



Internal Use Only

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# LCD TV

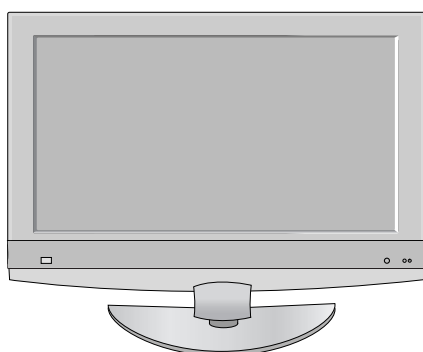
# SERVICE MANUAL

CHASSIS : LB73B

**MODEL : 32LB9D      32LB9D-AD**

## 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.

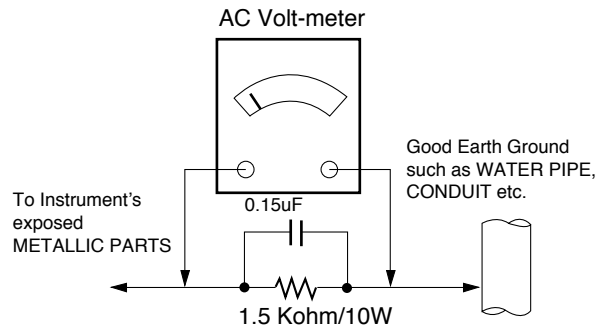
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

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

This specification is applied to LB73B chassis.

## 2. Requirement for Test

Testing for standard of each part must be followed in below condition.

- (1) Temperature : 25°C±5°C(77±9°F)
- (2) Humidity : 65%±10%
- (3) Power : Standard input voltage (AC 100-240V, 50/60Hz)  
\*Standard Voltage of each products 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.

## 3. Test method

- 3.1 Performance : LGE TV test method followed
- 3.2 Demanded other specification  
Safety : CB Specification  
EMC : CISPR 13 Specification

## 4. General TV Specification

| No | Item                  | Specification                                                                      | Remark            |
|----|-----------------------|------------------------------------------------------------------------------------|-------------------|
| 1  | Broadcasting system   | PAL-B/G, DTV : DVB-T                                                               |                   |
| 2  | Available Channel     | 1) VHF : 0~12<br>2) UHF : 20 ~ 75<br>3) CATV: 02 ~ 44<br>4) DTV : 06 ~ 12, 27 ~ 69 |                   |
| 3  | Tuner IF              | 1) PAL : 38.90MHz(Picture)<br>34.40MHz(Sound)<br>2) DVB-T : 36.125MHz              |                   |
| 4  | Input Voltage         | AC 240 V, 50Hz                                                                     | Mark : 240V, 50Hz |
| 5  | Aspect ratio          | 16:9 (wide)                                                                        |                   |
| 6  | Screen Size           | 32 inch Wide (1366 x 768)                                                          |                   |
| 7  | LCD Module            | LC320WX4-SLD2                                                                      |                   |
| 8  | Operating Environment | Temperature : 0 ~ 40 deg<br>Humidity : 85%                                         |                   |
| 9  | Storage Environment   | Temperature : -20 ~ 60 deg<br>Humidity : 85%                                       |                   |

## 5. Chroma & Brightness

| No | Item                                                          |                          |   | Min     | Typ                   | Max  | Unit  | Remark                                                    |
|----|---------------------------------------------------------------|--------------------------|---|---------|-----------------------|------|-------|-----------------------------------------------------------|
| 1  | White peak Brightness<br>(Center 1point / Full White Pattern) |                          |   | 400     | 500                   |      | cd/m² |                                                           |
| 2  | White average brightness                                      |                          |   |         |                       |      | cd/m² | N/A                                                       |
| 3  | Brightness uniformity                                         |                          |   | 80      |                       |      | %     | Full white                                                |
| 4  | Color coordinate                                              | RED                      | X |         | 0.638                 |      |       | ± 0.03                                                    |
|    |                                                               |                          | Y |         | 0.340                 |      |       | ± 0.03                                                    |
|    |                                                               | GREEN                    | X |         | 0.279                 |      |       | ± 0.03                                                    |
|    |                                                               |                          | Y |         | 0.611                 |      |       | ± 0.03                                                    |
|    |                                                               | BLUE                     | X |         | 0.146                 |      |       | ± 0.03                                                    |
|    |                                                               |                          | Y |         | 0.062                 |      |       | ± 0.03                                                    |
|    |                                                               | WHITE                    | X |         | 0.272                 |      |       | ± 0.03                                                    |
|    |                                                               |                          | Y |         | 0.278                 |      |       | ± 0.03                                                    |
| 5  | Color coordinate uniformity                                   |                          |   |         |                       |      |       | N/A                                                       |
| 6  | Contrast Ratio                                                |                          |   | 800 : 1 | 1000 : 1              |      |       |                                                           |
| 7  | Color Temperature                                             | Cool<br>Standard<br>Warm |   |         | 11000<br>9300<br>6500 |      |       | <Test condition><br>HDMI Input,<br>85% Full white pattern |
| 8  | Color Distortion, DG                                          |                          |   |         |                       | 10.0 | %     |                                                           |
| 9  | Color Distortion, DP                                          |                          |   |         |                       | 10.0 | deg   |                                                           |
| 10 | Color S/N, AM/FM                                              |                          |   | 43.0    |                       |      | dB    |                                                           |
| 11 | Color Killer Sensitivity                                      |                          |   | -80     |                       |      | dBm   |                                                           |

## 6. Component Video Input (Y, PB, PR)

| No  | Resolution | H-freq(kHz)   | V-freq.(kHz) | Pixel clock(MHz) | Remarks    |
|-----|------------|---------------|--------------|------------------|------------|
| 1.  | 720*576    | 15.625        | 50.00        | 13.50            | SDTV576i   |
| 2.  | 720*576    | 31.25         | 50.00        | 27.00            | SDTV576p   |
| 3.  | 720*480    | 15.73/15.75   | 59.94/60.00  | 13.50            | SDTV 480i  |
| 4.  | 720*480    | 31.47/31.50   | 59.94/60.00  | 27.00            | SDTV 480p  |
| 5.  | 1280*720   | 44.96/45.00   | 59.94/60.00  | 74.25            | HDTV 720P  |
| 6.  | 1280*720   | 37.50         | 50.00        | 74.25            | HDTV 720P  |
| 7.  | 1920*1080  | 33.72/33.75   | 59.94/60.0   | 74.25            | HDTV 1080i |
| 8.  | 1920*1080  | 28.125        | 50.00        | 74.25            | HDTV 1080i |
| 9.  | 1920*1080  | 26.97/27.00   | 23.976/24.00 | 74.1757/74.25    | HDTV 1080P |
| 10. | 1920*1080  | 33.716/33.750 | 29.97/30.00  | 74.1762/74.25    | HDTV 1080P |
| 11. | 1920*1080  | 56.25         | 50.00        | 148.50           | HDTV 1080P |
| 12. | 1920*1080  | 67.43/67.50   | 59.94/60.00  | 148.50           | HDTV 1080P |

## 7. RGB input (PC)

| No | Resolution | H-freq(kHz) | V-freq.(kHz) | Pixel clock(MHz) | Remarks    |     |
|----|------------|-------------|--------------|------------------|------------|-----|
|    | PC         |             |              |                  |            | DDC |
| 1  | 720*400    | 31.469      | 70.08        | 28.32            | DOS        | X   |
| 2  | 640*480    | 31.469      | 59.940       | 25.175           | ESA(VGA)   | O   |
| 3  | 640*480    | 37.500      | 75.000       | 31.500           | VESA(VGA)  | O   |
| 4  | 800*600    | 37.879      | 60.317       | 40.000           | VESA(SVGA) | O   |
| 5  | 800*600    | 46.875      | 75.000       | 49.500           | VESA(SVGA) | O   |
| 6  | 1024*768   | 48.363      | 60.004       | 65.000           | VESA(XGA)  | O   |
| 7  | 1024*768   | 56.476      | 70.069       | 75.000           | VESA(XGA)  | O   |
| 8  | 1024*768   | 60.023      | 75.029       | 78.750           | VESA(XGA)  | O   |
| 9  | 1280*768   | 47.776      | 59.870       | 79.500           | VESA(WXGA) | O   |
| 10 | 1360*768   | 47.712      | 60.015       | 85.500           | VESA(WXGA) | O   |
| 11 | 1366*768   | 47.13       | 59.65        | 72.00            |            |     |

## 8. RGB, HDMI/DVI input (PC / DTV)

| No  | Resolution | H-freq(kHz)   | V-freq.(kHz) | Pixel clock(MHz) | Remarks    |     |
|-----|------------|---------------|--------------|------------------|------------|-----|
| PC  |            |               |              |                  |            | DDC |
| 1   | 720*400    | 31.469        | 70.08        | 28.32            | DOS        | O   |
| 2   | 640*480    | 31.469        | 59.940       | 25.175           | VESA(VGA)  | O   |
| 3   | 640*480    | 37.500        | 75.000       | 31.500           | VESA(VGA)  | O   |
| 4   | 800*600    | 37.879        | 60.317       | 40.000           | VESA(SVGA) | O   |
| 5   | 800*600    | 46.875        | 75.000       | 49.500           | VESA(SVGA) | O   |
| 6   | 1024*768   | 48.363        | 60.004       | 65.000           | VESA(XGA)  | O   |
| 7   | 1024*768   | 56.476        | 70.069       | 75.000           | VESA(XGA)  | O   |
| 8   | 1024*768   | 60.023        | 75.029       | 78.750           | VESA(XGA)  | O   |
| 9   | 1280*768   | 47.776        | 59.870       | 79.500           | VESA(WXGA) | O   |
| 10  | 1360*768   | 47.712        | 60.015       | 85.500           | VESA(WXGA) | O   |
| 11  | 1366*768   | 47.13         | 59.65        | 72.00            |            |     |
| DTV |            |               |              |                  |            |     |
| 1   | 720*576    | 31.25         | 50.00        | 27.00            | SDTV576p   |     |
| 2   | 720*480    | 31.47/31.50   | 59.94/60.00  | 27.00            | SDTV 480p  |     |
| 3   | 1280*720   | 44.96/45.00   | 59.94/60.00  | 74.25            | HDTV 720P  |     |
| 4   | 1280*720   | 37.50         | 50.00        | 74.25            | HDTV 720P  |     |
| 5   | 1920*1080  | 33.72/33.75   | 59.94/60.0   | 74.25            | HDTV 1080i |     |
| 6   | 1920*1080  | 28.125        | 50.00        | 74.25            | HDTV 1080i |     |
| 7   | 1920*1080  | 26.97/27.00   | 23.976/24.00 | 74.1757/74.25    | HDTV 1080P |     |
| 8   | 1920*1080  | 33.716/33.750 | 29.97/30.00  | 74.1762/74.25    | HDTV 1080P |     |
| 9   | 1920*1080  | 56.25         | 50.00        | 148.50           | HDTV 1080P |     |
| 10  | 1920*1080  | 67.43/67.50   | 59.94/60.00  | 148.50           | HDTV 1080P |     |

# ADJUSTMENT INSTRUCTION

## 1. Application Object

These instructions are applied to all of the 32" LCD TV, LB73B Chassis

## 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  $25\pm 5^{\circ}\text{C}$  of temperature and  $65\pm 10\%$  of relative humidity if there is no specific designation.
- (4) The input voltage of the receiver be must kept 220V~, 60Hz when adjusting.
- (5) The receiver must be operational for about 15 minutes prior to the adjustments.

\* Perform preliminary operation after receiving 100% White Pattern (06CH).(or 8. White Pattern status of Ez-Adjust)

\* How to enter White Pattern

- 1) Press the POWER ON key on the adjustment remote control or press the ADJ key on the adjustment remote control to enter Ez-Adjust.
  - 2) Select the '10.Test Pattern' using the CH + / - key and then select White using the arrow keys to display the 100% FULL WHITE PATTERN.
- In this mode, It is possible to heat run the set without separate signal generator.

**Caution :** When you keep the still screen on for more than 20 minutes (Especially internal digital pattern (13 CH), Cross Hatch Pattern (09CH) with higher black/white contrast), be careful not to create residual image on the black level part.

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

### 3-1. Synopsis

This has been established by VESA and is the function created to "Plug and Play" by making the computer reconfigure user environment through communication with the monitor automatically without having the user set commands directly to the PC or the monitor so that the user can use it immediately.

\* When writing EDID, use DDC2B protocol.

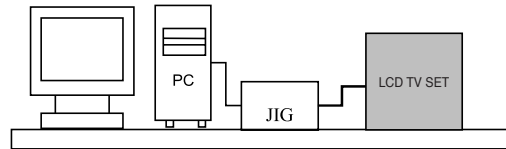
### 3-2. HDMI EDID Data Input

#### (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
- 4) Jig for HDMI Cable connection

#### (2) Adjustment preparation & device configuration

- 1) Configure as Fig. 1, and turn on the PC and JIG.
- 2) Run the DDC recording S/W (EDID Data Write & Read). (Execute in DOS mode)



<Fig. 1> Connection Diagram of CPLD Download

### 3-3. EDID DATA

#### (1) EDID for HDMI-1 (DDC (Display Data Channel) Data)

|    | 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 | 11 | 01 | 03 | 80 | 73 | 41 | 96 | 0A | CF | 74 | A3 | 57 | 4C | B0 | 23 |
| 20 | 09 | 48 | 4C | AF | CE | 00 | 31 | 40 | 45 | 40 | 61 | 40 | 81 | 80 | A9 | 40 |
| 30 | D1 | C0 | 01 | 01 | 01 | 01 | 66 | 21 | 50 | B0 | 51 | 00 | 1B | 30 | 40 | 70 |
| 40 | 36 | 00 | C4 | 8E | 21 | 00 | 00 | 1A | 02 | 3A | 80 | 18 | 71 | 38 | 2D | 40 |
| 50 | 58 | 2C | 45 | 00 | C4 | 8E | 21 | 00 | 00 | 1E | 00 | 00 | 00 | FD | 00 | 30 |
| 60 | 58 | 1F | 64 | 11 | 00 | 0A | 20 | 20 | 20 | 20 | 20 | 20 | 00 | 00 | 00 | FC |
| 70 | 00 | 4C | 47 | 20 | 54 | 56 | 0A | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 01 | 00 |

|    | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | A  | B  | C  | D  | E  | F  |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0  | 02 | 03 | 1E | F1 | 4E | 20 | 22 | 10 | 1F | 01 | 02 | 03 | 04 | 05 | 12 | 93 |
| 10 | 14 | 07 | 16 | 23 | 15 | 07 | 50 | 66 | 03 | 0C | 00 | 10 | 00 | 80 | 01 | 1D |
| 20 | 00 | 72 | 51 | D0 | 1E | 20 | 6E | 28 | 55 | 00 | C4 | 8E | 21 | 00 | 00 | 1E |
| 30 | 01 | 1D | 80 | 18 | 71 | 1C | 16 | 20 | 58 | 2C | 25 | 00 | C4 | 8E | 21 | 00 |
| 40 | 00 | 9E | 8C | 0A | D0 | 90 | 20 | 40 | 31 | 20 | 0C | 40 | 55 | 00 | 4C | 6C |
| 50 | 42 | 00 | 00 | 18 | 01 | 1D | 00 | BC | 52 | D0 | 1E | 20 | B8 | 28 | 55 | 40 |
| 60 | C4 | 8E | 21 | 00 | 00 | 1E | 01 | 1D | 80 | D0 | 72 | 1C | 16 | 20 | 10 | 2C |
| 70 | 25 | 80 | C4 | 8E | 21 | 00 | 00 | 9E | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 58 |

#### (2) EDID for HDMI-2 (DDC (Display Data Channel) Data)

|    | 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 | 11 | 01 | 03 | 80 | 73 | 41 | 96 | 0A | CF | 74 | A3 | 57 | 4C | B0 | 23 |
| 20 | 09 | 48 | 4C | AF | CE | 00 | 31 | 40 | 45 | 40 | 61 | 40 | 81 | 80 | A9 | 40 |
| 30 | D1 | C0 | 01 | 01 | 01 | 01 | 66 | 21 | 50 | B0 | 51 | 00 | 1B | 30 | 40 | 70 |
| 40 | 36 | 00 | C4 | 8E | 21 | 00 | 00 | 1A | 02 | 3A | 80 | 18 | 71 | 38 | 2D | 40 |
| 50 | 58 | 2C | 45 | 00 | C4 | 8E | 21 | 00 | 00 | 1E | 00 | 00 | 00 | FD | 00 | 30 |
| 60 | 58 | 1F | 64 | 11 | 00 | 0A | 20 | 20 | 20 | 20 | 20 | 20 | 00 | 00 | 00 | FC |
| 70 | 00 | 4C | 47 | 20 | 54 | 56 | 0A | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 01 | 00 |

|    | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | A  | B  | C  | D  | E  | F  |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0  | 02 | 03 | 1E | F1 | 4E | 20 | 22 | 10 | 1F | 01 | 02 | 03 | 04 | 05 | 12 | 93 |
| 10 | 14 | 07 | 16 | 23 | 15 | 07 | 50 | 66 | 03 | 0C | 00 | 20 | 00 | 80 | 01 | 1D |
| 20 | 00 | 72 | 51 | D0 | 1E | 20 | 6E | 28 | 55 | 00 | C4 | 8E | 21 | 00 | 00 | 1E |
| 30 | 01 | 1D | 80 | 18 | 71 | 1C | 16 | 20 | 58 | 2C | 25 | 00 | C4 | 8E | 21 | 00 |
| 40 | 00 | 9E | 8C | 0A | D0 | 90 | 20 | 40 | 31 | 20 | 0C | 40 | 55 | 00 | 4C | 6C |
| 50 | 42 | 00 | 00 | 18 | 01 | 1D | 00 | BC | 52 | D0 | 1E | 20 | B8 | 28 | 55 | 40 |
| 60 | C4 | 8E | 21 | 00 | 00 | 1E | 01 | 1D | 80 | D0 | 72 | 1C | 16 | 20 | 10 | 2C |
| 70 | 25 | 80 | C4 | 8E | 21 | 00 | 00 | 9E | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 48 |

### (3) EDID for HDMI-3 (DDC (Display Data Channel) Data)

|    | 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 | 11 | 01 | 03 | 80 | 73 | 41 | 96 | 0A | CF | 74 | A3 | 57 | 4C | B0 | 23 |
| 20 | 09 | 48 | 4C | AF | CE | 00 | 31 | 40 | 45 | 40 | 61 | 40 | 81 | 80 | A9 | 40 |
| 30 | D1 | C0 | 01 | 01 | 01 | 01 | 66 | 21 | 50 | B0 | 51 | 00 | 1B | 30 | 40 | 70 |
| 40 | 36 | 00 | C4 | 8E | 21 | 00 | 00 | 1A | 02 | 3A | 80 | 18 | 71 | 38 | 2D | 40 |
| 50 | 58 | 2C | 45 | 00 | C4 | 8E | 21 | 00 | 00 | 1E | 00 | 00 | 00 | FD | 00 | 30 |
| 60 | 58 | 1F | 64 | 11 | 00 | 0A | 20 | 20 | 20 | 20 | 20 | 20 | 00 | 00 | 00 | FC |
| 70 | 00 | 4C | 47 | 20 | 54 | 56 | 0A | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 01 | 00 |

|    | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | A  | B  | C  | D  | E  | F  |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0  | 02 | 03 | 1E | F1 | 4E | 20 | 22 | 10 | 1F | 01 | 02 | 03 | 04 | 05 | 12 | 93 |
| 10 | 14 | 07 | 16 | 23 | 15 | 07 | 50 | 66 | 03 | 0C | 00 | 30 | 00 | 80 | 01 | 1D |
| 20 | 00 | 72 | 51 | D0 | 1E | 20 | 6E | 28 | 55 | 00 | C4 | 8E | 21 | 00 | 00 | 1E |
| 30 | 01 | 1D | 80 | 18 | 71 | 1C | 16 | 20 | 58 | 2C | 25 | 00 | C4 | 8E | 21 | 00 |
| 40 | 00 | 9E | 8C | 0A | D0 | 90 | 20 | 40 | 31 | 20 | 0C | 40 | 55 | 00 | 4C | 6C |
| 50 | 42 | 00 | 00 | 18 | 01 | 1D | 00 | BC | 52 | D0 | 1E | 20 | B8 | 28 | 55 | 40 |
| 60 | C4 | 8E | 21 | 00 | 00 | 1E | 01 | 1D | 80 | D0 | 72 | 1C | 16 | 20 | 10 | 2C |
| 70 | 25 | 80 | C4 | 8E | 21 | 00 | 00 | 9E | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 38 |

### (4) EDID for RGB

|    | 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 | 0E | 11 | 01 | 03 | 18 | 73 | 41 | 96 | 0A | CF | 74 | A3 | 57 | 4C | B0 | 23 |
| 20 | 09 | 48 | 4C | AF | CE | 00 | 31 | 40 | 45 | 40 | 61 | 40 | 81 | 80 | A9 | 40 |
| 30 | D1 | C0 | 01 | 01 | 01 | 01 | 66 | 21 | 50 | B0 | 51 | 00 | 1B | 30 | 40 | 70 |
| 40 | 36 | 00 | C4 | 8E | 21 | 00 | 00 | 1A | 02 | 3A | 80 | 18 | 71 | 38 | 2D | 40 |
| 50 | 58 | 2C | 45 | 00 | C4 | 8E | 21 | 00 | 00 | 1E | 00 | 00 | 00 | FD | 00 | 30 |
| 60 | 58 | 1F | 64 | 11 | 00 | 0A | 20 | 20 | 20 | 20 | 20 | 20 | 00 | 00 | 00 | FC |
| 70 | 00 | 4C | 47 | 20 | 54 | 56 | 0A | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 01 | 59 |

|    | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | A  | B  | C  | D  | E  | F  |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0  | 02 | 03 | 04 | 00 | 0E | 1F | 00 | 80 | 51 | 00 | 1E | 30 | 40 | 80 | 37 | 00 |
| 10 | C4 | 8E | 21 | 00 | 00 | 1C | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 20 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 30 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 40 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 50 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 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 | 25 |

## 4. MST3361M-Set Adjustment

### 4-1. Synopsis

The Component 480i/1080p RGB 1080p adjustment sets the optimal black level and gain automatically from the analog => digital converter, and is the function to correct the RGB deviation.

### 4-2. Test Equipment

Adjustment remote controller, 801GF (802B, 802F, 802R), MSPG925FA, MSPG-1025D Pattern Generator (480i/1080P Horizontal 60Hz Color Bar Pattern output must be possible and output level must be adjusted accurately to 0.7±0.1Vp-p.)



(Fig. 2) Adjust Pattern :100% 8 Color Bar Pattern

### 4-3. Adjustment

#### (1) How to adjustment the Component1

- 1) Input color bar pattern of 480i 60Hz mode that is supported to Component 1 input and select 'Component 1'.
- 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 '1. ADC 480i Comp1'. Press the Vol+ Key to adjust the component1.
- 3) When the adjustment is completed normally, a message saying "ADC Component1 Success" is displayed and when the adjustment is not completed normally, a message saying 'ADC Component1 480i Fail' is displayed.
- 4) When the component is not connected, a message saying 'Component1 Not Connected', when the input format is not 480i, a message saying 'Not Valid Format' and when the input signal is not coming out, a message saying 'Check Signal Status' is displayed for 1 second.

#### (2) How to adjustment the Component2, RGB

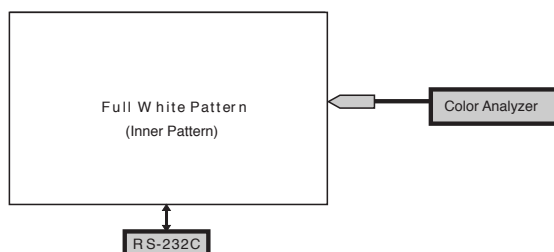
- 1) Input color bar pattern of 1080p 60Hz mode that is supported to Component 2, RGB input and select 'Component 2'.
- 2) After receiving signal for at least 1 second, press the ADJ Key on the Service R/C to enter the 'Ez-Adjust' and select the '2. Adjust 1080p Comp2/ RGB'. Press the Vol+ key to adjust the component 2.
- 3) When the adjustment is completed normally, a message saying 'ADC Component2 Success' is displayed. and when the adjustment is not completed normally, a message saying 'ADC Component2 1080p Fail' is displayed.
- 4) When the adjustment is not normally completed, make the adjustment again after checking the pattern or adjustment condition. The error message is as 4-3/ (1)/ 4).
- 5) After adjustment is complete, exit the adjustment mode by pressing the ADJ KEY.1

## 5. Adjustment of White Balance

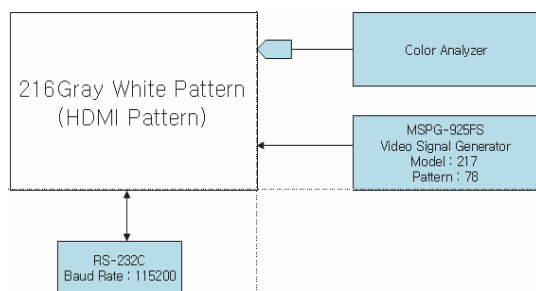
### 5-1. Required Equipment

- (1) Color analyzer : CA-210(CH 9)
  - When you adjust LCD color temperature, on color analyzer (CA-210), you should use Channel 9 which is Matrix compensated (White, Red, Green, Blue revised) by CS-1000 and adjust in accordance with White balance adjustment coordinate which is specified on the next.
- (2) Automatic adjustor (with automatic adjustment hour necessity and the RS-232C communication being possible. Baud Rate = 115200)
- (3) Video Signal Generator MSPG-925F 720p, 216 Gray (Model : 217, Pattern : 78)

### 5-2. Measuring device connection diagram (Automatic Adjustment)



<Fig. 3> Connection diagram for internal pattern



<Fig. 4> Connection diagram for HDMI input

### 5-3. White Balance adjustment method

Basically it uses the internal pattern but when internal pattern is not possible, you can select HDMI input for adjustment. Through the option at the most bottom part of the Ez Adjust Menu 5.White Balance menu, you can select NONE, INNER, HDMI, and the default is set to INNER. When the adjustment cannot be done with the internal pattern, you can select HDMI input for adjustment.

For manual adjustment, press the ADJ KEY of the adjustment R/C to enter Ez Adjust 6.White-Balance, and the pattern is automatically displayed. (When you set the Option to INNER, the default is always set to INNER)

- 1) Connect the set according to the internal pattern or HDMI input in accordance with 5.2 measuring device connection diagram.
- 2) Set the Baud Rate of RS-232C to 115200. It is set to 115200 as default.
- 3) Connect the RS-232C Cable to the set.

- 4) Connect the HDMI Cable to the set. (Limited to the set with HDMI option)
- 5) Select and adjust the model applicable to LB73B chassis from the adjuster.

Caution) When you adjust automatically, RS-232C Command is used.

| RS-232C Command<br>[CMD ID DATA] |    |    | Remark                                                    |
|----------------------------------|----|----|-----------------------------------------------------------|
| wb                               | 00 | 00 | Start white balance adjustment                            |
| wb                               | 00 | 10 | Start Gain adjustment(Internal white pattern)             |
| wb                               | 00 | 1f | End Gain adjustment                                       |
| wb                               | 00 | 20 | Start Offset adjustment (Internal white pattern)          |
| wb                               | 00 | 2f | End Offset adjustment                                     |
| wb                               | 00 | ff | End white Balance adjustment (Internal pattern disappear) |

Wb 00 00 Start automatic adjustment of white balance

Wb 00 10 Start gain adjustment (Internal pattern)

Ja 00 ff Adjustment data

Jb 00 c0

...

Wb 00 1f End gain adjustment

\* Adjust offset as necessary (wb 00 20(Start), wb 00 2f(End))

Wb 00 ff End automatic adjustment of white balance  
(Internal pattern disappears)

Caution) Adjustment map

|        | RS-232C COMMAND<br>[CMD ID DATA] |     |      | Min | CENTER<br>(DEFAULT)(Hex) |     |      | Max |
|--------|----------------------------------|-----|------|-----|--------------------------|-----|------|-----|
|        | Cool                             | Mid | Warm |     | Cool                     | Mid | Warm |     |
| R Gain | jg                               | ja  | jd   | 00  | 192                      | 192 | 192  | 192 |
| G Gain | jh                               | jb  | je   | 00  | 192                      | 192 | 192  | 192 |
| B Gain | ji                               | jc  | jf   | 00  | 192                      | 192 | 192  | 192 |
| R Cut  |                                  |     |      |     | 64                       | 64  | 64   | 127 |
| G Cut  |                                  |     |      |     | 64                       | 64  | 64   | 127 |
| B Cut  |                                  |     |      |     | 64                       | 64  | 64   | 127 |

\* White Balance adjustment (For automatic adjustment)

- Execute Power Only Key of the adjustment R/C to execute automatic adjustment. Set the Baud Rate to 115200.
- Always start adjustment with "wb 00 00" and end adjustment with "wb 00 ff"
- Adjust the offset if necessary.

## 5-4. Adjustment of White Balance

(For manual adjustment)

### (1) Required Equipment

: When adjusting the LCD white balance, use CS-1000 as the color analyzer (CA-210) and channel 9 corrected of Matrix (corrected for White, Red, Green, Blue) and the adjustment must be done in accordance with the below White balance adjustment coordinate.

### (2) Sequence

- 1) Press the ADJ of adjustment remote control to enter 'EZ-ADJUST'.
- 2) Select 9.TEST PATTERN using the CH + / - KEY and press the Enter KEY to execute a heat run for more than 30 minutes.
- 3) Execute a Zero Calibration for CA-210 and put it at distance of less than 10Cm from the LCD module surface center during the adjustment.
- 4) Press the ADJ of adjustment remote control, select '6.White-Balance' of 'Ez - Adjust' and enter the adjustment mode using the right key (▶).  
(When you press the ▶ button, the screen enters the full white internal pattern.)
- 5) The adjustment is executed in 3 different white balance of COOL, MEDIUM and WARM.
- 2) In case that White balance is COOL.
  - Fix R-Cut/ G-Cut/ B-Cut to 64 and adjust the color coordinates t downward.In case that White balance is Medium.
  - Fix R-Cut/ G-Cut/ B-Cut to 64 and adjust the color coordinates t downward.In case that White balance is Warm
  - Fix R-Cut/ G-Cut/ B-Cut to 64 and adjust the color coordinates t downward.
  - Adjust by using Vol ± key.
- 4) When the adjustment is completed, press the OK (■) key button to move to the Ez -Adjust screen. Press the ADJ KEY to exit the adjustment mode.

\* Note : White Balance adjustment coordinate and white balance

- 1) Standard white balance standard white balance coordinate when using CS-1000 device  
COOL : T=11000K,  $\Delta uv=0.000$ ,  $x=0.276$ ,  $y=0.283$   
MEDIUM : T=9300K,  $\Delta uv=0.000$ ,  $x=0.285$ ,  $y=0.293$   
WARM : T=6500K,  $\Delta uv=0.000$ ,  $x=0.313$ ,  $y=0.329$

- 2) Directed color coordinate when using CA-210 CH 9

\* Brightness: Full white 216gray

| Color temperature | Color analyzer | Color coordinate  |                   |
|-------------------|----------------|-------------------|-------------------|
|                   |                | X                 | Y                 |
| COOL              | CA-210         | $0.276 \pm 0.002$ | $0.283 \pm 0.002$ |
| MEDIUM            | CA-210         | $0.285 \pm 0.002$ | $0.293 \pm 0.002$ |
| WARM              | CA-210         | $0.313 \pm 0.002$ | $0.329 \pm 0.002$ |

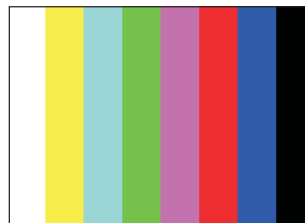
## 6. Video Set adjustment

### 6-1. Synopsis

This is a adjustment to reduce the color difference of RF, video signal.

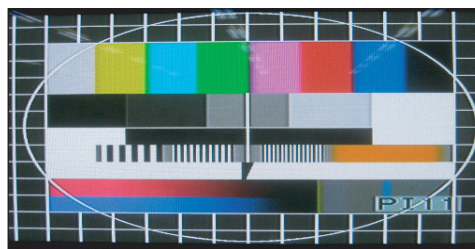
### 6-2. Analog RF and AV-PAL Adjustment

- 1) Connect the Video Signal Generator (Master) to TV AV input terminal with AV output. At this time, when you enter the input pattern as Model : 202(PAL), Pattern : 33(100% color Bar), the following video is displayed on the screen.



<Fig 5> Model : 202(PAL), Pattern 33(100% color Bar)

- \* Because the above pattern can differ by the model and pattern for each device, you must check the pattern first.
- 2) When the receiving signal is confirmed after inputting the internal signal, press the ADJ key on the adjustment remote control to enter 'EZ-ADJUST'. Select '3.Adjust RF and Video' and press the right key (▶) to enter the adjustment mode.
- 3) When you enter the adjustment mode, the video is automatically set to TV 3CH and the following window is displayed.

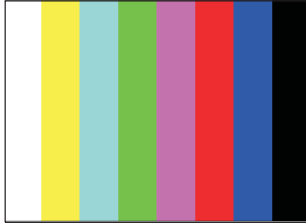


<Fig 6>

- 4) When the adjustment is completed, a message saying 'RF Configuration Success' is displayed. If the adjustment has failed, a message saying 'RF Configuration Fail' is displayed.
- 5) When the automatic adjustment of RF signal is completed, it is automatically switched to the AV1 Mode, and automatic adjustment for Video Mode is done. When the automatic adjustment is completed, a message saying 'AV-PAL Configuration Success' is displayed. If the adjustment has failed, a message saying 'AV-PAL Configuration Fail' is displayed.

### 6-3. AV NTSC adjustment

- 1) Connect the Video Signal Generator (Master) to AV input terminal with AV output. At this time, when you enter the input pattern as Model : 201(NTSC), Pattern : 33(100% color Bar), the following video is displayed on the screen.



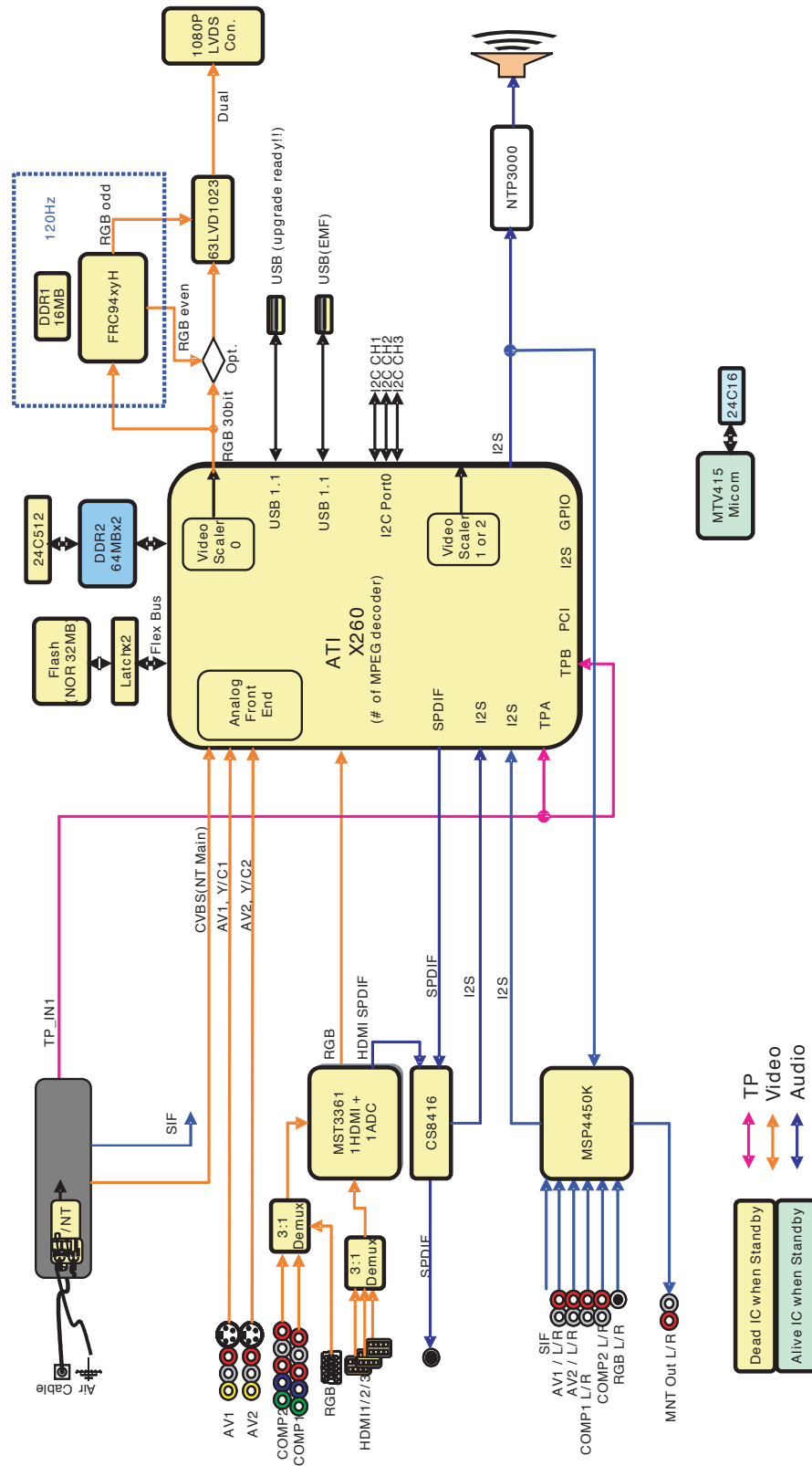
<Fig 6> Model : 201(NTSC), Pattern 33(100% color Bar)

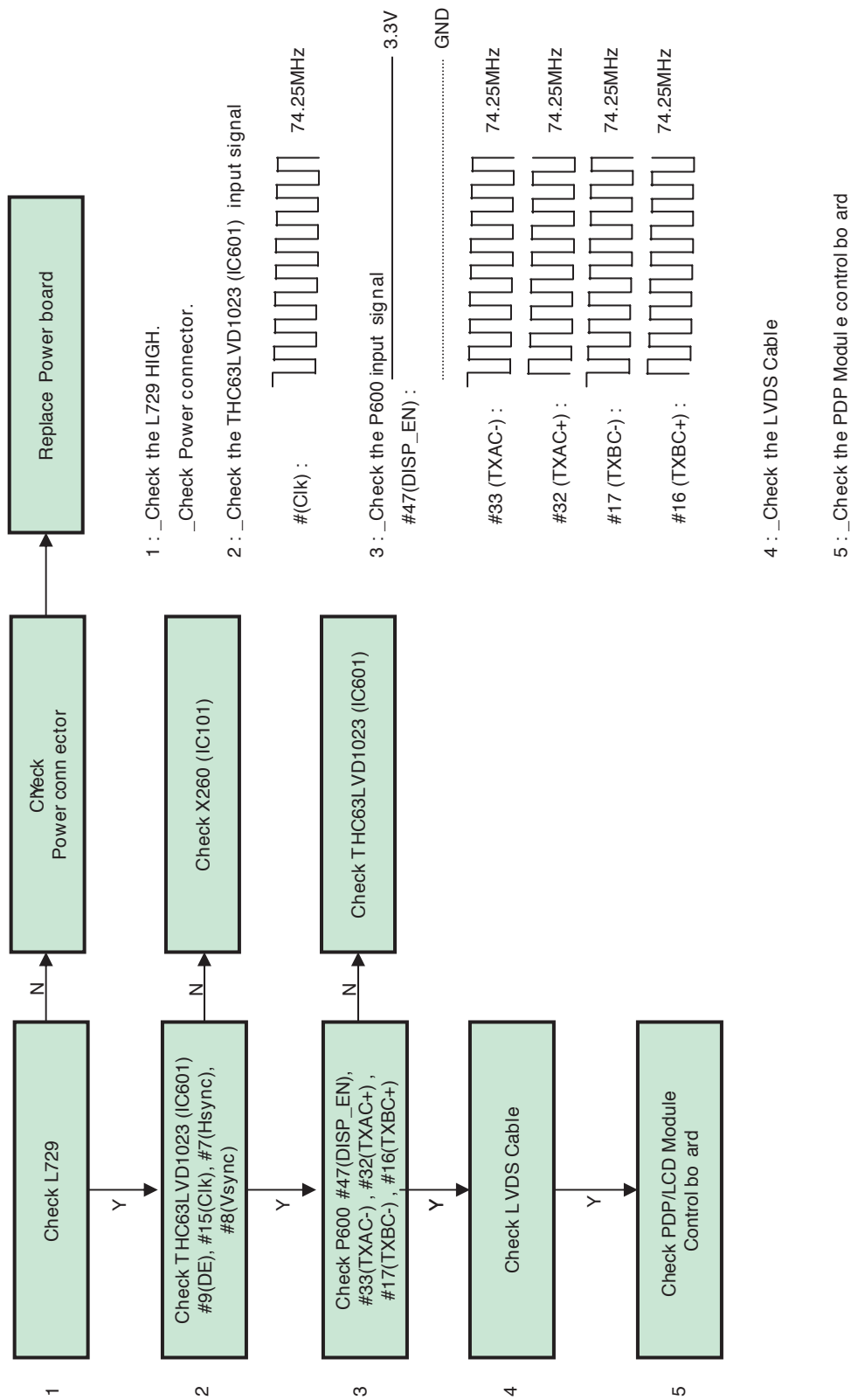
- 2) Press the ADJ key on the adjustment remote control to enter 'EZ-ADJUST'. Select '4.Adjust AV\_NTSC' and press the right key (▶) to enter the adjustment mode.
- 3) When the adjustment is completed, a message saying 'AV-NTSC Configuration Success' is displayed. If the adjustment has failed, a message saying 'AV-NTSC Configuration Fail' is displayed.

## TROUBLESHOOTING

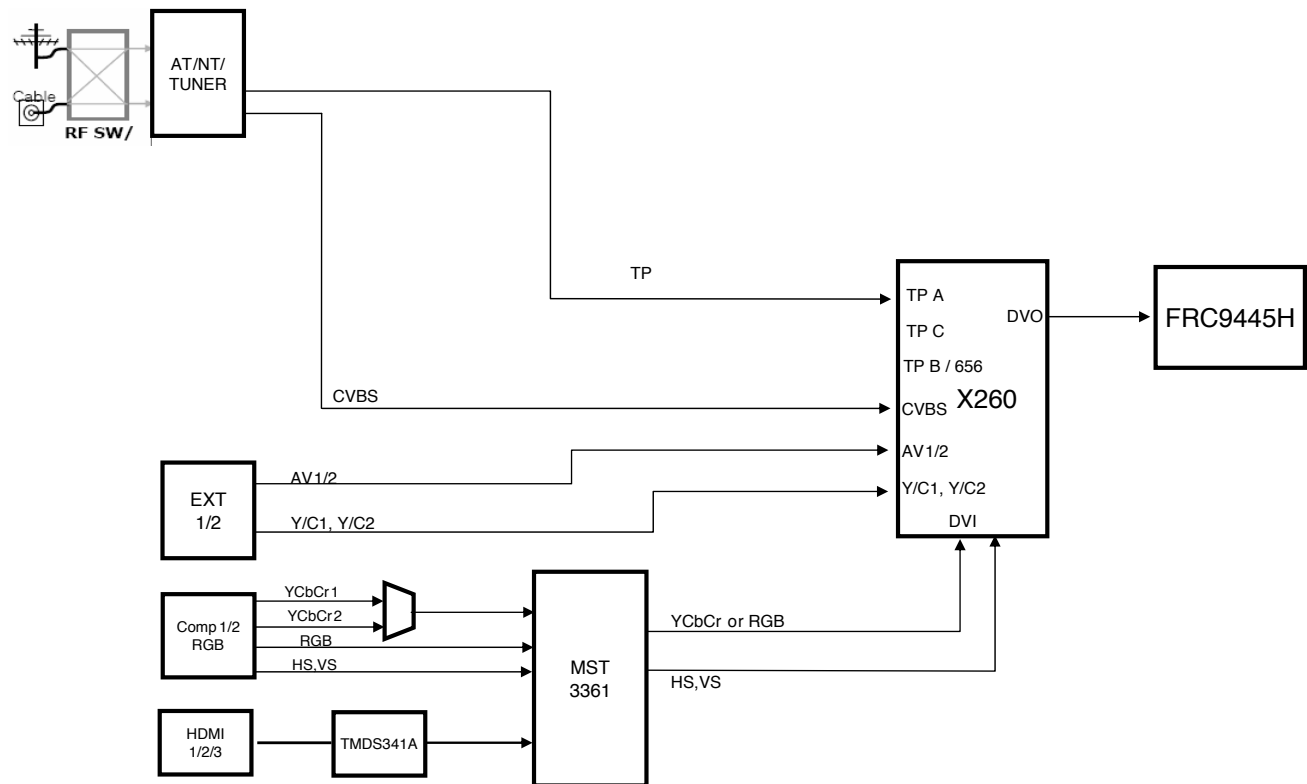
## 1. VIDEO

**(1) NO OSD(FHD)**

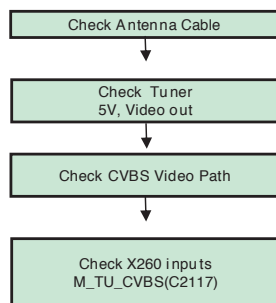




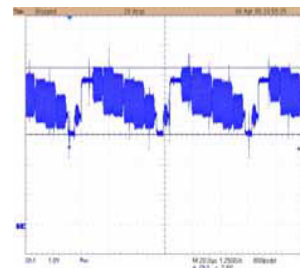
## (2) VIDEO PATH



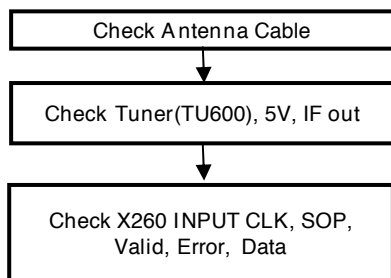
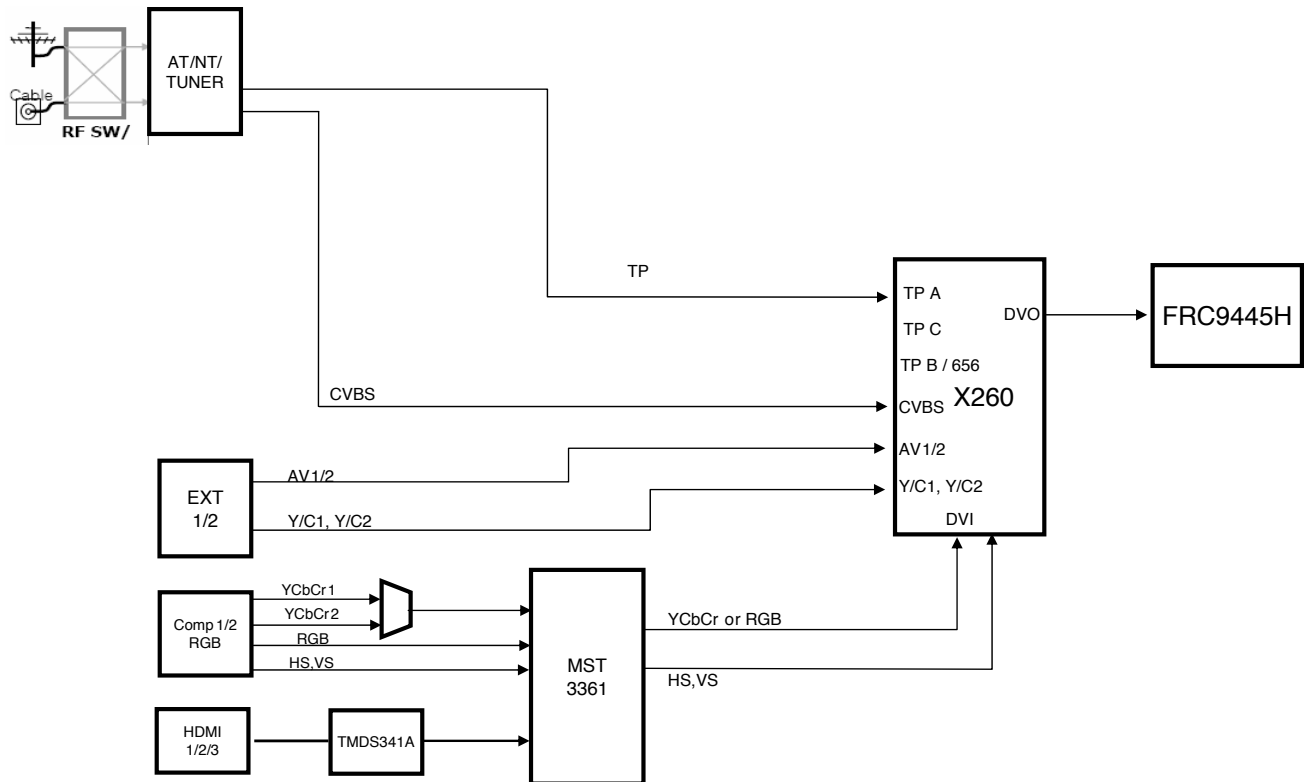
## (3) RF MODE



1 : \_Check Tuners Voc and Video out



## (4) DTV / CADTV

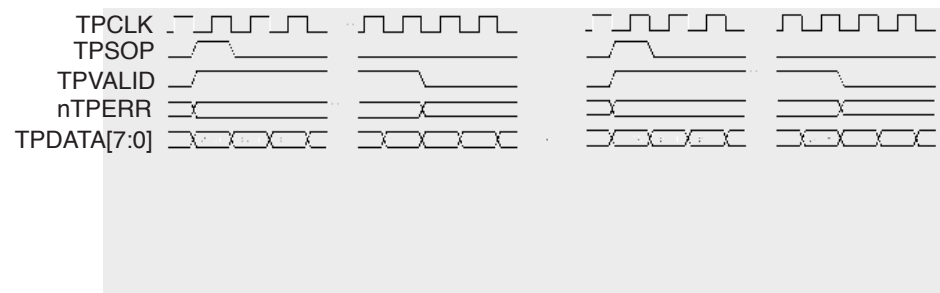


1 : \_Check Antenna cable(RF switch, Tuners...)

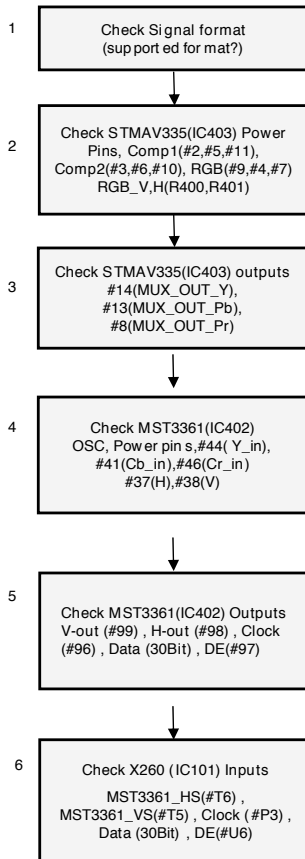
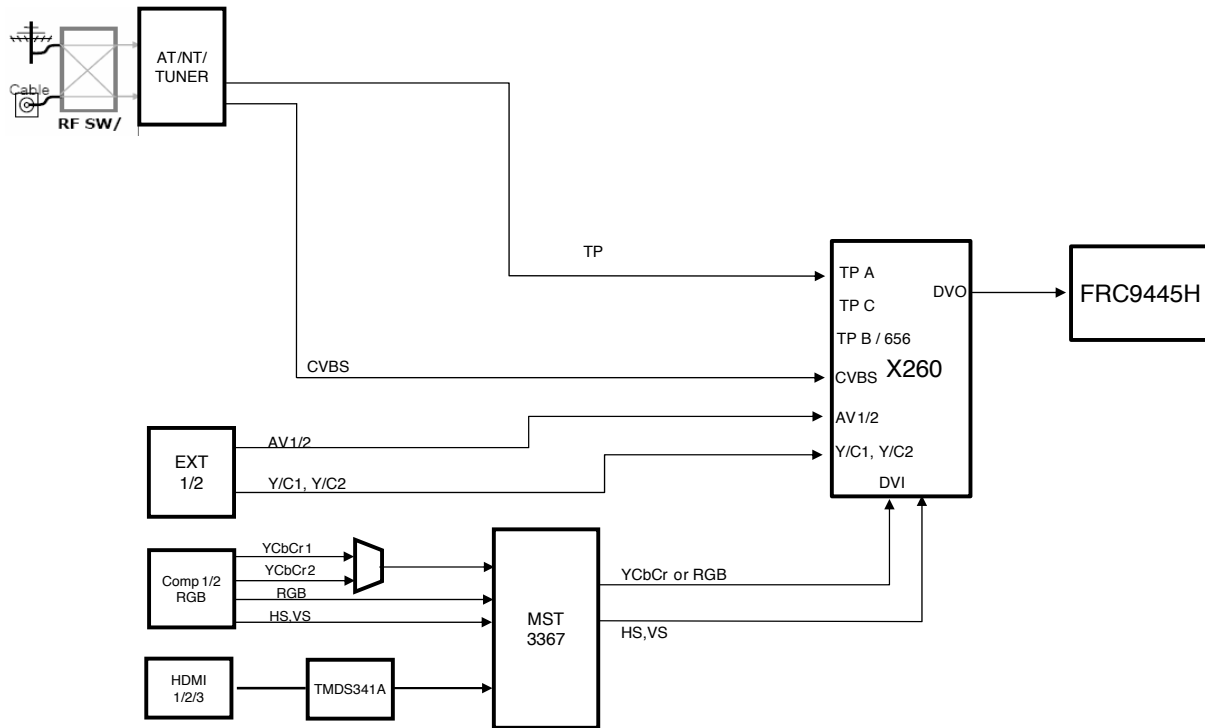
2 : \_Check Tuners Vcc and IF out



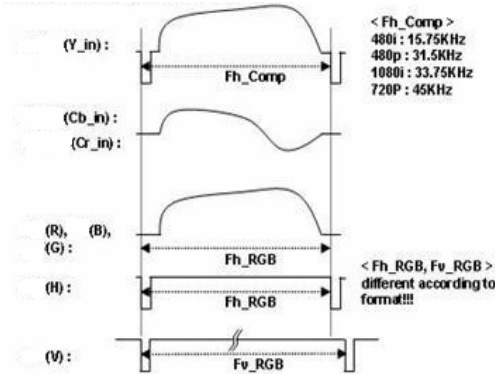
3 : \_Check X260 Input ( CLK, SOP, Valid, Error, Data)



## (5) COMPONENT / RGB



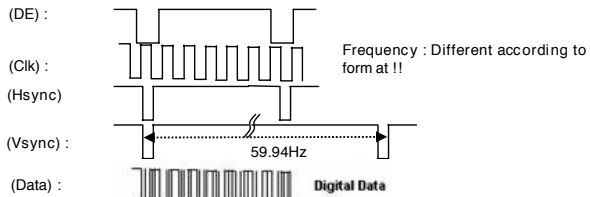
1. Check Signal format (ref. owenris manual)
2. Check STMAV335(IC403) Power Input Signal



- 3 : Check STMAV335(IC403) outputs  
Signal shape is same (above)

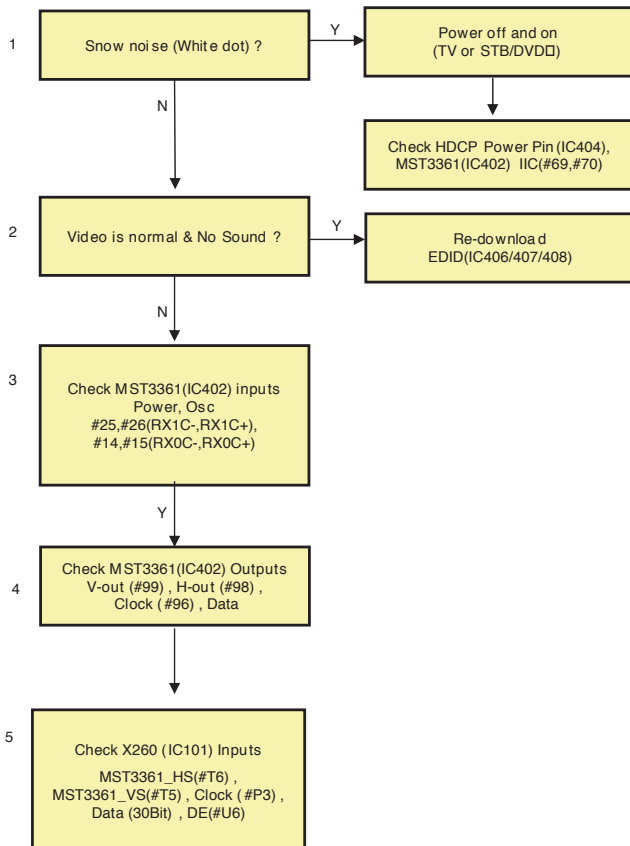
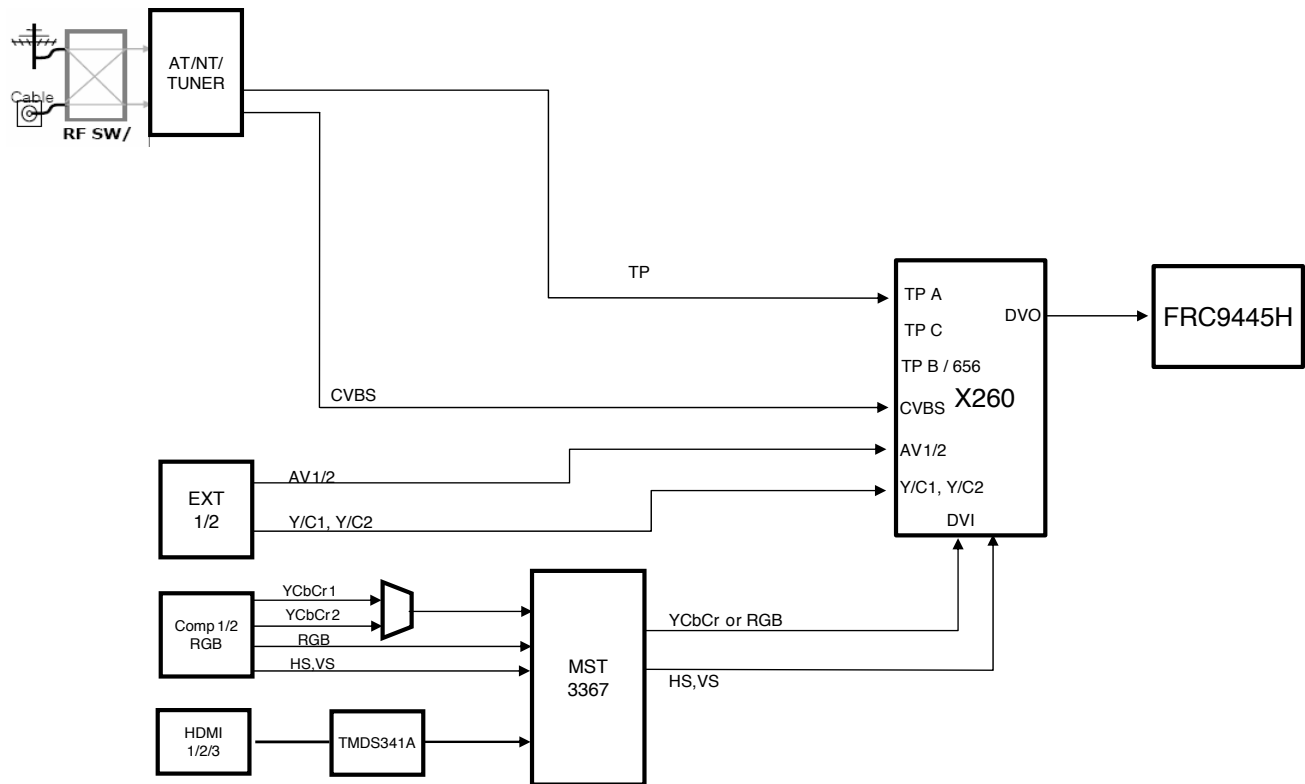
- 4 : \_Check MS T3361(IC402) Power pins, Input Signals, Signal Shape is S ame (above)

- 5 : \_Check the MST3361(IC402) Output Signals



- 6 : \_Check X 260 (IC101) Inputs  
\_Signal shape is same (above)

## (6) HDMI / DVI



### 1 : \_Check HDCP Error

- \_Retry power off and on (TV or STB/DVDD)
- \_Check MST3361 (IC402) HDCP IIC line (#69, #70)

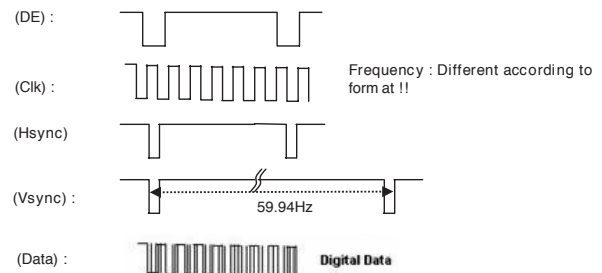


### 2 : \_Check EDID Download

### 3 : \_MST3361 (IC402) inputs



### 4 : \_Check MST3361 (IC402) Outputs

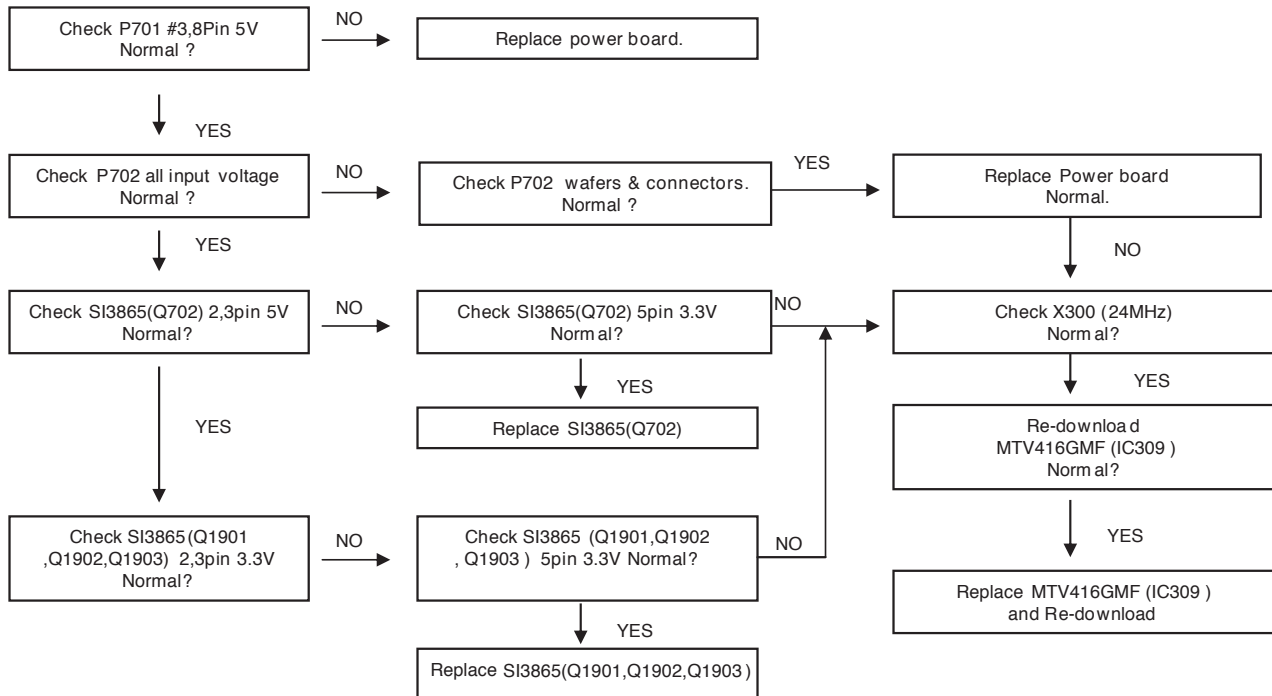


### 5 : \_Check X260 (IC101) Inputs

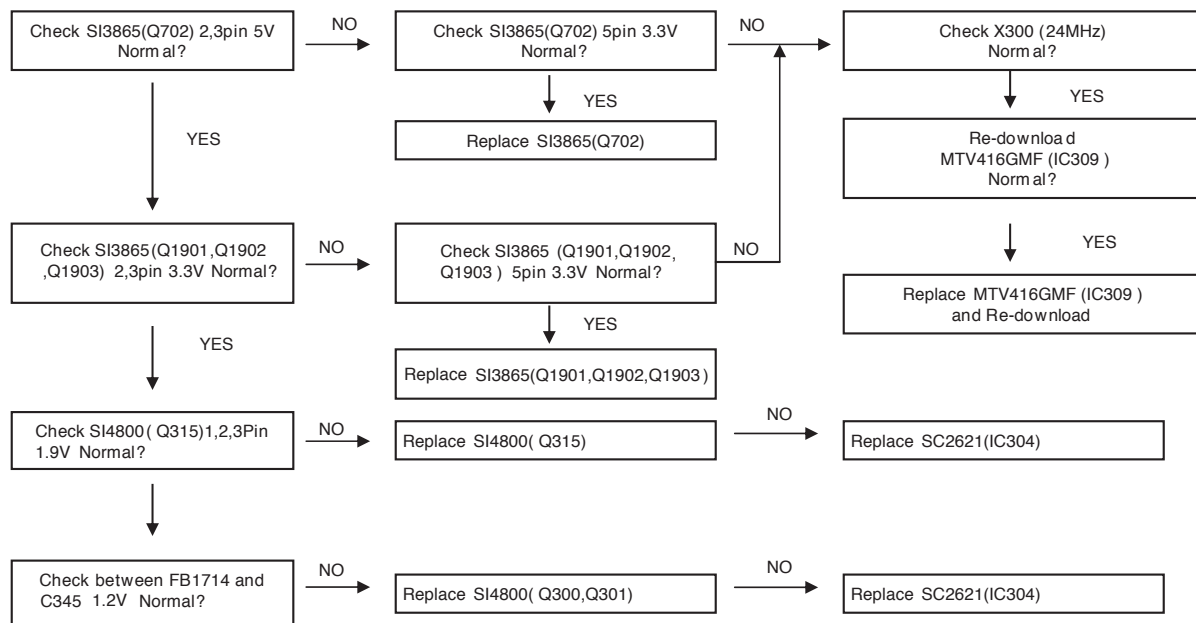
- \_Signal shape is same (above)

## (7) POWER

Symptom : T V set out of order on powers

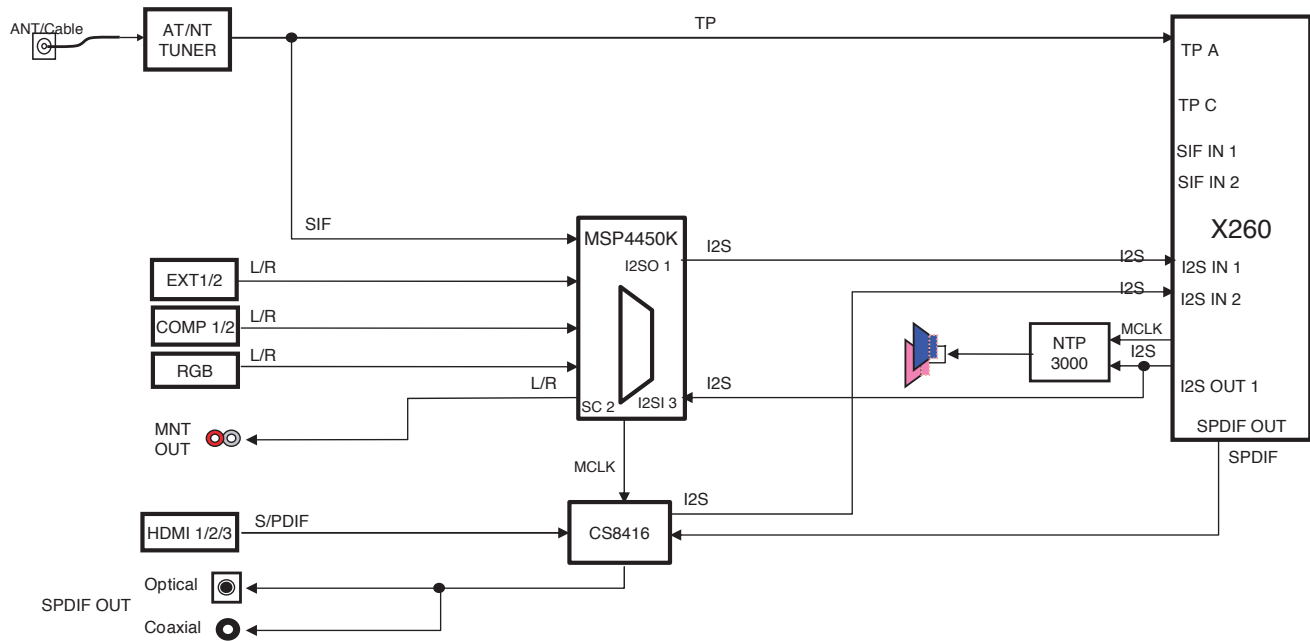


Symptom : No booting

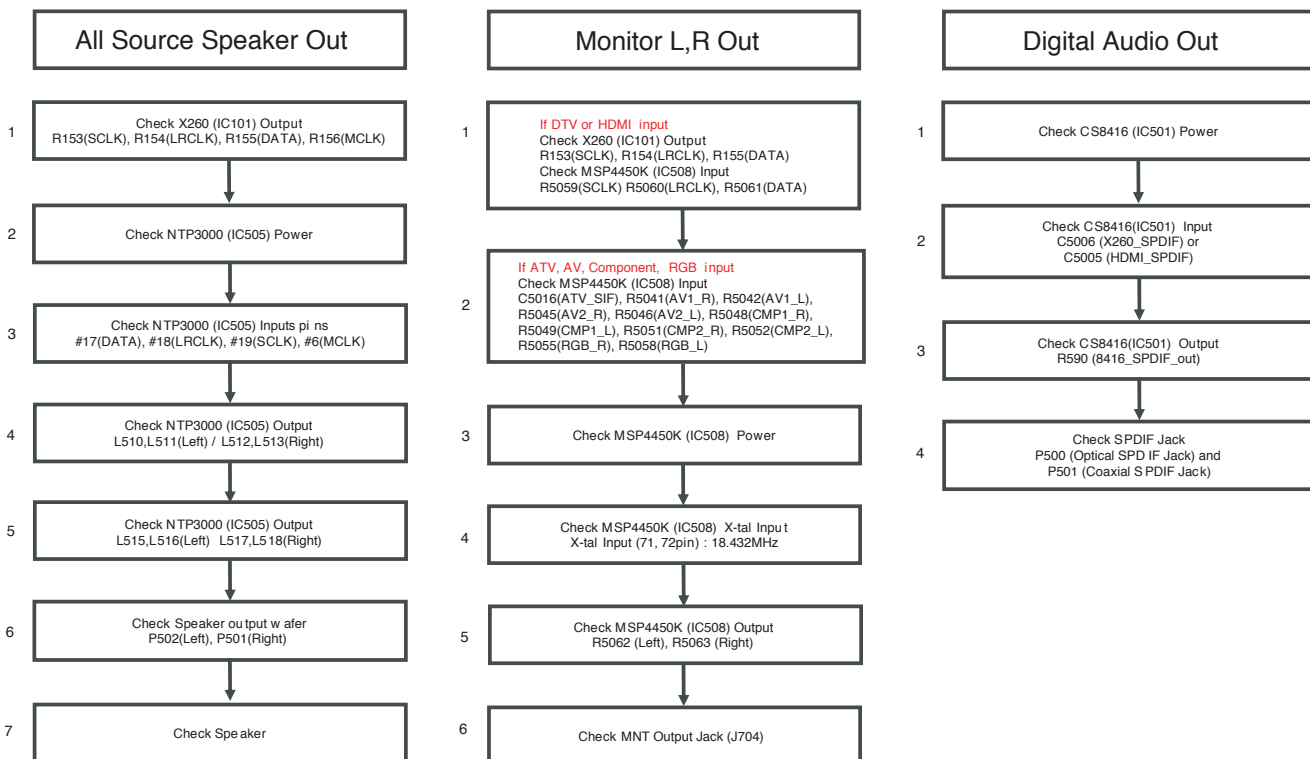


## 2. AUDIO

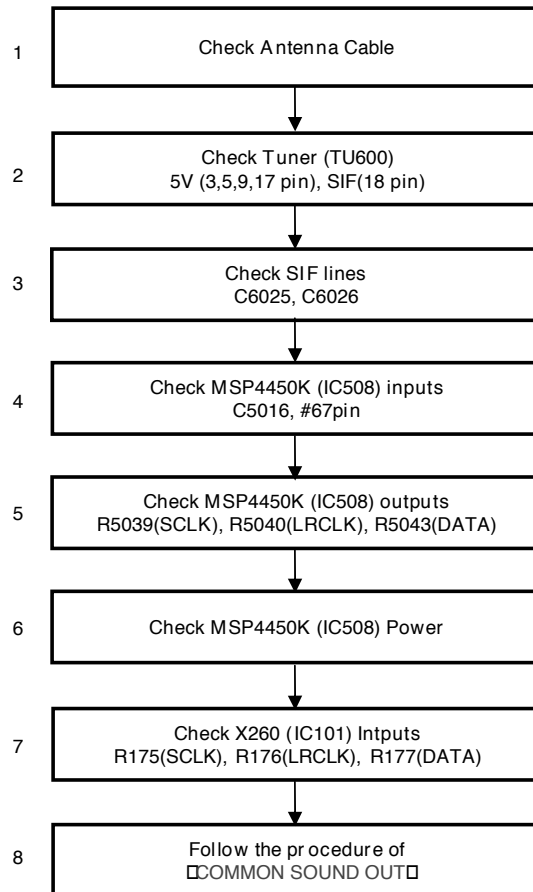
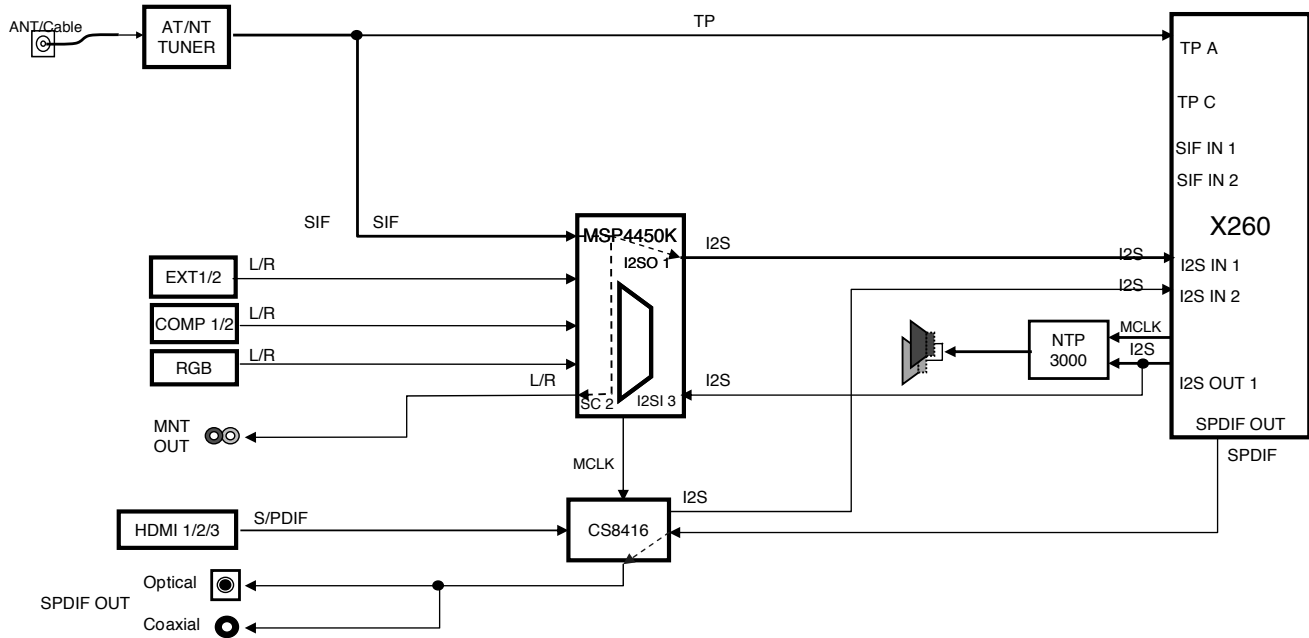
### (1) AUDIO ALL PATH



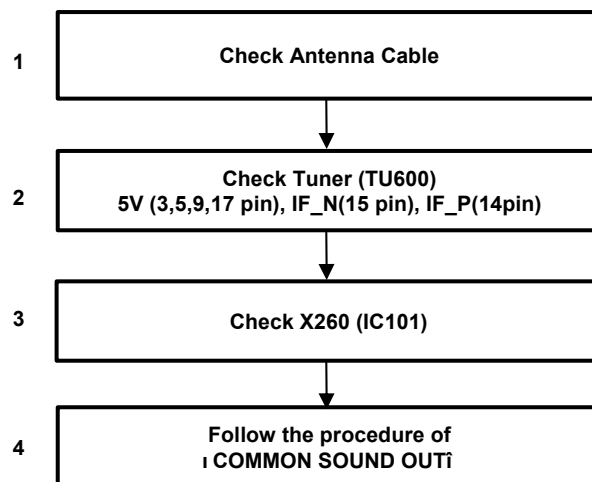
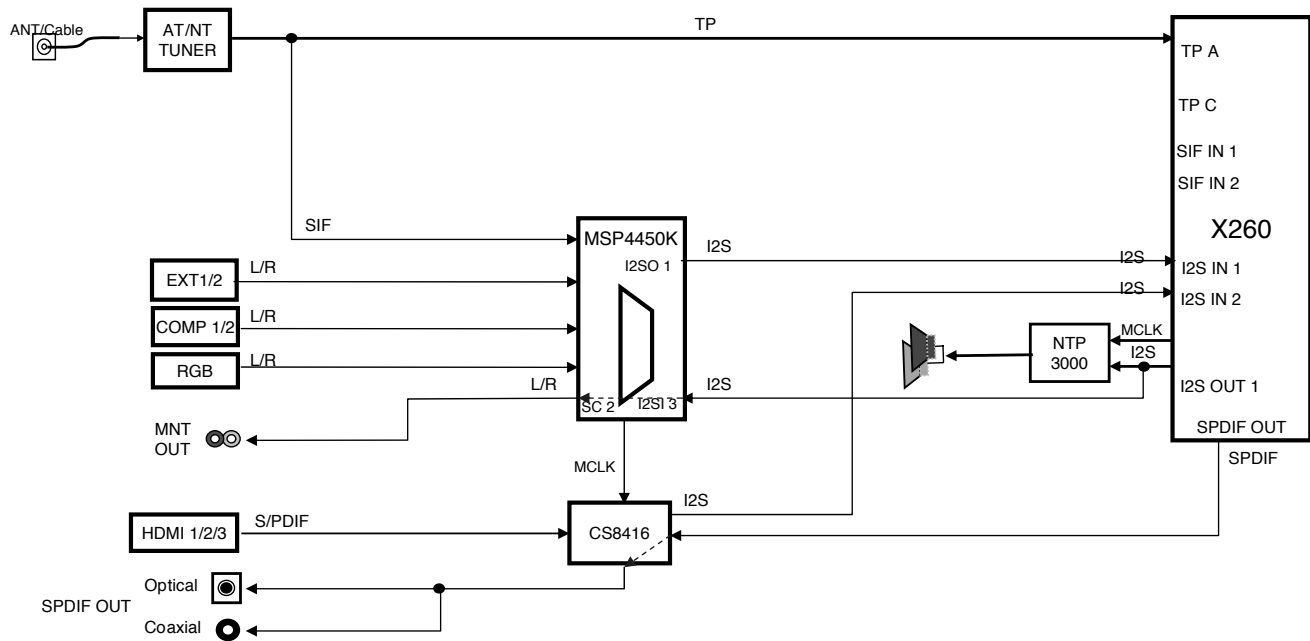
### (2) Common Sound Out



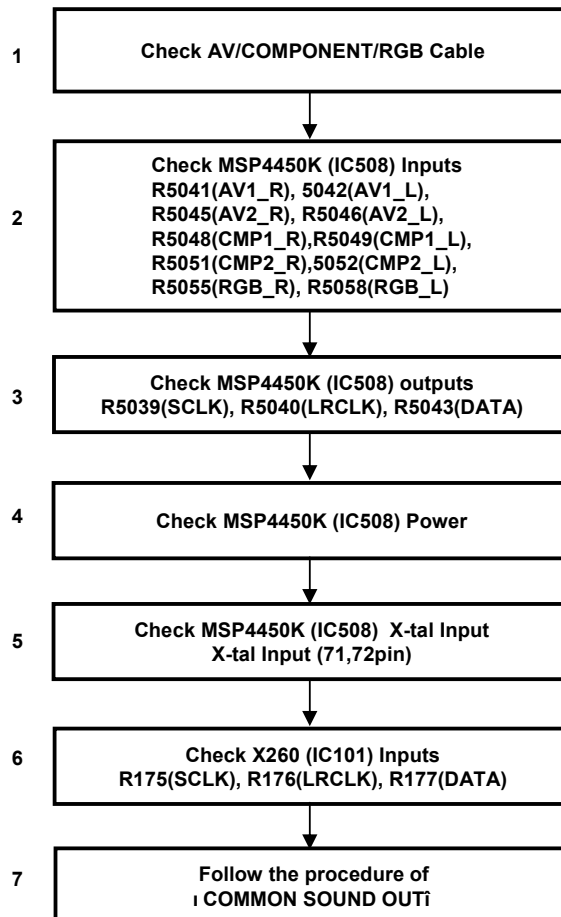
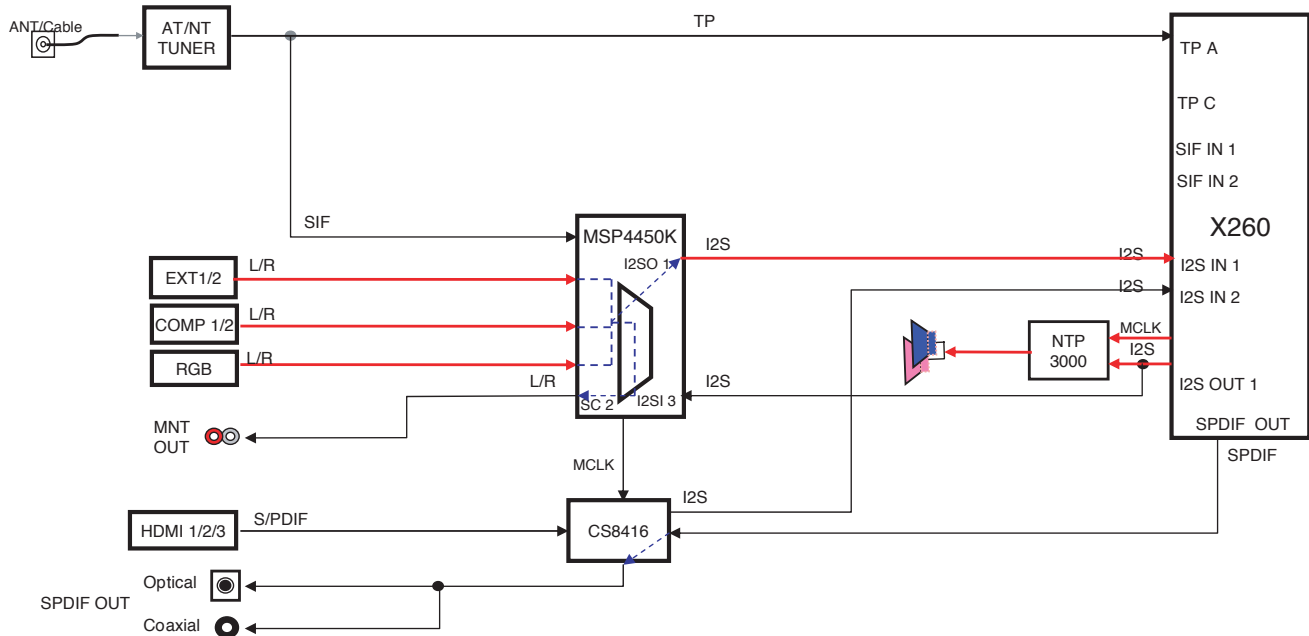
### (3) TV RF No Sound



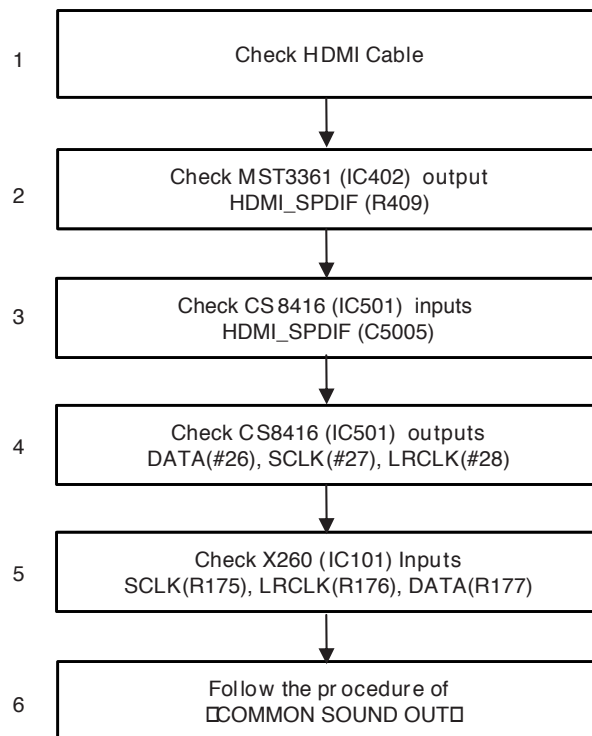
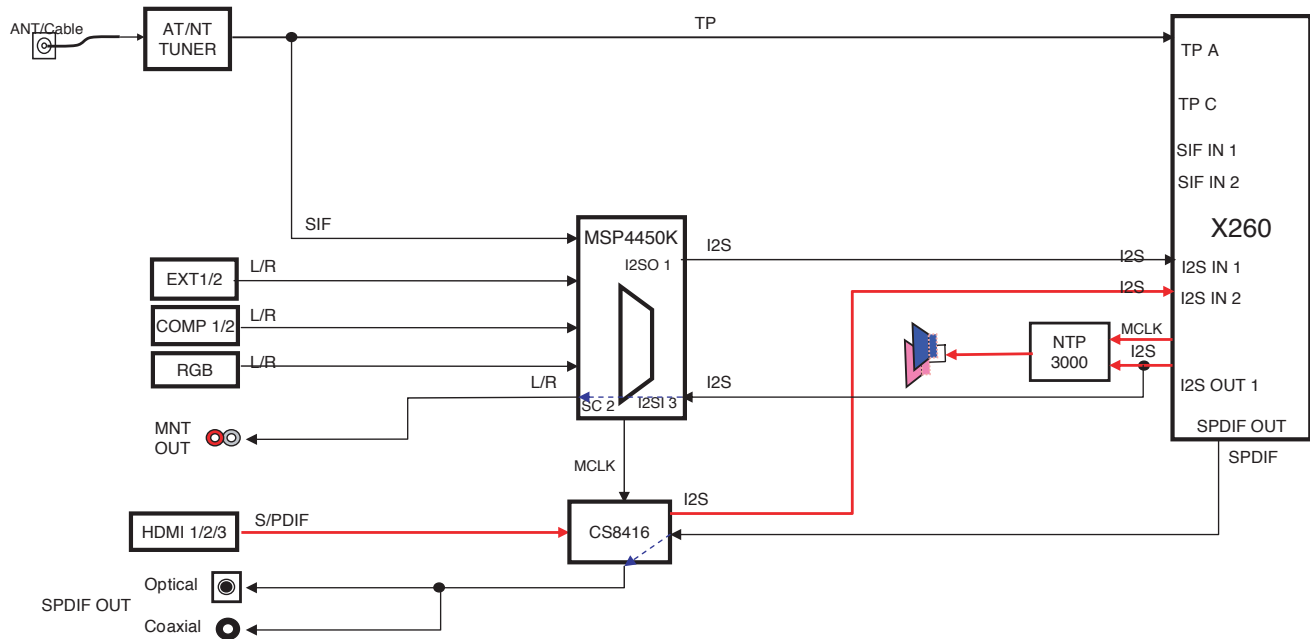
## (4) DTV No Sound



## (5) AV / Component / RGB / No Sound

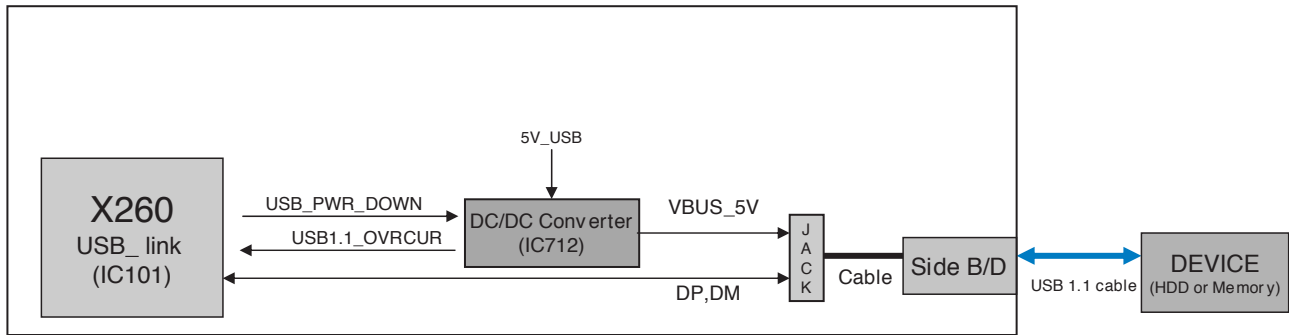


## (6) HDMI No Sound

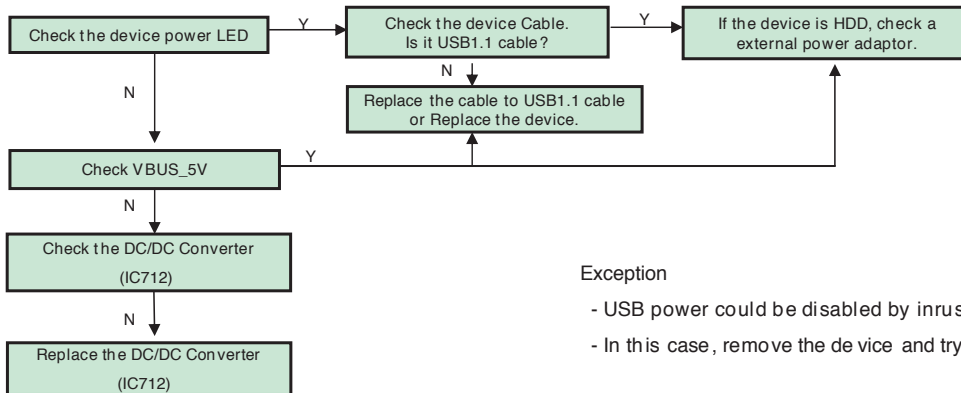


### 3. USB

#### 1. Block Diagram For EMF



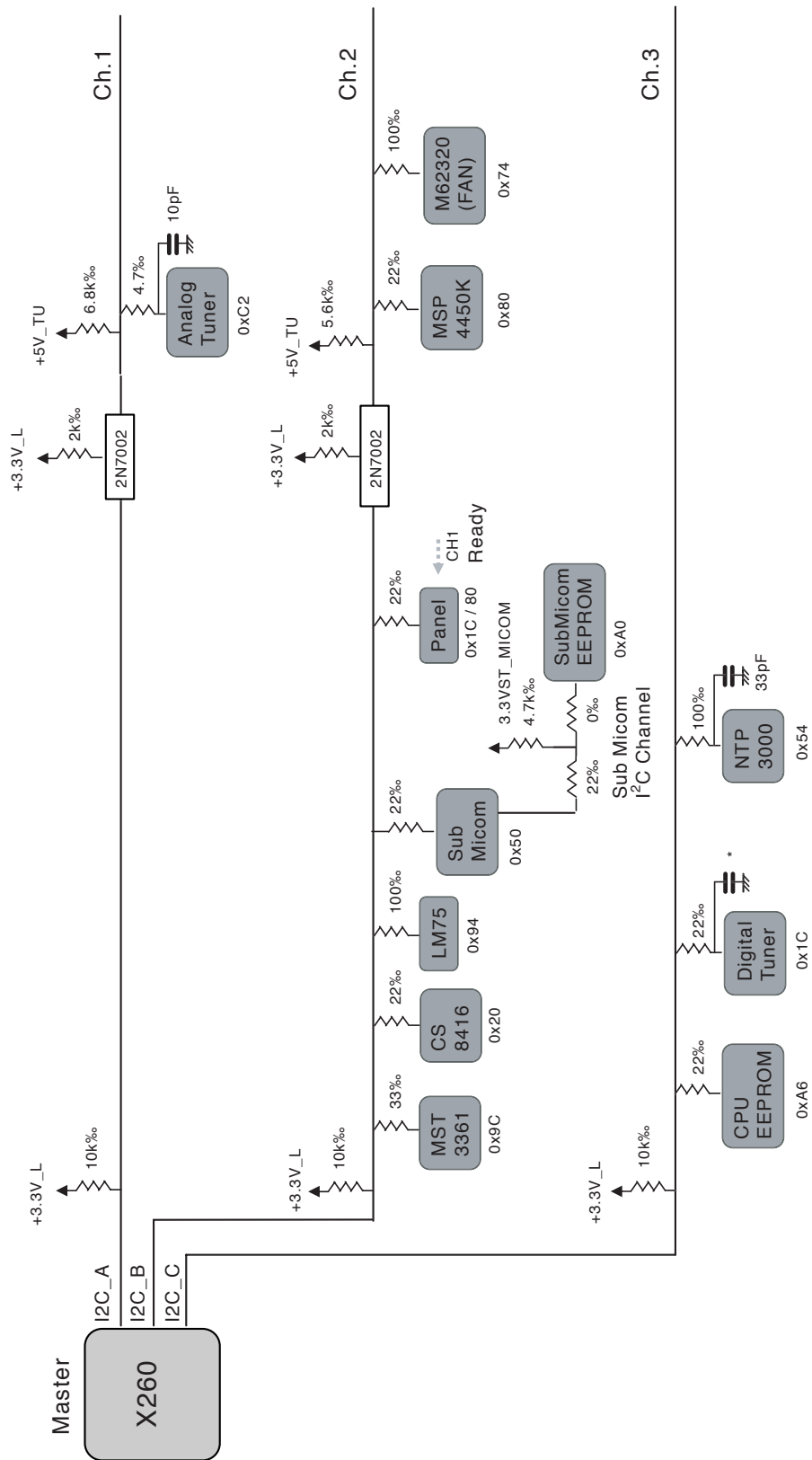
#### 2. Check Sequence



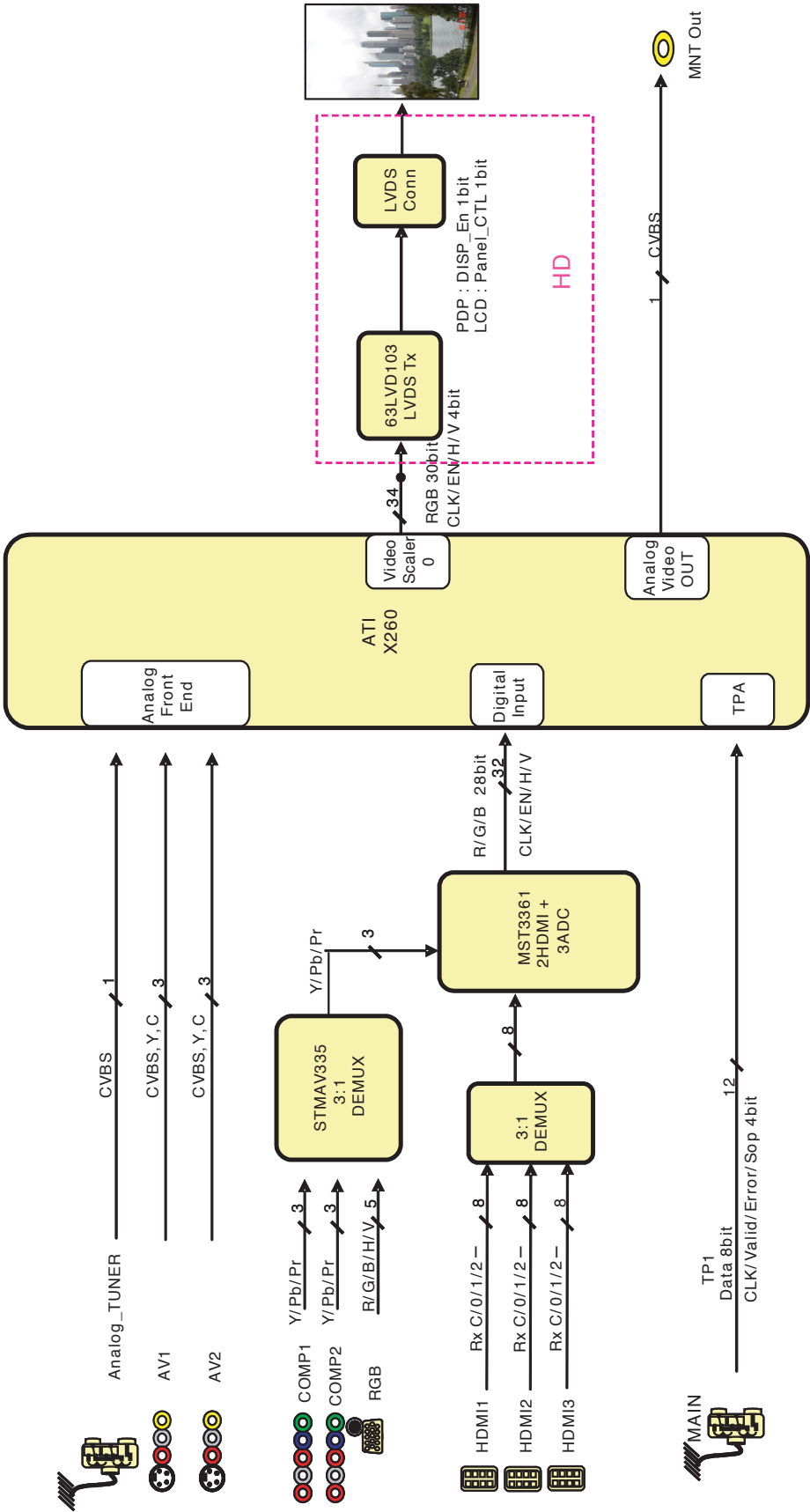
#### Exception

- USB power could be disabled by inrushing curre nt
- In this case , remove the de vice and try to reboot the TV (AC power off/on )

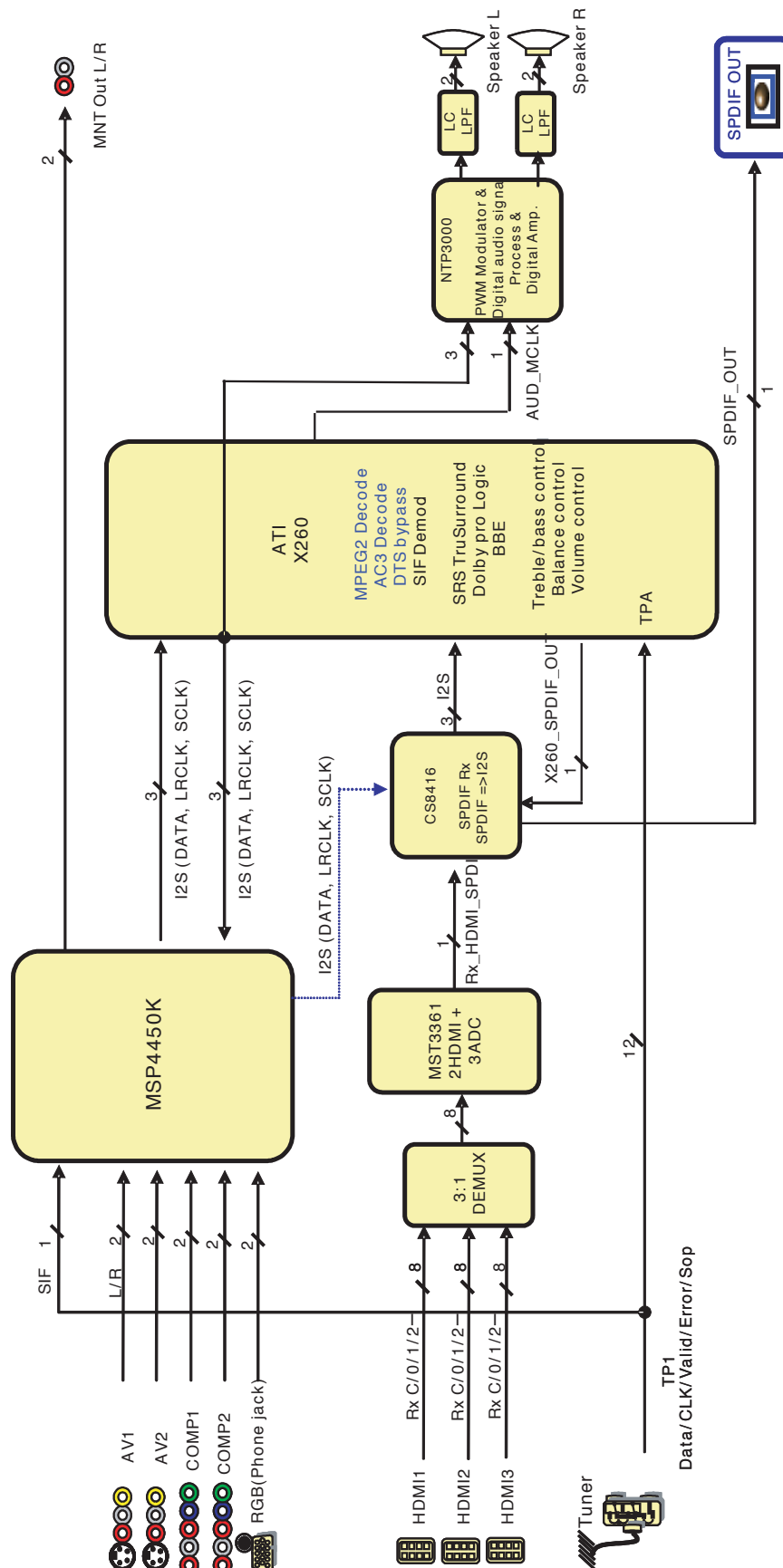
# BLOCK DIAGRAM



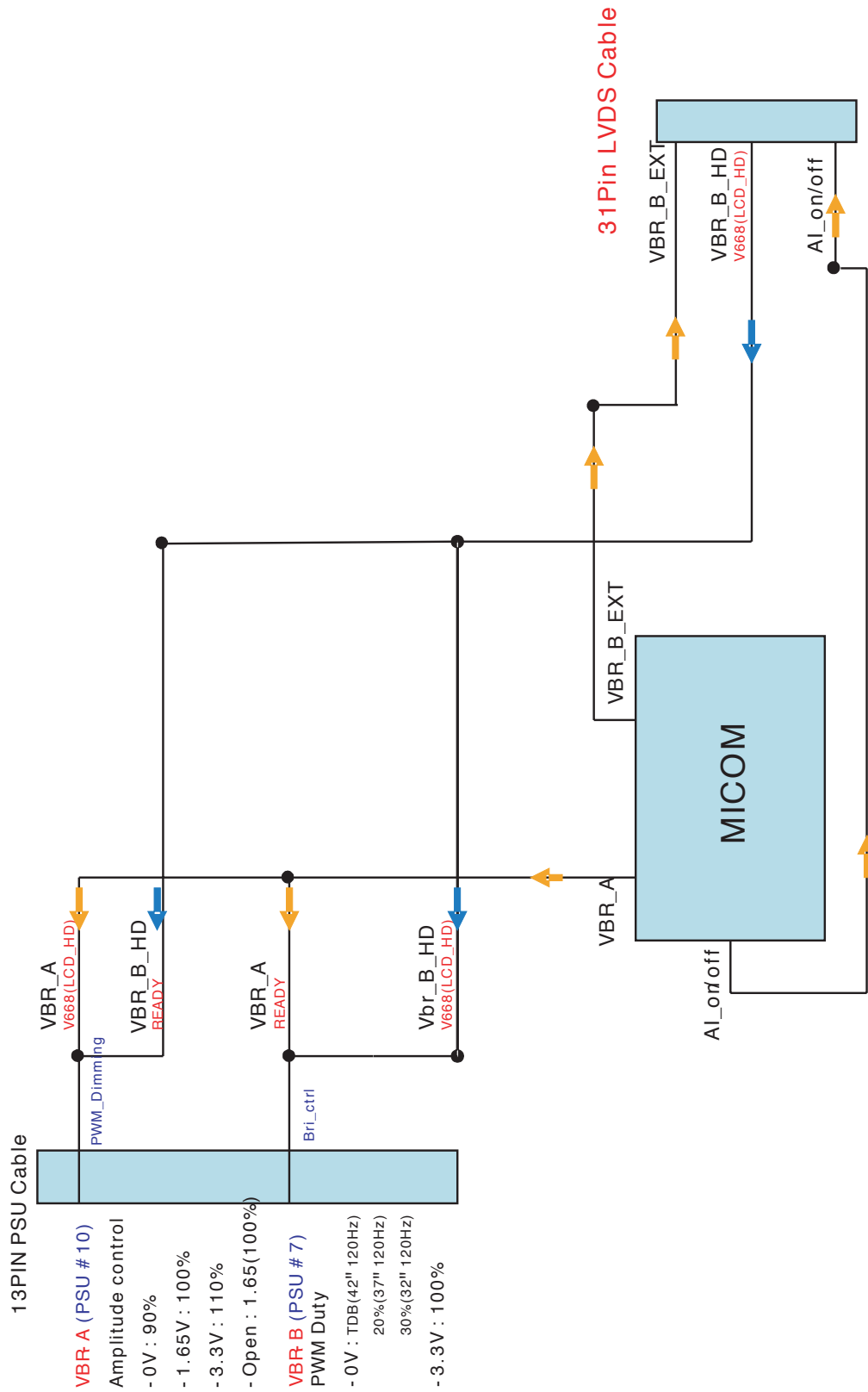
## 1. VIDEO



## 2. AUDIO

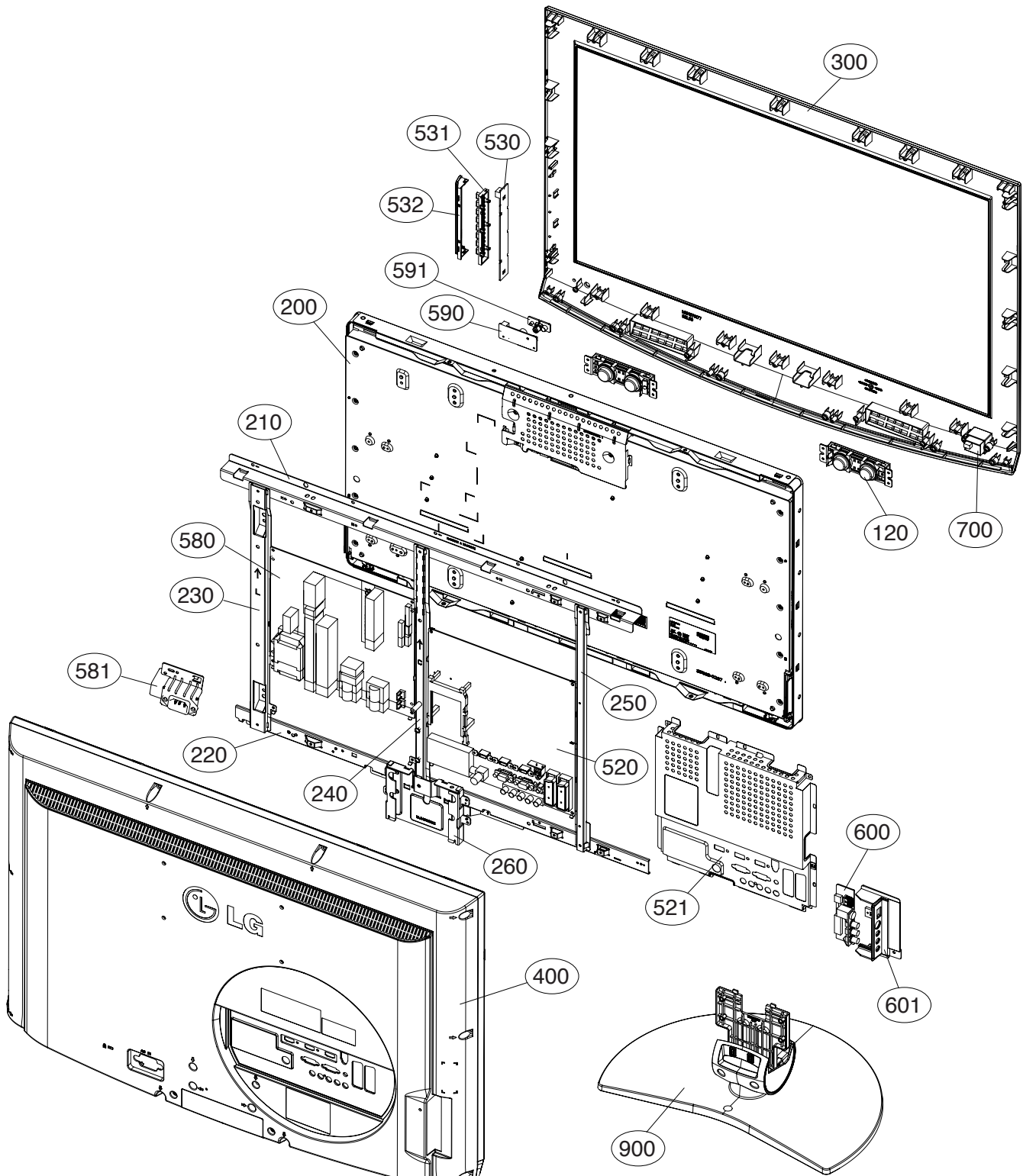


### 3. VBR Application



# MEMO

# EXPLODED VIEW



# EXPLODED VIEW PARTS LIST

| Loc. No. |     | PART NO.    | DESCRIPTION                                                                             |
|----------|-----|-------------|-----------------------------------------------------------------------------------------|
|          | 120 | EAB37526301 | Speaker,Full Range C103A02K1400 ND 7W 8OHM 81DB 160HZ 122                               |
| ⚠        | 200 | EAJ37543301 | LCD,Module-TFT LC320WX4-SLD2 WXGA 1000:1(basic) 8ms(GTG),Zero RT Pol. 10000K <b>LPL</b> |
|          |     | EAJ38815601 | LCD,Module-TFT LC320WX6-SLA1 WXGA 1366X768 500CD COLOR 8ms(GTG) Vitiaz 2 <b>LPL</b>     |
|          | 210 | MJH37025101 | Supporter PRESS EGI 1t Supporter EGI , TOP BAR                                          |
|          | 220 | MJH37056401 | Supporter PRESS EGI 1t Supporter EGI , NON-STAND JIG                                    |
|          | 230 | MJH32520501 | Supporter PRESS EGI 1.0t GUIDE EGI METAL BAR, FOR POWER (32LC4)                         |
|          | 240 | MJH32520601 | Supporter PRESS EGI 1.0t GUIDE EGI METAL BAR, MIDDLE (32LC4)                            |
|          | 250 | MJH32520701 | Supporter PRESS EGI 1.0t GUIDE EGI METAL BAR, FOR MAIN (32LC4)                          |
|          | 260 | MJH38810201 | Supporter PRESS SECC . Supporter SECC(EGI) STAND GUIDE (32LB9)                          |
| ⚠        | 300 | ABJ32936001 | Cabinet Assembly 32LB9D-UA LA73A 32"                                                    |
| ⚠        | 400 | ACQ32936403 | Cover Assembly,Rear 32LB9D-NA LA74F 32"                                                 |
|          | 520 | EBU37280702 | Main Total Assembly 32LB9D-AA BRAND LB76A                                               |
|          |     | EBU37280708 | Main Total Assembly 32LB9D-AA BRAND LB73A Vitiaz 2 Module                               |
|          | 521 | MGJ32918103 | Plate,Shield PRESS SPTE 0.5 SHIELD SPTE 32" everest3 chassis                            |
|          | 530 | EBR37862701 | Hand Insert PCB Assembly,Sub M.I LA73A [LA73A]M.I. 32LB9D-UA HAND INSERT                |
|          | 531 | MEY37163001 | Knob MOLD ABS SUB . 32LB9D , Control                                                    |
|          | 532 | MAZ37056203 | Bracket MOLD ABS CONTROL 32LB9 - ABS , 32LB9DS-AA                                       |
| ⚠        | 580 | EAY34795001 | Power Supply Assembly FREET LCD Tornado 32inch (Power+Inverter) PSU LG INNOTEK CO., LTD |
|          |     | EAY38639701 | Power Supply Assembly LGLP32SLPV2 FREE Vitiaz2_32inch LCD Yuyang, H&E LIPS              |
|          | 581 | EBR38588101 | PCB Assembly POWER T.T LB73B 32LB9D-AA AAUVLH AC-Inlet Ass'y Total                      |
|          |     | EBT36115101 | Chassis Assembly POWER(SMPS) LP78A 32 " LCD Model AC-Inlet Assembly                     |
|          | 590 | EBR36899501 | PCB Assembly,Sub SUB T.T LB75A 42LB9DF-AA AAUMLHX IR TOTAL                              |
|          | 591 | MES36332302 | Indicator MOLD ABS LED&PRE AMP 32LB9 PMMA 7 PHY SMOKE BLACK PRINTING                    |
|          | 600 | EBR36365001 | Hand Insert PCB Assembly,Sub SUB M.I LA73A 32LB4DS-UA ALL 32LB4DS-UA SIDE AV MANUAL     |
|          | 601 | MAZ37058601 | Bracket MOLD ABS BRACKET 32LB9D - ABS , REAR A/V(E3_DVR)                                |
|          | 700 | 6500VR0003E | Sensor,Ambient Light YGCA-T071C 26.4X20X26.4mm VOUT 5V(AT 80LUX) LG INNOTEK             |
| ⚠        | 900 | AAN32984804 | Base Assembly STAND 32LB9DA-ND LA74F BLACK, MAJESTIC                                    |

# REPLACEMENT PARTS LIST

DATE: 2007. 06. 27.

| LOC. NO.          | PART NO.    | DESCRIPTION / SPECIFICATION                 | LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 |
|-------------------|-------------|---------------------------------------------|----------|-------------|---------------------------------------------|
| <b>CAPACITORS</b> |             |                                             |          |             |                                             |
| C101              | 0CH4471K416 | C2012C0G1H471JT 470pF 5% 50V C0G -55TO+125C | C2145    | 0CK105CD56A | C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C  |
| C102              | 0CH5101K416 | C2012C0G1H101JT 100pF 5% 50V C0G -55TO+125C | C2146    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C103              | 0CE107SF6DC | VMV107M016S0ANE010 100uF 20% 16V 91MA -40TO | C2147    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C104              | 0CH4471K416 | C2012C0G1H471JT 470pF 5% 50V C0G -55TO+125C | C2148    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C105              | 0CH4471K416 | C2012C0G1H471JT 470pF 5% 50V C0G -55TO+125C | C2149    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C105              | 0CH5101K416 | C2012C0G1H101JT 100pF 5% 50V C0G -55TO+125C | C215     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C106              | 0CH5101K416 | C2012C0G1H101JT 100pF 5% 50V C0G -55TO+125C | C2150    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C107              | 0CK226FF67A | EMK325BJ226MM-T 22uF 20% 16V X5R -55TO+85C  | C2151    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C108              | 0CE107SF6DC | VMV107M016S0ANE010 100uF 20% 16V 91MA -40TO | C2152    | 0CE226WF6DC | MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105 |
| C200              | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2153    | EAE30840301 | 10SVPC68M 68uF 20% 10V 1.97A -55TO+105C SVP |
| C201              | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C2154    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C202              | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2155    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C203              | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2156    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C204              | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2157    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C205              | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C2158    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C206              | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2159    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C207              | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C216     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C208              | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2160    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C209              | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2161    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C210              | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2162    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C211              | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C2163    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2114             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2164    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2115             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2165    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2116             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2166    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2117             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2167    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2119             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2168    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C212              | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2169    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2120             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C217     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2122             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2170    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2124             | 0CK106EF56A | C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C | C2171    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2126             | 0CC150BK4AA | C1005C0G1H150JT 15pF 5% 50V C0G -55TO+125C  | C2172    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2127             | 0CC150BK4AA | C1005C0G1H150JT 15pF 5% 50V C0G -55TO+125C  | C2173    | 0CE226WF6DC | MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105 |
| C2128             | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1 | C2174    | EAE30840301 | 10SVPC68M 68uF 20% 10V 1.97A -55TO+105C SVP |
| C213              | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2175    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C2130             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2176    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C2131             | 0CK106EF56A | C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C | C2177    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C2132             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2178    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C2133             | 0CK106EF56A | C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C | C2179    | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C2134             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C218     | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 |
| C2136             | 0CK106EF56A | C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C | C2180    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2137             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2181    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2138             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2182    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2139             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2183    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C214              | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C2184    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2140             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2185    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2141             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2186    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2142             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2187    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C2143             | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C2188    | 0CE226WF6DC | MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105 |
| C2144             | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ | C2189    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ |
|                   |             |                                             | C219     | EAE30840301 | 10SVPC68M 68uF 20% 10V 1.97A -55TO+105C SVP |



| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 | LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 |
|----------|-------------|---------------------------------------------|----------|-------------|---------------------------------------------|
| C282     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C351     | 0CH5470K618 | 0402N470M500LT 47pF 5% 50V C0G -55TO+125C 1 |
| C283     | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C352     | 0CH5470K618 | 0402N470M500LT 47pF 5% 50V C0G -55TO+125C 1 |
| C284     | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C353     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C285     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C354     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 |
| C300     | 0CE226WF6DC | MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105 | C355     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C301     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C356     | 0CE226WF6DC | MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105 |
| C302     | 0CE336WD6D8 | RC1A336M05005VR 33uF 20% 10V 34MA -40TO+105 | C357     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 |
| C303     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 | C360     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C304     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 | C361     | 0CH5220K618 | 0402N220M500LT 22pF 5% 50V C0G -55TO+125C 1 |
| C305     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C362     | 0CH5220K618 | 0402N220M500LT 22pF 5% 50V C0G -55TO+125C 1 |
| C306     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C363     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 |
| C307     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 | C364     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C309     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C365     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C310     | 0CE226WF6DC | MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105 | C366     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C311     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C367     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C312     | 0CK222BK6A  | 0402B222K500CT 2.2nF 10% 50V X7R -55TO+125C | C368     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C313     | 0CC221BKFAA | C1005C0G1H221JT 220pF 5% 50V C0G -55TO+125C | C369     | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ |
| C314     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 | C370     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C315     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C371     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C316     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C372     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 |
| C317     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C373     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C318     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 | C374     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C319     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 | C400     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 |
| C320     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 | C4000    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C321     | 0CK106DC67A | JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85C | C4001    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C322     | 0CK106DC67A | JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85C | C4002    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C323     | 0CK106DC67A | JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85C | C4003    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C324     | 0CK106DC67A | JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85C | C4004    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C325     | 0CK106DC67A | JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85C | C4005    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C326     | 0CK106DC67A | JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85C | C4006    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C327     | 0CK106DC67A | JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85C | C4007    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C328     | 0CK106DC67A | JMK212JB106MG-T 10uF 20% 6.3V X5R -55TO+85C | C4008    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C329     | 0CK105EJ56A | GMK316BJ105KL-T 1uF 10% 35V X7R -55TO+125C  | C4009    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C330     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C401     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C331     | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C4010    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C332     | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C4011    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C333     | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C4012    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C334     | EAE33970001 | CS1005X5R105K6R3NR 1uF 10% 6.3V X5R -55TO+8 | C4013    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C335     | 0CK105EJ56A | GMK316BJ105KL-T 1uF 10% 35V X7R -55TO+125C  | C4014    | 0CH5220K618 | 0402N220M500LT 22pF 5% 50V C0G -55TO+125C 1 |
| C336     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 | C4015    | 0CH5220K618 | 0402N220M500LT 22pF 5% 50V C0G -55TO+125C 1 |
| C336     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 | C402     | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C337     | 0CK332CK56A | C1608X7R1H332KT 3.3nF 10% 50V X7R -55TO+125 | C404     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C338     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C405     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C339     | 0CK471BK56A | C1005X7R1H471KT 470pF 10% 50V X7R -55TO+125 | C406     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C340     | 0CH2334F566 | 0805B334K160CT 330nF 10% 16V X7R -55TO+125C | C407     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 |
| C341     | 0CH2334F566 | 0805B334K160CT 330nF 10% 16V X7R -55TO+125C | C408     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 |
| C342     | EAE32166101 | CS1005XR473K250CR 0.047uF 10% 25V X7R -55TO | C409     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C343     | 0CH2334F566 | 0805B334K160CT 330nF 10% 16V X7R -55TO+125C | C410     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C344     | 0CH2334F566 | 0805B334K160CT 330nF 10% 16V X7R -55TO+125C | C412     | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125C |
| C345     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 | C413     | EAE32166101 | CS1005XR473K250CR 0.047uF 10% 25V X7R -55TO |
| C346     | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ | C414     | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1 |
| C347     | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  | C415     | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125C |
| C348     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C416     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C349     | 0CC221BKFAA | C1005C0G1H221JT 220pF 5% 50V C0G -55TO+125C | C417     | EAE32166101 | CS1005XR473K250CR 0.047uF 10% 25V X7R -55TO |
| C350     | 0CC221BKFAA | C1005C0G1H221JT 220pF 5% 50V C0G -55TO+125C | C419     | 0CK473CH56A | C1608X7R1E473KT 47nF 10% 25V X7R -55TO+125C |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 | LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 |
|----------|-------------|---------------------------------------------|----------|-------------|---------------------------------------------|
| C420     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5013    | 0CC020CK01A | C1608C0G1H020CT 2pF 0.25PF 50V C0G -55TO+12 |
| C421     | EAE32166101 | CS1005XR473K250CR 0.047uF 10% 25V X7R -55TO | C5014    | 0CC020CK01A | C1608C0G1H020CT 2pF 0.25PF 50V C0G -55TO+12 |
| C423     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5015    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C424     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5016    | 0CC560CK41A | C1608C0G1H560JT 56pF 5% 50V C0G -55TO+125C  |
| C425     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5017    | 0CC560CK41A | C1608C0G1H560JT 56pF 5% 50V C0G -55TO+125C  |
| C426     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5018    | 0CE335WK6D8 | MVK4.0TP50VC3.3M 3.3uF 20% 50V 14MA -40TO+1 |
| C427     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5019    | 0CC560CK41A | C1608C0G1H560JT 56pF 5% 50V C0G -55TO+125C  |
| C428     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5020    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C429     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5021    | 0CK474CH94A | 0603F474Z250CT 470nF -20TO+80% 25V Y5V -30T |
| C430     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5022    | 0CK222CK56A | 0603B222K500CT 2.2nF 10% 50V X7R -55TO+125C |
| C431     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5023    | 0CK474CH94A | 0603F474Z250CT 470nF -20TO+80% 25V Y5V -30T |
| C432     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5024    | 0CK222CK56A | 0603B222K500CT 2.2nF 10% 50V X7R -55TO+125C |
| C436     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5025    | 0CE226WF6DC | MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105 |
| C439     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5026    | 0CK474CH94A | 0603F474Z250CT 470nF -20TO+80% 25V Y5V -30T |
| C440     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5027    | 0CK222CK56A | 0603B222K500CT 2.2nF 10% 50V X7R -55TO+125C |
| C441     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5028    | 0CK474CH94A | 0603F474Z250CT 470nF -20TO+80% 25V Y5V -30T |
| C442     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5029    | 0CK222CK56A | 0603B222K500CT 2.2nF 10% 50V X7R -55TO+125C |
| C449     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5030    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C450     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5031    | 0CK474CH94A | 0603F474Z250CT 470nF -20TO+80% 25V Y5V -30T |
| C451     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5032    | 0CK222CK56A | 0603B222K500CT 2.2nF 10% 50V X7R -55TO+125C |
| C452     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5033    | 0CK474CH94A | 0603F474Z250CT 470nF -20TO+80% 25V Y5V -30T |
| C453     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 | C5034    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C454     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5035    | 0CK222CK56A | 0603B222K500CT 2.2nF 10% 50V X7R -55TO+125C |
| C457     | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1 | C5036    | 0CK474CH94A | 0603F474Z250CT 470nF -20TO+80% 25V Y5V -30T |
| C459     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5037    | 0CK222CK56A | 0603B222K500CT 2.2nF 10% 50V X7R -55TO+125C |
| C460     | 0CC180BKFAA | C1005C0G1H180JT 18pF 5% 50V C0G -55TO+125C  | C5038    | 0CK474CH94A | 0603F474Z250CT 470nF -20TO+80% 25V Y5V -30T |
| C465     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5039    | 0CC101CK41A | C1608C0G1H101JT 100pF 5% 50V C0G -55TO+125C |
| C466     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105 | C5040    | 0CK222CK56A | 0603B222K500CT 2.2nF 10% 50V X7R -55TO+125C |
| C467     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5041    | 0CK222CK56A | 0603B222K500CT 2.2nF 10% 50V X7R -55TO+125C |
| C468     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5042    | 0CK222CK56A | 0603B222K500CT 2.2nF 10% 50V X7R -55TO+125C |
| C469     | 0CK101BK4EA | C1005C0G1H101JT 100pF 5% 50V C0G -55TO+125C | C5043    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C470     | 0CK471BK56A | C1005X7R1H471KT 470pF 10% 50V X7R -55TO+125 | C5044    | 0CC471CK41A | C1608C0G1H471JT 470pF 5% 50V C0G -55TO+125C |
| C471     | 0CC180BKFAA | C1005C0G1H180JT 18pF 5% 50V C0G -55TO+125C  | C5045    | 0CE335WK6D8 | MVK4.0TP50VC3.3M 3.3uF 20% 50V 14MA -40TO+1 |
| C476     | 0CK101BK4EA | C1005C0G1H101JT 100pF 5% 50V C0G -55TO+125C | C5046    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C477     | 0CH5220K618 | 0402N220M500LT 22pF 5% 50V C0G -55TO+125C 1 | C5047    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ |
| C478     | 0CH5220K618 | 0402N220M500LT 22pF 5% 50V C0G -55TO+125C 1 | C5048    | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 |
| C481     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5049    | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 |
| C482     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C505     | 0CK101BK4EA | C1005C0G1H101JT 100pF 5% 50V C0G -55TO+125C |
| C484     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5050    | 0CE475WK6DC | MVK5.0TP50VC4.7M 4.7uF 20% 50V 19MA -40TO+1 |
| C487     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 | C5051    | 0CE475WK6DC | MVK5.0TP50VC4.7M 4.7uF 20% 50V 19MA -40TO+1 |
| C488     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 | C5052    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C491     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C5053    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C492     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C506     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C495     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 | C515     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C496     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C529     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C5002    | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 | C531     | 0CK101BK4EA | C1005C0G1H101JT 100pF 5% 50V C0G -55TO+125C |
| C5003    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C532     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 |
| C5004    | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1 | C533     | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1 |
| C5005    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  | C535     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C5006    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  | C536     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105 |
| C5007    | 0CK223CK56A | UMK107JB223KA-T 22nF 10% 50V X7R -55TO+125C | C541     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C5008    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  | C546     | 0CK105CD56A | C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C  |
| C5009    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C547     | 0CZZB00035A | GRM1555C1H330J 33pF 5% 50V C0G -55TO+125C 1 |
| C5010    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C | C548     | 0CZZB00035A | GRM1555C1H330J 33pF 5% 50V C0G -55TO+125C 1 |
| C5012    | 0CE226WF6DC | MVK5.0TP16VC22M 22uF 20% 16V 30MA -40TO+105 | C551     | 0CK223CK56A | UMK107JB223KA-T 22nF 10% 50V X7R -55TO+125C |

| LOC. NO. | PART NO.     | DESCRIPTION / SPECIFICATION                  | LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                  |
|----------|--------------|----------------------------------------------|----------|-------------|----------------------------------------------|
| C556     | 0CE337WJ6D8  | MVK12.5TP35VC330M 330uF 20% 35V 480MA -40TO  | C716     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C557     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C717     | 0CK101BK4EA | C1005C0G1H101JT 100pF 5% 50V C0G -55TO+125C  |
| C558     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C718     | 0CK101BK4EA | C1005C0G1H101JT 100pF 5% 50V C0G -55TO+125C  |
| C559     | 0CK223CK56A  | UMK107JB223KA-T 22nF 10% 50V X7R -55TO+125C  | C721     | 0CE225WK6DC | MVK4.0TP50VC2.2M 2.2uF 20% 50V 10MA -40TO+1  |
| C560     | 0CK104BF56A  | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  | C722     | 0CK101BK4EA | C1005C0G1H101JT 100pF 5% 50V C0G -55TO+125C  |
| C561     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C723     | 0CK101BK4EA | C1005C0G1H101JT 100pF 5% 50V C0G -55TO+125C  |
| C562     | 0CE106WFKDC  | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105  | C724     | EAE32720101 | 16SVP330M 330uF 20% 16V 4.72A -55TO+105C SV  |
| C563     | 0CK103CK56A  | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C   | C725     | EAE32720101 | 16SVP330M 330uF 20% 16V 4.72A -55TO+105C SV  |
| C564     | 0CK105CD56A  | C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C   | C726     | EAE30840301 | 10SVP330M 330uF 20% 10V 1.97A -55TO+105C SVP |
| C565     | 0CK105CD56A  | C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C   | C727     | EAE30840401 | 25SVPD10M 10uF 20% 25V 1.5A -55TO+125C SVPD  |
| C566     | 0CK223CK56A  | UMK107JB223KA-T 22nF 10% 50V X7R -55TO+125C  | C728     | 0CK471BK56A | C1005X7R1H471KT 470pF 10% 50V X7R -55TO+125  |
| C567     | 0CK223CK56A  | UMK107JB223KA-T 22nF 10% 50V X7R -55TO+125C  | C729     | 0CK471BK56A | C1005X7R1H471KT 470pF 10% 50V X7R -55TO+125  |
| C568     | 0CK105CD56A  | C1608X7R1A105KT 1uF 10% 10V X7R -55TO+125C   | C733     | 0CK471BK56A | C1005X7R1H471KT 470pF 10% 50V X7R -55TO+125  |
| C569     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C735     | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  |
| C570     | 0CE337WJ6D8  | MVK12.5TP35VC330M 330uF 20% 35V 480MA -40TO  | C737     | 0CE337WH6DC | MVK10TP25VC330M 330uF 20% 25V 450MA -40TO+1  |
| C571     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C742     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C573     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C743     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C574     | 0CK103CK56A  | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C   | C744     | 0CC102CK41A | C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 1  |
| C575     | 0CK474CH94A  | 0603F474Z250CT 470nF -20TO+80% 25V Y5V -30T  | C746     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C576     | 0CK474CH94A  | 0603F474Z250CT 470nF -20TO+80% 25V Y5V -30T  | C748     | 0CE476WF6DC | MVK6.3TP16VC47M 47uF 20% 16V 80MA -40TO+105  |
| C581     | 0CK102CK56A  | 0603B102K500CT 1nF 10% 50V X7R -55TO+125C 1  | C763     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C582     | 0CK102CK56A  | 0603B102K500CT 1nF 10% 50V X7R -55TO+125C 1  | C764     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C583     | 0CK102CK56A  | 0603B102K500CT 1nF 10% 50V X7R -55TO+125C 1  | C765     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C584     | 0CK102CK56A  | 0603B102K500CT 1nF 10% 50V X7R -55TO+125C 1  | C766     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C585     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C767     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C586     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C768     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C587     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C769     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C588     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C770     | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  |
| C589     | 0CK474DK56A  | UMK212BJ474KG-T 470nF 10% 50V X7R -40TO+105  | C771     | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+  |
| C590     | 0CK474DK56A  | UMK212BJ474KG-T 470nF 10% 50V X7R -40TO+105  | C800     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105  |
| C592     | 0CK103CK56A  | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C   | C801     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C594     | 0CK103CK56A  | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C   | C802     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C597     | 0CK103CK56A  | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C   | C803     | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+  |
| C598     | 0CK103CK56A  | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C   | C804     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C599     | 0CK104BF56A  | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  | C805     | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1  |
| C700     | 0CE105WK6DC  | MVK4.0TP50VC1M 1uF 20% 50V 5.6MA -40TO+105C  | C806     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C701     | EAE30840301  | 10SVP330M 330uF 20% 10V 1.97A -55TO+105C SVP | C807     | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+  |
| C7012    | 0CK104BF56A  | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  | C808     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C7013    | 0CK103CK56A  | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C   | C809     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C7014    | 0CE107WF6DC  | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+  | C810     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105  |
| C7015    | 0CK104BF56A  | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  | C810     | 0CE106WFKDC | MVK4.0TP16VC10M 10uF 20% 16V 16MA -40TO+105  |
| C7016    | 0CC100BKFI1A | 0402N100J500LT 10pF 5% 50V C0G -55TO+125C 1  | C811     | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  |
| C7017    | 0CC100BKFI1A | 0402N100J500LT 10pF 5% 50V C0G -55TO+125C 1  | C812     | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+  |
| C704     | 0CK471BK56A  | C1005X7R1H471KT 470pF 10% 50V X7R -55TO+125  | C9004    | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1  |
| C705     | 0CK471BK56A  | C1005X7R1H471KT 470pF 10% 50V X7R -55TO+125  | C9004    | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1  |
| C706     | 0CK471BK56A  | C1005X7R1H471KT 470pF 10% 50V X7R -55TO+125  | C9008    | 0CK106EF56A | C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C  |
| C707     | 0CK471BK56A  | C1005X7R1H471KT 470pF 10% 50V X7R -55TO+125  | C9010    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C   |
| C710     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C9011    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+  |
| C711     | 0CE225WK6DC  | MVK4.0TP50VC2.2M 2.2uF 20% 50V 10MA -40TO+1  | C9012    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  |
| C712     | 0CK104CK56A  | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C  | C9014    | 0CE475WK6DC | MVK5.0TP50VC4.7M 4.7uF 20% 50V 19MA -40TO+1  |
| C713     | 0CE225WK6DC  | MVK4.0TP50VC2.2M 2.2uF 20% 50V 10MA -40TO+1  | C9015    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+  |
| C713     | 0CK225DD66A  | LMK212JB225MG-T 2.2uF 20% 10V X7R -55TO+125  | C9016    | 0CC102CK41A | C1608C0G1H102JT 1nF 5% 50V C0G -55TO+125C 1  |
| C714     | 0CE225WK6DC  | MVK4.0TP50VC2.2M 2.2uF 20% 50V 10MA -40TO+1  | C9017    | 0CK106EF56A | C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C  |
| C714     | 0CK225DD66A  | LMK212JB225MG-T 2.2uF 20% 10V X7R -55TO+125  | C9019    | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1  |
| C715     | 0CK104BF56A  | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C  | C9019    | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1  |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 |
|----------|-------------|---------------------------------------------|
| C9020    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C9021    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ |
| C9022    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C9023    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ |
| C9024    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C9025    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C9026    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ |
| C9027    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C9027    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C9028    | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1 |
| C9029    | 0CK106EF56A | C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C |
| C9030    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ |
| C9031    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C9032    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C9033    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ |
| C9034    | 0CK102BK56A | 0402B102K500CT 1nF 10% 50V X7R -55TO+125C 1 |
| C9035    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ |
| C9036    | 0CK106EF56A | C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C |
| C9037    | 0CK104CK56A | 0603B104K500CT 100nF 10% 50V X7R -55TO+125C |
| C9038    | 0CE107WF6DC | MVK6.3TP16VC100M 100uF 20% 16V 110MA -40TO+ |
| C9080    | 0CK104BF56A | C1005X7R104KET 100nF 10% 16V X7R -55TO+125C |
| C9082    | 0CE227SF6DC | MVG6.3TP16VC220M 220uF 20% 16V 130MA -40TO+ |
| C9083    | 0CK103BH56A | C1005X7R1E103KT- 10nF 10% 25V X7R -55TO+125 |
| C9083    | 0CK103CK56A | 0603B103K500CT 10nF 10% 50V X7R -55TO+125C  |
| C9084    | 0CE227SF6DC | MVG6.3TP16VC220M 220uF 20% 16V 130MA -40TO+ |
| C9085    | 0CK106EF56A | C3216X7R1C106KT 10uF 10% 16V X7R -55TO+125C |

#### DIODES

|       |             |                                             |
|-------|-------------|---------------------------------------------|
| D300  | 0DSGD00038A | 1N4148W 1.25V 100V 150MA 2A 4NSEC 410MW SOD |
| D301  | 0DRSE00038A | SDC15 1.3V 14.3VTO16.4V 21.2V 10A 300W SOT2 |
| D302  | 0DRSE00038A | SDC15 1.3V 14.3VTO16.4V 21.2V 10A 300W SOT2 |
| D303  | 0DD184009AA | KDS184 KDS184 TP KEC - 85V - - - 300MA KEC  |
| D304  | 0DD184009AA | KDS184 KDS184 TP KEC - 85V - - - 300MA KEC  |
| D402  | 0DD184009AA | KDS184 KDS184 TP KEC - 85V - - - 300MA KEC  |
| D404  | 0DD184009AA | KDS184 KDS184 TP KEC - 85V - - - 300MA KEC  |
| D405  | 0DD184009AA | KDS184 KDS184 TP KEC - 85V - - - 300MA KEC  |
| D408  | 0DD184009AA | KDS184 KDS184 TP KEC - 85V - - - 300MA KEC  |
| D9000 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NSEC 150MW SOT23  |
| D9001 | 0DS226009AA | KDS226 1.2V 85V 300MA 2A 4NSEC 150MW SOT23  |
| ZD104 | 0DZ560009DA | UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD32 |
| ZD300 | 0DZ330009GB | UDZS3.3B 3.3V 3.32TO3.53V 120OHM 200MW SOD3 |
| ZD405 | 0DZ360009EB | UDZS3.6B 3.6V 3.6TO3.845V 100OHM 200MW SOD3 |
| ZD406 | 0DZ360009EB | UDZS3.6B 3.6V 3.6TO3.845V 100OHM 200MW SOD3 |
| ZD407 | 0DZ560009DA | UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD32 |
| ZD408 | 0DZ560009DA | UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD32 |
| ZD409 | 0DZ560009DA | UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD32 |
| ZD415 | 0DZ360009EB | UDZS3.6B 3.6V 3.6TO3.845V 100OHM 200MW SOD3 |
| ZD416 | 0DZ560009DA | UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD32 |
| ZD417 | 0DZ560009DA | UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD32 |
| ZD418 | 0DZ560009DA | UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD32 |
| ZD419 | 0DZ560009DA | UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD32 |
| ZD502 | 0DZRM00248A | RLZ8.2B 8.2V 7.78TO8.19V 8OHM 500MW LL34 R/ |
| ZD700 | 0DZ360009EB | UDZS3.6B 3.6V 3.6TO3.845V 100OHM 200MW SOD3 |
| ZD705 | 0DZ360009EB | UDZS3.6B 3.6V 3.6TO3.845V 100OHM 200MW SOD3 |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 |
|----------|-------------|---------------------------------------------|
| ZD710    | 0DZ560009DA | UDZS5.6B 5.6V 5.49TO5.73V 60OHM 200MW SOD32 |
| ZD711    | 0DZ360009EB | UDZS3.6B 3.6V 3.6TO3.845V 100OHM 200MW SOD3 |
| ZD712    | 0DZ360009EB | UDZS3.6B 3.6V 3.6TO3.845V 100OHM 200MW SOD3 |

#### ICs

|        |             |                                             |
|--------|-------------|---------------------------------------------|
| IC101  | EAN32808701 | XILLEON260 500MVTO2.1V,350MVTO3.6V,0VTO3.9V |
| IC200  | EAN33624401 | HYB18TC512160BF-3S 512MBIT 32M x 16bit 1.8V |
| IC201  | EAN33931901 | TC74LCX16373AFT 2V~3.6V 500uA LATCH TSSOP R |
| IC202  | EAN33931901 | TC74LCX16373AFT 2V~3.6V 500uA LATCH TSSOP R |
| IC203  | EAN33624401 | HYB18TC512160BF-3S 512MBIT 32M x 16bit 1.8V |
| IC206  | EAN33624401 | HYB18TC512160BF-3S 512MBIT 32M x 16bit 1.8V |
| IC207  | 0IMCRL021A  | AT24C512W-10SU-2.7 512KBIT 65536X8BIT 2.7VT |
| IC208  | EAN33624401 | HYB18TC512160BF-3S 512MBIT 32M x 16bit 1.8V |
| IC300  | 0IKE702900G | KIA7029AF -0.3TO15V 2.9V 500MW SOT89 R/TP 3 |
| IC301  | 0IMCRSJ001B | SC1565IST-2.5TR 2.2TO5V 2.5V 0W SOT223 R/TP |
| IC302  | 0IPMG00049A | AZ1117H-1.8TR/E1[H13A] 3.2TO10V 1.8V 0W SOT |
| IC303  | 0IPMG00049A | AZ1117H-1.8TR/E1[H13A] 3.2TO10V 1.8V 0W SOT |
| IC304  | EAN33573001 | SC2621ASTRT 18V 0.5V~17.46V 25MW SOIC R/TP  |
| IC305  | 0ISTLPH026A | 74LVC14APW 1.2TO3.6V 0.01mA SCHMITT TRIGGER |
| IC306  | 0IPRP00009A | ICL3232CBNZ 3VTO5.5V - SSOP R/TP 16P INTER  |
| IC307  | 0IKE702900G | KIA7029AF -0.3TO15V 2.9V 500MW SOT89 R/TP 3 |
| IC308  | 0IPMGA0010A | AZ1117H-3.3 4.75TO10V 3.3V 0W SOT223 R/TP 3 |
| IC310  | 0IMCRL006A  | AT24C16AN-10SU-2.7 16KBIT 2KX8BIT 2.7VTO5.5 |
| IC400  | 0IMCRSJ001B | SC1565IST-2.5TR 2.2TO5V 2.5V 0W SOT223 R/TP |
| IC401  | 0IPMGA0010A | AZ1117H-3.3 4.75TO10V 3.3V 0W SOT223 R/TP 3 |
| IC402  | 0IPRP00696E | MST3361MS-LF-170 3.3V_2.5V 170MHZ 10BIT 170 |
| IC403  | EAN32724701 | STMAV335 4.0TO5.5V 5NSEC 5NSEC 0W TSSOP R/T |
| IC404  | 0IMMRCS012B | CAT24C08W-T(MST3000) 8KBIT 1KX8BIT 1.8VTO6V |
| IC405  | 0IMMRAL014D | AT24C02BN-SH-T 2KBIT 256x8BIT 1.8VTO5.5V 10 |
| IC406  | 0IMMRAL014D | AT24C02BN-SH-T 2KBIT 256x8BIT 1.8VTO5.5V 10 |
| IC407  | 0IMMRAL014D | AT24C02BN-SH-T 2KBIT 256x8BIT 1.8VTO5.5V 10 |
| IC408  | 0IMMRAL014D | AT24C02BN-SH-T 2KBIT 256x8BIT 1.8VTO5.5V 10 |
| IC409  | EAN35942401 | TMDS341APFCR 3TO3.6V 10NSEC 10NSEC 738MW TQ |
| IC501  | 0IPRPCI017A | CS8416-CZZR 3.13VTO3.46V,3.13VTO5.25V 0W TS |
| IC505  | EAN32404601 | NTP3000 7TO30V 5.5V 0.01% 60W 0W 0 2.1 MLF  |
| IC507  | 0IPMG00049A | AZ1117H-1.8TR/E1[H13A] 3.2TO10V 1.8V 0W SOT |
| IC508  | 0IMCRMN028C | MSP4450K-QA-D6 7.6TO8.7V_4.75TO5.25V_3.15TO |
| IC700  | EAN32662801 | KA7809ERTM 35V to 40V 9V 1W DPAK R/TP 3P F  |
| IC704  | 0IPMGKE030A | KIA78R05F 6TO12V 5V 8W DPAK R/TP 5P KEC CO  |
| IC711  | 0IPMGKE030A | KIA78R05F 6TO12V 5V 8W DPAK R/TP 5P KEC CO  |
| IC712  | EAN32013101 | MIC2505-2YM 2.7V TO 7.5V 5V 1W SOIC R/TP 8P |
| IC800  | 0IMCRTH002A | THC63LVD103 3VTO3.6V 1W TQFP TR 64P THINE   |
| IC9000 | 0IPMGA0010A | AZ1117H-3.3 4.75TO10V 3.3V 0W SOT223 R/TP 3 |
| IC9001 | 0IMCRSH001A | PQ05DZ1U 6TO16V 5V 8W D2PAK R/TP 5P SHARP   |
| IC9002 | 0IPMG00049A | AZ1117H-1.8TR/E1[H13A] 3.2TO10V 1.8V 0W SOT |

#### TRANSISTORS & FETs

|      |             |                                             |
|------|-------------|---------------------------------------------|
| Q101 | 0TRIY80001A | 2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 |
| Q102 | 0TRIY80001A | 2SC3052 NPN 6V 50V 50V 200MA 100NA 150TO800 |
| Q300 | EBK32756101 | Si4800BDY N-CHANNEL MOSFET 30V +25 40A 0.0  |
| Q301 | EBK32756101 | Si4800BDY N-CHANNEL MOSFET 30V +25 40A 0.0  |
| Q302 | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 |
| Q303 | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 |

| LOC. NO.         | PART NO.    | DESCRIPTION / SPECIFICATION                 | LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 |
|------------------|-------------|---------------------------------------------|----------|-------------|---------------------------------------------|
| Q304             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | AR203    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q305             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | AR204    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q308             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | AR205    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q310             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | AR206    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q311             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | AR207    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q315             | EBK32756101 | Si4800BDY N-CHANNEL MOSFET 30V +25 40A 0.0  | AR208    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q316             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | AR209    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q317             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | AR210    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q318             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | AR211    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q318             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | AR212    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q319             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | AR213    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q319             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | AR214    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q400             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | AR215    | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  |
| Q401             | 0TR104009AF | KRC104S NPN 40V 0V 50V 100MA 500NA 80 200MW | AR431    | EBC32260601 | MNR04M0APJ101 100OHM 5% 1/16W 4 SMD R/TP 8P |
| Q402             | 0TR104009AF | KRC104S NPN 40V 0V 50V 100MA 500NA 80 200MW | AR432    | EBC32260601 | MNR04M0APJ101 100OHM 5% 1/16W 4 SMD R/TP 8P |
| Q403             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | AR452    | EBC32260601 | MNR04M0APJ101 100OHM 5% 1/16W 4 SMD R/TP 8P |
| Q404             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | AR453    | EBC32260601 | MNR04M0APJ101 100OHM 5% 1/16W 4 SMD R/TP 8P |
| Q405             | 0TR104009AF | KRC104S NPN 40V 0V 50V 100MA 500NA 80 200MW | AR470    | EBC32260601 | MNR04M0APJ101 100OHM 5% 1/16W 4 SMD R/TP 8P |
| Q406             | 0TR104009AF | KRC104S NPN 40V 0V 50V 100MA 500NA 80 200MW | AR471    | EBC32260601 | MNR04M0APJ101 100OHM 5% 1/16W 4 SMD R/TP 8P |
| Q407             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | AR600    | EBC32260501 | MNR04M0APJ000 0OHM 5% 1/16W 4 SMD R/TP 8P 1 |
| Q408             | 0TR830009BA | BSS83 N-CHANNEL MOSFET 10V 2 50MA 450HM 230 | AR601    | EBC32260501 | MNR04M0APJ000 0OHM 5% 1/16W 4 SMD R/TP 8P 1 |
| Q409             | 0TR104009AF | KRC104S NPN 40V 0V 50V 100MA 500NA 80 200MW | AR602    | EBC32260501 | MNR04M0APJ000 0OHM 5% 1/16W 4 SMD R/TP 8P 1 |
| Q410             | 0TR104009AF | KRC104S NPN 40V 0V 50V 100MA 500NA 80 200MW | AR603    | EBC32260501 | MNR04M0APJ000 0OHM 5% 1/16W 4 SMD R/TP 8P 1 |
| Q411             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | AR604    | EBC32260501 | MNR04M0APJ000 0OHM 5% 1/16W 4 SMD R/TP 8P 1 |
| Q503             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | AR605    | EBC32260501 | MNR04M0APJ000 0OHM 5% 1/16W 4 SMD R/TP 8P 1 |
| Q504             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | AR9007   | 0RJ0222C692 | MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP  |
| Q505             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | AR9008   | 0RJ0222C692 | MNR04 M0APJ 220 22OHM 5% 1/16W 1005X4 R/TP  |
| Q506             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | R101     | 0RH0000D622 | MCR10EZJH000 0OHM 5% 1/8W 2012 R/TP ROHM    |
| Q508             | 0TR150400BA | 2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.0 | R101     | 0RH1002D622 | MCR10EZJH103 10KOHM 5% 1/8W 2012 R/TP . RO  |
| Q510             | 0TR150400BA | 2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.0 | R101     | 0RH2702D622 | MCR10EZJH273 27KOHM 5% 1/8W 2012 R/TP ROHM  |
| Q511             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | R1013    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   |
| Q512             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | R1014    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   |
| Q513             | 0TR102009AM | KRA102S PNP -30V 0V -50V -0.1A -0.0000005A  | R1015    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   |
| Q514             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | R1016    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   |
| Q515             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | R1017    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   |
| Q516             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | R1018    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   |
| Q602             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | R1019    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   |
| Q603             | 0TFDI80001B | 2N7002(F) N-CHANNEL DMOSFET 60V +20V 115MA  | R102     | 0RH0000D622 | MCR10EZJH000 0OHM 5% 1/8W 2012 R/TP ROHM    |
| Q702             | 0TFV180067A | Si3865BDV(E3) N-CHANNEL MOSFET 8V +8V 2.9A  | R102     | 0RH1002D622 | MCR10EZJH103 10KOHM 5% 1/8W 2012 R/TP . RO  |
| Q800             | EBK32753101 | Si4925BDY P-CHANNEL MOSFET -30V +20 -7.1A   | R102     | 0RH8201D622 | MCR10EZJH822 8.2KOHM 5% 1/8W 2012 R/TP ROH  |
| Q801             | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | R103     | 0RH2701D622 | MCR10EZJH272 2.7KOHM 5% 1/8W 2012 R/TP ROH  |
| Q9000            | 0TR150400BA | 2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.0 | R103     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO  |
| Q9001            | 0TR150400BA | 2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.0 | R104     | 0RH9100D622 | MCR10EZJH911 910OHM 5% 1/8W 2012 R/TP ROHM  |
| Q9002            | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | R104     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO  |
| Q9081            | 0TR150400BA | 2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.0 | R105     | 0RH2702D622 | MCR10EZJH273 27KOHM 5% 1/8W 2012 R/TP ROHM  |
| Q9082            | 0TR150400BA | 2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.0 | R106     | 0RH8201D622 | MCR10EZJH822 8.2KOHM 5% 1/8W 2012 R/TP ROH  |
| Q9083            | 0TR387500AA | 2SC3875S(ALY) NPN 5V 60V 50V 150MA 100NA 70 | R107     | 0RH2701D622 | MCR10EZJH272 2.7KOHM 5% 1/8W 2012 R/TP ROH  |
| Q9084            | 0TR150400BA | 2SA1504S(ASY) PNP -5V -50V -50V -0.15A -0.0 | R108     | 0RH0000D622 | MCR10EZJH000 0OHM 5% 1/8W 2012 R/TP ROHM    |
| <b>RESISTORS</b> |             |                                             | R108     | 0RH9100D622 | MCR10EZJH911 910OHM 5% 1/8W 2012 R/TP ROHM  |
| AR100            | EBC32260901 | MNR04M0APJ102 1KOHM 5% 1/16W 4 SMD R/TP 8P  | R109     | 0RH0000D622 | MCR10EZJH000 0OHM 5% 1/8W 2012 R/TP ROHM    |
| AR200            | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  | R109     | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM   |
| AR201            | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  | R110     | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM   |
| AR202            | EBC33751901 | MNR14M0ABJ180 18OHM 5% 1/16W 4 SMD R/TP 8P  | R112     | 0RH0000D622 | MCR10EZJH000 0OHM 5% 1/8W 2012 R/TP ROHM    |
|                  |             |                                             | R114     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  |
|                  |             |                                             | R116     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                | LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                |
|----------|-------------|--------------------------------------------|----------|-------------|--------------------------------------------|
| R117     | 0RH0000D622 | MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM   | R202     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R117     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R203     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R118     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R204     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R119     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R205     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R126     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R215     | 0RJ1500C678 | MCR01MZPJ151 150OHM 5% 1/16W 1005 R/TP ROH |
| R127     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R216     | 0RJ1500C678 | MCR01MZPJ151 150OHM 5% 1/16W 1005 R/TP ROH |
| R129     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM | R217     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R130     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM | R218     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R131     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R219     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R132     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R220     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R133     | 0RJ1001E478 | MCR01MZPF102 1KOHM 1% 1/16W 1005 R/TP ROHM | R228     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R134     | 0RJ1001E478 | MCR01MZPF102 1KOHM 1% 1/16W 1005 R/TP ROHM | R229     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R135     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R230     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R136     | 0RJ1001E478 | MCR01MZPF102 1KOHM 1% 1/16W 1005 R/TP ROHM | R232     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R137     | 0RJ1001E478 | MCR01MZPF102 1KOHM 1% 1/16W 1005 R/TP ROHM | R235     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R139     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R236     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R140     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R237     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R142     | 0RJ1003C678 | MCR01MZPJ104 100KOHM 5% 1/16W 1005 R/TP RO | R238     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R143     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R239     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R146     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM | R240     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R147     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM | R245     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R148     | EBC33834501 | MCR03EZF5FX40R2 40.2OHM 1% 1/10W 1608 R/TP | R246     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R149     | 0RJ0471C678 | MCR01MZPJ4R7 4.7OHM 5% 1/16W 1005 R/TP ROH | R247     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R150     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R248     | 0RJ0182C478 | MCR01MZPF180 180HM 1% 1/16W 1005 R/TP ROHM |
| R151     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R249     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R153     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R250     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R154     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R251     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R155     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R256     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R156     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R257     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R160     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R300     | 0RJ3300C678 | MCR01MZPJ331 330OHM 5% 1/16W 1005 R/TP ROH |
| R161     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R3000    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R163     | EBC33834701 | MCR03EZF5FX7150 715OHM 1% 1/10W 1608 R/TP  | R3000    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R164     | EBC33834701 | MCR03EZF5FX7150 715OHM 1% 1/10W 1608 R/TP  | R3005    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R165     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R3006    | 0RJ1003C678 | MCR01MZPJ104 100KOHM 5% 1/16W 1005 R/TP RO |
| R166     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R301     | 0RJ1502C478 | MCR01MZPF153 15KOHM 1% 1/16W 1005 R/TP ROH |
| R167     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R3012    | 0RJ1003C678 | MCR01MZPJ104 100KOHM 5% 1/16W 1005 R/TP RO |
| R168     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R3014    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R169     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R3015    | 0RJ1003C678 | MCR01MZPJ104 100KOHM 5% 1/16W 1005 R/TP RO |
| R170     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R3017    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R171     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM | R3018    | 0RJ4700C678 | MCR01MZPJ471 470OHM 5% 1/16W 1005 R/TP ROH |
| R172     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM | R3019    | 0RJ4700C678 | MCR01MZPJ471 470OHM 5% 1/16W 1005 R/TP ROH |
| R179     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R302     | 0RJ4302D677 | MCR03EZFJ433 43KOHM 5% 1/10W 1608 R/TP     |
| R180     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R3020    | 0RJ4700C678 | MCR01MZPJ471 470OHM 5% 1/16W 1005 R/TP ROH |
| R181     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R3022    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R182     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R3023    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R190     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R3024    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R192     | 0RJ3001C678 | MCR01MZPJ302 3KOHM 5% 1/16W 1005 R/TP ROHM | R3027    | 0RJ6802C678 | MCR01MZPJ683 68KOHM 5% 1/16W 1005 R/TP - R |
| R193     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R3028    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R194     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R3029    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R195     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R303     | 0RJ3300C678 | MCR01MZPJ331 330OHM 5% 1/16W 1005 R/TP ROH |
| R196     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R3033    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R197     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R3034    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R198     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R3035    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R200     | 0RJ1001E478 | MCR01MZPF102 1KOHM 1% 1/16W 1005 R/TP ROHM | R3036    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R201     | 0RJ1001E478 | MCR01MZPF102 1KOHM 1% 1/16W 1005 R/TP ROHM | R3037    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                | LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                |
|----------|-------------|--------------------------------------------|----------|-------------|--------------------------------------------|
| R304     | 0RJ1502C478 | MCR01MZPF153 15KOHM 1% 1/16W 1005 R/TP ROH | R365     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R3041    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R366     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R3042    | 0RJ3302C678 | MCR01MZPJ333 33KOHM 5% 1/16W 1005 R/TP ROH | R367     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R3043    | 0RJ3300C678 | MCR01MZPJ331 330OHM 5% 1/16W 1005 R/TP ROH | R368     | 0RJ1502C678 | MCR01MZPJ153 15KOHM 5% 1/16W 1005 R/TP ROH |
| R3045    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH | R371     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R3046    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R372     | 0RJ4702C678 | MCR01MZPJ473 47KOHM 5% 1/16W 1005 R/TP ROH |
| R3047    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R373     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R3048    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R374     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R3049    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R375     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R305     | 0RJ6801C678 | MCR01MZPJ682 6.8KOHM 5% 1/16W 1005 R/TP RO | R376     | 0RJ6802C678 | MCR01MZPJ683 68KOHM 5% 1/16W 1005 R/TP - R |
| R3050    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R379     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R3051    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R380     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R3053    | 0RJ4700C678 | MCR01MZPJ471 470OHM 5% 1/16W 1005 R/TP ROH | R381     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R3054    | 0RJ4700C678 | MCR01MZPJ471 470OHM 5% 1/16W 1005 R/TP ROH | R381     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R3055    | 0RJ4700C678 | MCR01MZPJ471 470OHM 5% 1/16W 1005 R/TP ROH | R382     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R306     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R383     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R3061    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R385     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R3062    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R386     | 0RJ6801C678 | MCR01MZPJ682 6.8KOHM 5% 1/16W 1005 R/TP RO |
| R3066    | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R387     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R3067    | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R388     | 0RJ3302C678 | MCR01MZPJ333 33KOHM 5% 1/16W 1005 R/TP ROH |
| R3068    | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R390     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R307     | 0RJ2001E472 | MCR10EZHF202 2KOHM 1% 1/8W 2012 R/TP ROHM  | R391     | 0RJ6801C678 | MCR01MZPJ682 6.8KOHM 5% 1/16W 1005 R/TP RO |
| R3070    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R400     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R3071    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4001    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R3072    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4003    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R3072    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4004    | 0RJ4702C678 | MCR01MZPJ473 47KOHM 5% 1/16W 1005 R/TP ROH |
| R3073    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4005    | 0RJ4702C678 | MCR01MZPJ473 47KOHM 5% 1/16W 1005 R/TP ROH |
| R3073    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4007    | 0RJ4702C678 | MCR01MZPJ473 47KOHM 5% 1/16W 1005 R/TP ROH |
| R308     | 0RJ2702C478 | MCR01MZPF273 27KOHM 1% 1/16W 1005 R/TP ROH | R4008    | 0RJ4702C678 | MCR01MZPJ473 47KOHM 5% 1/16W 1005 R/TP ROH |
| R309     | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R401     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R312     | 0RJ0511D677 | MCR03EZPJ5R1 5.1OHM 5% 1/10W 1608 R/TP ROH | R4012    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R313     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4013    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R315     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4014    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R316     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4015    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R319     | 0RJ0101C678 | MCR01MZPJ1R0 1OHM 5% 1/16W 1005 R/TP ROHM  | R4016    | 0RJ5101C678 | MCR01MZPJ512 5.1KOHM 5% 1/16W 1005 R/TP RO |
| R320     | 0RJ1001E478 | MCR01MZPF102 1KOHM 1% 1/16W 1005 R/TP ROHM | R4017    | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R321     | 0RJ2002C478 | MCR01MZPF203 20KOHM 1% 1/16W 1005 R/TP ROH | R4018    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R322     | 0RJ1502C478 | MCR01MZPF153 15KOHM 1% 1/16W 1005 R/TP ROH | R4019    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R323     | 0RJ1201C678 | MCR01MZPJ122 1.2KOHM 5% 1/16W 1005 R/TP RO | R402     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R326     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R4020    | 0RJ5101C678 | MCR01MZPJ512 5.1KOHM 5% 1/16W 1005 R/TP RO |
| R328     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH | R4021    | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R330     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH | R4022    | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM |
| R331     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH | R4023    | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM |
| R345     | 0RJ2200C678 | MCR01MZPJ221 220OHM 5% 1/16W 1005 R/TP ROH | R4024    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R346     | 0RJ2200C678 | MCR01MZPJ221 220OHM 5% 1/16W 1005 R/TP ROH | R4025    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R347     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4026    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R350     | 0RJ2000C678 | MCR01MZPJ201 200OHM 5% 1/16W 1005 R/TP ROH | R4027    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R354     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4028    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R355     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4029    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R356     | 0RJ4702C678 | MCR01MZPJ473 47KOHM 5% 1/16W 1005 R/TP ROH | R403     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R358     | 0RJ4700C678 | MCR01MZPJ471 470OHM 5% 1/16W 1005 R/TP ROH | R4030    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R360     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R4031    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R361     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4032    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R362     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R4033    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R363     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4034    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                | LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                |
|----------|-------------|--------------------------------------------|----------|-------------|--------------------------------------------|
| R4035    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4109    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO |
| R4036    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R411     | 0RJ3900C678 | MCR01MZPJ391. 390OHM 5% 1/16W 1005 R/TP -  |
| R4037    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4110    | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R4038    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4111    | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R4039    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4116    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R404     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4117    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4040    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4118    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4041    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4119    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4042    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R412     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R4043    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4120    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4044    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4121    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4045    | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R4122    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4046    | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R4123    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4047    | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R4124    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4048    | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R413     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R4049    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4138    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R405     | 0RJ3900C678 | MCR01MZPJ391. 390OHM 5% 1/16W 1005 R/TP -  | R4139    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4050    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4140    | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM |
| R4051    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R4141    | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM |
| R4056    | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R4142    | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM |
| R4057    | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R4143    | 0RJ2000C678 | MCR01MZPJ201 200OHM 5% 1/16W 1005 R/TP ROH |
| R4058    | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R4144    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4059    | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R4145    | 0RJ2000C678 | MCR01MZPJ201 200OHM 5% 1/16W 1005 R/TP ROH |
| R406     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R4146    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R4071    | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R4147    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R4076    | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R4148    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R408     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R415     | 0RJ0682C678 | MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROHM |
| R4080    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4150    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R4081    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4151    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R4082    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4152    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R4083    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4153    | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM |
| R4084    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4154    | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM |
| R4085    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R4155    | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM |
| R4086    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R416     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R4087    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R418     | 0RJ0682C678 | MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROHM |
| R4088    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R419     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM |
| R4089    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R420     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM |
| R409     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM | R421     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM |
| R4090    | 0RJ2702D677 | MCR03EZPJ273 27KOHM 5% 1/10W 1608 R/TP ROH | R422     | 0RJ9101D477 | MCR03EZPF912 9.1KOHM 1% 1/10W 1608 R/TP RO |
| R4091    | 0RJ1003D677 | MCR03EZPJ104 100KOHM 5% 1/10W 1608 R/TP RO | R423     | 0RJ1800C678 | MCR01MZPJ181 180OHM 5% 1/16W 1005 R/TP ROH |
| R4092    | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM  | R424     | 0RJ9101D477 | MCR03EZPF912 9.1KOHM 1% 1/10W 1608 R/TP RO |
| R4093    | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM  | R425     | 0RJ1800C678 | MCR01MZPJ181 180OHM 5% 1/16W 1005 R/TP ROH |
| R4095    | 0RJ5101C678 | MCR01MZPJ512 5.1KOHM 5% 1/16W 1005 R/TP RO | R434     | 0RJ1002D677 | MCR03EZPJ103 10KOHM 5% 1/10W 1608 R/TP ROH |
| R4096    | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R435     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R4097    | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R436     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R4099    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R437     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R410     | 0RJ0682C678 | MCR01MZPJ680 68OHM 5% 1/16W 1005 R/TP ROHM | R438     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R4100    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R439     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM |
| R4101    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R440     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM |
| R4102    | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R441     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R4103    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R442     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R4105    | 0RJ4702C678 | MCR01MZPJ473 47KOHM 5% 1/16W 1005 R/TP ROH | R443     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R4106    | 0RJ4702C678 | MCR01MZPJ473 47KOHM 5% 1/16W 1005 R/TP ROH | R445     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R4107    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R446     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |
| R4108    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO | R447     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 | LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 |
|----------|-------------|---------------------------------------------|----------|-------------|---------------------------------------------|
| R448     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   | R5043    | 0RJ2200D677 | MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP ROH  |
| R449     | 0RJ0332C478 | MCR01MZPF330 33OHM 1% 1/16W 1005 R/TP ROHM  | R5045    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  |
| R450     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO  | R5046    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  |
| R451     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO  | R5048    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  |
| R454     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO  | R5049    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  |
| R455     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO  | R5051    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  |
| R456     | 0RJ0332C678 | MCR01MZPJ330 33OHM 5% 1/16W 1005 R/TP ROHM  | R5052    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  |
| R457     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   | R5055    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  |
| R458     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   | R5057    | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROH  |
| R459     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   | R5058    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  |
| R460     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  | R5059    | 0RJ2200D677 | MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP ROH  |
| R464     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO  | R5060    | 0RJ2200D677 | MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP ROH  |
| R465     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO  | R5061    | 0RJ2200D677 | MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP ROH  |
| R467     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  | R5062    | 0RJ2200D677 | MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP ROH  |
| R468     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  | R5063    | 0RJ2200D677 | MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP ROH  |
| R472     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  | R5068    | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP PLS |
| R474     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM  | R5069    | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP PLS |
| R475     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH  | R5070    | 0RJ2201D677 | MCR03EZPJ222 2.2KOHM 5% 1/10W 1608 R/TP RO  |
| R476     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH  | R5071    | 0RJ2201D677 | MCR03EZPJ222 2.2KOHM 5% 1/10W 1608 R/TP RO  |
| R477     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  | R5072    | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM   |
| R478     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  | R5073    | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM   |
| R481     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  | R5076    | 0RJ4703D677 | MCR03EZPJ474 470KOHM 5% 1/10W 1608 R/TP RO  |
| R491     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  | R5077    | 0RJ2001D677 | MCR03EZPJ202 2KOHM 5% 1/10W 1608 R/TP ROHM  |
| R492     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH  | R5078    | 0RJ2001D677 | MCR03EZPJ202 2KOHM 5% 1/10W 1608 R/TP ROHM  |
| R496     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO  | R5079    | 0RJ4703D677 | MCR03EZPJ474 470KOHM 5% 1/10W 1608 R/TP RO  |
| R497     | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO  | R5080    | 0RJ1501D677 | MCR03EZPJ152 1.5KOHM 5% 1/10W 1608 R/TP RO  |
| R5002    | 0RJ5601C678 | MCR01MZPJ562 5.6KOHM 5% 1/16W 1005 R/TP RO  | R5081    | 0RJ1501D677 | MCR03EZPJ152 1.5KOHM 5% 1/10W 1608 R/TP RO  |
| R5003    | 0RJ5601C678 | MCR01MZPJ562 5.6KOHM 5% 1/16W 1005 R/TP RO  | R5082    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  |
| R5004    | 0RJ2001C678 | MCR01MZPJ202 2KOHM 5% 1/16W 1005 R/TP ROHM  | R5083    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  |
| R5005    | 0RJ2001C678 | MCR01MZPJ202 2KOHM 5% 1/16W 1005 R/TP ROHM  | R509     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   |
| R5008    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   | R514     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM  |
| R5009    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   | R540     | 0RJ3301C678 | MCR01MZPJ332 3.3KOHM 5% 1/16W 1005 R/TP RO  |
| R5014    | 0RJ0471D677 | MCR03EZPJ47R 4.7OHM 5% 1/10W 1608 R/TP ROH  | R541     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH  |
| R5015    | 0RJ0471D677 | MCR03EZPJ47R 4.7OHM 5% 1/10W 1608 R/TP ROH  | R542     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH  |
| R5016    | 0RJ0471D677 | MCR03EZPJ47R 4.7OHM 5% 1/10W 1608 R/TP ROH  | R543     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   |
| R5017    | 0RJ0471D677 | MCR03EZPJ47R 4.7OHM 5% 1/10W 1608 R/TP ROH  | R559     | 0RJ0331D677 | MCR03EZPJ3R3 3.3OHM 5% 1/10W 1608 R/TP      |
| R5018    | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP PLS | R560     | 0RJ0331D677 | MCR03EZPJ3R3 3.3OHM 5% 1/10W 1608 R/TP      |
| R5019    | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP PLS | R581     | 0RJ0331D677 | MCR03EZPJ3R3 3.3OHM 5% 1/10W 1608 R/TP      |
| R5020    | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP PLS | R582     | 0RJ0331D677 | MCR03EZPJ3R3 3.3OHM 5% 1/10W 1608 R/TP      |
| R5021    | 0RJ4701D677 | MCR03EZPJ472 4.7KOHM 5% 1/10W 1608 R/TP PLS | R583     | 0RJ0331D677 | MCR03EZPJ3R3 3.3OHM 5% 1/10W 1608 R/TP      |
| R5022    | 0RJ3302C678 | MCR01MZPJ333 33KOHM 5% 1/16W 1005 R/TP ROH  | R584     | 0RJ0331D677 | MCR03EZPJ3R3 3.3OHM 5% 1/10W 1608 R/TP      |
| R5023    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO  | R585     | 0RJ3001C678 | MCR01MZPJ302 3KOHM 5% 1/16W 1005 R/TP ROHM  |
| R5024    | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO  | R586     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM   |
| R5026    | 0RJ4701C678 | MCR01MZPJ472 4.7KOHM 5% 1/16W 1005 R/TP RO  | R587     | 0RJ4702C678 | MCR01MZPJ473 47KOHM 5% 1/16W 1005 R/TP ROH  |
| R5029    | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM   | R588     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO  |
| R5031    | 0RJ1000D677 | MCR03EZPJ101 100OHM 5% 1/10W 1608 R/TP ROH  | R589     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO  |
| R5034    | 0RJ0000D677 | MCR03EZPJ000 0OHM 5% 1/10W 1608 R/TP ROHM   | R590     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO  |
| R5035    | 0RJ0392D677 | MCR03EZPJ390 39OHM 5% 1/10W 1608 R/TP ROHM  | R591     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO  |
| R5036    | 0RJ0392D677 | MCR03EZPJ390 39OHM 5% 1/10W 1608 R/TP ROHM  | R592     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO  |
| R5037    | 0RJ0222D677 | MCR03EZPJ220 22OHM 5% 1/10W 1608 R/TP ROHM  | R593     | 0RJ4702C678 | MCR01MZPJ473 47KOHM 5% 1/16W 1005 R/TP ROH  |
| R5038    | 0RJ0222D677 | MCR03EZPJ220 22OHM 5% 1/10W 1608 R/TP ROHM  | R594     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO  |
| R5039    | 0RJ2200D677 | MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP ROH  | R595     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO  |
| R5040    | 0RJ2200D677 | MCR03EZPJ221 220OHM 5% 1/10W 1608 R/TP ROH  | R596     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH  |
| R5041    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  | R670     | 0RJ5601C678 | MCR01MZPJ562 5.6KOHM 5% 1/16W 1005 R/TP RO  |
| R5042    | 0RJ1001D677 | MCR03EZPJ102 1KOHM 5% 1/10W 1608 R/TP ROHM  | R670     | 0RJ6801C678 | MCR01MZPJ682 6.8KOHM 5% 1/16W 1005 R/TP RO  |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                | LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                |
|----------|-------------|--------------------------------------------|----------|-------------|--------------------------------------------|
| R671     | 0RJ5601C678 | MCR01MZPJ562 5.6KOHM 5% 1/16W 1005 R/TP RO | R749     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R671     | 0RJ6801C678 | MCR01MZPJ682 6.8KOHM 5% 1/16W 1005 R/TP RO | R750     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R672     | 0RJ2001C678 | MCR01MZPJ202 2KOHM 5% 1/16W 1005 R/TP ROHM | R752     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R673     | 0RJ2001C678 | MCR01MZPJ202 2KOHM 5% 1/16W 1005 R/TP ROHM | R771     | 0RJ2203D677 | MCR03EZPJ224 220KOHM 5% 1/10W 1608 R/TP RO |
| R678     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R772     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R679     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R773     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R680     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R774     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R681     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R775     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R682     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R777     | 0RJ2002D677 | MCR03EZPJ203. 20KOHM 5% 1/10W 1608 R/TP RO |
| R683     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R778     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM |
| R684     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R779     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM |
| R685     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R782     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R700     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R783     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R701     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM | R784     | 0RJ0511D677 | MCR03EZPJ5R1 5.1OHM 5% 1/10W 1608 R/TP ROH |
| R702     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R785     | 0RJ0511D677 | MCR03EZPJ5R1 5.1OHM 5% 1/10W 1608 R/TP ROH |
| R703     | 0RH0000D622 | MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM   | R786     | 0RJ1502C478 | MCR01MZPF153 15KOHM 1% 1/16W 1005 R/TP ROH |
| R7034    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R787     | 0RJ1502C478 | MCR01MZPF153 15KOHM 1% 1/16W 1005 R/TP ROH |
| R7035    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R800     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R704     | 0RH0000D622 | MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM   | R801     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R7049    | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO | R802     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R705     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM | R804     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R706     | 0RH0000D622 | MCR10EZHJ000 0OHM 5% 1/8W 2012 R/TP ROHM   | R809     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R7080    | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R812     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R7082    | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R813     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R7083    | 0RJ0511D677 | MCR03EZPJ5R1 5.1OHM 5% 1/10W 1608 R/TP ROH | R814     | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R7084    | 0RJ0511D677 | MCR03EZPJ5R1 5.1OHM 5% 1/10W 1608 R/TP ROH | R815     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R7085    | 0RJ1502C478 | MCR01MZPF153 15KOHM 1% 1/16W 1005 R/TP ROH | R816     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R7086    | 0RJ1502C478 | MCR01MZPF153 15KOHM 1% 1/16W 1005 R/TP ROH | R817     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R7087    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R819     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R712     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM | R820     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R713     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM | R821     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM |
| R714     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM | R9009    | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R715     | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R9010    | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R716     | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R9011    | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R717     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R9012    | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R718     | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R9014    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R719     | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R9016    | 0RJ0471C678 | MCR01MZPJ4R7 4.7OHM 5% 1/16W 1005 R/TP ROH |
| R720     | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM | R9017    | 0RJ0471C678 | MCR01MZPJ4R7 4.7OHM 5% 1/16W 1005 R/TP ROH |
| R721     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH | R9018    | 0RJ0822C678 | MCR01MZPJ820 82OHM 5% 1/16W 1005 R/TP ROHM |
| R723     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH | R9020    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R724     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH | R9022    | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R726     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH | R9023    | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R728     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R9024    | 0RJ3301C678 | MCR01MZPJ332 3.3KOHM 5% 1/16W 1005 R/TP RO |
| R729     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH | R9027    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R730     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R9028    | 0RJ0222C678 | MCR01MZPJ220 22OHM 5% 1/16W 1005 R/TP - RO |
| R733     | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH | R9029    | 0RJ1202C678 | MCR01MZPJ123 12KOHM 5% 1/16W 1005 R/TP ROH |
| R736     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R9030    | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R737     | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM | R9031    | 0RJ8201C478 | MCR01MZPF8201 8.2KOHM 1% 1/16W 1005 R/TP R |
| R738     | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH | R9033    | 0RJ4700C678 | MCR01MZPJ471 470OHM 5% 1/16W 1005 R/TP ROH |
| R739     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R9034    | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM |
| R740     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R9035    | 0RJ3300C678 | MCR01MZPJ331 330OHM 5% 1/16W 1005 R/TP ROH |
| R741     | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  | R9036    | 0RJ1002C678 | MCR01MZPJ103 10KOHM 5% 1/16W 1005 R/TP ROH |
| R744     | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R9038    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R745     | 0RJ4703C678 | MCR01MZPJ474 470KOHM 5% 1/16W 1005 R/TP -  | R9080    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R748     | 0RJ0102C678 | MCR01MZPJ100 10OHM 5% 1/16W 1005 R/TP ROHM | R9083    | 0RJ0752C678 | MCR01MZPJ750 75OHM 5% 1/16W 1005 R/TP ROHM |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                |
|----------|-------------|--------------------------------------------|
| R9084    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R9085    | 0RJ1500C678 | MCR01MZPJ151 150OHM 5% 1/16W 1005 R/TP ROH |
| R9086    | 0RJ1001C678 | MCR01MZPJ102 1KOHM 5% 1/16W 1005 R/TP ROHM |
| R9086    | 0RJ4700C678 | MCR01MZPJ471 470OHM 5% 1/16W 1005 R/TP ROH |
| R9087    | 0RJ1500C678 | MCR01MZPJ151 150OHM 5% 1/16W 1005 R/TP ROH |
| R9088    | EBC32174201 | MCR01MZPJ5112 1.1KOHM 5% 1/16W 1005 R/TP R |
| R9089    | 0RJ1000C678 | MCR01MZPJ101 100OHM 5% 1/16W 1005 R/TP ROH |
| R9090    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R9091    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R9094    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |
| R9095    | 0RJ0000C678 | MCR01MZPJ000 0OHM 5% 1/16W 1005 R/TP ROHM  |

#### COILS & FILTERs & INDUCTORs

|       |             |                                                   |
|-------|-------------|---------------------------------------------------|
| B101  | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM            |
| B102  | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM            |
| B103  | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM            |
| FL741 | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF           |
| FL742 | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF           |
| FL743 | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF           |
| FL744 | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF           |
| FL745 | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF           |
| FL746 | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF           |
| FL747 | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF           |
| L100  | EAP32632801 | Inductor,Wire Wound,Chip 0805CS-391XJLC 390NH     |
| L101  | 6210TCE001G | Filter,Bead HH-1M3216-501JT 500OHM 3.2X1.6X1.3MM  |
| L101  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L102  | 6210TCE001G | Filter,Bead HH-1M3216-501JT 500OHM 3.2X1.6X1.3MM  |
| L200  | EAM32500503 | Filter,Bead BLM18AG221SN1D 220ohm 200mAP          |
| L201  | EAM32500503 | Filter,Bead BLM18AG221SN1D 220ohm 200mAP          |
| L202  | EAM32500503 | Filter,Bead BLM18AG221SN1D 220ohm 200mAP          |
| L203  | EAM32500503 | Filter,Bead BLM18AG221SN1D 220ohm 200mAP          |
| L300  | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM         |
| L301  | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM         |
| L302  | EAM32500902 | Filter,Bead BLM18SG700TN1D 70ohm 4000mAP          |
| L304  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L305  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L306  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L307  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L308  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L309  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L310  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L311  | EAM32500203 | Filter,Bead BLM18PG121SN1D 120ohm 2000mA          |
| L312  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L313  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L314  | EAP32842801 | Inductor,Wire Wound,Chip NR8040T2R0M 2UH 6.3A     |
| L315  | EAM32500502 | Filter,Bead BLM18AG151SN1D 150ohm 200mAP          |
| L316  | 6210TCE001G | Filter,Bead HH-1M3216-501JT 500OHM 3.2X1.6X1.3MM  |
| L317  | 0LC2000005K | Inductor,Multilayer,Chip FI-D2012-223KJT(CE) 22UH |
| L318  | 0LC2000005K | Inductor,Multilayer,Chip FI-D2012-223KJT(CE) 22UH |
| L320  | EAM32500902 | Filter,Bead BLM18SG700TN1D 70ohm 4000mAP          |
| L400  | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM         |
| L401  | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM         |
| L402  | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM         |
| L403  | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM         |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                    |
|----------|-------------|------------------------------------------------|
| L404     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L405     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L406     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L407     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L408     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L501     | 0LCML00020B | Inductor,Multilayer,Chip MLI-201209-6R8K 6.8UH |
| L504     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L505     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L508     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L510     | EAP32842805 | Inductor,Wire Wound,Chip NR8040T150M 15UH      |
| L511     | EAP32842805 | Inductor,Wire Wound,Chip NR8040T150M 15UH      |
| L512     | EAP32842805 | Inductor,Wire Wound,Chip NR8040T150M 15UH      |
| L513     | EAP32842805 | Inductor,Wire Wound,Chip NR8040T150M 15UH      |
| L515     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L516     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L517     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L518     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L520     | 0LC2232101A | Inductor,Multilayer,Chip FI-D3216-223KJT 22UH  |
| L521     | 0LC2232101A | Inductor,Multilayer,Chip FI-D3216-223KJT 22UH  |
| L522     | 0LC2232101A | Inductor,Multilayer,Chip FI-D3216-223KJT 22UH  |
| L700     | 0LC2220101A | Inductor,Multilayer,Chip FI-B2012-222KJT 2.2UH |
| L701     | 0LC2220101A | Inductor,Multilayer,Chip FI-B2012-222KJT 2.2UH |
| L702     | 0LC2220101A | Inductor,Multilayer,Chip FI-B2012-222KJT 2.2UH |
| L703     | 0LC2220101A | Inductor,Multilayer,Chip FI-B2012-222KJT 2.2UH |
| L706     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L708     | 0LC2220101A | Inductor,Multilayer,Chip FI-B2012-222KJT 2.2UH |
| L709     | 0LC2220101A | Inductor,Multilayer,Chip FI-B2012-222KJT 2.2UH |
| L712     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L715     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L716     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L720     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L723     | 6210TCE001S | Filter,Bead HU-1M2012-121 120OHMD R/TP         |
| L724     | 6210TCE001S | Filter,Bead HU-1M2012-121 120OHMD R/TP         |
| L725     | 6210TCE001S | Filter,Bead HU-1M2012-121 120OHMD R/TP         |
| L726     | 6210TCE001S | Filter,Bead HU-1M2012-121 120OHMD R/TP         |
| L729     | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF        |
| L730     | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF        |
| L731     | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF        |
| L732     | EAM33010401 | Filter,LCR MEM2012P25R0 EMI 25MHZ 100pF        |
| L751     | EAM37276902 | Filter,LCR LCF20P101-TM LPF(EMI) 100MHZ        |
| L752     | EAM37276902 | Filter,LCR LCF20P101-TM LPF(EMI) 100MHZ        |
| L753     | EAM37276902 | Filter,LCR LCF20P101-TM LPF(EMI) 100MHZ        |
| L755     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L800     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L801     | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM         |
| L802     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L803     | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM         |
| L804     | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM      |
| L9002    | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM         |
| L9003    | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM         |
| L9004    | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM         |
| L9005    | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM         |
| L9006    | 0LCML00020B | Inductor,Multilayer,Chip MLI-201209-6R8K 6.8UH |
| L9007    | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM         |
| L9008    | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM         |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                   |
|----------|-------------|-----------------------------------------------|
| L9009    | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM        |
| L9010    | 0LCML00003B | Filter,Bead MLB-201209-0120P-N2 120OHM        |
| L9080    | 6200J00005N | Filter,Bead HH-1M2012-121JT(H:1mm) 120OHM     |
| R103     | 0LC2232101A | Inductor,Multilayer,Chip FI-D3216-223KJT 22UH |
|          | 6210VH0004B | Filter,Ferrite Core ZCAT1518-0730-M- K 65OHM  |

### CONNECTORS

|       |             |                                             |
|-------|-------------|---------------------------------------------|
| J300  | 6630G00001C | KCN-DS-1-0088 D-SUB 9P 2.77MM STRAIGHT MALE |
| J405  | 6630TGA004K | KCN-DS-1-0089 D-SUB 15P 2.29MM STRAIGHT FEM |
| JK300 | 6630G00001C | KCN-DS-1-0088 D-SUB 9P 2.77MM STRAIGHT MALE |
| JK405 | 6630TGA004K | KCN-DS-1-0089 D-SUB 15P 2.29MM STRAIGHT FEM |
| P102  | 6602T20008N | SMW200-14P 14P 2.00MM 1R STRAIGHT DIP ST NA |
| P102  | 6602T20009C | SMAW200-04P 4P 2.00MM 1R ANGLE DIP ST NATUR |
| P102  | 6602T20009C | SMAW200-04P 4P 2.00MM 1R ANGLE DIP ST NATUR |
| P103  | 6602T20009L | SMAW200-12P 12P 2.00MM 1R ANGLE DIP ST NATU |
| P103  | 6630SK00604 | UAR27-4K2300 A 1P 2.50MM ANGLE DIP ST 4PIN  |
| P104  | 6602T25008B | SMW250-03P 3P 2.50MM 1R STRAIGHT DIP ST NAT |
| P105  | 6602T20008D | SMW200-05P 5P 2.00MM 1R STRAIGHT DIP ST NAT |
| P501  | 6602T25008C | SMW250-04P 4P 2.50MM 1R STRAIGHT DIP ST NAT |
| P502  | 6602T25008B | SMW250-03P 3P 2.50MM 1R STRAIGHT DIP ST NAT |
| P700  | 6602T20008N | SMW200-14P 14P 2.00MM 1R STRAIGHT DIP ST NA |
| P701  | 6602T25008M | SMW250-13P 13P 2.50MM 1R STRAIGHT DIP ST NA |
| P702  | 6602T25008J | SMW250-10P 10P 2.50MM 1R ANGLE DIP BK BLACK |
| P703  | 6602T20008L | SMW200-12P 12P 2.00MM 1R STRAIGHT DIP ST NA |
| P712  | 6602T20008D | SMW200-05P 5P 2.00MM 1R STRAIGHT DIP ST NAT |
| P800  | 6630V90116A | FI-X30SSL-HF 30P 1.00MM 1R ANGLE WHI        |
|       | 6630V90142A | TPH254-R-1419-6A 6P 2.54MM 2R ANGLE DIP BK  |
|       | 6631900010L | 12P 2.0MM 700MM SMH200 SMH200 700mm 2.00MM  |
|       | 6631900012D | 6631900012D SMH250 SMH250 250mm 2.50MM 10P  |
|       | 6631900015R | SMH250 SMH250 150mm 2.50MM 3P UL1007AWG24 T |
|       | 6631900018C | 6631900018C SMH250 TERMINAL(35097-9802) 200 |
|       | 6631900027C | SMH250 SMH250 200mm 2.50MM 13P UL1007 AWG24 |
|       | 6631900048A | SMH200-4P SMH200-4P 200mm 2.00MM 4P UL1061  |
|       | 6631900102A | SMH250 SMP250 300mm 2.50MM 3P UL1007 AWG24  |
|       | 6631T20033K | SMH200-14P SMH200-14P 500mm 2.00MM 14P UL11 |
|       | EAD30301901 | DMS 4P CONNECTOR ASSY SMH200-04P SMH200-04P |
|       | EAD35683006 | LVDS LPL STANDARD_200mm FI-X30HL(JAE) FI-X3 |
|       | EAD35907801 | BDMR-02VS-2 35001HS-02L 250MM 3.50MM 2P UL3 |
|       | EAD35907902 | High Power(PVC TUBE) BDMR-02VS-2 35001HS-02 |
|       | EAD35982901 | 12507HS-04L SMH200 350MM 1.25/2.0MM 4P UL10 |
|       | EAD36548801 | SMH200 SMH200 400MM 2.00MM 5P UL2725 AWG26  |
|       | EAD36608901 | SMH200-12P SMH200-12PL 100MM 2.00MM 12P UL1 |

### JACKS

|      |             |                                             |
|------|-------------|---------------------------------------------|
| J101 | 6612J10003X | PMJ6054-39 14.0MM 1RX3C ANGLE BK SCREW HOLE |
| J400 | 6612J10031A | PPJ209-02 14.0MM 1RX5C STRAIGHT TR 5PORTS_G |
| J401 | 6612J10031A | PPJ209-02 14.0MM 1RX5C STRAIGHT TR 5PORTS_G |
| J402 | 6612B00015B | DC1R019WDH SOCKET 21P STRAIGHT SMD R/TP - - |
| J403 | 6612B00015B | DC1R019WDH SOCKET 21P STRAIGHT SMD R/TP - - |
| J404 | 6612B00015B | DC1R019WDH SOCKET 21P STRAIGHT SMD R/TP - - |
| J702 | 6612F00099A | PEJ024-01 1P 4P STRAIGHT TR 3.6MM BLACK DIP |
| J703 | 6612F00099A | PEJ024-01 1P 4P STRAIGHT TR 3.6MM BLACK DIP |
| J704 | 6612J10043A | PPJ200-07 15MM 1RX4C ANGLE BK 3P DONGGUAN   |

| LOC. NO. | PART NO.    | DESCRIPTION / SPECIFICATION                 |
|----------|-------------|---------------------------------------------|
| J705     | 6612J00062H | PMJ029-01 14P DIN/RCA 14MM STRAIGHT DIP TR  |
| J706     | EAG35542201 | PPJ204-01 12.0MM 1RX1C STRAIGHT BK YELLOW   |
| J9000    | 6612J10025A | KCN-BT-0-0055 4P PAL/RCA - ANGLE DIP TR RCA |
| JK400    | 6612J10031A | PPJ209-02 14.0MM 1RX5C STRAIGHT TR 5PORTS_G |
| JK401    | 6612J10031A | PPJ209-02 14.0MM 1RX5C STRAIGHT TR 5PORTS_G |
| JK402    | 6612B00015B | DC1R019WDH SOCKET 21P STRAIGHT SMD R/TP - - |
| JK403    | 6612B00015B | DC1R019WDH SOCKET 21P STRAIGHT SMD R/TP - - |
| JK404    | 6612B00015B | DC1R019WDH SOCKET 21P STRAIGHT SMD R/TP - - |
| JK702    | 6612F00099A | PEJ024-01 1P 4P STRAIGHT TR 3.6MM BLACK DIP |
| JK703    | 6612F00099A | PEJ024-01 1P 4P STRAIGHT TR 3.6MM BLACK DIP |
| JK704    | 6612J10043A | PPJ200-07 15MM 1RX4C ANGLE BK 3P DONGGUAN   |
| JK705    | 6612J00062H | PMJ029-01 14P DIN/RCA 14MM STRAIGHT DIP TR  |
| JK706    | EAG35542201 | PPJ204-01 12.0MM 1RX1C STRAIGHT BK YELLOW   |
| JK9000   | 6612J10025A | KCN-BT-0-0055 4P PAL/RCA - ANGLE DIP TR RCA |
|          | EAG32151101 | TOX177L(F,T) 3P TX 2.54MM ANGLE 15BPS DIP S |

### SWITCHes

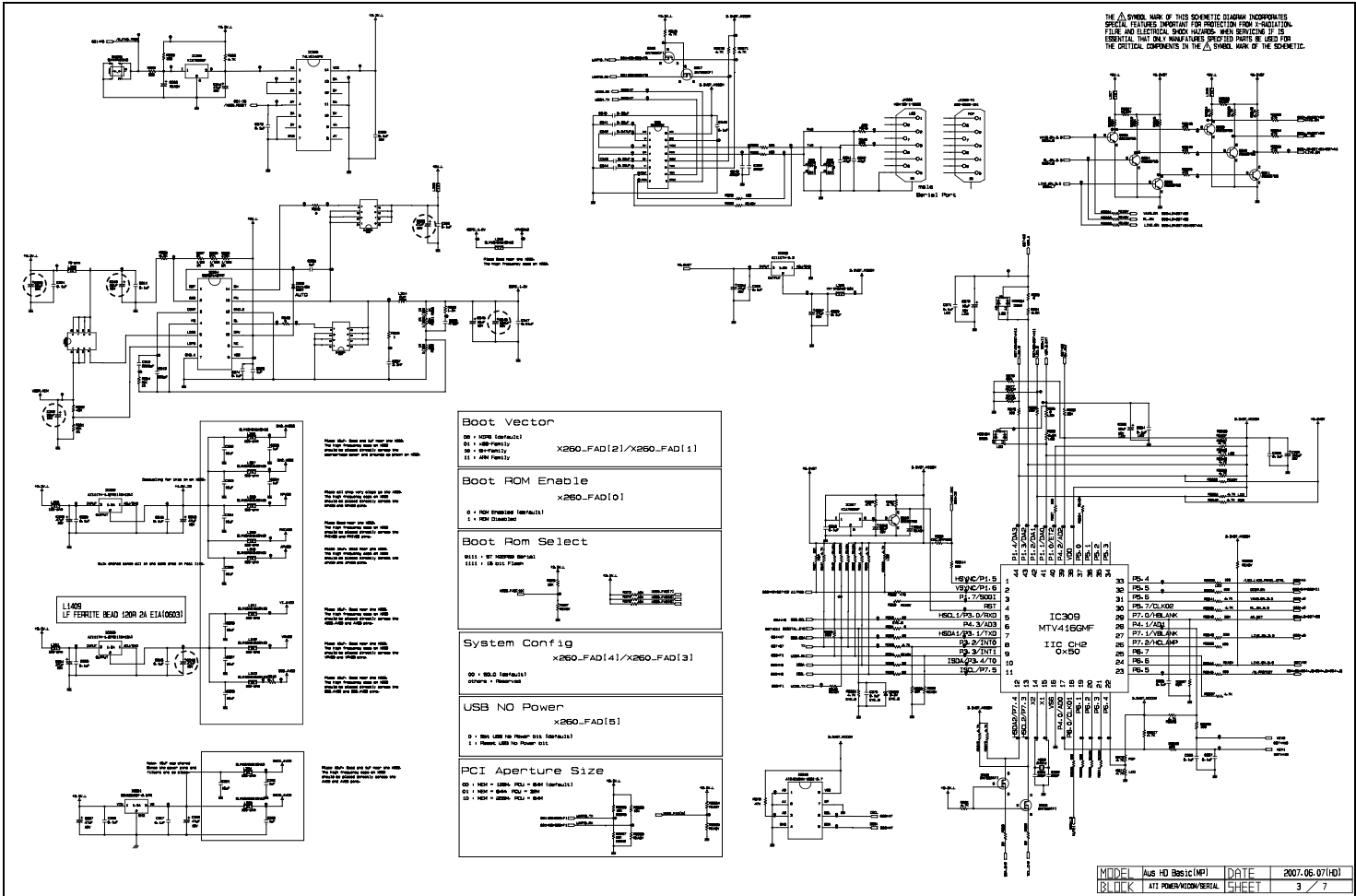
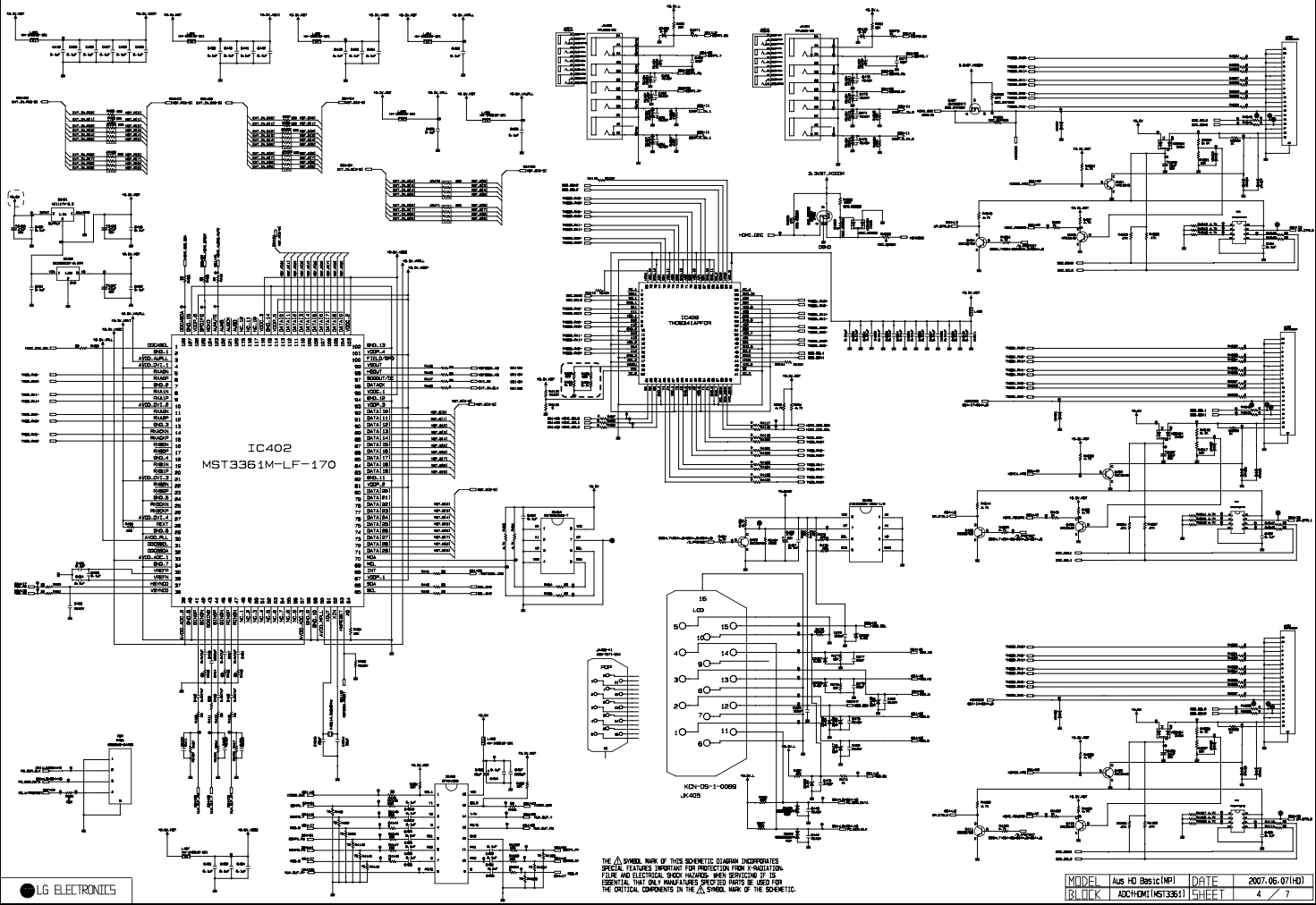
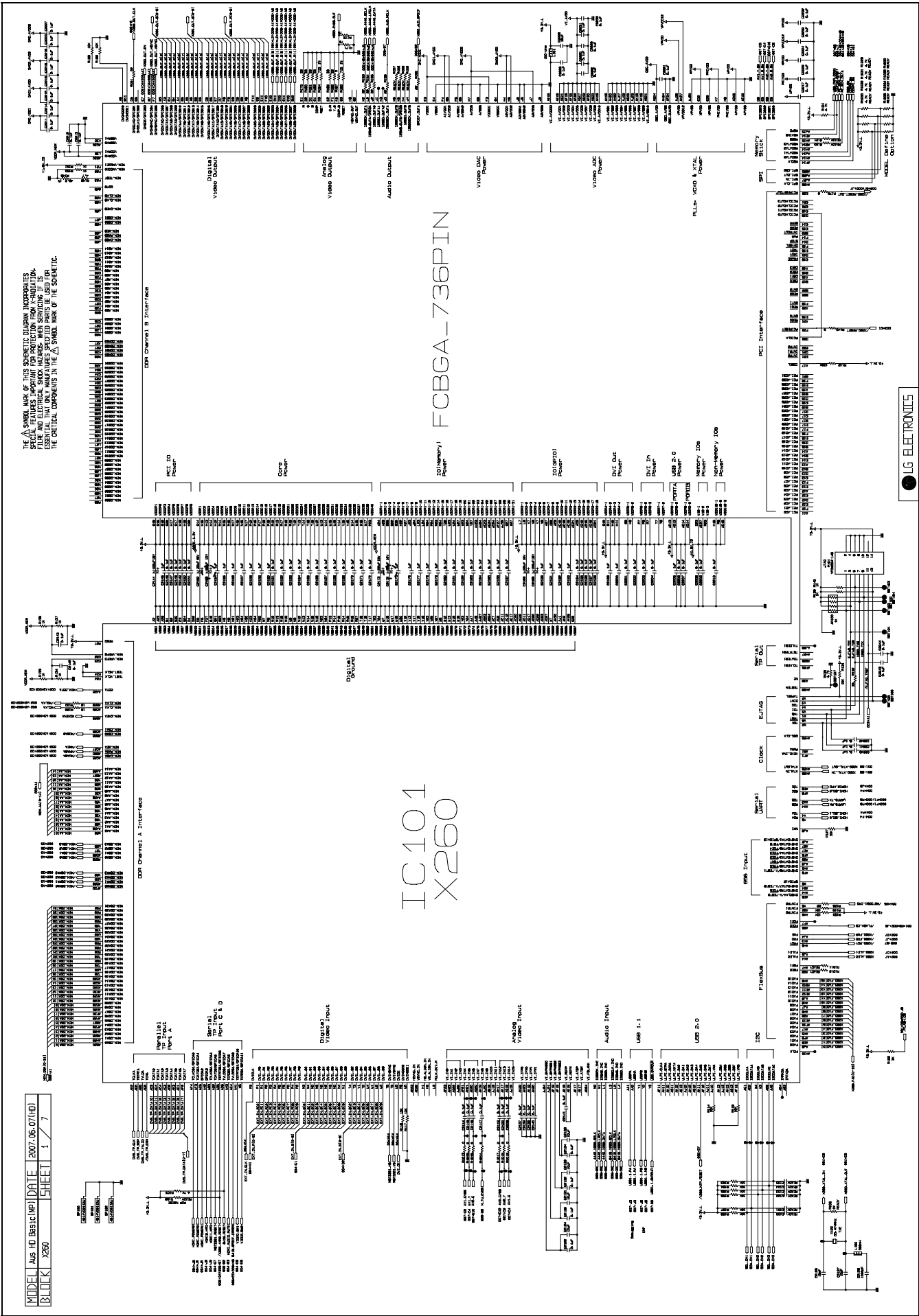
|       |             |                                             |
|-------|-------------|---------------------------------------------|
| SW101 | 140-313B    | KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160G |
| SW102 | 140-313B    | KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160G |
| SW103 | 140-313B    | KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160G |
| SW104 | 140-313B    | KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160G |
| SW105 | 140-313B    | KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160G |
| SW106 | 140-313B    | KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160G |
| SW107 | 140-313B    | KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160G |
| SW108 | 140-313B    | KPT-1115AM 1C1P 12VDC 0.05A HORIZONTAL 160G |
| SW300 | 6600VR1004A | SKHMPWE010 1C1P 12VDC 0.05A HORIZONTAL 160. |

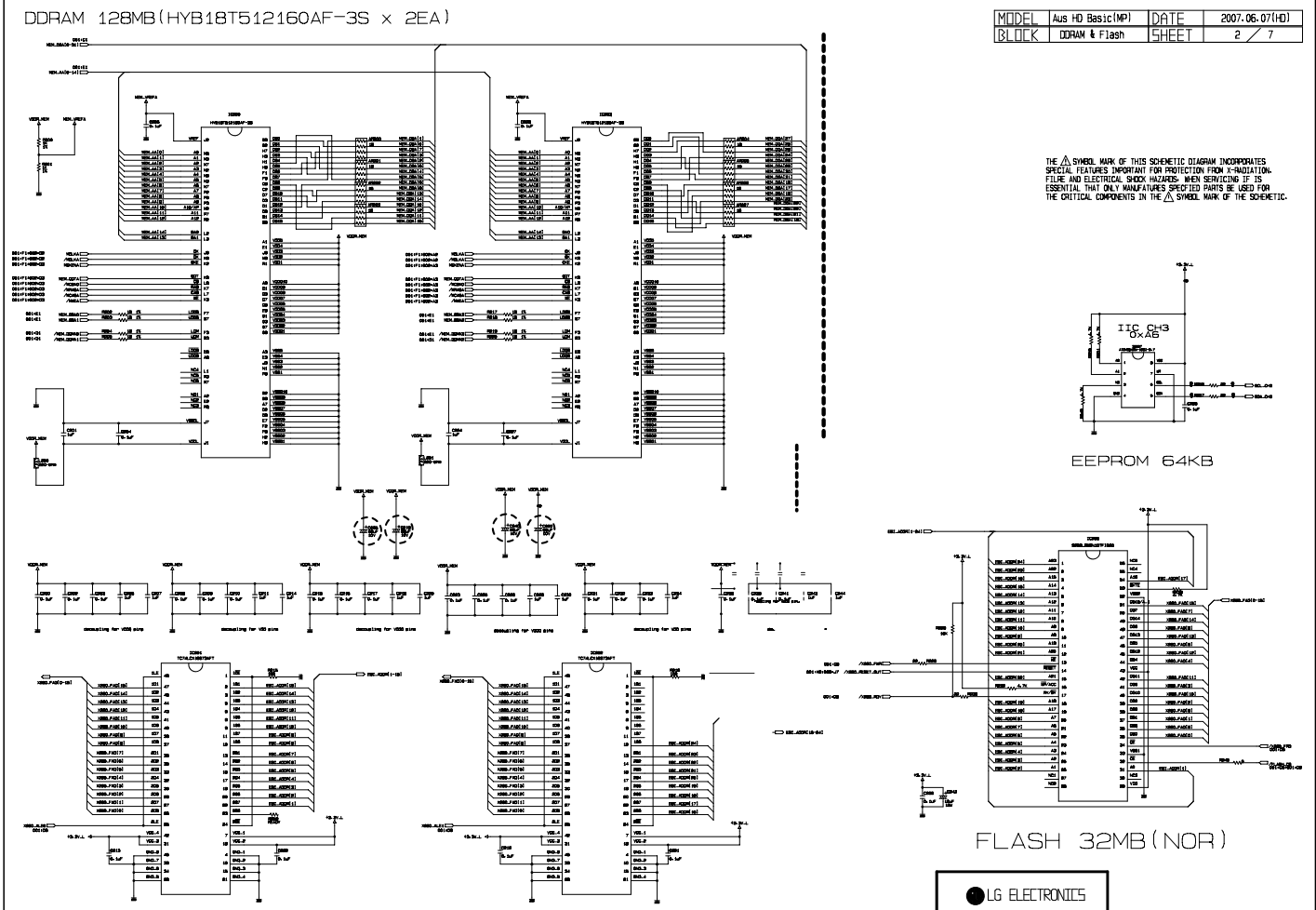
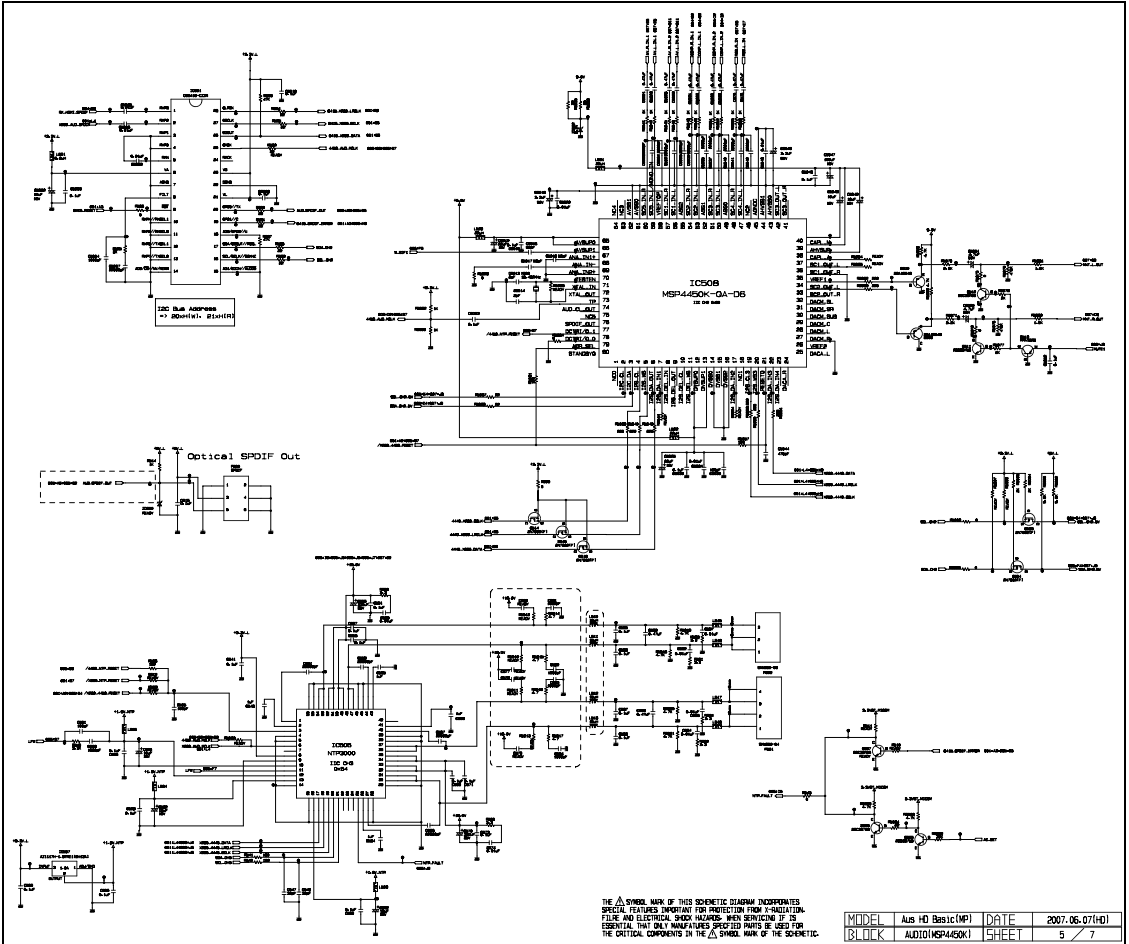
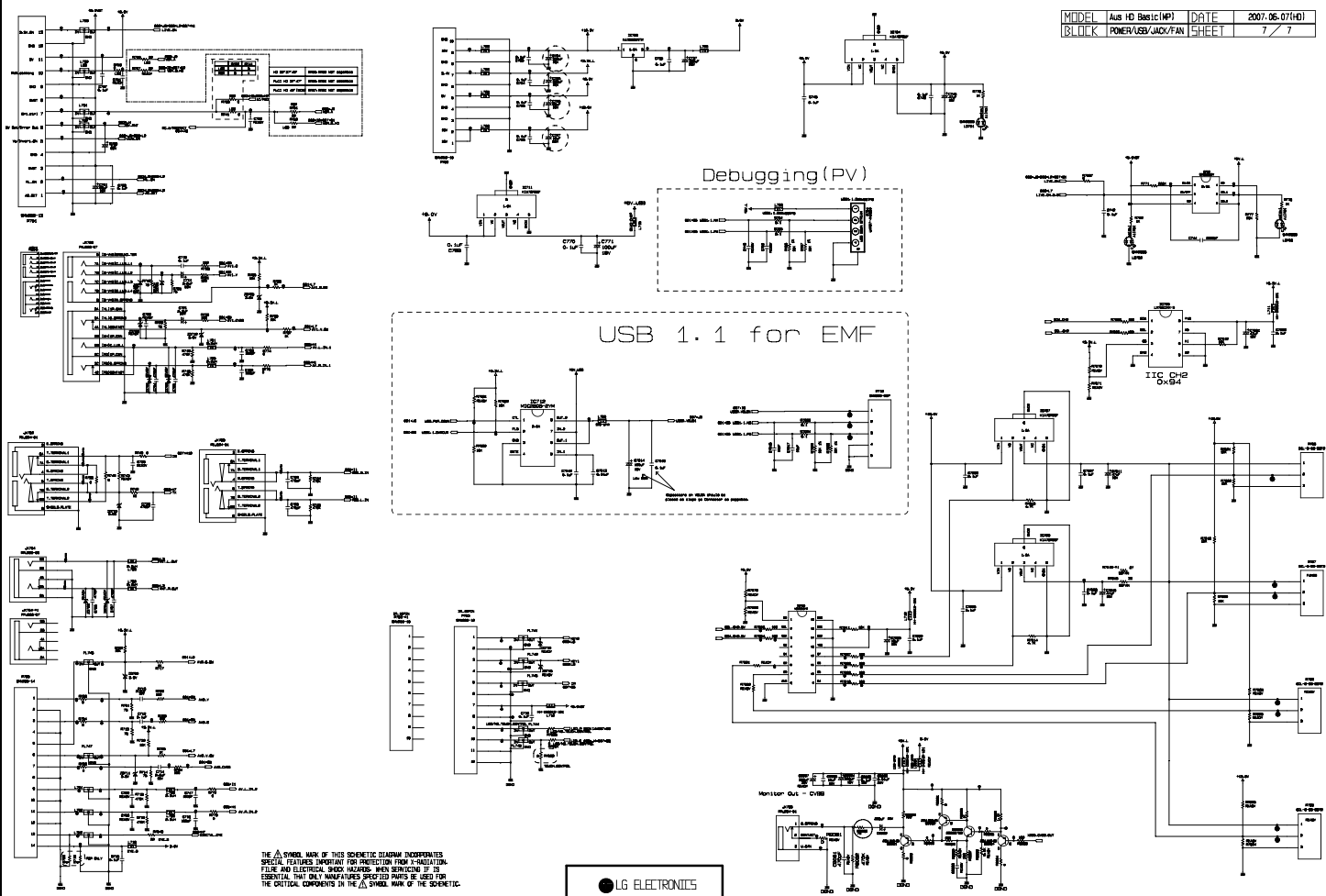
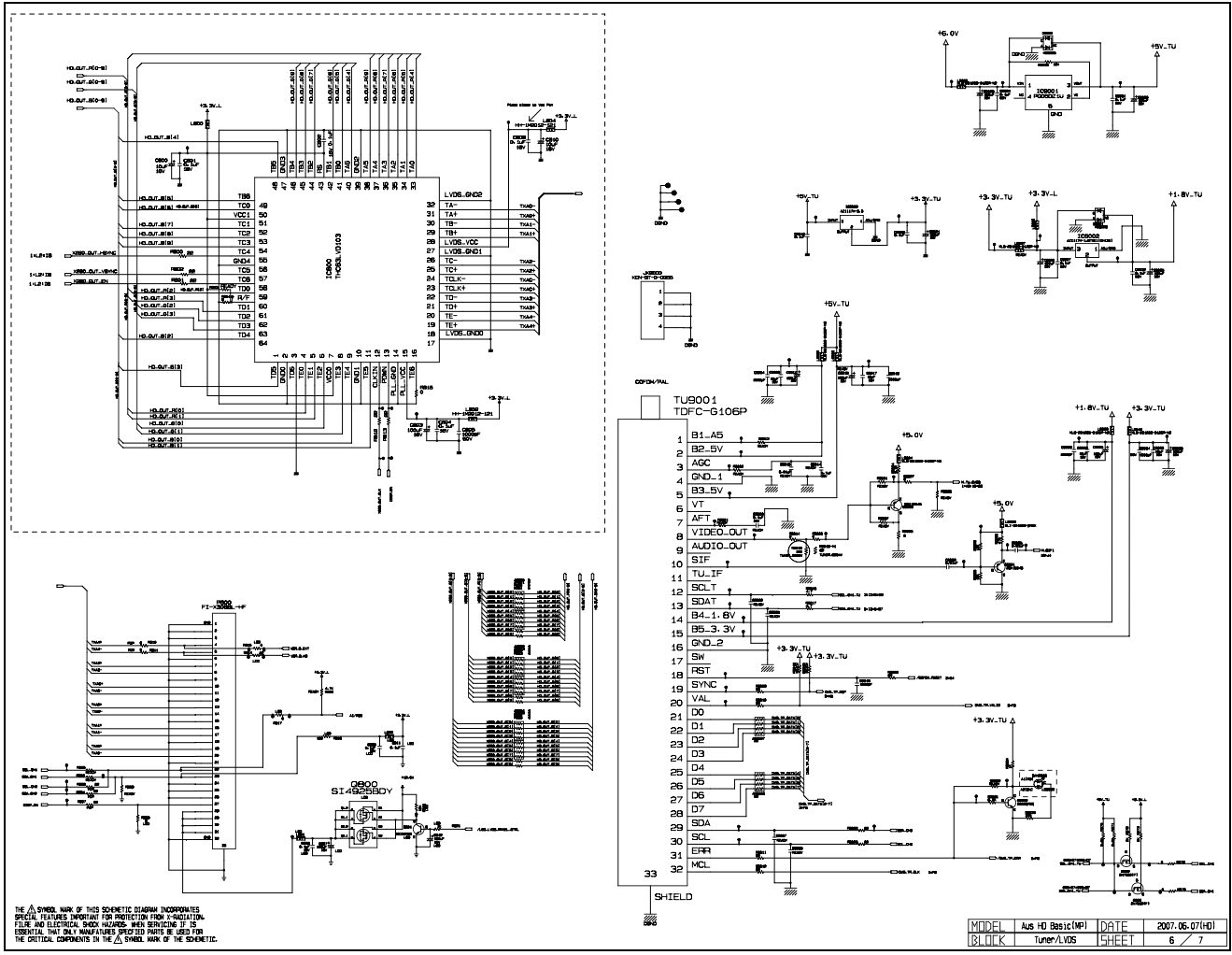
### OTHERs

|        |             |                                              |
|--------|-------------|----------------------------------------------|
| D9002  | 0DL233309AC | LED,Chip SAM2333 RED/Y-GREEN 2.7V 2.8V       |
| IC205  | SAA30889007 | S/W,Firmware 3.00.0 6D85 AUSTRALIA FLASH ROM |
| IC309  | SAA30807203 | S/W,Firmware 3.00 86B9 AUSTRALIA QFP uMicom  |
| LD700  | 0DL233309AC | LED,Chip SAM2333 RED/Y-GREEN 2.7V 2.8V       |
| LD701  | 0DL233309AC | LED,Chip SAM2333 RED/Y-GREEN 2.7V 2.8V       |
| LD702  | 0DL233309AC | LED,Chip SAM2333 RED/Y-GREEN 2.7V 2.8V       |
| LD9002 | 0DL233309AC | LED,Chip SAM2333 RED/Y-GREEN 2.7V 2.8V       |
| LED1   | 0DLBE0138AA | LED,DIP BL-BUBGE301 ROUND 3MM                |
| LED700 | 0DL233309AC | LED,Chip SAM2333 RED/Y-GREEN 2.7V 2.8V       |
| LED701 | 0DL233309AC | LED,Chip SAM2333 RED/Y-GREEN 2.7V 2.8V       |
| LED702 | 0DL233309AC | LED,Chip SAM2333 RED/Y-GREEN 2.7V 2.8V       |
| P500   | 6871VSMFA8A | PCB Assembly,Sub SUB M.I AF05FD 50PX2D-UD    |
| PA101  | 6712000013A | Receiver Module TSOP4438SO1 4.5TO5.5V 1.5MA  |
| TU9001 | EBL32961502 | Tuner,Digital TDFC-G106P DVB-T/PAL           |
|        | 68509A0004E | Cable,Assembly RCA JACK RCA JACK 1.0M        |

### ACCESSORY

|     |             |                                                 |
|-----|-------------|-------------------------------------------------|
| A1  | MFL37734802 | Manual,Owners LB75A BRAND 42/47LB7DF-AA Sim     |
| A2  | MKJ32022832 | Remote Controller AUSTRALIA, FULL HD,           |
| A21 | 3550V00590A | Cover MOLD BATTERY TN-50PY20 ABS 6710V00142     |
| A3  | 6410TSW003A | Power Cord LP-23A+SAG18N<B10A&LS-13_1.87M_BLK   |
| A4  | SAC30653104 | Title LB75A_47LB7DF-AA EN(1) FULL ATL DVR CD MA |
| A5  | 49519K0002A | Plate Assembly SUPPORTER UPPER 26INCH           |
| A6  | ABA32985001 | Bracket Assembly STAND 32LB9D-UA LA73A 32LB9    |







Internal Use Only

website: <http://biz.LGservice.com>

# LCD TV

# SERVICE MANUAL

CHASSIS : LB73B

**MODEL : 32LB9D      32LB9D-AD**

## CAUTION

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

