Compal confidential

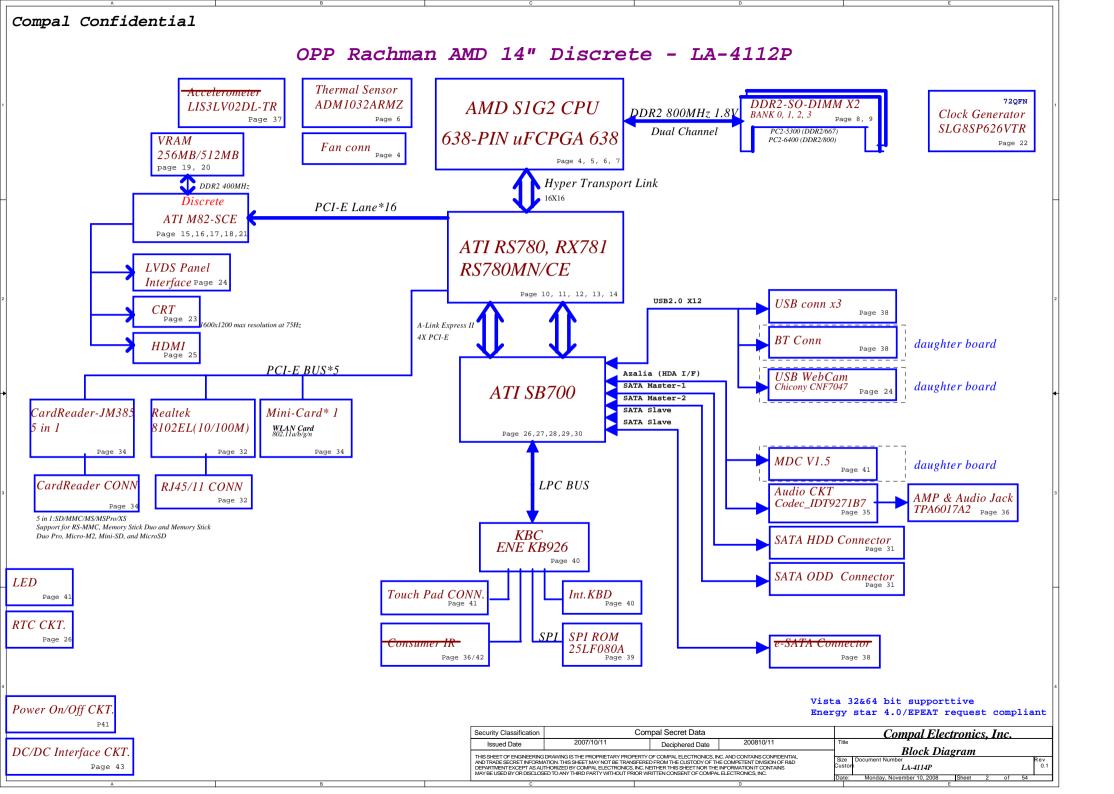
Schematics Document
Mobile AMD S1G2 CPU with ATI
RX781(NB) & SB700(SB) core logic

2008-11-07

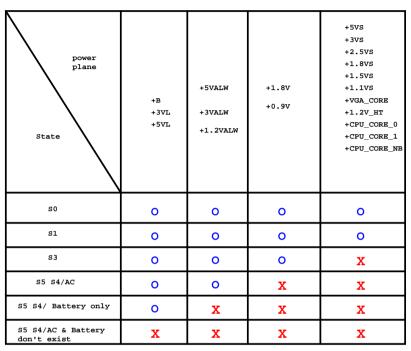
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Security Classification	2007/40/44				Compal Elect	ronic	s. Inc.		
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Voltage Rails O MEANS ON X MEANS OFF



Symbol Note:

: means Digital Ground

: means Analog Ground

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





I2C / SMBUS ADDRESSING

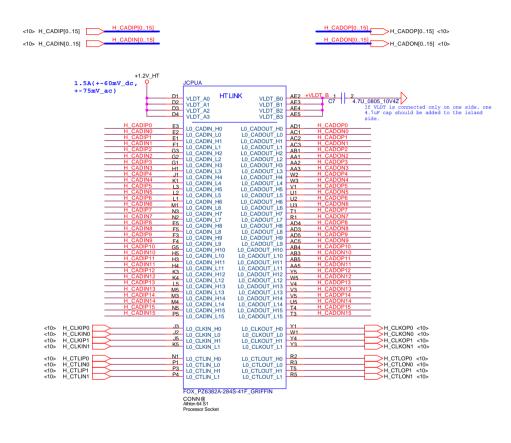
EC SM Bus1 addres	ss	EC SM Bus2 address
ACCELEROMETER.	3 A	00111010
CLOCK GENERATOR (EXT.)	D2	11010010
DDR SO-DIMM 1	A4	10100100
DDR SO-DIMM 0	A0	1010000
DEVICE	HEX	ADDRESS

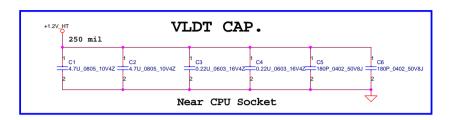
Device	HEX	Address	Device	HEX	Address
Smart Battery	16H	0001 011X b	ADI1032-2 CPU	9AH	1001 101X b
24C16	A0H	1010 000X b	ADI1032-1 VGA	98H	1001 100X b
CPU SIC interface	98H	1001 100X b			

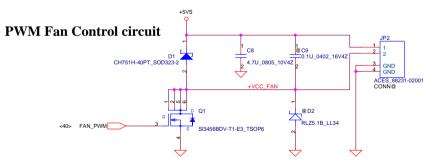
SMBUS Control Table

MDOD CONCIOI												
	SOURCE	THERMAL SENSOR VGA M82-SE ADM1032	BATT	SERIAL EEPROM	THERMAL SENSOR CPU & ADM1032	SODIMM I / II	CLK CHIP	WL MINI CARD Slot 1	LCD	HDMI	CRT	G-Sensor
SMB_EC_CK1 SMB_EC_DA1	КВ926	X	V	X	X	X	X	X	X	Х	X	X
SMB_EC_CK2 SMB_EC_DA2	KB926	v	Χ	Х	V	X	X	X	Х	Х	X	Х
SCL SDA	VGA M82-SE	Х	Χ	Х	Х	Х	X	X	V	Х	Х	Х
DDC4CLK DDC4DATA	VGA M82-SE	Х	Χ	Х	X	Х	X	X	Х	V	X	Х
DDC3CLK DDC3DATA	VGA M82-SE	X	Χ	Х	Х	Х	Х	X	Х	Х	V	Х
SCL0 SDA0	SB700	X	Χ	X	X	V	V	X	X	X	X	V
SCL1 SDA1	SB700	X	X	Х	Х	Х	X	V	X	Х	Х	Х
SCL2 SDA2	SB700	Х	Χ	Х	Х	Х	X	X	Х	Х	Х	Х
SCL3 SDA3	SB700	Х	Χ	X	X	X	Х	Х	Х	Х	X	X

Security Classification	Com	pal Secret Data			Compal Electronics, Inc.	
Issued Date	2007/10/11	Deciphered Date	Title	N		
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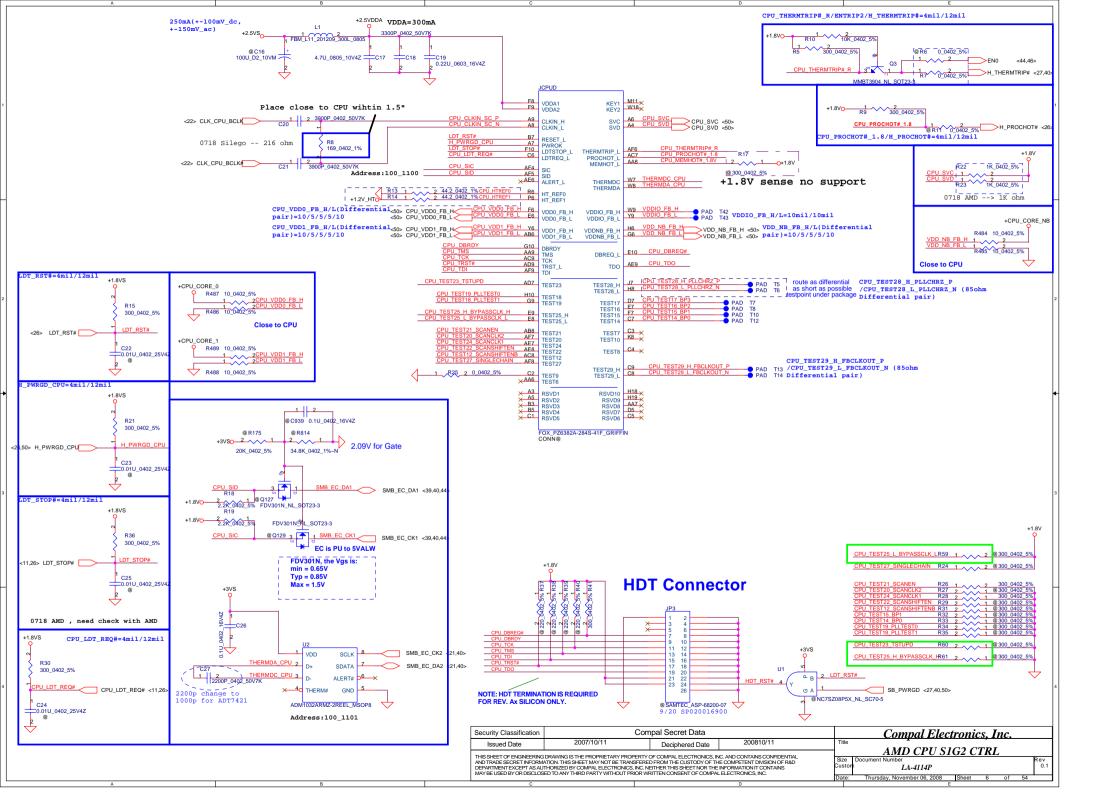


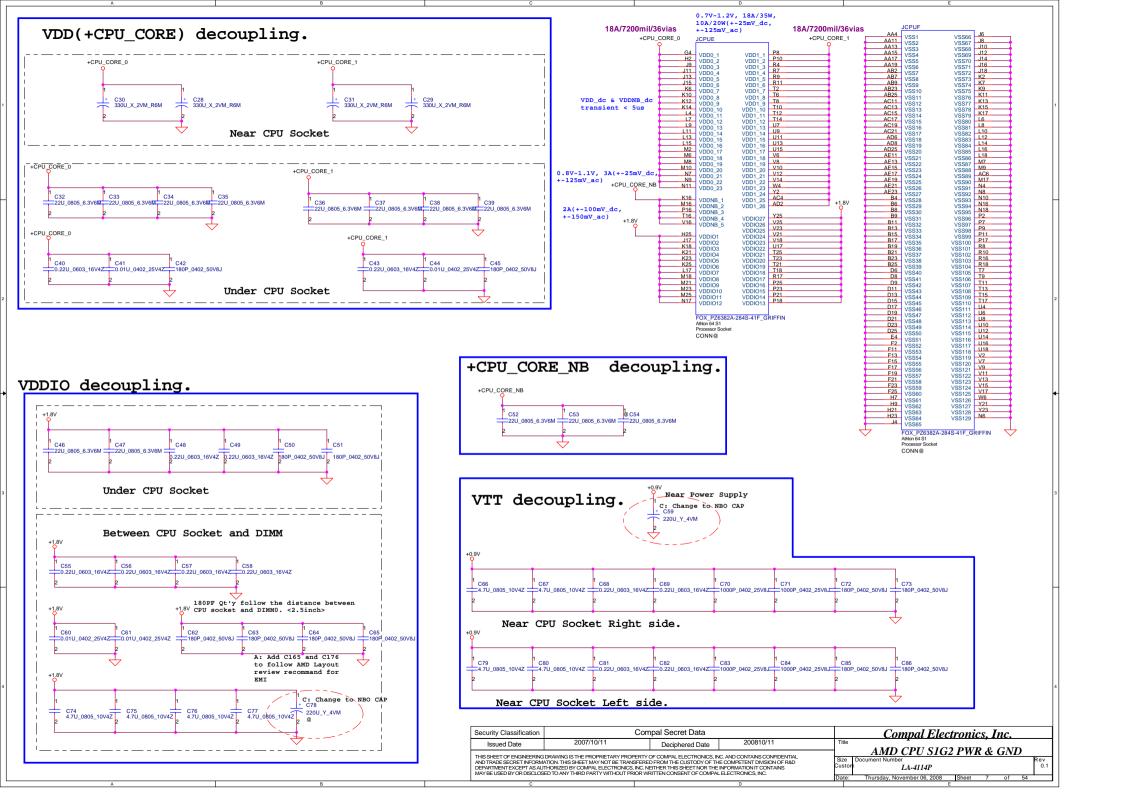


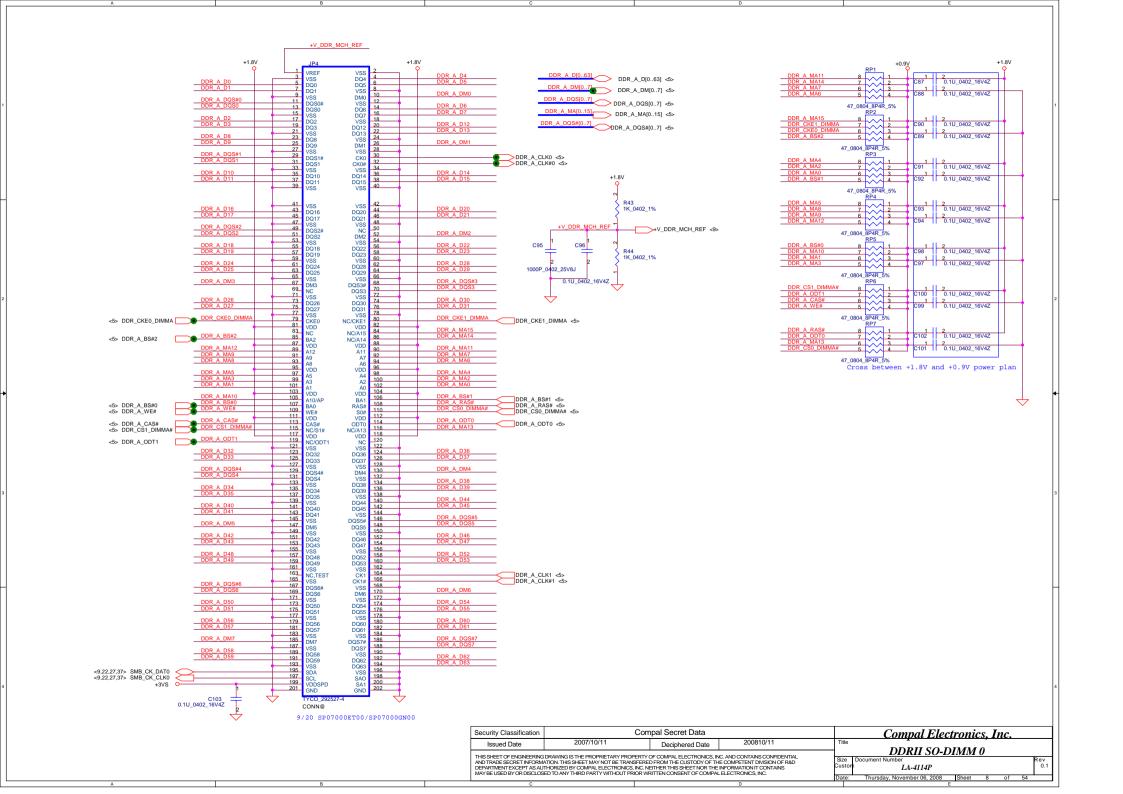


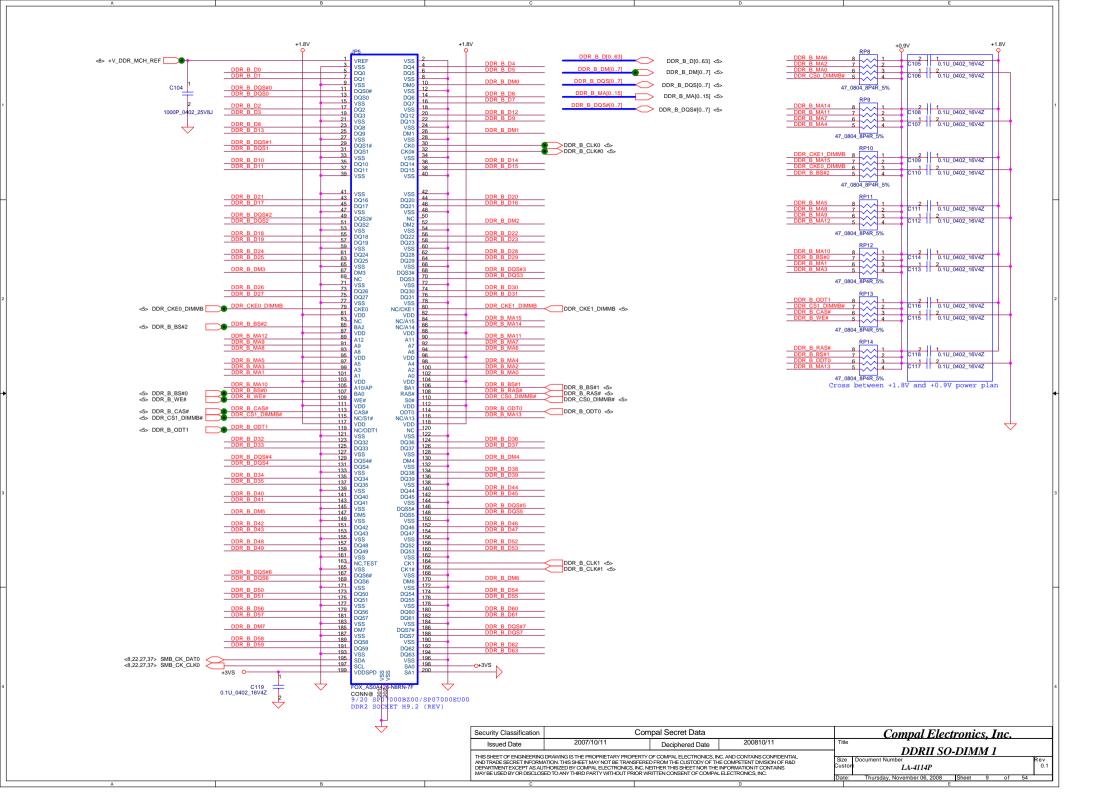
Security Classification	0007/10/44				Compal Elec	tronic	s. In	<i>c</i> .	
Issued Date	2007/10/11	Deciphered Date	200810/11	AMD CPU SIG2 HT I/F					
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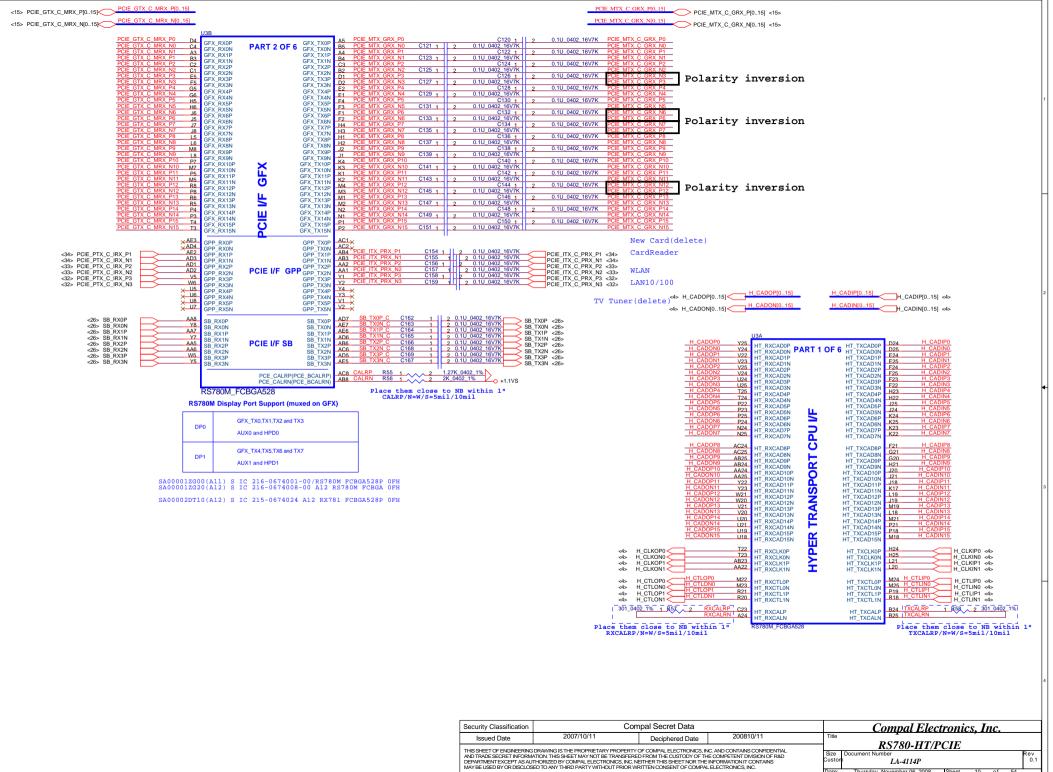
Processor DDR2 Memory Interface PLACE CLOSE TO PROCESSOR WITHIN 1.5 INCH <9> DDR_B_D[63..0] MEM:DATA >DDR A DI63_01 <8> C11 MB_DATA0 A11 MB_DATA1 A14 MB_DATA2 B14 MB_DATA3 MB_DATA3 MB_DATA4 E11 MB_DATA5 D12 G12 F12 MA_DATA0 MA_DATA1 MA_DATA2 H14 G14 C10 1.5P 0402 50V9C MA_DATA3 MA_DATA4 MA_DATA5 H11 H12 D12 MB_DATAS A13 MB_DATA7 A15 MB_DATA8 A16 MB_DATA9 MA DATA6 DDR A CLK1 MA_DATA6 MA_DATA8 H15 E15 A16 MB_DATA9 A19 MB_DATA10 A20 MB_DATA11 MB_DATA11 MA DATAG C11 1.5P 0402 50V9C MA_DATA10 MA_DATA11 MA_DATA12 A20 H17 E14 C14 ±1 8\/ D14 MB DATA13 C18 MB DATA14 D18 MB DATA15 D20 MB DATA15 A21 MB DATA17 D24 MB DATA17 C25 MB DATA19 B20 MR DATA13 MA DATA13 MA_DATA14 MA_DATA15 MA_DATA16 MA_DATA17 MA_DATA18 MA_DATA19 G18 C19 D22 F20 C14 1.5P 0402 50V9C 1K_0402_1% C25 MB_DATA19 B20 MB_DATA20 C20 MB_DATA21 B24 MB_DATA22 C24 MB_DATA22 E23 MB_DATA23 E23 MB_DATA24 E24 MB_DATA25 G25 MB_DATA25 G26 MB_DATA26 DDR B CLK# MA_DATA20 MA_DATA21 MA_DATA22 MA_DATA23 DDR_B_CLK C12 R2 C13 MA_DATA24 MA_DATA25 C15 1.5P_0402_50V9C F22 H24 G25 G26 MB DATA27 C26 MB DATA28 MB DATA29 G23 MB DATA30 MA DATA26 1000P 0402_25V8J 0.1U_0402_16V4Z MA_DATA27 MA_DATA28 MA_DATA29 H20 MA DATA30 G24 AA24 H22 Y24 AB24 MB_DATA31 MB_DATA32 MB_DATA33 MA_DATA31 MA_DATA32 MA_DATA33 ΔΔ23 750mA(+-50mV dc. AB22 AA21 W10 AC10 AB10 MEM:CMD/CTRL/CLK.VTT5 MB DATAS MA DATAM C10 B10 MB_DATA34 MB_DATA35 MB_DATA36 MB_DATA37 MB_DATA38 MB_DATA39 MB_DATA40 VTT6 +-75mV ac) MA_DATA35 MA_DATA36 AA26 W22 VTT3 VTT4 Place them close to CPU within 1' W21 Y22 AA22 AD10 ΔΔ10 ΔΔ25 MA_DATA37 MA_DATA38 MA_DATA39 MA_DATA40 R4 39.2_0402_1% MEMZP/N=W/S=5mil/10mil AF10 AF25 - PAD T1VTT_SENSE=W/S=10mil/10mil Y10 R3 39.2 0402 1% AF10 VTT SENSE AC22 Y20 MEMZN AC22 AD22 MB_DATA41 MB_DATA42 AF20 MB_DATA42 MB_DATA43 MB_DATA43 MB_DATA44 AA20 AA18 AB18 MA_DATA41 MA_DATA42 MA_DATA43 +MCH_REF T2 PAD RSVD_M1 MEMVREF T19 AB21 AD21 AD19 <8> DDR_A_ODT0 <8> DDR_A_ODT1 MAD ODTO RSVD M2 PAD T3 MA DATA44 AF23 MB_DATA45 AC20 MB_DATA45 AD20 MB_DATA47 V22 MA0_ODT1 U21 MA1_ODT0 MA_DATA45 MA_DATA46 √ U21 AC20 V19 MA1_ODT1 W23 AD20 Y18 AD20 MB_DATA47 AD18 MB_DATA48 AE18 MB_DATA48 AC14 MB_DATA50 AD14 MB_DATA51 AF19 MB_DATA52 AC18 MB_DATA53 AF16 MB_DATA54 AF16 MB_DATA54 MB0_ODT1 MA DATA47 MB1_ODT0 MA_DATA48 MA_DATA49 MA_DATA50 <8> DDR_CS0_DIMMA# <8> DDR_CS1_DIMMA# MA0_CS_L0 U19 W14 MB0_CS_L XU20 MA1_CS_L0 V20 MA1_CS_L1 W25 U22 × Y14 Y17 AB17 AB15 MB0_CS_L MB1_CS_L DDR CS1 DIMMB# <9> MA DATA51 MA_DATA52 MA_DATA53 MA_DATA54 122 MA_CKE0 MB CKE AF16 MB_DATA54 AF15 MB_DATA55 AF13 MB_DATA55 AC12 MB_DATA56 AB11 MB_DATA58 Y11 MB_DATA58 AF14 MB_DATA60 AF14 MB_DATA61 -8 DDR CKE1 DIMMA <</p> MB_CKE1 DDR CKE1 DIMMB -9-MA DATASS MA_DATA56 V N19 P22 V AD13 MA CLK H5 MB CLK H5 MB_CLK_H5 MB_CLK_L1 MB_CLK_L1 MB_CLK_L1 MB_CLK_L1 MB_CLK_L7 MB_CLK_L4 MB_CLK_L4 MB_CLK_L4 MA DATA57 Y12 W11 AB14 MA_CLK_L5 MA_CLK_H1 MA_CLK_L1 MA DATA58 <8> DDR_A_CLK0 <8> DDR_A_CLK#0 <8> DDR_A_CLK1 DDR_B_CLK0 <9> DDR_B_CLK#0 <9> DDR_B_CLK1 <9> MA_DATA59 MA_DATA60 F16 AA14 AA16 MA_CLK_F1/ × P19 MA_CLK_H4 × P20 MA_CLK_L4 MA CLK H7 AF11 MB_DATA62 MB_DATA63 MA DATA61 <8> DDR A CLK#1 DDR B CLK#1 <9> MA DATA62 MA_DATA63 DDR_A_DM[7..0] <8> A12 <8> DDR_A_MA[15..0] DDR_B_MA[15..0] <9> MR DMO MA DMO N21 MA_ADD0 MB_ADD1 P24 N24 N24 P26 NB_ADD2 N23 B16 MB_DM1 A22 MB_DM2 E25 MB_DM3 C15 E19 MA_DM1 MA_DM2 M20 MA_ADD1 MA_ADD2 A22 F25 F24 M2 MA_ADD2 M2 MA_ADD3 M22 MA_ADD4 L20 MA_ADD5 N23 N26 L23 N25 L24 M26 AB26 MB_DM3 AE22 MB_DM4 AC16 MB_DM5 AD12 AC24 Y19 AB16 MB_ADD2 MB_ADD3 MB_ADD4 MB_ADD5 MB_ADD6 MB_ADD7 MB_ADD8 MB_ADD9 M24 AD12 MA ADDE MB DM7 MA DM7 L21 L19 MA_ADD8 MA_ADD8 MA_ADD9 C12 MB_DQS_H0 B12 MB_DQS_L1 C16 MB_DQS_H1 C16 MB_DQS_L1 A24 MB_DQS_L2 F26 MB_DQS_L2 E26 MB_DQS_L3 AC25 MB_DQS_H4 AC26 MB_DQS_H4 <9> DDR_B_DQS0 <9> DDR_B_DQS#0 <9> DDR_B_DQS1 DDR_A_DQS0 <8> DDR_A_DQS#0 <8> DDR_A_DQS1 <8> MA_DQS_H0 MA_DQS_L0 K22 K26 R21 MA_ADD10 MA_DQS_H1 MA_DQS_L1 MB ADD10 K20 MA_ADD11 MA_ADD12 L26 <9> DDR_B_DQS#1 <9> DDR_B_DQS2 DDR_A_DQS1 <8> DDR_A_DQS2 <8> MB_ADD11 125 V24 MA_ADD12 K24 MA_ADD14 K19 MA_ADD15 MB ADD12 MA DQS H2 MB_ADD12 MB_ADD13 MB_ADD14 J23 DDR_A_DQS#2 <8> DDR_A_DQS#2 <8> DDR_A_DQS <8> DDR_A_DQS#3 <8> DDR_A_DQS#4 <8> DDR_A_DQS#4 <8> DDR_A_DQS#4 <8> <9> DDR B DOS#2 MA_DQS_L2 MA_DQS_H3 MA_DQS_L3 ODR_B ODR_B DDR_B MB_ADD14 MB_ADD15 DOS3 J24 G21 AD23 AC25 DOS4 MA DOS HA AC25 MB_DQS_H4 AC26 MB_DQS_L4 AF21 MB_DQS_H5 AF22 MB_DQS_L5 AC23 AB19 MA_DQS_H4 MA_DQS_H5 MA_DQS_L5 <8> DDR A BS#0 MA BANKO MR BANKO DDR B BS#0 <9: DOS#4 R23 MA_BANK1 MA_BANK2 MB_BANK1 MB_BANK2 DQS5 DQS#5 DQS6 DDR_A_DQS5 <8> DDR_A_DQS#5 <8> DDR_A_DQS6 <8> .126 AB20 AF16 Y15 AE 10 MB_DQS_H0 AD16 MB_DQS_L6 AF12 MB_DQS_H7 MB_DQS_L7 MR DOS H6 MA DQS H6 R190 MA_RAS_L MA_CAS_L <8> DDR_A_RAS# <8> DDR_A_CAS# MB_RAS_I DDR B RAS# <9> <9> DDR_B <9> DDR_B DOS#6 MA_DQS_L6 DDR_A_DQS#6 <8> DDR_A_DQS7 <8> U24 DDR_B_CAS# <9> W12 MA_DQS_H7 T24 MA_WE_L <8> DDR A WE# MB_WE_ DDR B WE# <9> <9> DDR B DQS#7 MA DOS 17 DDR A DQS#7 <8> FOX_PZ6382A-284S-41F_GRIFFIN FOX_PZ6382A-284S-41F_GRIFFIN Athlon 64 S1 Processor Athlon 64 S1 Processor Socket CONN® CONN@ Security Classification Compal Secret Data Compal Electronics, Inc. 2007/10/11 200810/11 Issued Date Deciphered Date AMD CPU S1G2 DDRII I/F THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. 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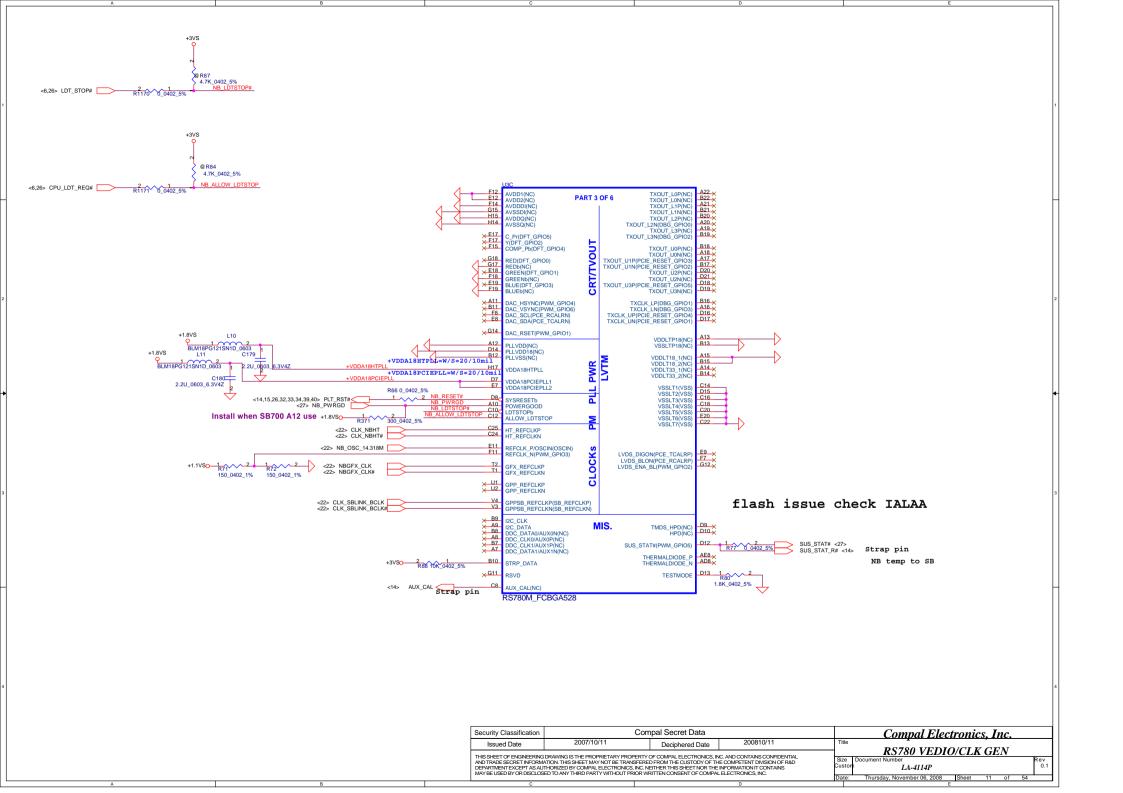






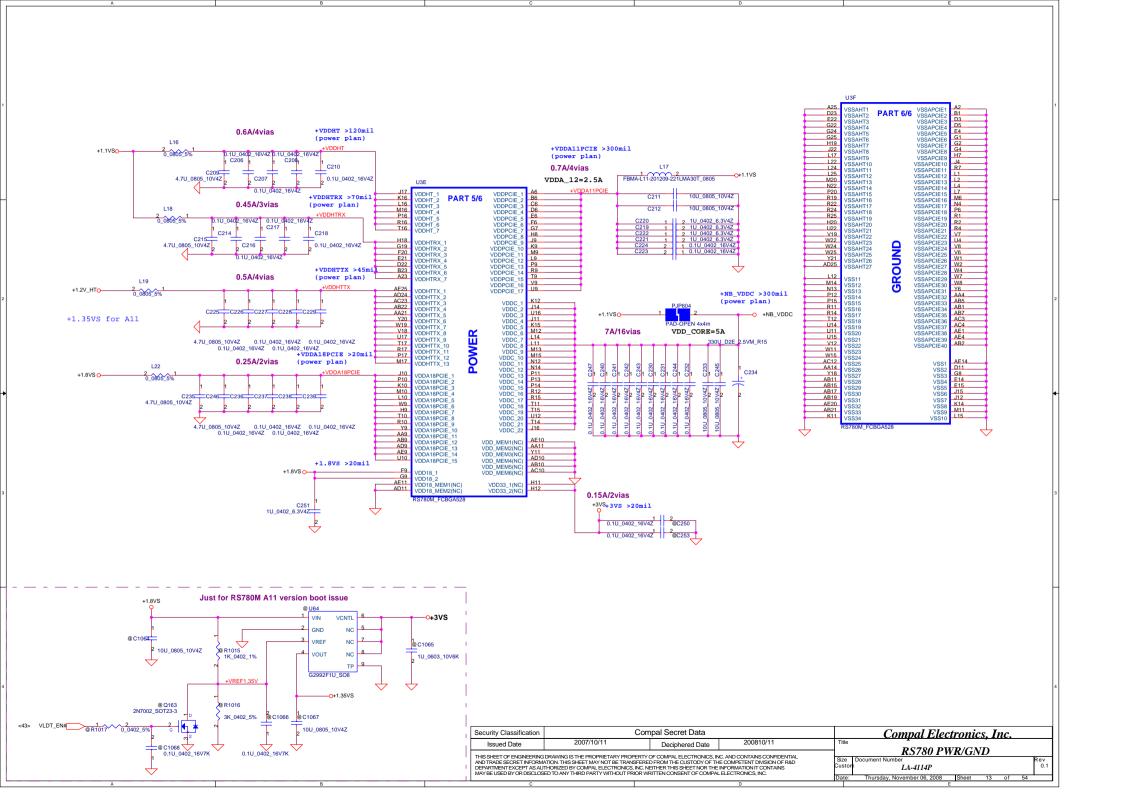


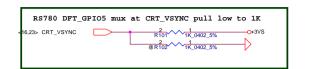
ev 0.1 , November 06, 2008 Sheet 10



| MEM_DOSPIVO_INCN | MEM_DOSPINO_INCN | MEM_DOSPIVO_INCN | MEM_DOSPIVO

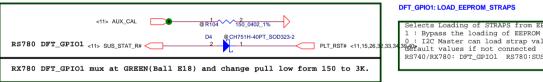
Security Classification	Con	npal Secret Data		Compal Electr	ronics. I	nc.		
Issued Date	2007/10/11	Deciphered Date	200810/11	RS780 Side-Port DDR2 SDRA				
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DFT GPIO5:STRAP DEBUG BUS GPIO ENABLED

Enables the Test Debug Bus using GPIO. 1 : Disable (RS740) Enable (RX780, RS780) 0 : Enable (Rs740) Disable (RX780, RS780) PIN: RS740-->RS780_AUX_CAL; RX780-->NB_TV_C; RS780--> VSYNC#



DFT GPIO1: LOAD EEPROM STRAPS

Selects Loading of STRAPS from EPROM 1 : Bypass the loading of EEPROM straps and use Hardware Default Values I2C Master can load strap values from EEPROM if connected, or use RS740/RX780: DFT_GPIO1 RS780:SUS_STAT

RS780 use HSYNC to enable SIDE PORT (internal pull high) <16,21,23> CRT_HSYNC 2 16,21,23> CRT_HSYNC 2

DFT_GPIO0: STRAP_DEBUG_BUS_PCIE_ENABLEb

RX780: Enables the Test Debug Bus using PCIE bus 1 : Disable (Can still be enabled using nbcfg register access) RS740/RS780: Enables Side port memory (RS780 use HSYNC#) 1. Disable (RS740/RS780) 0 : Enable (RS740/RS780)

Security Classification	2007/40/44				Compal Electro	onics.	Inc.		
Issued Date	2007/10/11	Deciphered Date	200810/11	RS780 STRAPS					
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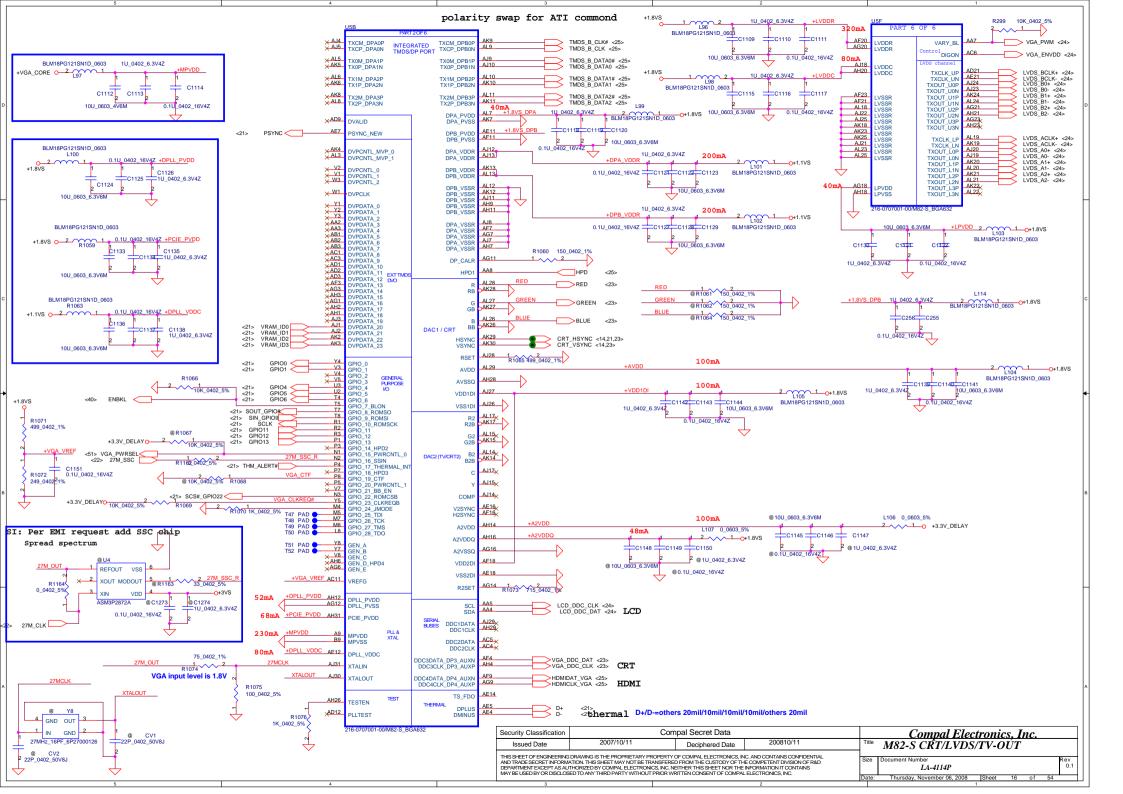
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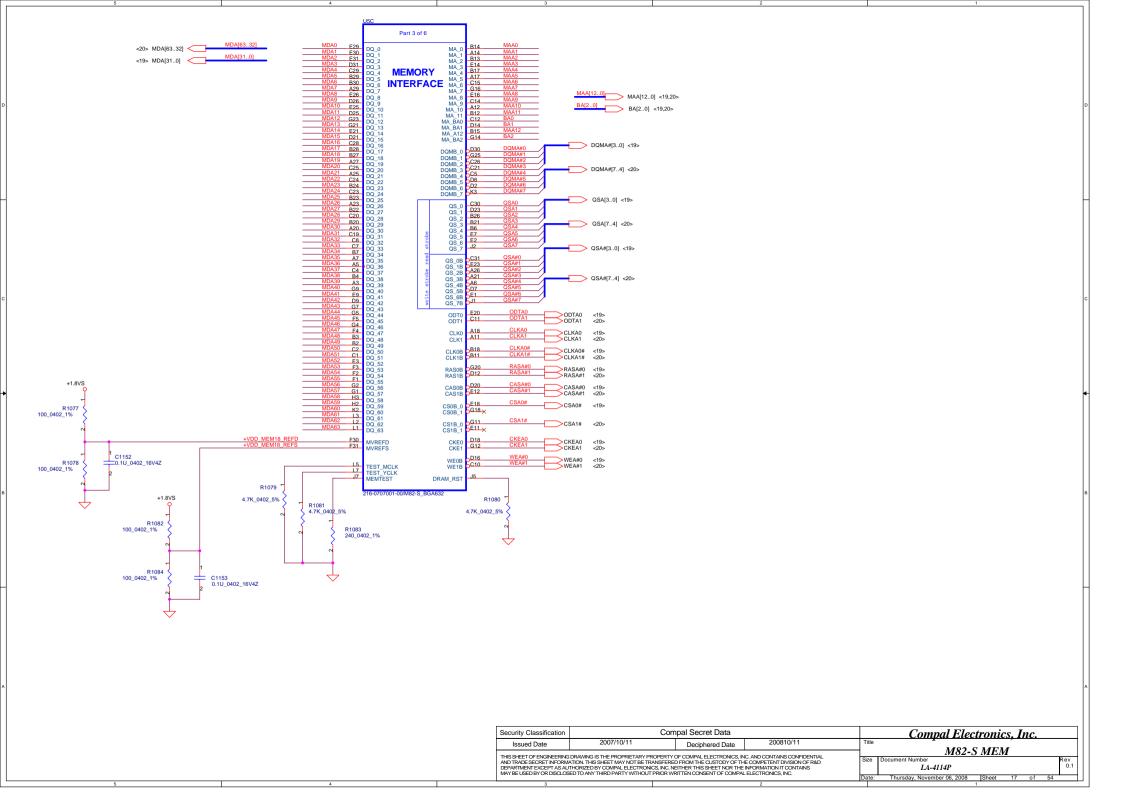
M82-S PCIE interface

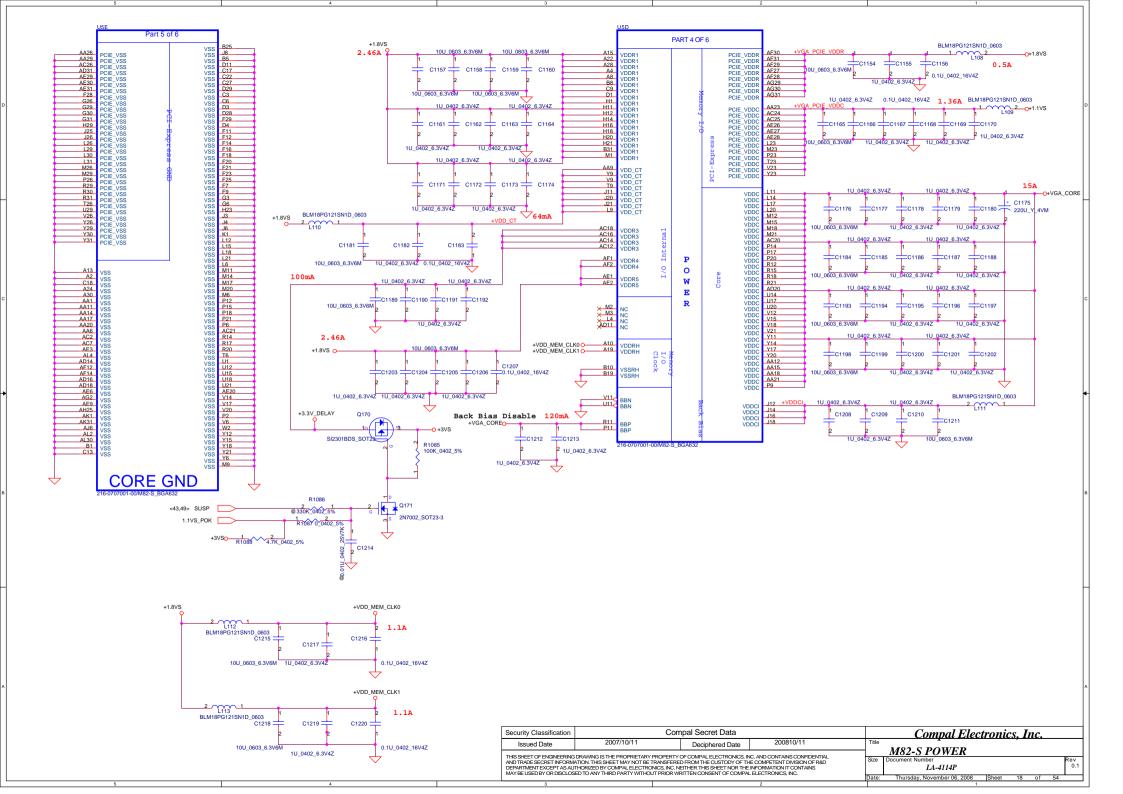
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Thursday, November 06, 2008 | Sheet 15 of

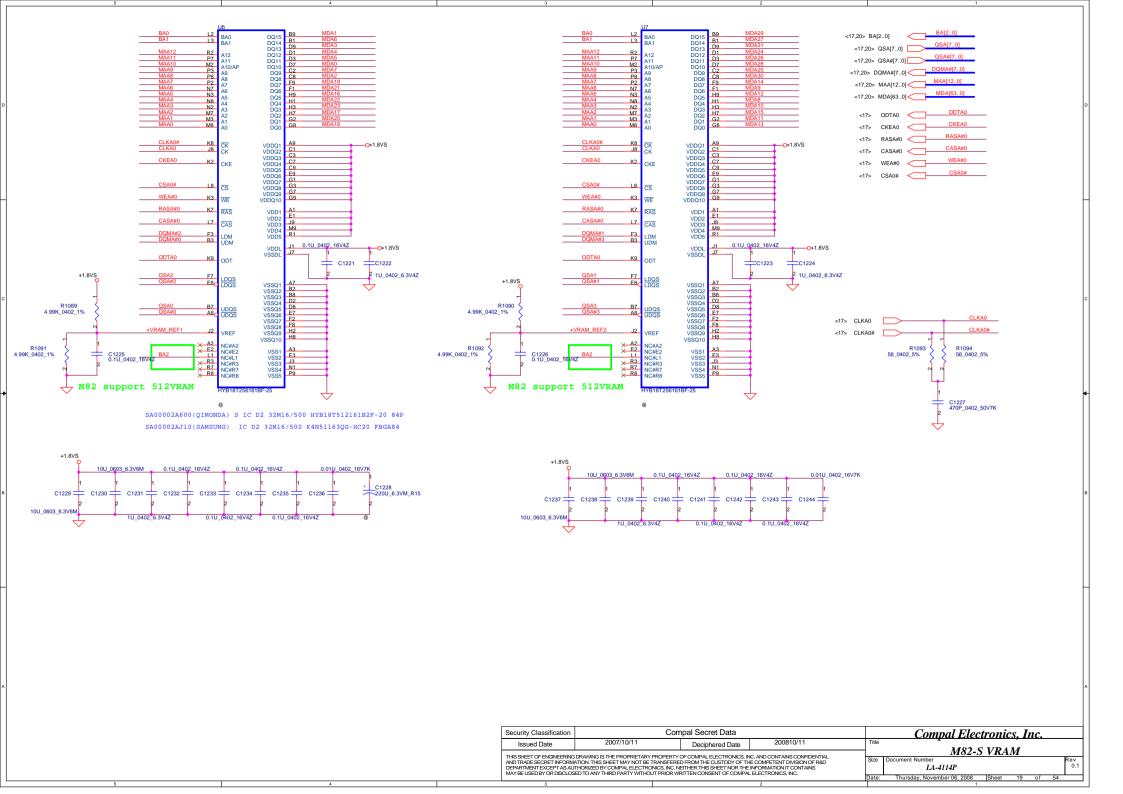
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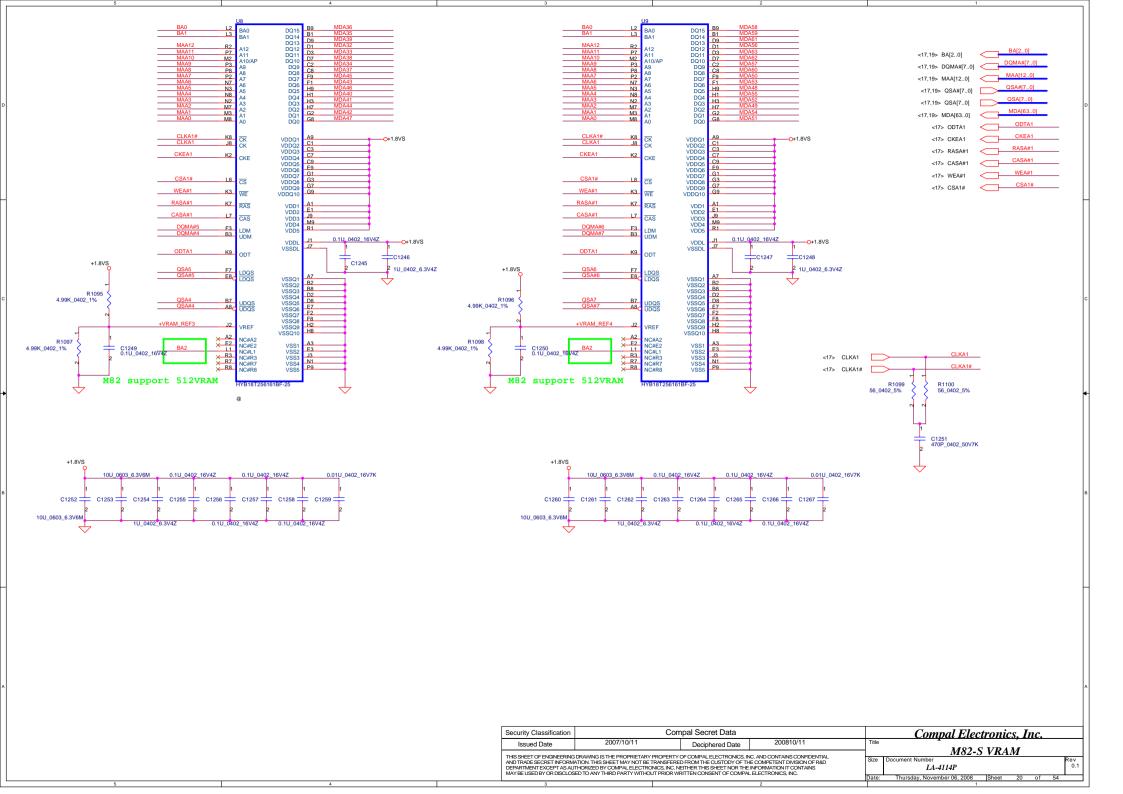
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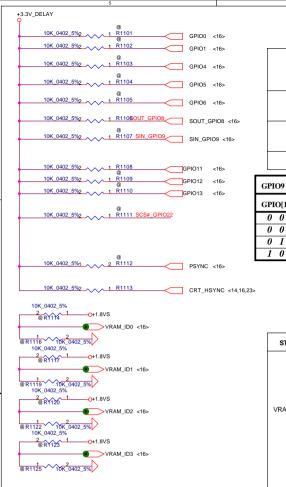










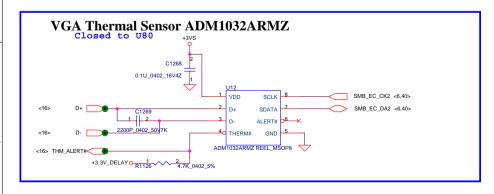


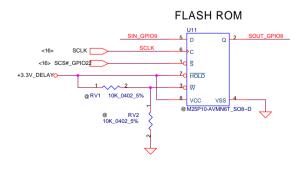
ATI RESERVED CONFIGURATION STRAPS ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOS ARE USED, THEY MUST NOT CONFLICT DURING RESE GPIO2 GPIO3 GPIO5 GPIO6 DVALID H2SYNC V2SYNC PULLUP PADS ARE NOT REQUIRED FOR THESE STRAPS BUT IF THESE GPIOS ARE USED, THEY MUST NOT CONFLICT DURING RESET GENERICC GPIO21_BB_EN GPIO_28_TDO

$\mathbf{GPIO9} = 0 \; (\mathbf{BIOS_ROM_EN} = 0)$									
GPIO[13:11]	MEMORY SIZE								
0 0 0	128MB								
0 0 1	256MB								
0 1 0	64MB								
1 0 0	512MB								

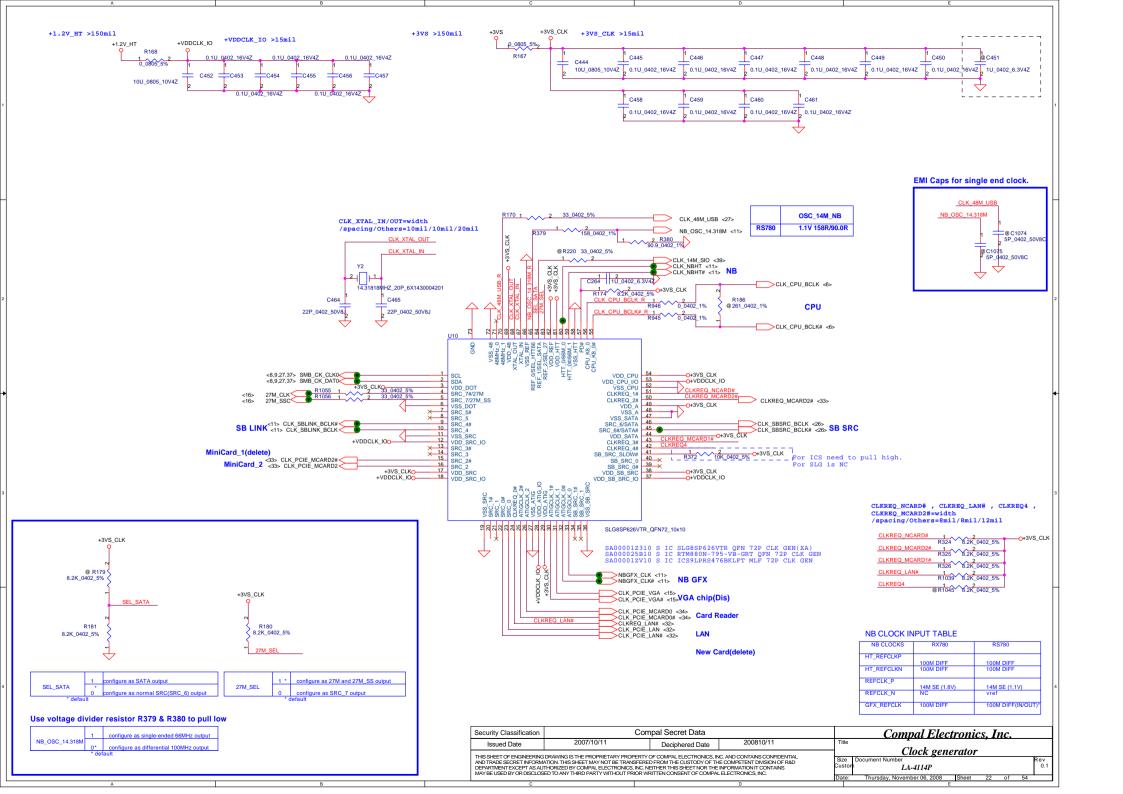
STRAPS	PIN	DESCRIPTION OF RECOMMENDED SETTING	RECOMMENDED M8X
TX_PWRS_ENB	GPIO0	PCIE FULL TX OUTPUT SWING	0
TX_DEEMPH_EN	GPIO1	PCIE TRANSMITTER DE-EMPHASIS ENABLES	0
BIF_DEBUG_ACCESS	GPIO4	DEBUG SIGNALS MUXED OUT	0
BIF_GEN2_EN_A	GPIO5	PCI-E 5.0GT/s or 2.5 GT/s select	0
DEBUG_I2C_ENABLI	GPIO6	Internal use only	0
BIF_AUDIO_EN	GPIO8	ENABLE HD AUDIO(M8X)	1
ROMIDCFG[3:0]	GPIO [9,13,12,11]	SERIAL ROM TYPE OR MEMORY APERTURE SIZE SELECT	0 1 0 1
BIOS_ROM EN	GPIO_22_ROMCSB	DISABLE EXTERNAL BIOS ROM	0
BIF_VGA_DIS	PSYNC	VGA ENABLED===0 is enable	0
BIF_HDMI_EN	HSYNC	HDMI ENABLE	1

STRAPS	PIN	GPU	Project	VRAM size	Vendor Part Number#	Compal Part Number#	VRAM_ID 3,2,1,0	
			Rachman 1.2	512M(x4)	Samsung 64Mx16 1.8V	SA00002MD00	0000	
			Rachman 1.2	256M(X4)	Samsung 32Mx16 1.8V	SA00002AJ10	0001	す
	DVPDATA	M82M-XT		512M(x4)	Hynix 64Mx16 1.8V		0010	\dashv
		IVI6∠IVI-X I	Rachman 1.1	256M(X4)	Hynix 32Mx16 1.8V	SA00002DL00	0011	┪
V/DAMA IDIO OI			Rachman 1.1	256M(X4)	Qimonda 32Mx16 1.8V	SA00002A600	0100	_
VRAM_ID[3:0]	(23,22,21,20)		Rachman 1.2	512M(x4)	Qimonda 64Mx16 1.8V	SA00002MF00	0101	\pm
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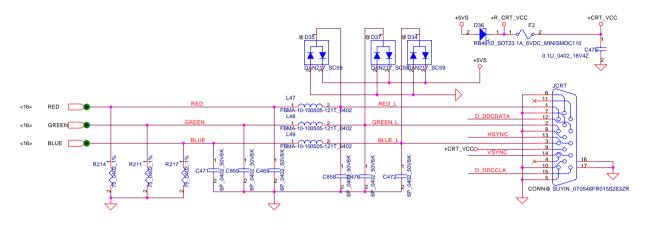


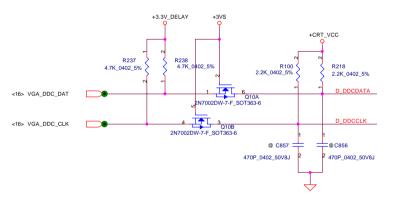


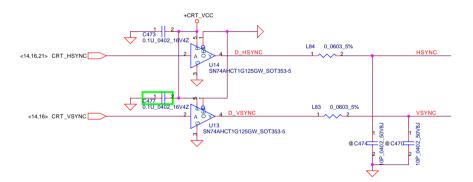
Security Classification	Compal Secret Data				Compal Electronics, Inc.	
Issued Date	2007/10/11	Deciphered Date	200810/11	Title	M92 C E:14 / C4	
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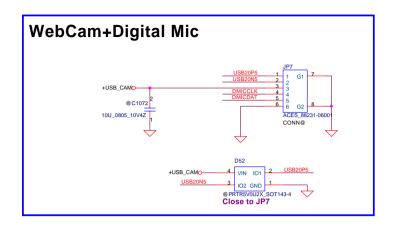
CRT CONNECTOR

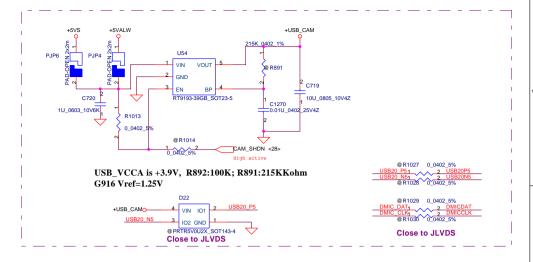


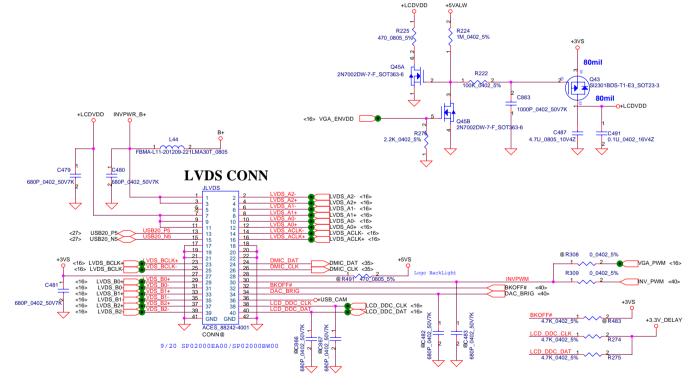




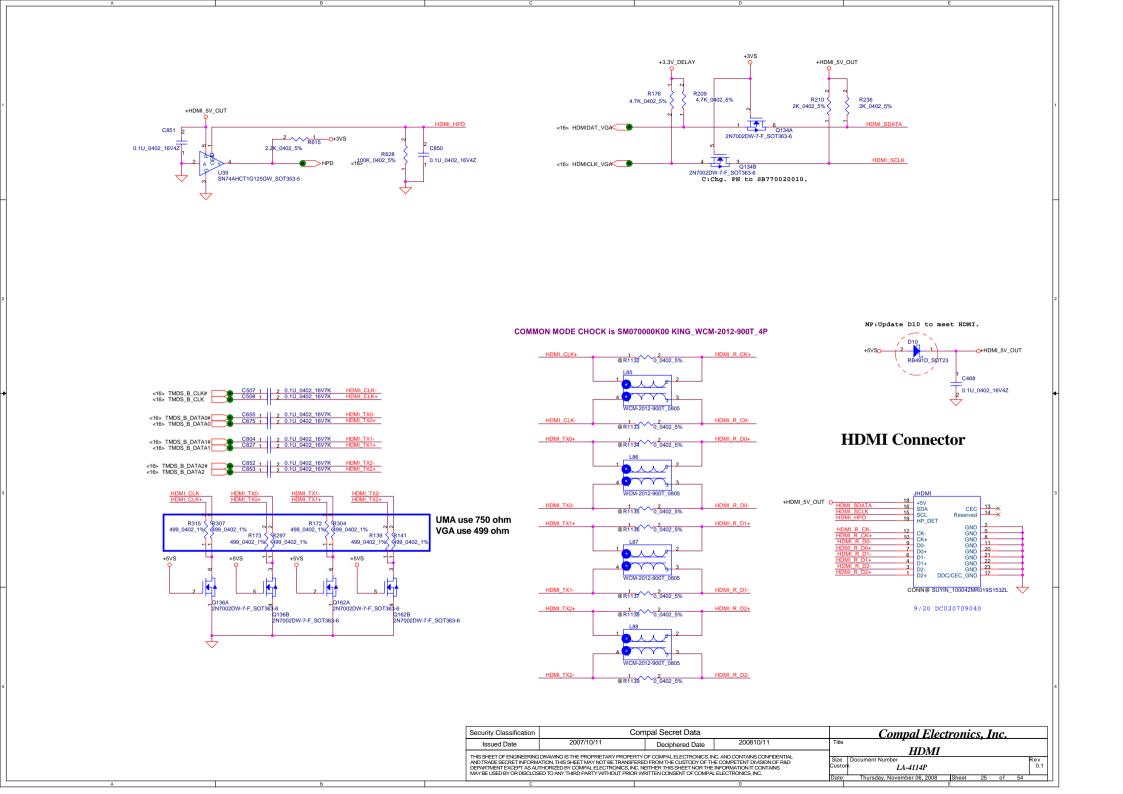
Security Classification	Con	Compal Secret Data				tronic	s, I	nc.		
Issued Date	2007/10/11	Deciphered Date	200810/11	Title	CDT C					
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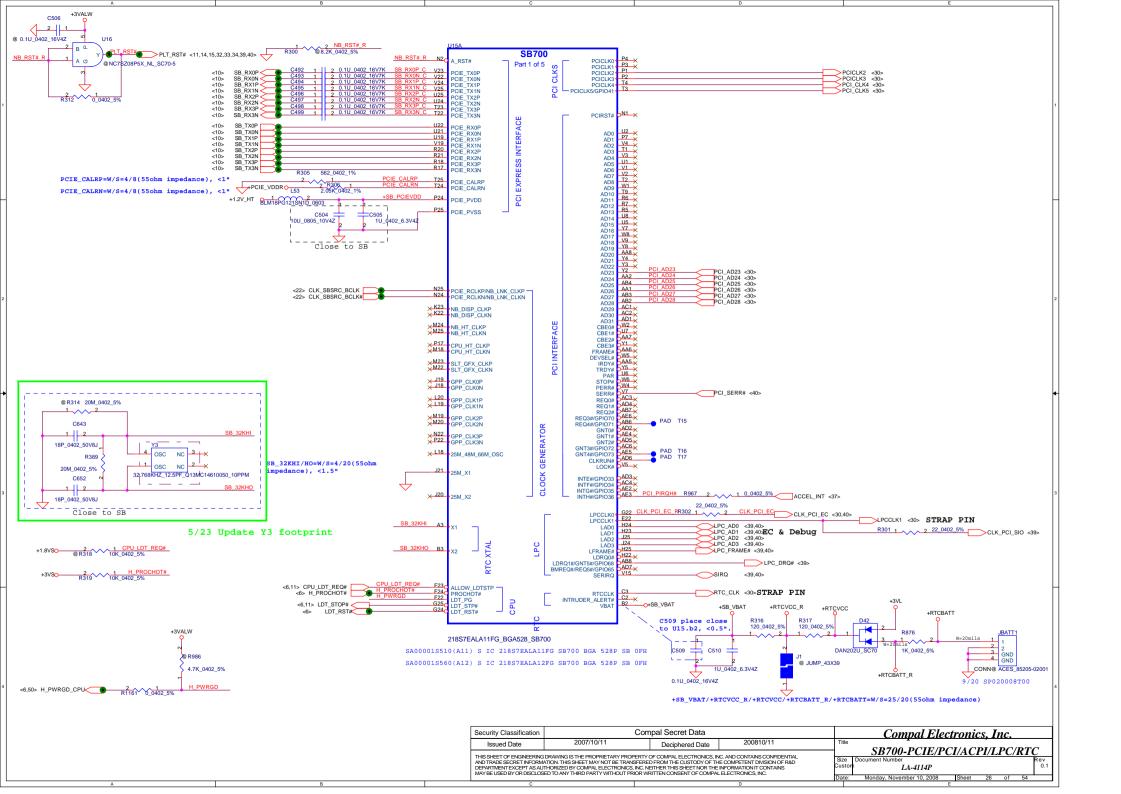


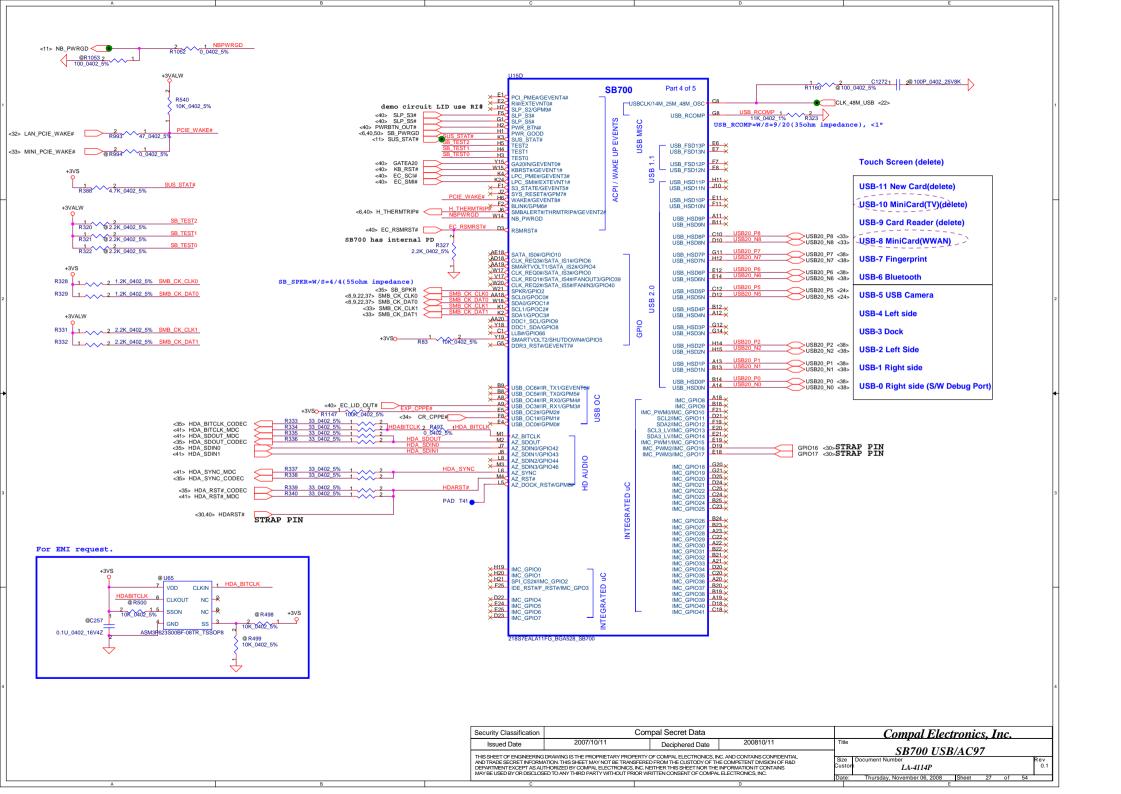


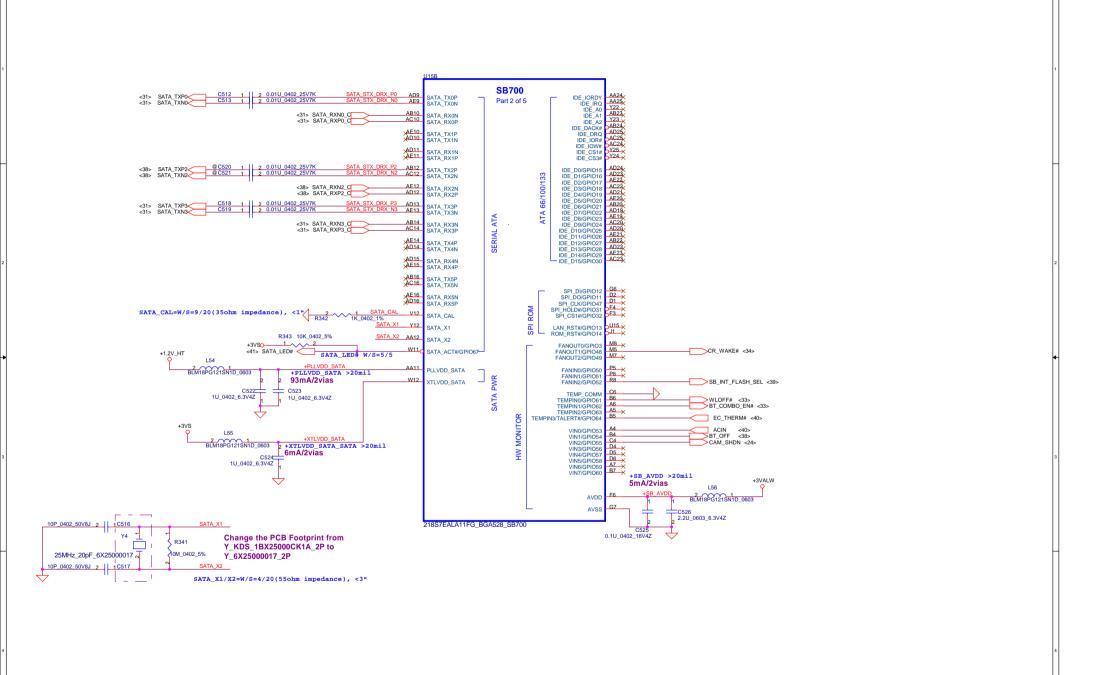


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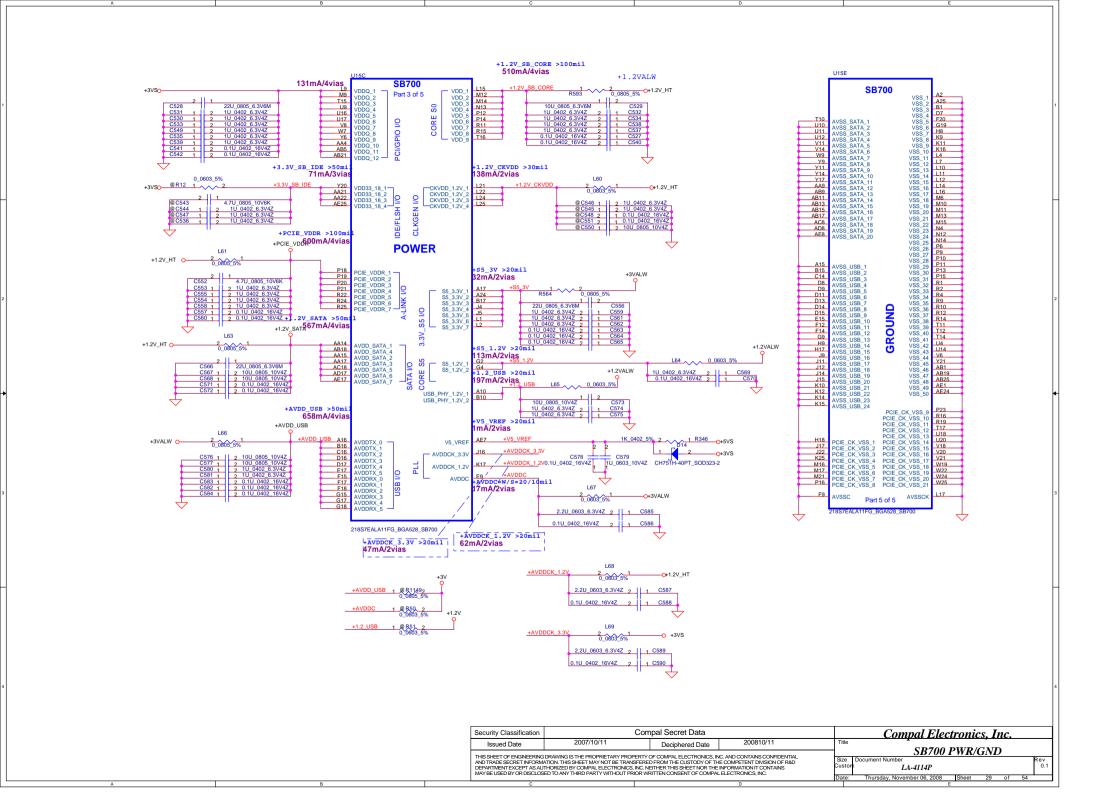








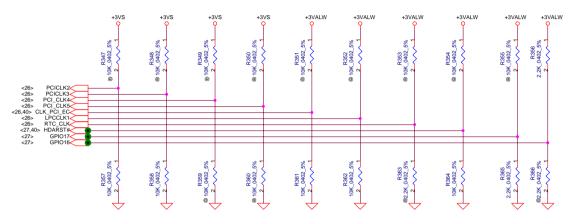
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REQUIRED STRAPS

NOTE: SB700 HAS INTERNAL 15K PULL UP RESISTOR FOR RTC_CLK

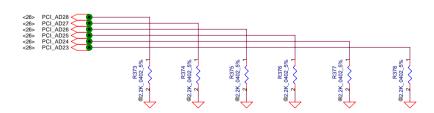
	PCI_CLK2	PCI_CLK3	PCI_CLK4	PCI_CLK5	AZ_RST_CD#	LPC_CLK1	RTC_CLK	LPC_CLK0	GP17 GP16
PULL HIGH	BOOTFAIL TIMER ENABLED	USE DEBUG STRAPS	RESERVED	RESERVED	ENABLE PCI MEM BOOT	CLKGEN ENABLED	INTERNAL RTC DEFAULT	EC ENABLED	Internal pull up H,H = Reserved H.L = SPI ROM
PULL LOW	BOOTFAIL TIMER DISABLED DEFAULT	IGNORE DEBUG STRAPS DEFAULT			DISABLE PCI MEM BOOT DEFAULT	CLKGEN DISABLED DEFAULT	EXT. RTC (PD on X1, apply 32KHz to RTC_CLK)	EC DISABLED DEFAULT	L,H = LPC ROM (Default) L,L = FWH ROM



DEBUG STRAPS

SB700 HAS 15K INTERNAL PU FOR PCI_AD[28:23]

	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE LONG RESET DEFAULT	USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	RESERVED
PULL	USE SHORT RESET	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	

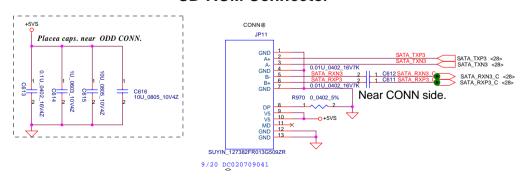


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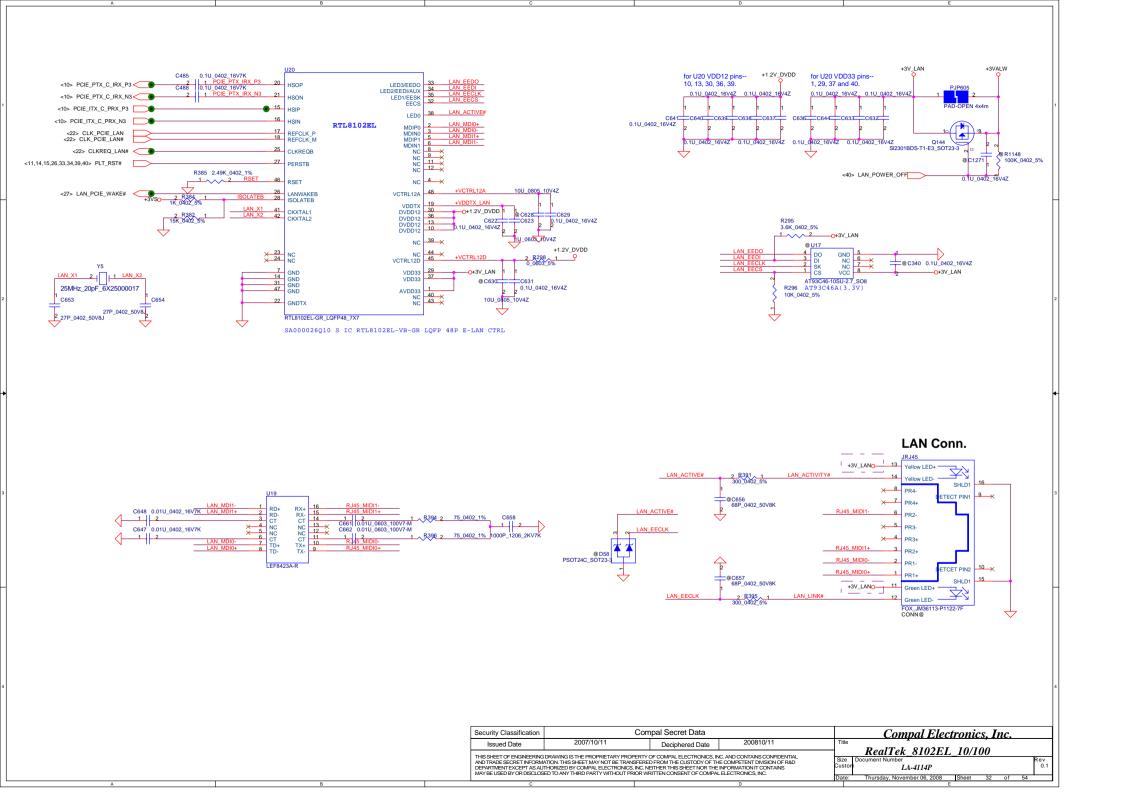
9/20 LTCX0007Y00

Multi-Bay Connector-option(deltet)

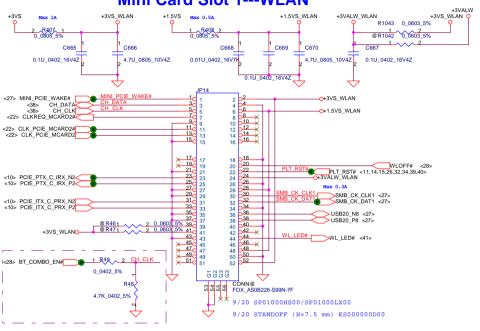
CD-ROM Connector



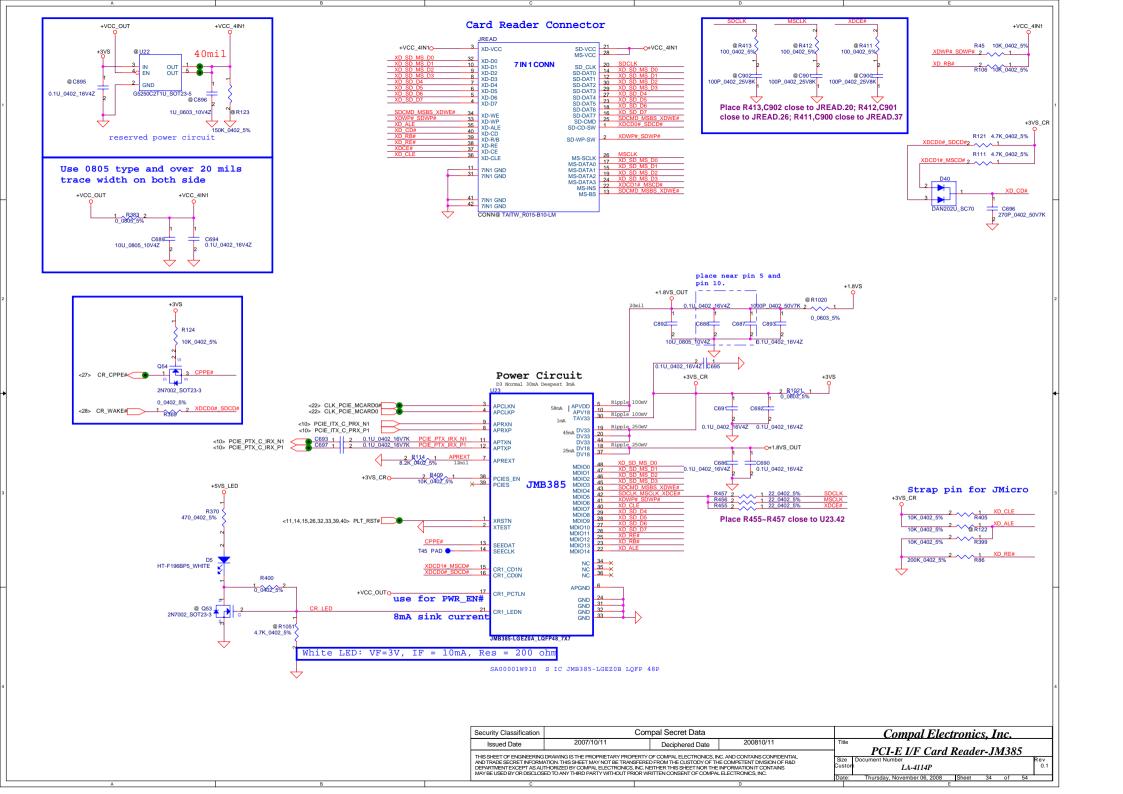
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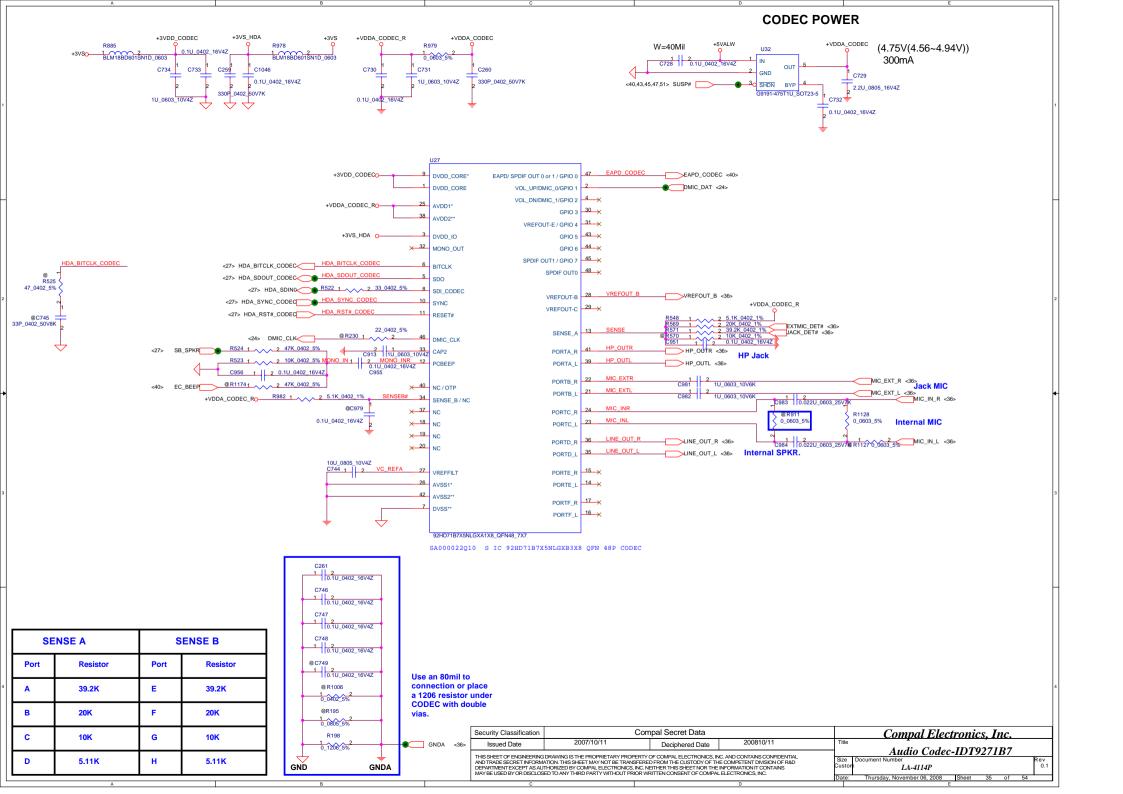


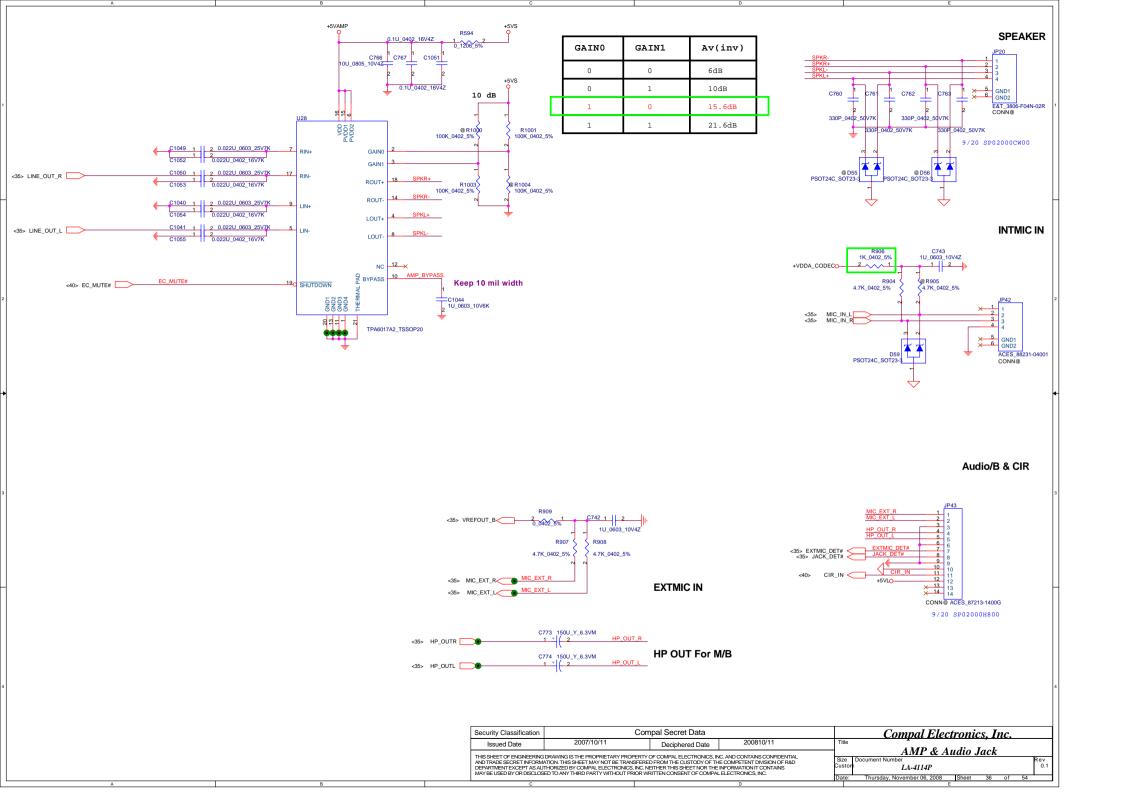
Mini Card Slot 1---WLAN

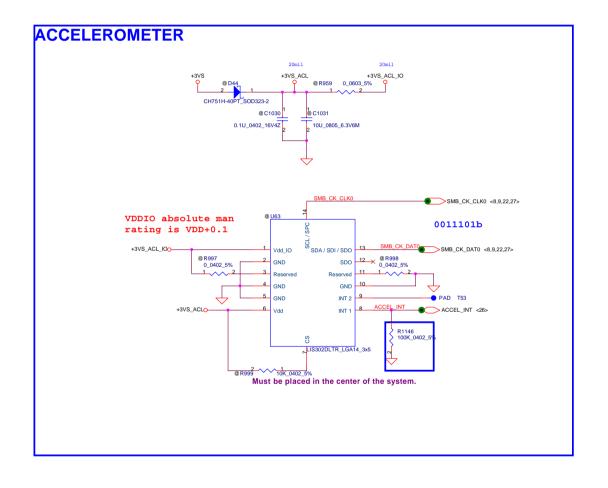


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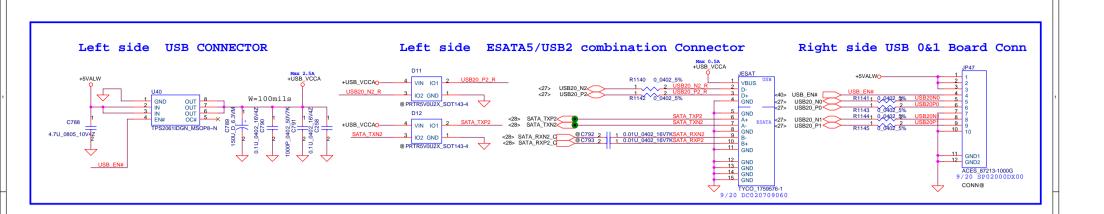


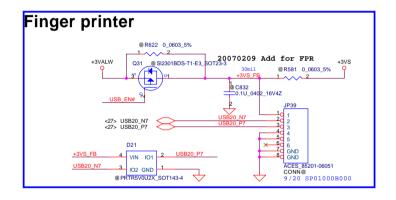


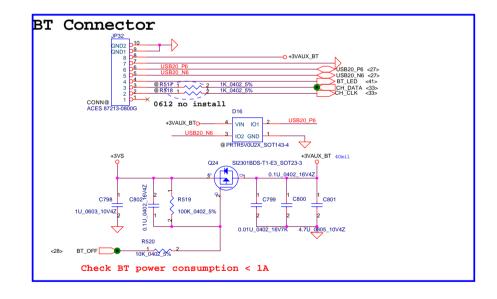




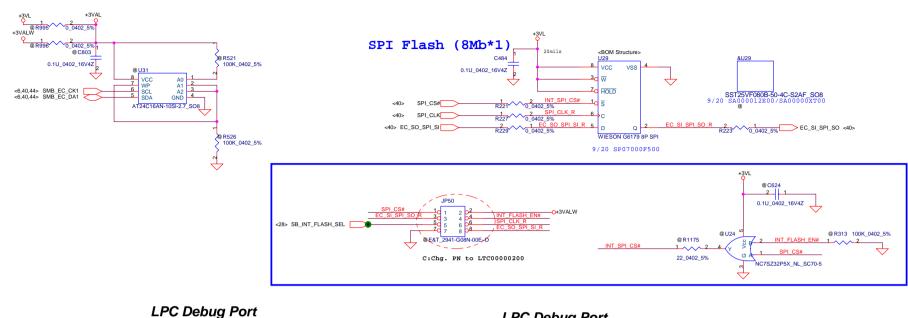
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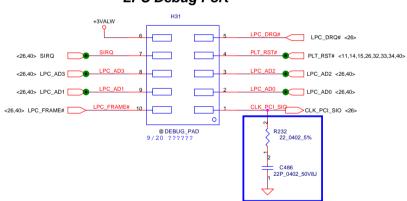


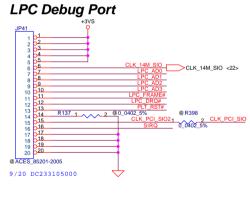




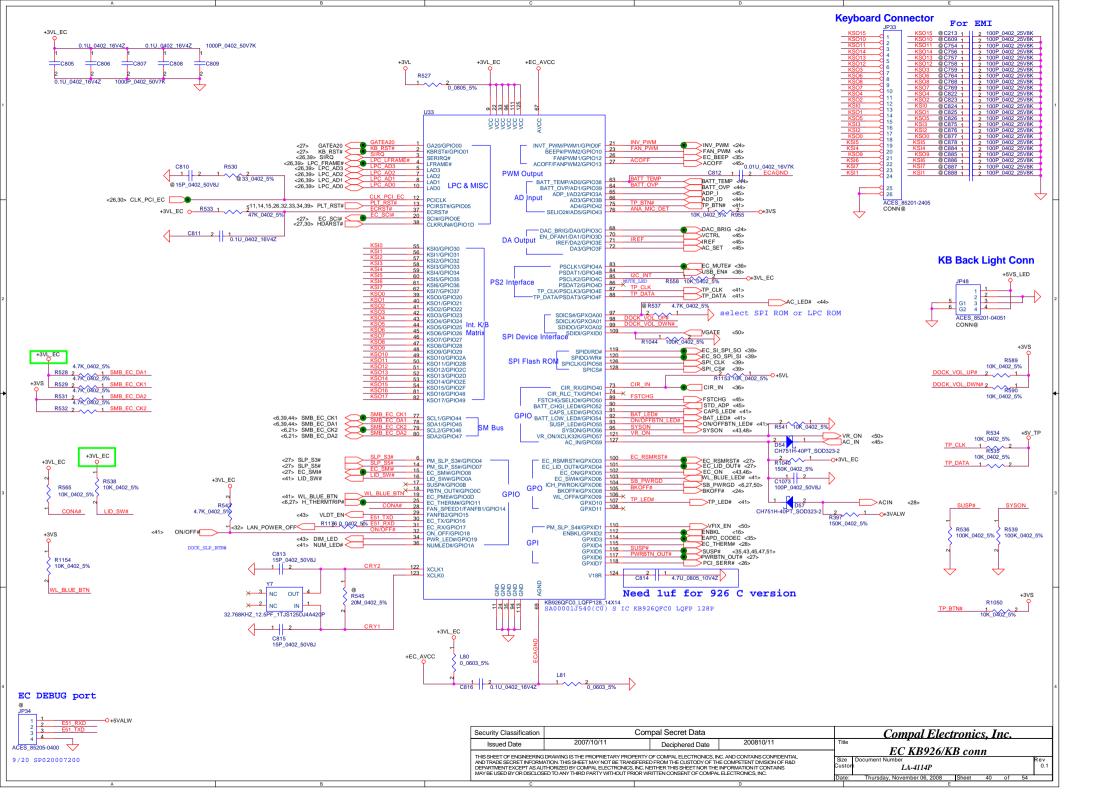
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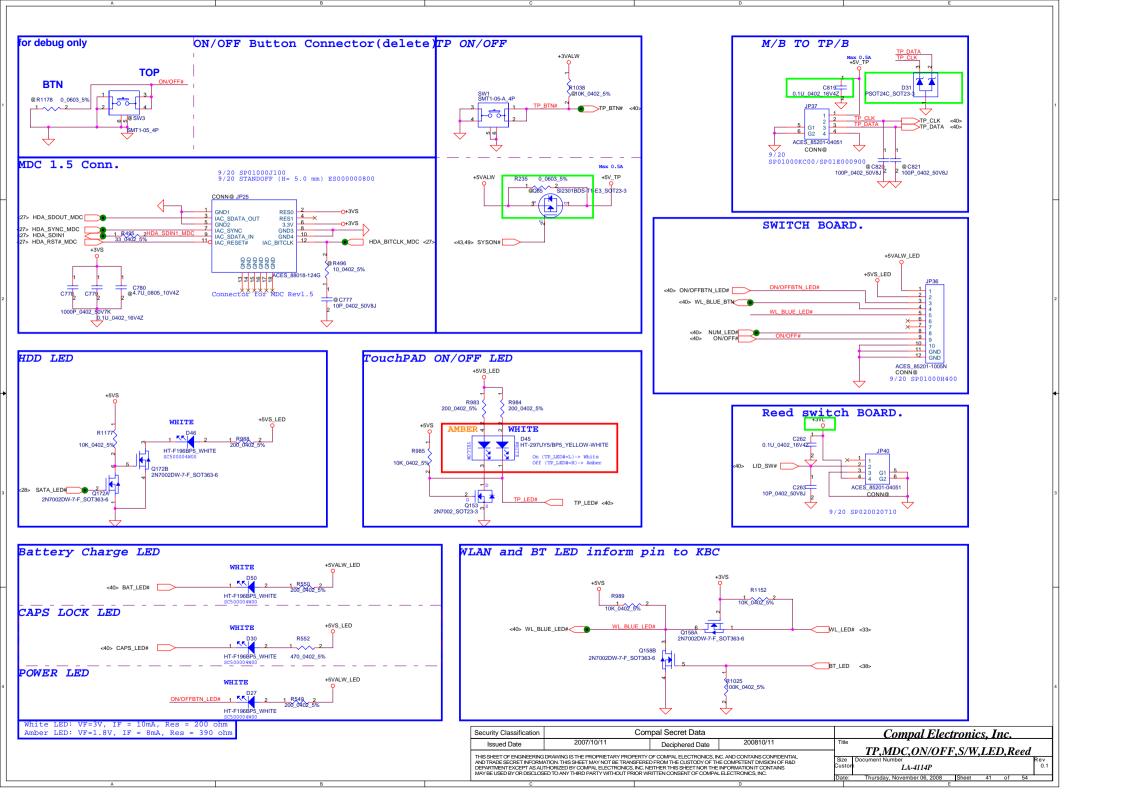




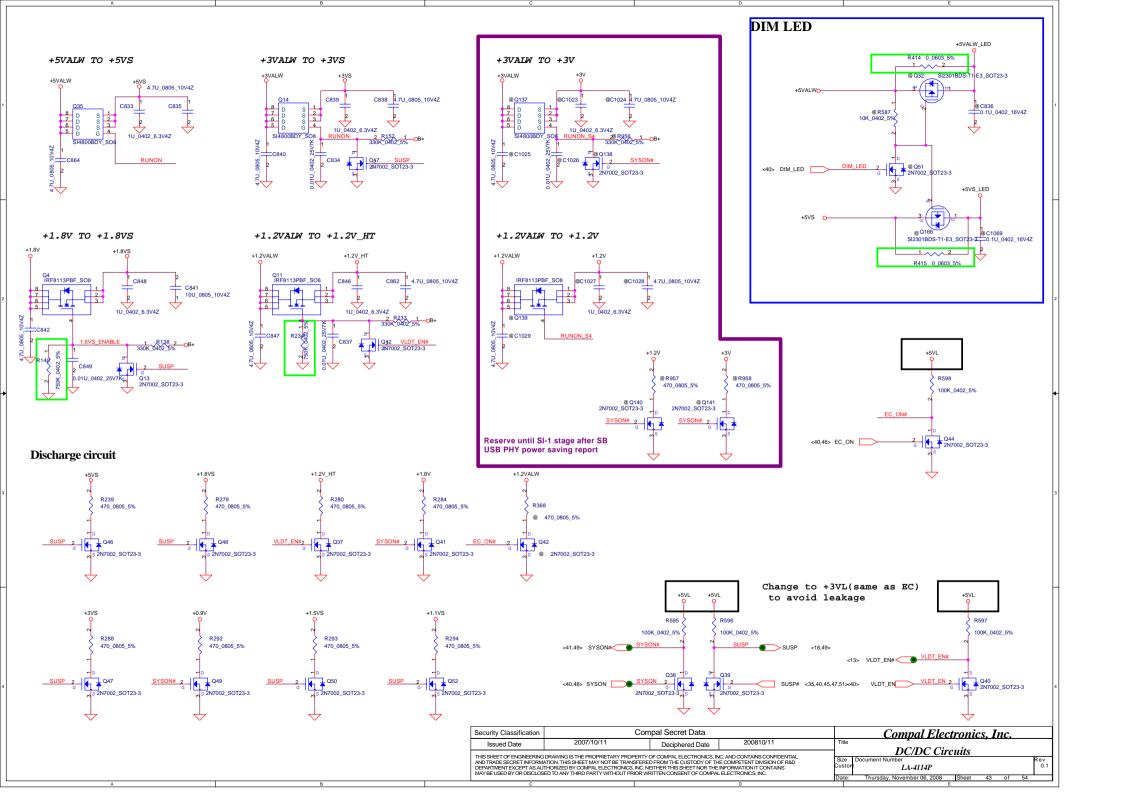


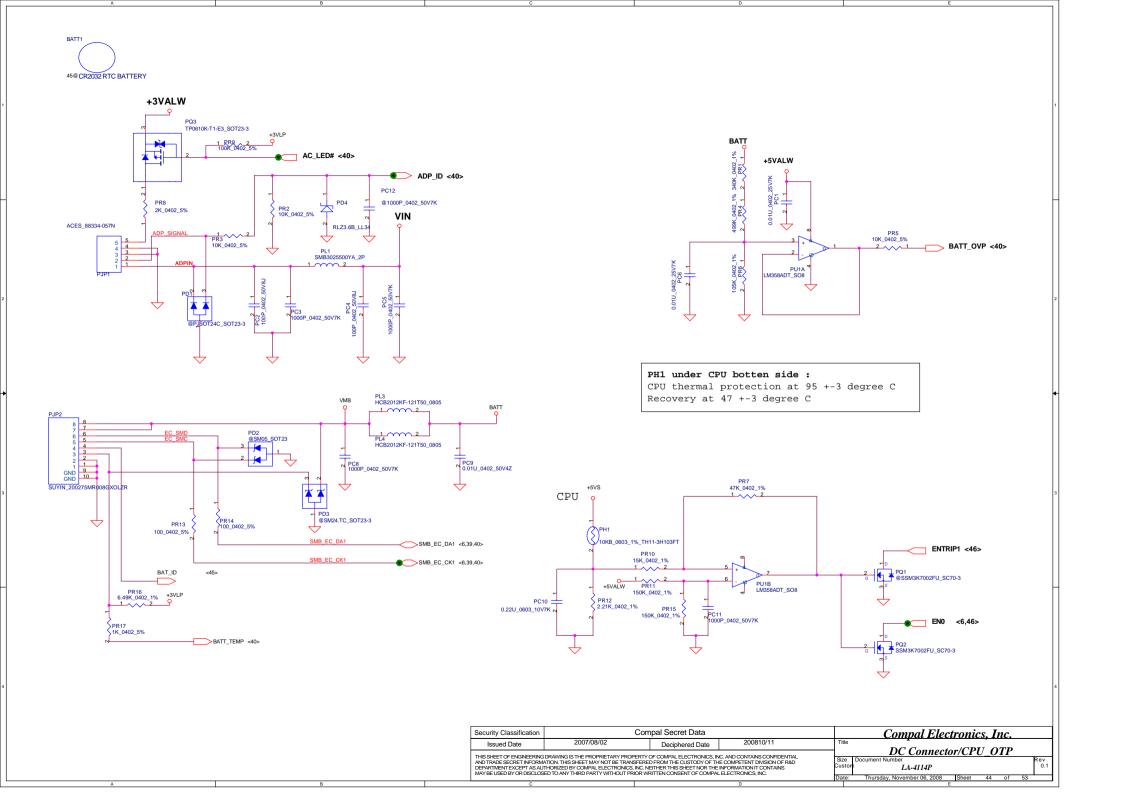
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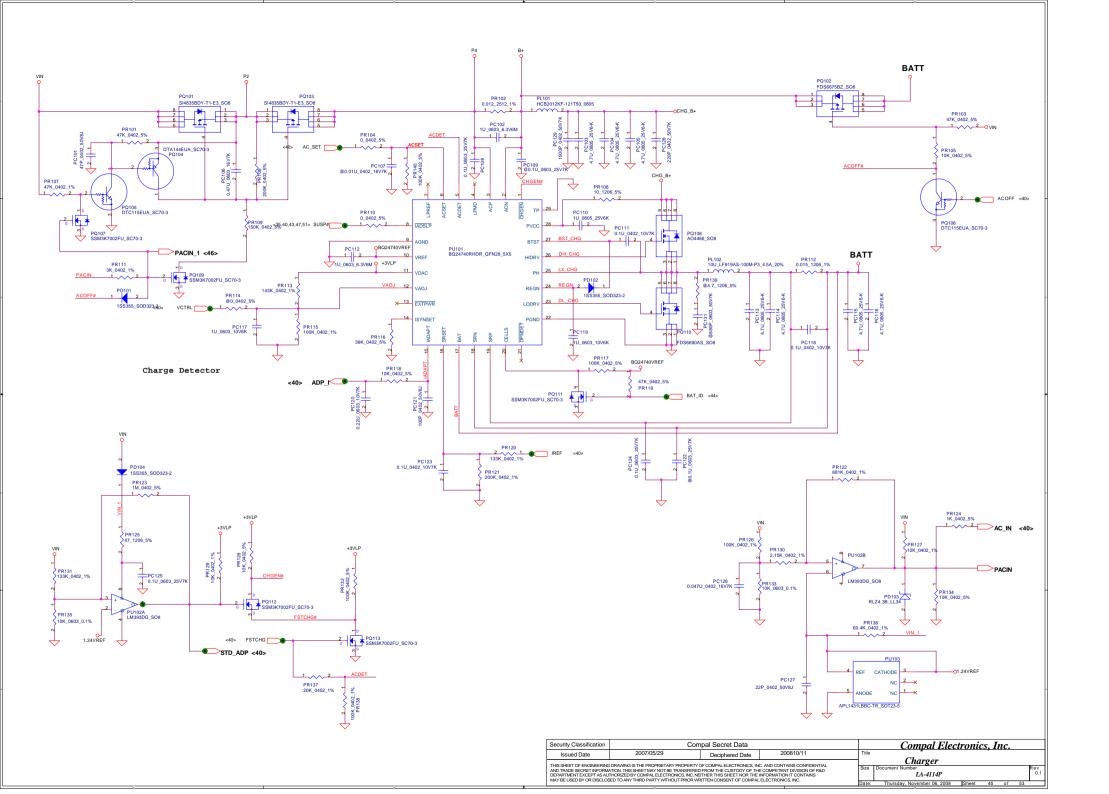


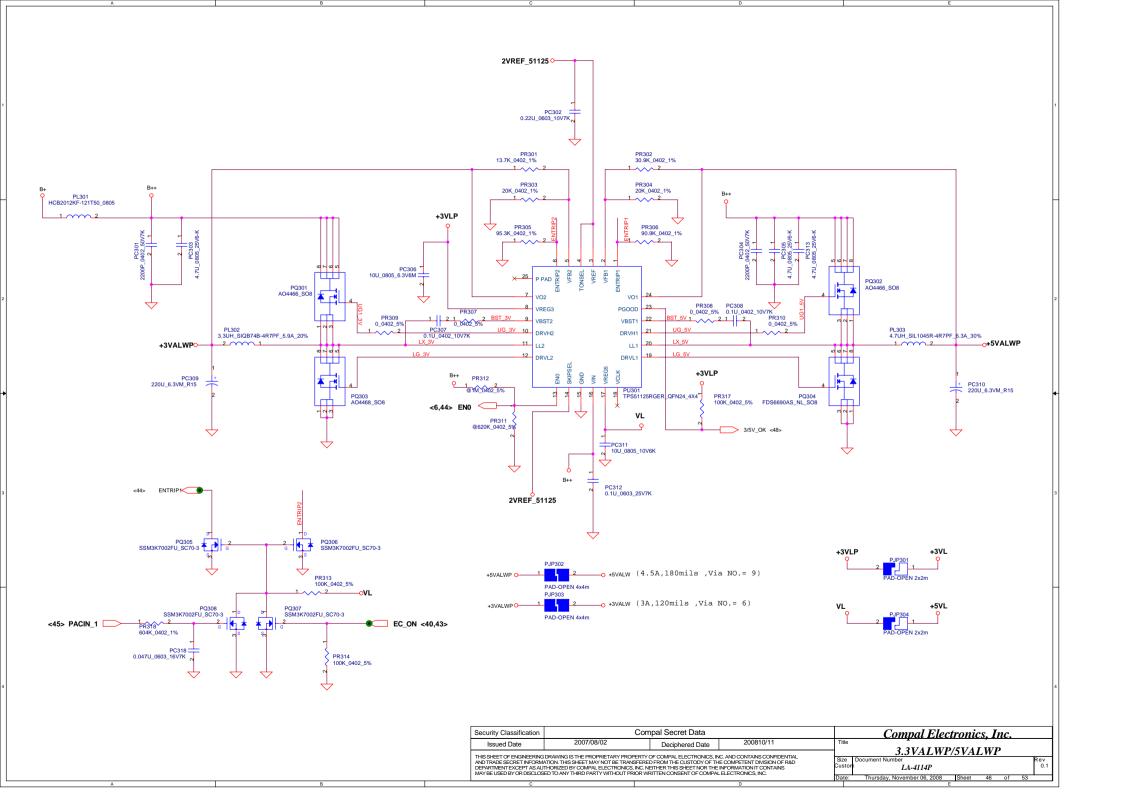


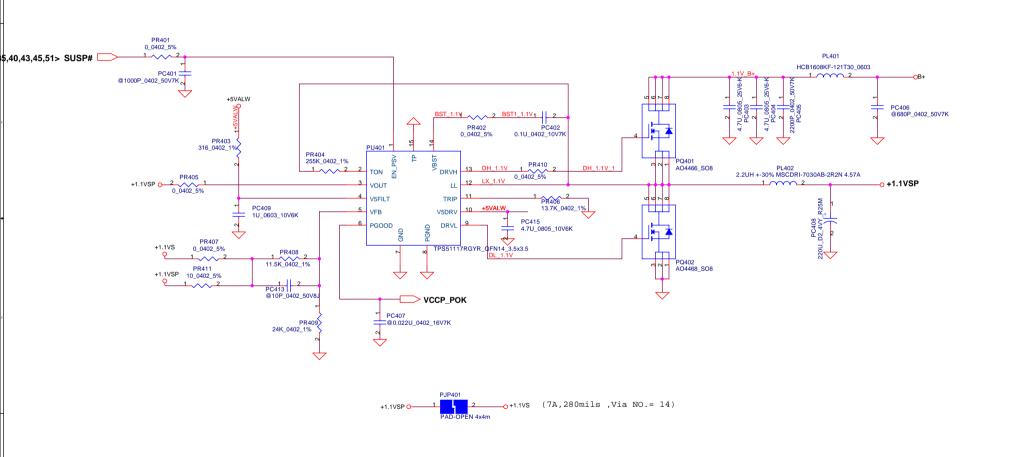


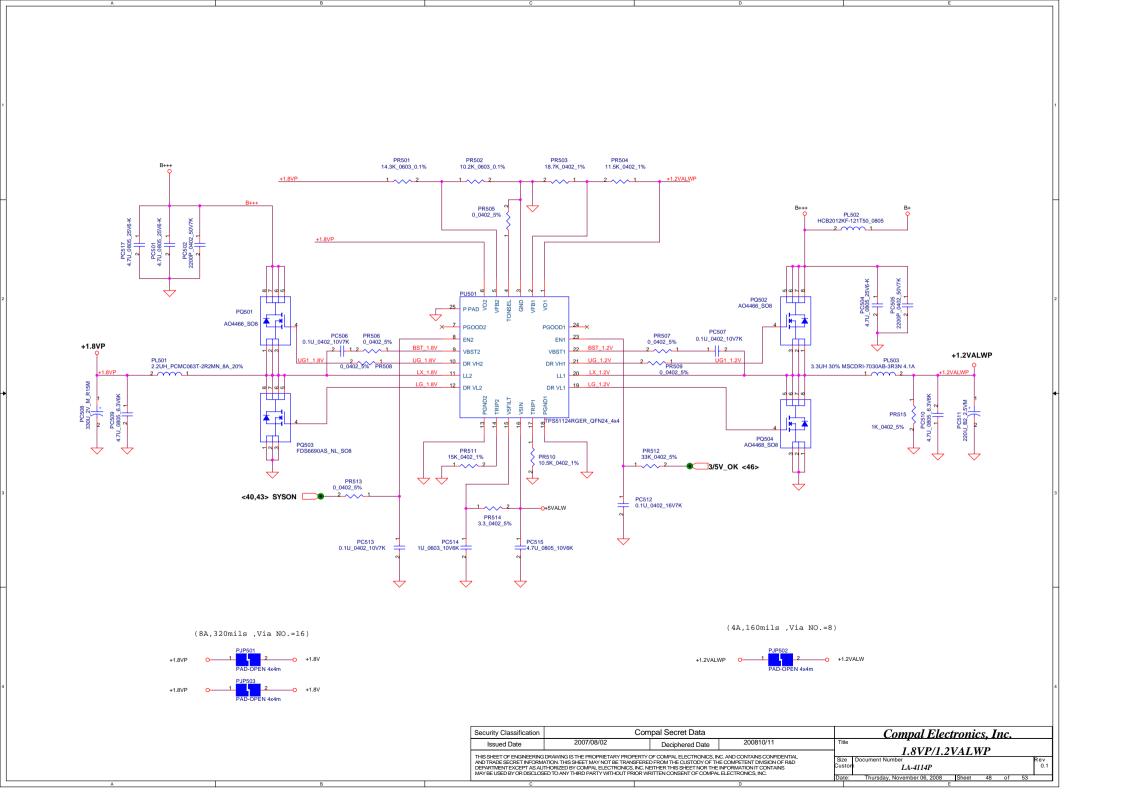


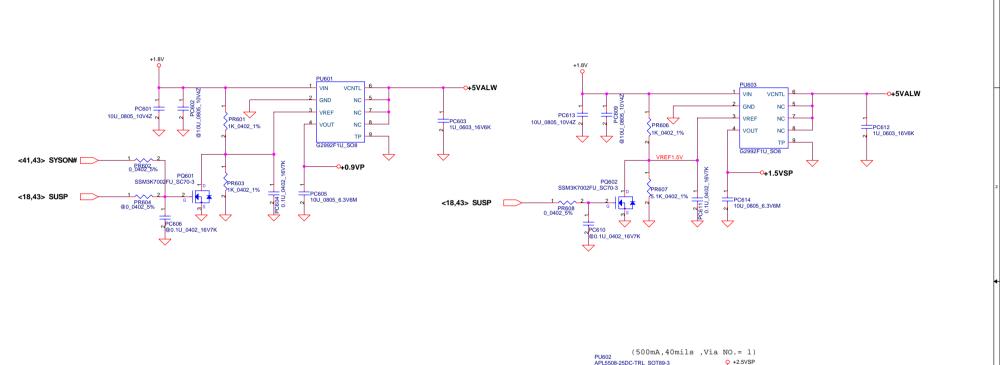




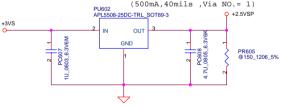










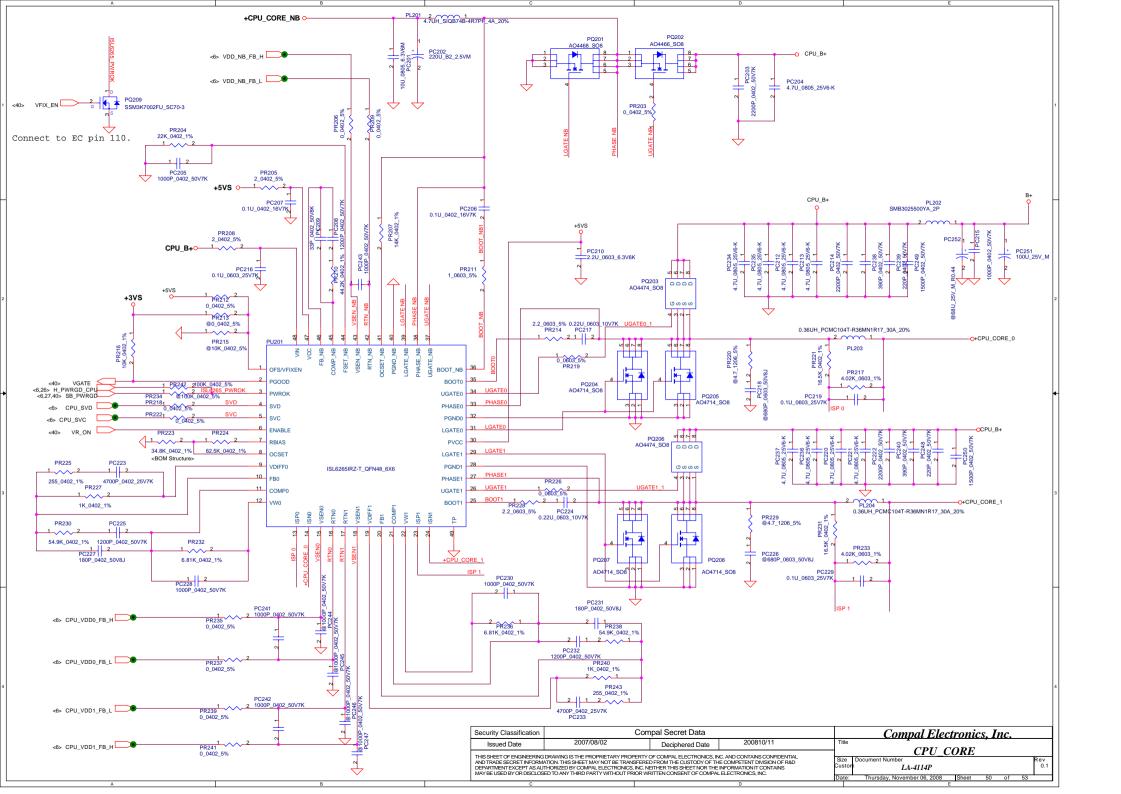


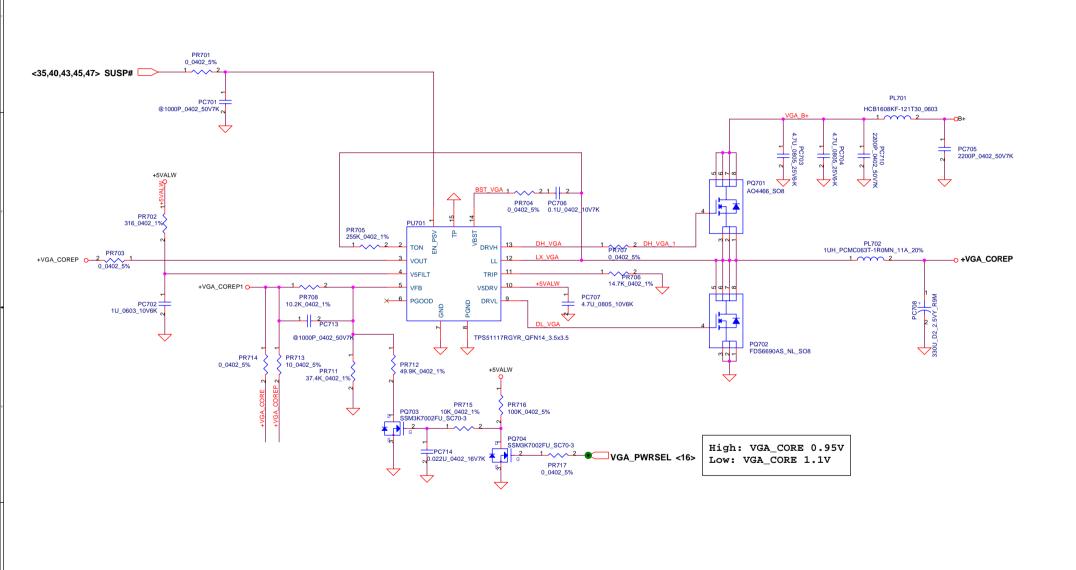
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LA-4112P Rev0.1 -> 0.2 Product Improvement Record (P.I.R.) BOM change list: Stuff R41(220 Ohm), R26(300 Ohm), R28(300 Ohm). (Page 6)-* AMD recommand. Stuff R1101(10K Ohm). (Page 21)-* Strenghen PCI-E swing to meet PCI-E spec. Un-Stuff R1061,R1062,R1064/Change R214,R211,R217 from 150 -> 75 Ohm/C858,C476,C472 from 22p -> 6pF/Chagne L47,L48,L49 type (Page 16/25) - * Tune CRT(R/G/B) rising & falling skew time to meet SPEC. Change C863 1000p -> 0.047uF. (Page 24)-* For LED Panel power up timing >0.5mSec. Change C643, C652 18p -> 12pF. (Page 26)-* Tune RTC 32K Caps to meet HP SVTP spec. Change R323 11.8K -> 11K Ohm. (Page 27)-* Tune the value to meet USB EE spec. Change R356 10K -> 2.2K Ohm. (Page 30)-* ATI recommand. Change C1040 10U -> 1UF. (Page 36)-* Reduce Power up "BOBO" noise. Change Keyboard connecter type. (Page 40) - * For ME request. Change Reed Switch Board connecter type. (Page 41) -* For ME request. 11. Un-stuff C9. (Page 4)-* Fixed Caps issue noise. 12. Change R371 10K -> 300 Ohm. (Page 10)-* ATI recommand. 13. Un-stuff L2,L4,L6,L9,L7/Stuff C170,C172,C175,C178,C176 0 Ohm. (Page 11)-* ATI RX781 changed recommand. 14. Un-stuff R1054/Stuff C252 0 Ohm. (Page 13)-* ATI RX781 changed recommand. 15. Un-stuff C250,C253. (Page 13)-* Follow 17" AMD circuit change. 16. Change C101,C102 1K->3K Ohm. (Page 14)-* ATI recommand. 17. Un-stuff R1067. (Page 16)-* Follow 17" AMD circuit circuit change. 18. Un-stuff R1155,R1157,R1159. (Page 28)-* Dont need to reserve it for UMA side port buffer strapping. Circuit change list: 1. Del Q6, Q5 (Page 10)-* Dont need to reserve it. Divide DPA_PDD & DPB_PVDD power. (Page 16)-* ATI recommand. 3. Del Q155 (Page 26)-* Dont need to reserve it. 4. Chagne PCICLK output source to LPCCLK1 output. (Page 26) -* Follow 17" AMD circuit change. 5. Add SSC circuit for AZ bus BIT CLK. (Page 27)-* EMI request. 6. Delete R1002,R1005. (Page 36)-* Dont need to reserve it for line out serial resistor from CODEC to AMP. 7. Modify JP20 speaker signals define. (Page 36)-* DB stage define error fix. 8. Chagne C802 position to +3VALW. (Page 38)-* DB stage +3VAUX_BT leakage fix. 9. Chagne U24 power source from +3VALW -> +3VL. (Page 39)-* Power souce need to be the same power source of SPI ROM. 10. Delete LPC debug port circuit. (Page 39)-* With BIOS discuss and delete it. 11. Add power requesting net "VFIX EN". (Page 40)-* Power request. 12. Change JP36 pin7 GND -> NC. (Page 41)-* Follow Riply pin define. 13. Swap D45 T/P LED. (Page 41)-* DB Stage LED behavior error fix. 14. Add a signal AC_LED# of EC pin97 & VFIX_EN of EC pin110.. (Page 40)-* Power request Compal Electronics, Inc. Security Classification Compal Secret Data 15. Change AC_IN pull high from +3VALW to +3VL_EC. 2007/10/11 200810/11 PIR (Page 40)-* Power request. THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPALE LECTRONICS, INC. AND CONTAINS CONFIDENTIAL This sheet of engineering drawing is the proprietable property of compatible transcribed. And can also contains confidential and trade secret information. This sheet may not be transfered from the custody of the competent division of rale department except as authorized by compatible 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

Version Change List (P. I. R. List) for Power Circuit

I tem	Page#	Title		Request Owner	Issue Description		Solution Description	Rev				
1	46	3.3VALWP/5VALWP		. Compal	PWR request		Add PU302, control signal changed to AC	OFF				
2	51	VGA_COREP	12/31	. Compal	PWR request		Connect the PR715 and PC714 to PQ703 pi	n1				
3	51	VGA_COREP	12/31	Compal	EMI request		Change PC705 to 2220pF					
4	50	CPU_CORE	12/31	Compal	EMI request		Add PC238, PC239, PC240, PC248					
5	50	CPU_CORE	12/31	. Compal	Vendor request		Change PR221 and PR231 to 16.6K_ohm Change PR217 and PR233 to 4.02K_ohm Change PR223 to 17.8K_ohm Change PR224 to 100K_ohm					
6	45	Charger	12/31	Compal	EMI request		add PC128					
7	45	Charger	01/04	Compal	PWR request		Change PQ102 to FDS6675BZ					
3	50	CPU_CORE	01/04	Compal	PWR request		Change PQ204, PQ205, PQ207, PQ208 to FDS Add PQ209 and PQ234 to fix CPU core volt					
)	44	DC Connector /CPU_OTP	01/09	Compal	AC LED change to KBC control		AC_LED connect to KBC pin 97					
LO	51	VGA_COREP	02/27	7 Compal	Change VGA low voltage to 0.95	J	Change PR712 to 49.9K_ohm and PR711 to 3	7.4K_ohm				
11	46	3.3VALWP/5VALWP	02/27	Compal	Change OTC shun down pin.		Change OTC shun down pin to PU301 pin13.					
12	50	CPU_CORE	03/03	Compal	EMI request		Add PC249, PC250					
13	45	Charger	03/03	Compal	EMI request		Add PC129					
14	50	CPU_CORE	03/03	Compal	HW request		Add H_PWRGD					
15	44	DC Connector /CPU_OTP	04/02	Compal	AC LED issue		Chaange AC_LED# pull high to +3VLP					
16	50	CPU_CORE	04/24	Compal	acoustic noise		Add PC251					
17	44	DC Connector /CPU_OTP	04/24	Compal	HW CPU thermal protection change to 95 +-3 degree C		Chaange PR12 to 2.21K_ohm					
						Security Classification	Compal Secret Data 2007/08/02 Decimpored Data 2008/08/02	Compal Electronics, Inc.				
						Issued Date	2001/08/02 Deciphered Date 2008/08/02 IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL	Power Changed-List History-				

LA-4112P Rev0.2 -> 0.3 Product Improvement Record (P.I.R.) Circuit change list: Un-Stuff C18, Q127, Q129, R175, R814, C939 and change SMBus 2 -> SMBus 1. (Page 6)-* Follow 17" AMD circuit change. Add signal H PWRGD CPU to option CPU core chip's PWR OK. (Page 6) -* Follow AMD recommand power up sequence change. Change signal name ENTRIP2 to ENO. (Page 6)-* For power team chagne request. Un-Stuff C54. (Page 7)-* Follow 17" AMD circuit change. AVDD1, AVDD2, AVDD1, AVDD0, .PLVDD, PLVDD18, VDDLTP18, VDDLT18 1, VDDLT18 2 directly conecct to GND. (Pagel1) -* For RX781 change recommand. VDD18 MEM1, VDD18 MEM 2 directly conecct to GND. (Page 13)-* For RX781 change recommand. Change Bead L16, L22 to 0 ohm and Delete L20, L21 than use jumper to link the power. (Page 13)-* Follow 17" AMD circuit change. Change R101, R102 3K -> 1K ohm. (Page 14)-* ATI recommand. Add VGA PWN to Panel. (Page 16/24)-* For panel power saving request. 10. Un-stuff R1101. (Page 21)-* For PCI-E EA request. 11. Add signal CLK 14M SIO. (Page 22) -* For debug port regust. 12. Stuff C447. (Page 23)-* EMI/ESD recommand. 13. Add +5VS power for webcam's LDO power option. (Page 24)-* Follow 17" AMD circuit change. 14. Change C863 0.047U -> 1000p. (Page 24)-* Fix panel power down waveform bounce. 15. Change Bead L61, L61 to 0 ohm. (Page 29)-* Follow 17" AMD circuit change. 16. Un-stuff R1148, C1271. (Page 32)-* Follow 17" AMD circuit change. 17. Modify JRJ45 layout footprint. (Page 32)-* For DFX request. 18. Add D58 ESD diode. (Page 32)-* EMI/ESD recommand. 19. Stuff R1043, Un-stuff R1042 (Page 33)-* Follow 17" AMD circuit change. 20. Add R399, R400 and un-stuff R122, R1051, Q53. (Page 34)-* Follow project common design. 21. Add C259, C260, C261 and stuff C746, C747,C748 and change C760, C761, C762, C763 100p -> 330p. (Page 35/36)-* EMI/ESD recommand. 22. Signal INTMIC DET directly connect to AGND and Delete Q160, Q151, R951. (Page 35/36)-* OPP dont need the detect circuit. 23. Add C258. (Page 38)-* EMI/ESD recommand. 24. ME change JP32 and change Q24's power +3VALW -> +3VS. (Page 38)-* Follow 17" AMD circuit change. 25. Add LPC debug port. (Page 39)-* For debug request. 26. Add D57, R397. (Page 40)-* Fix AC-IN chip power rail different issue 27. Delete Q34, R645. (Page 41)-* Follow 17" AMD circuit change. 28. Add C262, C263. (Page 41)-* For Small/B design change. 29. Chagne C1175 type B2 ->Y. (Page 18)-* For fixed ME issue. 30. Add C264. (Page 22)-* For IDT request. 31. Add L85, L86, L87, L88. (Page 22)-* For EMI/ESD recommand. Security Classification Compal Electronics, Inc. Compal Secret Data 2007/10/11 200810/11 Issued Date Deciphered Date THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPALELECTRONICS, INC. AND CONTAINS CONFIDENTIAL This sheet of engineering drawing is the proprietable property of compatible transcribed. And can also contains confidential and trade secret information. This sheet may not be transfered from the custody of the competent division of rale department except as authorized by compatible 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

LA-4112P Rev0.3 -> 1.0 Product Improvement Record (P.I.R.)

- 1. Reserve R59, R60, R61. (Page 6)-* AMD suggest to reserve the pull high/down resistor of these test pin.
- 2. Add C477 0.1UF. (Page 23)-* For EMI recommand.
- 3. Change R906 from 0 ohm to 1k ohm. (Page 36)-* For reduce MIC background noise issue.
- 4. Change SMB DA1/CK1 pull high power rail from +3VALW to +3VL. (Page 40)-* EC recommand & follow Riply change list.
- 5. Add C819 0.1UF & D31 ESD diode. (Page 41)-* For EMI recommand.
- 6. Add R414 & R415 0 ohm. (Page 43)-* no support DIM function.
- 8. Add R140 & R234 750k ohm. (Page 43)-* Solve Rds on issue.

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				Date:	Thursday, November 06, 2008 Sheet 55 of	55	