

Compal Model Name: KML60

PCB NO: LA-4671P R02(X01)

BOM P/N: 46161631L01 (DIS)
46161631L02 (UMA)

Function Field: @ unpop
UMA@ UMA component
VGA@ discrete component
CONN@ ME connector
TPM@ TPM component

Half Penny Bridge 17"

Compal Confidential

Schematic Document

Cantiga + ICH9

2008 / 11 / 19 Rev:X01

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/6/05	Title	Cover Sheet
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 REPRODUCED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number LA-4671P
				Date: Wednesday, November 19, 2008	Rev 0.2
				Sheet 1 of 53	

ZZZ1

PCB

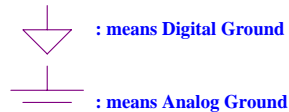


Date: Wednesday, November 19, 2008 Sheet 2 of 53

power plane	State	+B	+5VALW +3VALW	+1.8V	+5VS +3VS +1.5VS +0.9V +VCCP +CPU_CORE +VGA_CORE +2.5VS +1.8VS +1.2VS +0.9VGA
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

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

Symbol Note :



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

BOARD ID Table

Board ID	PCB Revision
0	0.1
1	0.2
2	
3	
4	
5	
6	
7	

Board ID Table for AD channel

Vcc	3.3V +/- 5%			
Ra / Rc	100K +/- 5%			
Board ID	Rb / Rd	VAD_BID min	VAD_BID typ	VAD_BID max
0	115K +/-1%	1.6613 V	1.7651 V	1.8706 V
1	154K +/-1%	1.8857 V	2.0008 V	2.1173 V
2	215K +/-1%	2.1261 V	2.2524 V	2.38 V
3	316K +/-1%	2.3948 V	2.5067 V	2.6447 V
4	560K +/-1%	2.6519 V	2.8 V	2.9488 V
5	NC			
6	NC			
7	NC			

PCI EXPRESS	DESTINATION
Lane 1	NA
Lane 2	GLAN RTL8111DL
Lane 3	MINI CARD 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

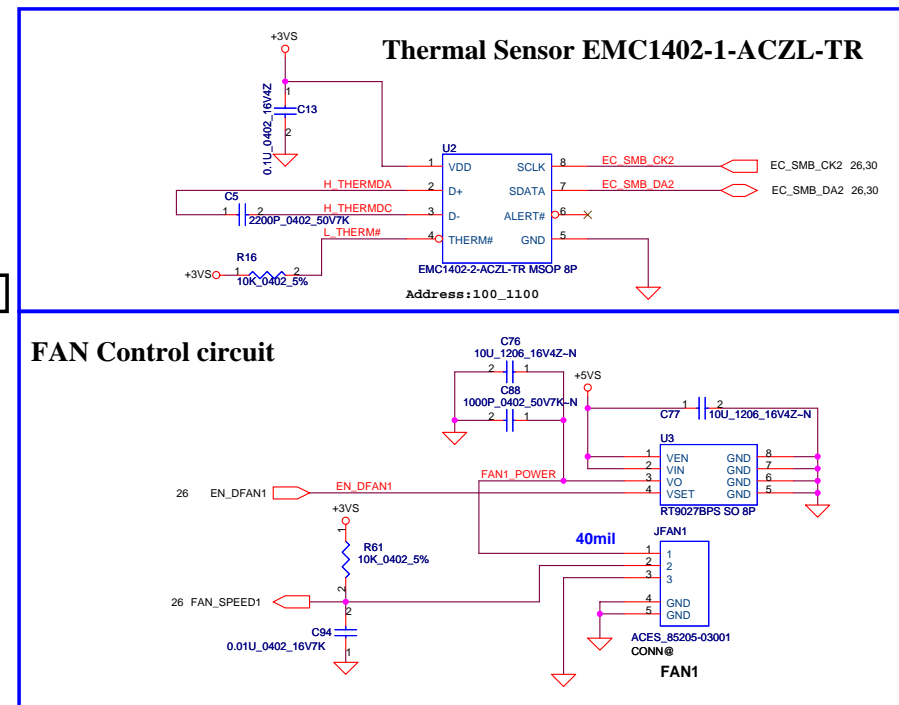
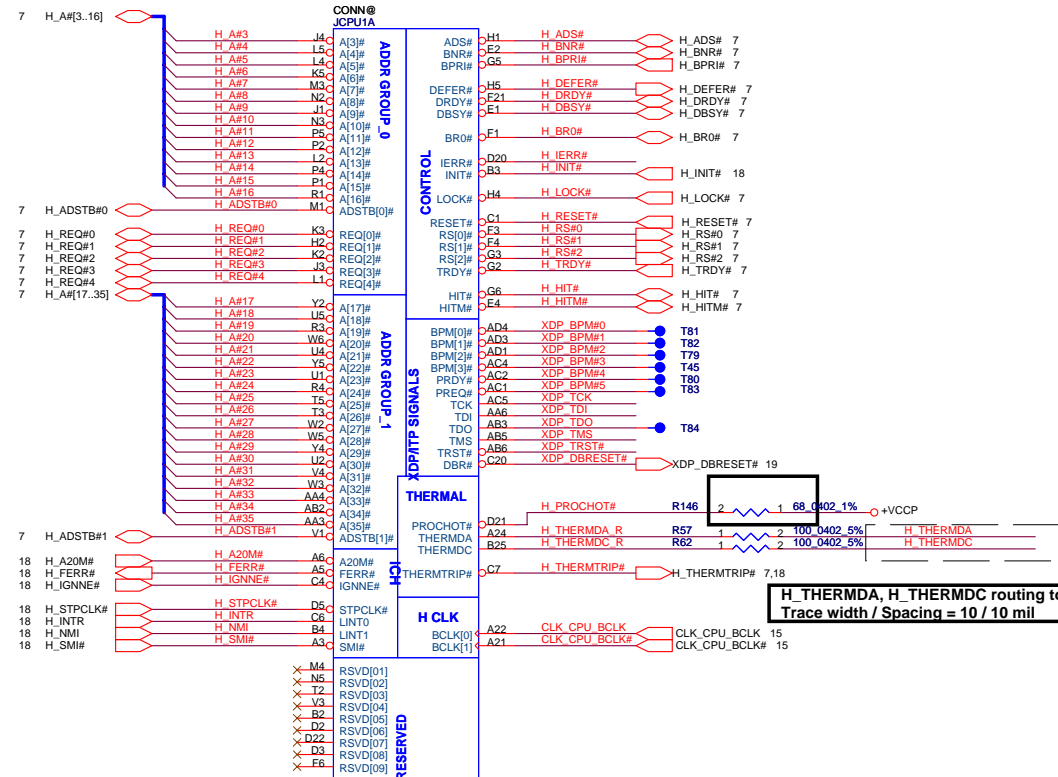
I2C / SMBUS ADDRESSING

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

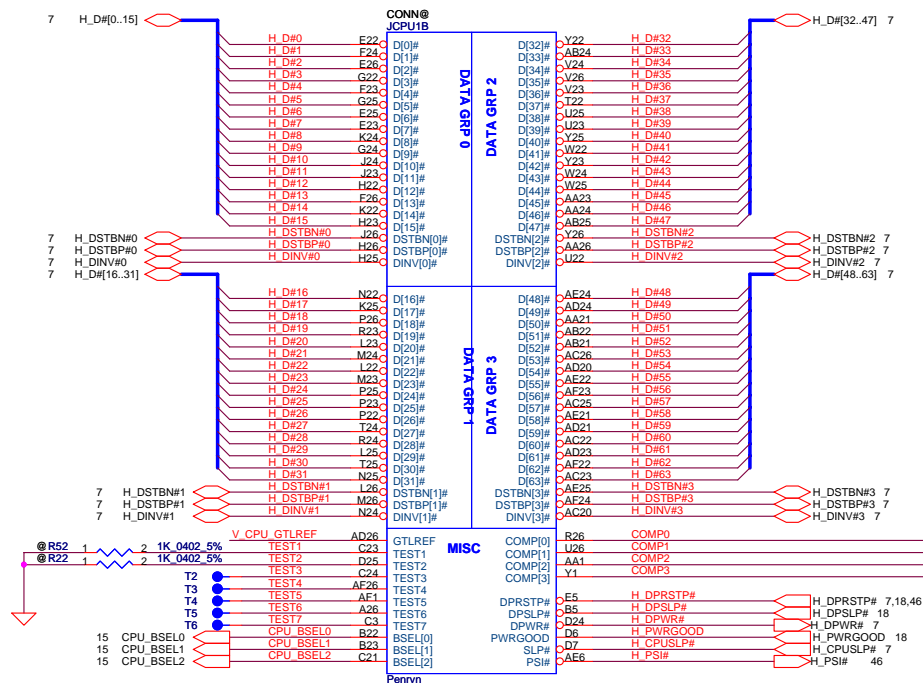
SMBUS Control Table

	SOURCE	INVERTER	BATT	SERIAL EEPROM	THERMAL SENSOR (CPU)	SODIMM	CLK CHIP	MINI CARD	LCD
SMB_EC_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	V	X
LCD_CLK LCD_DAT	Cantiga	X	X	X	X	X	X	X	V

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/03/10	Deciphered Date	2008/6/05	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 REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Notes List
				Size Custom
				Document Number LA-4671P
				Rev 0.2
				Date: Wednesday, November 19, 2008
				Sheet 3 of 53

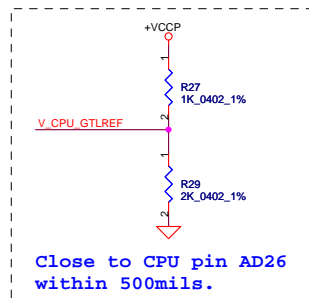


Security Classification		Compal Secret Data		Compal Electronics, Inc. Penryn(1/3)-AGTL+ITP-XDP	
Issued Date	2006/02/13	Deciphered Date	2008/6/05	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS 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 SHALL BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Date	LA-4671P
				Rev	0.
				Wednesday, November 19, 2008	Sheet 4 of 53



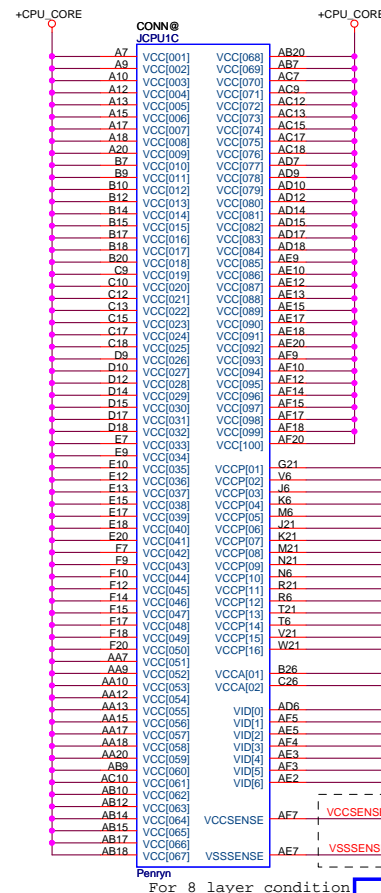
layout note: Rout H_DPRSTP# from ICH9 to IMVP6 then to GMCH & CPU
 layout note: Route TEST3 & TEST5 traces on ground referenced layer to the TPs

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

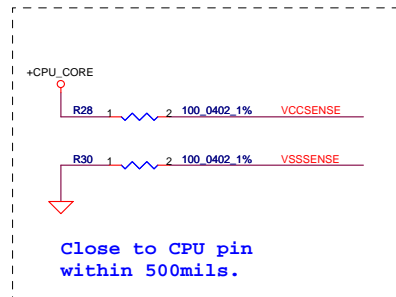


Resistor placed within 0.5" of CPU pin. Trace should be at least 25 mils away from any other toggling signal. COMP[0,2] trace width is 18 mils. COMP[1,3] trace width is 4

For 6 layer
 $Z=27.4 \text{ ohm}$
 VCCSENSE, VSSSENSE/ 14mils (MS),
 16mils (SL) width, 7mils space, 25mils
 space to other signals Mismatch =25mils.



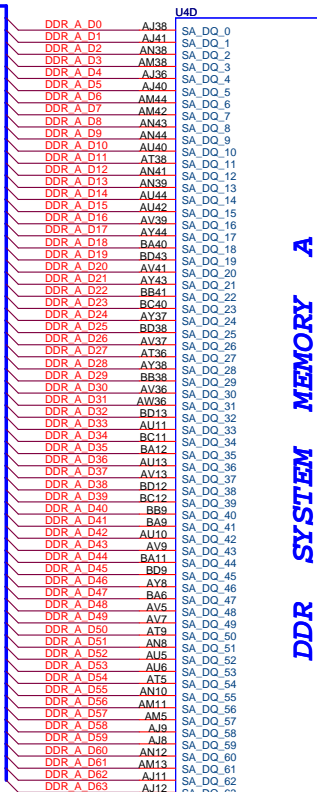
Length match within 25 mils.
 The trace width/space/other is 20/7/25.



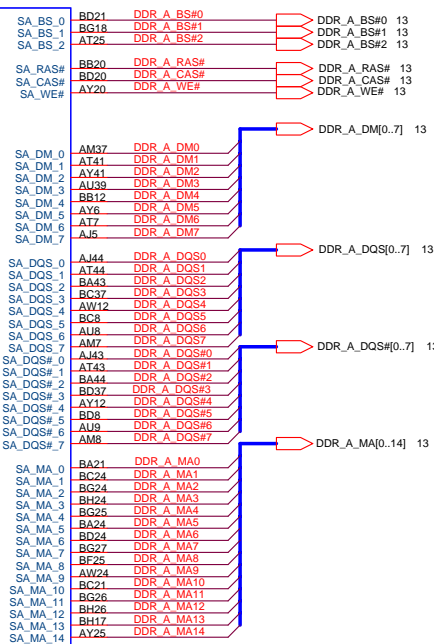
Security Classification		Compal Secret Data		Title	
Issued Date	2006/02/13	Deciphered Date	2008/6/05	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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 SHALL BE DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Penryn(2/3)-AGTL+/ITP-XDP	
Size	Document Number	Rev		0.2	
Cust	LA-467IP	Date		Wednesday, November 19, 2008	
Sheet		5		of 53	

CONN#			CPUID		
A4	VSS[001]	VSS[002]	P6	P21	
A8	VSS[002]	VSS[003]	P21	P24	
A11	VSS[003]	VSS[004]	P24	R2	
A14	VSS[004]	VSS[005]	R5	R22	
A16	VSS[005]	VSS[006]	R22	R25	
A19	VSS[006]	VSS[007]	T1	T4	
A23	VSS[007]	VSS[008]	T4	T23	
A27	VSS[008]	VSS[009]	T23	T26	
A31	VSS[009]	VSS[010]	U3	U6	
A35	VSS[010]	VSS[011]	U6	U21	
A39	VSS[011]	VSS[012]	U21	U24	
A43	VSS[012]	VSS[013]	U24	V5	
A47	VSS[013]	VSS[014]	V5	V22	
A51	VSS[014]	VSS[015]	V22	V25	
A55	VSS[015]	VSS[016]	V25	V1	
A59	VSS[016]	VSS[017]	V1	V23	
A63	VSS[017]	VSS[018]	V23	V26	
A67	VSS[018]	VSS[019]	V26	V3	
A71	VSS[019]	VSS[020]	V3	V6	
A75	VSS[020]	VSS[021]	V6	Y21	
A79	VSS[021]	VSS[022]	Y21	Y24	
A83	VSS[022]	VSS[023]	Y24	AA2	
A87	VSS[023]	VSS[024]	AA2	AA5	
A91	VSS[024]	VSS[025]	AA5	AA8	
A95	VSS[025]	VSS[026]	AA8	AA11	
A99	VSS[026]	VSS[027]	AA11	AA14	
A103	VSS[027]	VSS[028]	AA14	AA16	
A107	VSS[028]	VSS[029]	AA16	AA19	
A111	VSS[029]	VSS[030]	AA19	AA22	
A115	VSS[030]	VSS[031]	AA22	AA25	
A119	VSS[031]	VSS[032]	AA25	AB1	
A123	VSS[032]	VSS[033]	AB1	AB4	
A127	VSS[033]	VSS[034]	AB4	AB8	
A131	VSS[034]	VSS[035]	AB8	AB11	
A135	VSS[035]	VSS[036]	AB11	AB13	
A139	VSS[036]	VSS[037]	AB13	AB16	
A143	VSS[037]	VSS[038]	AB16	AB19	
A147	VSS[038]	VSS[039]	AB19	AB23	
A151	VSS[039]	VSS[040]	AB23	AB26	
A155	VSS[040]	VSS[041]	AB26	AC3	
A159	VSS[041]	VSS[042]	AC3	AC6	
A163	VSS[042]	VSS[043]	AC6	AC8	
A167	VSS[043]	VSS[044]	AC8	AC11	
A171	VSS[044]	VSS[045]	AC11	AC14	
A175	VSS[045]	VSS[046]	AC14	AC16	
A179	VSS[046]	VSS[047]	AC16	AC21	
A183	VSS[047]	VSS[048]	AC21	AC24	
A187	VSS[048]	VSS[049]	AC24	AD2	
A191	VSS[049]	VSS[050]	AD2	AD5	
A195	VSS[050]	VSS[051]	AD5	AD8	
A199	VSS[051]	VSS[052]	AD8	AD11	
A203	VSS[052]	VSS[053]	AD11	AD13	
A207	VSS[053]	VSS[054]	AD13	AD16	
A211	VSS[054]	VSS[055]	AD16	AD19	
A215	VSS[055]	VSS[056]	AD19	AD22	
A219	VSS[056]	VSS[057]	AD22	AD25	
A223	VSS[057]	VSS[058]	AD25	AE1	
A227	VSS[058]	VSS[059]	AE1	AE4	
A231	VSS[059]	VSS[060]	AE4	AE8	
A235	VSS[060]	VSS[061]	AE8	AE11	
A239	VSS[061]	VSS[062]	AE11	AE14	
A243	VSS[062]	VSS[063]	AE14	AE16	
A247	VSS[063]	VSS[064]	AE16	AE19	
A251	VSS[064]	VSS[065]	AE19	AE23	
A255	VSS[065]	VSS[066]	AE23	A2	
A259	VSS[066]	VSS[067]	A2	AE6	
A263	VSS[067]	VSS[068]	AE6	AE8	
A267	VSS[068]	VSS[069]	AE8	AE11	
A271	VSS[069]	VSS[070]	AE11	AE13	
A275	VSS[070]	VSS[071]	AE13	AE16	
A279	VSS[071]	VSS[072]	AE16	AE19	
A283	VSS[072]	VSS[073]	AE19	AE21	
A287	VSS[073]	VSS[074]	AE21	A25	
A291	VSS[074]	VSS[075]	A25	AE25	
A295	VSS[075]	VSS[076]	AE25	AE25	
A299	VSS[076]	VSS[077]			
A303	VSS[077]	VSS[078]			
A307	VSS[078]	VSS[079]			
A311	VSS[079]	VSS[080]			
A315	VSS[080]	VSS[081]			
A319	VSS[081]	VSS[082]			
A323	VSS[082]	VSS[083]			
A327	VSS[083]	VSS[084]			
A331	VSS[084]	VSS[085]			
A335	VSS[085]	VSS[086]			
A339	VSS[086]	VSS[087]			
A343	VSS[087]	VSS[088]			
A347	VSS[088]	VSS[089]			
A351	VSS[089]	VSS[090]			
A355	VSS[090]	VSS[091]			
A359	VSS[091]	VSS[092]			
A363	VSS[092]	VSS[093]			
A367	VSS[093]	VSS[094]			
A371	VSS[094]	VSS[095]			
A375	VSS[095]	VSS[096]			
A379	VSS[096]	VSS[097]			
A383	VSS[097]	VSS[098]			
A387	VSS[098]	VSS[099]			
A391	VSS[099]	VSS[100]			
A395	VSS[100]	VSS[101]			
A399	VSS[101]	VSS[102]			
A403	VSS[102]	VSS[103]			
A407	VSS[103]	VSS[104]			
A411	VSS[104]	VSS[105]			
A415	VSS[105]	VSS[106]			
A419	VSS[106]	VSS[107]			
A423	VSS[107]	VSS[108]			
A427	VSS[108]	VSS[109]			
A431	VSS[109]	VSS[110]			
A435	VSS[110]	VSS[111]			
A439	VSS[111]	VSS[112]			
A443	VSS[112]	VSS[113]			
A447	VSS[113]	VSS[114]			
A451	VSS[114]	VSS[115]			
A455	VSS[115]	VSS[116]			
A459	VSS[116]	VSS[117]			
A463	VSS[117]	VSS[118]			
A467	VSS[118]	VSS[119]			
A471	VSS[119]	VSS[120]			
A475	VSS[120]	VSS[121]			
A479	VSS[121]	VSS[122]			
A483	VSS[122]	VSS[123]			
A487	VSS[123]	VSS[124]			
A491	VSS[124]	VSS[125]			
A495	VSS[125]	VSS[126]			
A499	VSS[126]	VSS[127]			
A503	VSS[127]	VSS[128]			
A507	VSS[128]	VSS[129]			
A511	VSS[129]	VSS[130]			
A515	VSS[130]	VSS[131]			
A519	VSS[131]	VSS[132]			
A523	VSS[132]	VSS[133]			
A527	VSS[133]	VSS[134]			
A531	VSS[134]	VSS[135]			
A535	VSS[135]	VSS[136]			
A539	VSS[136]	VSS[137]			
A543	VSS[137]	VSS[138]			
A547	VSS[138]	VSS[139]			
A551	VSS[139]	VSS[140]			
A555	VSS[140]	VSS[141]			
A559	VSS[141]	VSS[142]			
A563	VSS[142]	VSS[143]			
A567	VSS[143]	VSS[144]			
A571	VSS[144]	VSS[145]			
A575	VSS[145]	VSS[146]			
A579	VSS[146]	VSS[147]			
A583	VSS[147]	VSS[148]			
A587	VSS[148]	VSS[149]			
A591	VSS[149]	VSS[150]			
A595	VSS[150]	VSS[151]			
A599	VSS[151]	VSS[152]			
A603	VSS[152]	VSS[153]			
A607	VSS[153]	VSS[154]			
A611	VSS[154]	VSS[155]			
A615	VSS[155]	VSS[156]			
A619	VSS[156]	VSS[157]			
A623	VSS[157]	VSS[158]			
A627	VSS[158]	VSS[159]			
A631	VSS[159]	VSS[160]			
A635	VSS[160]	VSS[161]			
A639	VSS[161]	VSS[162]			
A643	VSS[162]	VSS[163]			
A647	VSS[163]	VSS[164]			
A651	VSS[164]	VSS[165]			
A655	VSS[165]	VSS[166]			
A659	VSS[166]	VSS[167]			
A663	VSS[167]	VSS[168]			
A667	VSS[168]	VSS[169]			
A671	VSS[169]	VSS[170]			
A675	VSS[170]	VSS[171]			
A679	VSS[171]	VSS[172]			
A683	VSS[172]	VSS[173]			
A687	VSS[173]	VSS[174]			
A691	VSS[174]	VSS[175]			
A695	VSS[175]	VSS[176]			
A699	VSS[176]	VSS[177]			
A703	VSS[177]	VSS[178]			
A707	VSS[178]	VSS[179]			
A711	VSS[179]	VSS[180]			
A715	VSS[180]	VSS[181]			
A719	VSS[181]	VSS[182]			
A723	VSS[182]	VSS[183]			
A727	VSS[183]	VSS[184]			
A731	VSS[184]	VSS[185]			
A735	VSS[185]	VSS[186]			
A739	VSS[186]	VSS[187]			
A743	VSS[187]	VSS[188]			
A747	VSS[188]	VSS[189]			
A751	VSS[189]	VSS[190]			
A755	VSS[190]	VSS[191]			
A759	VSS[191]	VSS[192]			
A763	VSS[192]	VSS[193]			
A767	VSS[193]	VSS[194]			
A771	VSS[194]	VSS[195]			
A775	VSS[195]	VSS[196]			
A779	VSS[196]	VSS[197]			
A783	VSS[197]	VSS[198]			
A787	VSS[198]	VSS[199]			
A791	VSS[199]	VSS[200]			
A795	VSS[200]	VSS[201]			
A799	VSS[201]	VSS[202]			
A803	VSS[202]	VSS[203]			
A807	VSS[203]	VSS[204]			
A811	VSS[204]	VSS[205]			
A815	VSS[205]	VSS[206]			
A819	VSS[206]	VSS[207]			
A823	VSS[207]	VSS[208]			
A827	VSS[208]	VSS[209]			
A831	VSS[209]	VSS[210]			
A835	VSS[210]	VSS[211]			
A839	VSS[211]	VSS[212]			
A843	VSS[212]	VSS[213]			
A847	VSS[213]	VSS[214]			
A851	VSS[214]	VSS[215]			
A855	VSS[215]	VSS[216]			
A859	VSS[216]	VSS[217]			
A863	VSS[217]	VSS[218]			
A867	VSS[218]	VSS[219]			
A871	VSS[219]	VSS[220]			
A875	VSS[220]	VSS[221]			
A879	VSS[221]	VSS[222]			
A883	VSS[222]	VSS[223]			
A887	VSS[223]	VSS[224]			
A891	VSS[224]	VSS[225]			
A895	VSS[225]	VSS[226]			
A899	VSS[226]	VSS[227]			
A903	VSS[227]	VSS[228]			
A907	VSS[228]	VSS[229]			
A911	VSS[229]	VSS[230]			
A915	VSS[230]	VSS[231]			
A919	VSS[231]	VSS[232]			
A923	VSS[232]	VSS[233]			
A927	VSS[233]	VSS[234]			
A931	VSS[234]	VSS[235]			
A935	VSS[235]	VSS[236]			
A939	VSS[236]	VSS[237]			
A943	VSS[237]	VSS[238]			
A947	VSS[238]	VSS[239]			
A951	VSS[239]	VSS[240]			
A955	VSS[240]	VSS[241]			
A959	VSS[241]	VSS[242]			
A963	VSS[242]	VSS[243]			
A967	VSS[243]	VSS[244]			
A971	VSS[244]	VSS[245]			
A975	VSS[245]	VSS[246]			
A979	VSS[246]	VSS[247]			
A983	VSS[247]	VSS[248]			
A987	VSS[248]	VSS[249]			
A991	VSS[249]	VSS[250]			
A995	VSS[250]	VSS[251]			
A999	VSS[251]	VSS[252]			
	VSS[252]	VSS[253]			
	VSS[253]	VSS[254]			
	VSS[254]	VSS[255]			
	VSS[255]	VSS[256]			
	VSS[256]	VSS[257]			
	VSS[257]	VSS[258]			
	VSS[258]	VSS[259]			
	VSS[259]	VSS[260]			
	VSS[260]	VSS[261]			
	VSS[261]	VSS[262]			
	VSS[262]	VSS[263]			
	VSS[263				

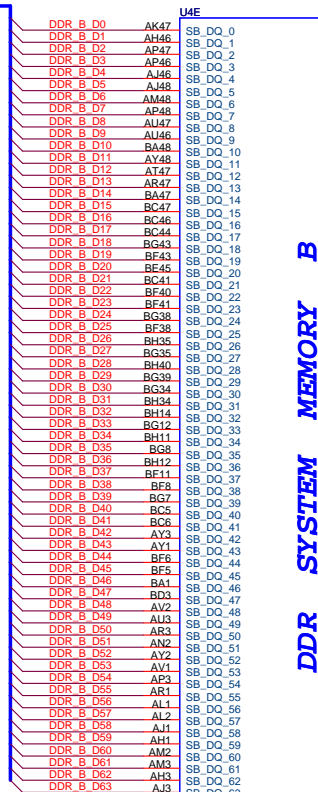
13 DDR_A_D[0..63]



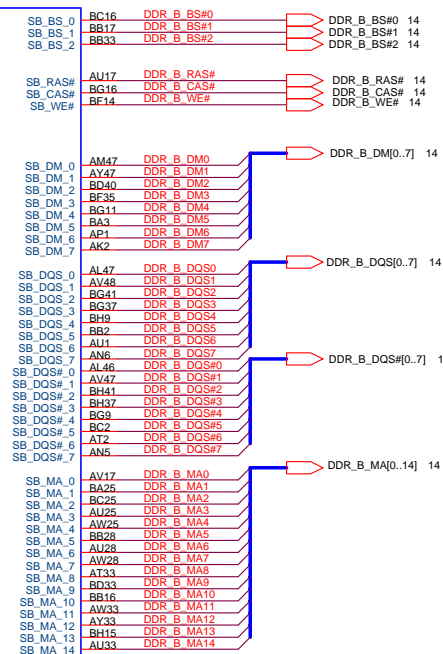
CANTIGA_1p0



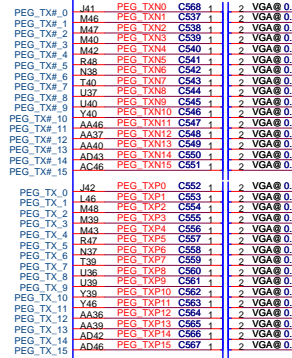
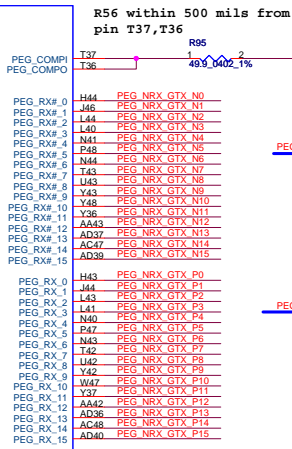
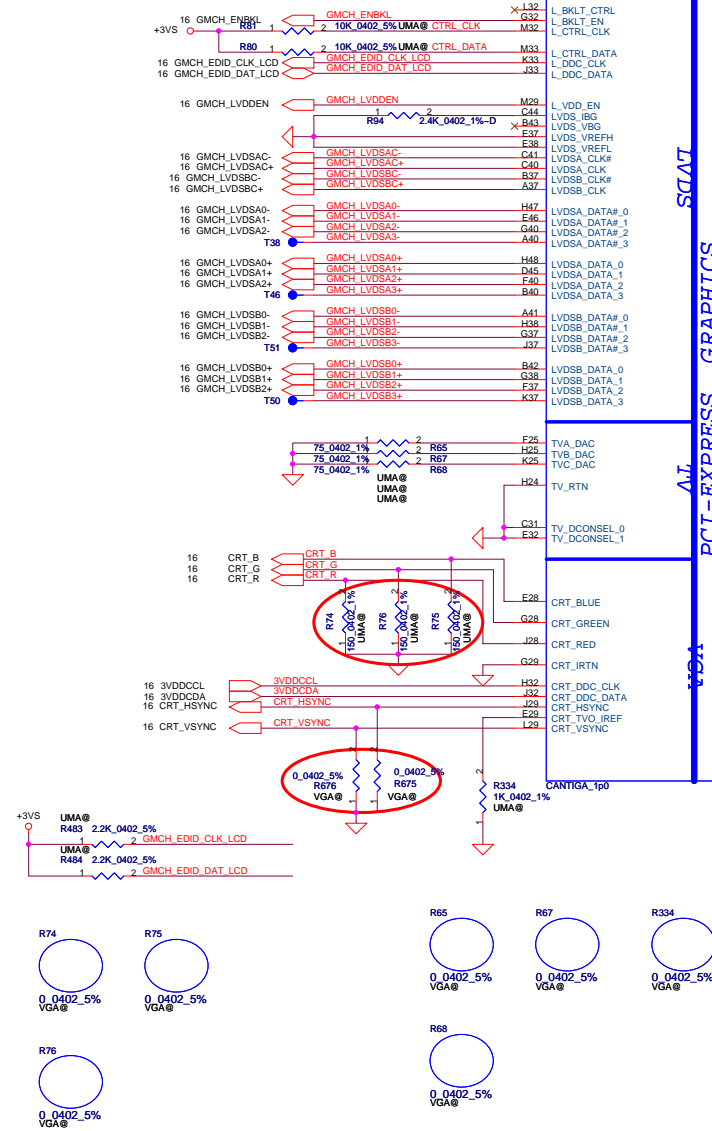
14 DDR_B_D[0..63]



CANTIGA_1p0



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/02/13	Deciphered Date	2008/6/05	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 SHALL BE DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
Date: Wednesday, November 19, 2008				Rev 0.2
Sheet 8 of 53				



R56 within 500 mils from pin T37, T36

PEG_NRX_TXN0_15

PEG_NRX_TXN15

PEG_NRX_TXN0_15

PEG_NRX_TXN15

PEG_NRX_TXN0_15

PEG_NRX_TXN15

PEG_NRX_TXN0_15

PEG_NRX_TXN15

PEG_NRX_TXN0_15

PEG_NRX_TXN15

PEG_NRX_TXN0_15

PEG_NRX_TXN15

PEG_NRX_TXN0_15

PEG_NRX_TXN15

PEG_NRX_TXN0_15

PEG_NRX_TXN15

PEG_NRX_TXN0_15

PEG_NRX_TXN15

PEG_NRX_TXN0_15

PEG_NRX_TXN15

PEG_NRX_TXN0_15

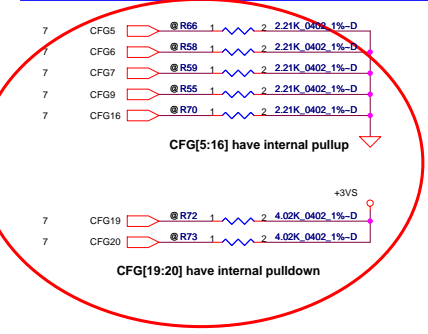
PEG_NRX_TXN15

PEG_NRX_TXN0_15

PEG_NRX_TXN15

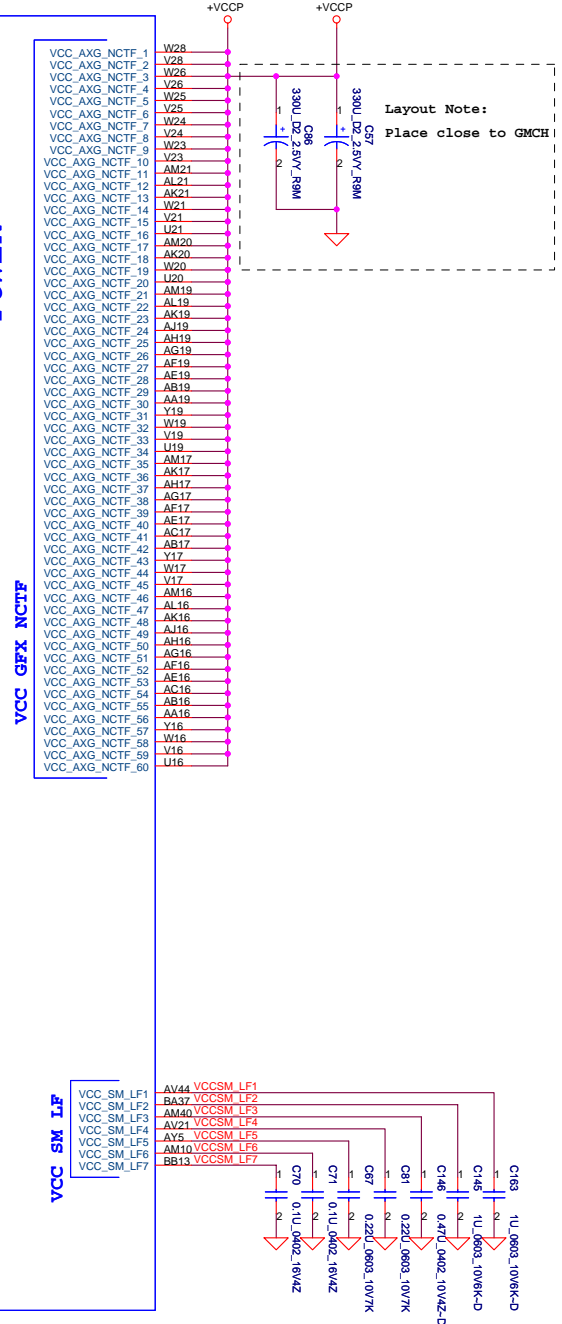
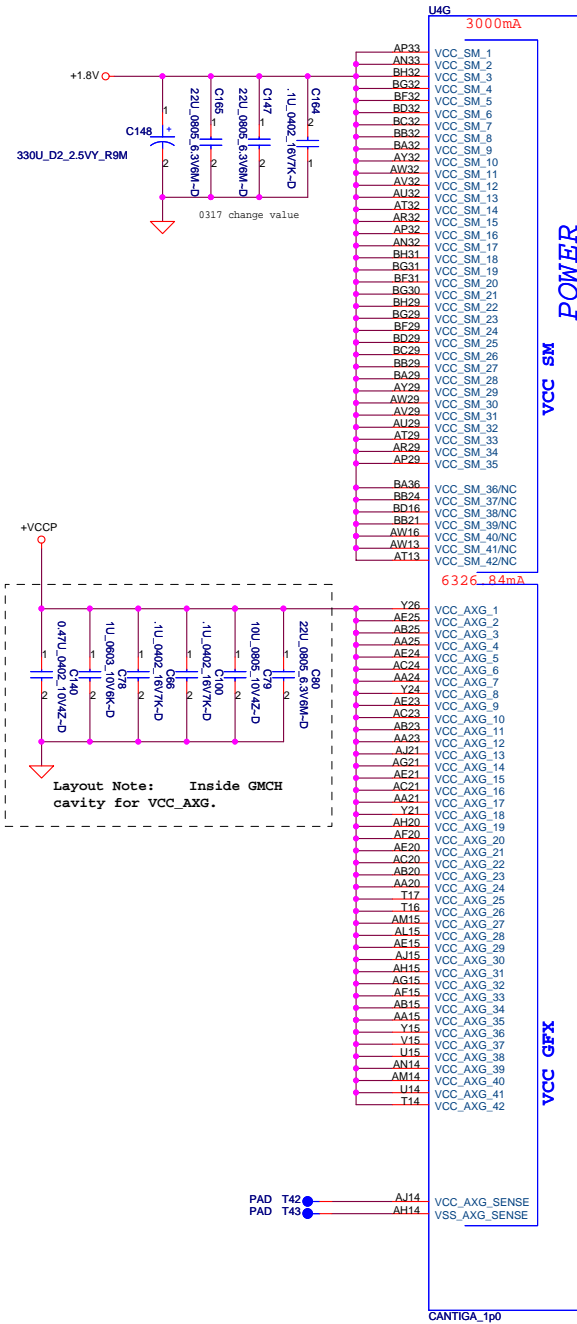
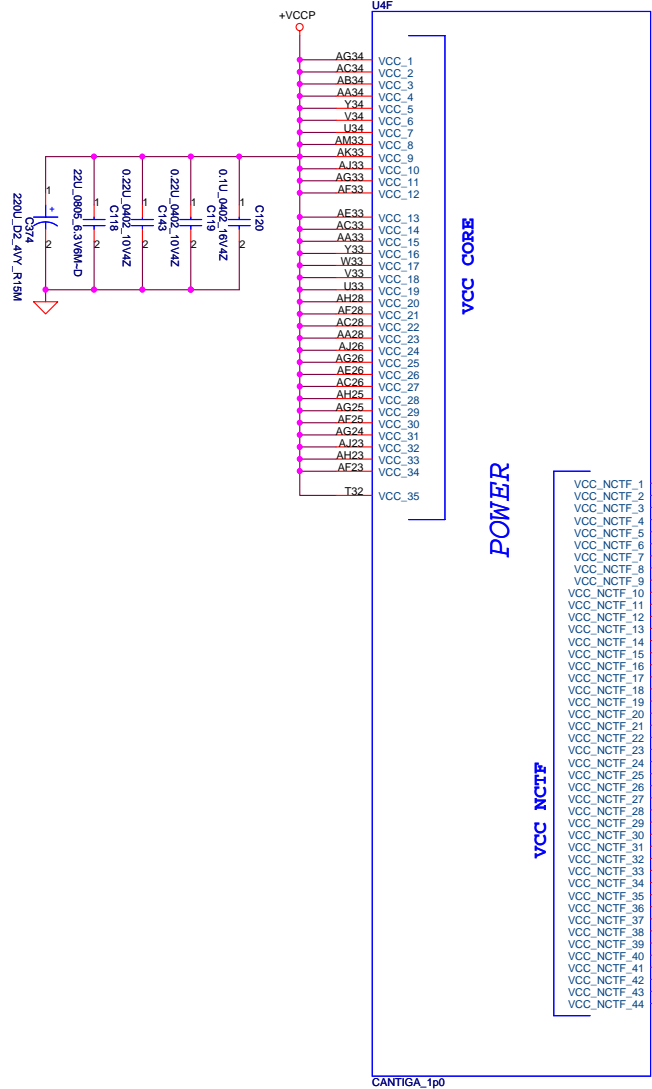
Strap Pin Table

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)chipset suite with no confidentiality 1 =(TLS)chipset 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
CFG[13:12] (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. *

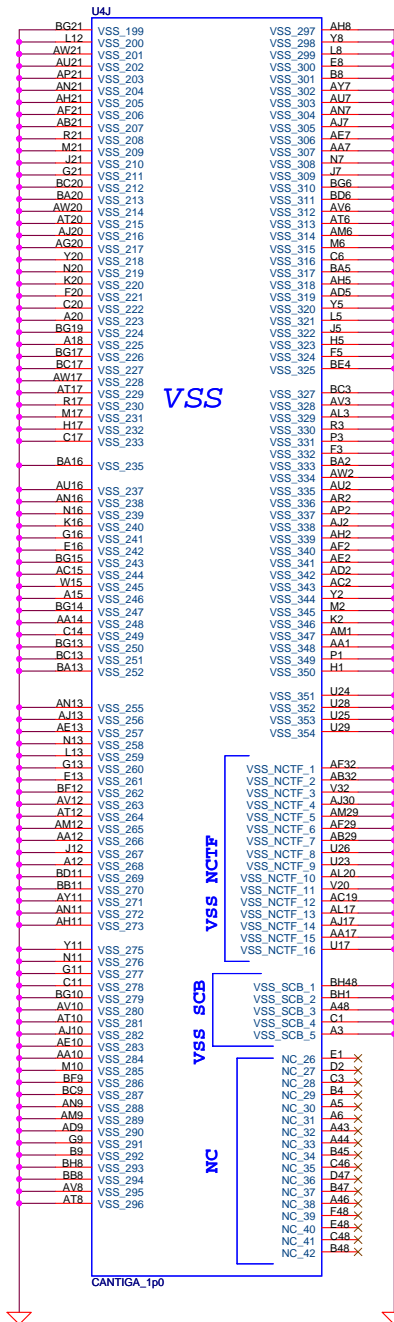
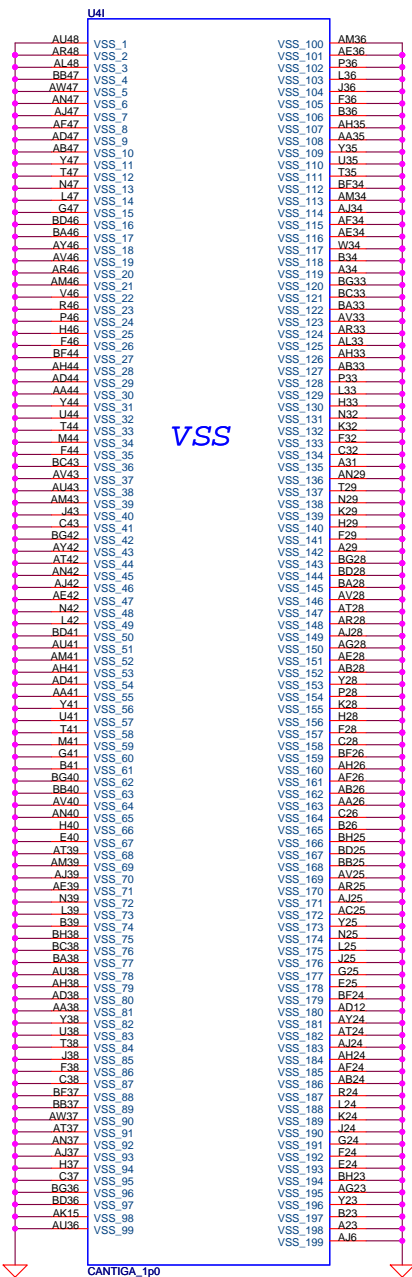




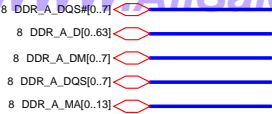
Extlnal Graphic: 1210.34mA
integrated Graphic: 1930.4mA



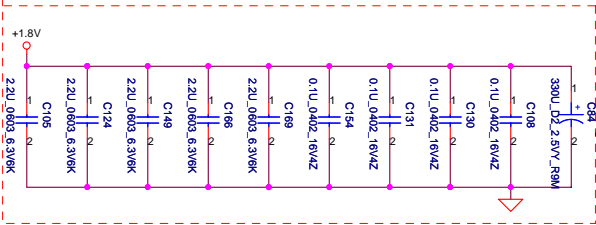
Security Classification		Compal Secret Data		Compal Electronics, Inc. Cantiga(5/6)-PWR/GND	
Issued Date	2006/02/13	Deciphered Date	2008/6/05	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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 IS TO BE DISCLOSED OR COPIED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number LA-4671P
				Date:	Wednesday, November 19, 2008 Sheet 11 of 53
				Rev	0.2



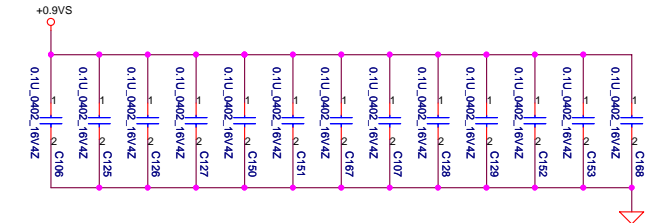
Security Classification		Compal Secret Data		Title	
Issued Date	2006/02/13	Deciphered Date	2008/6/05	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Cantiga(6/6)-PWR/GND	
Size	Document Number	Rev		0.2	
Custom	LA-4671P	Date:		Wednesday, November 19, 2008	
Sheet		12		of 53	



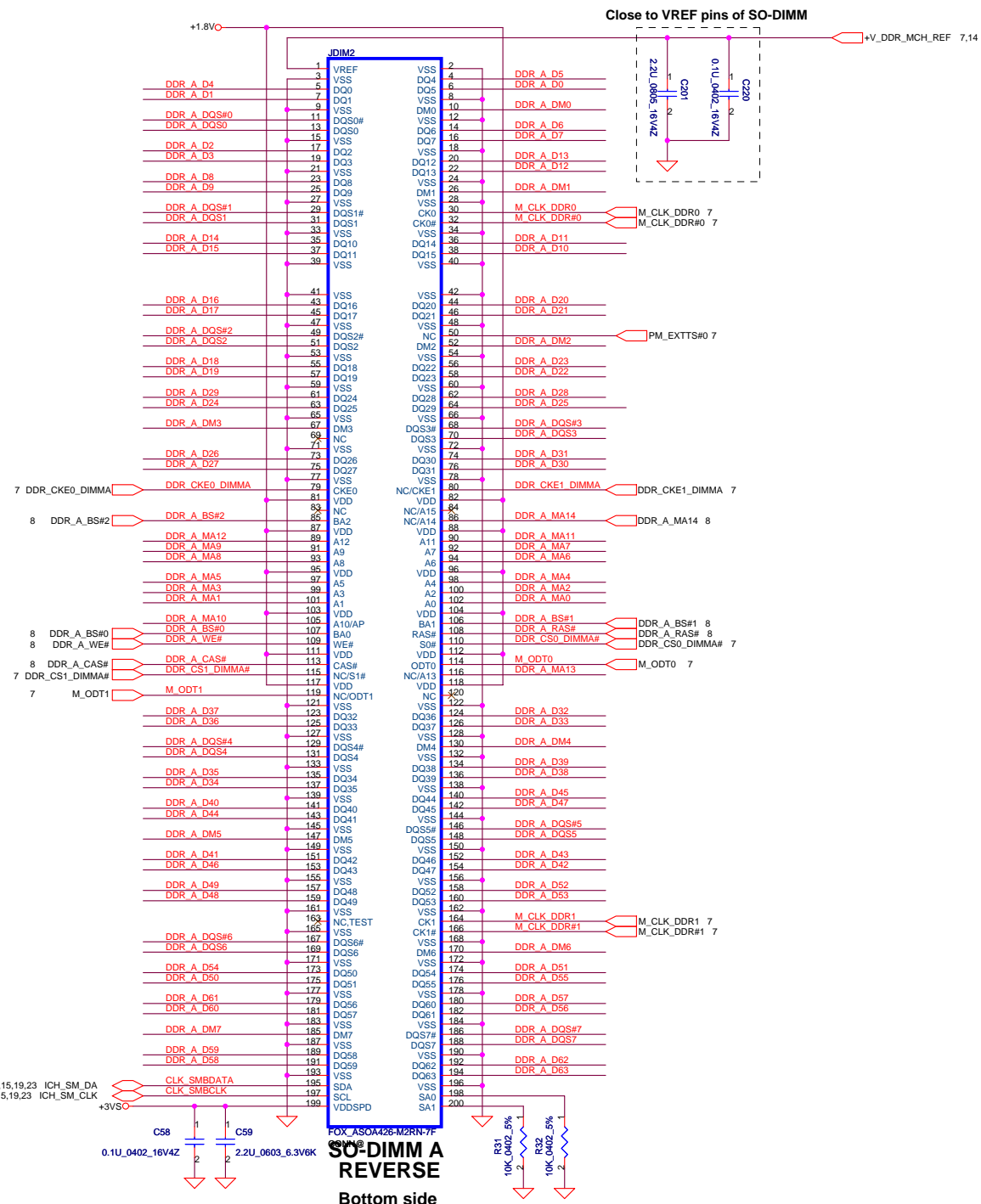
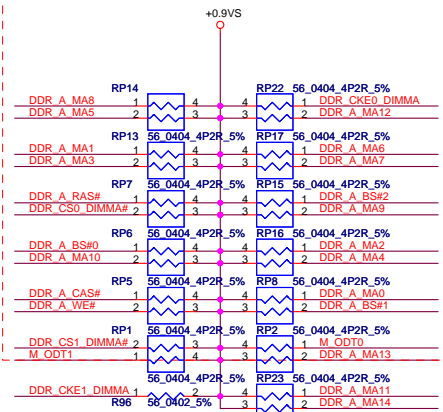
Layout Note:
Place near JDIM2



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



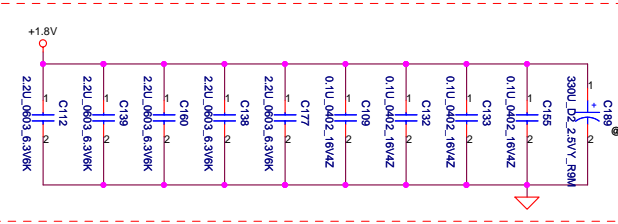
Layout Note:
Place these resistor closely JDIM2, all trace length Max=1.5"



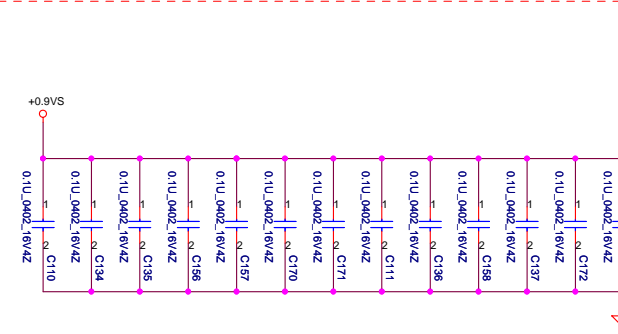
SO-DIMM A
REVERSE
Bottom side

Security Classification			Compal Secret Data			Compal Electronics, Inc.		
Issued Date			Deciphered Date			Title		
2007/1/15			2008/6/05			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 COMPANY OR ANY OF ITS SUBSIDIARIES OR AFFILIATES WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			Size			Document Number		
			Custom			LA-4671P		
			Date			Wednesday, November 19, 2008		
			Sheet			13 of 53		

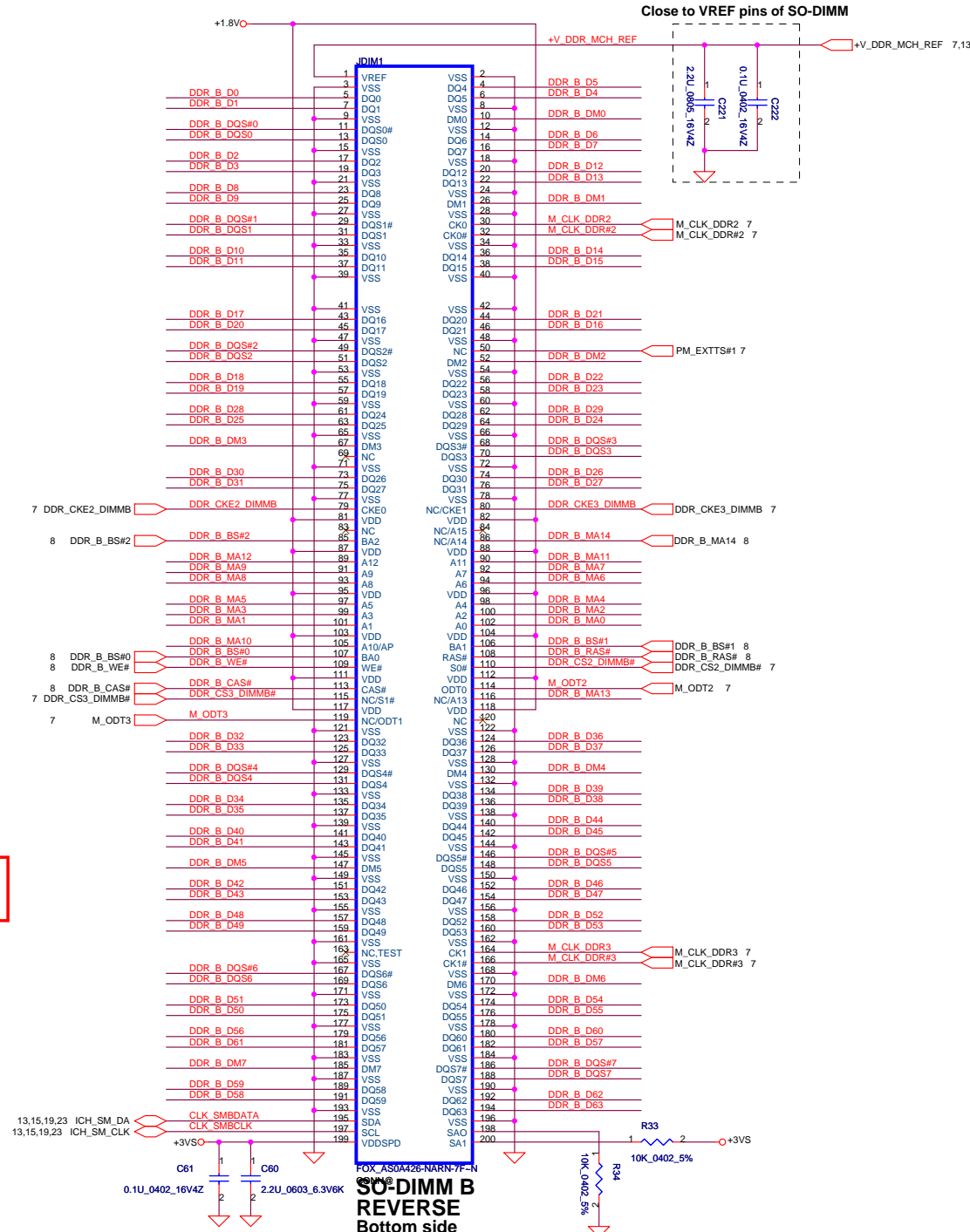
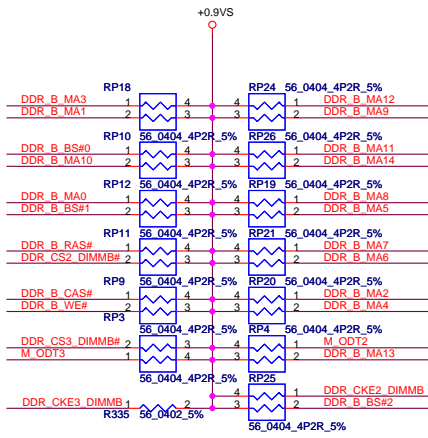
Layout Note:
Place near JDIM1



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

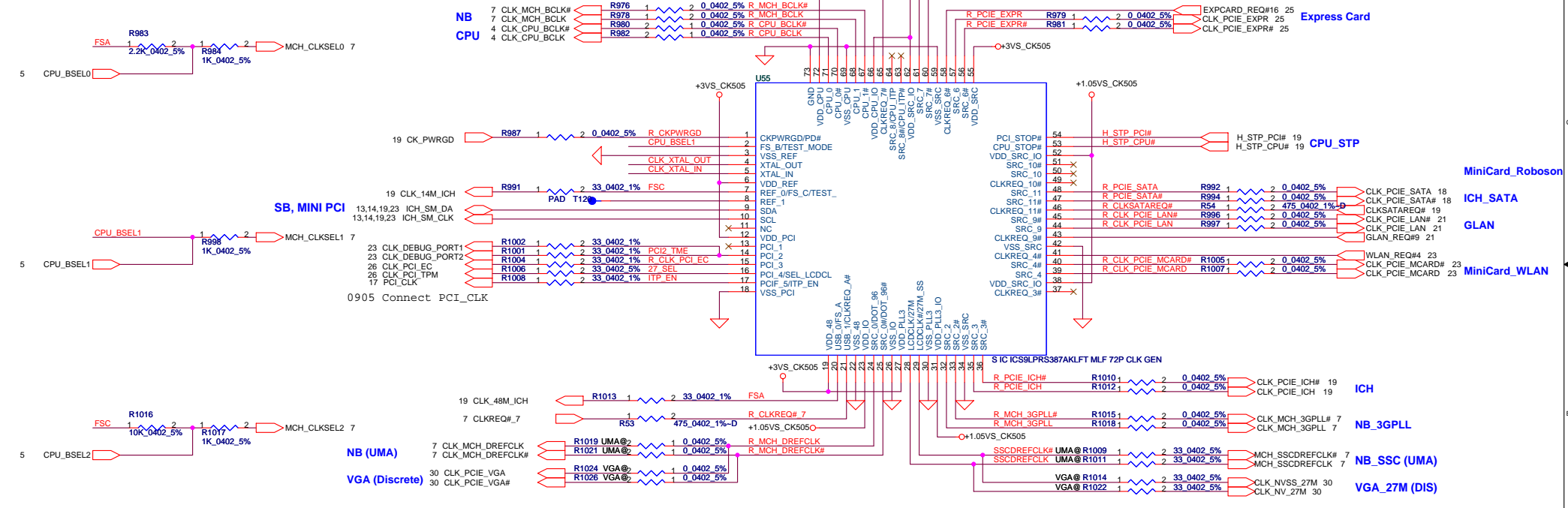


Layout Note:
Place these resistor closely JDIM1, all trace length Max=1.5"



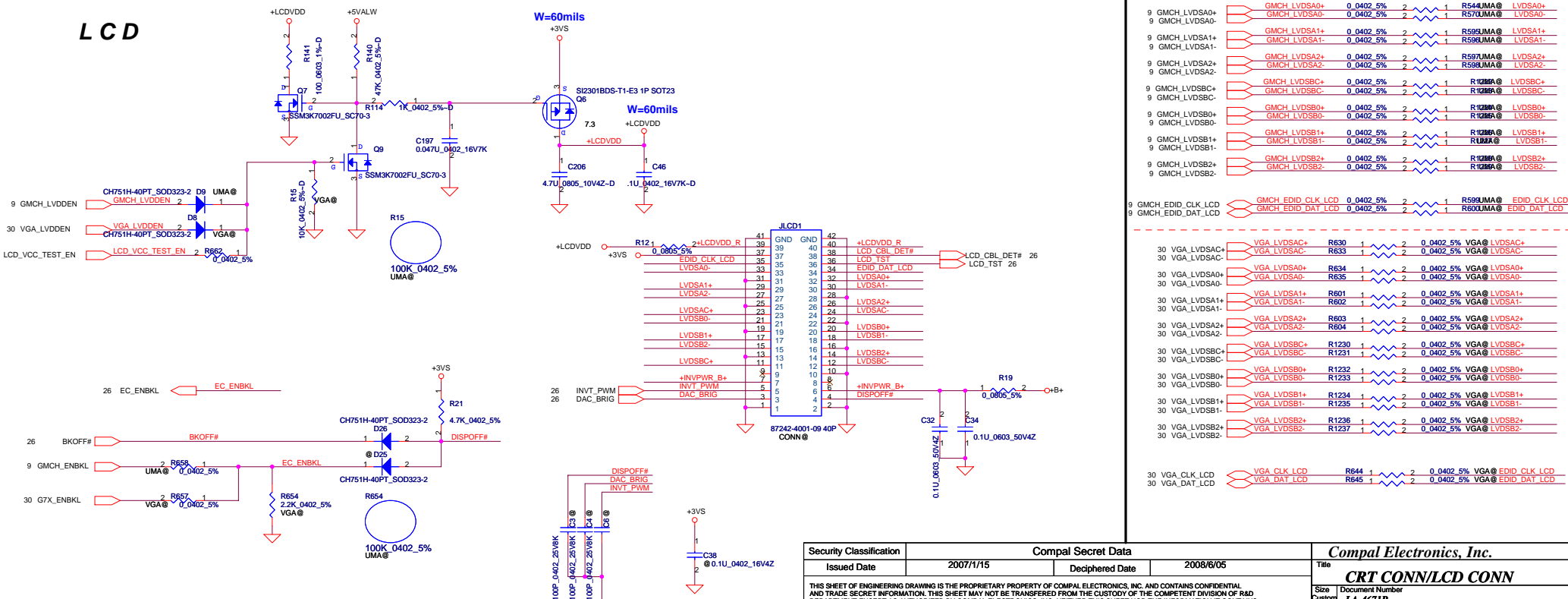
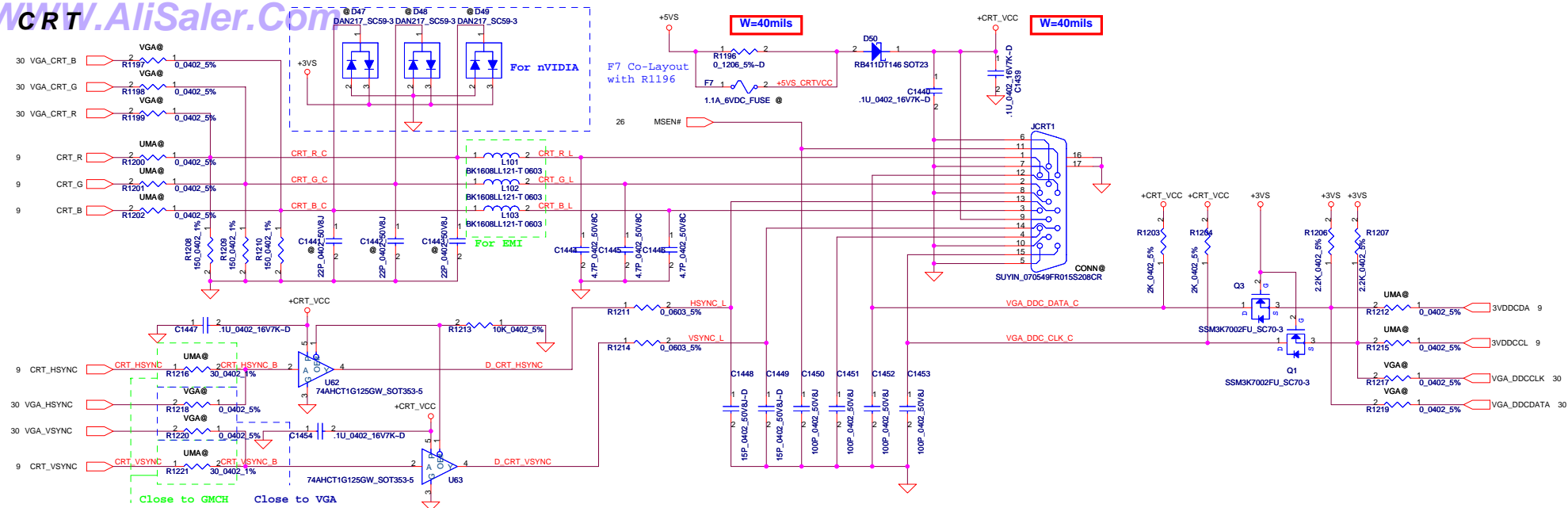
Security Classification		Compal Secret Data		Compal Electronics, Inc.					
Issued Date		2007/1/15		Deciphered Date		2008/6/05			
<p>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPANY OR THE COMPANY'S 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 THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.</p>				Title					
				DDR2 SO-DIMM II					
				Size		Document Number		Rev	
				Custom		LA-4671P		0.2	
				Date: Wednesday, November 19, 2008					
				Sheet 14 of 53					

FSC CLKSEL2	FSB CLKSEL1	FSA CLKSEL0	CPU MHz	SRC MHz	PCI MHz	REF MHz	DOT_96 MHz	USB 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					

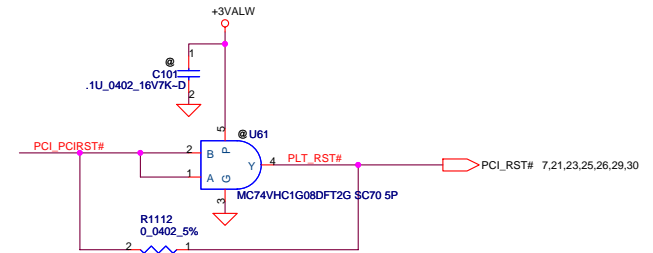
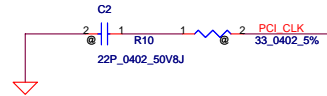
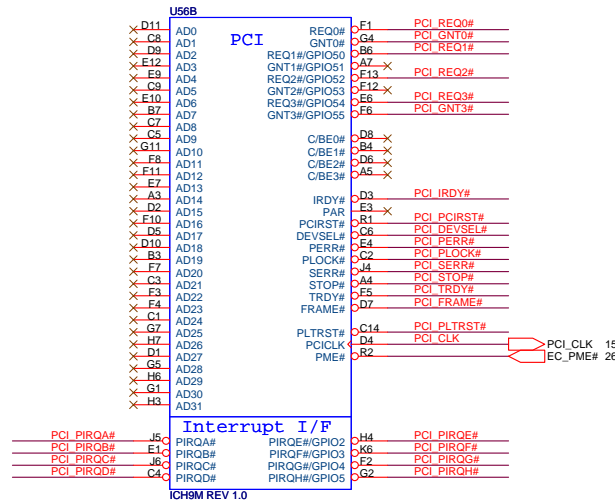
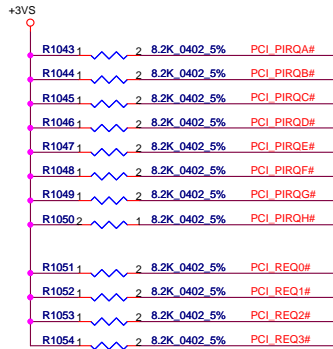
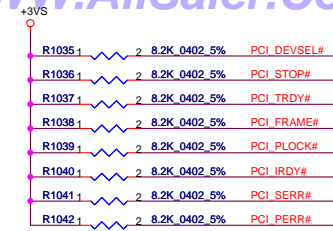


ITP_EN	0 = SRC8/SRC8# 1 = ITP/ITP#
27_SEL	0 = Enable DOT96 & SRC1(UMA) 1 = Enable SRC0 & 27MHz(DIS)
PCI2_TME	0 = Overclocking of CPU and SRC Allowed 1 = Overclocking of CPU and SRC NOT allowed

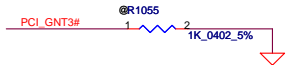
Security Classification	Compal Secret Data			Title	
Issued Date	2006/02/13	Deciphered Date	2008/6/05	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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 SHALL BE DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				LA-4671P	Rev 0.2
				Date:	Wednesday, November 19, 2008
				Sheet	15 of 53



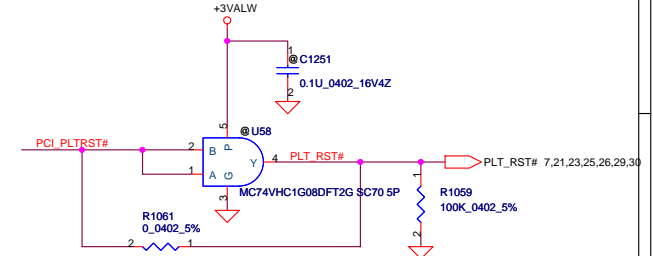
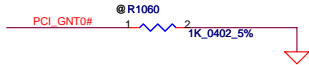
Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2007/1/15	Deciphered Date	2008/6/05	Title CRT CONN/LCD CONN		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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 Custom	Document Number LA-4671P	Rev 0.2
				Date	Wednesday, November 19, 2008 1Sheet 16 of 53	



A16 swap override Strap	
PCI_GNT3#	Low= A16 swap override Enble High= Default *



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



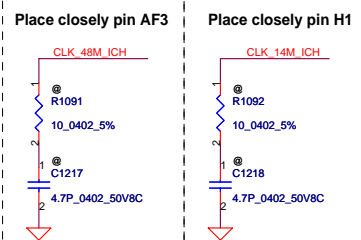
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/02/13	Deciphered Date	2008/6/05	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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 SHALL BE DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
					LA-4671P
				Date	Wednesday, November 19, 2008
				Sheet	17 of 53
				Rev	0.2

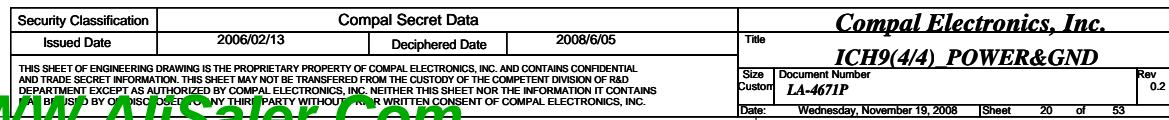
+3VS

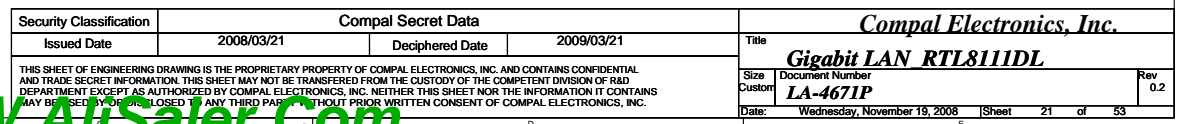


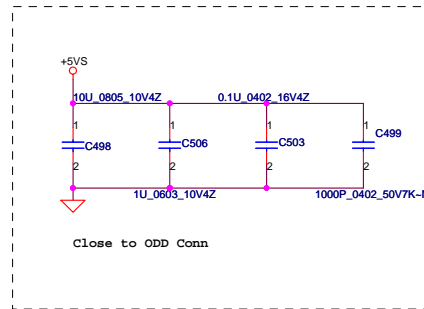
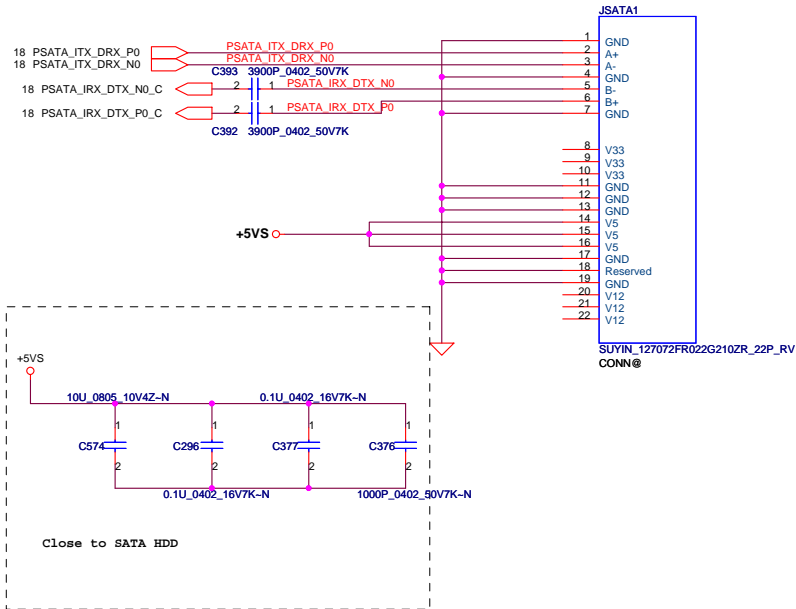
DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAQ ELECTRONICS, INC. NEITHER THIS SHEET
NOR BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT OUR WRITTEN CONSENT.

WWW.AllSaler.Com

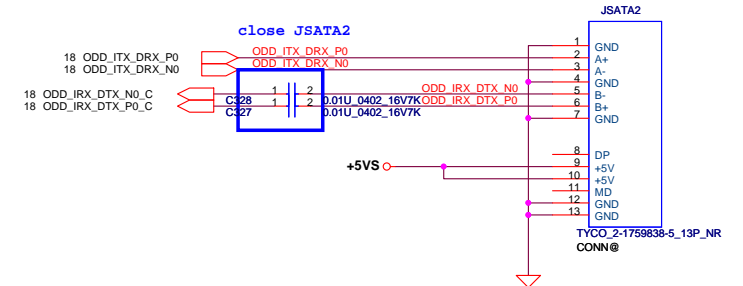






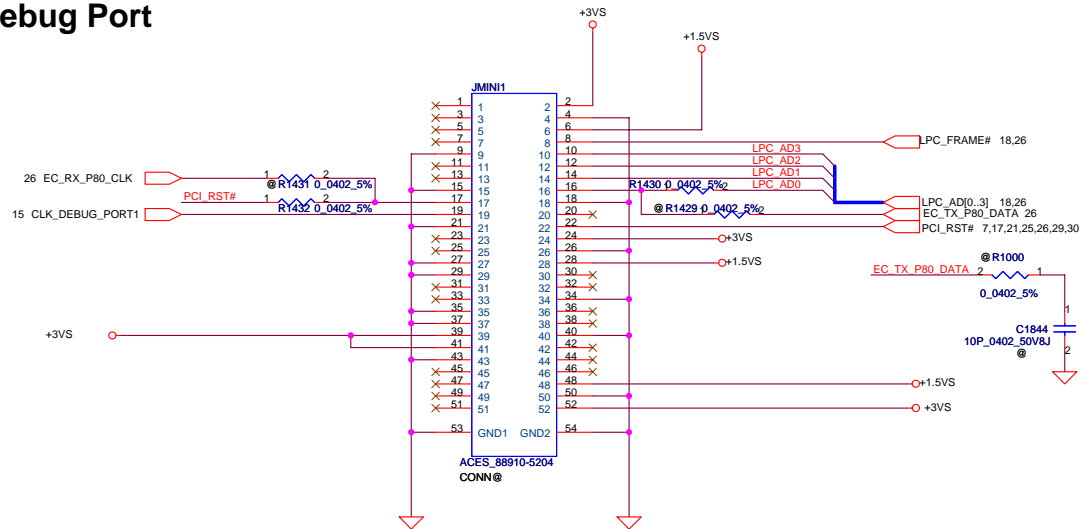


SATA ODD CONN

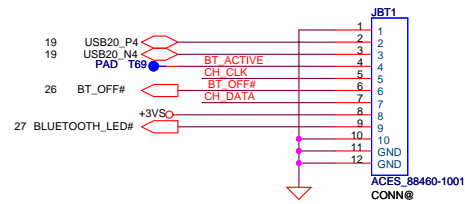


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/6/05	Title	HDD/CDROM
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE 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 REPRODUCED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number LA-4671P
				Date	Wednesday, November 19, 2008
				Sheet	22 of 53
				Rev	0.2

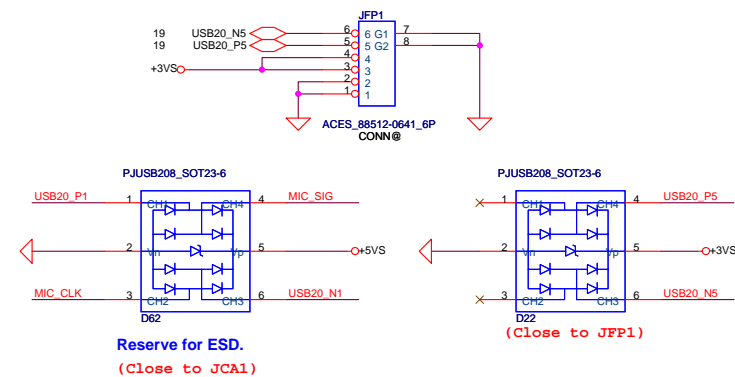
Debug Port



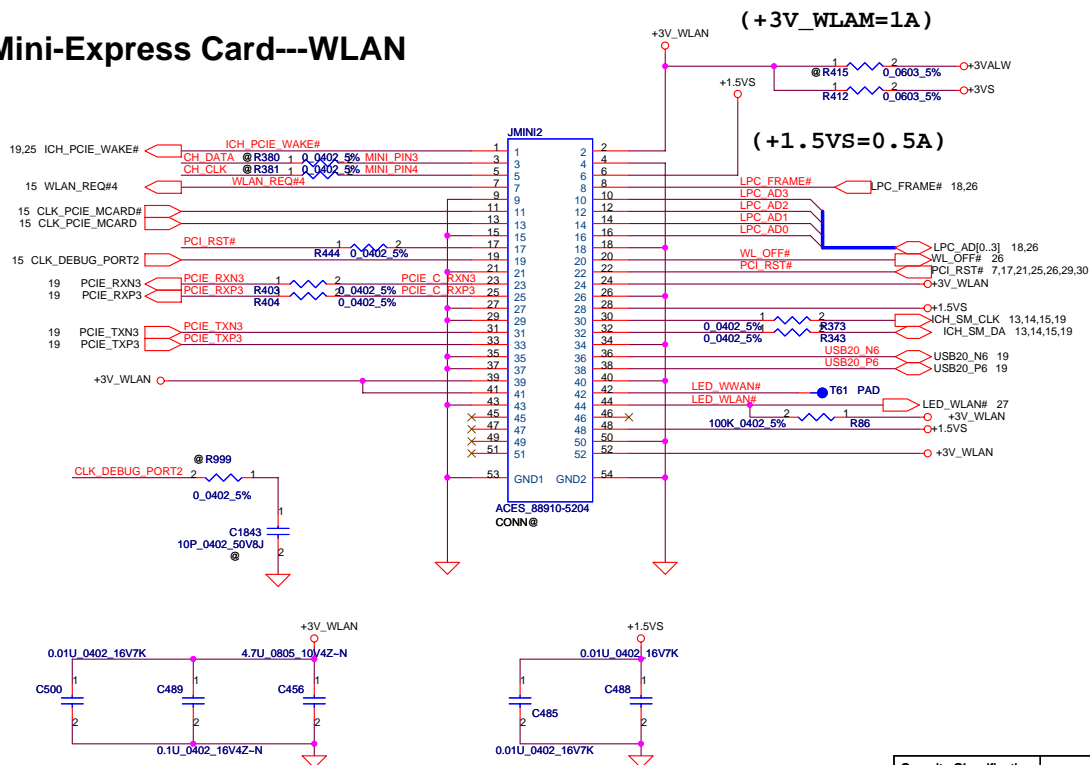
Bluetooth



Fingerprint

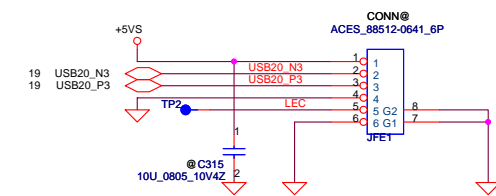


Mini-Express Card---WLAN

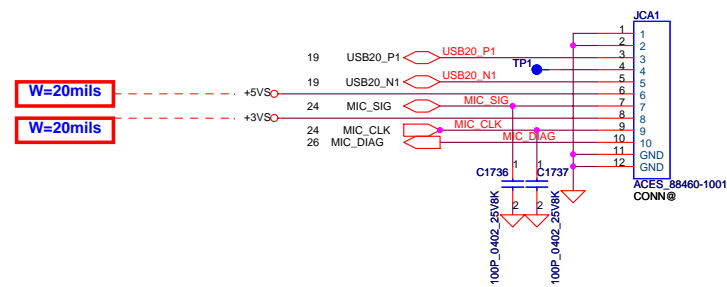


Felica

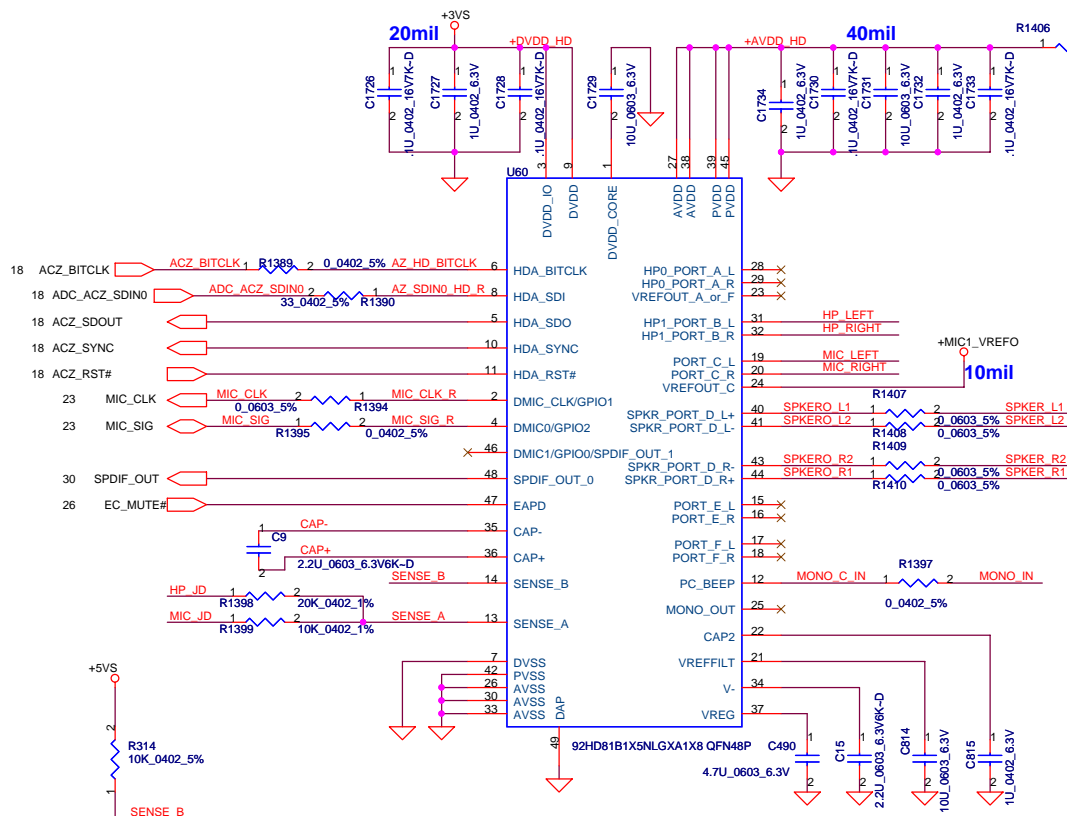
Felica Conn



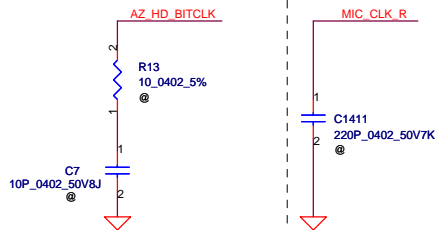
Camera Conn



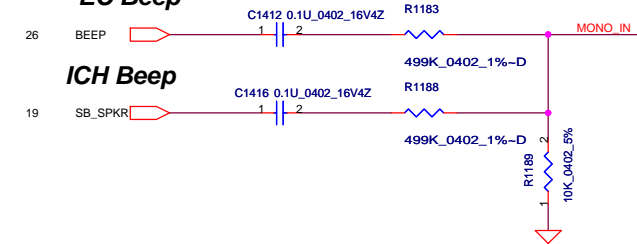
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/6/05	Title	Mini-Card/LED
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT 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 SHALL BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-4671P
				Date	Wednesday, November 19, 2008
				Sheet	23 of 53
				Rev	0.2



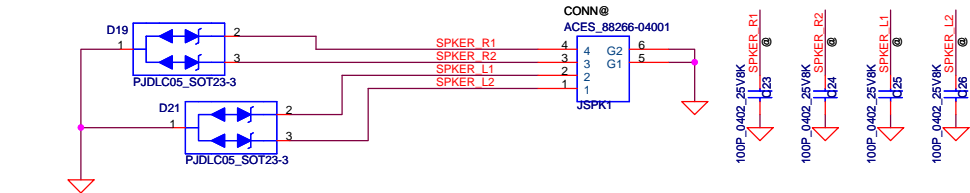
Place close to codec



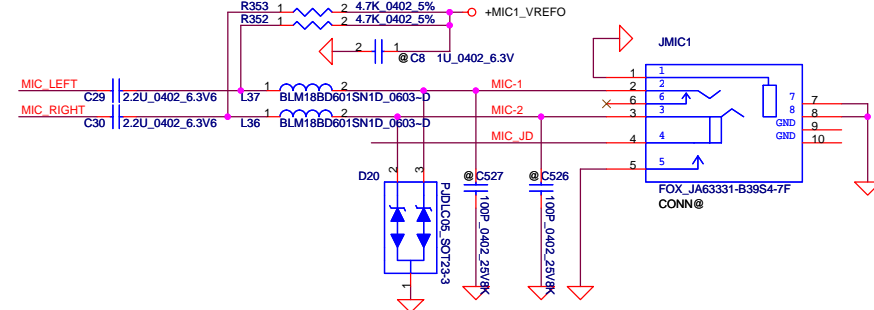
EC Beep



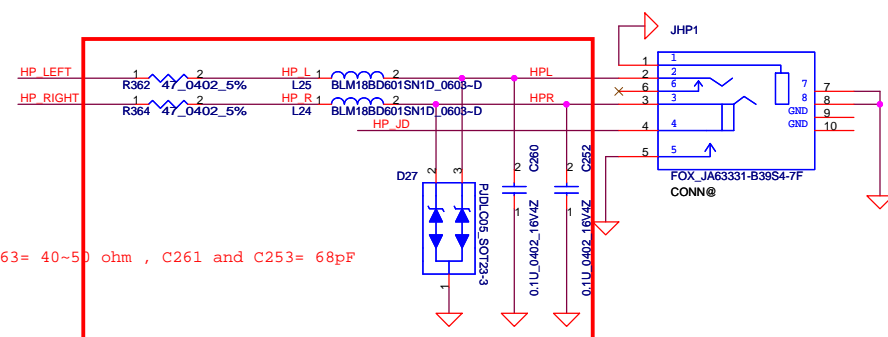
Speaker Connector



MICROPHONE IN JACK

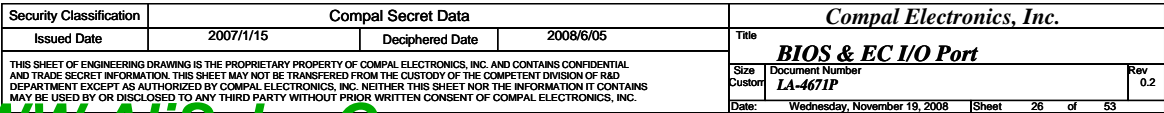


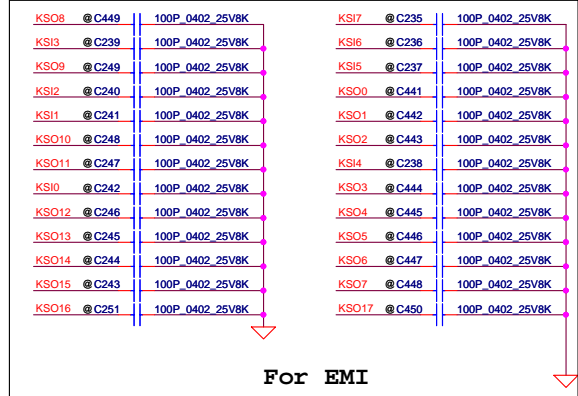
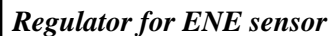
HEADPHONE OUT JACK



R362 and R363= 40-50 ohm , C261 and C253= 68pF

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/05/07	Deciphered Date	2008/6/05	Title	Codec 92HD81B
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-4671P		Rev	0.2
Date	Wednesday, November 19, 2008	Sheet	24	of	53





FB_SDA

FB_SCL

C27

C28

33pF 0402 50V8J

For EN1 near JFN1

PWR_ON-OFF BTN#

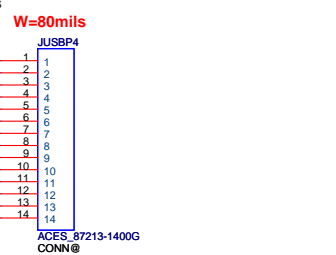
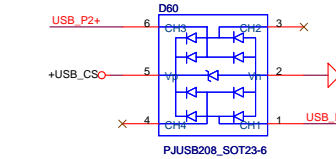
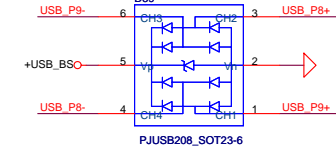
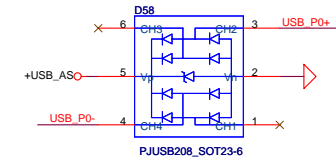
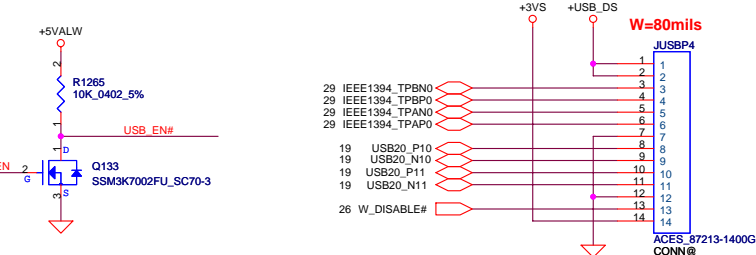
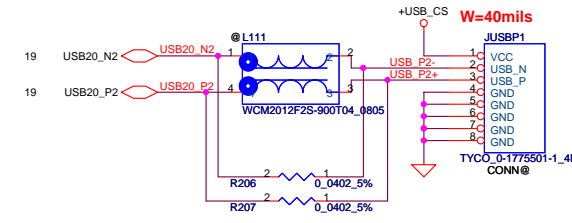
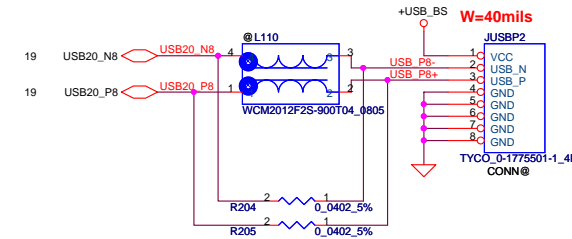
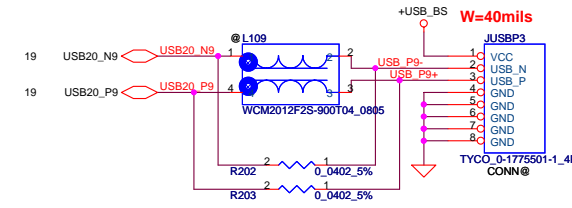
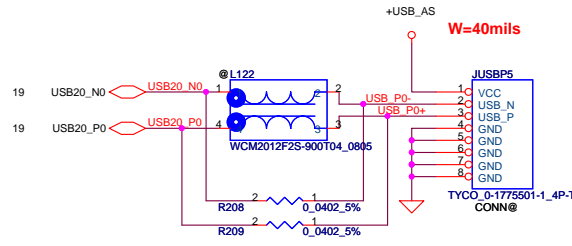
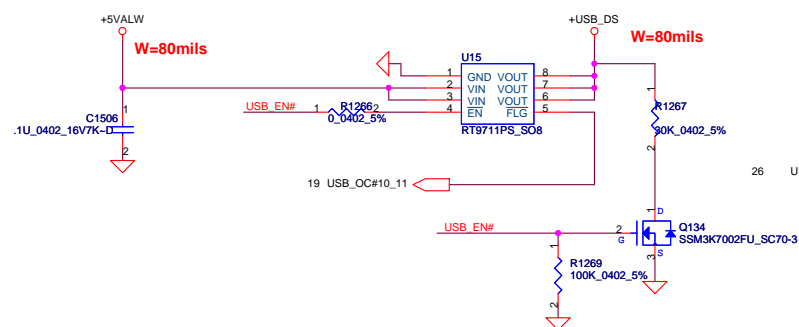
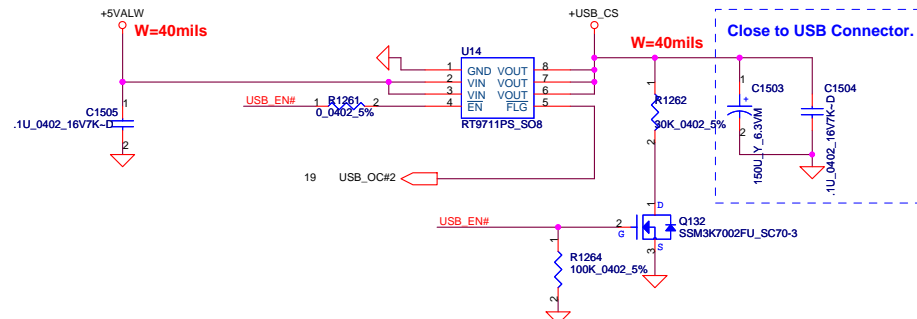
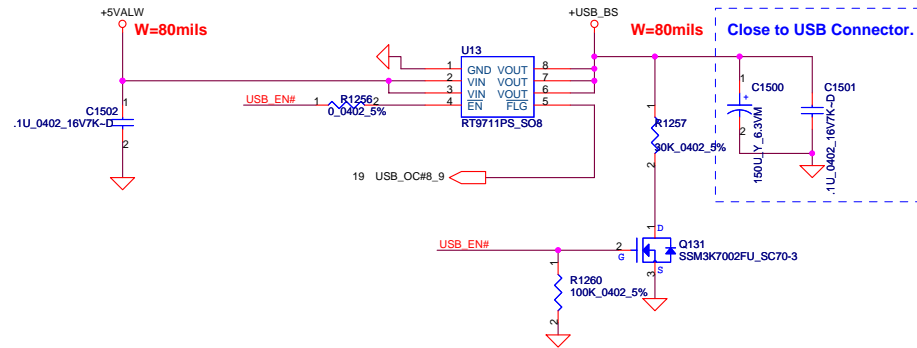
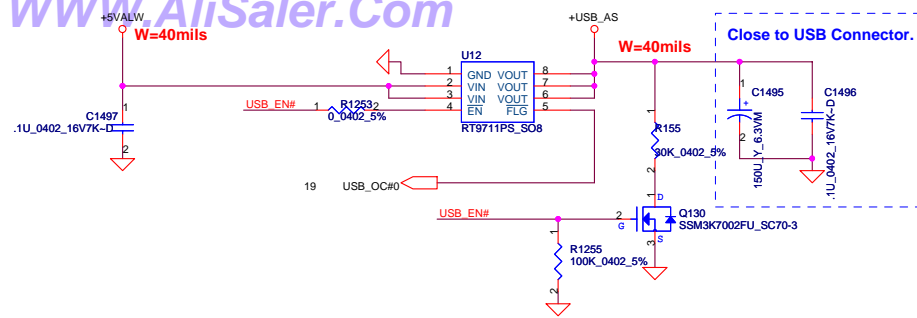
STOP BTN#

D63

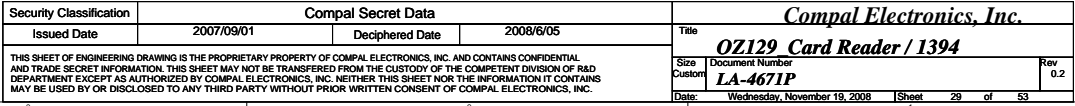
PJDLC05_SOT23-3

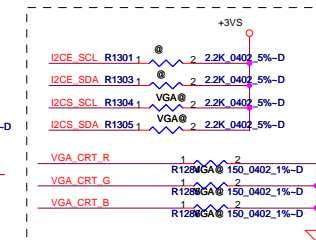
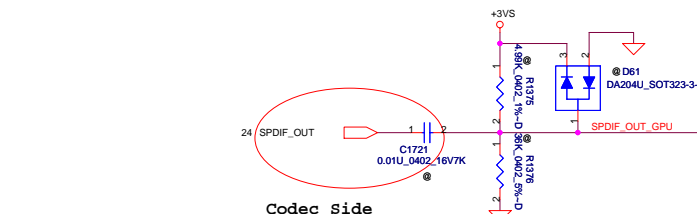
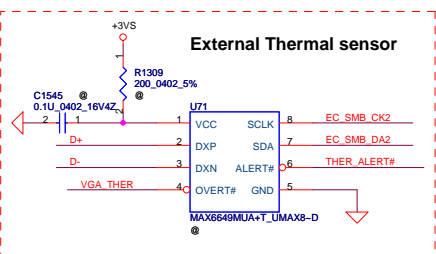
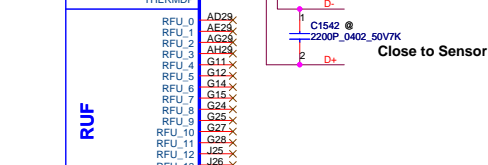
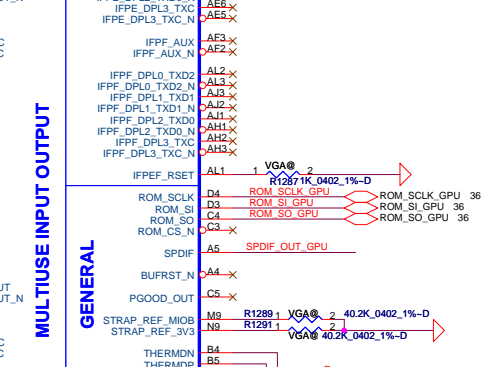
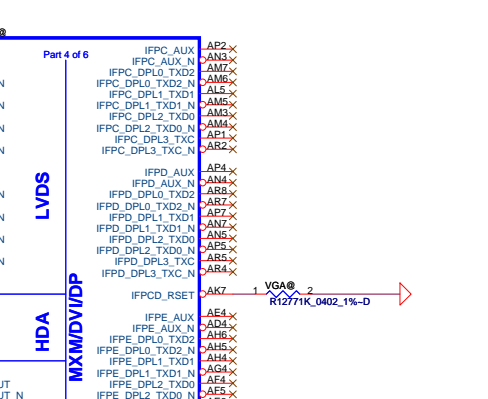
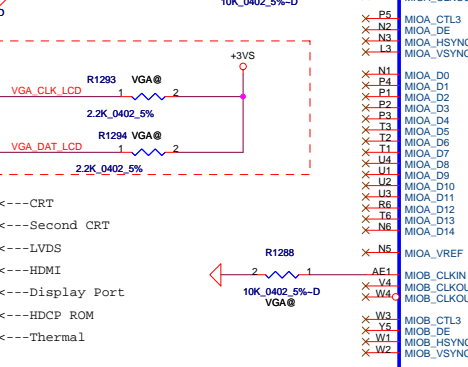
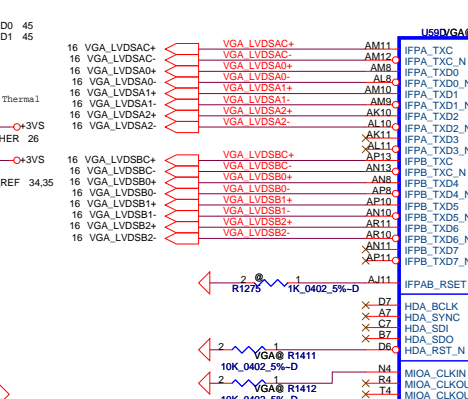
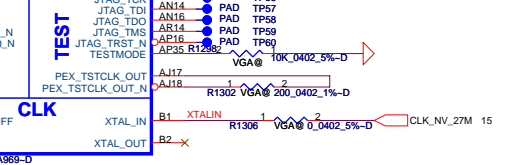
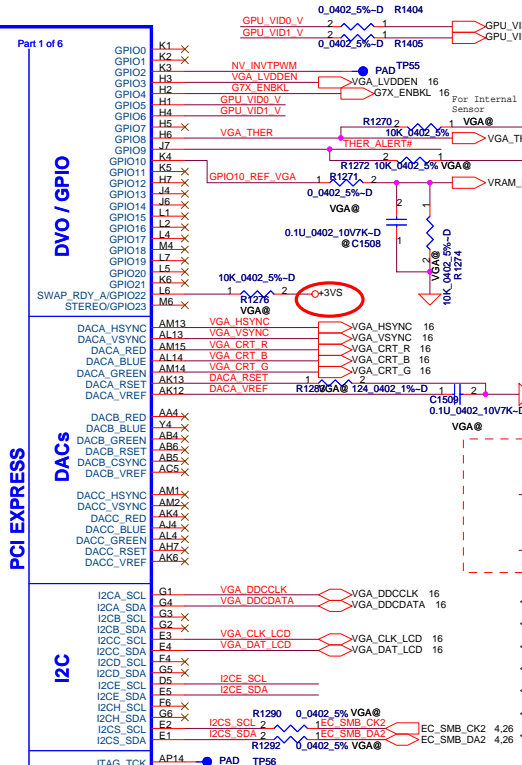
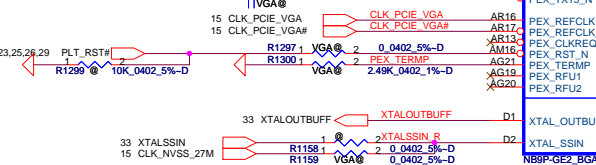
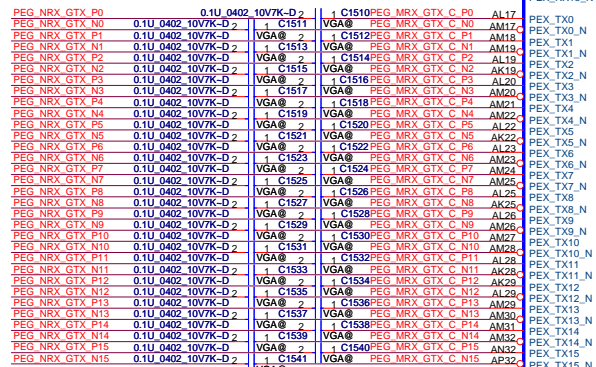
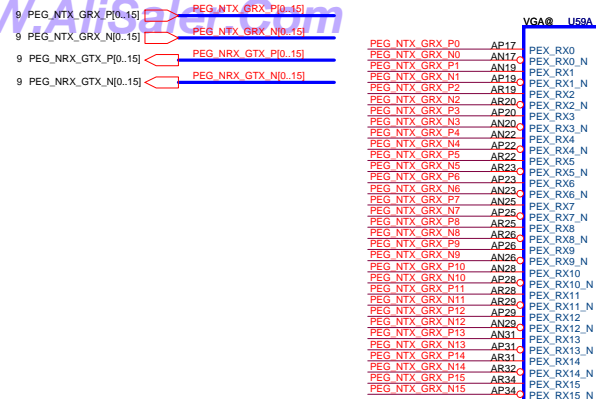
close to JFN1

DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER
MAY BE REPRODUCED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN
WWW.AliSaler.Com



Security Classification				Compal Secret Data				Compal Electronics, Inc.			
Issued Date				2007/1/15				Deciphered Date			
2007/1/15				2008/6/05				Title			





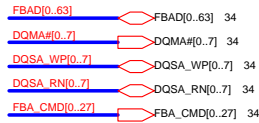
PROPRIETARY NOTE: THIS SHEET OF ENGINEERING DRAWING AND SPECIFICATIONS CONTAINS CONFIDENTIAL TRADE SECRET AND OTHER PROPRIETARY INFORMATION OF DELL INC. ("DELL") THIS DOCUMENT MAY NOT BE TRANSFERRED OR COPIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF DELL. IN ADDITION, NEITHER THIS SHEET NOR THE INFORMATION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

DELL CONFIDENTIAL/PROPRIETARY

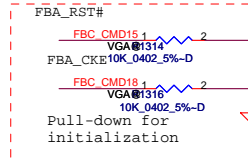
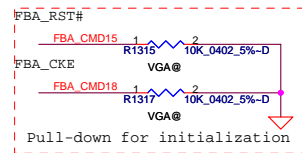
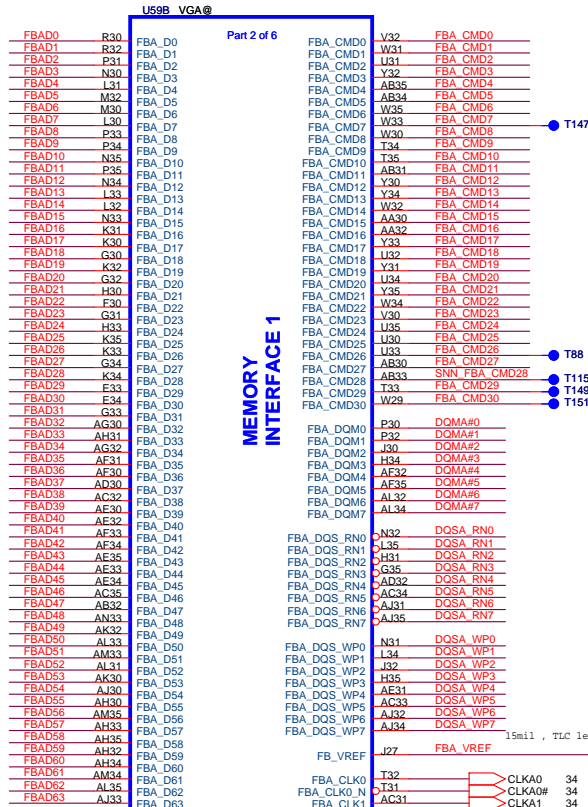
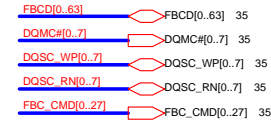
Compal Electronics, Inc.

NVG98 PCIE.GPIO.CLK.LVDS

Size Document Number Rev
LA-4671P 0.2
Date: Wednesday, November 19, 2008 Sheet 30 of 53



	0..31	32..63
FBA_CMD0	A4	
FBA_CMD1	RAS#	RAS#
FBA_CMD2	A5	
FBA_CMD3	BA1	BA1
FBA_CMD4		A2
FBA_CMD5		A4
FBA_CMD6		A3
FBA_CMD7	CS1#	CS1#
FBA_CMD8	CS0#	CS0#
FBA_CMD9	A11	A11
FBA_CMD10	CAS#	CAS#
FBA_CMD11	WE#	WE#
FBA_CMD12	BA0	BA0
FBA_CMD13		A5
FBA_CMD14	A12	A12
FBA_CMD15	RST/ODT	RST/ODT
FBA_CMD16	A7	A7
FBA_CMD17	A10	A10
FBA_CMD18	CKE	CKE
FBA_CMD19	A0	A0
FBA_CMD20	A9	A9
FBA_CMD21	A6	A6
FBA_CMD22	A2	
FBA_CMD23	A8	A8
FBA_CMD24	A3	
FBA_CMD25	A1	A1
FBA_CMD26	A13	A13
FBA_CMD27	BA2	BA2
FBA_CMD28	RFU0	RFU0
FBA_CMD29	RFU1	RFU1
FBA_CMD30	RFU2	RFU2

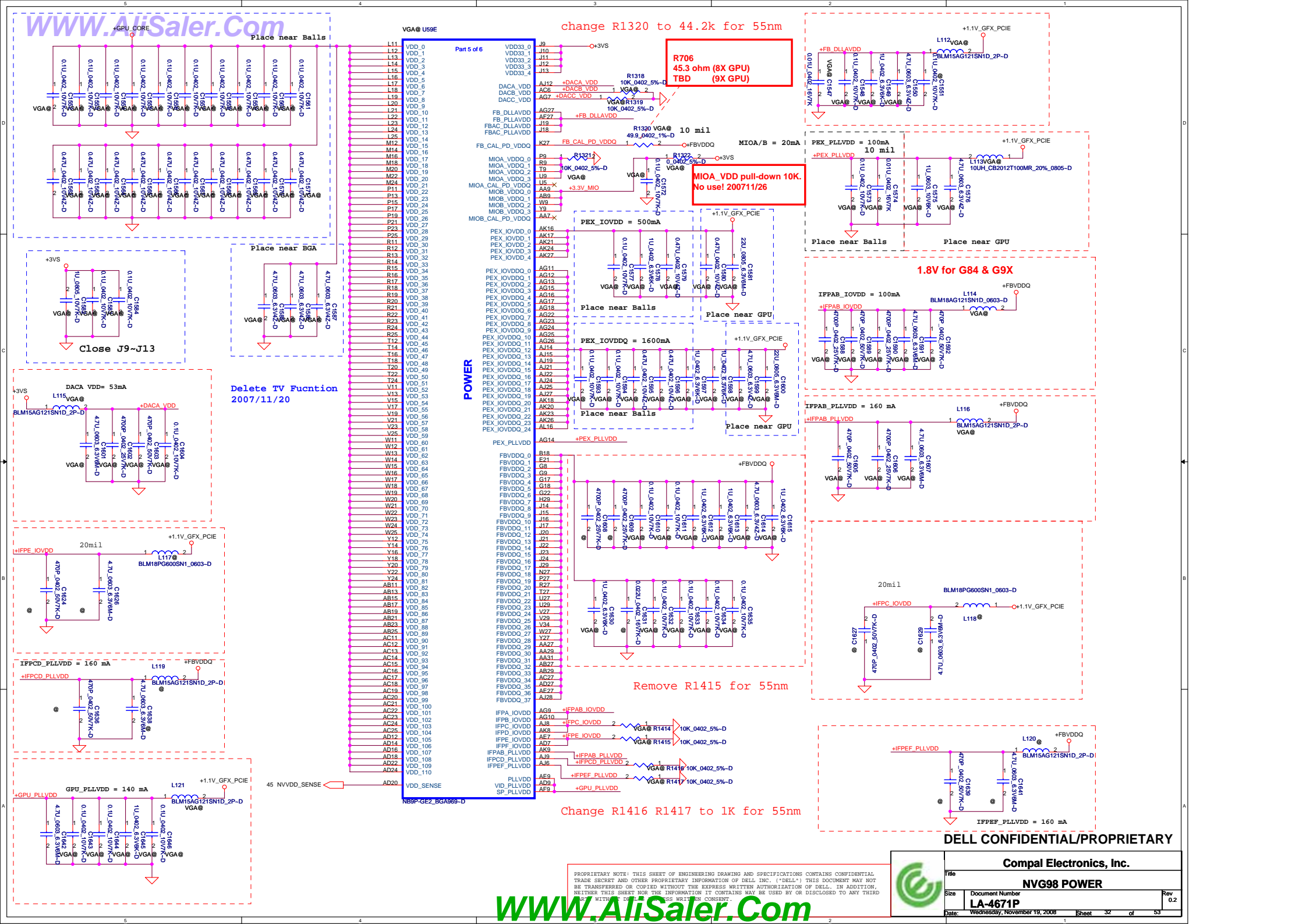


DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.

Title			NVG98 Memory Interface	
Size			Document Number	Rev 0.2
Date			LA-4671P	
Wednesday, November 19, 2008			Sheet 31	of 53

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.



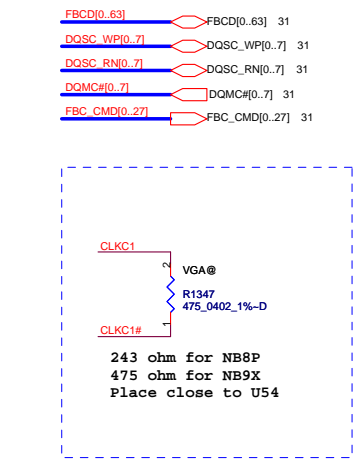
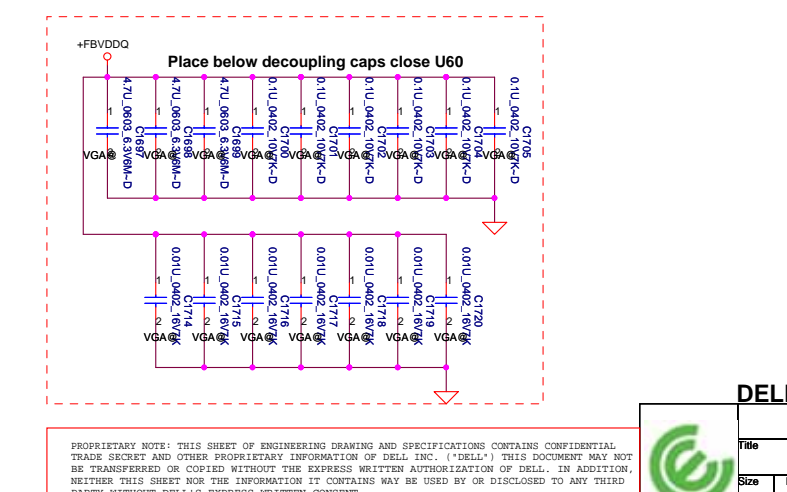
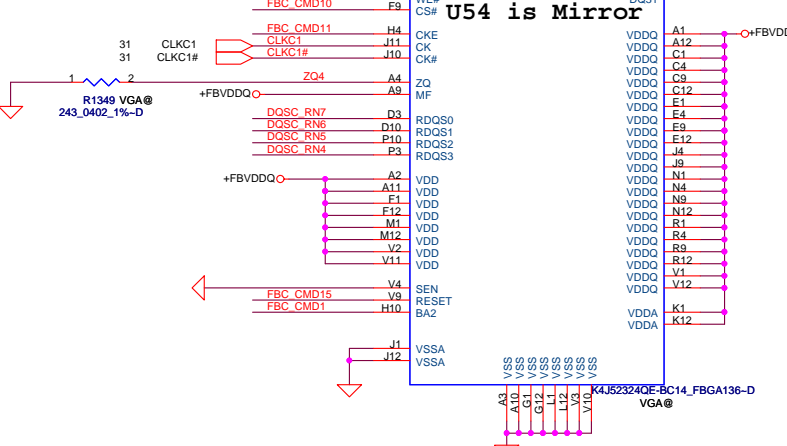
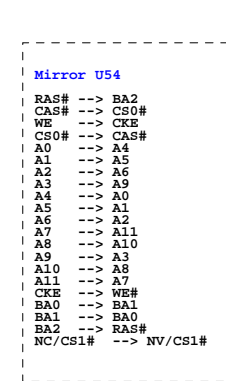
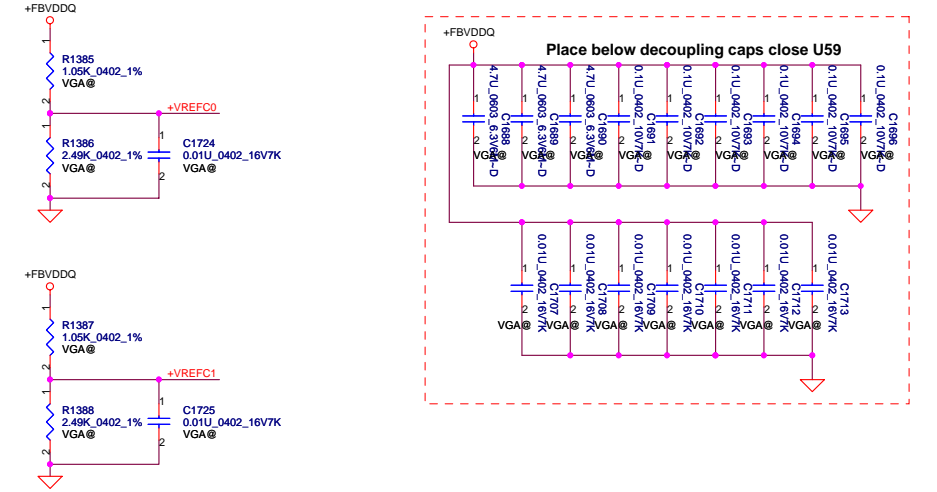
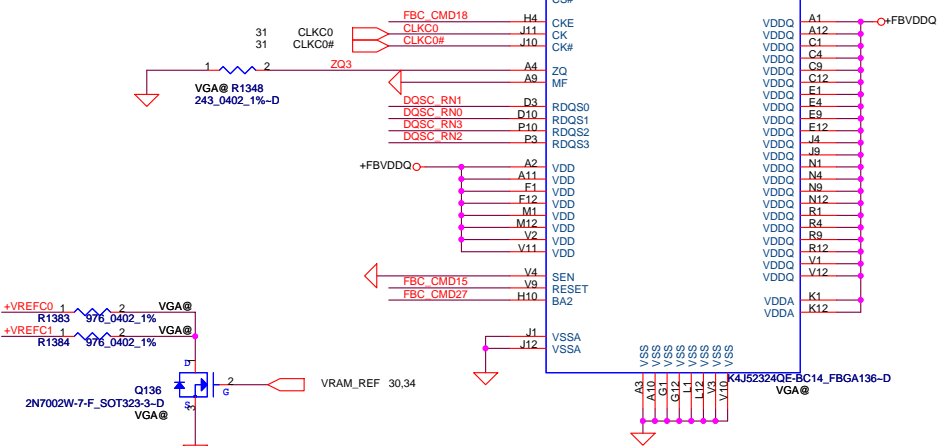
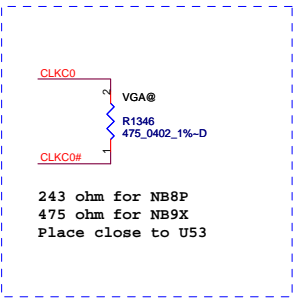


R860/R861 ; depop for G84

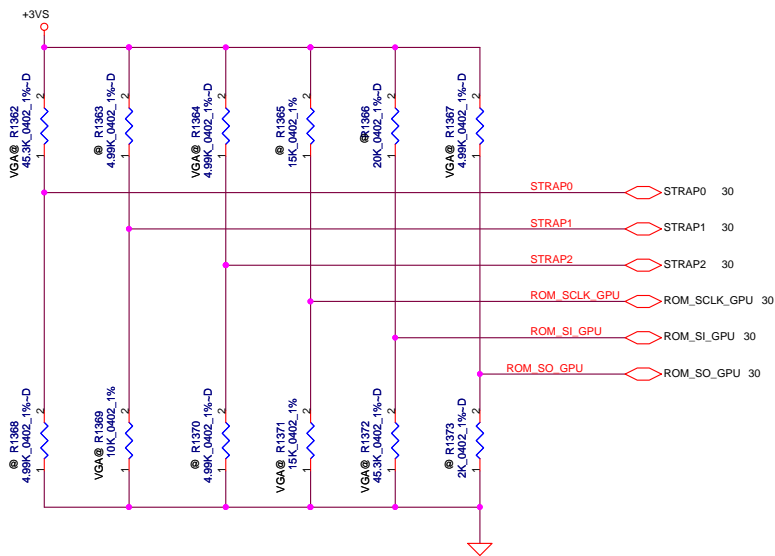


Rev	02
-----	----





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 THE EXPRESS WRITTEN AUTHORIZATION OF DELL.



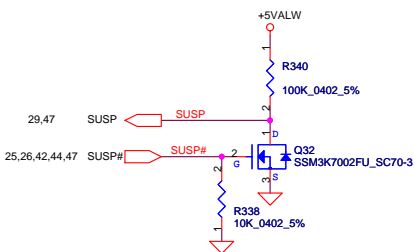
STRAP0	Pull up 45K
STRAP1	Pull down 10K
STRAP2	Pull up 5K
ROM_SCLK_GPU	Pull down 15K
ROM_SI_GPU	
ROM_SO_GPU	Pull up 5K

All GDDR3	
ROM_SI_GPU	Pull down
Q:16x32	10K_1%
H:16x32	15K_1%
S:16x32	20K_1%
Q:32x32	30K_1%
H:32x32	35K_1%
S:32x32	45.3K_1%

	R1364	R1365	
17"	24.9K	15K	NB9P-???

ZZZ
VRAM

+1.8V to +1.8VS Transfer

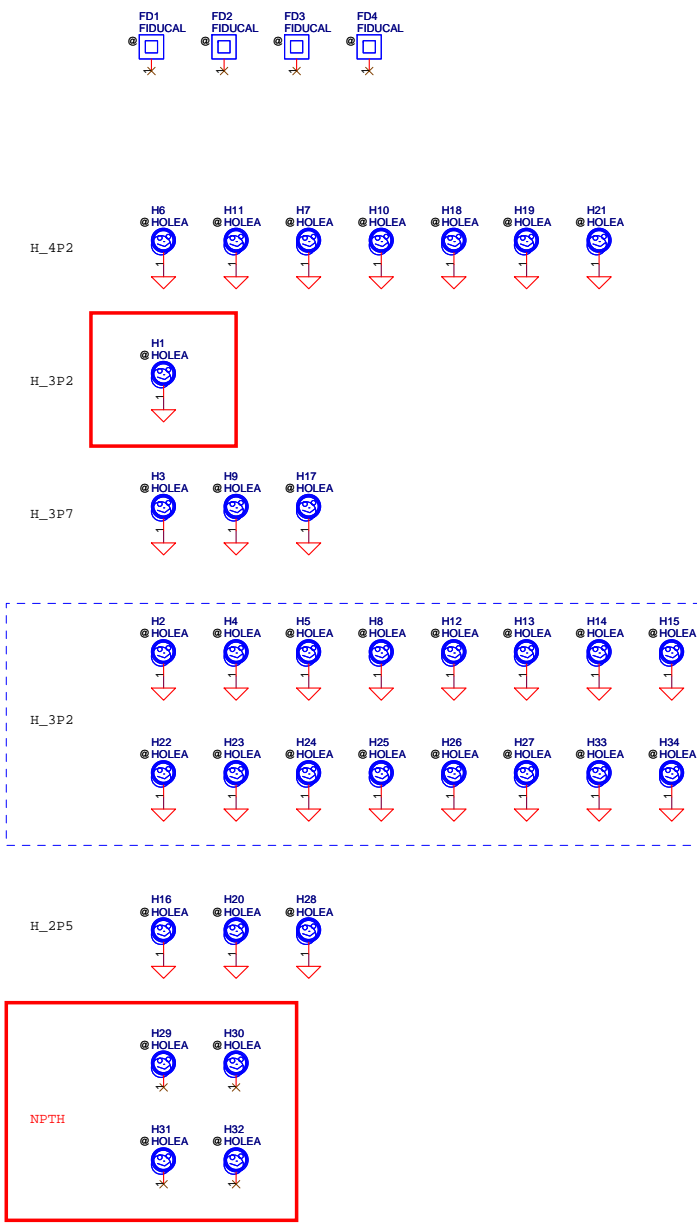


VGA Discharge circuit

Discharge circuit-1

The diagram illustrates a multi-stage discharge circuit. It begins with a MOSFET (Q50) controlled by SYSON# and a +1.8VCCD_CB supply. This is followed by four more MOSFETs (Q12, Q33, Q38, Q37) controlled by a common +1.8V supply. Each MOSFET is in series with a resistor (R536, R133, R351, R391, R383, R382). The MOSFETs are SSM3K7002FU_SC70-3. The resistors are 470_0402_5%.

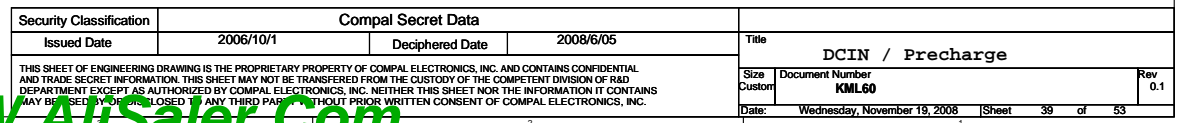
Security Classification		Compal Secret Data		Compal Electronics, Inc.		
Issued Date	2007/1/15	Deciphered Date	2008/6/05	Title DC/DC Circuits		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY 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 SHALL BE LOANED, REPRODUCED, COPIED, OR IN ANY MANNER DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev
				Custom	LA-4671P	0.2
Date: Wednesday, November 19, 2008				Sheet	37	of 53

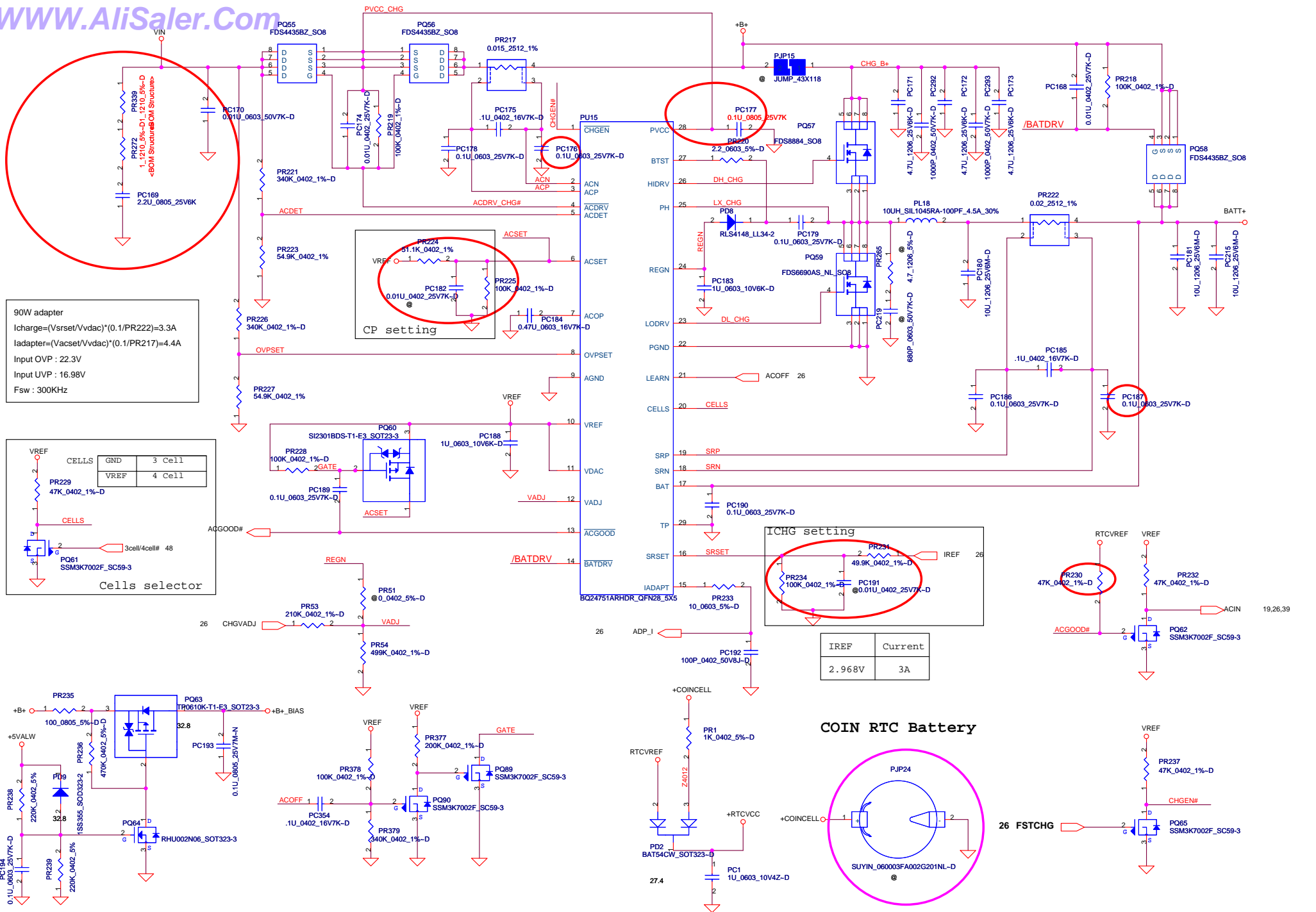


Change Location H5 (3P2), H17 (3P7)
Add H27 (3P2)
(2008-10-31 update)

Add H34 (3P2)
(2008-11-11 update)

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/6/05	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 REPRODUCED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number LA-4671P
				Date	Rev
				Wednesday, November 19, 2008	0.2
				Sheet 38 of 53	

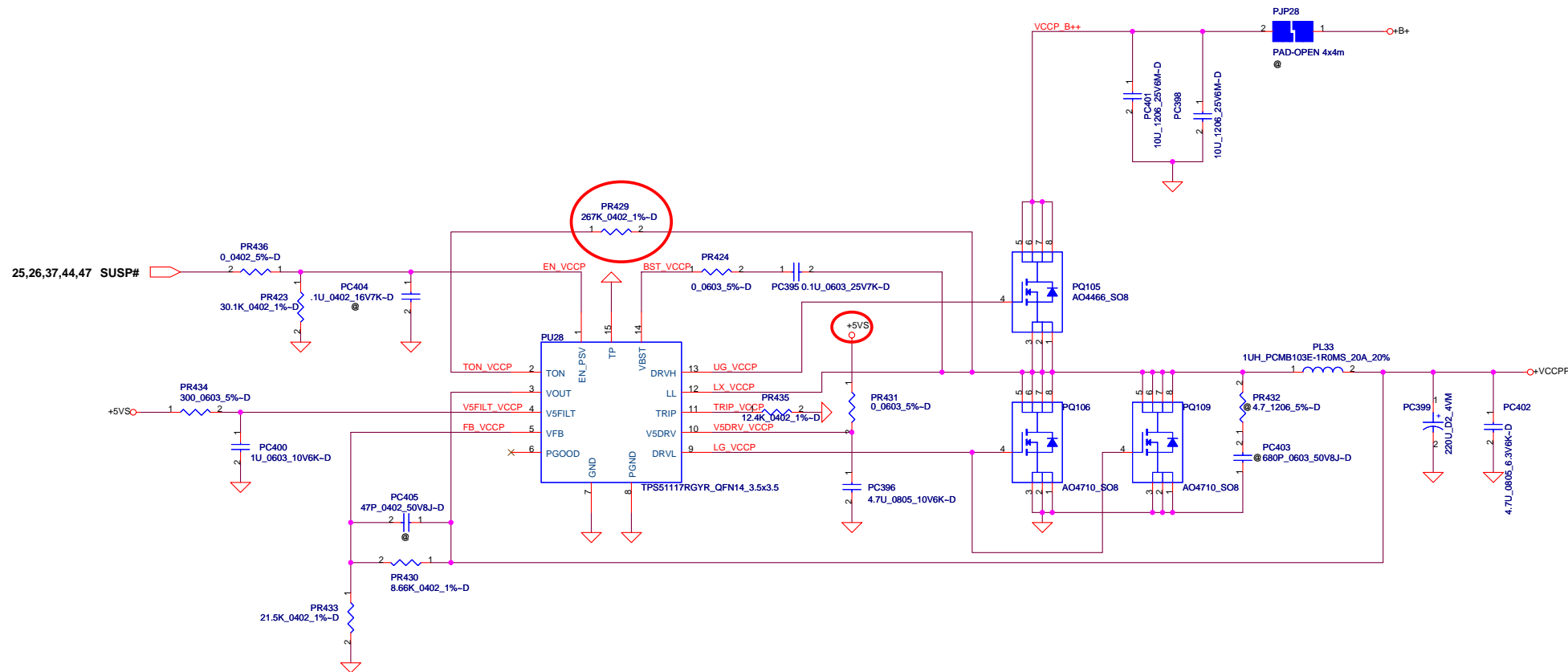




Security Classification		Compal Secret Data		Compal Electronics, Inc.		
Issued Date	2006/10/1	Deciphered Date	2008/6/05	Charger		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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 SHALL BE DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number KML60	Rev 0.1
Date: Wednesday, November 19, 2008				Sheet 40 of 53		

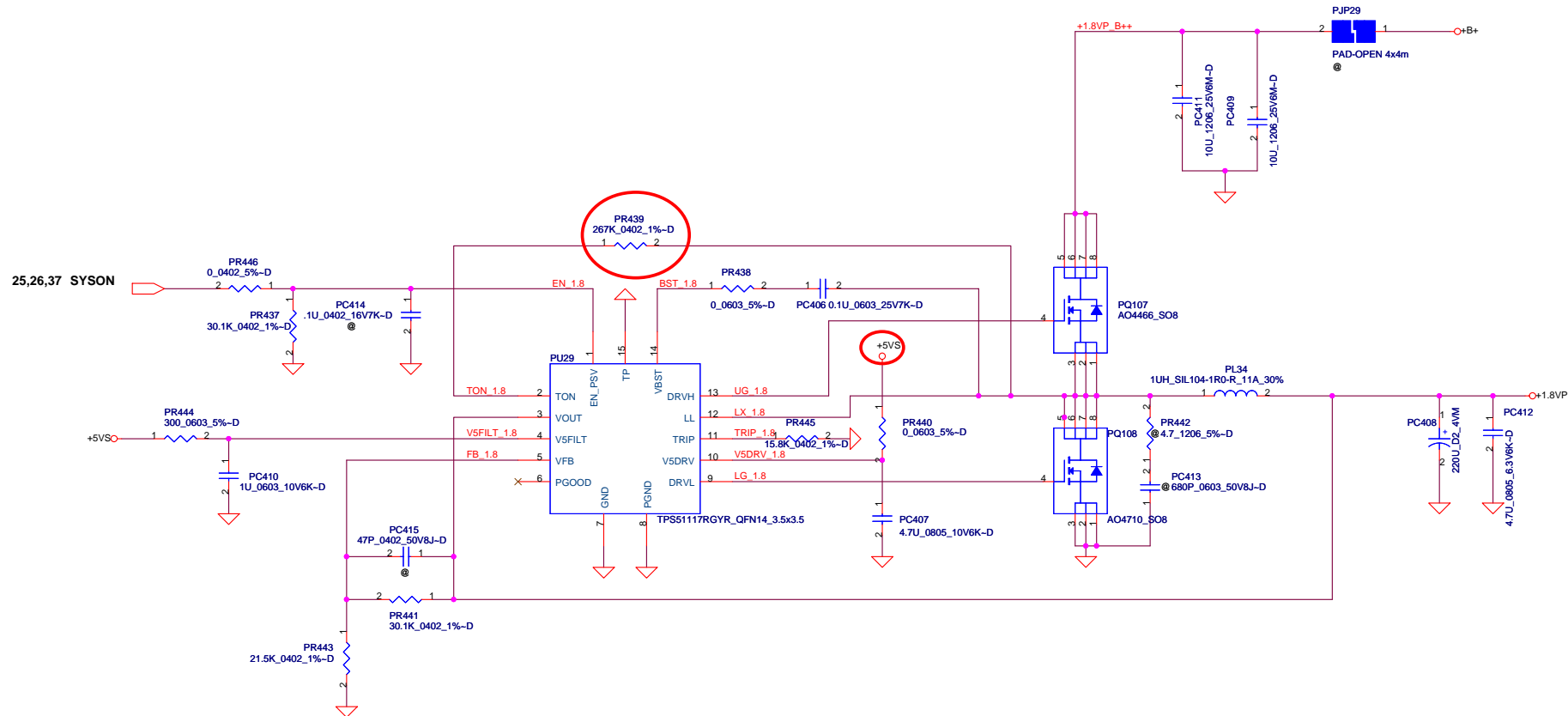


WWW.AliSaler.Com



VCCP
 Thermal Desig Current=11.6A
 Peak Current=14A
 OCP min=15A
 Fsw=298KHz
 $<V_o=1.05V> \quad V_{FB}=0.75V$
 $V_o=V_{FB} \cdot (1+PR430/PR433)=0.75 \cdot (1+8.66K/21.5K)=1.052V$

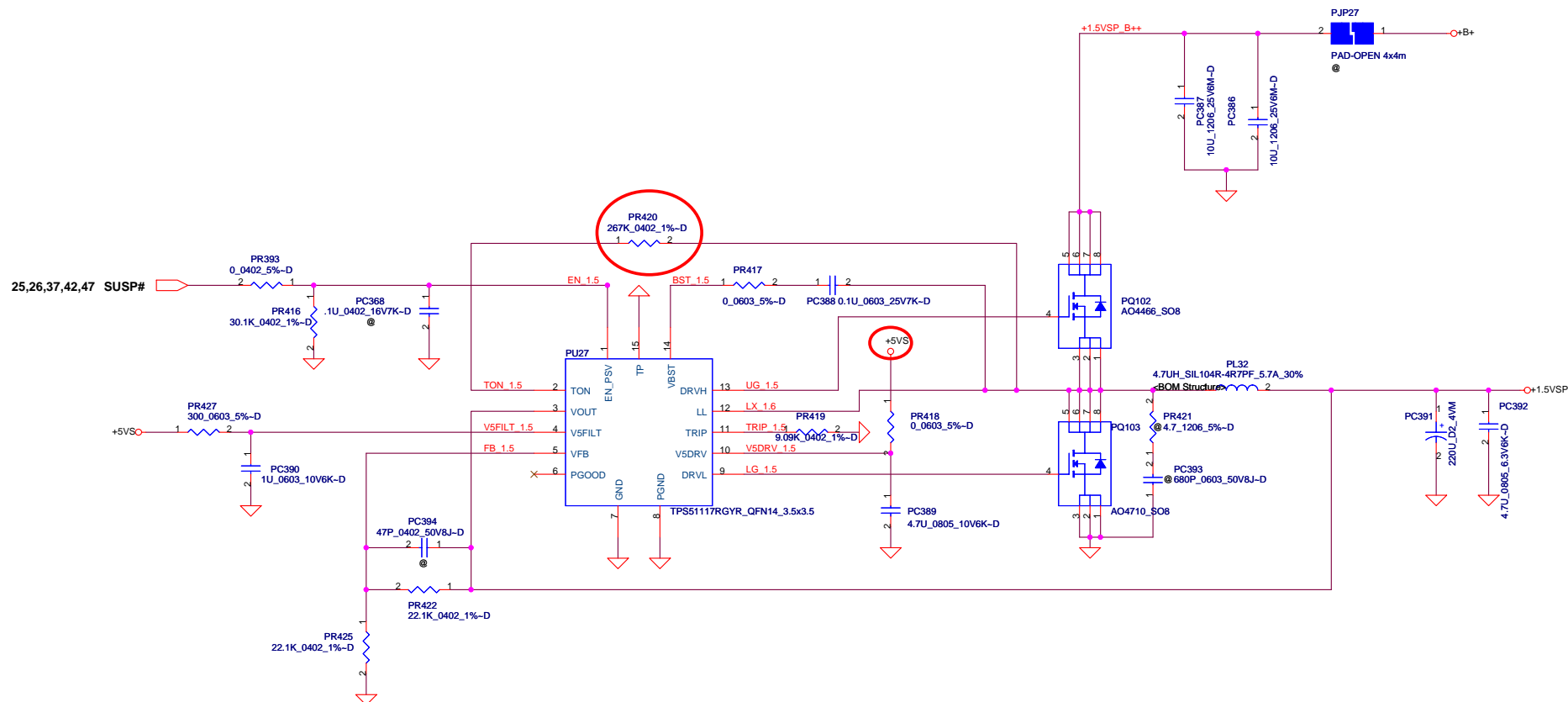
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/2/5	Deciphered Date	2008/6/05	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT WITHOUT ITS AUTHORIZATION BY COMPAL ELECTRONICS, INC. NEVER REPRODUCE OR DISSEMINATE THE INFORMATION IT CONTAINS WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.				+VCCP	
Size	Document Number	Rev			
Custom	KML60	0.1			
Date:	Wednesday, November 19, 2008	Sheet	42	of	53



1.8V
Thermal Design Current=6.3A
Peak Currnet=9A
OCP min=12A
Fsw=297KHz

<Vo=1.8V> VFB=0.75V
Vo=VFB*(1+PR441/PR443)=0.75*(1+30.1K/21.5K)=1.8V
Fsw=297KHz

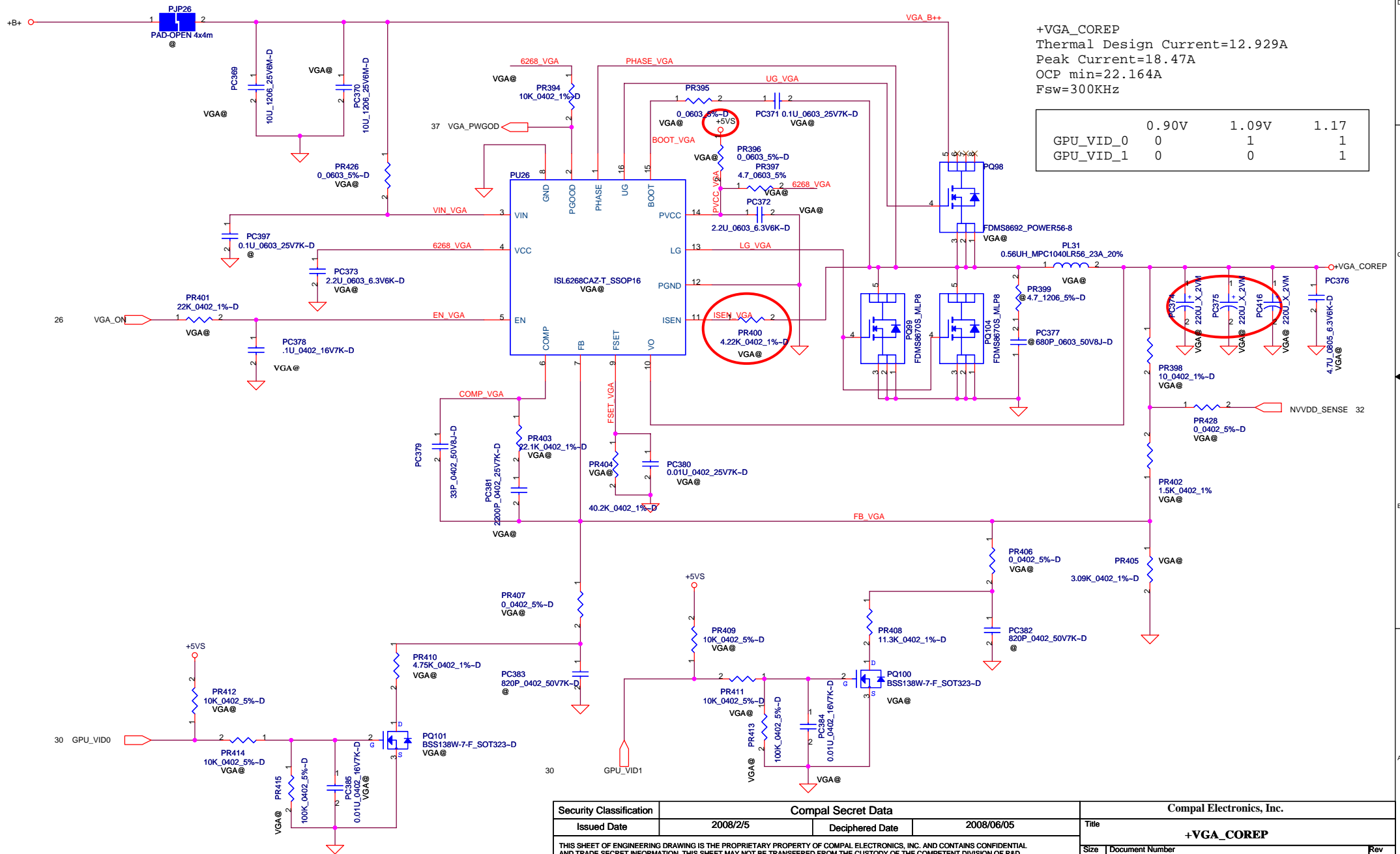
Security Classification				Compal Secret Data				Compal Electronics, Inc.			
Issued Date				2008/2/5				Title			
Deciphered Date				2008/6/05				+1.8VP			
Size				Document Number				Rev			
Custpm				KML60				0.1			
Date:				Wednesday, November 19, 2008				Sheet 43 of 53			



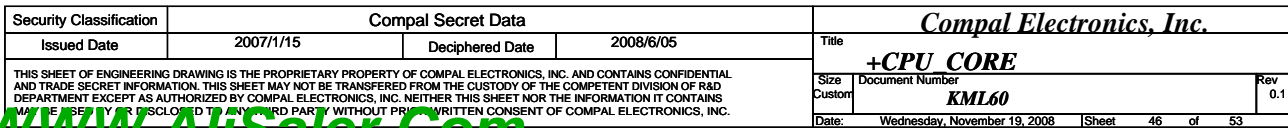
1.5V
Thermal Design Current=2.45A
Peak Current=3.5A
OCP min=5.25A
Fsw=298KHz

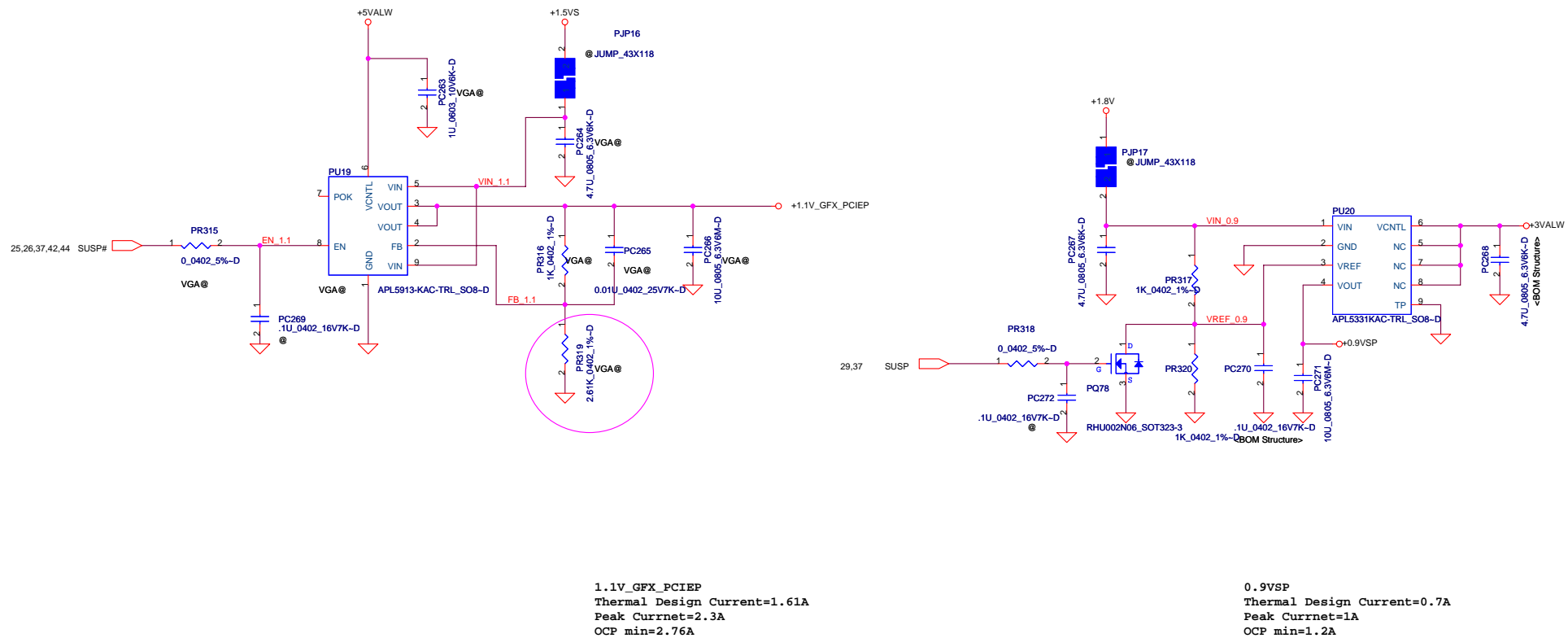
<Vo=1.5V> VFB=0.75V
Vo=VFB*(1+PR422/PR425)=0.75*(1+22.1K/22.1K)=1.5V

Security Classification		Compal Secret Data			Compal Electronics, Inc.				
Issued Date		2008/2/5		Deciphered Date		2008/6/05			
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 WITHOUT THE AUTHORIZATION BY COMPAL ELECTRONICS, INC. NEVER FOR THE PURPOSE OF THE INFORMATION IT CONTAINS BEING USED TO REPRODUCE OR SCHEMATICALLY REPRODUCE THE PRODUCT OR PRIOR TO THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					Title				
					1.5VSP				
					Size Custom	Document Number KML60		Rev 0.	
					Date:	Wednesday, November 19, 2008		Sheet	44 of 53



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/2/5	Deciphered Date	2008/06/05	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 REPRODUCED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
					KML60
				Date:	Wednesday, November 19, 2008
				Sheet	45 of 53

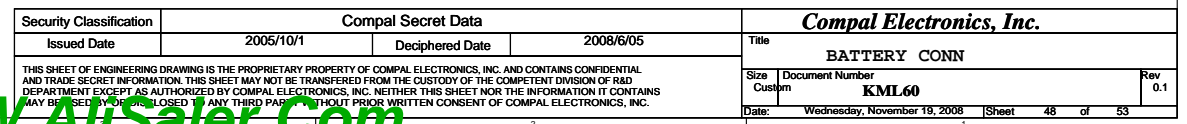
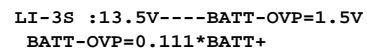




Security Classification		Compal Secret Data		Compal Electronics, Inc.							
Issued Date		2005/10/1		Deciphered Date		2008/6/05					
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE 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 REPRODUCED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.						Title		+0.9VSP/ +1.1V_GFX_PCIEP			
						Size		Document Number		Rev	
						Custom		KML60		0.1	
						Date:		Wednesday, November 19, 2008		Sheet 47 of 53	



PH4 under CPU botten side :
CPU thermal protection at 90 +-3 degree C
Recovery at 50 +-3 degree C

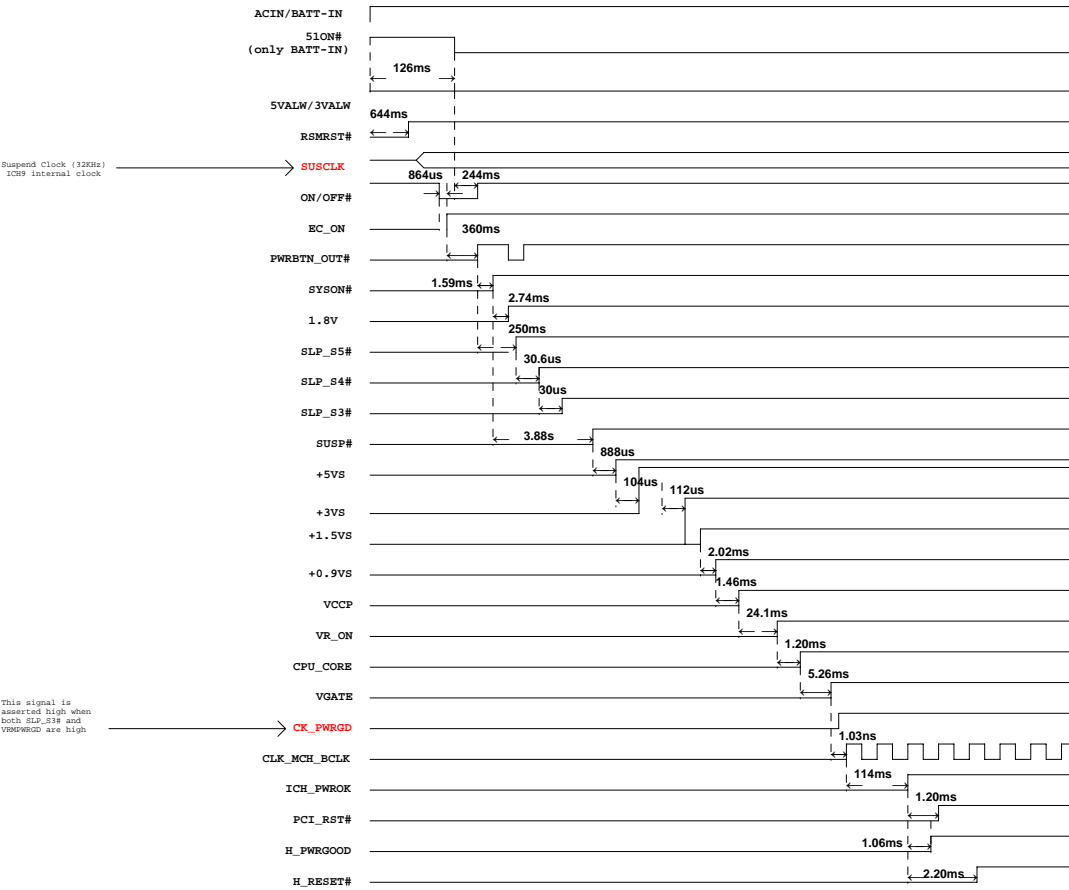


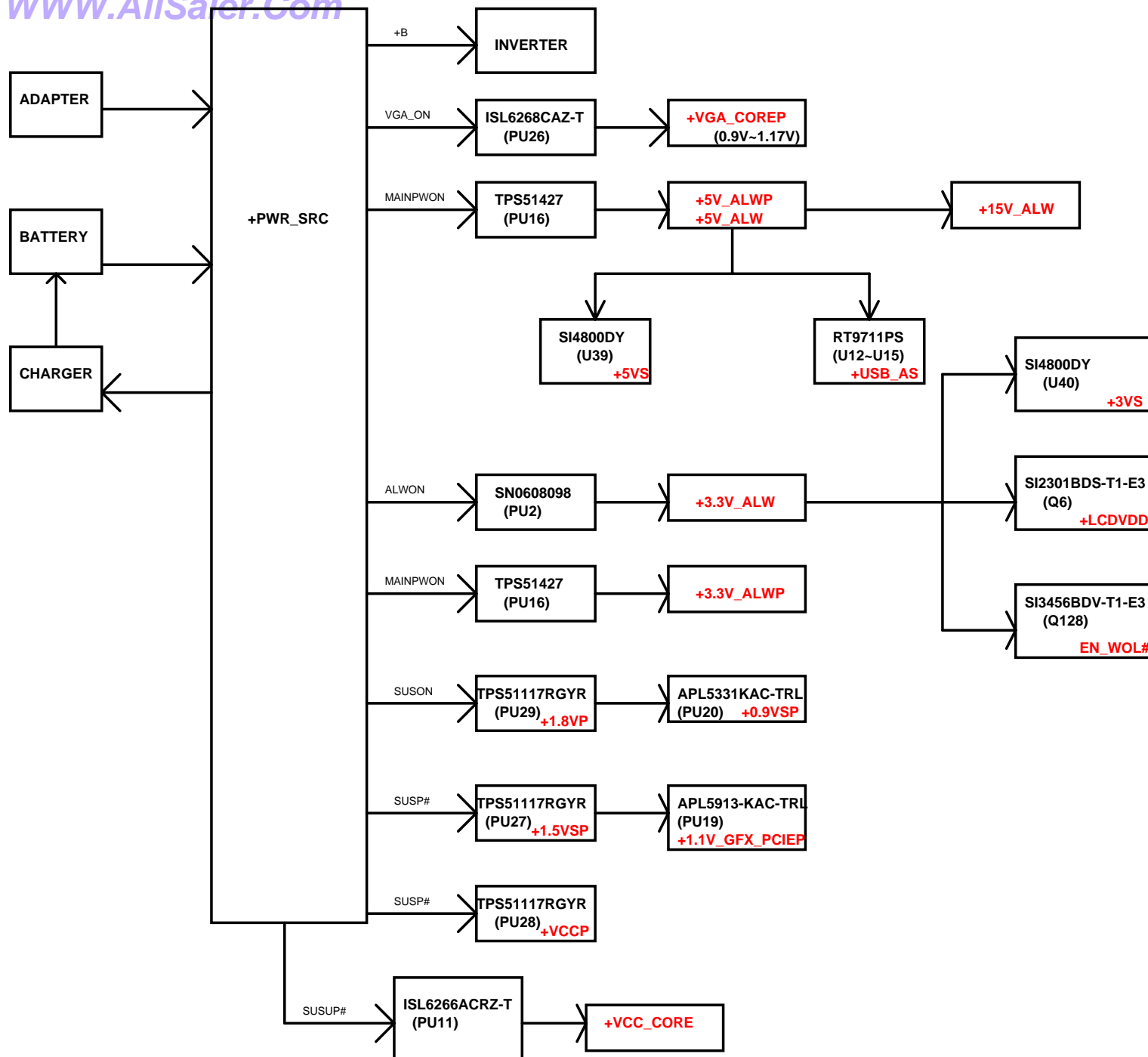
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/1/15	Deciphered Date	2008/6/05	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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 SHALL BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Rev
				Custom	0.1
Document Number				Date: Wednesday, November 19, 2008	
KML60				Sheet	49 of 53

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date		2007/1/15		Deciphered Date	
		2008/6/05			
<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 SHALL BE DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.</small>				Title	
				EE PIR-1	
Size		Document Number		Rev	
Custom		LA-4671P		0.2	
Date:		Wednesday, November 19, 2008		Sheet 50 of 53	

KAL60 POWER UP SEQUENCE





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.

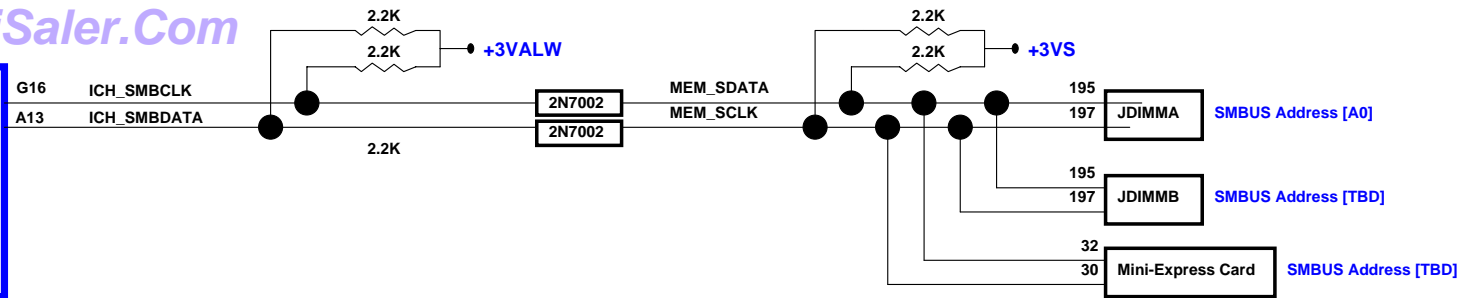


DELL CONFIDENTIAL/PROPRIETARY

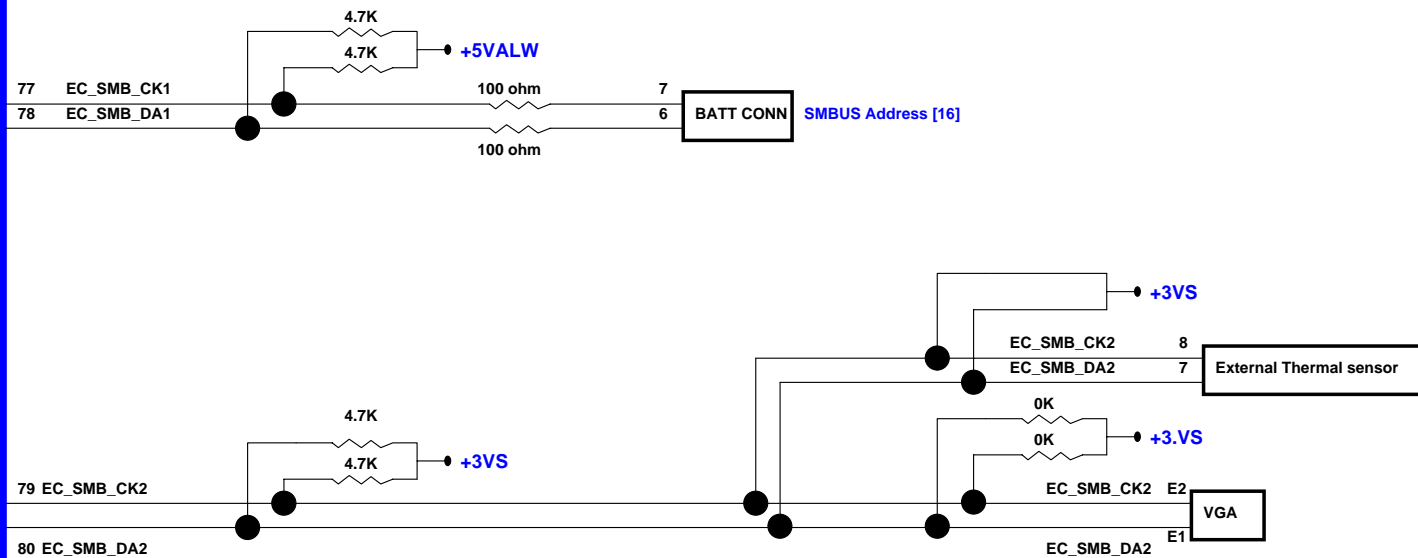
Compal Electronics, Inc.

Title			
Power Rails			
Size	Document Number	Rev	
	LA-4291P	1.0	
Date:	Wednesday, November 19, 2008	Sheet	52 of 53

ICH9-M



KBC
KB926



DELL CONFIDENTIAL/PROPRIETARY



Compal Electronics, Inc.

Title		
SMBus Topology		
Size	Document Number	Rev
	LA-4291P	1.0
Date:	Wednesday, November 19, 2008	Sheet 53 of 53