

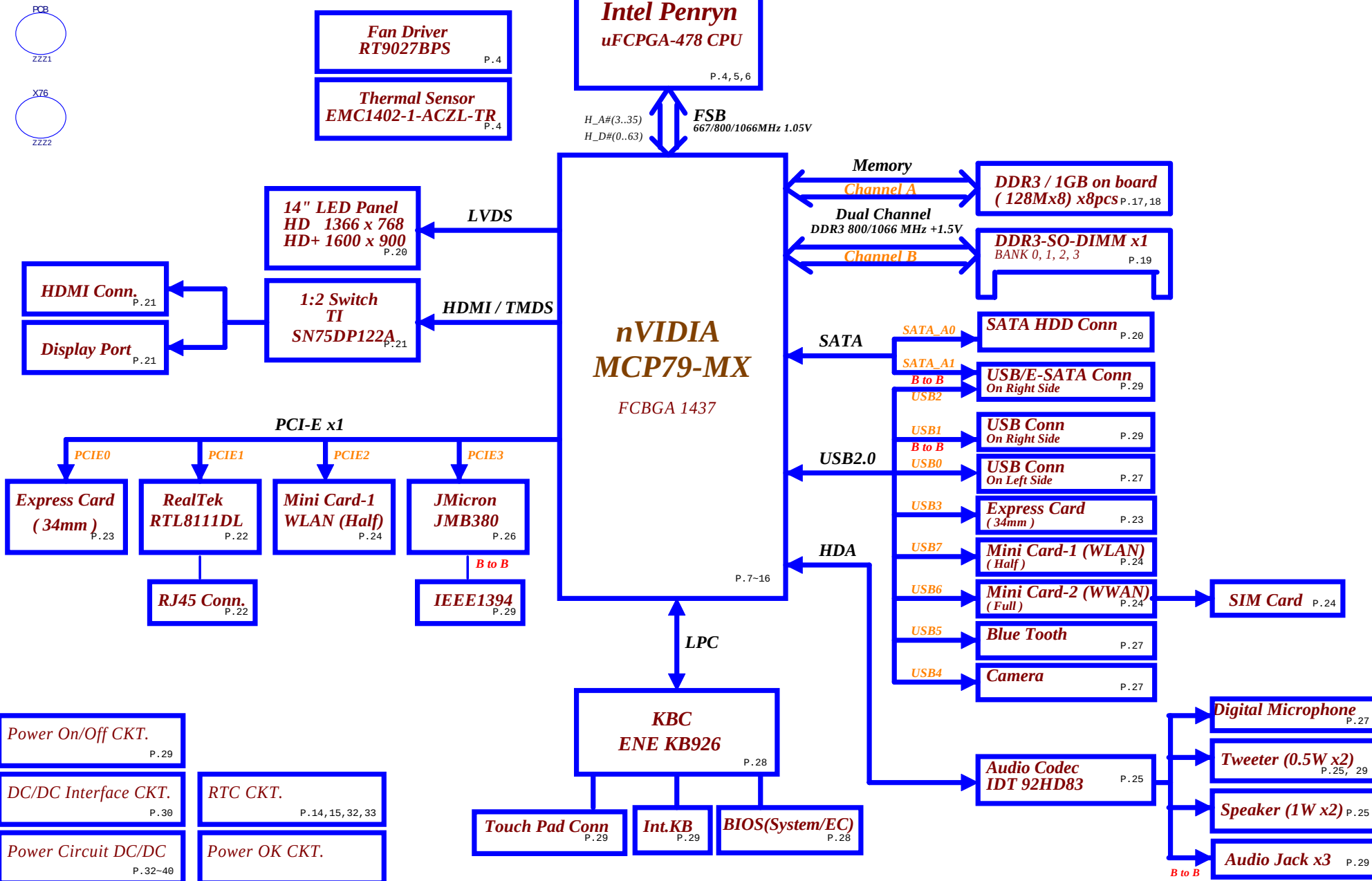
Compal Confidential

Schematic Document

MCP79-MX

2009 / 02 / 19 Rev:1.0

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2009/02/19	Deciphered Date	2009/12/31	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.				Cover Sheet	
				Size Custom	Document Number LA-4631P
				Date: Thursday, February 19, 2009	Rev 1.0
				Sheet 1 of 42	

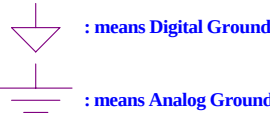


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date		2009/02/19		Deciphered Date	
				2009/12/31	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Title	
				Block Diagram	
				Size	Document Number
				LA-4631P	
				Date:	Thursday, February 19, 2009
				Sheet	2 of 42

Voltage Rails 0 MEANS ON X MEANS OFF

power plane	+B	+5VALW +3VALW +1.1VALW	+1.5V	+5VS +3VS +1.8VS +1.1VS +VCCP +1.0VS +0.75VS +CPU_CORE +1.5VS
State				
S0	0	0	0	0
S1	0	0	0	0
S3	0	0	0	X
S5 S4/AC	0	0	X	X
S5 S4/ Battery only	0	X	X	X
S5 S4/AC & Battery don't exist	X	X	X	X

Symbol Note :



@ : means just reserve , no build
DEBUG@ : means just reserve for debug.

Board 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	18K +/- 5%	0.436 V	0.503 V	0.538 V
2	33K +/- 5%	0.712 V	0.819 V	0.875 V
3	56K +/- 5%	1.036 V	1.185 V	1.264 V
4	100K +/- 5%	1.453 V	1.650 V	1.759 V
5	200K +/- 5%	1.935 V	2.200 V	2.341 V
6	NC	2.500 V	3.300 V	3.300 V
7				

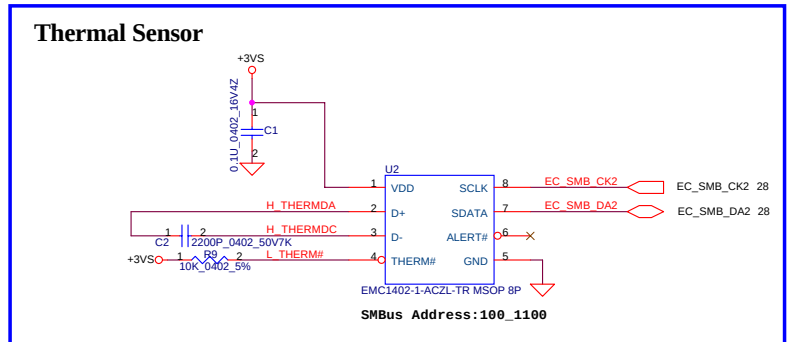
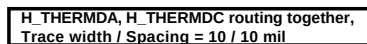
BOARD ID Table

Board ID	PCB Revision
0	0.1
1	0.2
2	0.3
3	0.4
4	0.5
5	1.0
6	
7	

SMBUS Control Table

	SOURCE	INVERTER	BATT	SERIAL EEPROM	THERMAL SENSOR (CPU)	SODIMM	EXP CARD	MINI CARD1	MINI CARD2
EC_SMB_CK1 EC_SMB_DA1	KB926	X	V	X	X	X	X	X	X
EC_SMB_CK2 EC_SMB_DA2	KB926	X	X	X	V	X	X	X	X
MEM_SMBCLK MEM_SMBDATA	MCP79	X	X	X	X	V	X	X	X
MCP_SMB_CLK MCP_SMB_DATA	MCP79	X	X	X	X	X	V	V	V

MINI CARD 1 RESERVED +3VALW TO PULL HIGH



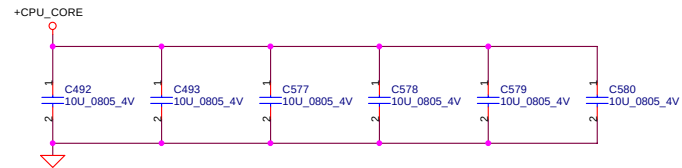
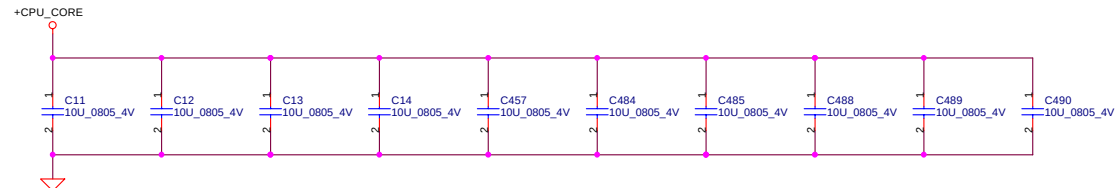
Security Classification				Compal Secret Data				Compal Electronics, Inc.			
Issued Date		2009/02/19		Deciphered Date		2009/12/31		Title Penryn(1/3)-AGTL+ITP-XDP			
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.								Size Document Number		Rev 1.0	
								Customer LA-4631P			
Date: Tuesday, February 24, 2009				Sheet		4		of		42	

Near CPU CORE regulator

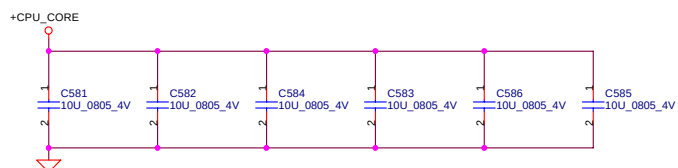
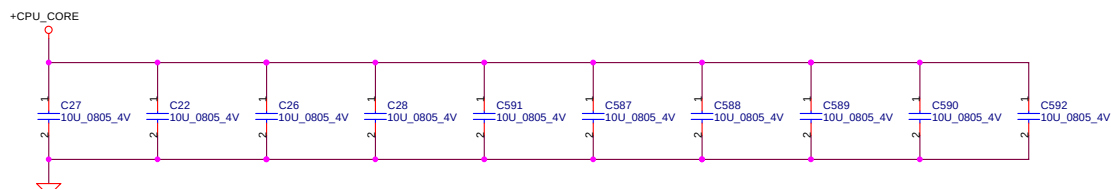
ESR <= 1.5m ohm
Capacitor > 1980uF

JCPU1D		
A4	VSS[001]	P6
A8	VSS[002]	P21
A11	VSS[003]	P24
A14	VSS[004]	R2
A16	VSS[005]	R5
A19	VSS[006]	R22
A23	VSS[007]	R25
A62	VSS[008]	T1
B6	VSS[008]	T4
B8	VSS[009]	T23
B11	VSS[011]	T26
B13	VSS[012]	U3
B16	VSS[013]	U6
B19	VSS[014]	U21
B21	VSS[015]	U24
B24	VSS[016]	V2
C5	VSS[016]	V5
C8	VSS[017]	V22
C11	VSS[018]	V25
C14	VSS[020]	W1
C16	VSS[021]	W4
C19	VSS[022]	W23
C2	VSS[023]	W26
C22	VSS[024]	Y3
C25	VSS[025]	Y6
D1	VSS[026]	Y21
D4	VSS[027]	Y24
D8	VSS[028]	AA2
D11	VSS[029]	AA5
D16	VSS[030]	AA11
D19	VSS[031]	AA12
D23	VSS[032]	AA14
D26	VSS[033]	AA16
E3	VSS[034]	AA19
E6	VSS[035]	AA22
E8	VSS[036]	AA25
E11	VSS[037]	AB1
E14	VSS[038]	AB4
E16	VSS[039]	AB8
E19	VSS[040]	AB11
E21	VSS[041]	AB13
E24	VSS[042]	AB16
F5	VSS[043]	AB19
F8	VSS[044]	AB23
F11	VSS[045]	AB26
F13	VSS[046]	AC3
F16	VSS[047]	AC6
F19	VSS[048]	AC8
F2	VSS[049]	AC11
F22	VSS[050]	AC14
F25	VSS[051]	AC16
G4	VSS[052]	AC19
G1	VSS[053]	AC21
G23	VSS[054]	AC24
G26	VSS[055]	AD2
H3	VSS[056]	AD5
H6	VSS[057]	AD8
H21	VSS[058]	AD11
H24	VSS[059]	AD13
J2	VSS[060]	AD16
J5	VSS[061]	AD19
J22	VSS[062]	AD22
J25	VSS[063]	AD25
K1	VSS[064]	AE1
K4	VSS[065]	AE4
K23	VSS[066]	AE8
K26	VSS[067]	AE11
L3	VSS[068]	AE14
L6	VSS[069]	AE16
L21	VSS[070]	AE19
L24	VSS[071]	AE23
M2	VSS[072]	AE26
M5	VSS[073]	A2
M22	VSS[074]	AF6
M25	VSS[075]	AF8
N1	VSS[076]	AF11
N4	VSS[077]	AF13
N23	VSS[078]	AF16
N26	VSS[079]	AF19
P3	VSS[080]	AF21
	VSS[081]	A25
		AF25

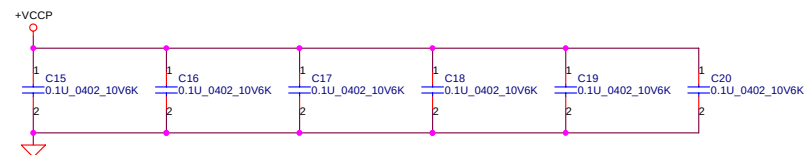
TYCO_2-1871873-3_Merom-D
CONN@



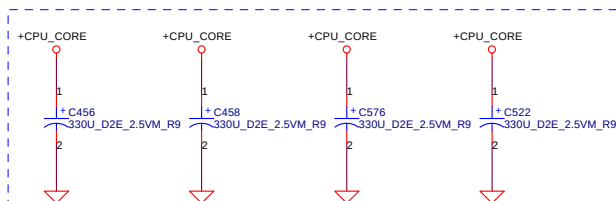
16pcs on TOP side



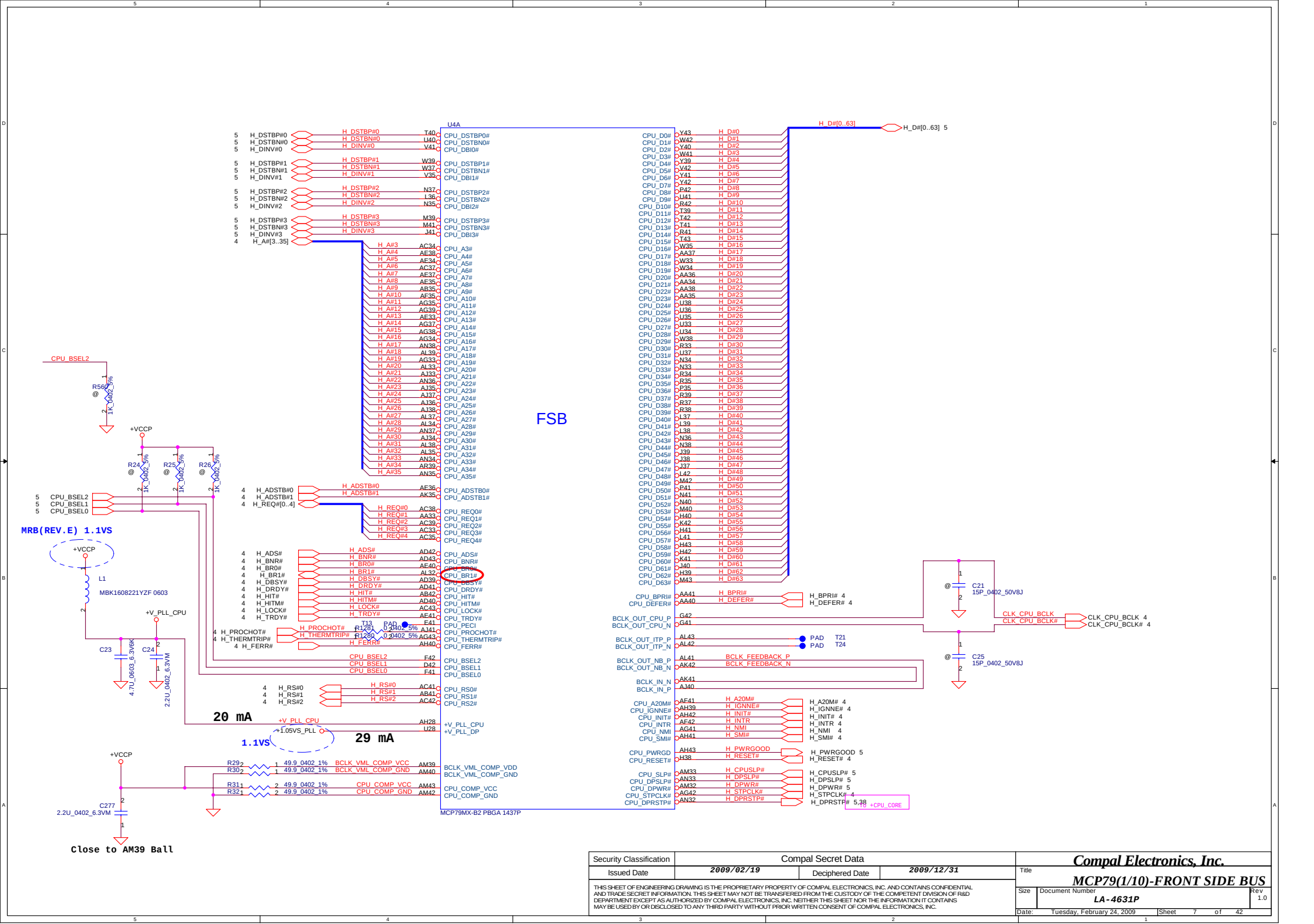
16pcs on bottom side



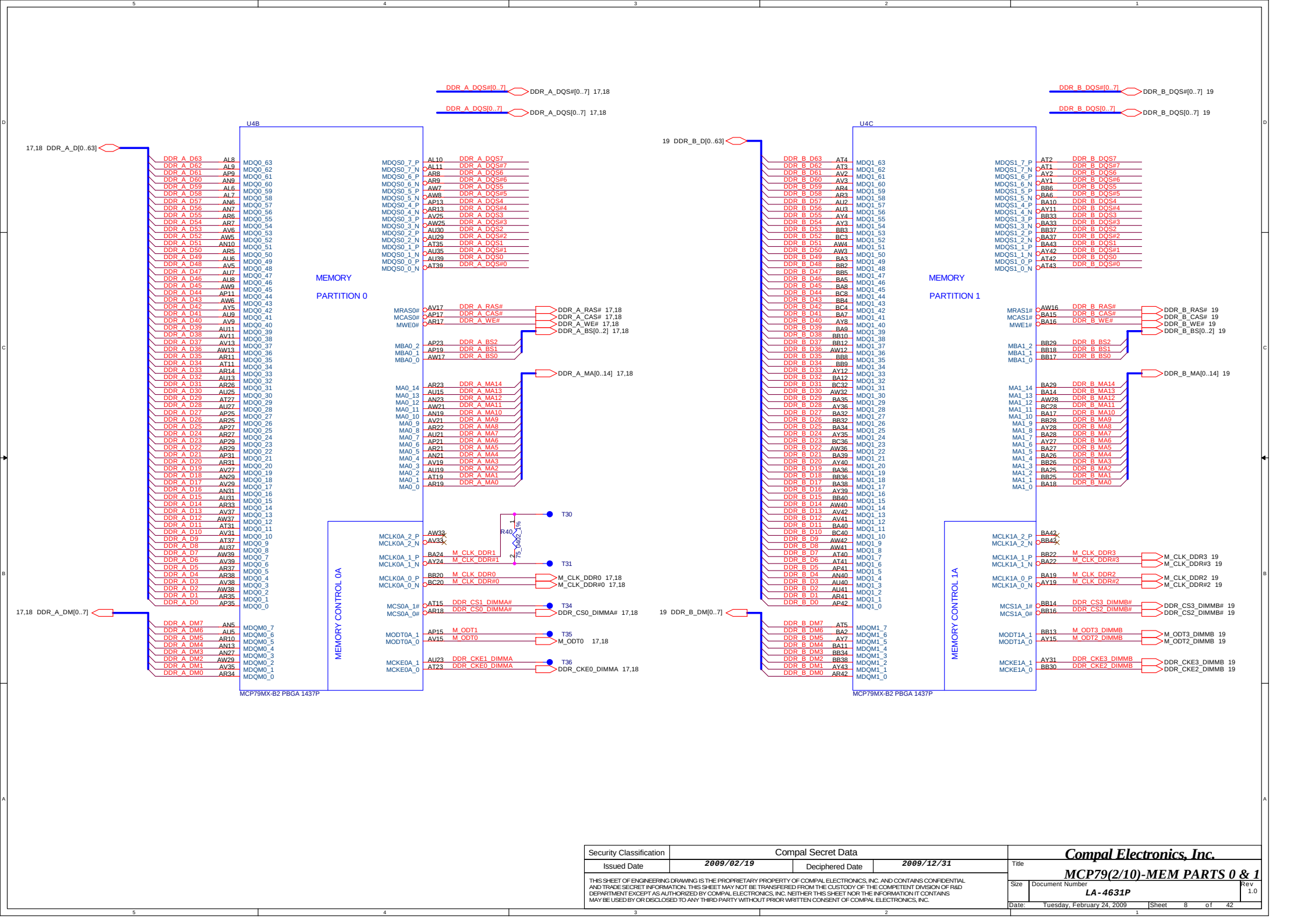
Place these caps inside the
socket cavity on Bottom side.
(North side Secondary)

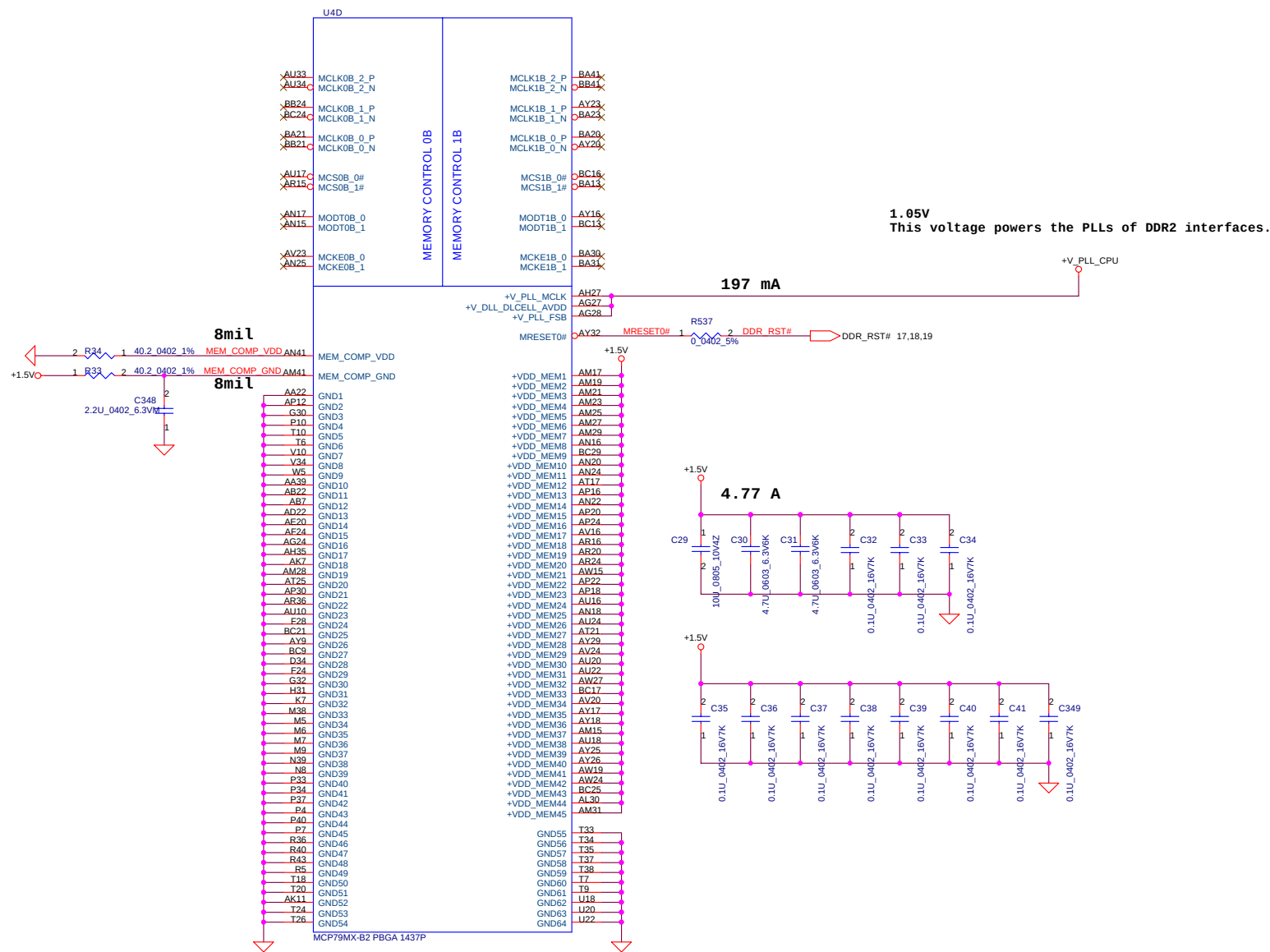


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/02/19	Deciphered Date	2009/12/31	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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
				Custom	LA-4631P
				Date	Thursday, February 19, 2009
				Sheet	6 of 42
				Rev	1.0

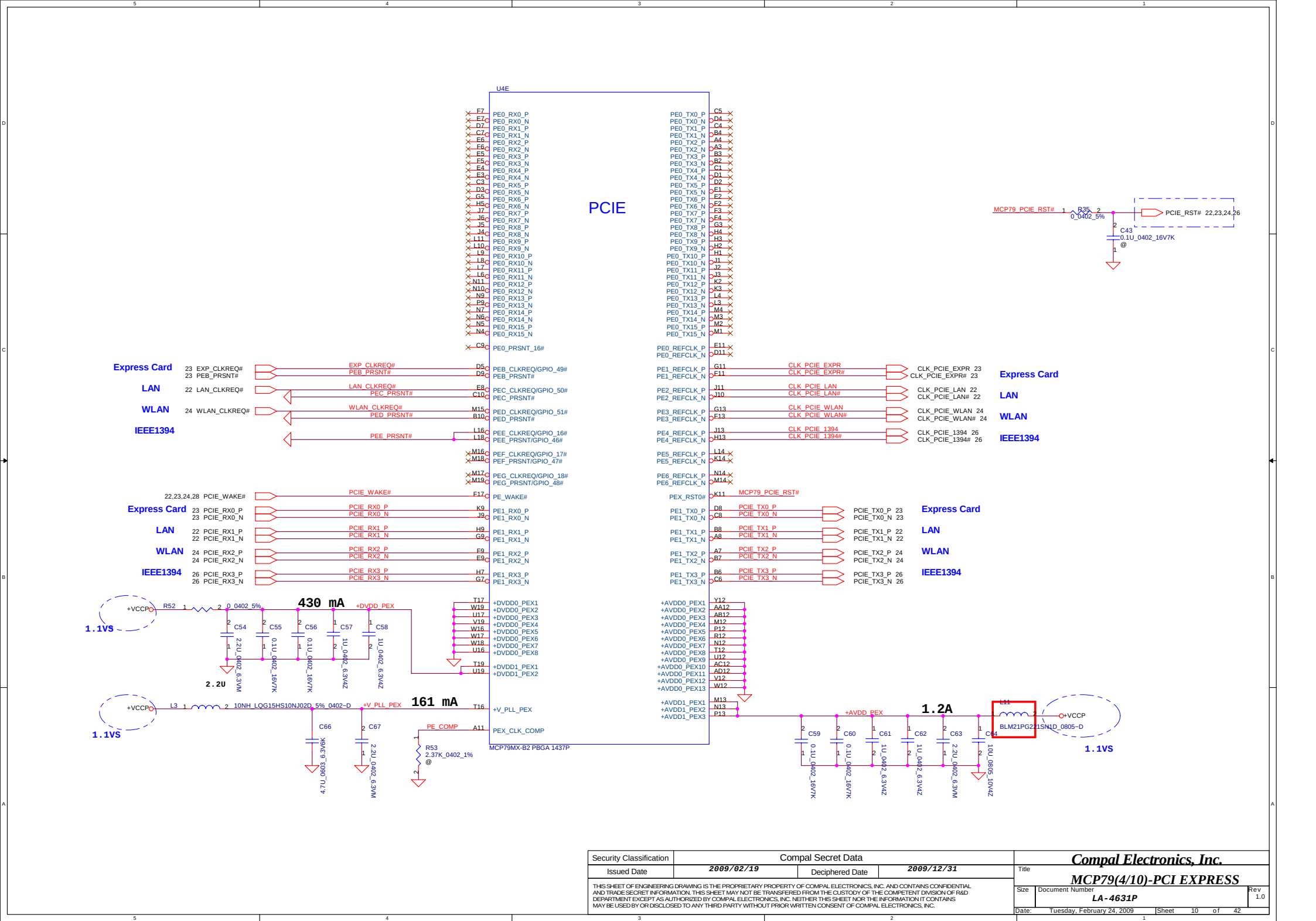


Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2009/02/19	Deciphered Date	2009/12/31	Title	MCP79(1/10)-FRONT SIDE BUS	
THIS SECRET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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
					LA-4631P	1.0
Date:				Tuesday, February 24, 2009	Sheet	7 of 42

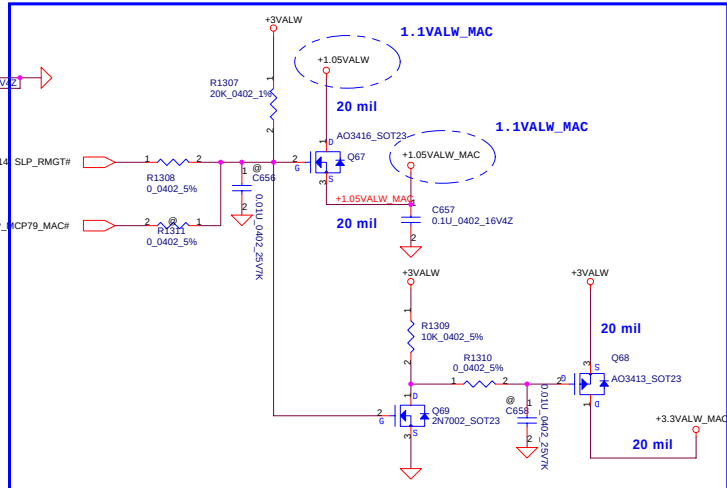




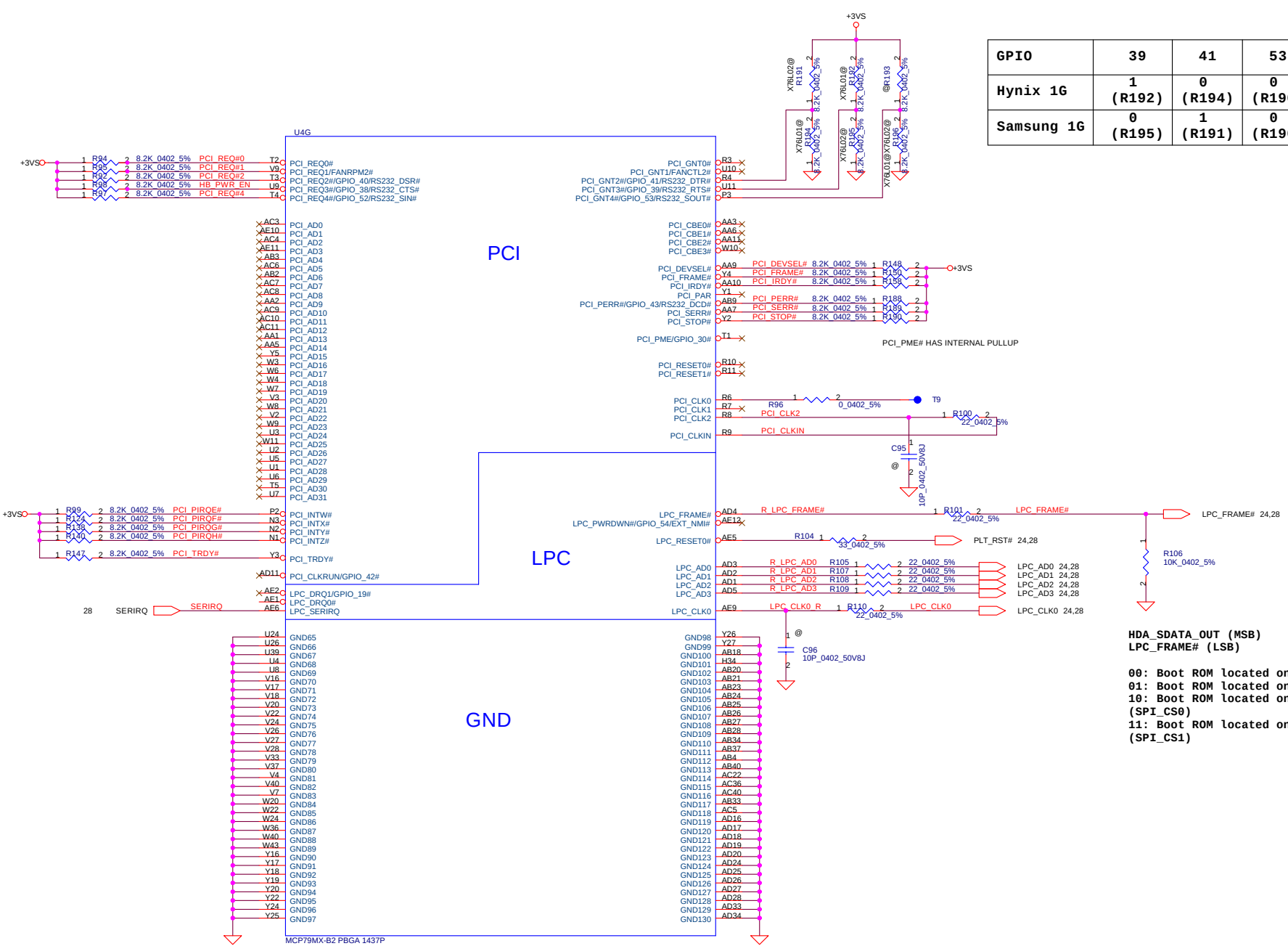
Security Classification		Compal Secret Data		Title	
Issued Date	2009/02/19	Deciphered Date	2009/12/31	MCP79(3/10)-MEM CNTL 0B&1B	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				LA-4631P	Rev 1.0
				Date	Tuesday, February 24, 2009
				Sheet	9 of 42



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/02/19	Deciphered Date	2009/12/31	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. IT 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.				MCP79(4/10)-PCI EXPRESS
LA-4631P				Rev 1.0
Date: Tuesday, February 24, 2009				Sheet 10 of 42



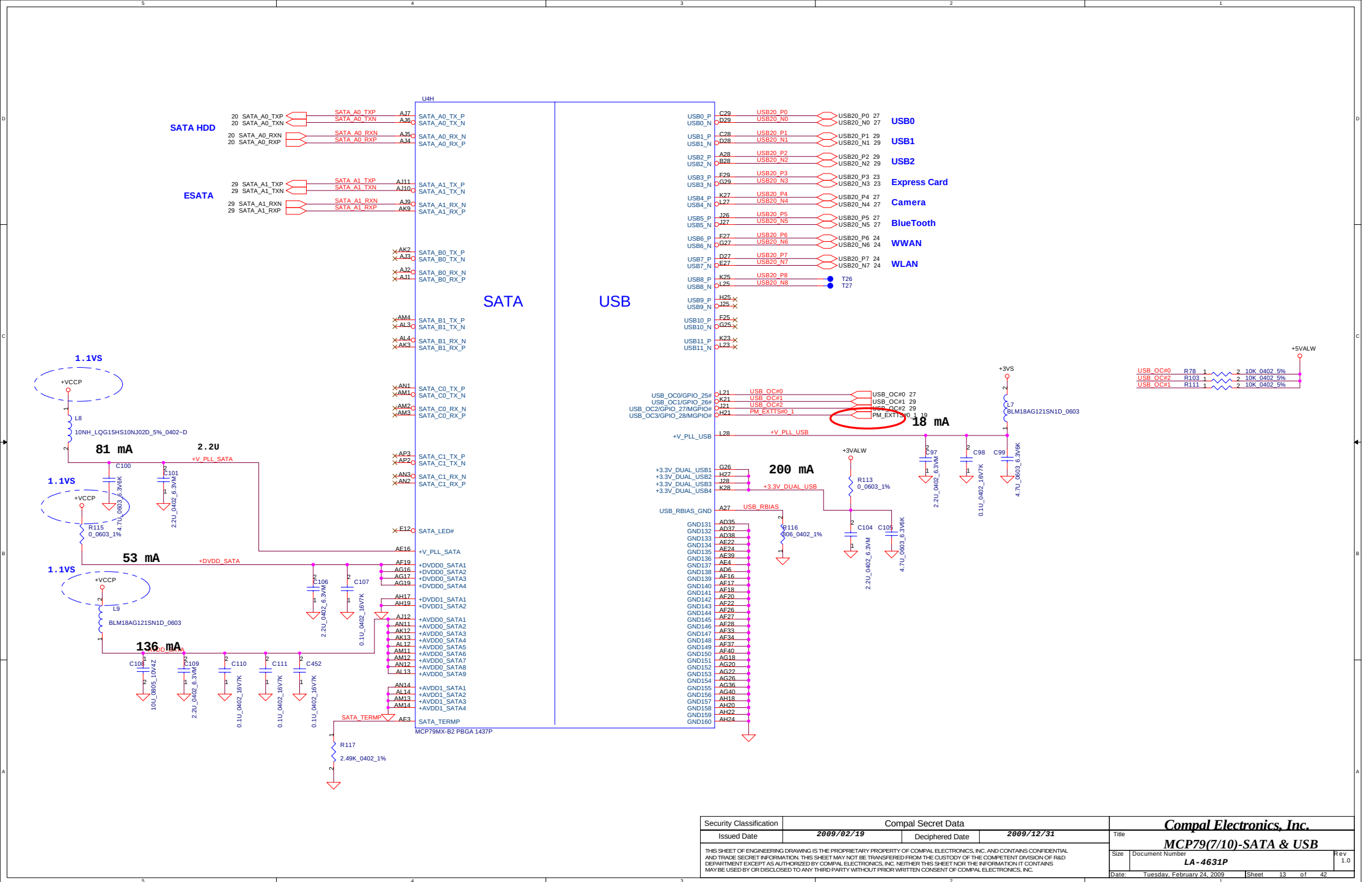
Security Classification		Compal Secret Data		Compal Electronics, Inc. MCP79(5/10)-LAN,RGB,T,V,LVD	
Issued Date	2009/02/19	Deciphered Date	2009/12/31	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D TO ANY OTHER DIVISION OR PERSON WITHOUT THE WRITTEN AUTHORIZATION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number LA-4631P
Date:	Tuesday, February 24, 2009	Sheet	11	of	42



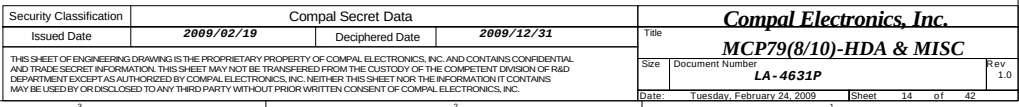
GPIO	39	41	53
Hynix 1G	1 (R192)	0 (R194)	0 (R196)
Samsung 1G	0 (R195)	1 (R191)	0 (R196)

HDA_SDATA_OUT (MSB)
LPC_FRAME# (LSB)

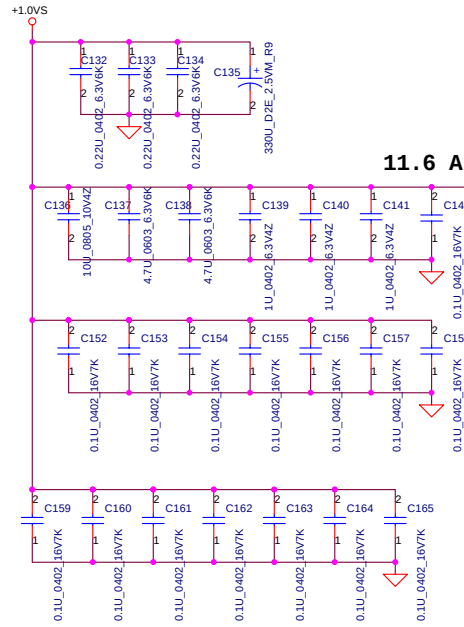
00: Boot ROM located on LPC bus
01: Boot ROM located on PCI bus
10: Boot ROM located on SPI bus (SPI_CS0)
11: Boot ROM located on SPI bus (SPI_CS1)



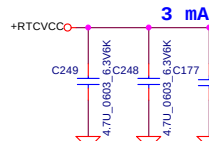
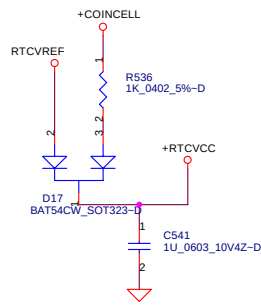
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/02/19	Deciphered Date	2009/12/31	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				MCP79(7/10)-SATA & USB	
Size	Document Number	LA - 4631P		Rev	1.0
Date:	Tuesday, February 24, 2009	Sheet	13	of	42



0.75V ~ 1.05 V



RTC Battery



11.6 A

AA25 +VDD CORE1
AC23 +VDD CORE2
U25 +VDD CORE3
AH12 +VDD CORE4
AG10 +VDD CORE5
AG5 +VDD CORE6
Y21 +VDD CORE7
Y23 +VDD CORE8
AA16 +VDD CORE9
AA26 +VDD CORE10
AA27 +VDD CORE11
AA28 +VDD CORE12
AC16 +VDD CORE13
AC17 +VDD CORE14
AC18 +VDD CORE15
AC19 +VDD CORE16
AC20 +VDD CORE17
AC21 +VDD CORE18
AA17 +VDD CORE19
AC24 +VDD CORE20
AC25 +VDD CORE21
AC26 +VDD CORE22
AC27 +VDD CORE23
AC28 +VDD CORE24
AD21 +VDD CORE25
AD23 +VDD CORE26
W27 +VDD CORE27
V25 +VDD CORE28
AA18 +VDD CORE29
AE19 +VDD CORE30
AE21 +VDD CORE31
AE23 +VDD CORE32
AE25 +VDD CORE33
AE26 +VDD CORE34
AE27 +VDD CORE35
AE28 +VDD CORE36
AE10 +VDD CORE37
AE11 +VDD CORE38
AA19 +VDD CORE39
AF2 +VDD CORE40
AE21 +VDD CORE41
AE23 +VDD CORE42
AE25 +VDD CORE43
AE27 +VDD CORE44
AF4 +VDD CORE45
AF7 +VDD CORE46
AH23 +VDD CORE47
AE9 +VDD CORE48
AA20 +VDD CORE49
AG11 +VDD CORE50
AG12 +VDD CORE51
AG21 +VDD CORE52
AG23 +VDD CORE53
AG25 +VDD CORE54
AG3 +VDD CORE55
AG4 +VDD CORE56
AA21 +VDD CORE57
AG6 +VDD CORE58
AG7 +VDD CORE59
AG8 +VDD CORE60
AG9 +VDD CORE61
AH1 +VDD CORE62
AH10 +VDD CORE63
AH11 +VDD CORE64
AH12 +VDD CORE65
W26 +VDD CORE66
AH2 +VDD CORE67
AA23 +VDD CORE68
W28 +VDD CORE69
AH25 +VDD CORE70
AH21 +VDD CORE71
AH3 +VDD CORE72
AH4 +VDD CORE73
AH5 +VDD CORE74
AH6 +VDD CORE75
AH7 +VDD CORE76
AH9 +VDD CORE77
AA24 +VDD CORE78
W21 +VDD CORE79
W23 +VDD CORE80
W25 +VDD CORE81
AE12 +VDD CORE82

POWER

+VTT_CPU1 R32
+VTT_CPU2 AC32
+VTT_CPU3 E40
+VTT_CPU4 J36
+VTT_CPU5 T32
+VTT_CPU6 T32
+VTT_CPU7 U32
+VTT_CPU8 W32
+VTT_CPU9 W32
+VTT_CPU10 P31
+VTT_CPU11 AE32
+VTT_CPU12 AE32
+VTT_CPU13 AH32
+VTT_CPU14 AJ32
+VTT_CPU15 AK31
+VTT_CPU16 AK32
+VTT_CPU17 AD32
+VTT_CPU18 AL31

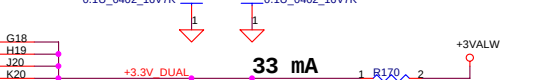
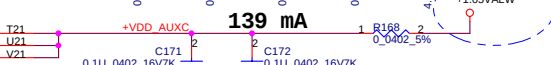
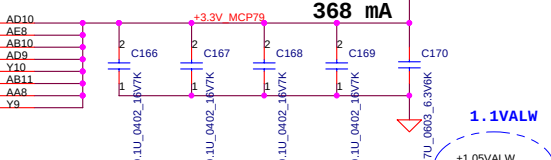
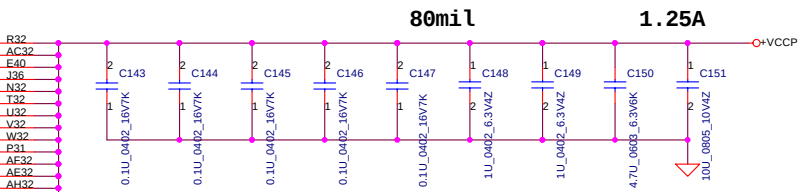
+VTT_CPU20 B41
+VTT_CPU21 B42
+VTT_CPU22 C40
+VTT_CPU23 C41
+VTT_CPU24 C42
+VTT_CPU25 D40
+VTT_CPU26 D41
+VTT_CPU27 D41
+VTT_CPU28 E38
+VTT_CPU29 E39
+VTT_CPU30 F37
+VTT_CPU31 F38
+VTT_CPU32 F39
+VTT_CPU33 G36
+VTT_CPU34 G37
+VTT_CPU35 G38
+VTT_CPU36 H35
+VTT_CPU37 H37
+VTT_CPU38 I34
+VTT_CPU39 I35
+VTT_CPU40 K33
+VTT_CPU41 K34
+VTT_CPU42 K35
+VTT_CPU43 L32
+VTT_CPU44 L33
+VTT_CPU45 L34
+VTT_CPU46 M31
+VTT_CPU47 M32
+VTT_CPU48 M33
+VTT_CPU49 N31
+VTT_CPU50 P32
+VTT_CPU51 Y32
+VTT_CPU52 AA32
+VTT_CPU53 AB32

+VTT_CPUCLK AG32

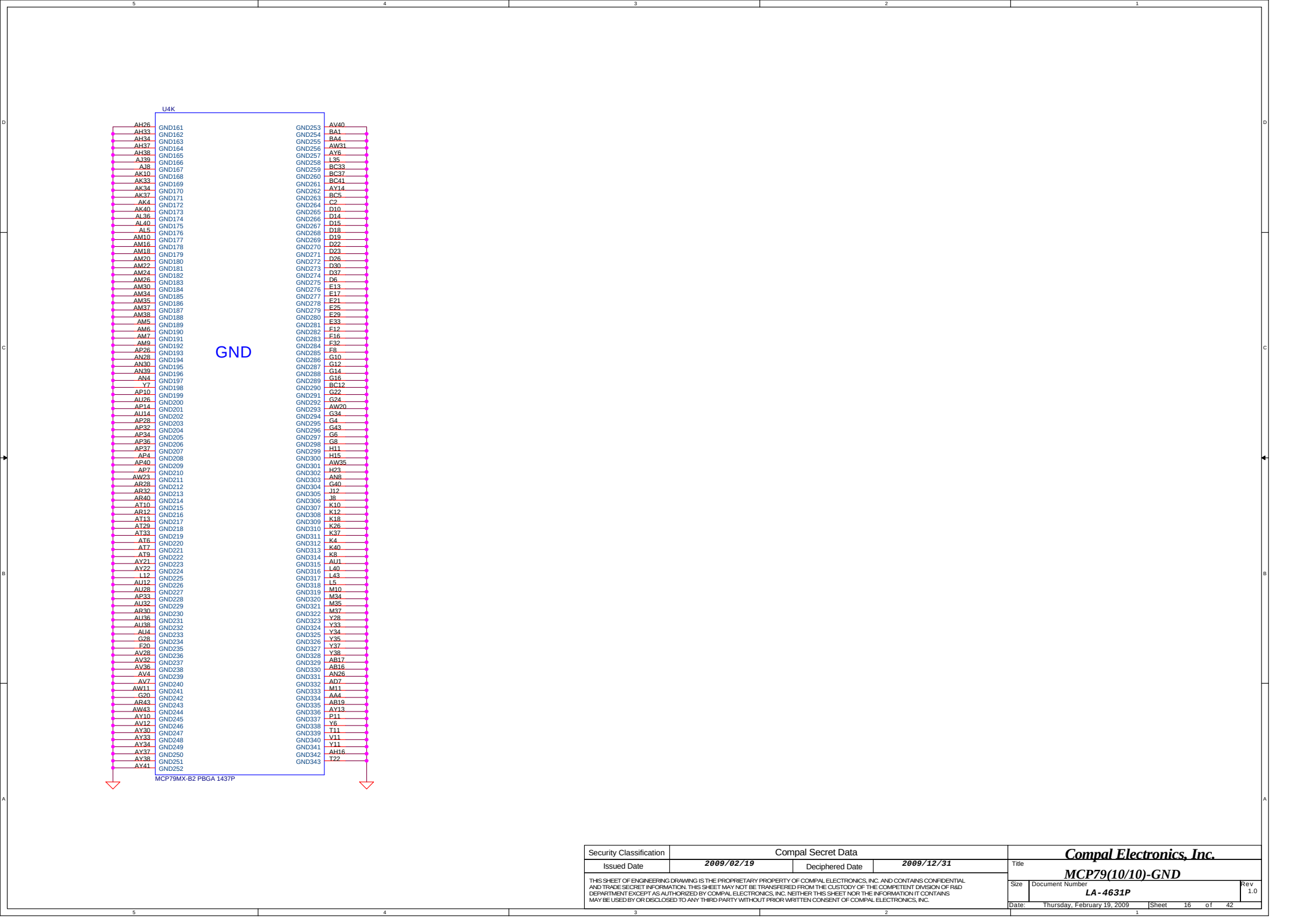
+3.3V_1 AD10
+3.3V_2 AE8
+3.3V_3 AB10
+3.3V_4 AD8
+3.3V_5 Y10
+3.3V_6 AB11
+3.3V_7 AA8
+3.3V_8 Y9

+VDD_AUXC1 T21
+VDD_AUXC2 U21
+VDD_AUXC3 V21

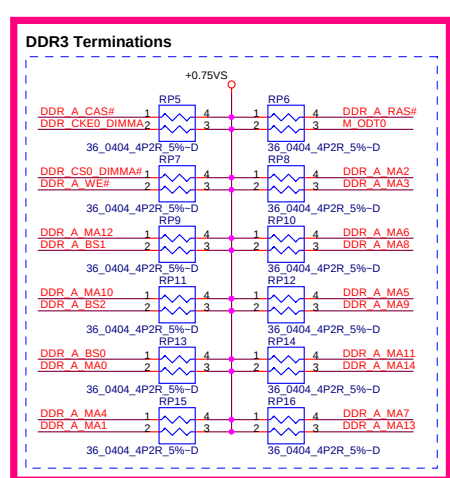
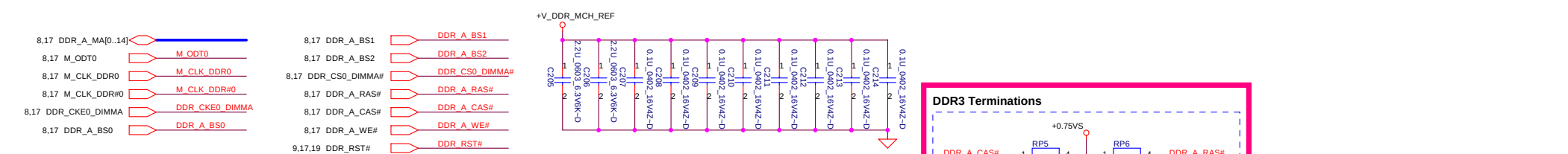
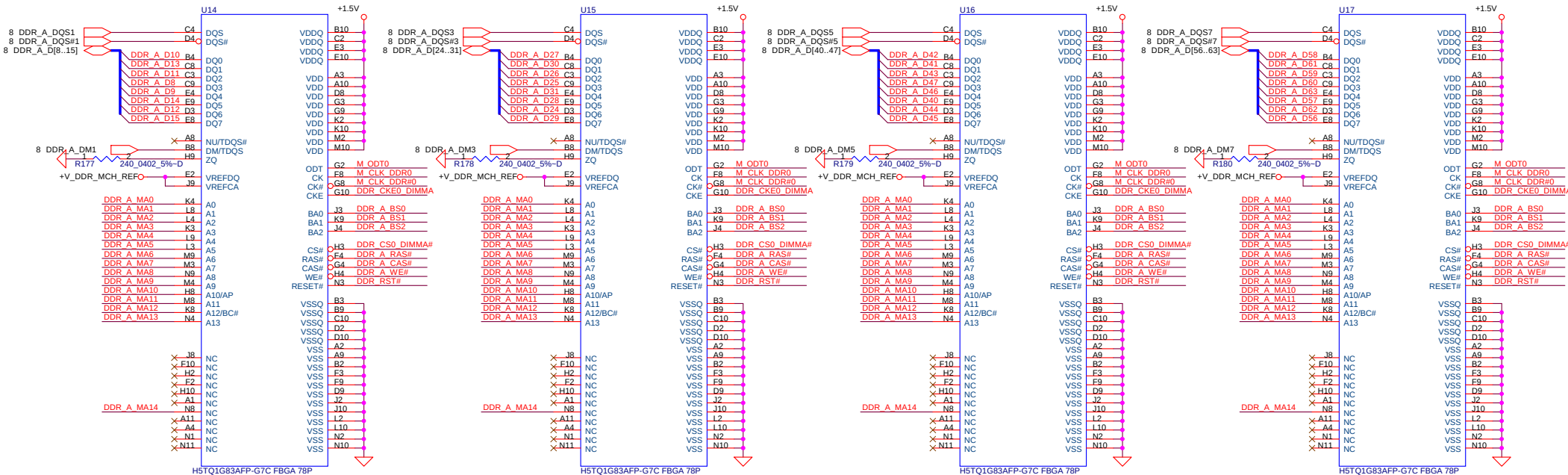
+3.3V_DUAL1 G18
+3.3V_DUAL2 H19
+3.3V_DUAL3 J20
+3.3V_DUAL4 K20



Security Classification	Compal Secret Data		Title	
Issued Date	2009/02/19	Deciphered Date	2009/12/31	MCP79(9/10)-POWER&RTC Batt
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 1.0
Date: Thursday, February 19, 2009				Sheet 15 of 42



Security Classification	Compal Secret Data			Title		
Issued Date	2009/02/19	Deciphered Date	2009/12/31	MCP79(10/10)-GND		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev
					LA-4631P	1.0
Date: Thursday, February 19, 2009				Sheet	16	of 42



Place decaps close end termination resistors, one decap for 4 resistors

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

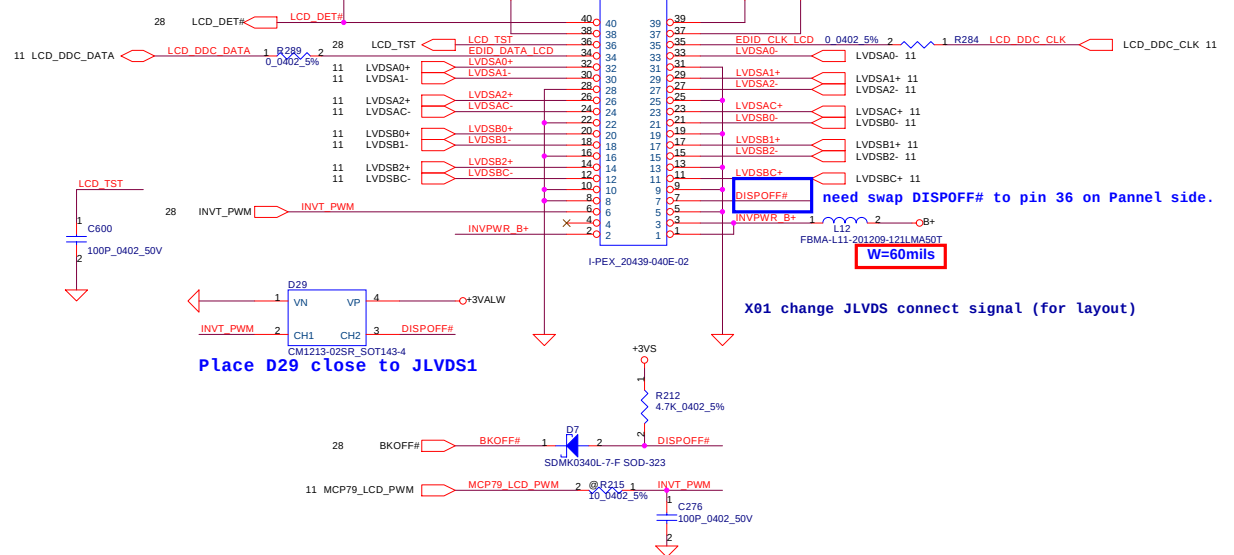
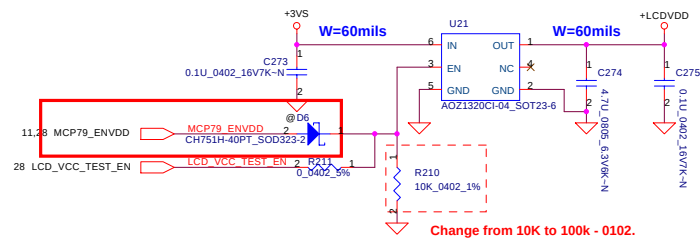
DRR11-Memory Down (Bottom)

LA-4631P

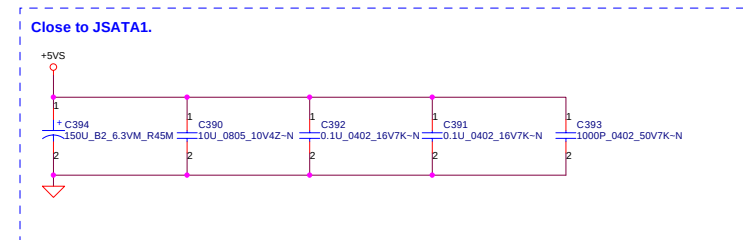
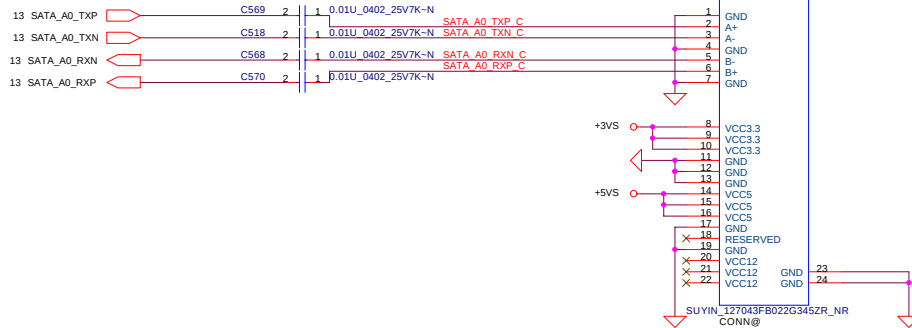
Rev 1.0

PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL"). THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT DELL'S EXPRESS WRITTEN CONSENT.

LCD



SATA HDD



Security Classification		Compal Secret Data		Compal Electronics, Inc. LCD/SATA HDD	
Issued Date	2009/02/19	Deciphered Date	2009/12/31	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Rev
				Custom	1.0
				Date: Tuesday, February 24, 2009 Sheet 20 of 42	

The schematic diagram illustrates the HDMI connection between the AT91SAM9263 and the FOX Q3519R-NV6T-7F CONN@. The power supply section includes a +5V input connected to a voltage divider (R399, R400) and a +3V input connected to a voltage divider (R399, R400). The HDMI_DET_C signal is connected to the HDMI_DET_C pin of the FOX Q3519R-NV6T-7F CONN@. The SCL, SDA, and DVI signals are connected to the corresponding pins of the FOX Q3519R-NV6T-7F CONN@. The DVI signals are connected to the DVI pins of the FOX Q3519R-NV6T-7F CONN@.

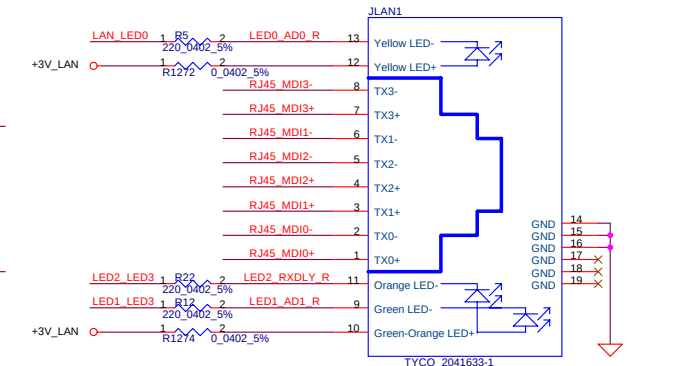
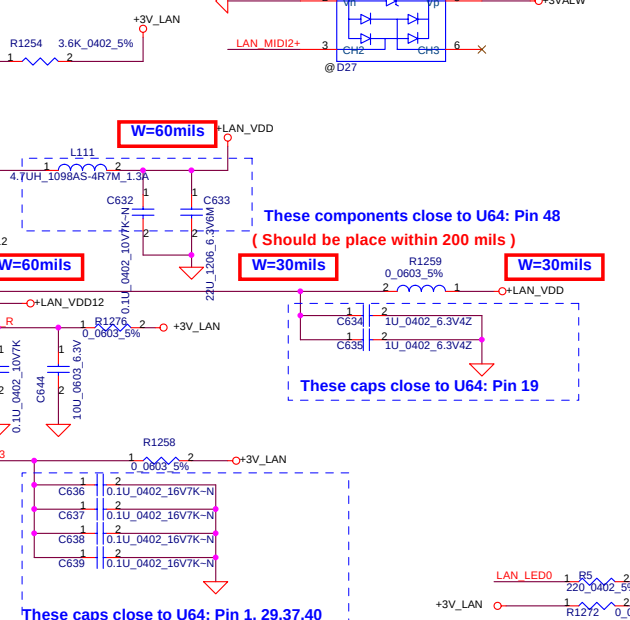
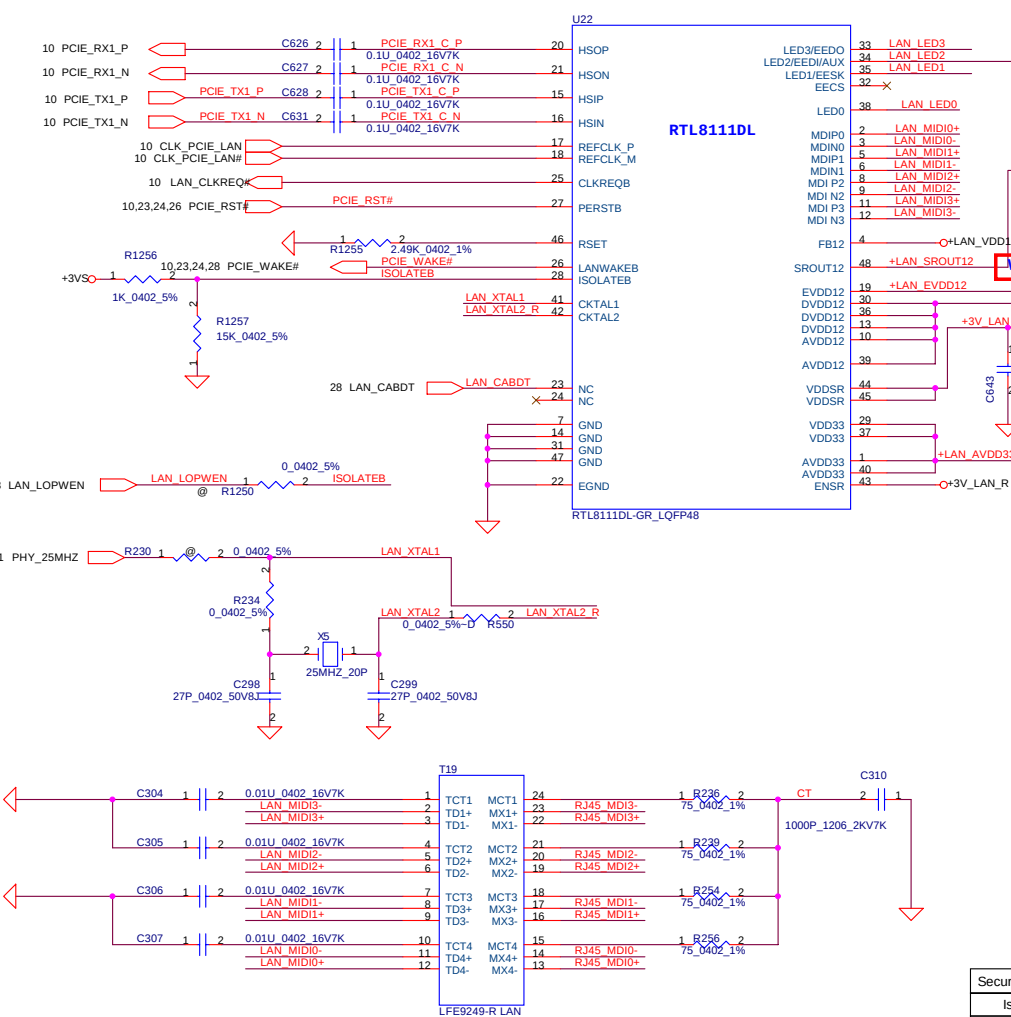
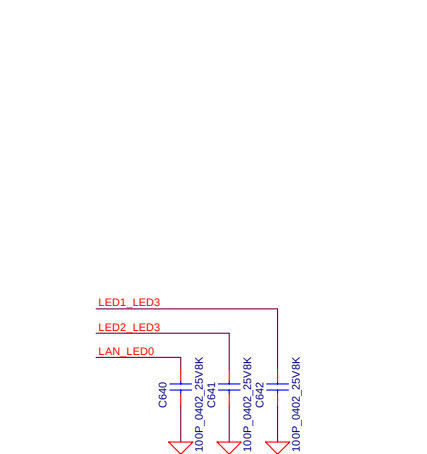
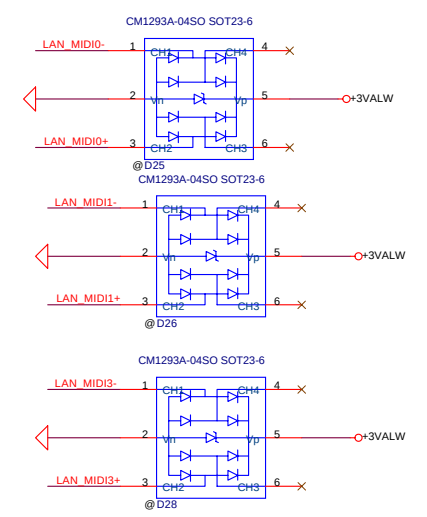
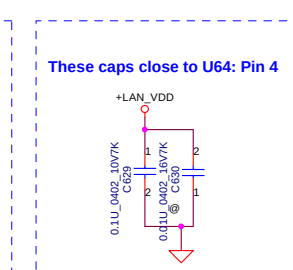
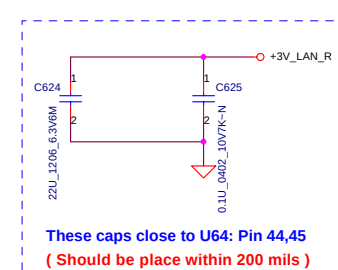
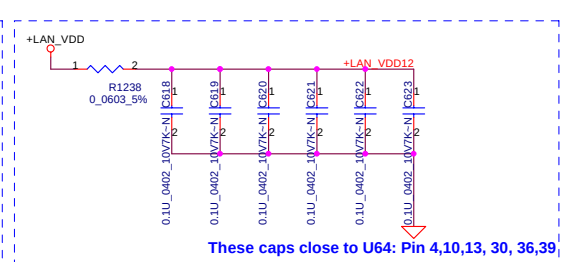
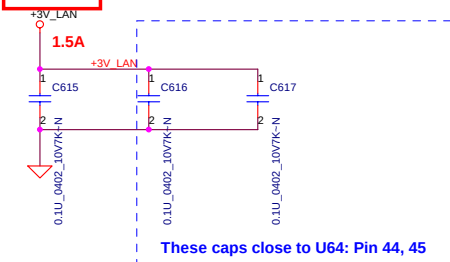
Figure 10 displays four schematic diagrams of the differential signal paths (TXD1, TXD2, TXD0, TXD0+) for the VGA DVI interface. Each diagram shows the signal flow from the VGA DVI input (TXD1-, TXD1+, TXD2-, TXD2+, TXD0-, TXD0+) through a SuperWorld OCE20121207ZF component, which is a differential signal conditioner. The output of the conditioner is connected to the DVI TX output (TXD1-, TXD1+, TXD2-, TXD2+, TXD0-, TXD0+). The conditioner is configured with a 0.0402 5% resistor and a 2F capacitor. The input and output signals are labeled as follows:

- TXD1:** VGA DVI.TXD1- (Input), DVI.TXD1- (Output), VGA DVI.TXD1+ (Input), DVI.TXD1+ (Output).
- TXD2:** VGA DVI.TXD2- (Input), DVI.TXD2- (Output), VGA DVI.TXD2+ (Input), DVI.TXD2+ (Output).
- TXD0:** VGA DVI.TXD0- (Input), DVI.TXD0- (Output), VGA DVI.TXD0+ (Input), DVI.TXD0+ (Output).
- TXD0+:** VGA DVI.TXD0- (Input), DVI.TXD0- (Output), VGA DVI.TXD0+ (Input), DVI.TXD0+ (Output).

Security Classification	Compal Secret Data		
Issued Date	2009/02/19	Deciphered Date	2009/12/31
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			

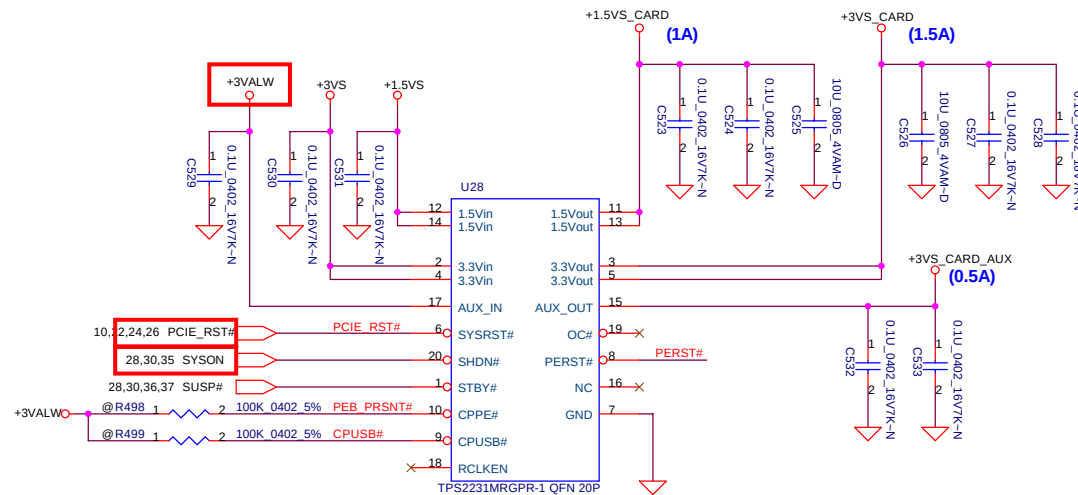
Size	Document Number	Rev
Custom	LA-4631P	1.0
Date:	Tuesday, February 24, 2009	Sheet 21 of 42

Date: Tuesday, February 24, 2009 Sheet 21 of 42

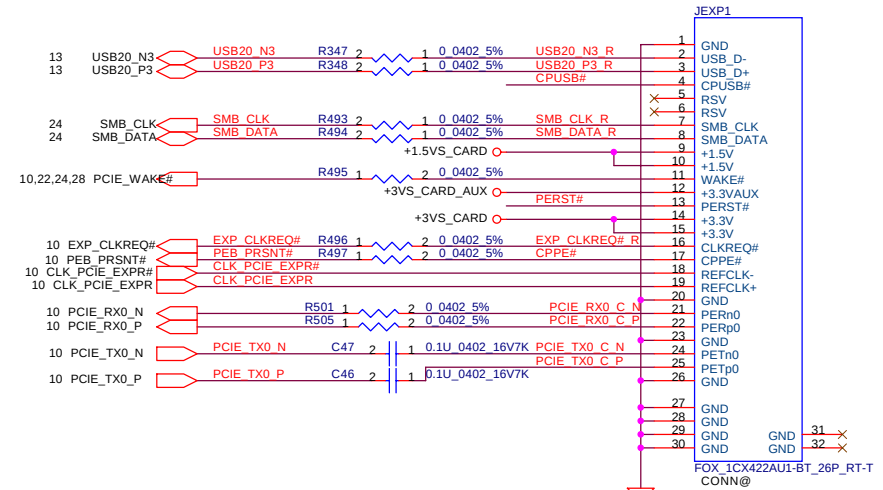


Security Classification		Compal Secret Data		Compal Electronics, Inc.			
Issued Date	2009/02/19	Deciphered Date	2009/12/31	Title	Gigabit LAN RTL8111DL		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev	
				Custom	LA-4631P	1.0	
				Date:	Tuesday, February 24, 2009	Sheet	22 of 42

Express Card Power Switch

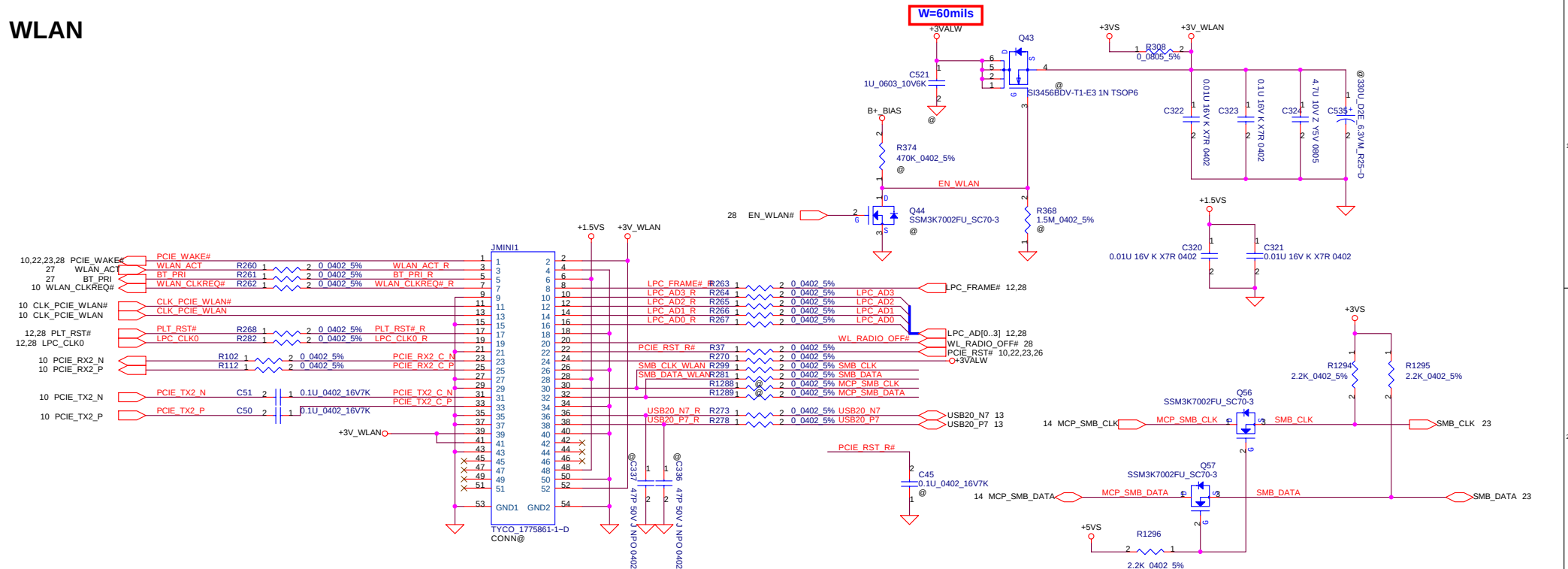
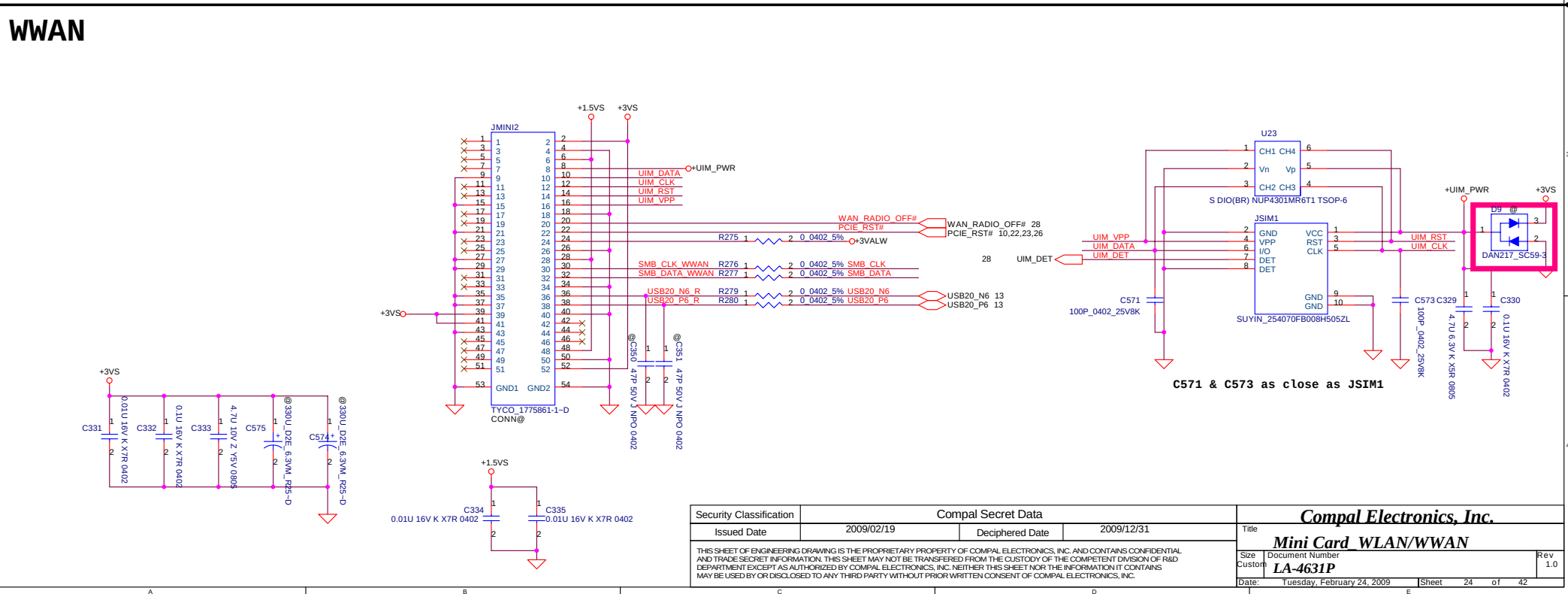


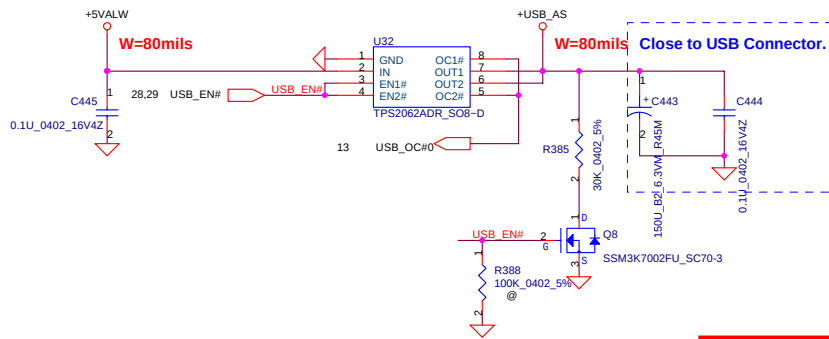
Express Card



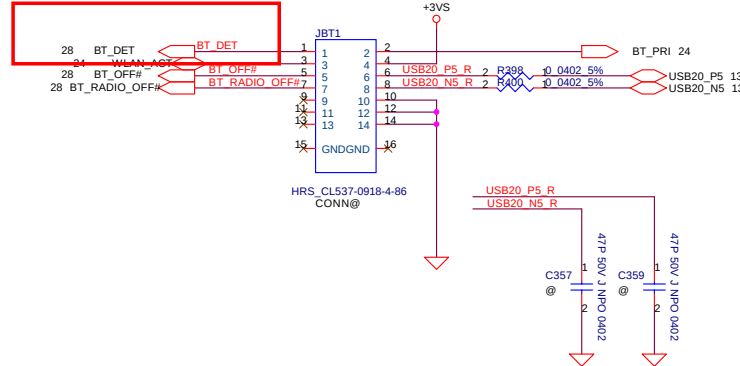
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/02/19	Deciphered Date	2009/12/31	Title	Express Card
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-4631P
				Date	Tuesday, February 24, 2009
				Sheet	23 of 42
				Rev	1.0

WLAN

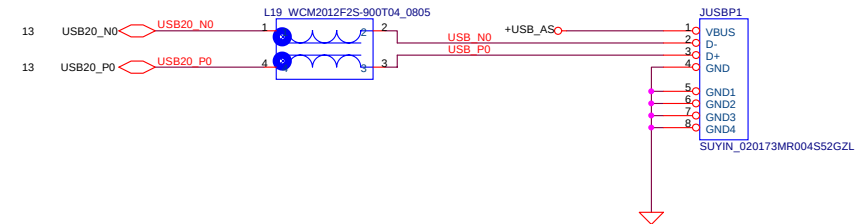
**WWAN**



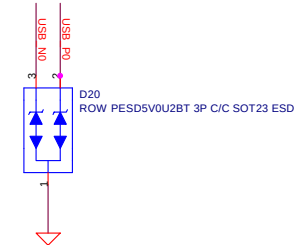
Bluetooth



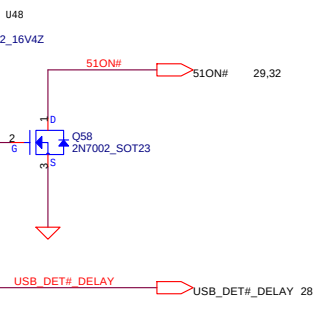
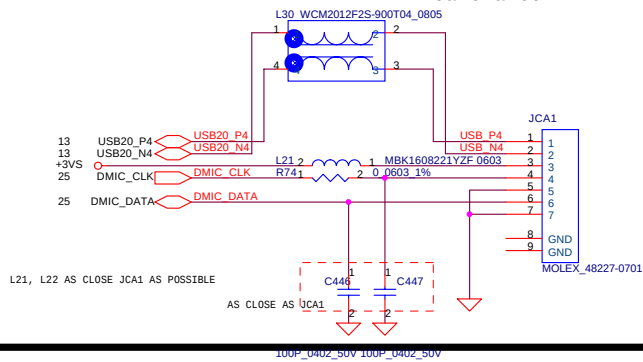
W=80mils



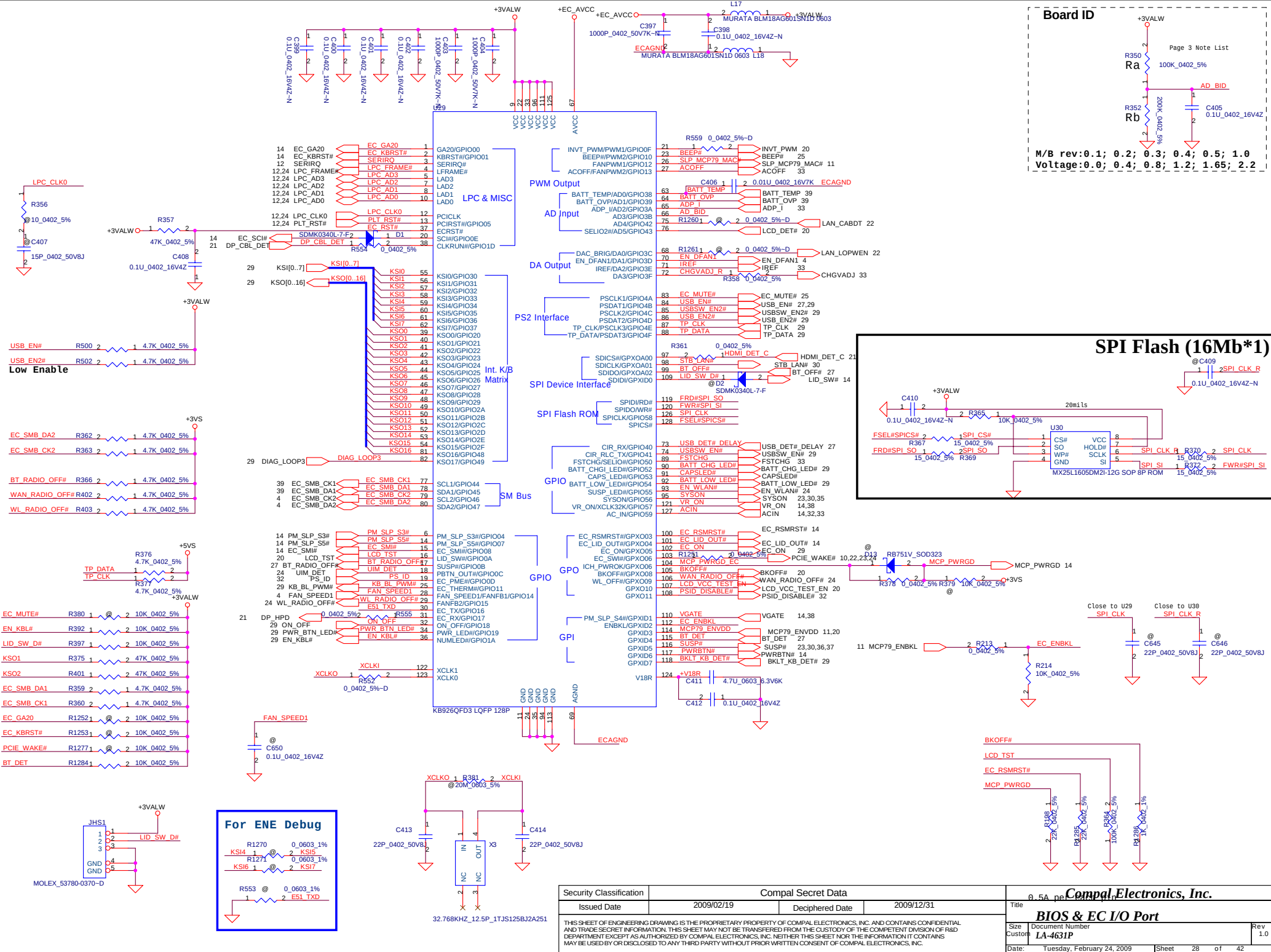
change JUSBP1 connect signal (for layout)



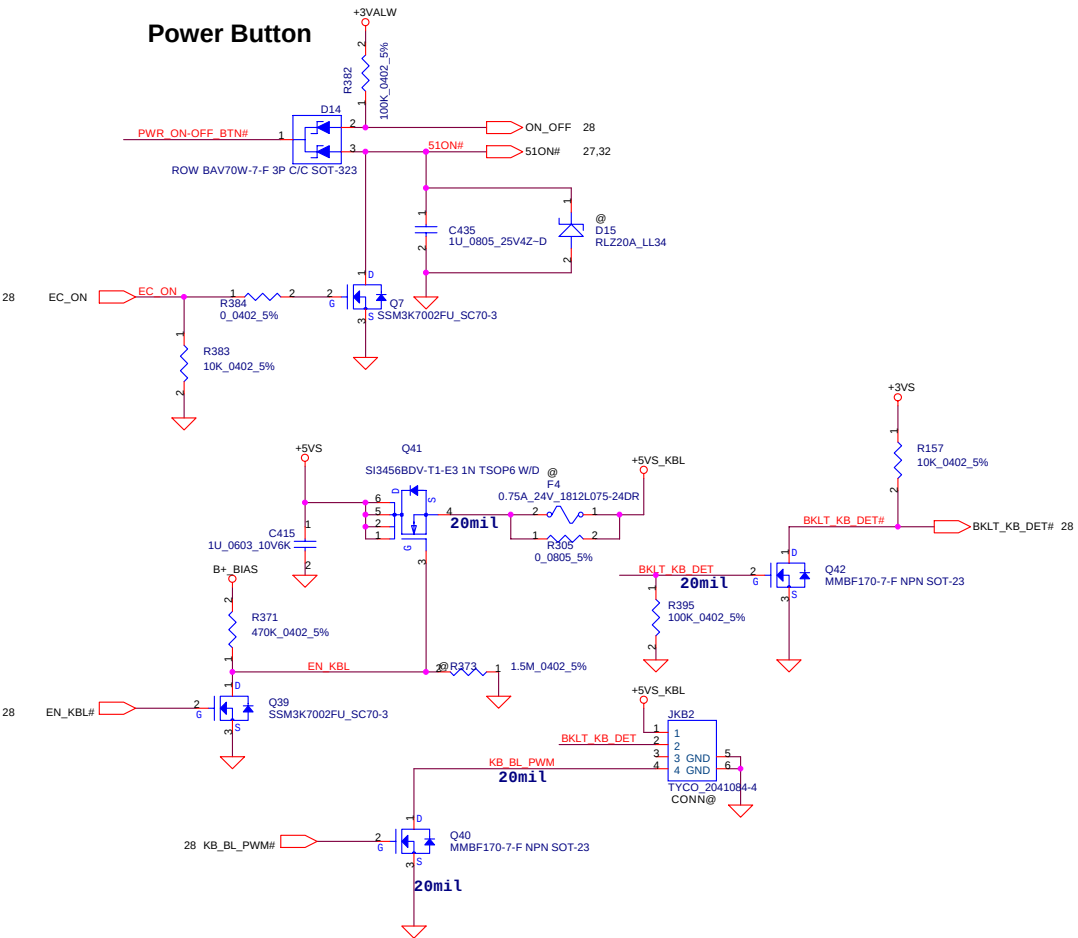
Camera Conn



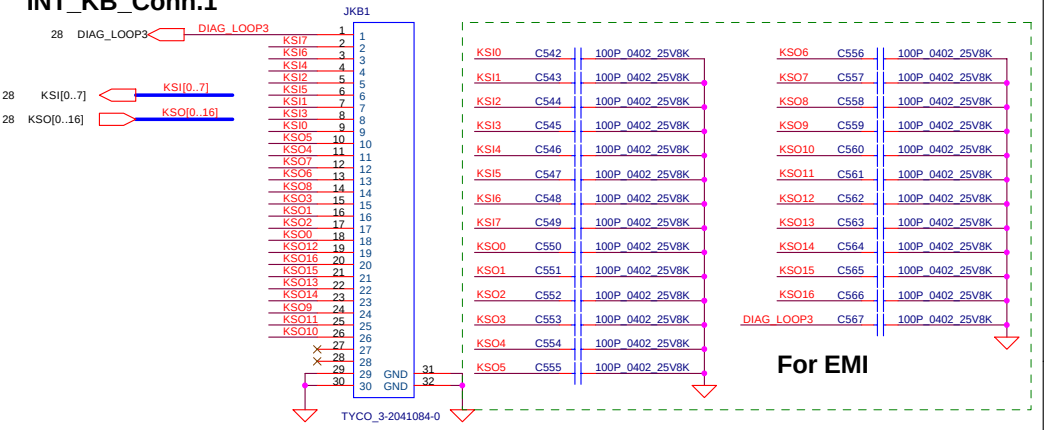
Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2009/02/19	Deciphered Date	2009/12/31	Title		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				USB/Bluetooth/FP/Felcia		
Size	Document Number	Rev		1.0		
Custom	LA-4631P	Date:		Tuesday, February 24, 2009		
Sheet		27		of 42		



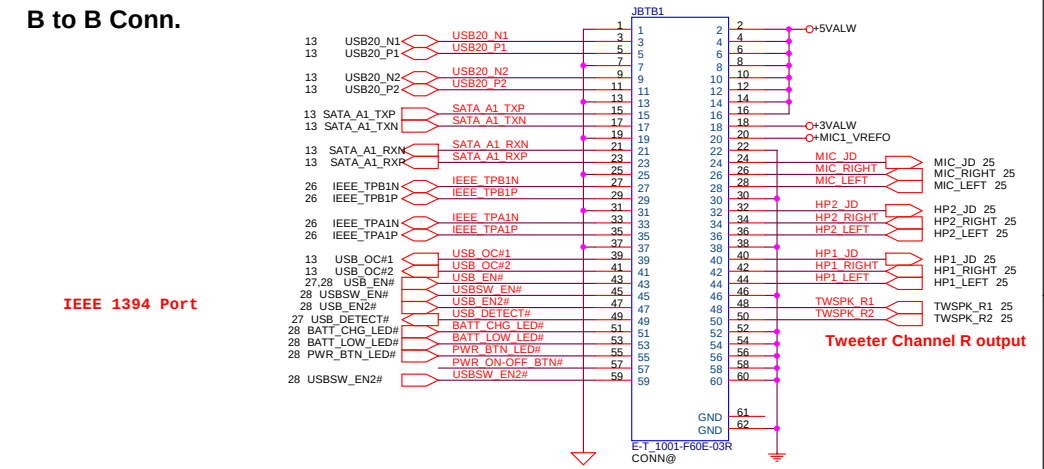
Power Button



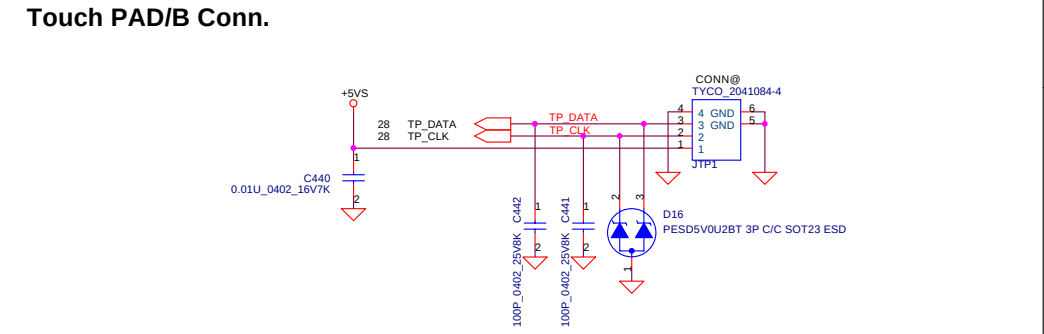
INT_KB_Conn.1



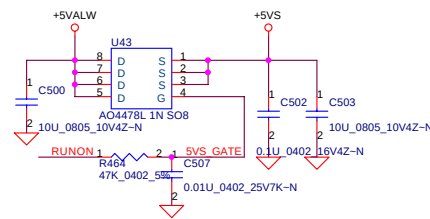
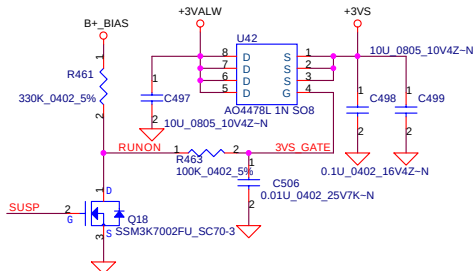
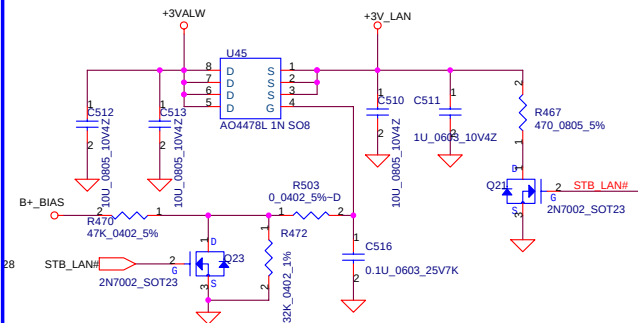
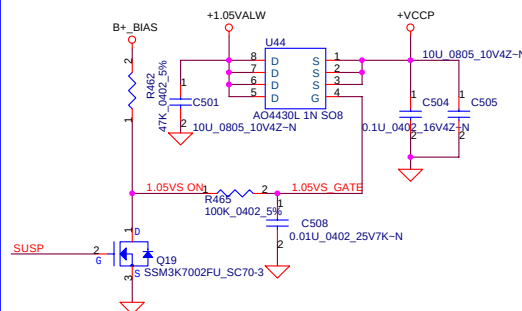
B to B Conn.



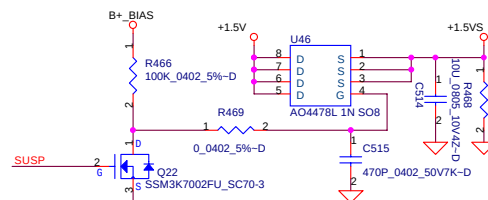
Touch PAD/B Conn.



Security Classification		Compal Secret Data		Title	
Issued Date	2009/02/19	Deciphered Date	2009/12/31	PWR_OK/BTN/TP	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Rev
				Custom	1.0
				Date:	Document Number
				Tuesday, February 24, 2009	LA-4631P
				Sheet	of
				29	42

[illegible][illegible]

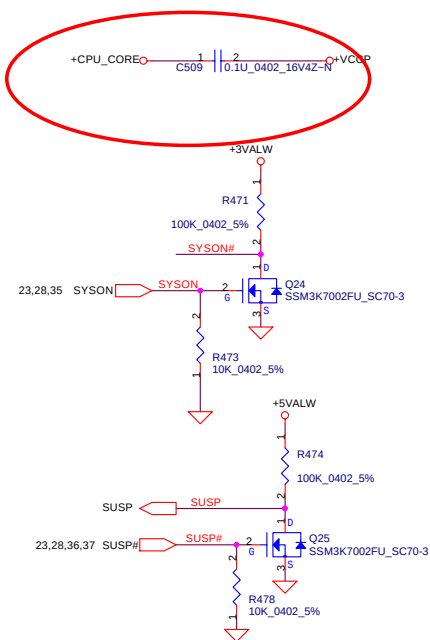
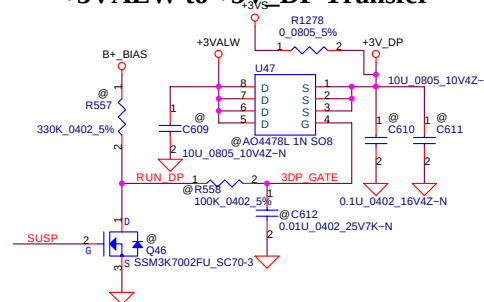
+1.5V to +1.5VS Transfer



+3VALW to +3V_{DP} DP Transfer

The diagram illustrates the +3VALW to +3V_{DP} DP Transfer circuit. Key components and connections include:

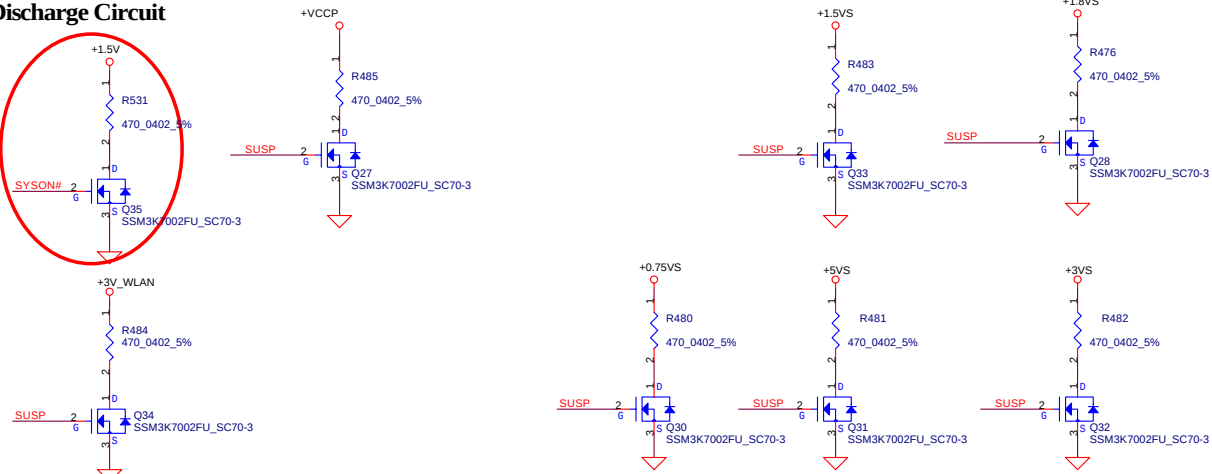
- Input Stage:** The +3VALW signal is connected to the input of the AO4478L 1N S08 buffer (U47) through a 100k_0402_5% resistor (R558) and a 10uF_0805_10V4Z-N capacitor (C609).
- Output Stage:** The output of U47 is connected to the +3V_{DP} supply through a 10uF_0805_10V4Z-N capacitor (C610) and a 0.1uF_0402_16V4Z-N capacitor (C612).
- Biasing:** The B+ BIAS supply is connected to a 330k_0402_5% resistor (R557) and a 0.01uF_0402_25V7K-N capacitor (C611).
- Supply Connections:** The SUSP supply is connected to a 2G resistor (R559) and a 0.01uF_0402_25V7K-N capacitor (C612).



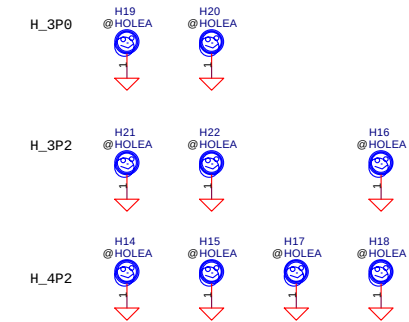
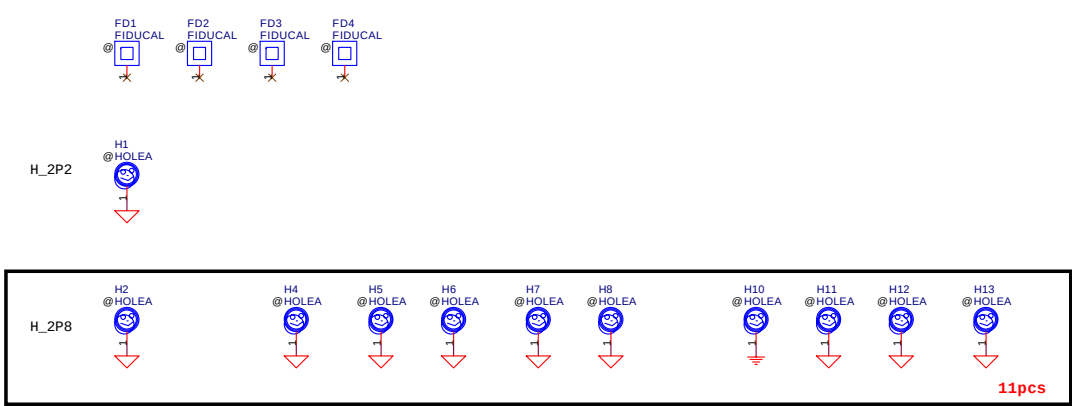
Discharge Circuit

The Discharge Circuit schematic shows seven voltage rails, each with a resistor and a MOSFET controlled by the SUSP signal. The +1.5V rail is highlighted with a red circle.

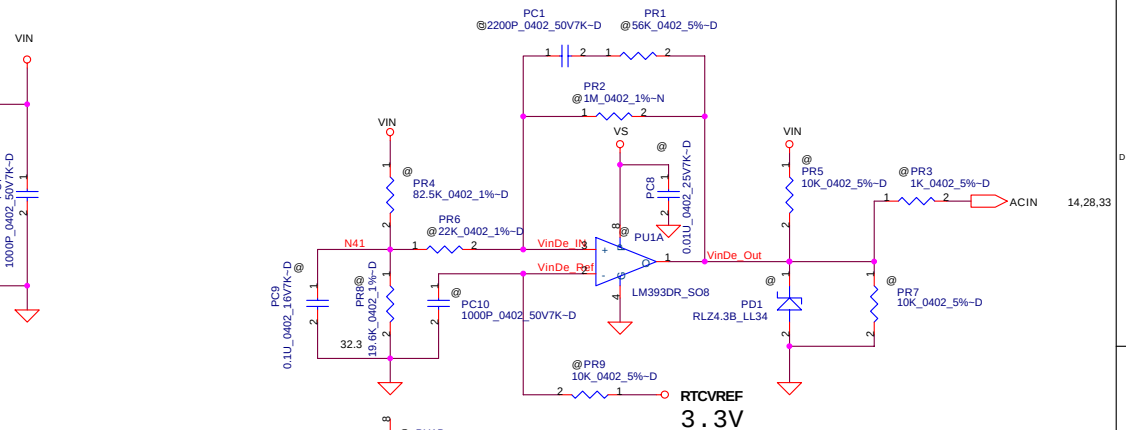
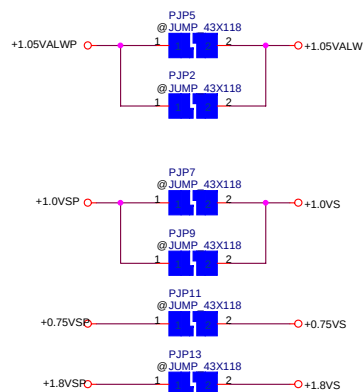
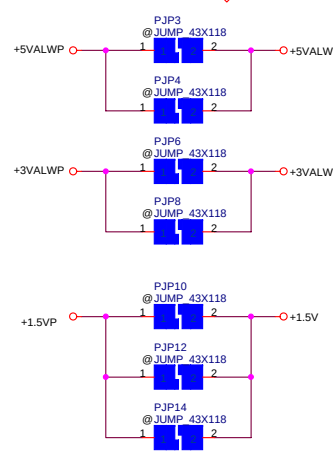
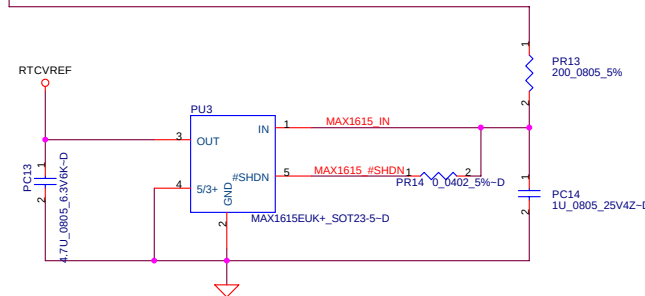
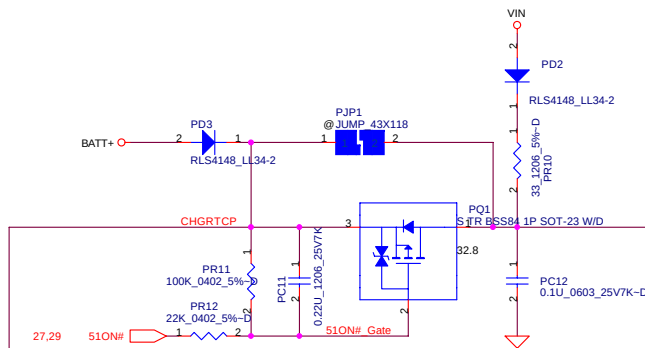
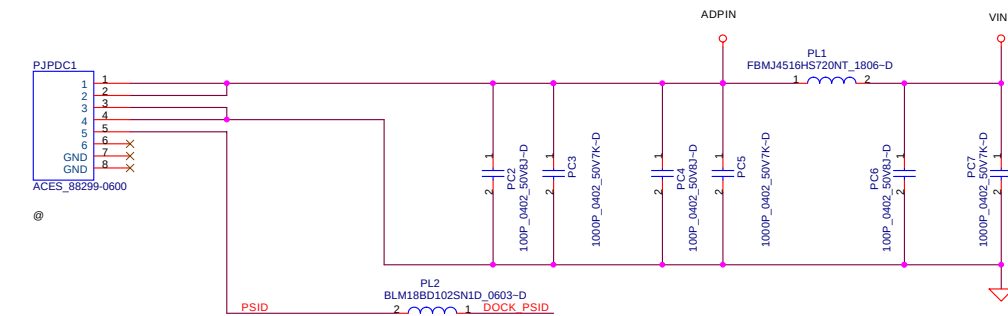
- +1.5V:** Resistor R531 (470_0402_5%), MOSFET Q35 (SSM3K7002FU_SC70-3). The MOSFET gate is controlled by SYSON#.
- +VCCP:** Resistor R485 (470_0402_5%), MOSFET Q27 (SSM3K7002FU_SC70-3).
- +1.5VS:** Resistor R483 (470_0402_5%), MOSFET Q33 (SSM3K7002FU_SC70-3).
- +1.8VS:** Resistor R476 (470_0402_5%), MOSFET Q28 (SSM3K7002FU_SC70-3).
- +3V_WLAN:** Resistor R484 (470_0402_5%), MOSFET Q34 (SSM3K7002FU_SC70-3).
- +0.75VS:** Resistor R480 (470_0402_5%), MOSFET Q30 (SSM3K7002FU_SC70-3).
- +5VS:** Resistor R481 (470_0402_5%), MOSFET Q31 (SSM3K7002FU_SC70-3).
- +3VS:** Resistor R482 (470_0402_5%), MOSFET Q32 (SSM3K7002FU_SC70-3).



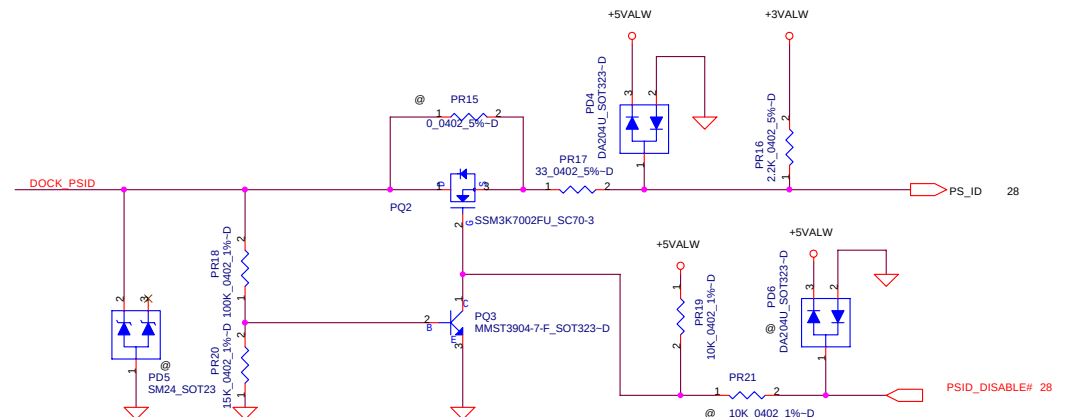
Security Classification		Compal Secret Data		Compal Electronics, Inc.		
Issued Date	2009/02/19	Deciphered Date	2009/12/31	Title		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				DC/DC Circuits		
				Size	Document Number	Rev
				Date	LA-4631P	1.0
				Date	Tuesday, February 24, 2009	Sheet 30 of 42



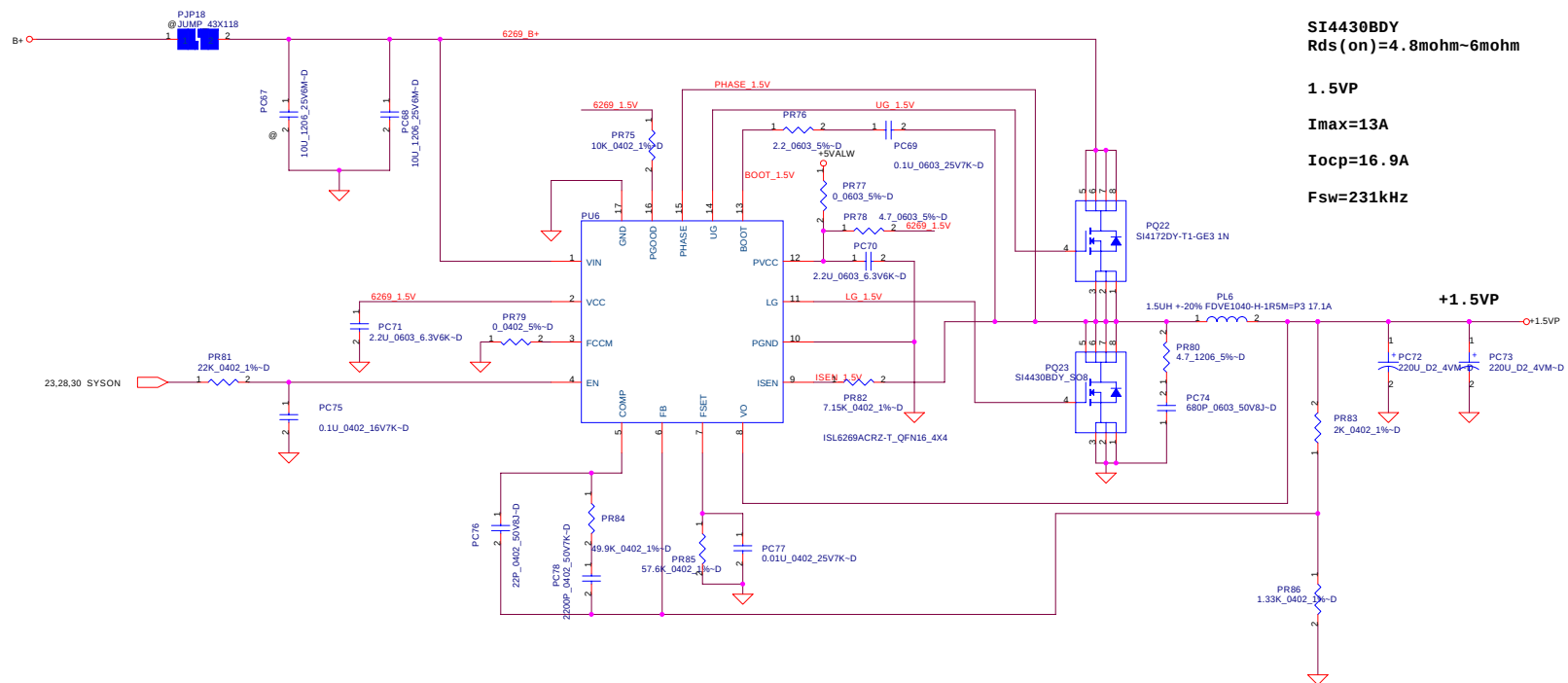
Security Classification		Compal Secret Data		Title	
Issued Date		2009/02/19	Deciphered Date	2009/12/31	2009/12/31
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE 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.		Screws			Rev 1.0
		Size	Document Number	Date: Thursday, February 19, 2009	
		Custom	LA-4631P	Sheet 31 of 42	



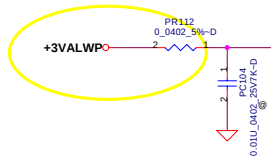
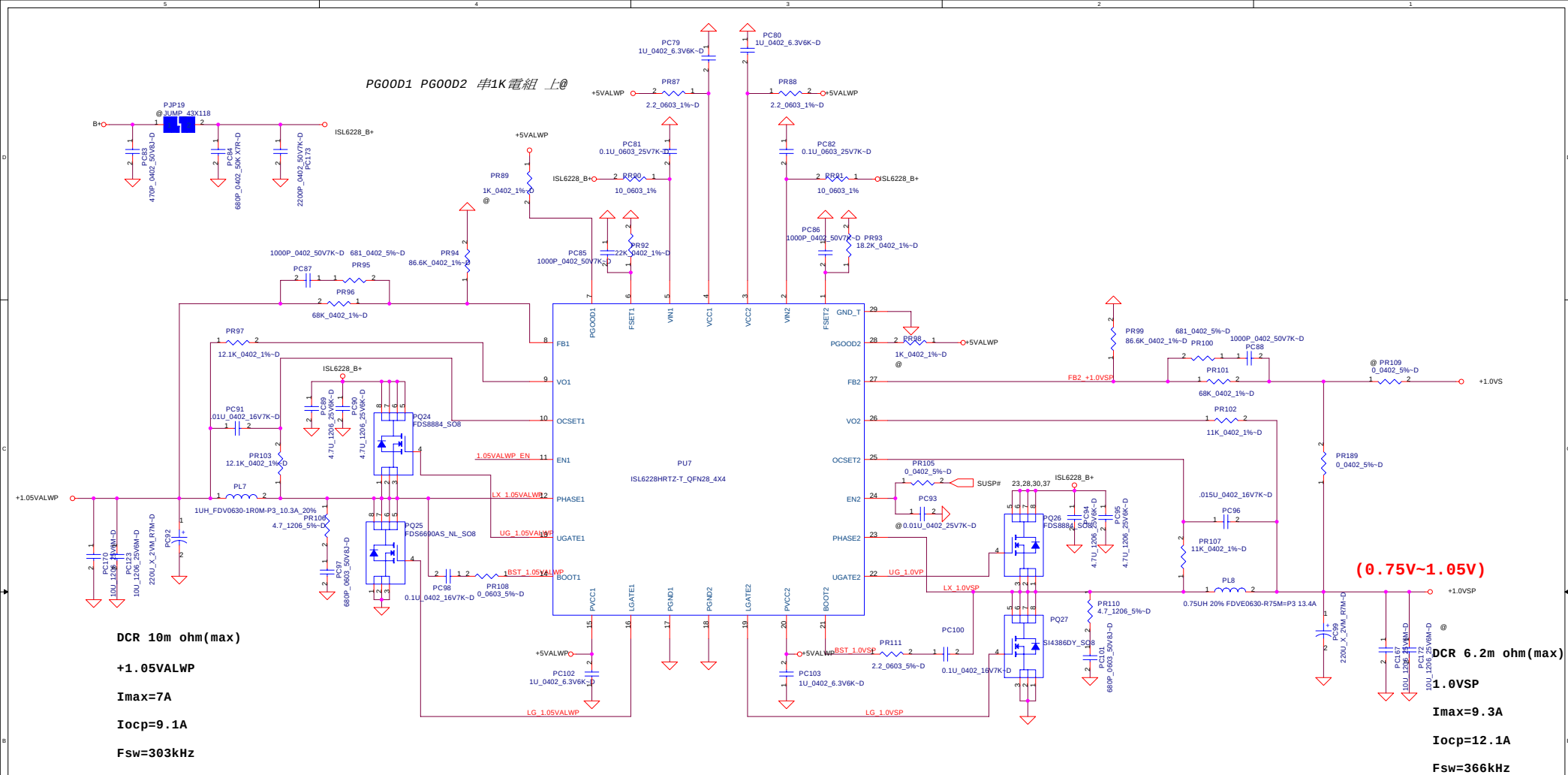
	Max.	typ.	Min.
L ->H	18.234	17.841	17.449
H ->L	17.597	17.210	16.813



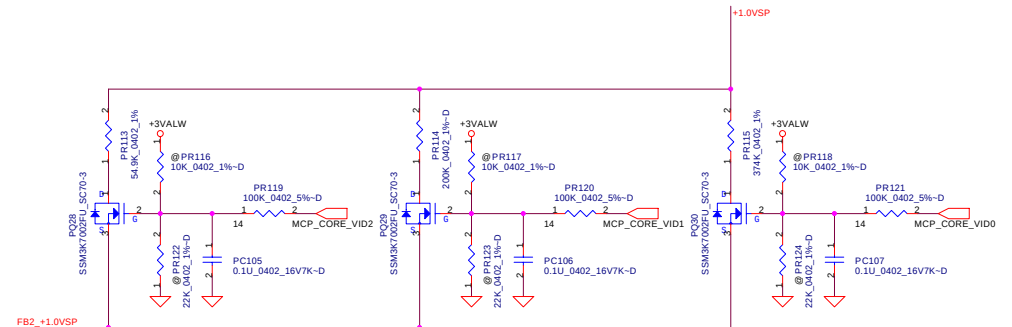
Security Classification	Compal Secret Data			Title	
Issued Date	2006/10/1	Deciphered Date	2007/5/01	DCIN / Precharge	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Rev
				Custom	1.0
				Date:	Sheet
				Tuesday, February 24, 2009	32 of 10

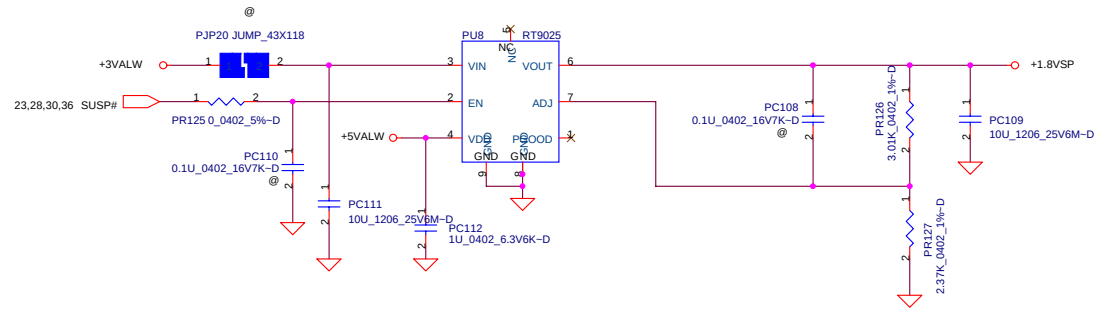


Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2006/10/1	Deciphered Date	2007/05/30	Title		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				1.5VP		
				Size	Document Number	Rev
					KCM00	1.0
				Date:	Tuesday, February 24, 2009	Sheet 35 of 10

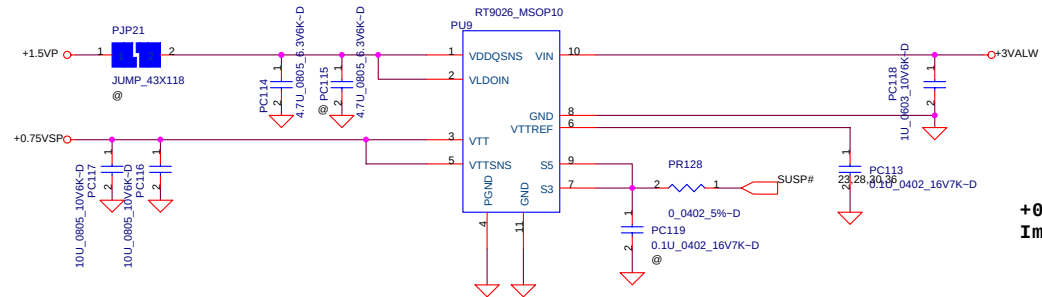


VID2	VID1	VID0	voltage
L	L	L	1.05
L	L	H	0.98
L	H	L	0.90
L	H	H	0.87
H	L	L	0.80
H	L	H	0.79
H	H	L	0.77
H	H	H	0.75



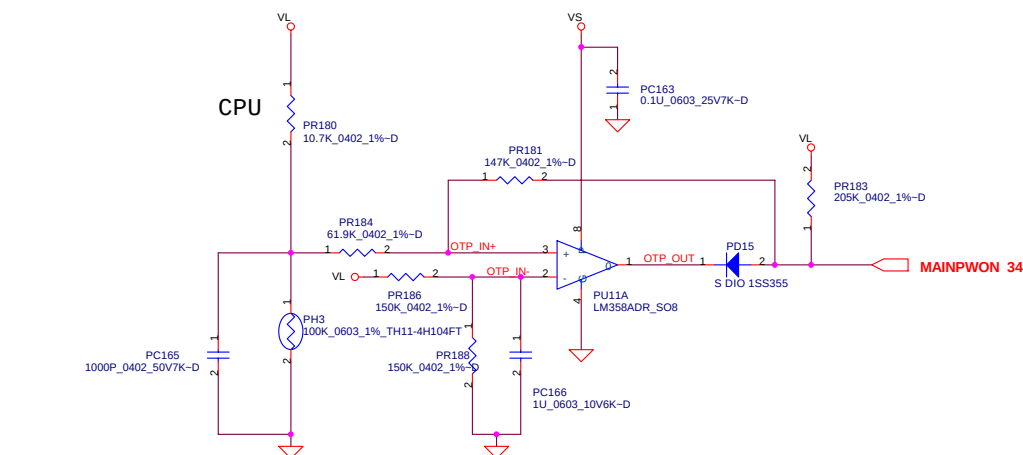
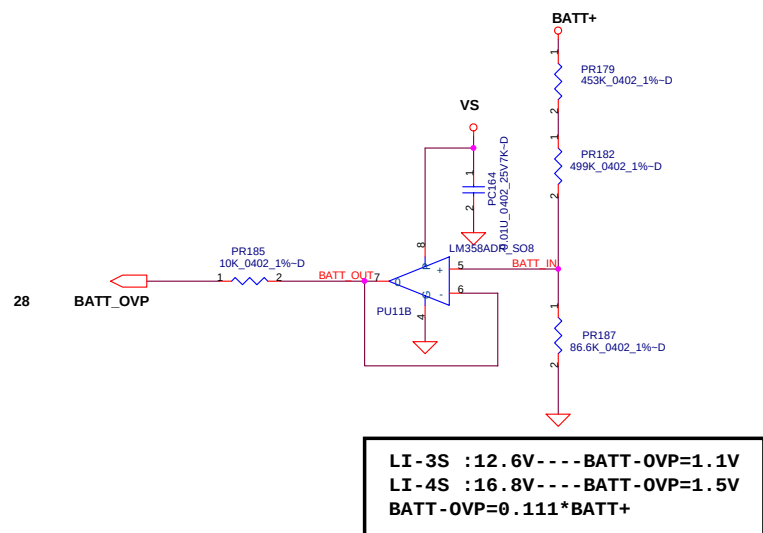
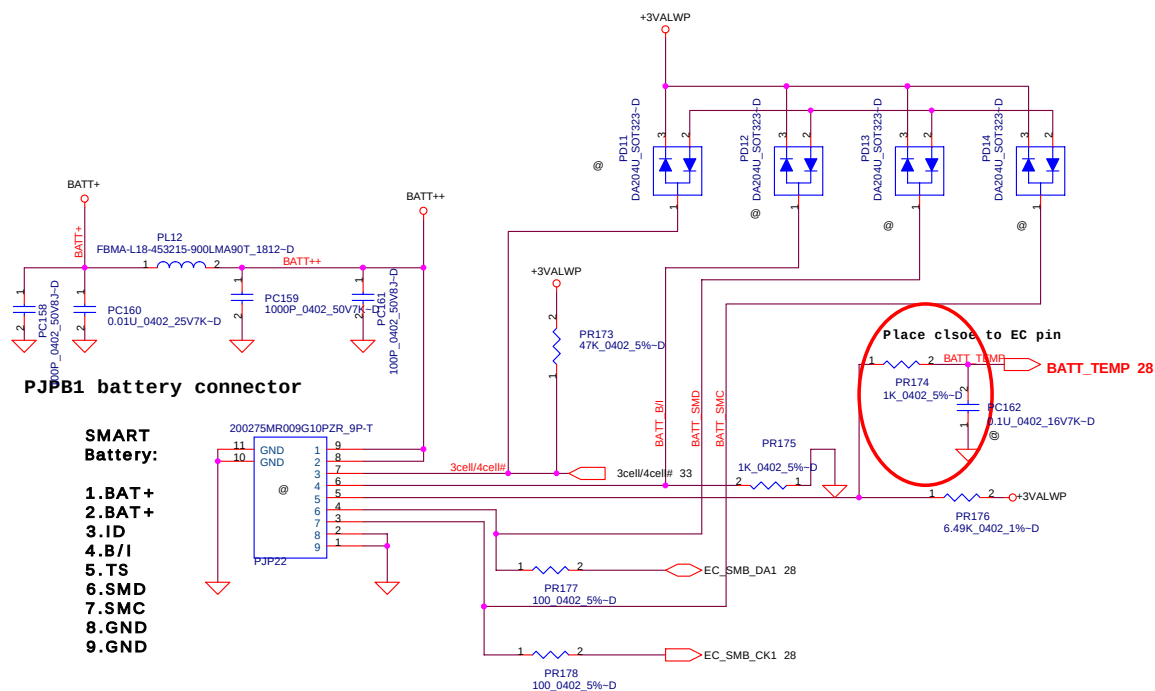


+1.8VSP
I_{max}=0.3A



+0.75VSP
I_{max}=1.5A

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2005/10/1	Deciphered Date	2007/05/30	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.				+0.75VSP/ 1.8VSP	
				Size Custom	Rev 1.0
				Date: Tuesday, February 24, 2009	Sheet 37 of 10

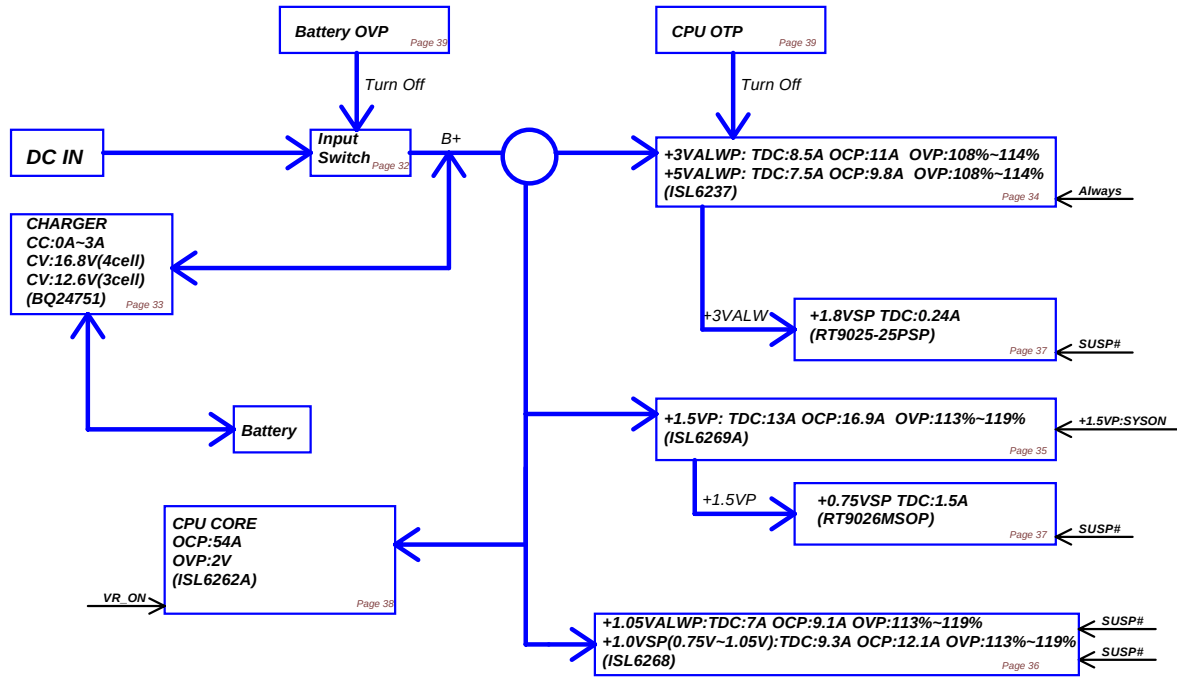


Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2005/10/1	Deciphered Date	2007/05/30	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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 Custom	Rev 1.0
				Document Number KCM00	Sheet 39 of 10
				Date: Tuesday, February 24, 2009	Sheet 39 of 10

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	p37	+0.75VSP/1.8VSP	08/10/15	compal	source shortage	pu9	
2	p33	charger	08/10/15	compal	design change	PQ6 PQ8	
3	p32	DCIN / Precharge	08/10/15	compal	meet PSL	PQ2	
4	p33	charger	08/10/15	compal	meet PSL	PQ16	
5	p32	DCIN / Precharge	08/10/15	compal	meet PSL	PQ1	
6	p33	charger	08/10/15	compal	meet PSL	PQ12	
7	p34	+3VALWP/+5VALWP	08/10/15	compal	meet PSL	PQ21	
8	p33	charger	08/10/15	compal	meet PSL	PR22 PR29	
9	p37	+0.75VSP/1.8VSP	08/10/15	compal	adjust 1.8V output voltage	PR127 PR124	
10	p33	charger	08/10/15	compal	adjust charge current to 3.1A	PR38	
11	p33	charger	08/10/15	compal	adjust CP set for ICPP function	PR38	
12	p34	+3VALWP/+5VALWP	08/10/15	compal	meet choke component current limit	PL4 PL5	
13	p32	DCIN / Precharge	08/10/15	compal	meet PSL	PL1	
14	p38	CPU_CORE	08/10/15	compal	meet PSL	PL9	
15	p39	BATTERY CONN	08/10/15	compal	meet PSL	PL12	
16	p33	charger	08/10/22	compal	design change	PQ6 PQ8	
17	p35	+1.5VSP	08/10/22	compal	reduce L/S MOS Vds	PQ22	
18	p36	+1.05VALWP/1.0VP	08/10/22	compal	Add remote sense function	PR189	
19	p36	+1.05VALWP/1.0VP	08/10/22	compal	adjust output voltage	pr94	
20	p36	+1.05VALWP/1.0VP	08/10/22	compal	design change	PL8	
21	p35	+1.5VSP	08/10/22	compal	design change	PL6	
22	p33	charger	08/10/22	compal	EMI request	PL13	
23	ALL	every power	08/10/22	compal	reduce output ripple	PC123 PC167 PC168 PC169 PC170	
24	ALL	every power	08/10/22	compal	sunbber for EMI request	PR30 PR106 PR55 PR56 PR80 PR110 PR105 PR155	
25	ALL	every power	08/10/22	compal	sunbber for EMI request	PC33 PC58 PC60 PC74 PC97 PC101 PC134 PC144	
26	P34 P35	every power	08/10/22	compal	increase boost resistor value form 0 ohm to 2.2 ohm for EMI request	PR57 PR58 Pr76	
27	p39	BATTERY CONN	08/12/03	compal	adjust OTP set	PR183	
28	p33	charger	08/12/03	compal	DFX request	PQ10 PQ11 PQ13 PQ14 PQ15	
29	p36	+1.05VALWP/1.0VP	08/12/03	compal	adjust +1.0VSP OCP set	PR102 PR107	
30	p36	+1.05VALWP/1.0VP	08/12/03	compal	adjust +1.0VSP output voltage	PR99	
31	p35	+1.5VSP	08/12/12	compal	design change(already trail run in PT phase)	PQ22	
32	p39	BATTERY CONN	08/12/12	compal	adjust OTP set	PR183	
33	p33	charger	08/12/31	compal	reduce AC-IN inrush current	PR24 PR25	
34	p36	+1.05VALWP/1.0VP	08/12/31	compal	WWAN issue	PC173 PC174 PC175	
34	p34	+3VALWP/+5VALWP	08/12/31	compal	adjust +5VALWP voltage	PR62 change frome 10k to 9.62k	

Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2007/1/15	Deciphered Date	2008/1/15	Title	PW PIR-1	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number KCM00	Rev 1.0
				Date: Tuesday, February 24, 2009	Sheet 40	of 10

Braxton Power block



Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	19	P19-DDR3_S0-DIMM SLOT	2008/09/22	nVidia	can't use S0-DIMM	change S0-DIMM SA0 to pull high & SA1 to pull down	0.2
2	20	P20-LCD/SATA HDD	2008/09/25	Compal	can't read EDID for Panel	change JLVDS1 Pin 37 from +LCDVDD TO +3VS	0.2
3	21	P21-HDMI/Display Port	2008/10/07	Compal	Change DP122 to DP122A	change R440 from 4.64K to 5.11K and R438 from 5.11K to 6.49K	0.2
4	12	P12-MCP79(6/10)_PCI/LPC	2008/10/13	Compal	can't select on board SPD data	ADD R191,R192,R193 TO SELECT ON BOARD MEMORY VENDOR	0.2
5	28	P28-EC_KB926/BIOS/Reed SW	2008/10/20	Compal		Change EC_SMB_DA1 and EC_SMB_CK1 from +5VALW to +3VALW	0.2
6	18	P18-1GB/2GB_DDR3_On Board	2008/12/04	nVidia	On board Ram unstable	Add 0.1uF cap between Termination Resistor and +0.75VS	0.4
7	14	P14-MCP79(8/10)_HDA/MISC	2009/02/03	Dell	saving power consumption	change +3VALW to +3VS on MEM_SMBCLK & MEM_SMBDATA	1.0
8	24	P24-Mini Card_WLAN/WWAN	2009/02/04	Dell		reserve SMBus from MCP79	1.0
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							