desired preset number.

To tune a preset station, press the Preset Up/Down buttons or enter the preset number using the Number buttons.

Listening to Internet Radio (vTuner™)

Your AVR's Network connection brings you a world of MP3- and WMA-format streams via the Internet. After you have successfully connected to your home network as described in *Connect to Your Home Network,* on page 15, and set up the network as described in *Set Up the Network,* on page 18, press the Network Source Selector button on the remote until Internet Radio appears on the AVR's front-panel display. (Each press cycles between the Network and Internet Radio sources.)



With the vTuner screen (above) displayed, the AVR will automatically connect to the Internet via the www.radioharmankardon.com portal. To select a stream, use the Up/Down buttons to select a category.

NOTE: The categories displayed may vary by region.

Once you select a stream, the OSD will display the vTuner playback screen, which contains information about the currently playing song.

Favorites: To create a Favorites list:

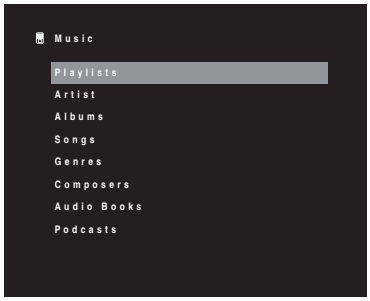
1) Write down your AVR's MAC Address number, which is found in the Network Setup menu. See Set Up the Network, on page 18, for more information.
2) Log onto www.radioharmankardon.com from your computer. Create an account using your AVR's MAC address as its ID number.

Favorites that you select on the Web site will be available when you listen to vTuner on the AVR.

Listening to an iPod/iPhone/iPad Device

When a compatible iPod, iPhone or iPad is connected to the AVR's USB port, you may play the audio materials on the device through your high-quality audio/video system, operate the iPod, iPhone or iPad using the AVR remote, view navigation messages on the AVR's front panel or a connected video display and charge the connected device.

After connecting your iPod, iPhone or iPad to the AVR's USB port, press the USB Source Selector button. (If "USB" appears as the source, press the button a second time to switch from the USB source to the iPod source.) The iPod menu screen will appear.



Use the Up/Down and OK buttons to navigate through the list and select the desired category. When the category's screen appears, use the Up/Down and OK buttons to navigate within the category and make selections. NOTE: Not all categories may appear with all iPod/iPhone /iPad devices.

Once you select a song the iPod playback screen will appear on the OSD.

The screen will show the currently playing song, artist, album, elapsed time and total track time. Use the remote's Transport Control buttons to control playback.

- To return to a previous menu screen at any time, press the Back button.

Listening to Media on a USB Device

Your AVR is compatible with USB 2.0 or USB 1.1 media in the FAT 16 or FAT 32 file format and is compatible with the following MP3 and WMA media:

- MP3: Bit rates between 96kbps and 320kbps. Fixed bit-rates at 44.1kHz sampling is recommended. Variable bit-rates (VBR) are playable, but playing time may be displayed incorrectly. Files must have an ".mp3" file extension.
- WMA: Bit rates of 64kbps or higher.

NOTE: Bit rates of 80kbps and 256kbps are not compatible. Files must have a ".wma" file extension.

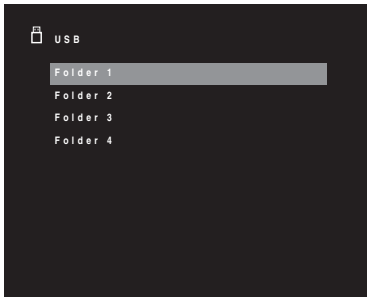
A maximum number of 65,536 folders and files can be supported.

Playing files on a USB device

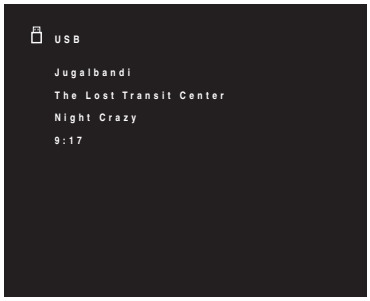
1. Insert the USB drive into the AVR's front-panel USB port.

IMPORTANT: Do not connect a personal computer or peripheral to the USB port. USB hubs are not supported.

2. Select USB as the source device. (If "iPod" appears as the source, press the button a second time to switch from the iPod source to the USB source.) The USB screen will appear.



3. Use the remote's Up, Down and OK buttons to select a folder and display its contents.
4. Use the remote's Up, Down and OK buttons to select a song. The song will play and the USB playback screen will appear on the OSD.



- Use the remote's Transport Control buttons to control playback.
- To access Shuffle and Repeat functions, press the remote's Options button.

When the song is finished playing the remaining contents of the folder will play.

Listening to Media via Your Home Network

Your AVR can play MP3 and WMA audio media that is stored on a PC or Mac computer when both the computer and the AVR are connected to your home network router.

MP3 compatibility: Mono or stereo, constant bit rates (CBR) from 8kbps to 320kbps, variable bit rates (VBR) from lowest to highest quality, with sample rates from 8kHz to 48kHz.

WMA compatibility: Ver. 9.2, stereo CBR with 32kHz – 48kHz sampling rate and 40kbps – 192kbps bit rate, mono CBR with 8kHz – 16kHz sampling rate and 5kbps – 16kbps bit rate, VBR Pass Encoding and Quality Encoding 10 – 98, 44kHz and 48kHz sampling rate.

NOTE:
- **A PC must be running Windows Media® Player version 11 or higher, Windows Media Center version 2.0 or 3.0, or Intel® Media Server. We recommend that any firewalls be turned off, although Windows Media Player may automatically make any necessary adjustments to the firewall settings to allow media sharing.**
- **An Apple Macintosh computer must be running DLNA (Digital Living Network Alliance)-compliant software such as HARMAN Media Manager. To download the free HARMAN Media Manager software, go to http://www.locale.harmankardon.com/en-US/hmm/mediamanager.html.**

IMPORTANT: Before you can access files located on other devices via the network, each device must first give permission to share files with the AVR:

To share media on PCs:

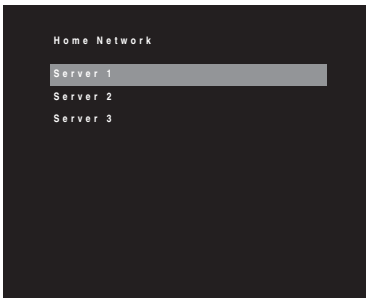
1. Open Windows Media Player.
2. Open the Library menu and select "Media Sharing." The Media Sharing window will appear.
3. Check the "Share My Media" box. An icon for the AVR will appear in the window.
4. Select the AVR icon, select "Allow," then select "OK."

The computer's WMA and MP3 media should now be available to the AVR.

To share media on other types of computers, operating systems or media software, check the instructions for the computer, operating system or media player.

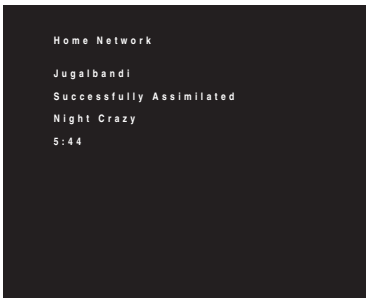
To listen to shared media:

1. Press the Network Source Selector button. (If "Internet Radio" appears as the source, press the button a second time to switch from the Internet Radio source to the Network source.) The Network screen will appear.



The screen should list by name all devices on the network that allow sharing.

2. Use the remote's Up, Down and OK buttons to select a device. The screen will display the device's folder structure.
3. Use the Up and Down buttons to browse the content stored in the device's media player library. Scroll to the desired item and press the OK button to select it. The song will play and the Network playback screen will appear on the OSD.



- Use the remote's Transport Control buttons to control playback.
- To access Shuffle and Repeat functions, press the remote's Options button.

When the song is finished playing the remaining contents of the folder will play.

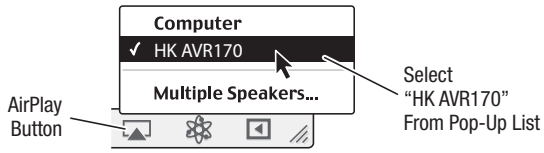
NOTE:
- **The Repeat settings are global for Network playback and USB playback. Changing these settings for one of these sources will change the other source's settings as well.**
- **Although video content may appear in the menu, the AVR does not support video playback from the Network connection.**

Listening to Media via AirPlay

If you have connected the AVR to a network router that has Wi-Fi® capability, you can wirelessly stream audio to it via AirPlay from compatible Apple devices with iOS 4.2 or newer that are joined on the same Wi-Fi network, and from computers that have iTunes 10.1 or newer that are joined on the same Wi-Fi or wired network.

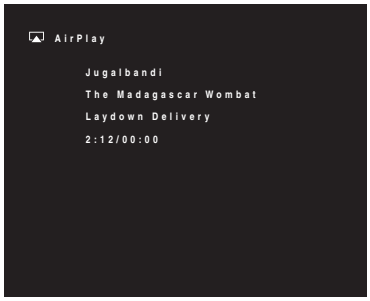
To initiate AirPlay streaming to the AVR:

- To initiate AirPlay streaming from a computer with iTunes, launch iTunes, click on the AirPlay button that appears at the bottom of the computer's iTunes window, and select "HK AVR170" in the pop-up list that appears.



- To initiate AirPlay streaming from an iPod, iPhone or iPad device, tap the AirPlay button on the device's screen and select "HK AVR 170" in the speaker-selection list that appears.

The AirPlay audio stream will break in and interrupt the source that is currently playing through the AVR. The AirPlay screen will appear on the OSD.



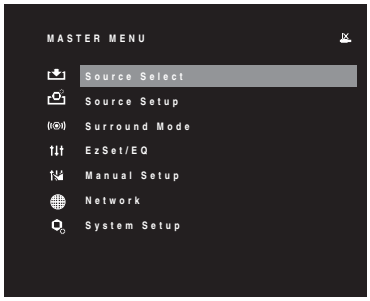
Use the remote's Transport Control buttons to control playback.

To terminate AirPlay streaming and return to the previously playing source, press the remote's Back button at any time while the AirPlay screen is displayed.

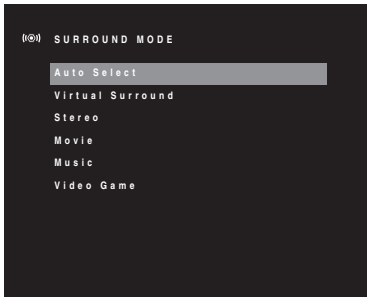
Selecting a Surround Mode

Selecting a surround mode can be as simple or sophisticated as your individual system and tastes. Feel free to experiment, and you may find a few favorites for certain sources or program types. You can find more detailed information on surround modes in *Audio Processing and Surround Sound,* page 23.

To select a surround mode, press the OSD Button on the remote to display the Master menu:



Use the Up/Down and OK buttons to select Surround Mode. The Surround Mode menu will appear:



Use the Up/Down and OK buttons to select the desired surround-mode category.

Auto Select: For a digital program, such as a movie recorded with a Dolby Digital or DTS soundtrack, the AVR will automatically use the soundtrack's native surround format. For 2-channel analog and PCM programs, the AVR uses the Logic 7 Movie, Logic 7 Music or Logic 7 Game mode, depending on the source.

Virtual Surround: When only two main speakers are present in the system, you can use the Virtual Surround mode to create an enhanced sound field that virtualizes the missing speakers.

Stereo: When you want 2-channel playback, select the number of speakers you want to use for playback:

- "2 CH Stereo" uses two speakers.
- "5 CH Stereo" plays the left-channel signal through the front left and surround left speakers, the right-channel signal through the front right and surround right speakers, and a summed mono signal through the center speaker.

Movie: Select from the following when you want a surround mode for movie playback: Logic 7 Movie, DTS NEO:6 Cinema or Dolby Pro Logic II Movie.

Music: Select from the following when you want a surround mode for music playback: Logic 7 Music, DTS NEO:6 Music or Dolby Pro Logic II Music. The Dolby Pro Logic II Music mode provides some additional settings. See *Audio Processing and Surround Sound,* on page 23, for more information.

Video Game: Select from the following when you want a surround mode for game playback: Logic 7 Game or Dolby Pro Logic II Game.

After you select the Surround Mode Categopry, use the Left/Right buttons to change the surround mode.

You can also select surround modes using the AVR's front-panel buttons:

1. Press the Surr Mode button. The Message display will show the surround-mode category and surround mode.
2. To change the surround mode within the surround-mode category, press the Surround Select Up/Down buttons. Each press will change to the next surround mode.
3. To change the surround-mode category, press the Surr Mode button. Each press will change to the next surround-mode category.

Troubleshooting

Symptom	Cause	Solution
Unit does not function when Main Power switch is turned on	• No AC power	• Ensure that the power cord is plugged into a live AC power outlet • Check if the AC outlet is switch-controlled
Front-panel Message display lights, but there's no sound or picture	• Intermittent input connection • Mute is on • Volume control is turned down	• Secure all input and speaker connections • Press Mute button • Turn up Volume control
No sound from any speaker; PROTECT message appears on Message display	• Amplifier is in protection mode due to possible short circuit • Amplifier is in protection mode due to internal problems	• Check all speaker wires at speaker and AVR connections for crossed wires • Contact your local Harman Kardon service center
No sound from center or surround speakers	• Incorrect surround mode • Program material is monophonic • Incorrect speaker configuration • Program material is stereo	• Select a surround mode other than stereo • Mono programs contain no surround information • Check the speaker configuration in the setup menu • The surround decoder may not create center- or surround-channel information from nonencoded stereo programs
Unit does not respond to remote control commands	• Weak batteries in remote • AVR not selected • Remote sensor is obscured	• Change batteries in remote • Press the Setup/AVR button • Ensure that the AVR's front-panel remote sensor is in the line of sight of the remote
Intermittent buzzing in tuner	• Local interference	• Move the AVR or antenna away from computers, fluorescent lights, motors or other electrical appliances
Unable to activate remote control Programming mode	• Source Selector button is not held for at least 3 seconds	• Be sure to hold the Source Selector button for at least 3 seconds

Additional information on troubleshooting possible problems with your AVR and installation-related issues may be found in the list of "Frequently Asked Questions," which is located in the Product Support section of our Web site: www.harmankardon.com

Resetting the Remote

To reset the remote to its factory-default condition, simultaneously press and hold any Source Selector button and the "0" Number button. When the Program Indicator LED flashes amber, enter the code "333." When the green LED goes out, the remote control will be reset.

Processor Reset

If the AVR behaves erratically after a power surge, first turn off the rear-panel Main Power switch and unplug the AC power cord for at least 3 minutes. Plug the cord back in and turn the AVR on. If this procedure doesn't help, reset the AVR's processor as described below.

NOTE: A processor reset erases all user configurations, including video resolution, speaker and level settings, and tuner presets. After a reset, reenter all of these settings from your notes in the Appendix worksheets.

To reset the AVR's processor:

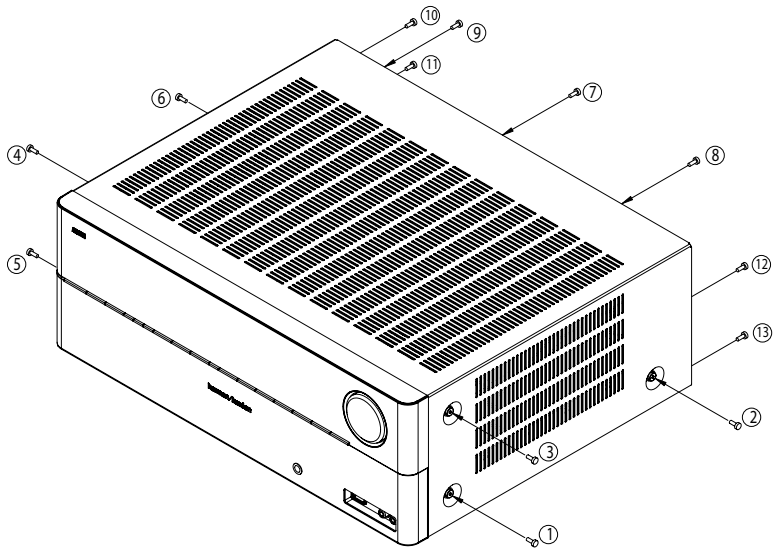
1. Press the front-panel Standby/On switch to place the unit in the Standby mode (the Power Indicator LED will turn amber).
2. Press and hold the front-panel Surround Mode button for at least 5 seconds until the RESET message appears on the front-panel Message display.

If the AVR does not function correctly after a processor reset, contact an authorized Harman Kardon service center for assistance. Authorized service centers may be located by visiting our Web site at www.harmankardon.com.

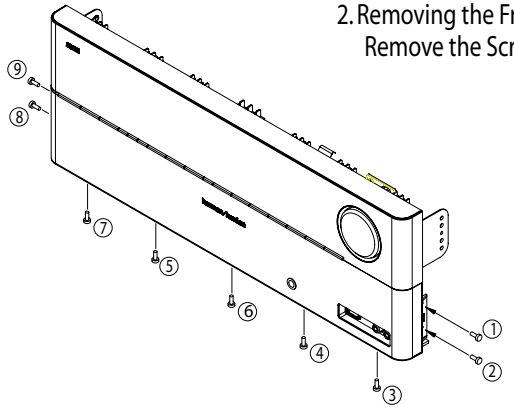
DISASSEMBLY

AVR1700

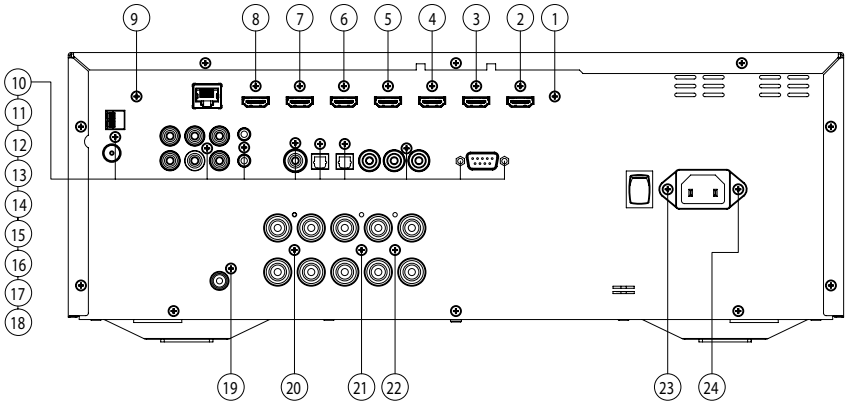
1. Removing the Top Cabinet
   Remove the Screws ①~⑬



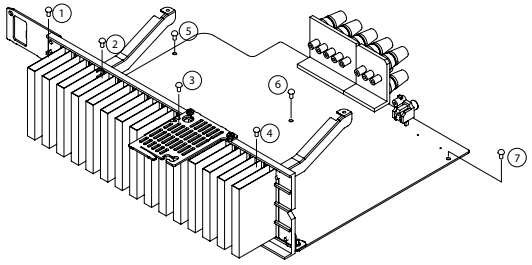
2. Removing the Front Panel
   Remove the Screws ①~⑨



3. Removing the Rear Panel
   Remove the Screws ①~㉔

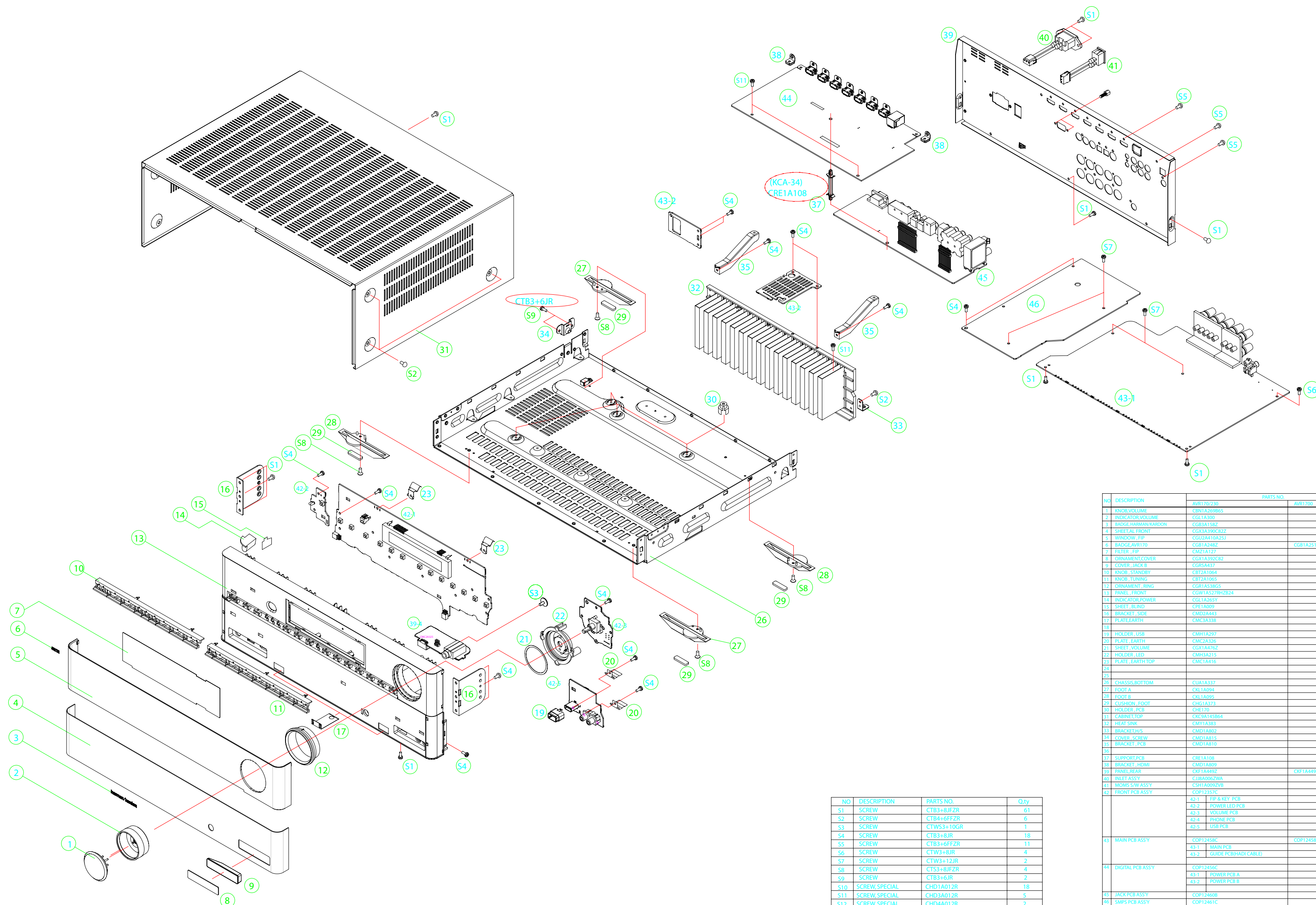


4. Removing the Main PCB
   Remove the Screws ①~⑦



AVR170/230 EXPLODE VIEW

AVR1700



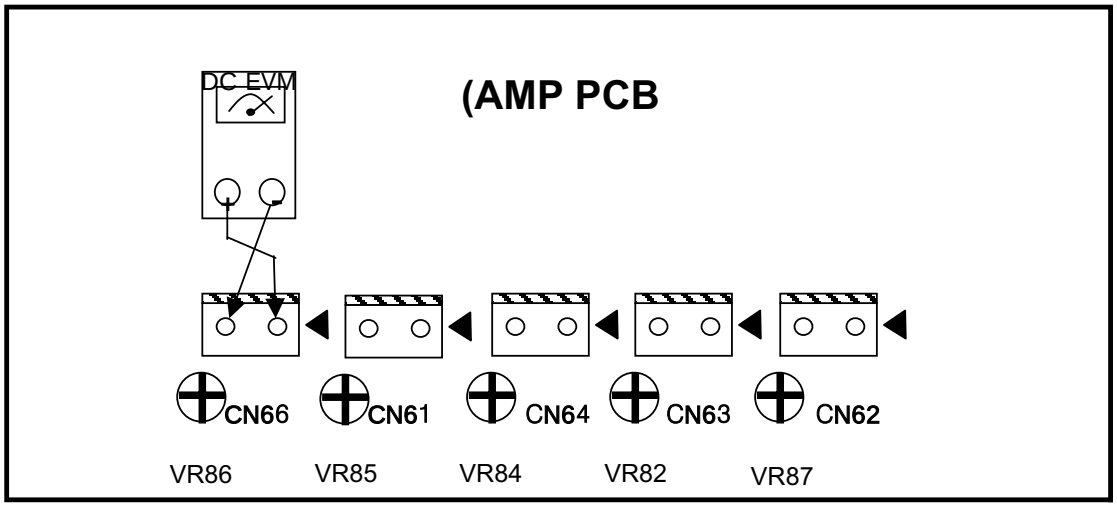
NO	DESCRIPTION	PARTS NO.	Q,ty
S1	SCREW	CTB3+8JFZR	61
S2	SCREW	CTB4+6FFZR	6
S3	SCREW	CTWS3+10GR	1
S4	SCREW	CTB3+8JR	18
S5	SCREW	CTB3+6FFZR	11
S6	SCREW	CTW3+8JR	4
S7	SCREW	CTW3+12JR	2
S8	SCREW	CTS3+8JFZR	4
S9	SCREW	CTB3+6JR	2
S10	SCREW, SPECIAL	CHD1A012R	18
S11	SCREW, SPECIAL	CHD3A012R	5
S12	SCREW, SPECIAL	CHD4A012R	2

NO	DESCRIPTION	PARTS NO.		Q,ty	REMARK
		AVR170/230	AVR1700		
1	KNOB,VOLUME	CBN1A269B65		1	
2	INDICATOR,VOLUME	CGL1A300		1	
3	BADGE, HARMAN/KARDON	CGB3A158Z		1	
4	SHEET,AL FRONT	CGX3A390C82Z		1	
5	WINDOW , FIP	CGU2A410A25J		1	
6	BADGE,AVR170	CGB1A248Z	CGB1A251Z	1	
7	FILTER , FIP	CMZ1A127		1	
8	ORNAMENT,COVER	CGX1A392C82		1	
9	COVER , JACK B	CGR5A437		1	
10	KNOB , STANDBY	CBT2A1064		1	
11	KNOB , TUNING	CBT2A1065		1	
12	ORNAMENT , RING	CGR1A538G5		1	
13	PANEL , FRONT	CGW1A527RHZB24		1	
14	INDICATOR,POWER	CGL1A265Y		1	
15	SHEET , BLIND	CPE1A009		1	
16	BRACKET , SIDE	CMD2A443		2	
17	PLATE,EARTH	CMC3A338		2	
18				1	
19	HOLDER , USB	CMH1A297		1	
20	PLATE , EARTH	CMC2A326			
21	SHEET , VOLUME	CGX1A476Z		1	
22	HOLDER , LED	CMH3A215		1	
23	PLATE , EARTH TOP	CMC1A416		2	
24					
25					
26	CHASSIS,BOTTOM	CUA1A337		1	
27	FOOT A	CKL1A094		2	
28	FOOT B	CKL1A095		2	
29	CUSHION , FOOT	CHG1A373		4	
30	HOLDER , PCB	CHE170		4	
31	CABINET,TOP	CKC9A145B64		1	
32	HEAT SINK	CMY1A383		1	
33	BRACKET,H/S	CMD1A802		2	
34	COVER , SCREW	CMD1A815		1	
35	BRACKET , PCB	CMD1A810		2	
36					
37	SUPPORT,PCB	CRE1A108		1	KCA-34
38	BRACKET , HDMI	CMD1A809		2	
39	PANEL,REAR	CKF1A449Z	CKF1A449Y	1	
40	INLET ASS'Y	CJJ8A006ZWA		1	
41	MOMS S/W ASS'Y	CSH1A009ZVB		1	
42	FRONT PCB ASS'Y	COP12357C		1	
		42-1 FIP & KEY PCB		1	
		42-2 POWER LED PCB		1	
		42-3 VOLUME PCB		1	
		42-4 PHONE PCB			
		42-5 USB PCB			
				1	
43	MAIN PCB ASS'Y	COP12458C	COP12458B	1	
		43-1 MAIN PCB			
		43-2 GUIDE PCB(HADI CABLE)			
44	DIGITAL PCB ASS'Y	COP12456C		1	
		43-1 POWER PCB A		1	
		43-2 POWER PCB B		1	
45	JACK PCB ASS'Y	COP12460B		1	
46	SMPS PCB ASS'Y	COP12461C		1	
				1	
				1	
				1	

AMPLIFIER SECTION BIAS ADJUSTMENT

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

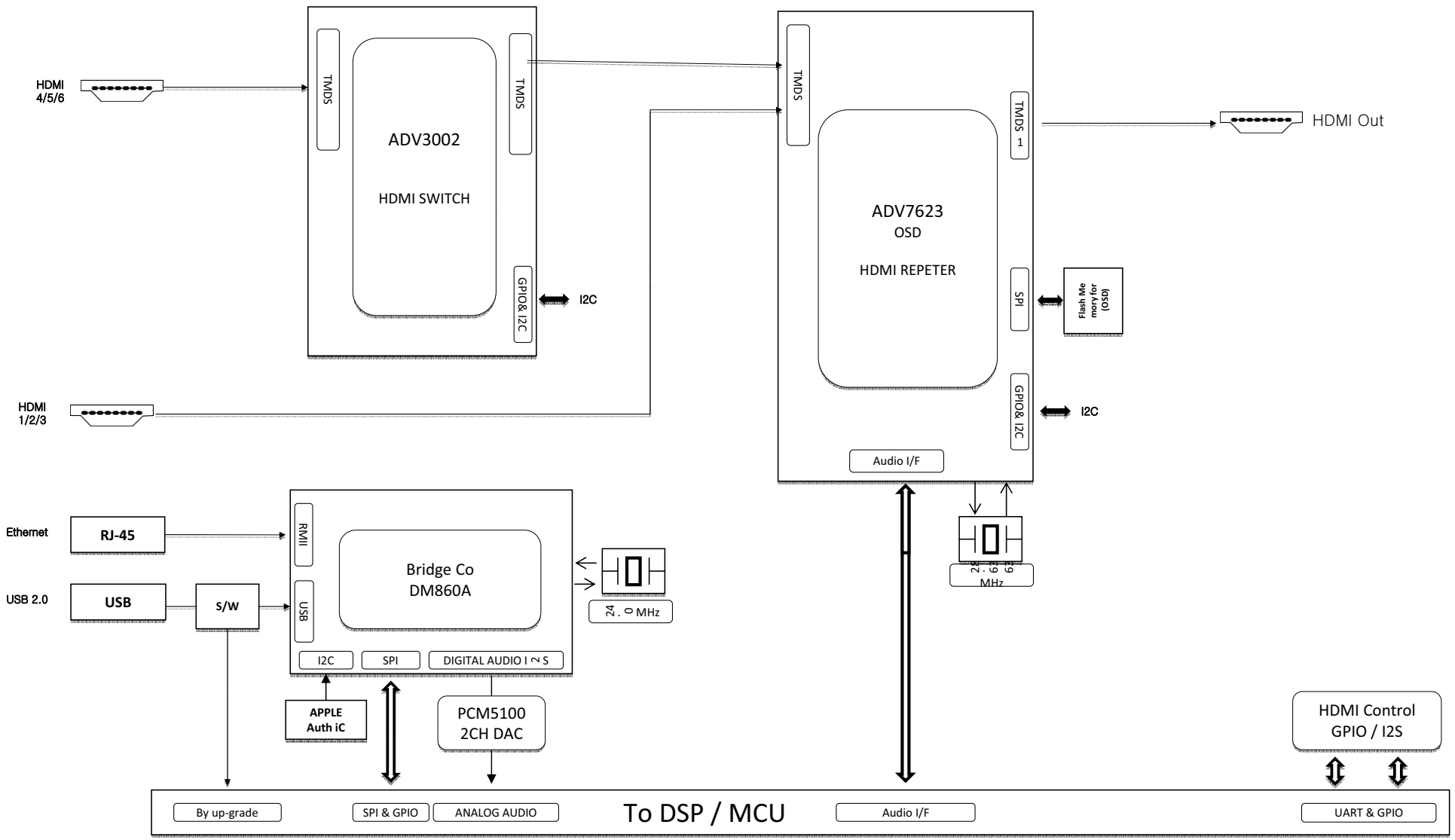
Standard value
.Ideal current = 48mA (± 5%)
.Ideal DC Voltage = 22.5mV (± 5%)

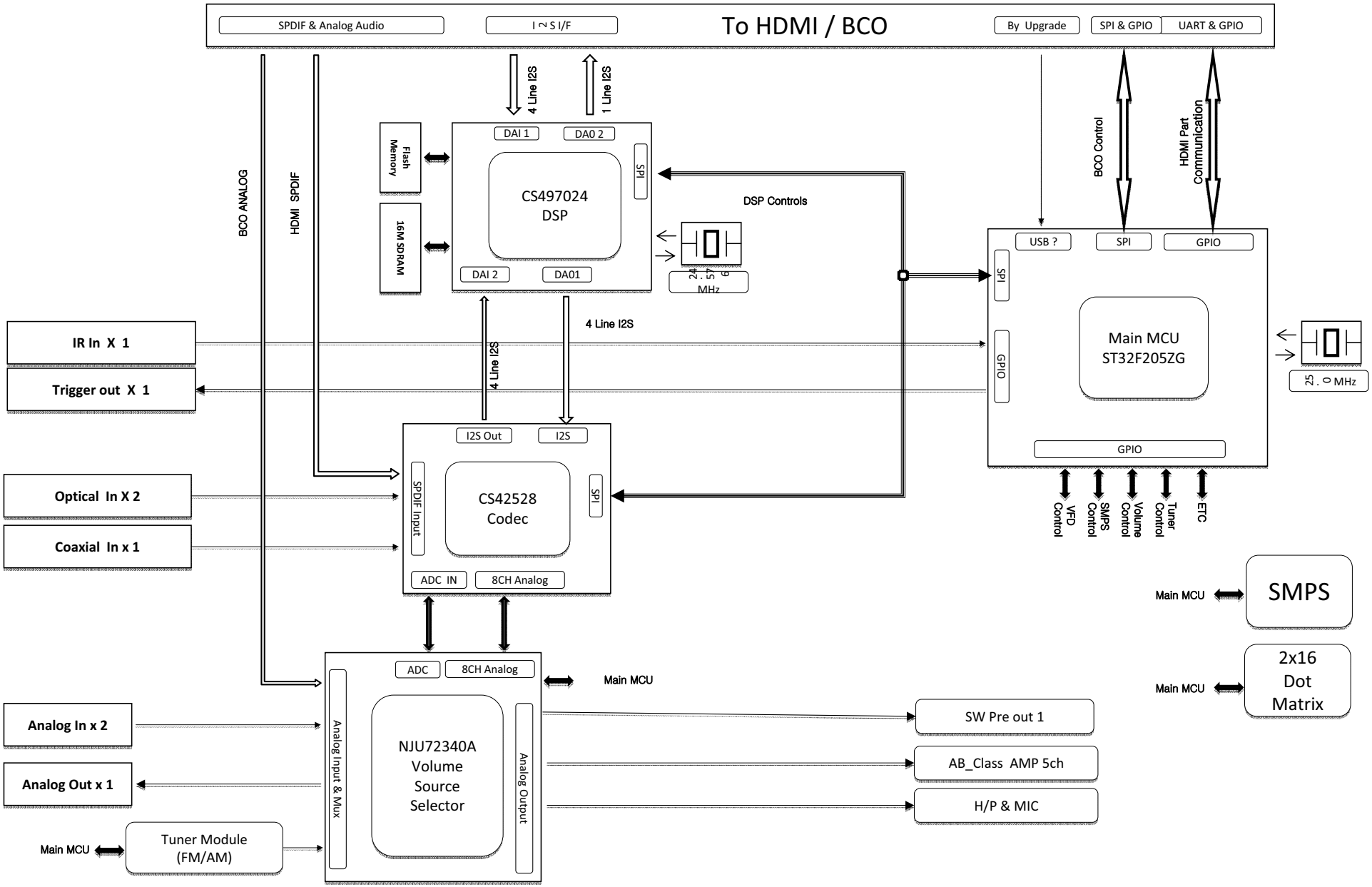


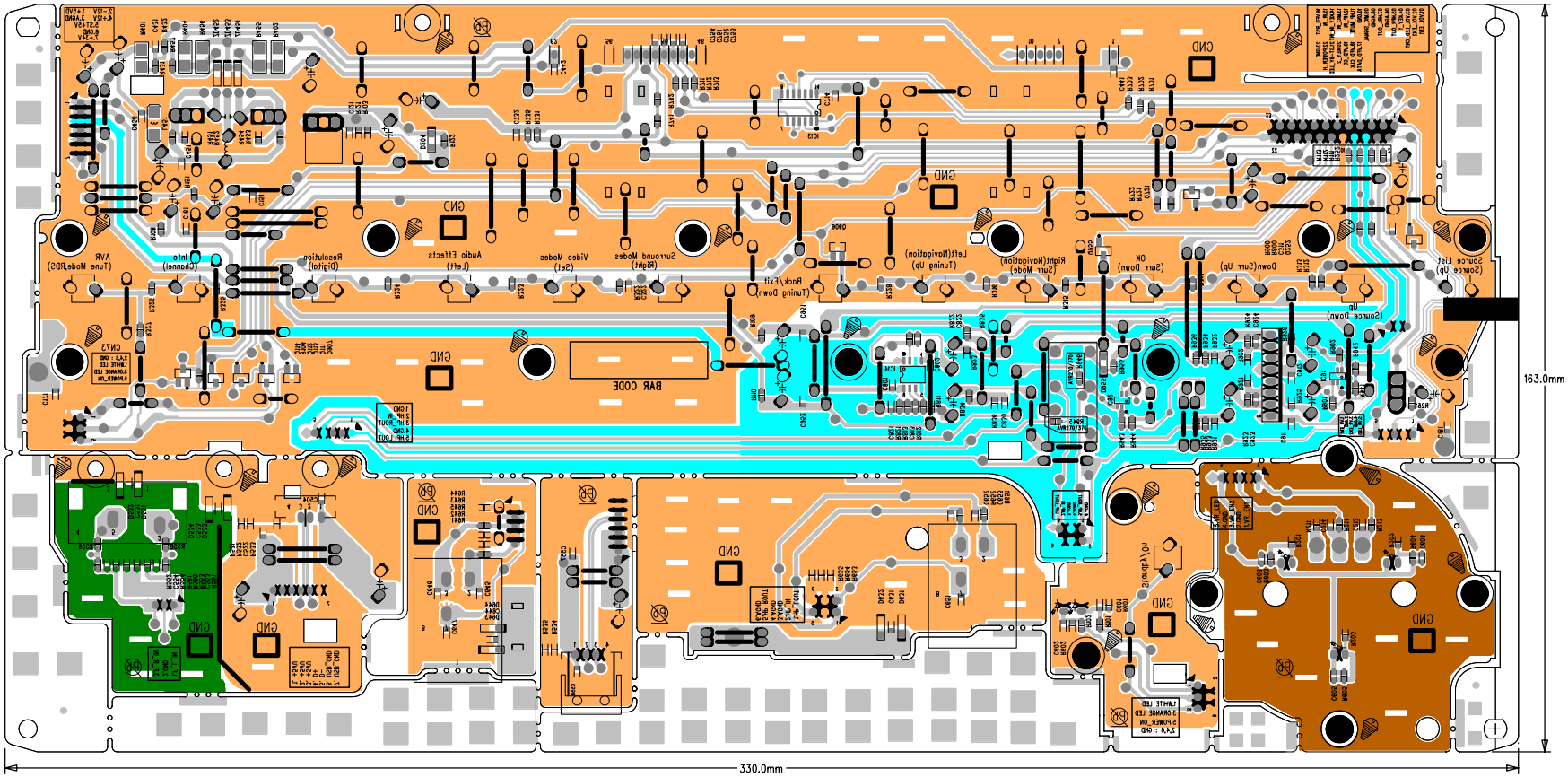
DC VOLTMETER ; Connect to
CN66(FR),CN61(CNT),CN64(SR),CN63(FL),CN62(SL)

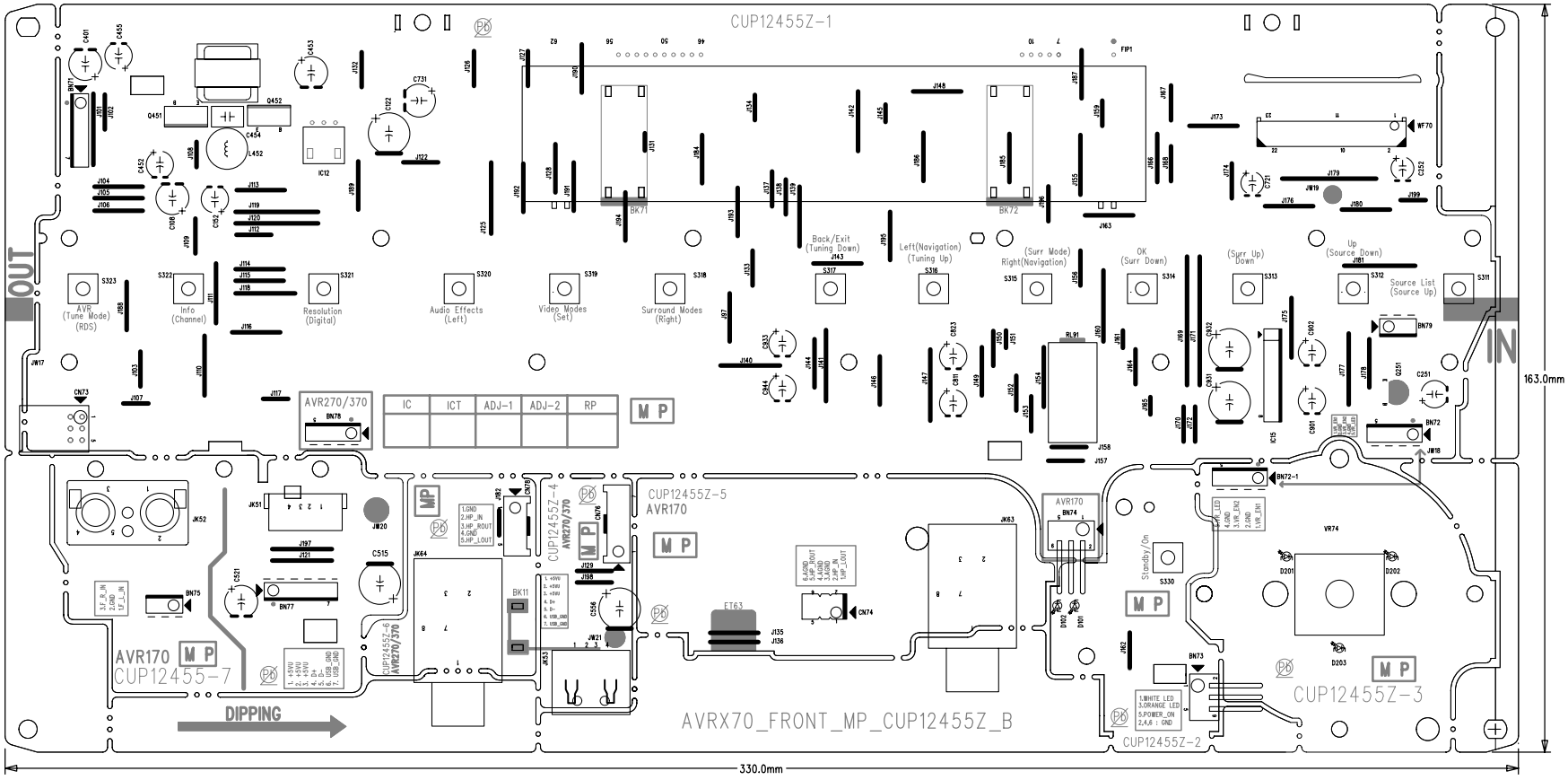
NO.	Channel	Adjust for	Adjustment
1	Front Left	22.50mV (± 5%)	CN63
2	Front Right	22.50mV (± 5%)	CN66
3	Center	22.50mV (± 5%)	CN61
4	Surround Left	22.50mV (± 5%)	CN62
5	Surround Right	22.50mV (± 5%)	CN64

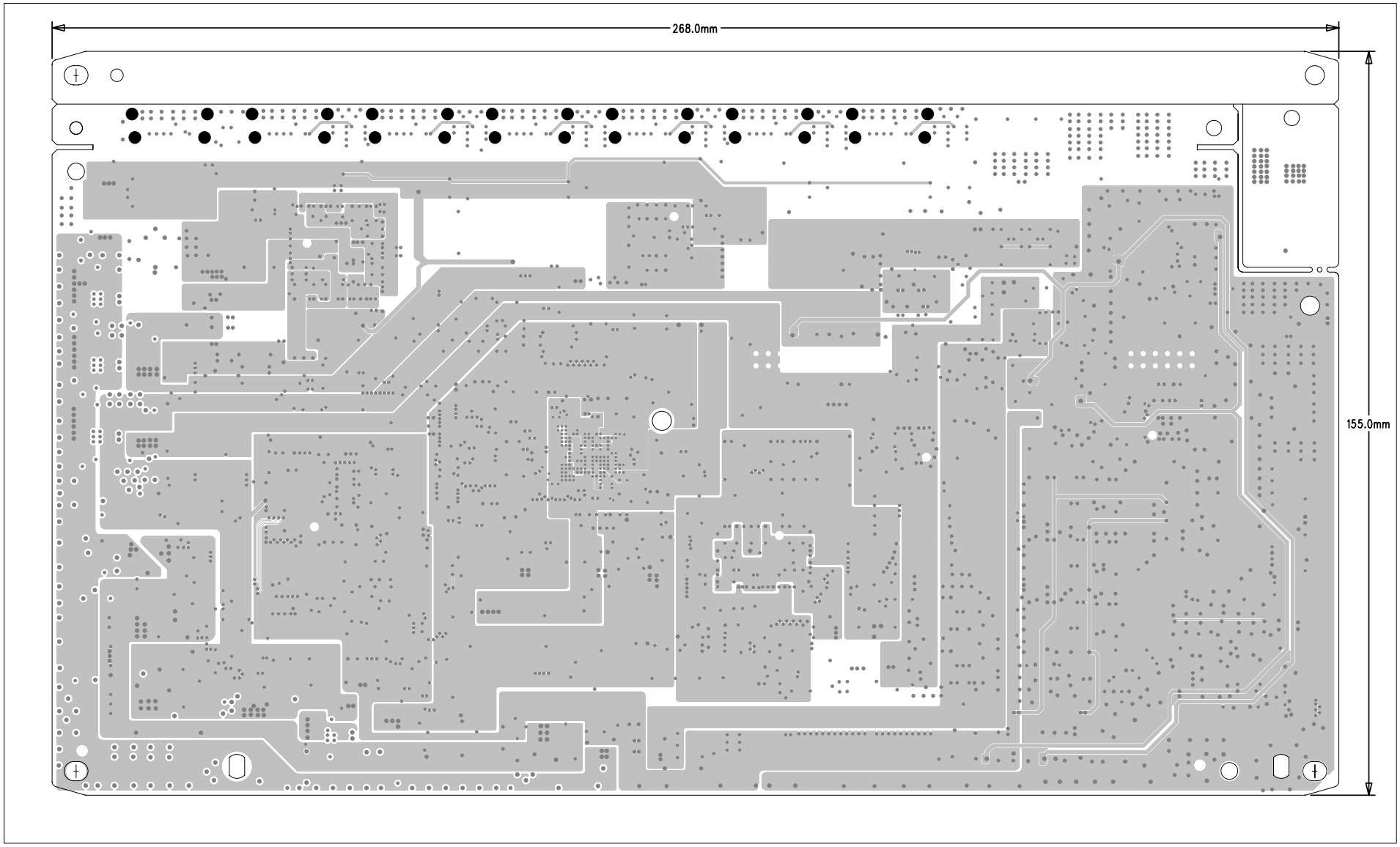
AVR170Block Diagram

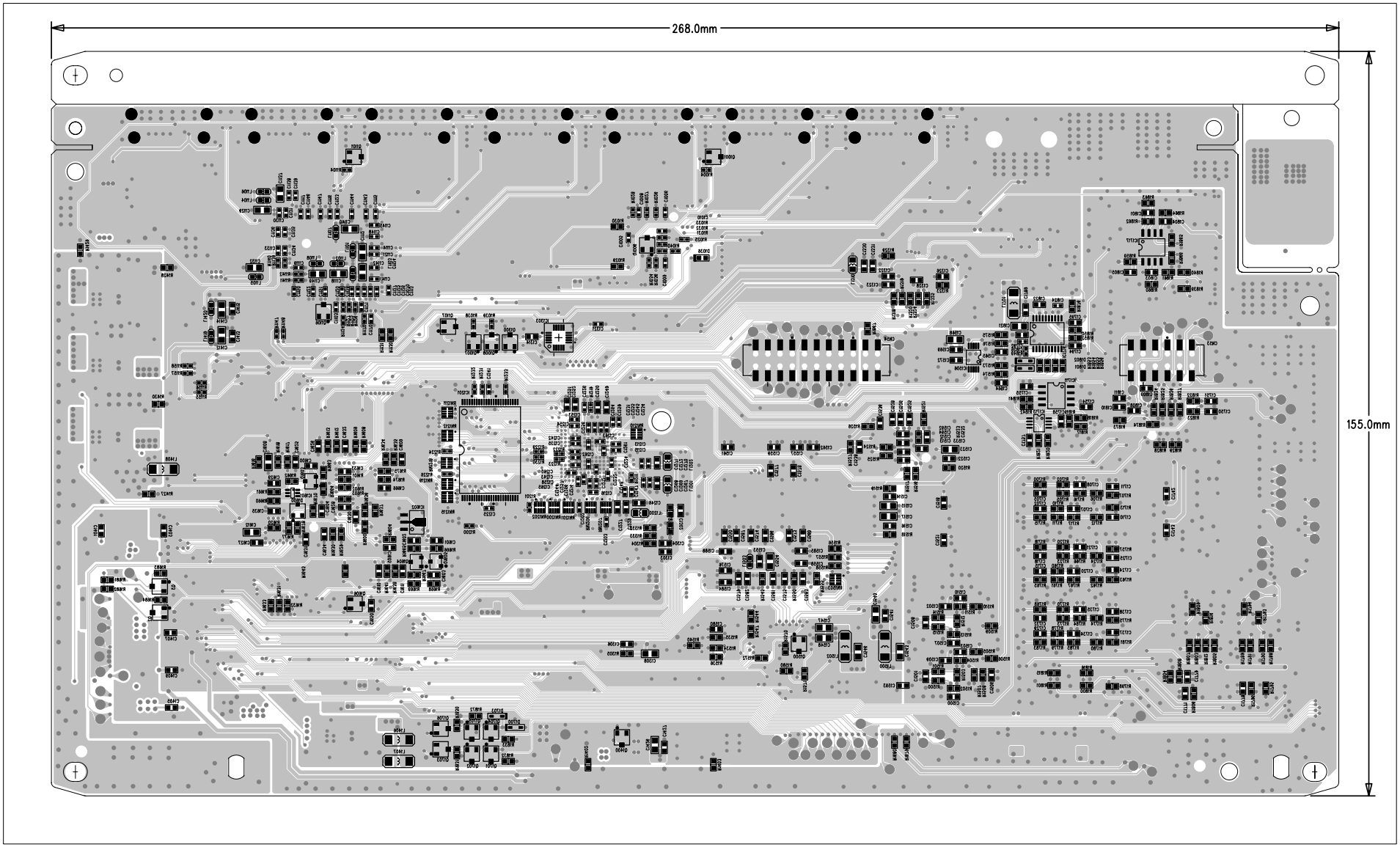


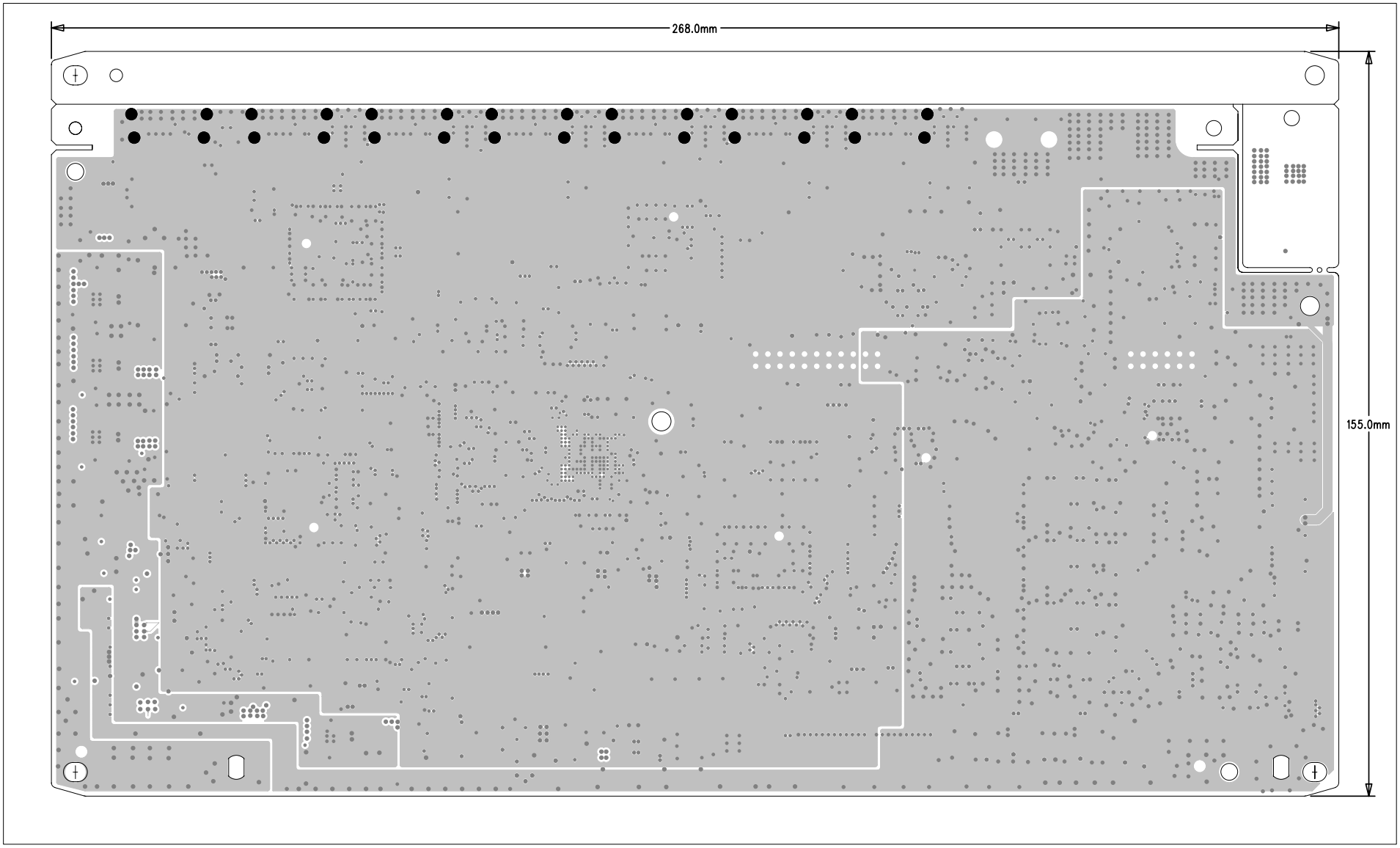

SPDIF & Analog Audio
I ²S I/F
To HDMI / BCO
By Upgrade
SPI & GPIO
UART & GPIO
4 Line I2S
1 Line I2S
BCO Control
HDMI Part Communication
BCO ANALOG
HDMI SPDIF
Flash Memory
16M SDRAM
DAI 1
DA0 2
CS497024 DSP
SPI
DAI 2
DA01
DSP Controls
24.576 MHz
USB ?
SPI
GPIO
SPI
GPIO
Main MCU ST32F205ZG
25.0 MHz
GPIO
IR In X 1
Trigger out X 1
4 Line I2S
4 Line I2S
I2S Out
I2S
SPDIF Input
CS42528 Codec
SPI
ADC IN
8CH Analog
Optical In X 2
Coaxial In x 1
VFD Control
SMPS Control
Volume Control
Tuner Control
ETC
Main MCU
SMPS
Main MCU
2x16 Dot Matrix
ADC
8CH Analog
Main MCU
Analog In x 2
Analog Out x 1
Analog Input & Mux
NJU72340A Volume Source Selector
Analog Output
SW Pre out 1
AB_Class AMP 5ch
H/P & MIC
Main MCU
Tuner Module (FM/AM)


163.0mm
330.0mm


CUP12455Z-1
OUT
IN
163.0mm
330.0mm
AVR270/370
IC
ICT
ADJ-1
ADJ-2
RP
AVR170
CUP12455-7
DIPPING
CUP12455Z-5
AVR170
CUP12455Z-4
AVR270/370
AVRX70_FRONT_MP_CUP12455Z_B
CUP12455Z-3
CUP12455Z-2
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)
AVR (Tune Mode) (RDS)
Info (Channel)
Resolution (Digital)
Audio Effects (Left)
Video Modes (Set)
Surround Modes (Right)
Standby/On


268.0mm
155.0mm


268.0mm
155.0mm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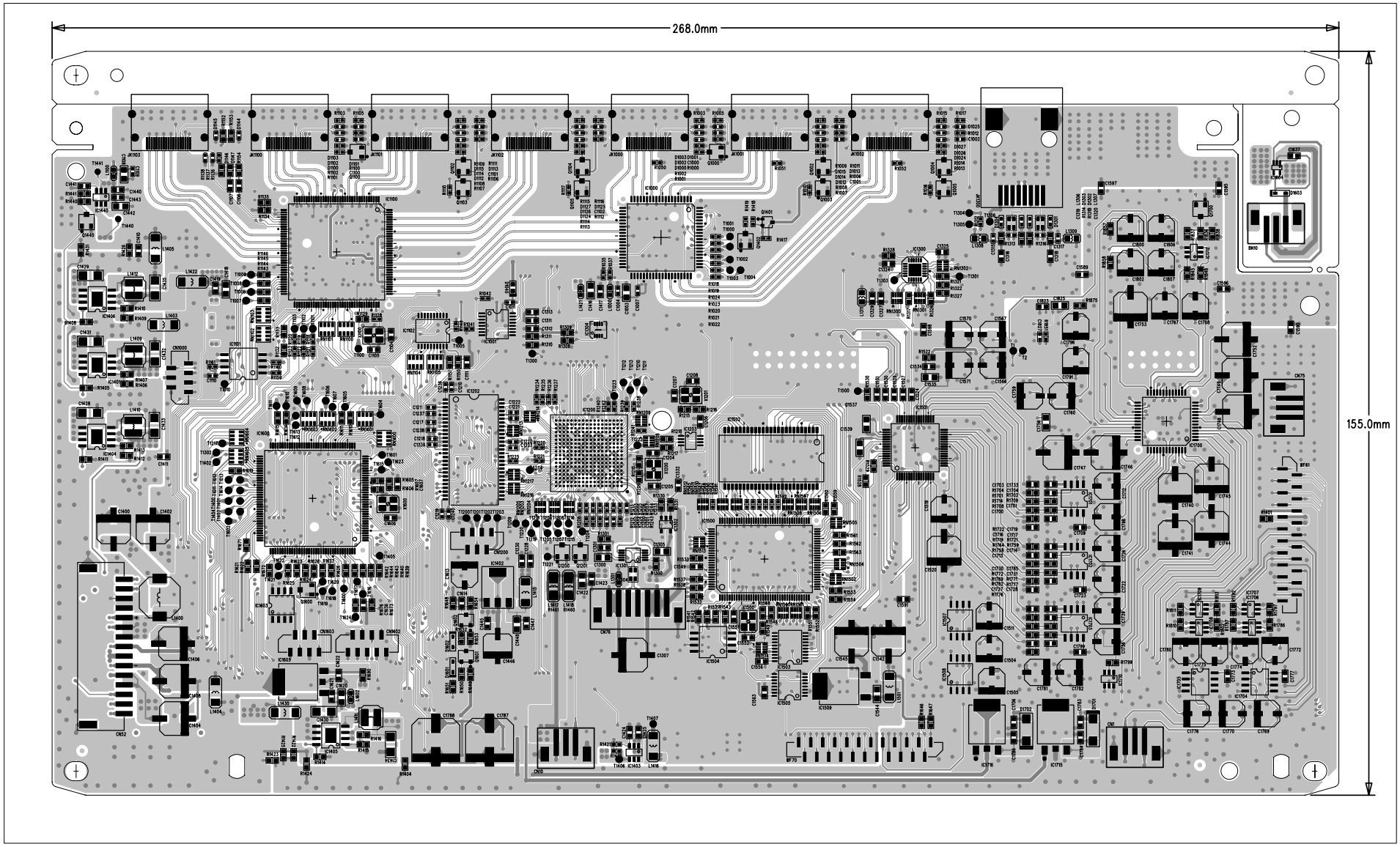
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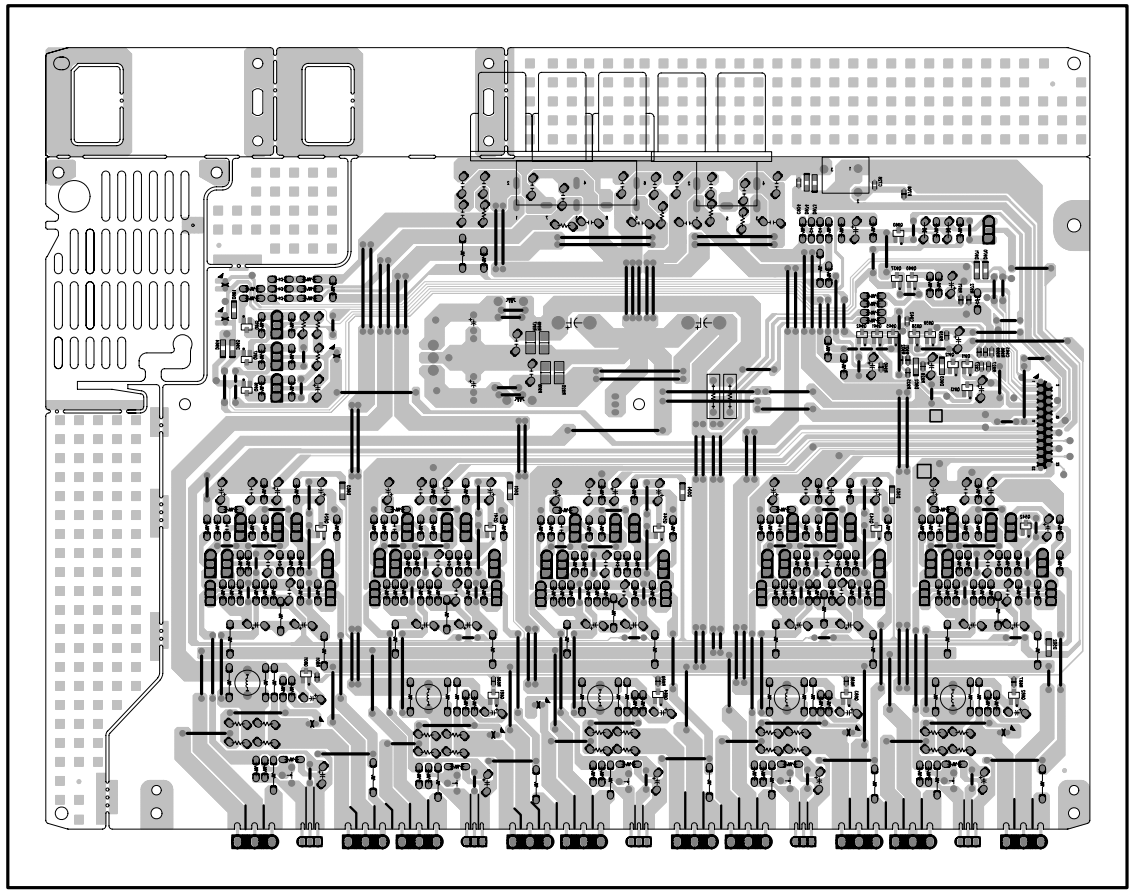
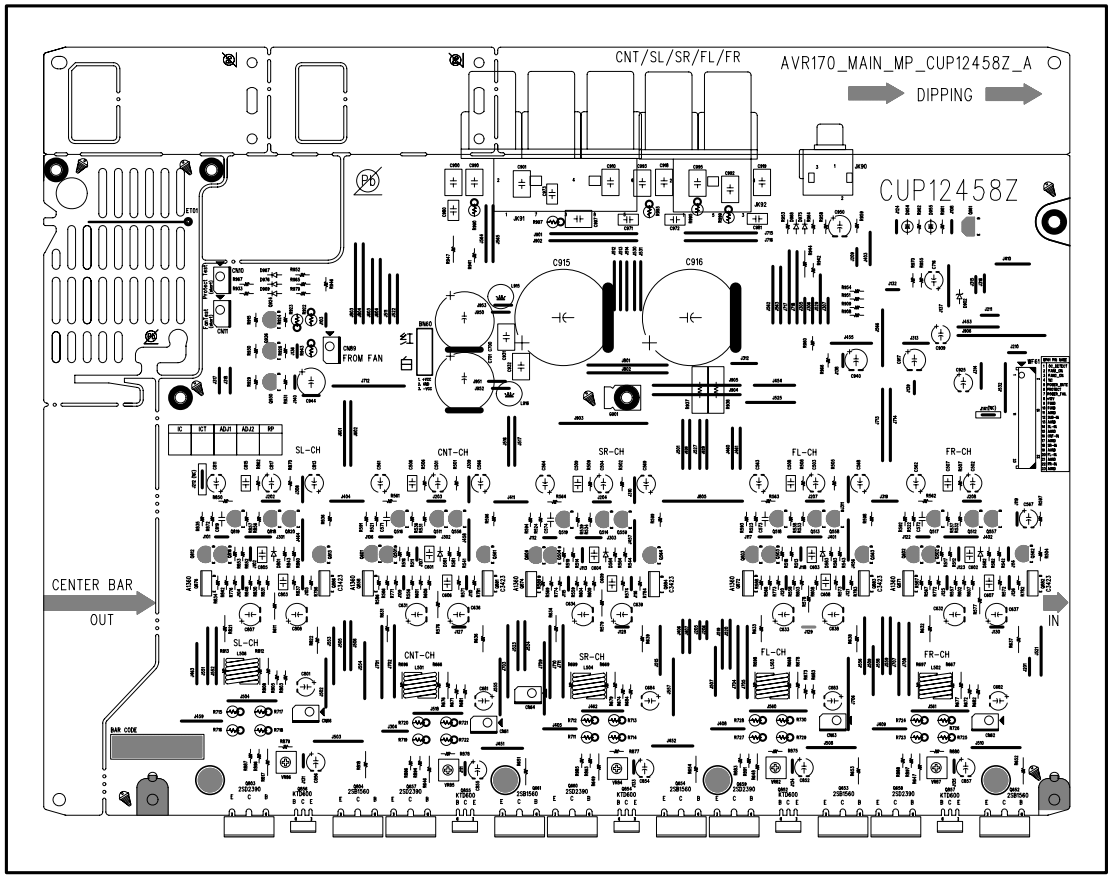
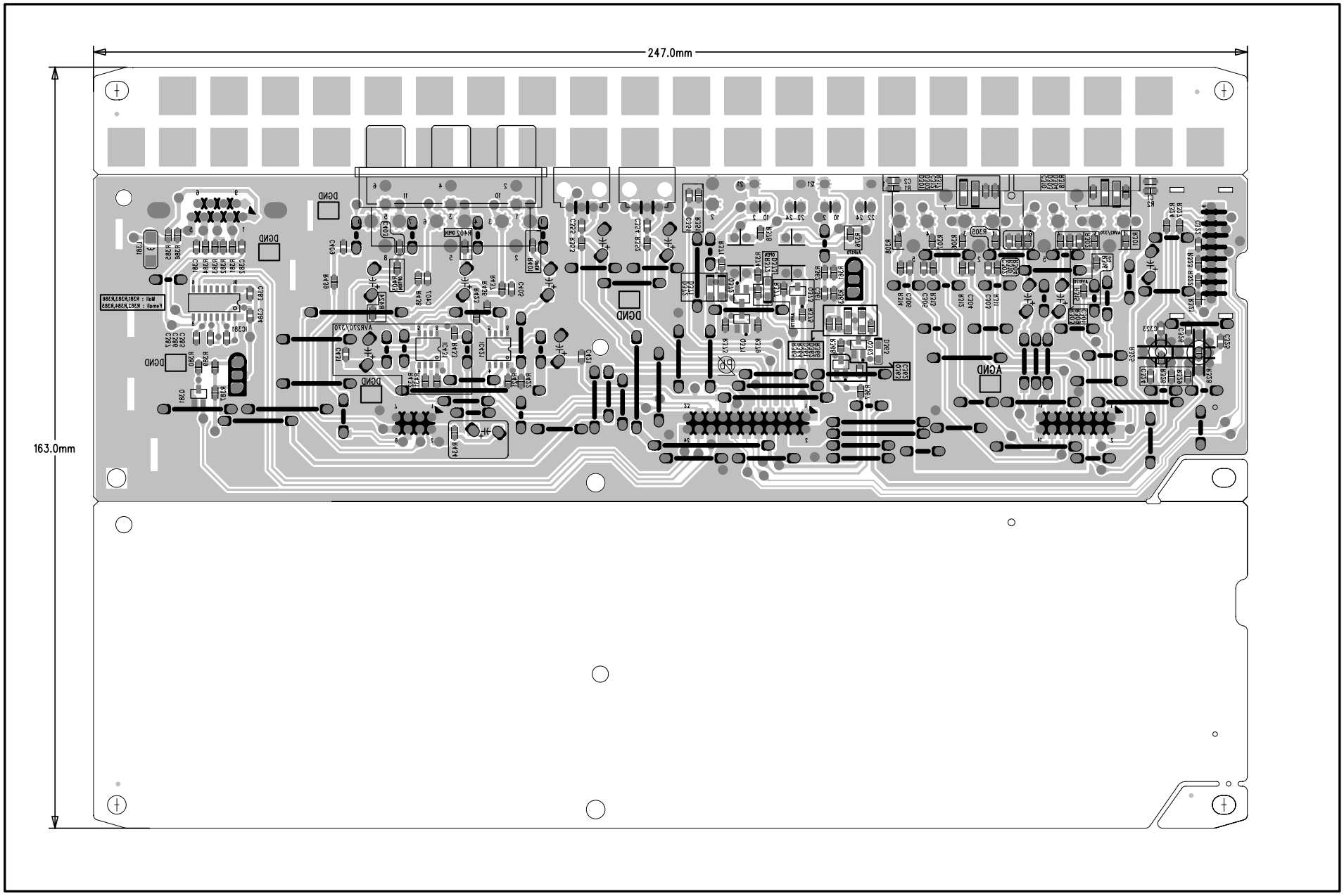
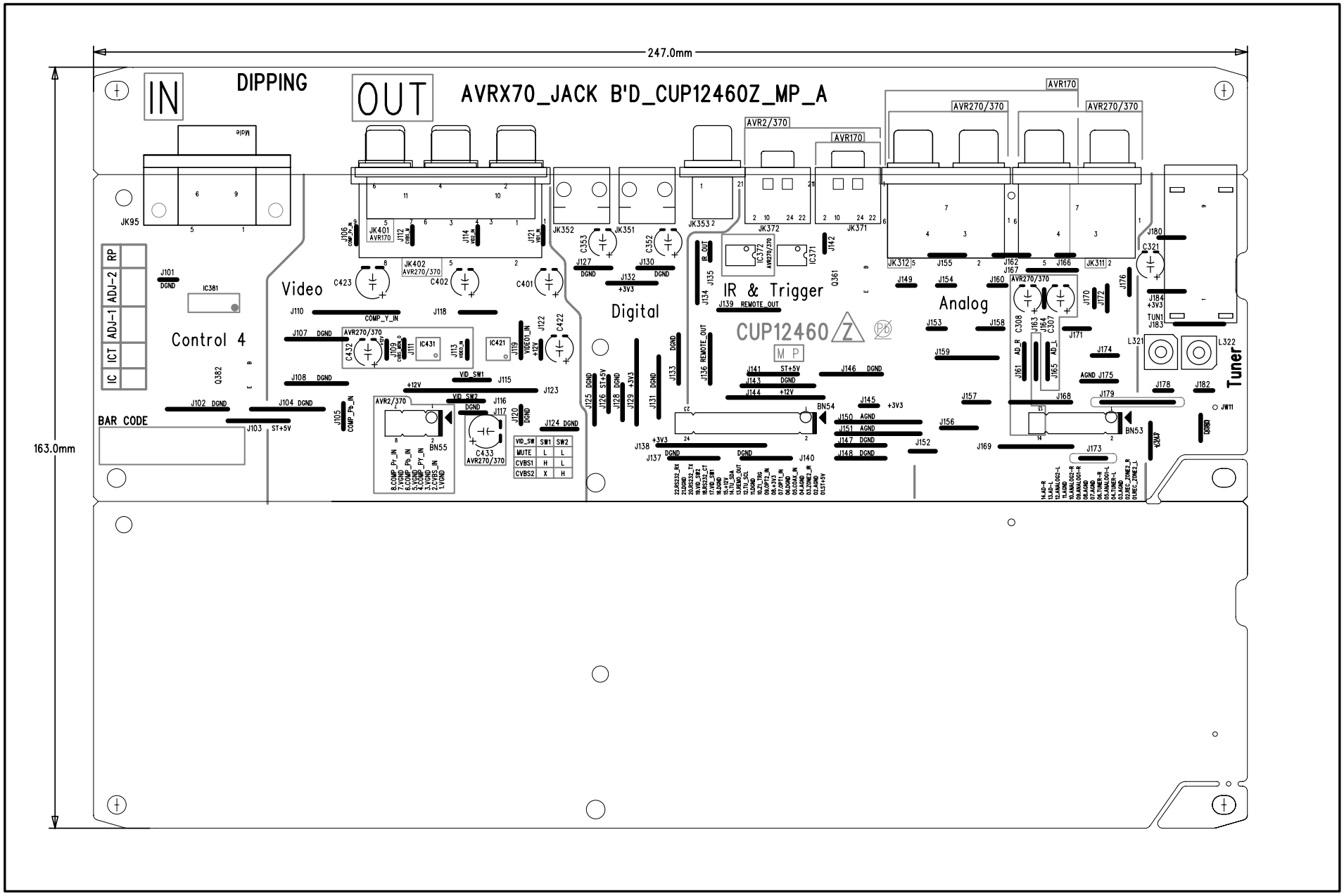
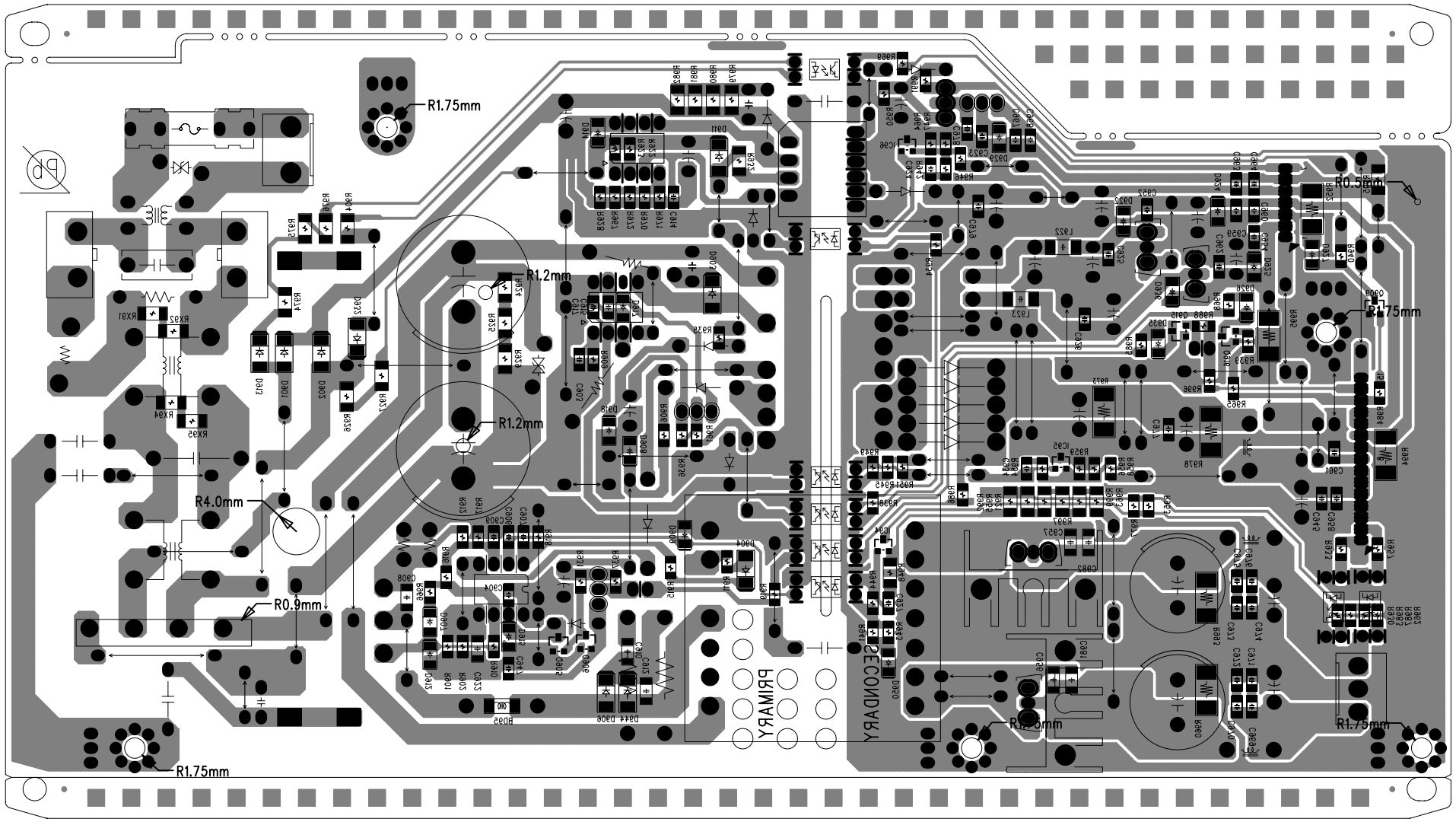
155.0mm

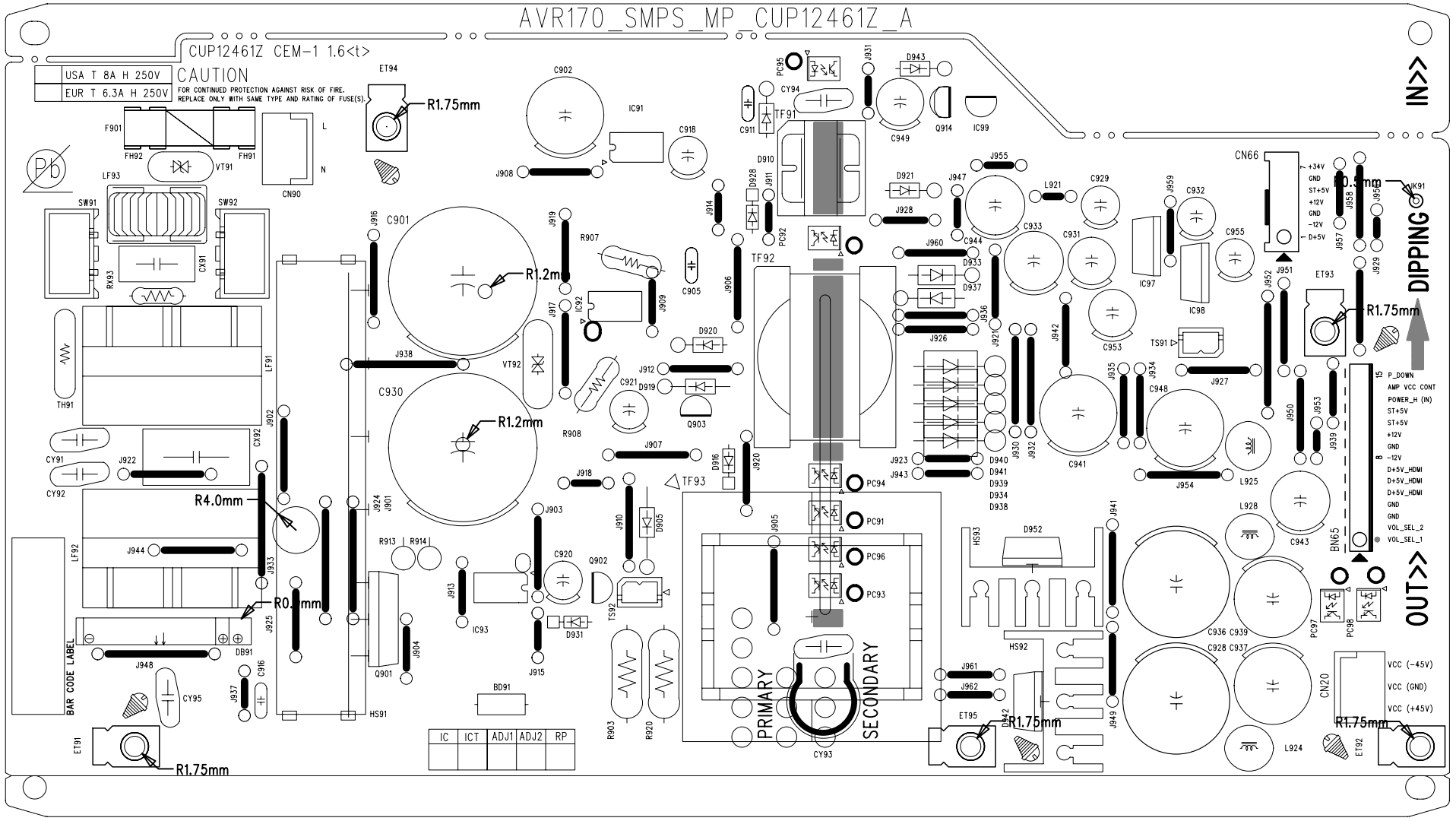



CNT/SL/SR/FL/FR
AVR170_MAIN_MP_CUP12458Z_A
DIPPING
CUP12458Z
C915
C916
FROM FAN
SL-CH
CNT-CH
SR-CH
FL-CH
FR-CH
CENTER BAR
OUT
IN
BAR CODE


247.0mm
163.0mm
DGND
AGND


247.0mm
163.0mm
IN
DIPPING
OUT
AVRX70_JACK B'D_CUP12460Z_MP_A
Video
Digital
IR & Trigger
Analog
Control 4
Tuner
BAR CODE
CUP12460Z
M P
AVR170
AVR270/370
AVR2/370
JK95
JK352
JK351
JK353
JK372
JK371
JK401
JK402
JK312
JK311
IC381
IC421
IC431
IC372
IC371
BN54
BN53
BN55
Q382
Q361
C353
C352
C423
C402
C401
C422
C432
C433
C308
C307
L321
L322
TUN1
VID_SW1
VID_SW2
COMP_Y_IN
COMP_Pb_IN
COMP_Pr_IN
REMOTE_OUT
IR_OUT
AD_R
AD_L
AGND
DGND
+12V
+3V3
ST+5V
VID_SW
SW1
SW2
MUTE
CVBS1
CVBS2


R1.75mm
R1.2mm
R1.2mm
R4.0mm
R0.9mm
R1.75mm
R0.5mm
R1.75mm
R1.75mm
R1.75mm
PRIMARY
SECONDARY


AVR170_SMPS_MP_CUP12461Z_A
CUP12461Z CEM-1 1.6<t>
USA T 8A H 250V
EUR T 6.3A H 250V
CAUTION
FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE(S).
IN>>
OUT>>
DIPPING
PRIMARY
SECONDARY
BAR CODE LABEL
R1.75mm
R1.2mm
R4.0mm
R0.3mm
IC | ICT | ADJ1 | ADJ2 | RP

Ref#	Component	Description	Qty	UM
	COP12357C	AVR17000 FRONT PCB ASS'Y	1	EA
C121	CCUS1H151JA	CAP, CHIP(1608, 50V/150pF)	1	EA
C151	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C161	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C213	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C214	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C311	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C322	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C431	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C441	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C442	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C451	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C456	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C504	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C522	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C531	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C533	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C553	CCUS1H821JA	CAP, CHIP(1608, 50V/820pF)	1	EA
C554	CCUS1H821JA	CAP, CHIP(1608, 50V/820pF)	1	EA
C601	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C602	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C603	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C604	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C605	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C631	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C651	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C652	CCUS1H471JA	CAP, CHIP(1608, 50V/470pF)	1	EA
C653	CCUS1H471JA	CAP, CHIP(1608, 50V/470pF)	1	EA
C714	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C732	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C751	CCUS1H222KC	CAP, CHIP(1608, 50V/2200pF)	1	EA
C752	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C753	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C754	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C801	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C802	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C813	CCUS1H470JA	CAP, CHIP(1608, 50V/47pF)	1	EA
C821	CCUS1H471JA	CAP, CHIP(1608, 50V/470pF)	1	EA
C822	CCUS1H151JA	CAP, CHIP(1608, 50V/150pF)	1	EA
C830	CCUS1H473KC	CAP, CHIP(1608, 50V/0.047uF)	1	EA
C911	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C912	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C923	CCUS1H681JA	CAP, CHIP(1608, 50V/680pF)	1	EA
C924	CCUS1H681JA	CAP, CHIP(1608, 50V/680pF)	1	EA
C951	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C952	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
D531	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D532	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D533	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D534	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA

D631	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D632	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D955	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
IC13	CVISN74ACT04DR	I.C , HEX INVERTERS(SOIC/D-14P)	1	EA
IC14	CVIAZ4580MTR-E1	EOL item I.C , OPAMP(DUAL/LOW NOISE)	1	EA
IC14	CVIAZ4580MTR-E1-CU	I.C , OPAMP(DUAL/LOW NOISE)_Copper	1	EA
IC91	HVTKTC812TB	T.R , CHIP(TS6)	1	EA
IC92	HVTKTC812TB	T.R , CHIP(TS6)	1	EA
L451	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
Q111	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
Q112	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
Q113	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
Q114	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
Q252	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
Q721	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
Q906	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
Q907	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
Q955	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
R101	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
R102	CRJ10DJ681T	RES, CHIP(1608/5%/680ohm)	1	EA
R104	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R108	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R109	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R110	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R111	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R112	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R113	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R122	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
R151	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R201	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R202	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R203	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R211	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R213	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
R214	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
R251	CRJ10DJ222T	RES, CHIP(1608/5%/2.2Kohm)	1	EA
R252	CRJ10DJ393T	RES, CHIP(1608/5%/39Kohm)	1	EA
R312	CRJ10DF1001T	RES, CHIP(1608/1%/1Kohm)	1	EA
R313	CRJ10DF1501T	RES, CHIP(1608/1%/1.5Kohm)	1	EA
R314	CRJ10DF1801T	RES, CHIP(1608/1%/1.8Kohm)	1	EA
R315	CRJ10DF2701T	RES, CHIP(1608/1%/2.7Kohm)	1	EA
R316	CRJ10DF3301T	RES, CHIP(1608/1%/3.3Kohm)	1	EA
R322	CRJ10DF1001T	RES, CHIP(1608/1%/1Kohm)	1	EA
R323	CRJ10DF1501T	RES, CHIP(1608/1%/1.5Kohm)	1	EA
R324	CRJ10DF1801T	RES, CHIP(1608/1%/1.8Kohm)	1	EA
R325	CRJ10DF2701T	RES, CHIP(1608/1%/2.7Kohm)	1	EA
R326	CRJ10DF3301T	RES, CHIP(1608/1%/3.3Kohm)	1	EA
R327	CRJ10DF5601T	RES, CHIP(1608/1%/5.6Kohm)	1	EA
R328	CRJ10DF5601T	RES, CHIP(1608/1%/5.6Kohm)	1	EA
R401	CRJ14CJ3R3T	RES, CHIP(3216/5%/3.3ohm)	1	EA
R402	CRJ14CJ2R2T	RES, CHIP(3216/5%/2.2ohm)	1	EA

R404	CRJ14CJ2R2T	RES, CHIP(3216/5%/2.2ohm)	1	EA
R431	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
R432	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
R451	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R452	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R453	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R454	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R455	CRJ14CJ101T	RES, CHIP(3216/5%/100ohm)	1	EA
R456	CRJ14CJ101T	RES, CHIP(3216/5%/100ohm)	1	EA
R457	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R551	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
R552	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
R553	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R554	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R558	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R559	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R560	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R561	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R601	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R602	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R603	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R604	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R605	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R651	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R652	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R653	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R654	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R655	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R701	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R702	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R703	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R711	CRJ10DJ470T	RES, CHIP(1608/5%/47ohm)	1	EA
R712	CRJ10DJ470T	RES, CHIP(1608/5%/47ohm)	1	EA
R713	CRJ10DJ470T	RES, CHIP(1608/5%/47ohm)	1	EA
R721	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R722	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R731	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
R735	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R741	CRJ10DJ123T	RES, CHIP(1608/5%/12Kohm)	1	EA
R742	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R800	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R811	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R812	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R813	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R821	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R822	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R823	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R834	CRJ10DJ222T	RES, CHIP(1608/5%/2.2Kohm)	1	EA
R835	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R836	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R900	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA

R901	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R902	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R921	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R922	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R923	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R924	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R925	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R926	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R931	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R932	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R933	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
R934	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
R935	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
R936	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
R941	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R942	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R943	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R944	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R955	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
ZD451	CVDUDZS5.6BSRH	DIODE , ZENER (CHIP,5.6V)	1	EA
ZD452	CVDUDZS5.6BSRH	DIODE , ZENER (CHIP,5.6V)	1	EA
ZD453	CVDUDZS5.6BSRH	DIODE , ZENER (CHIP,5.6V)	1	EA
C108	CCEA1AH471TC	CAP, ELECT(10V/470uF)	1	EA
C122	CCEA1AKS331TC	CAP, ELECT(10V/330uF)-S	1	EA
C152	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C251	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C252	CCEA1HKS2R2TC	CAP, ELECT(50V/2.2uF)-S	1	EA
C401	CCEA1HH470TC	CAP , ELECT (50V/47uF)	1	EA
C452	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C453	CCEA1JH470TCS	CAP , ELECT(63V/47uF),105'C	1	EA
C454	CCME2E273JX14T	CAP , POLYESTER FILM(250V/0.027UF, 5%)	1	EA
C455	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C515	CCEA0JH102TC	CAP, ELECT(6.3V/1000uF)	1	EA
C521	CCEA1AKS101TC	CAP, ELECT(10V/100uF)-S	1	EA
C721	CCEA1HKS2R2TC	CAP, ELECT(50V/2.2uF)-S	1	EA
C731	CCEA1AH471TC	CAP, ELECT(10V/470uF)	1	EA
C811	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C823	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C901	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C902	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C931	CCEA1CH331TC	CAP, ELECT(16V/330uF)	1	EA
C932	CCEA1CH331TC	CAP, ELECT(16V/330uF)	1	EA
C933	CCEA1EH470TC	CAP, ELECT(25V/47uF)	1	EA
C944	CCEA1EH470TC	CAP, ELECT(25V/47uF)	1	EA
Q251	HVTKTA1271YT	T.R	1	EA
S311	CST1A024ZT	SW , TACT	1	EA
S312	CST1A024ZT	SW , TACT	1	EA
S313	CST1A024ZT	SW , TACT	1	EA
S314	CST1A024ZT	SW , TACT	1	EA
S315	CST1A024ZT	SW , TACT	1	EA
S316	CST1A024ZT	SW , TACT	1	EA

S317	CST1A024ZT	SW , TACT	1	EA
S318	CST1A024ZT	SW , TACT	1	EA
S319	CST1A024ZT	SW , TACT	1	EA
S320	CST1A024ZT	SW , TACT	1	EA
S321	CST1A024ZT	SW , TACT	1	EA
S322	CST1A024ZT	SW , TACT	1	EA
S323	CST1A024ZT	SW , TACT	1	EA
S330	CST1A024ZT	SW , TACT	1	EA
	CQB1D022	A-ROHS/LABEL,SERIAL	1	EA
	C2K86002	SOLDER , BAR SN PB FREE	8.5	G
	C2K86102	SOLDER , FLUX WIRE PB FREE(PIE 1.0)	0.6	G
	C2K86162	SOLDER , FLUX WIRE PB FREE(PIE 1.6)	3	G
	C4FM073	TAPE , BOTH SIDE	0.03	M
	C8E534	FLUX	3.7	G
BK71	CMD1A572-V1	BRACKET , FIP	1	EA
BK72	CMD1A572-V1	BRACKET , FIP	1	EA
BN71	CWB1B007180HC	WIRE ASS'Y Locking (YH) (7P,2MM,180MM,#26)	1	EA
BN72	CWB1B00512077	WIRE ASS'Y (5PIN,2.0mm,120mm)	1	EA
BN73	CJP06GB142ZB	PIN HEADER(6P, 2.54mm)	1	EA
BN74	CJP06GB142ZB	PIN HEADER(6P, 2.54mm)	1	EA
BN75	CWB1C003350LC001	WIRE ASS'Y (3P,2.0mm,350mm,Shield)	1	EA
BN77	CWB1C207350LC001	WIRE ASS'Y (7P,2.0mm,350mm,Shield)_USB	1	EA
CN73	CJP06GB143ZB	FEMALE HEADER(6P, 2.54mm)	1	EA
CN74	CJP06GA221ZB	FEMALE HEADER (6P,2.54mm) , STRAIGHT TYPE	1	EA
D101	CVD1L0345W31BOCT2(	L.E.D , WHITE	1	EA
D102	CVD30ASOGCAA-S7	L.E.D , ORANGE	1	EA
D201	CVD1L0345W31BOCT2(	L.E.D , WHITE	1	EA
D202	CVD1L0345W31BOCT2(	L.E.D , WHITE	1	EA
D203	CVD1L0345W31BOCT2(	L.E.D , WHITE	1	EA
ET63	CMC2A325	PLATE , EARTH AVR155	1	EA
FIP1	CFL162BD01GINK	V.F.D	1	EA
IC12	CRVKSM603TE5B	SENSOR , REMOCON	1	EA
IC15	HVINJM4556AL	I.C , HEADPHONE (JRC)	1	EA
JK51	CJJ9X011Z	JACK, USB STRAIGHT(BLACK 1.5A)	1	EA
JK52	CJJ4N094Z	JACK , RCA(2P, WH/RD, NO SHIELD)	1	EA
JK63	CJJ2E026Z	JACK, PHONES(6.35mm,SILVER)	1	EA
JW20	CWE8202150RV	WIRE ASS'Y	1	EA
Q451	CVTKSD1691GSTU	T.R (HFE 200-400, TO-126, EPITAXIAL NPN)	1	EA
Q452	CVTKSD1691GSTU	T.R (HFE 200-400, TO-126, EPITAXIAL NPN)	1	EA
RL91	CSL4A016ZU	RELAY,BC3-12H,DC12V,2C2P	1	EA
TF94	CLT9Z079ZE	TRANS , DC-AC (AVR170/270/370)	1	EA
VR74	CSR2A037Z	ENCODER	1	EA
WF70	CJP23GA285ZN	WAFER,FPC 1.25mm,stright	1	EA
	CPE1A009	SHEET , BLIND	1	EA
	CTB3+10JR	SCREW	28	EA
	CTWS3+10GR	SCREW	1	EA
	CGX1A392C82	ORNAMENT , COVER	1	EA
	CKC9A145B64	CABINET , TOP AVR170	1	EA
	CQB1A1117Z	LABEL , POP	1	EA
	CQB1A549Y	LABEL , ATTENTION DVD48	1	EA
	CQB1A622	LABEL , SERIAL NO	1	EA

	CTB3+8JFZR	SCREW	15	EA
	CTB4+6FFZR	SCREW	6	EA
	CUAAVR1700	BOTTOM CHASSIS ASS'Y	1	EA
	CHD4A012R	SCREW , SPECIAL	4	EA
	CHE170	HOLDER , PCB	4	EA
	CHG1A373	CUSHION , FOOT AVR350	4	EA
	CHR301-V1	CLAMPER	2	EA
	CHS1A032	TAPE , HEMELON	4	EA
	CKF1A459W	PANEL , REAR AVR1700	1	EA
	CKL1A094	FOOT , A AVR350	2	EA
	CKL1A095	FOOT , B AVR350	2	EA
	CMD1A809	BRACKET , HDMI	2	EA
	CMD1A815	COVER , SCREW	1	EA

	COP12456C	AVR1700 DIGITAL PCB ASS'Y	1	EA
CN53	CJP12GA300ZB	PIN SOCKET,SMD(12PIN,2.54mm,8.5mm Height,STRAIGHT)	1	EA
CN54	CJP22GA300ZB	PIN SOCKET,SMD(22PIN,2.54mm,8.5mm Height,STRAIGHT)	1	EA
C1005	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1006	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1008	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1009	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1010	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1070	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1103	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1112	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1113	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1114	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1115	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1116	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1117	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1118	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1119	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1120	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1121	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1122	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1123	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1124	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1125	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1126	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1127	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1128	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1129	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1130	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1131	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1132	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1133	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1134	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1135	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1136	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1137	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1138	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA

C1139	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1140	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1141	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1142	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1143	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1144	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1145	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1146	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1147	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1148	CCUI1E103KC	CAP, CHIP(1005, 25V/0.01uF)	1	EA
C1149	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1150	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1151	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1171	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1203	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1212	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1213	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1214	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1215	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1216	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1224	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1225	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1226	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1227	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1229	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1231	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1232	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1234	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1235	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1241	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1242	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1243	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1244	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1245	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1246	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1247	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1248	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1249	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1250	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1251	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1252	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1253	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1254	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1255	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1256	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1257	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1258	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1259	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1260	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1261	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1262	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA

C1263	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1264	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1265	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1266	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1267	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1268	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1269	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1270	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1271	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1272	CCUI1H100JA	CAP, CHIP(1005, 50V/10pF)	1	EA
C1302	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1303	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1304	CCUS1A105KC	CAP, CHIP(1608, 10V/1uF)	1	EA
C1306	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C1308	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1321	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1322	CCUS1H471JA	CAP, CHIP(1608, 50V/470pF)	1	EA
C1323	CCUS1A105KC	CAP, CHIP(1608, 10V/1uF)	1	EA
C1326	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C1328	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1331	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1401	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1403	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1405	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1407	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1409	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1412	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1413	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1414	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1415	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1426	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1427	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1500	CCUS1H101JA	CAP, CHIP(1608, 50V/100pF)	1	EA
C1501	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1502	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1503	CCUS1H151JA	CAP, CHIP(1608, 50V/150pF)	1	EA
C1506	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1507	CCUS1H101JA	CAP, CHIP(1608, 50V/100pF)	1	EA
C1508	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1509	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1510	CCUS1H151JA	CAP, CHIP(1608, 50V/150pF)	1	EA
C1512	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1513	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C1514	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1515	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1516	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1517	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1518	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1521	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1522	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1523	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA

C1525	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1526	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1528	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1532	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C1533	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C1536	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1538	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1540	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1541	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1543	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1546	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1547	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1548	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1550	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1553	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1554	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1557	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1558	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1559	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1560	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1561	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1562	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1564	CCUS1H101JA	CAP, CHIP(1608, 50V/100pF)	1	EA
C1565	CCUS1H101JA	CAP, CHIP(1608, 50V/100pF)	1	EA
C1568	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1569	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1572	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1573	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1574	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1575	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1576	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1577	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1578	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1579	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1580	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1581	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1582	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1583	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1584	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1585	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1586	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1587	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1588	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1592	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1593	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1594	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1601	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C1602	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C1603	CCUS1H221JA	CAP, CHIP(1608, 50V/220pF)	1	EA
C1604	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1605	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA

C1608	CCUC1A225KC	CAP, CHIP(2012, 10V/2.2uF)	1	EA
C1609	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1610	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1611	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C1612	CCUC1A225KC	CAP, CHIP(2012, 10V/2.2uF)	1	EA
C1625	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1626	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1627	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1628	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1629	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1630	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1631	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1632	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1633	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1634	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1635	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1650	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1666	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1702	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1705	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1707	CCUS1H391JA	CAP, CHIP(1608, 50V/390pF)	1	EA
C1708	CCUS1H391JA	CAP, CHIP(1608, 50V/390pF)	1	EA
C1710	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1711	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1715	CCUS1H683KC	CAP, CHIP(1608, 50V/0.068uF)	1	EA
C1718	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1720	CCUS1H822KC	CAP, CHIP(1608, 50V/8200pF)	1	EA
C1721	CCUS1H391JA	CAP, CHIP(1608, 50V/390pF)	1	EA
C1724	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1725	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1729	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1732	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1734	CCUS1H391JA	CAP, CHIP(1608, 50V/390pF)	1	EA
C1735	CCUS1H391JA	CAP, CHIP(1608, 50V/390pF)	1	EA
C1737	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1738	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1742	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1743	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1750	CCUS1H101JA	CAP, CHIP(1608, 50V/100pF)	1	EA
C1751	CCUS1H101JA	CAP, CHIP(1608, 50V/100pF)	1	EA
C1754	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C1755	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C1757	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C1758	CCUS1H100JA	CAP, CHIP(1608, 50V/10pF)	1	EA
C1771	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C1778	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C1779	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
C1789	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1792	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1794	CCUS1H222KC	CAP, CHIP(1608, 50V/2200pF)	1	EA
C1795	CCUS1H222KC	CAP, CHIP(1608, 50V/2200pF)	1	EA

C1801	CCUS1H151JA	CAP, CHIP(1608, 50V/150pF)	1	EA
C1803	CCUS1H151JA	CAP, CHIP(1608, 50V/150pF)	1	EA
C1804	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1805	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1808	CCUS1H561JA	CAP, CHIP(1608, 50V/560pF)	1	EA
C1809	CCUS1H561JA	CAP, CHIP(1608, 50V/560pF)	1	EA
C1810	CCUS1H561JA	CAP, CHIP(1608, 50V/560pF)	1	EA
C1811	CCUS1H561JA	CAP, CHIP(1608, 50V/560pF)	1	EA
C1821	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1822	CCUS0J225KC	CAP, CHIP(1608, 6.3V/2.2uF)	1	EA
C1824	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1826	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
D1036	CVDRB521S-30H	DIODE, SCHOTTKY, 30V	1	EA
D1600	CVDBAR43C	DIODE, SCHOTTKY	1	EA
D1700	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D1703	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D1801	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D1802	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
IC1201	CVIH27U1G8F2BTR-BC	I.C, 1G NAND FLASH(48P-TSOP1)	1	EA
IC1506	CVICS4344CZZR	I.C , DAC(192kHz STEREO DAC /TSSOP 10)	1	EA
IC1602	CVIML61C282PR	I.C , RESET (2.8V , SOT-89)	1	EA
IC1711	CVIAZ4580MTR-E1	EOL item I.C , OPAMP(DUAL/LOW NOISE)	1	EA
IC1711	CVIAZ4580MTR-E1-CU	I.C , OPAMP(DUAL/LOW NOISE)_Copper	1	EA
IC1713	CVINJU7181RB1	IC , SIGNAL LEVEL SENSOR	1	EA
IC1714	CVIPCM5100PWR	I.C , 2CH DAC(32BIT,384KHZ,TSSOP-20P)	1	EA
IC1717	CVIAZ4580MTR-E1	EOL item I.C , OPAMP(DUAL/LOW NOISE)	1	EA
IC1717	CVIAZ4580MTR-E1-CU	I.C , OPAMP(DUAL/LOW NOISE)_Copper	1	EA
L1101	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1102	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1103	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1104	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1105	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1106	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1107	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1108	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1200	CLZ9R018V	FERRITE CHIP BEAD(2012/220R, CB05YTYH221)	1	EA
L1201	CLZ9R018V	FERRITE CHIP BEAD(2012/220R, CB05YTYH221)	1	EA
L1202	CLZ9R018V	FERRITE CHIP BEAD(2012/220R, CB05YTYH221)	1	EA
L1310	CLZ9R018V	FERRITE CHIP BEAD(2012/220R, CB05YTYH221)	1	EA
L1406	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1407	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1408	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1419	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1420	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1500	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1502	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1503	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1701	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
Q1001	CVTRT1N241C	T.R,RT1N241C(22K-22K)	1	EA
Q1007	CVTRT1N441C	T.R,RT1N441C(47K-47K)	1	EA
Q1008	CVTRT1N441C	T.R,RT1N441C(47K-47K)	1	EA

Q1101	CVTRT1N241C	T.R,RT1N241C(22K-22K)	1	EA
Q1107	CVTRT1N241C	T.R,RT1N241C(22K-22K)	1	EA
Q1400	CVTRT1N441C	T.R,RT1N441C(47K-47K)	1	EA
Q1500	CVTRT1N241C	T.R,RT1N241C(22K-22K)	1	EA
Q1603	CVTINC2001AC1	T.R , MUTE	1	EA
Q1604	CVT2SC3052	T.R,2SC3052	1	EA
Q1605	CVT2SC3052	T.R,2SC3052	1	EA
Q1606	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
Q1701	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
Q1702	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
Q1703	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
Q1704	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
Q1705	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
Q1706	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
Q2	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
Q3	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
RN1200	CRJ064IJ103T	RES, CHIP(1005/5%/10Kohm*4)	1	EA
RN1201	CRJ064IJ103T	RES, CHIP(1005/5%/10Kohm*4)	1	EA
RN1202	CRJ064IJ103T	RES, CHIP(1005/5%/10Kohm*4)	1	EA
RN1206	CRJ064IJ103T	RES, CHIP(1005/5%/10Kohm*4)	1	EA
RN1207	CRJ064IJ103T	RES, CHIP(1005/5%/10Kohm*4)	1	EA
RN1210	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1211	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1212	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1215	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1218	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1219	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1503	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
R1004	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1025	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1026	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1027	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1028	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1029	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1030	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1032	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1034	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1038	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1039	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1040	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1104	CRJ06IJ102T	RES, CHIP(1005/5%/1Kohm)	1	EA
R1126	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1127	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA
R1130	CRJ10DF1001T	RES, CHIP(1608/1%/1Kohm)	1	EA
R1131	CRJ10DF1001T	RES, CHIP(1608/1%/1Kohm)	1	EA
R1140	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1141	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1142	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1147	CRJ06IJ222T	RES, CHIP(1005/5%/2.2Kohm)	1	EA
R1148	CRJ06IJ222T	RES, CHIP(1005/5%/2.2Kohm)	1	EA
R1155	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA

R1156	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA
R1157	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA
R1158	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA
R1170	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1201	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1211	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1219	CRJ06IJ152T	RES, CHIP(1005/5%/1.5Kohm)	1	EA
R1222	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1223	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1224	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1226	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1231	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1232	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1233	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1302	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1303	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1304	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1305	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1318	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1319	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1323	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1325	CRJ10DF1501T	RES, CHIP(1608/1%/1.5Kohm)	1	EA
R1329	CRJ10DF1000T	RES, CHIP(1608/1%/100ohm)	1	EA
R1333	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1402	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1403	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1427	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1428	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1429	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1430	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1500	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1501	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1502	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R1503	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R1504	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
R1505	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
R1506	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1507	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1508	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R1509	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1510	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
R1511	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
R1512	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R1513	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R1514	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1515	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1516	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1517	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1518	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1519	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1520	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA

R1521	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1523	CRJ10DF1371T	RES, CHIP(1608/1%/1.37Kohm)	1	EA
R1524	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R1525	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R1526	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1527	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
R1534	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1535	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1536	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1540	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1544	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
R1545	CRJ10DF5101T	RES, CHIP(1608/1%/5.1Kohm)	1	EA
R1547	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1550	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1555	CRJ10DJ820T	RES, CHIP(1608/5%/82ohm)	1	EA
R1556	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1557	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1558	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1570	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1571	CRJ10DJ560T	RES, CHIP(1608/5%/56ohm)	1	EA
R1572	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1573	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1574	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
R1575	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1576	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
R1580	CRJ10DJ820T	RES, CHIP(1608/5%/82ohm)	1	EA
R1600	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1601	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1602	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1603	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1604	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1608	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1609	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1612	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1617	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1618	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1620	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1631	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
R1632	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
R1633	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1634	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1636	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1641	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1645	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1661	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1662	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1663	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1664	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1665	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R1666	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1667	CRJ10DJ225T	RES, CHIP(1608/5%/2.2Mohm)	1	EA

R1668	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1669	CRJ10DJ224T	RES, CHIP(1608/5%/220Kohm)	1	EA
R1674	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1675	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1677	CRJ10DJ203T	RES, CHIP(1608/5%/20Kohm)	1	EA
R1679	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1680	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1681	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1682	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1700	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1702	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1705	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
R1706	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1707	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1710	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1711	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
R1712	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1713	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1715	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1716	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1717	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1718	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1720	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1723	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
R1724	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1757	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1760	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1761	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1762	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1763	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1765	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1766	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1767	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1768	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1770	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1773	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
R1774	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1775	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1778	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1779	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
R1780	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1781	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1783	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1784	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1785	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1788	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1789	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1790	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
R1791	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
R1793	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
R1794	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA

R1795	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1796	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1798	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1800	CRJ10DJ561T	RES, CHIP(1608/5%/560ohm)	1	EA
R1801	CRJ10DJ561T	RES, CHIP(1608/5%/560ohm)	1	EA
R1803	CRJ10DJ561T	RES, CHIP(1608/5%/560ohm)	1	EA
R1804	CRJ10DJ222T	RES, CHIP(1608/5%/2.2Kohm)	1	EA
R1805	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1806	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1807	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1808	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1809	CRJ10DJ561T	RES, CHIP(1608/5%/560ohm)	1	EA
R1812	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
R1814	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
R1815	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1816	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1817	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1818	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1819	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1820	CRJ10DJ223T	RES, CHIP(1608/5%/22Kohm)	1	EA
R1821	CRJ10DJ224T	RES, CHIP(1608/5%/220Kohm)	1	EA
R1822	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1823	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1824	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1825	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1826	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1827	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1828	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1829	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1830	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1831	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1832	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
R1833	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
R1839	CRJ10DJ393T	RES, CHIP(1608/5%/39Kohm)	1	EA
R1840	CRJ10DJ393T	RES, CHIP(1608/5%/39Kohm)	1	EA
R1841	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1849	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1850	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
R1852	CRJ10DJ471T	RES, CHIP(1608/5%/470ohm)	1	EA
R1853	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1854	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1855	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1856	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1859	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1860	CRJ10DJ562T	RES, CHIP(1608/5%/5.6Kohm)	1	EA
R1861	CRJ10DJ122T	RES, CHIP(1608/5%/1.2Kohm)	1	EA
R1862	CRJ10DJ562T	RES, CHIP(1608/5%/5.6Kohm)	1	EA
R1863	CRJ10DJ122T	RES, CHIP(1608/5%/1.2Kohm)	1	EA
R1864	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1865	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1866	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA

R1867	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1872	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R1873	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1874	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1876	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
BN10	CJP03GA208ZY	WAFER , SMD (2MM PITCH)-3P	1	EA
CN10	CJP03GA208ZY	WAFER , SMD (2MM PITCH)-3P	1	EA
CN1000	CJP07GA193ZY	WAFER, FFC, SMD(07P-1mm, STRAIGHT)	1	EA
CN1200	CJP07GA193ZY	WAFER, FFC, SMD(07P-1mm, STRAIGHT)	1	EA
CN1602	CJP09GA193ZY	WAFER, FFC, SMD(09-1mm, STRAIGHT)	1	EA
CN1603	CJP07GA193ZY	WAFER, FFC, SMD(07P-1mm, STRAIGHT)	1	EA
CN52	CJP15GB276ZY	WAFER, 20037WR-NN Series, 2mm, SMD, ANGLE, 15P	1	EA
CN75	CJP03GA208ZY	WAFER , SMD (2MM PITCH)-3P	1	EA
CN76	CJP07GA208ZY	WAFER, 2mm, SMD, Vertical, 07p	1	EA
C1000	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1001	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1002	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1003	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1004	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1007	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1011	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1100	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1101	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1102	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1104	CCUS1H120JA	CAP, CHIP(1608, 50V/12pF)	1	EA
C1105	CCUS1H120JA	CAP, CHIP(1608, 50V/12pF)	1	EA
C1106	CCUS1A105KC	CAP, CHIP(1608, 10V/1uF)	1	EA
C1107	CCUS1A105KC	CAP, CHIP(1608, 10V/1uF)	1	EA
C1108	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1109	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1110	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1111	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1204	CCUS1H080DA	CAP, CHIP(1608, 50V/8pF)	1	EA
C1205	CCUS1H080DA	CAP, CHIP(1608, 50V/8pF)	1	EA
C1210	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1211	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1217	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1218	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1219	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1220	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1221	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1222	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1223	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1228	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1230	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1233	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1236	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1237	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1238	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1239	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
C1240	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA

C1300	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1301	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1305	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1307	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1315	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1316	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1317	CCUI1H102KC	CAP, CHIP(1005, 50V/1000pF)	1	EA
C1318	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1319	CCUI1H150JA	CAP, CHIP(1005, 50V/15pF)	1	EA
C1320	CCUI1H150JA	CAP, CHIP(1005, 50V/15pF)	1	EA
C1324	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1325	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1327	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1332	CCUS1A475KC	CAP, CHIP(1608, 10V/4.7uF)	1	EA
C1400	CCEC0JMVG221T	CAP,ALUMINUM ELECTROLYTIC (6.3V/220uF)	1	EA
C1402	CCEC0JMVG221T	CAP,ALUMINUM ELECTROLYTIC (6.3V/220uF)	1	EA
C1404	CCEC0JMVG221T	CAP,ALUMINUM ELECTROLYTIC (6.3V/220uF)	1	EA
C1406	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1408	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1410	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1411	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1416	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1417	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1418	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1419	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1422	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1423	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1424	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1425	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1428	CCUSSP1E106KC	CAP, CHIP(3216, 25V/10uF)	1	EA
C1429	CCUSSP1E106KC	CAP, CHIP(3216, 25V/10uF)	1	EA
C1430	CCUSSP1E106KC	CAP, CHIP(3216, 25V/10uF)	1	EA
C1431	CCUSSP1E106KC	CAP, CHIP(3216, 25V/10uF)	1	EA
C1432	CCUYAP0J226KC	CAP , CHIP (3216, 6.3V/22uF)	1	EA
C1433	CCUYAP0J226KC	CAP , CHIP (3216, 6.3V/22uF)	1	EA
C1434	CCUYAP0J226KC	CAP , CHIP (3216, 6.3V/22uF)	1	EA
C1435	CCUYAP0J226KC	CAP , CHIP (3216, 6.3V/22uF)	1	EA
C1440	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1441	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1442	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1443	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1445	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1446	CCEC0JMVG470T	CAP,ALUMINUM ELECTROLYTIC (6.3V/47uF)	1	EA
C1447	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1448	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1504	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1505	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1511	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1519	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1520	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1524	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA

C1527	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1529	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1530	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1531	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C1534	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1535	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1537	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1539	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1544	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1549	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1551	CCUS1H120JA	CAP, CHIP(1608, 50V/12pF)	1	EA
C1552	CCUS1H120JA	CAP, CHIP(1608, 50V/12pF)	1	EA
C1556	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1563	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1566	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1567	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1570	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1571	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1589	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1590	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1591	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1595	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1596	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1597	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1598	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1606	CCUS1H120JA	CAP, CHIP(1608, 50V/12pF)	1	EA
C1607	CCUS1H120JA	CAP, CHIP(1608, 50V/12pF)	1	EA
C1613	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1614	CCUS1H151JA	CAP, CHIP(1608, 50V/150pF)	1	EA
C1620	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1621	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1622	CCUS0J475KC	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)	1	EA
C1637	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1700	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1701	CCUS1H391JA	CAP, CHIP(1608, 50V/390pF)	1	EA
C1703	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1704	CCUS1H391JA	CAP, CHIP(1608, 50V/390pF)	1	EA
C1706	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1709	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1712	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1713	CCUS1H683KC	CAP, CHIP(1608, 50V/0.068uF)	1	EA
C1714	CCUS1H822KC	CAP, CHIP(1608, 50V/8200pF)	1	EA
C1716	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1717	CCUS1H391JA	CAP, CHIP(1608, 50V/390pF)	1	EA
C1719	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1722	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1723	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1726	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1727	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA
C1728	CCUS1H391JA	CAP, CHIP(1608, 50V/390pF)	1	EA
C1730	CCUS1H272KC	CAP, CHIP(1608, 50V/2700pF)	1	EA

C1731	CCUS1H391JA	CAP, CHIP(1608, 50V/390pF)	1	EA
C1733	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1736	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1739	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1740	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1741	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1744	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1745	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1746	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1747	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1748	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1749	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1752	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1753	CCEC1CMVG101T	CAP,ALUMINUM ELECTROLYTIC CAPACITORS(16V/100uF)	1	EA
C1756	CCUC1A226KC	CAP, CHIP(2012, 10V/22uF)	1	EA
C1759	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1760	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1767	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1768	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1769	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1770	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1772	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1773	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C1774	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1775	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1776	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1777	CCUS1H223KC	CAP, CHIP(1608, 50V/0.022uF)	1	EA
C1780	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1781	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1782	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1783	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1784	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1785	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1786	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1787	CCEC1CMVG471T	CAP,ALUMINUM ELECTROLYTIC (16V/470uF)	1	EA
C1788	CCEC1CMVG471T	CAP,ALUMINUM ELECTROLYTIC (16V/470uF)	1	EA
C1791	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1796	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1798	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1799	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C1800	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1802	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1806	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1807	CCEC1CMVG100T	CAP,ALUMINUM ELECTROLYTIC (16V/10uF)	1	EA
C1823	CCUS0J225KC	CAP, CHIP(1608, 6.3V/2.2uF)	1	EA
C1825	CCUC0J106KC	CAP, CHIP(2012, 6.3V/10uF, X5R)	1	EA
C1827	CCUI1C104KC	CAP, CHIP(1005, 16V/0.1uF)	1	EA
D1040	CVDRB521S-30H	DIODE, SCHOTTKY, 30V	1	EA
D1601	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D1602	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D1603	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA

D1701	CVD1SR159-200H	DIODE, SCHOTTKY	1	EA
D1702	CVD1SR159-200H	DIODE, SCHOTTKY	1	EA
IC1000	CVIADV3002BSTZ	I.C , HDMI MUX	1	EA
IC1001	CVITC74VHC4051AFT	I.C , DE/MUX (8CH ANALOG,TSSOP-16P)	1	EA
IC1100	CVIADV7623BSTZ_A	I.C , HDMI Transceiver (LQFP-144P)	1	EA
IC1101	CVIMX25L8006EM2I-12	I.C , SERIAL FLASH(8M)	1	EA
IC1102	CVITC74VCX541FT	I,C , OCTAL BUS BUFFER (TOSHIBA)	1	EA
IC1200	CVIDM860A-AQE-HK	I.C , Network Media processor(LFBGA-320P)	1	EA
IC1202	CVIW9825G6JH-6	I.C , 256M SDRAM	1	EA
IC1300	CVILAN8720ACPTR	I.C , Ethernet Transceiver(QFN-24P)	1	EA
IC1301	CVIISL54220IUZ-T	I.C , USB2.0 Multiplexer(TQFN-10P)	1	EA
IC1302	CVISY6288CAAC	IC, CURRENT LIMIT, 2A	1	EA
IC1304	CVIMFI337S3959-HK	IC, Apple iPod Authentication coprocessor 2.0c	1	EA
IC1401	CVIEML3418-00SE08GR	I.C , DCDC CONVERTER(SOP-8FD)	1	EA
IC1402	CVILM1117S12	I.C, REGULATOR(1.0A, 1.2V, SOT-223)	1	EA
IC1403	CVTTPC6111	MOSFET,TPC6111(P-CH,U-MOSV)	1	EA
IC1404	CVIEML3418-00SE08GR	I.C , DCDC CONVERTER(SOP-8FD)	1	EA
IC1405	CVIEML3418-00SE08GR	I.C , DCDC CONVERTER(SOP-8FD)	1	EA
IC1406	CVIEML3418-00SE08GR	I.C , DCDC CONVERTER(SOP-8FD)	1	EA
IC1440	CVTTPC6111	MOSFET,TPC6111(P-CH,U-MOSV)	1	EA
IC1500	CVICS497024CVZ	EOL item I.C , DSP (CIRRUS LOGIC)	1	EA
IC1501	HVICS42528-CQ	I.C , CODEC + DIR (CIRRUS LOGIC)	1	EA
IC1502	CVIM12L16161A5TG2Q	I.C, 16MB SDRAM(TSOP-50P)	1	EA
IC1503	CVITC74VCX541FT	I,C , OCTAL BUS BUFFER (TOSHIBA)	1	EA
IC1504	CVIMX25L8006EM2I-12	I.C , SERIAL FLASH(8M)	1	EA
IC1505	HVITC74VHC157FT	I.C, QUAD 2-CHANNEL MUX(TSSOP-16)	1	EA
IC1507	HVINJM2115MDTE1	IC, OP AMP	1	EA
IC1508	HVINJM2115MDTE1	IC, OP AMP	1	EA
IC1509	CVINJM2845DL118	I.C, REGULATOR(1.8V/TO-252)	1	EA
IC1600	CVISTM32F205ZGT6	I.C , FLASH MCU (32 BIT, 1MB, LQFP 144)	1	EA
IC1603	CVIM24C32WMN6TP	I.C , EEPROM (32 Kbit) ST	1	EA
IC1604	CRTLM94022BIMG	SENSOR , TEMPERATURE	1	EA
IC1605	CVIDB1510BT3TR33	I.C, REGULATOR(1.0A,3.3V,TO252-(1))	1	EA
IC1700	CVINJU72340AFH3	I.C , INPUT WITH 8CH VOLUME(52P LQFP)	1	EA
IC1701	CVIAZ4580MTR-E1	EOL item I.C , OPAMP(DUAL/LOW NOISE)	1	EA
IC1701	CVIAZ4580MTR-E1-CU	I.C , OPAMP(DUAL/LOW NOISE)_Copper	1	EA
IC1702	CVIAZ4580MTR-E1	EOL item I.C , OPAMP(DUAL/LOW NOISE)	1	EA
IC1702	CVIAZ4580MTR-E1-CU	I.C , OPAMP(DUAL/LOW NOISE)_Copper	1	EA
IC1703	CVIAZ4580MTR-E1	EOL item I.C , OPAMP(DUAL/LOW NOISE)	1	EA
IC1703	CVIAZ4580MTR-E1-CU	I.C , OPAMP(DUAL/LOW NOISE)_Copper	1	EA
IC1704	CVIAZ4580MTR-E1	EOL item I.C , OPAMP(DUAL/LOW NOISE)	1	EA
IC1704	CVIAZ4580MTR-E1-CU	I.C , OPAMP(DUAL/LOW NOISE)_Copper	1	EA
IC1705	CVIAZ4580MTR-E1	EOL item I.C , OPAMP(DUAL/LOW NOISE)	1	EA
IC1705	CVIAZ4580MTR-E1-CU	I.C , OPAMP(DUAL/LOW NOISE)_Copper	1	EA
IC1706	HVTKTC812TB	T.R , CHIP(TS6)	1	EA
IC1707	HVTKTC812TB	T.R , CHIP(TS6)	1	EA
IC1708	HVTKTC812TB	T.R , CHIP(TS6)	1	EA
IC1709	HVTKTC812TB	T.R , CHIP(TS6)	1	EA
IC1710	HVTKTC812TB	T.R , CHIP(TS6)	1	EA
IC1712	HVTKTC812TB	T.R , CHIP(TS6)	1	EA
IC1715	CVILM7808RTRL	IC, REGULATOR(1A, 8V)	1	EA

IC1716	CVILM7908RTRL	IC, REGULATOR(1A, -8V)	1	EA
JK1000	CJJ9H008Y	JACK, HDMI(TYPE-A, SMT-19P)	1	EA
JK1001	CJJ9H008Y	JACK, HDMI(TYPE-A, SMT-19P)	1	EA
JK1002	CJJ9H008Y	JACK, HDMI(TYPE-A, SMT-19P)	1	EA
JK1100	CJJ9H008Y	JACK, HDMI(TYPE-A, SMT-19P)	1	EA
JK1101	CJJ9H008Y	JACK, HDMI(TYPE-A, SMT-19P)	1	EA
JK1102	CJJ9H008Y	JACK, HDMI(TYPE-A, SMT-19P)	1	EA
JK1103	CJJ9H008Y	JACK, HDMI(TYPE-A, SMT-19P)	1	EA
JK1300	CJJ9L026Z	Jack, RJ-45 With TR (SMT)	1	EA
L1000	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1100	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1301	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1304	CLZ9Z127Z	COIL, CHOKE CHIP(2012/180R)	1	EA
L1306	CLZ9Z128Z	COIL, CHOKE CHIP(2012/90R)	1	EA
L1307	CLZ9Z128Z	COIL, CHOKE CHIP(2012/90R)	1	EA
L1308	CLZ9R018V	FERRITE CHIP BEAD(2012/220R, CB05YTYH221)	1	EA
L1309	CLZ9R018V	FERRITE CHIP BEAD(2012/220R, CB05YTYH221)	1	EA
L1311	CLZ9R018V	FERRITE CHIP BEAD(2012/220R, CB05YTYH221)	1	EA
L1400	CLQ12E100MRZ	COIL , SMD POWER (10uH/3A)	1	EA
L1403	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1404	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1405	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1409	CLQ18E1R5NRZ	COIL,SMD POWER(1.5uH/2A)	1	EA
L1410	CLQ18E1R5NRZ	COIL,SMD POWER(1.5uH/2A)	1	EA
L1411	CLQ18E1R5NRZ	COIL,SMD POWER(1.5uH/2A)	1	EA
L1412	CLQ18E1R5NRZ	COIL,SMD POWER(1.5uH/2A)	1	EA
L1415	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1416	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1421	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
L1422	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1430	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1501	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L1602	CLZ9R005V	FERRITE CHIP BEAD(1608/60R, CB03YTYH600)	1	EA
Q1000	CVTRT1P141C	T.R,RT1P141C(10K-10K)	1	EA
Q1002	CVTRT1P141C	T.R,RT1P141C(10K-10K)	1	EA
Q1003	CVTRT1N241C	T.R,RT1N241C(22K-22K)	1	EA
Q1004	CVTRT1P141C	T.R,RT1P141C(10K-10K)	1	EA
Q1005	CVTRT1N241C	T.R,RT1N241C(22K-22K)	1	EA
Q1100	CVTRT1P141C	T.R,RT1P141C(10K-10K)	1	EA
Q1102	CVTRT1P141C	T.R,RT1P141C(10K-10K)	1	EA
Q1103	CVTRT1N241C	T.R,RT1N241C(22K-22K)	1	EA
Q1104	CVTRT1P141C	T.R,RT1P141C(10K-10K)	1	EA
Q1105	CVTRT1N241C	T.R,RT1N241C(22K-22K)	1	EA
Q1200	CVTRT1P141C	T.R,RT1P141C(10K-10K)	1	EA
Q1201	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
Q1401	CVT2SA1954	T.R,2SA1954	1	EA
Q1402	CVTRT1N441C	T.R,RT1N441C(47K-47K)	1	EA
Q1440	CVTRT1N441C	T.R,RT1N441C(47K-47K)	1	EA
Q1600	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
Q1601	HVTKTA1504SYRTK	T.R , CHIP , SOT-23	1	EA
Q1602	HVTKTC3875SYRTK	T.R , CHIP , SOT-23	1	EA

Q1700	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
RN1100	CRJ104DJ330T	RES, CHIP(1608/5%/33ohm*4)	1	EA
RN1101	CRJ104DJ330T	RES, CHIP(1608/5%/33ohm*4)	1	EA
RN1102	CRJ104DJ330T	RES, CHIP(1608/5%/33ohm*4)	1	EA
RN1103	CRJ104DJ330T	RES, CHIP(1608/5%/33ohm*4)	1	EA
RN1104	CRJ104DJ220T	RES, CHIP(1608/5%/22ohm*4)	1	EA
RN1105	CRJ104DJ220T	RES, CHIP(1608/5%/22ohm*4)	1	EA
RN1203	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1204	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1205	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1208	CRJ064IJ103T	RES, CHIP(1005/5%/10Kohm*4)	1	EA
RN1209	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1213	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1214	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1216	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1217	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1300	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1301	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1302	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1500	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1501	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1502	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1504	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1505	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1506	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1507	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1508	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1510	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1511	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1512	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1513	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1514	CRJ064IJ330T	RES, CHIP(1005/5%/33ohm*4)	1	EA
RN1600	CRJ104DJ101T	RES, CHIP(1608/5%/100ohm*4)	1	EA
RN1601	CRJ104DJ101T	RES, CHIP(1608/5%/100ohm*4)	1	EA
RN1602	CRJ104DJ101T	RES, CHIP(1608/5%/100ohm*4)	1	EA
RN1603	CRJ104DJ101T	RES, CHIP(1608/5%/100ohm*4)	1	EA
RN1604	CRJ104DJ330T	RES, CHIP(1608/5%/33ohm*4)	1	EA
RN1605	CRJ104DJ330T	RES, CHIP(1608/5%/33ohm*4)	1	EA
R1000	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1001	CRJ06IJ102T	RES, CHIP(1005/5%/1Kohm)	1	EA
R1002	CRJ06IJ223T	RES, CHIP(1005/5%/22Kohm)	1	EA
R1003	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1005	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1006	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1007	CRJ06IJ102T	RES, CHIP(1005/5%/1Kohm)	1	EA
R1008	CRJ06IJ223T	RES, CHIP(1005/5%/22Kohm)	1	EA
R1009	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1010	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1011	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1012	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1013	CRJ06IJ102T	RES, CHIP(1005/5%/1Kohm)	1	EA

R1014	CRJ06IJ223T	RES, CHIP(1005/5%/22Kohm)	1	EA
R1015	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1016	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1017	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1018	CRJ06IJ222T	RES, CHIP(1005/5%/2.2Kohm)	1	EA
R1019	CRJ06IJ222T	RES, CHIP(1005/5%/2.2Kohm)	1	EA
R1020	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1021	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1022	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1035	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1041	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1050	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1051	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1052	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1100	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1101	CRJ06IJ102T	RES, CHIP(1005/5%/1Kohm)	1	EA
R1102	CRJ06IJ223T	RES, CHIP(1005/5%/22Kohm)	1	EA
R1103	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1105	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA
R1106	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1107	CRJ06IJ102T	RES, CHIP(1005/5%/1Kohm)	1	EA
R1108	CRJ06IJ223T	RES, CHIP(1005/5%/22Kohm)	1	EA
R1109	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1110	CRJ06IJ102T	RES, CHIP(1005/5%/1Kohm)	1	EA
R1111	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA
R1112	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1113	CRJ06IJ102T	RES, CHIP(1005/5%/1Kohm)	1	EA
R1114	CRJ06IJ223T	RES, CHIP(1005/5%/22Kohm)	1	EA
R1115	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1116	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA
R1117	CRJ06IJ102T	RES, CHIP(1005/5%/1Kohm)	1	EA
R1118	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1119	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1120	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1121	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1122	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1123	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1128	CRJ06IJ0R0T	RES, CHIP(1005/5%/0ohm)	1	EA
R1129	CRJ10DJ394T	RES, CHIP(1608/5%/390Kohm)	1	EA
R1132	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1133	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1134	CRJ10DF1601T	RES, CHIP(1608/1%/1.6Kohm)	1	EA
R1135	CRJ10DF2001T	RES, CHIP(1608/1%/2Kohm)	1	EA
R1136	CRJ10DF51R0T	RES, CHIP(1608/1%/51ohm)	1	EA
R1137	CRJ10DF51R0T	RES, CHIP(1608/1%/51ohm)	1	EA
R1138	CRJ10DJ5R1T	RES, CHIP(1608/5%/5.1ohm)	1	EA
R1143	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1144	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1145	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1146	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1149	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA

R1151	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1152	CRJ10DJ182T	RES, CHIP(1608/5%/1.8Kohm)	1	EA
R1153	CRJ10DJ182T	RES, CHIP(1608/5%/1.8Kohm)	1	EA
R1154	CRJ06IJ473T	RES, CHIP(1005/5%/47Kohm)	1	EA
R1159	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1160	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1161	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1202	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1203	CRJ06IJ152T	RES, CHIP(1005/5%/1.5Kohm)	1	EA
R1204	CRJ06IJ102T	RES, CHIP(1005/5%/1Kohm)	1	EA
R1205	CRJ06IJ123T	RES, CHIP(1005/5%/12Kohm)	1	EA
R1206	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1207	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1208	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1209	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R1210	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
R1212	CRJ06IJ182T	RES, CHIP(1005/5%/1.8Kohm)	1	EA
R1213	CRJ06IJ122T	RES, CHIP(1005/5%/1.2Kohm)	1	EA
R1220	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1221	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1225	CRJ06IJ101T	RES, CHIP(1005/5%/100ohm)	1	EA
R1234	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1236	CRJ06IJ472T	RES, CHIP(1005/5%/4.7Kohm)	1	EA
R1238	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1241	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1242	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1243	CRJ06IJ272T	RES, CHIP(1005/5%/2.7Kohm)	1	EA
R1244	CRJ06IJ152T	RES, CHIP(1005/5%/1.5Kohm)	1	EA
R1300	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1301	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1308	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R1309	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R1312	CRJ06IJ100T	RES, CHIP(1005/5%/10ohm)	1	EA
R1313	CRJ10DJ510T	RES, CHIP(1608/5%/51ohm)	1	EA
R1314	CRJ10DJ510T	RES, CHIP(1608/5%/51ohm)	1	EA
R1315	CRJ10DJ510T	RES, CHIP(1608/5%/51ohm)	1	EA
R1316	CRJ10DJ510T	RES, CHIP(1608/5%/51ohm)	1	EA
R1317	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1321	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1327	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1328	CRJ10DF1202T	RES, CHIP(1608/1%/12Kohm)	1	EA
R1331	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1401	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1404	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1405	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1406	CRJ10DF1502T	RES, CHIP(1608/1%/15Kohm)	1	EA
R1407	CRJ10DF6802T	RES, CHIP(1608/1%/68Kohm)	1	EA
R1408	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1409	CRJ10DF1002T	RES, CHIP(1608/1%/10Kohm)	1	EA
R1410	CRJ10DJ203T	RES, CHIP(1608/5%/20Kohm)	1	EA
R1411	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA

R1412	CRJ10DF1502T	RES, CHIP(1608/1%/15Kohm)	1	EA
R1413	CRJ10DF6802T	RES, CHIP(1608/1%/68Kohm)	1	EA
R1414	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1415	CRJ10DF1002T	RES, CHIP(1608/1%/10Kohm)	1	EA
R1416	CRJ10DF4702T	RES, CHIP(1608/1%/47Kohm)	1	EA
R1418	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1419	CRJ06IJ332T	RES, CHIP(1005/5%/3.3Kohm)	1	EA
R1420	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1421	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1422	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1423	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1424	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1425	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1426	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1431	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1440	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1441	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1460	CRJ14CJ0R0T	RES, CHIP(3216/5%/0ohm)	1	EA
R1461	CRJ14CJ0R0T	RES, CHIP(3216/5%/0ohm)	1	EA
R1522	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1528	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1529	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1530	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1531	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1532	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1533	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1537	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1538	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1541	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1542	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1543	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1546	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1548	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
R1549	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1551	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1552	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1553	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1554	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1559	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1560	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1561	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1562	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1563	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1564	CRJ06IJ820T	RES, CHIP(1005/5%/82ohm)	1	EA
R1565	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1567	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1568	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1590	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1591	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1592	CRJ06IJ330T	RES, CHIP(1005/5%/33ohm)	1	EA
R1605	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA

R1606	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
R1607	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1610	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1611	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1614	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1615	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1619	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1621	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
R1622	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
R1623	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1624	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1625	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1626	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1627	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1628	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1639	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1640	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1642	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1643	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1644	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1646	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1647	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1648	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1649	CRJ10DJ100T	RES, CHIP(1608/5%/10ohm)	1	EA
R1650	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1651	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1652	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1653	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1654	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1671	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1672	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R1676	CRJ10DJ330T	RES, CHIP(1608/5%/33ohm)	1	EA
R1690	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R1701	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1703	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1704	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
R1708	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
R1709	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1714	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1719	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1721	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1722	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
R1758	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R1759	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1764	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1769	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA
R1771	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1772	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
R1776	CRJ10DJ682T	RES, CHIP(1608/5%/6.8Kohm)	1	EA
R1777	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R1782	CRJ10DJ332T	RES, CHIP(1608/5%/3.3Kohm)	1	EA

R1786	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1787	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1792	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1797	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1799	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1802	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1810	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1811	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1813	CRJ10DJ392T	RES, CHIP(1608/5%/3.9Kohm)	1	EA
R1836	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R1837	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R1838	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R1845	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
R1848	CRJ10DJ271T	RES, CHIP(1608/5%/270ohm)	1	EA
R1851	CRJ06IJ103T	RES, CHIP(1005/5%/10Kohm)	1	EA
R1857	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1858	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R1875	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
WF61	CJP23GA299ZN	WAFER, FFC, SMD(23P-1.25mm, STRAIGHT)	1	EA
WF70	CJP23GA299ZN	WAFER, FFC, SMD(23P-1.25mm, STRAIGHT)	1	EA
X1100	COX28636I120ST	X-TAL, SMD 3.2X2.5, 28.636MHz, 12PF	1	EA
X1200	COX24000I080ST	X-TAL, SMD 3.2X2.5, 24.000MHz, 8PF	1	EA
X1500	COX24576I120ST	X-TAL, SMD 3.2X2.5, 24.576MHz, 12PF	1	EA
X1600	COX25000I120ST	X-TAL, SMD 3.2X2.5, 25.000MHz, 12PF	1	EA
	CQB1D022	A-ROHS/LABEL,SERIAL	1	EA

	COP12458C	AVR1700 MAIN PCB ASS'Y	1	EA
C726	CCUS1H221JA	CAP, CHIP(1608, 50V/220pF)	1	EA
C924	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C927	CCUS1H102KC	CAP, CHIP(1608, 50V/1000pF)	1	EA
D501	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D502	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D503	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D504	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D802	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D803	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D903	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D973	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D974	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D981	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
Q541	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q542	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q543	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q544	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q681	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q682	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q683	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q684	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q801	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q824	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q911	CVTMMBT5401	High Voltage PNP Transistors(SOT-23)	1	EA

Q912	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q913	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q937	CVTMMBT5401	High Voltage PNP Transistors(SOT-23)	1	EA
Q938	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
Q939	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
Q940	CVTMMBT5401	High Voltage PNP Transistors(SOT-23)	1	EA
Q941	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q942	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q945	CVTMMBT5551	High Voltage NPN Transistors(SOT-23)	1	EA
Q960	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
R686	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R687	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R688	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R689	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R706	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R801	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R901	CRJ10DJ272T	RES, CHIP(1608/5%/2.7Kohm)	1	EA
R902	CRJ10DJ333T	RES, CHIP(1608/5%/33Kohm)	1	EA
R917	CRJ14CJ473T	RES, CHIP(3216/5%/47Kohm)	1	EA
R918	CRJ14CJ473T	RES, CHIP(3216/5%/47Kohm)	1	EA
R919	CRJ14CJ473T	RES, CHIP(3216/5%/47Kohm)	1	EA
R920	CRJ14CJ473T	RES, CHIP(3216/5%/47Kohm)	1	EA
R925	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R927	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R928	CRJ10DJ333T	RES, CHIP(1608/5%/33Kohm)	1	EA
R939	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R940	CRJ10DJ152T	RES, CHIP(1608/5%/1.5Kohm)	1	EA
R971	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R972	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R986	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R989	CRJ10DJ302T	RES, CHIP(1608/5%/3Kohm)	1	EA
C501	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C502	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C503	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C504	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C506	CCKT1H331KB	CAP, CERAMIC(50V/330pF/K)	1	EA
C507	CCKT1H331KB	CAP, CERAMIC(50V/330pF/K)	1	EA
C508	CCKT1H331KB	CAP, CERAMIC(50V/330pF/K)	1	EA
C509	CCKT1H331KB	CAP, CERAMIC(50V/330pF/K)	1	EA
C561	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C562	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C563	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C564	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C566	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C567	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C568	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C569	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C571	CCBS1H271KBT	CAP , CERAMIC(270PF/50V)	1	EA
C572	CCBS1H271KBT	CAP , CERAMIC(270PF/50V)	1	EA
C573	CCBS1H271KBT	CAP , CERAMIC(270PF/50V)	1	EA
C574	CCBS1H271KBT	CAP , CERAMIC(270PF/50V)	1	EA

C601	CCCT1H120JC	CAP, CERAMIC(50V/12pF/J)	1	EA
C602	CCCT1H120JC	CAP, CERAMIC(50V/12pF/J)	1	EA
C603	CCCT1H120JC	CAP, CERAMIC(50V/12pF/J)	1	EA
C604	CCCT1H120JC	CAP, CERAMIC(50V/12pF/J)	1	EA
C606	CCCT1H330JC	CAP, CERAMIC(50V/33pF/J)	1	EA
C607	CCCT1H330JC	CAP, CERAMIC(50V/33pF/J)	1	EA
C608	CCCT1H330JC	CAP, CERAMIC(50V/33pF/J)	1	EA
C609	CCCT1H330JC	CAP, CERAMIC(50V/33pF/J)	1	EA
C631	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C632	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C633	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C634	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C636	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C637	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C638	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C639	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C681	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C682	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C683	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C684	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C716	CCEA1CH220TC	CAP, ELECT(16V/22uF)	1	EA
C801	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C803	CCCT1H330JC	CAP, CERAMIC(50V/33pF/J)	1	EA
C805	CCCT1H120JC	CAP, CERAMIC(50V/12pF/J)	1	EA
C807	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C808	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C811	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C813	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C815	CCKT1H331KB	CAP, CERAMIC(50V/330pF/K)	1	EA
C817	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C819	CCBS1H271KBT	CAP , CERAMIC(270PF/50V)	1	EA
C852	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C854	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C855	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C856	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C857	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C900	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C901	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C910	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C917	CCEA1JH470TC	CAP , ELECT(63V/47uF)	1	EA
C918	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C919	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C925	CCEA1HH2R2TC	CAP, ELECT(50V/2.2uF)	1	EA
C931	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C932	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C939	CCEA1HH4R7TC	CAP, ELECT(50V/4.7uF)	1	EA
C940	CCEA1AH471TC	CAP, ELECT(10V/470uF)	1	EA
C971	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA
C972	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA
C973	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA
C980	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA

C981	HCQI1H562JZT	CAP, MYLAR(50V/5600pF/J)	1	EA
C990	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C992	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C993	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C995	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
C997	HCQI1H473JZT	CAP, MYLAR(50V/0.047uF/J)	1	EA
D581	CVD1SS133MT	DIODE , SWITCHING	1	EA
D582	CVD1SS133MT	DIODE , SWITCHING	1	EA
D583	CVD1SS133MT	DIODE , SWITCHING	1	EA
D584	CVD1SS133MT	DIODE , SWITCHING	1	EA
D801	CVD1SS133MT	DIODE , SWITCHING	1	EA
D902	HVDMTZJ3.3BT	DIODE , ZENER	1	EA
D954	CVD1N4003SRT	DIODE , RECT	1	EA
D955	CVD1N4003SRT	DIODE , RECT	1	EA
G901	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
J101	C3A206	WIRE , COPPER	0.018	M
Q501	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q502	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q503	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q504	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q511	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q512	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q513	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q514	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q516	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q517	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q518	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q519	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q556	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q557	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q558	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q559	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q561	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q562	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q563	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q564	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q601	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q602	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q603	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q604	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q812	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q813	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q816	CVTKSA992FTA	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q818	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q819	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q820	CVTKSC1845FTA	NPN, TO-92, LOW NOISE, HFE:300-600, FAILCHILD	1	EA
Q961	HVTKTA1024YT	T.R	1	EA
R501	CRD20TJ433T	RES, CARBON(1/5W,43Kohm,J)	1	EA
R502	CRD20TJ433T	RES, CARBON(1/5W,43Kohm,J)	1	EA
R504	CRD20TJ433T	RES, CARBON(1/5W,43Kohm,J)	1	EA
R505	CRD20TJ433T	RES, CARBON(1/5W,43Kohm,J)	1	EA

R506	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R507	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R508	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R509	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R511	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
R512	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
R513	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
R514	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
R516	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
R517	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
R518	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
R519	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
R521	CRD20TJ471T	RES, CARBON(1/5W,470ohm,J)	1	EA
R522	CRD20TJ471T	RES, CARBON(1/5W,470ohm,J)	1	EA
R523	CRD20TJ471T	RES, CARBON(1/5W,470ohm,J)	1	EA
R524	CRD20TJ471T	RES, CARBON(1/5W,470ohm,J)	1	EA
R531	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
R532	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
R533	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
R534	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
R536	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
R537	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
R538	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
R539	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
R541	CRD20TJ271T	RES, CARBON(1/5W,270ohm,J)	1	EA
R542	CRD20TJ271T	RES, CARBON(1/5W,270ohm,J)	1	EA
R543	CRD20TJ271T	RES, CARBON(1/5W,270ohm,J)	1	EA
R544	CRD20TJ271T	RES, CARBON(1/5W,270ohm,J)	1	EA
R556	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R557	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R558	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R559	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R561	CRD20TJ222T	RES, CARBON(1/5W,2.2Kohm,J)	1	EA
R562	CRD20TJ222T	RES, CARBON(1/5W,2.2Kohm,J)	1	EA
R563	CRD20TJ222T	RES, CARBON(1/5W,2.2Kohm,J)	1	EA
R564	CRD20TJ222T	RES, CARBON(1/5W,2.2Kohm,J)	1	EA
R566	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R567	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R568	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R569	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R571	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R572	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R573	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R574	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R576	CRD20TJ100T	RES, CARBON(1/5W,10ohm,J)	1	EA
R577	CRD20TJ100T	RES, CARBON(1/5W,10ohm,J)	1	EA
R578	CRD20TJ100T	RES, CARBON(1/5W,10ohm,J)	1	EA
R579	CRD20TJ100T	RES, CARBON(1/5W,10ohm,J)	1	EA
R581	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R582	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R583	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA

R584	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R586	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R587	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R588	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R589	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R591	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R592	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R593	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R594	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R596	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R597	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R598	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R599	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R601	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
R602	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
R603	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
R604	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
R606	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
R607	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
R608	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
R609	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
R611	CRD20TJ100T	RES, CARBON(1/5W,10ohm,J)	1	EA
R631	CRD25FJ180T	RES , CARBON (18 OHM) NONFLAMMABLE	1	EA
R632	CRD25FJ180T	RES , CARBON (18 OHM) NONFLAMMABLE	1	EA
R633	CRD25FJ180T	RES , CARBON (18 OHM) NONFLAMMABLE	1	EA
R634	CRD25FJ180T	RES , CARBON (18 OHM) NONFLAMMABLE	1	EA
R636	CRD25FJ180T	RES , CARBON (18 OHM) NONFLAMMABLE	1	EA
R637	CRD25FJ180T	RES , CARBON (18 OHM) NONFLAMMABLE	1	EA
R638	CRD25FJ180T	RES , CARBON (18 OHM) NONFLAMMABLE	1	EA
R639	CRD25FJ180T	RES , CARBON (18 OHM) NONFLAMMABLE	1	EA
R646	CRD25FJ3R3T	RES , CARBON	1	EA
R647	CRD25FJ3R3T	RES , CARBON	1	EA
R648	CRD25FJ3R3T	RES , CARBON	1	EA
R649	CRD25FJ3R3T	RES , CARBON	1	EA
R651	CRD25FJ3R3T	RES , CARBON	1	EA
R652	CRD25FJ3R3T	RES , CARBON	1	EA
R653	CRD25FJ3R3T	RES , CARBON	1	EA
R654	CRD25FJ3R3T	RES , CARBON	1	EA
R666	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
R667	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
R668	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
R669	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
R671	CRD20TJ472T	RES, CARBON(1/5W,4.7Kohm,J)	1	EA
R672	CRD20TJ472T	RES, CARBON(1/5W,4.7Kohm,J)	1	EA
R673	CRD20TJ472T	RES, CARBON(1/5W,4.7Kohm,J)	1	EA
R674	CRD20TJ472T	RES, CARBON(1/5W,4.7Kohm,J)	1	EA
R676	CRD25TJ182T	RES, CARBON(1/4W,1.8Kohm,J)	1	EA
R677	CRD25TJ182T	RES, CARBON(1/4W,1.8Kohm,J)	1	EA
R678	CRD25TJ182T	RES, CARBON(1/4W,1.8Kohm,J)	1	EA
R679	CRD25TJ182T	RES, CARBON(1/4W,1.8Kohm,J)	1	EA
R681	CRD20TJ562T	RES, CARBON(1/5W,5.6Kohm,J)	1	EA

R682	CRD20TJ562T	RES, CARBON(1/5W,5.6Kohm,J)	1	EA
R683	CRD20TJ562T	RES, CARBON(1/5W,5.6Kohm,J)	1	EA
R684	CRD20TJ562T	RES, CARBON(1/5W,5.6Kohm,J)	1	EA
R696	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
R697	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
R698	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
R699	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
R711	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R712	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R713	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R714	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R715	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R716	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R717	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R718	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R719	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R720	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R721	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R722	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R723	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R724	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R725	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R726	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R727	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R728	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R729	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R730	CRG2SANJR47RT	RES, M-OXIDE FILM(2W/0.47ohm)	1	EA
R771	CRD20TJ750T	RES, CARBON(1/5W,75ohm,J)	1	EA
R772	CRD20TJ750T	RES, CARBON(1/5W,75ohm,J)	1	EA
R773	CRD20TJ750T	RES, CARBON(1/5W,75ohm,J)	1	EA
R774	CRD20TJ750T	RES, CARBON(1/5W,75ohm,J)	1	EA
R776	CRD20TJ750T	RES, CARBON(1/5W,75ohm,J)	1	EA
R781	CRD20TJ750T	RES, CARBON(1/5W,75ohm,J)	1	EA
R782	CRD20TJ750T	RES, CARBON(1/5W,75ohm,J)	1	EA
R783	CRD20TJ750T	RES, CARBON(1/5W,75ohm,J)	1	EA
R784	CRD20TJ750T	RES, CARBON(1/5W,75ohm,J)	1	EA
R786	CRD20TJ750T	RES, CARBON(1/5W,75ohm,J)	1	EA
R803	CRD20TJ562T	RES, CARBON(1/5W,5.6Kohm,J)	1	EA
R805	CRD20TJ472T	RES, CARBON(1/5W,4.7Kohm,J)	1	EA
R808	CRD25TJ182T	RES, CARBON(1/4W,1.8Kohm,J)	1	EA
R812	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
R813	CRD25TJ470T	RES, CARBON(1/4W,47ohm,J)	1	EA
R817	CRD25FJ3R3T	RES , CARBON	1	EA
R818	CRD25FJ3R3T	RES , CARBON	1	EA
R821	CRD25FJ180T	RES , CARBON (18 OHM) NONFLAMMABLE	1	EA
R822	CRD25FJ180T	RES , CARBON (18 OHM) NONFLAMMABLE	1	EA
R830	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
R831	CRD20TJ223T	RES, CARBON(1/5W,22Kohm,J)	1	EA
R834	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R835	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R836	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA

R837	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R842	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R843	CRD20TJ561T	RES, CARBON(1/5W,560ohm,J)	1	EA
R848	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R850	CRD20TJ222T	RES, CARBON(1/5W,2.2Kohm,J)	1	EA
R852	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
R853	CRD20TJ152T	RES, CARBON(1/5W,1.5Kohm,J)	1	EA
R856	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
R857	CRD20TJ101T	RES, CARBON(1/5W,100ohm,J)	1	EA
R860	CRD20TJ271T	RES, CARBON(1/5W,270ohm,J)	1	EA
R862	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R870	CRD20TJ433T	RES, CARBON(1/5W,43Kohm,J)	1	EA
R872	CRD20TJ471T	RES, CARBON(1/5W,470ohm,J)	1	EA
R875	CRD20TJ331T	RES, CARBON(1/5W,330ohm,J)	1	EA
R877	CRD20TJ331T	RES, CARBON(1/5W,330ohm,J)	1	EA
R878	CRD20TJ331T	RES, CARBON(1/5W,330ohm,J)	1	EA
R879	CRD20TJ331T	RES, CARBON(1/5W,330ohm,J)	1	EA
R880	CRD20TJ331T	RES, CARBON(1/5W,330ohm,J)	1	EA
R883	CRD20TJ122T	RES, CARBON(1/5W,1.2Kohm,J)	1	EA
R885	CRD20TJ122T	RES, CARBON(1/5W,1.2Kohm,J)	1	EA
R886	CRD20TJ122T	RES, CARBON(1/5W,1.2Kohm,J)	1	EA
R887	CRD20TJ122T	RES, CARBON(1/5W,1.2Kohm,J)	1	EA
R888	CRD20TJ122T	RES, CARBON(1/5W,1.2Kohm,J)	1	EA
R891	CRD20TJ391T	RES, CARBON(1/5W,390ohm,J)	1	EA
R893	CRD20TJ391T	RES, CARBON(1/5W,390ohm,J)	1	EA
R894	CRD20TJ391T	RES, CARBON(1/5W,390ohm,J)	1	EA
R896	CRD20TJ391T	RES, CARBON(1/5W,390ohm,J)	1	EA
R897	CRD20TJ391T	RES, CARBON(1/5W,390ohm,J)	1	EA
R908	CRD20TJ333T	RES, CARBON(1/5W,33Kohm,J)	1	EA
R909	CRD20TJ333T	RES, CARBON(1/5W,33Kohm,J)	1	EA
R933	CRD20TJ472T	RES, CARBON(1/5W,4.7Kohm,J)	1	EA
R941	CRD20TJ103T	RES, CARBON(1/5W,10Kohm,J)	1	EA
R942	CRD20TJ103T	RES, CARBON(1/5W,10Kohm,J)	1	EA
R944	CRD20TJ103T	RES, CARBON(1/5W,10Kohm,J)	1	EA
R946	CRD20TJ103T	RES, CARBON(1/5W,10Kohm,J)	1	EA
R947	CRD20TJ103T	RES, CARBON(1/5W,10Kohm,J)	1	EA
R951	CRD20TJ1R0T	RES, CARBON(1/5W,1ohm,J)	1	EA
R954	CRD20TJ102T	RES, CARBON(1/5W,1Kohm,J)	1	EA
R955	CRD20TJ564T	RES, CARBON(1/5W,560Kohm,J)	1	EA
R960	CRD20TJ472T	RES, CARBON(1/5W,4.7Kohm,J)	1	EA
R961	CRD20TJ331T	RES, CARBON(1/5W,330ohm,J)	1	EA
R962	CRD20TJ273T	RES, CARBON(1/5W,27Kohm,J)	1	EA
R966	CRD20TJ472T	RES, CARBON(1/5W,4.7Kohm,J)	1	EA
R967	CRD20TJ103T	RES, CARBON(1/5W,10Kohm,J)	1	EA
R970	C3A206	WIRE , COPPER	0.018	M
R990	CRG1SANJ100RT	RES, M-OXIDE FILM(1W/10ohm)	1	EA
R993	CRG1SANJ100RT	RES, M-OXIDE FILM(1W/10ohm)	1	EA
R995	CRG1SANJ100RT	RES, M-OXIDE FILM(1W/10ohm)	1	EA
R997	CRG1SANJ100RT	RES, M-OXIDE FILM(1W/10ohm)	1	EA
R999	CRG1SANJ100RT	RES, M-OXIDE FILM(1W/10ohm)	1	EA
VR82	CVN12A221B03T	RES , SEMI FIXED (220 OHM)	1	EA

VR84	CVN12A221B03T	RES , SEMI FIXED (220 OHM)	1	EA
VR85	CVN12A221B03T	RES , SEMI FIXED (220 OHM)	1	EA
VR86	CVN12A221B03T	RES , SEMI FIXED (220 OHM)	1	EA
VR87	CVN12A221B03T	RES , SEMI FIXED (220 OHM)	1	EA
	CHD1A012R	SCREW , SPECIAL	15	EA
	CHD4A012R	SCREW , SPECIAL	1	EA
	CMD1A802	BRACKET,H/S PCB	2	EA
	CMD1A810	BRACKET , PAC	2	EA
	CMY1A383-V1	HEAT SINK	1	EA
	CTB3+8JR	SCREW	8	EA
Q652	HVT2SB1560	T.R , POWER	1	EA
Q653	HVT2SB1560	T.R , POWER	1	EA
Q654	HVT2SB1560	T.R , POWER	1	EA
Q657	HVT2SD2390	T.R , POWER	1	EA
Q658	HVT2SD2390	T.R , POWER	1	EA
Q659	HVT2SD2390	T.R , POWER	1	EA
Q660	HVT2SD2390	T.R , POWER	1	EA
Q661	HVT2SB1560	T.R , POWER	1	EA
Q803	HVT2SD2390	T.R , POWER	1	EA
Q804	HVT2SB1560	T.R , POWER	1	EA
Q852	HVTKTD600KGR	T.R , BIAS	1	EA
Q854	HVTKTD600KGR	T.R , BIAS	1	EA
Q855	HVTKTD600KGR	T.R , BIAS	1	EA
Q856	HVTKTD600KGR	T.R , BIAS	1	EA
Q857	HVTKTD600KGR	T.R , BIAS	1	EA
BN60	CWB3FE03320UZ	WIRE ASS'Y (3P, 320mm)	1	EA
CN10	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
CN61	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
CN62	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
CN63	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
CN64	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
CN66	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
C915	CCET63VLP332NC	CAP , ELECT (3300uF/63V, 85'C)	1	EA
C916	CCET63VLP332NC	CAP , ELECT (3300uF/63V, 85'C)	1	EA
ET01	CWE5202080A	WIRE ASS'Y (1P, 80MM,BLK,#22)	1	EA
JK91	CJJ5R006Z	TERMINAL , SPEAKER	1	EA
JK92	CJJ5P020Z	TERMINAL , SPEAKER	1	EA
L501	CLEY0R5KAK	COIL , SPEAKER(0.5uH)	1	EA
L502	CLEY0R5KAK	COIL , SPEAKER(0.5uH)	1	EA
L503	CLEY0R5KAK	COIL , SPEAKER(0.5uH)	1	EA
L504	CLEY0R5KAK	COIL , SPEAKER(0.5uH)	1	EA
L506	CLEY0R5KAK	COIL , SPEAKER(0.5uH)	1	EA
Q858	HVTKTA1360Y	T.R , PRE DRIVE	1	EA
Q871	HVTKTA1360Y	T.R , PRE DRIVE	1	EA
Q872	HVTKTA1360Y	T.R , PRE DRIVE	1	EA
Q874	HVTKTA1360Y	T.R , PRE DRIVE	1	EA
Q876	HVTKTA1360Y	T.R , PRE DRIVE	1	EA
Q881	HVTKTC3423Y	T.R , PRE DRIVE	1	EA
Q882	HVTKTC3423Y	T.R , PRE DRIVE	1	EA
Q883	HVTKTC3423Y	T.R , PRE DRIVE	1	EA
Q884	HVTKTC3423Y	T.R , PRE DRIVE	1	EA

Q886	HVTKTC3423Y	T.R , PRE DRIVE	1	EA
R937	CRF5EKR10HS	RES , CEMENT (SMALL SIZE)	1	EA
R938	CRF5EKR10HS	RES , CEMENT (SMALL SIZE)	1	EA
WF61	CJP23GA115ZY	WAFER, FFC(23P-1.25mm, STRAIGHT)	1	EA

	COP12460B	AVR1700 JACK PCB ASS'Y	1	EA
C1	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C2	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C301	CCUS1H221JA	CAP, CHIP(1608, 50V/220pF)	1	EA
C302	CCUS1H221JA	CAP, CHIP(1608, 50V/220pF)	1	EA
C303	CCUS1H221JA	CAP, CHIP(1608, 50V/220pF)	1	EA
C304	CCUS1H221JA	CAP, CHIP(1608, 50V/220pF)	1	EA
C305	CCUS1H221JA	CAP, CHIP(1608, 50V/220pF)	1	EA
C306	CCUS1H221JA	CAP, CHIP(1608, 50V/220pF)	1	EA
C310	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C312	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C322	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C351	CCUS1H181JA	CAP, CHIP(1608, 50V/180pF)	1	EA
C354	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C355	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C361	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C362	CCUS1H103KC	CAP, CHIP(1608, 50V/0.01uF)	1	EA
C381	CCUS1H220JA	CAP, CHIP(1608, 50V/22pF)	1	EA
C382	CCUS1H220JA	CAP, CHIP(1608, 50V/22pF)	1	EA
C383	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C384	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C385	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C386	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C387	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
C403	CCUS1H680JA	CAP, CHIP(1608, 50V/68pF)	1	EA
C421	CCUS1H104KC	CAP, CHIP(1608, 50V/0.1uF)	1	EA
D301	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D302	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D303	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D304	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D361	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D362	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
D363	CVD1SS355T	DIODE , CHIP , SWITCHING	1	EA
IC381	CVIILX3232DT	I.C, RS232 (3.3V)	1	EA
IC421	HVINJM2244MTE1	I.C , VIDEO SWITCH	1	EA
L381	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
Q362	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
Q363	CVTRT1P141C	T.R,RT1P141C(10K-10K)	1	EA
Q373	CVTRT1P144C	T.R,RT1P144C(10K-47K)	1	EA
Q381	CVTRT1N144C	T.R,RT1N144C(10K-47K)	1	EA
R1	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R2	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R303	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R304	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R305	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R306	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA

R307	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R308	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R309	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R310	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R311	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R312	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R313	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R314	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R315	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R316	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R321	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R322	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R323	CRJ10DJ472T	RES, CHIP(1608/5%/4.7Kohm)	1	EA
R324	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R325	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R326	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R327	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R328	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R329	CRJ10DJ104T	RES, CHIP(1608/5%/100Kohm)	1	EA
R351	CRJ10DJ750T	RES, CHIP(1608/5%/75ohm)	1	EA
R352	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R353	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R361	CRJ10DJ1R0T	RES, CHIP(1608/5%/1ohm)	1	EA
R362	CRJ10DJ1R0T	RES, CHIP(1608/5%/1ohm)	1	EA
R363	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R364	CRJ10DJ4R7T	RES, CHIP(1608/5%/4.7ohm)	1	EA
R365	CRJ10DJ4R7T	RES, CHIP(1608/5%/4.7ohm)	1	EA
R366	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R367	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R368	CRJ10DJ102T	RES, CHIP(1608/5%/1Kohm)	1	EA
R375	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R376	CRJ10DJ221T	RES, CHIP(1608/5%/220ohm)	1	EA
R377	CRJ10DJ473T	RES, CHIP(1608/5%/47Kohm)	1	EA
R380	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R382	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R384	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R385	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R387	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R389	CRJ10DJ103T	RES, CHIP(1608/5%/10Kohm)	1	EA
R401	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R402	CRJ10DJ101T	RES, CHIP(1608/5%/100ohm)	1	EA
R403	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
R421	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
R422	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
R423	CRJ10DJ105T	RES, CHIP(1608/5%/1Mohm)	1	EA
R424	CRJ10DJ0R0T	RES, CHIP(1608/5%/0ohm)	1	EA
C321	CCEA1CH101TC	CAP, ELECT(16V/100uF)	1	EA
C401	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C402	CCEA1HH100TC	CAP, ELECT(50V/10uF)	1	EA
C423	CCEA1AH471TC	CAP, ELECT(10V/470uF)	1	EA
Q361	HVTKTA1266YT	T.R	1	EA

Q382	HVTKTA1266YT	T.R	1	EA
	CQB1D022	A-ROHS/LABEL,SERIAL	1	EA
BN53	CJP12GA301ZB	PIN HEADER, DIP(12P, 2.54mm, H :36.9mm, STRAIGHT)	1	EA
BN54	CJP22GA301ZB	PIN HEADER, DIP(22P, 2.54mm, H :36.9mm, STRAIGHT)	1	EA
IC371	BVIKP1010B	IC, PHOTO COUPLER (COSMO)	1	EA
JK312	CJJ4R019W	TERMINAL , IN/OUT	1	EA
JK351	CJSJSR2124-00-BBBN	MODULE , OPTICAL(RX 25MHz)	1	EA
JK352	CJSJSR2124-00-BBBN	MODULE , OPTICAL(RX 25MHz)	1	EA
JK353	CJJ4M044X	JACK , RCA (1P,RCA-115A-04)	1	EA
JK371	HJJ1D002Z	JACK , STEREO(2P 3.5PIE)	1	EA
JK401	CJJ4S010Z	JACK , BOARD	1	EA
JK95	CJJ9W001Z	JACK, 9P D-SUB FEMALE(RS-232C)	1	EA
JW11	CWE5202080A	WIRE ASS'Y (1P, 80MM,BLK,#22)	1	EA
TUN1	CNVMW104MV1R78	MODULE , TUNER (AM/FM WITH RDS)	1	EA
	COP12461C	AVR1700 SMPS PCB ASS'Y	1	EA
C903	CCUC1H474KC	CAP, CHIP(2012, 50V/0.47uF)	1	EA
C904	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C906	CCUC1H222KC	CAP, CHIP(2012, 50V/2200pF)	1	EA
C907	CCUC1H101JA	CAP, CHIP(2012, 50V/100pF)	1	EA
C908	CCUP3A471JA	CAP, CHIP(3216, 1KV/470pF, X7R)	1	EA
C909	CCUC1H821JA	CAP, CHIP(2012, 50V/820pF, NPO)	1	EA
C910	CCUP3A222KC	CAP, CHIP(3216, 1KV/2200pF, X7R)	1	EA
C914	CCUC1H472KC	CAP, CHIP(2012, 50V/4700pF)	1	EA
C915	CCUC1H105KC	CAP, CHIP(2012, 50V/1uF)	1	EA
C917	CCUC1H472KC	CAP, CHIP(2012, 50V/4700pF)	1	EA
C922	CCUP3A222KC	CAP, CHIP(3216, 1KV/2200pF, X7R)	1	EA
C923	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C924	CCUC1H222KC	CAP, CHIP(2012, 50V/2200pF)	1	EA
C925	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C926	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C927	CCUC1H105KC	CAP, CHIP(2012, 50V/1uF)	1	EA
C934	CCUC1H105KC	CAP, CHIP(2012, 50V/1uF)	1	EA
C945	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C947	CCUC1H105KC	CAP, CHIP(2012, 50V/1uF)	1	EA
C952	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C954	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C956	CCUP3A102KC	CAP, CHIP(3216, 1KV/1000pF, X7R)	1	EA
C957	CCUP3A102KC	CAP, CHIP(3216, 1KV/1000pF, X7R)	1	EA
C958	CCUC1H103KC	CAP, CHIP(2012, 50V/0.01uF)	1	EA
C959	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C960	CCUC1H103KC	CAP, CHIP(2012, 50V/0.01uF)	1	EA
C961	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C962	CCUC1H103KC	CAP, CHIP(2012, 50V/0.01uF)	1	EA
C963	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C964	CCUC1H103KC	CAP, CHIP(2012, 50V/0.01uF)	1	EA
C967	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C968	CCUC1H103KC	CAP, CHIP(2012, 50V/0.01uF)	1	EA
C969	CCUC1H224KC	CAP, CHIP(2012, 50V/0.22uF)	1	EA
C970	CCUC1H223KC	CAP, CHIP(2012, 50V/0.022uF, X7R)	1	EA
C971	CCUC1H224KC	CAP, CHIP(2012, 50V/0.22uF)	1	EA

C972	CCUC1H223KC	CAP, CHIP(2012, 50V/0.022uF, X7R)	1	EA
C973	CCUC1H224KC	CAP, CHIP(2012, 50V/0.22uF)	1	EA
C974	CCUC1H223KC	CAP, CHIP(2012, 50V/0.022uF, X7R)	1	EA
C975	CCUC1H224KC	CAP, CHIP(2012, 50V/0.22uF)	1	EA
C976	CCUC1H223KC	CAP, CHIP(2012, 50V/0.022uF, X7R)	1	EA
C977	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C978	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
C979	CCUC1H104KC	CAP, CHIP(2012, 50V/0.1uF)	1	EA
D901	CVDS1M	DIODE, SURFACE MOUNT RECTIFIER(1000V/1A)	1	EA
D902	CVDS1M	DIODE, SURFACE MOUNT RECTIFIER(1000V/1A)	1	EA
D903	CVDUS1M	DIODE , ULTRA FAST RECTIFIER	1	EA
D904	CVDUS1M	DIODE , ULTRA FAST RECTIFIER	1	EA
D906	CVDUS1M	DIODE , ULTRA FAST RECTIFIER	1	EA
D907	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
D908	CVDMM1Z24H	DIODE , ZENER(24V/0.5W, SOD-123)	1	EA
D909	CVDMM1Z20H	DIODE , ZENER(20V/0.5W, SOD-123)	1	EA
D911	CVDUS1M	DIODE , ULTRA FAST RECTIFIER	1	EA
D912	CVDMM1Z27H	DIODE , ZENER(27V/0.5W, SOD-123)	1	EA
D913	CVDS1M	DIODE, SURFACE MOUNT RECTIFIER(1000V/1A)	1	EA
D914	CVDMM1Z18H	DIODE , ZENER(18V/0.5W, SOD-123)	1	EA
D917	CVDMM1Z16H	DIODE , ZENER(16V/0.5W, SOD-123)	1	EA
D918	CVDMM1Z16H	DIODE , ZENER(16V/0.5W, SOD-123)	1	EA
D922	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
D924	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
D925	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
D926	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
D927	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
D929	CVDMM1Z10H	DIODE , ZENER(10V/0.5W, SOD-123)	1	EA
D932	CVDS1M	DIODE, SURFACE MOUNT RECTIFIER(1000V/1A)	1	EA
D935	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
D936	CVD1N4448W	DIODE , FAST SWITCHING(0.5W, SOD-123)	1	EA
D944	CVDUS1M	DIODE , ULTRA FAST RECTIFIER	1	EA
D950	CVDMM1Z20H	DIODE , ZENER(20V/0.5W, SOD-123)	1	EA
IC94	CVIKA431SAMF2	I.C , SHUNT REGULATOR(SOT-23F)	1	EA
IC95	CVIKA431SAMF2	I.C , SHUNT REGULATOR(SOT-23F)	1	EA
IC96	CVIKA431SAMF2	I.C , SHUNT REGULATOR(SOT-23F)	1	EA
L922	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
L923	CLZ9Z014Z	FERRITE , CHIP BEAD(4516/60R)	1	EA
Q905	CVT2SC6046T1121W	T.R (NPN, SOT-23, ISAHAYA)	1	EA
Q906	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
Q909	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
Q915	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
Q916	CVTRT1N141C	T.R,RT1N141C(10K-10K)	1	EA
R901	CRJ18AJ104T	RES, CHIP(2012/5%/100Kohm)	1	EA
R902	CRJ18AJ104T	RES, CHIP(2012/5%/100Kohm)	1	EA
R904	CRJ14CJ0R0T	RES, CHIP(3216/5%/0ohm)	1	EA
R906	CRJ18AJ390T	RES, CHIP(2012/5%/39ohm)	1	EA
R910	CRJ18AJ330T	RES, CHIP(2012/5%/33ohm)	1	EA
R911	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
R912	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
R915	CRJ18AJ363T	RES, CHIP(2012/5%/36Kohm)	1	EA

R916	CRJ18AJ153T	RES, CHIP(2012/5%/15Kohm)	1	EA
R917	CRJ18AJ122T	RES, CHIP(2012/5%/1.2Kohm)	1	EA
R918	CRJ18AJ432T	RES, CHIP(2012/5%/4.3Kohm)	1	EA
R919	CRJ18AJ103T	RES, CHIP(2012/5%/10Kohm)	1	EA
R921	CRJ14CF5602T	RES, CHIP(3216/1%/56Kohm)	1	EA
R922	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
R923	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
R924	CRJ14CJ125T	RES, CHIP(3216/5%/1.2Mohm)	1	EA
R925	CRJ14CJ125T	RES, CHIP(3216/5%/1.2Mohm)	1	EA
R926	CRJ14CJ125T	RES, CHIP(3216/5%/1.2Mohm)	1	EA
R927	CRJ14CJ125T	RES, CHIP(3216/5%/1.2Mohm)	1	EA
R928	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
R929	CRJ14CJ125T	RES, CHIP(3216/5%/1.2Mohm)	1	EA
R930	CRJ18AF4702T	RES, CHIP(2012/1%/47Kohm)	1	EA
R931	CRJ18AJ153T	RES, CHIP(2012/5%/15Kohm)	1	EA
R932	CRJ14CJ4R7T	RES, CHIP(3216/5%/4.7ohm)	1	EA
R933	CRJ18AJ181T	RES, CHIP(2012/5%/180ohm)	1	EA
R934	CRJ18AJ561T	RES, CHIP(2012/5%/560ohm)	1	EA
R935	CRJ18AJ220T	RES, CHIP(2012/5%/22ohm)	1	EA
R936	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
R937	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
R938	CRJ18AJ561T	RES, CHIP(2012/5%/560ohm)	1	EA
R939	CRJ18AJ470T	RES, CHIP(2012/5%/47ohm)	1	EA
R940	CRJ18AJ153T	RES, CHIP(2012/5%/15Kohm)	1	EA
R941	CRJ18AJ622T	RES, CHIP(2012/5%/6.2Kohm)	1	EA
R942	CRJ18AJ222T	RES, CHIP(2012/5%/2.2Kohm)	1	EA
R943	CRJ18AJ622T	RES, CHIP(2012/5%/6.2Kohm)	1	EA
R944	CRJ18AJ472T	RES, CHIP(2012/5%/4.7Kohm)	1	EA
R945	CRJ18AJ561T	RES, CHIP(2012/5%/560ohm)	1	EA
R946	CRJ18AF1002T	RES, CHIP(2012/1%/10Kohm)	1	EA
R947	CRJ18AF1002T	RES, CHIP(2012/1%/10Kohm)	1	EA
R948	CRJ14CJ0R0T	RES, CHIP(3216/5%/0ohm)	1	EA
R950	CRJ18AJ224T	RES, CHIP(2012/5%/220Kohm)	1	EA
R952	CRJ01HJ101T	RES, CHIP(6432/5%/100ohm)	1	EA
R953	CRJ18AF1302T	RES, CHIP(2012/1%/13Kohm)	1	EA
R954	CRJ18AJ472T	RES, CHIP(2012/5%/4.7Kohm)	1	EA
R955	CRJ14CF5602T	RES, CHIP(3216/1%/56Kohm)	1	EA
R956	CRJ18AJ513T	RES, CHIP(2012/5%/51Kohm)	1	EA
R957	CRJ18AJ181T	RES, CHIP(2012/5%/180ohm)	1	EA
R958	CRJ18AF5601T	RES, CHIP(2012/1%/5.6Kohm)	1	EA
R959	CRJ18AF5601T	RES, CHIP(2012/1%/5.6Kohm)	1	EA
R960	CRJ01HJ752T	RES, CHIP(6432/5%/7.5Kohm)	1	EA
R961	CRJ18AJ103T	RES, CHIP(2012/5%/10Kohm)	1	EA
R962	CRJ18AF1962T	RES, CHIP(2012/1%/19.6Kohm)	1	EA
R963	CRJ14CJ0R0T	RES, CHIP(3216/5%/0ohm)	1	EA
R965	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
R966	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
R967	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
R968	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
R969	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
R970	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA

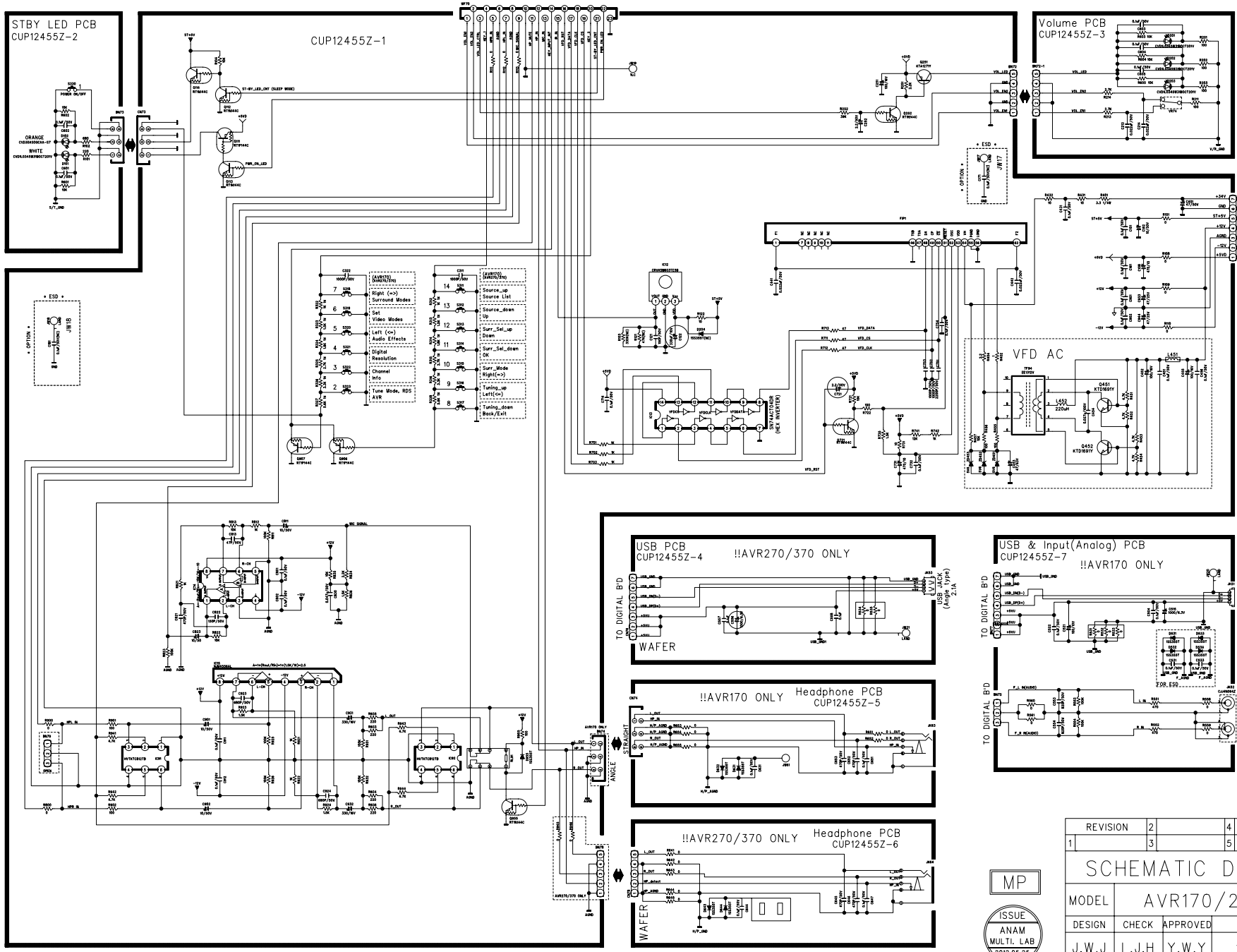
R971	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
R972	CRJ18AJ100T	RES, CHIP(2012/5%/10ohm)	1	EA
R973	CRJ01HJ101T	RES, CHIP(6432/5%/100ohm)	1	EA
R974	CRJ14CJ124T	RES, CHIP(3216/5%/120Kohm)	1	EA
R975	CRJ14CJ124T	RES, CHIP(3216/5%/120Kohm)	1	EA
R976	CRJ14CJ124T	RES, CHIP(3216/5%/120Kohm)	1	EA
R977	CRJ18AJ124T	RES, CHIP(2012/5%/120Kohm)	1	EA
R978	CRJ01HJ101T	RES, CHIP(6432/5%/100ohm)	1	EA
R979	CRJ14CJ474T	RES, CHIP(3216/5%/470Kohm)	1	EA
R980	CRJ14CJ474T	RES, CHIP(3216/5%/470Kohm)	1	EA
R981	CRJ14CJ474T	RES, CHIP(3216/5%/470Kohm)	1	EA
R982	CRJ14CJ474T	RES, CHIP(3216/5%/470Kohm)	1	EA
R984	CRJ18AJ470T	RES, CHIP(2012/5%/47ohm)	1	EA
R985	CRJ18AJ0R0T	RES, CHIP(2012/5%/0ohm)	1	EA
R986	CRJ18AJ561T	RES, CHIP(2012/5%/560ohm)	1	EA
R991	CRJ18AJ102T	RES, CHIP(2012/5%/1Kohm)	1	EA
R992	CRJ14CJ0R0T	RES, CHIP(3216/5%/0ohm)	1	EA
R993	CRJ01HJ752T	RES, CHIP(6432/5%/7.5Kohm)	1	EA
R996	CRJ18AJ470T	RES, CHIP(2012/5%/47ohm)	1	EA
R997	CRJ14CF5602T	RES, CHIP(3216/1%/56Kohm)	1	EA
R999	CRJ14CF5602T	RES, CHIP(3216/1%/56Kohm)	1	EA
BD91	C3A206	WIRE , COPPER	0.025	M
C905	CCKT3A102KBL	CAP, CERAMIC(1kV/1000pF/K)	1	EA
C911	CCKT3A102KBL	CAP, CERAMIC(1kV/1000pF/K)	1	EA
C918	CCEA1HH100TCS	CAP, ELECT(50V/10uF),105'C	1	EA
C920	CCEA1HH470TCS	CAP, ELECT(50V/47uF),105'C	1	EA
C921	CCEA1HH220TCS	CAP, ELECT(50V/22uF),105'C	1	EA
C929	CCEA0JH471TCS	CAP, ELECT(6.3V/470uF),105'C	1	EA
C932	CCEA1HH470TCS	CAP, ELECT(50V/47uF),105'C	1	EA
C943	CCEA0JH102TCS	CAP, ELECT(6.3V/1000uF),105'C	1	EA
C944	CCEA0JH102TCS	CAP, ELECT(6.3V/1000uF),105'C	1	EA
C949	CCEA1JH470TCS	CAP , ELECT(63V/47uF),105'C	1	EA
C953	CCEA1EH101TCS	CAP, ELECT(25V/100uF),105'C	1	EA
C955	CCEA1HH220TCS	CAP, ELECT(50V/22uF),105'C	1	EA
D905	HVDUF4004T	DIODE , SCHOTTKY	1	EA
D910	HVDUF4007T	DIODE , SCHOTTKY	1	EA
D916	CVDZJ20BT	DIODE , ZENER ,1/2W, 20V	1	EA
D919	HVDUF4004T	DIODE , SCHOTTKY	1	EA
D920	HVDUF4004T	DIODE , SCHOTTKY	1	EA
D921	HVD11EQ06T	DIODE , SCHOTTKY (60V/1A)	1	EA
D928	CVDZJ20BT	DIODE , ZENER ,1/2W, 20V	1	EA
D931	CVD1SS133MT	DIODE , SWITCHING	1	EA
D933	CVDSF26	DIODE , SUPER FAST RECTIFIER	1	EA
D937	CVDSF26	DIODE , SUPER FAST RECTIFIER	1	EA
D943	HVDUF4004T	DIODE , SCHOTTKY	1	EA
ET91	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
ET92	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
ET93	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
ET94	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
ET95	CJT1A026	PLATE , EARTH(TRONIC ELECTRONICS)	1	EA
FH91	KJCFC5S	HOLDER , FUSE	1	EA

FH92	KJCFC5S	HOLDER , FUSE	1	EA
IC99	CVIL78L24AB	IC, REGULATOR (24V, TO-92L)	1	EA
Q902	HVTKSA708YT	T.R	1	EA
Q903	HVTKSA708YT	T.R	1	EA
Q914	CVTKSA1281YTA	T.R , KSA1281Y (PNP, TO-92L, AUDIO, FAIRCHILD)	1	EA
RX93	CRO50TJ155T	RES , SURGE ,(1.5M OHM, 5%, 1/2W, PRC TYPE)	1	EA
R903	C3A206	WIRE , COPPER	0.032	M
BN65	CWB1C01525047	WIRE ASSY (LOCK, 15P, 250mm, 2.0mm)	1	EA
CN20	CJP03GA90ZY	WAFER,YW396-03B(3.96mm)	1	EA
CN66	CJP07GI236ZW	LOCKING TYPE , STRAIGHT WAFER , 2MM	1	EA
CN90	CJP02KA060ZY	WAFER, 2P, 3.96mm	1	EA
CX91	CCQF2E104KZCS	CAP , X2(275VAC, 0.1uF, 10mm, SEORYONG)	1	EA
CX92	CCQF2E334KZES	CAP , X2(275VAC, 0.33uF, 15mm, SEORYONG)	1	EA
CY91	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	1	EA
CY92	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	1	EA
CY93	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	1	EA
CY94	CCKDHS471ME	CAP , CERAMIC (400V Y-CAP)	1	EA
CY95	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	1	EA
C901	CCET250VTDA471NWS	CAP , ELECT (470uF/250V, 105'C, 25.4X35)	1	EA
C902	CCET450VKM220NCS	CAP, ELECT(450V/22uF),105'C,13X20	1	EA
C928	CCET63VNXA222EWS	CAP, ELECT(63V/2200uF, 105'C, 18X40, LOW ESR)	1	EA
C930	CCET250VTDA471NWS	CAP , ELECT (470uF/250V, 105'C, 25.4X35)	1	EA
C933	CCEA1EH471ECS	CAP, ELECT(25V/470uF),105'C	1	EA
C936	CCET63VNXA222EWS	CAP, ELECT(63V/2200uF, 105'C, 18X40, LOW ESR)	1	EA
C937	CCEA1JH471ECS	CAP , ELECT(63V/470uF),105'C	1	EA
C939	CCEA1JH471ECS	CAP , ELECT(63V/470uF),105'C	1	EA
C941	CCEA0JGF562ECS	CAP, ELECT(6.3V/5600uF/105'C), 13X30	1	EA
C948	CCEA0JGF562ECS	CAP, ELECT(6.3V/5600uF/105'C), 13X30	1	EA
DB91	CVDRS1005M	DIODE , BRIDGE (600V/10A,RS-10M)	1	EA
D934	CVD31DQ06FC6	DIODE , SB (60V, 3A, DO-201)	1	EA
D938	HVD31DQ06H	DIODE	1	EA
D939	HVD31DQ06H	DIODE	1	EA
D940	HVD31DQ06H	DIODE	1	EA
D941	CVD31DQ06FC6	DIODE , SB (60V, 3A, DO-201)	1	EA
	CMD1A720	BRACKET , THERMAL SENSOR	1	EA
	CMX1A164	INSULATOR , SILICON	1	EA
	CMY2A327ZA-V1	HEAT SINK	1	EA
	CRTST22110070W	PROTECTOR , THERMAL (110'C, 70mm)	1	EA
	CTB3+10JR	SCREW	1	EA
	CVTSPW17N80C3	F.E.T , SPW17N80C3 (800V/17A, PG-TO247-3)	1	EA
	CMY9A222-V1	HEAT SINK	1	EA
	CTB3+10JR	SCREW	1	EA
	CVDFCU20A40	DIODE , FAST RECOVERY (400V/20A,TO-220)	1	EA
	CMD1A720	BRACKET , THERMAL SENSOR	1	EA
	CMY3A222-V1	HEAT SINK	1	EA
	CRTST22110070W	PROTECTOR , THERMAL (110'C, 70mm)	1	EA
	CTB3+10JR	SCREW	2	EA
	CVDFCU20A40	DIODE , FAST RECOVERY (400V/20A,TO-220)	1	EA
IC91	CVIOB2358LAP	I.C , PWM	1	EA
IC92	CVIICE2B365	I.C , CooLSET-F2(PG-DIP-8-6)	1	EA
IC93	CVIICE2QS01	I.C , PWM CONTROLLER(PG-DIP-8)	1	EA

IC97	HVINJM7812FA	I.C , REGULATOR	1	EA
IC98	HVINJM7912FA	I.C , REGULATOR	1	EA
LF91	CLZ9Z135Z	FILTER , LINE (SQE2930, 8mH)	1	EA
LF92	CLZ9Z135Z	FILTER , LINE (SQE2930, 8mH)	1	EA
LF93	CLZ9Z121Z	LINE, FILTER (150uH, RING-616)	1	EA
L924	CLZ9Z090Z	COIL , CHOKE(7UH)	1	EA
L925	CLZ9Z090Z	COIL , CHOKE(7UH)	1	EA
L928	CLZ9Z090Z	COIL , CHOKE(7UH)	1	EA
PC91	CVIEL817B	I.C , PHOTO COUPLER	1	EA
PC92	CVIEL817B	I.C , PHOTO COUPLER	1	EA
PC93	CVIEL817B	I.C , PHOTO COUPLER	1	EA
PC94	CVIEL817B	I.C , PHOTO COUPLER	1	EA
PC95	CVIEL817B	I.C , PHOTO COUPLER	1	EA
PC96	CVIEL817B	I.C , PHOTO COUPLER	1	EA
PC97	CVIEL817B	I.C , PHOTO COUPLER	1	EA
PC98	CVIEL817B	I.C , PHOTO COUPLER	1	EA
R907	CRG1ANJ683H	RES , METAL OXIDE FILM	1	EA
R908	CRW1PJ0R4V	RES , WIRE WOUND (1W/0.4OHM)	1	EA
R913	CRW1PJ0R1V	RES , WIRE WOUND (1W/0.1OHM)	1	EA
R914	CRW1PJ0R1V	RES , WIRE WOUND (1W/0.1OHM)	1	EA
R920	CRG2ANJ683H	RES , METAL OXIDE FILM	1	EA
SW91	CJP02GA89ZY	WAFER, 2P, 7.92mm	1	EA
SW92	CJP02GA89ZY	WAFER, 2P, 7.92mm	1	EA
TF91	CLT9Z076ZE	TRANS , STBY (AVR170/270/370)	1	EA
TF92	CLT9Z077ZE	TRANS , SUB (AVR170/270/370)	1	EA
TF93	CLT9Z078ZE	TRANS , MAIN (AVR170)	1	EA
TH91	CRT5D20MSFC	NTC , THERMISTOR (10MM PITCH)	1	EA
TS91	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
TS92	CJP02GA01ZY	WAFER/STRAIGHT/2.5mm/2P	1	EA
VT91	CRVSVC561D14A	VARISTOR(560V, 14mm)	1	EA
VT92	CRVSVC561D14A	VARISTOR(560V, 14mm)	1	EA

Misc Mechanical				
	CRE1A108	SPACER , PCB(KCA-34)	1	EA
	CTB3+10JFZR	SCREW	10	EA
	CTB3+6FFZR	SCREW	10	EA
	CTB3+6JR	SCREW	2	EA
	CTB3+8JFZR	SCREW	11	EA
	CTS3+8JFZR	SCREW	4	EA
	CTW3+12JR	SCREW	4	EA
	CTW3+8JR	SCREW	2	EA
	CUA1A337	CHASSIS , BOTTOM	1	EA
	CWB1B003150LL	WIRE ASS'Y (3P, 150mm)	1	EA
	CWZAVR1700CN90ZA	INLET WIRE ASS'Y	1	EA
	CJJ8A006ZW	RECEPTACLE , AC(15A/250V,R-301,B21)	1	EA
	CLZ9W003Z	FERRITE , RING	1	EA
	CWZAVR1700CN90	WIRE ASS'Y	1	EA
F901	KBA2C8000TLHEY	FUSE(215Series, 250V/8A)	1	EA
SW91	CSH2B026ZA	SW , ROCKER ASS'Y	1	EA
	CSH2B026Z	SW , ROCKER	1	EA
	CWB4F202080UK	WIRE ASS'Y (3.96MM, 80MM, 2P, RED)	2	EA

WF61	CWC4C4A23B150B10A	CARD , CABLE Shield(23P,1.25mm,150mm,B,10mm)	1	EA
WF70	CWC4C4A23B250B08A	CARD , CABLE Shield (23P,1.25mm,250mm,B,8mm)	1	EA



REVISION	2		4		6	
1		3		5		7

SCHEMATIC DIAGRAM			SHEET
MODEL	AVR170/270/370		1/12
DESIGN	CHECK	APPROVED	DRAWING NO
J.W.J	L.J.H	Y.W.Y	12455SCMZ
12.04.10	12.04.10	12.04.10	(FRONT) 1/1

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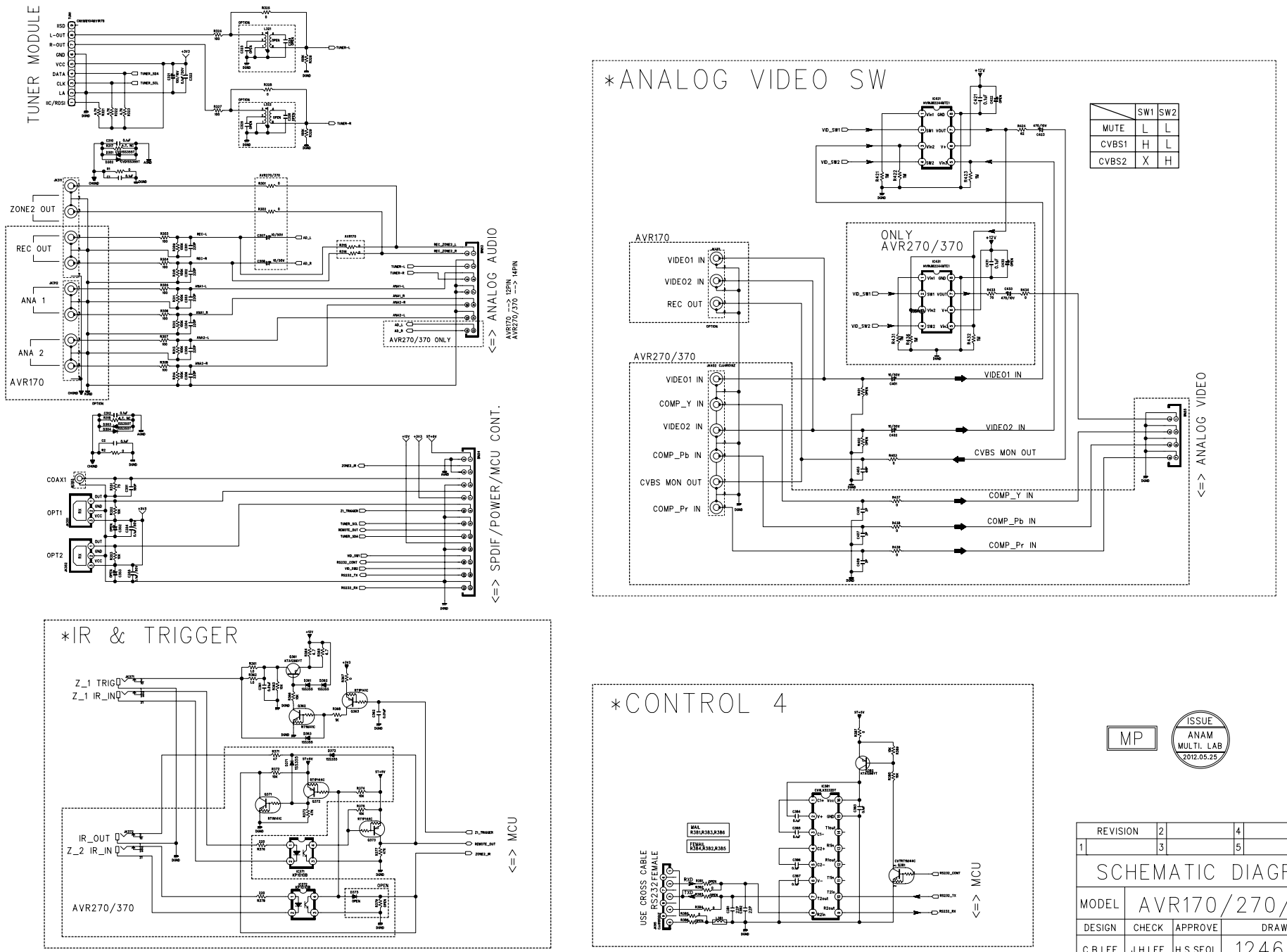

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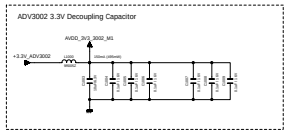
REVISION	2	4	6
1	3	5	7

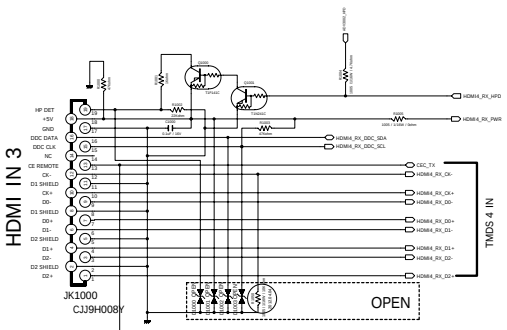
SCHEMATIC DIAGRAM — SHEET 1/1

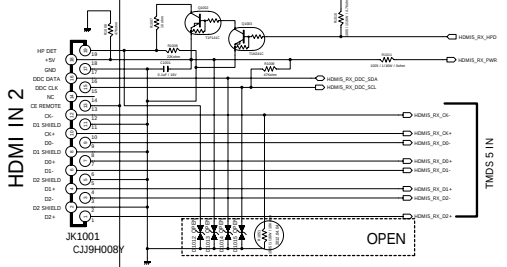
MODEL	AVR170/270/370	
DESIGN	CHECK	APPROVE
C.B.LEE	J.H.LEE	H.S.SEOL

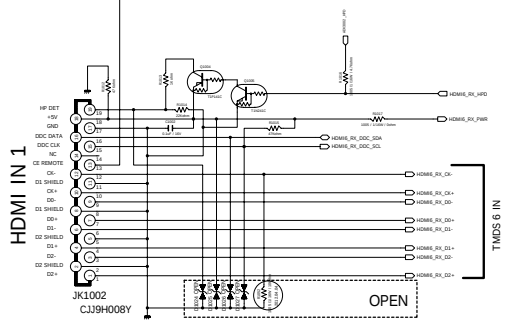
DRAWING NO: 12460SCMZ (JACK B'D) 1/1

CUP12456Z









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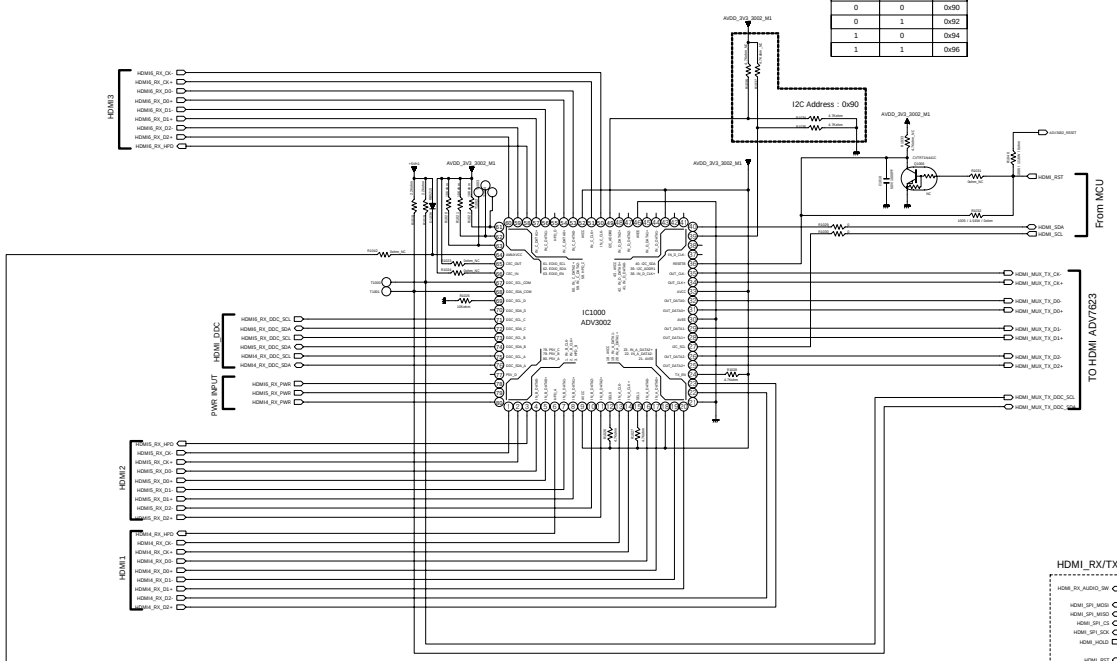
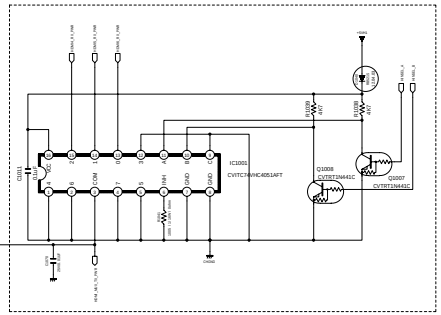
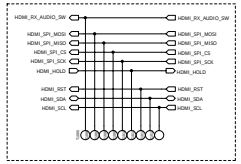
0	1	0x92
1	0	0x94
1	1	0x96







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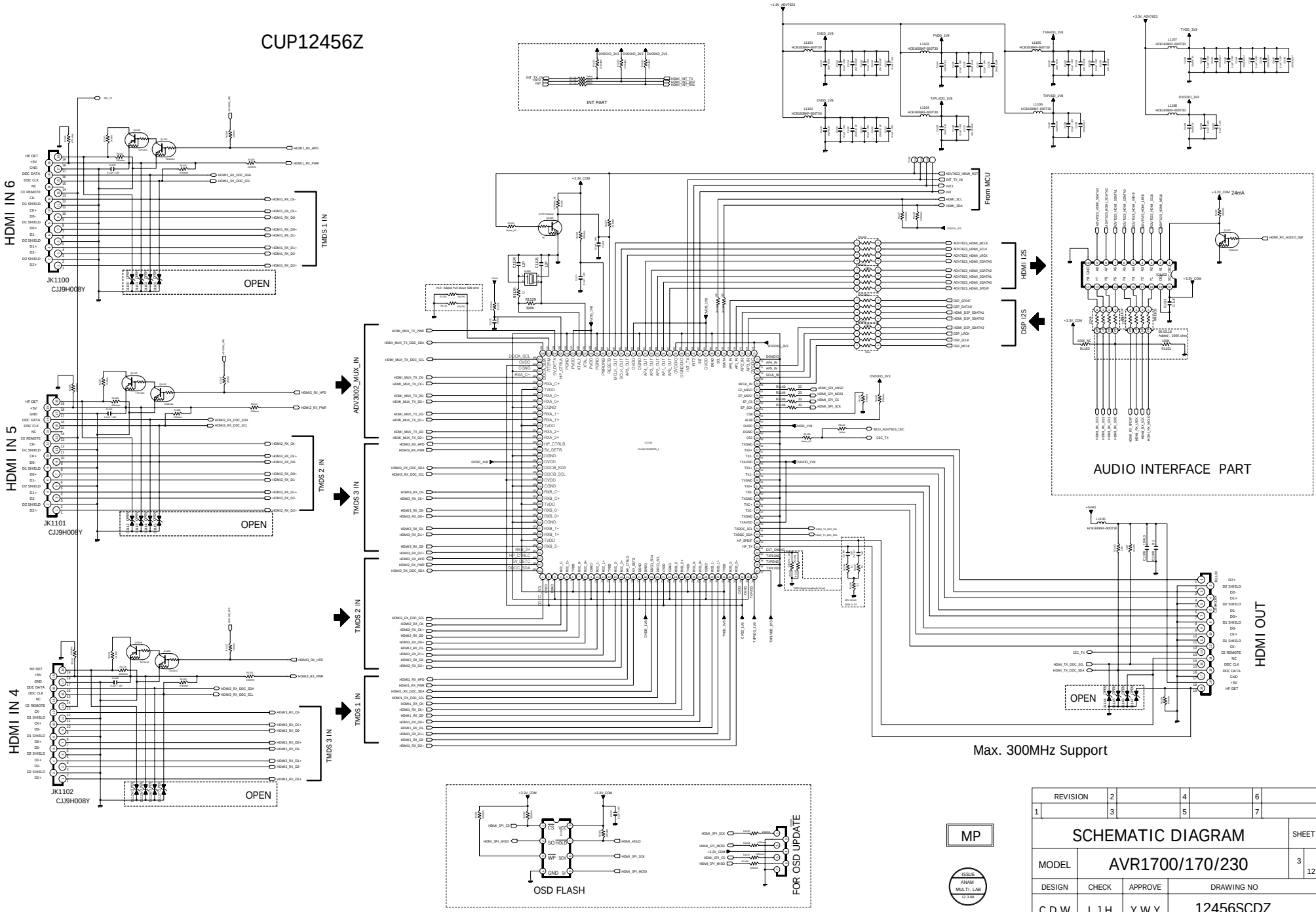
REVISION	2		4		6	
1		3		5		7

SCHEMATIC DIAGRAM			SHEET
MODEL	AVR1700/170/230		2 / 12
DESIGN	CHECK	APPROVE	DRAWING NO
C.D.W	L.J.H	Y.W.Y	12456SCDZ
12.3.08	12.3.08	12.3.08	(HDMI_INPUT_ADV3002) 1 / 8

CUP12456Z



REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM — SHEET 3 / 12

MODEL	AVR1700/170/230

DESIGN	CHECK	APPROVE	DRAWING NO
C.D.W	L.J.H	Y.W.Y	12456SCDZ
12.3.08	12.3.08	12.3.08	(HDMI_REPEATER_ADV7623) 2 / 8

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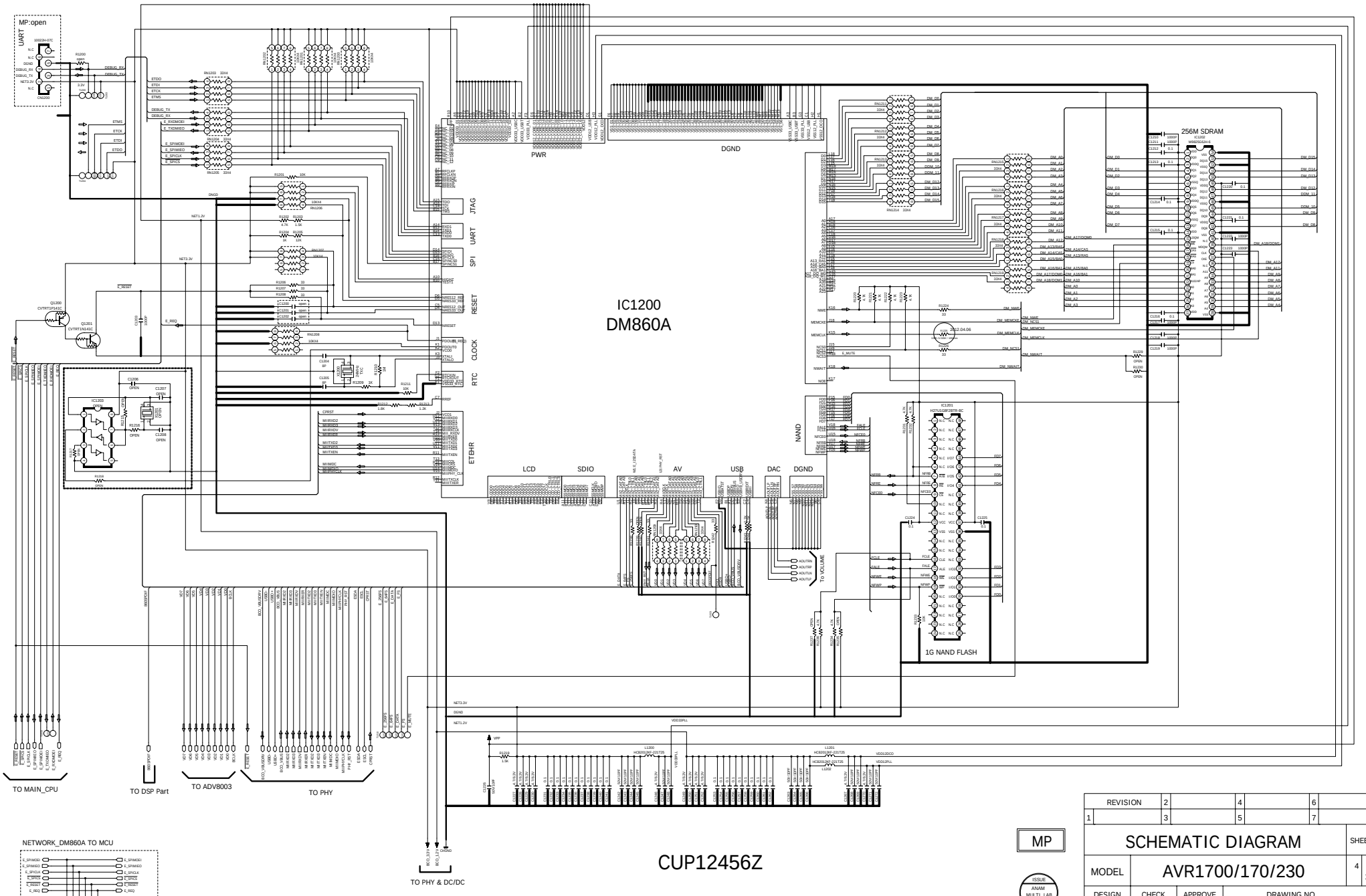

CUP12456Z

REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM — SHEET 4 / 12

MODEL	AVR1700/170/230	
DESIGN	CHECK	APPROVE	DRAWING NO
L.C.B	L.J.H	Y.W.Y	12456SCDZ (NETWORK_DM860A) 3 / 8
12.3.08	12.3.08	12.3.08	

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CUP12456Z

USB Switch Part

USB_ETHERNET TO MCU

DM860A DAC

USB PART

Apple Cert Part

Apple Cert Part(Option)

TO DM860A_NETWORK

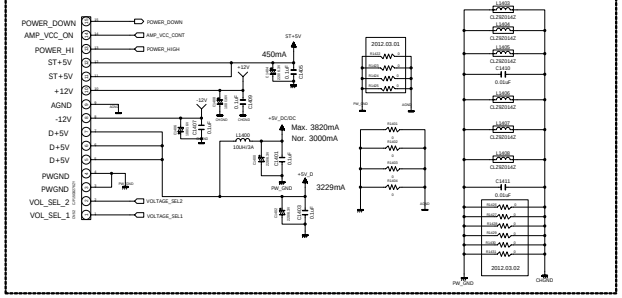
SMD Type RJ-45

C1790, C1797, C1793 ==> DELETE

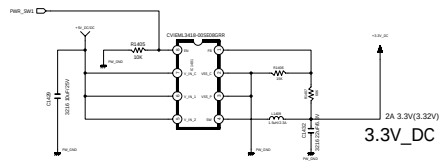
REVISION							
1		2		3		4	
5		6		7			

SCHEMATIC DIAGRAM			SHEET
MODEL	AVR1700/170/230		5 / 12
DESIGN	CHECK	APPROVE	DRAWING NO
L.C.B	L.J.H	Y.W.Y	12456SCDZ
12.3.08	12.3.08	12.3.08	(USB_ETHERNET) 4 / 8

FROM SMPS

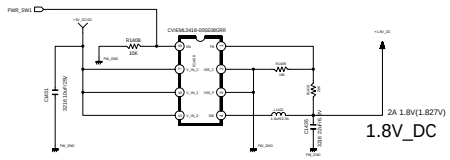


DC/DC (HDMI +3.3V)



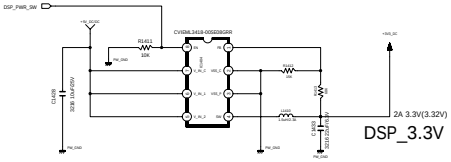
DC/DC Regulator 2A

DC/DC (HDMI +1.8V)



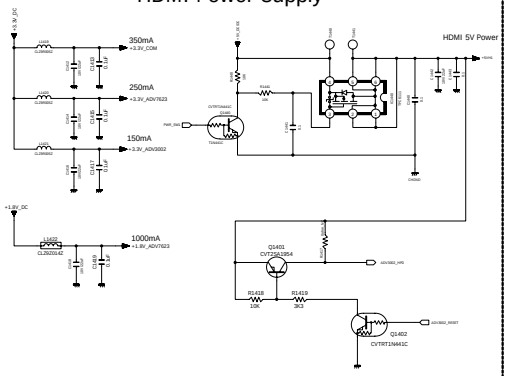
DC/DC Regulator 2A

DC/DC (DSP +3.3V)



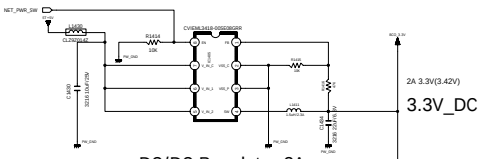
DC/DC Regulator 2A

HDMI Power Supply

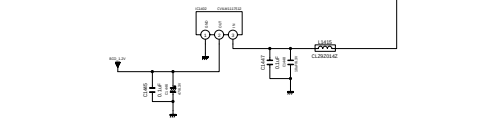


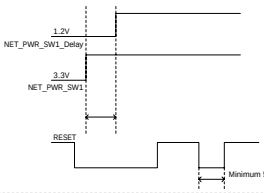
BCO_Power Control

DC/DC (DM860A +3.3V)

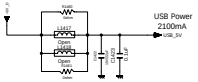


DC/DC Regulator 2A

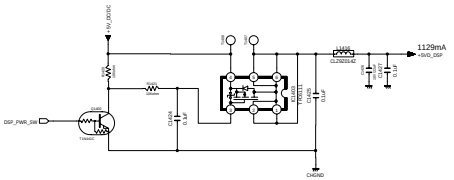




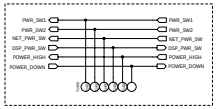
USB 5V Power Supply



DSP_Power Control



POWER TO MCU



CUP12456Z

REVISION	2		4		6		
1		3		5		7	

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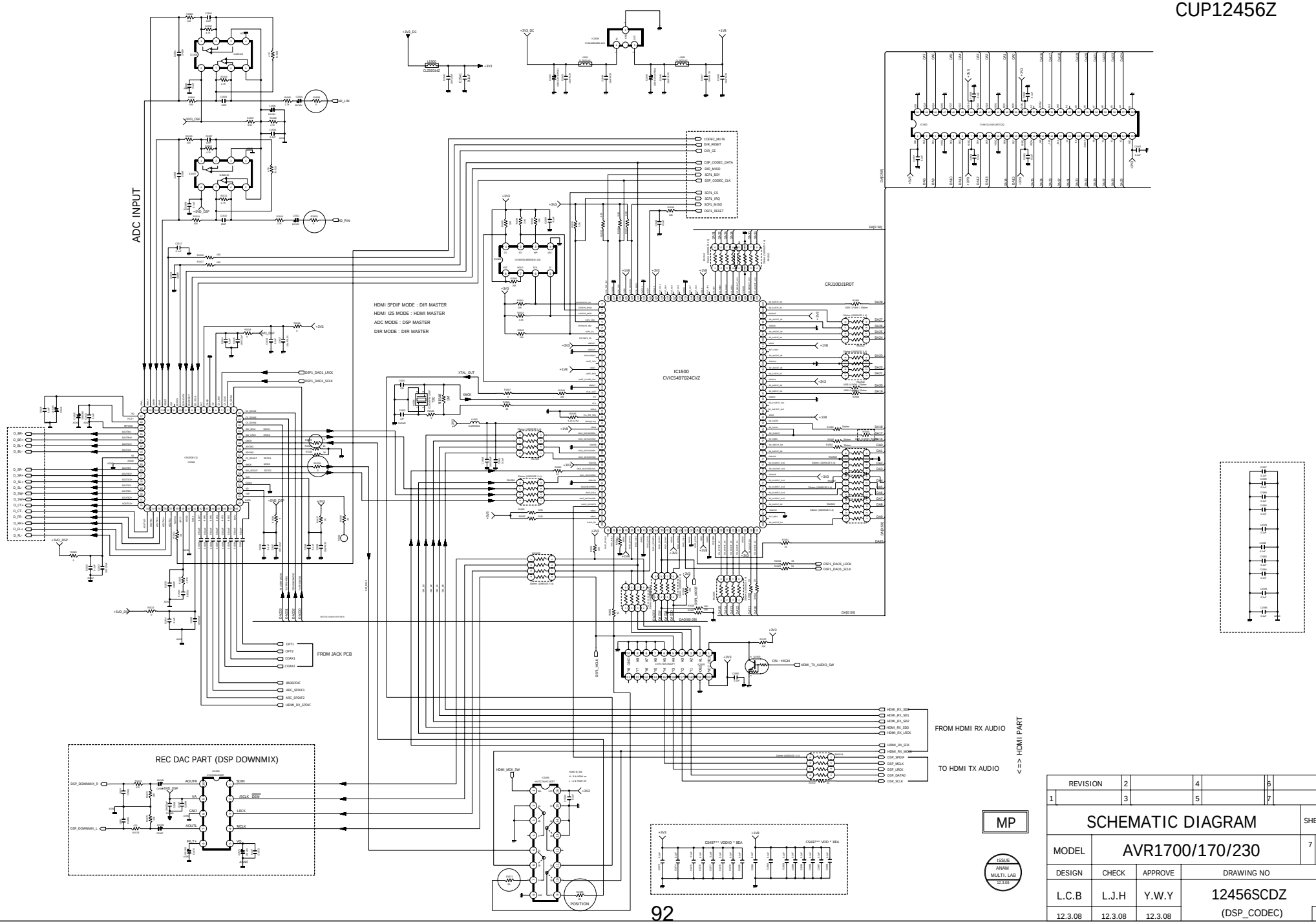
SCHEMATIC DIAGRAM			SHEET
MODEL	AVR1700/170/230		6 / 12
DESIGN	CHECK	APPROVE	DRAWING NO
C.D.W	L.J.H	Y.W.Y	12456SCDZ
12.3.08	12.3.08	12.3.08	(DC_DC_POWER) 5 / 8

CUP12456Z



REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM — SHEET 7 / 12

MODEL: AVR1700/170/230

DESIGN	CHECK	APPROVE	DRAWING NO
L.C.B	L.J.H	Y.W.Y	12456SCDZ (DSP_CODEC) 6 / 8
12.3.08	12.3.08	12.3.08	

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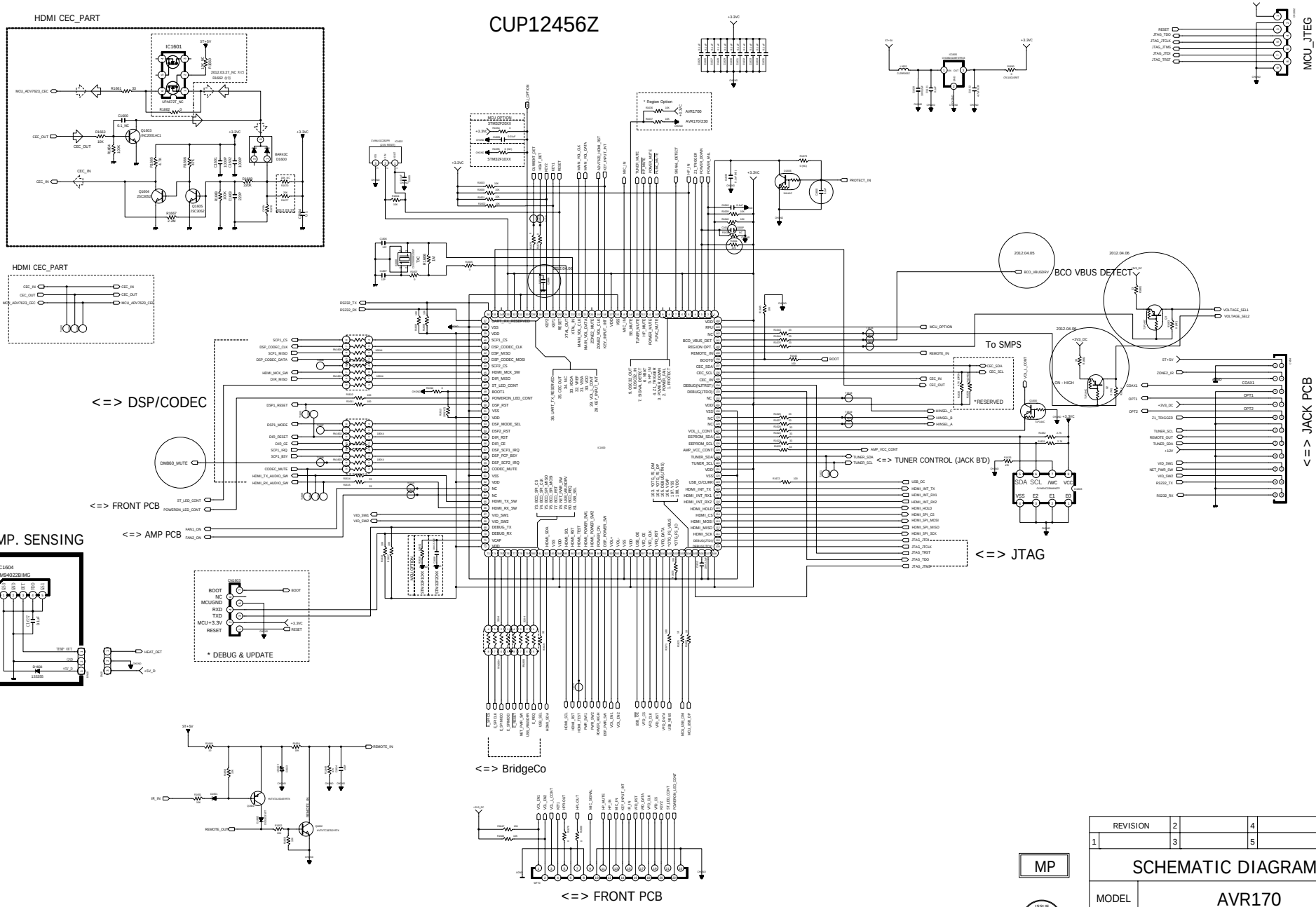

REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM			SHEET
MODEL	AVR170		8 / 12
DESIGN	CHECK	APPROVE	DRAWING NO
L.C.B	L.J.H	Y.W.Y	12456SCDZ
12.3.08	12.3.08	12.3.08	(ST_MCU) 7 / 8

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FROM CODEC

CUP12456Z

TO AMP B'D

<= > JACK PCB

DSP DOWNMIX REC GAIN

MUTE CONTROL

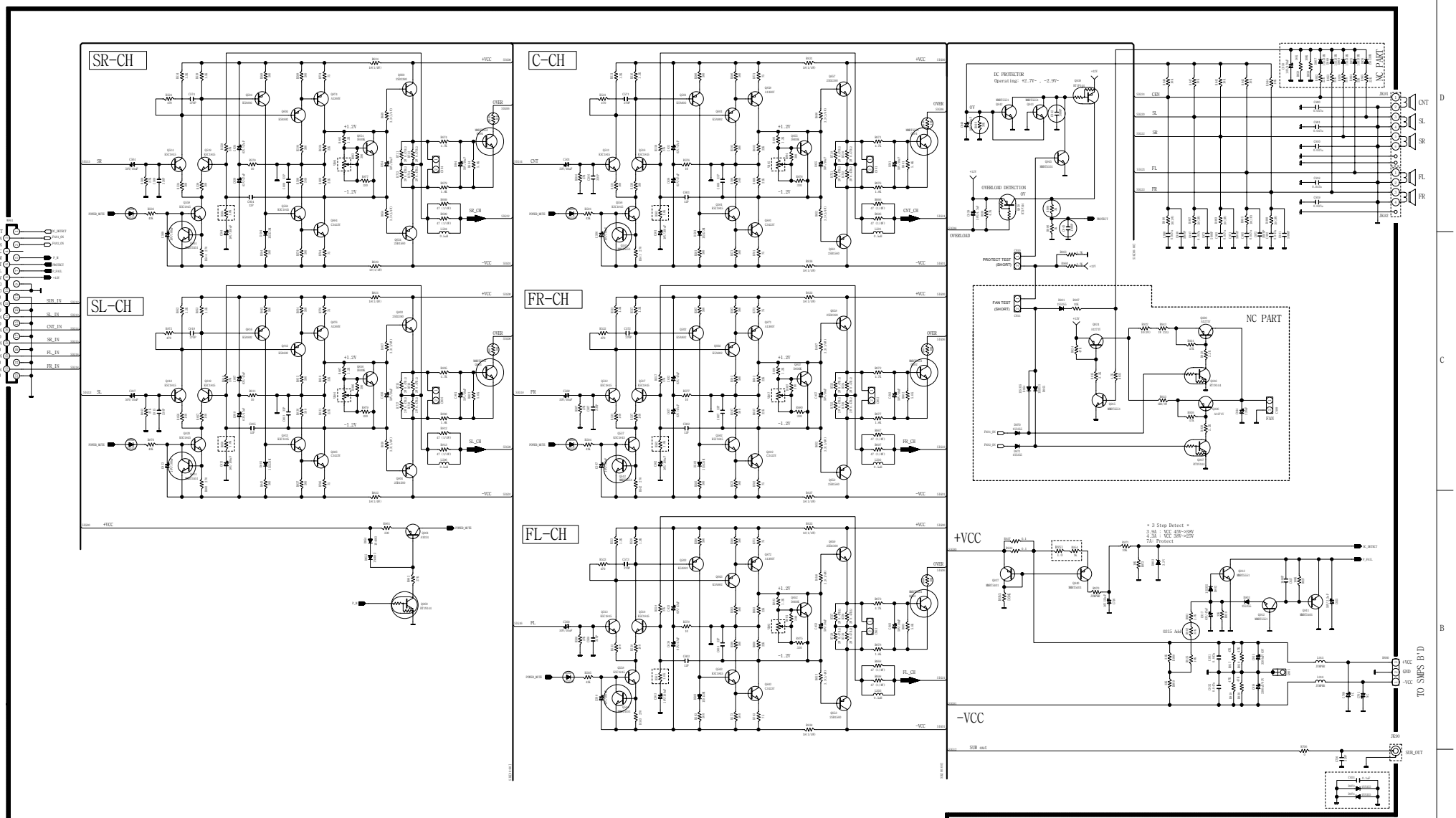
ECO DESIGN

MP

REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM — SHEET 9 / 12

MODEL	AVR1700/170/230		
DESIGN	CHECK	APPROVE	DRAWING NO
L.C.B	L.J.H	Y.W.Y	12456SCDZ (VOLUME_FILTER) 8 / 8
12.3.08	12.3.08	12.3.08	



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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.

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12.05.22

REVISION	2	4	6	
1	3	5	7	

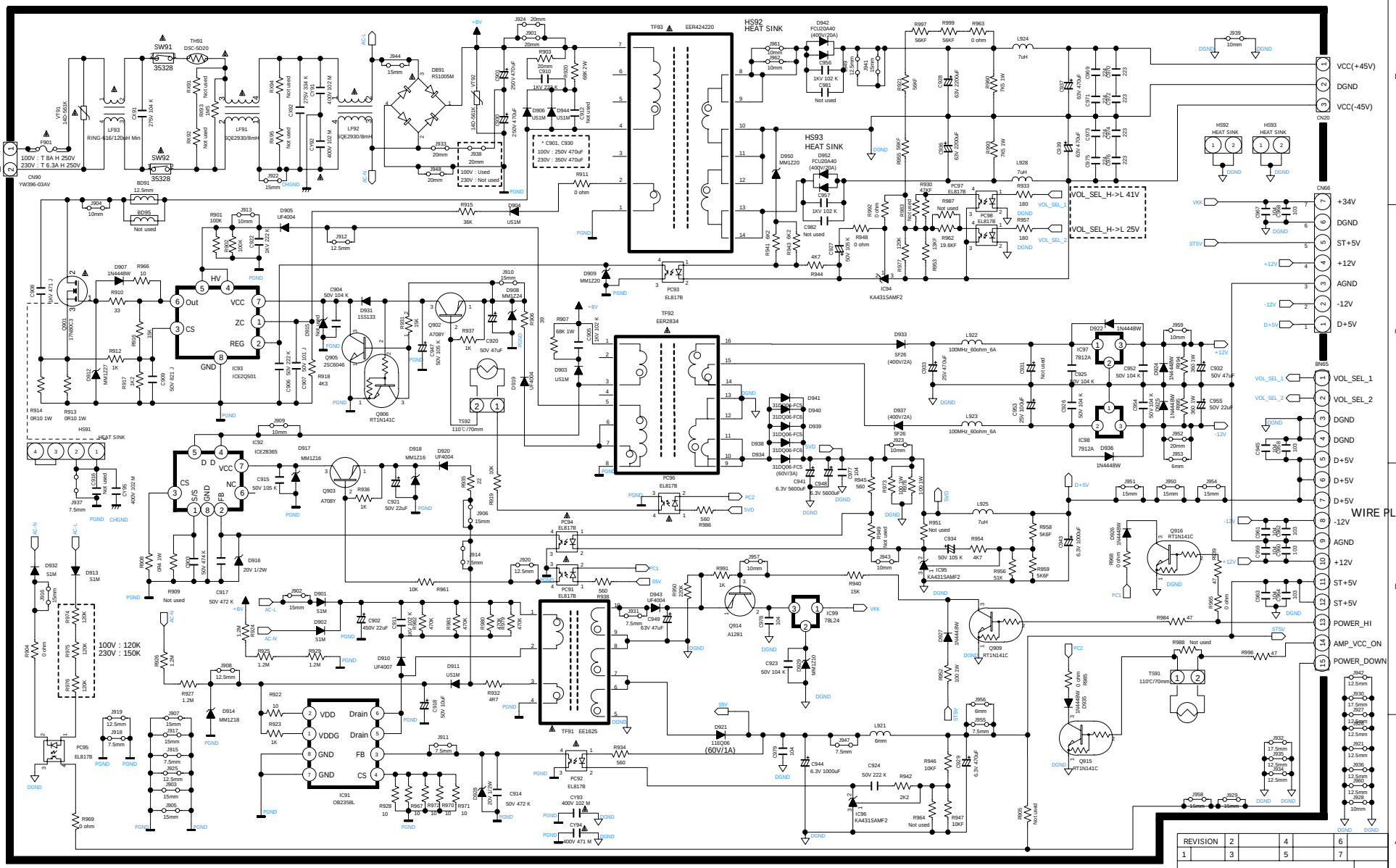
SCHEMATIC DIAGRAM

SHEET A

MODEL	AVR170	10	12

DESIGN	CHECK	APPROVE	DRAWING NO
J.W.J	L.J.H	Y.W.Y	12458SCMZ (AMP)
12.05.22	12.05.22	12.05.22	1 1

AVR170 SMPS SCHEMATIC DIAGRAM



REVISION	2		4		6	
1		3		5		7

SCHEMATIC DIAGRAM			SHEET
MODEL	AVR170		1/1
DESIGN	CHECK	APPROVE	DRAWING NO
C.S.K	L.J.H	Y.W.Y	12461SCMZ (SMPS) 1/1
12.05.25	12.05.25	12.05.25	

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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)pF=10^{6}uF
**THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE IMPROVEMENT OF PERFORMANCE

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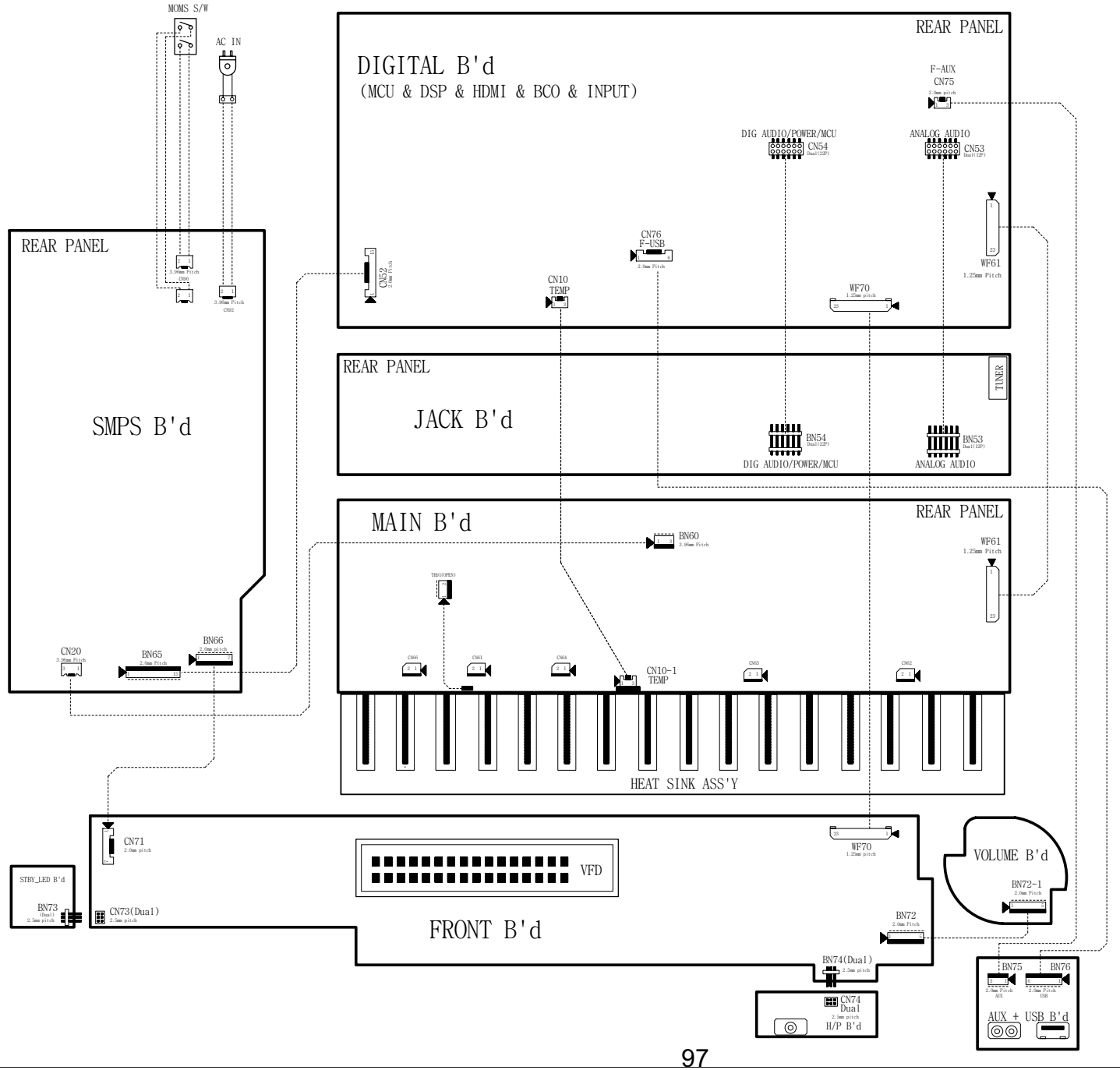
2012.05.25

WIRING DIAGRAM



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2012.03.06

REVISION	2		4		6	
1		3		5		7	

SCHEMATIC DIAGRAM			SHEET
MODEL	AVR1700		1 / 1
DESIGN	CHECK	APPROVE	DRAWING NO
K.B.C	L.J.H	Y.W.Y	12455WCDZ
12.03.06	12.03.06	12.03.06	(WIRING) 1 / 1