

# Compal Confidential

Buffalo 10BL

## LA-5122P Schematics Document

Intel Pine View Processor/ Tiger point

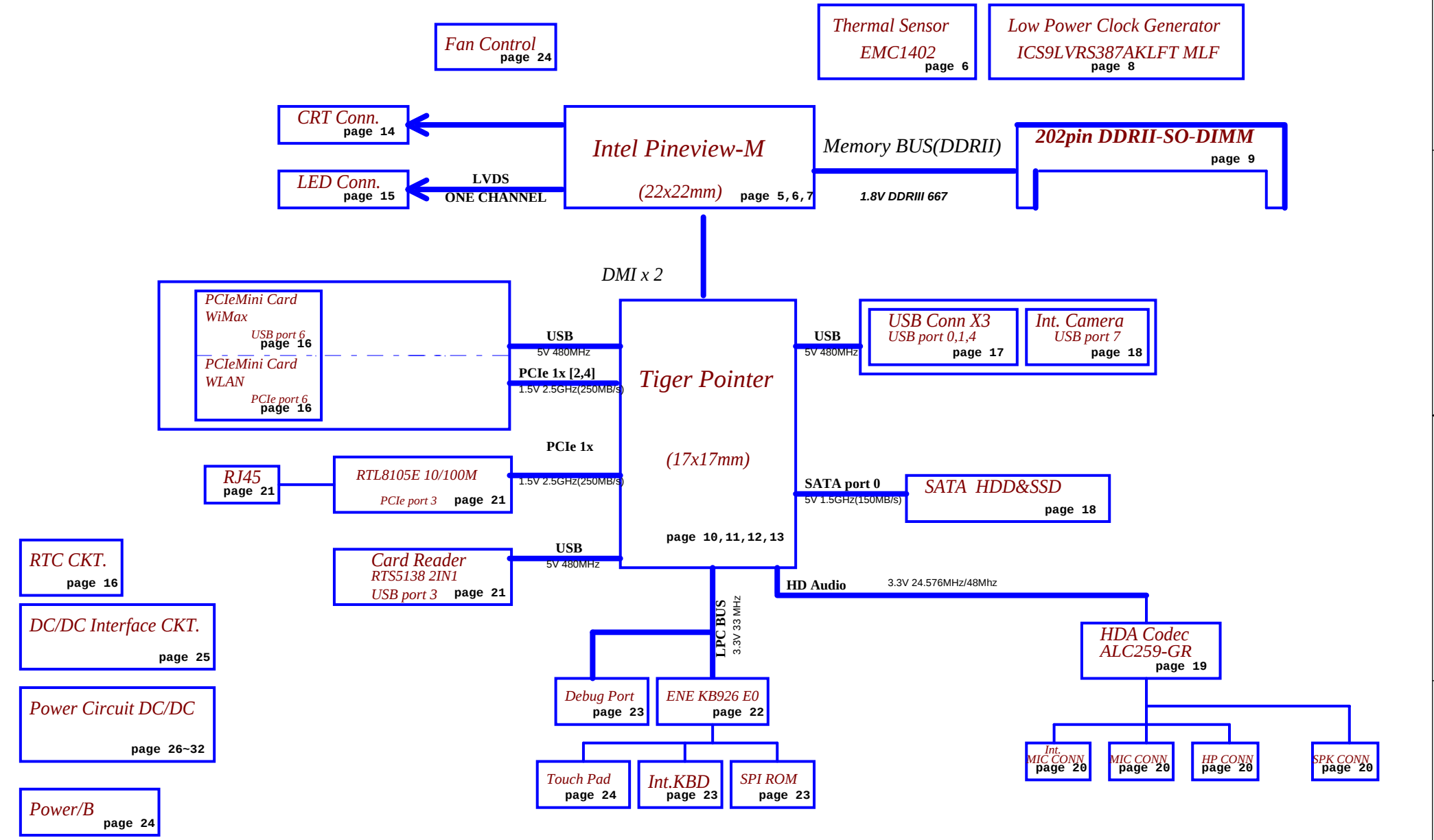
2010-03-30

REV: 1.0

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| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |            | Compal Electronics, Inc. |                            |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/04/07 | Deciphered Date    | 2012/10/21 | Title                    | SCHEMATICS , MB A5122      |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Date                     | Monday, September 20, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Sheet                    | 1 of 38                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Rev                      | C                          |

Compal Confidential

Model Name : PAV10  
File Name : LA-5122P



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            |                          |                            |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            |                          | 401897                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Date                     | Monday, September 20, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Sheet                    | 2 of 38                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Rev                      | C                          |

Voltage Rails

| Power Plane | Description                                  | S1 | S3  | S5  | G3  |
|-------------|----------------------------------------------|----|-----|-----|-----|
| VIN         | Adapter power supply (19V)                   | ON | ON  | ON  | OFF |
| B+          | AC or battery power rail for power circuit.  | ON | ON  | ON  | ON  |
| +CPU_CORE   | Core voltage for CPU                         | ON | OFF | OFF | OFF |
| +0.89VS     | 0.89VS GFX support voltage                   | ON | OFF | OFF | OFF |
| +0.75VS     | 0.75V switched power rail for DDR terminator | ON | OFF | OFF | OFF |
| +1.05VS     | VCCP switched power rail                     | ON | OFF | OFF | OFF |
| +1.5VS      | 1.5V switched power rail                     | ON | OFF | OFF | OFF |
| +1.5V       | 1.5V power rail for DDR                      | ON | ON  | OFF | OFF |
| +1.8VS      | 1.8VS switched power rail                    | ON | OFF | OFF | OFF |
| +3VALW      | 3.3V always on power rail                    | ON | ON  | ON  | OFF |
| +3V_SB      | 3.3V power rail for LAN                      | ON | ON  | OFF | OFF |
| +3V_LAN     | 3.3V power rail for LAN                      | ON | ON  | OFF | OFF |
| +3V_WLAN    | 3.3V power rail for LAN                      | ON | ON  | OFF | OFF |
| +3VS        | 3.3V switched power rail                     | ON | ON  | OFF | OFF |
| +5VALW      | 5V always on power rail                      | ON | OFF | ON  | OFF |
| +5V_SB      | 5V power rail for SB                         | ON | ON  | OFF | OFF |
| +5VS        | 5V switched power rail                       | ON | OFF | OFF | ON  |
| +VSB        | VSB always on power rail                     | ON | ON  | ON  | OFF |
| +RTCVCC     | RTC power                                    | ON | ON  | ON  | OFF |
|             |                                              |    |     |     |     |

Note : ON\* means that this power plane is ON only with AC power available, otherwise it is OFF.

| STATE \ SIGNAL       | SLP_S3# | SLP_S4# | SLP_S5# | +VALW | +V  | +VS | Clock |
|----------------------|---------|---------|---------|-------|-----|-----|-------|
| Full ON              | HIGH    | HIGH    | HIGH    | ON    | ON  | ON  | ON    |
| S1(Power On Suspend) | HIGH    | HIGH    | HIGH    | ON    | ON  | ON  | LOW   |
| S3 (Suspend to RAM)  | LOW     | HIGH    | HIGH    | ON    | ON  | OFF | OFF   |
| S4 (Suspend to Disk) | LOW     | LOW     | HIGH    | ON    | OFF | OFF | OFF   |
| S5 (Soft OFF)        | LOW     | LOW     | LOW     | ON    | OFF | OFF | OFF   |

BTO Option Table

| Function    | Mini PCI-E SLOT |        |        |     | CAMERA & MIC |      | BLUE TOOTH | STAR         | shor 0 ohm   |
|-------------|-----------------|--------|--------|-----|--------------|------|------------|--------------|--------------|
| description |                 |        |        |     |              |      |            |              |              |
| explain     | Wi-Fi           | WiMax  | 3GGPS  | 3G  | CAMERA       | MIC  | BLUE TOOTH | POWER SAVING | 0 ohm no pop |
| BTO         | WLAN@           | WIMAX@ | 3GGPS@ | 3G@ | CAM@         | MIC@ | BT@        | STAR@        | MP@          |

| Function    | CPU     |  |  |
|-------------|---------|--|--|
| description |         |  |  |
| explain     | MP CPU  |  |  |
| BTO         | MP_455@ |  |  |

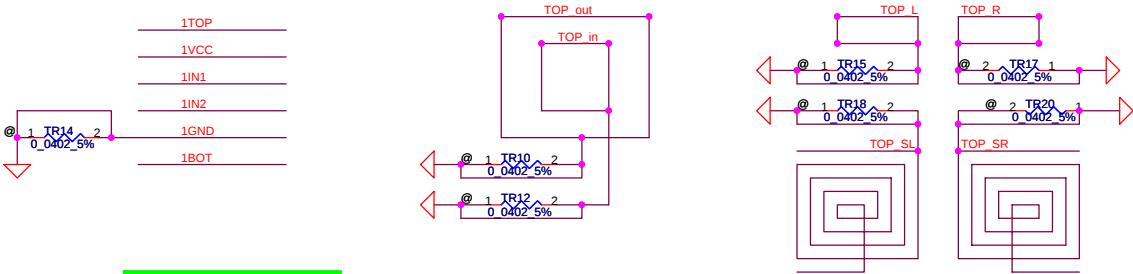
EC SM Bus1 address

| Device        | Address     | Device  | Address     |
|---------------|-------------|---------|-------------|
| Smart Battery | 0001 011X b | EMC1402 | 1001 010X b |

EC SM Bus2 address

ICH7M SM Bus address

| Device                        | Address    |
|-------------------------------|------------|
| Clock Generator (SLG8SP56VTR) | 1101 001Xb |
| DDR DIMMA                     | 1010 000Xb |



3/23~3/30 Before PVT SMT

4/13~4/21 after PVT SMT

4/16 Short PAD

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Sheet                    | 3 of 38                    |

# Buffalo Power Map

B+

DESIGN CURRENT 250mA



SN0806081RHBR

Ipeak=5A, Imax=3.5A, Iocp min=5.2A

\*\* The SW just is reserved.  
The power passes by jump or  
0-ohm resistor.

SBPWR\_EN#

DESIGN CURRENT 508mA

+3VALWP +-5%

\*\* SI3456BDV

DESIGN CURRENT 45mA

+3V\_SB

WOL\_EN#

\*\* P-CHANNEL  
AO-3413

DESIGN CURRENT 3010mA

+3V\_LAN

Ipeak=5A, Imax=3.5A, Iocp min=5.08A

+5VALWP +-5%

SBPWR\_EN#

\*\* 2N7002DW

DESIGN CURRENT 10mA

+5V\_SB

SUSP

N-CHANNEL

SI4800

DESIGN CURRENT 2851mA

+5VS

SUSP

N-CHANNEL

SI4800

DESIGN CURRENT 9314mA

+3VS

ENVDD

P-CHANNEL  
AO-3413

DESIGN CURRENT 450mA

+LCD\_VDD

SUSP#

SY8033BDBC

DESIGN CURRENT 2600mA

+0.89VSP

SUSP#

TPS51117RGYR

Ipeak=6A, Imax=4.2A, Iocp min=7.18A

DESIGN CURRENT 7301mA

+1.05VSP +-5%

VR\_ON

ISL6261ACRZ - T

DESIGN CURRENT 3127mA

+CPU\_CORE

SYSON

RT8209BGQW

Ipeak=5A, Imax=3.5A, Iocp min=5.8A

DESIGN CURRENT 1720mA

+1.5VP +-5%

SUSP#

IREF8113PBF

DESIGN CURRENT 2500mA

+1.5VSP

SUSP

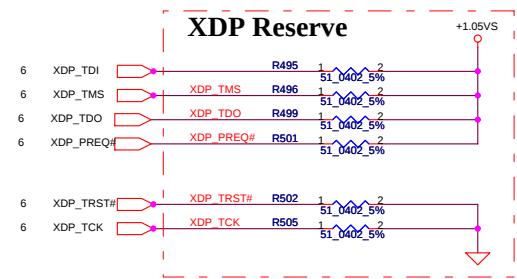
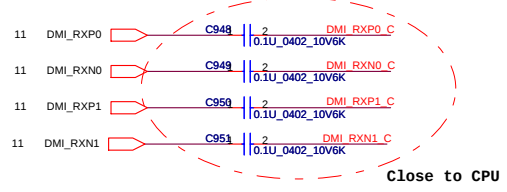
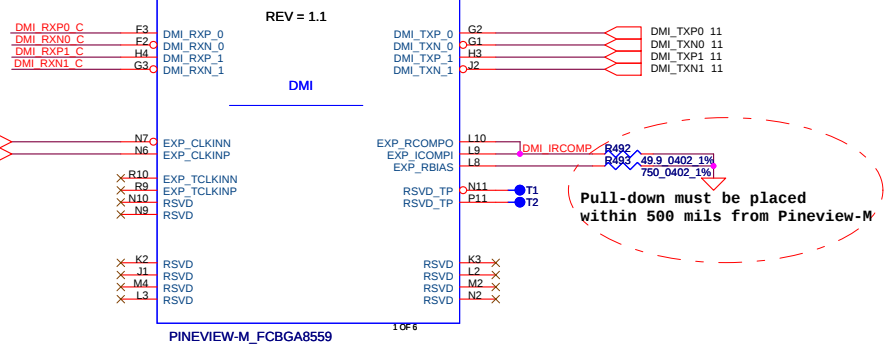
APL5331KAC

DESIGN CURRENT 900mA

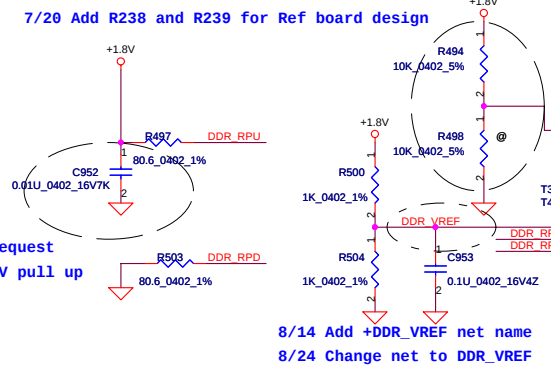
+0.75VSP

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |            |                          |                            |               |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |            | Date:                    | Monday, September 20, 2010 | Sheet 4 of 38 |

4/23 U1 , CPU change p/n by Jordan command: SA00003WA00->SA00003WAA0

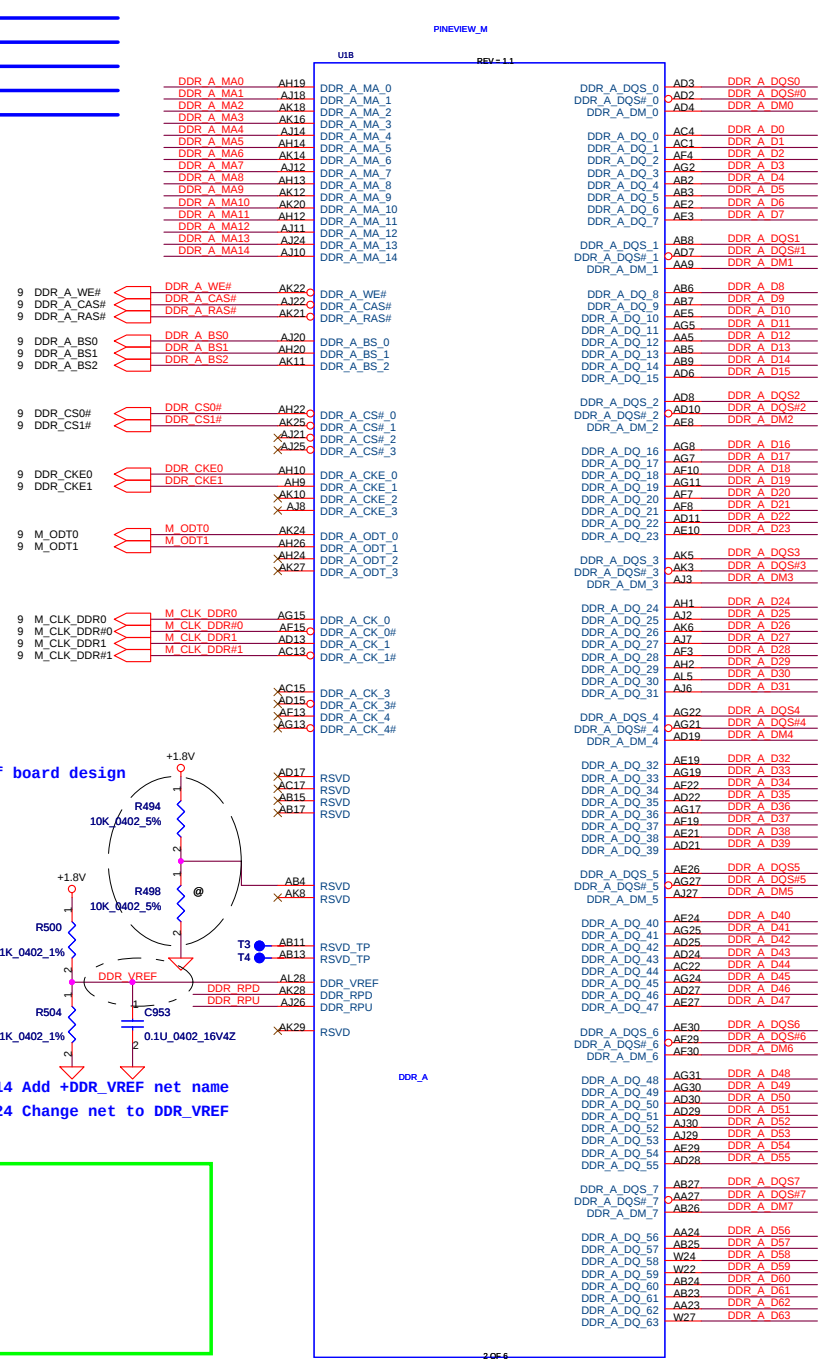


3/23 remove XDP connector  
3/23 R506, R507, R508, JXDP1 removed

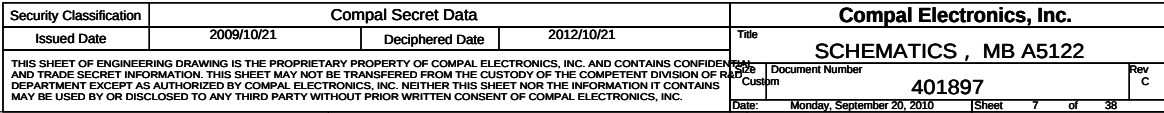


3/23 D45, D46 removed

Place diff CPU side  
10/19 Change footprint T5, T6 and T7 from TPC24 to TPC12

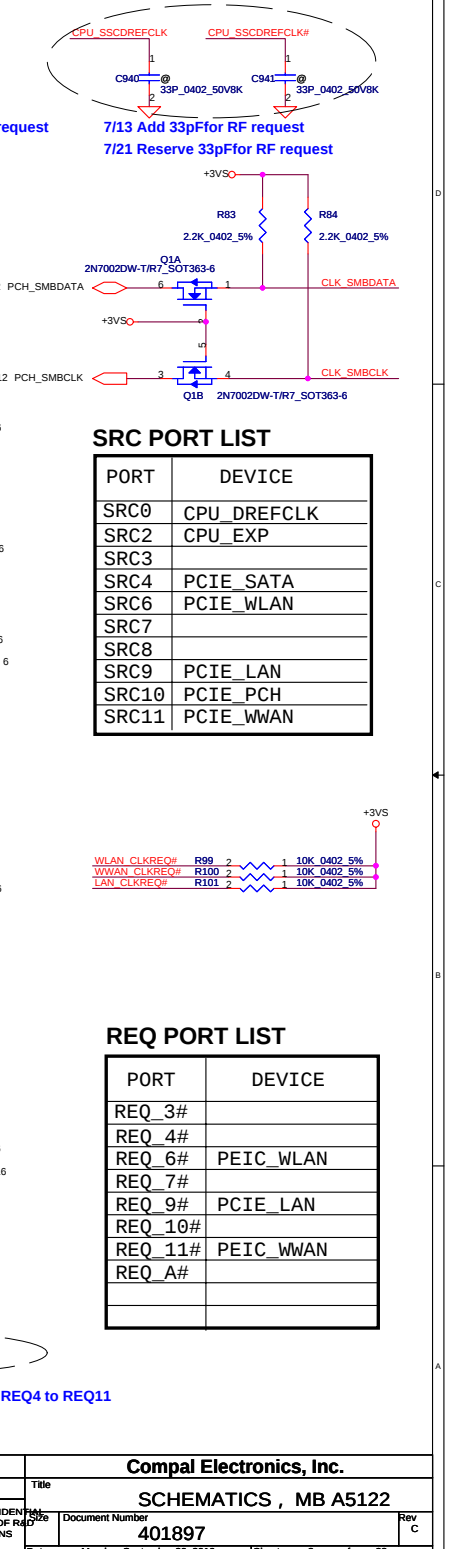
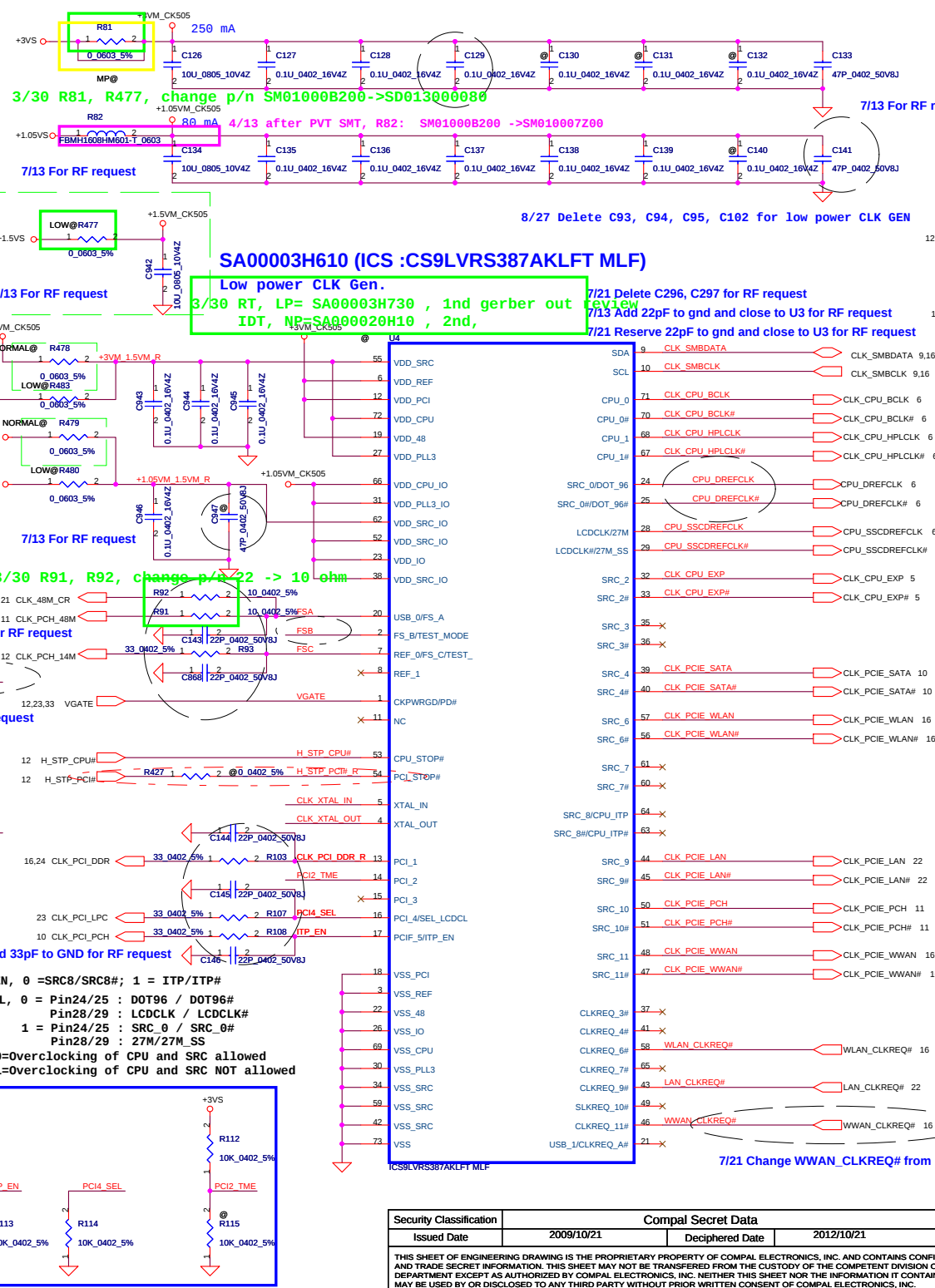
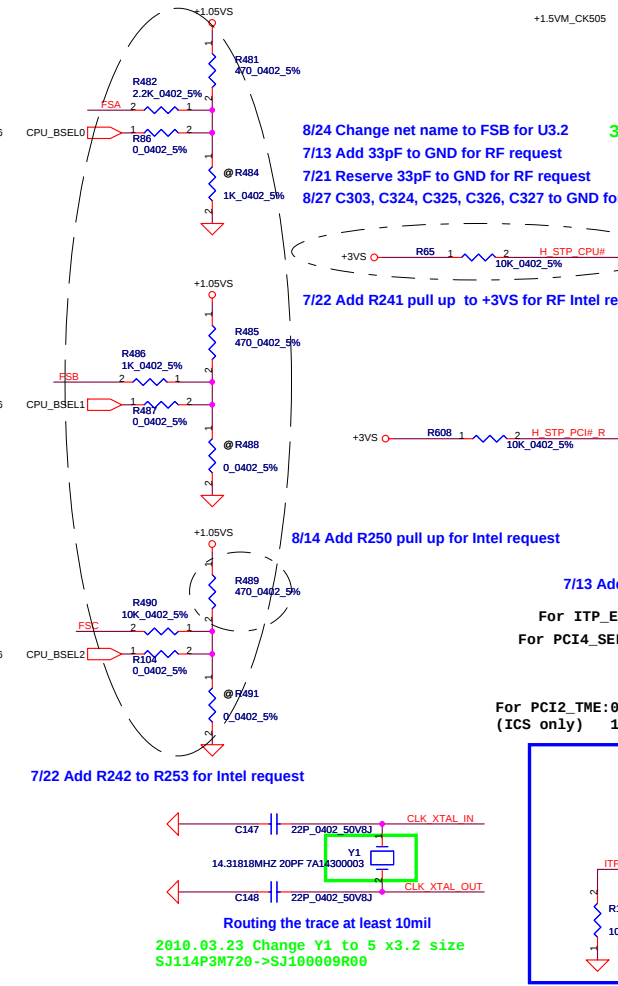






| FSC     | FSB     | FSA     | CPU      | SRC | PCI  | REF    | DOT_96 | USB  |
|---------|---------|---------|----------|-----|------|--------|--------|------|
| CLKSEL2 | CLKSEL1 | CLKSEL0 | MHZ      | MHZ | MHZ  | MHZ    | MHZ    | MHZ  |
| 0       | 0       | 0       | 266      | 100 | 33.3 | 14.318 | 96.0   | 48.0 |
| 0       | 0       | 1       | 133      | 100 | 33.3 | 14.318 | 96.0   | 48.0 |
| 0       | 1       | 0       | 200      | 100 | 33.3 | 14.318 | 96.0   | 48.0 |
| 0       | 1       | 1       | 166      | 100 | 33.3 | 14.318 | 96.0   | 48.0 |
| 1       | 0       | 0       | 333      | 100 | 33.3 | 14.318 | 96.0   | 48.0 |
| 1       | 0       | 1       | 100      | 100 | 33.3 | 14.318 | 96.0   | 48.0 |
| 1       | 1       | 0       | 400      | 100 | 33.3 | 14.318 | 96.0   | 48.0 |
| 1       | 1       | 1       | Reserved |     |      |        |        |      |

|      | Normal Power | Low Power |
|------|--------------|-----------|
| R477 | @            | Stuff     |
| R478 | Stuff        | @         |
| R479 | Stuff        | @         |
| R480 | @            | Stuff     |
| R483 | @            | Stuff     |

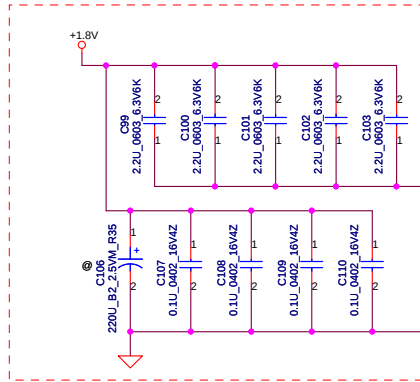


| SRC PORT LIST |             |
|---------------|-------------|
| PORT          | DEVICE      |
| SRC0          | CPU_DREFCLK |
| SRC2          | CPU_EXP     |
| SRC3          |             |
| SRC4          | PCIE_SATA   |
| SRC6          | PCIE_WLAN   |
| SRC7          |             |
| SRC8          |             |
| SRC9          | PCIE_LAN    |
| SRC10         | PCIE_PCH    |
| SRC11         | PCIE_WWAN   |

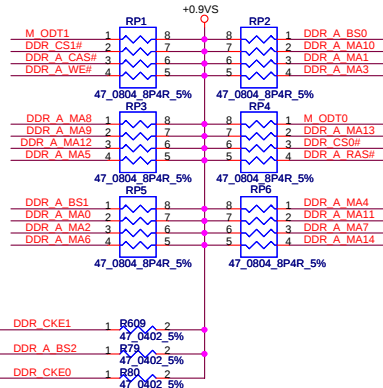
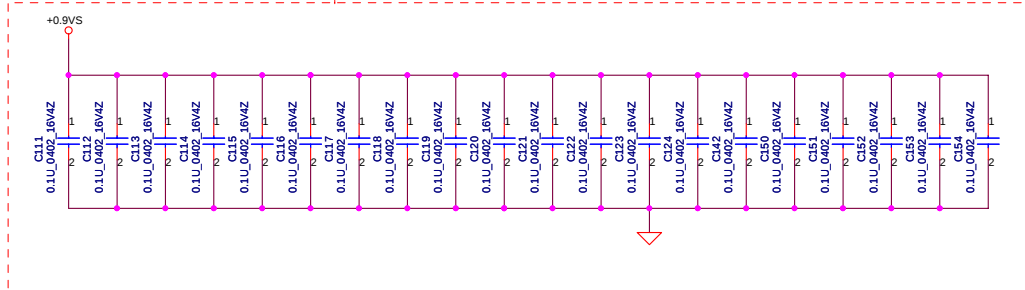
| REQ PORT LIST |           |
|---------------|-----------|
| PORT          | DEVICE    |
| REQ_3#        |           |
| REQ_4#        |           |
| REQ_6#        | PEIC_WLAN |
| REQ_7#        |           |
| REQ_9#        | PCIE_LAN  |
| REQ_10#       |           |
| REQ_11#       | PEIC_WWAN |
| REQ_A#        |           |

5 DDR\_A\_DQS#0[0..7]  
5 DDR\_A\_D[0..63]  
5 DDR\_A\_DM[0..7]  
5 DDR\_A\_DQS#0[0..7]  
5 DDR\_A\_MA[0..14]

Layout Note:  
Place near JDDR1

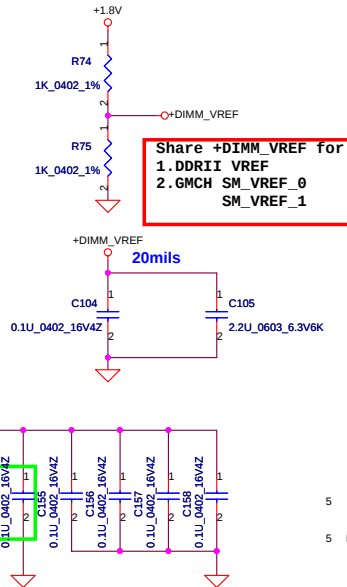


Layout Note:  
Place one cap close to every 2 pullup resistors terminated to +0.9VS



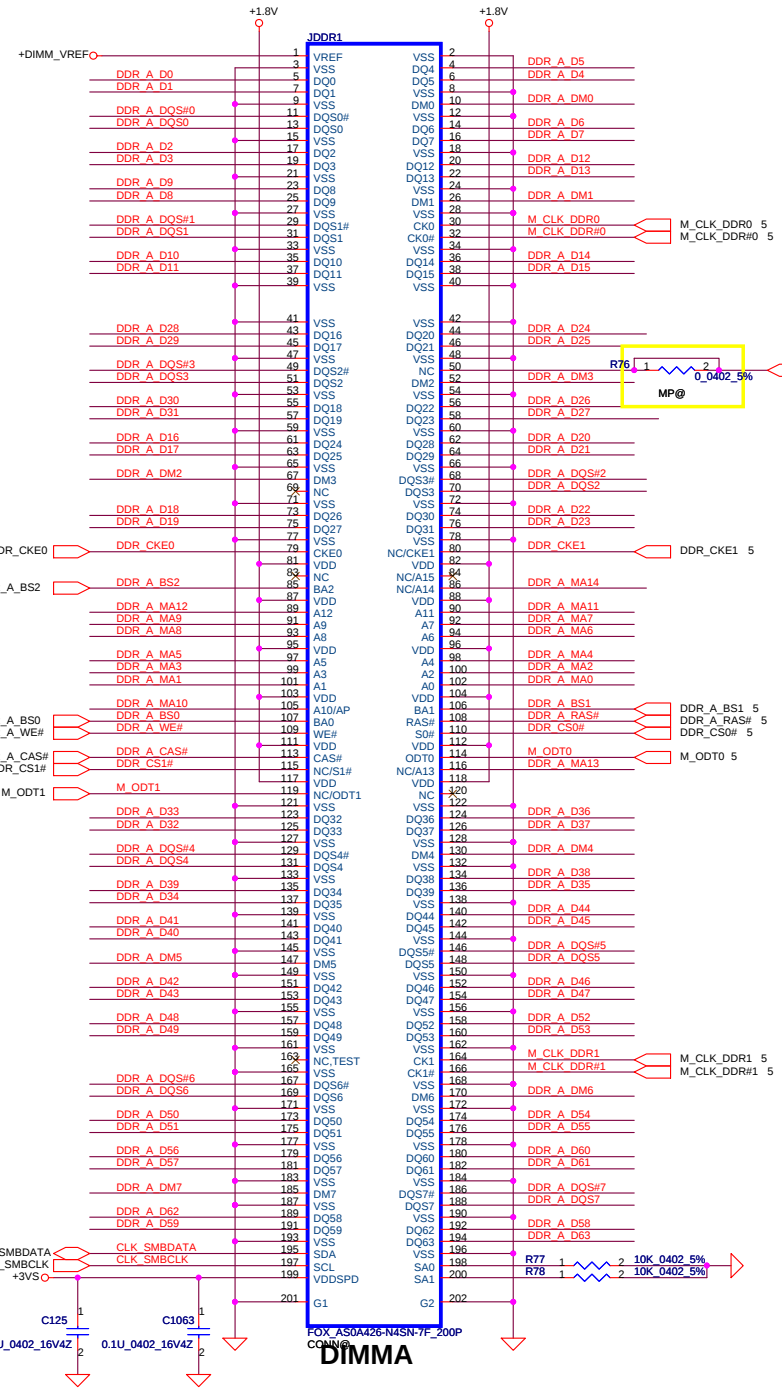
Layout Note:  
Place these resistor closely DIMMA, all trace length<1000 mil

Layout Note:  
Place these resistor closely DIMMA, all trace length Max=1000 mil

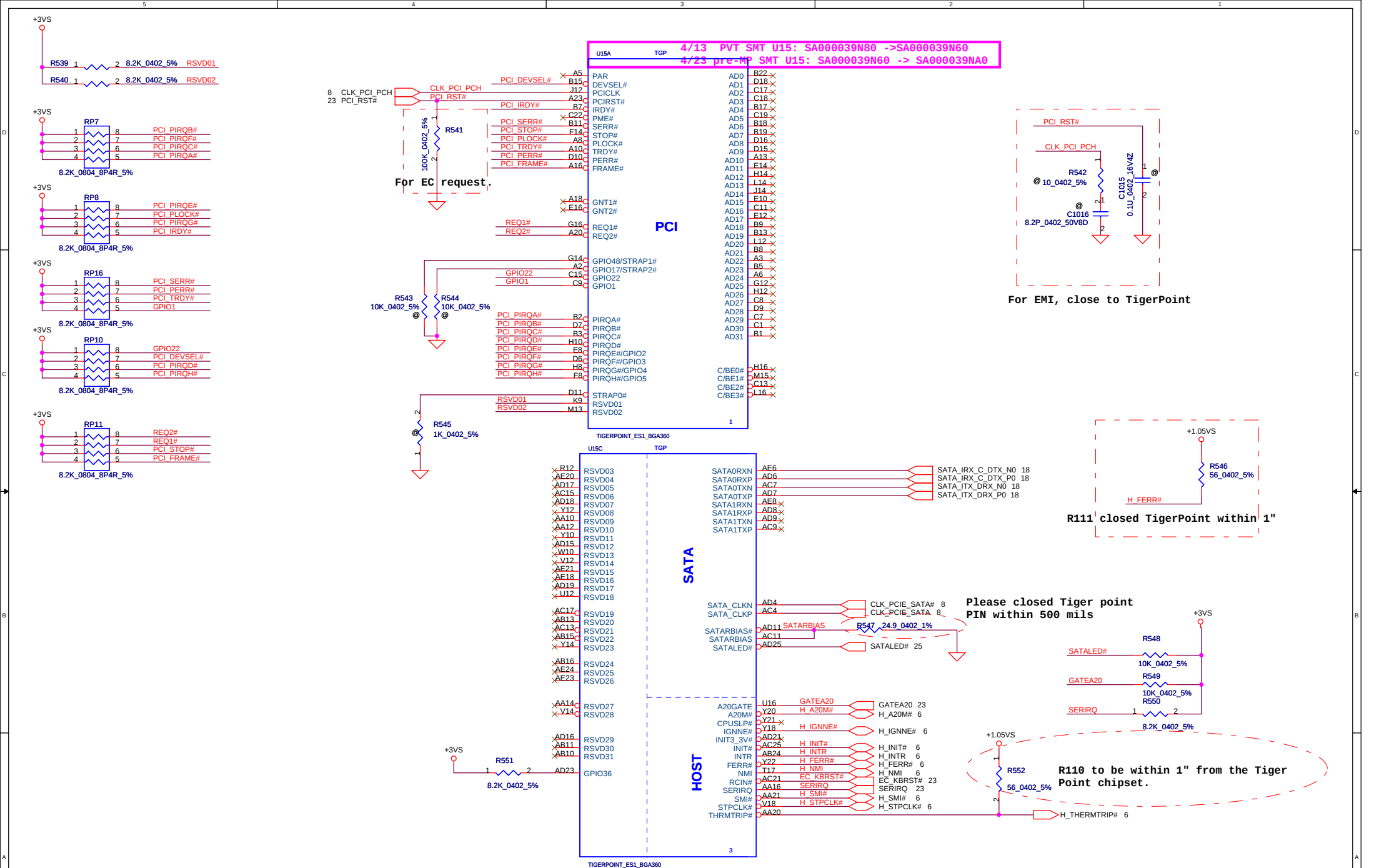


Share +DIMM\_VREF for  
1.DDR11 VREF  
2.GMCH SM\_VREF\_0  
SM\_VREF\_1

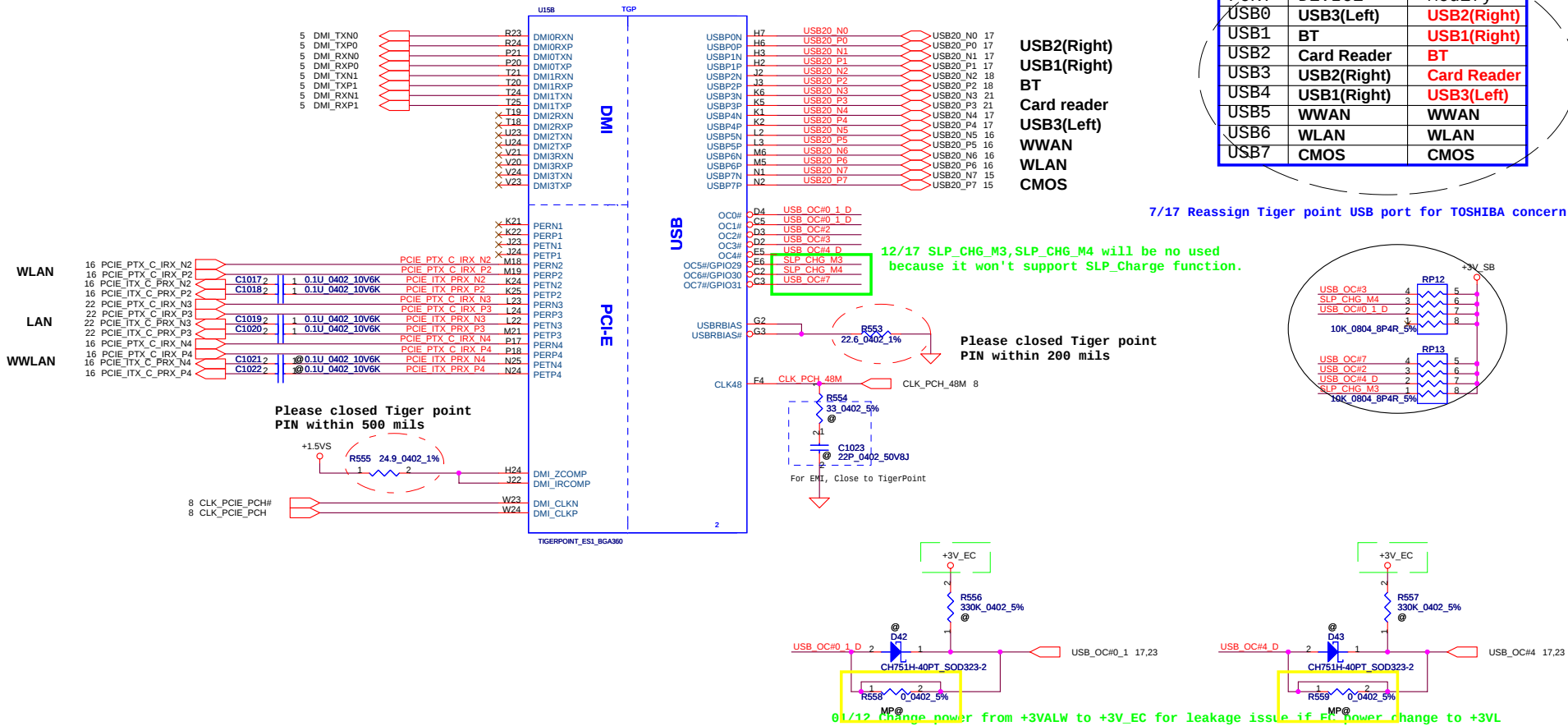
Add 4PCS CAP on 1.8V for EMI request  
3/27 add C203, C204 for EMI request

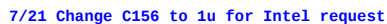


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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                 |  |                          |  |       |  | Date:                 |  | Monday, September 20, 2010 |  | Sheet |  | 9 of 38 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                 |  |                          |  |       |  |                       |  |                            |  |       |  |         |  |

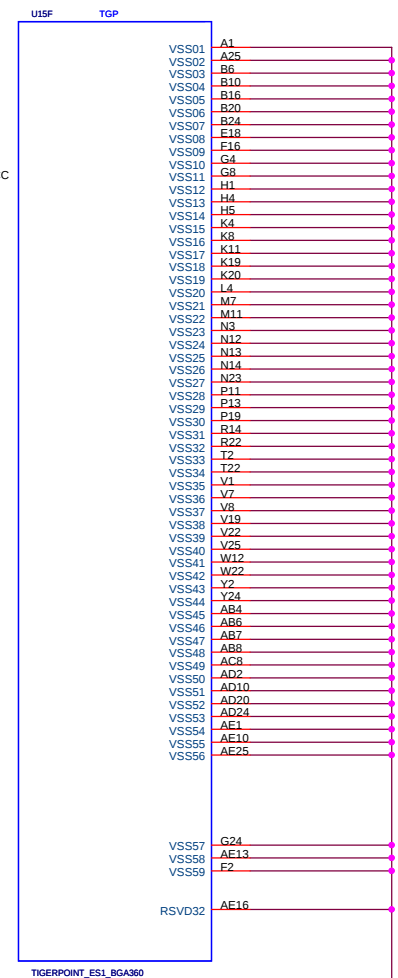
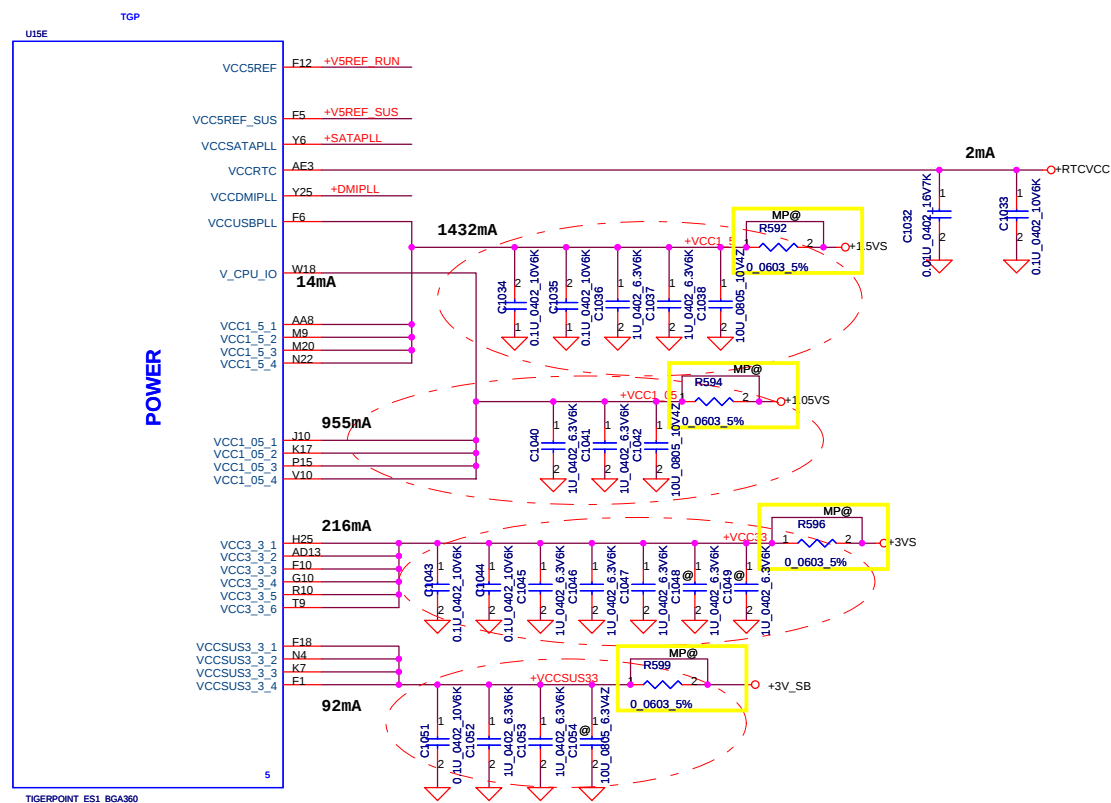
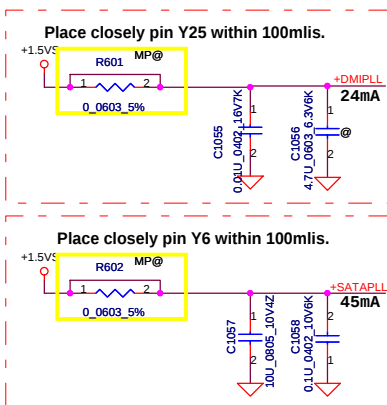


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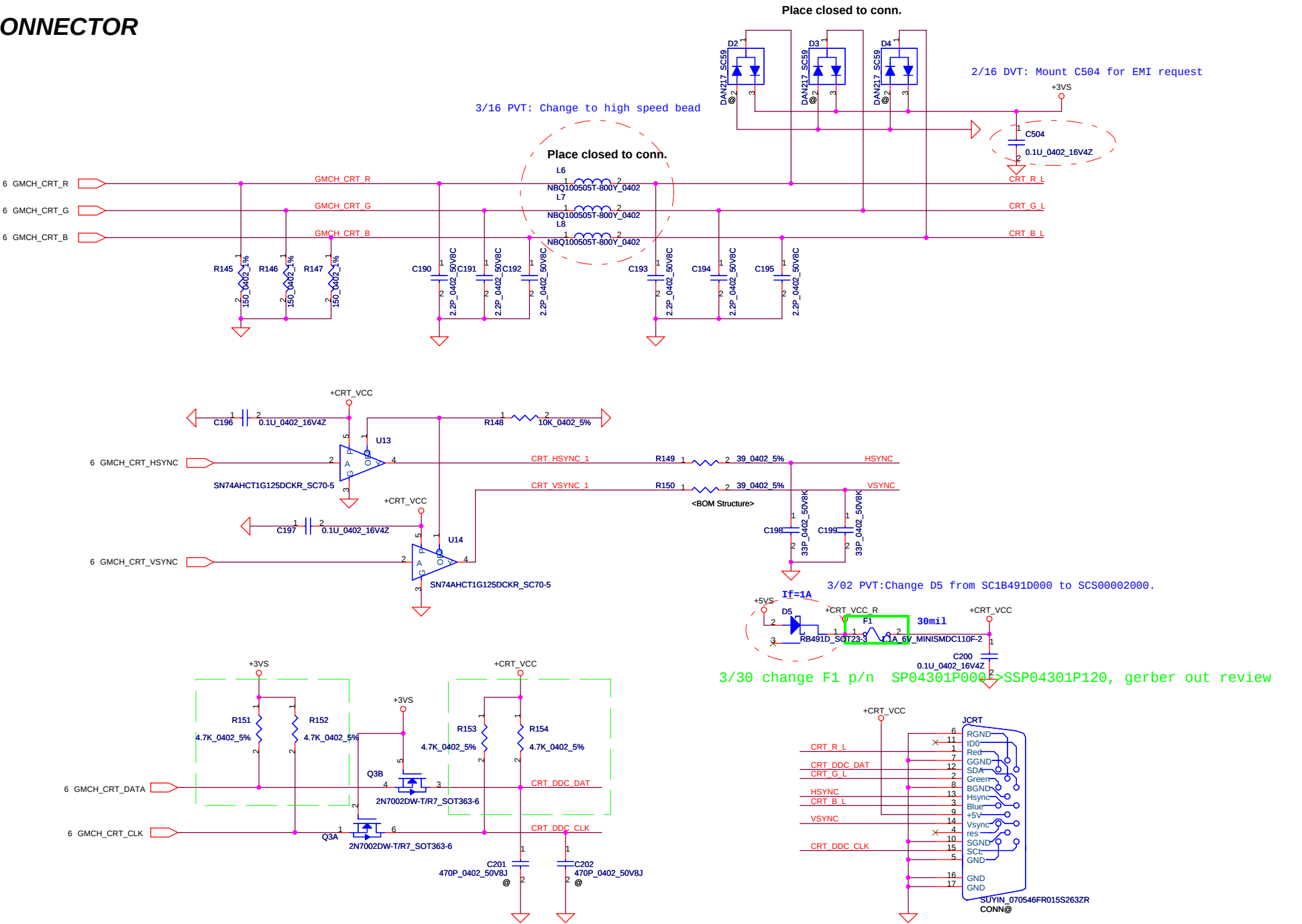




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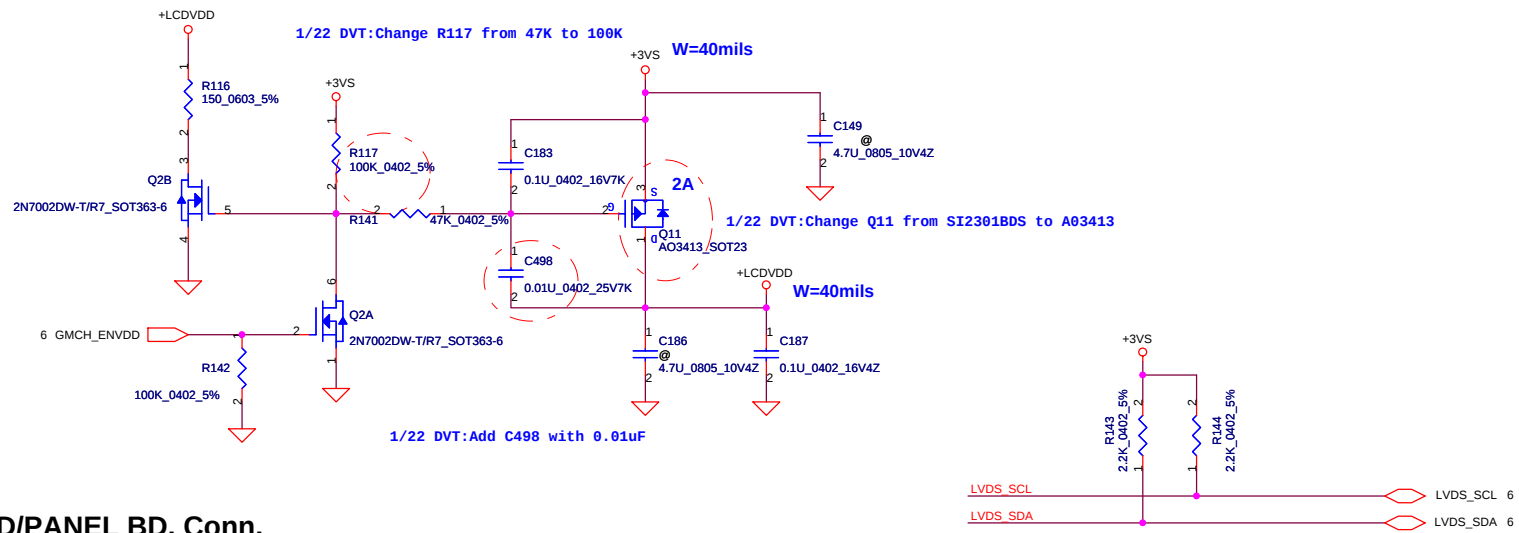


CRT CONNECTOR

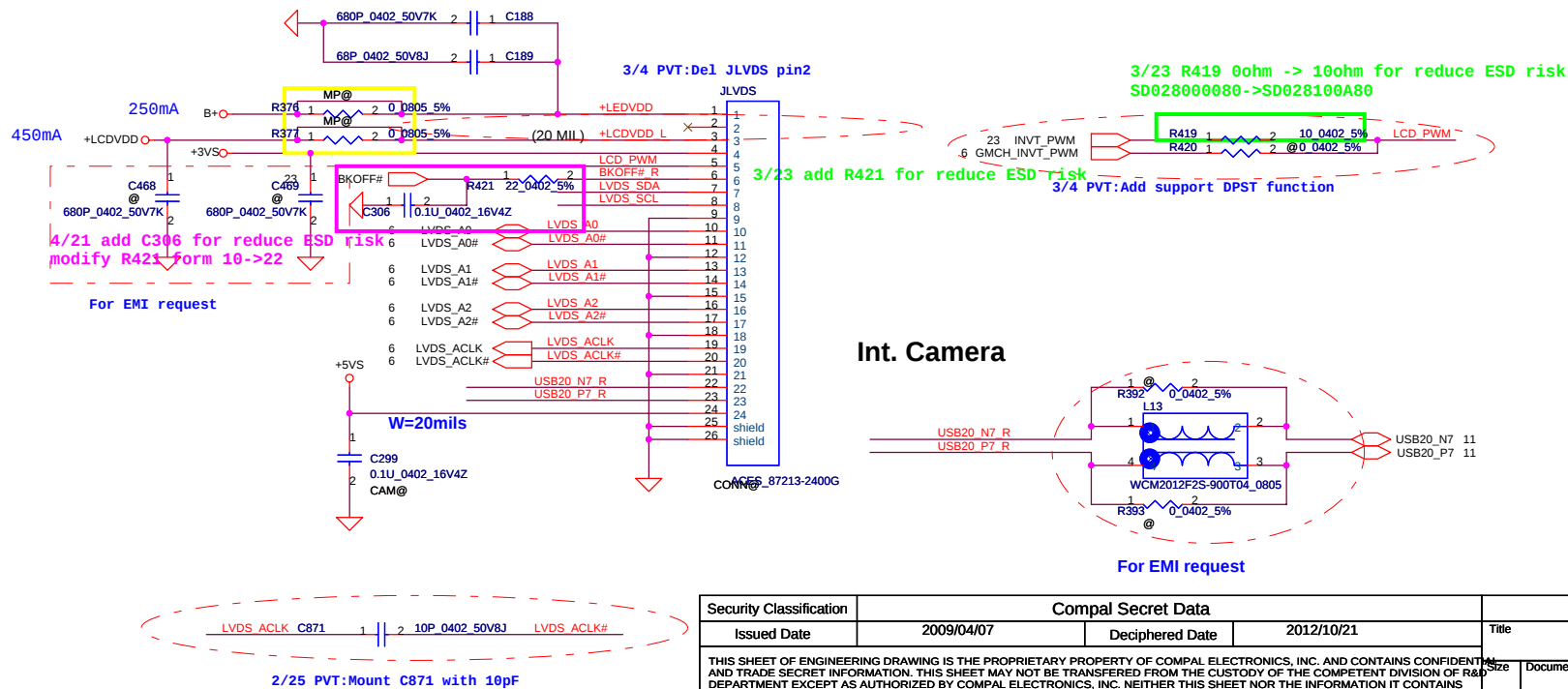


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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|------------|--------------------------|----------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |            | Compal Electronics, Inc. |                            |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/04/07 | Deciphered Date    | 2012/10/21 | Title                    |                            |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | 401897                   | C                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Date                     | Monday, September 20, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Sheet                    | 14 of 38                   |

## LCD POWER CIRCUIT



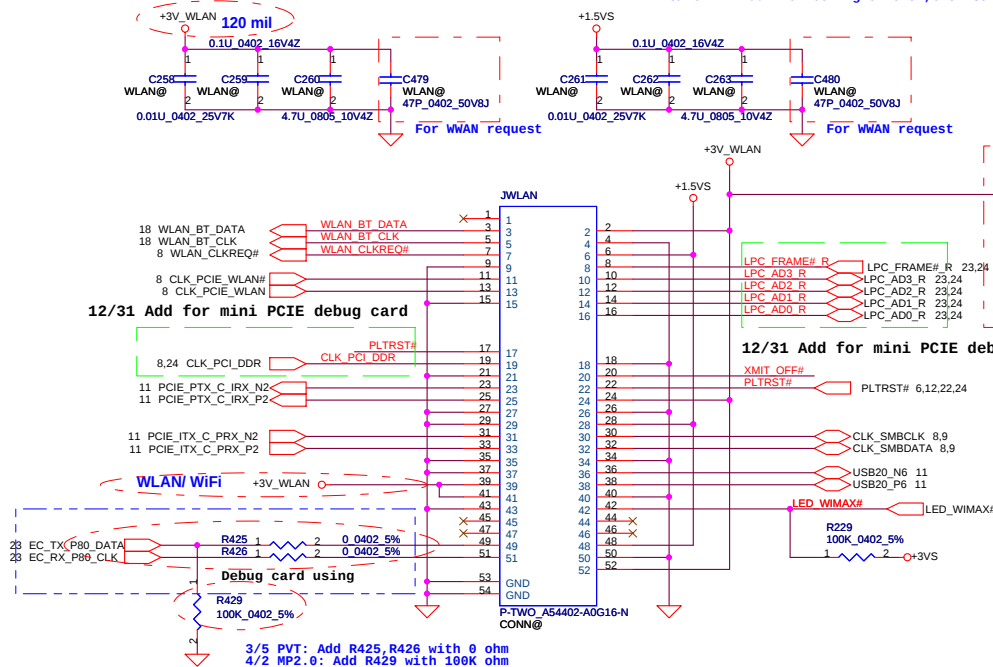
## LED/PANEL BD. Conn.



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            |                          |                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|------------|--------------------------|----------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |            | Compal Electronics, Inc. |                            |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/04/07 | Deciphered Date    | 2012/10/21 | Title                    | SCHEMATICS , MB A5122      |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Date                     | Monday, September 20, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Sheet                    | 15 of 38                   |

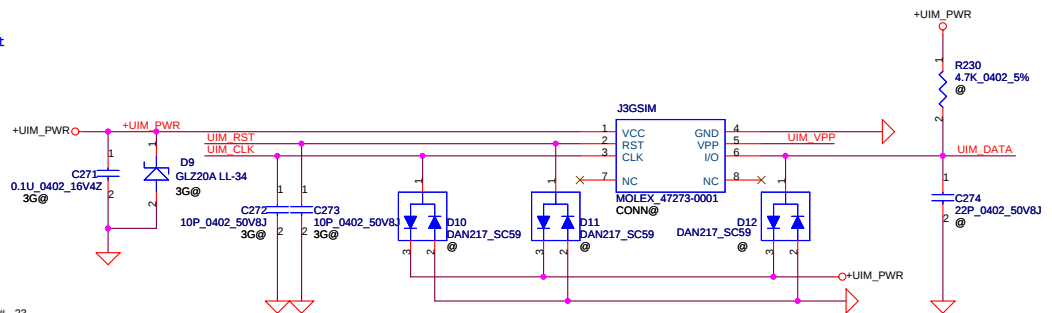
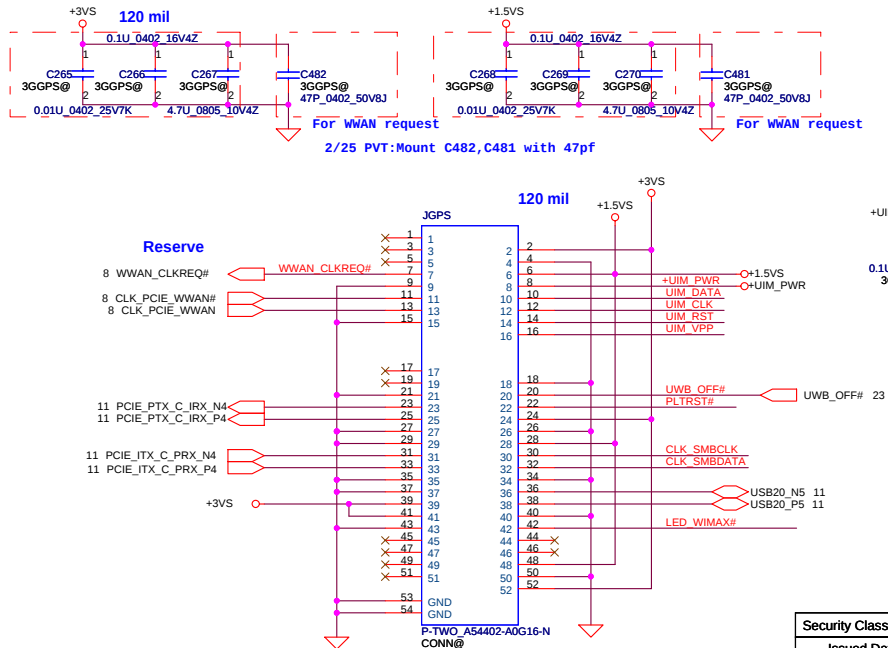
# Mini-Express Card for WLAN/WiMax

2/25 PVT:Mount C479,C480 with 47pf  
3/16 PVT:Add BOM Config of C481,C482 to WLAN@



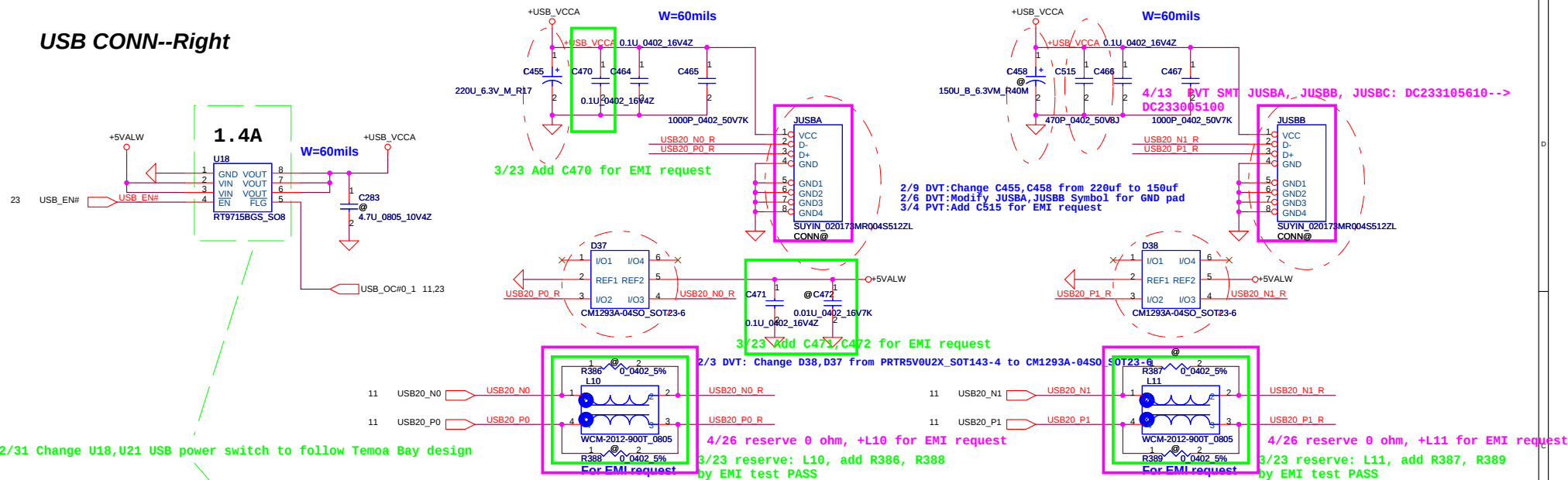
# Mini-Express Card for 3G/GPS

3G current need to 2750mA  
3/16 PVT:Add BOM Config of C481,C482 to 3G/GPS@

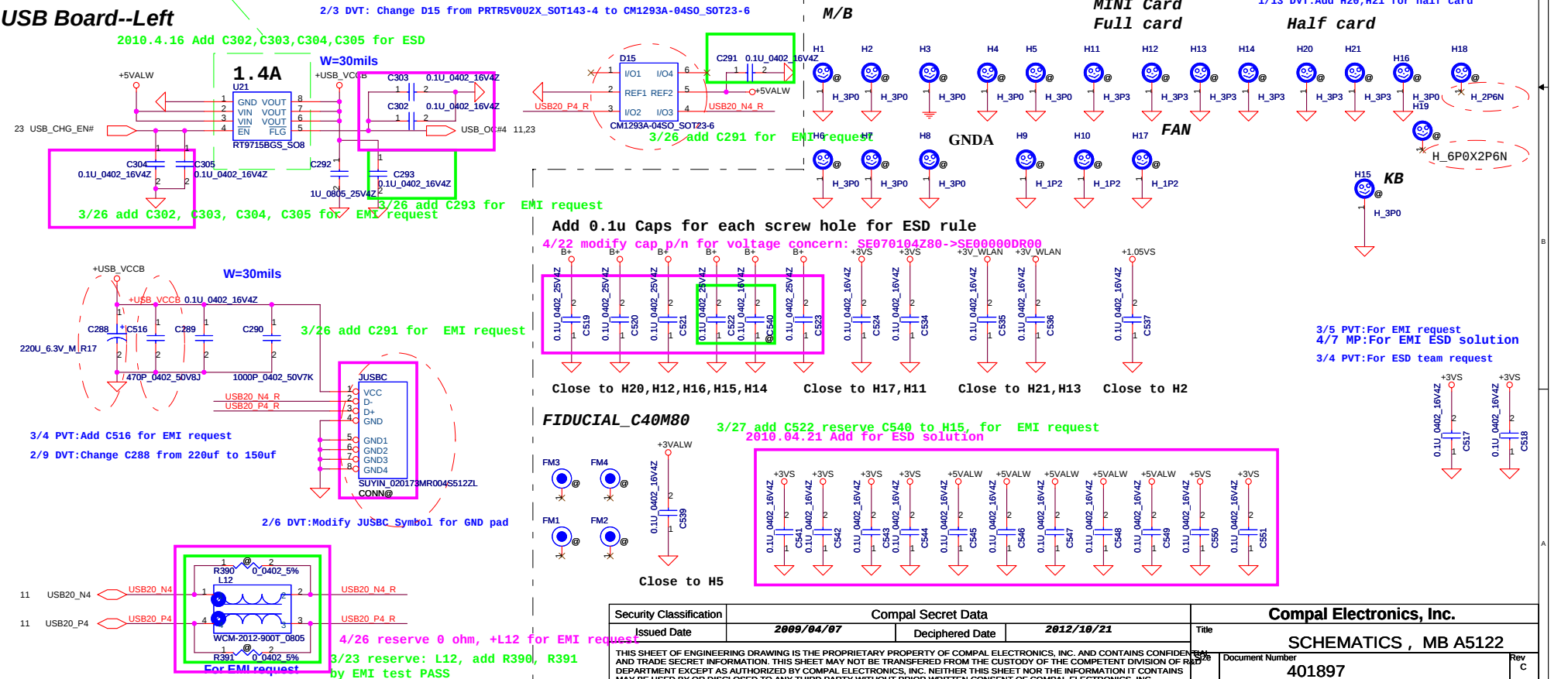


| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |            | Compal Electronics, Inc. |                            |
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| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/04/07 | Deciphered Date    | 2012/10/21 | Title                    | SCHEMATICS , MB A5122      |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Sheet                    | 16 of 38                   |

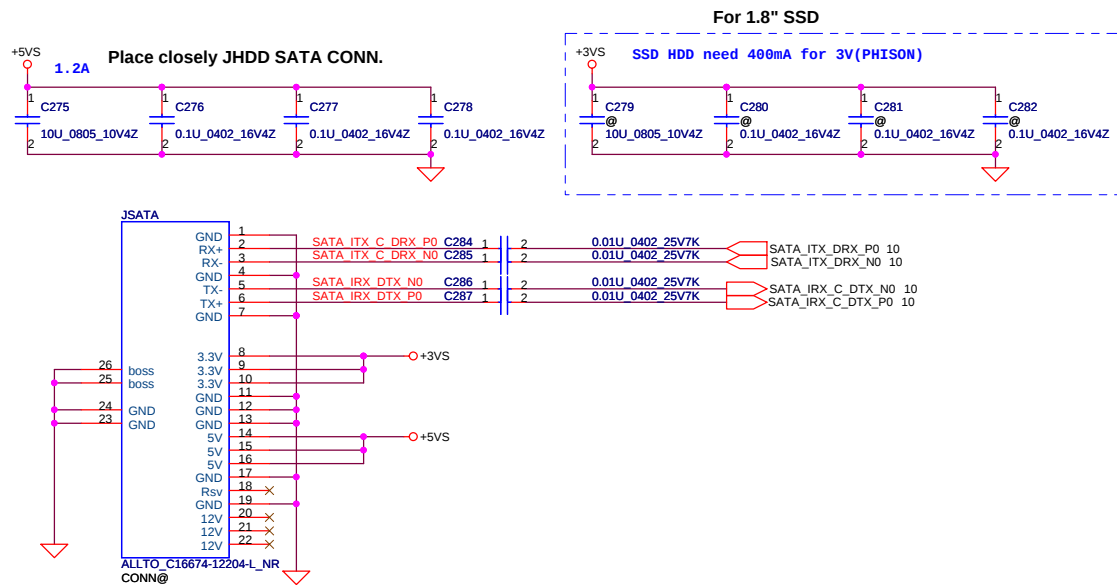
### ***USB CONN--Right***



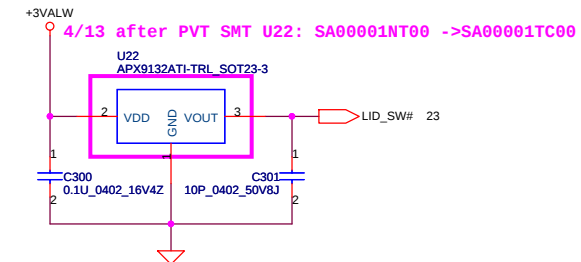
### USB Board--Left



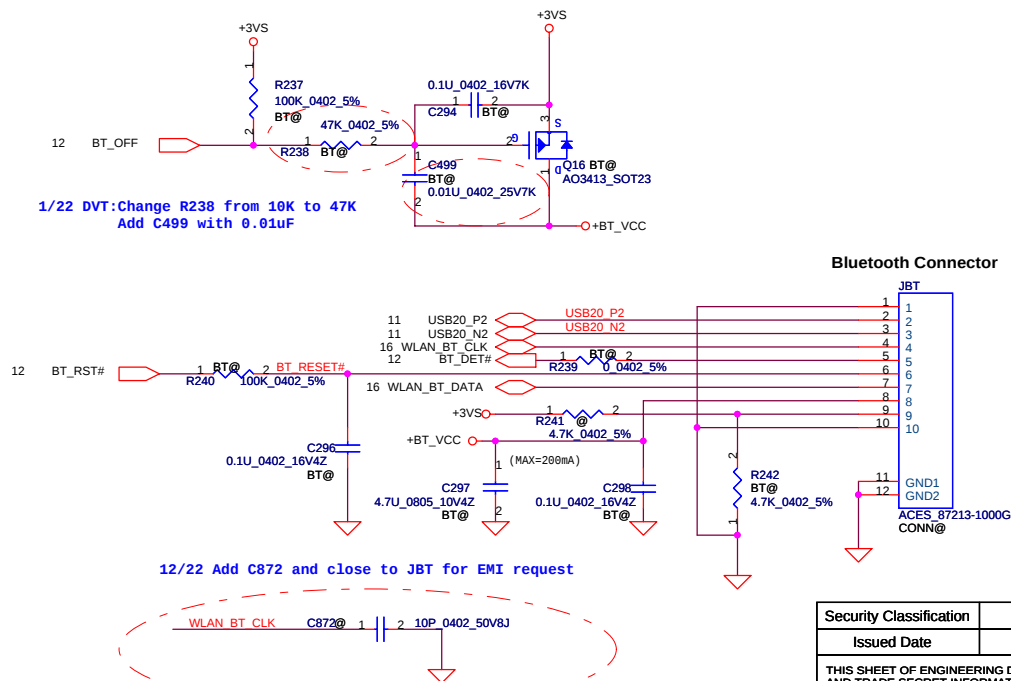
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| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |            | Compal Electronics, Inc. |                            |                |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/04/07 | Deciphered Date    | 2012/10/21 | Title                    | SCHEMATICS , MB A5122      |                |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Date:                    | Monday, September 20, 2010 | Sheet 17 of 38 |

**SATA Conn.**

**Lid SW**



## BlueTooth Interface

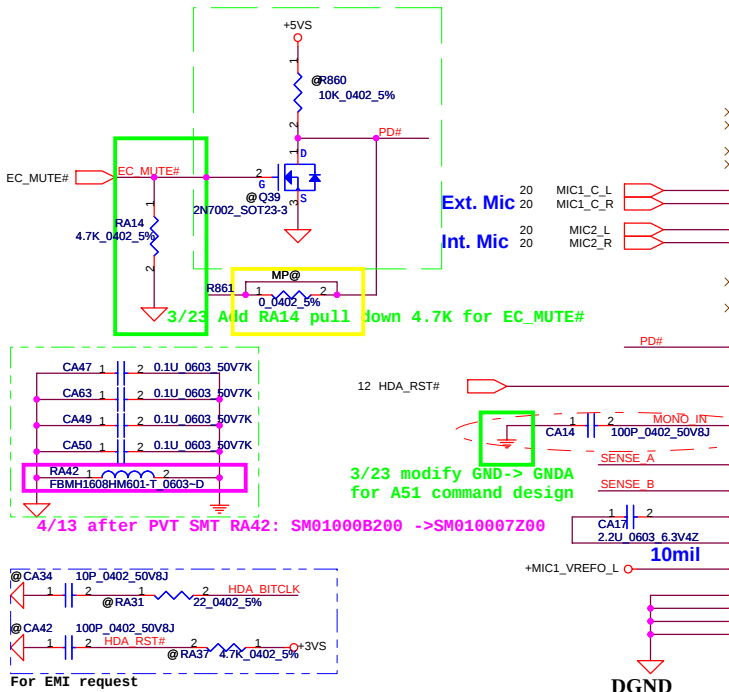


|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |                 |                          |                            |          |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|-----------------|--------------------------|----------------------------|----------|----------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |                 | Compal Electronics, Inc. |                            |          |          |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |                 | Date:                    | Monday, September 20, 2010 | Sheet    | 18 of 38 |

# HD Audio Codec

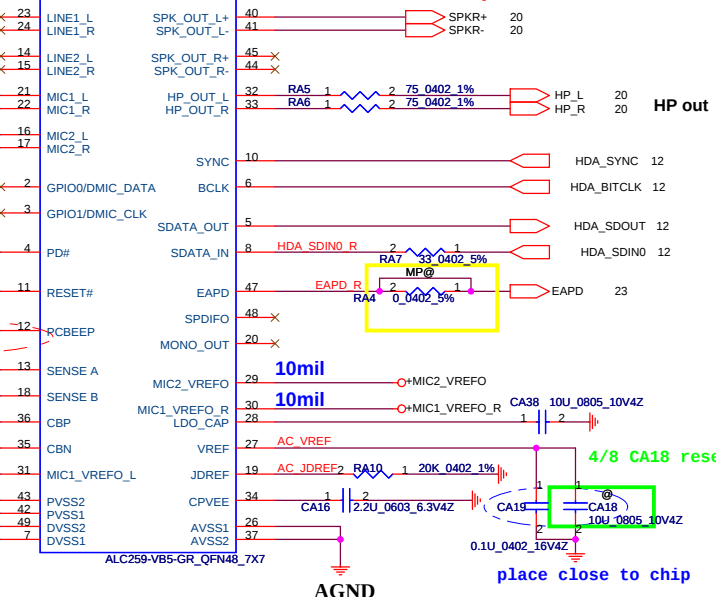
3/31 modify p/n to SM010007Z00 follow LA5123

place close to chip



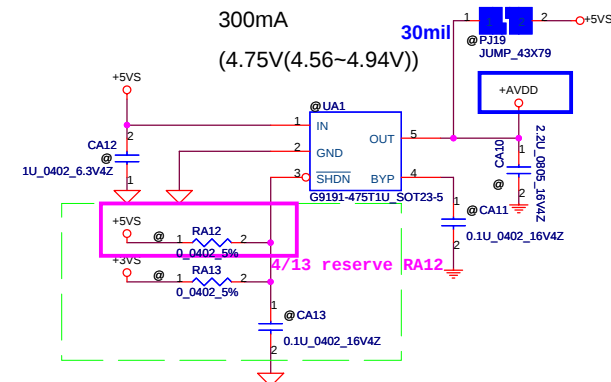
place close to chip

place close to chip



## Audio regulator

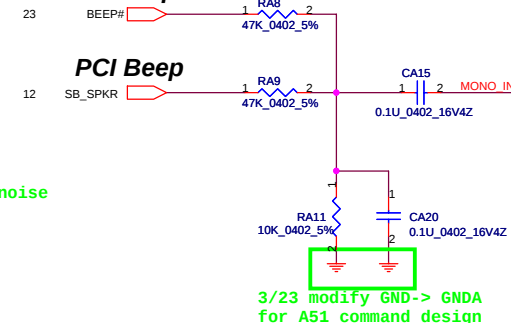
300mA  
(4.75V(4.56~4.94V))



## Beep sound

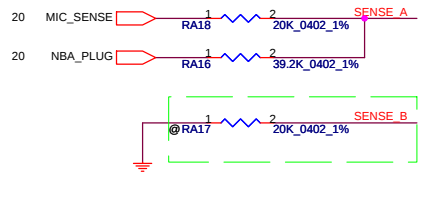
### EC Beep

### PCI Beep



| Sense Pin | Impedance | Codec Signals       | Function      |
|-----------|-----------|---------------------|---------------|
| SENSE A   | 39.2K     | PORT-I (PIN 32, 33) | Headphone out |
|           | 20K       | PORT-B (PIN 21, 22) | Ext. MIC      |
|           | 10K       | PORT-C (PIN 23, 24) |               |
|           | 5.1K      | PORT-D (PIN 48)     |               |
| SENSE B   | 39.2K     | PORT-E (PIN 14, 15) |               |
|           | 20K       | PORT-F (PIN 16, 17) | Int. MIC      |
|           | 10K       | PORT-H (PIN 37)     |               |

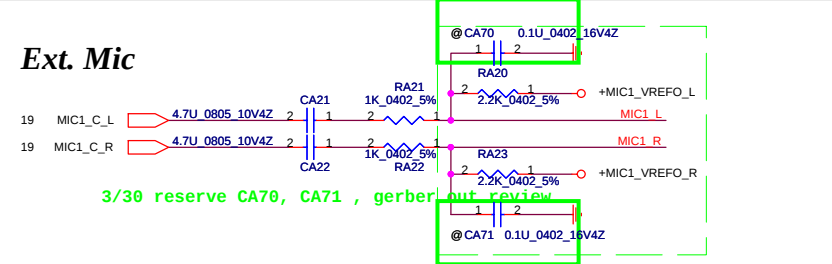
place close to chip



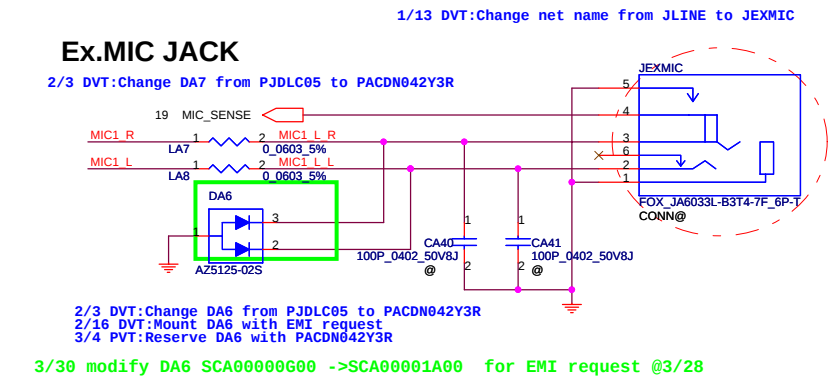
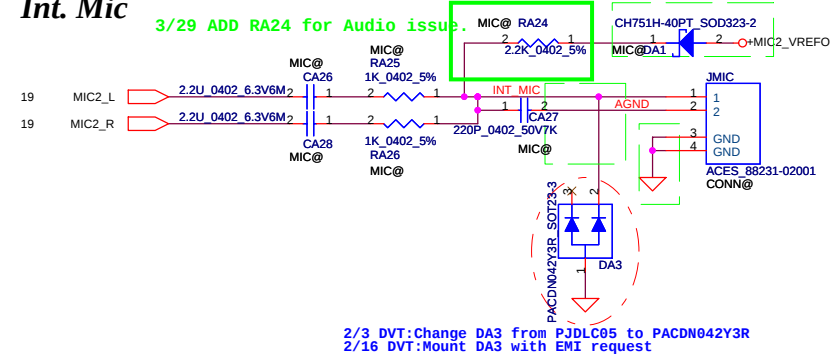
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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|--|-----------------|--|--------------------------|----------------------------|-----------------------|----------------|
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| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 2009/04/07         |  | Deciphered Date |  | 2012/10/21               |                            | Title                 |                |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                 |  | Custom                   | 401897                     |                       | C              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                 |  |                          |                            |                       |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                    |  |                 |  | Date                     | Monday, September 20, 2010 |                       | Sheet 19 of 38 |

2010/01/26 Remove AMP.

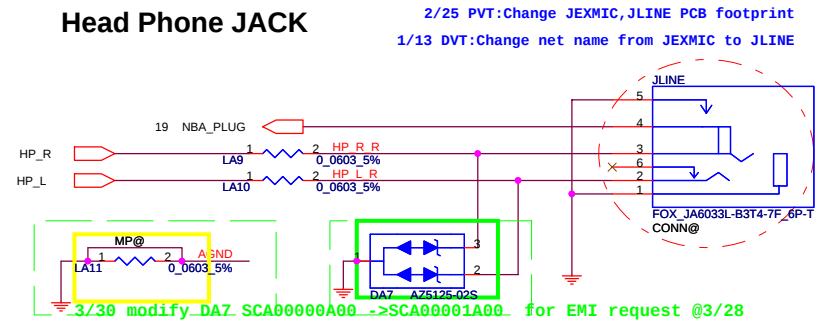
### Ext. Mic



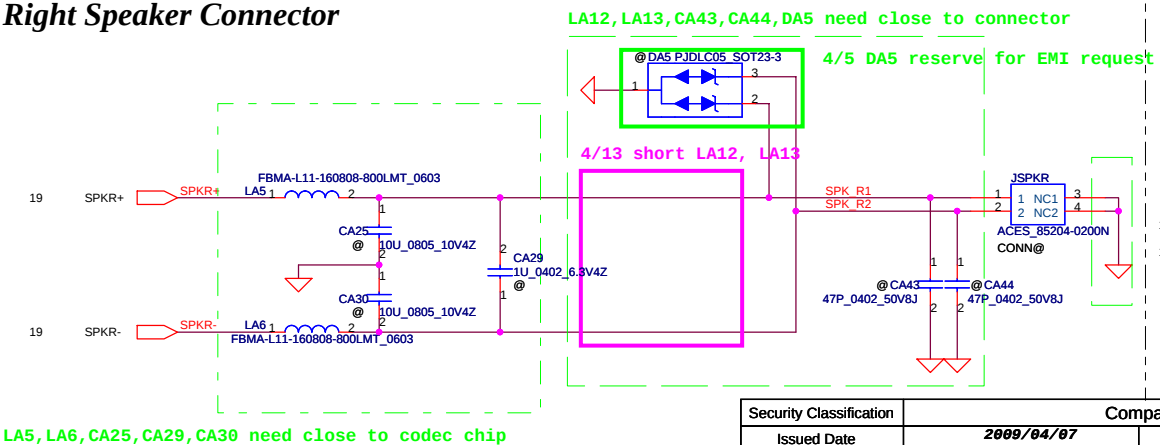
### Int. Mic



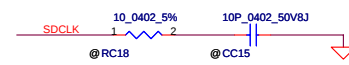
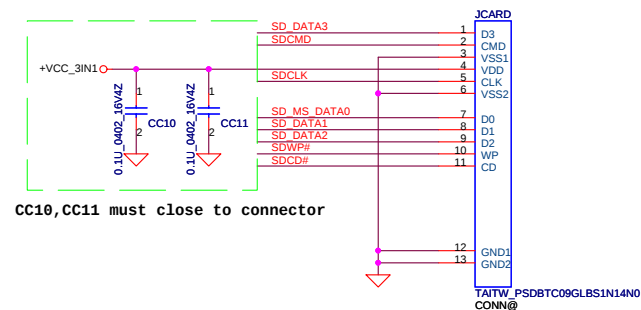
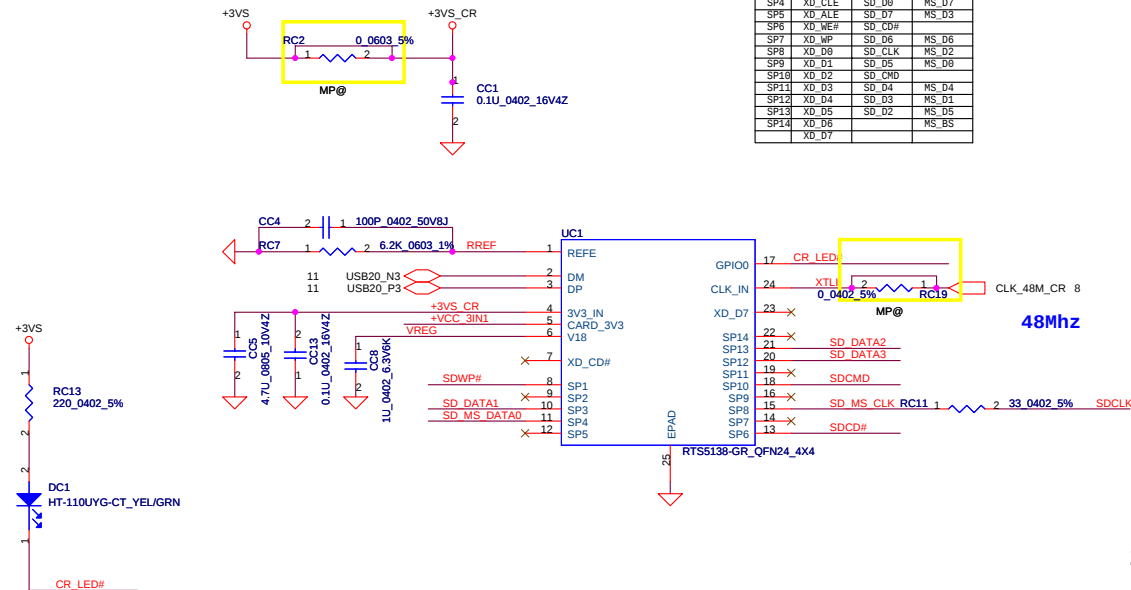
### Head Phone JACK



### Right Speaker Connector

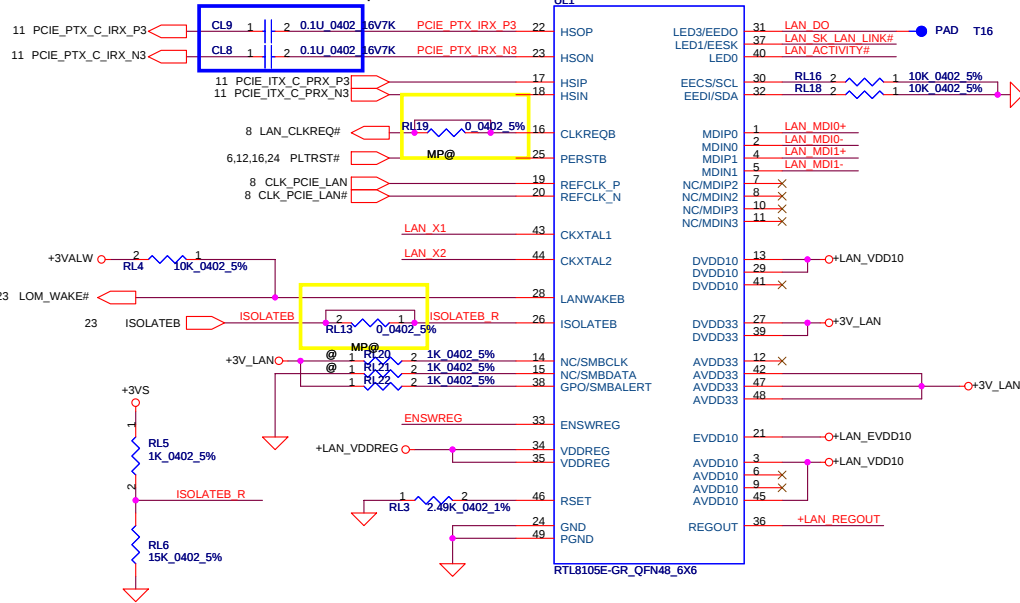


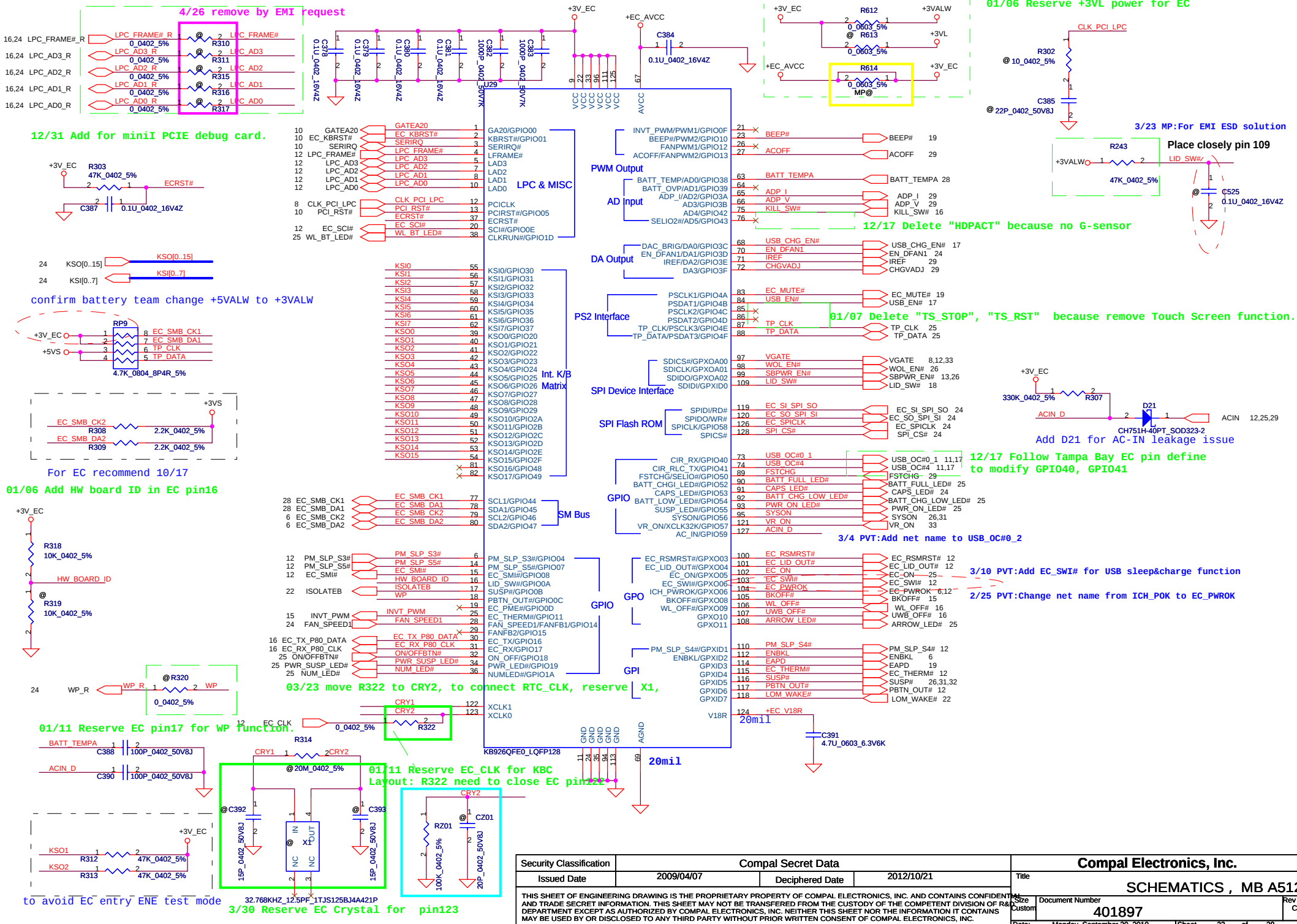
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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------|------------|--------------------------|--|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data         |            | Compal Electronics, Inc. |  |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/04/07 | Deciphered Date            | 2012/10/21 | Title                    |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            | 401897                     |            | C                        |  |
| Date                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Monday, September 20, 2010 |            | Sheet 20 of 38           |  |



|      | XD_CD# | SD_WP  | MS_CLK  |
|------|--------|--------|---------|
| SP1  | XD_RDY | SD_WP  | MS_CLK  |
| SP2  | XD_RE# |        | MS_INS# |
| SP3  | XD_CE# | SD_D1  |         |
| SP4  | XD_CLE | SD_D0  | MS_D7   |
| SP5  | XD_ALE | SD_D7  | MS_D3   |
| SP6  | XD_WE# | SD_CD# |         |
| SP7  | XD_WP  | SD_D6  | MS_D6   |
| SP8  | XD_D0  | SD_CLK | MS_D2   |
| SP9  | XD_D1  | SD_D5  | MS_D0   |
| SP10 | XD_D2  | SD_CMD |         |
| SP11 | XD_D3  | SD_D4  | MS_D4   |
| SP12 | XD_D4  | SD_D3  | MS_D1   |
| SP13 | XD_D5  | SD_D2  | MS_D5   |
| SP14 | XD_D6  |        | MS_BS   |
|      | XD_D7  |        |         |

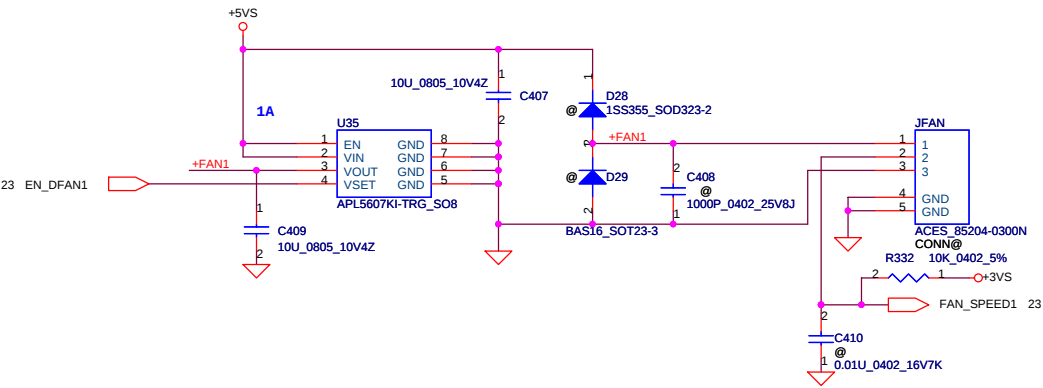
# Place Close to Chip



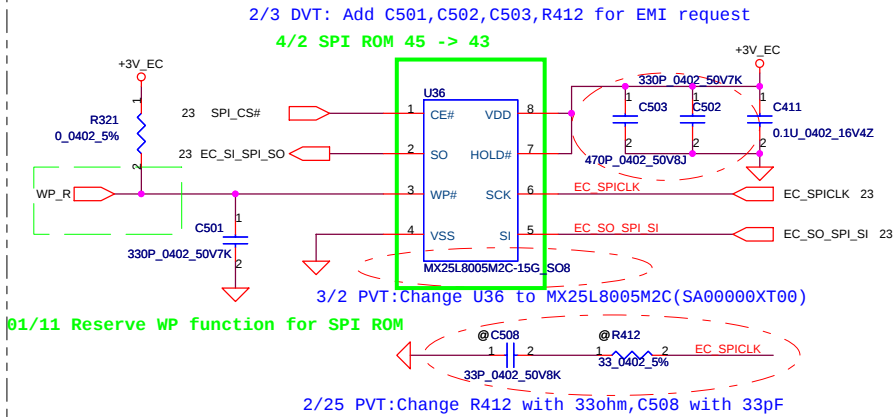


|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |            |                            |                 |          |
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| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data |                 |            | Compal Electronics, Inc.   |                 |          |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/04/07         | Deciphered Date | 2012/10/21 | Title                      |                 |          |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |            | Size Custom                | Document Number | Rev C    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |            | 401897                     |                 |          |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                 |            | Monday, September 20, 2010 | Sheet           | 23 of 38 |

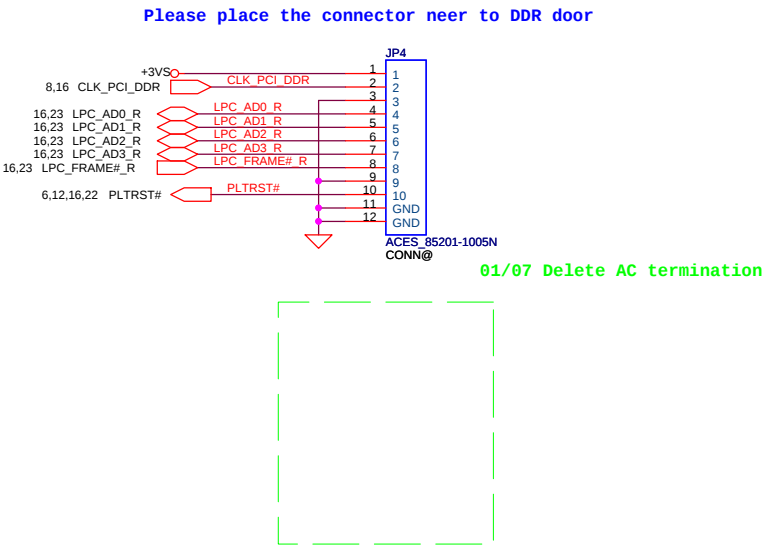
FAN Control Circuit



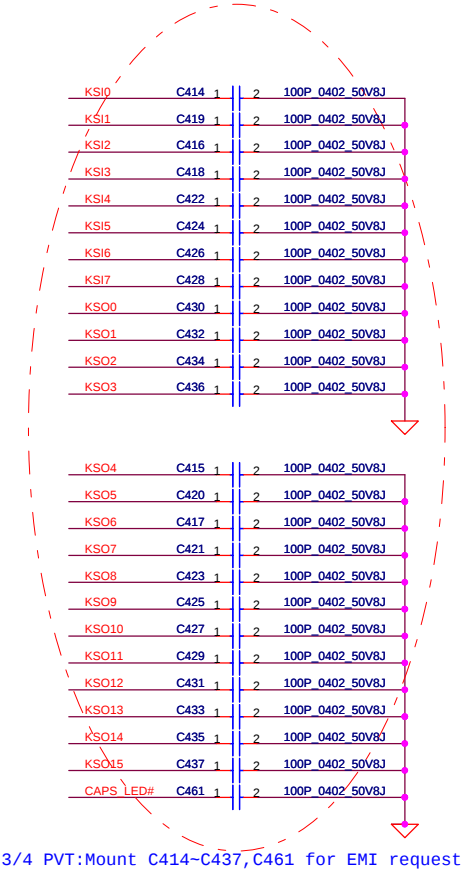
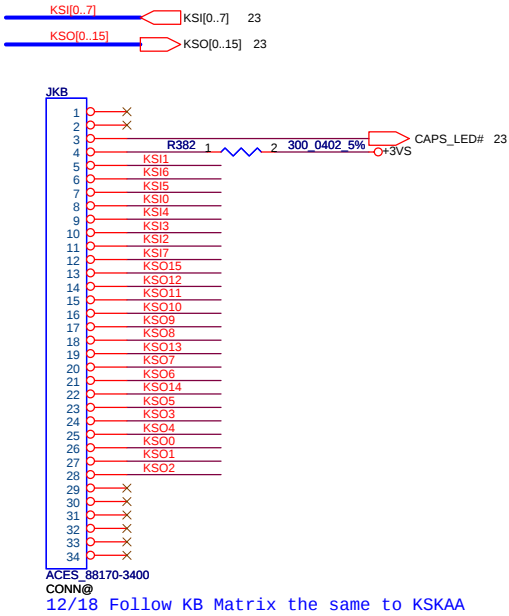
SPI Flash (8Mb\*1)



LPC Debug Port

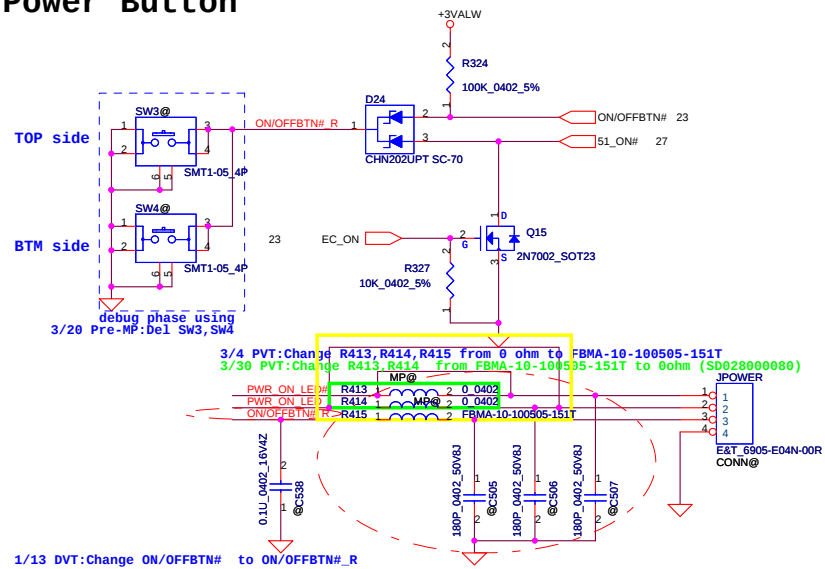


KEYBOARD CONN.



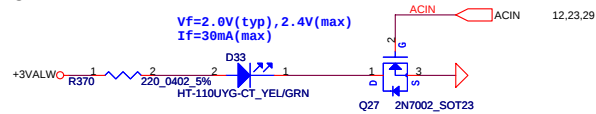
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| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data |                 |            | Title                 |                            |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |            | Date:                 | Monday, September 20, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |            | Sheet                 | 24 of 38                   |

## Power Button

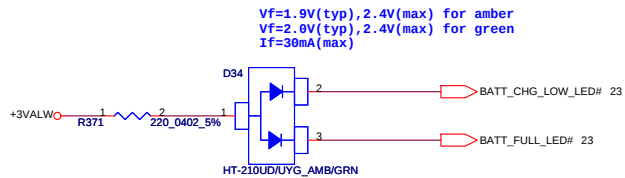


## LED Conn

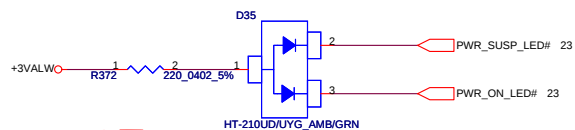
**DC-IN LED**



**BATT CHARGE/FULL LED**



**POWER/SUSPEND LED**

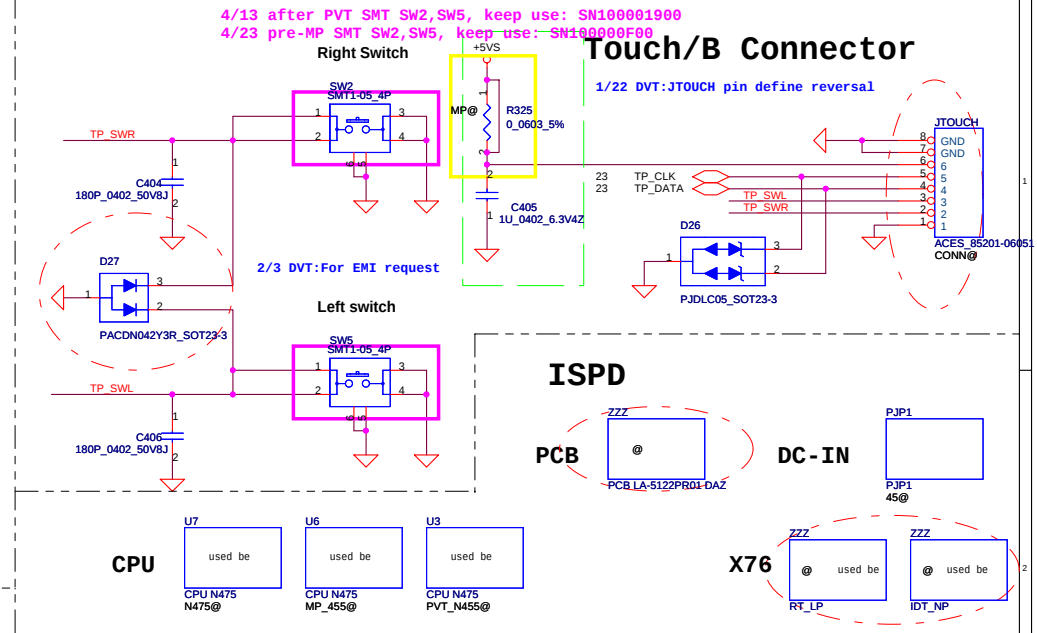


2/3 DVT:Change R375.1 Net name from +3VALW to +5VALW  
2/3 DVT:Change R375 from 220 to 300 ohm  
3/27 MP:Change R375 from 300 to 220 ohm

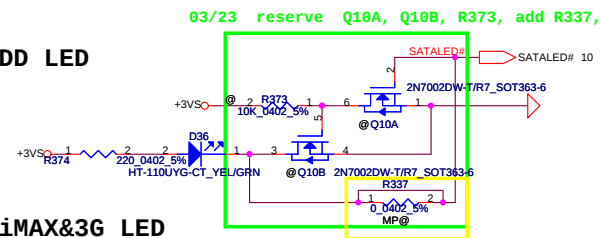
**ARROW MODE LED**



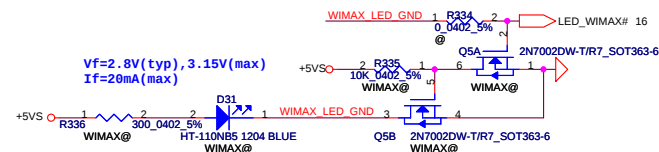
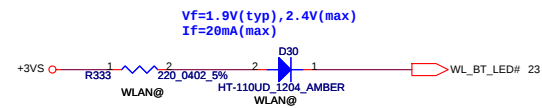
**NUMERIC MODE LED**



**HDD LED**

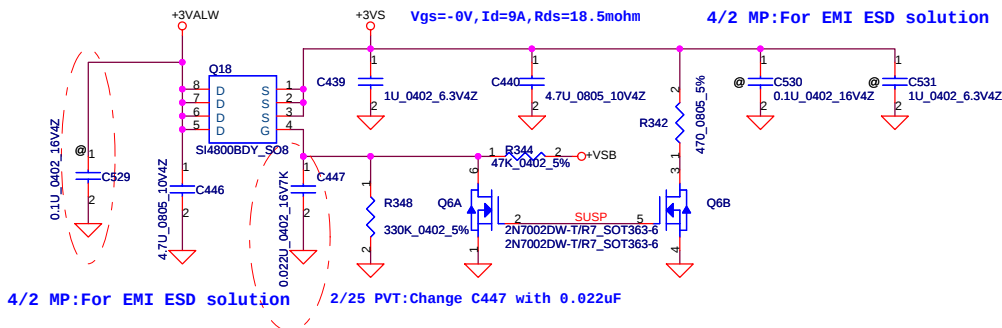


**WiMAX&3G LED**

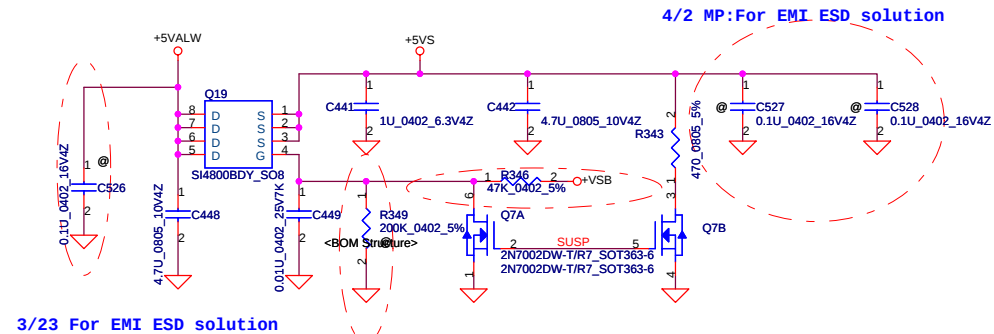
**WL&BT LED**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |            |                          |                            |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|------------|--------------------------|----------------------------|----------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data |                 |            | Compal Electronics, Inc. |                            |                |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/04/07         | Deciphered Date | 2012/10/21 | Title                    | SCHEMATICS , MB A5122      |                |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |            | Document Number          | 401897                     | Rev C          |

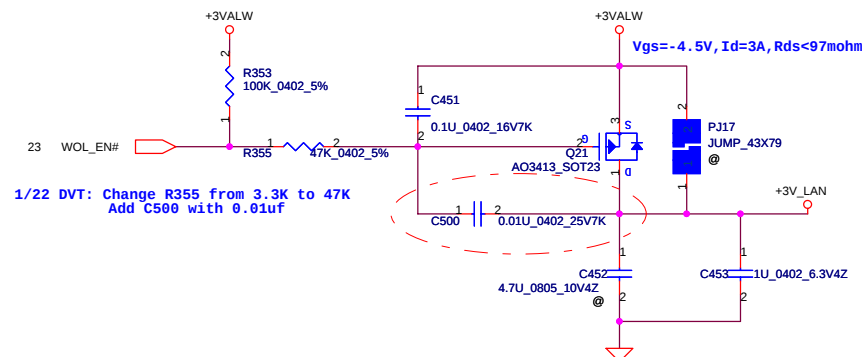
### +3VALW TO +3VS



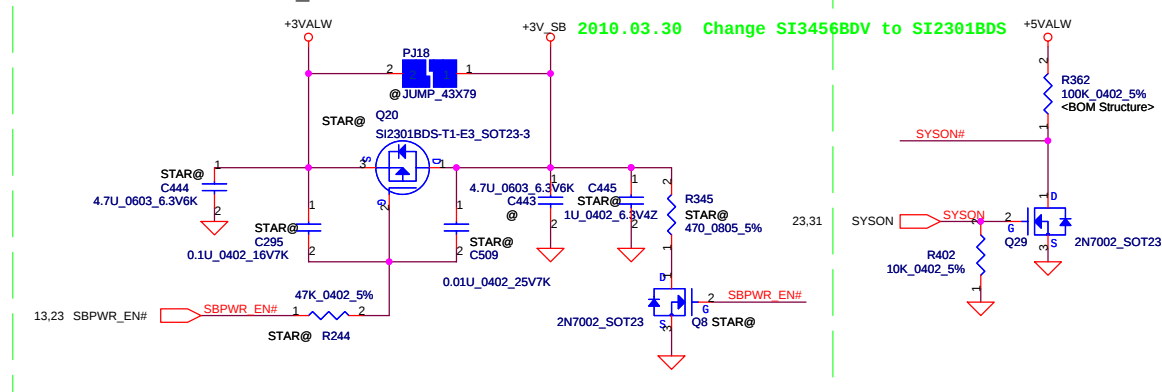
### +5VALW TO +5VS



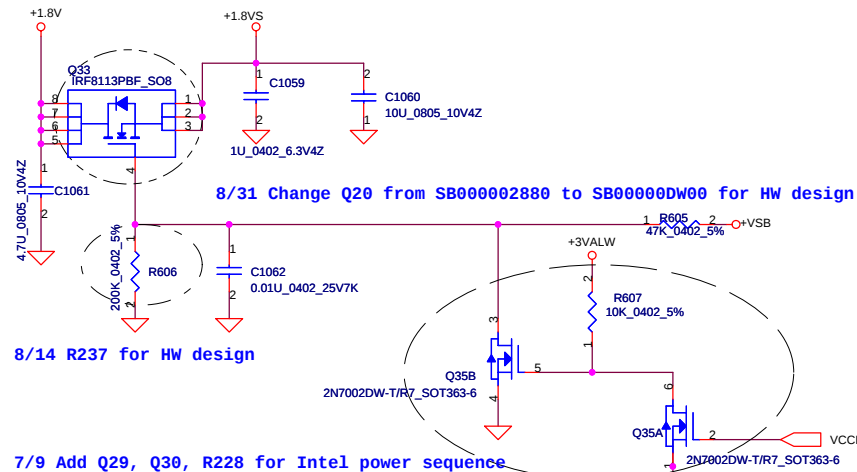
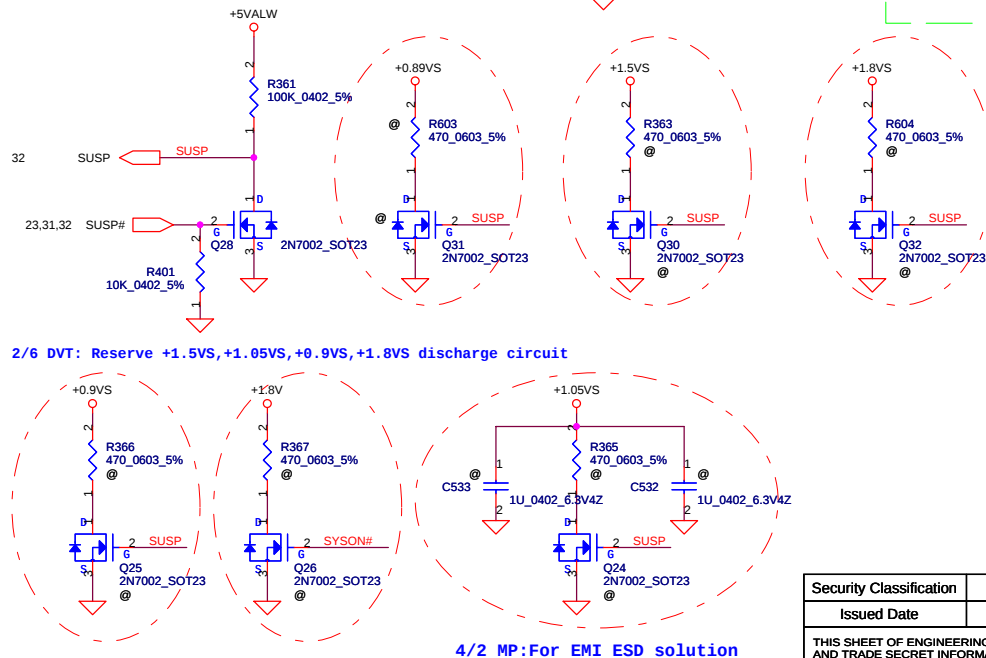
### +3VALW TO +3V\_LAN



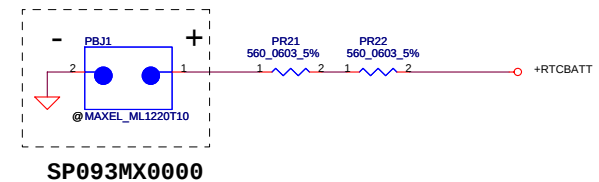
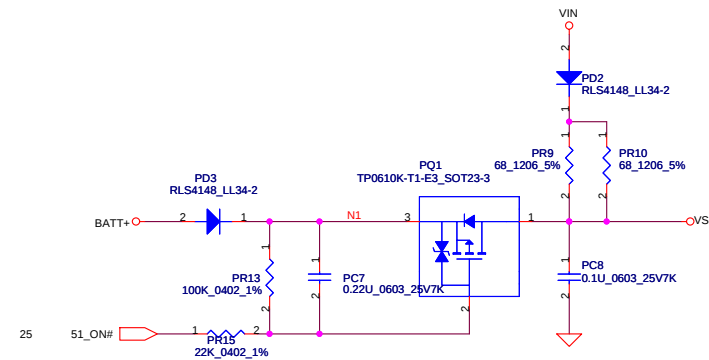
### +3VALW TO +3V\_SB



### +1.8V TO +1.8VS



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            |                          |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|------------|--------------------------|----------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |            | Title                    |          |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/04/07 | Deciphered Date    | 2012/10/21 | Compal Electronics, Inc. |          |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | 401897                   | C        |
| Date: Monday, September 20, 2010                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                    |            | Sheet                    | 26 of 38 |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                    |            |                          |                            |                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|------------|--------------------------|----------------------------|-------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            | Compal Secret Data |            | Compal Electronics, Inc. |                            |                   |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2009/10/07 | Deciphered Date    | 2012/10/07 | Title                    | SCHEMATICS , MB A5122      |                   |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |                    |            | Date:                    | Monday, September 20, 2010 | Sheet<br>27 of 38 |

PH1 under CPU bottom side :

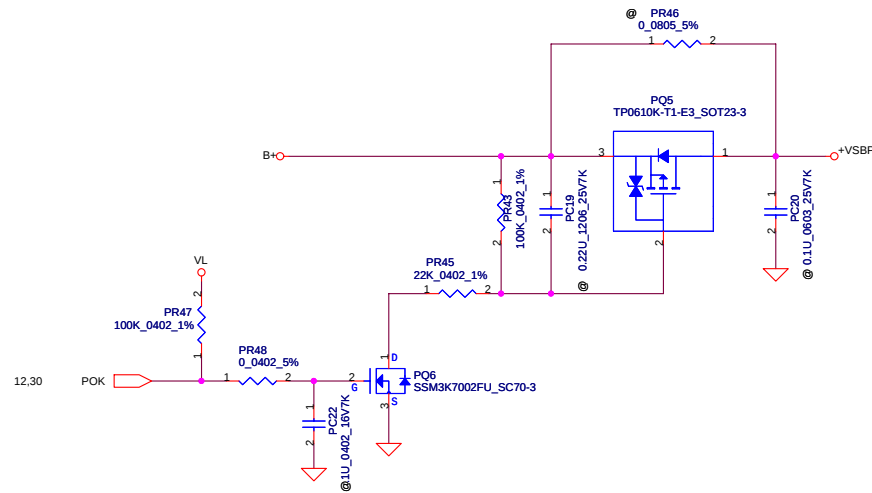
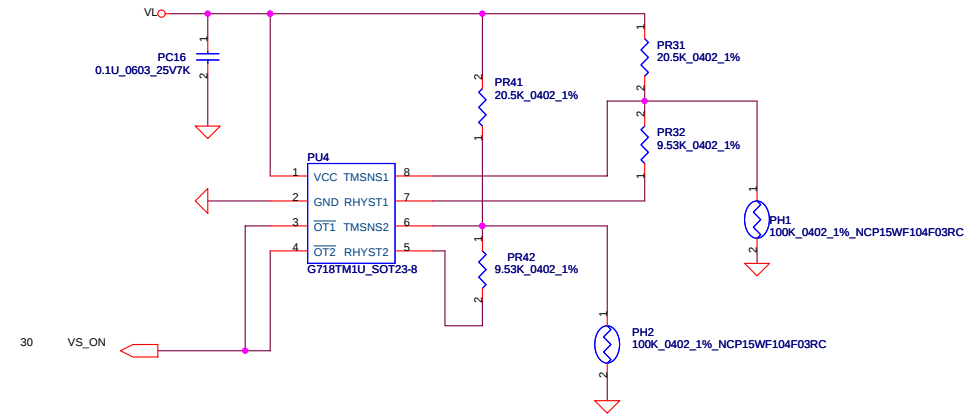
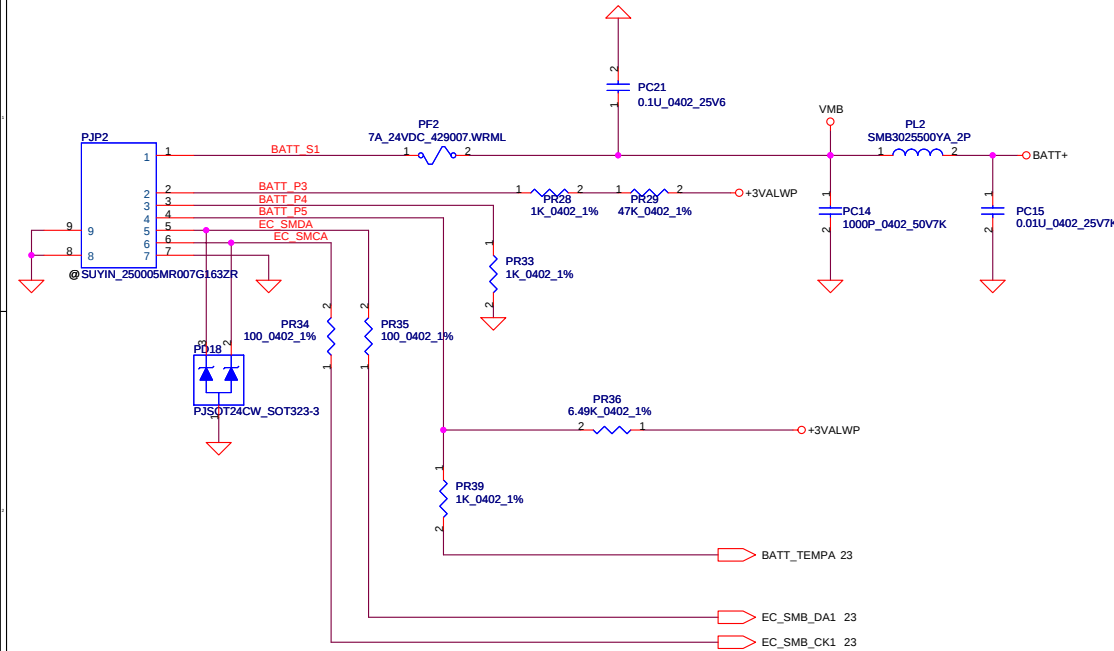
CPU thermal protection at 92 degree C

Recovery at 57 degree C

PH2 near main Battery CONN :

BAT. thermal protection at 92 degree C

Recovery at 57 degree C

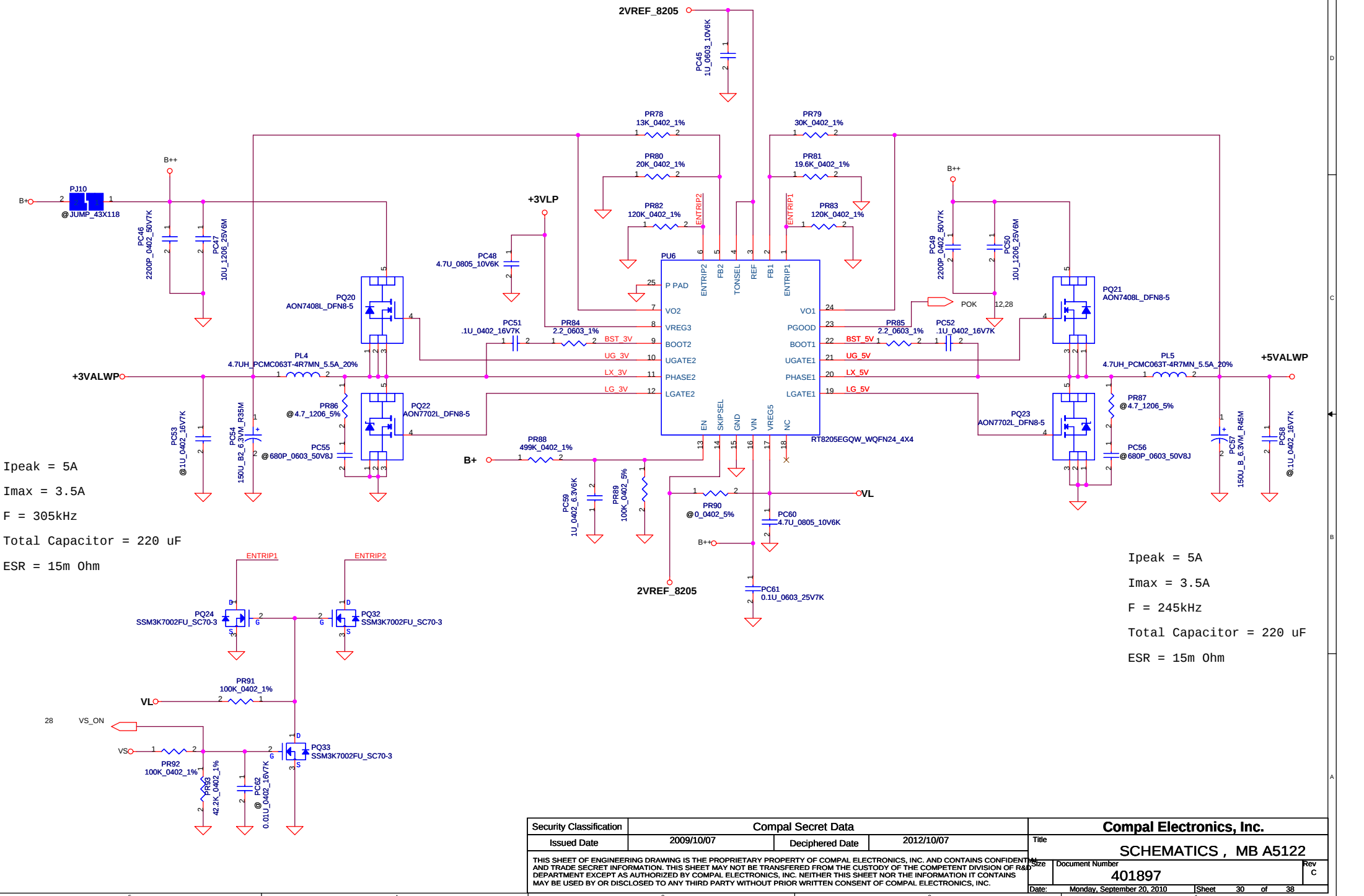


|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            |                          |                            |
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| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |            | Compal Electronics, Inc. |                            |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/10/07 | Deciphered Date    | 2012/10/07 | Title                    | SCHEMATICS , MB A5122      |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Date:                    | Monday, September 20, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Sheet                    | 28 of 38                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | Rev                      | C                          |

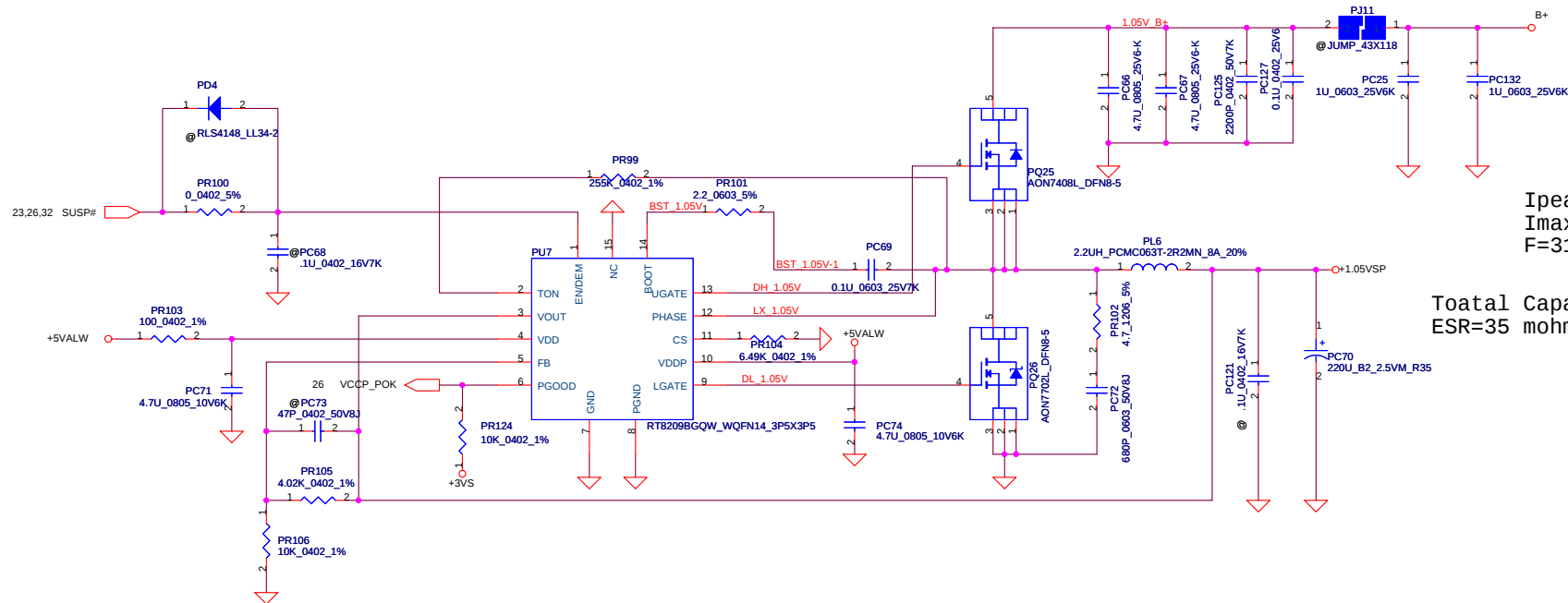


Ipeak = 5A  
 Imax = 3.5A  
 F = 305kHz  
 Total Capacitor = 220 uF  
 ESR = 15m Ohm

Ipeak = 5A  
 Imax = 3.5A  
 F = 245kHz  
 Total Capacitor = 220 uF  
 ESR = 15m Ohm

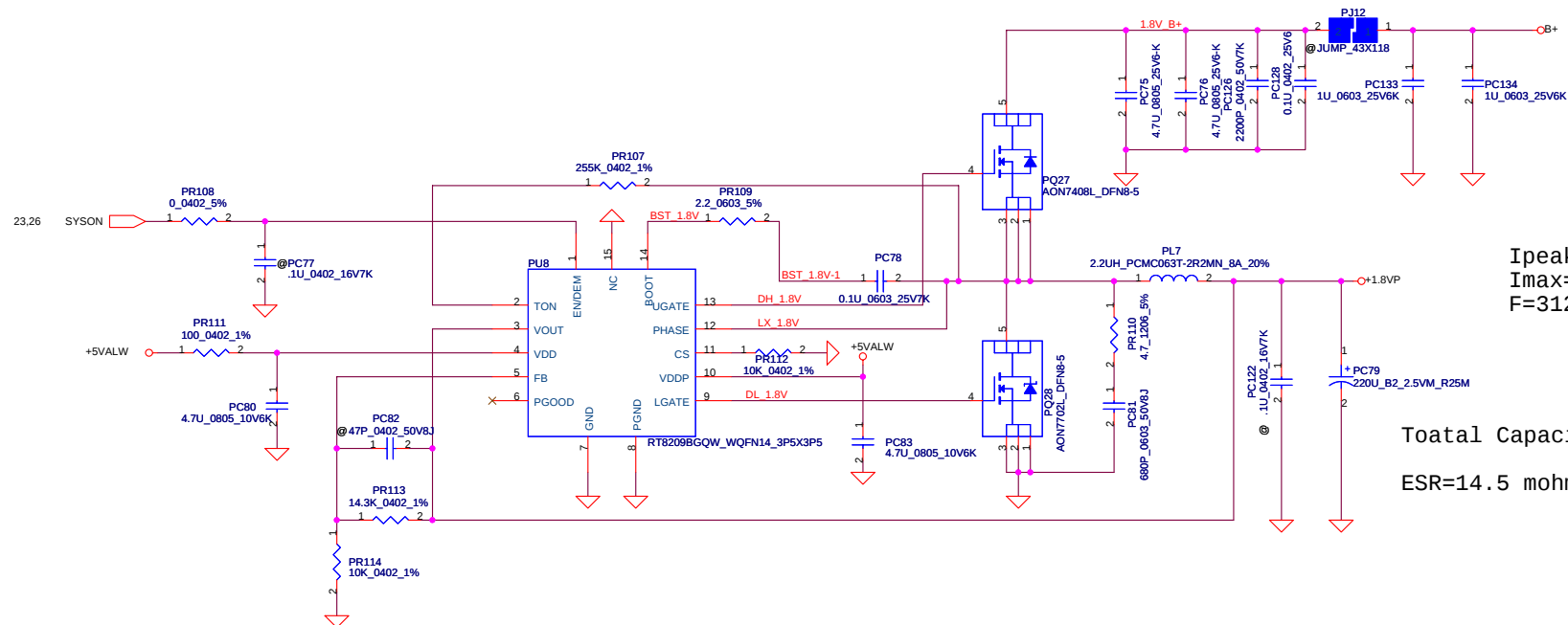


|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                            |            |                          |          |
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| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data         |            | Compal Electronics, Inc. |          |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2009/10/07 | Deciphered Date            | 2012/10/07 | Title                    |          |
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| Date                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Monday, September 20, 2010 |            | Sheet                    | 30 of 38 |
| Size                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | Document Number            |            | Rev                      |          |
| 401897                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            | 401897                     |            | C                        |          |



Ipeak=3.5A  
Imax=2.45A  
F=315K

Toatal Capacitor 220u  
ESR=35 mohm



Ipeak=6A  
Imax=4.2A  
F=312K

Toatal Capacitor 440u  
ESR=14.5 mohm

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            |                          |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|------------|--------------------------|----------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | Compal Secret Data |            | Compal Electronics, Inc. |          |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |                    |            | 401897                   | C        |
| Date: Monday, September 20, 2010                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                    |            | Sheet                    | 31 of 38 |





### *Version Change List ( P. I. R. List ) for Power Circuit*

[illegible]

PIR (Product Improve Record)

KAVAA LA-5121P SCHEMATIC CHANGE LIST  
REVISION CHANGE: 0.1

| NO       | DATE | PAGE | MODIFICATION LIST                                                      | PURPOSE                                                         |
|----------|------|------|------------------------------------------------------------------------|-----------------------------------------------------------------|
| -----    |      |      |                                                                        |                                                                 |
| 08/12/30 |      |      |                                                                        |                                                                 |
| (1) P30  |      |      | Mount R361 with 100K ohm                                               | For SUSP pull high                                              |
| 08/12/26 |      |      |                                                                        |                                                                 |
| N0       | PAGE |      | MODIFICATION LIST                                                      | PURPOSE                                                         |
| (1) P29  |      |      | Add U1(SA000036K00)forN280 CPU                                         |                                                                 |
| 08/12/25 |      |      |                                                                        |                                                                 |
| (1) P27  |      |      | Del R398 with 0 ohm and U32.10 link to GND                             | For customer recommend                                          |
| (2) P31  |      |      | Change H3 link to GNDA                                                 | For EMI request                                                 |
| 08/12/24 |      |      |                                                                        |                                                                 |
| N0       | PAGE |      | MODIFICATION LIST                                                      | PURPOSE                                                         |
| (1) P27  |      |      | Change U32.7 link to +3VS_HDP                                          |                                                                 |
|          |      |      | Change U32.9 no connect                                                |                                                                 |
| 08/12/23 |      |      |                                                                        |                                                                 |
| (1) P16  |      |      | Add U15A.AF7 and U15A.AE7 link to GND                                  | The unused STAT port RX signals must be properly tied to ground |
| 08/12/22 |      |      |                                                                        |                                                                 |
| (1) P15  |      |      | Change C203.1 Net name from PLTRST#_R to PLTRST#                       |                                                                 |
| (2) P12  |      |      | Reserve C868 with 10P                                                  | For Custome request                                             |
| (3) P13  |      |      | Reserve C871 with 10P                                                  | For Custome request                                             |
| (4) P25  |      |      | Reserve RC21 with 10 ohm and CC16 with 10P                             | For Custome request                                             |
| 08/12/21 |      |      |                                                                        |                                                                 |
| (1) P16  |      |      | Change C209 Package from 0603 to 0402                                  | For layout pacement limit                                       |
| (2) P18  |      |      | Change C222 Package from 0603 to 0402                                  | For layout pacement limit                                       |
|          |      |      | Change C219 Package from 0603 to 0402                                  | For layout pacement limit                                       |
| (3) P25  |      |      | Mount RC20 with 0 ohm                                                  | For CLK 48Mhz                                                   |
| 08/12/18 |      |      |                                                                        |                                                                 |
| (1) P4   |      |      | Reserve C484-C495 with 180p                                            | For debug                                                       |
| (2) P6   |      |      | Add R403-R405 with 1K ohm                                              | For CPU CLK link to NB                                          |
| (3) P10  |      |      | Change package C61,C62,C68,C78,C79 from 0603 to 0402                   | For layout pacement limit                                       |
|          |      |      | Change package C74,C75 from D2 to B2                                   | For layout pacement limit                                       |
| (4) p11  |      |      | Del C124 with 2.2U                                                     |                                                                 |
| (5) P12  |      |      | Del R85,R87,R88,R89,R92,R94,R95,R96,R102,R105,R106,R109                | For CPU BSELE0-2 link to CLK Gen                                |
|          |      |      | Change R90,R91 from 33 ohm to 22 ohm                                   | For damping resistor when loading is two device                 |
|          |      |      | Chagne net name FSB to CPU_BSEL1                                       | For CPU link to CLK Gen                                         |
|          |      |      | Del R110,R111 with 10K ohm                                             | For UMA platform not need to reserve                            |
| (6) P13  |      |      | Change Net name R117.1 from +3V_SB to +3VS                             | For layout pacement                                             |
|          |      |      | Change C183 link from GND to +3VS                                      | For layout pacement                                             |
|          |      |      | Change JLVDS pin2 from +LEDVDD to +LCDVDD_L                            | For LCD power consumption                                       |
| (7) P14  |      |      | Change C190~195 to 2.2P                                                | For EMI request                                                 |
| (8) P15  |      |      | Change package to 8P4R with 8.2K                                       | For layout pacement limit                                       |
|          |      |      | Del U16,R180,C206                                                      |                                                                 |
| (9) P16  |      |      | Del R190 with 8.2Kohm                                                  | For customer request                                            |
|          |      |      | Change R189 from 4.7K to 10K ohm                                       |                                                                 |
|          |      |      | Change Net name from IDE_DIORDY to IDE_DIORDY_IRQ                      |                                                                 |
| (10) P17 |      |      | Change R216 from 100K to 330K ohm                                      | For ACIN issue                                                  |
|          |      |      | Add R215,R406,Q31,R408,D43,R409                                        | For leakage current of RSMRST# Circuit                          |
|          |      |      | Add R410,D44                                                           | For EC leakage current to SB                                    |
| (11) P18 |      |      | Add R496 with 0.1U                                                     | For soft start                                                  |
| (12) P18 |      |      | Add L15 with MBK1608121YZF_0603                                        | For Ripple                                                      |
| (13) P20 |      |      | Change C455,C458,C222 from D2 to B2 with 220U                          | For layout placeemnt limit                                      |
|          |      |      | Change U21.4 from USB_EN# to USB_CHG_EN#                               | For customer request                                            |
|          |      |      | Add U21.5 link to U29.74                                               |                                                                 |
| (14) P21 |      |      | Del Q17 with 2N7002                                                    | For cost down                                                   |
|          |      |      | Change R237.1 from +5VS to +3VS                                        |                                                                 |
|          |      |      | Chagne C294.2 from GND to +3VS                                         |                                                                 |
| (15) P22 |      |      | Reserve PJ19                                                           |                                                                 |
| (16) P24 |      |      | Del CL6 with 10U                                                       |                                                                 |
|          |      |      | Change UL3 from HD-024A to NS681680                                    | For cost down                                                   |
| (17) P25 |      |      | Reserve CC9,CC12,YC1                                                   |                                                                 |
|          |      |      | Mount RC19 for 48Mhz                                                   |                                                                 |
|          |      |      | Mount RC20 For 48Mhz                                                   |                                                                 |
| (18) P26 |      |      | Del R304 with 10K ohm                                                  |                                                                 |
|          |      |      | Change R307 from 100K to 330K ohm                                      |                                                                 |
|          |      |      | R243 please close to EC                                                |                                                                 |
|          |      |      | Add Net Name USB_CHG_EN#                                               |                                                                 |
|          |      |      | Del D22,R310,R311                                                      |                                                                 |
| (19) P27 |      |      | Change U31 P/N from SA000030500 to SA000035U00                         |                                                                 |
| (20) P28 |      |      | Chagne U36 ROM Size from 16M*1 to 8M*1                                 |                                                                 |
|          |      |      | JBK KB Matrix the same to KSKAA                                        |                                                                 |
|          |      |      | Del JP2                                                                |                                                                 |
| (21) P29 |      |      | Change R370,R371,R372,R375,R383,R384,R374,R333 from 120 ohm to 220 ohm |                                                                 |
|          |      |      | Del R325,R326                                                          |                                                                 |
| (22) p30 |      |      | Add R401,R402 with 10K ohm                                             |                                                                 |

PIR (Product Improve Record)

KAVAA LA-5121P SCHEMATIC CHANGE LIST  
REVISION CHANGE: 0.1-->0.2

| NO  | DATE | PAGE | MODIFICATION LIST                                          | PURPOSE                                    |
|-----|------|------|------------------------------------------------------------|--------------------------------------------|
| 1)  | 1/13 | 10   | Change D1 to CH751H-40PT_SOD323-2                          | For BOM simplify                           |
| 2)  | 1/13 | 18   | Change D7,D8 to CH751H-40PT_SOD323-2                       | For BOM simplify                           |
| 3)  | 1/13 | 23   | Change net name from JLINE to JEXMIC                       | For EXMIC JACK                             |
| 4)  | 1/13 | 23   | Change net name from JEXMIC to JLINE                       | For JLINE JACK                             |
| 5)  | 1/13 | 29   | Chagne JPOWER.3 net name from ON/OFFBTN# to ON/OFFBTN#_R   | For PWR/B can't power on with battery mode |
|     | 1/13 | 30   | Add H20,H21                                                | For half card                              |
| 6)  | 1/22 | 13   | Change R117 from 47k to 100K ohm                           | For LCD Soft start reduce inrush current   |
|     |      |      | Change Q11 from SI2301BDS to A03413                        | For LCD Soft start reduce inrush current   |
|     |      |      | Add C498 with 0.01uF                                       | For LCD Soft start reduce inrush current   |
| 7)  | 1/22 | 19   | Change SW1.3 to dummy pin                                  | For Kill switch issue                      |
|     |      |      | Change SW1.1 to GND                                        | For Kill switch issue                      |
| 8)  | 1/22 | 21   | Change R238 from 10K to 47K                                | For BT Soft start reduce inrush current    |
|     |      |      | Add C499 with 0.01uF                                       | For BT Soft start reduce inrush current    |
| 9)  | 1/22 | 22   | Del Net name AMP_SPK_R and AMP_SPK_L                       | For Mono SPK                               |
|     |      |      | Add Net name AMP_SPK from UA2.37 to UA3.17                 | For Mono SPK                               |
|     |      | 23   | Del CA32 with 0.033UF                                      | For Codec output less than 0.9V            |
|     |      |      | Add RA38,RA40 with 1K ohm                                  | For Codec output less than 0.9V            |
|     |      |      | Add RA39,RA41 with 9.09k ohm                               | For Codec output less than 0.9V            |
|     |      |      | Add CA43 with 1uf                                          | For Codec output less than 0.9V            |
|     | 1/22 | 27   | Change U34 P/N from SA00000XZ50 to SA000037Y60             | For G-sensor controller chip change        |
|     |      | 29   | JTOUCH pin define reversal                                 | For ME request assembly easy               |
|     |      | 30   | Change R355 from 3.3K to 47K                               | For LAN Soft start reduce inrush current   |
|     |      |      | Add C500 with 0.01uf                                       | For LAN Soft start reduce inrush current   |
| 10) | 2/3  | 14   | Reserve C504 with 0.1uf                                    | For EMI request                            |
|     | 2/3  | 19   | Add R411 with 0 ohm                                        | Del Kill switch function                   |
|     | 2/3  |      | Reserve SW1,RM1,U17,C264 for del kill switch function      | Del kill switch function                   |
|     | 2/3  | 20   | Change D15,D38,D37 from PRTR5V0U2X to CM1293A-04S0         | For EMI request                            |
|     | 2/3  | 23   | Change DA3,DA6,DA7 from PJDLC05 to PACDN042Y3R             | For EMI request                            |
|     | 2/3  | 28   | Add C501,C502 with 330pf                                   | For EMI request                            |
|     |      |      | Add C503 with 470pf                                        | For EMI request                            |
|     |      |      | Add R412 with 10 ohm                                       | For EMI request                            |
|     |      |      | Add C508 with 6pf                                          | For EMI request                            |
|     | 2/3  | 29   | Add R413,R414,R415 with 0 ohm                              | For EMI request                            |
|     |      |      | Reserve C505,C506,C507 with 0.1uf                          | For EMI request                            |
|     |      |      | Change D27 from PJDLC05 to PACDN042Y3R                     | For EMI request                            |
|     |      |      | Del D25 with PJDLC05                                       | For EMI request                            |
|     |      |      | Change R375 from 220 to 300 ohm                            | For White LED of PWR/B                     |
|     |      |      | Change R375.1 Net name from +3VALW to +5VALW               | For White LED of PWR/B                     |
| 11) | 2/4  | 22   | Change CA14 from 100pf to 0.1uf                            | For SPK noise issue                        |
|     |      |      | Add PJ20,PJ21                                              | For customer request(Echo Peak Issue)      |
|     |      | 24   | Change UL3 from 16pin(SP050003N00) to 24pin(SP050003P00)   | For EMI issue                              |
| 12) | 2/5  | 06   | Add R416 with 0 ohm                                        | For WWLAN request                          |
|     |      |      | Reserve C511 with 22pf                                     | For WWLAN request                          |
|     |      | 12   | Reserve C509,C510 with 10p                                 | For WWLAN request                          |
|     |      | 22   | Reserve UA1,CA9,CA11                                       | For cost down plan                         |
|     | 2/6  |      | Modify JUSBA,JUSBB,JUSBC Symbol for GND pad                | For GND pin                                |
|     |      | 10   | Reserve C67 with 220uF                                     | For Cost down plan                         |
|     |      |      | Add C514 with 0.1uF                                        | For ESD team request                       |
|     |      | 23   | Change RA38,RA40 with 2K ohm                               | For Codec output less than 0.9V            |
|     |      |      | Change RA39,RA41 with 8.2K ohm                             | For Codec output less than 0.9V            |
|     |      | 24   | Change UL3 from NS681680(SP050003N00)to 8456E(SP050005V00) | For ESD fail issue                         |
|     |      | 30   | Reserve +1.5VS,+1.05VS,+0.9VS,+1.8VS discharge circuit     | For Cost down plan                         |
|     |      | 27   | Reserve C867 with 0.22uf                                   | For U33.4 NC pin                           |
|     |      |      | Change U33 from APL5151-33BC to G0191-330T1U               | For power sequence issues on HPC           |
|     | 2/9  | 20   | Change C455,C288 from 220uf to 150uf                       |                                            |
|     |      |      | Reserve C458 with 150uf                                    | For Cost down plan                         |
|     | 2/11 | 22   | Mount RA13 with 0 ohm                                      | For EMI request open channel               |
|     |      | 27   | Change U31 from SA000035U00 to SA000039900                 | For Customer request version change        |
|     | 2/16 | 14   | Mount C504 with 0.1uF                                      | For EMI request                            |
|     |      | 23   | Mount DA3/DA6 with PACDN042Y3R                             | For EMI request                            |
|     |      | 17   | Reserve C217,C218 with 0.1uF                               | For Reserve WWAN PCIE interface            |

PIR (Product Improve Record)

KAVAA LA-5121P SCHEMATIC CHANGE LIST  
REVISION CHANGE: 0.2-->1.A

| NO   | DATE | PAGE | MODIFICATION LIST                                         | PURPOSE                            |
|------|------|------|-----------------------------------------------------------|------------------------------------|
| 1)   | 2/25 | 4    | Mount C484-C495 with 220pF                                | For EMI request                    |
| 2)   | 2/25 | 6    | Change Net name from ICH_POK to ICH_PWR0K                 | For correcting power down sequence |
| 3)   | 2/25 | 12   | Change R81,R82 from 0 ohm to FBMH1608HM601-T_0603         | For WWAN request                   |
|      |      |      | Mount C133,C141 with 47pF                                 | For WWAN request                   |
|      |      |      | Mount C142,C143,C144,C145,C146,C868 with 22pF             | For WWAN request                   |
| 4)   | 2/25 | 13   | Mount C871 with 10pF                                      | For WWAN request                   |
| 5)   | 2/25 | 15   | Mount C203,C204 with 0.1uF                                | For WWAN request                   |
| 6)   | 2/25 | 17   | Change Net name from ICH_POK to ICH_PWR0K                 | For correcting power down sequence |
|      |      |      | Add R418 with 10K ohm                                     | For correcting power down sequence |
|      |      |      | Add U37 with TC7SH08FUF_SS0P5(SA007080100)                | For correcting power down sequence |
|      |      |      | Reserve R417 with 0 ohm                                   | For correcting power down sequence |
| 7)   | 2/25 | 19   | Mount C479,C480,C481,C482 with 47pF                       | For WWAN request                   |
| 8)   | 2/25 | 22   | Mount RA31 with 22 ohm,CA34 with 10pF                     | For WWAN request                   |
| 9)   | 2/25 | 23   | Change JEXMIC,JLINE PCB footprint to JA6033L-B3T4-7F-6P-T | For ME request                     |
| 10)  | 2/25 | 25   | Mount CC16 with 10pf,RC21 with 10 ohm                     | For WWAN request                   |
| 11)  | 2/25 | 26   | Change U29.104 net name from ICH_POK to EC_PWR0K          | For correcting power down sequence |
| 12)  | 2/25 | 28   | Mount C508 with 33pF,R412 with 33 ohm                     | For WWAN request                   |
| 13)  | 2/25 | 30   | Reserve R349 with 200K ohm                                | For design change                  |
|      |      |      | Change C447 from 0.01uf to 0.022uF                        | For design change                  |
|      |      |      | Change R346 from 20K to 47K ohm                           | For design change                  |
| 14)  | 3/2  | 14   | Change D5 from SC1B491D000 to SCS00002000                 | For buyer recommend                |
|      |      | 28   | Change U36 to MX25L8005M2C(SA00000XT00)                   | For CLK frequency 75MHz            |
|      | 3/2  | 30   | Change H18 from H_3P0N to H_2P6N                          | For ME request                     |
|      |      |      | H19 from H_6P0X3P0N to H_6P0X2P6N                         | For ME request                     |
|      | 3/4  | 08   | Add GMCH_INV_T_PWM on U3.H30                              | For support DPST function          |
|      |      | 13   | Add R419 with 0 ohm                                       | For support DPST function          |
|      |      |      | Reserve R420 with 0 ohm                                   | For support DPST function          |
|      |      |      | Del JLVDS pin 2 for dummy pin                             | For prevent short B+               |
|      |      | 23   | Mount DA5 with PJDLCO5                                    | For EMI request                    |
|      |      | 23   | Reserve DA6 with PJDLCO5                                  | For EMI request                    |
|      |      | 20   | Add C515,C516 with 470pF                                  | For EMI request                    |
|      |      | 28   | Mount C414-C437,C461 with 100pF                           | For EMI request                    |
|      |      | 17   | Add R421 with 330K ohm to +3VALW                          | For USB over current protect       |
|      |      | 17   | Add D45 with CH751H-40PT to USB_OC#0_2                    | For USB over current protect       |
|      |      | 17   | Change RP7.4 from USB_OC#0_2 to USB_OC#0_2_D              | For USB over current protect       |
|      |      | 17   | Change U15.D3 from USB_OC#0_2 to USB_OC#0_2_D             | For USB over current protect       |
|      |      | 26   | Add Net name to USB_OC#0_2                                | For USB over current protect       |
|      |      | 29   | Change R413,R414,R415 from 0 ohm to FBMA-10-100505-151T   | For EMI request                    |
|      |      | 30   | Add C517-C520 with 0.1uF                                  | For ESD request                    |
| 3/5  |      | 12   | Reserve R427 with 0 ohm                                   | For Silego source chip             |
|      |      |      | Add R428 with 10K ohm to +3VS                             | For Silego source chip             |
|      |      |      | Change U4.54 from H_STP_PCI# to H_STP_PCI#_R              | For Silego source chip             |
| 3/5  |      | 17   | Add R423,R424 with 0 ohm                                  | For design change                  |
|      |      |      | Reserve R410,R421 with 330 K ohm                          | For design change                  |
|      |      |      | Reserve D44,D45 with CH751H-40PT                          | For design change                  |
|      |      |      | Add R425,R426 with 0 ohm                                  | For debug                          |
|      |      | 30   | Reserve R422 with 0 ohm and PJ22 with JUMP_43X79          | For EMI request                    |
|      |      | 30   | Change H15 to Non-PTH hole                                | For design change                  |
| 3/10 |      | 17   | Change R214.2,U15.F20 from ICH_PCIE_WAKE# to EC_SWI#      | For wakeup LAN function            |
|      |      | 30   | Add EC_SWI# and link to both U29.103 to U15.F20           | For wakeup LAN function            |
| 3/10 |      | 22   | Change CA18 from 10uF to 0.1uF                            | For Audio noise                    |
| 3/16 |      | 16   | Change L6,L7,L8 to NBQ100505T-800Y_0402                   | For High speed bead                |
|      |      | 19   | Change BOM config of C481,C482to 3GGPS@                   | For 3G/GPS solt                    |
|      |      | 19   | Change BOM Config of C479,C480 to WLAN@                   | For WLAN/WiMax solt                |
|      |      | 29   | Change PCB P/N from DAZ08100100 to DAZ08100101            | For PCB P/N Change                 |
| 3/20 |      | 29   | Del SW3,SW4 with SMT1-05_4P                               | For debug phase using              |
|      |      | 29   | Change PCB P/N from DAZ08100101 to DAZ08100103            | For PCB P/N Change                 |
| 3/27 |      | 14   | Mount C200 with 0.1uf                                     | For EMI request                    |
|      |      | 20   | Mount C292 with 1uF                                       | For EMI request                    |
|      |      | 29   | Change R375 from 300 ohm to 220 ohm                       | For PWR/B LED light                |
|      |      | 30   | Mount R422 with 0 ohm                                     | For EMI request                    |

PIR (Product Improve Record)

KAVAA LA-5121P SCHEMATIC CHANGE LIST  
REVISION CHANGE: 1.A-->2.0

| NO  | DATE | PAGE | MODIFICATION LIST                              | PURPOSE                                          |
|-----|------|------|------------------------------------------------|--------------------------------------------------|
| 4/2 | 16   |      | Reserve C521 with 0.1uf                        | For EMI request                                  |
|     | 17   |      | Reserve C522 with 0.1uf                        | For EMI request                                  |
|     | 17   |      | Reserve C523 and C524 with 0.1uf               | For EMI request                                  |
|     | 26   |      | Reserve C525 with 0.1uf                        | For EMI request                                  |
|     | 30   |      | Reserve C526 with 0.1uf                        | For EMI request                                  |
|     | 30   |      | Reserve C527 and C528 with 0.1uf               | For EMI request                                  |
|     | 30   |      | Reserve C529 and C530 with 0.1uf               | For EMI request                                  |
|     | 30   |      | Reserve C531,C532 and C533 with 1uf            | For EMI request                                  |
|     | 19   |      | Add R429 with 100K ohm                         | For Mini card avoid the single collision problem |
|     | 30   |      | Link H15.1 to PJ22.1 and R422.1                | For EMI request                                  |
| 4/7 | 29   |      | Change PCB P/N from DAZ08100103 to DAZ08100105 | For PCB P/N Change                               |

OAV10 LA-5122P SCHEMATIC CHANGE LIST  
REVISION CHANGE: 2.0-->Buffalo 10BL

| NO    | DATE  | PAGE | MODIFICATION LIST                                  | PURPOSE                                                                     |
|-------|-------|------|----------------------------------------------------|-----------------------------------------------------------------------------|
| 12/22 | 5~7   |      | Change CPU to Pine Trail-M                         | Follow Buffalo 10BL SPEC                                                    |
|       | 10~13 |      | Change SB to Tigerpoint                            | Follow Buffalo 10BL SPEC                                                    |
|       | 08    |      | Follow LA-5841P CLK GEN pin define                 | For BIOS common design                                                      |
|       | 11    |      | Follow LA-5841P USB port pin define                | For BIOS common design                                                      |
|       | 11    |      | SLP_CHG_M3/SLP_CHG_M4 will be no used              | Buffalo 10BL no support SLP Charge                                          |
|       | 12    |      | SLP_CHG# will be no used                           | Buffalo 10BL no support SLP Charge and need to add R565 pull high to +3V_SB |
|       | 17    |      | Remove SLP charge components                       | Buffalo 10BL no support SLP Charge                                          |
|       | 24    |      | Remove G-sensor components                         | Buffalo 10BL no support G-sensor                                            |
| 12/27 | 09    |      | Reserve 0.1u Caps near DDR2 connector              | Follow Tempa Bay design                                                     |
| 12/31 | 08    |      | Delete CLK_48M_CR CLK for Cardreader               | Change RTS5159 to RTL8401                                                   |
| 12/31 | 12    |      | Add R610,R611 for HW Board ID function             | Add HW board ID for BIOS setting                                            |
| 12/31 | 16    |      | Add LPC interface signal in WLAN connector         | For Mini card debug card can be used                                        |
| 12/31 | 17    |      | Change USB power switch to RT9715                  | Follow Tempa Bay design                                                     |
| 12/31 | 21    |      | Change RTL8103EL and RTS5159 to RTL8401 combo chip |                                                                             |
| 01/05 | 20    |      | Reserve one 0.1u cap near audio AMP bypass pin     | For RF team request.                                                        |
| 01/05 | 15    |      | Change LVDS SCL/SDA pull high resistors to 2.2K    | Follow Tempa Bay design                                                     |
| 01/06 | 17    |      | Add 0.1u Caps for each screw holes.                | Follow A51 ESD design rule.                                                 |
| 01/06 | 18    |      | Delete Touch screen circuit                        | Buffalo 10BL won't support this function.                                   |
| 01/06 | 22    |      | Reserve +3VL power for EC                          | To solve Buffalo 1.X wireless LAN driver issue.                             |
| 01/06 | 22    |      | Add R318,R319 for HW Board ID in EC pin 16.        | Add HW board ID for BIOS setting                                            |
| 01/07 | 23    |      | Delete AC termination for LPC debug port.          | Base on EMI's issue list report, they won't need AC termination.            |
| 01/07 | 22    |      | Delete TS_STOP, TS_RST signal.                     | Buffalo 10BL no support Touch Sreccn.                                       |
| 01/11 | 22    |      | Reserve R320 0 ohm resistor.                       | Reserve write protect pin in EC pin17.                                      |
| 01/11 | 06    |      | Add 0 ohm resistors for XDP signals.               | Follow ESD team's desigh rule.                                              |
| 01/11 | 06    |      | Change R151,R152 to 2.2K.                          | Follow Intel design guide                                                   |
| 01/11 | 06    |      | Reserve R322 for EC pin 122                        | Reserve EC_CLK for EC                                                       |
| 01/19 | 5~9   |      | Change DDRII to DDRIII                             | Follow Buffalo 10BL SPEC                                                    |
| 01/25 | 08    |      | Change CLK Gen to low power chip                   | For low power consumption design.                                           |
| 01/26 | 22    |      | Change KBC to E0 version                           | For cost down plan.                                                         |
| 01/28 | 19    |      | Change audio codec to ALC259                       | For cost down plan.                                                         |
| 02/02 | 21    |      | Change cardreader to RTS5138                       | For cost down plan.                                                         |
| 02/03 | 22    |      | Change LAN to RTL8105E                             | For cost down plan.                                                         |