



Compal Confidential

PICASSO M Schematics Document

Nvidia(T30S) + LPDDRII

QAJ70-LA-8022P

2012-03-28 REV: 1.0

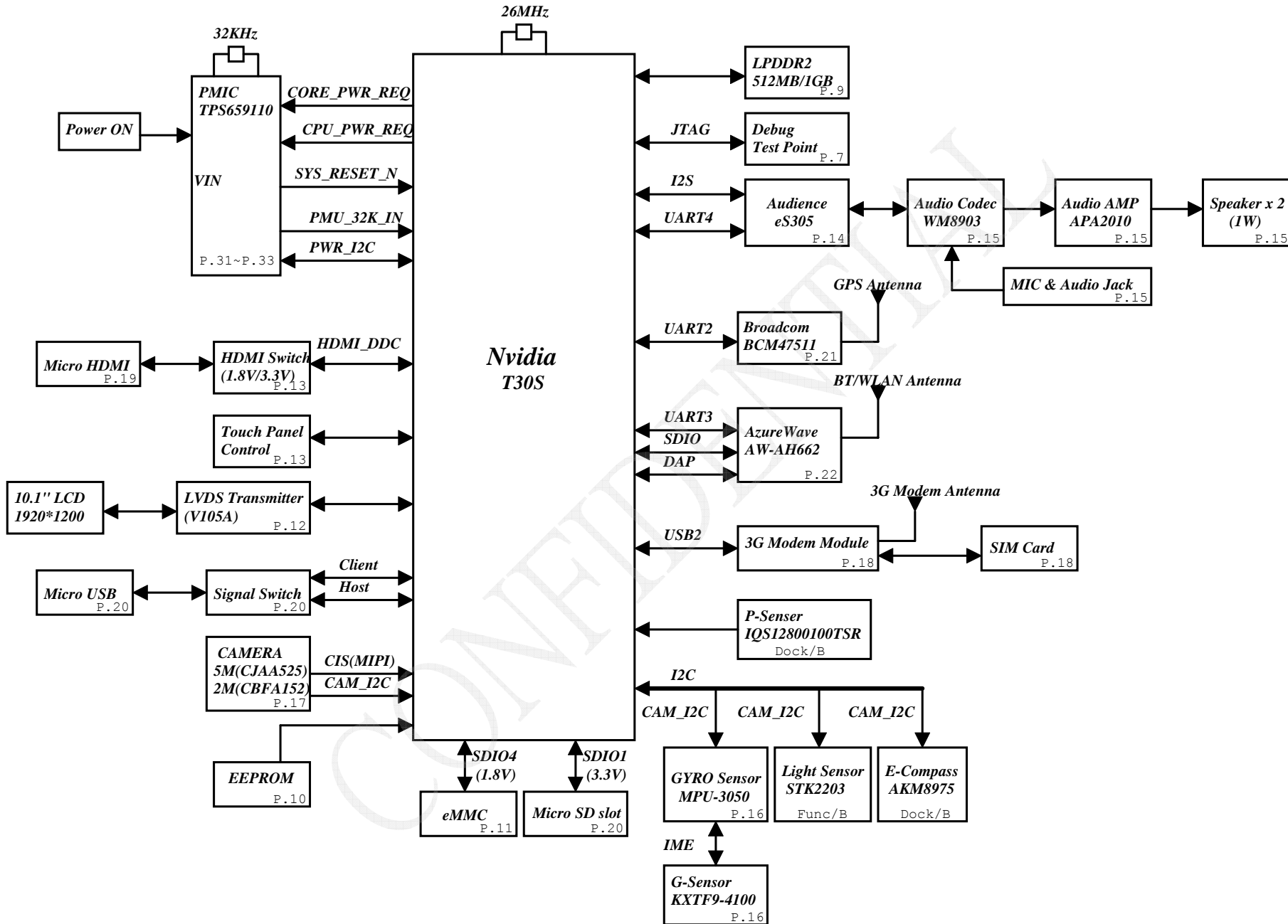
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| Size | Document Number | Date | Sheet | Rev |
| C | SCHEMATIC MB A8022 | Tuesday, July 10, 2012 | 1 of 38 | B |

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Model Name : NVIDIA T30S System Block Diagram



| | | | | |
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| Size | C | Document Number | SCHEMATIC MB A8022 | |
| Date: | Tuesday, July 10, 2012 | Sheet | 2 | of 38 |

Voltage Rails

| Power Plane | Description |
|-----------------------|---|
| VIN | Adapter power supply (19V) |
| B+ | AC or battery power rail for power circuit. |
| +VDD_1V2_RTC_TEGRA | Power for RTC and always-on core logic. |
| VDD_1V2_SOC | Power for remainder of core logic |
| +AVDD_1V1_PLL_TEGRA | AVDD_PLL power rail |
| +VDD_1V8_PMU_VRTC | RTC power rail |
| +VDD_1V8_SYS_TEGRA | System power rail |
| +AVDD_3V3_USB_TEGRA | USB power rail |
| +VDD_2V85_EMMC | Core voltage for EMMC |
| +VDD_1V8_CAM_TEGRA | Core voltage for CAMERA |
| +AVDD_3V3_HDMI_S | HDMI power rail |
| VDD_1V8_GEN | 1.8V switched power rail for standby mode |
| +VDD_3V3_DDR_RX_TEGRA | DDR RX power rail |
| +3VS | 3.3V switched power rail for standby mode |
| +5VS | 5V switched power rail for standby mode |
| +VDD_LED_BL | LED power rail |
| +VDD_3V3_SDMMC1_TEGRA | Micro SD power rail |
| +VDD_VCM_3V3 | CAMERA power rail |
| +VDD_1V2_DDR_MEM | DDR power rail |

GEN1_I2C <+VDD_1V8_SENSOR >

| Device | Address<Write,Read> |
|--------------|---------------------|
| Gyro | 0xD0, 0xD1 |
| E Compass | 0x18, 0x19 |
| Light Sensor | 0x38, 0x39 |

GEN2_I2C / TS_I2C < +VDD_3V3_GMI_TEGRA >

| Device | Address<Write,Read> |
|--------------|---------------------|
| Touch Screen | 0x98, 0x99 |

CAM_I2C < +VDD_1V8_CAM_TEGRA >

| Device | Address<Write,Read> |
|-----------|---------------------|
| Camera 5M | 0x78, 0x79 |
| Camera 2M | 0x20, 0x21 |
| Flash LED | 0x66, 0x67 |

PWR_I2C < +VDD_1V8_SYS_TEGRA >

| Device | Address<Write,Read> |
|---------------------|---------------------|
| Thermal Sensor | 0x98, 0x99 |
| ES305 | 0x3E |
| Codec | 0x34, 0x35 |
| PMU | 0x2D |
| TPS62361 | 0x60 |
| BATT Conn | 0xAA, 0xAB |
| EEPROM (Low level) | 0xA0, 0xA1 |
| EEPROM (High level) | 0xA2, 0xA3 |

Board ID

PICASSO 2

| EVT | QA150(2-6-2) | | QA170(3-4-3) | | | |
|-----------|---------------|-----------------|---------------|-----------------|------------|----------|
| SKU | SKU1(3G only) | SKU1-1(WIFI&3G) | SKU2(3G only) | SKU2-1(WIFI&3G) | | |
| WIFI/ET | NH660 | AH662 | NH660 | AH662 | | |
| PCB_ID0 | L | L | H | H | L: 262 | H: 343 |
| PCB_ID1 | L | H | L | H | L: AH663 | H: NH660 |
| PCB_ID2 | L | L | L | L | L: NON LTE | H: LTE |
| BOARD_ID0 | L | L | L | L | | |
| BOARD_ID1 | L | L | L | L | 00:EVT | |

| DVT1 | QA150(2-6-2) | | QA170(3-4-3) | | | |
|-----------|-----------------|-----------------|---------------|---------------|----------------|-------------------|
| SKU | SKU1(WIFI only) | SKU2(WIFI only) | SKU3(WIFI&3G) | SKU4(WIFI&3G) | SKU5(WIFI<E) | |
| WIFI/ET | AW-AH663 | AW-NH660 | AW-NH660 | AW-AH663 | AW-AH663 | |
| PCB_ID0 | L | L | H | H | H | L: 262 H: 343 |
| PCB_ID1 | L | H | H | L | L | L: AH663 H: NH660 |
| PCB_ID2 | L | L | L | L | H | L: NON LTE H: LTE |
| BOARD_ID0 | H | H | H | H | H | |
| BOARD_ID1 | L | L | L | L | L | 01:DVT1 |

| DVT2 | QA150(2-6-2) | | | | | | | | | |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------|--------------|
| SKU | SKU1(WIFI only) | SKU2(WIFI only) | SKU3(WIFI only) | SKU4(WIFI only) | SKU5(WIFI only) | SKU6(WIFI only) | SKU7(WIFI only) | SKU8(WIFI only) | | |
| WIFI/ET | AW-AH663 | AW-AH663 | AW-AH663 | AW-AH663 | AW-AH663 | AW-AH663 | AW-AH663 | AW-AH663 | | |
| PCB_ID0 | L | L | L | L | L | L | L | L | L: 262 | H: 343 |
| PCB_ID1 | L | L | L | L | L | L | L | L | L: AH663 | H: NH660 |
| PCB_ID2 | L | L | L | L | L | L | L | L | L: NON LTE | H: LTE |
| U1_I37 | L | L | L | L | L | L | L | L | L: Picasso 2 | H: Picasso M |
| BOARD_ID0 | L | L | L | L | L | L | L | L | | |
| BOARD_ID1 | H | H | H | H | H | H | H | H | 10:DVT2 | |

| DVT2 | QA170(3-4-3) | | | | | | | |
|-----------|---------------|----------------|----------------|----------------|-----------------|-----------------|--------------|--------------|
| SKU | SKU9(WIFI&3G) | SKU10(WIFI&3G) | SKU11(WIFI&3G) | SKU12(WIFI&3G) | SKU13(WIFI<E) | SKU14(WIFI<E) | | |
| WIFI/ET | AW-AH663 | AW-AH663 | AW-AH663 | AW-AH663 | AW-AH663 | AW-AH663 | | |
| PCB_ID0 | H | H | H | H | H | H | L: 262 | H: 343 |
| PCB_ID1 | L | L | L | L | L | L | L: AH663 | H: NH660 |
| PCB_ID2 | L | L | L | L | H | H | L: NON LTE | H: LTE |
| U1_I37 | L | L | L | L | L | L | L: Picasso 2 | H: Picasso M |
| BOARD_ID0 | L | L | L | L | L | L | | |
| BOARD_ID1 | H | H | H | H | H | H | 10:DVT2 | |

PICASSO M

| EVT | QA1A0(2-6-2) | | |
|-----------|-----------------|--------------|--------------|
| SKU | SKU1(Wifi only) | | |
| PCB_ID0 | L | L: 262 | H: 343 |
| PCB_ID1 | H | L: AH663 | H: NH660 |
| PCB_ID2 | L | L: NON LTE | H: LTE |
| U1_I37 | H | L: Picasso 2 | H: Picasso M |
| BOARD_ID0 | L | | |
| BOARD_ID1 | L | 00:EVT | |

| DVT1 | QA1A0(2-6-2) | | |
|-----------|-----------------|--------------|--------------|
| SKU | SKU1(Wifi only) | | |
| PCB_ID0 | L | L: 262 | H: 343 |
| PCB_ID1 | H | L: AH663 | H: NH660 |
| PCB_ID2 | L | L: NON LTE | H: LTE |
| U1_I37 | H | L: Picasso 2 | H: Picasso M |
| BOARD_ID0 | L | | |
| BOARD_ID1 | L | 00:EVT(R01) | |

| DVT2 | QA1A0(2-6-2) | | |
|-----------|-----------------|--------------|--------------|
| SKU | SKU1(Wifi only) | | |
| PCB_ID0 | L | L: 262 | H: 343 |
| PCB_ID1 | H | L: AH663 | H: NH660 |
| PCB_ID2 | L | L: NON LTE | H: LTE |
| U1_I37 | H | L: Picasso 2 | H: Picasso M |
| BOARD_ID0 | L | | |
| BOARD_ID1 | L | 01:DVT1(R02) | |

LPDDR2

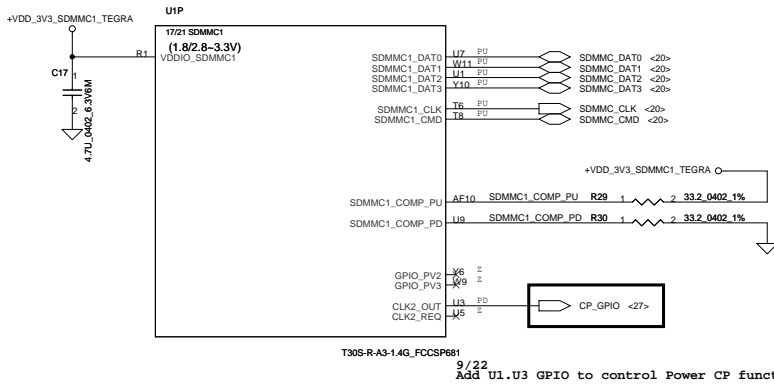
| | Vendor PN | Acer PN | Compal PN | Assign Bit | NAND_D4 | NAND_D5 | |
|--------|------------------|--------------|-------------|------------|---------|---------|----------|
| LPDDR2 | E8B8132E2MA-1D-F | IC.0080E.002 | SA000050Z10 | 00 | 0 | 0 | ELF_1GB@ |
| | K4P8G304EB-RG2 | IC.00809.002 | SA00004TY20 | 01 | 1 | 0 | SAM_1GB@ |

LVDS strap pin

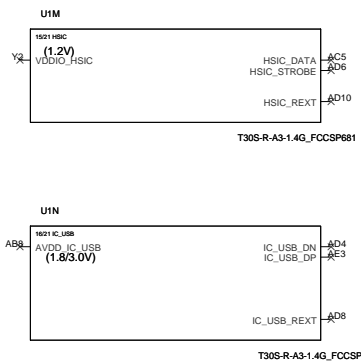
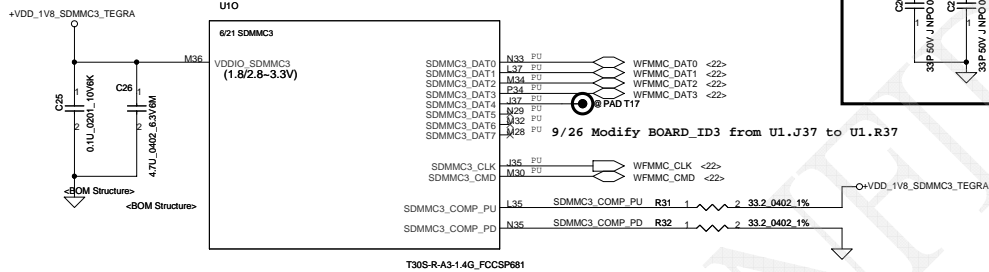
| | LVDS_CTRL2 | LVDS_CTRL1 | LVDS_CTRL0 | LVDS_MAP | LCD_PCLK | LVDS_ACLK |
|----------|------------|------------|------------|----------|-----------|-----------|
| PicassoM | L | H | H | H | 70.34Mhz | 71.56Mhz |
| Picasso2 | L | H | L | L | 152.28Mhz | 76.14Mhz |

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| Date: | Tuesday, July 10, 2012 | Sheet | 3 | of 38 |

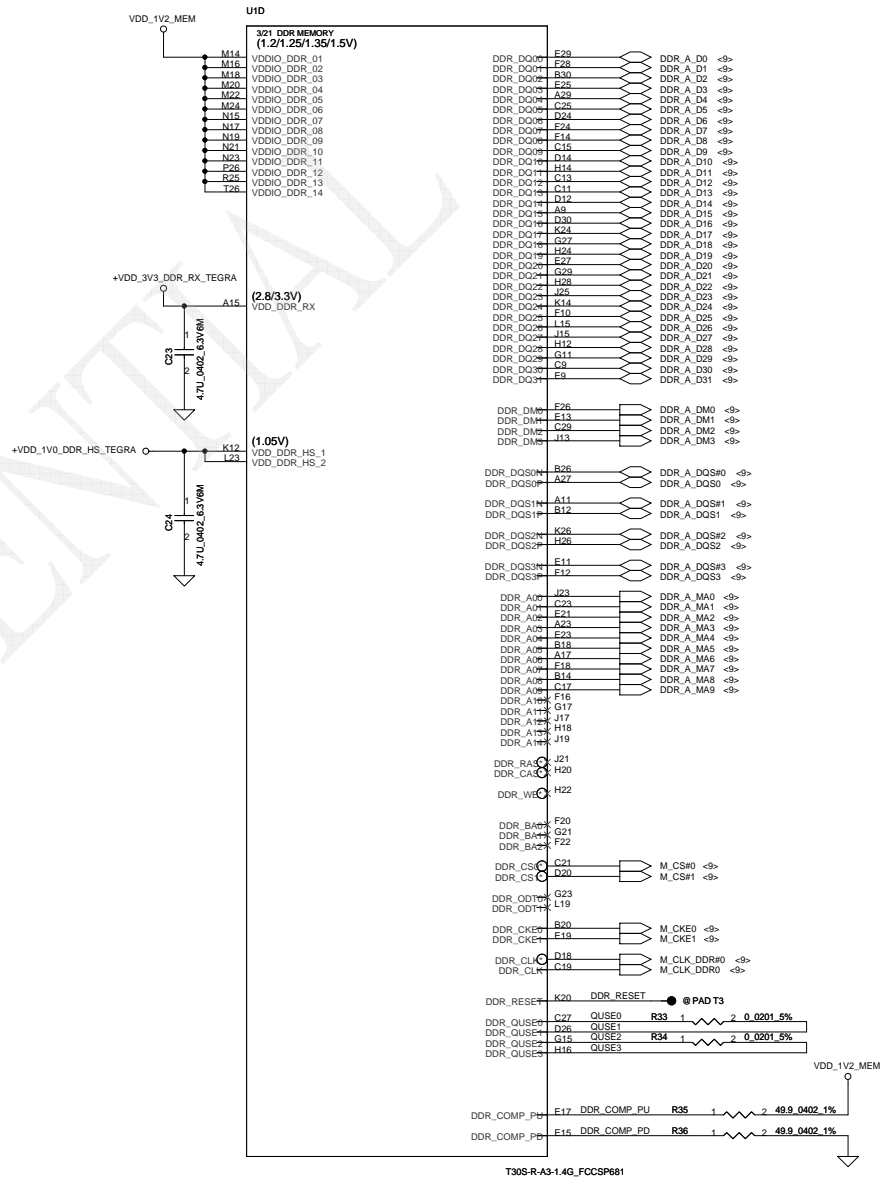
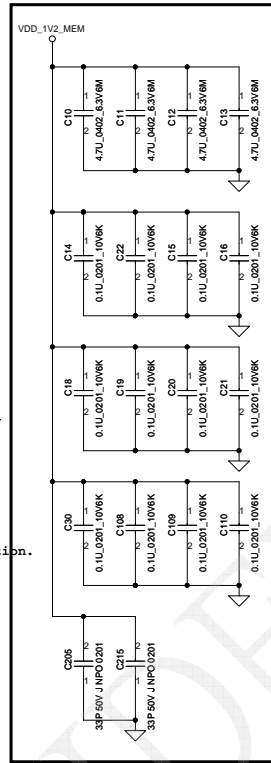
SDMMC1 : SD card



SDMMC3 : WIFI

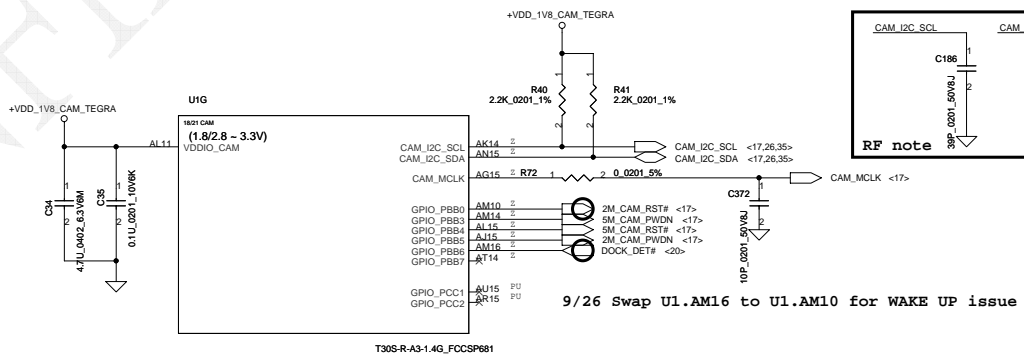
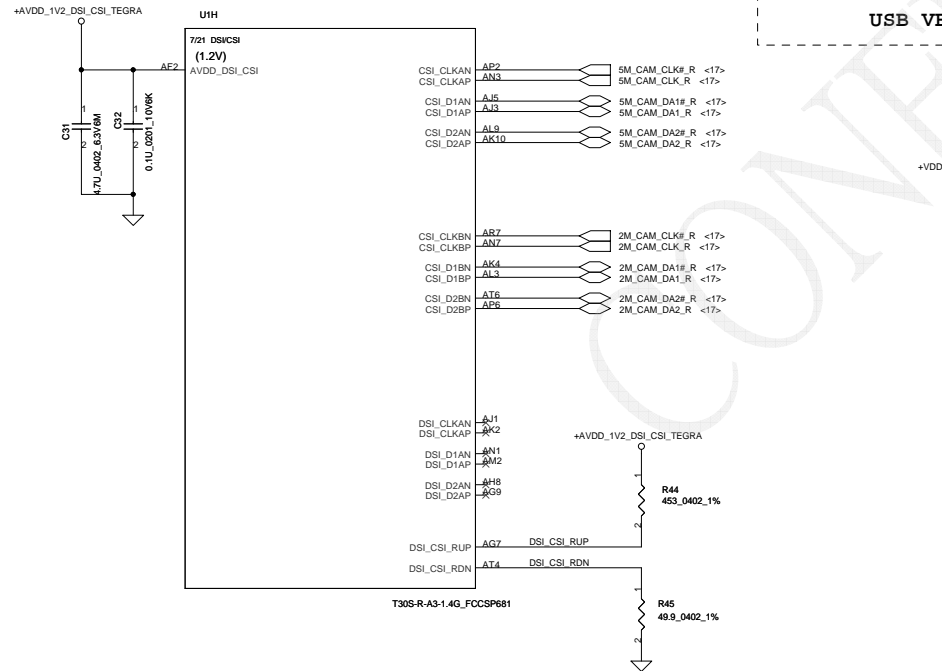
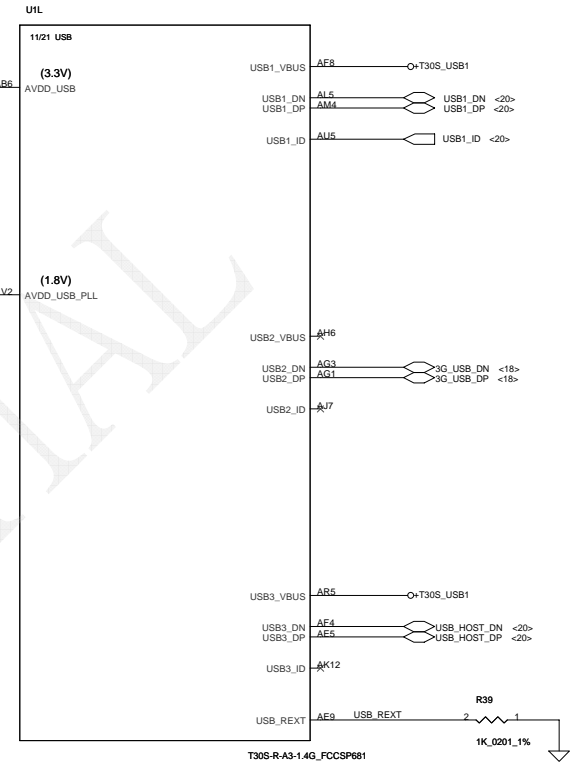
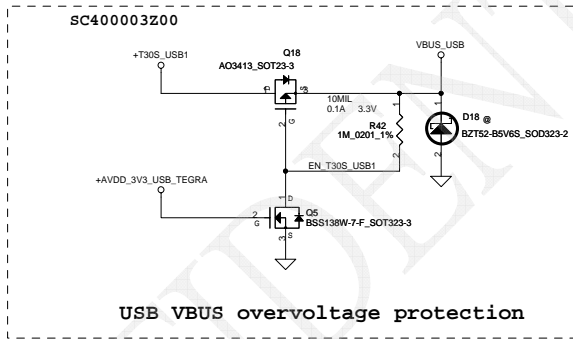
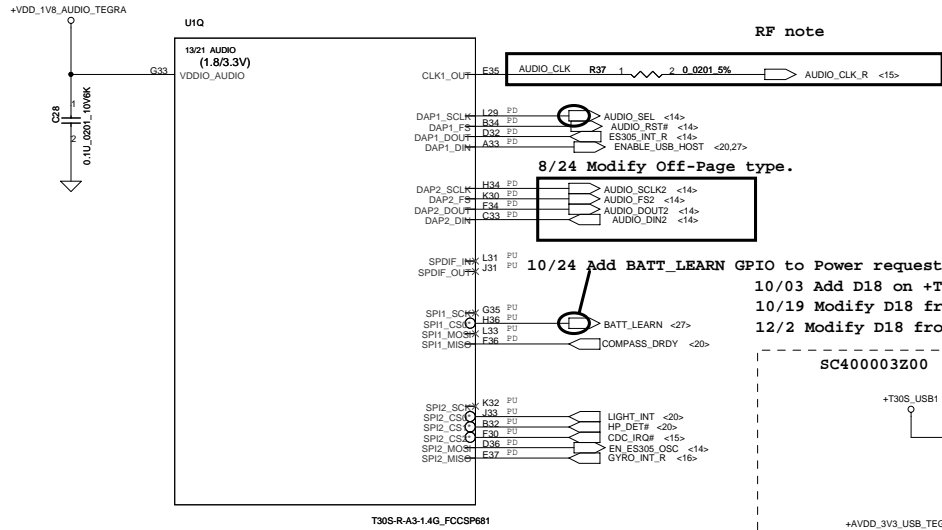


Acer request



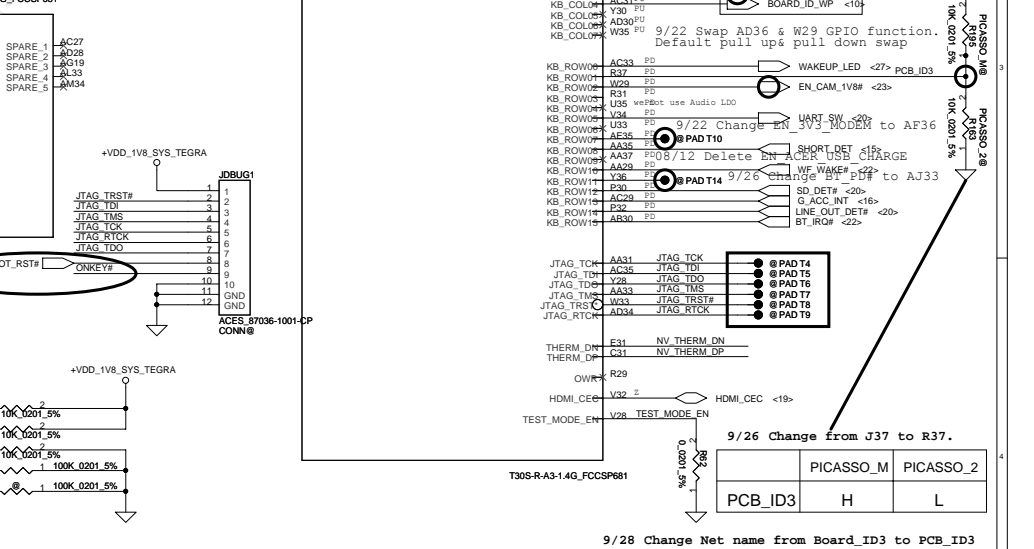
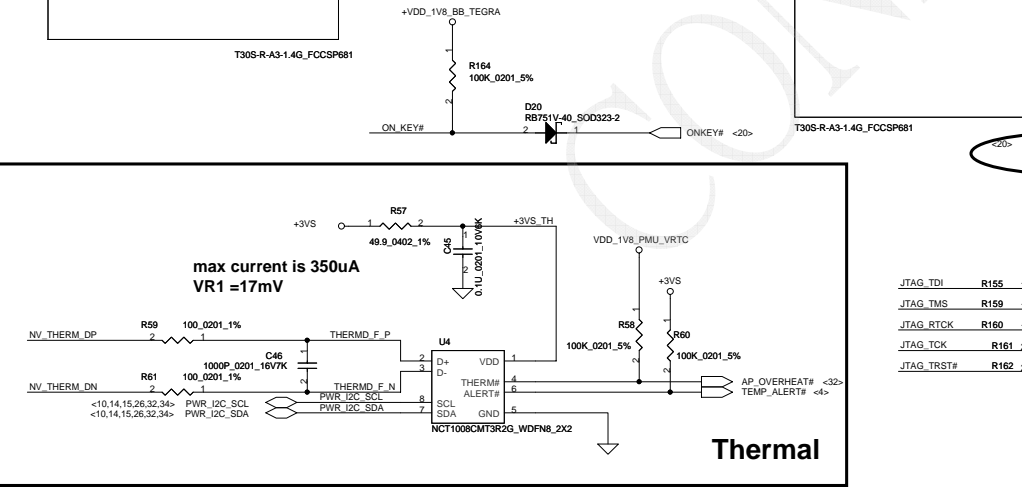
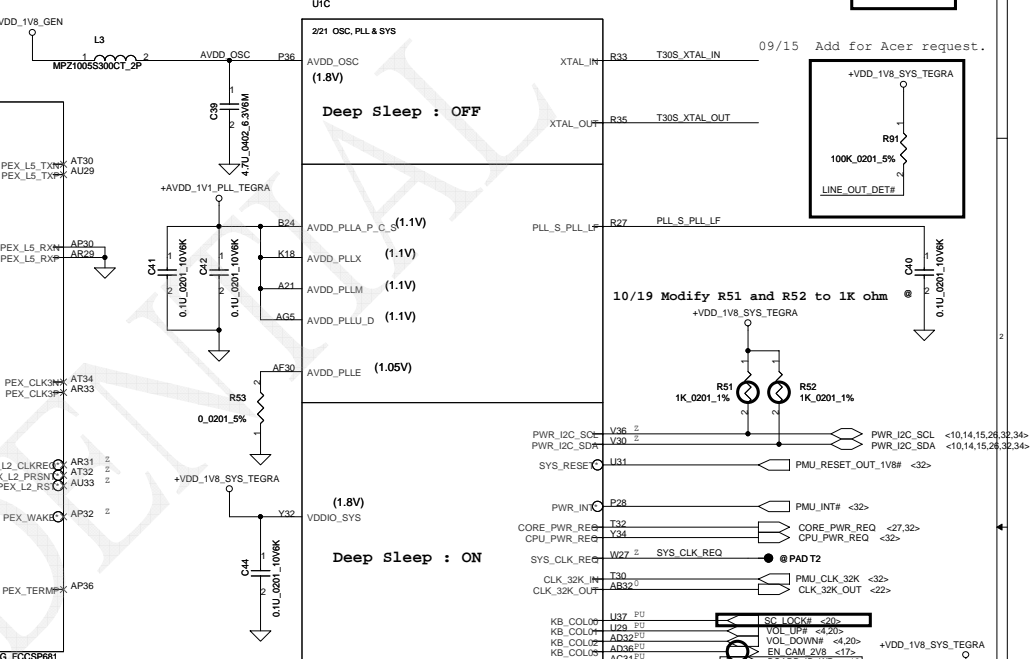
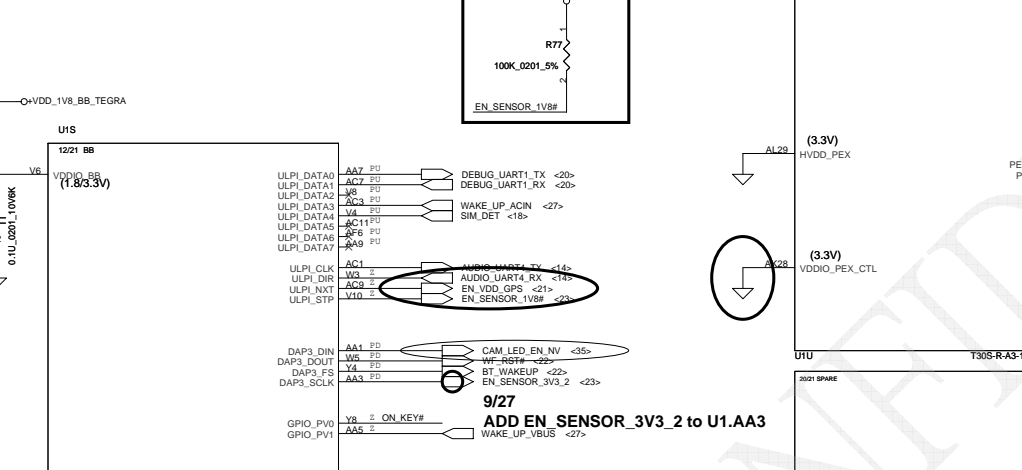
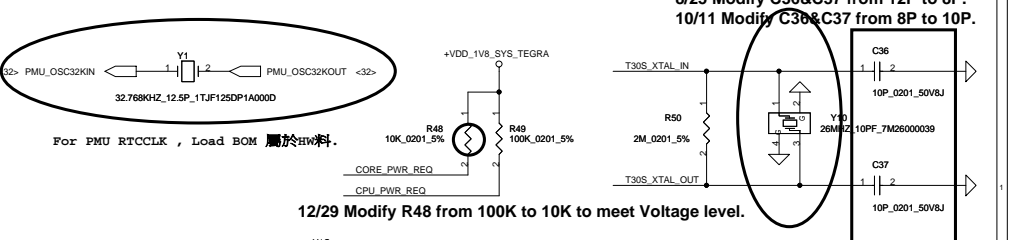
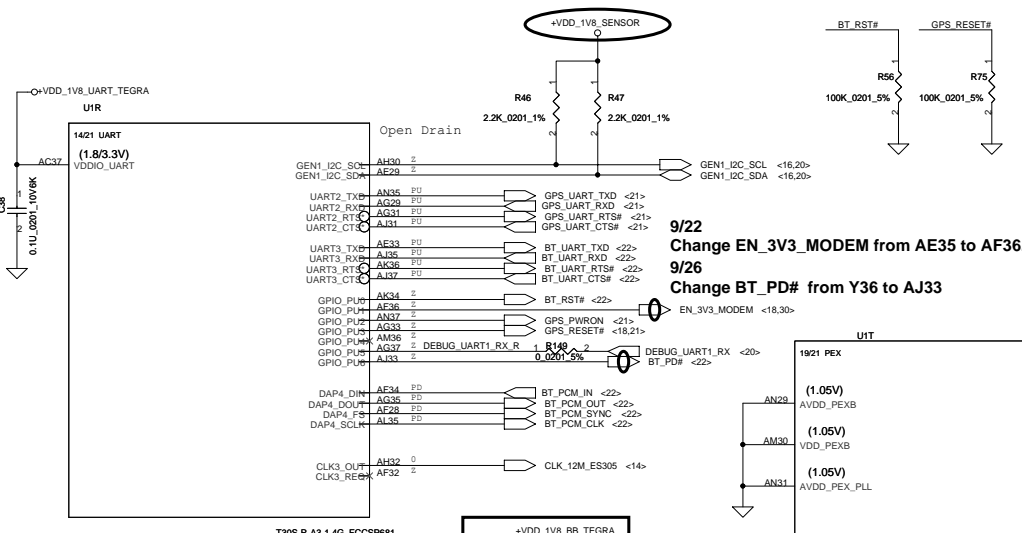
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| Date: | Tuesday, July 10, 2012 | Sheet | 5 | of 38 |

U1Q is not place on grid , need check connection

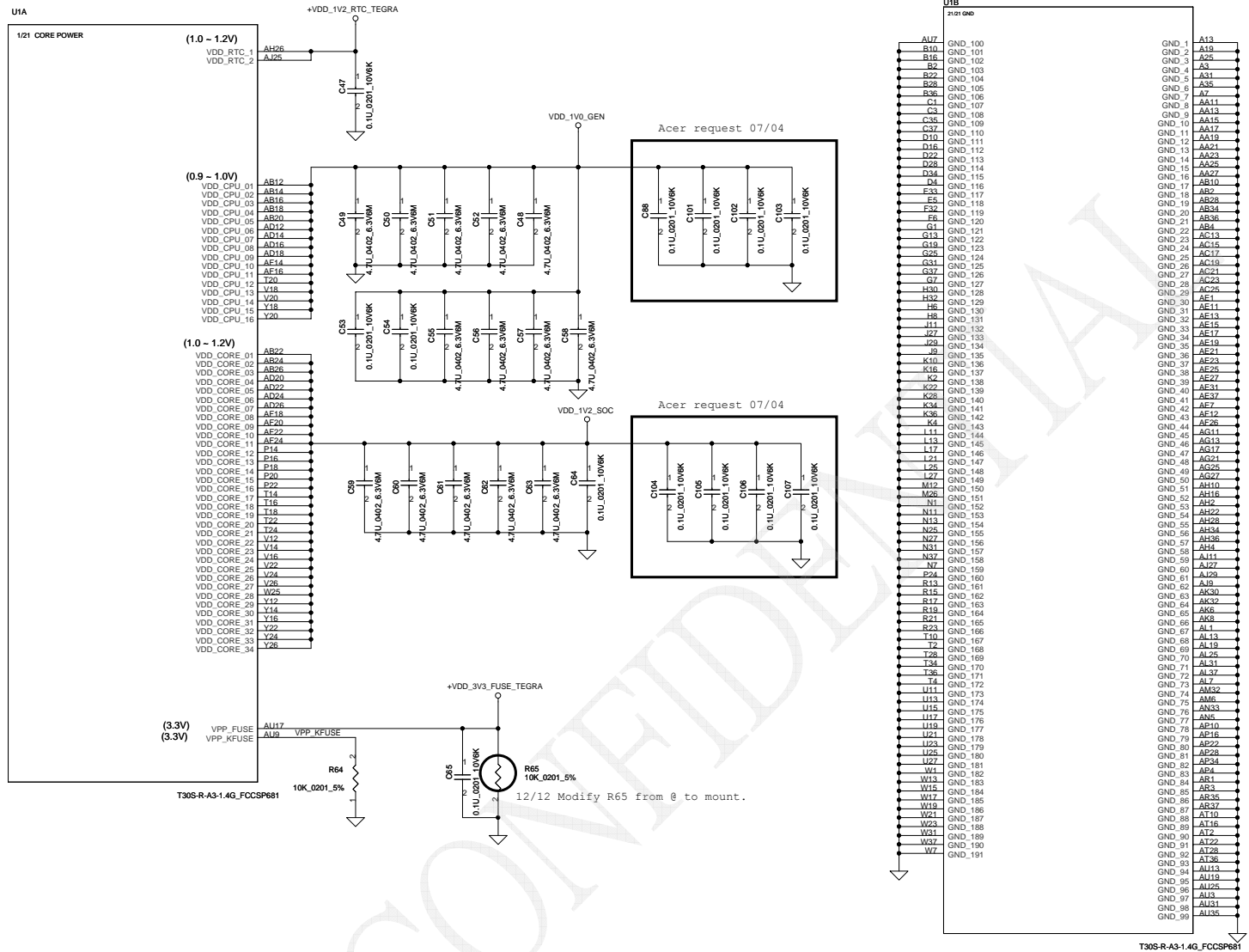


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| C | | | | B |
| Date: | Tuesday, July 10, 2012 | Sheet | 6 | of 38 |

8/25 Modify C36&C37 from 12P to 8P.
10/11 Modify C36&C37 from 8P to 10P.



| | | | | |
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| Date | Tuesday, July 10, 2012 | Sheet | 7 | of 38 |

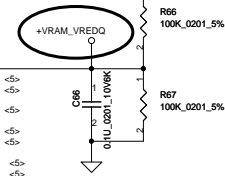
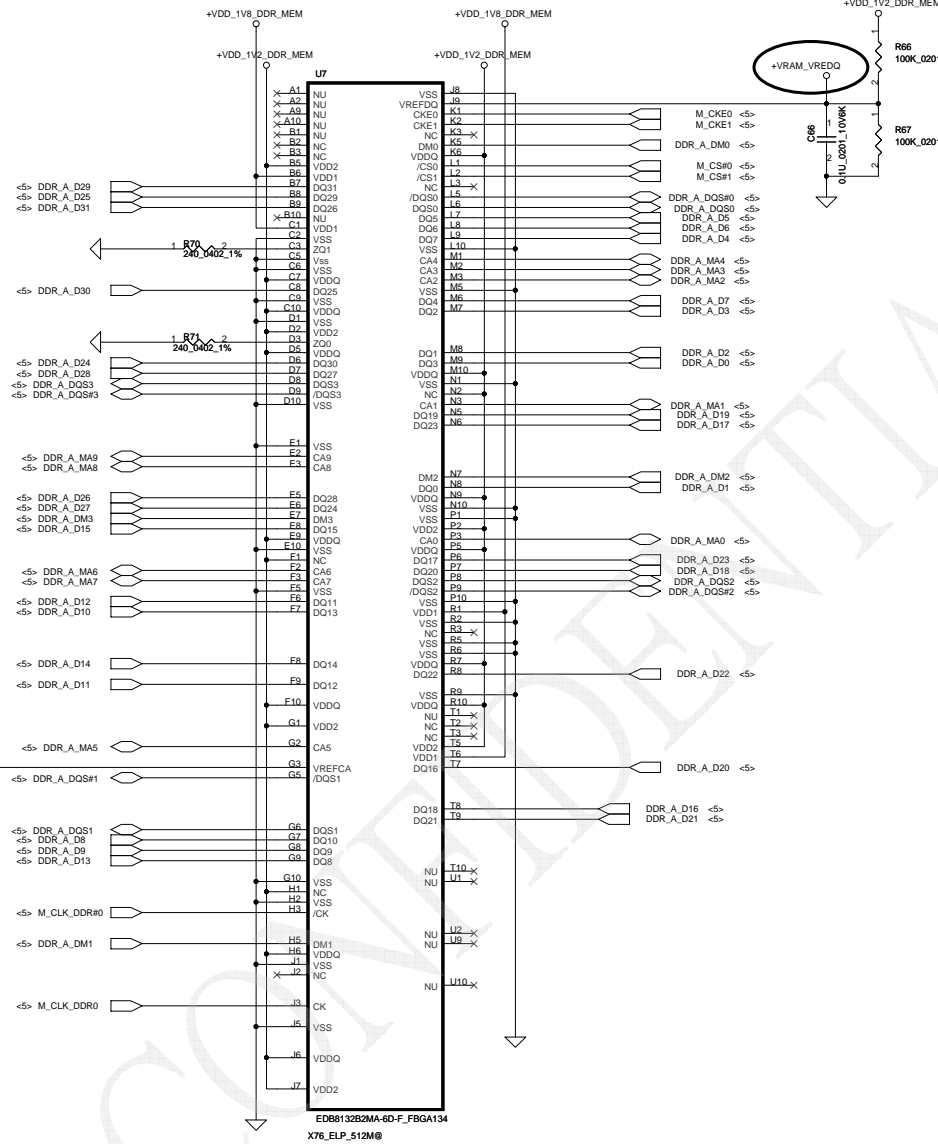
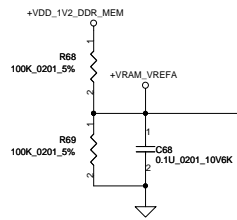


Follow NV design
NET NAME BALL NAME

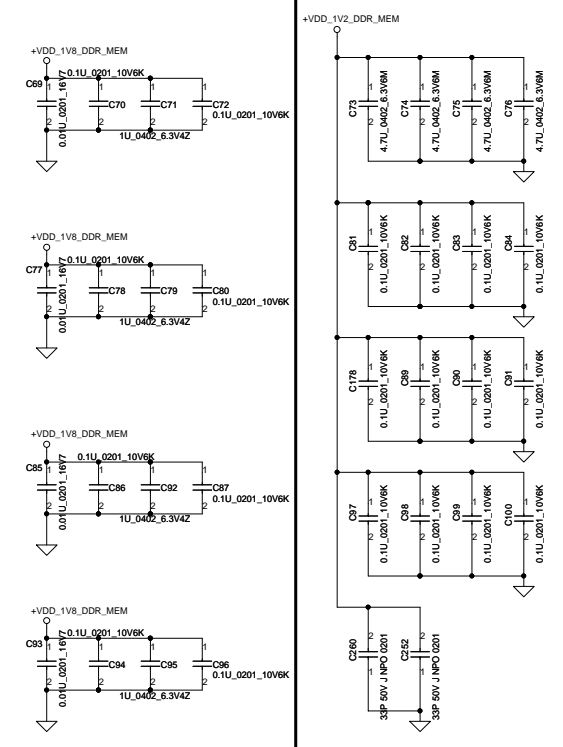
- A0 P3
- A1 N3
- A2 M3
- A3 M2
- A4 M1
- A5 G2
- A6 F2
- A7 F3
- A8 E3
- A9 E2
- CKE0 K1
- CKE1 K2
- CLK J3
- CLK# H3
- CS0 L1
- CS1 L2
- DM0 K5
- DM1 H5
- DQ0 M9
- DQ1 N8
- DQ10 F7
- DQ11 F9
- DQ12 F6
- DQ13 G9
- DQ14 F8
- DQ15 E8
- DQ2 M8
- DQ3 M7
- DQ4 L9
- DQ5 L7
- DQ6 L8
- DQ7 M6
- DQ8 G7
- DQ9 G8
- DQS0 L6
- DQS0# L5
- DQS1 G6
- DQS1# G5

Layer 2

- DM2 N7
- DM3 E7
- DQ16 T8
- DQ17 N6
- DQ18 P7
- DQ19 N5
- DQ20 T7
- DQ21 T9
- DQ22 R8
- DQ23 P6
- DQ24 D6
- DQ25 B8
- DQ26 E5
- DQ27 E6
- DQ28 D7
- DQ29 B7
- DQ30 C8
- DQ31 B9
- DQS2 P8
- DQS2# P9
- DQS3 D8
- DQS3# D9



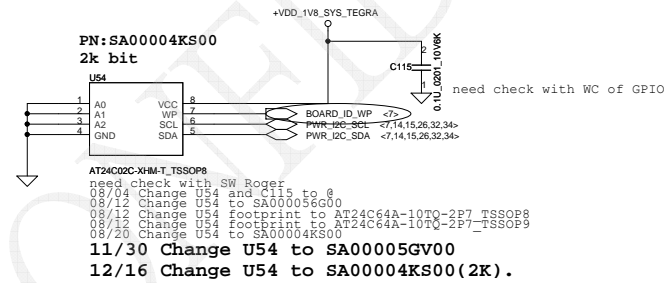
F1, H1, N2 are the NC pins which assembled/embedded the interconnection into ELP Vdd sources already. due to co-layout the LPDDR2, it is need to apply 1.2 volt on F1, H1 and N2 pins.



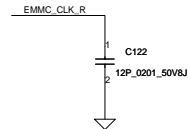
- U7 X76_SAM_1GB@ (1GB Samsung)
SA00004YY20
- U7 X76_ELP_1GB@ (1GB Elpida)
SA000050Z10

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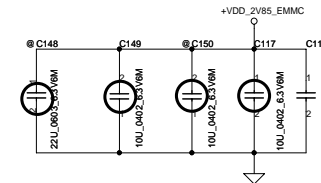
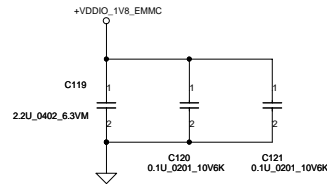
Remove EC



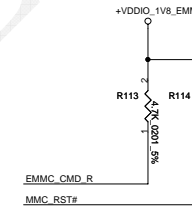
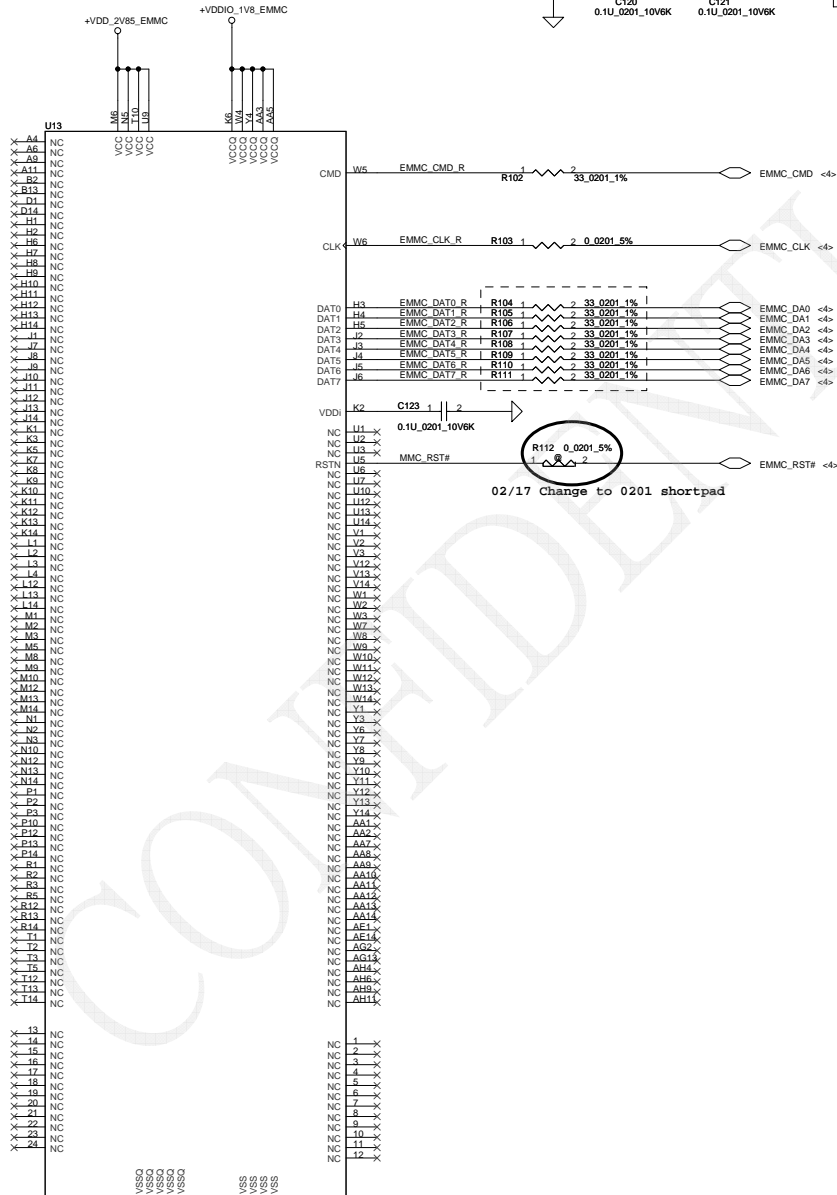
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| C | | | | B |
| Date: | Tuesday, July 10, 2012 | Sheet | 10 | of 38 |



close U13

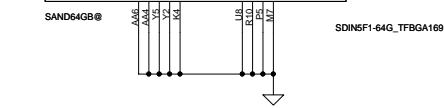


11/23 Reserver C148,C149 and C150 for Acer HW request.
 11/23 Modify C117 from 2.2U 0402 to 10U 0402.
 12/7 Modify C148,C149,C150 from @ to mount
 12/16 Modify C148 and c150 from mount to @ for LDO solution.

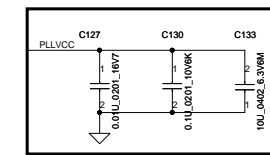
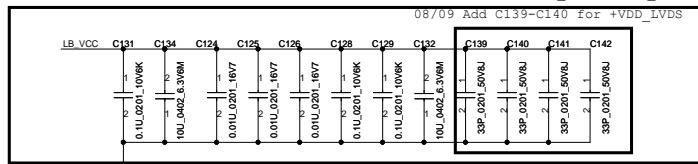


- U13 KING16GB@ SA00004O610
- U13 SAND16GB@ SA00004XA00
- U13 SAM16GB@ SA00004FN20
- U13 KING32GB@ SA00004TD00
- U13 SAM32GB@ SA00004FO40
- U13 SAND32GB@ SA000052910
- U13 SAND432GB@ SA000042X20
- U13 SAND64GB@ SA00004XQ10

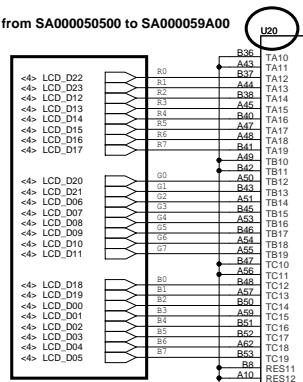
8/26 ADD for SKU control.



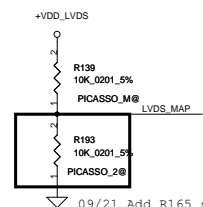
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| Size | Document Number | Date | Tuesday, July 10, 2012 | Rev B |
| C | SCHEMATIC MB A8022 | Sheet | 11 | of 38 |



10/19 Modify U20 PN from SA000050500 to SA000059A00

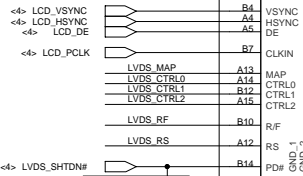


09/21 swap LCD_D00-LCD_D23 for colay.

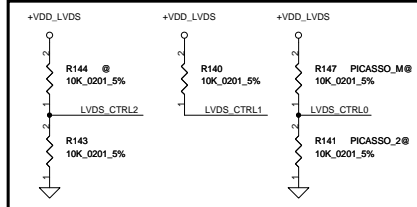


09/21 Add R165 select pin for Picasso M.

LVDS_MAP configuration:
 High: Picasso M
 Low: Picasso 2

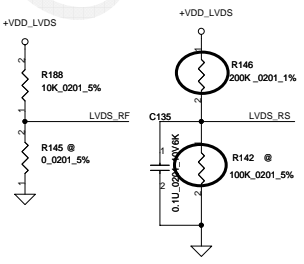


need check for single in single out



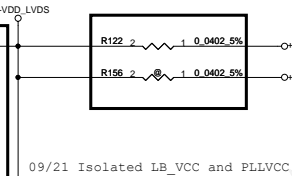
| | |
|-----------------|--|
| CTRL[2:0] = LHL | Single-In, Dual-Out (DDR Off) |
| CTRL[2:0] = HHL | Single-In, Dual-Out (DDR On) |
| CTRL[2:0] = LHH | Single-In, Single-Out (Distribution Off) |
| CTRL[2:0] = HHH | Single-In, Single-Out (Distribution On) |

08/12 Add R148 PD LVDS_SHTDN# to GND



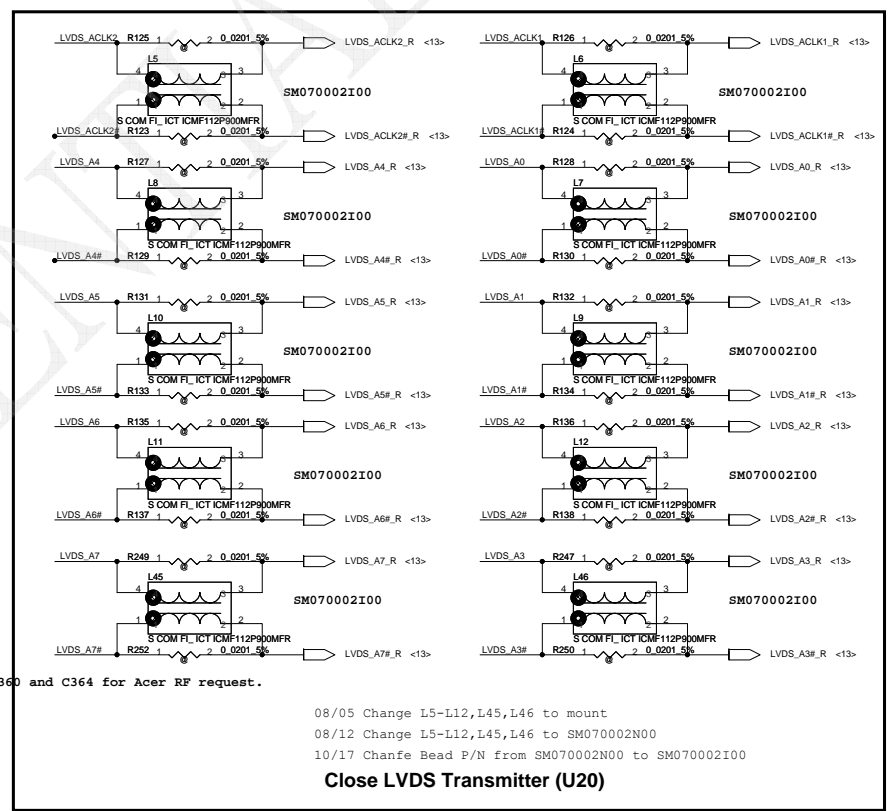
10/14 Modify LVDS_RS from pull up to pull down to reduce power consumption.
 11/1 Modify LVDS_RS from pull down to pull up to meet SPEC

| RS Input Voltage | LVDS Output Swing | CMOS/TTL Input Configuration (Input Voltage Swing |
|------------------|-------------------|--|
| VCC | 350 mV | Standard Input and Output Configuration |
| 0.6 ~ 1.4 V | 350 mV | Small Input Swing, Standard Output Swing Configuration |
| GND | 200 mV | Standard Input Swing, Reduced Output Swing Configuration |



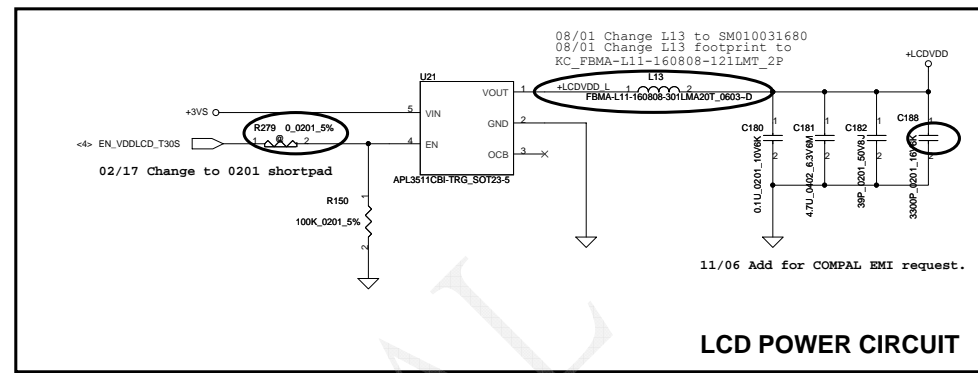
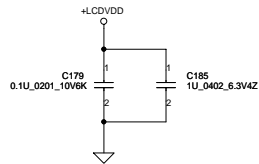
09/26 Change R122 & R156 package from 0201 to 0402

09/21 Isolated LB_VCC and PLLVCC.



11/11 Add C328,C338,C360 and C364 for Acer RF request.

08/05 Change L5-L12,L45,L46 to mount
 08/12 Change L5-L12,L45,L46 to SM070002N00
 10/17 Chanfe Bead P/N from SM070002N00 to SM070002I00
Close LVDS Transmitter (U20)



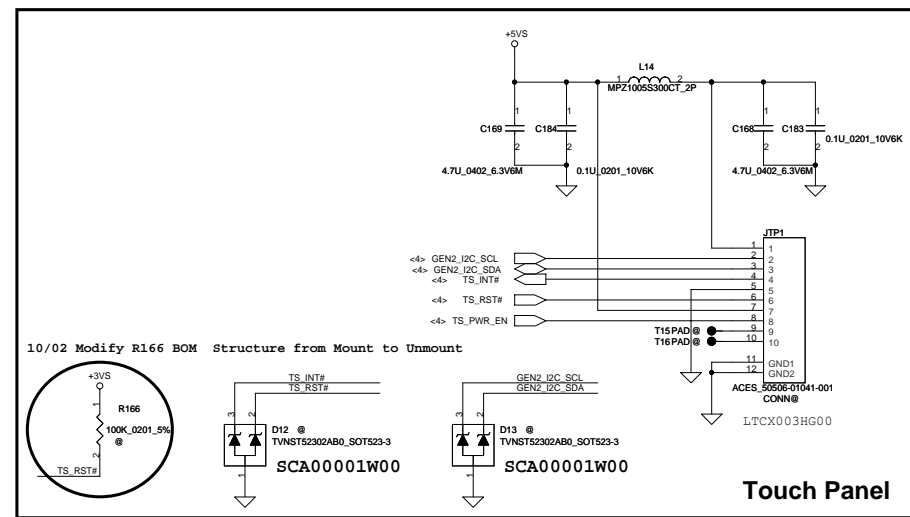
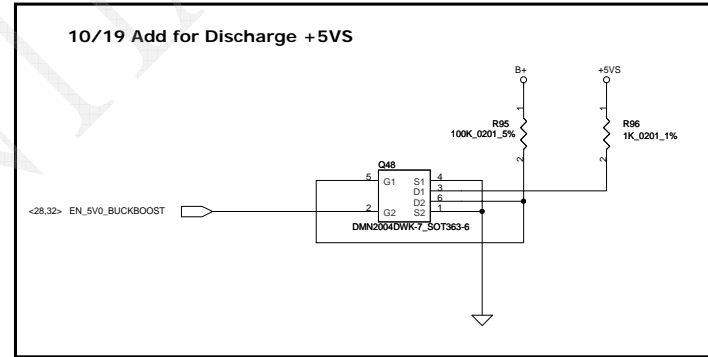
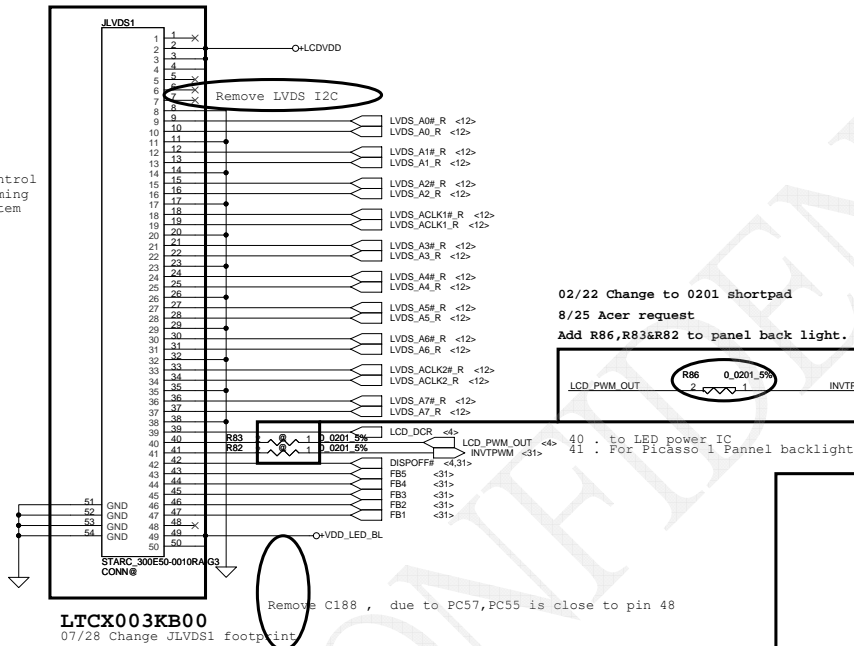
Panel SPEC

2 VDD Power Supply +3.3V
 3 VDD Power Supply +3.3V
 4 VDDLED EDID +3.3V

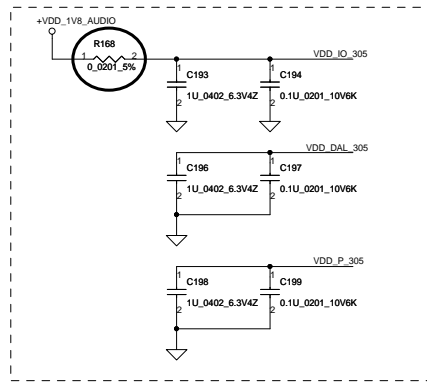
38 DCR_EN (CABC_EN) Dynamic backlight control
 39 PWM_IN System PWM signal input for dimming
 40 PWM_OUT Panel PWM signal output to system

43 LED_CA5 LED Cathode 5
 44 LED_CA4 LED Cathode 4
 45 LED_CA3 LED Cathode 3
 46 LED_CA2 LED Cathode 2
 47 LED_CA1 LED Cathode 1

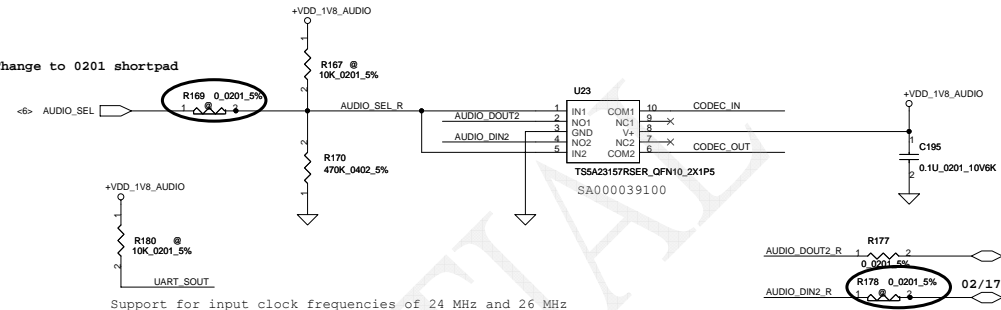
49 VLED Output LED Backlight power
 50 VLED Output LED Backlight power



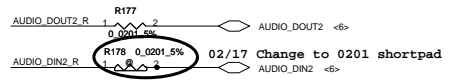
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| Date: | Tuesday, July 10, 2012 | Sheet | 13 | of 38 |



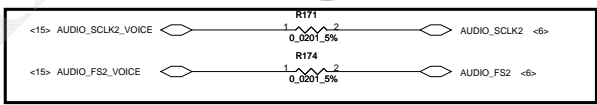
02/17 Change to 0201 shortpad



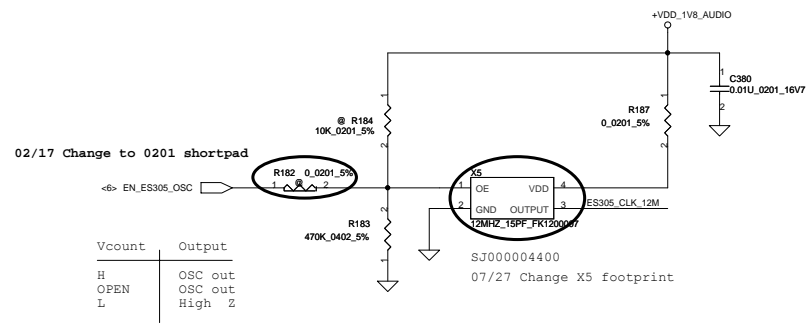
Support for input clock frequencies of 24 MHz and 26 MHz requires a 10KΩ pull-up resistor on the UART_SOUT pin.



02/17 Change to 0201 shortpad



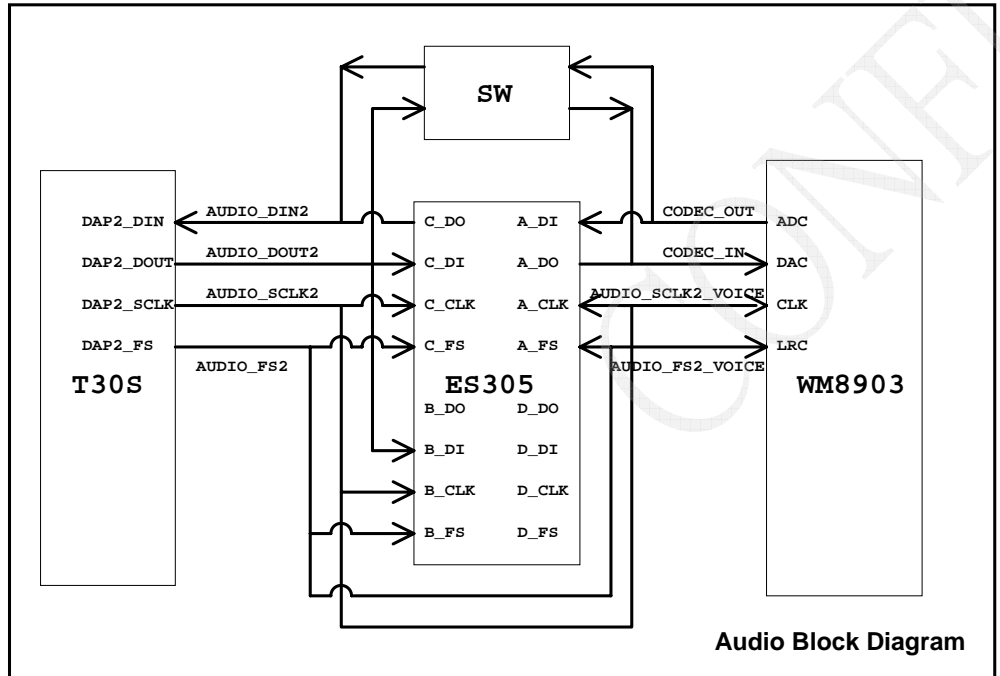
20110823 Modify for Acer request
 AUDIO_FS2_VOICE connect to portA and CODEC,
 AUDIO_FS2 connect to portB, portC and CPU.
 AUDIO_SCLK2_VOICE connect to portA and CODEC
 AUDIO_SCLK2 connect to portB, portC and CPU.



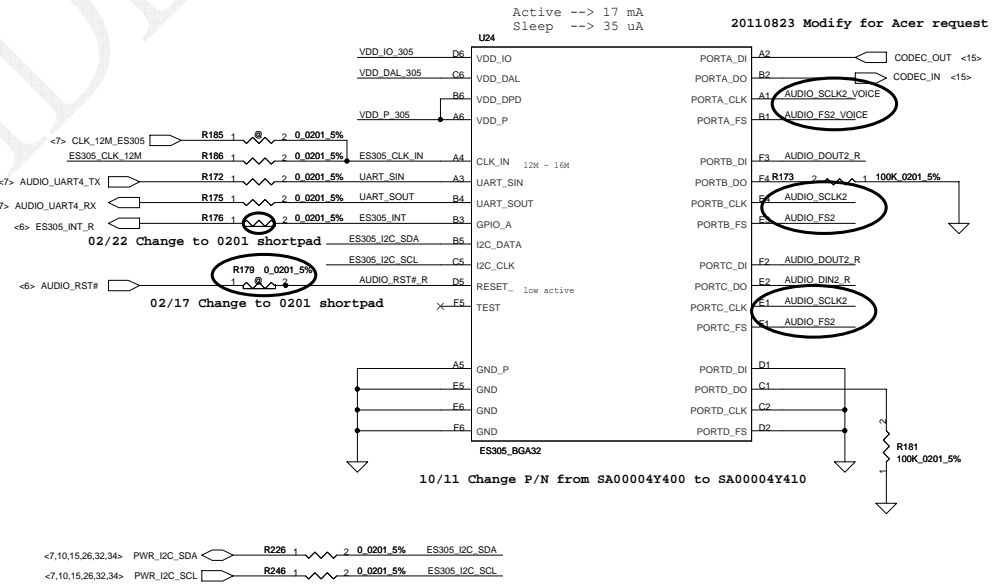
02/17 Change to 0201 shortpad

07/27 Change X5 footprint

| Vcount | Output |
|--------|---------|
| H | OSC out |
| OPEN | OSC out |
| L | High Z |

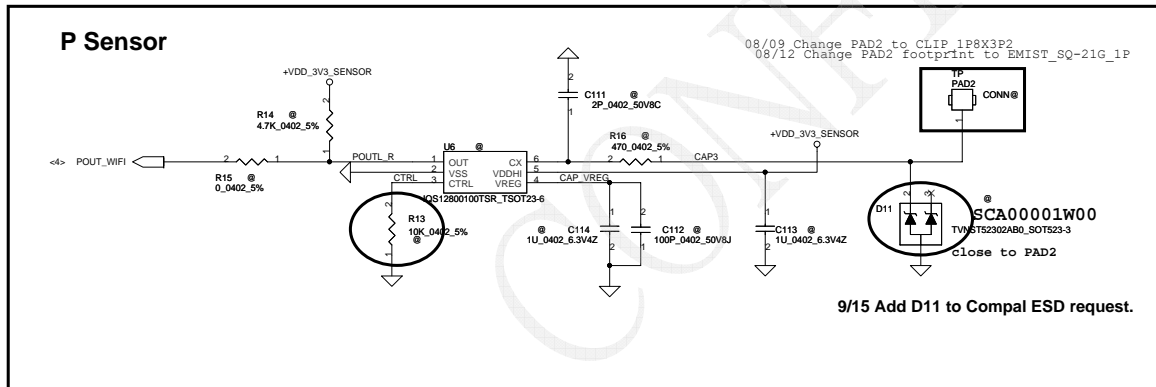
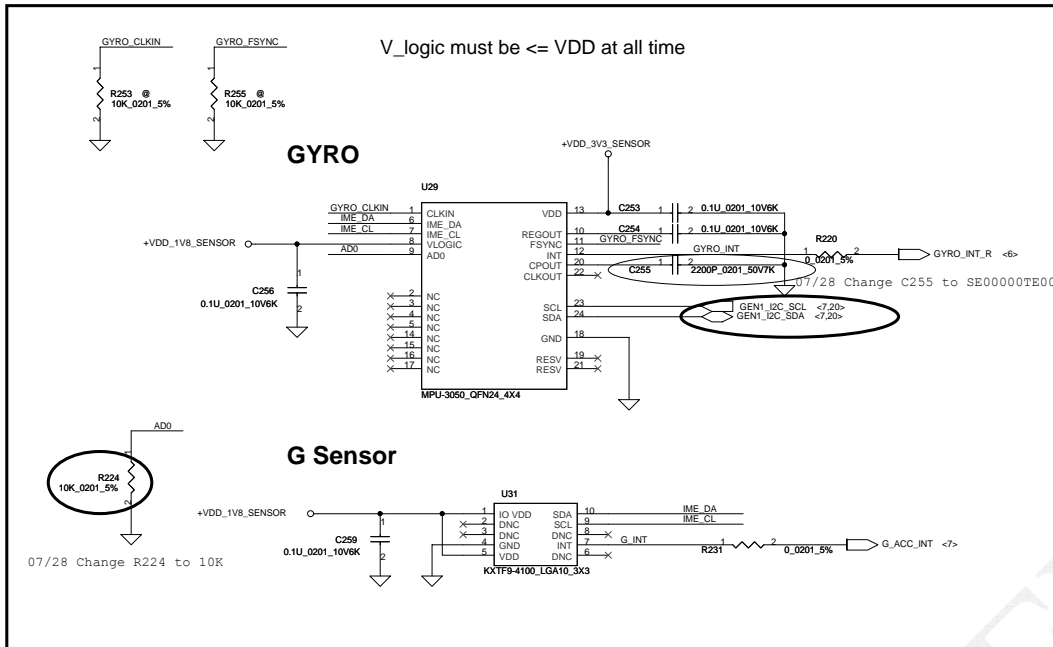


Audio Block Diagram



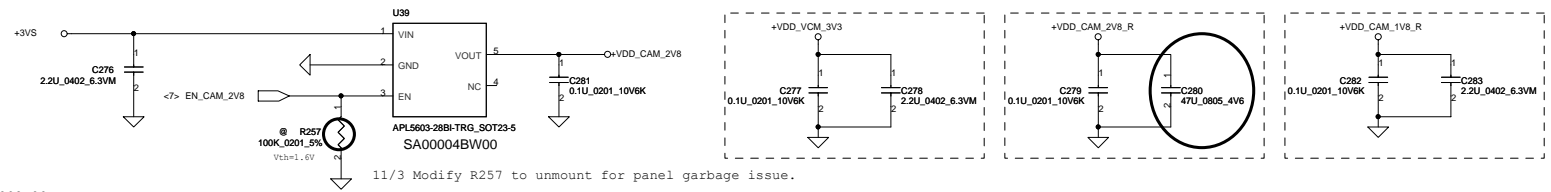
20110823 Modify for Acer request

| | | | | |
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| Date: | Tuesday, July 10, 2012 | Sheet | 14 | of 38 |



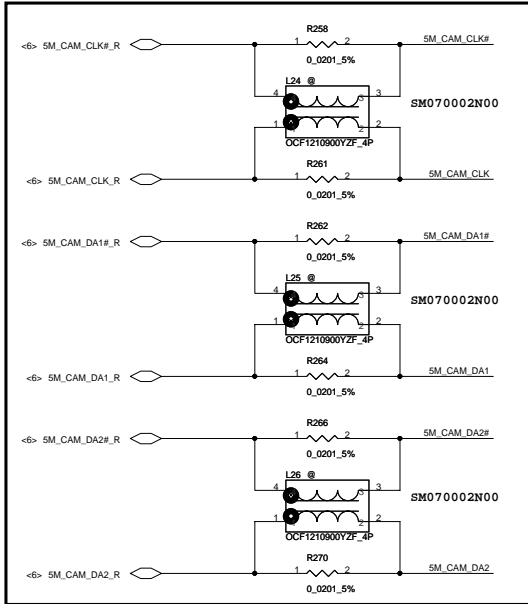
10/13 Modify R14,U6,C111,R16,D11,C113,C112 and C114 from WIFI @ to @ .

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| Date: | Tuesday, July 10, 2012 | Sheet | 16 | of 38 |

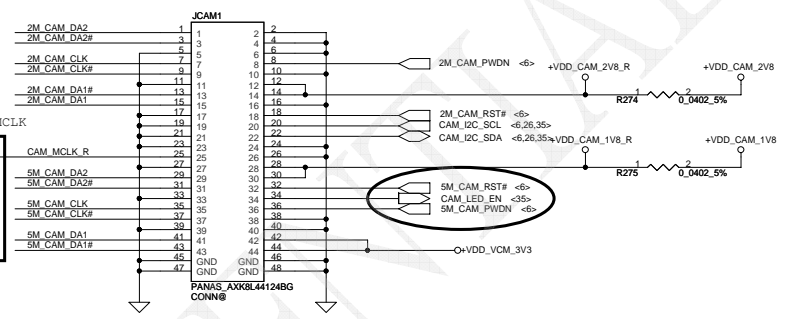
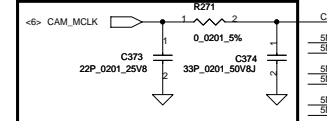


10/17 Change L24-L28,L34 to 0 ohm
 08/05 Change L24-L28,L34 to mount
 08/05 Change L24-L28,L34 to SM070002N00

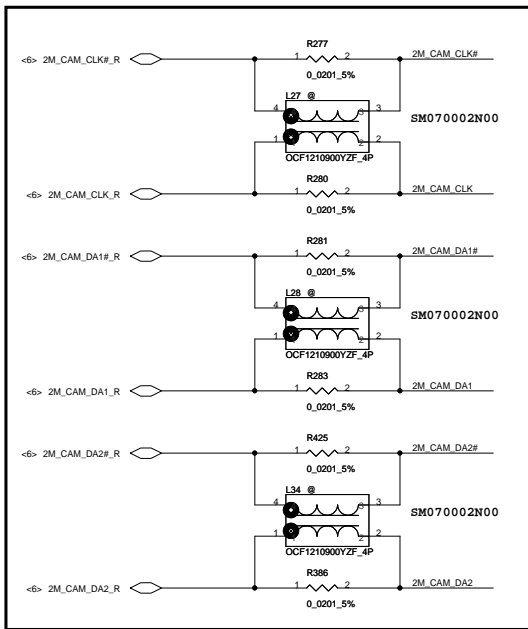
11/3 Modify R257 to unmount for panel garbage issue.



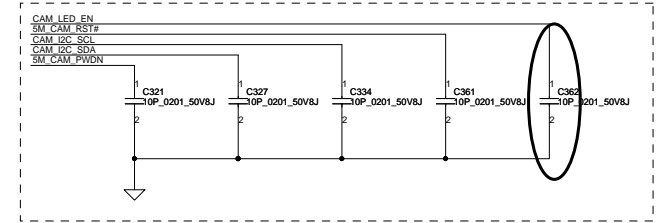
08/09 Add C373,C374,R271 for CAM_MCLK



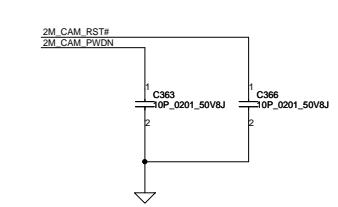
LTCX003I300 Camera Board



reference Acer schematic

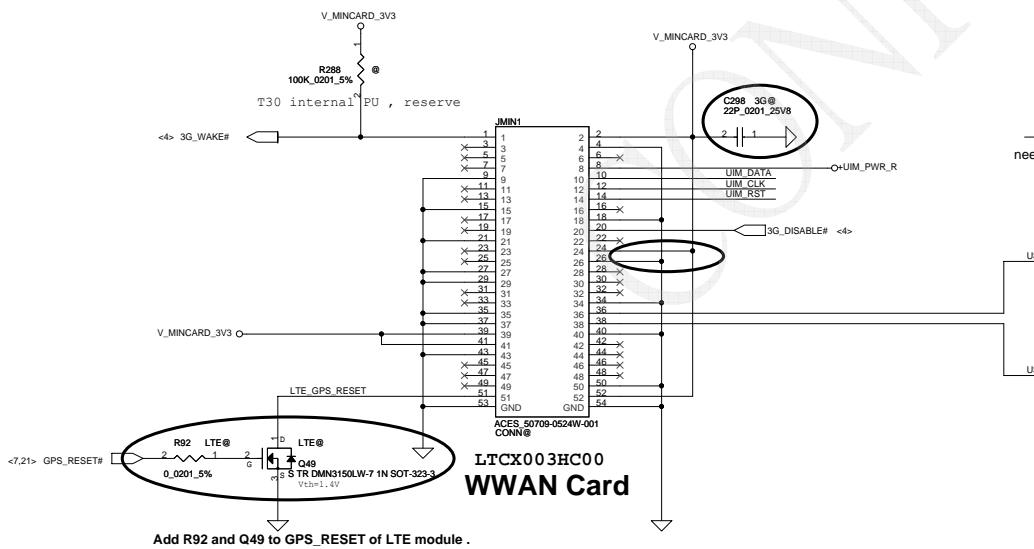
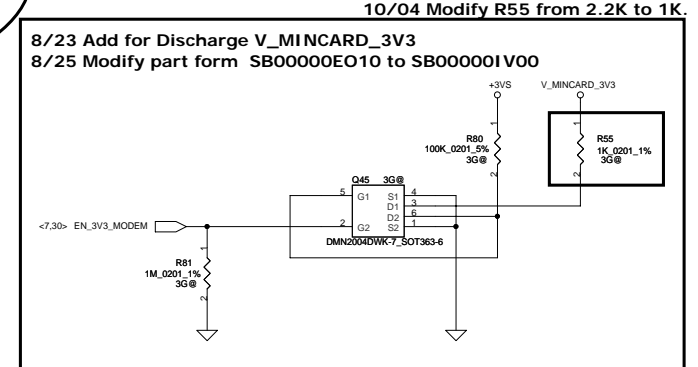
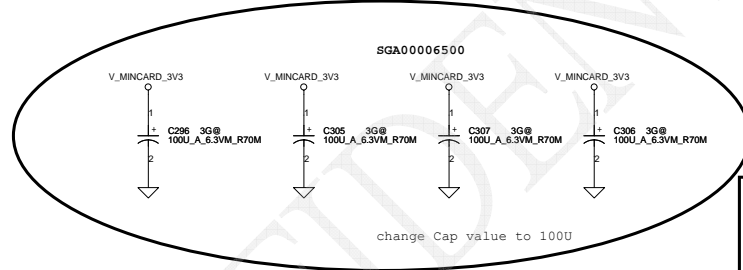
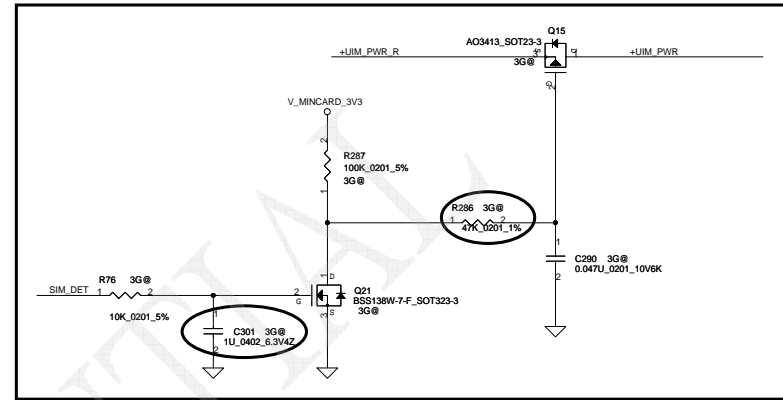
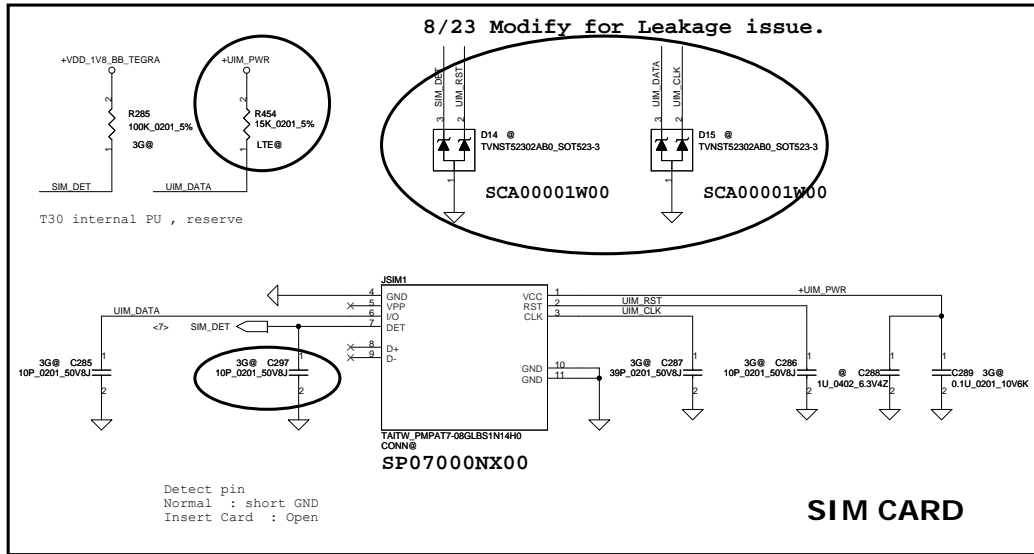


reference Acer schematic

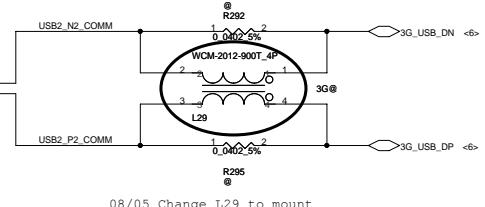


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| Date: | Tuesday, July 10, 2012 | Sheet | 17 | of 38 |

12/16 Modify R454 from 3G@ to LTE@ to meet SPEC.

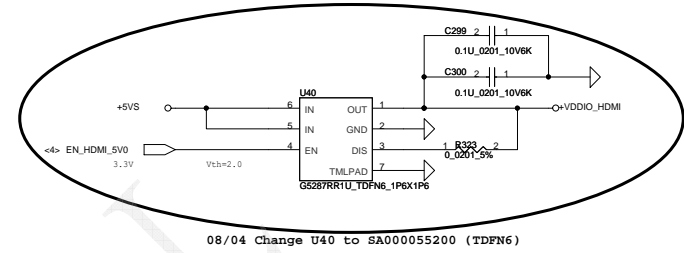
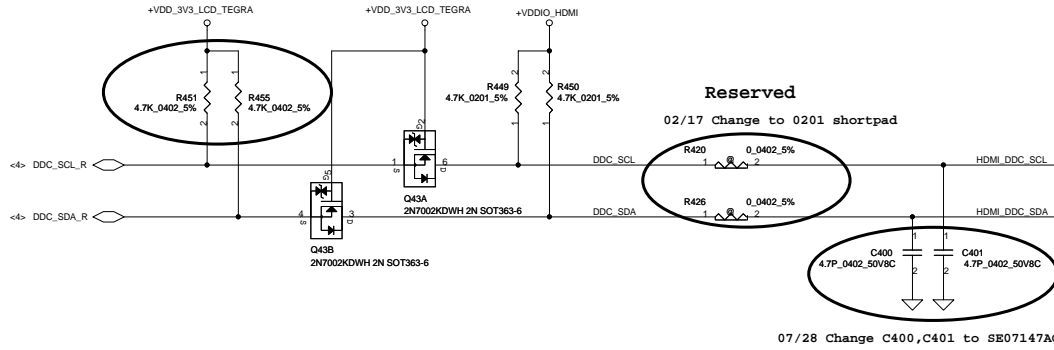


need check module internal PU or not, All vender.



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| Date: | Tuesday, July 10, 2012 | Sheet | 18 | of 38 |

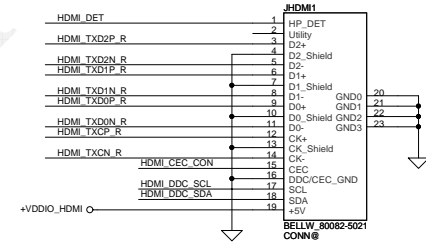
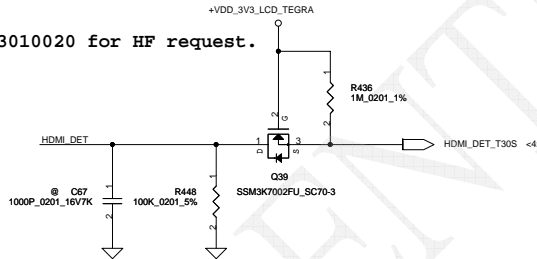
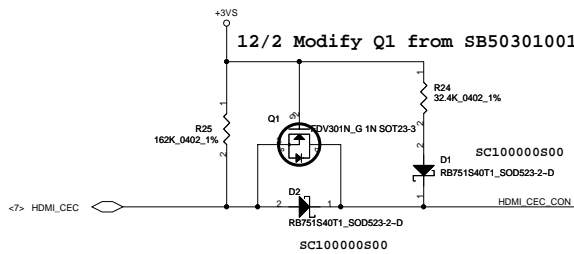
8/25 Modify R451&R455 from 47K 1% to 4.7K 5%



08/04 Change U40 to SA000055200 (TDFN6)

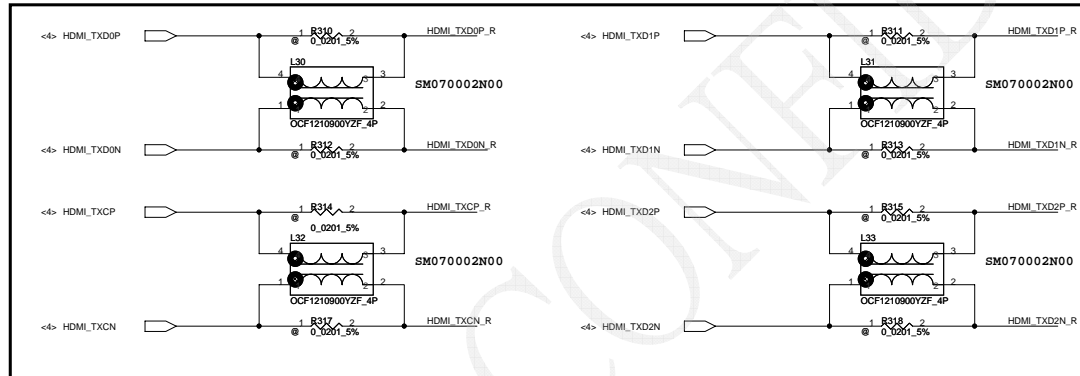
07/28 Change C400,C401 to SE07147AC80

12/2 Modify Q1 from SB503010010 to SB503010020 for HF request.



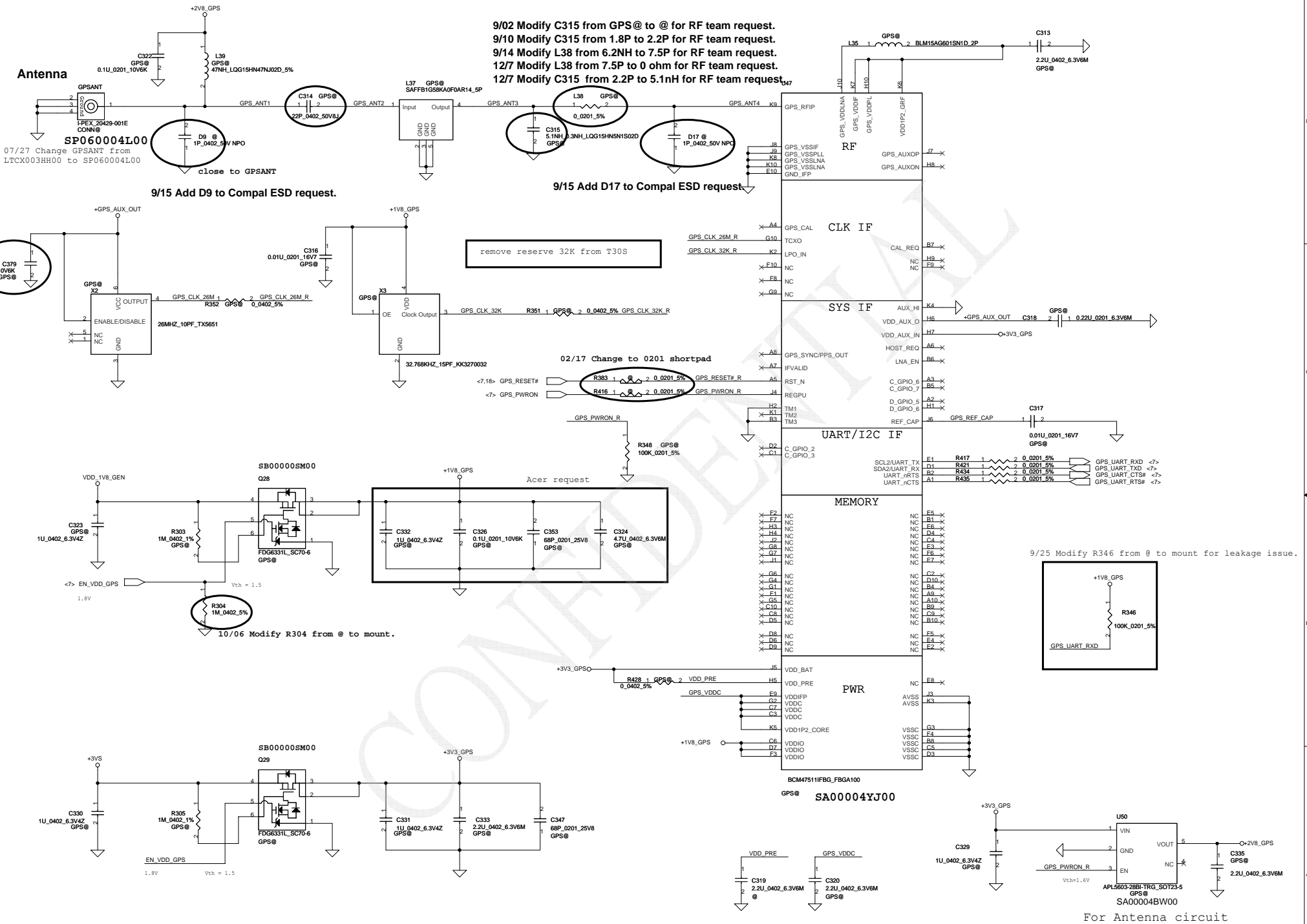
DC232001M10
HDMI Type D Connector

08/05 Change L30-L33 to SM070002N00



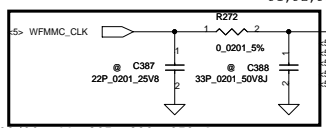
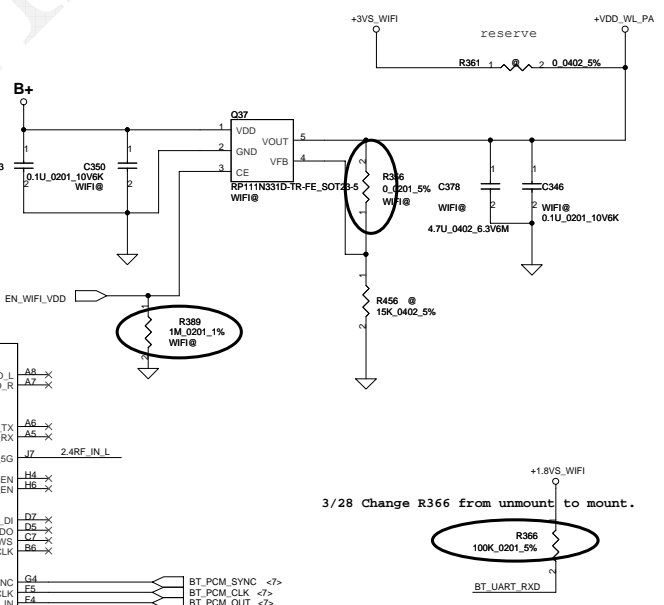
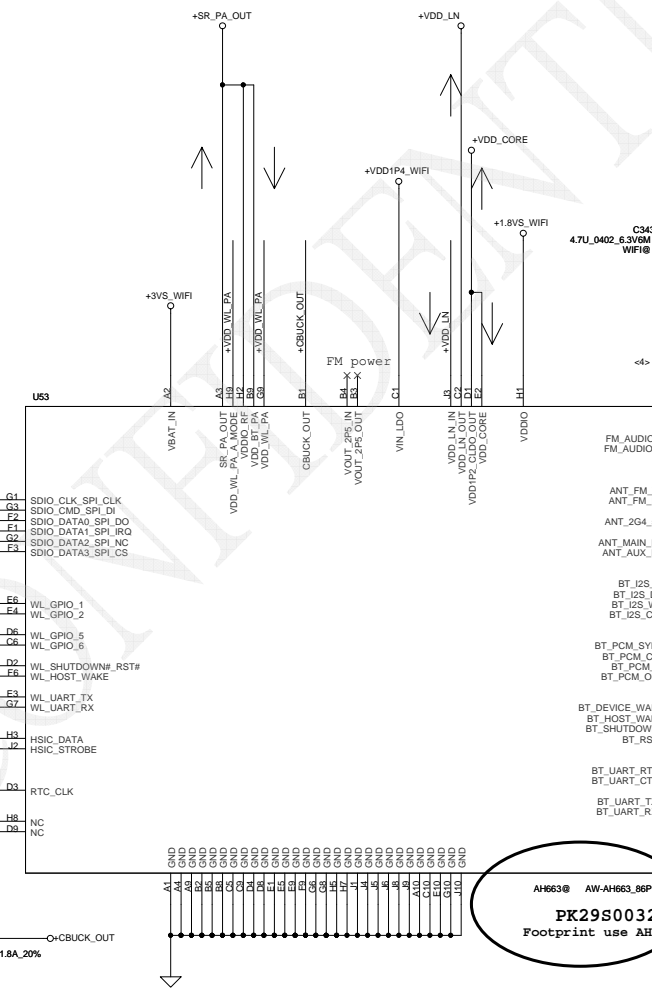
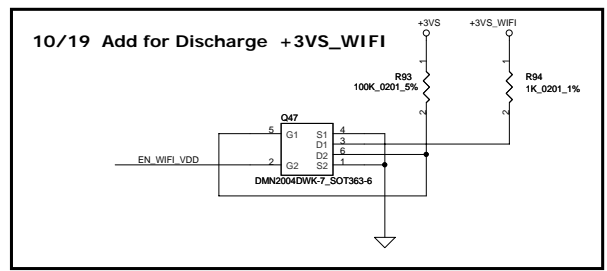
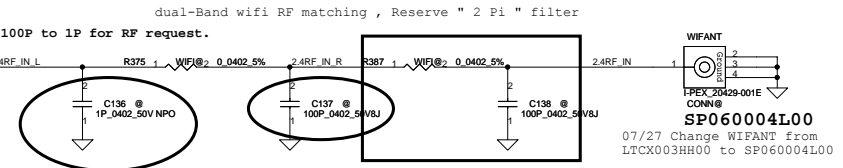
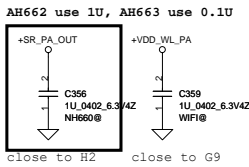
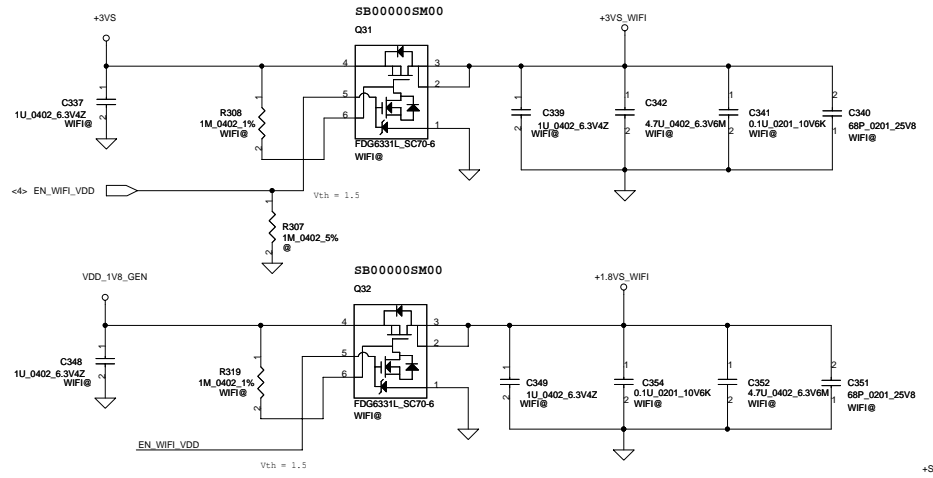
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| Size C | Document Number | SCHEMATIC MB A8022 | | Sheet 19 of 38 |
| Date: | Tuesday, July 10, 2012 | | | |

9/02 Modify C315 from GPS@ to @ for RF team request.
 9/10 Modify C315 from 1.8P to 2.2P for RF team request.
 9/14 Modify L38 from 6.2NH to 7.5P for RF team request.
 12/7 Modify L38 from 7.5P to 0 ohm for RF team request.
 12/7 Modify C315 from 2.2P to 5.1nH for RF team request.

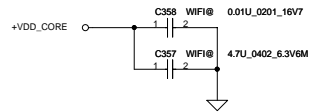
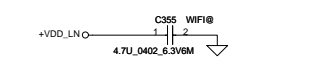
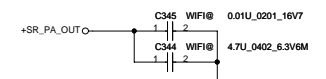


GPS POWER SOURCE

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| C | | | | B |
| Date: | Tuesday, July 10, 2012 | Sheet | 21 | of 38 |

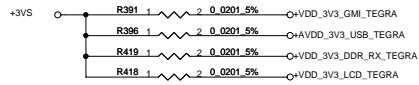
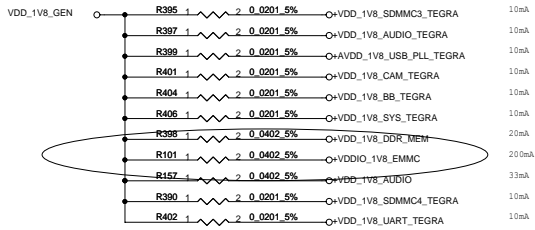


08/09 Add C387, C388, R272 for WFMCM_CLK
08/25 Modify C387 & C388 from mount to unmount

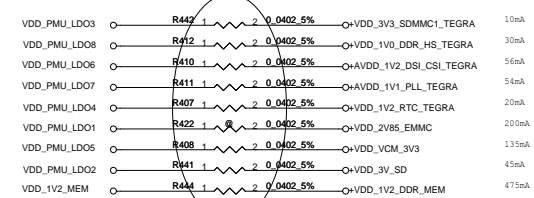


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| Size | Document Number | SHEET | | Rev |
| C | MB A8022 | 22 | | B |
| Date: | Tuesday, July 10, 2012 | Sheet | 22 | of 38 |

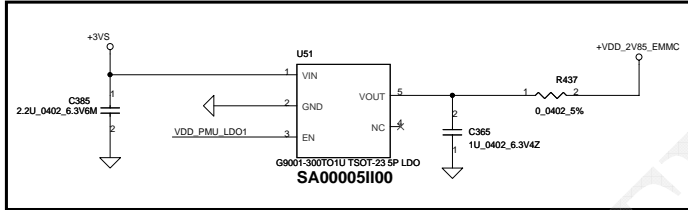
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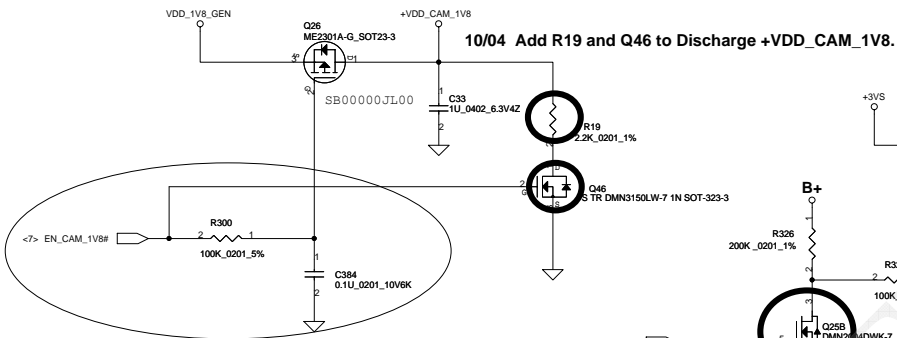
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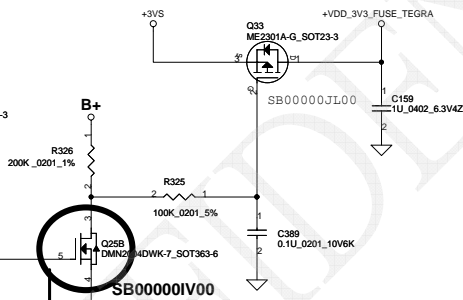
12/08 Add U51, C365 , C385 and R437 for EMMC drop issue.
 12/16 Modify U51, C365 , C385 and R437 from @ to mount.
 Must change to correct symbol&footprint



Q26 close to Camera Conn.

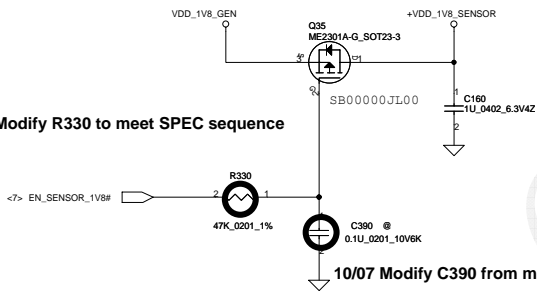


Q33 close to T30S



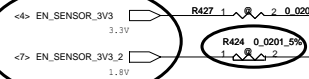
9/29 Modify Q25 from 2N7002KDW to DMN2004DWK-7

9/2 Modify R330 to meet SPEC sequence



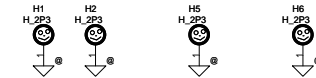
10/07 Modify C390 from mount to @.

9/27 Add EN_SENSOR_3V3_2 from U1.AA3
 9/29 Modify R424 from unmout to mount
 9/29 Modify R427 from mout to unmount

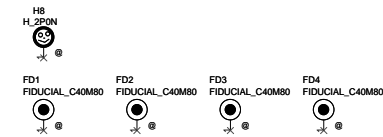


02/17 Change to 0201 shortpad

H_2P3 *6



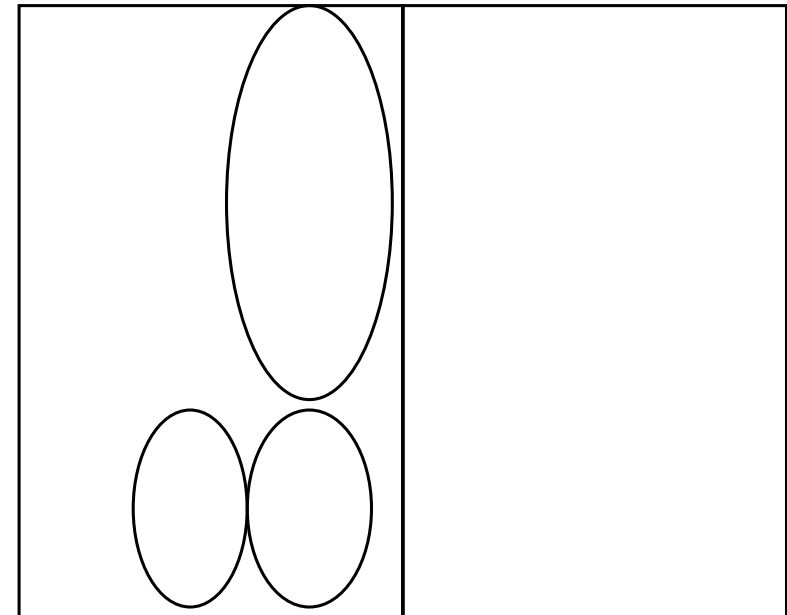
H_2PON *1



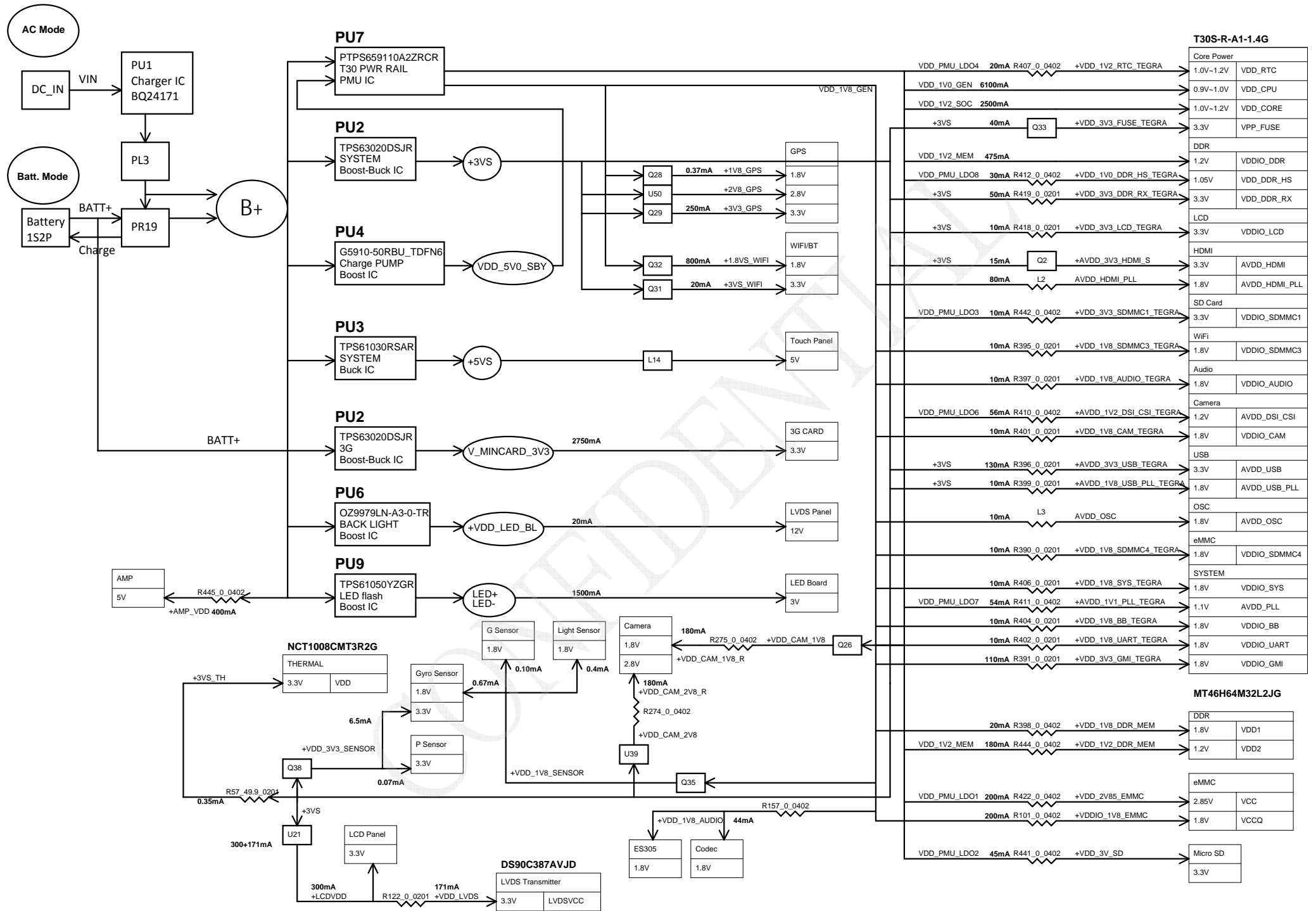
12/19 Del all CLIP for ME request.
 9/2 Add CLP22~CLP27
 9/2 Add CLP28, CLP29
 11/8 Del CLP22~CLP27 for ME request
 Clip type conn

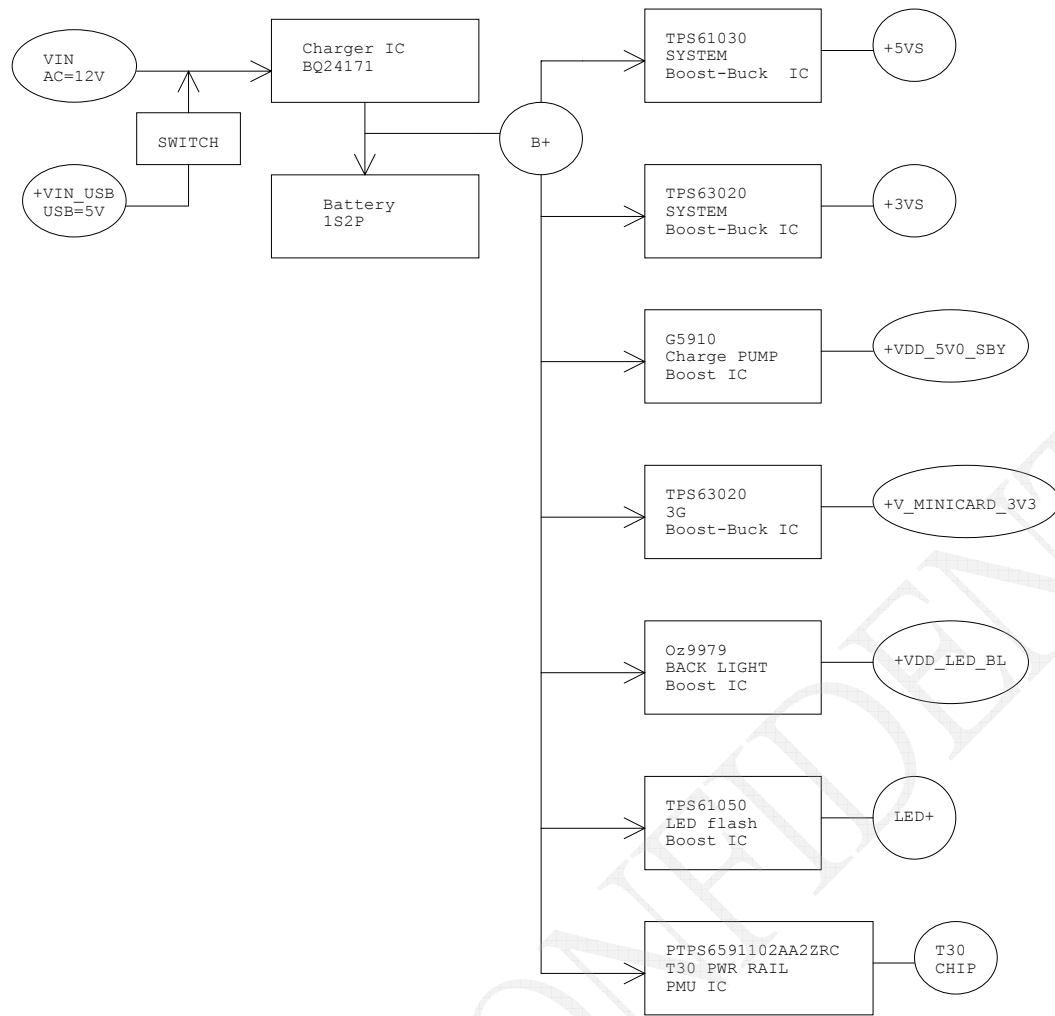
TOP

BOTTOM



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| Date: | Tuesday, July 10, 2012 | Sheet | 23 | of 38 |

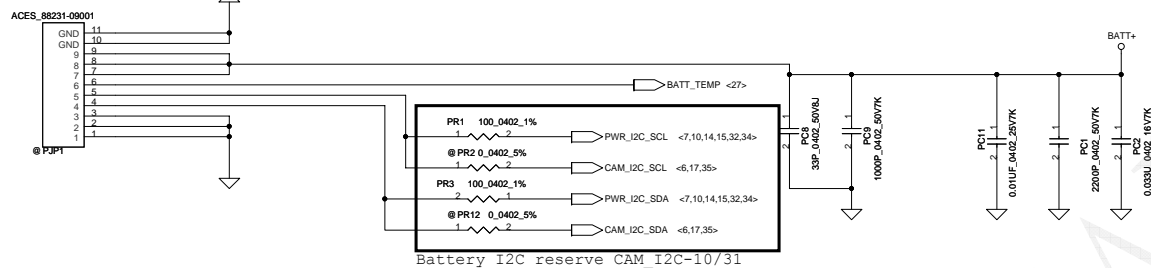




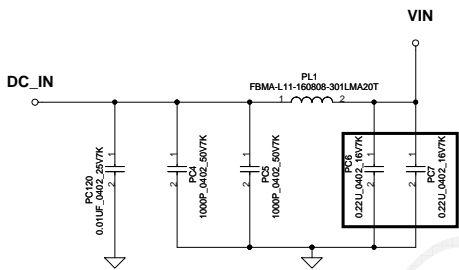
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| | | | | Date: | Tuesday, July 10, 2012 |
| | | | | Sheet | 25 of 38 |

SP02000V310



Battery I2C reserve CAM_I2C-10/31



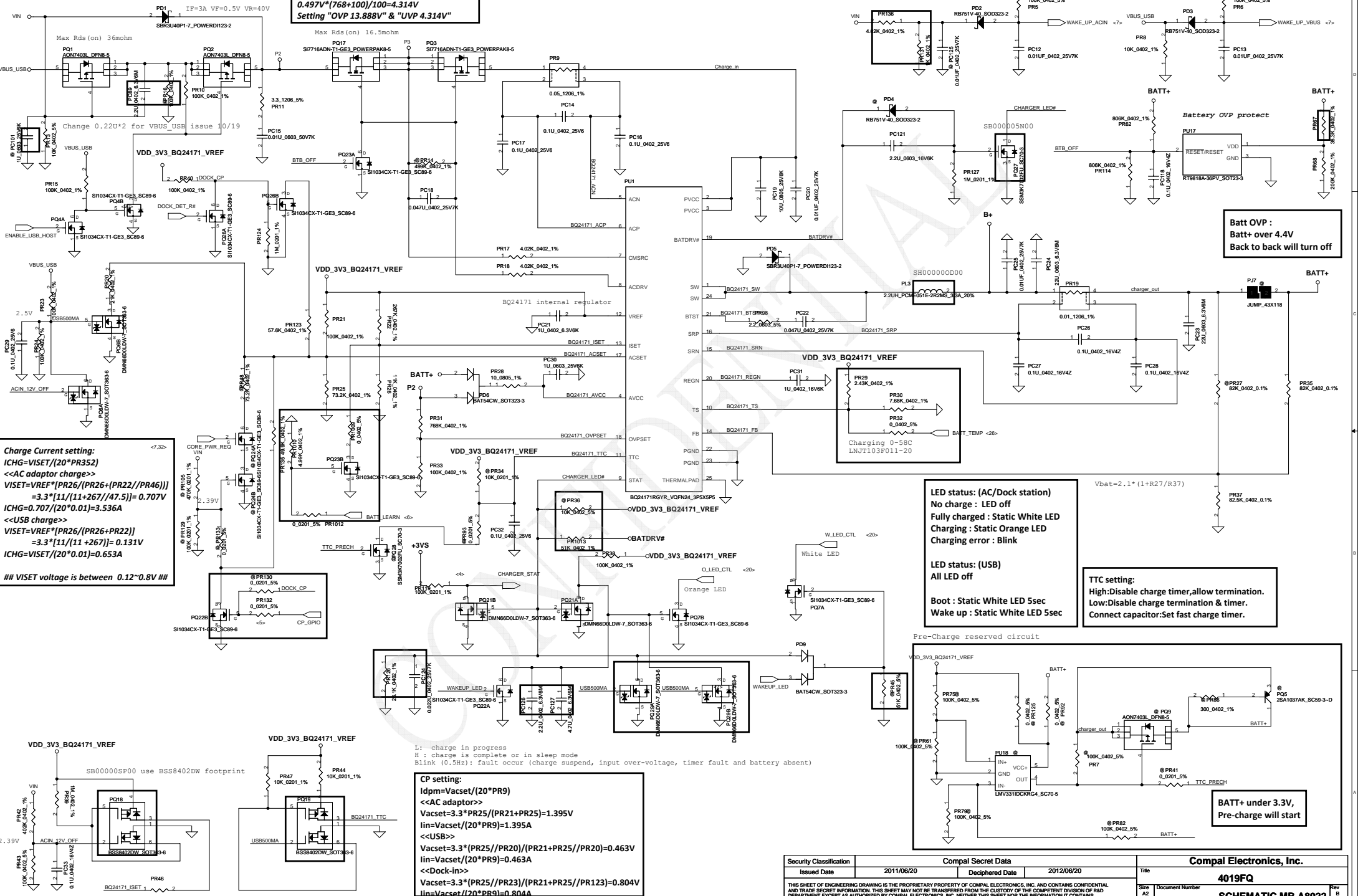
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| Size | C | Document Number | SCHMATIC MB A8022 | Rev |
| Date: | Tuesday, July 10, 2012 | Sheet | 26 | of 38 |

CHARGER BQ24171

OVP UVP Range setting:
##OVPSET voltage is between 0.497~1.6V ##
 $1.6V * (768+100) / 100 = 13.888V$
 $0.497V * (768+100) / 100 = 4.314V$
Setting "OVP 13.888V" & "UVP 4.314V"

AC Insert or remove --> Wake up T30S
 USB Insert or remove --> Wake up T30S
 SW to check if Acer USB --> Change charge current to 1A



Charge Current setting:
 $ICHG = VISET / (20 * PR352)$
 <<AC adaptor charge>>
 $VISET = VREF * [PR26 / (PR26 + (PR22 / PR46))]$
 $= 3.3 * [11 / (11 + 267) / 47.5] = 0.707V$
 $ICHG = 0.707 / (20 * 0.01) = 3.536A$
 <<USB charge>>
 $VISET = VREF * [PR26 / (PR26 + PR22)]$
 $= 3.3 * [11 / (11 + 267)] = 0.131V$
 $ICHG = VISET / (20 * 0.01) = 0.653A$
VISET voltage is between 0.12~0.8V

Batt OVP :
 Batt+ over 4.4V
 Back to back will turn off

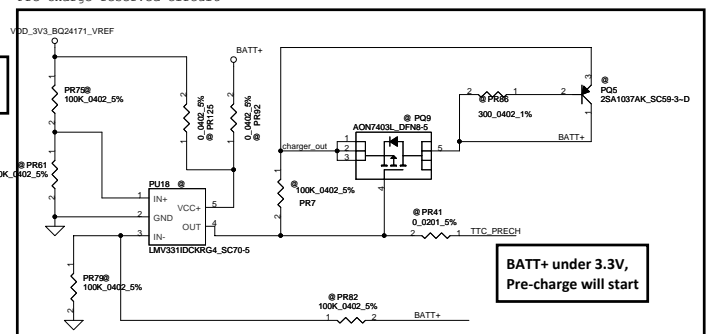
LED status: (AC/Dock station)
 No charge : LED off
 Fully charged : Static White LED
 Charging : Static Orange LED
 Charging error : Blink

LED status: (USB)
 All LED off
 Boot : Static White LED 5sec
 Wake up : Static White LED 5sec

TTC setting:
 High: Disable charge timer, allow termination.
 Low: Disable charge termination & timer.
 Connect capacitor: Set fast charge timer.

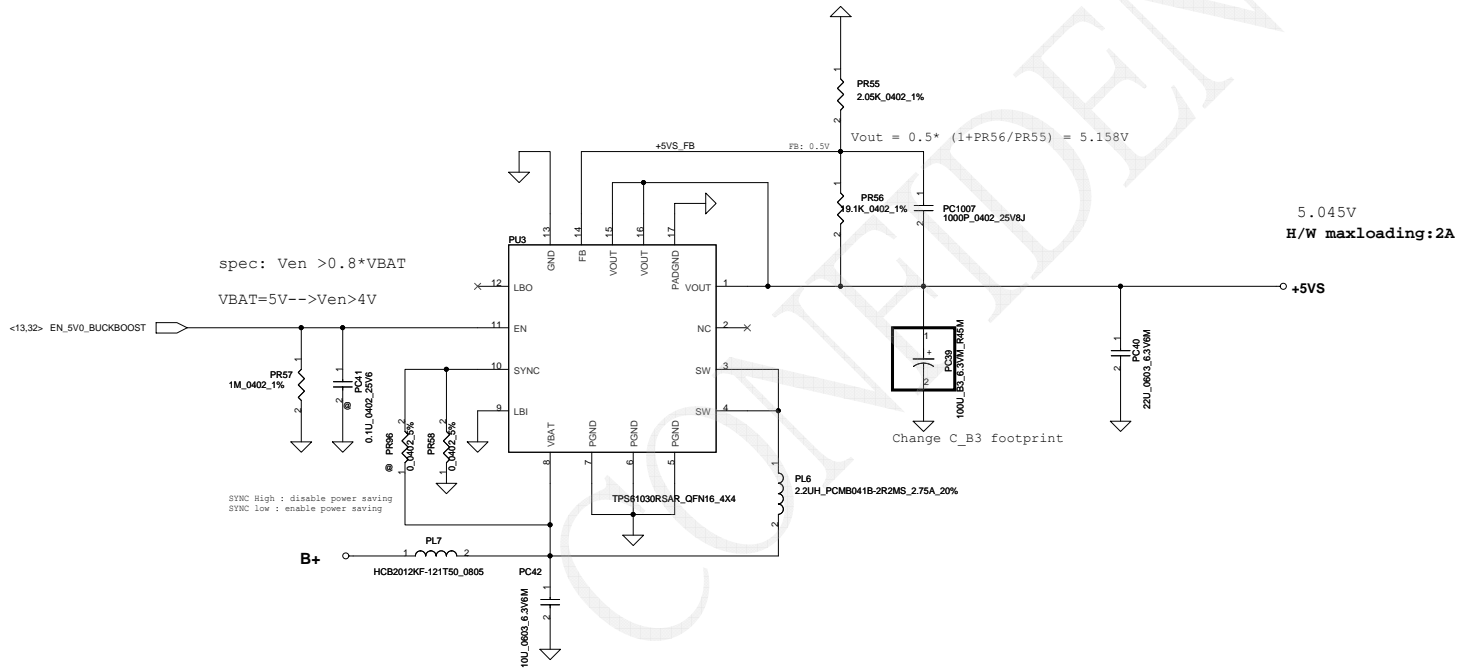
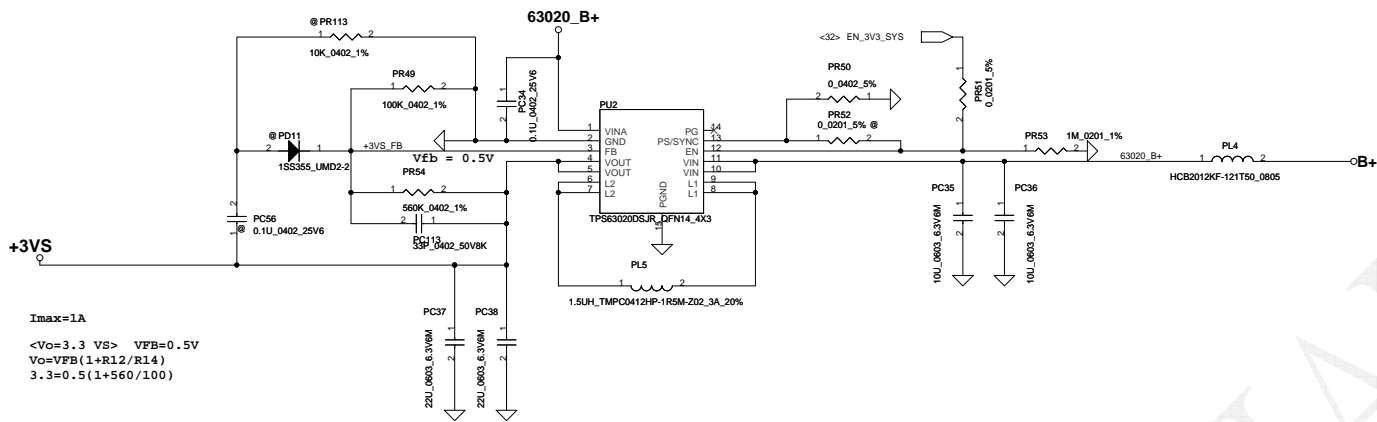
CP setting:
 $I_{dpm} = Vacset / (20 * PR9)$
 <<AC adaptor>>
 $Vacset = 3.3 * PR25 / (PR21 + PR25) = 1.395V$
 $I_{in} = Vacset / (20 * PR9) = 1.395A$
 <<USB>>
 $Vacset = 3.3 * PR25 / PR20 / (PR21 + PR25 / PR20) = 0.463V$
 $I_{in} = Vacset / (20 * PR9) = 0.463A$
 <<Dock-in>>
 $Vacset = 3.3 * (PR25 / PR23) / (PR21 + PR25 / PR123) = 0.804V$
 $I_{in} = Vacset / (20 * PR9) = 0.804A$

L : charge in progress
 H : charge is complete or in sleep mode
 Blink (0.5Hz): fault occur (charge suspend, input over-voltage, timer fault and battery absent)

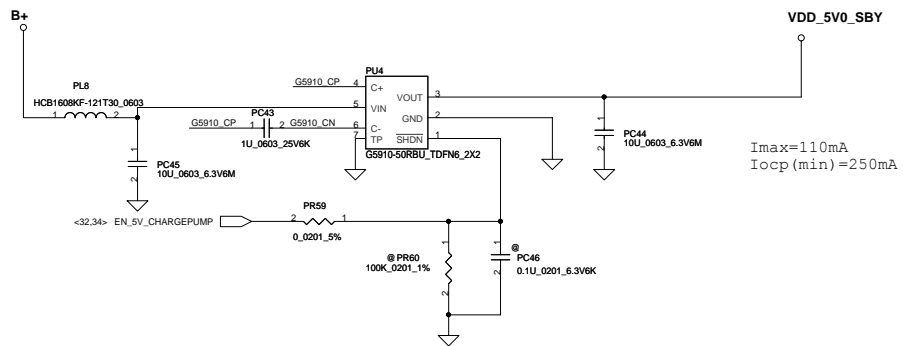


BATT+ under 3.3V,
 Pre-charge will start

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| Document Number: SCHEMATIC MB A8022 | | | Rev: 9 |
| Date: Tuesday, July 10, 2012 | | | ISheet: 27 of 38 |

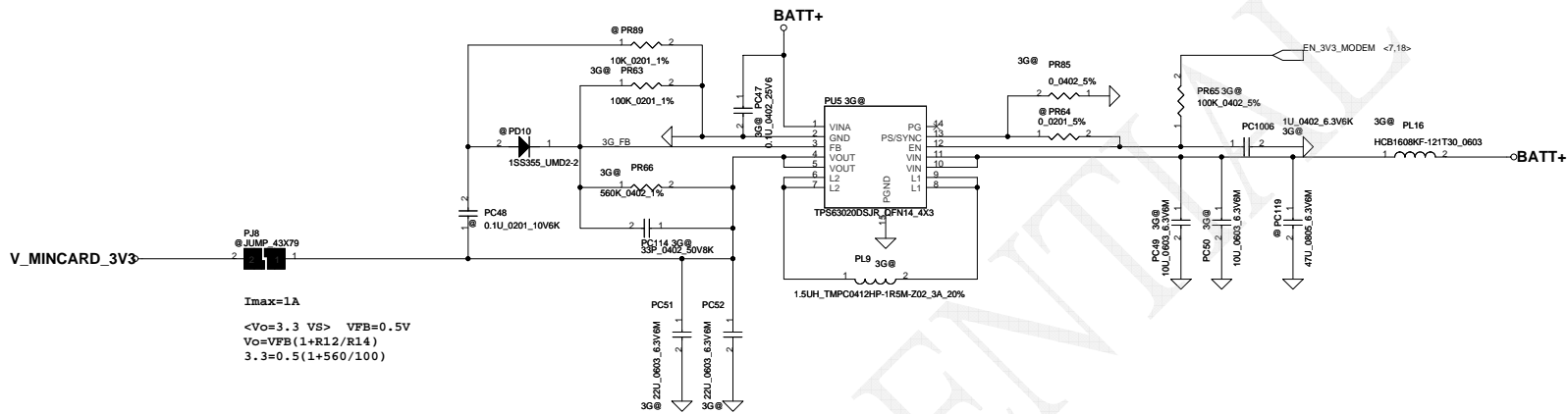


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| Date: | Tuesday, July 10, 2012 | Sheet | 28 | of 38 |



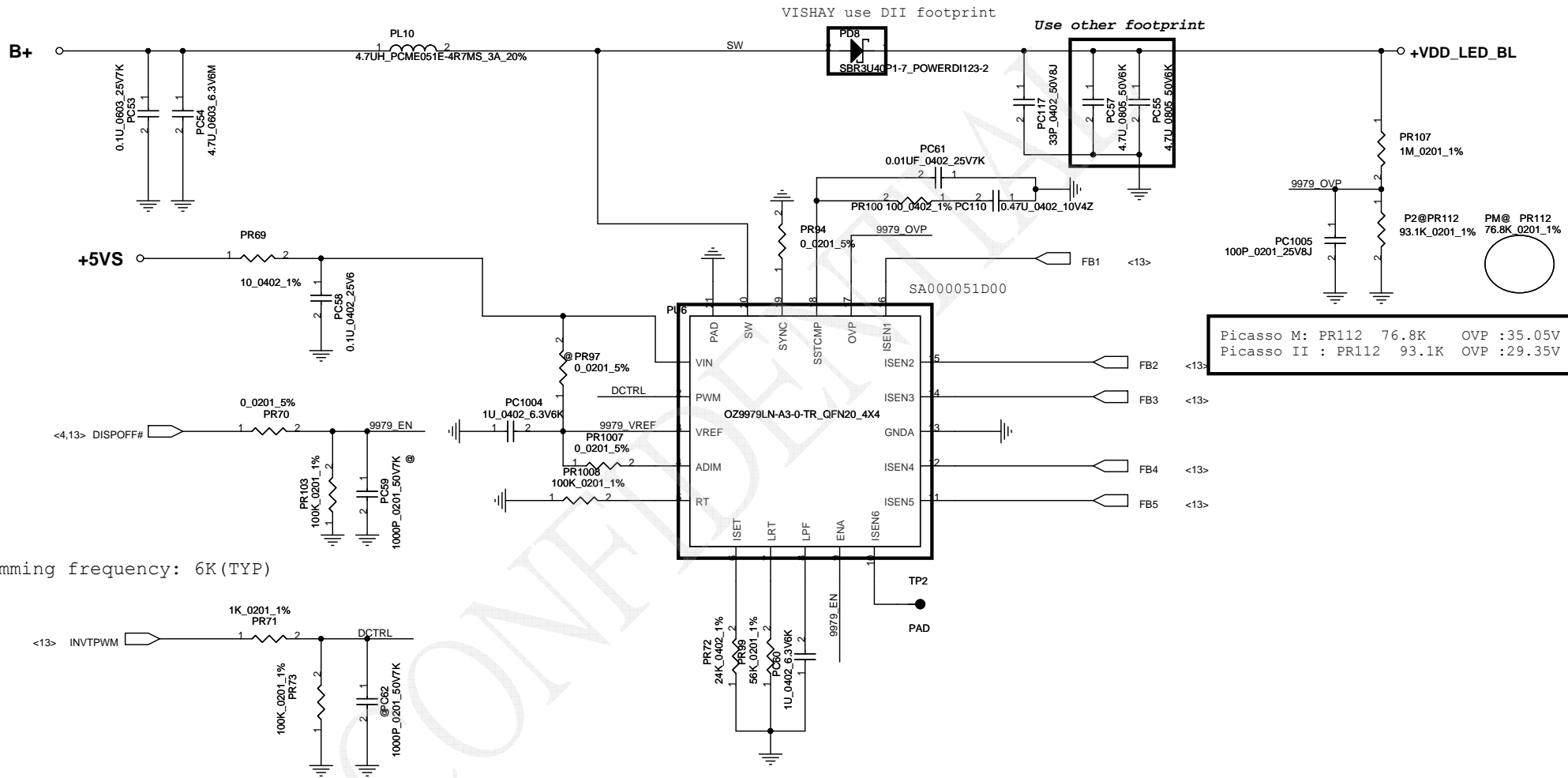
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| | C | SCHMATIC MB A8022 | B | |
| Date: | Tuesday, July 10, 2012 | Sheet | 29 of 38 | |



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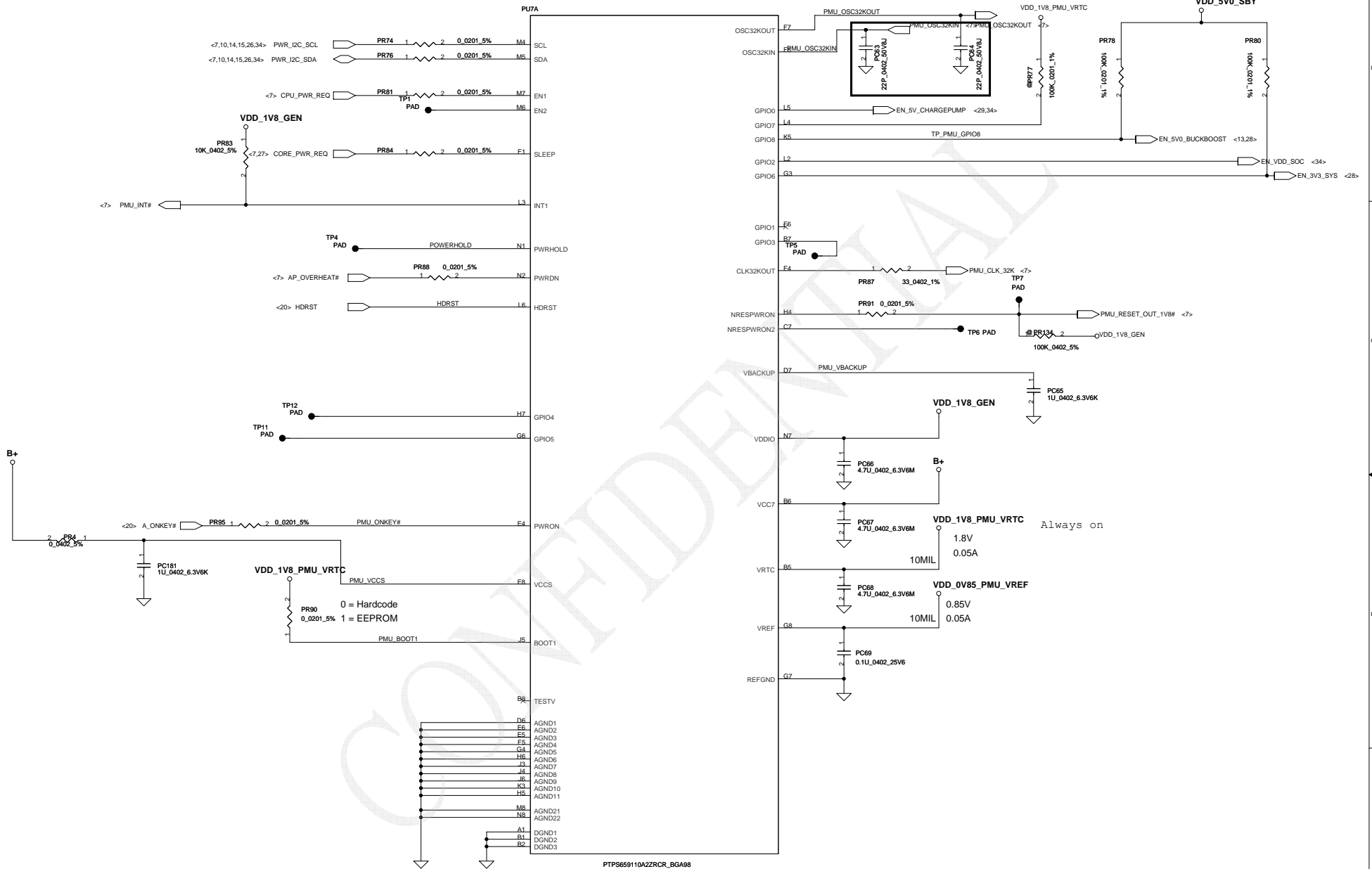
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| Size | C | Sheet | 30 | Rev B |
| | | | | of 38 |



PWM dimming frequency: 6K(TYP)

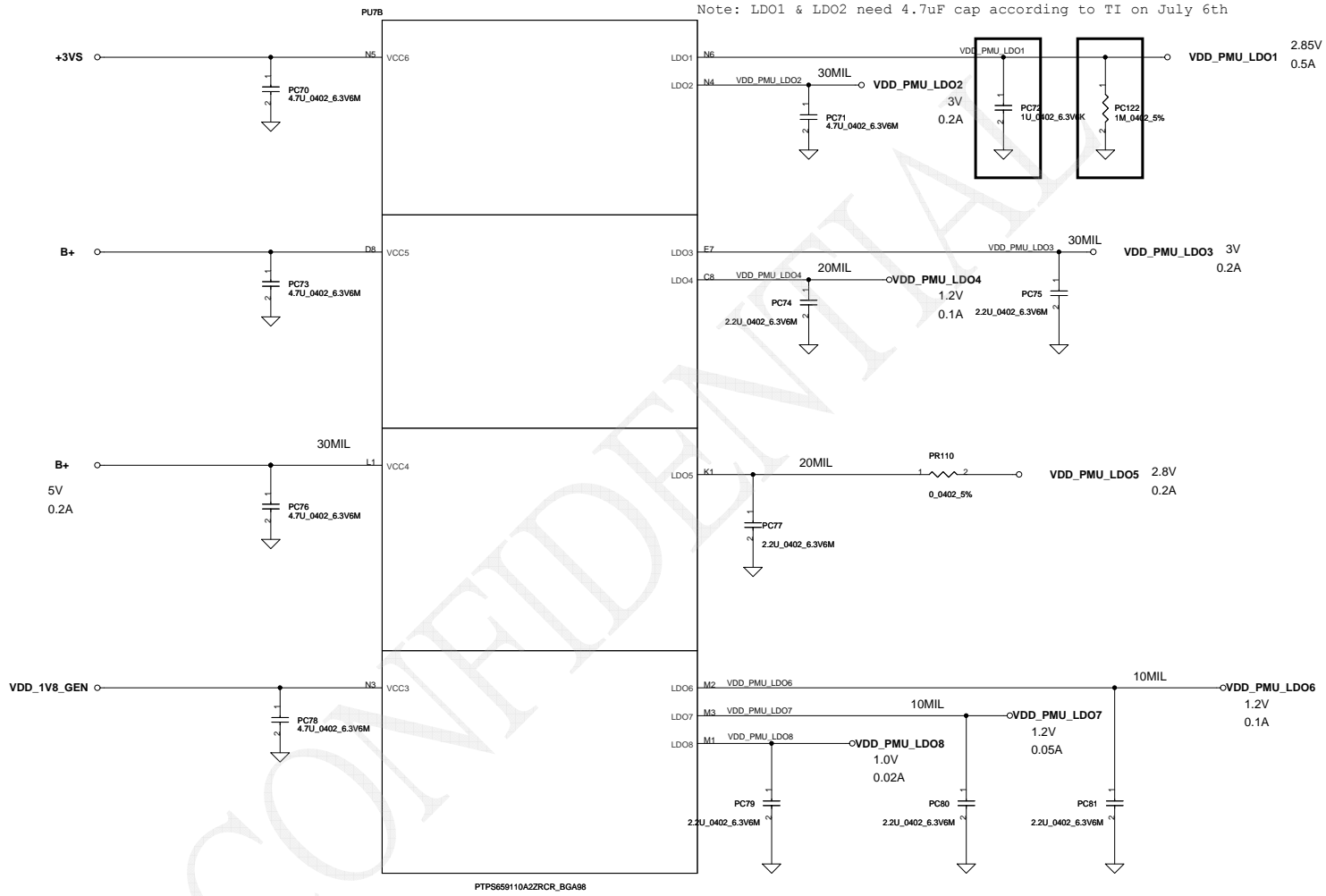
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| | | | | Size B | Document Number | Rev B |
| | | | | SCHEMATIC MB A8022 | | |
| | | | | Date: | Tuesday, July 10, 2012 | Sheet 31 of 38 |

Follow Acer circuit 6/22
 a. GP0: EN_5V_CP
 b. GP2: EN_5V0C
 c. GP6: EN_3V3_SYS
 d. GP7: EN_DDR (Optional on Cardhu 8 since we are using VDD2 for memory)
 e. GP8: EN_5V0



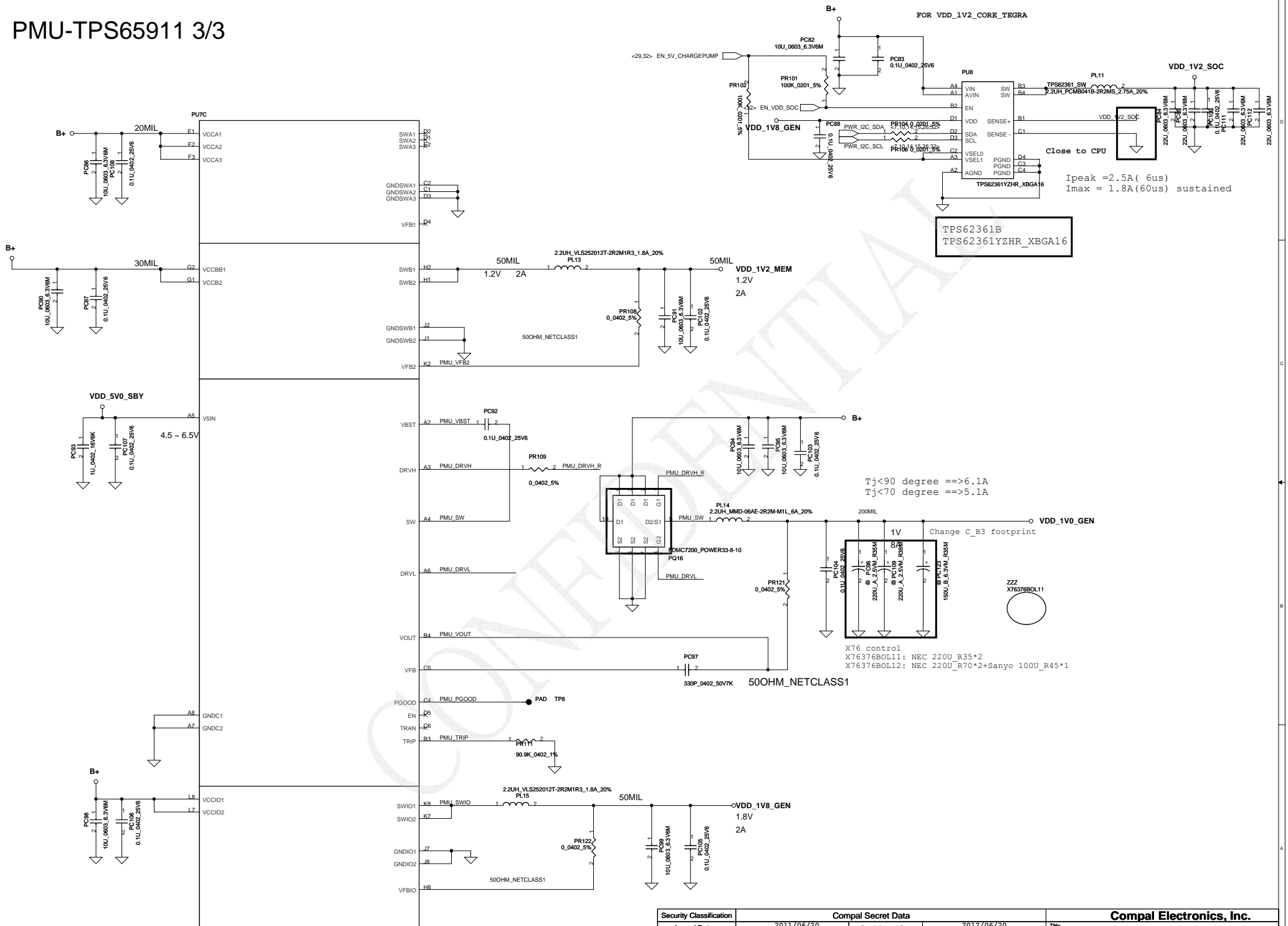
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| Size | C | Document Number | SCHMATIC MB A8022 | Rev |
| Date: | Tuesday, July 10, 2012 | Sheet | 32 | of 38 |

PMU-TPS65911 2/3



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| Size | C | Document Number | SCHMATIC MB A8022 | Rev |
| Date: | Tuesday, July 10, 2012 | Sheet | 33 | of 38 |

PMU-TPS65911 3/3

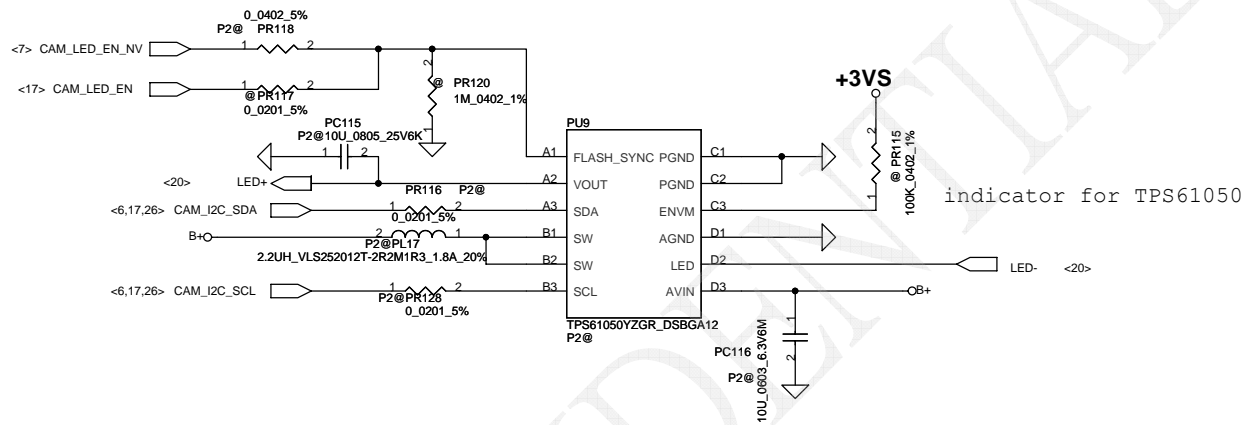


Ipeak = 2.5A (6us)
Imax = 1.8A (60us) sustained

Tj < 90 degree ==> 6.1A
Tj < 70 degree ==> 5.1A

X76 control
X76376BOL11: NEC 220U_R35*2
X76376BOL12: NEC 220U_R70*2+Sanyo 100U_R45*1

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| Size | C | Document Number | SCHMATIC MB A8022 | Rev |
| Date: | Tuesday, July 10, 2012 | Sheet | 34 | of 38 |



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| Size A3 | Document Number | SCHEMATIC MB A8022 | | Rev B |
| Date: | Tuesday, July 10, 2012 | Sheet | 35 of 38 | |

Version change list (P.I.R. List)

| Item | Fixed Issue | Reason for change | Rev. | PG# | Modify List | Date | Phase |
|------|--|---|------|----------|---|----------|----------------|
| 1 | Ripple un-stable | Loop stable for TPS63020 | 01 | 28 30 | change PL5, PL9 from PCMB041B-2R2MS 2.75A to PCMB041B-1R5MS 3A, | 20110806 | EVT (QAJ70) |
| 2 | | charger CP setting for adaptor protect | 02 | 26 | change PR9 form 0.01_1206_1% to 0.05_1206_1% change PR25 form 10K to 73.2K change PR20 form 3.83K to 21K Remove ACER USB setting circuit | 20110809 | DVT (QAJ50) |
| 3 | | Net name error | 02 | 35 | change net name from VDD_1V8_SYS to VDD_1V8_GEN | 20110809 | DVT (QAJ50) |
| 4 | | Material version change | 02 | 35 | change PQ16 from FDMC7200 2N POWER33-8 to FDMC7200S 2N POWER33-8 | 20110809 | DVT (QAJ50) |
| 5 | GPIO only support 1.8V | Use low Vth dual N TR | 02 | 26 | change PQ4,PQ6,PQ7,PQ21,PQ21 from DMN66D0LDW-7_SOT363 to SI1034CX | 20110809 | DVT (QAJ50) |
| 6 | | material change for common use | 02 | 26 | change PQ18 from BSS8402DW 1P/1N SOT363-6 to SI1553CDL-T1-GE3 1P/1N SC70-6 | 20110809 | DVT (QAJ50) |
| 7 | | No support Acer USB, delete related control circuit | 02 | 26 | Delete PQ19, PR40, PR44, PR47, PR41. | 20110809 | DVT (QAJ50) |
| 8 | Back-to-back MOS can't fully turn on | The BATDRV# pull low 1K will cause ACDRV abnormal | 02 | 26 | Change PR16, PR12, PD4 to reserve | 20110809 | DVT (QAJ50) |
| 9 | Charger will terminate | The TTC pull high 100K will cause wrong voltage level | 02 | 26 | Change PR34 from 100K to 10K | 20110809 | DVT (QAJ50) |
| 10 | Orange LED can't turn off | STAT pull high 100K can't drive TR | 02 | 26 | Change PR36 from 100K to 10Kohm | 20110809 | DVT (QAJ50) |
| 11 | | Modify Battery OVP circuit to avoid AC turn off when Battery over discharge | 02 | 26 | Add PC118, PR144,PQ23. Delete PD7 | 20110809 | DVT (QAJ50) |
| 12 | Pre-charge circuit can't work normally | Modify Pre-charge circuit | 02 | 26 | Change PR86,PR92,PR93 to PNP 2SA1037K | 20110816 | DVT (QAJ50) |
| 13 | Sub/B +5VS will drop to under 4.75V | Modify +5VS voltage setting to 5.15V | 02 | 28 | Change PU3 to TPS61030, PR56 to 19.1K, PR55 to 2.05K | 20110824 | DVT (QAJ50) |
| 14 | | TPS63020 add 33P on feedback resistor for loop stable | 02 | 28 30 | Add PC113, PC114 33P | 20110824 | DVT (QAJ50) |
| 15 | | V_MINCARD_3V3 sequence | 02 | 30 | Change PR65 from 1M_0402_1% to 100K_0402_1% Add PC1006 1U_0402_6.3V6K | 20110824 | DVT (QAJ70) |
| 16 | | modify crystal cap | 02 | 32 | Change PC63, PC64 from 12P_0402_50V8J to 22P_0402_50V8J | 20110825 | DVT (QAJ70) |
| 17 | | Add LED control circuit for wake up/boot define | 02 | 26 | Add PQ22 to turn off O_LED | 20110825 | DVT (QAJ70) |

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| Size | Document Number | SHEMATIC MB A8022 | | Rev B |
| Date: | Tuesday, July 10, 2012 | Sheet | 36 | of 38 |

Version change list (P.I.R. List)

| Item | Fixed Issue | Reason for change | Rev. | PG# | Modify List | Date | Phase |
|------|--------------|--|------|-------|---|----------|-----------------|
| 1 | | Add for pre-charge and fast charge timeout | 02 | 27 | Add PQ19 ,PR44,PR47 | 20110826 | DVT (QAJ70) |
| 2 | | BOM control | 02 | 27,31 | Modify PD1, PD5, PD8 from SS3P4-M3-84A_SMP2 to SBR3U40P1 | 20110826 | DVT (QAJ70) |
| 3 | | footprint control | 02 | 34,35 | Modify PL13, PL15, PL17 footprint to TOKO_1239AS-H-2R2N-P2_2P | 20110826 | DVT (QAJ70) |
| 4 | | Change CP setting for adaptor protect | 02 | 27 | Add PQ23 | 20110826 | DVT (QAJ70) |
| 5 | | Add VDD_1V0_GEN and VDD_1V8_GEN Fb resistor for test request | 02 | 34 | Add PR121, PR122 | 20110826 | DVT (QAJ70) |
| 6 | | EMI request | 03 | 27 | Change PL1 to 300ohm bead, add PC120, PR11, PC15, PC20, PR98, PC1,PC2 for EMI request | 20110920 | DVT2 (QAJ50) |
| 7 | | Cancel the function | 03 | 27 | Delete PR12, PR16, PD4 | 20110920 | DVT2 (QAJ50) |
| 8 | | Reserve the CP control for thermal improve | 03 | 27 | Add PR48, PQ24 for reserve | 20110920 | DVT2 (QAJ50) |
| 9 | | Dock in CP setting | 03 | 27 | Add PQ26 PR93 PR96 PR124 PR123 PR40 | 20110920 | DVT2 (QAJ50) |
| 10 | | Solve White LED flash issue when AC plug in | 03 | 27 | Add PD4,PC121,PR126,PR127,PQ27 | 20110920 | DVT2 (QAJ50) |
| 11 | | Battery OTP change to 55C | 03 | 27 | Change PR29 to 2.74K, PR30 to 8.87K | 20110920 | DVT2 (QAJ50) |
| 12 | | remove pre-charge function | 03 | | Reserved PU18, PQ9, PR7, PR61, PR79, PR86, PR41 | 20111006 | DVT2 (QAJ50) |
| 13 | | solve leakage current | 03 | 27,31 | Change PD1,PD5,PD8 from SBR3U40 to SS3P4; PR62, PR114 to 806K | 20111006 | DVT2 (QAJ50) |
| 14 | | Thermal over temperature | 04 | 28 | Change PC39 to 100U_B3_6.3VM_R45 | 20111027 | DVT2 (QAJ70) |
| 15 | VBUS leakage | PQ1 will turn on when AC plug out | 04 | 26,27 | Change PC6, PC7 to 0.22U. Add PC89 2.2U | 20111027 | PVT (QAJ50) |
| 16 | | OTP change to 58C | 04 | 27 | Change PR29 to 2.43K, PR30 to 7.68K | 20111027 | PVT (QAJ50) |
| 17 | | Modify battery OVP to 4.4V | 04 | 27 | Change PR67 to 38.3K | 20111105 | PVT (QAJ50) |

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| Size | Document Number | SHEMATIC MB A8022 | | Rev B |
| Custom | Date: Tuesday, July 10, 2012 | | | Sheet 37 of 38 |

Version change list (P.I.R. List)

| Item | Fixed Issue | Reason for change | Rev. | PG# | Modify List | Date | Phase |
|------|---------------------------------------|---|------|-----|---|----------|----------------|
| 1 | | Turn off charge LED when USB in | 04 | 27 | Add PQ29, PC126, PC127 | 20111210 | PVT (QAJ50) |
| 2 | White LED can't light when power on | Don't need the component | 04 | 27 | Change PR45 to reserve | 20111210 | PVT (QAJ50) |
| 3 | | Adjust CP setting when power on for thermal issue | 04 | 27 | Add PQ22, PR132, PR135 | 20111210 | PVT (QAJ50) |
| 4 | Battery can't be charged when dock in | Modify the battery capacity control for EN_USB_HOST to BATT_LEARN | 04 | 27 | Add PR1012, change P135 to 4.99K | 20111210 | PVT (QAJ50) |
| 5 | T30S WAKE_UP_ACIN damage | Avoid WAKE_UP_ACIN in-rush voltage | 04 | 27 | Add PR136, PR131 | 20111210 | PVT (QAJ50) |
| 6 | | Modify charge output voltage to improve battery capacity | 04 | 27 | Change PR35 to 82K and PR31 to 82.5K | 20111210 | PVT (QAJ50) |
| 7 | | Avoid white LED will flash 1s when AC/USB plug in/out | 04 | 27 | Change PD4 to reserve, Add PR1013, PR126, PC124 | 20111210 | PVT (QAJ50) |
| 8 | | Modify crystal cap value | 04 | 32 | Change PC63, PC64 to 22P | 20111210 | PVT (QAJ50) |
| 9 | EMMC voltage drop | PMIC LDO1 compensation | 04 | 33 | Change PC72 to 1U | 20111210 | PVT (QAJ50) |
| 10 | | Avoid EMMC external LDO floating | 04 | 33 | Add PC122 1M | 20111219 | PVT (QAJ50) |
| 11 | | | | | | | |
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| | | | | Date: | Tuesday, July 10, 2012 |
| | | | | Sheet | 38 of 38 |
| | | | | Rev | B |