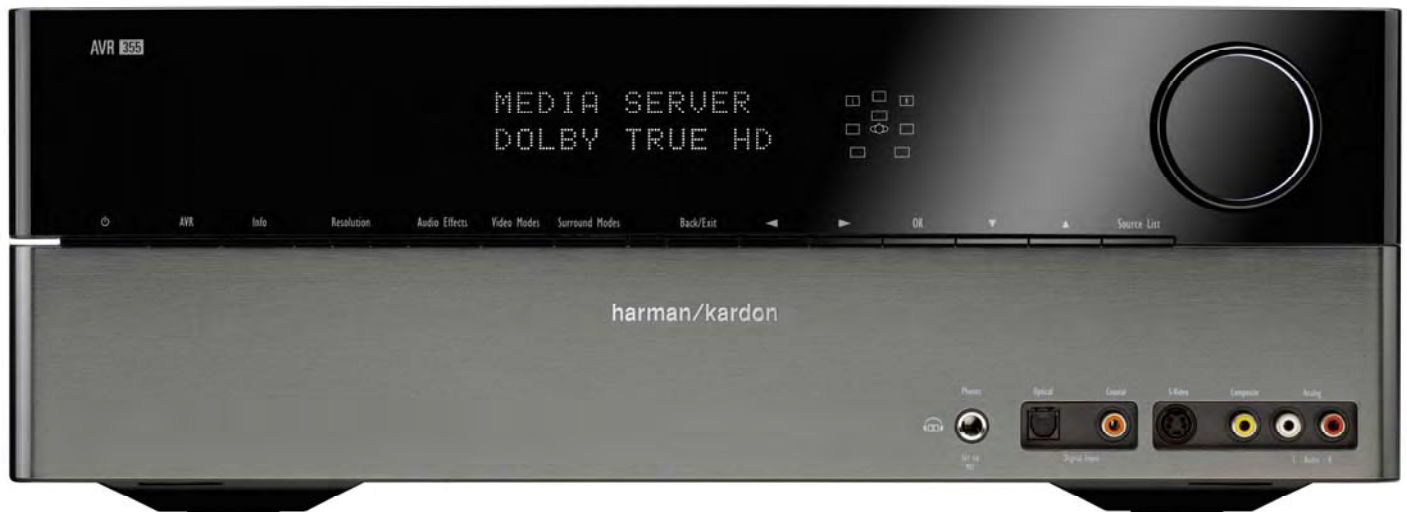

harman/kardon
Service Manual

AVR 355/230

7 x 65W 7.1 CHANNEL A/V RECEIVER



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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 of 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 returning the product to the customer.

Audio Section	
Stereo Mode	
Continuous Average Power (FTC): 70 Watts per channel, 20Hz - 20 kHz @ < 0.07% THD, both channels driven into 8 ohms	
7 Channel Surround Modes	
Power Per Individual Channel, with all channels driven	
Front L&R channels: 65 Watts per channel @ < 0.07% THD, 20Hz–20kHz into 8 ohms	
Center channel: 65 Watts @ < 0.07% THD, 20Hz–20kHz into 8 ohms	
Surround (L & R Side, Back) channels: 65 Watts per channel @ < 0.07% THD, 20Hz–20kHz into 8 ohms	
Input Sensitivity/Impedance	
Linear (High Level)	200mV/47kohms
Signal-to-Noise Ratio (IHF-A)	100dB
Surround System Adjacent Channel Separation	
Analog Decoding (Pro Logic, etc.)	40dB
Dolby Digital (AC-3)	55dB
DTS	55dB
Frequency Response	
@ 1W (+0dB, -3dB)	10Hz–130kHz
High Instantaneous Current Capability (HCC)	
	±35 Amps
Transient Intermodulation Distortion (TIM)	
	Unmeasurable
Rise Time	16 µsec
Slew Rate	40V/µsec**

FM Tuner Section	
Frequency Range	87.5–108MHz
Usable Sensitivity	IHF 1.3 µV/13.2dBf
Signal-to-Noise Ratio	Mono/Stereo: 70/68dB (DIN)
Distortion	Mono/Stereo: 0.2/0.3%
Stereo Separation	40dB @ 1kHz
Selectivity	±400kHz: 70dB
Image Rejection	80dB
IF Rejection	90dB

AM Tuner Section	
Frequency Range	522–1620kHz
Signal-to-Noise Ratio	45 dB
Usable Sensitivity	Loop: 500µV
Distortion	1kHz, 50% Mod: 0.8%
Selectivity	±10kHz: 30dB

Video Section	
Video Format	PAL/NTSC
Input Level/Impedance	1Vp-p/75 ohms
Output Level/Impedance	1Vp-p/75 ohms
Video Frequency Response (Composite and S-Video)	10Hz–8MHz (-3dB)
Video Frequency Response (Component)	10Hz–100MHz (-3dB)

General	
Power Requirement	AC 220–240V/50Hz
Power Consumption	AVR 355: Standby < 3W, 890W maximum (7 channels driven)

Dimensions (Max)	
Width	440mm
Height	165mm
Depth	382mm
Weight net	14,4 kg

Depth measurement includes knobs, buttons and terminal connections.

Height measurement includes feet and chassis.

All features and specifications are subject to change without notice.

 Bridge

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Troubleshooting Guide

SYMPTOM	CAUSE	SOLUTION
Unit does not function when Main Power Switch 1 is pushed	<ul style="list-style-type: none"> No AC Power 	<ul style="list-style-type: none"> Make certain AC power cord is plugged into a live outlet Check to see if outlet is switch controlled
Display lights, but no sound or picture	<ul style="list-style-type: none"> Intermittent input connections Mute is on Volume control is down 	<ul style="list-style-type: none"> Make certain that all input and speaker connections are secure Press Mute button 39 G Turn up volume control
No sound from any speaker; Protect Warning in Display	<ul style="list-style-type: none"> Amplifier is in protection mode due to possible short Amplifier is in protection mode due to internal problems 	<ul style="list-style-type: none"> Check speaker-wire connections for shorts at receiver and speaker ends Contact your local Harman Kardon service depot
No sound from surround or center speakers	<ul style="list-style-type: none"> Incorrect surround mode Input is mono Incorrect configuration Stereo or Mono program material 	<ul style="list-style-type: none"> Select a mode other than Stereo There is no surround information from mono sources (except with Theater and Hall surround modes) Check speaker mode configuration Some surround modes may not create rear-channel information from nonencoded programs
Unit does not respond to remote commands	<ul style="list-style-type: none"> Weak batteries in remote Wrong device selected Remote sensor 20 is obscured 	<ul style="list-style-type: none"> Change remote batteries Press the AVR Selector 6 Make certain front-panel sensor is visible to remote or connect remote sensor
Intermittent buzzing in tuner	<ul style="list-style-type: none"> Local interference 	<ul style="list-style-type: none"> Move unit or antenna away from computers, fluorescent lights, motors or other electrical appliances
Letters flash in the Channel Indicator Display 14 and Digital Audio stops	<ul style="list-style-type: none"> Digital audio feed paused 	<ul style="list-style-type: none"> Resume play for DVD Check that Digital Signal is fed to the Digital Input selected
No picture or on-screen information on the TV screen.	<ul style="list-style-type: none"> AVR Resolution to Display is not correct, too high or too low. 	<ul style="list-style-type: none"> Select correct Resolution as described on page 21 "Resolution To Display"

Processor Reset

In the rare case where the unit's operation or the displays seem abnormal, the cause may involve the erratic operation of the system's memory or microprocessor.

To correct this problem, first unplug the unit from the AC wall outlet and wait at least three minutes. After the pause, reconnect the AC power cord and check the unit's operation. If the system still malfunctions, a system reset may clear the problem.

To clear the AVR's entire system memory including tuner presets, output level settings, delay times and speaker configuration data, first put the unit in Standby by pressing the **System Power Control** button **2**. Next press and hold the **OK button 6** for five seconds.

The unit will turn on automatically and show the word RESET in the Display for a few seconds. Then it reverts to normal ON status. Note that once you have cleared the memory in this manner, it is necessary to re-establish all system configuration settings and tuner presets.


NOTE: Resetting the processor will erase any configuration settings you have made for speakers, output levels, surround modes, digital input assignments as well as the tuner presets. After a reset the unit will be returned to the factory presets, and all settings for these items must be reentered.

If the system is still operating incorrectly, there may have been an electronic discharge or severe AC line interference that has corrupted the memory or microprocessor.

If these steps do not solve the problem, consult an authorized Harman Kardon service depot.

Programming the Remote

Notes on Using the AVR Remote With Other Devices.

- Manufacturers may use different code sets for the same product category. For that reason, it is important that you check to see if the code set you have entered operates as many controls as possible. If it appears that only a few functions operate, check to see if another code set will work with more buttons.
- Depending on the brand and product type used the functions listed in the Function List tables may not correspond with the function the unit reacts on the command. In these cases it's a good idea to edit the reaction of the unit into the corresponding line of the table or to set up a separate list.
- When a button is pressed on the AVR remote, the red light under the **Input Selector**  for the product being operated should flash briefly. If the Device Control Selector flashes for some but not all buttons for a particular product, it does NOT indicate a problem with the remote, but rather that no function is programmed for the button being pushed.

Punch-Through Programming

The AVR 355/AVR 255 remote's punch-through feature allows you to select one component for the remote to operate, while simultaneously setting certain groups of controls to operate another component. For example, while using the AVR to control surround modes and other audio functions, you may operate the transport controls of your DVD player. Or while using the remote to control video functions on your TV, you may use your cable box to change channels.

To program punch-through control while operating any device:

1. Press and hold the Source Selector (or AVR selector) for the main device the remote will be operating. The Source Selector will light, go dark and then light up again, indicating the remote is in Program mode and that you may release the button.
2. Select the type of punch-through programming.
 - a) To program channel control punch-through, press the Channel Up Button.
 - b) To program transport control punch-through, press the Play Button.
3. Press the Source Selector for the device whose channel or transport controls you would like to be active while operating the device you selected in the first step. The Source Selector will flash to confirm the programming.






For example, if you wish to watch your TV while changing channels using your cable box, first press the TV Button until it lights. Then press the Channel Up Button, followed by the CBL/SAT Button.

To undo punch-through programming, follow the same steps as above, but press the same Source Selector in Steps 1 and 3.

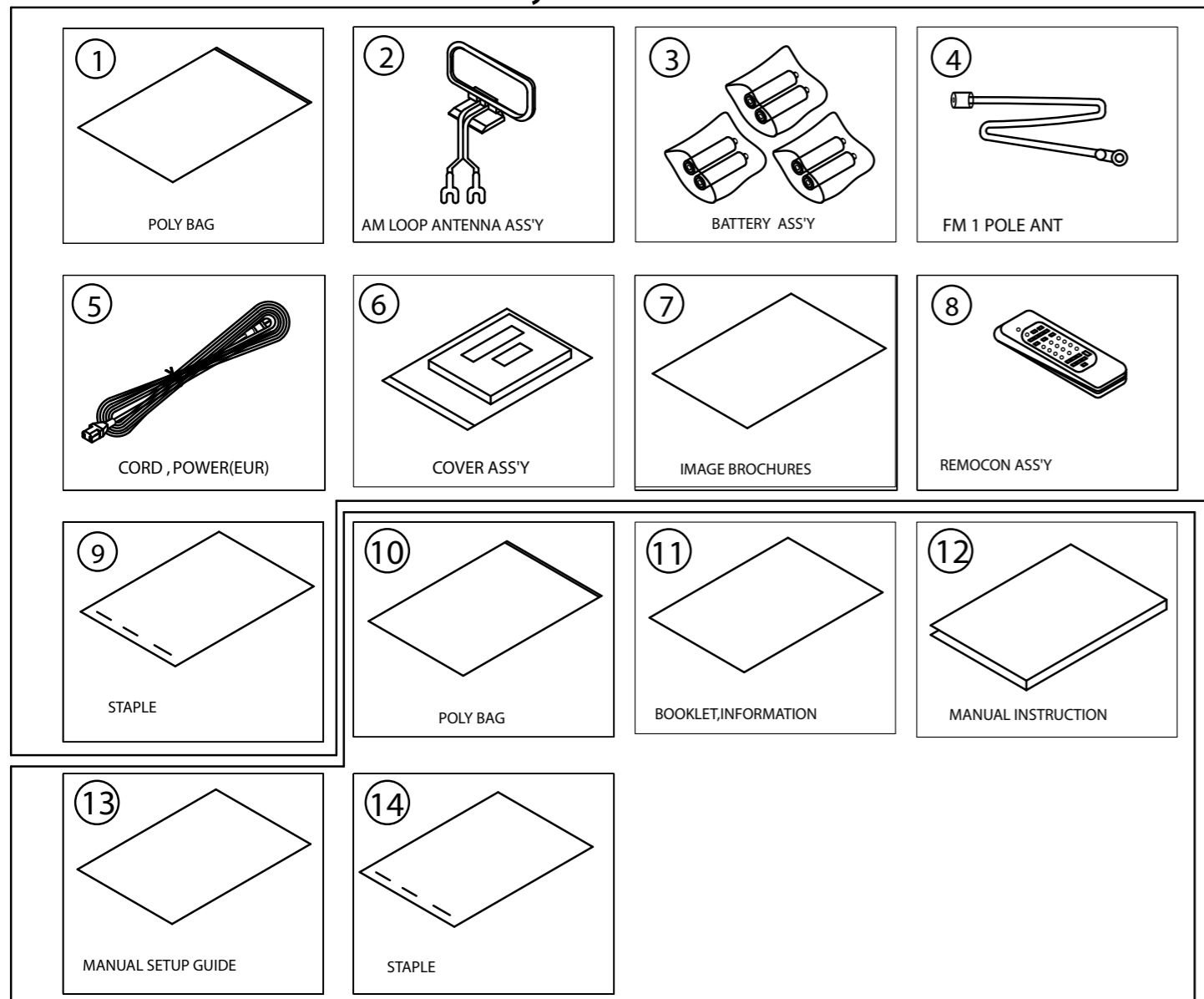
NOTE: The remote always allows volume-control punchthrough, since the Volume and Mute controls are dedicated to the AVR.

Resetting the Remote Memory

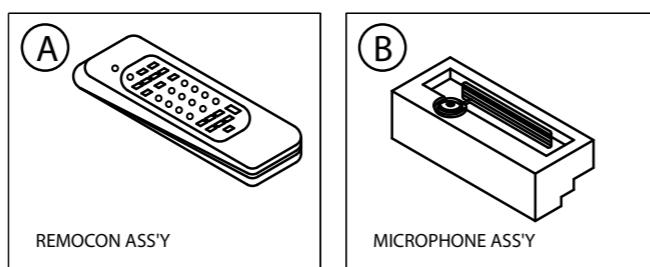
As you add components to your home-theater system, occasionally you may wish to totally reprogram the remote control without the confusion of any commands, activities or "Punch-Through" programming that you may have done. To do this, it is possible to reset the remote to the original factory defaults and command codes by following these steps. Note, however, that once the remote is reset, all commands or codes that you have entered will be erased and will need to be re-entered:

1. Press the TV Device Button  and the "0" number Button  simultaneously. The TV button lights up.
2. Press the "3" button  three times.
3. After a number of seconds, depending on the number of commands that are programmed and need erasing, all the Device Buttons  as well as the AVR Button  blink 3 times to indicate that the remote has been reset to the factory settings.

1. Instruction manual ass'y - Accessories

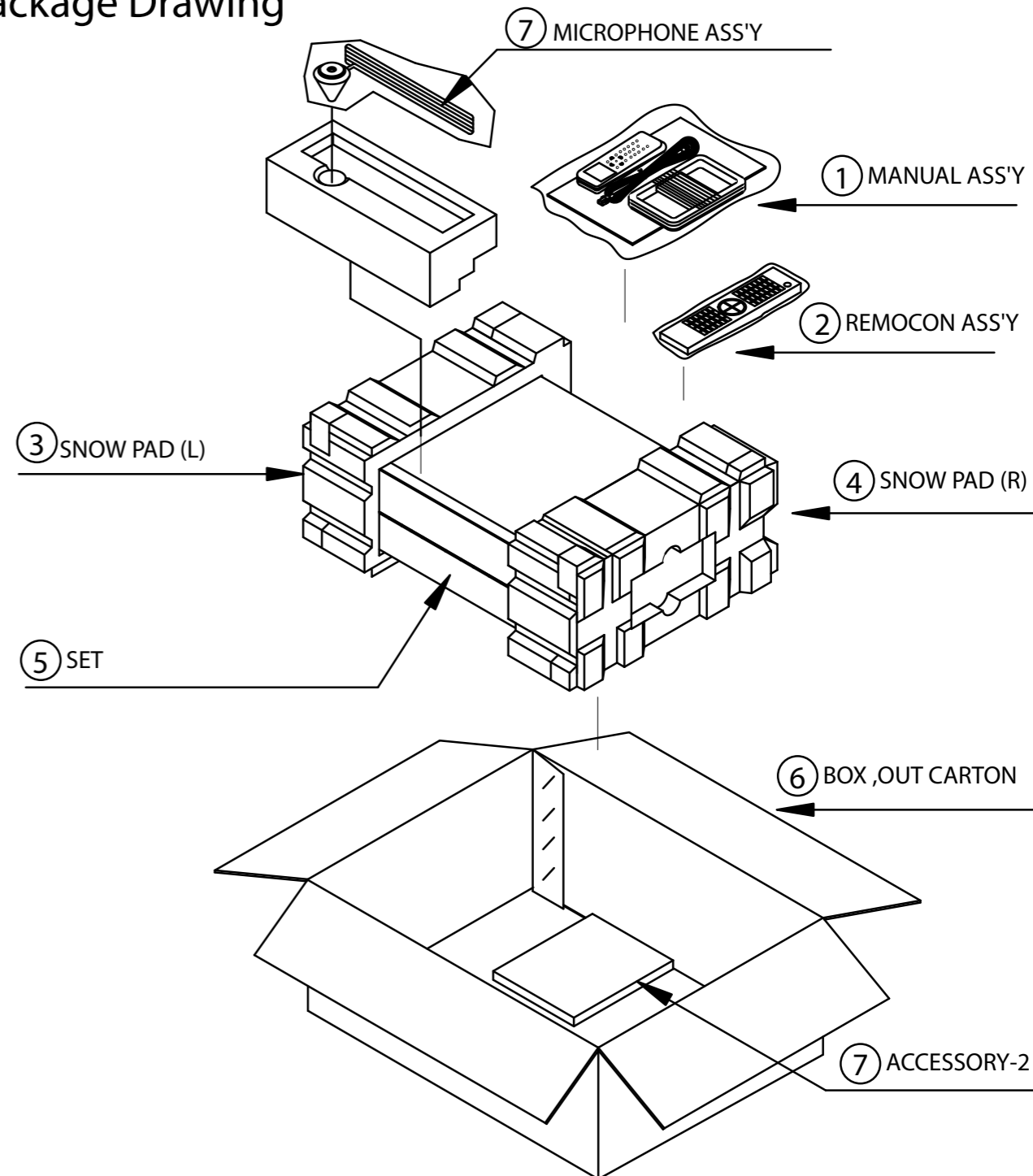


ACCESSORY-1			
NO	DESCRIPTION	PARTS NO.	Q,ty
1	POLY BAG	CPB1061W	1
2	AM LOOP ANTENNA ASS'Y	CSA1A027Z	1
3	BATTERY	CABR03P	6
4	FM 1 POL ANT	CSA1A018Z	1
5	CORD ,POWER	CJA2B054Z	1
6	COVER ASS'Y	CGRAVR350/230ZA	1
	1 COVER A	CGR2A436	1
	2 COVER B	CGR2A437	1
	3 ORNAMENT ,AL A	CGX1A391C66	1
	4 ORNAMENT ,AL B	CGX1A392C66	1
	5 SHEET,FRONT COVER	CQE1A220Z	1
	6 PAD ,COVER	CP51A676	1
	7 BAG ,POLY	CPB1A176Z	1
7	IMAGE BROCHURES	HQE1A273Z	1
8	REMOCON ASS'Y	CARTZONE24	1
9	STAPLE	CPL0905	3



ACCESSORY-2			
NO	DESCRIPTION	PARTS NO.	Q,ty
10	POLY BAG	CPB1061W	1
11	BOOKLET,INFORMATION	CQE1A180Z	1
12	MANUAL,INSTRUCTION	CQX1A1318Z	1
13	MANUAL ,SETUP GUIDE	CQX1A1320Z	1
14	STAPLE	CPL0905	3
A	REMOCON ASS'Y	CARTAVR355/230	1
B	MICROPHONE ASS'Y	CJXAVR340MICRO	1

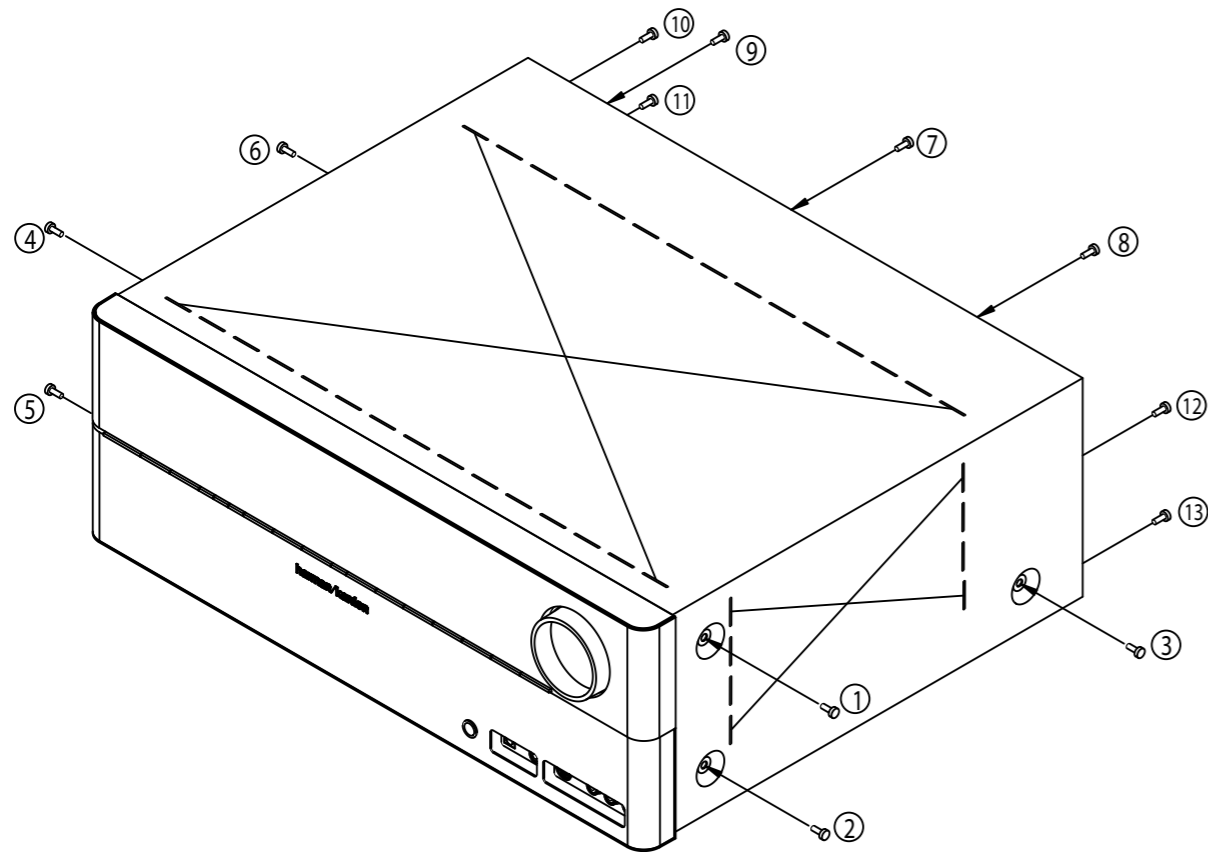
2. Package Drawing



NO	DESCRIPTION	PARTS NO.	Q,ty
1	ACCESSORY-1	CQXAVR355/230	1
2	REMOCON ASS'Y	CARTAVR355/230	1
3	SNOW,PAD(L)	CP56A564	1
4	SNOW,PAD(R)	CP56A565	1
5	SET	AVR355/230SET	1
6	BOX,OUT CARTON	CPG1A855U	1
7	ACCESSORY-2	CQXAVR355/230	1
8	MICROPHONE ASS'Y	CJXAVR340MICRO	1

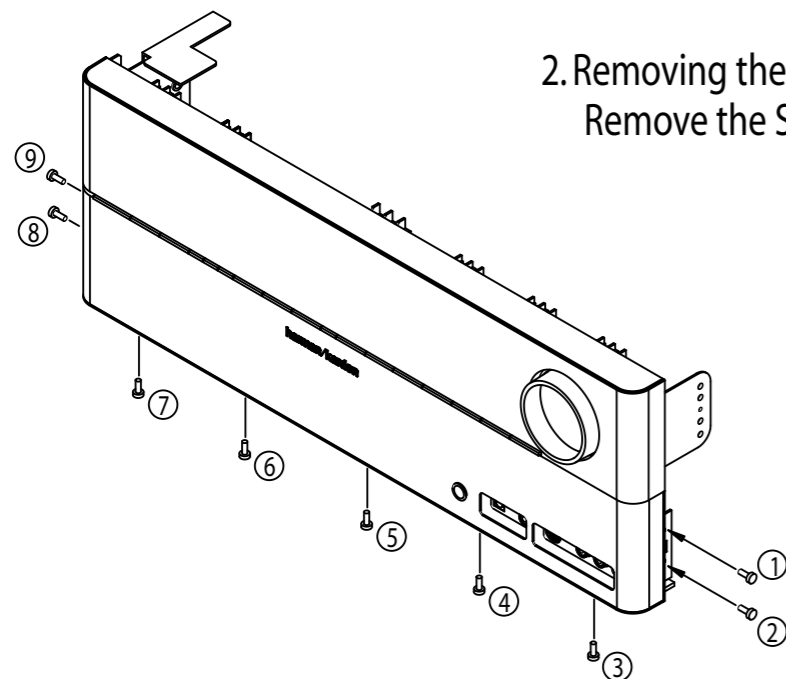
1. Removing the Top Cabinet
Remove the Screws

① ~ ⑬



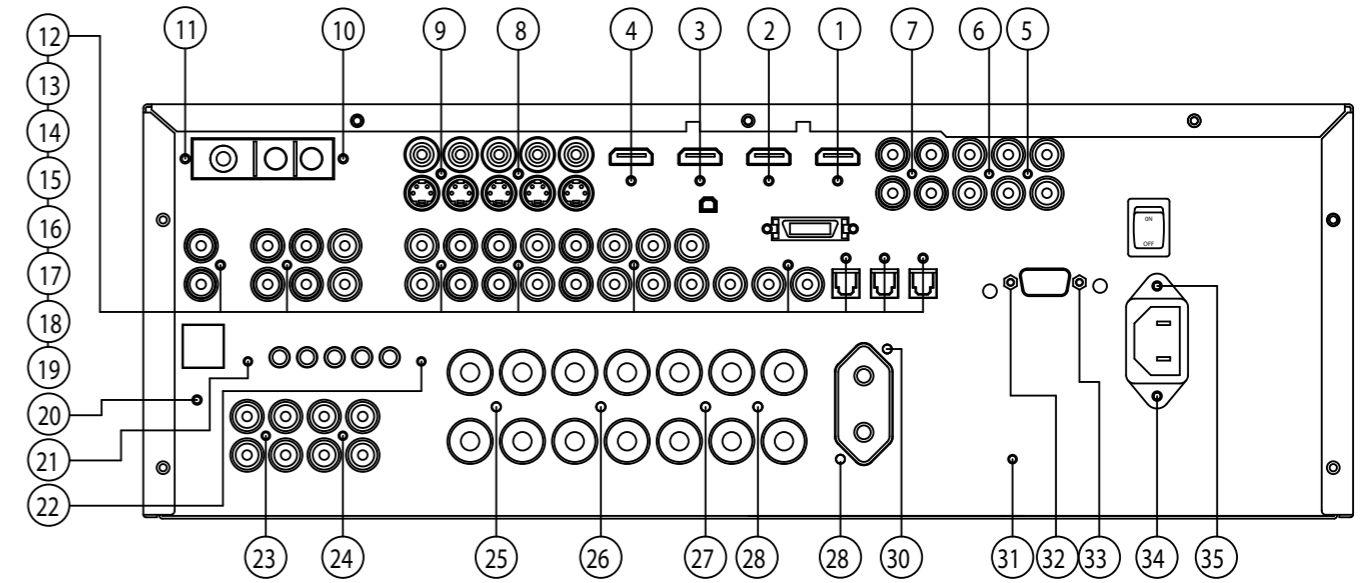
2. Removing the Front Panel
Remove the Screws

① ~ ⑨



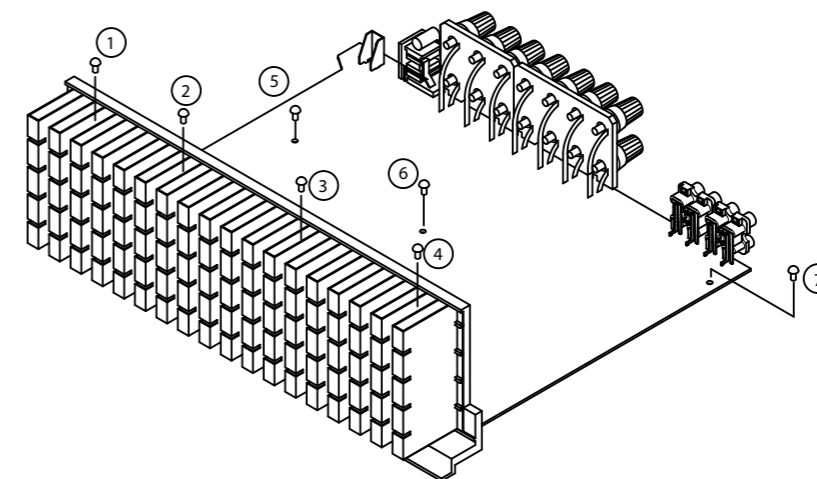
3. Removing the Rear Panel
Remove the Screws

① ~ ⑳

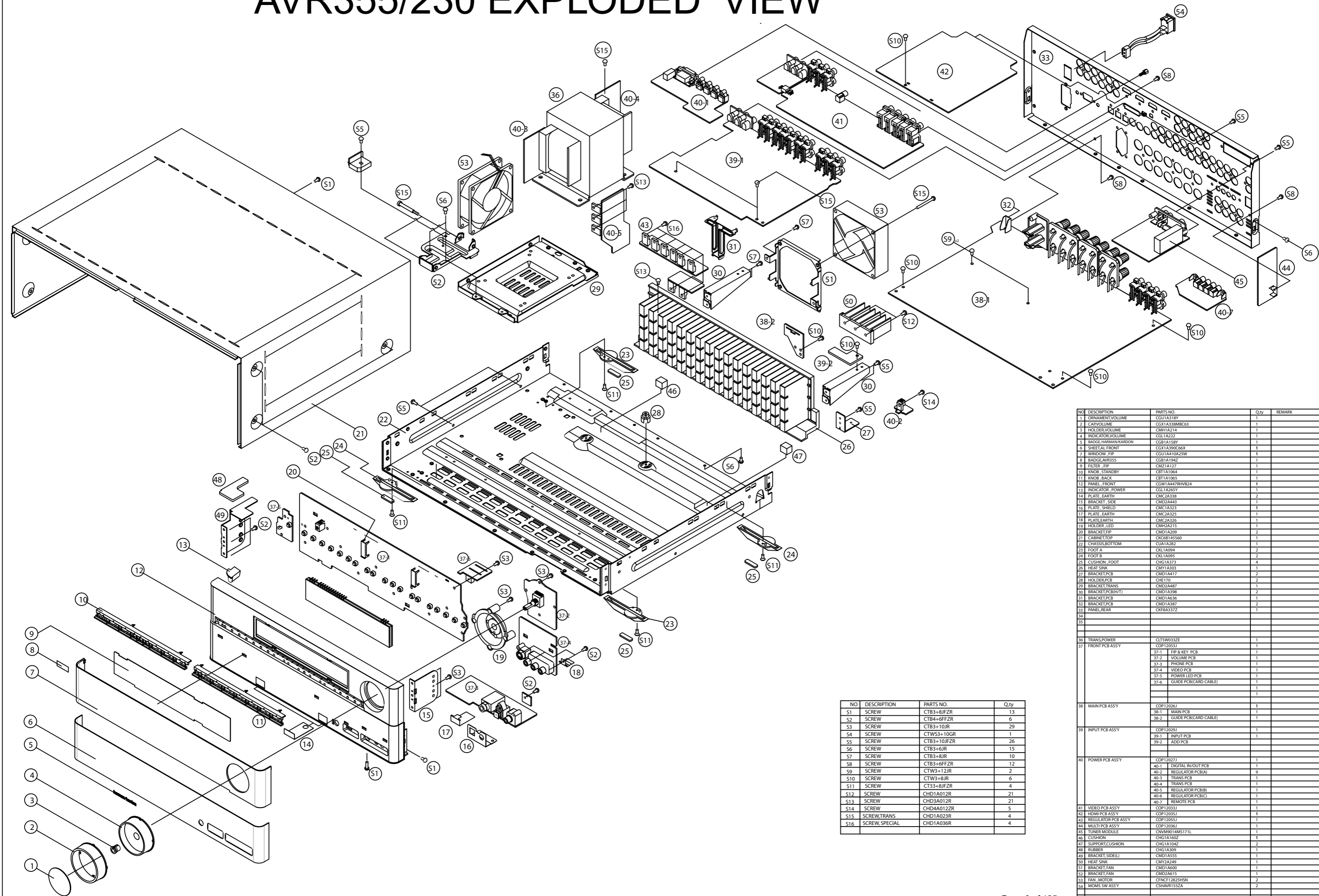


4. Removing the Main PCB
Remove the Screws

① ~ ⑦



AVR355/230 EXPLODED VIEW



NO	DESCRIPTION	PARTS NO.	Q.ty	REMARK
1	ORNAMENT,VOLUME	CGU1A318Y	1	
2	CAP,VOLUME	CGX1A388BC63	1	
3	HOLDER,VOLUME	CMH1A214	1	
4	INDICATOR,VOLUME	CGL1A222	1	
5	BADGE,HARMAN/KARDON	CGB1A158Y	1	
6	SHEETAL FRONT	CGU1A390C60X	1	
7	WINDOW ,FIP	CGU1A410A25W	1	
8	BADGE,AVR355	CGB1A194Z	1	
9	FILTER ,FIP	CMZ1A127	1	
10	KNOB ,STANDBY	CBT1A1064	1	
11	KNOB ,BACK	CBT1A1065	1	
12	PANEL ,FRONT	CGW1A447RHVB24	1	
13	INDICATOR ,POWER	CGL1A265Y	1	
14	PLATE ,EARTH	CMC2A338	2	
15	BRACKET ,SIDE	CMC2A443	1	
16	PLATE ,SHIELD	CMC1A323	1	
17	PLATE ,EARTH	CMC2A325	1	
18	PLATE,EARTH	CMC2A326	1	
19	HOLDER ,LED	CMH2A215	1	
20	BRACKET,FIP	CMD1A209	2	
21	CABINET, TOP	CKC81A5580	1	
22	CHASSIS,BOTTOM	CL1A1282	1	
23	FOOT A	CKL1A094	2	
24	FOOT B	CKL1A095	2	
25	CUSHION ,FOOT	CHG1A373	4	
26	HEAT SINK	CMY1A303	1	
27	BRACKET,PCB	CMD1A17	2	
28	HOLDER,PCB	CHE170	2	
29	BRACKET,TRANS	CMD2A487	2	
30	BRACKET,PCB(H/T)	CMD1A398	2	
31	BRACKET,PCB	CMD1A636	1	
32	BRACKET,PCB	CMD1A387	2	
33	PANEL,REAR	CKF8A337Z	1	
34				
35				
36	TRANS,POWER	CLTSW033ZE	1	
37	FRONT PCB ASSY	COP12053J	1	
		37-1 FIP & KEY PCB	1	
		37-2 VOLUME PCB	1	
		37-3 PHONE PCB	1	
		37-4 VIDEO PCB	1	
		37-5 POWER LED PCB	1	
		37-6 GUIDE PCB(CARD CABLE)	1	
38	MAIN PCB ASSY	COP12026J	1	
		38-1 MAIN PCB	1	
		38-2 GUIDE PCB(CARD CABLE)	1	
39	INPUT PCB ASSY	COP12030J	1	
		39-1 INPUT PCB	1	
		39-2 ADD PCB	1	
40	POWER PCB ASSY	COP12027J	1	
		40-1 DIGITAL IN/OUT PCB	1	
		40-2 REGULATOR PCB(A)	9	
		40-3 TRANS PCB	4	
		40-4 TRANS PCB	1	
		40-5 REGULATOR PCB(B)	1	
		40-6 REGULATOR PCB(C)	1	
		40-7 REMOTE PCB	1	
41	VIDEO PCB ASSY	COP12033J	1	
42	HDMI PCB ASSY	COP12035I	1	
43	REGULATOR PCB ASSY	COP12055J	1	
44	MULTI PCB ASSY	COP12036J	1	
45	TUNER MODULE	CNVM9014MS171L	1	
46	CUSHION	CHG1A160Z	1	
47	SUPPORT,CUSHION	CHG1A104Z	2	
48	RUBBER	CHG1A309	1	
49	BRACKET ,SIDE(L)	CMD1A555	1	
50	HEAT SINK	CMY2A249	1	
51	BRACKET,FAN	CMD1A600	1	
52	BRACKET,FAN	CMD2A615	1	
53	FAN ,MOTOR	CFNCF12825HSN	2	
54	MOMS SW ASSY	CSHAVR153ZA	2	
55	SCREW	CTB3+8JFZR	13	
S1	SCREW	CTB4+6FFZR	6	
S2	SCREW	CTB3+10JR	29	
S3	SCREW	CTW3+10GR	1	
S4	SCREW	CTW3+10JFZR	26	
S5	SCREW	CTB3+6JR	15	
S6	SCREW	CTB3+8JR	10	
S7	SCREW	CTB3+6FFZR	12	
S8	SCREW	CTW3+12JR	2	
S9	SCREW	CTW3+8JR	6	
S10	SCREW	CTW3+8JFZR	4	
S11	SCREW	CT33+8JFZR	4	
S12	SCREW	CHD1A012R	21	
S13	SCREW	CHD3A012R	21	
S14	SCREW	CHD4A012ZR	5	
S15	SCREW,TRANS	CHD1A023R	4	
S16	SCREW SPECIAL	CHD1A036R	4	

AVR355/230 Electrical Parts List			
Ref. #	Part Number	Description	Value
	CGB1A194Z	BADGE , AVR355	BADGE
	CGL1A222	INDICATOR , VOLUME	INDICATOR
	CGU1A318Y	ORNAMENT , VOLUME AVR255	ORNAMENT
	CGU1A410A25W	WINDOW , FIP	WINDOW
	CARTAVR355/230	REMOCON TRANSMITTER ASS'Y	ASS'Y
	CHE154	CLAMPER , ARM	CLAMPER
	CJXAVR340MICRO	MICRO PHONE ASS'Y	MICRO PHONE
	CPG1A855U	BOX , OUT CARTON AVR355/230	BOX
	CPS6A564	PAD , SNOW L	SNOW PAD
	CPS6A565	PAD , SNOW R	SNOW PAD
	CQB1A551Z	LABEL , BAR CODE	LABEL
	CQB1A797Z	LABEL , HDMI	LABEL
	CQB1A876Z	LABEL , COUNTRY DVD29/230	LABEL
	CQS1A001	RIBON , BAR CODE	RIBON
	CQXAVR355/230	INSTRUCTION MANUAL ASS'Y	ASS'Y
	CARTZONE24	AVR355 REMOCON TRANSMITTER ASS'Y	ASS'Y
	CGRAVR350/230ZA	COVER ASS'Y	COVER
	CGR2A436	COVER , A AVR350	COVER
	CGR2A437	COVER , B AVR350	COVER
	CGX1A391C66	ORNAMENT , AL A AVR350	ORNAMENT
	CGX1A392C66	ORNAMENT , AL B AVR350	ORNAMENT
	CJA2B054Z	CORD , POWER(DETACHABLE/EUR)	POWER CORD
	CQX1A1318Z	MANUAL , INSRTUCTION	MANUAL
	CQX1A1320Z	MANUAL , SETUP AVR155/230	MANUAL
	CSA1A018Z	FM 1 POLE ANT	FM ANT
	CSA1A027Z	AM LOOP ANT	AM ANT
	CRE1A037	LOCKER	SH08M790BO
	CGX1A338MBC63	CAP , VOLUME	VOLUME CAP
	CGX1A390C66X	SHEET , AL FRONT AVR255	SHEET
	CKC6B145S60	CABINET , TOP AVR350	CABINET
	CMH1A214	HOLDER , VOLUME	HOLDER
	CMZ1A127	FILTER , FIP AVR255	FILTER
	CMZ2A090	SHEET , VOLUME	SHEET
FRONT PANEL ASSY			
Ref. #	Part Number	Description	Value
	CGWAVR355/230	FRONT PANEL ASS'Y	ASS'Y
	CBT1A1064	KNOB , STANDBY AVR355	KNOB
	CBT1A1065	KNOB , BACK AVR355	KNOB
	CGB1A158Y	BADGE , FRONT HARMAN/KARDON	BADGE
	CGL1A265Y	INDICATOR , POWER AVR155	INDICATOR
	CGW1A447RHVB24	PANEL , FRONT AVR355/230	PANEL
	CHG1A309	RUBBER	RUBBER
	CHR301	CLAMPER	CLAMPER
	CHS1A032	TAPE , HEMELON	TAPE
	CHS1A165	TAPE , HEMELON	TAPE
	CLZ9Z028Z	FERRITE CORE(21.2X6.4X12.7)	FERRITE CORE
	CMC1A323	PLATE , SHIELD AVR350	PLATE
	CMC2A326	PLATE , EARTH AVR350	PLATE
	CMC2A338	PLATE , EARTH AVR350	PLATE
	CMD1A555	BRACKET , SIDE (L)	BRACKET
	CMD2A443	BRACKET , SIDE	BRACKET
	CMH2A215	HOLDER , LED AVR350	HOLDER
	CPE1A009	SHEET , BLIND	SHEET
	CTB3+10JR	SCREW	SCREW
	CTWS3+10GR	SCREW	SCREW

FRONT PANEL ASSY			
Ref. #	Part Number	Description	Value
CB72	CWC4F2A17A280B	CABLE , CARD(17P, 280mm)	CARD CABLE
BOTTOM CHASSIS ASS'Y			
Ref. #	Part Number	Description	Value
	CUAAVR355/230	BOTTOM CHAASIS ASS'Y	ASS'Y
	CHD1A012ZR	SCREW , SPECIAL	SCREW
	CHD1A023R	SCREW , SPECIAL	SCREW
	CHD4A012R	SCREW , SPECIAL	SCREW
	CHE170	HOLDER , PCB	HOLDER
	CHE36-3	CLAMPER , WIRE	CLAMPER
	CHG1A104Z	CUSHION , RUBBER	CUSION
	CHG1A160Z	CUSHION , RUBBER	CUSION
	CHG1A373	CUSHION , FOOT AVR350	CUSION
	CHG1A412	CUSHION	CUSION
	CHS1A032	TAPE , HEMELON	TAPE
	CKF8A337Z	PANEL , REAR AVR355/230	PANEL
	CKL1A094	FOOT , A AVR350	FOOT
	CKL1A095	FOOT , B AVR350	FOOT
	CMD1A636	BRACKET , PCB	BRACKET
	CMD2A487	BRACKET , TRANS	BRACKET
	CNVM9014MS171L	MODULE , TUNER(EUR)	TUNER
	CTB3+10JFZR	SCREW	SCREW
	CTB3+6FFZR	SCREW	SCREW
	CTB3+6JR	SCREW	SCREW
	CTB3+8JR	SCREW	SCREW
	CTS3+8JFZR	SCREW	SCREW
	CTW3+12JR	SCREW	SCREW
	CTW3+8JR	SCREW	SCREW
	CUA1A282	CHASSIS , BOTTOM AVR255	CHASSIS
BN90	CSHAVR155ZA	MOMS SW ASS'Y	SW ASS'Y
	CSH1A009ZV	SWITCH , MOMS	SWITCH
	CWZAVR255ZA	WIRE , ASS'Y(2P,150mm)	WIRE
BN92	CWZSR4001BN91A	WIRE ASS'Y	WIRE
	CLZ9W003Z	FERRITE , RING	29X7.7X19
	CWZSR4001BN91	WIRE ASS'Y	WIRE
CB11	CWC4F2A17A100B	CABLE , CARD(17P, 100MM, 1MM, B-TYPE)	CARD CABLE
CB12	CWC1C4A21B110B	CABLE , CARD	CARD CABLE
CB13	CWC4C4A13B100B	CABLE , CARD	CARD CABLE
CB14	CWC4F2A17A100B	CABLE , CARD(17P, 100MM, 1MM, B-TYPE)	CARD CABLE
CB15	CWC4F2A17A120B	CABLE , CARD(17P, 120mm)	CARD CABLE
CB16	CWC4F2A13A100B	CABLE , CARD(13P, 100mm)	CARD CABLE
CB19	CWC4F2A07A080B	CABLE , CARD(7P, 80mm, B TYPE)	CARD CABLE
CB47	CWC4F2A07A120B	CABLE , CARD (7P, 120MM, 1MM)	CARD CABLE
F901	KBA2C6300TLEZ	FUSE(233TYPE, 6.3A,250V)	LITTEL FUSE
RC91	CJJ8A006ZW	RECEPTACLE , AC(15A/250V,R-301,B21)	INNET
T901	CLT5W033ZE	TRANS , POWER AVR355/230	MAINTRANS
FRONT PCB ASSY			
Ref. #	Part Number	Description	Value
	COP12053J	AVR355/230 FRONT PCB ASS'Y	ASS'Y
C714	CCBS1H151KBT	CAP , CERAMIC(150PF/50V)	150UF 50V K
C716	CCEA1AH331T	CAP , ELECT	330UF 10V
C719	CCBS1H102KBT	CAP , CERAMIC(1000PF/50V)	1000PF 50V K
C720	CCBS1H102KBT	CAP , CERAMIC(1000PF/50V)	1000PF 50V K
C721	CCBS1H102KBT	CAP , CERAMIC(1000PF/50V)	1000PF 50V K
C723	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C728	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C729	CCBS1H473ZFT	CAP , CERAMIC(47000PF/50V)	0.047UF 50V Z
C735	CCEA1CKS100T	CAP , ELECT	10UF 16V
C742	CCBS1H223ZFT	CAP , CERAMIC(22000PF/50V)	0.022UF 50V Z

FRONT PCB ASSY			
Ref. #	Part Number	Description	Value
C793	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C794	CCBS1C222MXT	CAP , CERAMIC(2200PF/16V)	2200PF 16V
C795	CCBS1H102KBT	CAP , CERAMIC(1000PF/50V)	1000PF 50V K
C796	CCBS1H102KBT	CAP , CERAMIC(1000PF/50V)	1000PF 50V K
C805	CCBS1H223ZFT	CAP , CERAMIC(22000PF/50V)	0.022UF 50V Z
C806	CCBS1H223ZFT	CAP , CERAMIC(22000PF/50V)	0.022UF 50V Z
C807	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C808	CCBS1H181KBT	CAP , CERAMIC(180PF/50V)	180PF 50V
C809	CCEA1AH471T	CAP , ELECT	470UF 10V
C812	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C817	CCBS1H100JCT	CAP , CERAMIC(10PF/50V)	10PF 50V
C820	CCEA1HH100T	CAP , ELECT	10UF 50V
C821	CCEA1EH470T	CAP , ELECT	47UF 25V
C822	CCEA1EH470T	CAP , ELECT	47UF 25V
C823	CCEA1HH100T	CAP , ELECT	10UF 50V
C824	CCBS1H471KBT	CAP , CERAMIC(470PF/50V)	470PF 50V
C825	CCBS1H151KBT	CAP , CERAMIC(150PF/50V)	150PF 50V
C828	CCBS1H470JT	CAP , CERAMIC(47PF/50V)	47PF 50V
C830	CCBS1H473ZFT	CAP , CERAMIC(47000PF/50V)	0.047F 50V
C841	CCEA1HH100T	CAP , ELECT	10UF 50V
C842	CCEA1HH100T	CAP , ELECT	10UF 50V
C843	CCEA1HH100T	CAP , ELECT	10UF 50V
C850	CCBS1H471KBT	CAP , CERAMIC(470PF/50V)	470PF 50V
C851	CCBS1H471KBT	CAP , CERAMIC(470PF/50V)	470PF 50V
C852	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C855	CCBS1H101KBT	CAP , CERAMIC(100PF/50V)	100PF 50V K
C856	CCBS1H101KBT	CAP , CERAMIC(100PF/50V)	100PF 50V K
C857	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C862	CCBS1H101KBT	CAP , CERAMIC(100PF/50V)	100PF 50V K
C863	CCBS1H101KBT	CAP , CERAMIC(100PF/50V)	100PF 50V K
C866	CCEA1HH100T	CAP , ELECT	10UF 50V
C867	CCEA1HH100T	CAP , ELECT	10UF 50V
C868	CCEA1EH470T	CAP , ELECT	47UF 25V
C869	CCEA1EH470T	CAP , ELECT	47UF 25V
C870	CCBS1H681KBT	CAP , CERAMIC(680PF/50V)	680PF 50V K
C871	CCBS1H681KBT	CAP , CERAMIC(680PF/50V)	680PF 50V K
C872	CCEA1CH331T	CAP , ELECT	330UF 16V
C873	CCEA1CH331T	CAP , ELECT	330UF 16V
C874	CCBS1H101KBT	CAP , CERAMIC(100PF/50V)	100PF 50V K
C882	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C888	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C889	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C891	CCBS1H223ZFT	CAP , CERAMIC(22000PF/50V)	0.022UF 50V Z
C892	CCBS1H223ZFT	CAP , CERAMIC(22000PF/50V)	0.022UF 50V Z
C893	CCBS1H223ZFT	CAP , CERAMIC(22000PF/50V)	0.022UF 50V Z
C894	CCEA1CKS100T	CAP , ELECT	10UF 16V
C896	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C897	CCEA1AH471T	CAP , ELECT	470UF 10V
C903	CCEA1HKS2R2T	CAP , ELECT	2.2UF 50V SMALL SIZE
C905	CCEA1HKS2R2T	CAP , ELECT	2.2UF 50V SMALL SIZE
D455	CVD1SS133MT	DIODE	1SS133
D774	CVD1SS133MT	DIODE	1SS133
D775	CVD1SS133MT	DIODE	1SS133
D784	CVD1SS133MT	DIODE	1SS133
D785	CVD1SS133MT	DIODE	1SS133
L702	HLQ02C100KT	COIL , AXAIL	10uH
Q451	HVTKRC107MT	T.R	KRC107M
Q452	HVTKRA107MT	T.R	KRA107M
Q454	HVTKRC107MT	T.R	KRC107M
Q701	HVTKRC107MT	T.R	KRC107M

FRONT PCB ASSY			
Ref. #	Part Number	Description	Value
Q722	HVTKRA107MT	T.R	KRA107M
Q724	HVTKRC107MT	T.R	KRC107M
Q725	HVTKRC107MT	T.R	KRC107M
Q734	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q735	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q736	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q737	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q738	HVTKRC107MT	T.R	KRC107M
Q739	HVTKTA1271YT	T.R	KTA1271Y
Q740	HVTKTC3200GRT	T.R	KTC3200GR
R452	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R453	CRD20TJ362T	RES , CARBON	3.6K OHM 1/5W J
R454	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R701	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R704	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R705	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R706	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R708	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R709	CRD20TJ470T	RES , CARBON	47 OHM 1/5W J
R710	CRD20TJ470T	RES , CARBON	47 OHM 1/5W J
R711	CRD20TJ470T	RES , CARBON	47 OHM 1/5W J
R718	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R721	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R722	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R723	CRD20TJ393T	RES , CARBON	39K OHM 1/5W J
R724	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R725	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R727	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R737	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R747	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R753	CRD20TF1001T	RES , CARBON	1K /1/5W /F
R754	CRD20TF1501T	RES , CARBON	1.5K /1/5W /F
R755	CRD20TF1801T	RES , CARBON	1.8K /1/5W /F
R756	CRD20TF2701T	RES , CARBON	2.7K /1/5W/F
R757	CRD20TF3301T	RES , CARBON	3.3K /1/5W/F
R758	CRD20TF5601T	RES , CARBON(5.6K/F)	5.6K /1/5W/F
R759	CRD20TF1001T	RES , CARBON	1K /1/5W /F
R760	CRD20TF1501T	RES , CARBON	1.5K /1/5W /F
R761	CRD20TF1801T	RES , CARBON	1.8K /1/5W /F
R762	CRD20TF2701T	RES , CARBON	2.7K /1/5W/F
R763	CRD20TF3301T	RES , CARBON	3.3K /1/5W/F
R764	CRD20TF5601T	RES , CARBON(5.6K/F)	5.6K /1/5W/F
R765	CRD20TF7501T	RES , CARBON (7.5K/F)	7.5K /1/5W/F
R781	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R782	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R783	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R784	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R786	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R787	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R791	CRD20TJ123T	RES , CARBON	12K OHM 1/5W J
R805	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R806	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R824	CRD20TF2200T	RES , CARBON(220 OHM, 1%)	220 OHM /1/5W /F
R825	CRD20TF6800T	RES , CARBON(680 OHM, 1%)	680 OHM /1/5W /F
R864	CRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R865	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R866	CRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R869	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R871	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R872	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J

FRONT PCB ASSY			
Ref. #	Part Number	Description	Value
R873	CRD20TJ471T	RES , CARBON	470 OHM 1/5W J
R874	CRD20TJ471T	RES , CARBON	470 OHM 1/5W J
R875	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R876	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R877	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R878	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R892	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R893	CRD20TJ333T	RES , CARBON	33K OHM 1/5W J
R895	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R896	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R897	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R898	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R899	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R900	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R901	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R902	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R903	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R904	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R905	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R906	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R907	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R908	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R909	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R910	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R911	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R912	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R913	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R915	CRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R918	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R919	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R920	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R921	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R922	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R923	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R924	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R926	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R934	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R935	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R936	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R937	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
S701	HST1A020ZT	SW , TACT	TACT SWITCH
S702	HST1A020ZT	SW , TACT	TACT SWITCH
S703	HST1A020ZT	SW , TACT	TACT SWITCH
S704	HST1A020ZT	SW , TACT	TACT SWITCH
S705	HST1A020ZT	SW , TACT	TACT SWITCH
S706	HST1A020ZT	SW , TACT	TACT SWITCH
S707	HST1A020ZT	SW , TACT	TACT SWITCH
S708	HST1A020ZT	SW , TACT	TACT SWITCH
S709	HST1A020ZT	SW , TACT	TACT SWITCH
S711	HST1A020ZT	SW , TACT	TACT SWITCH
S712	HST1A020ZT	SW , TACT	TACT SWITCH
S713	HST1A020ZT	SW , TACT	TACT SWITCH
S714	HST1A020ZT	SW , TACT	TACT SWITCH
S715	HST1A020ZT	SW , TACT	TACT SWITCH
	CMC2A325	PLATE , EARTH AVR155	Plate, earth
BK71	CMD1A209	BRACKET , FLT	BRACKET
BK72	CMD1A209	BRACKET , FLT	BRACKET
BN10	CWZAVR155BN10	SHIELD WIRE ASS'Y(5P, 2MM, 350MM)	WIRE
BN18	CWZAVR355BN18	SHIELD WIRE ASS'Y (5P, 500MM)	WIRE
BN22	CWZAVR155BN22	WIRE ASS'Y(7P, 2MM, 500MM)	WIRE

FRONT PCB ASSY			
Ref. #	Part Number	Description	Value
BN41	CWZAVR155BN41	SHIELD WIRE ASS'Y(7P, 2MM, 500MM)	WIRE
BN81	CWB1C907200BM	WIRE ASS'Y	WIRE
BN84	CWB2B905080EN	WIRE ASS'Y	WIRE
BN85	CWB2B903100EN	WIRE ASS'Y	WIRE
BN88	CWB2B905050EN	WIRE ASS'Y	WIRE
BN92	CWB2B905100EN	WIRE ASS'Y	WIRE
CN72	CJP17GA117ZY	WAFER	WAFER
CN84	CJP05GB46ZY	WAFER	WAFER
CN85	CJP03GA19ZY	WAFER , STRAIGHT(3PIN)	WAFER
CN88	CJP05GA19ZY	WAFER , STRAIGHT	WAFER
CN92	CJP05GA19ZY	WAFER , STRAIGHT	WAFER
D701	CVD1L0345W31BOCT201V	L.E.D , WHITE	LED
D703	CVD1L0345W31BOCT201V	L.E.D , WHITE	LED
D705	CVD1L0345W31BOCT201V	L.E.D , WHITE	LED
D723	CVD30ASOGCAA-S7	L.E.D , ORANGE	LED
D727	CVD1L0345W31BOCT201V	L.E.D , WHITE	LED
D778	HVD1N5819T	DIODE , SCHOTTKY	1N5819
ET03	CMD1A629	BRACKET , PCB	BRACKET
FIP1	CFL17BT031GINK	F.I.P , AVR355	FIP(FUTABA)
IC73	HRVNJL34H380A	SENSOR , REMOCON	SENSOR
IC75	HVI74ACT04MTR	I.C , HEX	JRC(74ACT04MTR)
IC76	HVI74HCU04AFNG	I.C , INVERTER	FAIRCHILD(74HCU04AF)
IC86	HVINJM4556AL	I.C , HEADPHONE	JRC(NJM4556AL)
IC87	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068MTE1)
JK81	CJJ4M041Y	JACK , BOARD (COAX)	JACK
JK82	HJSTORX177L	MODULE , OPTICAL(RX)	OPT JACK
JK83	CJJ2E026Z	JACK , HEADPHONE(SILVER PLATE)	HEADPHONE JACK
JK85	CJJ9M004Y	JACK , S-VHS (SILVER)	S-VHS JACK
JK86	CJJ4S028Y	JACK , BOARD (3P SILVER)	JACK
JW83	CWE8202150RV	WIRE ASS'Y	WIRE
JW84	CWE8202150RV	WIRE ASS'Y	WIRE
JW88	CWE8202150RV	WIRE ASS'Y	WIRE
RL45	CSL4A016ZU	RELAY , 12V 2C2P	RELAY
VR74	CSR2A037Z	ENCODER	ENCODER
MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
	COP12026J	AVR355/230 MAIN PCB ASS'YY	ASS'Y
	CHD3A012R	SCREW , SPECIAL	SCREW
C501	CCEA1HH100T	CAP , ELECT	10UF 50V
C502	CCEA1HH100T	CAP , ELECT	10UF 50V
C503	CCEA1HH100T	CAP , ELECT	10UF 50V
C504	CCEA1HH100T	CAP , ELECT	10UF 50V
C505	CCEA1HH100T	CAP , ELECT	10UF 50V
C506	CCKT1H331KB	CAP , CERAMIC	330PF 50V
C507	CCBS1H331KBT	CAP , CERAMIC(330PF/50V)	330PF 50V
C508	CCBS1H331KBT	CAP , CERAMIC(330PF/50V)	330PF 50V
C509	CCKT1H331KB	CAP , CERAMIC	330PF 50V
C510	CCBS1H331KBT	CAP , CERAMIC(330PF/50V)	330PF 50V
C561	CCEA1CH101T	CAP , ELECT	100UF 16V
C562	CCEA1CH101T	CAP , ELECT	100UF 16V
C564	CCEA1CH101T	CAP , ELECT	100UF 16V
C565	CCEA1CH101T	CAP , ELECT	100UF 16V
C566	CCEA1CH101T	CAP , ELECT	100UF 16V
C567	CCEA1CH101T	CAP , ELECT	100UF 16V
C568	CCEA1CH101T	CAP , ELECT	100UF 16V
C569	CCEA1CH101T	CAP , ELECT	100UF 16V
C570	CCEA1CH101T	CAP , ELECT	100UF 16V
C571	CCBS1H681KBT	CAP , CERAMIC(680PF/50V)	680PF 50V
C572	CCBS1H681KBT	CAP , CERAMIC(680PF/50V)	680PF 50V

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
C573	CCBS1H681KBT	CAP , CERAMIC(680PF/50V)	680PF 50V
C574	CCBS1H681KBT	CAP , CERAMIC(680PF/50V)	680PF 50V
C575	CCBS1H681KBT	CAP , CERAMIC(680PF/50V)	680PF 50V
C601	CCCT1H120JC	CAP , CERAMIC	12PF 50V J
C602	CCCT1H120JC	CAP , CERAMIC	12PF 50V J
C603	CCCT1H120JC	CAP , CERAMIC	12PF 50V J
C604	CCCT1H120JC	CAP , CERAMIC	12PF 50V J
C605	CCCT1H120JC	CAP , CERAMIC	12PF 50V J
C606	CCCT1H330JC	CAP , CERAMIC	33PF 50V J
C607	CCCT1H330JC	CAP , CERAMIC	33PF 50V J
C608	CCCT1H330JC	CAP , CERAMIC	33PF 50V J
C609	CCCT1H330JC	CAP , CERAMIC	33PF 50V J
C610	CCCT1H330JC	CAP , CERAMIC	33PF 50V J
C681	CCEA1HH100T	CAP , ELECT	10UF 50V
C682	CCEA1HH100T	CAP , ELECT	10UF 50V
C683	CCEA1HH100T	CAP , ELECT	10UF 50V
C684	CCEA1HH100T	CAP , ELECT	10UF 50V
C685	CCEA1HH100T	CAP , ELECT	10UF 50V
C721	CCKT1H221KB	CAP , CERAMIC	220PF 50V K
C722	CCKT1H221KB	CAP , CERAMIC	220PF 50V K
C723	CCKT1H221KB	CAP , CERAMIC	220PF 50V K
C724	CCKT1H221KB	CAP , CERAMIC	220PF 50V K
C725	CCKT1H221KB	CAP , CERAMIC	220PF 50V K
C726	CCKT1H221KB	CAP , CERAMIC	220PF 50V K
C727	CCKT1H221KB	CAP , CERAMIC	220PF 50V K
C728	CCKT1H221KB	CAP , CERAMIC	220PF 50V K
C801	CCEA1HH100T	CAP , ELECT	10UF 50V
C802	CCEA1HH100T	CAP , ELECT	10UF 50V
C803	CCCT1H330JC	CAP , CERAMIC	33PF 50V J
C804	CCCT1H330JC	CAP , CERAMIC	33PF 50V J
C805	CCCT1H120JC	CAP , CERAMIC	12PF 50V J
C806	CCCT1H120JC	CAP , CERAMIC	12PF 50V J
C811	CCEA1CH101T	CAP , ELECT	100UF 16V
C812	CCEA1CH101T	CAP , ELECT	100UF 16V
C813	CCEA1CH101T	CAP , ELECT	100UF 16V
C814	CCEA1CH101T	CAP , ELECT	100UF 16V
C815	CCKT1H331KB	CAP , CERAMIC	330PF 50V K
C816	CCBS1H331KBT	CAP , CERAMIC(330PF/50V)	330PF 50V
C817	CCEA1HH100T	CAP , ELECT	10UF 50V
C818	CCEA1HH100T	CAP , ELECT	10UF 50V
C819	CCBS1H681KBT	CAP , CERAMIC(680PF/50V)	680PF 50V
C820	CCBS1H681KBT	CAP , CERAMIC(680PF/50V)	680PF 50V
C900	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C901	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C905	CCFT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
C907	CCEA1CH101T	CAP , ELECT	100UF 16V
C908	CCFT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
C910	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C912	CCEA1EH221T	CAP , ELECT	220UF 25V
C913	CCFT1H104ZF	CAP , SEMICONDUCTOR	0.1UF 50V Z
C914	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C917	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C918	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C919	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C920	CCEA1VH221T	CAP , ELECT	220UF 35V
C921	CCEA1VH101T	CAP , ELECT	100UF 35V
C924	CCFT1H104ZF	CAP , SEMICONDUCTOR	0.1UF 50V Z
C925	CCFT1H104ZF	CAP , SEMICONDUCTOR	0.1UF 50V Z
C932	CCEA1CH101T	CAP , ELECT	100UF 16V
C933	CCEA1CH221T	CAP , ELECT	220UF 16V

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
C934	CCFT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
C939	CCEA1HH4R7T	CAP , ELECT	4.7UF 50V
C940	CCEA1AH471T	CAP , ELECT	470UF 10V
C948	CCFT1H104ZF	CAP , SEMICONDUCTOR	0.1UF 50V Z
C950	CCEA1AH471T	CAP , ELECT	470UF 10V
C971	HCQI1H562JZT	CAP , MYLAR	5600PF 50V J
C972	HCQI1H562JZT	CAP , MYLAR	5600PF 50V J
C973	HCQI1H562JZT	CAP , MYLAR	5600PF 50V J
C974	HCQI1H562JZT	CAP , MYLAR	5600PF 50V J
C975	HCQI1H562JZT	CAP , MYLAR	5600PF 50V J
C977	CCEA1EH330T	CAP , ELECT	33UF 25V
C980	HCQI1H562JZT	CAP , MYLAR	5600PF 50V J
C981	HCQI1H562JZT	CAP , MYLAR	5600PF 50V J
C990	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C991	CCEA1HH1R0T	CAP , ELECT	1UF 50V
C992	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C993	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C994	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C995	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C996	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C997	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C999	CCFT1H223ZF	CAP , CERAMIC	0.022UF 50V Z
D501	CVD1SS133MT	DIODE	1SS133
D502	CVD1SS133MT	DIODE	1SS133
D503	CVD1SS133MT	DIODE	1SS133
D504	CVD1SS133MT	DIODE	1SS133
D505	CVD1SS133MT	DIODE	1SS133
D581	CVD1SS133MT	DIODE	1SS133
D582	CVD1SS133MT	DIODE	1SS133
D583	CVD1SS133MT	DIODE	1SS133
D584	CVD1SS133MT	DIODE	1SS133
D585	CVD1SS133MT	DIODE	1SS133
D801	CVD1SS133MT	DIODE	1SS133
D802	CVD1SS133MT	DIODE	1SS133
D803	CVD1SS133MT	DIODE	1SS133
D804	CVD1SS133MT	DIODE	1SS133
D901	CVD1N4003SRT	DIODE , RECT	1N4003
D902	CVD1SS133MT	DIODE	1SS133
D903	CVD1N4003ST	DIODE , RECT	1N4003
D911	CVD1SS133MT	DIODE	1SS133
D912	CVD1SS133MT	DIODE	1SS133
D914	CVD1SS133MT	DIODE	1SS133
D917	CVD1SS133MT	DIODE	1SS133
D953	CVD1SS133MT	DIODE	1SS133
D954	CVD1N4003SRT	DIODE , RECT	1N4003
D955	CVD1N4003SRT	DIODE , RECT	1N4003
D956	CVD1N4003SRT	DIODE , RECT	1N4003
D957	CVD1N4003SRT	DIODE , RECT	1N4003
D961	CVD1N4003ST	DIODE , RECT	1N4003
D962	CVD1N4003SRT	DIODE , RECT	1N4003
D963	CVD1N4003SRT	DIODE , RECT	1N4003
D964	CVD1SS133MT	DIODE	1SS133
D967	CVD1SS133MT	DIODE	1SS133
D968	CVD1SS133MT	DIODE	1SS133
D969	CVD1SS133MT	DIODE	1SS133
D971	CVD1SS133MT	DIODE	1SS133
D972	CVD1SS133MT	DIODE	1SS133
D973	CVD1SS133MT	DIODE	1SS133
D974	CVD1SS133MT	DIODE	1SS133
D975	CVD1SS133MT	DIODE	1SS133

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
D976	CVD1SS133MT	DIODE	1SS133
D979	CVDZJ5.1BT	DIODE , ZENER	ZJ5.1B 1/2W
ET90	HJT1A025	PALTE , EARTH	MET37-0002
ET91	HJT1A025	PALTE , EARTH	MET37-0002
F901	KJCF5S	HOLDER , FUSE	HOLDER
F902	KBA2D2500TLET	FUSE(SR-5,2.5A,250V)	SAVE FUSETECH
IC97	HVIRE5VT28CATZ	I.C , RESET	RESET
Q501	HVTKTA1268GRT	T.R	KTA1268GR
Q502	HVTKTA1268GRT	T.R	KTA1268GR
Q503	HVTKTA1268GRT	T.R	KTA1268GR
Q504	HVTKTA1268GRT	T.R	KTA1268GR
Q505	HVTKTA1268GRT	T.R	KTA1268GR
Q511	HVTKTC3200GRT	T.R	KTC3200GR
Q512	HVTKTC3200GRT	T.R	KTC3200GR
Q513	HVTKTC3200GRT	T.R	KTC3200GR
Q514	HVTKTC3200GRT	T.R	KTC3200GR
Q515	HVTKTC3200GRT	T.R	KTC3200GR
Q516	HVTKTC3200GRT	T.R	KTC3200GR
Q517	HVTKTC3200GRT	T.R	KTC3200GR
Q518	HVTKTC3200GRT	T.R	KTC3200GR
Q519	HVTKTC3200GRT	T.R	KTC3200GR
Q520	HVTKTC3200GRT	T.R	KTC3200GR
Q541	HVTKTC3198YT	T.R	KTC3198Y
Q542	HVTKTC3198YT	T.R	KTC3198Y
Q543	HVTKTC3198YT	T.R	KTC3198Y
Q544	HVTKTC3198YT	T.R	KTC3198Y
Q545	HVTKTC3198YT	T.R	KTC3198Y
Q556	HVTKTC3200GRT	T.R	KTC3200GR
Q557	HVTKTC3200GRT	T.R	KTC3200GR
Q558	HVTKTC3200GRT	T.R	KTC3200GR
Q559	HVTKTC3200GRT	T.R	KTC3200GR
Q560	HVTKTC3200GRT	T.R	KTC3200GR
Q561	HVTKTC3200GRT	T.R	KTC3200GR
Q562	HVTKTC3200GRT	T.R	KTC3200GR
Q563	HVTKTC3200GRT	T.R	KTC3200GR
Q564	HVTKTC3200GRT	T.R	KTC3200GR
Q565	HVTKTC3200GRT	T.R	KTC3200GR
Q601	HVTKTA1268GRT	T.R	KTA1268GR
Q602	HVTKTA1268GRT	T.R	KTA1268GR
Q603	HVTKTA1268GRT	T.R	KTA1268GR
Q604	HVTKTA1268GRT	T.R	KTA1268GR
Q605	HVTKTA1268GRT	T.R	KTA1268GR
Q681	HVTKSC2785YT	T.R	KSC2785Y
Q682	HVTKSC2785YT	T.R	KSC2785Y
Q683	HVTKSC2785YT	T.R	KSC2785Y
Q684	HVTKSC2785YT	T.R	KSC2785Y
Q685	HVTKSC2785YT	T.R	KSC2785Y
Q801	HVTKSC2785YT	T.R	KSC2785Y
Q802	HVTKSC2785YT	T.R	KSC2785Y
Q812	HVTKTA1268GRT	T.R	KTA1268GR
Q813	HVTKTC3200GRT	T.R	KTC3200GR
Q814	HVTKTA1268GRT	T.R	KTA1268GR
Q815	HVTKTC3200GRT	T.R	KTC3200GR
Q816	HVTKTA1268GRT	T.R	KTA1268GR
Q817	HVTKTA1268GRT	T.R	KTA1268GR
Q818	HVTKTC3200GRT	T.R	KTC3200GR
Q819	HVTKTC3200GRT	T.R	KTC3200GR
Q820	HVTKTC3200GRT	T.R	KTC3200GR
Q821	HVTKTC3200GRT	T.R	KTC3200GR
Q822	HVTKTC3200GRT	T.R	KTC3200GR

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
Q823	HVTKTC3200GRT	T.R	KTC3200GR
Q824	HVTKTC3198YT	T.R	KTC3198Y
Q825	HVTKTC3198YT	T.R	KTC3198Y
Q901	HVTKSC2785YT	T.R	KSC2785Y
Q911	HVTKTA1271YT	T.R	KTA1271Y
Q912	HVTKTA1271YT	T.R	KTA1271Y
Q913	HVTKTA1271YT	T.R	KTA1271Y
Q914	HVTKTA1271YT	T.R	KTA1271Y
Q915	HVTKSC2785YT	T.R	KSC2785Y
Q916	HVTKSC2785YT	T.R	KSC2785Y
Q917	HVTKSC2785YT	T.R	KSC2785Y
Q918	HVTKSC2785YT	T.R	KSC2785Y
Q938	HVTKRA107MT	T.R	KRA107M
Q939	HVTKRA107MT	T.R	KRA107M
Q941	HVTKSC2785YT	T.R	KSC2785Y
Q942	HVTKSC2785YT	T.R	KSC2785Y
Q943	HVTKSC2785YT	T.R	KSC2785Y
Q951	HVTKRC107MT	T.R	KRC107M
Q952	HVTKRA107MT	T.R	KRA107M
Q960	HVTKRC107MT	T.R	KRC107M
Q961	HVTKTA1024YT	T.R	A1024Y
Q991	HVTKRC107MT	T.R	KRC107M
Q992	HVTKRA107MT	T.R	KRA107M
Q993	HVTKRA107MT	T.R	KRA107M
Q994	HVTKRC107MT	T.R	KRC107M
Q997	HVTKRA107MT	T.R	KRA107M
Q998	HVTKRC107MT	T.R	KRC107M
R501	CRD20TJ433T	RES , CARBON	43K OHM 1/5W J
R502	CRD20TJ433T	RES , CARBON	43K OHM 1/5W J
R503	CRD20TJ433T	RES , CARBON	43K OHM 1/5W J
R504	CRD20TJ433T	RES , CARBON	43K OHM 1/5W J
R505	CRD20TJ433T	RES , CARBON	43K OHM 1/5W J
R506	CRD20TJ333T	RES , CARBON	33K OHM 1/5W J
R507	CRD20TJ333T	RES , CARBON	33K OHM 1/5W J
R508	CRD20TJ333T	RES , CARBON	33K OHM 1/5W J
R509	CRD20TJ333T	RES , CARBON	33K OHM 1/5W J
R510	CRD20TJ333T	RES , CARBON	33K OHM 1/5W J
R511	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R512	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R513	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R514	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R515	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R516	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R517	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R518	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R519	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R520	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R521	CRD20TJ471T	RES , CARBON	470 OHM 1/5W J
R522	CRD20TJ471T	RES , CARBON	470 OHM 1/5W J
R523	CRD20TJ471T	RES , CARBON	470 OHM 1/5W J
R524	CRD20TJ471T	RES , CARBON	470 OHM 1/5W J
R525	CRD20TJ471T	RES , CARBON	470 OHM 1/5W J
R531	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R532	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R533	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R534	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R535	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R536	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R537	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R538	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
R539	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R540	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R541	CRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R542	CRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R543	CRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R544	CRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R545	CRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R556	CRD20TJ273T	RES , CARBON	27K OHM 1/5W J
R557	CRD20TJ273T	RES , CARBON	27K OHM 1/5W J
R558	CRD20TJ273T	RES , CARBON	27K OHM 1/5W J
R559	CRD20TJ273T	RES , CARBON	27K OHM 1/5W J
R560	CRD20TJ273T	RES , CARBON	27K OHM 1/5W J
R561	CRD20TJ162T	RES , CARBON	1.6K OHM 1/5W J
R562	CRD20TJ162T	RES , CARBON	1.6K OHM 1/5W J
R563	CRD20TJ162T	RES , CARBON	1.6K OHM 1/5W J
R564	CRD20TJ162T	RES , CARBON	1.6K OHM 1/5W J
R565	CRD20TJ162T	RES , CARBON	1.6K OHM 1/5W J
R566	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R567	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R568	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R569	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R570	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R571	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R572	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R573	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R574	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R575	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R576	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R577	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R578	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R579	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R580	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R581	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R582	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R583	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R584	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R585	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R586	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R587	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R588	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R589	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R590	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R591	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R592	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R593	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R594	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R595	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R596	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R597	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R598	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R599	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R600	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R601	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R602	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R603	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R604	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R605	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R606	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R607	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R608	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
R609	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R610	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R611	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R612	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R631	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R632	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R633	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R634	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R635	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R636	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R637	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R638	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R639	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R640	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R646	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R647	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R648	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R649	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R650	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R651	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R652	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R653	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R654	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R655	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R666	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R667	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R668	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R669	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R670	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R671	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R672	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R673	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R674	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R675	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R676	CRD25TJ182T	RES , CARBON	1.8K OHM 1/5W J
R677	CRD25TJ182T	RES , CARBON	1.8K OHM 1/5W J
R678	CRD25TJ182T	RES , CARBON	1.8K OHM 1/5W J
R679	CRD25TJ182T	RES , CARBON	1.8K OHM 1/5W J
R680	CRD25TJ182T	RES , CARBON	1.8K OHM 1/5W J
R681	CRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R682	CRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R683	CRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R684	CRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R685	CRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R686	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R687	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R688	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R689	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R690	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R696	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R697	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R698	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R699	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R700	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R771	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R772	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R773	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R774	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R775	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R776	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
R777	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R781	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R782	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R783	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R784	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R785	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R786	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R787	CRD20TJ750T	RES , CARBON	75 OHM 1/5W J
R801	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R802	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R803	CRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R804	CRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R805	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R807	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R808	CRD25TJ182T	RES , CARBON	1.8K OHM 1/5W J
R809	CRD25TJ182T	RES , CARBON	1.8K OHM 1/5W J
R812	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R813	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R814	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R815	CRD25TJ470T	RES , CARBON	47 OHM 1/5W J
R817	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R818	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R819	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R820	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R821	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R822	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R823	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R824	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R830	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R831	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R832	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R833	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R834	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R835	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R836	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R837	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R838	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R839	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R840	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R841	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R842	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R843	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R844	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R845	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R848	CRD20TJ273T	RES , CARBON	27K OHM 1/5W J
R849	CRD20TJ273T	RES , CARBON	27K OHM 1/5W J
R850	CRD20TJ162T	RES , CARBON	1.6K OHM 1/5W J
R851	CRD20TJ162T	RES , CARBON	1.6K OHM 1/5W J
R852	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R853	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R854	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R855	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R856	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R857	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R858	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R859	CRD20TJ221T	RES , CARBON	220 OHM 1/5W J
R860	CRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R861	CRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R862	CRD20TJ333T	RES , CARBON	33K OHM 1/5W J
R863	CRD20TJ333T	RES , CARBON	33K OHM 1/5W J

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
R870	CRD20TJ433T	RES , CARBON	43K OHM 1/5W J
R871	CRD20TJ433T	RES , CARBON	43K OHM 1/5W J
R872	CRD20TJ471T	RES , CARBON	470 OHM 1/5W J
R873	CRD20TJ471T	RES , CARBON	470 OHM 1/5W J
R900	CRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R901	CRD25TJ393T	RES , CARBON	39K OHM 1/5W J
R902	CRD25TJ393T	RES , CARBON	39K OHM 1/5W J
R903	CRD25TJ393T	RES , CARBON	39K OHM 1/5W J
R906	CRD25TJ393T	RES , CARBON	39K OHM 1/5W J
R907	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R908	CRD20TJ105T	RES , CARBON	1M OHM 1/5W J
R909	CRD20TJ682T	RES , CARBON	6.8K OHM 1/5W J
R910	CRD20TJ105T	RES , CARBON	1M OHM 1/5W J
R912	CRD20TJ332T	RES , CARBON	3.3K OHM 1/5W J
R913	CRD25TJ471T	RES , CARBON	470 OHM 1/5W J
R914	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R917	CRD25TJ393T	RES , CARBON	39K OHM 1/5W J
R918	CRD25TJ393T	RES , CARBON	39K OHM 1/5W J
R919	CRD25TJ393T	RES , CARBON	39K OHM 1/5W J
R920	CRD25TJ393T	RES , CARBON	39K OHM 1/5W J
R921	CRD25FJ180T	RES , CARBON	18 OHM 1/5W J
R923	CRD20TJ220T	RES , CARBON	22 OHM 1/5W J
R924	CRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R925	CRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R926	CRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R927	CRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R928	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R929	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R930	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R931	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R932	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R933	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R934	CRD20TJ823T	RES , CARBON	82K OHM 1/5W J
R935	CRD20TJ154T	RES , CARBON	150K OHM 1/5W J
R936	CRD20TJ184T	RES , CARBON	180K OHM 1/5W J
R939	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R940	CRD20TJ152T	RES , CARBON	1.5K OHM 1/5W J
R941	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R942	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R943	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R944	CRD25TJ223T	RES , CARBON	22K OHM 1/4W J
R945	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R946	CRD25TJ223T	RES , CARBON	22K OHM 1/4W J
R947	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R948	CRD25TJ153T	RES , CARBON	15K OHM 1/5W J
R949	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R952	CRD25TJ223T	RES , CARBON	22K OHM 1/4W J
R953	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R954	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R955	CRD20TJ203T	RES , CARBON	20K OHM 1/5W J
R956	CRD20TJ394T	RES , CARBON	390K OHM 1/5W J
R957	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R958	CRD20TJ563T	RES , CARBON	56K OHM 1/5W J
R959	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R960	CRD20TJ332T	RES , CARBON	3.3K OHM 1/5W J
R961	CRD20TJ331T	RES , CARBON	330 OHM 1/5W J
R962	CRD20TJ273T	RES , CARBON	27K OHM 1/5W J
R963	CRD20TJ105T	RES , CARBON	1M OHM 1/5W J
R964	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J
R965	CRD20TJ223T	RES , CARBON	22K OHM 1/5W J

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
R966	CRD20TJ472T	RES , CARBON	4.7K OHM 1/5W J
R967	CRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R968	CRD20TJ105T	RES , CARBON	1M OHM 1/5W J
R969	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R986	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R987	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
R988	CRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R989	CRD20TJ302T	RES , CARBON	3K OHM 1/5W J
R991	CRD20TJ822T	RES , CARBON	8.2K OHM 1/5W J
R992	CRD20TJ562T	RES , CARBON	5.6K OHM 1/5W J
R998	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
	CMYAVR355	HEAT SINK ASS'Y	ASS'Y
	CFNCF12825HSN	FAN , MOTOR	FAN
	CHD1A012R	SCREW , SPECIAL	SCREW
	CHD1A036R	SCREW , SPECIAL	SCREW
	CHD3A012R	SCREW , SPECIAL	SCREW
	CMD1A398	BRACKET , PCB	BRACKET
	CMD1A417	BRACKET , PCB	BRACKET
	CMD1A600	BRACKET , FAN	BRACKET
	CMD2A615	BRACKET , FAN	BRACKET
	CMY1A303	HEAT SINK	HEAT SINK
	CMY2A249	HEAT SINK	HEAT SINK
	CTB3+10JR	SCREW	SCREW
	CTB3+8JR	SCREW	SCREW
	CTW3+8JR	SCREW	SCREW
Q652	HVT2SB1647-OKM	T.R , POWER	TR
Q653	HVT2SB1647-OKM	T.R , POWER	TR
Q654	HVT2SB1647-OKM	T.R , POWER	TR
Q655	HVT2SB1647-OKM	T.R , POWER	TR
Q657	HVT2SD2560-OKM	T.R , POWER	TR
Q658	HVT2SD2560-OKM	T.R , POWER	TR
Q659	HVT2SD2560-OKM	T.R , POWER	TR
Q660	HVT2SD2560-OKM	T.R , POWER	TR
Q661	HVT2SB1647-OKM	T.R , POWER	TR
Q670	HVT2SD2560-OKM	T.R , POWER	TR
Q803	HVT2SD2560-OKM	T.R , POWER	TR
Q804	HVT2SB1647-OKM	T.R , POWER	TR
Q805	HVT2SD2560-OKM	T.R , POWER	TR
Q807	HVT2SB1647-OKM	T.R , POWER	TR
	CTW3+8JR	SCREW	SCREW
	CWE8202150AA	WIRE ASS'Y	WIRE
	C8AGB288	BOND (MAX)	BOND
BN19	CWB3FE03250UP	WIRE ASS'Y	WIRE
BN20	CWB3FC04280UP	WIRE ASS'Y	WIRE
BN81	CWB1C902050EN	WIRE ASS'Y	WIRE
BN82	CWB1C902050EN	WIRE ASS'Y	WIRE
BN83	CWB1C902050EN	WIRE ASS'Y	WIRE
BN84	CWB1C902050EN	WIRE ASS'Y	WIRE
BN85	CWB1C902050EN	WIRE ASS'Y	WIRE
BN86	CWB1C902050EN	WIRE ASS'Y	WIRE
BN87	CWB1C902050EN	WIRE ASS'Y	WIRE
BN88	CWB2B905080EN	WIRE ASS'Y	WIRE
BN89	CWB1C902200EN	WIRE ASS'Y	WIRE
BN98	HJP08GA130ZK	WAFER	WAFER
BN99	CWB1C903280BM	WIRE ASS'Y	WIRE
CN11	CJP17GA117ZY	WAFER	WAFER
CN12	CJP21GA115ZY	WAFER , CARD CABLE	WAFER
CN61	CJP02GA01ZY	WAFER , STRAIGHT, 2PIN	WAFER
CN62	CJP02GA01ZY	WAFER , STRAIGHT, 2PIN	WAFER
CN63	CJP02GA01ZY	WAFER , STRAIGHT, 2PIN	WAFER

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
CN64	CJP02GA01ZY	WAFER , STRAIGHT, 2PIN	WAFER
CN65	CJP02GA01ZY	WAFER , STRAIGHT, 2PIN	WAFER
CN66	CJP02GA01ZY	WAFER , STRAIGHT, 2PIN	WAFER
CN67	CJP02GA01ZY	WAFER , STRAIGHT, 2PIN	WAFER
CN89	CJP02GA01ZY	WAFER , STRAIGHT, 2PIN	WAFER
CN90	CJP02GA89ZY	WAFER	WAFER
CN91	CJP02GA89ZY	WAFER	WAFER
CN92	CJP02KA060ZY	WAFER	WAFER
CN93	CJP02GA01ZY	WAFER , STRAIGHT, 2PIN	WAFER
C563	CCEA1CH101T	CAP , ELECT	100UF 16V
C631	CCEA1JH221E	CAP , ELECT	220UF 63V
C632	CCEA1JH221E	CAP , ELECT	220UF 63V
C633	CCEA1JH221E	CAP , ELECT	220UF 63V
C634	CCEA1JH221E	CAP , ELECT	220UF 63V
C635	CCEA1JH221E	CAP , ELECT	220UF 63V
C636	CCEA1JH221E	CAP , ELECT	220UF 63V
C637	CCEA1JH221E	CAP , ELECT	220UF 63V
C638	CCEA1JH221E	CAP , ELECT	220UF 63V
C639	CCEA1JH221E	CAP , ELECT	220UF 63V
C640	CCEA1JH221E	CAP , ELECT	220UF 63V
C807	CCEA1JH221E	CAP , ELECT	220UF 63V
C808	CCEA1JH221E	CAP , ELECT	220UF 63V
C809	CCEA1JH221E	CAP , ELECT	220UF 63V
C810	CCEA1JH221E	CAP , ELECT	220UF 63V
C902	CCET63VKL5822NK	CAP , ELECT	8200/63V (30*50)
C904	KCKDKS472ME	CAP , CERAMIC(X1/Y2/SC)	0.0047UF/2.5KV
C906	CCEA1VH102E	CAP , ELECT	1000UF 35V
C909	CCET63VKL5822NK	CAP , ELECT	8200/63V (30*50)
C911	CCEA1EH471E	CAP , ELECT	470UF/25V
C915	CCET63VKL5123NK	CAP , ELECT	12000/63V (35*45)
C916	CCET63VKL5123NK	CAP , ELECT	12000/63V (35*45)
ET01	CMD1A387	BRACKET , PCB	BRACKET
IC94	HVIKIA7805API	REGULATOR, +5V	KEC(KIA7805API)
JK91	CJJ5R006Z	TERMINAL , SPEAKER	TERMINAL
JK92	CJJ5Q012Z	TERMINAL , SPEAKER	TERMINAL
JK97	CJJ4P041W	JACK IN/OUT	JACK
JK98	CJJ4P042W	JACK IN/OUT	JACK
JW90	CWE8212120VV	WIRE , RED	WIRE
JW91	CWE8212180VV	WIRE ASS'Y	WIRE
JW93	CWEE202110VV	WIRE (BLACK)	WIRE
L501	CLEY0R5KAK	COIL , SPEAKER	0.5UH K
L502	CLEY0R5KAK	COIL , SPEAKER	0.5UH K
L503	CLEY0R5KAK	COIL , SPEAKER	0.5UH K
L504	CLEY0R5KAK	COIL , SPEAKER	0.5UH K
L505	CLEY0R5KAK	COIL , SPEAKER	0.5UH K
L506	CLEY0R5KAK	COIL , SPEAKER	0.5UH K
L507	CLEY0R5KAK	COIL , SPEAKER	0.5UH K
OL91	KJJ7A022Z	OUTLET , AC(EUR/1P)	A302D0061P
Q858	HVT2SA1360O	T.R	2SA1360O
Q871	HVT2SA1360O	T.R	2SA1360O
Q872	HVT2SA1360O	T.R	2SA1360O
Q874	HVT2SA1360O	T.R	2SA1360O
Q875	HVT2SA1360O	T.R	2SA1360O
Q876	HVT2SA1360O	T.R	2SA1360O
Q877	HVT2SA1360O	T.R	2SA1360O
Q881	HVT2SC3423O	T.R	2SC3423O
Q882	HVT2SC3423O	T.R	2SC3423O
Q883	HVT2SC3423O	T.R	2SC3423O
Q884	HVT2SC3423O	T.R	2SC3423O
Q885	HVT2SC3423O	T.R	2SC3423O

MAIN PCB ASSY			
Ref. #	Part Number	Description	Value
Q886	HVT2SC3423O	T.R	2SC3423O
Q887	HVT2SC3423O	T.R	2SC3423O
RY94	HSL1A008ZE	RELAY	SDT-S-112DMR
R656	CRF5EKR27HX2K	RES , CEMENT	0.27ohm X 2
R657	CRF5EKR27HX2K	RES , CEMENT	0.27ohm X 2
R658	CRF5EKR27HX2K	RES , CEMENT	0.27ohm X 2
R659	CRF5EKR27HX2K	RES , CEMENT	0.27ohm X 2
R660	CRF5EKR27HX2K	RES , CEMENT	0.27ohm X 2
R810	CRF5EKR27HX2K	RES , CEMENT	0.27ohm X 2
R811	CRF5EKR27HX2K	RES , CEMENT	0.27ohm X 2
R905	CRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
R911	CRG1ANJ680H	RES , METAL OXIDE FILM	68 OHM 1W J
R922	CRG1ANJ680H	RES , METAL OXIDE FILM	68 OHM 1W J
R990	CRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
R993	CRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
R994	CRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
R995	CRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
R996	CRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
R997	CRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
R999	CRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
TH91	KRTP42T7D330B	THERMAL SENSOR , POSISTOR	P42T7D330BW20
T902	CLT5J039ZE	TRANS , SUB AVR355	TRANS
POWER PCB ASSY			
Ref. #	Part Number	Description	Value
	COP12027J	AVR355/230 POWER PCB ASS'Y	ASS'Y
C104	CCBS1E103ZFT	CAP , CERAMIC	0.01UF 25V
C105	CCBS1E103ZFT	CAP , CERAMIC	0.01UF 25V
C106	CCFT1H104ZF	CAP , SEMICONDUCTOR	0.1UF 50V Z
C107	CCBS1E103ZFT	CAP , CERAMIC	0.01UF 25V
C108	CCBS1E103ZFT	CAP , CERAMIC	0.01UF 25V
C109	CCFT1H104ZF	CAP , SEMICONDUCTOR	0.1UF 50V Z
C117	CCEA1HH4R7T	CAP , ELECT	4.7UF 50V
C118	CCBS1E103ZFT	CAP , CERAMIC	0.01UF 25V
C119	CCEA1JH470TS	CAP , ELECT	63V/47UF/105'C
C120	CCEA1JH470TS	CAP , ELECT	63V/47UF/105'C
C121	CCBS1E103ZFT	CAP , CERAMIC	0.01UF 25V
C127	CCFT1H473ZF	CAP , CERAMIC	0.047UF 50V Z
C131	CCEA1HH3R3T	CAP , ELECT	3.3UF 50V
C750	CCEA1CH101T	CAP , ELECT	100UF 16V
C751	CCEA1CH101T	CAP , ELECT	100UF 16V
C752	CCEA1CH101T	CAP , ELECT	100UF 16V
C851	CCEA1HH100T	CAP , ELECT	10UF 50V
C852	CCEA1HH100T	CAP , ELECT	10UF 50V
C853	CCEA1HH100T	CAP , ELECT	10UF 50V
C854	CCEA1HH100T	CAP , ELECT	10UF 50V
C855	CCEA1HH100T	CAP , ELECT	10UF 50V
C856	CCEA1HH100T	CAP , ELECT	10UF 50V
C857	CCEA1HH100T	CAP , ELECT	10UF 50V
C911	CCEA1HKS2R2T	CAP , ELECT	2.2UF 50V SMALL SIZE
C912	CCEA0JH102T	CAP , ELECT	1000UF 6.3V
C919	CCKT1H102KB	CAP , CERAMIC	1000PF 50V K
C920	CCEA1HH470T	CAP , ELECT	47UF 50V
C921	HCQI1H104JZT	CAP , MYLAR	0.1UF 50V J
C922	HCQI1H104JZT	CAP , MYLAR	0.1UF 50V J
C923	HCQI1H104JZT	CAP , MYLAR	0.1UF 50V J
C924	HCQI1H104JZT	CAP , MYLAR	0.1UF 50V J
C925	HCQI1H103JZT	CAP , MYLAR	0.01UF 50V J
C926	HCQI1H103JZT	CAP , MYLAR	0.01UF 50V J
C927	HCQI1H103JZT	CAP , MYLAR	0.01UF 50V J

POWER PCB ASSY			
Ref. #	Part Number	Description	Value
C928	HCQI1H103JZT	CAP , MYLAR	0.01UF 50V J
C931	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C932	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C933	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C934	HCQI1H473JZT	CAP , MYLAR	0.047UF 50V J
C935	CCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V
C936	CCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V
C937	CCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V
C938	CCEA1CH101T	CAP , ELECT	100UF 16V
C939	CCEA1EH101T	CAP , ELECT	100UF 25V
C940	CCEA1EH101T	CAP , ELECT	100UF 25V
C947	CCFT1H104ZF	CAP , SEMICONDUCTOR	0.1UF 50V Z
C948	HCQI1H103JZT	CAP , MYLAR	0.01UF 50V J
C949	HCQI1H103JZT	CAP , MYLAR	0.01UF 50V J
C953	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C954	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C957	CCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V Z
C971	CCFT1H104ZF	CAP , SEMICONDUCTOR	0.1UF 50V Z
C977	CCFT1H103ZF	CAP , CERAMIC	0.01UF 50V Z
D101	CVDZJ15BT	DIODE , ZENER	ZJ15B 1/2W
D102	HVDMTZJ27BT	DIODE , ZENER	MTZJ27B 1/2W
D104	CVD1N4003ST	DIODE , RECT	1N4003
D105	CVD1N4003ST	DIODE , RECT	1N4003
D108	CVD1N4003ST	DIODE , RECT	1N4003
D109	CVDZJ8.2BT	DIODE , ZENER	ZJ8.2B 1/2W
D111	CVDZJ8.2BT	DIODE , ZENER	ZJ8.2B 1/2W
D114	CVD1N4003ST	DIODE , RECT	1N4003
D115	CVD1N4003ST	DIODE , RECT	1N4003
D116	CVD1N4003ST	DIODE , RECT	1N4003
D117	CVD1N4003ST	DIODE , RECT	1N4003
D124	CVD1N4003ST	DIODE , RECT	1N4003
D125	CVD1N4003ST	DIODE , RECT	1N4003
D201	CVDZJ3.3BT	DIODE , ZENER	ZJ3.3B 1/2W
D801	CVD1SS133MT	DIODE	1SS133
D802	CVD1SS133MT	DIODE	1SS133
D921	CVD1SS133MT	DIODE	1SS133
D950	CVD1N4003ST	DIODE , RECT	1N4003
D951	CVD1N4003ST	DIODE , RECT	1N4003
F110	KBA2D2500TLET	FUSE(SR-5,2.5A,250V)	SAVE FUSETECH
F111	KBA2D2500TLET	FUSE(SR-5,2.5A,250V)	SAVE FUSETECH
Q104	HVTKSC2316YT	T.R	KSC2316Y
Q911	HVTKTA1267YT	T.R	KTA1267Y
Q912	HVTKTC3198YT	T.R	KTC3198Y
Q913	HVTKTC3198YT	T.R	KTC3198Y
Q995	HVTKRA107MT	T.R	KRA107M
Q997	HVTKRC107MT	T.R	KRC107M
R101	CRD25FJ3R3T	RES , CARBON	3.3 OHM 1/4W J
R108	CRD20TJ8R2T	RES , CARBON	8.2 OHM 1/5W J
R109	CRD20TJ100T	RES , CARBON	10 OHM 1/5W J
R110	CRD20TJ8R2T	RES , CARBON	8.2 OHM 1/5W J
R112	CRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R113	CRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R120	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R121	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R122	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R750	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R751	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R752	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R874	CRD20TJ331T	RES , CARBON	330 OHM 1/5W J
R875	CRD20TJ331T	RES , CARBON	330 OHM 1/5W J

POWER PCB ASSY			
Ref. #	Part Number	Description	Value
R876	CRD20TJ331T	RES , CARBON	330 OHM 1/5W J
R877	CRD20TJ331T	RES , CARBON	330 OHM 1/5W J
R878	CRD20TJ331T	RES , CARBON	330 OHM 1/5W J
R879	CRD20TJ331T	RES , CARBON	330 OHM 1/5W J
R880	CRD20TJ331T	RES , CARBON	330 OHM 1/5W J
R882	CRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R883	CRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R884	CRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R885	CRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R886	CRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R887	CRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R888	CRD20TJ122T	RES , CARBON	1.2K OHM 1/5W J
R891	CRD20TJ391T	RES , CARBON	390 OHM 1/5W J
R892	CRD20TJ391T	RES , CARBON	390 OHM 1/5W J
R893	CRD20TJ391T	RES , CARBON	390 OHM 1/5W J
R894	CRD20TJ391T	RES , CARBON	390 OHM 1/5W J
R895	CRD20TJ391T	RES , CARBON	390 OHM 1/5W J
R896	CRD20TJ391T	RES , CARBON	390 OHM 1/5W J
R897	CRD20TJ391T	RES , CARBON	390 OHM 1/5W J
R901	CRD20TJ272T	RES , CARBON	2.7K OHM 1/5W J
R912	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R913	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R917	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R918	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R919	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R920	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R921	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R922	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R923	CRD25TJ153T	RES , CARBON	15K OHM 1/4W J
R924	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R925	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R926	CRD25TJ103T	RES , CARBON	10K OHM 1/4W J
R927	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R928	CRD20TJ333T	RES , CARBON	33K OHM 1/5W J
R941	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R942	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R956	CRD20TJ1R0T	RES , CARBON	1 OHM 1/5W J
R957	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R970	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R971	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R972	CRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R973	CRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R974	CRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R975	CRD20TJ271T	RES , CARBON	270 OHM 1/5W J
R976	CRD20TJ470T	RES , CARBON	47 OHM 1/5W J
R977	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
VR81	CVN1RA221B02T	RES , SEMI FIXED (220, B CURVE)	KVSF637AVC
VR82	CVN1RA221B02T	RES , SEMI FIXED (220, B CURVE)	KVSF637AVC
VR83	CVN1RA221B02T	RES , SEMI FIXED (220, B CURVE)	KVSF637AVC
VR84	CVN1RA221B02T	RES , SEMI FIXED (220, B CURVE)	KVSF637AVC
VR85	CVN1RA221B02T	RES , SEMI FIXED (220, B CURVE)	KVSF637AVC
VR86	CVN1RA221B02T	RES , SEMI FIXED (220, B CURVE)	KVSF637AVC
VR87	CVN1RA221B02T	RES , SEMI FIXED (220, B CURVE)	KVSF637AVC
	CMD1A618	BRACKET , RESET	BRACKET
BN17	CJP06GB143ZB	FEMALE HEADER(6P, 2.54mm)	HEADER
BN20	CWB1C905180BM	WIRE ASS'Y	WIRE
BN21	CWB1C905120EN	WIRE ASS'Y	WIRE
BN22	CWB1C902280NN	WIRE ASS'Y	WIRE
BN79	CWB1C907120EN	WIRE ASS'Y(7P, 2MM, 120MM)	WIRE
BN80	CWB2B903180EN	WIRE ASS'Y	WIRE

POWER PCB ASSY			
Ref. #	Part Number	Description	Value
BN96	CWB1C915180EN	WIRE ASS'Y(15P, 2MM, 180MM)	WIRE
BN97	CWB1C905120EN	WIRE ASS'Y	WIRE
CN13	CJP05GA01ZY	WAFER(YMW025-05R)	WAFER
CN19	CJP03GA90ZY	WAFER	WAFER
CN20	CJP04GA90ZM	WAFER	WAFER
CN31	CJP02GA19ZY	WAFER , 2PIN	WAFER
CN32	CJP02GA19ZY	WAFER , 2PIN	WAFER
CN33	CJP02GA19ZY	WAFER , 2PIN	WAFER
CN34	CJP02GA19ZY	WAFER , 2PIN	WAFER
CN35	CJP02GA19ZY	WAFER , 2PIN	WAFER
CN36	CJP02GA19ZY	WAFER , 2PIN	WAFER
CN37	CJP02GA19ZY	WAFER , 2PIN	WAFER
CN47	CJP07GA117ZY	WAFER	WAFER
CN79	CJP07GA19ZY	WAFER , STRAIGHT(7PIN)	WAFER
CN81	CJP07GA01ZY	WAFER , STRAIGHT(7PIN)	WAFER
CN88	CJP05GA19ZY	WAFER , STRAIGHT	WAFER
CN95	CJP02GA19ZY	WAFER , 2PIN	WAFER
CN96	CJP15GA19ZY	WAFER	WAFER
CN98	HJP08GB131ZK	WAFER	WAFER
C122	CCEA1JH101E	CAP , ELECT	100UF 63V
C129	CCEA1EH822E	CAP , ELECT(KR3, 8200UF/25V, 18X30)	8200UF 25V
C929	CCEA1VH222EZ	CAP , ELECT (2200UF/35V, 12.5X31)	2200UF 35V
C930	CCEA1VH222EZ	CAP , ELECT (2200UF/35V, 12.5X31)	2200UF 35V
C941	CCEA1EH682E	CAP , ELECT(KR3, 25V/6800, 18X35.5)	6800UF 24V
C951	CCEA1HH102E	CAP , ELECT	1000UF 50V
D701	HVDKBU804F	DIODE , BRIDGE	DIODE
D991	CVDKBU804FMA	BRIDGE DIODE ASS'Y	ASS'Y
	CMY1A219	HEAT SINK (BRIDGE DIODE)	HEAT SINK
	CTB3+12JR	SCREW	SCREW
	HVDKBU804F	DIODE , BRIDGE	DIODE
	K8AYG6260	COMPOUND , SILICONE	SILICONE
D992	CVDKBU804FMA	BRIDGE DIODE ASS'Y	ASS'Y
	CMY1A219	HEAT SINK (BRIDGE DIODE)	HEAT SINK
	CTB3+12JR	SCREW	SCREW
	HVDKBU804F	DIODE , BRIDGE	DIODE
	K8AYG6260	COMPOUND , SILICONE	SILICONE
ET04	CMD1A569	BRACKET , PCB	BRACKET
ET05	CMD1A569	BRACKET , PCB	BRACKET
IC81	CVIST232CDR	IC , RS232C(SO-16TYPE)	ST(ST232CDR)
IC89	HVIKIA278R05PI	REGULATOR (5V OUTPUT LOW DROP)	KEC(KIA278R05PI)
IC90	CVIKIA278R15PI	I.C , REGULATOR(15V OUTPUT LOW DROP)	KEC(KIA278R15PI)
IC91	CVIKIA7915PI	I.C , REGULATOR(15V, TO-220AB)	KEC(KIA7915PI)
IC97	BVIKP1010B	IC, PHOTO COUPLER	COSMO(KP1010B)
IC98	BVIKP1010B	IC, PHOTO COUPLER	COSMO(KP1010B)
IC99	HVI74LCX32TTR	I.C , OR-GATE	ST(74LCX32TTR)
JK75	HJSTORX177L	MODULE , OPTICAL(RX)	TORX177L
JK76	HJSTORX177L	MODULE , OPTICAL(RX)	TORX177L
JK77	HJSTORX177L	MODULE , OPTICAL(RX)	TORX177L
JK94	CJJ2D008Z	JACK , STEREO	JACK
JK95	CJJ2D008Z	JACK , STEREO	JACK
JK96	CJJ2D008Z	JACK , STEREO	JACK
JK97	CJJ9W001Z	JACK , 9P D-SUB FEMALE(RS-232C, SEMCO)	JACK
JK98	CJJ2D008Z	JACK , STEREO	JACK
JK99	CJJ2D008Z	JACK , STEREO	JACK
Q851	HVTKTD600KGR	T.R , BIAS	KTD600KGR
Q852	HVTKTD600KGR	T.R , BIAS	KTD600KGR
Q853	HVTKTD600KGR	T.R , BIAS	KTD600KGR
Q854	HVTKTD600KGR	T.R , BIAS	KTD600KGR
Q855	HVTKTD600KGR	T.R , BIAS	KTD600KGR
Q856	HVTKTD600KGR	T.R , BIAS	KTD600KGR

POWER PCB ASSY			
Ref. #	Part Number	Description	Value
Q857	HVTKTD600KGR	T.R , BIAS	KTD600KGR
R104	KRQ1AJR47H	RES , FUSE	0.47 OHM 1W J
R105	KRQ1AJR47H	RES , FUSE	0.47 OHM 1W J
R106	CRQ1AJR33H	RES , FUSE	0.33 OHM 1W J
R107	CRQ1AJR33H	RES , FUSE	0.33 OHM 1W J
R949	CRQ1AJR33H	RES , FUSE	0.33 OHM 1W J
R950	CRQ1AJR33H	RES , FUSE	0.33 OHM 1W J
SW95	CST1A010Z	SW , TACT	TACT SWITCH
SW96	HSH2B018Z	SW , PUSH	SPUJ19XSM011
SW97	HSH2B018Z	SW , PUSH	SPUJ19XSM011
INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
	COP12029J	AVR355/230 INPUT PCB ASS'Y	ASS'Y
CN11	CJP17GA193ZY	WAFER, CARD CABLE (SMD)	WAFER
CN15	CJP17GA193ZY	WAFER, CARD CABLE (SMD)	WAFER
CN16	CJP13GA193ZY	WAFER , CARD CABLE (SMD)	WAFER
C201	CCUS1H221JA	CAP , CHIP	220PF 50V J
C202	CCUS1H221JA	CAP , CHIP	220PF 50V J
C203	CCUS1H221JA	CAP , CHIP	220PF 50V J
C204	CCUS1H221JA	CAP , CHIP	220PF 50V J
C205	CCUS1H221JA	CAP , CHIP	220PF 50V J
C206	CCUS1H221JA	CAP , CHIP	220PF 50V J
C209	CCUS1H221JA	CAP , CHIP	220PF 50V J
C210	CCUS1H221JA	CAP , CHIP	220PF 50V J
C211	CCUS1H221JA	CAP , CHIP	220PF 50V J
C212	CCUS1H221JA	CAP , CHIP	220PF 50V J
C213	CCUS1H221JA	CAP , CHIP	220PF 50V J
C214	CCUS1H221JA	CAP , CHIP	220PF 50V J
C215	CCUS1H221JA	CAP , CHIP	220PF 50V J
C216	CCUS1H221JA	CAP , CHIP	220PF 50V J
C219	CCUS1H221JA	CAP , CHIP	220PF 50V J
C220	CCUS1H221JA	CAP , CHIP	220PF 50V J
C221	CCUS1H221JA	CAP , CHIP	220PF 50V J
C222	CCUS1H221JA	CAP , CHIP	220PF 50V J
C223	CCUS1H221JA	CAP , CHIP	220PF 50V J
C224	CCUS1H221JA	CAP , CHIP	220PF 50V J
C225	CCUS1H221JA	CAP , CHIP	220PF 50V J
C226	CCUS1H221JA	CAP , CHIP	220PF 50V J
C260	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C269	CCUS1A105KC	CAP , CHIP	1UF 10V K
C274	CCUS1A105KC	CAP , CHIP	1UF 10V K
C277	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C279	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C280	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C289	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C290	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C291	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C293	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C295	CCUS1H272KC	CAP , CHIP	2700PF 50V K
C296	CCUS1H272KC	CAP , CHIP	2700PF 50V K
C299	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C301	CCUS1H152KC	CAP , CHIP	1500PF 50V K
C302	CCUS1H152KC	CAP , CHIP	1500PF 50V K
C303	CCUS1H152KC	CAP , CHIP	1500PF 50V K
C304	CCUS1H152KC	CAP , CHIP	1500PF 50V K
C305	CCUS1H152KC	CAP , CHIP	1500PF 50V K
C306	CCUS1H152KC	CAP , CHIP	1500PF 50V K
C307	CCUS1H152KC	CAP , CHIP	1500PF 50V K
C308	CCUS1H152KC	CAP , CHIP	1500PF 50V K

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
C309	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C310	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C311	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C312	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C313	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C314	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C315	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C316	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C317	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C318	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C319	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C320	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C321	CCUS1H561JA	CAP , CHIP	560PF 50V J
C322	CCUS1H561JA	CAP , CHIP	560PF 50V J
C323	CCUS1H561JA	CAP , CHIP	560PF 50V J
C324	CCUS1H561JA	CAP , CHIP	560PF 50V J
C325	CCUS1H561JA	CAP , CHIP	560PF 50V J
C326	CCUS1H561JA	CAP , CHIP	560PF 50V J
C327	CCUS1H561JA	CAP , CHIP	560PF 50V J
C328	CCUS1H561JA	CAP , CHIP	560PF 50V J
C329	CCUS1H561JA	CAP , CHIP	560PF 50V J
C330	CCUS1H561JA	CAP , CHIP	560PF 50V J
C331	CCUS1H561JA	CAP , CHIP	560PF 50V J
C332	CCUS1H561JA	CAP , CHIP	560PF 50V J
C333	CCUS1H561JA	CAP , CHIP	560PF 50V J
C334	CCUS1H561JA	CAP , CHIP	560PF 50V J
C335	CCUS1H561JA	CAP , CHIP	560PF 50V J
C336	CCUS1H561JA	CAP , CHIP	560PF 50V J
C337	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C338	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C339	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C340	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C350	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C351	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C352	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C353	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C354	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C355	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C356	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C357	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C369	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C370	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C381	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C382	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C383	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C384	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C385	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C386	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C387	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C388	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C391	CCUS1H151JA	CAP , CHIP	150PF 50V J
C392	CCUS1H151JA	CAP , CHIP	150PF 50V J
C393	CCUS1H151JA	CAP , CHIP	150PF 50V J
C394	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C395	CCUS1H151JA	CAP , CHIP	150PF 50V J
C396	CCUS1H151JA	CAP , CHIP	150PF 50V J
C397	CCUS1H151JA	CAP , CHIP	150PF 50V J
C398	CCUS1H151JA	CAP , CHIP	150PF 50V J
C532	CCUS1H182KC	CAP , CHIP(1800PF/50V/1608/X7R)	1800PF 50V K
C534	CCUS1H182KC	CAP , CHIP(1800PF/50V/1608/X7R)	1800PF 50V K

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
C535	CCUS1H182KC	CAP , CHIP(1800PF/50V/1608/X7R)	1800PF 50V K
C536	CCUS1H182KC	CAP , CHIP(1800PF/50V/1608/X7R)	1800PF 50V K
C537	CCUS1H182KC	CAP , CHIP(1800PF/50V/1608/X7R)	1800PF 50V K
C538	CCUS1H182KC	CAP , CHIP(1800PF/50V/1608/X7R)	1800PF 50V K
C539	CCUS1H182KC	CAP , CHIP(1800PF/50V/1608/X7R)	1800PF 50V K
C540	CCUS1H182KC	CAP , CHIP(1800PF/50V/1608/X7R)	1800PF 50V K
C601	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C603	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C605	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C607	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C609	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C611	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C613	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C615	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C617	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C619	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C621	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C623	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C625	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C627	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C629	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C631	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C701	CCUS1H150JA	CAP , CHIP(15PF/50V)	15PF 50V J
C702	CCUS1H150JA	CAP , CHIP(15PF/50V)	15PF 50V J
C704	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C705	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C707	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C708	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C709	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C711	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C712	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C713	CCUS1H390JA	CAP , CHIP	39PF 50V J
C714	CCUS1H390JA	CAP , CHIP	39PF 50V J
C716	CCUS1H151JA	CAP , CHIP	150PF 50V J
C718	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C719	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C722	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C723	CCUS1H473KC	CAP , CHIP	0.047UF 50V K
C725	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C727	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C729	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C731	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C733	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C734	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C738	CCUS1A105KC	CAP , CHIP	1UF 10V K
C739	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C741	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C742	CCUS1H180JA	CAP , CHIP	18PF 50V J
C743	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C744	CCUS1H180JA	CAP , CHIP	18PF 50V J
C745	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C746	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C747	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C748	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C751	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C754	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C755	CCUS1H561JA	CAP , CHIP	560PF 50V J
C756	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C758	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C759	CCUS1H104KC	CAP , CHIP	0.1UF 50V K

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
C760	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C761	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C762	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C763	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C765	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C768	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C769	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C770	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C771	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C772	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C773	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C775	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C780	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C781	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C782	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C783	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C784	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C787	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C789	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C790	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C791	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C793	CCUS1H101JA	CAP , CHIP	100PF 50V J
C794	CCUS1H181JA	CAP , CHIP	180PF 50V J
C795	CCUS1H181JA	CAP , CHIP	180PF 50V J
C796	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C797	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C798	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C820	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
D201	CVD1SS355T	DIODE , CHIP	1SS355T
D203	CVD1SS355T	DIODE , CHIP	1SS355T
D204	CVD1SS355T	DIODE , CHIP	1SS355T
D206	CVD1SS355T	DIODE , CHIP	1SS355T
D207	CVD1SS355T	DIODE , CHIP	1SS355T
D208	CVD1SS355T	DIODE , CHIP	1SS355T
D209	CVD1SS355T	DIODE , CHIP	1SS355T
D210	CVD1SS355T	DIODE , CHIP	1SS355T
D211	CVD1SS355T	DIODE , CHIP	1SS355T
D212	CVD1SS355T	DIODE , CHIP	1SS355T
D213	CVD1SS355T	DIODE , CHIP	1SS355T
D214	CVD1SS355T	DIODE , CHIP	1SS355T
D215	CVD1SS355T	DIODE , CHIP	1SS355T
D216	CVD1SS355T	DIODE , CHIP	1SS355T
D701	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D725	CVD1SS355T	DIODE , CHIP	1SS355T
D727	CVD1SS355T	DIODE , CHIP	1SS355T
IC20	CVINJW1197CFC2	I.C , VOL WITH INPUT SELECTOR	JRC(NJW1197CFC2)
IC21	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC22	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC23	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC24	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC25	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC31	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC32	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC33	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC34	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC70	HVITC74VHC157FT	I.C , 2-CHANNEL MUX	ST(TC74VHC157FT)
IC71	CVIST25VF080B504CS2F	I.C , 8 Mbit SPI Serial Flash	SST(SST25VF080B-50-40)
IC72	HVITC74HCU04AFN	IC , INVERTER	TC74HCU04AFN
IC73	HVICS42528-CQ	I.C , CODEC + DIR	CIRRUS LOGIC(CS42528)
IC74	HVILC72723M	IC , PLL (RDS)	SANYO(LC72723M)

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
IC75	CVICS497004CQZ	I.C , DSP	CIRRUS LOGIC(CS49700)
IC77	CVIM12L16161A5TG	I.C, 16MB SDRAM	ESMT(M12L16161A5TG)
IC78	HVINJM2391DL133	I.C , CHIP REGULATOR (+3.3V)	JRC(NJM2391DL1-3.3)
IC79	CVIKIA1117S18	I.C , REGULATOR(SOT-223)	KEC(KIA1117S)
IC80	CVITC74VCX541FT	I,C , OCTAL BUS BUFFER	TOSHIBA(TC74VCX841F)
IC88	CVIKIA1117S33	I.C , REGULATOR(SOT-223)	KEC(KIA1117S)
IC89	CVIM24C32WMN6TP	I.C , EEPROM (32 Kbit)	ST(M24C32WMN6TP)
IC90	CVIT5CC1	I.C , FLASH U-COM	TOSHIBA(T5CC1)
IC91	HVI74ACT04MTR	I.C , HEX	ST(74ACT04MTR)
L701	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L702	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L703	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L704	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L705	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
Q729	HVTKRC107S	T.R , CHIP	KRC107S
Q730	HVTKRC107S	T.R , CHIP	KRC107S
Q732	HVTKRC107S	T.R , CHIP	KRC107S
Q734	HVTKRC107S	T.R , CHIP	KRC107S
Q735	HVTKRA107S	TR, CHIP	KRA107S
Q736	HVTKRA107S	TR, CHIP	KRA107S
Q738	CVTKRC103S	T.R , CHIP	KRC103S
RN61	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN62	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN63	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN64	CRJ104DJ101T	RES , 4ARRAY (1608*4)	100 OHM/1608*4
RN65	CRJ104DJ101T	RES , 4ARRAY (1608*4)	100 OHM/1608*4
RN66	CRJ104DJ101T	RES , 4ARRAY (1608*4)	100 OHM/1608*4
RN71	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN72	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN73	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN76	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN77	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN78	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN79	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN80	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN81	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN82	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN83	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN84	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN85	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN86	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN87	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN88	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN89	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN90	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN91	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN92	CRJ104DJ101T	RES , 4ARRAY (1608*4)	100 OHM/1608*4
RN93	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
R201	CRJ10DJ101T	RES , CHIP	100 OHM
R202	CRJ10DJ101T	RES , CHIP	100 OHM
R203	CRJ10DJ101T	RES , CHIP	100 OHM
R204	CRJ10DJ101T	RES , CHIP	100 OHM
R205	CRJ10DJ101T	RES , CHIP	100 OHM
R206	CRJ10DJ101T	RES , CHIP	100 OHM
R209	CRJ10DJ101T	RES , CHIP	100 OHM
R210	CRJ10DJ101T	RES , CHIP	100 OHM
R211	CRJ10DJ101T	RES , CHIP	100 OHM
R212	CRJ10DJ101T	RES , CHIP	100 OHM
R213	CRJ10DJ101T	RES , CHIP	100 OHM
R214	CRJ10DJ101T	RES , CHIP	100 OHM

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
R215	CRJ10DJ101T	RES , CHIP	100 OHM
R216	CRJ10DJ101T	RES , CHIP	100 OHM
R219	CRJ10DJ101T	RES , CHIP	100 OHM
R220	CRJ10DJ101T	RES , CHIP	100 OHM
R221	CRJ10DJ101T	RES , CHIP	100 OHM
R222	CRJ10DJ101T	RES , CHIP	100 OHM
R223	CRJ10DJ101T	RES , CHIP	100 OHM
R224	CRJ10DJ272T	RES , CHIP	2.7K OHM
R225	CRJ10DJ101T	RES , CHIP	100 OHM
R226	CRJ10DJ101T	RES , CHIP	100 OHM
R227	CRJ10DJ474T	RES , CHIP	470K OHM
R228	CRJ10DJ474T	RES , CHIP	470K OHM
R229	CRJ10DJ474T	RES , CHIP	470K OHM
R230	CRJ10DJ474T	RES , CHIP	470K OHM
R231	CRJ10DJ474T	RES , CHIP	470K OHM
R232	CRJ10DJ474T	RES , CHIP	470K OHM
R235	CRJ10DJ474T	RES , CHIP	470K OHM
R236	CRJ10DJ474T	RES , CHIP	470K OHM
R237	CRJ10DJ474T	RES , CHIP	470K OHM
R238	CRJ10DJ474T	RES , CHIP	470K OHM
R239	CRJ10DJ474T	RES , CHIP	470K OHM
R240	CRJ10DJ474T	RES , CHIP	470K OHM
R241	CRJ10DJ474T	RES , CHIP	470K OHM
R242	CRJ10DJ474T	RES , CHIP	470K OHM
R245	CRJ10DJ474T	RES , CHIP	470K OHM
R246	CRJ10DJ474T	RES , CHIP	470K OHM
R247	CRJ10DJ474T	RES , CHIP	470K OHM
R248	CRJ10DJ474T	RES , CHIP	470K OHM
R249	CRJ10DJ474T	RES , CHIP	470K OHM
R250	CRJ10DJ103T	RES , CHIP	10K OHM
R251	CRJ10DJ474T	RES , CHIP	470K OHM
R252	CRJ10DJ474T	RES , CHIP	470K OHM
R253	CRJ10DJ4R7T	RES , CHIP	4.7 OHM
R254	CRJ10DJ4R7T	RES , CHIP	4.7 OHM
R256	CRJ10DJ4R7T	RES , CHIP	4.7 OHM
R257	CRJ10DJ4R7T	RES , CHIP	4.7 OHM
R258	CRJ10DJ4R7T	RES , CHIP	4.7 OHM
R259	CRJ10DJ4R7T	RES , CHIP	4.7 OHM
R260	CRJ10DJ4R7T	RES , CHIP	4.7 OHM
R261	CRJ10DJ184T	RES , CHIP	184K OHM
R262	CRJ10DJ184T	RES , CHIP	184K OHM
R263	CRJ10DJ184T	RES , CHIP	184K OHM
R264	CRJ10DJ184T	RES , CHIP	184K OHM
R265	CRJ10DJ184T	RES , CHIP	184K OHM
R266	CRJ10DJ184T	RES , CHIP	184K OHM
R267	CRJ10DJ184T	RES , CHIP	184K OHM
R268	CRJ10DJ184T	RES , CHIP	184K OHM
R271	CRJ10DJ242T	RES , CHIP	2.4K OHM
R272	CRJ10DJ242T	RES , CHIP	2.4K OHM
R273	CRJ10DJ242T	RES , CHIP	2.4K OHM
R274	CRJ10DJ222T	RES , CHIP	2.2K OHM
R275	CRJ10DJ242T	RES , CHIP	2.4K OHM
R276	CRJ10DJ242T	RES , CHIP	2.4K OHM
R277	CRJ10DJ242T	RES , CHIP	2.4K OHM
R278	CRJ10DJ242T	RES , CHIP	2.4K OHM
R279	CRJ10DJ101T	RES , CHIP	100 OHM
R280	CRJ10DJ101T	RES , CHIP	100 OHM
R281	CRJ10DJ512T	RES , CHIP	5.1K OHM
R282	CRJ10DJ512T	RES , CHIP	5.1K OHM
R283	CRJ10DJ512T	RES , CHIP	5.1K OHM

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
R284	CRJ10DJ912T	RES , CHIP	9.1K OHM
R285	CRJ10DJ512T	RES , CHIP	5.1K OHM
R286	CRJ10DJ512T	RES , CHIP	5.1K OHM
R287	CRJ10DJ512T	RES , CHIP	5.1K OHM
R288	CRJ10DJ512T	RES , CHIP	5.1K OHM
R289	CRJ10DJ101T	RES , CHIP	100 OHM
R290	CRJ10DJ101T	RES , CHIP	100 OHM
R291	CRJ10DJ184T	RES , CHIP	180K OHM
R292	CRJ10DJ184T	RES , CHIP	180K OHM
R293	CRJ10DJ184T	RES , CHIP	180K OHM
R294	CRJ10DJ184T	RES , CHIP	180K OHM
R295	CRJ10DJ184T	RES , CHIP	180K OHM
R296	CRJ10DJ184T	RES , CHIP	180K OHM
R297	CRJ10DJ184T	RES , CHIP	180K OHM
R298	CRJ10DJ184T	RES , CHIP	180K OHM
R301	CRJ10DJ122T	RES , CHIP	1.2K OHM
R302	CRJ10DJ122T	RES , CHIP	1.2K OHM
R303	CRJ10DJ122T	RES , CHIP	1.2K OHM
R304	CRJ10DJ122T	RES , CHIP	1.2K OHM
R305	CRJ10DJ272T	RES , CHIP	2.7K OHM
R306	CRJ10DJ272T	RES , CHIP	2.7K OHM
R307	CRJ10DJ272T	RES , CHIP	2.7K OHM
R308	CRJ10DJ272T	RES , CHIP	2.7K OHM
R309	CRJ10DJ272T	RES , CHIP	2.7K OHM
R310	CRJ10DJ272T	RES , CHIP	2.7K OHM
R311	CRJ10DJ272T	RES , CHIP	2.7K OHM
R312	CRJ10DJ272T	RES , CHIP	2.7K OHM
R313	CRJ10DJ272T	RES , CHIP	2.7K OHM
R314	CRJ10DJ272T	RES , CHIP	2.7K OHM
R315	CRJ10DJ272T	RES , CHIP	2.7K OHM
R316	CRJ10DJ272T	RES , CHIP	2.7K OHM
R317	CRJ10DJ561T	RES , CHIP	560 OHM
R318	CRJ10DJ392T	RES , CHIP	3.9K OHM
R321	CRJ10DJ512T	RES , CHIP	5.1 OHM
R322	CRJ10DJ122T	RES , CHIP	1.2 OHM
R323	CRJ10DJ122T	RES , CHIP	1.2 OHM
R324	CRJ10DJ512T	RES , CHIP	5.1 OHM
R325	CRJ10DJ512T	RES , CHIP	5.1 OHM
R326	CRJ10DJ122T	RES , CHIP	1.2 OHM
R327	CRJ10DJ122T	RES , CHIP	1.2 OHM
R328	CRJ10DJ103T	RES , CHIP	10K OHM
R329	CRJ10DJ512T	RES , CHIP	5.1K OHM
R330	CRJ10DJ122T	RES , CHIP	1.2K OHM
R331	CRJ10DJ122T	RES , CHIP	1.2K OHM
R332	CRJ10DJ512T	RES , CHIP	5.1K OHM
R333	CRJ10DJ512T	RES , CHIP	5.1K OHM
R334	CRJ10DJ122T	RES , CHIP	1.2K OHM
R335	CRJ10DJ122T	RES , CHIP	1.2K OHM
R336	CRJ10DJ512T	RES , CHIP	5.1K OHM
R341	CRJ10DJ122T	RES , CHIP	1.2K OHM
R344	CRJ10DJ122T	RES , CHIP	1.2K OHM
R345	CRJ10DJ122T	RES , CHIP	1.2K OHM
R348	CRJ10DJ122T	RES , CHIP	1.2K OHM
R349	CRJ10DJ122T	RES , CHIP	1.2K OHM
R352	CRJ10DJ122T	RES , CHIP	1.2K OHM
R353	CRJ10DJ122T	RES , CHIP	1.2K OHM
R356	CRJ10DJ122T	RES , CHIP	1.2K OHM
R361	CRJ10DJ104T	RES , CHIP	100K OHM
R362	CRJ10DJ104T	RES , CHIP	100K OHM
R363	CRJ10DJ104T	RES , CHIP	100K OHM

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
R364	CRJ10DJ104T	RES , CHIP	100K OHM
R365	CRJ10DJ104T	RES , CHIP	100K OHM
R366	CRJ10DJ104T	RES , CHIP	100K OHM
R367	CRJ10DJ104T	RES , CHIP	100K OHM
R368	CRJ10DJ104T	RES , CHIP	100K OHM
R371	CRJ10DJ512T	RES , CHIP	5.1K OHM
R372	CRJ10DJ512T	RES , CHIP	5.1K OHM
R373	CRJ10DJ512T	RES , CHIP	5.1K OHM
R374	CRJ10DJ103T	RES , CHIP	10K OHM
R375	CRJ10DJ512T	RES , CHIP	5.1K OHM
R376	CRJ10DJ512T	RES , CHIP	5.1K OHM
R377	CRJ10DJ512T	RES , CHIP	5.1K OHM
R378	CRJ10DJ512T	RES , CHIP	5.1K OHM
R381	CRJ10DJ561T	RES , CHIP	560 OHM
R382	CRJ10DJ561T	RES , CHIP	560 OHM
R383	CRJ10DJ561T	RES , CHIP	560 OHM
R384	CRJ10DJ561T	RES , CHIP	560 OHM
R385	CRJ10DJ561T	RES , CHIP	560 OHM
R386	CRJ10DJ561T	RES , CHIP	560 OHM
R387	CRJ10DJ561T	RES , CHIP	560 OHM
R388	CRJ10DJ561T	RES , CHIP	560 OHM
R389	CRJ10DJ184T	RES , CHIP	180K OHM
R390	CRJ10DJ184T	RES , CHIP	180K OHM
R391	CRJ10DJ392T	RES , CHIP	3.9K OHM
R392	CRJ10DJ392T	RES , CHIP	3.9K OHM
R393	CRJ10DJ392T	RES , CHIP	3.9K OHM
R394	CRJ10DJ392T	RES , CHIP	3.9K OHM
R395	CRJ10DJ392T	RES , CHIP	3.9K OHM
R396	CRJ10DJ392T	RES , CHIP	3.9K OHM
R397	CRJ10DJ392T	RES , CHIP	3.9K OHM
R398	CRJ10DJ392T	RES , CHIP	3.9K OHM
R531	CRJ10DJ152T	RES , CHIP	1.5K OHM
R532	CRJ10DJ152T	RES , CHIP	1.5K OHM
R533	CRJ10DJ152T	RES , CHIP	1.5K OHM
R534	CRJ10DJ152T	RES , CHIP	1.5K OHM
R700	CRJ10DJ330T	RES , CHIP	33 OHM
R701	CRJ10DJ103T	RES , CHIP	10K OHM
R702	CRJ10DJ103T	RES , CHIP	10K OHM
R703	CRJ10DJ103T	RES , CHIP	10K OHM
R704	CRJ10DJ103T	RES , CHIP	10K OHM
R706	CRJ10DJ222T	RES , CHIP	2.2K OHM
R707	CRJ10DJ222T	RES , CHIP	2.2K OHM
R708	CRJ10DJ101T	RES , CHIP	100 OHM
R709	CRJ10DJ103T	RES , CHIP	10K OHM
R710	CRJ10DJ103T	RES , CHIP	10K OHM
R711	CRJ10DJ560T	RES , CHIP	56 OHM
R712	CRJ10DJ820T	RES , CHIP	82 OHM
R713	CRJ10DJ101T	RES , CHIP	100 OHM
R714	CRJ10DJ104T	RES , CHIP	100K OHM
R715	CRJ10DJ104T	RES , CHIP	100K OHM
R716	CRJ10DJ472T	RES , CHIP	4.7K OHM
R717	CRJ10DJ0R0T	RES , CHIP	0 OHM
R718	CRJ10DJ332T	RES , CHIP	3.3K OHM
R719	CRJ10DJ0R0T	RES , CHIP	0 OHM
R720	CRJ10DJ0R0T	RES , CHIP	0 OHM
R721	CRJ10DJ330T	RES , CHIP	33 OHM
R724	CRJ10DJ101T	RES , CHIP	100 OHM
R725	CRJ10DJ0R0T	RES , CHIP	0 OHM
R726	CRJ10DJ100T	RES , CHIP	10 OHM
R727	CRJ10DJ0R0T	RES , CHIP	0 OHM

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
R728	CRJ10DJ102T	RES , CHIP	1K OHM
R729	CRJ10DJ102T	RES , CHIP	1K OHM
R730	CRJ10DJ102T	RES , CHIP	1K OHM
R731	CRJ10DJ102T	RES , CHIP	1K OHM
R732	CRJ10DJ103T	RES , CHIP	10K OHM
R733	CRJ10DJ100T	RES , CHIP	10 OHM
R736	CRJ10DJ241T	RES , CHIP	240 OHM
R737	CRJ10DJ330T	RES , CHIP	33 OHM
R738	CRJ10DJ103T	RES , CHIP	10K OHM
R739	CRJ10DJ0R0T	RES , CHIP	0 OHM
R740	CRJ10DJ330T	RES , CHIP	33 OHM
R741	CRJ10DJ330T	RES , CHIP	33 OHM
R742	CRJ10DJ330T	RES , CHIP	33 OHM
R743	CRJ10DJ330T	RES , CHIP	33 OHM
R747	CRJ10DJ330T	RES , CHIP	33 OHM
R748	CRJ10DJ330T	RES , CHIP	33 OHM
R749	CRJ10DJ750T	RES , CHIP	75 OHM
R751	CRJ10DJ820T	RES , CHIP	82 OHM
R752	CRJ10DJ330T	RES , CHIP	33 OHM
R753	CRJ10DJ103T	RES , CHIP	100K OHM
R754	CRJ10DJ103T	RES , CHIP	100K OHM
R755	CRJ10DJ750T	RES , CHIP	75 OHM
R756	CRJ10DJ750T	RES , CHIP	75 OHM
R757	CRJ10DJ750T	RES , CHIP	75 OHM
R758	CRJ10DJ103T	RES , CHIP	100K OHM
R759	CRJ10DJ820T	RES , CHIP	82 OHM
R760	CRJ10DJ105T	RES , CHIP	1M OHM
R761	CRJ10DJ102T	RES , CHIP	1K OHM
R762	CRJ10DJ102T	RES , CHIP	1K OHM
R763	CRJ10DJ472T	RES , CHIP	4.7K OHM
R765	CRJ10DJ103T	RES , CHIP	100K OHM
R766	CRJ10DJ103T	RES , CHIP	100K OHM
R767	CRJ10DF5101T	RES , CHIP	5.1K OHM 1%
R768	CRJ10DJ0R0T	RES , CHIP	0 OHM
R770	CRJ10DJ100T	RES , CHIP	10 OHM
R771	CRJ10DJ103T	RES , CHIP	10K OHM
R772	CRJ10DJ473T	RES , CHIP	47K OHM
R773	CRJ10DJ332T	RES , CHIP	3.3K OHM
R774	CRJ10DJ332T	RES , CHIP	3.3K OHM
R775	CRJ10DJ332T	RES , CHIP	3.3K OHM
R776	CRJ10DJ332T	RES , CHIP	3.3K OHM
R777	CRJ10DJ101T	RES , CHIP	100 OHM
R778	CRJ10DJ103T	RES , CHIP	10K OHM
R779	CRJ10DJ103T	RES , CHIP	10K OHM
R780	CRJ10DJ103T	RES , CHIP	10K OHM
R781	CRJ10DJ103T	RES , CHIP	10K OHM
R782	CRJ10DJ272T	RES , CHIP	2.7K OHM
R783	CRJ10DJ272T	RES , CHIP	2.7K OHM
R784	CRJ10DJ473T	RES , CHIP	47K OHM
R785	CRJ10DJ104T	RES , CHIP	100K OHM
R786	CRJ10DJ471T	RES , CHIP	470 OHM
R787	CRJ10DJ103T	RES , CHIP	10K OHM
R788	CRJ10DJ103T	RES , CHIP	10K OHM
R789	CRJ10DJ103T	RES , CHIP	10K OHM
R791	CRJ10DJ103T	RES , CHIP	10K OHM
R793	CRJ10DJ103T	RES , CHIP	10K OHM
R794	CRJ10DJ102T	RES , CHIP	1K OHM
R795	CRJ10DJ103T	RES , CHIP	10K OHM
R796	CRJ10DJ101T	RES , CHIP	100 OHM
R797	CRJ10DJ1R0T	RES , CHIP	1 OHM

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
R799	CRJ10DJ103T	RES , CHIP	10K OHM
R800	CRJ10DJ332T	RES , CHIP	3.3K OHM
R801	CRJ10DJ332T	RES , CHIP	3.3K OHM
R802	CRJ10DJ103T	RES , CHIP	10K OHM
R810	CRJ10DJ103T	RES , CHIP	10K OHM
R811	CRJ10DJ103T	RES , CHIP	10K OHM
R812	CRJ10DJ103T	RES , CHIP	10K OHM
R813	CRJ10DJ330T	RES , CHIP	33 OHM
R814	CRJ10DJ330T	RES , CHIP	33 OHM
R815	CRJ10DJ330T	RES , CHIP	33 OHM
R816	CRJ10DJ330T	RES , CHIP	33 OHM
X702	HOX27000E180S	CRYSTAL , CHIP(27MHZ,SMD)	27MHz
C261	CCEA1EH470T	CAP , ELECT	47UF 25V
C262	CCEA1EH470T	CAP , ELECT	47UF 25V
C263	CCEA1EH470T	CAP , ELECT	47UF 25V
C264	CCEA1EH470T	CAP , ELECT	47UF 25V
C265	CCEA1EH470T	CAP , ELECT	47UF 25V
C266	CCEA1EH470T	CAP , ELECT	47UF 25V
C267	CCEA1EH470T	CAP , ELECT	47UF 25V
C268	CCEA1EH470T	CAP , ELECT	47UF 25V
C270	CCEA1HH100T	CAP , ELECT	10UF 50V
C271	CCEA1HH100T	CAP , ELECT	10UF 50V
C272	CCEA1HH100T	CAP , ELECT	10UF 50V
C273	CCEA1HH100T	CAP , ELECT	10UF 50V
C275	CCEA1HH100T	CAP , ELECT	10UF 50V
C276	CCEA1HH100T	CAP , ELECT	10UF 50V
C281	CCEA1HH100T	CAP , ELECT	10UF 50V
C282	CCEA1HH100T	CAP , ELECT	10UF 50V
C283	CCEA1HH100T	CAP , ELECT	10UF 50V
C284	CCEA1HH100T	CAP , ELECT	10UF 50V
C285	CCEA1HH100T	CAP , ELECT	10UF 50V
C286	CCEA1HH100T	CAP , ELECT	10UF 50V
C287	CCEA1HH100T	CAP , ELECT	10UF 50V
C288	CCEA1HH100T	CAP , ELECT	10UF 50V
C292	CCEA1CH101T	CAP , ELECT	100UF 16V
C294	CCEA1CH101T	CAP , ELECT	100UF 16V
C341	CCEA1HH100T	CAP , ELECT	10UF 50V
C342	CCEA1HH100T	CAP , ELECT	10UF 50V
C343	CCEA1HH100T	CAP , ELECT	10UF 50V
C344	CCEA1HH100T	CAP , ELECT	10UF 50V
C345	CCEA1HH100T	CAP , ELECT	10UF 50V
C346	CCEA1HH100T	CAP , ELECT	10UF 50V
C347	CCEA1HH100T	CAP , ELECT	10UF 50V
C348	CCEA1HH100T	CAP , ELECT	10UF 50V
C349	CCEA1CH101T	CAP , ELECT	100UF 16V
C358	CCEA1CH101T	CAP , ELECT	100UF 16V
C359	CCEA1CH101T	CAP , ELECT	100UF 16V
C360	CCEA1CH101T	CAP , ELECT	100UF 16V
C371	CCEA1HH100T	CAP , ELECT	10UF 50V
C372	CCEA1HH100T	CAP , ELECT	10UF 50V
C373	CCEA1HH100T	CAP , ELECT	10UF 50V
C374	CCEA1HH100T	CAP , ELECT	10UF 50V
C375	CCEA1HH100T	CAP , ELECT	10UF 50V
C376	CCEA1HH100T	CAP , ELECT	10UF 50V
C377	CCEA1HH100T	CAP , ELECT	10UF 50V
C378	CCEA1HH100T	CAP , ELECT	10UF 50V
C389	CCEA1HH100T	CAP , ELECT	10UF 50V
C390	CCEA1HH100T	CAP , ELECT	10UF 50V
C600	CCEA1CH101T	CAP , ELECT	100UF 16V
C602	CCEA1CH101T	CAP , ELECT	100UF 16V

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
C604	CCEA1CH101T	CAP , ELECT	100UF 16V
C606	CCEA1CH101T	CAP , ELECT	100UF 16V
C608	CCEA1CH101T	CAP , ELECT	100UF 16V
C610	CCEA1CH101T	CAP , ELECT	100UF 16V
C612	CCEA1CH101T	CAP , ELECT	100UF 16V
C614	CCEA1CH101T	CAP , ELECT	100UF 16V
C616	CCEA1CH101T	CAP , ELECT	100UF 16V
C618	CCEA1CH101T	CAP , ELECT	100UF 16V
C620	CCEA1CH101T	CAP , ELECT	100UF 16V
C622	CCEA1CH101T	CAP , ELECT	100UF 16V
C624	CCEA1CH101T	CAP , ELECT	100UF 16V
C626	CCEA1CH101T	CAP , ELECT	100UF 16V
C628	CCEA1CH101T	CAP , ELECT	100UF 16V
C630	CCEA1CH101T	CAP , ELECT	100UF 16V
C703	CCEA1CH101T	CAP , ELECT	100UF 16V
C706	CCEA1CH101T	CAP , ELECT	100UF 16V
C715	CCEA1HH4R7T	CAP , ELECT	4.7UF 50V
C717	CCEA1HH4R7T	CAP , ELECT	4.7UF 50V
C720	CCEA1CH101T	CAP , ELECT	100UF 16V
C721	CCEA1AH471T	CAP , ELECT	470UF 10V
C724	CCEA1AH471T	CAP , ELECT	470UF 10V
C726	CCEA1CH101T	CAP , ELECT	100UF 16V
C728	CCEA1AH471T	CAP , ELECT	470UF 10V
C730	CCEA1CH101T	CAP , ELECT	100UF 16V
C737	CCEA1CH101T	CAP , ELECT	100UF 16V
C740	CCEA1CH101T	CAP , ELECT	100UF 16V
C749	CCEA1CH101T	CAP , ELECT	100UF 16V
C750	CCEA1CH101T	CAP , ELECT	100UF 16V
C752	CCEA1CH101T	CAP , ELECT	100UF 16V
C753	CCEA1CH101T	CAP , ELECT	100UF 16V
C764	CCEA0JH102T	CAP , ELECT	1000UF 6.3V
C766	CCEA0JH102T	CAP , ELECT	1000UF 6.3V
C767	CCEA1CKS100T	CAP , ELECT	10UF 16V
C774	CCEA1CKS101T	CAP , ELECT	100UF 16V
D221	CVD1N4003ST	DIODE , RECT	1N4003
D222	CVD1N4003ST	DIODE , RECT	1N4003
D703	CVD1N4003ST	DIODE , RECT	1N4003
D704	CVD1N4003SRT	DIODE , RECT	1N4003
IC87	HVIRE5VT28CATZ	I.C , RESET	RESET
Q301	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q302	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q303	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q304	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q305	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q306	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q307	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q308	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q311	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q731	HVTKSA1175YT	T.R	KSA1175Y
Q733	HVTKSC2785YT	T.R	KSC2785Y
Q737	HVTKSC2785YT	T.R	KSC2785Y
	C8AGB288	BOND (MAX)	BOND
BN11	CWZAVR154BN46	SHIELD WIRE ASS'Y	WIRE
BN49	CWB2B905080EN	WIRE ASS'Y	WIRE
CN10	CJP05GB46ZY	WAFER	WAFER
CN12	CJP21GA115ZY	WAFER , CARD CABLE	WAFER
CN13	CJP13GA115ZY	WAFER , CARD CABLE	WAFER
CN14	CJP17GA117ZY	WAFER	WAFER
CN17	CJP06GB142ZB	PIN HEADER(6P, 2.54mm)	HEADER
CN18	CJP05GA19ZY	WAFER , STRAIGHT	WAFER

INPUT PCB ASSY			
Ref. #	Part Number	Description	Value
CN19	CJP07GA117ZY	WAFER	WAFER
CN20	CJP05GA01ZY	WAFER(YMW025-05R)	WAFER
CN22	CJP07GA19ZY	WAFER , STRAIGHT(7PIN)	WAFER
CN49	CJP05GA19ZY	WAFER , STRAIGHT	WAFER
CN72	CJP17GA117ZY	WAFER	WAFER
C732	CCEA0JKR3222E	CAP , ELECT	3300UF 6.3V
IC36	HVIKIA7808API	I.C , REGULATOR +8V	KEC(KIA7808API)
IC37	CVIKIA7908PI	I.C , REGULATOR(TO-220IS)	KEC(KIA7908PI)
JK11	CJJ4R019W	TERMINAL , IN/OUT	JACK
JK12	CJJ4P014W	JACK , IN/OUT	JACK
JK13	CJJ4R019W	TERMINAL , IN/OUT	JACK
JK14	CJJ4R037W	JACK , BOARD	JACK
JK78	CJJ4S022Z	JACK , BOARD	JACK
JW21	CWE7202070AA	WIRE ASS'Y	WIRE
X701	HOX24576E150TF	CRYSTAL	24.576MHz
X703	HOX04332E200C	CRYSTAL	4.332MHz
VIDEO PCB ASSY			
Ref. #	Part Number	Description	Value
	COP12033J	AVR355/230 VIDEO PCB ASS'Y	ASS'Y
C461	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C463	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C465	CCUS1H470JA	CAP , CHIP	47PF 50V J
C466	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C468	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C470	CCUS1H470JA	CAP , CHIP	47PF 50V J
C471	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C473	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C475	CCUS1H470JA	CAP , CHIP	47PF 50V J
C491	CCUS1H101JA	CAP , CHIP	100PF 50V J
C492	CCUS1H101JA	CAP , CHIP	100PF 50V J
C493	CCUS1H101JA	CAP , CHIP	100PF 50V J
C500	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C501	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C516	CCUS1H473KC	CAP , CHIP	0.047UF 50V K
C520	CCUS1A105KC	CAP , CHIP	1UF 10V K
C527	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C531	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C533	CCUS1H220JA	CAP , CHIP	22PF 50V J
C534	CCUS1H220JA	CAP , CHIP	22PF 50V J
C535	CCUS1H471JA	CAP , CHIP	470PF 50V J
C536	CCUS1H471JA	CAP , CHIP	470PF 50V J
C539	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C548	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C556	CCUS1H070DA	CAP , CHIP	7PF 50V D
C557	CCUS1H120JA	CAP , CHIP	12PF 50V J
C558	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C559	CCUS1H151JA	CAP , CHIP	150PF 50V J
C576	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C577	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C582	CCUS1H150JA	CAP , CHIP	15PF 50V J
C583	CCUS1H150JA	CAP , CHIP	15PF 50V J
C585	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C601	CCUS1H020CA	CAP , CHIP	2PF 50V C
C603	CCUS1H020CA	CAP , CHIP	2PF 50V C
C605	CCUS1H020CA	CAP , CHIP	2PF 50V C
C611	CCUS1H220JA	CAP , CHIP	22PF 50V J
C613	CCUS1H220JA	CAP , CHIP	22PF 50V J
C615	CCUS1H220JA	CAP , CHIP	22PF 50V J
C621	CCUS1H220JA	CAP , CHIP	22PF 50V J

VIDEO PCB ASSY			
Ref. #	Part Number	Description	Value
C623	CCUS1H220JA	CAP , CHIP	22PF 50V J
C625	CCUS1H220JA	CAP , CHIP	22PF 50V J
C631	CCUS1H220JA	CAP , CHIP	22PF 50V J
C632	CCUS1H220JA	CAP , CHIP	22PF 50V J
C633	CCUS1H220JA	CAP , CHIP	22PF 50V J
D500	CVD1SS355T	DIODE , CHIP	1SS355T
D501	CVD1SS355T	DIODE , CHIP	1SS355T
IC41	CVINJM2595MTE1	I.C , VIDEO S/W	JRC(NJM2595MTE1)
IC42	CVINJM2595MTE1	I.C , VIDEO S/W	JRC(NJM2595MTE1)
IC43	CVINJM2595MTE1	I.C , VIDEO S/W	JRC(NJM2595MTE1)
IC44	CVIKIA1117S33	I.C , REGULATOR(SOT-223)	KEC(KIA1117S33-RTK/P)
IC57	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC58	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC59	HVINJM2137MTE1	I.C , OP AMP	JRC(NJM2137M-TE1)
IC60	CVIKIA1117S50	I.C , REGULATOR(SOT-223)	KEC(KIA1117S50-RTK/P)
L401	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L402	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
Q502	HVTKRC102S	T.R , CHIP	KRC102S
R401	CRJ10DJ0R0T	RES , CHIP	0 OHM
R402	CRJ10DJ0R0T	RES , CHIP	0 OHM
R403	CRJ10DJ0R0T	RES , CHIP	0 OHM
R411	CRJ10DJ750T	RES , CHIP	75 OHM
R412	CRJ10DJ750T	RES , CHIP	75 OHM
R413	CRJ10DJ750T	RES , CHIP	75 OHM
R415	CRJ10DJ0R0T	RES , CHIP	0 OHM
R416	CRJ10DJ0R0T	RES , CHIP	0 OHM
R417	CRJ10DJ0R0T	RES , CHIP	0 OHM
R418	CRJ10DJ0R0T	RES , CHIP	0 OHM
R419	CRJ10DJ0R0T	RES , CHIP	0 OHM
R420	CRJ10DJ0R0T	RES , CHIP	0 OHM
R421	CRJ10DJ750T	RES , CHIP	75 OHM
R422	CRJ10DJ750T	RES , CHIP	75 OHM
R423	CRJ10DJ750T	RES , CHIP	75 OHM
R442	CRJ10DJ472T	RES , CHIP	4.7K OHM
R451	CRJ10DJ750T	RES , CHIP	75 OHM
R452	CRJ10DJ750T	RES , CHIP	75 OHM
R453	CRJ10DJ750T	RES , CHIP	75 OHM
R462	CRJ10DJ750T	RES , CHIP	75 OHM
R463	CRJ10DJ750T	RES , CHIP	75 OHM
R467	CRJ10DJ750T	RES , CHIP	75 OHM
R468	CRJ10DJ750T	RES , CHIP	75 OHM
R472	CRJ10DJ750T	RES , CHIP	75 OHM
R473	CRJ10DJ750T	RES , CHIP	75 OHM
R491	CRJ10DJ750T	RES , CHIP	75 OHM
R492	CRJ10DJ750T	RES , CHIP	75 OHM
R493	CRJ10DJ750T	RES , CHIP	75 OHM
R500	CRJ10DJ4R7T	RES , CHIP	4.7 OHM
R504	CRJ10DJ4R7T	RES , CHIP	4.7 OHM
R517	CRJ10DJ222T	RES , CHIP	2.2K OHM
R518	CRJ10DJ474T	RES , CHIP	470K OHM
R519	CRJ10DJ0R0T	RES , CHIP	0 OHM
R534	CRJ10DJ103T	RES , CHIP	100K OHM
R535	CRJ10DJ103T	RES , CHIP	100K OHM
R536	CRJ10DJ222T	RES , CHIP	2.2K OHM
R537	CRJ10DJ473T	RES , CHIP	470K OHM
R538	CRJ10DJ473T	RES , CHIP	470K OHM
R539	CRJ10DJ220T	RES , CHIP	22 OHM
R540	CRJ10DJ220T	RES , CHIP	22 OHM
R541	CRJ10DJ103T	RES , CHIP	100K OHM
R542	CRJ18AJ221T	RES , CHIP	220 OHM

VIDEO PCB ASSY			
Ref. #	Part Number	Description	Value
R543	CRJ18AJ221T	RES , CHIP	220 OHM
R544	CRJ10DJ103T	RES , CHIP	10K OHM
R545	CRJ10DJ222T	RES , CHIP	2.2K OHM
R547	CRJ10DJ222T	RES , CHIP	2.2K OHM
R548	CRJ10DJ222T	RES , CHIP	2.2K OHM
R552	CRJ10DJ474T	RES , CHIP	470K OHM
R553	CRJ10DJ474T	RES , CHIP	470K OHM
R554	CRJ10DJ472T	RES , CHIP	4.7K OHM
R555	CRJ10DJ202T	RES , CHIP	2K OHM
R556	CRJ10DJ202T	RES , CHIP	2K OHM
R557	CRJ10DJ821T	RES , CHIP	820 OHM
R558	CRJ10DJ821T	RES , CHIP	820 OHM
R562	CRJ10DJ271T	RES , CHIP	270 OHM
R563	CRJ10DJ271T	RES , CHIP	270 OHM
R566	CRJ10DJ473T	RES , CHIP	470K OHM
R569	CRJ10DJ0R0T	RES , CHIP	0 OHM
R571	CRJ10DF7502T	RES , CHIP(75K, 1608, 1%)	75K OHM 1%
R572	CRJ10DF4992T	RES , CHIP(49.9K, 1608, 1%)	49.9K OHM 1%
R573	CRJ10DF7502T	RES , CHIP(75K, 1608, 1%)	75K OHM 1%
R574	CRJ10DF4992T	RES , CHIP(49.9K, 1608, 1%)	49.9K OHM 1%
R575	CRJ10DJ750T	RES , CHIP	75 OHM
R576	CRJ10DJ750T	RES , CHIP	75 OHM
R577	CRJ10DJ750T	RES , CHIP	75 OHM
R601	CRJ10DJ0R0T	RES , CHIP	0 OHM
R603	CRJ10DJ0R0T	RES , CHIP	0 OHM
R605	CRJ10DJ0R0T	RES , CHIP	0 OHM
R611	CRJ10DJ750T	RES , CHIP	75 OHM
R612	CRJ10DJ750T	RES , CHIP	75 OHM
R613	CRJ10DJ750T	RES , CHIP	75 OHM
R621	CRJ10DJ750T	RES , CHIP	75 OHM
R622	CRJ10DJ750T	RES , CHIP	75 OHM
R623	CRJ10DJ750T	RES , CHIP	75 OHM
R631	CRJ10DJ750T	RES , CHIP	75 OHM
R632	CRJ10DJ750T	RES , CHIP	75 OHM
R633	CRJ10DJ750T	RES , CHIP	75 OHM
C404	CCEA0JH102T	CAP , ELECT	1000UF 6.3V
C405	CCEA1HH100T	CAP , ELECT	10UF 50V
C406	CCEA0JH102T	CAP , ELECT	1000UF 6.3V
C411	CCEA1HH100T	CAP , ELECT	10UF 50V
C412	CCEA1HH100T	CAP , ELECT	10UF 50V
C413	CCEA1HH100T	CAP , ELECT	10UF 50V
C421	CCEA1HH100T	CAP , ELECT	10UF 50V
C422	CCEA1HH100T	CAP , ELECT	10UF 50V
C423	CCEA1HH100T	CAP , ELECT	10UF 50V
C451	CCEA1HH100T	CAP , ELECT	10UF 50V
C452	CCEA1HH100T	CAP , ELECT	10UF 50V
C453	CCEA1HH100T	CAP , ELECT	10UF 50V
C462	CCEA1CH101T	CAP , ELECT	100UF 16V
C464	CCEA1CH101T	CAP , ELECT	100UF 16V
C467	CCEA1CH101T	CAP , ELECT	100UF 16V
C469	CCEA1CH101T	CAP , ELECT	100UF 16V
C472	CCEA1CH101T	CAP , ELECT	100UF 16V
C474	CCEA1CH101T	CAP , ELECT	100UF 16V
C519	CCEA1CH471T	CAP , ELECT	470UF 16V
C530	CCEA1AH331T	CAP , ELECT	330UF 10V
C532	CCEA1CH221T	CAP , ELECT	220UF 16V
C540	CCEA1CKS100T	CAP , ELECT	10UF 16V
C541	CCEA1CKS100T	CAP , ELECT	10UF 16V
C545	CCEA1CKS220T	CAP , ELECT	22UF 16V SMALL SIZE
C546	CCEA1CKS220T	CAP , ELECT	22UF 16V SMALL SIZE

VIDEO PCB ASSY			
Ref. #	Part Number	Description	Value
C547	CCEA1CH471T	CAP , ELECT	470UF 16V
C561	CCEA1CKS100T	CAP , ELECT	10UF 16V
C565	CCEA1CKS100T	CAP , ELECT	10UF 16V
C566	CCEA1CKS100T	CAP , ELECT	10UF 16V
C574	CCEA1CH101T	CAP , ELECT	100UF 16V
C575	CCEA1CH101T	CAP , ELECT	100UF 16V
C584	CCEA1CH101T	CAP , ELECT	100UF 16V
C602	CCEA0JH102T	CAP , ELECT	1000UF 6.3V
C604	CCEA0JH102T	CAP , ELECT	1000UF 6.3V
C606	CCEA0JH102T	CAP , ELECT	1000UF 6.3V
C634	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
D502	CVD1N4003SRT	DIODE , RECT	1N4003
BN14	CJP17GA117ZY	WAFER	WAFER
BN19	CJP07GA117ZY	WAFER	WAFER
BN42	CJP12GB142ZB	PIN HEADER(12PIN, 2.54mm, ANGLE)	PIN HEADER
BN81	CJP34TT215ZB	PIN HEADER , DUAL ROW(34P, 2.0MM, H=19	PIN HEADER
CN41	CJP07GA19ZY	WAFER , STRAIGHT(7PIN)	WAFER
CN42	CJP12GB143ZB	PIN HEADER , DIP SOCKET(12PIN, 2.54mm, /	PIN HEADER
CN43	CJP03GA01ZY	WAFER	WAFER
CN47	CJP07GA117ZY	WAFER	WAFER
CN48	CJP03GA19ZY	WAFER , STRAIGHT(3PIN)	WAFER
ET60	CMC1A214	PLATE , EARTH	PLATE
IC47	CVITMP86F409NG	I.C , IPOD UART BUFFER	TOSHIBA(TMP86F409NG
JK40	CJJ9P003Z	JACK , S-VIDEO+CVBS	JACK
JK41	CJJ9R001Z	JACK , S-VIDEO+CVBS	JACK
JK42	CJJ9L010Z	JACK , IPOD CONNECTOR	JACK(MOLEX SD-52986-
JK62	CJJ4R045Z	JACK , BOARD	JACK
JK69	CJJ4R045Z	JACK , BOARD	JACK
JW51	CWE7202070AA	WIRE ASS'Y	WIRE
R626	CRG1ANJ100H	RES , METAL OXIDE FILM	10 OHM 1W J
X503	HOX08000E160C	CRYSTAL 8MHz	8MHz
HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
	COP12035J	AVR355/230 HDMI TORINO PCB ASS'Y	ASS'Y
CN81	CJP34HA213ZB	PIN SOCKET , FEMALE(34P, 2.0MM)	PIN SOCKET
CN91	CJP17GA193ZY	WAFER, CARD CABLE (SMD)	WAFER
C601	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C602	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C603	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C604	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C605	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C606	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C607	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C610	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C611	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C612	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C613	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C614	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C615	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C616	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C617	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C618	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C619	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C620	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C621	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C622	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C623	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C624	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C625	CCUS1H104KC	CAP , CHIP	0.1UF 50V K

HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
C626	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C627	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C628	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C629	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C634	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA	10UF 16V
C635	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C636	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA	10UF 16V
C637	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C638	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA	10UF 16V
C639	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C640	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA	10UF 16V
C641	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C642	CCUS1H123KC	CAP , CHIP(1608, 50V/12NF)	0.012UF 50V
C643	CCUS1C154KC	CAP , CHIP	0.15UF 16V K
C644	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C645	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C646	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA	10UF 16V
C647	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C648	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C649	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C652	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C653	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C654	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C655	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C656	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C701	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA	10UF 16V
C702	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C703	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C704	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C707	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C708	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C709	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C710	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C721	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C722	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C723	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C724	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C725	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C726	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C727	CCUS1A105KC	CAP , CHIP	1UF 10V K
C728	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C729	CCUS1A105KC	CAP , CHIP	1UF 10V K
C730	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C731	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C732	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C733	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C734	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C735	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C736	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C737	CCUS1H222KC	CAP , CHIP	2200PF 50V K
C738	CCUS1H222KC	CAP , CHIP	2200PF 50V K
C739	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C740	CCUS1H123KC	CAP , CHIP(1608, 50V/12NF)	0.012UF 50V
C741	CCUS1C154KC	CAP , CHIP	0.15UF 16V K
C743	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C744	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C745	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C746	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C747	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C748	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V

HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
C749	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C750	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C751	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELN	10UF 16V
C752	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C753	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C754	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C755	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C756	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C757	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C758	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C759	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C760	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C761	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C762	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C763	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C764	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C765	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C766	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C767	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C768	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C769	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C770	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C771	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C772	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C773	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C774	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C775	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C780	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C801	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C802	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C803	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C804	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C805	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C806	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C807	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C808	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C809	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C810	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C811	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C812	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C813	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C814	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C815	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C816	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C817	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C818	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C819	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C820	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C821	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C822	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C823	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C824	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C825	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C826	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C827	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C828	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C829	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C830	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C831	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C832	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V

HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
C833	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C834	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C835	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C836	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C837	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C838	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C839	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C840	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C841	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C842	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C843	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C844	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C845	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C846	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C847	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C848	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C849	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C850	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C851	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C852	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C853	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C854	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C855	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C856	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C857	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C858	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C859	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C860	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C861	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C862	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C863	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C864	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C865	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C866	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C867	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C868	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C869	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C870	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C871	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C872	CCUI1C104KC	CAP , CHIP(1005, 16V/0.1UF)	0.1UF 16V
C873	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C874	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C875	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C876	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C877	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C878	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C879	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C880	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C881	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C882	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C883	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C884	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C885	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C886	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C887	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C888	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C889	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C890	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C891	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C892	CCUS1H104KC	CAP , CHIP	0.1UF 50V K

HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
C893	CCUS1H470JA	CAP , CHIP	47PF 50V J
C894	CCUS1H470JA	CAP , CHIP	47PF 50V J
C895	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C897	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C898	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C901	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C902	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C903	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C904	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C905	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C906	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C907	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C908	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C909	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C910	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C911	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C912	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C913	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C914	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C915	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C916	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C917	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C918	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C919	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C920	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C921	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C922	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C923	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C924	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C927	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C928	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C929	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C930	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C931	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C932	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C933	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C934	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C935	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C936	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C937	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C938	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C939	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C940	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C941	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C942	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C943	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C944	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C945	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C946	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C947	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C948	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C949	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C950	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C951	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C952	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C953	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C954	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C956	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C957	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C958	CCUS1H104KC	CAP , CHIP	0.1UF 50V K

HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
C959	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C960	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C961	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C962	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C963	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C964	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C965	CCUS1H180JA	CAP , CHIP(18PF/50V)	18PF 50V J
C966	CCUS1H180JA	CAP , CHIP(18PF/50V)	18PF 50V J
C967	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C968	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C969	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C970	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C971	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C972	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C973	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C974	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C975	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA	10UF 16V
C976	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C977	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C978	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C979	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA	10UF 16V
C980	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C981	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C982	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C983	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
C984	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELN	22UF 6.3V
D941	HVD1SR159-200	DIODE , SCHOTTKY BARRIER	DIODE
IC61	CVINJM2845DL118	IC, NJM2845DL1-18(TE1)	JRC(NJM2845DL1-18)
IC62	HVINJM2391DL133	I.C , CHIP REGULATOR (+3.3V)	JRC(NJM2391DL1-33)
IC63	CVIKIA1117S50	I.C , REGULATOR(SOT-223)	KEC(KIA1117S50-RTK/P)
IC64	CVIKIA1117S50	I.C , REGULATOR(SOT-223)	KEC(KIA1117S50-RTK/P)
IC65	CVINJM2845DL118	IC, NJM2845DL1-18(TE1)	JRC(NJM2845DL1-18)
IC71	CVINJM2566V	I.C , NJM2566AV(TE1)	JRC(NJM2566AV)
IC72	CVIADV7342BSTZ	I.C , VIDEO ENCODER	ANLOG DEVICE(ADV734
IC73	CVIMK2302S01T	I.C , BUFFER	IDT(MK23020S-01T)
IC74	CVINJM2845DL133	I.C , REGULATOR(3.3V, TO-252-3)	JRC(NJM2845DL1-13)
IC75	CVIA3S56D40ETPG5	I.C, 256MB DDR SDRAM	ZENTEL(A3S56D40ETPG
IC76	CVIA3S56D40ETPG5	I.C, 256MB DDR SDRAM	ZENTEL(A3S56D40ETPG
IC77	CVIES29LV320ET70TG	I.C , FLASH ROM 32Mbit IC (TOP BOOST)	EXCEL SEMI(ES29LV320
IC81	CVIFLI30336AC	I.C , VIDEO PROCESSOR	GENESIS(FLI30336)
IC82	CVIST232CDR	IC , RS232C(SO-16TYPE)	ST(ST232CDR)
IC84	HVIKIC7SZ08FU	I.C ,INPUT AND GATE (USV PACKAGE)	KEC(KIC7SZ08FU-RTK)
IC87	HVINJM2391DL125	I.C , CHIP REGULATOR (+2.5V)	JRC(NJM2391DL1-25)
IC89	HVINJM2391DL133	I.C , CHIP REGULATOR (+3.3V)	JRC(NJM2391DL1-13)
IC91	CVITC74VHCT14AFT	I.C , HEX SCHMITT INVERTER(14PIN, TSSOP	TOSHIBA(TC74VHC14AF
IC92	CVISII9185CTU	IC , HDMI SW(80PIN, TQFP)	SILICON IMAGE(SII91850
IC93	CVISII9135CTU	IC , HDMI RX(144PIN, TQFP)	SILICON IMAGE(SII91350
IC94	CVISII9134CTU	IC , HDMI TX(100PIN, TQFP)	SILICON IMAGE(SII91340
IC95	HVIKIC7SZ08FU	I.C ,INPUT AND GATE (USV PACKAGE)	KEC(KIC7SZ08FU-RTK)
IC96	CVITC74VCX541FT	I,C , OCTAL BUS BUFFER	TOSHIBA(TC74VCX541F
JK91	HJJ9H003Z	JACK , HDMI(JALCO)	YKF45-7009
JK92	HJJ9H003Z	JACK , HDMI(JALCO)	YKF45-7009
JK93	HJJ9H003Z	JACK , HDMI(JALCO)	YKF45-7009
JK94	HJJ9H003Z	JACK , HDMI(JALCO)	YKF45-7009
L801	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L802	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L803	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L804	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L805	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L806	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30

HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
L807	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L808	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L809	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L810	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L811	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L812	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L813	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L814	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L815	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L816	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L817	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L818	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L819	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L820	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L821	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L822	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L823	CLZ9R009Z	CHOKE COIL, CHIP (FOR HDMI)	CMM21T-900M-3H
L824	CLZ9R009Z	CHOKE COIL, CHIP (FOR HDMI)	CMM21T-900M-3H
L825	CLZ9R009Z	CHOKE COIL, CHIP (FOR HDMI)	CMM21T-900M-3H
L826	CLZ9R009Z	CHOKE COIL, CHIP (FOR HDMI)	CMM21T-900M-3H
L901	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L902	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L903	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L904	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L906	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L907	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L908	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L909	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L910	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L911	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L912	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L913	CLZ9R005Z	FERRITE , CHIP BEAD(60ohm, 1608)	HCB1608KF-600T30
L914	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L915	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L916	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
L917	CLZ9Z014Z	FERRITE , CHIP BEAD(60ohm, 4516)	HCB4516KF-600T60
Q801	HVTKRC114S	T.R , CHIP	KRC114S
Q901	HVTKRA102S	T.R , CHIP	KRA102S
Q902	CVTKRC103S	T.R , CHIP	KRC103S
Q903	CVTUPA672T	F.E.T	UPA672T
Q904	HVTKRA102S	T.R , CHIP	KRA102S
Q905	CVTKRC103S	T.R , CHIP	KRC103S
Q906	CVTUPA672T	F.E.T	UPA672T
Q907	HVTKRA102S	T.R , CHIP	KRA102S
Q908	CVTKRC103S	T.R , CHIP	KRC103S
Q909	HVTKRC111S	TR , CHIP	KRC111S
Q910	CVTUPA672T	F.E.T	UPA672T
Q911	CVTKRC103S	T.R , CHIP	KRC103S
Q912	CVTUPA672T	F.E.T	UPA672T
RN31	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN32	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN33	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN34	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN35	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN36	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN37	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN38	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN39	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN40	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN41	CRJ104DJ220T	RES , 4ARRAY (1608*4)	22 OHM/1608*4

HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
RN42	CRJ104DJ220T	RES , 4ARRAY (1608*4)	22 OHM/1608*4
RN43	CRJ104DJ220T	RES , 4ARRAY (1608*4)	22 OHM/1608*4
RN44	CRJ104DJ220T	RES , 4ARRAY (1608*4)	22 OHM/1608*4
RN45	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN46	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN47	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN48	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN49	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN50	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN51	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN52	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN54	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN55	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN56	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN61	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	MNR04M0APJ330
RN62	CRJ104DJ100T	RES , 4ARRAY (1608*4)	10 OHM/1608*4
RN63	CRJ104DJ100T	RES , 4ARRAY (1608*4)	10 OHM/1608*4
RN64	CRJ104DJ100T	RES , 4ARRAY (1608*4)	10 OHM/1608*4
RN65	CRJ104DJ100T	RES , 4ARRAY (1608*4)	10 OHM/1608*4
RN66	CRJ104DJ100T	RES , 4ARRAY (1608*4)	10 OHM/1608*4
RN67	CRJ104DJ100T	RES , 4ARRAY (1608*4)	10 OHM/1608*4
RN68	CRJ104DJ100T	RES , 4ARRAY (1608*4)	10 OHM/1608*4
RN69	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN70	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN71	CRJ062IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN72	CRJ062IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN73	CRJ062IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN74	CRJ062IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN75	CRJ062IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN81	CRJ104DJ103T	RES , 4ARRAY (1608*4)	10K OHM/1608*4
RN82	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN83	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN84	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN85	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN86	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN87	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN88	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN89	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN90	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN91	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN92	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN93	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
RN94	CRJ064IJ330T	RES , CHIP NETWORK(1/16W, 33ohm, 1005X	33 OHM 1/16W
R801	CRJ10DJ470T	RES , CHIP	47 OHM
R802	CRJ10DJ470T	RES , CHIP	47 OHM
R803	CRJ10DJ470T	RES , CHIP	47 OHM
R804	CRJ10DJ820T	RES , CHIP	82 OHM
R805	CRJ10DJ820T	RES , CHIP	82 OHM
R806	CRJ10DJ820T	RES , CHIP	82 OHM
R807	CRJ10DJ820T	RES , CHIP	82 OHM
R808	CRJ10DJ470T	RES , CHIP	47 OHM
R809	CRJ10DJ820T	RES , CHIP	82 OHM
R810	CRJ10DJ470T	RES , CHIP	47 OHM
R811	CRJ10DJ820T	RES , CHIP	82 OHM
R812	CRJ10DJ470T	RES , CHIP	47 OHM
R813	CRJ10DJ470T	RES , CHIP	47 OHM
R814	CRJ10DJ820T	RES , CHIP	82 OHM
R815	CRJ10DJ820T	RES , CHIP	82 OHM
R816	CRJ10DJ820T	RES , CHIP	82 OHM
R817	CRJ10DJ470T	RES , CHIP	47 OHM

HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
R818	CRJ10DJ470T	RES , CHIP	47 OHM
R819	CRJ10DJ470T	RES , CHIP	47 OHM
R820	CRJ10DJ820T	RES , CHIP	82 OHM
R821	CRJ10DJ103T	RES , CHIP	10K OHM
R822	CRJ10DJ103T	RES , CHIP	10K OHM
R823	CRJ10DJ103T	RES , CHIP	10K OHM
R824	CRJ10DJ0R0T	RES , CHIP	0 OHM
R825	CRJ10DJ103T	RES , CHIP	10K OHM
R826	CRJ10DJ103T	RES , CHIP	10K OHM
R827	CRJ10DJ103T	RES , CHIP	10K OHM
R832	CRJ10DJ103T	RES , CHIP	10K OHM
R838	CRJ10DJ750T	RES , CHIP	75 OHM
R839	CRJ10DJ750T	RES , CHIP	75 OHM
R840	CRJ10DJ750T	RES , CHIP	75 OHM
R841	CRJ10DJ750T	RES , CHIP	75 OHM
R842	CRJ10DJ750T	RES , CHIP	75 OHM
R843	CRJ10DJ750T	RES , CHIP	75 OHM
R844	CRJ10DJ103T	RES , CHIP	10K OHM
R845	CRJ10DJ103T	RES , CHIP	10K OHM
R846	CRJ10DJ103T	RES , CHIP	10K OHM
R847	CRJ10DJ103T	RES , CHIP	10K OHM
R848	CRJ10DJ301T	RES , CHIP	300 OHM
R849	CRJ10DJ301T	RES , CHIP	300 OHM
R850	CRJ10DJ301T	RES , CHIP	300 OHM
R851	CRJ10DJ301T	RES , CHIP	300 OHM
R852	CRJ10DJ301T	RES , CHIP	300 OHM
R853	CRJ10DJ301T	RES , CHIP	300 OHM
R854	CRJ10DF6801T	RES, CHIP 1%	6.8K OHM 1%
R855	CRJ10DF4301T	RES, CHIP 1%	4.3K OHM 1%
R856	CRJ10DJ221T	RES , CHIP	220 OHM
R857	CRJ10DJ392T	RES , CHIP	3.9K OHM
R858	CRJ10DJ151T	RES , CHIP	150 OHM
R860	CRJ10DJ100T	RES , CHIP	10 OHM
R861	CRJ10DJ100T	RES , CHIP	10 OHM
R863	CRJ10DJ472T	RES , CHIP	4.7K OHM
R864	CRJ10DF2800T	RES , CHIP(1/10W, 280ohm, 1608, 1%)	280 OHM 1%
R865	CRJ10DF2800T	RES , CHIP(1/10W, 280ohm, 1608, 1%)	280 OHM 1%
R867	CRJ10DF1002T	RES , CHIP 1%	10K /1/10W/F
R868	CRJ10DF1002T	RES , CHIP 1%	10K /1/10W/F
R869	CRJ10DJ103T	RES , CHIP	10K OHM
R870	CRJ10DJ103T	RES , CHIP	10K OHM
R871	CRJ10DJ103T	RES , CHIP	10K OHM
R873	CRJ10DJ103T	RES , CHIP	10K OHM
R874	CRJ10DJ103T	RES , CHIP	10K OHM
R875	CRJ10DJ103T	RES , CHIP	10K OHM
R876	CRJ10DJ103T	RES , CHIP	10K OHM
R877	CRJ10DJ151T	RES , CHIP	150 OHM
R878	CRJ10DJ0R0T	RES , CHIP	0 OHM
R879	CRJ10DJ103T	RES , CHIP	10K OHM
R880	CRJ10DJ103T	RES , CHIP	10K OHM
R881	CRJ10DJ103T	RES , CHIP	10K OHM
R882	CRJ10DJ103T	RES , CHIP	10K OHM
R883	CRJ10DJ103T	RES , CHIP	10K OHM
R884	CRJ10DJ103T	RES , CHIP	10K OHM
R887	CRJ10DJ103T	RES , CHIP	10K OHM
R892	CRJ10DJ103T	RES , CHIP	10K OHM
R893	CRJ10DJ472T	RES , CHIP	4.7K OHM
R894	CRJ10DJ472T	RES , CHIP	4.7K OHM
R897	CRJ10DJ200T	RES , CHIP(1/10W, 20OHM,1608)	20 OHM
R898	CRJ10DJ200T	RES , CHIP(1/10W, 20OHM,1608)	20 OHM

HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
R899	CRJ10DJ221T	RES , CHIP	220 OHM
R900	CRJ10DJ392T	RES , CHIP	3.9K OHM
R901	CRJ10DJ102T	RES , CHIP	1K OHM
R902	CRJ10DJ223T	RES , CHIP	22K OHM
R903	CRJ10DJ101T	RES , CHIP	100 OHM
R904	CRJ10DJ473T	RES , CHIP	47K OHM
R905	CRJ10DJ470T	RES , CHIP	47 OHM
R906	CRJ10DJ470T	RES , CHIP	47 OHM
R907	CRJ10DJ473T	RES , CHIP	47K OHM
R908	CRJ10DJ103T	RES , CHIP	10K OHM
R909	CRJ10DJ103T	RES , CHIP	10K OHM
R910	CRJ10DJ473T	RES , CHIP	47K OHM
R911	CRJ10DJ102T	RES , CHIP	1K OHM
R912	CRJ10DJ223T	RES , CHIP	22K OHM
R913	CRJ10DJ101T	RES , CHIP	100 OHM
R914	CRJ10DJ473T	RES , CHIP	47K OHM
R915	CRJ10DJ470T	RES , CHIP	47 OHM
R916	CRJ10DJ470T	RES , CHIP	47 OHM
R917	CRJ10DJ473T	RES , CHIP	47K OHM
R918	CRJ10DJ103T	RES , CHIP	10K OHM
R919	CRJ10DJ103T	RES , CHIP	10K OHM
R920	CRJ10DJ473T	RES , CHIP	47K OHM
R921	CRJ10DJ102T	RES , CHIP	1K OHM
R922	CRJ10DJ223T	RES , CHIP	22K OHM
R923	CRJ10DJ101T	RES , CHIP	100 OHM
R924	CRJ10DJ473T	RES , CHIP	47K OHM
R925	CRJ10DJ470T	RES , CHIP	47 OHM
R926	CRJ10DJ470T	RES , CHIP	47 OHM
R927	CRJ10DJ473T	RES , CHIP	47K OHM
R928	CRJ10DJ103T	RES , CHIP	10K OHM
R929	CRJ10DJ103T	RES , CHIP	10K OHM
R930	CRJ10DJ473T	RES , CHIP	47K OHM
R931	CRJ10DJ0R0T	RES , CHIP	0 OHM
R932	CRJ10DJ0R0T	RES , CHIP	0 OHM
R933	CRJ10DJ102T	RES , CHIP	1K OHM
R934	CRJ10DJ102T	RES , CHIP	1K OHM
R935	CRJ10DJ102T	RES , CHIP	1K OHM
R936	CRJ10DJ103T	RES , CHIP	10K OHM
R937	CRJ10DJ103T	RES , CHIP	10K OHM
R938	CRJ10DJ101T	RES , CHIP	100 OHM
R939	CRJ10DJ101T	RES , CHIP	100 OHM
R940	CRJ10DJ103T	RES , CHIP	10K OHM
R941	CRJ10DJ101T	RES , CHIP	100 OHM
R942	CRJ10DJ101T	RES , CHIP	100 OHM
R943	CRJ10DJ473T	RES , CHIP	47K OHM
R944	CRJ10DJ472T	RES , CHIP	4.7K OHM
R945	CRJ10DJ473T	RES , CHIP	47K OHM
R947	CRJ10DJ473T	RES , CHIP	47K OHM
R948	CRJ10DJ473T	RES , CHIP	47K OHM
R949	CRJ10DJ101T	RES , CHIP	100 OHM
R950	CRJ10DJ101T	RES , CHIP	100 OHM
R951	CRJ10DJ102T	RES , CHIP	1K OHM
R952	CRJ10DJ105T	RES , CHIP	1M OHM
R953	CRJ10DJ0R0T	RES , CHIP	0 OHM
R954	CRJ10DJ103T	RES , CHIP	10K OHM
R955	CRJ10DJ220T	RES , CHIP	22 OHM
R956	CRJ10DJ101T	RES , CHIP	100 OHM
R958	CRJ10DJ472T	RES , CHIP	4.7K OHM
R960	CRJ10DJ101T	RES , CHIP	100 OHM
R961	CRJ10DJ101T	RES , CHIP	100 OHM

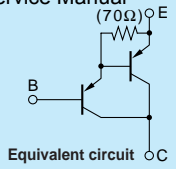
HDMI TORINO PCB ASSY			
Ref. #	Part Number	Description	Value
R962	CRJ10DJ103T	RES , CHIP	10K OHM
R963	CRJ10DJ473T	RES , CHIP	47K OHM
R964	CRJ10DJ101T	RES , CHIP	100 OHM
R969	CRJ10DJ102T	RES , CHIP	1K OHM
R970	CRJ10DJ222T	RES , CHIP	2.2K OHM
R971	CRJ10DJ182T	RES , CHIP	1.8K OHM
R972	CRJ10DJ103T	RES , CHIP	10K OHM
R973	CRJ10DJ103T	RES , CHIP	10K OHM
R974	CRJ10DJ182T	RES , CHIP	1.8K OHM
R975	CRJ10DJ0R0T	RES , CHIP	0 OHM
R976	CRJ10DJ101T	RES , CHIP	100 OHM
R977	CRJ10DJ102T	RES , CHIP	1K OHM
R980	CRJ10DJ0R0T	RES , CHIP	0 OHM
R981	CRJ10DJ0R0T	RES , CHIP	0 OHM
X901	HOX27000E180S	CRYSTAL , CHIP(27MHZ,SMD)	27MHz
X902	COX19660E330S	X-TAL, CHIP, 19.6608 MHz (33P)	19.6608MHz
	CMY1A297	HEAT SINK	HEAT SINK
BN50	CJP05GA19ZY	WAFER , STRAIGHT	WAFER
CN80	CJP03GA19ZY	WAFER , STRAIGHT(3PIN)	WAFER
CN82	CJP05GA01ZY	WAFER(YMW025-05R)	WAFER
C651	CCEA0JKR3222E	CAP , ELECT	2200UF 6.3V
C657	CCEA0JKR3222E	CAP , ELECT	2200UF 6.3V
MULTI PCB ASSY(A-BUS)			
Ref. #	Part Number	Description	Value
	COP12036J	AVR355/230 MULTI PCB ASS'Y	ASS'Y
CN16	CJP13GA193ZY	WAFER , CARD CABLE (SMD)	WAFER
C412	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C413	CCUS1H223KC	CAP , CHIP	0.022UF 50V K
C428	CCUS1H151JA	CAP , CHIP	150PF 50V J
C442	CCUS1H151JA	CAP , CHIP	150PF 50V J
C448	CCUS1H331JA	CAP , CHIP	330PF 50V J
C467	CCUS1A105KC	CAP , CHIP	1UF 10V K
C468	CCUS1A105KC	CAP , CHIP	1UF 10V K
C469	CCUS1A105KC	CAP , CHIP	1UF 10V K
C470	CCUS1A105KC	CAP , CHIP	1UF 10V K
C475	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C476	CCUS1H101JA	CAP , CHIP	100PF 50V J
C477	CCUS1H101JA	CAP , CHIP	100PF 50V J
C478	CCUS1A105KC	CAP , CHIP	1UF 10V K
C479	CCUS1A105KC	CAP , CHIP	1UF 10V K
D475	CVD1SS355T	DIODE , CHIP	1SS355T
D476	CVD1SS355T	DIODE , CHIP	1SS355T
IC44	HVINJW1159M	I.C , VOLUME (2-CH)	JRC(NJW1159M)
IC45	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
IC50	HVINJM2068MTE1	I.C , OP AMP	JRC(NJM2068M-TE1)
Q456	HVTKRA107ST	T.R , CHIP	KRA107S
R447	CRJ10DJ101T	RES , CHIP	100 OHM
R448	CRJ10DJ184T	RES , CHIP	180K OHM
R452	CRJ10DJ184T	RES , CHIP	180K OHM
R454	CRJ10DJ562T	RES , CHIP	5.6K OHM
R455	CRJ10DJ122T	RES , CHIP	1.2K OHM
R456	CRJ10DJ562T	RES , CHIP	5.6K OHM
R457	CRJ10DJ821T	RES , CHIP	820 OHM
R458	CRJ10DJ821T	RES , CHIP	820 OHM
R460	CRJ10DJ184T	RES , CHIP	180K OHM
R461	CRJ10DJ104T	RES , CHIP	100K OHM
R462	CRJ10DJ104T	RES , CHIP	100K OHM
R463	CRJ10DJ821T	RES , CHIP	820 OHM
R464	CRJ10DJ821T	RES , CHIP	820 OHM

MULTI PCB ASSY(A-BUS)			
Ref. #	Part Number	Description	Value
R465	CRJ10DJ472T	RES , CHIP	4.7K OHM
R466	CRJ10DJ472T	RES , CHIP	4.7K OHM
R467	CRJ10DJ472T	RES , CHIP	4.7K OHM
R468	CRJ10DJ472T	RES , CHIP	4.7K OHM
R469	CRJ10DJ184T	RES , CHIP	180K OHM
R470	CRJ10DJ184T	RES , CHIP	180K OHM
R471	CRJ10DJ101T	RES , CHIP	100 OHM
R472	CRJ10DJ101T	RES , CHIP	100 OHM
R473	CRJ10DJ184T	RES , CHIP	180K OHM
R474	CRJ10DJ122T	RES , CHIP	1.2K OHM
R475	CRJ10DJ4R7T	RES , CHIP	4.7 OHM
R476	CRJ10DJ101T	RES , CHIP	100 OHM
R477	CRJ10DJ101T	RES , CHIP	100 OHM
R478	CRJ10DJ562T	RES , CHIP	5.6K OHM
R479	CRJ10DJ562T	RES , CHIP	5.6K OHM
R480	CRJ10DJ102T	RES , CHIP	1K OHM
R481	CRJ10DJ561T	RES , CHIP	560 OHM
R482	CRJ10DJ472T	RES , CHIP	4.7K OHM
R483	CRJ10DJ222T	RES , CHIP	2.2K OHM
R484	CRJ10DJ473T	RES , CHIP	47K OHM
R485	CRJ14CJ101T	RES , CHIP 1/4W	100 OHM
R489	CRJ10DJ332T	RES , CHIP	3.3K OHM
R490	CRJ10DJ332T	RES , CHIP	3.3K OHM
R499	CRJ10DJ102T	RES , CHIP	1K OHM
C414	CCEA1HH100T	CAP , ELECT	10UF 50V
C415	CCEA1HH100T	CAP , ELECT	10UF 50V
C441	CCEA1EH101T	CAP , ELECT	100UF 25V
C443	CCEA1HH100T	CAP , ELECT	10UF 50V
C444	CCEA1HH100T	CAP , ELECT	10UF 50V
C446	CCEA1CH101T	CAP , ELECT	100UF 16V
C447	CCEA1HH100T	CAP , ELECT	10UF 50V
C449	CCEA1CH101T	CAP , ELECT	100UF 16V
C452	CCEA1HH100T	CAP , ELECT	10UF 50V
C453	CCEA1HH100T	CAP , ELECT	10UF 50V
C454	CCEA1EH101T	CAP , ELECT	100UF 25V
D442	CVD1SS133MT	DIODE	1SS133
D443	CVDZJ6.8BT	DIODE , ZENER	ZJ6.8B 1/2W
D444	CVDZJ6.8BT	DIODE , ZENER	ZJ6.8B 1/2W
D445	CVDZJ6.8BT	DIODE , ZENER	ZJ6.8B 1/2W
D446	CVDZJ6.8BT	DIODE , ZENER	ZJ6.8B 1/2W
D447	HVDMTZJ12BT	DIODE , ZENER	MTZJ12B 1/2W
Q451	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q452	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q453	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q454	HVTKTC2874BT	T.R , MUTE	KTC2874B
Q457	HVTKSA1175YT	T.R	KSA1175Y(DEAD)
Q458	HVTKTA1271YT	T.R	KTA1271Y
BN95	CWB1C902080EN	WIRE ASS'Y	WIRE
CN89	CJP02GA19ZY	WAFER , 2PIN	WAFER
C450	CCEA1VH471E	CAP , ELECT	470UF 35V
ET03	CMD1A569	BRACKET , PCB	BRACKET
IC52	BVIKP1010B	IC, PHOTO COUPLER	COSMO
JK16	CJJ4N076Z	JACK , IN/OUT	JACK
JK17	CJJ9L004Z	JACK , RJ-45	JACK
	COP12055J	AVR355/230 REGULATOR PCB ASS'Y	ASS'Y
C201	CCEA1EH101T	CAP , ELECT	100UF 25V
C203	CCEA1VH101T	CAP , ELECT	100UF 35V
C204	CCEA1CH101T	CAP , ELECT	100UF 16V
C205	CCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V

REGULATOR PCB ASSY			
Ref. #	Part Number	Description	Value
C206	CCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V
C211	CCEA1CH101T	CAP , ELECT	100UF 16V
C212	HCBS1H104ZFT	CAP , CERAMIC	0.1UF 50V
C213	CCEA1CH101T	CAP , ELECT	100UF 16V
C301	CCEA1EH101T	CAP , ELECT	100UF 25V
C302	CCEA1EH101T	CAP , ELECT	100UF 25V
C303	CCEA1CH101T	CAP , ELECT	100UF 16V
C304	CCEA1CH101T	CAP , ELECT	100UF 16V
C311	CCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V
C312	CCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V
C902	CCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V
C903	CCBS1H223ZFT	CAP , CERAMIC	0.022UF 50V
C906	CCEA1CH101T	CAP , ELECT	100UF 16V
C907	CCEA1CH101T	CAP , ELECT	100UF 16V
D955	CVD1N4003ST	DIODE , RECT	1N4003
R201	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R202	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R203	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R211	CRD20TF4700T	RES , CARBON	470 OHM 1%
R212	CRD20TF2000T	RES , CARBON	200 OHM 1%
R301	CRD20TJ332T	RES , CARBON	3.3K OHM 1/5W J
R302	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R303	CRD20TJ561T	RES , CARBON	560 OHM 1/5W J
BN31	CWB1C905100EN	WIRE ASS'Y	WIRE
BN43	CWB1C903150BM	WIRE ASS'Y(3P, 150MM, 2.5MM, #24)	WIRE
BN82	CWB1C905100BM	WIRE ASS'Y (5P, 2.5P, 150mm)	WIRE
CN21	CJP05GA19ZY	WAFER , STRAIGHT	WAFER
CN31	CJP05GA19ZY	WAFER , STRAIGHT	WAFER
CN97	CJP05GA19ZY	WAFER , STRAIGHT	WAFER
CN99	CJP03GA01ZY	WAFER	WAFER
D956	HVD2A04H	DIODE , RECT(2A)	DIODE
IC21	CVIKIA278R00PI	I.C , REGULATOR(TO-220IS-4)	KEC(KIA278R00PI)
IC22	CVIKIA7824API	I.C , REGULATOR(24V TO-220IS)	KEC(KIA7824API)
IC23	HVIKIA378R05PI	I.C , REGULATOR(TO-220IS-4)	KEC(KIA378R05PI)
IC31	CVIKIA278R00PI	I.C , REGULATOR(TO-220IS-4)	KEC(KIA278R00PI)
IC32	CVIKIA378R09PI	I.C , REGULATOR(+9V, 3A, TO-220IS-4)	KEC(KIA378R09PI)
IC93	CVIKIA7905PI	I.C , REGULATOR(-5V)	KEC(KIA7905PI)
IC94	HVIKIA7809API	I.C , REGULATOR +9V	KEC(KIA7809API)

Darlington

2SB1647



Silicon PNP Epitaxial Planar Transistor (Complement to type 2SD2560)

Application : Audio, Series Regulator and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	2SB1647	Unit
V _{CB0}	-150	V
V _{CE0}	-150	V
V _{EB0}	-5	V
I _c	-15	A
I _B	-1	A
P _c	130(T _c =25°C)	W
T _j	150	°C
T _{stg}	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

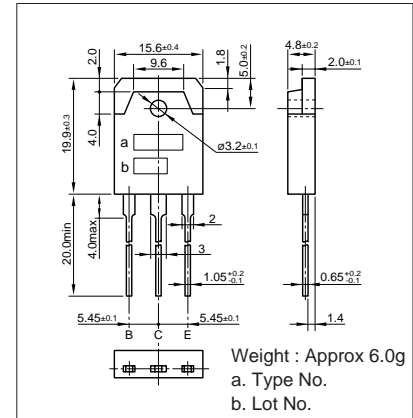
Symbol	Conditions	2SB1647	Unit
I _{CB0}	V _{CB} =-150V	-100max	μA
I _{EB0}	V _{EB} =-5V	-100max	μA
V _{(BR)CEO}	I _c =-30mA	-150min	V
h _{FE}	V _{CE} =-4V, I _c =-10A	5000min*	
V _{CE(sat)}	I _c =-10A, I _B =-10mA	-2.5max	V
V _{BE(sat)}	I _c =-10A, I _B =-10mA	-3.0max	V
f _T	V _{CE} =-12V, I _E =2A	45typ	MHz
COB	V _{CB} =-10V, f=1MHz	320typ	pF

*h_{FE} Rank O(5000to12000), P(6500to20000), Y(15000to30000)

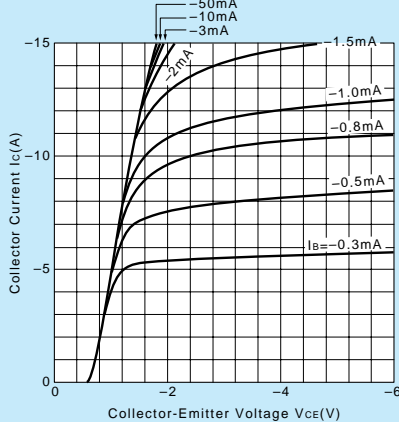
Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _c (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (mA)	I _{B2} (mA)	t _{on} (μs)	t _{stg} (μs)	t _f (μs)
-40	4	10	-10	5	-10	10	0.7typ	1.6typ	1.1typ

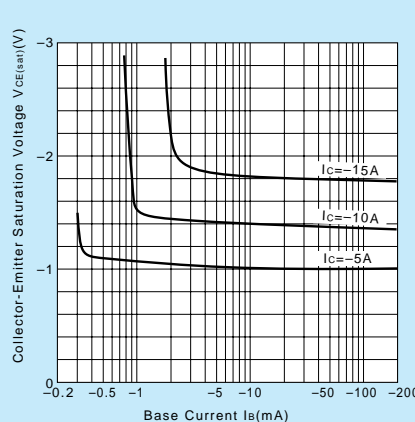
External Dimensions MT-100(TO3P)



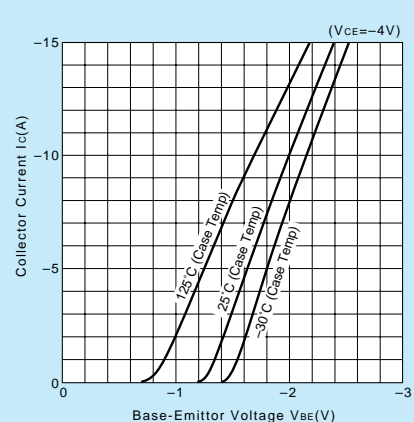
I_c-V_{CE} Characteristics (Typical)



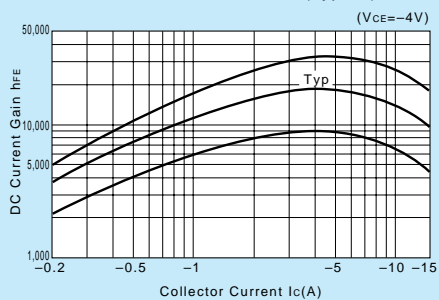
V_{CE(sat)}-I_B Characteristics (Typical)



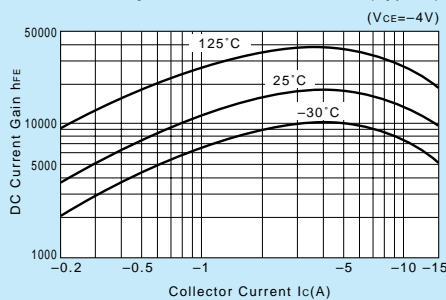
I_c-V_{BE} Temperature Characteristics (Typical)



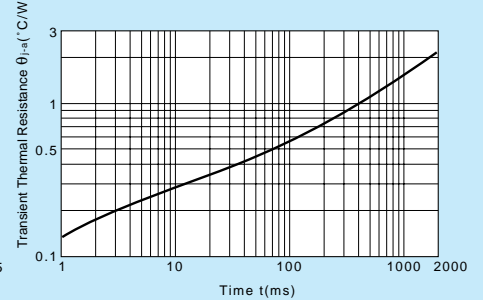
h_{FE}-I_c Characteristics (Typical)



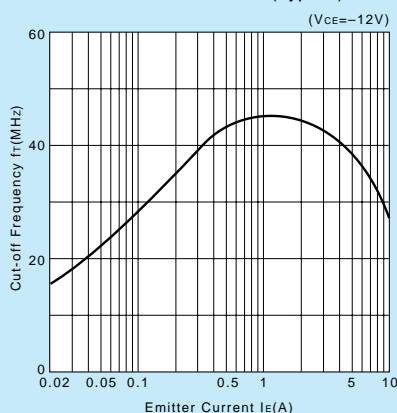
h_{FE}-I_c Temperature Characteristics (Typical)



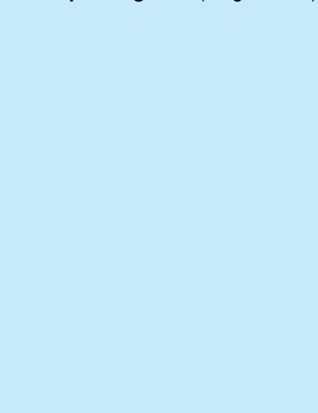
θ_{j-a}-t Characteristics



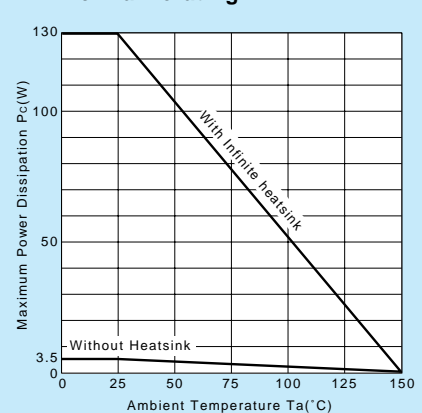
f_T-I_E Characteristics (Typical)



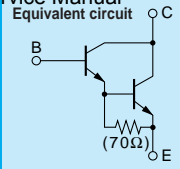
Safe Operating Area (Single Pulse)



P_c-T_a Derating



Darlington 2SD2560



Silicon NPN Triple Diffused Planar Transistor (Complement to type 2SB1647)

Application : Audio, Series Regulator and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	2SD2560	Unit
V _{CB0}	150	V
V _{CE0}	150	V
V _{EB0}	5	V
I _C	15	A
I _B	1	A
P _C	130(T _C =25°C)	W
T _J	150	°C
T _{stg}	-55to+150	°C

Electrical Characteristics (Ta=25°C)

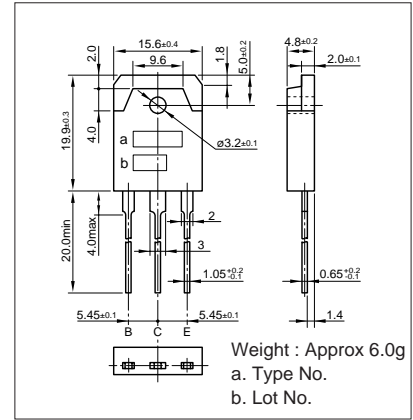
Symbol	Conditions	2SD2560	Unit
I _{CB0}	V _{CB} =150V	100max	μA
I _{EB0}	V _{EB} =5V	100max	μA
V _{(BR)CEO}	I _C =30mA	150min	V
h _{FE}	V _{CE} =4V, I _C =10A	5000min*	
V _{CE(sat)}	I _C =10A, I _B =10mA	2.5max	V
V _{BE(sat)}	I _C =10A, I _B =10mA	3.0max	V
f _T	V _{CE} =12V, I _E =-2A	70typ	MHz
COB	V _{CB} =10V, f=1MHz	120typ	pF

*h_{FE} Rank: O(5000to12000), P(6500to20000), Y(15000to30000)

Typical Switching Characteristics (Common Emitter)

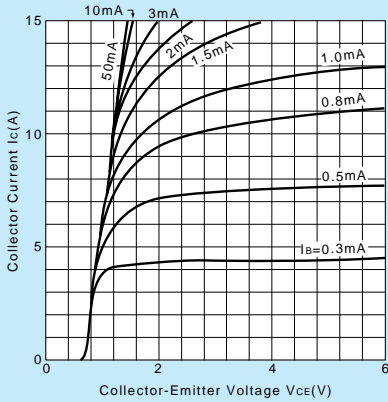
V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BB1} (V)	V _{BB2} (V)	I _{B1} (mA)	I _{B2} (mA)	t _{on} (μs)	t _{stg} (μs)	t _f (μs)
40	4	10	10	-5	10	-10	0.8typ	4.0typ	1.2typ

External Dimensions MT-100(TO3P)

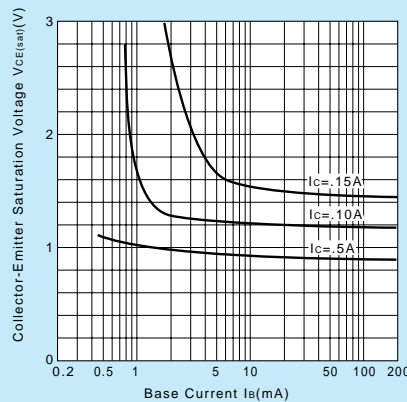


Weight : Approx 6.0g
a. Type No.
b. Lot No.

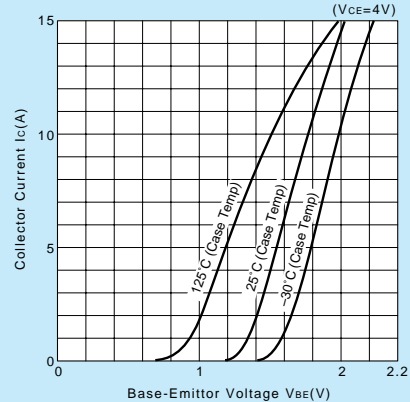
I_C-V_{CE} Characteristics (Typical)



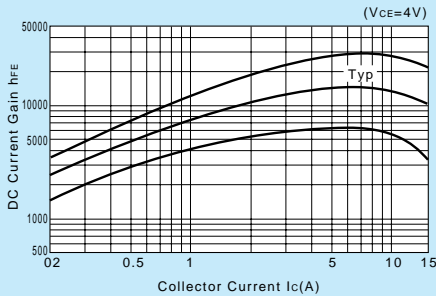
V_{CE(sat)}-I_B Characteristics (Typical)



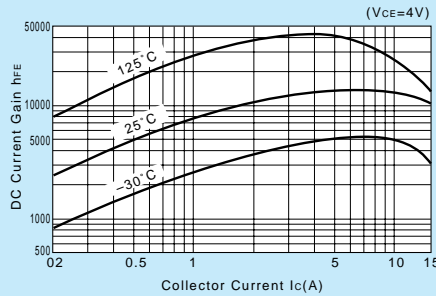
I_C-V_{BE} Temperature Characteristics (Typical)



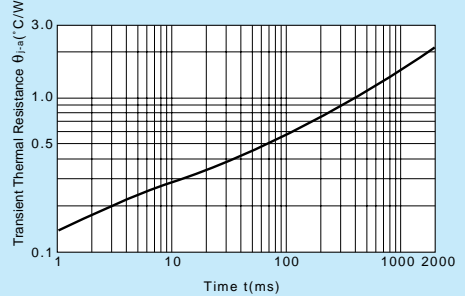
h_{FE}-I_C Characteristics (Typical)



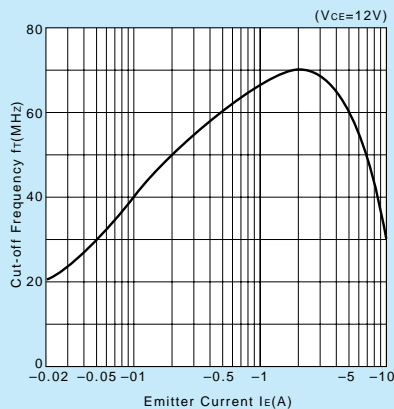
h_{FE}-I_C Temperature Characteristics (Typical)



θ_{j-a}-t Characteristics

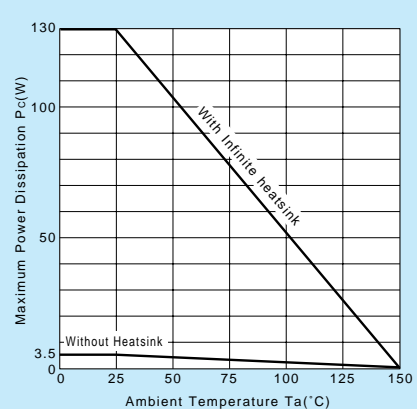


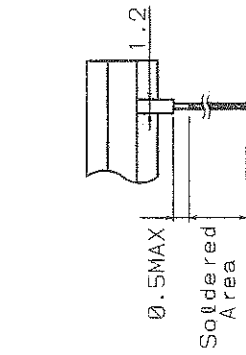
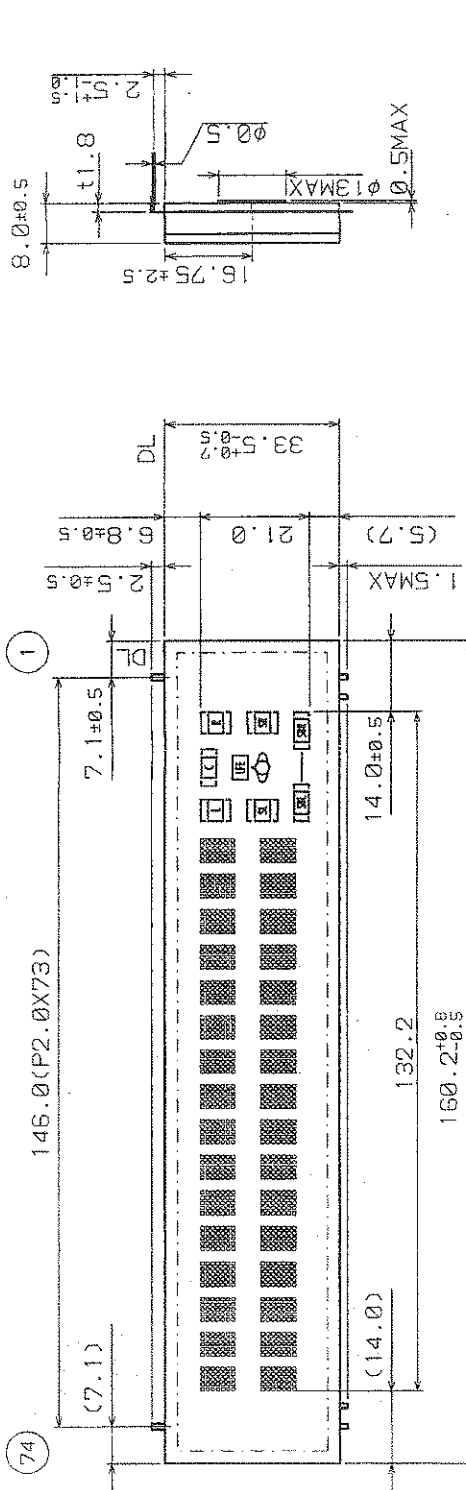
f_T-I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)

P_C-T_a Derating





LEAD DETAILS
LEAD FREE SOLDER

PIN CONNECTION

PIN NO.	77	77	77	66	66	66	66	66	55	55	55	55	55							
CONNECTION	FF	NN	NN	VD	SE	CC	DD	SS	77	77	X	NN	FF	FF	FF	FF	PP	TT	II	II
	2	2	2	1	1	1	1	1	1	1		2	2	2	2	2	2	2	2	2

- NOTE 1) F1, F2 --- Filament
 2) NP --- No pin
 3) DL --- Datum Line
 4) LGND --- Logic GND pin
 5) PGND --- Power GND pin
 6) VH --- High Voltage Supply pin
 7) VDD --- Logic Voltage Supply pin
 8) CP --- Shift Register Clock
 9) DA --- Serial Data Input

- 10) ISA, B --- Test pin
 11) CS --- Chip Select Input pin
 12) RESET --- Reset Input
 13) OSC --- Pin for self-oscillation
 14) Solder composition is Sn-3Ag-0.5Cu.
 15) Field of vision is a minimum of 21.7° from the upper side, 8.4° from the lower side.
 16) NX --- No extend pin
 17) I76 --- Grid
 18) Q176 --- Driver Output Port

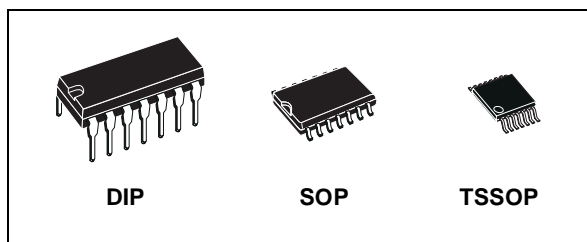
(unit in mm)
 17-BT-31GINK
 OUTER DIMENSION



74ACT04

HEX INVERTER

- HIGH SPEED: $t_{PD} = 5.0ns$ (TYP.) at $V_{CC} = 5V$
- LOW POWER DISSIPATION:
 $I_{CC} = 2\mu A$ (MAX.) at $T_A=25^\circ C$
- COMPATIBLE WITH TTL OUTPUTS
 $V_{IH} = 2V$ (MIN.), $V_{IL} = 0.8V$ (MAX.)
- 50Ω TRANSMISSION LINE DRIVING CAPABILITY
- SYMMETRICAL OUTPUT IMPEDANCE:
 $|I_{OH}| = I_{OL} = 24mA$ (MIN)
- BALANCED PROPAGATION DELAYS:
 $t_{PLH} \cong t_{PHL}$
- OPERATING VOLTAGE RANGE:
 V_{CC} (OPR) = 4.5V to 5.5V
- PIN AND FUNCTION COMPATIBLE WITH 74 SERIES 04
- IMPROVED LATCH-UP IMMUNITY



ORDER CODES

PACKAGE	TUBE	T & R
DIP	74ACT04B	
SOP	74ACT04M	74ACT04MTR
TSSOP		74ACT04TTR

DESCRIPTION

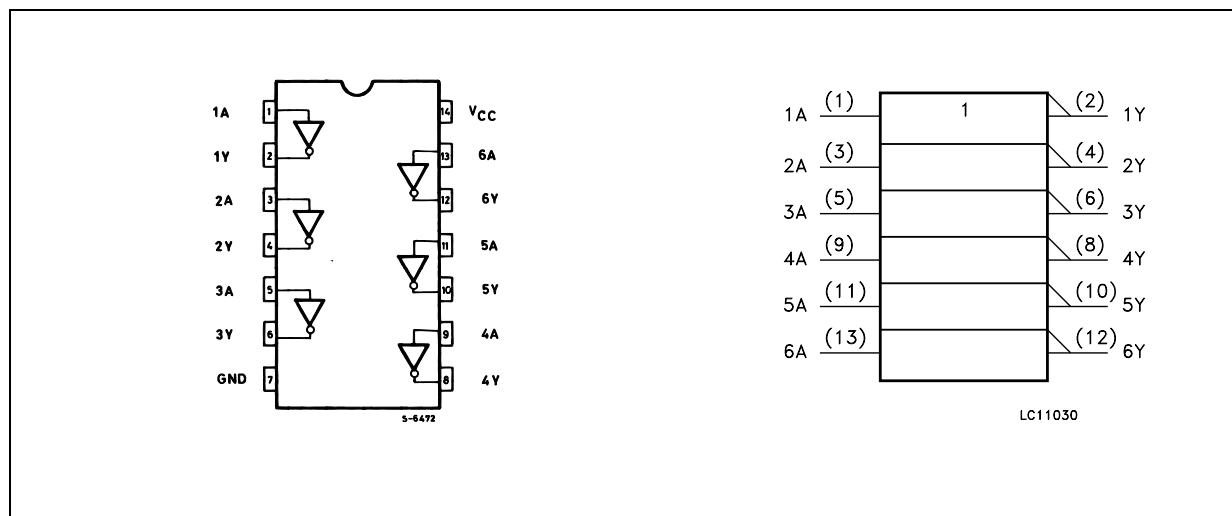
The 74ACT04 is an advanced high-speed CMOS HEX INVERTER fabricated with sub-micron silicon gate and double-layer metal wiring C²MOS technology.

The internal circuit is composed of 3 stages including buffer output, which enables high noise immunity and stable output.

The device is designed to interface directly High Speed CMOS systems with TTL, NMOS and CMOS output voltage levels.

All inputs and outputs are equipped with protection circuits against static discharge, giving them 2KV ESD immunity and transient excess voltage.

PIN CONNECTION AND IEC LOGIC SYMBOLS





74LCX32

LOW VOLTAGE CMOS QUAD 2-INPUT OR GATE WITH 5V TOLERANT INPUTS

- 5V TOLERANT INPUTS
- HIGH SPEED:
 $t_{PD} = 5.2ns$ (MAX.) at $V_{CC} = 3V$
- POWER DOWN PROTECTION ON INPUTS AND OUTPUTS
- SYMMETRICAL OUTPUT IMPEDANCE:
 $|I_{OH}| = I_{OL} = 24mA$ (MIN) at $V_{CC} = 3V$
- PCI BUS LEVELS GUARANTEED AT 24 mA
- BALANCED PROPAGATION DELAYS:
 $t_{PLH} \cong t_{PHL}$
- OPERATING VOLTAGE RANGE:
 $V_{CC}(OPR) = 2.0V$ to $3.6V$ (1.5V Data Retention)
- PIN AND FUNCTION COMPATIBLE WITH 74 SERIES 32
- LATCH-UP PERFORMANCE EXCEEDS 500mA (JESD 17)
- ESD PERFORMANCE:
 $HBM > 2000V$ (MIL STD 883 method 3015);
 $MM > 200V$

DESCRIPTION

The 74LCX32 is a low voltage CMOS QUAD 2-INPUT OR GATE fabricated with sub-micron silicon gate and double-layer metal wiring C²MOS

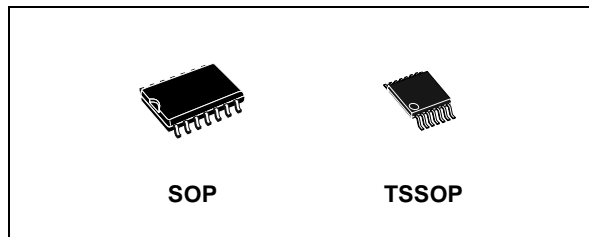


Table 1: Order Codes

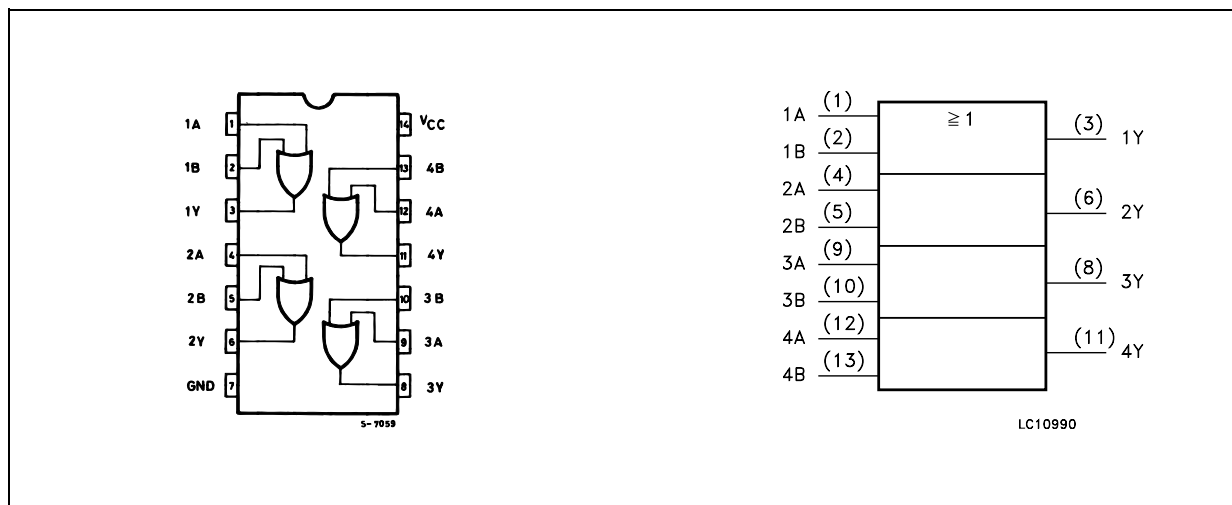
PACKAGE	T & R
SOP	74LCX32MTR
TSSOP	74LCX32TTR

technology. It is ideal for low power and high speed 3.3V applications; it can be interfaced to 5V signal environment for inputs.

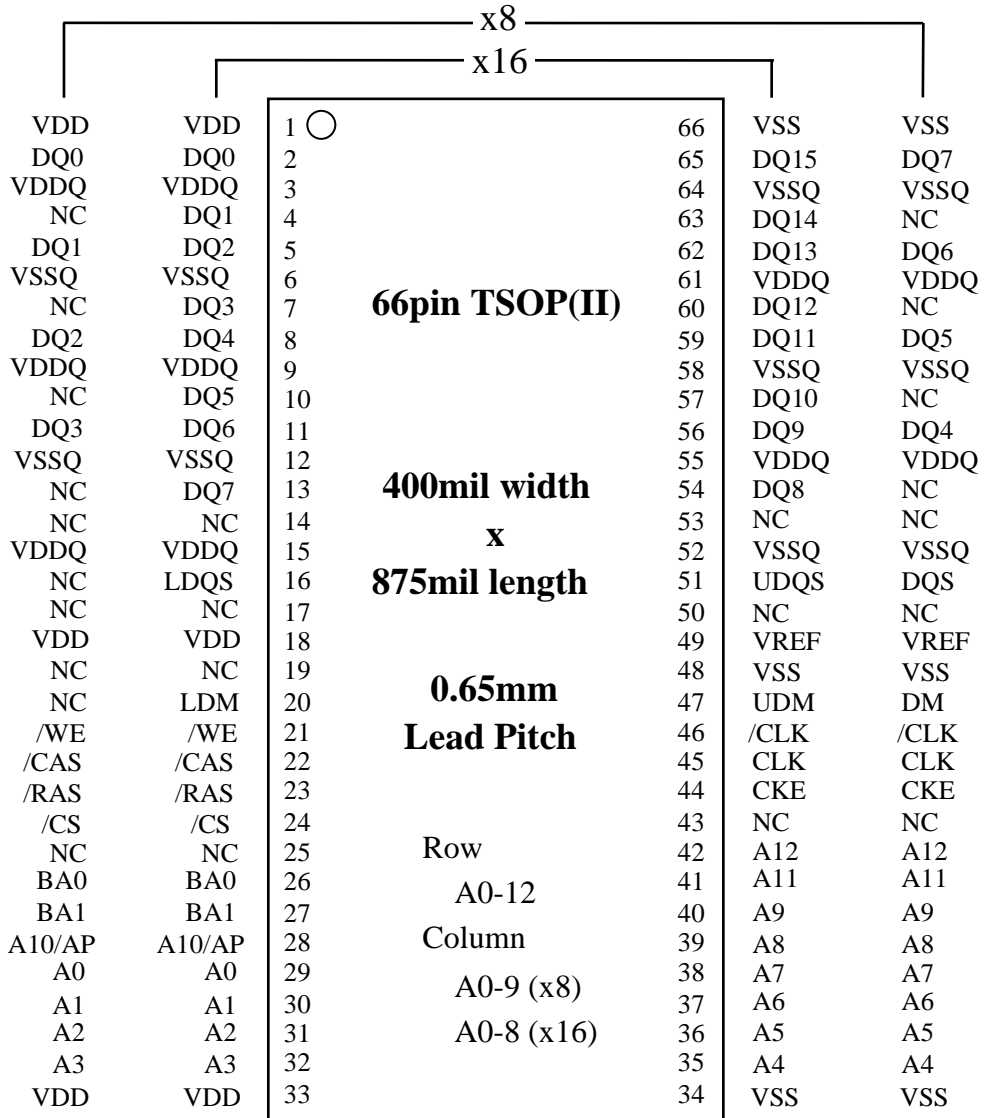
It has same speed performance at 3.3V than 5V AC/ACT family, combined with a lower power consumption.

All inputs and outputs are equipped with protection circuits against static discharge, giving them 2KV ESD immunity and transient excess voltage.

Figure 1: Pin Connection And IEC Logic Symbols



Pin Assignment (Top View) 66-pin TSOP



- | | | | |
|-------------------|-------------------------|--------------|---------------------------|
| CLK, /CLK | : Master Clock | A0-12 | : Address Input |
| CKE | : Clock Enable | BA0,1 | : Bank Address Input |
| /CS | : Chip Select | Vdd | : Power Supply |
| /RAS | : Row Address Strobe | VddQ | : Power Supply for Output |
| /CAS | : Column Address Strobe | Vss | : Ground |
| /WE | : Write Enable | VssQ | : Ground for Output |
| DQ0-15 | : Data I/O (x16) | | |
| DQ0-7 | : Data I/O (x8) | | |
| UDM, LDM | : Write Mask (x16) | | |
| DM | : Write Mask (x8) | | |
| UDQS, LDQS | : Data Strobe (x16) | | |
| DQS | : Data Strobe (x8) | | |



Multiformat Video Encoder Six, 11-Bit, 297 MHz DACs

ADV7342/ADV7343

FEATURES

- 74.25 MHz 20-/30-bit high definition input support
 - Compliant with SMPTE 274M (1080i), 296M (720p), and 240M (1035i)
- 6, 11-bit, 297 MHz video DACs
 - 16x (216 MHz) DAC oversampling for SD
 - 8x (216 MHz) DAC oversampling for ED
 - 4x (297 MHz) DAC oversampling for HD
 - 37 mA maximum DAC output current
- NTSC M, PAL B/D/G/H/I/M/N, PAL 60 support
- NTSC and PAL square pixel operation (24.54 MHz/29.5 MHz)
- Multiformat video input support
 - 4:2:2 YCrCb (SD, ED, and HD)
 - 4:4:4 YCrCb (ED and HD)
 - 4:4:4 RGB (SD, ED, and HD)
- Multiformat video output support
 - Composite (CVBS) and S-Video (Y/C)
 - Component YPrPb (SD, ED, and HD)
 - Component RGB (SD, ED, and HD)
- Macrovision® Rev 7.1.L1 (SD) and Rev 1.2 (ED) compliant
- Simultaneous SD and ED/HD operation

- EIA/CEA-861B compliance support
- Programmable features
 - Luma and chroma filter responses
 - Vertical blanking interval (VBI)
 - Subcarrier frequency (F_{sc}) and phase
 - Luma delay
- Copy generation management system (CGMS)
- Closed captioning and wide screen signaling (WSS)
- Integrated subcarrier locking to external video source
- Complete on-chip video timing generator
- On-chip test pattern generation
- On-board voltage reference (optional external input)
- Serial MPU interface with dual I²C® and SPI® compatibility
- 3.3 V analog operation
- 1.8 V digital operation
- 3.3 V I/O operation
- Temperature range: -40°C to +85°C

APPLICATIONS

- DVD recorders and players
- High definition Blu-ray DVD players
- HD-DVD players

FUNCTIONAL BLOCK DIAGRAM

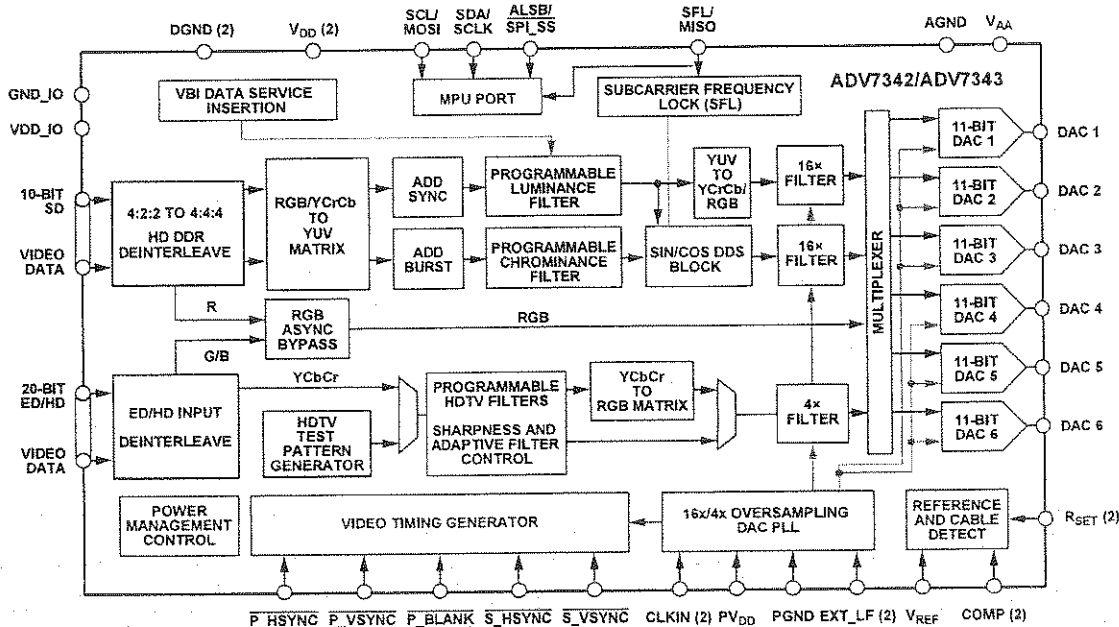


Figure 1.

Protected by U.S. Patent Numbers 5,343,196 and 5,442,355 and other intellectual property rights.
Protected by U.S. Patent Numbers 4,631,603, 4,577,216, 4,819,098 and other intellectual property rights.

Rev. 0

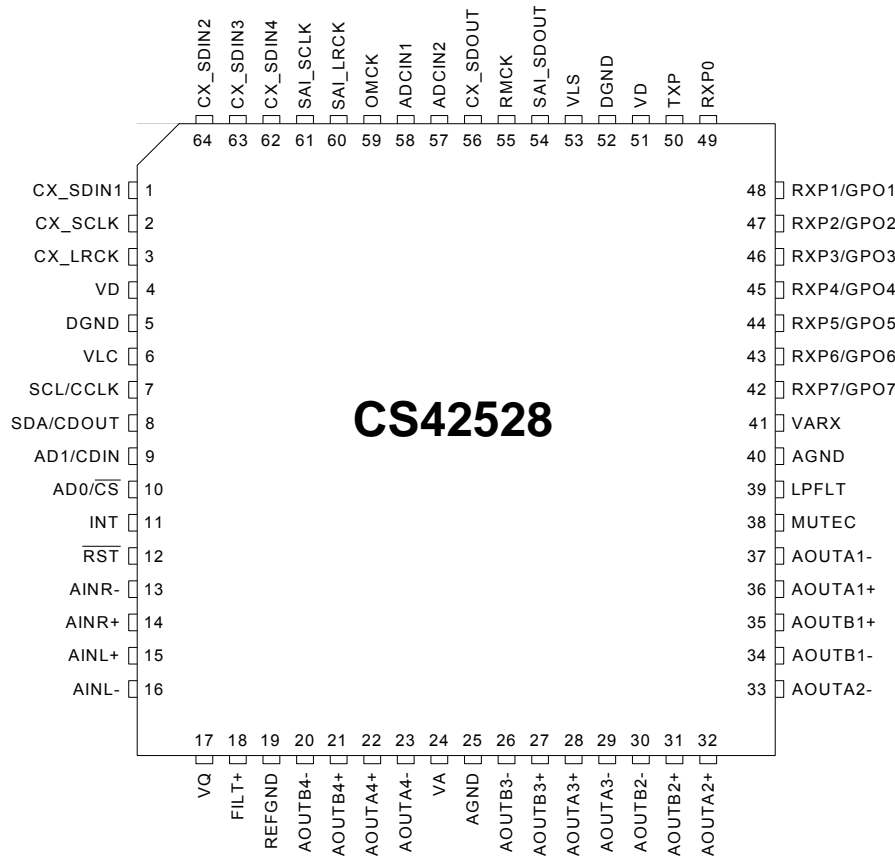
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CS42528

2. PIN DESCRIPTIONS



Pin Name	#	Pin Description
CX_SDIN1	1	Codec Serial Audio Data Input (Input) - Input for two's complement serial audio data.
CX_SDIN2	64	
CX_SDIN3	63	
CX_SDIN4	62	
CX_SCLK	2	CODEC Serial Clock (Input/Output) - Serial clock for the CODEC serial audio interface.
CX_LRCK	3	CODEC Left Right Clock (Input/Output) - Determines which channel, Left or Right, is currently active on the CODEC serial audio data line.
VD	4 51	Digital Power (Input) - Positive power supply for the digital section.
DGND	5 52	Digital Ground (Input) - Ground reference. Should be connected to digital ground.
VLC	6	Control Port Power (Input) - Determines the required signal level for the control port.
SCL/CCLK	7	Serial Control Port Clock (Input) - Serial clock for the serial control port. Requires an external pull-up resistor to the logic interface voltage in I ² C mode as shown in the Typical Connection Diagram.
SDA/CDOUT	8	Serial Control Data (Input/Output) - SDA is a data I/O line in I ² C mode and requires an external pull-up resistor to the logic interface voltage, as shown in the Typical Connection Diagram. CDOUT is the output data line for the control port interface in SPI mode.
AD1/CDIN	9	Address Bit 1 (I²C)/Serial Control Data (SPI) (Input) - AD1 is a chip address pin in I ² C mode; CDIN is the input data line for the control port interface in SPI mode.

CS497xx Data Sheet
32-bit High Definition Audio Decoder DSP Family



8. Device Pin-Out Diagram

8.1 144-pin LQFP Pin-Out Diagram

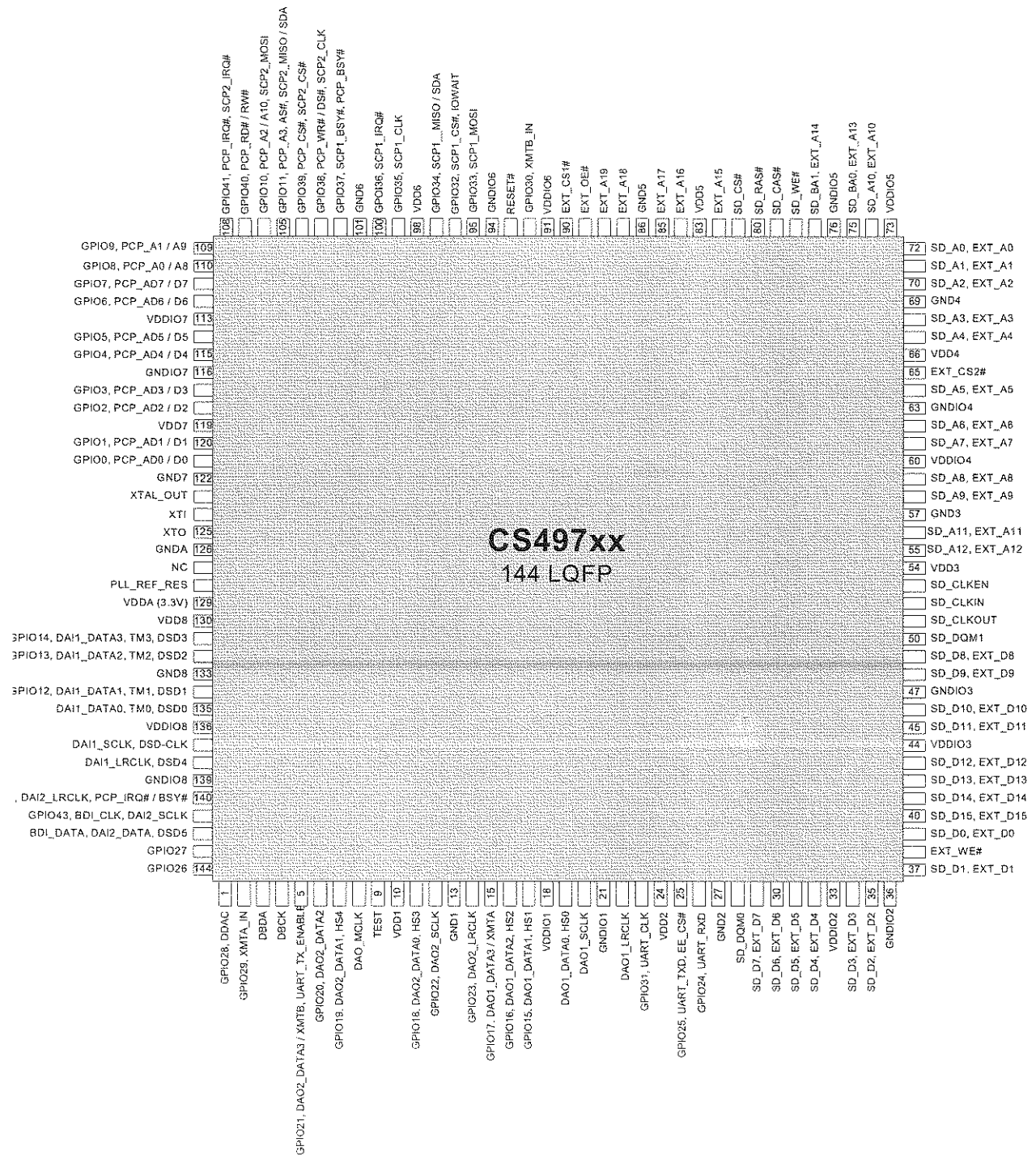


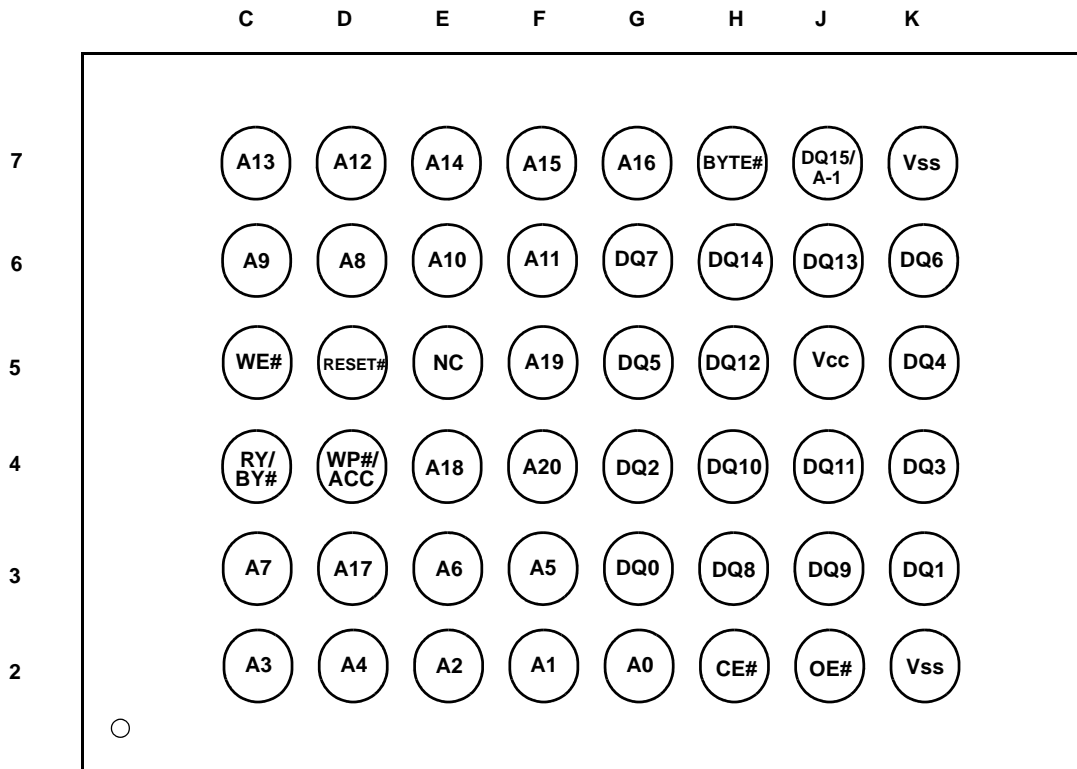
Figure 23. 144-Pin LQFP Pin-Out Diagram



CONNECTION DIAGRAM



48-Ball FBGA 6 x 8 mm)
(Top View, Balls Facing Down)



FLI30336-AC DIGITAL VIDEO PROCESSOR / DUAL-CHANNEL LCD TV CONTROLLER DATASHEET

Ball out diagram showing a grid of pins (A-FF) and functions (1-26). Functions include control signals like FSDATA1-26, address signals like FSA0-26, and data signals like FB0-26. Many cells contain 'D_GND' or 'DMS'.

FIGURE 2. FLI30336 BALL OUT DIAGRAM

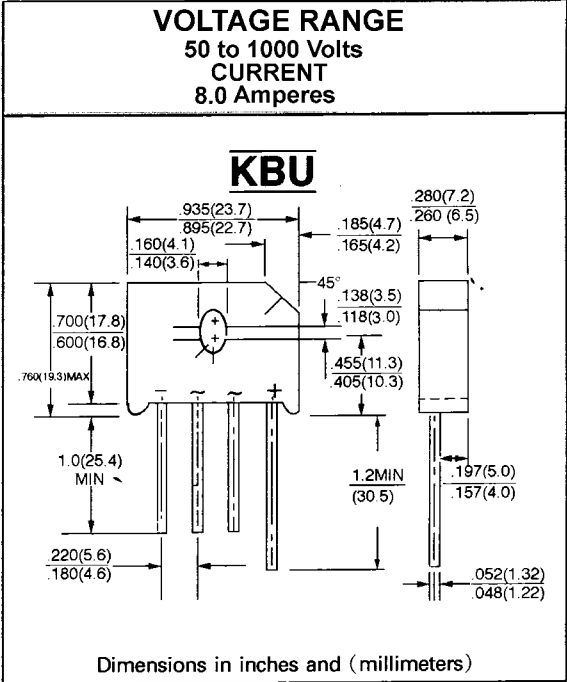


KBU800G THRU KBU810G

SINGLE PHASE 8.0 AMPS. GLASS PASSIVATED BRIDGE RECTIFIERS

FEATURES

- * Ideal for printed circuit board
- * Reliable low cost construction
- * Plastic material has Underwriters Laboratory flammability classification 94V. 0
- * Surge overloab rating to 200 Amperes peak.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	KBU 800G	KBU 801G	KBU 802G	KBU 804G	KBU 806G	KBU 808G	KBU 810G	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum D. C Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ $T_C = 90^\circ C^{(1)(3)}$ $T_A = 45^\circ C^{(2)}$	$I_{F(AV)}$	8.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}					175			A
Maximum Forward Voltage Drop per element @ 4.0A	V_F					1.10			V
Maximum Reverse Current at Rated @ $T_A = 25^\circ C$ D. C. Blocking Voltage per element @ $T_A = 100^\circ C$	I_R					10 500			μA μA
Typical thermal resistance per leg (NOTE 2) (NOTE 3)	$R_{\theta JA}$ $R_{\theta JC}$					18 3.0			$^\circ C/W$
Operating Temperature Range	T_J					- 55 to + 150			$^\circ C$
Storage Temperature Range	T_{STG}					- 55 to + 150			$^\circ C$

NOTE:
 (1) Recommended mounted position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw
 (2) Units mounted in free air, no heatsink, P. C. B. 0.375"(9.5mm) lead length with 0.5 x 0.5" (12 x 12mm) copper pads
 (3) Units mounted on a 3.0 x 3.0 x 0.11" (7.5 x 7.5 x 0.3cm) Cu. Plate heatsink



SEMICONDUCTOR TECHNICAL DATA

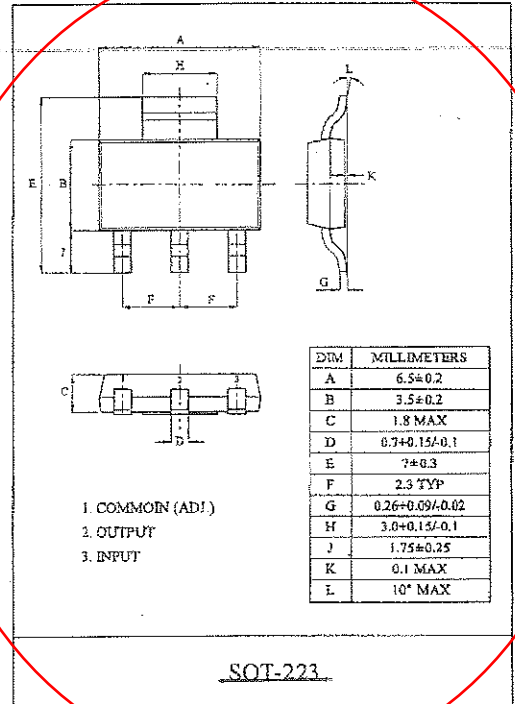
KIA1117S/F00~ KIA1117S/F50 BIPOLAR LINEAR INTEGRATED CIRCUIT

LOW DROP FIXED AND ADJUSTABLE POSITIVE VOLTAGE REGULATOR

The KIA1117S/F × × is a Low Drop Voltage Regulator able to provide up to 1A of output current, available even in adjustable version ($V_{ref}=1.25V$)

FEATURES

- Low Dropout Voltage : 1.1V/Typ. ($I_{out}=1.0A$)
- Very Low Quiescent Current : 4.2 μ A/Typ.
- Output Current up to 1A
- Fixed Output Voltage of 1.5V, 1.8V, 2.5V, 2.85V, 3.3V, 5.0V
- Adjustable Version Availability : $V_{ref}=1.25V$
- Internal Current and Thermal Limit
- Only 10 μ F for stability
- Available in $\pm 2\%$ (at 25 °C) and 4% in full Temperature range
- High Ripple Rejection : 80dB/Typ
- Temperature Range : 0 °C ~ 125 °C



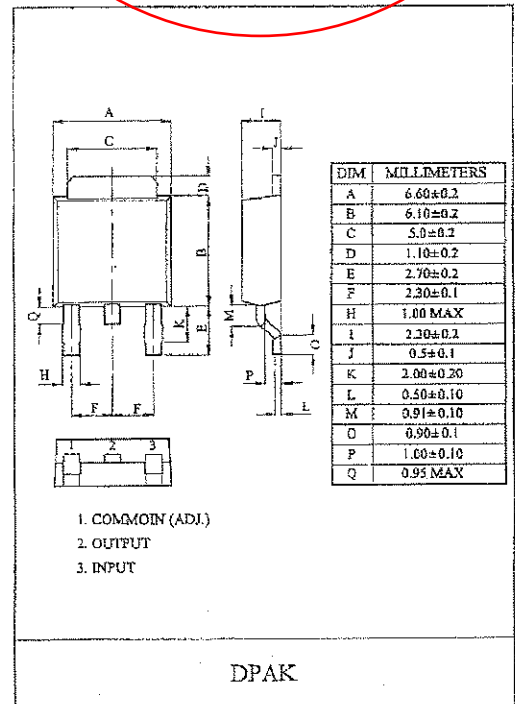
LINE UP

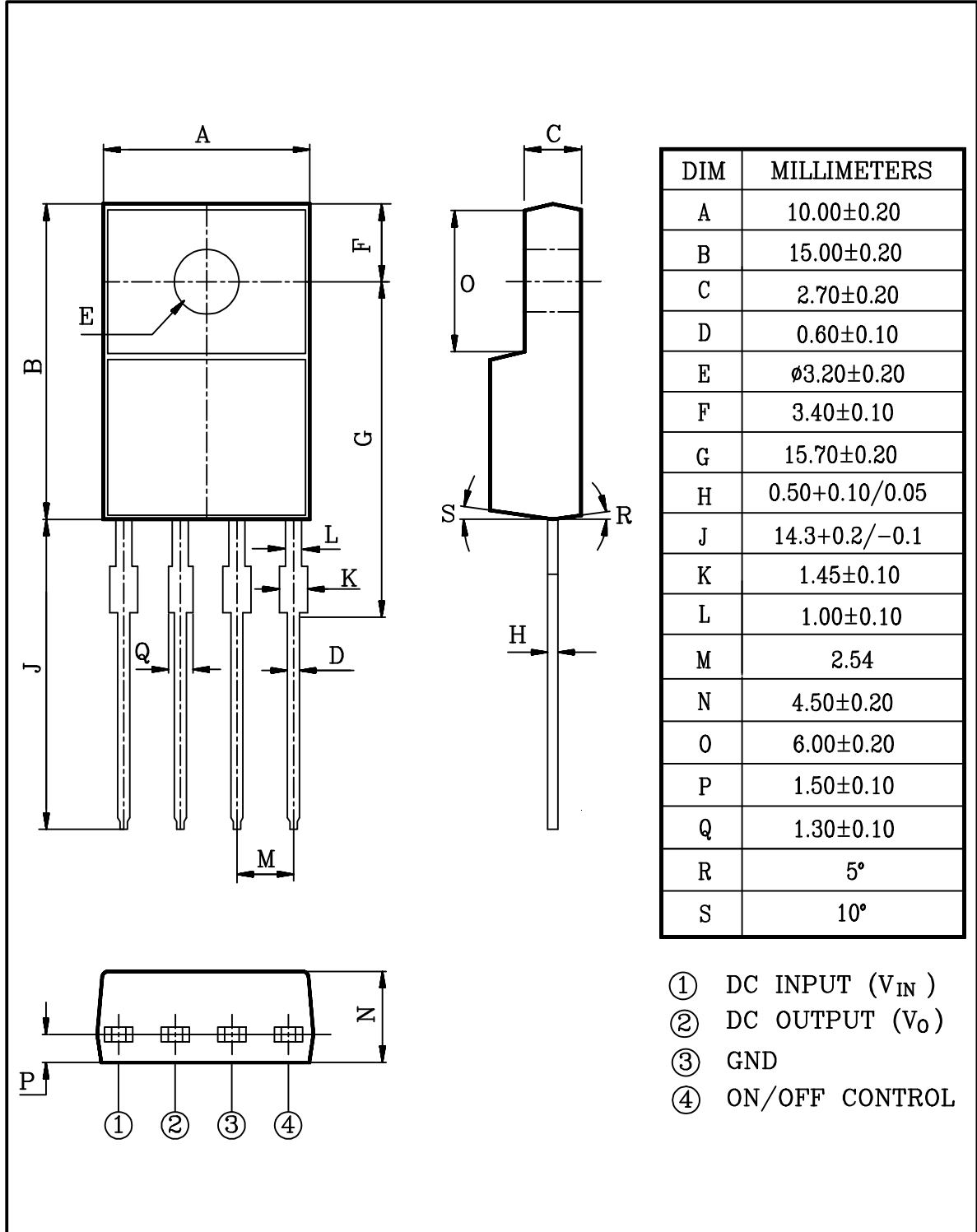
ITEM	OUTPUT VOLTAGE (V)	PACKAGE
KIA1117S/F00	Adjustable (1.25~10V)	S : SOT-223 F : DPAK
KIA1117S/F15	1.5	
KIA1117S/F18	1.8	
KIA1117S/F25	2.5	
KIA1117S/F28	2.85	
KIA1117S/F33	3.3	
KIA1117S/F50	5.0	

MAXIMUM RATINGS ($T_a=25\text{ }^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Input Voltage	V_{IN}	10	V
Output Current	S/F I_{OUT}	1.0	A
Power Dissipation 1 (No heatsink)	S (Note) P_{D1}	1.0	W
	F P_{D1}	1.3	
Power Dissipation 2 (Without heatsink)	S P_{D2}	8.3	W
	F P_{D2}	13	
Operating Temperature	T_{OPR}	0 ~ 125	°C
Storage Temperature	T_{STG}	-55 ~ 150	°C

Note) Package Mounted on FR-4 PCB 36 × 18 × 1.5 mm.
: mounting pad for the GND Lead min. 6mm²







SEMICONDUCTOR TECHNICAL DATA

KIA278R05PI~KIA278R15PI BIPOLAR LINEAR INTEGRATED CIRCUIT

4 TERMINAL 2A OUTPUT LOW DROP VOLTAGE REGULATOR

The KIA278R × × Series are Low Drop Voltage Regulator suitable for various electronic equipments. It provides constant voltage power source with TO-220 4 terminal lead full molded PKG. The Regulator has multi function such as over current protection, overheat protection and ON/OFF control.

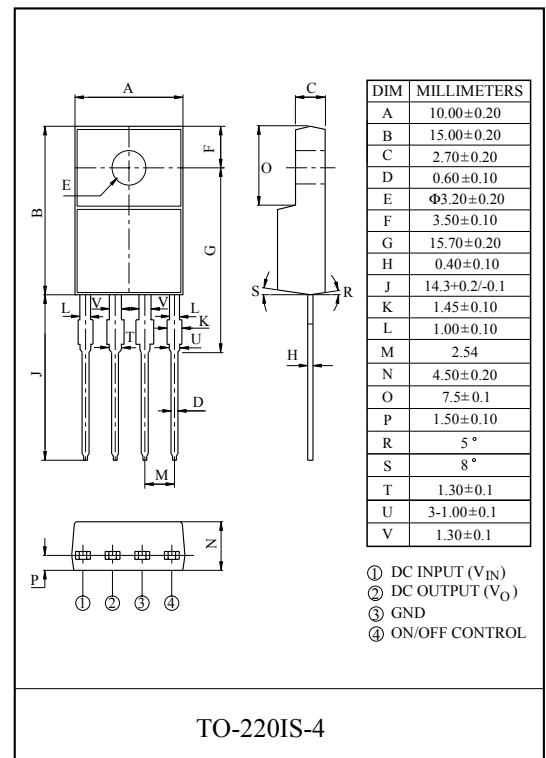
FEATURES

- 2.0A Output Low Drop Voltage Regulator.
- Built in ON/OFF Control Terminal.
- Built in Over Current Protection, Over Heat Protection Function.

LINE UP

ITEM	OUTPUT VOLTAGE (Typ.)	UNIT
KIA278R05PI	5	V
KIA278R06PI	6	
KIA278R08PI	8	
KIA278R09PI	9	
KIA278R10PI	10	
KIA278R12PI	12	
* KIA278R15PI	15	

* Note) * : Under Development.



MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT	Remark
Input Voltage	V _{IN}	35	V	-
ON/OFF Control Voltage	V _C	35	V	-
Output Current	I _O	2	A	-
Power Dissipation 1	P _{d1}	1.5	W	No heatsink
Power Dissipation 2	P _{d2}	15	W	with heatsink
Junction Temperature	T _j	125	°C	-
Operating Temperature	T _{opr}	-20 ~ 80	°C	-
Storage Temperature	T _{stg}	-30 ~ 125	°C	-
Soldering Temperature (10sec)	T _{sol}	260	°C	-

**4 TERMINAL 3A OUTPUT LOW DROP
VOLTAGE REGULATOR**

The KIA378R × × Series are Low Drop Voltage Regulator suitable for various electronic equipments. It provides constant voltage power source with TO-220IS-4 terminal lead full molded PKG.

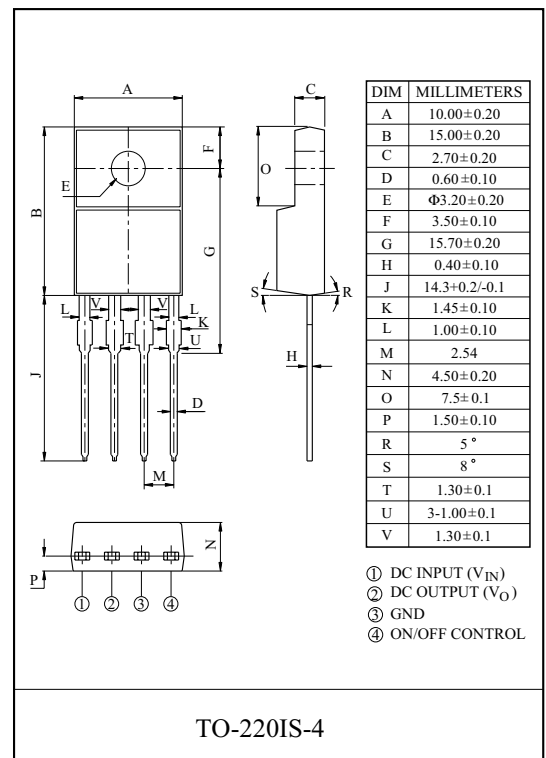
The Regulator has multi-function such as over current protection, overheat protection and ON/OFF control.

FEATURES

- 3.0A Output Low Drop Voltage Regulator.
- Built in ON/OFF Control Terminal.
- Built in Over Current Protection, Over Heat Protection Function.

LINE UP

ITEM	OUTPUT VOLTAGE (Typ.)	UNIT
KIA378R05PI	5	V
KIA378R06PI	6	
KIA378R08PI	8	
KIA378R09PI	9	
KIA378R10PI	10	
KIA378R12PI	12	
KIA378R15PI	15	



MAXIMUM RATINGS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT	Remark
Input Voltage	V _{IN}	35	V	-
ON/OFF Control Voltage	V _C	35	V	-
Output Current	I _O	3	A	-
Power Dissipation 1	P _{d1}	1.5	W	No heatsink
Power Dissipation 2	P _{d2}	15	W	with heatsink
Junction Temperature	T _j	-40 ~150	°C	-
Operating Temperature	T _{opr}	-30 ~85	°C	-
Storage Temperature	T _{stg}	-40 ~150	°C	-
Soldering Temperature (10sec)	T _{sol}	260	°C	-



KOREA ELECTRONICS CO.,LTD.

SEMICONDUCTOR TECHNICAL DATA

KIA7805AP/API~ KIA7824AP/API

BIPOLAR LINEAR INTEGRATED CIRCUIT

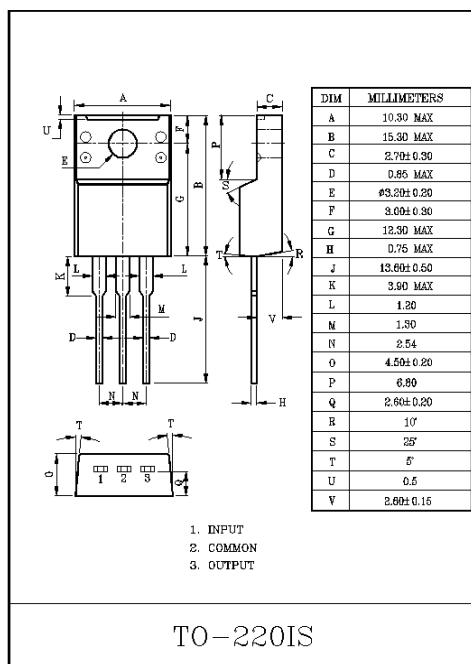
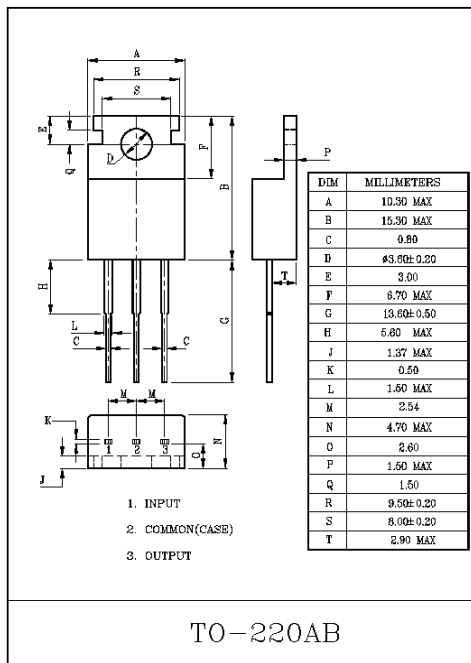
THREE TERMINAL POSITIVE VOLTAGE REGULATORS
5V, 6V, 8V, 9V, 10V, 12V, 15V, 18V, 20V, 24V.

FEATURES

- Suitable for C-MOS, TTL, the Other Digital IC's Power Supply.
- Internal Thermal Overload Protection.
- Internal Short Circuit Current Limiting.
- Output Current in Excess of 1A.
- Satisfies IEC-65 Specification. (International Electronical Commission).

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Input Voltage	KIA7805AP/API~ KIA7815AP/API	V _{IN}	35	V
	KIA7818AP/API~ KIA7824AP/API		40	
Power Dissipation (Tc=25°C)		P _D	20.8	W
Power Dissipation (Without Heatsink)	KIA7805API~ KIA7824API	P _D	2.0	W
Operating Junction Temperature		T _j	-30~150	°C
Storage Temperature		T _{stg}	-55~150	°C





SEMICONDUCTOR | KIA7805AF/API~KIA7824AF/API

TECHNICAL DATA

BIPOLAR LINEAR INTEGRATED CIRCUIT

THREE TERMINAL POSITIVE VOLTAGE REGULATORS 5V, 6V, 7V, 8V, 9V, 10V, 12V, 15V, 18V, 20V, 24V.

FEATURES

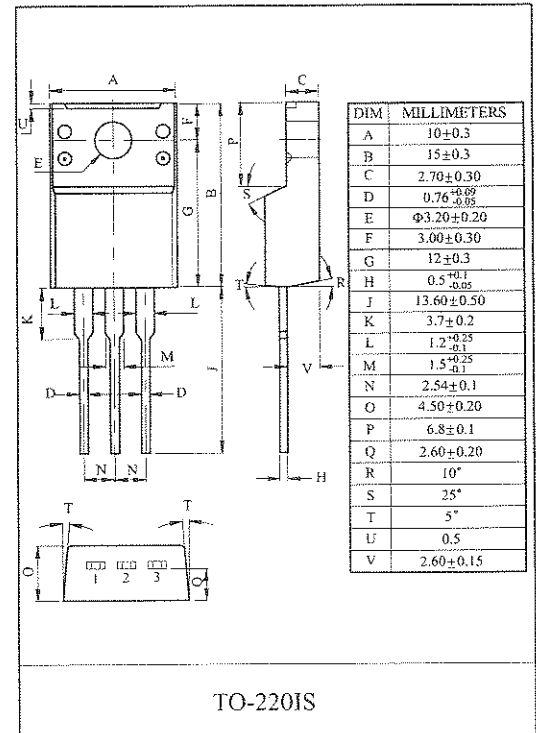
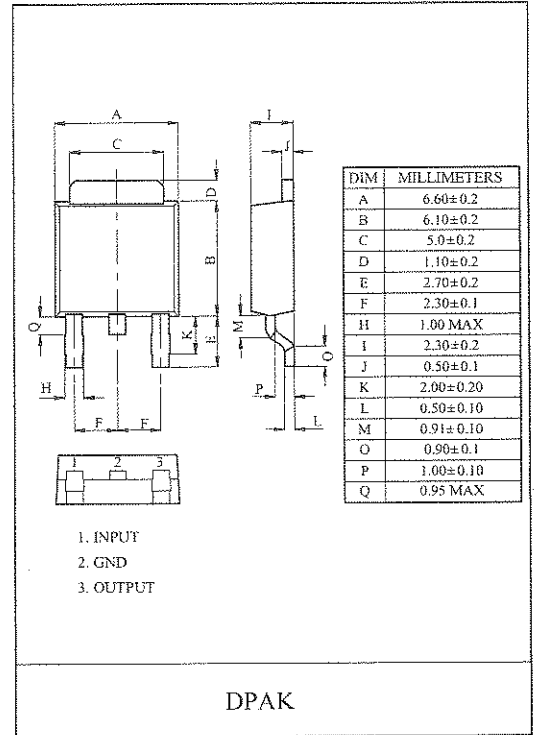
- Internal Thermal Overload Protection.
- Internal Short Circuit Current Limiting.
- Output Current in Excess of 1A.
- Satisfies IEC-65 Specification. (International Electronical Commission).
- Package is DPAK, TO-220IS

LINE-UP

ITEM	OUTPUT VOLTAGE (Typ.)	UNIT
KIA7805AF/API	5	AF : DPAK API : TO-220IS
KIA7806AF/API	6	
KIA7807AF/API	7	
KIA7808AF/API	8	
KIA7809AF/API	9	
KIA7810AF/API	10	
KIA7812AF/API	12	
KIA7815AF/API	15	
KIA7818AF/API	18	
KIA7820AF/API	20	
KIA7824AF/API	24	

MAXIMUM RATINGS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Input Voltage	V _{IN}	35	V
		40	
Power Dissipation-1 (No Heatsink)	P _{D1}	1.3	W
		2.0	
Power Dissipation-2 (Infinite Heatsink)	P _{D2}	12.0	W
		20.8	
Operating Junction Temperature	T _j	-30~150	°C
Storage Temperature	T _{stg}	-55~150	°C





KOREA ELECTRONICS CO.,LTD.

SEMICONDUCTOR TECHNICAL DATA

KIA7905P/PI ~ KIA7924P/PI

BIPOLAR LINEAR INTEGRATED CIRCUIT

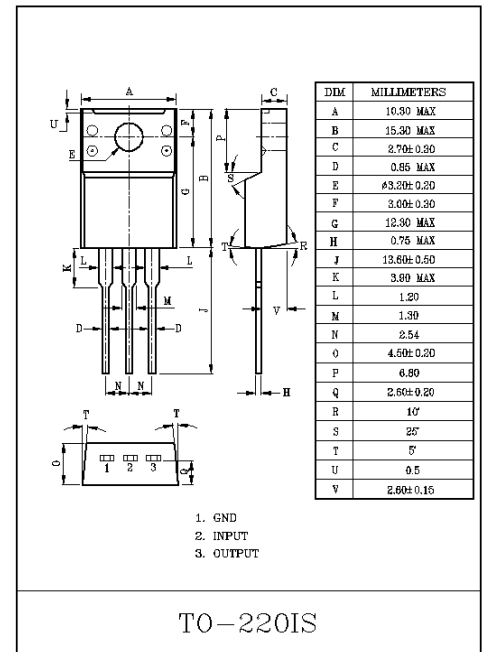
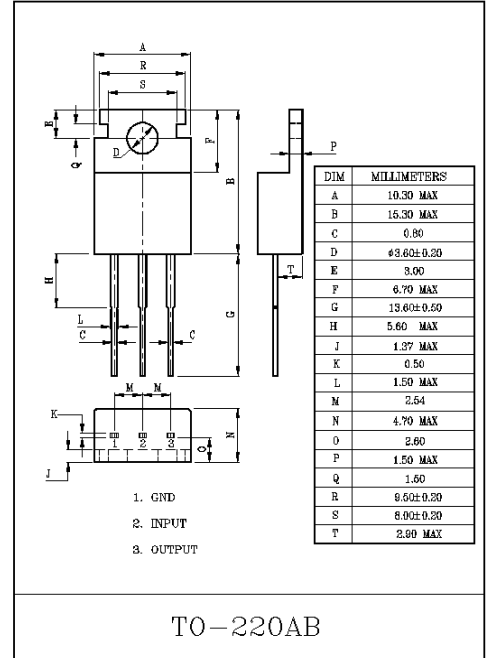
1A THREE TERMINAL NEGATIVE VOLTAGE REGULATORS
-5V, -6V, -8V, -9V, -10V, -12V, -15V, -18V, -20V, -24V

FEATURES:

- Suitable for C-MOS, TTL, and the other digital IC power supply.
- Internal thermal overload protecting.
- Internal short circuit current limiting.
- Output current in excess of 1.0A.

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Input Voltage	KIA7905P/PI~ KIA7915P/PI	V _{IN}	-35	V
	KIA7918P/PI~ KIA7924P/PI		-40	
Power Dissipation (Tc=25°C)		P _D	20.8	W
Operating Junction Temperature		T _j	-30~150	°C
Operating Temperature		T _{opr}	-30~75	°C
Storage Temperature		T _{stg}	-55~150	°C



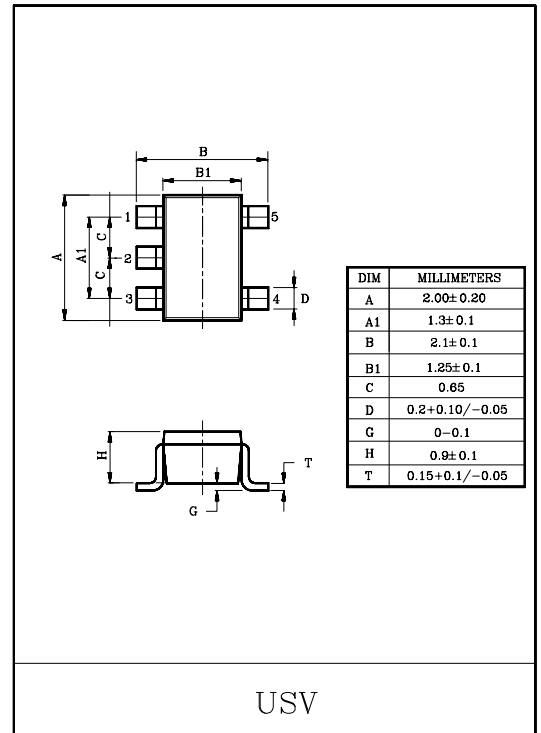
2 INPUT AND GATE

FEATURES

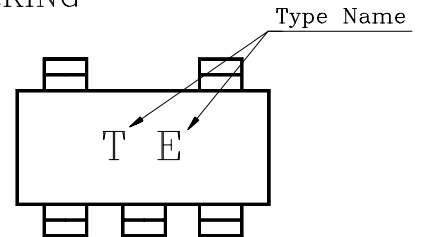
- High Output Drive : $\pm 24\text{mA}$ (Typ.)
@ $V_{CC}=3\text{V}$
- Super High Speed Operation : $t_{PD}=2.7\text{ns}$ (Typ.)
@ $V_{CC}=5\text{V}$, 50pF
- Operation Voltage Range : $V_{CC(\text{opr})}=1.8\sim 5.5\text{V}$.
- Supply Voltage Data Retention : $V_{CC}=1.5\sim 5.5\text{V}$.
- 5V Tolerant Function

MAXIMUM RATINGS

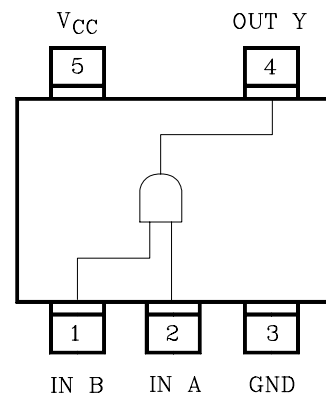
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage Range	V_{CC}	-0.5~6	V
DC Input Voltage	V_{IN}	-0.5~6	V
DC Output Voltage	V_{OUT}	-0.5~6	V
Input Diode Current	I_{IK}	± 20	mA
Output Diode Current	I_{OK}	± 20	mA
DC Output Current	I_{OUT}	± 50	mA
DC V_{CC} /Ground Current	I_{CC}	± 50	mA
Power Dissipation	P_D	200	mW
Storage Temperature	T_{stg}	-65~150	$^{\circ}\text{C}$
Lead Temperature (10s)	T_L	260	$^{\circ}\text{C}$



MARKING



PIN CONNECTION(TOP VIEW)



cosmo

High Reliability Photo Coupler

K1010

UL 1577 (File No.E169586) - VDE 0884 / 0860 / 0805 (File No.101347)

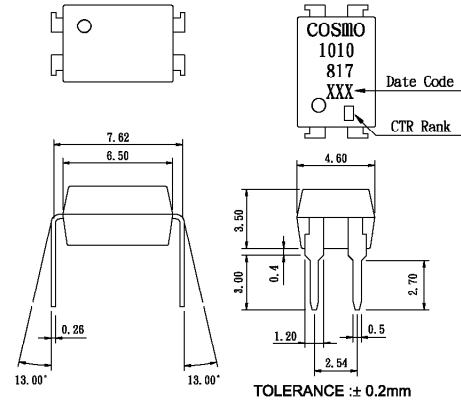
Features

1. Current transfer ratio
(CTR:MIN.50% at $I_F=5mA$ $V_{ce}=5V$)
2. High isolation voltage between input and output
(Viso:5000Vrms).
3. Compact dual-in-line package.
4. Available package : DIP/ SMD/ H.

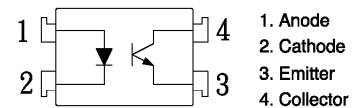
Applications

1. Registers, copiers, automatic vending machines.
2. System appliances, measuring instruments.
3. Computer terminals, programmable controllers.
4. Communications, telephone, etc.
5. Electric home appliances, such as oil fan heaters, Microwave oven, Washer, Refrigerator, Air conditioner, etc.
6. Medical instruments, physical and chemical equipment.
7. Signal transmission between circuits of different potentials and impedances.
8. Facsimile equipment, Audio, Video.
9. Switching power supply, Laser beam printer.

Outside Dimension : Unit (mm)



Schematic : Top View



Absolute Maximum Ratings

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Input	Forward current	I_F	50
	Peak forward current	I_{FM}	1
	Reverse voltage	V_R	6
	Power dissipation	P_D	70
Output	Collector-emitter voltage	V_{CEO}	60
	Emitter-collector voltage	V_{ECO}	6
	Collector current	I_C	50
	Collector power dissipation	P_C	150
Total power dissipation	P_{tot}	200	
Isolation voltage 1 minute	V_{iso}	5000	
Operating temperature	T_{opr}	-30 to +100	
Storage temperature	T_{stg}	-55 to +125	
Soldering temperature 10 second	T_{sol}	260	

Electro-optical Characteristics

(Ta=25°C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	$I_F=20mA$	—	1.2	1.4	
	Peak forward voltage	$I_{FM}=0.5A$	—	—	3.0	
	Reverse current	$V_R=4V$	—	—	10	
	Terminal capacitance	$V=0, f=1kHz$	—	30	—	
Output	Collector dark current	$V_{CE}=20V$	—	—	0.1	
Transfer characteristics	Current transfer ratio	$I_F=5mA, V_{CE}=5V$	50	—	600	
	Collector-emitter saturation voltage	$I_F=20mA, I_C=1mA$	—	0.1	0.2	
	Isolation resistance	DC500V	5×10^{10}	10^{11}	—	
	Floating capacitance	$V=0, f=1MHz$	—	0.6	1.0	
	Cut-off frequency	$V_{CC}=5V, I_C=2mA, R_L=100ohm$	—	80	—	
	Response time(Rise)	$V_{CE}=2V, I_C=2mA, R_L=100ohm$	—	4	18	
	Response time(Fall)		—	3	18	

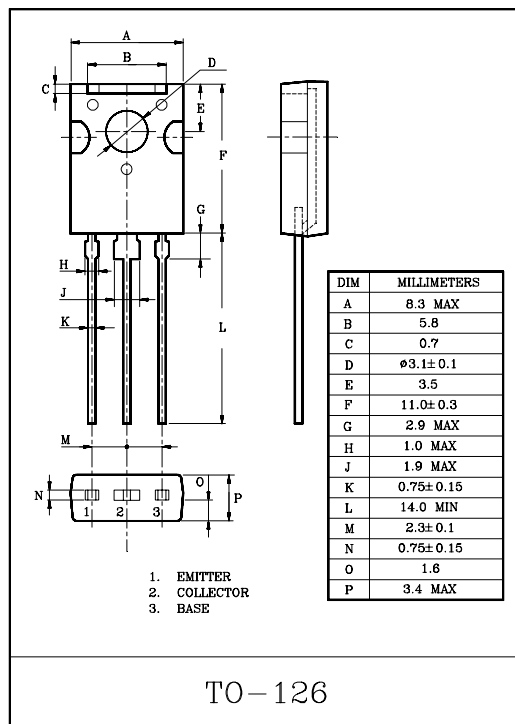
LOW FREQUENCY POWER AMP,
MEDIUM SPEED SWITCHING APPLICATIONS

FEATURES

- High breakdown voltage V_{CE0} 120V, high current 1A.
- Low saturation voltage and good linearity of h_{FE} .

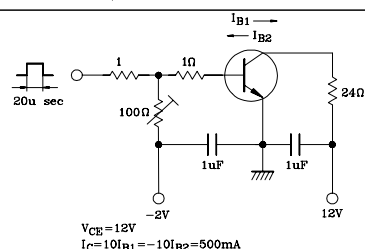
MAXIMUM RATINGS ($T_a=25^{\circ}C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
	I_{CP}	2	
Collector Power Dissipation	P_C	$T_a=25^{\circ}C$	1.5
		$T_c=25^{\circ}C$	8
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}C$



ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$)

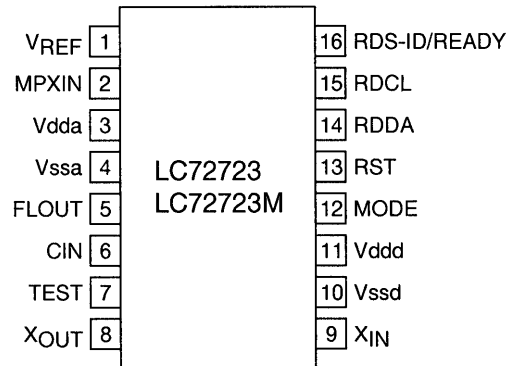
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut of Current	I_{CBO}	$V_{CB}=50V, I_E=0$	-	-	1	μA
Emitter Cut of Current	I_{EBO}	$V_{EB}=4V, I_C=0$	-	-	1	μA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A$	120	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA$	120	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A$	5	-	-	V
DC Current Gain	$h_{FE(1)}$ Note	$V_{CE}=5V, I_C=50mA$	100	-	320	
	$h_{FE(2)}$	$V_{CE}=5V, I_C=500mA$	20	-	-	
Gain Bandwidth Product	f_T	$V_{CE}=10V, I_C=50mA$	-	130	-	MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$	-	20	-	pF
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$	-	0.15	0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=50mA$	-	0.85	1.2	V
Switching Time	Turn-on Time	t_{on}	-	100	-	nS
	Turn-off Time	t_{off}	-	500	-	
	Storage Time	t_{stg}	-	700	-	



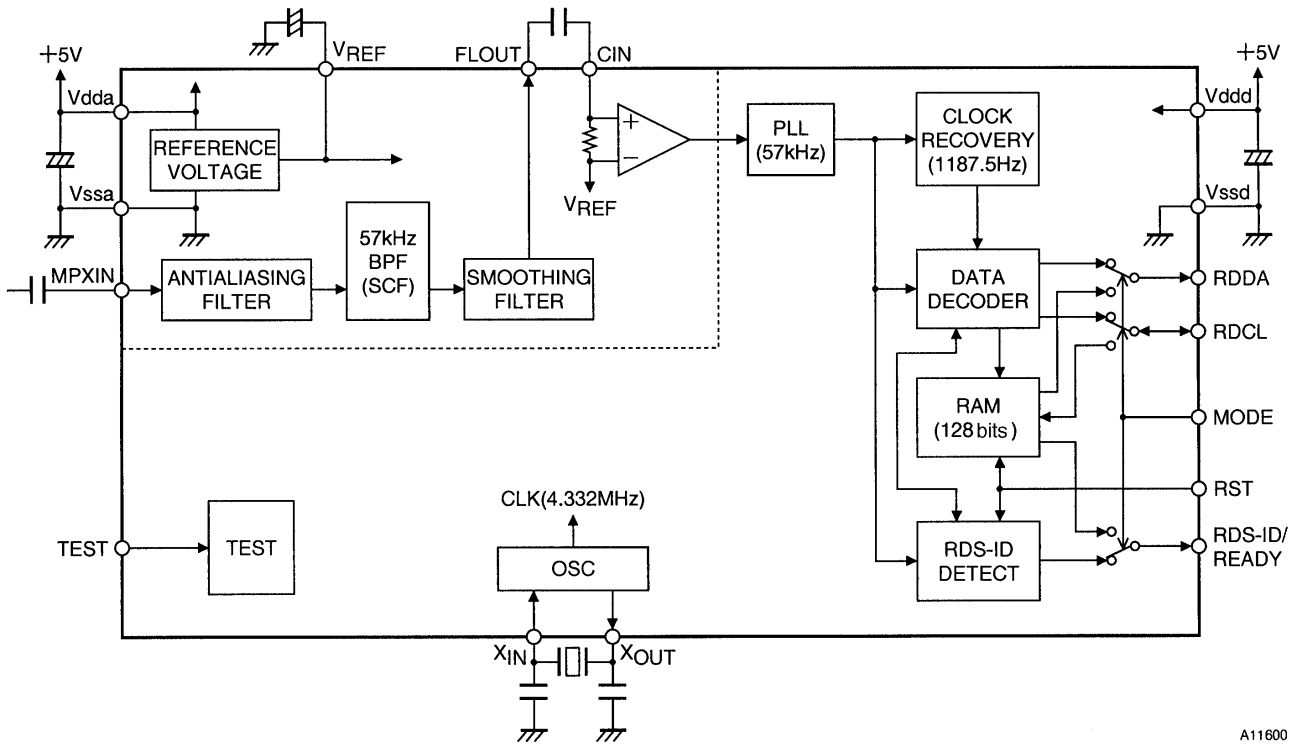
(Note) : $h_{FE(1)}$ Classification Y:100~200, GR:160~320

LC72723, LC72723M

Pin Assignment (DIP16/MFP16)



Block Diagram



A11600

ESMT

M12L16161A

SDRAM

512K x 16Bit x 2Banks Synchronous DRAM

FEATURES

- JEDEC standard 3.3V power supply
- LVTTTL compatible with multiplexed address
- Dual banks operation
- MRS cycle with address key programs
 - CAS Latency (2 & 3)
 - Burst Length (1, 2, 4, 8 & full page)
 - Burst Type (Sequential & Interleave)
- All inputs are sampled at the positive going edge of the system clock
- Burst Read Single-bit Write operation
- DQM for masking
- Auto & self refresh
- 32ms refresh period (2K cycle)

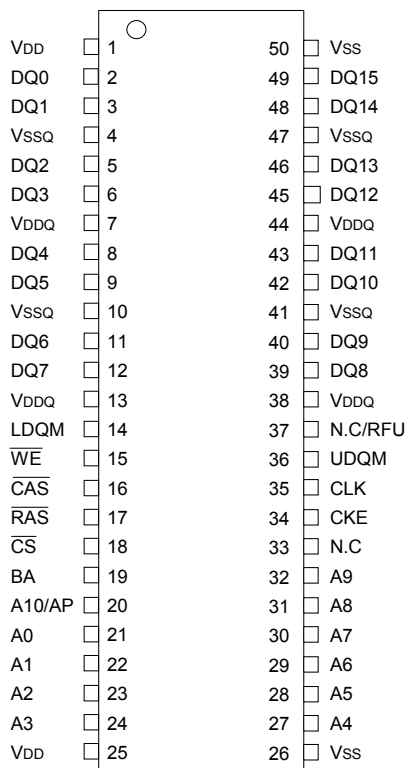
GENERAL DESCRIPTION

The M12L16161A is 16,777,216 bits synchronous high data rate Dynamic RAM organized as 2 x 524,288 words by 16 bits, fabricated with high performance CMOS technology. Synchronous design allows precise cycle control with the use of system clock I/O transactions are possible on every clock cycle. Range of operating frequencies, programmable burst length and programmable latencies allow the same device to be useful for a variety of high bandwidth, high performance memory system applications.

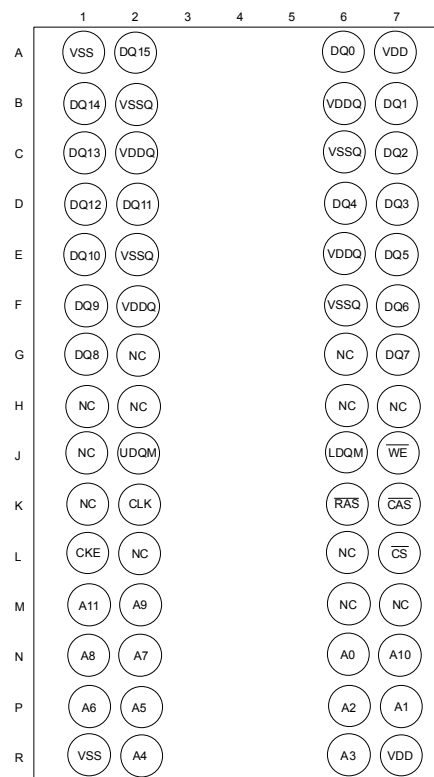
ORDERING INFORMATION

Part NO.	MAX Freq.	PACKAGE	COMMENTS
M12L16161A-5TG	200MHz	TSOP(II)	Pb-free
M12L16161A-7TG	143MHz	TSOP(II)	Pb-free
M12L16161A-7BG	143MHz	VFBGA	Pb-free

PIN CONFIGURATION (TOP VIEW)



50PIN TSOP(II)
(400mil x 825mil)
(0.8 mm PIN PITCH)



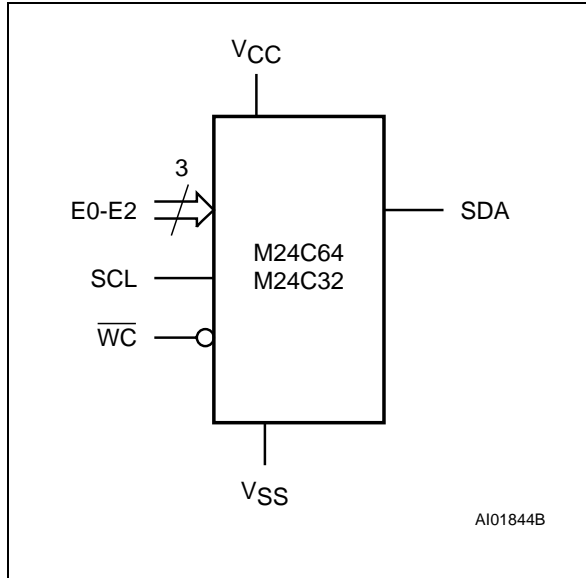
60 Ball VFBGA
(6.4x10.1mm)
(0.65mm ball pitch)

M24C64, M24C32

SUMMARY DESCRIPTION

These I²C-compatible electrically erasable programmable memory (EEPROM) devices are organized as 8192 x 8 bits (M24C64) and 4096 x 8 bits (M24C32).

Figure 2. Logic Diagram



I²C uses a two-wire serial interface, comprising a bi-directional data line and a clock line. The devices carry a built-in 4-bit Device Type Identifier code (1010) in accordance with the I²C bus definition.

The device behaves as a slave in the I²C protocol, with all memory operations synchronized by the serial clock. Read and Write operations are initiated by a Start condition, generated by the bus master. The Start condition is followed by a Device Select Code and Read/Write bit (RW) (as described in Table 3.), terminated by an acknowledge bit.

When writing data to the memory, the device inserts an acknowledge bit during the 9th bit time, following the bus master's 8-bit transmission. When data is read by the bus master, the bus master acknowledges the receipt of the data byte in the same way. Data transfers are terminated by a Stop condition after an Ack for Write, and after a NoAck for Read.

Table 2. Signal Names

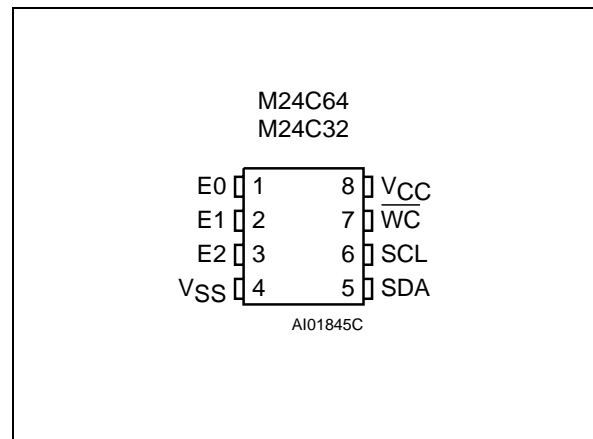
E0, E1, E2	Chip Enable
SDA	Serial Data
SCL	Serial Clock
WC	Write Control
VCC	Supply Voltage
VSS	Ground

Power On Reset: VCC Lock-Out Write Protect

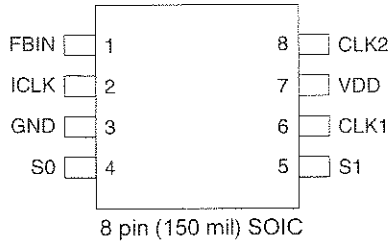
In order to prevent data corruption and inadvertent Write operations during Power-up, a Power On Reset (POR) circuit is included. At Power-up, the internal reset is held active until VCC has reached the Power On Reset (POR) threshold voltage, and all operations are disabled – the device will not respond to any command. In the same way, when VCC drops from the operating voltage, below the Power On Reset (POR) threshold voltage, all operations are disabled and the device will not respond to any command.

A stable and valid VCC (as defined in Table 9. and Table 10.) must be applied before applying any logic signal.

Figure 3. DIP, SO, TSSOP and UFDFPN Connections



Note: See PACKAGE MECHANICAL section for package dimensions, and how to identify pin-1.

MK2302-01**MULTIPLIER AND ZERO DELAY BUFFER****ZDB AND MULTIPLIER****Pin Assignment****Clock Multiplier Decoding Table 1**

(Multiplies Input clock by shown amount)

FBIN	S1	S0	CLK1	CLK2
CLK1	0	0	2 X ICLK	ICLK
CLK1	0	1	4 X ICLK	2 X ICLK
CLK1	1	0	ICLK	ICLK/2
CLK1	1	1	8 X ICLK	4 X ICLK
CLK2	0	0	4 X ICLK	2 X ICLK
CLK2	0	1	8 X ICLK	4 X ICLK
CLK2	1	0	2 X ICLK	ICLK
CLK2	1	1	16 X ICLK	8 X ICLK

Pin Descriptions

Pin Number	Pin Name	Pin Type	Pin Description
1	FBIN	Input	Feedback clock input.
2	ICLK	Input	Reference clock input.
3	GND	Power	Connect to ground.
4	S0	Input	Select 0 for output clock per decoding table above. Pull-up.
5	S1	Input	Select 1 for output clock per decoding table above. Pull up.
6	CLK1	Output	Clock output per table above.
7	VDD	Power	Connect to +3.3 V or +5.0 V.
8	CLK2	Output	Clock output per table above. Low skew divide by two of pin 6 clock.



NJM2068

LOW-NOISE DUAL OPERATIONAL AMPLIFIER

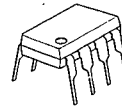
■ **GENERAL DESCRIPTION**

The NJM2068 is a high performance, low noise dual operational amplifier. This amplifier features popular pin-out, superior noise performance, and superior total harmonic distortion. This amplifier also features guaranteed noise performance with substantially higher gain-bandwidth product and slew rate which far exceeds that of the 4558 type amplifier. The specially designed low noise input transistors allow the NJM2068 to be used in very low noise signal processing applications such as audio preamplifiers and servo error amplifier.

■ **FEATURES**

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

■ **PACKAGE OUTLINE**



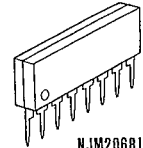
NJM2068D



NJM2068M

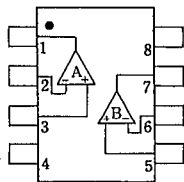


NJM2068V

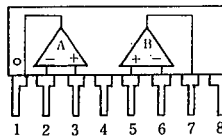


NJM2068L

■ **PIN CONFIGURATION**



NJM2068D
NJM2068M
NJM2068V

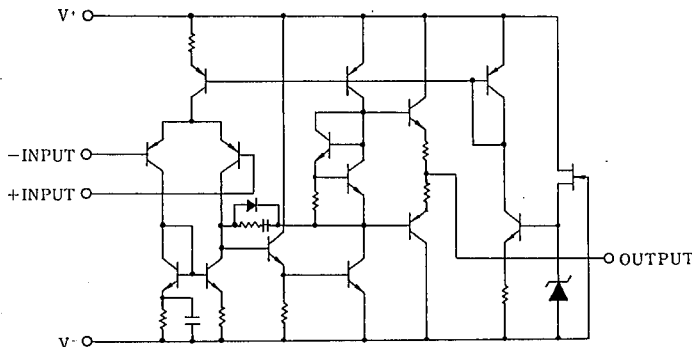


NJM2068L

PIN FUNCTION

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

■ **EQUIVALENT CIRCUIT** (1/2 Shown)





ULTRA WIDE BAND, HIGH SLEW RATE DUAL OPERATIONAL AMPLIFIER

■ GENERAL DESCRIPTION

The NJM2137 is an ultra wide band, high slew rate dual operational amplifier operated from low voltage ($\pm 1.35V$).

It can apply to active filter, high speed analog and digital signal processor, line driver, HDTV, industrial measurement equipment and others.

It can also apply to portable communication items because of low operating voltage and low operating current.

■ PACKAGE OUTLINE



NJM2137V

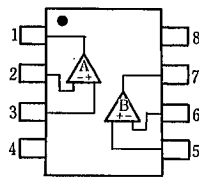


NJM2137M

■ FEATURES

- Operating Voltage ($\pm 1.35V \sim \pm 6V$)
- Ultra Wide Band (200MHz typ.)
- High Slew Rate (45V/ μs typ.)
- Low Operating Current (1.14mA typ.)
- Bipolar Technology
- Package Outline SSOP8, DMP8

■ PIN CONFIGURATION

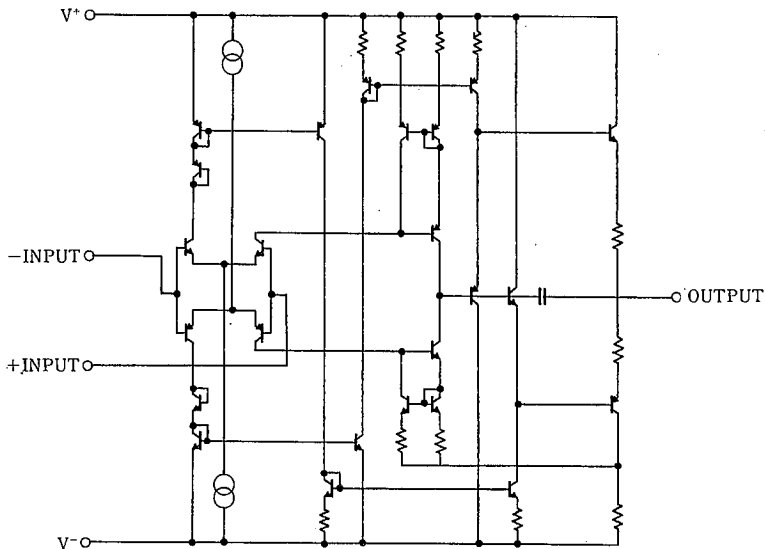


NJM2137M
NJM2137V

PIN FUNCTION

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

■ EQUIVALENT CIRCUIT (1/2 Shown)



4



LOW DROPOUT VOLTAGE REGULATOR

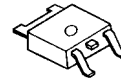
■ GENERAL DESCRIPTION

The NJM2391 is low dropout voltage regulators featuring high precision voltage.

It is suitable for Notebook PCs, PC cards and hard disks where 3.3V need to be generated from 5V supply.

A small TO-252 package is adopted for the space saving.

■ PACKAGE OUTLINE

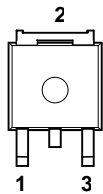


NJM2391DL1

■ FEATURES

- Output Current $I_o(\text{max.})=1\text{A}$
- High Precision Output Voltage $V_o\pm 1\%$
- Low Dropout Voltage $\Delta V_{I-O} = 1.1\text{V typ. At } I_o=1\text{A}$
- Internal Excessive Voltage Protection Circuit
- Internal Short Circuit Current Limit
- Internal Thermal Overload Protection
- Bipolar Technology
- Package Outline TO-252

■ PIN CONFIGURATION



PIN FUNCTION

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

NJM2391DL1

■ ABSOLUTE MAXIMUM RATINGS

($T_a=25^\circ\text{C}$)

PARAMETER	SYMBOL	RATINGS	UNIT
Input Voltage	V^+	+10	V
Power Dissipation	P_D	TO-252 8 ($T_c=25^\circ\text{C}$) 0.8($T_a\leq 25^\circ\text{C}$)	W
Operating Temperature	T_{opr}	-40 ~ +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-50 ~ +125	$^\circ\text{C}$

■ OUTPUT VOLTAGE RANK LIST

Device Name	V_{OUT}
NJM2391DL1-25	2.5V
NJM2391DL1-26	2.6V
NJM2391DL1-28	2.85V
NJM2391DL1-03	3.0V
NJM2391DL1-33	3.3V
NJM2391DL1-35	3.5V
NJM2391DL1-05	5.0V



NJM2595

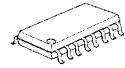
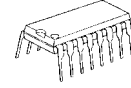
5-INPUT 3-OUTPUT VIDEO SWITCH

■ GENERAL DESCRIPTION

The **NJM2595** is a 5-input 3-output video switch. Its switches select one from five signals received from VTR,TV,DVD, TV-GAME and others.

The NJM2595 is designed for audio items, such as AV amplifier and others.

■ PACKAGE OUTLINE

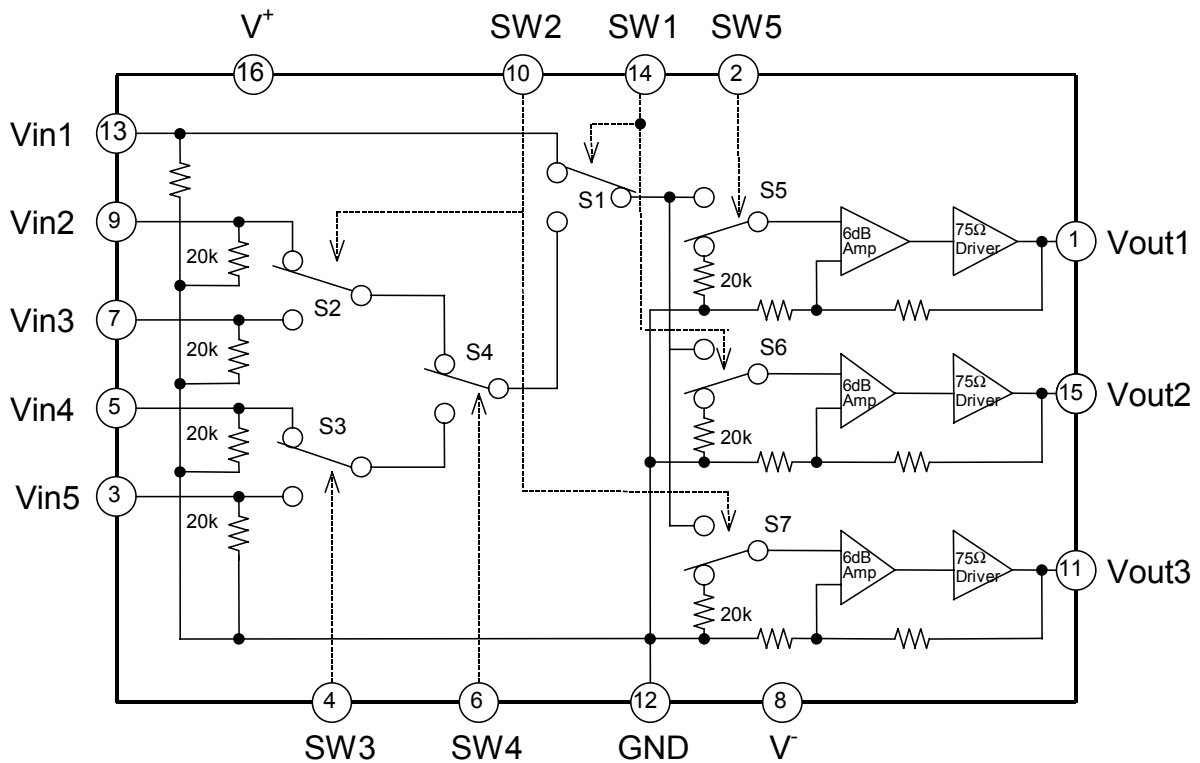


NJM2595D NJM2595M

■ FEATURES

- 5-input 3-output
- Operating Voltage ± 4.0 to $\pm 6.5V$
- Operating current $\pm 15mA$ typ. at $V_{CC}=\pm 5V$
- Crosstalk $-65dB$ typ.
- Internal 6dB Amplifier
- Internal 75Ω Driver
- Bipolar Technology
- Package Outline DIP16,DMP16

■ PIN CONFIGURATION and BLOCK DIAGRAM





NJM2845/46

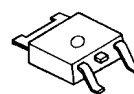
LOW DROPOUT VOLTAGE REGULATOR

■ GENERAL DESCRIPTION

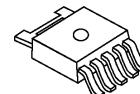
The NJM2845 is low dropout voltage regulator. Advanced Bipolar technology achieves low noise, high ripple rejection and low quiescent current.

NJM2845 is 3 terminal type and NJM2846 is ON/OFF control built in type. These product can be selected according to the applications.

■ PACKAGE OUTLINE



NJM2845DL1

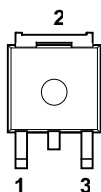


NJM2846DL3

■ FEATURES

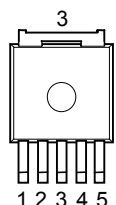
- High Ripple Rejection 75dB typ. (f=1kHz,3V Version)
- Output Noise Voltage V_{no}=45μV_{rms} typ. (V_o=3V Version)
- Output capacitor with 2.2μF ceramic capacitor (V_o≥2.6V)
- Output Current I_o(max.)=800mA
- High Precision Output V_o ±1.0%
- Low Dropout Voltage 0.18V typ. (I_o=500mA)
- ON/OFF Control (NJM2846)
- Internal Short Circuit Current Limit
- Internal Thermal Overload Protection
- Bipolar Technology
- Package Outline TO-252-3 (NJM2845DL1), TO-252-5 (NJM2846DL3)

■ PIN CONFIGURATION



NJM2845DL1

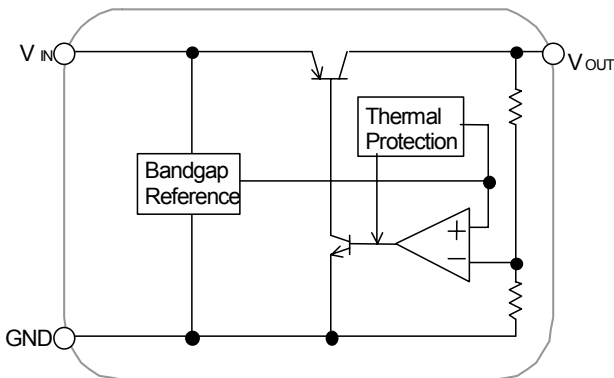
- 1.V_{IN}
- 2.GND
- 3.V_{OUT}



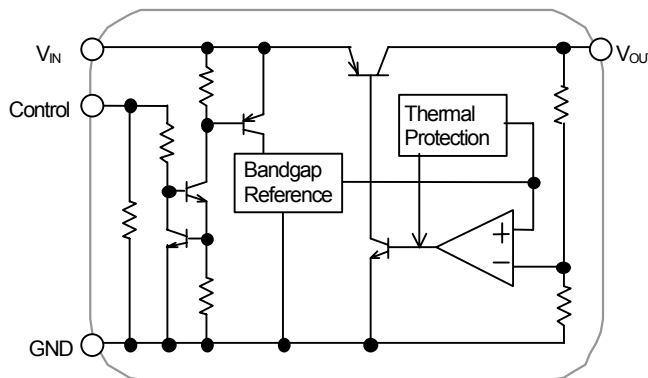
NJM2846DL3

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

■ EQUIVALENT CIRCUIT



NJM2845DL1



NJM2846DL3



NJM4556A

DUAL HIGH CURRENT OPERATIONAL AMPLIFIER

GENERAL DESCRIPTION

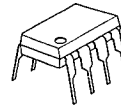
The NJM4556A integrated circuit is a high-gain, high output current dual operational amplifier capable of driving $\pm 70\text{mA}$ into $150\ \Omega$ loads ($\pm 10.5\text{V}$ output voltage), and operating low supply voltage ($V^+/V^- = \pm 2\text{V} \sim$).

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

FEATURES

- Operating Voltage ($\pm 2\text{V} \sim \pm 18\text{V}$)
- High Output Current ($I_o = 70\text{mA}$)
- Slew Rate ($3\text{V}/\mu\text{s typ.}$)
- Gain Band Width Product (8MHz typ.)
- Package Outline DIP8, DMP8, SIP8, SSOP8
- Bipolar Technology

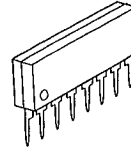
PACKAGE OUTLINE



NJM4556AD



NJM4556AM

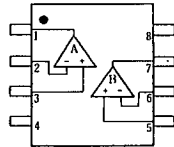


NJM4556AL

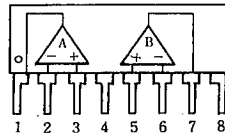


NJM4556AV

PIN CONFIGURATION



NJM4556AD.
NJM4556AM
NJM4556AV

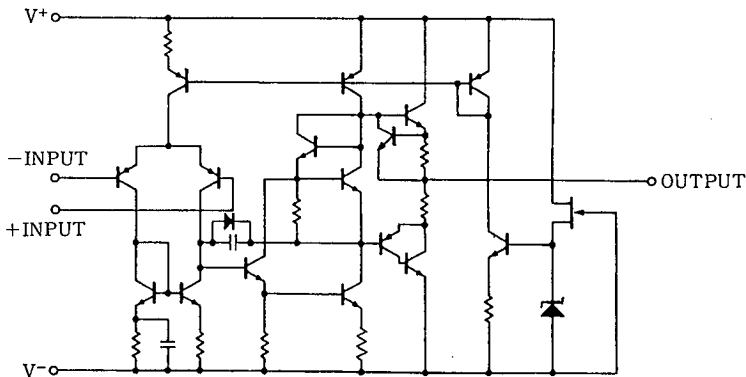


NJM4556AL

PIN FUNCTION

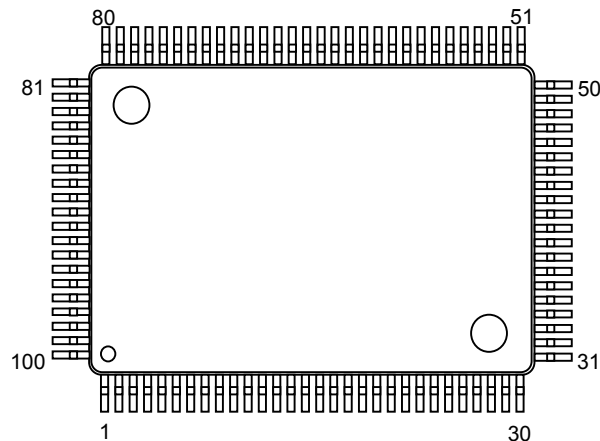
1. A OUTPUT
2. A-INPUT
3. A+INPUT
4. V-
5. B+INPUT
6. B-INPUT
7. B OUTPUT
8. V+

EQUIVALENT CIRCUIT (1/2 Shown)



NJW1197C

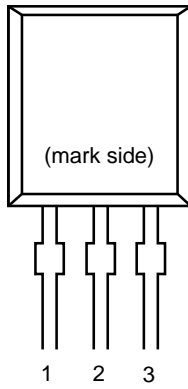
■ PIN FUNCTION



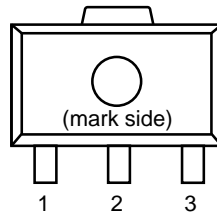
No.	SYMBOL	FUNCTION	No.	SYMBOL	FUNCTION
1	ROUT	Rch output	51	DCR_IN	"Multi-channel selector" Rch input
2	COUT	Cch output	52	DCR_OUT	"Input selector" Rch output
3	LSOUT	LSch output	53	GND	Ground
4	RSOUT	RSch output	54	DCL_IN	"Multi-channel selector" Lch input
5	LBOUT	LBch output	55	DCL_OUT	"Input selector" Lch output
6	RBOUT	RBch output	56	GND	Ground
7	SWOUT	SWch output	57	REC_B1R	"Input selector" Rch REC output B1
8	GND	Ground	58	REC_B1L	"Input selector" Lch REC output B1
9	FIL_BL2	Lch Bass filter terminal 2	59	REC_A4R	"Input selector" Rch REC output A4
10	FIL_BL1	Lch Bass filter terminal 1	60	REC_A4L	"Input selector" Lch REC output A4
11	FIL_TL	Lch Treble filter terminal	61	REC_A3R	"Input selector" Rch REC output A3
12	TCAP	Switching noise rejection capacitor	62	REC_A3L	"Input selector" Lch REC output A3
13	FIL_BR2	Rch Bass filter terminal 2	63	REC_A2R	"Input selector" Rch REC output A2
14	FIL_BR1	Rch Bass filter terminal 1	64	REC_A2L	"Input selector" Lch REC output A2
15	FIL_TR	Rch Treble filter terminal	65	REC_A1R	"Input selector" Rch REC output A1
16	V+	+ Power supply voltage input	66	REC_A1L	"Input selector" Lch REC output A1
17	ADR	Chip address select input	67	VDDOUT	Internal Digital +Power Supply Output
18	V-	- Power supply voltage input	68	DATA	Control data signal input
19	L1IN	"Input selector" Lch input 1	69	CLOCK	Clock signal input
20	DCCAP_SW	Switching noise rejection capacitor	70	LATCH	Latch signal input
21	R1IN	"Input selector" Rch input 1	71	MUTE	External mute control
22	DCCAP_RB	Switching noise rejection capacitor	72	FL+	"Input selector gain control" Lch no-inverted output
23	L2IN	"Input selector" Lch input 2	73	FL-	"Input selector gain control" Lch inverted output
24	DCCAP_LB	Switching noise rejection capacitor	74	FR+	"Input selector gain control" Rch no-inverted output
25	R2IN	"Input selector" Rch input 2	75	FR-	"Input selector gain control" Rch inverted output
26	DCCAP_RS	Switching noise rejection capacitor	76	GND	Ground
27	L3IN	"Input selector" Lch input 3	77	LSCIN	Multi-channel LSch input C
28	DCCAP_LS	Switching noise rejection capacitor	78	RSCIN	Multi-channel RSch input C
29	R3IN	"Input selector" Rch input 3	79	LBCIN	Multi-channel LBch input C
30	DCCAP_C	Switching noise rejection capacitor	80	RBCIN	Multi-channel RBch input C
31	L4IN	"Input selector" Lch input 4	81	GND	Ground
32	DCCAP_R	Switching noise rejection capacitor	82	LAIN	Multi-channel Lch input A
33	R4IN	"Input selector" Rch input 4	83	RAIN	Multi-channel Rch input A
34	DCCAP_L	Switching noise rejection capacitor	84	CAIN	Multi-channel Cch input A
35	L5IN	"Input selector" Lch input 5	85	LSAIN	Multi-channel LSch input A
36	GND	Ground	86	RSAIN	Multi-channel RSch input A
37	R5IN	"Input selector" Rch input 5	87	LBAIN	Multi-channel LBch input A
38	GND	Ground	88	RBAIN	Multi-channel RBch input A
39	L6IN	"Input selector" Lch input 6	89	SWAIN	Multi-channel SWch input A
40	L9IN	"Input selector" Lch input 9	90	GND	Ground
41	R6IN	"Input selector" Rch input 6	91	LBIN	Multi-channel Lch input B
42	R9IN	"Input selector" Rch input 9	92	RBIN	Multi-channel Rch input B
43	L7IN	"Input selector" Lch input 7	93	CBIN	Multi-channel Cch input B
44	L10IN	"Input selector" Lch input 10	94	LSBIN	Multi-channel LSch input B
45	R7IN	"Input selector" Rch input 7	95	RSBIN	Multi-channel RSch input B
46	R10IN	"Input selector" Rch input 10	96	LBBIN	Multi-channel LBch input B
47	L8IN	"Input selector" Lch input 8	97	RBBIN	Multi-channel RBch input B
48	L11IN	"Input selector" Lch input 11	98	SWBIN	Multi-channel SWch input B
49	R8IN	"Input selector" Rch input 8	99	GND	Ground
50	R11IN	"Input selector" Rch input 11	100	LOUT	Lch output

PIN CONFIGURATION

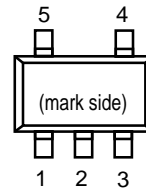
• TO-92



• SOT-89



• SOT-23-5



PIN DESCRIPTION

• TO-92

Pin No.	Symbol
1	OUT
2	V _{DD}
3	GND

• SOT-89

Pin No.	Symbol
1	OUT
2	V _{DD}
3	GND

• SOT-23-5

Pin No.	Symbol
1	OUT
2	V _{DD}
3	GND
4	NC
5	NC

8 Mbit SPI Serial Flash SST25VF080B



Data Sheet

PIN DESCRIPTION

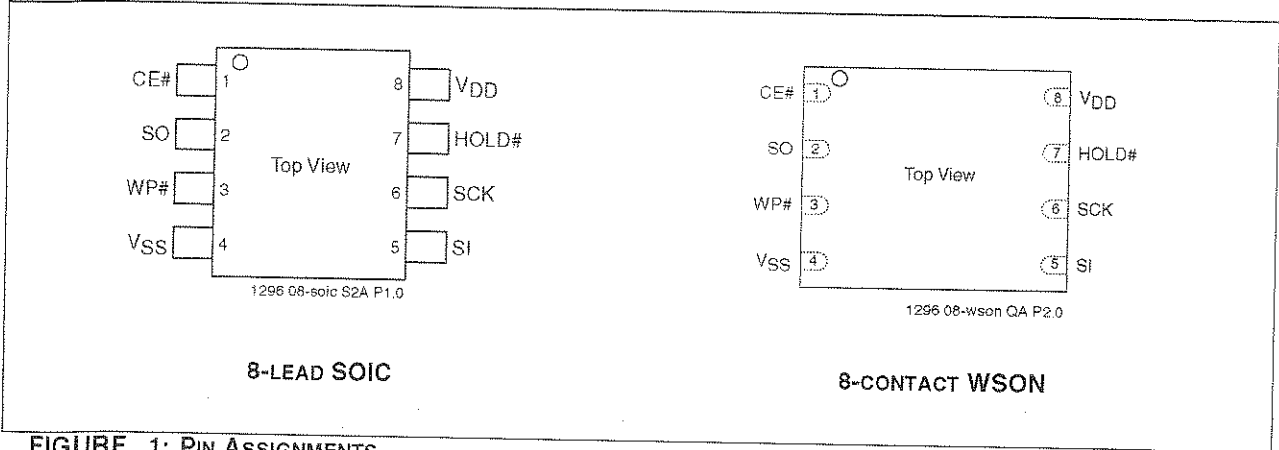


FIGURE 1: PIN ASSIGNMENTS

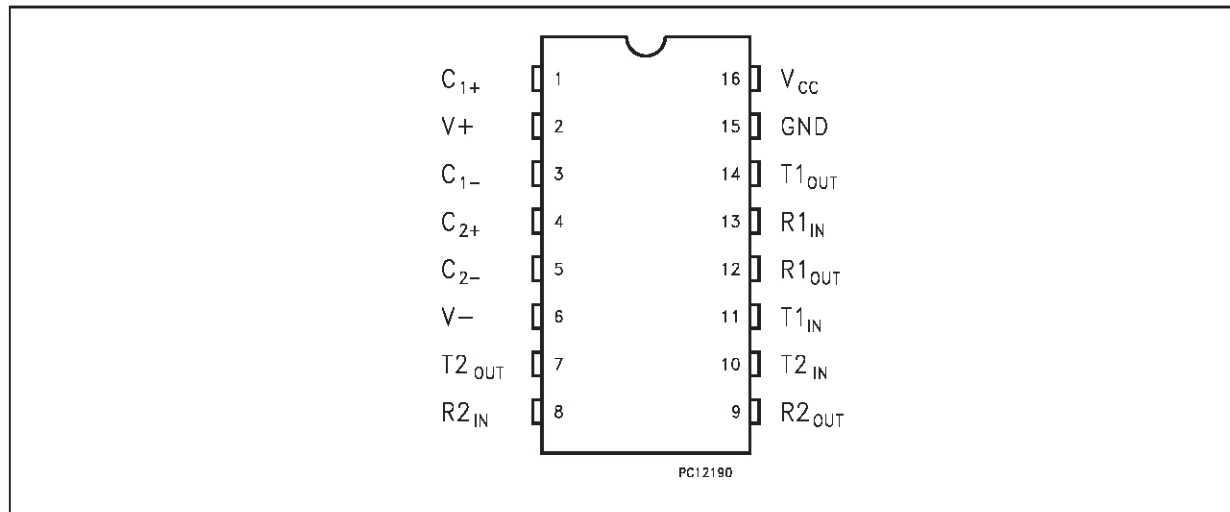
TABLE 1: PIN DESCRIPTION

Symbol	Pin Name	Functions
SCK	Serial Clock	To provide the timing of the serial interface. Commands, addresses, or input data are latched on the rising edge of the clock input, while output data is shifted out on the falling edge of the clock input.
SI	Serial Data Input	To transfer commands, addresses, or data serially into the device. Inputs are latched on the rising edge of the serial clock.
SO	Serial Data Output	To transfer data serially out of the device. Data is shifted out on the falling edge of the serial clock. Outputs Flash busy status during AAI Programming when reconfigured as RY/BY# pin. See "Hardware End-of-Write Detection" on page 12 for details.
CE#	Chip Enable	The device is enabled by a high to low transition on CE#. CE# must remain low for the duration of any command sequence.
WP#	Write Protect	The Write Protect (WP#) pin is used to enable/disable BPL bit in the status register.
HOLD#	Hold	To temporarily stop serial communication with SPI flash memory without resetting the device.
VDD	Power Supply	To provide power supply voltage: 2.7-3.6V for SST25VF080B
VSS	Ground	

T1 0 1296

ST232

PIN CONFIGURATION



PIN DESCRIPTION

PIN No	SYMBOL	NAME AND FUNCTION
1	C ₁₊	Positive Terminal for the first Charge Pump Capacitor
2	V+	Doubled Voltage Terminal
3	C ₁₋	Negative Terminal for the first Charge Pump Capacitor
4	C ₂₊	Positive Terminal for the second Charge Pump Capacitor
5	C ₂₋	Negative Terminal for the second Charge Pump Capacitor
6	V-	Inverted Voltage Terminal
7	T _{2OUT}	Second Transmitter Output Voltage
8	R _{2IN}	Second Receiver Input Voltage
9	R _{2OUT}	Second Receiver Output Voltage
10	T _{2IN}	Second Transmitter Input Voltage
11	T _{1IN}	First Transmitter Input Voltage
12	R _{1OUT}	First Receiver Output Voltage
13	R _{1IN}	First Receiver Input Voltage
14	T _{1OUT}	First Transmitter Output Voltage
15	GND	Ground
16	V _{CC}	Supply Voltage

ABSOLUTE MAXIMUM RATINGS (Note 1)

Symbol	Parameter	Value	Unit
V _{CC}	Supply Voltage	-0.3 to 6	V
T _{IN}	Transmitter Input Voltage Range	-0.3 to (V _{CC} + 0.3)	V
R _{IN}	Receiver Input Voltage Range	±30	V
T _{OUT}	Transmitter Output Voltage Range	(V+ + 0.3) to (V- - 0.3)	V
R _{OUT}	Receiver Output Voltage Range	-0.3 to (V _{CC} + 0.3)	V
T _{SCTOUT}	Short Circuit Duration on T _{OUT}	infinite	
T _{stg}	Storage Temperature Range	-65 to +150	°C

Absolute Maximum Ratings are those values beyond which damage to the device may occur. Functional operation under these condition is not implied.

Note1: No external supply can be applied to V+ terminal and V- terminal.

2. Pin Assignment and Pin Functions

The assignment of input/output pins for the T5CC1, their names and functions are as follows:

2.1 Pin Assignment Diagram

Figure 2.1.1 shows the pin assignment of the T5CC1.

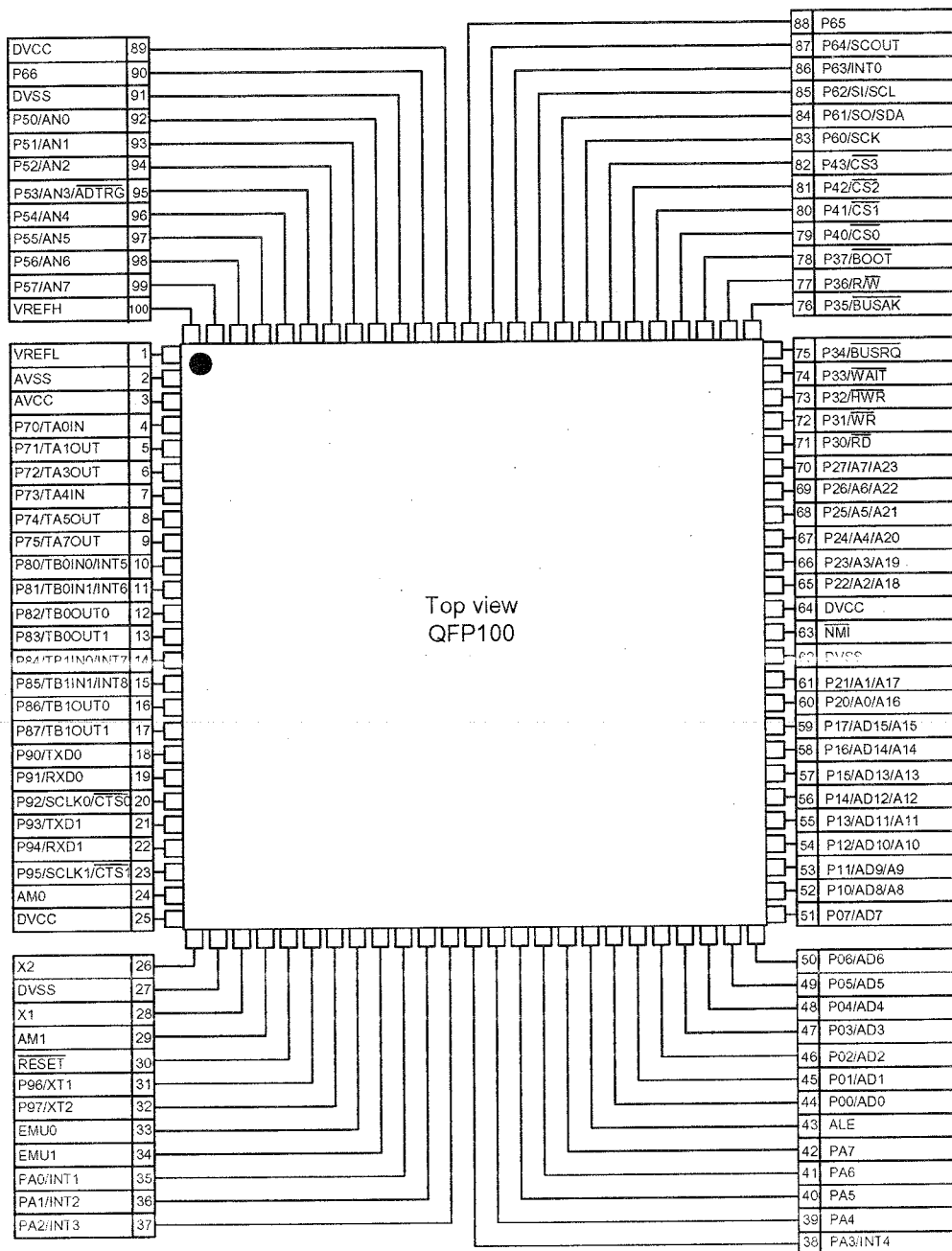


Figure 2.1.1 Pin assignment diagram (100-pin LQFP)

2.2 Pin Names and Functions

The names of the input/output pins and their functions are described below.

Table 2.2.1 Pin names and functions.

Table 2.2.1 Pin names and functions (1/3)

Pin Name	Number of Pins	I/O	Functions
P00~P07 AD0~AD7	8	I/O I/O	Port 0: I/O port that allows I/O to be selected at the bit level Address and data (lower): Bits 0 to 7 of address and data bus
P10~P17 AD8~AD15 A8~A15	8	I/O I/O Output	Port 1: I/O port that allows I/O to be selected at the bit level Address and data (upper): Bits 8 to 15 for address and data bus Address: Bits 8 to 15 of address bus
P20~P27 A0~A7 A16~A23	8	I/O Output Output	Port 2: I/O port that allows I/O to be selected at the bit level Address: Bits 0 to 7 of address bus Address: Bits 16 to 23 of address bus
P30 \overline{RD}	1	Output Output	Port 30: Output port Read: Strobe signal for reading external memory This port output RD signal also case of reading internal-area by setting P3 <P30> = 0 and P3FC <P30F> = 1.
P31 \overline{WR}	1	Output Output	Port 31: Output port Write: Strobe signal for writing data to pins AD0 to AD7
P32 \overline{HWR}	1	I/O Output	Port 32: I/O port (with pull-up resistor) High Write: Strobe signal for writing data to pins AD8 to AD15
P33 \overline{WAIT}	1	I/O Input	Port 33: I/O port (with pull-up resistor) Wait: Pin used to request CPU bus wait ((1+N) WAIT mode)
P34 BUSRQ	1	I/O Input	Port 34: I/O port (with pull-up resistor) Bus Request: Signal used to request Bus Release
P35 BUSAK	1	I/O Output	Port 35: I/O port (with pull-up resistor) Bus Acknowledge: Signal used to acknowledge Bus Release
P36 R/W	1	I/O Output	Port 36: I/O port (with pull-up resistor) Read/Write: 1 represents Read or Dummy cycle; 0 represents Write cycle.
P37 BOOT	1	I/O Input	Port 36: I/O port (with pull-up resistor) This pin sets single boot mode. When released reset, Single boot mode is started at P37 = Low level.
P40 $\overline{CS0}$	1	I/O Output	Port 40: I/O port (with pull-up resistor) Chip Select 0: Outputs 0 when address is within specified address area
P41 $\overline{CS1}$	1	I/O Output	Port 41: I/O port (with pull-up resistor) Chip Select 1: Outputs 0 if address is within specified address area
P42 $\overline{CS2}$	1	I/O Output	Port 42: I/O port (with pull-up resistor) Chip Select 2: Outputs 0 if address is within specified address area
P43 $\overline{CS3}$	1	I/O Output	Port 43: I/O port (with pull-up resistor) Chip Select 3: Outputs 0 if address is within specified address area
P50~P57 AN0~AN7 \overline{ADTRG}	8	Input Input Input	Port 5: Pin used to input port Analog input: Pin used to input to AD converter AD Trigger: Signal used to request start of AD converter (Shared with 53 pin)

Table 2.2.1 Pin names and functions (2/3)

Pin Name	Number of Pins	I/O	Functions
P60 SCK	1	I/O I/O	Port 60: I/O port Serial bus interface clock in SIO Mode
P61 SO SDA	1	I/O Output I/O	Port 61: I/O port Serial bus interface send data at SIO mode Serial bus interface send/recv data at I ² C bus mode Open-drain output mode by programmable
P62 SI SCL	1	I/O Input I/O	Port 62: I/O port Serial bus interface receive data at SIO mode Serial bus interface clock I/O data at I ² C bus mode Open-drain output mode by programmable
P63 INT0	1	I/O Input	Port 63: I/O port Interrupt Request Pin 0: Interrupt request pin with programmable level / rising edge / falling edge
P64 SCOUT	1	I/O Output	Port 64: I/O port System Clock Output: Outputs f _{PPH} or fs clock.
P65	1	I/O	Port 65 I/O port
P66	1	I/O	Port 66 I/O port
P70 TA0IN	1	I/O Input	Port 70 I/O port 8bit timer 0 input: Timer 0 input
P71 TA1OUT	1	I/O Output	Port 71 I/O port 8-bit timer 1 output: Timer 0 or Timer 1 output
P72 TA3OUT	1	I/O Output	Port 72 I/O port 8bit 8-bit timer 3 output: Timer 2 or Timer 3 output
P73 TA4IN	1	I/O Input	Port 73: I/O port 8-bit timer 4 input: Timer 4 input
P74 TA5OUT	1	I/O Output	Port 74: I/O port 8-bit timer 5 output: Timer 4 or Timer 5 output
P75 TA7OUT	1	I/O Output	Port 75: I/O port 88-bit timer 7 output: Timer 6 or Timer 7 output
P80 TB0IN0 INT5	1	I/O Input Input	Port 80: I/O port 16bit timer 0 input 0: 16bit Timer 0 count / capture trigger input Interrupt Request Pin 5: Interrupt request pin with programmable rising edge / falling edge.
P81 TB0IN1 INT6	1	I/O Input Input	Port 81: I/O port 16bit timer 0 input 1: 16bit Timer 0 count / capture trigger input Interrupt Request Pin 6: Interrupt request on rising edge
P82 TB0OUT0	1	I/O Output	Port 82: I/O port 16bit timer 0 output 0: 16bit Timer 0 output
P83 TB0OUT1	1	I/O Output	Port 83: I/O port 16bit timer 0 output 1: 16bit Timer 0 output
P84 TB1IN0 INT7	1	I/O Input Input	Port 84: I/O port 16bit timer 1 input 0: 16bit Timer 1 count / capture trigger input Interrupt Request Pin 7: Interrupt request pin with programmable rising edge / falling edge.
P85 TB1IN1 INT8	1	I/O Input Input	Port 85: I/O port 16bit timer 1 input 1: 16bit Timer 1 count / capture trigger input Interrupt Request Pin 8: Interrupt request on rising edge
P86 TB1OUT0	1	I/O Output	Port 86: I/O port 16bit timer 1 output 0: 16bit Timer 1 output 16bit
P87 TB1OUT1	1	I/O Output	Port 87: I/O port 16bit timer 1 output 1: 16bit Timer 1 output 16bit 16bit

Table 2.2.1 Pin names and functions (3/3)

Pin Name	Number of Pins	I/O	Functions
P90 TXD0	1	I/O Output	Port 90: I/O port Serial Send Data 0 (programmable open-drain)
P91 RXD0	1	I/O Input	Port 91: I/O port Serial Receive Data 0
P92 SCLK0 $\overline{\text{CTS0}}$	1	I/O I/O Input	Port 92: I/O port Serial Clock I/O 0 Serial Data Send Enable 0 (Clear to Send)
P93 TXD1	1	I/O Output	Port 93: I/O port Serial Send Data 1 (programmable open-drain)
P94 RXD1	1	I/O Input	Port 94: I/O port (with pull-up resistor) Serial Receive Data 1
P95 SCLK1 $\overline{\text{CTS1}}$	1	I/O I/O Input	Port 95: I/O port (with pull-up resistor) Serial Clock I/O 1 Serial Data Send Enable 1 (Clear to Send)
P96 XT1	1	I/O Input	Port 96: I/O port (open-drain output) Low-frequency oscillator connection pin
P97 XT2	1	I/O Output	Port 97: I/O port (open-drain output) Low-frequency oscillator connection pin
PA0~PA3 INT1~INT4	4	I/O Input	Ports A0 to A3: I/O ports Interrupt Request Pins 1 to 4: Interrupt request pins with programmable rising edge / falling edge.
PA4~PA7	4	I/O	Ports A4 to A7: I/O ports
ALE	1	Output	Address Latch Enable Can be disabled to reduce noise.
$\overline{\text{NMI}}$	1	Input	Non-Maskable Interrupt Request Pin: Interrupt request pin with programmable falling edge or both edge.
AM0~1	2	Input	Operation mode: Fixed to AM1 = 1, AM0 = 1
EMU0	1	Output	Open pin
EMU1	1	Output	Open pin
$\overline{\text{RESET}}$	1	Input	Reset: initializes T5CC1. (With pull-up resistor)
VREFH	1	Input	Pin for reference voltage input to AD converter (H)
VREFL	1	Input	Pin for reference voltage input to AD converter (L)
AVCC	1		Power supply pin for AD converter
AVSS	1		GND pin for AD converter (0 V)
X1/X2	2	I/O	High-frequency oscillator connection pins
DVCC	3		Power supply pins (All DVCC pins should be connected with the power supply pin.)
DVSS	3		GND pins (0 V) (All DVSS pins should be connected with the power supply pin.)

Note: An external DMA controller cannot access the device's built-in memory or built-in I/O devices using the $\overline{\text{BUSRQ}}$ and $\overline{\text{BUSAk}}$ signal.

TOSHIBA CMOS DIGITAL INTEGRATED CIRCUIT SILICON MONOLITHIC

TC74HCU04AP, TC74HCU04AF, TC74HCU04AFN

HEX INVERTER

The TC74HCU04A is a high speed CMOS INVERTER fabricated with silicon gate C²MOS technology.

It achieves the high speed operation similar to equivalent LSTTL while maintaining the CMOS low power dissipation.

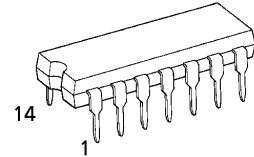
Since the internal circuit is composed of a single stage inverter, it can be used in analog applications such as crystal oscillators.

All inputs are equipped with protection circuits against static discharge or transient excess voltage.

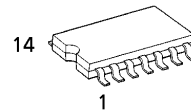
FEATURES :

- High Speed..... $t_{pd} = 4ns(typ.)$ at $V_{CC} = 5V$
- Low Power Dissipation..... $I_{CC} = 1\mu A(Max.)$ at $T_a = 25^\circ C$
- High Noise Immunity..... $V_{NIH} = V_{NIH} = 10\%V_{CC} (Min.)$
- Output Drive Capability..... 10 LSTTL Loads
- Symmetrical Output Impedance... $|I_{OH}| = I_{OL} = 4mA(Min.)$
- Balanced Propagation Delays..... $t_{pLH} \approx t_{pHL}$
- Wide Operating Voltage Range... $V_{CC}(opr.) = 2V \sim 6V$
- Pin and Function Compatible with 74LS04

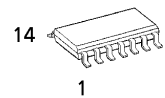
(Note) The JEDEC SOP (FN) is not available in Japan.



P (DIP14-P-300-2.54)
Weight : 0.96g (Typ.)

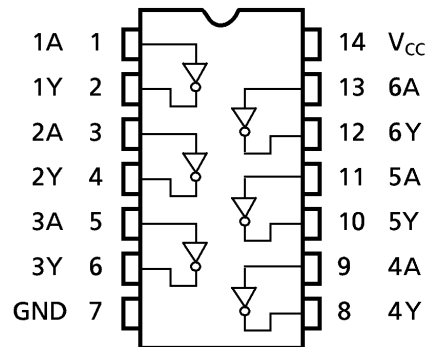


F (SOP14-P-300-1.27)
Weight : 0.18g (Typ.)



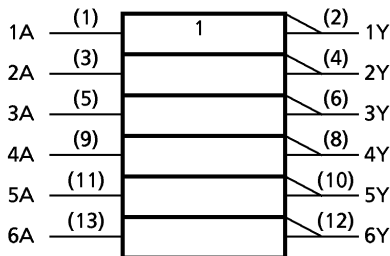
FN (SOL14-P-150-1.27)
Weight : 0.12g (Typ.)

PIN ASSIGNMENT



(TOP VIEW)

IEC LOGIC SYMBOL



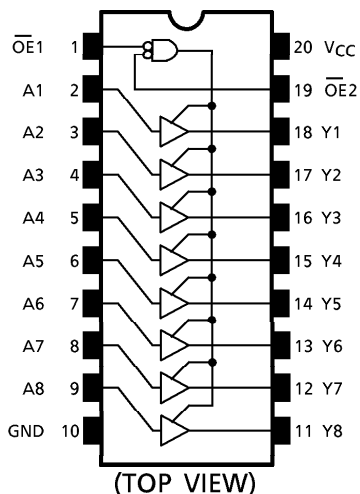
TRUTH TABLE

A	Y
L	H
H	L

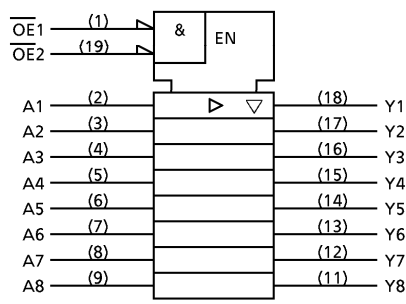
961001EBA2

● TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

PIN ASSIGNMENT



IEC LOGIC SYMBOL



TRUTH TABLE

INPUTS			OUTPUTS
OE1	OE2	An	
H	X	X	Z
X	H	X	Z
L	L	H	H
L	L	L	L

X : Don't Care
Z : High Impedance

MAXIMUM RATINGS

PARAMETER	SYMBOL	RATING	UNIT
Supply Voltage Range	V_{CC}	-0.5~7.0	V
DC Input Voltage	V_{IN}	-0.5~7.0	V
DC Output Voltage	V_{OUT}	-0.5~7.0 (Note 1)	V
		-0.5~ $V_{CC} + 0.5$ (Note 2)	
Input Diode Current	I_{IK}	-50	mA
Output Diode Current	I_{OK}	±50 (Note 3)	mA
DC Output Current	I_{OUT}	±50	mA
Power Dissipation	P_D	180	mW
DC V_{CC} /Ground Current	I_{CC}/I_{GND}	±100	mA
Storage Temperature	T_{stg}	-65~150	°C

(Note 1) Output in Off-State
 (Note 2) High or Low State. I_{OUT} absolute maximum rating must be observed.
 (Note 3) $V_{OUT} < GND, V_{OUT} > V_{CC}$

961001EBA2'

- The products described in this document are subject to foreign exchange and foreign trade control laws.
- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

TOSHIBA CMOS DIGITAL INTEGRATED CIRCUIT SILICON MONOLITHIC

TC74VHC157F, TC74VHC157FN, TC74VHC157FT

QUAD 2 - CHANNEL MULTIPLEXER

The TC74VHC157 is an advanced high speed CMOS QUAD 2 - CHANNEL MULTIPLEXER fabricated with silicon gate C²MOS technology.

It achieves the high speed operation similar to equivalent Bipolar Schottky TTL while maintaining the CMOS low power dissipation.

It consists of four 2 - input digital multiplexers with common select and strobe inputs.

When the STROBE input is held "H" level, selection of data is inhibited and all the outputs become "L" level.

The SELECT decoding determines whether the A or B inputs get routed to their corresponding Y outputs.

An Input protection circuit ensures that 0 to 5.5V can be applied to the input pins without regard to the supply voltage. This device can be used to interface 5V to 3V systems and on two supply systems such as battery back up. This circuit prevents device destruction due to mismatched supply and input voltages.

FEATURES :

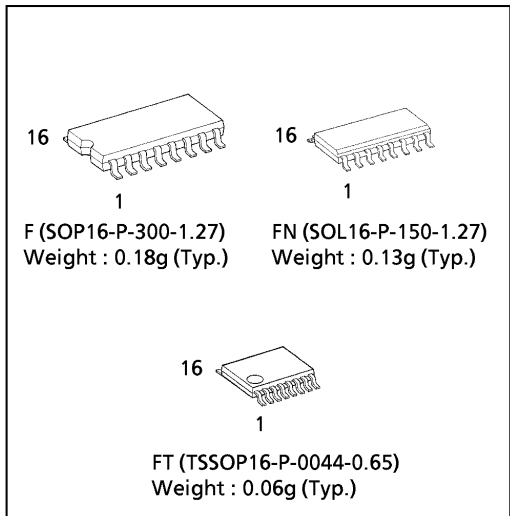
- High Speed..... $t_{pd} = 4.1ns(\text{typ.})$ at $V_{CC} = 5V$
- Low Power Dissipation..... $I_{CC} = 4\mu A(\text{Max.})$ at $T_a = 25^{\circ}C$
- High Noise Immunity..... $V_{NIH} = V_{NIL} = 28\% V_{CC} (\text{Min.})$
- Power Down Protection is provided on all inputs.
- Balanced Propagation Delays..... $t_{pLH} \approx t_{pHL}$
- Wide Operating Voltage Range..... $V_{CC} (\text{opr}) = 2V \sim 5.5V$
- Low Noise $V_{OLP} = 0.8V (\text{Max.})$
- Pin and Function Compatible with 74ALS157

TRUTH TABLE

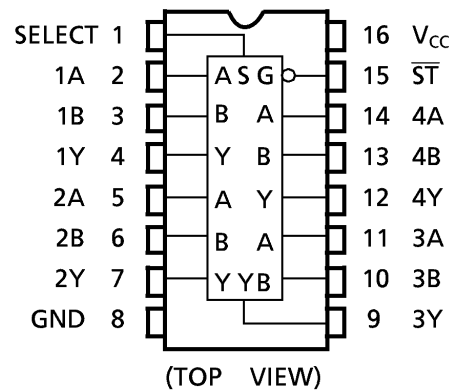
INPUTS				OUTPUT
ST	SELECT	A	B	
H	X	X	X	L
L	L	L	X	L
L	L	H	X	H
L	H	X	L	L
L	H	X	H	H

X : Don't Care

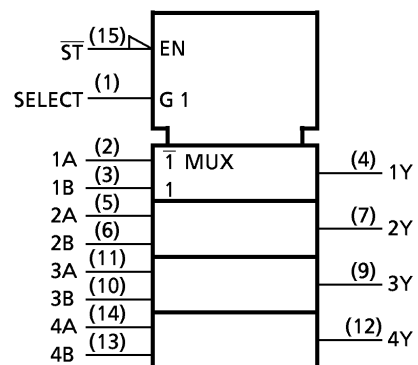
(Note) The JEDEC SOP (FN) is not available in Japan.



PIN ASSIGNMENT



IEC LOGIC SYMBOL



980910EBA2

● TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

TOSHIBA CMOS DIGITAL INTEGRATED CIRCUIT SILICON MONOLITHIC

TC74VHCT14AF, TC74VHCT14AFN, TC74VHCT14AFT

HEX SCHMITT INVERTER

The TC74VHCT14A is an advanced high speed CMOS SCHMITT INVERTER fabricated with silicon gate C²MOS technology.

It achieves the high speed operation similar to equivalent Bipolar Schottky TTL while maintaining the CMOS low power dissipation.

Pin configuration and function are the same as the TC74VHC04 but the inputs have hysteresis and with its schmitt trigger function, the TC74VHC14 can be used as a line receivers which will receive slow input signals.

The input voltage are compatible with TTL output voltage. This device may be used as a level converter for interfacing 3.3V to 5V system.

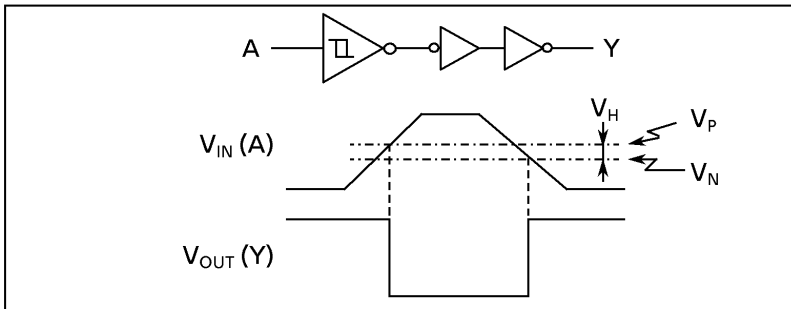
Input protection and output circuit ensure that 0 to 5.5V can be applied to the input and output*1 pins without regard to the supply voltage. These structure prevents device destruction due to mismatched supply and input/output voltages such as battery back up, hot board insertion, etc.

*1: V_{CC} = 0V

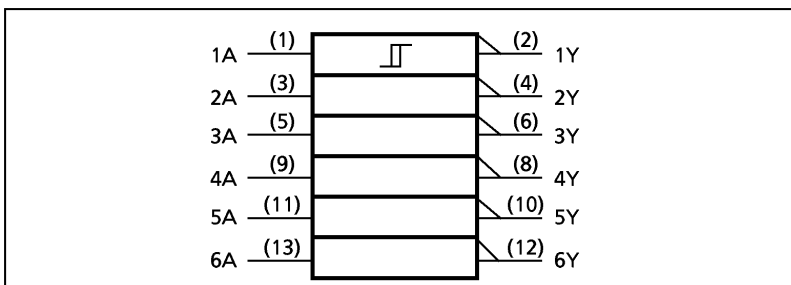
FEATURES :

- High Speed..... t_{pd} = 5.0ns (typ.) at V_{CC} = 5V
- Low Power Dissipation..... I_{CC} = 2μA(Max.) at Ta = 25°C
- Compatible with TTL outputs..... V_{IL} = 0.8V (Max.)
V_{IH} = 2.0V (Min.)
- Power Down Protection is provided on all inputs and outputs.
- Balanced Propagation Delays..... t_{pLH} ≈ t_{pHL}
- Low Noise..... V_{OLP} = 0.8V (Max.)
- Pin and Function Compatible with the 74 series (74AC/HC /F/ALS/LS etc.) 14 type.

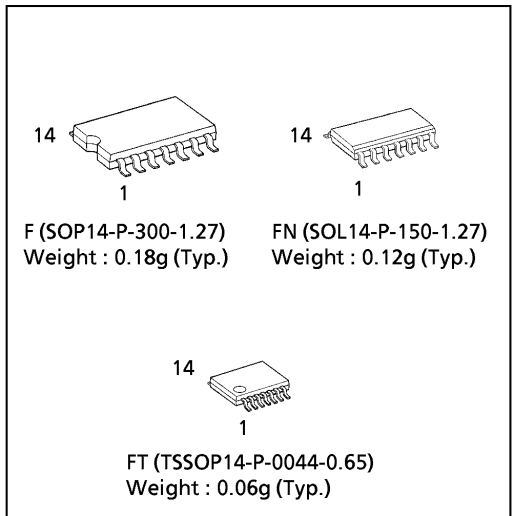
SYSTEM DIAGRAM, WAVEFORM



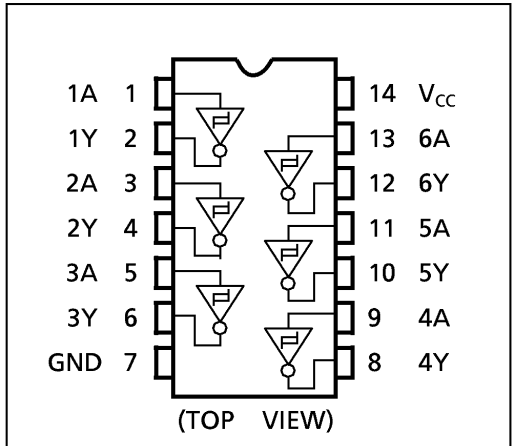
IEC LOGIC SYMBOL



(Note) The JEDEC SOP (FN) is not available in Japan.



PIN ASSIGNMENT



TRUTH TABLE

A	Y
L	H
H	L

980910EBA2

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1.2 Pin Assignment

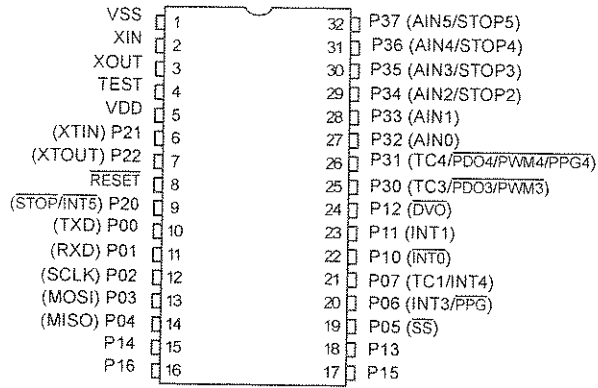
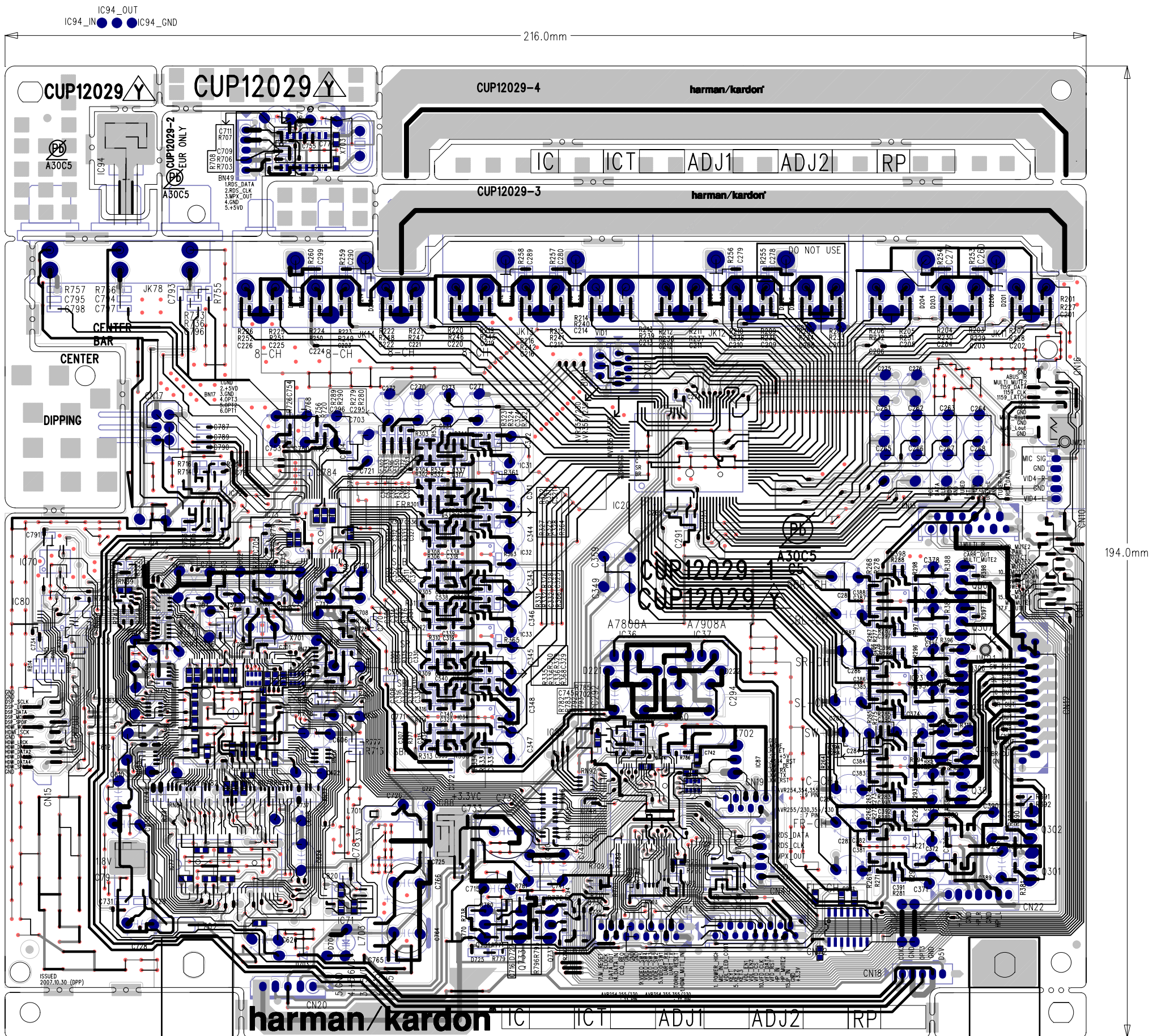
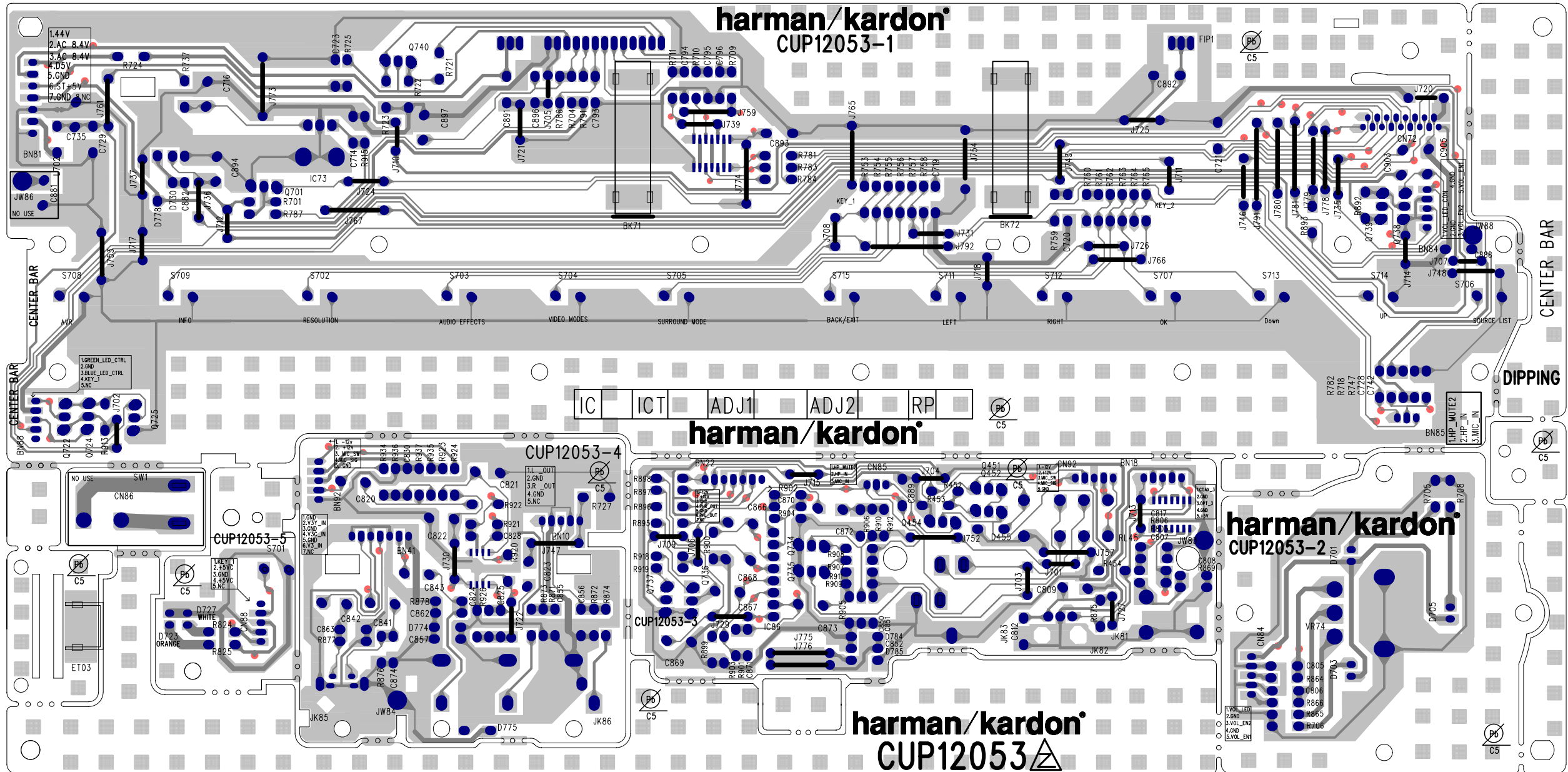


Figure 1-1 Pin Assignment





harman/kardon
CUP12053-1

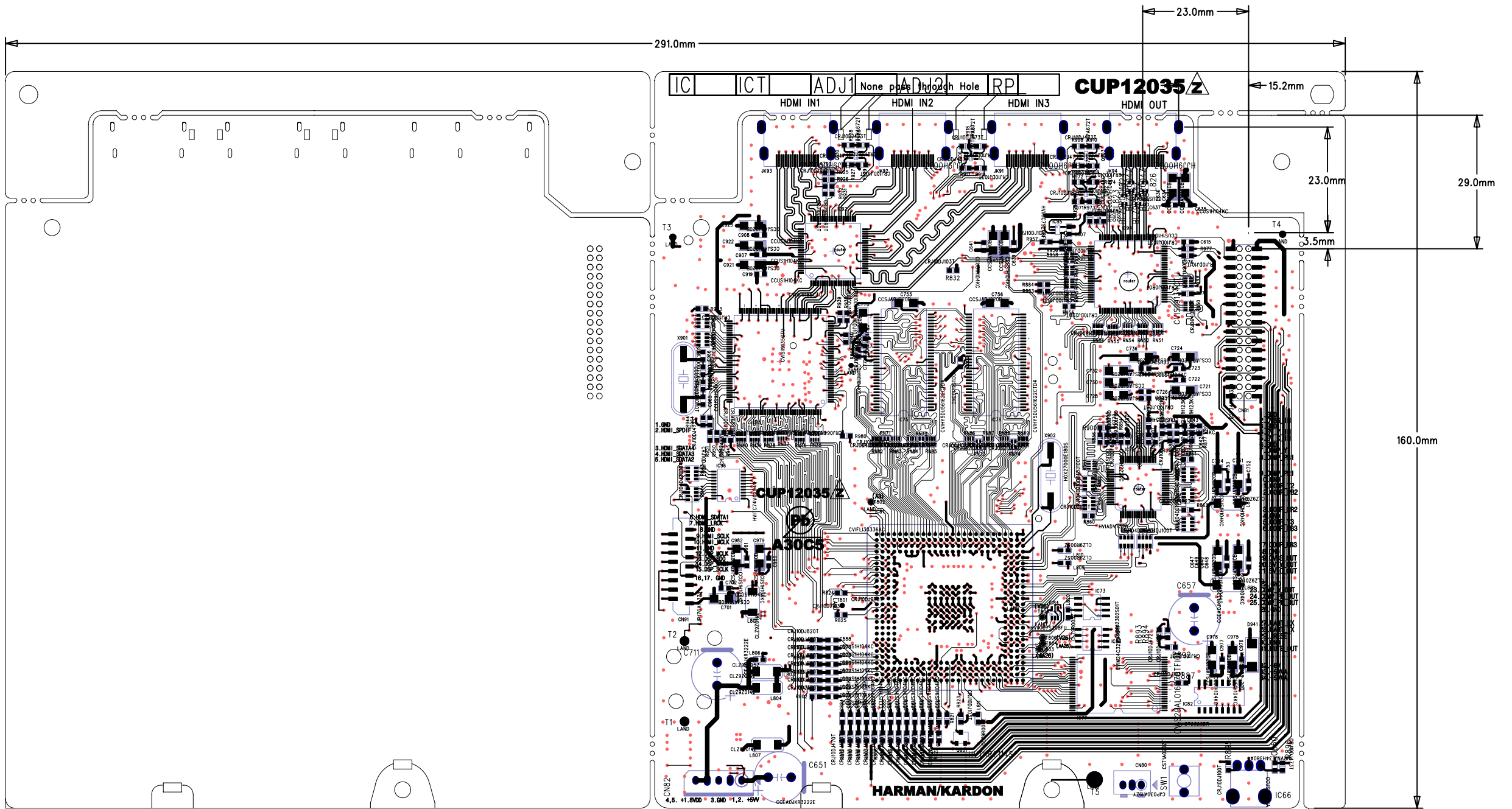
harman/kardon

harman/kardon
CUP12053-2

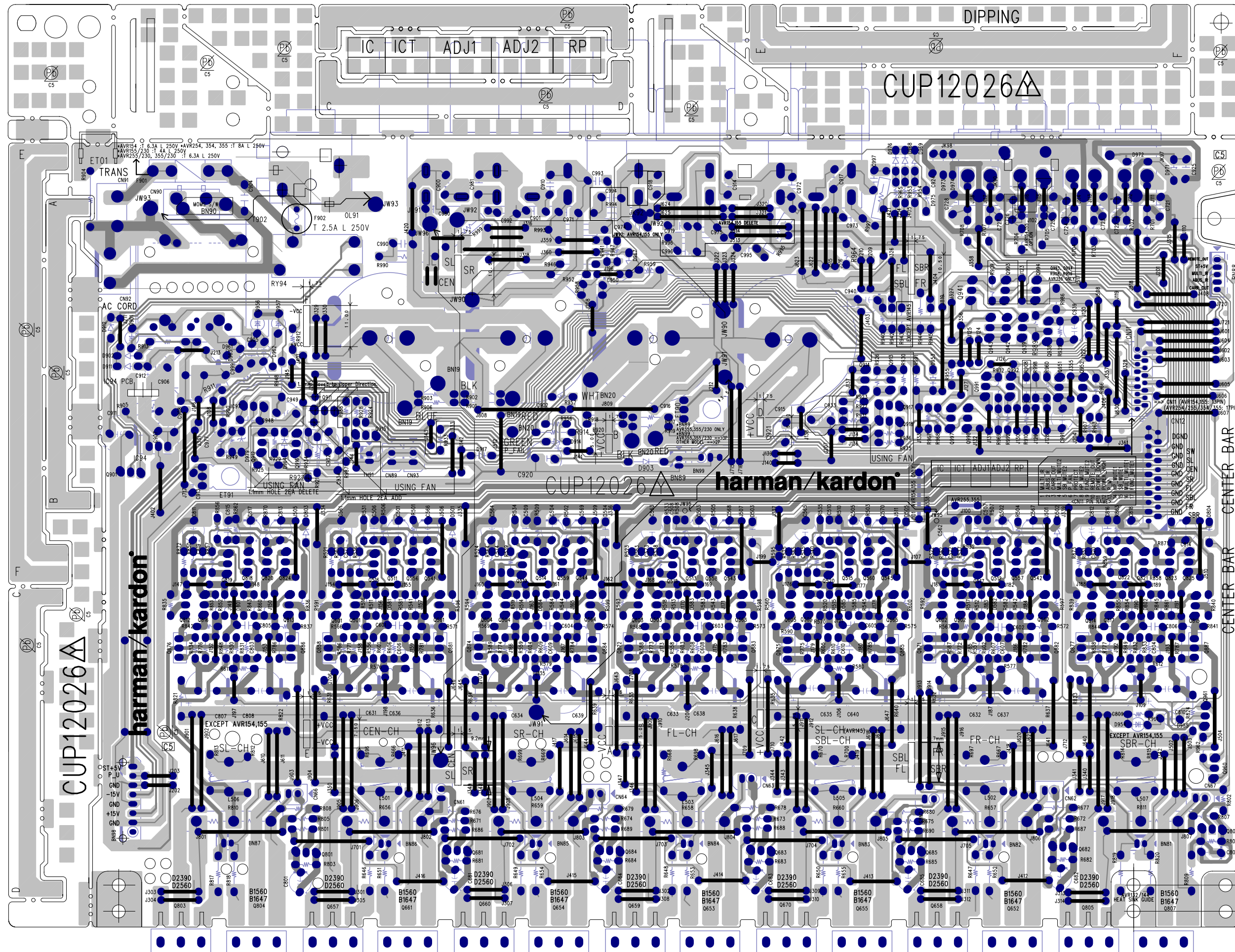
harman/kardon
CUP12053-3

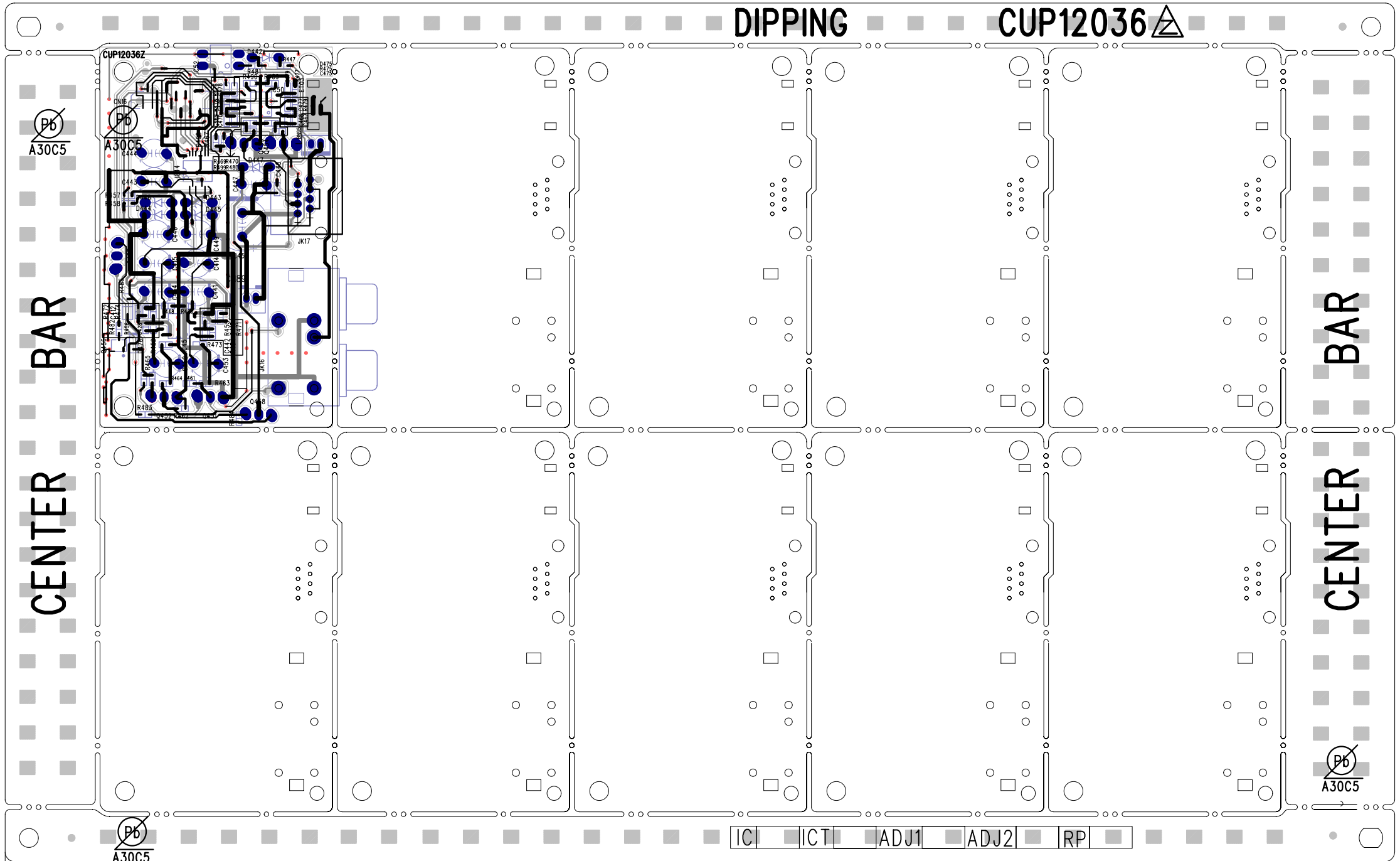
CUP12053-4

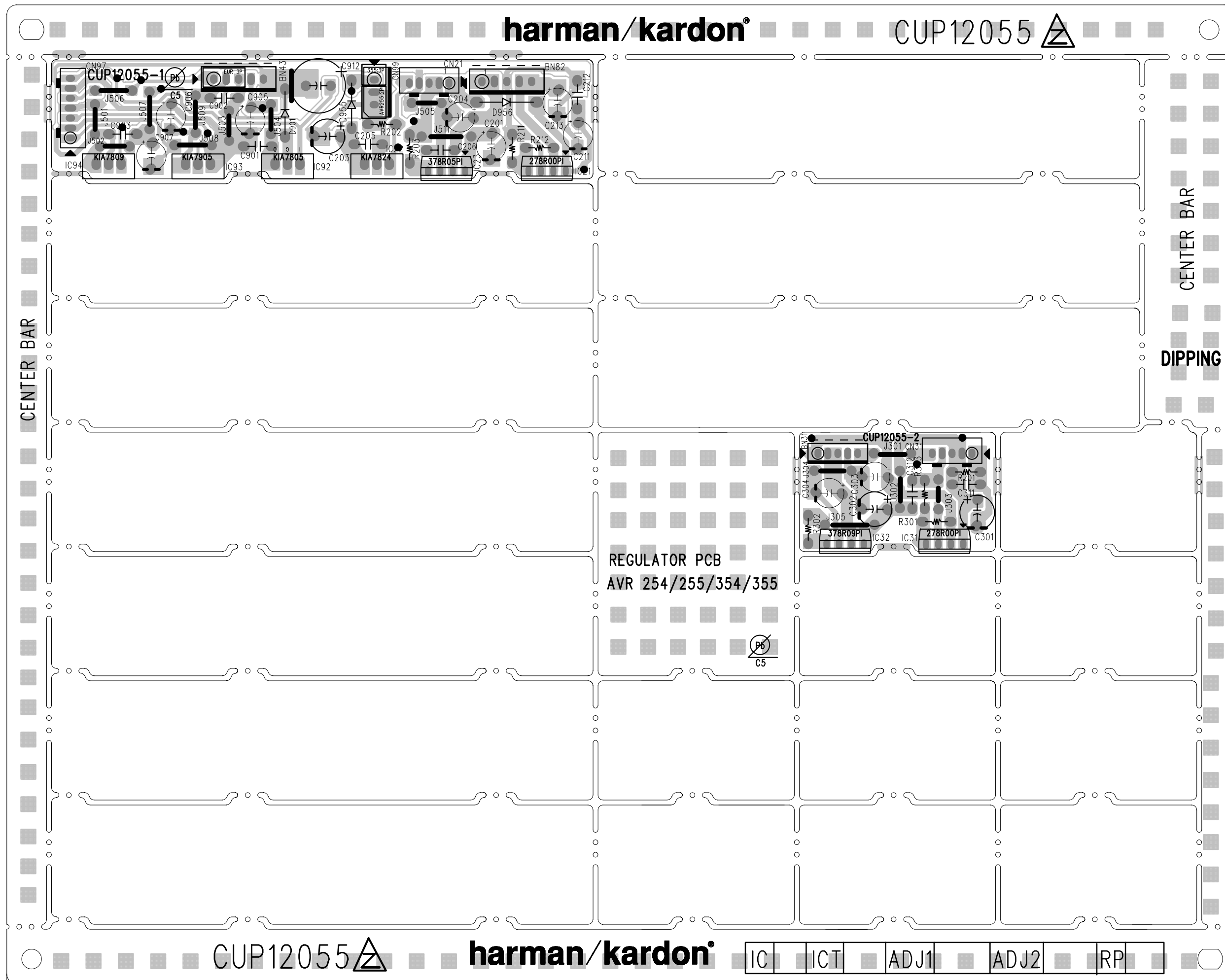
CUP12053-5



CUP12026

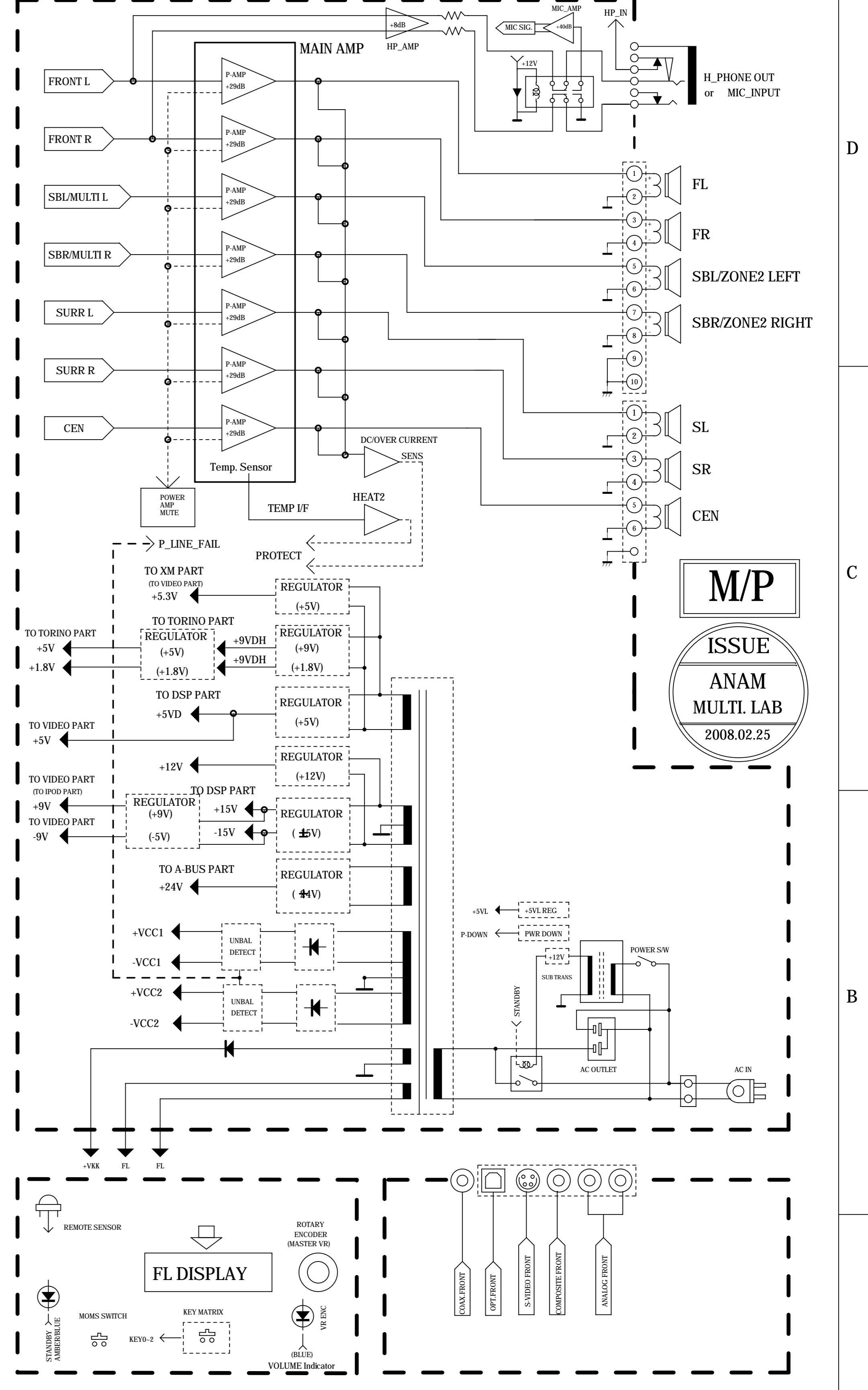
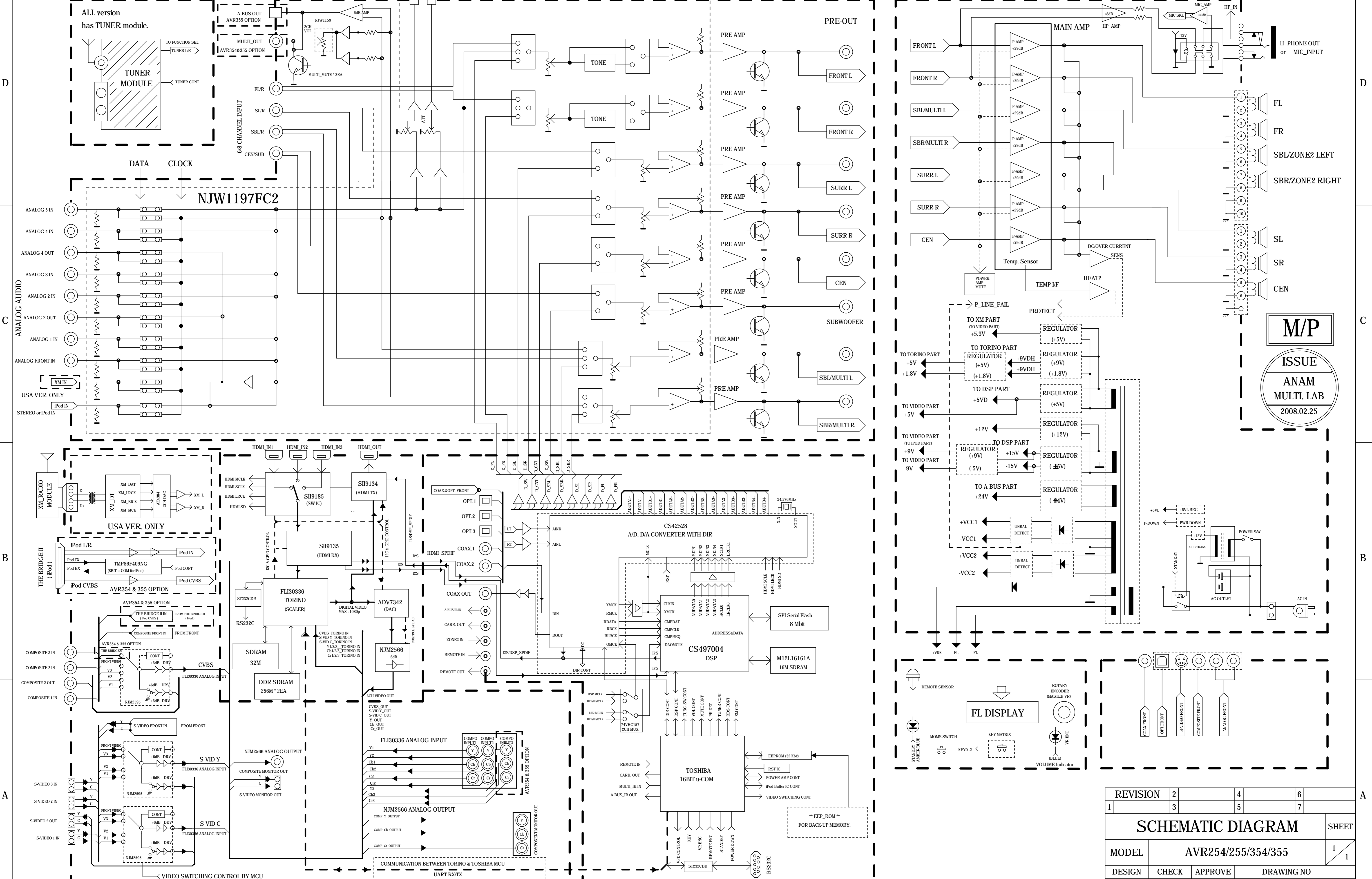






6 5 4 3 2 1

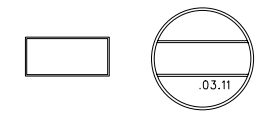
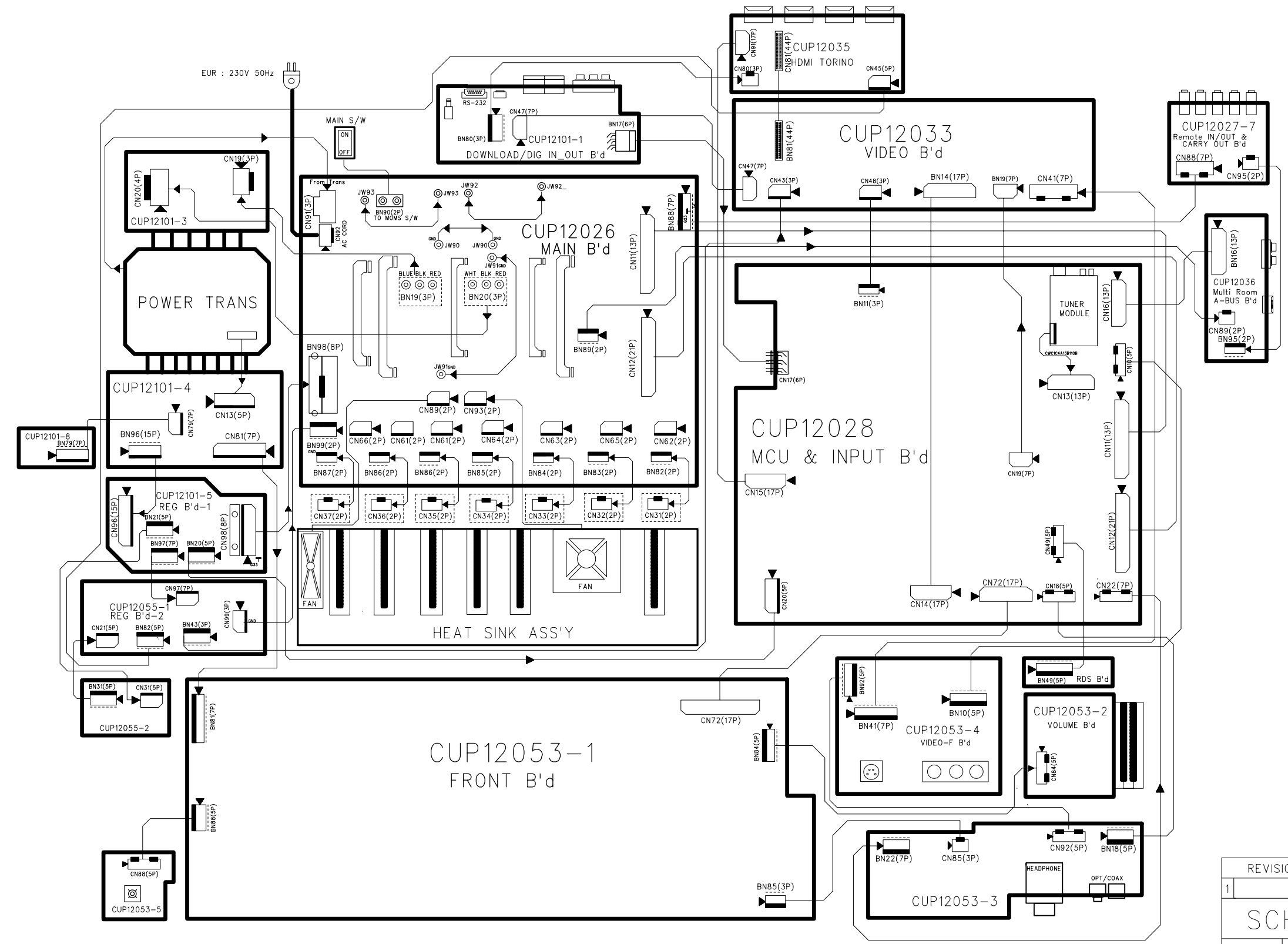
AVR254/255/354/355 BLOCK DIAGRAM



M/P
ISSUE
ANAM
MULTI LAB
2008.02.25

REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR254/255/354/355		
DESIGN	CHECK	APPROVE	DRAWING NO
S.H.Yang	W.Y.Yang	G.S.Wey	BLOCK DIAGRAM
08.02.25	08.02.25	08.02.25	2024BLDZ

AVR355/230 WIRING DIAGRAM



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
SHEET			
MODEL	AVR355/230		
DESIGN	CHECK	APPROVE	DRAWING NO
J.T.B	W.Y.Y	K	WIRING DIAGRAM
08.03.11	08.03.11	13.11	1190SCDZ

AMPLIFIER SECTION BIAS ADJUSTMENT

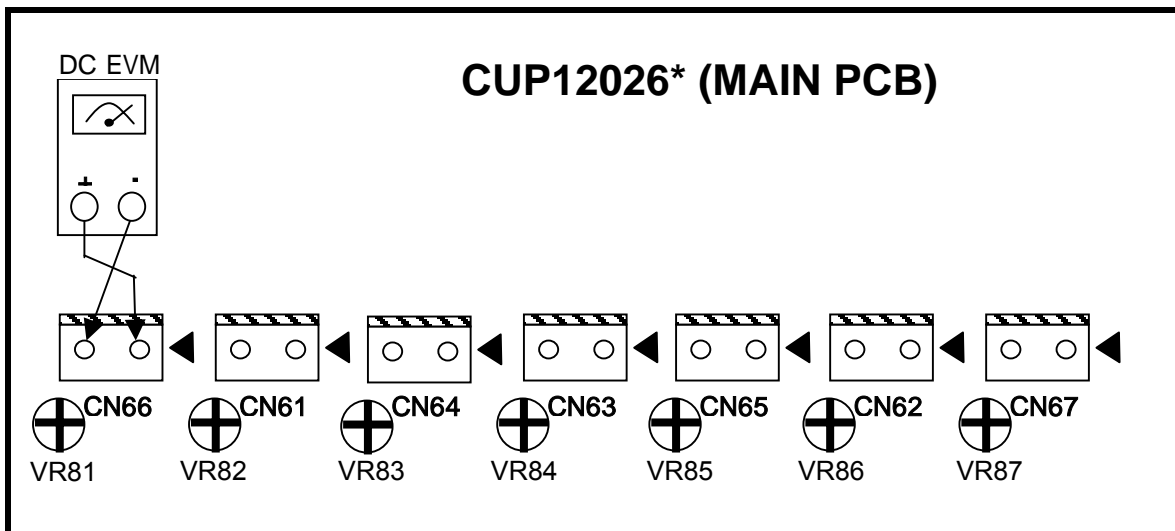
Measurement condition

.No input signal or volume position is minimum.

Standard value

.Ideal current = 48mA ($\pm 5\%$)

.Ideal DC Voltage = 25.92mV ($\pm 5\%$)

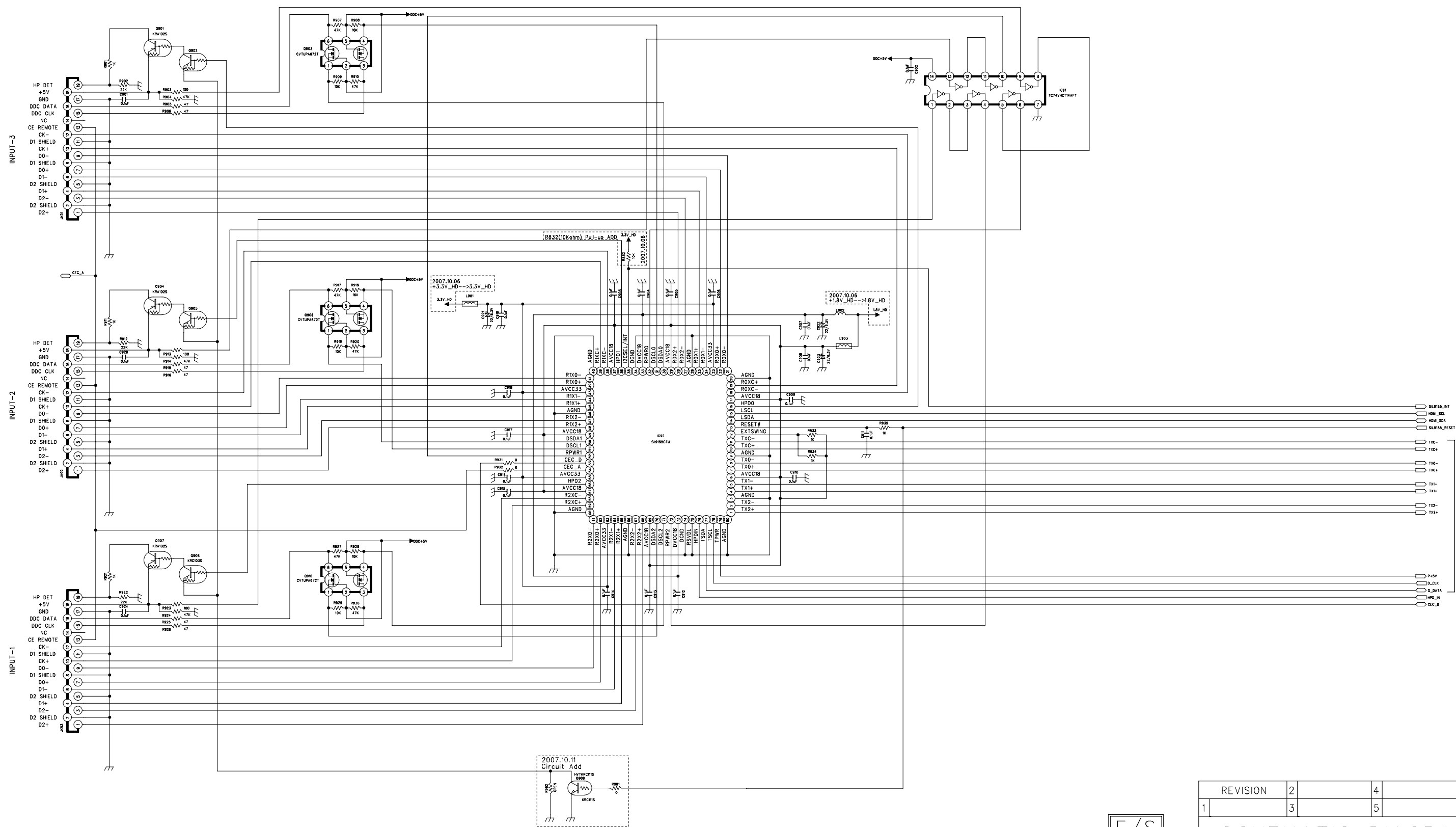


DC VOLTMETER ; Connect to

CN66(SL),CN61(CEN),CN64(SR),CN63(FL),CN65(SBL(AVR254,255,354,355)),CN62(FR),CN67(SBR)

NO.	Channel	Adjust for	Adjustment
1	Front Left	25.92mV ($\pm 5\%$)	CN63
2	Front Right	25.92mV ($\pm 5\%$)	CN62
3	Center	25.92mV ($\pm 5\%$)	CN61
4	Surround Left	25.92mV ($\pm 5\%$)	CN66
5	Surround Right	25.92mV ($\pm 5\%$)	CN64
6	Surround Back Left	25.92mV ($\pm 5\%$)	CN65
7	Surround Back Right	25.92mV ($\pm 5\%$)	CN67

CUP12035Z

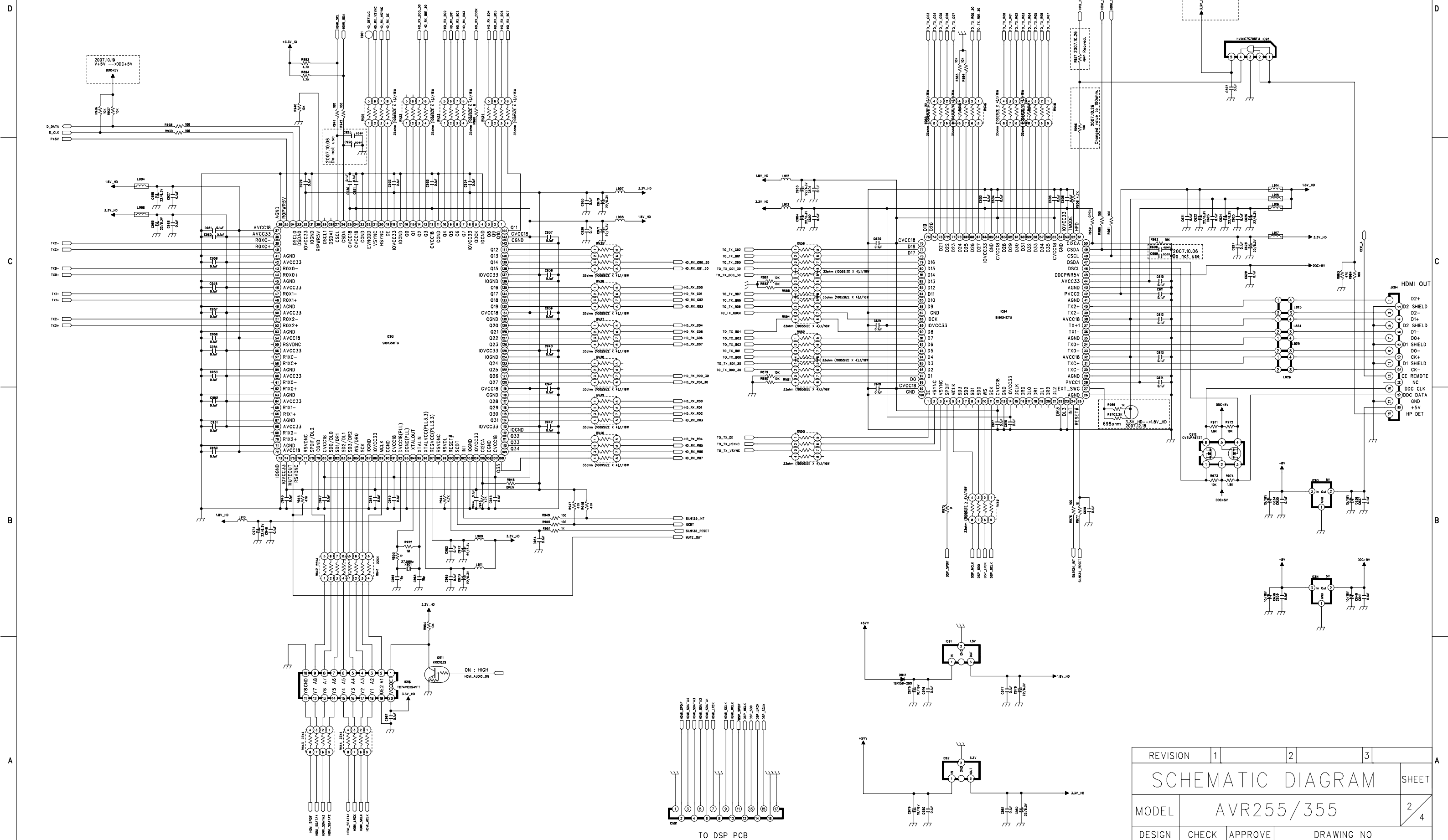


E/S

ISSUE
ANAM
MULTI. LAB
07.03.09

REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			SHEET
MODEL	AVR255/355		1/4
DESIGN	CHECK	APPROVE	DRAWING NO
M.S KIM	W.Y YANG	G.S WEY	2035SCEZ (HDMI-INPUT)
07.14.07	07.14.07	07.14.07	1/1

CUP12035Z

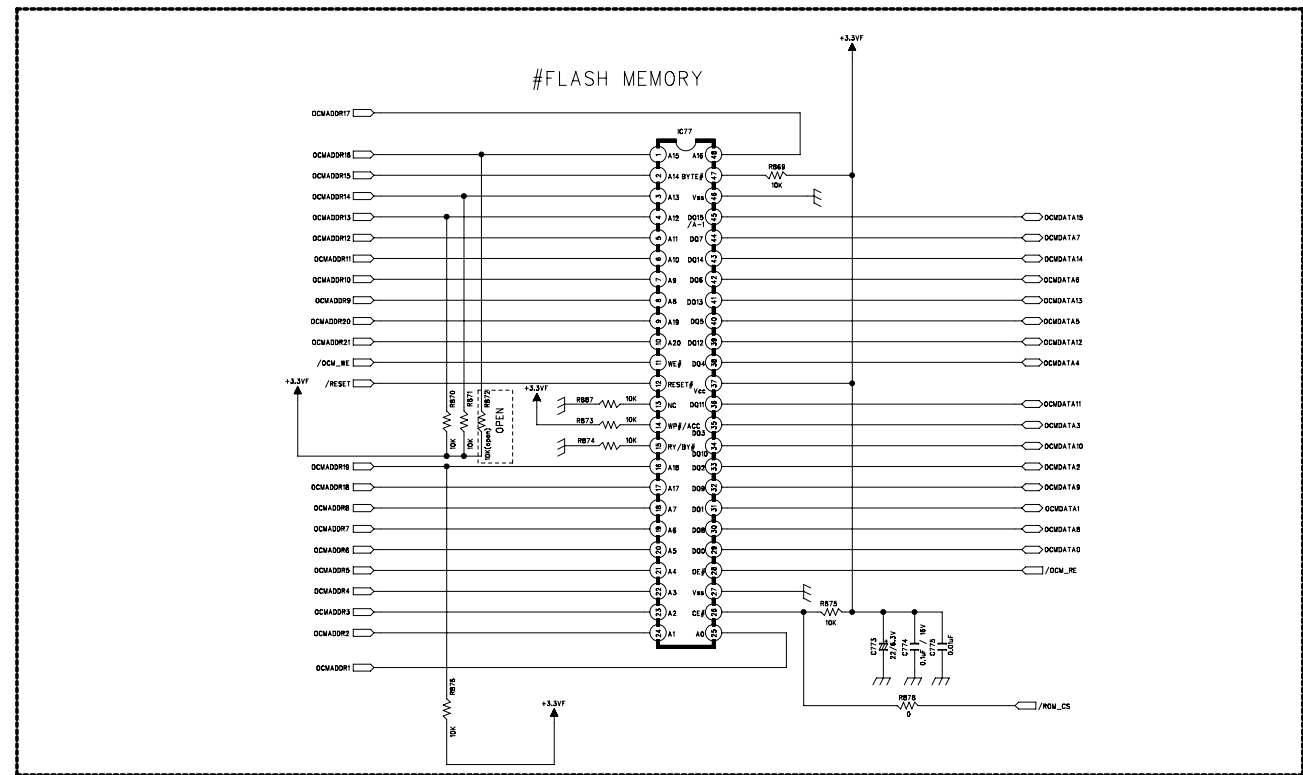
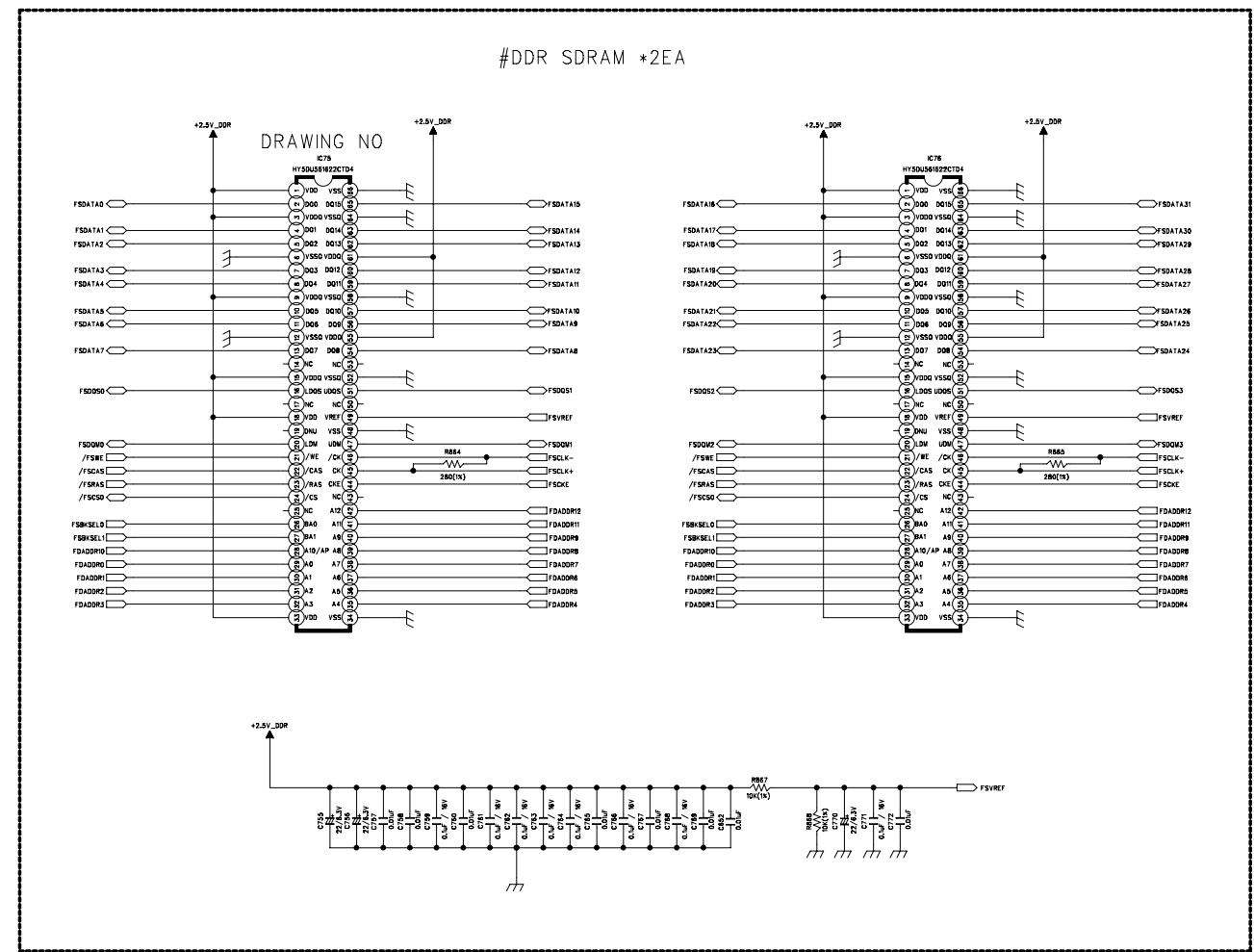
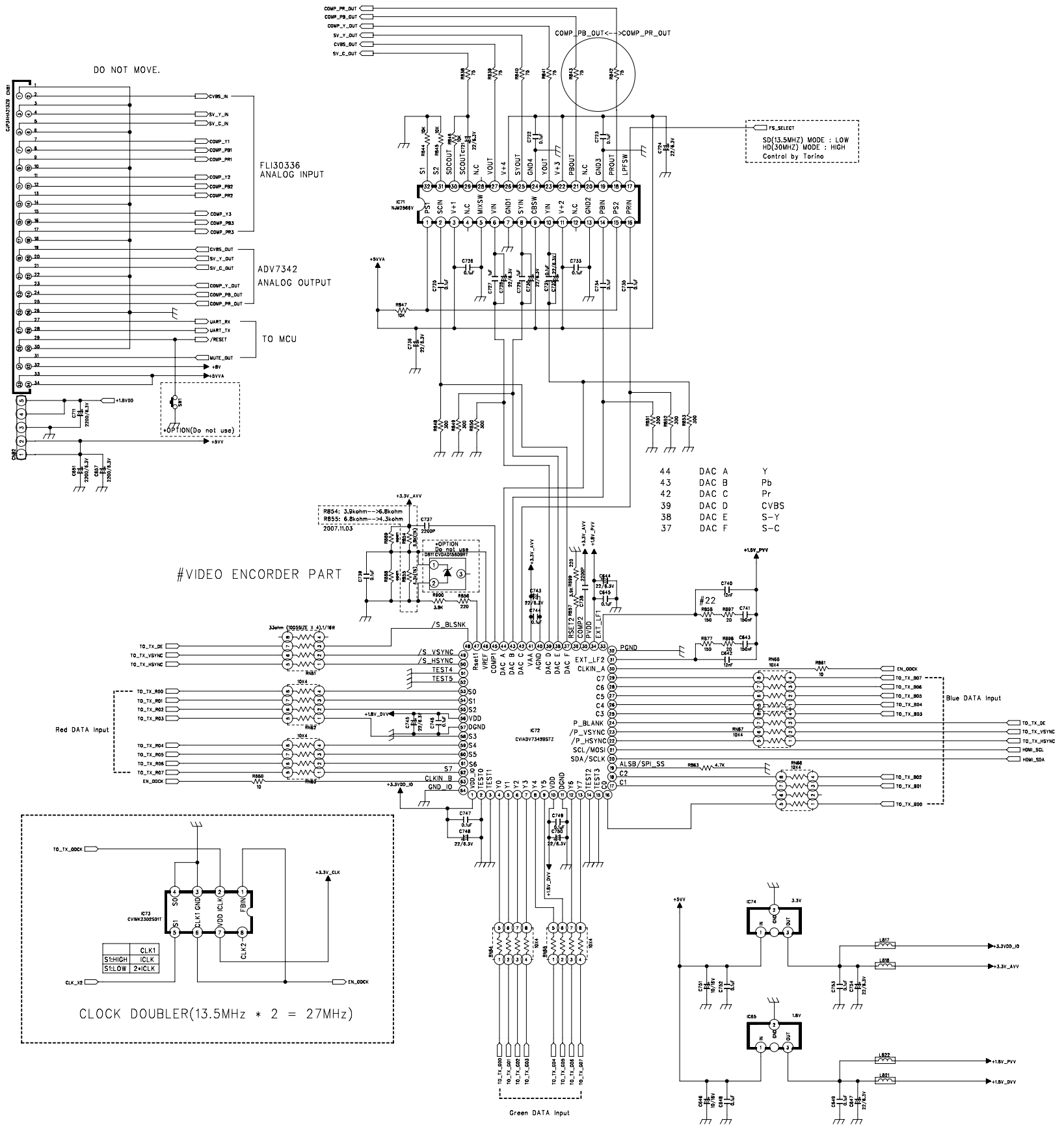


REVISION	1	2	3
SCHEMATIC DIAGRAM			SHEET
MODEL	AVR255/355		2/4
DESIGN	CHECK	APPROVE	DRAWING NO
M.S KIM	W.Y YANG	G.S WEY	2035SCEZ
07.14.07	07.14.07	07.14.07	(HDMI-RX,TX)

CUP12035Z

D
C
B
A

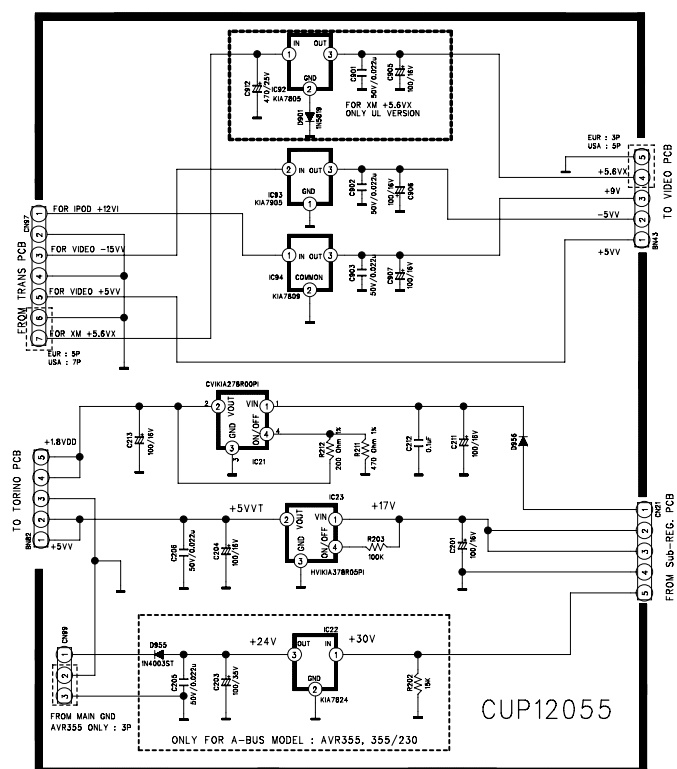
D
C
B
A



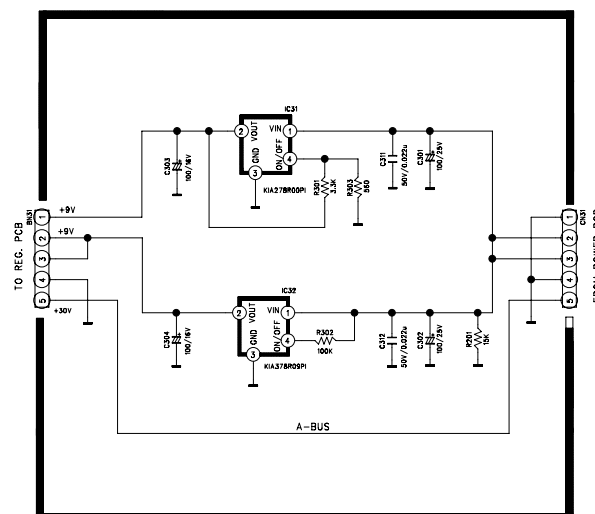
REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR255/355		
DESIGN	CHECK	APPROVE	DRAWING NO
M.S KIM	W.Y YANG	G.S WEY	2035SCEZ
07.14.07	07.14.07	07.14.07	(ADV7342+MEM.)

SHEET 1/4

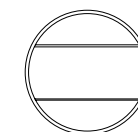
< REGULATOR PCB >



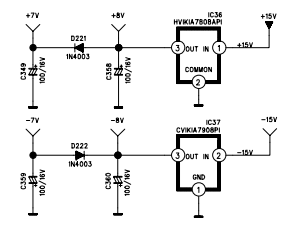
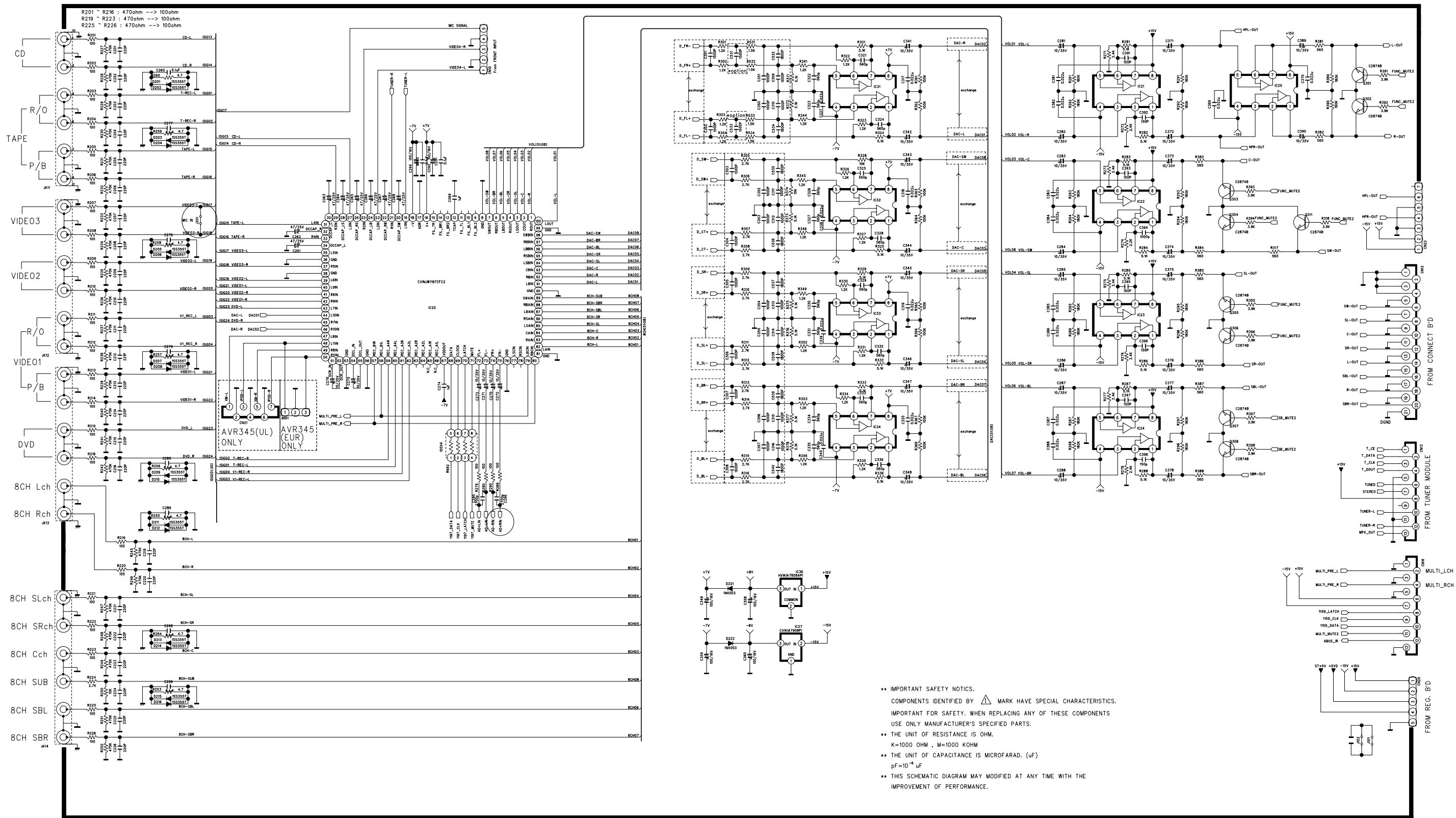
< Sub-REGULATOR PCB >



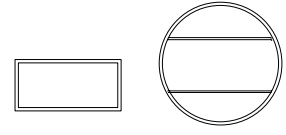
LPP



REVISION	2	4	6	
1	3	5	7	
SCHEMATIC DIAGRAM				SHEET
MODEL	AVR 254/255/354/355			1/1
DESIGN	CHECK	APPROVE	DRAWING NO	
3			CUP12055Z	
			(REGULATOR)	



•• IMPORTANT SAFETY NOTICES.
 COMPONENTS IDENTIFIED BY Δ 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. (μ F)
 μ F=10⁻⁶ F
 •• THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE
 IMPROVEMENT OF PERFORMANCE.



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR254/255/354/355		
DESIGN	CHECK	APPROVE	DRAWING NO
		G.	2029SCLZ
			(INPUT)

CUP12029

D

C

B

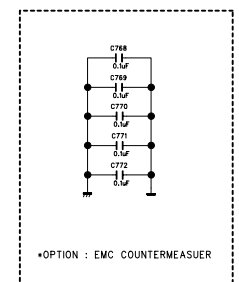
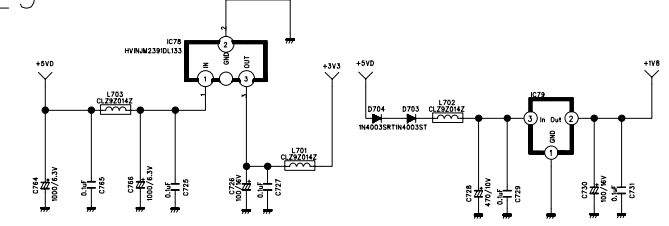
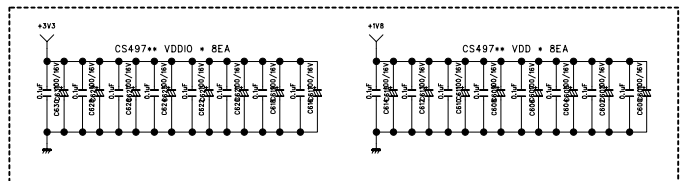
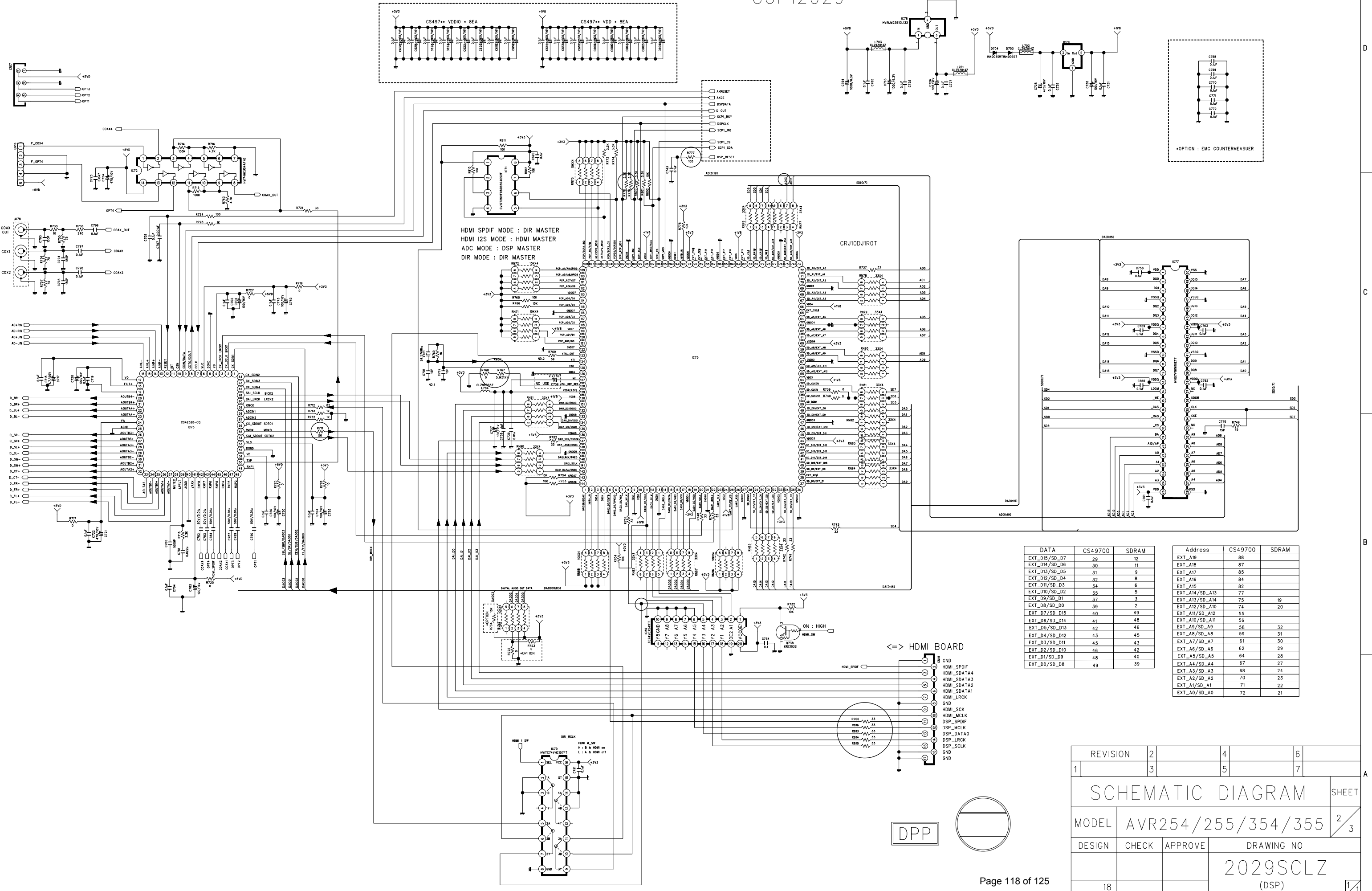
A

D

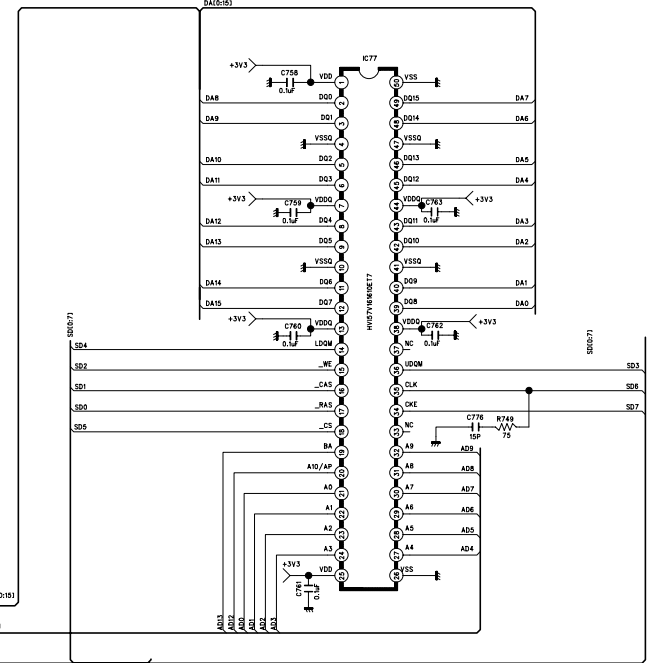
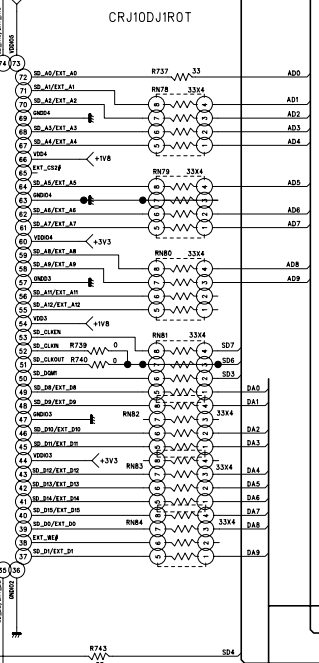
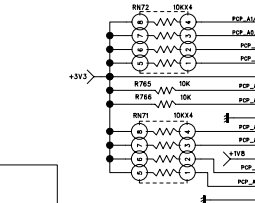
C

B

A



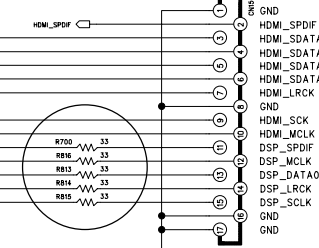
HDMI SPDIF MODE : DIR MASTER
 HDMI I2S MODE : HDMI MASTER
 ADC MODE : DSP MASTER
 DIR MODE : DIR MASTER



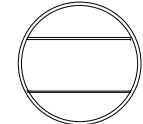
DATA	CS49700	SDRAM
EXT_D15/SD_D7	29	12
EXT_D14/SD_D6	30	11
EXT_D13/SD_D5	31	9
EXT_D12/SD_D4	32	8
EXT_D11/SD_D3	34	6
EXT_D10/SD_D2	35	5
EXT_D9/SD_D1	37	3
EXT_D8/SD_D0	39	2
EXT_D7/SD_D15	40	49
EXT_D6/SD_D14	41	48
EXT_D5/SD_D13	42	46
EXT_D4/SD_D12	43	45
EXT_D3/SD_D11	45	43
EXT_D2/SD_D10	46	42
EXT_D1/SD_D9	48	40
EXT_D0/SD_D8	49	39

Address	CS49700	SDRAM
EXT_A19	89	
EXT_A18	87	
EXT_A17	85	
EXT_A16	84	
EXT_A15	82	
EXT_A14/SD_A13	77	
EXT_A13/SD_A14	75	19
EXT_A12/SD_A10	74	20
EXT_A11/SD_A12	55	
EXT_A10/SD_A11	56	
EXT_A9/SD_A9	58	32
EXT_A8/SD_A8	59	31
EXT_A7/SD_A7	62	30
EXT_A6/SD_A6	62	30
EXT_A5/SD_A5	64	28
EXT_A4/SD_A4	67	27
EXT_A3/SD_A3	68	24
EXT_A2/SD_A2	70	23
EXT_A1/SD_A1	71	22
EXT_A0/SD_A0	72	21

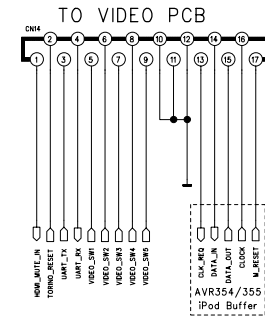
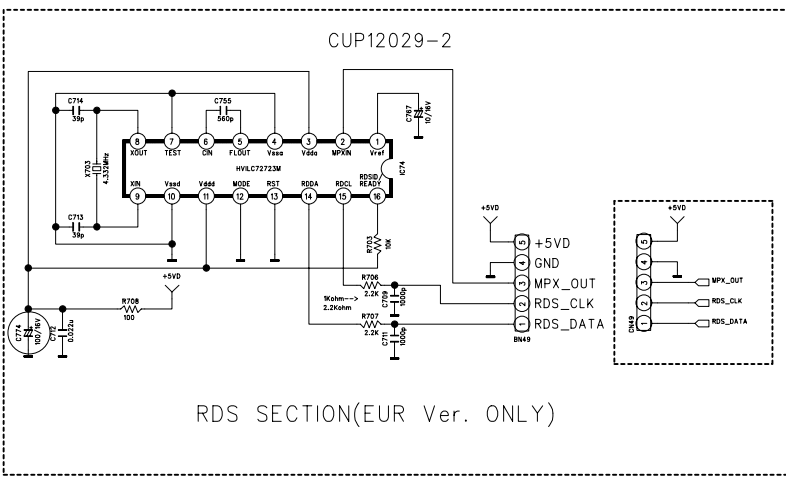
<=> HDMI BOARD



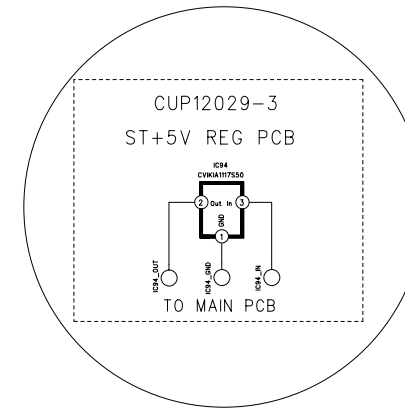
DPP



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR254/255/354/355		2 3
DESIGN	CHECK	APPROVE	DRAWING NO
18			2029SCLZ (DSP)

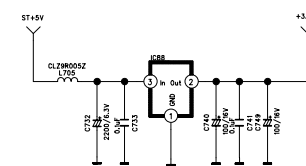
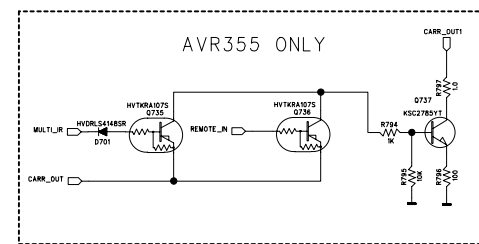
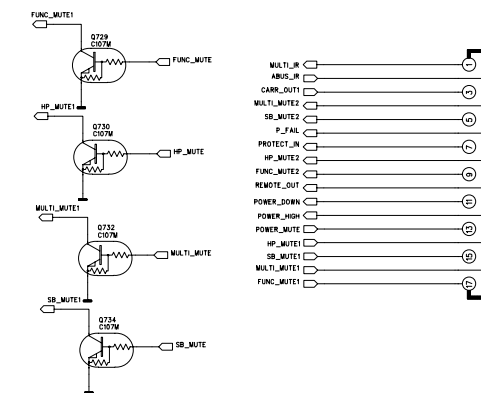
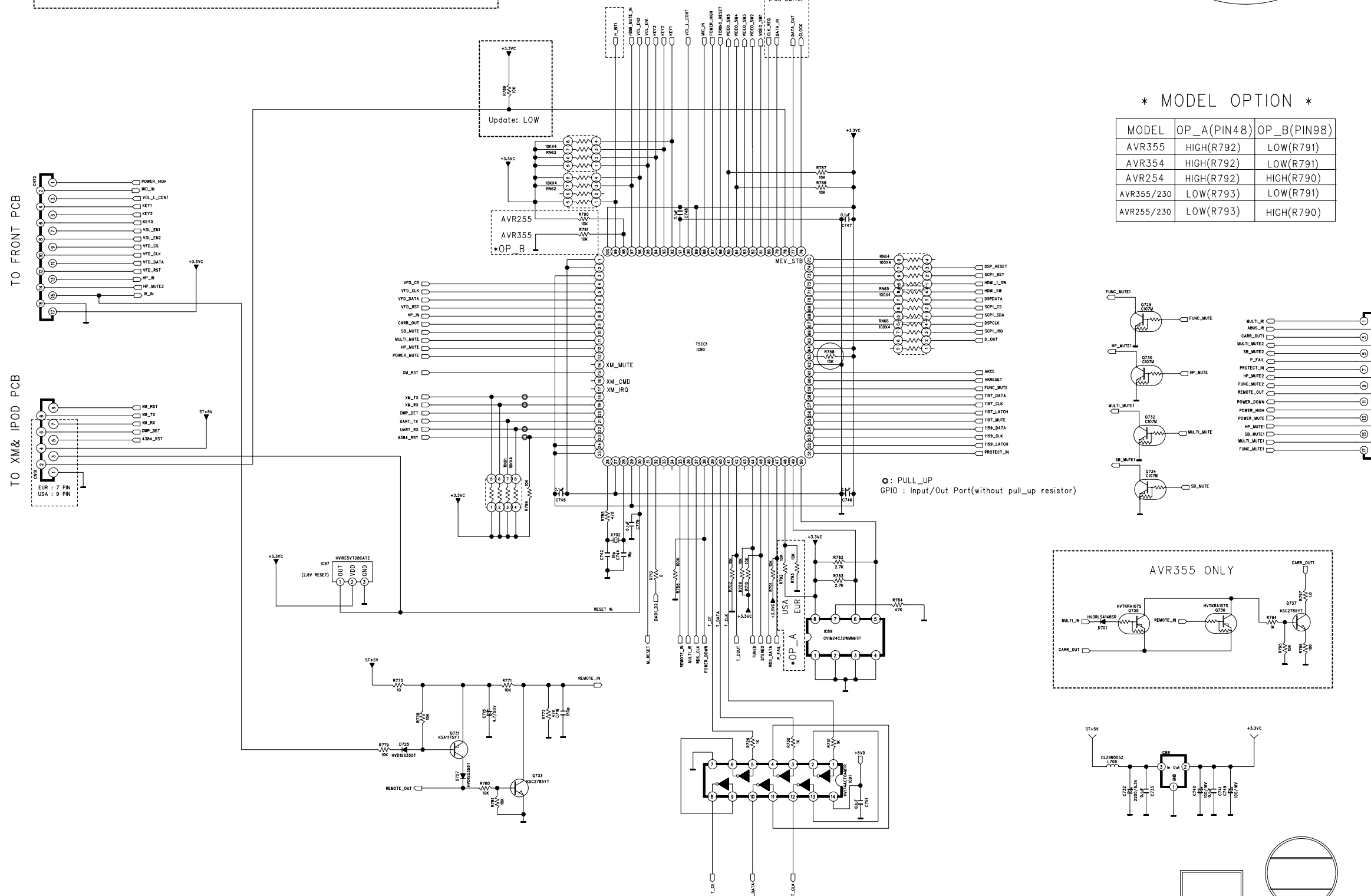


U-COM	AVR255	AVR355	AVR155
PIN 97	HDMI_MUTE_IN	HDMI_MUTE_IN	N.A
PIN 86	TORINO_RESET	TORINO_RESET	N.C
PIN 21	UART_TX(TORINO&PC)	UART_TX(TORINO&PC)	UART_TX(PC)
PIN 22	UART_RX(TORINO&PC)	UART_RX(TORINO&PC)	UART_RX(PC)
PIN 81	VIDEO_SW1	VIDEO_SW1	N.A
PIN 82	VIDEO_SW2	VIDEO_SW2	OSD_CS1
PIN 83	VIDEO_SW3	VIDEO_SW3	OSD_CLK
PIN 84	VIDEO_SW4	VIDEO_SW4	OSD_DA
PIN 85	VIDEO_SW5	VIDEO_SW5	OSD_M
PIN 80	CLOCK	CLOCK	HDMI_MUX_SDA
PIN 79	DATA_OUT	DATA_OUT	HDMI_MUX_SCLK
PIN 77	DATA_IN	DATA_IN	OSD_H
PIN 76	CLK-REQ	CLK-REQ	OSD_H



* MODEL OPTION *

MODEL	OP_A(PIN48)	OP_B(PIN98)
AVR355	HIGH(R792)	LOW(R791)
AVR354	HIGH(R792)	LOW(R791)
AVR254	HIGH(R792)	HIGH(R790)
AVR355/230	LOW(R793)	LOW(R791)
AVR255/230	LOW(R793)	HIGH(R790)

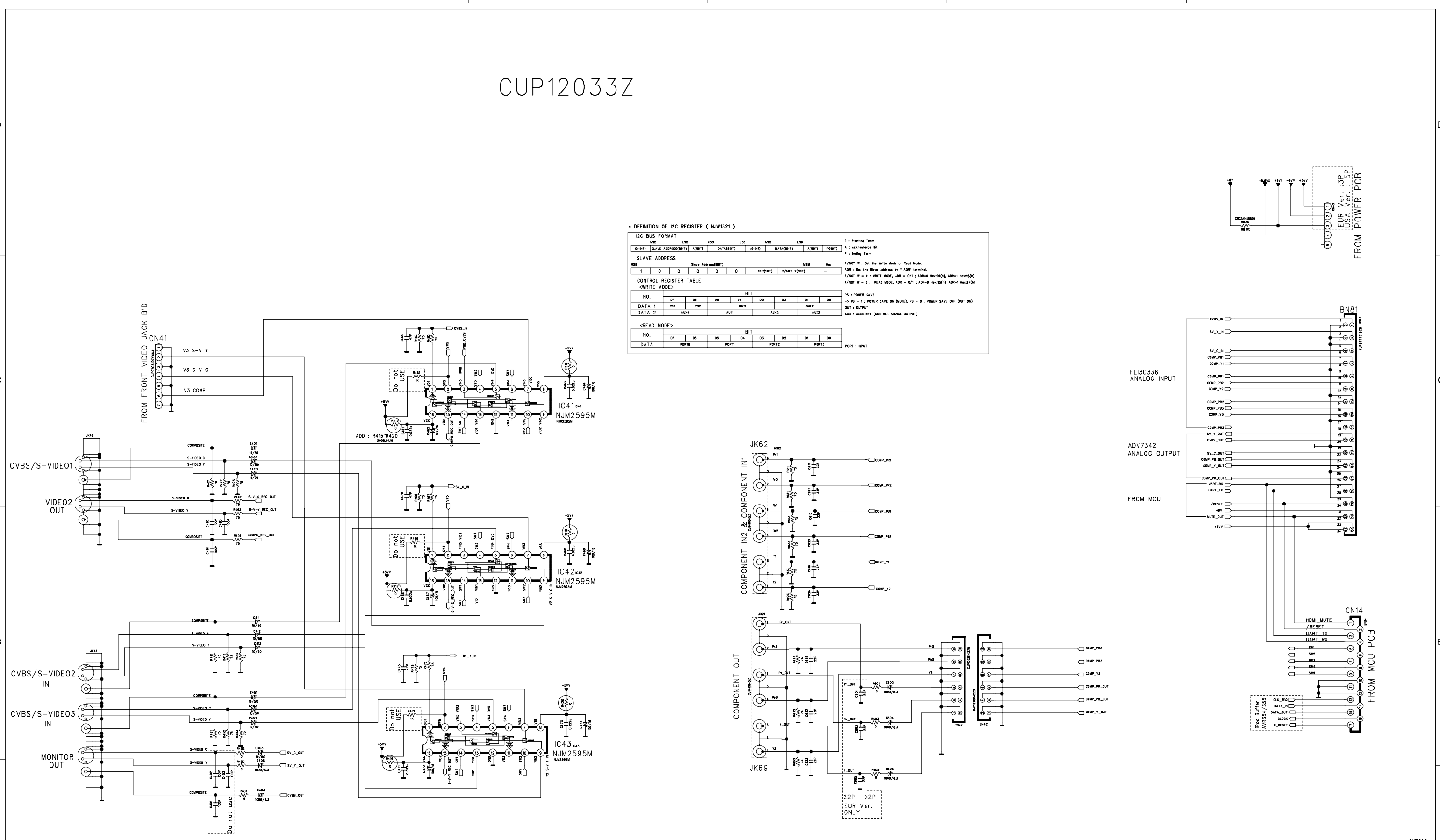


REVISION	2	4	6
1	3	5	7

SCHEMATIC DIAGRAM SHEET

MODEL	AVR254/255/354/355			3/3
DESIGN	CHECK	APPROVE	DRAWING NO	
		G.S	2029SCLZ	
			(CPU)	

CUP12033Z



• DEFINITION OF I2C REGISTER (NJW1321)

I2C BUS FORMAT

START	LSB	MSB	LSB	MSB	LSB	MSB	STOP
(SMBT)	SLAVE ADDRESS(BBIT)	(A)BIT	DATA(BBIT)	(A)BIT	DATA(BBIT)	(A)BIT	(P)BIT

SLAVE ADDRESS

MSB	Slave Address(BBIT)	LSB	MSB	MSB
1	0	0	0	0
	ADR(8BIT)	R/NOT R(1BIT)		

CONTROL REGISTER TABLE

<WRITE MODE>

NO.	D7	D6	D5	D4	D3	D2	D1	D0
DATA 1	PS1	PS2	OUT1		OUT2			
DATA 2	AUX0	AUX1	AUX2		AUX3			

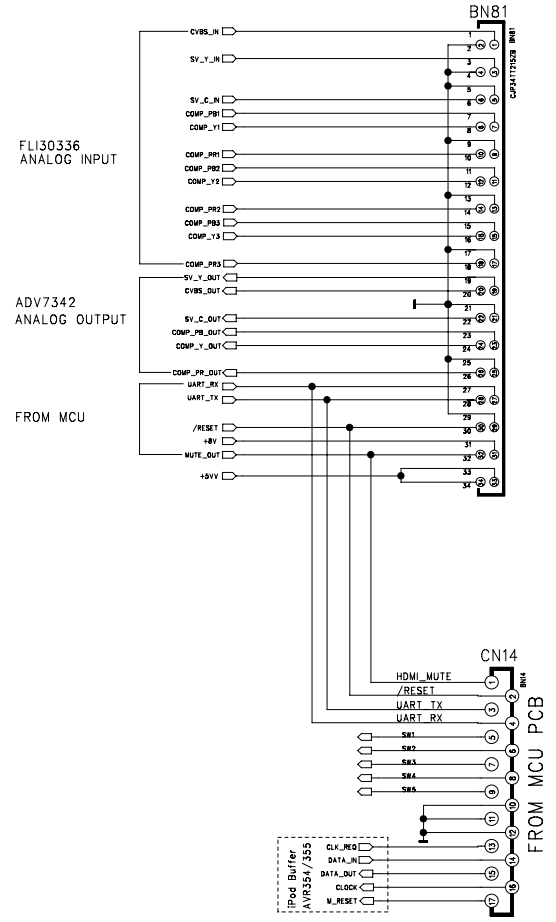
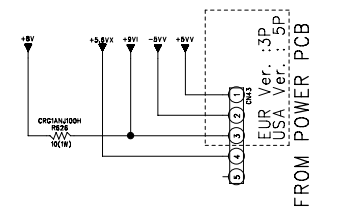
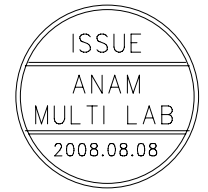
<READ MODE>

NO.	D7	D6	D5	D4	D3	D2	D1	D0
DATA	PORT0	PORT1	PORT2		PORT3			

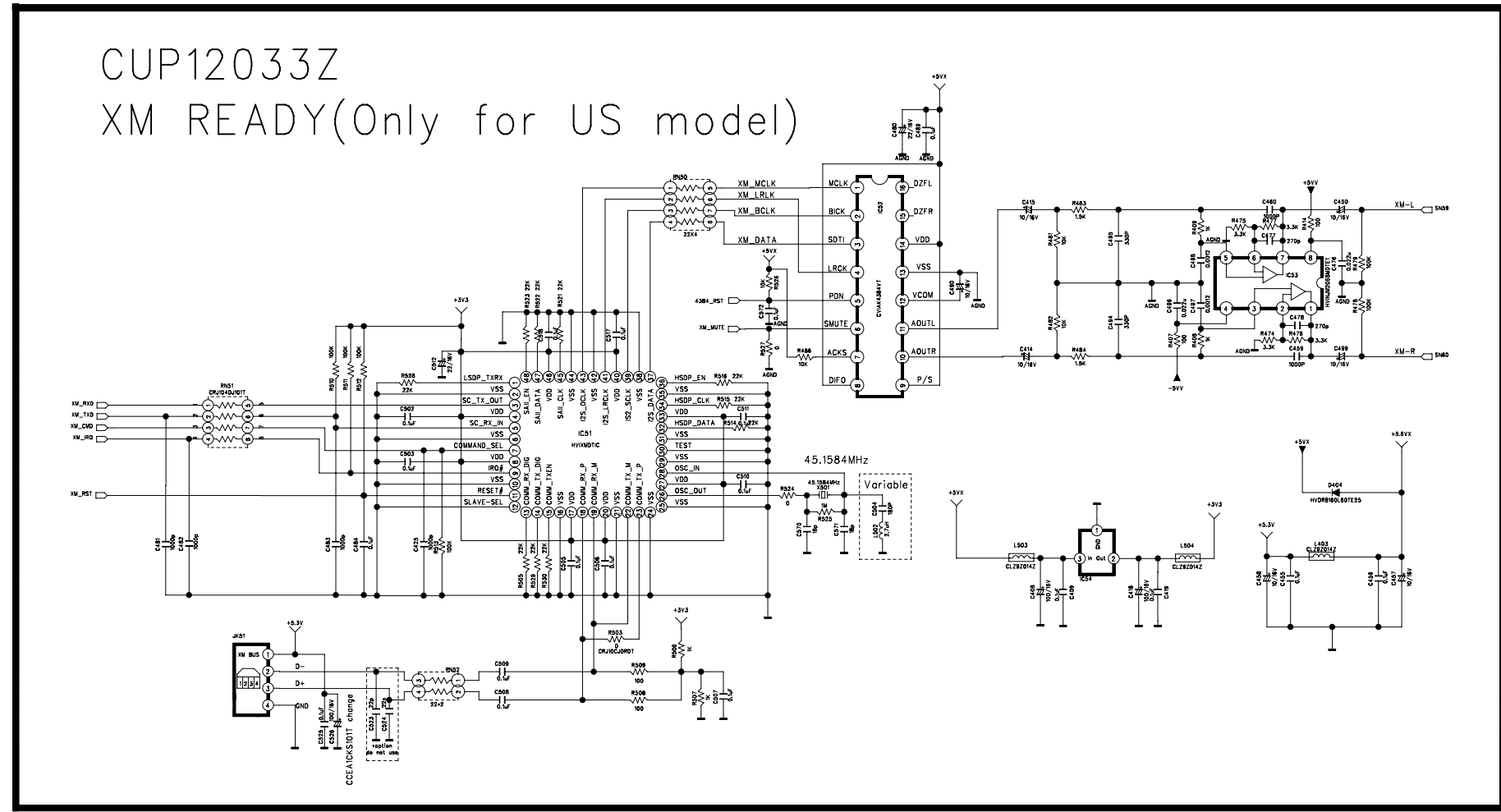
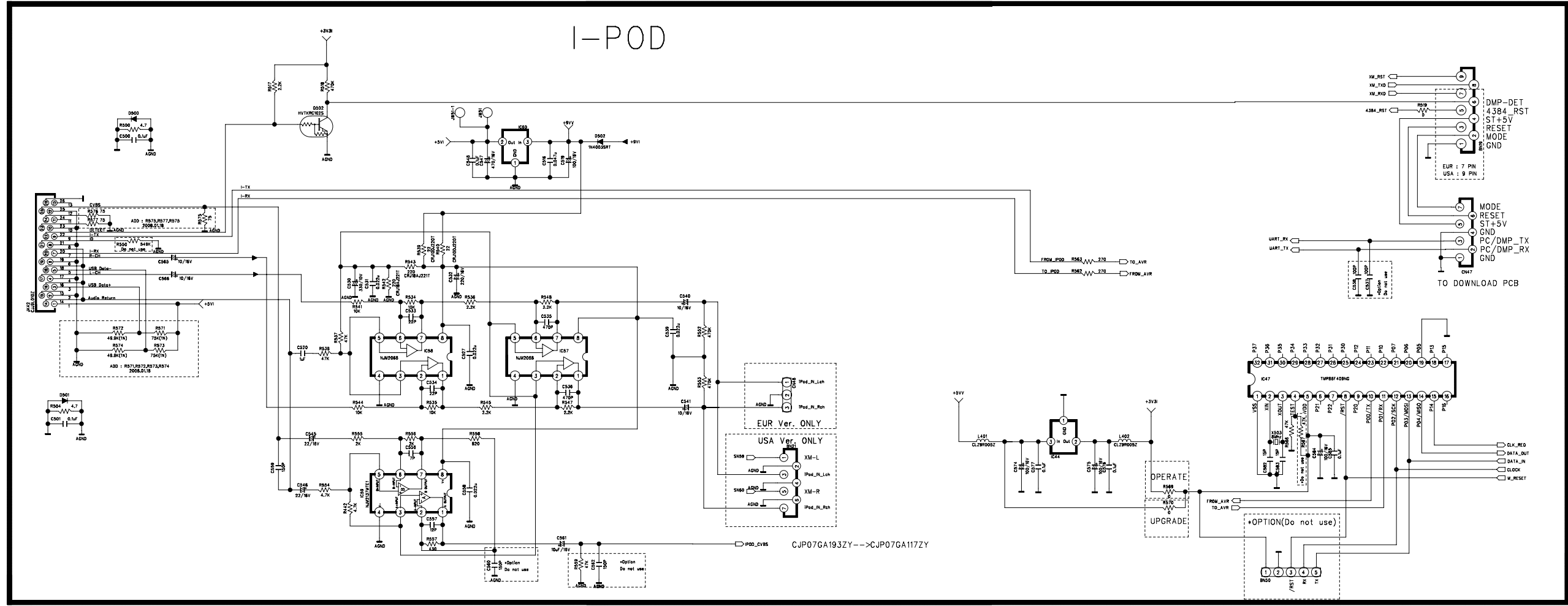
Legend: S: Start/End Term, A: Acknowledge Bit, P: Ending Term, R/NOT R: Set the Write Mode or Read Mode, ADR: Set the Slave Address by "ADR" terminal, R/NOT R = 0: WRITE MODE, ADR = 0/1: ADR=0 Hex(80), ADR=1 Hex(81), R/NOT R = 0: READ MODE, ADR = 0/1: ADR=0 Hex(80), ADR=1 Hex(81), PS: POWER SAVE, PS = 1: POWER SAVE ON (INPUT), PS = 0: POWER SAVE OFF (OUT ON), OUT: OUTPUT, AUX: AUXILIARY (CONTROL SIGNAL OUTPUT), PORT: INPUT

*NJM2595M OPTION
==>V_MUTE "LOW" ACTIVE

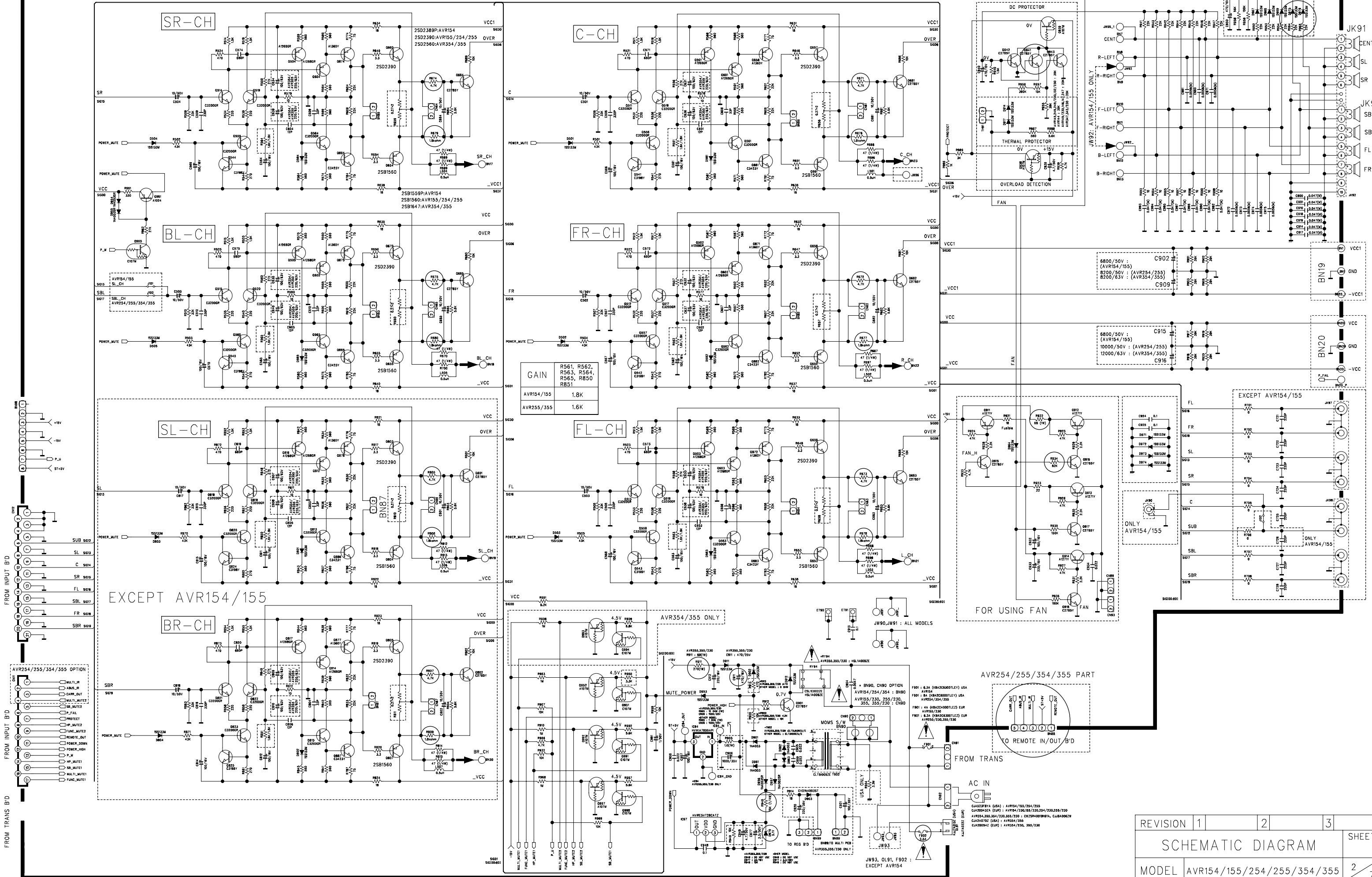
FUNC.	SW1	SW2	SW3	SW4	SW5
CVBS/S-V1	H	L	L	L	H
CVBS/S-V2	L	H	L	L	H
CVBS/S-V3	H	L	L	H	H
FRONT CVBS/S-V	H	H	L	L	H
IPOD	H	L	H	H	H



REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR354 / 355		
DESIGN	CHECK	APPROVE	DRAWING NO
M.S.K	W.Y.Y	K.S.W	2033SCEZ
06.08.23	06.	06.	(VIDEO)

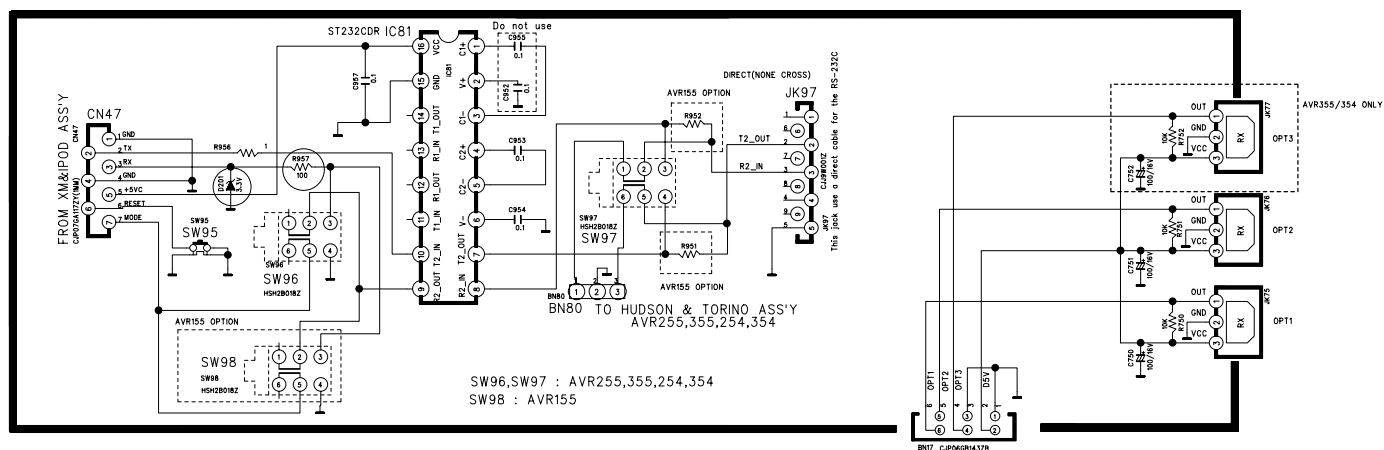


REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			SHEET
MODEL	AVR354 / 355		1 / 4
DESIGN	CHECK	APPROVE	DRAWING NO
M.S.K	W.Y.Y	K.S.W	2033SCEZ
05.00.00	05.00.00	05.00.00	(AMP)



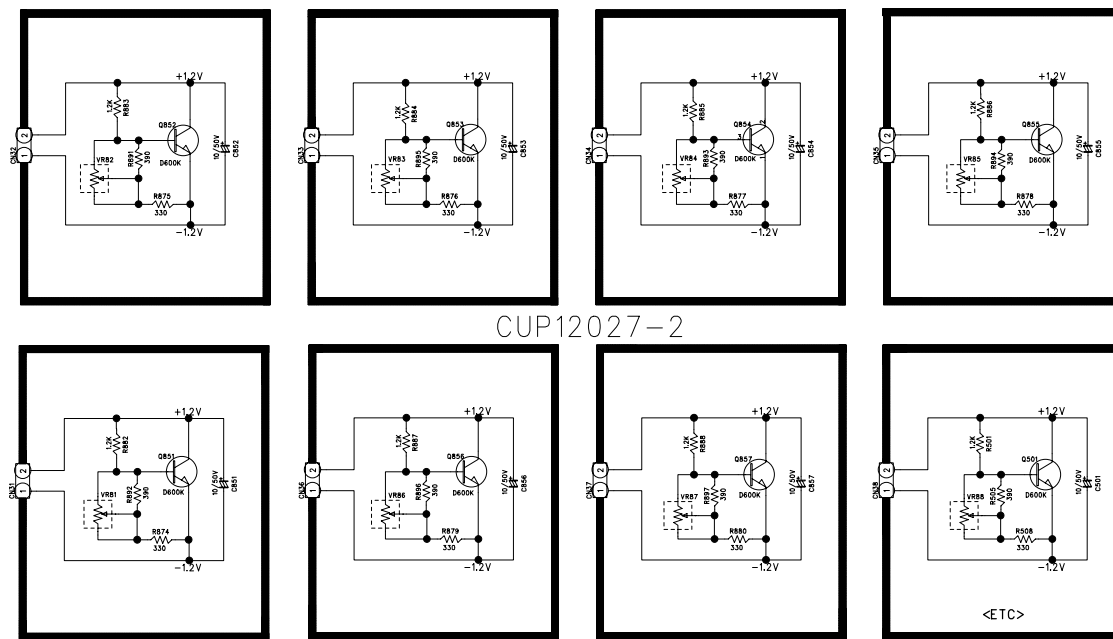
•• IMPORTANT SAFETY NOTICE.
 IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS
 USE ONLY MANUFACTURER'S SPECIFIED PARTS.
 •• THE UNIT OF RESISTANCE IS OHM.
 K=1000 OHM, M=1000 KOHM,
 •• THE UNIT OF CAPACITANCE IS MICROFARAD (UF)
 pF = 10⁻⁶ UF
 •• THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE
 IMPROVEMENT OF PERFORMANCE

CUP12027-1



< OPTICAL IN & RS-232 PCB >

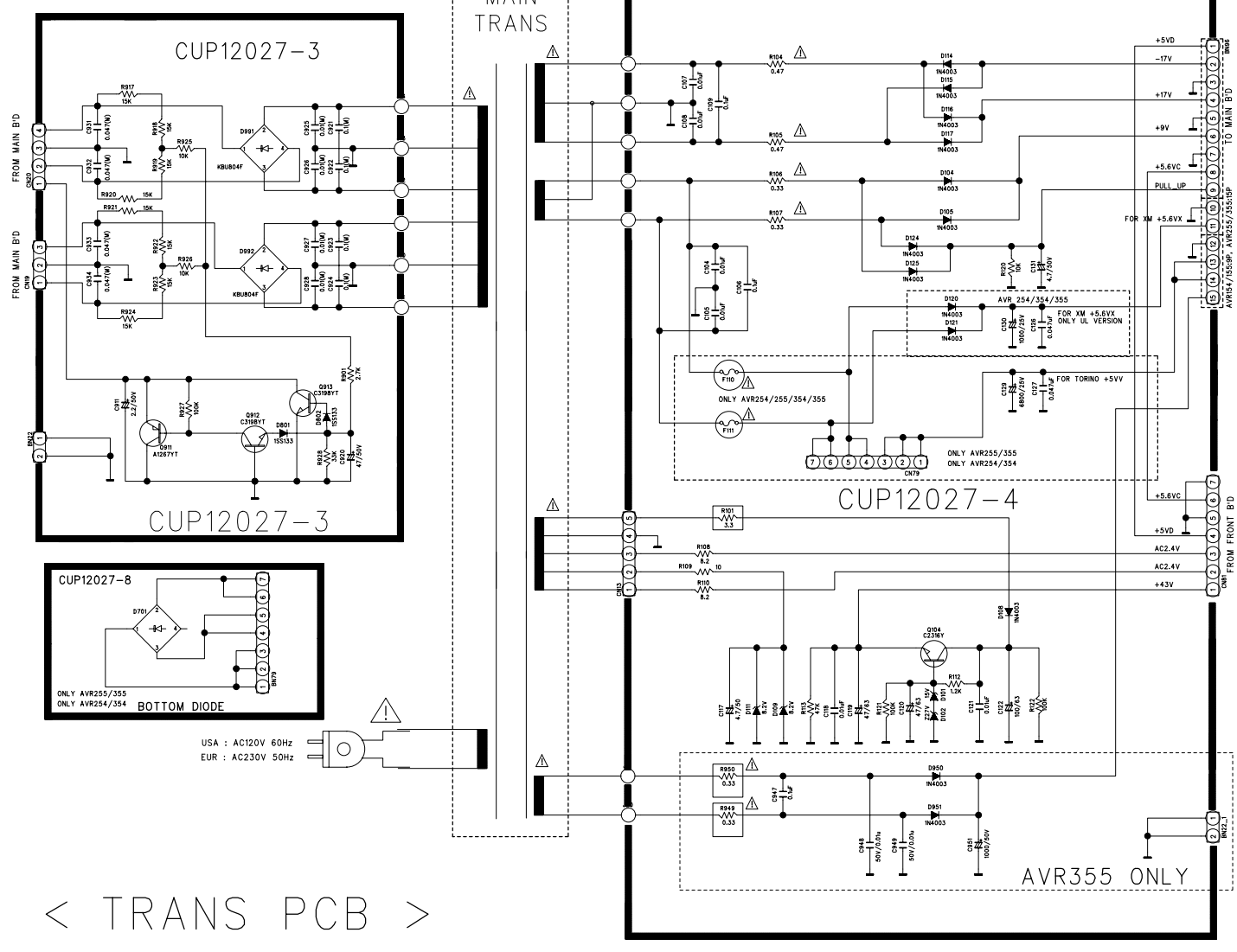
< BIAS T.R PCB >



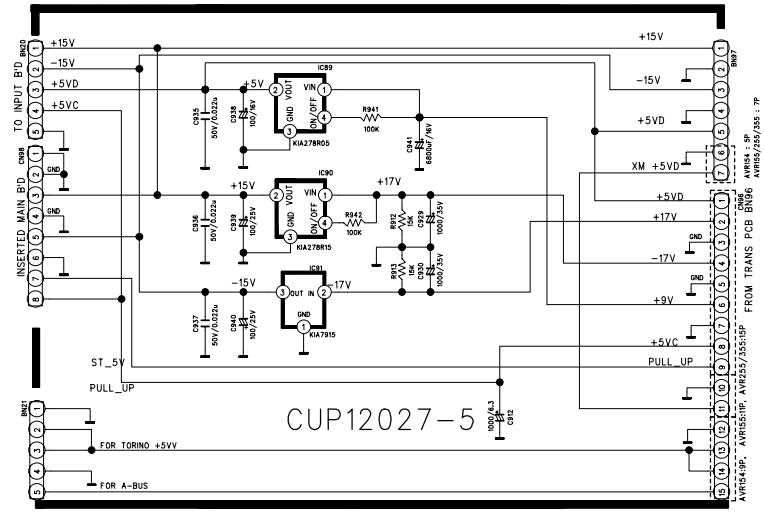
CUP12027-2

<ETC>

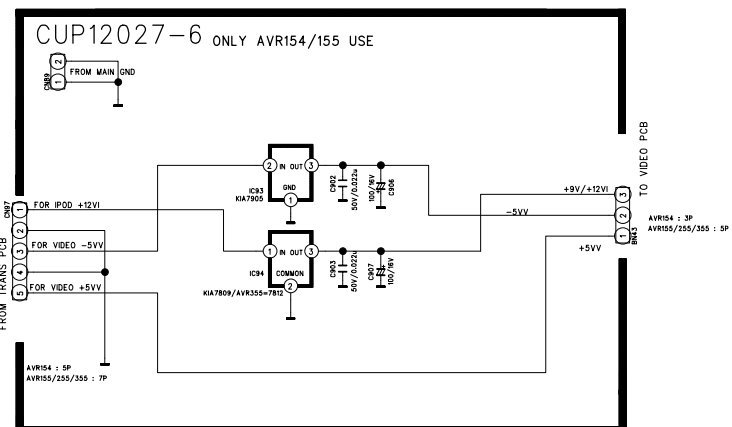
MAIN TRANS



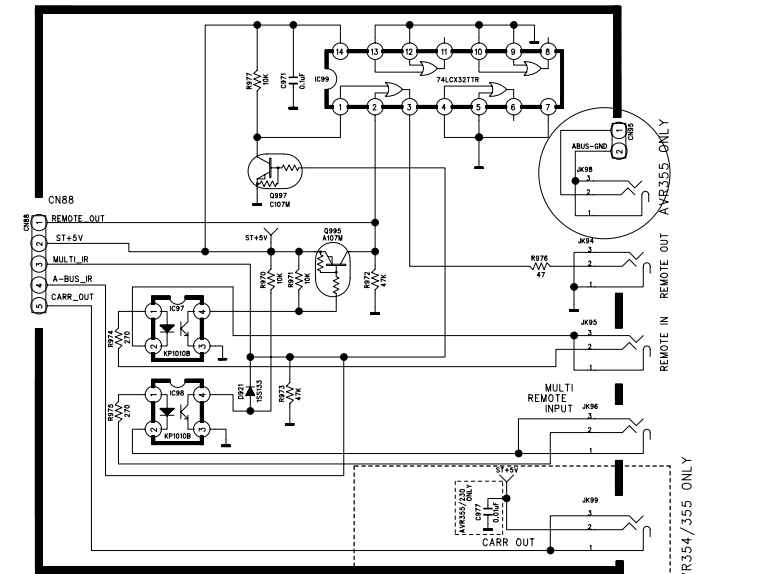
< TRANS PCB >



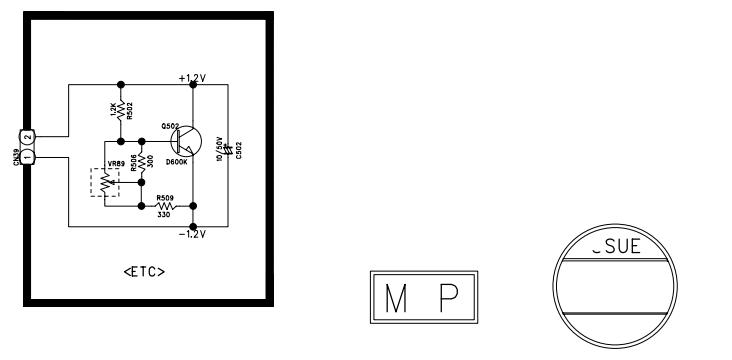
CUP12027-5



< REGULATOR PCB >



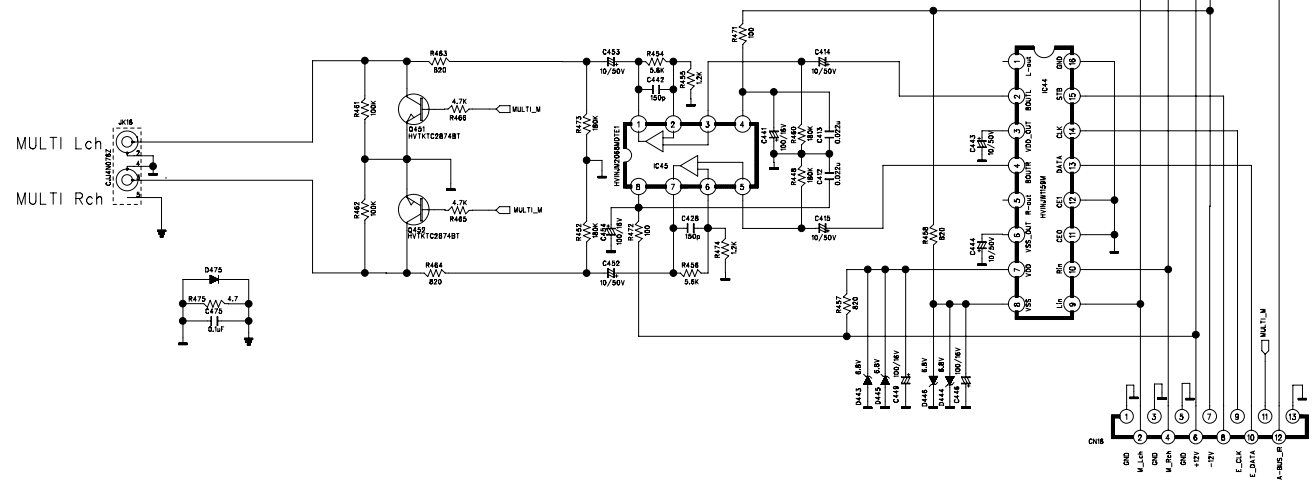
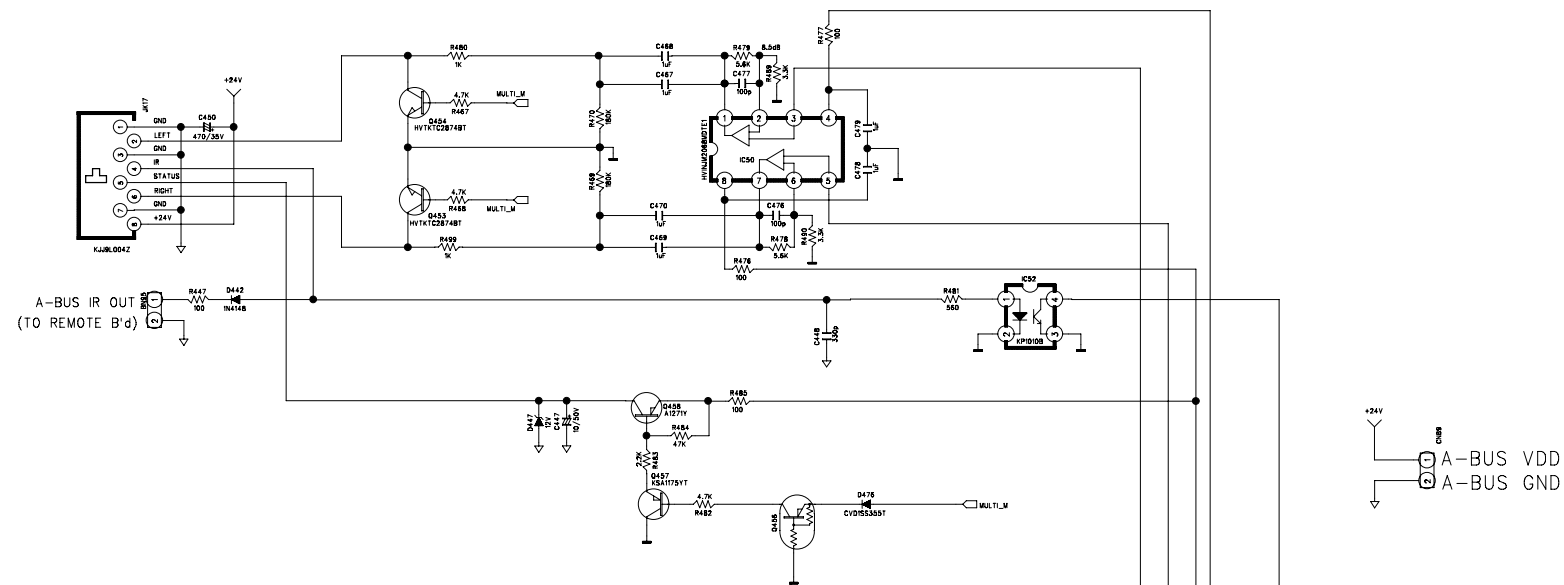
AVR254/255/354/355 ONLY CUP12027-7 < REMOTE IN/OUT PCB >



REVISION	2	4	
1	3		
SCHEMATIC DIAGRAM			
MODEL	AVR x54/x55		SHEET 1/1
DESIGN	CHECK	APPROVE	DRAWING NO
			CUP12027Z
			(POWER)

CUP12036Z

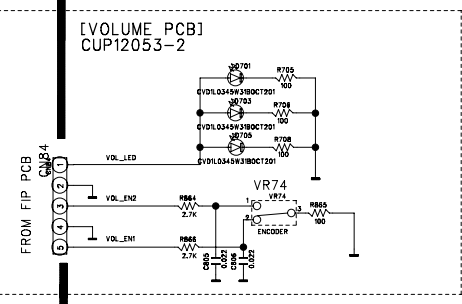
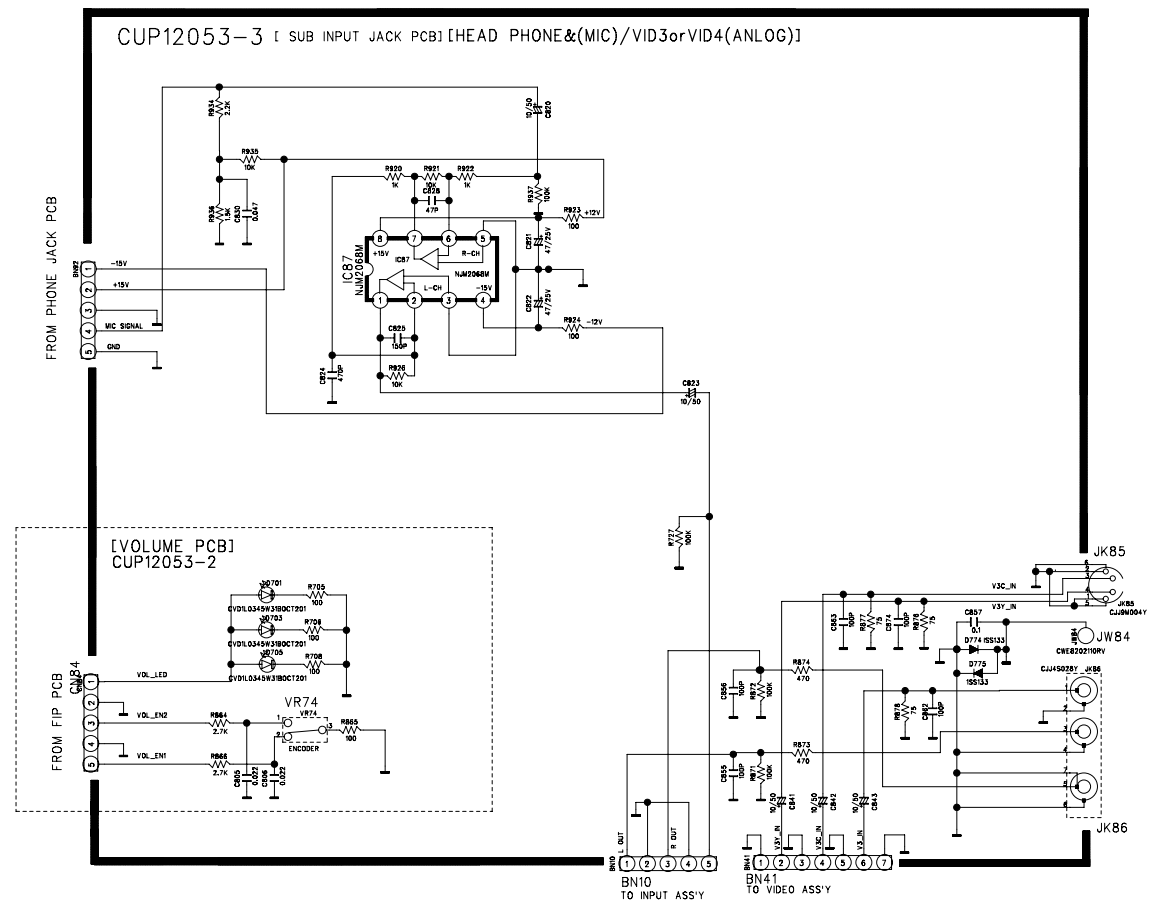
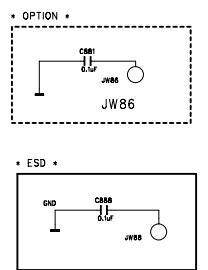
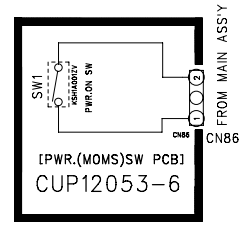
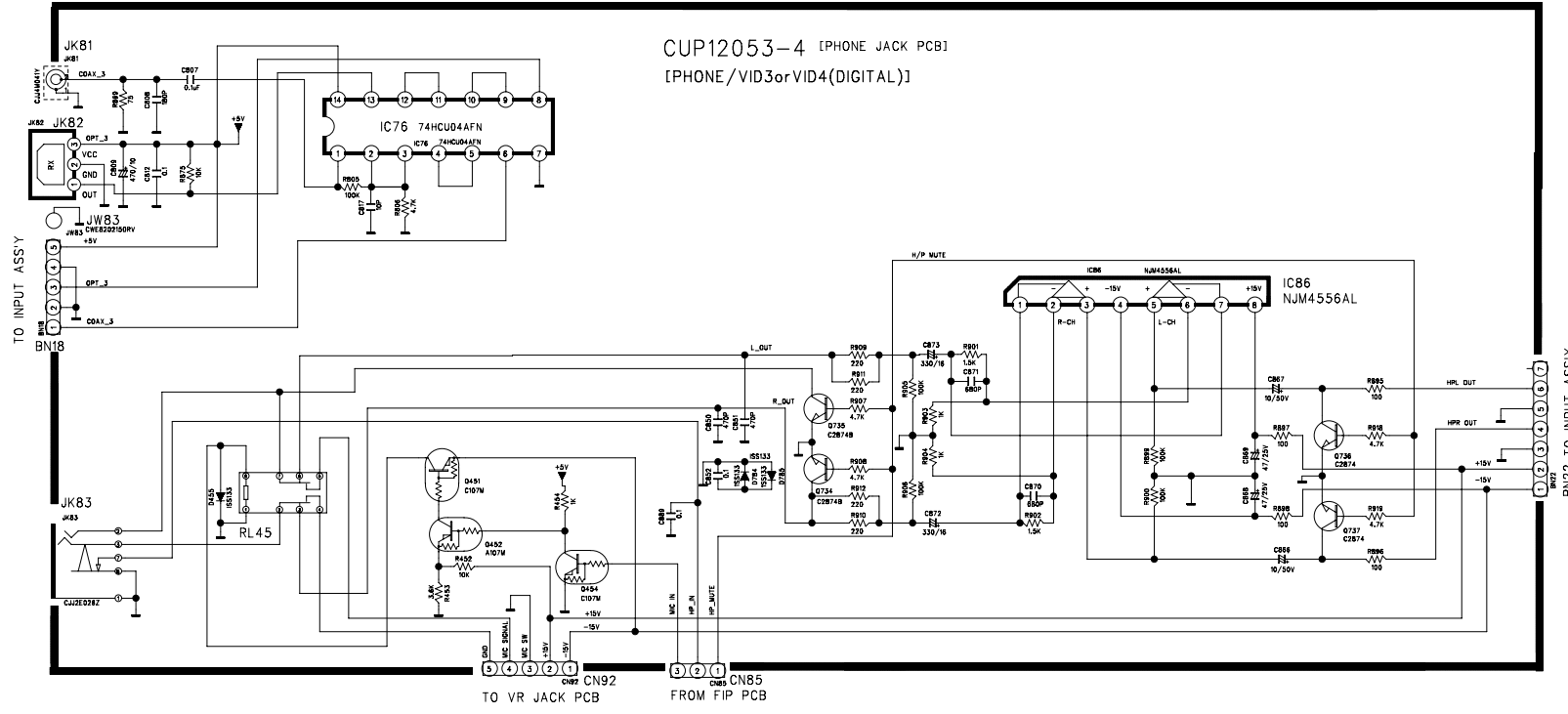
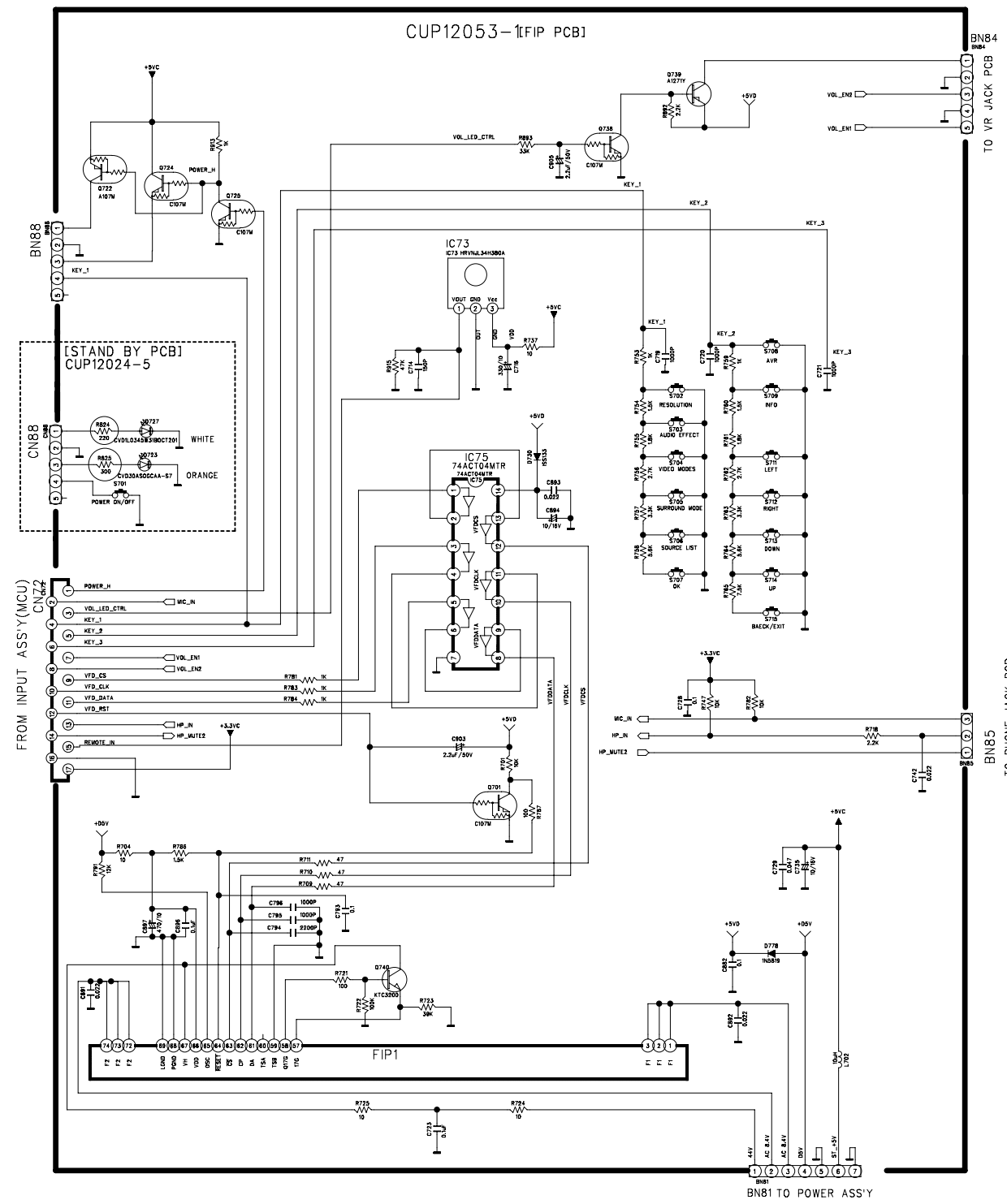
A-BUS PART : ONLY FOR AVR355 & AVR355/230



MULTI ROOM VOLUME : AVR355, AVR354, AVR355/230

REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			
MODEL	AVR354/355		
DESIGN	CHECK	APPROVE	DRAWING NO
		G.	
07.10.18			Page 124 of 125

AVR 255/355 FRONT (CUP12053Z)



REVISION	2			
1				
SCHEMATIC DIAGRAM				SHEET
MODEL	AVR255/355			1/7
DESIGN	CHECK	APPROVE	DRAWING NO	
			CUP12053Z	
			(FRONT)	

