



LG

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

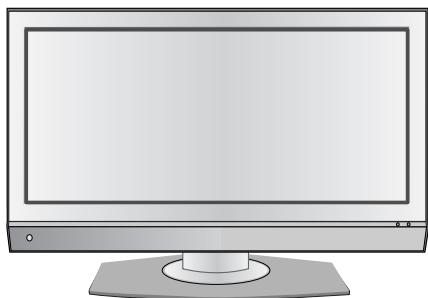
LCD TV **SERVICE MANUAL**

CHASSIS : LD75A

MODEL : 42LF66 42LF66-ZE

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  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 1Ω and 5.2Ω .

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.

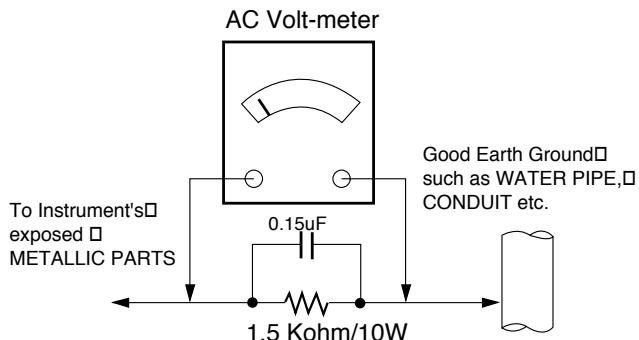
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

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 of 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 small 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 spec sheet is applied to the 37", 42", 47" LCD TV used LD75A chassis.

2. Specification

Each part is tested as below without special appointment.

- (1) Temperature : $25 \pm 5^{\circ}\text{C}$ ($77 \pm 9^{\circ}\text{F}$), CST : $40 \pm 5^{\circ}\text{C}$
- (2) Relative Humidity : $65\% \pm 10\%$
- (3) Power Voltage : Standard input voltage (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

- (1) Performance : LGE TV test method followed
- (2) Demanded other specification
 - Safety : CE, IEC Specification
 - EMC : CE, IEC

4. General Specification(FHD Module)

| Item | Specification | Measurement | Result | Remark |
|-----------------------|--|-------------|--------|----------|
| Display Screen Device | 47/42/37 inch Wide Color Display Module | | LCD | |
| Aspect Ratio | 16:9 | | | |
| LCD Module | 37LB5DF (37LF65): LC370WU1-SL01 42LB5DF (42LF65): LC420WU2-SLB1 47LB5DF (47LF65): LC470WU1-SLB2 37LF66: LC370WU1-SL01 42LF66: LC420WU2-SLB1 47LF66: LC470WU1-SLB2 | | | |
| Operating Environment | 1) Temp. : $0 \sim 40$ deg 2) Humidity : $10 \sim 90\%$ | | | LGE SPEC |
| Storage Environment | 3) Temp. : $-20 \sim 50$ deg 4) Humidity : $10 \sim 90\%$ | | | |
| Input Voltage | AC100 ~ 240V, 50/60Hz | | | Maker LG |

5. Chroma & Brightness

5-1. FHD Module-47LF66

| Item | | Min | Typ | Max | Unit | Measurement | Result | Remark |
|-----------------------------|---|---------------------|---------------------|----------------|----------------------|-------------------|---|---|
| Viewing Angle <CR>10> | | R/L 178 | | | Viewing Angle<CR>10> | R/L U/D 178 | 178 178 | |
| White average brightness | | 47LF65 | 450 | 550 | - | cd/m ² | | - 100IRE Full White Pattern(255gray) - Picture : Dynamic (Cool) |
| Brightness uniformity | | 1.3 | 0 | 1.3 | cd/m ² | | | - 100IRE Full White Pattern(255gray) - Picture : Dynamic (Cool) |
| Color Coordinate | White | X Y | 0.261 0.268 | 0.276 0.283 | 0.291 0.298 | | | - 85IRE Full White Pattern (216 gray) - Picture : Dynamic (Cool) |
| | Red | X Y | 0.603 0.318 | 0.618 0.333 | 0.633 0.348 | | | |
| | Green | X Y | 0.260 0.568 | 0.275 0.583 | 0.290 0.598 | | | |
| | Blue | X Y | 0.132 0.046 | 0.147 0.061 | 0.162 0.076 | | | |
| Color coordinate uniformity | | -0.03 | Average | +0.03 | | | | - 85IRE Full White Pattern (216 gray) - Picture : Dynamic (Cool) |
| Contrast Ratio at dark room | CR with PWM-Dimming CR without PWM-Dimming | 4000 : 1 (600:1) | 5000 : 1 (800:1) | | | | - Full white(100IRE) - Full black(0IRE) pattern - Picture : Dynamic (Cool) - Input:TV/DTV/AV1,2,3/Comp/HDMI1,2 -> CR with PWM-Dimming RGB/HDMI-PC -> CR without PWM-Dimming | |
| Color Temperature | Medium | 8300 | 9300 | 10300 | | | - 85IRE Full White Pattern (216 gray) - Picture : Dynamic (Cool) | |
| | Warm | 5500 | 6500 | 7500 | | | | |
| | Cool | 10000 | 11000 | 12000 | | | | |
| Color pull in Range | PAL | -500 | | +500 | Hz | | | |
| | NTSC | -500 | | +500 | Hz | | | |
| Color killer Sensitivity | | | -80 | | dBm | | | |

*** PWM-Dimming function works after 30 seconds. So, When you check the CR, you must wait 30 minutes for check the Full Black level and then 10 minutes for check the Full White level.***

5-2. FHD Module-42LF66

| Item | | Min | Typ | Max | Unit | Measurement | Result | Remark |
|-----------------------------|---|--------------------------------------|--|--|--|-------------|------------|---|
| Viewing Angle <CR>10> | R/L U/D | 178 178 | | | Viewing Angle <CR>10> | R/L U/D | 178 178 | |
| White average brightness | 42LF65 | 450 | 550 | - | cd/m ² | | | - 100IRE Full White Pattern (255gray) - Picture : Dynamic (Cool) |
| Brightness uniformity | | 1.3 | 0 | 1.3 | cd/m ² | | | - 100IRE Full White Pattern (255gray) - Picture : Dynamic (Cool) |
| Color Coordinate | White Red Green Blue | X Y X Y X Y X Y | 0.261 0.268 0.603 0.318 0.260 0.568 0.132 0.046 | 0.276 0.283 0.618 0.333 0.275 0.583 0.147 0.061 | 0.291 0.298 0.633 0.348 0.290 0.598 0.162 0.076 | | | - 85IRE Full White Pattern (216 gray) - Picture : Dynamic (Cool) |
| Color coordinate uniformity | | -0.03 | Average | +0.03 | | | | - 85IRE Full White Pattern (216 gray) - Picture : Dynamic (Cool) |
| Contrast Ratio at dark room | CR with PWM-Dimming CR without PWM-Dimming | 4000 : 1 (400:1) | 5000 : 1 (600:1) | | | | | - Full white(100IRE) - Full black(0IRE) pattern - Picture : Dynamic (Cool) - Input:TV/DTV/AV1,2,3/Comp/HDMI1,2 -> CR with PWM-Dimming RGB/HDMI-PC -> CR without PWM-Dimming |
| Color Temperature | Medium Warm Cool | 8300 5500 10000 | 9300 6500 11000 | 10300 7500 12000 | | | | - 85IRE Full White Pattern (216 gray) - Picture : Dynamic (Cool) |
| Color pull in Range | PAL NTSC | -500 -500 | | +500 +500 | Hz | | | |
| Color killer Sensitivity | | -80 | | | dBm | | | |

5-3. FHD Module-37LF66

| Item | | Min | Typ | Max | Unit | Measurement | Result | Remark |
|-----------------------------|---|--------------------------------------|--|--|--|-------------|------------|---|
| Viewing Angle <CR>10> | R/L U/D | 178 178 | | | Viewing Angle <CR>10> | R/L U/D | 178 178 | |
| White average brightness | 37LF65 | 400 | 500 | - | cd/m ² | | | - 100IRE Full White Pattern (255gray) - Picture : Dynamic (Cool) |
| Brightness uniformity | | 1.3 | 0 | 1.3 | cd/m ² | | | - 100IRE Full White Pattern (255gray) - Picture : Dynamic (Cool) |
| Color Coordinate | White Red Green Blue | X Y X Y X Y X Y | 0.261 0.268 0.603 0.318 0.260 0.595 0.132 0.046 | 0.276 0.283 0.618 0.333 0.275 0.610 0.147 0.061 | 0.291 0.298 0.633 0.348 0.290 0.625 0.162 0.076 | | | - 85IRE Full White Pattern (216 gray) - Picture : Dynamic (Cool) |
| Color coordinate uniformity | | -0.03 | Average | +0.03 | | | | - 85IRE Full White Pattern (216 gray) - Picture : Dynamic (Cool) |
| Contrast Ratio at dark room | CR with PWM-Dimming CR without PWM-Dimming | 4000 : 1 (400:1) | 5000 : 1 (600:1) | | | | | - Full white(100IRE) - Full black(0IRE) pattern - Picture : Dynamic (Cool) - Input:TV/DTV/AV1,2,3/Comp/HDMI1,2 -> CR with PWM-Dimming RGB/HDMI-PC -> CR without PWM-Dimming |
| Color Temperature | Medium Warm Cool | 8300 5500 10000 | 9300 6500 11000 | 10300 7500 12000 | | | | - 85IRE Full White Pattern (216 gray) - Picture : Dynamic (Cool) |
| Color pull in Range | PAL NTSC | -500 -500 | | +500 +500 | Hz | | | |
| Color killer Sensitivity | | -80 | | | dBm | | | |

6. Component Video Input (Y, Pb, Pr)

| No | Resolution | H-freq(kHz) | V-freq.(kHz) | Pixel clock(MHz) | Proposed |
|----|------------|-------------|--------------|------------------|----------------------|
| 1 | 720*480 | 15.73 | 59.94 | 13.500 | SDTV, DVD 480I(525I) |
| 2 | 720*480 | 15.75 | 60.00 | 13.514 | SDTV, DVD 480I(525I) |
| 3 | 720*576 | 15.625 | 50.00 | 13.500 | SDTV, DVD 576I(625I) |
| 4 | 720*480 | 31.47 | 59.94 | 27.000 | SDTV 480P |
| 5 | 720*480 | 31.50 | 60.00 | 27.027 | SDTV 480P |
| 6 | 720*576 | 31.25 | 50.00 | 27.000 | SDTV 576P |
| 7 | 1280*720 | 44.96 | 59.94 | 74.176 | HDTV 720P |
| 8 | 1280*720 | 45.00 | 60.00 | 74.250 | HDTV 720P |
| 9 | 1280*720 | 37.50 | 50.00 | 74.25 | HDTV 720P |
| 10 | 1920*1080 | 33.72 | 59.94 | 74.176 | HDTV 1080I |
| 11 | 1920*1080 | 33.75 | 60.00 | 74.250 | HDTV 1080I |
| 12 | 1920*1080 | 28.125 | 50.00 | 74.250 | HDTV 1080I |
| 13 | 1920*1080 | 67.50 | 60.00 | 148.50 | HDTV 1080P |

7. RGB Input (PC)

| No | Resolution | H-freq(kHz) | V-freq.(Hz) | Pixel clock(MHz) | Proposed | Remarks |
|----|------------|-------------|-------------|------------------|-----------|---|
| 1. | 720*400 | 31.468 | 70.08 | 28.32 | | |
| 2. | 640*480 | 31.469 | 59.94 | 25.17 | VESA | 848*480 60Hz, 852*480 60Hz ->No signal |
| | | 37.500 | 75.00 | 31.50 | | 640*480 60Hz Display |
| 3 | 800*600 | 37.879 | 60.31 | 40.00 | VESA | |
| | | 46.875 | 75.00 | 49.50 | | |
| 4. | 832*624 | 49.725 | 74.55 | 57.283 | Macintosh | |
| 5 | 1024*768 | 48.363 | 60.00 | 65.00 | | |
| | | 56.476 | 70.00 | 75.00 | VESA(XGA) | |
| | | 60.023 | 75.03 | 78.75 | | |
| 6 | 1280*768 | 47.693 | 59.99 | 80.125 | WXGA | |
| 7 | 1360*768 | 47.649 | 59.94 | 84.625 | WXGA | |
| 8 | 1366*768 | 47.649 | 59.94 | 84.625 | WXGA | |
| 9 | 1280*1024 | 63.595 | 60.0 | 108.875 | SXGA | |
| 10 | 1400*1050 | 65.160 | 60.0 | 122.50 | SXGA | |
| 11 | 1920*1080 | 66.647 | 59.988 | 138.625 | WUXGA | Reduced Blanking Timing |

7-1. EDID Input (PC)

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 0 | FF | FF | FF | FF | FF | FF | 0 | 1E | 6D | 72 | 75 | 1 | 1 | 1 | 1 |
| 10 | 9 | 10 | 1 | 3 | 1 | 46 | 27 | 78 | EA | D9 | B0 | A3 | 57 | 49 | 9C | 25 |
| 20 | 11 | 49 | 4B | A5 | 6E | 0 | 31 | 40 | 45 | 40 | 61 | 40 | 81 | 80 | 90 | 40 |
| 30 | D1 | C0 | 1 | 1 | 1 | 1A | 36 | 80 | A0 | 70 | 38 | 1F | 40 | 30 | 20 | |
| 40 | 35 | 0 | E8 | 26 | 32 | 0 | 0 | 1A | DA | 2F | 78 | E0 | 51 | 1A | 25 | 40 |
| 50 | 58 | 98 | 14 | 0 | E8 | 26 | 32 | 0 | 0 | 1A | 0 | 0 | 0 | FD | 0 | 39 |
| 60 | 4B | 1F | 54 | 12 | 0 | 0A | 20 | 20 | 20 | 20 | 20 | 20 | 0 | 0 | 0 | FC |
| 70 | 0 | 33 | 37 | 4C | 46 | 36 | 35 | 2D | 5A | 43 | 20 | 20 | 20 | 20 | 0 | FF |

<Example : 37LF65-ZC RGB EDID data>

6CH – 7DH : Model name

7EH : No Extension EDID Block

7FH : Check sum

Model Name : 47LF66 / Check Sum : FE

Model Name : 42LF65 / Check Sum : 03

Model Name : 37LF65 / Check Sum : FF

8. HDMI Input (DTV)

| No | Resolution | H-freq(kHz) | V-freq.(kHz) | Pixel clock(MHz) | Proposed | Remarks |
|-----|------------|-------------|--------------|------------------|-----------------|---|
| 1. | 720*480 | 31.47 | 59.94 | 27.00 | SDTV 480P(4:3) | If change PC 640*480 60Hz Display |
| 2. | 720*480 | 31.50 | 60 | 27.027 | SDTV 480P(4:3) | |
| 3. | 640*480 | 31.469 | 59.94 | 25.175 | SDTV 480P(4:3) | |
| 4. | 640*480 | 31.469 | 60.00 | 25.20 | SDTV 480P(4:3) | |
| 5. | 720*480 | 31.47 | 59.94 | 27.000 | SDTV 480P(16:9) | |
| 6. | 720*480 | 31.50 | 60.00 | 27.027 | SDTV 480P(16:9) | |
| 7. | 720*576 | 31.25 | 50.00 | 27.000 | SDTV 576P | |
| 8. | 1280*720 | 37.50 | 50.00 | 74.176 | HDTV 720P | |
| 9. | 1280*720 | 44.96 | 59.94 | 74.176 | HDTV 720P | If change PC 1280*720 60Hz Display |
| 10. | 1280*720 | 45.00 | 60.00 | 74.250 | HDTV 720P | |
| 11. | 1920*1080 | 33.72 | 59.94 | 74.176 | HDTV 1080I | |
| 12. | 1920*1080 | 33.75 | 60.00 | 74.250 | HDTV 1080I | |
| 13. | 1920*1080 | 28.125 | 50.00 | 74.250 | HDTV 1080I 50Hz | |
| 14. | 1920*1080 | 27.000 | 24.00 | 74.250 | HDTV 1080P 24Hz | |
| 15. | 1920*1080 | 56.250 | 50 | 148.500 | HDTV 1080P 50Hz | |
| 16. | 1920*1080 | 67.433 | 59.94 | 148.352 | HDTV 1080P | If change PC 1920*1080 60HzΣCE Display |
| 17. | 1920*1080 | 67.500 | 60 | 148.500 | HDTV 1080P | |

8. HDMI Input (PC)

| No | Resolution | H-freq(kHz) | V-freq.(Hz) | Pixel clock(MHz) | Proposed | Remarks |
|----|------------|----------------------------|-------------------------|-------------------------|-----------|--|
| 1. | 720*400 | 31.468 | 70.08 | 28.32 | | |
| 2. | 640*480 | 31.469 37.500 | 59.94 75.00 | 25.17 31.50 | VESA | If change DTV 480p Display 848*480 60Hz, 852*480 60Hz : No signal |
| 3 | 800*600 | 37.879 46.875 | 60.31 75.00 | 40.00 49.50 | VESA | |
| 4. | 832*624 | 49.725 | 74.55 | 57.283 | Macintosh | |
| 5 | 1024*768 | 48.363 56.476 60.023 | 60.00 70.00 75.03 | 65.00 75.00 78.75 | VESA(XGA) | |
| 6 | 1280*768 | 47.693 | 59.99 | 80.125 | WXGA | |
| 7 | 1360*768 | 47.649 | 59.94 | 84.625 | WXGA | |
| 8 | 1366*768 | 47.649 | 59.94 | 84.625 | WXGA | |
| 9 | 1280*1024 | 63.595 | 60.0 | 108.875 | SXGA | |
| 10 | 1400*1050 | 65.160 | 60.0 | 122.50 | SXGA | Reduced Blanking Timing |
| 11 | 1600*1200 | 74.077 | 60.0 | 130.375 | UXGA | 1920*1200 60Hz No Signal |
| 12 | 1920*1080 | 66.647 | 59.988 | 138.625 | WUXGA | Reduced Blanking Timing If change DTV 1080p Display |

8-1. EDID Input (HDMI)

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 0 | FF | FF | FF | FF | FF | 0 | 1E | 6D | 72 | 75 | 1 | 1 | 1 | 1 | |
| 10 | 9 | 10 | 1 | 3 | 80 | 46 | 27 | 78 | EA | D9 | B0 | A3 | 57 | 49 | 9C | 25 |
| 20 | 11 | 49 | 4B | A5 | 6E | 0 | 31 | 40 | 45 | 40 | 61 | 40 | 81 | 80 | 90 | 40 |
| 30 | A9 | 40 | D1 | C0 | 1 | 1 | 1A | 36 | 80 | A0 | 70 | 38 | 1F | 40 | 30 | 20 |
| 40 | 35 | 0 | E8 | 26 | 32 | 0 | 0 | 1A | 1B | 21 | 50 | A0 | 51 | 0 | 1E | 30 |
| 50 | 48 | 88 | 35 | 0 | BC | 86 | 21 | 0 | 0 | 1C | 0 | 0 | 0 | FD | 0 | 39 |
| 60 | 4B | 1F | 54 | 12 | 0 | 0A | 20 | 20 | 20 | 20 | 20 | 20 | 0 | 0 | 0 | FC |
| 70 | 0 | 33 | 37 | 4C | 46 | 36 | 35 | 2D | 5A | 43 | 20 | 20 | 20 | 20 | 1 | D8 |
| 80 | 2 | 3 | 21 | F1 | 4E | 81 | 2 | 3 | 15 | 12 | 13 | 4 | 14 | 5 | 20 | 21 |
| 90 | 22 | 1F | 10 | 23 | 9 | 7 | 7 | 83 | 1 | 0 | 0 | 65 | 3 | 0C | 0 | 10 |
| A0 | 0 | 1 | 1D | 0 | 80 | 51 | D0 | 1C | 20 | 40 | 80 | 35 | 0 | BC | 88 | 21 |
| B0 | 0 | 0 | 1E | 8C | 0A | D0 | 8A | 20 | E0 | 2D | 10 | 10 | 3E | 96 | 0 | 13 |
| C0 | 8E | 21 | 0 | 0 | 18 | 2 | 3A | 80 | 18 | 71 | 38 | 2D | 40 | 58 | 2C | 45 |
| D0 | 0 | 6 | 44 | 21 | 0 | 0 | 1E | 1 | 1D | 80 | 18 | 71 | 1C | 16 | 20 | 58 |
| E0 | 2C | 25 | 0 | C4 | 8E | 21 | 0 | 0 | 9E | 4E | 1F | 0 | 80 | 51 | 0 | 1E |
| F0 | 30 | 40 | 80 | 37 | 0 | BC | 88 | 21 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 1D |

<Example : 37LF65-ZC HDMI1 EDID data>

6CH – 7DH : Model name

7EH : Extension EDID Block

7FH : Check sum

9FH : Vendor specification Block (10 : HDMI1, 20 : HDMI2)

FFH : Check sum valid

Model Name : 47LF66 / Check Sum HDMI1 : D71D , HDMI2 : D70D

Model Name : 42LF66 / Check Sum HDMI1 : DC1D , HDMI2 : DC0D

Model Name : 37LF66 / Check Sum HDMI1 : D81D , HDMI2 : D80D

9. MODULE

9-1. General specifications-47LF66: LC470WU1-SLB2

| No | Item | Min | Typ | Max | Unit | Remark |
|----|-------------------|---------|---|-----|------|-------------------|
| 1 | Display area | 1039.68 | (H) * 584.82(V) | | mm | |
| 2 | Outline dimension | 1096 | (W) x 640 (H) x 48.1 (D) with inverter | | mm | |
| 3 | Number of Pixels | 1920 | (H) x 1080(V) | | | 1Pixel=3RGB Cells |
| 4 | Cell pitch | 541.5um | (H) x 541.5um (V) | | um | G cell |
| 5 | Color arrangement | | RGB stripe arrangement | | | |
| 6 | Weight(net) | | 20 | | Kg | Net 1EA |

9-2. General specifications-42LF66: LC420WU2-SLB1

| No | Item | Min | Typ | Max | Unit | Remark |
|----|-------------------|---------|---|-----|------|-------------------|
| 1 | Display area | 930.24 | (H) * 523.26 (V) | | mm | |
| 2 | Outline dimension | 983 | (W) x 576 (H) x 51 (D) with inverter | | mm | |
| 3 | Number of Pixels | 1920 | (H) x 1080(V) | | | 1Pixel=3RGB Cells |
| 4 | Cell pitch | 484.5um | (H) x 484.5um (V) | | um | G cell |
| 5 | Color arrangement | | RGB stripe arrangement | | | |
| 6 | Weight(net) | | 13 | | Kg | Net 1EA |

9-3. General specifications-37LF66: LC370WU1-SL01

| No | Item | Min | Typ | Max | Unit | Remark |
|----|-------------------|----------|---|-----|------|-------------------|
| 1 | Display area | 819.36 | (H) * 460.89 (V) | | mm | |
| 2 | Outline dimension | 877 | (W) x 516.8 (H) x 55.5 (D) with inverter | | mm | |
| 3 | Number of Pixels | 1920 | (H) x 1080(V) | | | 1Pixel=3RGB Cells |
| 4 | Cell pitch | 426.75um | (H) x 426.75um (V) | | um | G cell |
| 5 | Color arrangement | | RGB stripe arrangement | | | |
| 6 | Weight(net) | | 10.5 | | Kg | Net 1EA |

10. Mechanical specification

10-1. 47LF66

| No | Item | | Content | | | Remark |
|----|-------------------|----------------|-----------|------------|------------|------------|
| 1 | Product Dimension | | Width (W) | Length (D) | Height (H) | |
| | | Before Packing | 1144.5 | 331 | 825.6 | With Stand |
| | | After Packing | 1230 | 410 | 912 | |
| 2 | Product Weight | Only SET | 37.46 kg | | | With Stand |
| | | With BOX | 44.7 kg | | | |

10-2. 42LF66

| No | Item | | Content | | | Remark |
|----|-------------------|----------------|-----------|------------|------------|------------|
| 1 | Product Dimension | | Width (W) | Length (D) | Height (H) | |
| | | Before Packing | 1033.1 | 300 | 750 | With Stand |
| | | After Packing | 1119 | 374 | 858 | With Stand |
| 2 | Product Weight | Only SET | 27.5Kg | | | With Stand |
| | | With BOX | 32.5Kg | | | |

10-3. 37LF66

| No | Item | | Content | | | Remark |
|----|-------------------|----------------|-----------|------------|------------|------------|
| 1 | Product Dimension | | Width (W) | Length (D) | Height (H) | |
| | | Before Packing | 1113.3 | 294.3 | 722.5 | With Stand |
| | | After Packing | 1191 | 378 | 835 | With Stand |
| 2 | Product Weight | Only SET | 30.1Kg | | | With Stand |
| | | With BOX | 34.6Kg | | | |

5. Method of Tool Option setting

- 5.1. Press ADJ Key in the Adjust remocon.
- 5.2. Select "Tool Option1 and 2" by using ▲▼(CH+/-) key, and Press Number Key.
- 5.3. Model Table.

| Model name | Tool Option1 | Tool Option2 |
|------------|--------------|--------------|
| 37LF65 | 2320 | 1701 |
| 42LF65 | 2324 | 1701 |
| 47LF65 | 2328 | 1701 |
| 37LY95 | 2384 | 1701 |
| 42LY95 | 2391 | 1701 |
| 47LY95 | 2395 | 1701 |

- 5.4. After changing, push the EXIT Key.

6. ADC Calibration

* Before adjusting White-balance , the AV ADC should be done.

| ADC | AV | | Component | RGB-PC |
|-----------|---------------------------------|-----|---|--|
| MSPG925FS | PAL | | Model:215 (720P) | |
| | INPUT SELECT | AV3 | Pattern:65 *720P/50Hz 7 Color Bar | Model: 3 (1024*768 60Hz) Pattern: 65 |
| | Model:202(PAL-BGDHI) | | | |
| | Pattern: 65 *PAL 7 Color Bar | | | |

- * Caution : - System control RS-232 Host should be "PC" for adjustment.
- Before AV ADC Calibration, execute the "Panel size selection" (only LCD model)

6.1. Adjustment of AV

- Mandatory point : All models are adjusted PAL in AV mode
- * Required Equipments
 - Remote controller for adjustment.
 - MSPG-925FS Pattern Generator (Which has Video Signal: 7 Color Bar Pattern shown in Fig. 1).
 - Model : 202 / Pattern : 65
 - PAL-BGDHI (composite signal)

6.1.1 Method of Auto AV Color Balance(PAL_BGDHI).

- 1) Input the Video Signal: 7 Color Bar signal into AV3.
- 2) Set the PSM to Dynamic mode in the Picture menu.



[Fig.1]

- 3) Press IN-START key on R/C for adjustment.



- 4) Press the ►(Vol.+) key to operate the set, then it becomes automatically.
- 5) After downloading complete, the 'OK' word appears.
- 6) Auto-RGB OK means the adjustment is completed.

6.2. Adjustment of Component

- * Required Equipments
 - Remote controller for adjustment.
 - MSPG-925FS Pattern Generator. (Which has 720p/50Hz YPbPr output Pattern shown in Fig. 2)
 - > Model : 215 / Pattern : 65

6.2.1 Method of Auto Component Color Balance

- 1) Input the Component 720p/50Hz 7 Color Bar(MSPG-925FS model:215, pattern:65) signal into Component.
- 2) Set the PSM to Dynamic mode in the Picture menu.



[Fig.2]

- 3) Press the IN-START key on R/C for adjustment.



- 4) Press the ►(Vol.+) key to operate the set , then it becomes automatically.
- 5) After downloading complete, the 'OK' word appears.
- 6) Auto-RGB OK means the adjustment is completed.

6.3. Adjustment of RGB

- * Required Equipments
 - Remote controller for adjustment.
 - MSPG-925FS Pattern Generator (Which has XGA [1024*768] 60Hz 1/2 black & white pattern shown in Fig. 3)

6.3.1 Method of Auto RGB Color Balance

- 1) Input the PC 1024x768 @ 60Hz 1/2 black & white pattern (MSPG-925FS, Model:3, Pattern:65) into RGB. (using D-sub to D-sub cable)
- 2) Set the PSM to Dynamic mode in the Picture menu.

3) Press the IN-START key on R/C for adjustment.



[Fig.3]

4) Press the ▶(Vol.+) key to operate the set , then it becomes automatically.



5) After downloading complete, the 'OK' word appears.

6) Auto-RGB OK means adjustment is completed.

7. White Balance

* Test Equipment

- Color Analyzer (CA-210, CA-100+ / CH.9)
 - > When you adjust LCD color temperature, on Color analyzer (CA-210, CA-100+), 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.

* Color temperature standards according to CSM and Module.

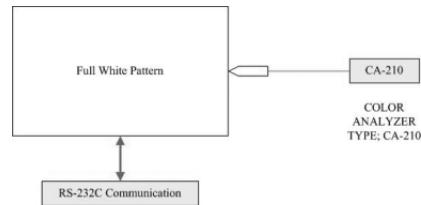
| CSM | LCD |
|--------|---------|
| Cool | 11,000k |
| Medium | 9,300k |
| Warm | 6,500k |

* White balance adjustment coordinate and color temperature.

| Cool | CS-1000 | CA-210 (CH 9) | CA-100+ (CH 9) |
|-------------|-------------------|-------------------|-------------------|
| X | 0.276 ± 0.002 | 0.276 ± 0.002 | 0.276 ± 0.002 |
| Y | 0.283 ± 0.002 | 0.283 ± 0.002 | 0.283 ± 0.002 |
| Temp | 11000 | 1000 | 11000 |
| Δuv | 0.000 | 0.000 | 0.000 |
| Medium | CS-1000 | CS-1000 | CS-1000 |
| X | 0.285 ± 0.002 | 0.285 ± 0.002 | 0.285 ± 0.002 |
| Y | 0.293 ± 0.002 | 0.293 ± 0.002 | 0.293 ± 0.002 |
| Temp | 9300 | 9300 | 9300 |
| Δuv | 0.000 | 0.000 | 0.000 |
| Warm | CS-1000 | CS-1000 | CS-1000 |
| X | 0.313 ± 0.002 | 0.313 ± 0.002 | 0.313 ± 0.002 |
| Y | 0.329 ± 0.002 | 0.329 ± 0.002 | 0.329 ± 0.002 |
| Temp | 6500 | 6500 | 6500 |
| Temp | 0.003 | 0.003 | 0.003 |

- PC (for communication through RS-232C) -> UART
 - Baud rate : 115200 bps

* Connecting picture of the measuring instrument (On Automatic control)
Inside PATTERN is used when W/B is controlled.
Connect to auto controller or push control R/C IN-START -> Enter the mode of White-Balance, the pattern will come out.



[Fig.4] connecting picture (On Automatic Control)

- * Auto-control interface and directions
 - 1) Adjust in the place where the influx of light like floodlight around is blocked. (illumination is less than 10ux).
 - 2) In case of PDP: Measure and adjust after sticking the Color Analyzer (CA-100+, CA210) to the side of the module.
In case of LCD: Adhere closely the Color Analyzer (CA210) to the module less than 10cm distance, keep it with the surface of the Module and Color Analyzer's Probe vertically.(80~100°).
 - 3) Aging time
 - After aging start, keep the power on (no suspension of power supply) and heat-run over 15 minutes.
 - In case of PDP, keep white pattern using inside pattern.
 - In case of LCD, using 'no signal' or 'full white pattern' or the others, check the back light on.

7.1 Auto white Balance

- 1) setup is done.
 - 2) Test Equipment
 - Color Analyzer (CA210, CA-100+)
 - PC (for communication through RS-232C)
 - RS-232 Host → PC
 - UART Baud rate → 115200
 - Download → Cortez
- *** When press Power-on key, this point is automatically setuped. Pattern Generator (MSPG-925F)

7.2 Manual white Balance

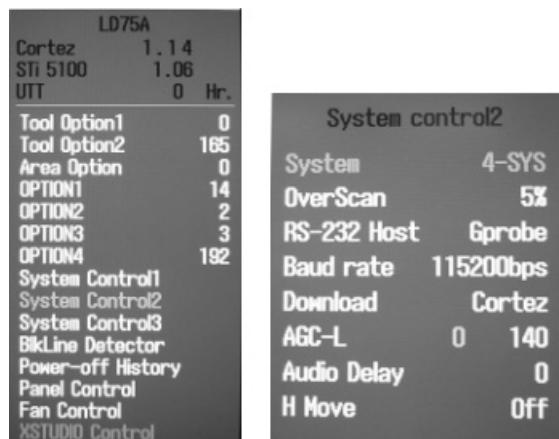
- * One of R Gain / G Gain / B Gain should be kept on 80, and others are controlled lowering from 80
- 1) Press "power on" of the control R/C, set heat run to white by pressing ▶, and heat run over 15 minutes
(Set : RS-232 Host : PC, Baud Rate : 115200bps, Download: Cortez).
- 2) Zero Calibrate CA-100+, and when controlling, stick the sensor to the center of LCD module surface.
- 3) Double click In-start key on Controlling R/C and get in 'white balance'.
- 4) Set test-pattern on and display inside pattern. Control is carried out on three color temperature, COOL, MEDIUM, WARM. (Control is carried out three times,.)

5) When the R/G/B GAIN is 80 on OSD, it is the FULL DYNAMIC Range of the Module. In order to control white balance without the saturation of FULL DYNAMIC Range and DATA, one of R Gain / G Gain / B Gain should be kept on 80, and other two is controlled lowering from 80.

- * Color Temperature: Cool, Medium, Warm
 - 1. When R GAIN is set to 80
 - Control G GAIN and B GAIN by lowering from 80.
 - 2. When B GAIN is set to 80
 - Control R GAIN and G GAIN by lowering from 80.
 - 3. When G GAIN is set to 80
 - Control R GAIN and B GAIN by lowering from 192.
- One of R Gain / G Gain / B Gain should be kept on 80, and adjust other two lower than 80.
(When R/G/B GAIN are all 80, it is the FULL DYNAMIC Range of Module)

8. Set Information(Serial No & Model name)

1) Setting up like bottom figure(After setting white balance, this is set)
(Setting: Press ADJ Key in the Adjust remocon.
Select "System Control 2" by using ▲/▼ (CH+/-) key,
and press ■ (ENTER)
Using Adjust remocon, RS-232 Host & Baud Rate &
Download value change)



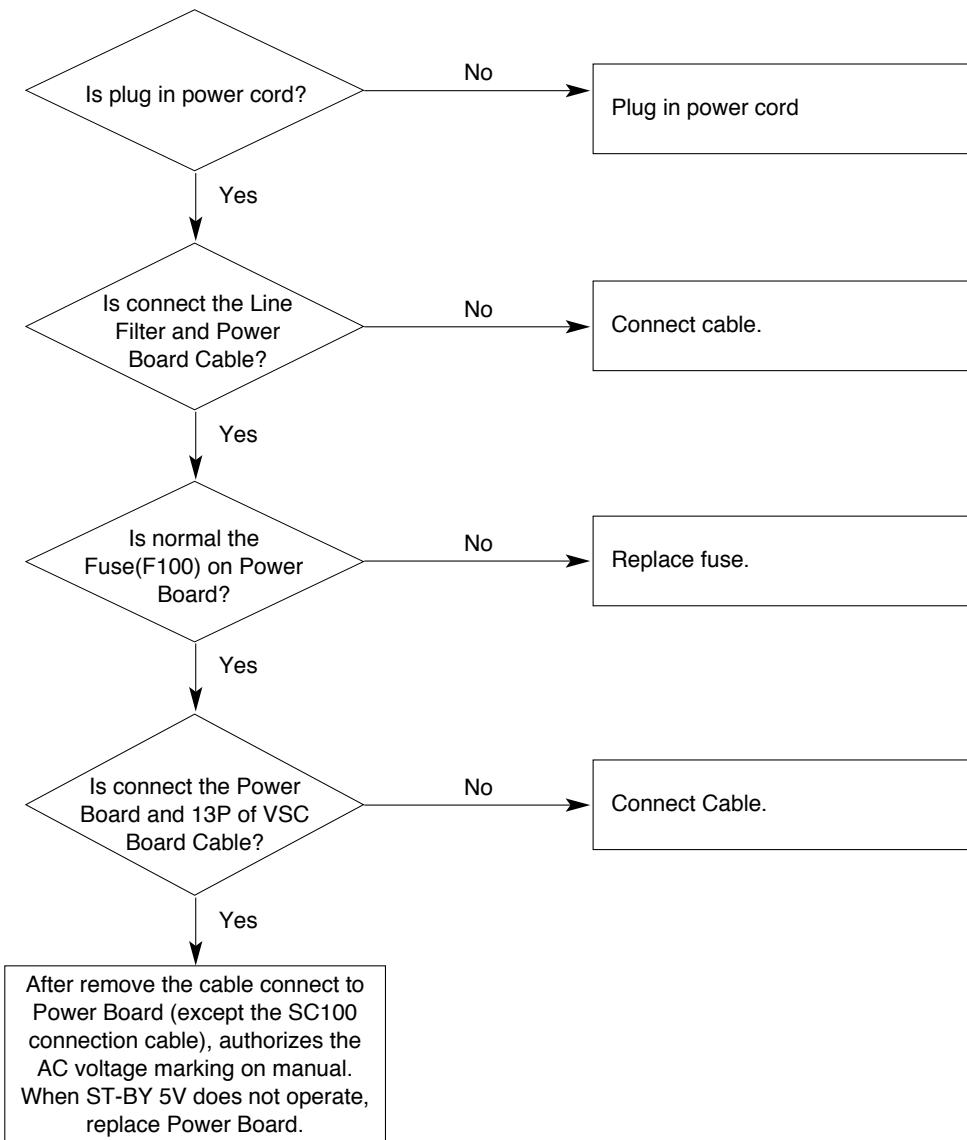
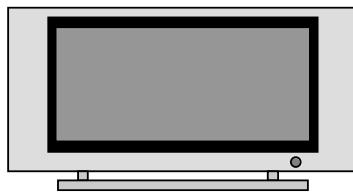
TROUBLESHOOTING

1. No power

(1) Symptom

- 1) Doesn't minute discharge at module.
- 2) Non does not come in into the front LED.

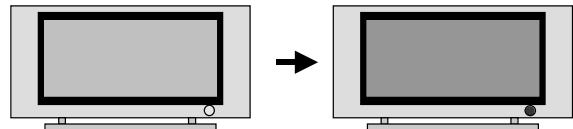
(2) Check follow



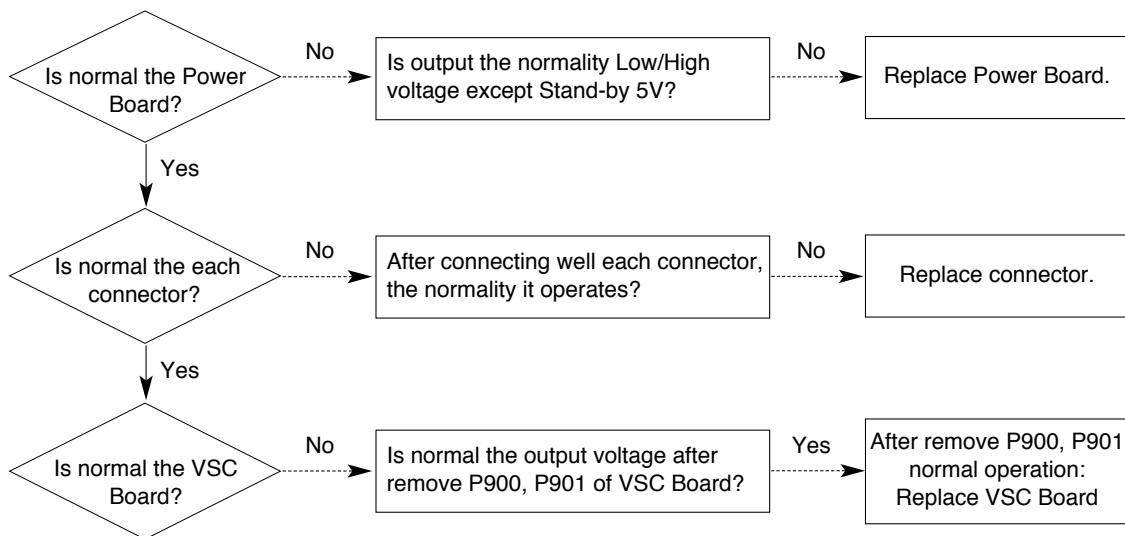
2. Protect mode

(1) Symptom

- 1) After once shining, it does not discharge minutely from module.
- 2) The relay falls.(The sound is audible “Click”.)
- 3) It is converted with the color where the front LED is red from green.



(2) Check follow



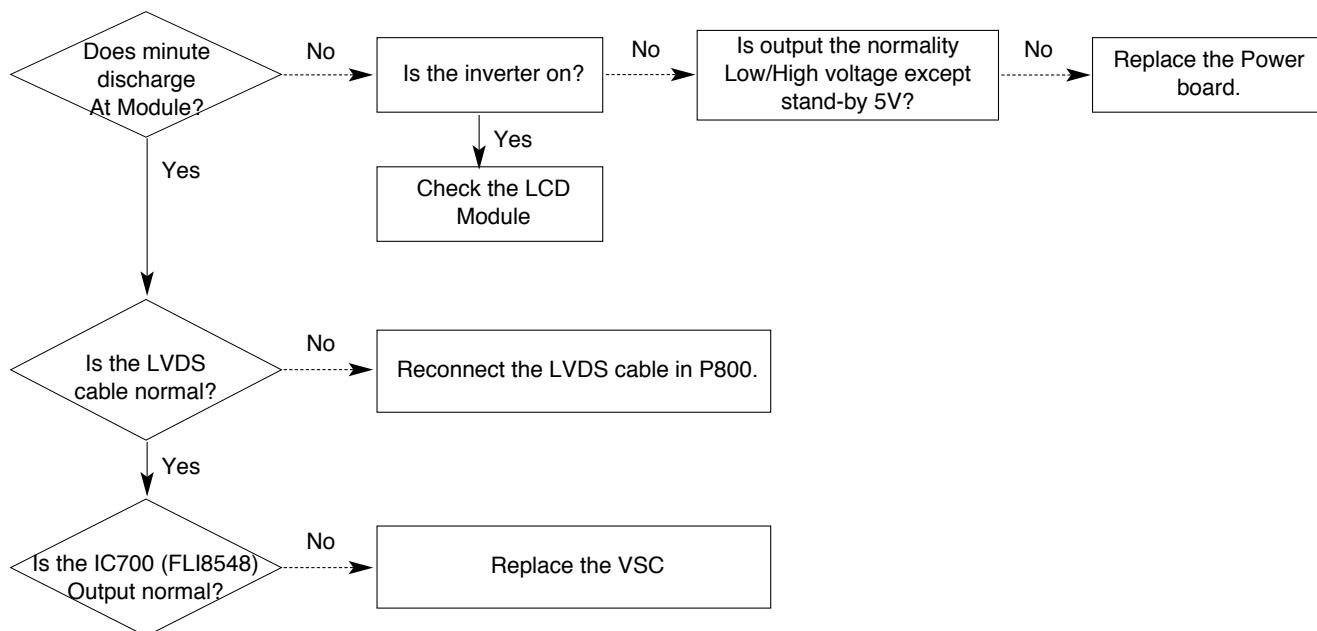
3. No Raster

(1) Symptom

- 1) No OSD and image occur at screen.
- 2) It maintains the condition where the front LED is green



(2) Check follow



4. In case of occur strange screen into specific mode

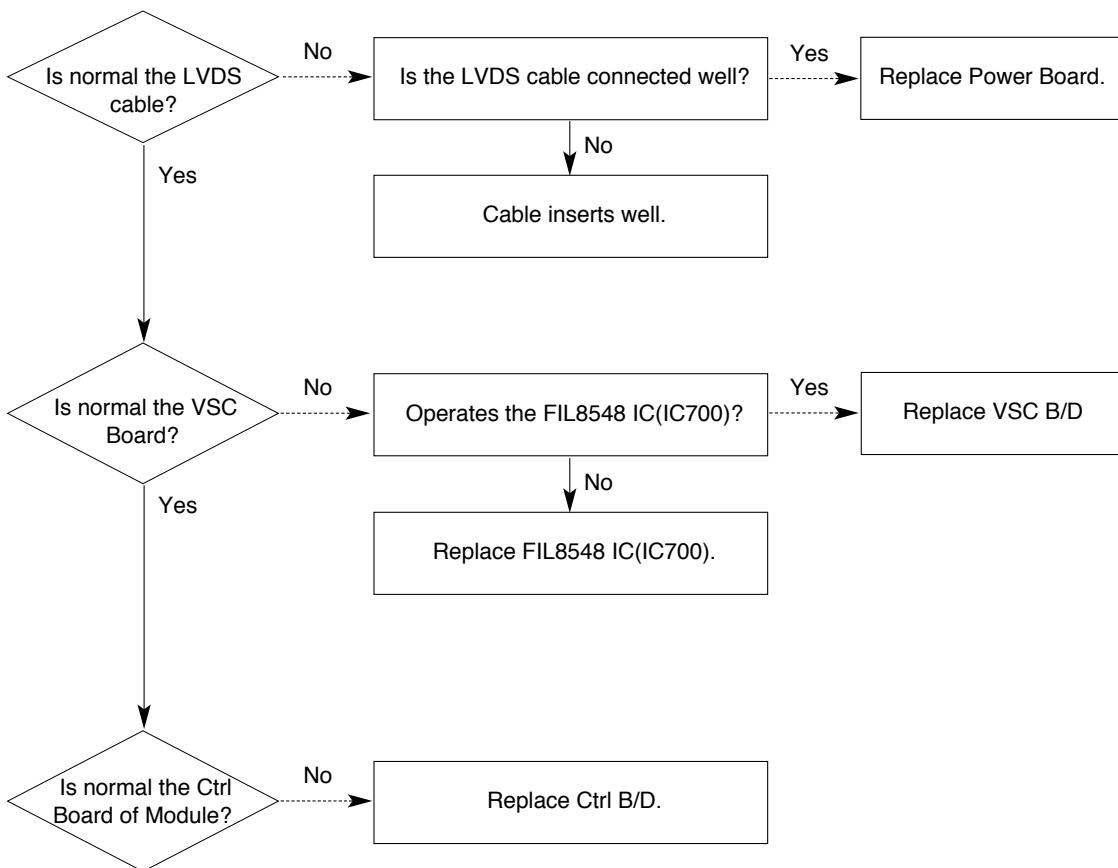
1) In case of does't display the OSD

(1) Symptom

- 1) LED is green.
- 2) The minute discharge continuously becomes accomplished from module



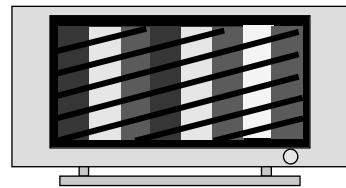
(2) Check follow



2) In case of does't display the screen into specific mode

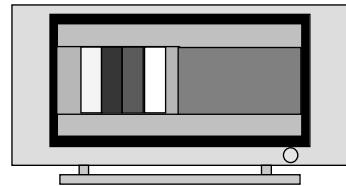
(1) Symptom

- The screen does not become the display from specific input mode (RF, AV, Component, RGB, DVI).

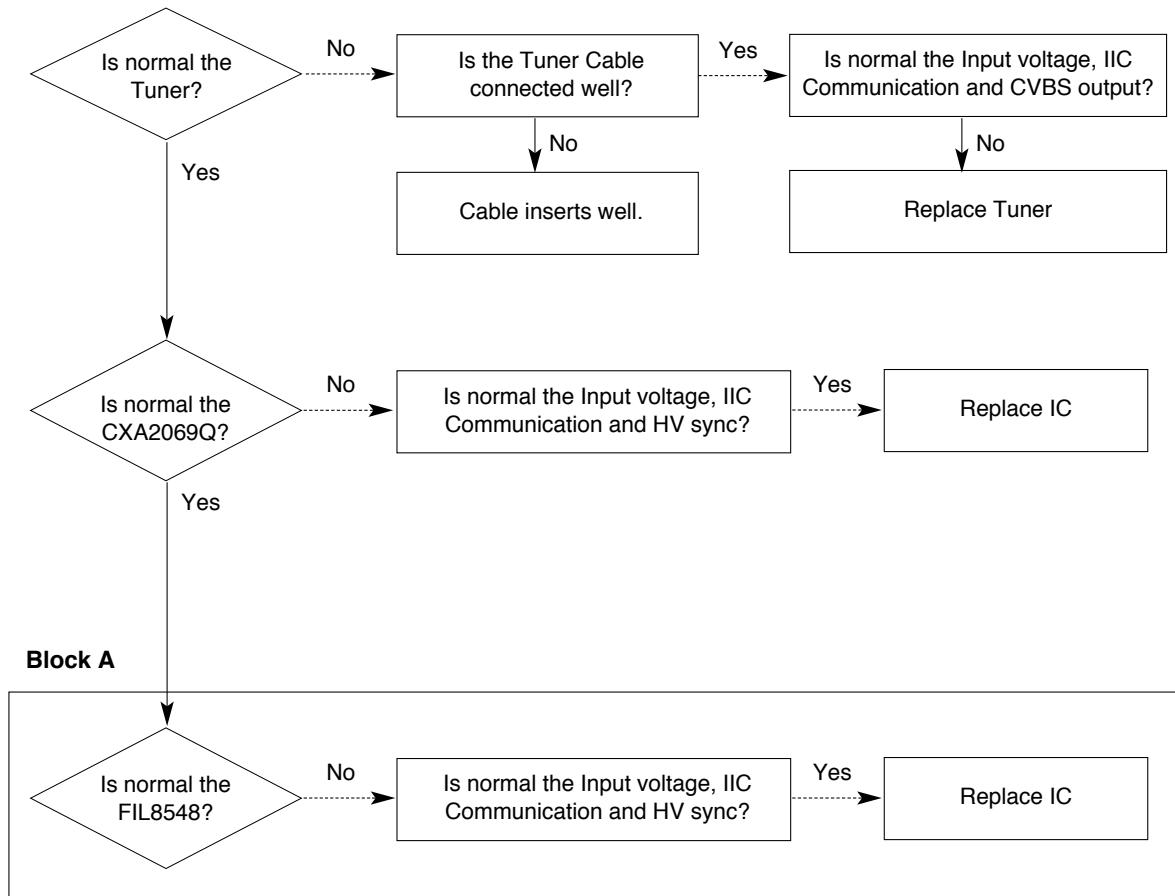


(2) Check follow

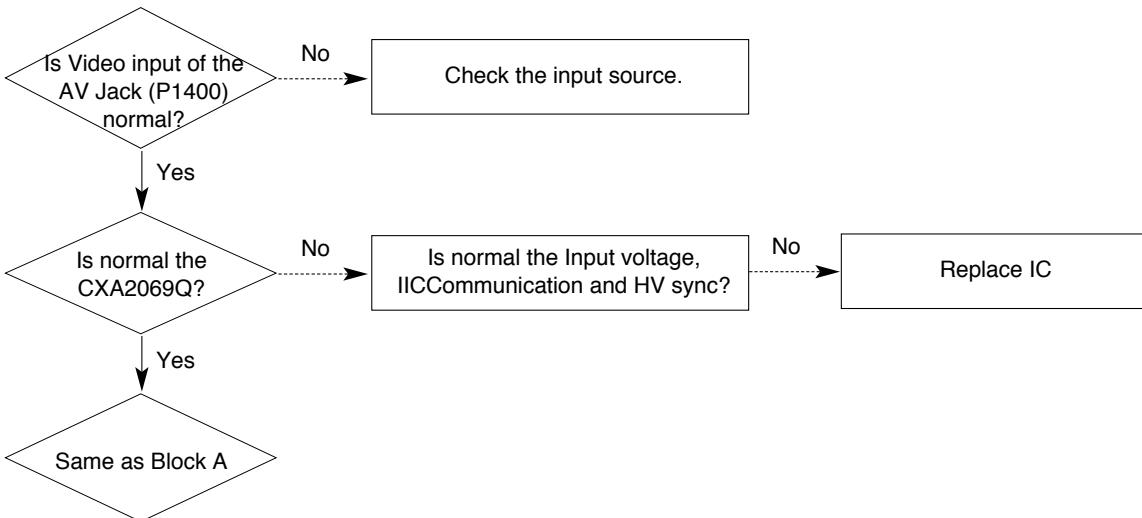
- (1) Check the all input mode should become normality display.
- (1) Check the Video(Main)/Data(Sub), Video(Main)/Video(Sub) should become normality display from the PIP mode or DW mode. (Re-Check it Swap)



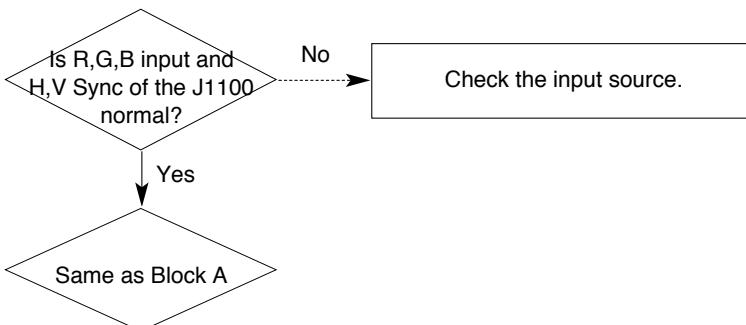
(3) In case of becomes unusual display from RF mode



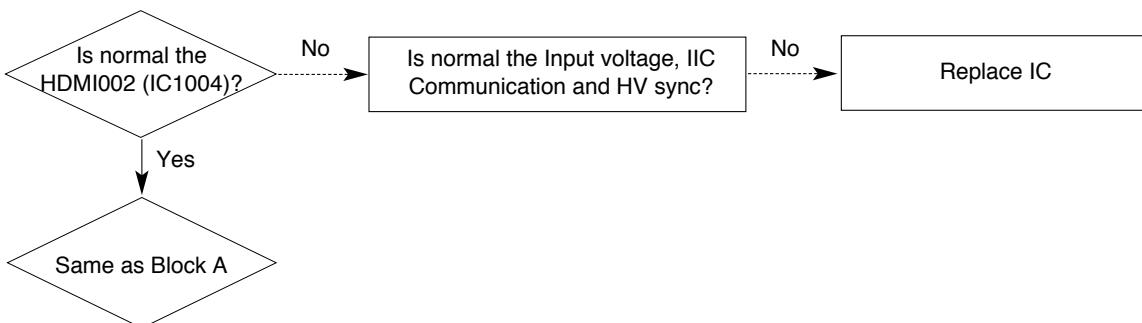
(4) In the case of becomes unusual display from side S-video/AV mode



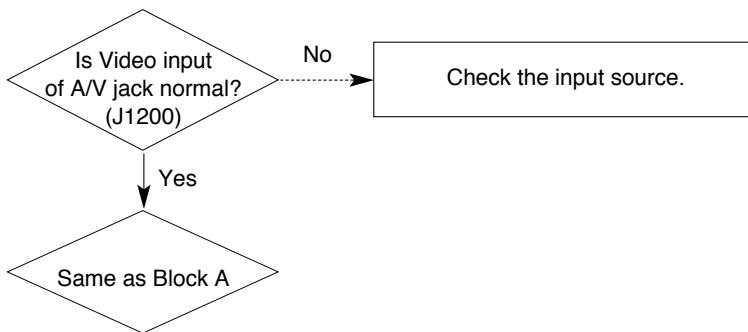
(5) In the case of becomes unusual display from Component, RGB mode



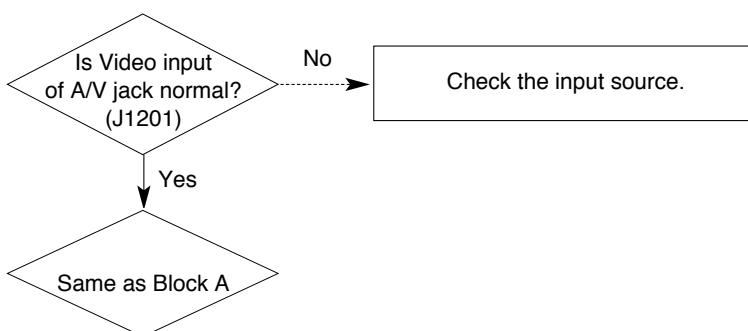
(6) In the case of becomes unusual display from HDMI mode



(7) In the case of becomes unusual display from SCART1 mode



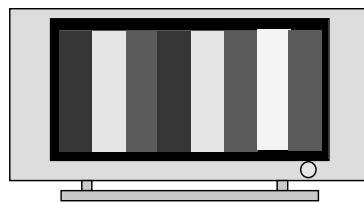
(8) In the case of becomes unusual display from SCART2 mode



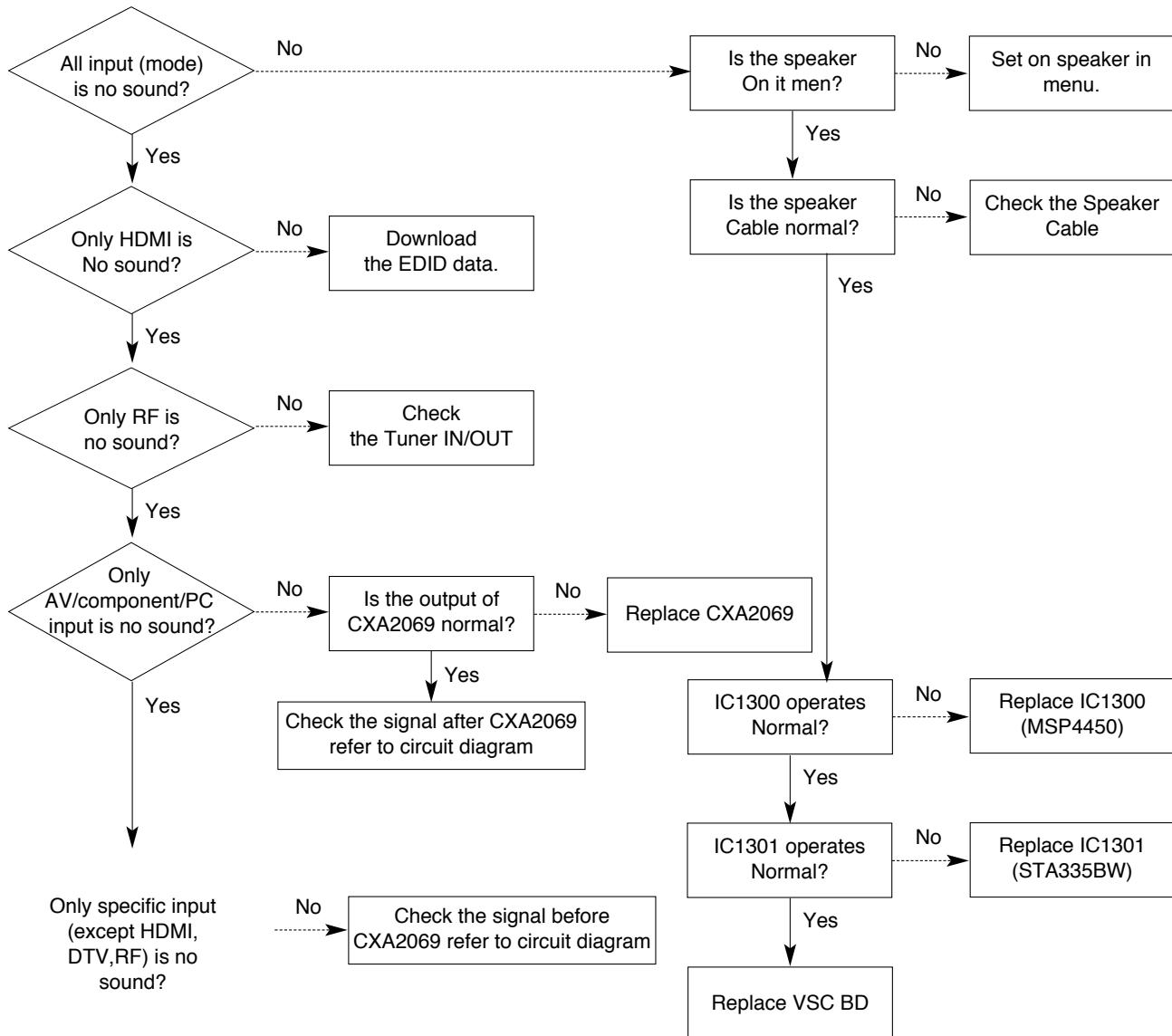
5. In case of no sound

(1) Symptom

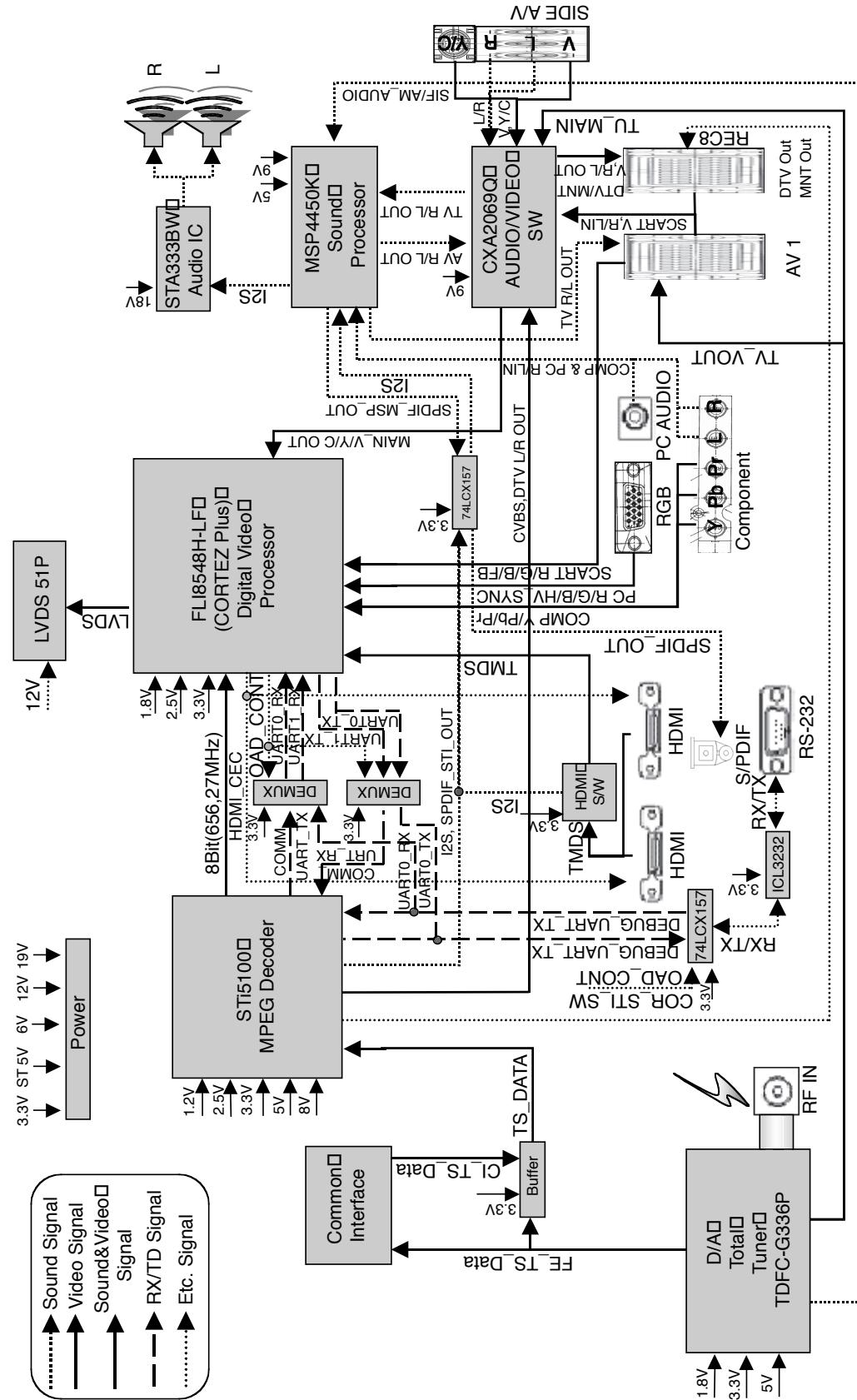
- 1) LED is green.
- 2) Screen display but sound is not output



(2) Check follow

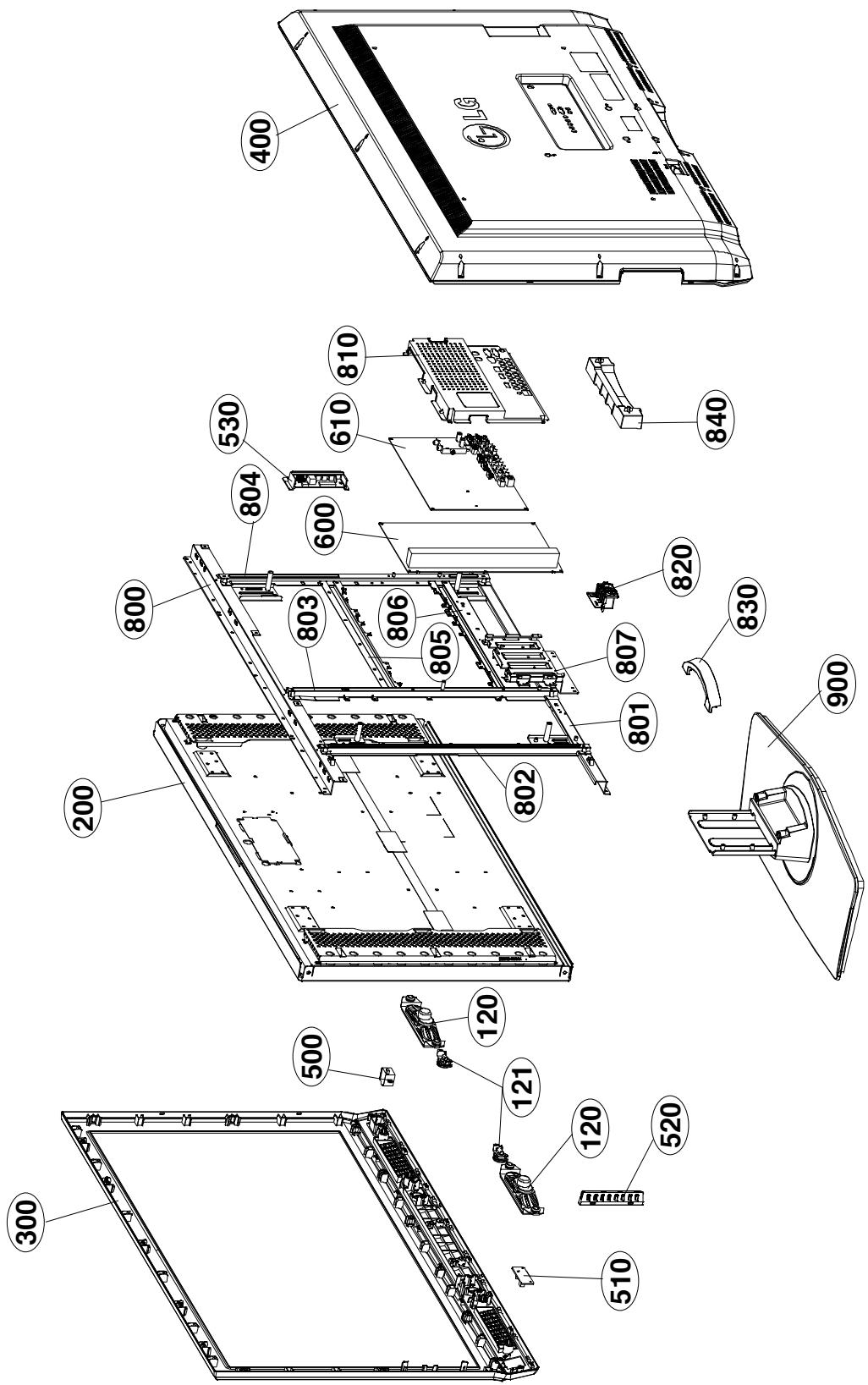


BLOCK DIAGRAM



MEMO

EXPLODED VIEW

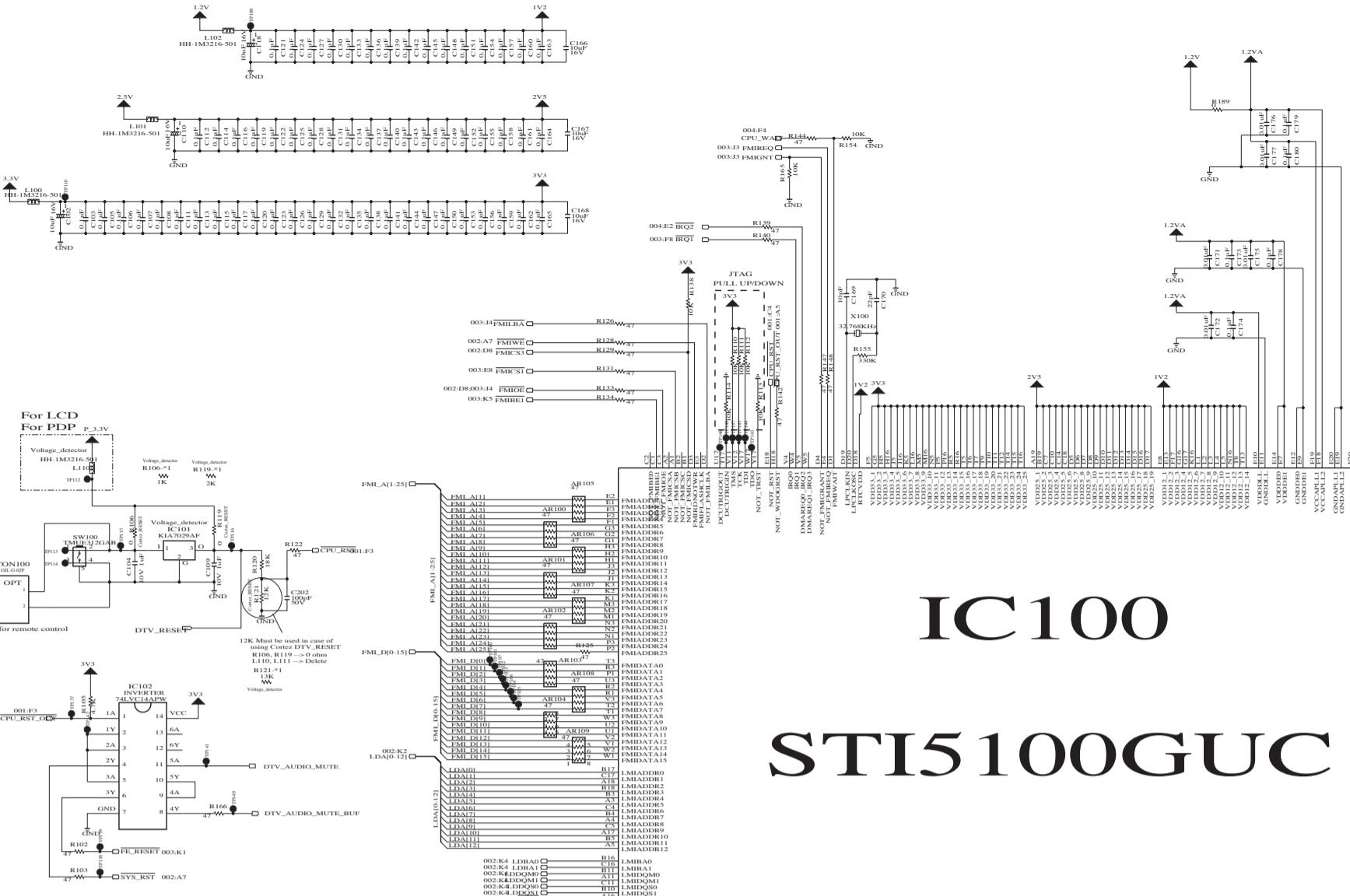


EXPLODED VIEW PARTS LIST

| No. | PART NO. | DESCRIPTION |
|-----|----------|--|
| | 120 | EAB33775101 Speaker,Full Range, EN1562C-6712 ND 10W 8OHM 82DB 100HZ 193.5 X 42 X 39.9 LUG KOREA TOPTONE |
| | 121 | EAB33893101 Speaker,Tweeter, EN10D-6714 ND 10W 8OHM 82DB 0HZ 68 X 23 X 22.7 LUG KOREA TOPTONE |
| ⚠ | 200 | EAJ37267701 LCD,Module-TFT, LC420WU2-SLB2 FULLHD 42.0INCH 1920X1080 550CD COLOR 72% 16/9 800:1 (DCR 5000:1) A-TW Pol. 10000K P7 LG PHILIPS LCD |
| ⚠ | 300 | ABJ32247710 Cabinet Assembly, 42LF66-ZE FHD LD75A 42" EUROPASS3_DVB C/SKD (SPK GRILL GLOSSY, SPRAY "A": N.BLOCK) |
| ⚠ | 400 | ACQ32247927 Cover Assembly, 42LC7R/55/LF65-ZA LD73A-PHANTOM 42" BACK COVER ASSY_42" EUROPASS3_NON_DVR_TORNADO_LOCAL_LGEWR |
| | 500 | 6500VR0003E Sensor,Ambient Light, YGCA-T071C 12 HOUSING BK 26.4X20X26.4mm VOUT 5V(AT 80LUX) LG INNOTEK CO., LTD |
| | 510 | EBR36626101 PCB Assembly,Sub, SUB T.T LD75A 47LB5DF-ZC - PRE_AMP TOTAL |
| | 520 | EBR35599601 PCB Assembly,Sub, SUB T.T LD75A 47LB5DF - CONTROL KEY TOTAL |
| | 530 | EBR35590501 PCB Assembly,Sub, SUB T.T LD75A 47LB5DF - SIDE_AV TOTAL |
| ⚠ | 600 | EAY32731102 SMPS,AC/DC, FSP286-6F02 90VTO264V 285W 50/60 UL/CSA/VDE/CB etc.... LCD 42inch PSU(SPI) - without metal shield model SPI ELECTRONIC CO.,LTD |
| | 610 | EBR37373812 PCB Assembly, MAIN, T.T LD75A 42LF65-ZC SEUMLJG MAIN PCB Assembly for MA_SKD Without Tuner Assy |
| | 800 | MGJ32902301 Plate, PRESS EGI 1.2 FRAME SBHG-A 42LY3 METAL BAR TOP FOR LPL MODULE |
| | 801 | MGJ32902403 Plate, PRESS EGI 1.6 FRAME SBHG-A 42LC4 METAL BAR BOTTOM ('c'jOE pem-nut 'NO') FOR LPL MODULE |
| | 802 | MGJ32902502 Plate, PRESS EGI 1.2 FRAME SBHG-A 42LC4 METAL BAR RIGHT |
| | 803 | MGJ32902703 Plate, PRESS EGI 1.2 FRAME SBHG-A 42LC4 METAL BAR CENTER('c'jOE pem nut 'NO') LPL normal module |
| | 804 | MGJ32902602 Plate, PRESS EGI 1.2 FRAME SBHG-A 42LC4 metal bar left ('c'jOE pem-nut 'NO') |
| | 805 | MGJ32902803 Plate, PRESS EGI 1.2 FRAME SBHG-A METAL BAR SIDE TOP FOR Europass3 |
| | 806 | MGJ32902903 Plate, PRESS EGI 1.2 FRAME SBHG-A METAL BAR SIDE BOTTOM FOR Europass3 |
| | 807 | MJH34000501 Supporter, PRESS EGI 2 GUIDE EGI 42LC4 METAL STAND SUPPORTER |
| | 810 | MJH32521102 Supporter, PRESS EGI 0.5t GUIDE EGI METAL, REAR SHIELD (47LB5DF-ZA) |
| | 820 | EBR36524801 PCB Assembly,Sub, SUB T.T LA71A 42LY3DR-NA AKRLLH AC-Inlet Ass'y Total |
| | 830 | MCK32929601 Cover, MOLD ABS HF-380 42LC4 ABS, HF-380 CABLE MANAGEMENT |
| | 840 | MAZ34241801 Bracket, MOLD HIPS 405AF STAND 42LC5/7 - HIPS 405AF GUIDE |
| ⚠ | 900 | AAN33050304 Base Assembly, STAND 42LB5DF-UC LA73A EV3, FHD 42LB5DF-UC STAND ASSY_NO_PRINT C/SKD(HIGH GLOSSY ROUND TYPE) |

| LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION | LOC. NO. | PART NO. | DESCRIPTION / SPECIFICATION |
|----------|-------------|---|----------|----------|-----------------------------|
| C15 | EAD36184801 | "Harness,Single" SMH250 SMH250 400MM 2. | | | |
| C16 | EAD36608901 | "Harness,Single" SMH200-12P SMH200-12PL | | | |
| C3 | 6631900010N | "Harness,Single" 12P 2.0MM 900MM SMH200 | | | |
| C4 | 6631900012C | "Harness,Single" SMH250 SMH250 200mM 2. | | | |
| C5 | 6631900027C | "Harness,Single" SMH250 SMH250 200mM 2. | | | |
| C6 | 6631900049D | "Harness,Single" 14P-14P INVERTER CONNE | | | |
| C7 | 6631900063G | "Harness,Single" 6631900063G SMH200 SMH | | | |
| C8 | 6631900097F | "Harness,Single" YEONHO)SMH250 35097/35 | | | |
| C9 | 6631900098F | "Harness,Single" SMH250 35097/35098 120 | | | |

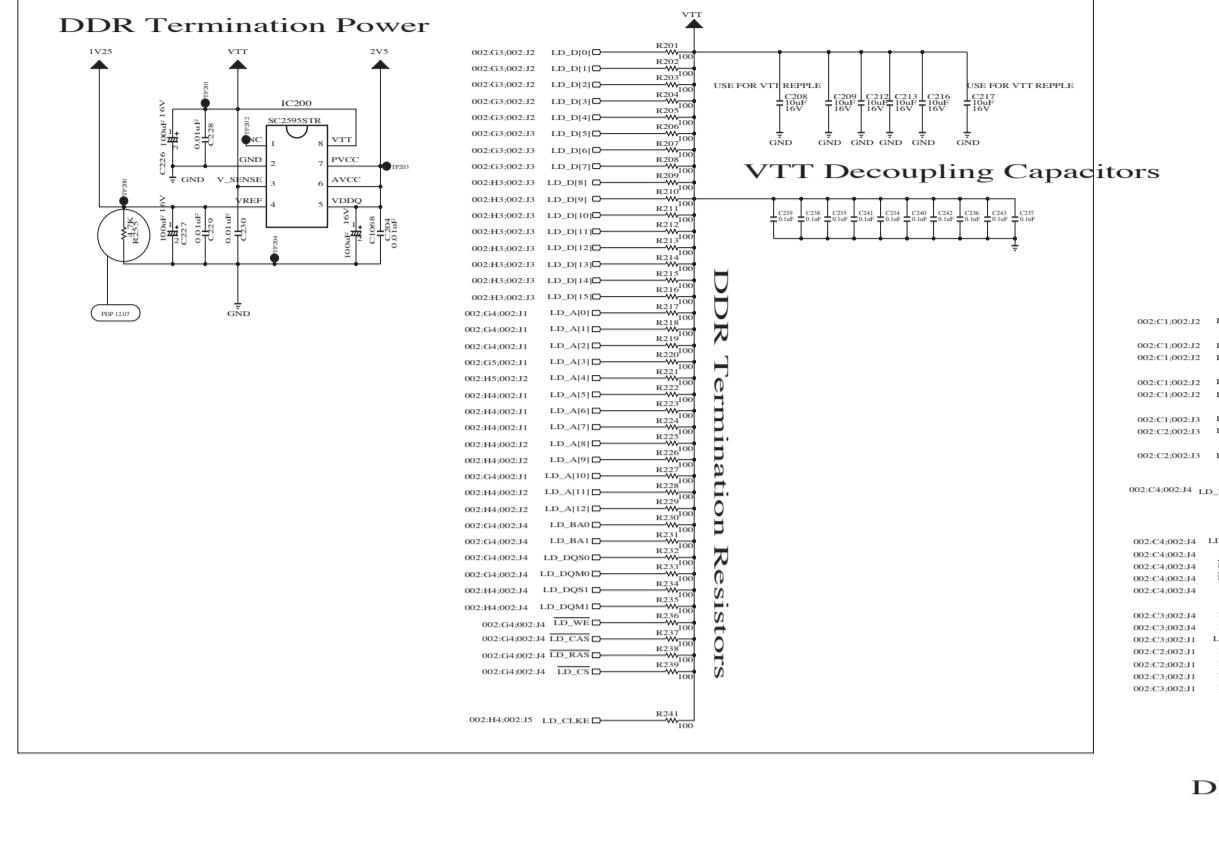
SI5100 Decoupling Capacitors



IC100

STI5100GUC

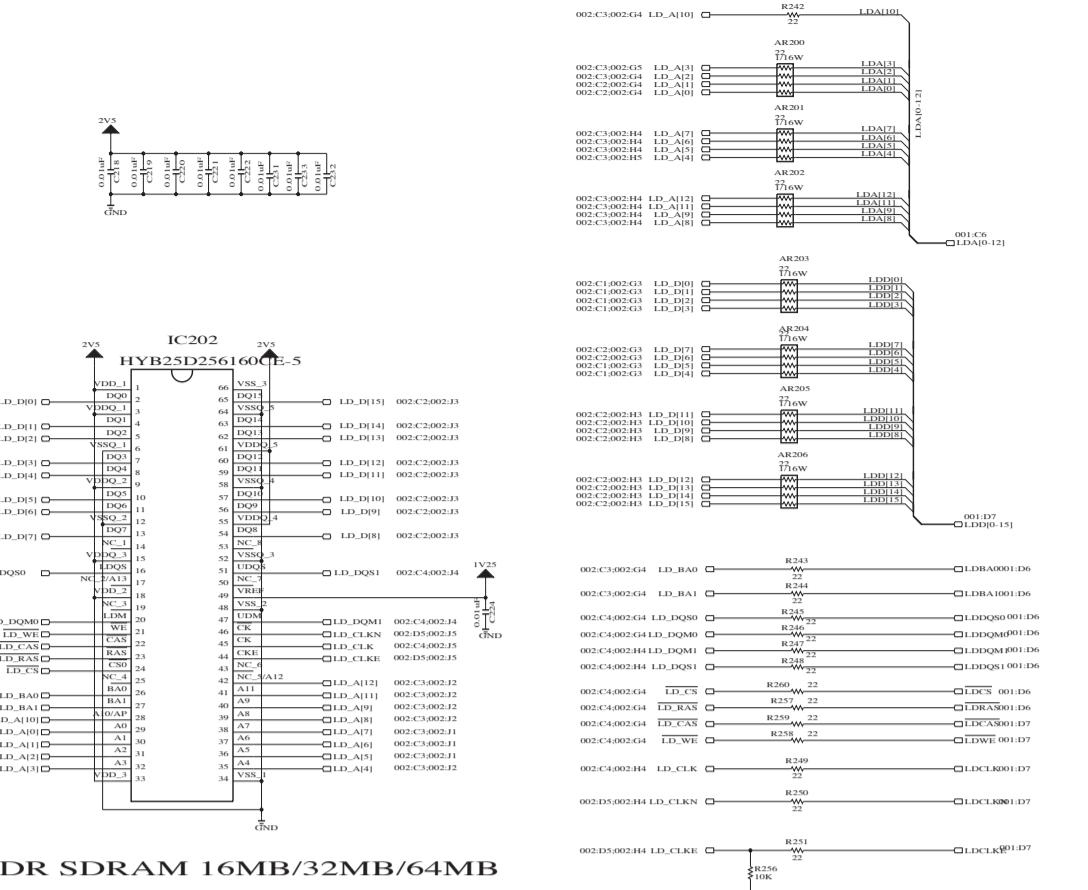
DDR TERMINATION OPTIONS



VTT Decoupling Capacitors

DDR Termination Resistors

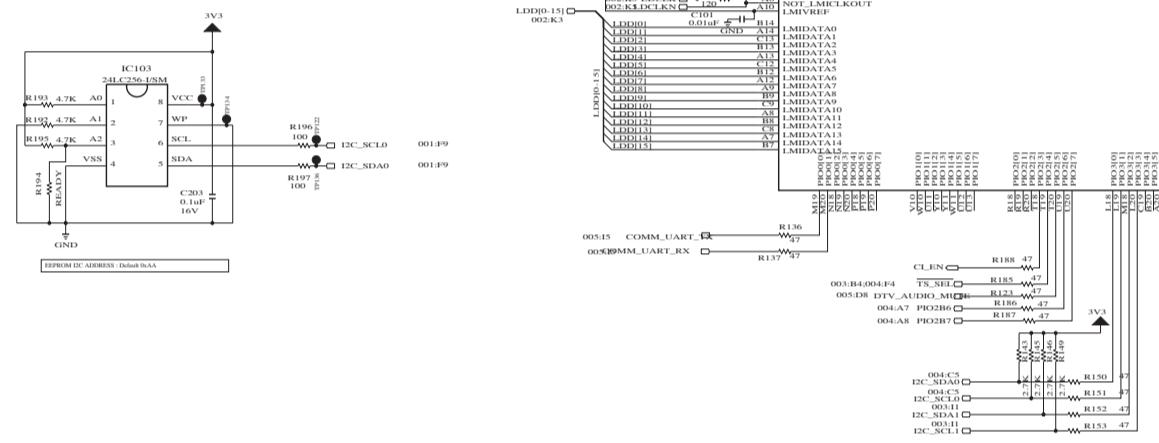
DDR Termination Power



DDR SDRAM 16MB/32MB/64MB

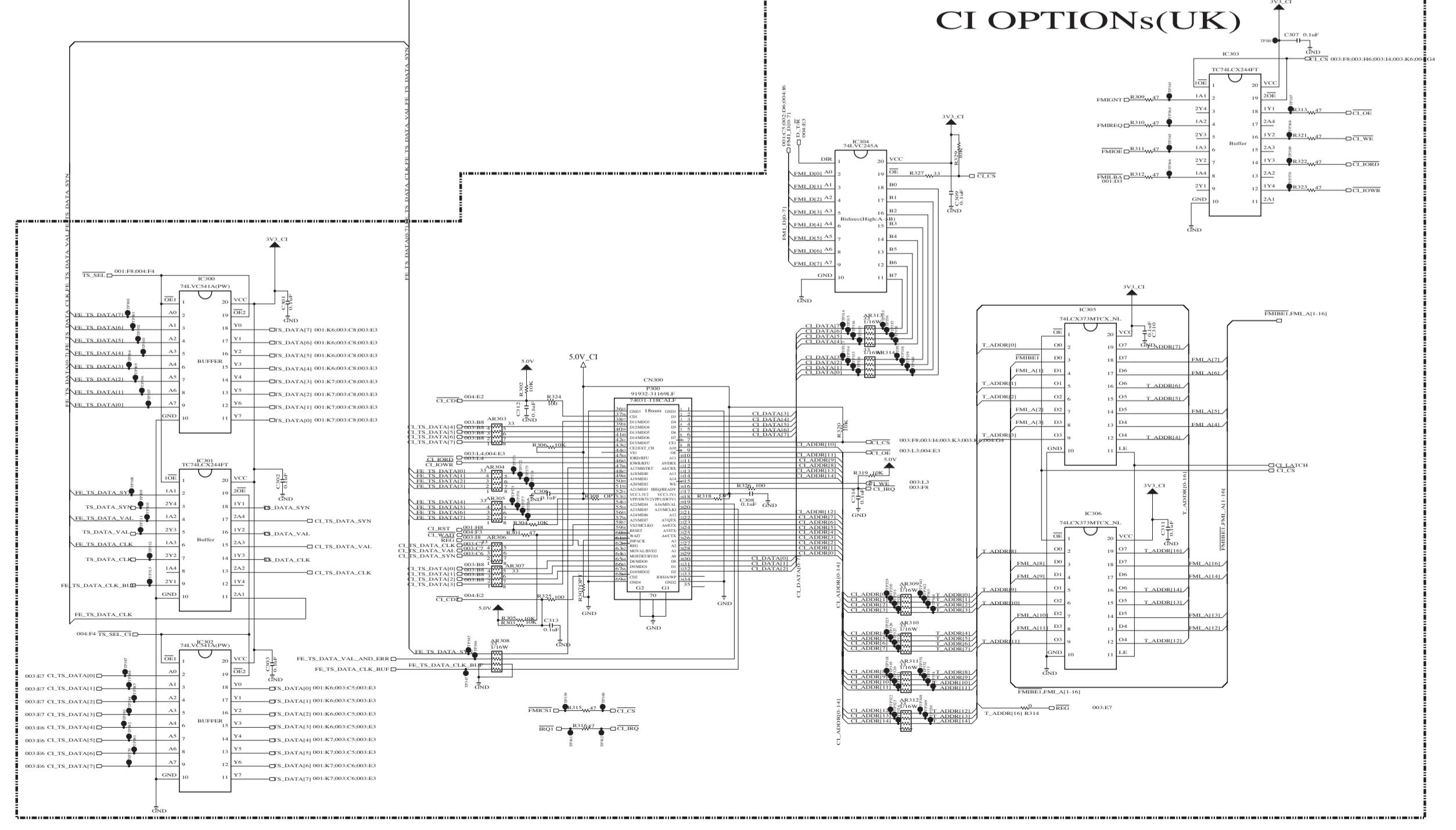
DDR Series Resistors

[EEPROM]

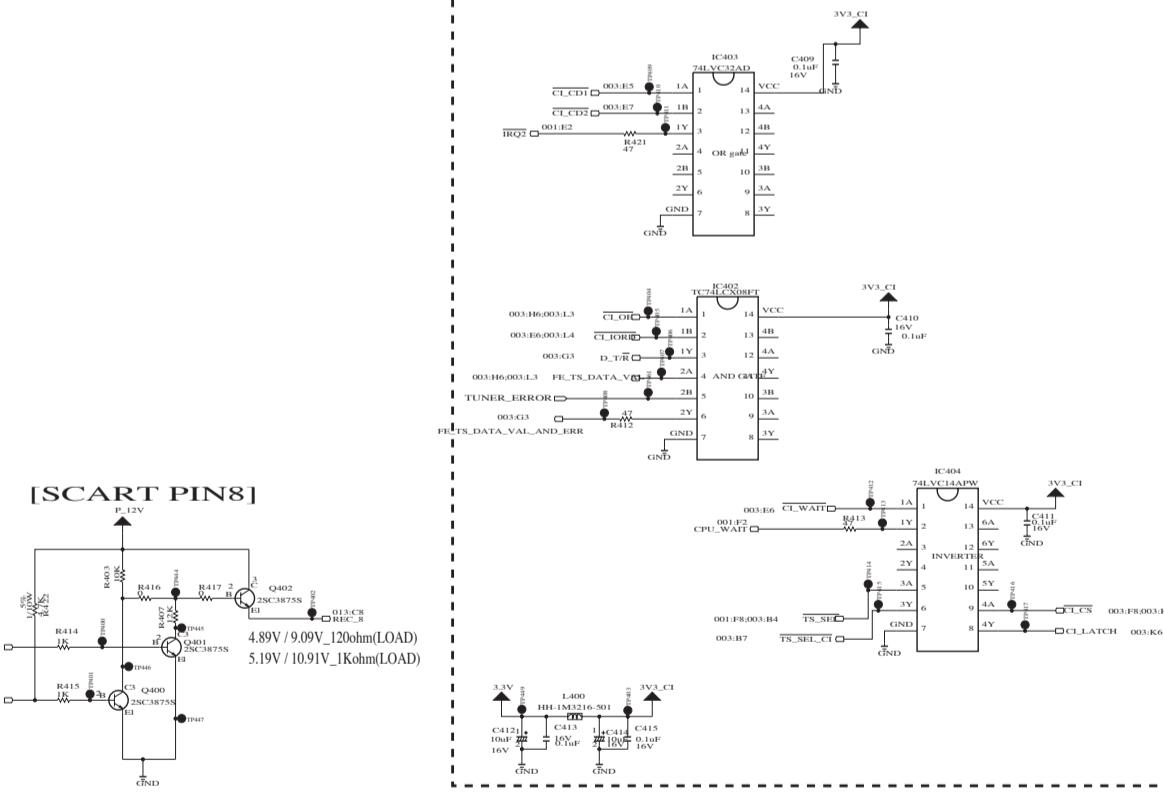


FE_TS_DATA[0-7], FE_TS_DATA_CLK, FE_TS_DATA_VAL, FE_TS_DATA_SYN

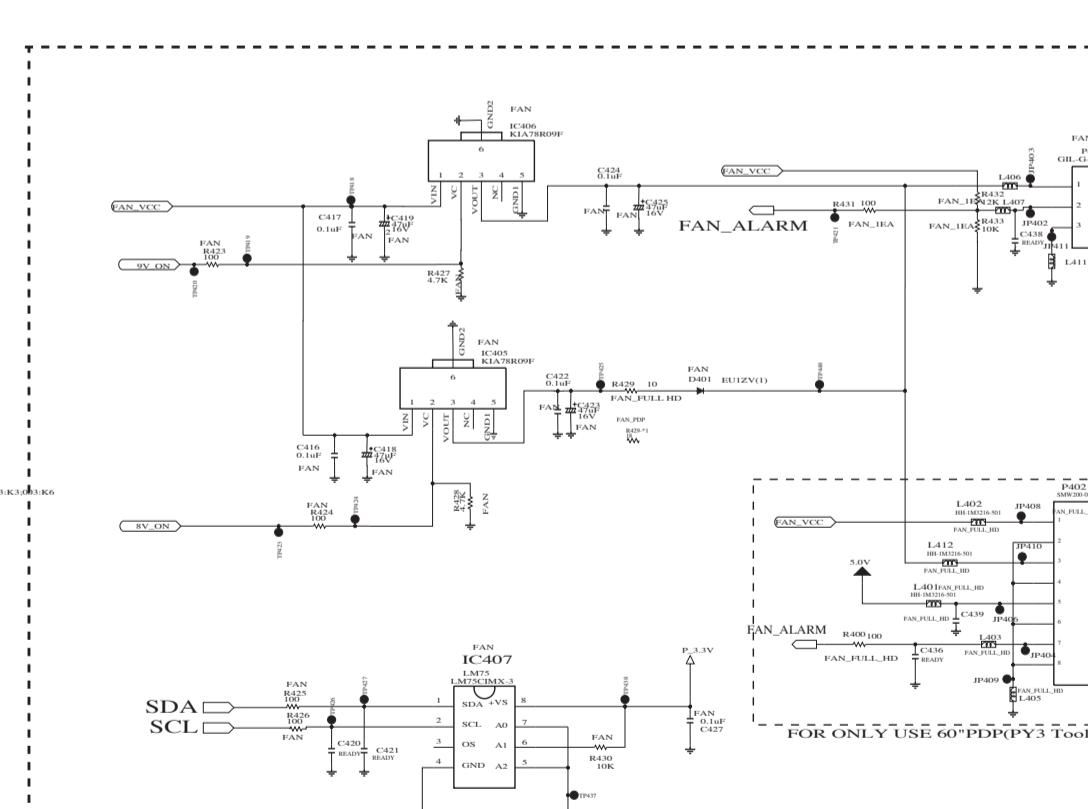
CI OPTIONS(UK)



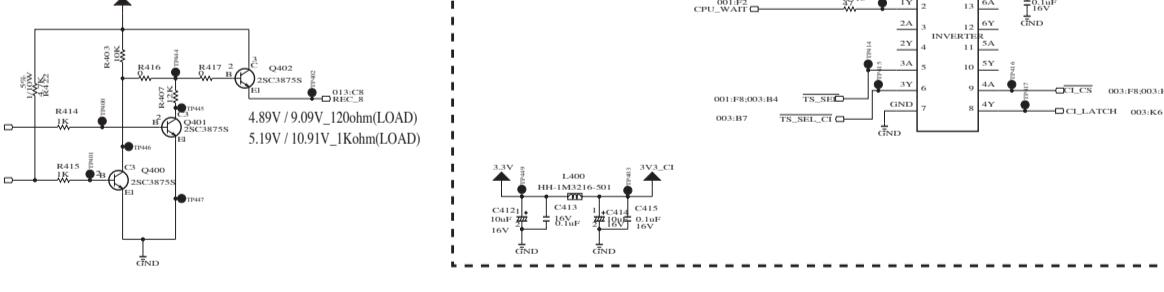
CI OPTIONS(UK)



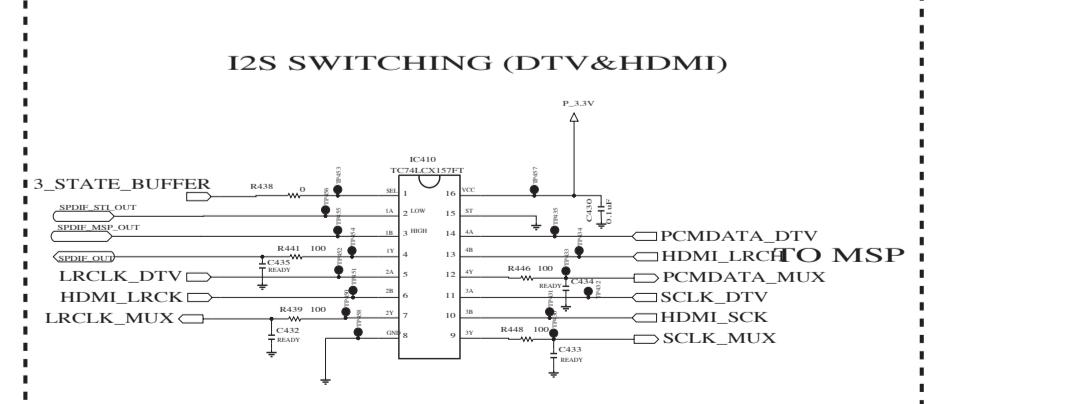
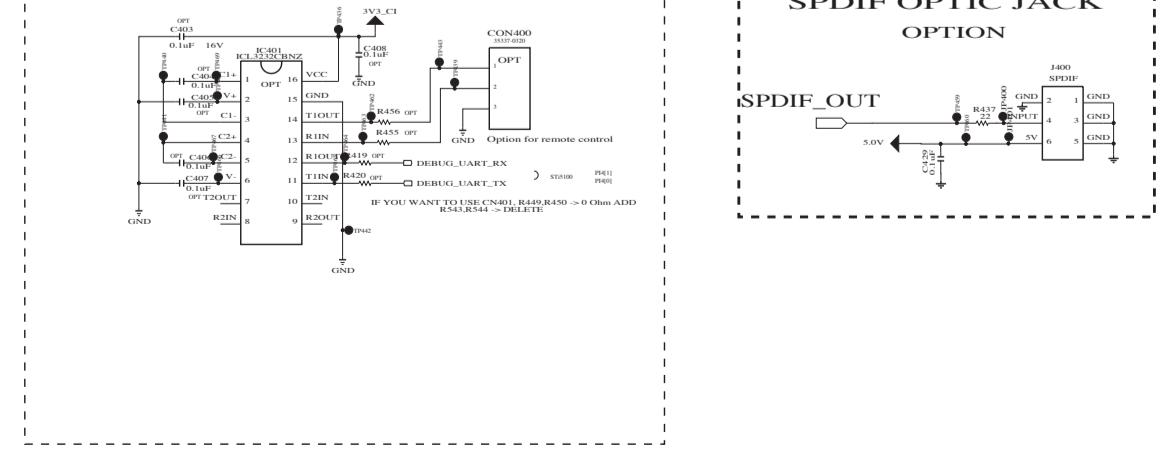
FAN OPTION



[SCART PIN8]

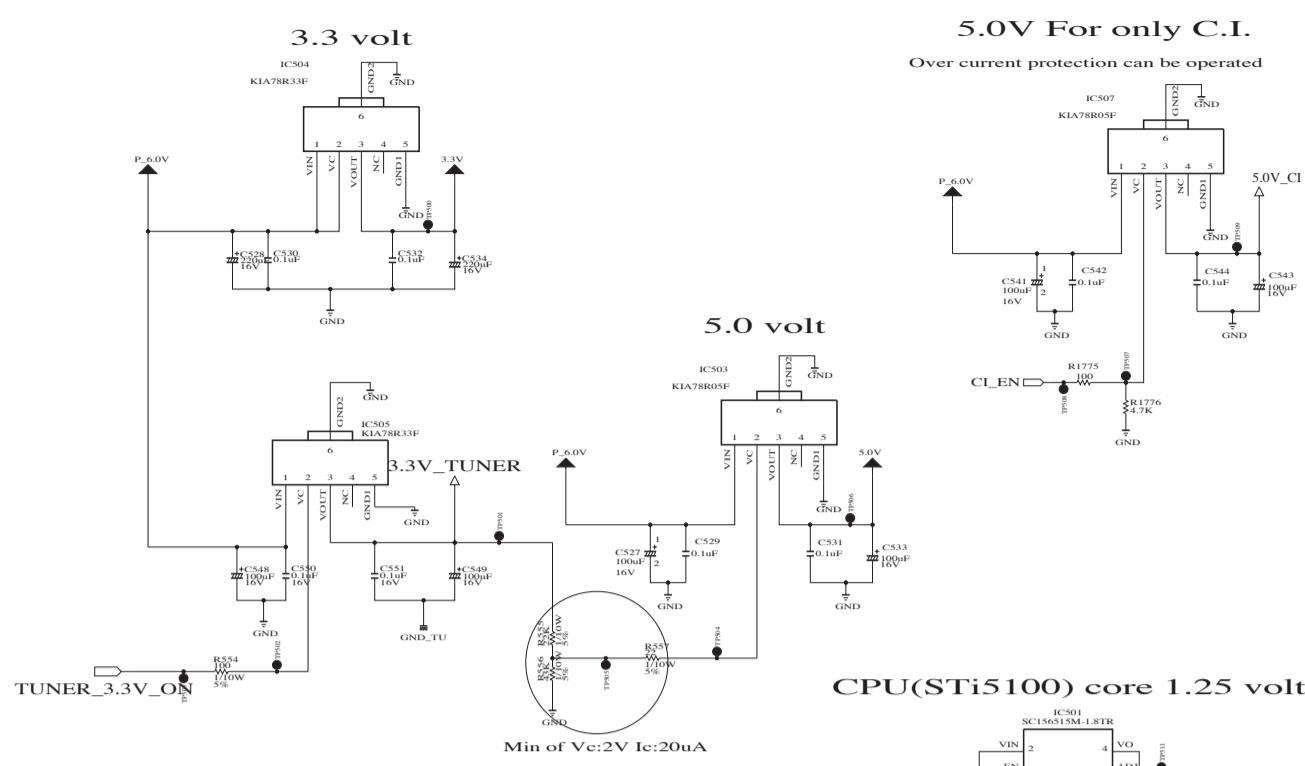


OPTION ST UART FOR DEBUG

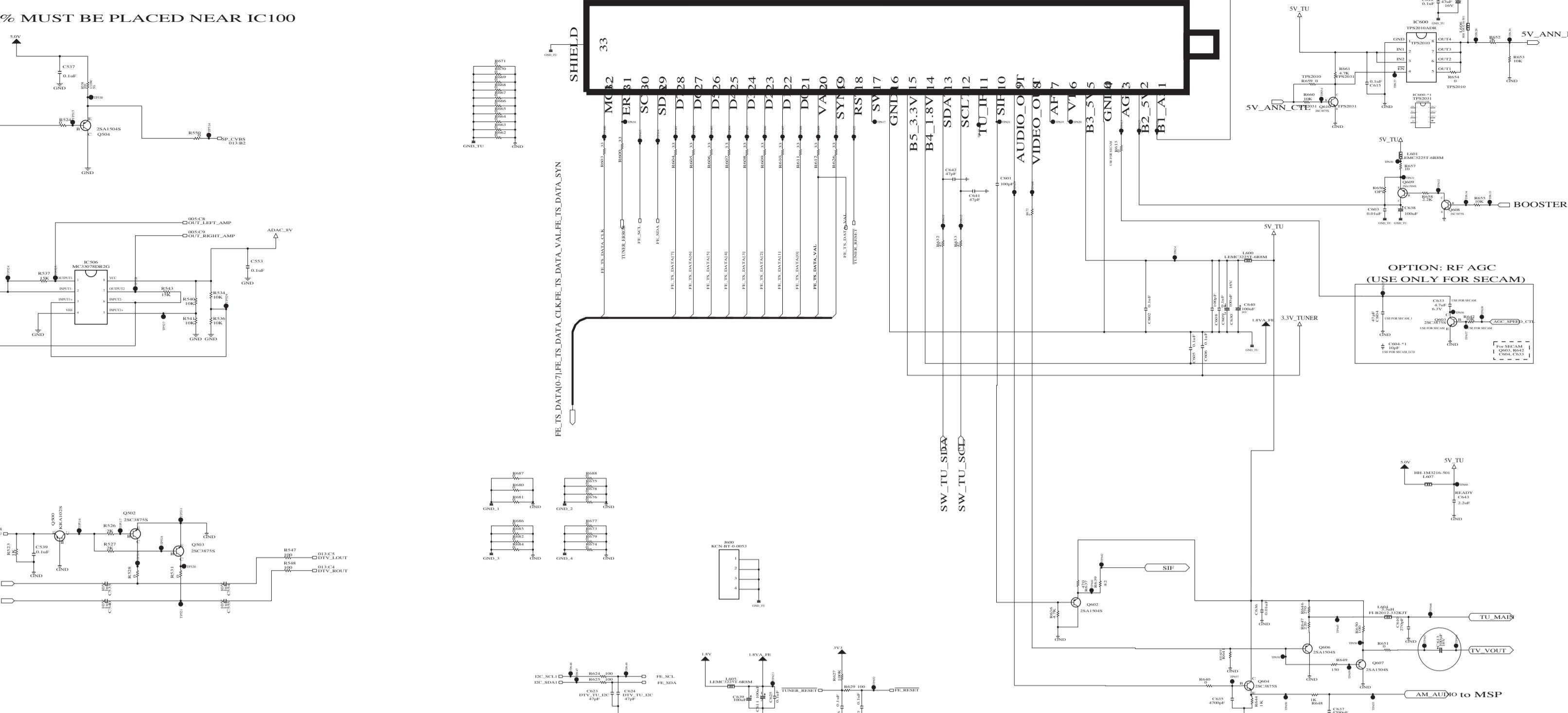


FOR ONLY USE 60PDP(PY3 Tool)

[POWER BLOCK]



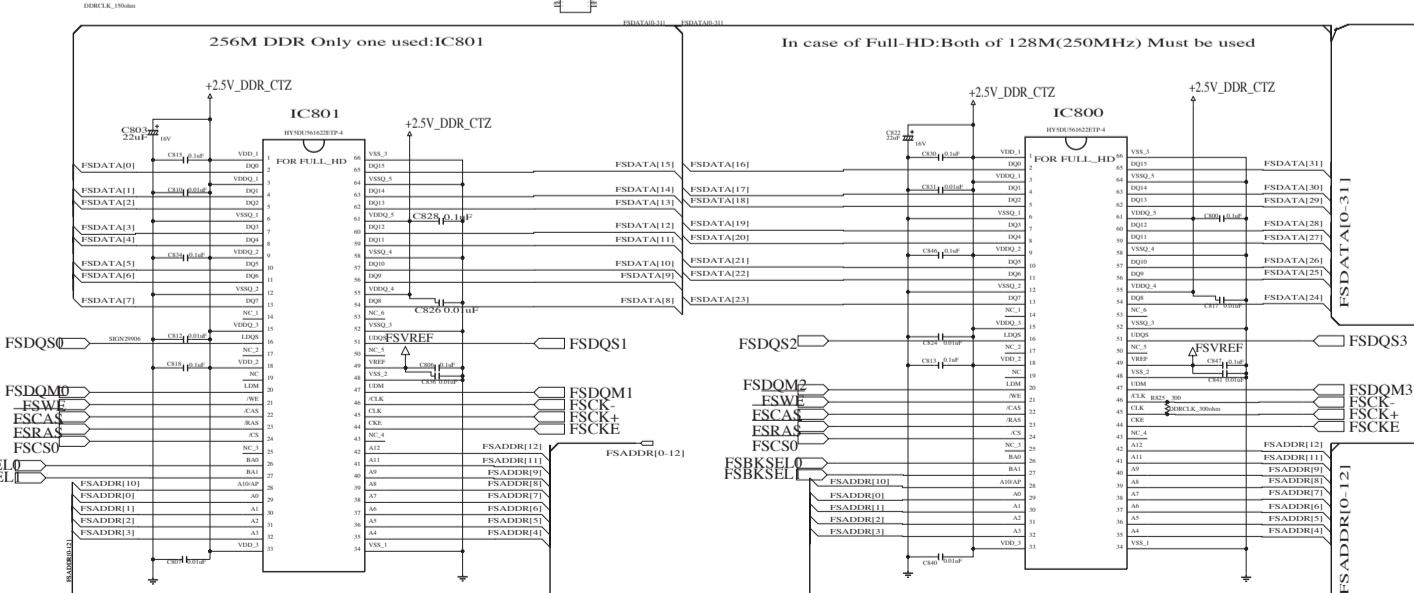
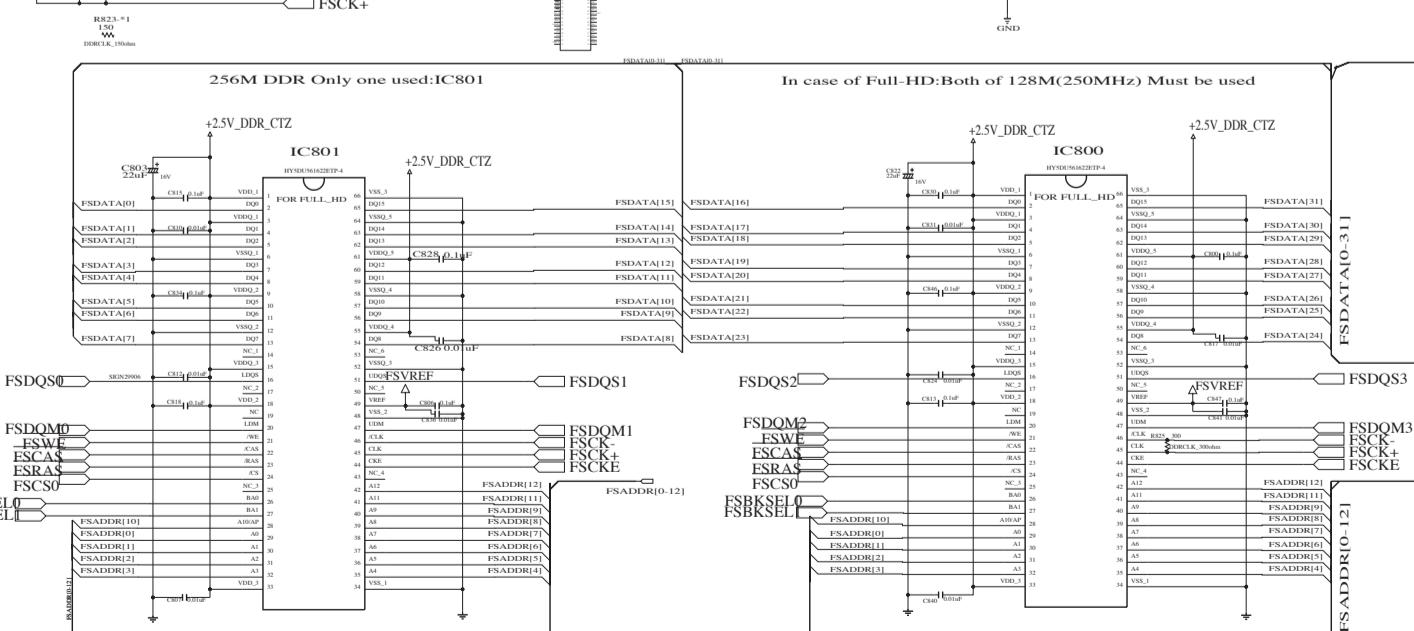
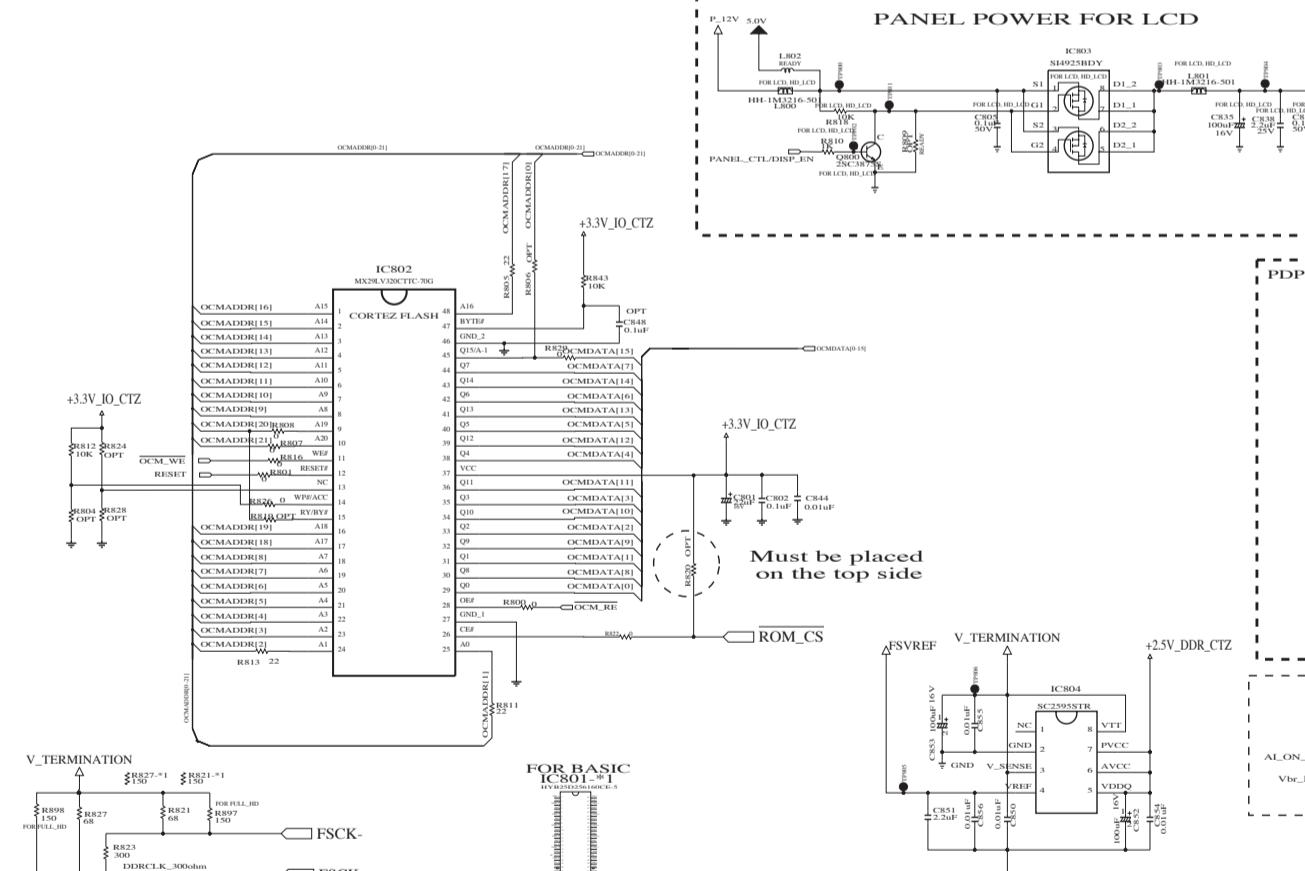
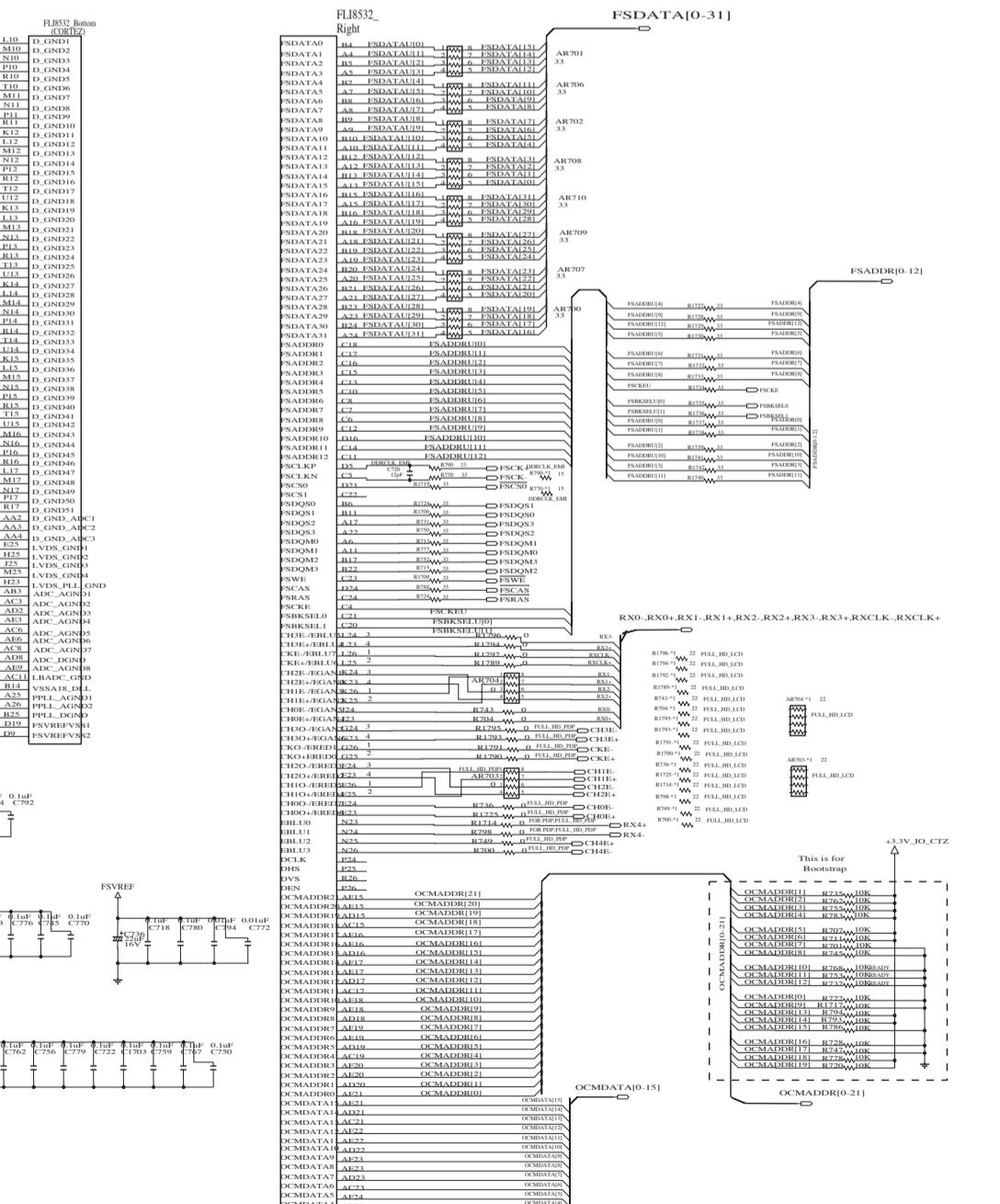
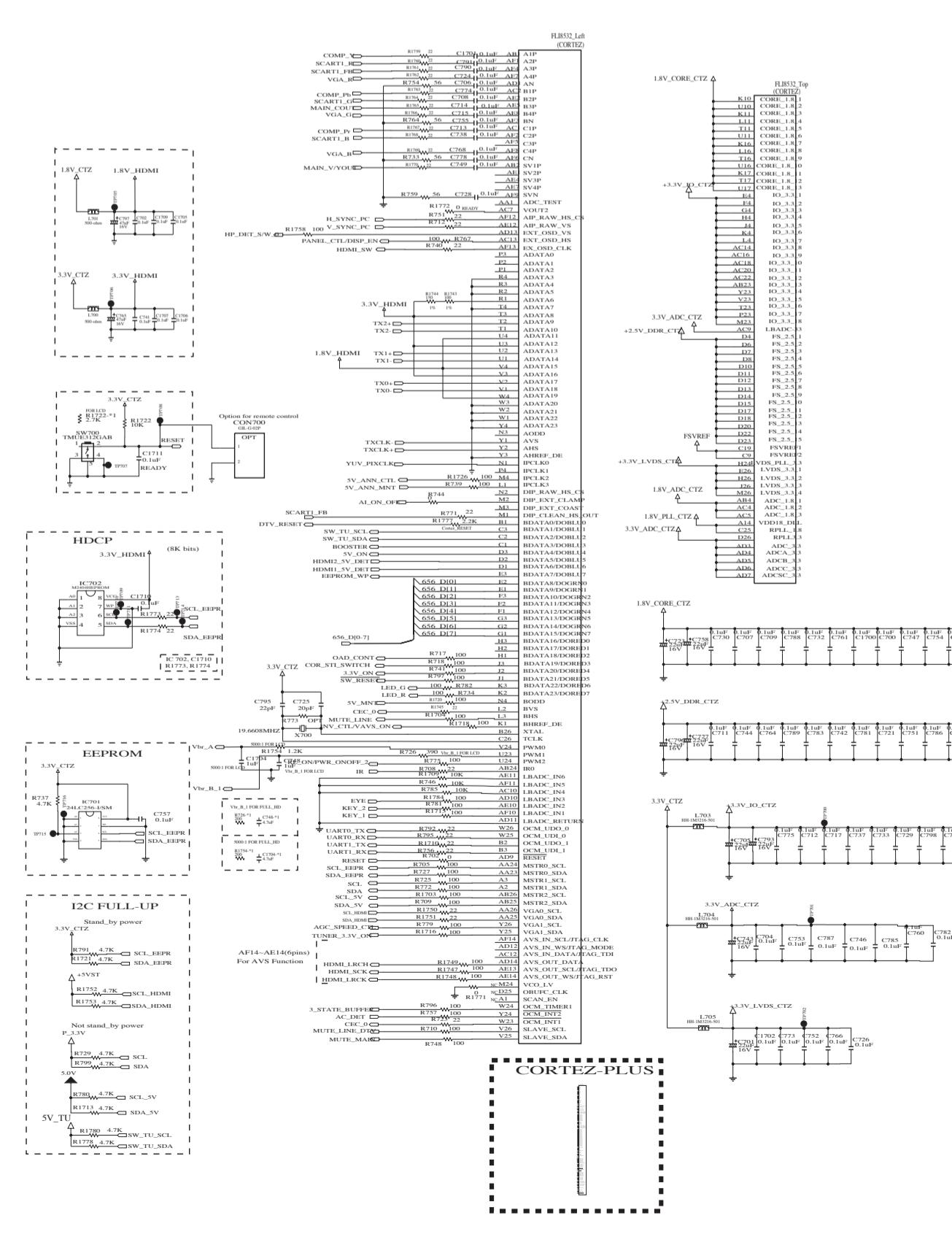
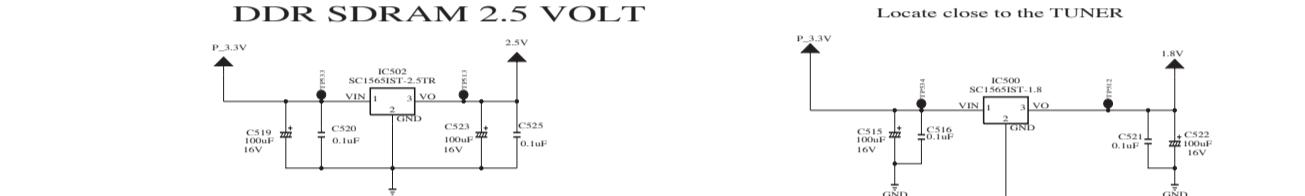
% MUST BE PLACED NEAR IC100

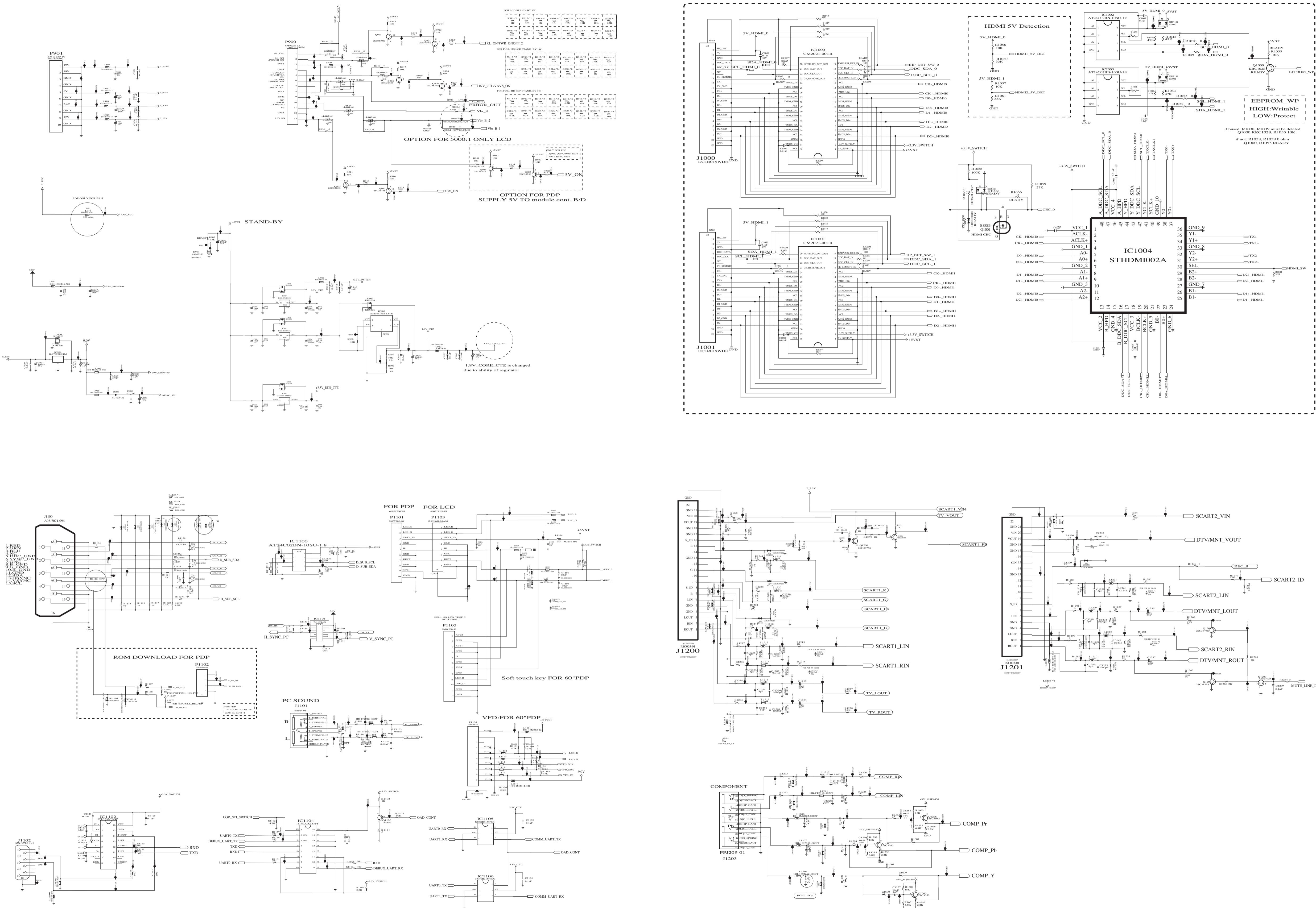


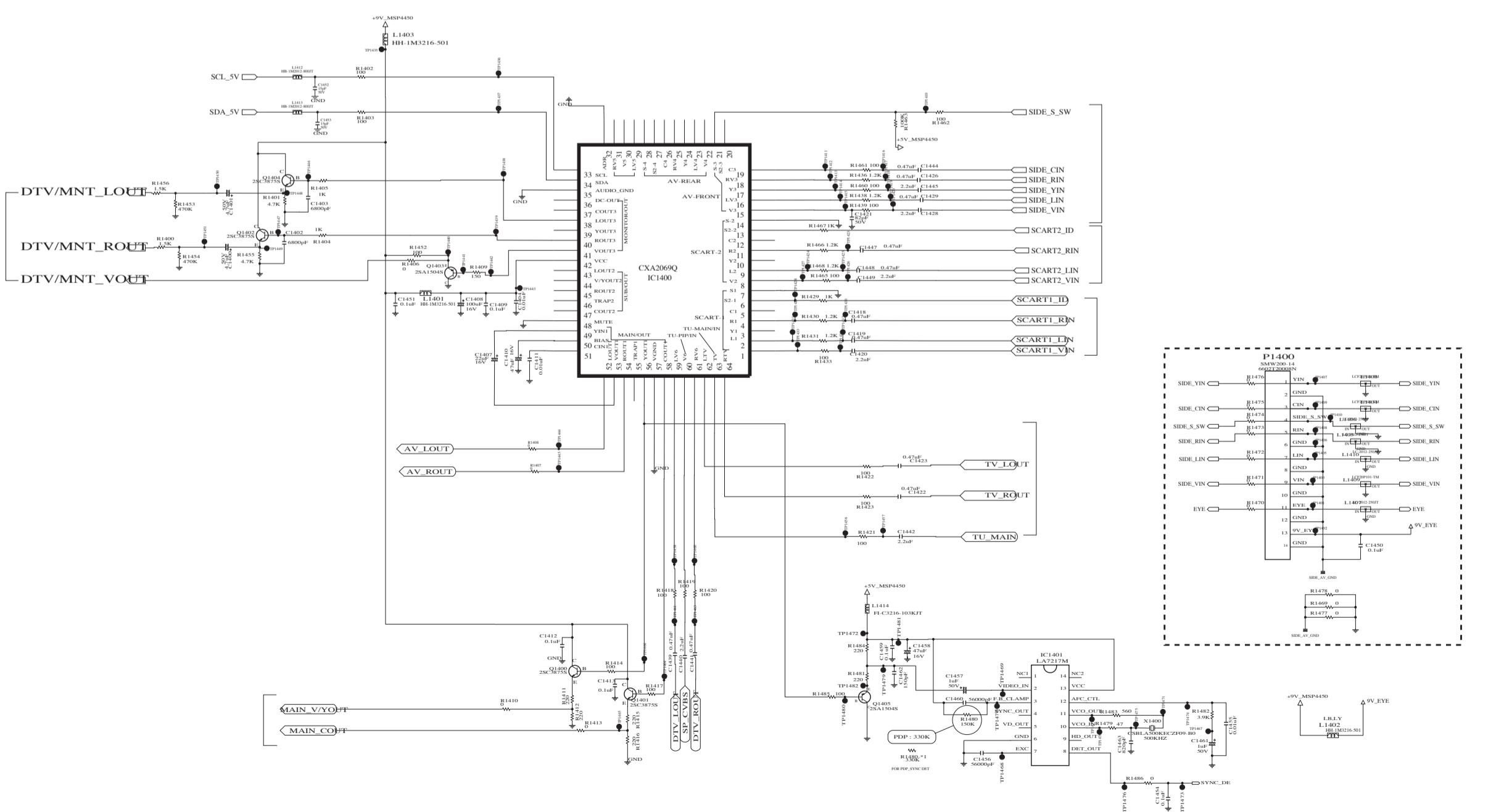
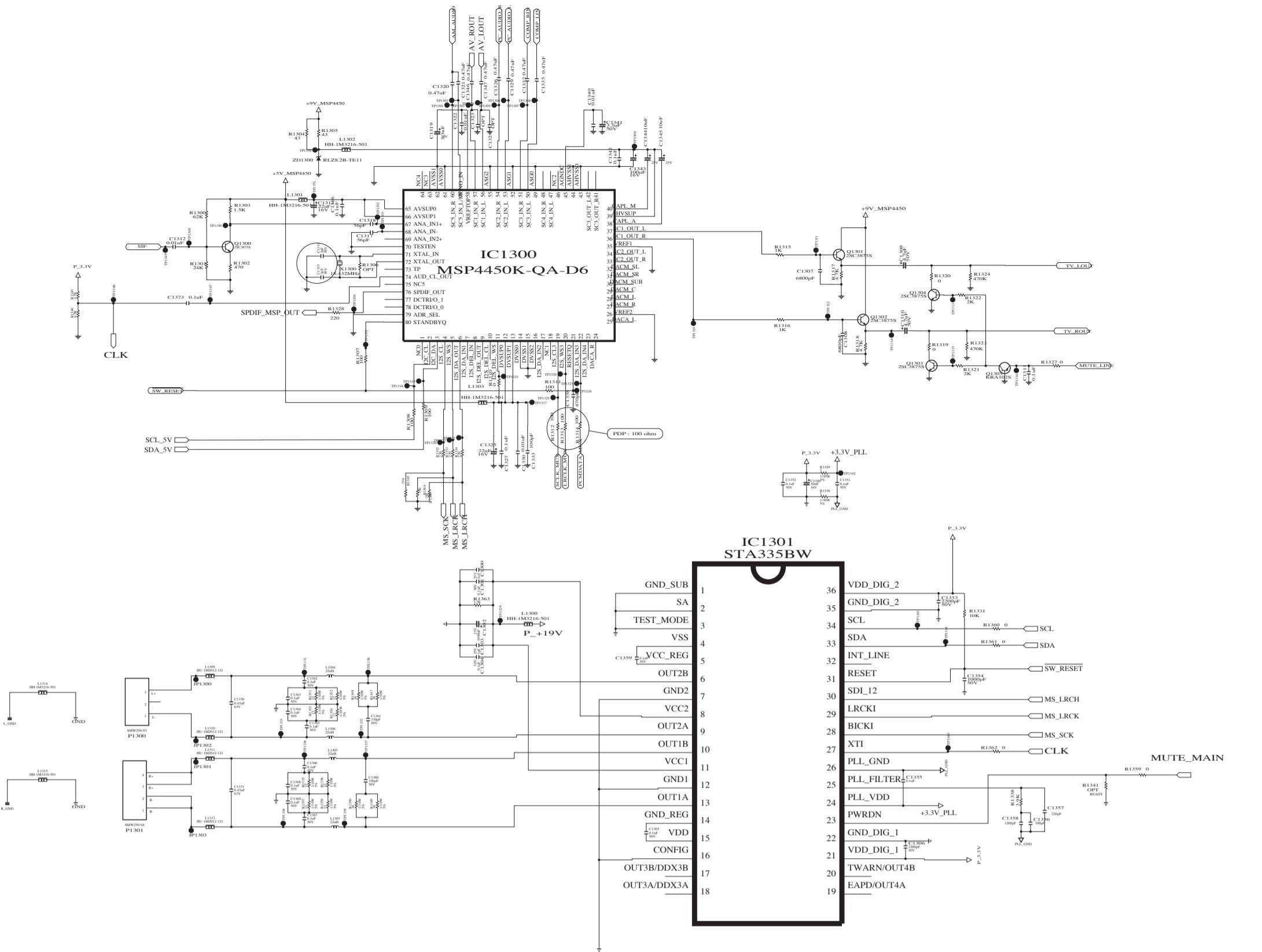
DDR SDRAM 2.5 VOLT

1.8V Regulator for TUNER

Locate close to the TUNER









LG Electronics Inc.

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Apr., 2007
Printed in Korea