

Model Name: KML50 DIS
 PCB NO: LA-4595PR04
 BOM P/N: DA80000DR00

Half Penny Bridge 15.4 Compal Confidential

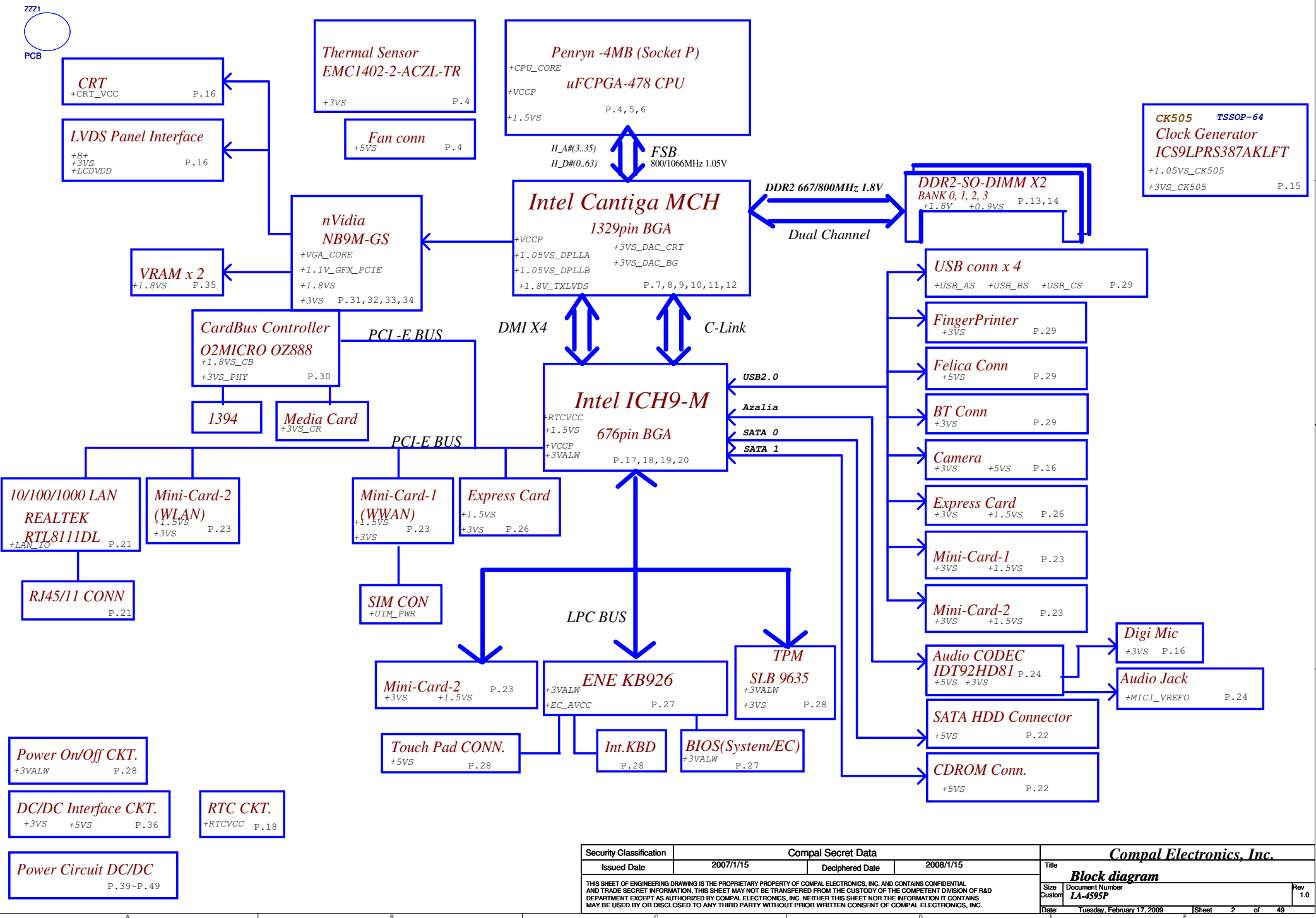
Schematic Document

Cantiga + ICH9

2009 / 02 / 17 Rev:1.0 (A00)

Security Classification		Compal Secret Data		Title	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	<i>Cover Sheet</i>	
<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&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
				Document Number	1.0
Date: Tuesday, February 17, 2009				Sheet	1 of 49

Half Penny Bridge 15.4 DIS





Security Classification		Compal Secret Data		Title	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	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	Rev
				Customer	1.0
				Date	Tuesday, February 17, 2009
				Sheet	2 of 49

Voltage Rails **O MEANS ON** **X MEANS OFF**

power plane	State	+B	+5VALW +3VALW	+1.8V	+5VS +3VS +1.5VS +0.9VS +VCCP +CPU_CORE +VGA_CORE +1.8VS +1.1V_GFX_PCIEP
S0		O	O	O	O
S1		O	O	O	O
S3		O	O	O	X
S5 S4/AC		O	O	X	X
S5 S4/ Battery only		O	X	X	X
S5 S4/AC & Battery don't exist		X	X	X	X

Symbol Note :

-  : means Digital Ground
-  : means Analog Ground
- @ : means just reserve , no build
- CON@ : means ME connectors
- TPM@ : means TPM function

PCI EXPRESS	DESTINATION
Lane 1	MINI CARD-1 WWAN
Lane 2	GLAN RTL8111DL
Lane 3	MINI CARD-2 WLAN
Lane 4	EXPRESS CARD
Lane 5	CARD READER OZ888
Lane 6	NA

SATA	DESTINATION
Lane 0	HDD
Lane 1	ODD
Lane 4	NA
Lane 5	NA

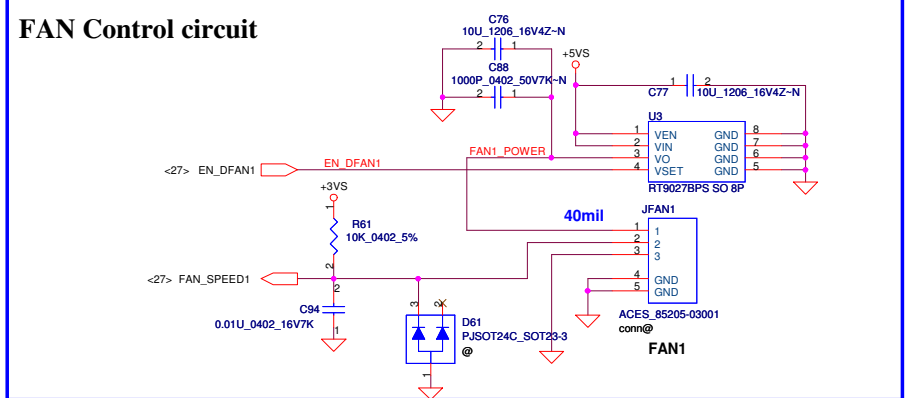
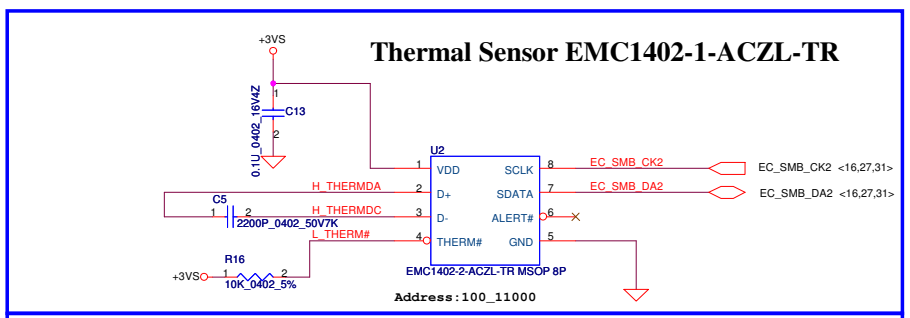
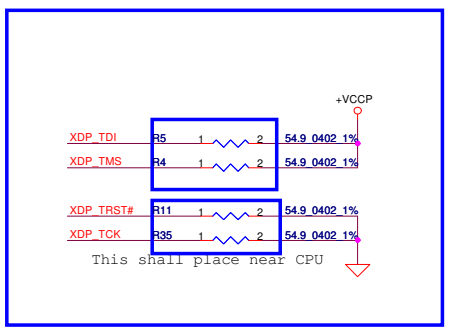
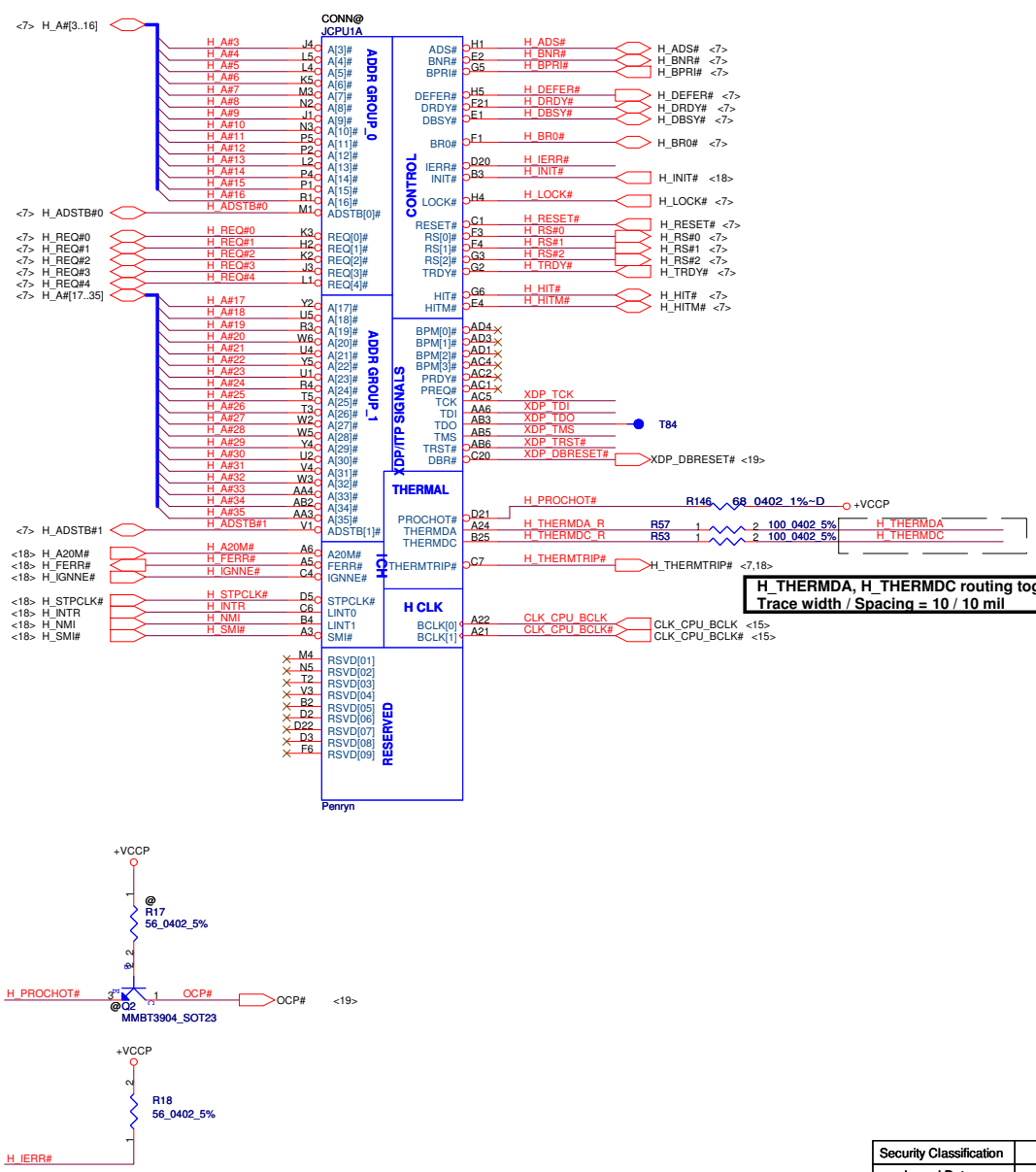
ICH9-M	USB PORT#	DESTINATION
	0	JUSBP1
	1	CAMERA
	2	JUSBP3 TOP
	3	Felica
	4	Blue Tooth
	5	Finger Printer
	6	JMINI2-WLAN
	7	Express card
	8	JUSBP3 BOT
	9	JMINI1-WWAN
	10	JUSBP4
11	NA	

SMBUS Control Table

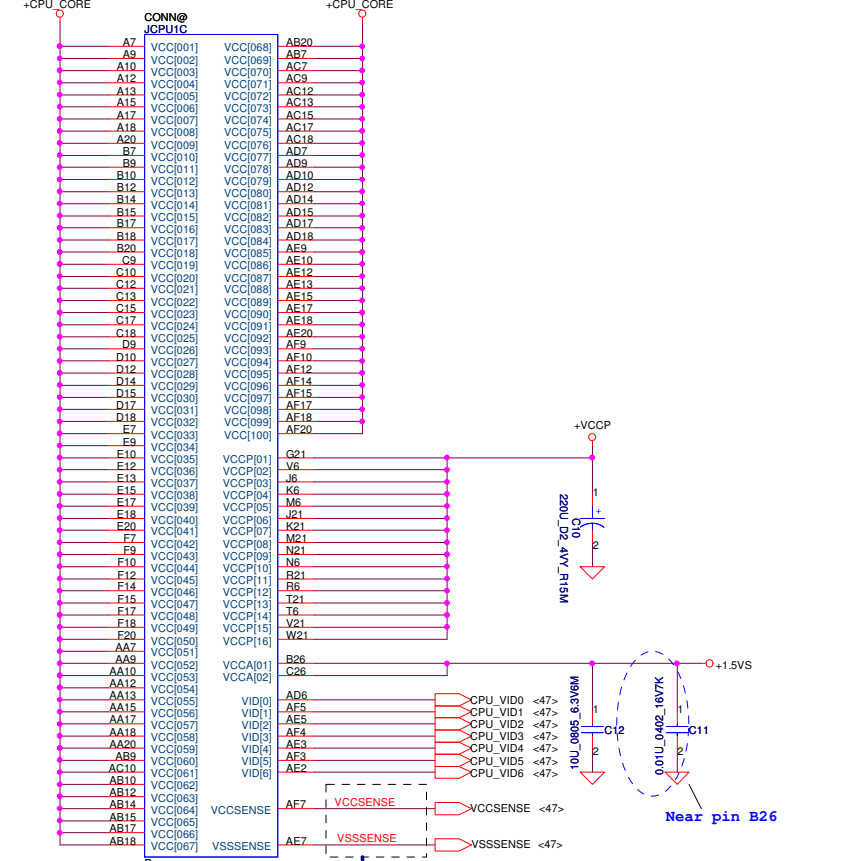
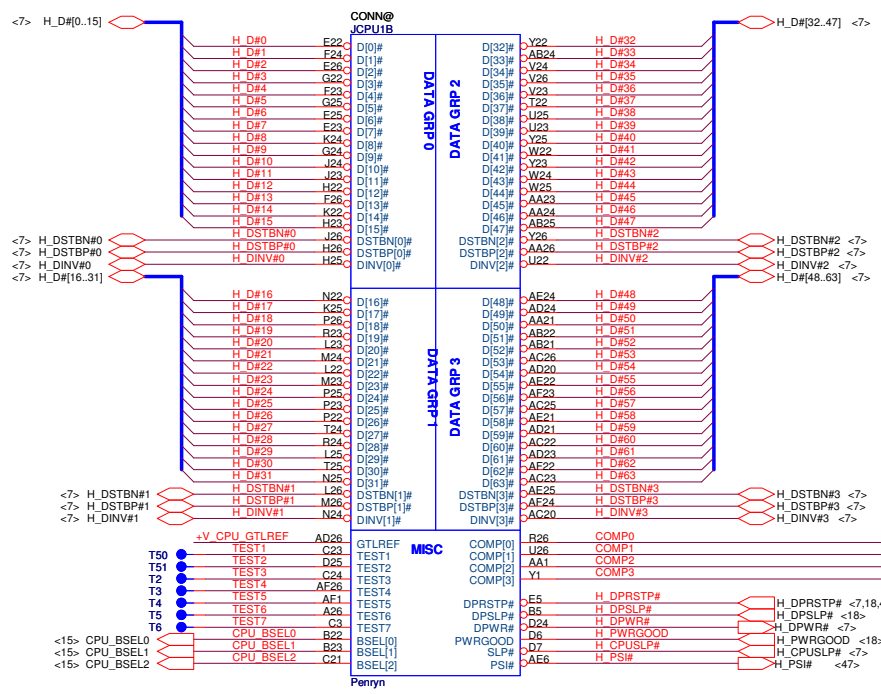
	SOURCE	INVERTER	BATT	SERIAL EEPROM	THERMAL SENSOR (CPU)	SODIMM	CLK CHIP	MINI CARD	LCD
SMB_EC_CK1 SMB_EC_DA1	KB926	X	V	V	X	X	X	X	X
SMB_EC_CK2 SMB_EC_DA2	KB926	X	X	X	V	X	X	X	X
SMB_CK_CLK1 SMB_CK_DAT1	ICH9	X	X	X	X	V	V	X	X
LCD_CLK LCD_DAT	Cantiga	X	X	X	X	X	X	X	V

I2C / SMBUS ADDRESSING

DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	10100000
DDR SO-DIMM 1	A4	10100100
CLOCK GENERATOR (EXT.)	D2	11010010
LED panel	58	01011000



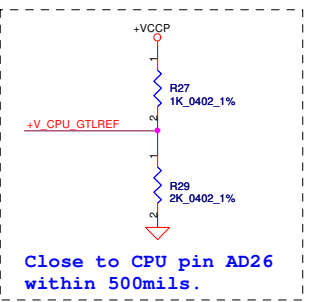
Security Classification	Compal Secret Data			Title	
Issued Date	2006/02/13	Deciphered Date	2006/03/10	Compal Electronics, Inc.	
				Penryn(1/3)-AGTLA/ITP-XDP	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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
				LA-4595P	Rev 1.0
				Date: Tuesday, February 17, 2009	Sheet 4 of 49



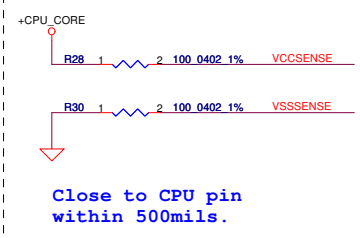
layout note: Rout H_DPRSTP# from ICH9 to IMPV6 then to GMCH & CPU
 layout note: Route TEST3 & TEST5 traces on ground referenced layer to the TPs

CPU_BSEL	CPU_BSEL2	CPU_BSEL1	CPU_BSEL0
166	0	1	1
200	0	1	0
266	0	0	0

Resistor placed within 0.5" of CPU pin. Trace should be at least 25 mils away from any other toggling signal. COMP[0,2] trace width is 18 mils. COMP[1,3] trace width is 4



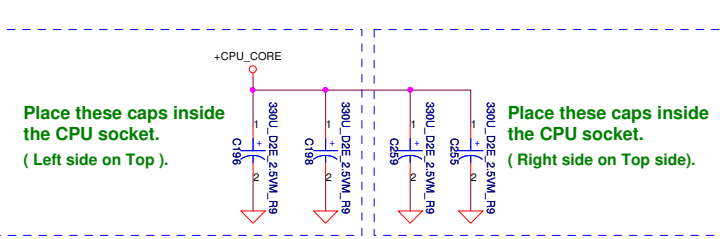
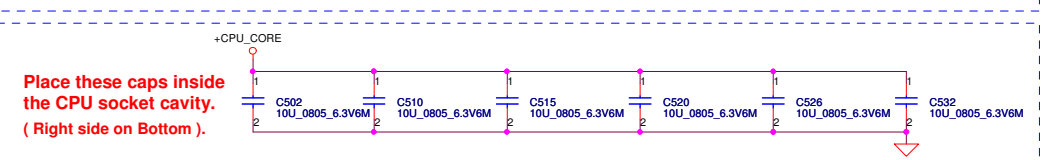
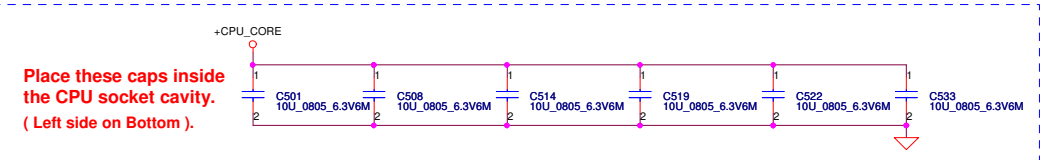
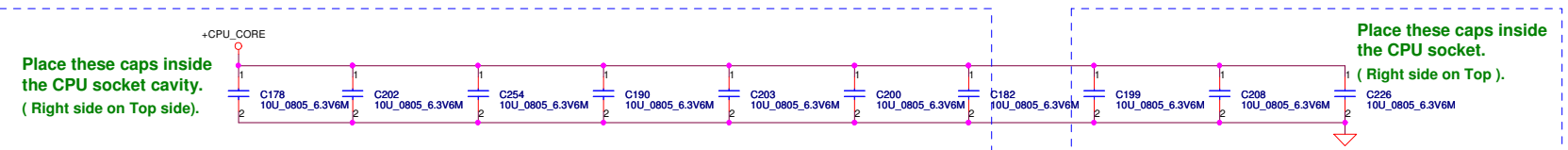
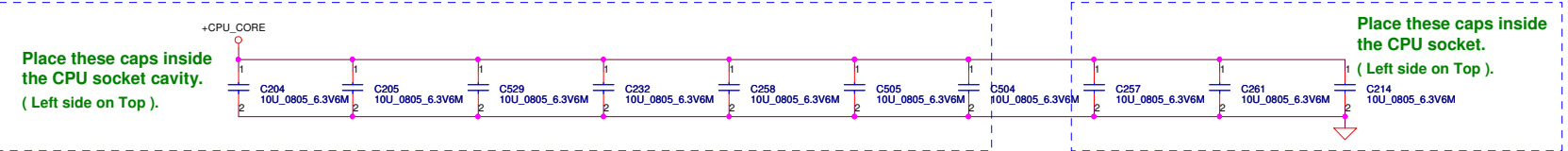
For 8 layer condition Length match within 25 mils. Z0=27.4 ohm The trace width/space/other is 20/7/25.



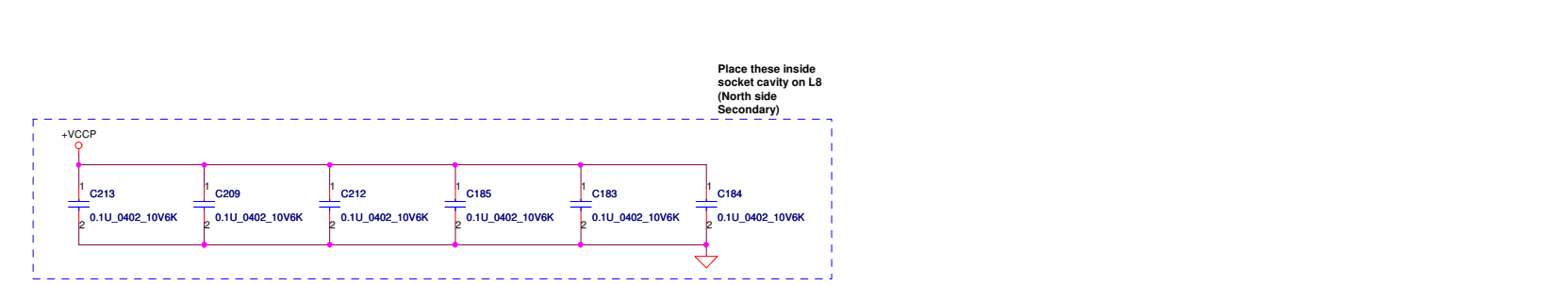
High Frequency Decoupling

10uF 0805 X5R -> 85 degree.

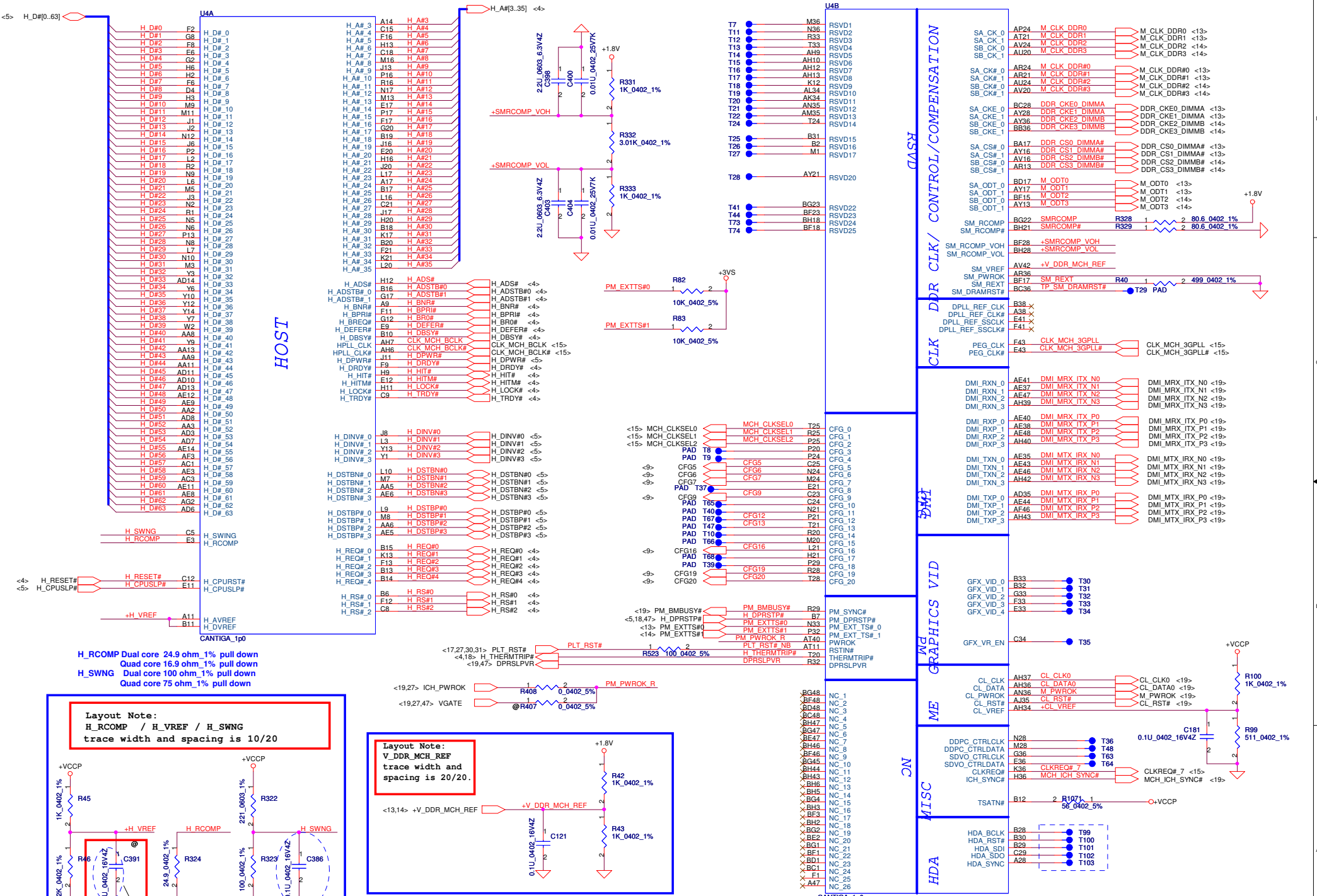
CONN@	JCPUID				
A4	VSS[001]	VSS[082]	P6		
A8	VSS[002]	VSS[083]	P24		
A11	VSS[003]	VSS[084]	P2		
A14	VSS[004]	VSS[085]	R5		
A19	VSS[005]	VSS[086]	R22		
A23	VSS[006]	VSS[087]	R25		
AF2	VSS[007]	VSS[088]	T1		
AF2	VSS[008]	VSS[089]	T1		
B8	VSS[009]	VSS[090]	T23		
B11	VSS[010]	VSS[091]	T26		
B13	VSS[011]	VSS[092]	U3		
B16	VSS[012]	VSS[093]	U6		
B19	VSS[013]	VSS[094]	U21		
B21	VSS[014]	VSS[095]	U24		
B24	VSS[015]	VSS[096]	V2		
C5	VSS[016]	VSS[097]	V5		
C8	VSS[017]	VSS[098]	V22		
C11	VSS[018]	VSS[099]	V25		
C14	VSS[019]	VSS[100]	W1		
C16	VSS[020]	VSS[101]	W4		
C19	VSS[021]	VSS[102]	W23		
C2	VSS[022]	VSS[103]	W26		
C22	VSS[023]	VSS[104]	Y3		
C25	VSS[024]	VSS[105]	Y6		
D1	VSS[025]	VSS[106]	Y21		
D4	VSS[026]	VSS[107]	Y24		
D8	VSS[027]	VSS[108]	AA2		
D11	VSS[028]	VSS[109]	AA5		
D13	VSS[029]	VSS[110]	AA8		
D16	VSS[030]	VSS[111]	AA11		
D19	VSS[031]	VSS[112]	AA14		
D23	VSS[032]	VSS[113]	AA16		
D26	VSS[033]	VSS[114]	AA19		
E3	VSS[034]	VSS[115]	AA22		
E6	VSS[035]	VSS[116]	AA25		
E8	VSS[036]	VSS[117]	AB1		
E11	VSS[037]	VSS[118]	AB1		
E14	VSS[038]	VSS[119]	AB8		
E16	VSS[039]	VSS[120]	AB11		
E19	VSS[040]	VSS[121]	AB13		
E21	VSS[041]	VSS[122]	AB16		
E24	VSS[042]	VSS[123]	AB19		
F5	VSS[043]	VSS[124]	AB23		
F8	VSS[044]	VSS[125]	AB26		
F11	VSS[045]	VSS[126]	AC3		
F13	VSS[046]	VSS[127]	AC6		
F16	VSS[047]	VSS[128]	AC8		
F19	VSS[048]	VSS[129]	AC11		
F2	VSS[049]	VSS[130]	AC14		
F22	VSS[050]	VSS[131]	AC16		
F25	VSS[051]	VSS[132]	AC19		
G4	VSS[052]	VSS[133]	AC21		
G1	VSS[053]	VSS[134]	AC24		
G28	VSS[054]	VSS[135]	AD2		
H3	VSS[055]	VSS[136]	AD5		
H6	VSS[056]	VSS[137]	AD8		
H21	VSS[057]	VSS[138]	AD11		
H24	VSS[058]	VSS[139]	AD13		
J2	VSS[059]	VSS[140]	AD16		
J5	VSS[060]	VSS[141]	AD19		
J22	VSS[061]	VSS[142]	AD22		
J25	VSS[062]	VSS[143]	AD25		
K1	VSS[063]	VSS[144]	AE1		
K4	VSS[064]	VSS[145]	AE4		
K23	VSS[065]	VSS[146]	AE8		
L3	VSS[066]	VSS[147]	AE11		
L6	VSS[067]	VSS[148]	AE16		
L21	VSS[068]	VSS[149]	AE19		
L24	VSS[069]	VSS[150]	AE23		
M2	VSS[070]	VSS[151]	AE26		
M5	VSS[071]	VSS[152]	A2		
M22	VSS[072]	VSS[153]	AF6		
M25	VSS[073]	VSS[154]	AF8		
N1	VSS[074]	VSS[155]	AF11		
N4	VSS[075]	VSS[156]	AF13		
N23	VSS[076]	VSS[157]	AF16		
N26	VSS[077]	VSS[158]	AF19		
P3	VSS[078]	VSS[159]	AF21		
	VSS[079]	VSS[160]	A25		
	VSS[080]	VSS[161]	AF25		
	VSS[081]	VSS[162]			
	VSS[082]	VSS[163]			



ESR <= 1.5m ohm
Capacitor > 880 uF



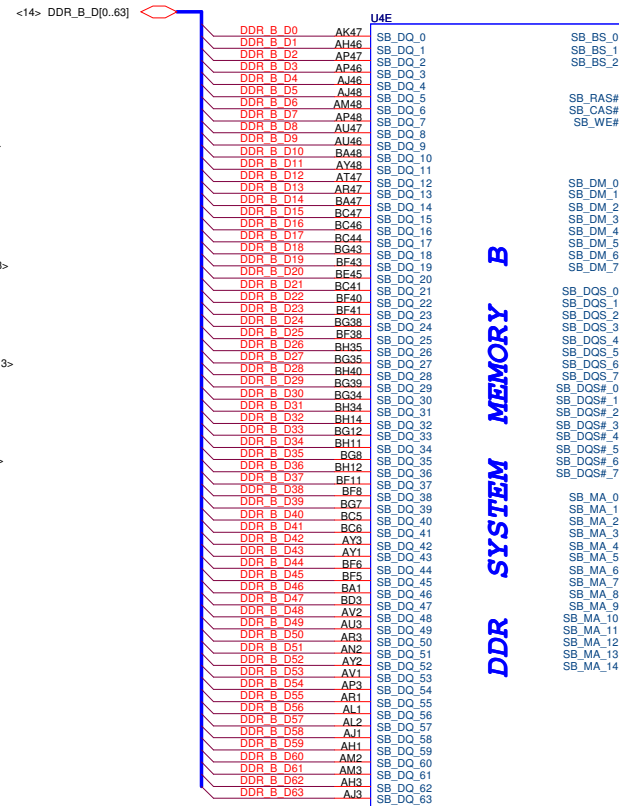
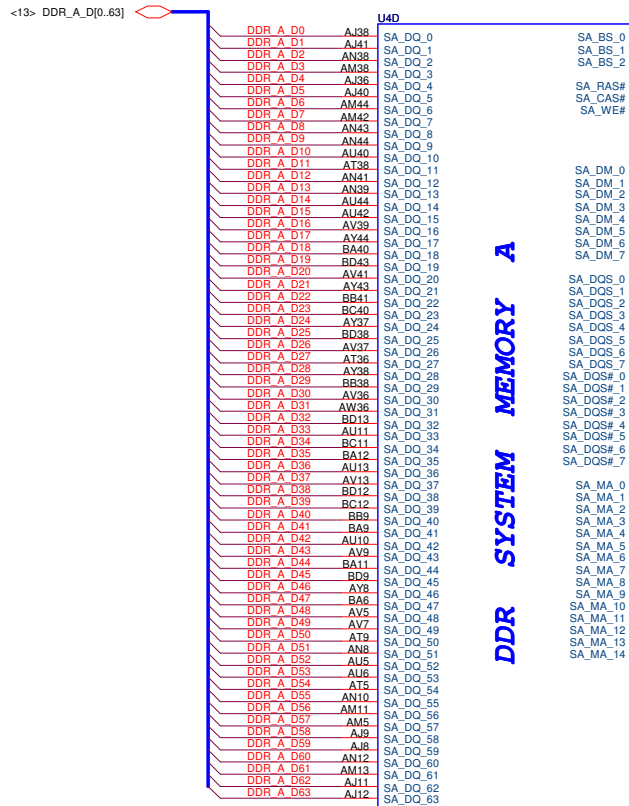
Security Classification	Compal Secret Data			Title		
Issued Date	2006/02/13	Deciphered Date	2006/03/10	Compal Electronics, Inc.		
				Penryn(3/3)-AGTLA-/ITP-XDP		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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
				LA-4595P	1.0	
Date:	Tuesday, February 17, 2009	Sheet	6	of	49	



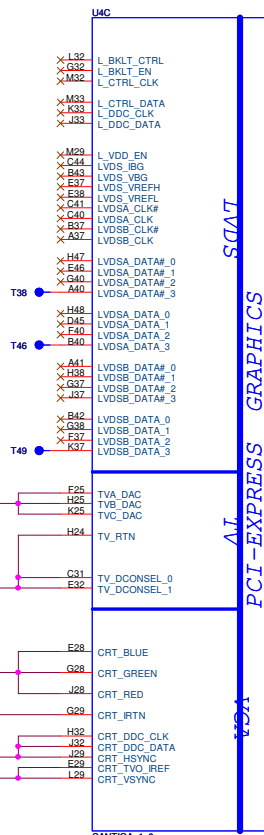
Security Classification	2008/09/24	Deciphered Date	2006/03/10	Title	Compal Electronics, Inc.
Issued Date	2008/09/24	Deciphered Date	2006/03/10	Size	Document Number
				Custom	LA-4959P
				Date:	Tuesday, February 17, 2009
				Sheet	7 of 49

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



Security Classification	Compal Secret Data		Title	
Issued Date	2006/02/13	Deciphered Date	2006/03/10	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.				Cantiga(2/6)-DDR2 A/B CH
Size	Document Number	Rev	Date: Tuesday, February 17, 2009	
Custort	LA-4595P	1.0	Sheet	8 of 49

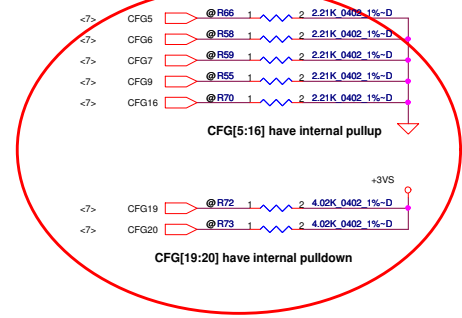


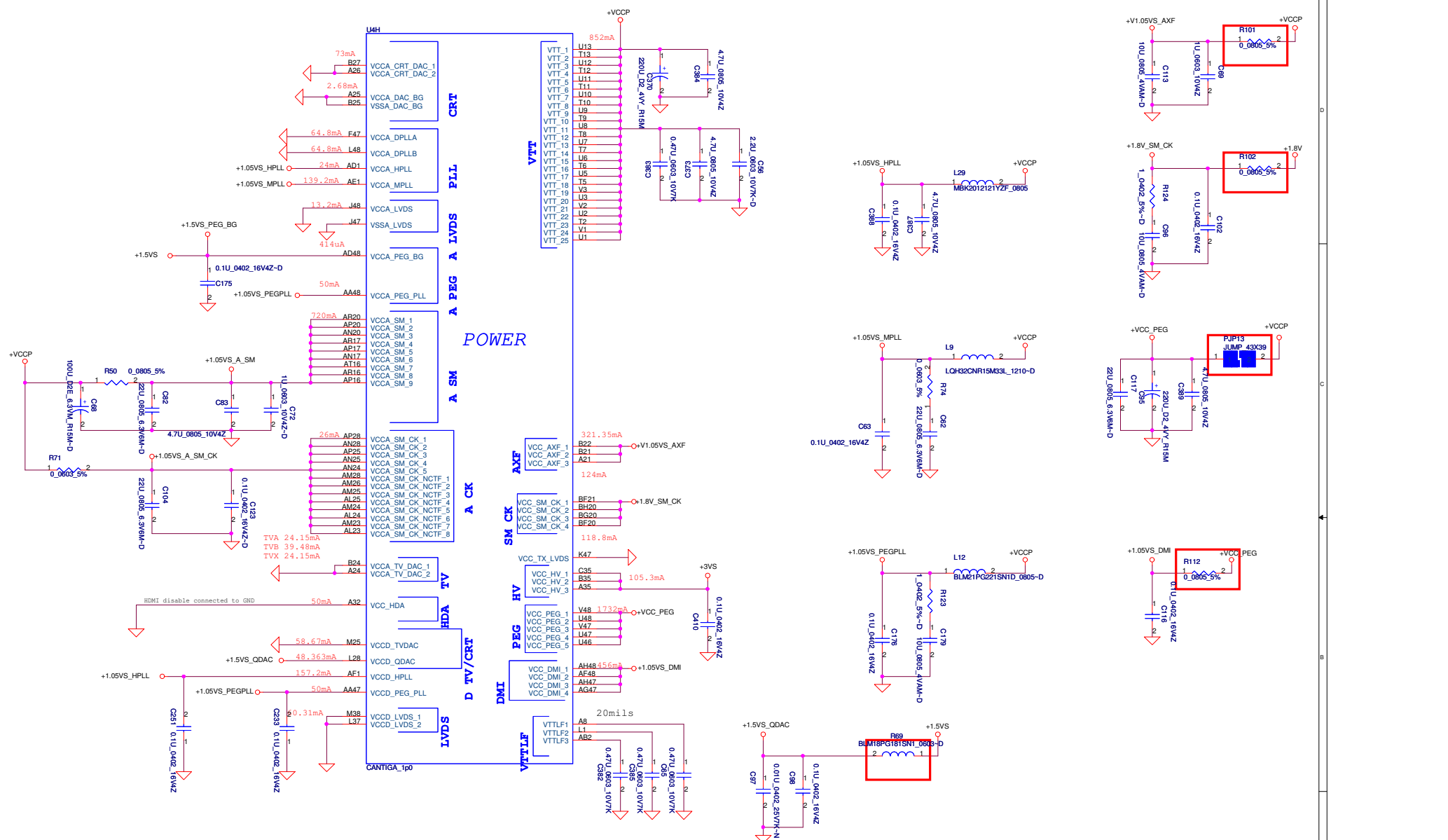
R56 within 500 mils from pin T37, T36

Signal	Component	Value	Notes
PEG_COMP0	T37	PEGCOMP	
PEG_COMP0	T36	PEGCOMP	
PEG_RX#_0	H44	PEG_NRX GTX N0	
PEG_RX#_1	J46	PEG_NRX GTX N1	
PEG_RX#_2	L44	PEG_NRX GTX N2	
PEG_RX#_3	L40	PEG_NRX GTX N3	
PEG_RX#_4	N41	PEG_NRX GTX N4	
PEG_RX#_5	P48	PEG_NRX GTX N5	
PEG_RX#_6	N44	PEG_NRX GTX N6	
PEG_RX#_7	T43	PEG_NRX GTX N7	
PEG_RX#_8	U43	PEG_NRX GTX N8	
PEG_RX#_9	V43	PEG_NRX GTX N9	
PEG_RX#_10	V48	PEG_NRX GTX N10	
PEG_RX#_11	V38	PEG_NRX GTX N11	
PEG_RX#_12	A443	PEG_NRX GTX N12	
PEG_RX#_13	AD37	PEG_NRX GTX N13	
PEG_RX#_14	AC41	PEG_NRX GTX N14	
PEG_RX#_15	AD39	PEG_NRX GTX N15	
PEG_RX#_0	H43	PEG_NRX GTX P0	
PEG_RX#_1	J44	PEG_NRX GTX P1	
PEG_RX#_2	L43	PEG_NRX GTX P2	
PEG_RX#_3	M41	PEG_NRX GTX P3	
PEG_RX#_4	N40	PEG_NRX GTX P4	
PEG_RX#_5	P47	PEG_NRX GTX P5	
PEG_RX#_6	M43	PEG_NRX GTX P6	
PEG_RX#_7	T42	PEG_NRX GTX P7	
PEG_RX#_8	U42	PEG_NRX GTX P8	
PEG_RX#_9	V42	PEG_NRX GTX P9	
PEG_RX#_10	W47	PEG_NRX GTX P10	
PEG_RX#_11	V37	PEG_NRX GTX P11	
PEG_RX#_12	A442	PEG_NRX GTX P12	
PEG_RX#_13	AD36	PEG_NRX GTX P13	
PEG_RX#_14	AC48	PEG_NRX GTX P14	
PEG_RX#_15	AD40	PEG_NRX GTX P15	
PEG_TX#_0	J41	PEG_TXN0 C568	2 0.1U 0402 16V7K PEG_NTX_GRX_N0
PEG_TX#_1	M46	PEG_TXN1 C537	2 0.1U 0402 16V7K PEG_NTX_GRX_N1
PEG_TX#_2	M47	PEG_TXN2 C538	2 0.1U 0402 16V7K PEG_NTX_GRX_N2
PEG_TX#_3	M40	PEG_TXN3 C539	2 0.1U 0402 16V7K PEG_NTX_GRX_N3
PEG_TX#_4	M42	PEG_TXN4 C540	2 0.1U 0402 16V7K PEG_NTX_GRX_N4
PEG_TX#_5	R48	PEG_TXN5 C541	2 0.1U 0402 16V7K PEG_NTX_GRX_N5
PEG_TX#_6	N38	PEG_TXN6 C542	2 0.1U 0402 16V7K PEG_NTX_GRX_N6
PEG_TX#_7	U37	PEG_TXN7 C543	2 0.1U 0402 16V7K PEG_NTX_GRX_N7
PEG_TX#_8	U37	PEG_TXN8 C544	2 0.1U 0402 16V7K PEG_NTX_GRX_N8
PEG_TX#_9	U40	PEG_TXN9 C545	2 0.1U 0402 16V7K PEG_NTX_GRX_N9
PEG_TX#_10	V40	PEG_TXN10 C546	2 0.1U 0402 16V7K PEG_NTX_GRX_N10
PEG_TX#_11	A446	PEG_TXN11 C547	2 0.1U 0402 16V7K PEG_NTX_GRX_N11
PEG_TX#_12	AA37	PEG_TXN12 C548	2 0.1U 0402 16V7K PEG_NTX_GRX_N12
PEG_TX#_13	AA40	PEG_TXN13 C549	2 0.1U 0402 16V7K PEG_NTX_GRX_N13
PEG_TX#_14	AD43	PEG_TXN14 C550	2 0.1U 0402 16V7K PEG_NTX_GRX_N14
PEG_TX#_15	AC46	PEG_TXN15 C551	2 0.1U 0402 16V7K PEG_NTX_GRX_N15
PEG_TX#_0	J42	PEG_TXP0 C552	2 0.1U 0402 16V7K PEG_NTX_GRX_P0
PEG_TX#_1	L46	PEG_TXP1 C553	2 0.1U 0402 16V7K PEG_NTX_GRX_P1
PEG_TX#_2	M48	PEG_TXP2 C554	2 0.1U 0402 16V7K PEG_NTX_GRX_P2
PEG_TX#_3	M39	PEG_TXP3 C555	2 0.1U 0402 16V7K PEG_NTX_GRX_P3
PEG_TX#_4	M43	PEG_TXP4 C556	2 0.1U 0402 16V7K PEG_NTX_GRX_P4
PEG_TX#_5	R47	PEG_TXP5 C557	2 0.1U 0402 16V7K PEG_NTX_GRX_P5
PEG_TX#_6	N37	PEG_TXP6 C558	2 0.1U 0402 16V7K PEG_NTX_GRX_P6
PEG_TX#_7	T39	PEG_TXP7 C559	2 0.1U 0402 16V7K PEG_NTX_GRX_P7
PEG_TX#_8	U38	PEG_TXP8 C560	2 0.1U 0402 16V7K PEG_NTX_GRX_P8
PEG_TX#_9	U39	PEG_TXP9 C561	2 0.1U 0402 16V7K PEG_NTX_GRX_P9
PEG_TX#_10	V39	PEG_TXP10 C562	2 0.1U 0402 16V7K PEG_NTX_GRX_P10
PEG_TX#_11	V46	PEG_TXP11 C563	2 0.1U 0402 16V7K PEG_NTX_GRX_P11
PEG_TX#_12	AA36	PEG_TXP12 C564	2 0.1U 0402 16V7K PEG_NTX_GRX_P12
PEG_TX#_13	AA39	PEG_TXP13 C565	2 0.1U 0402 16V7K PEG_NTX_GRX_P13
PEG_TX#_14	AD42	PEG_TXP14 C566	2 0.1U 0402 16V7K PEG_NTX_GRX_P14
PEG_TX#_15	AD46	PEG_TXP15 C567	2 0.1U 0402 16V7K PEG_NTX_GRX_P15

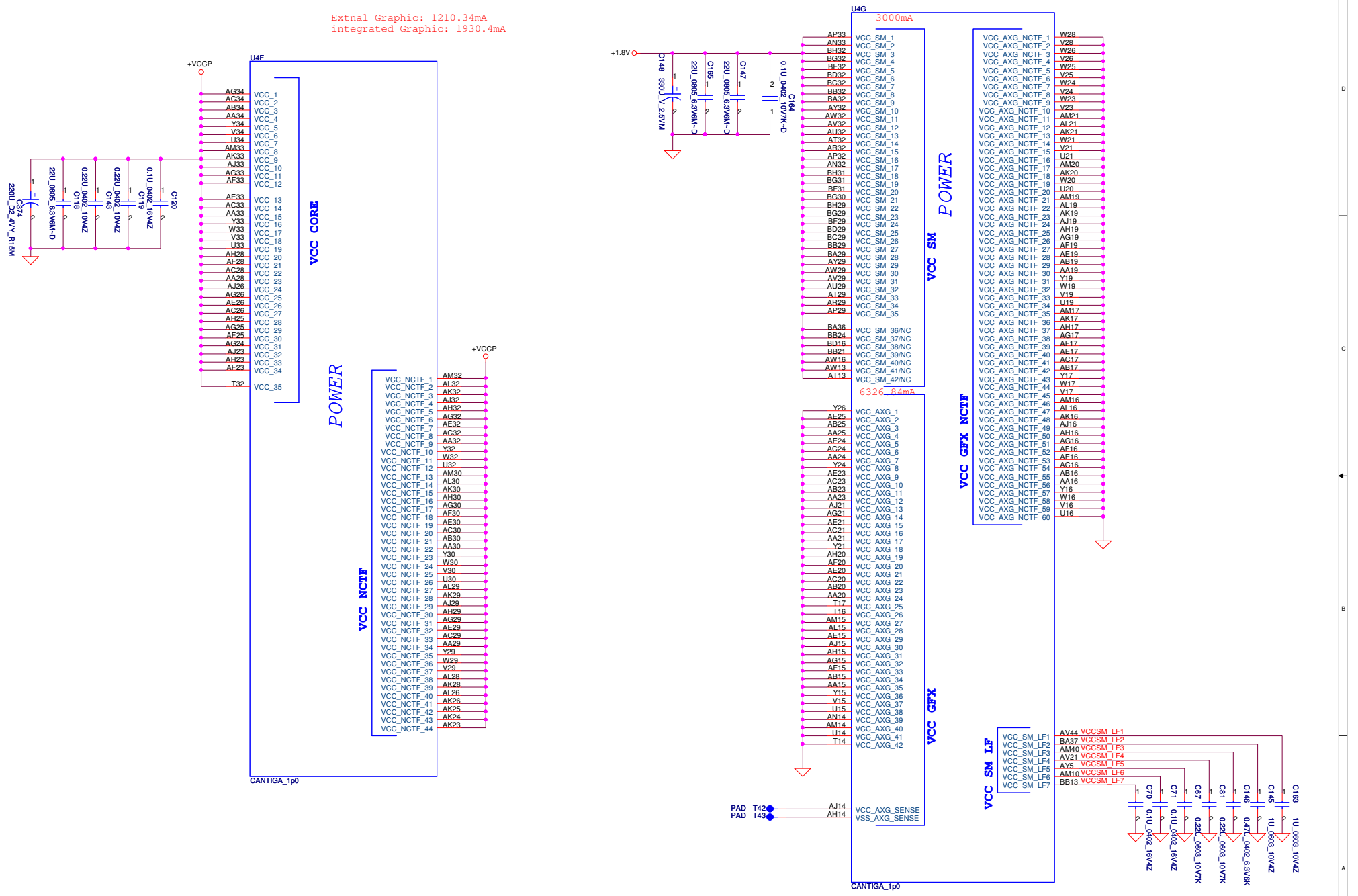
Strap Pin Table

CFG[2:0] FSB Freq select	000 = FSB 1066MHz 010 = FSB 800MHz 011 = FSB 667MHz Others = Reserved
CFG[4:3]	Reserved
CFG5 (DMI select)	0 = DMI x 2 1 = DMI x 4 *
CFG6	0 = The ITPM Host Interface is enable * 1 = The ITPM Host Interface is disable
CFG7 (Intel Management Engine Crypto strap)	0 =(TLS)chiper suite with no confidentiality 1 =(TLS)chiper suite with confidentiality *
CFG8	Reserved
CFG9 (PCIe Graphics Lane Reversal)	0 = Reverse Lane,15->0, 14->1 1 = Normal Operation,Lane Number in order *
CFG10 (PCIe Lookback enable)	0 = Enable 1 = Disable *
CFG11	Reserved
CFG13[12] (XOR/ALLZ)	00 = Reserved 01 = XOR Mode Enabled 10 = All Z Mode Enabled 11 = Normal Operation(Default) *
CFG[15:14]	Reserved
CFG16 (FSB Dynamic ODT)	0 = Disabled 1 = Enabled *
CFG[18:17]	Reserved
CFG19 (DMI Lane Reversal)	0 = Normal Operation * (Lane number in Order) 1 = Reverse Lane
CFG20 (PCIe/SDVO concurrent)	0 = Only PCIe or SDVO is operational. * 1 = PCIe/SDVO are operating simu.



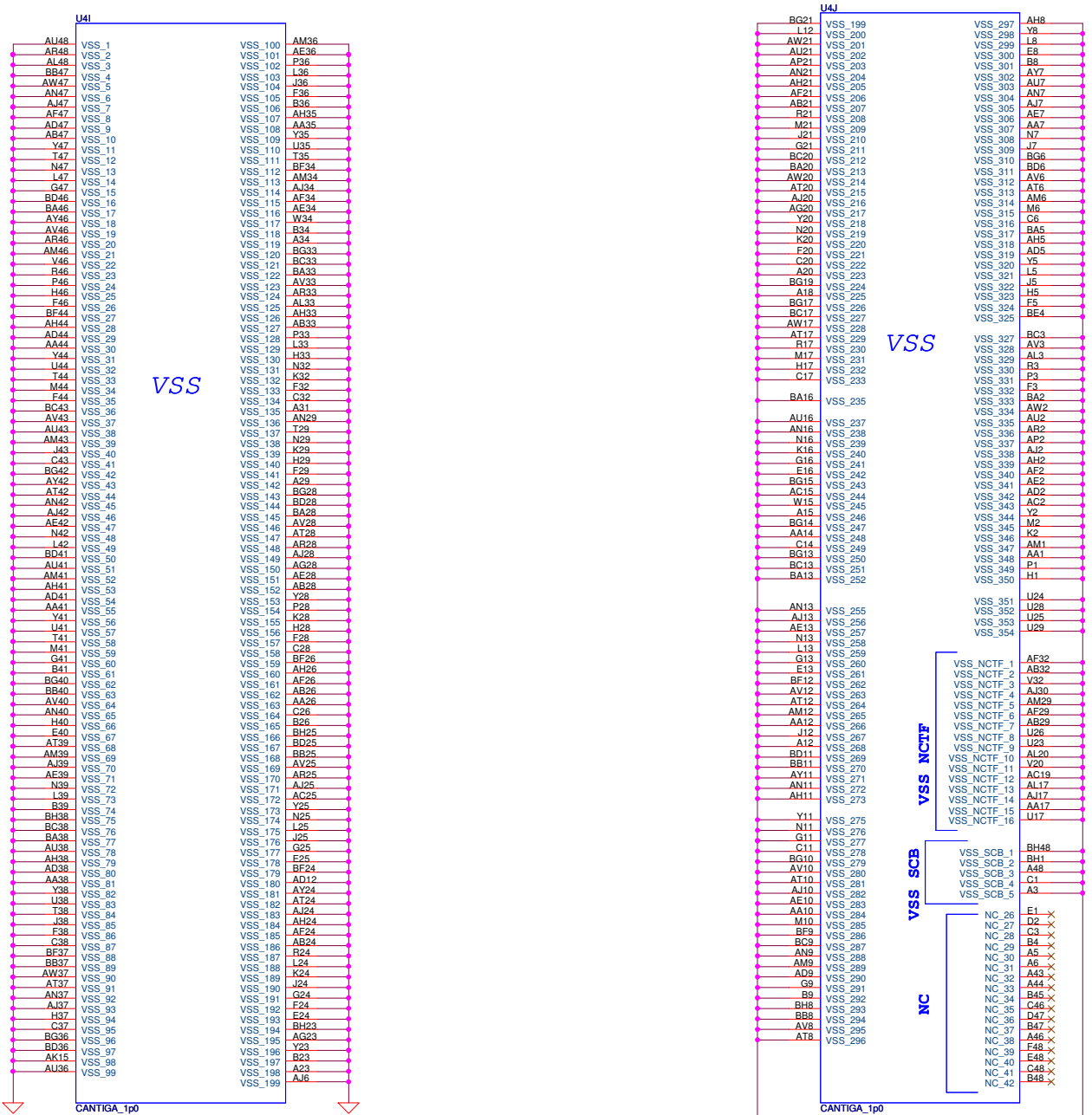


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/02/13	Deciphered Date	2006/03/10	Title	Cantiga(4)6)-PWR
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF 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-4595P	1.0			
Date:	Tuesday, February 17, 2009	Sheet	10	of	49

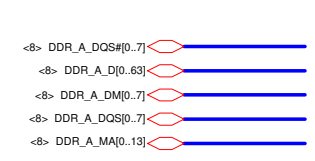


Extnal Graphic: 1210.34mA
 integrated Graphic: 1930.4mA

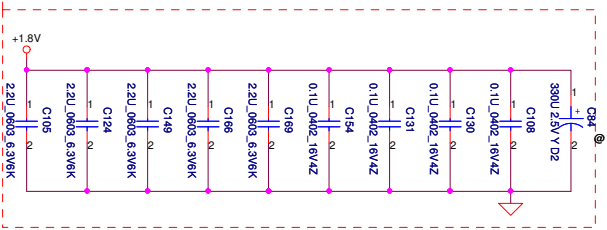
Security Classification	Compal Secret Data		Title	
Issued Date	2006/02/13	Deciphered Date	2006/03/10	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Cantiga(S/6)-PWR/GND Size Custort Date: Tuesday, February 17, 2009
			Sheet 11 of 49	Document Number LA-4595P Rev 1.0



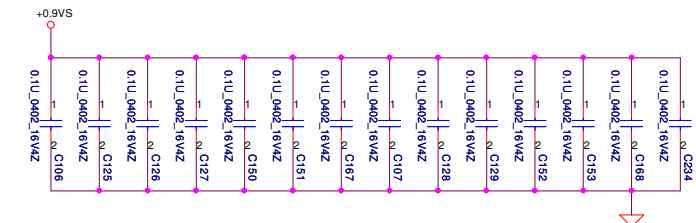
Security Classification		Compal Secret Data		Title	
Issued Date	2006/02/13	Deciphered Date	2006/03/10	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSMITTED 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.				Cantiga(6/6)-PWR/GND	
Size	Document Number	Date		Sheet	Rev
Custort	LA-4595P	Tuesday, February 17, 2009		12	1.0
				of	49



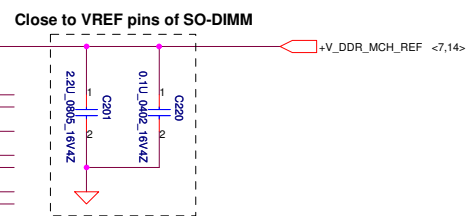
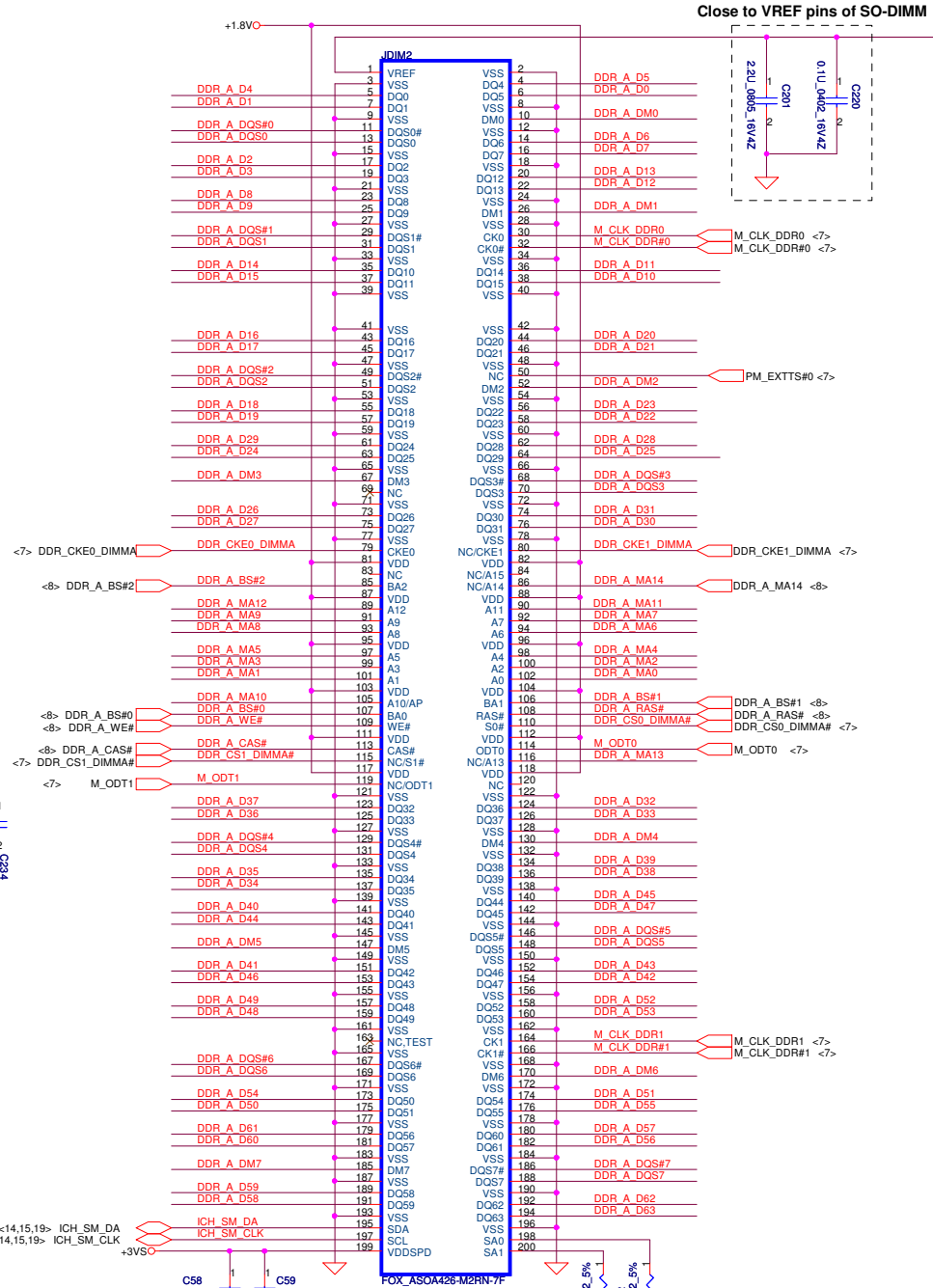
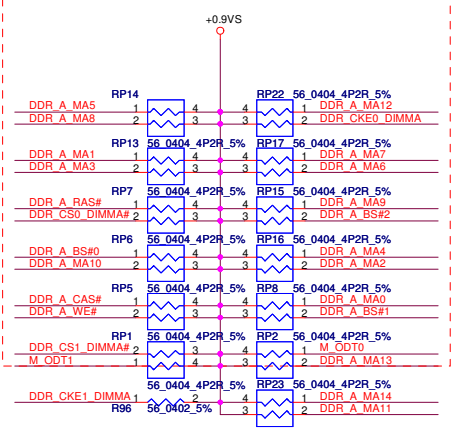
Layout Note:
Place near JDIM1



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

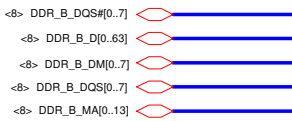


Layout Note:
Place these resistor closely JP41, all trace length Max=1.5"

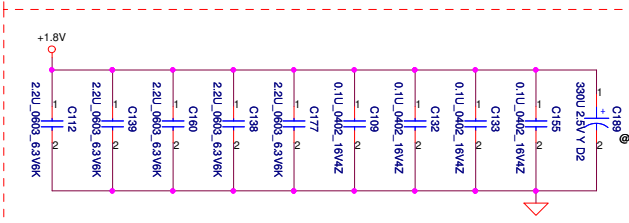


**SO-DIMM A
REVERSE
Bottom side**

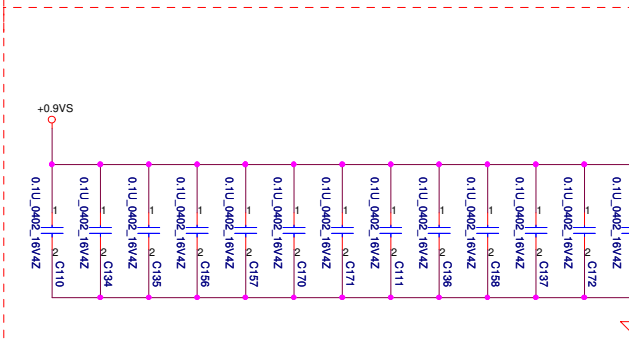
Security Classification		Compal Secret Data		Title		
Issued Date	2007/1/15	Deciphered Date	2008/1/15	DDR2 SO-DIMM I		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number LA-4595P	Rev 1.0
Date:	Tuesday, February 17, 2009	Sheet	13	of	49	



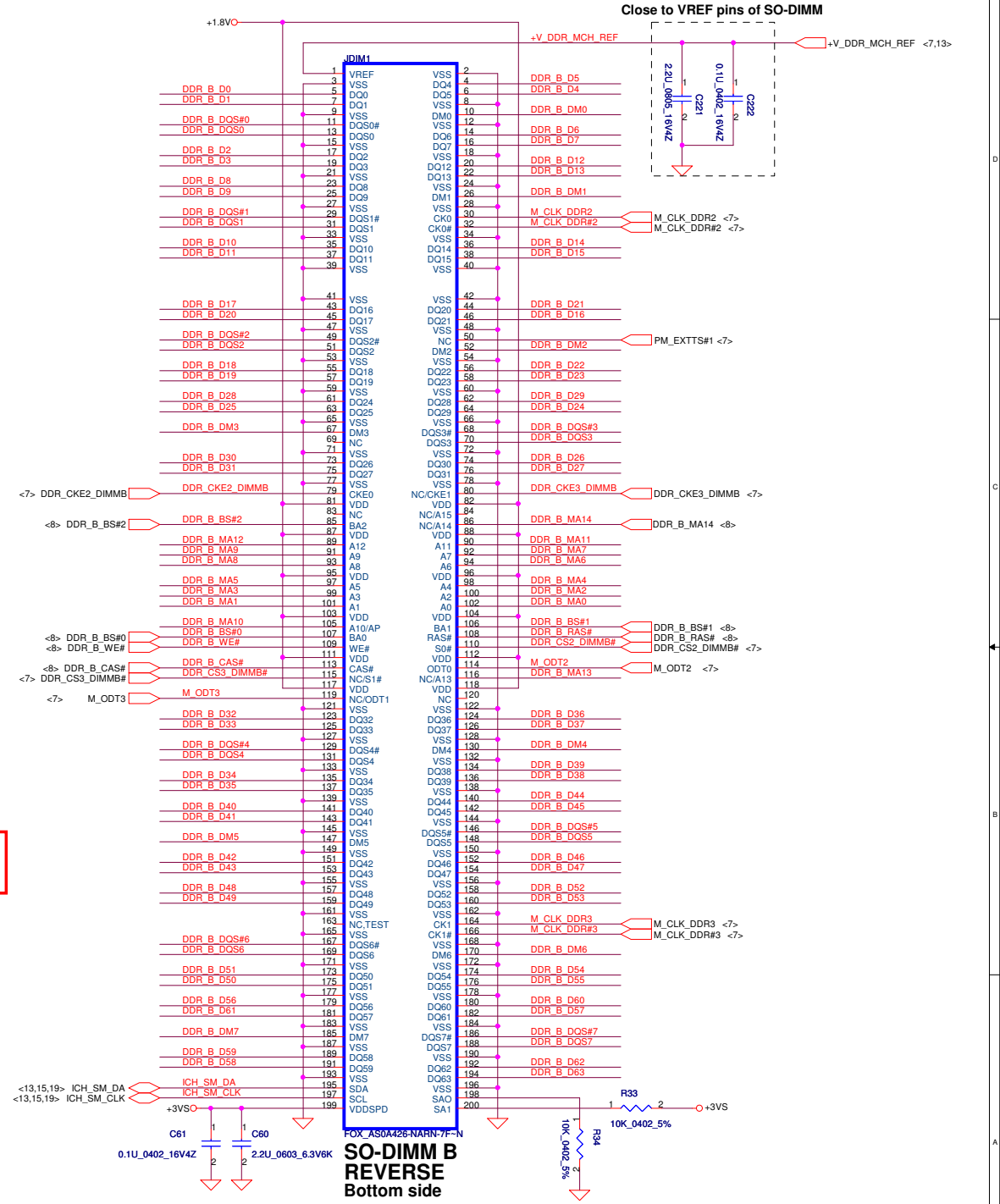
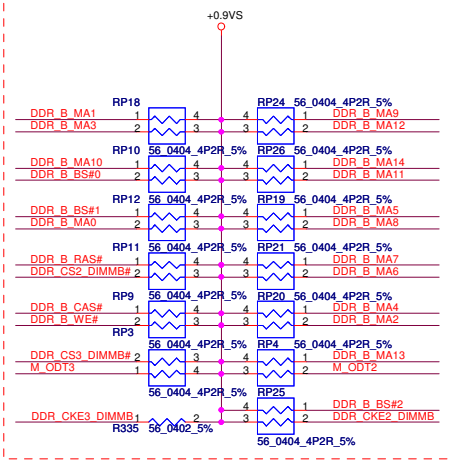
Layout Note:
Place near JDIM2



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



Layout Note:
Place these resistor closely JP42, all trace length Max=1.5"



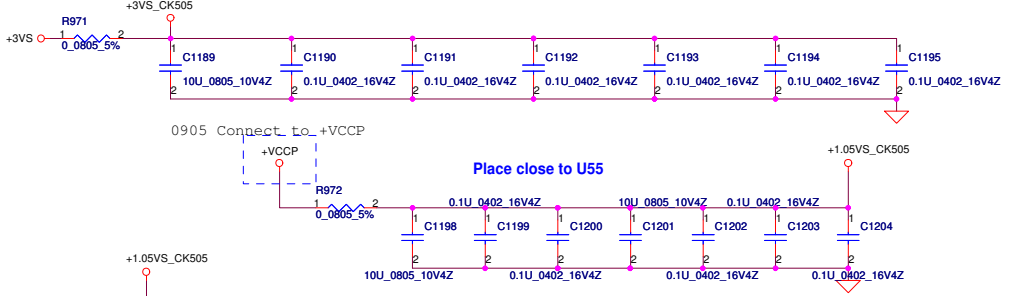
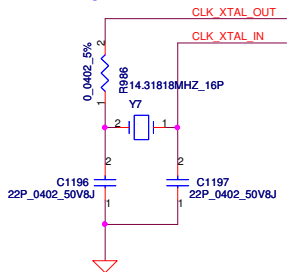
**SO-DIMM B
REVERSE
Bottom side**

Security Classification	Compal Secret Data		Title	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	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.				Size Custom Date: Tuesday, February 17, 2009
Document Number LA-4595P			Rev 1.0	
Sheet 14 of 49			Date: Tuesday, February 17, 2009	

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

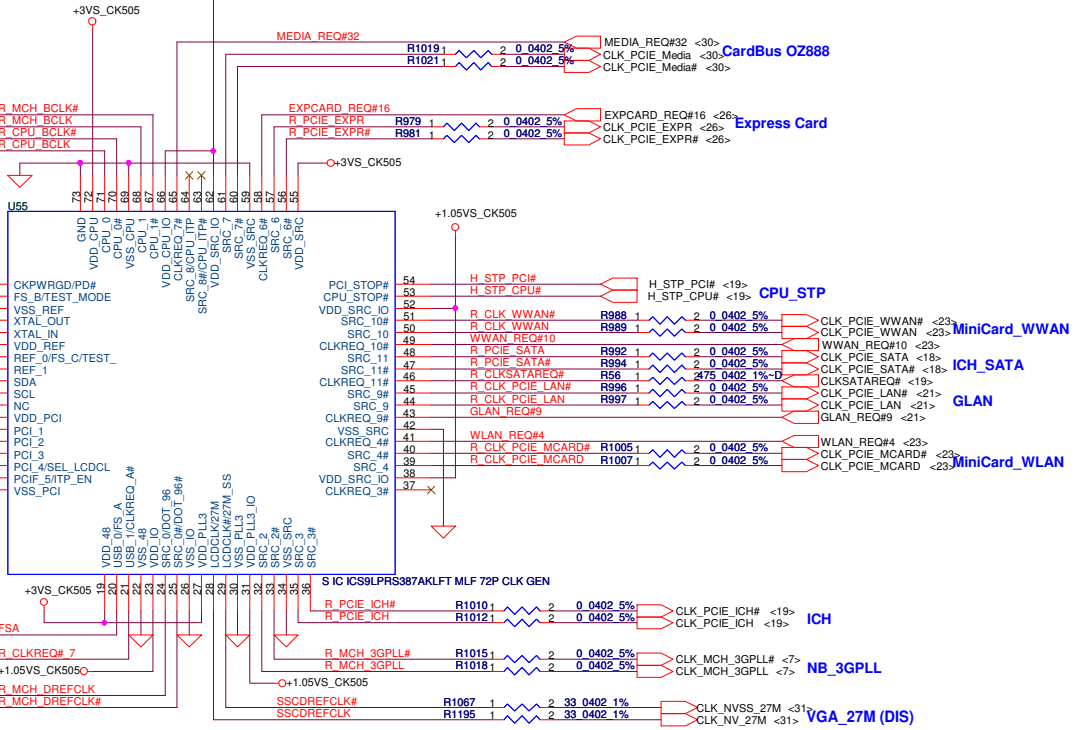
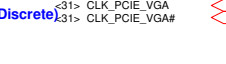
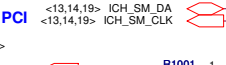
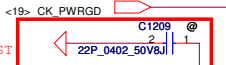
Reserved

Routing the trace at least 10mil

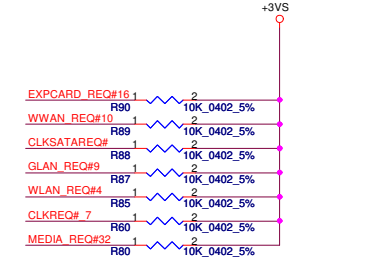
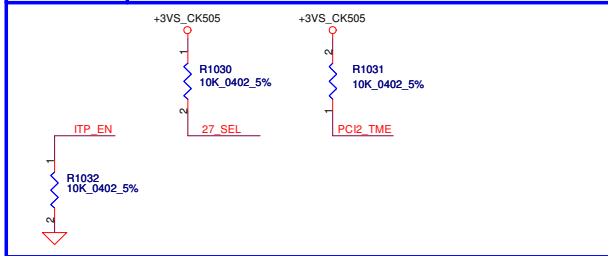


- NB** <-7> CLK_MCH_BCLK#
CPU <-7> CLK_MCH_BCLK
 <-4> CLK_CPU_BCLK#
 <-4> CLK_CPU_BCLK

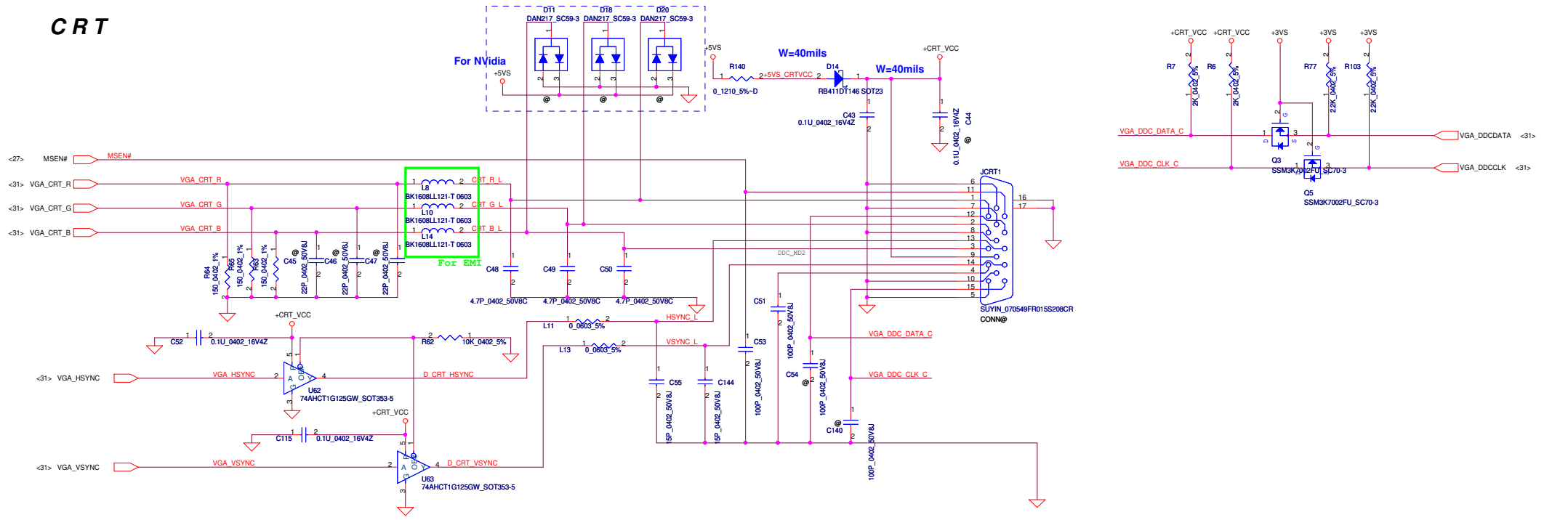
- CardBus OZ888**
 MEDIA_REQ#32 <-30>
 CLK_PCIE_Media# <-30>
 CLK_PCIE_Media# <-30>
- Express Card**
 EXPCARD_REQ#16 <-26>
 R_PCIE_EXPR# <-26>
 CLK_PCIE_EXPR# <-26>



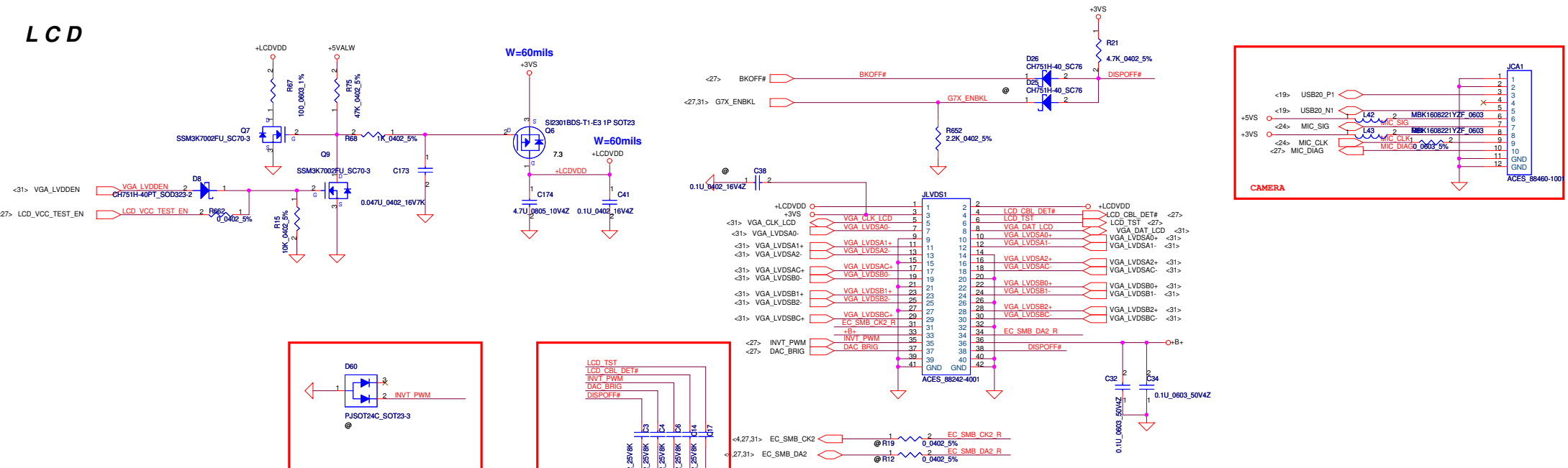
ITP_EN	*0 = SRC8/SRC8# 1 = ITP/ITP#
27_SEL	0 = Enable DOT96 & SRC1(UMA) *1 = Enable SRC0 & 27MHz(DIS)
PCI2_TME	0 = Overclocking of CPU and SRC Allowed *1 = Overclocking of CPU and SRC NOT allowed



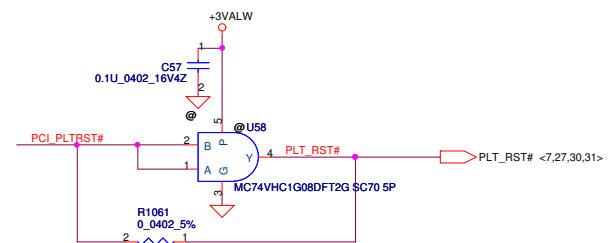
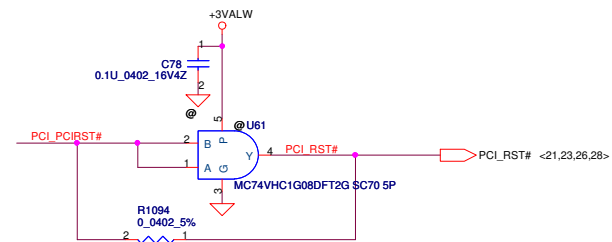
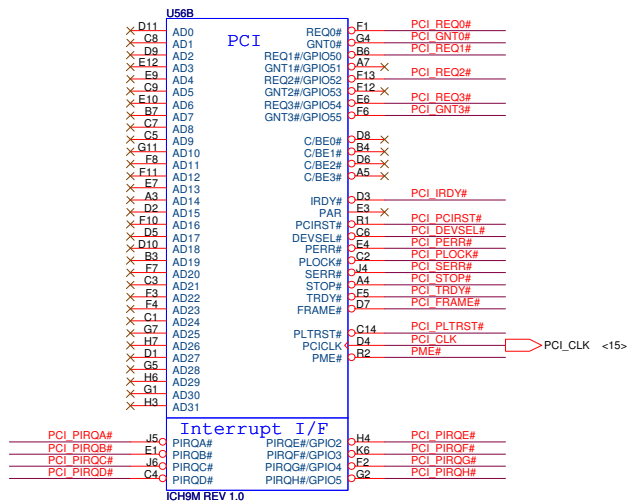
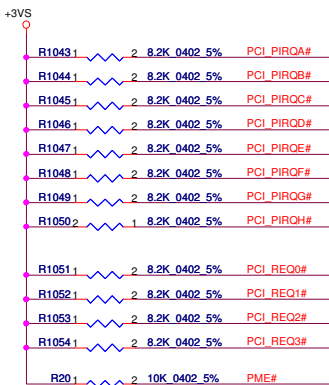
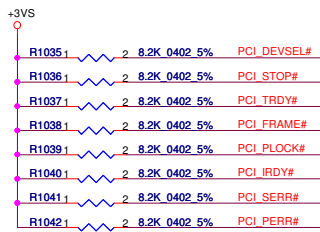
CRT



LCD



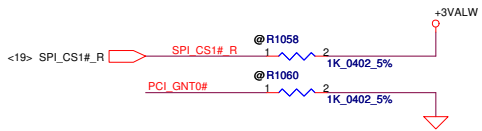
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/11/15	Deciphered Date	2008/11/15	Title CRT CONN/LCD CONN	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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	Date		Rev	
Custom	LA-4595P	Tuesday, February 17, 2009		1.0	
Date			Sheet 16 of 49		

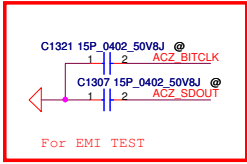
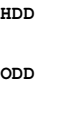
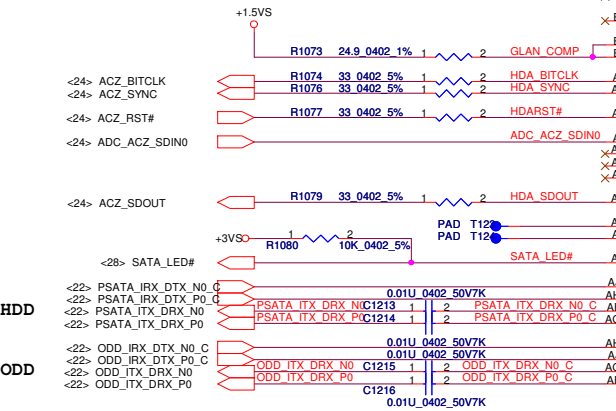
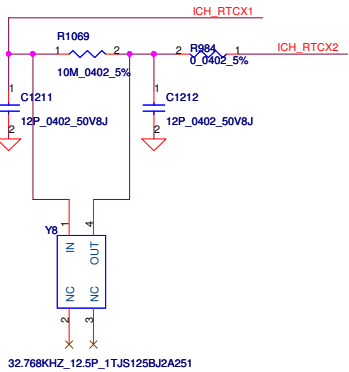
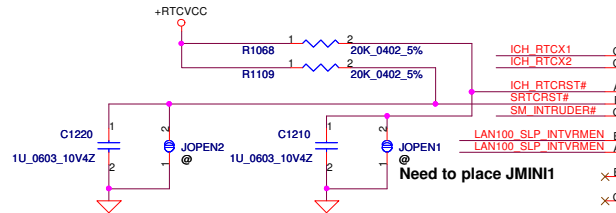
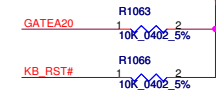
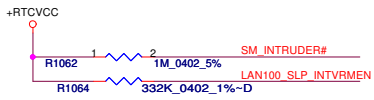


A16 swap override Strap
 Low= A16 swap override Enable
 High= Default *

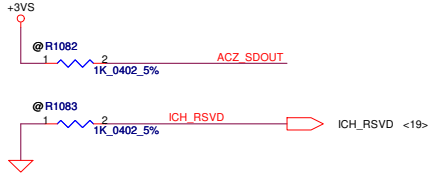


Boot BIOS Strap		
PCI_GNT0#	SPI_CS#1	Boot BIOS Location
0	1	SPI
1	0	PCI
1	1	LPC *

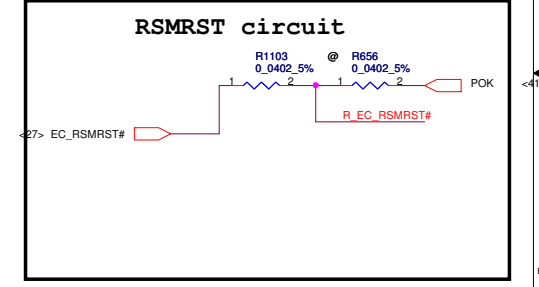
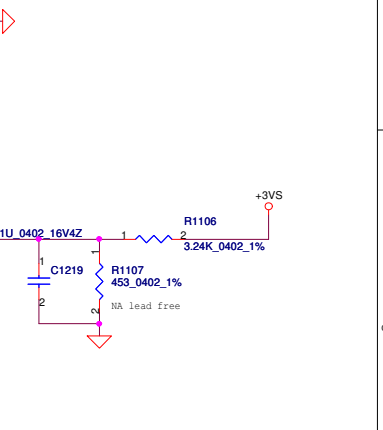
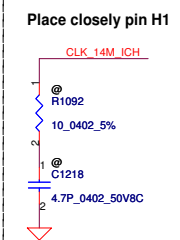
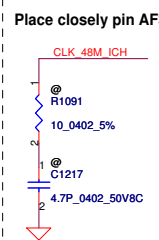
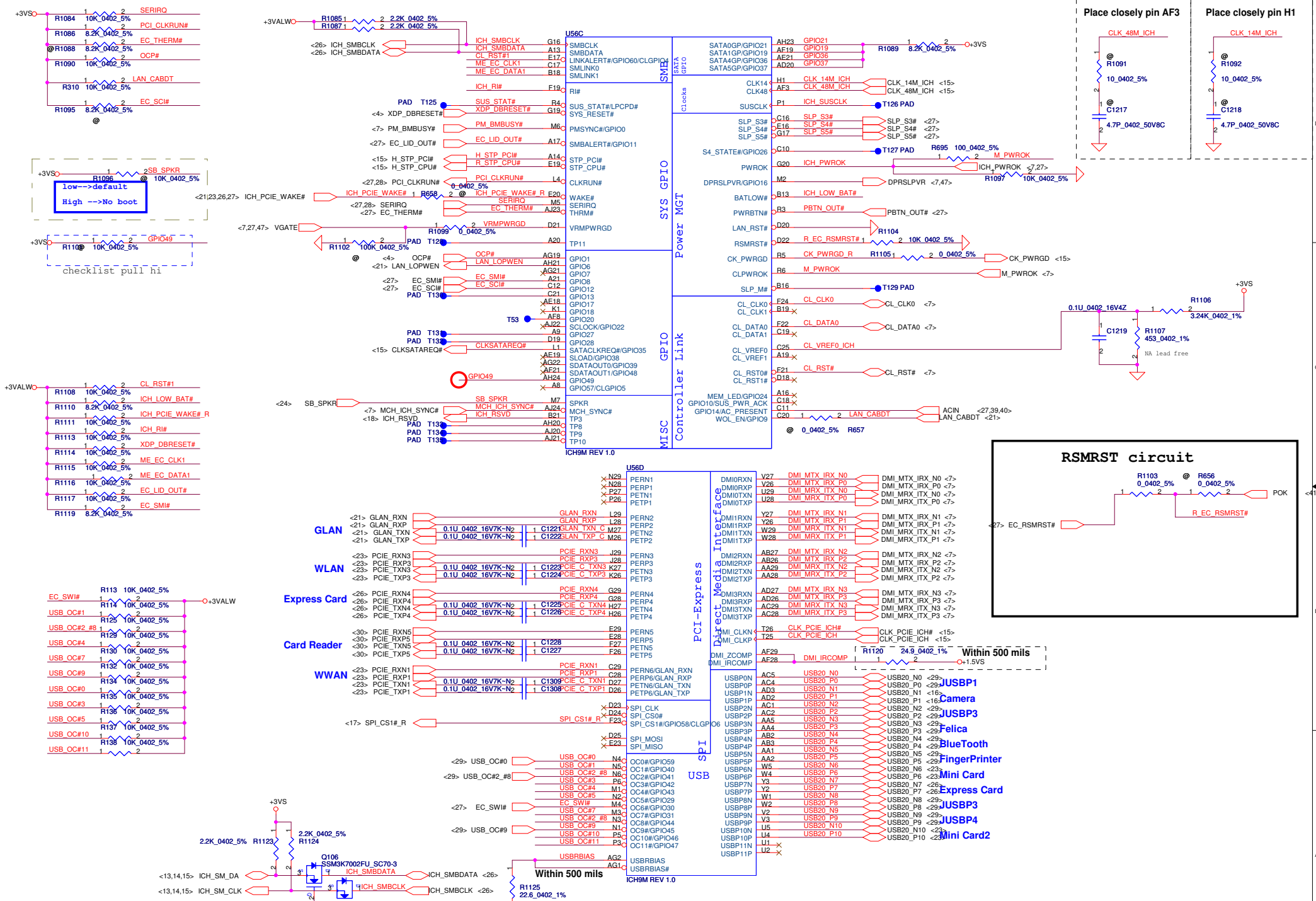




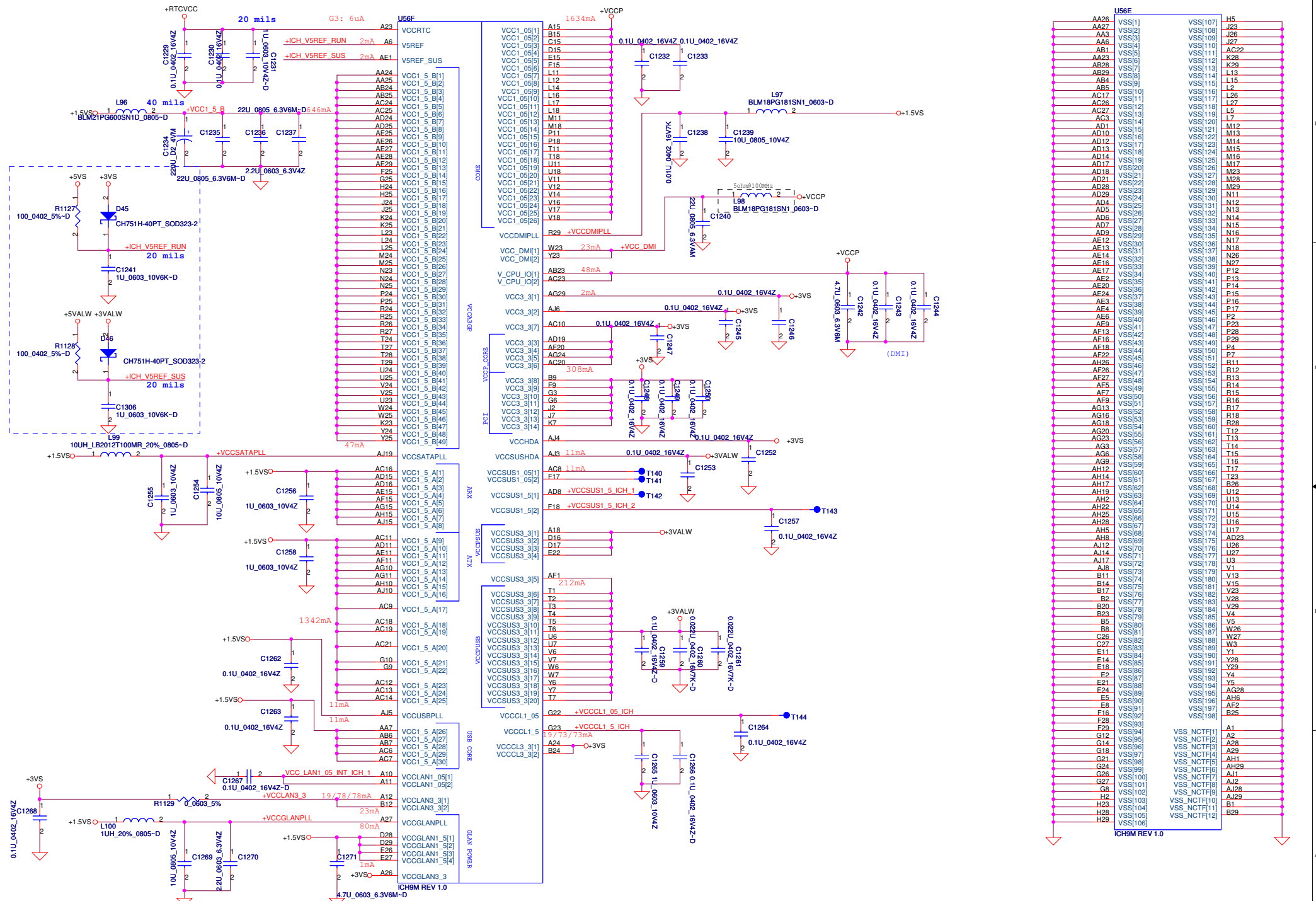
XOR CHAIN ENTRANCE STRAP:RSVD



Security Classification	Compal Secret Data			Title		
Issued Date	2006/02/13	Deciphered Date	2006/03/10	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.				Size	Document Number	Rev
				Custom	LA-4595P	1.0
				Date:	Tuesday, February 17, 2009	Sheet 18 of 49

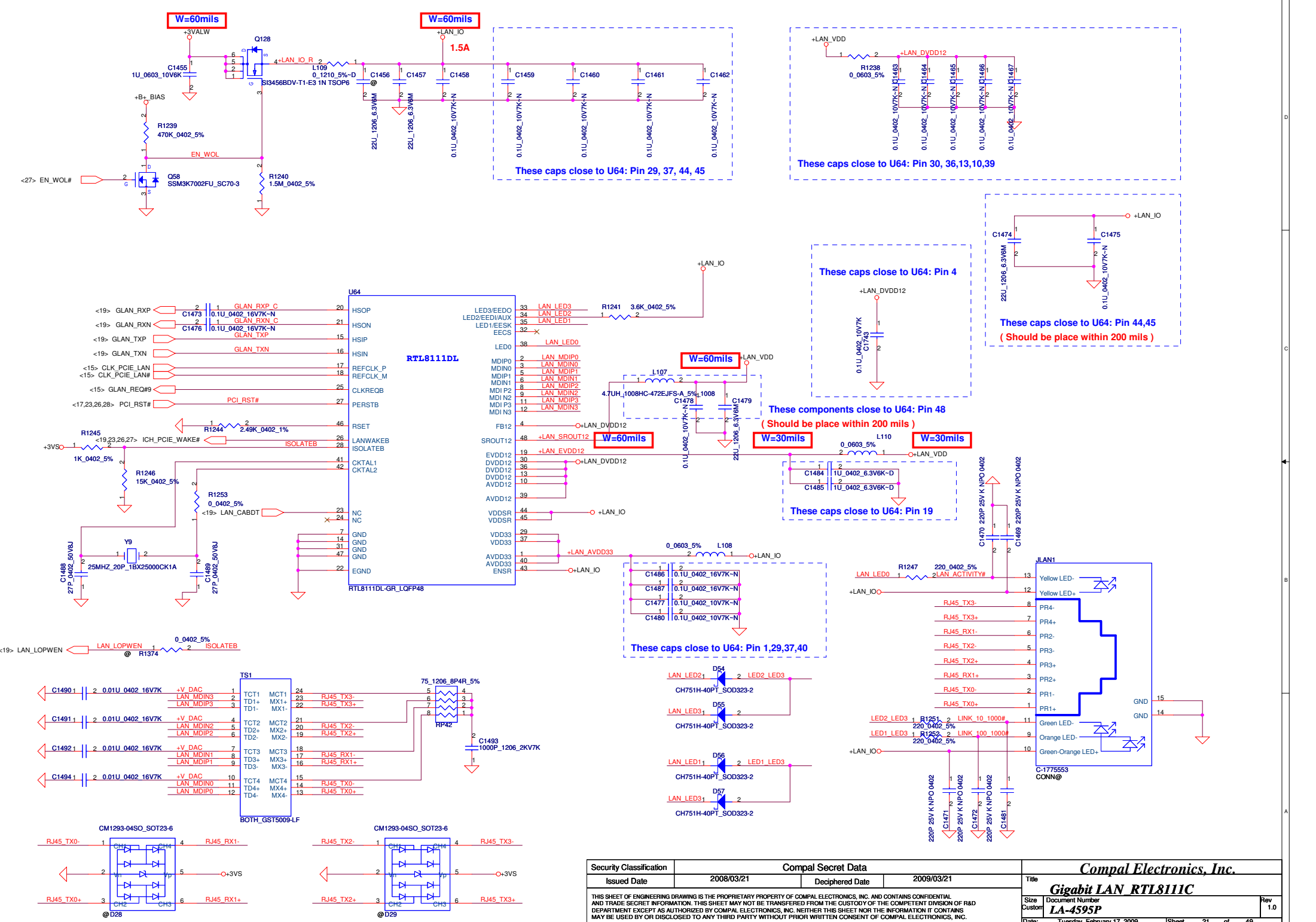


Security Classification		Compal Secret Data		Title		
Issued Date	2006/02/13	Deciphered Date	2006/03/10	Compal Electronics, Inc.		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Size	Document Number	
				LA-4595P	IC9M(3/4) DMI,USB,GPIO,PCIE	
Customer	Rev 1.0	Date	Tuesday, February 17, 2009	Sheet	19 of 49	



AA26	VSS[1]	VSS[107]	H5
AA27	VSS[2]	VSS[108]	J23
AA3	VSS[3]	VSS[109]	J26
AA4	VSS[4]	VSS[110]	J27
AA5	VSS[5]	VSS[111]	AC22
AA6	VSS[6]	VSS[112]	K28
AA7	VSS[7]	VSS[113]	K29
AA8	VSS[8]	VSS[114]	L13
AA9	VSS[9]	VSS[115]	L5
AB1	VSS[10]	VSS[116]	L2
AB2	VSS[11]	VSS[117]	L26
AB3	VSS[12]	VSS[118]	L27
AB4	VSS[13]	VSS[119]	L7
AB5	VSS[14]	VSS[120]	M12
AB6	VSS[15]	VSS[121]	M13
AB7	VSS[16]	VSS[122]	M14
AB8	VSS[17]	VSS[123]	M15
AB9	VSS[18]	VSS[124]	M16
AB10	VSS[19]	VSS[125]	M17
AB11	VSS[20]	VSS[126]	M18
AB12	VSS[21]	VSS[127]	M19
AB13	VSS[22]	VSS[128]	N11
AB14	VSS[23]	VSS[129]	N12
AB15	VSS[24]	VSS[130]	N13
AB16	VSS[25]	VSS[131]	N14
AB17	VSS[26]	VSS[132]	N15
AB18	VSS[27]	VSS[133]	N16
AB19	VSS[28]	VSS[134]	N17
AB20	VSS[29]	VSS[135]	N18
AB21	VSS[30]	VSS[136]	N26
AB22	VSS[31]	VSS[137]	N27
AB23	VSS[32]	VSS[138]	P13
AB24	VSS[33]	VSS[139]	P14
AB25	VSS[34]	VSS[140]	P15
AB26	VSS[35]	VSS[141]	P16
AB27	VSS[36]	VSS[142]	P17
AB28	VSS[37]	VSS[143]	P2
AB29	VSS[38]	VSS[144]	P23
AB30	VSS[39]	VSS[145]	P28
AB31	VSS[40]	VSS[146]	P29
AB32	VSS[41]	VSS[147]	P4
AB33	VSS[42]	VSS[148]	P7
AB34	VSS[43]	VSS[149]	R12
AB35	VSS[44]	VSS[150]	R13
AB36	VSS[45]	VSS[151]	R14
AB37	VSS[46]	VSS[152]	R15
AB38	VSS[47]	VSS[153]	R16
AB39	VSS[48]	VSS[154]	R17
AB40	VSS[49]	VSS[155]	R18
AB41	VSS[50]	VSS[156]	R28
AB42	VSS[51]	VSS[157]	T12
AB43	VSS[52]	VSS[158]	T13
AB44	VSS[53]	VSS[159]	T14
AB45	VSS[54]	VSS[160]	T15
AB46	VSS[55]	VSS[161]	T16
AB47	VSS[56]	VSS[162]	B26
AB48	VSS[57]	VSS[163]	B27
AB49	VSS[58]	VSS[164]	B28
AB50	VSS[59]	VSS[165]	B29
AB51	VSS[60]	VSS[166]	B30
AB52	VSS[61]	VSS[167]	B31
AB53	VSS[62]	VSS[168]	B32
AB54	VSS[63]	VSS[169]	B33
AB55	VSS[64]	VSS[170]	B34
AB56	VSS[65]	VSS[171]	B35
AB57	VSS[66]	VSS[172]	B36
AB58	VSS[67]	VSS[173]	B37
AB59	VSS[68]	VSS[174]	B38
AB60	VSS[69]	VSS[175]	B39
AB61	VSS[70]	VSS[176]	B40
AB62	VSS[71]	VSS[177]	B41
AB63	VSS[72]	VSS[178]	B42
AB64	VSS[73]	VSS[179]	B43
AB65	VSS[74]	VSS[180]	B44
AB66	VSS[75]	VSS[181]	B45
AB67	VSS[76]	VSS[182]	B46
AB68	VSS[77]	VSS[183]	B47
AB69	VSS[78]	VSS[184]	B48
AB70	VSS[79]	VSS[185]	B49
AB71	VSS[80]	VSS[186]	B50
AB72	VSS[81]	VSS[187]	W26
AB73	VSS[82]	VSS[188]	W27
AB74	VSS[83]	VSS[189]	W28
AB75	VSS[84]	VSS[190]	W29
AB76	VSS[85]	VSS[191]	V5
AB77	VSS[86]	VSS[192]	W26
AB78	VSS[87]	VSS[193]	W27
AB79	VSS[88]	VSS[194]	W28
AB80	VSS[89]	VSS[195]	W29
AB81	VSS[90]	VSS[196]	Y1
AB82	VSS[91]	VSS[197]	Y2
AB83	VSS[92]	VSS[198]	Y4
AB84	VSS[93]	VSS[199]	Y5
AB85	VSS[94]	VSS[200]	AC28
AB86	VSS[95]	VSS[201]	AH6
AB87	VSS[96]	VSS[202]	AE2
AB88	VSS[97]	VSS[203]	B25
AB89	VSS[98]	VSS[204]	A1
AB90	VSS[99]	VSS[205]	A2
AB91	VSS[100]	VSS[206]	A3
AB92	VSS[101]	VSS[207]	A4
AB93	VSS[102]	VSS[208]	A5
AB94	VSS[103]	VSS[209]	A6
AB95	VSS[104]	VSS[210]	A7
AB96	VSS[105]	VSS[211]	A8
AB97	VSS[106]	VSS[212]	A9

Security Classification	Compal Secret Data		Title	
Issued Date	2006/02/13	Deciphered Date	2006/03/10	ICH9M REV 1.0
<p>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.</p>				
Size	Document Number	Sheet	20	Rev
Custom	LA-4595P		of	1.0
Date:	Tuesday, February 17, 2009			

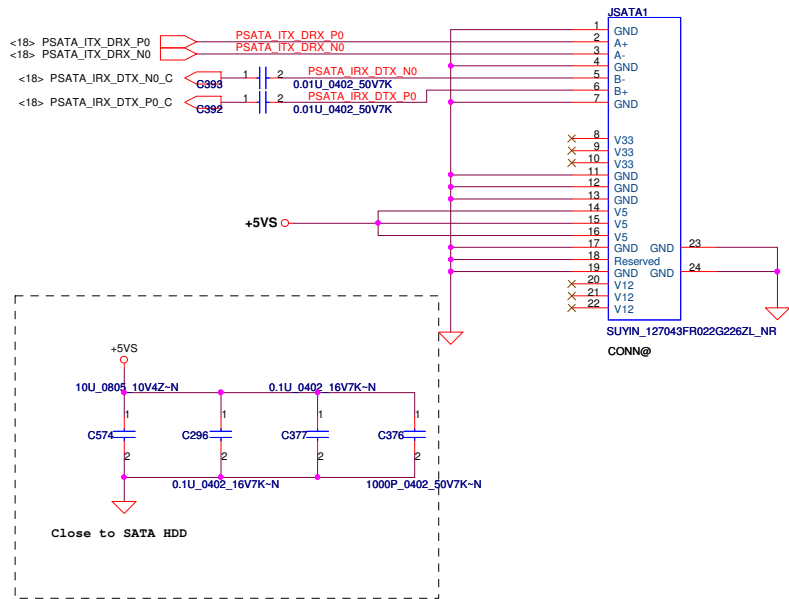


Security Classification	Compal Secret Data	
Issued Date	2008/03/21	Deciphered Date
		2009/03/21

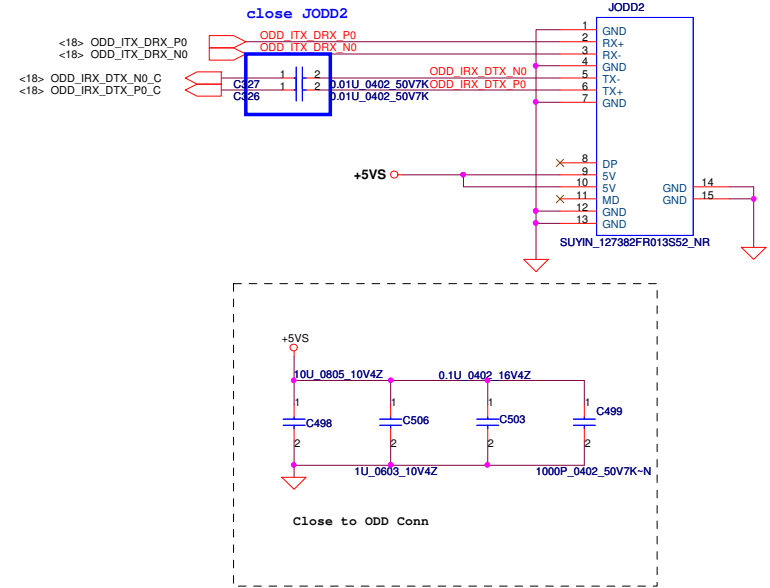
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS 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.		
Gigabit LAN RTL8111C		
Title	Document Number	Rev
	LA-4595P	1.0
Date:	Tuesday, February 17, 2009	Sheet 21 of 49

SATA HDD CONN

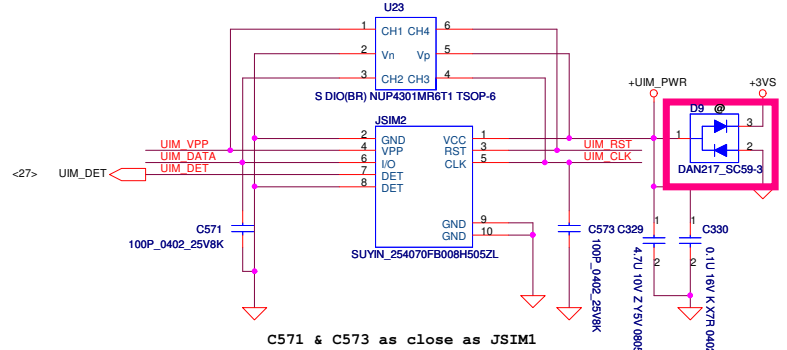
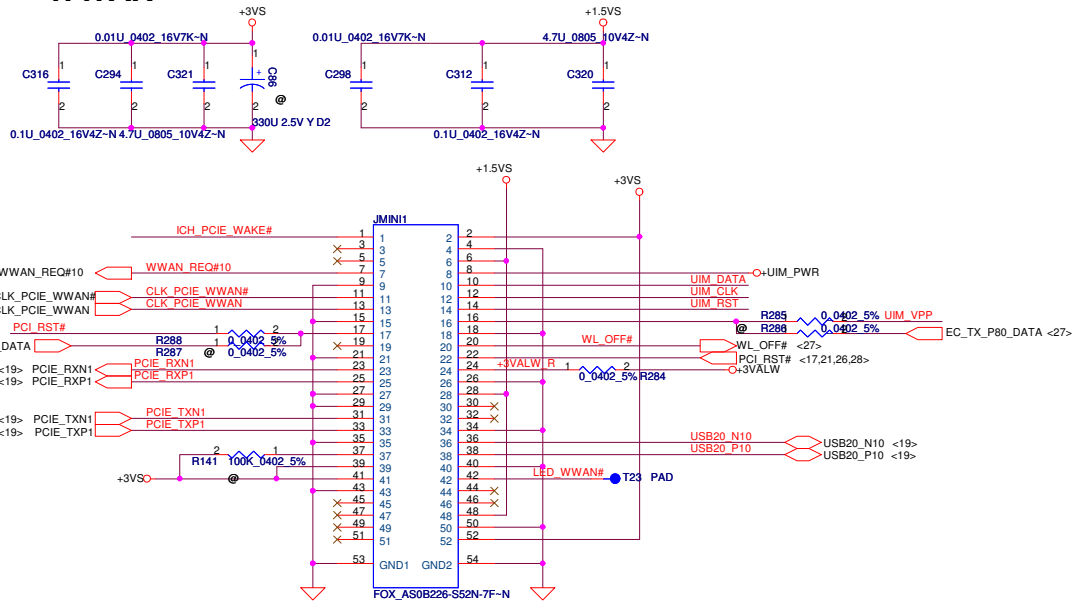


SATA ODD CONN



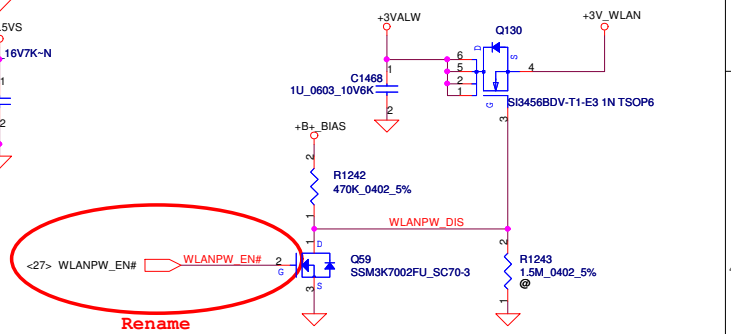
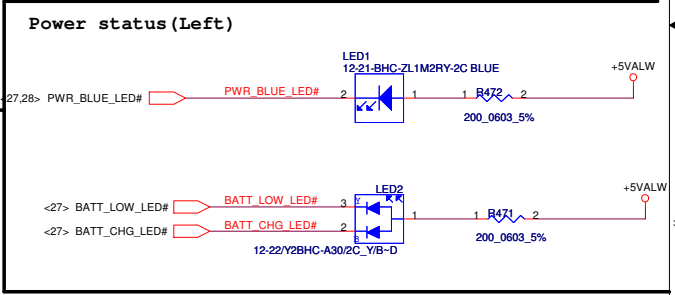
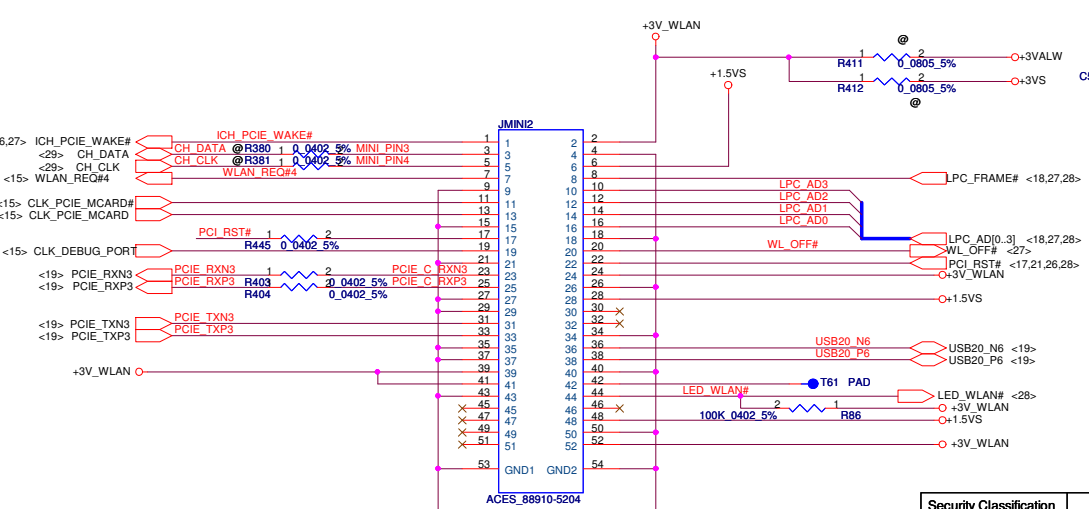
Security Classification	Compal Secret Data		Title	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	HDD/CDROM
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY 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 LA-4595P Date: Tuesday, February 17, 2009 Sheet 22 of 49
				Rev 1.0

WWAN



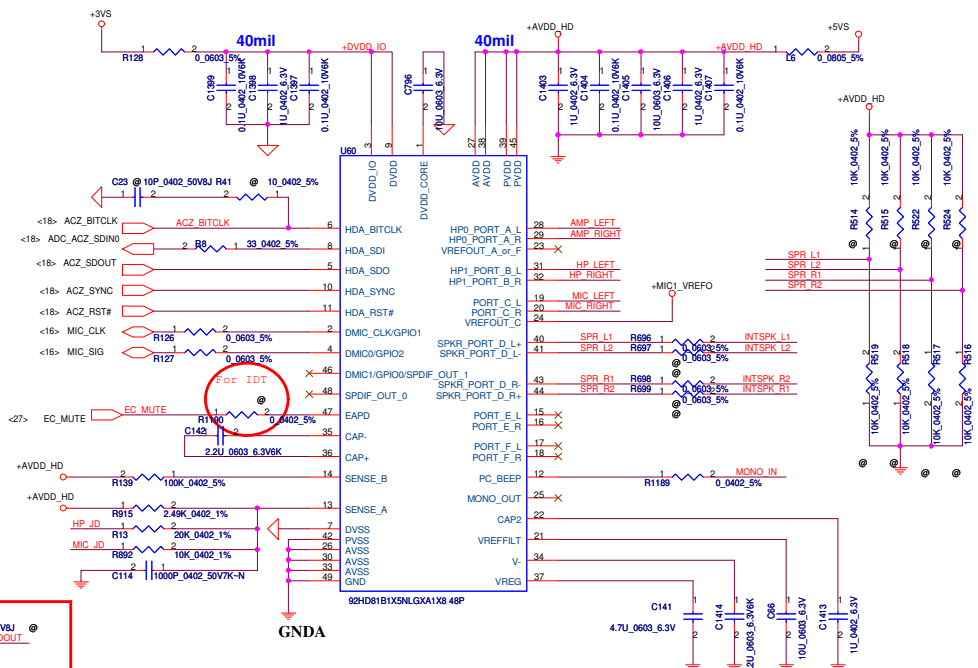
C571 & C573 as close as JSIM1

Mini-Express Card---WLAN

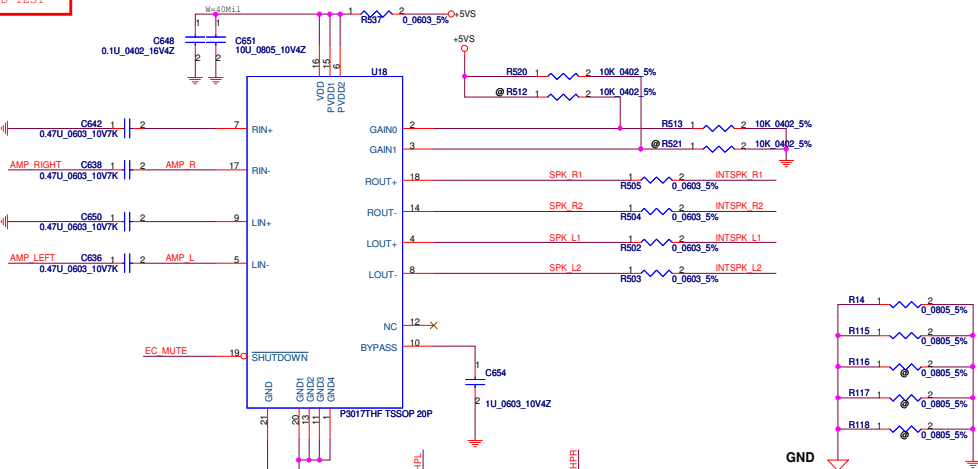


Rename

Security Classification			Compal Secret Data			Title		
Issued Date			2007/1/15			Deciphered Date		
						2008/1/15		
<p>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.</p>								
<p>Size Custort LA-4595P</p>						<p>Document Number LA-4595P</p>		
Date: Tuesday, February 17, 2009						Rev 1.0		
Sheet 23						of 49		



C132 15P_0402_50VBJ
For SED TEST

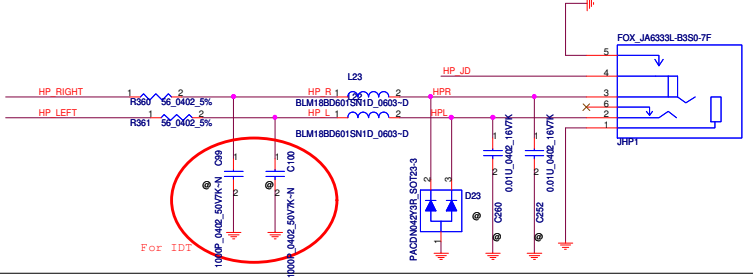


GND GND

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

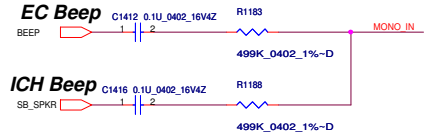
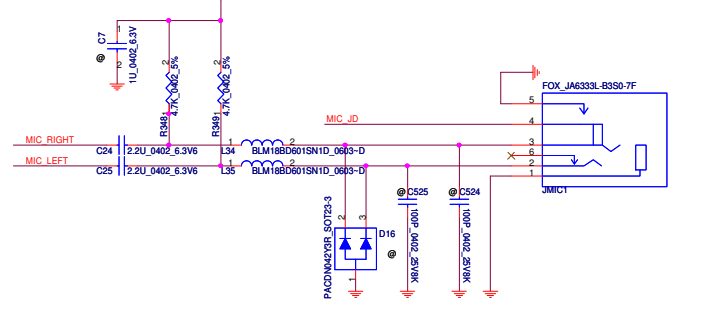
For pop/click noise from S3/S4/cold boot/warm boot

HEADPHONE OUT JACK

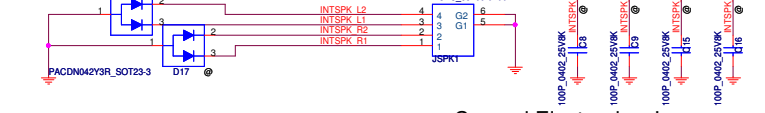


For ID1

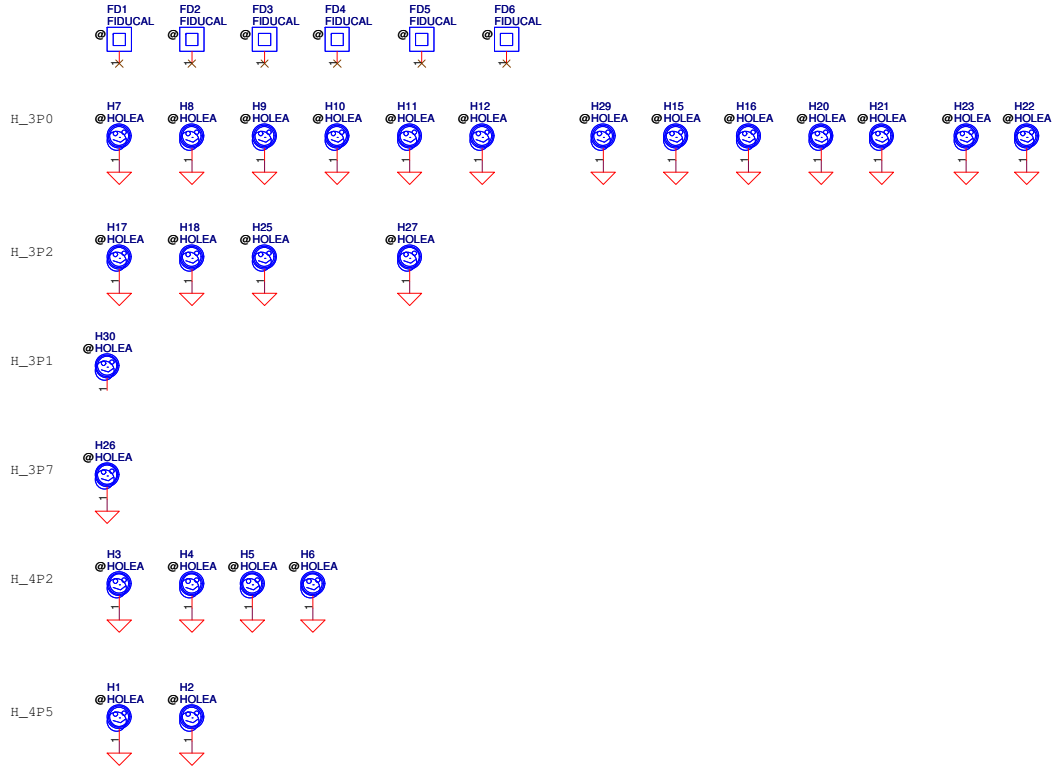
MICROPHONE IN JACK



Speaker Connector

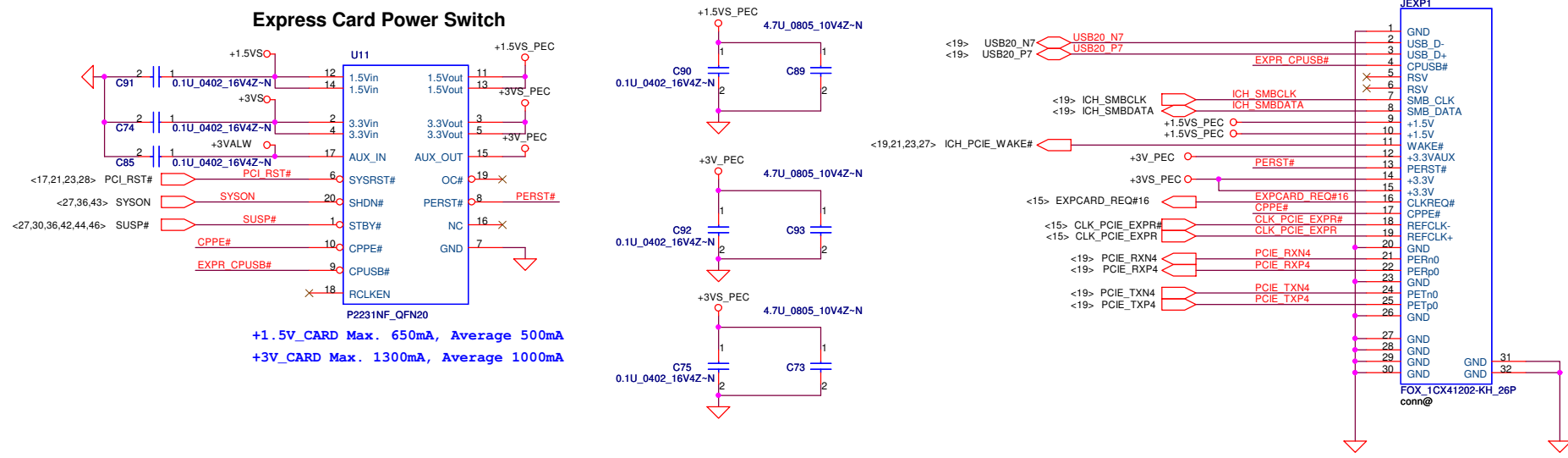


Compal Electronics, Inc.



Security Classification	Compal Secret Data		Title		<i>Compal Electronics, Inc.</i>	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	Size		Rev
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.				Custom	Document Number	1.0
				Date:	Tuesday, February 17, 2009	Sheet

Express card

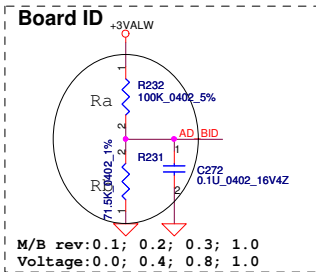
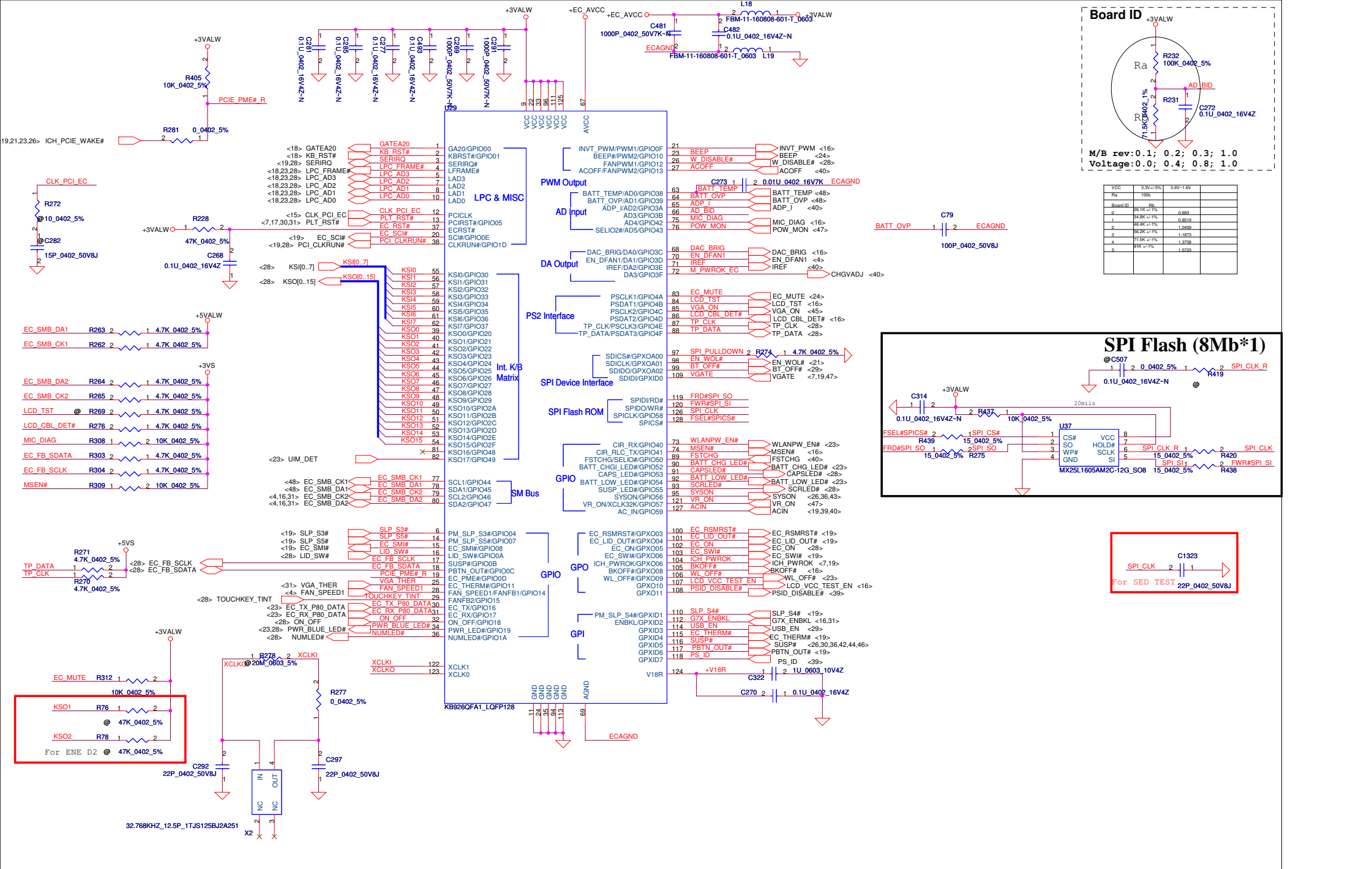


Express Card Power Switch

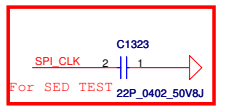
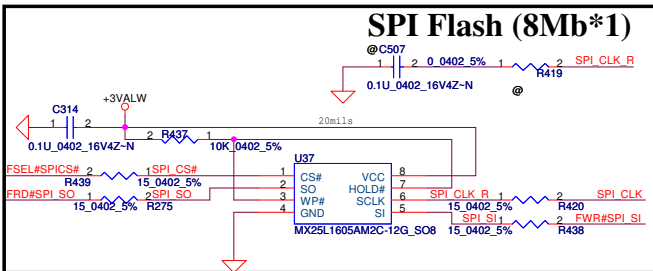
P2231NF_QFN20

+1.5V_CARD Max. 650mA, Average 500mA
 +3V_CARD Max. 1300mA, Average 1000mA

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				EXPRESS CARD Size Custom Document Number LA-4595P Rev 1.0 Date: Tuesday, February 17, 2009 Sheet 26 of 49	

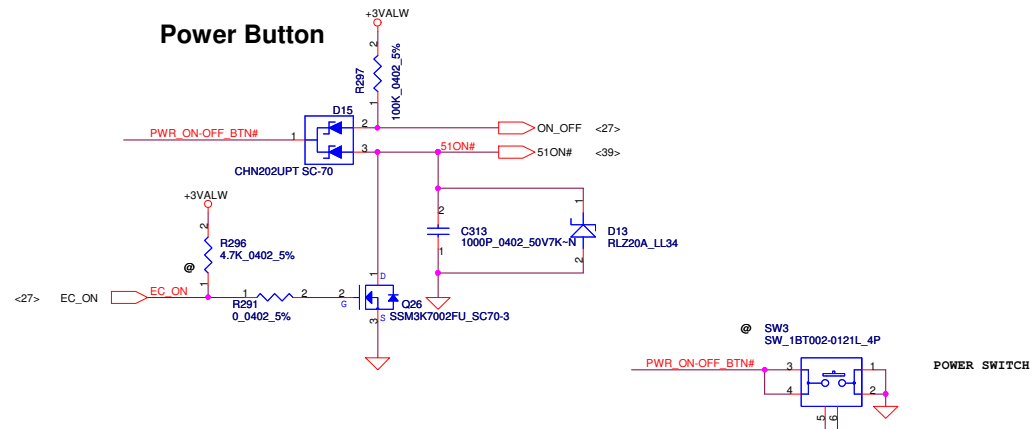


VCC	3.3V±5%	0.6V-1.6V
Ra	100K	
Rb		100K
Board ID	0.0	0.885
1	0.885	0.8519
2	0.8519	1.0459
3	1.0459	1.1879
4	1.1879	1.3729
5	1.3729	1.5729

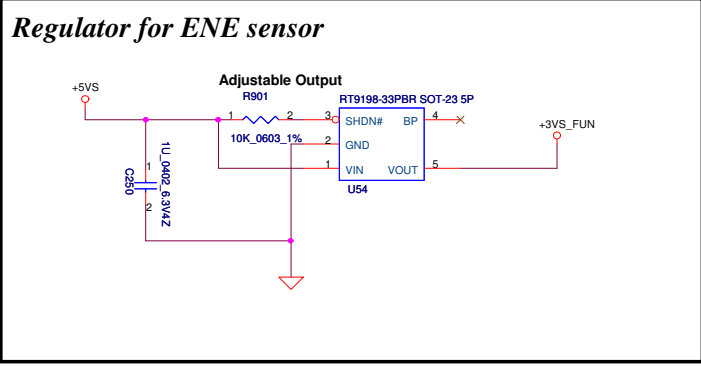
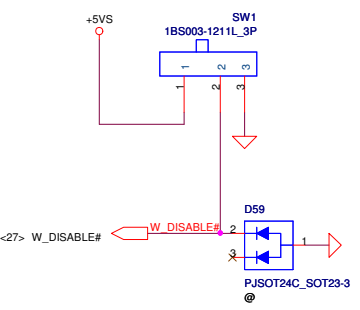


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	Title	BIOS & EC I/O Port
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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
Customer	LA-4595P	Rev	1.0	Date	Tuesday, February 17, 2009
				Sheet	27 of 49

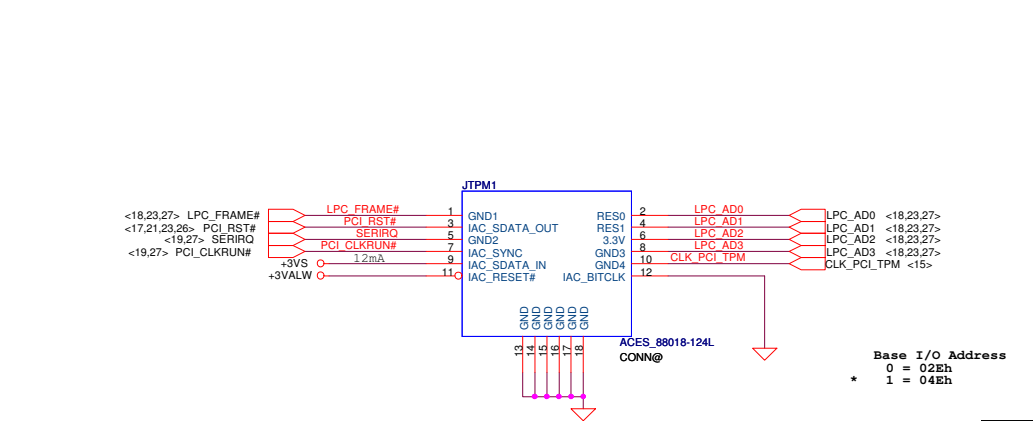
Power Button



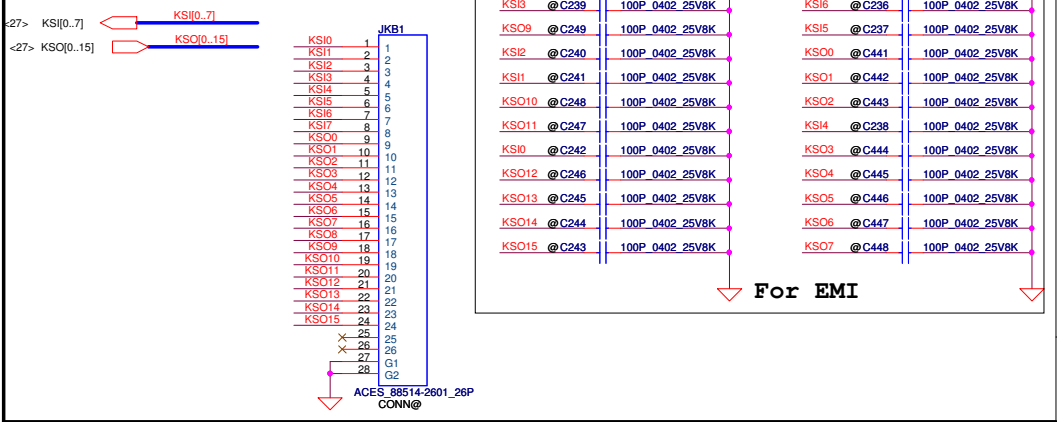
Wireless_BTN



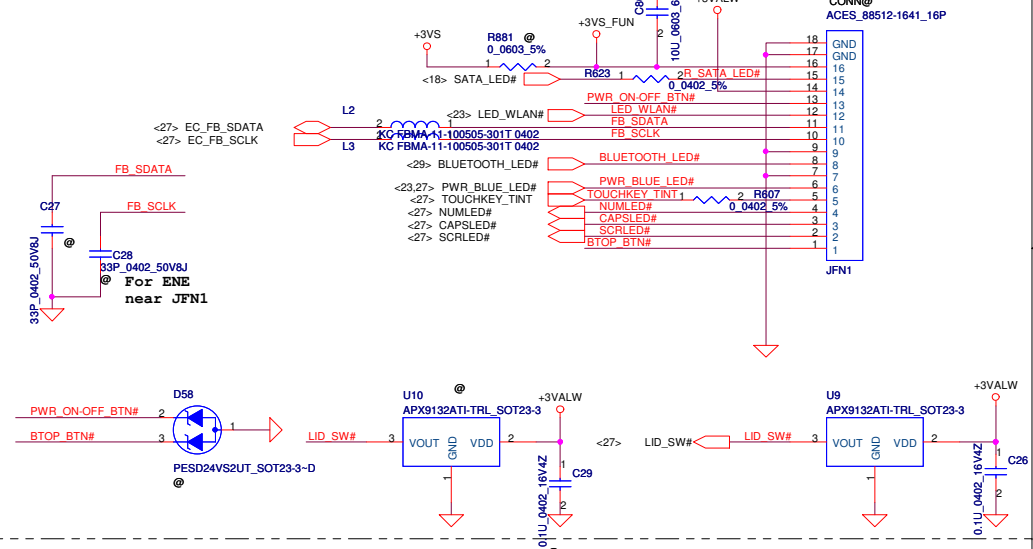
TPM 1.2



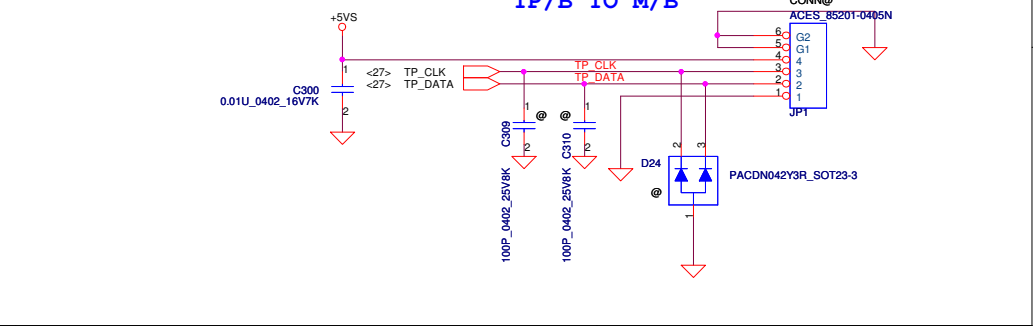
INT_KBD CONN.



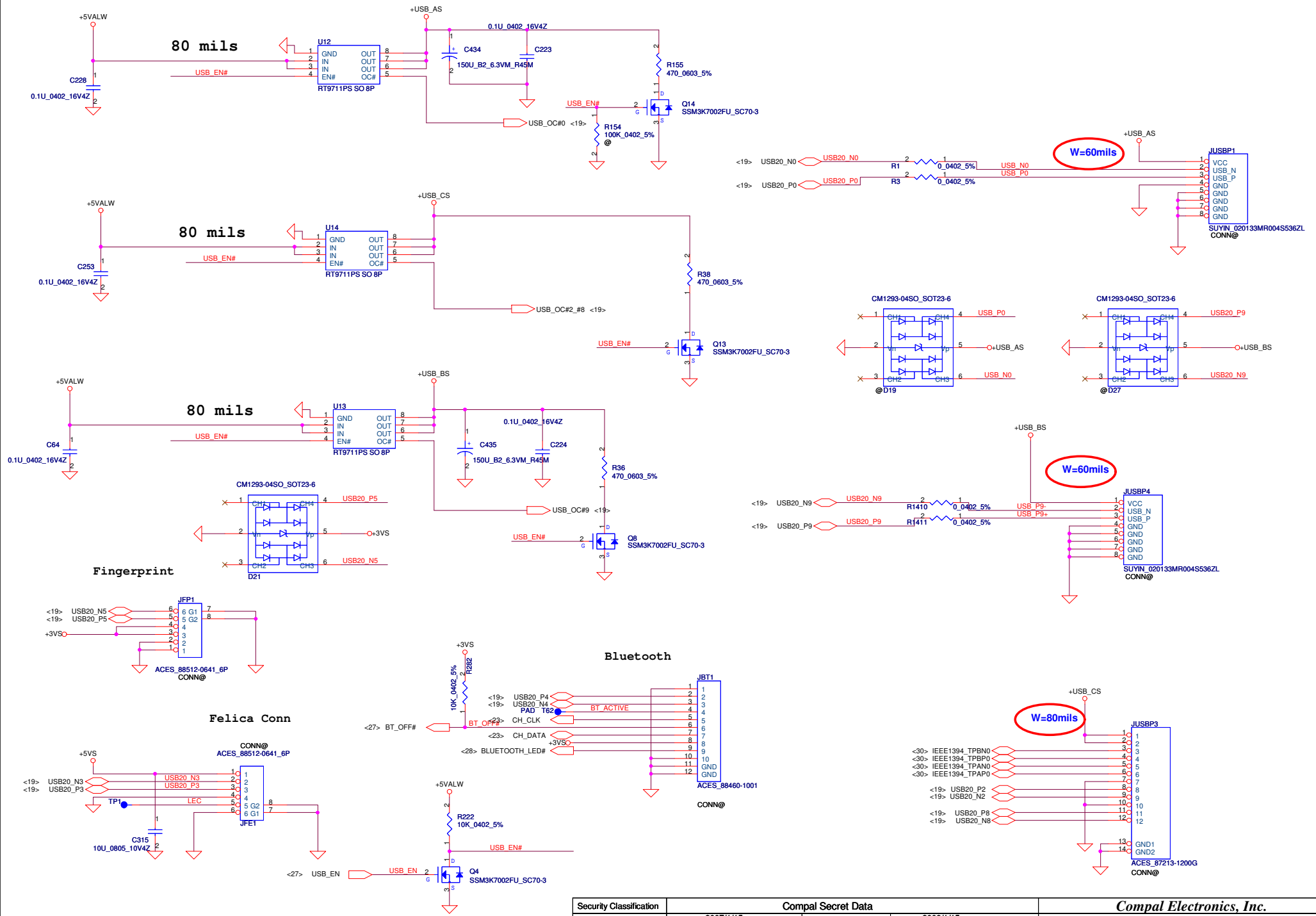
Function/B CONN.



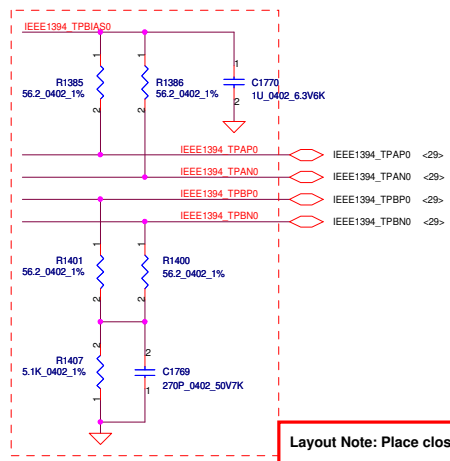
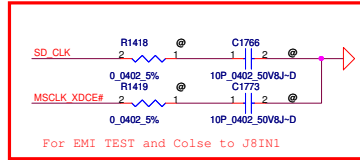
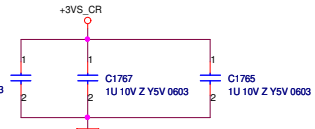
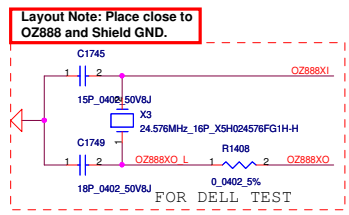
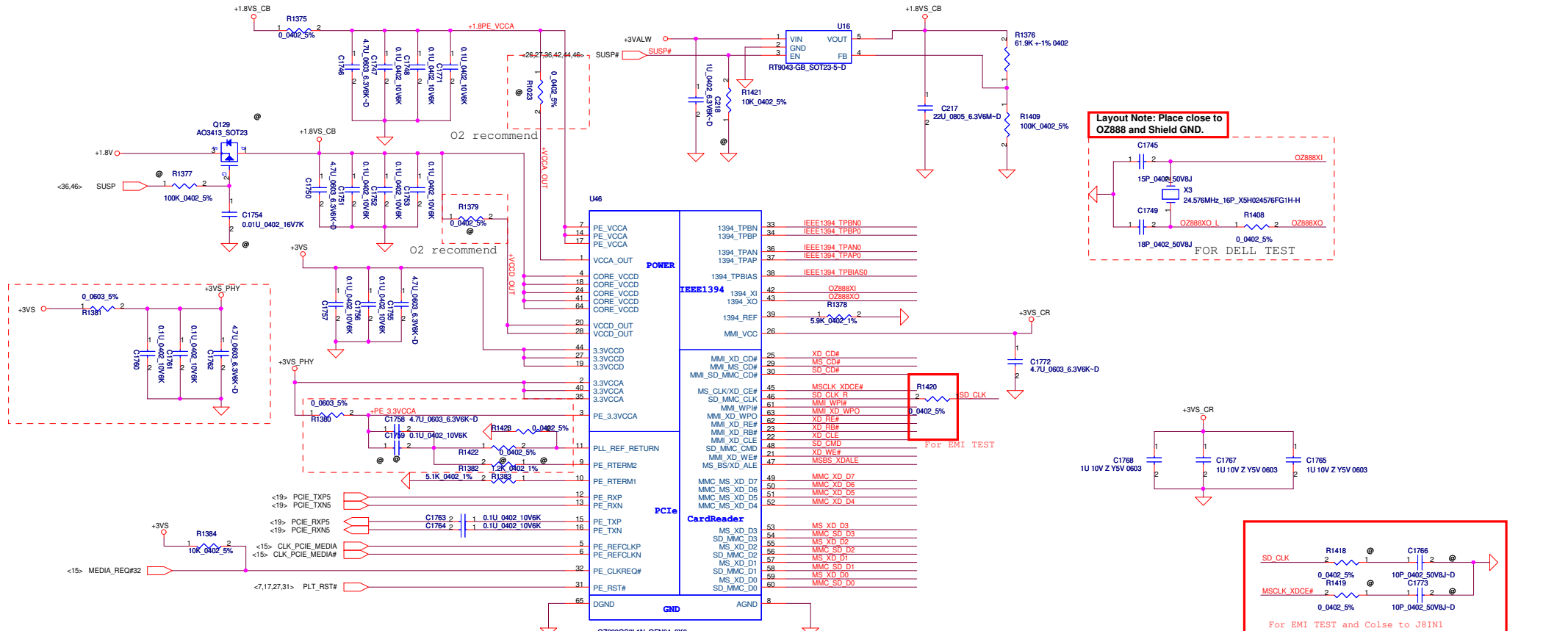
Touch PAD/B CONN.



Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	Title	
				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	Document Number
				Custom	LA-4595P
				Date:	Tuesday, February 17, 2009
				Sheet	28 of 49
				Rev	1.0



Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	Title USB/BlueTooth/FP/Felcia	
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	
Custom	LA-4595P	Date:	Tuesday, February 17, 2009	Sheet	29 of 49

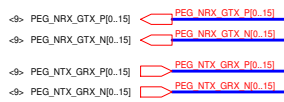


Layout Note: Place close to OZ888 Chipset.

Signal	Component	Value	Pin	Signal	Component	Value	Pin	
MS_XD_D0	R1387	2 0.0402 5%	32	SD_VCC	JSD1		21	
MS_XD_D1	R1388	2 0.0402 5%	10	SD_VCC			28	
MS_XD_D2	R1389	2 0.0402 5%	9	SD-CLK	R1093	2 33 0402 5%-D	SD_CLK	
MS_XD_D3	R1390	2 0.0402 5%	8	SD-DAT0	R1412	2 0.0402 5%	MMC SD_D0	
MMC_XD_D4	R1391	2 0.0402 5%	7	SD-DAT1	R1413	2 0.0402 5%	MMC SD_D1	
MMC_XD_D5	R1392	2 0.0402 5%	6	SD-DAT2	R1414	2 0.0402 5%	MMC SD_D2	
MMC_XD_D6	R1393	2 0.0402 5%	5	SD-DAT3	R1415	2 0.0402 5%	MMC SD_D3	
MMC_XD_D7	R1394	2 0.0402 5%	4	SD-DAT4	XDD4	MMC04	XD-D4	
XD_WE#	R1395	2 0.0402 5%	34	SD-DAT5	XDD5	MMC05	XD-D5	
MMI_XD_WPO	R1396	2 0.0402 5%	33	SD-DAT6	XDD6	MMC06	XD-D6	
MSBS_XDALE	R1397	2 0.0402 5%	35	SD-DAT7	XDD7	MMC07	XD-D7	
XD_CD#	R1398	2 0.0402 5%	40	SD-CD	R1398	2 0.0402 5%	SD_CD#	
XD_RB#	R1402	2 0.0402 5%	39	SD-WP	R1416	2 0.0402 5%	MMI_WP#	
XD_RE#	R1403	2 0.0402 5%	38	SD-CMD	R1417	2 0.0402 5%	SD_CMD	
MSCLK_XDCE#	R1404	2 33 0402 5%-D	37	MS-SCLK	XDCE	MSCLK	MS_SCLK	
XD_CLE	R1405	2 0.0402 5%	36	MS-BS	XDALE	MSBS	MS-BS	
				MS-INS	MSINS	R1406	2 0.0402 5%	MS_CD#
				MS-DATA0	XDD0	MSD0	MS-DATA0	
				MS-DATA1	XDD1	MSD1	MS-DATA1	
				MS-DATA2	XDD2	MSD2	MS-DATA2	
				MS-DATA3	XDD3	MSD3	MS-DATA3	

All DATA spacing=8mil, CLK spacing=15mil

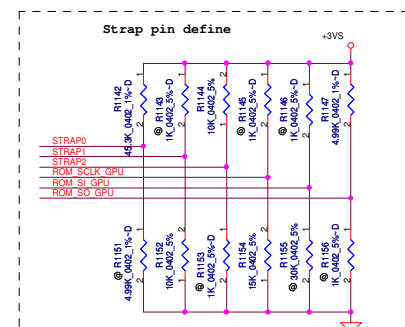
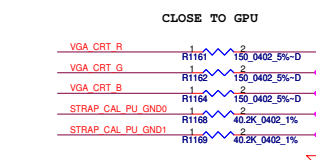
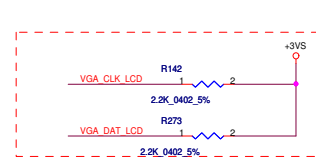
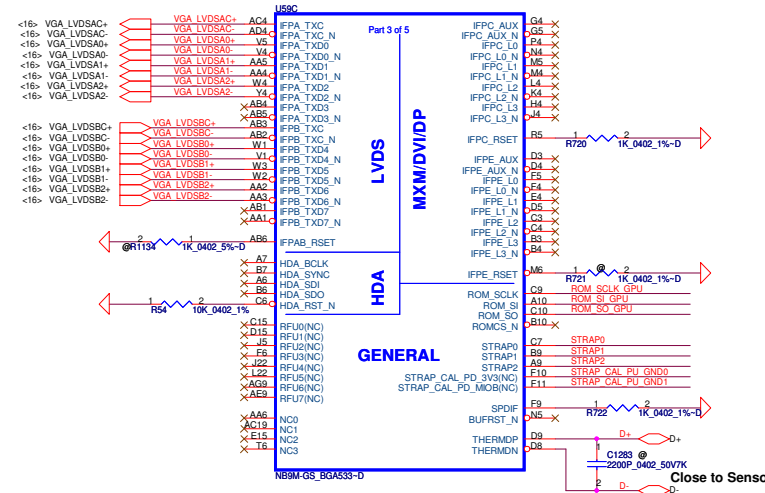
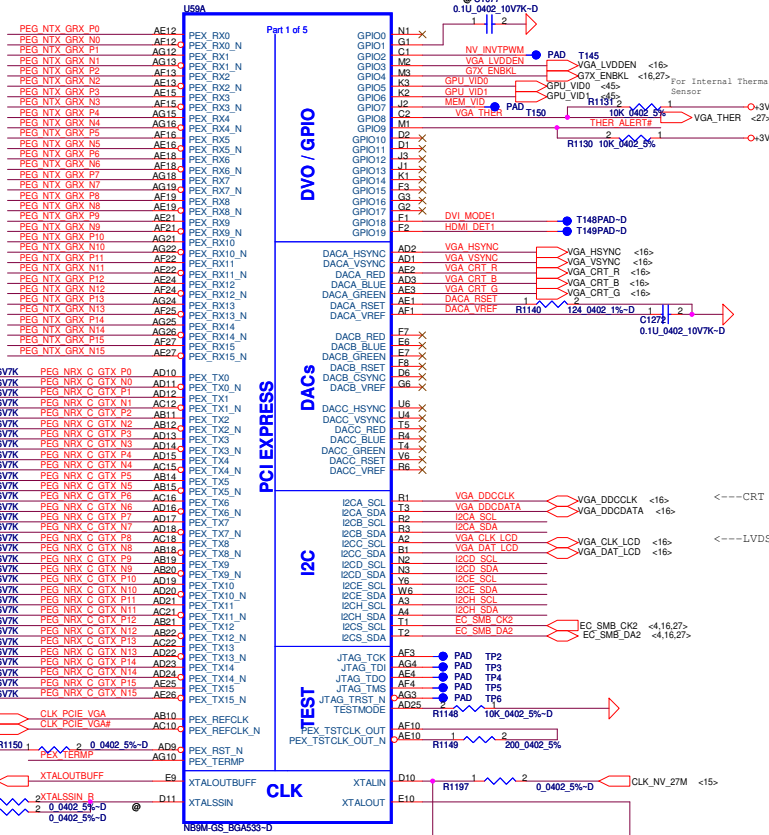
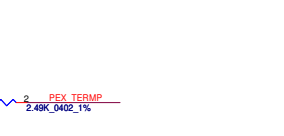
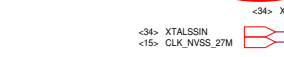
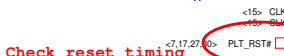
Security Classification	Compal Secret Data		Title
Issued Date	2008/1/3	Deciphered Date	2009/01/3
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE 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.			OZ888GS0L1N Media Card/1394 Rev 1.0 Date: Tuesday, February 17, 2008 Sheet 30 of 49



Part 1 of 5

PEG_NTX_GTX_P0	AE12	PEG_NRX_GTX_P0	AD10
PEG_NTX_GTX_P1	AG12	PEG_NRX_GTX_P1	AD11
PEG_NTX_GTX_P2	AG13	PEG_NRX_GTX_P2	AD12
PEG_NTX_GTX_P3	AE13	PEG_NRX_GTX_P3	AD13
PEG_NTX_GTX_P4	AG14	PEG_NRX_GTX_P4	AD14
PEG_NTX_GTX_P5	AE14	PEG_NRX_GTX_P5	AD15
PEG_NTX_GTX_P6	AG15	PEG_NRX_GTX_P6	AD16
PEG_NTX_GTX_P7	AE15	PEG_NRX_GTX_P7	AD17
PEG_NTX_GTX_P8	AG16	PEG_NRX_GTX_P8	AD18
PEG_NTX_GTX_P9	AE16	PEG_NRX_GTX_P9	AD19
PEG_NTX_GTX_P10	AG17	PEG_NRX_GTX_P10	AD20
PEG_NTX_GTX_P11	AE17	PEG_NRX_GTX_P11	AD21
PEG_NTX_GTX_P12	AG18	PEG_NRX_GTX_P12	AD22
PEG_NTX_GTX_P13	AE18	PEG_NRX_GTX_P13	AD23
PEG_NTX_GTX_P14	AG19	PEG_NRX_GTX_P14	AD24
PEG_NTX_GTX_P15	AE19	PEG_NRX_GTX_P15	AD25
PEG_NTX_GTX_P16	AG20	PEG_NRX_GTX_P16	AD26
PEG_NTX_GTX_P17	AE20	PEG_NRX_GTX_P17	AD27
PEG_NTX_GTX_P18	AG21	PEG_NRX_GTX_P18	AD28
PEG_NTX_GTX_P19	AE21	PEG_NRX_GTX_P19	AD29
PEG_NTX_GTX_P20	AG22	PEG_NRX_GTX_P20	AD30
PEG_NTX_GTX_P21	AE22	PEG_NRX_GTX_P21	AD31
PEG_NTX_GTX_P22	AG23	PEG_NRX_GTX_P22	AD32
PEG_NTX_GTX_P23	AE23	PEG_NRX_GTX_P23	AD33
PEG_NTX_GTX_P24	AG24	PEG_NRX_GTX_P24	AD34
PEG_NTX_GTX_P25	AE24	PEG_NRX_GTX_P25	AD35
PEG_NTX_GTX_P26	AG25	PEG_NRX_GTX_P26	AD36
PEG_NTX_GTX_P27	AE25	PEG_NRX_GTX_P27	AD37
PEG_NTX_GTX_P28	AG26	PEG_NRX_GTX_P28	AD38
PEG_NTX_GTX_P29	AE26	PEG_NRX_GTX_P29	AD39
PEG_NTX_GTX_P30	AG27	PEG_NRX_GTX_P30	AD40
PEG_NTX_GTX_P31	AE27	PEG_NRX_GTX_P31	AD41

PEG_NRX_GTX_P0	C1273	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P0	AD10	PEG_TX0
PEG_NRX_GTX_P1	C1274	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P1	AD11	PEG_TX1
PEG_NRX_GTX_P2	C1275	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P2	AD12	PEG_TX2
PEG_NRX_GTX_P3	C1276	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P3	AD13	PEG_TX3
PEG_NRX_GTX_P4	C1277	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P4	AD14	PEG_TX4
PEG_NRX_GTX_P5	C1278	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P5	AD15	PEG_TX5
PEG_NRX_GTX_P6	C1279	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P6	AD16	PEG_TX6
PEG_NRX_GTX_P7	C1280	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P7	AD17	PEG_TX7
PEG_NRX_GTX_P8	C1281	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P8	AD18	PEG_TX8
PEG_NRX_GTX_P9	C1282	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P9	AD19	PEG_TX9
PEG_NRX_GTX_P10	C1283	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P10	AD20	PEG_TX10
PEG_NRX_GTX_P11	C1284	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P11	AD21	PEG_TX11
PEG_NRX_GTX_P12	C1285	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P12	AD22	PEG_TX12
PEG_NRX_GTX_P13	C1286	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P13	AD23	PEG_TX13
PEG_NRX_GTX_P14	C1287	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P14	AD24	PEG_TX14
PEG_NRX_GTX_P15	C1288	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P15	AD25	PEG_TX15
PEG_NRX_GTX_P16	C1289	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P16	AD26	PEG_TX16
PEG_NRX_GTX_P17	C1290	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P17	AD27	PEG_TX17
PEG_NRX_GTX_P18	C1291	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P18	AD28	PEG_TX18
PEG_NRX_GTX_P19	C1292	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P19	AD29	PEG_TX19
PEG_NRX_GTX_P20	C1293	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P20	AD30	PEG_TX20
PEG_NRX_GTX_P21	C1294	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P21	AD31	PEG_TX21
PEG_NRX_GTX_P22	C1295	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P22	AD32	PEG_TX22
PEG_NRX_GTX_P23	C1296	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P23	AD33	PEG_TX23
PEG_NRX_GTX_P24	C1297	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P24	AD34	PEG_TX24
PEG_NRX_GTX_P25	C1298	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P25	AD35	PEG_TX25
PEG_NRX_GTX_P26	C1299	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P26	AD36	PEG_TX26
PEG_NRX_GTX_P27	C1300	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P27	AD37	PEG_TX27
PEG_NRX_GTX_P28	C1301	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P28	AD38	PEG_TX28
PEG_NRX_GTX_P29	C1302	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P29	AD39	PEG_TX29
PEG_NRX_GTX_P30	C1303	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P30	AD40	PEG_TX30
PEG_NRX_GTX_P31	C1304	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P31	AD41	PEG_TX31
PEG_NRX_GTX_P32	C1305	1	2	0.1U_0402_16V7K	PEG_NRX_GTX_P32	AD42	PEG_TX32



Each strap pin represents a 4 bit value

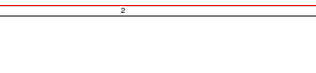
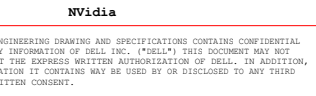
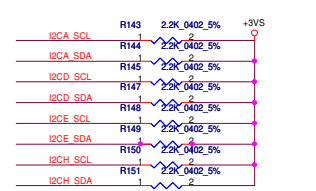
Pullup or Pulldown configures the MSB

Resistor Value determines the 3 LSBs

Resistor range is R'n

Where n is 0-9 and R is 5k Ohm.

Resistor	Multplier	Yield to VCC	Yield to Ground
3 KOhms	Y	1000	0000
4 KOhms	Y	1001	0001
5 KOhms	Y	1010	0010
6 KOhms	Y	1011	0011
7 KOhms	Y	1100	0100
8 KOhms	Y	1101	0101
9 KOhms	Y	1110	0110
10 KOhms	Y	1111	0111
11 KOhms	N	1000	0000



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 TRANSMITTED 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.

DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

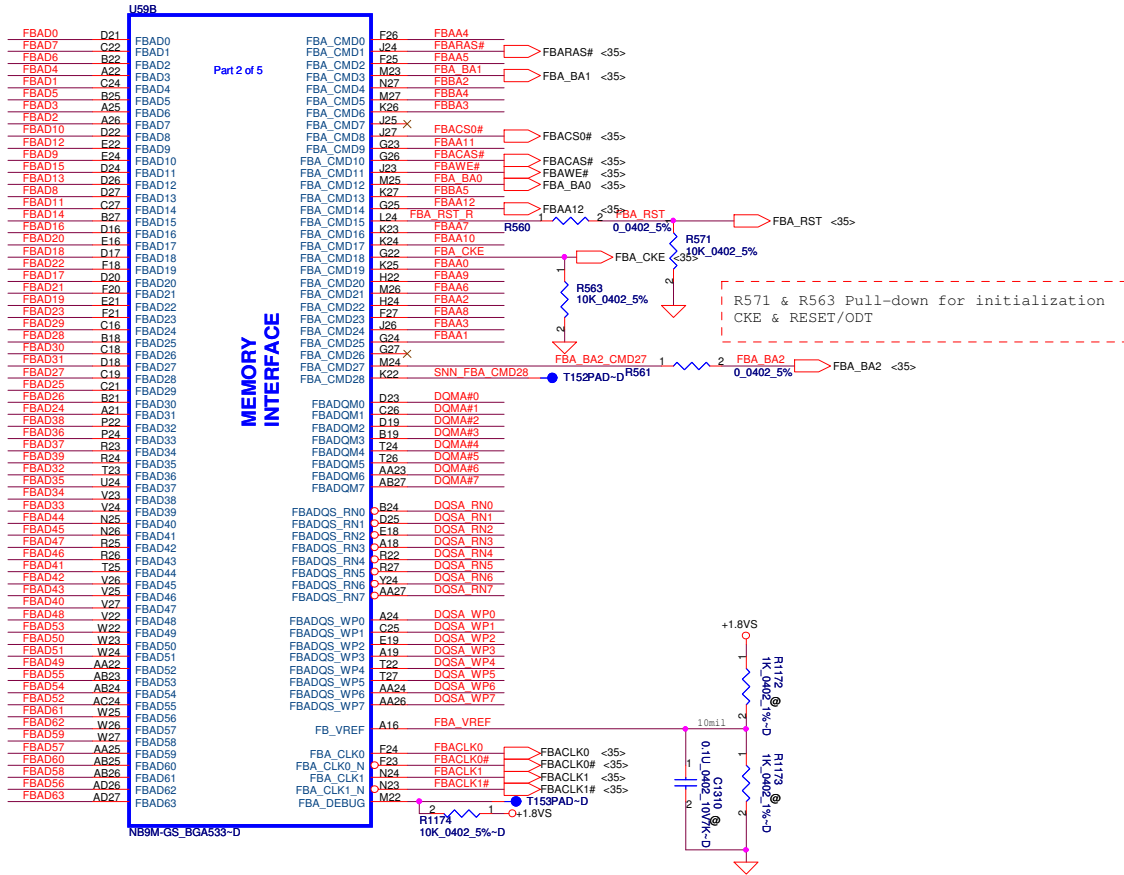
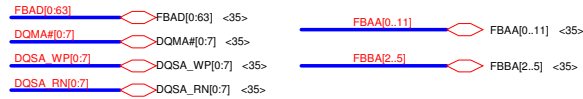
File: NVG98 PCIE,GPIO,CLK,LVDS

Size: LA-4595P

Date: Tuesday, February 17, 2009

Sheet: 31 of 49

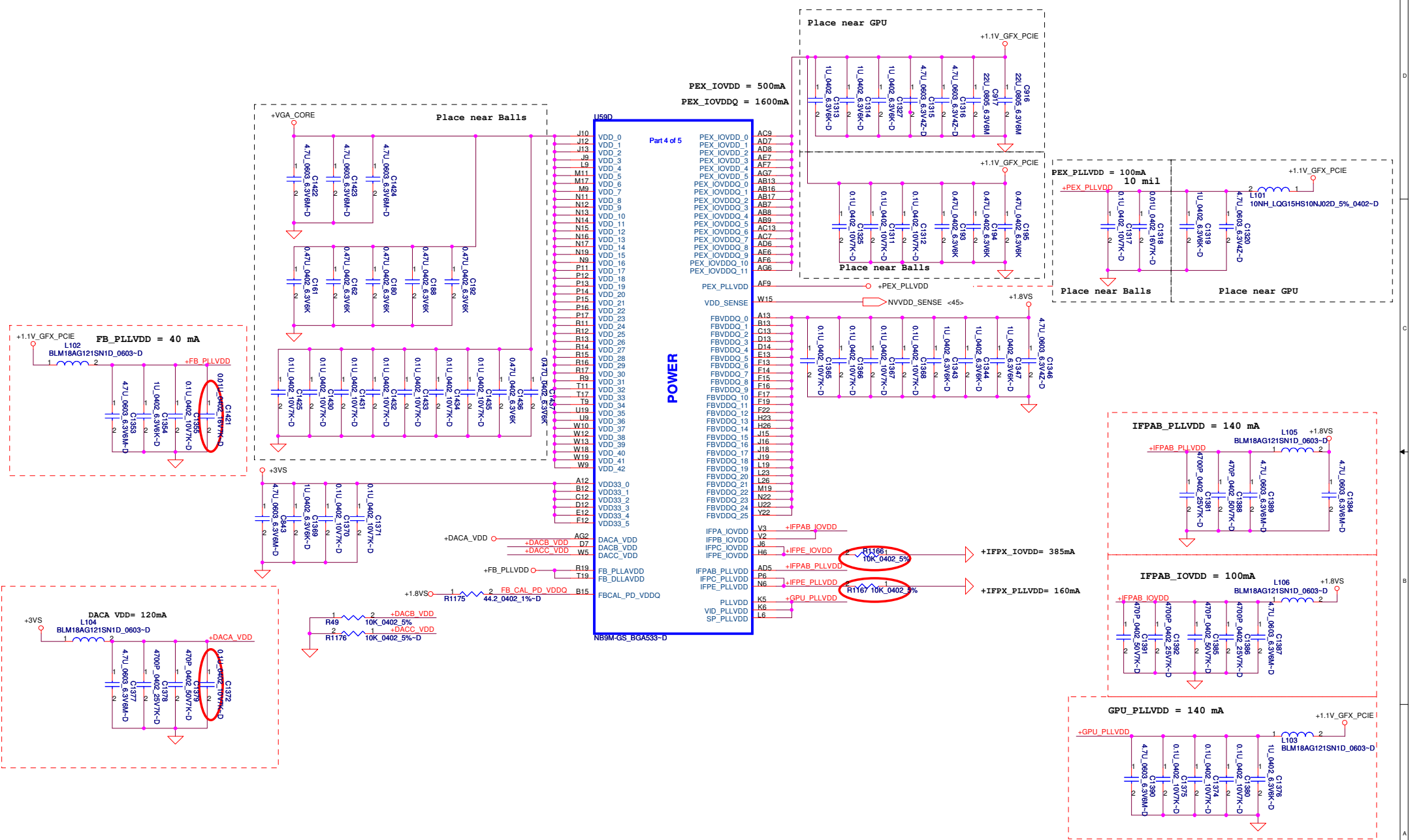
Nvidia




DELL CONFIDENTIAL/PROPRIETARY

		Compal Electronics, Inc.	
		NVG98 Memory Interface	
Size	Document Number	Rev	
	LA-4595P	1.0	
Date:	Tuesday, February 17, 2009	Sheet	32 of 49

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.



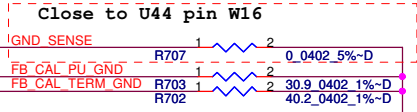
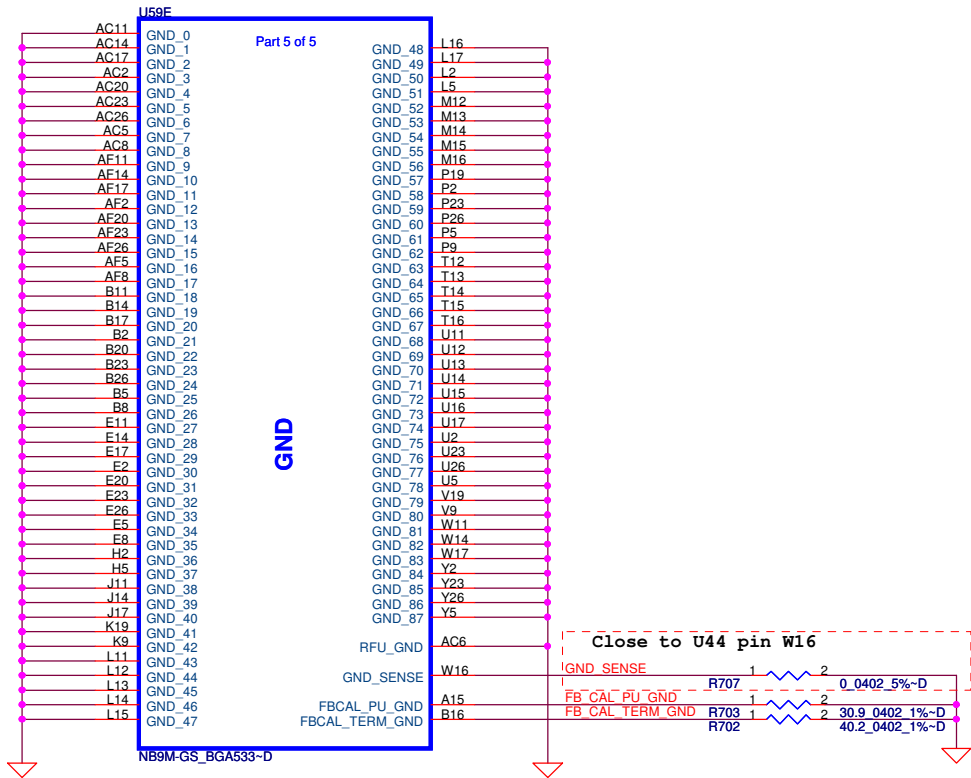
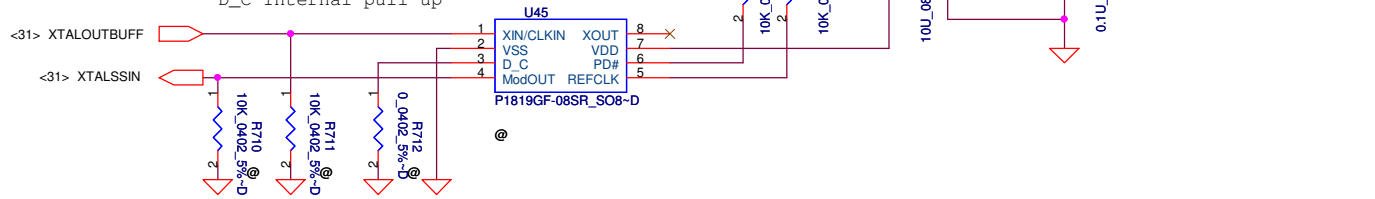
DELL CONFIDENTIAL/PROPRIETARY

		Compal Electronics, Inc.	
		NVG98 POWER	
Size	Document Number	Rev	
	LA-4595P	1.0	
Date:	Tuesday, February 17, 2009	Sheet	33 of 49

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.


	D_C
-1.75% (DOWN)	0
±0.875% (CENTER)	1

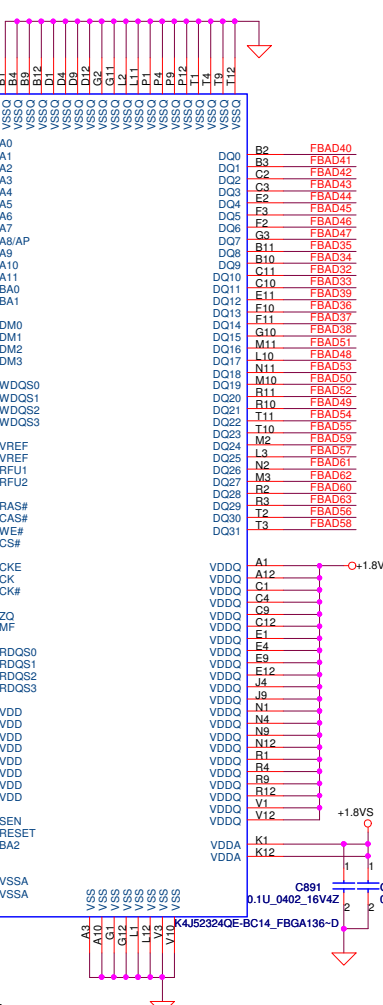
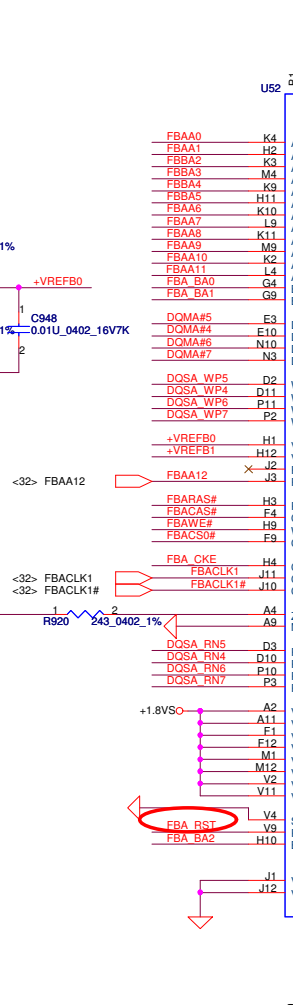
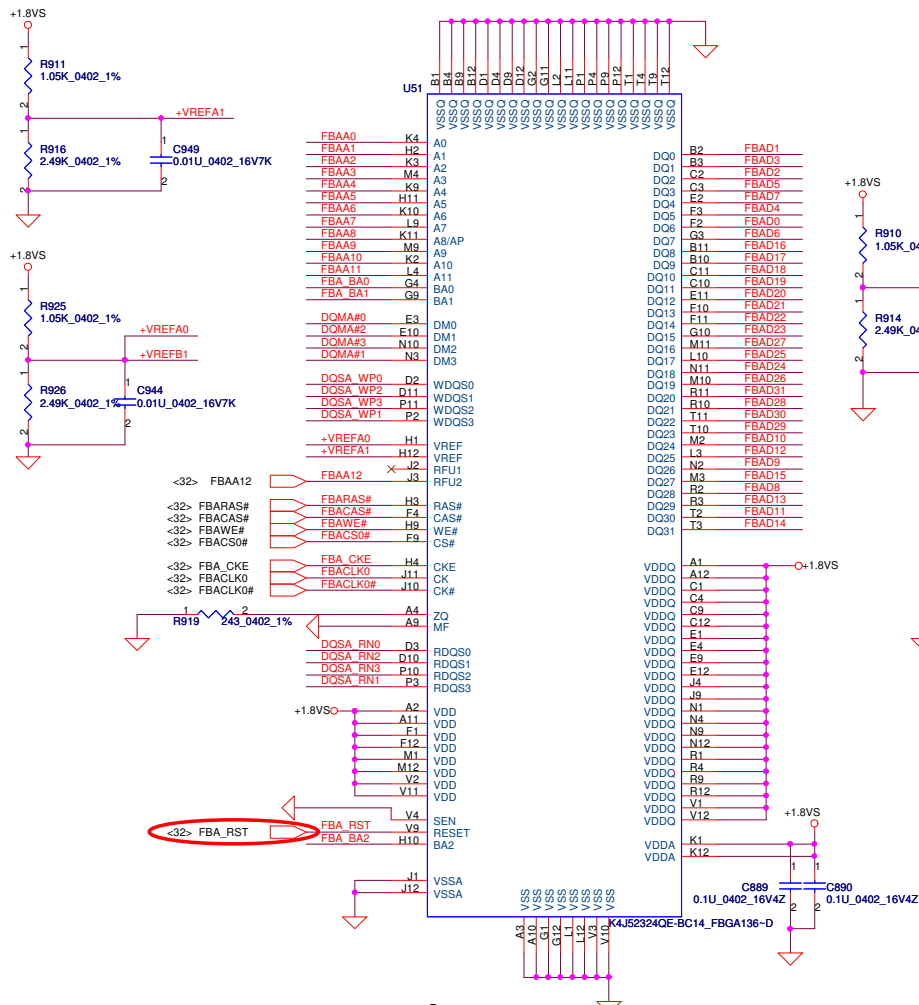
D_C Internal pull up



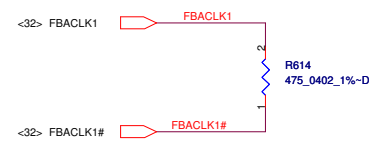
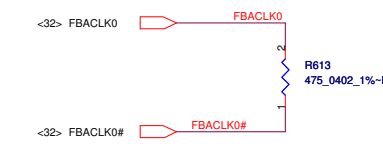
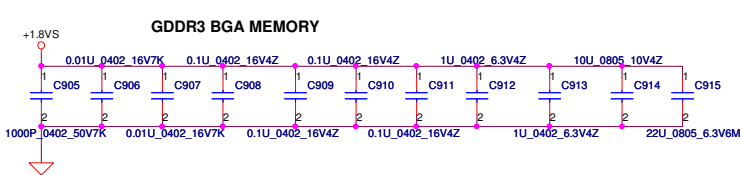
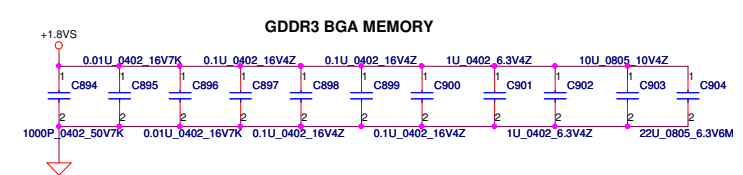
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION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

DELL CONFIDENTIAL/PROPRIETARY

			Compal Electronics, Inc.	
			Title NVG98 GND	
Size	Document Number			Rev
	LA-4595P			1.0
Date:	Tuesday, February 17, 2009	Sheet	34	of 49

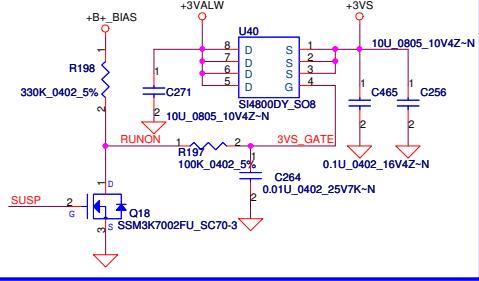


- <32> FBAD[0..63] FBAD[0..63]
- <32> DOSA_RN[0..7] FBADQS#[0..7]
- <32> DOSA_WP[0..7] DOSA_WP[0..7]
- <32> DQMA#[0..7] DQMA#[0..7]
- <32> FBAA[0..11] FBAA[0..11]
- <32> FBBA[2..5] FBBA[2..5]
- <32> FBA_BA0 FBA_BA0
- <32> FBA_BA1 FBA_BA1
- <32> FBA_BA2 FBA_BA2

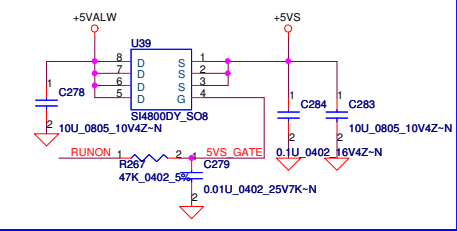


Security Classification	Compal Secret Data		Title	
Issued Date	2007/02/12	Deciphered Date	2008/02/12	VRAM GDDR3 A
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE 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-4595P
				Rev
				1.0
				Date: Tuesday, February 17, 2009
				Sheet 35 of 49

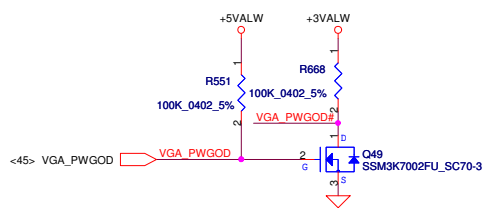
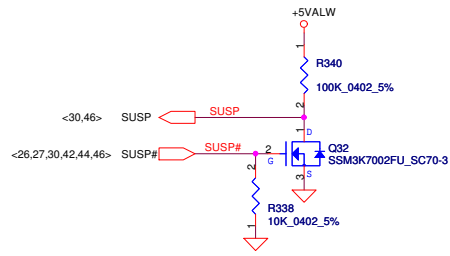
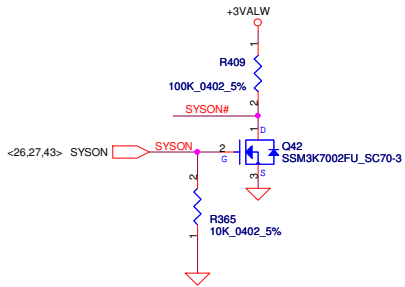
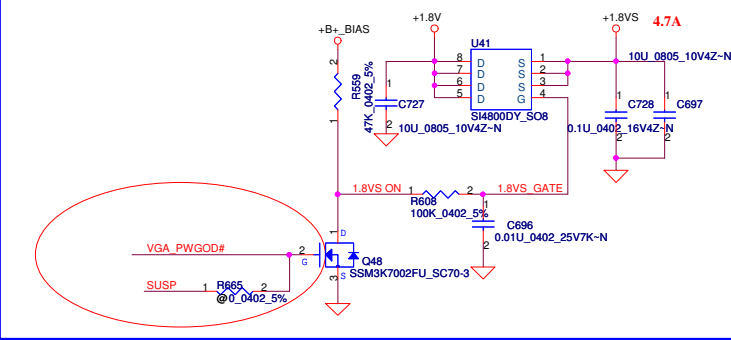
+3VALW to +3VS Transfer



+5VALW to +5VS Transfer

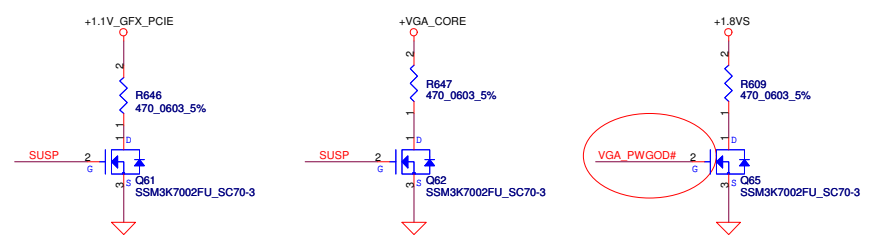


+1.8V to +1.8VS Transfer

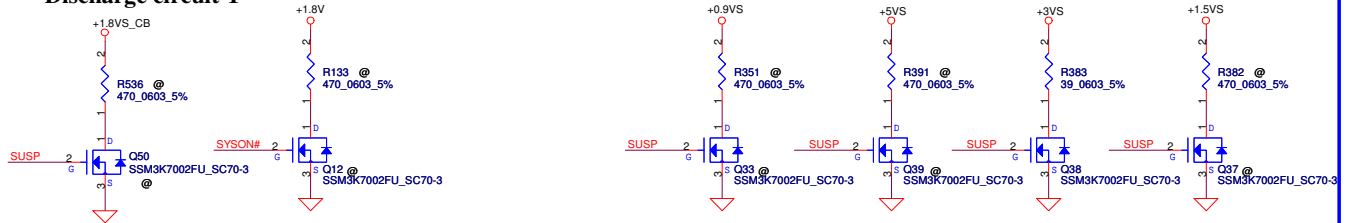


SYSON -> SUSP# -> VGA_ON->VGA_PWGOD

VGA Discharge circuit

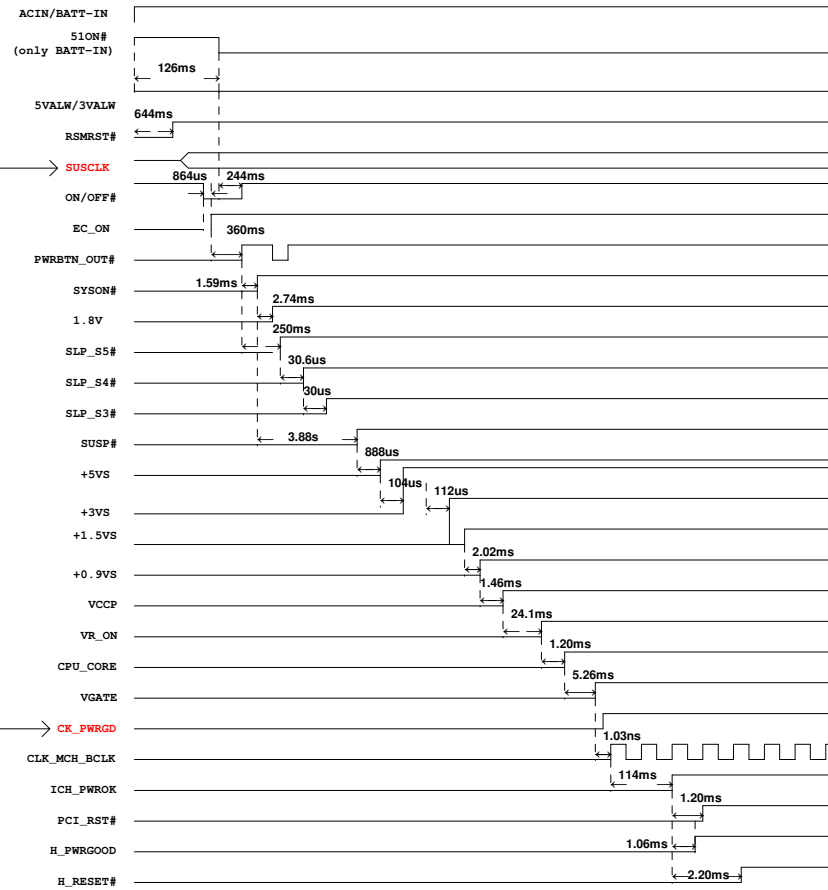


Discharge circuit-1



Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2007/1/15	Deciphered Date	2008/1/15	Title DC/DC Circuits		
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 Custort LA-4595P	Document Number	Rev 1.0
Date: Tuesday, February 17, 2009				Sheet	36	of 49

KAL80 POWER UP SEQUENCE



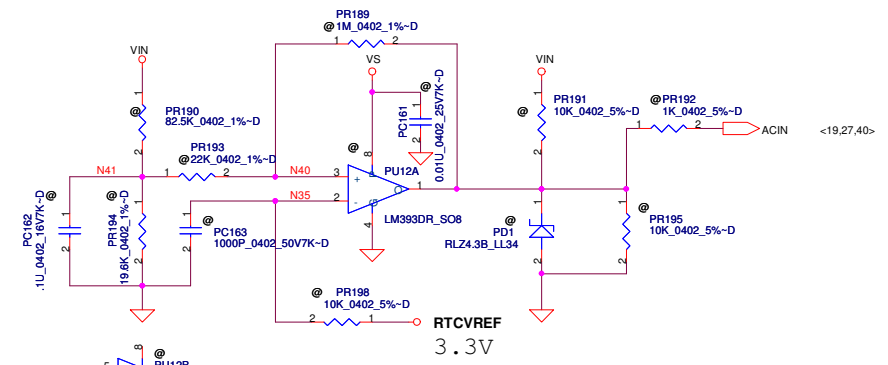
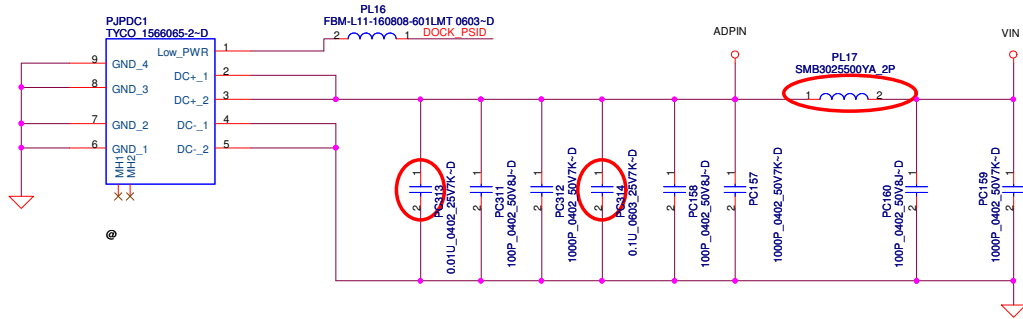
Suspend Clock (32KHz)
ICH9 internal clock

This signal is asserted high when both SLP_S5# and VRRPWRGD are high

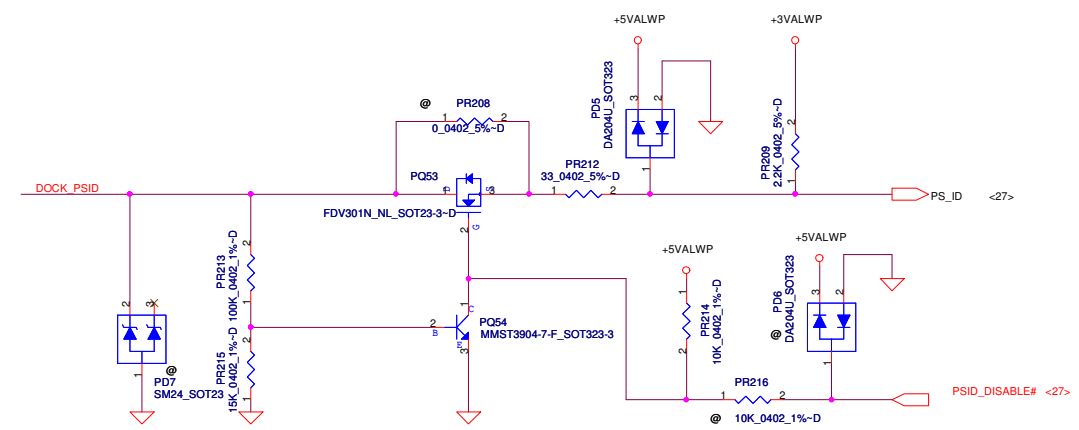
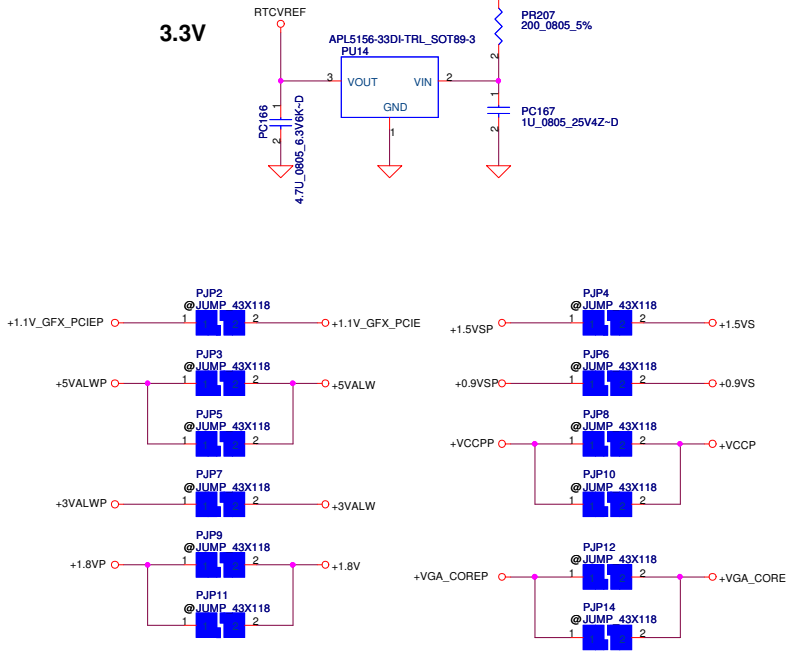
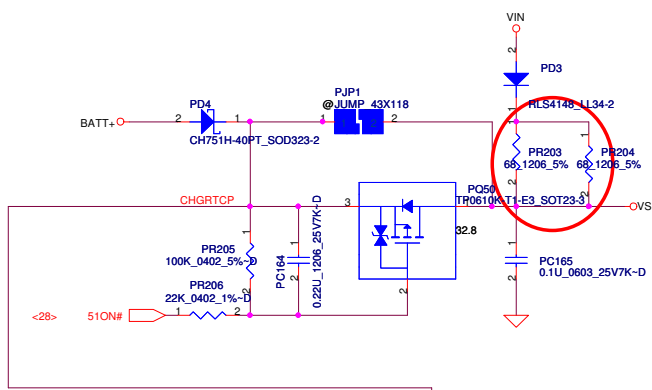
Version Change List (P. I. R. List)

Item	Page #	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1		Swap SW1	12/02	EE			
2		Update JUSBP3 pin define	12/02	EE			
3		R405 POP	12/02	EE			
4		U50 unPOP & R1190 POP	12/02	EE			
5		WWAN move to PORT6	12/02	BIOS			
6		Add C1391 & C1392	12/02	Nvidia	LVDS single channel issue	Short U59.V2 & U59.V3. Add C1391 C1392 for IFPB_IOVDD	
7		Swap JSPK1 Pin	12/02	EE			
8		R101	12/04	EE	Change to 0805		
9		TPM Con	12/04	EE	Modify to Con		
10		R76 & R78 UnPOP	12/09	EE	EC update to Rev:C1		
11		Q7 & Q9	12/09	EE	Update Q7 & 9 footprint		
12		R658 & R281	12/11	EE	R685 UnPOP & R281 UnPOP for wake on LAN		
13		U89 & WLANPW_DIS#	12/11	EE	Add U89 for wake on LAN. Add WLANPW_DIS# of EC		
14		C1484 & C1485	12/11	EE	C1484 & C1485 modify to 1U form LAN vendor		
15		Update PW schematic	12/12	PW			
16		C260 & C252	12/15	EE	IDT ask UnPop		
17		Add D29 D28	12/15	ESD	ESD for LAN		
18		U9 Pop & U10 UnPop	12/15	ME			
19		Wake On WLAN	12/16	EE	Modify WLANPW_DIS# circuit		
20		Add T49 & T53	12/16	Layout			
21		C696	12/16	EE	Update PN		
22		WLANPW_DIS#	12/17	EE	Move WLANPW_DIS# to EC-GPIO40 and Del BTOP_ON		
23		L42 & L43	12/17	EMI	L42 & L43 update to Bead from 0 ohm		
24		C3 C4 C6 C14 C17	12/17	EMI	POP 100 P		
25		R69	12/17	EE	Update to Bead drom 100 ohm		
26		Cap	12/17	EMI	Add C1469 C1470 C1471 C1472 C1481 R81		
27		D21 D12 D17	12/17	ESD	ESD ask POP		
28		Update PW schematic	12/17	PW			
29		Update Q128 Q130 PN	12/18	EE			
30		Update Board ID	12/18	EE	R231		
31		Add U16 for OZ888	12/18	EE			
32		C1323 POP	12/18	EE	For Kepar		
33		R1421 UnPOP	12/22	EE			
34		C292 C297	12/22	EE	Modify to 22P form 18P (Crystal Vendor)		
35		C1745 C1749	12/22	EE	Modify to 18P form 10P(C1749) and 15P from 10P(C1745)(Crystal Vendor)		
36		C1211	12/22	EE	Modify to 12P form 15P (Crystal Vendor)		
37		R1423 & R1422	01/07	EE	Add for O2		
38		L6 & R1190	01/10	EE	Change to 0805		
39		Modify LDO to +5VS	01/12	EE			
40		Add C80 & D59 & D60	01/12	EE			
41		Add components of JHP1	01/13	EE	For vendor		
42		R360 & R361	01/19	EE	Update R360 & R361 to 56 ohm		
43		U37	01/19	EE	Update U37 to SA00001KN10		
44		R231	01/19	EE	Update Board ID		

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	Title	EEW 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	Document Number
				Rev	1.0
				Date:	Tuesday, February 17, 2009
				Sheet	38 of 49

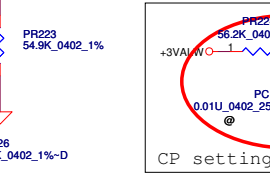
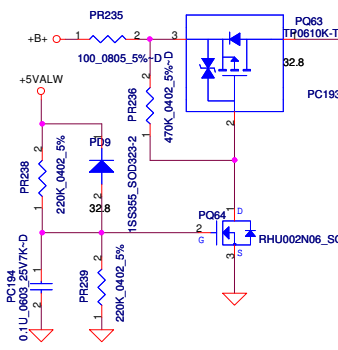
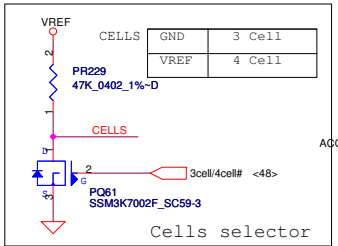


Vin Detector			
	Max.	typ.	Min.
L-->H	18.234	17.841	17.449
H-->L	17.597	17.210	16.813



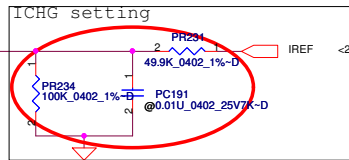
Security Classification	Compal Secret Data			Title		
Issued Date	2006/10/1	Deciphered Date	2007/5/01	DCIN / Vin Detector		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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	Document Number LA-4595P	Rev 1.0
Date:	Tuesday, February 17, 2009	Sheet	39	of	49	

90W adapter
 $I_{charge} = (V_{rset}/V_{vdac}) * (0.1/PR34) = 3.34A$
 $I_{adapter} = (V_{acset}/V_{vdac}) * (0.1/PR217) = 4.27A$
 Input OVP : 22.3V
 Input UVP : 16.98V
 Fsw : 300KHz

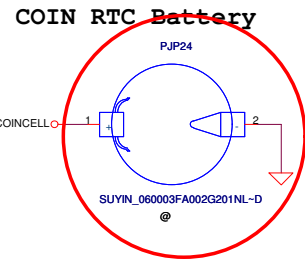


CHGVADJ	Pre Cell
3.282V	4.35V
0V	4V

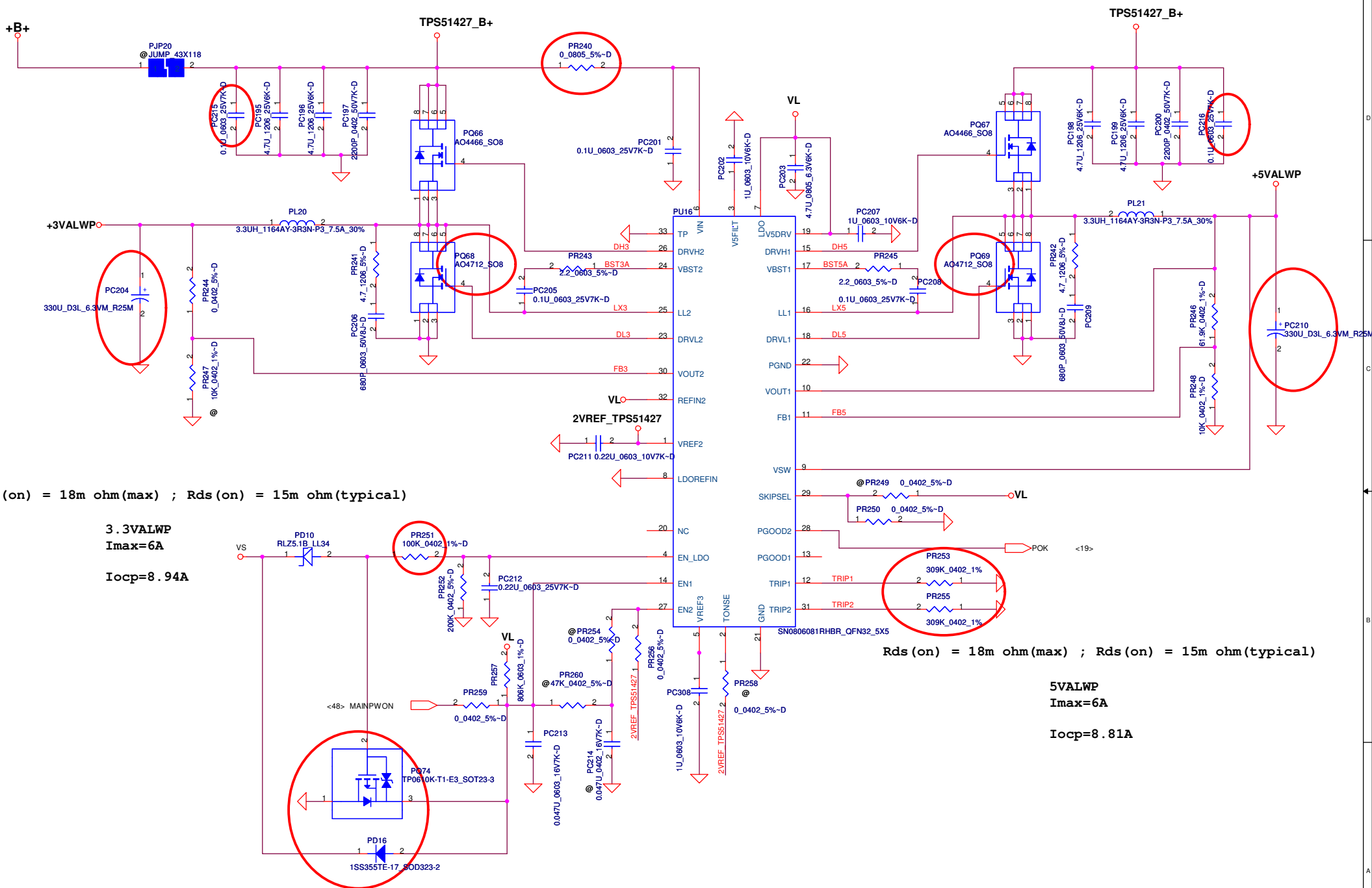
$CHGVADJ = 9.3755 * (\text{charger voltage per cell} - 4)$
 $PR53 = 210K$
 CHGVADJ要接到EC DA pin



IREF	Current
2.968V	3A



Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2006/10/1	Deciphered Date	2007/5/01	Title		
				Charger/RTC BATTERY		
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	Rev 1.0
				Date: Tuesday, February 17, 2009	Sheet 40	of 49



Rds(on) = 18m ohm(max) ; Rds(on) = 15m ohm(typical)

3.3VALWP
 I_{max}=6A
 I_{ocp}=8.94A

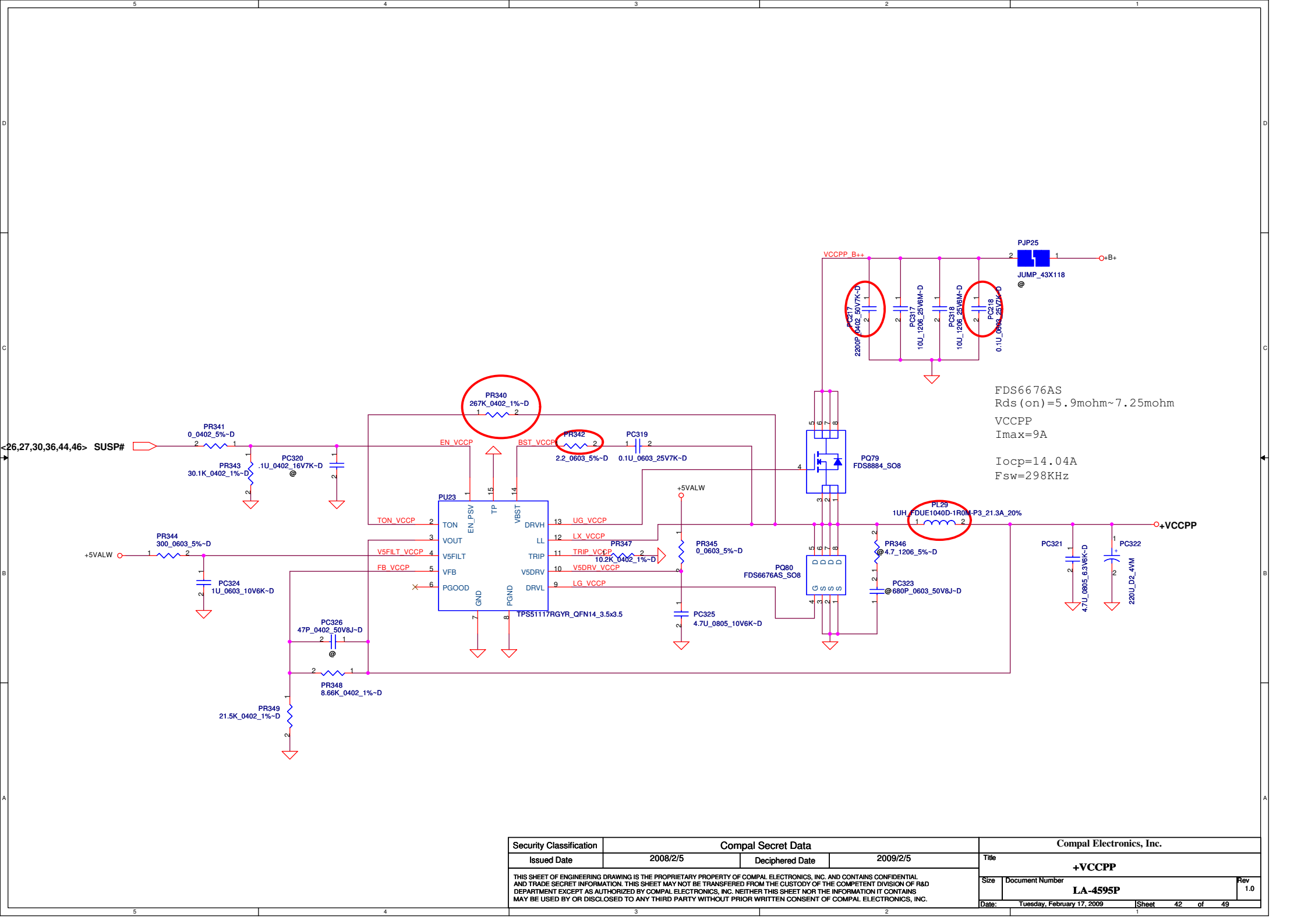
Rds(on) = 18m ohm(max) ; Rds(on) = 15m ohm(typical)

5VALWP
 I_{max}=6A
 I_{ocp}=8.81A

Security Classification		Compal Secret Data		Title	
Issued Date	2006/10/1	Deciphered Date	2007/05/30	+3VALWP, +5VALWP	
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 17, 2009
				Sheet	41 of 49

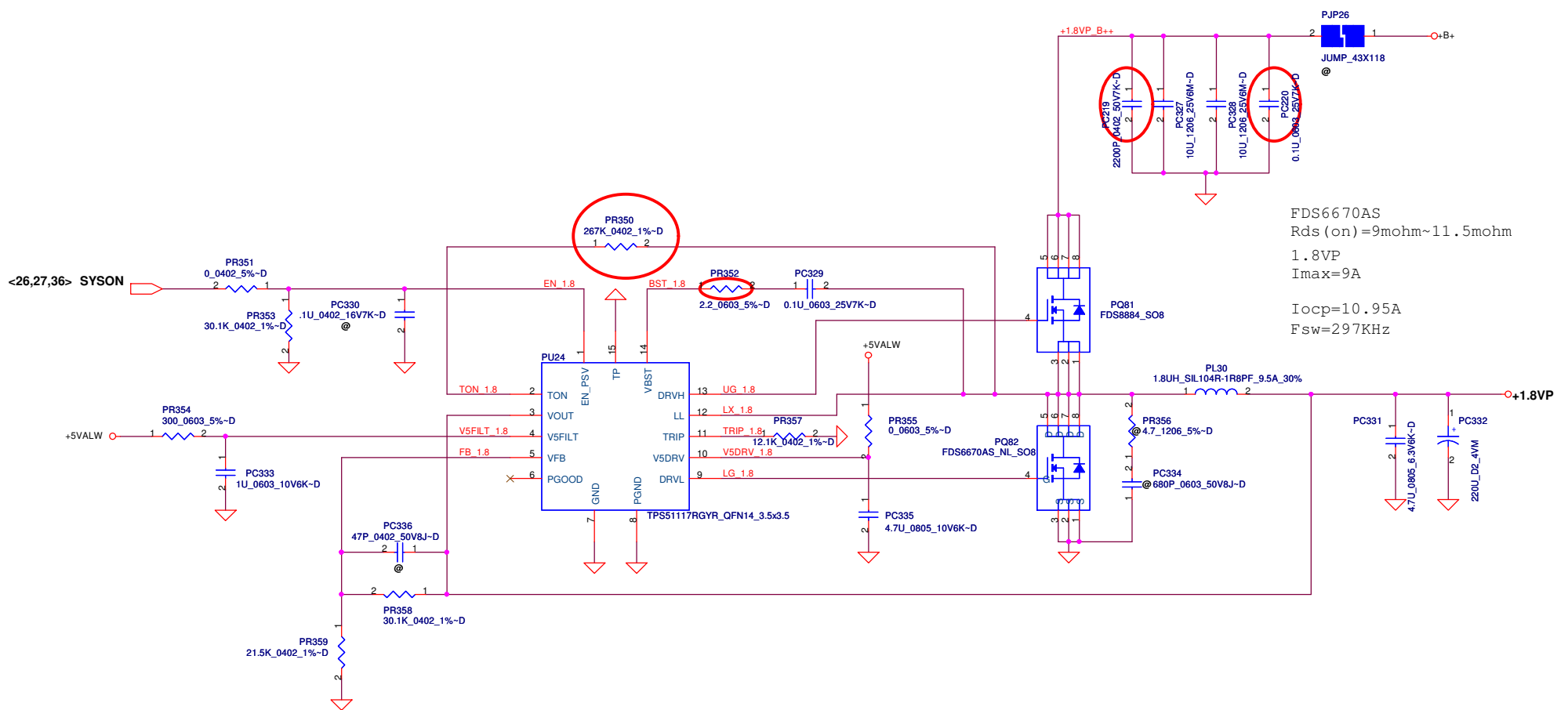
Compal Electronics, Inc.

LA-4595P



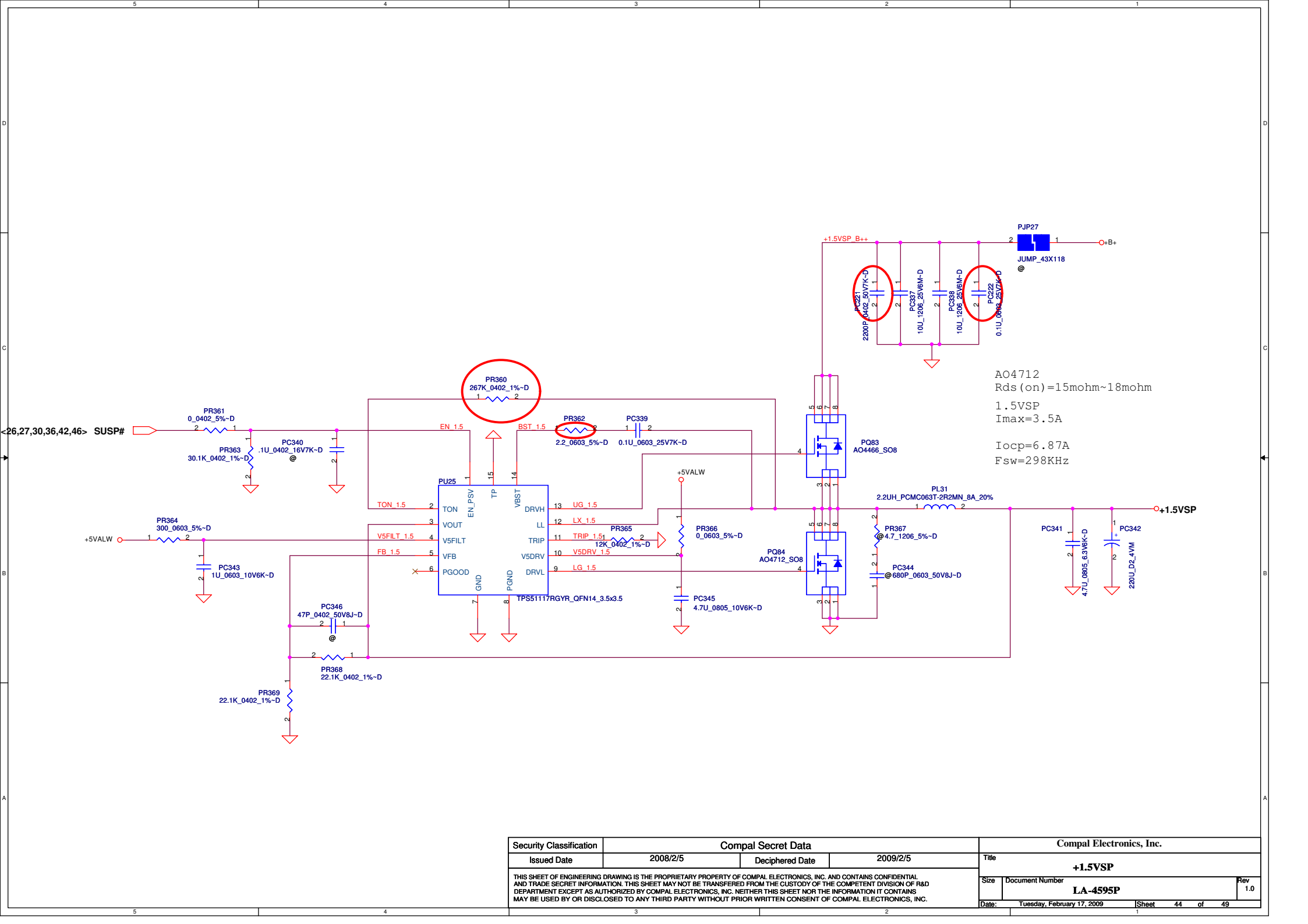
FDS6676AS
 Rds(on)=5.9mohm~7.25mohm
 VCCPP
 Imax=9A
 Iocp=14.04A
 Fsw=298KHz

Security Classification		Compal Secret Data		Compal Electronics, Inc.		
Issued Date	2008/2/5	Deciphered Date	2009/2/5	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.				+VCCPP		
				Size	Document Number	Rev
				LA-4595P		
Date:				Tuesday, February 17, 2009	Sheet	42 of 49



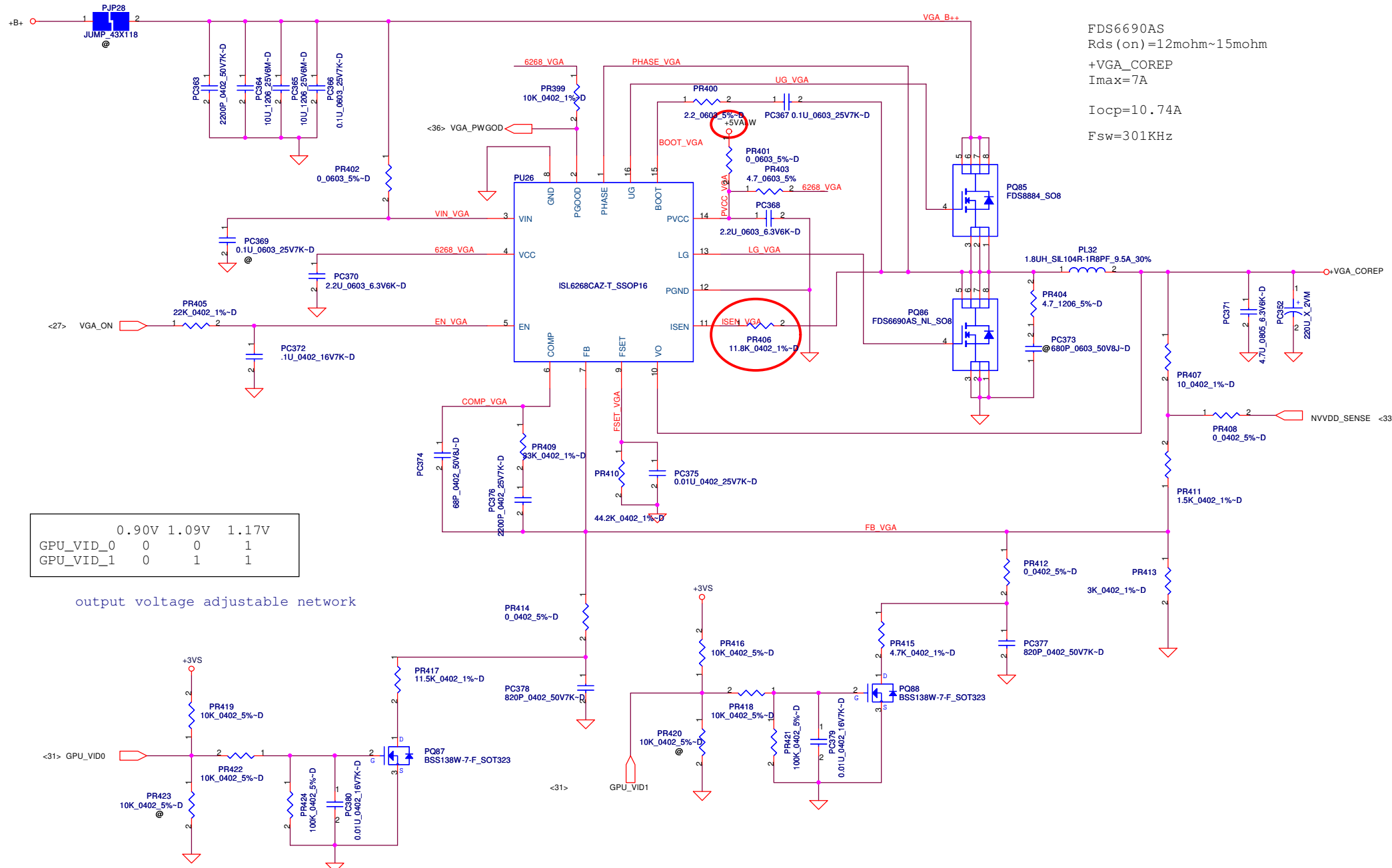
FDS6670AS
 Rds (on) = 9mohm ~ 11.5mohm
 1.8VP
 Imax = 9A
 Iocp = 10.95A
 Fsw = 297KHz

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/10/1	Deciphered Date	2007/05/30	Title	+1.8VP
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Date	Tuesday, February 17, 2009
				Rev	1.0
				LA-4595P	



AO4712
 Rds(on)=15mohm~18mohm
 1.5VSP
 I_{max}=3.5A
 I_{ocp}=6.87A
 F_{sw}=298KHz

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/2/5	Deciphered Date	2009/2/5	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.				+1.5VSP	
Size	Document Number			Rev	
	LA-4595P			1.0	
Date:	Tuesday, February 17, 2009		Sheet	44	of 49

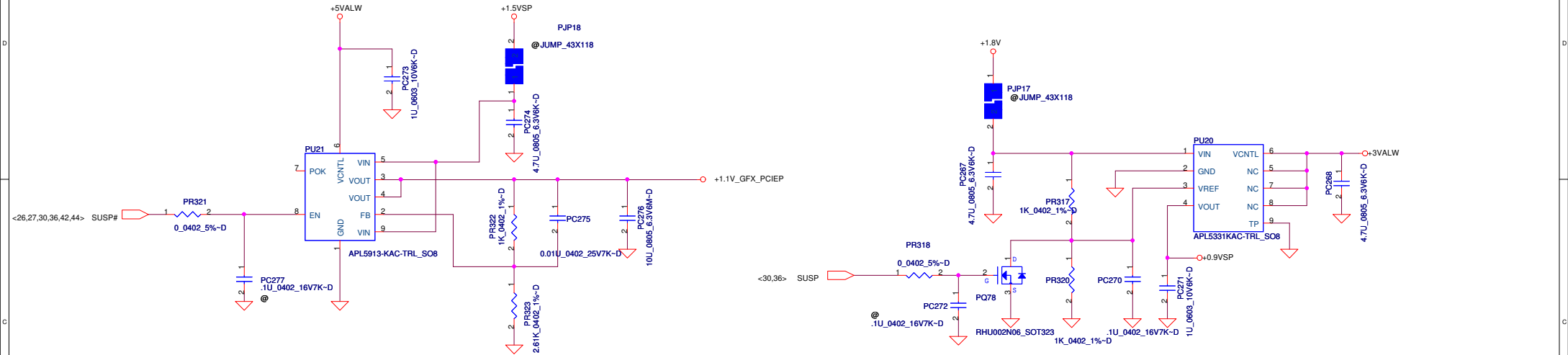


FDS6690AS
 $R_{ds(on)} = 12\text{mohm} \sim 15\text{mohm}$
 +VGA_COREP
 $I_{max} = 7A$
 $I_{ocp} = 10.74A$
 $f_{sw} = 301\text{KHz}$

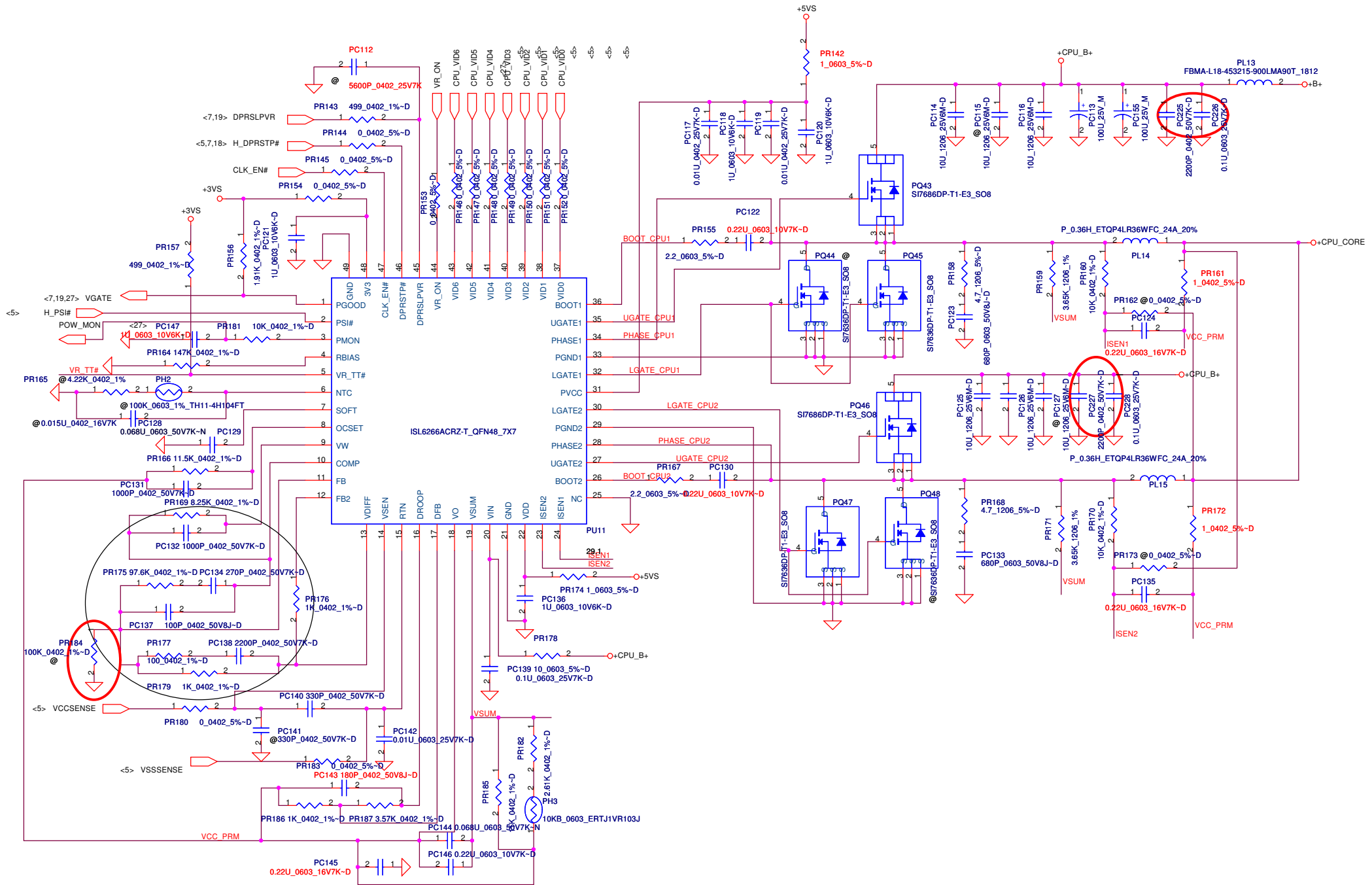
	0.90V	1.09V	1.17V
GPU_VID_0	0	0	1
GPU_VID_1	0	1	1

output voltage adjustable network

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/2/5	Deciphered Date	2009/2/5	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.				+VGA_CORE	
				Size	Document Number
				LA-4595P	
				Date:	Tuesday, February 17, 2009
				Sheet	45 of 49

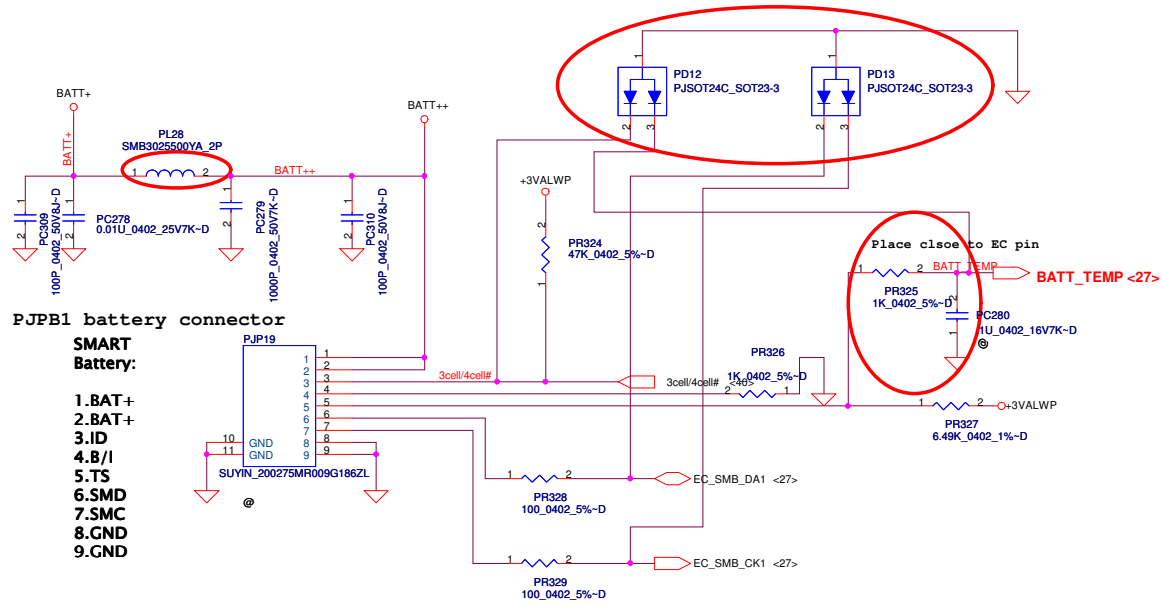


Security Classification		Compal Secret Data		Compal Electronics, Inc. Title: +0.9VSP/+1.1V_GFX_PCIEP	
Issued Date	2005/10/1	Deciphered Date	2007/05/30		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS 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
				Date: Tuesday, February 17, 2009	Sheet 46 of 49



Security Classification		Compal Secret Data	
Issued Date	2007/1/15	Deciphered Date	2008/1/15
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			

Title			Compal Electronics, Inc.		
+CPU CORE					
Size	Document Number	Rev			
Custom	LA-4595P	1.0			
Date:	Tuesday, February 17, 2009	Sheet	47	of	49



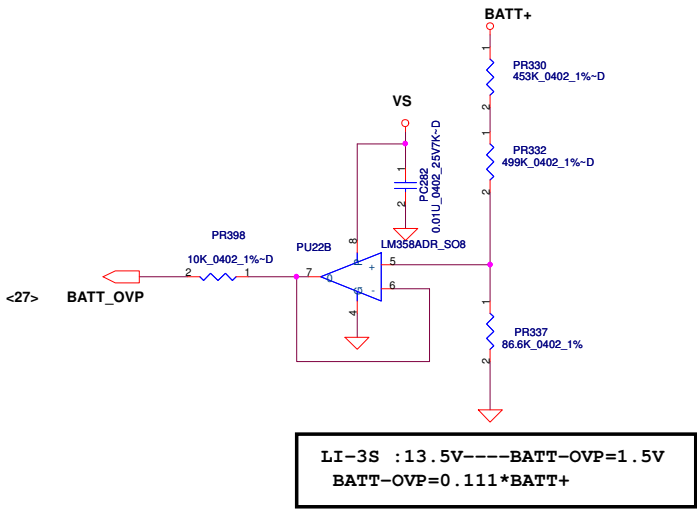
PJPB1 battery connector

SMART Battery:

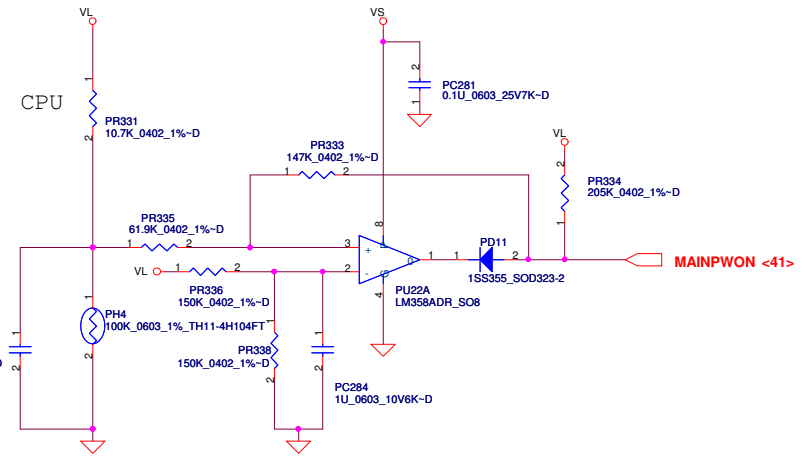
- 1. BATT+
- 2. BATT+
- 3. ID
- 4. B/I
- 5. TS
- 6. SMD
- 7. SMC
- 8. GND
- 9. GND

Battery Connect/OTP

CPU
PH1 under CPU bottom side :
 CPU thermal protection at 90 +/-3 degree C
 Recovery at 50 +/-3 degree C



**LI-3S : 13.5V --- BATT-OVP=1.5V
 BATT-OVP=0.111*BATT+**



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/10/1	Deciphered Date	2007/05/30	Title	
				BATTERY 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	
		Custom	LA-4595P	1.0	
		Date:	Tuesday, February 17, 2009	Sheet	48 of 49

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	39	DCIN /Vin Detector	08/12/08	COMPAL	common circuit design modify	change PR203 from 33 to 68 and add PR204 to 68	0.3
2			08/12/08	COMPAL	design modify	change PL17 from SM010018880 to SM010008E10	0.3
3	40	Charger	08/12/08	COMPAL	vendor FAE suggest	change PR272 PR339 from 1 to 3.3	0.3
4	48	BATTERY CONN	08/12/08	COMPAL	design modify	change PL28 from SM010018210 to SM010008E10	0.3
5	39	DCIN /Vin Detector	08/12/12	COMPAL	increase capacitor for EMI request	add PC313 at 0.01uf and PC314 at 0.1uf	0.3
6	42	VCCPP	08/12/12	COMPAL	change resister for EMI request	change PR342 from 0 to 2.2	0.3
7	43	1.8VP	08/12/12	COMPAL	change resister for EMI request	change PR352 from 0 to 2.2	0.3
8	44	1.5VSP	08/12/12	COMPAL	change resister for EMI request	change PR362 from 0 to 2.2	0.3
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/1/15	Title PW PIR-1	
<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&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	Document Number
				Custort	LA-4595P
Date: Tuesday, February 17, 2009				Sheet	49 of 49