

Compal Confidential

PEW76/86/96 M/B Schematics Document

AMD Danube Only UMA

AMD Champlain Processor with RS880M/SB820M

2010-07-20

LA6552P REV: 1.0

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	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 THE DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Cover Page	
				Document Number	Rev
				PEW/76/86/96 LA-6552P	B
Date: Thursday, July 22, 2010				Sheet	1 of 45

Compal Confidential

Model Name : PEW96

File Name : LA-6552P

P/N : DA60000IM10

PCB



LA-6552P MB Rev0: DA60000IM00
LA-6552P MB Rev1: DA60000IM10
LA-6552P MB Rev1: DAZ0FQ00200

Danube

AMD S1G4 Processor
uPGA-638 Package
Champlain page 6,7,8,9

Memory BUS(DDR3)
Dual Channel
1.5V DDRIII 1066~1333MHz

204pin DDRIII-SO-DIMM X2
BANK 0, 1, 2, 3 page 10,11

Hyper Transport Link
16 x 16

ATI RS880M
uFCBGA-528
page 12,13,14

A link Express2
Gen1

ATI SB820M
uFCBGA-605
page 18,19,20,21,22

Thermal Sensor
ADM1032
page 8

USB
conn
X 3
USB port 0,1,2

CMOS
Camera
USB port 5

Bluetooth
Conn
<Option>
USB port 7

Mini
card
(WL)X1
USB port 8

Card
Reader
RTS5137
USB port 6

3.3V 48MHz

3.3V 24.576MHz/48MHz

HD Audio

S-ATA Gen2

SATA HDD
Conn.
page 23
port 0

SATA ODD
FFC Conn.
page 23
port 1

HDA Codec
ALC272X
page 30

Audio AMP
page 31

Phone Jack x2
page 31

LPC BUS

ENE KB926
page 28

Touch Pad
page 29

Int.KBD
page 29

EC I/O Buffer
page 29

BIOS
page 29

LVDS
page 15

CRT
page 17

HDMI Conn.
page 16

MINI Card 1
WLAN
page 26
GPP1

LAN(GbE)
Broadcom
BCM57780
page 24
GPP0

RJ45
page 25

LED
page 29

Fan Control
page 32

RTC CKT.
page 18

LID SW / MEDIA/B
page 28

Power On/Off CKT.
page 32

DC/DC Interface CKT.
page 33

Power Circuit
page 34,35,36,37,38
39,40,41,42

Extend Card/B
1. USB X2
2. ODD X1

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev B
				PEW/76/86/96 LA-6552P	
				Date: Thursday, July 22, 2010	Sheet 2 of 45

Power Plane	Description	S1	S3	S5
VIN	Adapter power supply (19V)	N/A	N/A	N/A
B+	AC or battery power rail for power circuit.	N/A	N/A	N/A
+CPU_CORE	Core voltage for CPU (1.375-1.5V)	ON	OFF	OFF
+CPU_CORE_NB	Voltage for On-die Northbridge of CPU(0.8-1.1V)	ON	OFF	OFF
+CPU_VDDR	1.05V switched power rail	ON	OFF	OFF
+0.75V	0.75V switched power rail for DDR terminator	ON	ON	OFF
+1.1VS	1.1V switched power rail for NB VDDC & VGA	ON	OFF	OFF
+1.5V	1.5V power rail for CPU VDDIO and DDR	ON	ON	OFF
+1.5VS	1.5V power rail for MINI Card	ON	OFF	OFF
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+2.5VS	2.5V for CPU_VDDA	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3VS	3.3V switched power rail	ON	OFF	OFF
+3V_LAN	3.3V power rail for LAN	ON	ON	ON
+5VALW	5V always on power rail	ON	ON	ON*
+5VS	5V switched power rail	ON	OFF	OFF
+VSB	VSB always on power rail	ON	ON	ON*
+RTCVCC	RTC power	ON	ON	ON

External PCI Devices

EC SM Bus1 address

EC SM Bus2 address

SB820
SM Bus 0 address

SB820
SM Bus 1 address

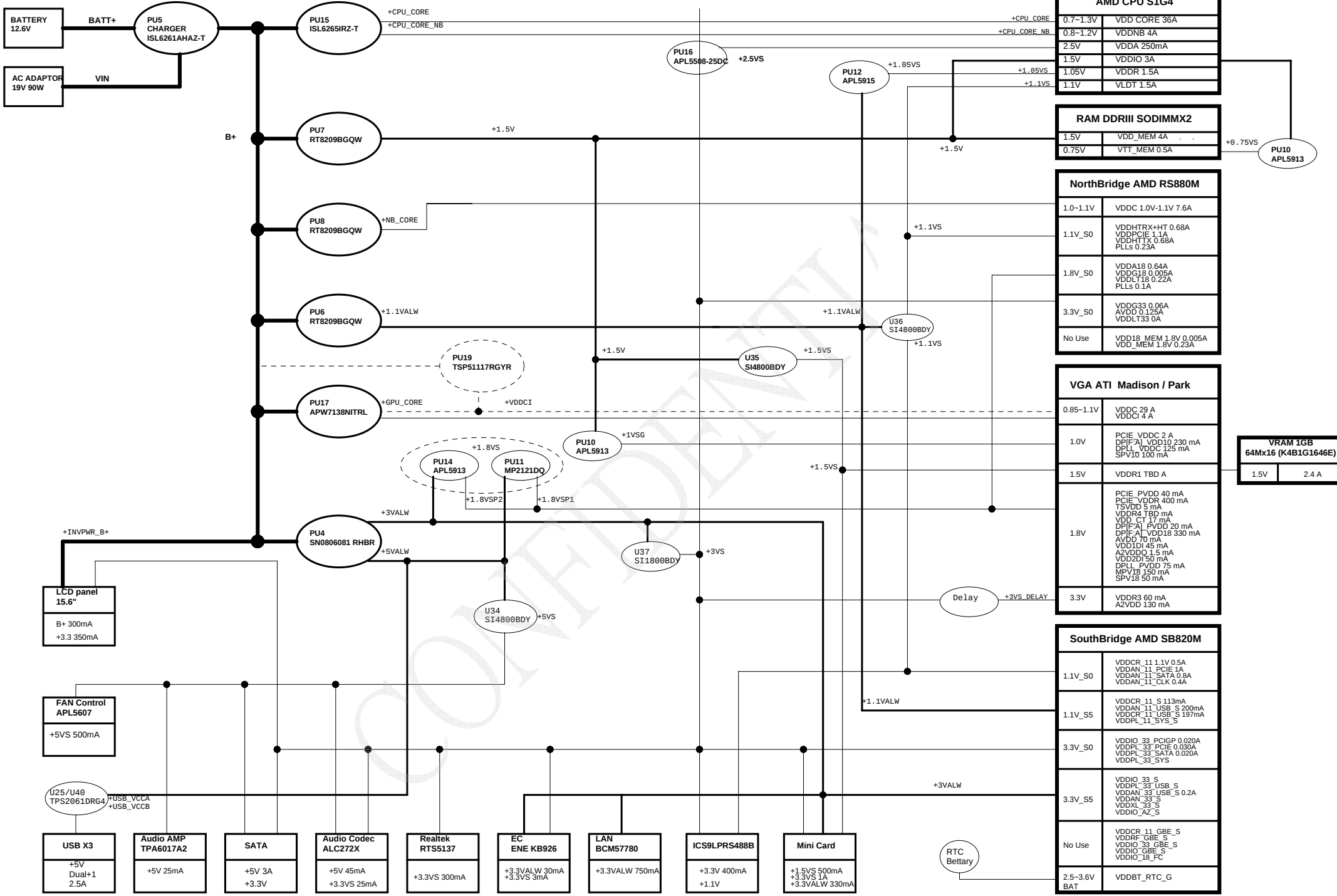
STATE \ SIGNAL	SLP_S1#	SLP_S3#	SLP_S4#	SLP_S5#	+VALW	+V	+VS	Clock
FuLL ON	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	ON
S1(Power On Suspend)	LOW	HIGH	HIGH	HIGH	ON	ON	ON	LOW
S3 (Suspend to RAM)	LOW	LOW	HIGH	HIGH	ON	ON	OFF	OFF
S4 (Suspend to Disk)	LOW	LOW	LOW	HIGH	ON	OFF	OFF	OFF
S5 (Soft OFF)	LOW	LOW	LOW	LOW	ON	OFF	OFF	OFF

Vcc	3.3V +/- 5%			
Ra/Rc/Re	100K +/- 5%			
Board ID	Rb / Rd / Rf	V_{AD_BID} min	V_{AD_BID} typ	V_{AD_BID} max
0	0	0 V	0 V	0 V
1	8.2K +/- 5%	0.216 V	0.250 V	0.289 V
2	18K +/- 5%	0.436 V	0.503 V	0.538 V
3	33K +/- 5%	0.712 V	0.819 V	0.875 V
4	56K +/- 5%	1.036 V	1.185 V	1.264 V
5	100K +/- 5%	1.453 V	1.650 V	1.759 V
6	200K +/- 5%	1.935 V	2.200 V	2.341 V
7	NC	2.500 V	3.300 V	3.300 V

Board ID	PCB Revision
0	<i>EVT / PVT stage (w/ pach code)</i>
1	
2	
3	
4	
5	
6	
7	

Board ID	PCB Revision
0	
1	PEW76/86/96
2	
3	
4	
5	
6	
7	

[illegible]



AMD CPU S1G4	
0.7-1.3V	VDD CORE 36A
0.8-1.2V	VDDNB 4A
2.5V	VDDA 250mA
1.5V	VDDIO 3A
1.05V	VDDR 1.5A
1.1V	VLDI 1.5A

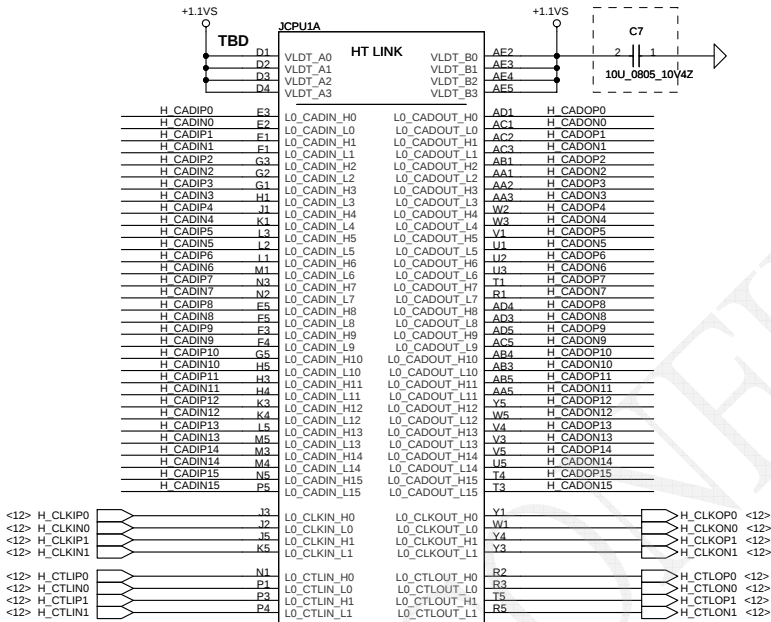
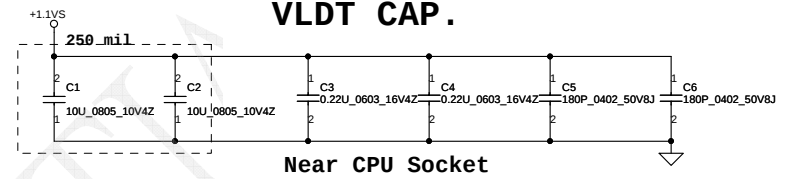
RAM DDRIII SODIMMX2	
1.5V	VDD_MEM 4A
0.75V	VTT_MEM 0.5A

NorthBridge AMD RS880M	
1.0-1.1V	VDDC 1.0V-1.1V 7.6A
1.1V_S0	VDDHTRX+HT 0.68A VDDPOIE 1.1A VDDHTTX 0.68A PLLs 0.23A
1.8V_S0	VDDA18 0.64A VDDG18 0.005A VDDL18 0.22A PLLs 0.1A
3.3V_S0	VDDG33 0.06A AVDD 0.125A VDDL33 0A
No Use	VDD18_MEM 1.8V 0.005A VDD_MEM 1.8V 0.23A

VGA ATI Madison / Park	
0.85-1.1V	VDDC 29 A VDDCI 4 A
1.0V	PCIE_VDDC 2 A DP1A1_VDD10 230 mA DPLL_VDDC 125 mA SPV10 100 mA
1.5V	VDDR1 TBD A
1.8V	PCIE_PVDD 40 mA PCIE_VDDR 400 mA TSVDD 5 mA VDDR4 TBD mA VDD_CT 17 mA DP1A1_PVDD 20 mA DP1A1_VDD18 330 mA AVDD 70 mA VDD1D1 45 mA AZVDDQ 1.5 mA VDD2D1 50 mA DPLL_PVDD 75 mA MPV18 150 mA SPV18 50 mA
3.3V	VDDR3 60 mA AZVDD 130 mA

SouthBridge AMD SB820M	
1.1V_S0	VDDCR_11_S 1.1V 0.5A VDDAN_11_PCIE 1A VDDAN_11_SATA 0.8A VDDAN_11_CLK 0.4A
1.1V_S5	VDDCR_11_S 113mA VDDAN_11_USB_S 200mA VDDCR_11_USB_S 197mA VDDPL_11_SYS_S
3.3V_S0	VDDIO_33_PCIGP 0.020A VDDPL_33_PCIE 0.030A VDDPL_33_SATA 0.020A VDDPL_33_SYS
3.3V_S5	VDDIO_33_S VDDPL_33_USB_S VDDAN_33_USB_S 0.2A VDDAN_33_S VDDXL_33_S VDDIO_AZ_S
No Use	VDDCR_11_GBE_S VDDRF_GBE_S VDDIO_33_GBE_S VDDIO_GBE_S VDDIO_18_FC
2.5-3.6V BAT	VDDBT_RTC_G

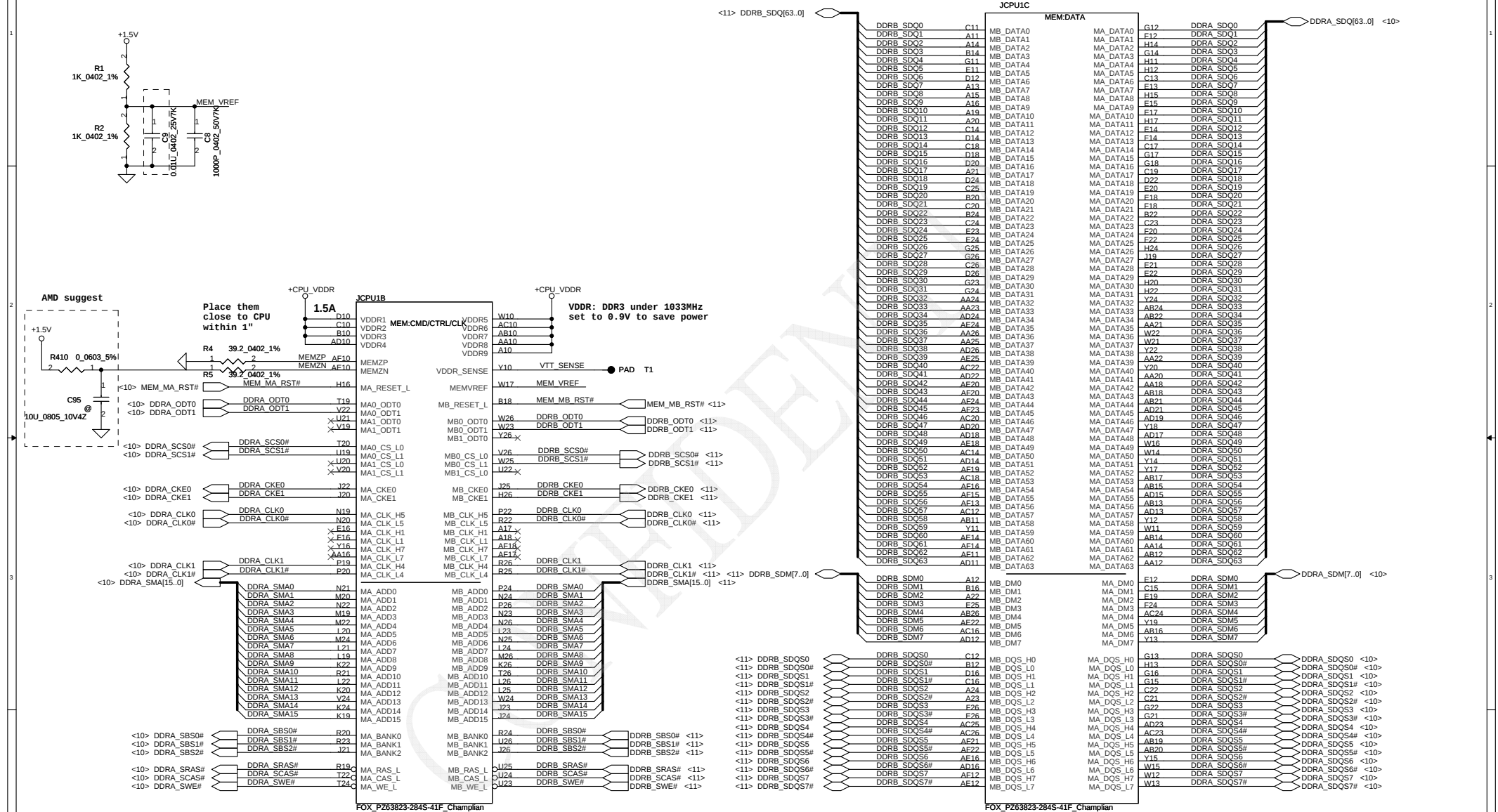
VRAM 1GB 64Mx16 (K4B1G1646E) * 8	
1.5V	2.4 A



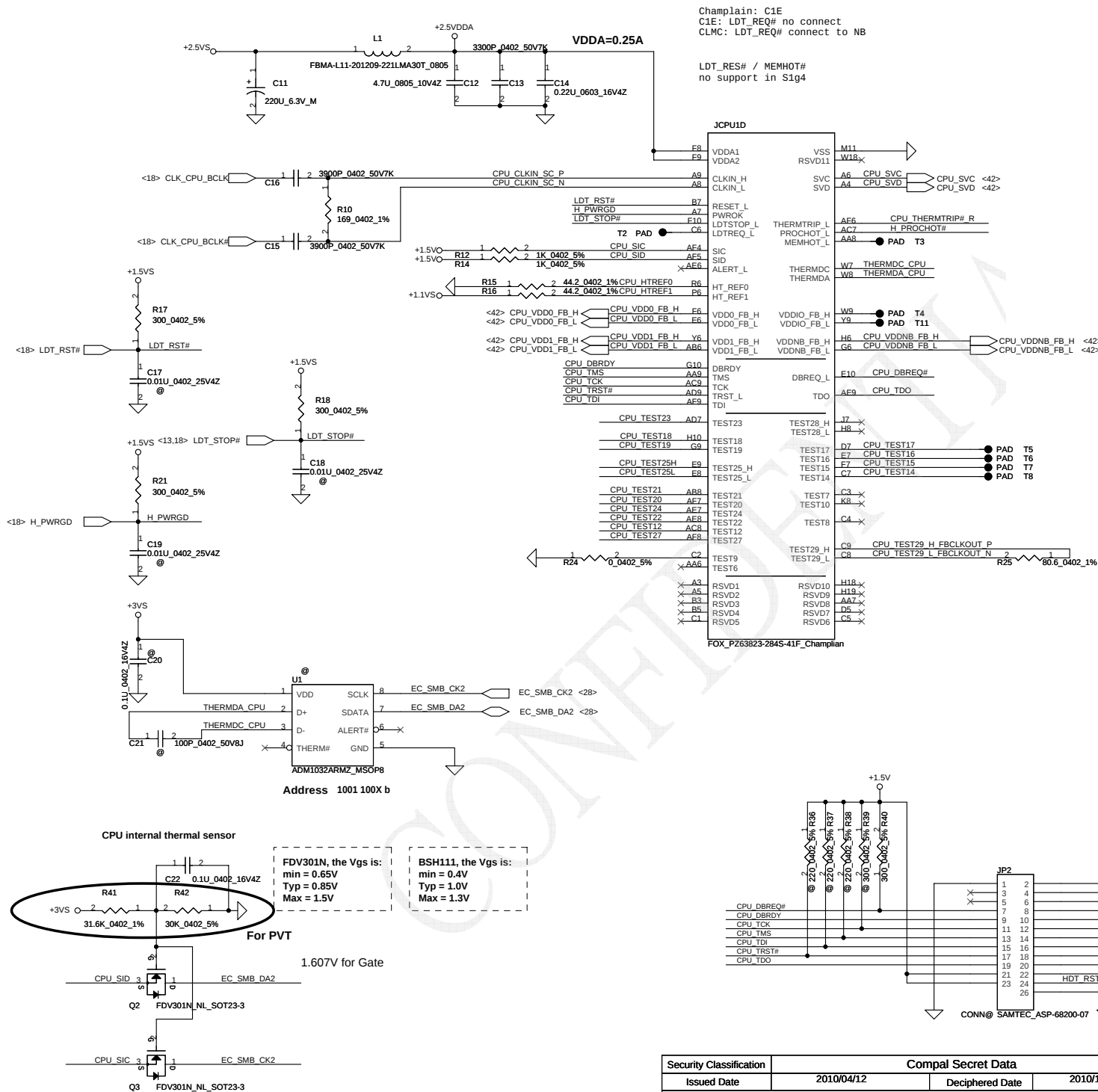
FOX_P263823-284S-41F_Champian

Security Classification				Compal Secret Data				Compal Electronics, Inc.			
Issued Date				2010/04/12				Title			
				Deciphered Date				AMD CPU S1G4 HT I/F			
				2010/10/12				Document Number			
								PEW/76/86/96 LA-6552P			
								Date: Thursday, July 22, 2010			
								Sheet 6 of 45			
								Rev B			

Processor DDR3 Memory Interface

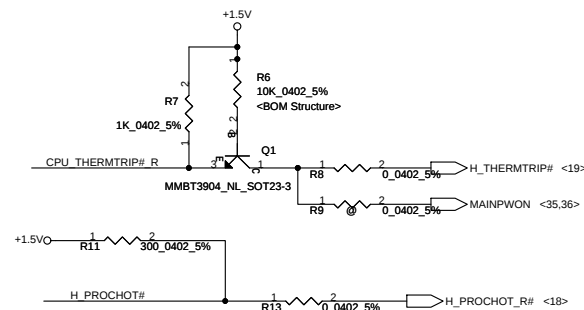


Security Classification		Compal Secret Data		Compal Electronics, Inc.			
Issued Date		2010/04/12		Deciphered Date		2010/10/12	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Title		AMD CPU S1G4 DDRIII I/F	
				Document Number		PEW/76/86/96 LA-6552P	
Date: Thursday, July 22, 2010				Sheet 7 of 45			

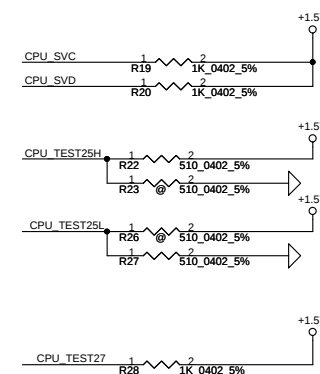


Champlain: C1E
C1E: LDT_REQ# no connect
CLMC: LDT_REQ# connect to NB

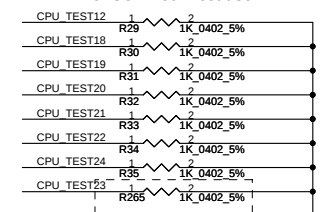
LDT_RES# / MEMHOT#
no support in Sig4



PROCHOT:
Input: For HTC Function
Output: Over Temperature Condition

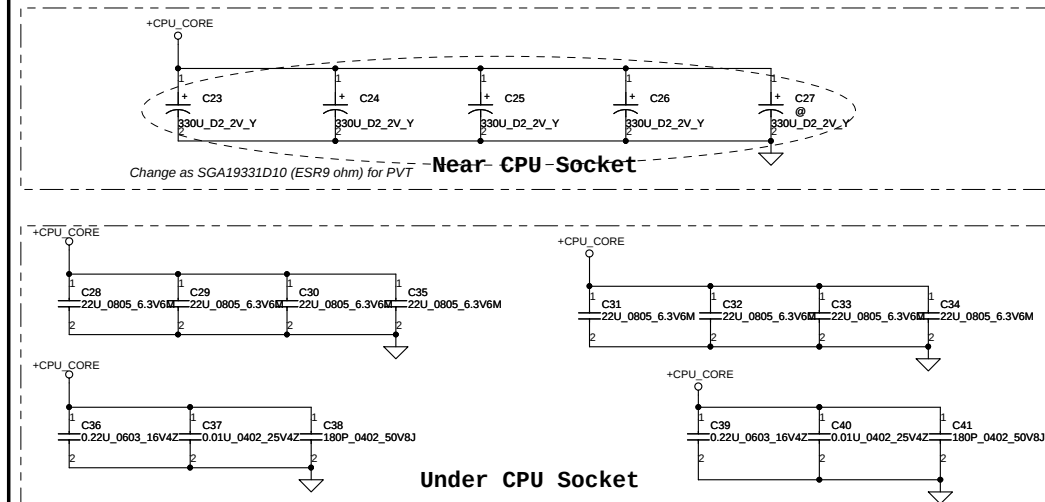


For SCAN connect use

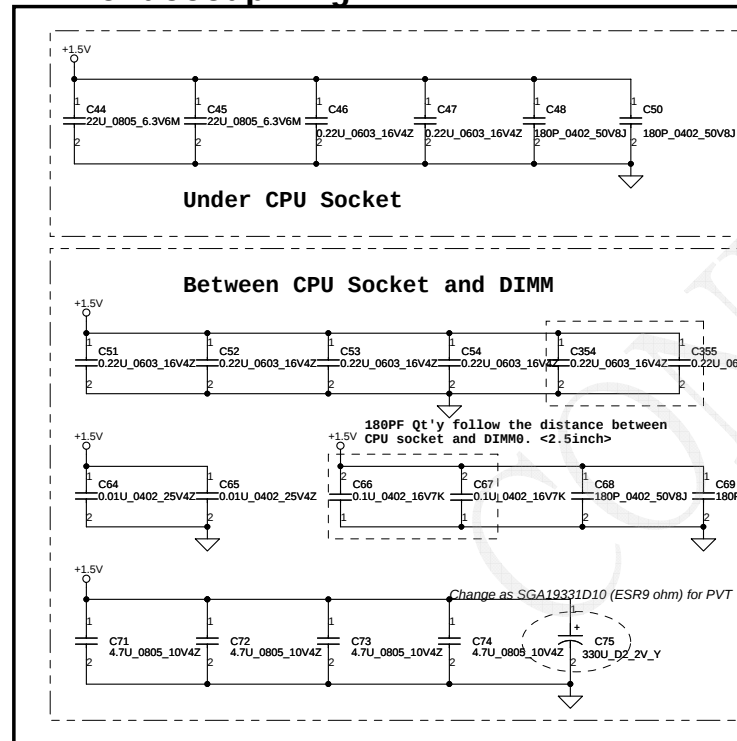


Security Classification		Compal Secret Data				Compal Electronics, Inc.			
Issued Date		2010/04/12		Deciphered Date		2010/10/12		Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.						AMD CPU S1G4 CTRL			
						Document Number		Rev B	
						PEW/76/86/96 LA-6552P			
						Date		Sheet 8 of 45	
		Thursday, July 22, 2010							

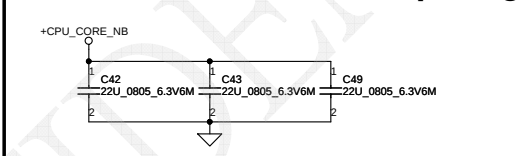
VDD(+CPU_CORE) decoupling.



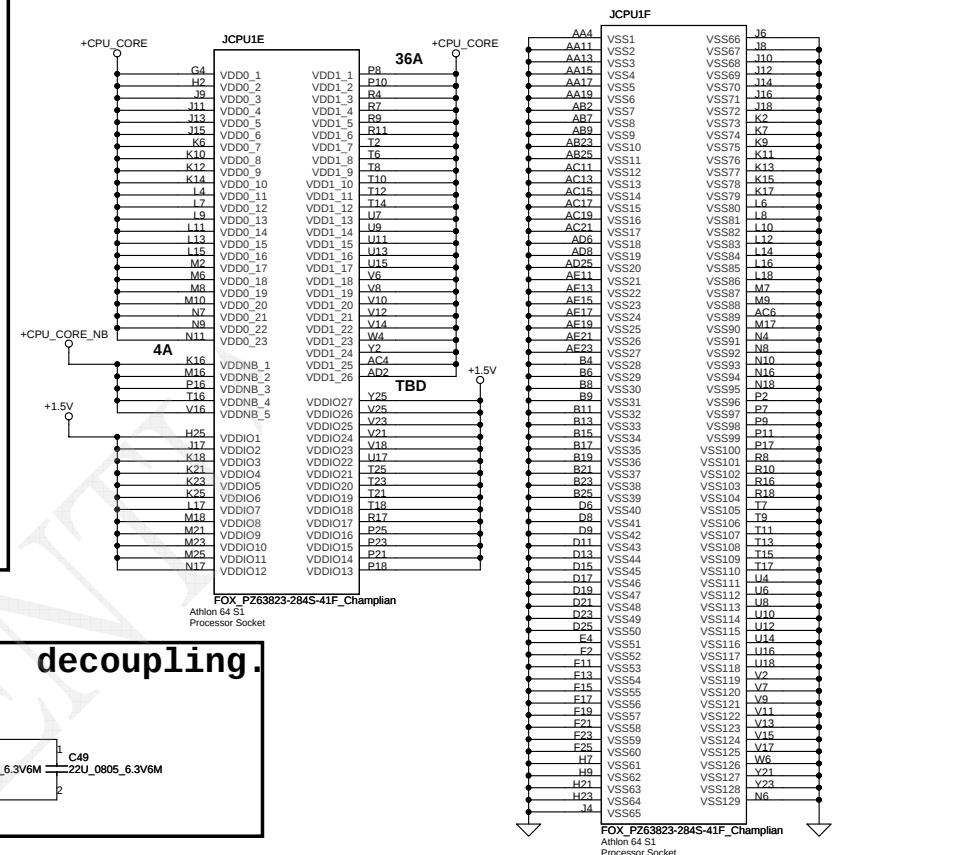
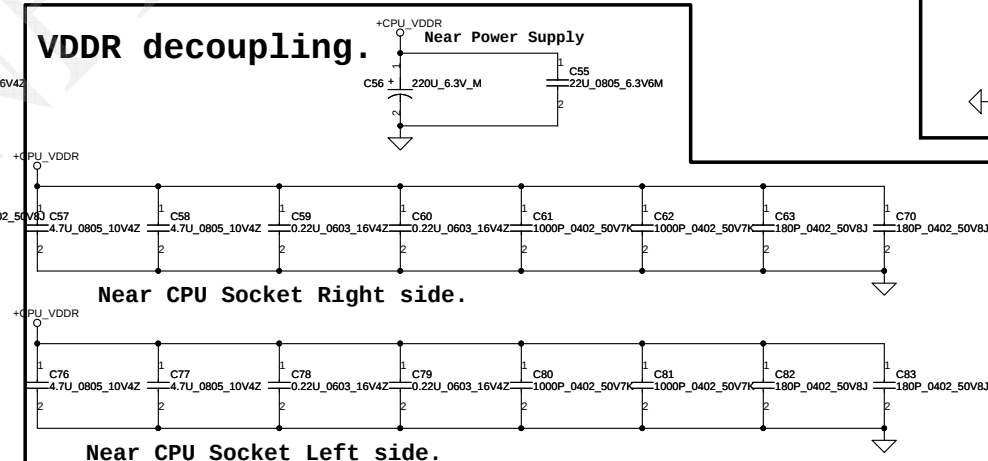
VDDIO decoupling.

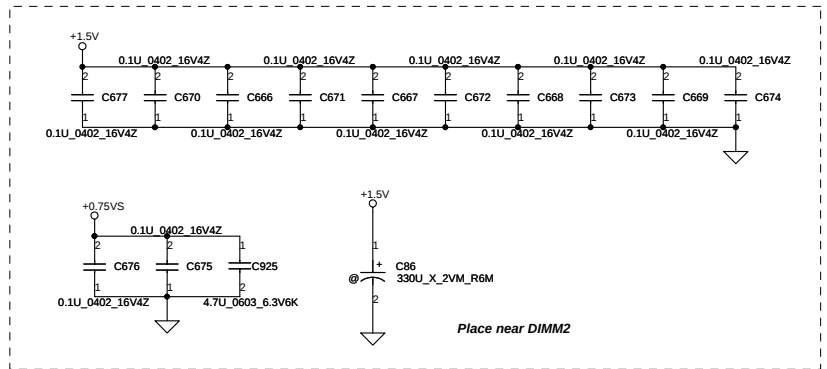
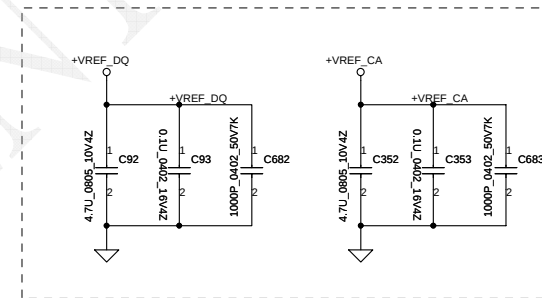
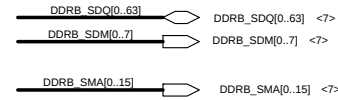
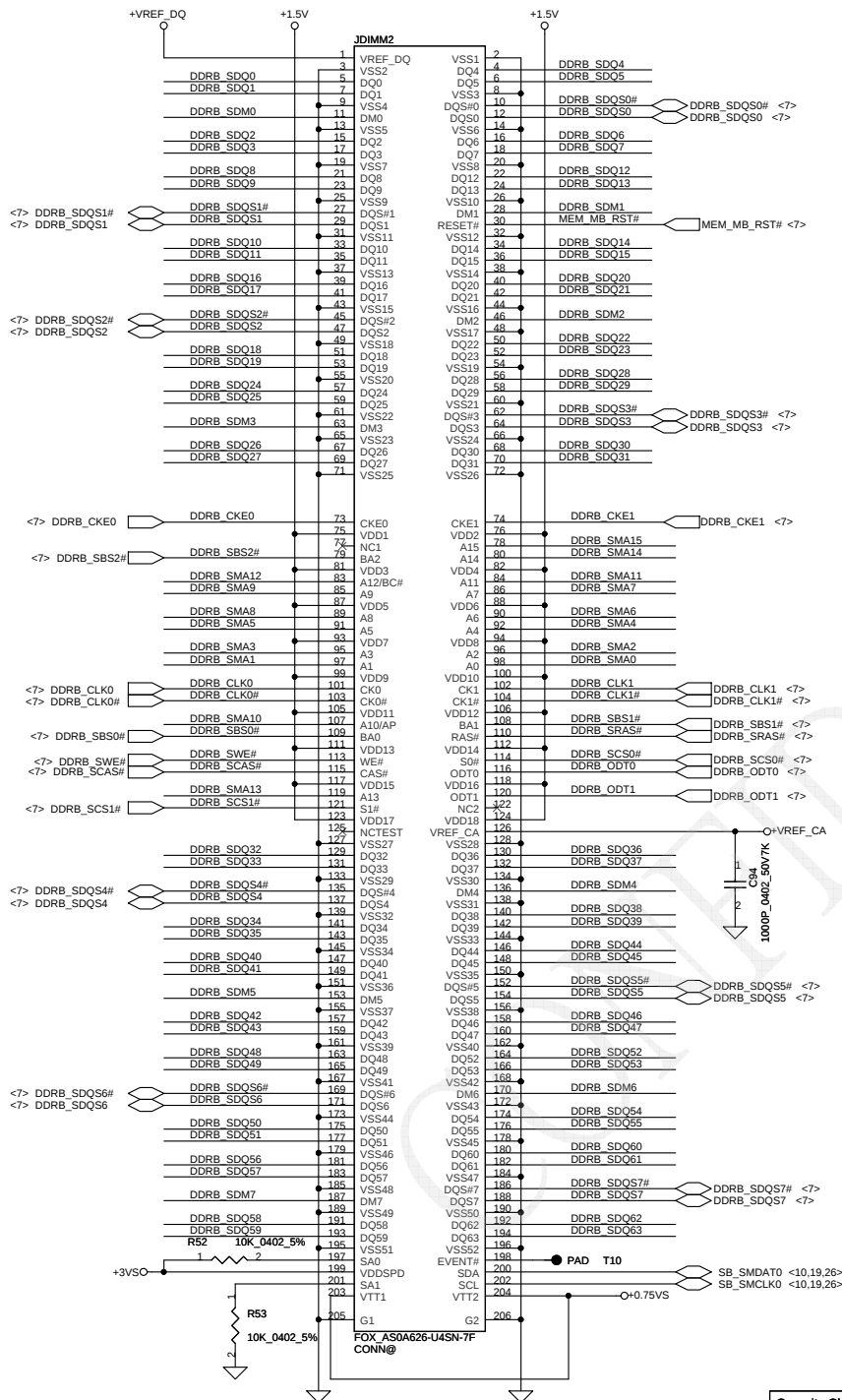


+CPU_CORE_NB decoupling.



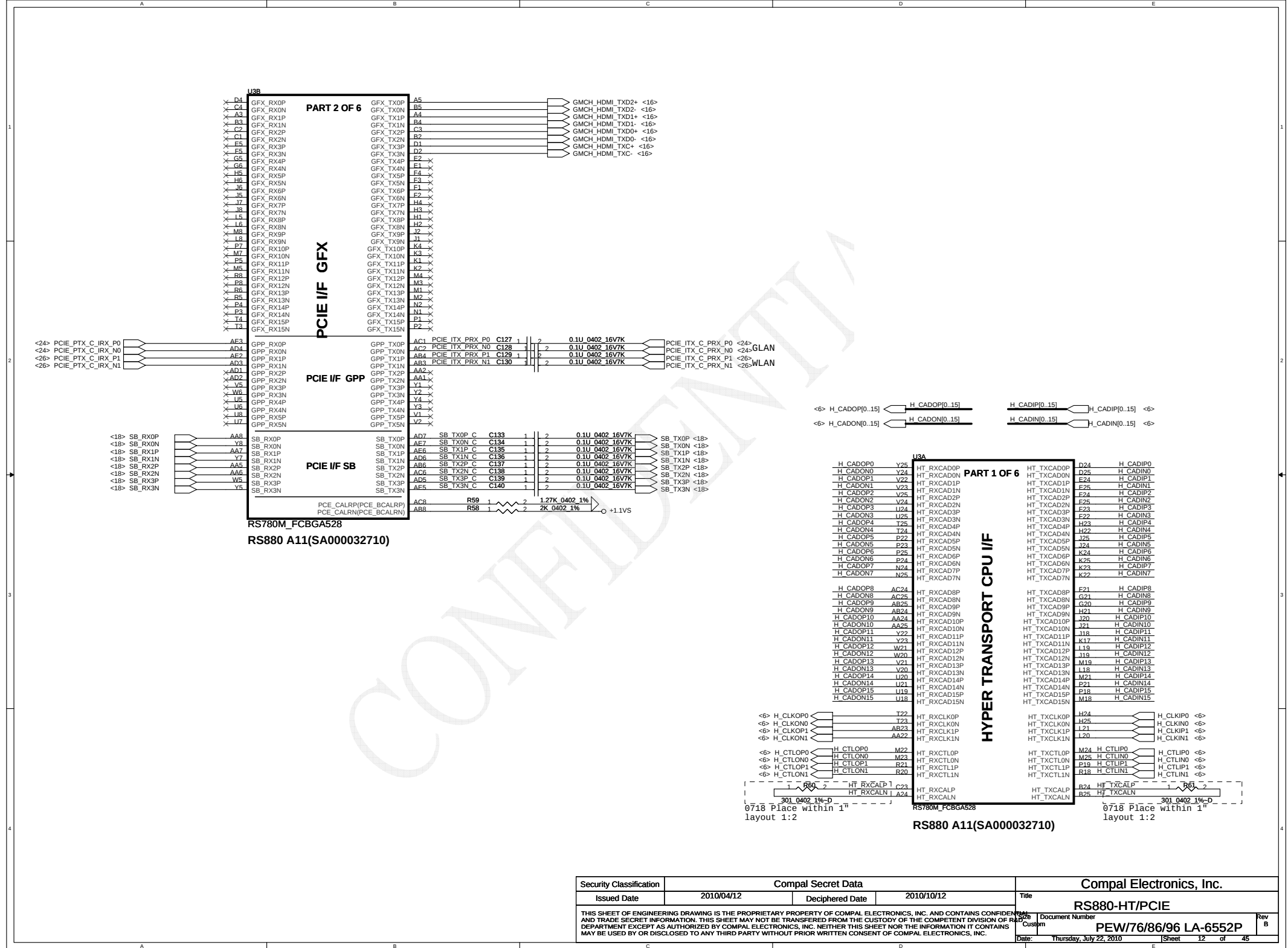
VDDR decoupling.



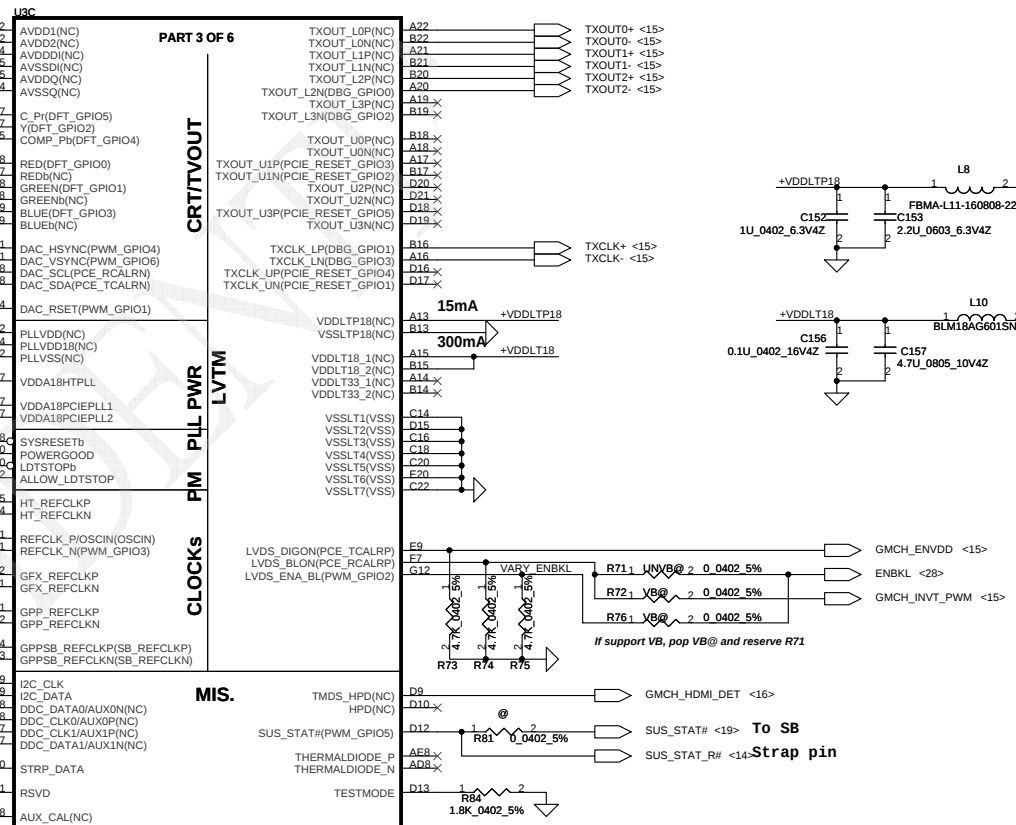
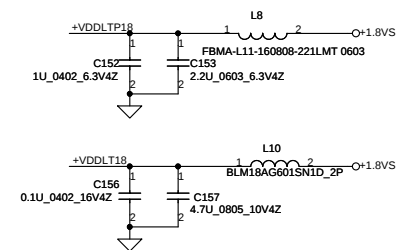
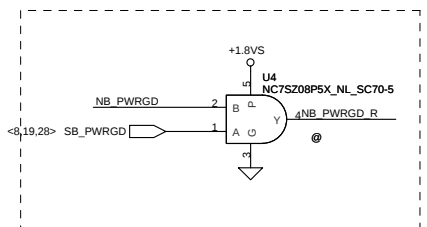
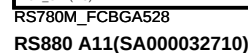
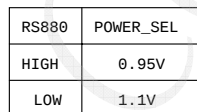
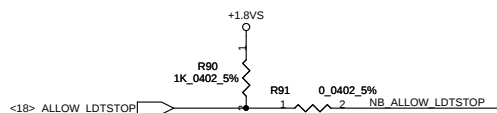
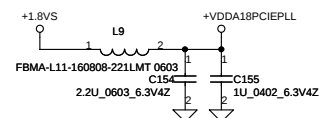


DIMM_B STD H:4mm
<Address: 01>

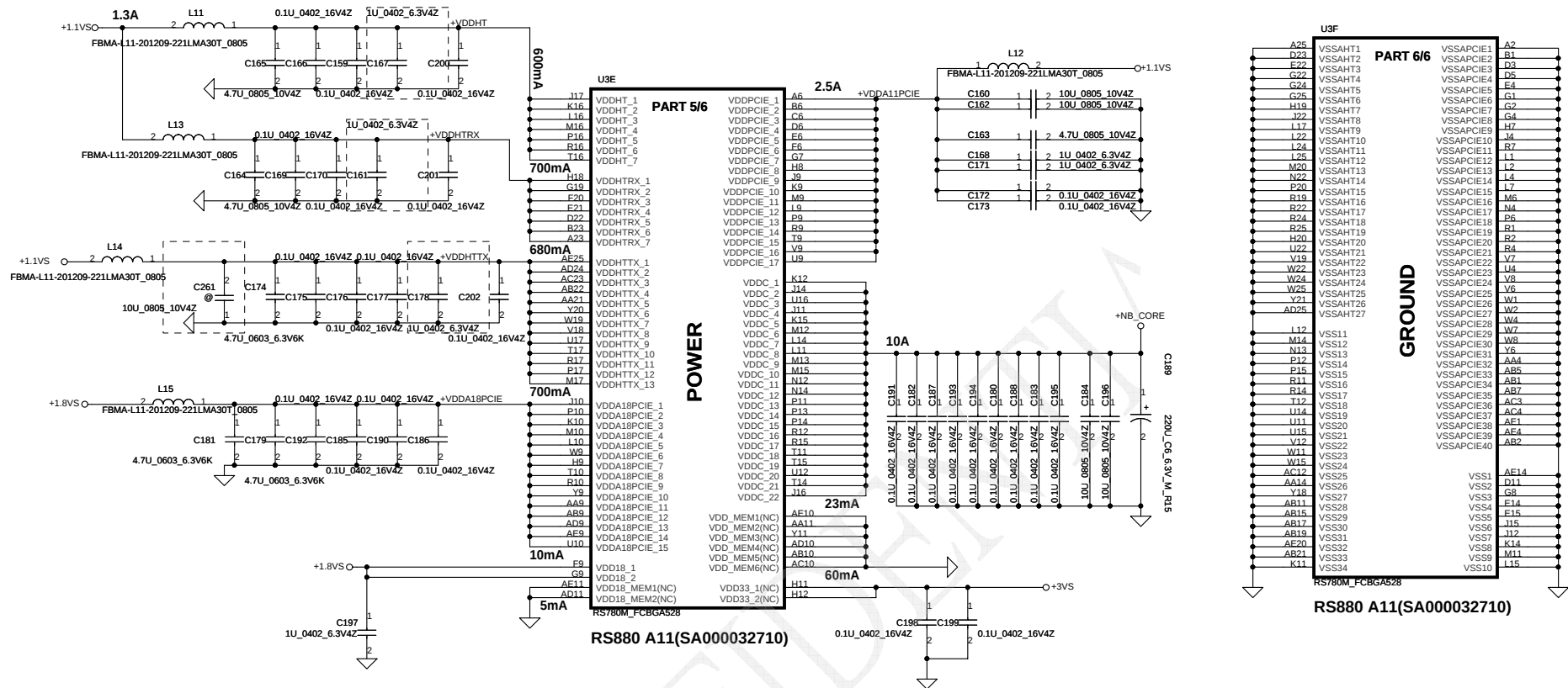
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	DDRIII SO-DIMM 2
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	PEW/76/86/96 LA-6552P
				Date	Thursday, July 22, 2010
				Sheet	11 of 45



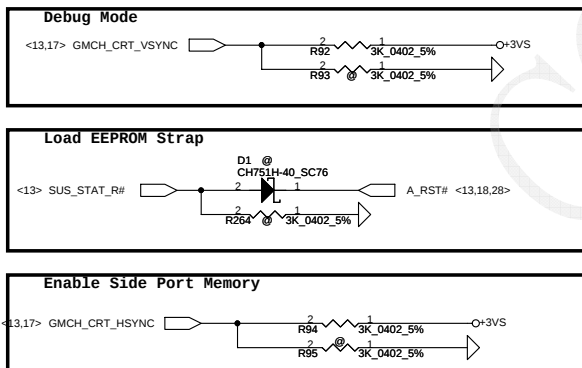
Security Classification		Compal Secret Data		Compal Electronics, Inc.			
Issued Date		2010/04/12		Deciphered Date		2010/10/12	
Title		RS880-HT/PCIE		Doc Number		PEW/76/86/96 LA-6552P	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev B			
Date: Thursday, July 22, 2010		Sheet 12 of 45					



Security Classification	Compal Secret Data			Compal Electronics, Inc.			
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	RS880 VEDIO/CLK GEN		
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.				Doc Number	PEW/76/86/96 LA-6552P		Rev B
				Date:	Thursday, July 22, 2010	Sheet	13 of 45



Side port and Strap setting



DFT_GPIO5:STRAP_DEBUG_BUS_GPIO_ENABLEB

Enables the Test Debug Bus using GPIO. (VSYNC)
1 : Disable
0 : Enable

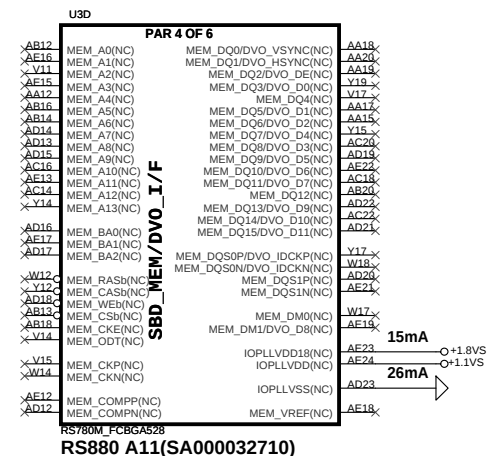
DFT_GPIO1: LOAD_EEPROM_STRAPS

Selects Loading of STRAPS from EPROM
1 : Bypass the loading of EEPROM straps and use Hardware Default Values
0 : I2C Master can load strap values from EEPROM if connected, or use default values if not connected

Enable Side Port Memory

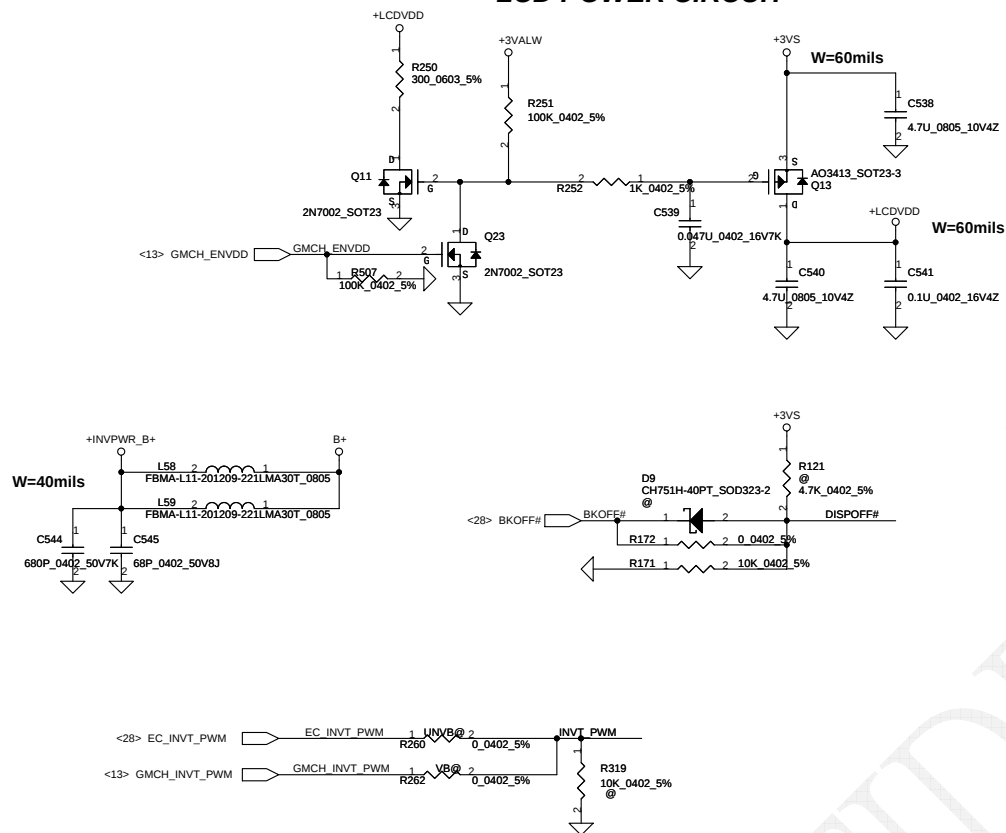
RS880: HSYNC#
0: Enable
1: Disable

Register Readback of strap:
NB_CLKCFG:CLK_TOP_SPARE_D[1]

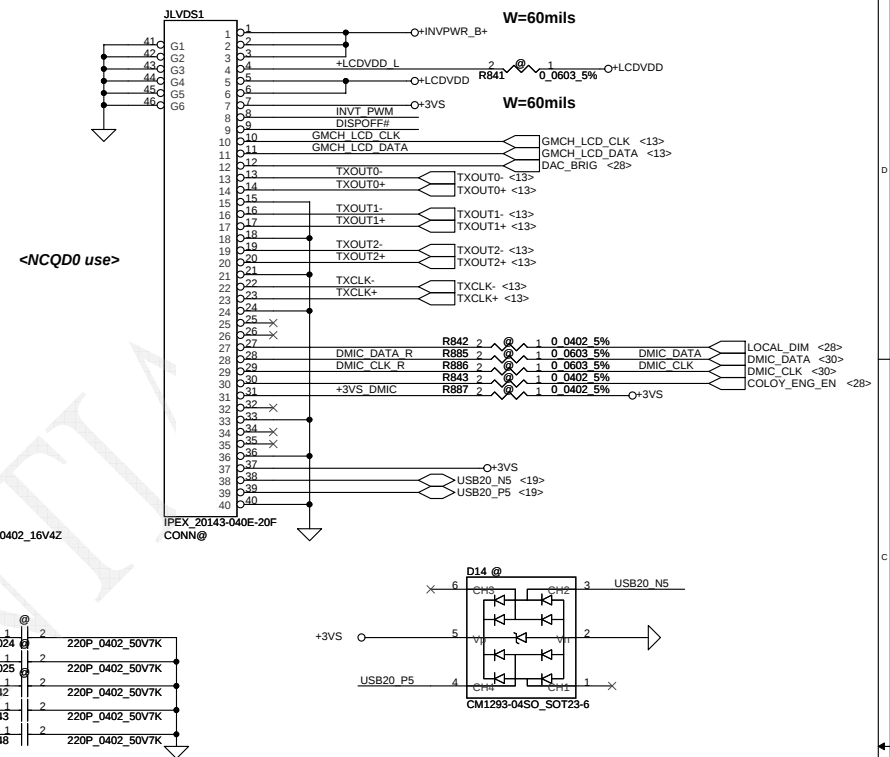


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. 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.				RS880 PWR/GND	
Document Number				PEW/76/86/96 LA-6552P	
Date: Thursday, July 22, 2010				Sheet 14 of 45	

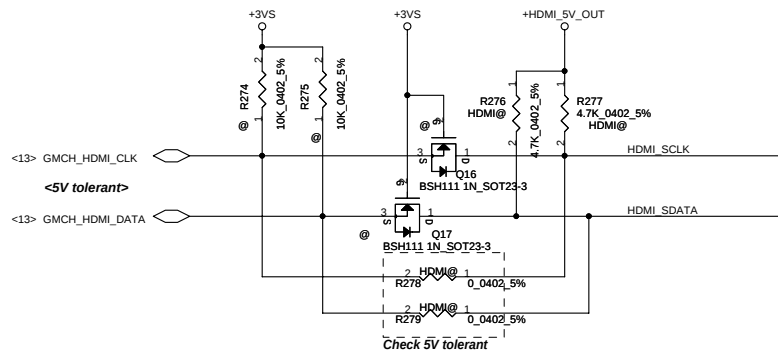
LCD POWER CIRCUIT



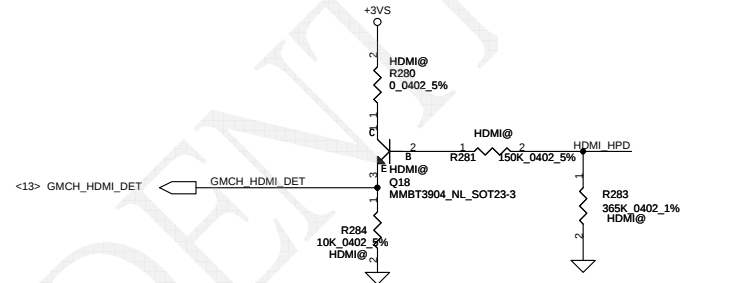
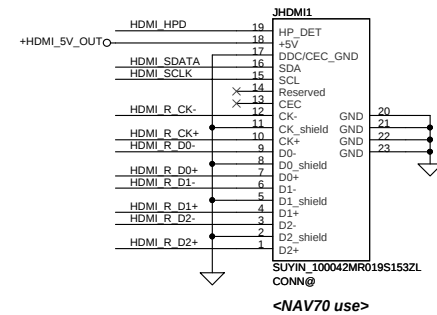
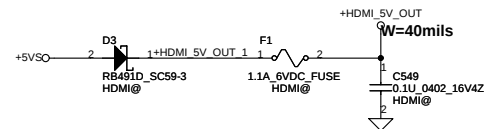
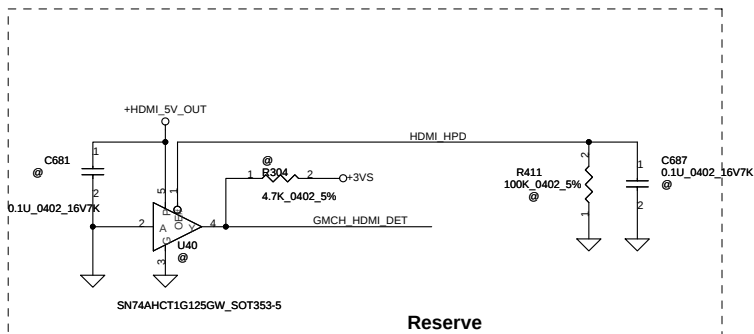
LCD/LED PANEL Conn.



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	LVDS Connector
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev
				PEW/76/86/96 LA-6552P	
Date: Thursday, July 22, 2010				Sheet	15 of 45

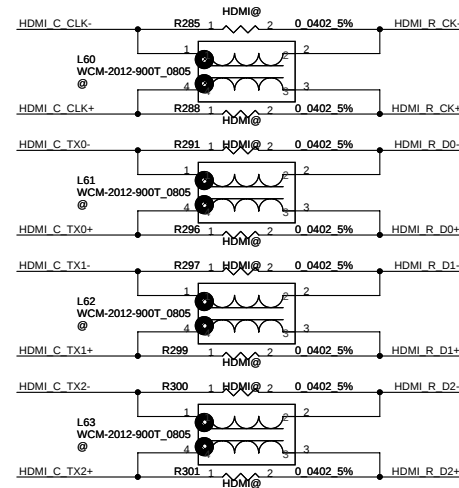
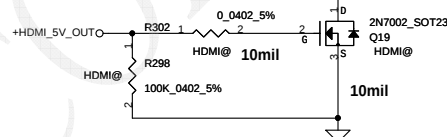


Place closed to JHDMI1



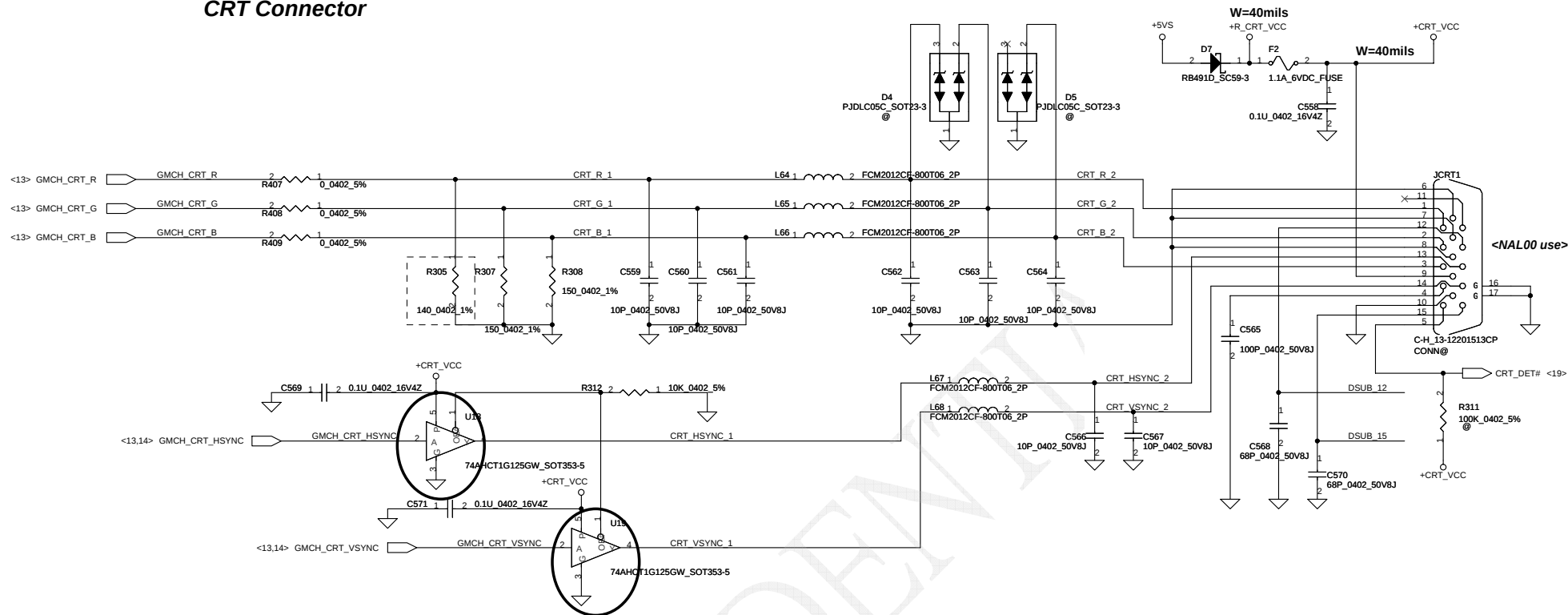
UMA 715 ohm

<12> GMCH_HDMI_TXD2-	C550	HDMI@	1	0.1U_0402_16V7K	HDMI C TX2-	R286	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXD2+	C551	HDMI@	1	0.1U_0402_16V7K	HDMI C TX2+	R287	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXD1-	C552	HDMI@	1	0.1U_0402_16V7K	HDMI C TX1-	R289	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXD1+	C553	HDMI@	1	0.1U_0402_16V7K	HDMI C TX1+	R290	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXD0-	C554	HDMI@	1	0.1U_0402_16V7K	HDMI C TX0-	R292	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXD0+	C555	HDMI@	1	0.1U_0402_16V7K	HDMI C TX0+	R293	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXC-	C556	HDMI@	1	0.1U_0402_16V7K	HDMI C CLK-	R294	1	HDMI@	2	715_0402_1%
<12> GMCH_HDMI_TXC+	C557	HDMI@	1	0.1U_0402_16V7K	HDMI C CLK+	R295	1	HDMI@	2	715_0402_1%



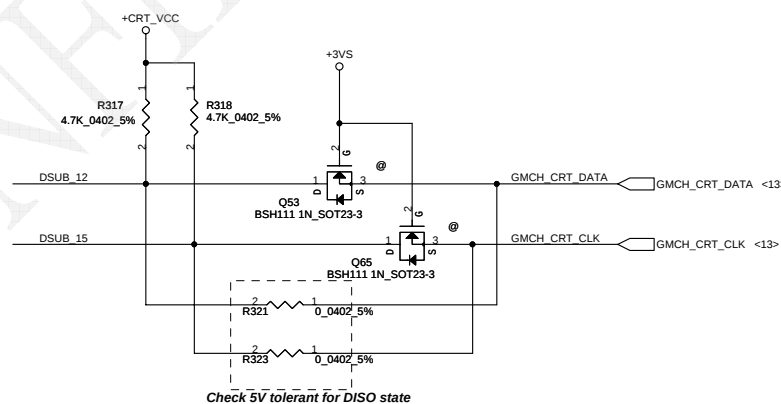
Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev B
				PEW76/86/96 LA-6552P	
				Date: Thursday, July 22, 2010	Sheet 16 of 45

CRT Connector

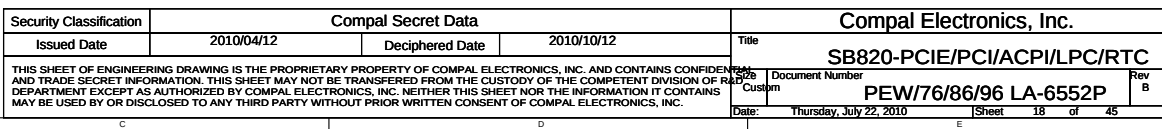
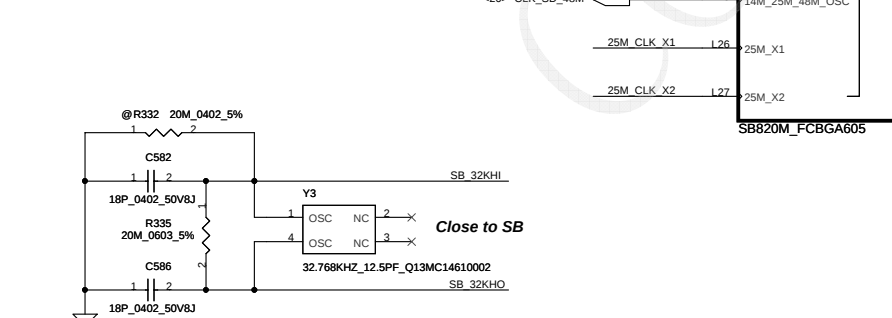


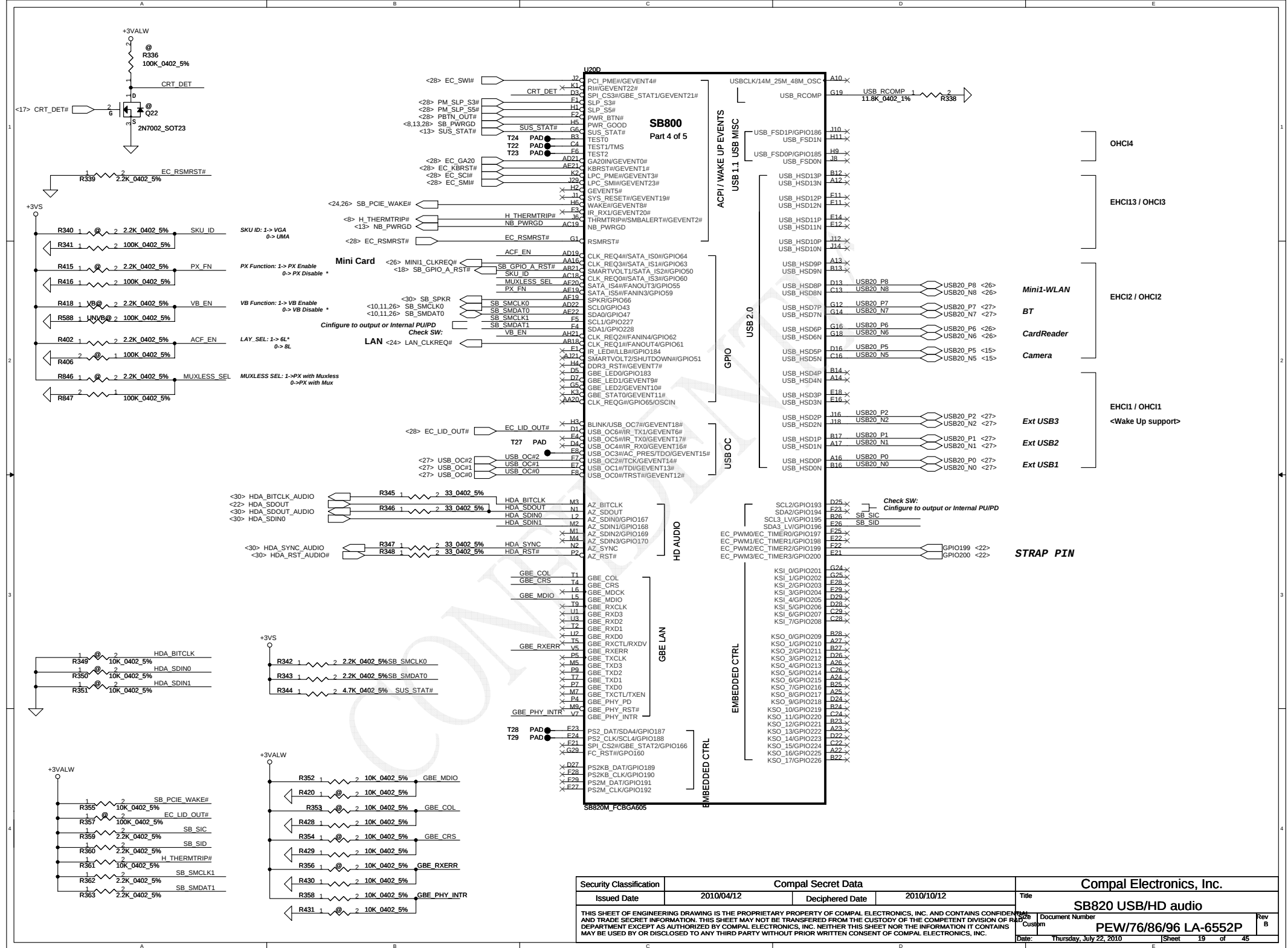
Change as SA411250110

Close to Conn side

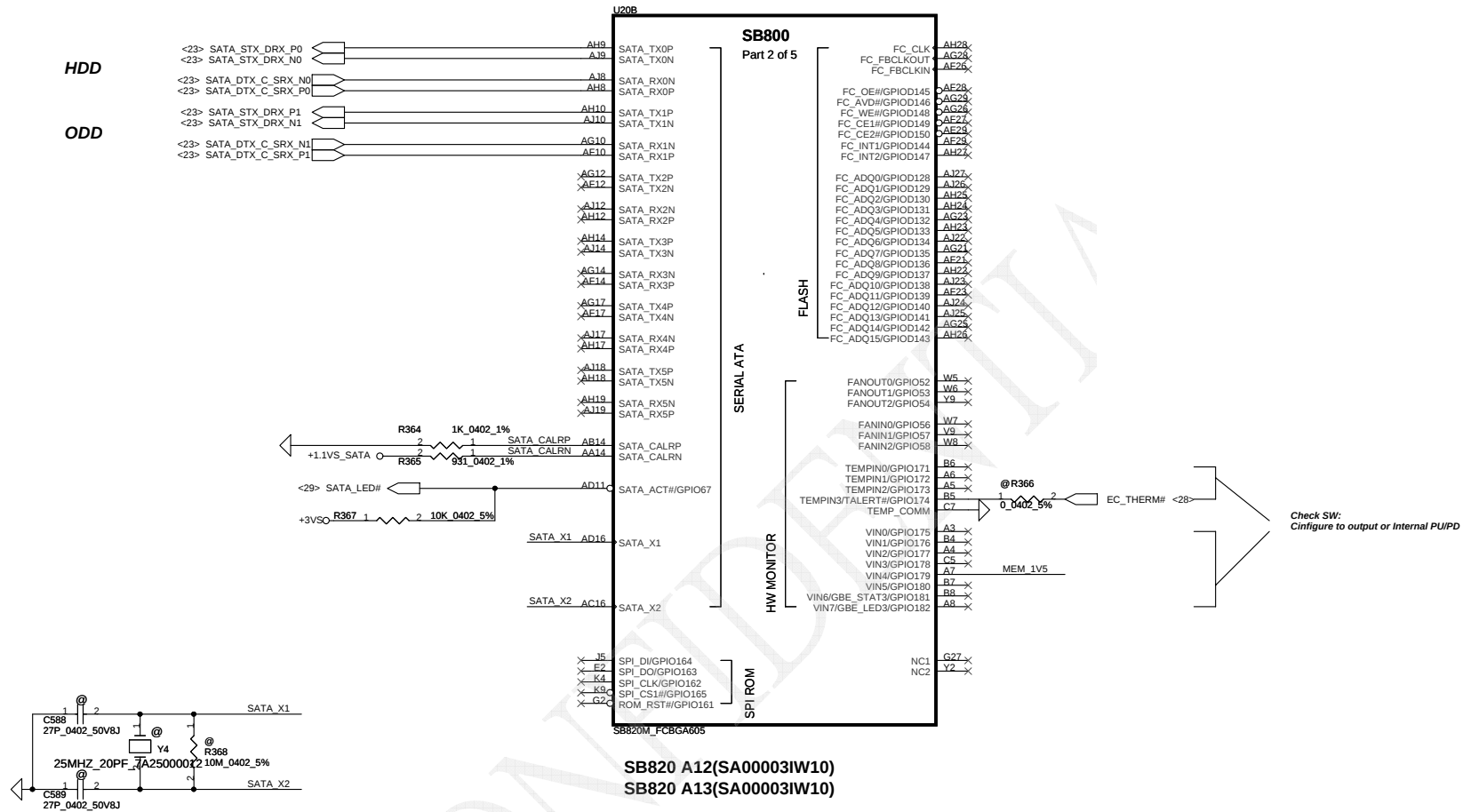


Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	CRT Connector	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RAJAPALACE DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	PEW/76/86/96 LA-6552P	
				Date	Thursday, July 22, 2010	Sheet





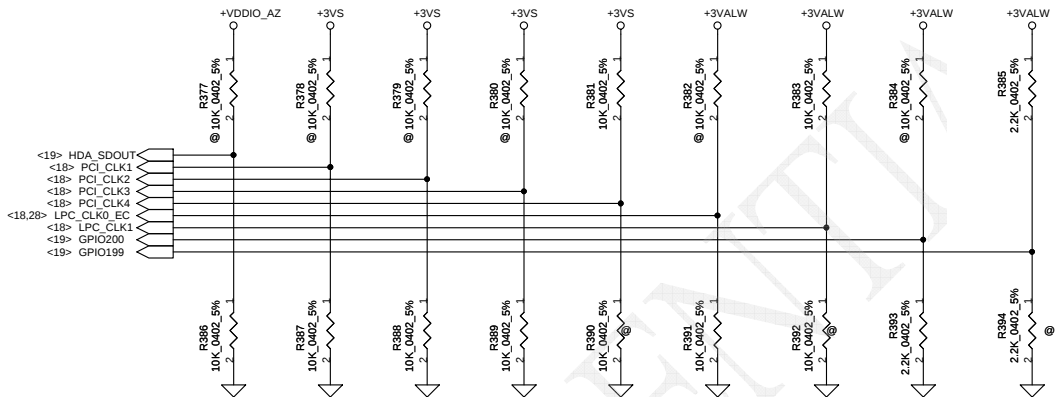
Security Classification		Compal Secret Data		Compal Electronics, Inc.			
Issued Date		2010/04/12		Deciphered Date		2010/10/12	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.		Title		SB820 USB/HD audio			
		Doc Number		PEW/76/86/96 LA-6552P			
		Date:		Thursday, July 22, 2010			
C		D		E		Rev B	
Sheet		19		of		45	



REQUIRED STRAPS

Check Internal PU/PD

	AZ_SDOUT	PCI_CLK1	PCI_CLK2	PCI_CLK3	PCI_CLK4	LPC_CLK0	LPC_CLK1		GPIO200	GPIO199
PULL HIGH	LOW POWER MODE	ALLOW PCIE GEN2	WATCHDOG TIMER ENABLE	USE DEBUG STRAP	Inter CLK Gen Mode Enable	EC ENABLE	CLOCKGEN ENABLE		H,H = Reserved	
PULL LOW	Performance MODE	FORCE PCIE GEN1	WATCHDOG TIMER DISABLE	IGNORE DEBUG STRAP	Inter CLK Gen Mode Disable	EC DISABLE	CLOCKGEN DISABLE		H,L = SPI ROM	L,H = LPC ROM (Default L,NC)
	DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT		L,L = FWH ROM	



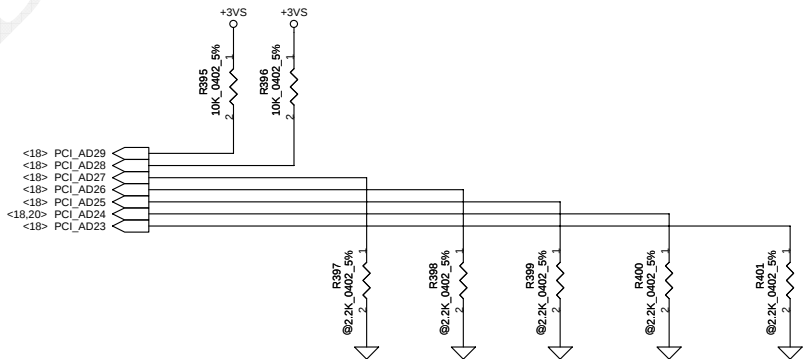
DEBUG STRAPS

SB800 HAS 15K INTERNAL PU FOR PCI_AD[27:23]

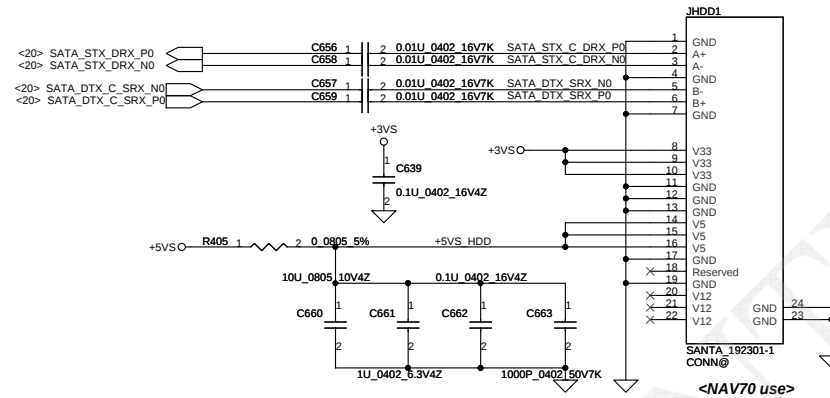
		PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH		USE PCI PLL	DISABLE ILA AUTORUN	USE FC PLL	USE DEFAULT PCIE STRAPS	DISABLE PCI MEM BOOT
		DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT
PULL LOW		BYPASS PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PLL	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT

Check AD29,AD28 strap function

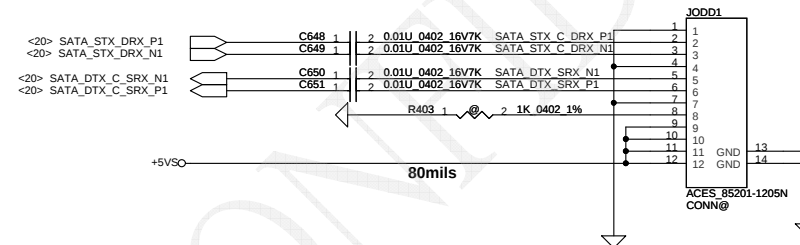
check default



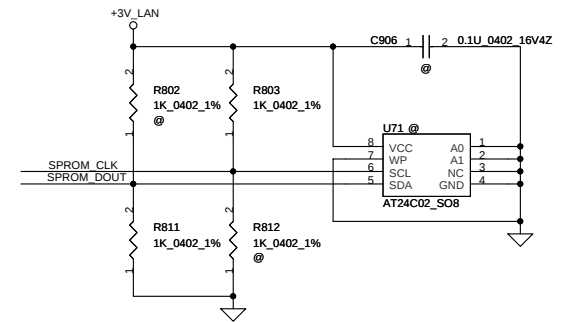
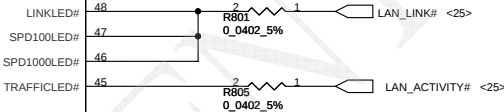
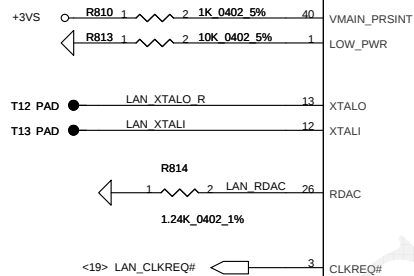
SATA HDD Conn.



SATA ODD FFC Conn.



Security Classification		Compal Secret Data				Compal Electronics, Inc.					
Issued Date		2010/04/12		Deciphered Date		2010/10/12		Title			
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.						HDD & ODD Connector					
						Document Number		PEW/76/86/96 LA-6552P		Rev B	
						Date		Thursday, July 22, 2010		Sheet 23 of 45	



20mil

+LAN_XTALVDDH

C909

0.1U_0402_16V4Z

L100

BLM18AG601SN1D_2P

+3V_LAN

20mil

+LAN_BIASVDDH

C910

0.1U_0402_16V4Z

L101

BLM18AG601SN1D_2P

20mil

+LAN_AVDDH

C911

0.1U_0402_16V4Z

C912

0.1U_0402_16V4Z

L102

BLM18AG601SN1D_2P

20mil

+LAN_PCIEXPLLVDD

C915

0.1U_0402_16V4Z

L104

BLM18AG601SN1D_2P

+1.2V_LAN

C916

4.7U_0805_10V4Z

20mil

+LAN_GPHYPLLVDL

C919

0.1U_0402_16V4Z

L105

BLM18AG601SN1D_2P

+1.2V_LAN

C920

4.7U_0805_10V4Z

20mil

+LAN_AVDDL

C921

0.1U_0402_16V4Z

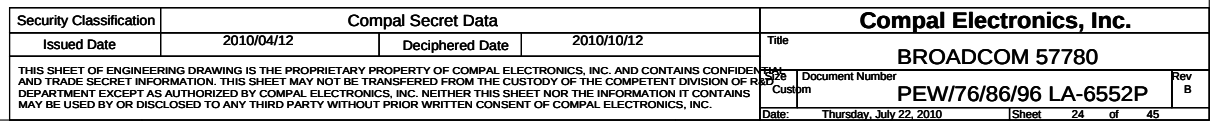
L106

BLM18AG601SN1D_2P

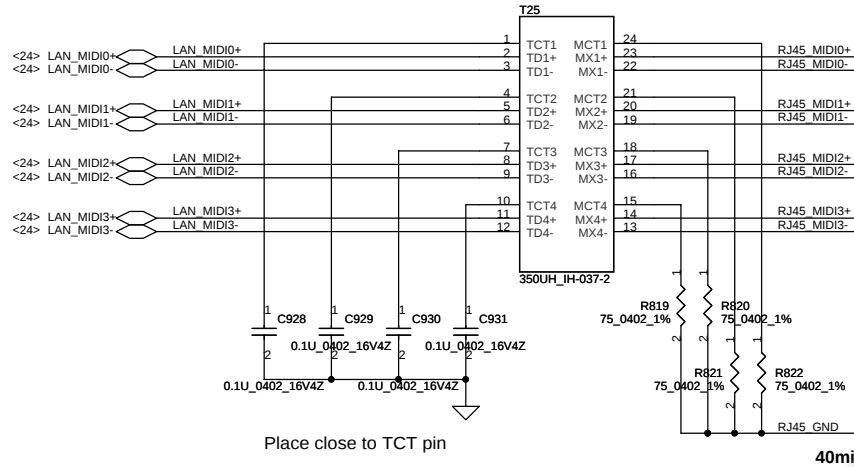
+1.2V_LAN

C922

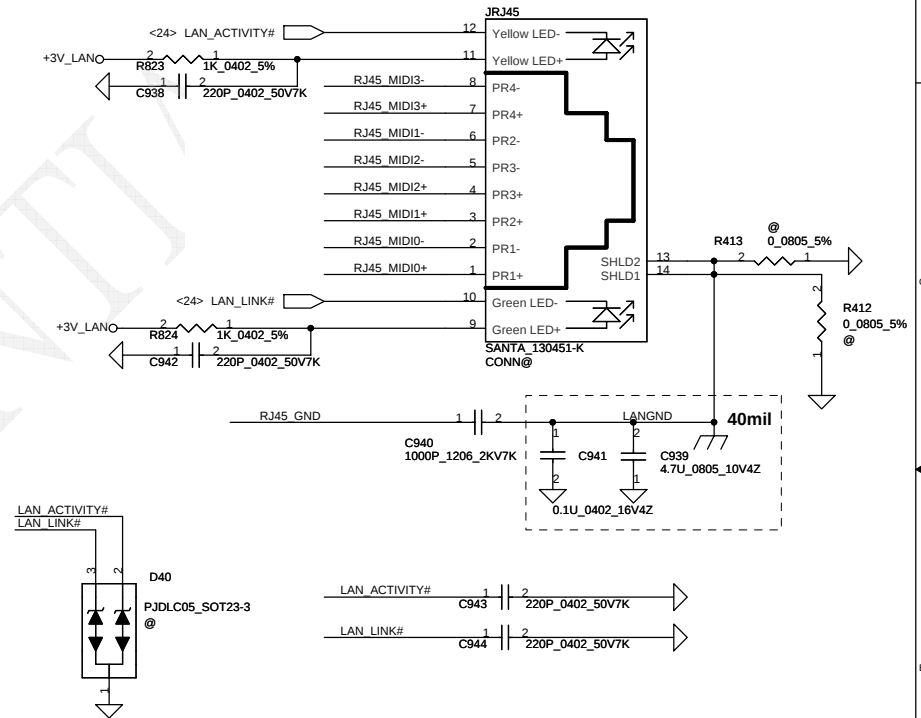
4.7U_0805_10V4Z



BH GS5009-D <SP050006B00>

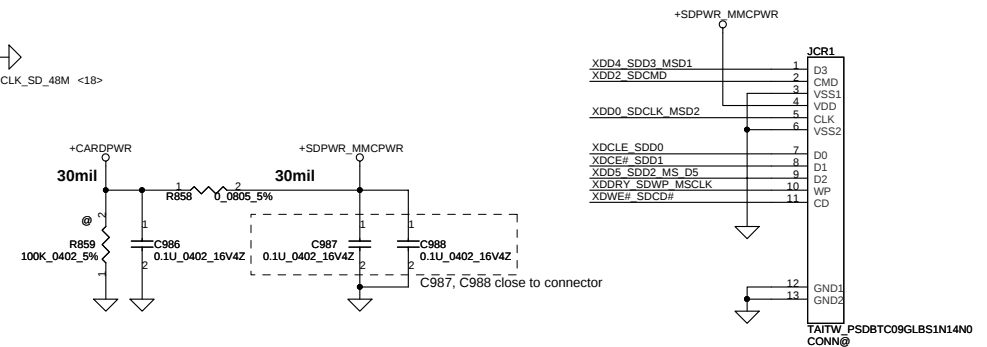
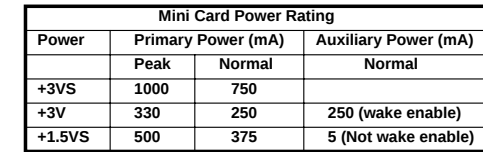


LAN Connector

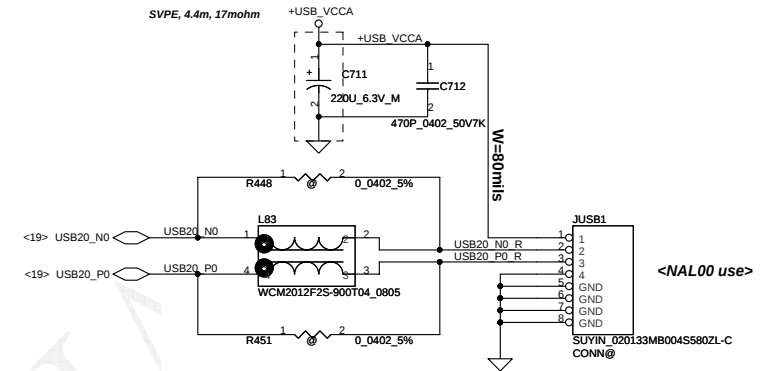
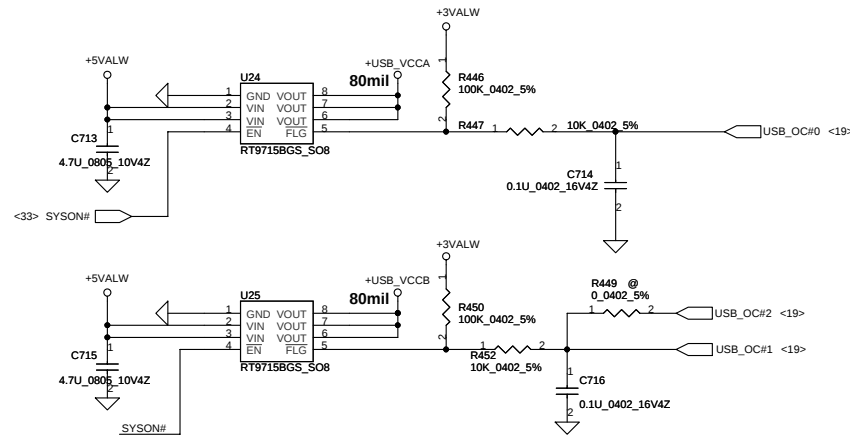


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev B
				PEW/76/86/96 LA-6552P	
				Date: Thursday, July 22, 2010	Sheet 25 of 45

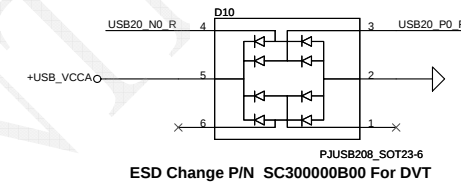
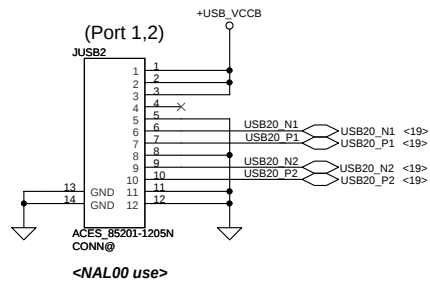
Card Reader Connector



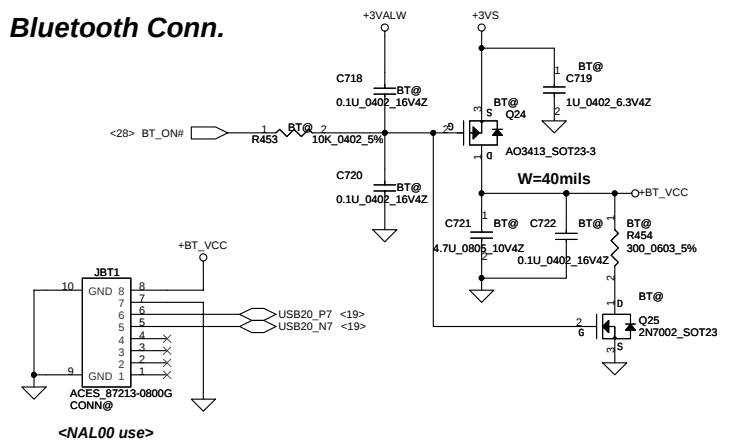
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	MINI CARD / CardReader RTS5137
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev B
				PEW/76/86/96 LA-6552P	
Date	Thursday, July 22, 2010		Sheet	26 of 45	



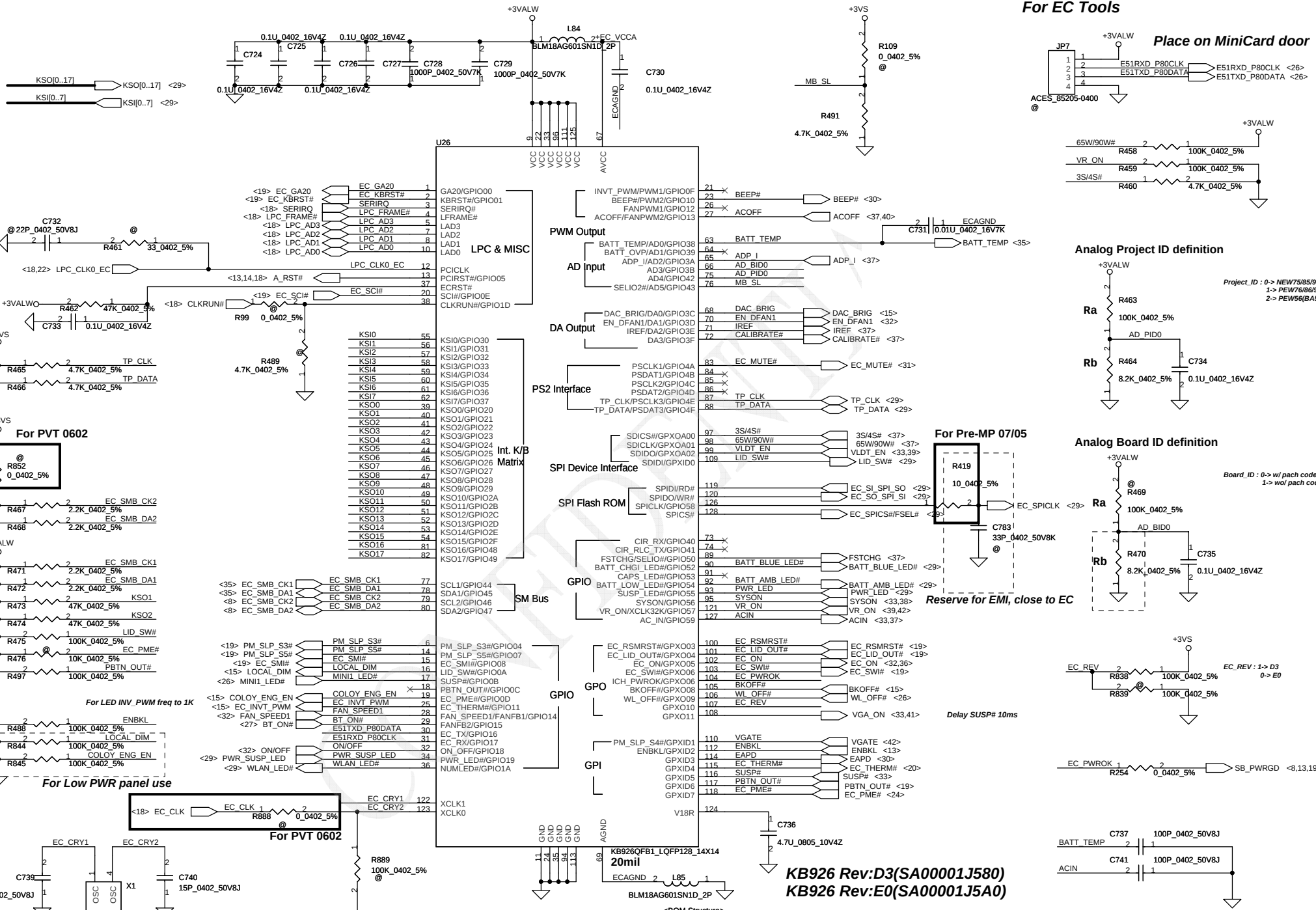
To USB/B Connector



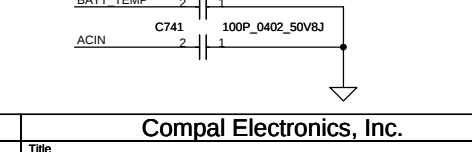
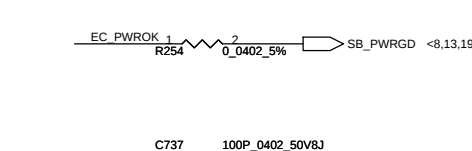
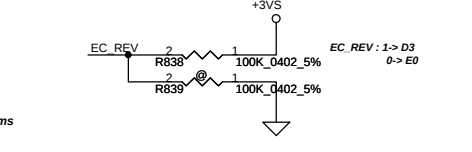
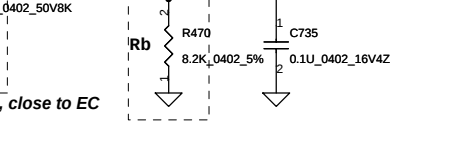
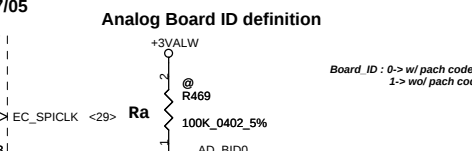
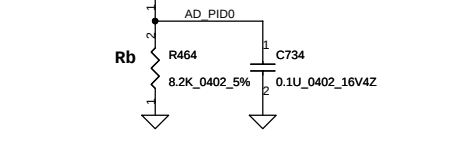
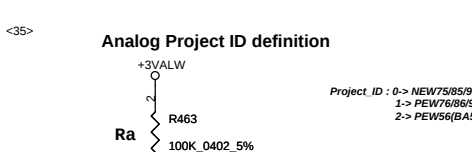
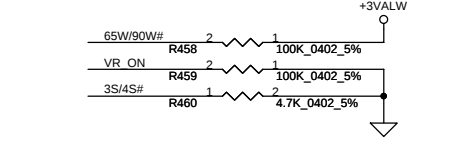
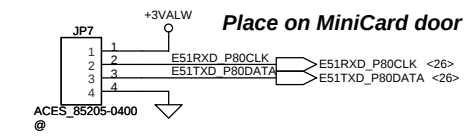
Bluetooth Conn.



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
				PEW/76/86/96 LA-6552P
				Rev B
				Date: Thursday, July 22, 2010
				Sheet 27 of 45



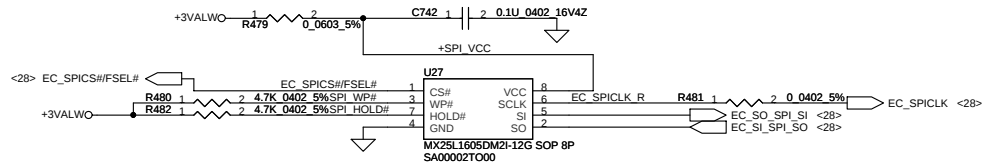
For EC Tools



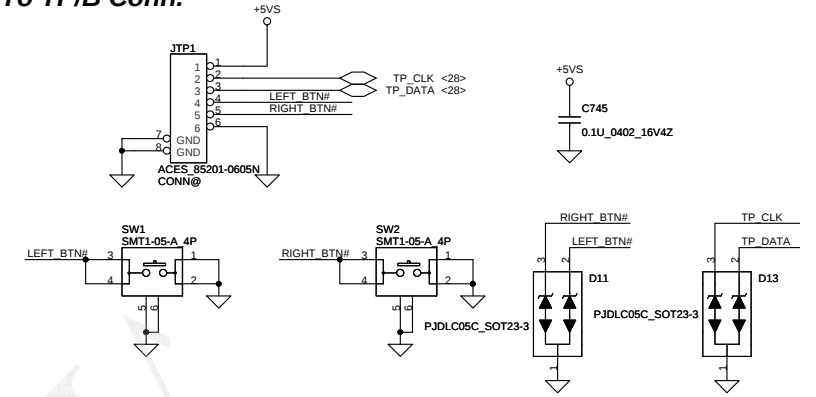
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	EC ENE KB926	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev B
				PEW/76/86/96 LA-6552P	
				Thursday, July 22, 2010	Sheet 28 of 45

KB926 Rev:D3(SA00001J580)
KB926 Rev:E0(SA00001J5A0)

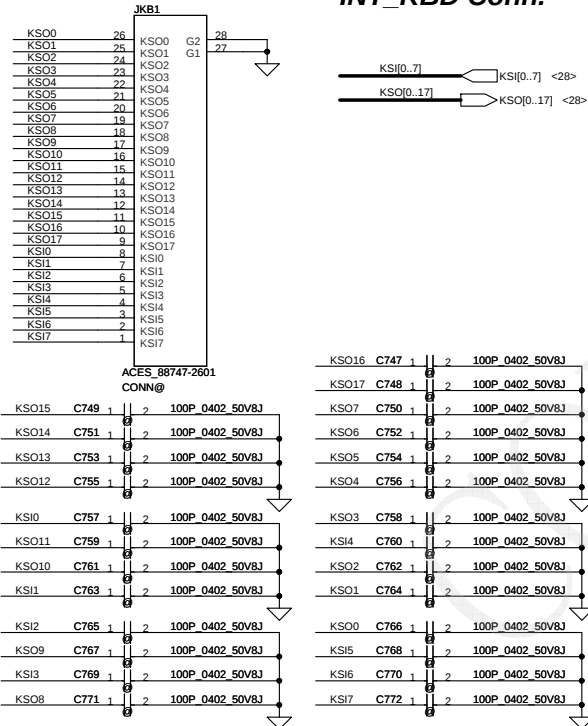
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	EC ENE KB926	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev B
				PEW/76/86/96 LA-6552P	
				Thursday, July 22, 2010	Sheet 28 of 45



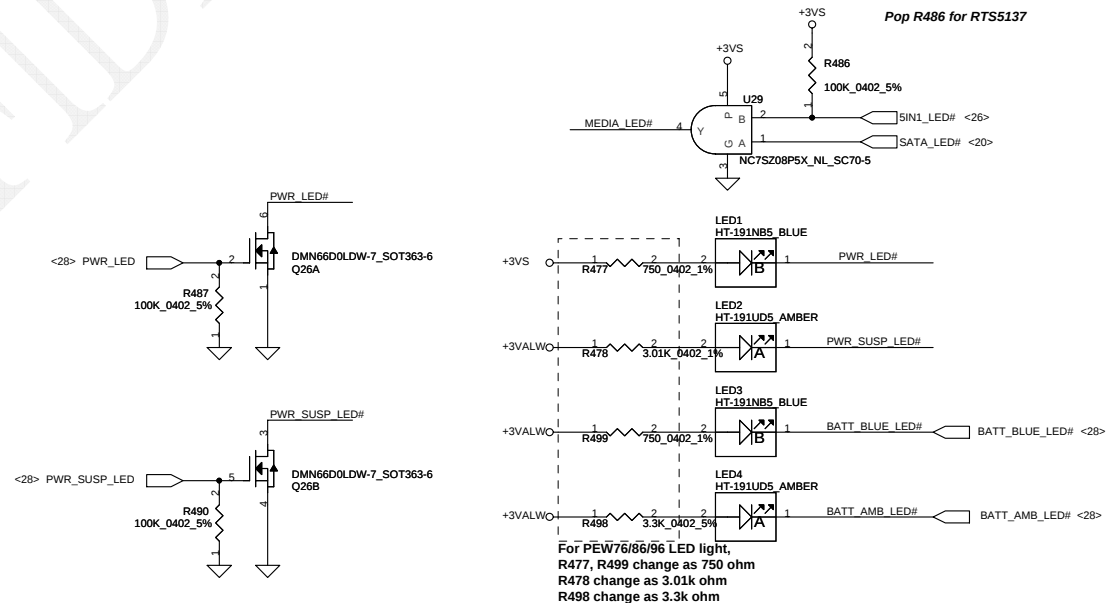
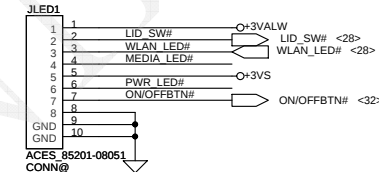
To TP/B Conn.



INT_KBD Conn.

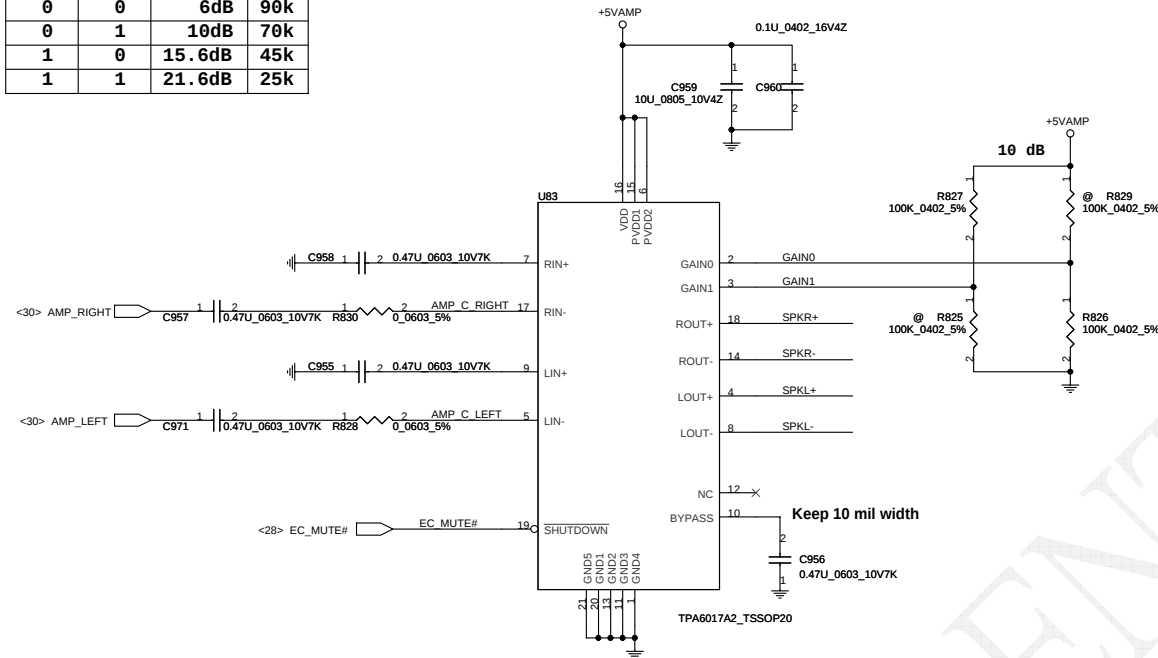


For PVT 0608 Unpop Cap.

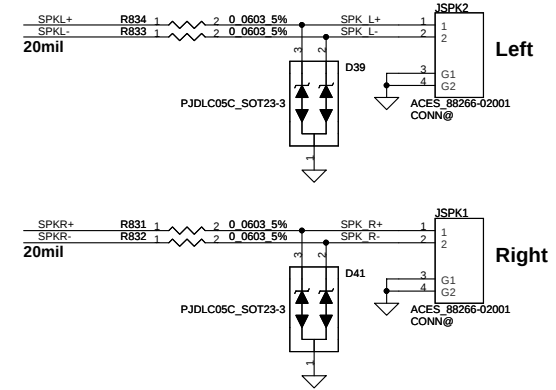


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	BIOS, I/O Port & K/B Connector
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RAEP DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	PEW76/86/96 LA-6552P
				Date:	Thursday, July 22, 2010
				Sheet	29 of 45

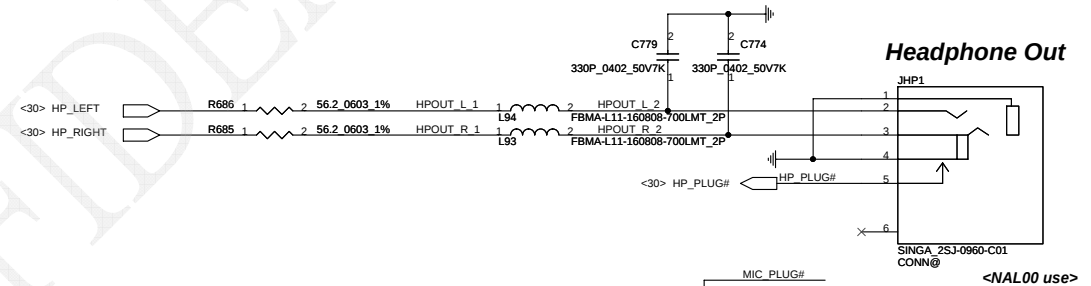
GAIN0	GAIN1	AV(inv)	Ri
0	0	6dB	90k
0	1	10dB	70k
1	0	15.6dB	45k
1	1	21.6dB	25k



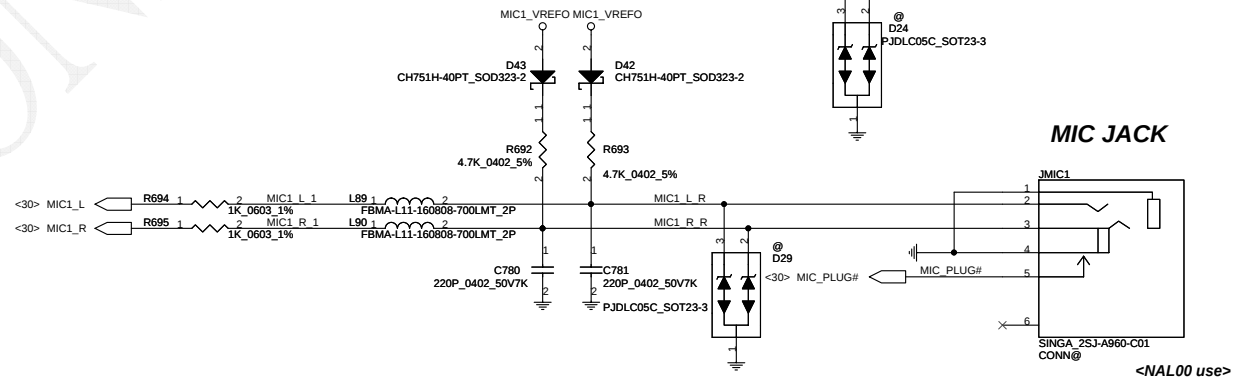
Int. Speaker Conn.



Headphone Out

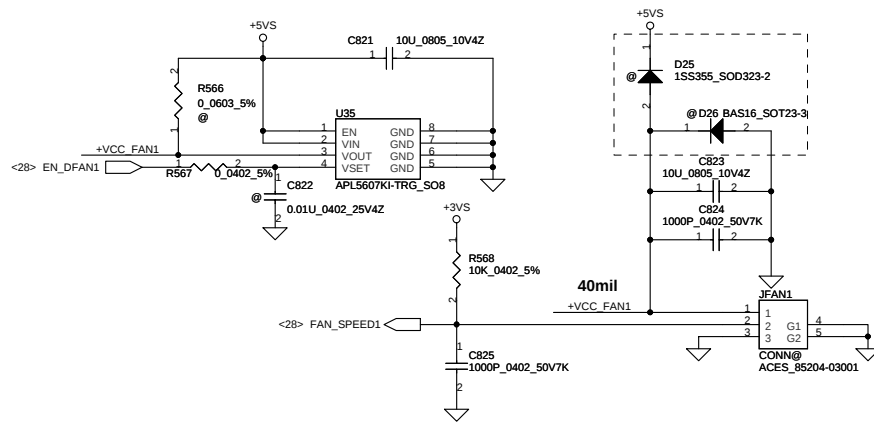


MIC JACK

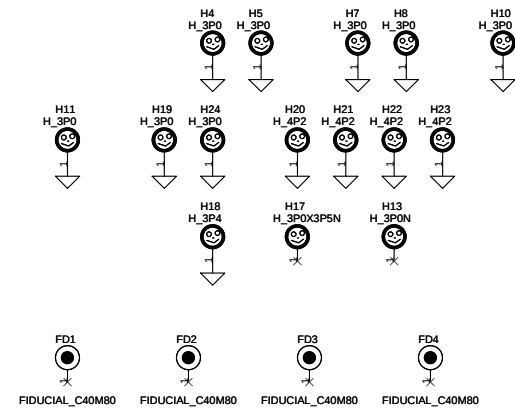
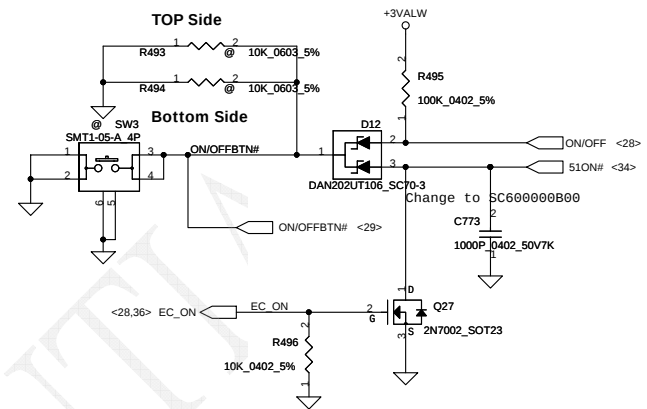


Security Classification	Compal Secret Data			Title	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE COMPETENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev B
				PEW/76/86/96 LA-6552P	
				Date: Thursday, July 22, 2010	Sheet 31 of 45

FAN1 Conn

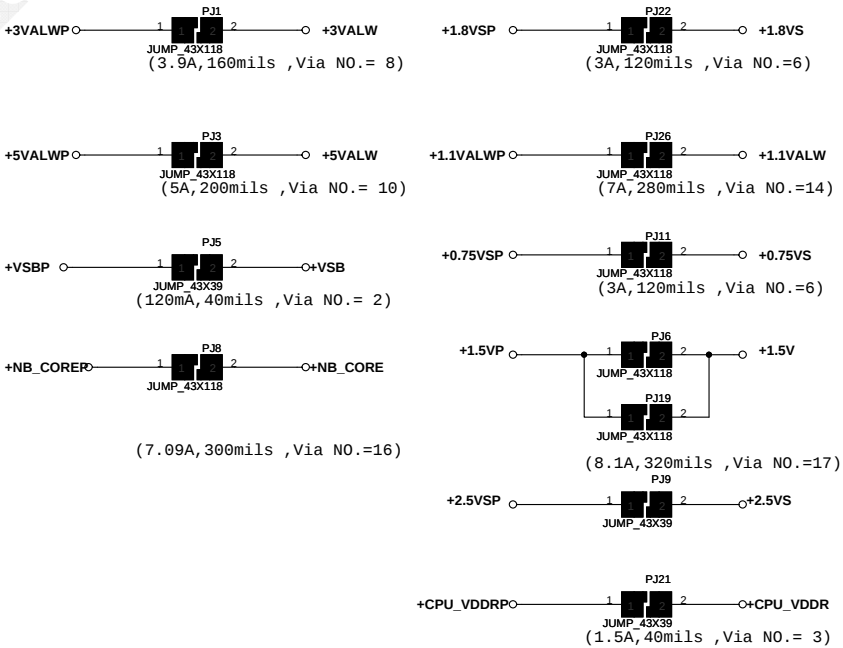
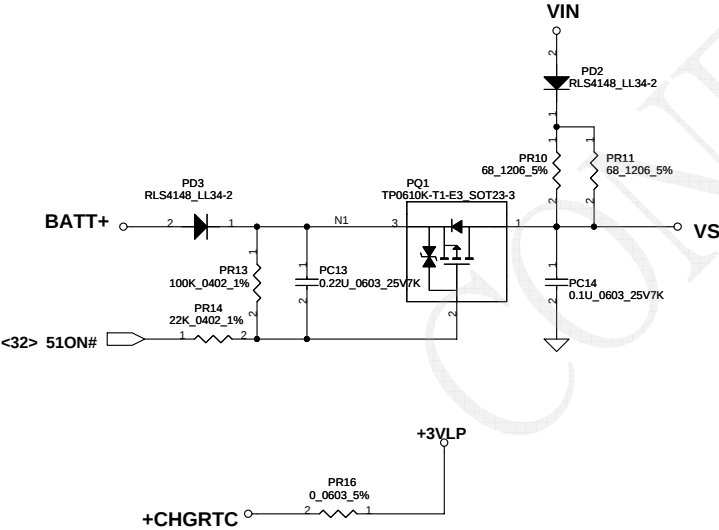
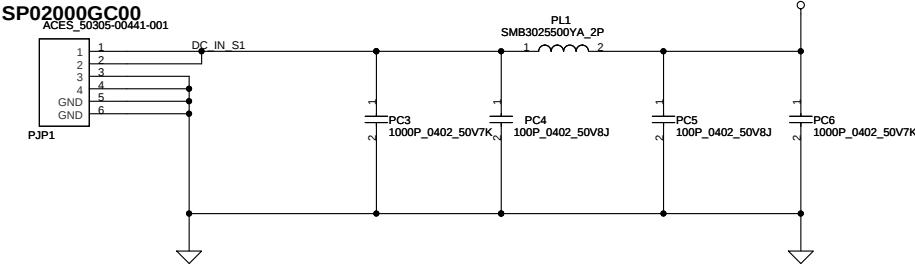


ON/OFF switch **Power Button**



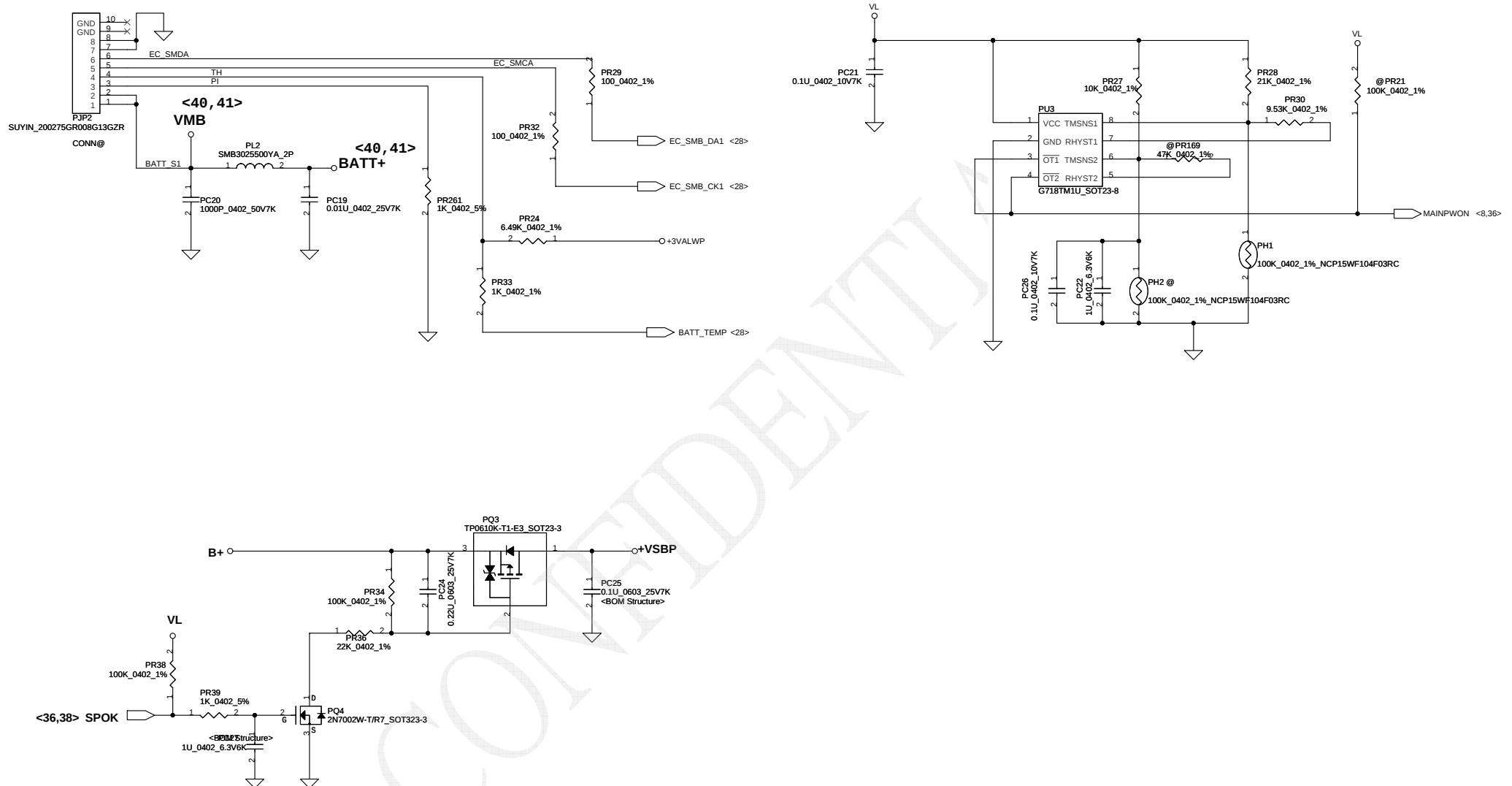
Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	FAN & Screw Hole & PBTN
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	PEW/76/86/96 LA-6552P
				Date:	Thursday, July 22, 2010
				Sheet	32 of 45

DC-IN cable: DC301009W00 (Yellow)



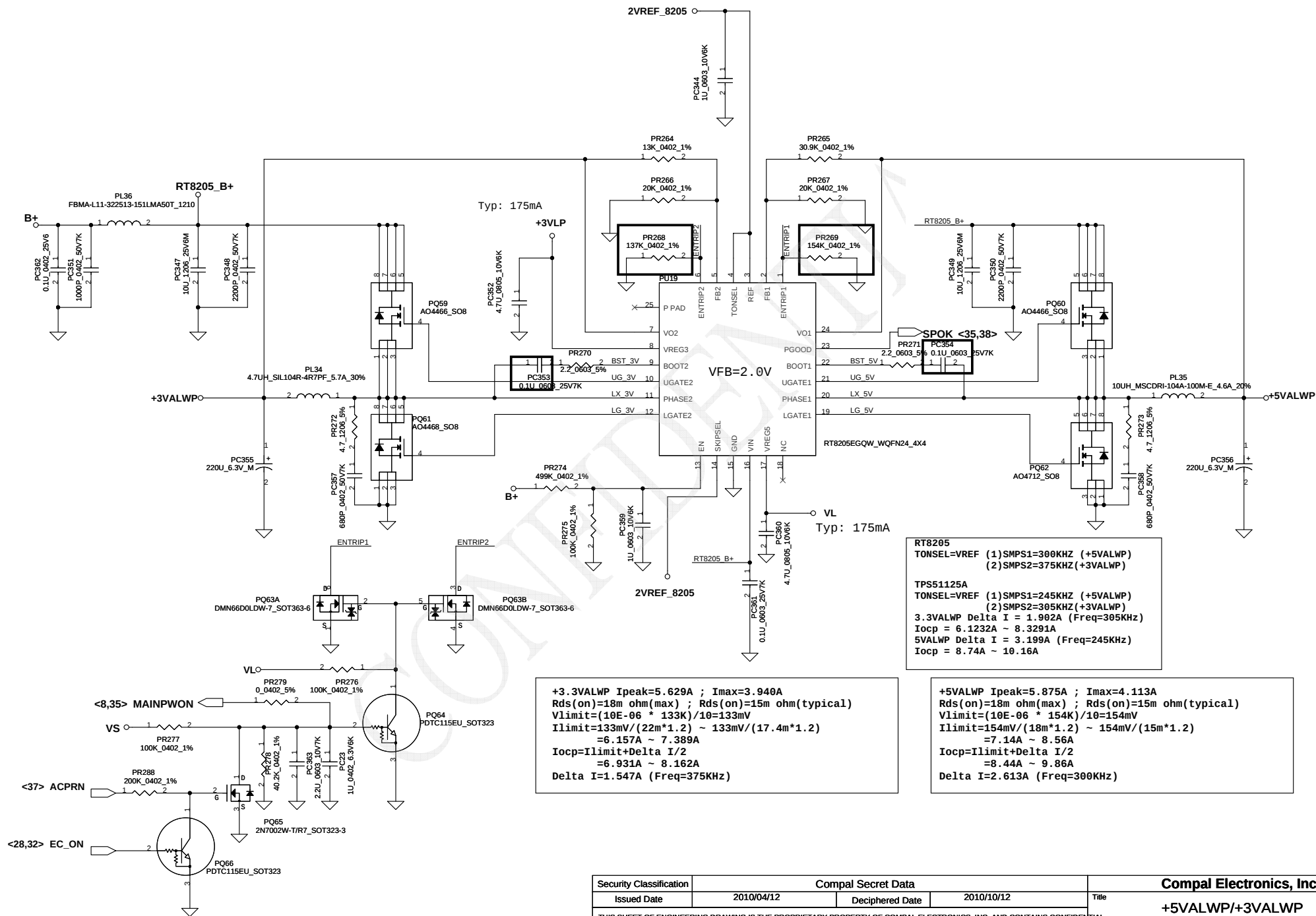
Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	PEW96 LA-6552P	Rev B
				Date:	Thursday, July 22, 2010	Sheet 34 of 45

PH1 under CPU botten side : Not SPEC, reference only!
 CPU thermal protection at 92 degree C
 Recovery at 56 degree C



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev
				Custom	B
				PEW96 LA-6552P	
Date: Thursday, July 22, 2010				Sheet 35 of 45	

Note:
Use TPS51125 IC can remove RTC refernece LDO
Use TPS51427 IC must keep RTC refernece LDO

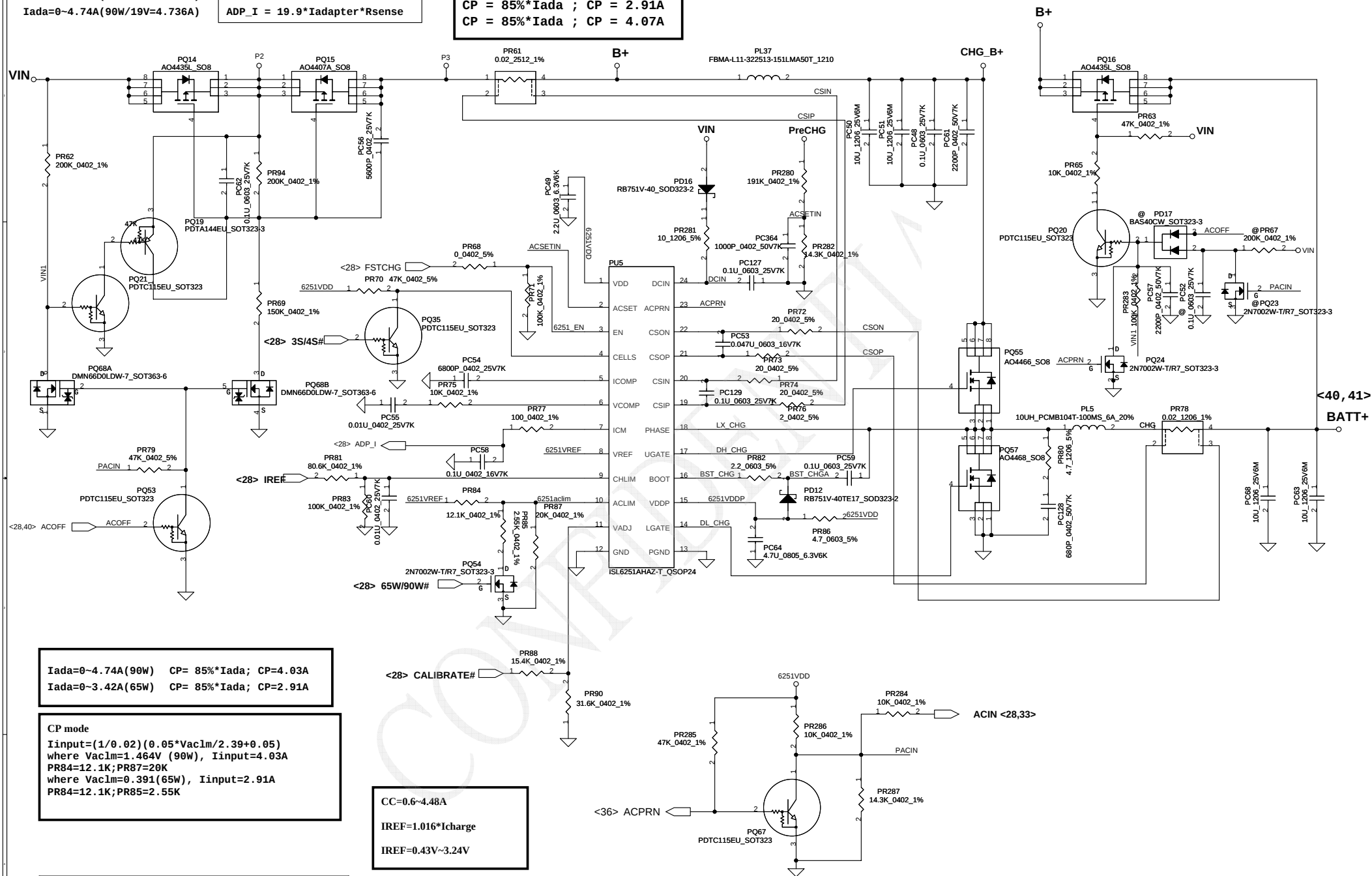


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	+5VALWP/+3VALWP
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY 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.				Doc No	Document Number
				Customer	PEW96 LA-6552P
				Date:	Thursday, July 22, 2010
				Sheet	36 of 45
				Rev	8

Iada=0~3.42A(65W/19V=3.421A)
Iada=0~4.74A(90W/19V=4.736A)

ADP_I = 19.9*Iadapter*Rsense

CP = 85*Iada ; CP = 2.91A
CP = 85*Iada ; CP = 4.07A



Iada=0~4.74A(90W) CP= 85*Iada; CP=4.03A
Iada=0~3.42A(65W) CP= 85*Iada; CP=2.91A

CP mode
Iinput=(1/0.02)(0.05*Vac1m/2.39+0.05)
where Vac1m=1.464V (90W), Iinput=4.03A
PR84=12.1K;PR87=20K
where Vac1m=0.391(65W), Iinput=2.91A
PR84=12.1K;PR85=2.55K

CC=0.6~4.48A

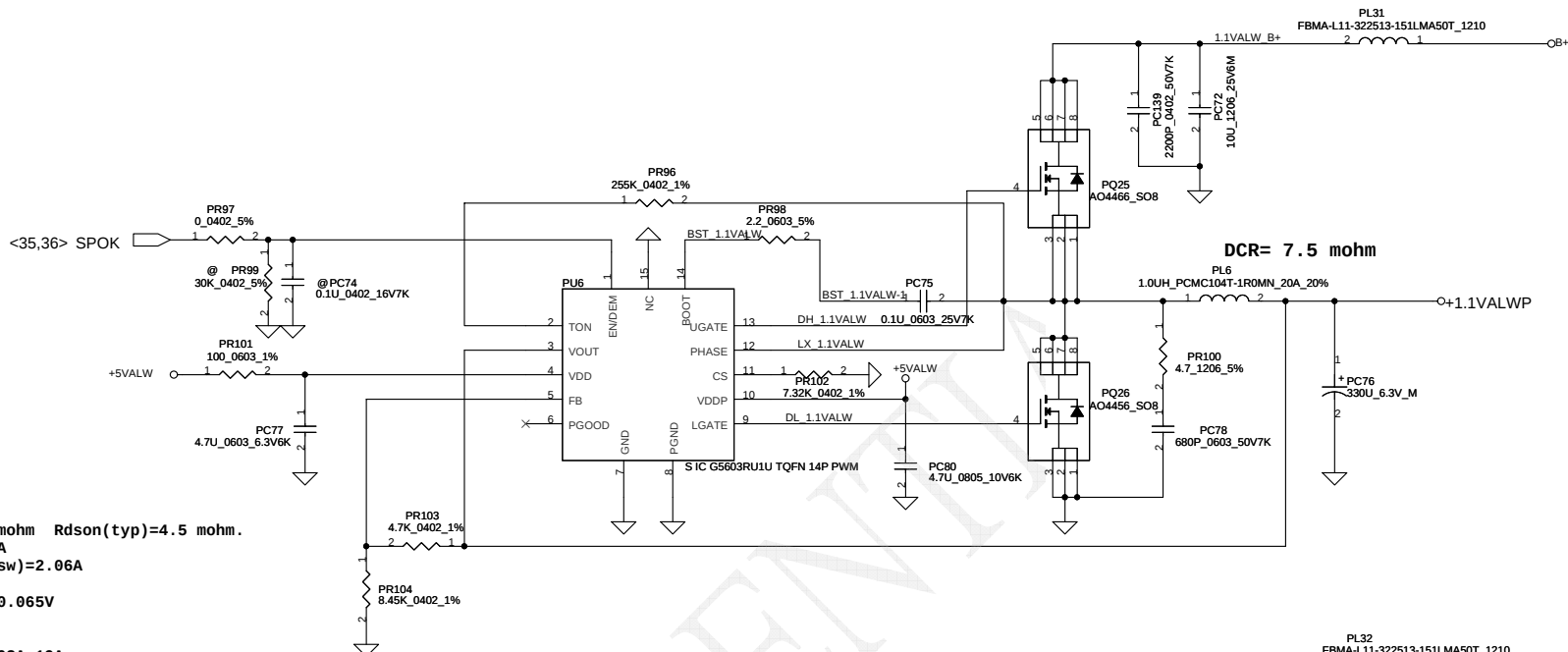
IREF=1.016*Icharge
IREF=0.43V~3.24V

BATT Type	Charging Voltage (0x15)	CV mode
Normal 3S LI-ON Cells	12600mV	12.60V

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	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 MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev B
Date: Thursday, July 22, 2010				Sheet	37 of 45

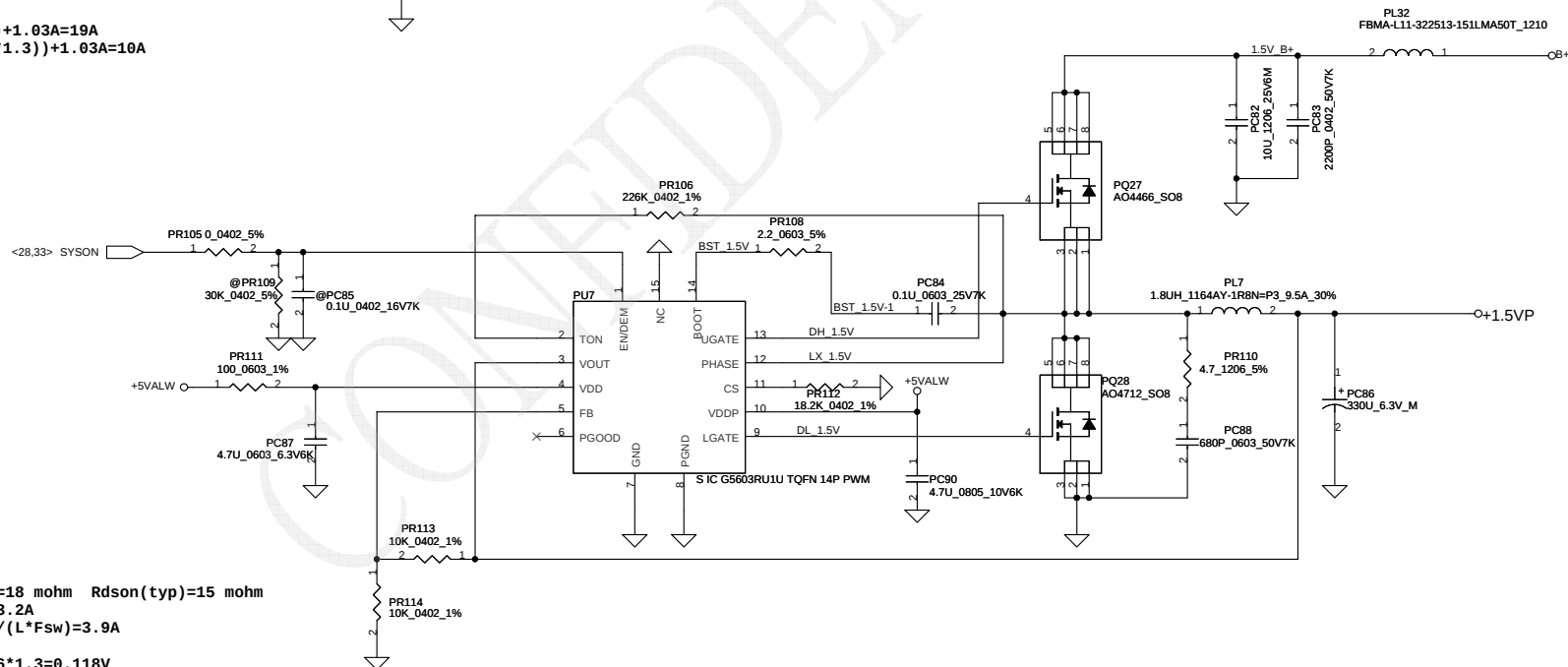
<Vo=1.1V> VFB=0.75V
 $V=0.75*(1+4.7K/10K)=1.1V$
 $F_{sw}=280KHz$

Cout ESR=15m ohm Rdson(max)=5.6 mohm Rdson(typ)=4.5 mohm.
 $I_{peak}=7.42A$, $I_{max}=5.2A$, $I_{ocp}=8.9A$
 $\Delta I=((19-1.1)*(1.1/19))/(L*F_{sw})=2.06A$
 $\Rightarrow 1/2\Delta I=1.03A$
 $V_{tripmax}=I_{ocp}*R_{dson}=8.9*5.6*1.3=0.065V$
 $R_{cs}=V_{trip}/9uA=0.065V/9uA=7.2K$
 choose $R_{cs}=7.32K$
 $I_{ocpmax}=(7.32K*11uA)/0.0045+1.03A=19A$
 $I_{ocpmin}=(7.32K*9uA)/(0.0056*1.3)+1.03A=10A$
 $I_{ocp}=10A-19A$

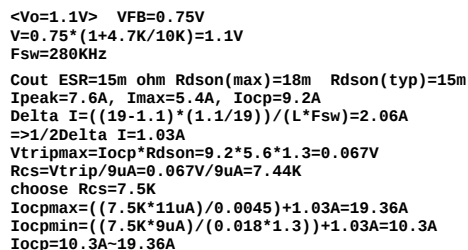


<Vo=1.5V> VFB=0.75V
 $V=0.75*(1+10K/10K)=1.5V$
 $F_{sw}=335KHz$

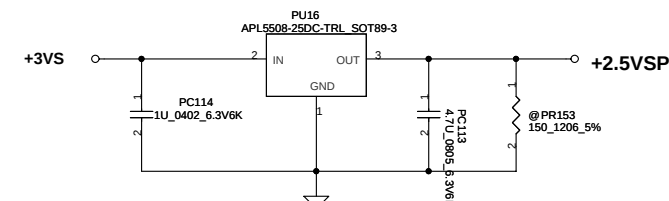
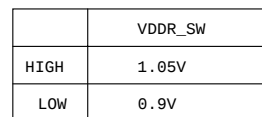
Cout ESR=17 mohm Rdson(max)=18 mohm Rdson(typ)=15 mohm
 $I_{peak}=7A$, $I_{max}=8.4A$, $I_{ocp}=13.2A$
 $\Delta I=((19-1.5)*(1.5/19))/(L*F_{sw})=3.9A$
 $\Rightarrow 1/2\Delta I=1.95A$
 $V_{tripmax}=I_{ocp}*R_{dson}=16.2*5.6*1.3=0.118V$
 $R_{cs}=V_{trip}/9uA=0.118V/9uA=13.1K$
 choose $R_{cs}=13K$
 $I_{ocpmax}=(13K*11uA)/0.0045+1.95A=32A$
 $I_{ocpmin}=(13K*9uA)/(0.0056*1.3)+1.95A=18A$
 $I_{ocp}=9.94A-13.2A$



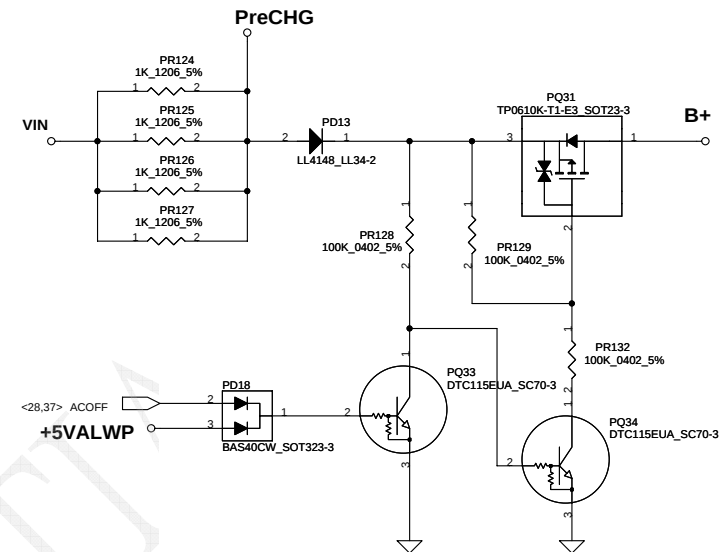
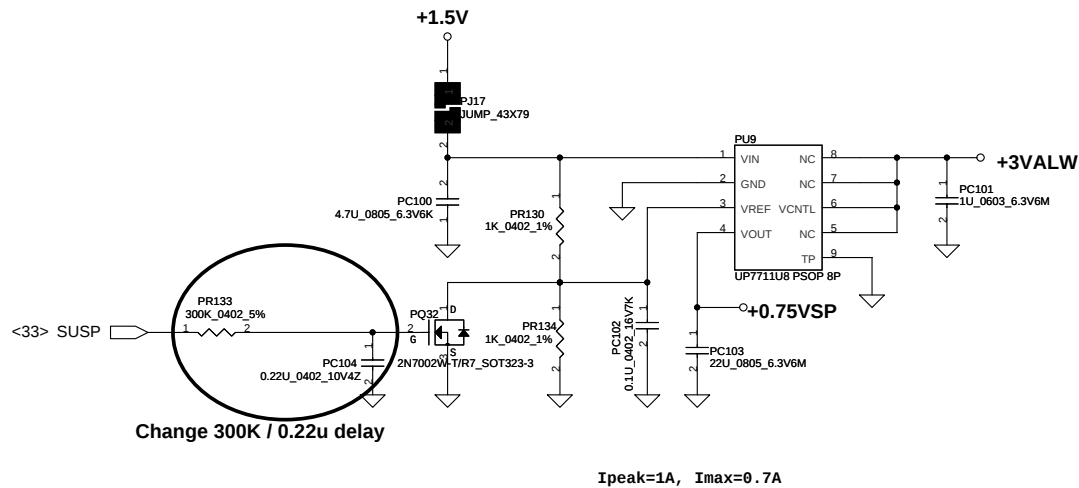
Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	1.1VALWP/1.5VP
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	PEW96 LA-6552P
				Date	Thursday, July 22, 2010
				Sheet	38 of 45



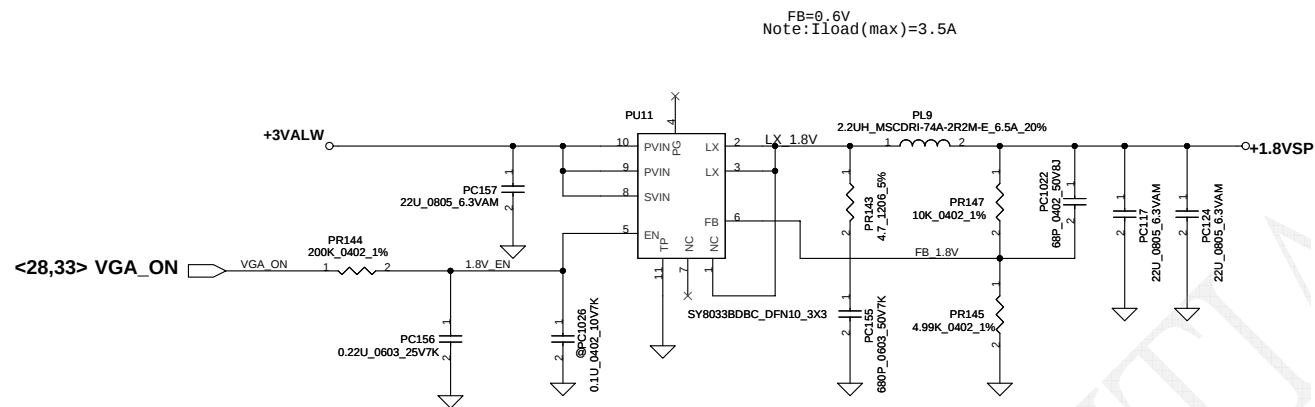
	POWER_SEL
HIGH	0.95V
LOW	1.1V



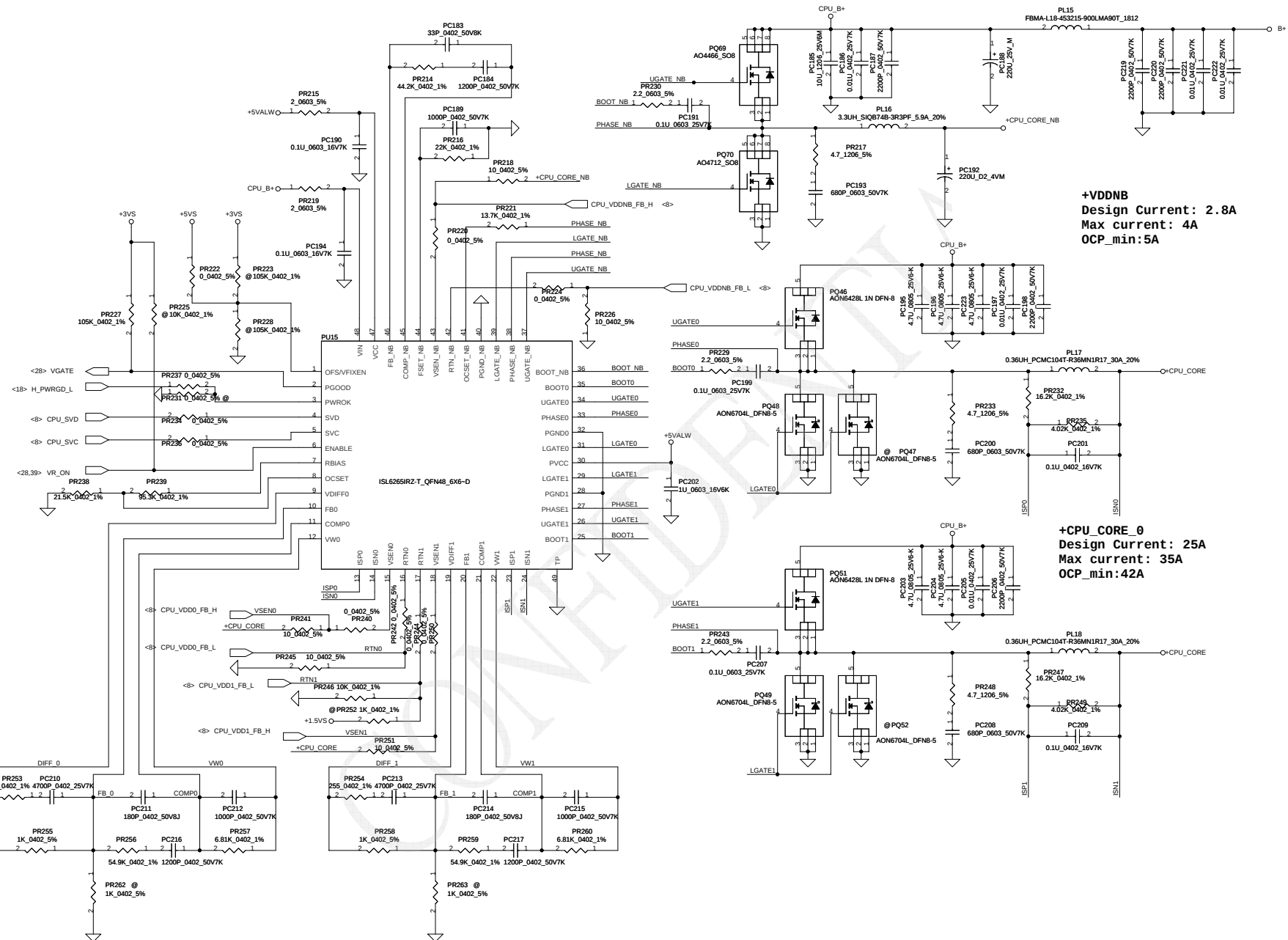
Security Classification		Compal Secret Data		Compal Electronics, Inc.			
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title NB CORE/2.5VS/CPU VDDRP			
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF OUR DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev B	Document Number Custom	Rev B	
				Date: Thursday, July 22, 2010 Sheet 39 of 45 PEW96 LA-6552P			



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	Precharge/+0.75VSP
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	PEW96 LA-6552P
				Date:	Thursday, July 22, 2010
				Sheet	40 of 45



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				+1.8VSP	
Document Number		Rev		B	
Date: Thursday, July 22, 2010		Sheet		41 of 45	
PEW96 LA-6552P					



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	+CPU_CORE
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	C	Document Number	NAV71		Rev
Date:	Thursday, July 22, 2010	Sheet	42	of	45

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

Page 1 of 2
for PWR

Item	Fixed Issue	Reason for change	Rev.	PG #	Modify List	Date	Phase
1	Modify Pre-charger				Add PR279,PR288,PC57 Change PR285 100K to 47K Change PR287 20K to 14.3K Change PQ67 2N7002 to PDTTC115 Change PR62 47K to 200K Change PR79 22K to 47K Change PR283 0 to 100K	2010 0528	PVT
2	Meet common rule				Change PJ30 to PL36, PJ23 to PL37 Add PC361,PC362	2010 0602	PVT
3	HDMI test fail	5V voltage too low at test termial		36	Change PR265 from 30K to 30.9K	2010 0604	PVT
4	ESD test fail	ESD solution			Add PC22, PC23	2010 0608	PVT
5	EMI test fail	EMI solution			Enable 3V,5V,1.1V,1.5V,NB_CORE,CPU snubber	2010 0608	PVT
6	Power sequence tune			41	Change PR144 from 22K to 200K Change PC156 from 0.47u to 0.22u	2010 0609	PVT
7	Costdown	Costdown		38	Change PQ28 from AO4456 to AO4712 Change PR112 from 13K to 18.2K Change PL7 from 1.0uH to 1.8uH Change PQ61 from AO4712 to AO4468	2010 0617	PVT
8					PR268 from 133K to 137K PQ57 from AO4466 to AO4468		
9	For DDR voltage default/HW YC	DDR 2 need 0.9V, DDR 3 need 1.05V But DDR2 voltage is critical then DDR 3		39	Disable PR152 Enable PR160	2010 0705	Pre MP
10	Aprove 200MHz~220MHz/EMI Chris	EMI solution		37	Enable PR80, PC128 Change PR82 from 0 to 2.2	2010 0705	Pre MP
11	Add a bypass path/ESD Chris	ESD solution		35	Add PC26 near PC22	2010 0705	Pre MP
12							
13							
14							
15							
16							

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
				PIR (PWR)
				PEW96 LA-6552P
				Rev B
Date: Thursday, July 22, 2010				Sheet 43 of 45

Item	Fixed Issue	Reason for change	Rev.	PG #	Modify List	Date	Phase
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title
				PIR (PWR)
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.		Rev. B	Document Number	PEW96 LA-6552P
Date: Thursday, July 22, 2010		Sheet 44 of 45		

05/10 First release

- 1. Change Cardreader chip (RTS5137/RTS5138)
- 2. ODD used to ODD sub/b
- 3. RTC Battery change (w/o charge)

06/11 PVT

- 1. P.28 Reserve R889 For EC_CLK, pop R851, unpop R852 For EC_SMBus leakage
- 2. P.26 Remove R853
- 3. P.28 project ID-->1 Board ID -->1, unstuff KSI, KSO Cap.
- 4. P.8 Change R41 as 31.6k ohm and R42 as 30k ohm for TSI

07/05 Pre-MP

- 1. P.19 Reserve R890 For MEM_1V5
- 2. P.28 Change R419 as 10 ohm For EMI

07/20

- 1. P.29 Change R477, R499 as 750 ohm; change R478 as 3.01k ohm; change R498 as 3.3k ohm for LED light

CONFIDENTIAL

Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2010/04/12	Deciphered Date	2010/10/12	Title	HW PIR	
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 TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev
				B	PEW/76/86/96 LA-6552P	B
				Date:	Thursday, July 22, 2010	Sheet 45 of 45