

Compal Confidential

Schematics Document

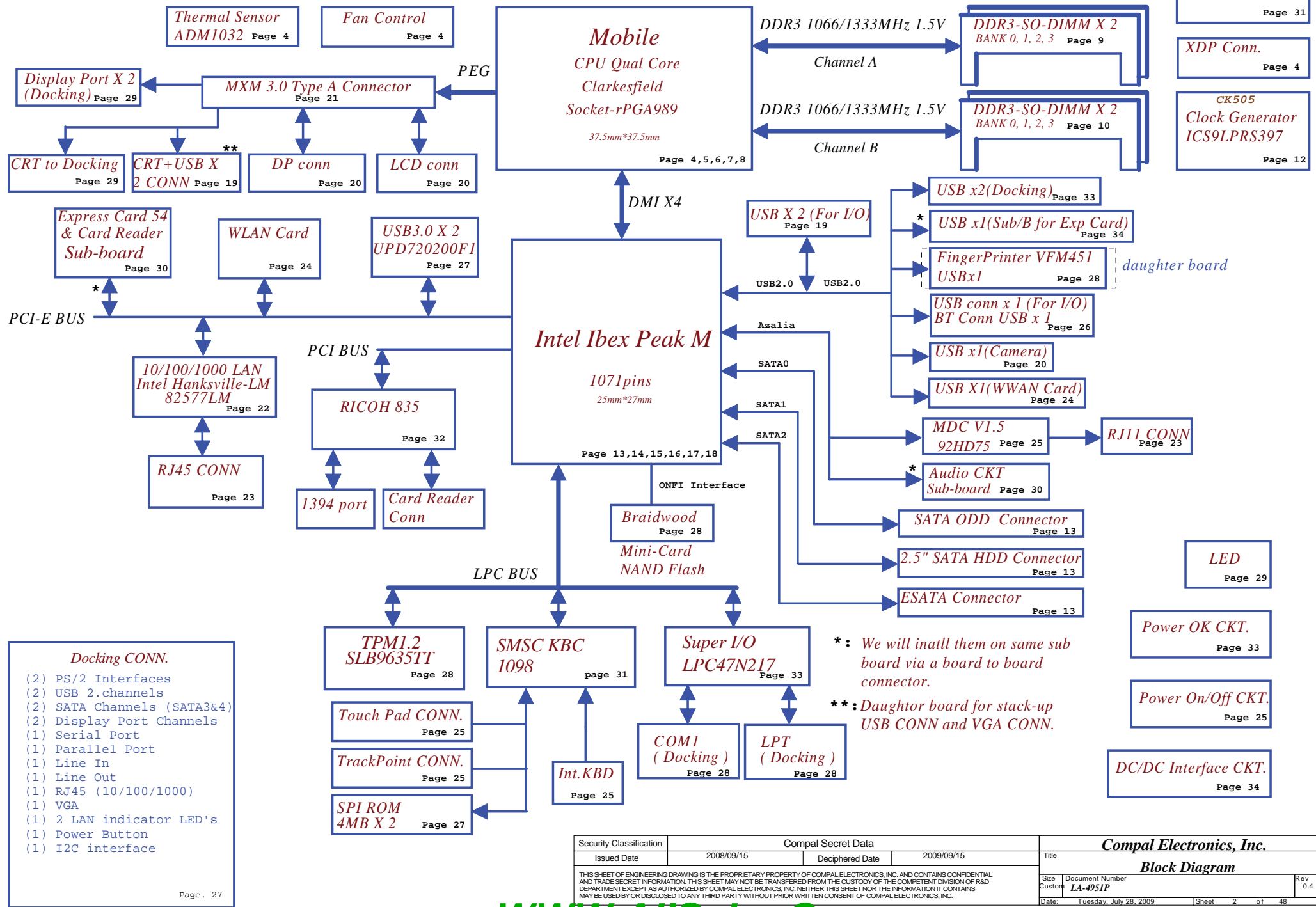
AUBURNDALE/CLARKSFIELD with
Intel IBEX PEAK-M core logic
Versace

2009-07-24

REV:0.4

| | | | | | |
|--|------------|--------------------|------------|------------------------------|-----------------------------|
| Security Classification | | Compal Secret Data | | Title | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Cover Sheet | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MUST NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D TO ANY OTHER DEPARTMENT OR PERSON WITHOUT THE PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size Custom | Document Number LA-4951P |
| | | | | Date: Tuesday, July 28, 2009 | Rev 0.4 |
| | | | | Sheet 1 of 48 | |

Versace

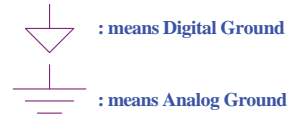


| | | | | | | | | | | | |
|---|--|--------------------|--|-----------------|--|---------------------------------|--|------------------------|--|---------------|--|
| Security Classification | | Compal Secret Data | | | | Compal Electronics, Inc. | | | | | |
| Issued Date | | 2008/09/15 | | Deciphered Date | | 2009/09/15 | | Title | | | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | | | Block Diagram | | | | | |
| | | | | | | Size | | Document Number | | Rev | |
| | | | | | | Custom | | LA-4951P | | 0.4 | |
| | | | | | | Date: | | Tuesday, July 28, 2009 | | Sheet 2 of 48 | |

Voltage Rails (O MEANS ON X MEANS OFF)

| power plane State | +RTCVCC | +B +3VL | +5VALW +3VALW | +1.5V +0.75V | +5VS +3VS +1.5VS +NVVDD +VCCP +CPU_CORE +1.05VS +1.8VS |
|--------------------------------|---------|------------|------------------|-----------------|---|
| S0 | O | O | O | O | O |
| S1 | O | O | O | O | O |
| S3 | O | O | O | O | X |
| S5 S4/AC | O | O | O | X | X |
| S5 S4/ Battery only | O | O | X | X | X |
| S5 S4/AC & Battery don't exist | O | X | X | X | X |

Symbol Note :



Install below 43 level BOM structure for ver. 0.1

DEBUG@ : means just build when PCIE port 80 CARD function enable. *Remove before MP*

M92@ : Install for M92 Graphic controller

8072@ : Install for 8072 NIC controller

1098@ : Install for 1098 KBC controller

CK32@ : Install for 32 pin CLOCK GEN

Install below 45 level BOM structure for ver. 0.1

45@ : means just put it in the BOM of 45 level.

Reserve below BOM structure for ver. 0.1

@ : means just reserve , no build

CONN@ : means ME part.

M93@ : Install for M93 Graphic controller

8075@ : Install for 8075 NIC controller

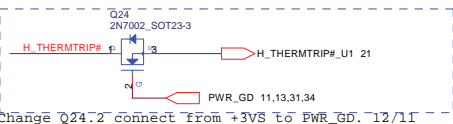
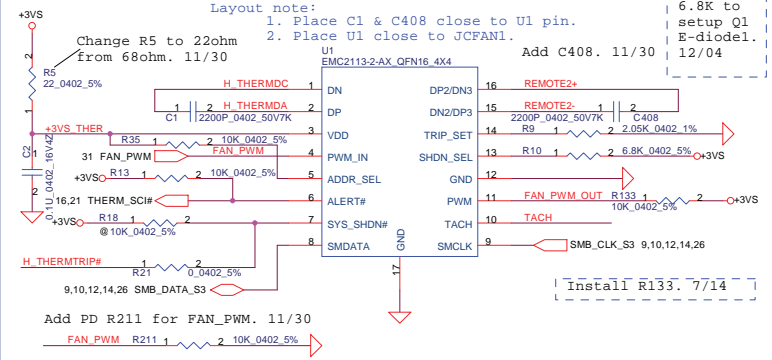
1091@ : Install for 1091 KBC controller

CK72@ : Install for 72 pin CLOCK GEN

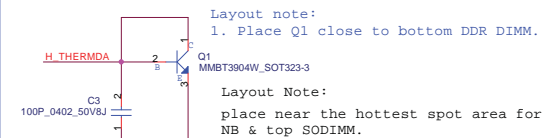
SMBUS Control Table

| | SOURCE | BATT | XDP | SODIMM | CLK CHIP | MINI CARD | DOCK | NIC | THERMAL SENSOR | G-SENSOR |
|--------------------------|----------|------|-----|--------|----------|-----------|------|-----|----------------|----------|
| SMB_EC_CK1 SMB_EC_DAI | SMSC1098 | V | X | X | X | X | X | X | X | X |
| SMBCLK SMBDATA | Calpella | X | V | V | V | V | V | X | X | X |
| SML0CLK SML0DATA | Calpella | X | X | X | X | X | X | V | X | X |
| SML1CLK SML1DATA | Calpella | X | X | X | X | X | X | X | V | V |

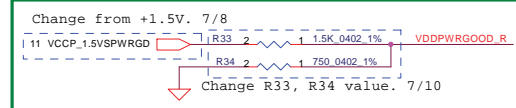
| | | | | | |
|---|------------------------|-----------------|------------|--------------------------|-----|
| Security Classification | Compal Secret Data | | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET SHALL NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D TO ANY OTHER DEPARTMENT OR TO ANY OTHER PERSONS, INCLUDING VENDOR, WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC. | | | | Notes List | |
| Size | Document Number | Rev | | | 0.4 |
| Customer | LA-495IP | | | | |
| Date: | Tuesday, July 28, 2009 | Sheet | 3 | of | 48 |



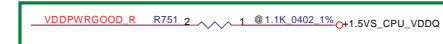
REMOTE thermal sensor



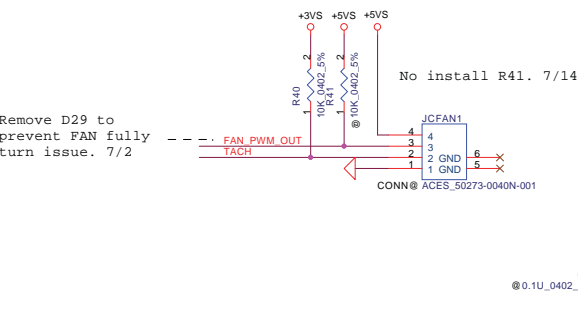
Intel S3



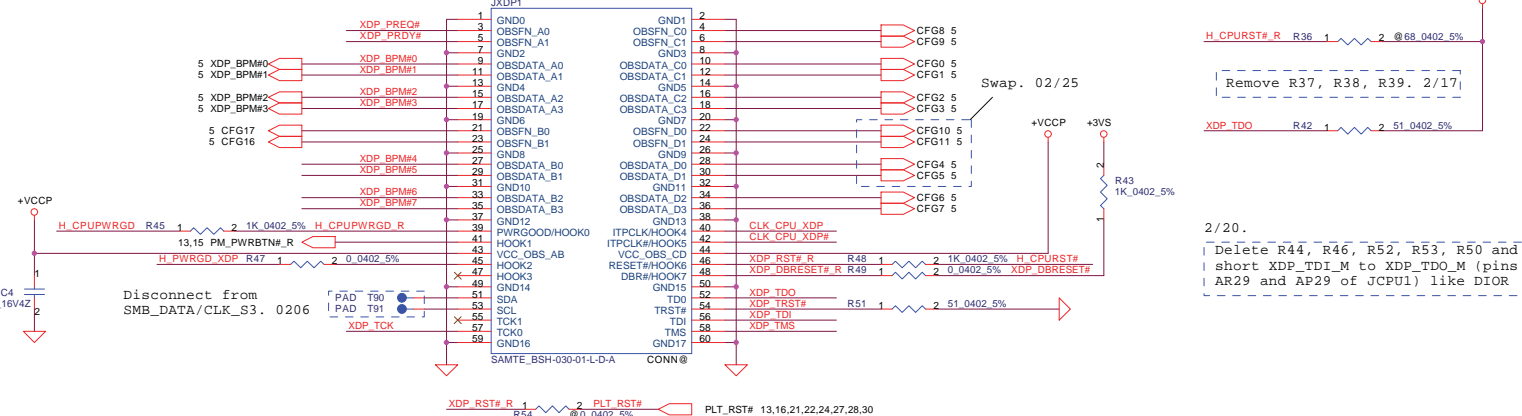
Intel S3



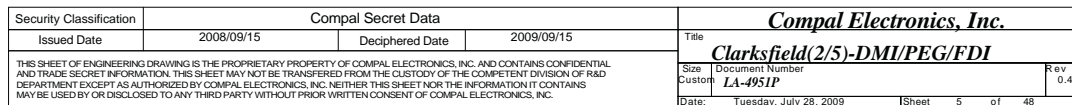
FAN Connector



XDP Connector



| | | | | | | |
|---|-----------------------|-----------------|------------|---------------------------------|-------------------------------------|-----|
| Security Classification | Compal Secret Data | | | Compal Electronics, Inc. | | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | Clarksfield(1/5)-Thermal/XDP | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size | Document Number | Rev |
| | | | | Custom | LA-4951P | 0. |
| Date: | Tuesday, Jul 28, 2009 | | | Sheet | 4 of 48 | |



9 DDR_A_D[0..63] DDR_A_D[0..63]

10 DDR_B_D[0..63] DDR_B_D[0..63]

JCPU1C

JCPU1D

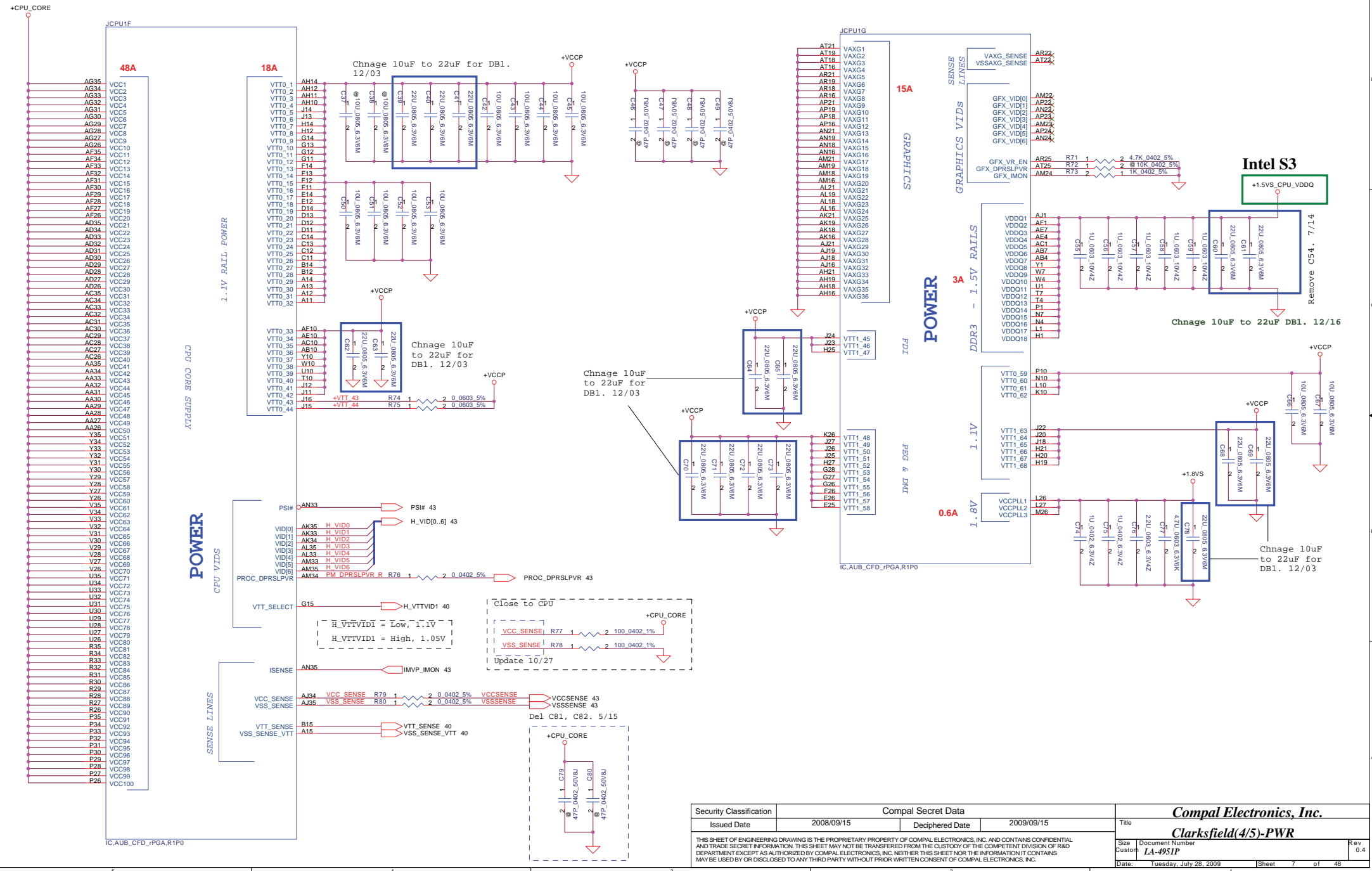
DDR SYSTEM MEMORY A

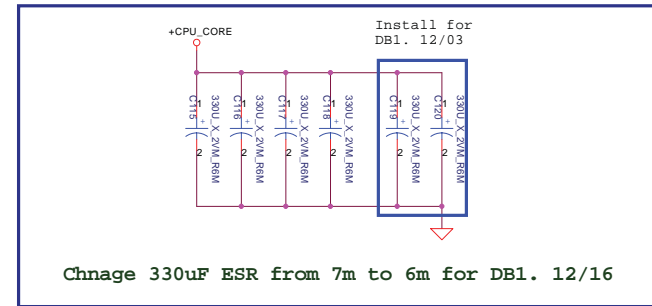
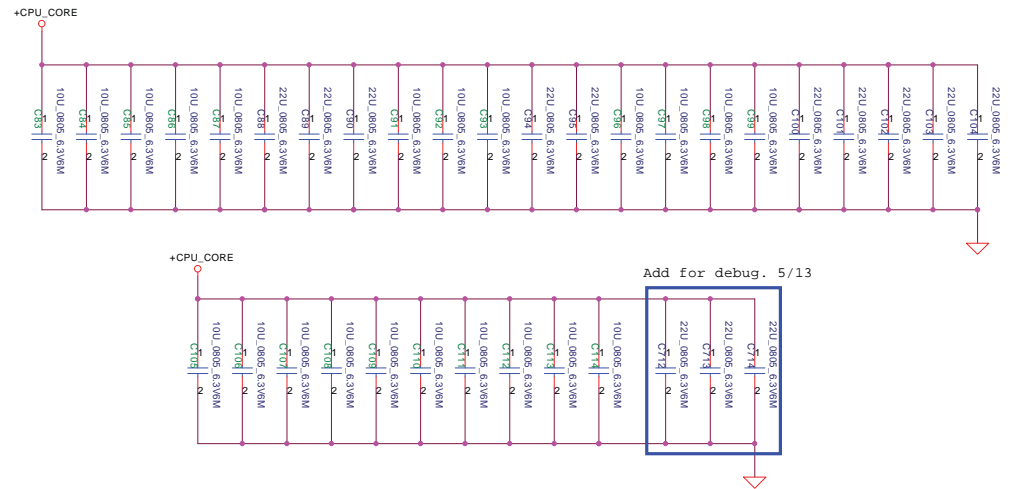
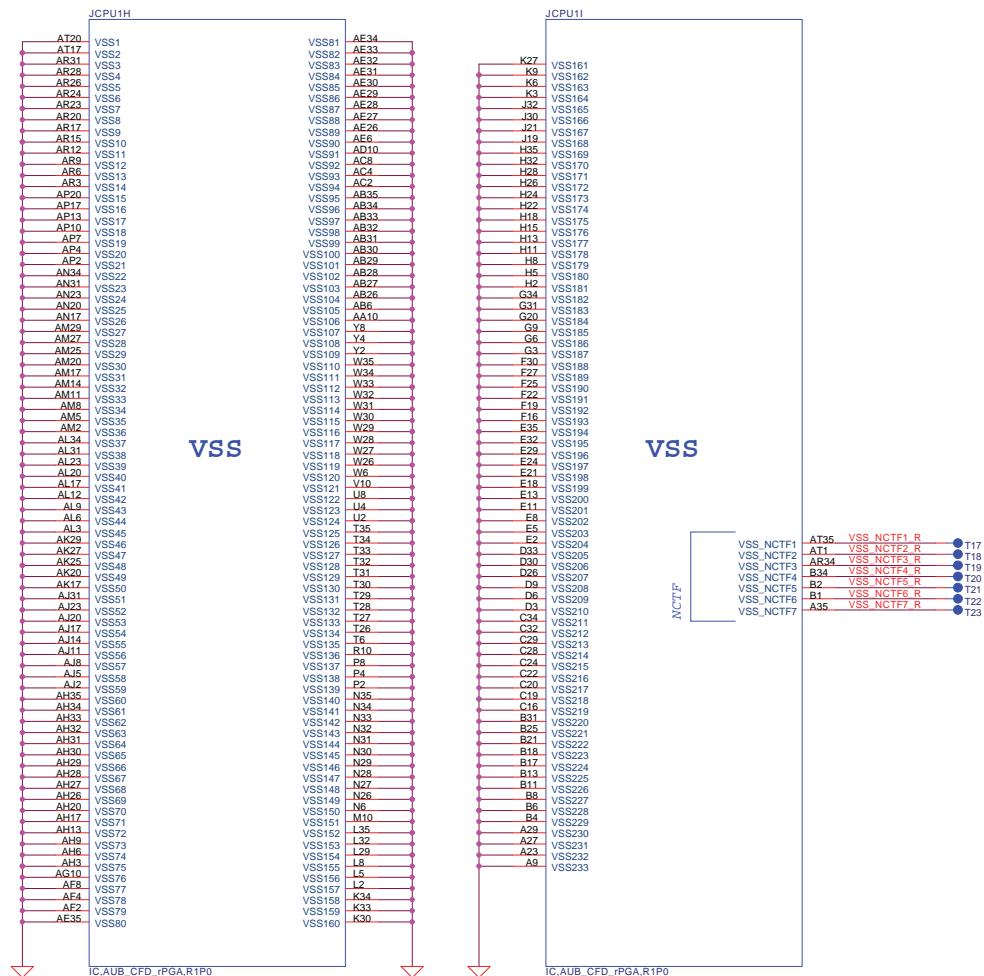
DDR SYSTEM MEMORY B

IC:AUB_CFD_rPGA,R1P0

IC:AUB_CFD_rPGA,R1P0

| | | | | | |
|---|------------|--------------------|------------|--------------------------|------------------------------|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | Clarksfield(2/6)-DDR3 A/B CH |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size | Document Number |
| | | | | Custom | LA-4951P |
| | | | | Date | Tuesday, July 28, 2009 |
| | | | | Sheet | 6 of 48 |
| | | | | Rev | 0.4 |

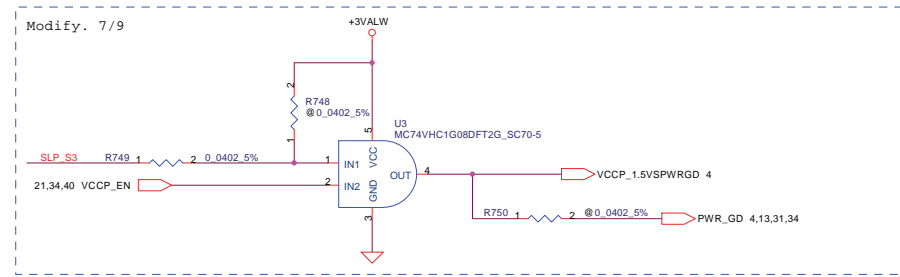
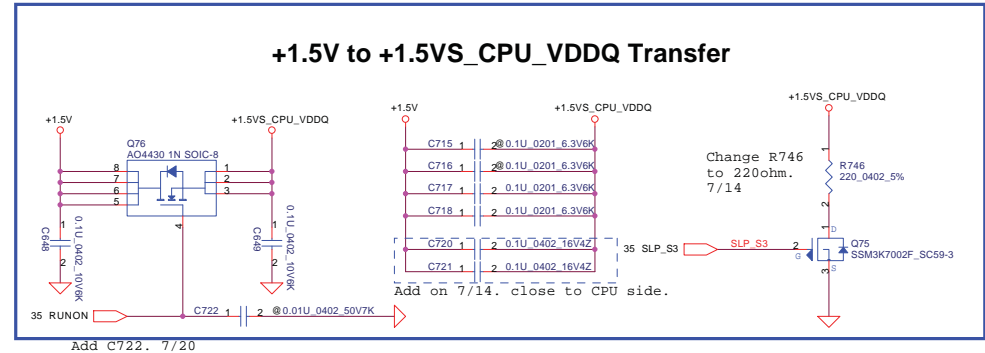
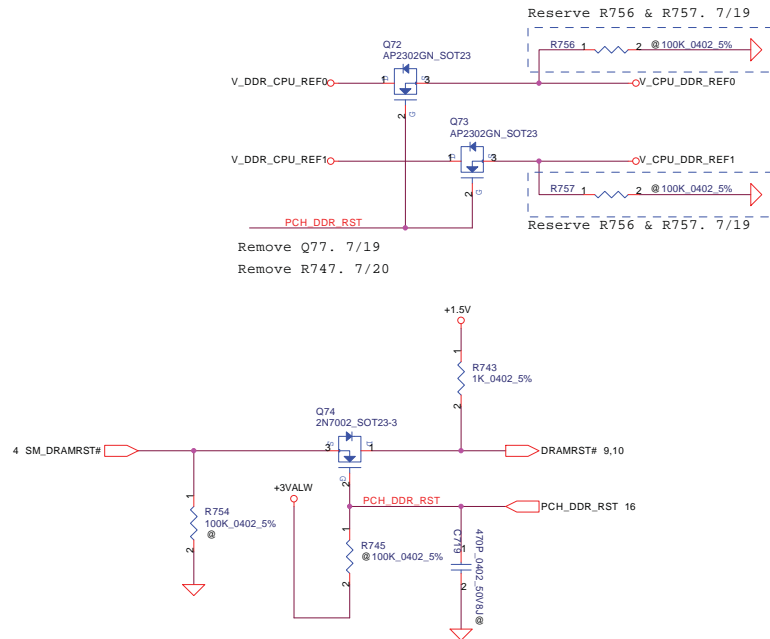




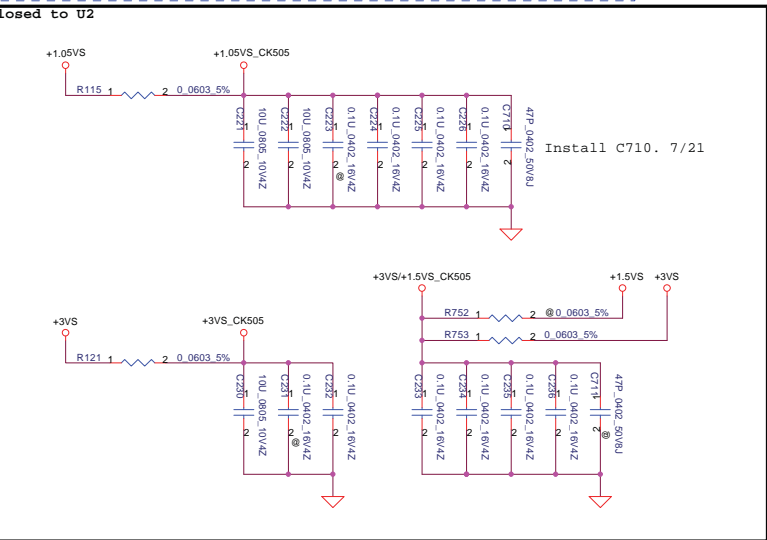
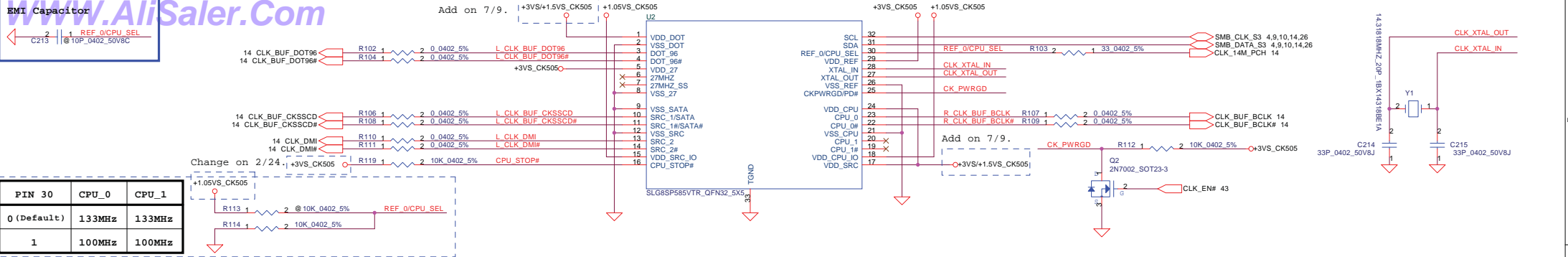
| | | | | | |
|---|------------|--------------------|------------|--------------------------|-----------------------------|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | Clarksfield(5/5)-GND/Bypass |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size | Document Number |
| | | | | Custome | LA-4951P |
| | | | | Date: | Tuesday, July 28, 2009 |
| | | | | Sheet | 8 of 48 |
| | | | | Rev | 0.4 |



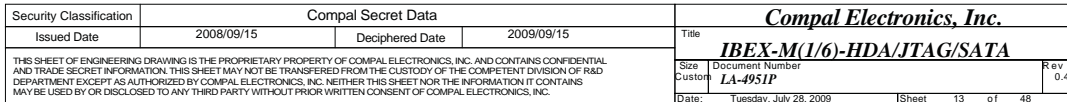




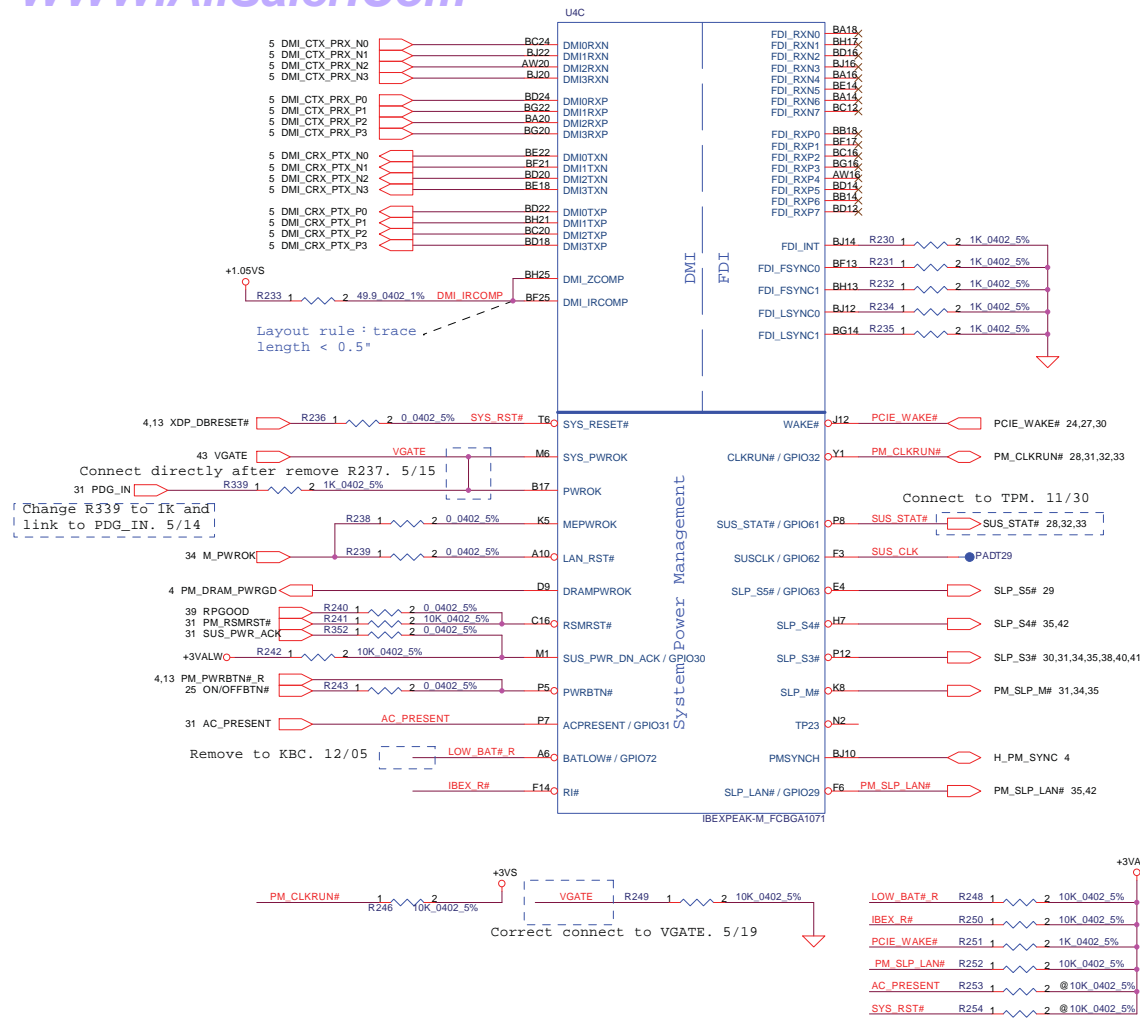
| | | | | | |
|---|--------------------|-----------------|------------|--------------------------|------------------------|
| Security Classification | Compal Secret Data | | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Intel S3 power saving | |
| | | | | Size | Document Number |
| | | | | Custom | LA-4951P |
| | | | | Date | Tuesday, July 28, 2009 |
| | | | | Sheet | 11 of 48 |
| | | | | Rev | 0.4 |



| | | | | | | | | | | |
|---|--|--------------------|-----------------|--|------------|-------------------------------|------------------------|--|-------|-----|
| Security Classification | | Compal Secret Data | | <i>Compal Electronics, Inc.</i> | | | | | | |
| Issued Date | | 2008/09/09 | Deciphered Date | | 2009/09/09 | Title | | | | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | | | <i>CLOCK GENERATOR</i> | | | | |
| | | | | | | Size | Document Number | | | Rev |
| | | | | | | | LA-4951P | | | 0.4 |
| | | | | | | Date: | Tuesday, July 28, 2009 | | Sheet | 12 |

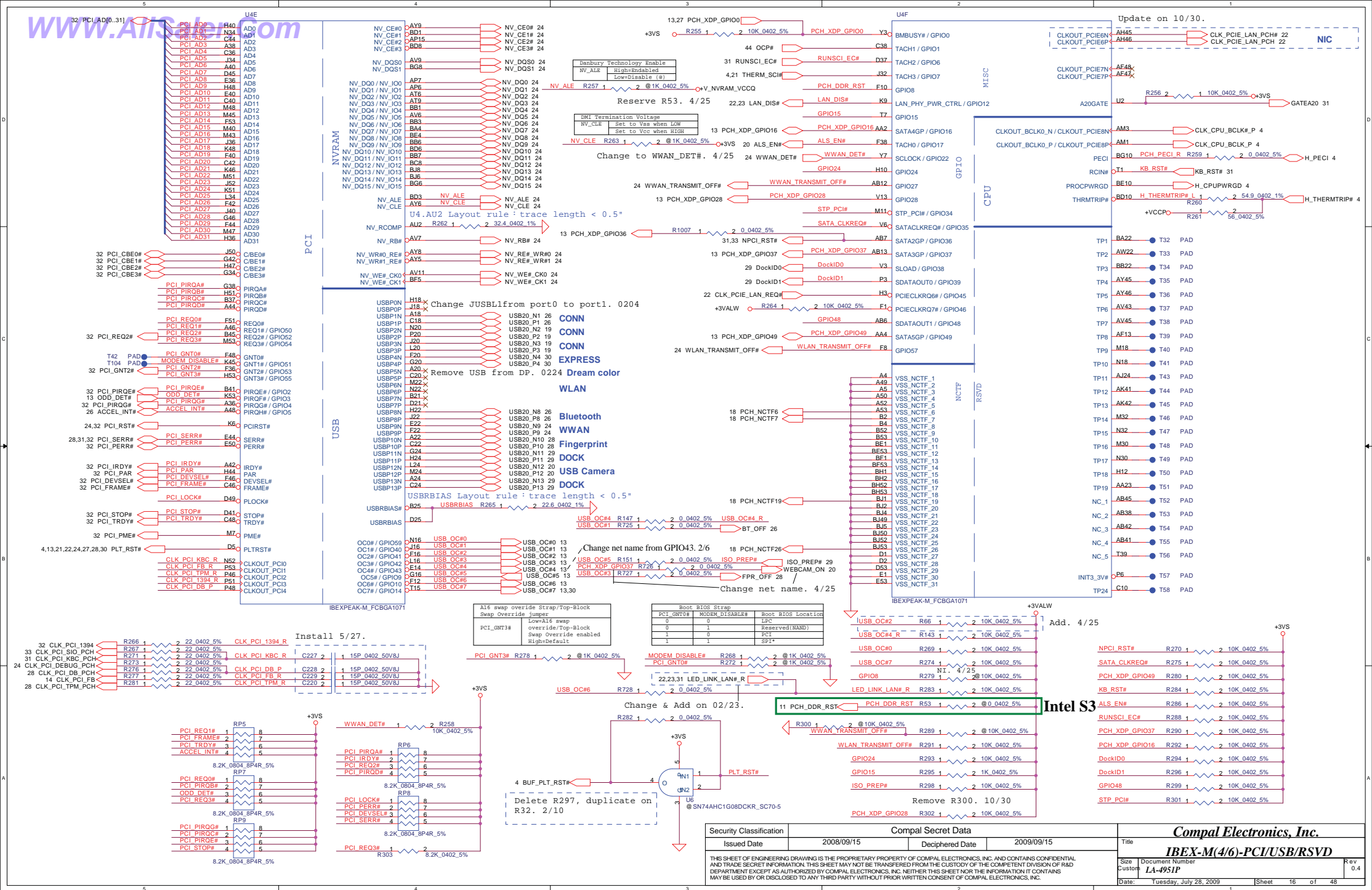


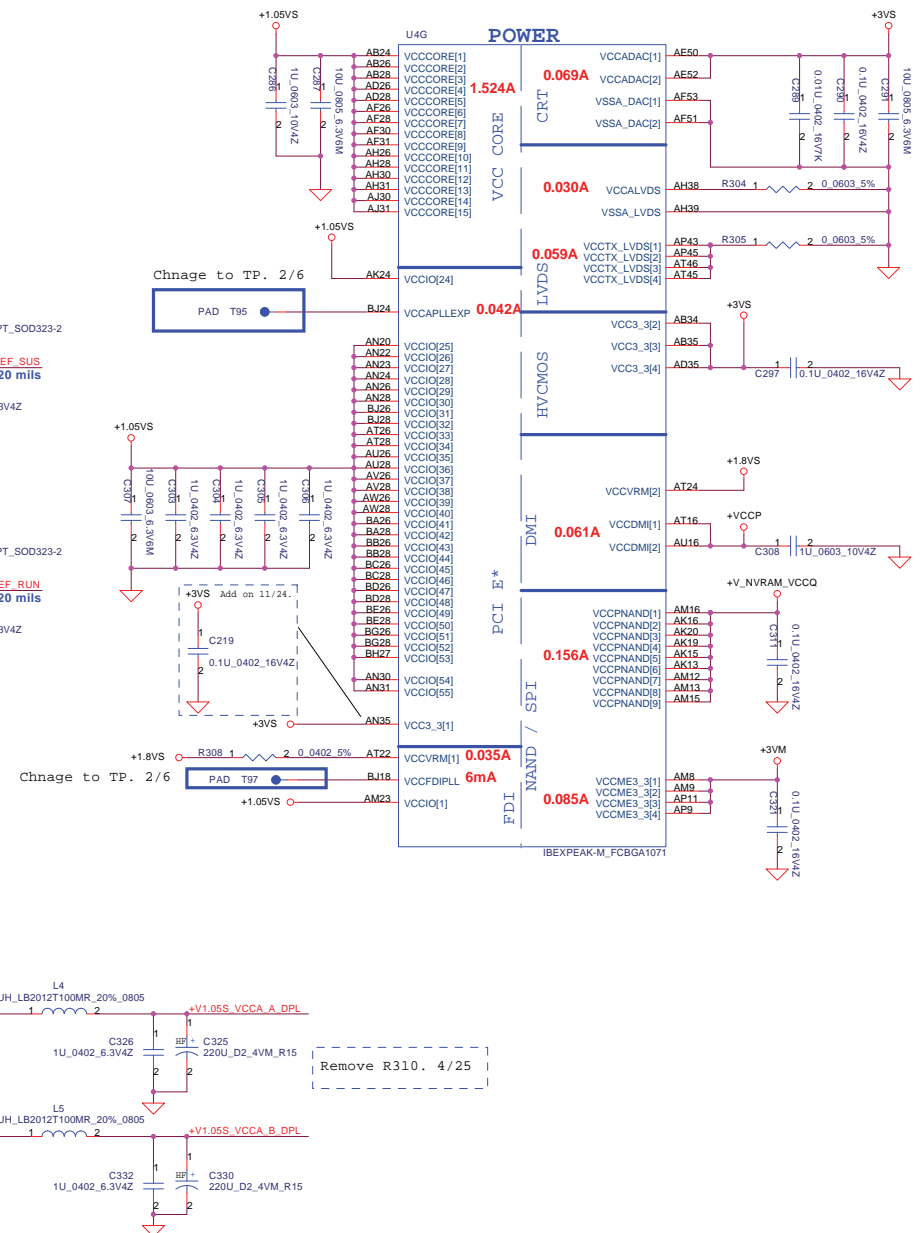
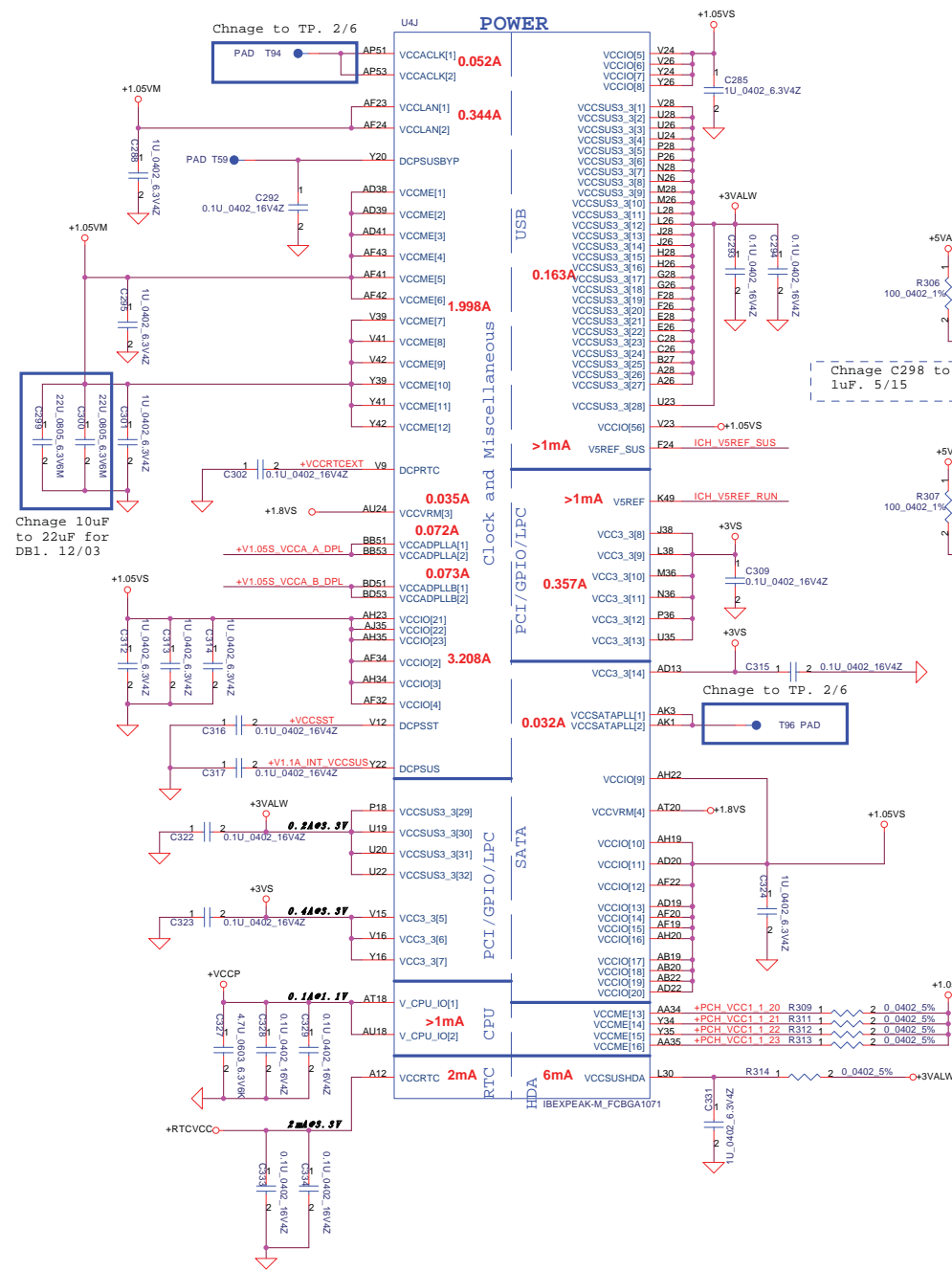




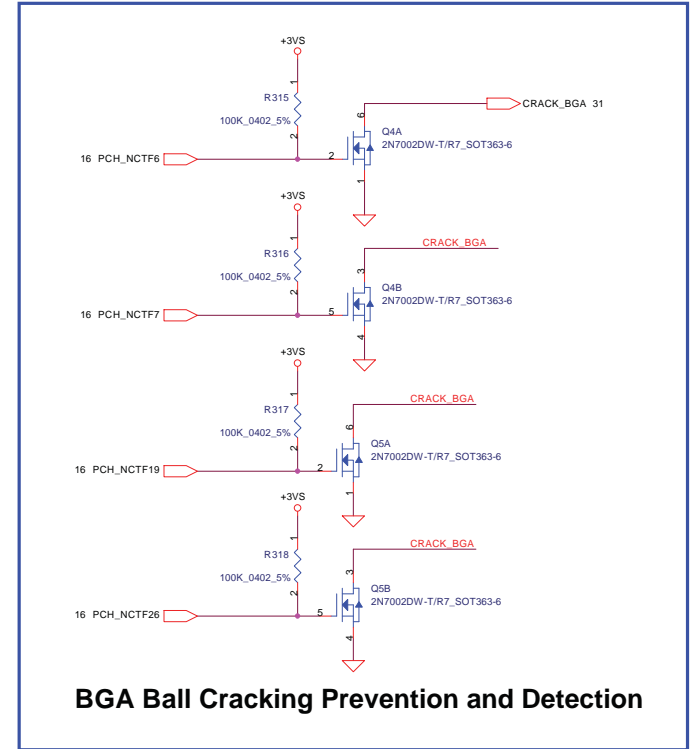
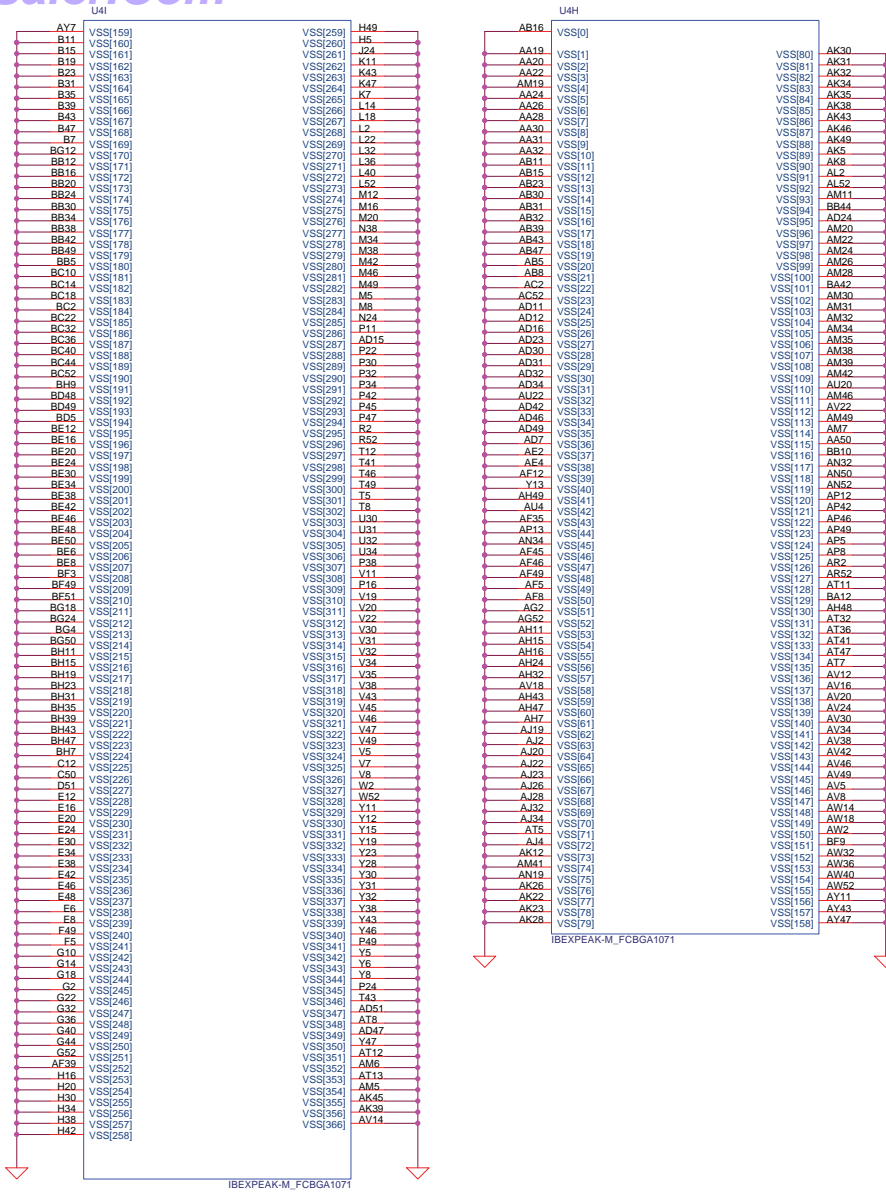
NI R253. 5/14

| | | | | | |
|---|--------------------|-----------------|------------|--------------------------|---------------------------|
| Security Classification | Compal Secret Data | | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | IBEX-M(3/6)-DMI/GPIO/LVDS |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS ARE TO BE RELEASED TO ANY OTHER PERSON WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | | Size Document Number |
| | | | | | Rev 0.4 |
| Date: Tuesday, July 28, 2009 | | | | | Sheet 15 of 48 |

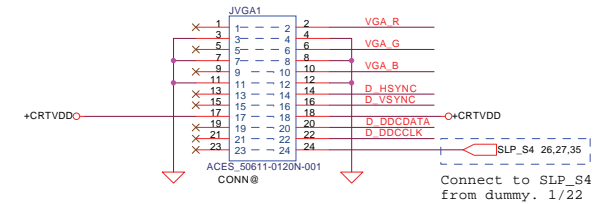
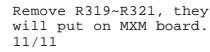




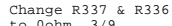
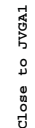
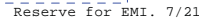
| | | | | | |
|---|------------------------|--------------------|------------|---|-----|
| Security Classification | | Compal Secret Data | | <i>Compal Electronics, Inc.</i> IBEX-M(5/6)-PWR | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size | Rev |
| | | | | Custom | 0.4 |
| | | | | Document Number | |
| Date: | Tuesday, July 28, 2009 | Sheet | 17 of 48 | | |



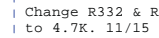
| | | | | | |
|---|------------|--------------------|------------|--------------------------|-----------------------------|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | IBEX-M(6/6)-GND |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size Custom | Document Number LA-4951P |
| | | | | Date | Tuesday, July 28, 2009 |
| | | | | Sheet | 18 of 48 |



Add C614~C616 for Nvidia request.
11/15



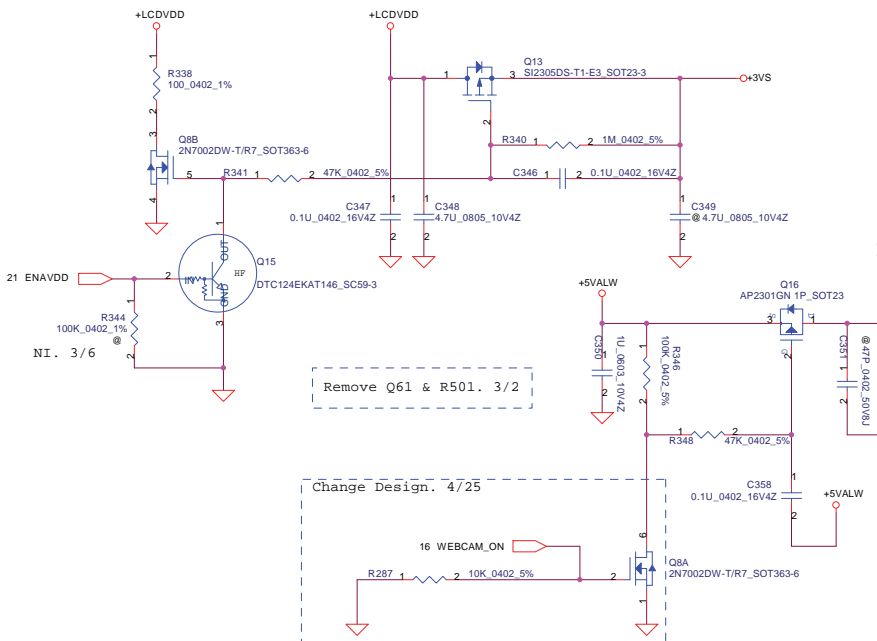
D_HSYNC & D_VSYNC
should be routed to
docking connector then
to VGA connector



```
| Remove R334 & R335, |
| should install to MXM |
| board. 11/15         |
```

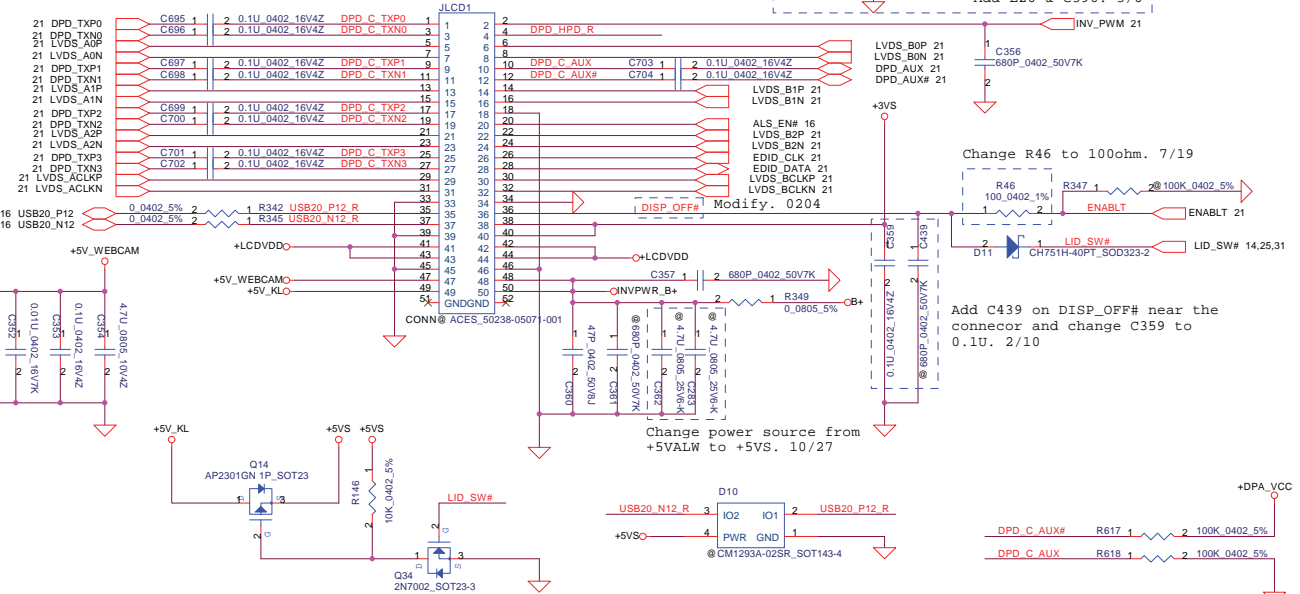
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

LCD POWER CIRCUIT

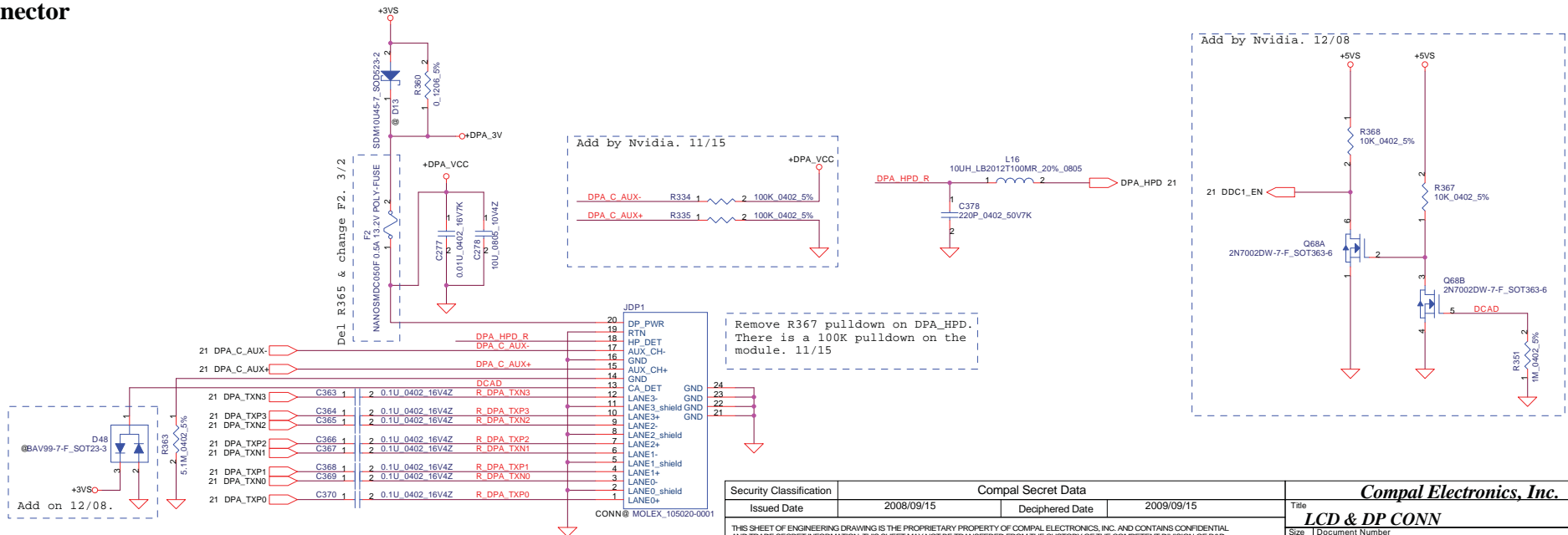


LCD/PANEL BD. CONN.

Modify pin assignment. 2/23



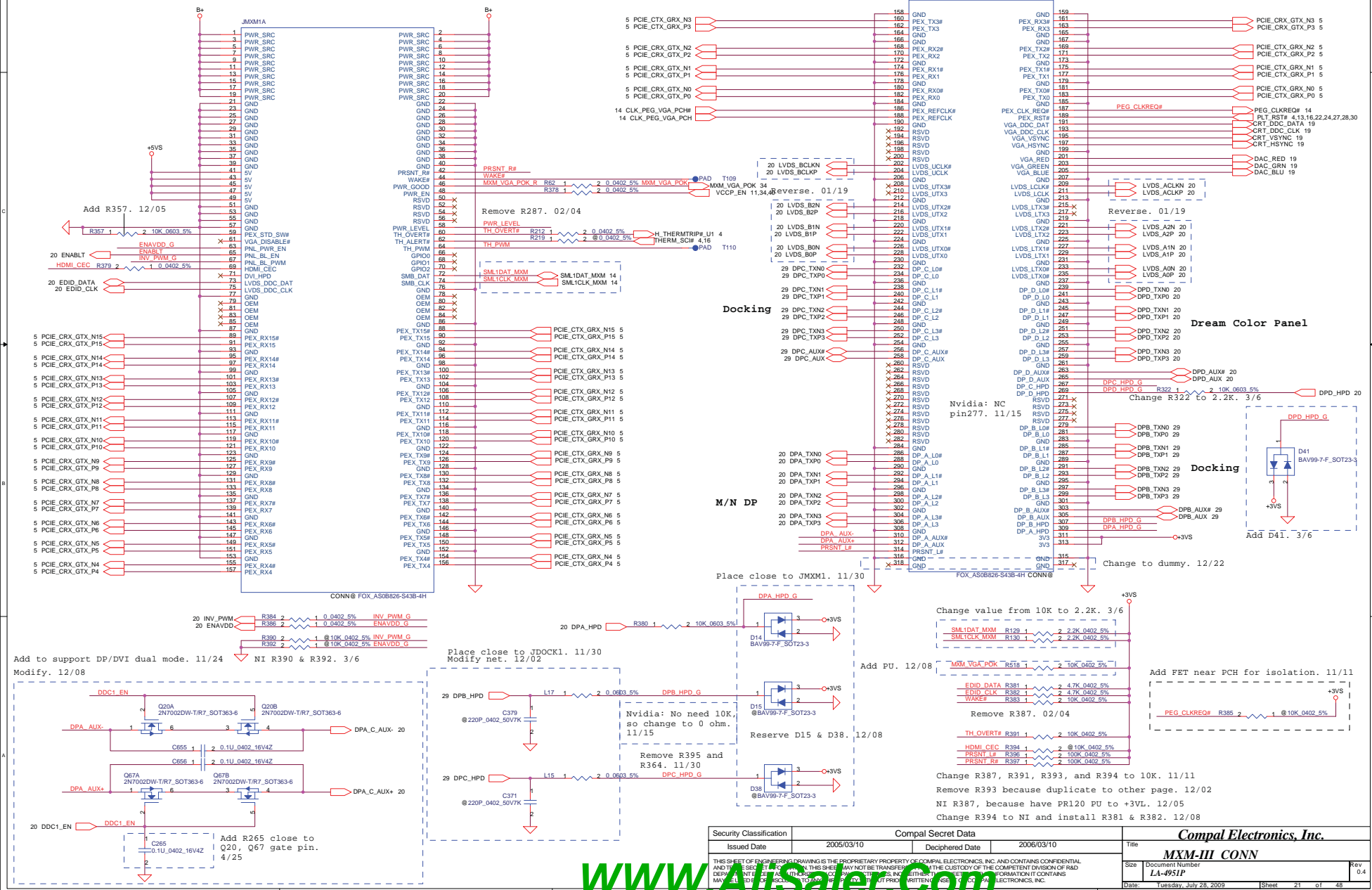
Display port Connector



| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
|---|------------|--------------------|------------|--------------------------|------------------------|
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | LCD & DP CONN |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size | Document Number |
| | | | | LA-4951P | Rev 0.4 |
| | | | | Date: | Tuesday, July 28, 2009 |
| | | | | Sheet | 20 of 48 |

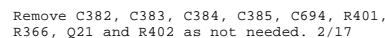
Layout Note:
Place as close as to MXM connector

31,35,38,44 ADP_PRES 2 Q69
2N7002 SOT23-



| | | | | |
|--|--------------------|-----------------|---|----------------|
| Security Classification | Compal Secret Data | | Title | |
| Issued Date | 2005/03/10 | Deciphered Date | 2006/03/10 | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION. IT IS TO BE KEPT UNDER THE STRICTEST CONTROL AND THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT. IT IS NOT TO BE LOANED, COPIED, REPRODUCED, OR DISCLOSED TO ANY OTHER PERSON OR ORGANIZATION. IF IT IS DISCLOSED, IT MUST BE IMMEDIATELY REPORTED TO THE R&D DEPARTMENT. THIS SHEET OF DRAWING IS THE PROPERTY OF COMPAL ELECTRONICS, INC. AND IT IS NOT TO BE LOANED, COPIED, REPRODUCED, OR DISCLOSED TO ANY OTHER PERSON OR ORGANIZATION. IF IT IS DISCLOSED, IT MUST BE IMMEDIATELY REPORTED TO THE R&D DEPARTMENT. | | | Size Document Number LA-4951P | |
| Date | | | Thursday, July 28, 2009 | Sheet 21 of 48 |

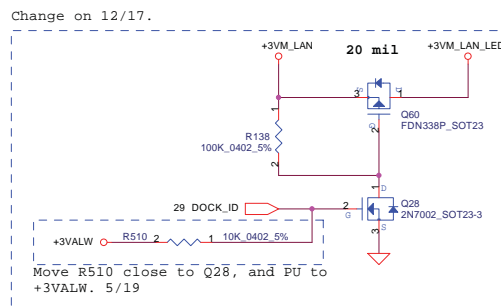
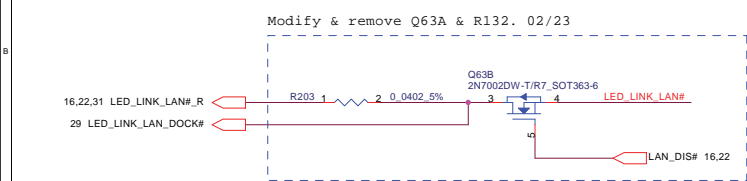
The diagram shows a circuit with a +3V source connected to a resistor network. The network consists of a 100 Ohm resistor (R398) in series with a 0.0603 5% resistor. This is followed by a 100 Ohm resistor (R395) in parallel with a 0.1uF capacitor (C200). The output is taken from the node after the parallel combination, which is also connected to a +3V source labeled LAN.



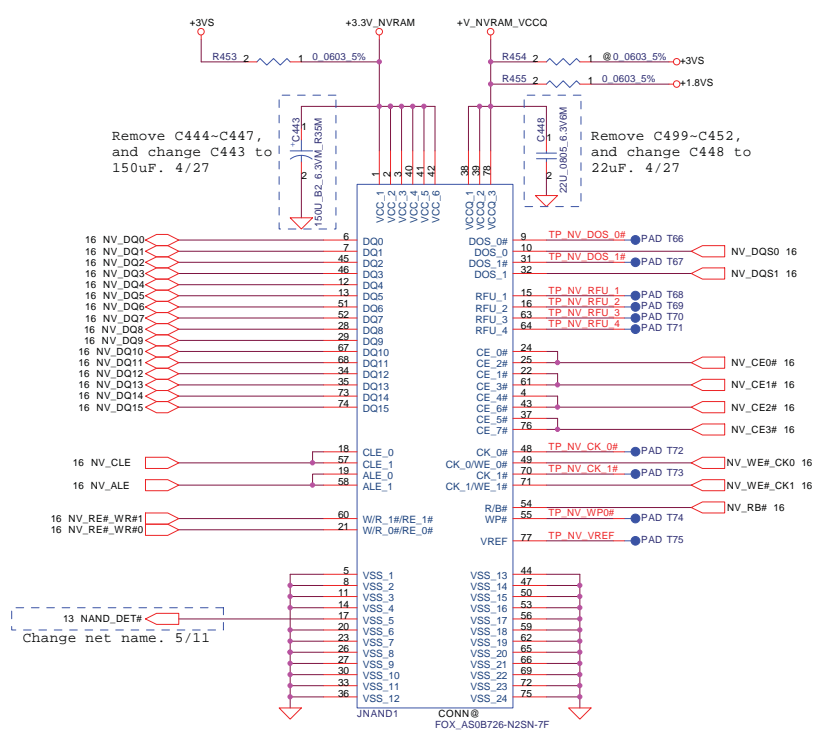
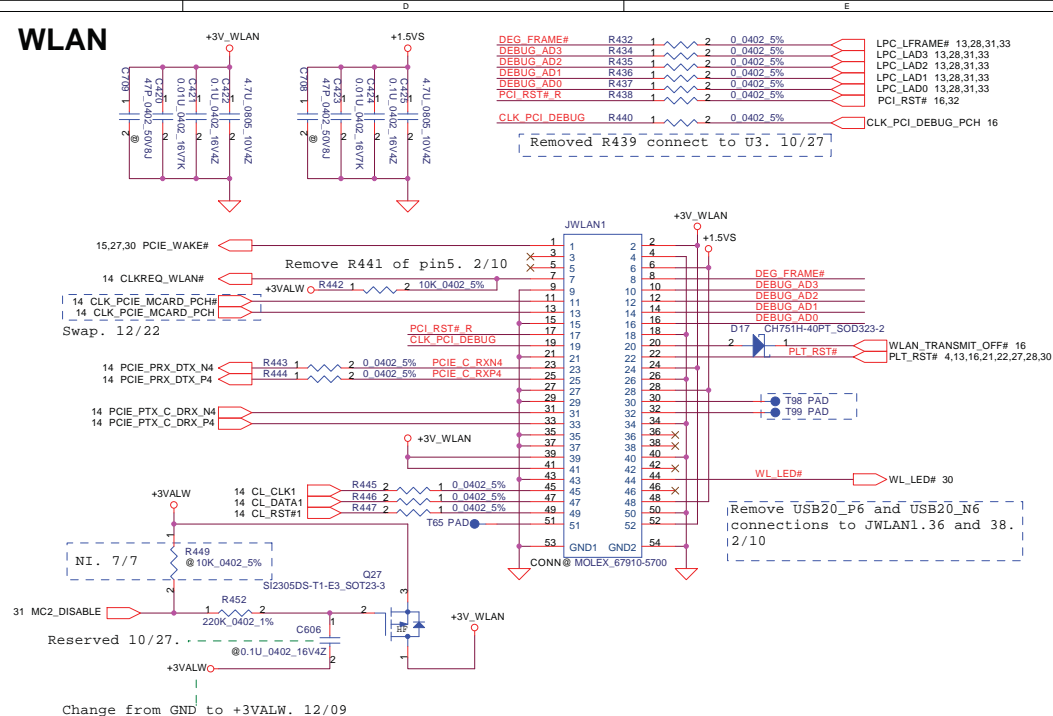
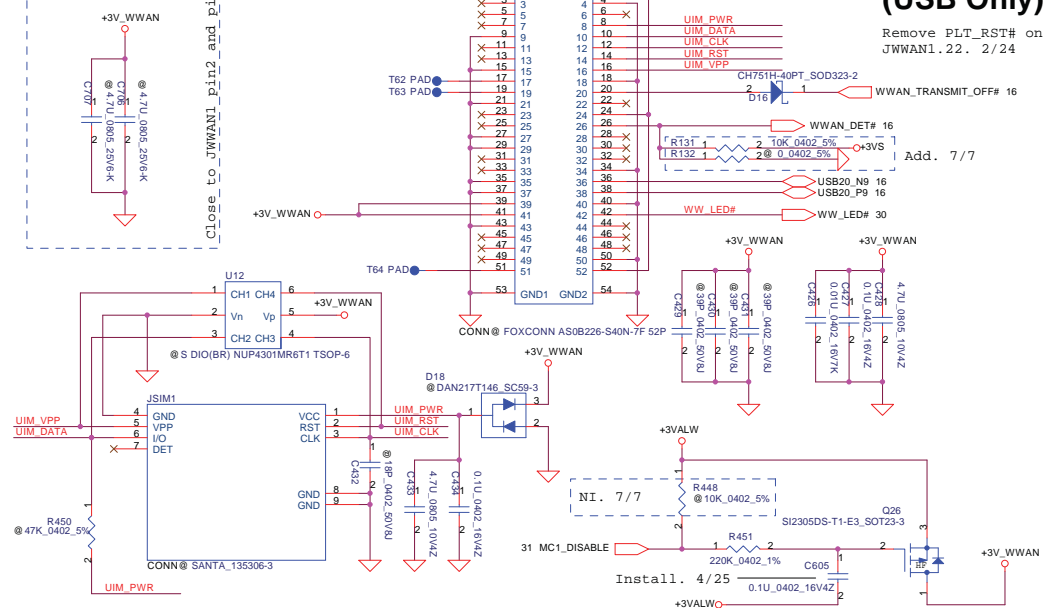
```
| Remove C388, C389, C390, & C393 on +1.0VM_LAN; Remove C394, C396  
| & C397 on +3.3VM_LAN_OUT_R; Remove C399 & C400 on +1.0VM_LAN4;  
| Remove C401 on +1.0VM_LAN3; and Remove C402 on +1.0VM_LAN2 as  
| done in Intel's RedFort CRB
```

2/23



Rev
04

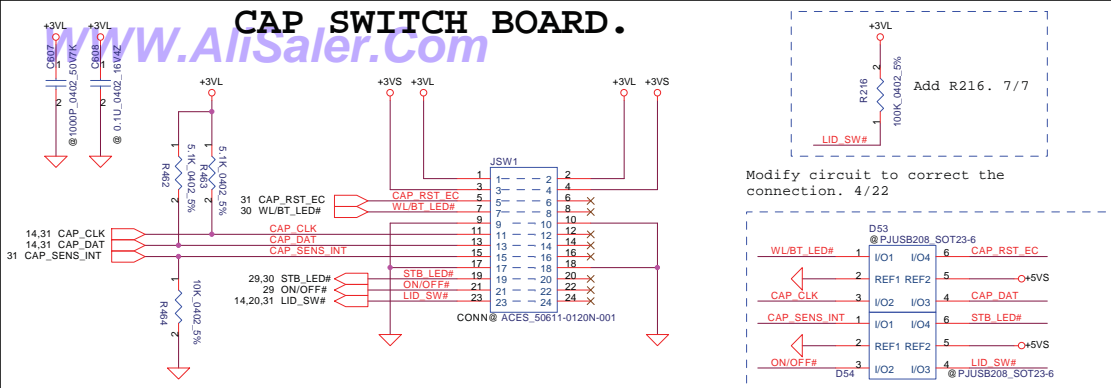


THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

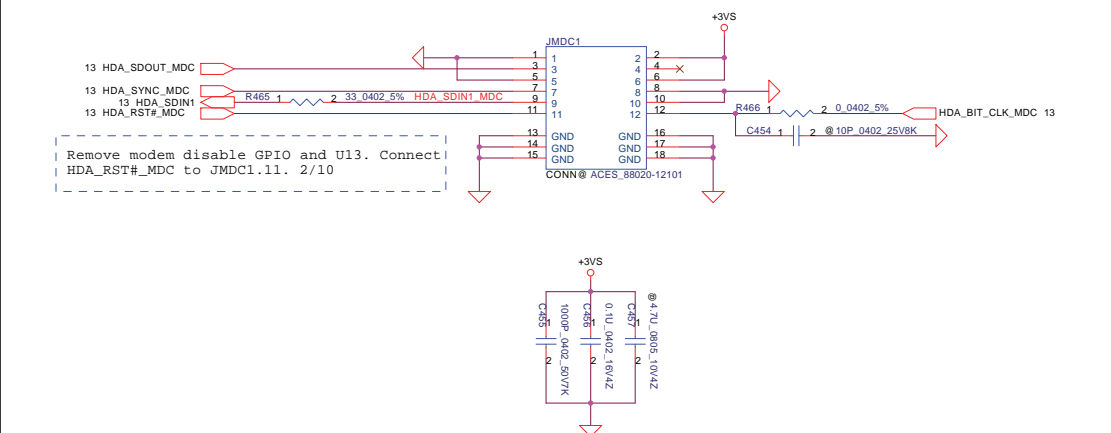


Remove UWB. (10/24)

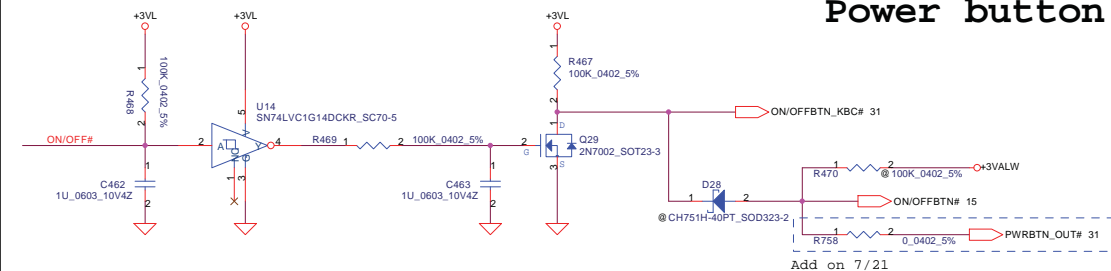
| | | | | | | |
|---|--------------------|-----------------|------------|--|--|----------------|
| Security Classification | Compal Secret Data | | | <div>  </div> | | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | <div>  </div> | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size | Document Number LA-4951P | Rev 0. |
| | | | | Date: | Tuesday, July 28, 2009 | Sheet 24 of 48 |



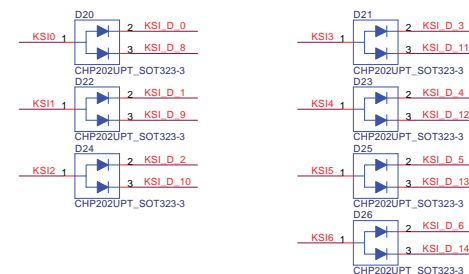
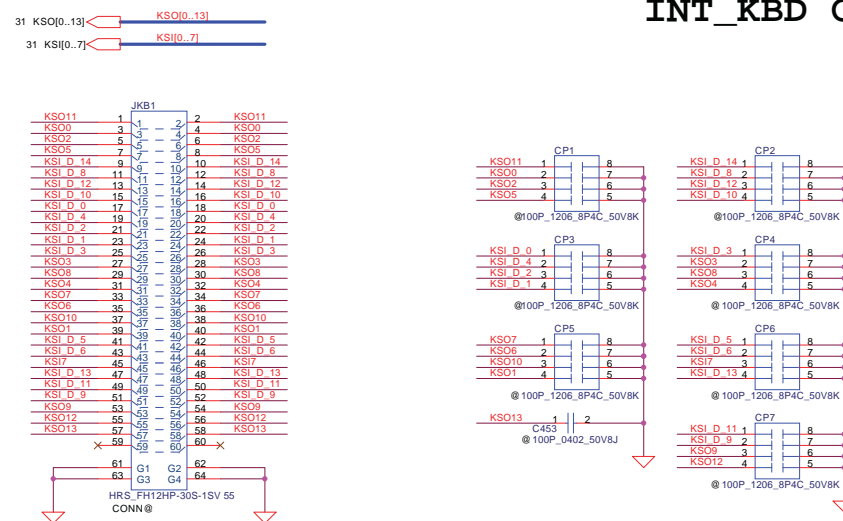
MDC 1.5 Conn.



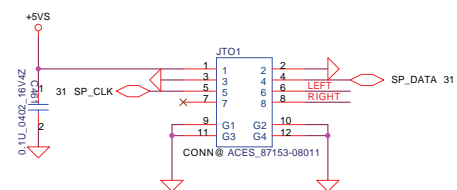
Power button



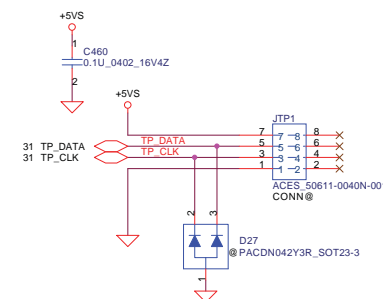
INT_KBD CONN.



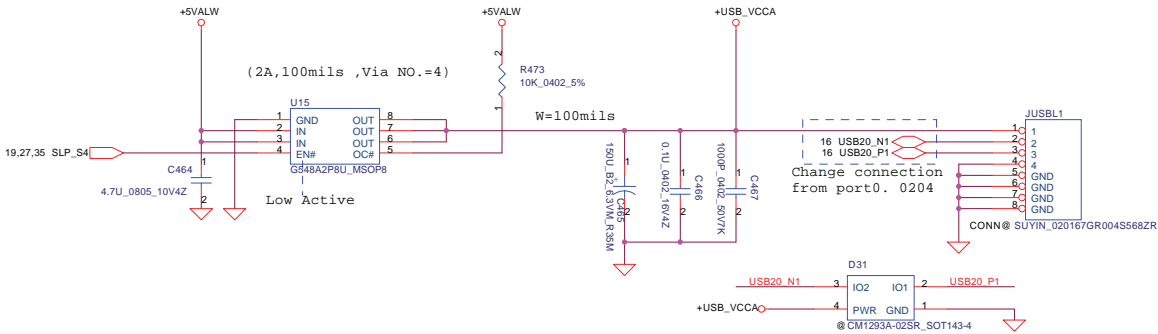
Track Point CONN.



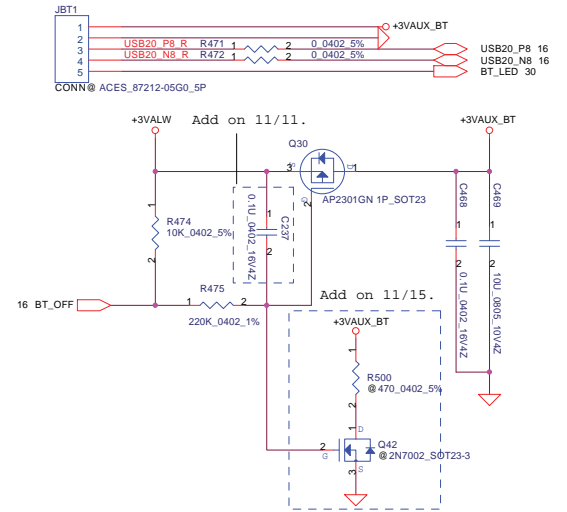
Touch Pad CONN.



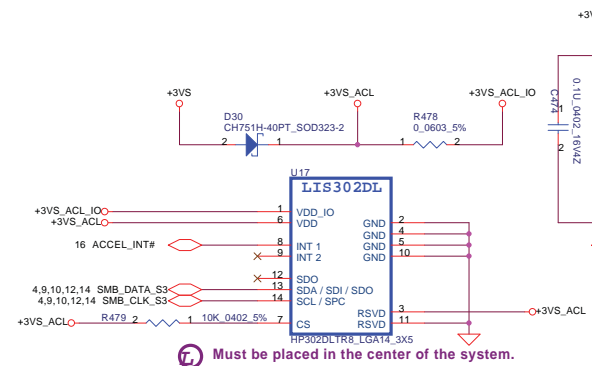
| | | | | | | |
|---|--------------------|-----------------|------------|---------------------------------|-----------------------------------|----------------|
| Security Classification | Compal Secret Data | | | Compal Electronics, Inc. | | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | MDC/KBD/ON OFF/LID | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size | Document Number LA-491P | Rev 0. |
| | | | | Date: | Tuesday, July 28, 2009 | Sheet 26 of 48 |

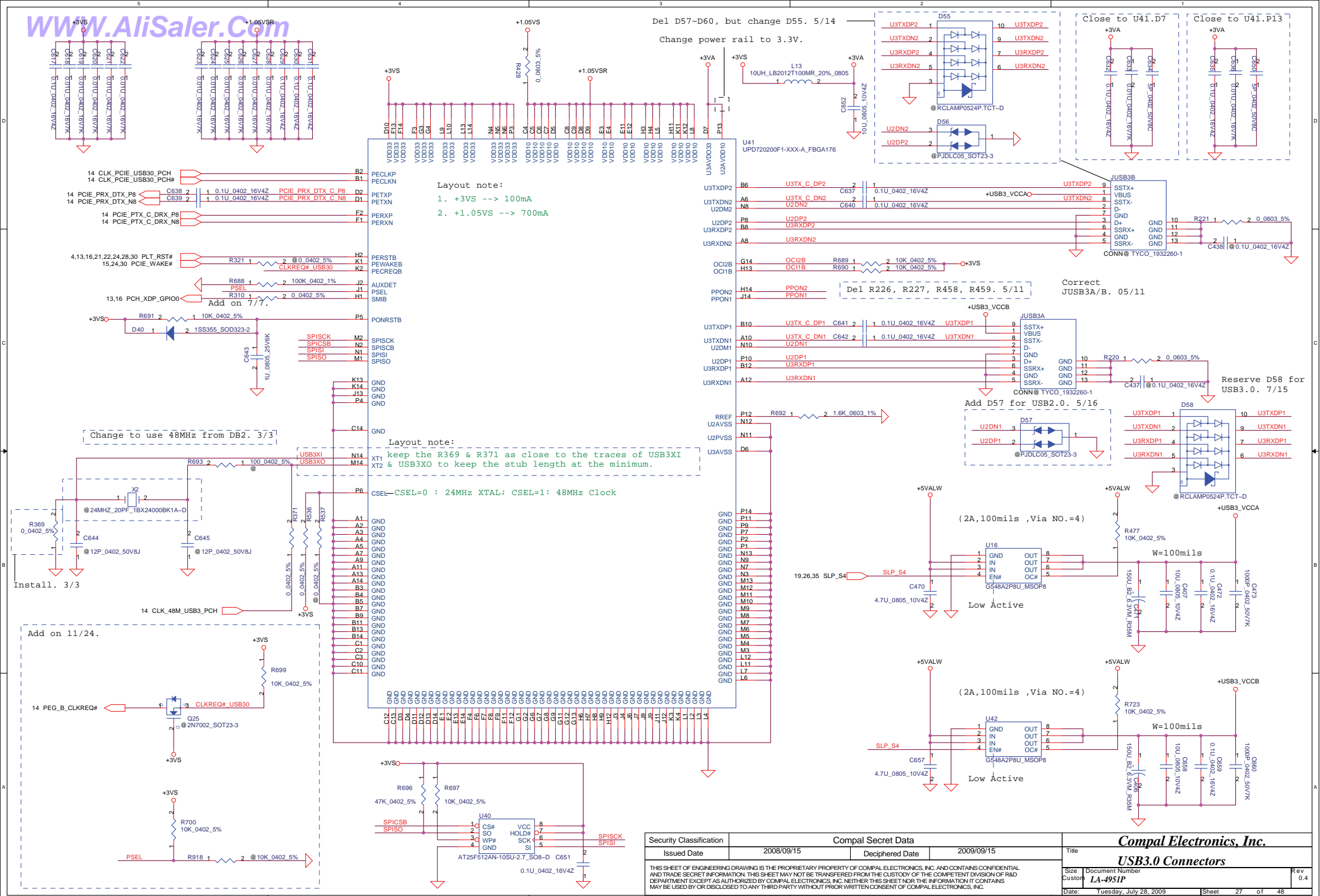


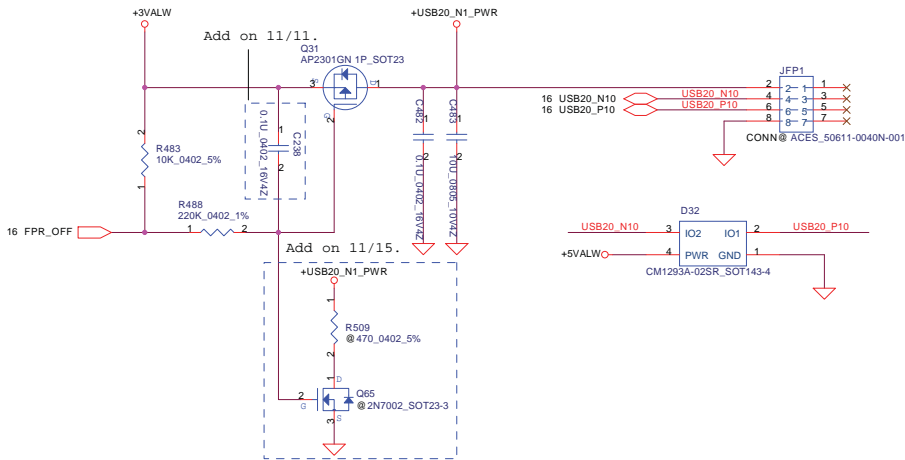
BT Connector



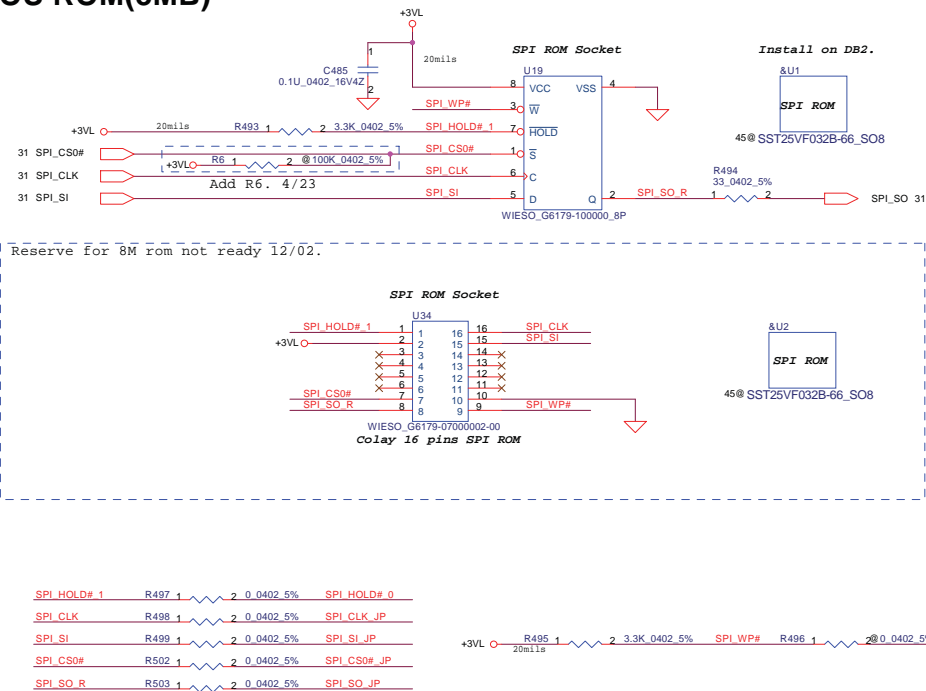
ACCELEROMETER



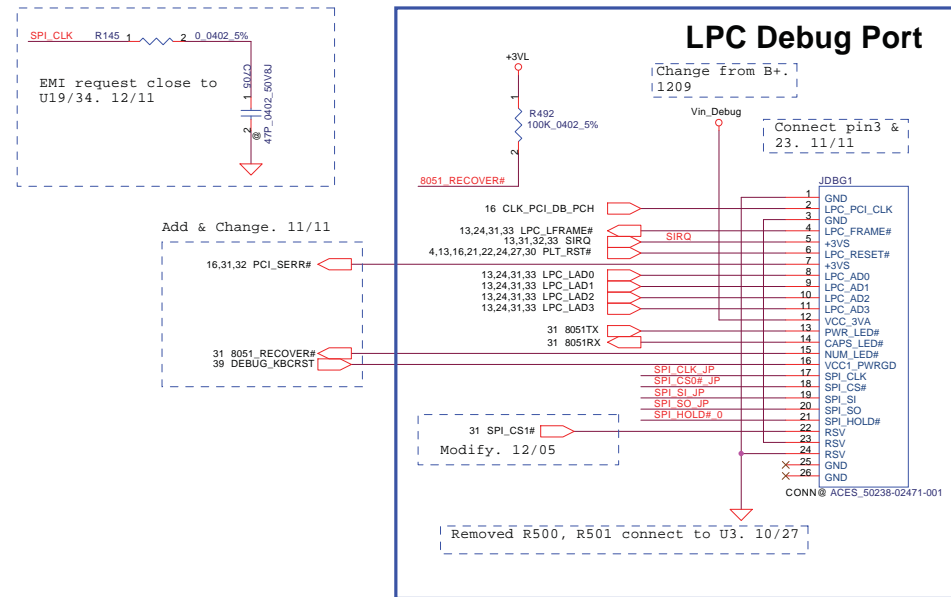
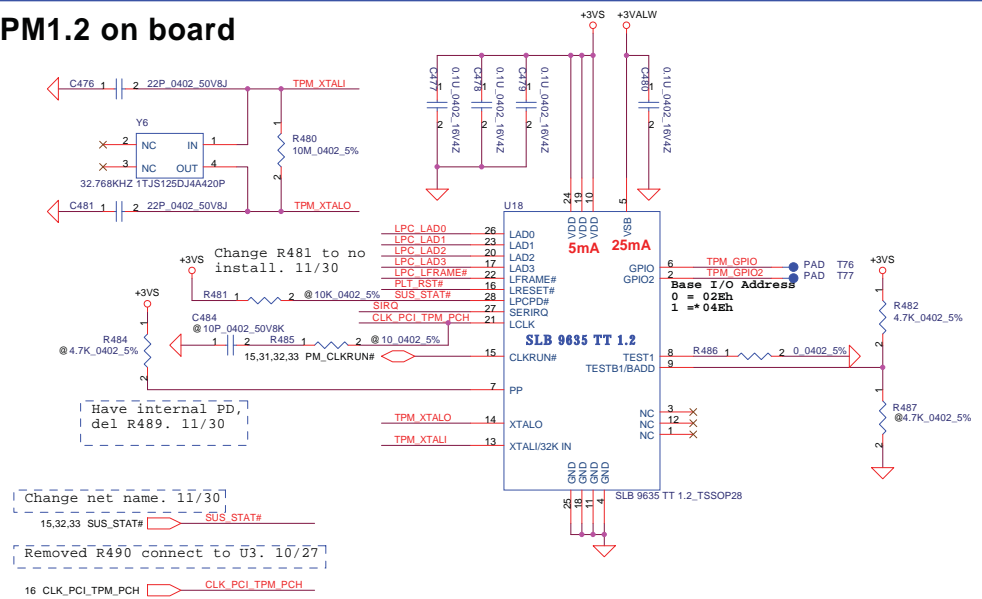




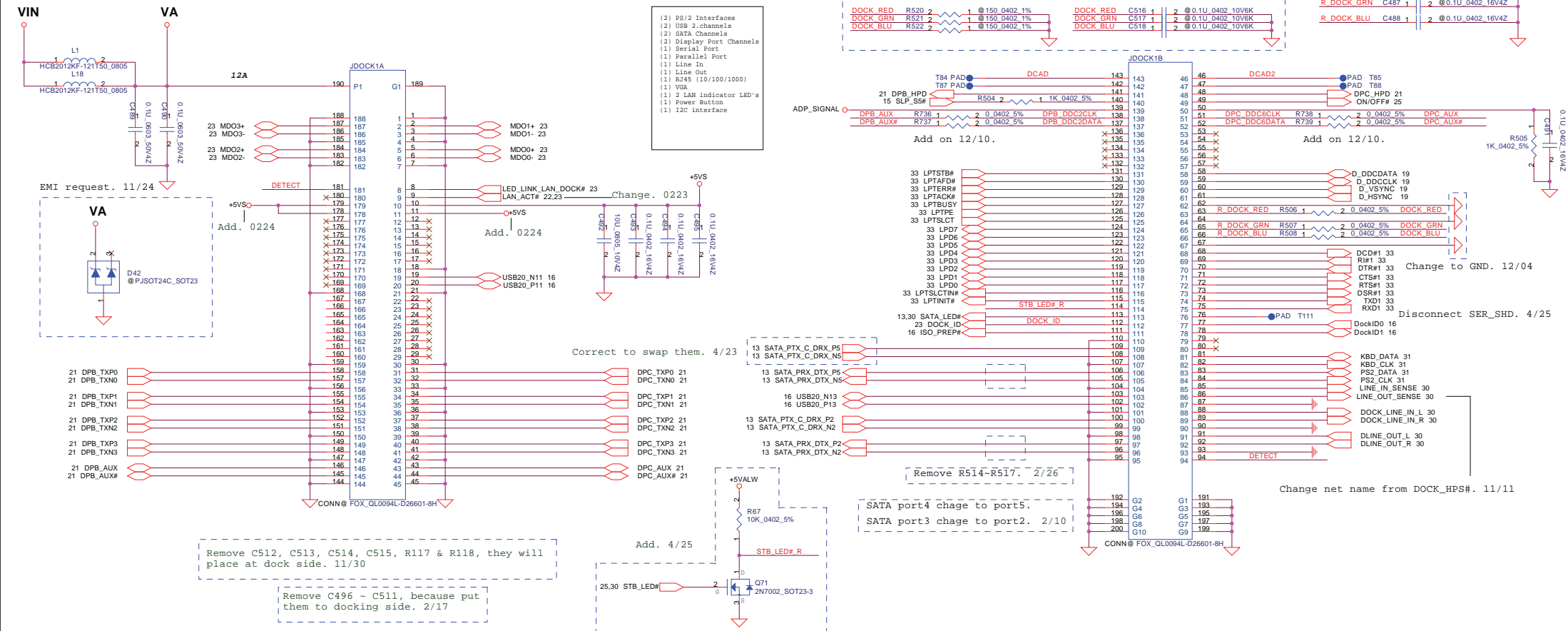
BIOS ROM(8MB)



TPM1.2 on board

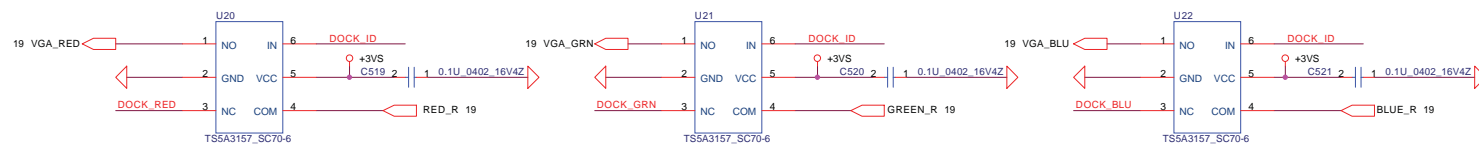


| | | | | | |
|---|------------------------|--------------------|------------|---|-----|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. TCG/BIOS ROM/PS2/SW LPC DEBUG | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size | Rev |
| | | | | Document Number | 0.4 |
| | | | | LA-4951P | |
| Date: | Tuesday, July 28, 2009 | Sheet | 28 | of | 48 |



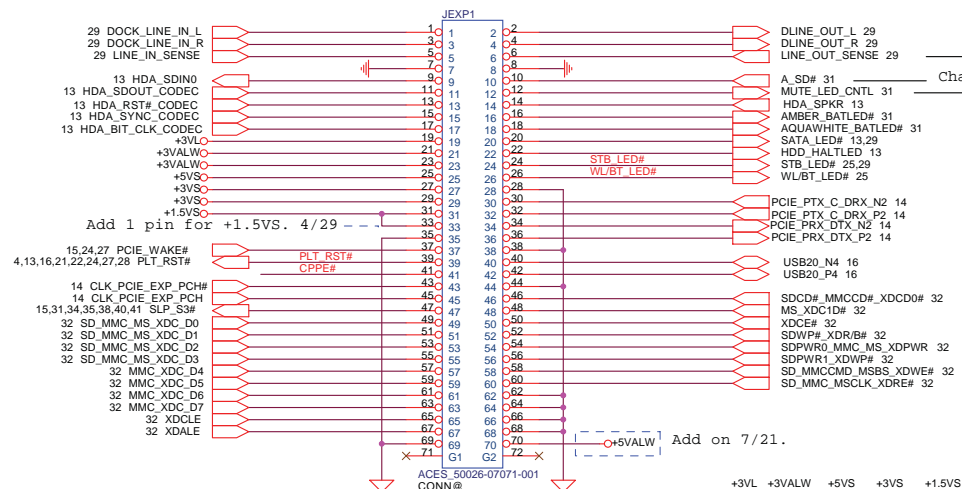
RGB Q-Switch

| | | |
|----|-----------|-----------|
| IN | NC<-->COM | NO<-->COM |
| L | ON | OFF |
| H | OFF | ON |

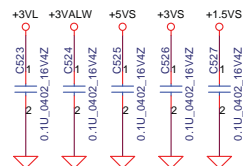
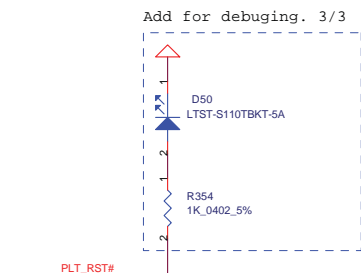


| | | | | | | | | | | | |
|---|--|--------------------|-----------------|---------------------------------|------------|------------------|------------------------|--|-------|----|-------|
| Security Classification | | Compal Secret Data | | <i>Compal Electronics, Inc.</i> | | | | | | | |
| Issued Date | | 2008/09/15 | Deciphered Date | | 2009/09/15 | Title | | | | | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | | | DOCK CONN | | | | | |
| | | | | | | Size | Document Number | | | | Rev |
| | | | | | | Custom | LA-4951P | | | | 0.4 |
| | | | | | | Date: | Tuesday, July 28, 2009 | | Sheet | 29 | of 48 |
| | | | | | | | | | | | |

Audio/Express/LEDs/Card Read Connector



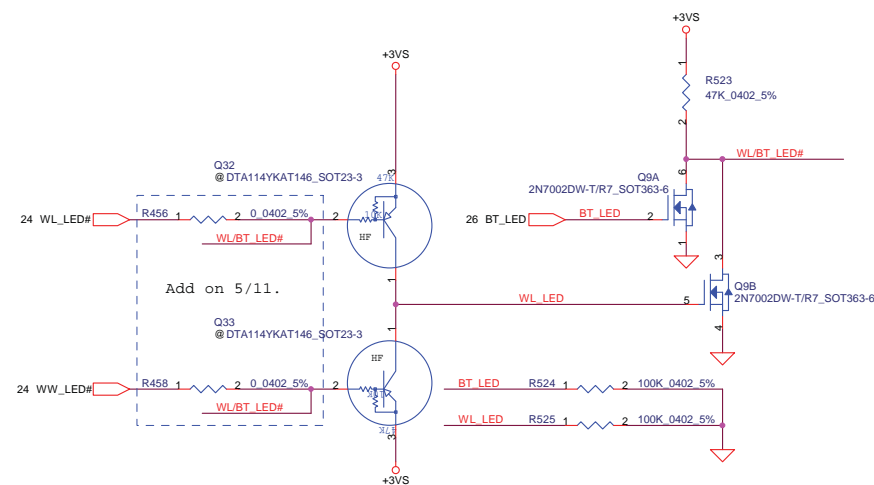
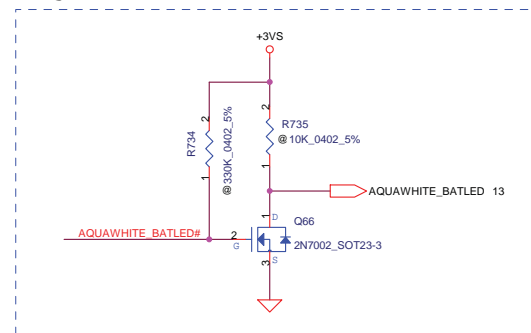
13,16 USB_OC#7 R759 1 2 0.0402 5% CPPE#
Change CLKREQ_EXP# to CPPE# and connect to GPIO14. 7/21



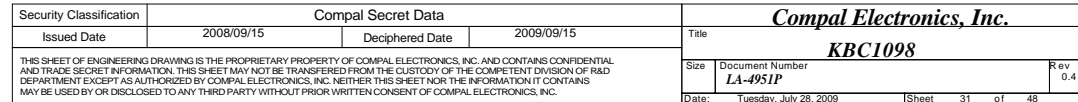
Power Button Connector

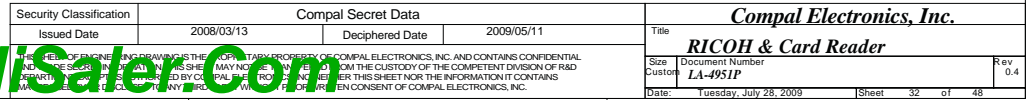
Removed Power button JPB1 & C522, combin with JSWITCH1. 11/10

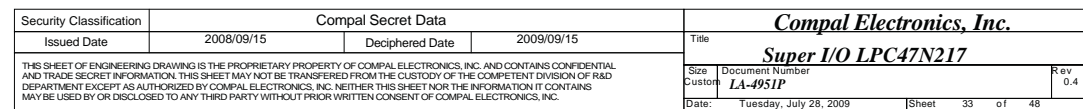
Change R734 & R735 to NI. 02/06

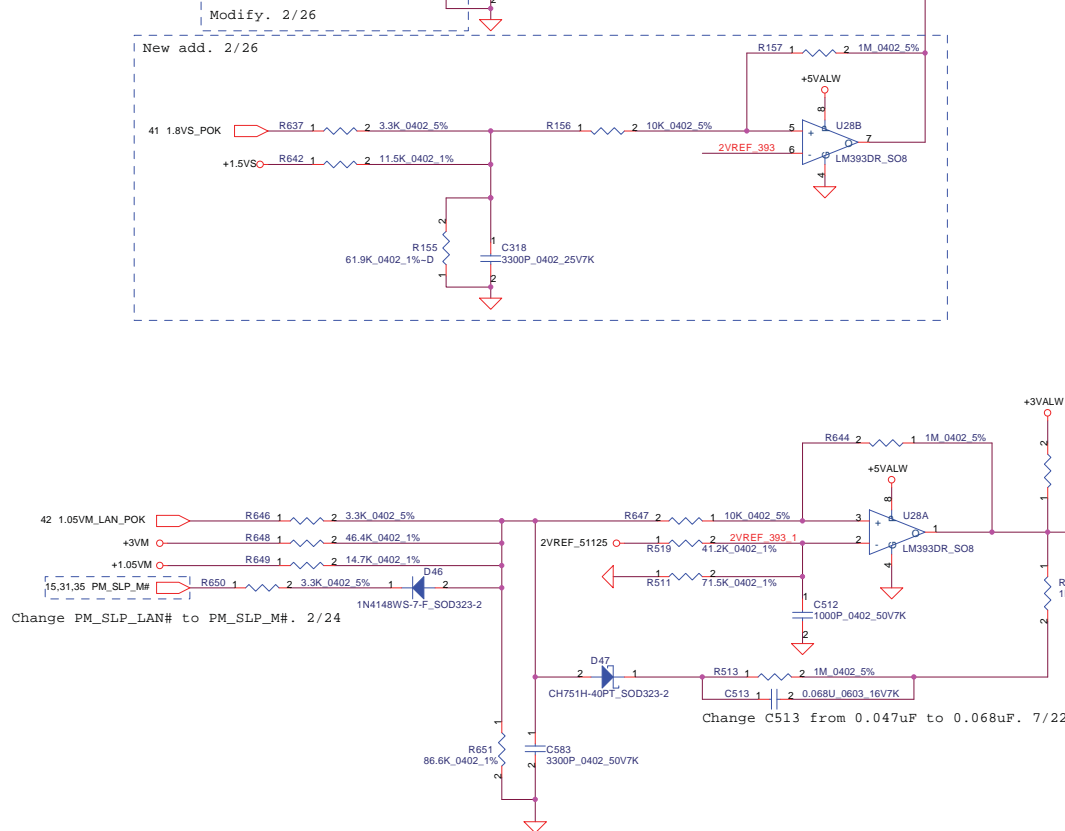
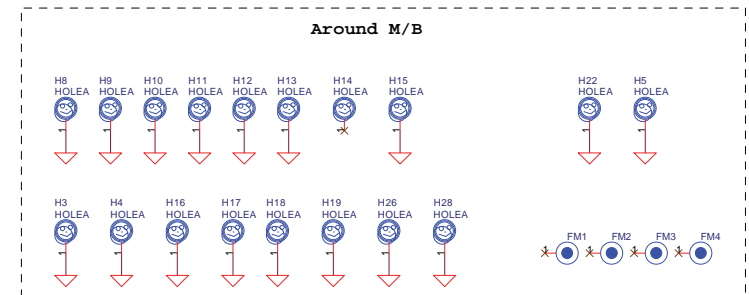
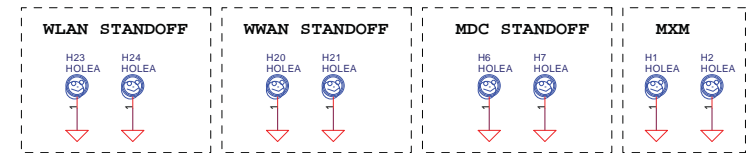
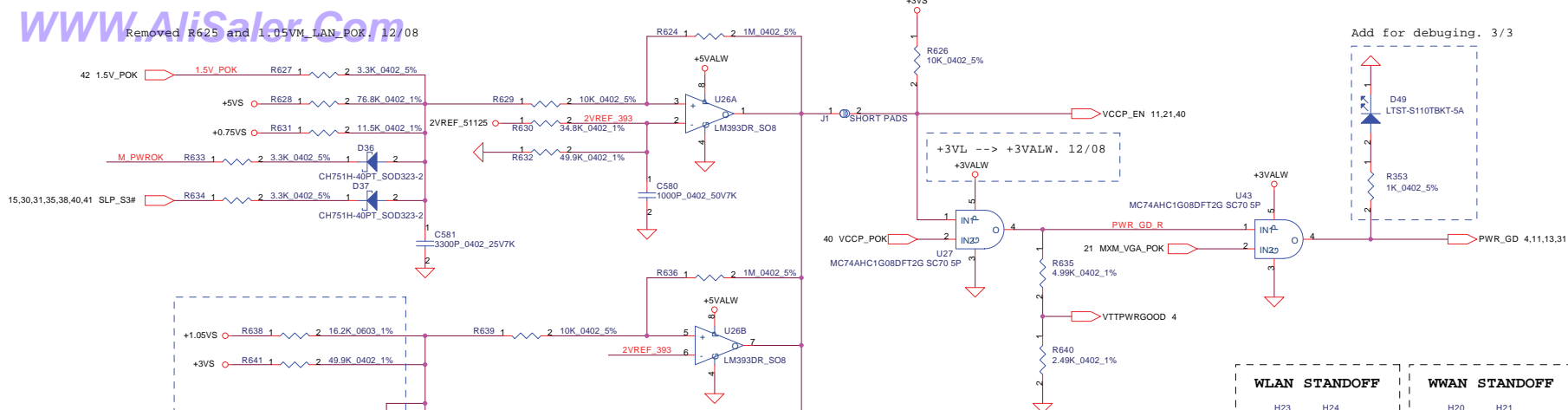


| Security Classification | | Compal Secret Data | | Title | |
|---|------------|--------------------|------------|---------------------------|------------------------|
| Issued Date | 2008/09/01 | Deciphered Date | 2010/09/01 | CR&LEDs&PW&Audio&Exp Conn | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE PRIOR WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC. | | | | Size | Document Number |
| | | | | Custom | LA-4951P |
| | | | | Date | Tuesday, July 28, 2009 |
| | | | | Sheet | 30 of 48 |







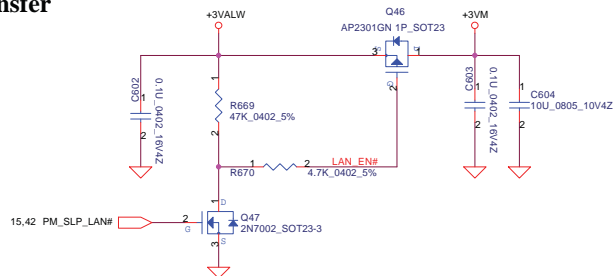
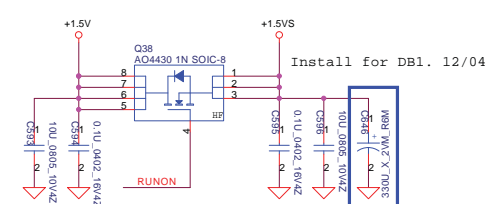


ZZZ1

PCB-MB

| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
|---|------------|--------------------|------------|--------------------------|-----------------|
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | Size | Document Number |
| | | | | Date: | LA-495IP |
| Tuesday, July 28, 2009 | | Sheet 34 of 48 | | Rev 0.4 | |

+1.5V to +1.5VS Transfer

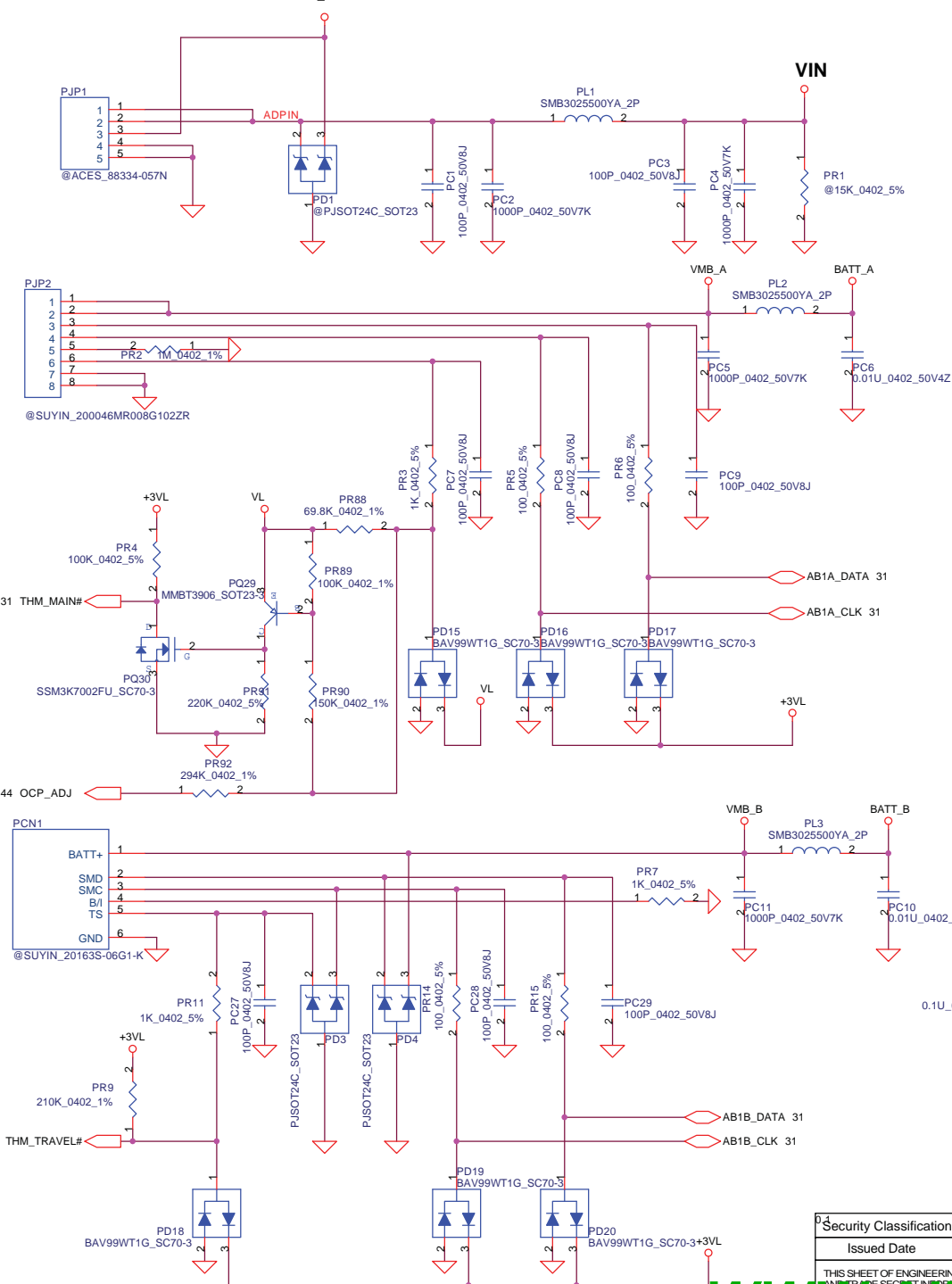


Change LAN_EN# to PM_SLP_M. 7/22

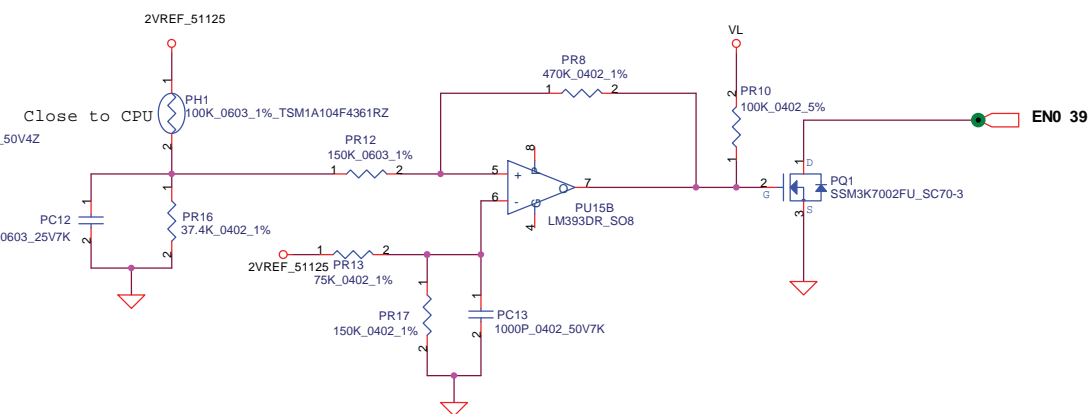
Change LAN EN# to PM SLP M. 7/22

WWW.AliSaler.Com

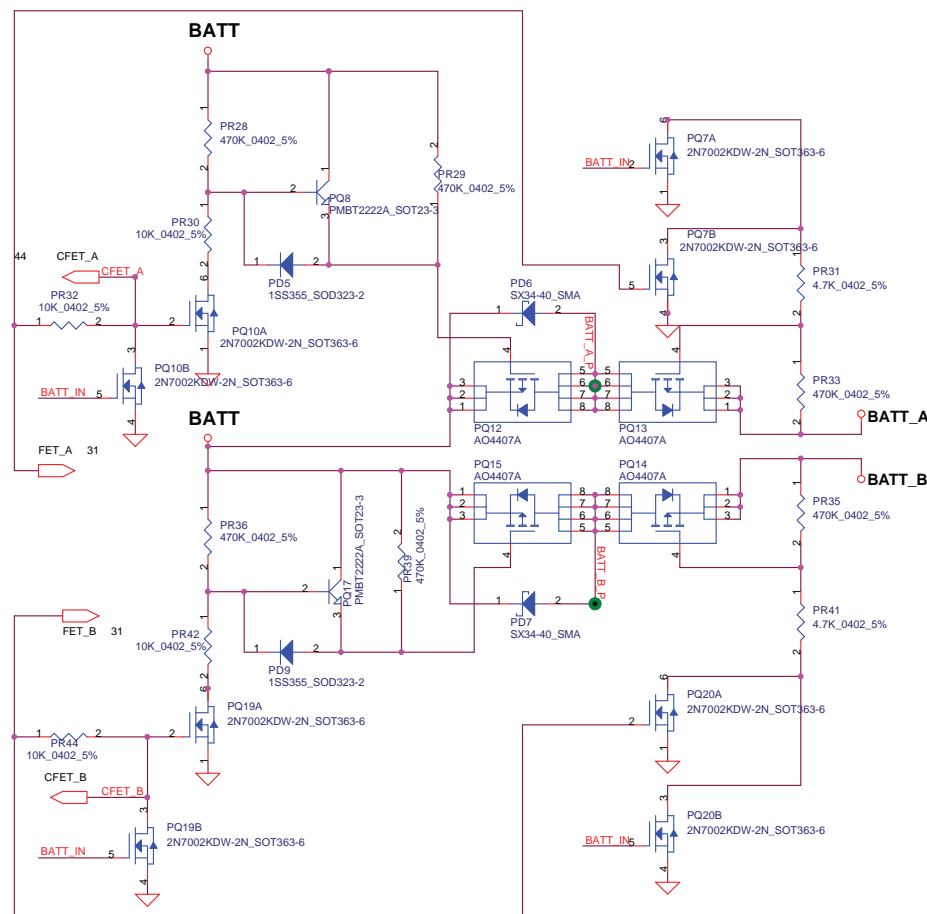
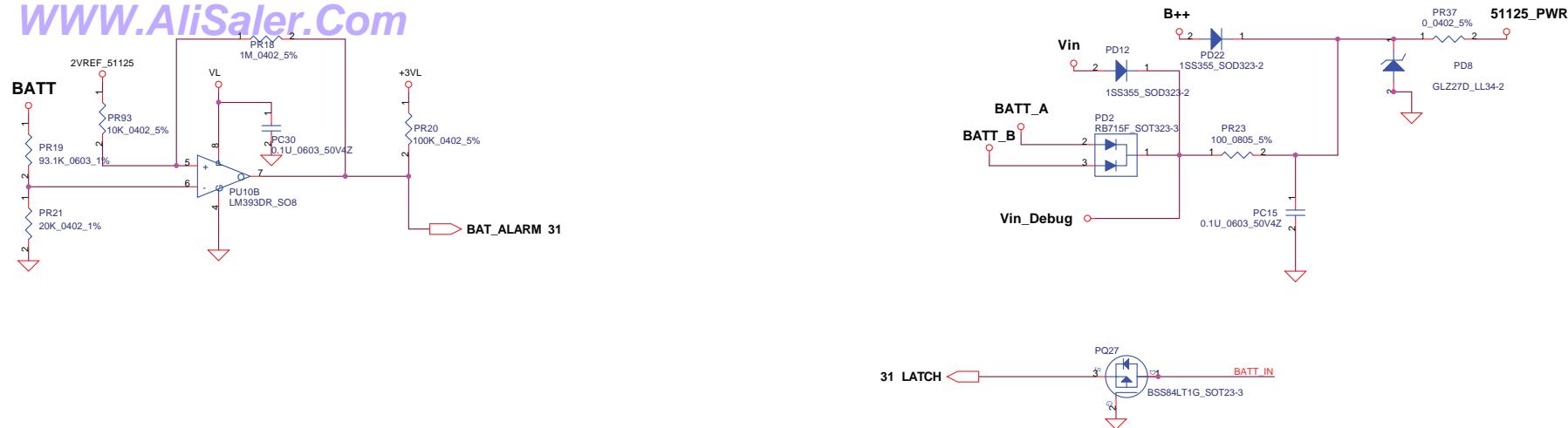
ADP_SIGNAL



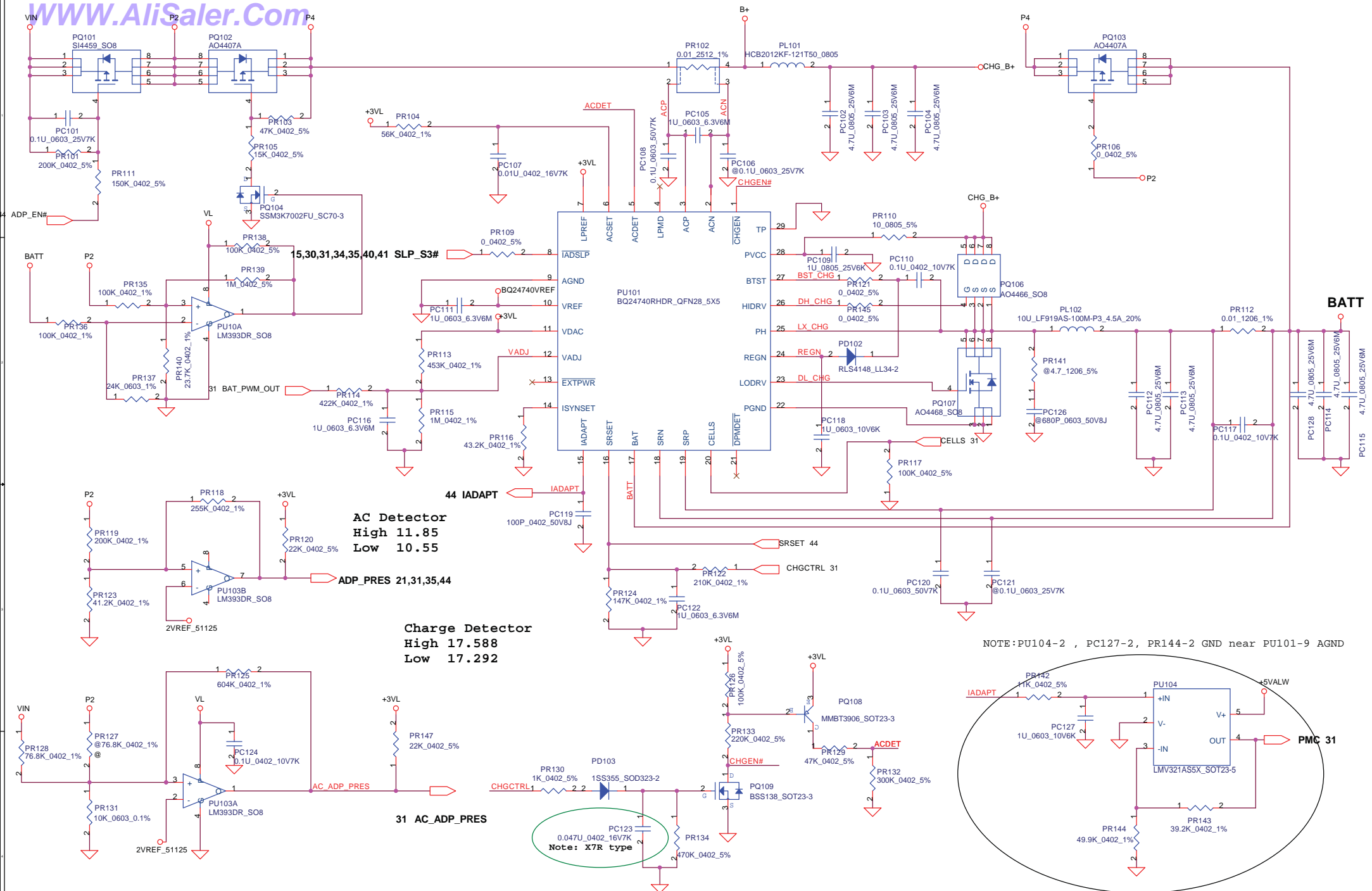
PH1 under CPU botten side :
CPU thermal protection at 90 +-3 degree C
(Need to be checked)



| | | | | | |
|---|------------|--------------------|------------|--------------------------|------------------------|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | DC-IN/ BATTERY CONN |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT PRIOR WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC. | | | | Size | Document Number |
| | | | | Custom | LA-4891 |
| | | | | Date: | Tuesday, July 28, 2009 |
| | | | | Sheet | 36 of 48 |



| | | | | |
|--|------------------------|-----------------|--------------------------|------------------|
| Security Classification | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC. ANY UNAUTHORIZED REPRODUCTION OR TRANSMISSION OF THIS SHEET MAY BE SUBJECT TO LEGAL ACTION. | | | | Battery selector |
| Size | Document Number | Rev | | |
| Custom | LA-4891 | | | |
| Date: | Tuesday, July 28, 2009 | Sheet | 37 | of 48 |



AC Detector
High 11.85
Low 10.55

Charge Detector
High 17.588
Low 17.292

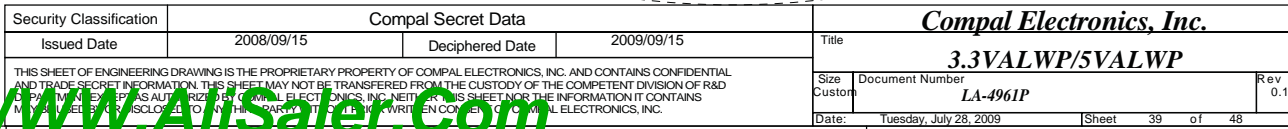
31 AC_AD_PRES

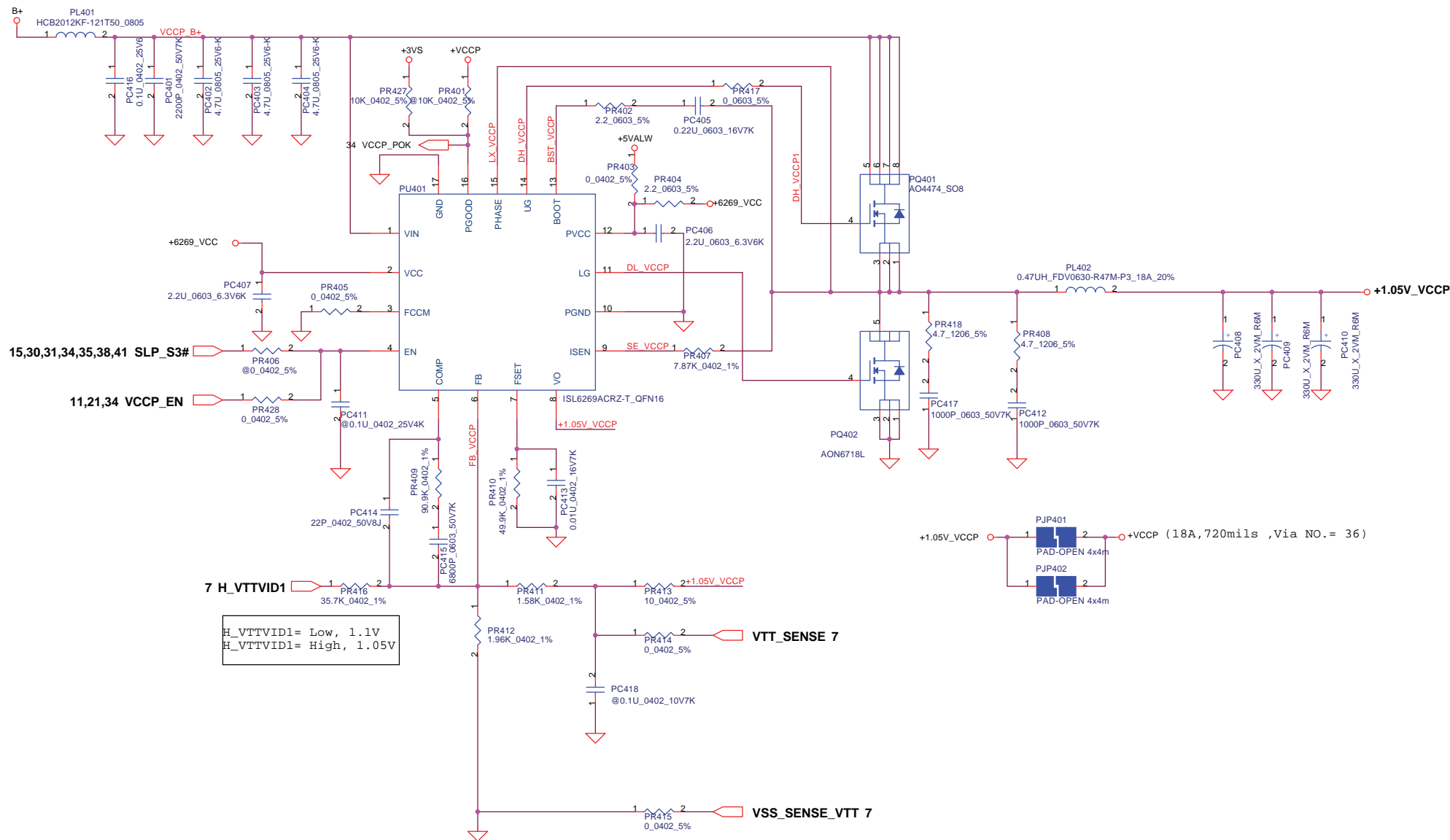
PC123
0.047U_0402_16V7K
Note: X7R type

NOTE: PU104-2, PC127-2, PR144-2 GND near PU101-9 AGND

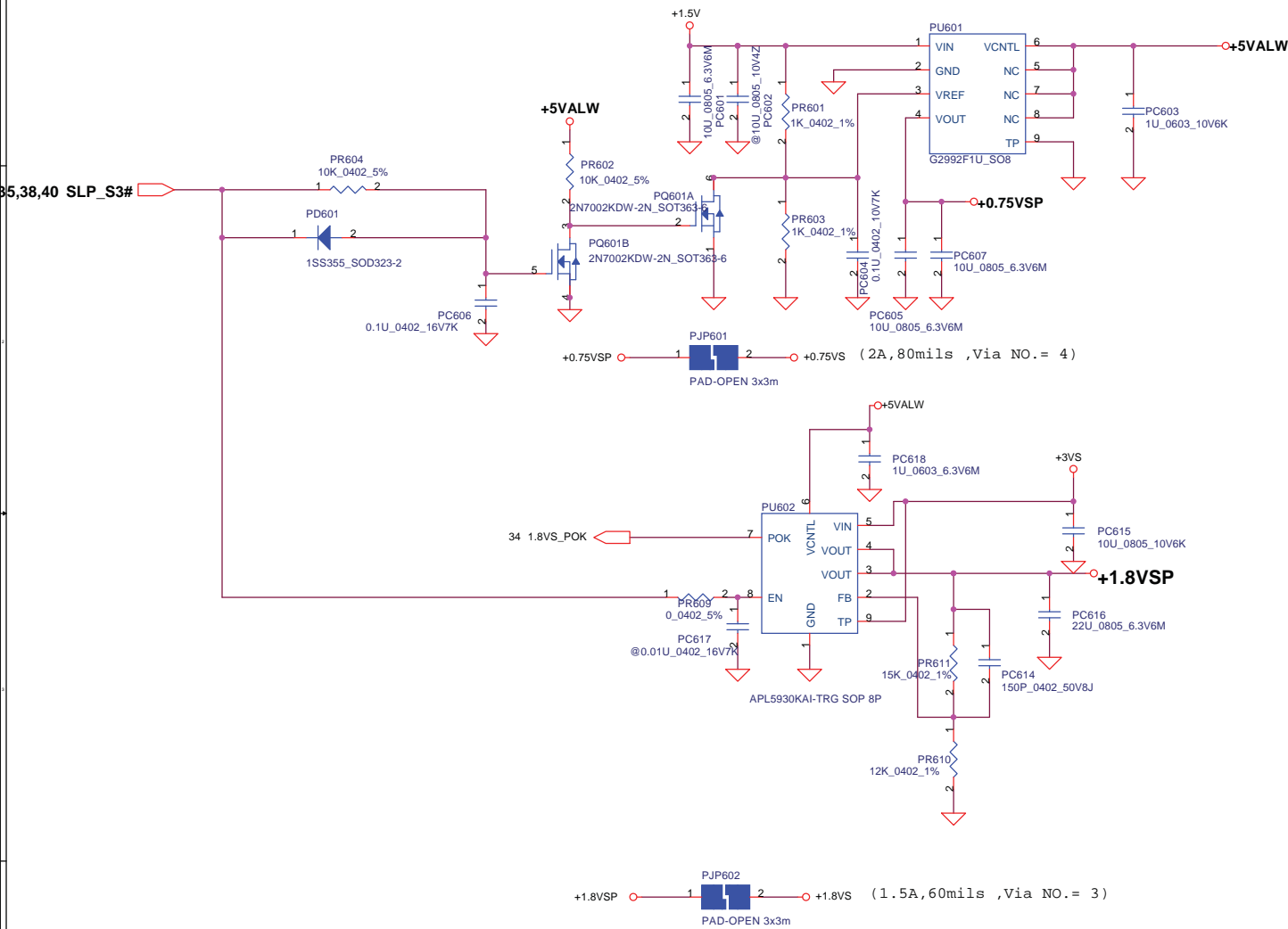
PMC 31

| | | | | | |
|---|------------|------------------------|------------|--------------------------|--|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. IT SHALL NOT BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC. | | | | Charger | |
| Size | | Document Number | | Rev | |
| | | LA-4891 | | 0.1 | |
| Date: | | Tuesday, July 28, 2009 | | Sheet 38 of 48 | |

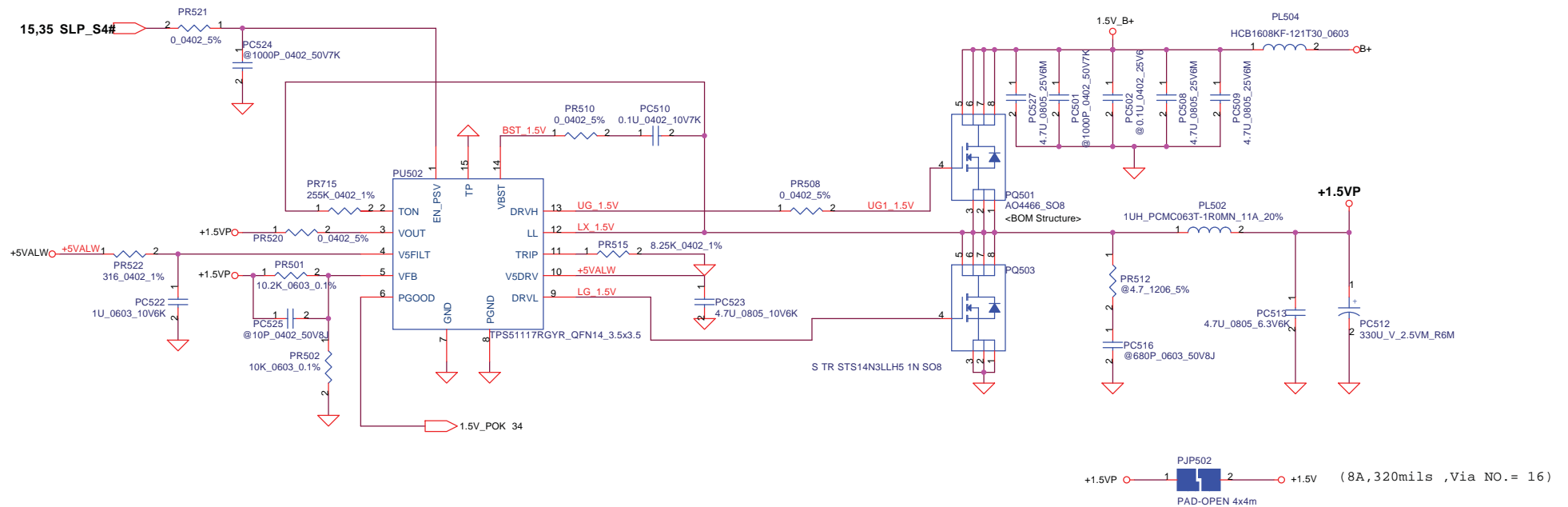
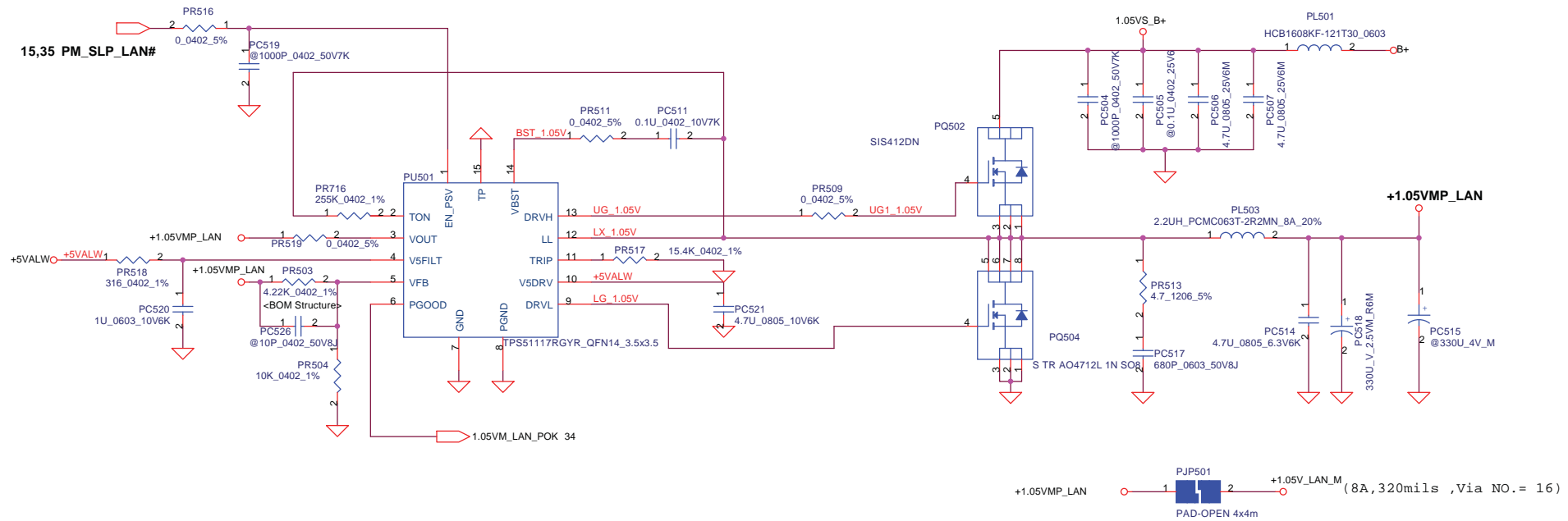




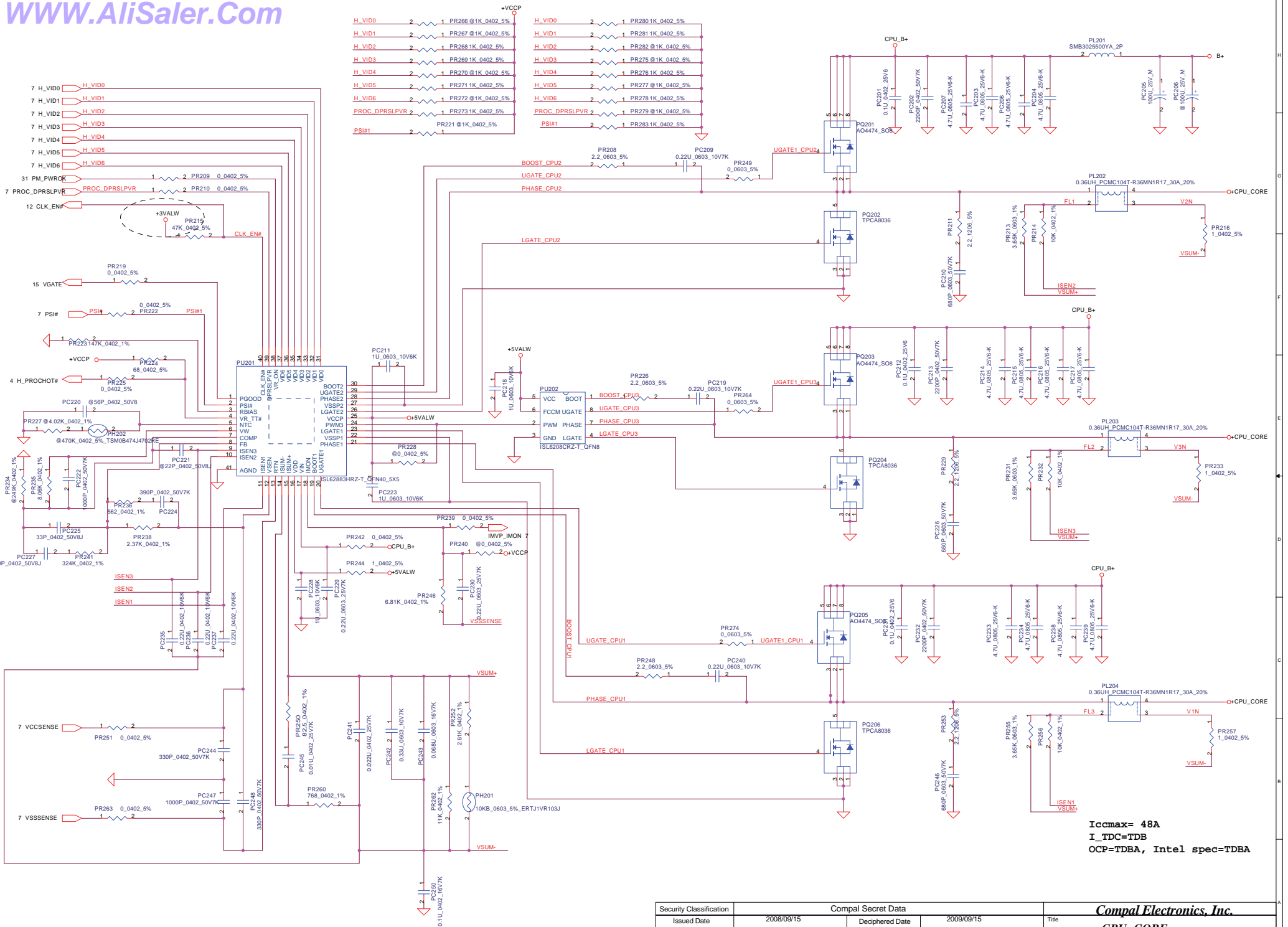
| | | | | | |
|--|------------------------|--------------------|------------|--------------------------|-------|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | 1.05V_VCCP | |
| Size | Document Number | | | Rev | |
| | LA-4891 | | | 0.1 | |
| Date: | Tuesday, July 28, 2009 | | Sheet | 40 | of 48 |



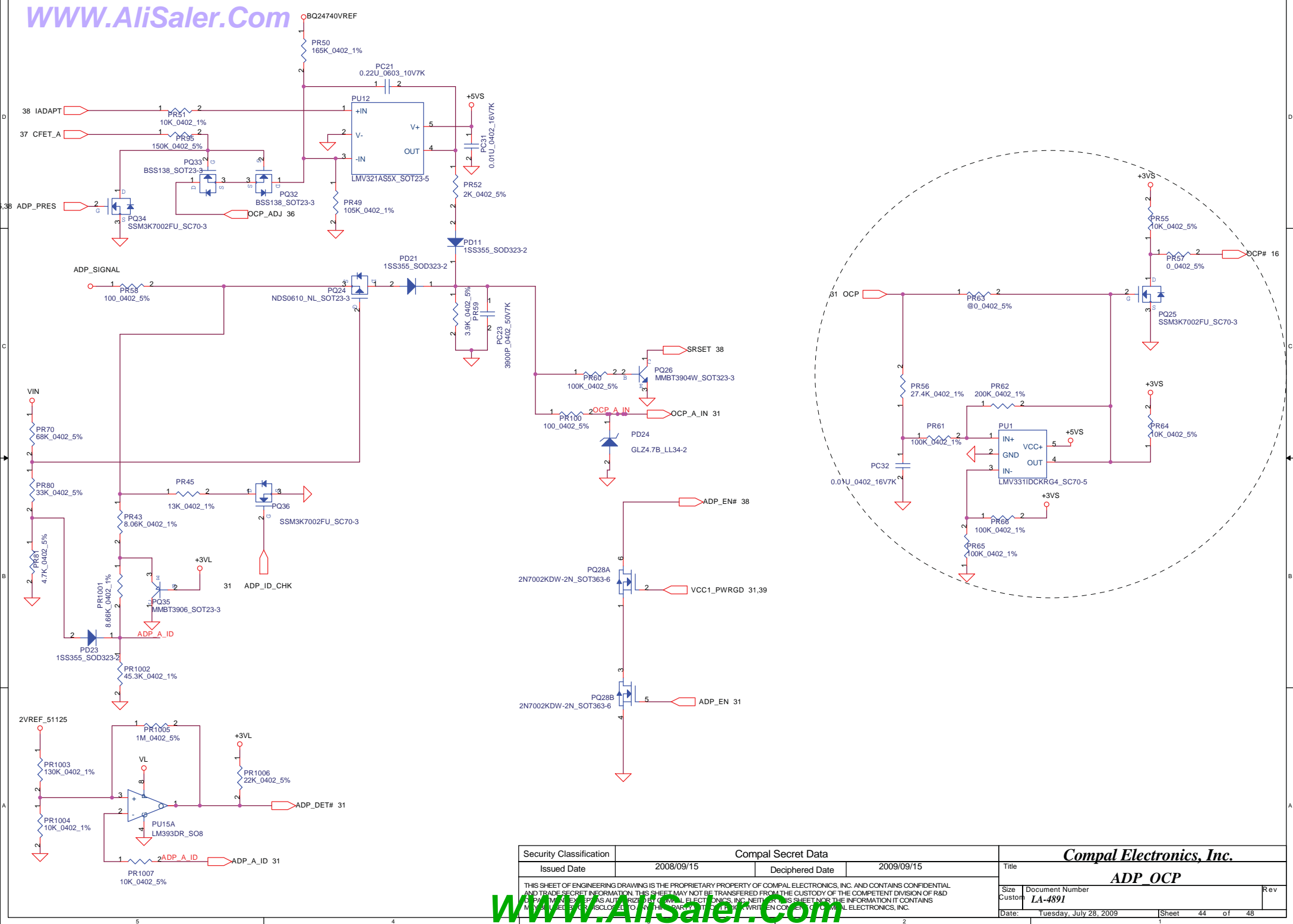
| | | | | | |
|--|------------|--------------------|------------|--------------------------|----------------|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. ANY UNAUTHORIZED DISCLOSURE OR REPRODUCTION OF THIS INFORMATION IS STRICTLY PROHIBITED. ANY UNAUTHORIZED DISCLOSURE OR REPRODUCTION OF THIS INFORMATION IS STRICTLY PROHIBITED. | | | | 0.75VSP/PCIE/1.8VSP | |
| Size | | | | Document Number | Rev |
| | | | | LA-4891 | 0.1 |
| Date: | | | | Tuesday, July 28, 2009 | Sheet 41 of 48 |



| | | | | | |
|---|------------------------|--------------------|------------|--------------------------|----|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D OR ANY OTHER DEPARTMENT OR DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. | | | | 1.5VP/1.05VSP | |
| Size | Document Number | Rev | | LA-4891 | |
| Date: | Tuesday, July 28, 2009 | Sheet | 42 | of | 48 |



| | | | | | |
|-------------------------|--|--------------------|--|--------------------------|--|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | | 2008/09/15 | | Deciphered Date | |
| | | | | 2009/09/15 | |
| | | | | Title | |
| | | | | CPU CORE | |
| | | | | Size | |
| | | | | Document Number | |
| | | | | LA-491 | |
| | | | | Rev | |
| | | | | 0.1 | |
| | | | | Date | |
| | | | | Tuesday, July 28, 2009 | |
| | | | | Sheet | |
| | | | | 43 of 48 | |



| | | | | | |
|--|-----------------|------------------------|------------|--------------------------|--|
| Security Classification | | Compal Secret Data | | Compal Electronics, Inc. | |
| Issued Date | 2008/09/15 | Deciphered Date | 2009/09/15 | Title | |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D OR FROM THE EMPLOYMENT OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE REPRODUCED, COPIED, OR DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. | | | | ADP_OCP | |
| Size | Document Number | Rev | | Date | |
| Custom | LA-4891 | Tuesday, July 28, 2009 | | Sheet 44 of 48 | |

| Item | Reason for change | PG# | Modify List | Date | Phase |
|------|-------------------|-----|-------------|------|-------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| | | | | | |

| | | | |
|---|--------------------|------------|--|
| Security Classification | Compul Secret Data | | Title |
| 2008/09/15 | Declassified Date | 2008/09/15 | <i>Compul Electronics, Inc.</i> <i>Changed-List History</i> |
| THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPUL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE REPRODUCED, COPIED, TRANSMITTED, OR THE SUBJECT OF ANY CONTRACT, DISCLOSURE OR TRADE SECRET INFORMATION. ANY UNAUTHORIZED REPRODUCTION, COPIING, TRANSMISSION, OR DISCLOSURE OF THIS INFORMATION MAY BE USED BY OR DELEGATED TO ANY THIRD PARTY BY COMPUL ELECTRONICS, INC. | | | Doc. # |
| | | | Document Name |
| | | | LA-4961P |

Version Change List (P. I. R. List) for HW Circuit

| Item | Page# | Title | Date | Request Owner | Issue Description | Solution Description | Rev. |
|------|---------|-------------------|-------|---------------|--|--|------|
| 1 | 21 | MXM PEG Bus | 01/19 | Compal | Can't detect GPU of MXM board | Need reverse TX & RX bus of PEG. | 0.2 |
| 2 | 21 | MXM LVDS Bus | 01/19 | Compal | No display of LVDS panel | Need reverse LVDS low&high bit BUS. | 0.2 |
| 3 | 13 | RTC | 01/19 | Compal | RTC no function | Reverse signals of RTC connector. | 0.2 |
| 4 | 29 | JVGAFFC1 | 01/20 | Compal | JVGAFFC1 pin23&24 was dummy, USB cacn't work | Connect JVGAFFC1 pin23&24 to SLP_S4. | 0.2 |
| 5 | 20 | DISP_OFF# | 02/02 | Compal | Use wrong power rail for this signal. | Currently panel spec is +3VS. | 0.2 |
| 6 | 20 | Left USB port | 02/02 | Compal | It's wrong port for debug | Change connection from port0 to port1 for debug. | 0.2 |
| 7 | 21 | PWR_LEVEL | 02/04 | Compal | Need isolation circit per HP request. | Add Q69, Q70, R397, R388, R118. | 0.2 |
| 8 | 4 | CPU FAN CONN | 02/06 | Compal | No GND pin of FAN connector. | Change Connector to 4 pin with GND pin. | 0.2 |
| 9 | 4,13,24 | SM BUS | 02/06 | HP | HP request to remove SM bus to XDP, JTAG & WLAN. | Leave TP and remove signals. | 0.2 |
| 10 | 22 | Intel LAN | 02/06 | HP | Intel change design to remove some caps. | Remove these caps as Intel CRB design. | 0.2 |
| 11 | 11 | DDR M2 support | 02/08 | Compal | Data & CLK signals are reverse of U36. | Reverse CLK & DATA. | 0.2 |
| 12 | 30 | LED CTL circuit | 02/06 | HP | HP request to update LED control circuit. | No install R734 & R735. | 0.2 |
| 13 | 15 | Duplicate | 02/06 | HP | Remove R247 because of R541existing. | Remove R247. | 0.2 |
| 14 | 13 | PCH_JTAG_RST# | 02/06 | HP | Change R720 to NO INSTALL. | No install R720. | 0.2 |
| 15 | 13 | GPIO | 02/06 | HP | Change GPIO43_R to USB_OC#4 & reserve 33 ohm serial. | Add R134 but no install. | 0.2 |
| 16 | 13 | LED control | 02/06 | HP | Remove GND & change connection of R176. | Change R176 to 1K with install it. | 0.2 |
| 17 | 14 | CLKREQ_EXP# | 02/06 | HP | Change R687 PU for CLKREQ_EXP# to INSTALL. | Install R687. | 0.2 |
| 18 | 17 | PCH Power Rail | 02/06 | HP | Some power rail of PCH are no use. | Remove these power and add TP. | 0.2 |
| 19 | 32 | Card Reader | 02/06 | HP | It will need find tune value of R731 & C661. | Change R731 to 100K & C661 to 1uF X5R as Cartier first. | 0.2 |
| 20 | 9 | Debug port | 02/10 | HP | HP request to add debug port for IAMT. | Add JIAMT1. | 0.2 |
| 21 | 16 | WWAN CONN | 02/10 | HP | WOW# to WWAN connector is no longer supported. | Remove R117 and signal. | 0.2 |
| 22 | 13 | SATA port | 02/10 | HP | Change SATA assignments to support PM. | Port 4 --> 5, Port2 --> 4, Port3 -->2. | 0.2 |
| 23 | 31 | KBC1091 | 02/10 | HP | Remove ADP_DET# on U23 GPIO9. | Add R320 PD on GPIO9. | 0.2 |
| 24 | 24 | WLAN | 02/10 | HP | Remove R441 and connection to JWLAN1.5 | Remove R441. | 0.2 |
| 25 | 24 | USB port6 | 02/10 | HP | Remove USB signals to JWLAN1.36 and 38. | Remove them. | 0.2 |
| 26 | 20 | WLAN | 02/10 | HP | Add 680P on DISP_OFF# close JLCD1 and change C359. | Change C359 to 0.1uF and add C439. | 0.2 |
| 27 | 22 | Intel 82578 | 02/10 | HP | Can remove Q17, R405 & R124 if no leakage. | Reserve Q17, R405 and R124 in DB2. | 0.2 |
| 28 | 4, 16 | Intel Change | 02/10 | HP | 414044 DG update 1.11 | Change R31/R32 to 1.5K/750ohm and R297 to 100K. | 0.2 |
| 29 | 31 | System ID control | 02/17 | HP | Common Design with other project. | Del D49, R149 and Q154 and Add U44. | 0.2 |
| 30 | 20 | Webcam | 02/17 | HP | WEBCAM_OFF is active high, so need change design. | Add R287 to turn on Gate. | 0.2 |
| 31 | 15 | PWR_GD | 02/17 | HP | HP request to change design. | Add R399 and install R237. | 0.2 |
| 32 | 15 | NAND Flash | 02/17 | HP | HP request to change design. | Add NAND_DETECT# form U4.Y7 to JNAND1.17. | 0.2 |
| 33 | 4 | XDP PU | 02/17 | HP | HP request to change design. | Del R37, R38, R39. | 0.2 |
| 34 | 22 | LAN Power | 02/17 | HP | Remove power switch from 3V to 1V and related parts. | Remove C382, C383, C384, C385, C694, R401, R366, Q21 and R402. | 0.2 |
| 35 | 29 | Docking | 02/17 | HP | HP agree to remove caps for DP from MB to DOCKING. | Remove C496 ~ C511 from MB. | 0.2 |
| 36 | 33 | Super I/O | 02/17 | Compal | Common design change to SMSC | | 0.2 |

Security Classification

Compal Secret Data

Issued Date

2006/02/28

Deciphered Date

2007/02/28

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.

HW Changed-List History-(0.1 to 0.2)

LA-4951P

0.4

Date: Tuesday, July 28, 2009

Sheet 46 of 48

Version Change List (P. I. R. List) for HW Circuit

| Item | Page# | Title | Date | Request Owner | Issue Description | Solution Description | Rev. |
|------|-------|--------------------|-------|---------------|---|--|------|
| 1 | 25 | ESD DIODE | 04/23 | Compal | Wrong connection of D53 & D54, system can't boot. | Swap +5VS & GND of D53 & D54 pin 2 & 5. | 0.3 |
| 2 | 29 | SATA Port 5 | 04/23 | Compal | It have wrong connection of JDOCK1 pin108 & pin109. | Swap SATA_PTX_C_DRX_P5/N5 of connector side. | 0.3 |
| 3 | 28 | SPI_CS0# | 04/23 | HP | HP request to add pull up resistor close to SPI ROM. | Reserve R6 close to U19. | 0.3 |
| 4 | 14 | SM BUS | 04/23 | HP | Intel request to change PU to 2.2K. | Change R199, R200 from 4.7K to 2.2K | 0.3 |
| 5 | 23 | LAN Transfermer | 04/23 | HP | Intel request to add 1uF cap between TRM caps to GND | Add C264 to GND. | 0.3 |
| 6 | 13 | JTAG Port | 04/24 | HP | HP review need swap JTAG1 pin4 & pin6. | Swap XDP_FN16 & XDP_FN17 at JTAG1 side. | 0.3 |
| 7 | 17 | PCH +1.05VS | 04/25 | HP | HP review will no need connect resistor between them. | Remove R310. | 0.3 |
| 8 | 14 | PCH 25MHz Crystall | 04/25 | HP | No need 25MHz for PCH as common design. | No install R229, C281, C282, Y4 but add R52. | 0.3 |
| 9 | 31 | KBC1098 VCC0 | 04/25 | HP | The VCC0 will never connect to GND. | Remove R587 from schematic. | 0.3 |
| 10 | 16 | LAN_DIS# | 04/25 | HP | GPIO12 of PCH have internal PU. | No install R279 and reserve R53 PD. | 0.3 |
| 11 | 21 | DPA AUX | 04/25 | HP | Need 0.1uF cap for Q20, Q67 gate pin. | Add C265. | 0.3 |
| 12 | 30 | WWAN_DET# | 04/25 | HP | Design Change PCH GPIO22 to WWAN_DET#. | Change GPIO of PCH to WWAN_DET#. | 0.3 |
| 13 | 16 | Webcam control | 04/25 | HP | Chnage the control pin from GPIO47 to GPIO22 of PCH | Modify WEBCAM_OFF to WEBCAM_ON, add R66 PU for GPIO47. | 0.3 |
| 14 | 20 | Webcam control | 04/25 | HP | Chnage the control pin from GPIO47 to GPIO22 of PCH | Del R350. | 0.3 |
| 15 | 13 | DOCK LED | 04/25 | HP | Need inverter for docking power LED signal. | Add Q71 & R67. | 0.3 |
| 16 | 33 | SER_SHD | 04/25 | HP | HP request to remove SER_SHD from SIO to docking. | Disconnect SER_SHD at docking side, add R7 PU to +3VS. | 0.3 |
| 17 | 9, 10 | DDR3 M1 & M3 | 04/30 | HP | Need implement M1, M3 but reserve M2 for SI1. | Remove R91, R682~R684 and add divider for V_DDR_CPU_REF0/1. | 0.3 |
| 18 | 17 | PCH Power Rail | | HP | Some power rail of PCH are no use. | Remove these power and add TP. | 0.3 |
| 19 | 32 | Card Reader | | HP | It will need find tune value of R731 & C661. | Change R731 to 100K & C661 to 1uF X5R as Cartier first. | 0.3 |
| 20 | 9 | Debug port | | HP | HP request to add debug port for IAMT. | Add JIAMT1. | 0.3 |
| 21 | 16 | WWAN CONN | | HP | WOW# to WWAN connector is no longer supported. | Remove R117 and signal. | 0.3 |
| 22 | 13 | SATA port | | HP | Change SATA assignments to support PM. | Port 4 --> 5, Port2 --> 4, Port3 --> 2. | 0.3 |
| 23 | 31 | KBC1091 | | HP | Remove ADP_DET# on U23 GPIO9. | Add R320 PD on GPIO9. | 0.3 |
| 24 | 24 | WLAN | | HP | Remove R441 and connection to JWLAN1.5 | Remove R441. | 0.3 |
| 25 | 24 | USB port6 | | HP | Remove USB signals to JWLAN1.36 and 38. | Remove them. | 0.3 |
| 26 | 20 | WLAN | | HP | Add 680P on DISP_OFF# close JLCD1 and change C359. | Change C359 to 0.1uF and add C439. | 0.3 |
| 27 | 22 | Intel 82578 | | HP | Can remove Q17, R405 & R124 if no leakage. | Reserve Q17, R405 and R124 in DB2. | 0.3 |
| 28 | 4, 16 | Intel Change | | HP | 414044 DG update 1.11 | Change R31/R32 to 1.5K/750ohm and R297 to 100K. | 0.3 |
| 29 | 31 | System ID control | | HP | Common Design with other project. | Del D49, R149 and Q154 and Add U44. | 0.3 |
| 30 | 20 | Webcam | | HP | WEBCAM_OFF is active high, so need change design. | Add R287 to turn on Gate. | 0.3 |
| 31 | 15 | PWR_GD | | HP | HP request to change design. | Add R399 and install R237. | 0.3 |
| 32 | 15 | NAND Flash | | HP | HP request to change design. | Add NAND_DETECT# form U4.Y7 to JNAND1.17. | 0.3 |
| 33 | 4 | XDP PU | | HP | HP request to change design. | Del R37, R38, R39. | 0.3 |
| 34 | 22 | LAN Power | | HP | Remove power switch from 3V to 1V and related parts. | Remove C382, C383, C384, C385, C694, R401, R366, Q21 and R402. | 0.3 |
| 35 | 29 | Docking | | HP | HP agree to remove caps for DP from MB to DOCKING. | Remove C496 ~ C511 from MB. | 0.3 |
| 36 | 33 | Super I/O | | Compal | Common design change to SMSC | | 0.3 |

Security Classification

Compal Secret Data

Issued Date

2006/02/28

Deciphered Date

2007/02/28

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.

Title

Compal Electronics, Inc.

Size

Document Number

LA-4951P

Rev

0.4

Date:

Tuesday, July 28, 2009

Sheet

47

of

48

Version Change List (P. I. R. List) for HW Circuit

| Item | Page# | Title | Date | Request Owner | Issue Description | Solution Description | Rev. |
|------|-------|--------------------|-------|---------------|---|--|------|
| 1 | 4 | FAN CTRL Circuit | 07/2 | HP | FAN always 100% turn after power on | Del D29 & NI R133 to prevent this issue. | 0.4 |
| 2 | 29 | SATA Port 5 | 04/23 | Compal | It have wrong connection of JDOCK1 pin108 & pin109. | Swap SATA_PTX_C_DRX_P5/N5 of connector side. | 0.3 |
| 3 | 28 | SPI_CS0# | 04/23 | HP | HP request to add pull up resistor close to SPI ROM. | Reserve R6 close to U19. | 0.3 |
| 4 | 14 | SM BUS | 04/23 | HP | Intel request to change PU to 2.2K. | Change R199, R200 from 4.7K to 2.2K | 0.3 |
| 5 | 23 | LAN Transfermer | 04/23 | HP | Intel request to add 1uF cap between TRM caps to GND | Add C264 to GND. | 0.3 |
| 6 | 13 | JTAG Port | 04/24 | HP | HP review need swap JTAG1 pin4 & pin6. | Swap XDP_FN16 & XDP_FN17 at JTAG1 side. | 0.3 |
| 7 | 17 | PCH +1.05VS | 04/25 | HP | HP review will no need connect resistor between them. | Remove R310. | 0.3 |
| 8 | 14 | PCH 25MHz Crystall | 04/25 | HP | No need 25MHz for PCH as common design. | No install R229, C281, C282, Y4 but add R52. | 0.3 |
| 9 | 31 | KBC1098 VCC0 | 04/25 | HP | The VCC0 will never connect to GND. | Remove R587 from schematic. | 0.3 |
| 10 | 16 | LAN_DIS# | 04/25 | HP | GPIO12 of PCH have internal PU. | No install R279 and reserve R53 PD. | 0.3 |
| 11 | 21 | DPA AUX | 04/25 | HP | Need 0.1uF cap for Q20, Q67 gate pin. | Add C265. | 0.3 |
| 12 | 30 | WWAN_DET# | 04/25 | HP | Design Change PCH GPIO22 to WWAN_DET#. | Change GPIO of PCH to WWAN_DET#. | 0.3 |
| 13 | 16 | Webcam control | 04/25 | HP | Chnage the control pin from GPIO47 to GPIO22 of PCH | Modify WEBCAM_OFF to WEBCAM_ON, add R66 PU for GPIO47. | 0.3 |
| 14 | 20 | Webcam control | 04/25 | HP | Chnage the control pin from GPIO47 to GPIO22 of PCH | Del R350. | 0.3 |
| 15 | 13 | DOCK LED | 04/25 | HP | Need inverter for docking power LED signal. | Add Q71 & R67. | 0.3 |
| 16 | 33 | SER_SHD | 04/25 | HP | HP request to remove SER_SHD from SIO to docking. | Disconnect SER_SHD at docking side, add R7 PU to +3VS. | 0.3 |
| 17 | 9, 10 | DDR3 M1 & M3 | 04/30 | HP | Need implement M1, M3 but reserve M2 for SI1. | Remove R91, R682~R684 and add divider for V_DDR_CPU_REF0/1. | 0.3 |
| 18 | 17 | PCH Power Rail | | HP | Some power rail of PCH are no use. | Remove these power and add TP. | 0.3 |
| 19 | 32 | Card Reader | | HP | It will need find tune value of R731 & C661. | Change R731 to 100K & C661 to 1uF X5R as Cartier first. | 0.3 |
| 20 | 9 | Debug port | | HP | HP request to add debug port for IAMT. | Add JIAMT1. | 0.3 |
| 21 | 16 | WWAN CONN | | HP | WOW# to WWAN connector is no longer supported. | Remove R117 and signal. | 0.3 |
| 22 | 13 | SATA port | | HP | Change SATA assignments to support PM. | Port 4 --> 5, Port2 --> 4, Port3 --> 2. | 0.3 |
| 23 | 31 | KBC1091 | | HP | Remove ADP_DET# on U23 GPIO9. | Add R320 PD on GPIO9. | 0.3 |
| 24 | 24 | WLAN | | HP | Remove R441 and connection to JWLAN1.5 | Remove R441. | 0.3 |
| 25 | 24 | USB port6 | | HP | Remove USB signals to JWLAN1.36 and 38. | Remove them. | 0.3 |
| 26 | 20 | WLAN | | HP | Add 680P on DISP_OFF# close JLCD1 and change C359. | Change C359 to 0.1uF and add C439. | 0.3 |
| 27 | 22 | Intel 82578 | | HP | Can remove Q17, R405 & R124 if no leakage. | Reserve Q17, R405 and R124 in DB2. | 0.3 |
| 28 | 4, 16 | Intel Change | | HP | 414044 DG update 1.11 | Change R31/R32 to 1.5K/750ohm and R297 to 100K. | 0.3 |
| 29 | 31 | System ID control | | HP | Common Design with other project. | Del D49, R149 and Q154 and Add U44. | 0.3 |
| 30 | 20 | Webcam | | HP | WEBCAM_OFF is active high, so need change design. | Add R287 to turn on Gate. | 0.3 |
| 31 | 15 | PWR_GD | | HP | HP request to change design. | Add R399 and install R237. | 0.3 |
| 32 | 15 | NAND Flash | | HP | HP request to change design. | Add NAND_DETECT# form U4.Y7 to JNAND1.17. | 0.3 |
| 33 | 4 | XDP PU | | HP | HP request to change design. | Del R37, R38, R39. | 0.3 |
| 34 | 22 | LAN Power | | HP | Remove power switch from 3V to 1V and related parts. | Remove C382, C383, C384, C385, C694, R401, R366, Q21 and R402. | |
| 35 | 29 | Docking | | HP | HP agree to remove caps for DP from MB to DOCKING. | Remove C496 ~ C511 from MB. | |
| 36 | 33 | Super I/O | | Compal | Common design change to SMSC | | |

Security Classification

Compal Secret Data

Issued Date

2006/02/28

Deciphered Date

2007/02/28

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.

HW Changed-List History-(0.3 to 0.4)

LA-4951P

Size

Document Number

Rev

0.4

Date: Tuesday, July 28, 2009

Sheet 48 of 48