



**LG**

Life's Good

Internal Use Only

# LED MONITOR

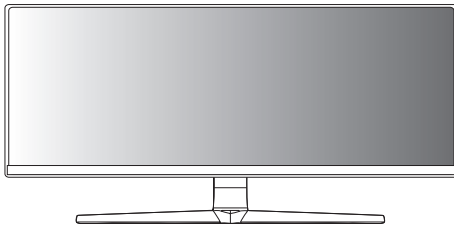
# SERVICE MANUAL

CHASSIS : LM61B

MODEL : 34UC79G 34UC79G-BG

## CAUTION

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



P/NO : MFL68920199 (1608-REV00)

# CONTENTS

|                                        |                 |
|----------------------------------------|-----------------|
| <b>CONTENTS .....</b>                  | <b>2</b>        |
| <b>SAFETY PRECAUTIONS .....</b>        | <b>3</b>        |
| <b>SPECIFICATION .....</b>             | <b>4</b>        |
| <b>ADJUSTMENT INSTRUCTION .....</b>    | <b>7</b>        |
| <b>TROUBLESHOOTING GUIDE .....</b>     | <b>10</b>       |
| <b>BLOCK DIAGRAM .....</b>             | <b>11</b>       |
| <b>EXPLODED VIEW .....</b>             | <b>12</b>       |
| <b>DISASSEMBLY .....</b>               | <b>13</b>       |
| <b>SCHEMATIC CIRCUIT DIAGRAM .....</b> | <b>APPENDIX</b> |

# 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 Exploded View.

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 1 W), keep the resistor 10 mm 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 1 M $\Omega$  and 5.2 M $\Omega$ .

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.

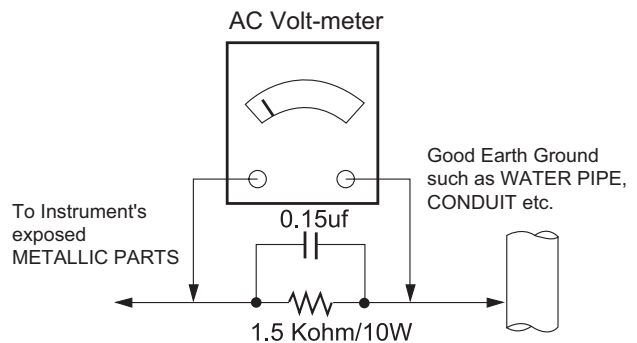
Connect 1.5 K / 10 watt resistor in parallel with a 0.15 uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.

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 0.5 mA.

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




When 25A is impressed between Earth and 2nd Ground for 1 second, Resistance must be less than 0.1

\*Base on Adjustment standard

# SPECIFICATION

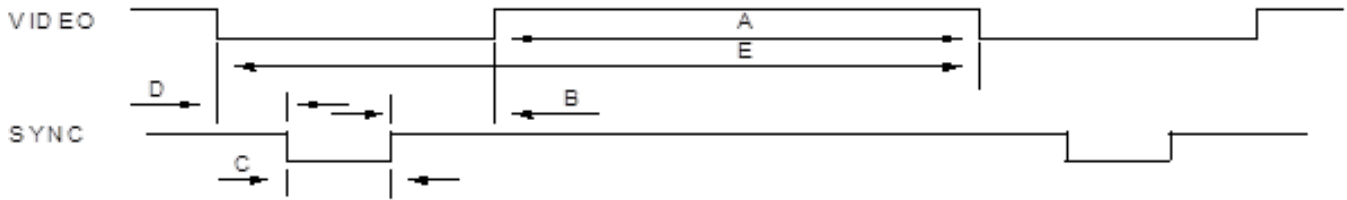
NOTE : Specifications and others are subject to change without notice for improvement.

## 1. General Specification

|   | Item            |                   | Content                                                                                                                                       | Remark                                                                              |
|---|-----------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 | Customer        |                   | BRAND                                                                                                                                         |                                                                                     |
| 2 | User Model Name |                   | 34UC79G                                                                                                                                       |                                                                                     |
| 3 | Sale region     |                   | World Wide                                                                                                                                    |                                                                                     |
| 4 | Feature         |                   | 34" Wide Curved LCD MONITOR(WFHD)                                                                                                             |                                                                                     |
| 5 | Chassis Name    |                   | LM61B                                                                                                                                         |                                                                                     |
| 6 | General Scope   | External SW &Adj. | 5-way joystick switch                                                                                                                         |  |
|   |                 | Function          | PBP, Picture Mode Ratio, Gamma Calibration, SES, Six Color, 10W speaker x 2, Type-C, DisplayPort, HDMI x 2, USB hub(USB3.0 x 2), Screen split |                                                                                     |
| 7 | Power Code      |                   | Length : 1.55±0.05M, Shape : Wall-out<br>Color : White, Weight : 0.17kg ±10%                                                                  | Refer to Suffix standard and power cord table                                       |
| 8 | Input           | HDMI1/2 IN        | HDMI 1 and HDMI 2                                                                                                                             |                                                                                     |
|   |                 | DP IN             | Display Port                                                                                                                                  |                                                                                     |
|   |                 | USB Type-C        | None                                                                                                                                          |                                                                                     |
|   |                 | USB UP            | USB Up-stream                                                                                                                                 |                                                                                     |
|   |                 | USB 1/2           | USB downstream(only with Host PC)<br>Quick Charge(USB 1/2)                                                                                    |                                                                                     |
|   |                 | H/P               | Audio L/R                                                                                                                                     |                                                                                     |
|   |                 | LINE-OUT          | Speaker Line-out                                                                                                                              |                                                                                     |
| 9 | Cable           | USB Type-C        | Length : 1.0±0.05 M<br>Shape : Detachable Type<br>Color: White Pin : 24P<br>Weight : 0.48kg±10%,                                              |                                                                                     |
|   |                 | Displayport       | Length : 1.5±0.05 M<br>Shape : Detachable Type<br>Color : White<br>Weight : 0.10kg±10%                                                        |                                                                                     |
|   |                 | HDMI              | Length : 1.5±0.05 M<br>Shape : Detachable Type<br>Color : White<br>Weight : 0.09kg±10%,                                                       |                                                                                     |
| 9 | Power           |                   | Input: AC90~264V 47~63Hz<br>Output: DC 19V 3.42A, 65W Adapter<br>Color : Black, Weight : 0.289kg±10%                                          |                                                                                     |

## 2. Signal Timing (Resolution)

### 2.1. Signal (Video & Sync)



### 2.2. H/V Timing

| No. | Section   | Pol. | Dot Clock [MHz] | Frequency [kHz]/[Hz] | Total Cycle (E) | Display (A) | Front Porch(B) | Sync. (D) | Back Porch(F) | Resolution |
|-----|-----------|------|-----------------|----------------------|-----------------|-------------|----------------|-----------|---------------|------------|
| 1   | H(Pixels) | -    | 25.175          | 31.469               | 800             | 640         | 16             | 96        | 48            | 640 x 480  |
|     | V(Lines)  | -    |                 | 59.94                | 525             | 480         | 10             | 2         | 33            |            |
| 2   | H(Pixels) | +    | 40              | 37.879               | 1056            | 800         | 40             | 128       | 88            | 800 x 600  |
|     | V(Lines)  | +    |                 | 60.317               | 628             | 600         | 1              | 4         | 23            |            |
| 3   | H(Pixels) | -    | 65              | 48.363               | 1344            | 1024        | 24             | 136       | 160           | 1024 x 768 |
|     | V(Lines)  | -    |                 | 60                   | 806             | 768         | 3              | 6         | 29            |            |
| 4   | H(Pixels) | +    | 115.5           | 97.551               | 1184            | 1024        | 48             | 32        | 80            | 1024 x 768 |
|     | V(Lines)  | -    |                 | 119.989              | 813             | 768         | 3              | 4         | 38            |            |
| 5   | H(Pixels) | +    | 144             | 109.756              | 1312            | 1152        | 48             | 32        | 80            | 1152 x 864 |
|     | V(Lines)  | -    |                 | 119.952              | 915             | 864         | 3              | 4         | 44            |            |
| 6   | H(Pixels) | +    | 131.75          | 91.493               | 1330            | 1280        | 48             | 32        | 80            | 1280 x 720 |
|     | V(Lines)  | -    |                 | 119.912              | 763             | 720         | 3              | 5         | 35            |            |
| 7   | H(Pixels) | +    | 187.25          | 130.035              | 1440            | 1280        | 160            | 112       | 248           | 1280x1024  |
|     | V(Lines)  | -    |                 | 119.958              | 1066            | 1024        | 1              | 3         | 38            |            |
| 8   | H(Pixels) | +    | 174.5           | 83.894               | 2080            | 1920        | 48             | 32        | 80            | 1920x1080  |
|     | V(Lines)  | -    |                 | 74.973               | 1119            | 1080        | 3              | 5         | 31            |            |
| 9   | H(Pixels) | +    | 235.5           | 113.221              | 2080            | 1920        | 48             | 32        | 80            | 1920x1080  |
|     | V(Lines)  | -    |                 | 99.93                | 1133            | 1080        | 3              | 5         | 45            |            |
| 10  | H(Pixels) | +    | 285.5           | 137.26               | 2080            | 1920        | 48             | 32        | 80            | 1920x1080  |
|     | V(Lines)  | -    |                 | 119.98               | 1144            | 1080        | 3              | 5         | 56            |            |
| 11  | H(Pixels) | +    | 193             | 68.93                | 2800            | 2560        | 48             | 32        | 160           | 2560x1080  |
|     | V(Lines)  | -    |                 | 59.94                | 1150            | 1080        | 10             | 10        | 50            |            |
| 12  | H(Pixels) | +    | 243             | 86.79                | 2800            | 2560        | 48             | 32        | 160           | 2560x1080  |
|     | V(Lines)  | -    |                 | 74.94                | 1158            | 1080        | 10             | 10        | 38            |            |
| 13  | H(Pixels) | +    | 308             | 113.24               | 2720            | 2560        | 48             | 32        | 80            | 2560x1080  |
|     | V(Lines)  | -    |                 | 99.94                | 1133            | 1080        | 12             | 10        | 31            |            |
| 14  | H(Pixels) | +    | 368.83          | 135.6                | 2720            | 2560        | 48             | 32        | 80            | 2560x1080  |
|     | V(Lines)  | -    |                 | 120                  | 1130            | 1080        | 12             | 10        | 28            |            |
| 15  | H(Pixels) | +    | 442.6           | 162.72               | 2720            | 2560        | 48             | 32        | 80            | 2560x1080  |
|     | V(Lines)  | -    |                 | 144                  | 1130            | 1080        | 12             | 10        | 28            |            |

### 2.3. HDMI Video input

| No. | Factory support mode | Horizontal frequency | Horizontal frequency |
|-----|----------------------|----------------------|----------------------|
|     | (Preset Mode)        | (KHz)                | (Hz)                 |
| 1   | 640x480P             | 31.47                | 60                   |
| 2   | 720x480P             | 31.47                | 60                   |
| 3   | 1280x720P            | 45                   | 60                   |
| 4   | 1920x1080P           | 67.5                 | 60                   |
| 5   | 1280x720P            | 37.5                 | 50                   |
| 6   | 1920x1080P           | 56.25                | 50                   |
| 7   | 2560x1080P           | 56.25                | 60                   |
| 8   | 2560x1080P           | 66                   | 50                   |
| 9   | 720x576P             | 31.25                | 50                   |
| 10  | 1920x1080I           | 33.75                | 60                   |
| 11  | 1920x1080I           | 28.125               | 50                   |

# ADJUSTMENT INSTRUCTION

## 1. Application Range

This document is applied to LM61B chassis Monitor which is manufactured in Monitor Factory or is produced on the basis of this data.

## 2. Designation

- 1) The adjustment is according to the order which is designated and which must be followed, according to the plan which can be changed only on agreeing.
- 2) Power Adjustment: Free Voltage
- 3) Magnetic Field Condition: Nil.
- 4) Input signal Unit: Product Specification Standard
- 5) Reserve after operation: Above 5 Minutes (Heat Run)
  - Temperature : at 25 °C ± 5 °C
  - Relative humidity : 65 % ± 10 %
  - Input voltage : 100 V - 240 V ~, 50/60Hz
- 6) Adjustment equipments: Color Analyzer (CA-210 or CA-110), DDC Adjustment Jig equipment,

## 3. Main PCB check process

\* APC - After Manual-Insert, executing APC

### 3.1. ADC Process

N/A

### 3.2. EDID Process

#### 3.2.1. EDID Download

F/W includes default EDID for All input ports, aging on Mode If AC ON, default EDID is automatically loaded to EEPROM. Update serial number in EDID of HDMI1.

→ Caution : Never connect HDMI Cable when execute NVRAM Init and AC On at first for downloading HDMI EDID automatically.

| No | Item                | Content                              | 16 Data            |
|----|---------------------|--------------------------------------|--------------------|
| 1  | Manufacturer ID     | GSM                                  | 1E 6D              |
| 2  | Product ID          | HDMI : 30461<br>Display Port : 30462 | FD 76<br>FE 76     |
| 3  | Year                | 2016                                 | 1A                 |
| 4  | Version             | 1                                    | 1                  |
| 5  | Revision            | HDMI : 3<br>DP : 4                   | HDMI : 3<br>DP : 4 |
| 6  | Serial Number       | *                                    | *                  |
| 7  | Week / Year         | **                                   | **                 |
| 8  | Model Name          | LG ULTRAWIDE                         | -                  |
| 9  | Check Sum           | ***                                  | ***                |
| 10 | Color Depth (0x14h) | 8bit (EDID V1.4 Only)                | A5                 |
| 11 | Physical Address    | **** (HDMI 1/2)                      | 10/20              |

\*\* Protocol : DDC 2AB

## 3.3. Function Check

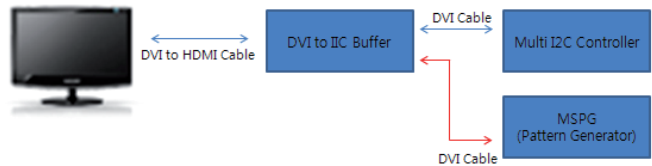
### 3.3.1. Check Screen

- Check input and signal items. (cf. work instructions)
  - 1) HDMI1/2 (2560 x 1080 @144Hz)
  - 2) DisplayPort1.2 (2560 x 1080 @144Hz) - using PC

## 4. Total Assembly line process

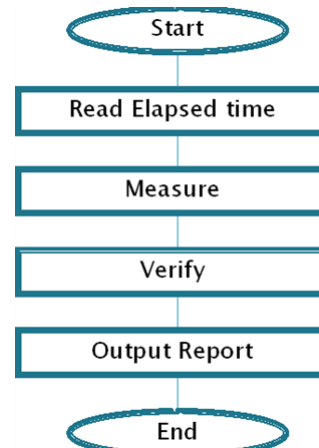
### 4.1. Write HDCP Key

Write HDCP Key into EEPROM by using DDC2AB protocol & HDCP Adjustment Jig equipment. If error is occurred, try to write again. After download HDCP key, send command '0xE6 00 00' for loading RAM memory correctly.



### 4.2. White balance adjustment

- Adjust PRESET Warm(6500K) Color coordinates and Gamma calibration .
- Set the CA-210 for calibration.
- Input Gamma calibration Pattern (R,G,B, Grey 20 )
- Set as Warm(6500K) by commanding COLOR\_MODE\_CHANGE Command code.



- Gamma calibration and verify
- Warm(6500K) color adjustment

Adjust to meet x/y color coordinate as below

|   | 2~4 min | 4~8min | 8~10min | 10~25min | 25~40min | 40min~ |
|---|---------|--------|---------|----------|----------|--------|
| x | 0.318   | 0.318  | 0.317   | 0.316    | 0.314    | 0.313  |
| y | 0.339   | 0.338  | 0.337   | 0.334    | 0.332    | 0.329  |

Save Warm(6500K) Color by commanding COLOR SAVE Command code.

Insert HDMI Jack which is connected with PC for White Balance or equivalent device.

→ Total Assembly line should check whether the color coordinate(x,y) data refer to below table were meet or not.

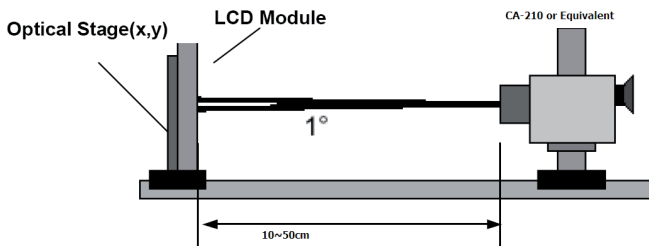
|                                |        |           |    |                                    |                                                   |
|--------------------------------|--------|-----------|----|------------------------------------|---------------------------------------------------|
| Color Temperature              | Cool   | 9,300     | °K | X=0.283 (±0.03)<br>Y=0.298 (±0.03) | <Test Signal><br>Inner pattern<br>(255gray,80IRE) |
|                                | Medium | 8,000     | °K | X=0.295 (±0.03)<br>Y=0.305 (±0.03) |                                                   |
|                                | Warm   | 6,500     | °K | X=0.313 (±0.03)<br>Y=0.329 (±0.03) |                                                   |
| Luminance (cd/m <sup>2</sup> ) | Cool   | Min : 170 |    |                                    | <Test Signal><br>Inner pattern<br>(255gray,80IRE) |
|                                | Medium | Min : 200 |    |                                    |                                                   |
|                                | Warm   | Min : 260 |    |                                    |                                                   |

\*Note : x,y coordinates are drifted about 0.007 after 30 mins heat-run. So checking color coordinate within 5-min at total assembly line, consider x,y coordinates might be up to 0.007 than x,y target of each color temperature.

\* Note : Manual W/B process

- 1) Power off => Power on ('←' 3 times, '→' 1 time and push '○')
- 2) and push the "←" or "→".
- 3) In Service Menu.

\* When doing Adjustment, Please make circumstance as below.



### 4.3. DPM Operation check

■ Measurement Condition: 100 ~ 240 V @ 50/60Hz

- 1) Set Input to DVI-D, DisplayPort, HDMI1, HDMI2
- 2) Turn off the source device.
- 3) Check DPM operation refer to the below table.

| Operating Condition | Sync (H/V) or Video | EUT (MSPG6100) | LED (SET)      | Wattage (W) |
|---------------------|---------------------|----------------|----------------|-------------|
| Sleep mode          | Off/Off             | Off            | White blinking | 1.2         |
| Off mode            | -                   | -              | Off            | 0.3         |

## 5. Signal composition for adjustment

### 5.1. I2C (100K BPS)

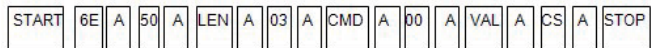
### 5.2. COMMUNICATION START

# Until ACK BIT goes LOW, Repeat it.



### 5.3. Command form.

Command form use DDC2AB standard communication protocol.



- LEN : DATA BYTE number to send.
- CMD : Command language that monitor executes.
- VAL : FOS DATA
- CS : Dada's CHECKSUM that transmit
- DELAY : 50MS
- A : Acknowledge

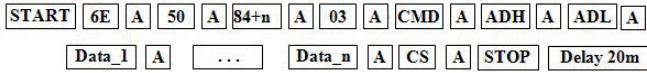
### 5.4. Screen adjust command (LENGTH = 84)

| No. | Adjustment contents | CMD(hex) | ADR       | VAL(hex)       | Explanation                                                                                                                                                                                                                                             |    |           |                              |
|-----|---------------------|----------|-----------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------|------------------------------|
| 1   | EEPROM ALL INITIAL  | E4       | 00        | 00             | adjustment Initialization                                                                                                                                                                                                                               |    |           |                              |
| 2   | EEPROM READ         | E7       | Slave add |                | EEPROM Read                                                                                                                                                                                                                                             |    |           |                              |
| 3   | EEPROM WRITE        | E8       | Slave add | Data           | Write data at EEPROM                                                                                                                                                                                                                                    |    |           |                              |
| 4   | R GAIN              | 16       | 00        | 00-64          | Tune Gain                                                                                                                                                                                                                                               |    |           |                              |
| 5   | G GAIN              | 18       | 00        | 00-64          |                                                                                                                                                                                                                                                         |    |           |                              |
| 6   | B GAIN              | 1A       | 00        | 00-64          |                                                                                                                                                                                                                                                         |    |           |                              |
| 7   | BRIGHT(Backlight)   | 10       | 00        | 00-64          | Tune Analog Bright                                                                                                                                                                                                                                      |    |           |                              |
| 8   | FACTORY RESET       | F0       | 00        | 0              | Factory reset                                                                                                                                                                                                                                           |    |           |                              |
| 9   | AUTO_COLOR_ADJUST   | F1       | 00        | 0              | AUTO COLOR Tuning<br>0:Auto color                                                                                                                                                                                                                       |    |           |                              |
| 10  | COLOR_MODE_CHANNEL  | F2       | 00        |                |                                                                                                                                                                                                                                                         |    |           |                              |
|     |                     |          |           | 01             | WARM(6500K)                                                                                                                                                                                                                                             |    |           |                              |
|     |                     |          |           | 02             | COOL(9300K)                                                                                                                                                                                                                                             |    |           |                              |
| 11  | Elapsed time Clear  | E9       | 00        | 00             | Aging off & Clear elapsed time                                                                                                                                                                                                                          |    |           |                              |
| 12  | Aging On/Off        | F3       | 00        | FF:00          | FF:ON / 00:OFF                                                                                                                                                                                                                                          |    |           |                              |
| 13  | Input Select        | F4       | 00        | 0xD0           | 1:DisplayPort                                                                                                                                                                                                                                           |    |           |                              |
|     |                     |          |           | 0x90           | 2:HDMI1                                                                                                                                                                                                                                                 |    |           |                              |
|     |                     |          |           | 0x91           | 3:HDMI2                                                                                                                                                                                                                                                 |    |           |                              |
|     |                     |          |           | 0xD1           | 4:USB-C                                                                                                                                                                                                                                                 |    |           |                              |
| 14  | SYSTEM RESET        | F5       | 00        | 00             | Restart System                                                                                                                                                                                                                                          |    |           |                              |
| 15  | Select Language     | 68       | 00        | 0x00 ~ 0x0F    | 00:English,<br>01:German<br>02:French<br>03:Spanish<br>04:Italian<br>05:Swedish,<br>06:Finnish<br>07:Portuguese<br>08:Brazil<br>09:Polish<br>0A:Russian<br>0B:Greek<br>0C:Ukrainian<br>0D:Chinese<br>0E:Japanese<br>0F:Korean<br>11:Traditional Chinese |    |           |                              |
|     |                     |          |           | EDID SN UPDATE | 0x77                                                                                                                                                                                                                                                    | 0  | 0x01~0x02 | 0x01 : HDMI1<br>0x02 : HDMI2 |
|     |                     |          |           | APD command    | 0xF7                                                                                                                                                                                                                                                    | 00 | 0x00~0x01 | 0x00:OFF<br>0x01:ON          |
|     |                     |          |           | Module name    |                                                                                                                                                                                                                                                         |    |           | LM340WW2(SS)(A1)             |



## 5.5. EEPROM Data Write

### 5.5.1 Signal TABLE



LEN : 84h+Bytes  
 CMD : E8h  
 ADH : E2PROM Slave Address(A0,A2,A4,A6,A8,AA,AC,AE),  
 Not 00h(Reserved by Buffer To EEPROM)  
 ADL : E2PROM Sub Address(00~FF)  
 Data : Write data  
 Delay : 20ms

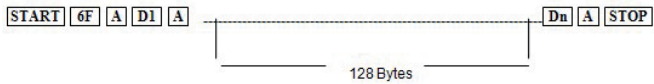
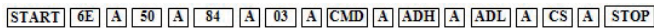
### 5.5.2. Command Set

| No. | Adjustment contents | CMD(hex) | LEN    | Explanation   |
|-----|---------------------|----------|--------|---------------|
| 1   | EEPROM WRITE        | E8       | 94     | 16-Byte Write |
| 2   |                     |          | (84+n) | n-byte Write  |

- \* Use
- FOS Default write :  
 <14mode data> write  
 SyncFlags, HPeriodH, HPeriodL, VtotalH, VtotalL, SrcHTotalH, SrcHTotalL  
 SrcHStartH, SrcHStartL, SrcVStartH, SrcVStartL, HsyncPhase
  - Temporary Data write: Write to particular address of EEPROM.

## 5.6. E2PROM Data Read

### 5.6.1. Signal TABLE



## 5.6.2. COMMAND SET

| No. | Adjustment contents | CMD (hex) | ADH (hex) | ADL (hex) | Explanation       |
|-----|---------------------|-----------|-----------|-----------|-------------------|
| 1   | EEPROM READ         | E7        | A0        | 0         | 0-Page 0~7F Read  |
| 2   |                     |           |           | 80        | 0-Page 80~FF Read |
| 3   |                     |           | A2        | 0         | 1-Page 0~7F Read  |
| 4   |                     |           |           | 80        | 1-Page 80~FF Read |
| 5   |                     |           | A4        | 0         | 2-Page 0~7F Read  |
| 6   |                     |           |           | 80        | 2-Page 80~FF Read |
| 7   |                     |           | A6        | 0         | 3-Page 0~7F Read  |
| 8   |                     |           |           | 80        | 3-Page 80~FF Read |
| 9   |                     |           | A8        | 0         | 4-Page 0~7F Read  |
| 10  |                     |           |           | 80        | 4-Page 80~FF Read |
| 11  |                     |           | AA        | 0         | 5-Page 0~7F Read  |
| 12  |                     |           |           | 80        | 5-Page 80~FF Read |
| 13  |                     |           | AC        | 0         | 6-Page 0~7F Read  |
| 14  |                     |           |           | 80        | 6-Page 80~FF Read |
| 15  |                     |           | AE        | 0         | 7-Page 0~7F Read  |
| 16  |                     |           |           | 80        | 7-Page 80~FF Read |

### 5.6.3. Use

Read E<sup>2</sup>PROM's specific area as unit of 128(80h)-byte. (84h)

### 5.6.4 EDID Write

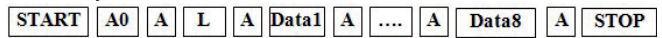
EEPROM access by using DDC2B protocol

- 1-Byte write



L : 0x00~0x7F  
 D : data

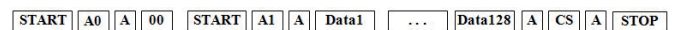
- 8-byte write



L : 0x00,0x10,....0x70

### 5.6.5. EDID Read

- DDC2B Command.(A0/A1)

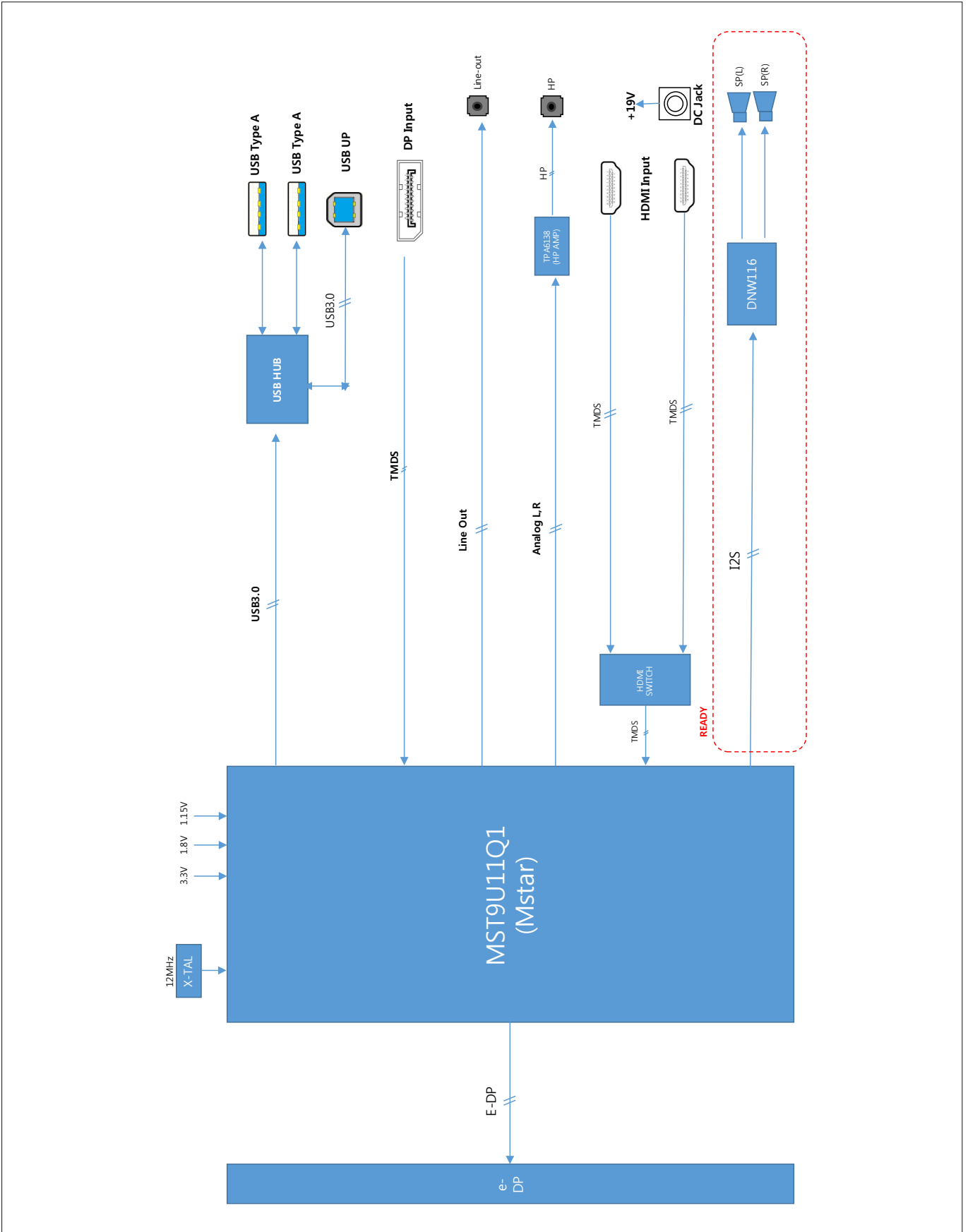


- 128 Byte transfer of EDID Buffer of MICOM

# TROUBLESHOOTING GUIDE

- 1) MAIN IC : Process display/audio signal/control signal  
Location no. : IC200
- 2) DC-DC Converter : Convert from 19V to proper voltage according to IC spec  
Location No. : IC402, IC403, IC700, IC701, IC900, IC902
- 3) Serial flash memory for Monitor : firmware saving  
Location No. : IC202
- 4) LED driver IC : Supporting proper voltage and current according to BLU spec  
Location No. : IC700, IC701
- 5) Headphone AMP : Amplify audio signal from Main IC and then provide amplifying signal to H/P interface  
Location No. : IC501
- 6) USB Hub IC : function of HUB to the PC, should be connect to the PC USB-A/B cable.  
Location No. : IC901

# BLOCK DIAGRAM



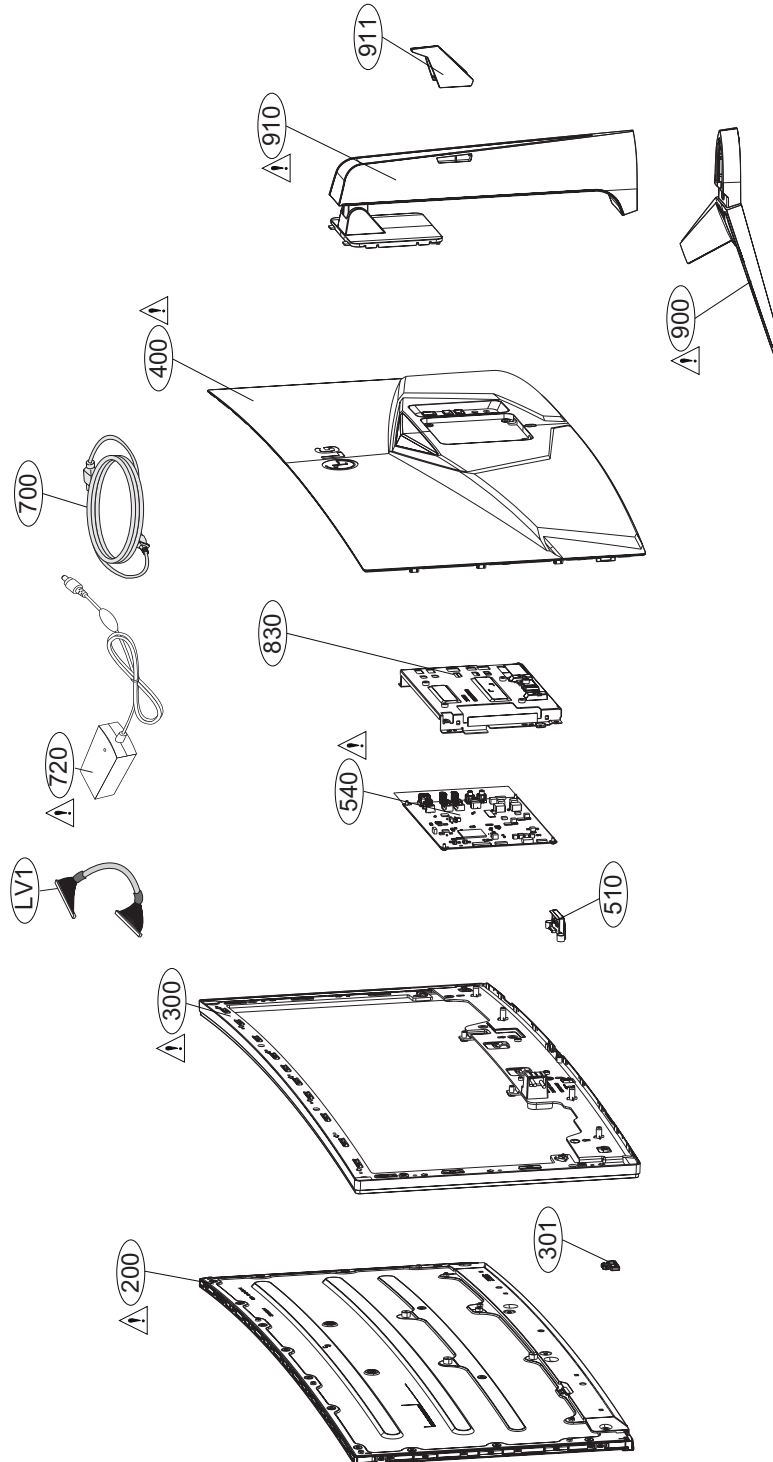
# EXPLODED VIEW

## IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by  $\Delta$  in the Schematic Diagram and EXPLODED VIEW.

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.



# DISASSEMBLY

## 1. Preparation

### 1.1. Preparation tool (jig)



### 1.2. Preparation tool (Curved PAD)



## 2. Stand Assembly Separation

1) Lay the set by the Curved PAD in Box



2) Disassemble the Stand after pull the button to down



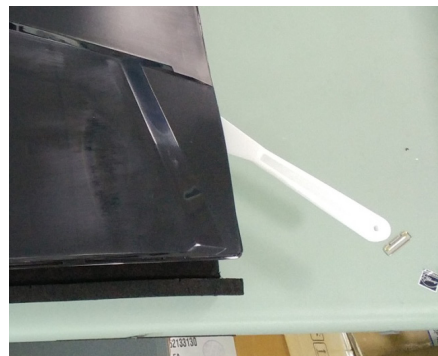
3) Disassemble the Thumb Screw (2ea)



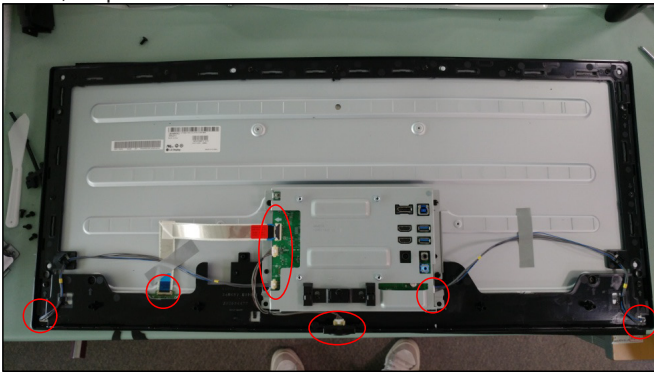
4) Remove the Screw (4ea).



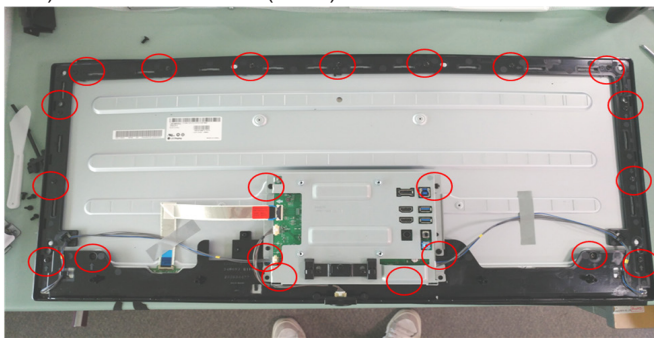
5) Disassemble the Back Cover (By using JIG)



6) Disconnect LED Cable , Control Assemble (Latch Type)  
,E-Dp Cable

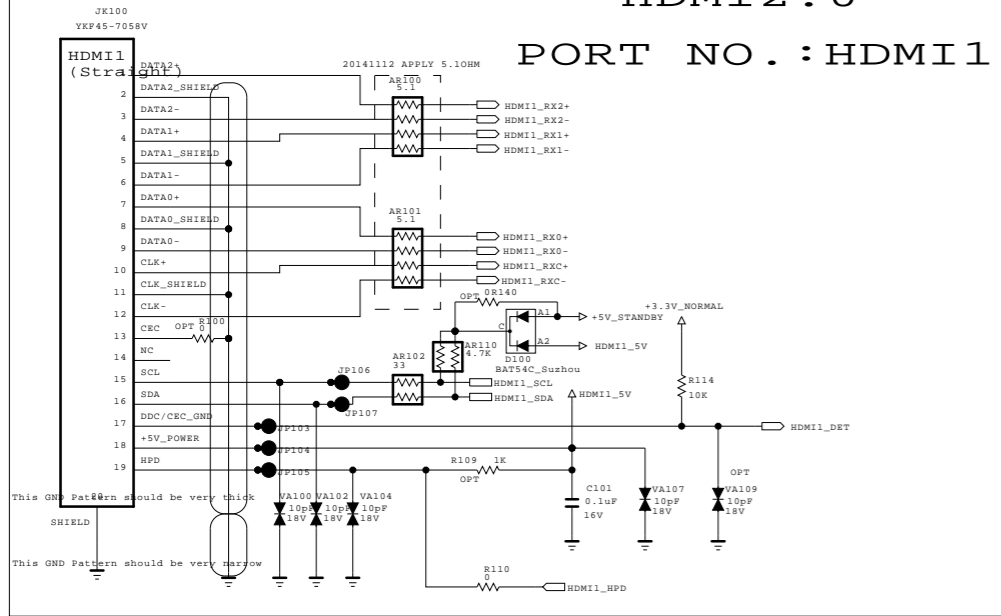


7) Remove the screw. (17EA)

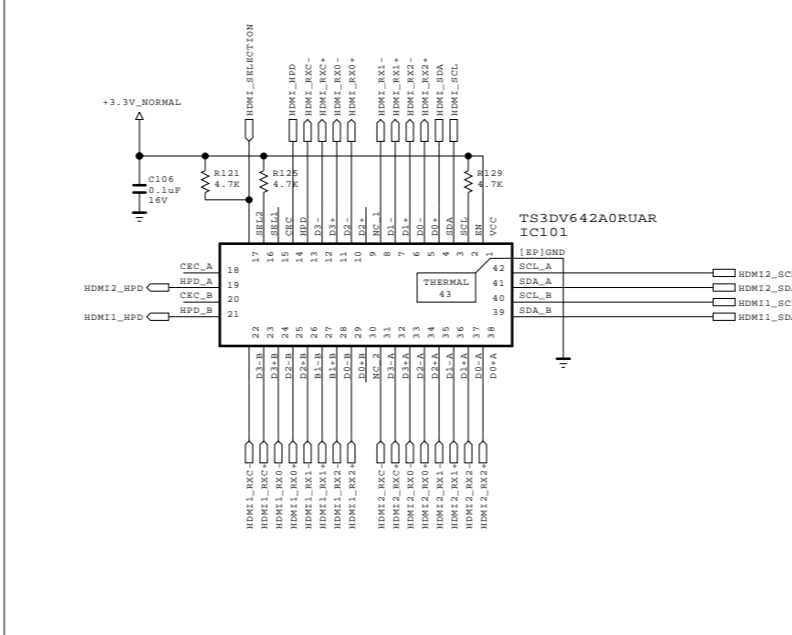


# HDMI 2.0

PORT NO. : HDMI1

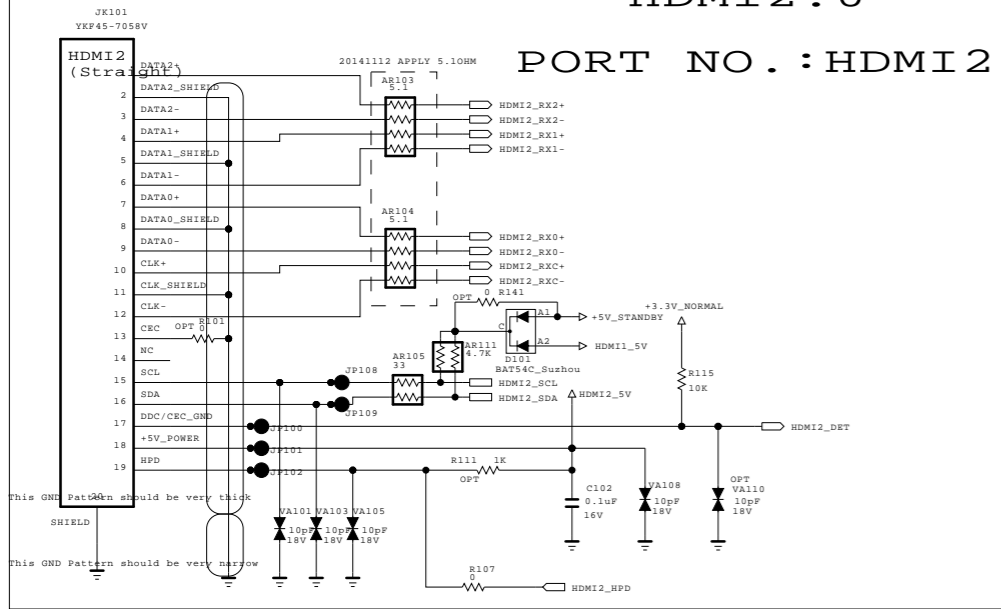


# HDMI 2.0 SWITCH

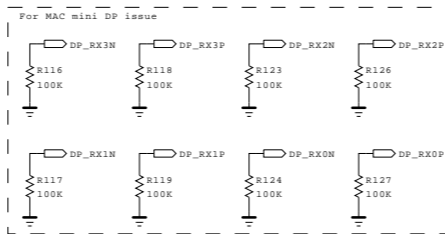
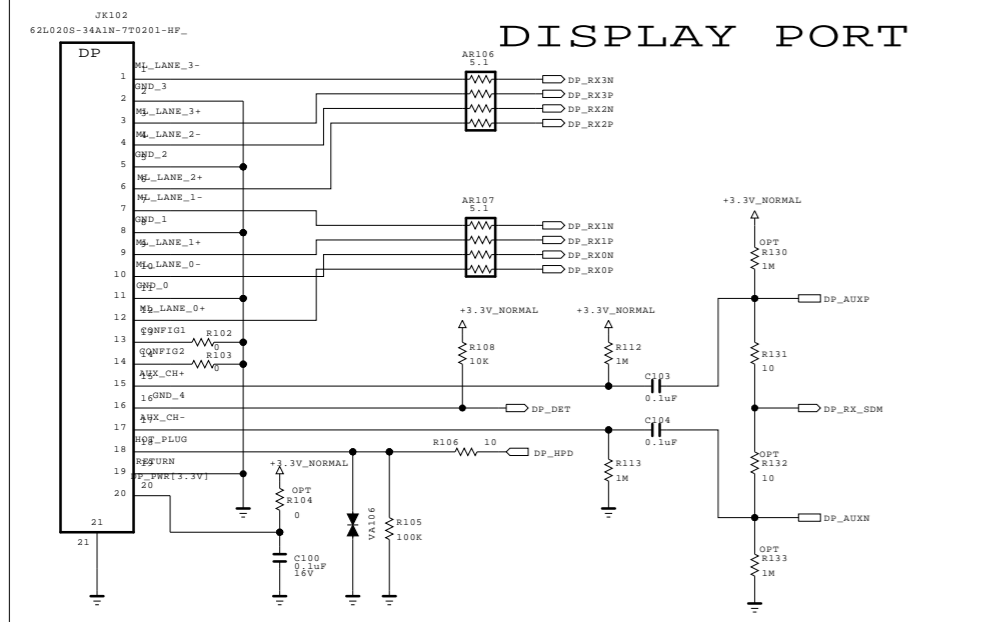


# HDMI 2.0

PORT NO. : HDMI2



# DISPLAY PORT

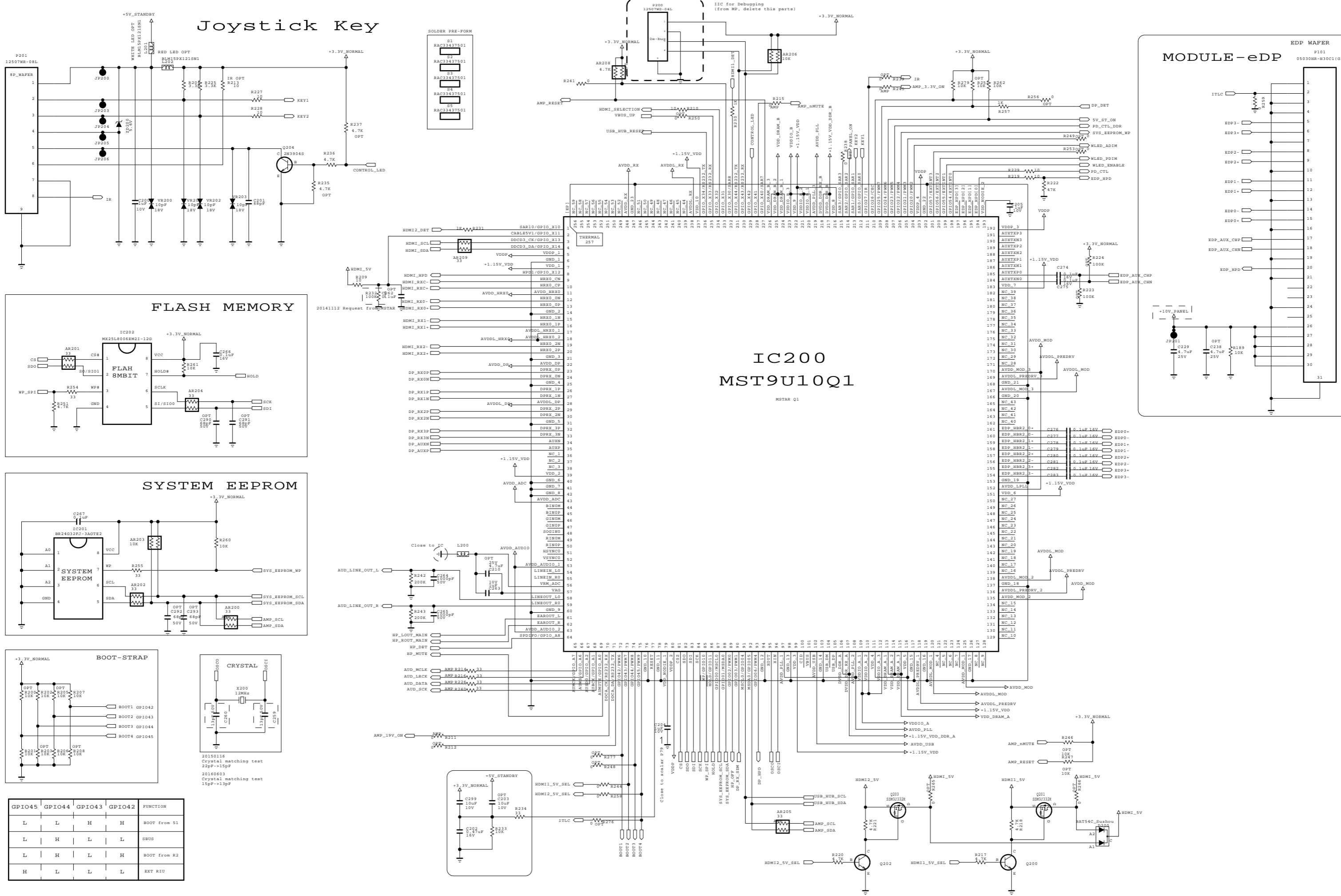


THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FIRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

**SECRET**  
LGElectronics



|       |              |       |            |
|-------|--------------|-------|------------|
| MODEL | 34UC79G      | DATE  | 2016.03.08 |
| BLOCK | SIGNAL INPUT | SHEET | 1 / 9      |



THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FIRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURERS SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

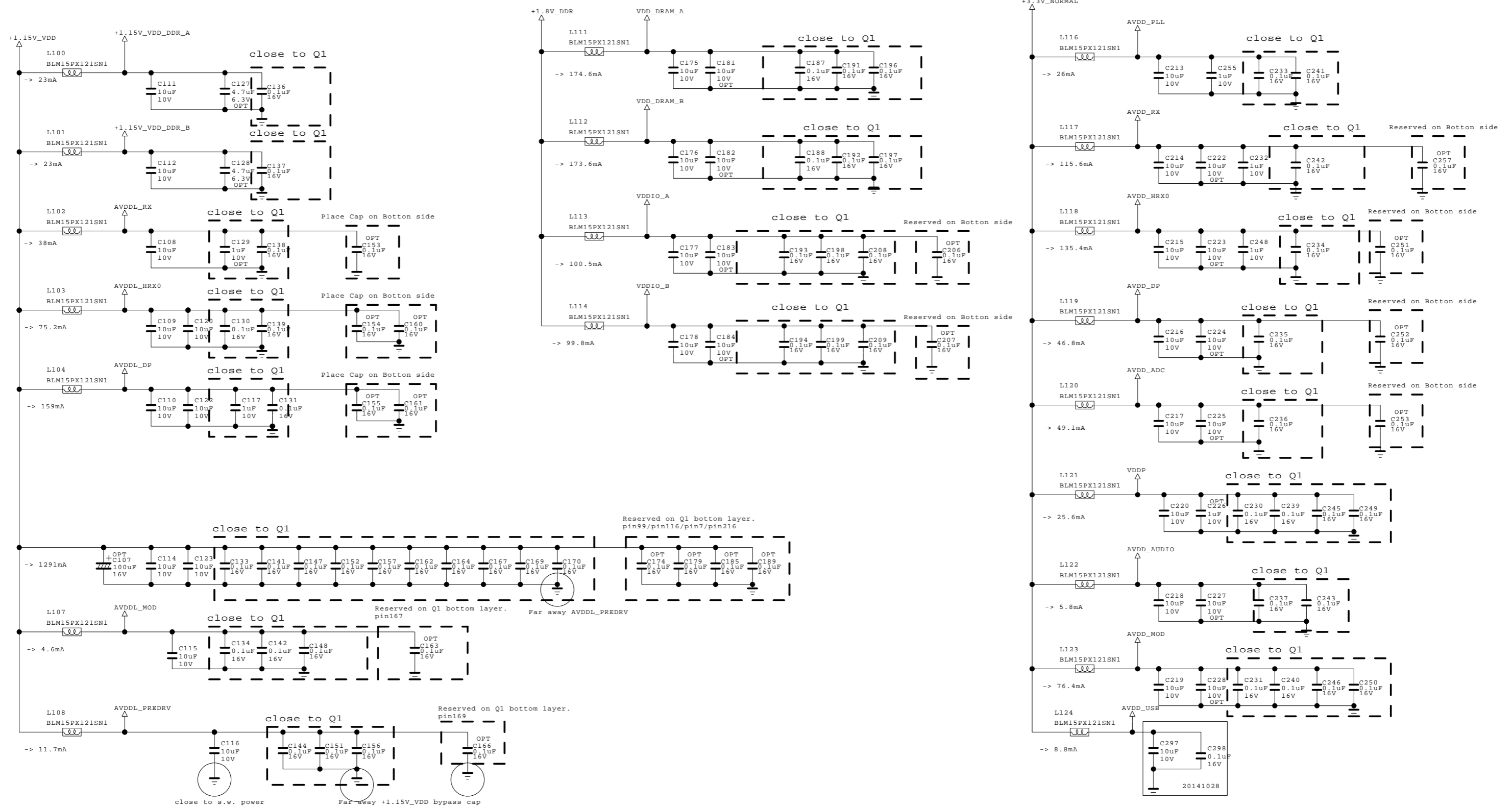
**SECRET**  
LGElectronics



|       |               |       |            |
|-------|---------------|-------|------------|
| MODEL | 34UC79G       | DATE  | 2016.03.03 |
| BLOCK | MAIN IC / Key | SHEET | 2 / 10     |



# MAIN IC POWER LINE - CAPACITOR

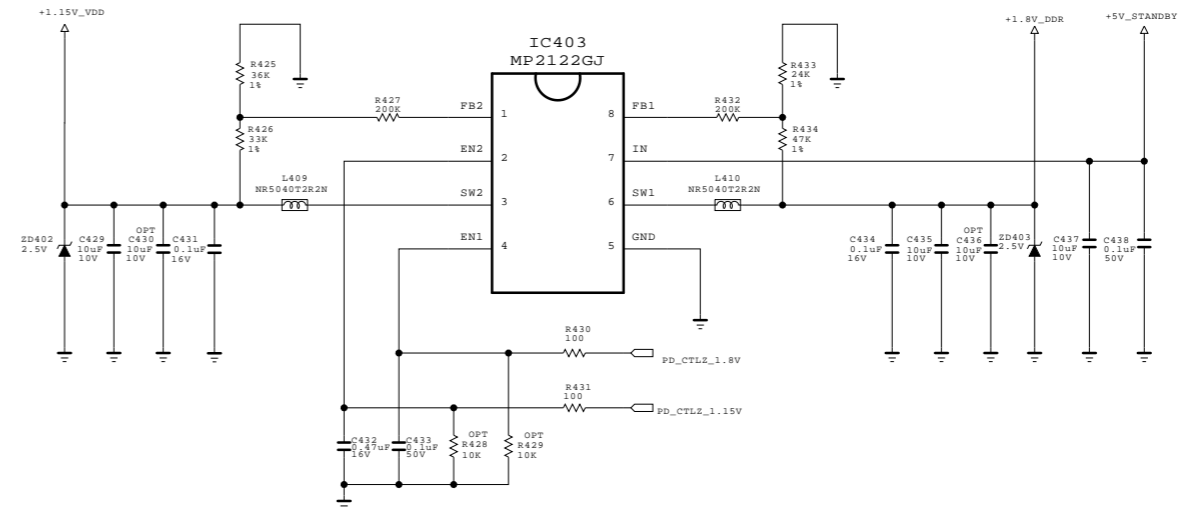
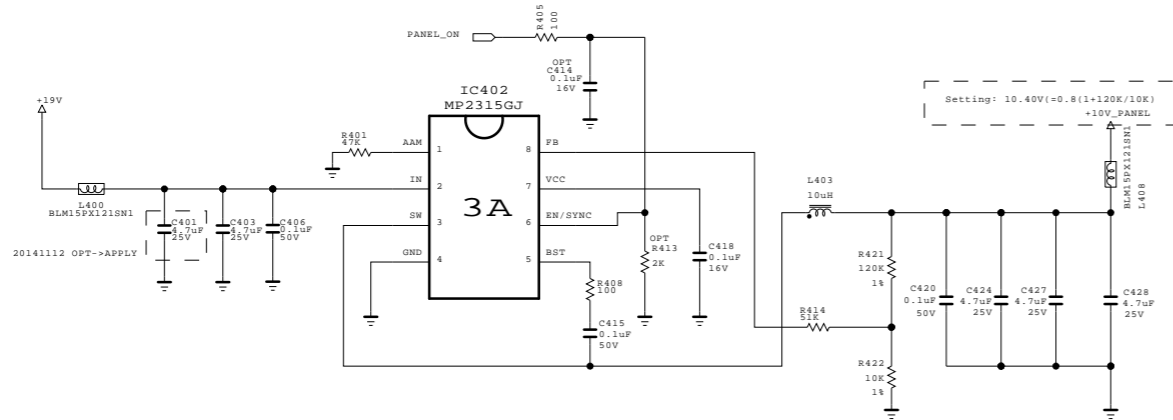
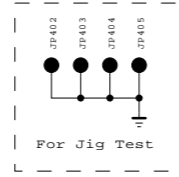
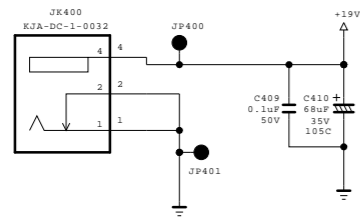


THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FIRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

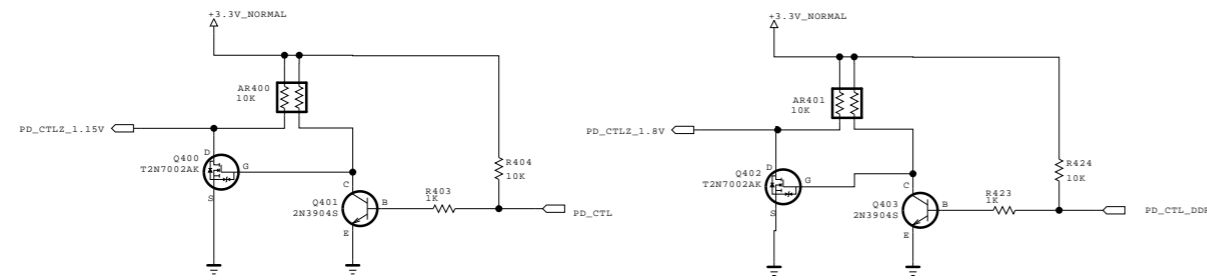
|               |  |
|---------------|--|
| SECRET        |  |
| LGElectronics |  |

|       |             |       |            |
|-------|-------------|-------|------------|
| MODEL | 34UC79G     | DATE  | 2016.03.08 |
| BLOCK | MAIN IC-CAP | SHEET | 3 / 9      |

DC-Jack (Straight Type)



Power sequence Circuit for 1.8V / 1.15V

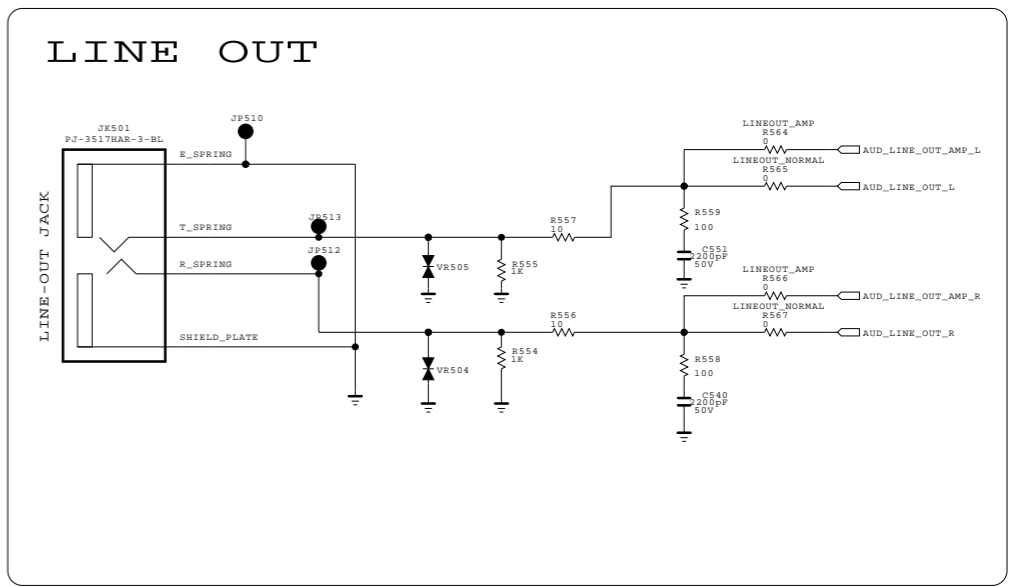
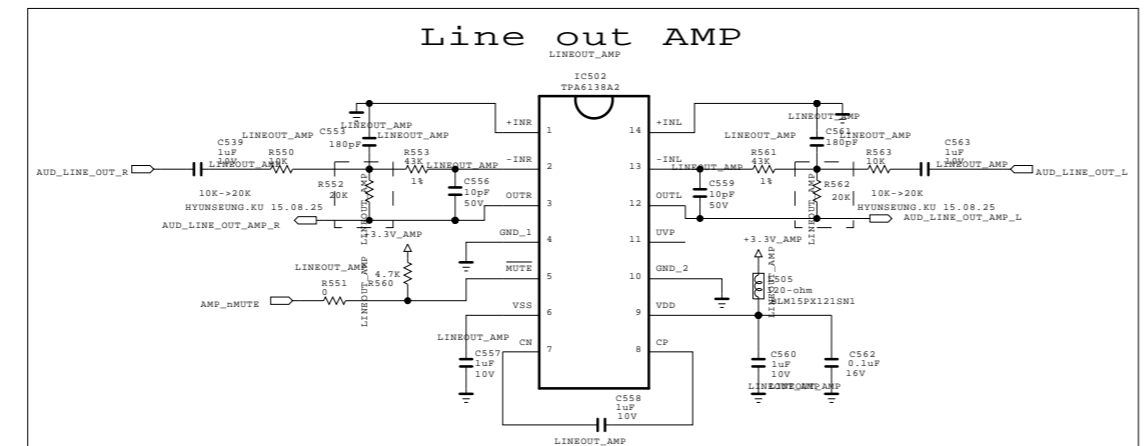
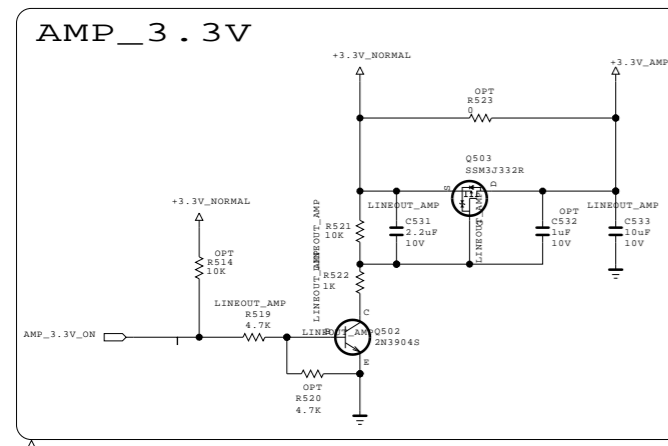
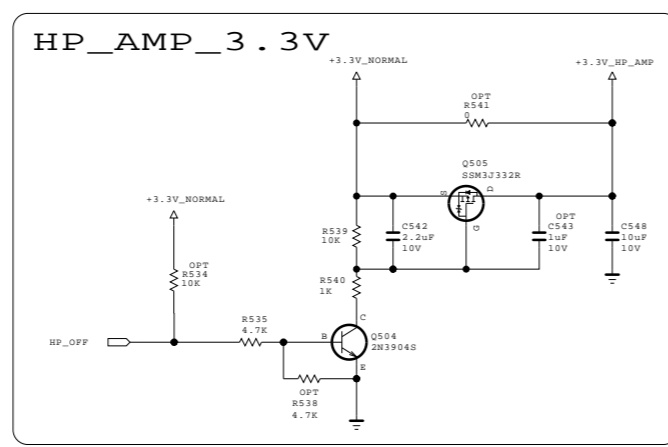
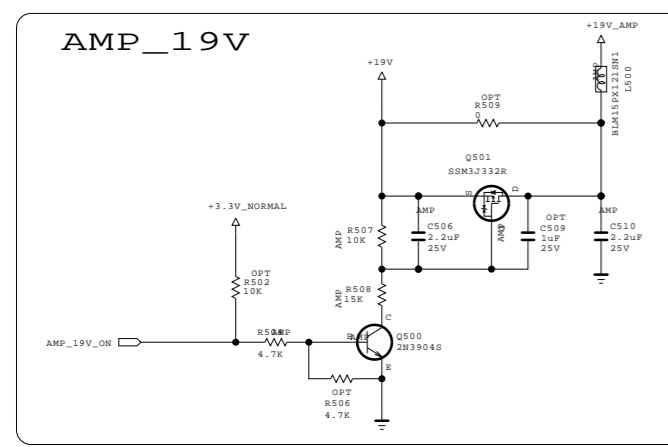
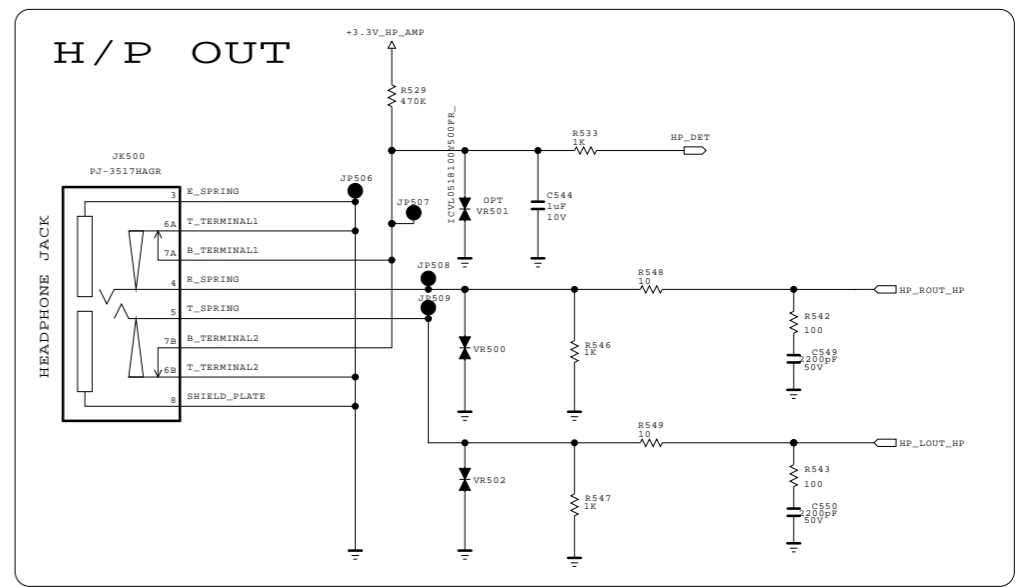
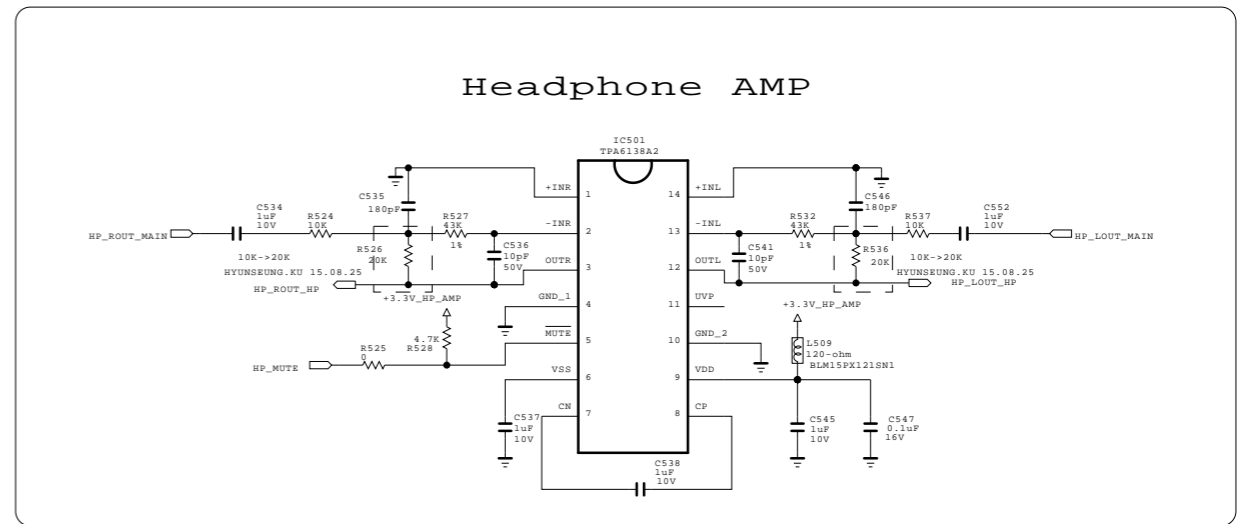
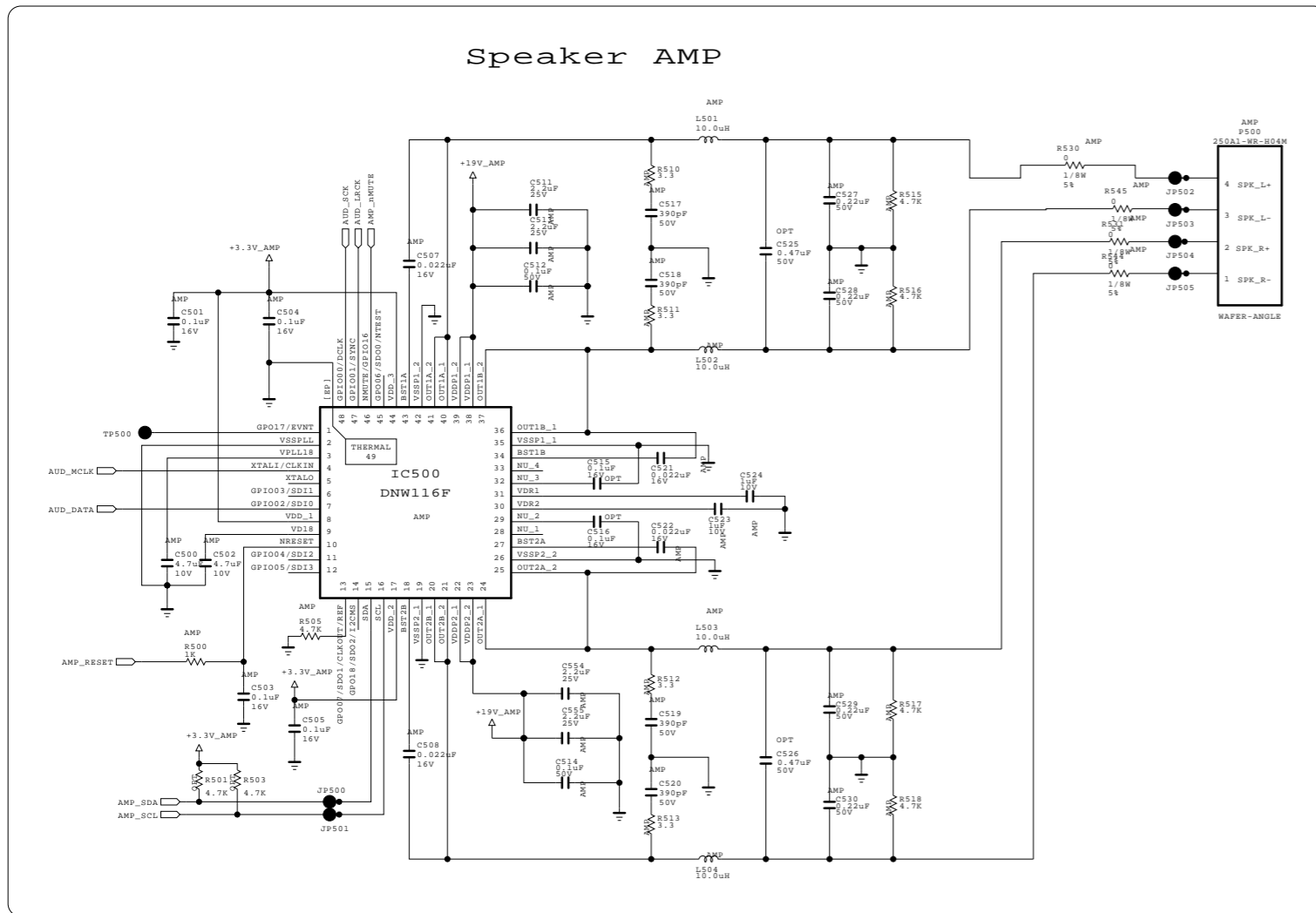


THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FIRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

SECRET  
LGElectronics



|       |            |       |            |
|-------|------------|-------|------------|
| MODEL | 34UC79G    | DATE  | 2016.03.08 |
| BLOCK | MAIN POWER | SHEET | 4 / 9      |



THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FIRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

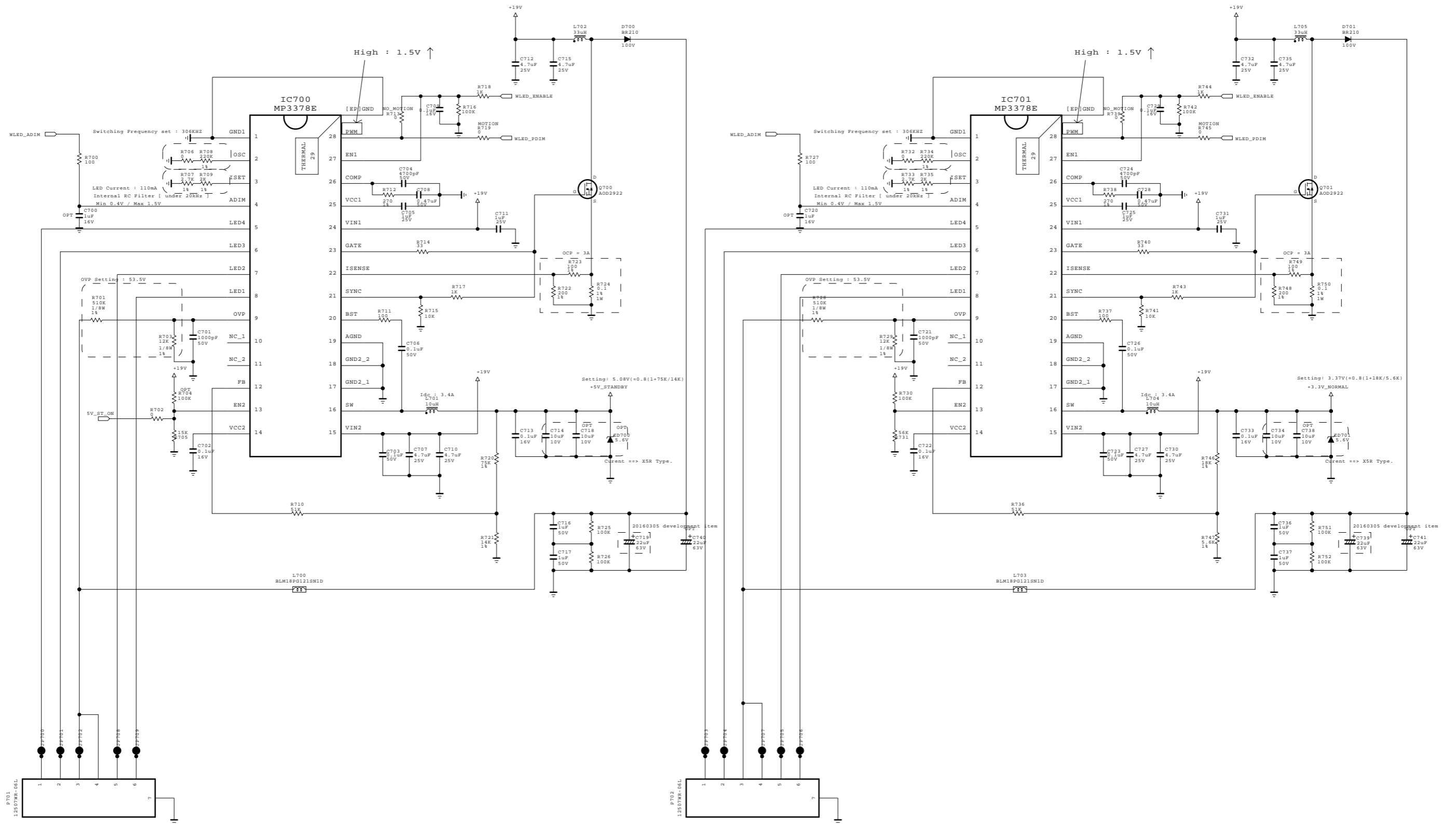
**SECRET**

LGElectronics

**LG ELECTRONICS**

|       |          |       |            |
|-------|----------|-------|------------|
| MODEL | 34UC79G  | DATE  | 2016.03.08 |
| BLOCK | AMP / HP | SHEET | 5 / 9      |

# LED Driver

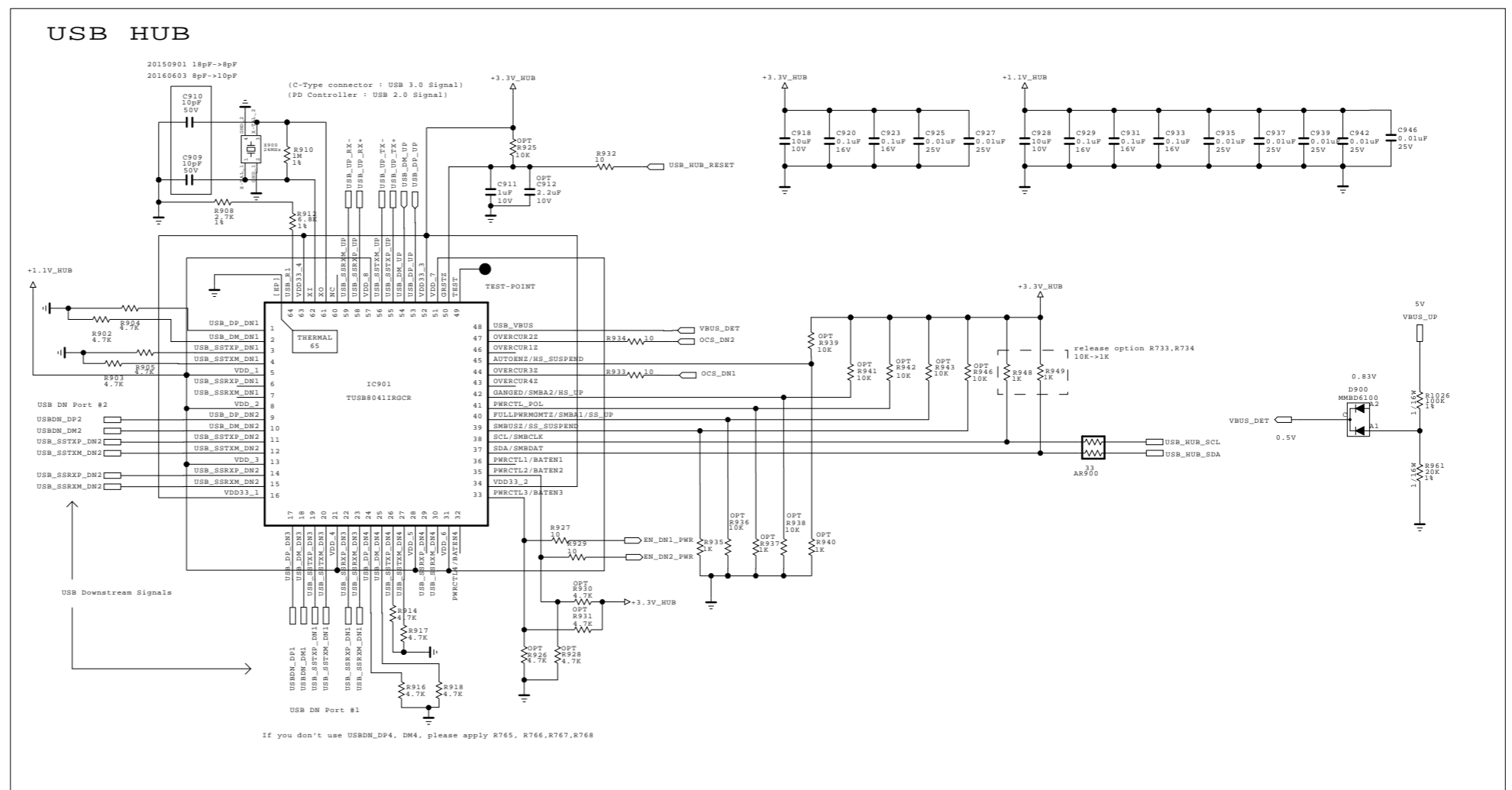
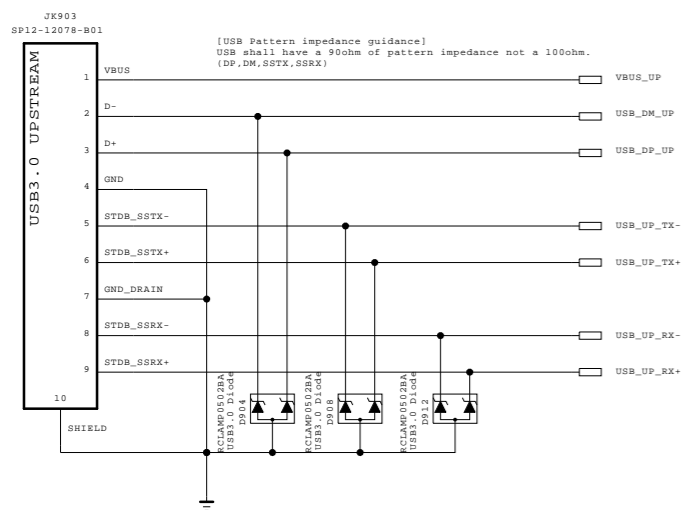
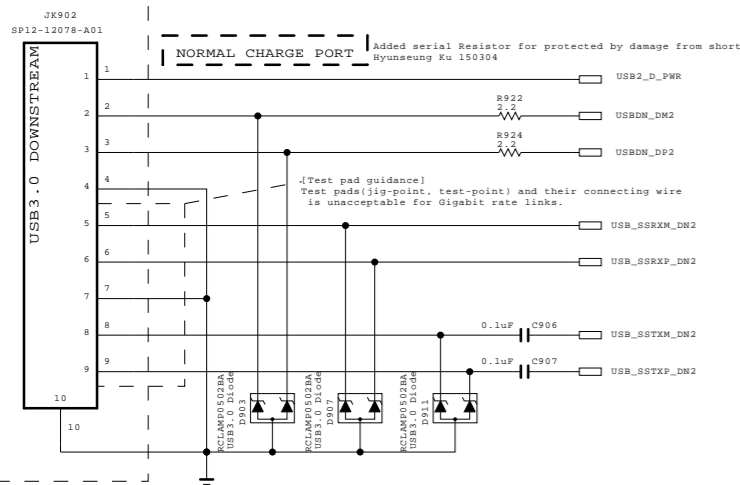
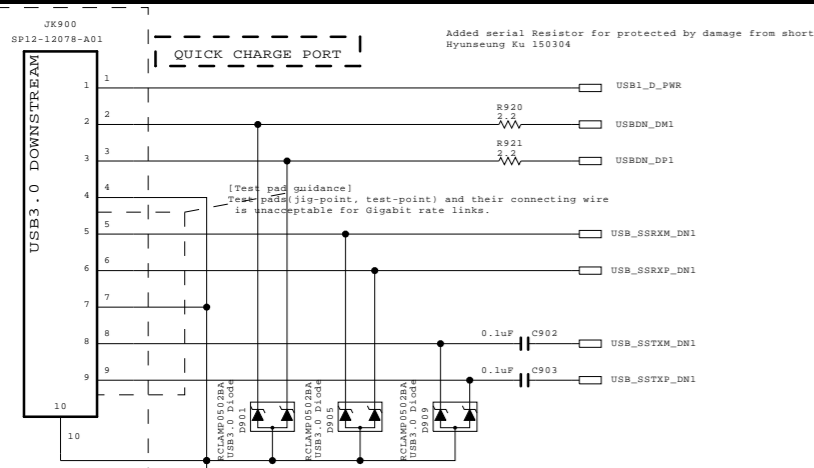


THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FIRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

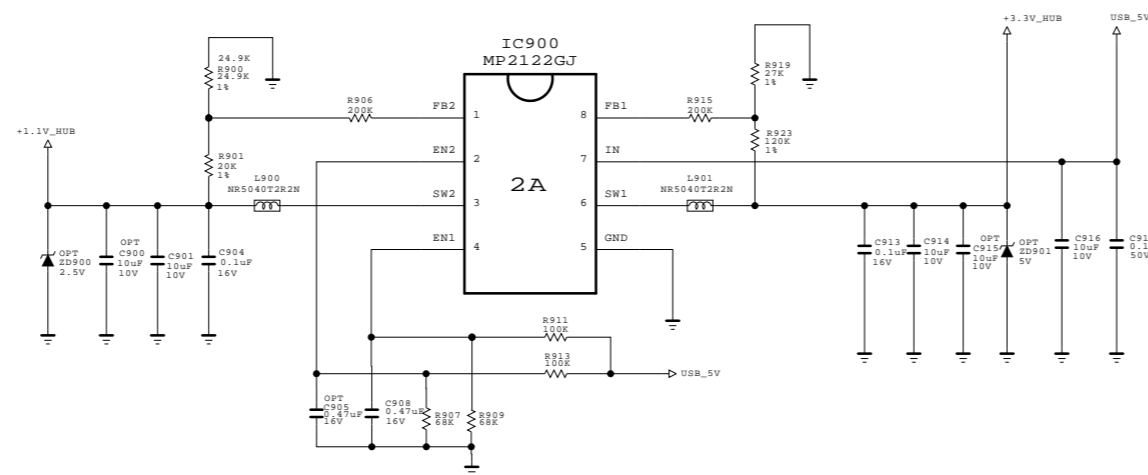
SECRET  
LGElectronics



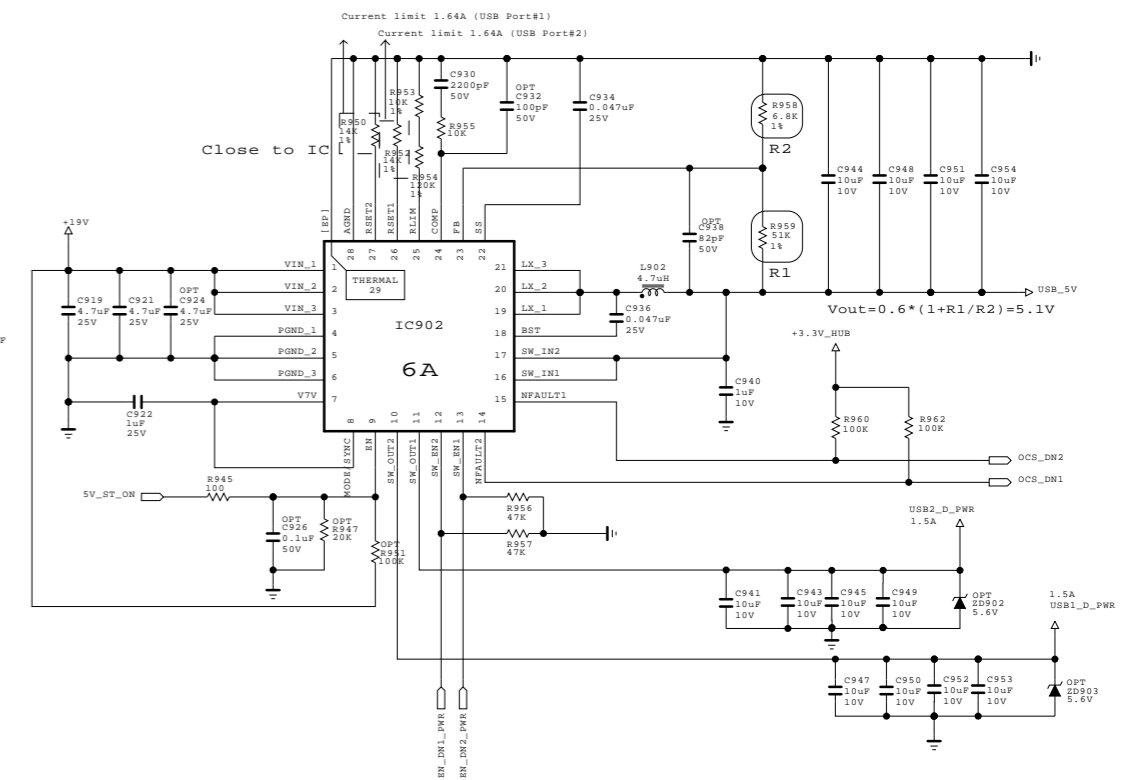
|       |               |       |            |
|-------|---------------|-------|------------|
| MODEL | 34UC79G       | DATE  | 2016.03.08 |
| BLOCK | LED Driver IC | SHEET | 7 / 9      |



5V to 1.1V // 3.3V IC Power



19V TO 5V (USB Down Stream 1.5A \*2EA)



THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FIRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

SECRET  
LGElectronics



|       |         |       |            |
|-------|---------|-------|------------|
| MODEL | 34UC79G | DATE  | 2016.03.08 |
| BLOCK | USB HUB | SHEET | 9 / 9      |

