

harman/kardon

Service Manual

DMC250/230

DIGITAL MEDIA CENTER



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Technical Specifications

Applicable Disc:	Disc formats: 5 inch (12 cm) or 3 inch (8 cm) DVD Video, DVD-Audio, Standard conforming DVD+RW, DVD+R, DVD-R, DVD-RW, DivX, VCD, CD, CD-R, MP3, WMA, JPEG or CD-RW discs, Region code: DVD Movie disc with Code 2 or 0 only. DVD-Layers: Single Side/Single Layer, Single Side/Dual Layer, Dual Side/Single Layer, Dual Side/Dual Layer Audio formats: DVD-Audio MLP lossless, Linear PCM, MPEG, Windows Media® 9, Dolby Digital or DTS Audio discs Still-image format: JPEG
Memory cards	Slot 1: Secure Digital (SD), Multimedia Card (MMC) and Memory Stick (compatible with Magic Gate) cards. Other card types may be used with a compatible adapter, but are not guaranteed to be recognized by the DMC 250 Slot 2: Compact Flash I (CF) cards, or cards using a Compact Flash 1-compatible adapter Card Capacity: Up to 1 GB
USB Port:	Up to USB 2.0-compatible solid-state flash drives
Video Signal System:	PAL/NTSC
HDMI™ Output:	Video: 576p, 720p, 1080i, 1080p HDMI Version 1.2a-compliant HDCP Version 1.1-compliant
Composite Video Output:	1 V _{p-p} /75 Ohms, sync negative polarity
S Video Output:	Y/Luminance: 1 V _{p-p} /75 Ohms, sync negative polarity C/Chrominance: 0.286 V _{p-p}
Component Video Output:	Y: 1 V _{p-p} /75 Ohms, sync negative polarity Cr: 0.7 V _{p-p} /75 Ohms Cb: 0.7 V _{p-p} /75 Ohms
Analog Audio Output:	2 Vrms max
Frequency Response:	DVD (Linear PCM): 2Hz - 22kHz (48kHz sampling) 2Hz - 44kHz (96kHz sampling) CD: 2Hz - 20kHz
Signal/Noise Ratio (SNR):	105 dB (A-weighted)
Dynamic Range:	DVD: 100dB (18 Bit) / 105dB (20 Bit) CD/DVD: 96dB (16 Bit)
THD/1kHz:	DVD/CD: 0.0025 %
Wow & Flutter:	Below Measurable Limits
AC Power:	100 - 240 V/50 ~ 60 Hz
Power Consumption:	1 Watts (Standby)/13 Watts (Max)
Dimensions (WxHxD):	440 x 50 x 385 mm
Weight:	4.0 kg

Depth measurement includes knobs and connectors.

Height measurement includes feet and chassis.

All specifications subject to change without notice.

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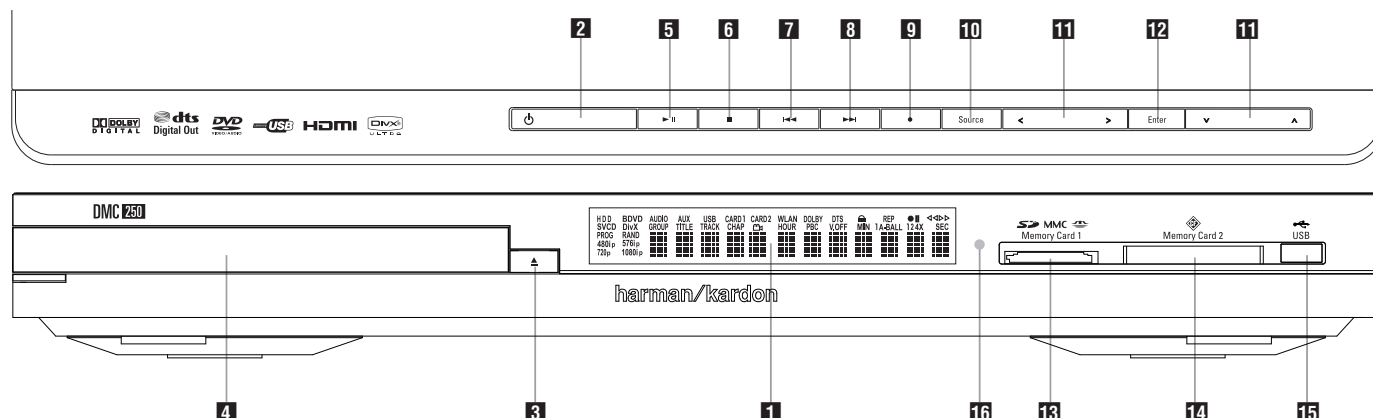
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Troubleshooting Guide

TroubleShooting Guide

Symptom	Possible Cause	Solution
Unit does not turn on	No AC power	Check AC power plug and make certain any switched outlet is turned on.
Disc does not play	- Disc loaded improperly - Incorrect disc type - Invalid Region Code - Rating is above parental preset	- Load disc label-side up; align the disc with the guides and place it in its proper position. - Check to see that disc is CD, CD-R, CD-RW, DivX, VCD, MP3, WMA, JPEG, DVD-R, DVD-RW, DVD+R, DVD+RW (standard conforming), DVD-Audio or DVD-Video; other types will not play. - Use Region 2 or Open Region (0) disc only. - Enter password to override or change rating settings.
No picture	- Intermittent connections - Wrong input - Progressive Scan output selected - Video Off feature active HDMI Output 11 is connected to a video display that is not HDCP-compliant.	- Check all video connections. - Check input selection of TV or receiver. - Use Progressive Scan mode only with compatible TV. If needed, press the Progressive Scan/Interlaced Button 22 to toggle to the correct mode. - Press Video Off Button 27 to reactivate video circuitry (see page 26) - The HDMI Output 11 may not be used with video displays that are not HDCP-compliant. Unplug the cable and select another audio and video connection (see pages 13 through 14).
No sound	- Intermittent connections - Incorrect digital audio selection - DVD disc is in fast or slow mode - Surround receiver not compatible with 96kHz PCM audio - DVD Audio disc is loaded without using analog audio connection	- Check all audio connections. - Check digital audio settings. - There is no audio playback on DVD discs during fast or slow modes. - Use analog audio outputs. - Use 6-Channel Audio Outputs 12 or Analog Audio Outputs 10.
Picture is distorted or jumps during fast forward or reverse play	MPEG-2 decoding	It is a normal artifact of DVD playback for pictures to jump or show some distortion during rapid play.
Some remote buttons do not operate during DVD play; prohibited symbol  appears (see below)	Function not permitted at this time	With most discs, some functions are not permitted at certain times (e.g., Track Skip) or at all (e.g., direct audio track selection).
The OSD menu is in a foreign language	Incorrect OSD language	Change the display language selection.
The  symbol appears	Requested function not available at this time	Certain functions may be disabled by the DVD itself during passages of a disc.
Picture is displayed in the wrong aspect ratio	Incorrect match of aspect ratio settings to disc	Change aspect ratio settings.
Remote control inoperative	- Weak batteries - Sensor is blocked	- Change both batteries. - Clear path to sensor or use optional outboard remote sensor.
Disc will not copy to VCR	Copy protection	Many DVDs are encoded with copy protection to prevent copying to VCR.
Password not accepted.	Incorrect password being used or password has been forgotten.	Factory default password "1234" always remains active.
Cannot program playlist	- DMC 250 must be in Stop mode to program a playlist - Edit Mode is turned off	- Stop play of disc before programming a playlist. - Select the Edit Mode line in the Control Commands and press the Enter button to turn it on
Cannot navigate through hierarchy	Edit Mode is turned on, disabling navigation of folders	Select the Edit Mode line in the Control Commands and press the Enter button to turn it off
Unable to select desired media	- No media is present - Wrong type of USB drive was inserted in USB Port - Media was not inserted correctly	- Insert the appropriate memory card into one of the card source slots, or a USB flash drive into the USB Port - Only USB flash drives that do not function as stand alone MP3 players are compatible - Remove media and carefully insert according to the instructions on page 7

Front Panel Controls



- 1** Main Information Display
- 2** Power On/Off (Standby)
- 3** Open/Close
- 4** Disc Drawer
- 5** Play/Pause
- 6** Stop

- 7** Skip/Search (Previous)
- 8** Skip/Search (Next)
- 9** Record
- 10** Source Selector
- 11** Navigation Buttons
- 12** Enter

- 13** Card Slot 1
- 14** Card Slot 2
- 15** USB Port
- 16** Remote IR Sensor

1 Main Information Display: This display delivers messages and status indications to help you operate the DMC 250 player.

2 Power On/Off (Standby): Press the button once to turn the DMC 250 player on, press it again to put the unit in the Standby mode.

3 Open/Close: Press this button to open or close the Disc Tray.

4 Disc Drawer.

5 Play/Pause: Press to initiate playback or to resume playback after Pause has been pressed. Press this button to momentarily pause playback. To resume playback, press the button again. If a DVD is playing, action will freeze and a still picture will be displayed when the button is pressed.

6 Stop: Press this button once to place the disc in the Resume mode, which means that playback will stop, but as long as the tray is not opened or the disc changed, DVD playback will continue from the same point on the disc when the Play Button is pressed again. Resume will also work if the unit was turned off. To stop a disc and have play start from the beginning, press the button twice.

7 Skip/Search (Previous): Press this button to move backward through the music tracks on a CD disc or the chapters on a DVD disc. Keep the button pressed to search backwards at one of the available speeds.

8 Skip/Search (Next): Press to move forward through the music tracks on a CD or the chapters on a DVD disc. Keep the button pressed to search forwards at one of the available speeds.

9 Record: When an audio CD is loaded, or the Analog Audio Inputs are selected as the source, press this button to view the Record tab of the on-screen menu. Pressing this button does not begin the recording.

NOTE: It is not possible to record from one of the memory cards or the USB device to any other media or to the USB device. It is also not possible to transfer image or video files. However, an audio signal is always available at the Analog Audio Outputs. You may make analog recordings from any source by connecting an analog audio recorder to the rear-panel Analog Audio Outputs.

10 Source Selector: Press this button to view the current media source selection. If a media source is available, that is, if media is currently installed, the source icon will appear at normal brightness. If no media is installed in a particular source, e.g. if a card slot is empty, its icon will be dimmed and you will not be able to select it. You may always select the Disc Player or the Auxiliary Analog Audio Inputs, even when no media is present. Use the ◀/▶ Buttons to scroll through the available sources, and press the Enter Button to select and switch to the highlighted source.

NOTE: It is not possible to select a new source while the current source is playing or even while it is paused. Press the Stop Button before selecting a new source.

11 12 ◀/▶/▲/▼ Navigation and Enter Buttons: Use these buttons to navigate the on-screen menus, and press the Enter Button to select an item.

The ◀/▶ Buttons may be used to switch between the track or file list on the left side of the screen and the settings on the right side.

Press and hold a Navigation Button to scroll at a faster rate.

When a folder is highlighted, press the Enter Button to expand it.

Highlight the "Up" line and press the Enter Button to close a folder and view the contents of the next higher level of the disc, card or device.

When a file or track is highlighted, press the Enter Button to begin playback.

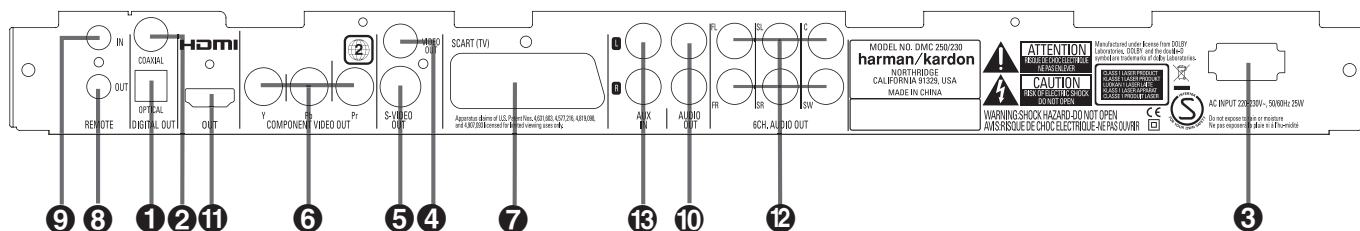
13 Card Slot 1: Insert an SD, MMC or Memory Stick memory card into this slot by gently pushing it all the way in until it clicks. The slot also accommodates miniSD, microSD and Memory Stick Duo cards when used with the appropriate adapter, available in most electronics and computer stores. Remove a card from this slot by gently pushing it in until it unlatches, then pulling it all the way out of the slot.

14 Card Slot 2: Insert a Compact Flash I memory card into this slot by gently pushing it all the way in until it is firmly seated in the slot. Remove it by pulling it all the way out of the slot.

15 USB Port: Insert a USB client device's connector into this port, being careful to correctly align the device's plastic tongue with the gap. Do not connect a computer to this port.

16 Remote IR Sensor.

Rear Panel Connections



- ❶ Optical Digital Output
- ❷ Coaxial Digital Output
- ❸ AC Power Cord
- ❹ Composite Video Output
- ❺ S-Video Output

- ❻ Component Video Outputs
- ❼ SCART TV Output
- ❽ Remote Control Output
- ❾ Remote Control Input
- ❿ Analog Audio Output

- ⓫ HDMI Output
- ⓬ 6-Channel Audio Outputs
- ⓭ Analog Audio Input

❶ Optical Digital Output: Connect this jack to the optical digital input of an A/V receiver or surround processor for Dolby Digital, DTS or PCM audio playback.

❷ Coaxial Digital Output: Connect this jack to the coaxial digital input of an A/V receiver or surround processor for Dolby Digital, DTS or PCM audio playback.

NOTE: The coaxial digital output should only be connected to a digital input. Even though it is the same RCA-type connector as standard analog audio connections, DO NOT connect it to a conventional analog input jack.

Connect either the **Optical Digital Audio Output ❶** or the **Coaxial Digital Audio Output ❷** to a corresponding digital audio input on your receiver or processor, but not both.

❸ AC Power Cord: Connect this plug to an AC outlet. If the outlet is controlled by a switch, make certain that it is in the ON position.

❹ Composite Video Output: Connect this jack to the video input on a television or video projector, or to a video input on an A/V receiver or processor if you are using that type of device for video input switching.

❺ S-Video Output: Connect this jack to the S-Video input on a television or video projector, or to an S-Video input on an A/V receiver or processor if you are using that type of device for S-Video input switching.

❻ Component Video Outputs: These outputs carry the component video signals for connection to display monitors with component video inputs. For standard analog TV's or projectors with inputs marked Y/Pr/Pb or Y/Cr/Cb, connect these outputs to the corresponding inputs. If you have a high-definition television or projector that is compatible with high scan rate progressive video, connect these jacks to the "HD Component" inputs. Note that if you are using a progressive scan display device, then

"Progressive" must be selected in the Video Set-up Menu in order to take advantage of the progressive scan circuitry. See page 22 for more information on progressive scan video.

IMPORTANT: These jacks should NOT be connected to standard composite video inputs.

❼ SCART OUT (TV): If your TV has a SCART socket, you can connect a SCART cable to your TV and to your DMC 250 Player for improved video quality. The SCART cable carries both audio and video. You can select Composite Video or RGB video for that SCART connector's video output signal.

❽ Remote Control Output: Connect this jack to the infrared (IR) input jack of another compatible Harman Kardon remote controlled product to have the built-in Remote Sensor on the DMC 250 provide IR signals to other compatible products.

❾ Remote Control Input: Connect the output of a remote infrared sensor, or the remote control output of another compatible Harman Kardon product, to this jack. This will enable the remote control to operate even when the front panel **Remote Sensor** on the DMC 250 is blocked. This jack may also be used with compatible IR remote control-based automation systems.

❿ Analog Audio Output: Connect these jacks to an audio input on an A/V receiver or surround processor for analog audio playback.

⓫ HDMI Output: If you have an HDMI-compatible receiver or video display device, connect this output to an HDMI input on the receiver or video display for the highest-quality uncompressed digital audio and video available. Even if your receiver is not capable of processing audio in the HDMI format, you may still experience the superb reproduction of HDMI video.

If your video display has a DVI input, you may use an optional HDMI-to-DVI cable or adapter

for the connection to the display. In all cases, the video display must be HDCP-compliant in order to use the HDMI output. For best results, we do not recommend HDMI connections in excess of ten feet.

The following audio formats may be output via the HDMI connection:

Audio CD – 2-Channel PCM or 5.1-channel DTS

DVD-Audio – 2-Channel or 5.1-channel PCM

DVD-Video – Up to 5.1-channel Dolby Digital or DTS

Note: To hear the high-resolution surround sound recorded on DVD-Audio discs, you need to connect the **6-Channel Audio Outputs ⓬** to the corresponding input jacks on your receiver or processor. These formats are not output digitally.

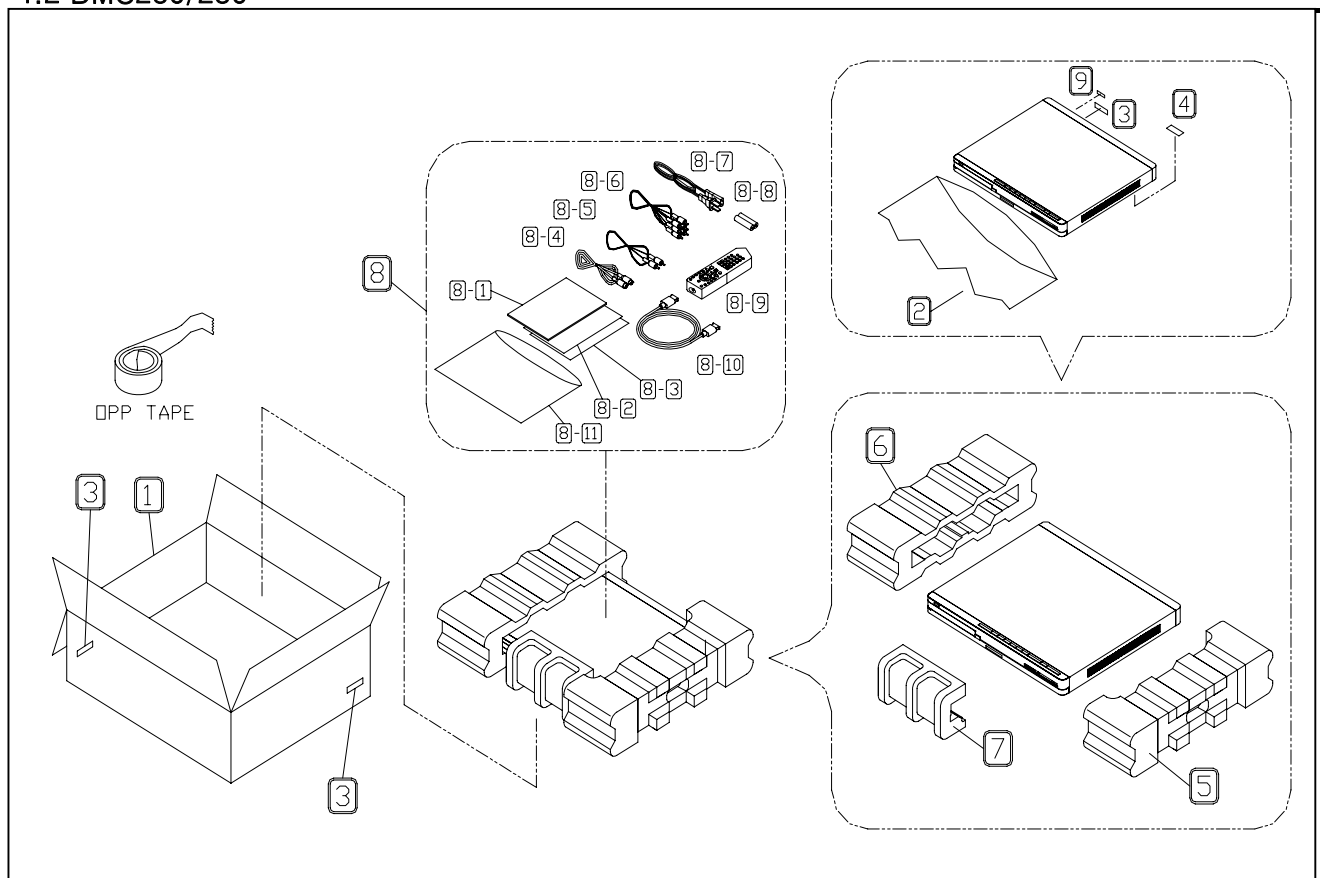
⓬ 6-Channel Audio Outputs: Connect these outputs to the matching 6-channel analog audio inputs on your receiver or surround sound processor. This connection is required to listen to the multichannel tracks on DVD-Audio discs. If the disc also contains a linear PCM, Dolby Digital or DTS track, you may listen to it using the **HDMI ⓫**, **Optical ❶** or **Coaxial Digital Audio Output ❷** or the **Analog Audio Outputs ❿**.

Note: You'll find more details about all Audio/Video connections under Setup and Connections on the following pages.

⓭ Analog Audio Inputs: Connect these jacks to an audio output on a source player like a tape deck or record player for analog audio recording.

4. PACKING VIEW

4.2 DMC250/230



Ref. No.	Part No.	Part Name	Remarks	Q'ty	NEW
1	CPG1A826Y	BOX , OUT CARTON		1	
2	CPB1A180Z	BAG, POLY(SET)		1	
3	CQB1A551Z	LABEL, BAR CODE		3	
4	CQB1A857Z	LABEL, DTS		1	
5	CPS1A759	PAD, SNOW-R		1	
6	CPS1A758	PAD, SNOW-L		1	
7	CPS1A765	PAD, CENTER		1	
8	CQXDMC250/230	INSTRUCTION MANUAL ASS'Y		1	
8-1	CQX1A1258Z	MANUAL , INSTRUCTION		1	
8-2	HQE1A273Z	HARMAN IMAGE BROCHURES		1	
8-3	CJS0I006Z	CABLE, S-VHS(1.5M)		1	
8-4	CJS9D002Z	CORD , JACK(MONO) 1200MM		1	
8-5	CJS4S004Z	CORD , PIN(3P,W/R/Y)		1	
8-6	CJA2B020Z	CORD , POWER		1	
8-7	CABR6P	BATTERY (SIZE 'AA')		2	
8-8	CARTDMC250	REMOCON ASS'Y		1	
8-9	CJS8T001Z	CABLE, HDMI(2M)		1	
8-10	CPB1061W	BAG, POLY(MANUAL)		1	
9	CQB1A741Z	LABEL, ORIGIN		1	

EXPLODED VIEW DMC250/230

The diagram illustrates the exploded view of the DMC250/230 device, showing the following components and their assembly sequence:

- 1. DOOR, DVD
- 2. ORNAMENT, DOOR
- 3. BADGE, DMC250
- 4. WINDOW, FIP
- 5. PANEL, FRONT
- 6. KNOB, OPEN
- 7. BADGE, H/K
- 8. KNOB, FUNCTION
- 9. FILTER, FIP
- 10. FRONT PCB ASS'Y
- 11. KNOB PCB ASS'Y
- 12. HOLDER, KNOB
- 13. CARD PCB ASS'Y
- 14. BRACKET, USB
- 15. CHASSIS, BOTTOM
- 16. FOOT A
- 17. FOOT B
- 18. DVD MECHA ASS'Y
- 19. GUIDE, CABLE
- 20. MAIL PCB ASS'Y
- 21. SMPS PCB ASS'Y
- 22. PANEL, REAR
- 23. COVER, BACK
- 24. CABINET, TOP
- 25. FRAME, FRONT
- 26. SHEET, LED
- 27. LABEL, DTS
- 28. SHEET, CARD
- 29. INSULATOR, SMPS
- 30. CUSHION, FOOT
- 31. PLATE, SHIELD
- 32. SHEET, AL FRONT
- 33. INDICATOR, POWER
- 34. LED PCB ASS'Y

No	DESCRIPTION	PARTS-No	Q.ty
S9	SCREW	CHD1A055R	1
S8	SCREW	CTW3+8JR	8
S7	SCREW	CTS3+8JFZR	9
S6	SCREW	CTB3+10JFZR	10
S5	SCREW	CTB3+10JR	11
S4	SCREW	CTB3+8JFZR	6
S3	SCREW	CTB3+8JR	4
S2	SCREW	CTB3+6FFZR	1
S1	SCREW	CTB3+6JR	3
N0	DESCRIPTION	PARTS-No	Q.ty

No	DESCRIPTION	PARTS-No	Q.ty
34	LED PCB ASS'Y	COP11950B	1
33	INDICATOR, POWER	CGL1A266Z	1
32	SHEET, AL FRONT	CGX1A395C66	1
31	PLATE, SHIELD	CMC1A327	4
30	CUSHION, FOOT	CHG1A373	4
29	INSULATOR, SMPS	CMX1A180Z	1
28	SHEET, CARD	CMX1A227	1
27	LABEL, DTS	CQB1A857Z	1
26	SHEET, LED	CGX1A383	1
25	FRAME, FRONT	CMD1A655	1
24	CABINET, TOP	CKC1A178B24	1
23	COVER, BACK	CGR1A412R4BB24	1
22	PANEL, REAR	CKF2A331YK1	1
21	SMPS PCB ASS'Y	COP11986B	1
20	MAIL PCB ASS'Y	COP11985C	1
19	GUIDE, CABLE	CMH1A250	1
18	DVD MECHA ASS'Y	CJDDMC250YA	1
17	FOOT B	CKL1A099	2
16	FOOT A	CKL1A098	2
15	CHASSIS, BOTTOM	CUA1A271K1	1
14	BRACKET, USB	CMD1A604	1
13	CARD PCB ASS'Y	COP11950B	1
12	HOLDER, KNOB	CMH2A280	1
11	KNOB PCB ASS'Y	COP11950B	1
10	FRONT PCB ASS'Y	COP11950B	1
9	FILTER, FIP	CMZ1A118Z	1

34	LED PCB ASS'Y	COP11950B	1
33	INDICATOR, POWER	CGL1A266Z	1
32	SHEET, AL FRONT	CGX1A395C66	1
31	PLATE, SHIELD	CMC1A327	4
30	CUSHION, FOOT	CHG1A373	4
29	INSULATOR, SMPS	CMX1A180Z	1
28	SHEET, CARD	CMX1A227	1
27	LABEL, DTS	CQB1A857Z	1
26	SHEET, LED	CGX1A383	1
25	FRAME, FRONT	CMD1A655	1
24	CABINET, TOP	CKC1A178B24	1
23	COVER, BACK	CGR1A412R4BB24	1
22	PANEL, REAR	CKF2A331YK1	1
21	SMPS PCB ASS'Y	COP11986B	1
20	MAIL PCB ASS'Y	COP11985C	1
19	GUIDE, CABLE	CMH1A250	1
18	DVD MECHA ASS'Y	CJDDMC250YA	1
17	FOOT B	CKL1A099	2
16	FOOT A	CKL1A098	2
15	CHASSIS, BOTTOM	CUA1A271K1	1
14	BRACKET, USB	CMD1A604	1
13	CARD PCB ASS'Y	COP11950B	1
12	HOLDER, KNOB	CMH2A280	1
11	KNOB PCB ASS'Y	COP11950B	1
10	FRONT PCB ASS'Y	COP11950B	1
9	FILTER, FIP	CMZ1A118Z	1
8	KNOB, FUNCTION	CBT2A1029MMZB24	1
7	BADGE, H/K	CGB1A158Y	1
6	KNOB, OPEN	CBT1A1030MMZB17	1
5	PANEL, FRONT	CGW2A428R4YB24	1
4	WINDOW, FIP	CGU2A400A25Z	1
3	BADGE, DMC250	CGB1A172Y	1
2	ORNAMENT, DOOR	CGR1A410	1
1	DOOR, DVD	CGR1A411A25	1
NO.	DESCRIPTION	PARTS-No.	Q,ty

DMC 250/230 ELECTRICAL PARTS LIST

Ref#	Component	Description	Value
	CHE154	CLAMPER , ARM	
	CPG1A826Y	BOX , OUT CARTON DMC250/230	
	CPS1A758	PAD , SNOW(L)	
	CPS1A759	PAD , SNOW(R)	
	CPS1A765	PAD , CENTER	DMC250
	CQB1A549Y	LABEL , ATTENTION DVD48	
	CQB1A551Z	LABEL , BAR CODE	
	CQB1A622	LABEL , SERIAL NO	
	CQB1A741Z	ORIGIN LABEL	
	CQB1A744Z	LABEL , DIVX	
	CQB1A876Z	LABEL , COUNTRY DVD29/230	
	CQXDMC250/230	INSTRUCTION MANUAL ASS'Y	
	CARTDMC250	REMOCON ASS'Y	
	CJA2B020Z	CORD , POWER	
	CJS0I006Z	CABLE, S-VHS(1.5M)	Y, C
	CJS4S004Z	CORD , PIN(3P,W/R/Y)	
	CJS8T001Z	CABLE, HDMI(2M)	CBADV-005-2
	CJS9D002Z	CORD , JACK(MONO) 1200MM	
	CQX1A1258Z	MANUAL , INSTRUCTION DMC250/230	
	CGR1A411ZA	DVD DOOR ASS'Y(DMC250)	DMC250
	CGR1A410	ORNAMENT , DOOR	
	CGR1A411A25	DOOR , DVD	
	CGR1A412R4B24	COVER , BACK DMC250	
	CGWDMC250/230	FRONT PANEL ASS'Y	
	CBT2A1029ZA	FUNCTION KNOB ASS'Y	
	CBT2A1029MMZB24	KNOB , FUNCTION DMC250	
	CGX1A383Z	SHEET , LED	
	CMH2A280	HOLDER , KNOB	
	CGB1A158Y	BADGE , FRONT HARMAN/KARDON	
	CGB1A172Y	BADGE , DMC250	
	CGL1A266Y	INDICATOR , POWER DVD29	
	CGW2A428YA	DMC250/230 FRONT PANEL ASS'Y	
	CBT1A1030MMZB17	KNOB , OPEN	
	CGU1A400A25Z	WINDOW , FIP	
	CGW2A428R4YB24	PANEL , FRONT DMC250/230	
	CGX1A385	COVER , SHEET	DMC250
	CGX1A395C66	SHEET , AL FRONT DMC250	
	CHG1A305	CUSHION , SUPPORT	
	CMC1A341	PLATE , EARTH DMC250	
	CMD1A604	BRACKET , USB	
	CMD1A655	FRAME , FRONT	
	CMD1A682	BRACKET , HOLDER	
	CMX1A227	SHEET , CARD DMC250	
	CMZ1A118Z	FILTER , FIP	
	COP11950B	FRONT/CARD PCB ASS'Y	DMC250
	CIP11950B	FRONT/CARD AUTO PCB ASS'Y	DMC250
	CIP11950BSMD	FRONT/CARD SMD PCB ASS'Y	DMC250
	CIP11950BBSMD	FRONT/CARD BOTTOM SMD PCB ASS'Y	DMC250
C202	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C203	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C214	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C217	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C333	CCUS1H220JA	CAP , CHIP	22PF 50V J
C334	CCUS1H220JA	CAP , CHIP	22PF 50V J
C335	CCUS1H220JA	CAP , CHIP	22PF 50V J
C336	CCUS1H220JA	CAP , CHIP	22PF 50V J
C337	CCUS1H220JA	CAP , CHIP	22PF 50V J
C904	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
R203	CRJ10DJ681T	RES , CHIP	1608 SIZE
R204	CRJ10DJ103T	RES , CHIP	1608 SIZE
R205	CRJ10DJ331T	RES , CHIP	
R227	CRJ10DJ333T	RES , CHIP	1608 SIZE
R228	CRJ10DJ100T	RES , CHIP	1608 SIZE
R229	CRJ10DJ103T	RES , CHIP	1608 SIZE
R905	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R906	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R907	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R909	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R910	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	

R911	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R912	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R913	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R914	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R921	CRJ10DJ103T	RES , CHIP	1608 SIZE
R923	CRJ10DJ103T	RES , CHIP	1608 SIZE
R924	CRJ10DJ301T	RES , CHIP	1608
R927	CRJ10DJ301T	RES , CHIP	1608
R930	CRJ10DJ301T	RES , CHIP	1608
R931	CRJ10DJ301T	RES , CHIP	1608
	CIP11950BTSMD	FRONT/CARD TOP SMD PCB ASS'Y	DMC250
	CUP11950Z	PCB , FRONT/CRAD	DMC250 330X170(FR-4/2 LAYER)
CN27	CJP50GA205ZM	WAFER , MOLEX 51374 50PIN, 0.5mm STRAIGHT	MOLEX 51374 50PIN, 0.5MM
C201	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C216	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C331	CCUS1H221JA	CAP , CHIP	220PF 50V J
C332	CCUS1H221JA	CAP , CHIP	220PF 50V J
C902	CCUS1H680JA	CAP , CHIP	68PF 50V J
C903	CCUS1H680JA	CAP , CHIP	68PF 50V J
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
C914	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C915	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C918	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C919	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C922	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C923	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C924	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
D301	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
FB91	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB93	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
IC91	HVITC4053BF	IC , 2CH. MULTI/DEMULTIPLXER	TC4053BF (TAPE)
IC92	HVITC4053BF	IC , 2CH. MULTI/DEMULTIPLXER	TC4053BF (TAPE)
IC93	CVIKIA1117S33	I.C , REGULATOR(SOT-223)	KIA1117S/F33, SOT-223
IC94	CVIRT9702APB	IC , CURRENT LIMITER	
JK16	CJ9Y001Z	JACK , CF CARD SOCKET	RJ-006TC
JK17	CJ9Y002Z	JACK , CARD SOCKET(4 IN 1)	
Q201	HVTKRA107ST	T.R , CHIP	KRA107S
R201	CRJ10DJ152T	RES , CHIP	1608 SIZE
R202	CRJ10DJ222T	RES , CHIP	1608 SIZE
R206	CRJ10DJ122T	RES , CHIP	1608 SIZE
R207	CRJ10DJ821T	RES , CHIP	1608 SIZE
R208	CRJ10DJ681T	RES , CHIP	1608 SIZE
R209	CRJ10DJ122T	RES , CHIP	1608 SIZE
R210	CRJ10DJ821T	RES , CHIP	1608 SIZE
R211	CRJ10DJ332T	RES , CHIP	1608 SIZE
R212	CRJ10DJ331T	RES , CHIP	
R213	CRJ10DJ222T	RES , CHIP	1608 SIZE
R214	CRJ10DJ152T	RES , CHIP	1608 SIZE
R215	CRJ10DJ331T	RES , CHIP	
R216	CRJ10DJ331T	RES , CHIP	
R217	CRJ10DJ331T	RES , CHIP	
R218	CRJ10DJ331T	RES , CHIP	
R219	CRJ10DJ331T	RES , CHIP	
R220	CRJ10DJ331T	RES , CHIP	
R221	CRJ10DJ331T	RES , CHIP	
R222	CRJ10DJ331T	RES , CHIP	
R223	CRJ10DJ331T	RES , CHIP	
R224	CRJ10DJ331T	RES , CHIP	
R225	CRJ10DJ331T	RES , CHIP	
R226	CRJ10DJ331T	RES , CHIP	
R901	CRJ10DJ104T	RES , CHIP	1608 SIZE
R902	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R903	CRJ10DJ270T	RES , CHIP	
R904	CRJ10DJ270T	RES , CHIP	
R908	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R915	CRJ10DJ103T	RES , CHIP	1608 SIZE
R916	CRJ10DJ103T	RES , CHIP	1608 SIZE
R917	CRJ10DJ103T	RES , CHIP	1608 SIZE

R918	CRJ10DJ104T	RES , CHIP	1608 SIZE
R919	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R920	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R922	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R925	CRJ10DJ103T	RES , CHIP	1608 SIZE
R926	CRJ10DJ750T	RES , CHIP	1608 SIZE
R928	CRJ104DJ301T	RES , ARRAY 300R (1608*4)	
R929	CRJ104DJ750T	RES , ARRAY 75R (1608*4)	
R932	CRJ104DJ103T	RES, ARRAY, 10K (1608)	10K(1608)
R933	CRJ104DJ750T	RES , ARRAY 75R (1608*4)	
R934	CRJ104DJ103T	RES, ARRAY, 10K (1608)	10K(1608)
R935	CRJ10DJ750T	RES , CHIP	1608 SIZE
R936	CRJ10DJ103T	RES , CHIP	1608 SIZE
R937	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R938	CRJ104DJ103T	RES, ARRAY, 10K (1608)	10K(1608)
R939	CRJ104DJ103T	RES, ARRAY, 10K (1608)	10K(1608)
R940	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R941	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R942	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R943	CRJ10DJ202T	RES , CHIP	
R944	CRJ10DJ202T	RES , CHIP	
R945	CRJ10DJ202T	RES , CHIP	
R946	CRJ10DJ202T	RES , CHIP	
R947	CRJ10DJ103T	RES , CHIP	1608 SIZE
R951	CRJ10DJ273T	RES , CHIP	
R952	CRJ10DJ273T	RES , CHIP	
R998	CRJ10DJ220T	RES , CHIP	1608 SIZE
R999	CRJ10DJ222T	RES , CHIP	1608 SIZE
C213	CCEA1CKS220T	CAP , ELECT	22UF 16V SMALL SIZE
C901	CCEA1HKS100T	CAP , ELECT	10UF 50V SMALL SIZE
C906	CCEA1HKS100T	CAP , ELECT	10UF 50V SMALL SIZE
C907	CCEA1AKS221T	CAP , ELECT	220UF 10V
C908	CCEA1EKS470T	CAP , ELECT	47UF 25V
C913	CCEA1EKS470T	CAP , ELECT	47UF 25V
C916	CCEA1EKS470T	CAP , ELECT	47UF 25V
C917	CCEA1EKS470T	CAP , ELECT	47UF 25V
C920	CCEA1CKS101T	CAP , ELECT	100UF 16V
C921	CCEA1CKS101T	CAP , ELECT	100UF 16V
D901	CVD1N4003SRT	DIODE , RECT	1N4003
SW11	CST1A0122T	SW , TACT	SKHV10910G
SW12	CST1A0122T	SW , TACT	SKHV10910G
SW13	CST1A0122T	SW , TACT	SKHV10910G
SW14	CST1A0122T	SW , TACT	SKHV10910G
SW15	CST1A0122T	SW , TACT	SKHV10910G
SW16	CST1A0122T	SW , TACT	SKHV10910G
SW17	CST1A0122T	SW , TACT	SKHV10910G
SW18	CST1A0122T	SW , TACT	SKHV10910G
SW19	CST1A0122T	SW , TACT	SKHV10910G
SW20	CST1A0122T	SW , TACT	SKHV10910G
SW21	CST1A0122T	SW , TACT	SKHV10910G
SW22	CST1A0122T	SW , TACT	SKHV10910G
SW23	CST1A0122T	SW , TACT	SKHV10910G
	CMD2A602	BRACKET , FL	
BN31	CWZDMC250BN31	SHIEL WIRE ASS'Y(4P, 200mm)	
BN99	CWB1C903180EN	WIRE ASS'Y (3P, 180mm)	
CN18	CJP17GB113ZY	WAFER	
CN33	CJP09GB113ZY	WAFER , 9PIN ANGLE CARD CABLE 1MM	
CN34	CJP09GB113ZY	WAFER , 9PIN ANGLE CARD CABLE 1MM	
CN99	CJP03GB46ZY	WAFER , ANGLE(3PIN)	
D201	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D202	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D203	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D204	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D205	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D206	CVD1L034FA22M0MA	L.E.D , AMBER DIFFUSED	1L034FA22M0MA001
D207	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D208	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D209	CVD30BSOKTAAU4	L.E.D , SUPER ORANGE(3PAI, 2.5mm/BULK)	TOL-30BSOKTAA-U4
D210	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D211	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D212	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201

D213	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D214	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D998	CVD1L0345W31BOCT20	L.E.D , WHITE	1L0345W31BOCT201
D999	CVD1L034FA22M0MA	L.E.D , AMBER DIFFUSED	1L034FA22M0MA001
FIP1	CFL13BT231GINK	F.I.P , FUTABA	
IC21	HRVKSM603TH2	SENSOR , REMOCON	KSM-603TH2
JK13	HJJ9X001Z	JACK, USB	
JW14	CWE8202080RV	WIRE ASS'Y(1P)	
JW21	CWE7202100AR	WIRE ASS'Y	
JW22	CWE8202080RV	WIRE ASS'Y(1P)	
JW23	CWE8202080RV	WIRE ASS'Y(1P)	
	CTB3+10JR	SCREW	
	CTB3+6JR	SCREW	
	CTB3+8JR	SCREW	
	CTS3+8JFZR	SCREW	
	CWE7202050RR	WIRE ASS'Y	
	CWE8102050RR	RING WIRE ASS'Y	
	C4FA031	TAPE , BOTH SIDE	NITTO #500
	KMC1A267	TAPE , EMI GASKET	
	CKC1A178S60	CABINET, TOP DMC250	
	CMC1A327	PLATE , SHIELD	
	CMX1A180Z	INSULATOR	
	CTB3+6JR	SCREW	
	CTB3+8JFZR	SCREW	
	CTS3+8JFZR	SCREW	
	CUADMC250/230	BOTTOM CHASSIS ASS'Y	
	CHD1A055R	SCREW , SPECIAL	
	CHG1A373	CUSHION , FOOT AVR350	
	CJDDMC250YA	DVD MECHANISM ASS'Y	
	CADSDL003WA	DVD LOADER ASS'Y	
	CADSDL003Z	LOADER	
	CJDDV348HG	TRAVERSE PICKUP ASS'Y	SF-HD850HG
	CMH1A250	GUIDE, CABLE	
	CWB1B905150EE	WIRE ASS'Y	
	CWB5A906150SE	WIRE ASS'Y	
	CWC4G2A24G300B	CABLE , CARD DVD(0.5mm PITCH, A-B)	DMC250
	CKF2A331YK1	PANEL , REAR DMC250/230	
	CKL1A098	FOOT , L	
	CKL1A099	FOOT , R	
	COP11985C	DMC250/230 MAIN PCB ASS'Y	
C101	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C102	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C103	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C104	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C108	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C110	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C111	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C112	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C113	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C116	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C117	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C118	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C119	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C120	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C122	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C123	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C124	CCUS1H101JA	CAP , CHIP	100PF 50V J
C130	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C131	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C132	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C133	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C134	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C135	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C136	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C137	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C138	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C139	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C140	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C141	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C142	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C143	CCUS1H103KC	CAP , CHIP	0.01UF 50V K

C144	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C145	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C146	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C147	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C148	CCUS1H101JA	CAP , CHIP	100PF 50V J
C155	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C156	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C157	CCUS1H273KC	CAP , CHIP	0.027UF 50V K
C158	CCUS1H273KC	CAP , CHIP	0.027UF 50V K
C166	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C180	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C185	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C186	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C195	CCUS1H050CA	CAP , CHIP	5PF 50V C
C281	CCUS1H030CA	CAP , CHIP(50V/3PF)	
C282	CCUS1H030CA	CAP , CHIP(50V/3PF)	
C283	CCUS1H030CA	CAP , CHIP(50V/3PF)	
C284	CCUS1H030CA	CAP , CHIP(50V/3PF)	
C285	CCUS1H030CA	CAP , CHIP(50V/3PF)	
C286	CCUS1H030CA	CAP , CHIP(50V/3PF)	
C287	CCUS1H030CA	CAP , CHIP(50V/3PF)	
C288	CCUS1H030CA	CAP , CHIP(50V/3PF)	
C311	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C312	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C313	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C314	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C315	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C316	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C317	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C318	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C319	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C320	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C321	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C322	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C323	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C325	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C326	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C327	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C328	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C329	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C330	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C331	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C332	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C333	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C334	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C335	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C336	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C337	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C338	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C339	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C340	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C341	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C342	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C343	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C344	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C345	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C346	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C347	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C348	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C354	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C361	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C362	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C363	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C369	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C370	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C371	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C372	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C373	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C374	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C404	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C406	CCUS1H104KC	CAP , CHIP	0.1UF 50V K

C408	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C409	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C426	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C604	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C606	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C612	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C618	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C663	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C664	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C756	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C758	CCUS1H221JA	CAP , CHIP	220PF 50V J
C759	CCUS1H221JA	CAP , CHIP	220PF 50V J
C760	CCUS1H221JA	CAP , CHIP	220PF 50V J
C803	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C804	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C807	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C808	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C811	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C812	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C813	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C814	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C816	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C817	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C820	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C821	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C824	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C825	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C826	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C827	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C828	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C829	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C830	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C831	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C832	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C833	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C841	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C842	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C843	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C844	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C845	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C846	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C848	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C849	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C850	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C851	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C852	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C853	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C904	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C905	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C906	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C907	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C911	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C912	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C913	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C914	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C915	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C916	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C917	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C918	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C919	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C920	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C923	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA)	
C924	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C925	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA)	
C930	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C931	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C933	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C945	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C952	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C953	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C956	CCUS1H221JA	CAP , CHIP	220PF 50V J

FB13	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB24	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB45	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L509	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L607	HLZ9R005Z	BEAD CHIP 60(1608 SIZE)	HH-1M1608-600
L901	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
R11	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R112	CRJ10DJ103T	RES , CHIP	1608 SIZE
R137	CRJ10DJ202T	RES , CHIP	
R138	CRJ10DJ202T	RES , CHIP	
R141	CRJ10DJ330T	RES , CHIP	1608 SIZE
R143	CRJ10DF2002T	RES , CHIP 1%	
R151	CRJ10DF39R0T	CHIP RES, 1% 39 Ohm	
R152	CRJ10DF4300T	RES	
R198	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R199	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R215	CRJ10DJ472T	RES , CHIP	1608 SIZE
R321	CRJ10DJ103T	RES , CHIP	1608 SIZE
R322	CRJ10DJ103T	RES , CHIP	1608 SIZE
R348	CRJ10DJ103T	RES , CHIP	1608 SIZE
R350	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R351	CRJ10DJ102T	RES , CHIP	1608 SIZE
R352	CRJ10DJ102T	RES , CHIP	1608 SIZE
R353	CRJ10DJ102T	RES , CHIP	1608 SIZE
R354	CRJ10DJ102T	RES , CHIP	1608 SIZE
R355	CRJ10DJ102T	RES , CHIP	1608 SIZE
R356	CRJ10DJ102T	RES , CHIP	1608 SIZE
R357	CRJ10DJ102T	RES , CHIP	1608 SIZE
R379	CRJ10DJ103T	RES , CHIP	1608 SIZE
R380	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R436	CRJ10DJ103T	RES , CHIP	1608 SIZE
R735	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R752	CRJ10DJ103T	RES , CHIP	1608 SIZE
R753	CRJ10DJ103T	RES , CHIP	1608 SIZE
R761	CRJ10DJ103T	RES , CHIP	1608 SIZE
R762	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R763	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R797	CRJ10DJ473T	RES , CHIP	1608 SIZE
R798	CRJ10DJ473T	RES , CHIP	1608 SIZE
R810	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R811	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R812	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R822	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R824	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R835	CRJ10DJ472T	RES , CHIP	1608 SIZE
R842	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R844	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R893	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R912	CRJ10DJ472T	RES , CHIP	1608 SIZE
R913	CRJ10DF4700T	RES, CHIP 470 OHM/1608/1%	
R919	CRJ10DJ473T	RES , CHIP	1608 SIZE
CN20	CJP24GA195ZM	SMT FFC/FPC WAFER(0.5MM PITCH)	52559-2472 (PB FREE)
CN26	CJP50GA205ZM	WAFER , MOLEX 51374 50PIN, 0.5mm STRAIGHT	MOLEX 51374 50PIN, 0.5MM
C106	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C109	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C121	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C126	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C127	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C151	CCUS1H330JA	CAP , CHIP	33PF 50V J
C152	CCUS1H330JA	CAP , CHIP	33PF 50V J
C153	CCUS1H330JA	CAP , CHIP	33PF 50V J
C154	CCUS1H330JA	CAP , CHIP	33PF 50V J
C162	CCUS1H330JA	CAP , CHIP	33PF 50V J
C165	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C167	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C168	CCUS1H330JA	CAP , CHIP	33PF 50V J
C169	CCUS1H330JA	CAP , CHIP	33PF 50V J
C170	CCUS1H330JA	CAP , CHIP	33PF 50V J
C171	CCUS1H330JA	CAP , CHIP	33PF 50V J
C172	CCUS1H330JA	CAP , CHIP	33PF 50V J
C173	CCUS1H330JA	CAP , CHIP	33PF 50V J

C174	CCUS1H330JA	CAP , CHIP	33PF 50V J
C175	CCUS1H330JA	CAP , CHIP	33PF 50V J
C176	CCUS1H330JA	CAP , CHIP	33PF 50V J
C177	CCUS1H330JA	CAP , CHIP	33PF 50V J
C181	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C183	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C189	CCUS1H200JA	CAP , CHIP	
C191	CCUS1H200JA	CAP , CHIP	
C192	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C196	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C197	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C199	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C201	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C203	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C204	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C205	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C206	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C208	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C209	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C210	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C211	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C212	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C213	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C217	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C221	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C231	CCUS1H273KC	CAP , CHIP	0.027UF 50V K
C233	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C237	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C240	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C261	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C263	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C291	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C293	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C296	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C301	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C303	CCUS1H471JA	CAP , CHIP	470PF 50V J
C304	CCUS1H471JA	CAP , CHIP	470PF 50V J
C305	CCUS1H120JA	CAP , CHIP(12PF/50V/COG/1608)	12PF 50V J
C306	CCUS1H120JA	CAP , CHIP(12PF/50V/COG/1608)	12PF 50V J
C307	CCUS1H471JA	CAP , CHIP	470PF 50V J
C308	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C352	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C355	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C381	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C382	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C401	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C412	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C413	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C417	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C420	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C424	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C429	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C431	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C442	CCUS1H391JA	CAP , CHIP	390PF 50V J
C445	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C448	CCUS1H391JA	CAP , CHIP	390PF 50V J
C449	CCUS1H391JA	CAP , CHIP	390PF 50V J
C450	CCUS1H391JA	CAP , CHIP	390PF 50V J
C454	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C458	CCUS1H391JA	CAP , CHIP	390PF 50V J
C460	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C463	CCUS1H391JA	CAP , CHIP	390PF 50V J
C464	CCUS1H391JA	CAP , CHIP	390PF 50V J
C468	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C469	CCUS1H391JA	CAP , CHIP	390PF 50V J
C475	CCUS1H391JA	CAP , CHIP	390PF 50V J
C477	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C480	CCUS1H391JA	CAP , CHIP	390PF 50V J
C482	CCUS1H391JA	CAP , CHIP	390PF 50V J
C485	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C486	CCUS1H391JA	CAP , CHIP	390PF 50V J

C492	CCUS1H391JA	CAP , CHIP	390PF 50V J
C494	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C497	CCUS1H391JA	CAP , CHIP	390PF 50V J
C498	CCUS1H391JA	CAP , CHIP	390PF 50V J
C500	CCUS1H391JA	CAP , CHIP	390PF 50V J
C502	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C510	CCUS1H101JA	CAP , CHIP	100PF 50V J
C511	CCUS1H101JA	CAP , CHIP	100PF 50V J
C512	CCUS1H101JA	CAP , CHIP	100PF 50V J
C513	CCUS1H101JA	CAP , CHIP	100PF 50V J
C514	CCUS1H101JA	CAP , CHIP	100PF 50V J
C515	CCUS1H101JA	CAP , CHIP	100PF 50V J
C516	CCUS1H101JA	CAP , CHIP	100PF 50V J
C517	CCUS1H101JA	CAP , CHIP	100PF 50V J
C518	CCUS1H101JA	CAP , CHIP	100PF 50V J
C519	CCUS1H101JA	CAP , CHIP	100PF 50V J
C524	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C525	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C528	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C529	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C532	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C534	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C536	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C537	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C602	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C605	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C607	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C608	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C609	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C614	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C615	CCUS1A105KC	CAP , CHIP	1UF 10V K
C617	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C619	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C620	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C621	CCUS1H821JA	CAP , CHIP	820PF 50V J
C622	CCUS1H392KC	CAP , CHIP CERAMIC(1608, 3900p)	3900PF 50V K
C624	CCUS1H101JA	CAP , CHIP	100PF 50V J
C628	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C629	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C630	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C633	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C636	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C637	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C638	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C641	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C643	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C645	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C646	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C649	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C651	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C654	CCUS1H560JA	CAP , CHIP	56PF 50V J
C655	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C658	CCUS1H220JA	CAP , CHIP	22PF 50V J
C665	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C668	CCUS1H560JA	CAP , CHIP	56PF 50V J
C676	CCUS1H470JA	CAP , CHIP	47PF 50V J
C677	CCUS1H470JA	CAP , CHIP	47PF 50V J
C678	CCUS1H470JA	CAP , CHIP	47PF 50V J
C679	CCUS1H470JA	CAP , CHIP	47PF 50V J
C680	CCUS1H470JA	CAP , CHIP	47PF 50V J
C681	CCUS1H470JA	CAP , CHIP	47PF 50V J
C683	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C688	CCUS1H680JA	CAP , CHIP	68PF 50V J
C689	CCUS1H680JA	CAP , CHIP	68PF 50V J
C690	CCUS1H680JA	CAP , CHIP	68PF 50V J
C691	CCUS1H680JA	CAP , CHIP	68PF 50V J
C692	CCUS1H680JA	CAP , CHIP	68PF 50V J
C693	CCUS1H680JA	CAP , CHIP	68PF 50V J
C703	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C704	CCUS1H151JA	CAP , CHIP	150PF 50V J
C705	CCUS1H150JA	CAP , CHIP(15PF/50V)	15PF 50V J

C706	CCUS1H150JA	CAP , CHIP(15PF/50V)	15PF 50V J
C710	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C715	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C752	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C753	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C757	CCUS1H221JA	CAP , CHIP	220PF 50V J
C763	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C764	CCUS1H220JA	CAP , CHIP	22PF 50V J
C765	CCUS1H220JA	CAP , CHIP	22PF 50V J
C766	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C790	CCUS1H101JA	CAP , CHIP	100PF 50V J
C794	CCUS1H101JA	CAP , CHIP	100PF 50V J
C797	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C799	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C809	CCUS1H180JA	CAP , CHIP(18PF/50V)	18PF 50V J
C810	CCUS1H180JA	CAP , CHIP(18PF/50V)	18PF 50V J
C822	CCUS1H103KC	CAP , CHIP	0.01UF 50V K
C856	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C858	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C859	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C862	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C863	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C901	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C902	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C903	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C908	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C909	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C910	CCUS1H102KC	CAP , CHIP	1000PF 50V K
C921	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C922	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C926	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C927	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C928	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA)	
C929	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA)	
C932	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C934	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C935	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C936	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C940	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA)	
C941	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C942	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C943	CCSJA1C100B	CAP , CHIP TANTAL(A TYPE, 10uF/16V, ELNA)	
C944	CCSJA0J220B	CAP , CHIP TANTAL(A TYPE, 22uF/6.3V, ELNA)	
C950	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C955	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C957	CCUS1H104KC	CAP , CHIP	0.1UF 50V K
C970	CCUS1H150JA	CAP , CHIP(15PF/50V)	15PF 50V J
C971	CCUS1H150JA	CAP , CHIP(15PF/50V)	15PF 50V J
D201	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D202	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D292	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D293	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D294	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D298	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D299	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D401	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D402	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D602	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D701	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D702	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D703	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D781	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D782	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D783	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D784	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
D785	HVDRLS4148SR	DIODE, SWITCHING, SMD TYPE	RLS4148 TE-11
FB10	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB11	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB12	HLZ9R006Z	BEAD , CHIP	
FB14	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB15	CRJ10CJ0R0T	RES , CHIP (1/10W OR)	3216 SIZE

FB16	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB17	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB18	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB19	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB21	HLZ9R006Z	BEAD , CHIP	
FB22	HLZ9R006Z	BEAD , CHIP	
FB25	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB26	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB27	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB28	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB29	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB31	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB32	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB41	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB42	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB43	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB46	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB62	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB64	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB91	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
FB92	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
IC10	HVIKIC7S66FU	i.c , SWITCH(USV PACKAGE)	KIC7S66FU-RTK/3
IC11	CVIKIA1117S33	I.C , REGULATOR(SOT-223)	KIA1117S/F33, SOT-223
IC12	CVIKIA1117S18	I.C , REGULATOR(SOT-223)	KIA1117S/F18, SOT-223
IC13	CVIZR36886HLCG	I.C , MPEG(ZORAN)	
IC14	CVIES29LV320ET70TG	I.C , FLASH ROM 32Mbit IC (TOP BOOST)	ES29LV320ET70TG
IC15	HVIM12L64164A7T	IC, 64M SDRAM (4X16)	
IC16	HVIAT24C08N10SC	I.C	AT24C08N10SC2.7
IC201	HVITL3472IDR	IC,OP AMP 8-SOIC (TI)	
IC22	HVIAM5888SLF	I. C , Motor Driver(AMtek,Pb free)	AM5888S L/F
IC24	HVTHN1K05FU	MOS FET	HN1K05FU
IC31	HVIKIC7SH08FU	HIGH SPEED 2 INPUT AND GATE (USV PACKAGE)	KIC7SH08FU-RTK
IC32	CVITMS320DA707	I.C , DSP DECODER	
IC33	HVIRH5VT28C	I.C , RESET	
IC35	CVIKIA1117S33	I.C , REGULATOR(SOT-223)	KIA1117S/F33, SOT-223
IC36	CVIKIA1117S00	I.C , REGULATOR(SOT-223)	KIA1117S00-RTK/P
IC37	HVI57V161610ET7	SDRAM 16M 7NS	HY57V161610ET-7
IC38	CVIS29AL016D70TFI01	IC,16M FLASH(SPANSION)	
IC41	HVIKIC7SH08FU	HIGH SPEED 2 INPUT AND GATE (USV PACKAGE)	KIC7SH08FU-RTK
IC42	HVICS4382-KQ	I.C , DAC	CS4382-KQ
IC43	HVIKIC7SH08FU	HIGH SPEED 2 INPUT AND GATE (USV PACKAGE)	KIC7SH08FU-RTK
IC44	HVIAK5381VT	I.C , ADC	
IC45	HVINJM2068MDTE1	I.C , OP AMP	NJM2068MD-TE1
IC46	HVINJM2068MDTE1	I.C , OP AMP	NJM2068MD-TE1
IC47	HVINJM2068MDTE1	I.C , OP AMP	NJM2068MD-TE1
IC48	HVINJM2068MDTE1	I.C , OP AMP	NJM2068MD-TE1
IC49	HVINJM2068MDTE1	I.C , OP AMP	NJM2068MD-TE1
IC51	CVIKIA1117S50	I.C , REGULATOR(SOT-223)	KIA1117S50-RTK/P
IC53	CVIKIA1117S33	I.C , REGULATOR(SOT-223)	KIA1117S/F33, SOT-223
IC61	CVIADV7320KSTZ	I.C , VIDEO ENCODER	
IC62	BVIBA50BC0FP	I.C , REGULATOR CHIP (+5V)	BA50BC0FP-E2
IC63	CVIKIA1117S33	I.C , REGULATOR(SOT-223)	KIA1117S/F33, SOT-223
IC64	CVIKIA1117S25	I.C , REGULATOR(SOT-223)	KIA1117S25-RTK/P
IC65	BVIBH7862FS	IC , 6CH VIDEO DRIVER	ROHM (BH7862FS)
IC66	HVIBA7660FS	IC , R.G.B DRIVER	BA7660FS
IC71	HVIST72F324K2	IC,FLASH (ST)	
IC72	HVITC74HCT7007F	I.C	TC74HC7007AFEL
IC74	HVIBU2098F	IC , I2C BUS	ROHM
IC75	CVIKIA1117S33	I.C , REGULATOR(SOT-223)	KIA1117S/F33, SOT-223
IC77	CVIT5CB5PQ	I.C , MCU (FLASH 61440 bytes PQFP64)	
IC78	HVIKIC7SH08FU	HIGH SPEED 2 INPUT AND GATE (USV PACKAGE)	KIC7SH08FU-RTK
IC81	CVIFLI2310LFCF	I/P CONVERTER, FLI2310-LF-CF	FLI2310-LF-CF
IC82	CVIW9864G2GH6	SDRAM , 64M(512K x 4Banks x 32bit) 6nS	
IC83	HVISN74AHC541PW	OCTAL BUFFERS IC(TSSOP-20 PKG)	SN74AHC541PWR
IC84	HVITA48033FTE16	I.C , REGULATOR	TA48033FTE16
IC85	BVIBA18BC0FP	I.C , REGULATOR CHIP (1.8V)	BA18BC0FP-E2
IC88	BVIBA50BC0FP	I.C , REGULATOR CHIP (+5V)	BA50BC0FP-E2
IC89	CVIKIA1117S33	I.C , REGULATOR(SOT-223)	KIA1117S/F33, SOT-223
IC91	CVISII9030CTU7	I.C , HDMI TX	
IC92	CVIKIA1117S50	I.C , REGULATOR(SOT-223)	KIA1117S50-RTK/P
IC93	CVIKIA1117S18	I.C , REGULATOR(SOT-223)	KIA1117S/F18, SOT-223

IC94	CVIKIA1117S33	I.C , REGULATOR(SOT-223)	KIA1117S/F33, SOT-223
IC95	HVVIC7SH08FU	HIGH SPEED 2 INPUT AND GATE (USV PACKAGE)	KIC7SH08FU-RTK
IC96	HVTHN1K02FUTE85	TR , MOS FET (S-MOS)	HN1K02FU-TE85L
IC98	HVVIC7SZ08FU	I.C ,INPUT AND GATE (USV PACKAGE)	KIC7SZ08FU-RTK
JK91	CJ9H004Z	JACK , HDMI GOLD	YKF45-7043N
LC30	CLZ9R007Z	CHIP , BEAD (EMC FILTER)	
LC31	CLZ9R007Z	CHIP , BEAD (EMC FILTER)	
L104	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L201	HLQ06E100KRZ	INDUCTOR , CHIP	3225 SIZE
L202	HLQ06E100KRZ	INDUCTOR , CHIP	3225 SIZE
L203	HLQ06E100KRZ	INDUCTOR , CHIP	3225 SIZE
L301	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L504	HLQ08ER68KRZ	CHIP FERRITE INDUCTOR	2012-R68UH
L505	HLQ08ER39KRZ	CHIP FERRITE INDUCTOR	2012-R39UH
L506	HLQ08E1R8KRZ	CHIP , COIL (1.8UH)	2012
L507	HLQ08E1R8KRZ	CHIP , COIL (1.8UH)	2012
L508	HLQ08E1R8KRZ	CHIP , COIL (1.8UH)	2012
L510	HLQ08ER68KRZ	CHIP FERRITE INDUCTOR	2012-R68UH
L511	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L515	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L516	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L601	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L602	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L603	HLQ06E100KRZ	INDUCTOR , CHIP	3225 SIZE
L605	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L608	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
L609	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L610	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L611	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L700	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L712	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L790	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L797	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L798	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L799	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L801	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L803	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L804	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L805	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L807	HLZ9R005Z	BEAD CHIP 60(1608 SIZE)	HH-1M1608-600
L902	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L903	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L905	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L906	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L907	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L908	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L909	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L910	CLZ9R009Z	CHOKE COIL, CHIP (FOR HDMI)	
L911	CLZ9R009Z	CHOKE COIL, CHIP (FOR HDMI)	
L912	CLZ9R009Z	CHOKE COIL, CHIP (FOR HDMI)	
L913	CLZ9R009Z	CHOKE COIL, CHIP (FOR HDMI)	
L914	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L915	HLZ9R001Z	FB, 2012(0805)600E, 1.5A,POWER	600E, 1.5A
L970	HLQ09E8R2KRZ	CHIP , COIL	
Q201	HVT2N3904SP	TR, CHIP (KEC)	2N3904S-RTK/PS
Q202	HVT2N3904SP	TR, CHIP (KEC)	2N3904S-RTK/PS
Q203	HVT2N3904SP	TR, CHIP (KEC)	2N3904S-RTK/PS
Q204	HVTKTA1664YP	T.R	
Q205	HVTKTA1664YP	T.R	
Q291	HVTKTC3875SYRTK	T.R , CHIP	KTC3875S Y RTK
Q292	HVTKTC3875SYRTK	T.R , CHIP	KTC3875S Y RTK
Q401	HVTKRC107S	T.R , CHIP	
Q402	HVTKRA107ST	T.R , CHIP	KRA107S
Q403	HVTKRA107ST	T.R , CHIP	KRA107S
Q404	HVTKRA107ST	T.R , CHIP	KRA107S
Q406	HVTKRC107S	T.R , CHIP	
Q407	HVTKRA107ST	T.R , CHIP	KRA107S
Q408	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q409	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q410	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q411	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304

Q412	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q413	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q414	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q415	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q416	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q417	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q418	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q419	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q420	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q421	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q422	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q423	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q601	HVTKTA2014GR	T.R , CHIP	TRPNPB-R2
Q602	HVTKTA2014GR	T.R , CHIP	TRPNPB-R2
Q603	HVTKTA2014GR	T.R , CHIP	TRPNPB-R2
Q604	HVTKTA2014GR	T.R , CHIP	TRPNPB-R2
Q605	HVTKTA2014GR	T.R , CHIP	TRPNPB-R2
Q611	HVTKRC107S	T.R , CHIP	
Q612	HVTKTA2014GR	T.R , CHIP	TRPNPB-R2
Q613	HVTKRC107S	T.R , CHIP	
Q701	HVTKTA1504SYRTK	T.R , CHIP	KTA1504S Y RTK
Q702	HVTKTC3875SYRTK	T.R , CHIP	KTC3875S Y RTK
Q703	HVTKRC107S	T.R , CHIP	
Q704	HVTKRA107ST	T.R , CHIP	KRA107S
Q780	HVT2N3904SP	TR, CHIP (KEC)	2N3904S-RTK/PS
Q781	HVT2N3904SP	TR, CHIP (KEC)	2N3904S-RTK/PS
Q901	HVT2N3904SP	TR, CHIP (KEC)	2N3904S-RTK/PS
Q970	HVTKRA107ST	T.R , CHIP	KRA107S
Q971	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
Q972	HVTKTA1504SYRTK	T.R , CHIP	KTA1504S Y RTK
Q974	HVTKRA107ST	T.R , CHIP	KRA107S
Q975	HVTKTA1504SYRTK	T.R , CHIP	KTA1504S Y RTK
Q976	HVTKTD1304T	T.R , CHIP (MUTE)	KTD1304
RN61	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN62	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN63	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN64	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN65	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN66	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN67	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN81	CRJ104DJ103T	RES, ARRAY, 10K (1608)	10K(1608)
RN82	CRJ104DJ103T	RES, ARRAY, 10K (1608)	10K(1608)
RN83	CRJ104DJ103T	RES, ARRAY, 10K (1608)	10K(1608)
RN84	CRJ104DJ103T	RES, ARRAY, 10K (1608)	10K(1608)
RN85	CRJ104DJ103T	RES, ARRAY, 10K (1608)	10K(1608)
RN86	CRJ104DJ103T	RES, ARRAY, 10K (1608)	10K(1608)
RN87	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN88	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN89	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN90	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN91	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN92	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN93	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN94	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN95	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN98	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
RN99	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
R101	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R102	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R103	CRJ10DJ472T	RES , CHIP	1608 SIZE
R104	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R105	CRJ10DJ472T	RES , CHIP	1608 SIZE
R106	CRJ10DJ472T	RES , CHIP	1608 SIZE
R107	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R108	CRJ10DJ472T	RES , CHIP	1608 SIZE
R109	CRJ10DJ102T	RES , CHIP	1608 SIZE
R110	CRJ10DJ102T	RES , CHIP	1608 SIZE
R111	CRJ10DJ680T	RES , CHIP	
R113	CRJ10DJ102T	RES , CHIP	1608 SIZE
R114	CRJ10DJ513T	RES , CHIP	51K
R115	CRJ10DJ303T	RES , CHIP	

R116	CRJ10DJ153T	RES , CHIP	
R117	CRJ10DJ433T	RES , CHIP	
R118	CRJ10DJ330T	RES , CHIP	1608 SIZE
R119	CRJ10DJ330T	RES , CHIP	1608 SIZE
R120	CRJ10DJ330T	RES , CHIP	1608 SIZE
R121	CRJ10DJ472T	RES , CHIP	1608 SIZE
R122	CRJ10DJ330T	RES , CHIP	1608 SIZE
R123	CRJ10DJ330T	RES , CHIP	1608 SIZE
R124	CRJ10DJ330T	RES , CHIP	1608 SIZE
R125	CRJ10DJ330T	RES , CHIP	1608 SIZE
R126	CRJ10DJ330T	RES , CHIP	1608 SIZE
R127	CRJ10DJ121T	RES , CHIP	1608 SIZE
R128	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R129	CRJ10DJ472T	RES , CHIP	1608 SIZE
R130	CRJ10DJ330T	RES , CHIP	1608 SIZE
R131	CRJ10DJ102T	RES , CHIP	1608 SIZE
R132	CRJ10DJ101T	RES , CHIP	1608 SIZE
R133	CRJ10DJ121T	RES , CHIP	1608 SIZE
R134	CRJ10DJ121T	RES , CHIP	1608 SIZE
R135	CRJ10DJ121T	RES , CHIP	1608 SIZE
R136	CRJ10DJ472T	RES , CHIP	1608 SIZE
R139	CRJ10DJ221T	RES , CHIP	1608 SIZE
R140	CRJ10DJ182T	RES , CHIP	
R144	CRJ10DJ104T	RES , CHIP	1608 SIZE
R145	CRJ10DF3920T	RES. CHIP (392R 1%)	1608 SIZE
R146	CRJ10DF39R0T	CHIP RES, 1% 39 Ohm	
R147	CRJ10DF39R0T	CHIP RES, 1% 39 Ohm	
R148	CRJ10DF75R0T	RES, CHIP 1% 75 OHM	75 OHM, 1%
R149	CRJ10DF39R0T	CHIP RES, 1% 39 Ohm	
R150	CRJ10DF75R0T	RES, CHIP 1% 75 OHM	75 OHM, 1%
R153	CRJ10DJ472T	RES , CHIP	1608 SIZE
R154	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R155	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R156	CRJ10DJ104T	RES , CHIP	1608 SIZE
R157	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
R158	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
R159	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R160	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R162	CRJ10DJ101T	RES , CHIP	1608 SIZE
R163	CRJ10DJ101T	RES , CHIP	1608 SIZE
R164	CRJ10DJ101T	RES , CHIP	1608 SIZE
R165	CRJ10DJ101T	RES , CHIP	1608 SIZE
R166	CRJ10DJ101T	RES , CHIP	1608 SIZE
R167	CRJ10DJ101T	RES , CHIP	1608 SIZE
R168	CRJ10DJ101T	RES , CHIP	1608 SIZE
R169	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
R170	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
R171	CRJ104DJ330T	RES , 4ARRAY (1608*4)	33 OHM/1608*4
R172	CRJ10DJ330T	RES , CHIP	1608 SIZE
R173	CRJ10DJ330T	RES , CHIP	1608 SIZE
R174	CRJ10DJ330T	RES , CHIP	1608 SIZE
R177	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R178	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R179	CRJ10DJ103T	RES , CHIP	1608 SIZE
R180	CRJ10DJ182T	RES , CHIP	
R181	CRJ10DJ182T	RES , CHIP	
R201	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R202	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R203	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R204	CRJ10DJ330T	RES , CHIP	1608 SIZE
R205	CRJ10DJ332T	RES , CHIP	1608 SIZE
R206	CRJ10DJ332T	RES , CHIP	1608 SIZE
R207	CRJ10DJ471T	RES , CHIP	1608 SIZE
R208	CRJ10DJ332T	RES , CHIP	1608 SIZE
R209	CRJ10DJ1R0T	RES , CHIP	1608 SIZE
R210	CRJ10DJ221T	RES , CHIP	1608 SIZE
R211	CRJ10DJ221T	RES , CHIP	1608 SIZE
R212	CRJ10DJ1R0T	RES , CHIP	1608 SIZE
R219	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R221	CRJ10DJ472T	RES , CHIP	1608 SIZE
R224	CRJ10DJ1R0T	RES , CHIP	1608 SIZE

R225	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R226	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R229	CRJ10DJ102T	RES , CHIP	1608 SIZE
R230	CRJ10DJ682T	RES , CHIP	1608 SIZE
R231	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R232	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R235	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R239	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R241	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R243	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R246	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R249	CRJ10DF1000T	RES , CHIP 1%	
R250	CRJ10DF1000T	RES , CHIP 1%	
R251	CRJ10DJ102T	RES , CHIP	1608 SIZE
R252	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R254	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R255	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R257	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R258	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R259	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R262	CRJ10DJ472T	RES , CHIP	1608 SIZE
R263	CRJ10DJ472T	RES , CHIP	1608 SIZE
R281	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R282	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R291	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R298	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R299	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R301	CRJ10DJ330T	RES , CHIP	1608 SIZE
R302	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R303	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R304	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R305	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R306	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R312	CRJ10DJ222T	RES , CHIP	1608 SIZE
R313	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R314	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R316	CRJ10DJ105T	RES , CHIP	1608 SIZE
R317	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R319	CRJ10DJ103T	RES , CHIP	1608 SIZE
R320	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R325	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R326	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R327	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R328	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R329	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R330	CRJ10DJ330T	RES , CHIP	1608 SIZE
R340	CRJ10DJ330T	RES , CHIP	1608 SIZE
R341	CRJ10DJ330T	RES , CHIP	1608 SIZE
R342	CRJ10DJ330T	RES , CHIP	1608 SIZE
R343	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R344	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R345	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R346	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R347	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R349	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R358	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R359	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R361	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R362	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R363	CRJ10DJ330T	RES , CHIP	1608 SIZE
R364	CRJ10DJ330T	RES , CHIP	1608 SIZE
R365	CRJ10DJ330T	RES , CHIP	1608 SIZE
R366	CRJ10DJ330T	RES , CHIP	1608 SIZE
R367	CRJ10DJ330T	RES , CHIP	1608 SIZE
R368	CRJ10DJ330T	RES , CHIP	1608 SIZE
R369	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R370	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R371	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R372	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R373	CRJ104DJ101T	RES , CHIP NETWORK(1/16W, 100ohm, 1608X4)	100R (1608)
R374	CRJ10DJ0R0T	RES , CHIP	1608 SIZE

R375	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R376	CRJ10DF2200T	RES , CHIP 1%	1608 SIZE
R377	CRJ10DF3R30T	RES , CHIP 1% 3.3 OHM	
R378	CRJ10DJ221T	RES , CHIP	1608 SIZE
R381	CRJ10DJ223T	RES , CHIP	1608 SIZE
R382	CRJ10DJ222T	RES , CHIP	1608 SIZE
R399	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R401	CRJ10DJ330T	RES , CHIP	1608 SIZE
R402	CRJ10DJ330T	RES , CHIP	1608 SIZE
R406	CRJ10DJ472T	RES , CHIP	1608 SIZE
R407	CRJ10DJ224T	RES , CHIP	
R408	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R409	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R410	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R414	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R415	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R416	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R417	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R418	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R419	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R42	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R422	CRJ10DJ472T	RES , CHIP	1608 SIZE
R423	CRJ10DJ224T	RES , CHIP	
R424	CRJ10DJ472T	RES , CHIP	1608 SIZE
R425	CRJ10DJ224T	RES , CHIP	
R426	CRJ10DJ101T	RES , CHIP	1608 SIZE
R427	CRJ10DJ221T	RES , CHIP	1608 SIZE
R428	CRJ10DJ474T	RES , CHIP	1608 SIZE
R429	CRJ10DJ223T	RES , CHIP	1608 SIZE
R430	CRJ10DJ330T	RES , CHIP	1608 SIZE
R431	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R432	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R433	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R434	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R435	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R437	CRJ10DJ4R7T	RES , CHIP	1608 SIZE
R438	CRJ10DJ151T	RES , CHIP	1608 SIZE
R439	CRJ10DJ151T	RES , CHIP	1608 SIZE
R440	CRJ10DJ682T	RES , CHIP	1608 SIZE
R441	CRJ10DJ682T	RES , CHIP	1608 SIZE
R442	CRJ10DJ562T	RES , CHIP	1608 SIZE
R443	CRJ10DJ562T	RES , CHIP	1608 SIZE
R450	CRJ10DJ132T	RES , CHIP	1608 SIZE
R451	CRJ10DJ132T	RES , CHIP	1608 SIZE
R452	CRJ10DJ132T	RES , CHIP	1608 SIZE
R453	CRJ10DJ132T	RES , CHIP	1608 SIZE
R454	CRJ10DJ332T	RES , CHIP	1608 SIZE
R455	CRJ10DJ102T	RES , CHIP	1608 SIZE
R456	CRJ10DJ132T	RES , CHIP	1608 SIZE
R457	CRJ10DJ132T	RES , CHIP	1608 SIZE
R458	CRJ10DJ132T	RES , CHIP	1608 SIZE
R459	CRJ10DJ132T	RES , CHIP	1608 SIZE
R460	CRJ10DJ332T	RES , CHIP	1608 SIZE
R461	CRJ10DJ102T	RES , CHIP	1608 SIZE
R462	CRJ10DJ102T	RES , CHIP	1608 SIZE
R463	CRJ10DJ332T	RES , CHIP	1608 SIZE
R464	CRJ10DJ102T	RES , CHIP	1608 SIZE
R465	CRJ10DJ332T	RES , CHIP	1608 SIZE
R466	CRJ10DJ104T	RES , CHIP	1608 SIZE
R467	CRJ10DJ104T	RES , CHIP	1608 SIZE
R468	CRJ10DJ221T	RES , CHIP	1608 SIZE
R469	CRJ10DJ222T	RES , CHIP	1608 SIZE
R470	CRJ10DJ222T	RES , CHIP	1608 SIZE
R471	CRJ10DJ221T	RES , CHIP	1608 SIZE
R472	CRJ10DJ222T	RES , CHIP	1608 SIZE
R473	CRJ10DJ222T	RES , CHIP	1608 SIZE
R480	CRJ10DJ132T	RES , CHIP	1608 SIZE
R481	CRJ10DJ132T	RES , CHIP	1608 SIZE
R482	CRJ10DJ132T	RES , CHIP	1608 SIZE
R483	CRJ10DJ132T	RES , CHIP	1608 SIZE
R484	CRJ10DJ332T	RES , CHIP	1608 SIZE

R485	CRJ10DJ102T	RES , CHIP	1608 SIZE
R486	CRJ10DJ132T	RES , CHIP	1608 SIZE
R487	CRJ10DJ132T	RES , CHIP	1608 SIZE
R488	CRJ10DJ132T	RES , CHIP	1608 SIZE
R489	CRJ10DJ132T	RES , CHIP	1608 SIZE
R490	CRJ10DJ332T	RES , CHIP	1608 SIZE
R491	CRJ10DJ102T	RES , CHIP	1608 SIZE
R492	CRJ10DJ102T	RES , CHIP	1608 SIZE
R493	CRJ10DJ332T	RES , CHIP	1608 SIZE
R494	CRJ10DJ102T	RES , CHIP	1608 SIZE
R495	CRJ10DJ332T	RES , CHIP	1608 SIZE
R496	CRJ10DJ104T	RES , CHIP	1608 SIZE
R497	CRJ10DJ104T	RES , CHIP	1608 SIZE
R498	CRJ10DJ221T	RES , CHIP	1608 SIZE
R499	CRJ10DJ222T	RES , CHIP	1608 SIZE
R500	CRJ10DJ222T	RES , CHIP	1608 SIZE
R501	CRJ10DJ221T	RES , CHIP	1608 SIZE
R502	CRJ10DJ222T	RES , CHIP	1608 SIZE
R503	CRJ10DJ222T	RES , CHIP	1608 SIZE
R506	CRJ10DJ132T	RES , CHIP	1608 SIZE
R507	CRJ10DJ132T	RES , CHIP	1608 SIZE
R508	CRJ10DJ132T	RES , CHIP	1608 SIZE
R509	CRJ10DJ132T	RES , CHIP	1608 SIZE
R511	CRJ10DJ332T	RES , CHIP	1608 SIZE
R512	CRJ10DJ102T	RES , CHIP	1608 SIZE
R513	CRJ10DJ132T	RES , CHIP	1608 SIZE
R514	CRJ10DJ132T	RES , CHIP	1608 SIZE
R515	CRJ10DJ132T	RES , CHIP	1608 SIZE
R516	CRJ10DJ132T	RES , CHIP	1608 SIZE
R517	CRJ10DJ332T	RES , CHIP	1608 SIZE
R518	CRJ10DJ102T	RES , CHIP	1608 SIZE
R520	CRJ10DJ102T	RES , CHIP	1608 SIZE
R521	CRJ10DJ332T	RES , CHIP	1608 SIZE
R522	CRJ10DJ102T	RES , CHIP	1608 SIZE
R523	CRJ10DJ332T	RES , CHIP	1608 SIZE
R524	CRJ10DJ104T	RES , CHIP	1608 SIZE
R525	CRJ10DJ104T	RES , CHIP	1608 SIZE
R527	CRJ10DJ221T	RES , CHIP	1608 SIZE
R528	CRJ10DJ222T	RES , CHIP	1608 SIZE
R529	CRJ10DJ222T	RES , CHIP	1608 SIZE
R530	CRJ10DJ221T	RES , CHIP	1608 SIZE
R531	CRJ10DJ222T	RES , CHIP	1608 SIZE
R532	CRJ10DJ222T	RES , CHIP	1608 SIZE
R534	CRJ10DJ132T	RES , CHIP	1608 SIZE
R535	CRJ10DJ132T	RES , CHIP	1608 SIZE
R536	CRJ10DJ132T	RES , CHIP	1608 SIZE
R537	CRJ10DJ132T	RES , CHIP	1608 SIZE
R538	CRJ10DJ332T	RES , CHIP	1608 SIZE
R539	CRJ10DJ102T	RES , CHIP	1608 SIZE
R541	CRJ10DJ132T	RES , CHIP	1608 SIZE
R542	CRJ10DJ132T	RES , CHIP	1608 SIZE
R543	CRJ10DJ132T	RES , CHIP	1608 SIZE
R544	CRJ10DJ132T	RES , CHIP	1608 SIZE
R545	CRJ10DJ332T	RES , CHIP	1608 SIZE
R546	CRJ10DJ102T	RES , CHIP	1608 SIZE
R547	CRJ10DJ102T	RES , CHIP	1608 SIZE
R548	CRJ10DJ332T	RES , CHIP	1608 SIZE
R549	CRJ10DJ102T	RES , CHIP	1608 SIZE
R551	CRJ10DJ332T	RES , CHIP	1608 SIZE
R552	CRJ10DJ104T	RES , CHIP	1608 SIZE
R553	CRJ10DJ104T	RES , CHIP	1608 SIZE
R554	CRJ10DJ221T	RES , CHIP	1608 SIZE
R555	CRJ10DJ222T	RES , CHIP	1608 SIZE
R556	CRJ10DJ222T	RES , CHIP	1608 SIZE
R557	CRJ10DJ221T	RES , CHIP	1608 SIZE
R558	CRJ10DJ222T	RES , CHIP	1608 SIZE
R559	CRJ10DJ222T	RES , CHIP	1608 SIZE
R560	CRJ10DJ221T	RES , CHIP	1608 SIZE
R561	CRJ10DJ221T	RES , CHIP	1608 SIZE
R591	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R594	CRJ10DJ0R0T	RES , CHIP	1608 SIZE

R601	CRJ10DJ330T	RES , CHIP	1608 SIZE
R602	CRJ10DJ330T	RES , CHIP	1608 SIZE
R603	CRJ10DJ330T	RES , CHIP	1608 SIZE
R604	CRJ10DJ330T	RES , CHIP	1608 SIZE
R605	CRJ10DJ330T	RES , CHIP	1608 SIZE
R608	CRJ10DJ472T	RES , CHIP	1608 SIZE
R609	CRJ10DJ682T	RES , CHIP	1608 SIZE
R611	CRJ10DJ682T	RES , CHIP	1608 SIZE
R613	CRJ10DJ272T	RES , CHIP	1608 SIZE
R614	CRJ10DJ391T	RES , CHIP	
R617	CRJ10DJ472T	RES , CHIP	1608 SIZE
R618	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R620	CRJ10DJ330T	RES , CHIP	1608 SIZE
R621	CRJ10DJ330T	RES , CHIP	1608 SIZE
R622	CRJ10DJ330T	RES , CHIP	1608 SIZE
R623	CRJ10DJ330T	RES , CHIP	1608 SIZE
R624	CRJ10DJ472T	RES , CHIP	1608 SIZE
R625	CRJ10DJ472T	RES , CHIP	1608 SIZE
R626	CRJ10DJ272T	RES , CHIP	1608 SIZE
R627	CRJ10DJ391T	RES , CHIP	
R628	CRJ10DJ681T	RES , CHIP	1608 SIZE
R629	CRJ10DJ101T	RES , CHIP	1608 SIZE
R630	CRJ10DJ472T	RES , CHIP	1608 SIZE
R632	CRJ10DJ182T	RES , CHIP	
R633	CRJ10DJ681T	RES , CHIP	1608 SIZE
R634	CRJ10DJ561T	RES , CHIP	
R635	CRJ10DJ101T	RES , CHIP	1608 SIZE
R636	CRJ10DJ182T	RES , CHIP	
R637	CRJ10DJ681T	RES , CHIP	1608 SIZE
R638	CRJ10DJ561T	RES , CHIP	
R639	CRJ10DJ101T	RES , CHIP	1608 SIZE
R641	CRJ10DJ182T	RES , CHIP	
R642	CRJ10DJ681T	RES , CHIP	1608 SIZE
R643	CRJ10DJ561T	RES , CHIP	
R644	CRJ10DJ101T	RES , CHIP	1608 SIZE
R645	CRJ10DJ182T	RES , CHIP	
R646	CRJ10DJ681T	RES , CHIP	1608 SIZE
R647	CRJ10DJ561T	RES , CHIP	
R648	CRJ10DJ101T	RES , CHIP	1608 SIZE
R649	CRJ10DJ182T	RES , CHIP	
R651	CRJ10DJ681T	RES , CHIP	1608 SIZE
R652	CRJ10DJ561T	RES , CHIP	
R653	CRJ10DJ101T	RES , CHIP	1608 SIZE
R662	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R665	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R666	CRJ10DF75R0T	RES, CHIP 1% 75 OHM	75 OHM, 1%
R667	CRJ10DF75R0T	RES, CHIP 1% 75 OHM	75 OHM, 1%
R671	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R673	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R675	CRJ10DF75R0T	RES, CHIP 1% 75 OHM	75 OHM, 1%
R676	CRJ10DF82R0T	RES, CHIP 82OHM 1%	
R677	CRJ10DF82R0T	RES, CHIP 82OHM 1%	
R678	CRJ10DF82R0T	RES, CHIP 82OHM 1%	
R679	CRJ10DF75R0T	RES, CHIP 1% 75 OHM	75 OHM, 1%
R681	CRJ10DF75R0T	RES, CHIP 1% 75 OHM	75 OHM, 1%
R683	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R684	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R685	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R686	CRJ10DJ750T	RES , CHIP	1608 SIZE
R687	CRJ10DJ750T	RES , CHIP	1608 SIZE
R688	CRJ10DJ750T	RES , CHIP	1608 SIZE
R689	CRJ10DJ821T	RES , CHIP	1608 SIZE
R690	CRJ10DJ102T	RES , CHIP	1608 SIZE
R691	CRJ10DJ750T	RES , CHIP	1608 SIZE
R692	CRJ10DJ181T	RES , CHIP	1608 SIZE
R693	CRJ10DJ471T	RES , CHIP	1608 SIZE
R694	CRJ10DJ471T	RES , CHIP	1608 SIZE
R695	CRJ10DJ750T	RES , CHIP	1608 SIZE
R696	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R697	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R698	CRJ10DJ0R0T	RES , CHIP	1608 SIZE

R699	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R700	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R701	CRJ10DJ103T	RES , CHIP	1608 SIZE
R702	CRJ10DJ100T	RES , CHIP	1608 SIZE
R703	CRJ10DJ103T	RES , CHIP	1608 SIZE
R704	CRJ10DJ103T	RES , CHIP	1608 SIZE
R705	CRJ10DJ103T	RES , CHIP	1608 SIZE
R706	CRJ10DJ473T	RES , CHIP	1608 SIZE
R707	CRJ10DJ103T	RES , CHIP	1608 SIZE
R708	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R710	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R711	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R712	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R713	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R714	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R715	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R716	CRJ10DJ472T	RES , CHIP	1608 SIZE
R717	CRJ10DJ472T	RES , CHIP	1608 SIZE
R718	CRJ10DJ472T	RES , CHIP	1608 SIZE
R721	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R722	CRJ10DJ105T	RES , CHIP	1608 SIZE
R723	CRJ10DJ472T	RES , CHIP	1608 SIZE
R724	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R725	CRJ10DJ222T	RES , CHIP	1608 SIZE
R726	CRJ10DJ102T	RES , CHIP	1608 SIZE
R730	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R739	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R740	CRJ10DJ472T	RES , CHIP	1608 SIZE
R741	CRJ10DJ472T	RES , CHIP	1608 SIZE
R742	CRJ10DJ472T	RES , CHIP	1608 SIZE
R743	CRJ10DJ472T	RES , CHIP	1608 SIZE
R744	CRJ10DJ220T	RES , CHIP	1608 SIZE
R745	CRJ10DJ220T	RES , CHIP	1608 SIZE
R746	CRJ10DJ472T	RES , CHIP	1608 SIZE
R747	CRJ10DJ472T	RES , CHIP	1608 SIZE
R748	CRJ10DJ472T	RES , CHIP	1608 SIZE
R749	CRJ10DJ472T	RES , CHIP	1608 SIZE
R751	CRJ10DJ103T	RES , CHIP	1608 SIZE
R754	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R755	CRJ10DJ103T	RES , CHIP	1608 SIZE
R756	CRJ10DJ102T	RES , CHIP	1608 SIZE
R757	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R758	CRJ10DJ472T	RES , CHIP	1608 SIZE
R759	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R764	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R765	CRJ10DJ472T	RES , CHIP	1608 SIZE
R766	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R768	CRJ10DJ472T	RES , CHIP	1608 SIZE
R769	CRJ10DJ472T	RES , CHIP	1608 SIZE
R771	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R772	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R773	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R774	CRJ10DJ472T	RES , CHIP	1608 SIZE
R775	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R776	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R777	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R778	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R779	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R782	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R783	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R784	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R786	CRJ14CJ101T	RES , CHIP 1/4W	3216 SIZE
R787	CRJ10DJ101T	RES , CHIP	1608 SIZE
R788	CRJ14CJ101T	RES , CHIP 1/4W	3216 SIZE
R789	CRJ10DJ101T	RES , CHIP	1608 SIZE
R790	CRJ10DJ473T	RES , CHIP	1608 SIZE
R792	CRJ10DJ103T	RES , CHIP	1608 SIZE
R793	CRJ10DJ470T	RES , CHIP	1608 SIZE
R795	CRJ10DJ271T	RES , CHIP	1608 SIZE
R796	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R800	CRJ10DJ330T	RES , CHIP	1608 SIZE

R802	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R803	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R804	CRJ10DJ330T	RES , CHIP	1608 SIZE
R805	CRJ10DJ330T	RES , CHIP	1608 SIZE
R807	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R808	CRJ10DJ105T	RES , CHIP	1608 SIZE
R809	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R813	CRJ10DJ330T	RES , CHIP	1608 SIZE
R815	CRJ10DJ103T	RES , CHIP	1608 SIZE
R816	CRJ10DJ103T	RES , CHIP	1608 SIZE
R817	CRJ10DJ103T	RES , CHIP	1608 SIZE
R818	CRJ10DJ103T	RES , CHIP	1608 SIZE
R819	CRJ10DJ103T	RES , CHIP	1608 SIZE
R820	CRJ10DJ103T	RES , CHIP	1608 SIZE
R823	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R825	CRJ10DJ330T	RES , CHIP	1608 SIZE
R826	CRJ10DJ330T	RES , CHIP	1608 SIZE
R827	CRJ10DJ102T	RES , CHIP	1608 SIZE
R836	CRJ10DJ330T	RES , CHIP	1608 SIZE
R837	CRJ10DJ330T	RES , CHIP	1608 SIZE
R838	CRJ10DJ330T	RES , CHIP	1608 SIZE
R839	CRJ10DJ330T	RES , CHIP	1608 SIZE
R840	CRJ10DJ330T	RES , CHIP	1608 SIZE
R841	CRJ10DJ330T	RES , CHIP	1608 SIZE
R846	CRJ10DJ471T	RES , CHIP	1608 SIZE
R905	CRJ10DJ330T	RES , CHIP	1608 SIZE
R906	CRJ10DJ330T	RES , CHIP	1608 SIZE
R907	CRJ10DJ330T	RES , CHIP	1608 SIZE
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R909	CRJ10DJ330T	RES , CHIP	1608 SIZE
R910	CRJ10DJ330T	RES , CHIP	1608 SIZE
R911	CRJ10DJ330T	RES , CHIP	1608 SIZE
R915	CRJ10DJ103T	RES , CHIP	1608 SIZE
R916	CRJ10DJ101T	RES , CHIP	1608 SIZE
R917	CRJ10DJ101T	RES , CHIP	1608 SIZE
R918	CRJ10DJ103T	RES , CHIP	1608 SIZE
R920	CRJ10DJ330T	RES , CHIP	1608 SIZE
R921	CRJ10DJ330T	RES , CHIP	1608 SIZE
R923	CRJ10DJ0R0T	RES , CHIP	1608 SIZE
R924	CRJ10DJ103T	RES , CHIP	1608 SIZE
R925	CRJ10DJ103T	RES , CHIP	1608 SIZE
R926	CRJ10DJ182T	RES , CHIP	
R927	CRJ10DJ182T	RES , CHIP	
R928	CRJ10DJ391T	RES , CHIP	
R929	CRJ10DJ330T	RES , CHIP	1608 SIZE
R930	CRJ10DJ330T	RES , CHIP	1608 SIZE
R931	CRJ10DJ330T	RES , CHIP	1608 SIZE
R932	CRJ10DJ330T	RES , CHIP	1608 SIZE
R933	CRJ10DJ330T	RES , CHIP	1608 SIZE
R934	CRJ10DJ330T	RES , CHIP	1608 SIZE
R935	CRJ10DJ101T	RES , CHIP	1608 SIZE
R937	CRJ10DJ472T	RES , CHIP	1608 SIZE
R938	CRJ10DJ472T	RES , CHIP	1608 SIZE
R939	CRJ10DJ330T	RES , CHIP	1608 SIZE
R940	CRJ10DJ330T	RES , CHIP	1608 SIZE
R941	CRJ10DJ330T	RES , CHIP	1608 SIZE
R943	CRJ10DJ330T	RES , CHIP	1608 SIZE
R944	CRJ10DJ330T	RES , CHIP	1608 SIZE
R950	CRJ10DJ330T	RES , CHIP	1608 SIZE
R951	CRJ10DJ330T	RES , CHIP	1608 SIZE
R952	CRJ10DJ330T	RES , CHIP	1608 SIZE
R953	CRJ10DJ223T	RES , CHIP	1608 SIZE
R954	CRJ10DJ750T	RES , CHIP	1608 SIZE
R955	CRJ10DJ680T	RES , CHIP	
R956	CRJ10DJ121T	RES , CHIP	1608 SIZE
R957	CRJ10DJ101T	RES , CHIP	1608 SIZE
R958	CRJ10DJ3R3T	RES , CHIP	
R970	CRJ10DJ221T	RES , CHIP	1608 SIZE
R971	CRJ10DJ104T	RES , CHIP	1608 SIZE
R972	CRJ10DJ102T	RES , CHIP	1608 SIZE
R973	CRJ10DJ222T	RES , CHIP	1608 SIZE

R975	CRJ10DJ221T	RES , CHIP	1608 SIZE
R976	CRJ10DJ102T	RES , CHIP	1608 SIZE
R977	CRJ10DJ221T	RES , CHIP	1608 SIZE
R978	CRJ10DJ222T	RES , CHIP	1608 SIZE
X101	HOX27000E180S	CRYSTAL , CHIP(27MHZ,SMD)	HC-49/US
X801	COX13500E160S	X'TAL (13.5MHz) 16p	
C105	CCEA1EH470T	CAP , ELECT	47UF 25V
C107	CCEA1EH470T	CAP , ELECT	47UF 25V
C115	CCEA1EH470T	CAP , ELECT	47UF 25V
C125	CCEA1EH470T	CAP , ELECT	47UF 25V
C129	CCEA1EH470T	CAP , ELECT	47UF 25V
C160	CCEA1HH220T	CAP , ELECT	22UF 50V
C161	CCEA1HH4R7T	CAP , ELECT	4.7UF 50V
C182	CCEA1CH221T	CAP , ELECT	220UF 16V
C184	CCEA1CH101T	CAP , ELECT	100UF 16V
C187	CCEA1CH101T	CAP , ELECT	100UF 16V
C193	CCEA1CH101T	CAP , ELECT	100UF 16V
C198	CCEA1CH101T	CAP , ELECT	100UF 16V
C202	CCEA1CH101T	CAP , ELECT	100UF 16V
C207	CCEA1EH470T	CAP , ELECT	47UF 25V
C214	CCEA1HH101T	CAP , ELECT	100UF 50V
C215	CCEA1HH101T	CAP , ELECT	100UF 50V
C220	CCEA1CH471T	CAP , ELECT	470UF 16V
C232	CCEA1CH221T	CAP , ELECT	220UF 16V
C239	CCEA1CH471T	CAP , ELECT	470UF 16V
C290	CCEA1CH101T	CAP , ELECT	100UF 16V
C292	CCEA1CH101T	CAP , ELECT	100UF 16V
C294	CCEA1CH101T	CAP , ELECT	100UF 16V
C295	CCEA1EH470T	CAP , ELECT	47UF 25V
C302	CCEA1CH101T	CAP , ELECT	100UF 16V
C309	CCEA1HH100T	CAP , ELECT	10UF 50V
C353	CCEA1HH1R0T	CAP , ELECT	1UF 50V
C360	CCEA1EH470T	CAP , ELECT	47UF 25V
C368	CCEA1EH470T	CAP , ELECT	47UF 25V
C376	CCEA1CH221T	CAP , ELECT	220UF 16V
C377	CCEA1HH100T	CAP , ELECT	10UF 50V
C380	CCEA1CH221T	CAP , ELECT	220UF 16V
C383	CCEA1CH101T	CAP , ELECT	100UF 16V
C384	CCEA1CH101T	CAP , ELECT	100UF 16V
C402	CCEA1CH101T	CAP , ELECT	100UF 16V
C405	CCEA1CH101T	CAP , ELECT	100UF 16V
C407	CCEA1HH100T	CAP , ELECT	10UF 50V
C411	CCEA1EH470T	CAP , ELECT	47UF 25V
C414	CCEA1HH1R0T	CAP , ELECT	1UF 50V
C415	CCEA1CH221T	CAP , ELECT	220UF 16V
C416	CCEA1HH3R3T	CAP , ELECT	3.3UF 50V
C418	CCEA1CH101T	CAP , ELECT	100UF 16V
C419	CCEA1HH2R2T	CAP , ELECT	2.2UF 50V
C423	CCEA1EH470T	CAP , ELECT	47UF 25V
C425	CCEA1EH470T	CAP , ELECT	47UF 25V
C427	CCEA1CH101T	CAP , ELECT	100UF 16V
C428	CCEA1HH100T	CAP , ELECT	10UF 50V
C430	CCEA1HH100T	CAP , ELECT	10UF 50V
C432	CCEA1CH101T	CAP , ELECT	100UF 16V
C433	CCEA1HH100T	CAP , ELECT	10UF 50V
C434	CCEA1HH100T	CAP , ELECT	10UF 50V
C440	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C441	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C443	CCEA1CH101T	CAP , ELECT	100UF 16V
C446	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C447	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C452	CCEA1HH220T	CAP , ELECT	22UF 50V
C453	CCEA1CH101T	CAP , ELECT	100UF 16V
C455	CCEA1HH220T	CAP , ELECT	22UF 50V
C456	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C457	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C459	CCEA1CH101T	CAP , ELECT	100UF 16V
C461	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C462	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C465	CCEA1HH220T	CAP , ELECT	22UF 50V
C467	CCEA1CH101T	CAP , ELECT	100UF 16V

C470	CCEA1HH220T	CAP , ELECT	22UF 50V
C473	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C474	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C476	CCEA1CH101T	CAP , ELECT	100UF 16V
C478	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C479	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C483	CCEA1HH220T	CAP , ELECT	22UF 50V
C484	CCEA1CH101T	CAP , ELECT	100UF 16V
C487	CCEA1HH220T	CAP , ELECT	22UF 50V
C490	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C491	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C493	CCEA1CH101T	CAP , ELECT	100UF 16V
C495	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C496	HCQI1H332JZT	CAP , MYLAR	3300PF 50V J
C499	CCEA1HH220T	CAP , ELECT	22UF 50V
C501	CCEA1CH101T	CAP , ELECT	100UF 16V
C503	CCEA1HH220T	CAP , ELECT	22UF 50V
C522	CCEA1EH221T	CAP , ELECT	220UF 25V
C523	CCEA1EH221T	CAP , ELECT	220UF 25V
C526	CCEA1CH221T	CAP , ELECT	220UF 16V
C527	CCEA1CH221T	CAP , ELECT	220UF 16V
C531	CCEA1CH221T	CAP , ELECT	220UF 16V
C533	CCEA1CH221T	CAP , ELECT	220UF 16V
C535	CCEA1CH221T	CAP , ELECT	220UF 16V
C538	CCEA1CH221T	CAP , ELECT	220UF 16V
C601	CCEA1CH101T	CAP , ELECT	100UF 16V
C603	CCEA1CH101T	CAP , ELECT	100UF 16V
C613	CCEA1CH101T	CAP , ELECT	100UF 16V
C627	CCEA1CH101T	CAP , ELECT	100UF 16V
C635	CCEA1CH101T	CAP , ELECT	100UF 16V
C640	CCEA1CH221T	CAP , ELECT	220UF 16V
C642	CCEA1CH221T	CAP , ELECT	220UF 16V
C644	CCEA1CH221T	CAP , ELECT	220UF 16V
C647	CCEA1CH221T	CAP , ELECT	220UF 16V
C648	CCEA1CH221T	CAP , ELECT	220UF 16V
C652	CCEA1CH221T	CAP , ELECT	220UF 16V
C656	CCEA1HH1R0T	CAP , ELECT	1UF 50V
C657	CCEA1HH1R0T	CAP , ELECT	1UF 50V
C659	CCEA1EH470T	CAP , ELECT	47UF 25V
C661	CCEA1EH470T	CAP , ELECT	47UF 25V
C662	CCEA1CH221T	CAP , ELECT	220UF 16V
C666	CCEA1AH331T	CAP , ELECT	330UF 10V
C667	CCEA1CH101T	CAP , ELECT	100UF 16V
C669	CCEA1CH101T	CAP , ELECT	100UF 16V
C670	CCEA1HH220T	CAP , ELECT	22UF 50V
C671	CCEA1CH101T	CAP , ELECT	100UF 16V
C672	CCEA1HH220T	CAP , ELECT	22UF 50V
C673	CCEA1AH331T	CAP , ELECT	330UF 10V
C674	CCEA1AH331T	CAP , ELECT	330UF 10V
C684	CCEA1AH331T	CAP , ELECT	330UF 10V
C685	CCEA1AH331T	CAP , ELECT	330UF 10V
C686	CCEA1AH331T	CAP , ELECT	330UF 10V
C687	CCEA1AH331T	CAP , ELECT	330UF 10V
C701	CCEA1HH4R7T	CAP , ELECT	4.7UF 50V
C702	CCEA1EH470T	CAP , ELECT	47UF 25V
C707	CCEA1HH1R0T	CAP , ELECT	1UF 50V
C708	CCEA1HH100T	CAP , ELECT	10UF 50V
C712	CCEA1EH470T	CAP , ELECT	47UF 25V
C713	CCEA1CH101T	CAP , ELECT	100UF 16V
C751	CCEA1CH221T	CAP , ELECT	220UF 16V
C754	CCEA1CH221T	CAP , ELECT	220UF 16V
C762	CCEA1HH100T	CAP , ELECT	10UF 50V
C796	CCEA1CH221T	CAP , ELECT	220UF 16V
C798	CCEA1CH221T	CAP , ELECT	220UF 16V
C801	CCEA1HH220T	CAP , ELECT	22UF 50V
C802	CCEA1CH101T	CAP , ELECT	100UF 16V
C805	CCEA1HH220T	CAP , ELECT	22UF 50V
C806	CCEA1CH101T	CAP , ELECT	100UF 16V
C815	CCEA1CH101T	CAP , ELECT	100UF 16V
C823	CCEA1CH101T	CAP , ELECT	100UF 16V
C847	CCEA1CH101T	CAP , ELECT	100UF 16V

C855	CCEA1CH101T	CAP , ELECT	100UF 16V
C857	CCEA1CH221T	CAP , ELECT	220UF 16V
C860	CCEA1CH221T	CAP , ELECT	220UF 16V
C861	CCEA1CH221T	CAP , ELECT	220UF 16V
C864	CCEA1CH221T	CAP , ELECT	220UF 16V
C951	CCEA1CH101T	CAP , ELECT	100UF 16V
C954	CCEA1CH101T	CAP , ELECT	100UF 16V
C972	CCEA1AH331T	CAP , ELECT	330UF 10V
C975	CCEA1AH471T	CAP , ELECT	470UF 10V
D101	CVD1N4003SRT	DIODE , RECT	1N4003
D102	CVD1N4003SRT	DIODE , RECT	1N4003
D104	CVD1N4003SRT	DIODE , RECT	1N4003
D233	CVD1N4003SRT	DIODE , RECT	1N4003
D234	CVD1N4003SRT	DIODE , RECT	1N4003
D301	CVD1N4003SRT	DIODE , RECT	1N4003
D302	CVD1N4003SRT	DIODE , RECT	1N4003
D303	CVD1N4003SRT	DIODE , RECT	1N4003
D304	CVD1N4003SRT	DIODE , RECT	1N4003
D511	CVD1N4003SRT	DIODE , RECT	1N4003
D531	CVD1N4003SRT	DIODE , RECT	1N4003
Q405	HVTKSA916YT	T.R	
Q783	HVTKTA1271YT	T.R	KTA1271Y
Q784	HVTKTA1271YT	T.R	KTA1271Y
	CMY2A280	HEAT SINK	
BN42	CWB1C915120EN	WIRE ASS'Y (15P, 120mm)	15P, 120MM
CN11	CJP04GA19ZY	WAFER , 4P STRAIGHT	
CN21	CJP06GA19ZY	WAFER , STRAIGHT(DVD LOADER)	
CN22	CJP05GA19ZY	WAFER , STRAIGHT	
CN23	CJP04GA01ZY	WAFER , STRAIGHT(4PIN)	
CN27	CJP17GA117ZY	WAFER	
CN31	CJP14TT198ZY	PIN HEADER(DUAL TYPE 2.54MM)	
CN71	CJP07GA01ZY	WAFER , STRAIGHT(7PIN)	
CN72	CJP07GA01ZY	WAFER , STRAIGHT(7PIN)	
IC23	HVIA7808API	I.C , REGULATOR +8V	KIA7808 (KEC)
IC50	HVIA7809API	I.C , REGULATOR +9V	KIA7809 (KEC)
IC76	CVIEL817B	I.C , PHOTO COUPLER	EL817-B
IC80	HVIA7909PI	I.C , REGULATOR (-9V)	
JK41	CJJ4P019Y	JACK , BOARD	GOLD , PLATE
JK42	CJJ4R041Z	6P JACK, BOARD	RCA-601DAG-11
JK61	CJJ9N006Z	JACK , S-VIDEO+CVBS(GOLD, 2P)	
JK62	CJJ4S036Z	JACK , BOARD	3P,G/B/R,GOLD
JK63	CJJ6K004Z	JACK , SCART(SHIELD PLATE)	
JK71	HJJ1D002Z	JACK , STEREO(2P 3.5PIE)	SR7400
JK92	CJS9U011Z	JACK, OPTICAL+COXIAL(GOLD PLATE)	
X201	HOX08000E160C	CRYSTAL 8MHz	
X301	COX24576E120TF	X-TAL 10PPM	
X701	HOX08000E160C	CRYSTAL 8MHz	
	COP11986B	DMC250 SMPS PCB ASS'Y	
C902	CCEA1HH220TS	CAP , ELECT	50V/22UF/105°C
C903	CCEA1HH220TS	CAP , ELECT	50V/22UF/105°C
C904	CCEA1HH220TS	CAP , ELECT	50V/22UF/105°C
C905	CCEA1HHR47TS	CAP , ELECT	
C906	CCEA1HHR47TS	CAP , ELECT	
C907	HCQI2A472JZT	Capacitor, Mylar 100V 4700pF	
C908	HCQI2A472JZT	Capacitor, Mylar 100V 4700pF	
C931	CCEA1AH471TS	CAP , ELECT	10V/470UF/105°C
C932	CCEA1AH471TS	CAP , ELECT	10V/470UF/105°C
C933	CCEA1HH1R0TS	CAP , ELECT	50V/1.0UF/105°C
C934	CCKT3A102KBL	CAP , CERAMIC	EKR3A102K05FK5
C935	CCUMT1H104KB	CAP , MONO	50V 104 K
C936	CCEA1HH470TS	CAP , ELECT	50V/47UF/105°C
C937	CCEA1HH470TS	CAP , ELECT	50V/47UF/105°C
C938	CCUMT1H104KB	CAP , MONO	50V 104 K
C952	CCEA1AH471TS	CAP , ELECT	10V/470UF/105°C
C953	CCEA1HH1R0TS	CAP , ELECT	50V/1.0UF/105°C
C955	CCEA1AH471TS	CAP , ELECT	10V/470UF/105°C
C957	CCEA1EH101TS	CAP , ELECT	25V/100UF/105°C
C959	CCEA1EH101TS	CAP , ELECT	25V/100UF/105°C
C960	CCEA1EH331TS	CAP , ELECT	25V/330UF/105°C
C962	CCEA1EH101TS	CAP , ELECT	25V/100UF/105°C
C963	CCEA1EH331TS	CAP , ELECT	25V/330UF/105°C

C967	CCKT3A102KBL	CAP , CERAMIC	EKR3A102K05FK5
C968	CCKT3A102KBL	CAP , CERAMIC	EKR3A102K05FK5
D906	CVDZJ20BT	DIODE , ZENER	
D907	CVDZJ20BT	DIODE , ZENER	
D908	CVDZJ20BT	DIODE , ZENER	
D909	CVDZJ16BT	DIODE , ZENER 16V	
D942	CVD1SS133MT	DIODE	1SS133
D945	CVDZJ2.7BT	DIODE , ZENER	
FH91	KJCFC5S	HOLDER , FUSE	
FH92	KJCFC5S	HOLDER , FUSE	
IC95	HVIKIA431BAT	I.C , REGULATOR	KIA431B
IC96	HVIKIA431BAT	I.C , REGULATOR	KIA431B
L931	CLZ9Z074Z	COIL , CHOKE(20uH)	
Q901	HVTKSA708YT	T.R	KSA708Y
Q931	HVTKRC102MT	T.R	KRC102M
Q933	HVTKSA708YT	T.R	KSA708Y
Q934	CVTKTN2222A	T.R , SWITCHING	KTN2222A
R901	KROS1TJ105V	RES , METAL FILM (1/2W , 1M OHM)	
R911	CRD25TJ100T	RES , CARBON	
R912	CRD20TJ470T	RES , CARBON	47 OHM 1/5W J
R913	CRD20TJ204T	RES , CARBON	
R915	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R921	CRD20TJ473T	RES , CARBON	47K OHM 1/5W J
R922	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R923	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R924	CRD20TJ274T	RES , CARBON	
R931	CRD20TJ101T	RES , CARBON	100 OHM 1/5W J
R932	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R933	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R934	CRD20TF3001T	RES , CARBON	3K 1/5W F
R935	CRD20TF3001T	RES , CARBON	3K 1/5W F
R936	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R938	CRD20TJ104T	RES , CARBON	100K OHM 1/5W J
R939	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R940	CRD20TJ153T	RES , CARBON	15K OHM 1/5W J
R941	CRD20TJ681T	RES , CARBON	680 OHM 1/5W J
R945	CRD20TJ102T	RES , CARBON	1K OHM 1/5W J
R946	CRD20TJ103T	RES , CARBON	10K OHM 1/5W J
R951	CRD20TJ181T	RES , CARBON	180 OHM 1/5W J
R953	CRD20TJ222T	RES , CARBON	2.2K OHM 1/5W J
R954	CRD20TF3001T	RES , CARBON	3K 1/5W F
R956	CRD20TF2701T	RES , CARBON	2.7K 1/5W/F
CN91	CJP02KA060ZY	WAFER	
CN95	CJP15GA19ZY	WAFER	
CX91	HCQF2E104KZE	CAP , POLYPROPYLENE FILM	
CX92	HCQF2E104KZE	CAP , POLYPROPYLENE FILM	
CY91	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	SDE2G102M10FF7
CY92	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	SDE2G102M10FF7
CY93	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	SDE2G102M10FF7
CY94	CCKDHS102ME	CAP , CERAMIC (400V Y-CAP)	SDE2G102M10FF7
C901	CCET400VK3J151NK	CAP , ELECT(K3J, 400V/150uF, 30X25)	K3J, 400V/150UF, 30X25
C909	CCKT3A222KBL	CAP , CERAMIC	EKR3A222K05FK5
C910	CCKT3A222KBL	CAP , CERAMIC	EKR3A222K05FK5
C951	CCEA1CH222ES	CAP , ELECT	
C954	CCEA1CH222ES	CAP , ELECT	
C956	CCEA1EH681ES	E.CAP 25V 680uF, 105°C	
C958	CCEA1EH681ES	E.CAP 25V 680uF, 105°C	
C961	CCEA1EH681ES	E.CAP 25V 680uF, 105°C	
D901	HVDRL207T	DIODE	RL207T
D902	HVDRL207T	DIODE	RL207T
D903	HVDRL207T	DIODE	RL207T
D904	HVDRL207T	DIODE	RL207T
D911	HVDFR107T	DIODE , F-R	
D912	HVDFR107T	DIODE , F-R	
D913	HVDFR107T	DIODE , F-R	
D914	HVDFR107T	DIODE , F-R	
D931	HVD11EQ06T	DIODE , SCHOTTKY (60V/1A)	11EQ06
D932	HVDUF4004T	DIODE , SCHOTTKY	UF4004
D933	HVDUF4004T	DIODE , SCHOTTKY	UF4004
D935	HVD31DQ06H	DIODE	31DQ06-FC5
D936	HVD31DQ06H	DIODE	31DQ06-FC5

D937	HVDSF26T	DIODE , SUPER FAST	
D938	HVDUF5404H	DIODE , ULTRA FAST	
D939	HVDUF4004T	DIODE , SCHOTTKY	UF4004
D940	HVDUF5404H	DIODE , ULTRA FAST	
IC91	CVIICE3B0365J	IC, CoolSET ICE3B0365J	ICE3B0365J DIP-8P
IC92	CVIICE2B265	IC , COOLSET	
LF92	CLZ9Z072Z	LINE FILTER (DVD-S1700)	
L932	CLZ9Z040Y	COIL , CHOCK(6.8uH)	6700F-6R8M
L933	CLZ9Z040Y	COIL , CHOCK(6.8uH)	6700F-6R8M
L934	CLZ9Z040Y	COIL , CHOCK(6.8uH)	6700F-6R8M
L935	CLZ9Z040Y	COIL , CHOCK(6.8uH)	6700F-6R8M
L936	CLZ9Z040Y	COIL , CHOCK(6.8uH)	6700F-6R8M
L937	CLZ9Z040Y	COIL , CHOCK(6.8uH)	6700F-6R8M
PC91	CVIEL817B	I.C , PHOTO COUPLER	EL817-B
PC92	CVIEL817B	I.C , PHOTO COUPLER	EL817-B
PC93	CVIEL817B	I.C , PHOTO COUPLER	EL817-B
R910	CRG1ANJ154H	RES , METAL OXIDE FILM (150K J 1W 15mm M Type)	
R914	CRG1ANJ2R7B	RES , METAL OXIDE(1W, 2.7ohm)	1W, 2.7OHM
R925	CRW1PJ0R7V	RES , WIRE WOUND(1W/0.7ohm)	
R926	KRG2SANJ683H	RES , METAL OXIDE FILM	2W 68K OHM MINI
R937	CRG1ANJ220R	RES , METAL OXIDE FILM(1W, 20ohm V)	
R942	CRG1ANJ101R	RES , METAL OXIDE FILM (100 J 1W 5mm R Type)	
R943	CRG1ANJ220R	RES , METAL OXIDE FILM(1W, 20ohm V)	
R958	CRG2ANJ470R	RES , METAL OXIDE FILM	
R961	CRG1ANJ101R	RES , METAL OXIDE FILM (100 J 1W 5mm R Type)	
R962	CRG1ANJ271R	RES , METAL OXIDE FILM (270 J 1W 5mm R Type)	
R963	CRG1ANJ271R	RES , METAL OXIDE FILM (270 J 1W 5mm R Type)	
R964	CRG1ANJ471R	RES , METAL OXIDE FILM (470 J 1W 5mm R Type)	
R965	CRG1ANJ471R	RES , METAL OXIDE FILM (470 J 1W 5mm R Type)	
R968	CRG1ANJ220R	RES , METAL OXIDE FILM(1W, 20ohm V)	
TF91	CLT9Z037ZE	TRANS , SWITCHING(DMC250)	EE2020V
TF92	CLT9Z038ZE	TRANS , SWITCHING(DMC250)	EER2828H
TH91	KRT10D9MSFT	THERMISTER	
VT91	CRVSVC471D14A	VARISTOR	SVC471D14A
	CQB1A857Z	LABEL , DTS DMC250	
	CTB3+10JFZR	SCREW	
	CTB3+6FFZR	SCREW	
	CTS3+8JFZR	SCREW	
	CTW3+8JFZR	SCREW	
	CUA1A271K1	CHASSIS , BOTTOM	
	CWC4F2A09A080B	CABLE , CARD (9P, 60mm, 1.0mm PITCH)	9P, 60MM, 1.0MM PITCH
	CWC4F2A17A180B	CABLE , CARD (17P, 180mm, 1.0mm PITCH)	17P, 180MM, 1.0MM PITCH
	CWC4G2A50G150B	CABLE , CARD (15P, 150mm, 0.5mm Pitch)	15P, 150MM, 0.5MM PITCH
	CWZDMC250BN91A	IN-LET WIRE ASS'Y	
	CLZ9W003Z	FERRITE , RING	29X7.7X19
	CWZDMC250BN91	WIRE ASS'Y	
	HJJ8A003Z	RECEPTACLE,(2.5A 250V AC)	RF-180-BB
	KMC1A264	CUSHION , SHIELD	
F901	KBA2C2000TLEY	FUSE	EUR (2A/250V)

KEC

SEMICONDUCTOR

TECHNICAL DATA

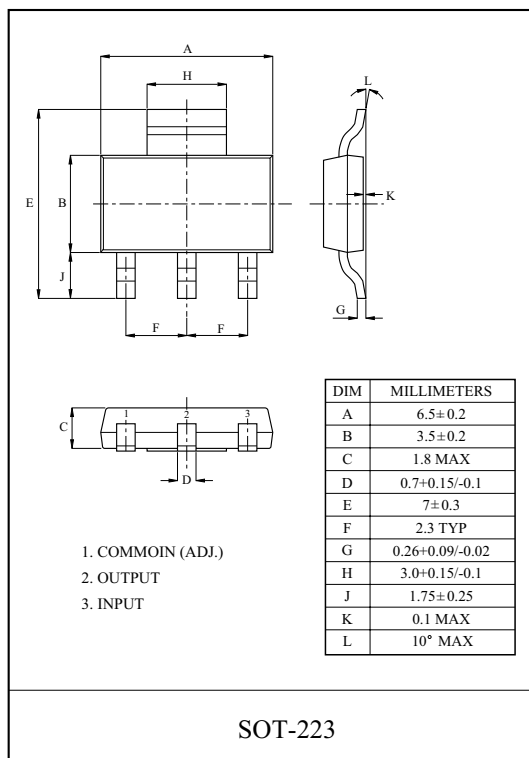
KIA1117S/F00~
KIA1117S/F50
BIPOLAR LINEAR INTEGRATED CIRCUIT

LOW DROP FIXED AND ADJUSTABLE POSITIVE VOLTAGE REGULATOR

The KIA1117S/F $\times \times$ 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 : 4.2mA/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 μF for stability
- Available in $\pm 2\%$ (at 25 $^{\circ}C$) and 4% in full Temperature range
- High Ripple Rejection : 80dB/Typ
- Temperature Range : 0 $^{\circ}C \sim 125^{\circ}C$



LINE UP

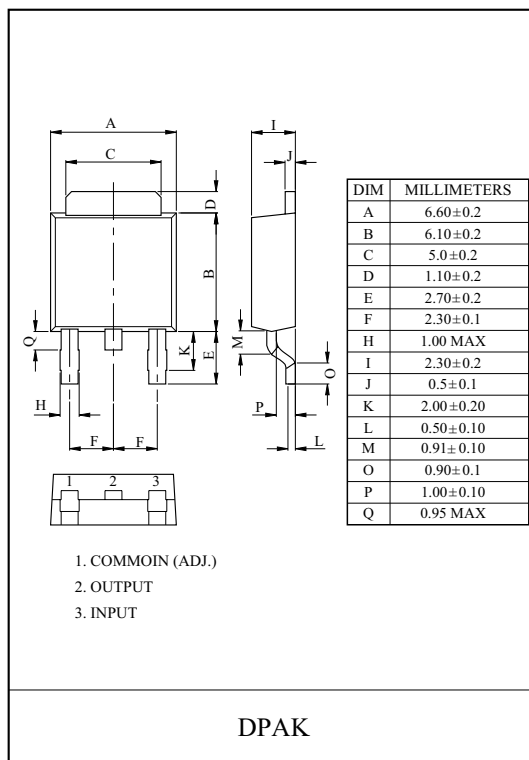
ITEM	OUTPUT VOLTAGE (V)	PACKAGE
KIA1117S/F00	Adjustable (1.25~10V)	S : SOT-223 F : DPAK
KIA1117S/F15	1.5	
KIA1117S/F18	1.8	
KIA1117S/F25	2.5	
KIA1117S/F28	2.85	
KIA1117S/F33	3.3	
KIA1117S/F50	5.0	

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

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		1.3	
Power Dissipation 2 (Without heatsink)	S	P_{D2}	8.3	W
	F		13	
Operating Temperature		T_{opr}	0 ~ 125	$^{\circ}C$
Storage Temperature		T_{stg}	-55 ~ 150	$^{\circ}C$

Note) Package Mounted on FR-4 PCB 36 $\times$ 18 $\times$ 1.5 mm.

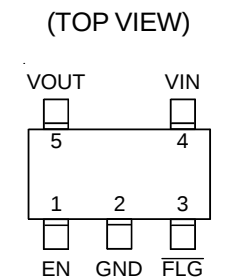
: mounting pad for the GND Lead min. 6mm²



RT9702/A

RICHTEK

Pin Configurations

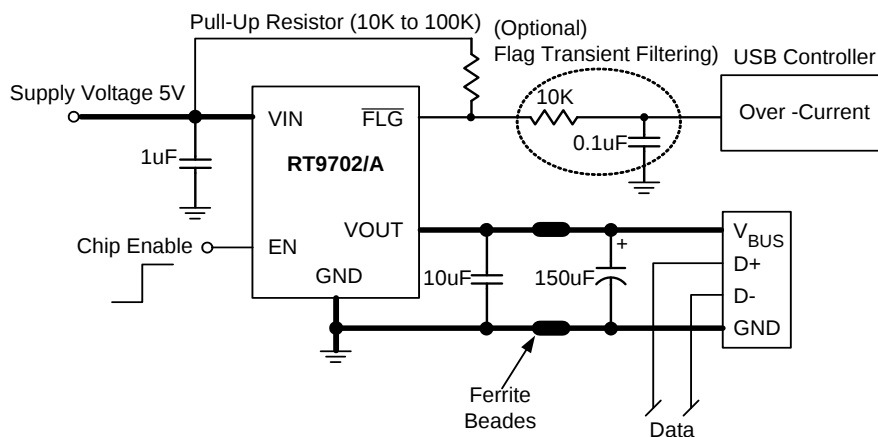


SOT-23-5/TSOT-23-5

Functional Pin Description

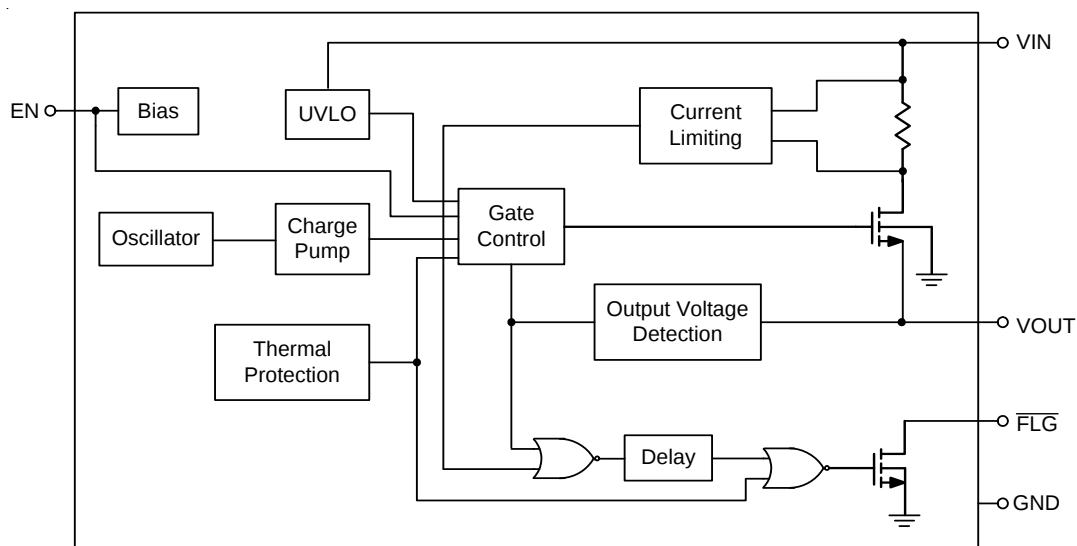
Pin Name	Pin Function
VIN	Power-Input Voltage
VOUT	Output Voltage
GND	Ground
EN	Chip Enable (Active High)
FLG	Open-Drain Fault Flag Output

Typical Application Circuit



Note: A low-ESR 150μF aluminum electrolytic or tantalum between V_{OUT} and GND is strongly recommended to meet the 330mV maximum droop requirement in the hub V_{BUS}. (see Application Information Section for further details)

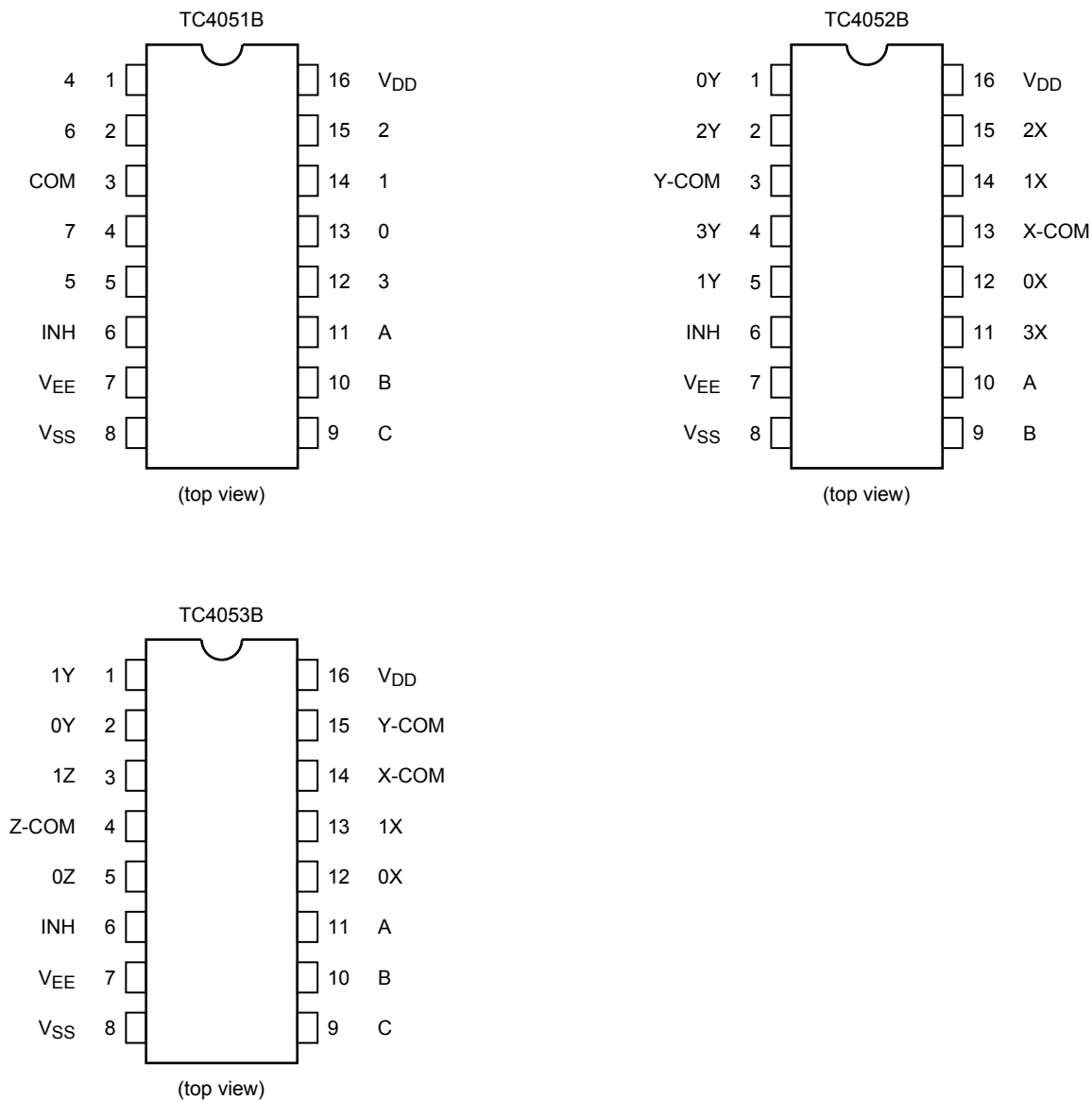
Function Block Diagram



TOSHIBA

TC4051,4052,4053BP/BF/BFN/BFT

Pin Assignment



Truth Table

Control Inputs				“ON” Channel		
Inhibit	CΔ	B	A	TC4051B	TC4052B	TC4053B
L	L	L	L	0	0X, 0Y	0X, 0Y, 0Z
L	L	L	H	1	1X, 1Y	1X, 0Y, 0Z
L	L	H	L	2	2X, 2Y	0X, 1Y, 0Z
L	L	H	H	3	3X, 3Y	1X, 1Y, 0Z
L	H	L	L	4	—	0X, 0Y, 1Z
L	H	L	H	5	—	1X, 0Y, 1Z
L	H	H	L	6	—	0X, 1Y, 1Z
L	H	H	H	7	—	1X, 1Y, 1Z
H	X	X	X	None	None	None

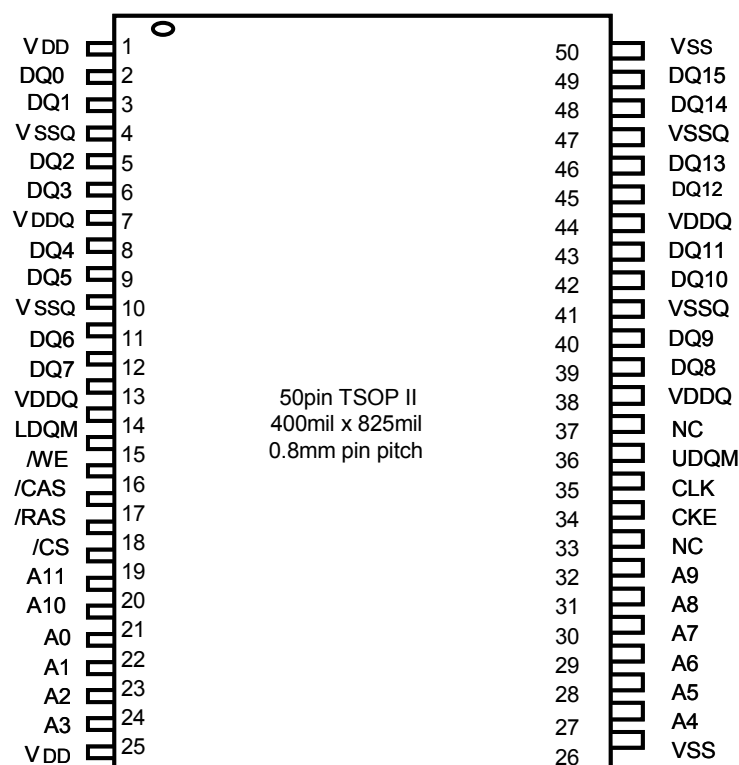
X: Don't care

Δ: Except TC4052B



HY57V161610E

PIN CONFIGURATION



PIN DESCRIPTION

PIN	PIN NAME	DESCRIPTION
CLK	Clock	The system clock input. All other inputs are referenced to the SDRAM on the rising edge of CLK.
CKE	Clock Enable	Controls internal clock signal and when deactivated, the SDRAM will be one of the states among power down, suspend or self refresh.
$\overline{\text{CS}}$	Chip Select	Command input enable or mask except CLK, CKE and DQM
BA	Bank Address	Select either one of banks during both $\overline{\text{RAS}}$ and $\overline{\text{CAS}}$ activity.
A0 ~ A10	Address	Row Address : RA0 ~ RA10, Column Address : CA0 ~ CA7 Auto-precharge flag : A10
$\overline{\text{RAS}}$, $\overline{\text{CAS}}$, $\overline{\text{WE}}$	Row Address Strobe, Column Address Strobe, Write Enable	$\overline{\text{RAS}}$, $\overline{\text{CAS}}$ and $\overline{\text{WE}}$ define the operation. Refer function truth table for details
LDQM, UDQM	Data Input/Output Mask	DQM control output buffer in read mode and mask input data in write mode
DQ0 ~ DQ15	Data Input/Output	Multiplexed data input / output pin
VDD/VSS	Power Supply/Ground	Power supply for internal circuit and input buffer
VDDQ/VSSQ	Data Output Power/Ground	Power supply for DQ
NC	No Connection	No connection

ADV7320/ADV7321

PIN CONFIGURATION AND FUNCTION DESCRIPTIONS

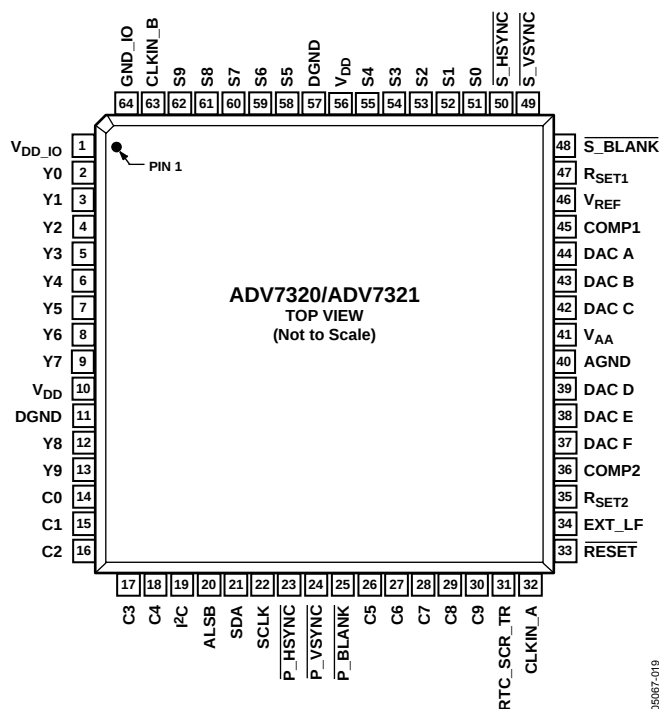


Figure 19. Pin Configuration

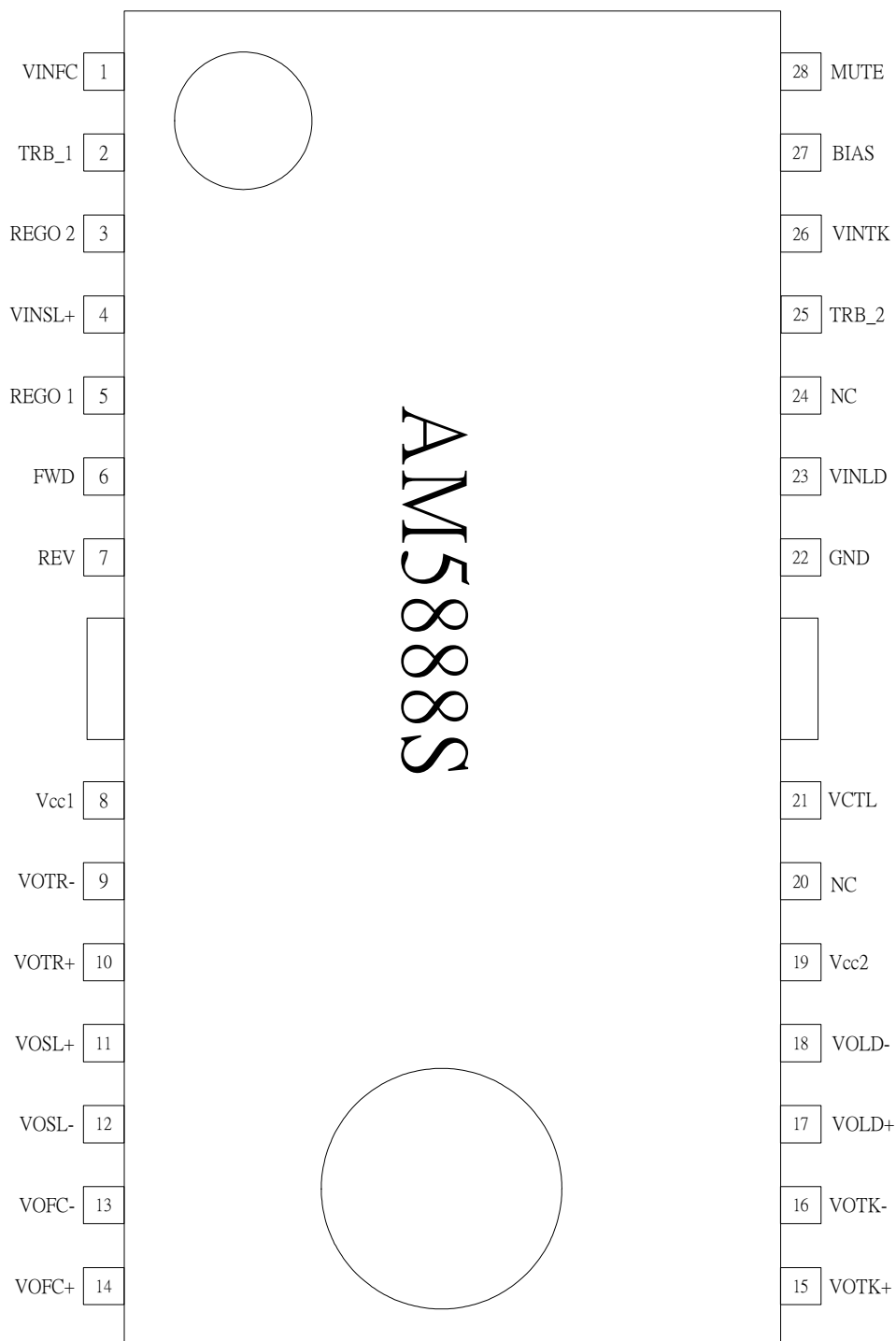
Table 6. Pin Function Descriptions

Pin No.	Mnemonic	Input/Output	Description
11, 57	DGND	G	Digital Ground.
40	AGND	G	Analog Ground.
32	CLKIN_A	I	Pixel Clock Input for HD (74.25 MHz Only, PS Only (27 MHz), SD Only (27 MHz).
63	CLKIN_B	I	Pixel Clock Input. Requires a 27 MHz reference clock for progressive scan mode or a 74.25 MHz (74.1758 MHz) reference clock in HDTV mode. This clock is only used in dual modes.
45, 36	COMP1, COMP2	O	Compensation Pin for DACs. Connect 0.1 μ F capacitor from COMP pin to V _{AA} .
44	DAC A	O	CVBS/Green/Y/Y Analog Output.
43	DAC B	O	Chroma/Blue/U/Pb Analog Output.
42	DAC C	O	Luma/Red/V/Pr Analog Output.
39	DAC D	O	In SD Only Mode: CVBS/Green/Y Analog Output; in HD Only Mode and Simultaneous HD/SD Mode: Y/Green [HD] Analog Output.
38	DAC E	O	In SD Only Mode: Luma/Blue/U Analog Output; in HD Only Mode and Simultaneous HD/SD Mode: Pr/Red Analog Output.
37	DAC F	O	In SD Only Mode: Chroma/Red/V Analog Output; in HD Only Mode and Simultaneous HD/SD Mode: Pb/Blue [HD] Analog Output.
23	P_HSYNC	I	Video Horizontal Sync Control Signal for HD in Simultaneous SD/HD Mode and HD Only Mode.
24	P_VSYNC	I	Video Vertical Sync Control Signal for HD in Simultaneous SD/HD Mode and HD Only Mode.
25	P_BLANK	I	Video Blanking Control Signal for HD in Simultaneous SD/HD Mode and HD Only Mode.
48	S_BLANK	I/O	Video Blanking Control Signal for SD Only.
49	S_VSYNC	I/O	Video Vertical Sync Control Signal for SD Only.
50	S_HSYNC	I/O	Video Horizontal Sync Control Signal for SD Only.
13,12, 9-2	Y9 to Y0	I	SD or Progressive Scan/HDTV Input Port for Y Data. Input port for interleaved progressive scan data. The LSB is set up on Pin Y0. For 8-bit data input, LSB is set up on Y2.
30-26, 18-14	C9 to C0	I	Progressive Scan/HDTV Input Port 4:4:4 Input Mode. This port is used for the Cb[Blue/U] data. The LSB is set up on Pin C0. For 8-bit data input, LSB is set up on C2.



AM5888S Motor Driver ICs

● Pin configuration



Features

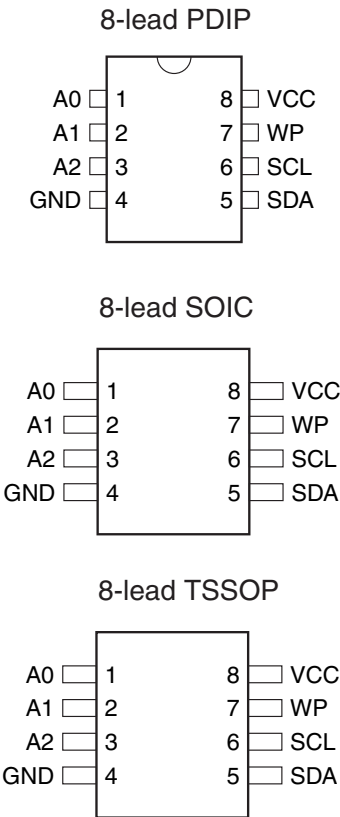
- Medium-voltage and Standard-voltage Operation
 - 5.0 (V_{CC} = 4.5V to 5.5V)
 - 2.7 (V_{CC} = 2.7V to 5.5V)
- Automotive Temperature Range –40°C to 125°C
- Internally Organized 128 x 8 (1K), 256 x 8 (2K), 512 x 8 (4K), 1024 x 8 (8K) or 2048 x 8 (16K)
- Two-wire Serial Interface
- Schmitt Trigger, Filtered Inputs for Noise Suppression
- Bidirectional Data Transfer Protocol
- 400 kHz (2.7V) Compatibility
- Write Protect Pin for Hardware Data Protection
- 8-byte Page (1K, 2K), 16-byte Page (4K, 8K, 16K) Write Modes
- Partial Page Writes are Allowed
- Self-timed Write Cycle (5 ms max)
- High-reliability
 - Endurance: 1 Million Write Cycles
 - Data Retention: 100 Years
- 8-lead PDIP, 8-lead JEDEC SOIC, and 8-lead TSSOP Packages

Description

The AT24C01A/02/04/08A/16A provides 1024/2048/4096/8192/16384 bits of serial electrically erasable and programmable read-only memory (EEPROM) organized as 128/256/512/1024/2048 words of 8 bits each. The device is optimized for use in many automotive applications where low-power and low-voltage operation are essential. The AT24C01A/02/04/08A/16A is available in space-saving 8-lead PDIP, 8-lead JEDEC SOIC, and 8-lead TSSOP packages and is accessed via a two-wire serial interface. In addition, the entire family is available in 2.7V (2.7V to 5.5V) versions.

Table 1. Pin Configurations

Pin Name	Function
A0 – A2	Address Inputs
SDA	Serial Data
SCL	Serial Clock Input
WP	Write Protect
NC	No Connect



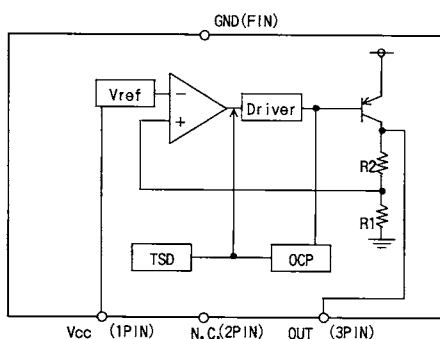
Two-wire
Automotive
Temperature
Serial EEPROM

- 1K (128 x 8)
- 2K (256 x 8)
- 4K (512 x 8)
- 8K (1024 x 8)
- 16K (2048 x 8)

- AT24C01A
- AT24C02
- AT24C04
- AT24C08A
- AT24C16A



○BLOCK DIAGRAM



※ Please refer to technical note concerning application circuit, and etc.

○PIN NO. , PIN NAME

Pin No.	Pin Name
1	Vcc
2	N.C.
3	OUT
FIN	GND

ONOTES FOR USE

1. Absolute maximum range

Absolute Maximum Ratings are those values beyond which the life of a device may be destroyed we cannot be defined the failure mode, such as short mode or open mode.

Therefore physical security countermeasure, like fuse, is to be given when a specific mode to be beyond absolute maximum ratings is considered.

2. GND pin voltage

GND terminal should be connected the lowest voltage, under all conditions. And all terminals except GND should be under GND terminal voltage under all conditions including transient situations.

3. Power dissipation

If IC is used on condition that the power loss is over the power dissipation, the reliability will become worse by heat up, such as reduced output current capability.

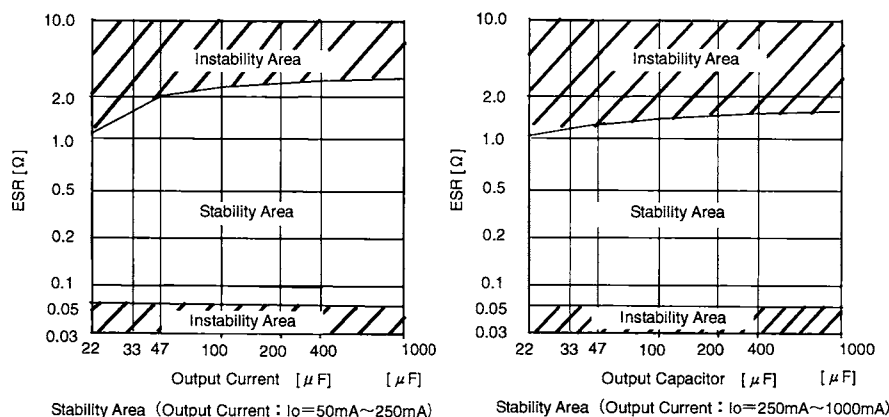
Also, be sure to use this IC within a power dissipation range allowing enough of margin.

4. Electrical characteristics described in these specifications may vary, depending on temperature, supply voltage, external circuits and other conditions. Therefore, be sure to check all relevant factors, including transient characteristics.

5. Be sure to connect a capacitor with capacitance of at least 22 μ F, including temperature characteristics and variation, to prevent oscillation between the Vo and GND. Note that if the capacity of the capacitor changes due to factors such as changes in temperature or ESR, oscillation may occur, and the original characteristics of the IC may not be realized. For example, when a ceramic capacitor is employed, oscillation will be generated because the series resistance is too small. Please take countermeasures to prevent this, such as adding a series resistor. Standard electrolytic capacitors are subject to extremely large capacitance and ESR fluctuations due to temperature conditions. Particularly at low temperature, capacity is decreased, while ESR grows larger, conditions which increase the vulnerability to oscillation. Therefore, be certain to check for the presence of oscillation.

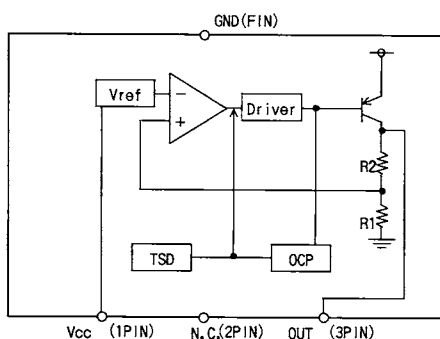
In respect to the proper ESR range, select a capacitor that meets the conditions in the figure below for stable operation range. Note, however, that the stable range suggested in the figure depends on the IC and the resistance load involved, and can vary with the board's wiring impedance, input impedance, and/or load impedance. Therefore, be certain to ascertain the final status of these items for actual use.

Keep capacitor capacitance within a range of 22 μ F~1000 μ F. It is also recommended that a 0.33 μ F bypass capacitor be connected as close to the input pin-GND as location possible. However, in situations such as rapid fluctuation of the input voltage or the load, please check the operation in real application to determine proper capacitance.



Rev. D

○BLOCK DIAGRAM



※ Please refer to technical note concerning application circuit, and etc.

○PIN NO. , PIN NAME

Pin No.	Pin Name
1	Vcc
2	N.C.
3	OUT
FIN	GND

ONOTES FOR USE

1. Absolute maximum range

Absolute Maximum Ratings are those values beyond which the life of a device may be destroyed we cannot be defined the failure mode, such as short mode or open mode.

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If IC is used on condition that the power loss is over the power dissipation, the reliability will become worse by heat up, such as reduced output current capability.

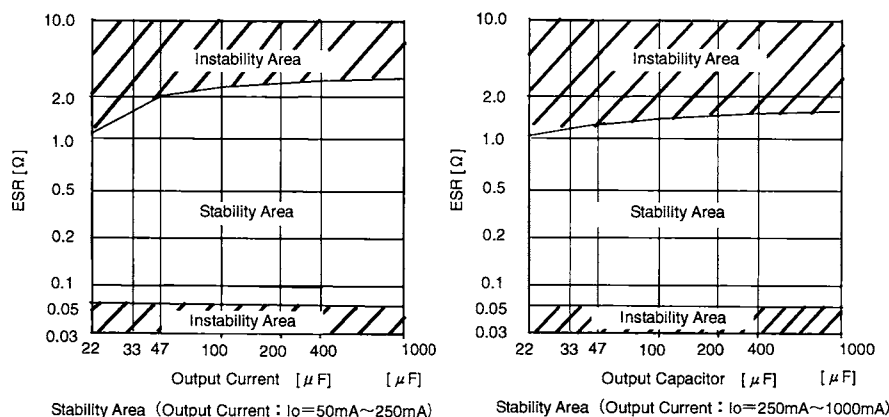
Also, be sure to use this IC within a power dissipation range allowing enough of margin.

4. Electrical characteristics described in these specifications may vary, depending on temperature, supply voltage, external circuits and other conditions. Therefore, be sure to check all relevant factors, including transient characteristics.

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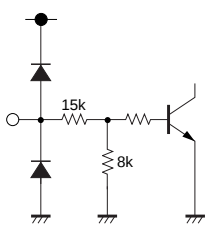
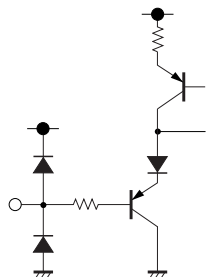
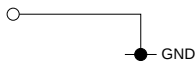
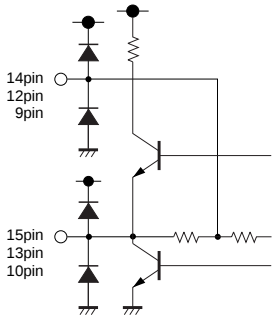
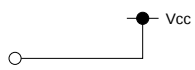
In respect to the proper ESR range, select a capacitor that meets the conditions in the figure below for stable operation range. Note, however, that the stable range suggested in the figure depends on the IC and the resistance load involved, and can vary with the board's wiring impedance, input impedance, and/or load impedance. Therefore, be certain to ascertain the final status of these items for actual use.

Keep capacitor capacitance within a range of $22\mu\text{F} \sim 1000\mu\text{F}$. It is also recommended that a $0.33\mu\text{F}$ bypass capacitor be connected as close to the input pin-GND as location possible. However, in situations such as rapid fluctuation of the input voltage or the load, please check the operation in real application to determine proper capacitance.



Rev. D

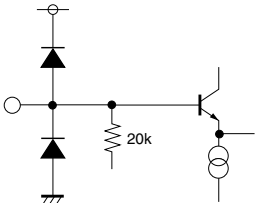
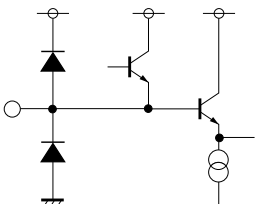
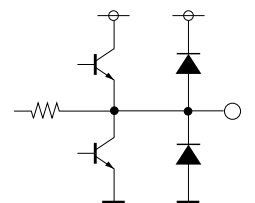
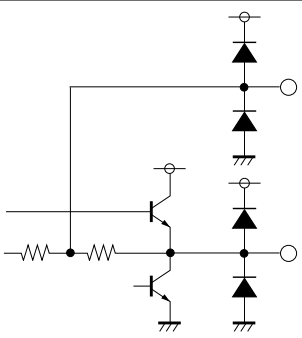
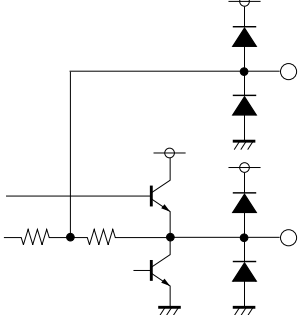
● Pin descriptions and input / output circuits

Pin. No	Pin name	IN	OUT	Reference voltage	Equivalent circuit	Function
1	MUTE	○	—	—		Muting control If MUTE (pin 1) is set to HIGH, muting is carried out simultaneously on all three channels.
2 4 7	INA INB INC	○	—	—		Signal input Input signals consist of composite video signals, Y signals, C signals, RGB, and others. The input level is within a range of 0 to 1.3 (min.) to 1.5 (typ.).
3 5 8	GND	—	—	0V		Ground
14 12 9 15 13 10	OUTA2 OUTB2 OUTC2 OUTA1 OUTB1 OUTC1	—	○	0.9V 0.95V		Signal output The signal output level is $(0.9 + 2 \times \text{input voltage [V]})$. Pins 9, 12, and 14 are the pins for sag correction. If pins 10, 13, and 15 are set to 0.2V or less, the protective circuit is triggered and the power-saving mode is accessed.
16	V _{CC}	—	—	5.0V		Power supply

BH7862FS

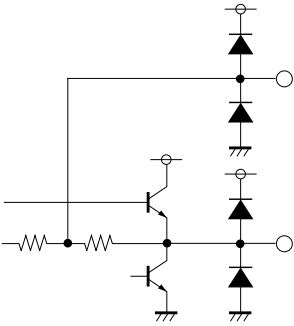
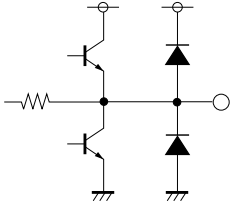
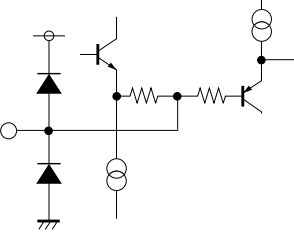
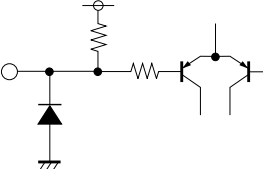
Multimedia ICs

●Pin descriptions and Input / output circuits

Pin No.	Pin name	Input/output equivalent circuit	Pin description
3 12 14	CIN PbIN PrIN		Signal input terminal. Input terminal for chroma signal and color-difference signal. Bias type input. The input impedance is 20kΩ.
5 8	YIN PYIN		Signal input terminal. Input terminal for luminance signal. Di clamp input.
32	COUT		Signal output terminal. Output terminal for chroma signal.
29 30	MIXFB MIXOUT		Signal output terminal. Output terminal for Y/C MIX signal.
24 25	YFB YOUT		Signal output terminal. Output terminal for luminance signal (interlaced type).

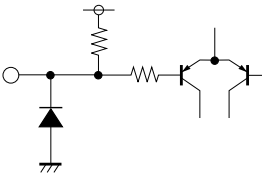
BH7862FS

Multimedia ICs

Pin No.	Pin name	Input/output equivalent circuit	Pin description
21 22	PYFB PYOUT		Signal output terminal. Output terminal for luminance signal (progressive type).
17 19	PrOUT PbOUT		Signal output terminal. Output terminal for color-difference signal.
1 27 10 16	CTPAP YTRAP PYTRAP PrTRAP		Terminal for LC resonance.
6 11	V _{CC}		Power supply voltage. V _{CC} is separated into 6 pin and 11 pin. That is to say, C, MIX and Y are partitioned by 6 pin and PY, Pb and Pr by 11 pin. They are not connected internally. Connect them externally when using.
4 7 9 13 20 23 26 28	GND		Grounding terminal.
2	MUTE1		Mute control terminal. C, MIX and Y are muted simultaneously by setting MUTE to "L".

BH7862FS

Multimedia ICs

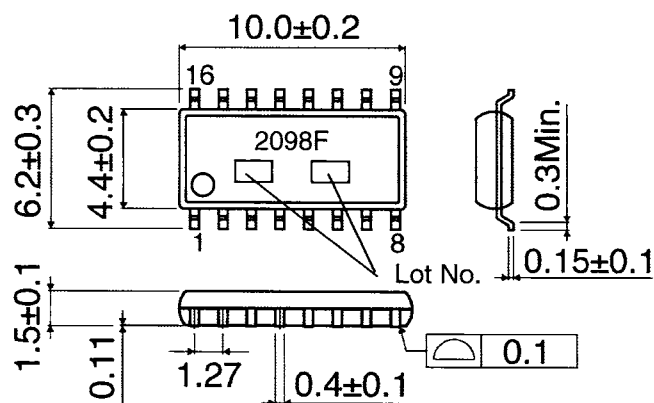
Pin No.	Pin name	Input/output equivalent circuit	Pin description
12	MUTE2		Mute control terminal. PY, Pb and PR are muted simultaneously by setting MUTE to "L".
31	TEST		Test terminal. Usually, short-circuit this terminal to GND when using it.
18	N.C.		—

● ELECTRICAL CHARACTERISTICS (unless otherwise noted, $T_a=25^{\circ}\text{C}$, $V_{DD}=5.0\text{V}$)

Parameter	Symbol	Standard Value			Unit	Condition
		MIN	TYP	MAX		
Power Supply Voltage range	V_{DD}	2.7	-	5.5	V	V_{DD} pin
Output Voltage range	V_o	0	-	15.0	V	
Supply current	I_{cc1}	-	-	2.0	μA	Static supply current
Input "H" voltage	V_{IH}	0.7	-	-	V/V	Ratio against V_{DD}
Input "L" voltage	V_{IL}	-	-	0.3	V/V	Ratio against V_{DD}
Output "L" voltage	V_{OL}	-	-	0.4	V	
Input "L" current	I_{IL}	-	-	2.0	μA	$V_{in}=0$
Input "L" current	I_{IH}	-	-	-2.0	μA	$V_{in}=V_{DD}$
Output Leakage current	I_L	-	-	± 5.0	μA	Output=OPEN, $V_{out}=V_{DD}$
Data Minimum set up time	t_1	100	-	-	nS	High speed mode
Data hold time	t_2	-	-	900	nS	High speed mode
Minimum shift pulse width (High speed mode)	t_{31}	0	-	400	KHz	
Minimum shift pulse width (normal mode)	t_{32}	0	-	100	KHz	

This product is not assessed whether to be strategic materials in foreign exchange and trade law or not, so please confirm at trading. This product is not deigned against radioactive ray.

● PHYSICAL DIMENSIONS



SOP16 (UNIT : mm)



● Pin Description

Pin. No	Terminal	Symbol	Function
14	SCL	C	Shift pulse for shift register
15	SDA	S _I	Data input for shift register, data is set at rising edge of shift pulse
1	A0	A ₀	Address input 0
2	A1	A ₁	Address input 1
3	A2	A ₂	Address input 2
4	Q0	O ₀	1st bit output, it becomes "1" when data in register is "1"
5	Q1	O ₁	2nd bit output, it becomes "1" when data in register is "1"
6	Q2	O ₂	3rd bit output, it becomes "1" when data in register is "1"
7	Q3	O ₃	4th bit output, it becomes "1" when data in register is "1"
9	Q4	O ₄	5th bit output, it becomes "1" when data in register is "1"
10	Q5	O ₅	6th bit output, it becomes "1" when data in register is "1"
11	Q6	O ₆	7th bit output, it becomes "1" when data in register is "1"
12	Q7	O ₇	8th bit output, it becomes "1" when data in register is "1"
13	NC	NC	NC pin
8	VSS	GND	GND
16	VDD	VDD	Power supply


EVERLIGHT ELECTRONICS CO., LTD

Technical Data Sheet

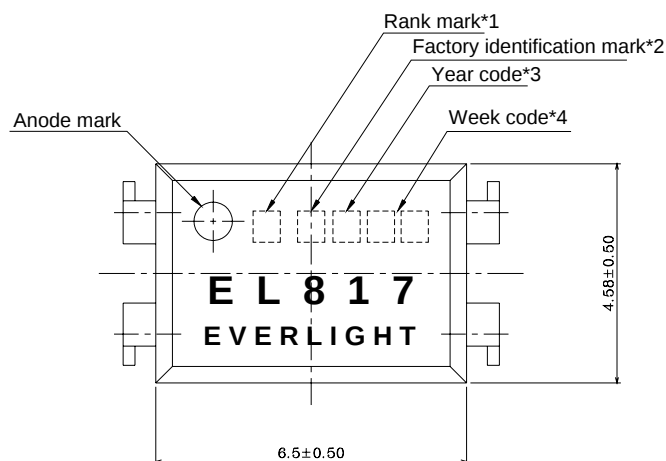
Photocoupler-RoHS Compliant

Device Selection Guide

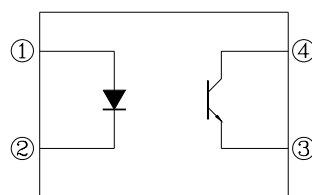
Part. No.	Chip Material	
	IR	PT
EL817*	GaAs	Silicon

EL817 Series

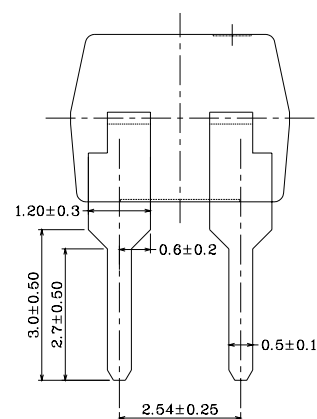
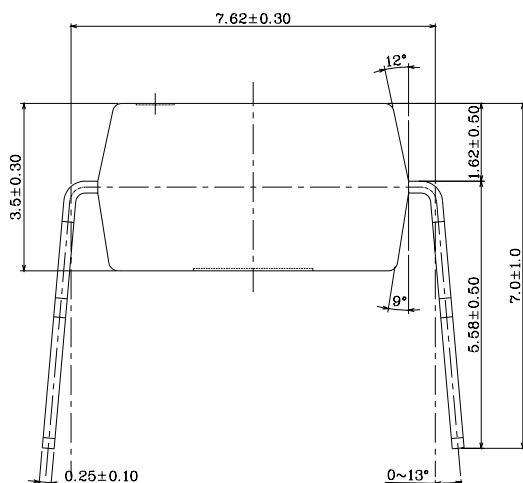
Package Dimensions



PIN NO. AND INTERNAL CONNECTION DIAGRAM



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

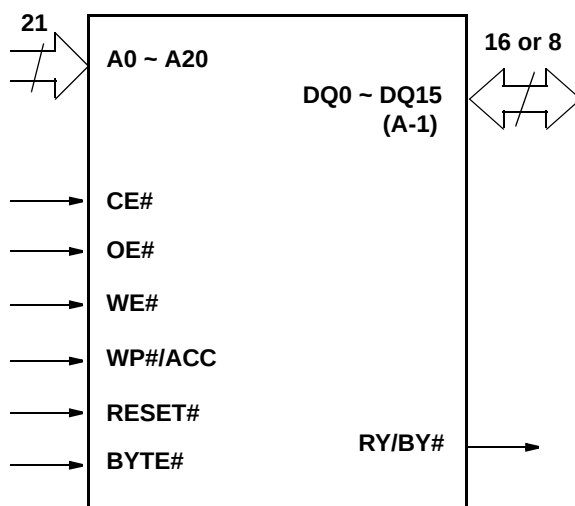




PIN DESCRIPTION

Pin	Description
A0-A20	21 Addresses
DQ0-DQ14	15 Data Inputs/Outputs
DQ15/A-1	DQ15 (Data Input/Output, Word Mode) A-1 (LSB Address Input, Byte Mode)
CE#	Chip Enable
OE#	Output Enable
WE#	Write Enable
WP#/ACC	Hardware Write Protect/Acceleration Pin
RESET#	Hardware Reset Pin, Active Low
BYTE#	Selects 8-bit or 16-bit mode
RY/BY#	Ready/Busy Output
Vcc	3.0 volt-only single power supply (see Product Selector Guide for speed options and voltage supply tolerances)
Vss	Device Ground
NC	Pin Not Connected Internally

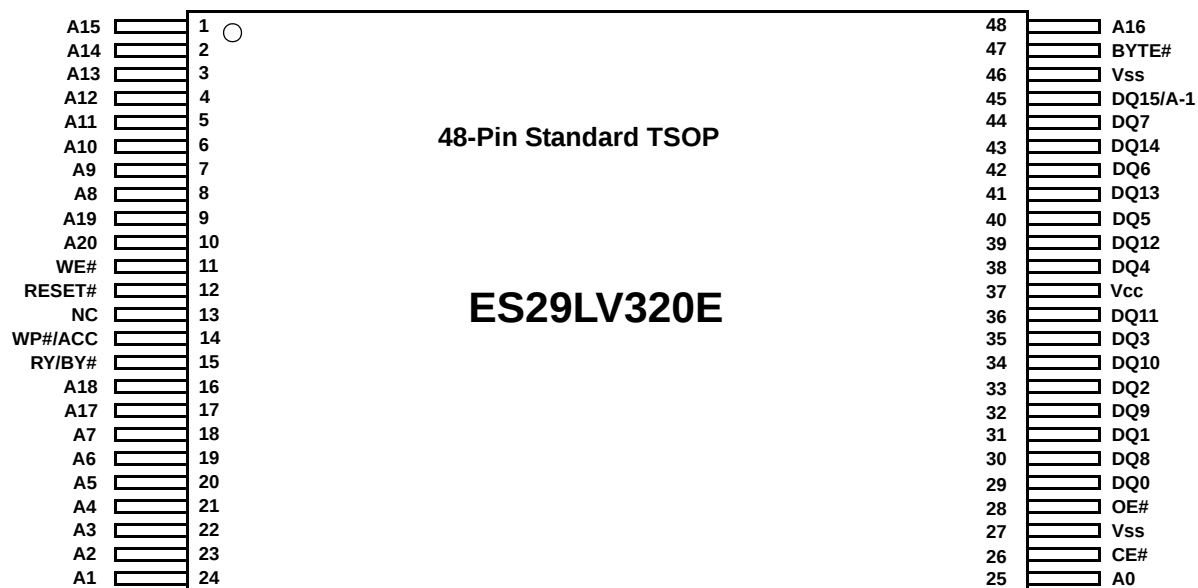
LOGIC SYMBOL





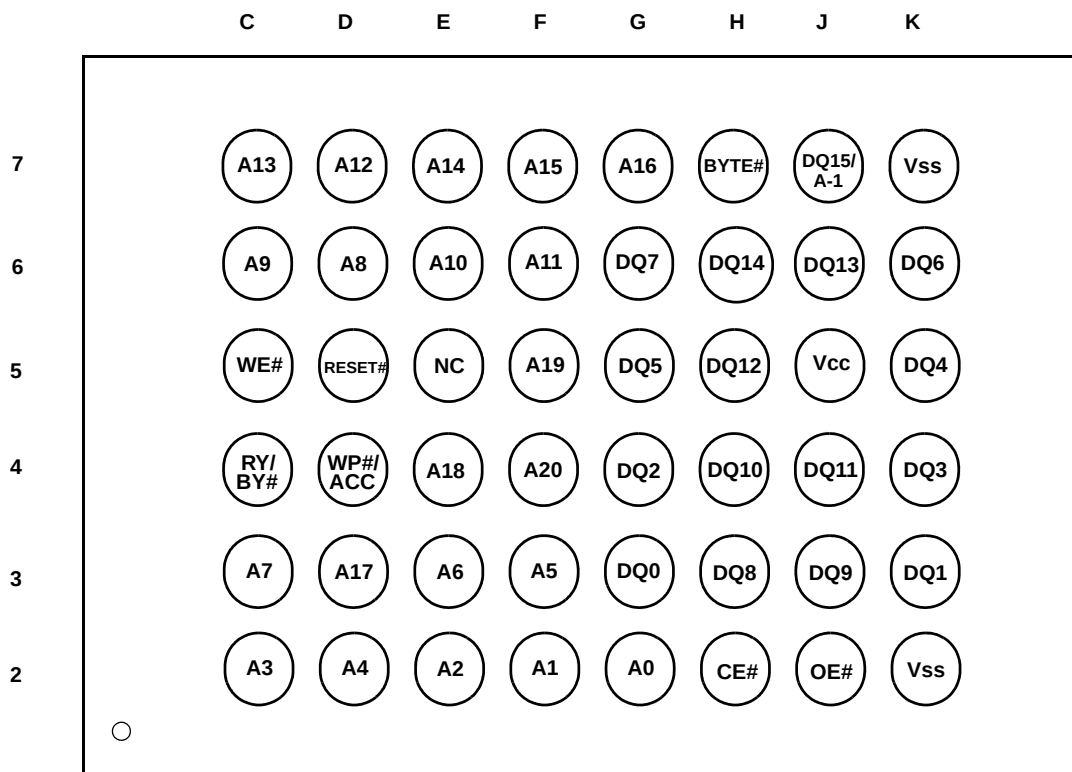
Excel Semiconductor inc.

CONNECTION DIAGRAM



48-Ball FBGA 6 x 8 mm)

(Top View, Balls Facing Down)



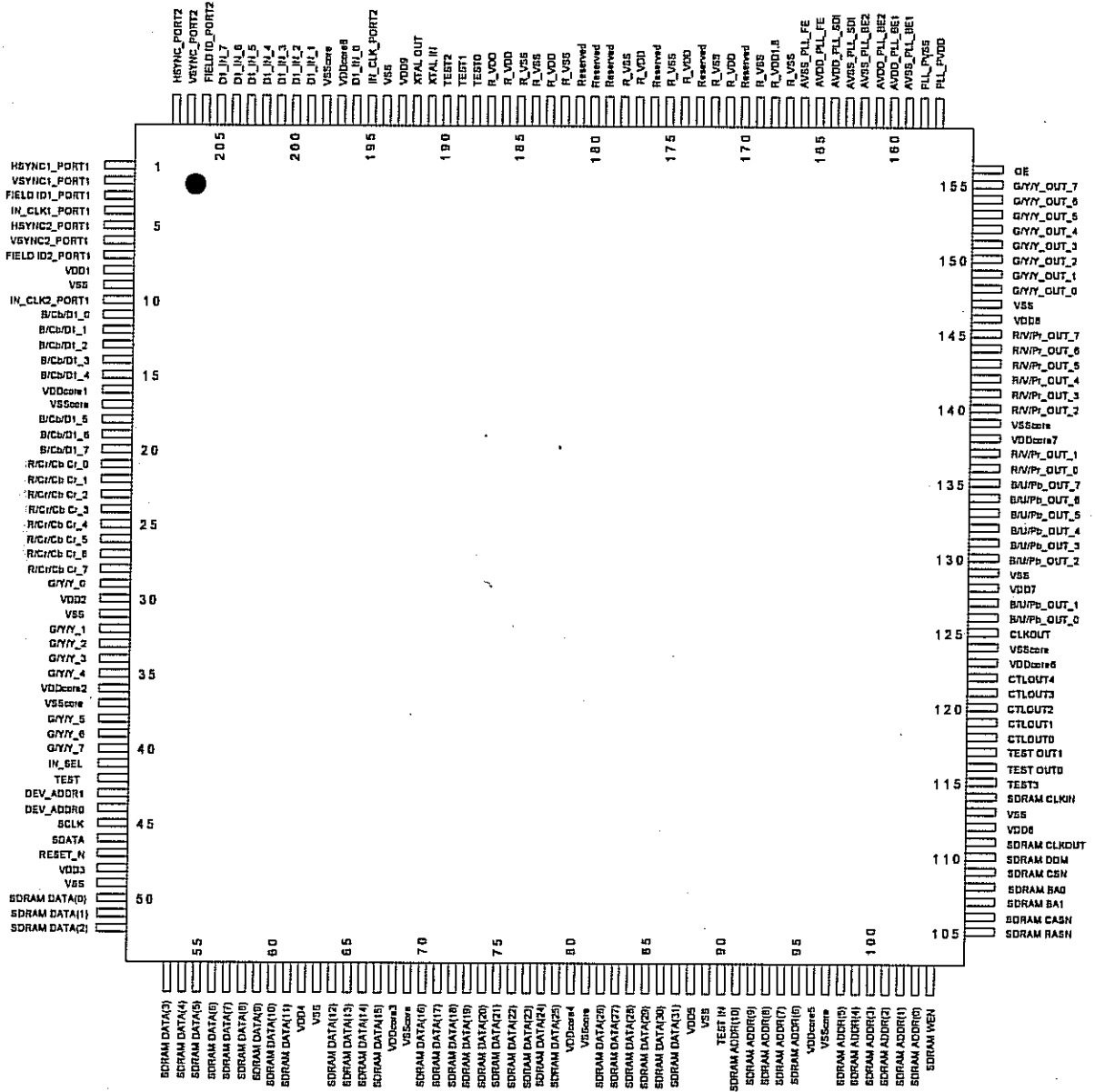


FLI2310 LF Digital Video Converter Data Sheet

3 PIN INFORMATION

3.1 Pin Diagram

Figure 3.1: Pinout Information



Package: 208-pin PQFP

TOSHIBA**HN1K02FU**

TOSHIBA Field Effect Transistor Silicon N Channel MOS Type

HN1K02FU

High Speed Switching Applications

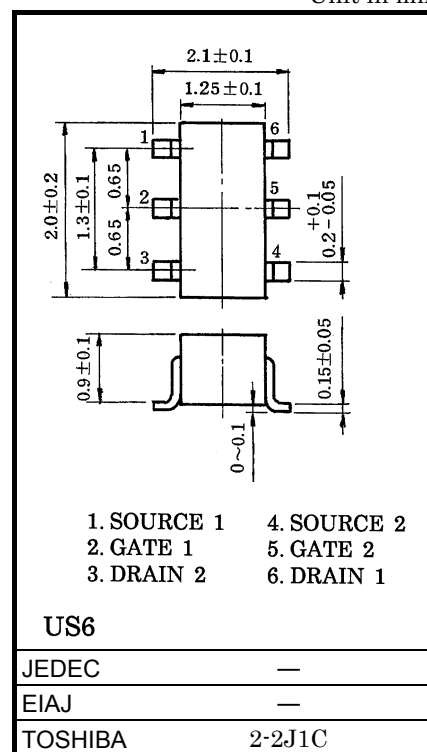
Analog Switch Applications

Unit in mm

- 2.5 V gate drive.
- Low threshold voltage: $V_{th} = 0.5V \sim 1.5V$
- High speed
- Enhancement-mode
- Small package

**Absolute Maximum Ratings ($T_a = 25^\circ C$)
(Q1, Q2 Common)**

Characteristic	Symbol	Rating	Unit
Drain-Source voltage	V_{DS}	20	V
Gate-Source voltage	V_{GSS}	10	V
DC Drain current	I_D	50	mA
Drain power dissipation	P_D^*	200	mW
Channel temperature	T_{ch}	150	$^\circ C$
Storage temperature range	T_{stg}	$-55 \sim 150$	$^\circ C$



Weight: 6.8mg

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

* Total rating

TOSHIBA**HN1K05FU**

TOSHIBA Field Effect Transistor Silicon N Channel MOS Type

HN1K05FU

For Portable Devices

High Speed Switching Applications

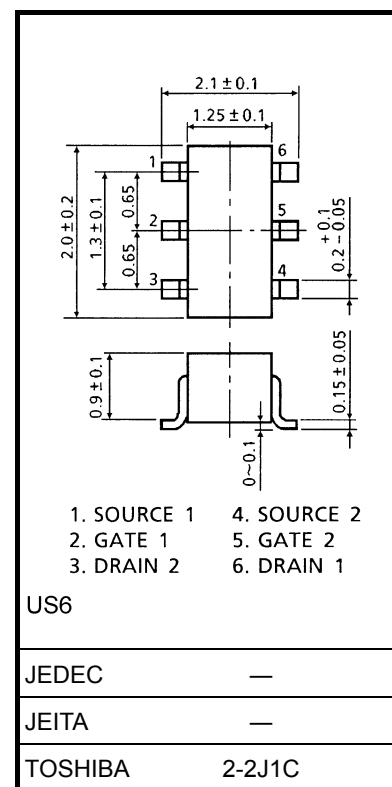
Interface Applications

Unit: mm

- High input impedance and extremely low drive current.
- V_{th} is low and it is possible to drive directly at low-voltage CMOS.
: $V_{th} = 0.5$ to 1.0 V
- Suitable for high-density mounting because of a compact package.

**Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)
(Q1, Q2 common)**

Characteristics	Symbol	Rating	Unit
Drain-source voltage	V_{DS}	20	V
Gate-source voltage	V_{GSS}	10	V
DC drain current	I_D	100	mA
Drain power dissipation	P_D (Note 1)	200	mW
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to 150	$^\circ\text{C}$



Weight: 6.8 mg

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Note 1: TOTAL rating

KEC

SEMICONDUCTOR

TECHNICAL DATA

KIA1117S/F00~

KIA1117S/F50

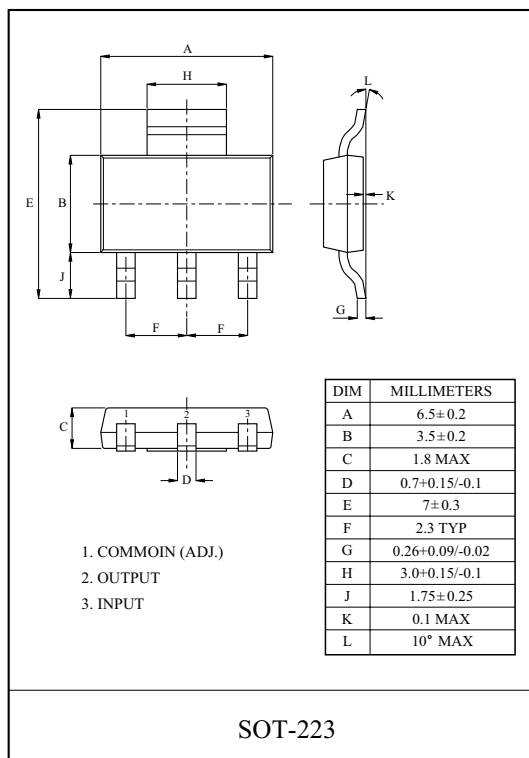
BIPOLAR LINEAR INTEGRATED CIRCUIT

LOW DROP FIXED AND ADJUSTABLE POSITIVE VOLTAGE REGULATOR

The KIA1117S/F $\times \times$ 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 : 4.2mA/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 μF for stability
- Available in $\pm 2\%$ (at 25 $^{\circ}C$) and 4% in full Temperature range
- High Ripple Rejection : 80dB/Typ
- Temperature Range : 0 $^{\circ}C \sim 125^{\circ}C$



LINE UP

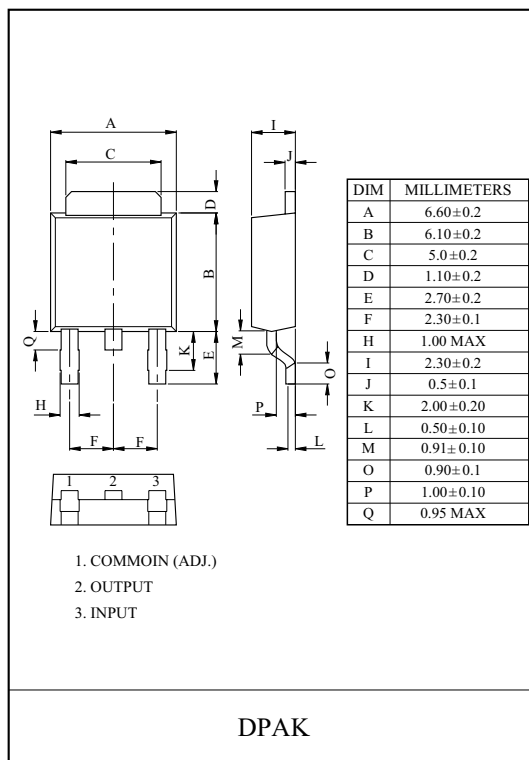
ITEM	OUTPUT VOLTAGE (V)	PACKAGE
KIA1117S/F00	Adjustable (1.25~10V)	S : SOT-223 F : DPAK
KIA1117S/F15	1.5	
KIA1117S/F18	1.8	
KIA1117S/F25	2.5	
KIA1117S/F28	2.85	
KIA1117S/F33	3.3	
KIA1117S/F50	5.0	

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

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		1.3	
Power Dissipation 2 (Without heatsink)	S	P_{D2}	8.3	W
	F		13	
Operating Temperature		T_{opr}	0 ~ 125	$^{\circ}C$
Storage Temperature		T_{stg}	-55 ~ 150	$^{\circ}C$

Note) Package Mounted on FR-4 PCB 36 $\times$ 18 $\times$ 1.5 mm.

: mounting pad for the GND Lead min. 6mm²



KEC**SEMICONDUCTOR
TECHNICAL DATA****KIA7805API~
KIA7824API
BIPOLAR LINEAR INTEGRATED CIRCUIT**

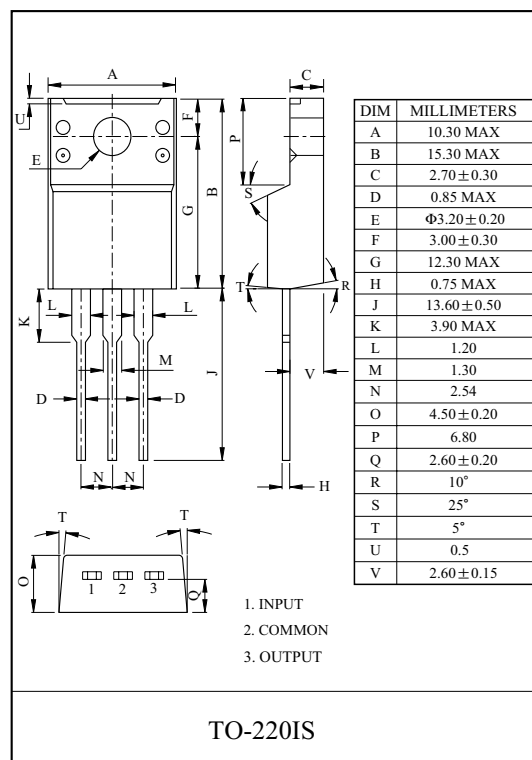
THREE TERMINAL POSITIVE VOLTAGE REGULATORS
5V, 6V, 8V, 9V, 10V, 12V, 15V, 18V, 20V, 24V.

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	KIA7805API ~ KIA7815API	V_{IN}	35	V
	KIA7818API ~ KIA7824API		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



KEC

KOREA ELECTRONICS CO.,LTD.

SEMICONDUCTOR
TECHNICAL DATA**KIA7805AP/API~**
KIA7824AP/API

BIPOLAR LINEAR INTEGRATED CIRCUIT

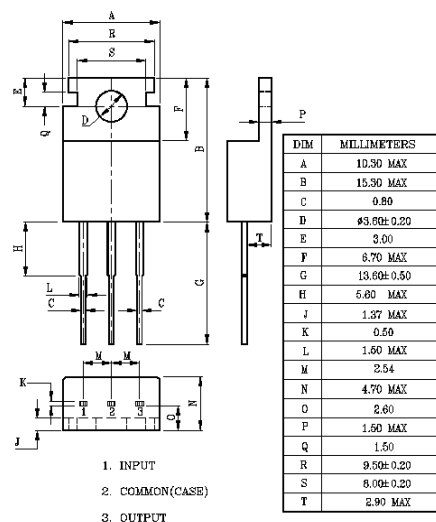
THREE TERMINAL POSITIVE VOLTAGE REGULATORS
5V, 6V, 8V, 9V, 10V, 12V, 15V, 18V, 20V, 24V.

FEATURES

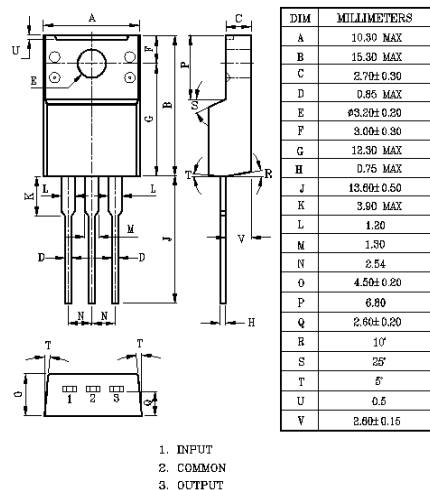
- Suitable for C-MOS, TTL, the Other Digital IC's Power Supply.
- Internal Thermal Overload Protection.
- Internal Short Circuit Current Limiting.
- Output Current in Excess of 1A.
- Satisfies IEC-65 Specification. (International Electronical Commission).

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Input Voltage	KIA7805AP/API~ KIA7815AP/API	V_{IN}	35	V
	KIA7818AP/API~ KIA7824AP/API		40	
Power Dissipation ($T_c=25^{\circ}\text{C}$)		P_D	20.8	W
Power Dissipation (Without Heatsink)	KIA7805API~ KIA7824API	P_D	2.0	W
Operating Junction Temperature		T_j	-30~150	$^{\circ}\text{C}$
Storage Temperature		T_{stg}	-55~150	$^{\circ}\text{C}$



TO-220AB



TO-220IS

KEC

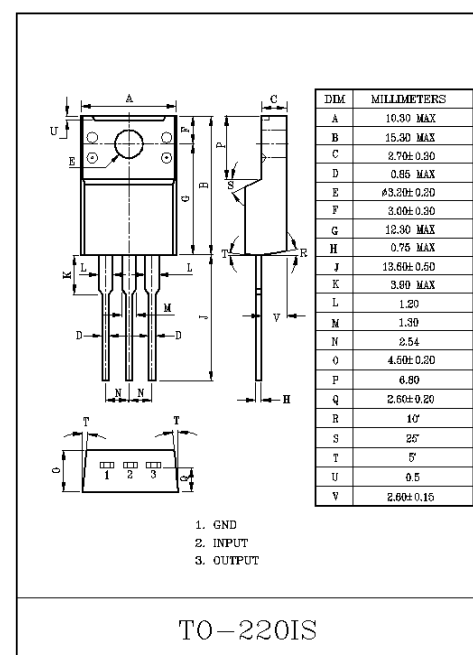
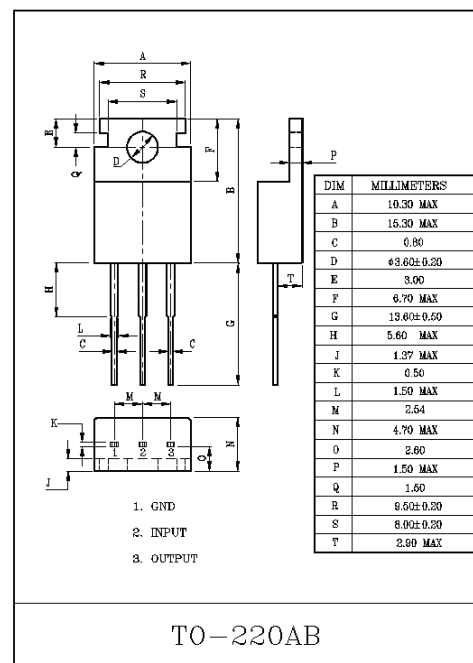
KOREA ELECTRONICS CO.,LTD.

SEMICONDUCTOR
TECHNICAL DATA**KIA7905P/PI ~**
KIA7924P/PI
BIPOLAR LINEAR INTEGRATED CIRCUIT1A 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



BILATERAL SWITCH

The KIC7S66FU is a high speed C²MOS BILATERAL SWITCH fabricated with silicon gate C²MOS technology. It consists of a high speed switch capable of controlling either digital or analog signals while maintaining the C²MOS low power dissipation.

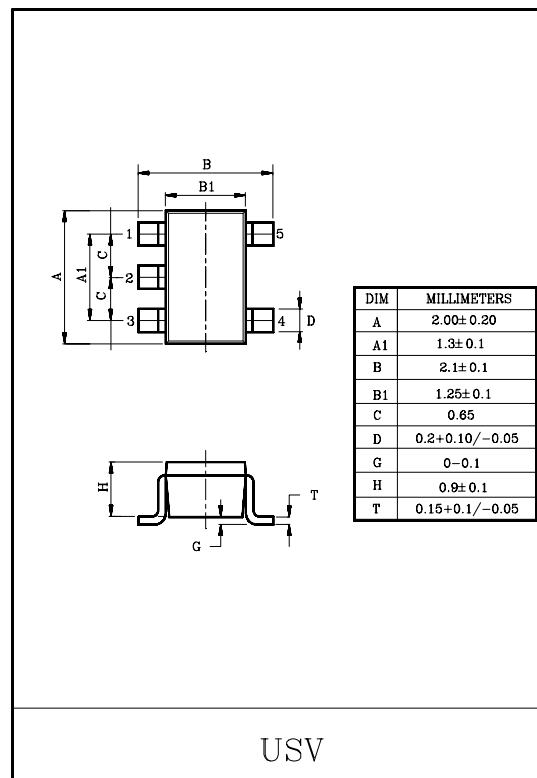
Control input (C) is provided to control the switch.

The switch turns ON while the C input is high, and the switch turns OFF while low.

Input is equipped with protection circuits against static discharge or transient excess voltage.

FEATURES

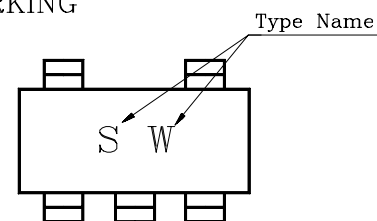
- High Speed : $t_{pd}=7\text{ns(Typ.)}$ at $V_{CC}=5\text{V}$.
- Low Power Dissipation : $I_{CC}=1\mu\text{A(Max.)}$ at $T_a=25^\circ\text{C}$.
- High Noise Immunity : $V_{NIH}=V_{NIL}=28\% V_{CC}(\text{Min.})$.
- Low ON Resistance : $R_{ON}=100\Omega(\text{Typ.})$ at $V_{CC}=9\text{V}$.
- Low T.H.D : $\text{THD}=0.05\%(\text{Typ.})$ at $V_{CC}=5\text{V}$.



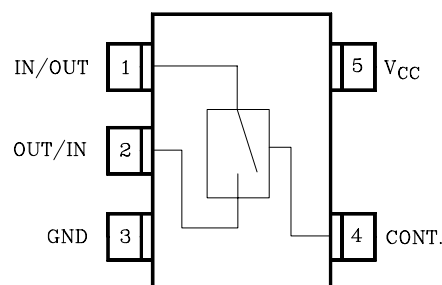
MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
DC Supply Voltage	V_{CC}	-0.5~10	V
Control Input Voltage	V_{IN}	-0.5~ $V_{CC}+0.5$	V
Switch I/O Voltage	$V_{I/O}$	-0.5~ $V_{CC}+0.5$	V
Control Diode Current	I_{CK}	±20	mA
Output Diode Current	I_{OK}	±20	mA
Through I/O Current	I_T	±12.5	mA
DC V_{CC} /Ground Current	I_{CC}	±25	mA
Power Dissipation	P_D	200	mW
Storage Temperature	T_{stg}	-65~150	°C
Lead Temperature (10s)	T_L	260	°C

MARKING



PIN CONNECTION(TOP VIEW)

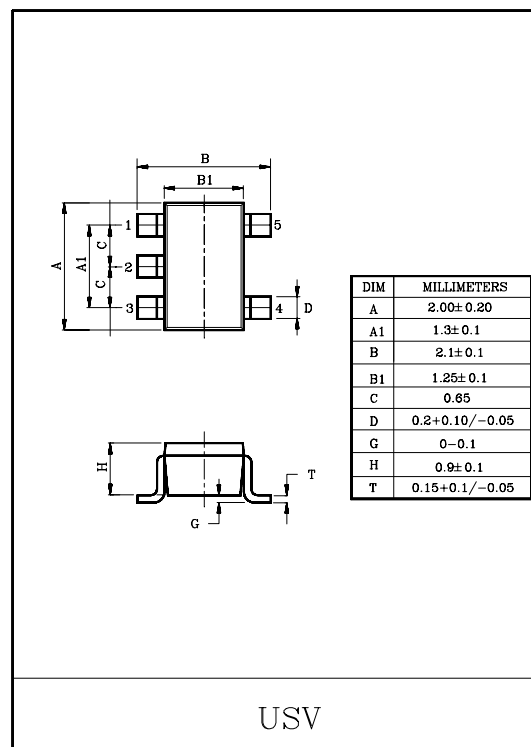


2-INPUT AND GATE

The KIC7SH08FU is a advanced high speed CMOS-2 INPUT AND GATE 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. The internal circuit is composed of 4 stage including buffer output, which provide high noise immunity and stable output. An input protection circuit ensures that 0 to 7V can be applied to the input pins without regard to the supply voltage. This device can be used to interfase 5V to 3V systems and two supply systems such as battery back up. This circuit prevents device destruction due to mismatched supply and input voltages.

FEATURES

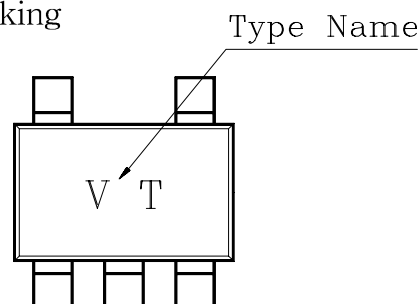
- High Speed : $t_{pd}=4.3ns(Typ.)$ at $V_{CC}=5V$.
- Low Power Dissipation : $I_{CC}=2\mu A(Max.)$ at $T_a=25^{\circ}C$.
- High Noise Immunity : $V_{NIH}=V_{NIL}=28\% V_{CC}(Min.)$.
- Power Down Protection is Provided on all inputs.
- Balanced Propagation Delays : $t_{PLH} \approx t_{PHL}$
- Wide Operating Voltage Range : $V_{CC(opr)}=2\sim 5.5V$.



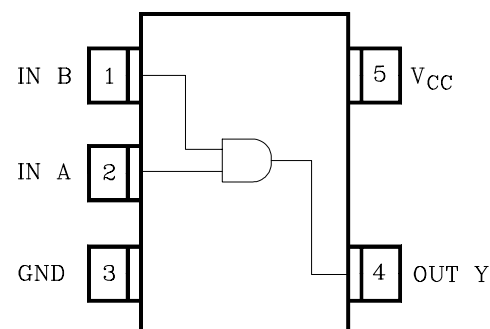
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	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~ $V_{CC}+0.5$	V
Input Diode Current	I_{IK}	-20	mA
Output Diode Current	I_{OK}	±20	mA
DC Output Current	I_{OUT}	±25	mA
DC V_{CC} /Ground Current	I_{CC}	±50	mA
Power Dissipation	P_D	200	mW
Storage Temperature	T_{stg}	-65~150	°C
Lead Temperature (10s)	T_L	260	°C

Marking



PIN CONNECTION(TOP VIEW)



ESMT**M12L64164A****SDRAM****1M x 16 Bit x 4 Banks
Synchronous DRAM****FEATURES**

- JEDEC standard 3.3V power supply
- LVTTTL compatible with multiplexed address
- Four 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
- DQM for masking
- Auto & self refresh
- 64ms refresh period (4K cycle)

ORDERING INFORMATION

54 Pin TSOP (Type II)
(400mil x 875mil)

PRODUCT NO.	MAX FREQ.	PACKAGE
M12L64164A-6T	166MHz	TSOP II
M12L64164A-7T	143MHz	

GENERAL DESCRIPTION

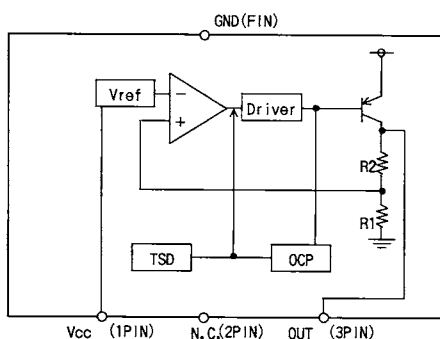
The M12L64164A is 67,108,864 bits synchronous high data rate Dynamic RAM organized as 4 x 1,048,576 words by 16 bits. Synchronous design allows precise cycle controls with the use of system clock I/O transactions are possible on every clock cycle. Range of operating frequencies, programmable burst length and programmable latencies allow the same device to be useful for a variety of high bandwidth, high performance memory system applications.

PIN ASSIGNMENT

Top View

V _{DD}	1	54	V _{SS}
DQ0	2	53	DQ15
V _{DDQ}	3	52	V _{SSQ}
DQ1	4	51	DQ14
DQ2	5	50	DQ13
V _{SSQ}	6	49	V _{DDQ}
DQ3	7	48	DQ12
DQ4	8	47	DQ11
V _{DDQ}	9	46	V _{SSQ}
DQ5	10	45	DQ10
DQ6	11	44	DQ9
V _{SSQ}	12	43	V _{DDQ}
DQ7	13	42	DQ8
V _{DD}	14	41	V _{SS}
LDQM	15	40	NC
$\overline{\text{WE}}$	16	39	UDQM
$\overline{\text{CAS}}$	17	38	CLK
$\overline{\text{RAS}}$	18	37	CKE
$\overline{\text{CS}}$	19	36	NC
A ₁₃	20	35	A ₁₁
A ₁₂	21	34	A ₉
A ₁₀ /AP	22	33	A ₈
A ₀	23	32	A ₇
A ₁	24	31	A ₆
A ₂	25	30	A ₅
A ₃	26	29	A ₄
V _{DD}	27	28	V _{SS}

○BLOCK DIAGRAM



※ Please refer to technical note concerning application circuit, and etc.

○PIN NO. , PIN NAME

Pin No.	Pin Name
1	Vcc
2	N.C.
3	OUT
FIN	GND

○NOTES FOR USE

1. Absolute maximum range

Absolute Maximum Ratings are those values beyond which the life of a device may be destroyed we cannot be defined the failure mode, such as short mode or open mode.

Therefore physical security countermeasure, like fuse, is to be given when a specific mode to be beyond absolute maximum ratings is considered.

2. GND pin voltage

GND terminal should be connected the lowest voltage, under all conditions. And all terminals except GND should be under GND terminal voltage under all conditions including transient situations.

3. Power dissipation

If IC is used on condition that the power loss is over the power dissipation, the reliability will become worse by heat up, such as reduced output current capability.

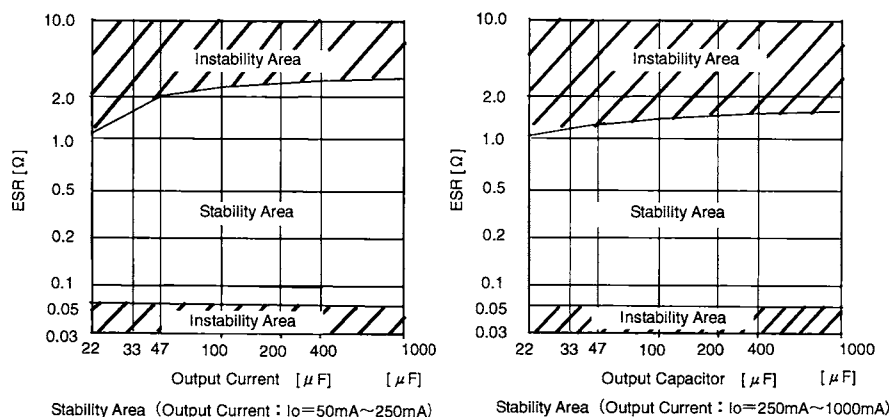
Also, be sure to use this IC within a power dissipation range allowing enough of margin.

4. Electrical characteristics described in these specifications may vary, depending on temperature, supply voltage, external circuits and other conditions. Therefore, be sure to check all relevant factors, including transient characteristics.

5. Be sure to connect a capacitor with capacitance of at least 22 μ F, including temperature characteristics and variation, to prevent oscillation between the Vo and GND. Note that if the capacity of the capacitor changes due to factors such as changes in temperature or ESR, oscillation may occur, and the original characteristics of the IC may not be realized. For example, when a ceramic capacitor is employed, oscillation will be generated because the series resistance is too small. Please take countermeasures to prevent this, such as adding a series resistor. Standard electrolytic capacitors are subject to extremely large capacitance and ESR fluctuations due to temperature conditions. Particularly at low temperature, capacity is decreased, while ESR grows larger, conditions which increase the vulnerability to oscillation. Therefore, be certain to check for the presence of oscillation.

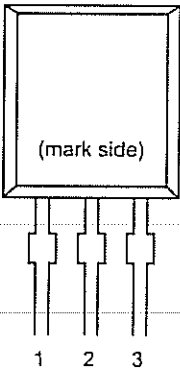
In respect to the proper ESR range, select a capacitor that meets the conditions in the figure below for stable operation range. Note, however, that the stable range suggested in the figure depends on the IC and the resistance load involved, and can vary with the board's wiring impedance, input impedance, and/or load impedance. Therefore, be certain to ascertain the final status of these items for actual use.

Keep capacitor capacitance within a range of 22 μ F~1000 μ F. It is also recommended that a 0.33 μ F bypass capacitor be connected as close to the input pin-GND as location possible. However, in situations such as rapid fluctuation of the input voltage or the load, please check the operation in real application to determine proper capacitance.

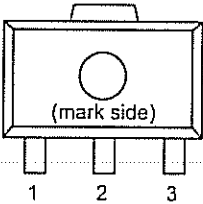


PIN CONFIGURATION

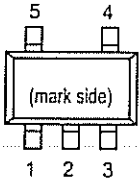
• TO-92



• SOT-89



• SOT-23-5



PIN DESCRIPTION

• TO-92

Pin No.	Symbol
1	OUT
2	VDD
3	GND

• SOT-89

Pin No.	Symbol
1	OUT
2	VDD
3	GND

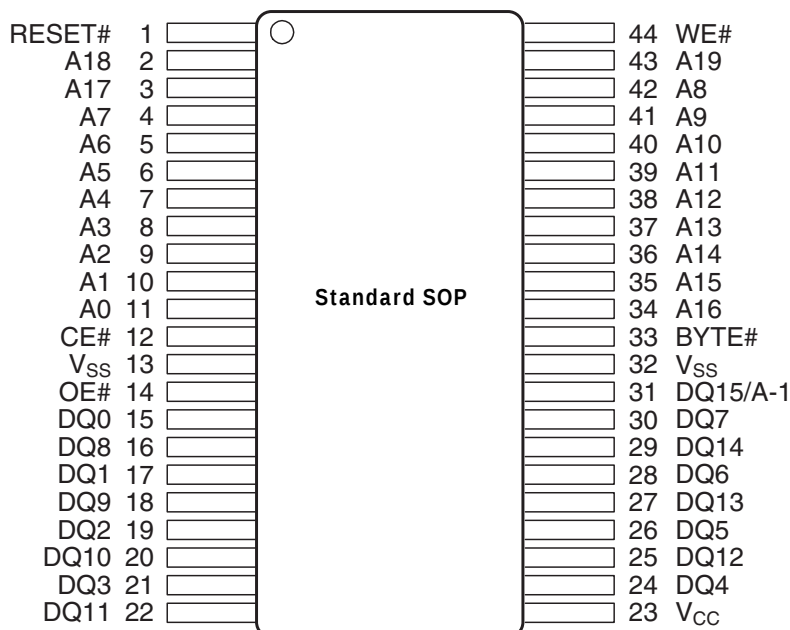
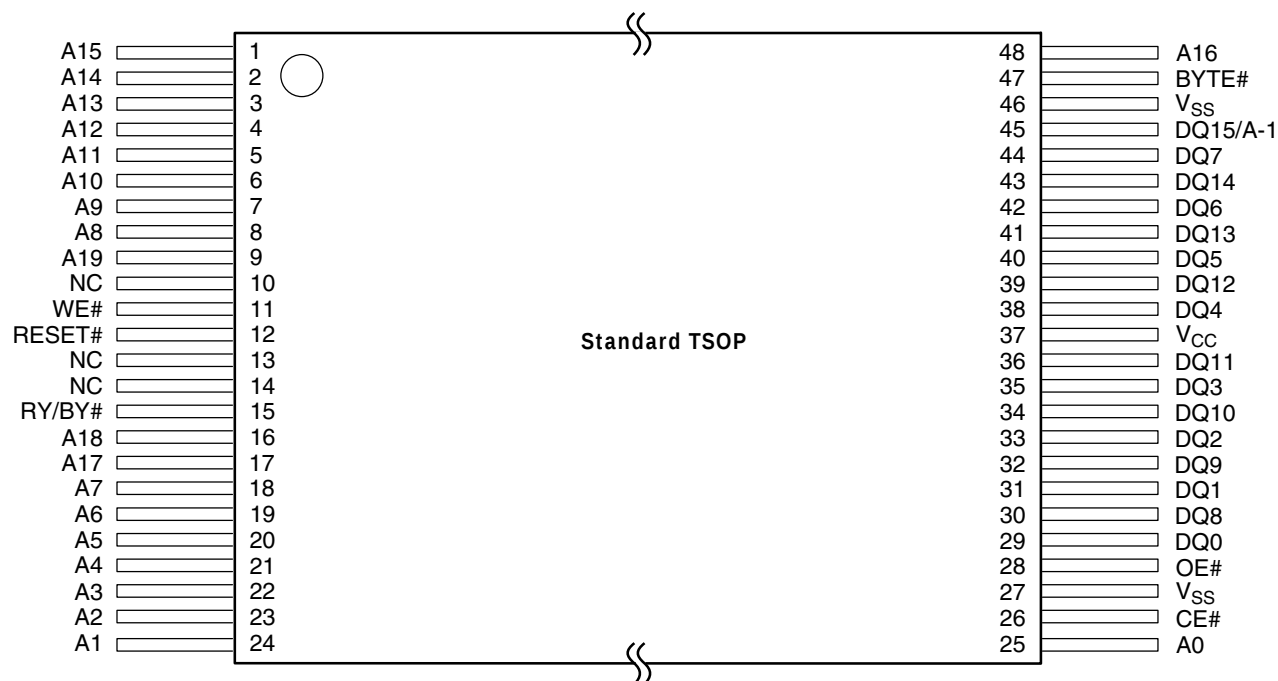
• SOT-23-5

Pin No.	Symbol
1	OUT
2	VDD
3	GND
4	NC
5	NC

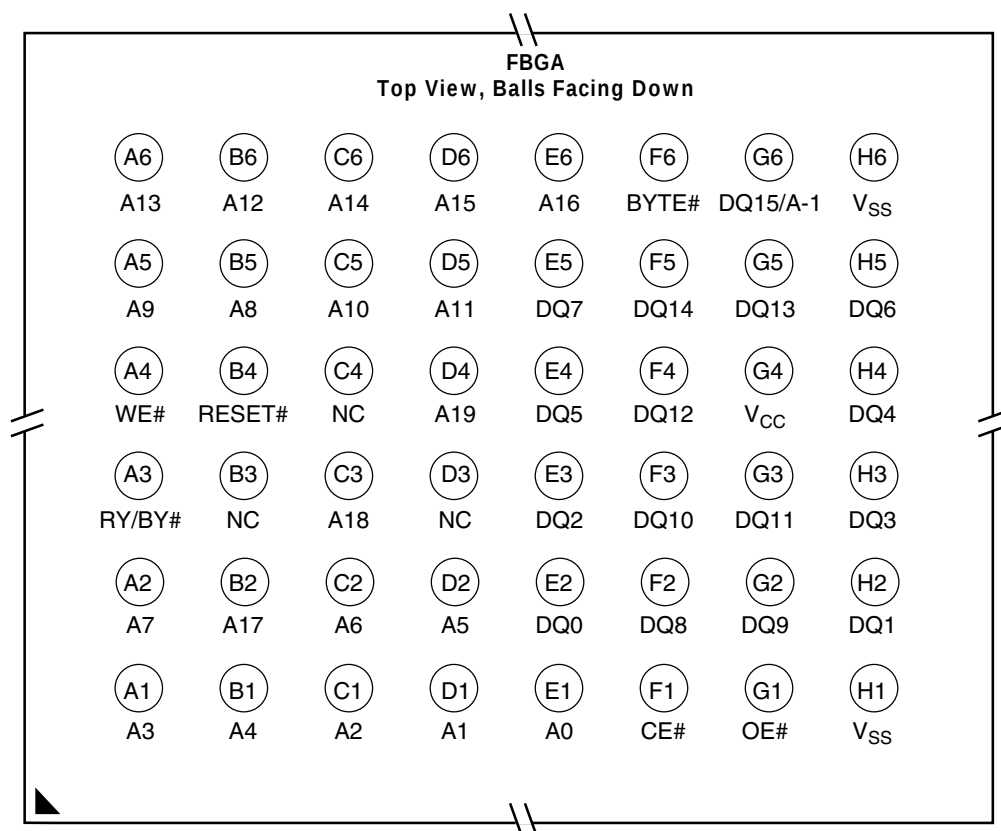


P r e l i m i n a r y

Connection Diagrams



Connection Diagrams



Special Handling Instructions

Special handling is required for Flash Memory products in FBGA packages.

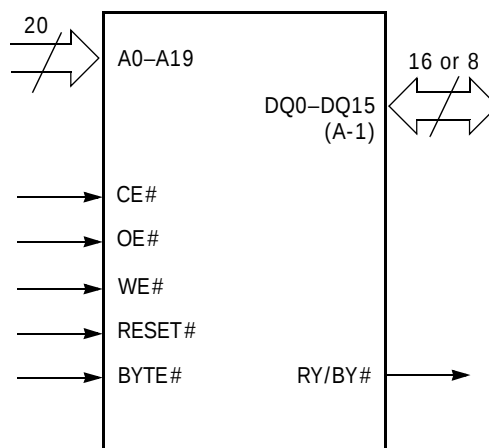
Flash memory devices in FBGA packages may be damaged if exposed to ultrasonic cleaning methods. The package and/or data integrity may be compromised if the package body is exposed to temperatures above 150°C for prolonged periods of time.



Pin Configuration

A0–A19	=	20 addresses
DQ0–DQ14	=	15 data inputs/outputs
DQ15/A-1	=	DQ15 (data input/output, word mode), A-1 (LSB address input, byte mode)
BYTE#	=	Selects 8-bit or 16-bit mode
CE#	=	Chip enable
OE#	=	Output enable
WE#	=	Write enable
RESET#	=	Hardware reset pin
RY/BY#	=	Ready/Busy output
V _{CC}	=	3.0 volt-only single power supply (see Product Selector Guide for speed options and voltage supply tolerances)
V _{SS}	=	Device ground
NC	=	Pin not connected internally

Logic Symbol





9030 HDMI PanelLink Transmitter Data Sheet

SiI 9030 Pin Diagram

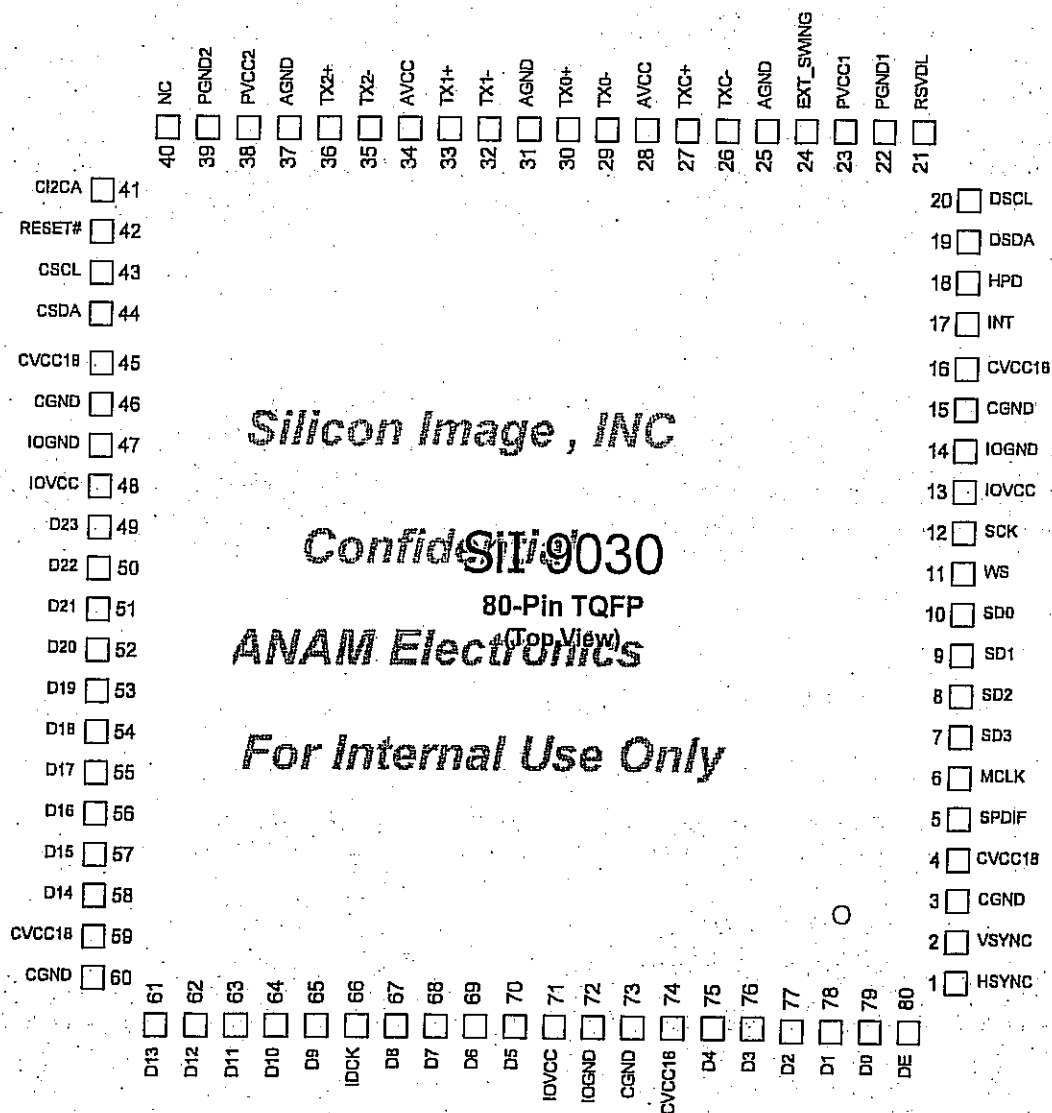


Figure 1. Pin Diagram

SN54AHC541, SN74AHC541 OCTAL BUFFERS/DRIVERS WITH 3-STATE OUTPUTS

SCLS261M – DECEMBER 1995 – REVISED JULY 2003

- Operating Range 2-V to 5.5-V V_{CC}
- Latch-Up Performance Exceeds 250 mA Per JESD 17

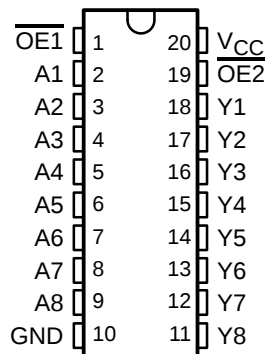
description/ordering information

The 'AHC541 octal buffers/drivers are ideal for driving bus lines or buffer memory address registers. These devices feature inputs and outputs on opposite sides of the package to facilitate printed circuit board layout.

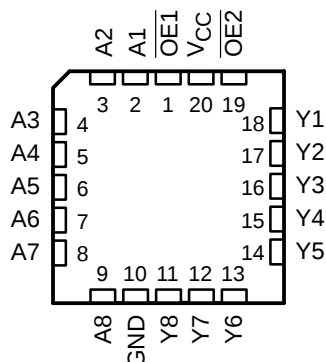
The 3-state control gate is a two-input AND gate with active-low inputs so that if either output-enable ($\overline{OE1}$ or $\overline{OE2}$) input is high, all corresponding outputs are in the high-impedance state. The outputs provide noninverted data when they are not in the high-impedance state.

To ensure the high-impedance state during power up or power down, $\overline{OE}$ should be tied to V_{CC} through a pullup resistor; the minimum value of the resistor is determined by the current-sinking capability of the driver.

SN54AHC541 . . . J OR W PACKAGE
SN74AHC541 . . . DB, DGV, DW, N, NS, OR PW PACKAGE
(TOP VIEW)



SN54AHC541 . . . FK PACKAGE
(TOP VIEW)



ORDERING INFORMATION

T_A	PACKAGE [†]		ORDERABLE PART NUMBER	TOP-SIDE MARKING
–40°C to 85°C	PDIP – N	Tube	SN74AHC541N	SN74AHC541N
	SOIC – DW	Tube	SN74AHC541DW	AHC541
		Tape and reel	SN74AHC541DWR	
	SOP – NS	Tape and reel	SN74AHC541NSR	AHC541
	SSOP – DB	Tape and reel	SN74AHC541DBR	HA541
	TSSOP – PW	Tube	SN74AHC541PW	HA541
		Tape and reel	SN74AHC541PWR	
–55°C to 125°C	TVSOP – DGV	Tape and reel	SN74AHC541DGVR	HA541
	CDIP – J	Tube	SNJ54AHC541J	SNJ54AHC541J
	CFP – W	Tube	SNJ54AHC541W	SNJ54AHC541W
	LCCC – FK	Tube	SNJ54AHC541FK	SNJ54AHC541FK

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



Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.

PRODUCTION DATA information is current as of publication date. Products conform to specifications per the terms of Texas Instruments standard warranty. Production processing does not necessarily include testing of all parameters.

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On products compliant to MIL-PRF-38535, all parameters are tested unless otherwise noted. On all other products, production processing does not necessarily include testing of all parameters.

SN54AHC541, SN74AHC541

OCTAL BUFFERS/DRIVERS

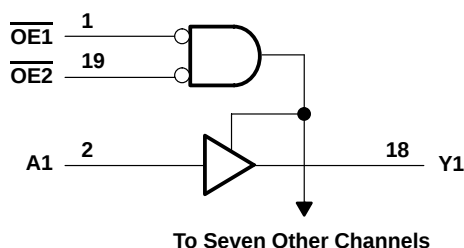
WITH 3-STATE OUTPUTS

SCLS261M – DECEMBER 1995 – REVISED JULY 2003

FUNCTION TABLE
(each buffer/driver)

INPUTS			OUTPUT
$\overline{OE1}$	$\overline{OE2}$	A	Y
L	L	L	L
L	L	H	H
H	X	X	Z
X	H	X	Z

logic diagram (positive logic)



absolute maximum ratings over operating free-air temperature range (unless otherwise noted)[†]

Supply voltage range, V_{CC}	–0.5 V to 7 V
Input voltage range, V_I (see Note 1)	–0.5 V to 7 V
Output voltage range, V_O (see Note 1)	–0.5 V to $V_{CC} + 0.5$ V
Input clamp current, I_{IK} ($V_I < 0$)	–20 mA
Output clamp current, I_{OK} ($V_O < 0$ or $V_O > V_{CC}$)	±20 mA
Continuous output current, I_O ($V_O = 0$ to V_{CC})	±25 mA
Continuous current through V_{CC} or GND	±75 mA
Package thermal impedance, θ_{JA} (see Note 2):	
DB package	70°C/W
DGV package	92°C/W
DW package	58°C/W
N package	69°C/W
NS package	60°C/W
PW package	83°C/W
Storage temperature range, T_{stg}	–65°C to 150°C

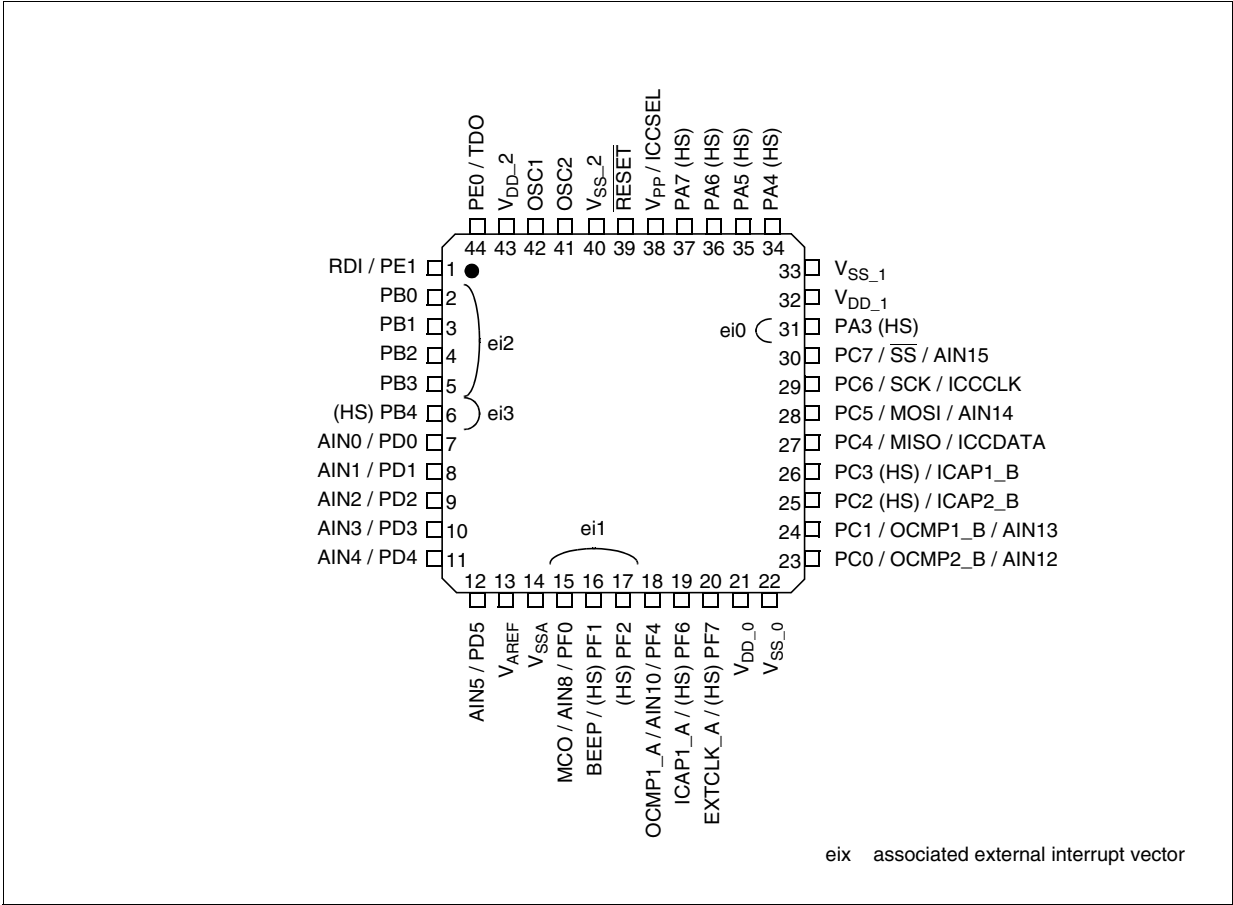
[†] Stresses beyond those listed under “absolute maximum ratings” may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under “recommended operating conditions” is not implied. Exposure to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

NOTES: 1. The input and output voltage ratings may be exceeded if the input and output current ratings are observed.

2. The package thermal impedance is calculated in accordance with JESD 51-7.

2 PIN DESCRIPTION

Figure 2. 44-Pin TQFP Package Pinouts



PIN DESCRIPTION (Cont'd)

Figure 3. 32-Pin SDIP Package Pinout

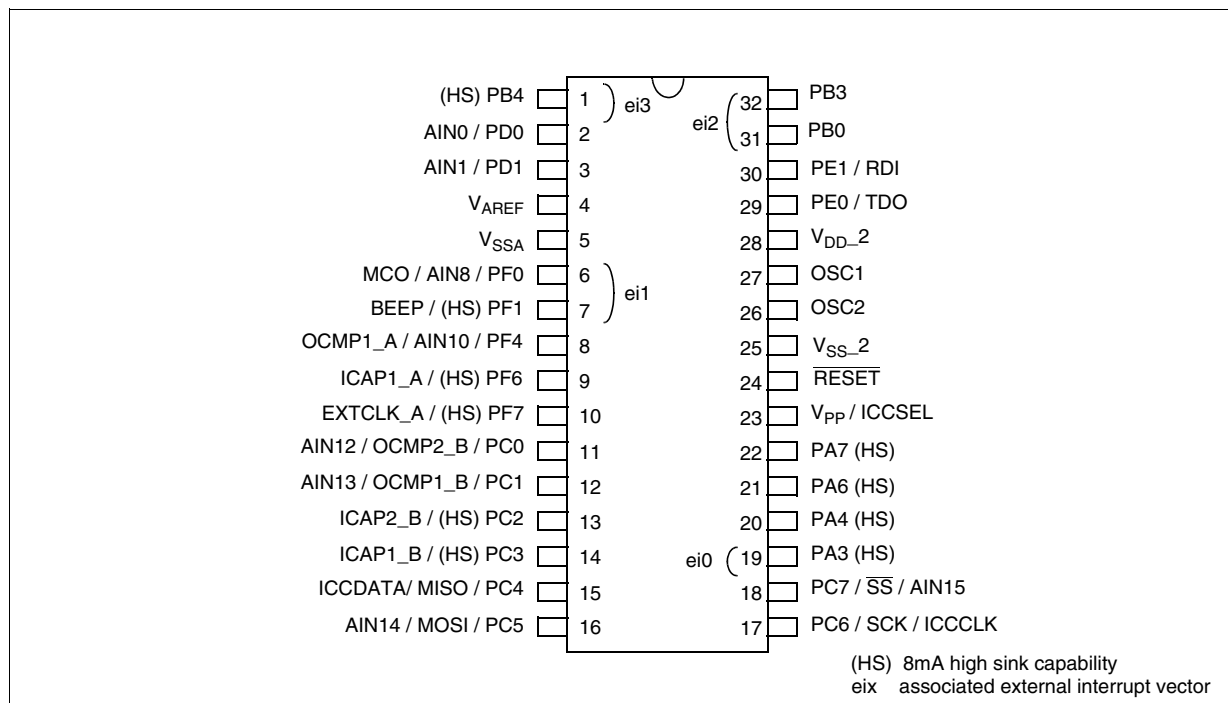
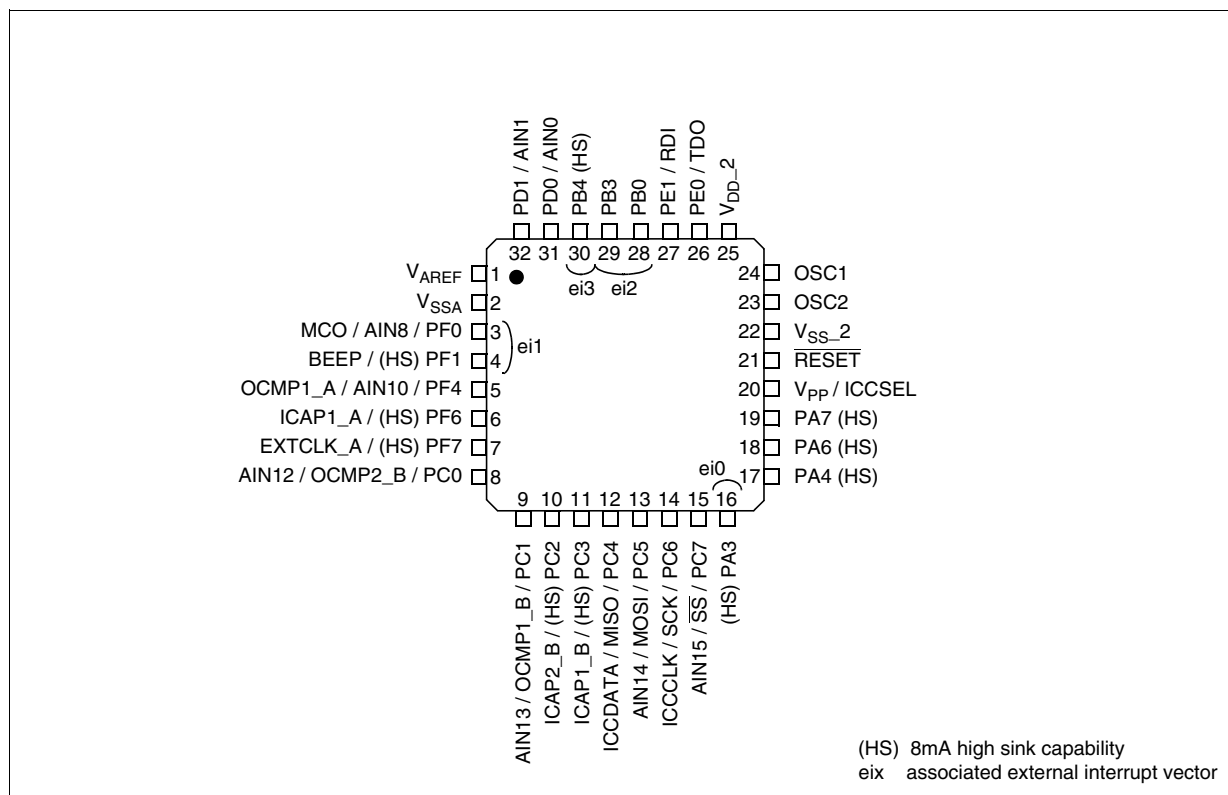


Figure 4. 32-Pin TQFP 7x7 Package Pinout





T5CB5

1.2 Pin Assignment

P-QFP64-1414-0.80A

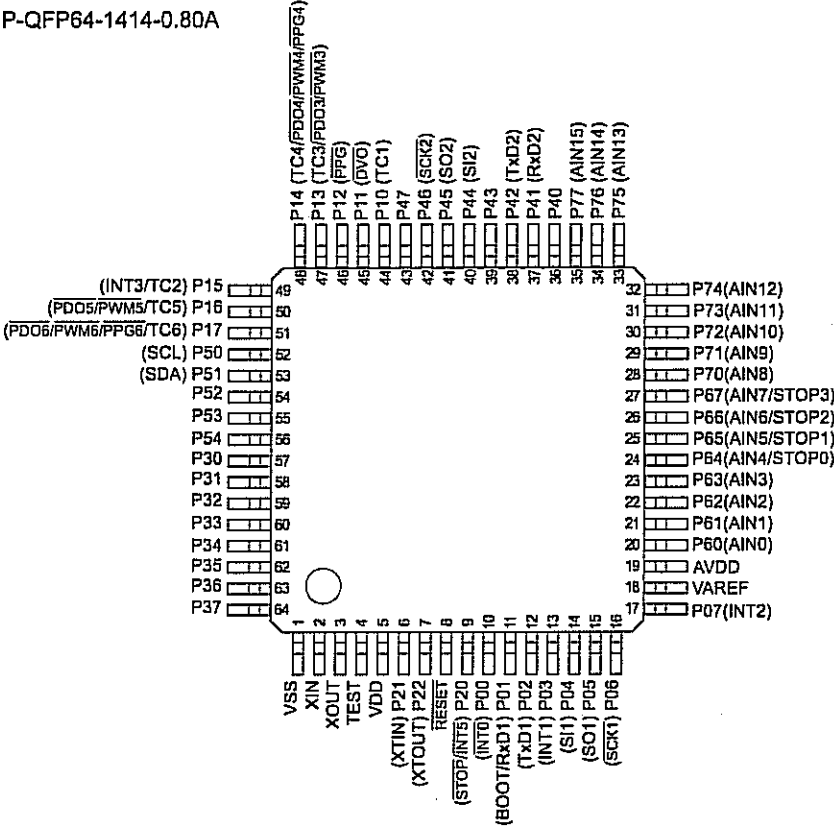


Figure 1-1 Pin Assignment

TOSHIBA**TA48018,02,025,03,033,05F/S**

TOSHIBA Bipolar Linear Integrated Circuit Silicon Monolithic

**TA48018F, TA4802F, TA48025F, TA4803F, TA48033F, TA4805F,
TA48018S, TA4802S, TA48025S, TA4803S, TA48033S, TA4805S**

1.8 V, 2 V, 2.5 V, 3 V, 3.3 V, 5 V

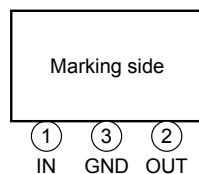
Three-Terminal Low Dropout Voltage Regulator with Output Current of 1 A

The TA48**F/S series consists of fixed-positive-output, low-dropout regulators with an output current of 1 A (max) that utilize V-PNP transistors for the output stage. In response to the need for low-voltage and low-power dissipation devices which are used in consumer electronics and industrial appliances, the series offers devices with low output voltages: 1.8 V, 2 V, 2.5 V, 3 V, 3.3 V, 5 V.

Features

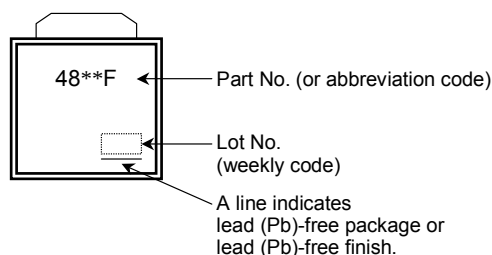
- Maximum output current: 1 A
- Output voltage accuracy: $V_{OUT} \pm 3\%$ (@ $T_j = 25^\circ\text{C}$)
- Low standby current: 800 μA (typ.) (@ $I_{OUT} = 0\text{ A}$)
- Low starting quiescent current
- Low-dropout voltage: $V_D = 0.5\text{ V}$ (max) (@ $I_{OUT} = 0.5\text{ A}$)
- Protection function: overheat/overcurrent
- Package type: PW-MOLD (TA48**F Series)
TO-220NIS (TA48**S Series)
- TA48**F Series has a lead bending type package which is a surface-mountable package and can be used for reflow soldering.

Pin Assignment

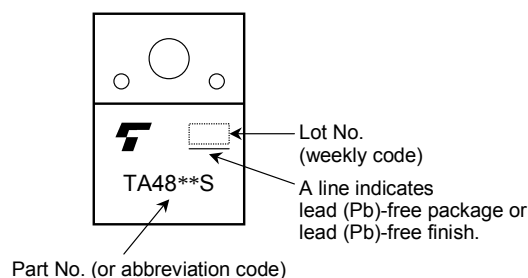


Marking

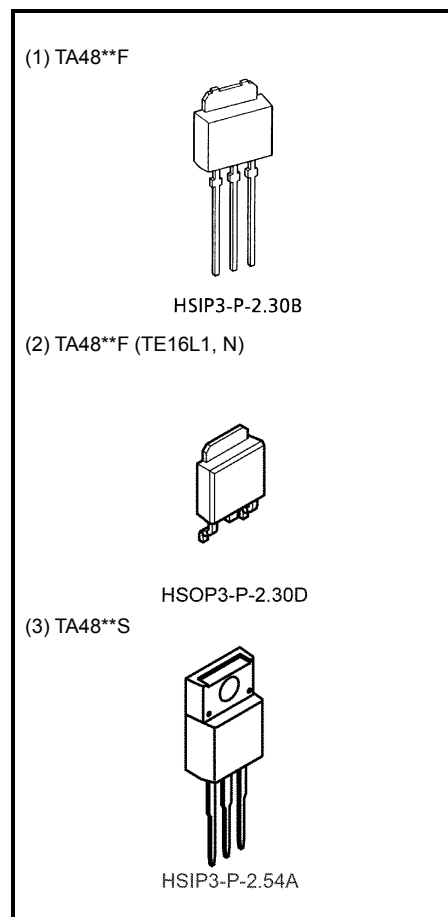
(1) (2) TA48F** Series



(3) TA48**S Series



Note: The "**" part of each product number varies according to the output voltage of the product.



Weight

HSIP3-P-2.30B : 0.36 g (typ.)

HSOP3-P-2.30D : 0.36 g (typ.)

HSIP3-P-2.54A : 1.7 g (typ.)

TOSHIBA**TC74HCT7007AP/AF**

TOSHIBA CMOS DIGITAL INTEGRATED CIRCUIT SILICON MONOLITHIC

TC74HCT7007AP, TC74HCT7007AF

HEX BUFFER

The TC74HCT7007A is a high speed CMOS BUFFER fabricated with silicon gate C²MOS technology.

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

This device may be used as a level converter for interfacing TTL or NMOS to High Speed CMOS. The inputs are compatible with TTL, NMOS and CMOS output voltage levels.

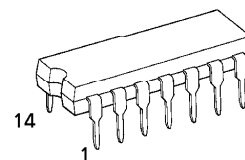
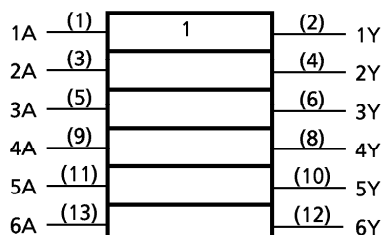
The internal circuit is composed of 4 stages including a buffer output, which provides high noise immunity and stable output.

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

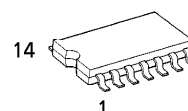
FEATURES:

- High Speed..... $t_{pd} = 11\text{ns}(\text{typ.})$ at $V_{CC} = 5\text{V}$
- Low Power Dissipation..... $I_{CC} = 1\mu\text{A}(\text{Max.})$ at $T_a = 25^\circ\text{C}$
- Compatible with TTL outputs.... $V_{IH} = 2\text{V}(\text{Min.})$
 $V_{IL} = 0.8\text{V}(\text{Max.})$
- Wide Interfacing ability.....LSTTL, NMOS, CMOS
- Output Drive Capability.....10 LSTTL Loads
- Symmetrical Output Impedance... $|I_{OH}| = I_{OL} = 4\text{mA}(\text{Min.})$
- Balanced Propagation Delays.... $t_{pLH} \approx t_{pHL}$
- Pin and Function Compatible with 74LS07

IEC LOGIC SYMBOL

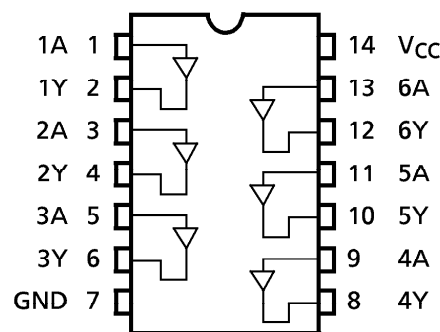


P (DIP14-P-300-2.54)
Weight : 0.96g (Typ.)



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

PIN ASSIGNMENT



(TOP VIEW)

PIN ASSIGNMENT

A	Y
L	L
H	H

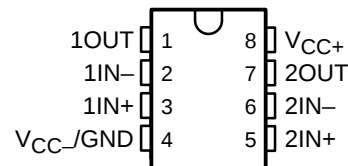
961001EBA2

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HIGH-SLEW-RATE, SINGLE-SUPPLY OPERATIONAL AMPLIFIER

SLOS200G – OCTOBER 1997 – REVISED JULY 2003

- Wide Gain-Bandwidth Product . . . 4 MHz
- High Slew Rate . . . 13 V/ μ s
- Fast Settling Time . . . 1.1 μ s to 0.1%
- Wide-Range Single-Supply Operation . . . 4 V to 36 V
- Wide Input Common-Mode Range Includes Ground (V_{CC-})
- Low Total Harmonic Distortion . . . 0.02%
- Large-Capacitance Drive Capability . . . 10,000 pF
- Output Short-Circuit Protection

D OR P PACKAGE
(TOP VIEW)

description/ordering information

Quality, low-cost, bipolar fabrication with innovative design concepts is employed for the TL3472 operational amplifier. This device offers 4 MHz of gain-bandwidth product, 13-V/ μ s slew rate, and fast settling time, without the use of JFET device technology. Although the TL3472 can be operated from split supplies, it is particularly suited for single-supply operation because the common-mode input voltage range includes ground potential (V_{CC-}). With a Darlington transistor input stage, this device exhibits high input resistance, low input offset voltage, and high gain. The all-npn output stage, characterized by no dead-band crossover distortion and large output voltage swing, provides high-capacitance drive capability, excellent phase and gain margins, low open-loop high-frequency output impedance, and symmetrical source/sink ac frequency response. This low-cost amplifier is an alternative to the MC33072 and the MC34072 operational amplifiers.

ORDERING INFORMATION

T_A	PACKAGE [†]		ORDERABLE PART NUMBER	TOP-SIDE MARKING
0°C to 70°C	PDIP (P)	Tube of 25	TL3472CP	TL3472CP
	SOIC (D)	Tube of 50	TL3472CD	3472C
		Reel of 2500	TL3472CDR	
-40°C to 105°C	PDIP (P)	Tube of 25	TL3472IP	TL3472IP
	SOIC (D)	Tube of 50	TL3472ID	Z3472
		Reel of 2500	TL3472IDR	

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



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Aureus TMS320DA707

Floating-Point Digital Signal Processor

SPRS279A—JULY 2005—REVISED AUGUST 2005



2.13 Pin Maps

Figure 2-2 shows the pin assignments on the 144-pin RFP package.

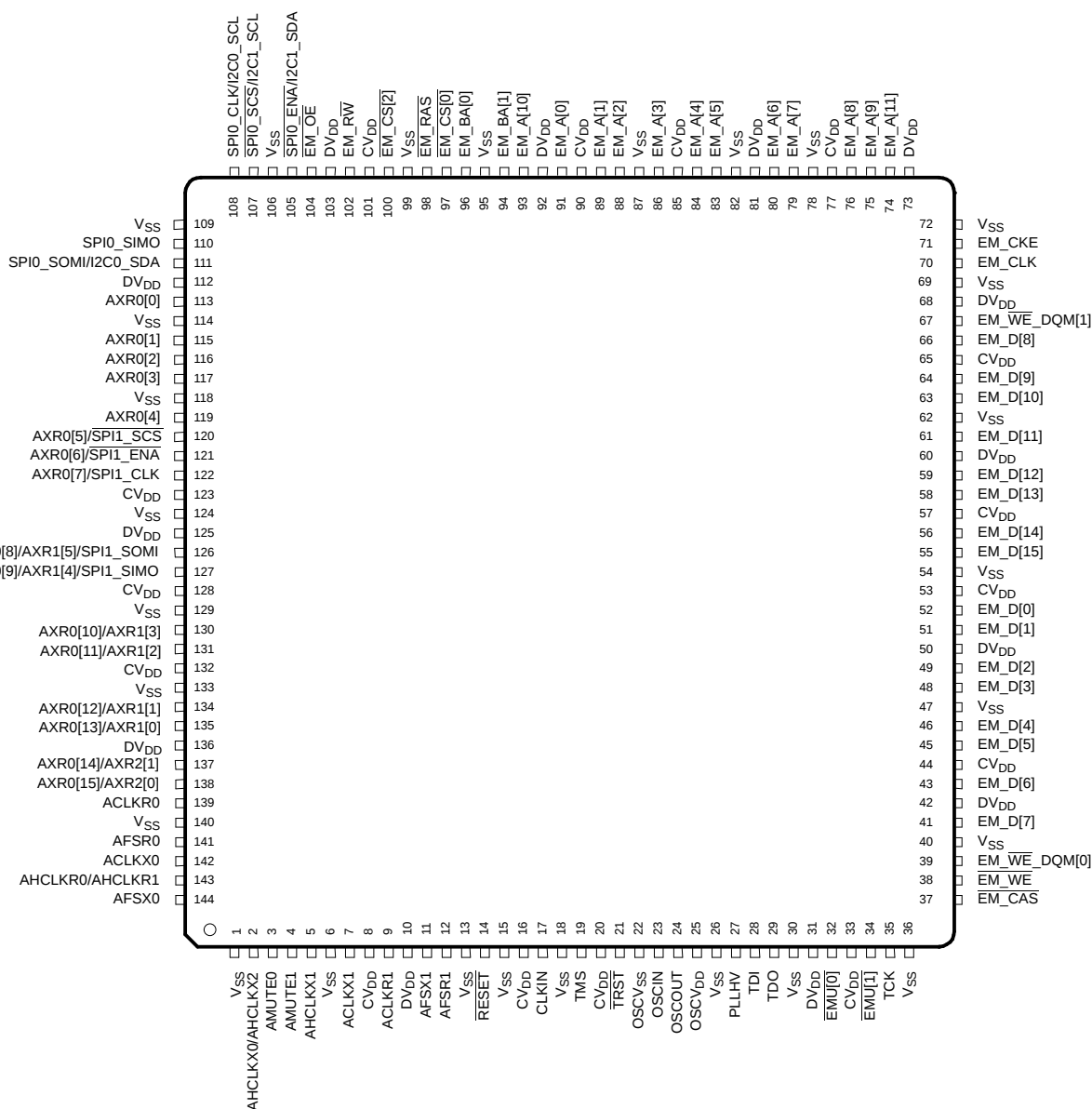
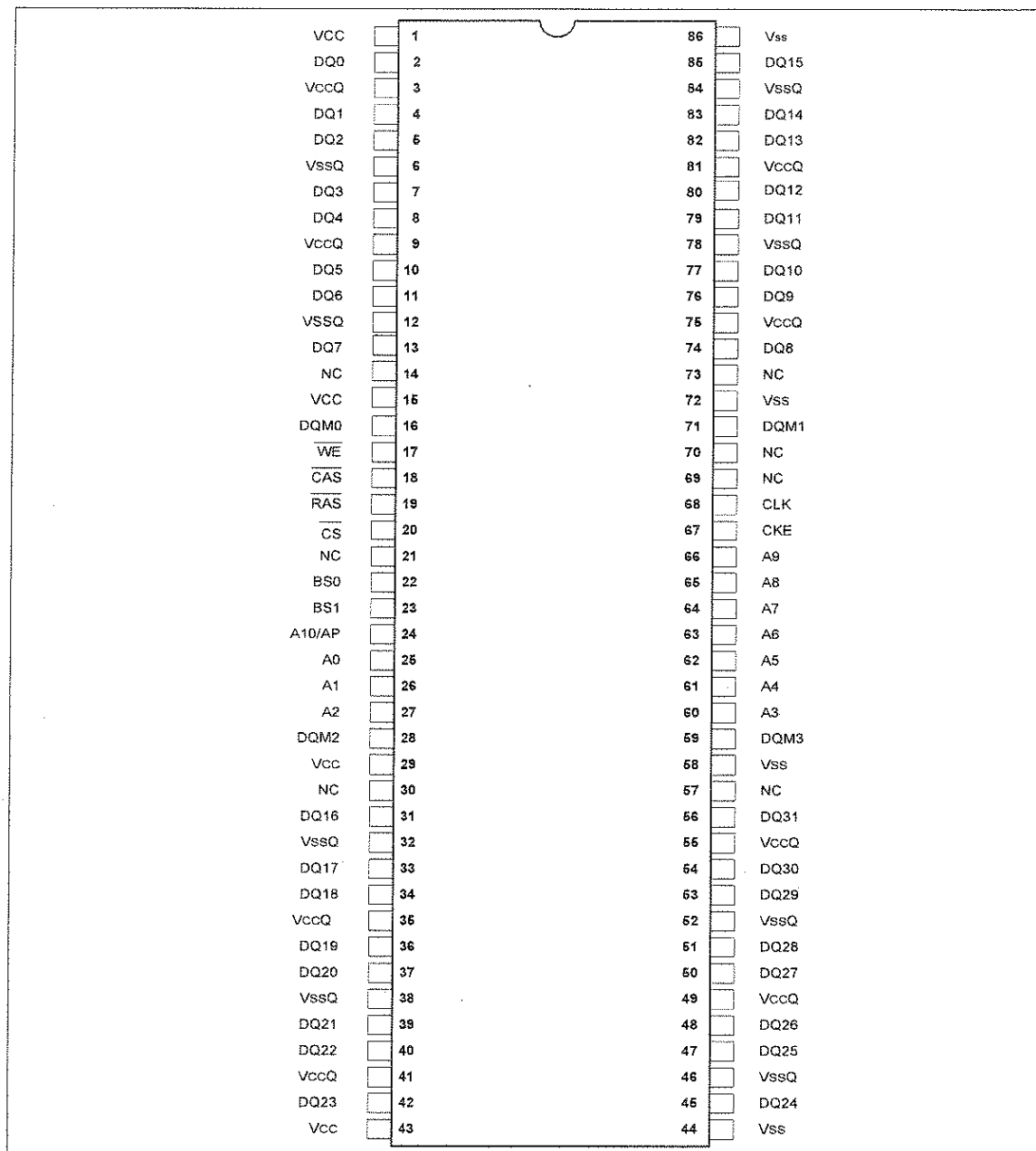


Figure 2-2. 144-Pin Low-Profile Quad Flatpack (RFP Suffix)—Top View

W9864G2GH



4. PIN CONFIGURATION




EVERLIGHT ELECTRONICS CO., LTD

Technical Data Sheet

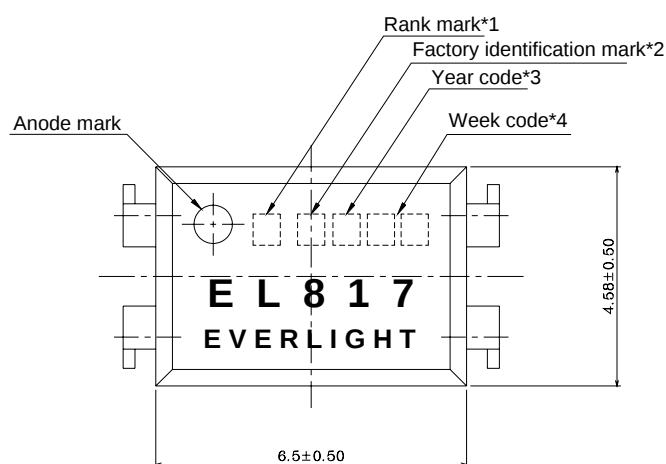
Photocoupler-RoHS Compliant

Device Selection Guide

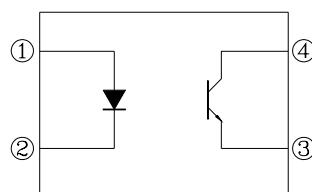
Part. No.	Chip Material	
	IR	PT
EL817*	GaAs	Silicon

EL817 Series

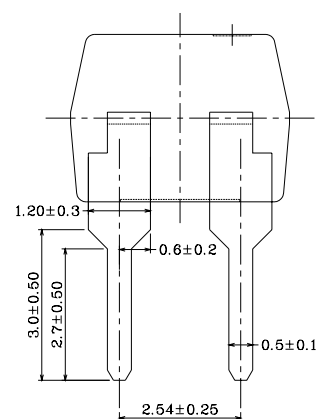
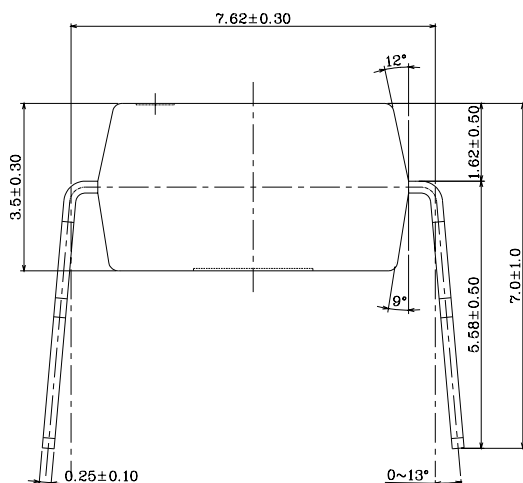
Package Dimensions



PIN NO. AND INTERNAL CONNECTION DIAGRAM



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





Pin Configuration and Functionality

1 Pin Configuration and Functionality

1.1 Pin Configuration with P-DIP-8-6

Pin	Symbol	Function
1	SoftS	Soft-Start
2	FB	Feedback
3	Isense	Controller Current Sense Input, CoolMOS™ Source Output
4	Drain	650V ¹⁾ /800V ²⁾ CoolMOS™ Drain
5	Drain	650V ¹⁾ /800V ²⁾ CoolMOS™ Drain
6	N.C	Not connected
7	VCC	Controller Supply Voltage
8	GND	Controller Ground

¹⁾ at $T_j = 110^\circ\text{C}$

²⁾ at $T_j = 25^\circ\text{C}$

1.2 Pin Configuration with P-DIP-7-1

Pin	Symbol	Function
1	SoftS	Soft-Start
2	FB	Feedback
3	Isense	Controller Current Sense Input, CoolMOS™ Source Output
4	N.C.	Not connected
5	Drain	650V ¹⁾ /800V ²⁾ CoolMOS™ Drain
7	VCC	Controller Supply Voltage
8	GND	Controller Ground

¹⁾ at $T_j = 110^\circ\text{C}$

²⁾ at $T_j = 25^\circ\text{C}$

Package P-DIP-8-6

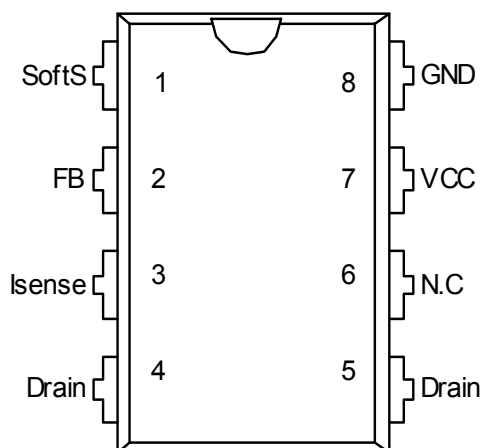


Figure 1 Pin Configuration P-DIP-8-6 (top view)

Package P-DIP-7-1

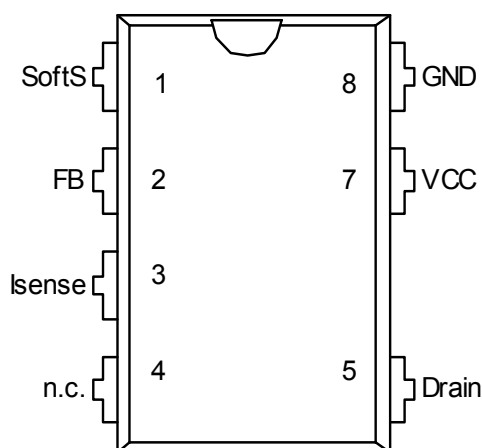


Figure 2 Pin Configuration P-DIP-7-1 (top view)



CoolSET™-F2

Pin Configuration and Functionality

1.3 Pin Configuration with P-TO220-6-46/47

Pin	Symbol	Function
1	Drain	650V ¹⁾ CoolMOS™ Drain
3	Isense	Controller Current Sense Input, CoolMOS™ Source Output
4	GND	Controller Ground
5	VCC	Controller Supply Voltage
6	SoftS	Soft-Start
7	FB	Feedback

¹⁾ at $T_j = 110^\circ\text{C}$

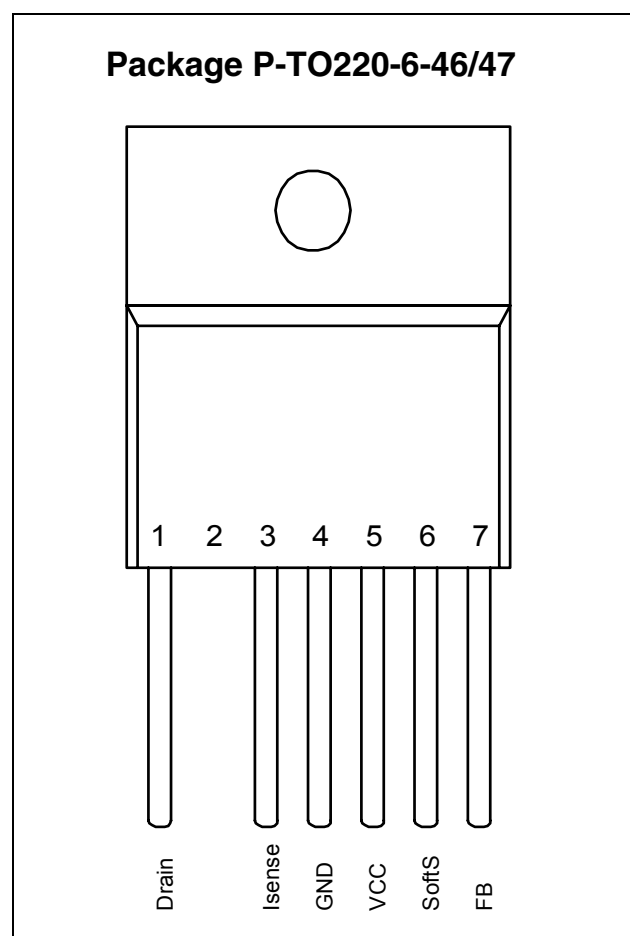


Figure 3 Pin Configuration P-TO220-6-46/47 (top view)

1.4 Pin Configuration with P-DSO-16/12

Pin	Symbol	Function
1	N.C.	Not Connected
2	SoftS	Soft-Start
3	FB	Feedback
4	Isense	Controller Current Sense Input, CoolMOS™ Source Output
5	Drain	650V ¹⁾ CoolMOS™ Drain
6	Drain	650V ¹⁾ CoolMOS™ Drain
7	Drain	650V ¹⁾ CoolMOS™ Drain
8	Drain	650V ¹⁾ CoolMOS™ Drain
9	N.C.	Not Connected
10	N.C.	Not Connected
11	VCC	Controller Supply Voltage
12	GND	Controller Ground

¹⁾ at $T_j = 110^\circ\text{C}$

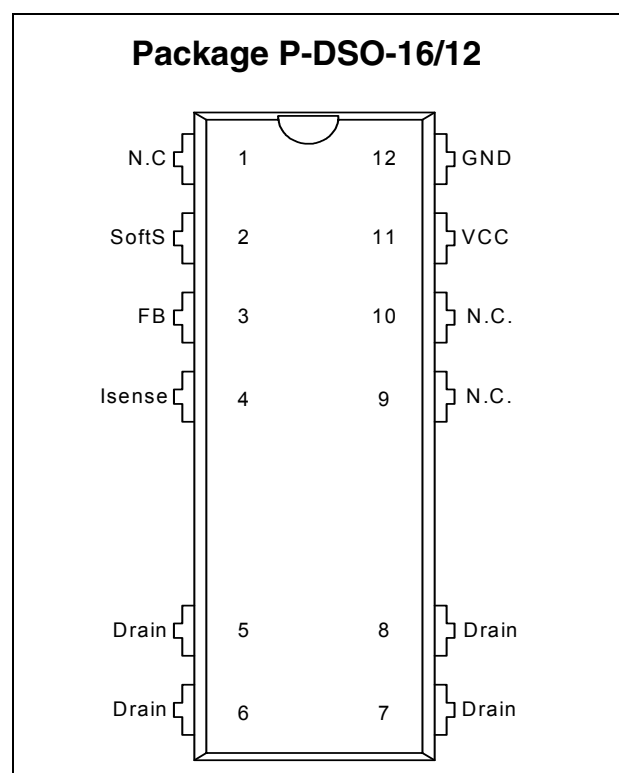


Figure 4 Pin Configuration P-DSO-16/12 (top view)



Pin Configuration and Functionality

1.5 Pin Functionality

SoftS (Soft Start & Auto Restart Control)

This pin combines the function of Soft Start in case of Start Up and Auto Restart Mode and the controlling of the Auto Restart Mode in case of an error detection.

FB (Feedback)

The information about the regulation is provided by the FB Pin to the internal Protection Unit and to the internal PWM-Comparator to control the duty cycle.

Isense (Current Sense)

The Current Sense pin senses the voltage developed on the series resistor inserted in the source of the integrated CoolMOS™. When Isense reaches the internal threshold of the Current Limit Comparator, the Driver output is disabled. By this means the Over Current Detection is realized.

Furthermore the current information is provided for the PWM-Comparator to realize the Current Mode.

Drain (Drain of integrated CoolMOS™)

Pin Drain is the connection to the Drain of the internal CoolMOS™.

VCC (Power supply)

This pin is the positive supply of the IC. The operating range is between 8.5V and 21V.

To provide overvoltage protection the driver gets disabled when the voltage becomes higher than 16.5V during Start Up Phase.

GND (Ground)

This pin is the ground of the primary side of the SMPS.



Pin Configuration and Functionality

1 Pin Configuration and Functionality

1.1 Pin Configuration with PG-DIP-8-6

Pin	Symbol	Function
1	SoftS	Soft-Start
2	FB	Feedback
3	CS	Current Sense/ 650V ¹⁾ Depl-CoolMOS™ Source
4	Drain	650V ¹⁾ Depl-CoolMOS™ Drain
5	Drain	650V ¹⁾ Depl-CoolMOS™ Drain
6	n.c.	Not Connected
7	VCC	Controller Supply Voltage
8	GND	Controller Ground

¹⁾ at T_j = 110°C

1.2 Pin Configuration with PG-DIP-7-1

Pin	Symbol	Function
1	SoftS	Soft-Start
2	FB	Feedback
3	CS	Current Sense/ 650V ¹⁾ Depl-CoolMOS™ Source
4	n.c.	Not connected
5	Drain	650V ¹⁾ Depl-CoolMOS™ Drain
-	-	-
7	VCC	Controller Supply Voltage
8	GND	Controller Ground

¹⁾ at T_j = 110°C

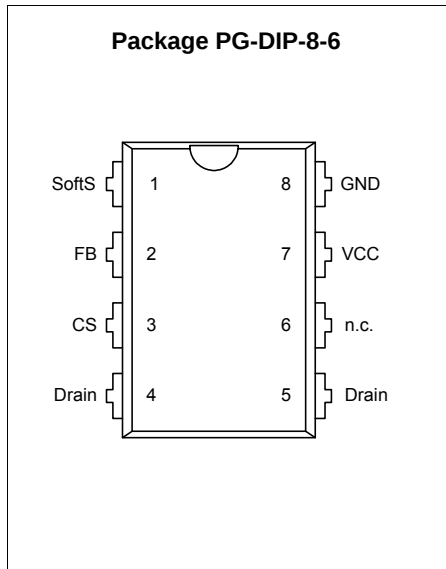


Figure 1 Pin Configuration PG-DIP-8-6(top view)

Note: Pin 4 and 5 are shorted within the DIP 8 package.

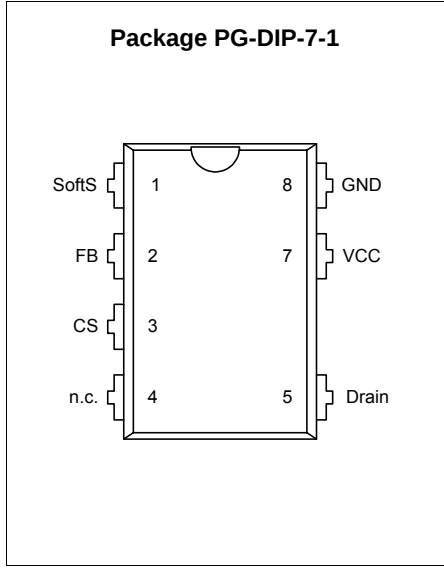


Figure 2 Pin Configuration PG-DIP-7-1(top view)

**Pin Configuration and Functionality****1.3 Pin Configuration with P-TO220-6-46**

Pin	Symbol	Function
1	Drain	650V ¹⁾ Depl-CoolMOS™ Drain
3	CS	Current Sense/ 650V ¹⁾ Depl-CoolMOS™ Source
4	GND	Controller Ground
5	VCC	Controller Supply Voltage
6	SoftS	Soft-Start
7	FB	Feedback

¹⁾ at $T_j = 110^{\circ}\text{C}$

1.4 Pin Configuration with P-TO220-6-47

Pin	Symbol	Function
1	Drain	650V ¹⁾ Depl-CoolMOS™ Drain
3	CS	Current Sense/ 650V ¹⁾ Depl-CoolMOS™ Source
4	GND	Controller Ground
5	VCC	Controller Supply Voltage
6	SoftS	Soft-Start
7	FB	Feedback

¹⁾ at $T_j = 110^{\circ}\text{C}$

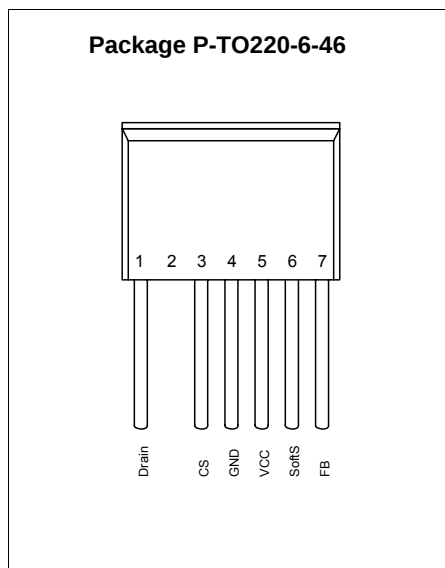


Figure 3 Pin Configuration P-TO220-6-46(top view)

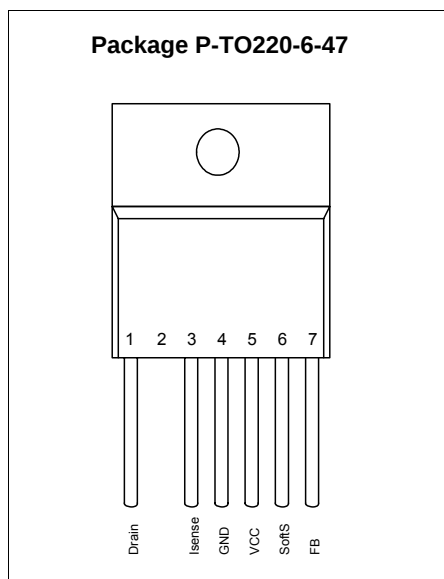


Figure 4 Pin Configuration P-TO220-6-47(top view)



Pin Configuration and Functionality

1.5 Pin Functionality

SoftS (Soft Start & Auto Restart Control)

The SoftS pin combines the functions of Soft Start during Start Up and error detection for Auto Restart Mode. These functions are implemented and can be adjusted by means of an external capacitor at SoftS to ground. This capacitor also provides an adjustable blanking window for high load jumps, before the IC enters into Auto Restart Mode.

FB (Feedback)

The information about the regulation is provided by the FB Pin to the internal Protection Unit and to the internal PWM-Comparator to control the duty cycle. The FB-Signal controls in case of light load the Active Burst Mode of the controller.

CS (Current Sense)

The Current Sense pin senses the voltage developed on the series resistor inserted in the source of the integrated Depl-CoolMOS™. If CS reaches the internal threshold of the Current Limit Comparator, the Driver output is immediately switched off. Furthermore the current information is provided for the PWM-Comparator to realize the Current Mode.

Drain (Drain of integrated Depl-CoolMOS™)

Pin Drain is the connection to the Drain of the internal Depl-CoolMOS™.

VCC (Power supply)

The VCC pin is the positive supply of the IC. The operating range is between 8.5V and 21V.

GND (Ground)

The GND pin is the ground of the controller.

KEC

KOREA ELECTRONICS CO.,LTD.

**SEMICONDUCTOR
TECHNICAL DATA****KIA431/F/A/AF**
BIPOLAR LINEAR INTEGRATED CIRCUIT**PROGRAMMABLE PRECISION REFERENCES**

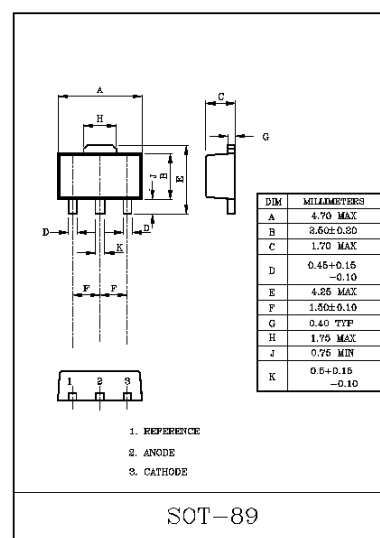
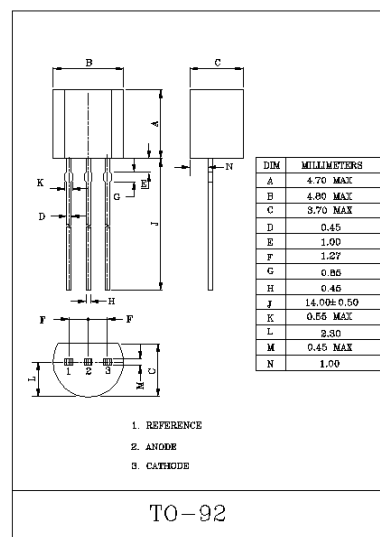
The KIA431/F/A/AF integrated circuits are three-terminal programmable shunt regulator diodes. These monolithic IC voltage reference operate as a low temperature coefficient zener which is programmable from V_{ref} to 36 volts with two external resistors. These devices exhibit a wide operating current range of 1.0 to 100mA with a typical dynamic impedance of 0.22Ω . The characteristics of these references make them excellent replacements for zener diodes in many applications such as digital voltmeters, power supplies, and op amp circuitry. The 2.5 volt reference makes it convenient to obtain a stable reference from 5.0 volt logic supplies, and since the KIA431/F/A/AF operates as a shunt regulator, it can be used as either a positive or negative voltage reference.

FEATURES

- Programmable Output Voltage to 36 Volts.
- Voltage Reference Tolerance : $\pm 1.0\%$ (KIA431A/AF)
- Low Dynamic Output Impedance : 0.22Ω (Typ.).
- Sink Current Capability of 1.0 to 100mA.
- Equivalent Full-Range Temperature Coefficient of 50ppm/ $^{\circ}\text{C}$ (Typ.).
- Temperature Compensated for Operation Over Full Rated Operating Temperature Range.
- Low Output Noise Voltage.

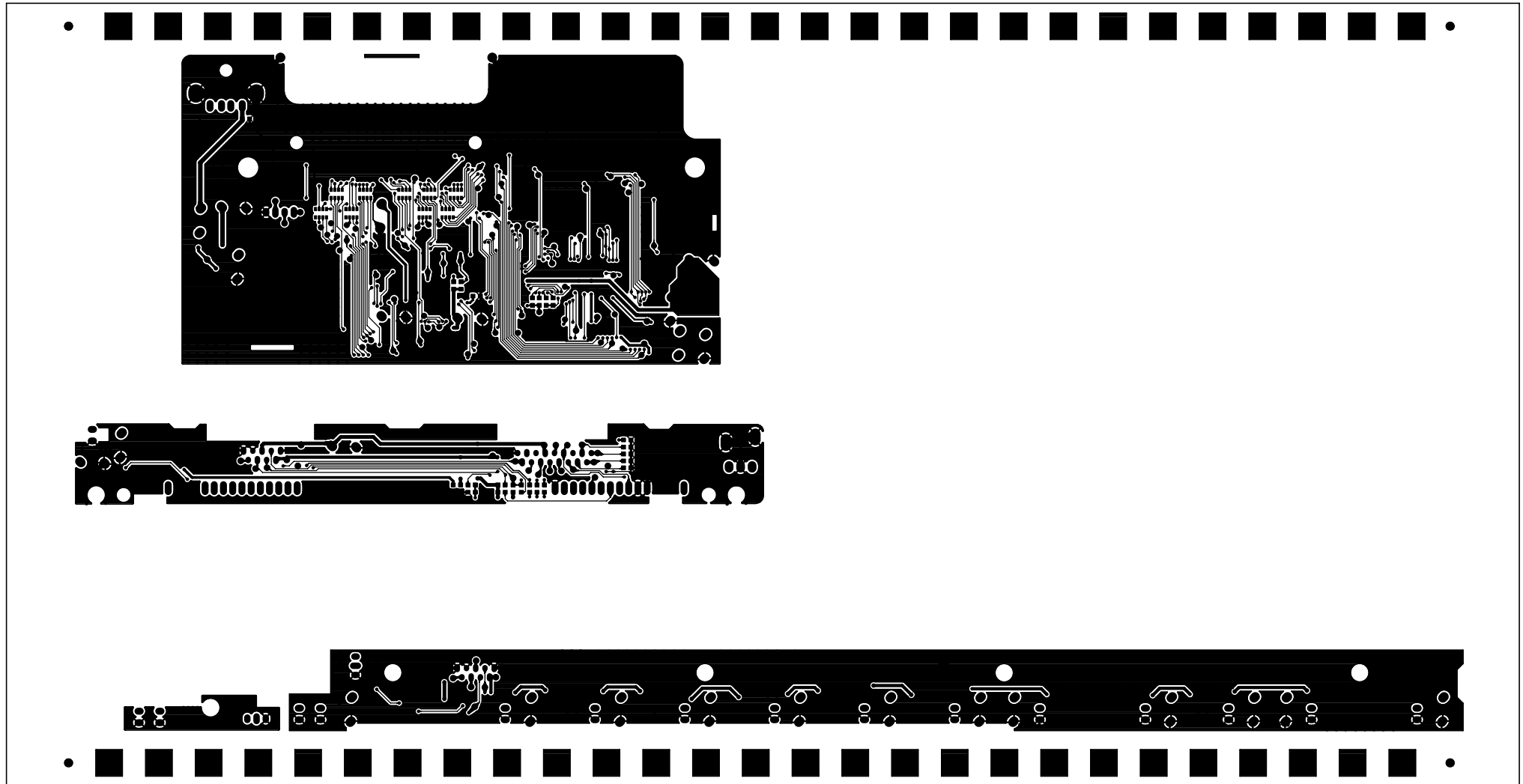
MARKING

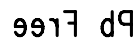
Type No.	Marking
KIA431F	3A
KIA431AF	3B

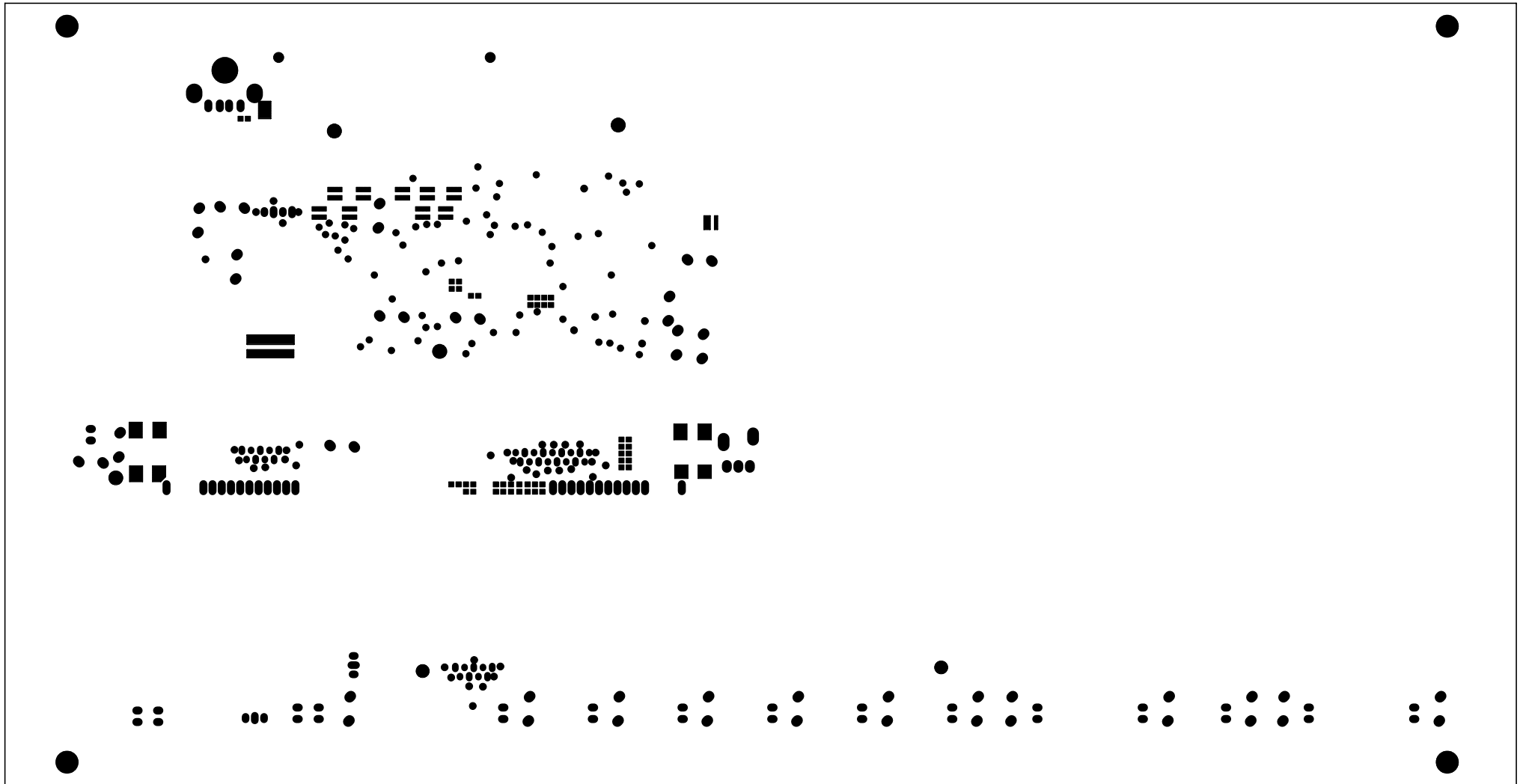
**MAXIMUM RATINGS**

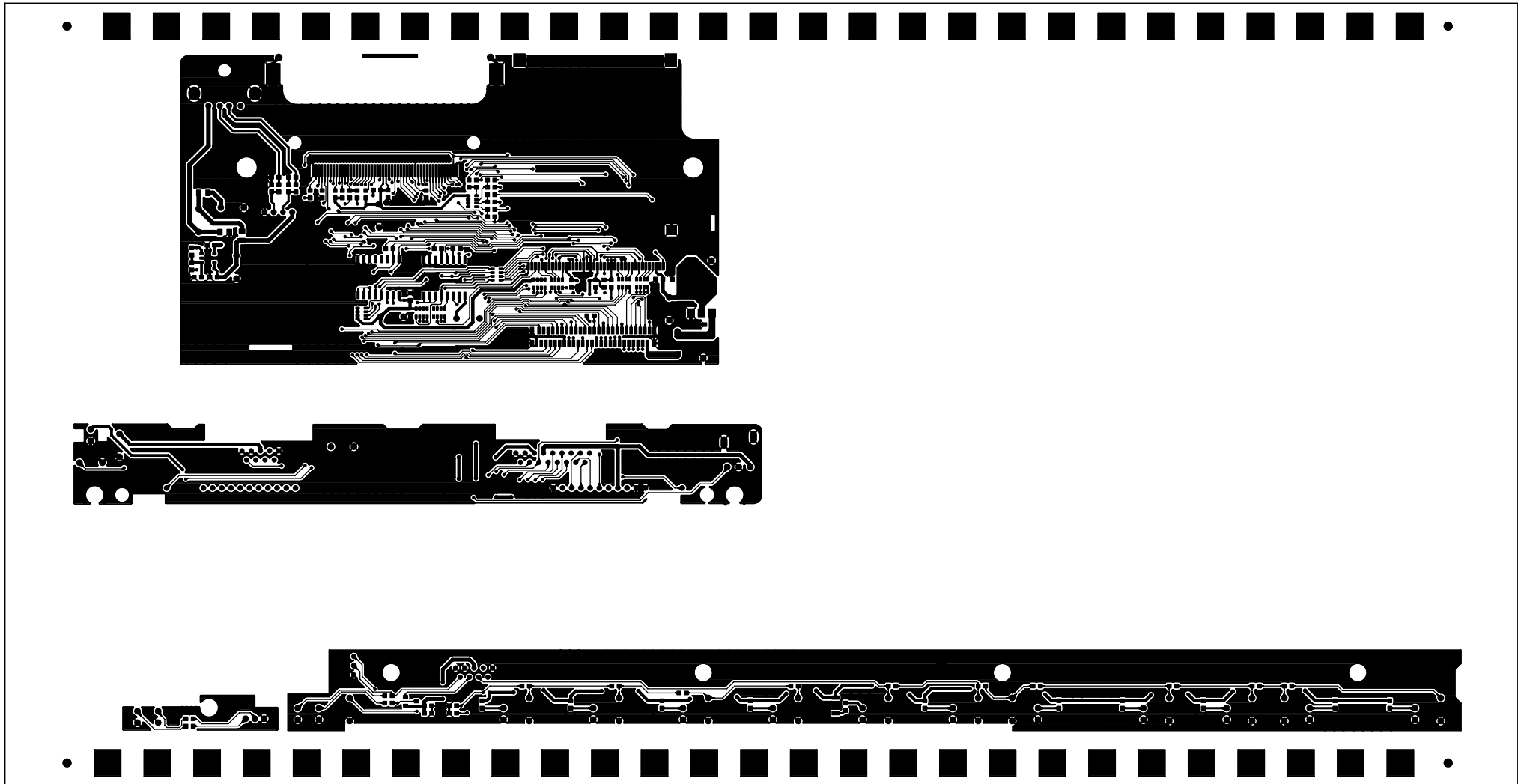
(Full operating ambient temperature range applies unless otherwise noted.)

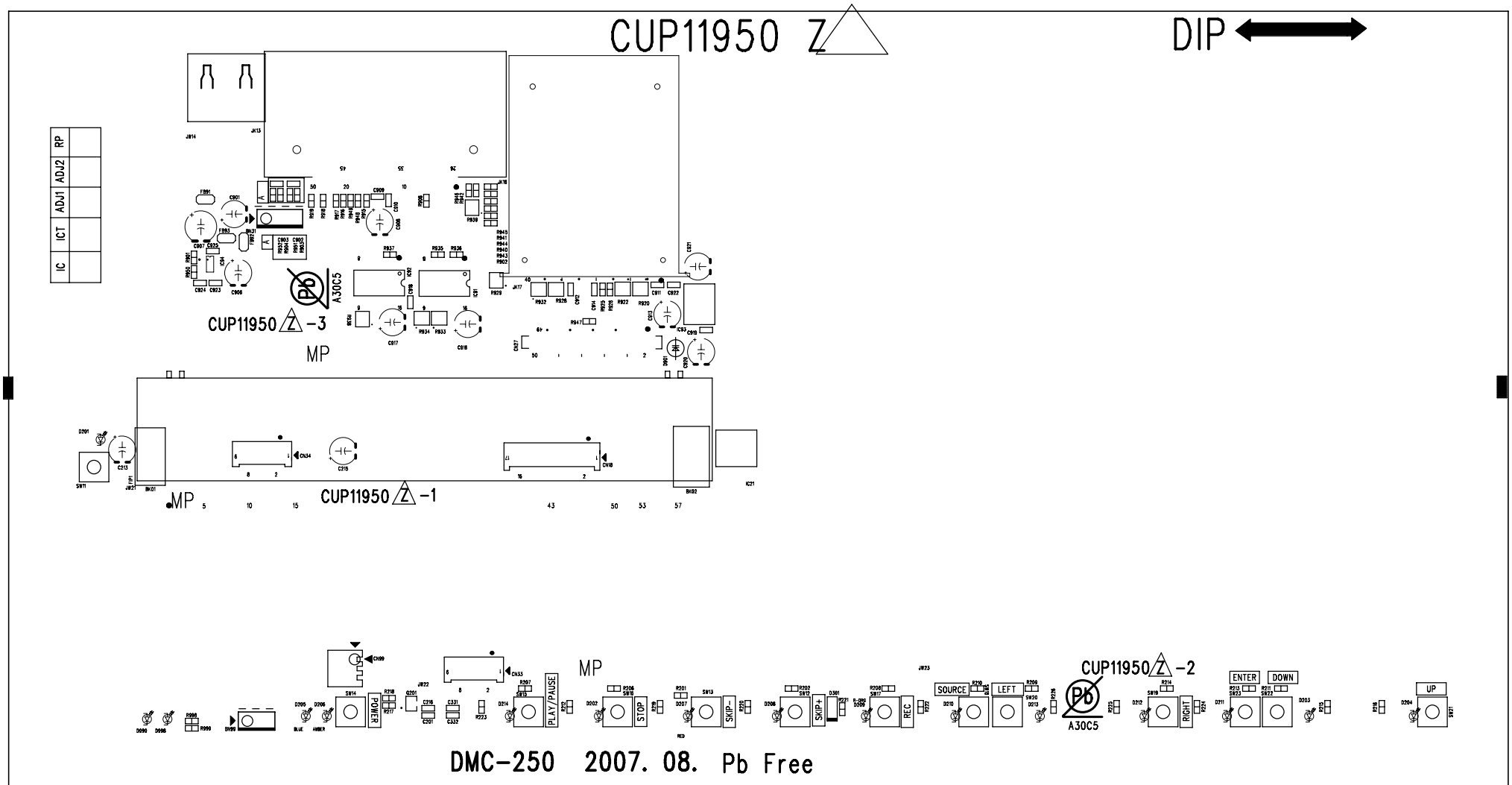
CHARACTERISTIC		SYMBOL	RATING	UNIT
Cathode To Anode Voltage		V_{KA}	37	V
Cathode Current Range, Continuous		I_K	-100~150	mA
Reference Input Current Range, Continuous		I_{ref}	-0.05~10	mA
Operating Junction Temperature		T_j	150	$^{\circ}\text{C}$
Operating Temperature		T_{opr}	-40~85	$^{\circ}\text{C}$
Storage Temperature		T_{stg}	-65~150	$^{\circ}\text{C}$
Total Power Dissipation	KIA431/A	P_D	700	mW
	KIA431F/AF		800	

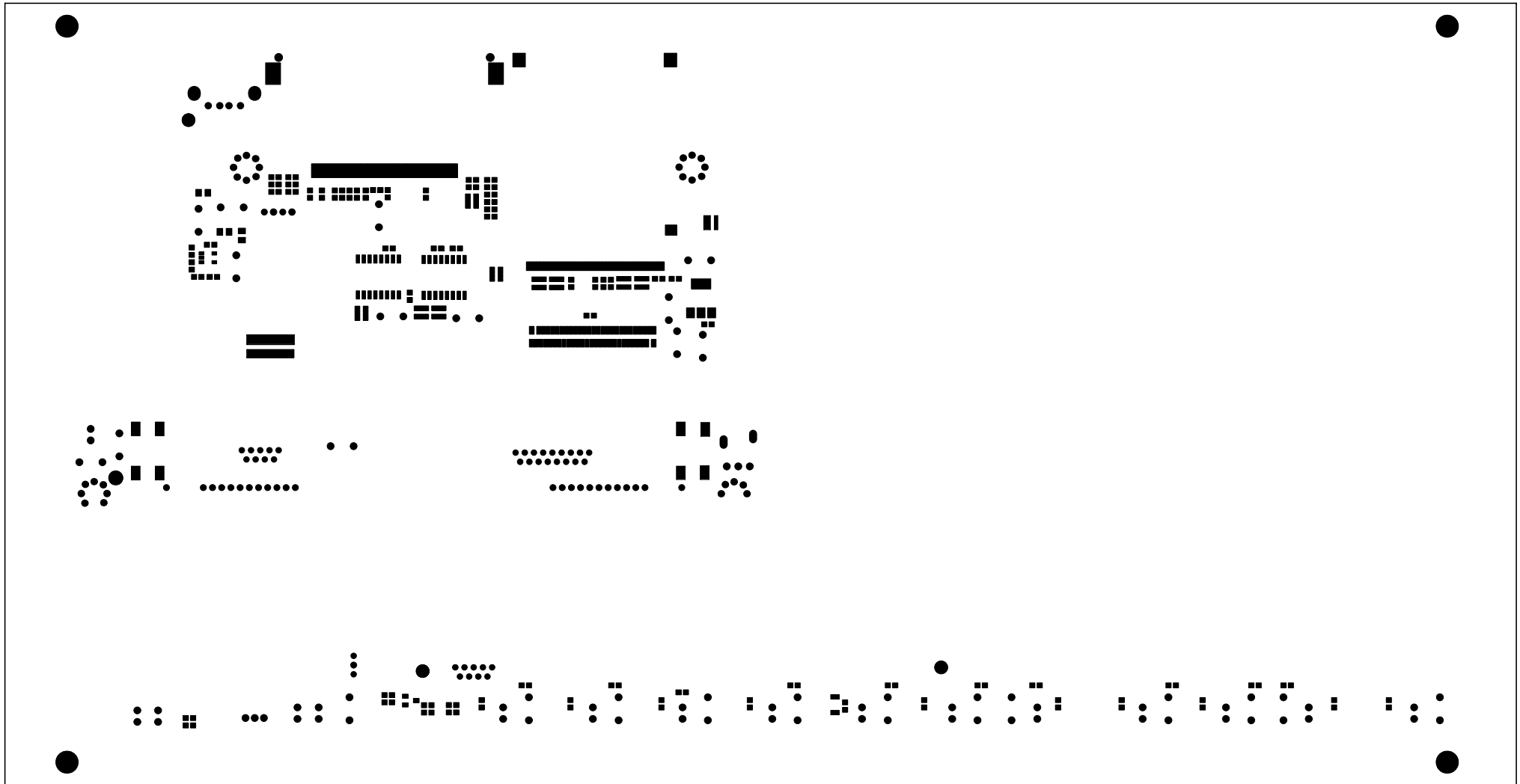


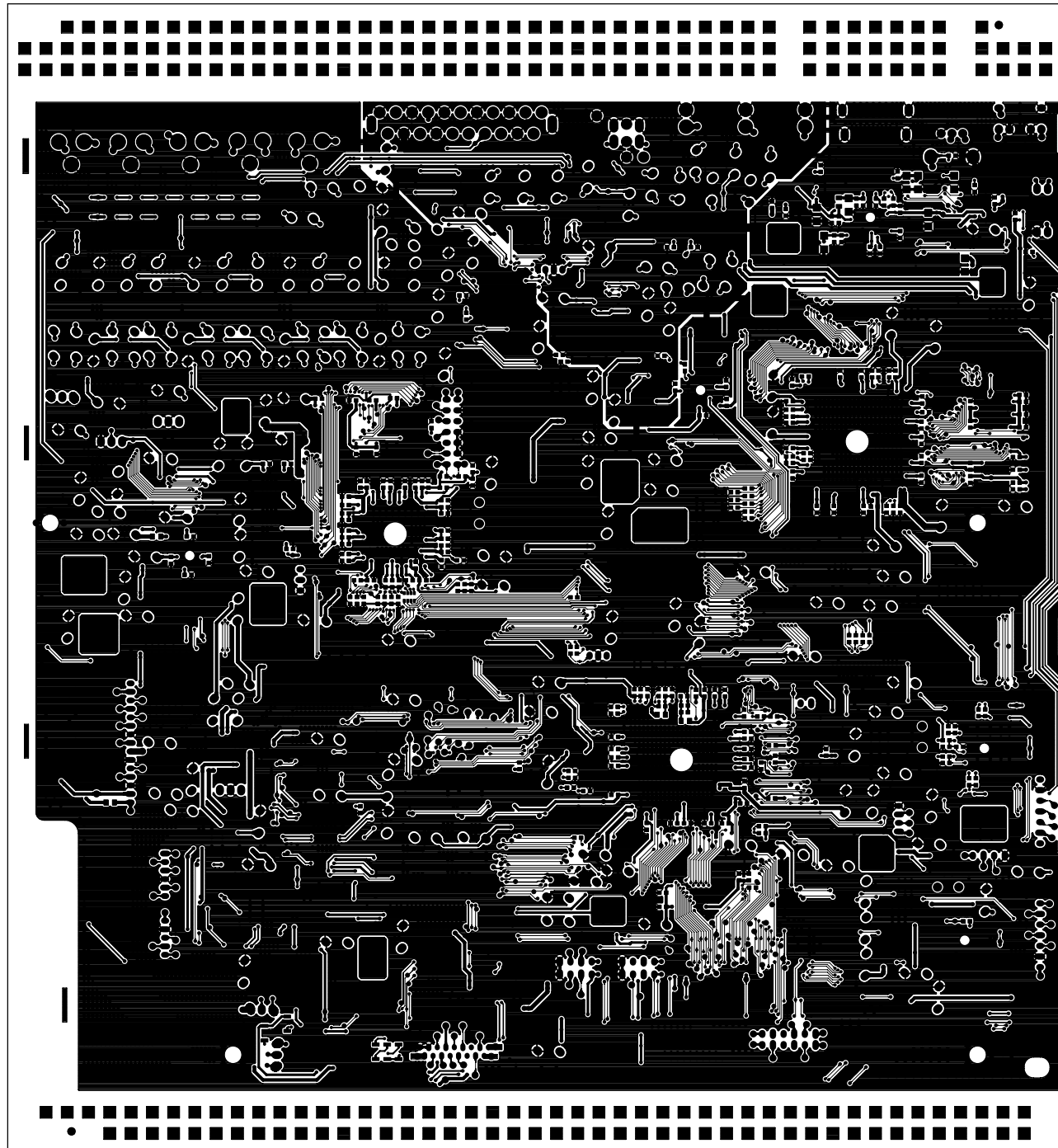


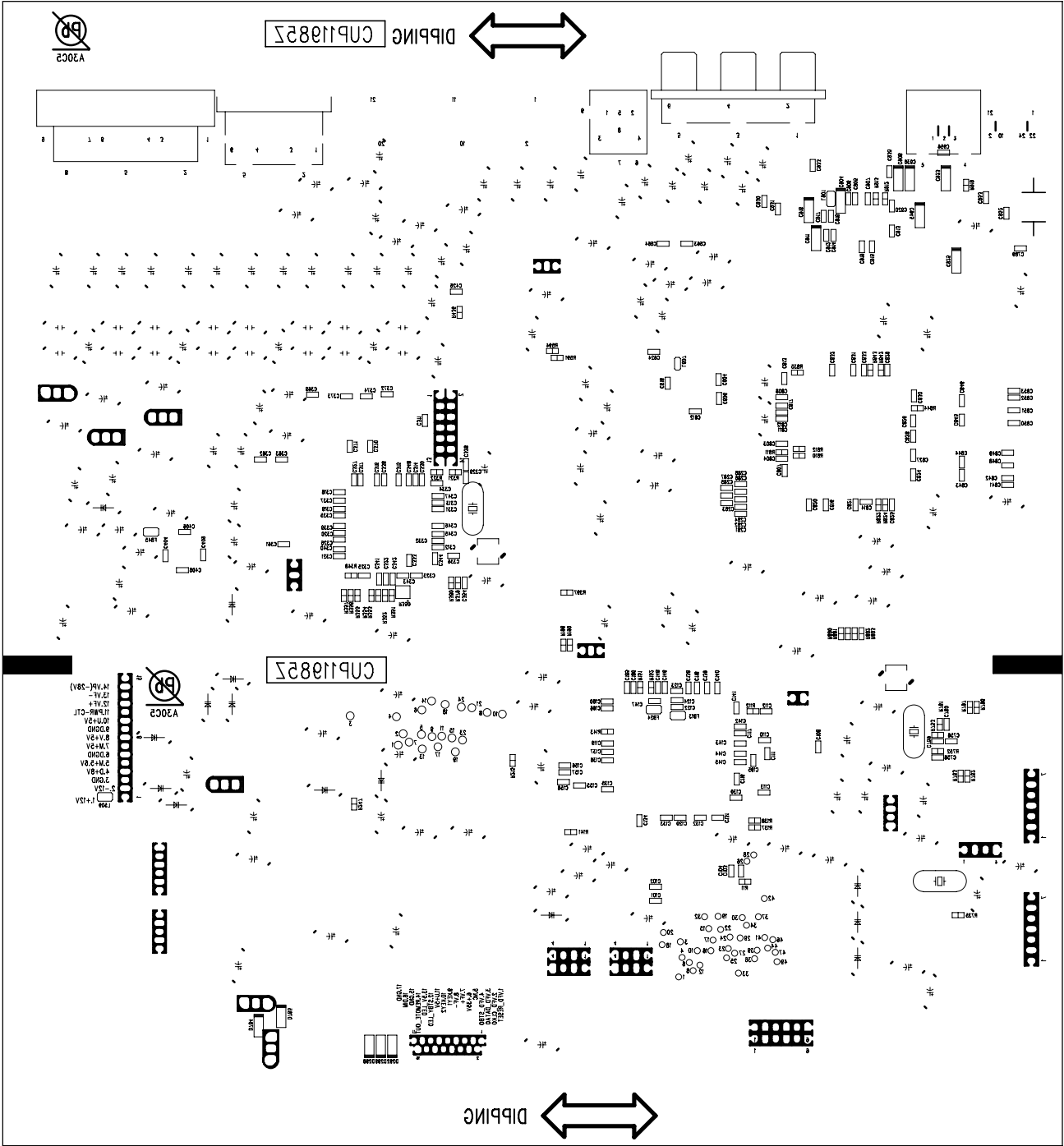


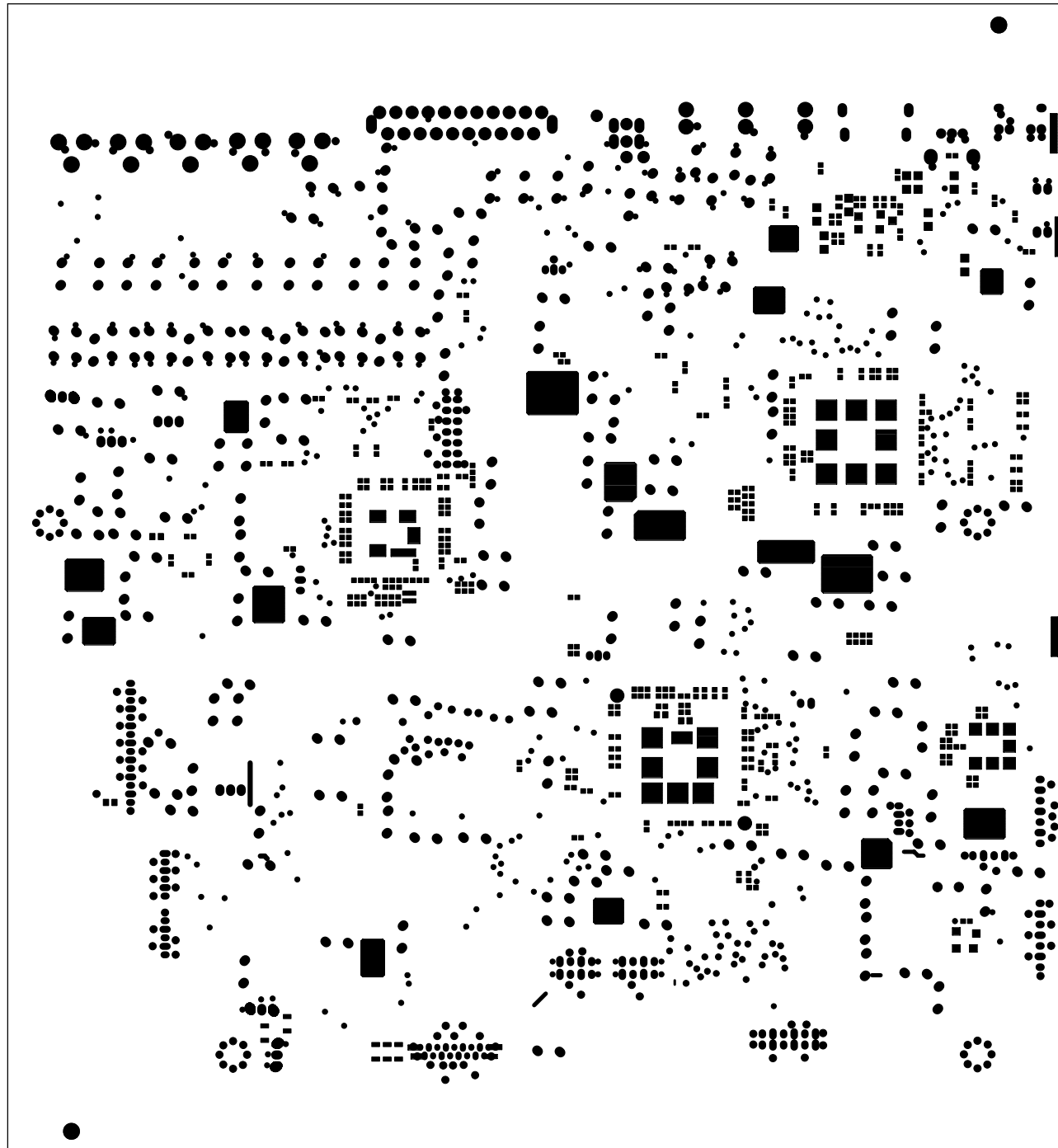


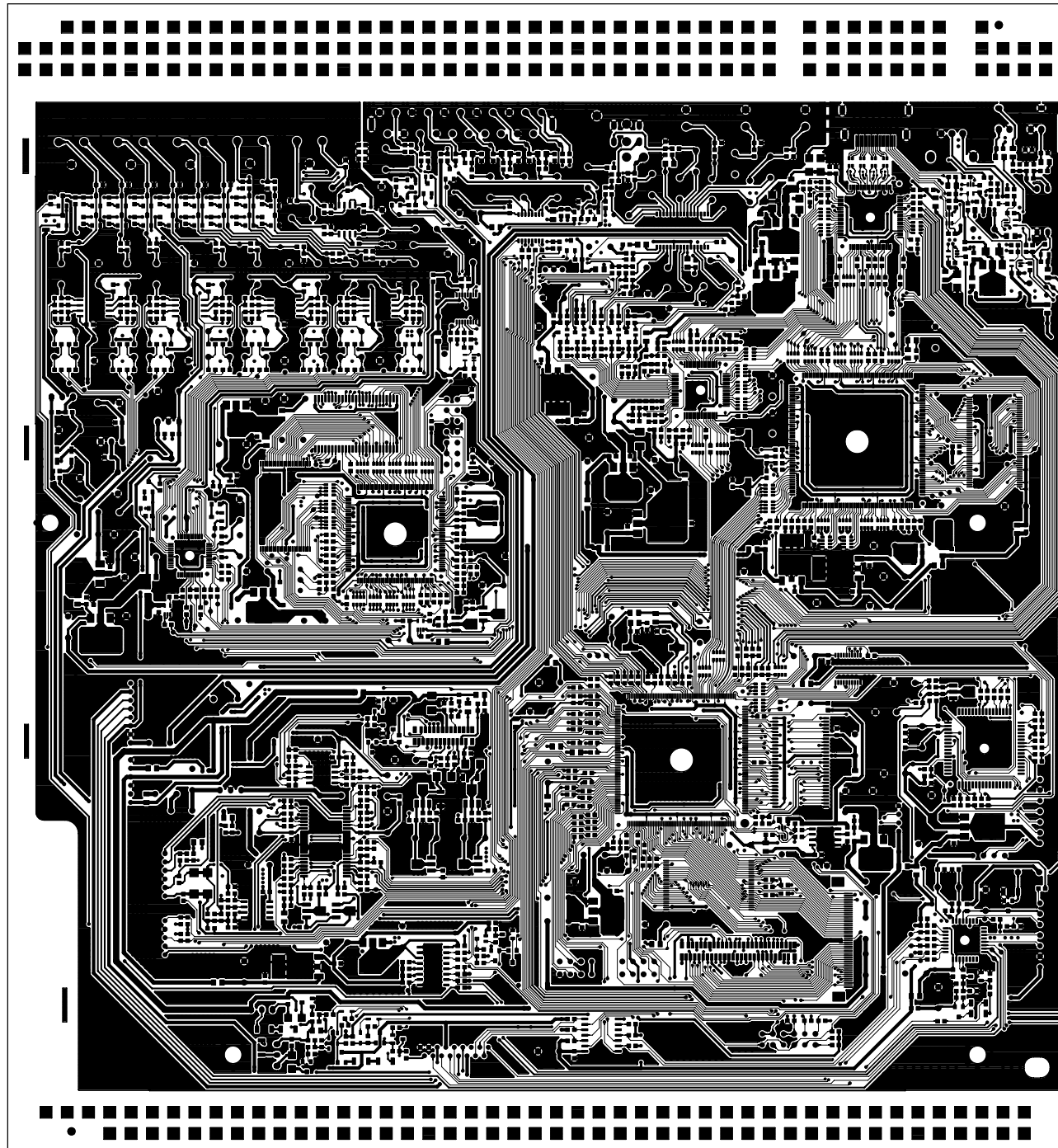


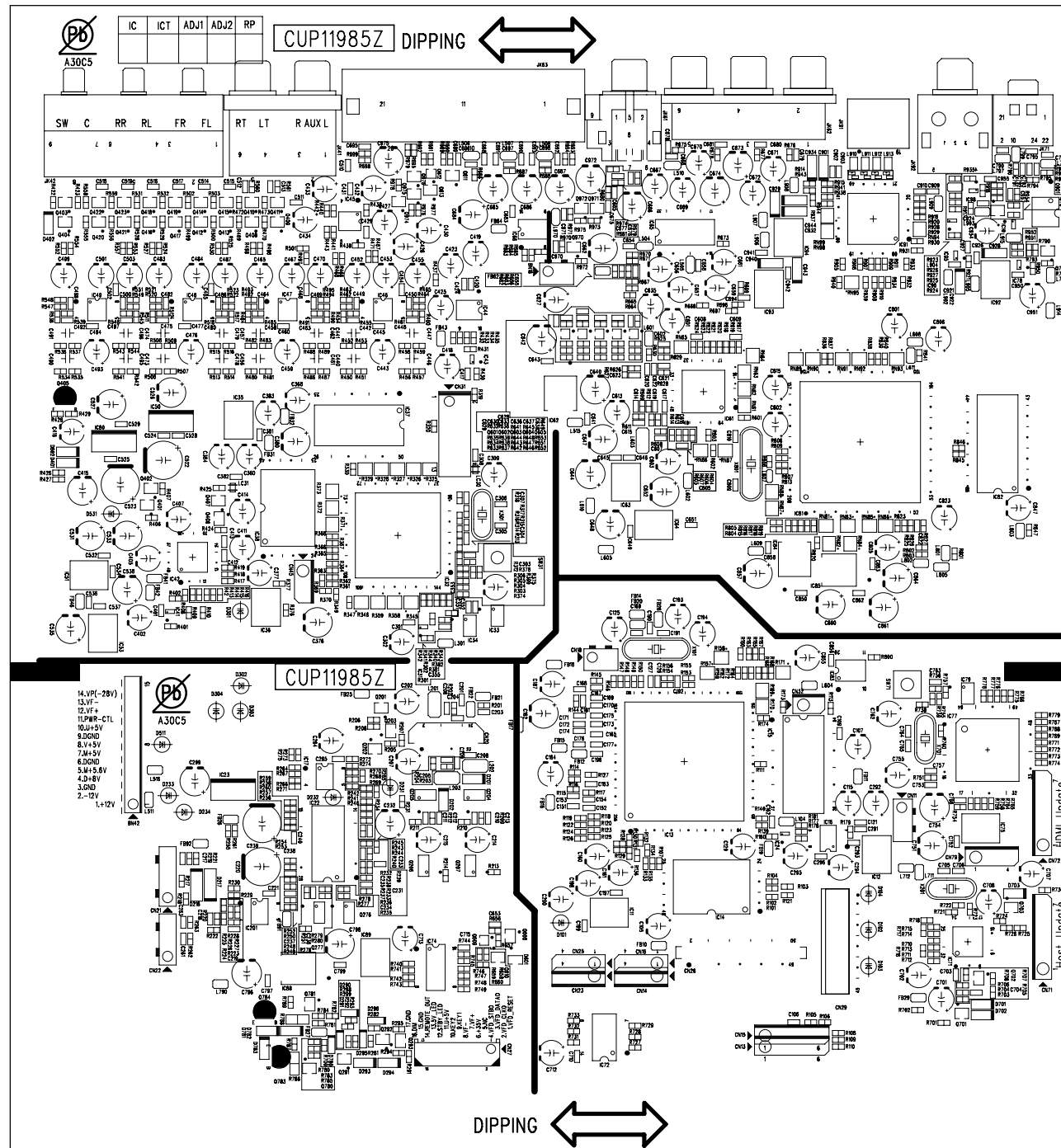


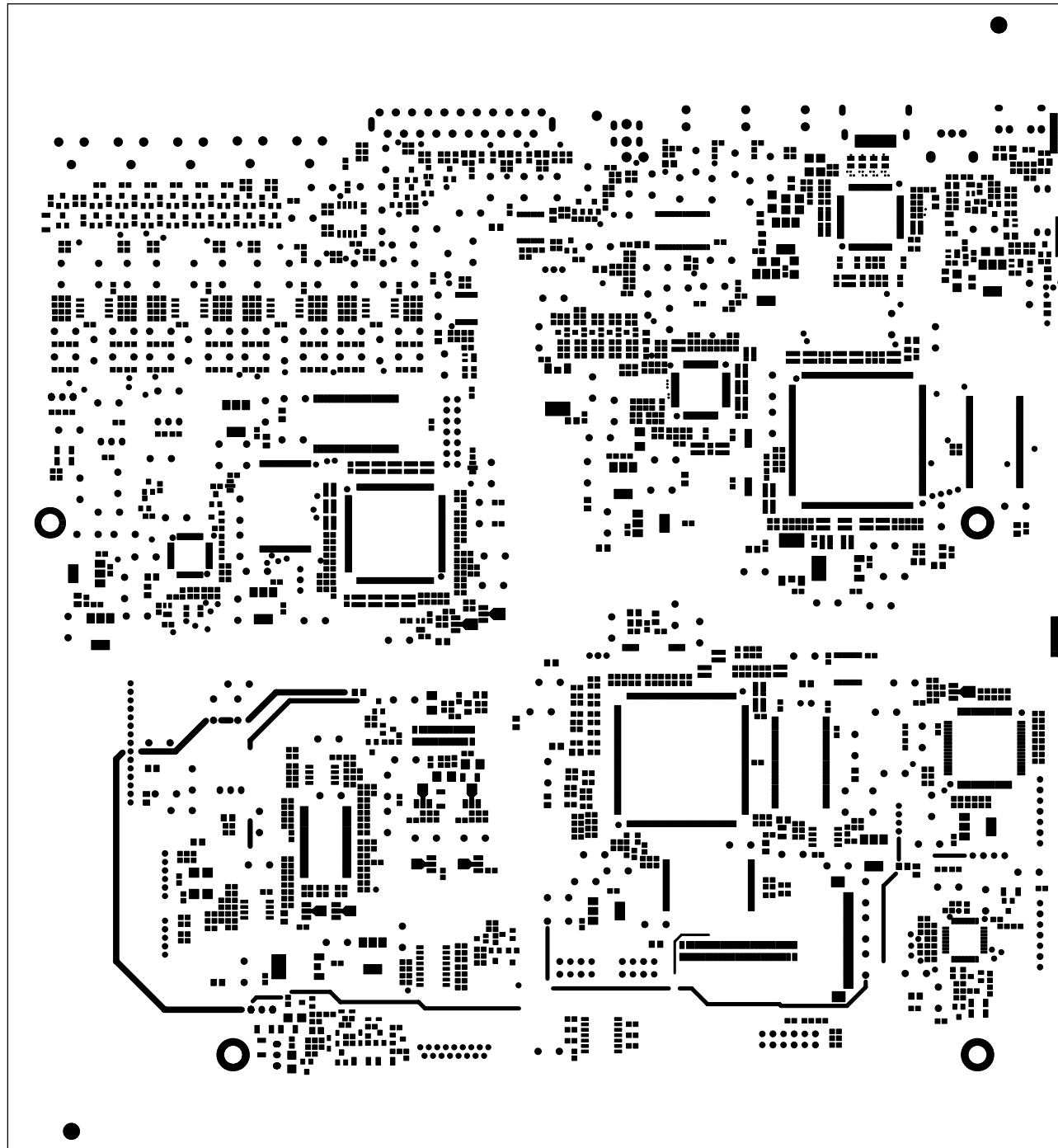


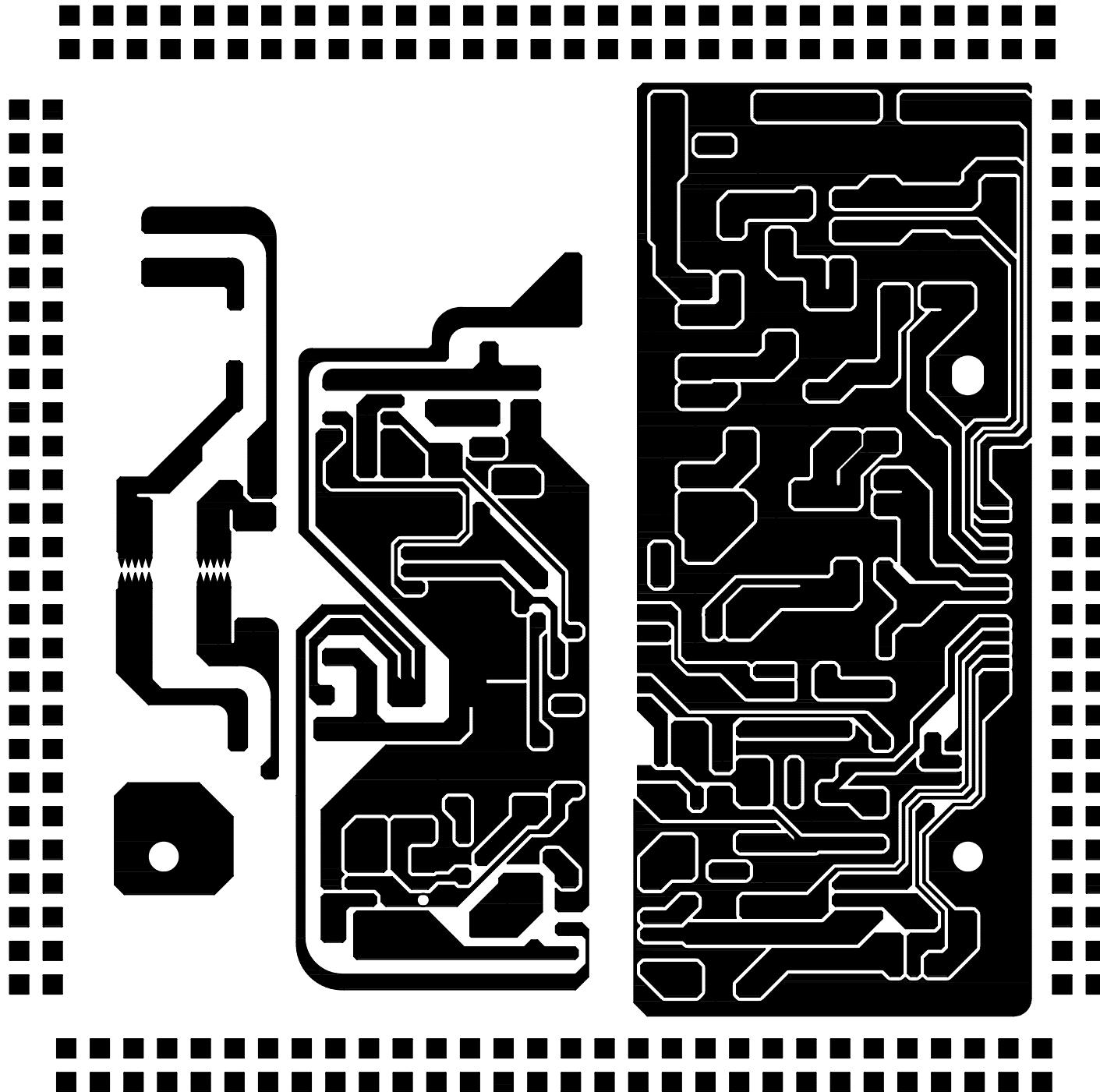


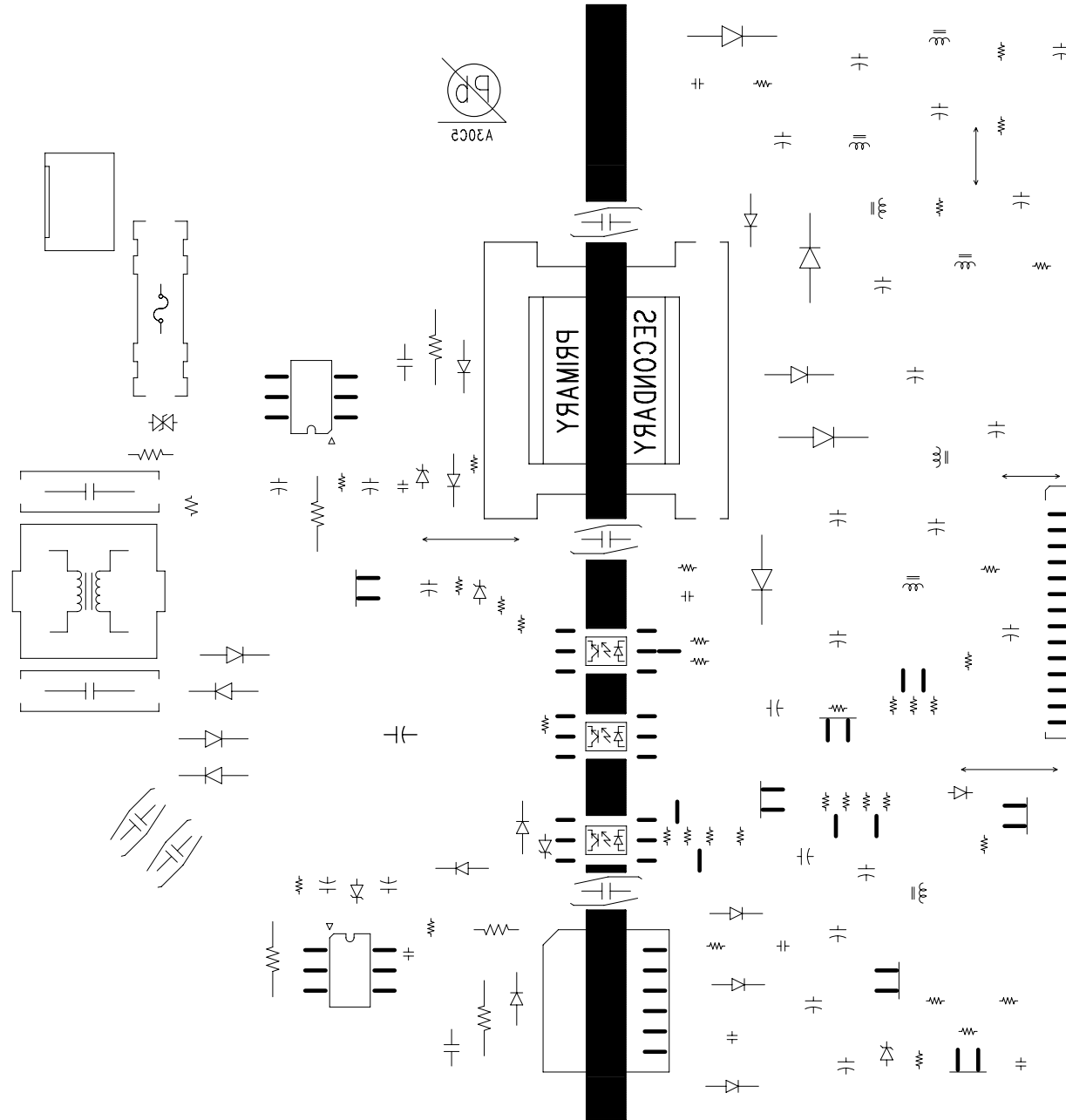


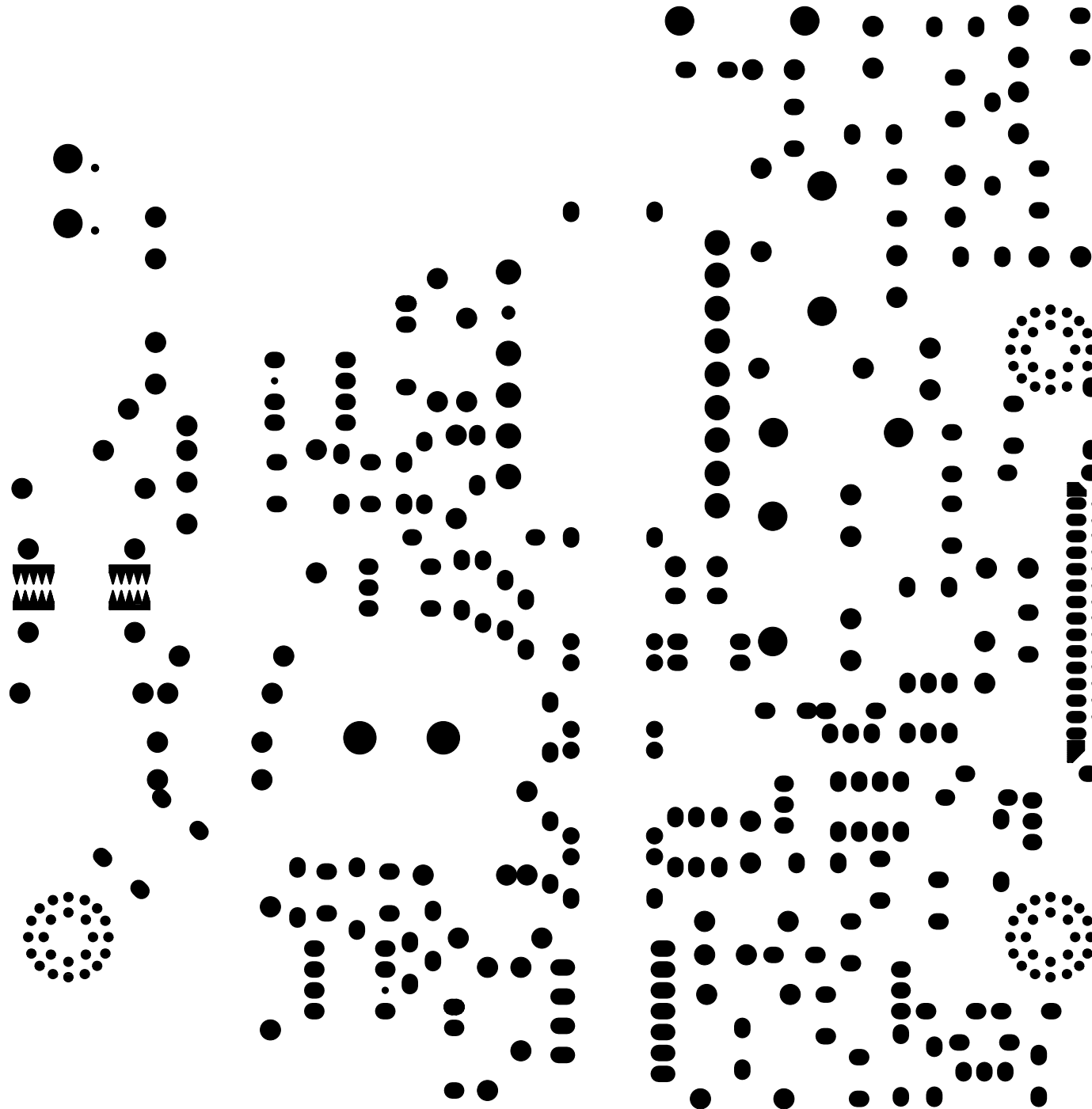










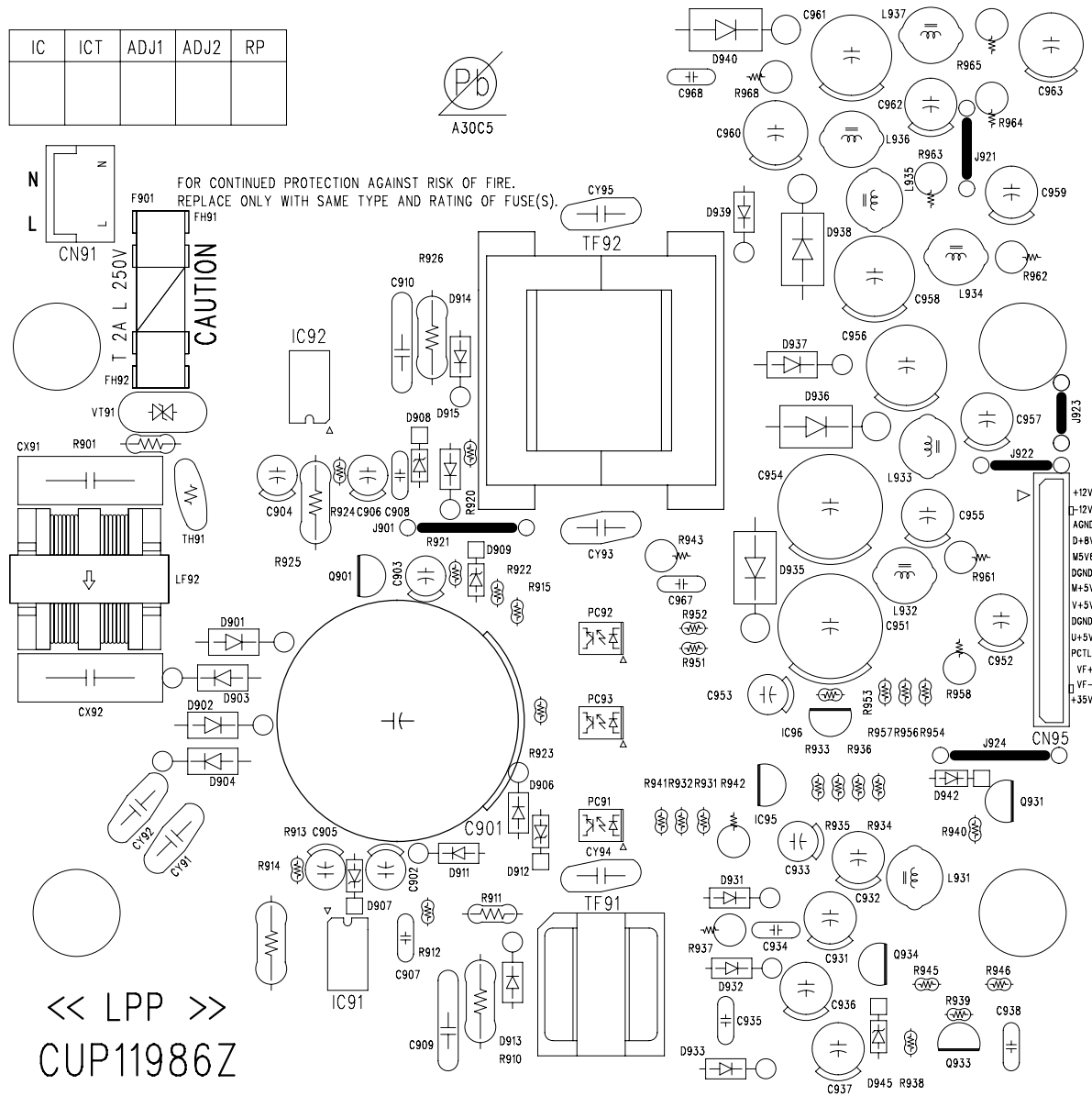




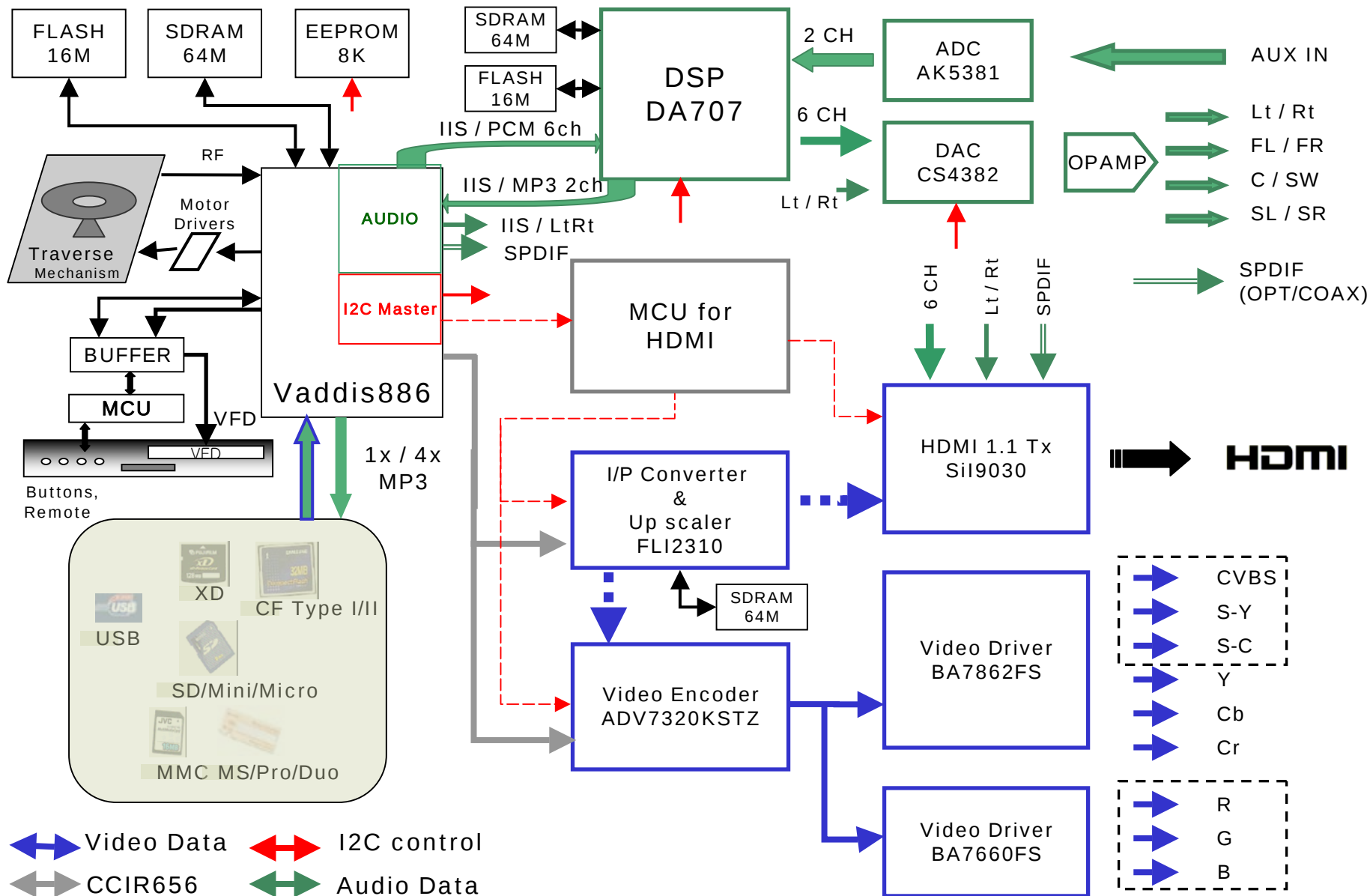
IC	ICT	ADJ1	ADJ2	RP

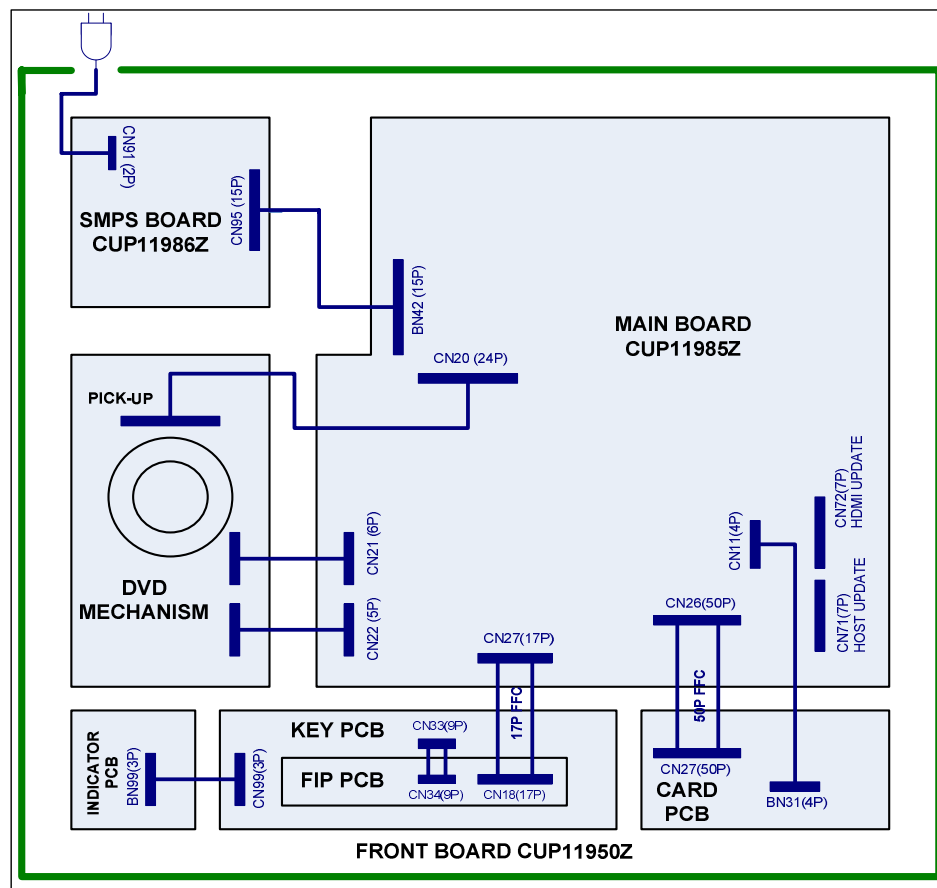


DIPPING



• DMC250 Block Diagram





CN26 ~ CN27					
1	FCU_SCLK	18	/FCU_LORD	35	MEMDAT0
2	M+5V	19	MEMADD9	36	MEMDAT1
3	MEMDAT3	20	/FCU_LOWR	37	MEMDAT8
4	MEMDAT11	21	GND	38	GND
5	MEMDAT4	22	MEMADD8	39	MEMDAT2
6	MEMDAT12	23	MEMADD7	40	MEMDAT9
7	MEMDAT5	24	MEMADD6	41	MEMDAT10
8	MEMDAT13	25	MEMADD20	42	CARD_DETECT
9	MEMDAT6	26	MEMADD5	43	/FCU_CS2
10	MEMDAT14	27	MEMADD4	44	/FCU_CS3
11	MEMDAT7	28	MEMADD3	45	GND
12	MEMDAT15	29	MEMADD2	46	/FCU_WAIT
13	GND	30	MEMADD1	47	/MEMCS0
14	M+5V	31	NC	48	/MEMCS1
15	/MEMWR	32	FCU_IRQ	49	CARD_SEL
16	/MEMRD	33	FCU_RST	50	GND
17	MEMADD10	34	MEMADD0		

CN27 ~ CN18					
1	VFD_RESET	10	KEY2		
2	VFD_CLK0	11	U+5V		
3	VFD_DATA0	12	STBY_LED		
4	VFD_STB0	13	5V_LED		
5	NC	14	REMOTE_OUT		
6	+35V	15	GND		
7	VF+	16	POWER_ON		
8	VF-	17	GND		
9	KEY1				

CN95 ~ BN42					
1	+12V	9	DGND		
2	-12V	10	U+5V		
3	GND	11	POWER-CTL		
4	D+8V	12	VF+		
5	M+5.6V	13	VF-		
6	DGND	14	VP(-28V)		
7	M+5V	15	NC		
8	V+5V				

PICK-UP ~ CN20					
1	F-	9	A	17	VR-CD
2	F+	10	B	18	VR-DVD
3	T+	11	F	19	CD-LD
4	T-	12	GND/PD	20	MD
5	C	13	VC(REF)	21	HFM
6	D	14	VCC	22	NC
7	CD/DVD SW	15	E	23	DVD_LD
8	RF	16	NC	24	GND_LD

DVD MECHA ~ CN21					
1	MOT_SPDL-				
2	MOT_SPDL+				
3	GND				
4	HOME_SW				
5	SLED+				
6	SLED-				

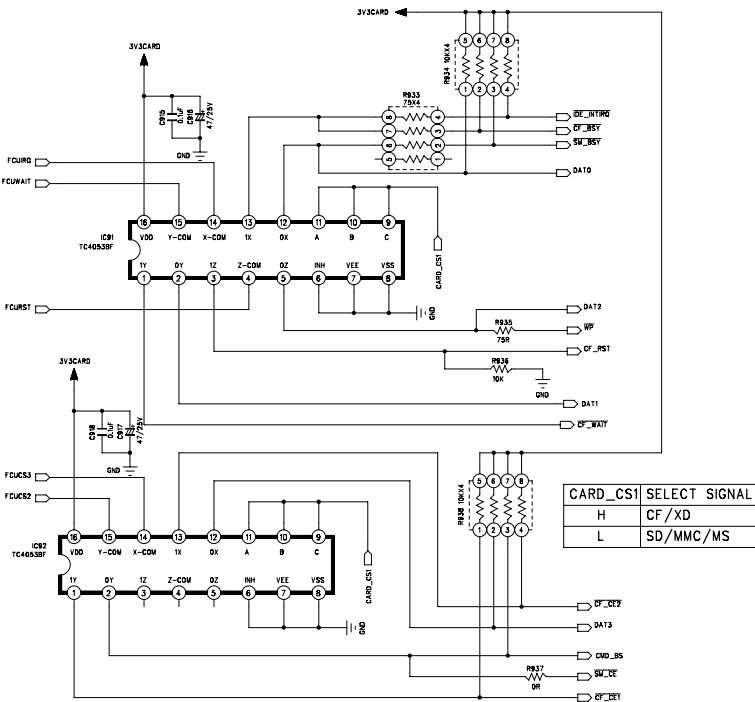
DVD MECHA ~ CN22					
1	LOAD-				
2	LOAD+				
3	IN_SW				
4	GND				
5	OUT_SW				

CN33 ~ CN34					
1	GND				
2	5V_LED				
3	KEY1_OUT				
4	KEY2				
5	U+5V				
6	STBY_LED				
7	GND				
8	POWER_ON				
9	GND				

BN99 ~ CN99					
1	STBY_LED				
2	POWER_ON				
3	GND				

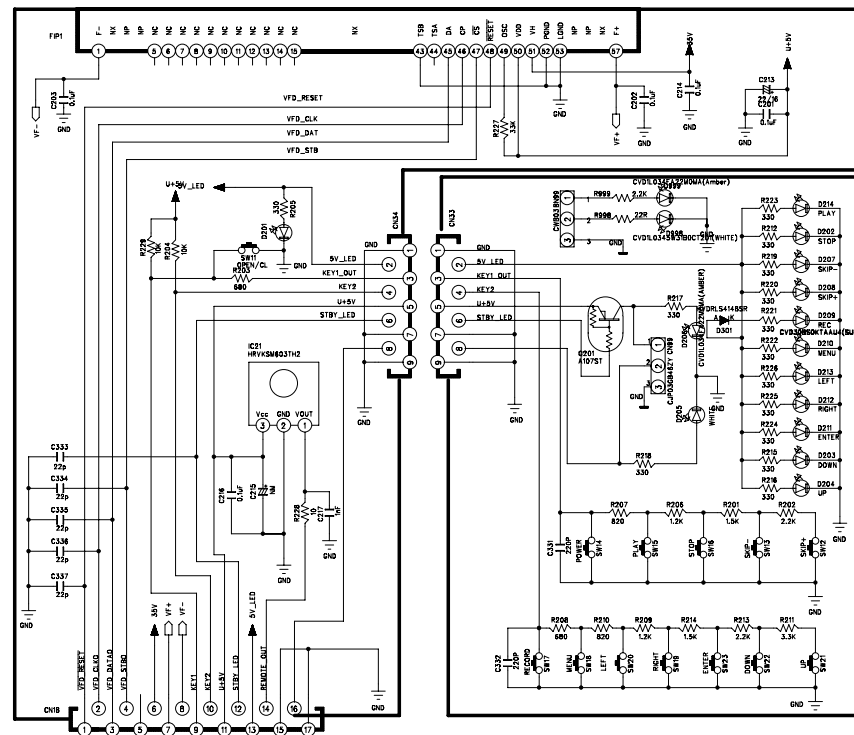
CN11 ~ BN31					
1	GND				
2	USB_DP				
3	USB_DN				
4	M+5V				

D

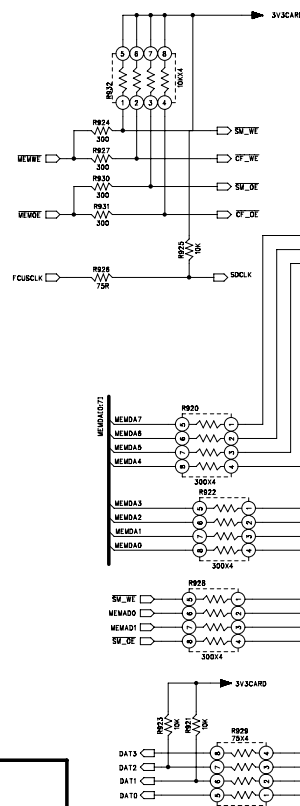


FRONT BOARD

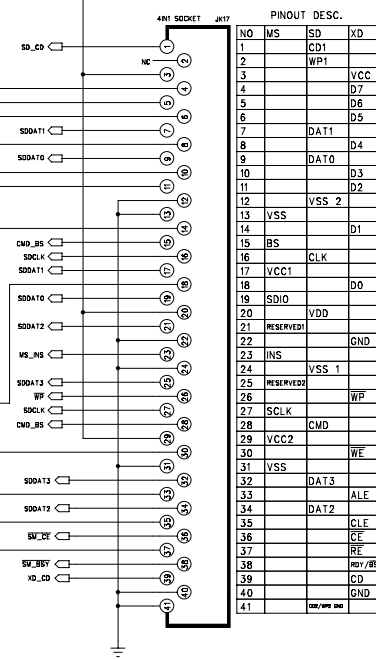
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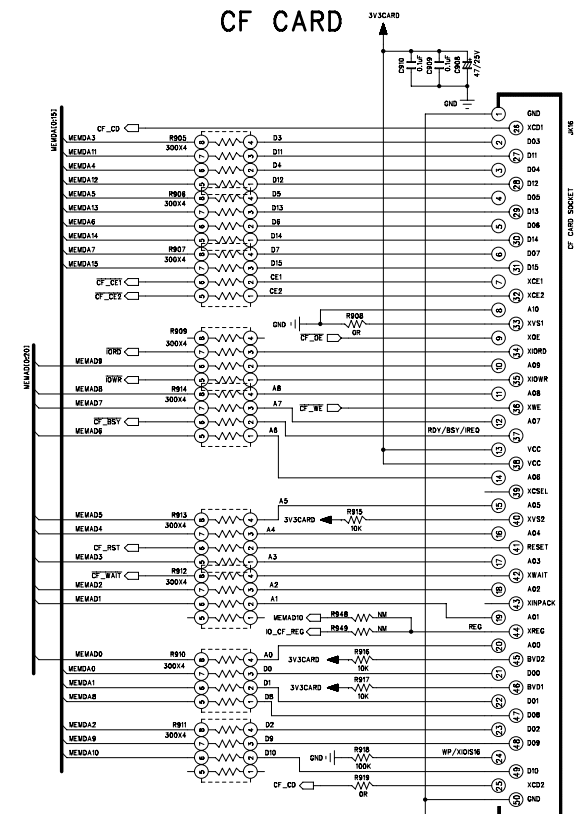
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4 IN 1 SOCKET
SD/XD/MMC/MS

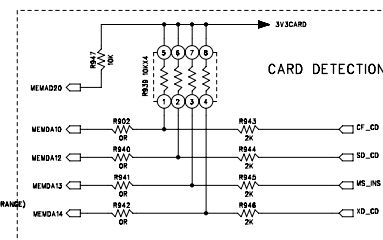


CF CARD

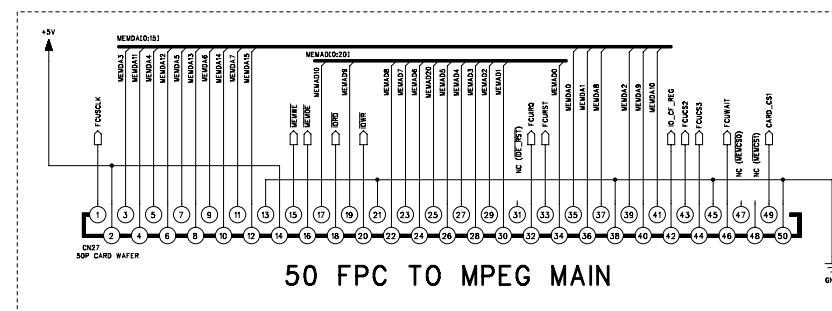
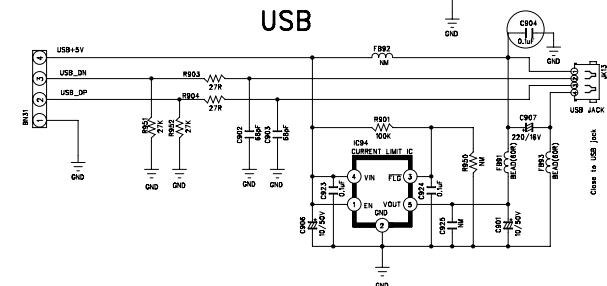
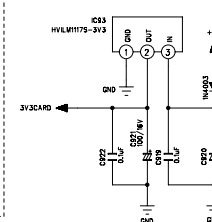


D

C

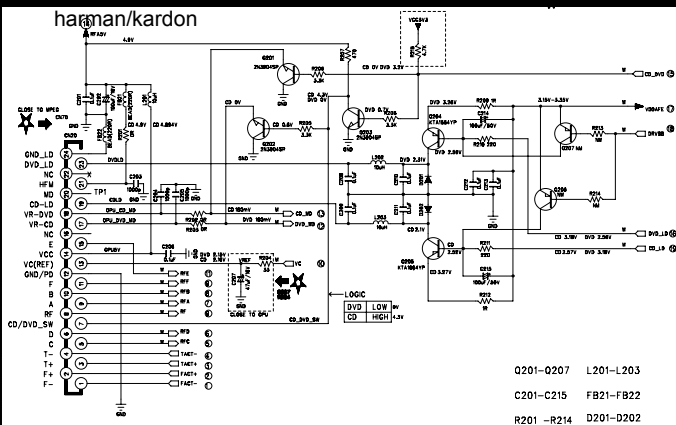


POWER

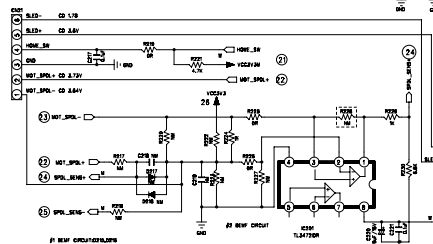


50 FPC TO MPEG MAIN

REVISION	2	4	6
1	3	5	7
SCHEMATIC DIAGRAM			SHEET
MODEL	DMC250		1 3
DESIGN	CHECK	APPROVE	DRAWING NO
			CUP11950Z
			5 6

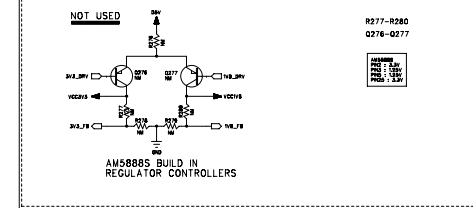
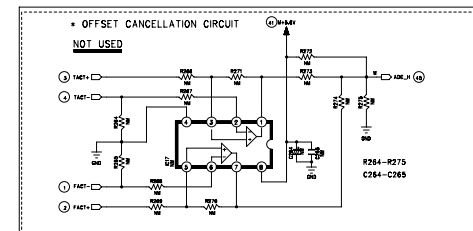
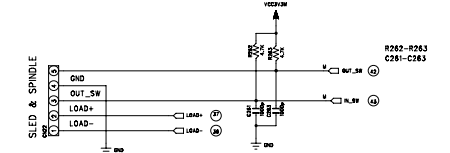
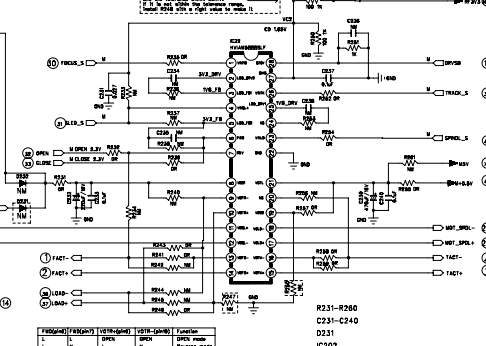


C217-C221
R217-R230
IC201
D217-D218

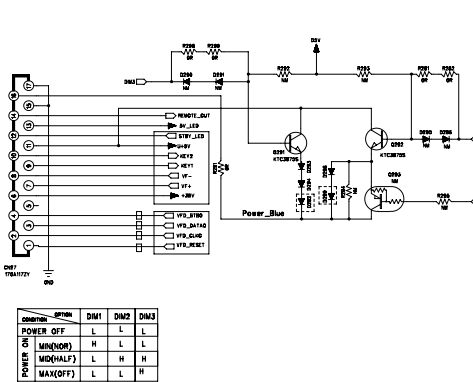


MOTOR DRIVER

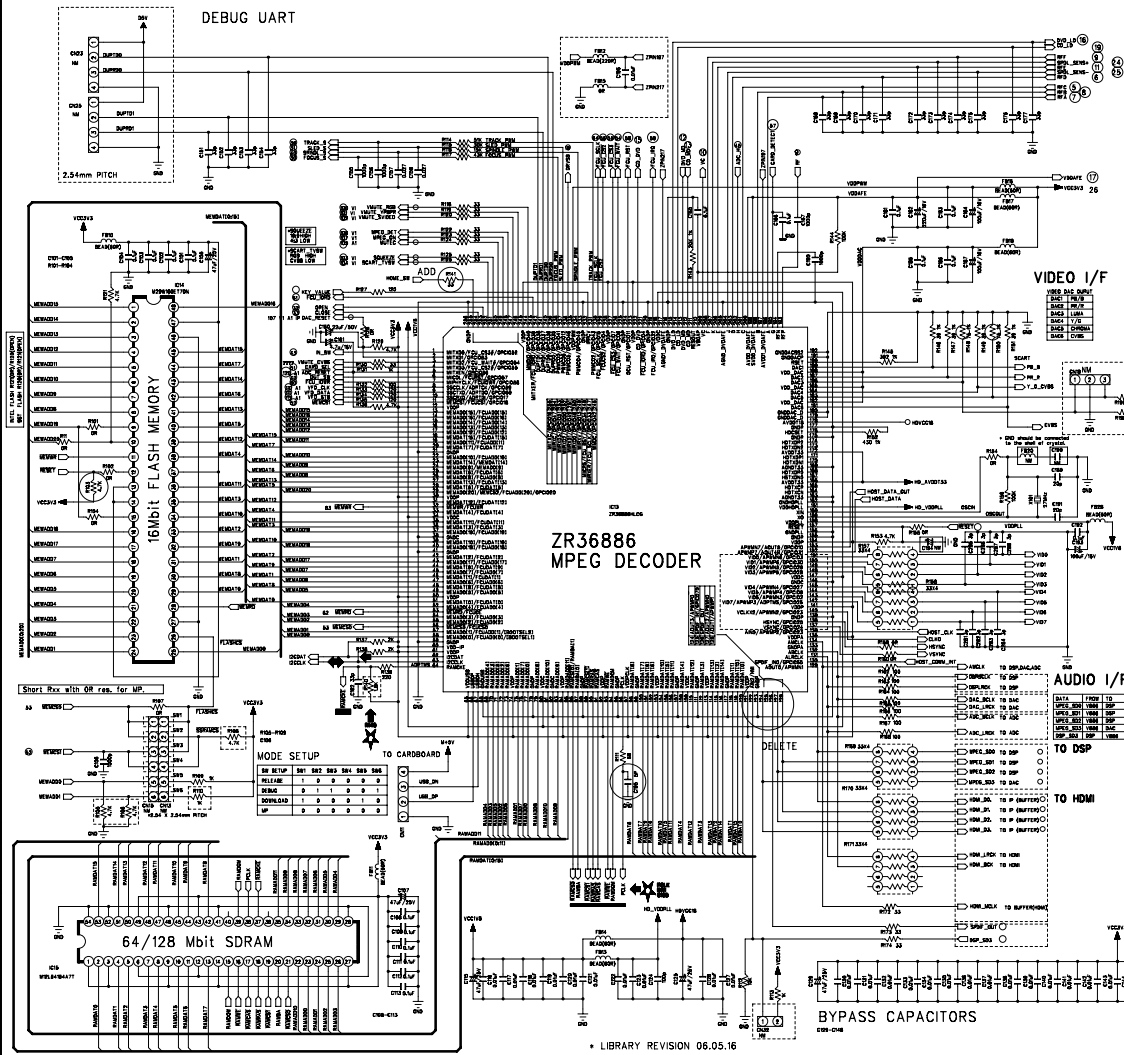
CLOSE TO MOTOR DRIVER



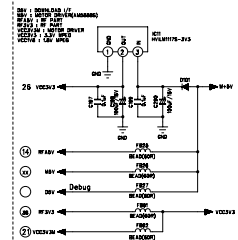
CONNECT BETWEEN FRONT AND MAIN



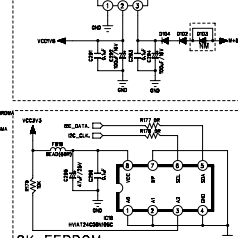
DEBUG UART



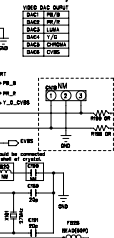
POWER



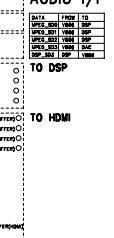
8K EEPROM



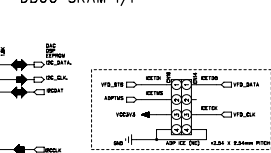
VIDEO I/F



AUDIO I/F

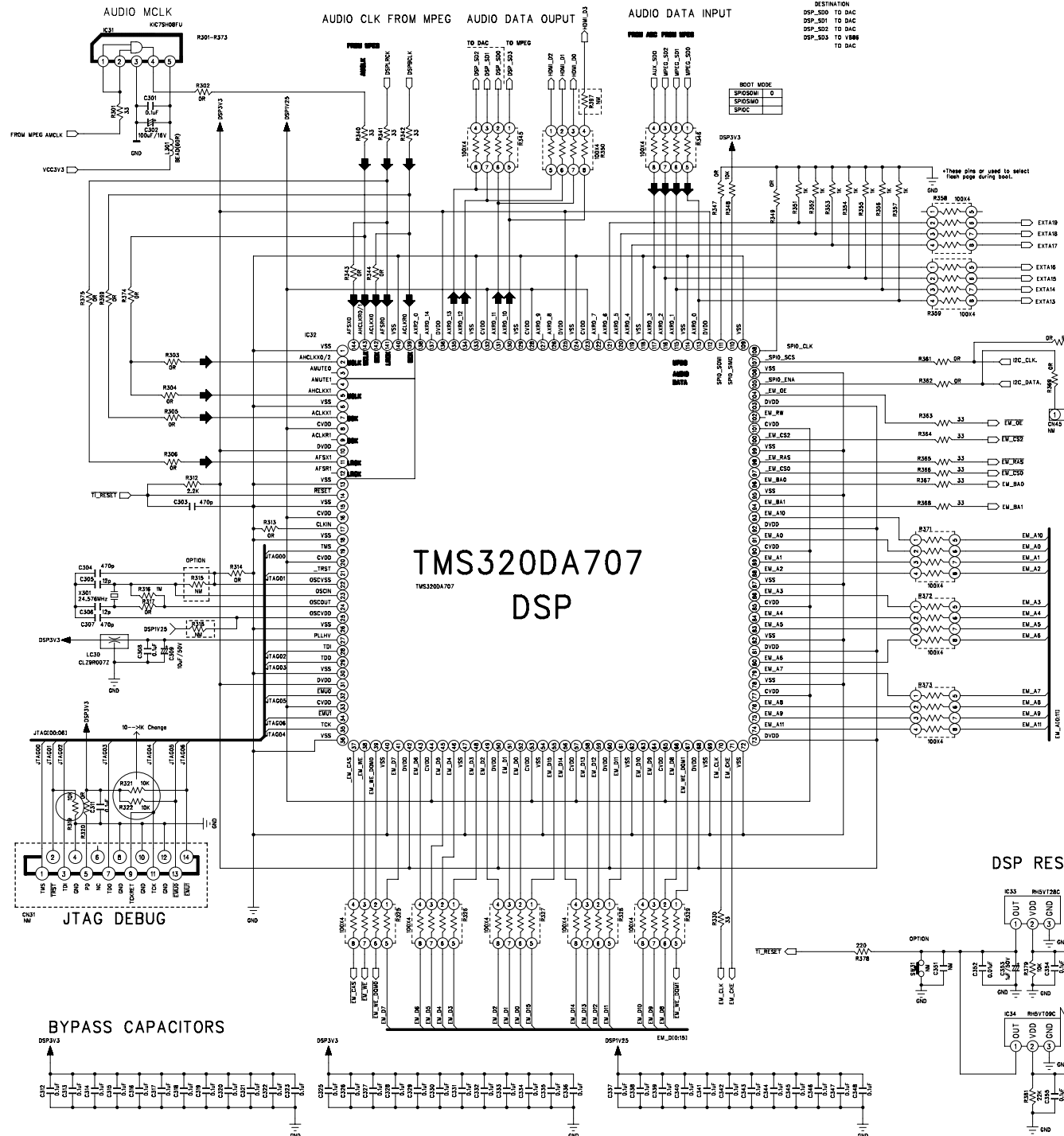


DEBUG SRAM I/F

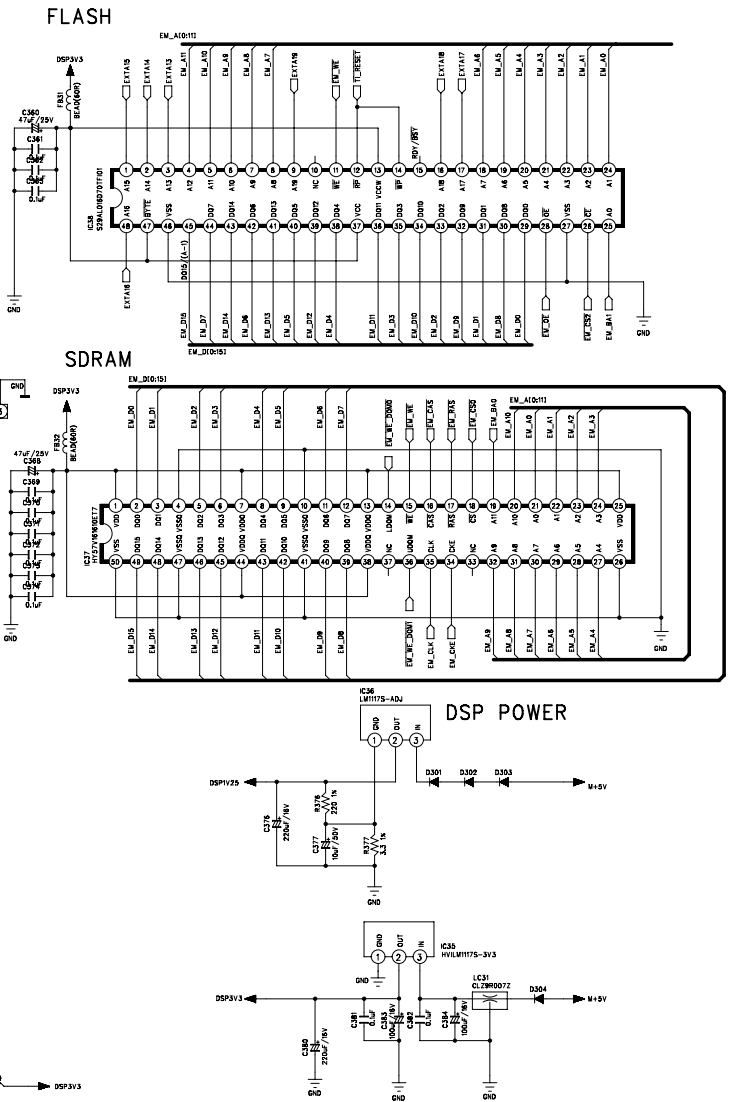


BYPASS CAPACITORS

LIBRARY REVISION 06.05.16

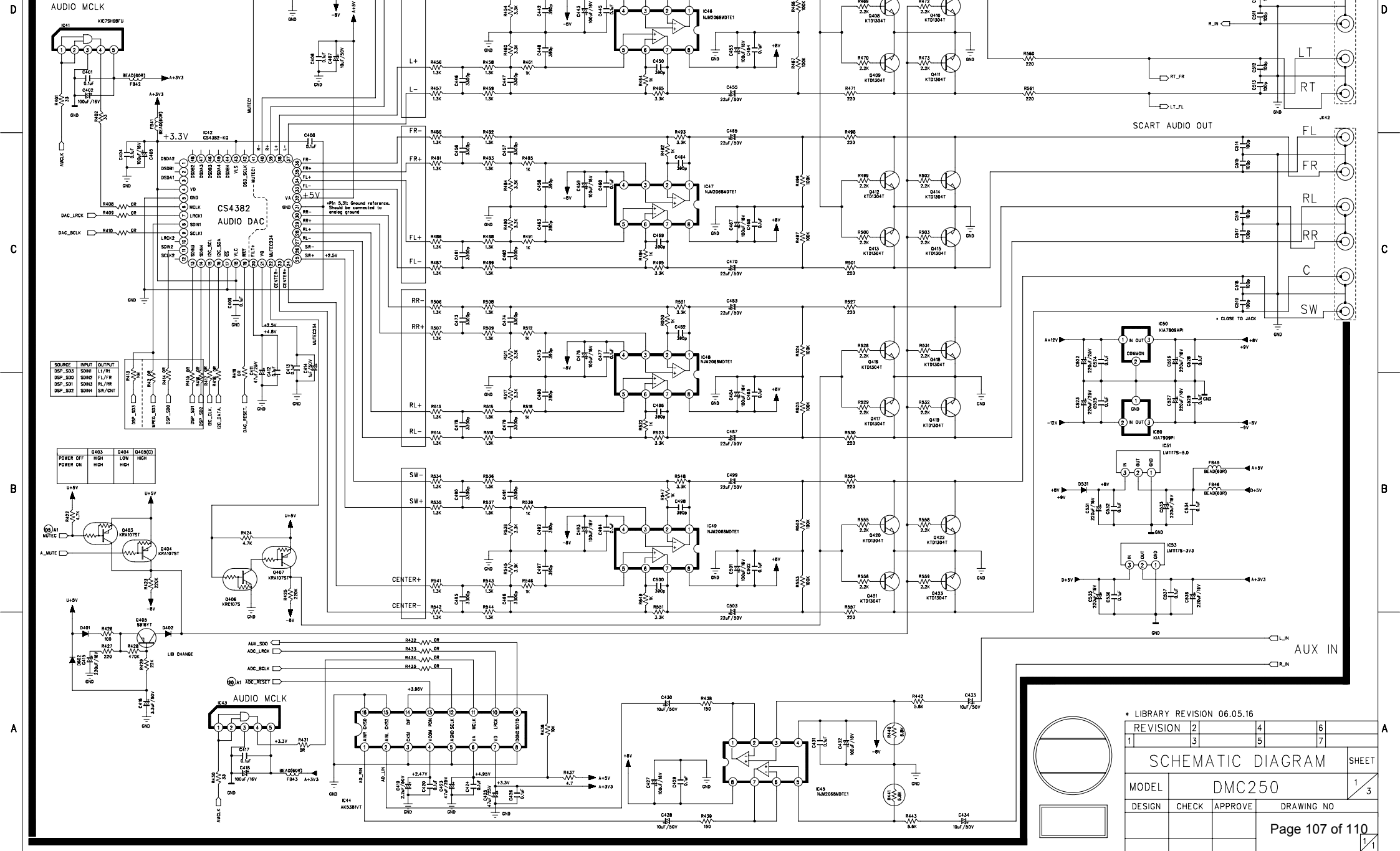


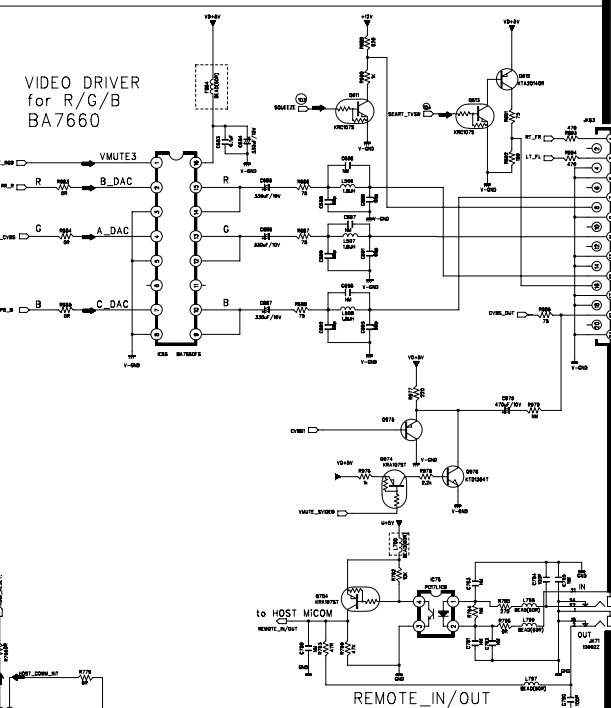
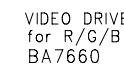
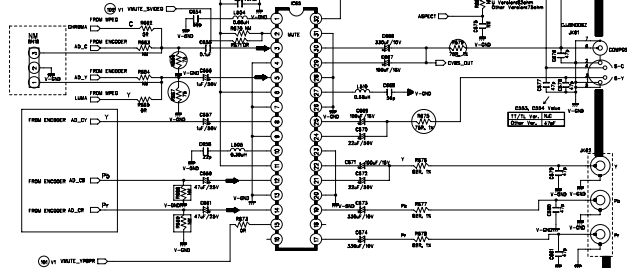
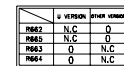
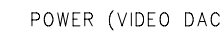
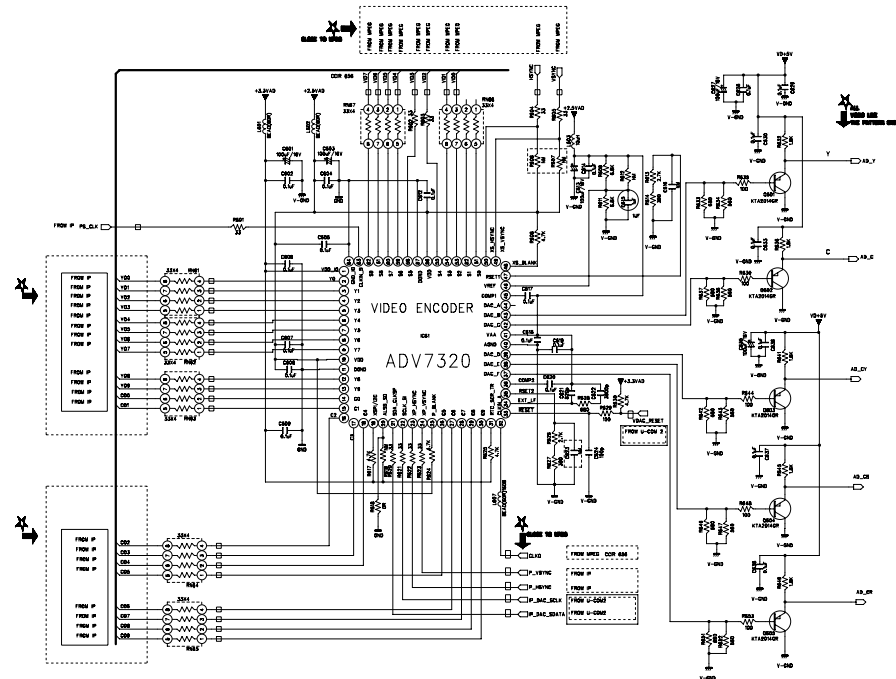
EXTERNAL MEMEORY INTERFACE



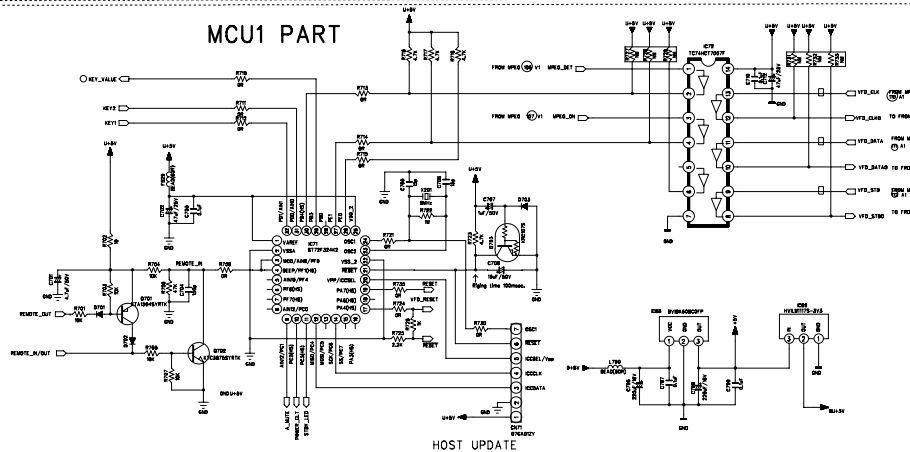
* LIBRARY REVISION 06.05.16

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MODEL	DMC250			3/7
DESIGN	CHECK	APPROVE	DRAWING NO	
			Page 106 of 110	
07.11	07.11	07.11	3/6	

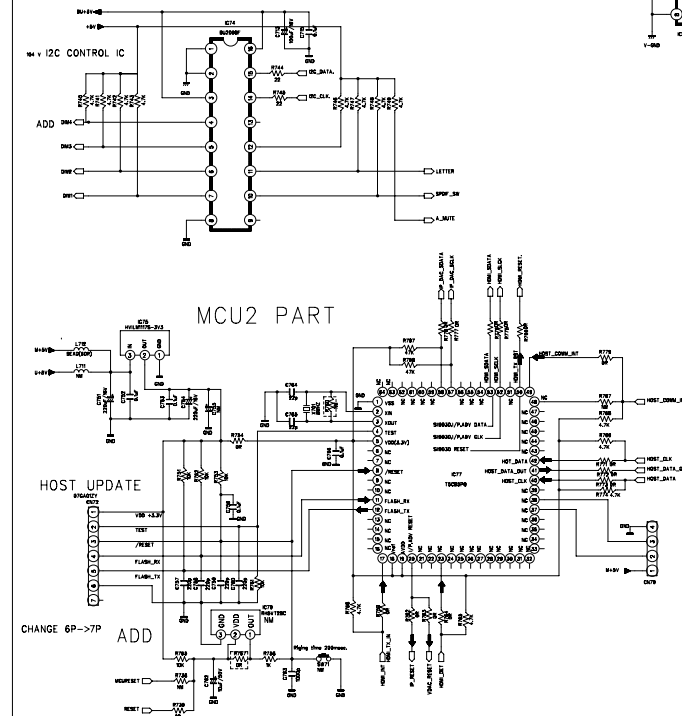




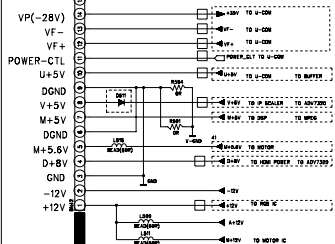
MCU1 PART



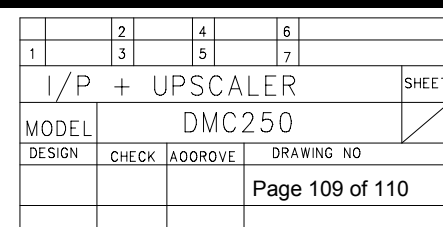
MCU2 PART



POWER PORT

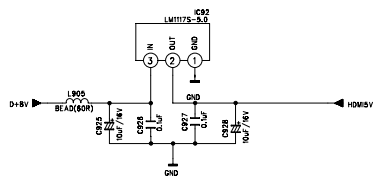


	REVISION	2		4		6	
1		3		5		7	
SCHEMATIC DIAGRAM							SHEET
MODEL	DMC250						1 4
DESIGN	CHECK	APPROVE	DRAWING NO				
			Page 108 of 110				

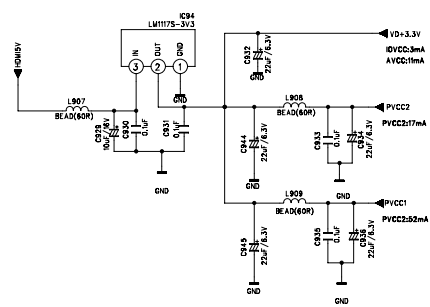


HDMI PART

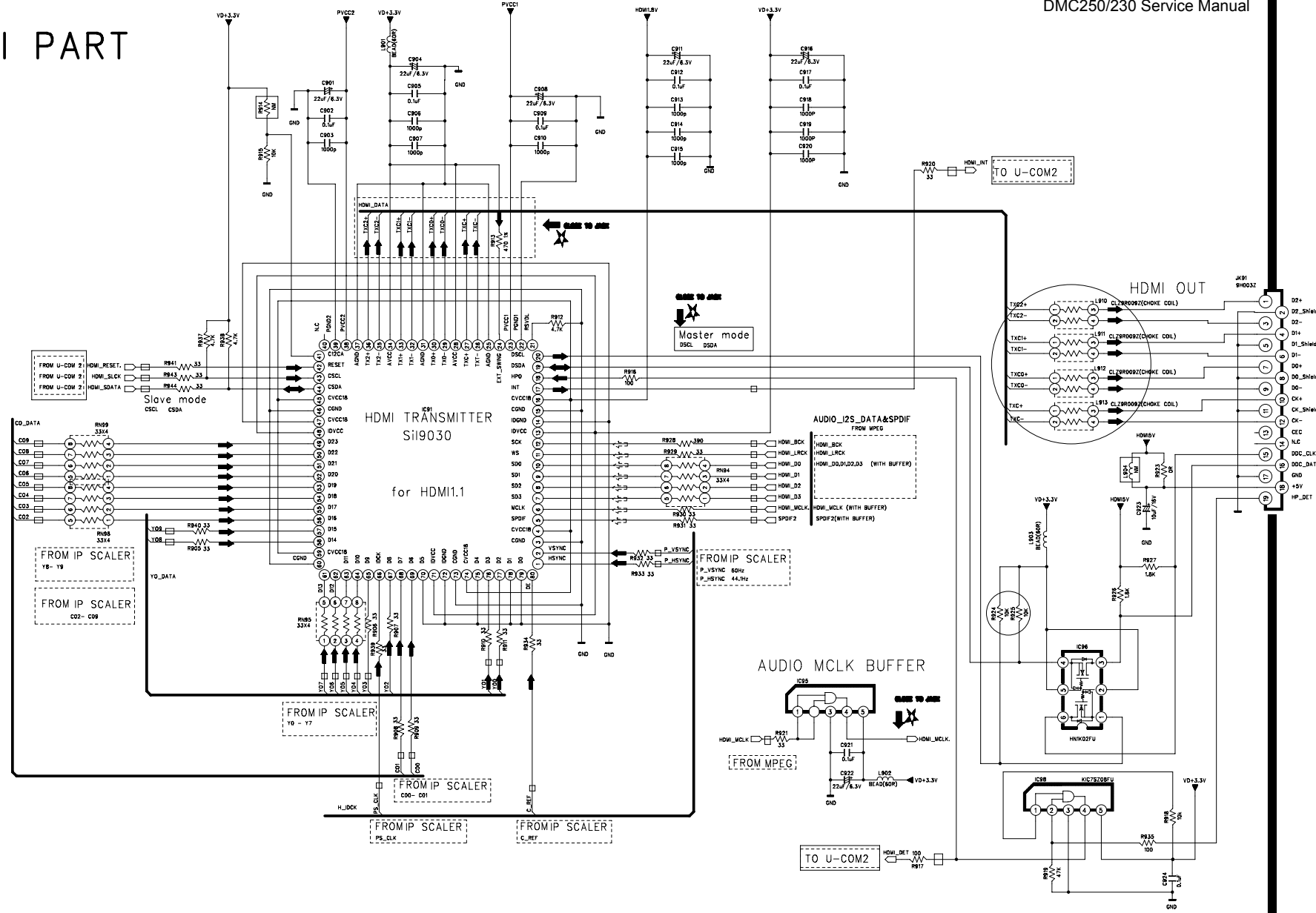
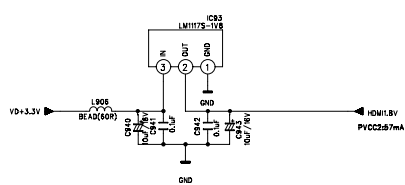
POWER (+8V -> +5V)



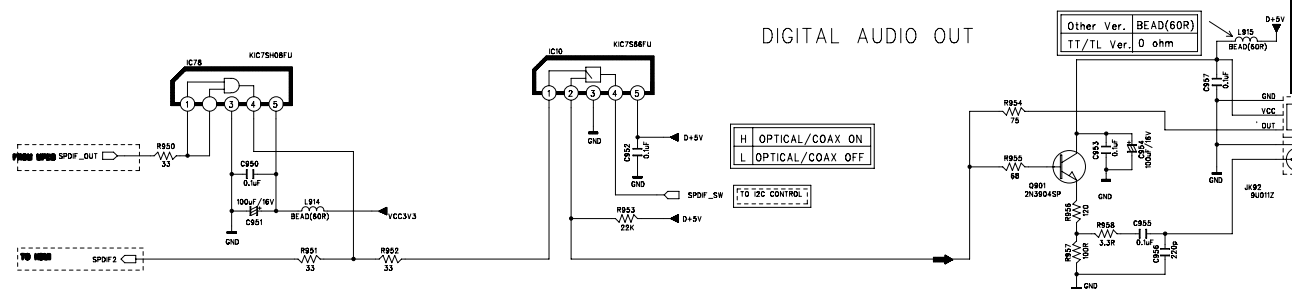
POWER (+5V -> +3.3V)



POWER (+3.3V -> +1.8V)



DIGITAL AUDIO OUT



SCHEMATIC DIAGRAM

DMC250