



04/13 Add DC-IN Cable DC301008200 (45@)

07/21 Add DAZ P/N and other small board PCB P/N

# Compal Confidential

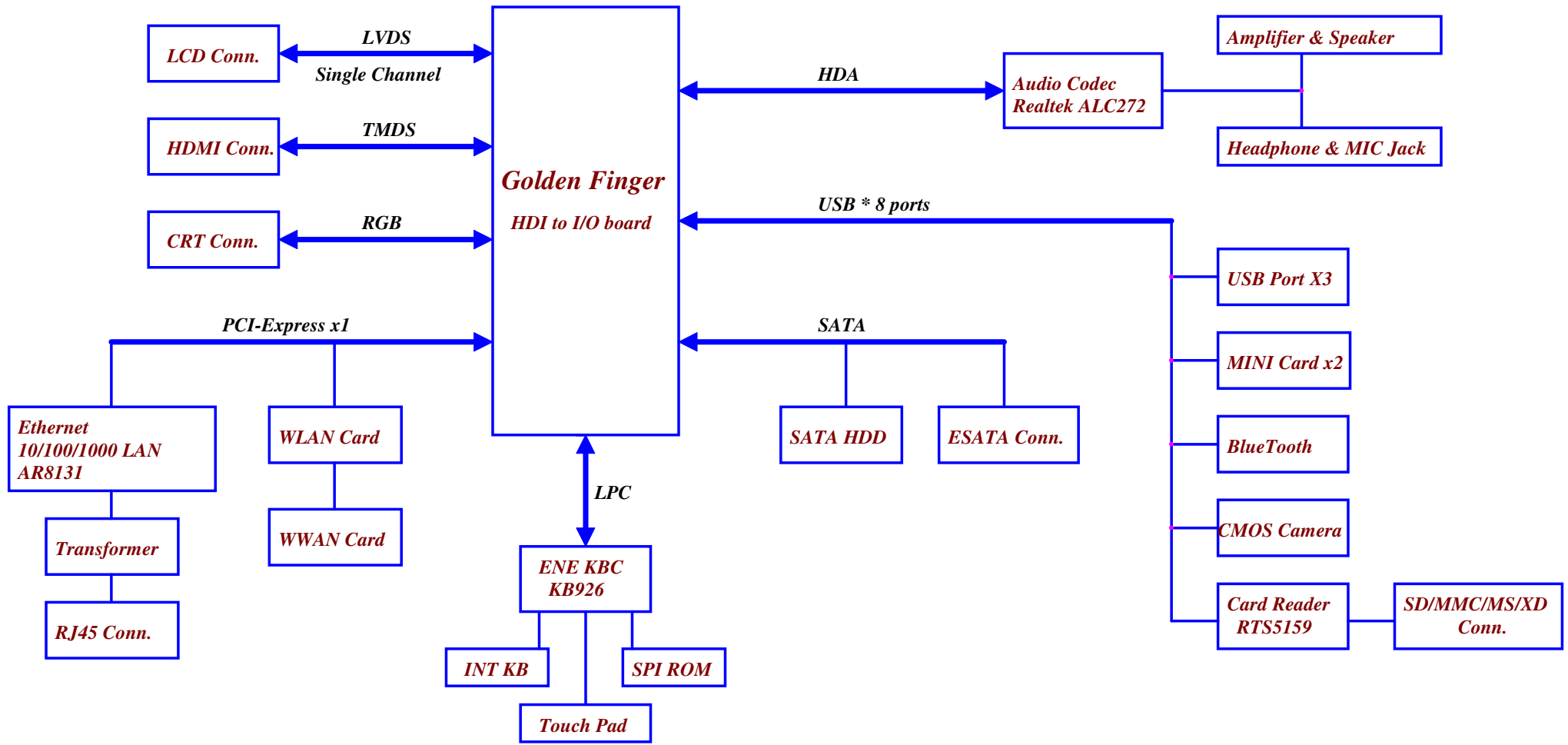
## NTUC0 LA-5501P Schematics Document

Intel Penryn uFCBGA with Intel Cantiga GS40+ICH9M SFF

### SFF ULV I/O Board

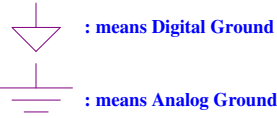
2009-07-30

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title	
<small>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&amp;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.</small>				Cover Page	
				Size	Document Number
Custom	NTUC0 IO/B LA-5501P Schematic			1.0	
Date:	Thursday, July 30, 2009			Sheet	1 of 24



Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title		
				Block Diagram		
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		
		Customer	NTUC0 IO/B LA-5501P Schematic	1.0		
		Date:	Thursday, July 30, 2009	Sheet	2	of 24

**Symbol Note :**



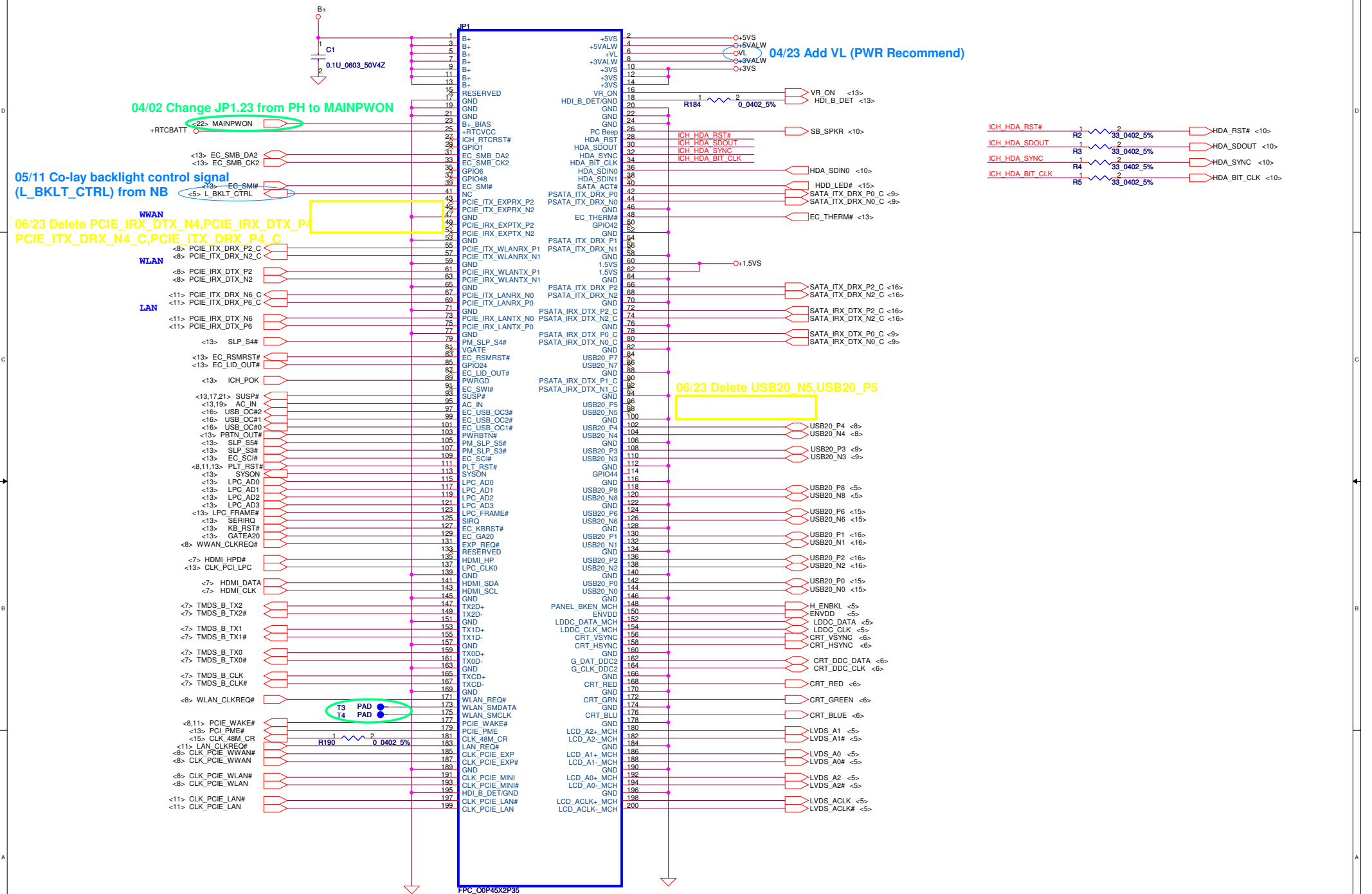
@ : means just reserve , no build  
 CONN@ : means ME part.  
 45@ : means install after SMT.

**I2C / SMBUS ADDRESSING**

DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	10100000
DDR SO-DIMM 1	A4	10100100
CLOCK GENERATOR (EXT.)	D2	11010010

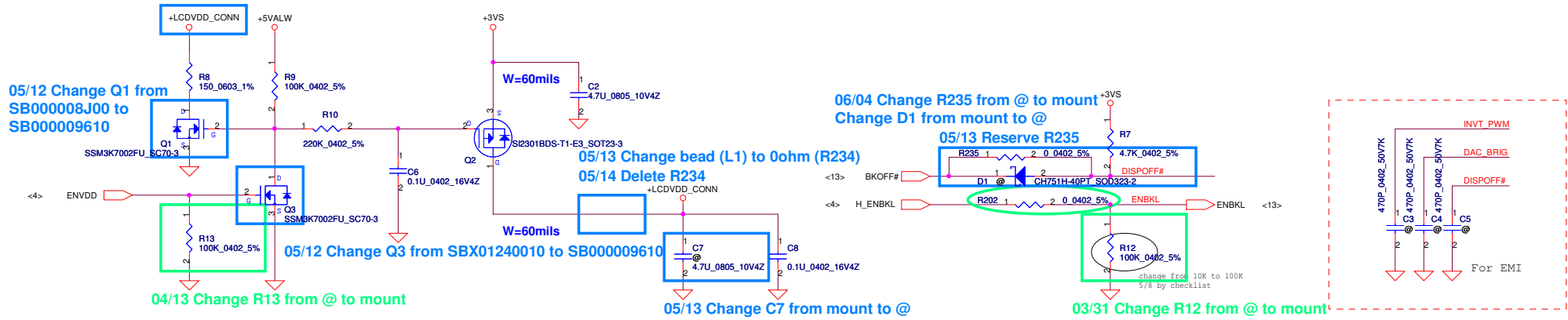
**SMBUS Control Table**

	SOURCE	INVERTER	BATT	SERIAL EEPROM	THERMAL SENSOR (CPU)	SODIMM	CLK CHIP	MINI CARD	LCD
SMB_EC_CLK1 SMB_EC_DA1	KB926	X	V	V	X	X	X	X	X
SMB_EC_CLK2 SMB_EC_DA2	KB926	X	X	X	V	X	X	X	X
SMB_CK_CLK1 SMB_CK_DAT1	ICH9	X	X	X	X	V	V	V	X
LCD_CLK LCD_DAT	Cantiga	X	X	X	X	X	X	X	V

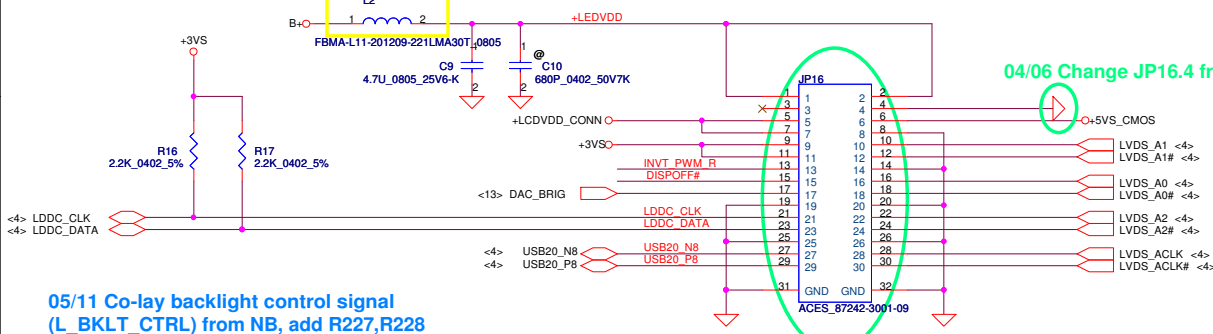


Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Rev
Customer	Document Number	NTUC0 IO/B LA-5501P Schematic		1.0	
Date:	Thursday, July 30, 2009	Sheet	4	of 24	

**LCD POWER CIRCUIT**

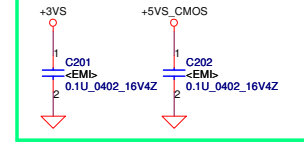


**LED PANEL BD. Conn.**

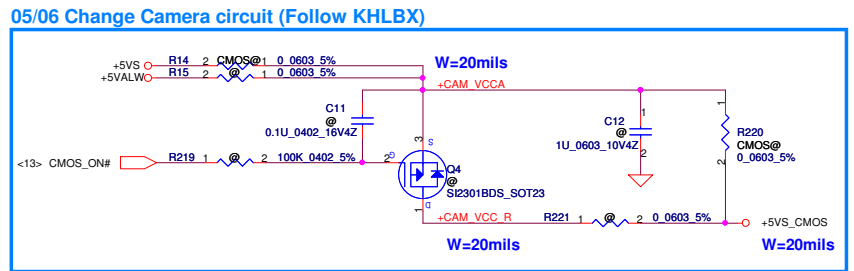


03/24 Change JP16 to right angle conn.

03/26 Add C201,C202,C203(@) close to JP16 (EMI Recommend)



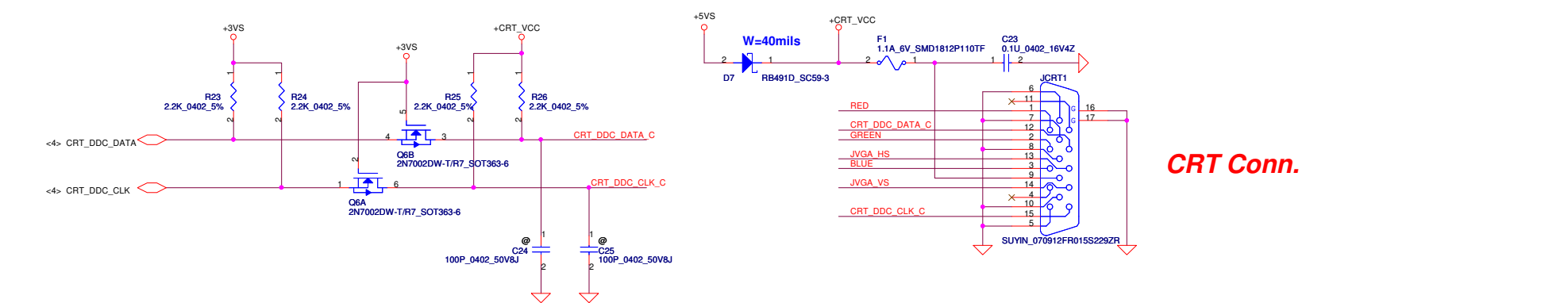
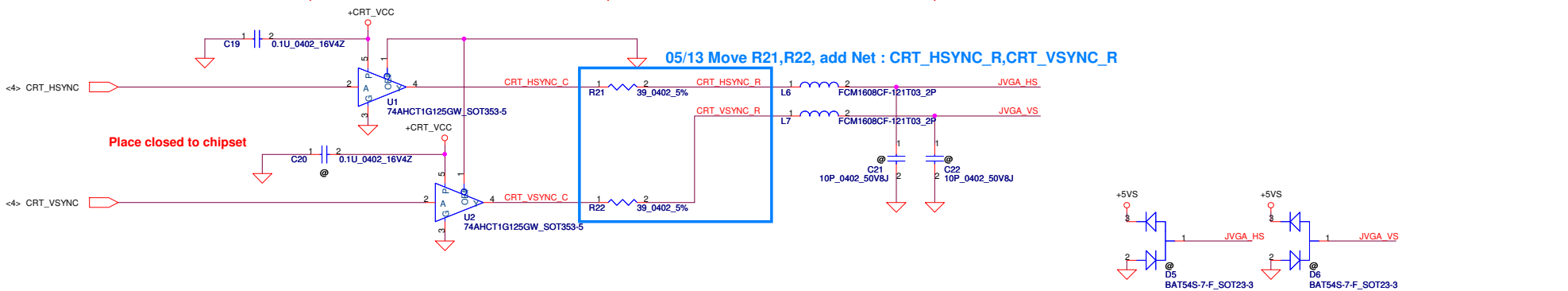
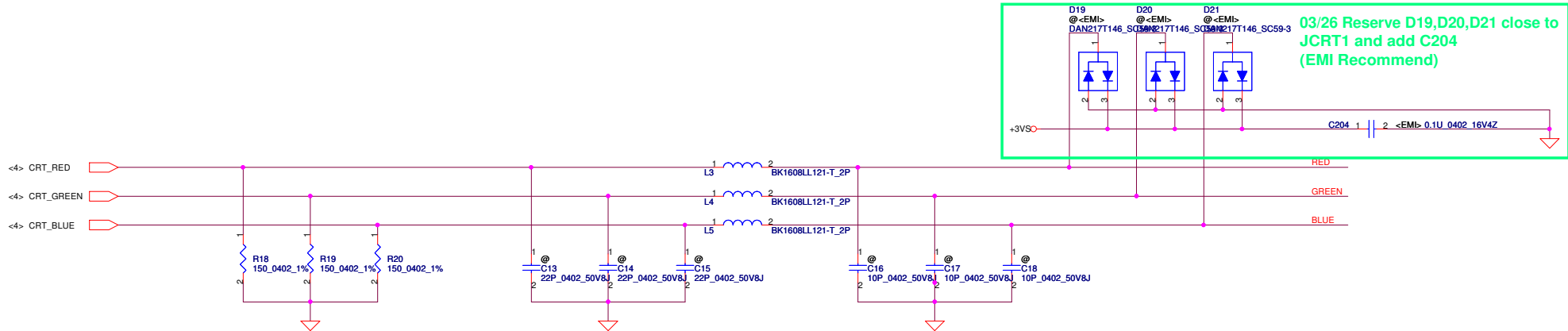
**CMOS Camera**



05/11 Co-lay backlight control signal (L\_BKLT\_CTRL) from NB, add R227,R228



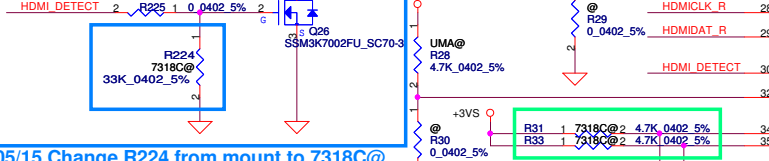
Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size		
				Document Number		Rev
				NTUC0 IO/B LA-5501P Schematic		1.0
				Date:	Thursday, July 30, 2009	Sheet 5 of 24



**CRT Conn.**

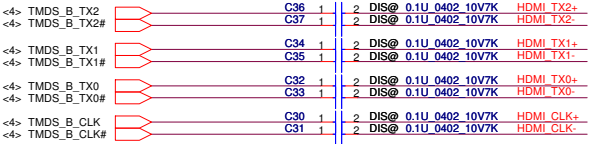
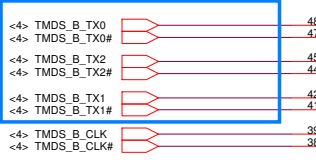
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				CRT Conn.	
Size	Document Number	Rev		Date	
B	NTUC0 IO/B LA-5501P Schematic	1.0		Thursday, July 30, 2009	
Sheet		6		of 24	

05/11 Add HDMI OE circuit, add Q26,R224,R225,R226  
 05/13 Change R225 from 16kohm to 0ohm  
 Change R226 from 3.9kohm to 4.7kohm

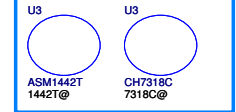
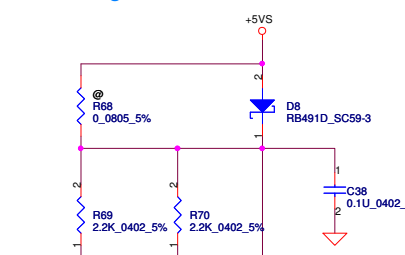


05/15 Change R224 from mount to 7318C@

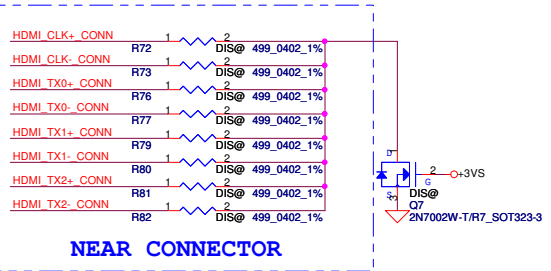
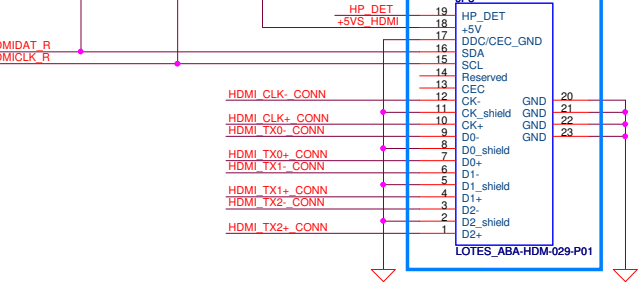
05/11 Swap TMD5\_B\_TX0,TMD5\_B\_TX0#,  
 TMD5\_B\_TX1,TMD5\_B\_TX1#,  
 TMD5\_B\_TX2,TMD5\_B\_TX2#  
 (For Layout Routing)



05/21 Change U3 footprint from PS8101QFN48G\_QFN48\_7X7 to CH7318A-BF-TR\_QFN48\_7X7  
 06/01 Change U3 from UMA@ to 8101T

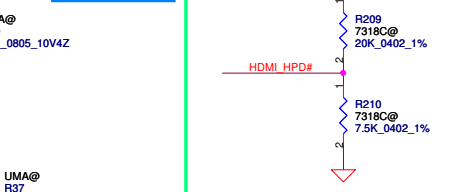
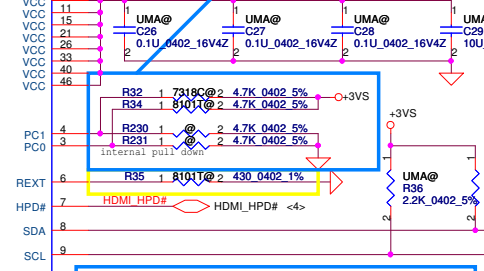


06/01 Add U3 (SA0003BB00) for 1442T@  
 06/01 Add U3 (SA00001U920) for 7318C@  
 05/04 Change JP3 footprint from FOX\_QJ5119L-NT01-7F\_19P to LOTES\_ABA-HDM-029-P01\_19P



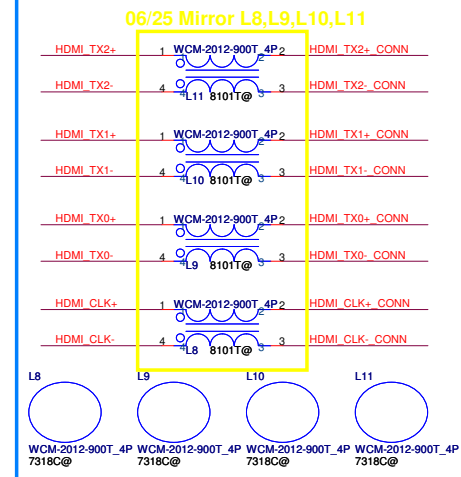
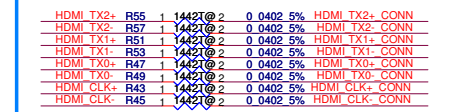
06/29 Change R35 from 499ohm to 430ohm for 8101T@

06/03 Change R35 from 3.4kohm to 3.3kohm for 1442T@  
 05/12 Add R230,R231,R35  
 Change R32 from UMA@ to 7318C@  
 Change R34 from @ to 8101T@

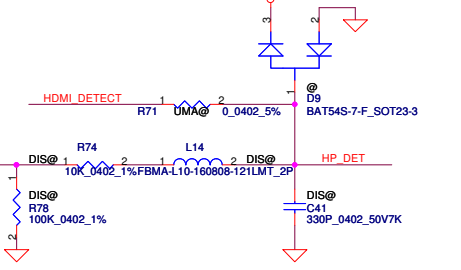


05/12 Add R232,R233  
 05/15 Move R232,R233

05/11 Swap HDMI\_TX0+,HDMI\_TX0-,  
 HDMI\_TX1+,HDMI\_TX1-,  
 HDMI\_TX2+,HDMI\_TX2-  
 (For Layout Routing)



06/25 Mirror L8,L9,L10,L11  
 06/03 Change L8,L9,L10,L11 for 8101T@ and 7318C@  
 06/03 Change R43,R45,R47,R49,R51,R53,R55,R57 from @ to 1442T@



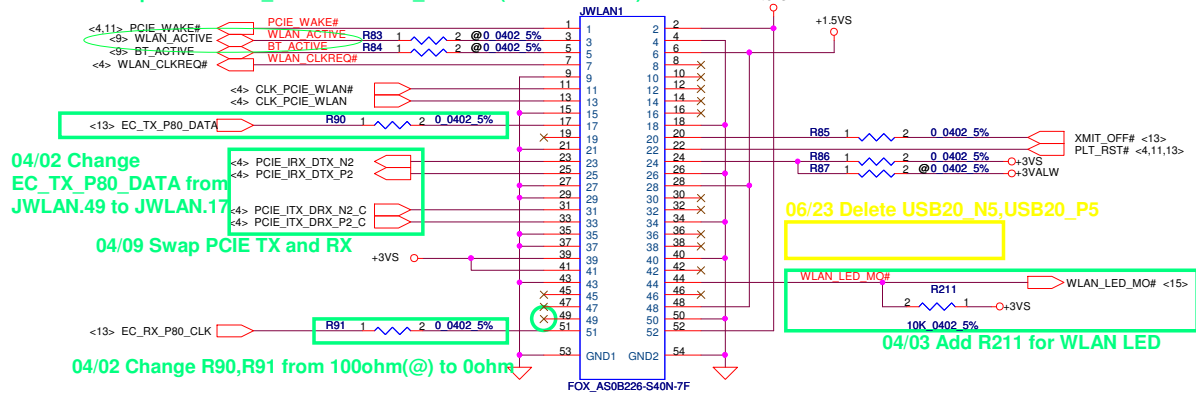
Security Classification	Compal Secret Data	
Issued Date	2009/03/20	Deciphered Date
		2010/03/20

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.

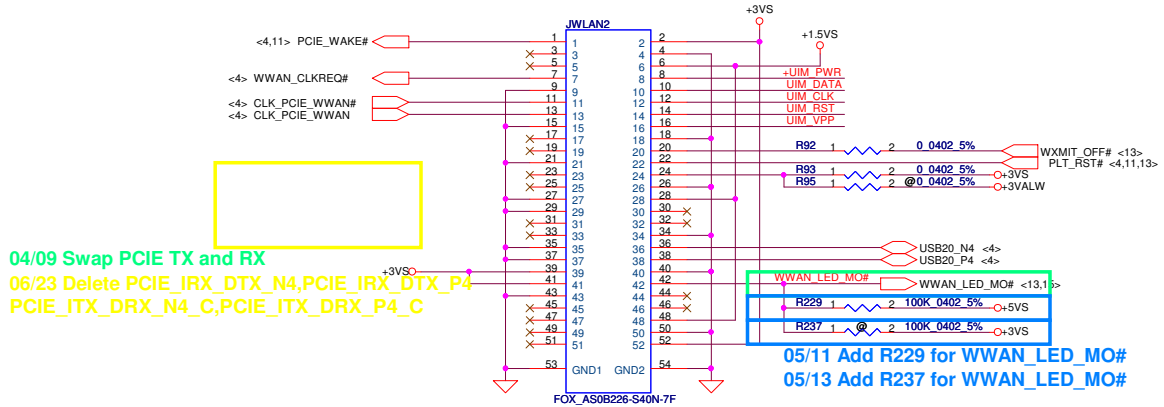
Compal Electronics, Inc.		
Title		
HDMI Level Shifter_PS8101T		
Size	Document Number	Rev
Custom	NTUCO IO/B LA-5501P Schematic	1.0
Date:	Thursday, July 30, 2009	Sheet 7 of 24

**Mini-Express Card (Slot 1-WLAN) 4mm High**

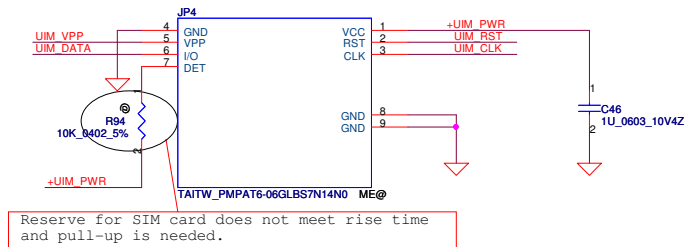
04/02 Swap Net : WLAN\_ACTIVE and BT\_ACTIVE (Follow JHXXX)



**Mini-Express Card (Slot 2-WWAN) 4mm High**



**WWAN Card Conn.**



Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2009/03/20	Deciphered Date	2010/03/20	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.				Mini Card (WLAN/WWAN)		
Size	Document Number	Rev		Date		
Customer	NTUC0 IO/B LA-5501P Schematic	1.0		Thursday, July 30, 2009		
				Sheet	8	of 24



04/03 Change symbol (SMT connector)

05/04 Change JP5 footprint from

TYCO\_1775191-1\_22P\_RV to

FOX\_LD2122H-S42\_RV~D

06/25 Change JP5 footprint from

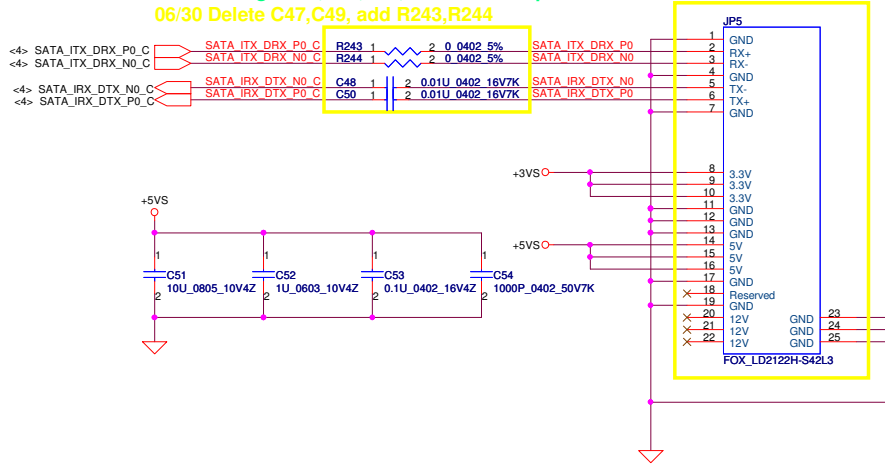
FOX\_LD2122H-S42\_RV~D to

FOX\_LD2122H-S42L3\_22P-T

**SATA HDD Conn.**

03/24 Change C47,C48,C49,C50 from 3900pF to 0.01uF

06/30 Delete C47,C49, add R243,R244

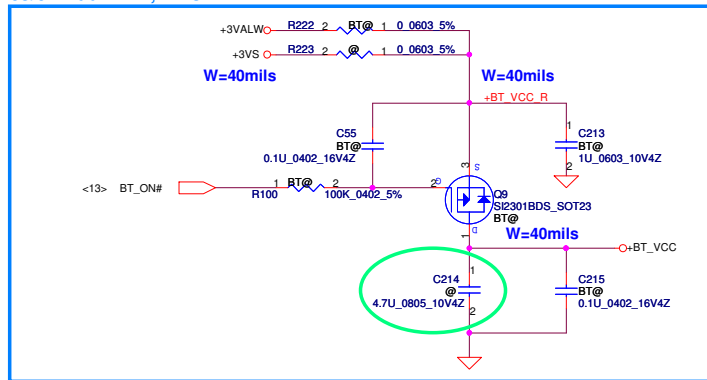


**BT MODULE Conn.**

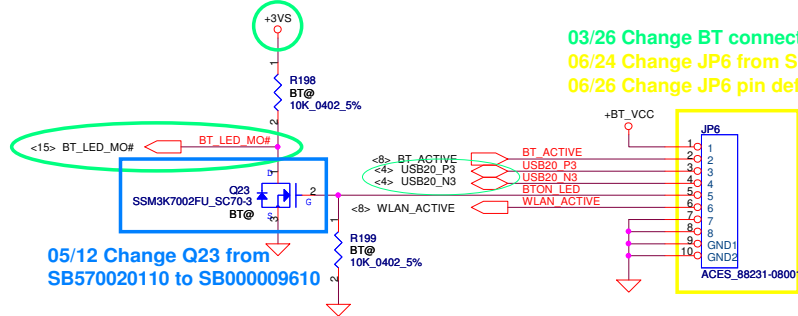
03/31 Change BT circuit (Follow NIUU1)

05/06 Change BT circuit (Follow KHLBX)

05/07 Add R222,R223



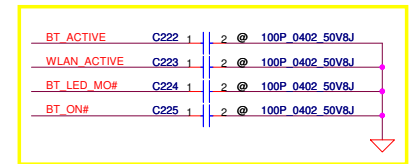
04/03 Change R198 pull-up power plane from +5VS to +3VS



03/26 Change BT connector (Follow NIUU1)

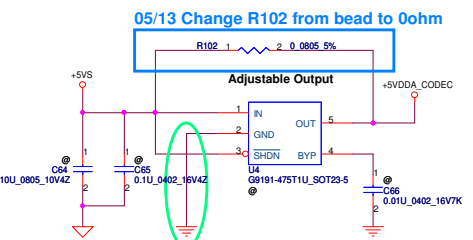
06/24 Change JP6 from SP02000CZ00 to SP02000HC00

06/26 Change JP6 pin definition (Follow KTV00)

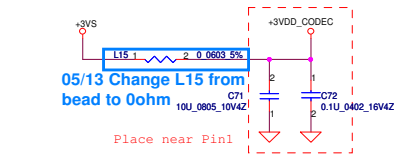


06/25 Reserve C222,C223,C224,C225 close to JP6

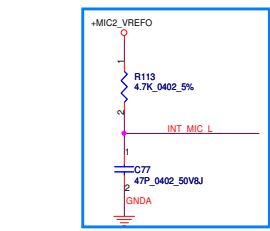
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				SATA HDD Conn./BT Conn.	
Size	Document Number	Rev		Date	
B	NTUC0 IO/B LA-5501P Schematic	1.0		Thursday, July 30, 2009	
Sheet		9		of 24	



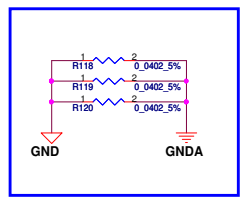
05/13 Change R102 from bead to 0ohm  
04/02 Change GND to GNDA (Realtek Recommend)



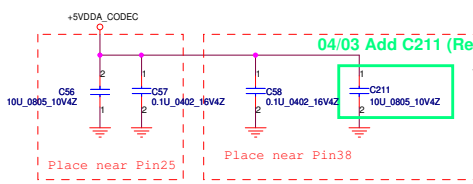
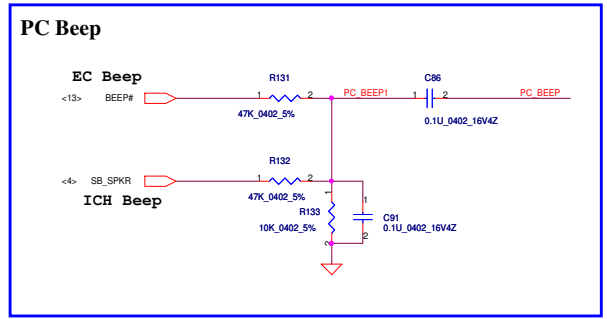
05/13 Change L15 from bead to 0ohm  
Place near Pin1



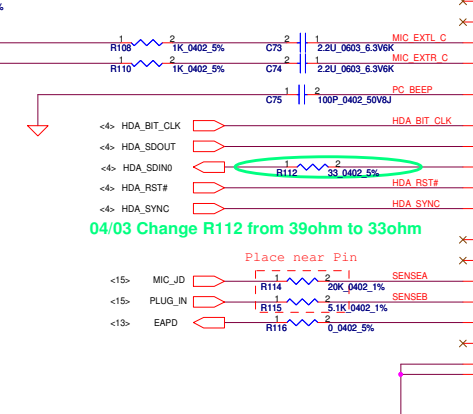
05/13 Close to U5  
04/07 Close to JP13  
03/26 Close to JP16



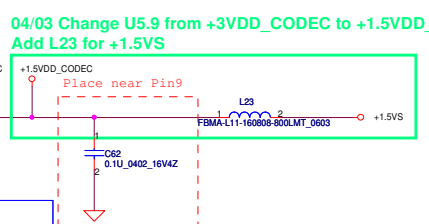
Pin Assignment	Location	Function
LINE-OUT (Pin35/36)	Internal	Int Speaker
Capless HP-OUT (Pin32/33)	External	Headphone out
LINE1 (Pin23/24)	External	
MIC1 (Pin21/22)	External	Mic in
MONO-OUT (Pin37)	Internal	
MIC2 (Pin16/17)	Internal	Internal Mic



04/03 Add C210 (Realtek Recommend)  
Add Net : INT\_MIC\_L\_C and MIC\_INR

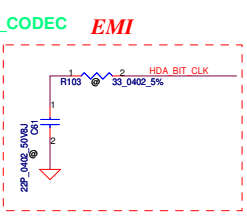


04/03 Change R112 from 39ohm to 33ohm  
Place near Pin

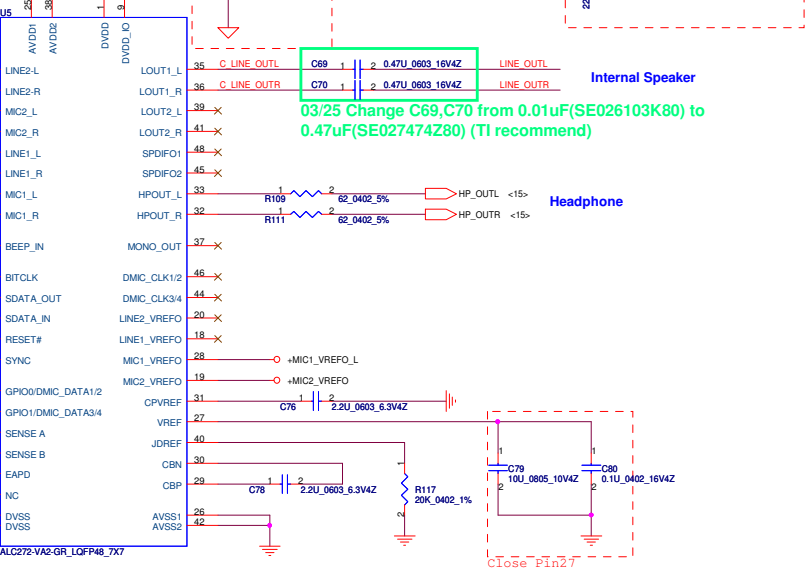


04/03 Change U5.9 from +3VDD\_CODEC to +1.5VDD\_CODEC  
Add L23 for +1.5VS  
Place near Pin9

03/25 Change C69,C70 from 0.01uF(SE026103K80) to 0.47uF(SE027474Z80) (TI recommend)



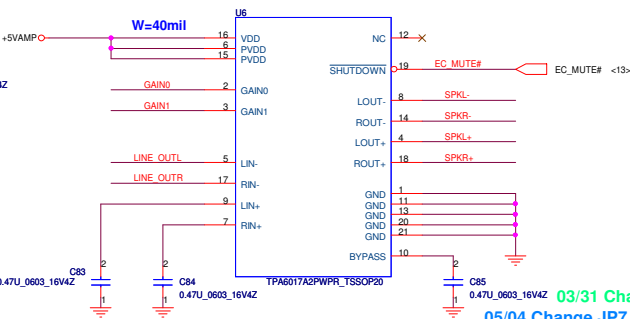
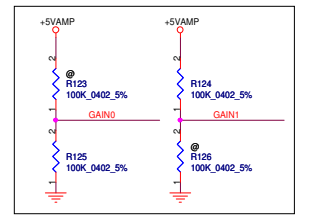
EMI



Internal Speaker

Headphone

GAIN0	GAIN1	Gain
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB

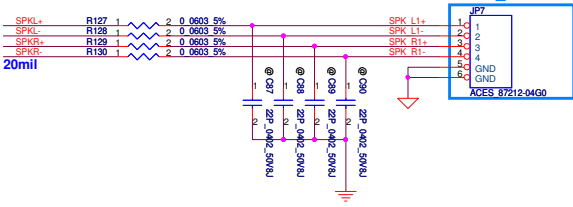
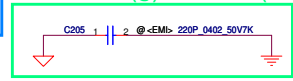


03/31 Change JP7 symbol

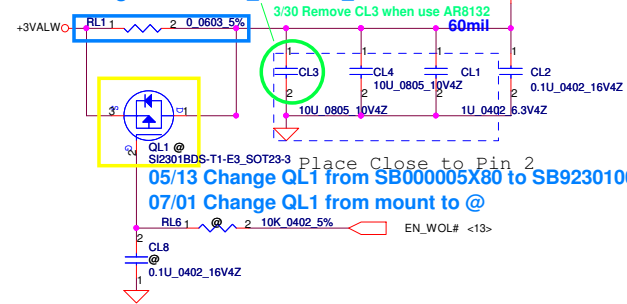
05/04 Change JP7 footprint from ACES\_87213-0400G\_4P to ACES\_87212-04G0\_4P

05/05 Correct JP7 footprint (ACES\_87212-04G0\_4P)

03/26 Add C205(@) close to JP7 (EMI Recommend)



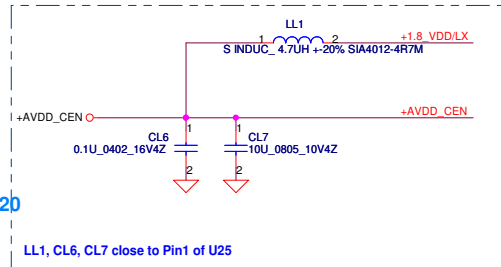
05/13 Change RL1 from 0\_0603 to 0\_1206



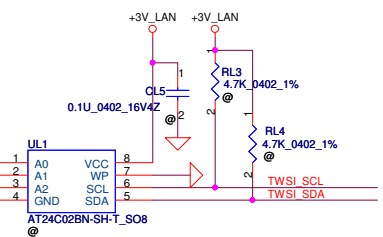
place Close to Pin 2

05/13 Change QL1 from SB000005X80 to SB923010020

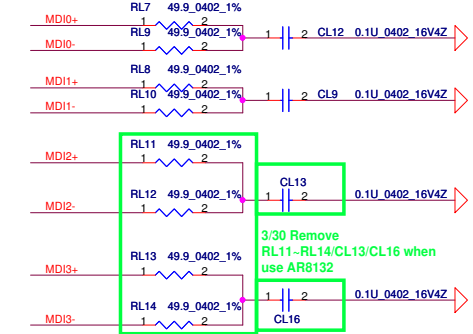
07/01 Change QL1 from mount to @



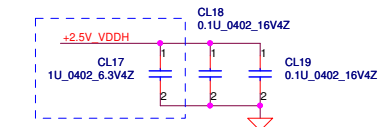
05/04 Add pull-up resistor RL28 for LAN request



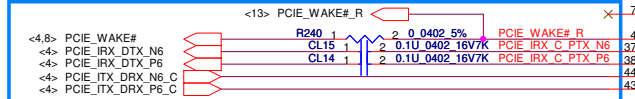
Place Close to LAN chip



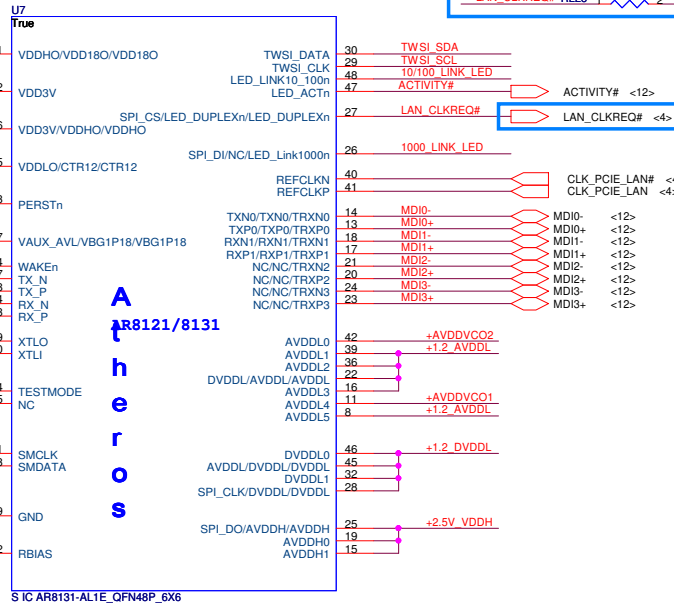
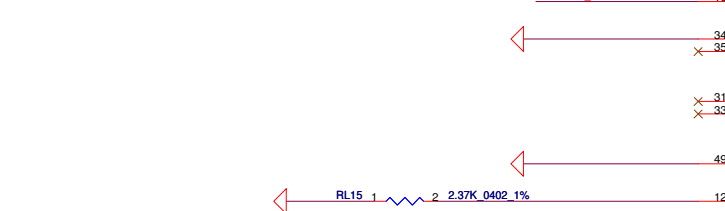
Place Close to Pin15、19、25  
CL17 close to Pin15



05/14 Add R240



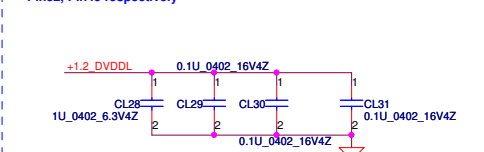
04/24 Swap positive pole and negative pole of TX,RX



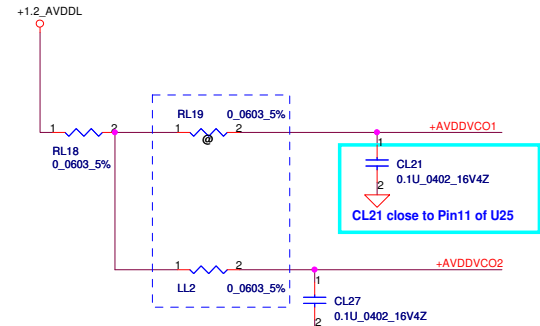
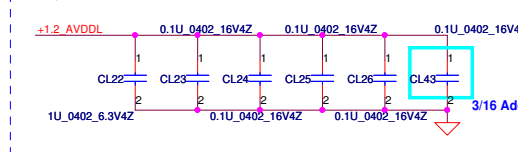
A  
h  
e  
r  
o  
s

02/25 Change PN of U26 from SA000038N00 to SA000031Z00  
3/30 Remove U25 when use AR8132

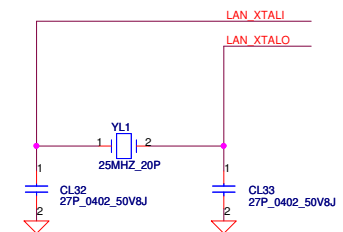
CL28 close to Pin46, CL29, CL30, CL31 close to Pin28, Pin32, Pin45 respectively



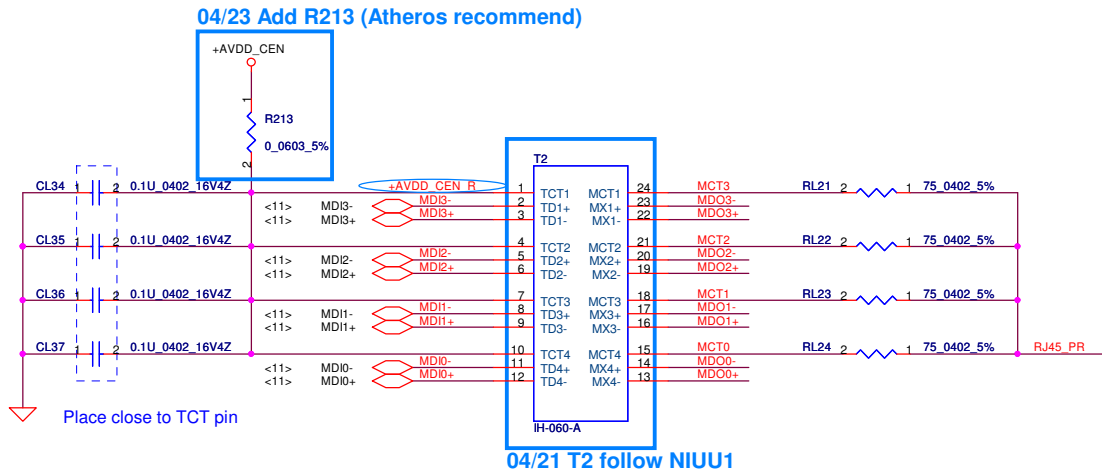
CL24, CL25, CL26, CL43 close to Pin16, Pin22, Pin36, Pin39 of U25 respectively  
CL22, CL23 close to Pin8 of U25



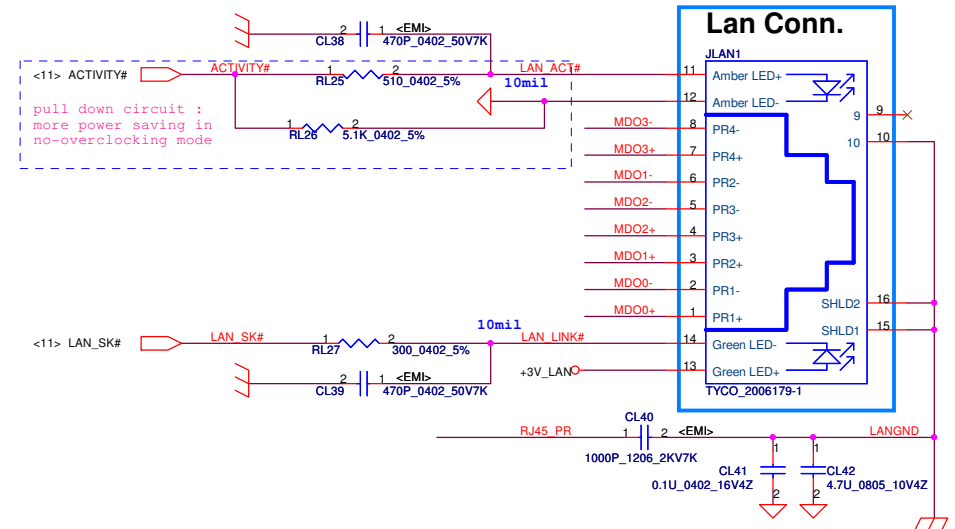
If overclocking, RL19, LL2 stuffed and RL18 removed.  
If not overclocking, RL18, LL2 stuffed and RL19 removed.  
AR8131:LL2=0ohm (more power saving mode)



Security Classification	Compal Secret Data		Title	
Issued Date	2009/03/20	Deciphered Date	2010/03/20	LAN_AS8131
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
				NTUC0 IO/B LA-5501P Schematic
Date:	Thursday, July 30, 2009	Sheet	11	of 24

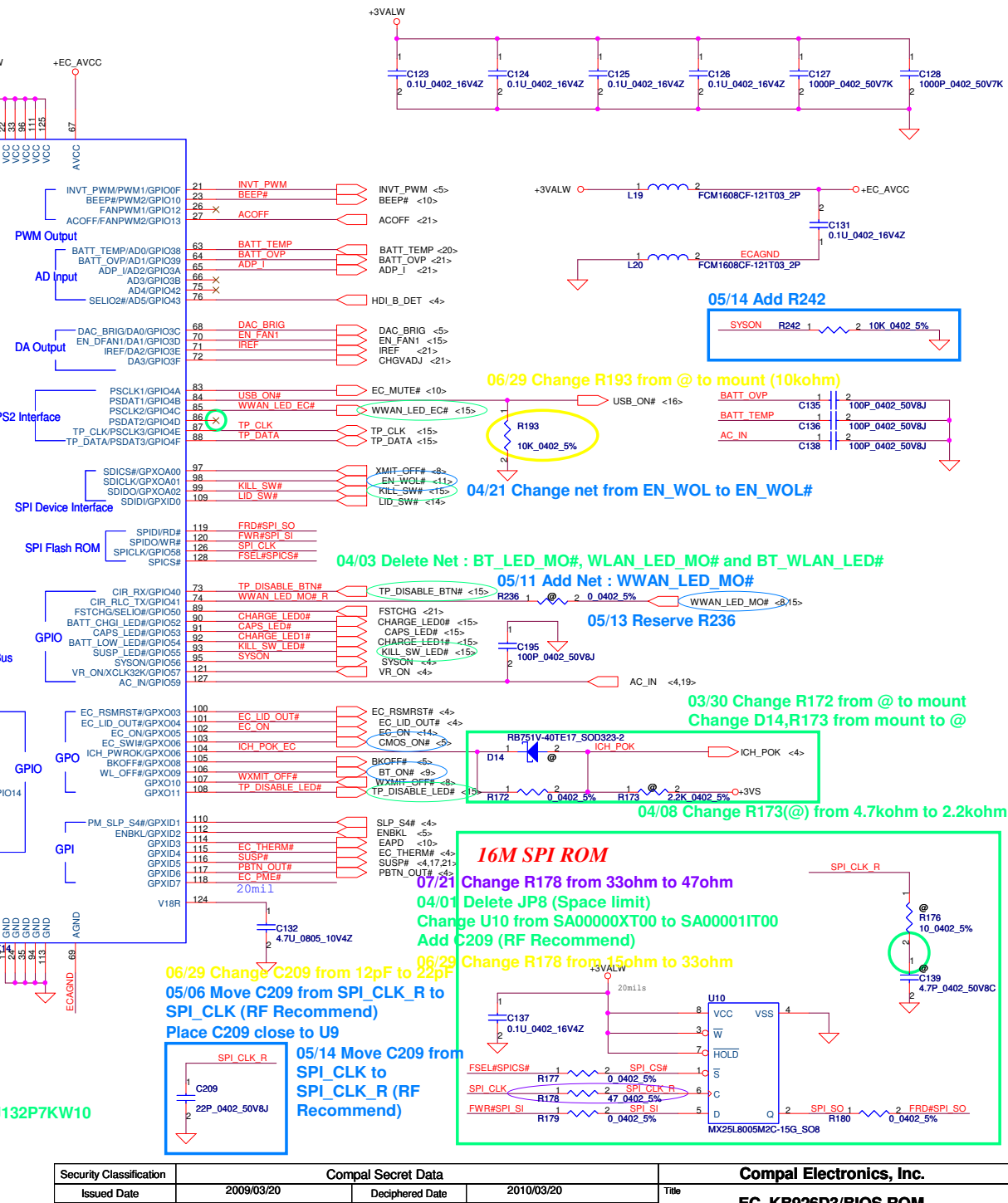
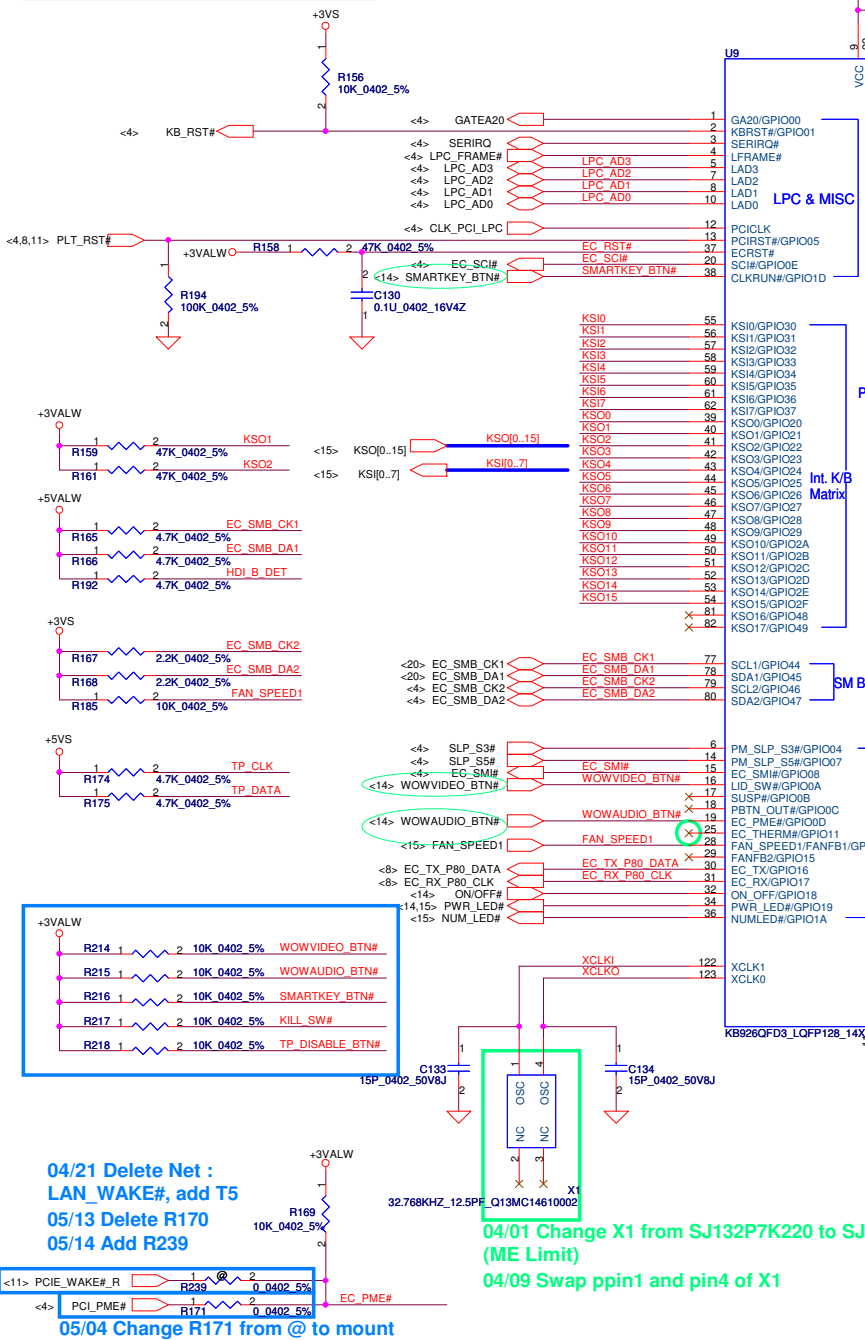
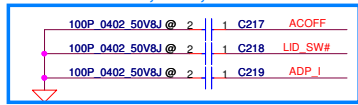


04/21 JLAN1 follow NIUU1  
 05/04 Change JLAN1 footprint from TYCO\_2006179-1\_14P to TYCO\_C-440470\_12P  
 05/05 Change JLAN1 footprint from TYCO\_C-440470\_12P to FOX\_JM36113-P1123-7F\_14P  
 05/12 Change JLAN1 footprint from FOX\_JM36113-P1123-7F\_14P to TYCO\_2006179-1\_14P



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/03/20	Deciphered Date	2010/03/20	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.				LAN Transformer	
Size	Document Number	Rev		Date	
Custom	NTUC0 IO/B LA-5501P Schematic	1.0		Thursday, July 30, 2009	
Date				Sheet	12 of 24

05/19 Add C217,C218,C219

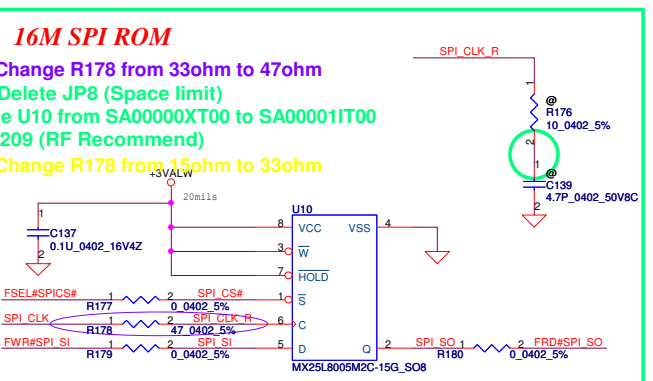


04/21 Delete Net : LAN\_WAKE#, add T5  
 05/13 Delete R170  
 05/14 Add R239  
 05/04 Change R171 from @ to mount

04/01 Change X1 from SJ132P7K220 to SJ132P7KW10 (ME Limit)  
 04/09 Swap ppin1 and pin4 of X1

06/29 Change C209 from 12pF to 22pF  
 05/06 Move C209 from SPI\_CLK\_R to SPI\_CLK (RF Recommend)  
 Place C209 close to U9

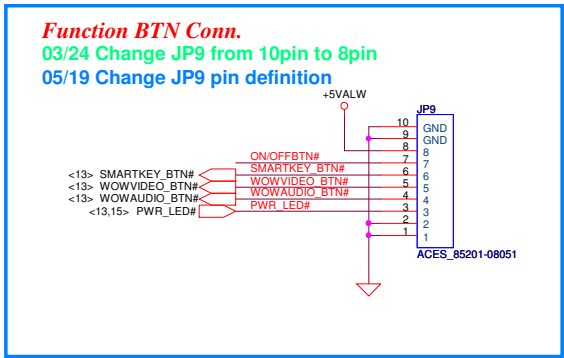
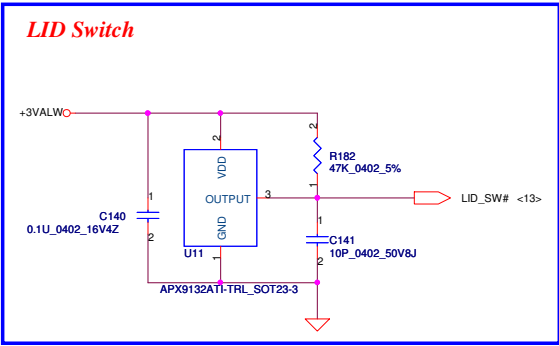
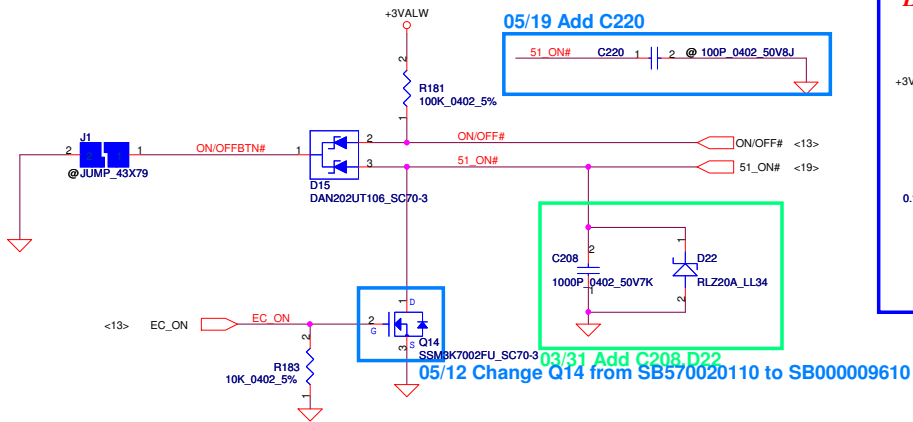
05/14 Move C209 from SPI\_CLK to SPI\_CLK\_R (RF Recommend)



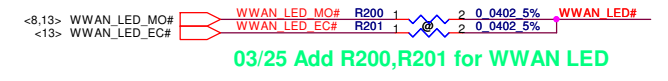
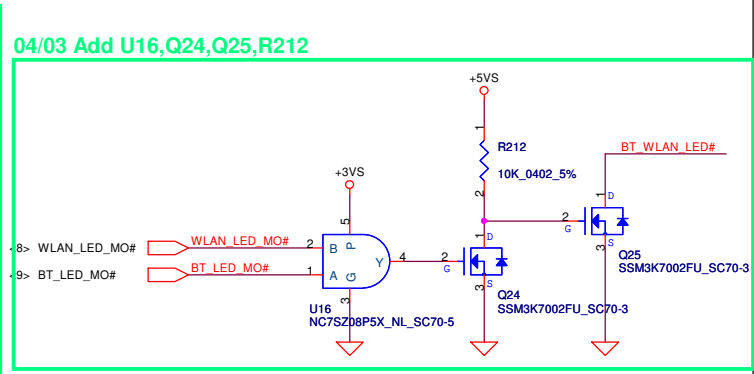
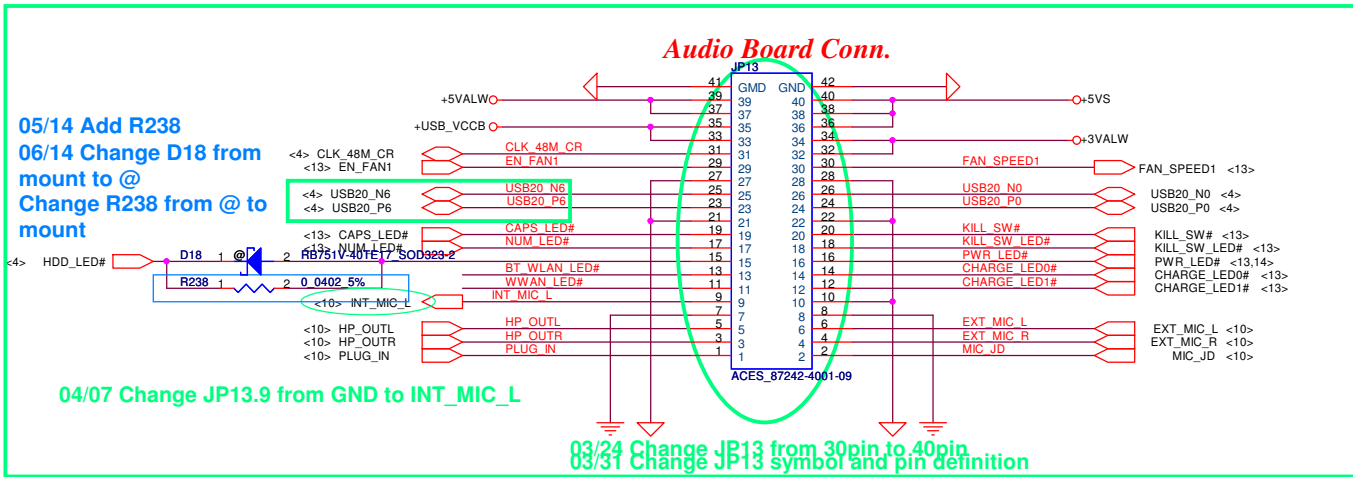
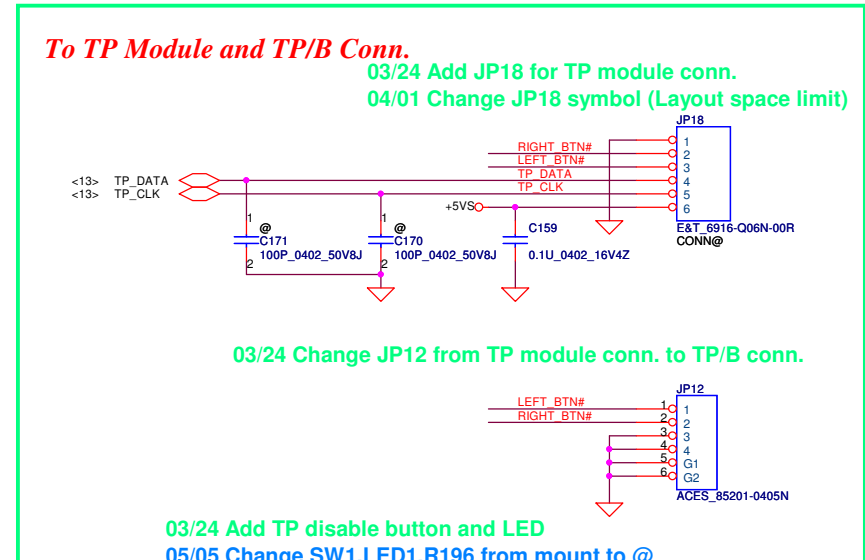
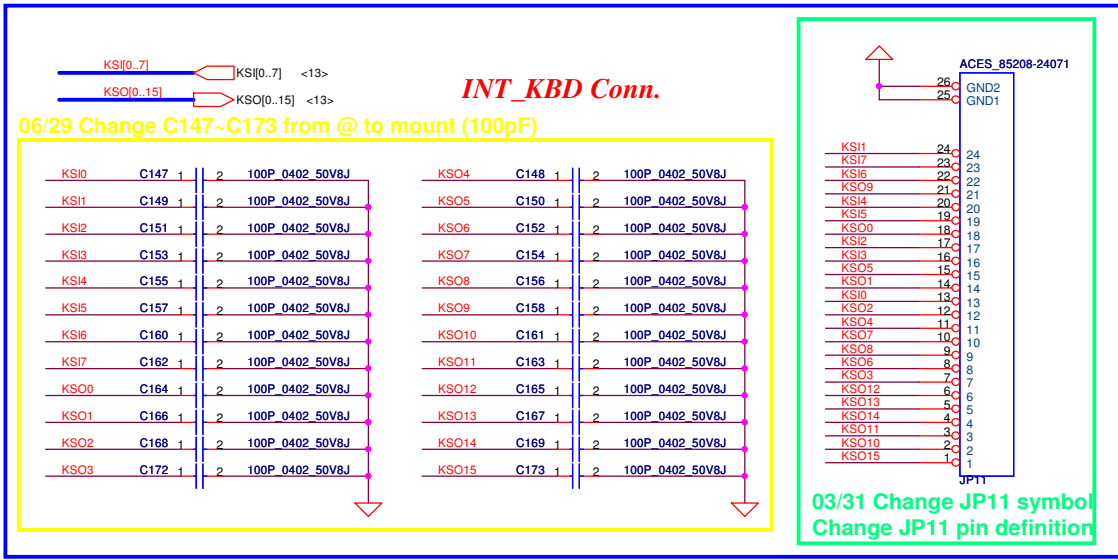
16M SPI ROM

07/21 Change R178 from 33ohm to 47ohm  
 04/01 Delete JP8 (Space limit)  
 Change U10 from SA0000XT00 to SA0000IT00  
 Add C209 (RF Recommend)  
 06/29 Change R178 from 15ohm to 33ohm

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title	EC_KB926D3/BIOS ROM
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	Revision		Date	Thursday, July 30, 2009
Custom	NTUC0 I/O/B LA-5501P Schematic	1.0		Sheet	13 of 24

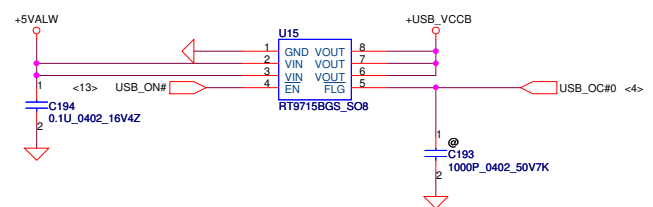
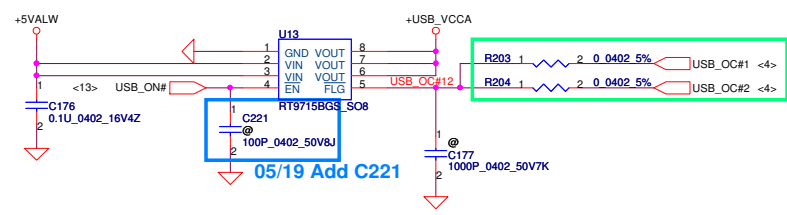
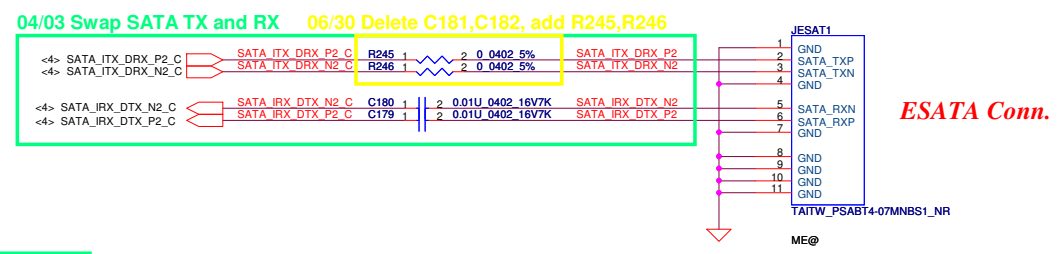
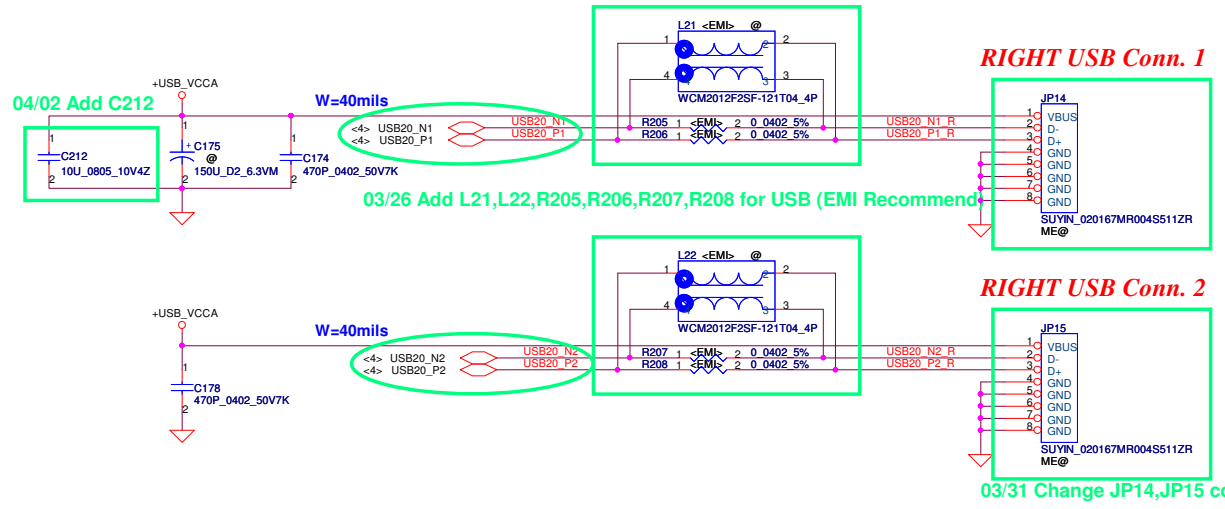


Security Classification		Compal Secret Data		Compal Electronics, Inc.		
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title		
				LID SW/PWR BTN Conn.		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.						
Size	Document Number			Rev		
B	NTUC0 IO/B LA-5501P Schematic			1.0		
Date:	Thursday, July 30, 2009	Sheet	14	of	24	



Security Classification		Compal Secret Data		Title	
Issued Date	2009/03/20	Deciphered Date	2010/03/20	KBD/TP/Audio Conn.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Rev 1.0
				Date	Thursday, July 30, 2009
				Sheet	15 of 24

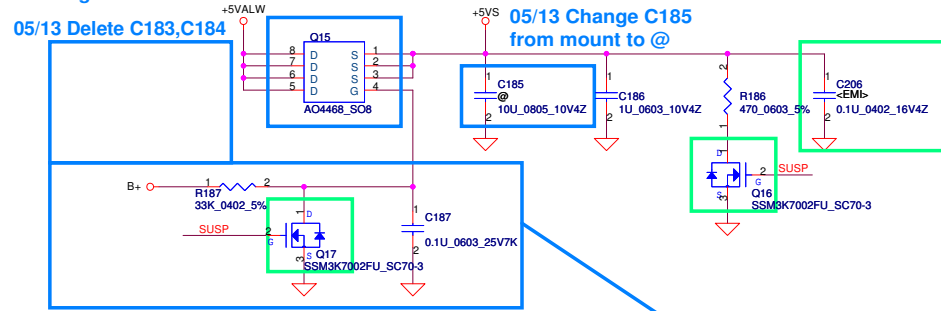
Compal Electronics, Inc.	
KBD/TP/Audio Conn.	
Document Number	NTUC0 IO/B LA-5501P Schematic
Date	Thursday, July 30, 2009
Sheet	15 of 24



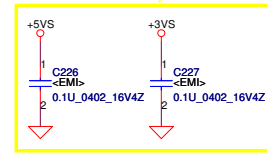
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				B	NTUC0 IO/B LA-5501P Schematic
				Rev	1.0
				Date:	Thursday, July 30, 2009
				Sheet	16 of 24



**+5VALW TO +5VS**  
 05/13 Change Q15 from SB548000310 to SB000009580

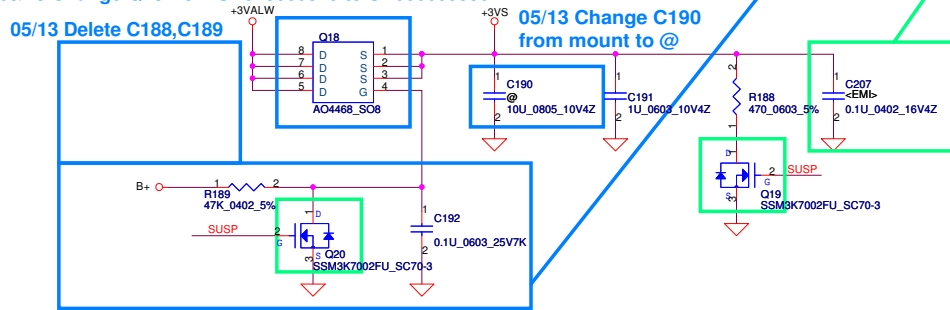


06/26 Add C226,C227 close to H8 (EMI Recommend)



03/30 Add C206,C207 (EMI Recommend)

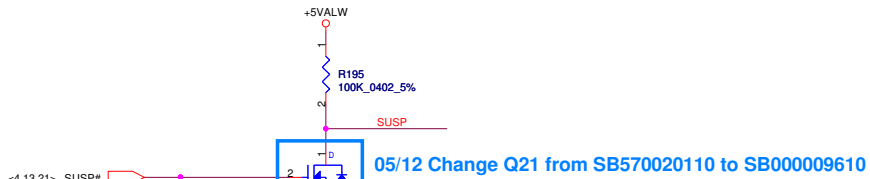
**+3VALW TO +3VS**  
 05/13 Change Q18 from SB548000310 to SB000009580



05/13 Delete C188,C189

05/13 Change C190 from mount to @

05/13 The value of R187,C187,R189,C192 follow KHLBX



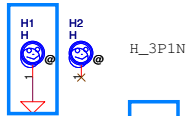
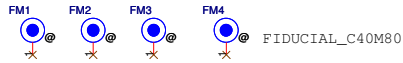
05/12 Change Q21 from SB570020110 to SB000009610

05/14 Add R241

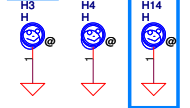
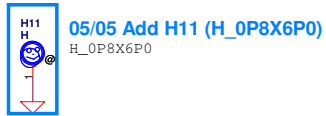
Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title		
				DC Interface		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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
				B	NTUC0 IO/B LA-5501P Schematic	1.0
				Date:	Thursday, July 30, 2009	Sheet 17 of 24

05/05 Change H1 from H\_3P1X4P1N to H\_3P1X4P1

H\_3P1X4P1



H\_3P1N



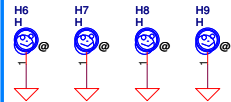
05/21 Change H14 from H\_3P2 to H\_3P5



05/05 Delete H10

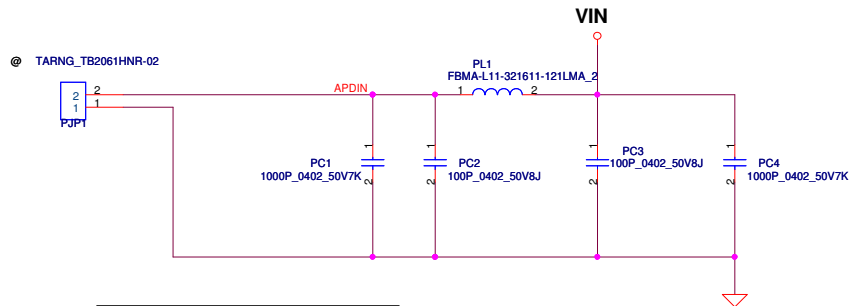


05/12 Delete H5

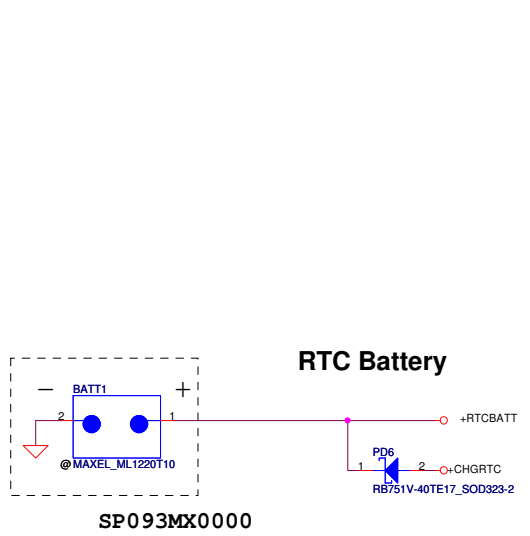
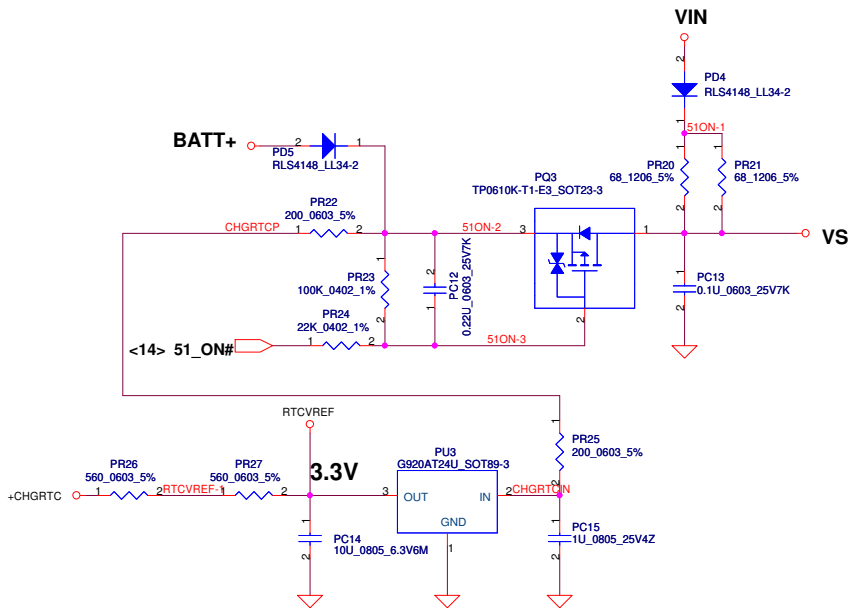
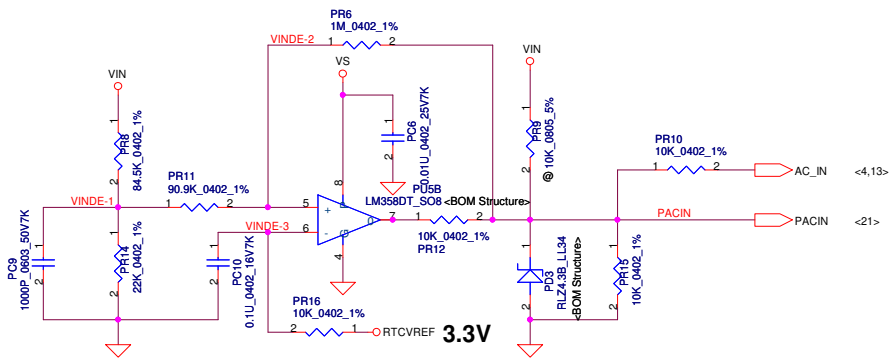


H\_2P8

Security Classification		Compal Secret Data		Compal Electronics, Inc.		
Issued Date	2009/03/20	Deciphered Date	2010/03/20	Title <b>Screw</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 B	Document Number <b>NTUC0 IO/B LA-5501P Schematic</b>	Rev 1.0
Date: Tuesday, July 21, 2009				Sheet	18	of 24

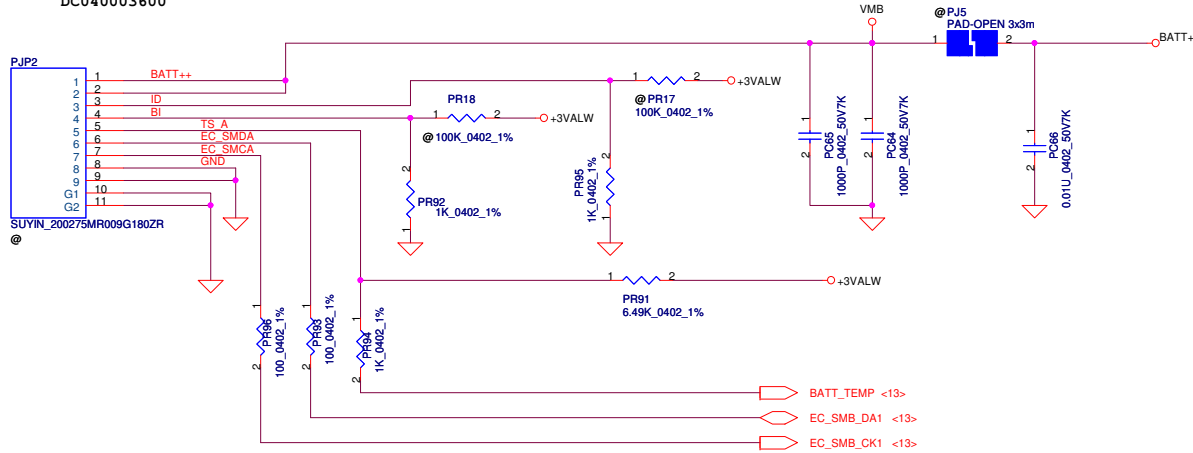


Vin Detector		
High	17.944	17.706
Low	16.242	16.027
	17.470	15.808

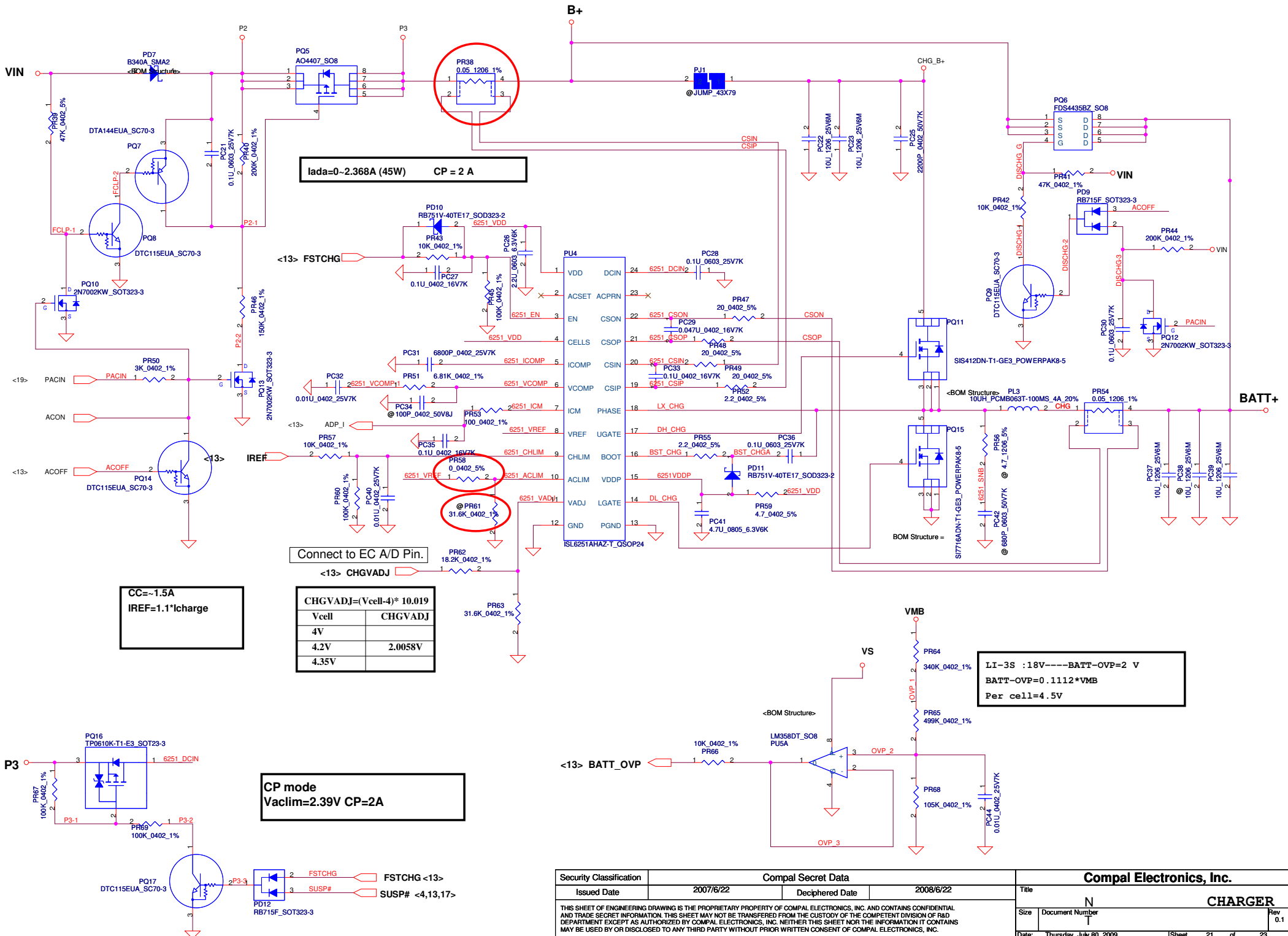


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/09/20	Deciphered Date	2008/09/20	Title	N DCIN & DETECTOR
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Custom
				Rev	0.1
				Date:	Thursday, July 30, 2009
				Sheet	19 of 23

DC040003600



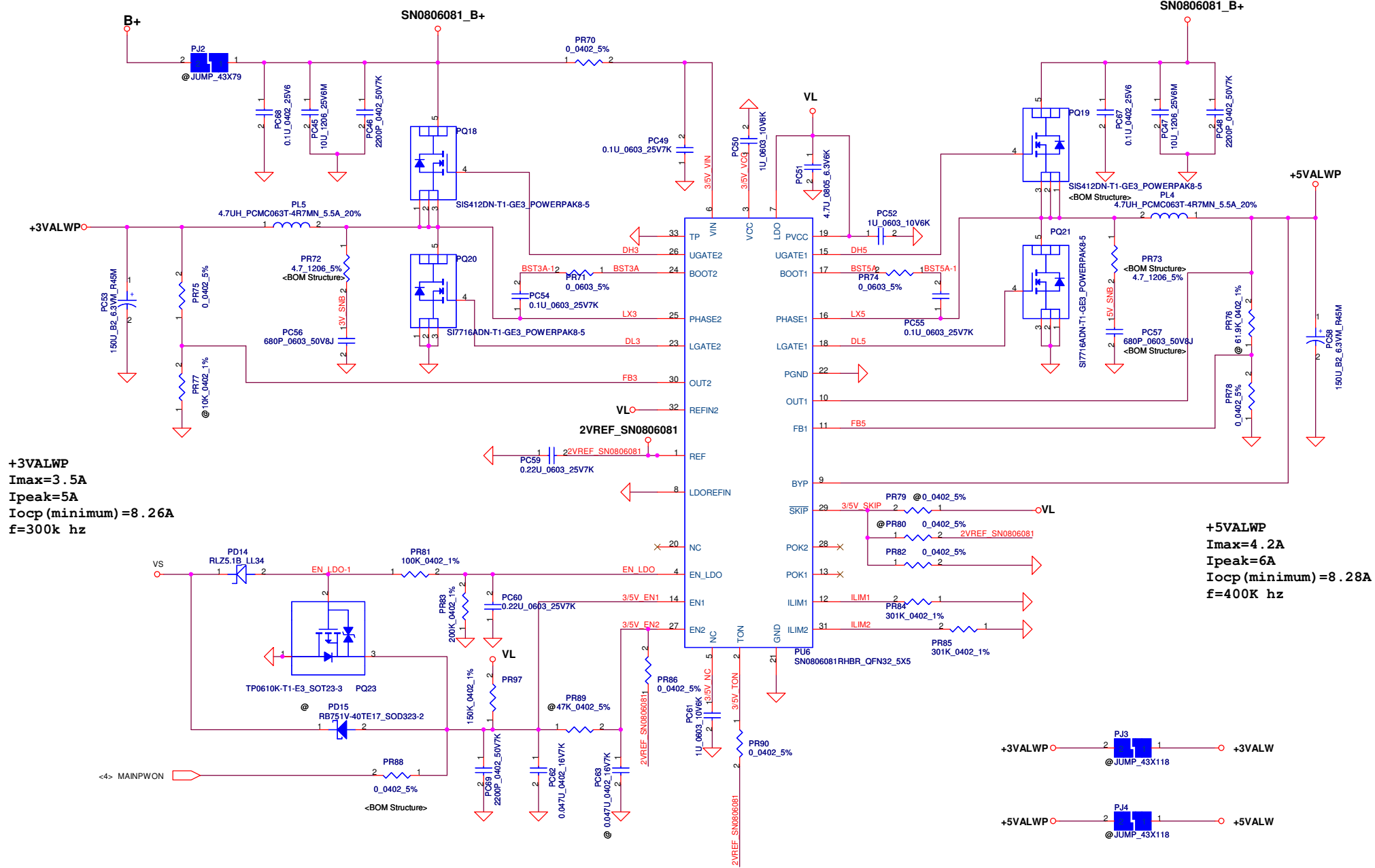
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/6/22	Deciphered Date	2008/6/22	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				N
				BATTERY CONN / OTP
Date: Thursday, July 30, 2009			Sheet 20 of 23	Rev 0.1



Security Classification	Compal Secret Data	
Issued Date	2007/6/22	Deciphered Date
		2008/6/22

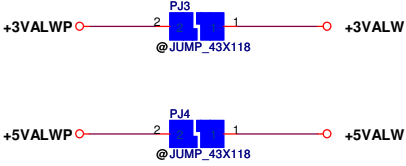
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS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

<b>Compal Electronics, Inc.</b>		
<b>CHARGER</b>		
Title	N	
Size	Document Number	Rev
Date:	Thursday, July 30, 2009	Sheet 21 of 23



**+3VALWP**  
 $I_{max}=3.5A$   
 $I_{peak}=5A$   
 $I_{ocp}(\text{minimum})=8.26A$   
 $f=300k\text{ hz}$

**+5VALWP**  
 $I_{max}=4.2A$   
 $I_{peak}=6A$   
 $I_{ocp}(\text{minimum})=8.28A$   
 $f=400K\text{ hz}$



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/06/22	Deciphered Date	2008/06/22	Title	N 3V/5V
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 DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Size	Document Number	Date:	Thursday, July 30, 2009	Sheet	22 of 23
Custom	T				Rev 0.1

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
1		change CP to 2A	B		change PR58 3.48k to 0 ohm		
2		follow command design	B		Del PD13, PD15 Add PQ23		
3		PULL HIGH VL	B		Add PR97 to 150K		
4		change skip mode	B		Del PR80 Add PR82		
5		connect mainpwon	B		Add PR88		
6		RF request	B		Add PC67 PC68		
7		change charger output cap location for DFX	B		change PC38 to PC39		
8		change 50m ohm 1W current sense to 50m ohm 1/2W for 2nd source complete replace	C		change PR38 from 50m ohm 1w to 1/2w		
9		change PN form dell part to non dell part	C		change PC67,PC68 PN		
10		reduce mainpwon singal noise for hw request. Reserve PC69 space.	C		Add PC69 CAP placement		
11		reduce leakage current	C		Remove PR61	7/15	
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/09/20	Deciphered Date	2008/09/20	Title	PIR (PWR)
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 RAD DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Rev
				Custom	0.1
				Date:	Thursday, July 30, 2009
				Sheet	23 of 23

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

Item	Reason for change	PG#	Modify List	Date	Phase
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

Security Classification		Compal Secret Data		Title	
Issued Date	2009/03/20	Deciphered Date	2010/03/20	HW (PIR)	
<small>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&amp;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.</small>				Size	Rev
				Custom	0.1
				Date:	Thursday, July 30, 2009
				Sheet	24 of 23