

# JASAA

## *Orlando 10A/10AG*

### LA3831P REV 1.0 Schematic

AMD Turion, Sempron/ATI RX690/RS690MC / ATI SB600

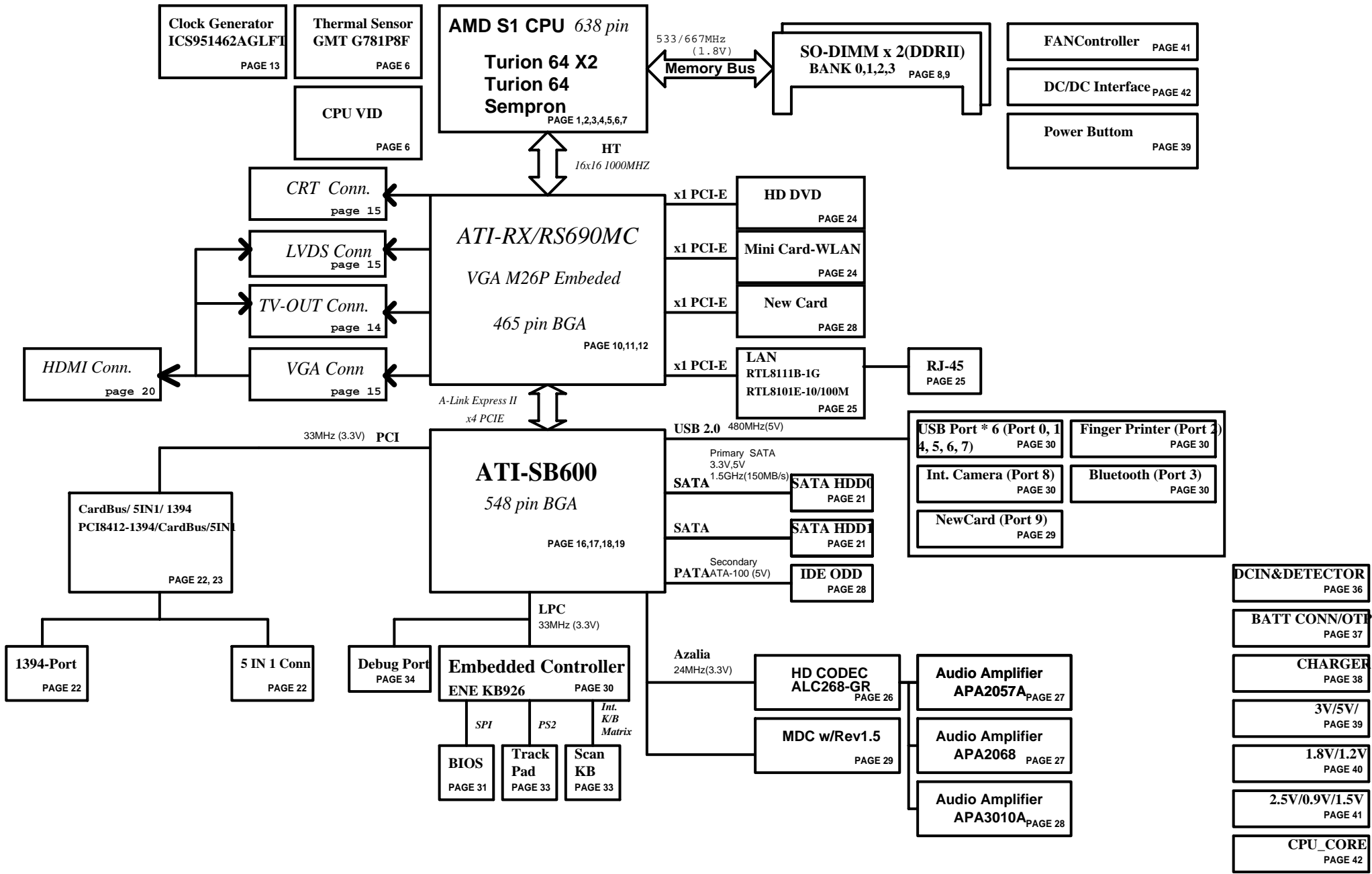
2007-08-06 Rev. 1.0

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2007/3/8	Deciphered Date	2008/3/8	Title	SCHEMATIC MB A3831
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
				B	401498
Date				Thursday, November 25, 2010	Sheet 1 of 46

Compal confidential JASAA Orlando10A FUNCTION BLOCK e-Diagram

File Name : JASAA Orlando10A LA3831P

P/N :



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/3/8	Deciphered Date	2008/3/8	Title	SCHEMATIC MB A3831
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.				Document Number	401498
				Date:	Thursday, November 25, 2010
				Sheet	2 of 46
				Rev	D

## Voltage Rails

Power Plane	Description	S1	S3	S5
VIN	Adapter power supply (19V)	ON	ON	ON
B+	AC or battery power rail for power circuit.	ON	ON	ON
+RTCVCC	RTC power	ON	ON	ON
+VSB	B+ switched power rail	ON	ON	ON
+5VALW	5V always on power rail	ON	ON	ON
+3VALW	3.3V always on power rail	ON	ON	ON
+1.2VALW	1.2V always on power rail	ON	ON	ON
+1.8V	1.8V power rail	ON	ON	OFF
+0.9V	0.9V switched power rail	ON	ON	OFF
+5VS	5VS switched power rail	ON	OFF	OFF
+3VS	3.3VS switched power rail	ON	OFF	OFF
+2.5VS	2.5VS switched power rail	ON	OFF	OFF
+1.8VS	1.8VS switched power rail	ON	OFF	OFF
+1.5VS	1.5VS switched power rail	ON	OFF	OFF
+CPU_CORE	Core voltage for CPU	ON	OFF	OFF
+1.2V_HT	1.2VS switched power rail	ON	OFF	OFF

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

## External PCI Devices

Device	IDSEL#	REQ#/GNT#	Interrupts
1394/ CardBus/ 5iN1	AD20	2/ 2	PIRQE/F/G

## EC SM Bus1 address

Device	HEX	Address	Device	HEX	Address
Smart Battery	16H	0001 011X b	CPU Thermal-G781P8F	98H	1001 100X b
24C16	A0H	1010 000X b	VGA Thermal-		

## EC SM Bus2 address

## ATi SB600 SM Bus address

### SM Bus0 address

Device	HEX	Address
Clock GEN. (ICS951462AGLFT)		
DDR DIMM0	A4	
DDR DIMM1	A6	
Mini Card-WLAN		
Mini Card-3G		
New Card		

### SM Bus1 address

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

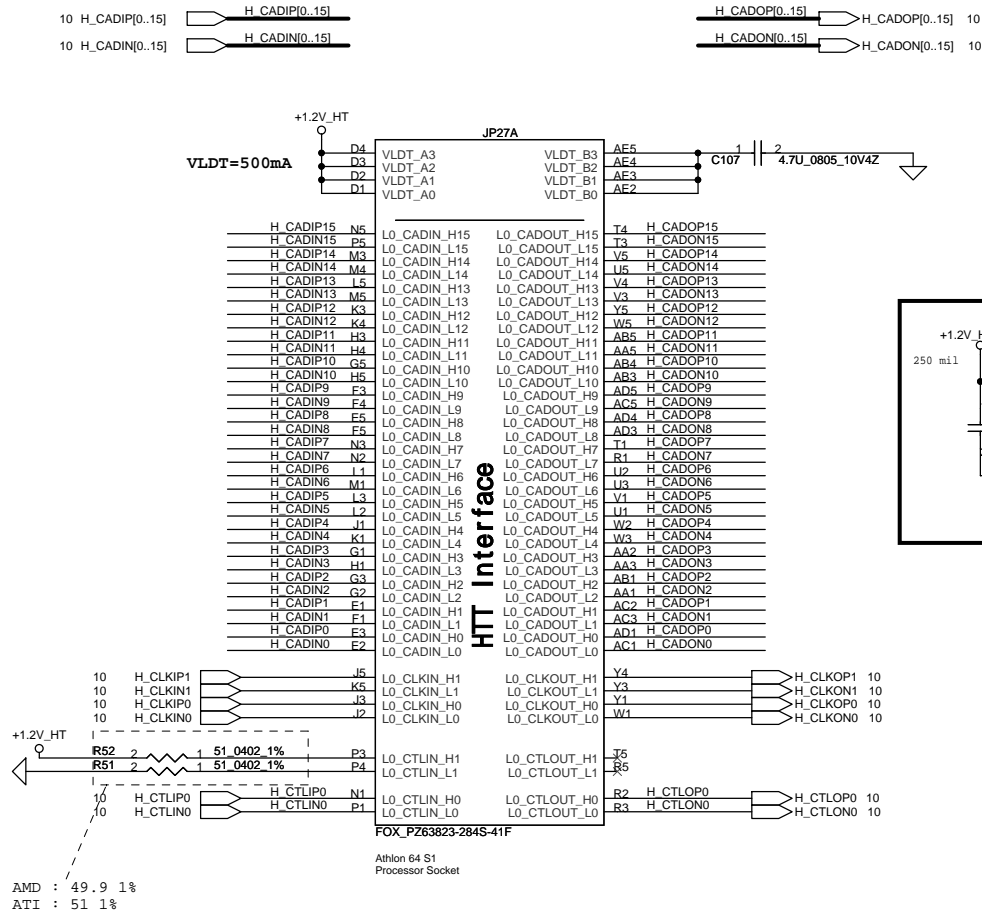
## ID Table for AD channel

Vcc	3.3V +/- 5%			
Ra	100K +/- 5%			
Board ID	Rb	VAD_BID min	VAD_BID typ	VAD_BID max
0	0	0 V	0 V	0 V
1	8.2K +/- 5%	0.216 V	0.250 V	0.289 V
2	18K +/- 5%	0.436 V	0.503 V	0.538 V
3	33K +/- 5%	0.712 V	0.819 V	0.875 V
4	56K +/- 5%	1.036 V	1.185 V	1.264 V
5	100K +/- 5%	1.453 V	1.650 V	1.759 V
6	200K +/- 5%	1.935 V	2.200 V	2.341 V
7	NC	2.500 V	3.300 V	3.300 V

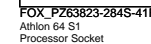
BTN_ID	
0	
1	
2	
3	
4	
5	
6	
7	

BTO	BOM STURCTURE

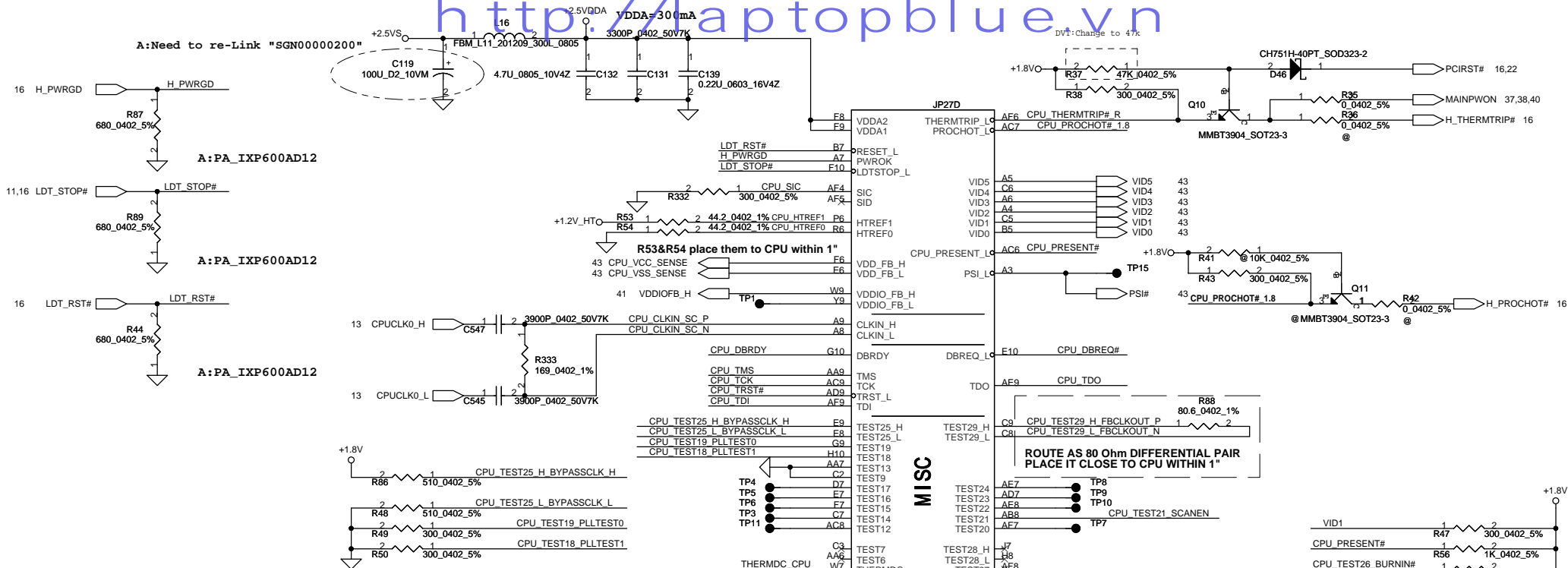
Security Classification		Compal Secret Data		Compal Electronics, Inc.			
Issued Date		2007/3/8	Deciphered Date	2008/3/8	Title SCHEMATIC MB A3831		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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 D
					Customer#01498		
Date:					Thursday, November 25, 2010		Sheet 3 of 46



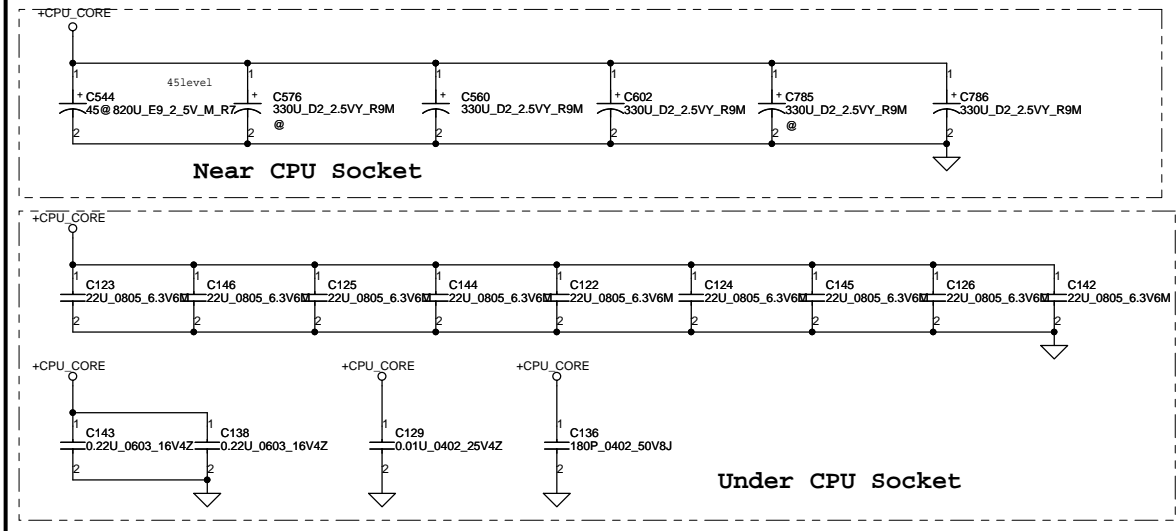
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/3/8	Deciphered Date	2008/3/8	Title	<b>SCHEMATIC MB A3831</b>
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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.				Document Number	401498
Date:	Thursday, November 25, 2010	Sheet	4	of	46



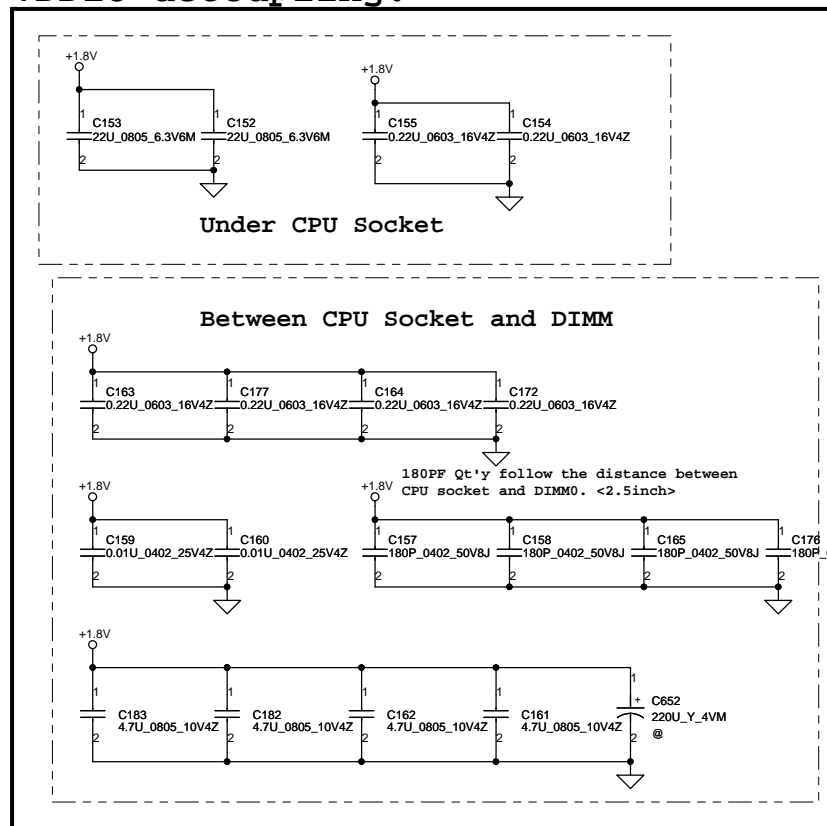
Security Classification	Compal Secret Data			<b>Compal Electronics, Inc.</b>		
Issued Date	2007/3/8	Deciphered Date	2008/3/8	Title	<b>SCHEMATIC MB A3831</b>	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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	401498	D
Date:				Thursday, November 25, 2010	Sheet	5 of 46



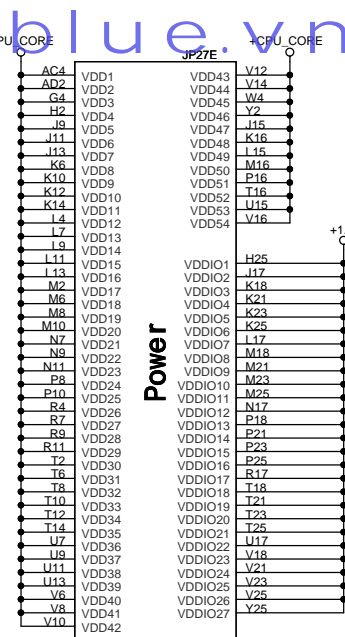
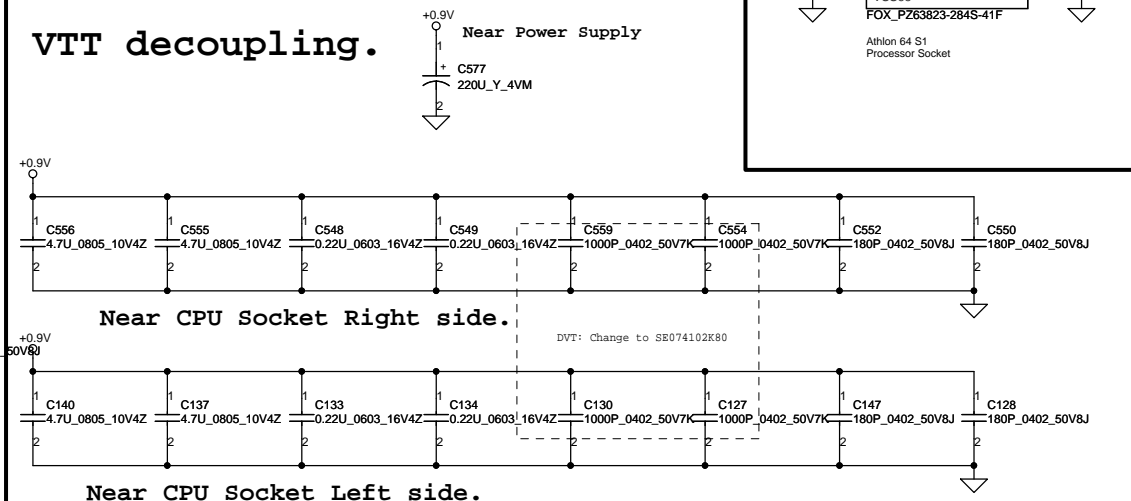
## VDD(+CPU\_CORE) decoupling.



## VDDIO decoupling.

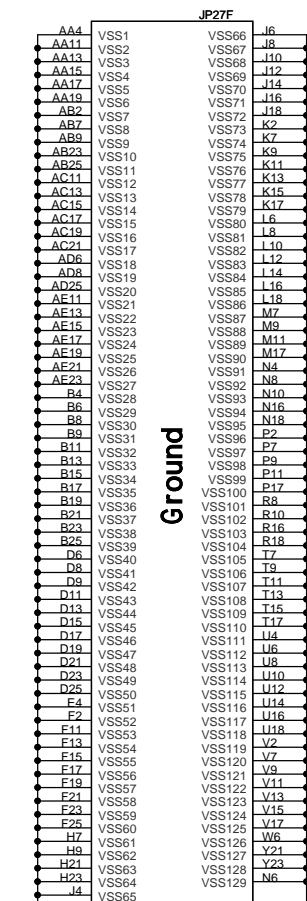


## VTT decoupling.



FOX\_PZ63823-284S-41F

Athlon 64 S1  
Processor Socket



Athlon 64 S1  
Processor Socket

FOX\_PZ63823-284S-41F

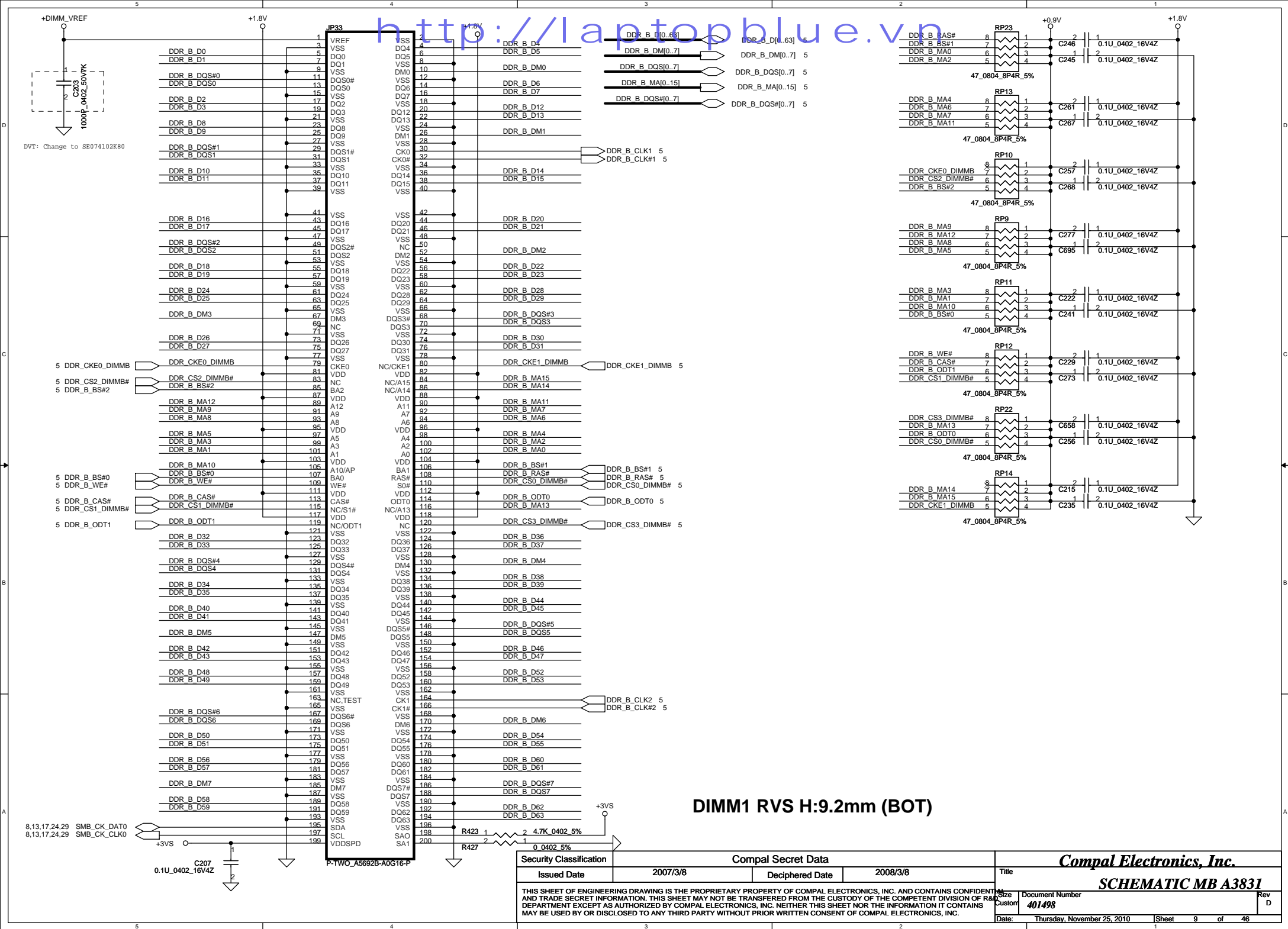
Security Classification		Compal Secret Data		Title	
Issued Date		2007/3/8	Deciphered Date	2008/3/8	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE 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.					
Date		Thursday, November 25, 2010		Sheet 7 of 46	
Size		Custom		Document Number	
401498		401498		Rev D	

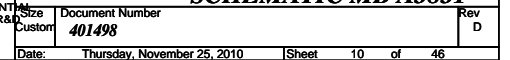


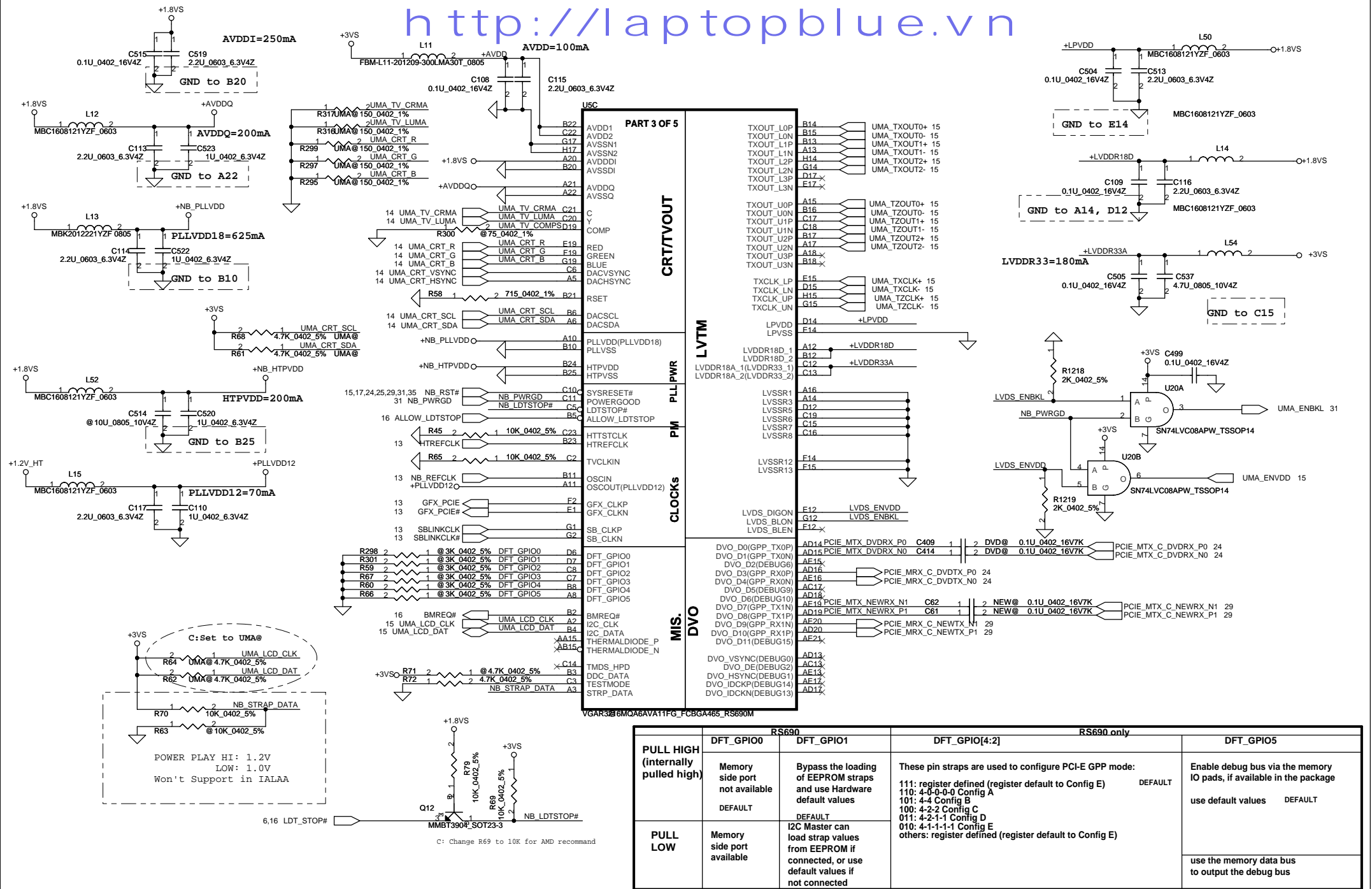
**B: Swap**

Security Classification	Compal Secret Data			<b>Compal Electronics, Inc.</b> <b><i>SCHEMATIC MB A3831</i></b>		
Issued Date	2007/3/8	Deciphered Date	2008/3/8	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. NO FACTORY IS 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.				Rev	0	
				Document Number		
				Customer	401498	
				Date:	Thursday, November 25, 2010	Sheet 8 of 46

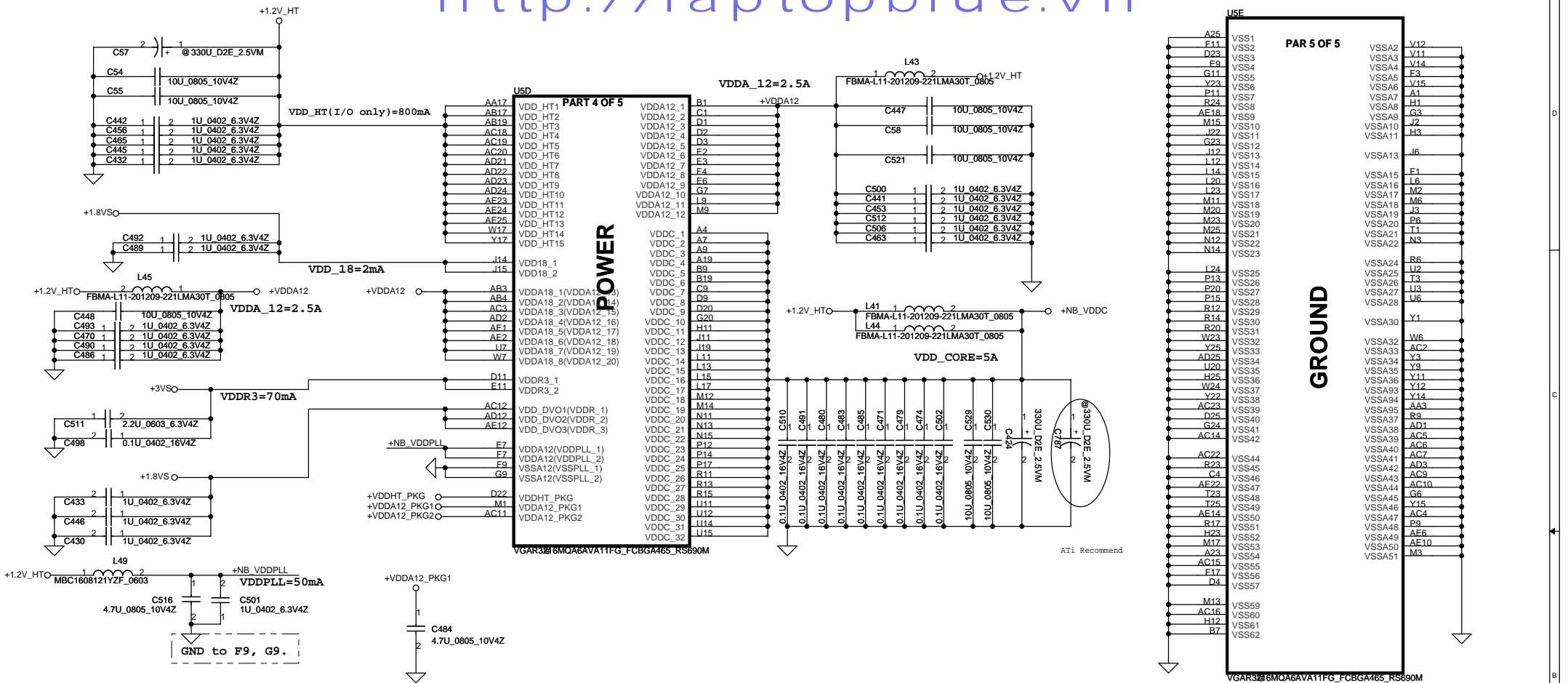


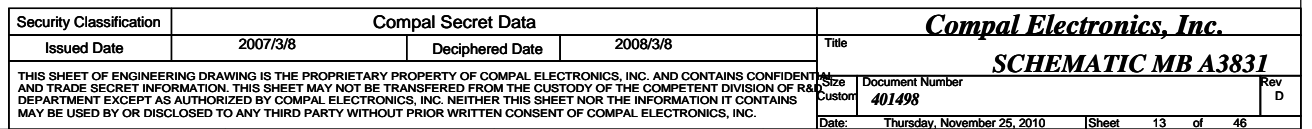




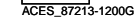


Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/3/8	Deciphered Date	2008/3/8	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Document Number
				401498
				Rev D
				Date: Thursday, November 25, 2010
				Sheet 11 of 46

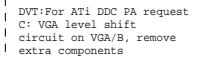








C:Move pi circuit to daughter board  
PreMP: Change BOM structure for EMI issue



```
DVT:For ATI DDC PA request
C:BOM structure for UMA/VGA
```

## TV-OUT CONNECTOR

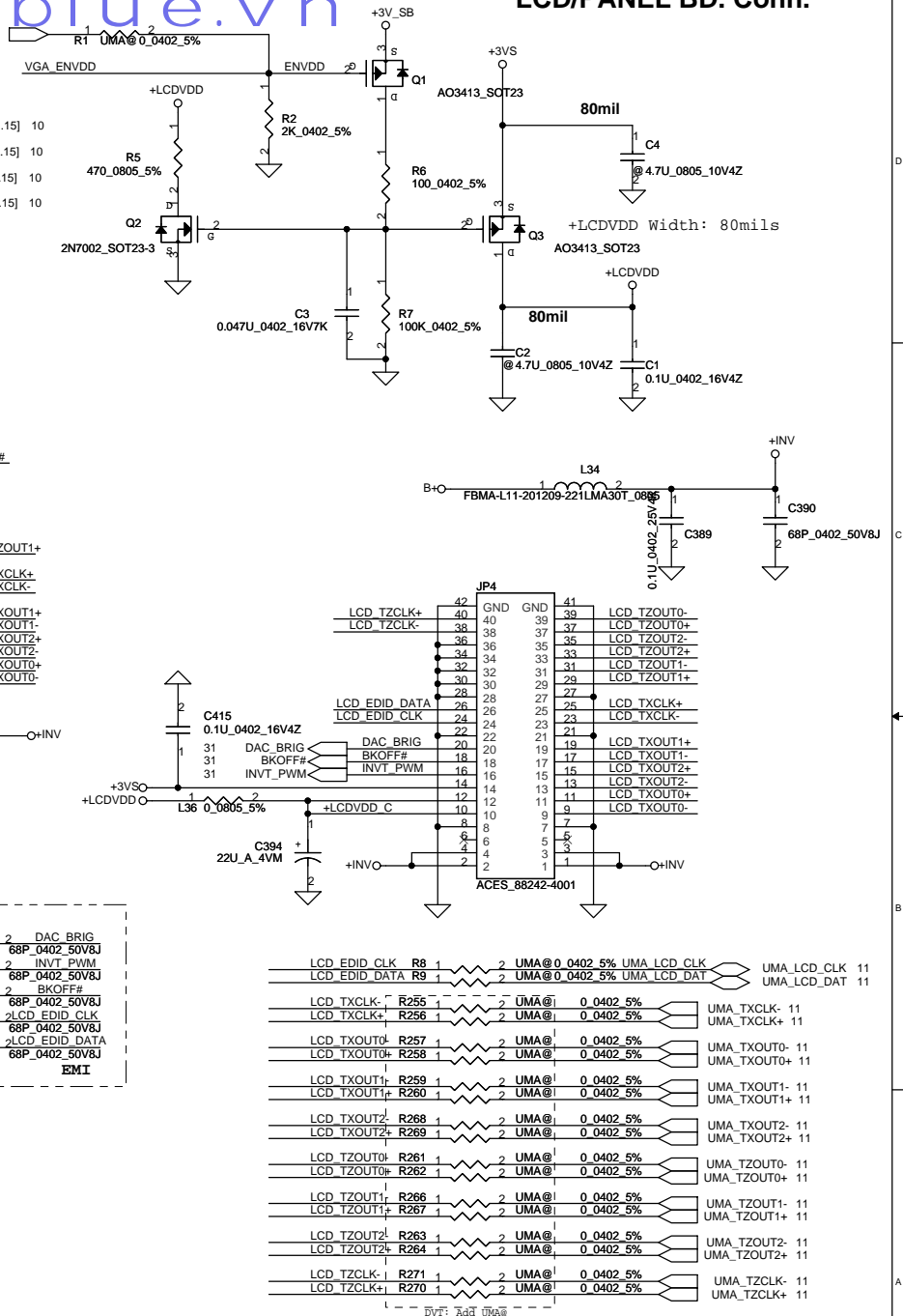
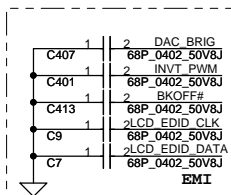
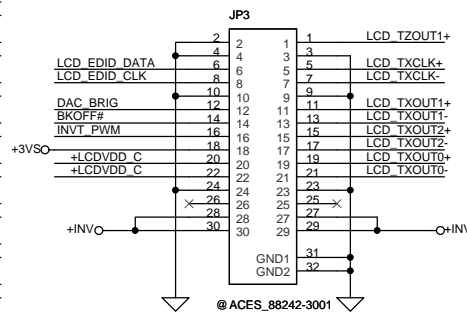
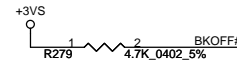
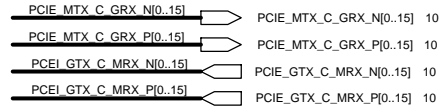
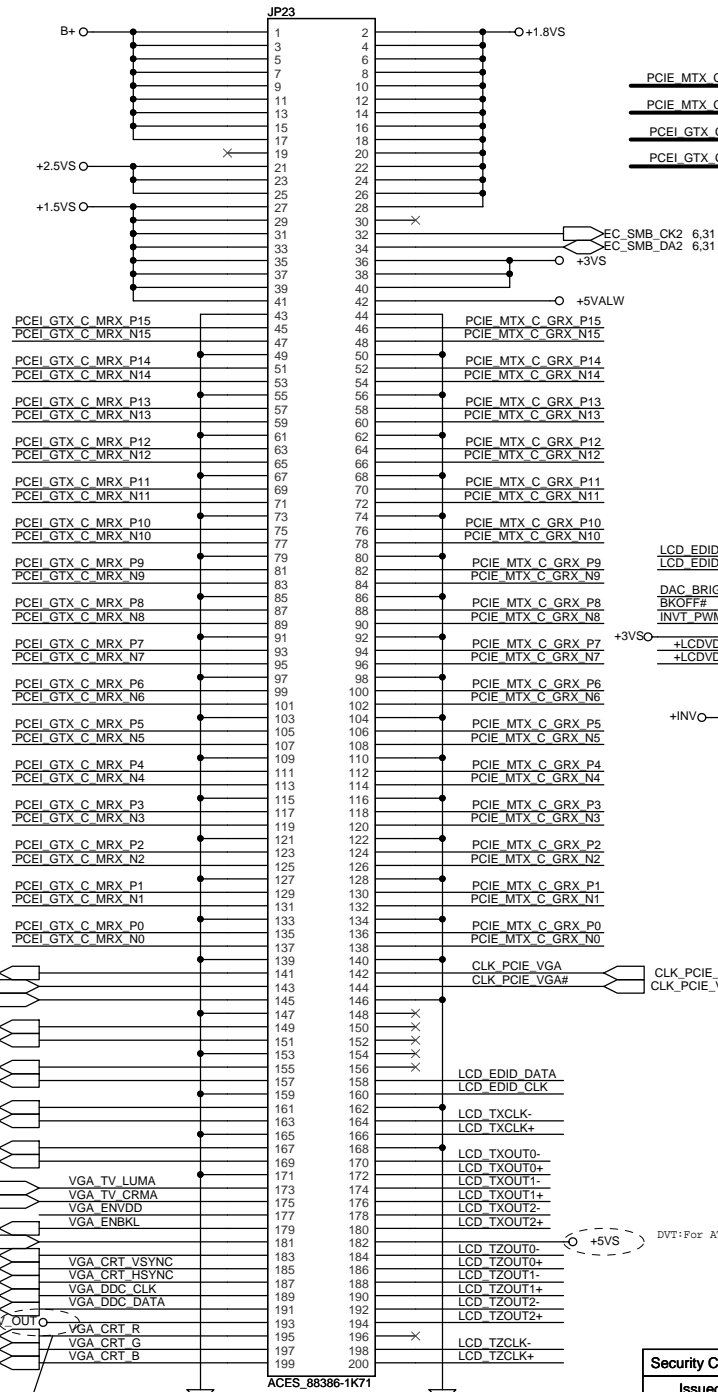


- ```
1. Y ground
2. C ground
3. Y (luminance+sync)
4. C (chrominance)
```

|                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |                    |          |                             |                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------|-----------------------------|-------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                             |          | Compal Secret Data |          | Compal Electronics, Inc.    |                   |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2007/3/8 | Deciphered Date    | 2008/3/8 | Title                       | SCHMATIC MB A3831 |
| 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 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   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |                    |          | B                           | 401498            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |                    |          | Rev D                       |                   |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Thursday, November 25, 2010 | Sheet 14 of 46    |

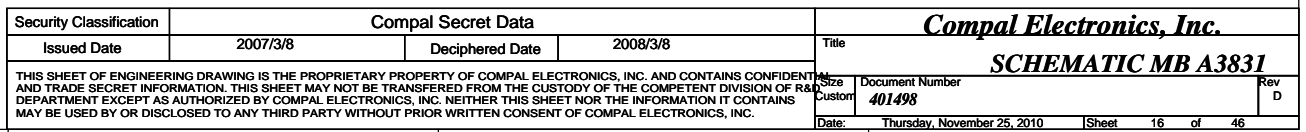
AT (Support Only)

**LCD/PANEL BD. Conn.**



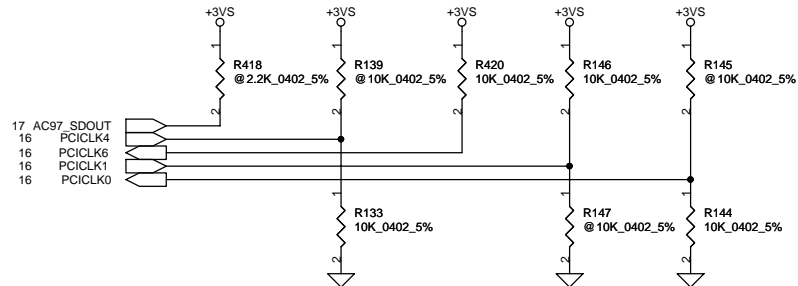
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          |                                   |                        |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------|-----------------------------------|------------------------|-------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | Compal Secret Data |          | Compal Electronics, Inc.          |                        |       |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8 | Deciphered Date    | 2008/3/8 | Title                             | SCHEMATIC MB A3831     |       |
| 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 B                            | Document Number 401498 | Rev D |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Date: Thursday, November 25, 2010 | Sheet 15 of 46         |       |



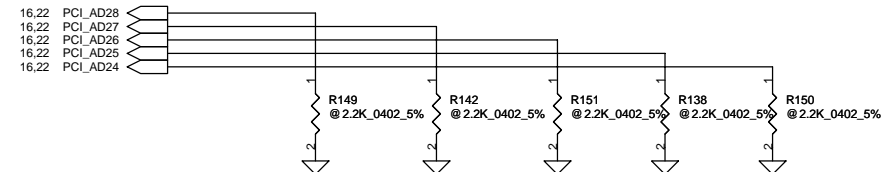




## Standard Straps



## Debug Straps



|                  | AC_SDOUT                                           | PCI_CLK4<br><PCICLK4>        | PCI_CLK6<br><PCICLK6> | PCI_CLK1<br><CLK_PCI_LAN>                                                         | PCI_CLK0<br><PCICLK0> |
|------------------|----------------------------------------------------|------------------------------|-----------------------|-----------------------------------------------------------------------------------|-----------------------|
| <b>PULL HIGH</b> | USE<br>DEBUG<br>STRAPS                             | USE INT.<br>PLL48            | CPU IF=AMD<br>DEFAULT | ROM TYPE:<br>H, H = Reserve<br>H, L = LPC ROM<br>L, H = SPI ROM<br>L, L = FWH ROM | DEFAULT               |
| <b>PULL LOW</b>  | IGNORE<br>DEBUG<br>STRAPS<br><int'l PD><br>DEFAULT | USE EXT.<br>48MHZ<br>DEFAULT | CPU IF=Intel          |                                                                                   |                       |

|                  | PCI_AD28                        | PCI_AD27                  | PCI_AD26                    | PCI_AD25                  | PCI_AD24                              | PCI_AD23<br><A11 only>                  |
|------------------|---------------------------------|---------------------------|-----------------------------|---------------------------|---------------------------------------|-----------------------------------------|
| <b>PULL HIGH</b> | USE<br>LONG<br>RESET<br>DEFAULT | USE PCI<br>PLL<br>DEFAULT | USE ACPI<br>BCLK<br>DEFAULT | USE IDE<br>PLL<br>DEFAULT | USE DEFAULT<br>PCIE STRAPS<br>DEFAULT | DISABLE<br>BOOTFAIL<br>TIMER<br>DEFAULT |
| <b>PULL LOW</b>  | USE<br>SHORT<br>RESET           | BYPASS<br>PCI PLL         | BYPASS<br>ACPI<br>BCLK      | BYPASS IDE<br>PLL         | USE EEPROM<br>PCIE STRAPS             | ENABLE<br>BOOTFAIL<br>TIMER             |

### Un-Used Inputs Setting--GPIO pins

|                           |                              |
|---------------------------|------------------------------|
| GPIO4/SMARTVOLT/SATA_IS2# | Config. GPIO to Output Mode. |
| GPIO5/SHUTDOWN#           | Config. GPIO to Output Mode. |
| GPIO7/WD_PWRGD            | Config. GPIO to Output Mode. |
| GPIO8/DDC1_SDA            | Config. GPIO to Output Mode. |
| GPIO9/DDC1_SCL            | Config. GPIO to Output Mode. |
| GPIO10/SATA_IS0#          | Config. GPIO to Output Mode. |
| GPIO41/PCICLK7/SPDIF_OUT  | Config. GPIO to Output Mode. |
| GPIO50/FANIN0             | Config. GPIO to Output Mode. |
| GPIO51/FANIN1             | Config. GPIO to Output Mode. |
| GPIO52/FANIN2             | Config. GPIO to Output Mode. |
| GPIO53/VIN0               | Config. GPIO to Output Mode. |
| GPIO54/VIN1               | Config. GPIO to Output Mode. |
| GPIO55/VIN2               | Config. GPIO to Output Mode. |

### Un-Used Inputs Setting--GPM pins

|                |                              |
|----------------|------------------------------|
| GPIO56/VIN3    | Config. GPIO to Output Mode. |
| GPIO57/VIN4    | Config. GPIO to Output Mode. |
| GPIO58/VIN5    | Config. GPIO to Output Mode. |
| GPIO59/VIN6    | Config. GPIO to Output Mode. |
| GPIO60/VIN7    | Config. GPIO to Output Mode. |
| GPIO61/TEMPIN0 | Config. GPIO to Output Mode. |
|                |                              |
|                |                              |
| GPOC2#/SCL1    | Config. GPIO to Output Mode. |
| GPOC3#/SDA1    | Config. GPIO to Output Mode. |

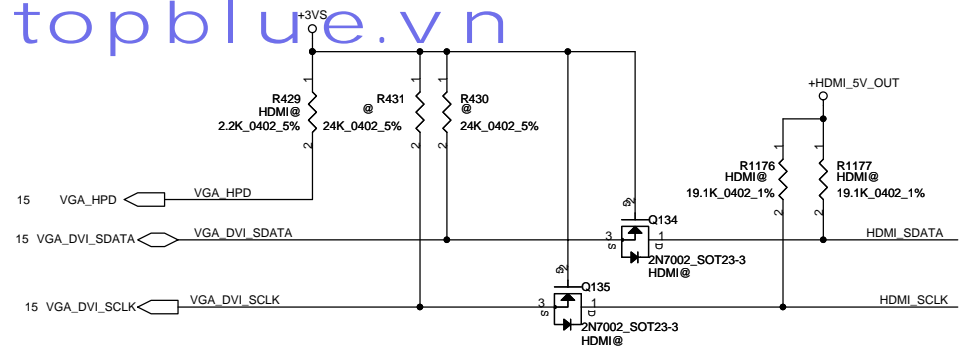
### Un-Used Inputs Setting--GPM pins

|                          |                          |
|--------------------------|--------------------------|
| GPM5#/DDR3_RST#/USB_OC5# | Config. for internal PU. |
| GEVENT5#/S3_STATE        | Config. for internal PU. |
|                          |                          |
|                          |                          |
|                          |                          |
|                          |                          |
|                          |                          |
|                          |                          |
|                          |                          |
|                          |                          |
|                          |                          |

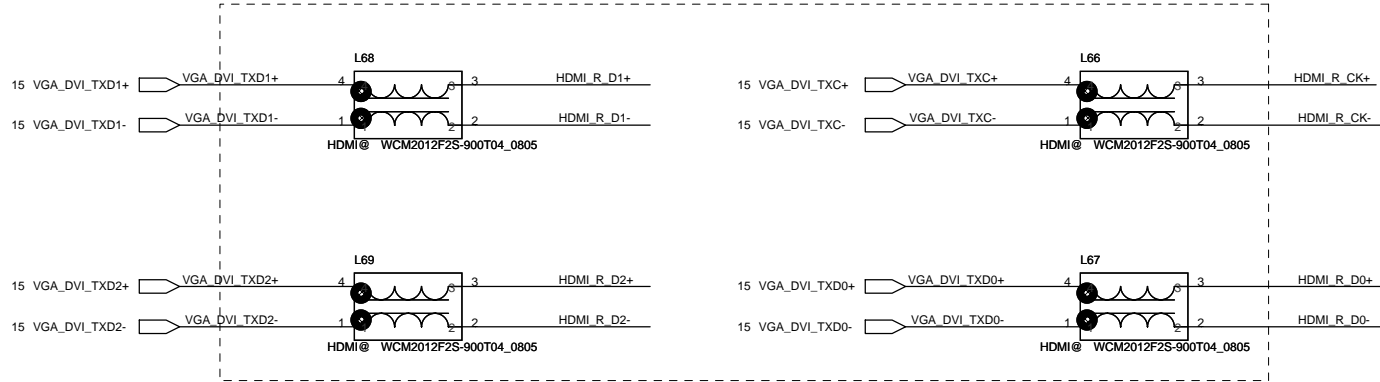


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                 |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|----------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                           | Compal Secret Data |                 |          |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2007/3/8           | Deciphered Date | 2008/3/8 |
| <p>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND/OR SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE 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.</p> |                    |                 |          |

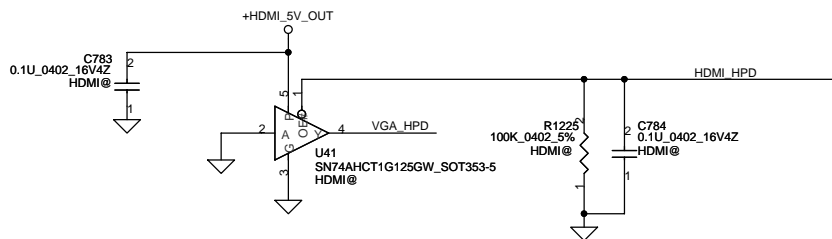
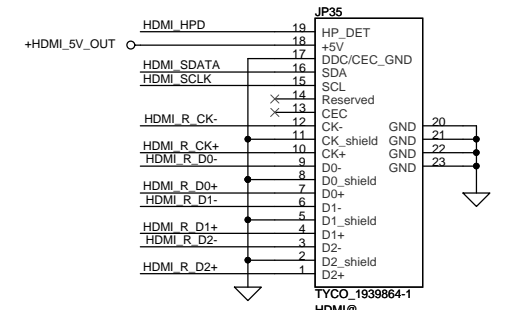
|        |                             |       |          |
|--------|-----------------------------|-------|----------|
| Size   | Document Number             |       |          |
| Custom | 401498                      |       |          |
| Date:  | Thursday, November 25, 2010 | Sheet | 19 of 46 |



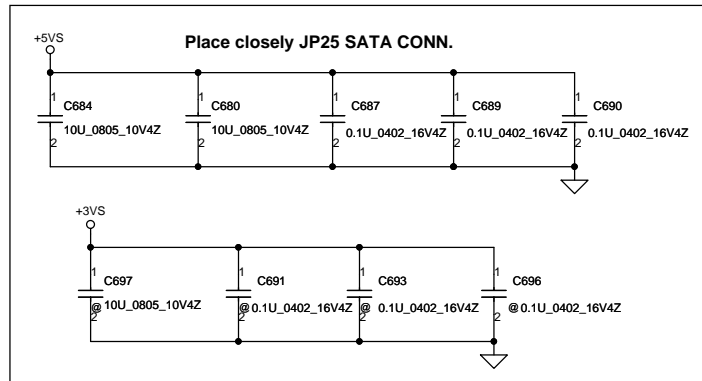
## HDMI Connector



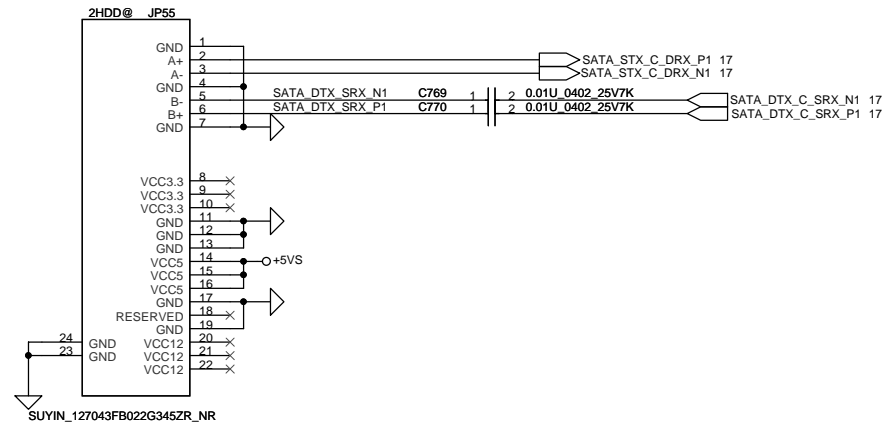
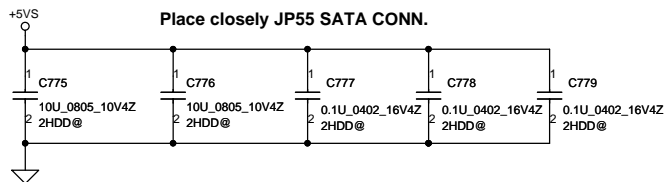
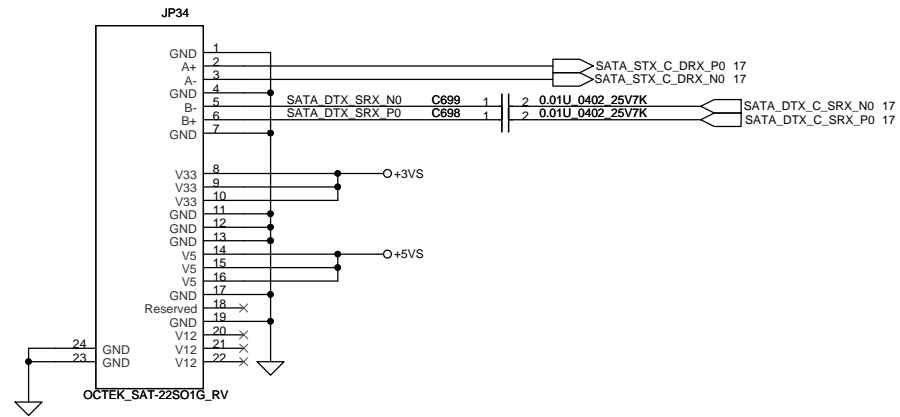
PVT: Delete all co-lay resistors.



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          |                          |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------|--------------------------|-----------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | Compal Secret Data |          | Compal Electronics, Inc. |                             |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8 | Deciphered Date    | 2008/3/8 | Title                    | SCHEMATIC MB A3831          |
| 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. |          |                    |          | Document Number          | 401498                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Date                     | Thursday, November 25, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Sheet                    | 20 of 46                    |

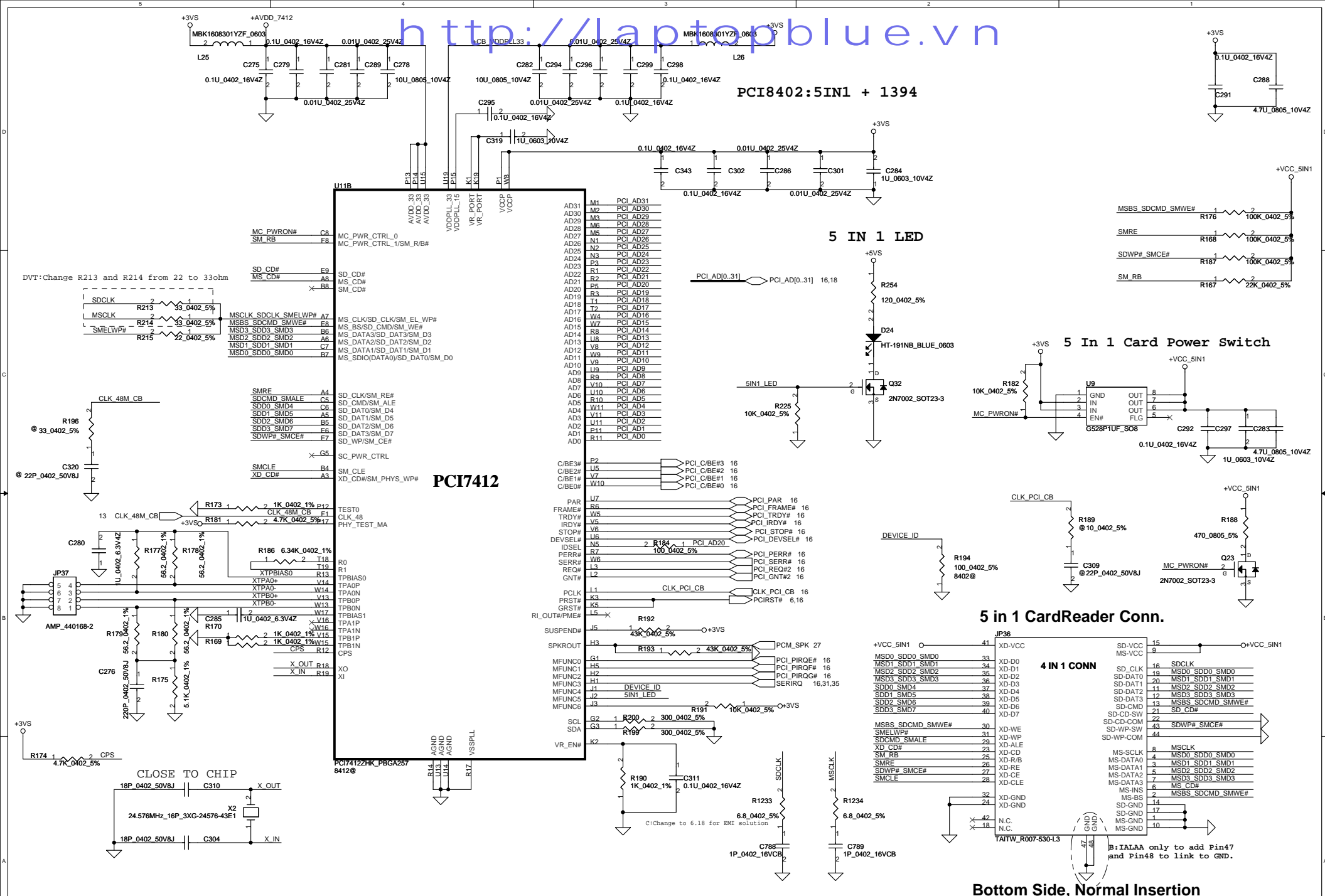


## SATA HDD Conn.

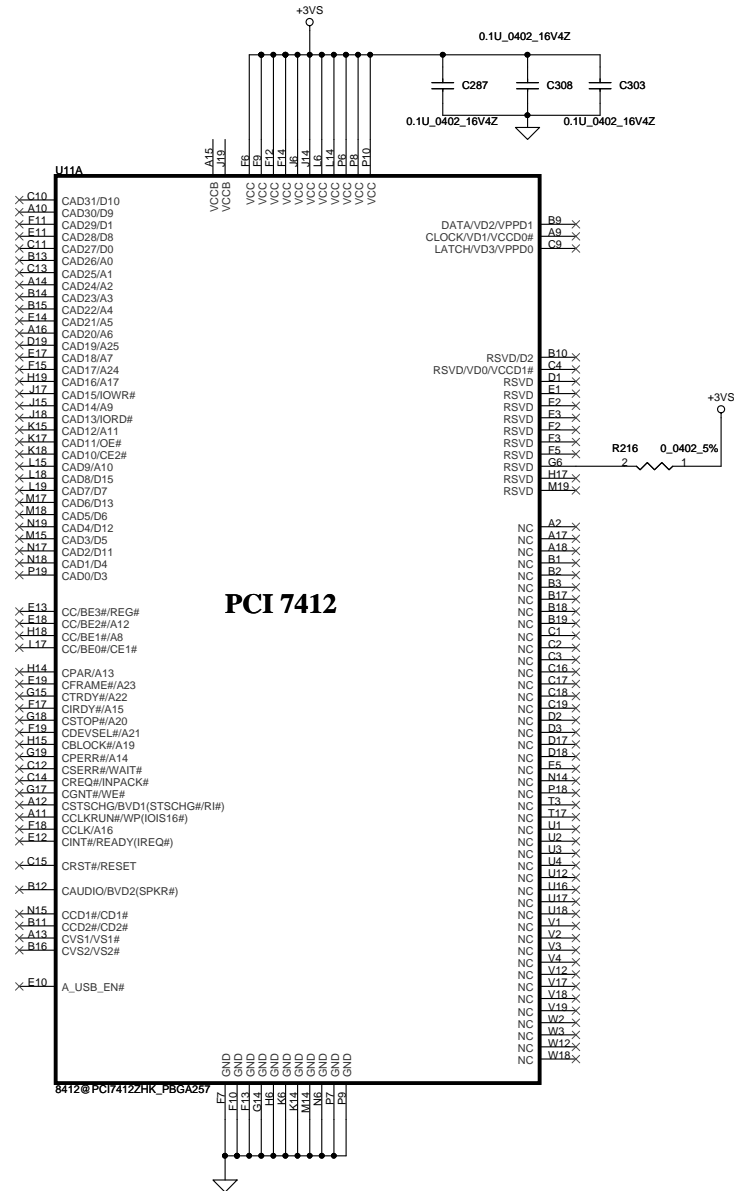


|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          |                          |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------|--------------------------|-----------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | Compal Secret Data |          | Compal Electronics, Inc. |                             |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8 | Deciphered Date    | 2008/3/8 | Title                    | SCHEMATIC MB A3831          |
| 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. |          |                    |          | Document Number          | 401498                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Date                     | Thursday, November 25, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Sheet                    | 21 of 46                    |





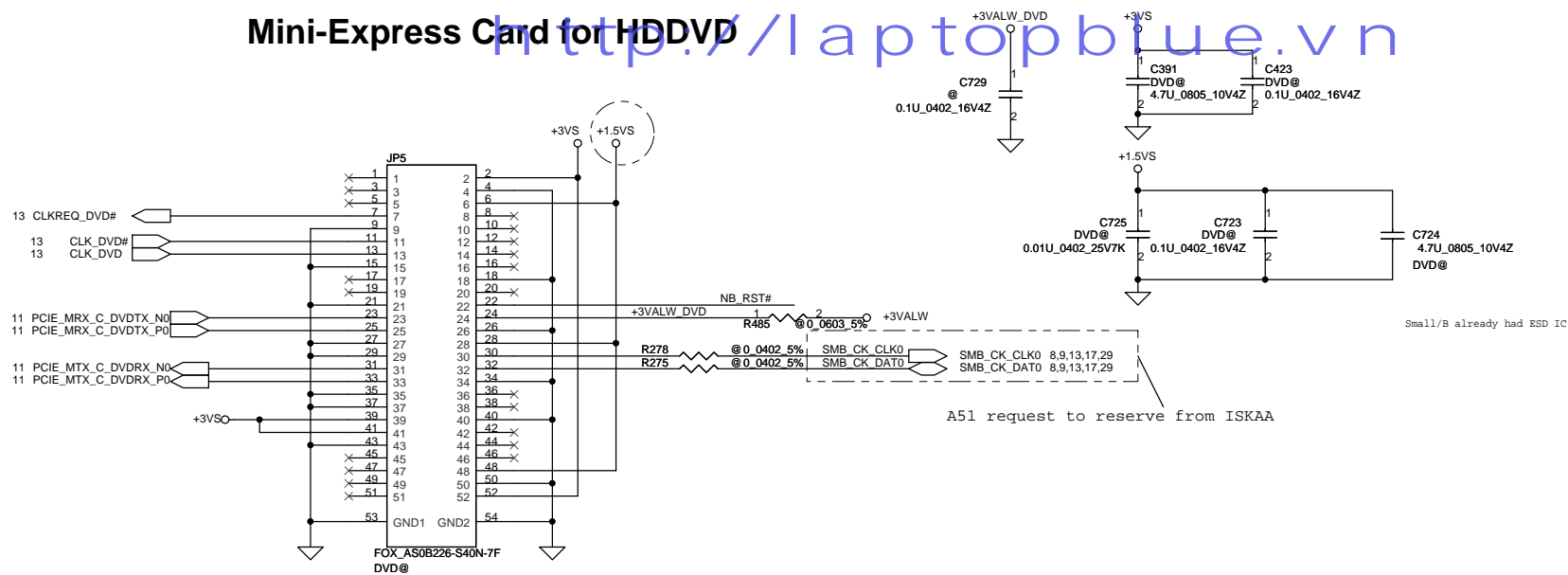




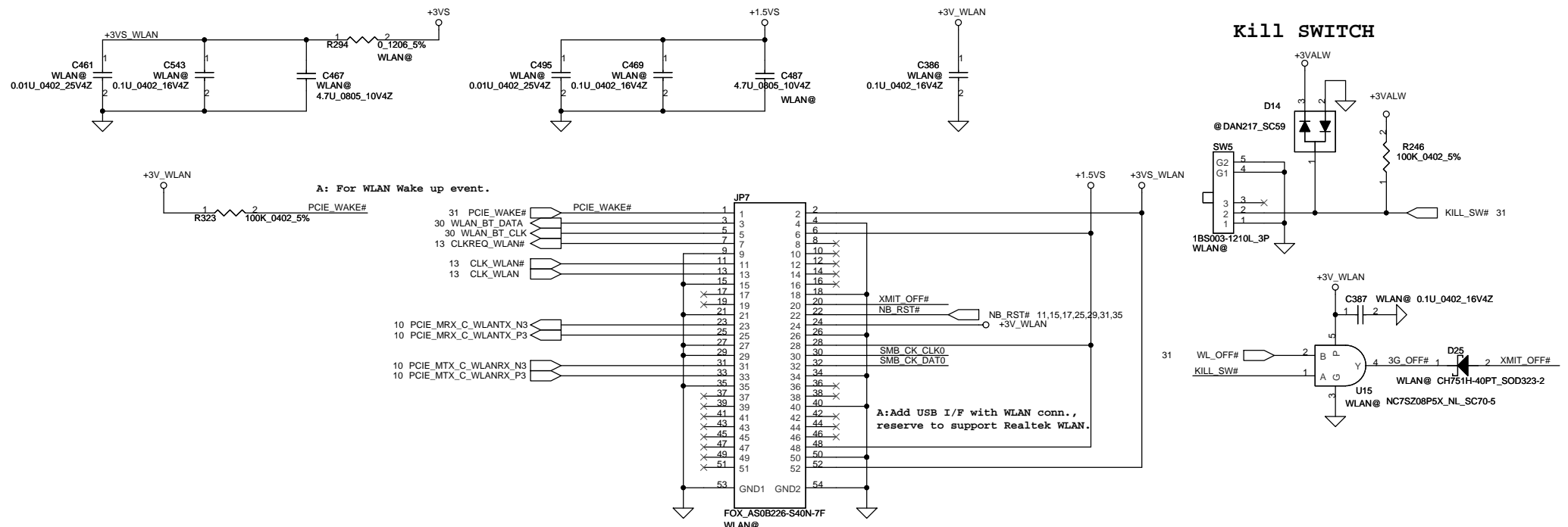
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          |                          |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------|--------------------------|-------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | Compal Secret Data |          | Title                    |       |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8 | Deciphered Date    | 2008/3/8 | Compal Electronics, Inc. |       |
| 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. |          |                    |          | Document Number          | Rev D |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | 401498                   |       |
| Date: Thursday, November 25, 2010                                                                                                                                                                                                                                                                                                                                                                                                                             |          |                    |          | Sheet 23                 | of 46 |

# Mini-Express Card for HDDVD

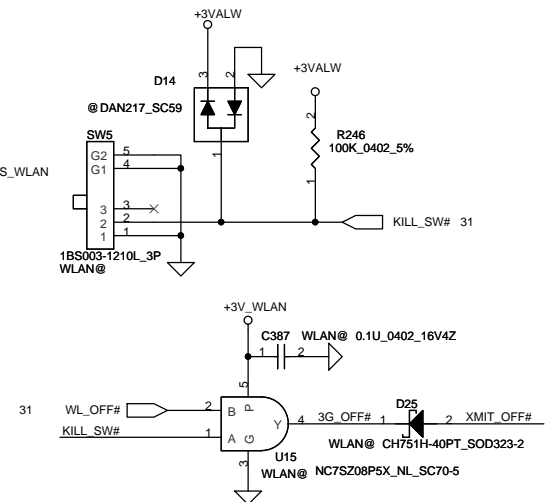
<http://laptopblue.vn>



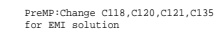
# Mini-Express Card for WLAN



## Kill SWITCH



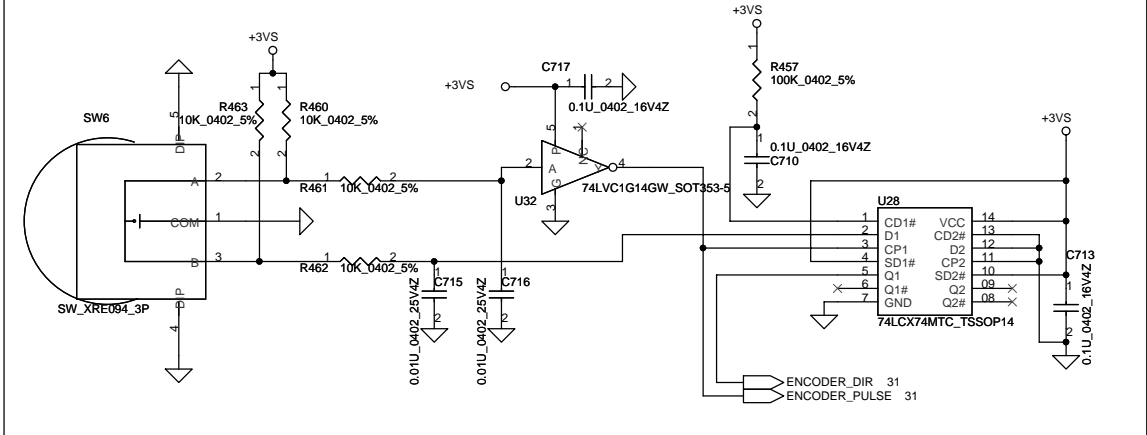
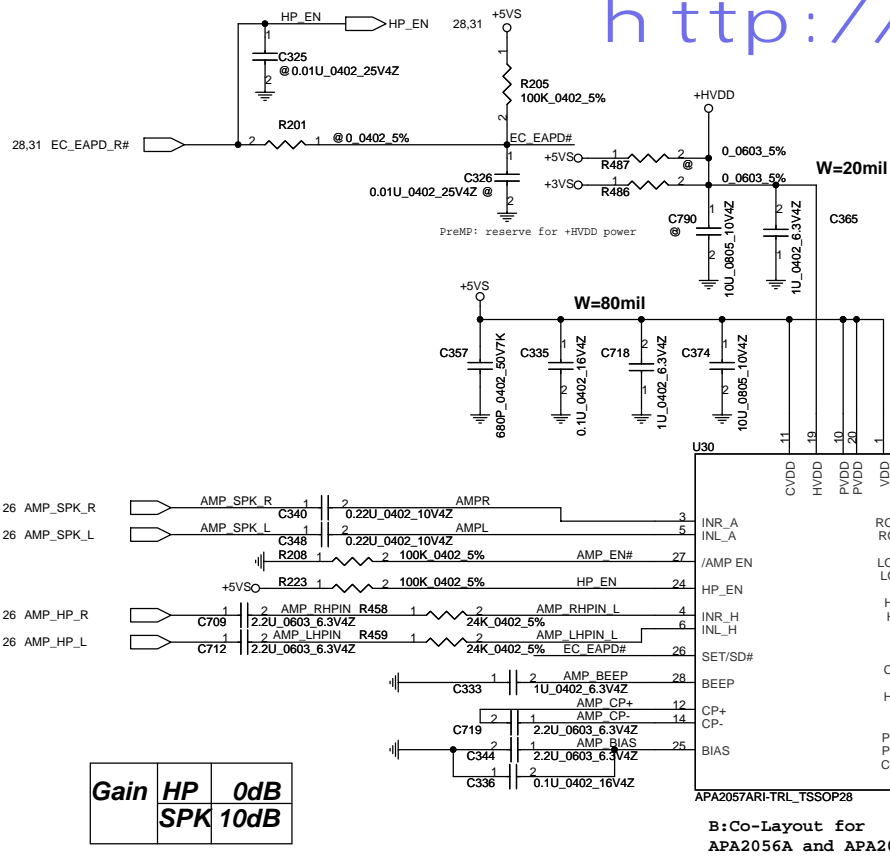
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |                 |                          |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------|--------------------------|--------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data          |                 | Compal Electronics, Inc. |                    |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8                    | Deciphered Date | 2008/3/8                 | 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. |                             |                 |                          | SCHEMATIC MB A3831 |
| Size                                                                                                                                                                                                                                                                                                                                                                                                                                                          | B                           | Document Number | 401498                   | Rev                |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Thursday, November 25, 2010 | Sheet           | 24                       | of 46              |



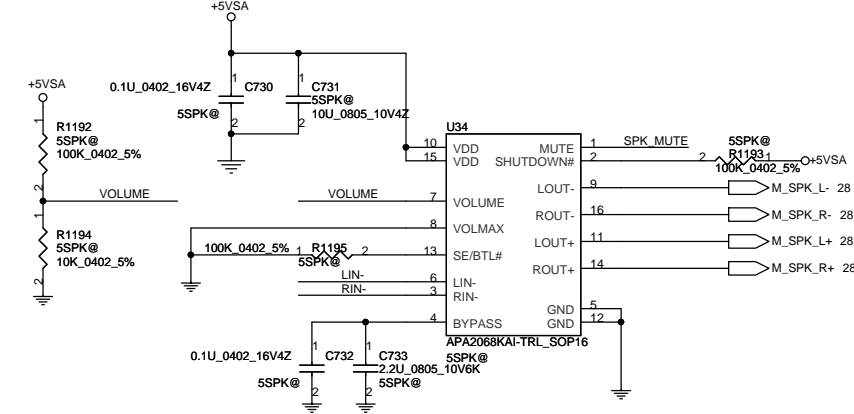
***GST5009 for GIGA LAN***  
***TST1284 for 10/100 LAN***

Document Number  
401498

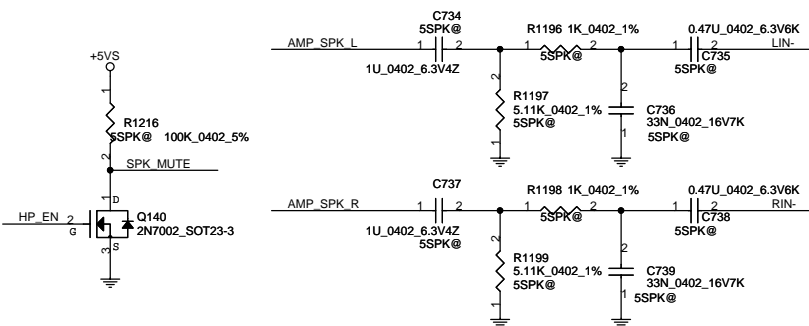
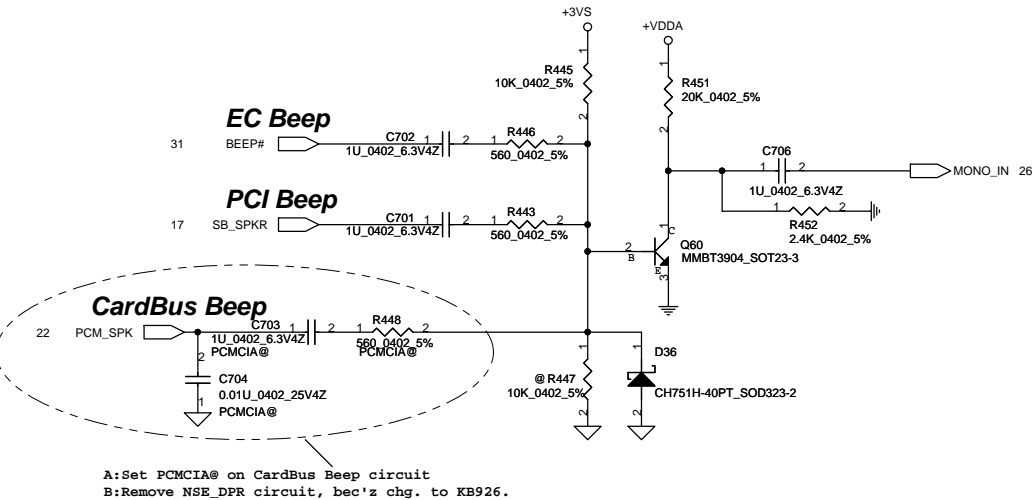




**APA2068 Medium Range Amplifier**

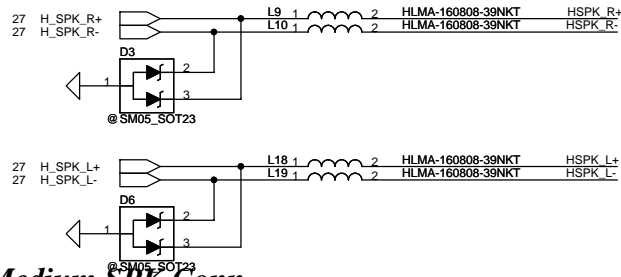


Pin2/SD should be tied to 5V always and mute pin controlled by EC\_EAPD

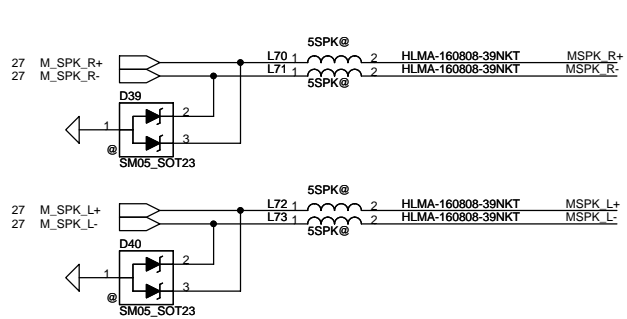


|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |                    |          |                          |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------|----------|--------------------------|--------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |                             | Compal Secret Data |          | Compal Electronics, Inc. |                    |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8                    | Deciphered Date    | 2008/3/8 | Title                    | SCHEMATIC MB A3831 |
| 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. |                             |                    |          |                          |                    |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Thursday, November 25, 2010 | Sheet              | 27       | of                       | 46                 |

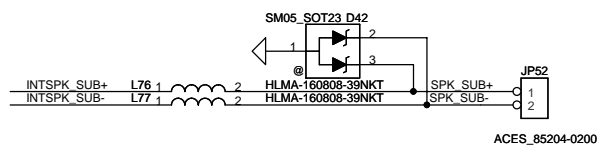
### Tweeter Conn.



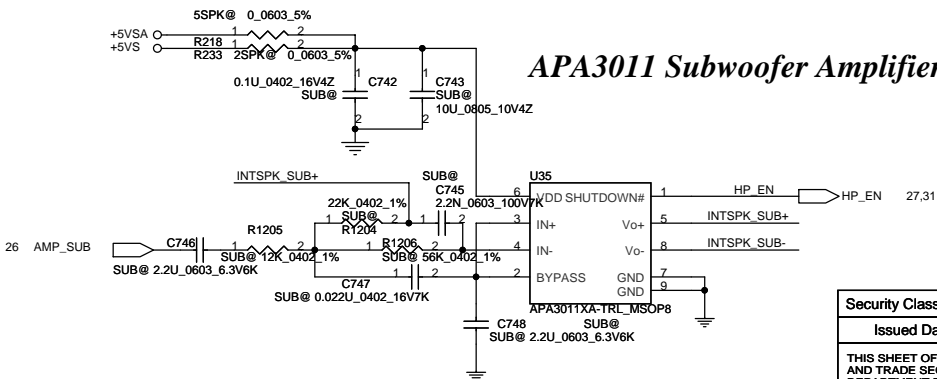
### Medium SPK Conn.



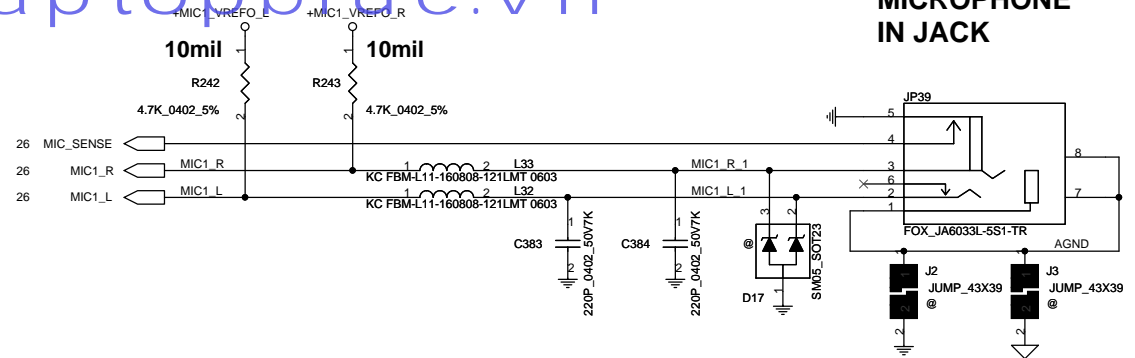
### Sub-woofer Conn.



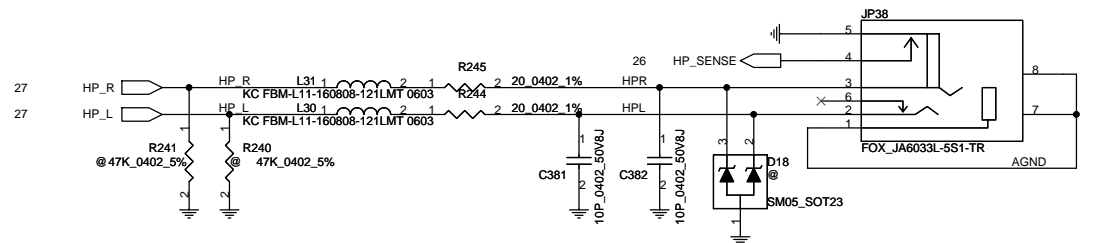
### APA3011 Subwoofer Amplifier



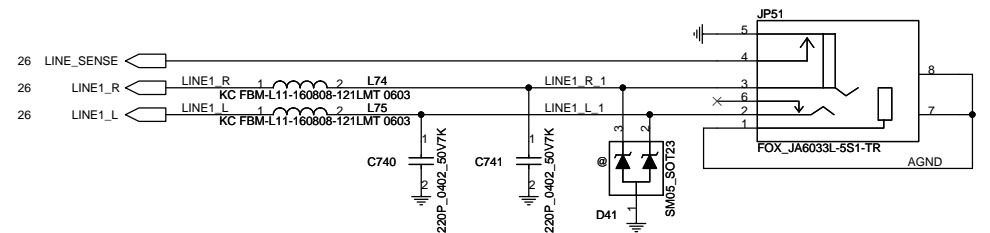
### MICROPHONE IN JACK



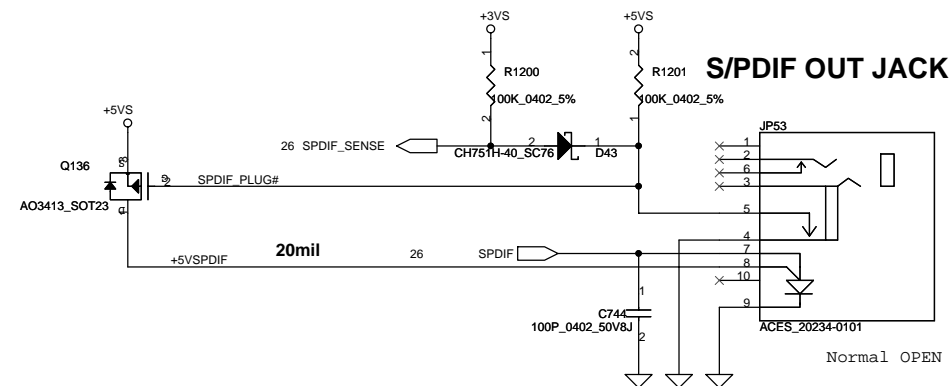
### HEADPHONE OUT JACK



### LINE IN JACK

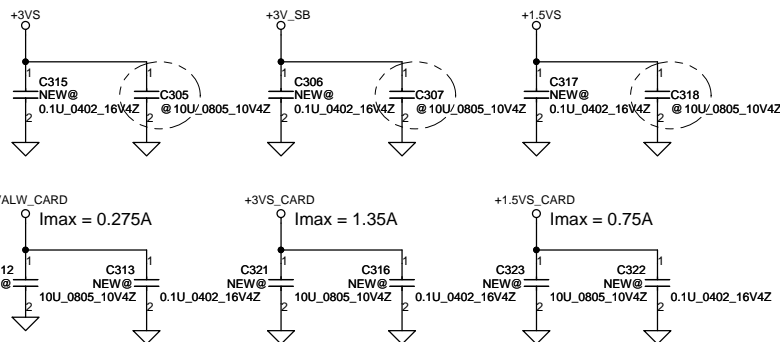
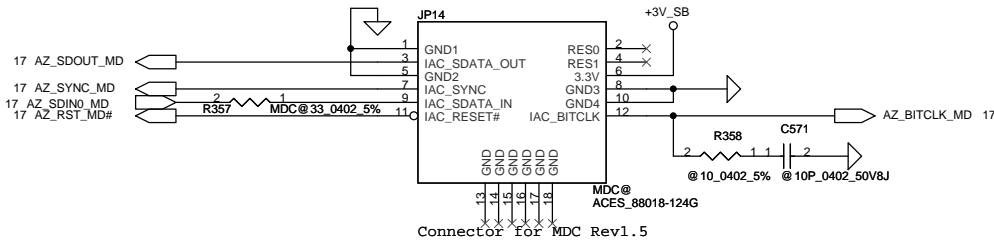
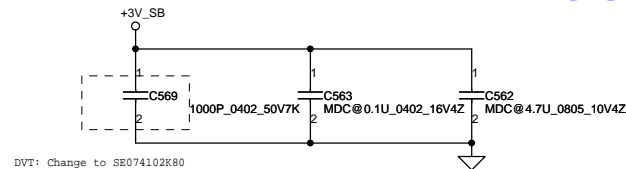


### S/SPDIF OUT JACK

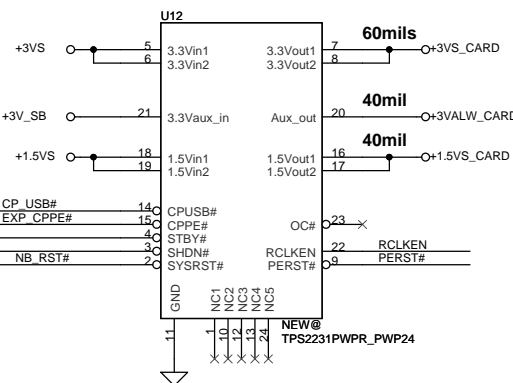
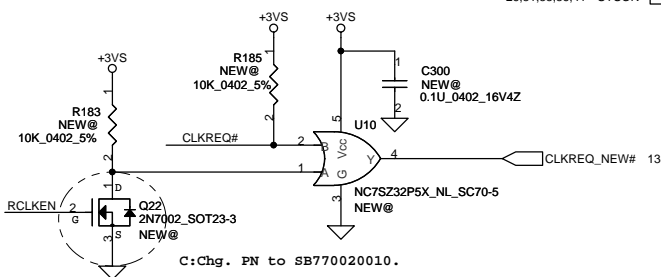


| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | Compal Secret Data |          | Compal Electronics, Inc. |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------|--------------------------|--------------------|
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8 | Deciphered Date    | 2008/3/8 | Title                    | SCHEMATIC MB A3831 |
| 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. |          |                    |          |                          |                    |
| Date: Thursday, November 25, 2010                                                                                                                                                                                                                                                                                                                                                                                                                             |          | Sheet 28 of 46     |          | Rev D                    |                    |

# MDC 1.5 Conn.

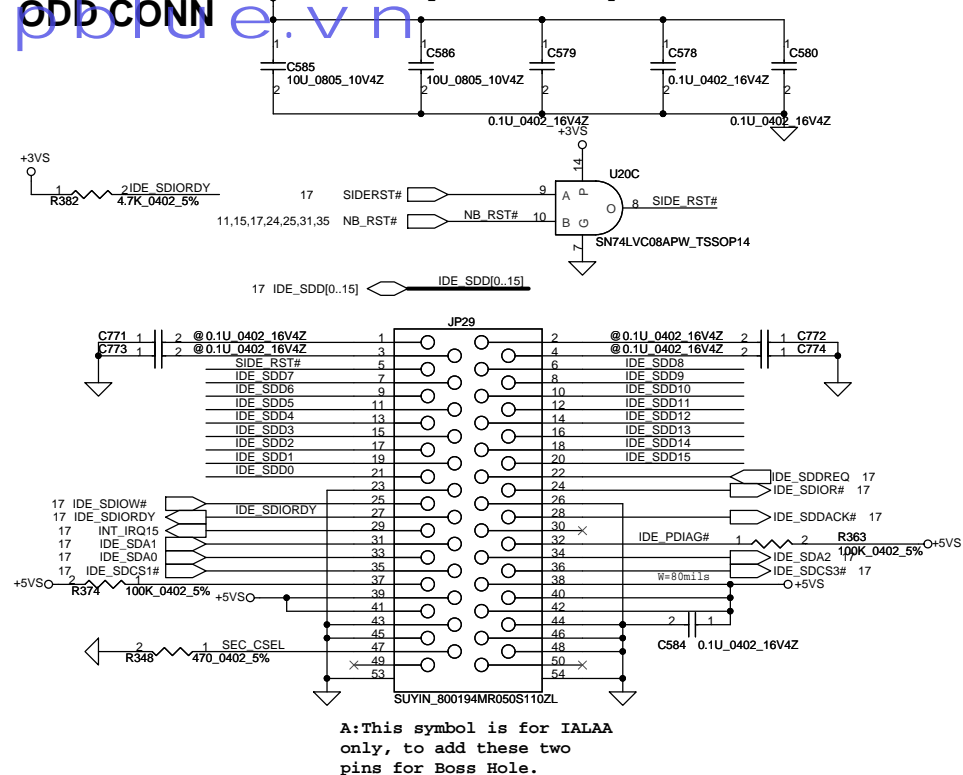


share with USB OC PIN  
need always pull high



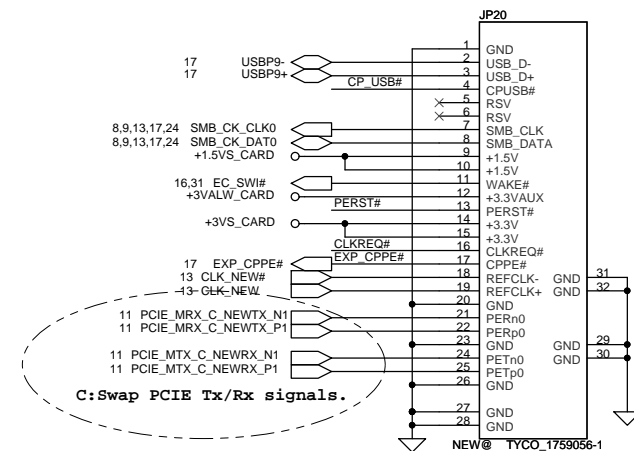
# ODD CONN

Place Components closely to ODD Conn.



A: This symbol is for IALAA only, to add these two pins for Boss Hole.

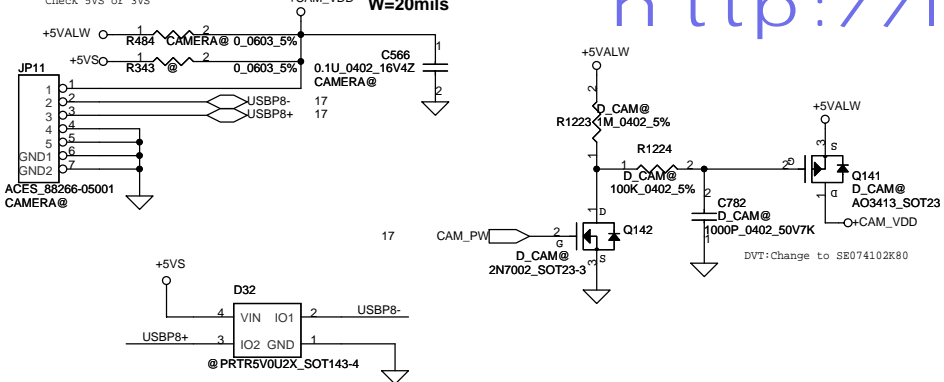
B: relink DC030006000.



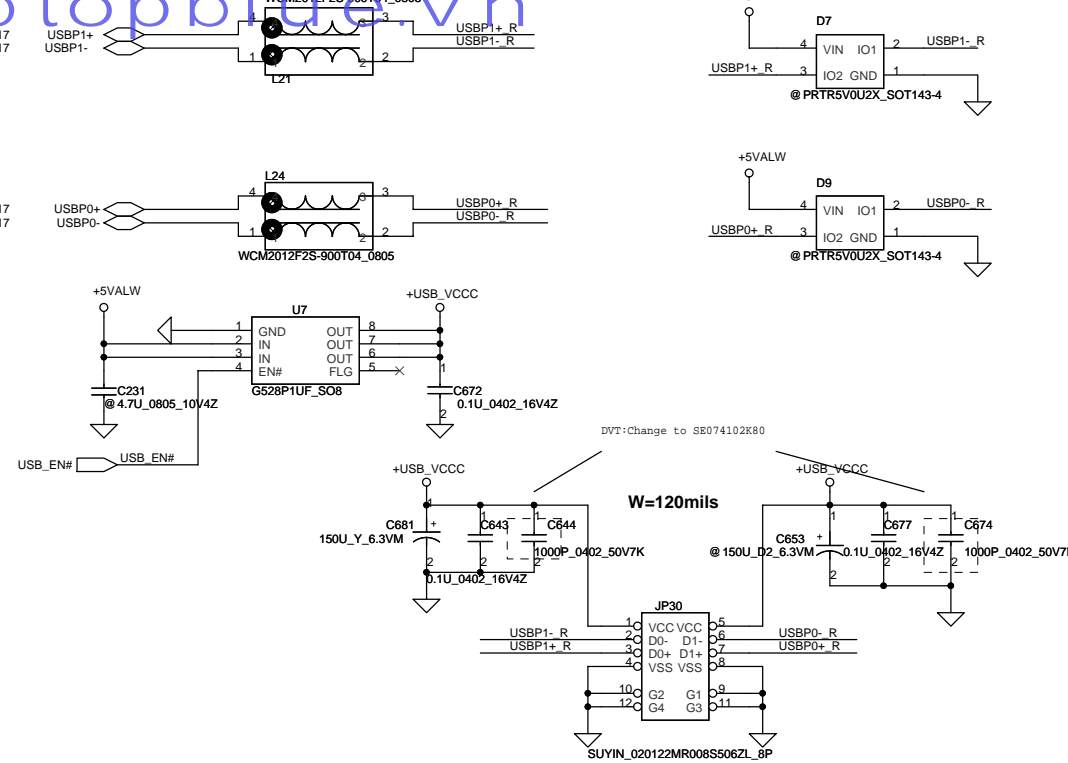
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data          |                 | Compal Electronics, Inc. |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------|--------------------------|--------------------|
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8                    | Deciphered Date | 2008/3/8                 | 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. |                             |                 |                          | SCHEMATIC MB A3831 |
| Size                                                                                                                                                                                                                                                                                                                                                                                                                                                          | B                           | Document Number | 401498                   | Rev D              |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Thursday, November 25, 2010 | Sheet           | 29                       | of 46              |



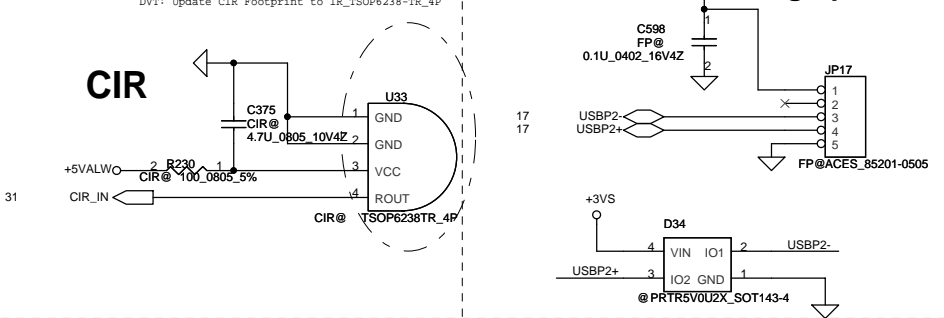
Int. Camera Conn



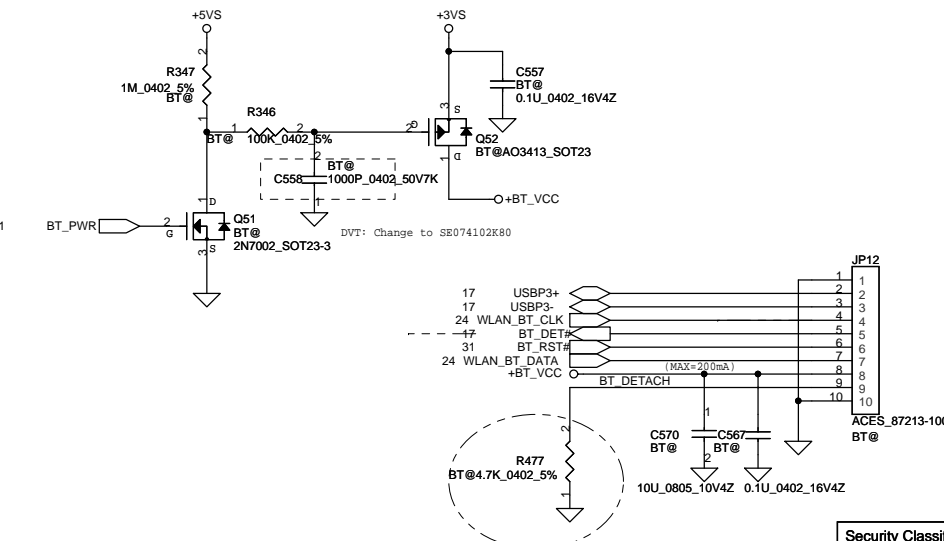
USB CONN.



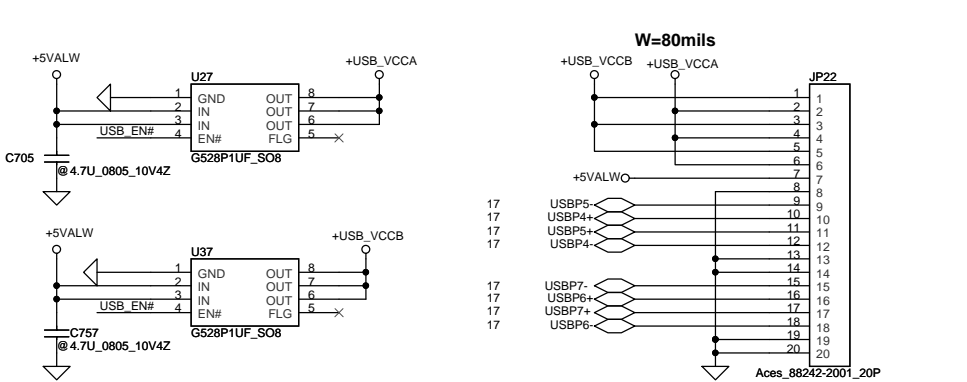
Fingerprint Conn



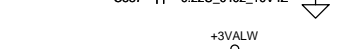
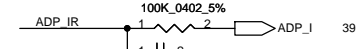
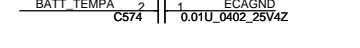
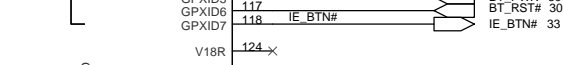
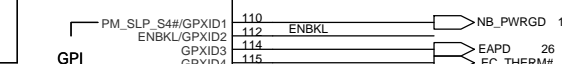
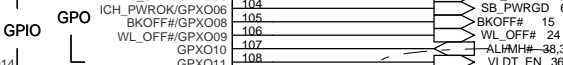
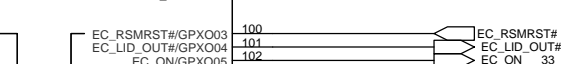
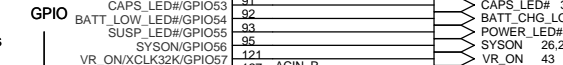
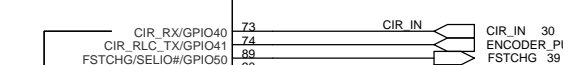
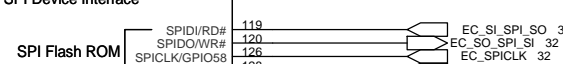
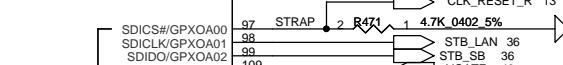
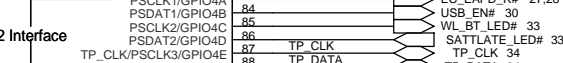
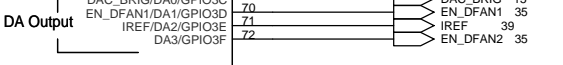
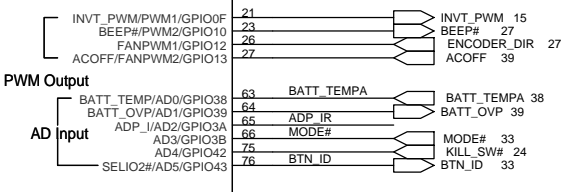
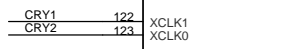
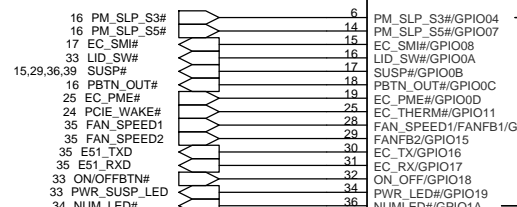
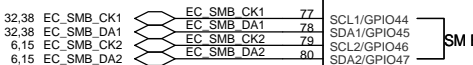
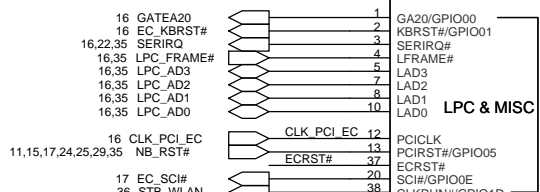
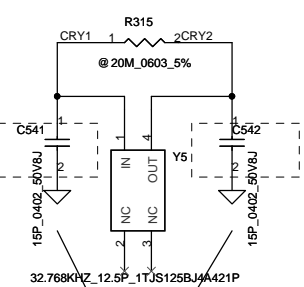
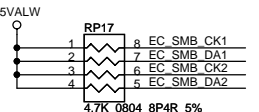
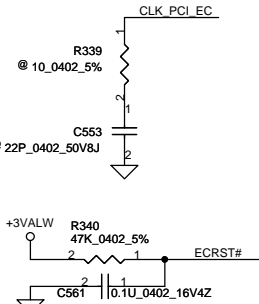
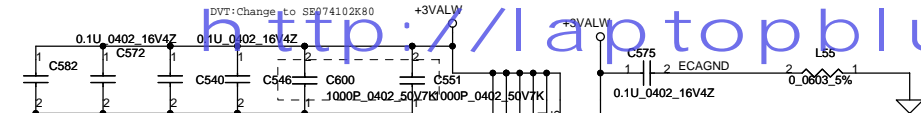
BlueTooth Interface



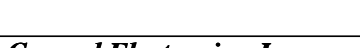
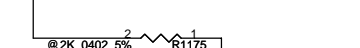
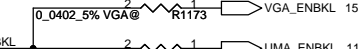
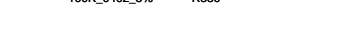
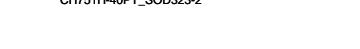
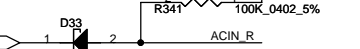
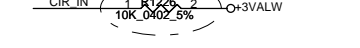
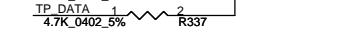
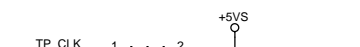
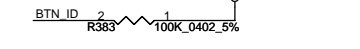
USB Small Board



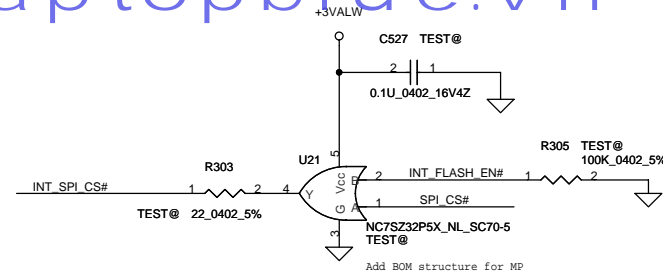
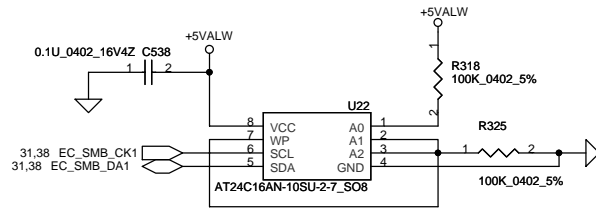
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |                 |                          |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------|--------------------------|-------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data          |                 | Compal Electronics, Inc. |       |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8                    | Deciphered Date | 2008/3/8                 | 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. |                             |                 | SCHEMATIC MB A3831       |       |
| Size                                                                                                                                                                                                                                                                                                                                                                                                                                                          | B                           | Document Number | 401498                   | Rev D |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Thursday, November 25, 2010 | Sheet           | 30                       | of 46 |



Analog BTN ID definition, Please see page 3.

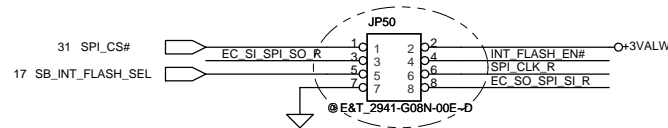
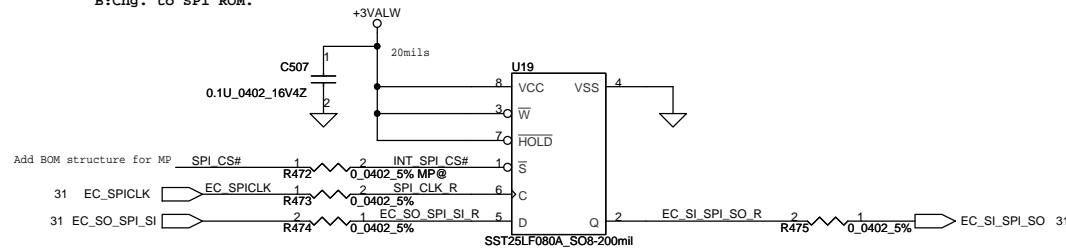


|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          |                          |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------|--------------------------|-----------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | Compal Secret Data |          | Compal Electronics, Inc. |                             |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8 | Deciphered Date    | 2008/3/8 | Title                    | SCHMATIC MB A3831           |
| 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. |          |                    |          | Document Number          | 401498                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Date                     | Thursday, November 25, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Sheet                    | 31 of 46                    |



## SPI Flash (8Mb\*1)

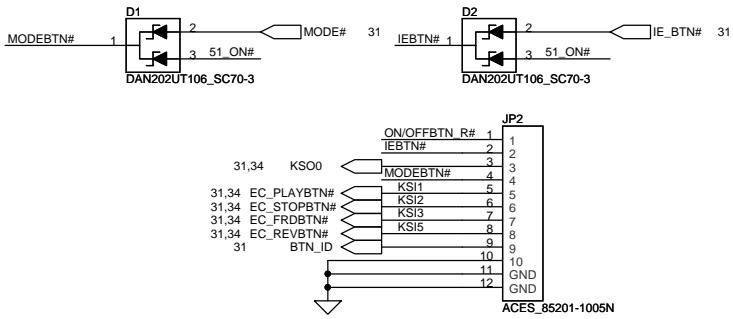
B:Chg. to SPI ROM.



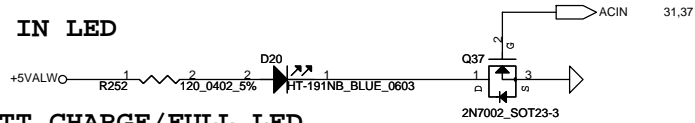
C:Chg. PN to LTC00000200

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |                 |                          |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------|--------------------------|--------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data          |                 | Compal Electronics, Inc. |                    |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8                    | Deciphered Date | 2008/3/8                 | 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. |                             |                 |                          | SCHEMATIC MB A3831 |
| Size                                                                                                                                                                                                                                                                                                                                                                                                                                                          | B                           | Document Number | 401498                   | Rev                |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Thursday, November 25, 2010 | Sheet           | 32                       | of 46              |

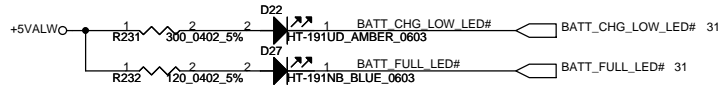
## SW/LED Connector



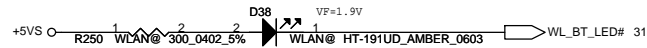
## AC IN LED



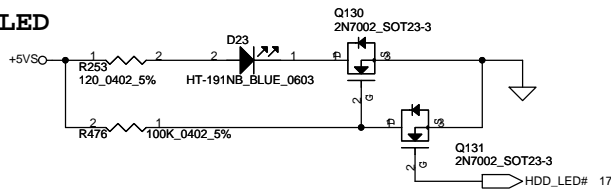
## BATT CHARGE/FULL LED



## WL&BT LED



## HDD LED

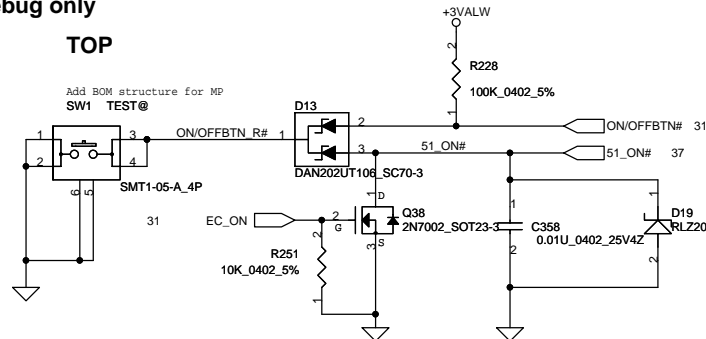


## Power Button

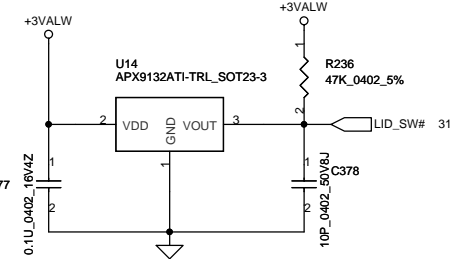
For debug only

BTN

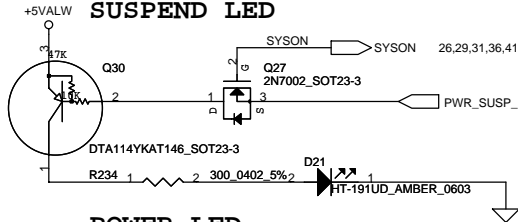
TOP



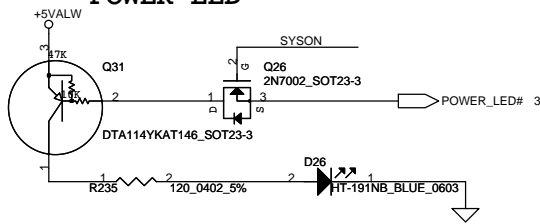
## Lid SW



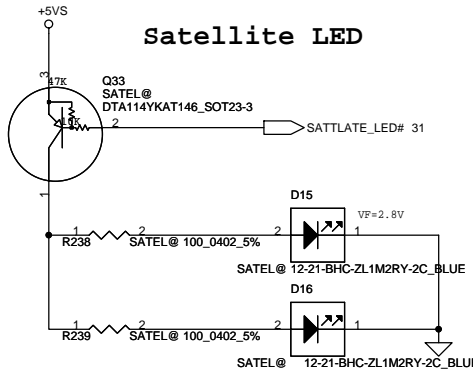
## SUSPEND LED



## POWER LED



## Satellite LED



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          |                          |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------|--------------------------|-----------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | Compal Secret Data |          | Compal Electronics, Inc. |                             |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8 | Deciphered Date    | 2008/3/8 | Title                    | SCHEMATIC MB A3831          |
| 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                   | m401498                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Date                     | Thursday, November 25, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Sheet                    | 33 of 46                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Rev                      | D                           |

## TP Button

JP19

34 KSO16

33

32 X

31 KSO17

30 X

29 X

28 KSO2

27 KSO1

26 KSO0

25 KSO4

24 KSO3

23 KSO5

22 KSO14

21 KSO6

20 KSO7

19 KSO13

18 KSO8

17 KSO9

16 KSO10

15 KSO11

14 KSO12

13 KSO15

12 KSI7

11 KSI2

10 KSI3

9 KSI4

8 KSI0

7 KSI5

6 KSI6

5 KSI1

4 CAPS\_LED# R389 300 0402 5% +3VS

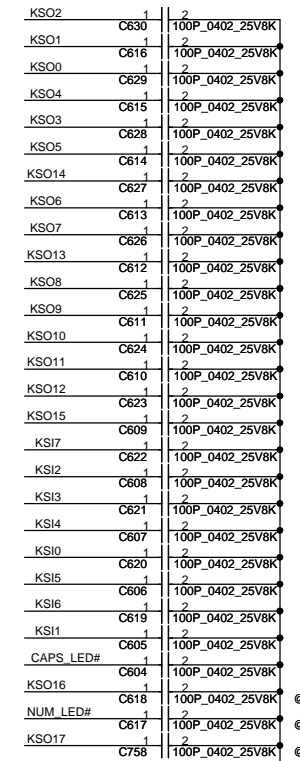
3 CAPS\_LED#

2 X NUM\_LED#

1 NUM\_LED#

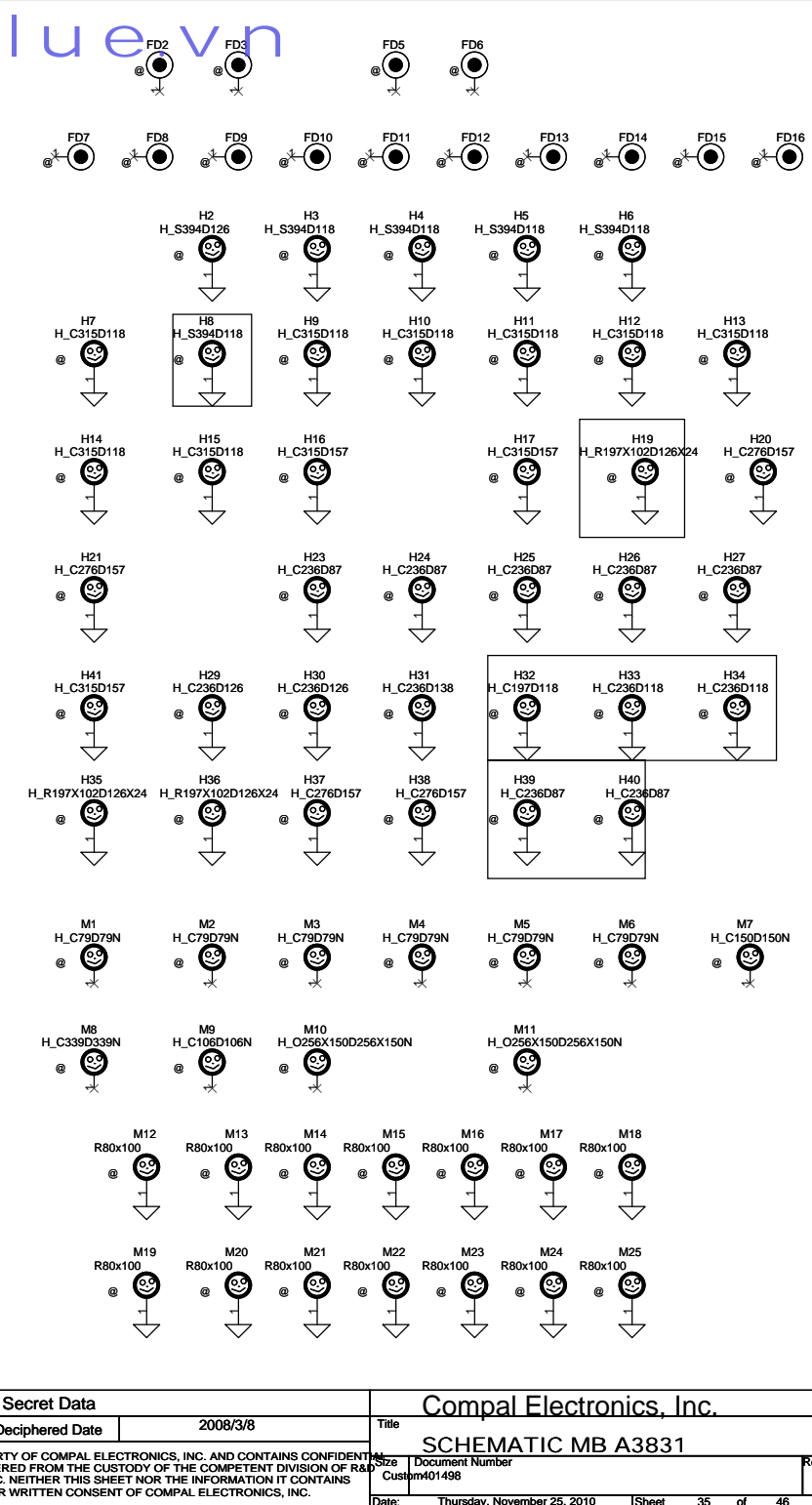
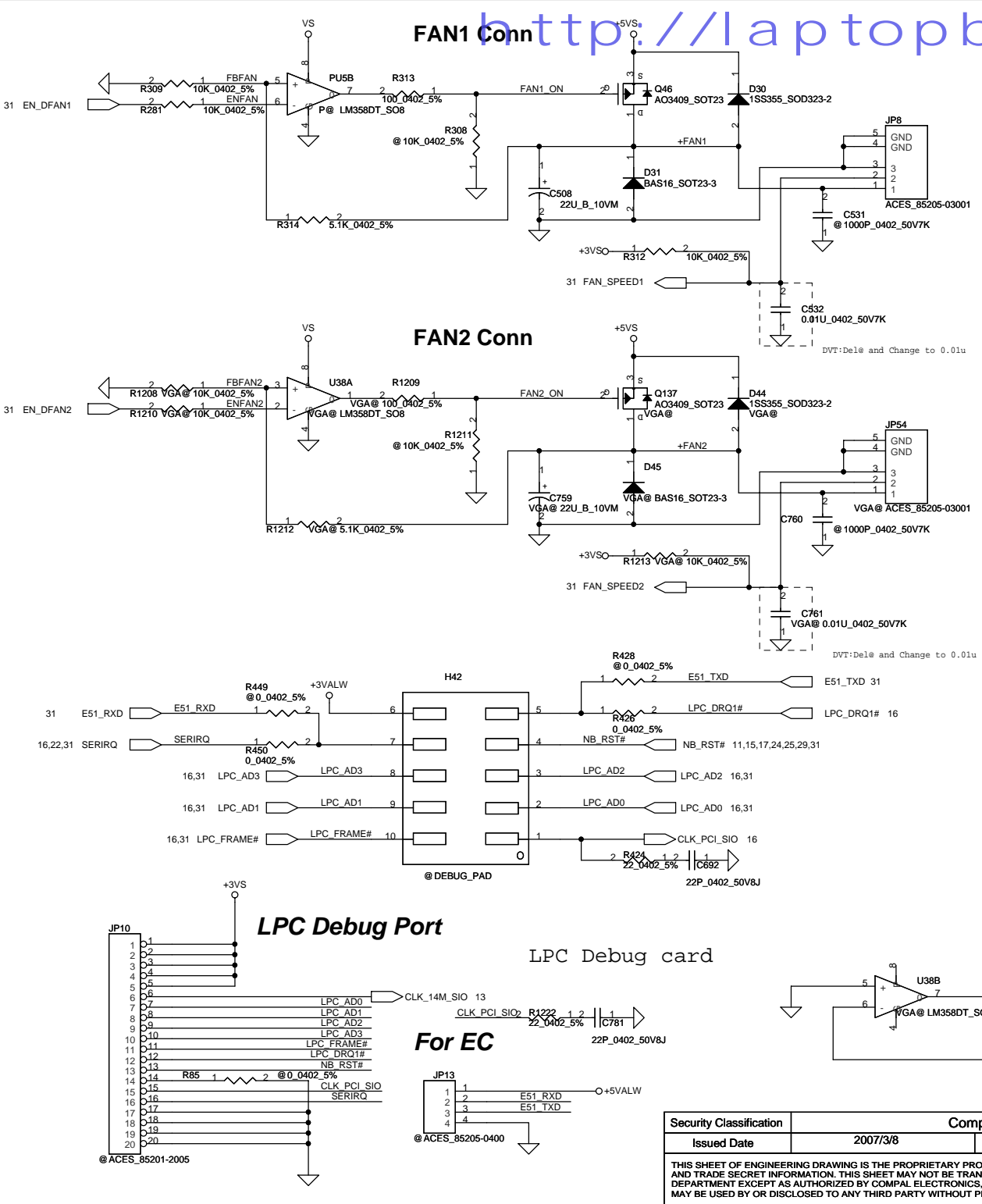
DVT:

ACES\_88170-3400



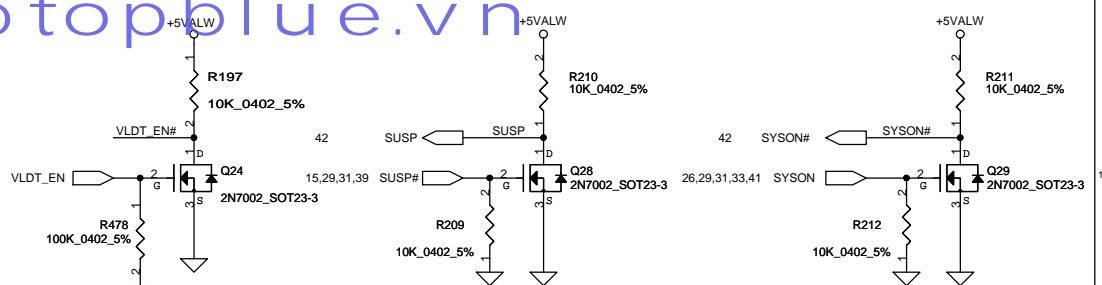
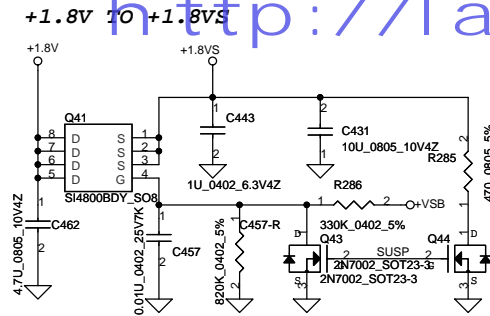
**For EMI Request**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |          |                                      |                                  |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|----------|--------------------------------------|----------------------------------|----------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data |                 |          | <b>Compal Electronics, Inc.</b>      |                                  |          |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8           | Deciphered Date | 2008/3/8 | Title                                | <b><i>SCHEMATIC MB A3831</i></b> |          |
| 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<br>Custom                       | Document Number<br><b>401498</b> | Rev<br>D |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                 |          | Date:<br>Thursday, November 25, 2010 | Sheet<br>34                      | of<br>46 |

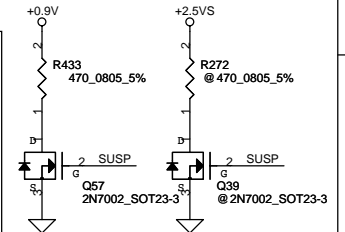
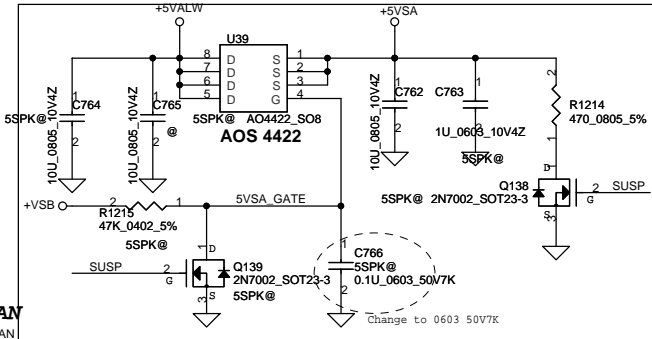
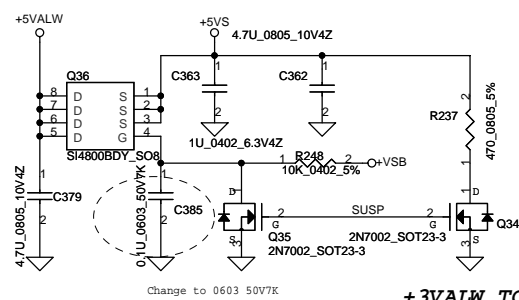


|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          |                          |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------|--------------------------|-----------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | Compal Secret Data |          | Compal Electronics, Inc. |                             |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8 | Deciphered Date    | 2008/3/8 | Title                    | SCHEMATIC MB A3831          |
| 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                   | 401498                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Date:                    | Thursday, November 25, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Sheet                    | 35 of 46                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Rev                      | D                           |

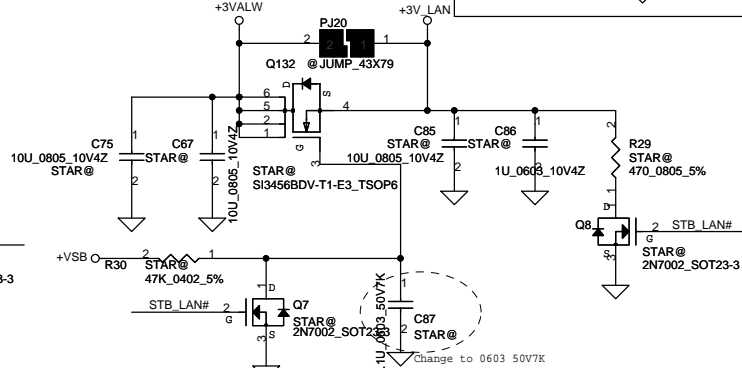
+1.8V TO +1.8VS



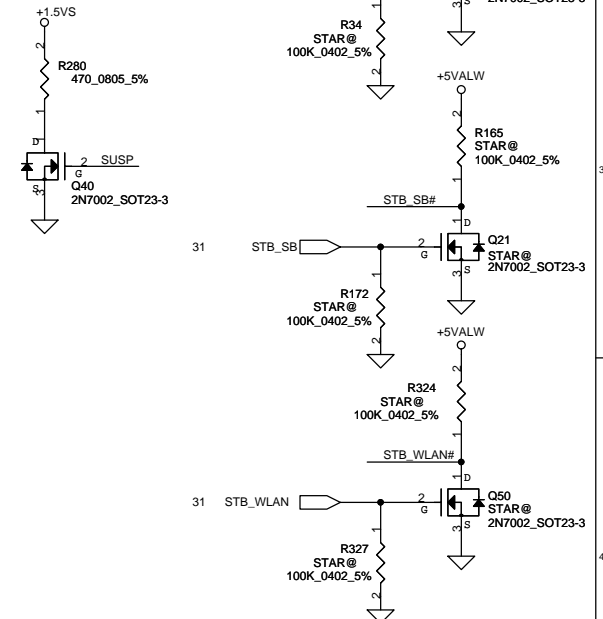
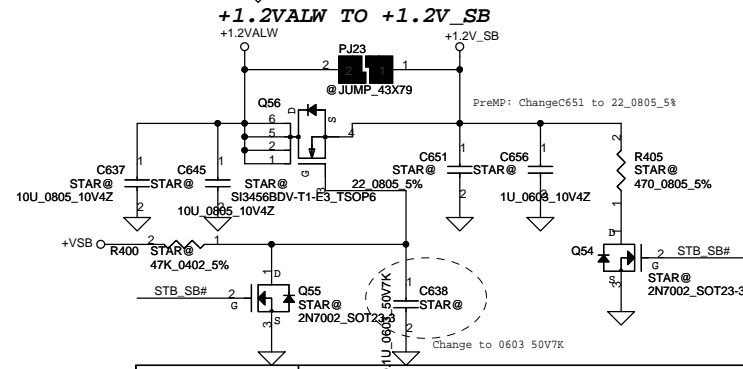
**+5VALW TO +5VS**



+3VALW TO +3V\_LAN



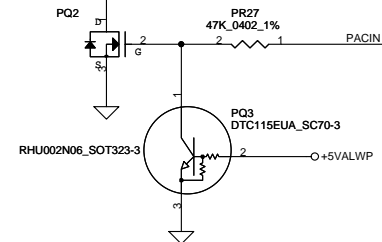
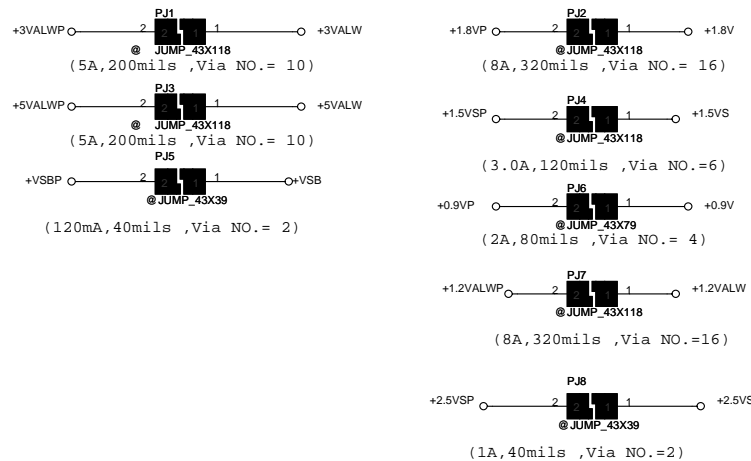
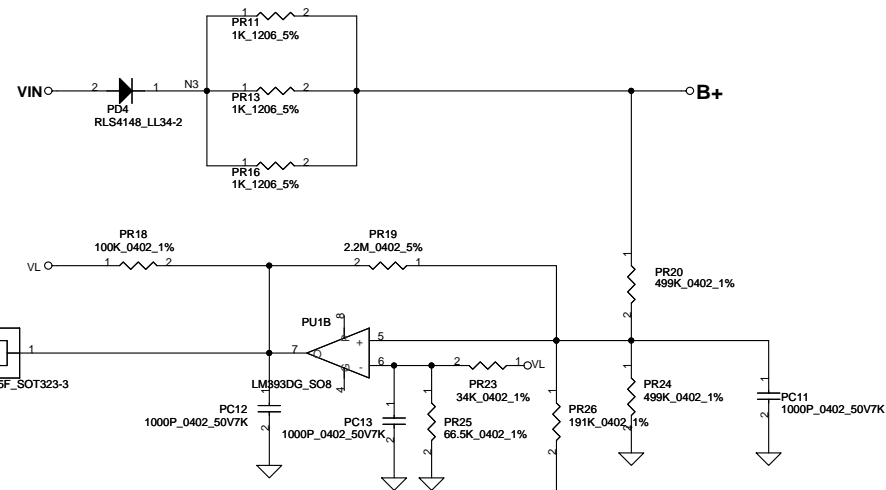
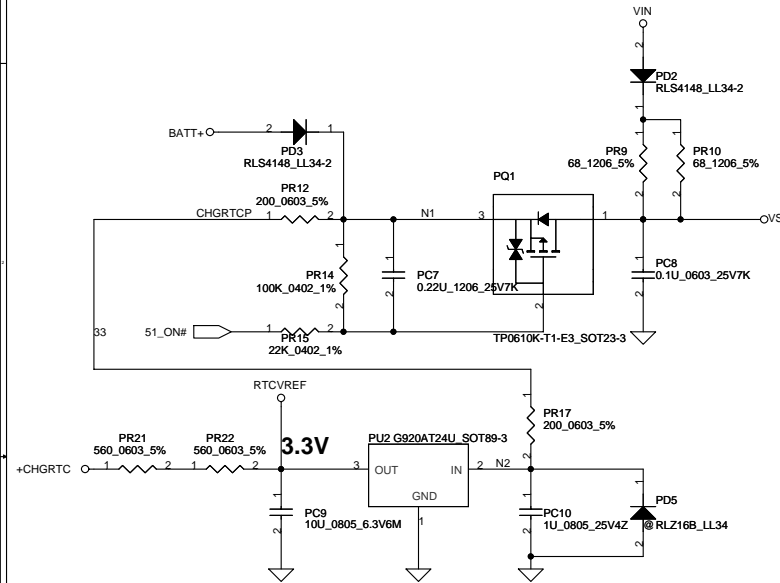
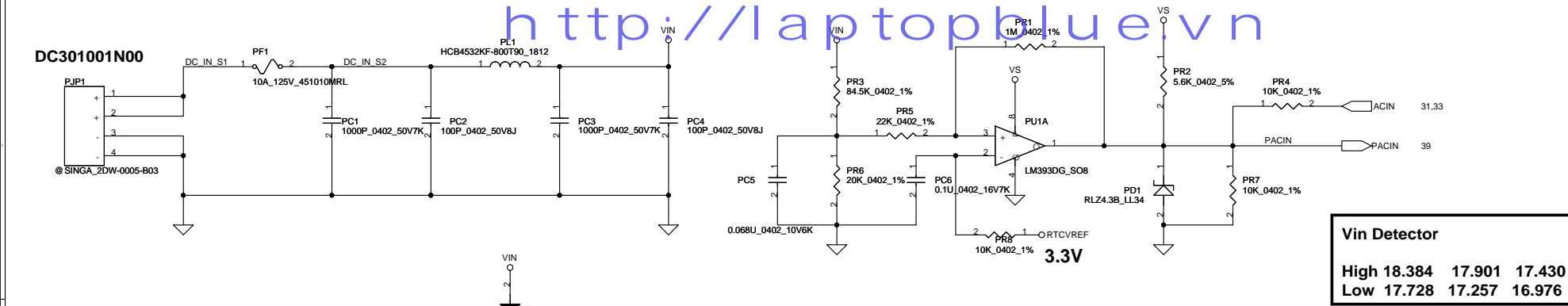
+1.2V<sub>ALW</sub> TO +1.2V<sub>SB</sub>



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          |                          |                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|----------|--------------------------|------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |          | Compal Secret Data |          | Compal Electronics, Inc. |                        |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8 | Deciphered Date    | 2008/3/8 | Title                    | SCHEMATIC MB A3831     |
| 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 B                   | Document Number 401498 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                    |          | Rev D                    |                        |
| Date: Thursday, November 25, 2010                                                                                                                                                                                                                                                                                                                                                                                                                             |          | Sheet 36 of 46     |          |                          |                        |

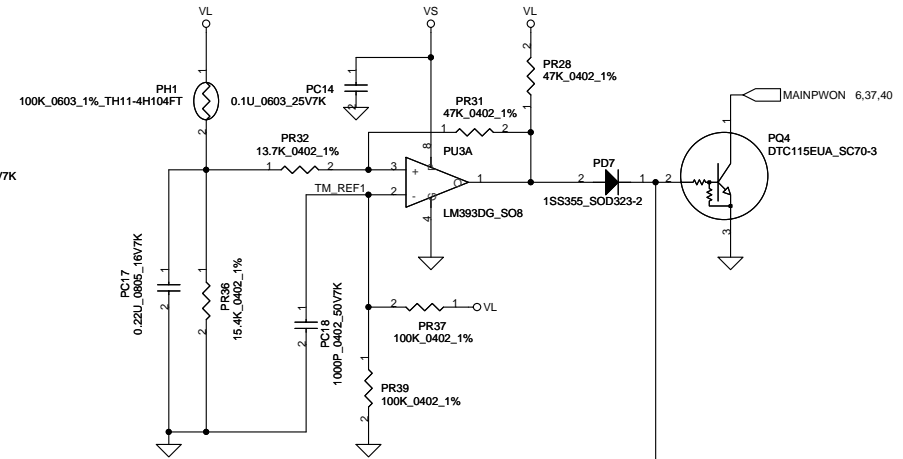
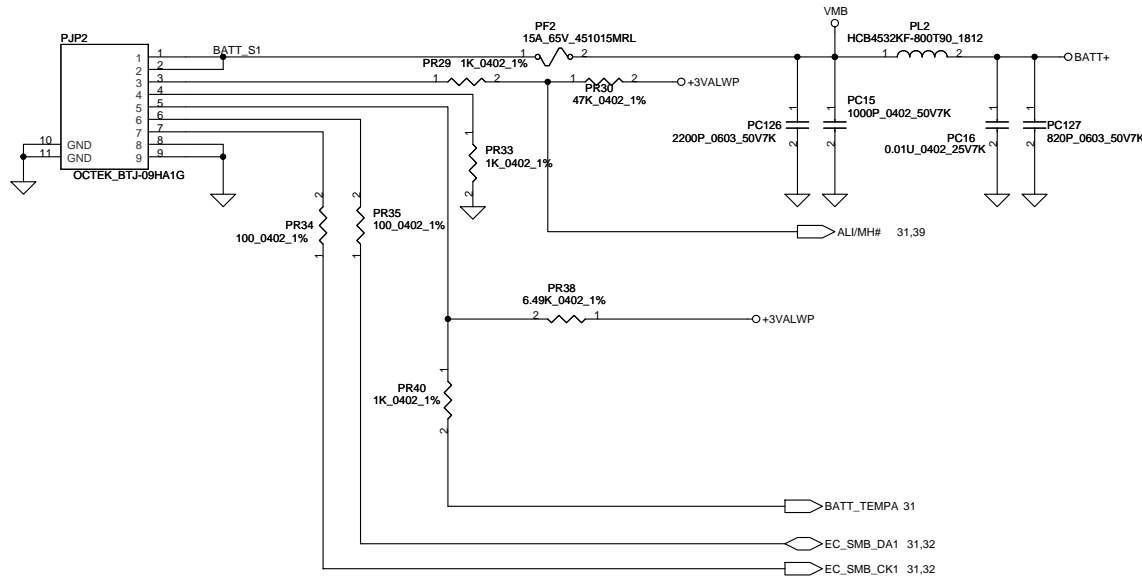


# DC301001N00



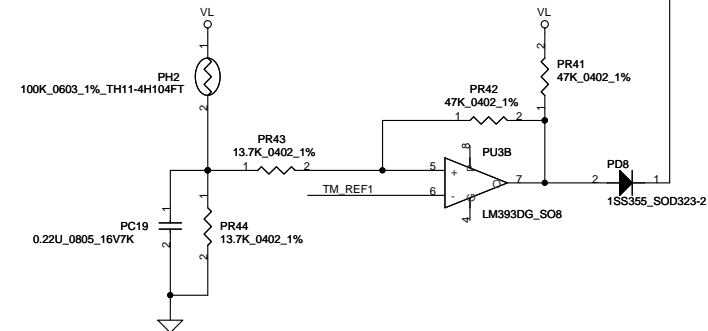
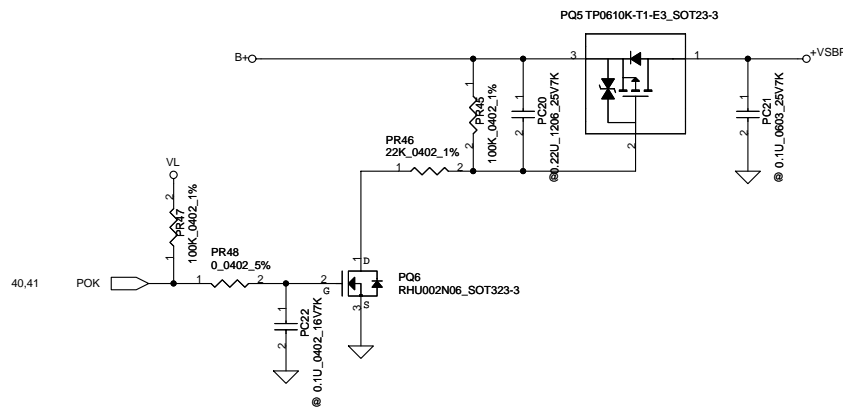
## PH1 under CPU bottom side :

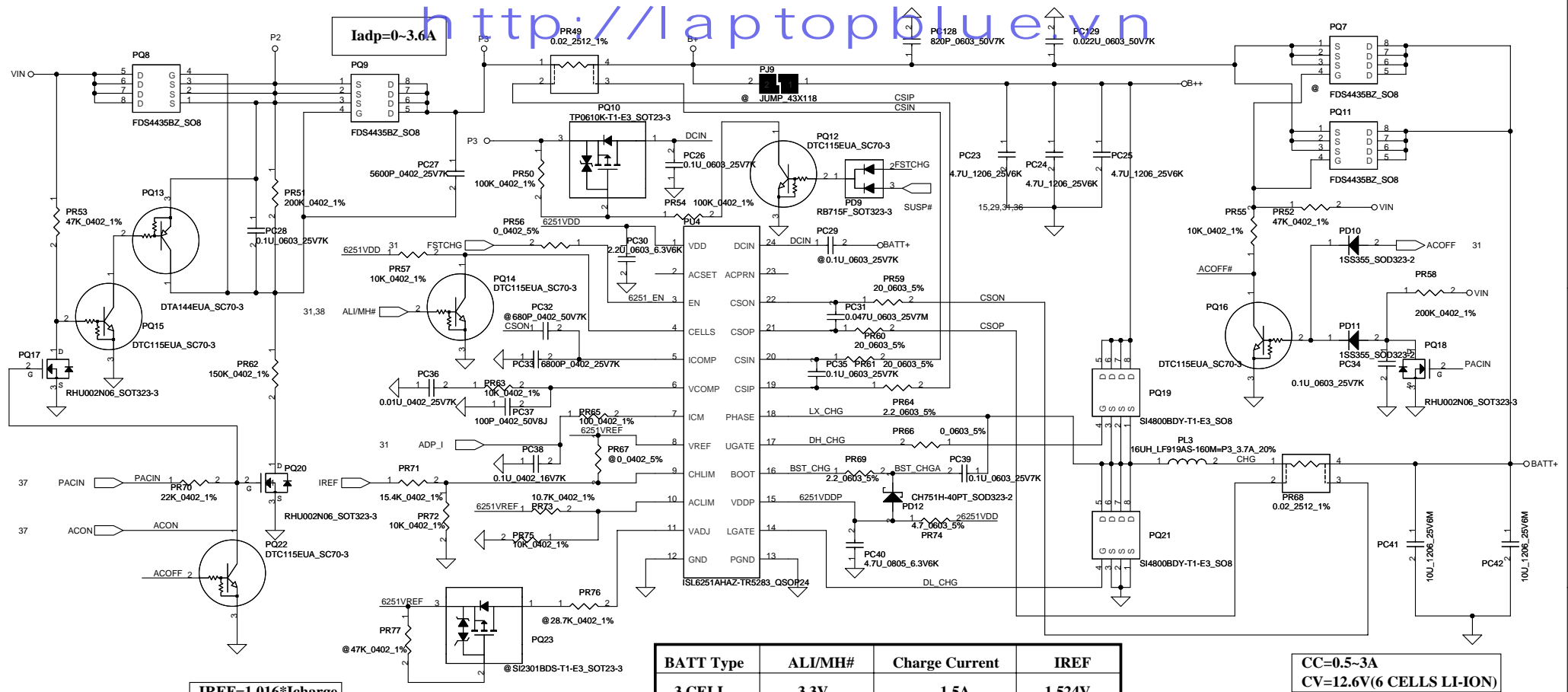
CPU thermal protection at 92 degree C  
Recovery at 56 degree C



## PH2 near main Battery CONN :

BAT. thermal protection at 95 degree C  
Recovery at 59 degree C

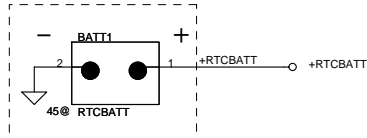




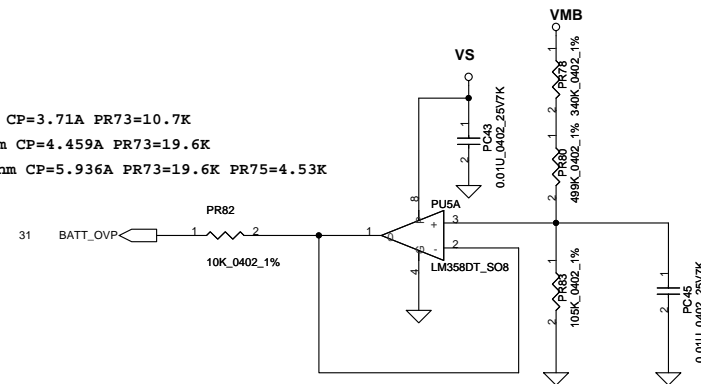
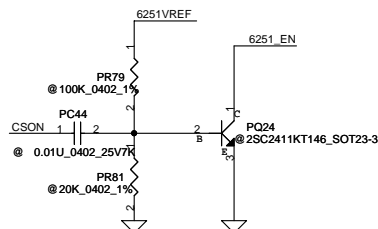
## RTC Battery

### Layout Note:

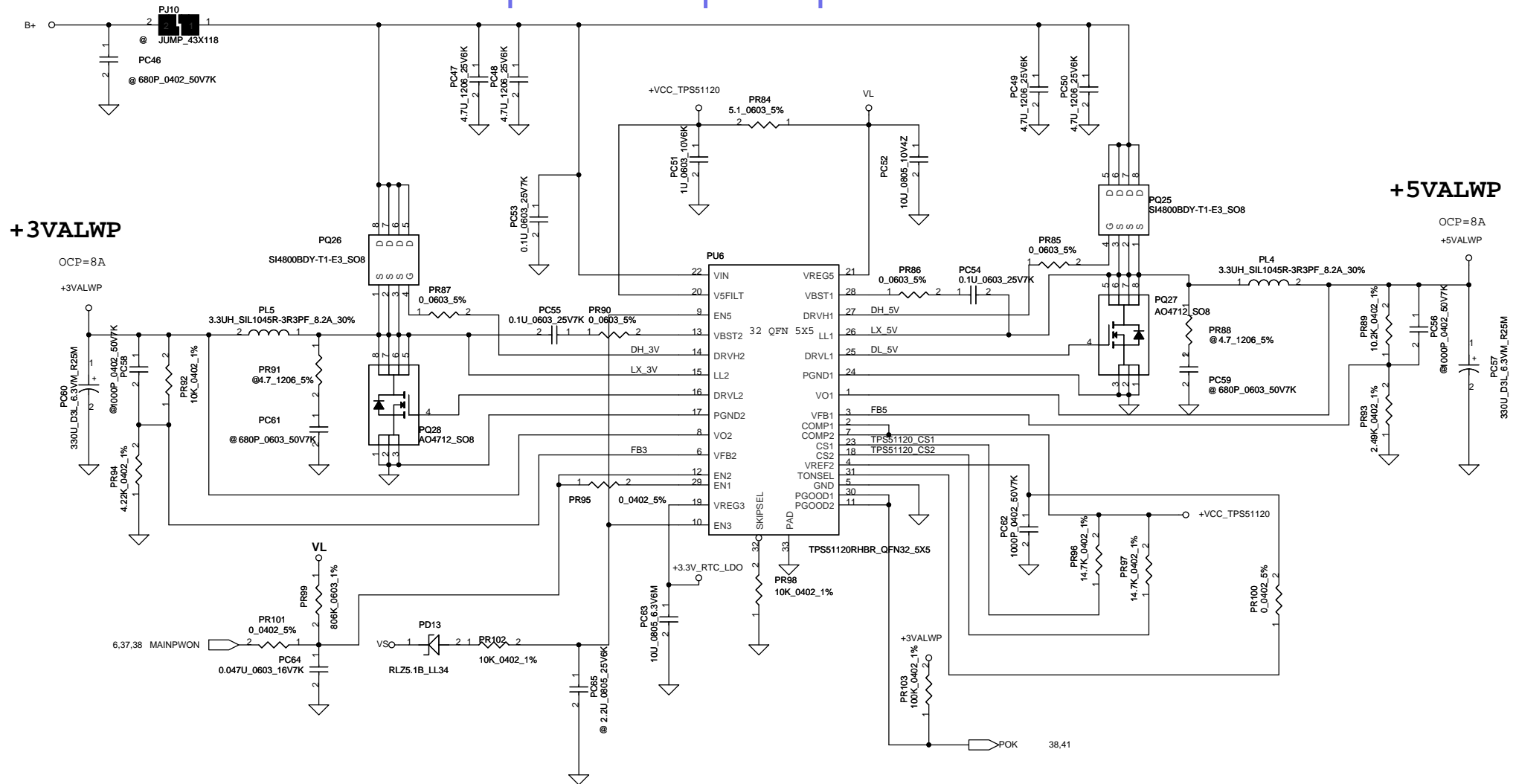
1. Under BATT1 battery Body, no Trace no Via
2. BATT1 + - PIN keep out 80mil from other component ,trace and via



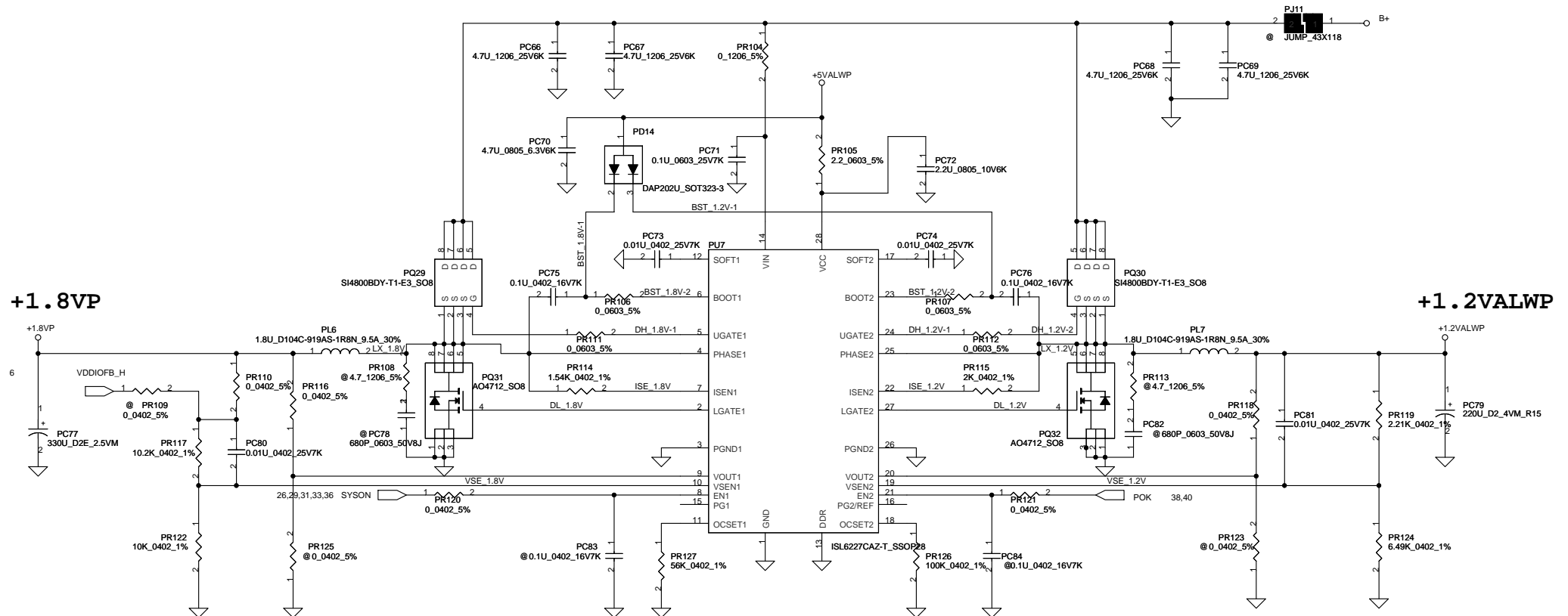
75W Iadapter=0~3.947A PR49=0.02 ohm CP=3.71A PR73=10.7K  
 90W Iadapter=0~4.737A PR49=0.015 ohm CP=4.459A PR73=19.6K  
 120W Iadapter=0~6.315A PR49=0.010 ohm CP=5.936A PR73=19.6K PR75=4.53K

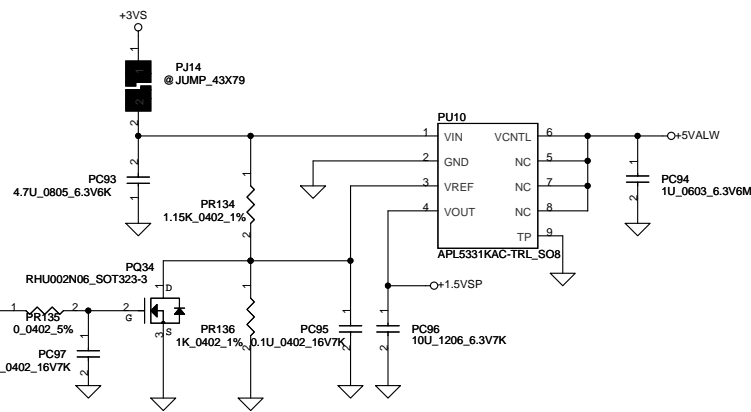
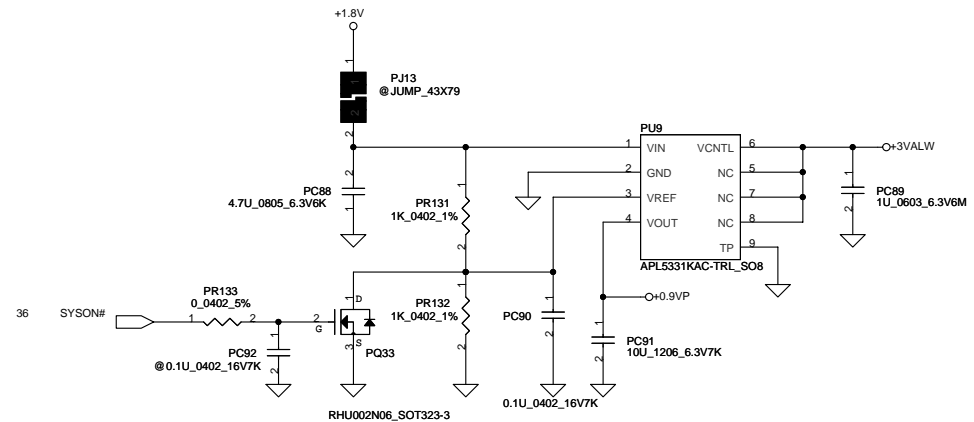
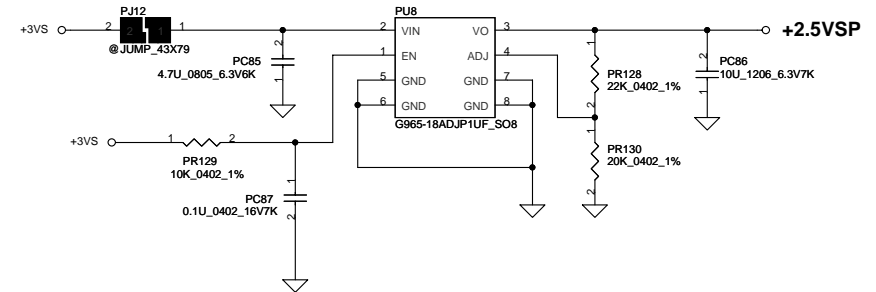


**LI-3S :13.5V---BATT-OVP=1.5V**  
**LI-4S :18V---BATT-OVP=2V**  
**BATT-OVP=0.111\*BATT+**



|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                    |           |                          |                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|-----------|--------------------------|-----------------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | Compal Secret Data |           | Compal Electronics, Inc. |                             |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/4/14 | Deciphered Date    | 2007/12/9 | Title                    | SCHEMATIC MB A3831          |
| 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. |           |                    |           | Document Number          | 401498                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                    |           | Date                     | Thursday, November 25, 2010 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |                    |           | Sheet                    | 40 of 46                    |





|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |                 |          |                          |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------|----------|--------------------------|--------------------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compal Secret Data          |                 |          | Compal Electronics, Inc. |                    |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8                    | Deciphered Date | 2008/3/8 | Title                    | SCHEMATIC MB A3831 |
| 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. |                             |                 |          |                          | Rev D              |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Thursday, November 25, 2010 | Sheet           | 42       | of                       | 46                 |





POWER PIR LIST

page Reason for change Modify list

http://laptopblue.vn

|       |    |                           |                                                                                  |
|-------|----|---------------------------|----------------------------------------------------------------------------------|
| EVT   | 43 | design change             | change PQ36,PQ37,PQ39,PQ40 from SI4856ADY(SB000001Y00) to SI4856DY(SB000003800). |
| DVT   | 43 | offset                    | change PR149 to 51.1K                                                            |
|       | 43 | ocp                       | change PR151 to 5.36K                                                            |
|       | 43 | Vsense feedback           | PR163 change to mount                                                            |
|       | 43 | transient modification    | PC120 change to 0.1uF                                                            |
|       | 43 | EMI solution              | PR153, PR171 change to 4.70hm. PC108, PC124 change to 470pF.                     |
| PVT   | 38 | EMI solution              | add PC126 2200P and PC127 820P                                                   |
|       | 39 | EMI solution              | add PC128 820P and PC129 0.022U                                                  |
|       | 38 | OTP setting design change | change PR43 to 13.7K, PR44 to 13.7K                                              |
|       | 41 | OCF solution              | change PR114 to 2.61K, change PQ27, PQ28, PQ31, PQ32 to AO4712                   |
|       | 40 | HW design change          | change PR89 to 10.2K                                                             |
|       | 43 | noise solution            | add PC130, 100U 25V                                                              |
| PreMP | 39 | component version change  | change PU4 from ISL6251AHAZ-T to ISL6251AHAZ-TR5283                              |
|       | 41 | OCF solution              | change PR114 to 3K                                                               |
|       | 41 | HW design change          | change PR117 to 10.2K                                                            |
|       | 43 | noise solution            | change PC130 to 220U 25V                                                         |
|       |    |                           |                                                                                  |
| MP    | 41 | 1.8V shutdown solution    | change PR114 to 1.54K, PR127 to 56K, PC77 to 330U(SGA19331D00)                   |

# HW4 Product Improvement Record (P.I.R.)

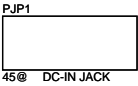
| Phase: A to B |                                   | Date: 0601                                   |                                                      |                                | Writer: Timo Teng                                                                     |      |             |
|---------------|-----------------------------------|----------------------------------------------|------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------|------|-------------|
| Page#         | Action Plan<br>(add; del; change) | Location or<br>Net_List                      | Before value<br>(Attached file)                      | After value<br>(Attached file) | Detail Discretion and Root Cause                                                      | Rev. | DL/DM Check |
| 7             | Add @                             | C576, C785                                   | 330U_D2_2.5VY_R9M                                    | @330U_D2_2.5VY_R9M             | After Power Jeff meausre CPU core ripple,<br>we can unmount the 2 capacitors.         |      |             |
| 14            | Del @<br><br>Add                  | CRT Pi-Filter circuit<br><br>CRT DDC circuit | R16, R20...and so on<br><br>D47, R1231 ...and so on. |                                | Remove pi filter from CRT board from S/B to M/B for EMI solution<br><br>Follow AMD PA |      |             |
| 15            | Add                               | +HDMI_DDC_CLK, +5VS                          | NC                                                   | AT JP23.193, J23.182           | Follow AMD PA                                                                         |      |             |
| 17            | Del @<br>Add @                    | C780, U40<br>R1221                           | @0.1u and @7408<br>0 ohm                             | 0.1u and 7408<br>@0 ohm        | Add buffer avoid the leakage issue from LAN CHIP                                      |      |             |
| 22            | Add                               | R1233, R1234, C788,<br>C789                  | NC                                                   | 10ohm and 1p                   | Add RC for reduce EMI noise                                                           |      |             |
| 31            | Add                               | R1226                                        | NC                                                   | 10k                            | For CIR function.                                                                     |      |             |
| 34            | Change                            | KSO[0..15]                                   | KSO[0..15]                                           | KSO[0..17]                     | For Keyboard some keys function.                                                      |      |             |
| 36            | Change                            | C180, C385, C87, C269<br>C638, C526          | 0.1uF 0402                                           | 0.1uF 0603                     | Change X7R                                                                            |      |             |

| Phase: B to C |                                   | Date: 0628                                                    |                                                    |                                | Writer: Gino Lu                                            |      |             |
|---------------|-----------------------------------|---------------------------------------------------------------|----------------------------------------------------|--------------------------------|------------------------------------------------------------|------|-------------|
| Page#         | Action Plan<br>(add; del; change) | Location or<br>Net_List                                       | Before value<br>(Attached file)                    | After value<br>(Attached file) | Detail Discretion and Root Cause                           | Rev. | DL/DM Check |
| 14            | Del<br><br><br>BOM Structure      | R1227, R1228<br>R1229, R1230<br>D47<br>Q4, Q5<br>R1231, R1232 | 0_0402_5%<br>19.2K_0402_5%<br>CH491D_SC59<br><br>@ | NC<br>NC<br>NC<br>UMA@<br>VGA@ | AMD CRT level shift solution already be implement on VGA/B |      |             |
| 25            | DEL<br>Add<br>Net                 | C727, C728<br>L78<br>C727, R293                               | 22U_A_4VM                                          | 4.7uH_1008HC                   | Update RTL8101E/8102E/8111B/8111C co-layout circuit        |      |             |

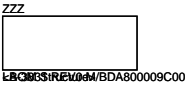
| Phase: C to PreMP |                                   | Date: 0723              |                                 |                                | Writer: Gino Lu                            |      |             |
|-------------------|-----------------------------------|-------------------------|---------------------------------|--------------------------------|--------------------------------------------|------|-------------|
| Page#             | Action Plan<br>(add; del; change) | Location or<br>Net_List | Before value<br>(Attached file) | After value<br>(Attached file) | Detail Discretion and Root Cause           | Rev. | DL/DM Check |
| 27                | Add<br>Add                        | R486, R487<br>C790      |                                 | 0_0603_5%<br>10U_0805_10V4Z    | Reserve for +HVDD power select             |      |             |
| 16                | Add                               | C679, C688              | 12P_0402_50V8J                  | 18P_0402_50V8J                 | For Real time clock adjust                 |      |             |
| 25                | Change                            | C118,C120,C121,C135     | 0.01U_0402_25V4Z                | 0.1U_0402_16V4Z                | for Gigalan EMI solution                   |      |             |
| 25                | BOM structure<br>change           | C728<br>C558            | CAM@                            | D_CAM@<br>BT@                  | For Camera reserve<br>For Bluetooth select |      |             |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |                    |          |                          |          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------|----------|--------------------------|----------|
| Security Classification                                                                                                                                                                                                                                                                                                                                                                                                                                       |                             | Compal Secret Data |          | Compal Electronics, Inc. |          |
| Issued Date                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2007/3/8                    | Deciphered Date    | 2008/3/8 | 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. |                             |                    |          | Document Number          | 401498   |
| Date:                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Thursday, November 25, 2010 |                    |          | Sheet                    | 45 of 46 |

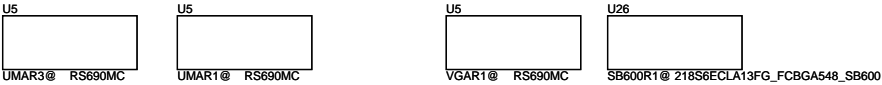
45@ Part



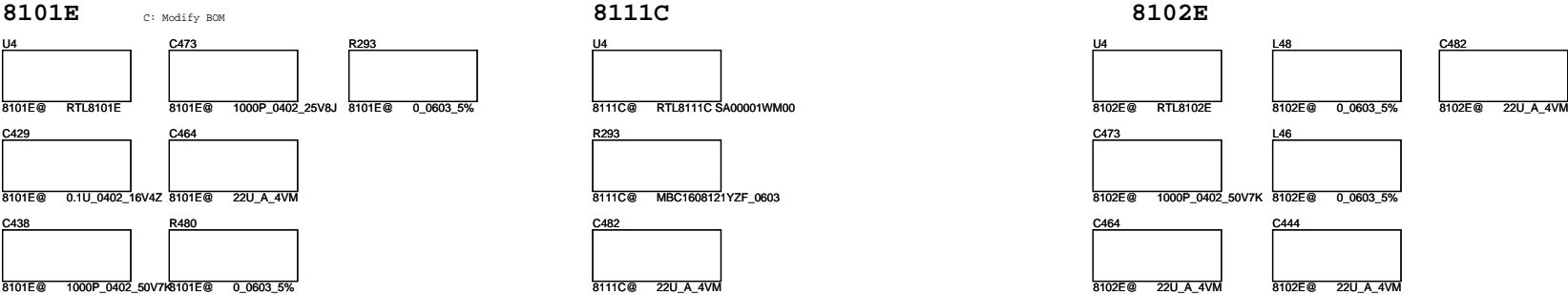
PCB



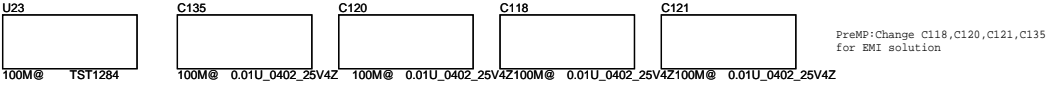
CHIPSET



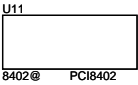
LAN



TRANSFORMER



Card BUS



M76 CRT

