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LCD TV

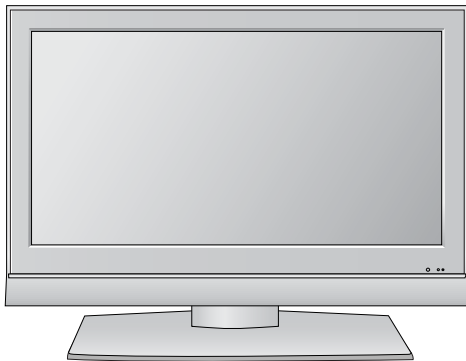
SERVICE MANUAL

CHASSIS : LA74E

MODEL : 20LS7D(C) 20LS7D(C)-UB

CAUTION

BEFORE SERVICING THE CHASSIS,
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.



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SAFETY PRECAUTIONS

IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by $\triangle$ in the Schematic Diagram and Replacement Parts List.

It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent Shock, Fire, or other Hazards.

Do not modify the original design without permission of manufacturer.

General Guidance

An **isolation Transformer** should always be used during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks.

It will also protect the receiver and its components from being damaged by accidental shorts of the circuitry that may be inadvertently introduced during the service operation.

If any fuse (or Fusible Resistor) in this TV receiver is blown, replace it with the specified.

When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB.

Keep wires away from high voltage or high temperature parts.

Before returning the receiver to the customer,

always perform an **AC leakage current check** on the exposed metallic parts of the cabinet, such as antennas, terminals, etc., to be sure the set is safe to operate without damage of electrical shock.

Leakage Current Cold Check(Antenna Cold Check)

With the instrument AC plug removed from AC source, connect an electrical jumper across the two AC plug prongs. Place the AC switch in the on position, connect one lead of ohm-meter to the AC plug prongs tied together and touch other ohm-meter lead in turn to each exposed metallic parts such as antenna terminals, phone jacks, etc.

If the exposed metallic part has a return path to the chassis, the measured resistance should be between $1M\Omega$ and $5.2M\Omega$.

When the exposed metal has no return path to the chassis the reading must be infinite.

An other abnormality exists that must be corrected before the receiver is returned to the customer.

Leakage Current Hot Check (See below Figure)

Plug the AC cord directly into the AC outlet.

Do not use a line Isolation Transformer during this check.

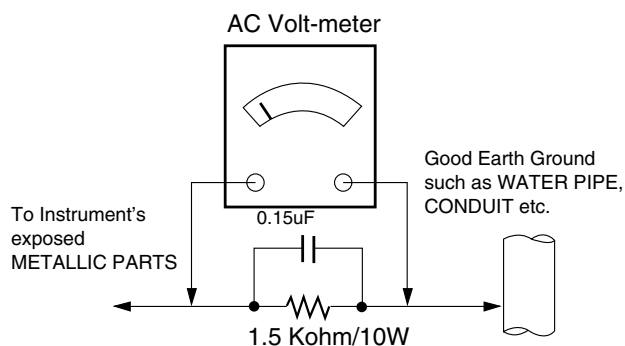
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

Measure the AC voltage across the resistor using AC voltmeter with 1000 ohms/volt or more sensitivity.

Reverse plug the AC cord into the AC outlet and repeat AC voltage measurements for each exposed metallic part. Any voltage measured must not exceed 0.75 volt RMS which corresponds to 0.5mA.

In case any measurement is out of the limits specified, there is possibility of shock hazard and the set must be checked and repaired before it is returned to the customer.

Leakage Current Hot Check circuit



SERVICING PRECAUTIONS

CAUTION: Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the *SAFETY PRECAUTIONS* on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before;
 - a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
 - b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
 - c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.**CAUTION:** A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe. Do not test high voltage by "drawing an arc".

3. Do not spray chemicals on or near this receiver or any of its assemblies.

4. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength)

CAUTION: This is a flammable mixture.

Unless specified otherwise in this service manual, lubrication of contacts is not required.

5. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
6. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.

7. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.

Always remove the test receiver ground lead last.

8. Use with this receiver only the test fixtures specified in this service manual.

CAUTION: Do not connect the test fixture ground strap to any heat sink in this receiver.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called *Electrostatically Sensitive (ES) Devices*. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the

unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range or 500°F to 600°F.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a mall wire-bristle (0.5 inch, or 1.25cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique
 - a. Allow the soldering iron tip to reach normal temperature. (500°F to 600°F)
 - b. Heat the component lead until the solder melts.
 - c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.
CAUTION: Work quickly to avoid overheating the circuit board printed foil.
6. Use the following soldering technique.
 - a. Allow the soldering iron tip to reach a normal temperature (500°F to 600°F)
 - b. First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.
 - c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
CAUTION: Work quickly to avoid overheating the circuit board printed foil.
 - d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

IC Remove/Replacement

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush.
(It is not necessary to reapply acrylic coating to the areas).

"Small-Signal" Discrete Transistor

Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact then solder each connection.

Power Output, Transistor Device

Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heat sink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heat sink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicular y to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and if necessary, apply additional solder.

Fuse and Conventional Resistor

Removal/Replacement

1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
2. Securely crimp the leads of replacement component around notch at stake top.
3. Solder the connections.

CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board causing the foil to separate from or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

At IC Connections

To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife.
Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side.
Carefully crimp and solder the connections.

CAUTION: Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

SPECIFICATION

NOTE : Specifications and others are subject to change without notice for improvement.

1. Application range

- 1) This spec sheet is applied all of the 20/23" LCD TV with LA74E chassis.
- 2) Not included spec and each product spec in this spec sheet apply correspondingly to the following each country standard and requirement of Buyer

3. Test method

- 1) Performance : LGE TV test method followed
- 2) Demanded other specification
 - Safety : UL, CSA, IEC specification
 - EMC : FCC, ICES, IEC specification

2. Specification

Each part is tested as below without special appointment.

- 1) Temperature : 20±5°C
- 2) Relative Humidity : 65±10%
- 3) Power Voltage : Standard input voltage
(100-240V @ 50/60Hz)
- * Standard Voltage of each product is marked by models
- 4) Specification and performance of each parts are followed each drawing and specification by part number in accordance with BOM.
- 5) The receiver must be operated for about 20 minutes prior to the adjustment.

4. General Specification(TV)

No	Item	Specification	Remark
1	Receiving System	ATSC/64 & 256 QAM/ NTSC-M	
2	Available Channel	1) VHF : 02~13 2) UHF : 14~69 3) DTV : 02-69 4) CATV : 01~135 5) CADTV : 01~135	
3	Input Voltage	100-240V~, 50/60Hz	
4	Market	NORTH AMERICA	
5	Screen Size	20 inch Wide	For 20LC7D-UB
		23 inch Wide	For 23LC7D-UB
6	Aspect Ratio	16:9	
7	Tuning System	FS	
8	LCD Module	T200XW02	Wide, AUO
		T230XW01	Wide, AUO
9	Operating Environment	1) Temp : 0 ~ 40 deg 2) Humidity : ~ 80 %	
10	Storage Environment	1)Temp : -20 ~ 60 deg 2) Humidity : 0 ~ 90 %	

5. Chroma & Brightness

5.1. FOR 23LC7D (CONDITION : EZ-Picture "Daylight")

No	Item			Min	Typ	Max	Unit	
1	White peak brightness			360	450		cd/m	
				260	450		cd/m	
2	Contrast ratio			550	700			
				400	700			Refer to LCD SPEC.
3	Brightness uniformity					1.25		
4	Color coordinate	RED	X	Typ -0.03	0.638	Typ +0.03		
5			Y	Typ -0.03	0.337	Typ +0.03		
6		GREEN	X	Typ -0.03	0.299	Typ +0.03		
7			Y	Typ -0.03	0.604	Typ +0.03		
8		BLUE	X	Typ -0.03	0.145	Typ +0.03		
9			Y	Typ -0.03	0.059	Typ +0.03		
10		WHITE	X	Typ -0.03	0.280	Typ +0.03		
11			Y	Typ -0.03	0.292	Typ +0.03		
12	White Balance Target	Cool	X	Typ -0.015	0.274	Typ +0.015		
13			Y	Typ -0.015	0.274	Typ +0.015		
14		Medium	X	Typ -0.015	0.287	Typ +0.015		
15			Y	Typ -0.015	0.289	Typ +0.015		
16		Warm	X	Typ -0.015	0.314	Typ +0.015		
17			Y	Typ -0.015	0.318	Typ +0.015		
18	Viewing angle			140	176			Right / Left
19				140	176			Up / Down
20	Color Temperature	Medium		8,300	9,300	10,300		
		Cool		11,000	12,000	13,000		
		Warm		5,500	6,500	7,500		

5.1. FOR 20LC7D (CONDITION : EZ-Picture "Daylight")

No	Item			Min	Typ	Max	Unit	Remark
1.	White peak brightness			360	450		cd/m ²	
				250	450		cd/m ²	PSM : Daylight
2.	Contrast Ratio			600	700			
				400	700			PSM : Daylight
3.	Brightness uniformity					1.25		Refer to LCD SPEC.
4.	Color coordinate	RED	X		0.640			+/- 0.03
			Y		0.330			+/- 0.03
		GREEN	X		0.290			+/- 0.03
			Y		0.600			+/- 0.03
		BLUE	X		0.150			+/- 0.03
			Y		0.060			+/- 0.03
		WHITE	X		0.295			+/- 0.03
			Y		0.305			+/- 0.03
5.	White Balance Target	Cool	X		0.274			+/- 0.015
			Y		0.274			+/- 0.015
		Medium	X		0.287			+/- 0.015
			Y		0.289			+/- 0.015
		Warm	X		0.314			+/- 0.015
			Y		0.318			+/- 0.015
6.	Viewing angle			130	160			Right / Left
				110	140			Up / Down
7.	Color Temperature	Medium		8,300	9,300	10,300		<Test Signal>
		Cool		11,000	12,000	13,000		85 IRE
		Warm		5,500	6,500	7,500		

6. Component Video Input (Y, CB/PB, CR/PR)

No	Resolution	H-freq(kHz)	V-freq(Hz)	Pixel clock	Proposed
1.	720*480	15.73	59.94		SDTV ,DVD 480I
2.	720*480	15.73	60.00		SDTV ,DVD 480I
3.	720*480	31.47	59.94		SDTV 480P
4.	720*480	31.50	60.00		SDTV 480P
5.	1280*720	44.96	59.94		HDTV 720P
6.	1280*720	45.00	60.00		HDTV 720P
7.	1920*1080	33.72	59.94		HDTV 1080I
8.	1920*1080	33.75	60.00		HDTV 1080I

7. RGB input (PC/DTV)

No	Resolution	H-freq(kHz)	V-freq.(Hz)	Pixel clock(MHz)	Proposed	
	PC					
1	640*350	31.469	70.08	25.17	DOS	O
2	720*400	31.469	70.08	28.32	DOS	O
3	640*480	31.469	59.94	25.17	VESA(VGA)	O
4	800*600	37.879	60.31	40.00	VESA(SVGA)	O
5	1024*768	48.363	60.00	65.00	VESA(XGA)	O
6	1280*768	47.776	59.87	79.50	VESA(WXGA)	O
7	1360*768	47.712	60.01	85.50	VESA(WXGA)	O
8	1366*768	60.023	60.00	80.00		

8. Mechanical specification <20LC7D>

No.	Item		Content						Remark	
1	Product Dimension		Width(W)		Length(D)		Height(H)			
		Before Packing	499.6		175.0		401.4		Head depth : 73.0mm	
		After Packing	563.0		173.0		423.0		(stand detachable, 3 piece type)	
2	Product Weight	Only SET	6.22 Kg							
		With Box	7.73 Kg							
3	Container Loading Quantity	Individual or Palletizing	20 ft		40 ft		40 ft_HC			
			Indi.	Wooden	Indi.	Wooden	Indi.	Wooden		
			689	576	1443	1296	1665	1512		
4	Appearance	General								

<23LC7D>

No.	Item		Content						Remark	
1	Product Dimension		Width(W)		Length(D)		Height(H)			
		Before Packing	581.5		198.8		458.3		Head depth : 82mm	
		After Packing	655.0		186.0		490.0		(stand detachable, 3 piece type)	
2	Product Weight	Only SET	7.9 Kg							
		With Box	9.8 Kg							
3	Container Loading Quantity	Individual or Palletizing	20 ft		40 ft		40 ft_HC			
			Ind.	Wooden	Indi.	Wooden	Indi.	Wooden		
			468	396	1008	924	1176	1092		
4	Appearance	General								

ADJUSTMENT INSTRUCTION

1. Application Object

These instructions are applied to all of the LCD TV, LA74E.

2. Notes

- (1) Because this is not a hot chassis, it is not necessary to use an isolation transformer. However, the use of isolation transformer will help protect test equipment.
- (2) Adjustments must be done in the correct order.
- (3) The adjustments must be performed in the circumstance of $20\pm5^{\circ}\text{C}$ of temperature and $65\pm10\%$ of relative humidity if there is no specific designation.
- (4) The input voltage of the receiver must be kept 110V, 60Hz when adjusting.
- (5) The receiver must be operational for about 15 minutes prior to the adjustments.
- (6) Perform preliminary operation after receiving 100% White Pattern (06CH). (Or 3. White Pattern status of Ez-Adjust)
 - White Pattern entry method
 - 1) Enter into Ez-Adjust by pressing the ADJ key on the adjustment R/C.
 - 2) 100% FULL WHITE PATTERN appears if pressing the OK (■) key after selecting the 3.WHITE PATTERN with the CH + / - KEY.

* It is possible to heat run the set without a separate signal generator in this mode.

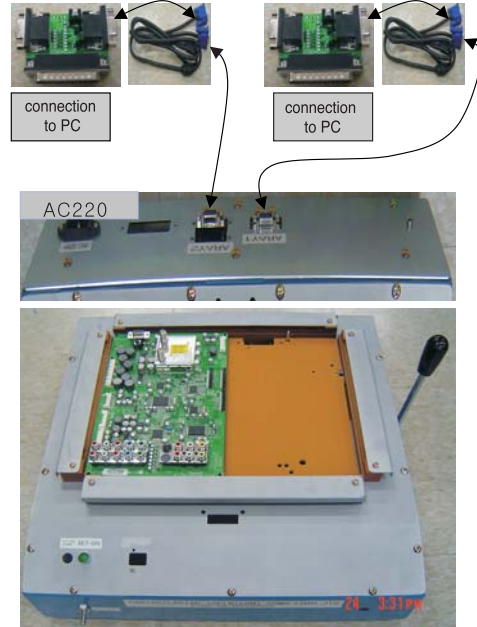
Caution : Care must be taken as afterimage phenomena may occur about the black level part of screen if leaving pause image turned on for more than 20 minutes (especially inner digital pattern (13 CH), Cross Hatch Pattern (09CH) with significant black/white contrast).

3. MICOM Download(Optional)

3-1. Required Test Equipment

- (1) JIG-LEVER TYPE for adjusting: 1EA
- (2) PC & MONITOR: 2EA
- (3) BOARD for INTERFACE: IIC & ISP BOARD: 2EA
- (4) 15P D-SUB CABLE: 2EA
- (5) Using the 12/15 line of D-SUB 15P
12-SDA/15-SCL

3-2. JIG Connection

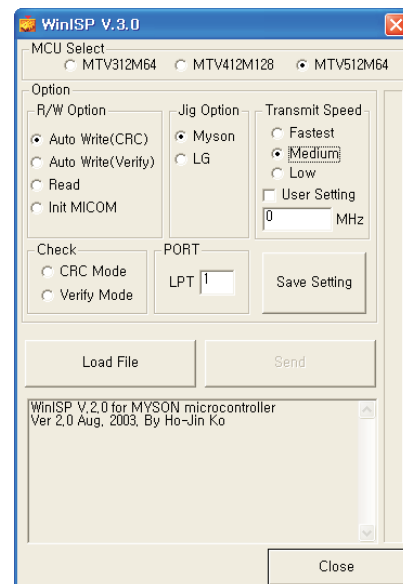


3-3. Establishment Program

- (1) Establish LGE Monitor Tools v1.1
- (2) The program work and it is opened program window as seen below.



- (3) Click the first icon shown in fig.9. The window seen in fig.10 should appear.

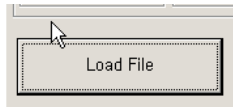


3-4. Set Method

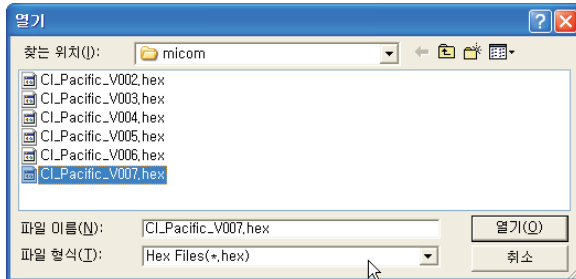
- (1) MCU Select: MTV512M64
- (2) Option
R/W Option: Auto Write(Verify)
Jig Option: Myson
Transmit Speed: Medium
- (3) Check: Just do it with blank micom.
- (4) PORT
Chose Parallel Port (normal LPT1)
Attention: You must chose EPP when select Rom BIAS at LPT

3-5. Download Method

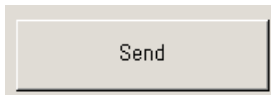
- (1) Click the Load File.



- (2) Locate and select the correct file from your computer.
(* .hex).



- (3) Click the Send.



- (4) When you see (ISP COMPLETE) the download is complete.

4. ADC-Set Adjustment

4-1. Synopsis

ADC-Set adjustment to set the black level and the Gain to optimum.

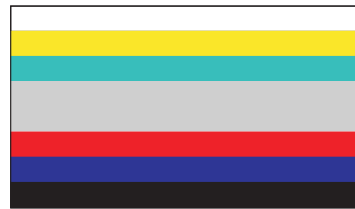
4-2. Test Equipment

Service R/C, 801GF(802V, 802F, 802R) or MSPG925FA Pattern Generator
(480i/1080i The Horizontal 100% Color Bar Pattern adjust to within 0.7±0.1Vp-p)

Ez Adjust

1. CVBS ACC Adjust
2. ADC 480i Comp1
3. ADC 1080i Comp1/RGB
4. Reserved
5. Sub Brightness/Contrast
6. White Balance
7. Module Control
8. Temperature Threshold
9. White Pattern
10. 2 Hour Off Option

<Adjustment Mode>



<Adjustment Pattern: 480i/1080i 60Hz HozTV31Bar Pattern>

4-3. Adjustment

- (1) Select Component as the input with 100% Horizontal Color Bar Pattern(HozTV31Bar) in 480i Mode
- (2) After receiving signal for at least 1 second, press the ADJ Key on the Service R/C to enter the 'Ez - Adjust' and select the '2. ADC 480i Comp1'.
Pressing the Enter Key to adjust automatically.
- (3) When the adjustment is over, 'MST3361 Component Success' is displayed. If the adjustment has errors, 'MST3361 Configuration Error' is displayed.
- (4) Select Component 1 as the input with 100% Horizontal Color Bar Pattern(HozTV31Bar) in 1080i Mode.
- (5) After receiving signal for at least 1 second, press the ADJ Key on the Service R/C to enter the 'Ez - Adjust' and select the '3. ADC 1080i Comp1/RGB'.
Pressing the Enter Key to adjust automatically.
- (6) When the adjustment is over, 'MST3361 Component Success' is displayed. If the adjustment has errors, 'MST3361 Configuration Error' is displayed.
- (7) After the Component MST3361 adjustment is over, convert the RGB-DTV Mode and display Pattern.
When the adjustment is over, 'MST3361 RGB_DTV Success' is displayed.
- (8) Readjust after confirming the case Pattern or adjustment condition where the adjustment errors.
- (9) After adjustment is complete, exit the adjustment mode by pressing the ADJ KEY.

5. EDID (The Extended Display Identification Data) / DDC (Display Data Channel) Download

This is the function that enables "Plug and Play".

5-1. HDMI EDID Data Input

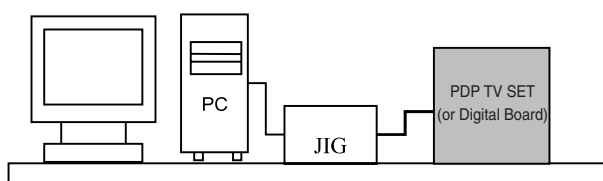
(1) Required Test Equipment

- 1) PC, Jig for adjusting DDC. (PC serial to D-sub Connection equipment)
- 2) S/W for writing DDC(EDID data write & read)
- 3) D-Sub cable

(2) Preparation for Adjustments & Setting of Device

- 1) Set devices as below and turn on the PC and JIG.
- 2) Open S/W for writing DDC (EDID data write & read). (operated in DOS mode)

6-2. EDID DATA



<Fig. 2>

(1) 23LS7D-UB : RGB

EDID Block 0, Byte 0 - 127 [00H-7FH]
Block Type : EDID 1.3

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	00	FF	FF	FF	FF	FF	FF	00	1E	6D	01	00	01	01	01	01
10	00	10	01	03	68	33	1D	96	0A	E6	98	A3	54	4A	99	26
20	0F	4B	4E	A1	08	00	01	01	01	01	01	01	01	01	01	01
30	01	01	01	01	01	01	64	19	00	40	41	00	26	30	18	88
40	36	00	98	07	32	00	00	18	0E	1F	00	80	51	00	1E	30
50	40	80	37	00	C4	8E	21	00	00	1C	66	21	50	B0	51	00
60	1B	30	40	70	36	00	C4	8E	21	00	00	1E	00	00	00	FC
70	00	32	33	4C	53	32	44	0A	20	20	20	20	20	20	00	6C

(2) 20LS7D-UB : RGB

EDID Block 0, Byte 0 - 127 [00H-7FH]
Block Type : EDID 1.3

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	00	FF	FF	FF	FF	FF	FF	00	1E	6D	01	00	01	01	01	01
10	00	10	01	03	68	2C	19	96	0A	E6	98	A3	54	4A	99	26
20	0F	4B	4E	A1	08	00	01	01	01	01	01	01	01	01	01	01
30	01	01	01	01	01	01	64	19	00	40	41	00	26	30	18	88
40	36	00	98	07	32	00	00	18	0E	1F	00	80	51	00	1E	30
50	40	80	37	00	C4	8E	21	00	00	1C	66	21	50	B0	51	00
60	1B	30	40	70	36	00	C4	8E	21	00	00	1E	00	00	00	FC
70	00	32	30	4C	53	32	44	0A	20	20	20	20	20	20	00	7A

(3) 23LS7D-UB : HDMI

EDID Block 0, Byte 0 - 127 [00H-7FH]
Block Type : EDID 1.3

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	00	FF	FF	FF	FF	FF	FF	00	1E	6D	01	00	01	01	01	01
10	00	10	01	03	80	33	1D	96	0A	CF	74	A3	57	4C	B0	23
20	09	48	4C	2F	CE	00	31	40	45	40	61	40	01	01	01	01
30	01	01	01	01	01	01	66	21	50	B0	51	00	1B	30	40	70
40	36	00	C4	8E	21	00	00	1E	0E	1F	00	80	51	00	1E	30
50	40	80	37	00	C4	8E	21	00	00	1C	00	00	00	FD	00	38
60	4B	1F	3C	09	00	0A	20	20	20	20	02	20	00	00	00	FC
70	00	32	33	4C	53	37	44	2D	55	42	0A	20	20	20	01	B5

EDID Block 1, Byte 128 - 255 [80H-FFH]

Block Type : CEA EDID Timing Extension Version 3

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	02	03	15	F1	46	84	05	03	02	20	22	23	15	07	50	65
10	03	0C	00	10	00	01	1D	00	72	51	D0	1E	20	6E	28	55
20	00	C4	8E	21	00	00	1E	01	1D	80	18	71	1C	16	20	58
30	2C	25	00	C4	8E	21	00	00	9E	8C	0A	D0	8A	20	E0	2D
40	10	10	3E	96	00	C4	8E	21	00	00	18	8C	0A	D0	8A	20
50	E0	2D	10	10	3E	96	00	13	8E	21	00	00	18	00	00	00
60	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
70	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	A7

(4) 20LS7D-UB : HDMI

EDID Block 0, Byte 0 - 127 [00H-7FH]
Block Type : EDID 1.3

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	00	FF	FF	FF	FF	FF	FF	00	1E	6D	01	00	01	01	01	01
10	00	10	01	03	80	2C	19	96	0A	CF	74	A3	57	4C	B0	23
20	09	48	4C	2F	CE	00	31	40	45	40	61	40	01	01	01	01
30	01	01	01	01	01	01	66	21	50	B0	51	00	1B	30	40	70
40	36	00	C4	8E	21	00	00	1E	0E	1F	00	80	51	00	1E	30
50	40	80	37	00	C4	8E	21	00	00	1C	00	00	00	FD	00	38
60	4B	1F	3C	09	00	0A	20	20	20	20	02	20	00	00	00	FC
70	00	32	30	4C	53	37	44	2D	55	42	0A	20	20	20	01	C3

EDID Block 1, Bytes 128-255 [80H-FFH]

Block Type : CEA EDID Timing Extension Version 3

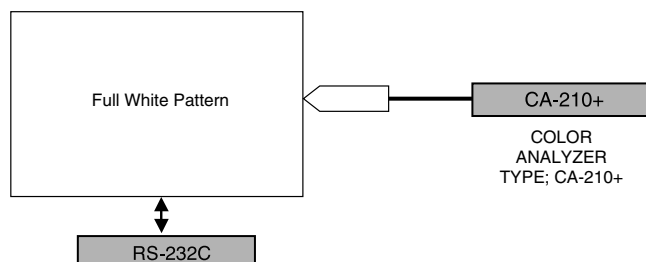
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	02	03	15	F1	46	84	05	03	02	20	22	23	15	07	50	65
10	03	0C	00	10	00	01	1D	00	72	51	D0	1E	20	6E	28	55
20	00	C4	8E	21	00	00	1E	01	1D	80	18	71	1C	16	20	58
30	2C	25	00	C4	8E	21	00	00	9E	8C	0A	D0	8A	20	E0	2D
40	10	10	3E	96	00	C4	8E	21	00	00	18	8C	0A	D0	8A	20
50	E0	2D	10	10	3E	96	00	13	8E	21	00	00	18	00	00	00
60	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
70	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	A7

7. Adjustment of White Balance

7-1. Required Equipment

- (1) Color analyzer (CA-100 or CA210 similar product)
- (2) Automatic adjustor (with automatic adjustment necessity and the RS-232C communication being possible)

7-2. Connection Diagram of Equipment for Measuring (Automatic Adjustment)



<Fig. 3> Connection Diagram of Automatic Adjustment

* RS-232C Command (Automatic Adjustment)

	RS-232C COMMAND [CMD ID DATA]			Min	CENTER (DEFAULT)(Decimal)			Max (Decimal)
	Cool	Mid	Warm		Cool	Mid	Warm	
R Gain	Jg	Ja	Jd	00				192
G Gain	Jh	Jb	Je	00				192
B Gain	Ji	Jc	Jf	00				192
R Cut					64	64	64	
G Cut					64	64	64	
B Cut					64	64	64	

7-3. Adjustment of White Balance(manual)

- (1) Enter 'Ez - Adjust' by pressing ADJ KEY on the Service Remote Control.
- (2) Select "9. TEST PATTERN" using CH +/- Key and HEAT RUN at least 30 minutes by pressing the ENTER Key.
- (3) Calibrate of the CA100+, then attach sensor to LCD module surface when you adjust.
- (4) After attaching sensor to center of screen, select '6. White-Balance' of 'Ez - Adjust' by pressing the ADJ KEY on the Service R/C. Then enter adjustment mode by pressing the Right KEY (▶).
- (5) Set test-pattern on and display inside pattern. Control is carried out on there color temperature, COOL, MEDIUM, WARM.

* Fix all color temperature to 64.

* Color Temperature: Cool, Medium, Warm

1. When R GAIN is set to 192
 - Control G GAIN and B GAIN by lowering from 192.
2. When B GAIN is set to 192
 - Control R GAIN and G GAIN by lowering from 192.

3. When G GAIN is set to 192

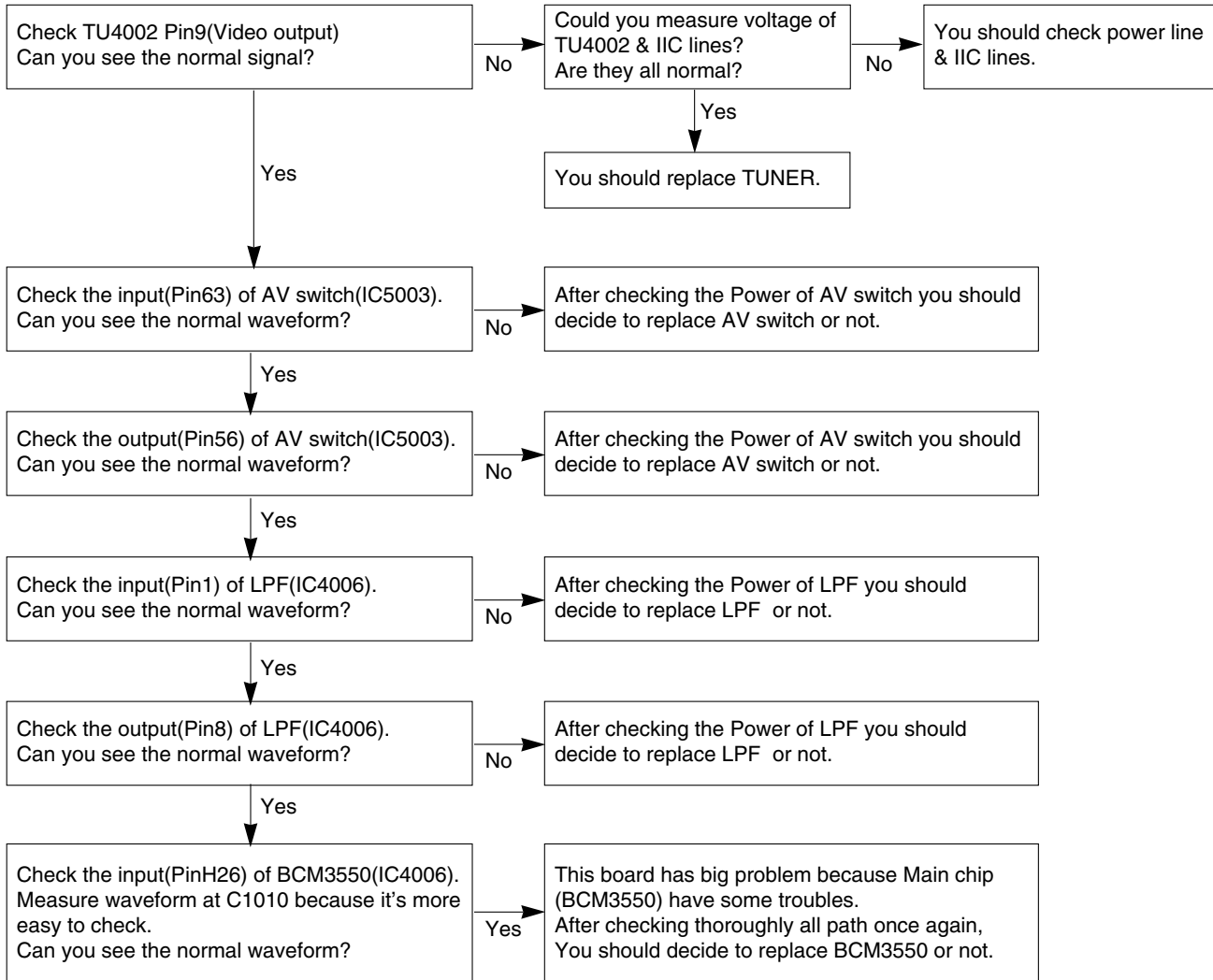
- Control R GAIN and B GAIN by lowering from 192.

One of R Gain / G Gain / B Gain should be kept on 192, and adjust other two lower than 192.

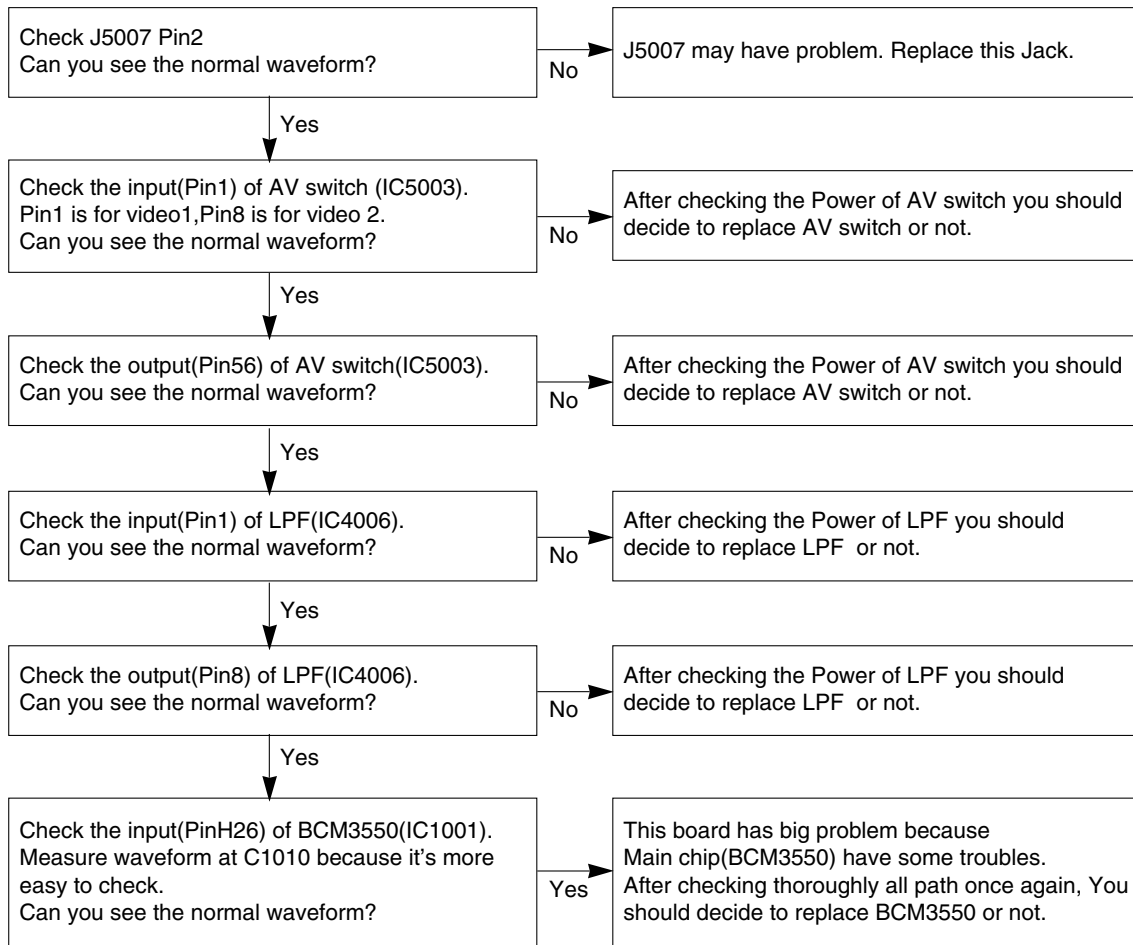
(When R/G/B GAIN are all 192, it is the FULL DYNAMIC Range of Module)

TROUBLESHOOTING

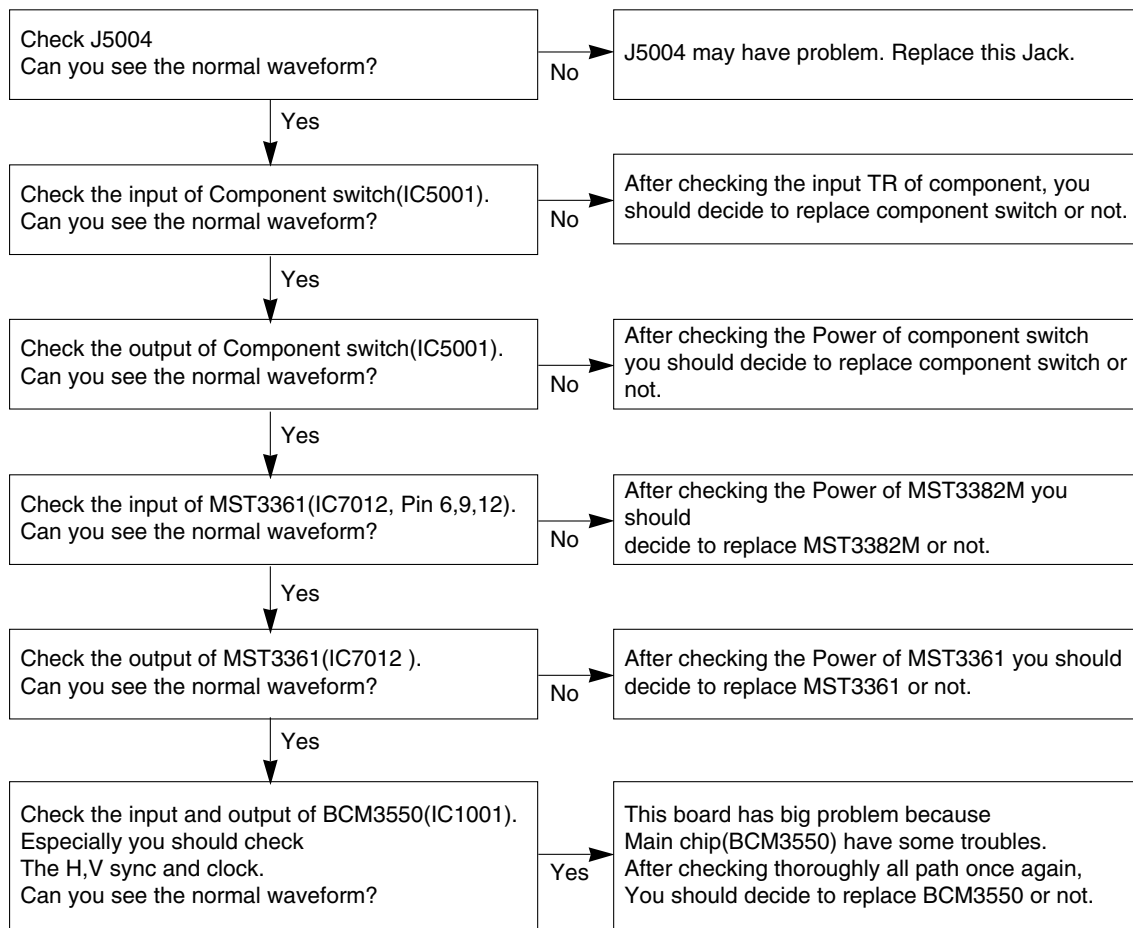
1. TV/CATV doesn't display



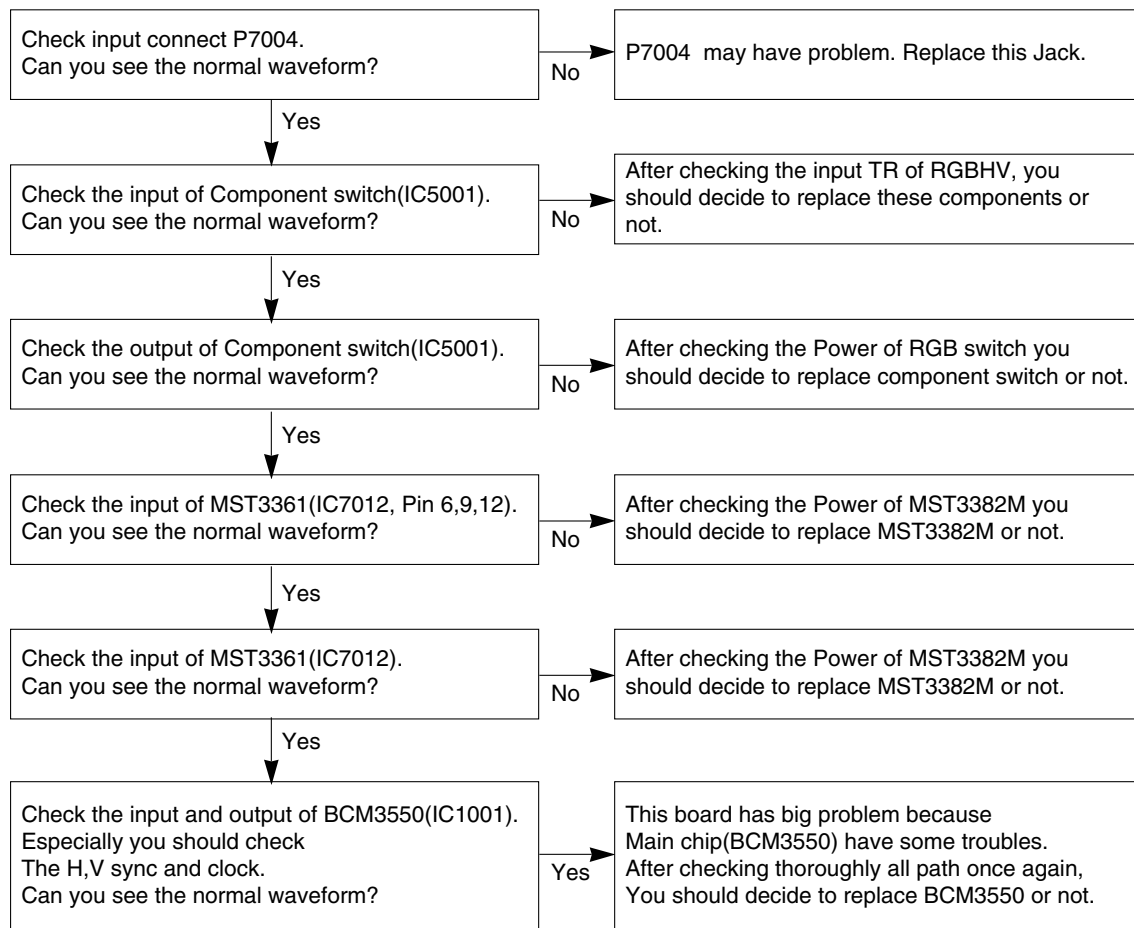
2. Video doesn't display



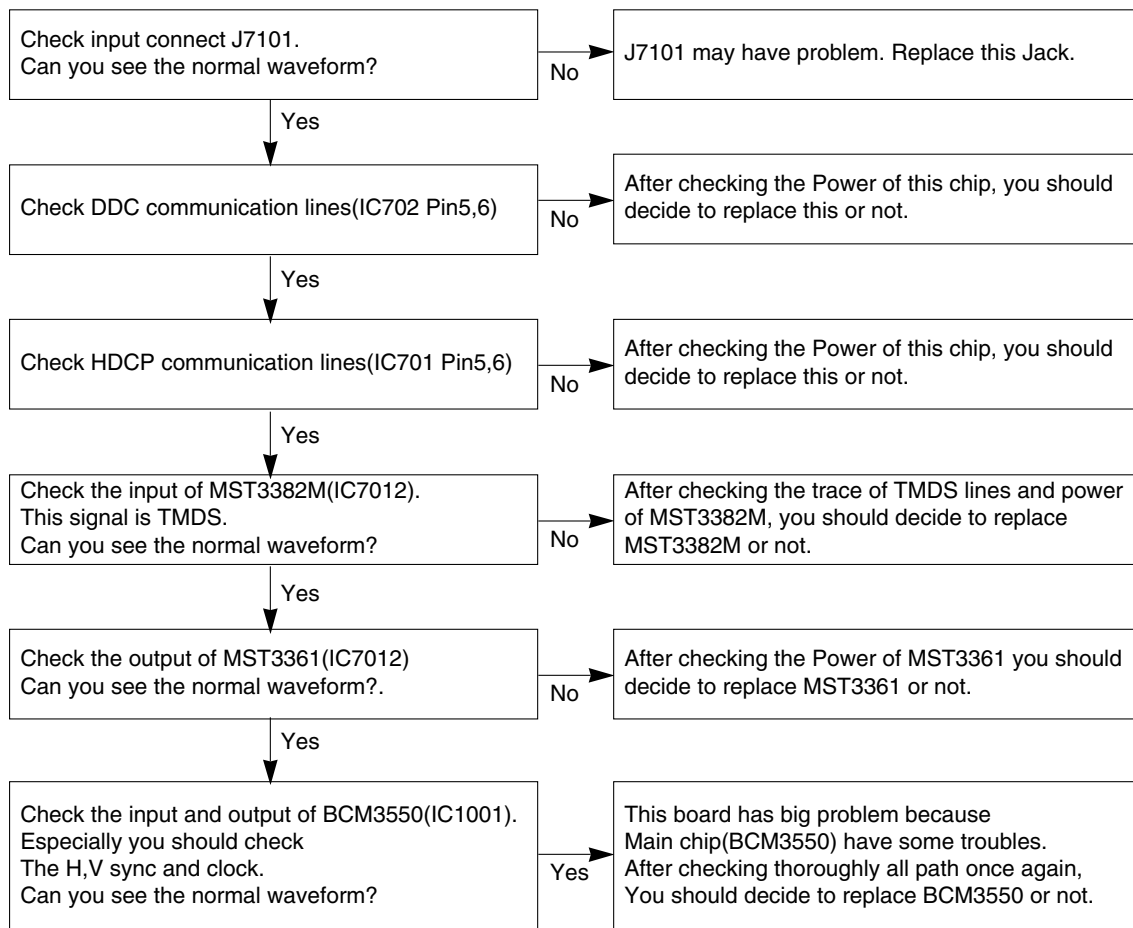
3. Component doesn't display



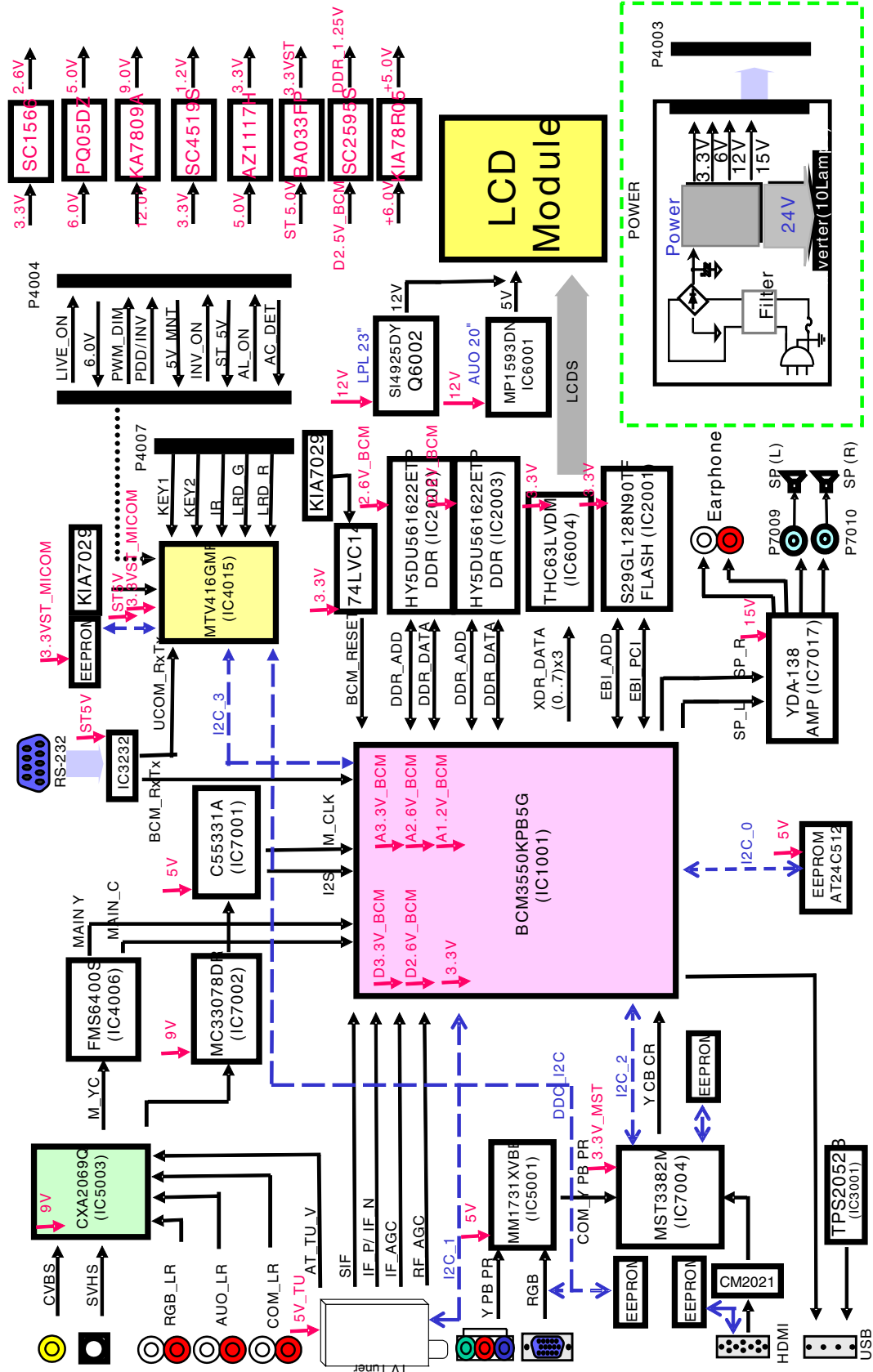
4. RGB_PC doesn't display



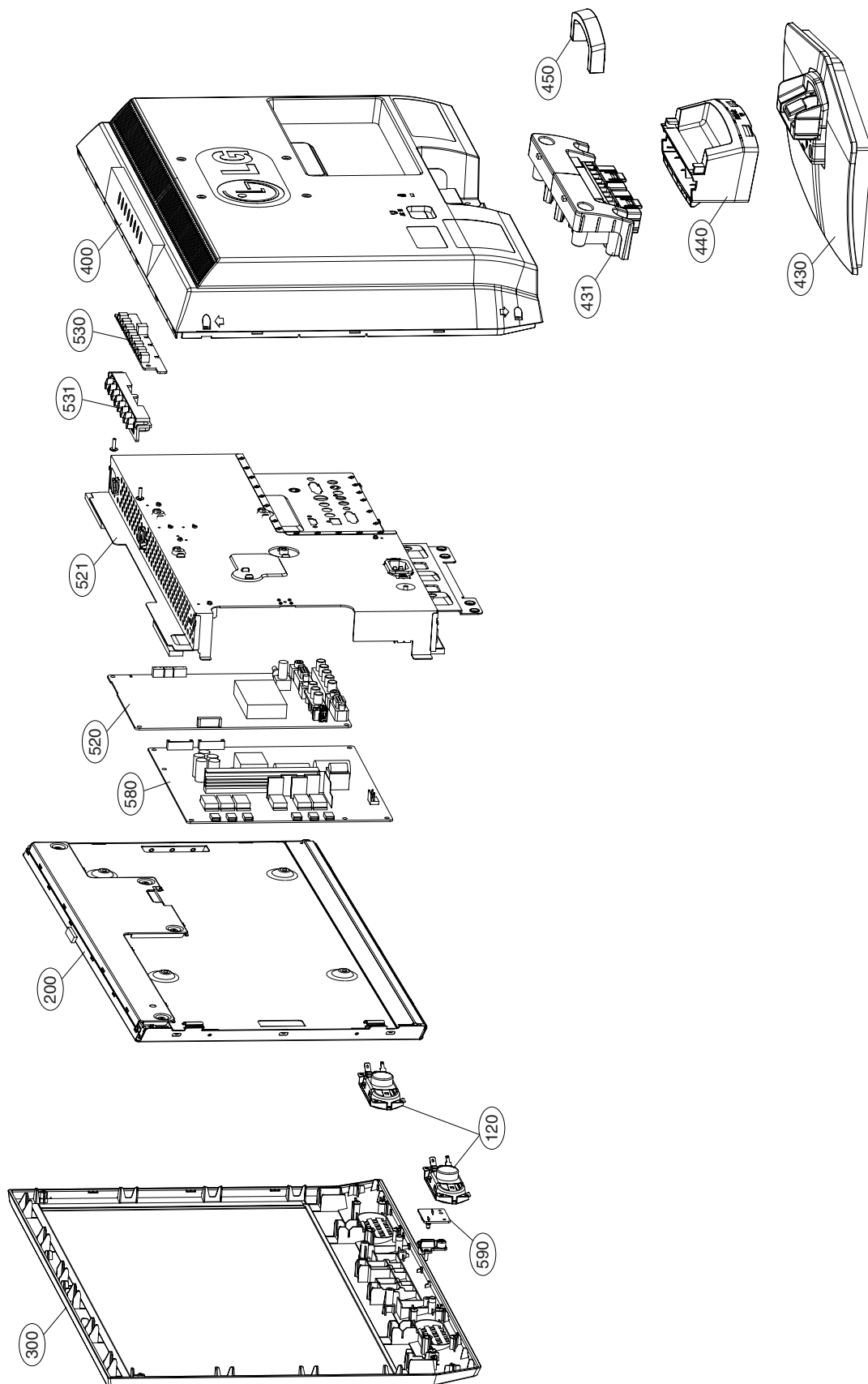
5. HDMI doesn't display



BLOCK DIAGRAM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

No.	PART NO.		DESCRIPTION
120		EAB35995501	Speaker,Full Range A11 EN1227C-6710 3W 8OHM 80DB 300HZ 31 X 78.5 X 21 LUG KOREA
200	△	6304FAU027A	LCD,Module-TFT T200XW02-V0 T200XW02-V0 AU TFT COLOR TN,450NITS,600 BY 1,8MS
300	△	ABJ32724402	Cabinet Assembly 20ls7d la74e 20" cabinet assy dtv-us_CSKD
400	△	ACQ32625702	Cover Assembly 20LS7D LA74E 20" BACK COVER ASSY FOR DTV, US
430	△	AAN32620402	Base Assembly BASE 20LS7D LA74E BASE ASSY 20"_CSKD
431	△	AAN31023102	Base Assembly STAND 20LS1R CL81 20LS1R STAND BODY ASSY' , "A"-CSKD
440		MCK36500501	Cover,Rear MOLD ABS 380 19LS4R ABS, HF-380 19LS4R STAND BODY COVER
450		MCK30233401	Cover MOLD HIPS 51SF LS1R HIPS 51SF LS1R-holder cable management
520		EBR32575201	PCB Assembly,Main MAIN1 M.I LA63E 20LS2D . Broadcom
		EBU37686401	Main Total Assembly 20LS7DC-UB BRAND LA74E
521		AGU32625902	Plate Assembly ASSY 20LS7D REAR SHIELD ASSY FOR DTV, US-CSKD
530		EBR36026101	PCB Assembly,Sub CONTROL T.T LA74E 20LS7D BASIS Local key Total Ass'y
531		MEY30552601	Knob MOLD HIPS 405AF SUB CONTROL KNOB LS1R LS1R CONTROL KNOB
580	△	EAY33982301	Power Supply Assembly YP20106DTV FREE 20LS2D LCD YUYANG For DTV 196*196
590		EBR36139501	PCB Assembly,Sub SUB T.T LA74E 20LS7D/23LS7D BASIS IR & LED

REPLACEMENT PARTS LIST

DATE: 2007. 03. 10.

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
CAPACITORS					
C1001	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C2002	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C1007	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C2004	EAE30840301	10SVPC68M 68uF 20% 10V 1.97A -55TO+105C SV
C1008	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2005	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -
C1009	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2006	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C1010	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2006	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C1011	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2007	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C1012	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C	C2008	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C1016	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C2009	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1017	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2011	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1018	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2012	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125
C1019	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2013	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125
C1020	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2015	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C1021	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2016	0CK272CK46A	0603B272J500CT 2.7nF 10% 50V X7R -55TO+125
C1022	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2017	0CK272CK46A	0603B272J500CT 2.7nF 10% 50V X7R -55TO+125
C1024	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2018	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C
C1025	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C2019	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C
C1027	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2020	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C
C1028	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C2021	0CC471CK41A	C1608C0G1H471JT 470pF 5% 50V C0G -55TO+125
C1030	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2022	0CC471CK41A	C1608C0G1H471JT 470pF 5% 50V C0G -55TO+125
C1032	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2023	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1034	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C2024	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C
C1037	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C2025	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C
C1038	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C2026	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C1039	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2034	0CC471CK41A	C1608C0G1H471JT 470pF 5% 50V C0G -55TO+125
C1040	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2500	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1041	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C2501	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1042	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2502	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1043	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2503	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1044	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2504	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1045	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2505	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1046	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2506	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1047	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C2507	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1050	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C2508	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1051	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2509	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1052	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2510	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1053	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2511	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1062	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2512	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1063	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2513	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1064	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10	C2514	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1065	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10	C2515	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1066	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R -55TO+125	C2516	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1067	0CC470CK41A	C1608C0G1H470JT 47pF 5% 50V C0G -55TO+125C	C2517	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1068	0CC470CK41A	C1608C0G1H470JT 47pF 5% 50V C0G -55TO+125C	C2518	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1069	0CC470CK41A	C1608C0G1H470JT 47pF 5% 50V C0G -55TO+125C	C2519	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1070	0CC470CK41A	C1608C0G1H470JT 47pF 5% 50V C0G -55TO+125C	C2520	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1071	0CC151CK41A	C1608C0G1H151JT 150pF 5% 50V C0G -55TO+125	C2521	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1072	0CC151CK41A	C1608C0G1H151JT 150pF 5% 50V C0G -55TO+125	C2522	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C1073	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C2600	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C2001	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C2601	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
			C2602	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
C2603	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C3061	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C2604	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C3062	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C2605	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C3063	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C
C2606	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C3064	0CC150CK41A	C1608C0G1H150JT 15pF 5% 50V C0G -55TO+125C
C2607	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C3065	0CE336WD6D8	RC1A336M05005VR 33uF 20% 10V 34MA -40TO+10
C3005	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C3066	0CK106DC67A	JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85
C3007	0CC080CK11A	C1608C0G1H080DT 8pF 0.5PF 50V C0G -55TO+12	C3067	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3008	0CC080CK11A	C1608C0G1H080DT 8pF 0.5PF 50V C0G -55TO+12	C3068	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -
C3012	0CC150CK41A	C1608C0G1H150JT 15pF 5% 50V C0G -55TO+125C	C4000	0CN1040K949	CH UP050 F104Z-B-B Z 100nF -20TO+80% 50V Y
C3013	0CC150CK41A	C1608C0G1H150JT 15pF 5% 50V C0G -55TO+125C	C4001	0CK334CF56A	C1608X7R1C334KT 330nF 10% 16V X7R -55TO+12
C3014	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4001	0CN1040K949	CH UP050 F104Z-B-B Z 100nF -20TO+80% 50V Y
C3015	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4002	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3016	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4003	0CK334CF56A	C1608X7R1C334KT 330nF 10% 16V X7R -55TO+12
C3017	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4004	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125
C3018	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4004	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125
C3019	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4005	0CK334CF56A	C1608X7R1C334KT 330nF 10% 16V X7R -55TO+12
C3021	0CE336WD6D8	RC1A336M05005VR 33uF 20% 10V 34MA -40TO+10	C4006	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3022	0CK106DC67A	JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85	C4007	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C3022	0CK106DC67A	JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85	C4008	0CC180CK41A	C1608C0G1H180JT 18pF 5% 50V C0G -55TO+125C
C3023	0CK106DC67A	JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85	C4010	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3023	0CK106DC67A	JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85	C4011	0CC180CK41A	C1608C0G1H180JT 18pF 5% 50V C0G -55TO+125C
C3024	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4012	0CE336WD6D8	RC1A336M05005VR 33uF 20% 10V 34MA -40TO+10
C3025	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C	C4013	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+
C3026	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4013	0CE476WF6DC	MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+10
C3027	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C4014	0CC221CK41A	C1608C0G1H221JT 220pF 5% 50V C0G -55TO+125
C3028	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4015	0CC221CK41A	C1608C0G1H221JT 220pF 5% 50V C0G -55TO+125
C3029	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4016	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C3030	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4017	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10
C3031	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C	C4018	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C
C3032	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C4019	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3034	0CH8106F691	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+85	C4019	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3035	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4020	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3036	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4021	0CH2474F566	0805B474K160CT 470nF 10% 16V X7R -55TO+125
C3038	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C	C4022	0CH2474F566	0805B474K160CT 470nF 10% 16V X7R -55TO+125
C3039	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C4023	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10
C3041	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4024	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10
C3042	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4025	0CE476WF6DC	MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+10
C3043	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C	C4026	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3044	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4028	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3045	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4029	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+
C3046	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C	C4030	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10
C3047	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4031	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C
C3048	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4032	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+
C3049	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C	C4032	EAE30840201	4SVPC330M 330uF 20% 4V 2.32A -55TO+105C SV
C3050	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4033	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3051	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4034	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C
C3052	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C	C4035	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3053	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C4036	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C
C3054	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C4037	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C
C3055	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C4038	0CK225DD66A	LMK212JB225MG-T 2.2uF 20% 10V X7R -55TO+12
C3056	0CE336WD6D8	RC1A336M05005VR 33uF 20% 10V 34MA -40TO+10	C4039	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C
C3057	0CK106DC67A	JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85	C4040	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C3058	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C4041	0CH8106F691	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+85
C3059	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C4042	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C
C3060	0CK102BK56A	0402B102K500CT 1nF 10% 50V X7R -55TO+125C	C4043	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
C4044	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C5002	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C
C4046	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5003	0CH3104K566	0805B104K500CT 100nF 10% 50V X7R -55TO+125
C4047	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C5005	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C
C4047	EAE30840201	4SVPC330M 330uF 20% 4V 2.32A -55TO+105C SV	C5006	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C
C4048	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5006	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C
C4056	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5007	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C
C4058	EAE30840201	4SVPC330M 330uF 20% 4V 2.32A -55TO+105C SV	C5007	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C
C4062	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5008	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C
C4064	0CE476WF6DC	MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+10	C5015	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C
C4066	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5016	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C
C4067	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5016	0CK105DH56A	C2012X7R105KFT 1uF 10% 25V X7R -55TO+125C
C4068	0CE476WF6DC	MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+10	C5020	0CE225WK6DC	MVK4.0TP50VC2.2M 2.2uF 20% 50V 10MA -40TO+
C4070	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5022	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4072	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5025	0CH2474F566	0805B474K160CT 470nF 10% 16V X7R -55TO+125
C4073	0CE476WF6DC	MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+10	C5025	0CH2474F566	0805B474K160CT 470nF 10% 16V X7R -55TO+125
C4074	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C5026	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125
C4077	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C	C5026	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125
C4078	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C	C5027	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125
C4082	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10	C5027	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125
C4083	EAE30840301	10SVPC68M 68uF 20% 10V 1.97A -55TO+105C SV	C5028	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4084	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5029	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4085	0CE227WF6DC	MVK8.0TP16VC220M 220uF 20% 16V 80MA -40TO+	C5030	0CH8226F691	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+85
C4086	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5031	0CH8226F691	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+85
C4087	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C5032	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4088	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5033	0CH8226F691	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+85
C4089	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C5034	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12
C4090	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5035	0CH8106F691	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+85
C4091	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5036	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4094	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5038	0CH8106F691	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+85
C4096	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5039	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4097	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5041	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4098	0CK476FD67A	LMK325BJ476MM-T 47uF 20% 10V X5R -55TO+85C	C5042	0CH8106F691	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+85
C4099	0CK224CF56A	0603B224K160CT 220nF 10% 16V X7R -55TO+125	C5045	0CK222CK56A	0603B222K500CT 2.2nF 10% 50V X7R -55TO+125
C4099	0CK224CF56A	0603B224K160CT 220nF 10% 16V X7R -55TO+125	C5046	0CK222CK56A	0603B222K500CT 2.2nF 10% 50V X7R -55TO+125
C4100	0CK153CK51A	0603B153K500CT 15nF 10% 50V Y5P -30TO+85C	C5047	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4101	0CC561CK41A	C1608C0G1H561JT 560pF 5% 50V C0G -55TO+125	C5048	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4102	0CK476FD67A	LMK325BJ476MM-T 47uF 20% 10V X5R -55TO+85C	C5049	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4103	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5050	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4104	0CE336WD6D8	RC1A336M05005VR 33uF 20% 10V 34MA -40TO+10	C5051	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4104	EAE30840301	10SVPC68M 68uF 20% 10V 1.97A -55TO+105C SV	C5052	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125
C4105	0CE336WD6D8	RC1A336M05005VR 33uF 20% 10V 34MA -40TO+10	C5053	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4105	EAE30840301	10SVPC68M 68uF 20% 10V 1.97A -55TO+105C SV	C5054	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125
C4106	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5056	0CK222CK56A	0603B222K500CT 2.2nF 10% 50V X7R -55TO+125
C4111	0CK475CC94A	C1608Y5V0J475ZT 4.7uF -20TO+80% 6.3V Y5V -	C5056	0CK222CK56A	0603B222K500CT 2.2nF 10% 50V X7R -55TO+125
C4112	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C5060	0CK222CK56A	0603B222K500CT 2.2nF 10% 50V X7R -55TO+125
C4115	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5060	0CK222CK56A	0603B222K500CT 2.2nF 10% 50V X7R -55TO+125
C4116	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5061	0CH2474F566	0805B474K160CT 470nF 10% 16V X7R -55TO+125
C4117	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5062	0CH2474F566	0805B474K160CT 470nF 10% 16V X7R -55TO+125
C4119	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5064	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C4120	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C5102	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125
C4121	0CE477WF6DC	MVK10TP16VC470M 470uF 20% 16V 80MA -40TO+1	C5103	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125
C5000	0CH5101K416	C2012C0G1H101JT 100pF 5% 50V C0G -55TO+125	C5104	0CE105WK6DC	MVK4.0TP50VC1M 1uF 20% 50V 5.6MA -40TO+105
C5001	0CE476WF6DC	MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+10	C5105	0CE105WK6DC	MVK4.0TP50VC1M 1uF 20% 50V 5.6MA -40TO+105
C5001	0CH5101K416	C2012C0G1H101JT 100pF 5% 50V C0G -55TO+125	C5106	0CE225WK6DC	MVK4.0TP50VC2.2M 2.2uF 20% 50V 10MA -40TO+
C5002	0CH5470K416	0805N470J500LT 47pF 5% 50V C0G -55TO+125C	C5107	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
C6001	0CK105CD56A	C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C	C7170	0CE227WF6DC	MVK8.0TP16VC220M 220uF 20% 16V 80MA -40TO+
C6002	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C7170	EAE30840201	4SVPC330M 330uF 20% 4V 2.32A -55TO+105C SV
C6003	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C7171	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125
C6004	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125	C7172	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85
C6004	0CC101CK41A	C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125	C7172	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85
C6005	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C7173	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85
C6008	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7173	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85
C6009	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7174	0CK106EF56A	C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125
C6011	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7175	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C
C6012	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7176	0CK224CF56A	0603B224K160CT 220nF 10% 16V X7R -55TO+125
C6014	0CK106DC67A	JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85	C7177	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C
C6020	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7178	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO
C7001	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C7179	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C
C7001	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C7180	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C
C7002	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+10	C7181	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C
C7003	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+10	C7182	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C
C7004	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C	C7184	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10
C7007	0CC470CK41A	C1608C0G1H470JT 47pF 5% 50V C0G -55TO+125C	C7185	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10
C7008	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -55TO+125	C7187	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7011	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7188	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7012	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7189	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10
C7013	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7190	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7015	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7191	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7025	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C7192	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10
C7027	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7193	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7028	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7194	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7034	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7195	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7037	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C7196	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7038	0CC470CK41A	C1608C0G1H470JT 47pF 5% 50V C0G -55TO+125C	C7197	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7046	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+10	C7198	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7047	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C7199	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7047	0CK103BH56A	C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+12	C7200	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7091	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+10	C7201	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7096	0CH5220K416	0805N220J500LT 22pF 5% 50V C0G -55TO+125C	C7202	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125
C7099	0CH5220K416	0805N220J500LT 22pF 5% 50V C0G -55TO+125C	C7203	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125
C7100	0CC150CK41A	C1608C0G1H150JT 15pF 5% 50V C0G -55TO+125C	C7204	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125
C7101	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7205	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125
C7108	0CC150CK41A	C1608C0G1H150JT 15pF 5% 50V C0G -55TO+125C	C7206	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C
C7109	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125	C7207	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125
C7110	0CE476WF6DC	MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+10	C7208	0CK473CH56A	C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125
C7157	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+10	C7210	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7158	0CK225DH94A	C2012Y5V225ZFT 2.2uF -20TO+80% 25V Y5V -30	C7212	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+10
C7159	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C7214	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7160	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C	C7216	0CC180CK41A	C1608C0G1H180JT 18pF 5% 50V C0G -55TO+125C
C7161	0CK224CF56A	0603B224K160CT 220nF 10% 16V X7R -55TO+125	C7217	0CC180CK41A	C1608C0G1H180JT 18pF 5% 50V C0G -55TO+125C
C7162	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -55TO+125C	C7218	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7163	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 80MA -40TO+	C7220	0CK104BF56A	C1005X7R104KET 100nF 10% 16V X7R -55TO+125
C7164	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO	C7221	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C
C7165	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85	C7222	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -55TO+125C
C7165	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85	DIODES		
C7166	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R -55TO+85			
C7167	0CE227WF6DC	MVK8.0TP16VC220M 220uF 20% 16V 80MA -40TO+			
C7167	EAE30840201	4SVPC330M 330uF 20% 4V 2.32A -55TO+105C SV			
C7168	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO	D4001	0DRSE00038A	SDC15 1.3V 14.3VTO16.4V 21.2V 10A 300W SOT
C7169	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y5V -30TO	D4002	0DRSE00038A	SDC15 1.3V 14.3VTO16.4V 21.2V 10A 300W SOT
			D4003	0DD184009AA	KDS184 KDS184 TP KEC - 85V - - - 300MA KEC

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
D4005	ODD184009AA	KDS184 KDS184 TP KEC - 85V - - - 300MA KEC
D4005	ODD184009AA	KDS184 KDS184 TP KEC - 85V - - - 300MA KEC
D4007	ODR340009AA	MBRS340 525MV 40V 4A 0SEC 0F 0W DO214 R/TP
D4008	ODS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150MW SOT23
D5001	ODD184009AA	KDS184 KDS184 TP KEC - 85V - - - 300MA KEC
D5001	ODD184009AA	KDS184 KDS184 TP KEC - 85V - - - 300MA KEC
D5007	ODZ560009DA	UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD3
D5010	ODZ560009DA	UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD3
D5011	ODZ560009DA	UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD3
D5015	ODZRM00178A	UDZS5.1B 5.1V 4.98TO5.2V 80OHM 200MW SOD32
D6001	ODR340009AA	MBRS340 525MV 40V 4A 0SEC 0F 0W DO214 R/TP
D7000	ODS181009AA	KDS181 1.2V 85V 300MA 2A 4NSEC 150MW SOT23
D7001	ODS181009AA	KDS181 1.2V 85V 300MA 2A 4NSEC 150MW SOT23
D7002	ODS181009AA	KDS181 1.2V 85V 300MA 2A 4NSEC 150MW SOT23
D7003	ODD184009AA	KDS184 KDS184 TP KEC - 85V - - - 300MA KEC
D7011	ODS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150MW SOT23
D7012	ODS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150MW SOT23
D7013	ODS226009AA	KDS226 1.2V 85V 300MA 2A 4NSEC 150MW SOT23
ZD1001	ODZDI00078A	BZT52C3V3S-F 3.3V 3.1TO3.5V 95OHM 200MW SO
ZD4000	ODZ560009CF	MTZJ5.6B 5.6V 5.45TO5.73V 40OHM 500MW DO34
ZD4001	ODZ560009CF	MTZJ5.6B 5.6V 5.45TO5.73V 40OHM 500MW DO34
ZD5000	ODZRM00178A	UDZS5.1B 5.1V 4.98TO5.2V 80OHM 200MW SOD32
ZD5011	ODZ560009DA	UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD3
ZD5012	ODZ560009DA	UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD3
ZD5013	ODZ560009DA	UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD3
ZD5016	ODZ560009DA	UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD3
ZD7001	ODZ560009DA	UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD3
ZD7002	ODZ560009DA	UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD3
ZD7006	ODZ560009DA	UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD3
ZD7011	ODZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OHM 200MW SO
ZD7012	ODZ560009GB	BZT52C5V6S-(F) 5.6V 5.2TO6V 40OHM 200MW SO
ICs		
IC1001	0IPRP00702A	BCM3550KPB5G 1.14VTO1.26V,3.135VTO3.465V,2
IC1002	0ISTL00029A	MC33078DR2G +-5TO+-18V 2mV 0.002% 0W 0W 80
IC2002	0IMMRIH038B	HYB25D(C)256160CE-5 256MBIT 4MX16BITX4BANK
IC2003	0IMMRIH038B	HYB25D(C)256160CE-5 256MBIT 4MX16BITX4BANK
IC4001	0IPRP00009A	ICL3232CBNZ 3VTO5.5V - SSOP R/TP 16P INTE
IC4003	0IPMGA0010A	AZ1117H-3.3 4.75TO10V 3.3V 0W SOT223 R/TP
IC4004	0IKE702900G	KIA7029AF -0.3TO15V 2.9V 500MW SOT89 R/TP
IC4006	0IPRPF0015B	FMS6400CS1X,LF 4.75VTO5.25V,0VTO0V,0VTO0V
IC4007	0ISTLPH026A	74LVC14APW 1.2TO3.6V 0.01mA SCHMITT TRIGGE
IC4008	0IPMGS1006B	SC156615M25TRT 2.2V~5.5V 1.2V~4.5V 1.18W T
IC4010	0IKE702900G	KIA7029AF -0.3TO15V 2.9V 500MW SOT89 R/TP
IC4010	0IKE702900G	KIA7029AF -0.3TO15V 2.9V 500MW SOT89 R/TP
IC4011	0IPMGKE011A	KIA78D33F 4TO10V 3.3V 1.3W DPAK R/TP 3P K
IC4012	0IMCRAL021A	AT24C512W-10SU-2.7 512KBIT 65536X8BIT 2.7V
IC4013	0IPMGKE030A	KIA78R05F 6TO12V 5V 8W DPAK R/TP 5P KEC A
IC4014	0IMCRAL006A	AT24C16AN-10SU-2.7 16KBIT 2KX8BIT 2.7VTO5.
IC4016	EAN32662801	KA7809ERTM 35V to 40V 9V 1W DPAK R/TP 3P
IC4017	EAN31513601	SC4519STRT 2.6V to 16V 0.8V to 12.8V 1.6
IC4018	0IPMG78391A	SC2595STR 2.3TO5V 0 0W SOIC R/TP 8P SEMTE
IC5001	EAN30744401	MM1731XVBE 4.0TO9.5 50NSEC 50NSEC 350MW TS
IC5003	0ISO206900A	CXA2069Q 8.5TO9.5V - - 1.3W QFP TR 64P -

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
IC6001	0IPMG00063A	MP1593DN-LF-Z 4.75TO28V 1.2V - SOIC R/TP 8
IC6004	0ITH638300C	THC63LVDM83R 3VTO3.6V 500MW TSSOP R/TP 56P
IC7001	0ICB533100A	CS5331A-KSZR 4.75TO5.25V 48KHZ 18BIT 0SPS
IC7002	0ISTL00029A	MC33078DR2G +-5TO+-18V 2mV 0.002% 0W 0W 80
IC7002	0ISTL00029A	MC33078DR2G +-5TO+-18V 2mV 0.002% 0W 0W 80
IC7004	0IPRP00623A	CM2021-00TR 1VTO5.5V,0VTO0V,0VTO0V 0W TSSO
IC7010	0IMMRAL014D	AT24C02BN-10SU-1.8 2KBIT 256x8BIT 1.8VTO5.
IC7011	EAN33643401	YDA138-EZ(D-3) 9TO13.5V 7mV 0.02% 10W 1.45
IC7012	0IPRPM3020A	MST3382M-LF-110 3TO3.6V _2.25TO2.75V 0 110M
IC7101	0IMMRCS012B	CAT24WC08W-T(MST3000) 8KBIT 1KX8BIT 1.8VTO
IC7102	0IMMRAL014D	AT24C02BN-10SU-1.8 2KBIT 256x8BIT 1.8VTO5.
TRANSISTORS & FETs		
Q1001	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q1002	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q4000	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q4001	0TR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.
Q4002	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q4003	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q4010	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q4011	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5001	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5002	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5004	0TR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.
Q5004	0TR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.
Q5005	0TR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.
Q5005	0TR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.
Q5006	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5006	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5007	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5007	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5009	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5009	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5011	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5012	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q5013	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q7001	0TR102009AJ	KRC102S NPN 30V 0V 50V 100MA 500NA 50 200M
Q7012	0TR102009AJ	KRC102S NPN 30V 0V 50V 100MA 500NA 50 200M
Q7012	0TR102009AJ	KRC102S NPN 30V 0V 50V 100MA 500NA 50 200M
Q7013	0TR150400BA	2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.
Q7014	0TR387500AA	2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 7
Q7015	0TR102009AJ	KRC102S NPN 30V 0V 50V 100MA 500NA 50 200M
RESISTORS		
AR2002	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP
AR2003	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP
AR2008	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP
AR2009	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP
AR2011	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP
AR2012	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP
AR2013	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP
AR2014	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP
AR2016	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
AR2017	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R1050	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
AR2200	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1051	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
AR2201	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1054	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
AR2202	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1056	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
AR2203	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1057	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
AR2204	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1061	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
AR2205	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1061	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
AR2206	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1062	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
AR2207	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1064	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
AR2208	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1073	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
AR2209	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1073	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
AR2210	EBC32260405	MNR04M0APJ680 68OHM 5% 1/16W 4P 8P	R1074	0RJ5600D677	MCR03EZPJ561 560OHM 5% 1/10W 1608 R/TP RO
AR3021	0RJ1001C687	RCA86TRJ1K00 1KOHM 5% 1/16W 4P 8P	R1079	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
AR6001	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R1080	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
AR6001	EBC32260601	MNR04M0APJ101 100OHM 5% 1/16W 4P 8	R1081	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
AR6002	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R1083	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
AR6002	EBC32260601	MNR04M0APJ101 100OHM 5% 1/16W 4P 8	R1084	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
AR6003	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R1088	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -
AR6003	EBC32260601	MNR04M0APJ101 100OHM 5% 1/16W 4P 8	R1101	0RJ0752C678	MCR01MZPJ750 750OHM 5% 1/16W 1005 R/TP ROH
AR6004	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R1129	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -
AR6004	EBC32260601	MNR04M0APJ101 100OHM 5% 1/16W 4P 8	R1131	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -
AR6005	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R1133	0RH1504D622	MCR10EZHJ155 1.5MOHM 5% 1/8W 2012 R/TP RO
AR6005	EBC32260601	MNR04M0APJ101 100OHM 5% 1/16W 4P 8	R1134	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
AR6006	EBC32260501	MNR04M0APJ000 0OHM 5% 1/16W 4P 8P	R1135	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
AR6007	EBC32260501	MNR04M0APJ000 0OHM 5% 1/16W 4P 8P	R1136	0RJ0392D677	MCR03EZPJ390 390OHM 5% 1/10W 1608 R/TP ROH
R1006	0RJ2000D477	MCR03EZPF201 200OHM 1% 1/10W 1608 R/TP RO	R1137	0RJ0392D677	MCR03EZPJ390 390OHM 5% 1/10W 1608 R/TP ROH
R1008	0RJ0102D677	MCR03EZPJ100 100OHM 5% 1/10W 1608 R/TP ROH	R1139	0RH1504D622	MCR10EZHJ155 1.5MOHM 5% 1/8W 2012 R/TP RO
R1014	0RJ0511D677	MCR03EZPJ5R1 5.1OHM 5% 1/10W 1608 R/TP RO	R1140	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R1015	0RJ0182D677	MCR03EZPJ180 180OHM 5% 1/10W 1608 R/TP - R	R1141	0RJ0392D677	MCR03EZPJ390 390OHM 5% 1/10W 1608 R/TP ROH
R1015	0RJ0562D477	MCR03EZPF560 560OHM 1% 1/10W 1608 R/TP ROH	R1142	0RH1504D622	MCR10EZHJ155 1.5MOHM 5% 1/8W 2012 R/TP RO
R1016	0RJ0182D677	MCR03EZPJ180 180OHM 5% 1/10W 1608 R/TP - R	R1144	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -
R1016	0RJ0562D477	MCR03EZPF560 560OHM 1% 1/10W 1608 R/TP ROH	R1145	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -
R1017	0RJ0182D677	MCR03EZPJ180 180OHM 5% 1/10W 1608 R/TP - R	R1161	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R1017	0RJ0562D477	MCR03EZPF560 560OHM 1% 1/10W 1608 R/TP ROH	R1162	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R1018	0RJ0562D477	MCR03EZPF560 560OHM 1% 1/10W 1608 R/TP ROH	R1163	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R1019	0RJ0562D477	MCR03EZPF560 560OHM 1% 1/10W 1608 R/TP ROH	R1164	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R1020	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1165	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R1021	0RJ0562D477	MCR03EZPF560 560OHM 1% 1/10W 1608 R/TP ROH	R1166	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R1030	0RH1504D622	MCR10EZHJ155 1.5MOHM 5% 1/8W 2012 R/TP RO	R1167	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R1032	0RH1504D622	MCR10EZHJ155 1.5MOHM 5% 1/8W 2012 R/TP RO	R1169	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP RO
R1034	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1170	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP RO
R1035	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1171	0RJ2492D477	MCR03EZPF2492 24.9KOHM 1% 1/10W 1608 R/TP
R1036	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1172	0RJ2492D477	MCR03EZPF2492 24.9KOHM 1% 1/10W 1608 R/TP
R1037	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1173	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO
R1038	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1174	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO
R1039	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1175	0RJ2492D477	MCR03EZPF2492 24.9KOHM 1% 1/10W 1608 R/TP
R1040	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1176	0RJ2492D477	MCR03EZPF2492 24.9KOHM 1% 1/10W 1608 R/TP
R1041	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1177	0RJ2402D677	MCR03EZPJ243 24KOHM 5% 1/10W 1608 R/TP RO
R1042	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1178	0RJ2402D677	MCR03EZPJ243 24KOHM 5% 1/10W 1608 R/TP RO
R1044	0RH1504D622	MCR10EZHJ155 1.5MOHM 5% 1/8W 2012 R/TP RO	R1179	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO
R1045	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1180	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO
R1046	0RJ4990D477	MCR03EZPF4990 4990OHM 1% 1/10W 1608 R/TP	R1181	0RJ1602D677	MCR03EZPJ163 16KOHM 5% 1/10W 1608 R/TP RO
R1047	0RH1504D622	MCR10EZHJ155 1.5MOHM 5% 1/8W 2012 R/TP RO	R1182	0RJ1602D677	MCR03EZPJ163 16KOHM 5% 1/10W 1608 R/TP RO
R1048	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1183	0RJ1602D677	MCR03EZPJ163 16KOHM 5% 1/10W 1608 R/TP RO
R1049	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R1184	0RJ1602D677	MCR03EZPJ163 16KOHM 5% 1/10W 1608 R/TP RO

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R1185	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP RO	R3020	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R1234	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R3023	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R1235	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R3025	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R1236	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R3026	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R2000	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R3029	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R2002	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R3030	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROH
R2003	0RJ1003D677	MCR03EZPJ104 100KOHM 5% 1/10W 1608 R/TP R	R3031	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R2012	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R3032	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM
R2013	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3033	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -
R2015	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R3035	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -
R2016	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R3038	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2017	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3040	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2018	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R3041	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2019	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R3042	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R2020	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R3043	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -
R2021	0RJ0222C692	MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP	R3044	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R2022	0RJ1500C678	MCR01MZPJ151 150OHM 5% 1/16W 1005 R/TP RO	R3047	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2023	0RJ1500C678	MCR01MZPJ151 150OHM 5% 1/16W 1005 R/TP RO	R3048	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R2024	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3049	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R2025	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3050	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R2026	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R	R3051	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R2027	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R	R3052	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R2102	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3057	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R2103	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3059	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R2104	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3060	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2105	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3061	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2106	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3062	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2107	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3063	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2108	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3064	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2109	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3065	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2110	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R3066	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2512	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3067	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2600	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3068	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2601	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3069	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2602	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3072	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2603	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3072	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R2604	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3073	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R2605	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3074	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R2607	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3075	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R2608	0RJ0682C678	MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROH	R3113	0RJ1002C678	MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP RO
R3001	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -	R3114	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R3003	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -	R3115	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R3005	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -	R3116	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R3006	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -	R3121	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R3007	0RJ2701D677	MCR03EZPJ272 2.7KOHM 5% 1/10W 1608 R/TP R	R3122	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R3009	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -	R3124	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R3011	0RJ2701C678	MCR01MZPJ272 2.7KOHM 5% 1/16W 1005 R/TP -	R3125	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R3012	0RJ1501D477	MCR03EZPF152 1.5KOHM 1% 1/10W 1608 R/TP R	R3126	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R3013	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R	R3127	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R3014	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R	R3128	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R3015	0RJ1501D477	MCR03EZPF152 1.5KOHM 1% 1/10W 1608 R/TP R	R3129	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R3016	0RJ3000D677	MCR03EZPJ301 300OHM 5% 1/10W 1608 R/TP RO	R3130	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R3017	0RJ3000D677	MCR03EZPJ301 300OHM 5% 1/10W 1608 R/TP RO	R3131	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R3018	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R3132	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R3019	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R3202	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R3203	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R	R4080	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R4000	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH	R4082	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R4000	0RN6801F409	RN-96T1F6K80 6.8KOHM 1% 1/6W 3.2X1.8MM NON	R4083	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R4001	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R4084	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP R
R4001	0RN2201F409	RN-96T1F2K20 2.2KOHM 1% 1/6W 3.2X1.8MM NON	R4084	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP R
R4002	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4085	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP RO
R4002	0RN1001F409	RN-96T1F1K00 1KOHM 1% 1/6W 3.2X1.8MM 5.0MM	R4085	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP RO
R4003	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4086	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R4003	0RN6801F409	RN-96T1F6K80 6.8KOHM 1% 1/6W 3.2X1.8MM NON	R4087	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R4004	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH	R4088	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R4004	0RN2201F409	RN-96T1F2K20 2.2KOHM 1% 1/6W 3.2X1.8MM NON	R4089	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R4005	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4090	0RJ1502D677	MCR03EZPJ153 15KOHM 5% 1/10W 1608 R/TP RO
R4005	0RN1001F409	RN-96T1F1K00 1KOHM 1% 1/6W 3.2X1.8MM 5.0MM	R4091	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO
R4006	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4092	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R4007	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH	R4093	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R4008	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R4094	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R4009	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4097	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO
R4010	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4097	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO
R4011	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4098	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R4013	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP R	R4099	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R4014	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP RO	R4100	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R4015	0RJ1202D677	MCR03EZPJ123 12KOHM 5% 1/10W 1608 R/TP RO	R4102	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R4016	0RJ1002C678	MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP RO	R4103	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R4018	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4104	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R4019	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 1608 R/TP RO	R4105	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R
R4020	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R4106	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4022	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R4106	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4023	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R4107	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP RO
R4028	0RJ4703D677	MCR03EZPJ474 470KOHM 5% 1/10W 1608 R/TP R	R4108	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM
R4029	0RJ4703D677	MCR03EZPJ474 470KOHM 5% 1/10W 1608 R/TP R	R4109	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4030	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4109	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4031	0RJ3300D677	MCR03EZPJ331 330OHM 5% 1/10W 1608 R/TP RO	R4111	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R4032	0RJ6800D677	MCR03EZPJ681 680OHM 5% 1/10W 1608 R/TP RO	R4113	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP R
R4033	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R4118	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R4039	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4119	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R4040	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4122	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R4041	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R4123	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4048	0RJ4300D677	MCR03EZPJ431 430OHM 5% 1/10W 1608 R/TP RO	R4123	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4049	0RJ3650D477	MCR03EZPF3650 365OHM 1% 1/10W 1608 R/TP R	R4124	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R4061	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO	R4124	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R4062	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO	R4125	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R4062	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO	R4125	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R4065	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO	R4126	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R4066	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R4129	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R4067	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO	R4134	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R4068	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R	R4135	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R
R4069	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R	R4137	0RJ6802D677	MCR03EZPJ683 68KOHM 5% 1/10W 1608 R/TP RO
R4070	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	R4140	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R4071	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP RO	R4142	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP RO
R4073	0RJ2200D677	MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP RO	R4143	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R4074	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R4144	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4075	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R4144	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4076	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R	R4145	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4077	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608 R/TP RO	R4145	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4079	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R	R4146	0RJ3302D677	MCR03EZPJ333 33KOHM 5% 1/10W 1608 R/TP RO

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R4147	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH	R5048	0RJ0822C678	MCR01MZPJ820 820OHM 5% 1/16W 1005 R/TP ROH
R4147	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH	R5049	0RJ1502D677	MCR03EZPJ153 15KOHM 5% 1/10W 1608 R/TP RO
R4148	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R5050	0RJ6801D677	MCR03EZPJ682 6.8KOHM 5% 1/10W 1608 R/TP R
R4155	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R5054	0RJ0822C678	MCR01MZPJ820 820OHM 5% 1/16W 1005 R/TP ROH
R4158	0RJ6801D677	MCR03EZPJ682 6.8KOHM 5% 1/10W 1608 R/TP R	R5057	0RJ2201D677	MCR03EZPJ222 2.2KOHM 5% 1/10W 1608 R/TP R
R4158	0RJ6801D677	MCR03EZPJ682 6.8KOHM 5% 1/10W 1608 R/TP R	R5059	0RJ0822C678	MCR01MZPJ820 820OHM 5% 1/16W 1005 R/TP ROH
R4159	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM	R5060	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4164	0RJ1003D677	MCR03EZPJ104 100KOHM 5% 1/10W 1608 R/TP R	R5061	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R4165	0RJ1003D677	MCR03EZPJ104 100KOHM 5% 1/10W 1608 R/TP R	R5062	0RJ1502D677	MCR03EZPJ153 15KOHM 5% 1/10W 1608 R/TP RO
R4166	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP RO	R5063	0RJ6801D677	MCR03EZPJ682 6.8KOHM 5% 1/10W 1608 R/TP R
R4167	0RJ1001D477	MCR03EZPF102 1KOHM 1% 1/10W 1608 R/TP ROH	R5067	0RJ4703D677	MCR03EZPJ474 470KOHM 5% 1/10W 1608 R/TP R
R4168	0RJ1003D477	MCR03EZPF104 100KOHM 1% 1/10W 1608 R/TP R	R5068	0RJ2201D677	MCR03EZPJ222 2.2KOHM 5% 1/10W 1608 R/TP R
R4168	0RJ1003D477	MCR03EZPF104 100KOHM 1% 1/10W 1608 R/TP R	R5072	0RJ4703D677	MCR03EZPJ474 470KOHM 5% 1/10W 1608 R/TP R
R4171	0RJ1003D477	MCR03EZPF104 100KOHM 1% 1/10W 1608 R/TP R	R5074	0RJ1502D677	MCR03EZPJ153 15KOHM 5% 1/10W 1608 R/TP RO
R4174	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROH	R5075	0RJ6801D677	MCR03EZPJ682 6.8KOHM 5% 1/10W 1608 R/TP R
R4175	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP RO	R5077	0RJ0222C678	MCR01MZPJ220 220OHM 5% 1/16W 1005 R/TP - R
R4182	0RJ2202D677	MCR03EZPJ223 22KOHM 5% 1/10W 1608 R/TP RO	R5078	0RJ0222C678	MCR01MZPJ220 220OHM 5% 1/16W 1005 R/TP - R
R4185	0RJ1003D477	MCR03EZPF104 100KOHM 1% 1/10W 1608 R/TP R	R5081	0RJ2201D677	MCR03EZPJ222 2.2KOHM 5% 1/10W 1608 R/TP R
R4206	0RJ3300D677	MCR03EZPJ331 330OHM 5% 1/10W 1608 R/TP RO	R5082	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R5001	0RH3001D622	MCR10EZHJ302 3KOHM 5% 1/8W 2012 R/TP ROHM	R5082	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R5001	0RJ0222C678	MCR01MZPJ220 220OHM 5% 1/16W 1005 R/TP - R	R5083	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R5002	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2012 R/TP ROHM	R5083	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R5002	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R5120	0RJ0752D677	MCR03EZPJ750 750OHM 5% 1/10W 1608 R/TP ROH
R5003	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2012 R/TP ROHM	R5121	0RJ0752D677	MCR03EZPJ750 750OHM 5% 1/10W 1608 R/TP ROH
R5003	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R5122	0RJ4703D677	MCR03EZPJ474 470KOHM 5% 1/10W 1608 R/TP R
R5004	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2012 R/TP ROHM	R5123	0RJ4703D677	MCR03EZPJ474 470KOHM 5% 1/10W 1608 R/TP R
R5004	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R5124	0RJ5601D677	MCR03EZPJ562 5.6KOHM 5% 1/10W 1608 R/TP R
R5005	0RH1001D622	MCR10EZHJ102 1KOHM 5% 1/8W 2012 R/TP ROHM	R5125	0RJ5601D677	MCR03EZPJ562 5.6KOHM 5% 1/10W 1608 R/TP R
R5005	0RH3001D622	MCR10EZHJ302 3KOHM 5% 1/8W 2012 R/TP ROHM	R5126	0RJ0752D677	MCR03EZPJ750 750OHM 5% 1/10W 1608 R/TP ROH
R5015	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R5127	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R5020	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO	R5128	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM
R5023	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R6001	0RJ6801D677	MCR03EZPJ682 6.8KOHM 5% 1/10W 1608 R/TP R
R5023	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R6002	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP RO
R5027	0RJ1003D677	MCR03EZPJ104 100KOHM 5% 1/10W 1608 R/TP R	R6003	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5027	0RJ1003D677	MCR03EZPJ104 100KOHM 5% 1/10W 1608 R/TP R	R6004	0RJ2202D677	MCR03EZPJ223 22KOHM 5% 1/10W 1608 R/TP RO
R5029	0RJ2201D677	MCR03EZPJ222 2.2KOHM 5% 1/10W 1608 R/TP R	R6005	0RJ1202D677	MCR03EZPJ123 12KOHM 5% 1/10W 1608 R/TP RO
R5029	0RJ2201D677	MCR03EZPJ222 2.2KOHM 5% 1/10W 1608 R/TP R	R6005	0RJ1202D677	MCR03EZPJ123 12KOHM 5% 1/10W 1608 R/TP RO
R5030	0RJ6800D677	MCR03EZPJ681 680OHM 5% 1/10W 1608 R/TP RO	R6006	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5031	0RJ2201D677	MCR03EZPJ222 2.2KOHM 5% 1/10W 1608 R/TP R	R6007	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5031	0RJ2201D677	MCR03EZPJ222 2.2KOHM 5% 1/10W 1608 R/TP R	R6008	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5034	0RJ2200D677	MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP RO	R6009	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5035	0RJ7500D677	MCR03EZPJ751 750OHM 5% 1/10W 1608 R/TP RO	R6010	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5036	0RJ1002C678	MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP RO	R6011	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5037	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM	R6012	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5038	0RJ6800D677	MCR03EZPJ681 680OHM 5% 1/10W 1608 R/TP RO	R6013	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5039	0RJ1501D477	MCR03EZPF152 1.5KOHM 1% 1/10W 1608 R/TP R	R6014	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5039	0RJ1501D477	MCR03EZPF152 1.5KOHM 1% 1/10W 1608 R/TP R	R6015	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5040	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH	R6023	0RJ0222C678	MCR01MZPJ220 220OHM 5% 1/16W 1005 R/TP - R
R5040	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH	R6023	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R5042	0RJ7500D677	MCR03EZPJ751 750OHM 5% 1/10W 1608 R/TP RO	R6024	0RJ0222C678	MCR01MZPJ220 220OHM 5% 1/16W 1005 R/TP - R
R5044	0RJ1501D477	MCR03EZPF152 1.5KOHM 1% 1/10W 1608 R/TP R	R6024	0RJ1000C678	MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP RO
R5044	0RJ1501D477	MCR03EZPF152 1.5KOHM 1% 1/10W 1608 R/TP R	R6026	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM
R5045	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R6027	0RJ0222C678	MCR01MZPJ220 220OHM 5% 1/16W 1005 R/TP - R
R5045	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R6028	0RJ0222C678	MCR01MZPJ220 220OHM 5% 1/16W 1005 R/TP - R
R5046	0RJ4701C678	MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP R	R6030	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R7300	0RJ0332C678	MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROH
R7301	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W 1608 R/TP ROH
R7302	0RJ0332C678	MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROH
R7303	0RJ3900D677	MCR03EZPJ391 390OHM 5% 1/10W 1608 R/TP RO
R7304	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W 1608 R/TP ROH
R7305	0RJ0332C678	MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROH
R7306	0RJ1001C678	MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROH
R7341	0RJ0222C678	MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - R

COILS & FILTERs & INDUCTORs

AL7001	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM
AL7002	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM
AL7003	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM
AL7004	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM
AL7005	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM
AL7006	6210TCE002B	Filter,Bead HB-4M3216-121JT 120OHM
L2001	6210TCE0013	Filter,Bead HB-1M1608-121JT 120OHM
L3001	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L3002	0LC0233002A	Inductor,Multilayer,Chip FI-B2012-332KJT 3.3UH
L3003	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L3004	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L3005	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L3006	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L3007	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L4002	0LCML00020B	Inductor,Multilayer,Chip MLI-201209-6R8K 6.8UH
L4003	0LC6832101A	Inductor,Multilayer,Chip FI-C3216-682KJT 6.8UH
L4004	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L4004	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L4005	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L4006	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L4007	6200J000123	Filter,LCR NFE31PT222Z1E9L LPF(EMI) 200MHZ
L4009	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L4016	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L4017	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L4017	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L4021	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L4022	6140TBZ047B	Inductor,Wire Wound,Chip RLF7030T-3R3M4R1 3.3UH
L4023	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L4028	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L4029	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF 400NH
L4030	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF 400NH
L4031	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L4032	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF 400NH
L4033	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF 400NH
L4034	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF 400NH
L4100	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF 400NH
L4101	EAM33010401	Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF 400NH
L4102	6210TCE001X	Filter,Bead HU-1H4532-121JT 120OHM
L4103	6210TCE001X	Filter,Bead HU-1H4532-121JT 120OHM
L4104	6210TCE001X	Filter,Bead HU-1H4532-121JT 120OHM
L4105	6210TCE001X	Filter,Bead HU-1H4532-121JT 120OHM
L5001	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L5003	6210TCE001A	Filter,Bead HB-1S2012-080JT 8OHM 2X1.25X1MM
L6002	6210TCE001Z	Filter,Bead HH-1M2012-600JT 60OHM 2X1.25X1MM

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
L6003	EAP32842805	Inductor,Wire Wound,Chip NR8040T150M 15UH
L7008	0LCML00020B	Inductor,Multilayer,Chip MLI-201209-6R8K 6.8UH
L7011	6210TCE001P	Filter,Bead HB-1S2012-121JT(H:1mm) 120OHM
L7013	6210TCE001P	Filter,Bead HB-1S2012-121JT(H:1mm) 120OHM
L7020	0LCML00020B	Inductor,Multilayer,Chip MLI-201209-6R8K 6.8UH
L7020	0LCML00020B	Inductor,Multilayer,Chip MLI-201209-6R8K 6.8UH
L7021	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L7022	EAP32842806	Inductor,Wire Wound,Chip NR8040T220M 22UH
L7023	EAP32842806	Inductor,Wire Wound,Chip NR8040T220M 22UH
L7028	EAP32842806	Inductor,Wire Wound,Chip NR8040T220M 22UH
L7029	EAP32842806	Inductor,Wire Wound,Chip NR8040T220M 22UH
L7030	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L7031	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L7032	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L7033	6210TCE001G	Filter,Bead HH-1M3216-501JT 500OHM
L7035	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L7036	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L7037	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L7038	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM
L7039	0LCML00003B	Filter,Bead MLB-201209-0120P-N2 120OHM

CONNECTORs

P3001	6602T20008C	SMW200-04P 4P 2.00MM 1R STRAIGHT DIP ST NA
P3002	EAG31022001	UB01123-4HHS-4F A 1P 2.50MM STRAIGHT DIP T
P4000	6602T20009B	SMAW200-03P 3P 2.00MM 1R ANGLE DIP ST NATU
P4001	6630G70017A	A02-0915-101 D-SUB 9P 2.77MM STRAIGHT MALE
P4003	6602T25008L	SMW250-12P 12P 2.50MM 1R STRAIGHT DIP ST N
P4004	6602T25008M	SMW250-13P 13P 2.50MM 1R STRAIGHT DIP ST N
P4007	6602T20009D	SMAW200-05P 5P 2.00MM 1R ANGLE DIP ST NATU
P4010	6602T20009B	SMAW200-03P 3P 2.00MM 1R ANGLE DIP ST NATU
P5000	6602T20009D	SMAW200-05P 5P 2.00MM 1R ANGLE DIP ST NATU
P6001	6630VF00530	12507WR-30A00 30P 1.25MM 1R ANGLE SMD TP N
P7004	6630G70016A	A03-7071-094 D-SUB 15P 2.29MM STRAIGHT FEM
P7005	6602T20009C	SMAW200-04P 4P 2.00MM 1R ANGLE DIP ST NATU
	6631900022P	SMH200-3P SMH200-3P 400mM 2.00MM 3P UL1061
	6631900026A	SPK CONN(600/300MM) SMH200 35098-9702 3509
	6631900027C	SMH250 SMH250 200mM 2.50MM 13P UL1007 AWG2
	6631900065B	SMH250 SMH250 200mM 2.50MM 12P UL1007 AWG2
	6631T20029B	5P(2.0) 750MM SMH200-05 SMH200-05 750mM 2.

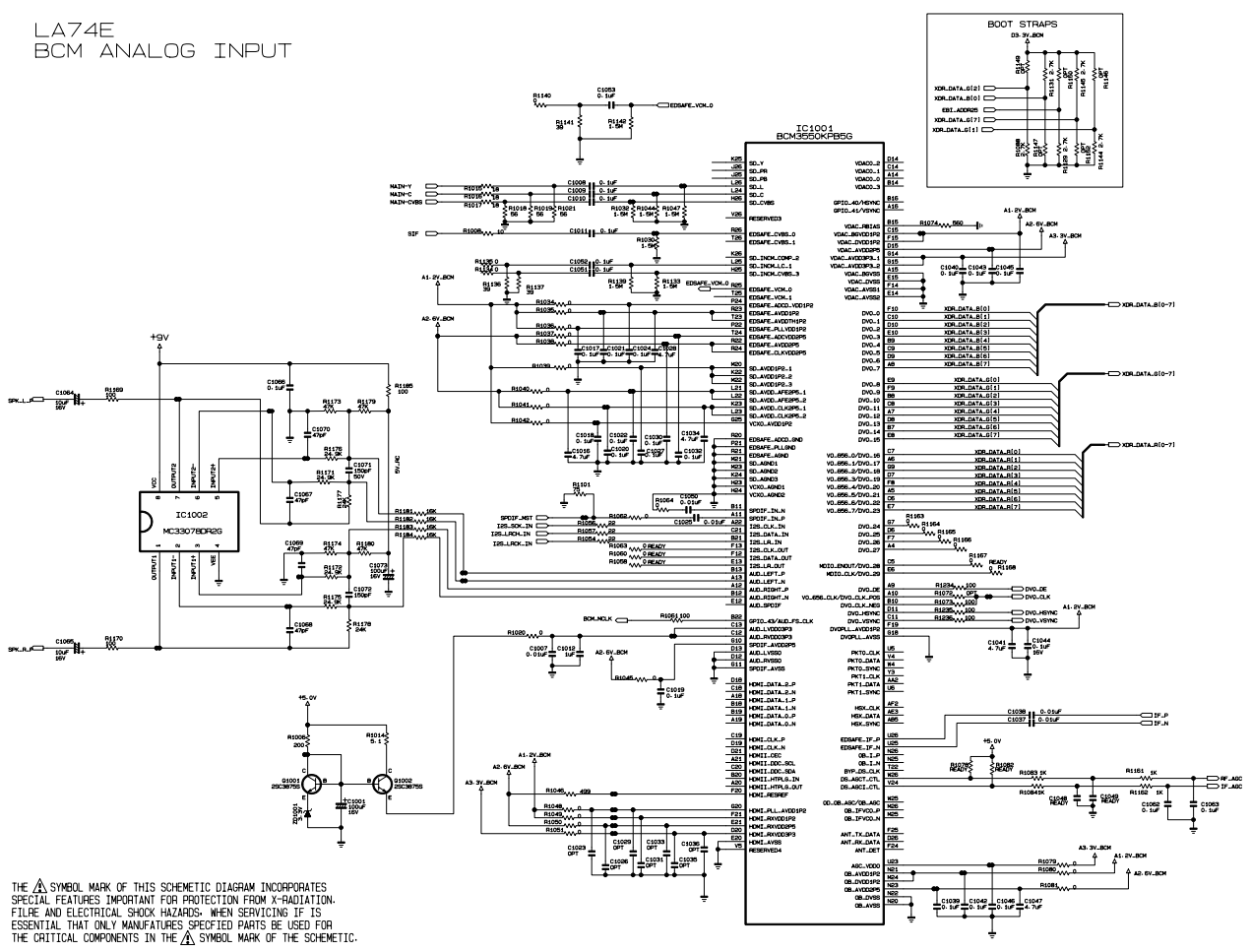
JACKs

J4002	6612J10024A	KCN-BT-0-0056 4P NT/RCA - ANGLE DIP TR RCA
J4003	6612F00099A	PEJ024-01 1P 4P STRAIGHT TR 3.6MM BLACK DI
J5004	6612J10031B	PPJ209-01 14.0MM 1RX3C ANGLE BK SCREW HOLE
J5005	6612F00099A	PEJ024-01 1P 4P STRAIGHT TR 3.6MM BLACK DI
J5006	6612F00024C	PSJ014-01 SOCKET 4P ANGLE DIP ST 15X15X10m
J5007	6612J10003K	PPJ148-07 14.0MM 1RX3C STRAIGHT TR 3PORTS_
J7101	6612B00015B	DC1R019WDH SOCKET 21P STRAIGHTP -

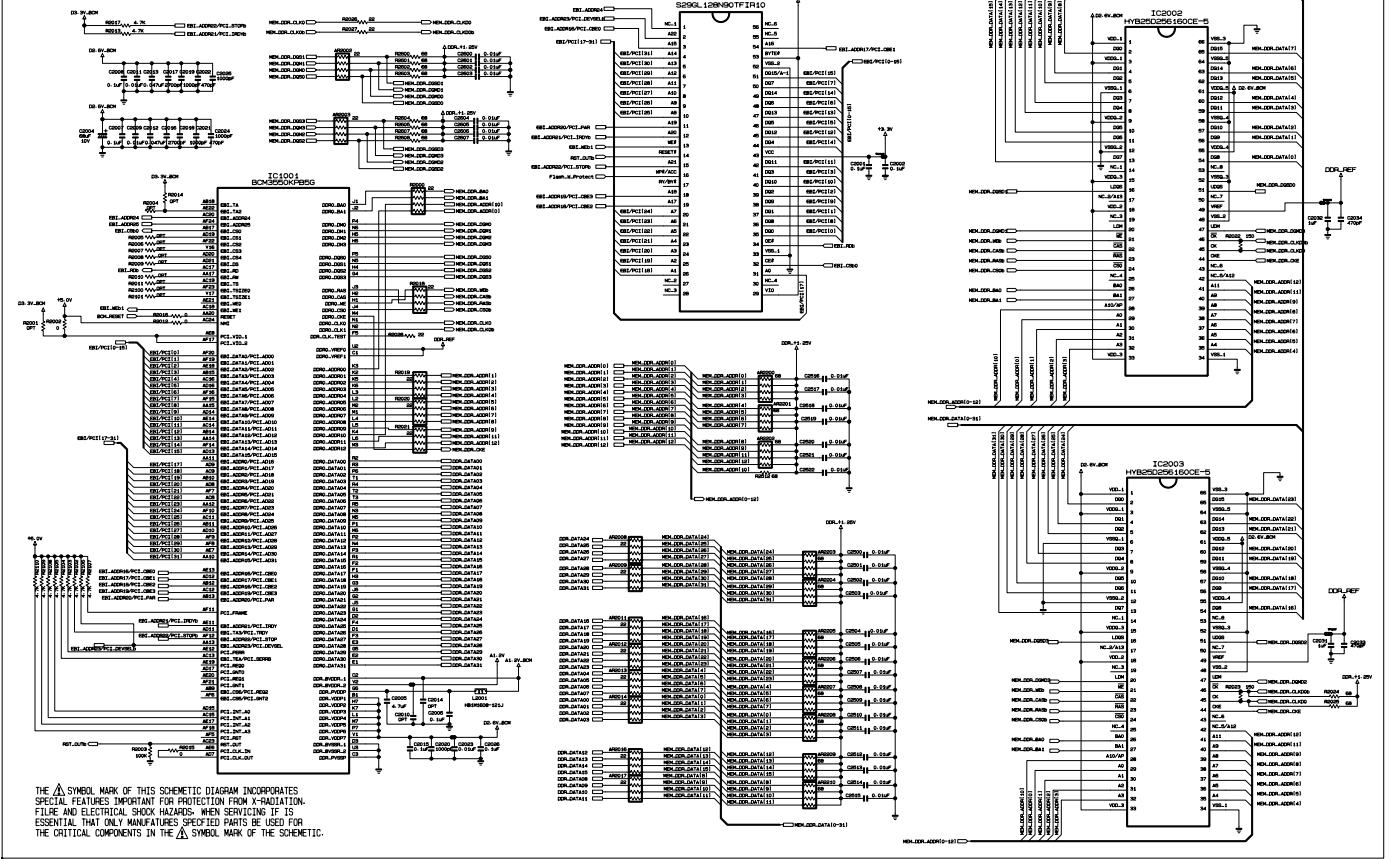
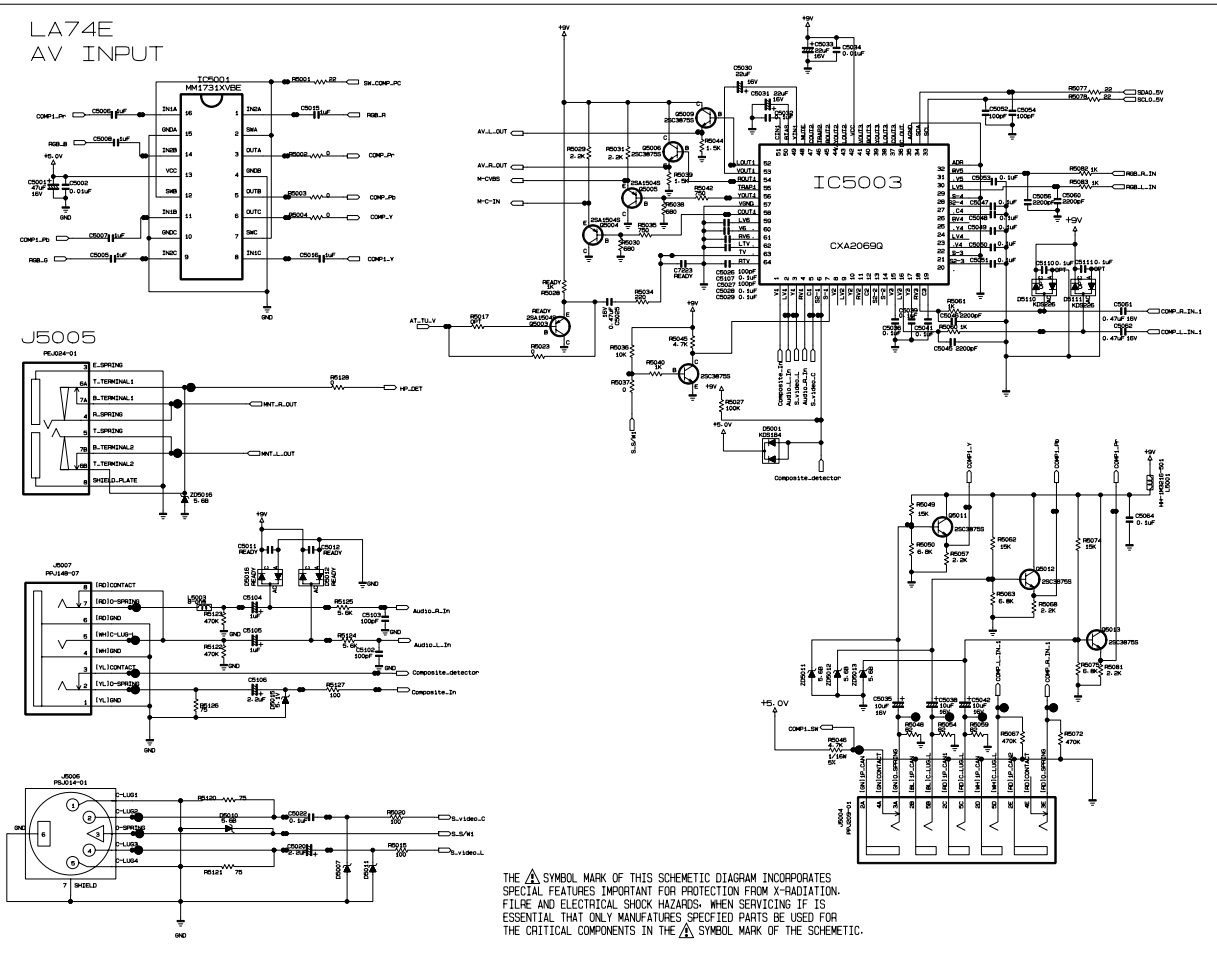
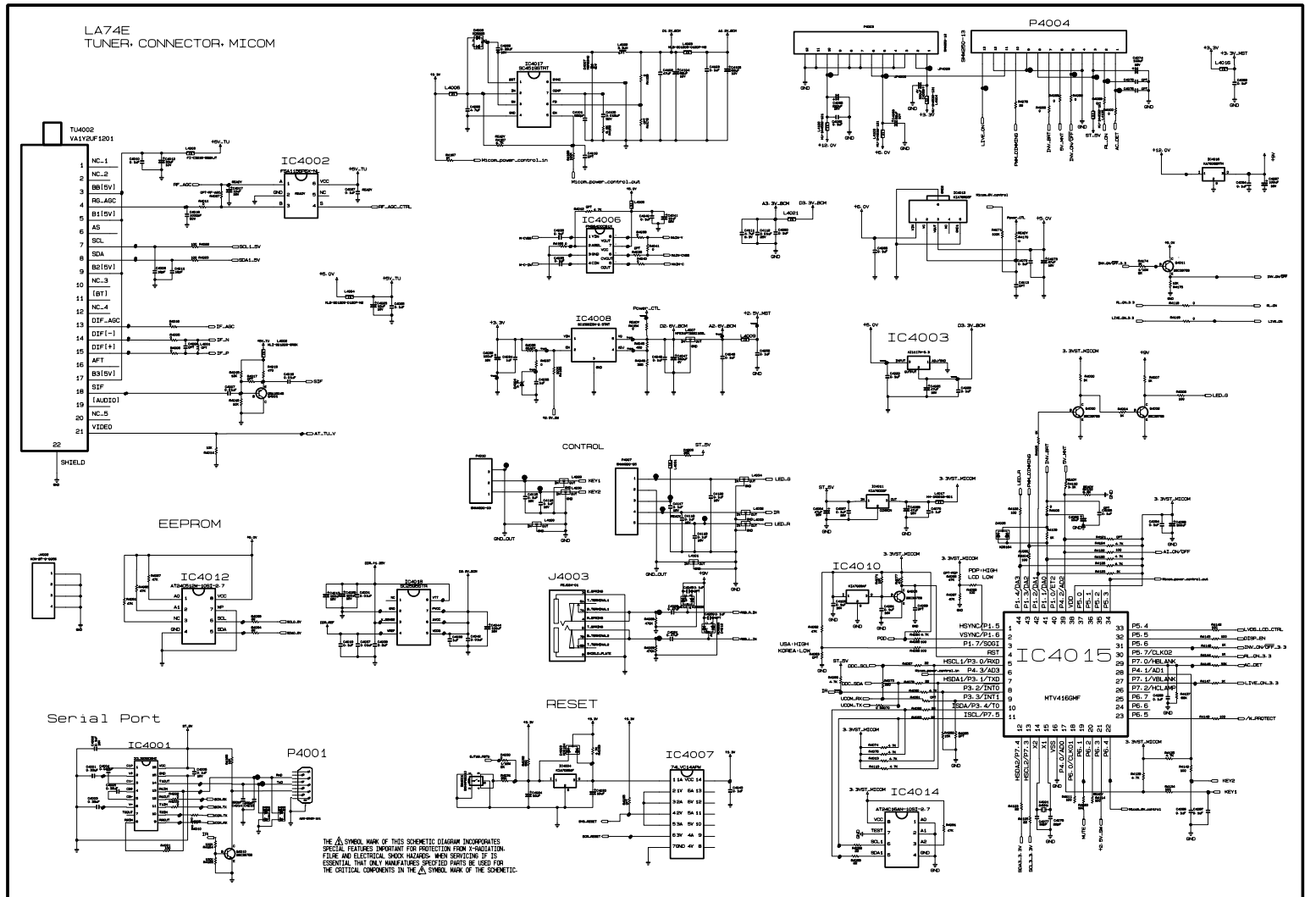
SWITCHes

SW4000	140-058B	EVQPB205K 1C1P 15VDC 0.02A VERTICAL 160GF
SW4001	140-058B	EVQPB205K 1C1P 15VDC 0.02A VERTICAL 160GF

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
SW4002	140-058B	EVQPB205K 1C1P 15VDC 0.02A VERTICAL 160GF			
SW4003	140-058B	EVQPB205K 1C1P 15VDC 0.02A VERTICAL 160GF			
SW4004	140-058B	EVQPB205K 1C1P 15VDC 0.02A VERTICAL 160GF			
SW4005	140-058B	EVQPB205K 1C1P 15VDC 0.02A VERTICAL 160GF			
SW4006	140-058B	EVQPB205K 1C1P 15VDC 0.02A VERTICAL 160GF			
SW4007	140-058B	EVQPB205K 1C1P 15VDC 0.02A VERTICAL 160GF			
OTHERs					
IC2001	SAB30308401	S/W Package S29GL128M FLASH MEMORY 20LS2D			
IC2001	SAB30791001	S/W Package S29GL128N90TFIR, IC,NOR Flash Memory			
IC4015	SAB30308701	S/W Package MTV416GMF 8051 MICRO-CONTROLLOR			
IC4015	SAB30791301	S/W Package MTV416GMF,IC,Microcontrollers			
LED5000	0DLBE0138AA	LED,DIP BL-BUBGE301 ROUND 3MM			
PA5000	6712SCA232A	Receiver Module TSOP34838SO1 2.7TO5.5V 1.5MA			
TU4002	EBL34917003	Tuner,Analog/Digital VA1Y2UR2201 54MHZTO864MHZ			
X3001	6212AA2600A	Crystal 54MHz 3OT 54MHZ 30PPM 10pF			
X4001	6202TST001E	Crystal SX-1 24MHZ 30PPM(20PF) 24MHZ			
X7000	6202VDT002B	Crystal SX-1 14.31818MHZ 30PPM(16PF)			
	6631T11016Q	Cable,Assembly HIROSE 30 TO JAE 30 DF14			
	68509A0004H	Cable,Assembly RCA R/A TO RCA S/T UL			
ACCESSORY					
A1	MFL34797001	Manual,Owners PRINTING 20/23LS7D-UB EN			
A2	SAC30708005	Title 20/23LS7D-UB CD MANUAL Pacific 2 EN/FR(2)			
A3	6410TUW008A	Power Cord UL_CSA,LP-31 & SVT 1.87M_BLK			
A4	MKJ36998101	Remote Controller COMPLEX LA74E 20LS7D/23LS7D			

LA74E
BCM ANALOG INPUT

LA74E BCM_FLASH&DDF

LA74E
AV INPUTLA74E
TUNER, CONNECTOR, MICOM



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