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LCD TV

SCHEMATICS AND EXPLODED VIEW

CHASSIS : LA12C

MODEL : 47LW5600 47LW5600-UA

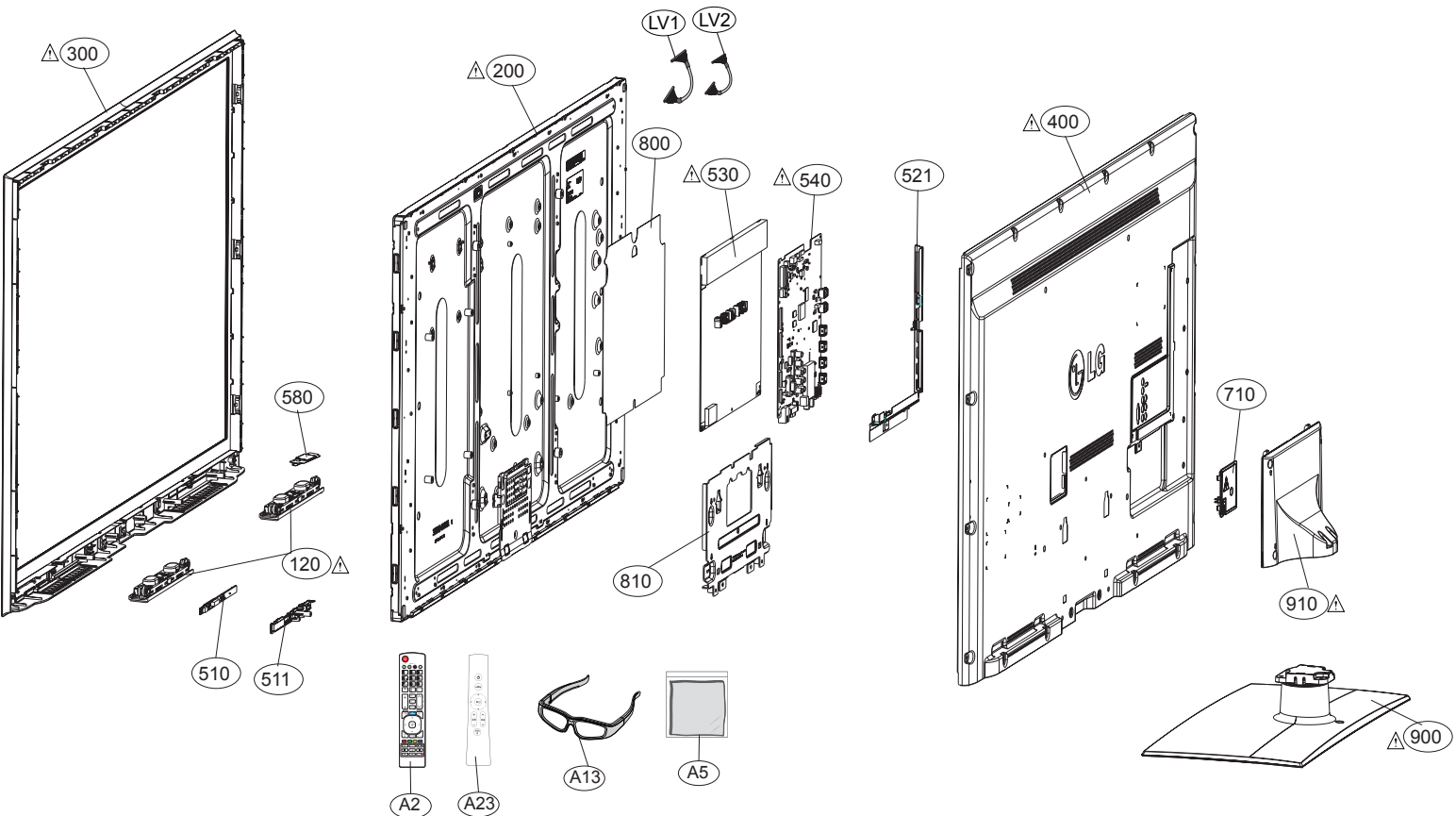
CAUTION

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

EXPLODED VIEW

IMPORTANT SAFETY NOTICE

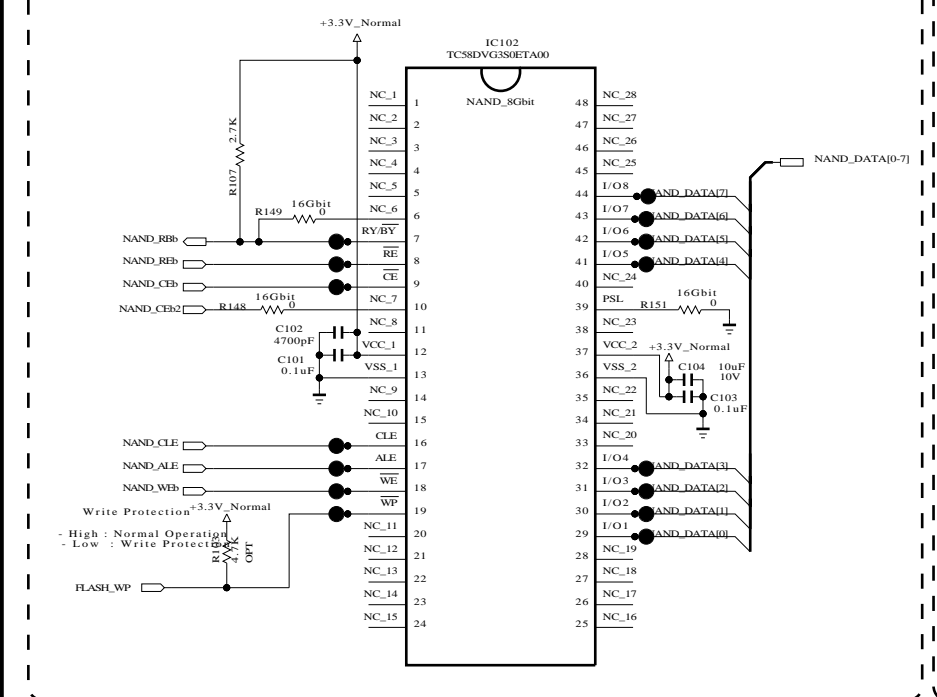
Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by ⚠ in the Schematic Diagram and EXPLODED VIEW. It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent X-RADIATION, Shock, Fire, or other Hazards. Do not modify the original design without permission of manufacturer.



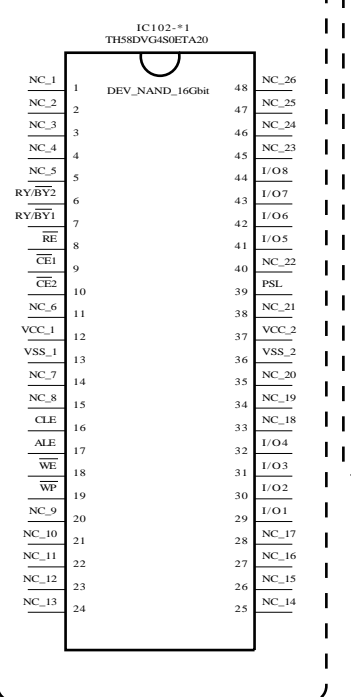
47LW5600 EXPLODED VIEW PARTS LIST

| ITEM | PART No | DESCRIPTION |
|------|-------------|---|
| 120 | EAB62088401 | Speaker :EN1080C-6795 ND 10W 8OHM 79DB 150HZ 200x25x27 |
| 200 | EAJ61768201 | Panel: LC470EUF-SDF1 FHD 47INCH 1920X1080 16/9 1600:1 240Hz(T) With Inverter and T-Con Edge V6 LG Display Co. Ltd. AUSYLHR, AUSYLJR, AL |
| 200 | EAJ61928101 | Panel: LC470EUF-SDF1 FHD 47INCH 1920X1080 16/9 1600:1 240Hz(T) With Inverter and T-Con Edge V6 LG Display Co. Ltd. AUSYLUR |
| 300 | ABJ73289108 | Front Frame: 47LW5600 Cabinet Assembly |
| 400 | ACQ85373502 | Back Cover: 47LW5600 |
| 510 | EBR72671301 | IR + Soft Touch Assembly: LW4500 |
| 511 | MAZ62853702 | Soft Touch Bracket |
| 521 | MGJ62689302 | Side AV Metal Bracket: (Around Main Board) |
| 530 | EAY62169801 | Power Supply: LGP4247-11SLPB FREE LGP4247-11SLPB LCD HNE/YUYANG/LGIT/LIENCHANG - H&E CO.,LTD |
| 540 | EBR72948402 | Main Board: BPR Insert PCB Assembly AUSYLHR |
| 540 | EBR73145901 | Main Board: BPR Insert PCB Assembly AUSYLJR |
| 540 | EBR72948404 | Main Board: BPR Insert PCB Assembly AUSYLUR |
| 580 | EBR72499601 | Motion Remote Receiver Board (M3) |
| 710 | MAZ62827604 | Decorative Piece Around Power Cord |
| 800 | AGU73528803 | Insulator Sheet behind Power Supply: (Insulation assy to attach on module for 42/47) |
| 810 | MJH62198002 | Stand Guide Metal |
| 900 | AAN73430406 | Stand Base |
| 910 | MJH62197902 | Stand Supporter |
| A2 | AKB73295502 | Remote Control |
| A3 | EAD60817902 | AC Power Cord 1.625M 75MM 125V 10A SVT 18AWG 3C BLACK. UL/CSA |
| A5 | MAF60779001 | Cloth Cleaner |
| A7 | EAT60713304 | Dongle WN8522B2-LF-19 AN-WF100 BCM4323 802.11a/b/g/n |
| A10 | FAB30016104 | Screw: FAB30016104 Machine Type D4.0 L12.0 Washer D8.5 t0.6 |
| A21 | MCK66265801 | Remocon Battery Cover |
| A13 | EBX61268401 | Accessory,3D Glasses |
| A23 | AKB72914043 | Motion Remote Controller (M3) |
| LV1 | EAD61652505 | LVDS 455MM 0.50MM 41P White UL20861 Reverse A: 95mm B: 220mm C: 160mm D: 55mm |
| LV2 | EAD61668615 | LVDS 365MM 0.50MM 51P White UL20861 reverse Locking A: 95mm B: 180mm C: 125mm D: 55mm |

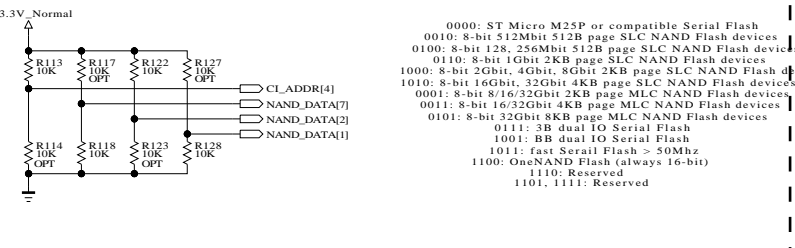
NAND FLASH MEMORY 8Gbit



16Gbit

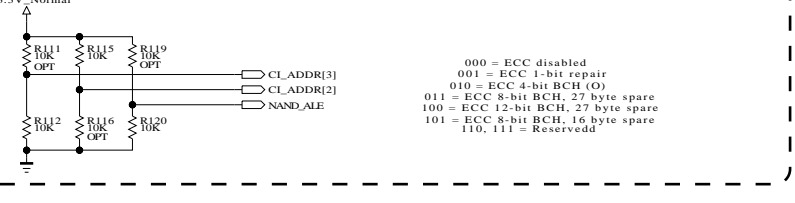


Boot ROM Device Select - (FA4, FAD7, FAD2, FAD1)



- 0000: ST Micro M25P or compatible Serial Flash
- 0010: 8-bit 128, 256Mbit 512B page SLC NAND Flash devices
- 0110: 8-bit 1Gbit 2KB page SLC NAND Flash devices
- 1000: 8-bit 2Gbit, 4Gbit, 8Gbit 2KB page SLC NAND Flash devices
- 1010: 8-bit 16Gbit, 32Gbit 4KB page SLC NAND Flash devices
- 0001: 8-bit 8/16/32Gbit 4KB page MLC NAND Flash devices
- 0101: 8-bit 32Gbit 8KB page MLC NAND Flash devices
- 0111: 3B dual IO Serial Flash
- 1001: BB dual IO Serial Flash
- 1011: fast Serial Flash > 50MHz
- 1100: OneNAND Flash (always 16-bit)
- 1101, 1111: Reserved

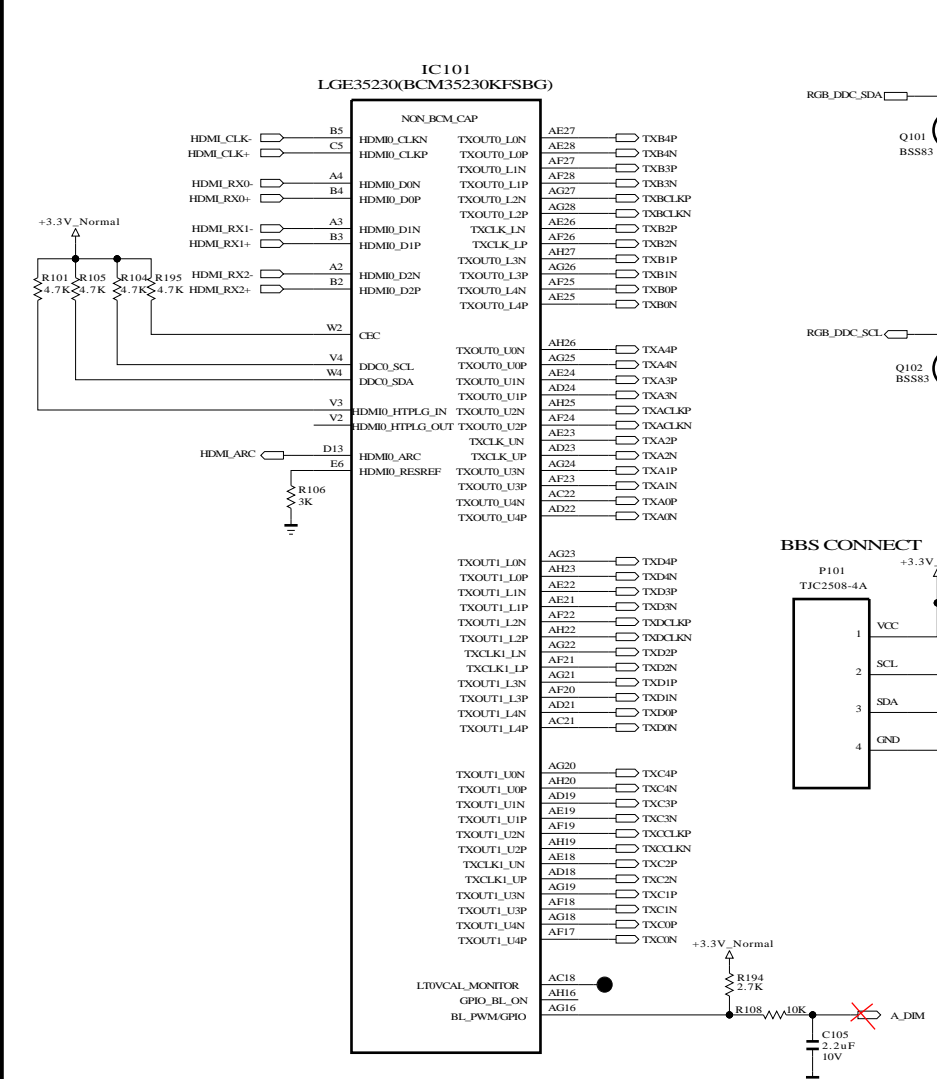
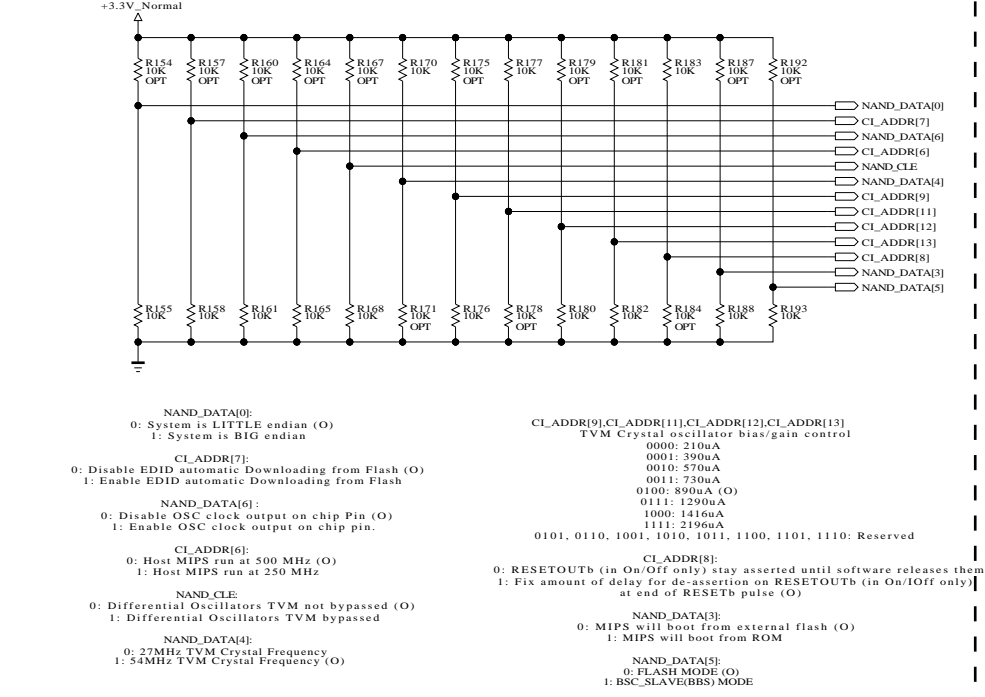
NAND ECC (FA3, FA2, FA1E)

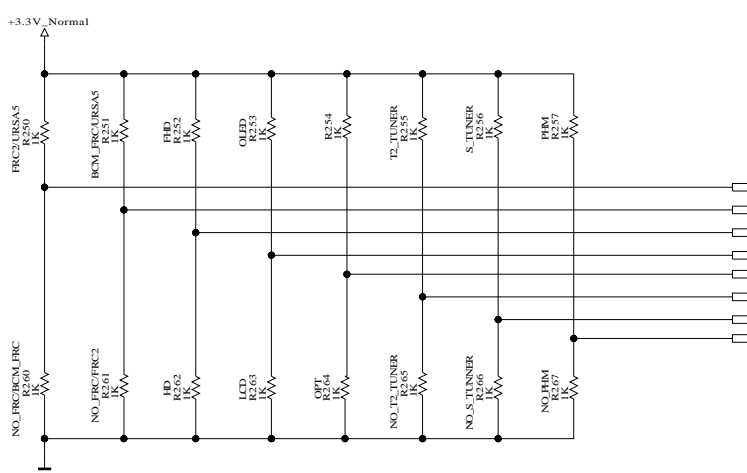


- 000 = ECC disabled
- 001 = ECC 1-bit repair
- 010 = ECC 4-bit BCH (0)
- 011 = ECC 8-bit BCH, 27 byte spare
- 100 = ECC 12-bit BCH, 27 byte spare
- 101 = ECC 8-bit BCH, 16 byte spare
- 110, 111 = Reserved

| DUAL COMPONENT | |
|----------------|---|
| IC102 | 1ST : EAN61000101 2ND : T-TH58DV6488ETA20 |
| IC102-*1 | |

Strap Setting

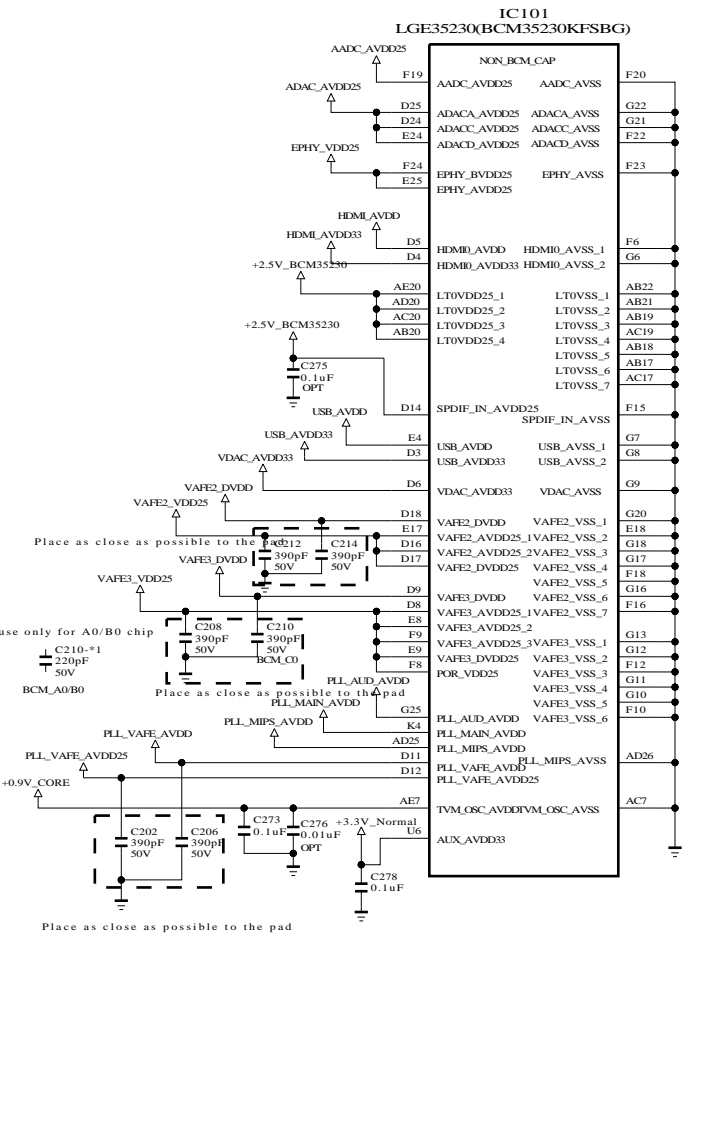
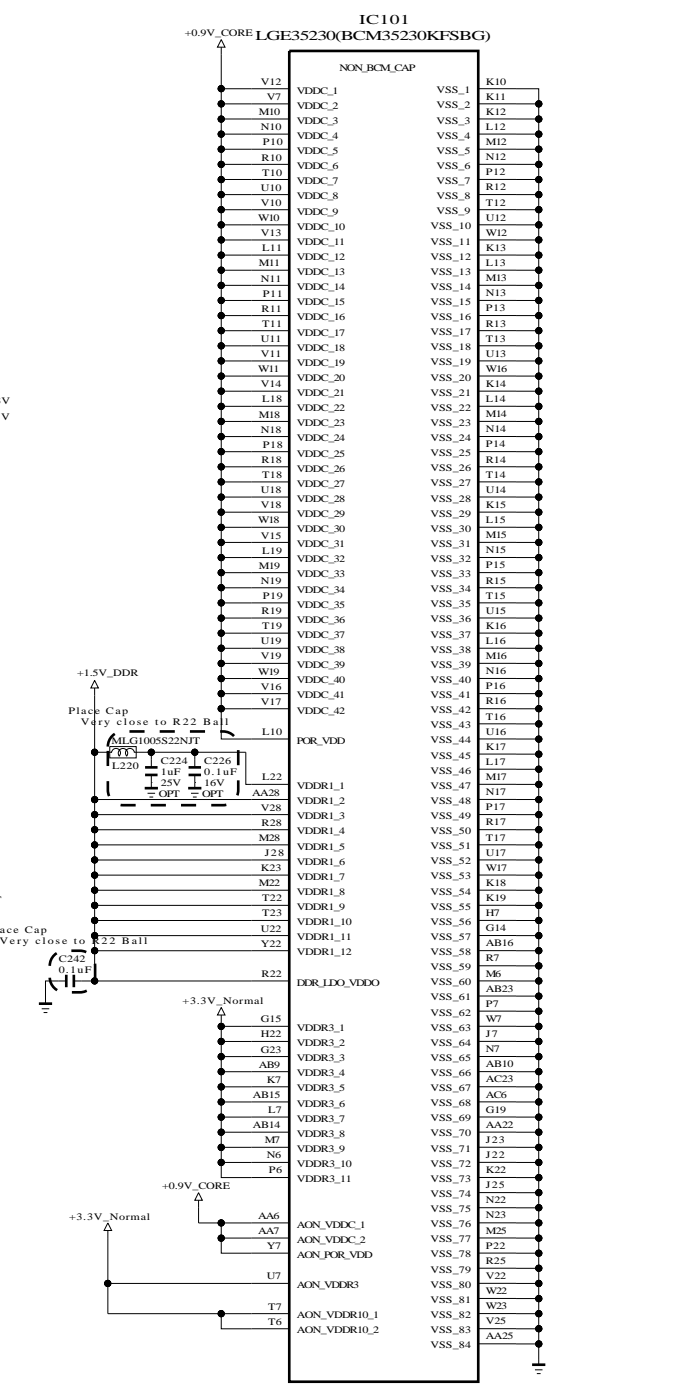
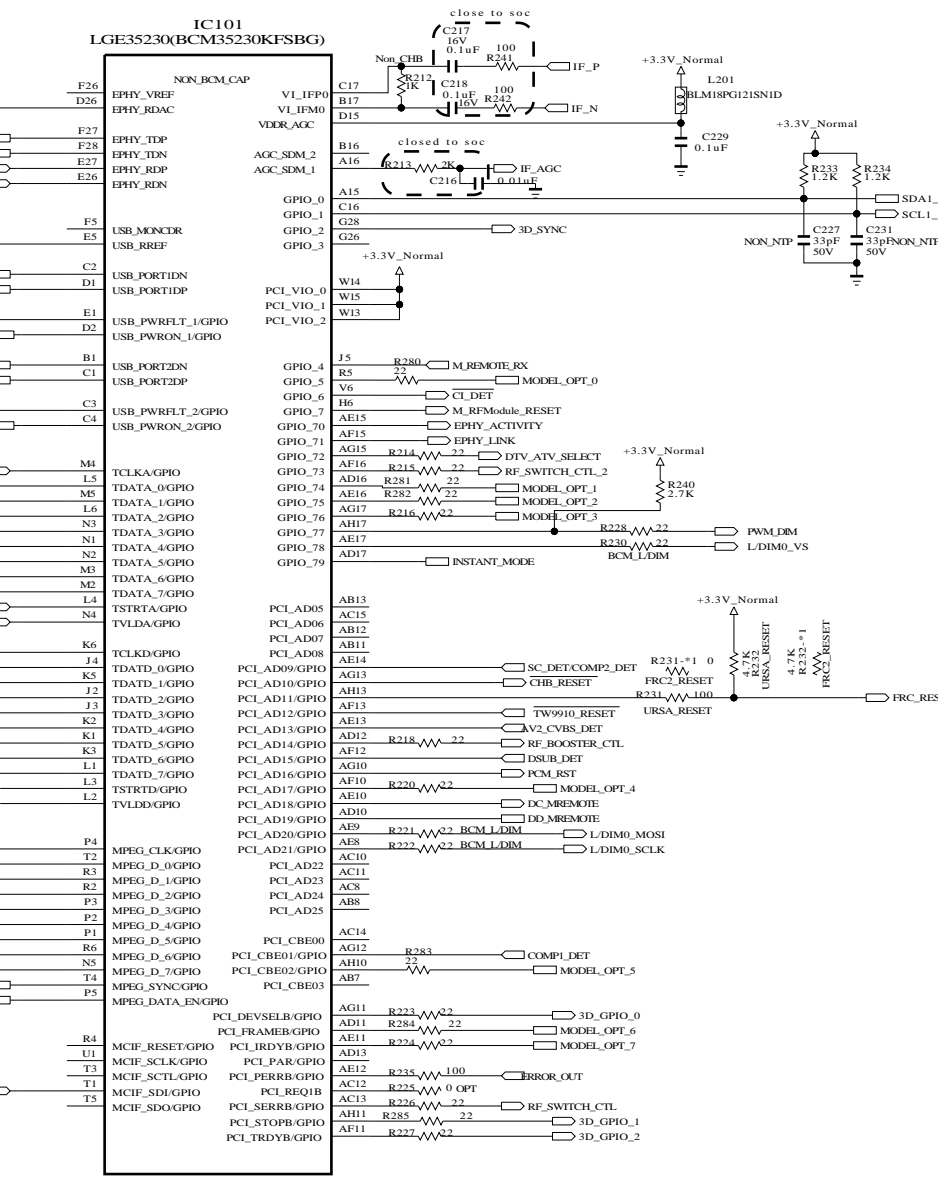
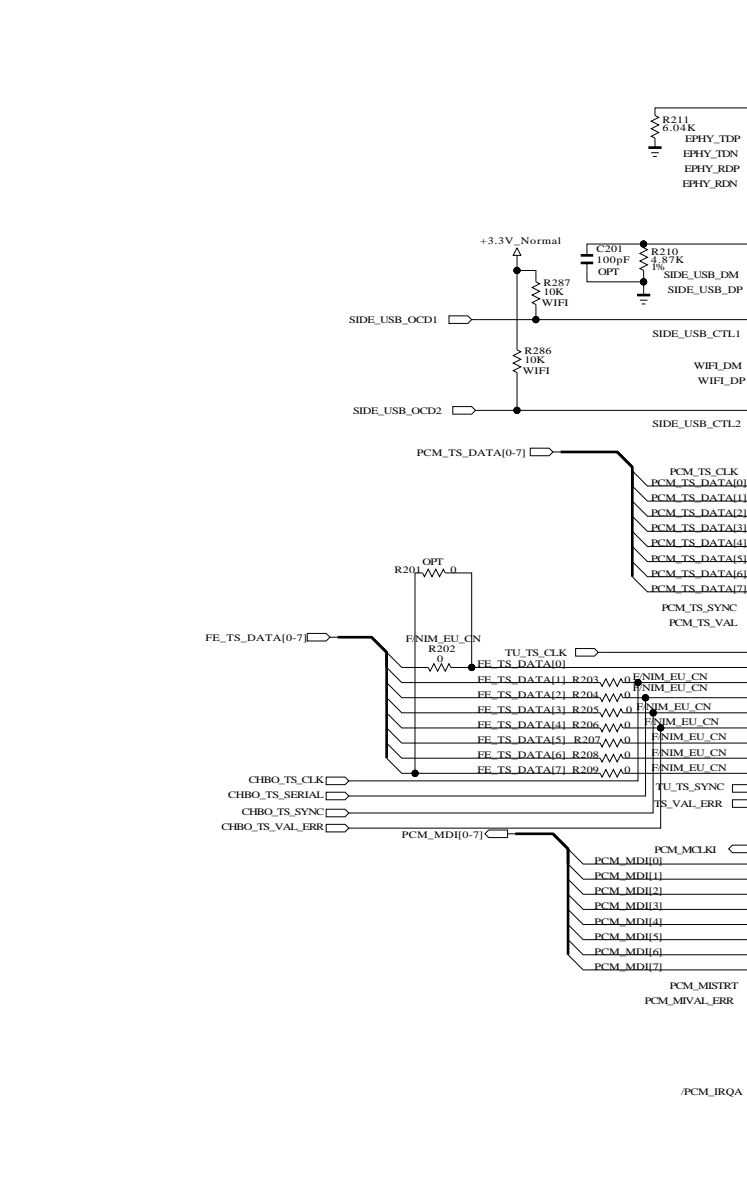
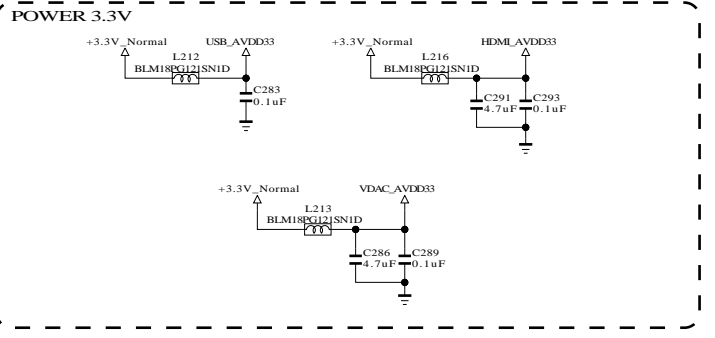
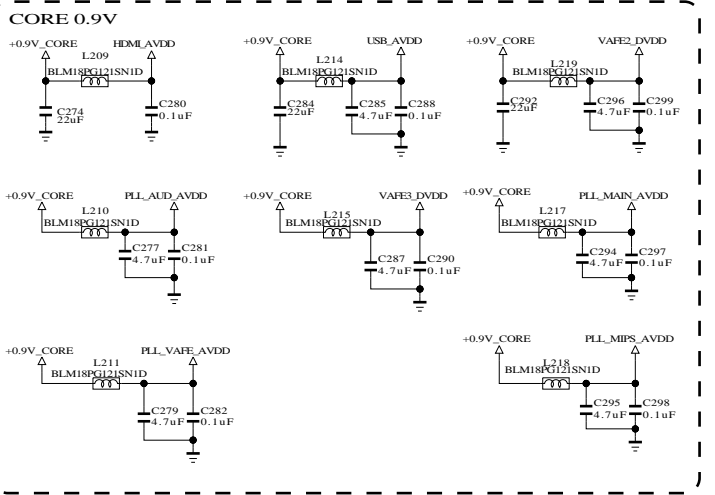
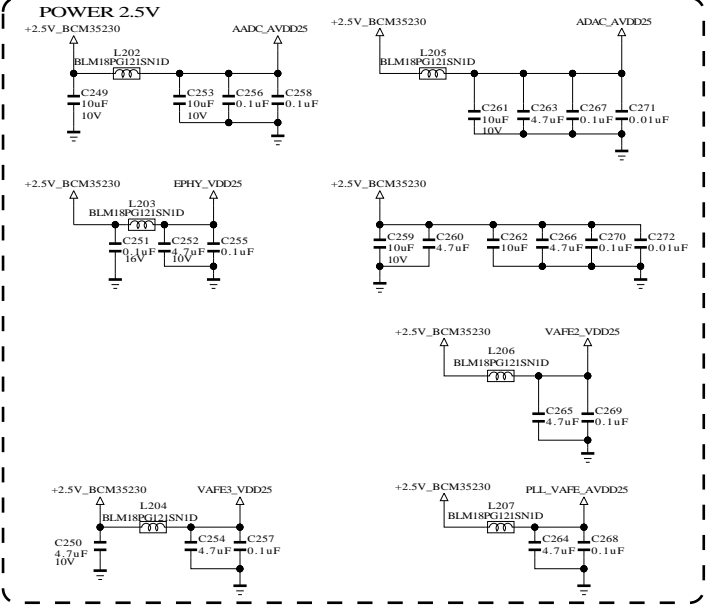
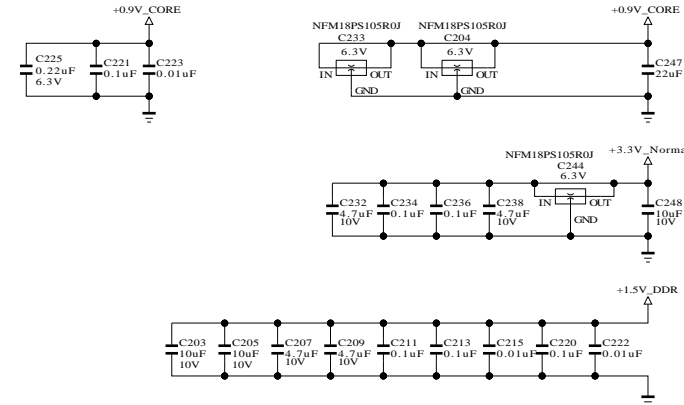




MODEL OPTION

| | NO_FRC | BCM internal FRC | LG FRC2 | external URSA5 |
|-------------|--------|------------------|---------|----------------|
| MODEL_OPT_0 | 0 | 0 | 1 | 1 |
| MODEL_OPT_1 | 0 | 1 | 0 | 1 |

| | HIGH | LOW |
|-------------|-----------|---------|
| MODEL_OPT_2 | | HD |
| MODEL_OPT_3 | | LCD |
| MODEL_OPT_4 | DDR speed | 1333 |
| MODEL_OPT_5 | T2 Tuner | Support |
| MODEL_OPT_6 | S Tuner | Support |
| MODEL_OPT_7 | PHM | Enable |

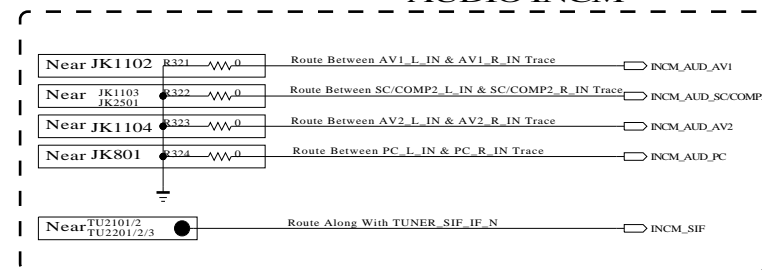
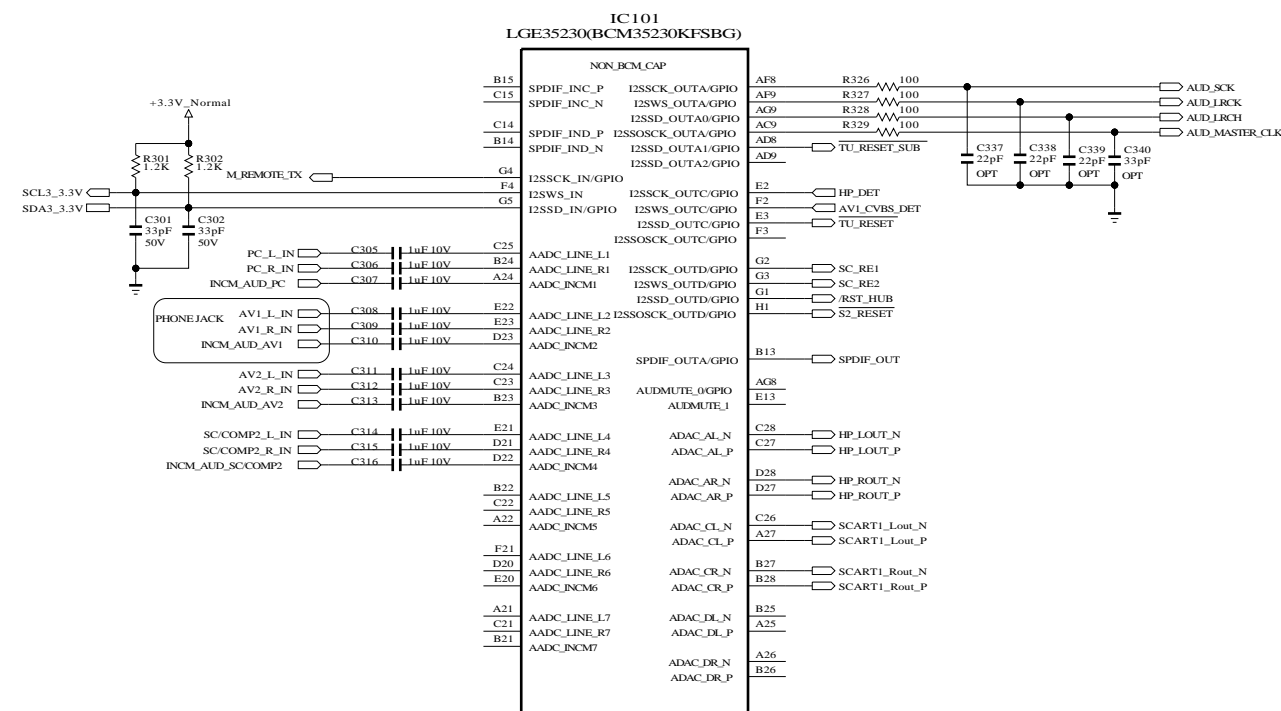
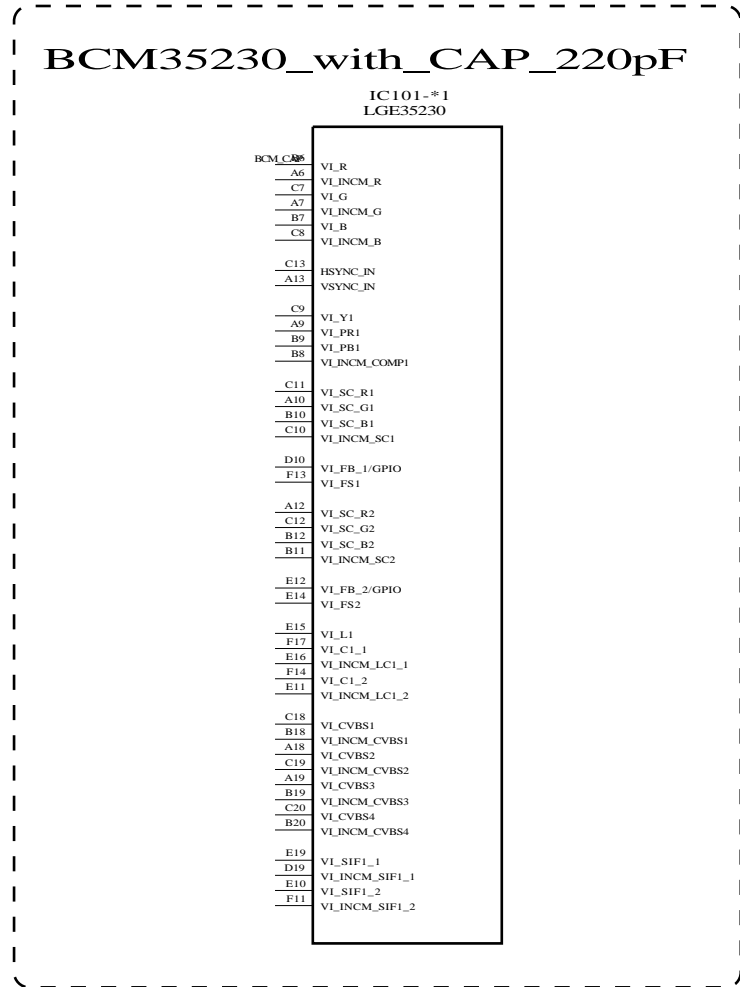
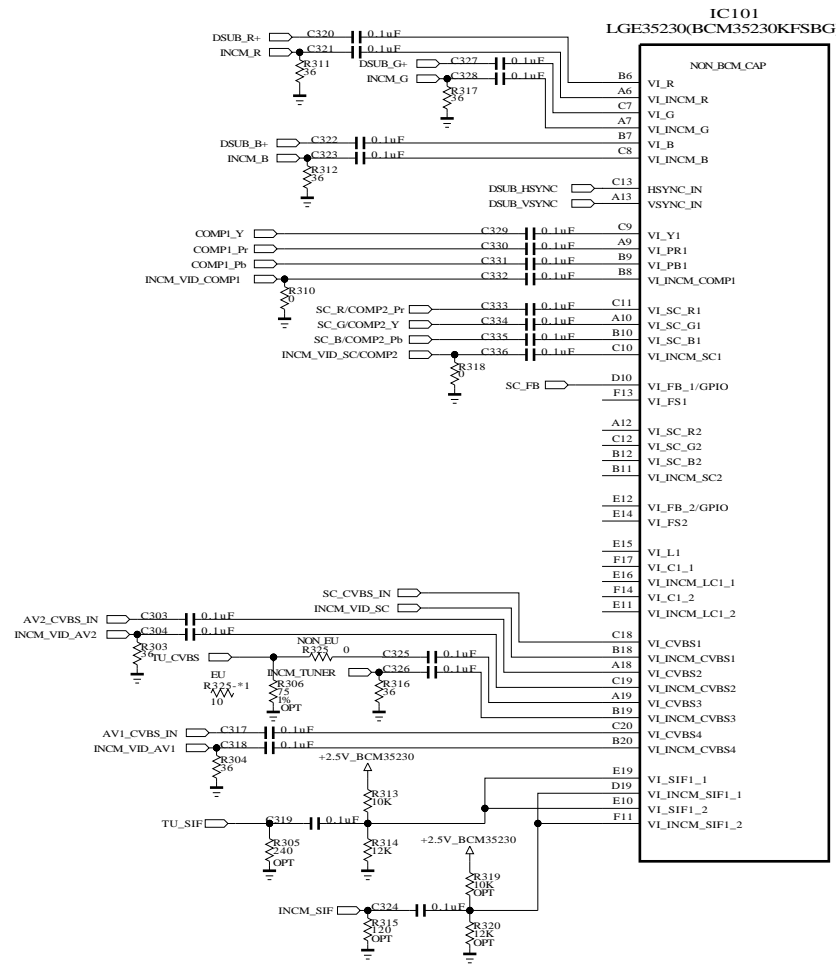


THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

SECRET
LGElectronics



| | | | |
|-------------|------------------------|------------|--------|
| MODEL BLOCK | BCM35230 MAIN POWER | DATE SHEET | 2 / 50 |
|-------------|------------------------|------------|--------|



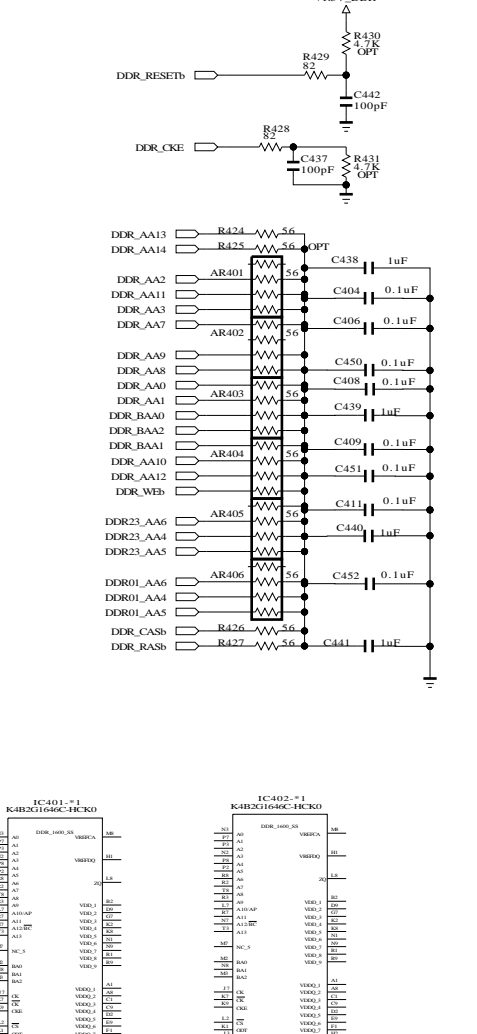
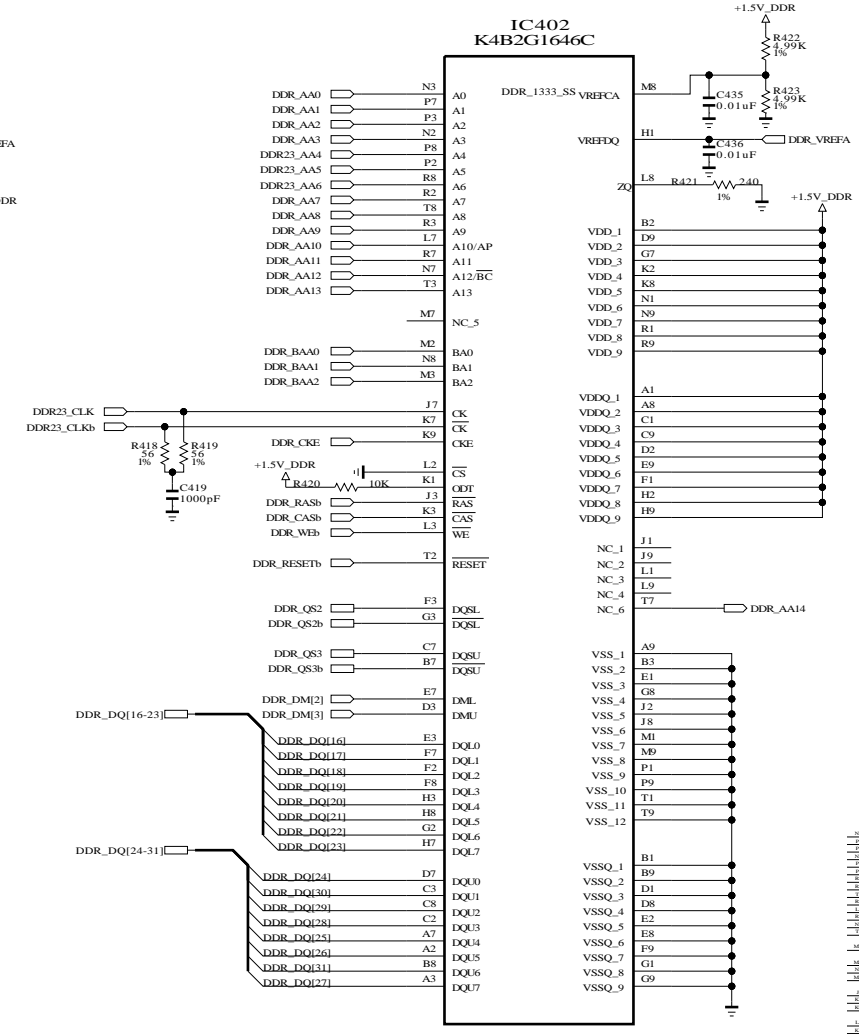
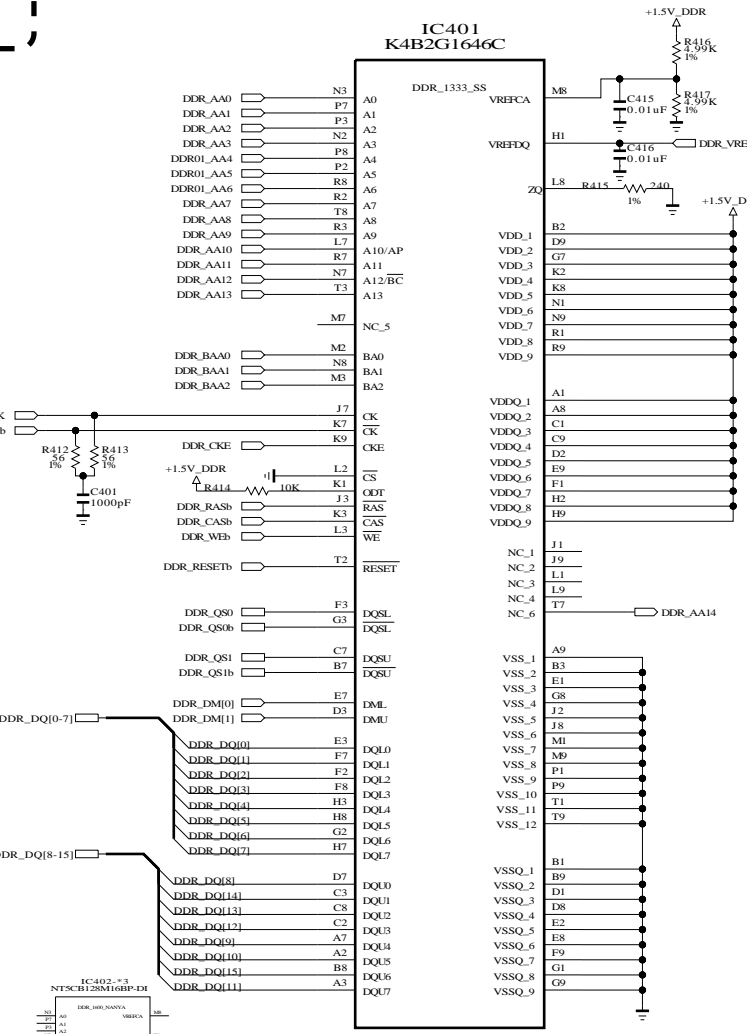
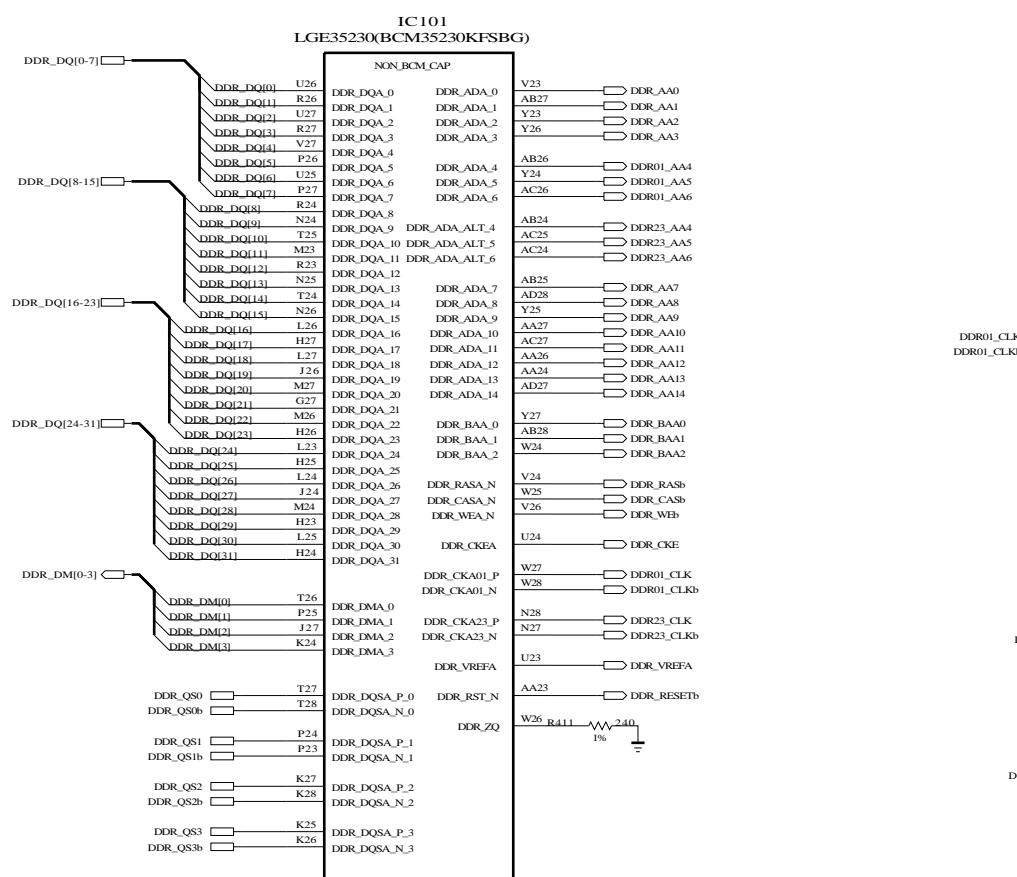
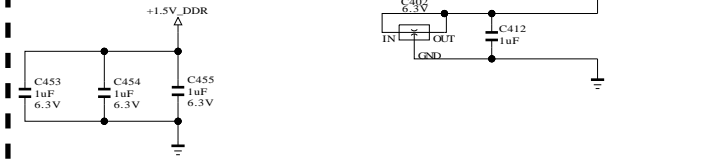
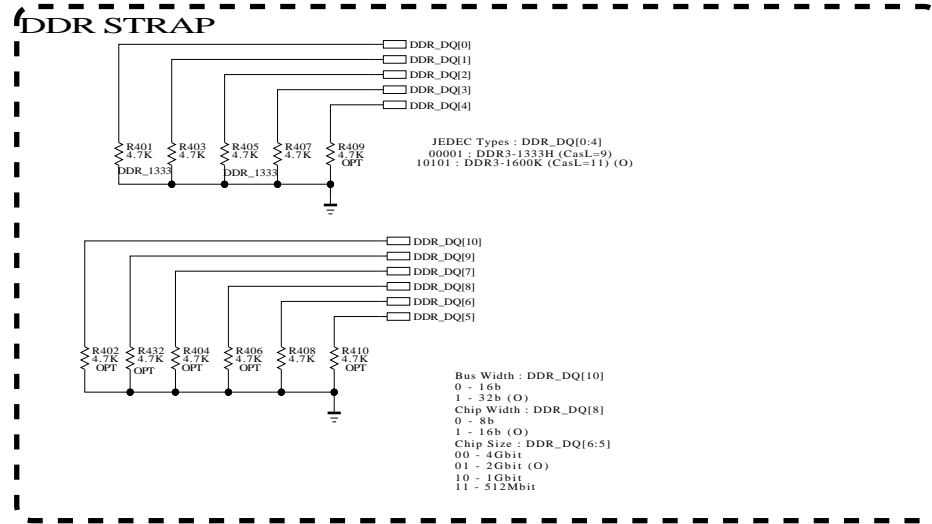
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LG ELECTRONICS

| | | | |
|-------|------------------|-------|--------|
| MODEL | BCM35230 | DATE | |
| BLOCK | MAIN AUDIO/VIDEO | SHEET | 3 / 50 |

| DUAL COMPONENT | |
|----------------------|--|
| IC401,IC402 | 1ST : EAN61667501, 2ND : EAN61570701 |
| IC401-*1 IC402-*1 | 1ST : T-K4B2G1646B_HCK0, 2ND : T-H5TQ2G63BFR-PBC |



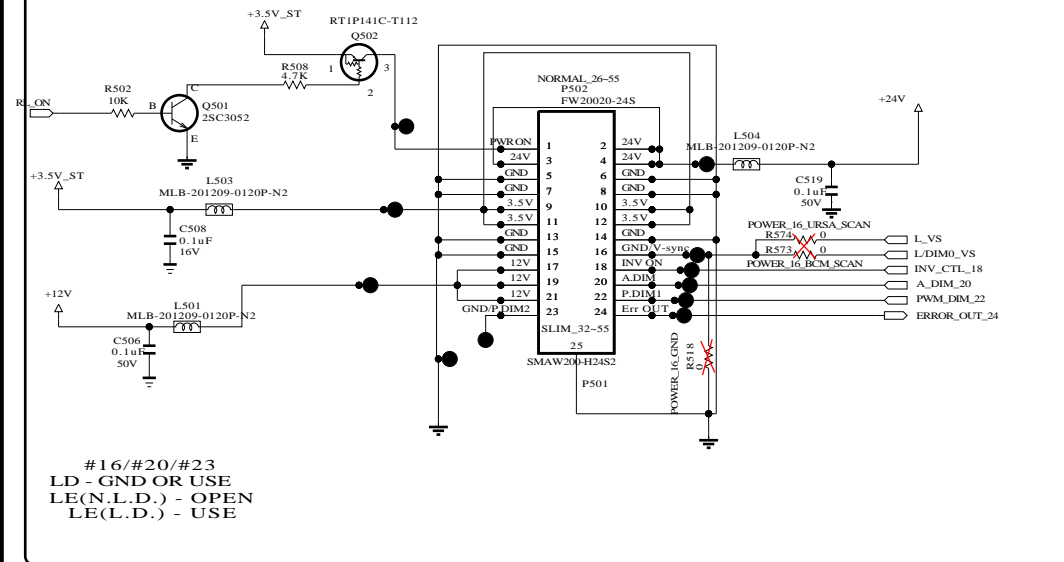
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SECRET
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| | | | |
|-------|----------|-------|--------|
| MODEL | BCM35230 | DATE | |
| BLOCK | MAIN DDR | SHEET | 4 / 50 |

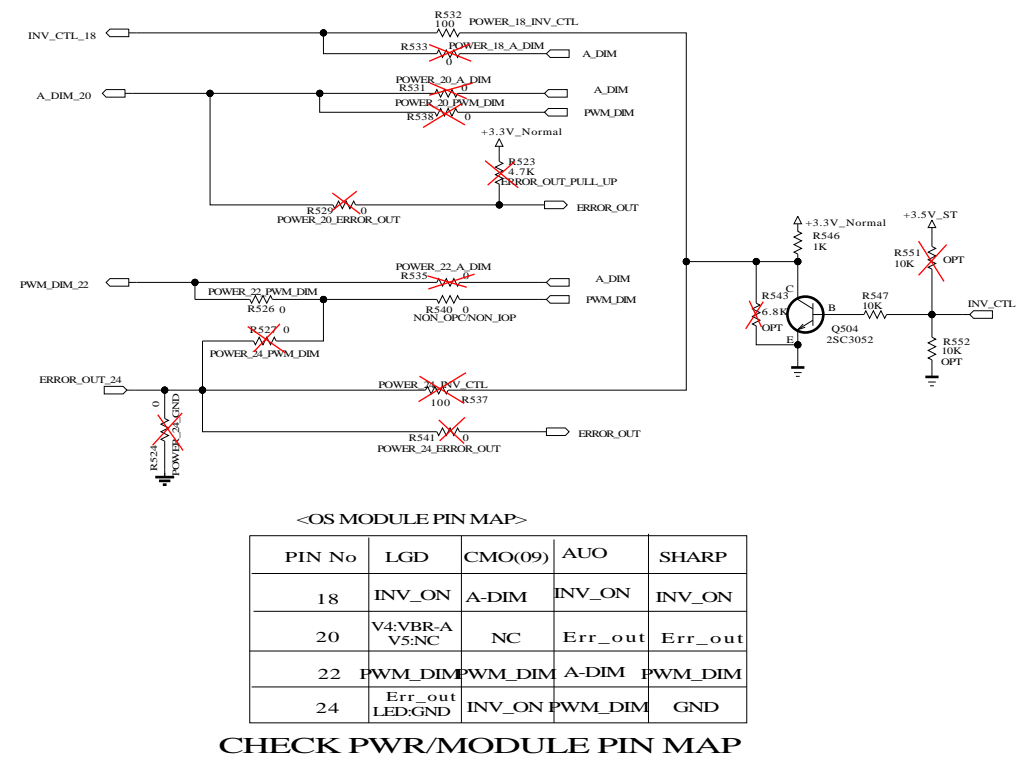
FROM LIPS & POWER B/D



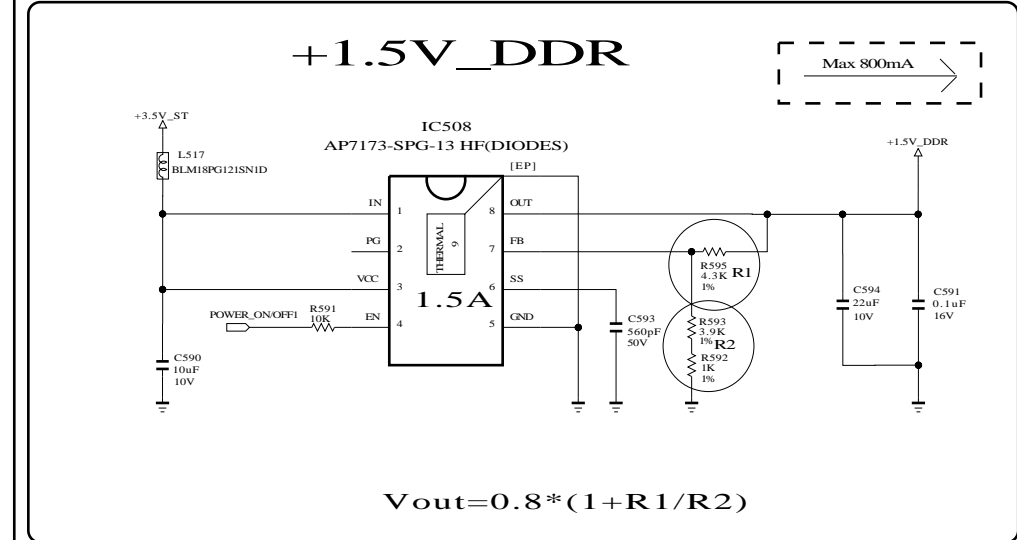
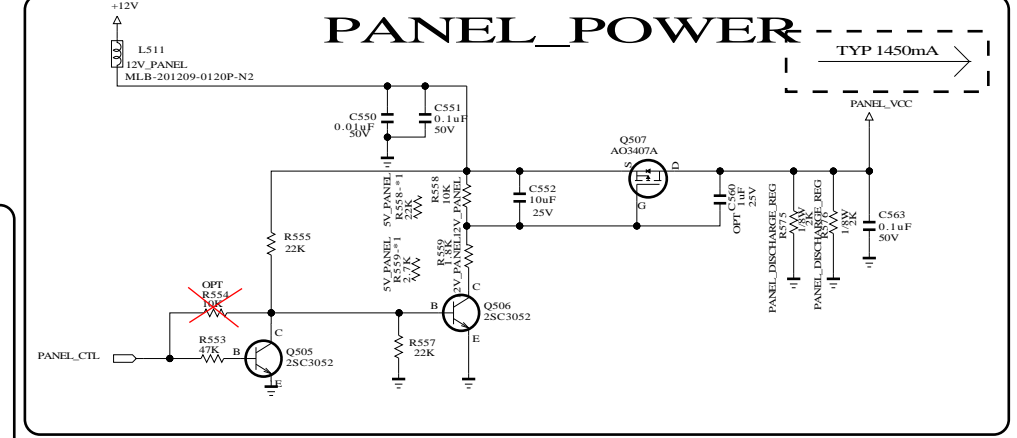
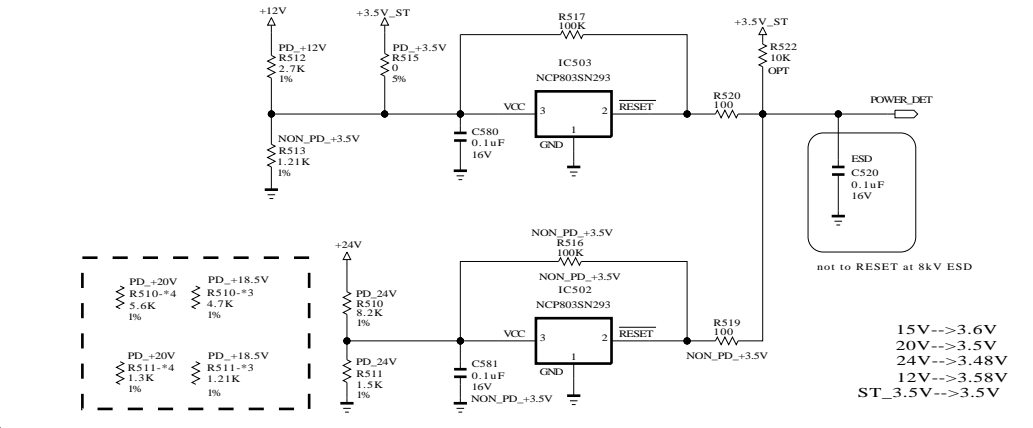
DUAL COMPONENT

| | |
|----------------------|---|
| Q501,Q504, Q505,Q506 | 1ST : 0TRIY80001A 2ND : 0TR387500AA |
| Q502 | 1ST : 0TRIH80004A, 2ND : EBK61012501, 3RD : 0TR102009AM |
| Q507 | 1ST : EBK60752501, 2ND : EBK61011501 |
| IC502,IC503 | 1ST : EAN61151001, 2ND : EAN60670101 |

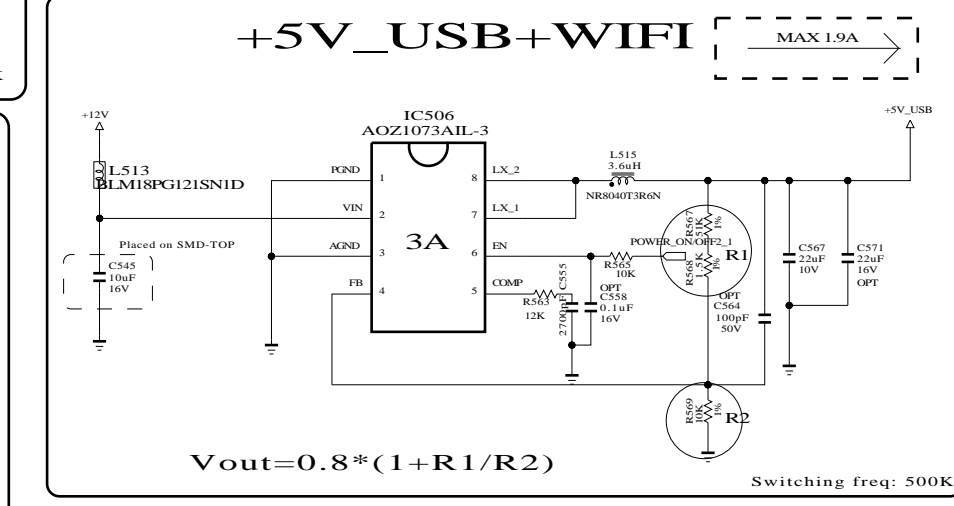
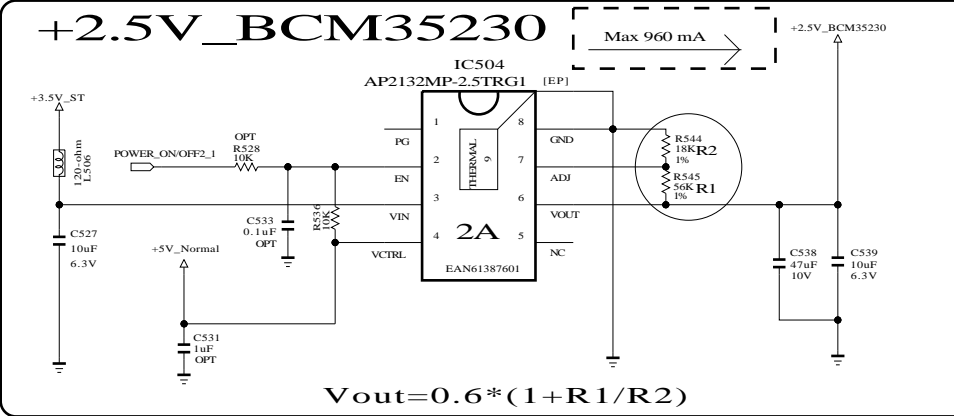
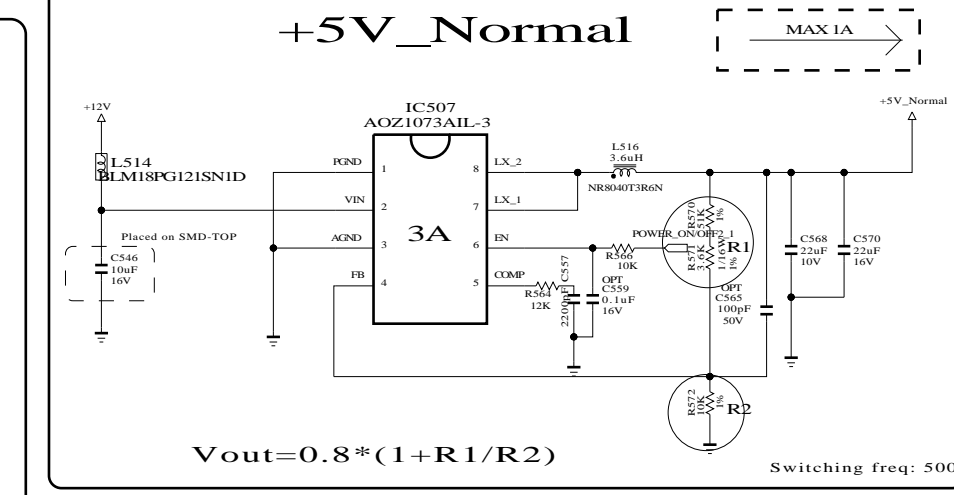
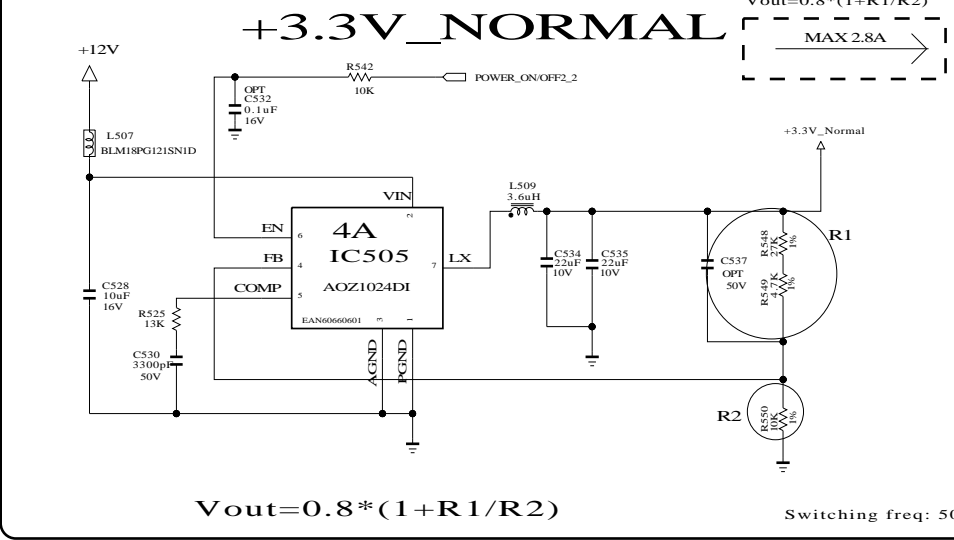
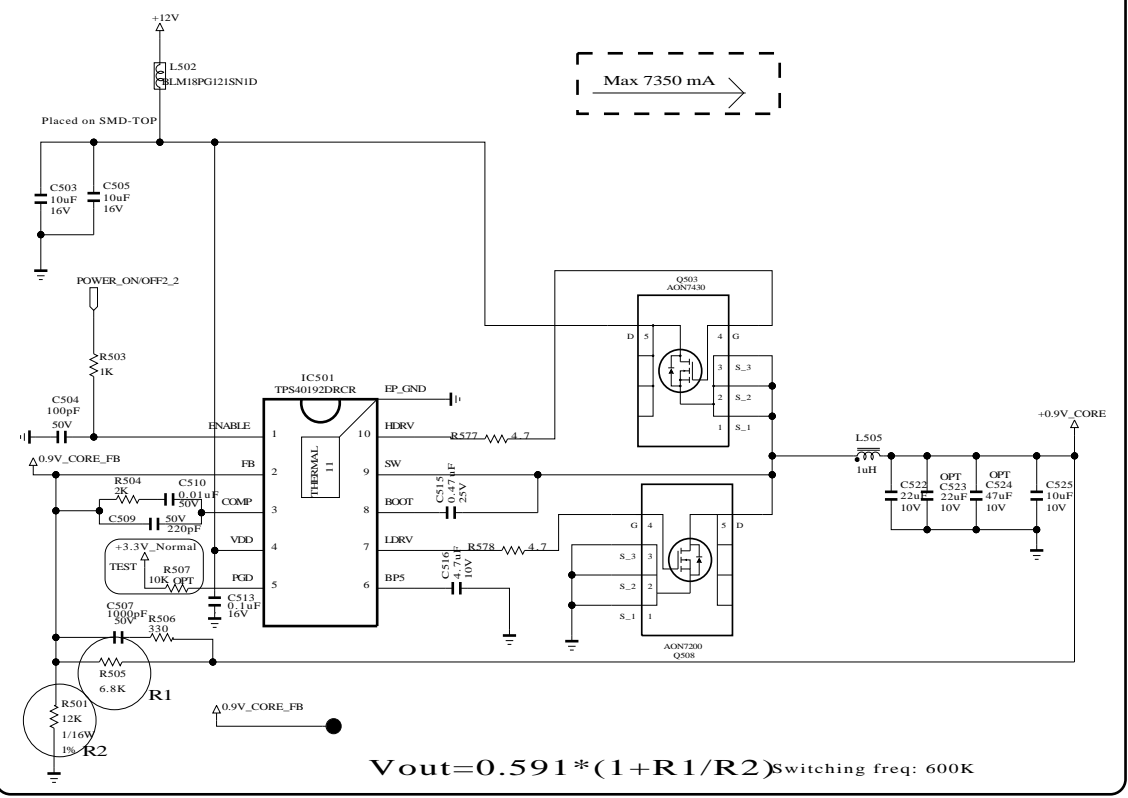
OS Module OPT



Power_DET



+0.9V_CORE_BCM35230

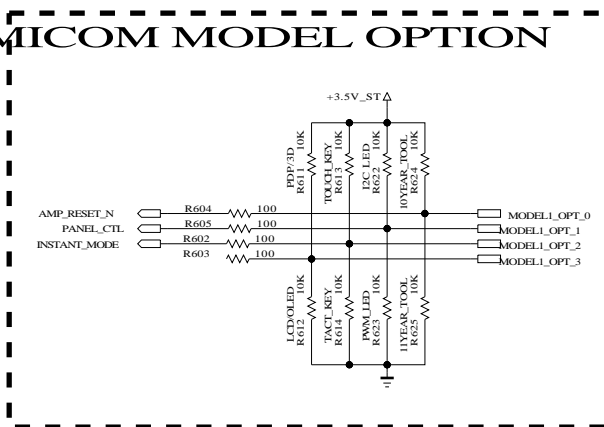
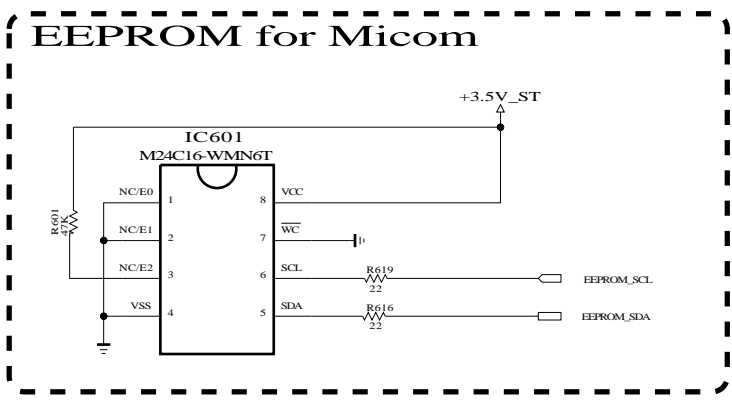
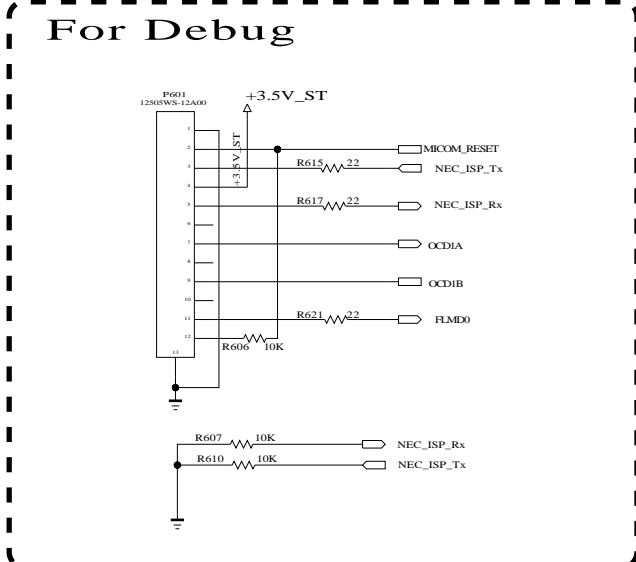


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SECRET
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| | | | |
|-------|----------|-------|--------|
| MODEL | BCM35230 | DATE | |
| BLOCK | POWER | SHEET | 5 / 58 |



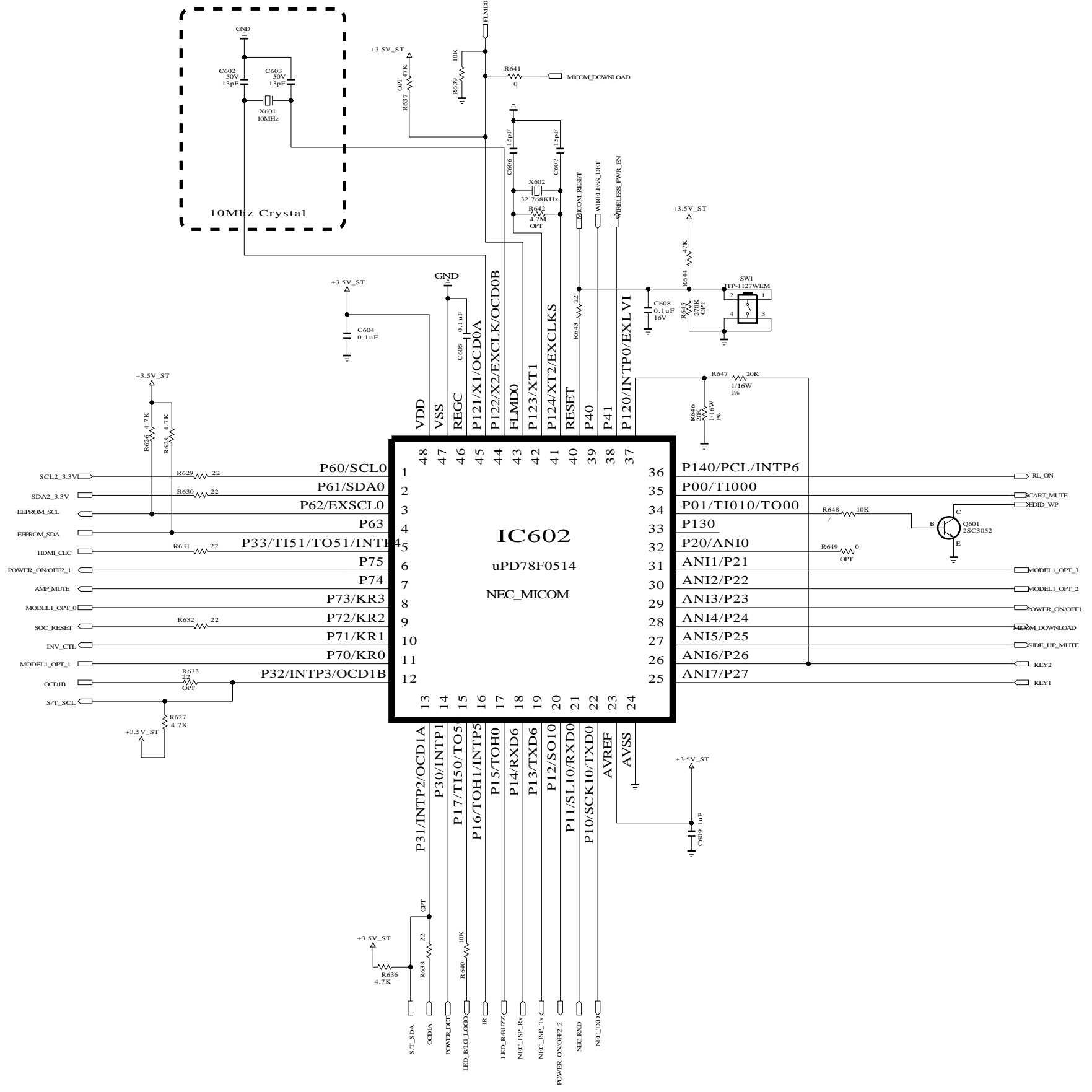
MODEL OPTION

| PIN NAME | PIN NO. | HIGH | LOW |
|-------------|---------|-------------------------|-------------------------|
| MODEL_OPT_0 | 8 | 10YEAR_TOGL (10 SENSOR) | 11YEAR_TOGL (11 SENSOR) |
| MODEL_OPT_1 | 11 | I2C_LED | PWM_LED |
| MODEL_OPT_2 | 30 | TOUCH_KEY | TACT_KEY |
| MODEL_OPT_3 | 31 | PDP/3D | LCD/OLED |

| MODEL_OPT_3 | LCD | PDP | OLED | 3D |
|-------------|-----|-----|------|----|
| 0 | 1 | 0 | 1 | 1 |

| MODEL_OPT_1 | LOW | LOW_SMALL | TBD | HIGH |
|-------------|-----|-----------|-----|------|
| 0 | 0 | 1 | 1 | 1 |

| MODEL_OPT_2 | LOW | LOW_SMALL | TBD | HIGH |
|-------------|-----|-----------|-----|------|
| 0 | 1 | 0 | 1 | 1 |

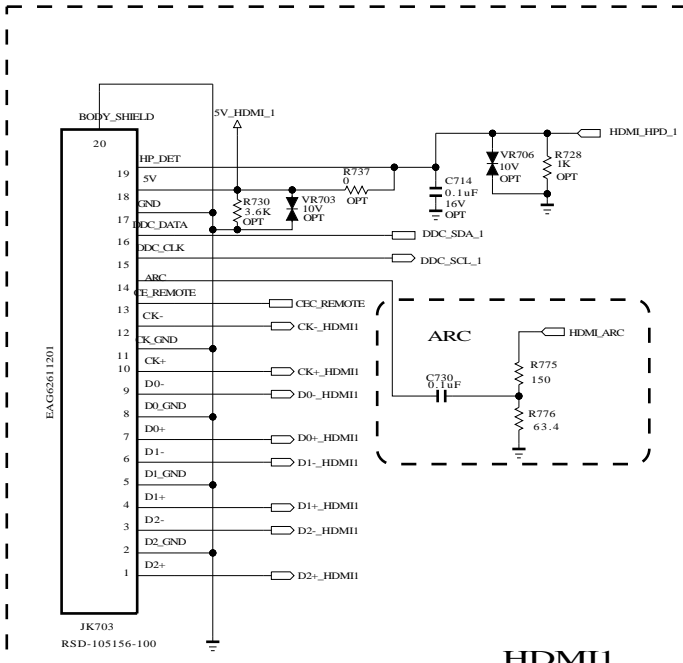


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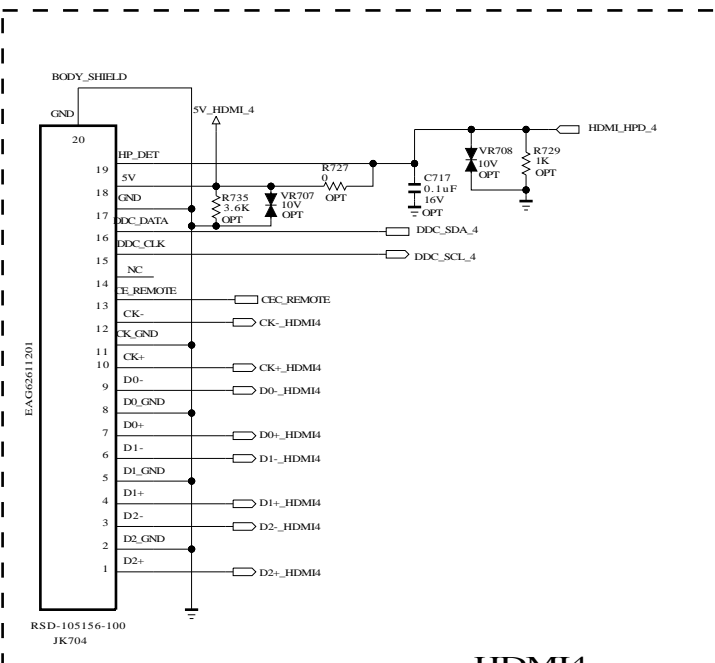
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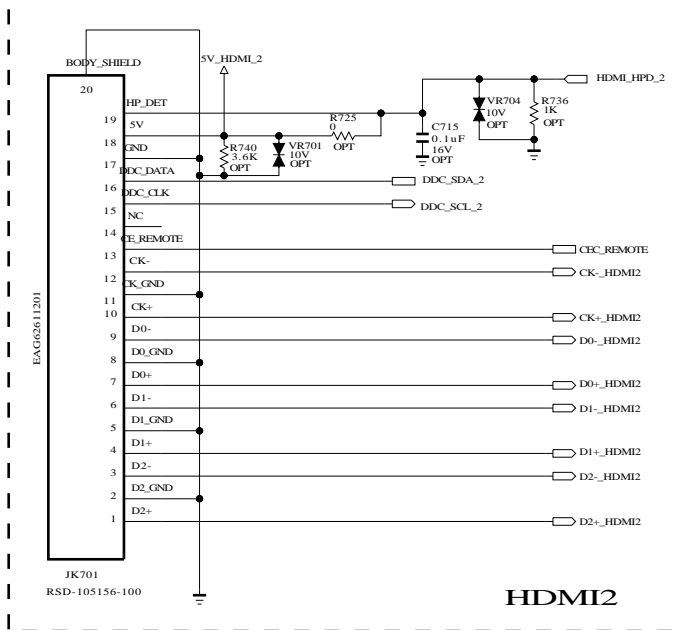
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|-------|----------|-------|--------|
| MODEL | BCM35230 | DATE | |
| BLOCK | MICOM | SHEET | 6 / 50 |



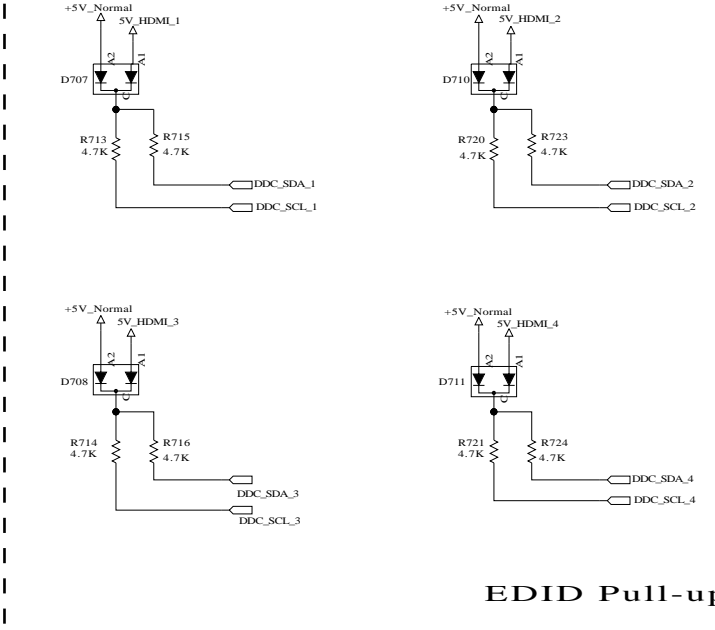
HDMI1



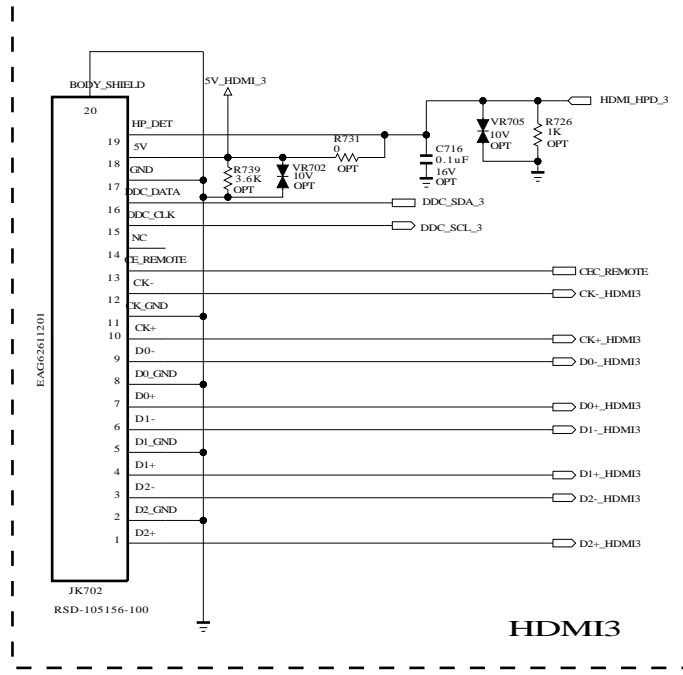
HDMI4



HDMI2



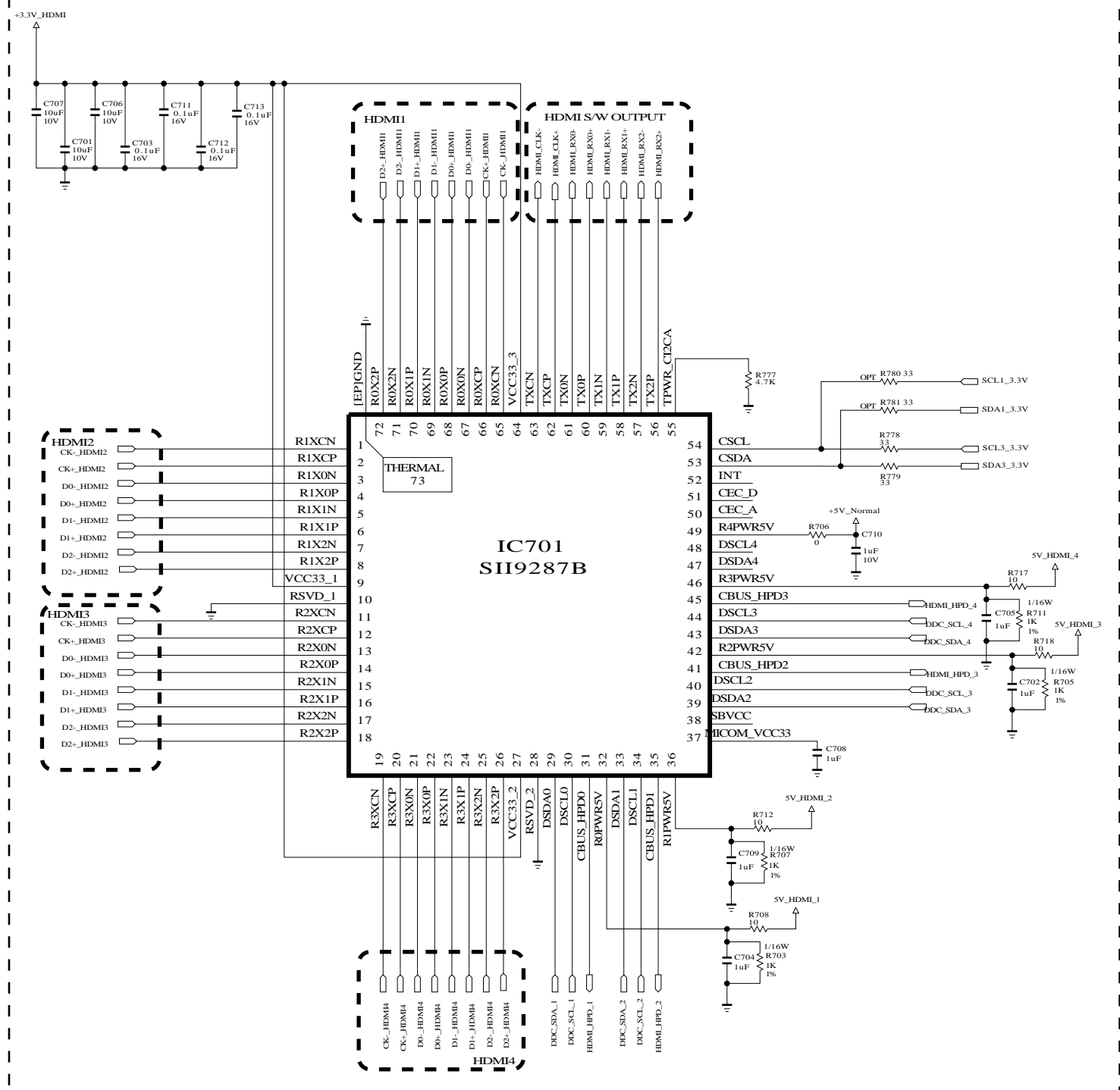
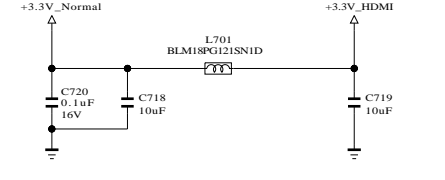
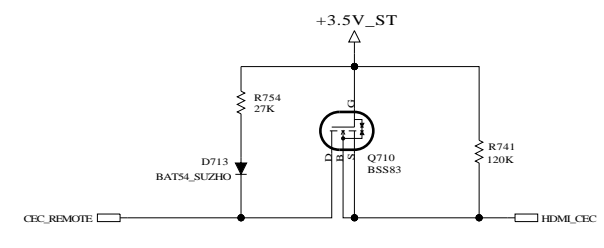
EDID Pull-up



HDMI3

| DUAL COMPONENT | |
|------------------------|--|
| D707,D708 D710,D711 | 1ST : 0DD184009AA 2ND : 0DSIH00028A |
| D713 | 1ST : T-BAT54_SUZHO, 2ND : 0DSON00138A |

* HDMI CEC



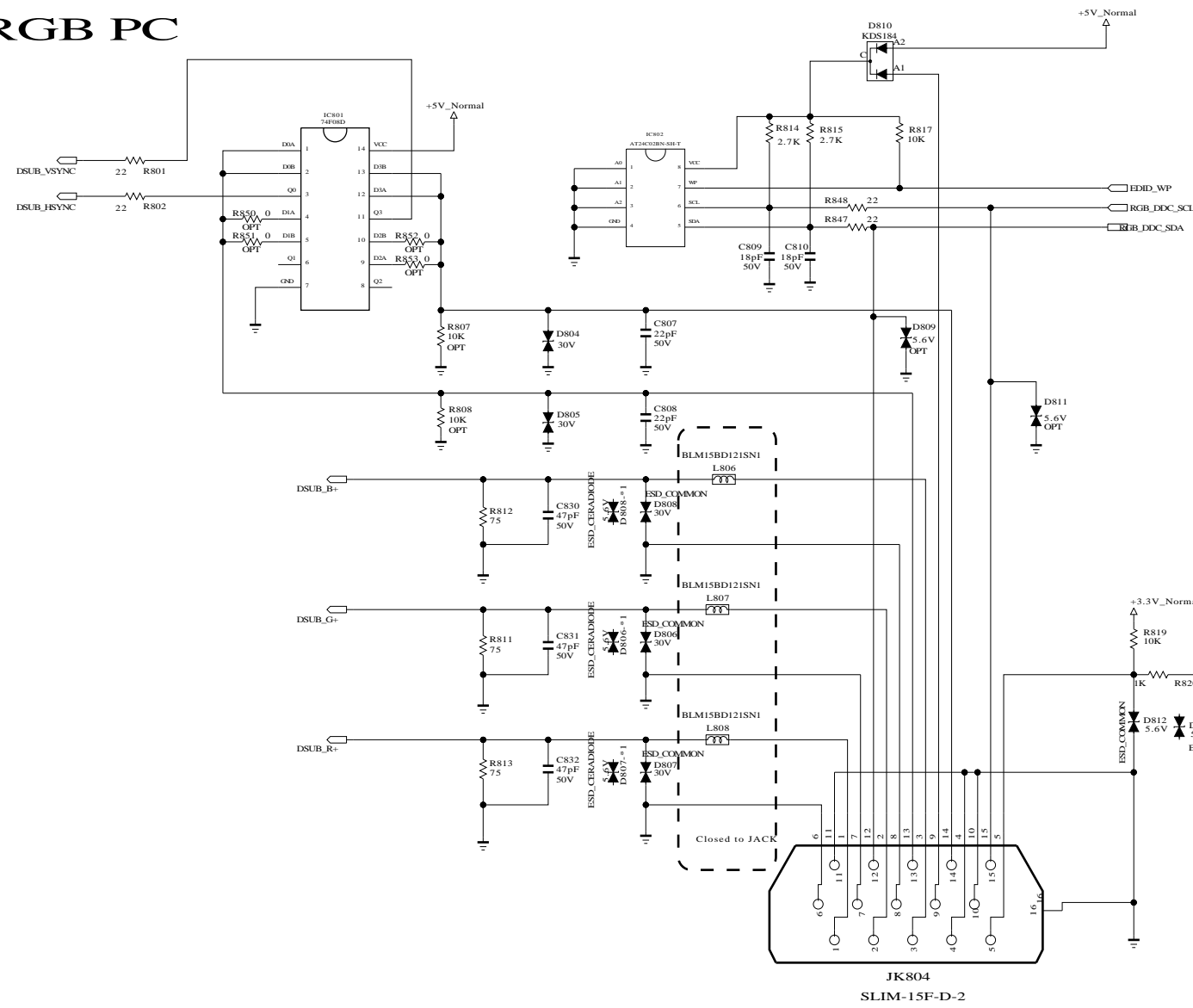
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SECRET
LGElectronics

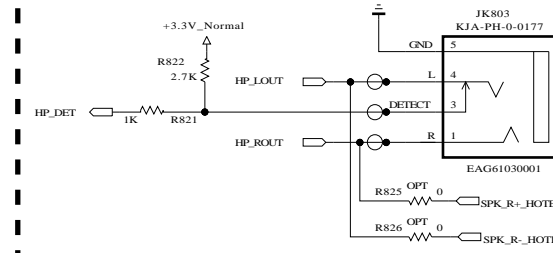


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|-------|----------|-------|--------|
| MODEL | BCM35230 | DATE | |
| BLOCK | HDMI | SHEET | 7 / 31 |

RGB PC

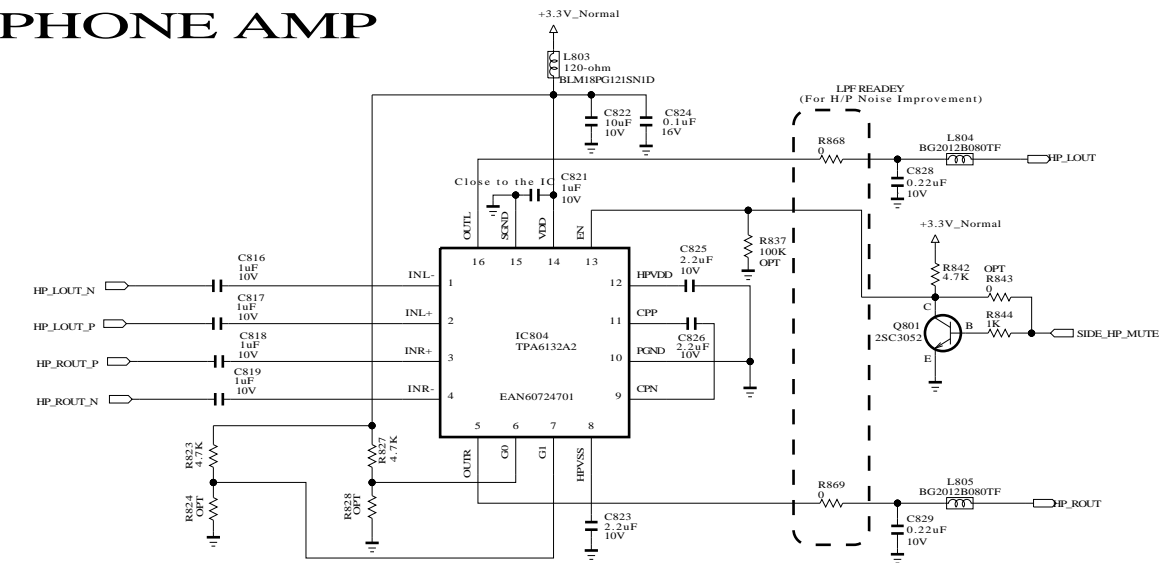


EARPHON JACK

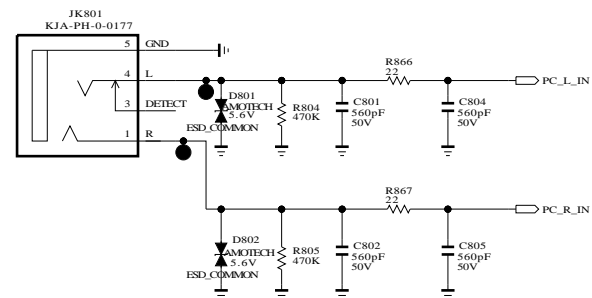


| DUAL COMPONENT | |
|--|--------------------------------------|
| D804, D805, D806 D807, D808, D813 D814 | 1ST : EAH39491601, 2ND : EAH33945901 |
| D810 | 1ST : 0DD184009AA, 2ND : 0DSIH00028A |
| Q801 | 1ST : 0TRIY80001A, 2ND : 0TR387500AA |
| IC805 | 1ST : EAN61151201, 2ND : EAN61130001 |

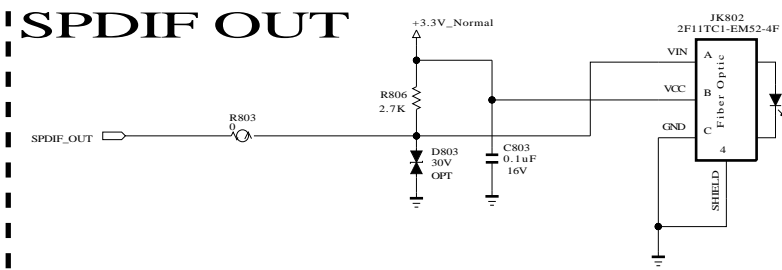
EARPHONE AMP



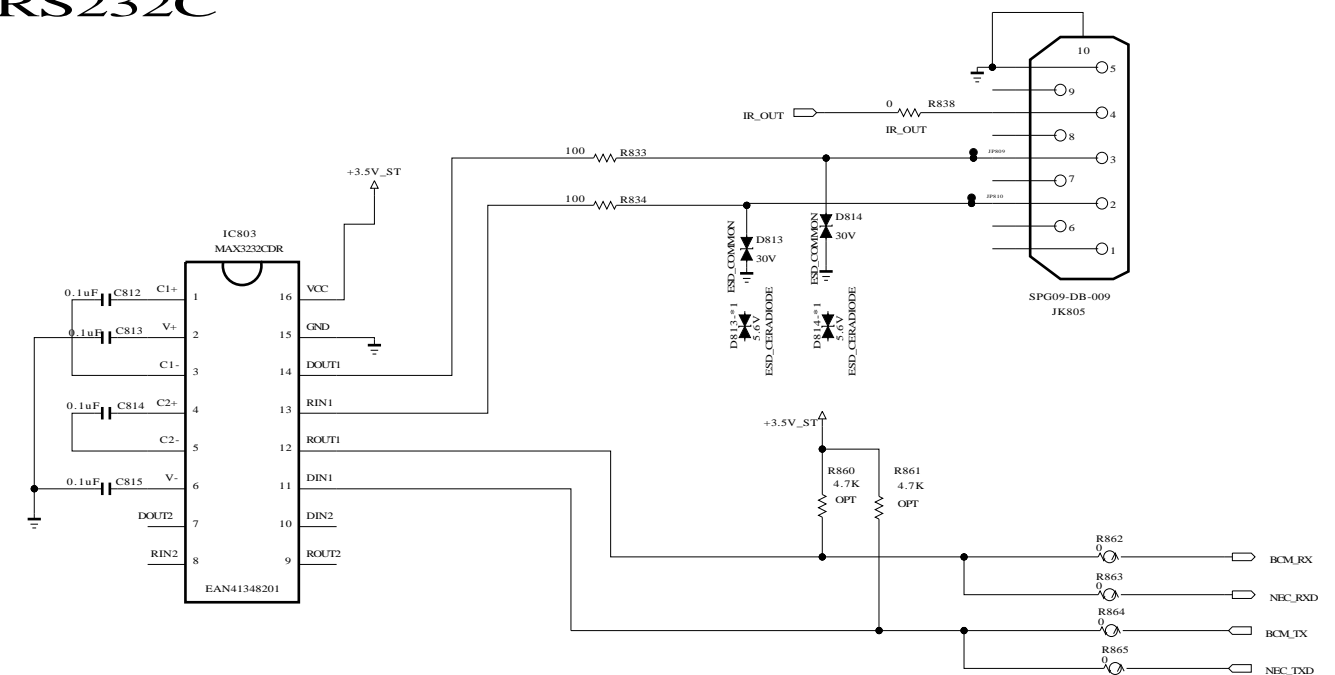
PC AUDIO



SPDIF OUT



RS232C



THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE 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.

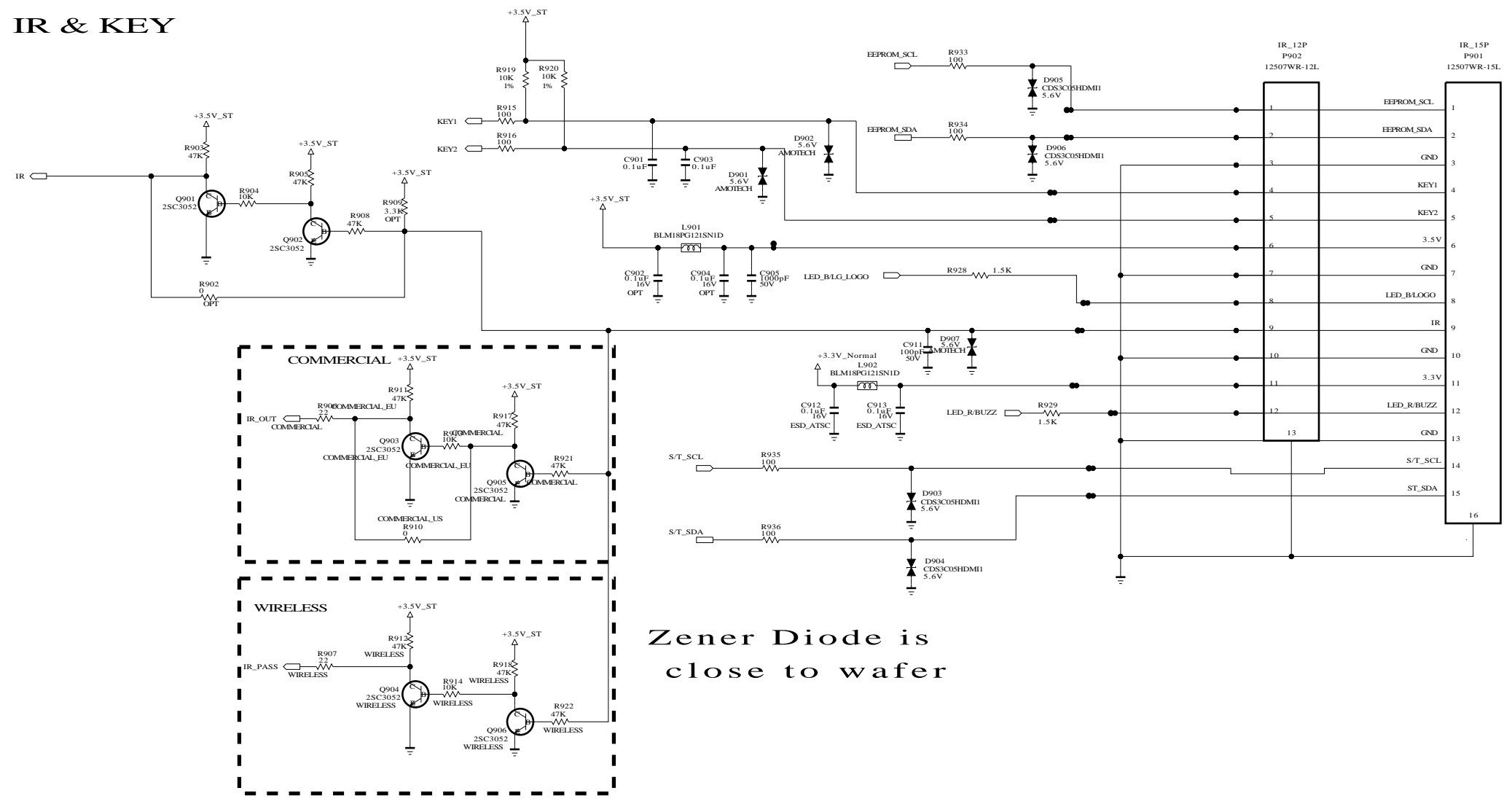
SECRET
LGElectronics

LG ELECTRONICS

| | | | |
|-------|-------------|-------|------------|
| MODEL | BCM35230 | DATE | 2010.10.21 |
| BLOCK | COMMON JACK | SHEET | 8 / 58 |

| DUAL COMPONENT | |
|----------------------------------|--------------------------------------|
| Q901,Q902,Q903 Q904,Q905,Q906 | 1ST : 0TRIY80001A 2ND : 0TR387500AA |
| D903,D904 D905,D906 | 1ST : EAH42720601, 2ND : EAH60994401 |

IR & KEY



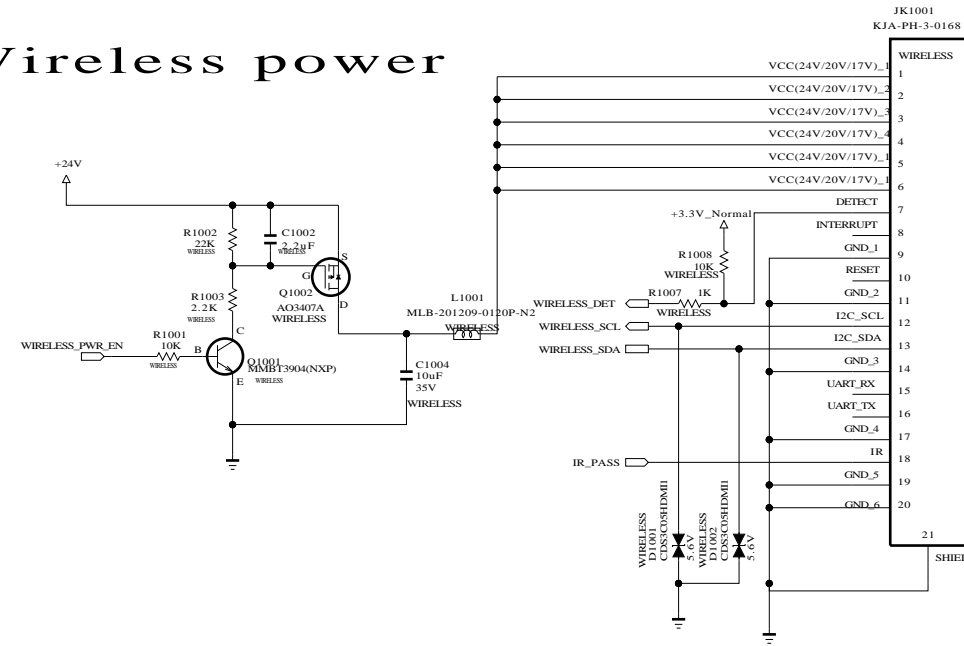
Zener Diode is close to wafer

THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FILRE 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.

WIRELESS READY MODEL

| DUAL COMPONENT | |
|----------------|--------------------------------------|
| D1001,D1002 | 1ST : EAH42720601 2ND : EAH60994401 |
| Q1001 | 1ST : EBK61012601, 2ND : 0TRDI80002A |
| Q1002 | 1ST : EBK60752501, 2ND : EBK61011501 |

Wireless power



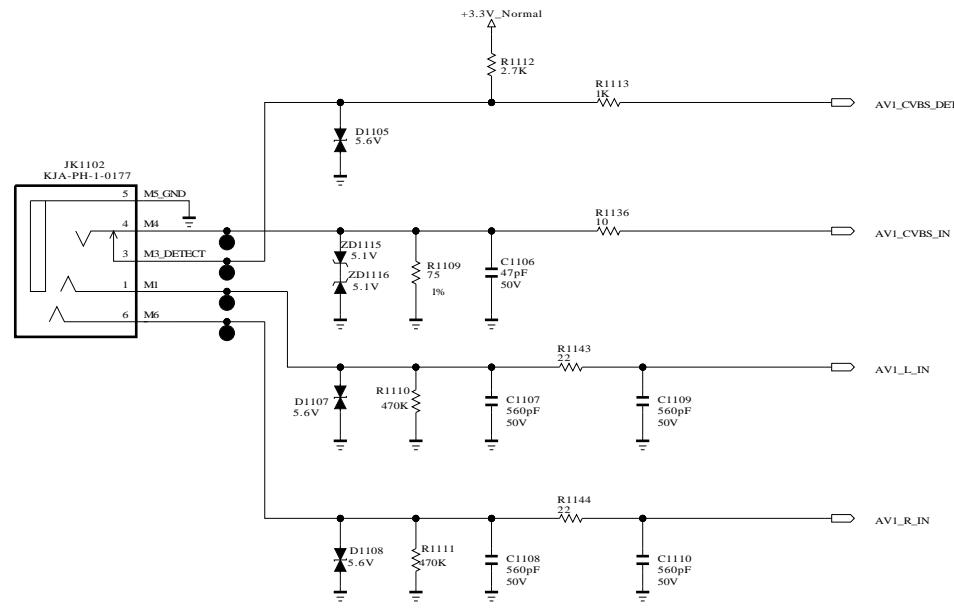
Wireless I2C connection with I2C_1
Address : 0X20

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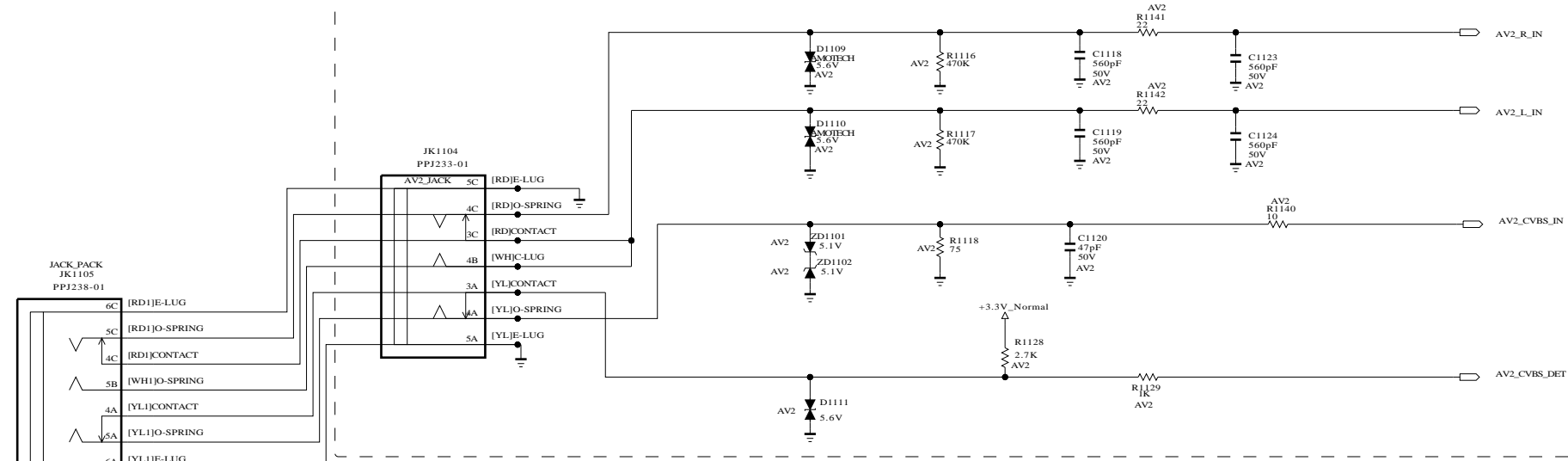
WIRELESS_SCL --- R1005 33 --- WIRELESS --- SCL2_3.3V
WIRELESS_SDA --- R1006 33 --- WIRELESS --- SDA2_3.3V
    
```

THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FILRE 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.

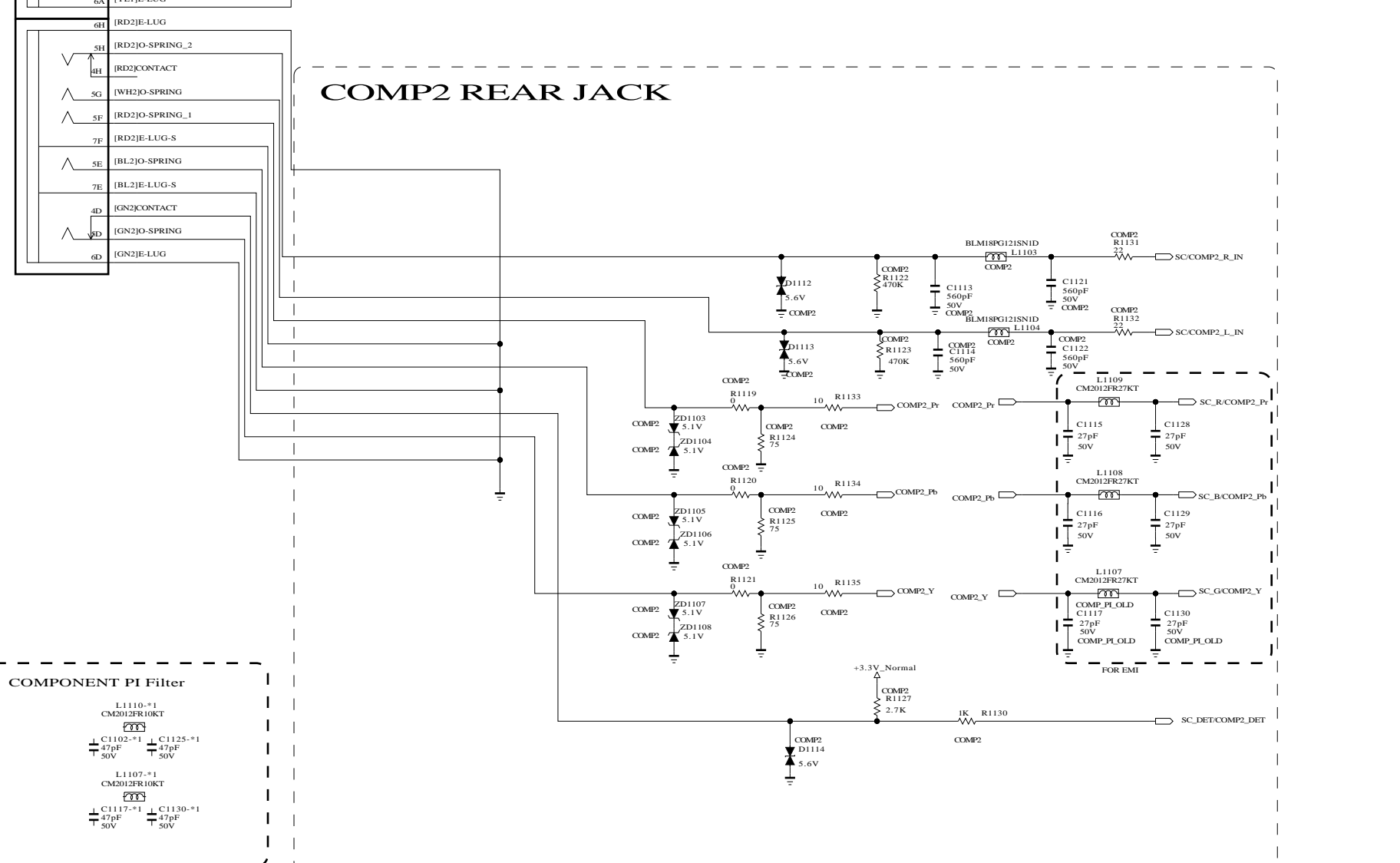
CVBS 1 PHONE JACK



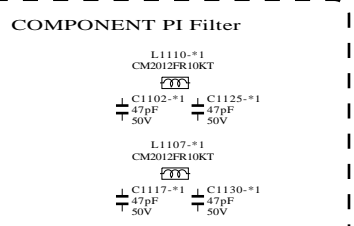
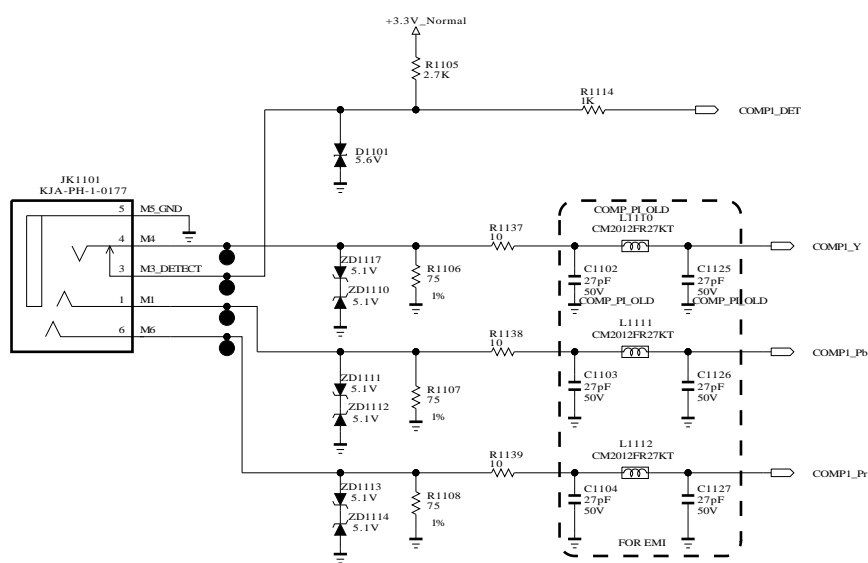
CVBS2 REAR JACK



COMP2 REAR JACK



COMPONENT 1 PHONE JACK



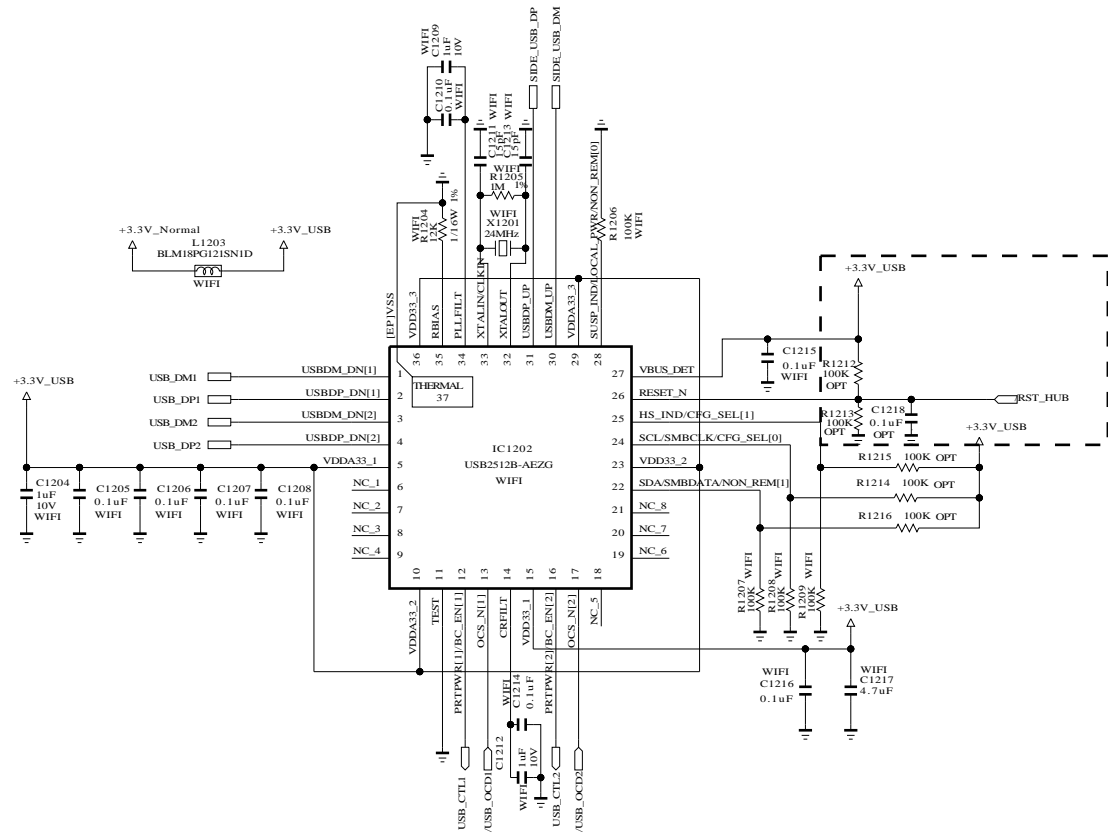
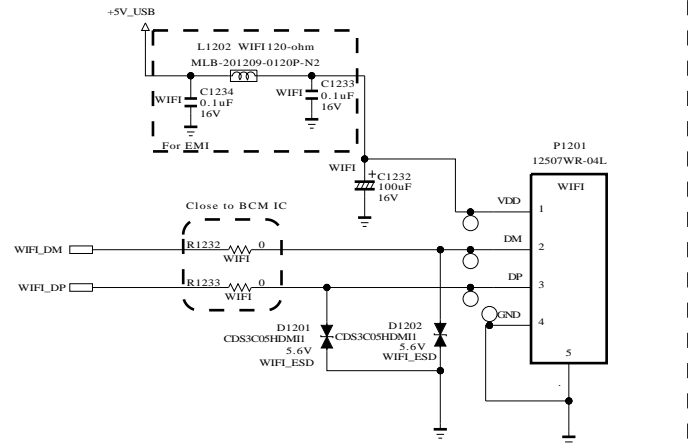
THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FILRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

SECRET
LGElectronics



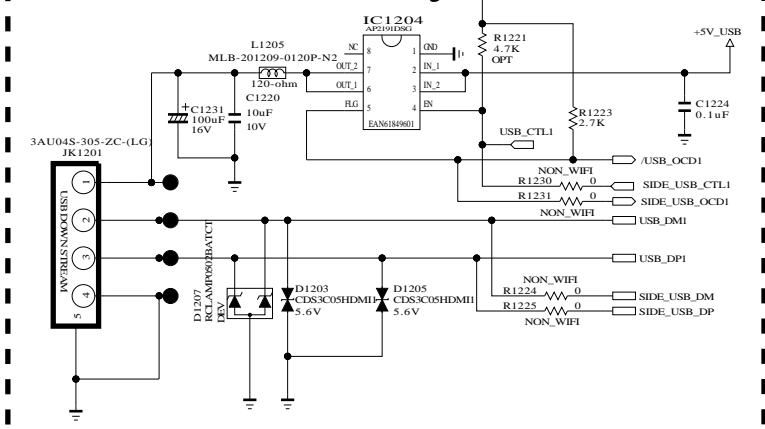
| | | | |
|-------|----------|-------|---------|
| MODEL | BCM35230 | DATE | |
| BLOCK | COMP/AV | SHEET | 11 / 50 |

USB_WIFI

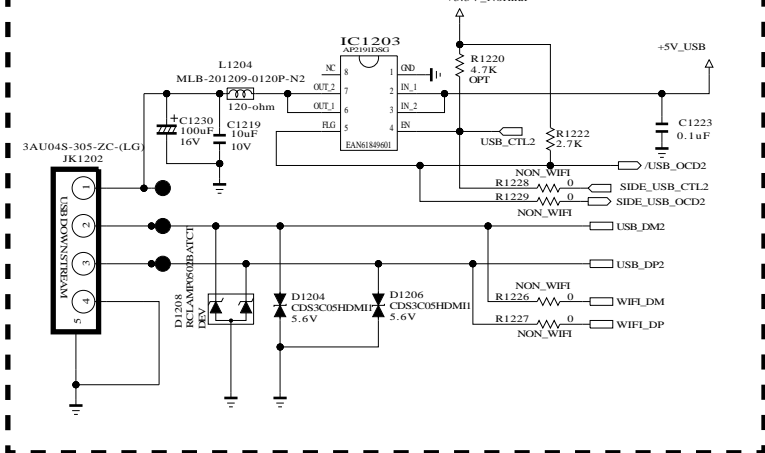


| DUAL COMPONENT | |
|---|-------------------------------------|
| D1201,D1202 D1203,D1204 D1205,D1206 | 1ST : EAH42720601 2ND : EAH60994401 |

USB / DVR Ready



USB

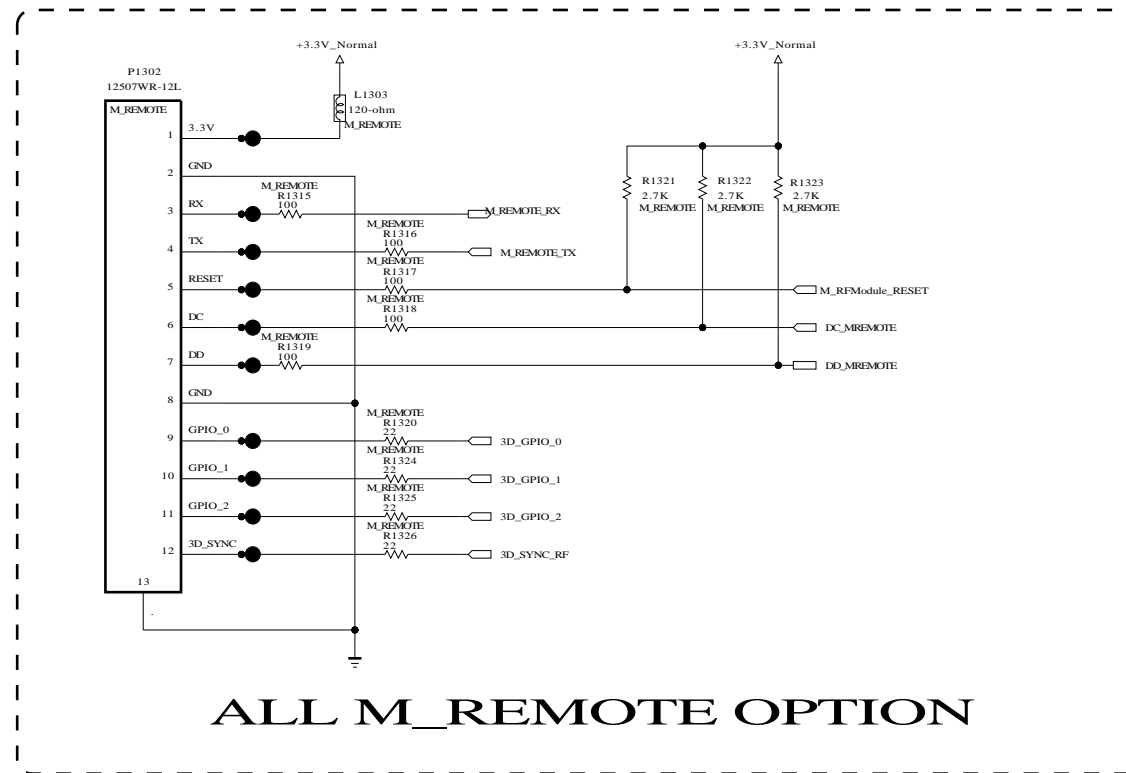


THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

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

| | | | |
|-------|------------|-------|------|
| MODEL | BCM35230 | DATE | |
| BLOCK | USB + WIFI | SHEET | 12 / |

TI solution M_REMOTE OPTION



THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE 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.

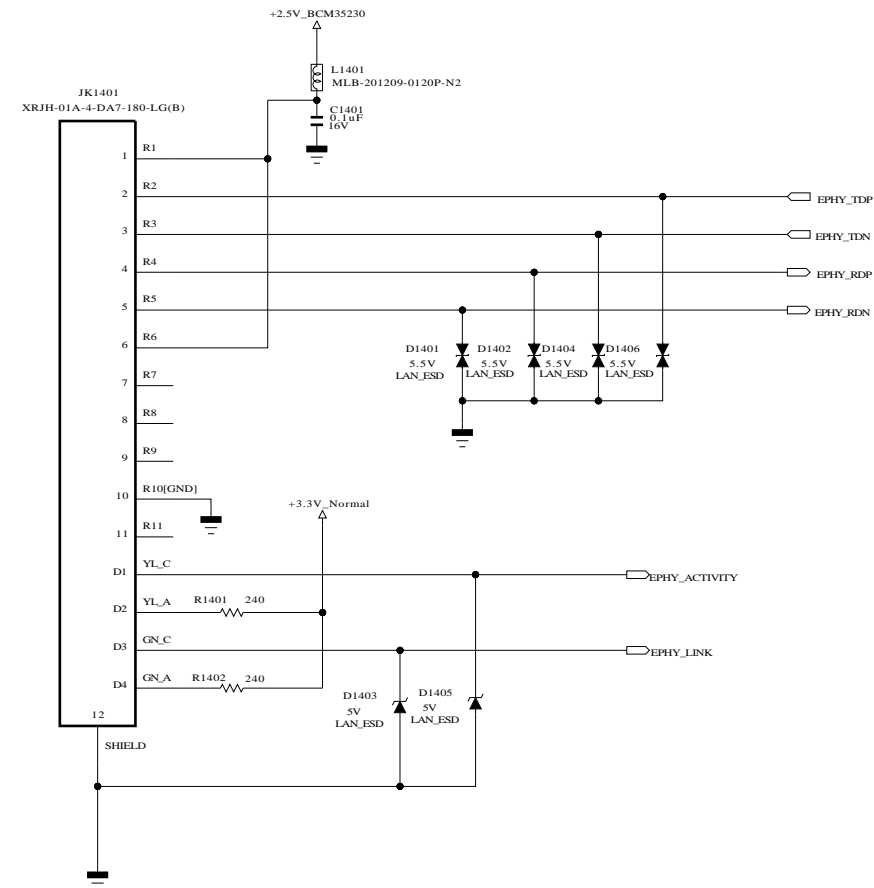
SECRET
LGElectronics

LG ELECTRONICS

| | | | |
|-------|-----------|-------|---------|
| MODEL | BCM35230 | DATE | |
| BLOCK | M_REMOCON | SHEET | 13 / 50 |

Ethernet Block

| | |
|---|-------------------------------------|
| DUAL COMPONENT | |
| D1401,D1402 D1403,D1404 D1405,D1406 | 1ST : EAH42720601 2ND : EAH60994401 |



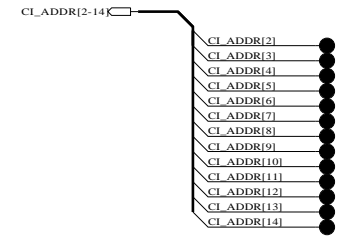
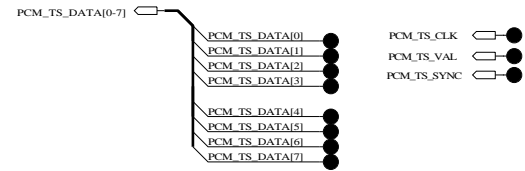
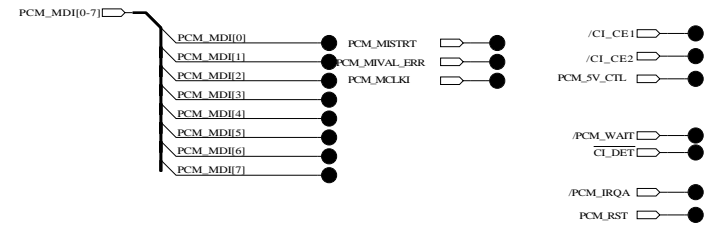
THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FILRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

SECRET
LGElectronics



| | | | |
|-------|----------|-------|---------|
| MODEL | BCM35230 | DATE | |
| BLOCK | ETHERNET | SHEET | 14 / 50 |

NON CI



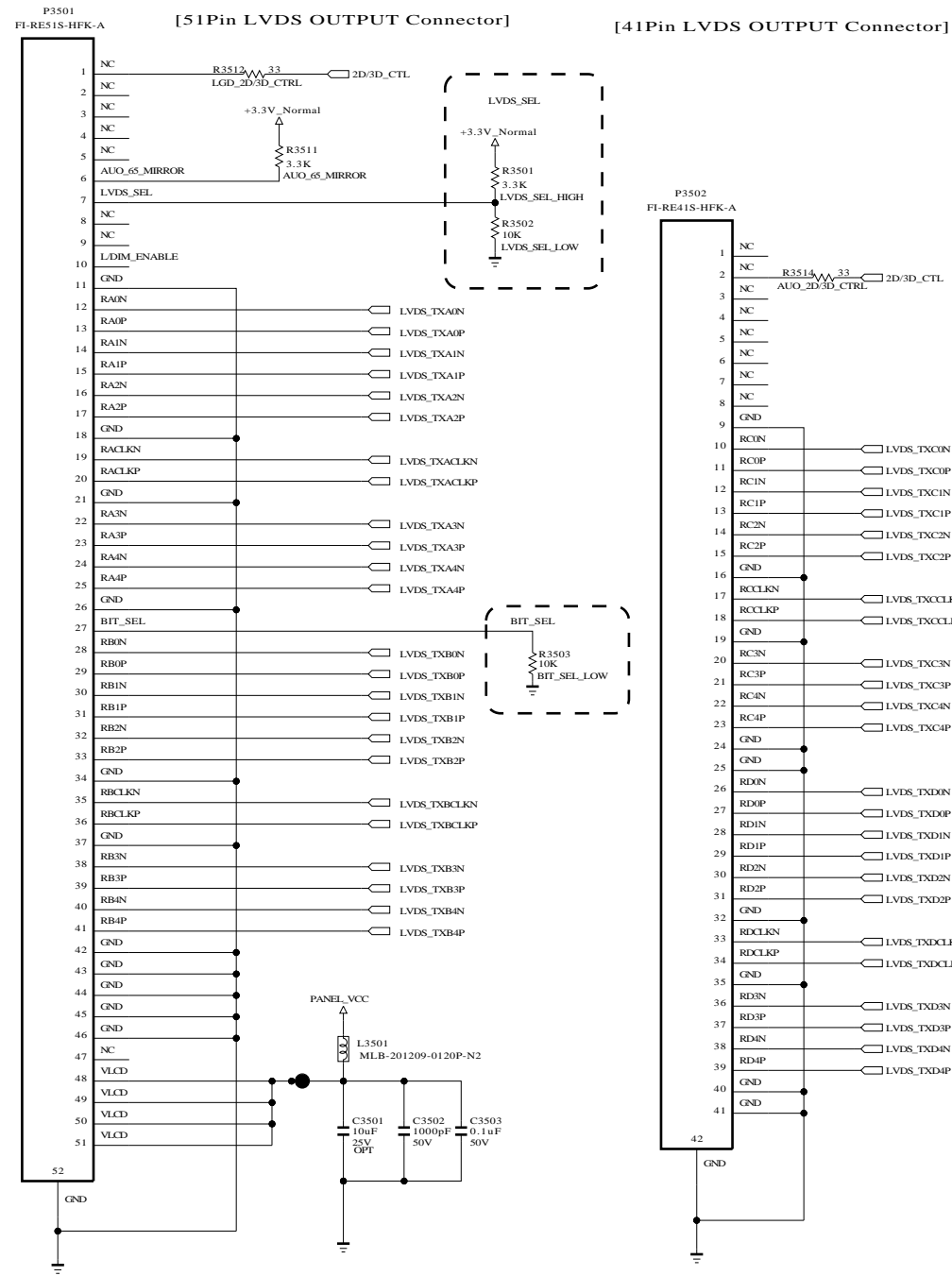
THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

SECRET
LGElectronics

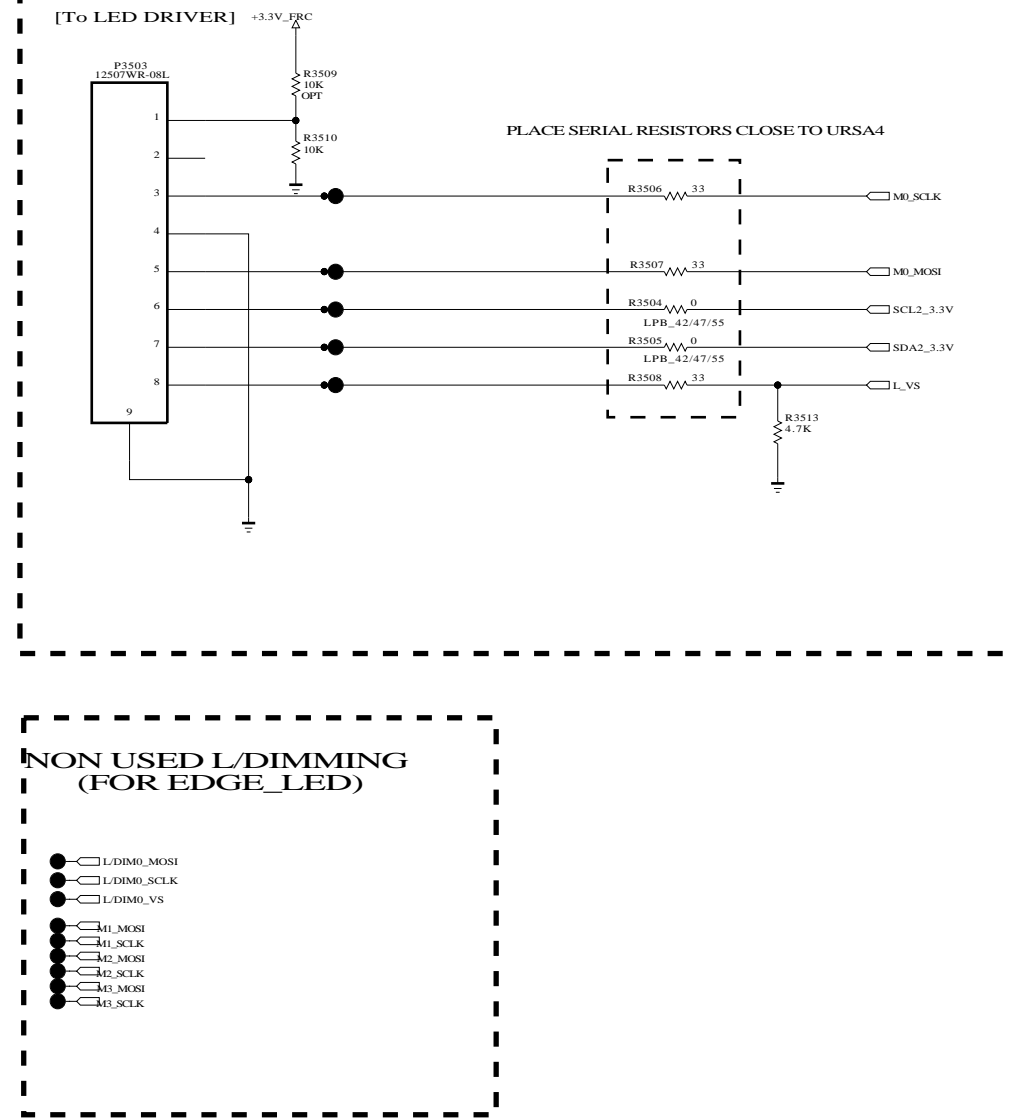


| | | | |
|-------|----------|-------|---------|
| MODEL | BCM35230 | DATE | |
| BLOCK | NON CI | SHEET | 20 / 50 |

LVDS



LOCAL DIMMING



THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE 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

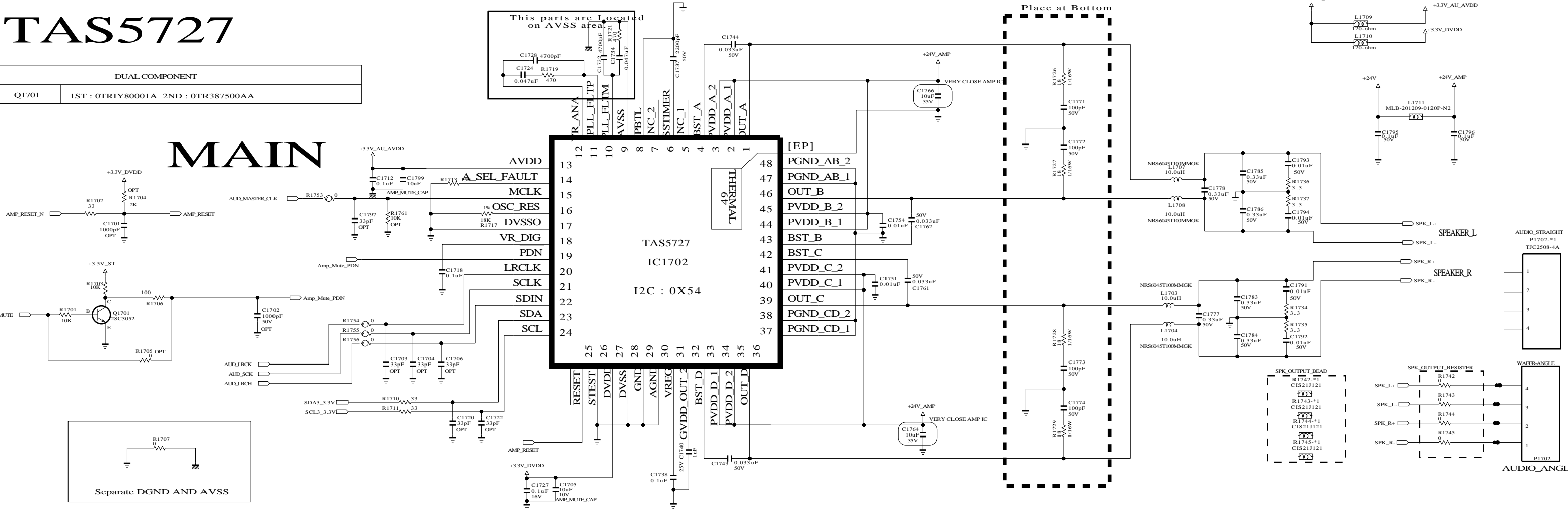
LG ELECTRONICS

| | | | |
|-------|-----------------|-------|--------------|
| MODEL | BCM35230 | DATE | 2010. 10. 20 |
| BLOCK | Interface block | SHEET | 35 / 58 |

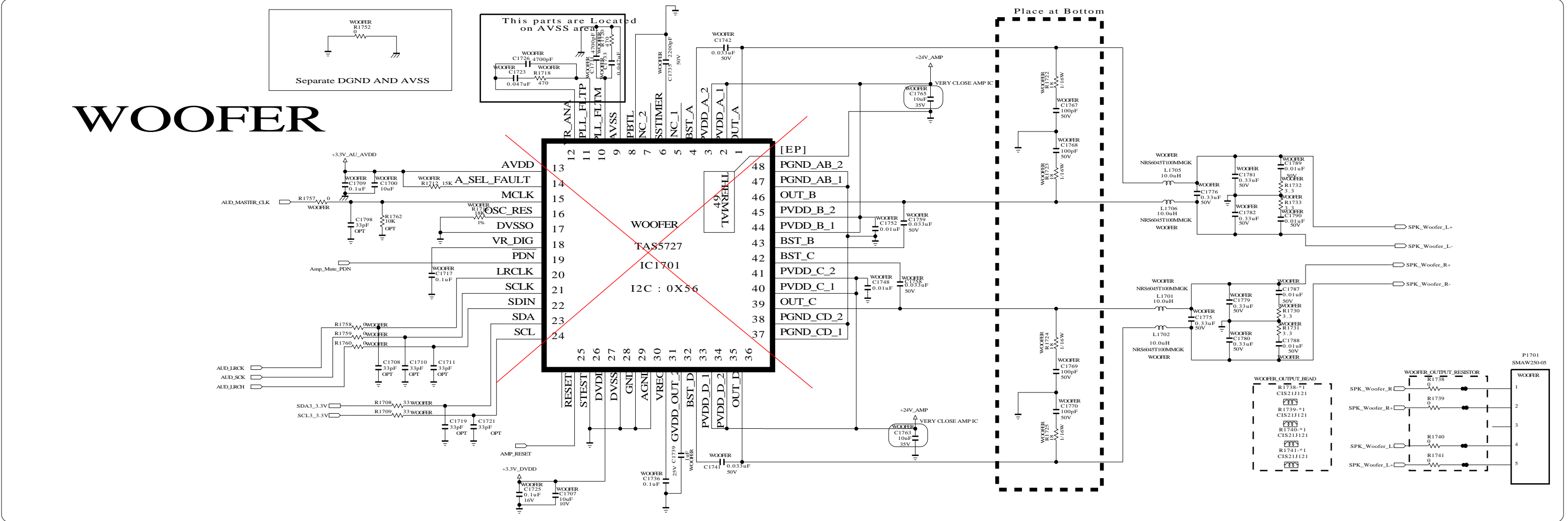
TAS5727

| DUAL COMPONENT | |
|----------------|-------------------------------------|
| Q1701 | 1ST : 0TRIY80001A 2ND : 0TR387500AA |

MAIN



WOOFER



THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE 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

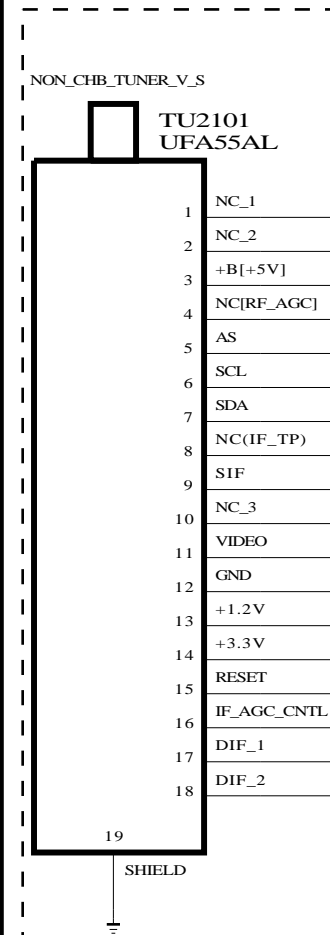


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|-------|-----------|-------|---------|
| MODEL | BCM35230 | DATE | |
| BLOCK | AUDIO[TI] | SHEET | 17 / 50 |

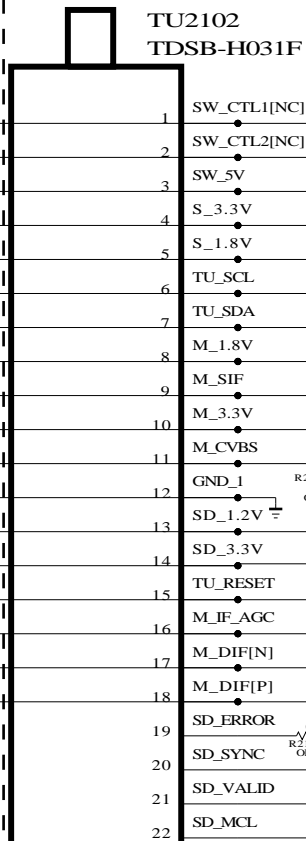
NON_CHB & CHB TUNER (KOR/USA)

| DUAL COMPONENT | |
|----------------|---------------------------------------|
| IC2102 | 1ST : EAN61829801, 2ND : EAN544289201 |
| IC2103 | 1ST : EAN61507501, 2ND : EAN54428101 |

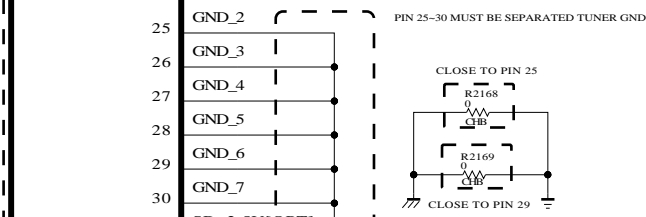
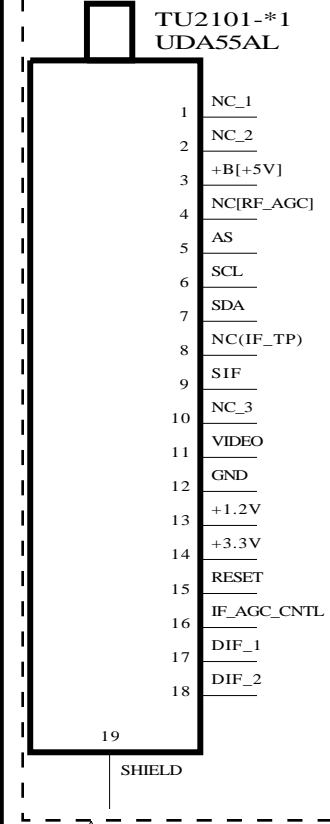
NON_CHB_SANYO_TUNER



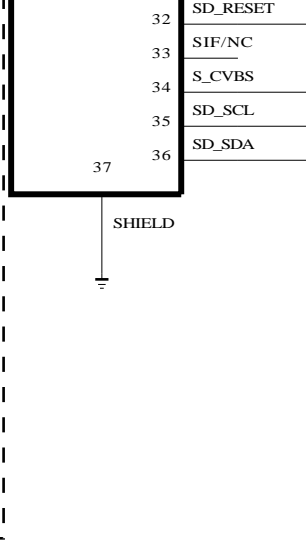
CHB_TUNER



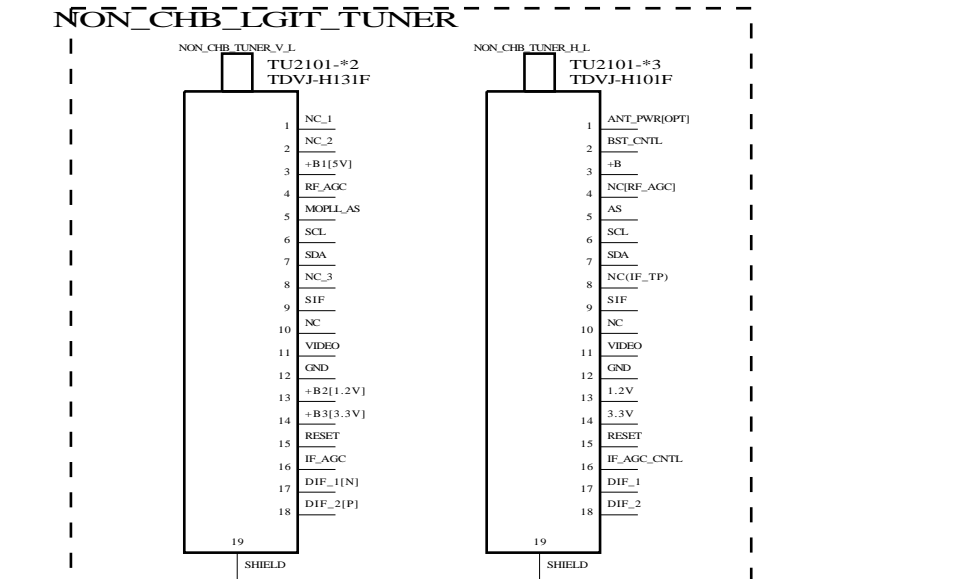
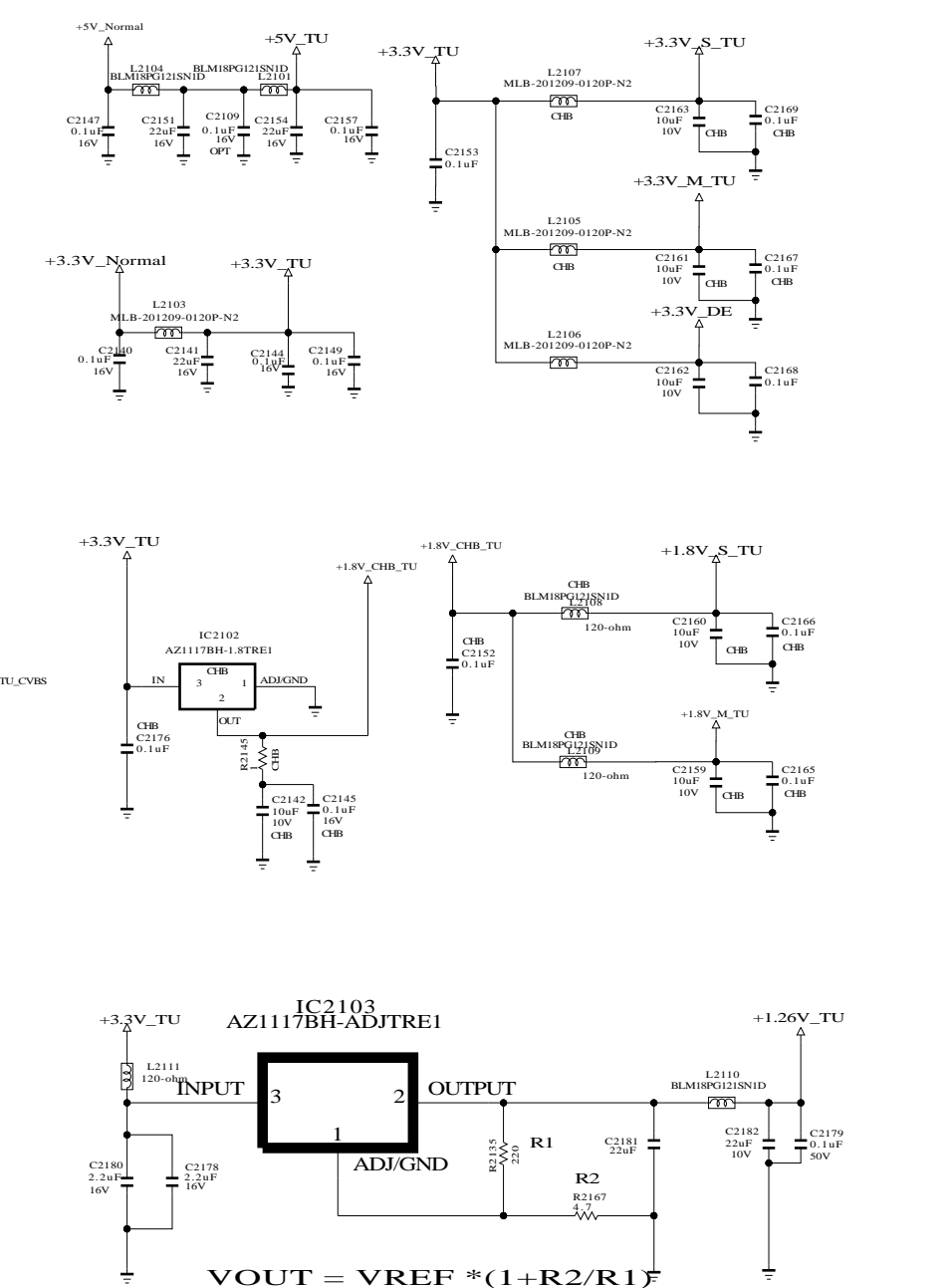
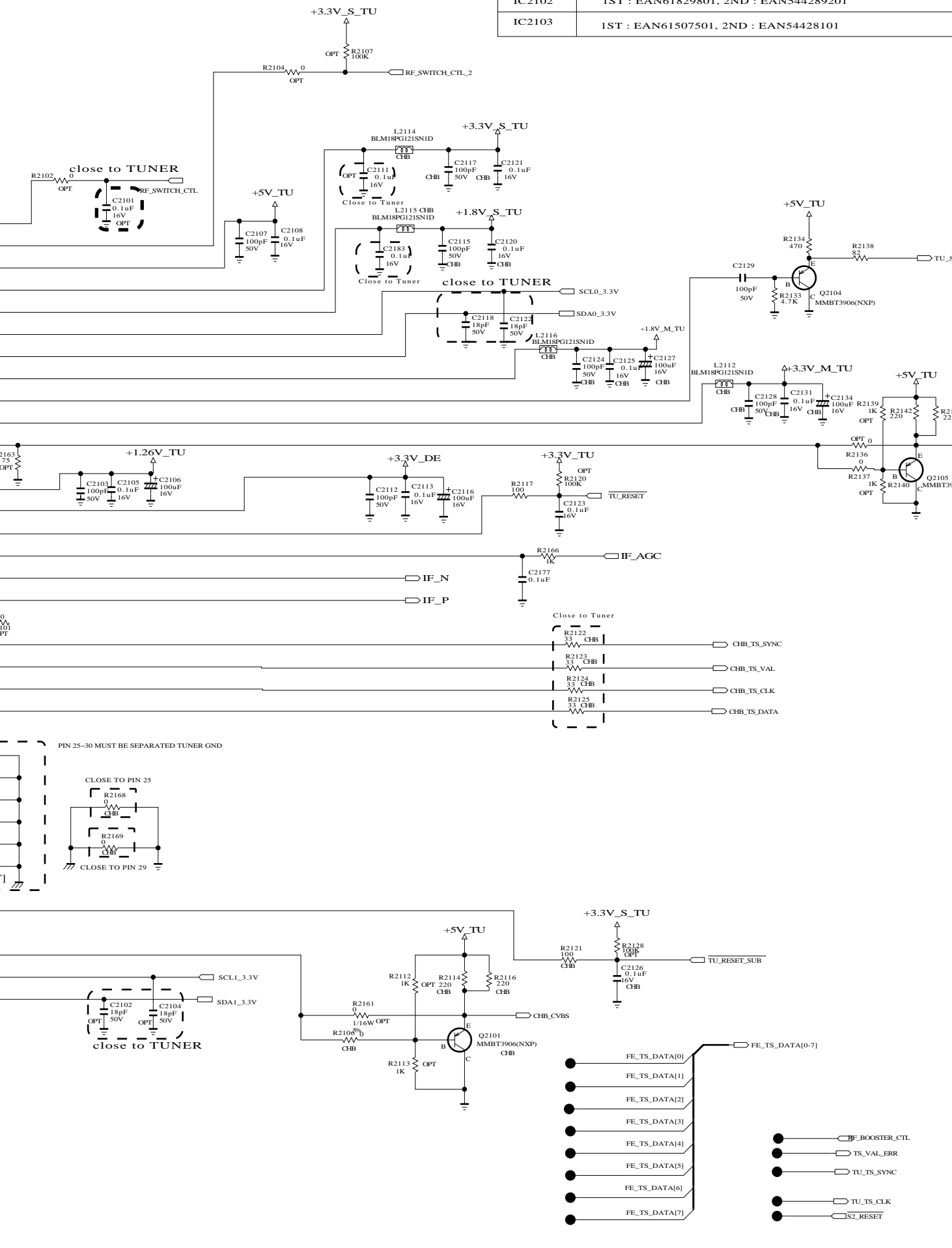
NON_CHB_TUNER_HS



NON_CHB_TUNER_V_L



NON_CHB_TUNER_H_L



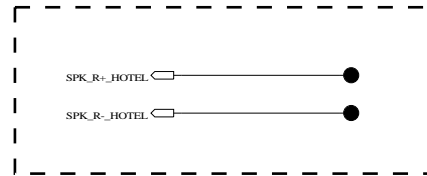
THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE AND ELECTRICAL SHOCK HAZARDS, WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

SECRET
LGElectronics





| | | | |
|-------|------------|-------|---------|
| MODEL | BCM35230 | DATE | |
| BLOCK | ATSC_TUNER | SHEET | 21 / 50 |

NON CHINA HOTEL



- JP3001
- JP3002
- JP3003
- JP3004
- JP3005
- JP3006

THE  SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE 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.

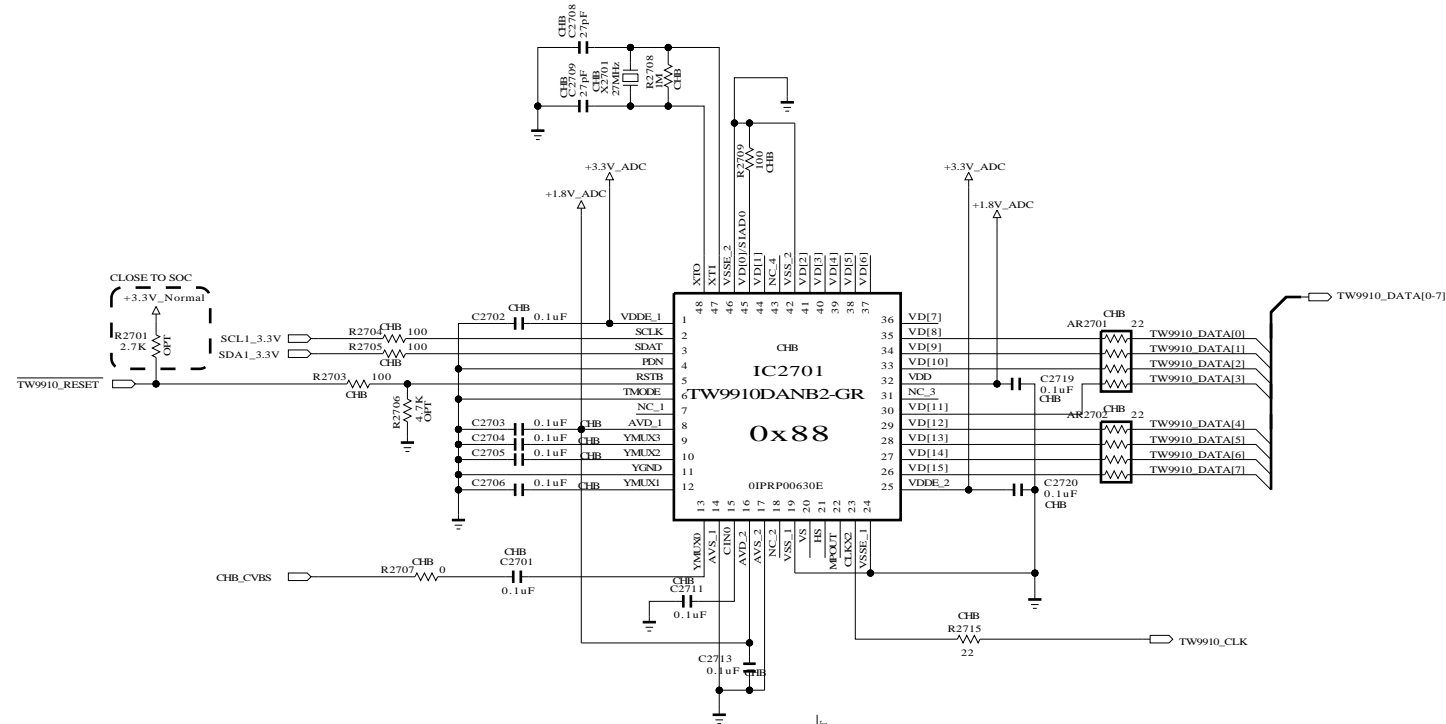
SECRET
LGElectronics



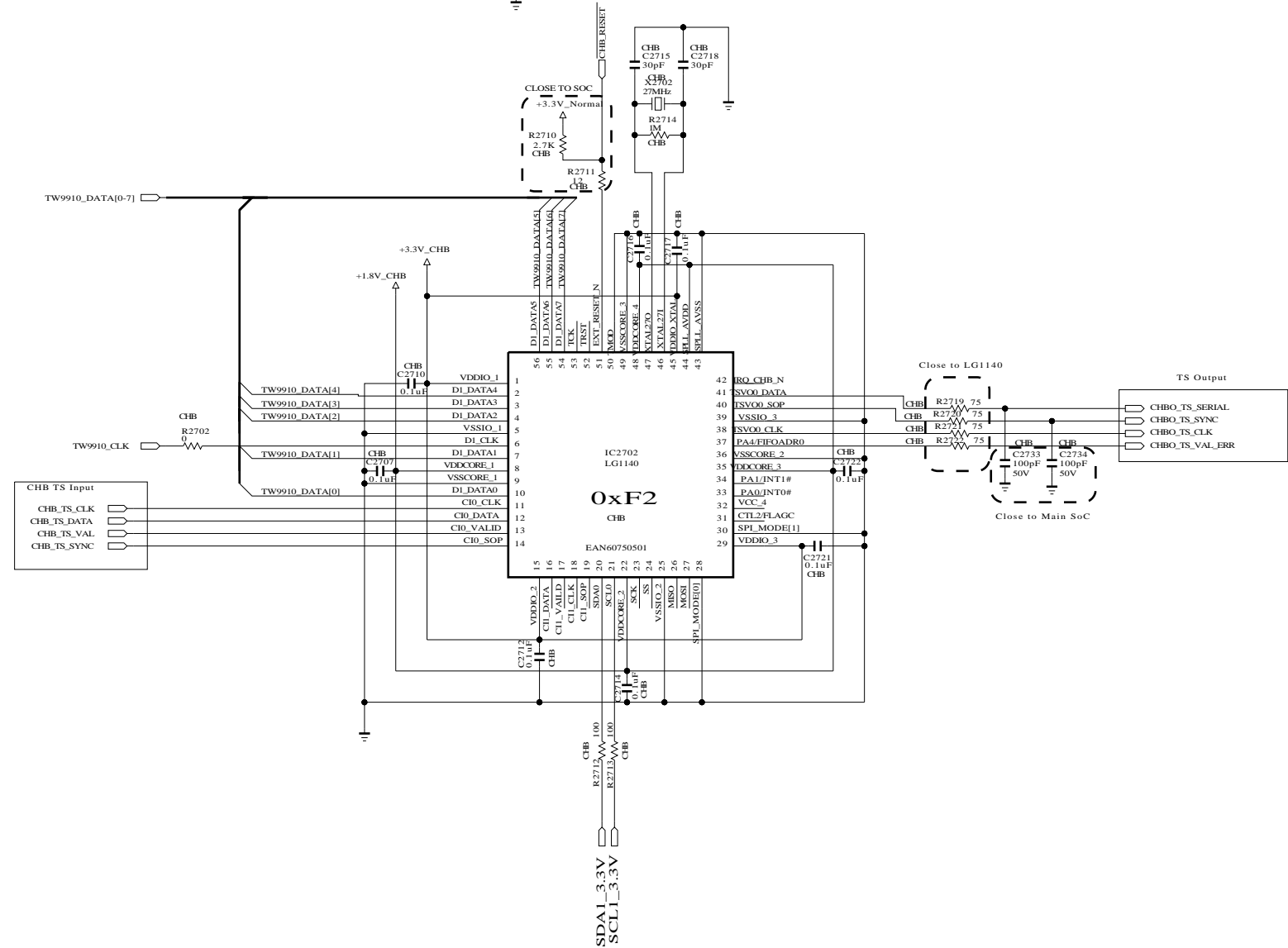
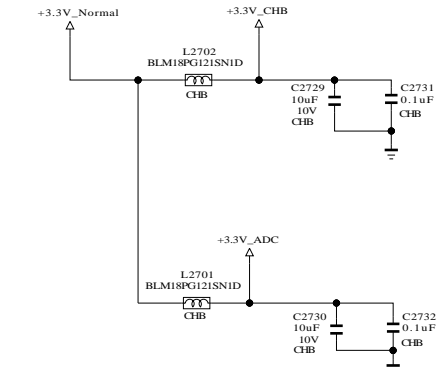
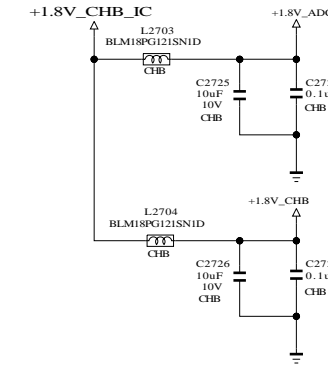
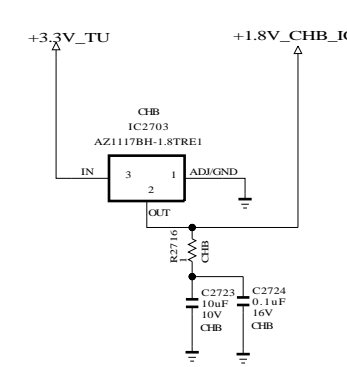
| | | | |
|-------|-----------------|-------|---------|
| MODEL | BCM35230 | DATE | |
| BLOCK | NON CHINA HOTEL | SHEET | 30 / 50 |

CHANNEL BROWSER

| DUAL COMPONENT | |
|----------------|-------------------------------------|
| IC2703 | 1ST : EAN61829801 2ND : EAN54428201 |



CHB OPTION

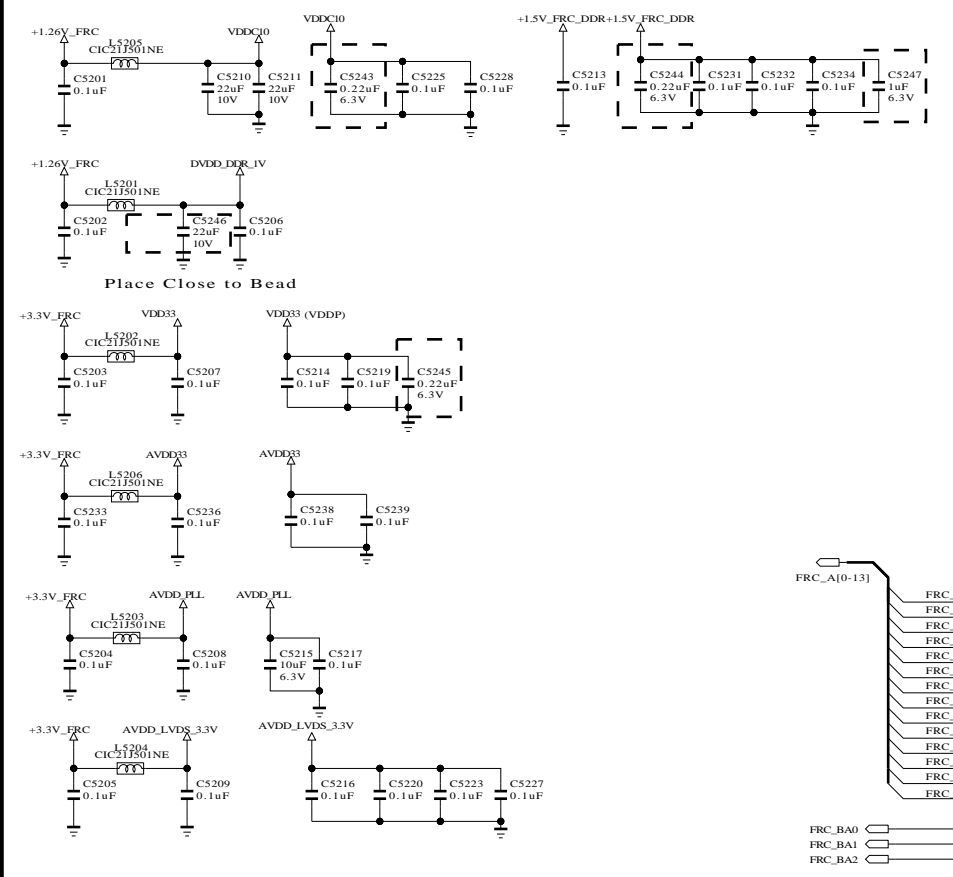


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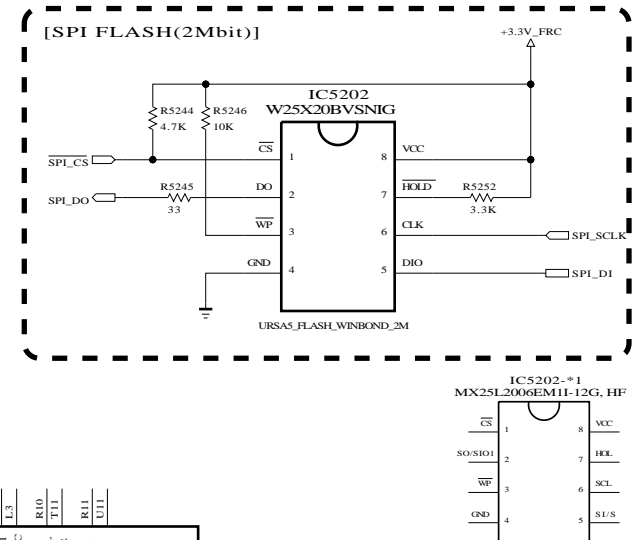
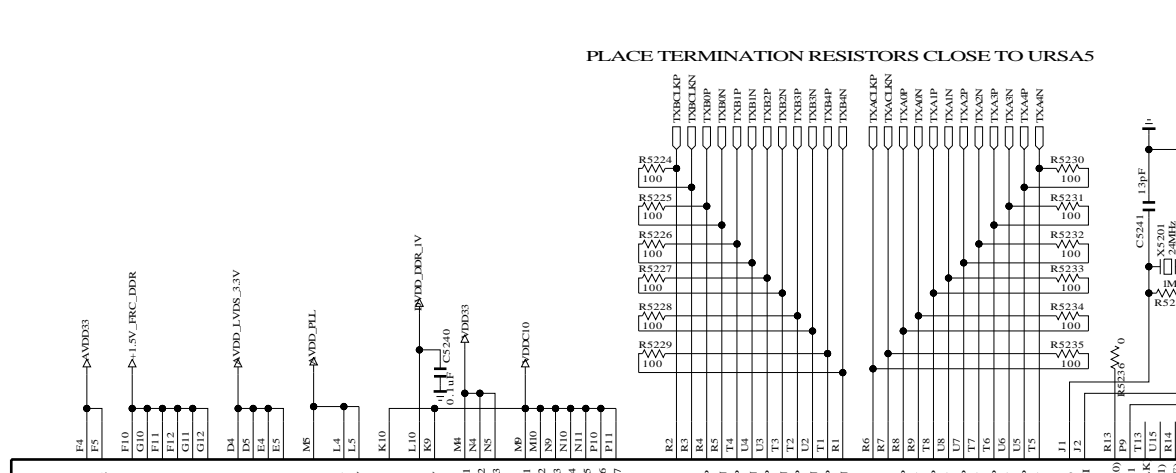
SECRET
LGElectronics



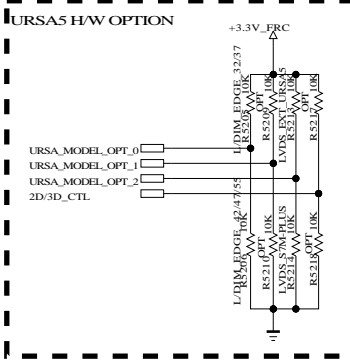
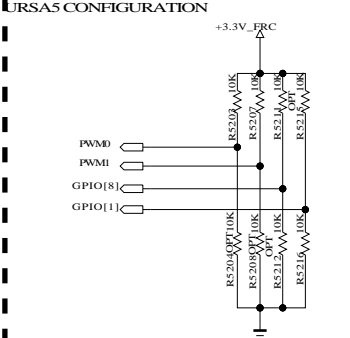
| | | | |
|-------|----------|-------|---------|
| MODEL | BCM35230 | DATE | |
| BLOCK | CHB | SHEET | 27 / 50 |



PLACE TERMINATION RESISTORS CLOSE TO URSAS

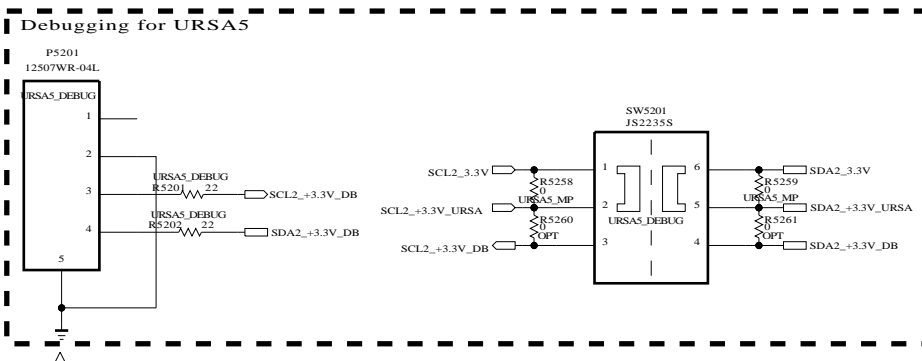


GPIO1 : HI => B8/94, LOW => B4/98 |
 CHIP_CONF = {GPIO1_PWM1_PWM0}
 CHIP_CONF = 3'd5 : boot from internal SRAM
 CHIP_CONF = 3'd6 : boot from EEPROM
 CHIP_CONF = 3'd7 : boot from SPI Flash

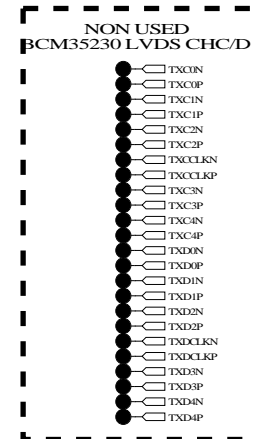
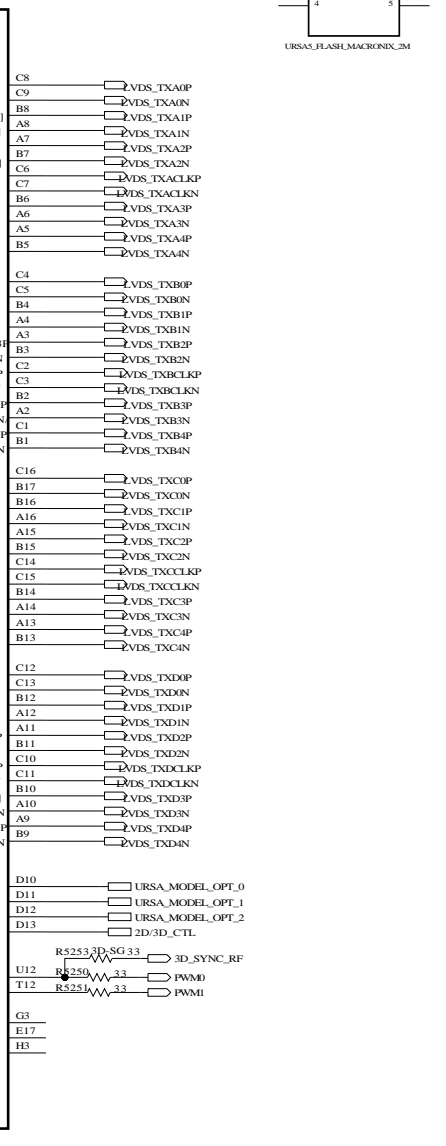
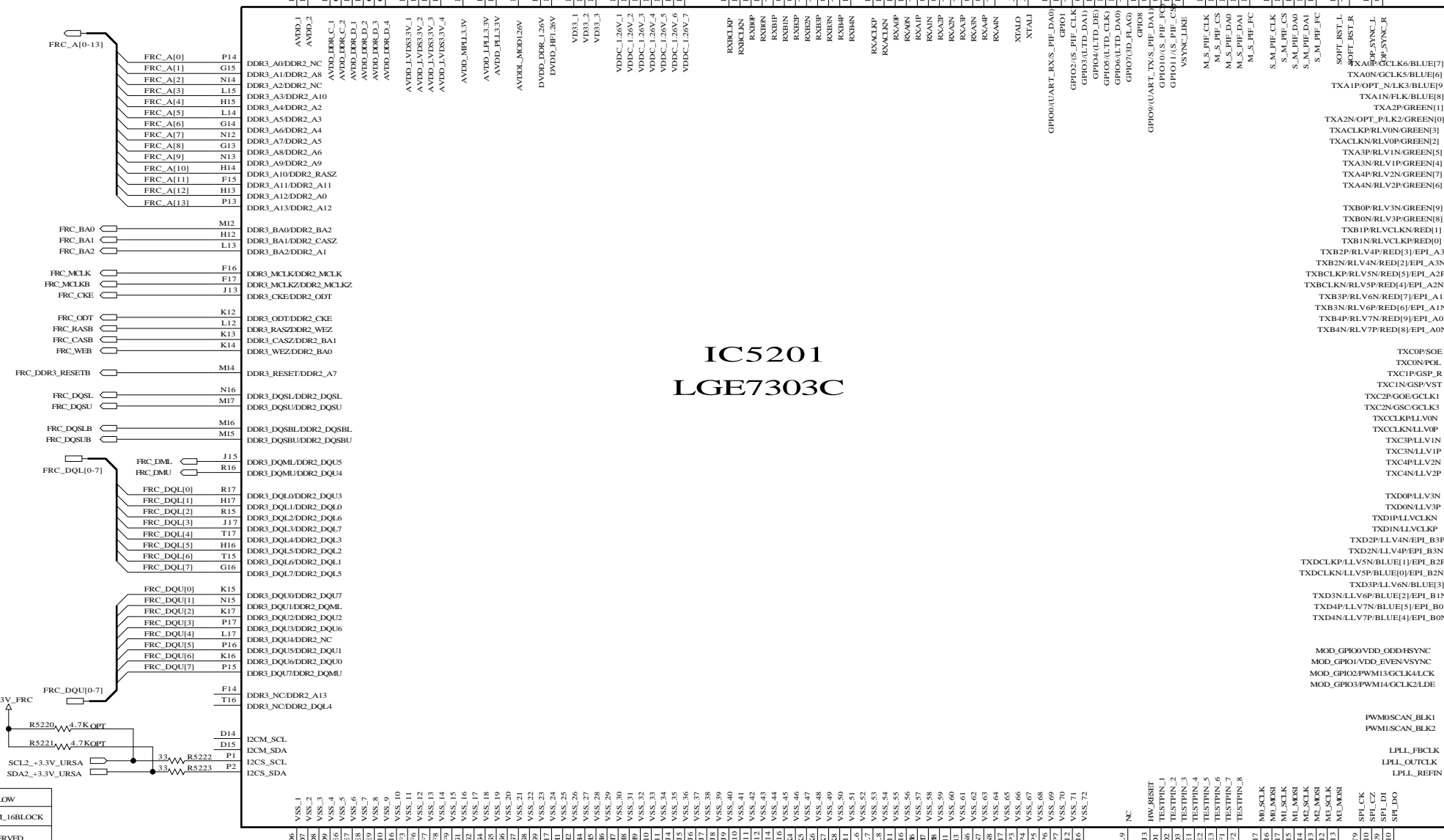


MODEL OPTION

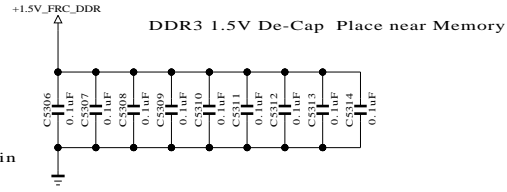
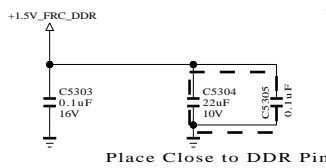
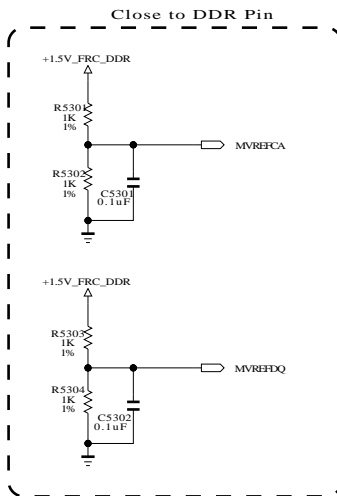
| PIN NAME | PIN NO. | HIGH | LOW |
|-------------|---------|----------------|---------------|
| MODEL_OPT_0 | D10 | L2DM_10BLOCK | L2DM_16BLOCK |
| MODEL_OPT_1 | D11 | RESERVED | RESERVED |
| MODEL_OPT_2 | D12 | L2DS_EXT_URSA5 | L2DS_S7M_PLUS |
| MODEL_OPT_3 | D13 | RESERVED | RESERVED |



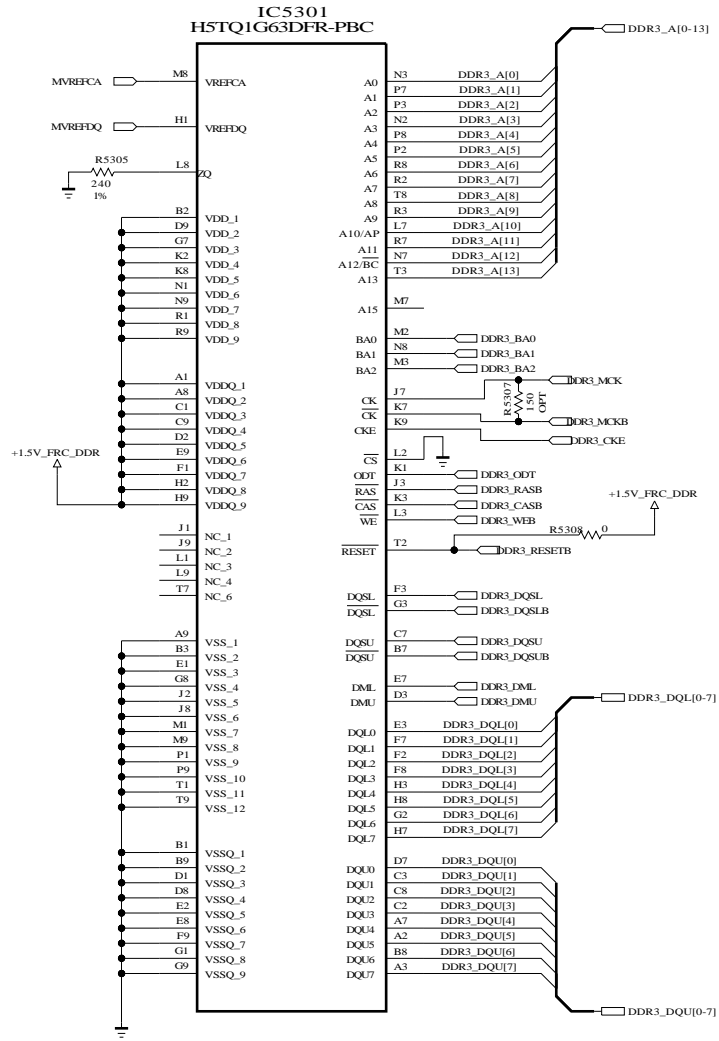
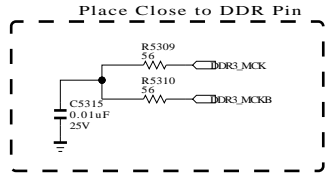
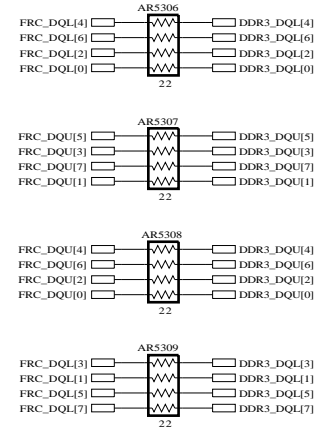
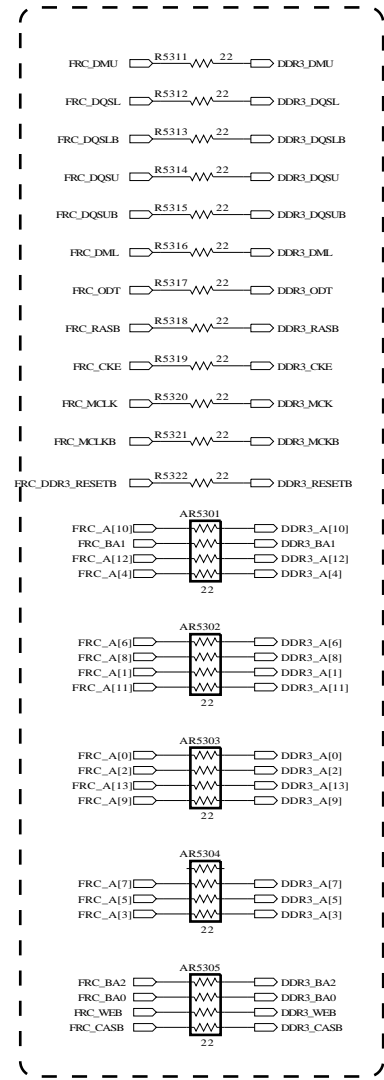
IC5201 LGE7303C



THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE 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.



Place the serial damping resist in the middle of DRAM pattern



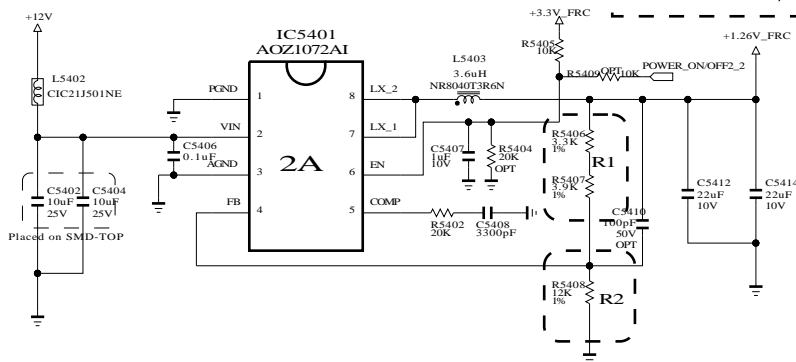
THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFACTURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SYMBOL MARK OF THE SCHEMATIC.

SECRET
LG Electronics

| | | | |
|--------------|-------------|--------------|-------------|
| MODEL | MStar URSA5 | DATE | 2010. 08.18 |
| BLOCK | DDR3 4Mbit | SHEET | 53 / 55 |

CORE +1.26V_FRC

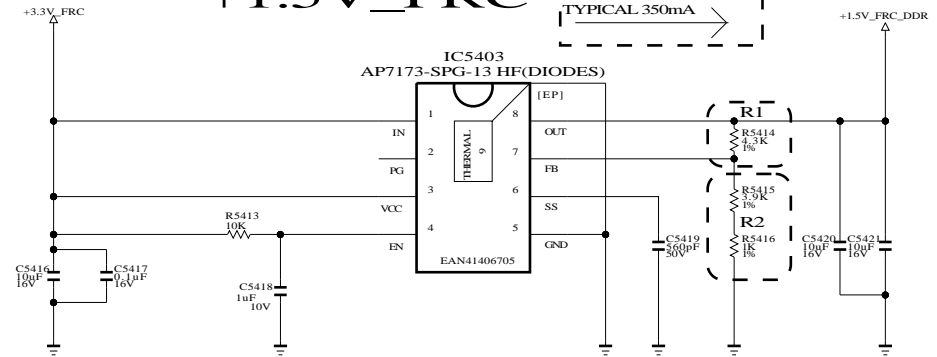
TYPICAL 980mA



$$V_{out} = (1 + R1/R2) * 0.8$$

+1.5V_FRC

TYPICAL 350mA

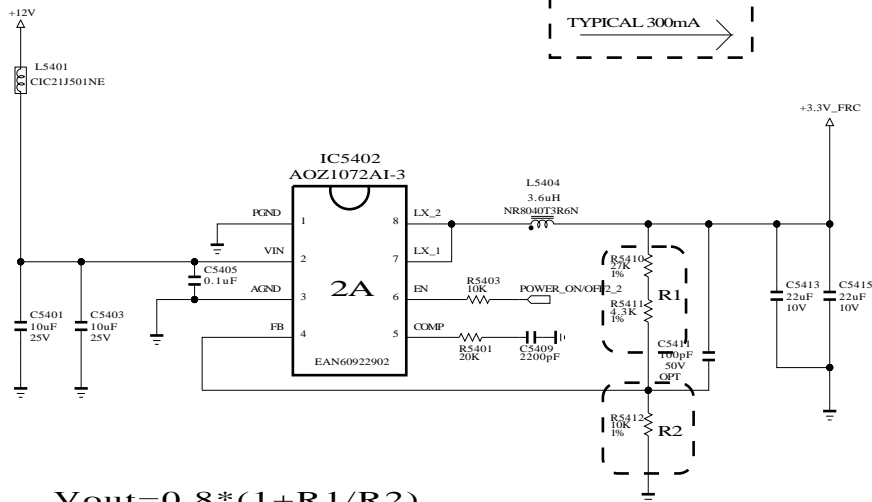


$$V_{out} = 0.6 * (1 + R1/R2)$$



+1.5V of DDR&URSA5 uses same power line

+3.3V_FRC

TYPICAL 300mA



$$V_{out} = 0.8 * (1 + R1/R2)$$

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SECRET

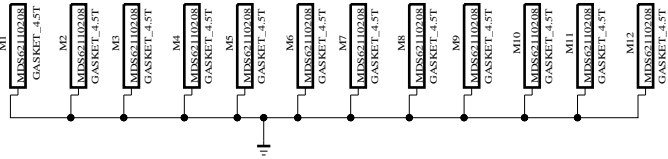
LG Electronics

 LG ELECTRONICS

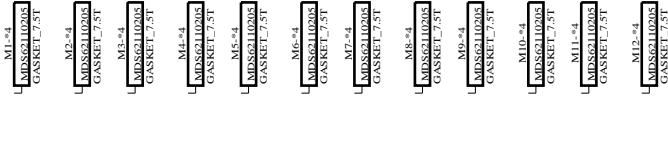
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| MODEL | MStar URSA5 | DATE | 2010. 08.18 |
| BLOCK | URSA5 Power Block | SHEET | 54 / 55 |

SMD GASKET

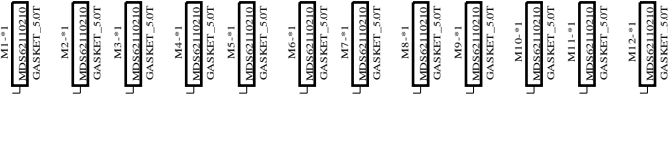
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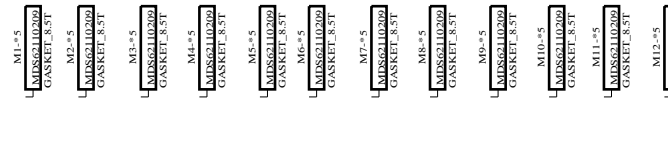
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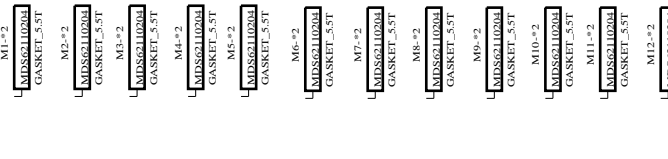
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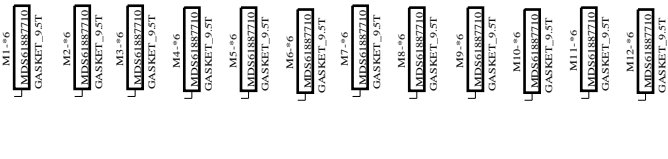
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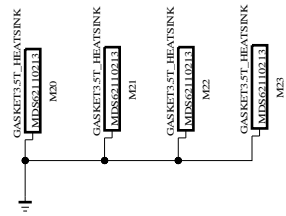
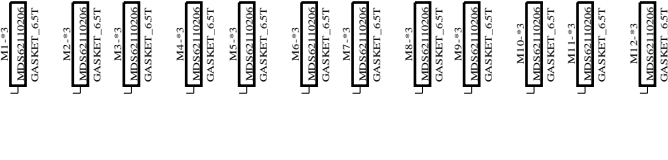
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SMD GASKET 9.5T



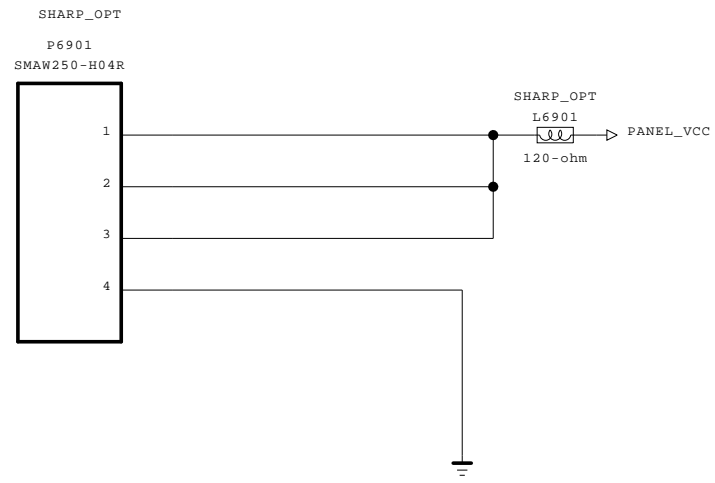
SMD GASKET 6.5T



THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE 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.

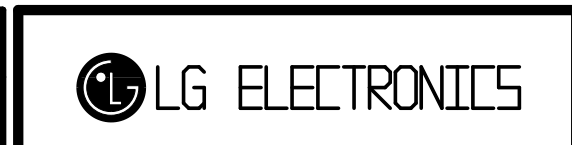
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| SECRET | |
| LGElectronics | |

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|-------|------------|-------|--------------|
| MODEL | BCM35230 | DATE | 2010. 09. 18 |
| BLOCK | SMD GASKET | SHEET | 56 / 56 |



THE SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE 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.

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| MODEL | | DATE | |
| BLOCK | | SHEET | / |