

Compal confidential

EPW00 Schematics Document

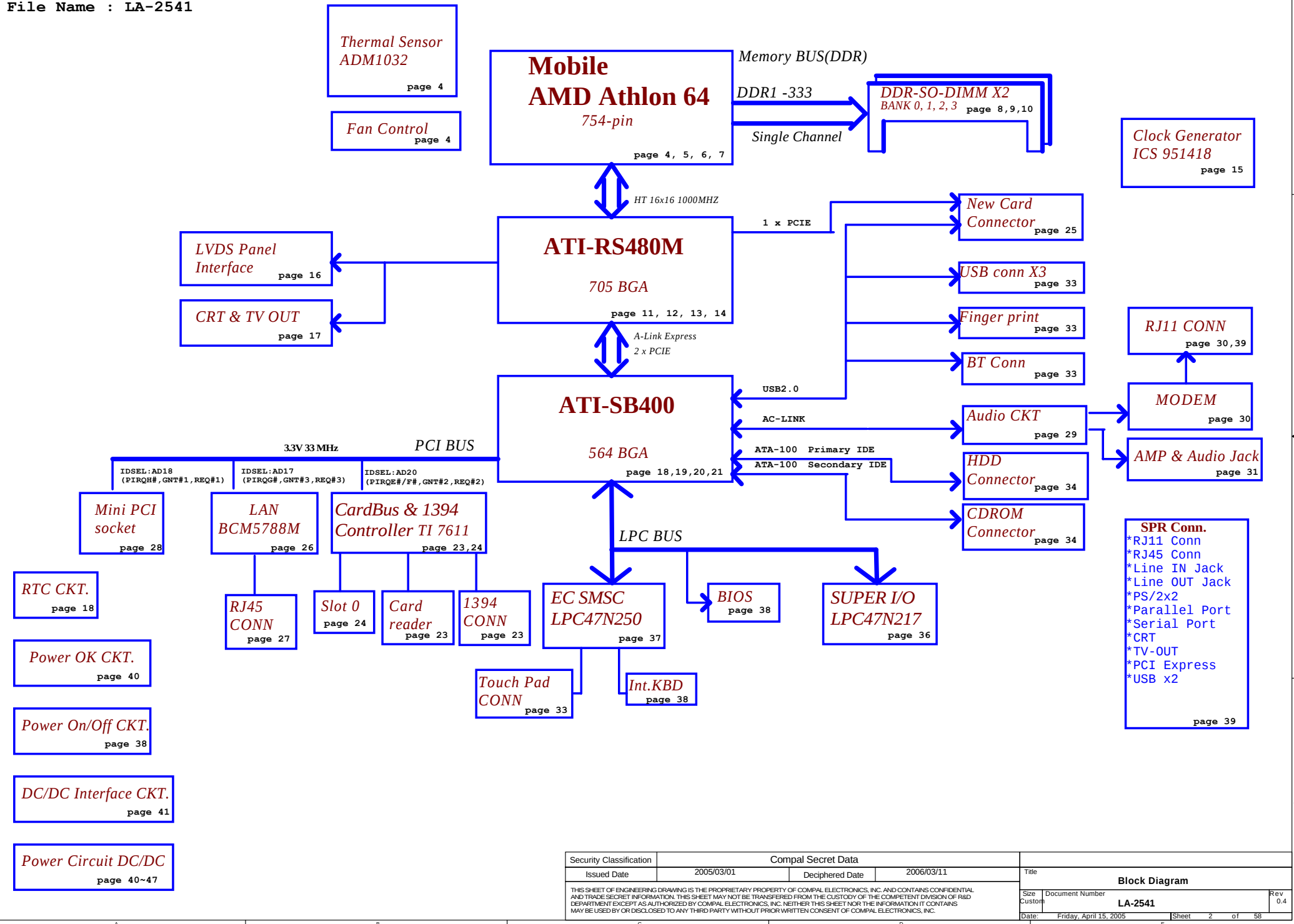
Mobile AMD Athlon 64 with ATI RS480M+ATI SB400

2005-04-15

REV:0.5



Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/11	Deciphered Date	2006/03/11	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 USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-2541
				Date:	Friday, April 15, 2005
				Sheet	1 of 58
				Rev	0.4



Voltage Rails

power plane State	+5VALW +3VALW +1.8VALW	+5V +2.5V +1.25V	+5VS +3VS +2.5VS +1.8VS +1.5VS +2.5VDDA +CPU_CORE +1.2V_HT +RS480_Core
S0	○	○	○
S1	○	○	○
S3	○	○	✗
S5 S4/AC	○	✗	✗
S5 S4/AC don't exist	Only +3VL ON	✗	✗

○ MEANS ON
✗ MEANS OFF

Symbol note:

↓ :means digital ground.

↓ :means analog ground.

@ :means reserved(un-mount).

4401@ :means populate for BCM4401 only.

5788@ :means populate for BCM5788M only.

7611@ :means populate for PCI7611 only.

4510@ :means populate for PCI4510 only.

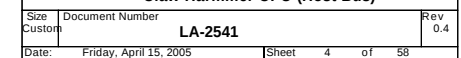
PCI Devices

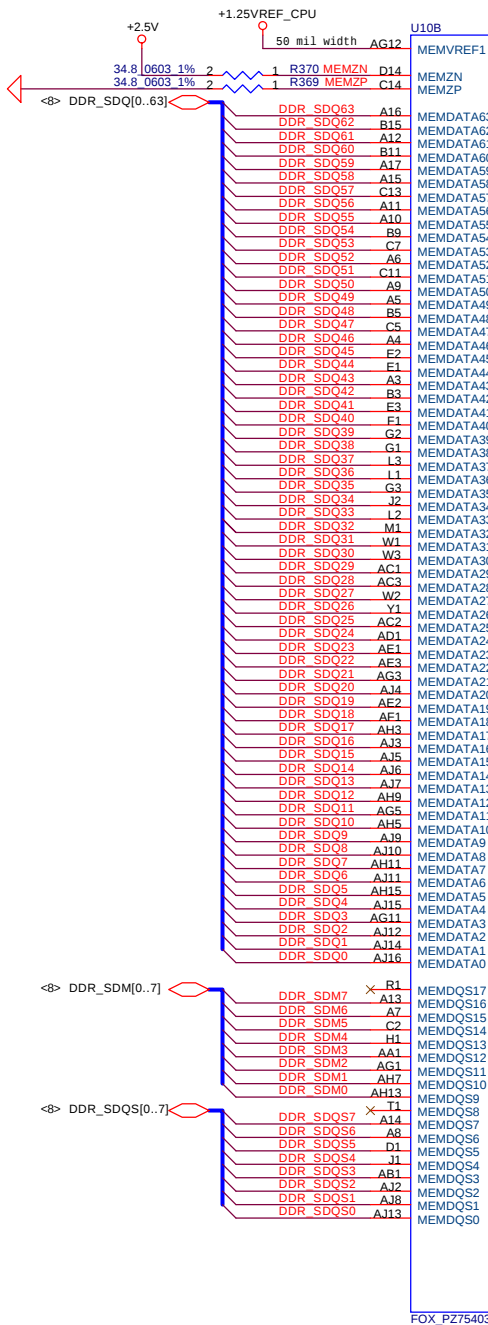
INTERNAL DEVICE	PIRQ
SMBUS	
IDE	A
LPC I/F	
PCI to PCI	
AC97 AUDIO	B
AC97 MODEM	B
OHCI#1 USB	D
OHCI#1 USB	D
EHCI USB	D
SATA#1	A
SATA#2	A

EXTERNAL	IDSEL #	REQ/GNT #	
CARD BUS & 1394	AD20	2	E, F
LAN	AD17	3	H
Mini-PCI	AD18	1	G

Jump	Normal operation	KBC Internal ROM flash	Comment
PJ1	Short Pad	Short Pad	+3VL
PJ3	Short Pad	Short Pad	+3VALW
PJ4	Short Pad	Short Pad	+1.8VALW
PJ5	Short Pad	Short Pad	+5VALW
PJ6	Short Pad	Short Pad	+1.5VS
PJ7	Short Pad	Short Pad	+2.5V
PJ8	Short Pad	Short Pad	+1.25V
PJ9	Short Pad	Short Pad	+1.2V_HT
PJ11	Short Pad	Short Pad	
PJ12	Short Pad	Short Pad	
PJ14	Short Pad	Short Pad	+RS480_Core
J1	Short Pad	No Short Pad	For ATE
J2	Short Pad	No Short Pad	For ATE
J3	No Short Pad	No Short Pad	
J4	No Short Pad	No Short Pad	Clear CMOS
J5	No Short Pad	Short Pad	For ATE
J6	No Short Pad	Short Pad	For ATE
J7	No Short Pad	Short Pad	For ATE
J8	Short Pad	No Short Pad	For ATE
J9	No Short Pad	Short Pad	For ATE

Security Classification	Compal Secret Data			Title		
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Notes List		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev
				Custom	LA-2541	0.4
				Date:	Friday, April 15, 2005	Sheet 3 of 58





Claw Hammer-DTR

DDR Memory

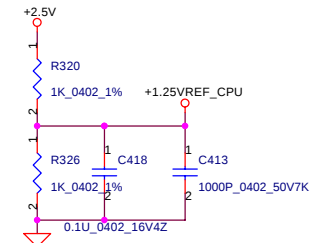
A CHANEL ADDRESS

B CHANEL ADDRESS

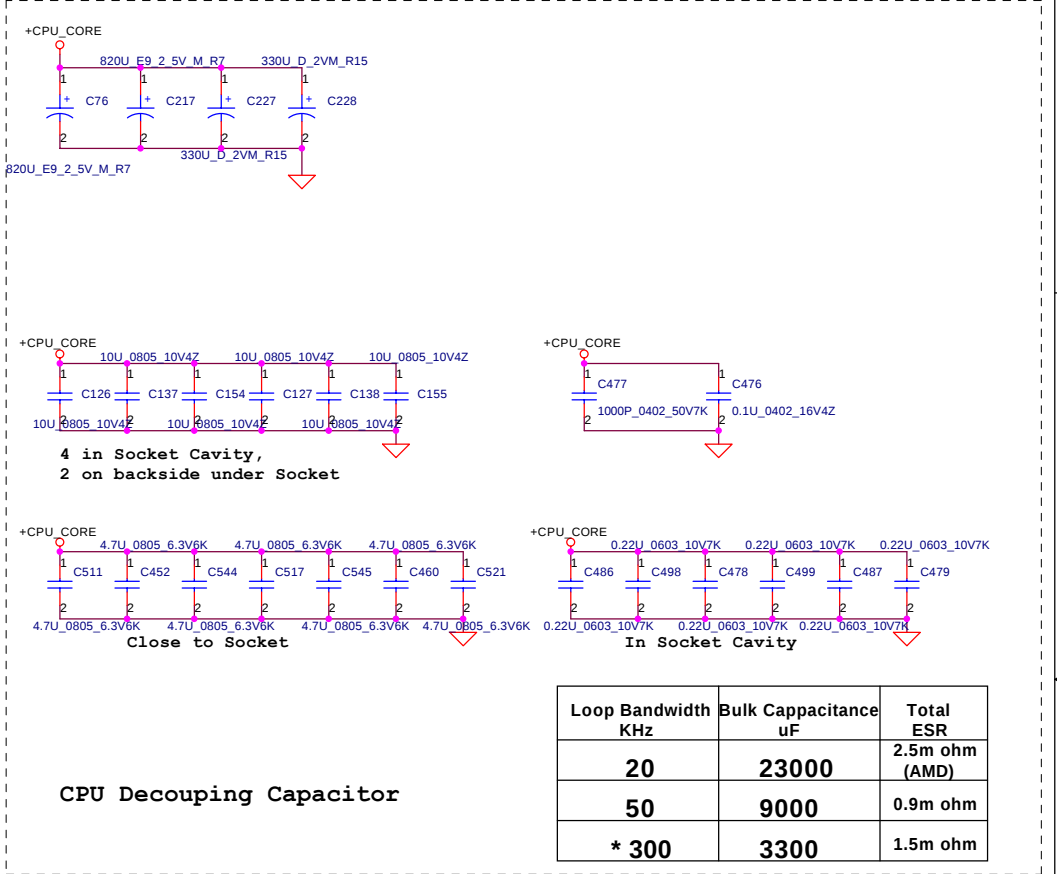
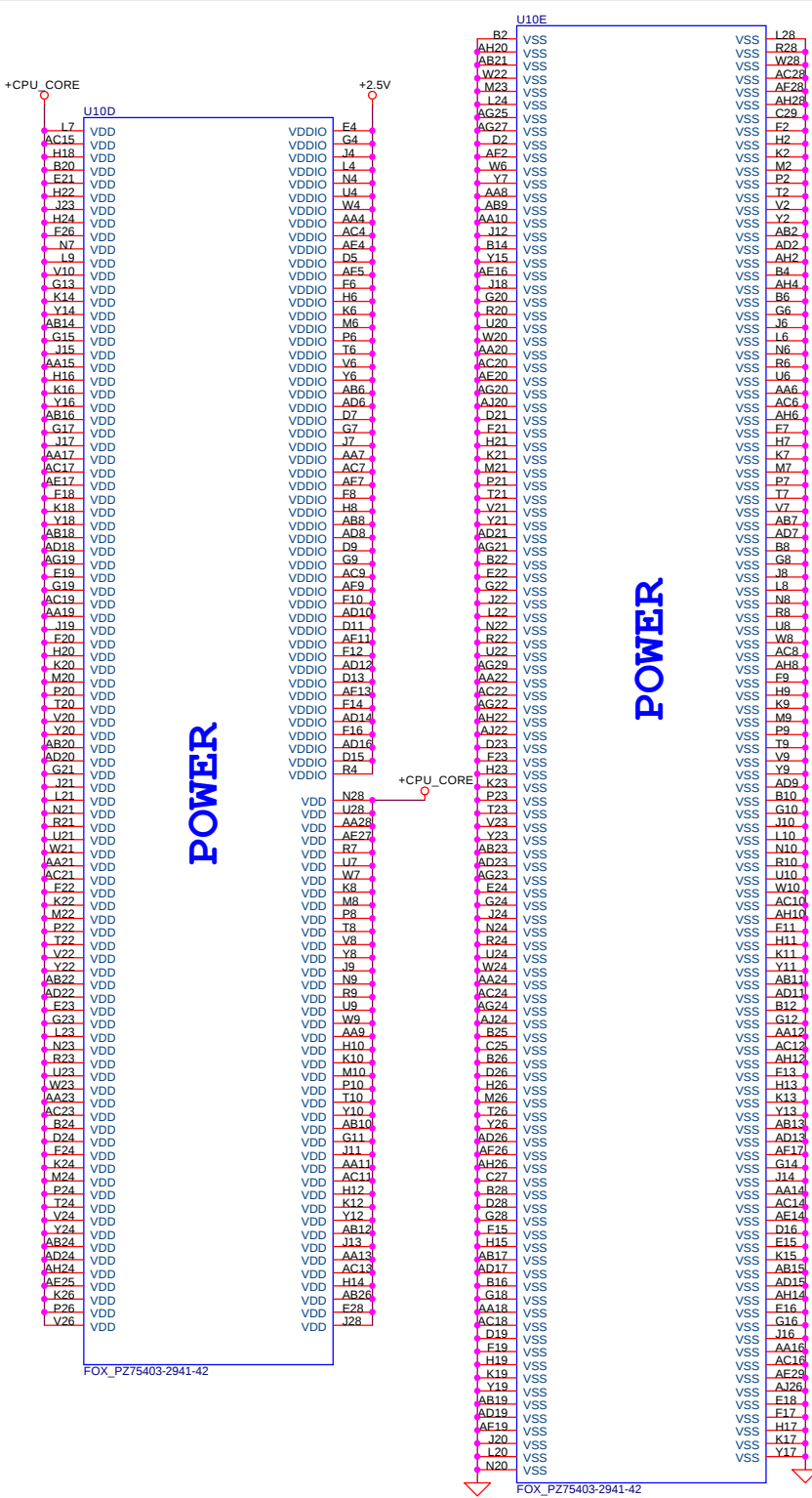
DDR_CLK5/5# & DDR_CLK7/7#
route to nearest DIMM
DDR_CLK4/4# & DDR_CLK6/6#
route to farthest DIMM

DDR_CLK7 R130 1 2 120 0402 5% DDR_CLK7#
DDR_CLK6 R129 1 2 120 0402 5% DDR_CLK6#
DDR_CLK5 R92 1 2 120 0402 5% DDR_CLK5#
DDR_CLK4 R83 1 2 120 0402 5% DDR_CLK4#

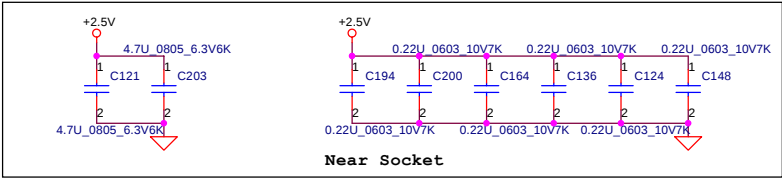
within 1.00"

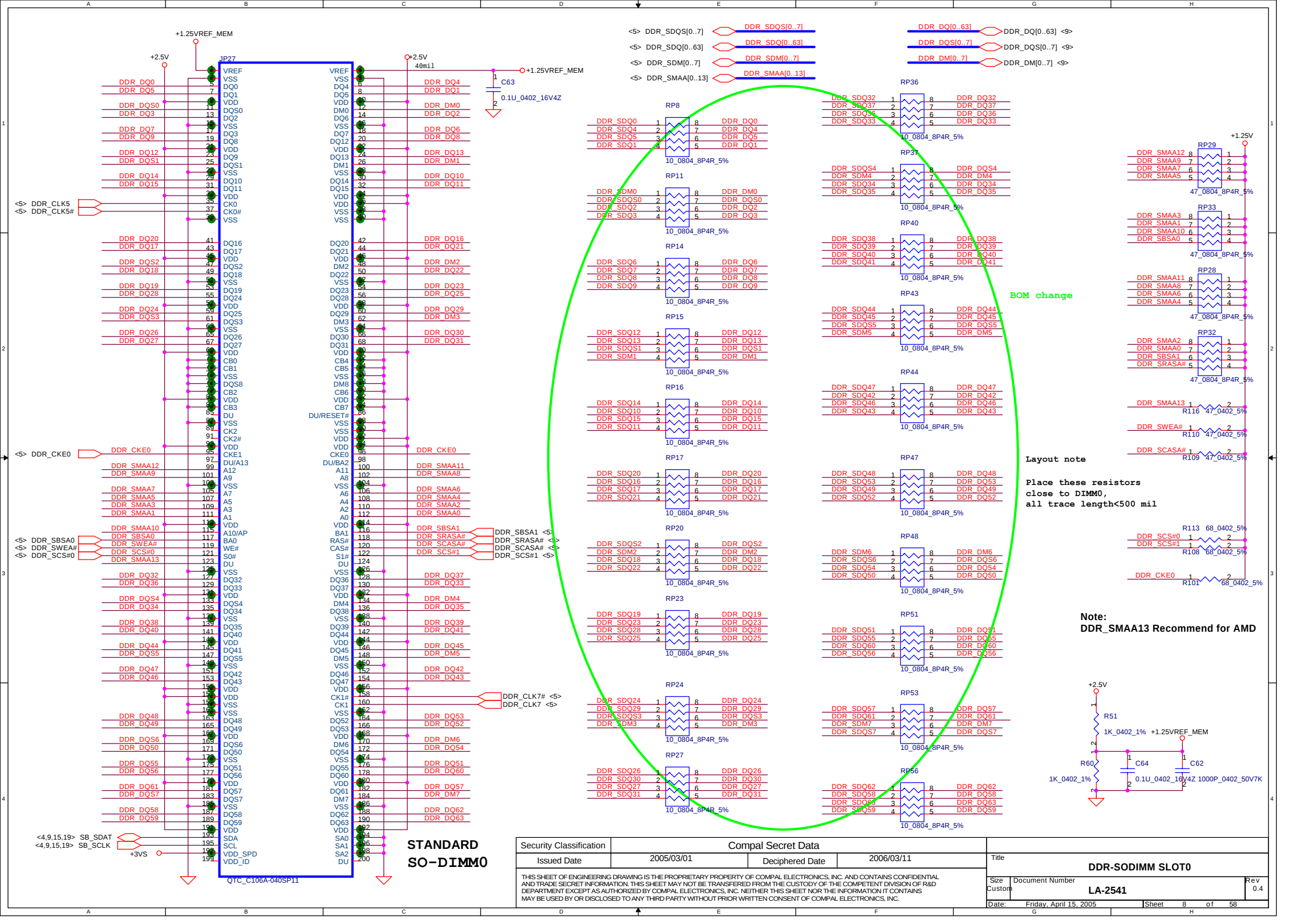


Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Claw Hammer (Memory Bus)	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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-2541	
				Date: Friday, April 15, 2005	Sheet 5 of 58

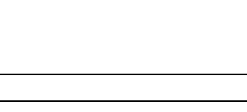
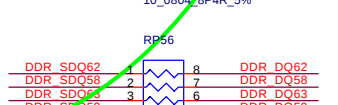
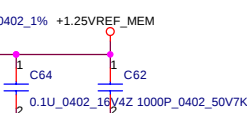
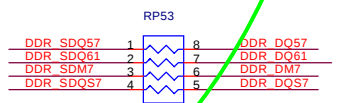
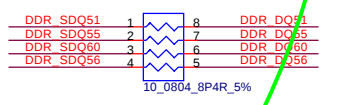
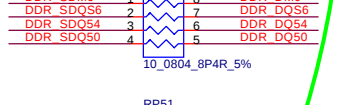
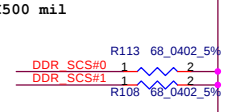
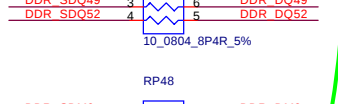
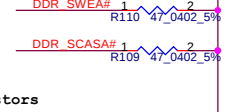
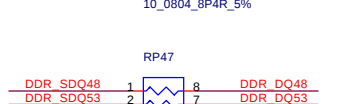
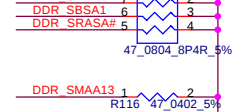
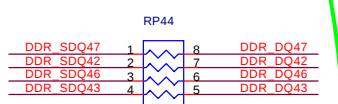
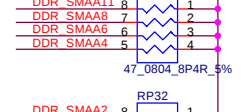
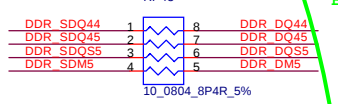
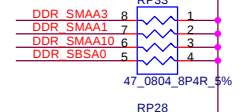
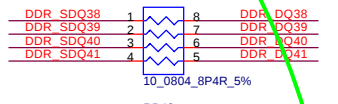
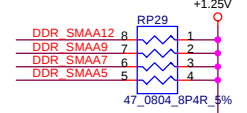
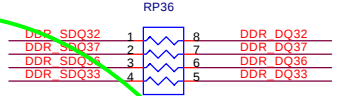


Loop Bandwidth KHz	Bulk Cappacitance uF	Total ESR
20	23000	2.5m ohm (AMD)
50	9000	0.9m ohm
* 300	3300	1.5m ohm



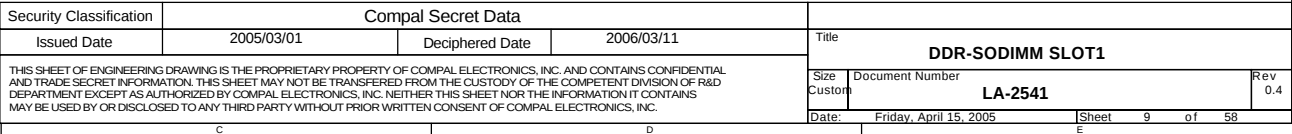


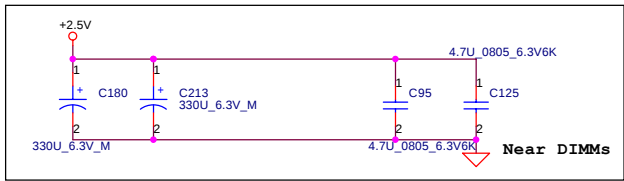
<5> DDR_SDQS[0..7] <5> DDR_DQ[0..63] <9>
<5> DDR_SDQ[0..63] <5> DDR_DQS[0..7] <9>
<5> DDR_SDM[0..7] <5> DDR_DM[0..7] <9>
<5> DDR_SMAA[0..13] <5>



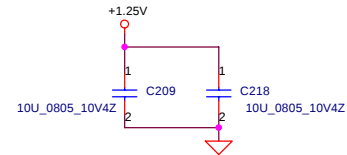
STANDARD
SO-DIMM0

Security Classification		Compal Secret Data			
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Title	DDR-SODIMM SLOT0
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-2541
				Date:	Friday, April 15, 2005
				Sheet	8 of 58

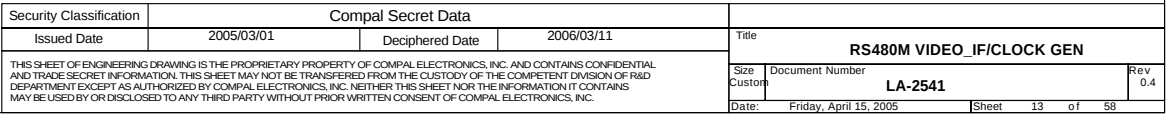


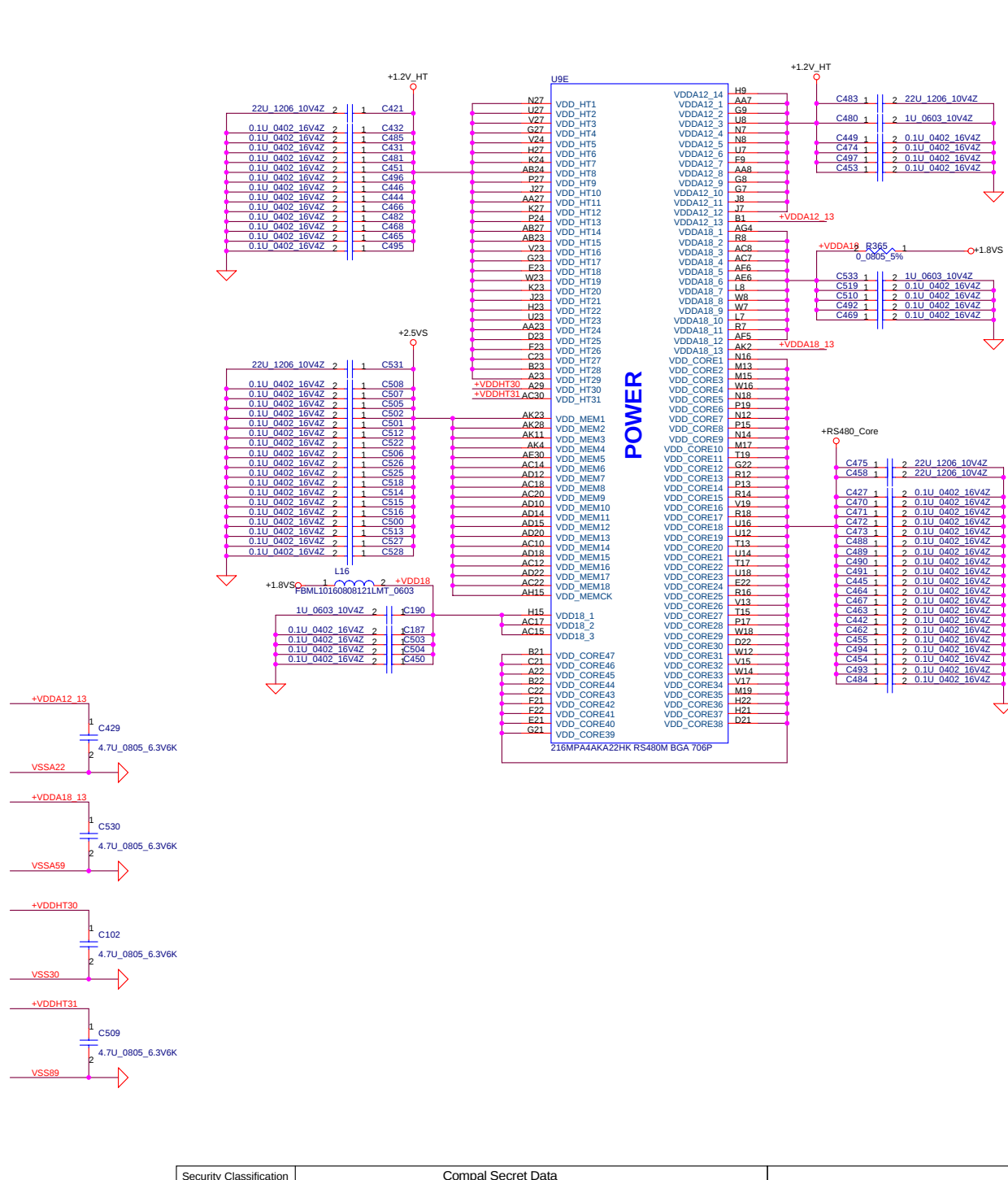
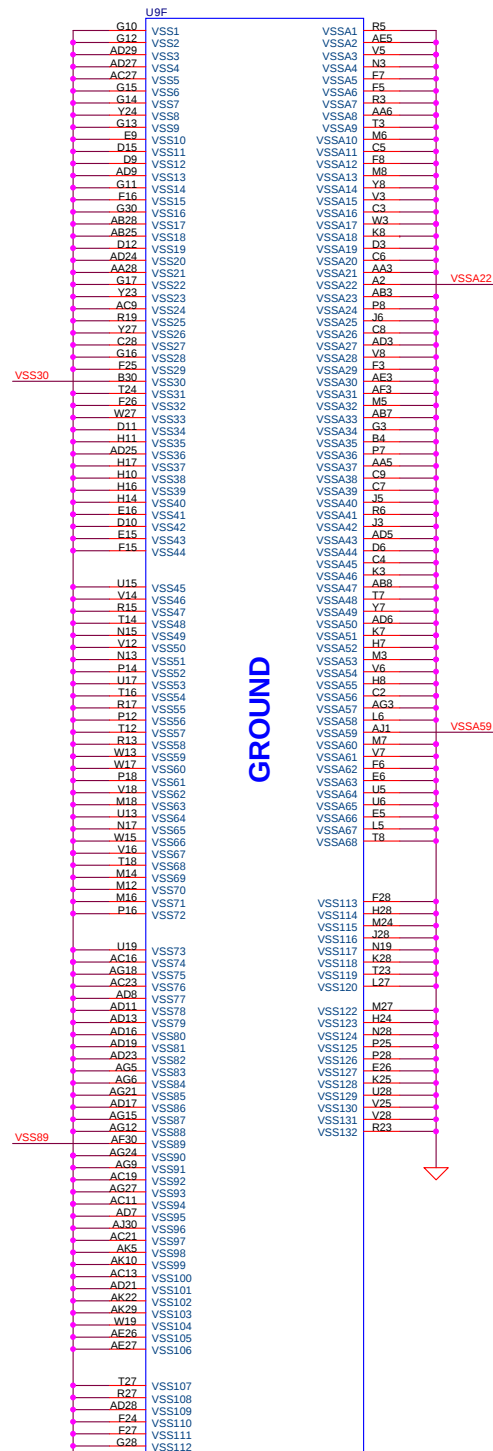


Layout note :
Place one cap close to every 2 pull up resistors termination to +1.25V

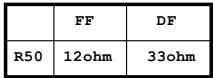


Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	DDR SODIMM Decoupling	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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-2541	
				Date: Friday, April 15, 2005	Rev 0.4
				Sheet 10 of 58	





Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	RS480M Power/GND	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number LA-2541
Date: Friday, April 15, 2005				Sheet	14 of 58

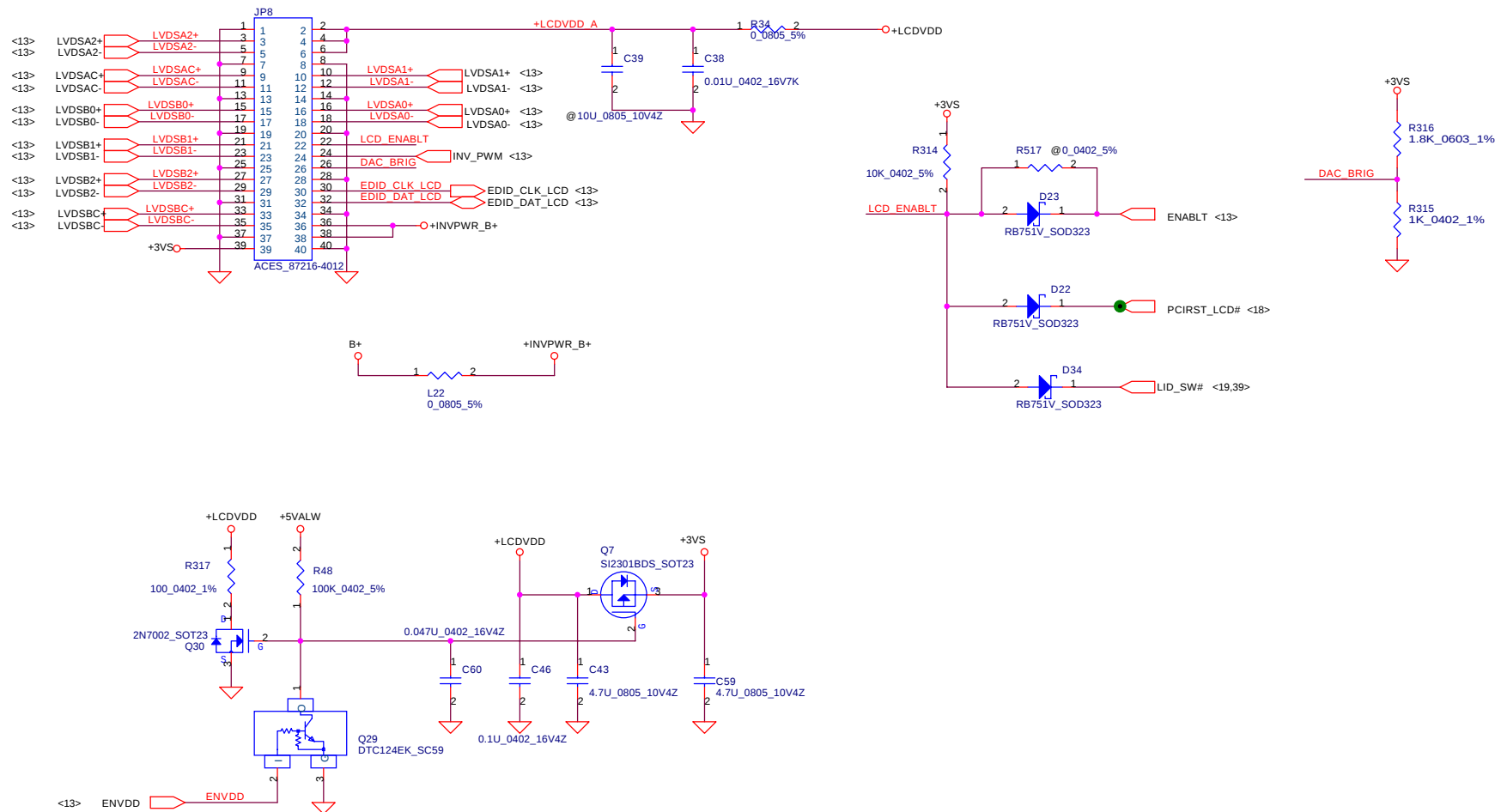


FS2	FS1	FS0	CPU	SRCCLK [2:1]	HTT	PCI	USB	COMMENT
0	0	0	Hi-Z	100.00	Hi-Z	Hi-Z	48.00	Reserved
0	0	1	X	100.00	X/3	X/6	48.00	Reserved
0	1	0	180.00	100.00	60.00	30.00	48.00	Reserved
0	1	1	220.00	100.00	36.56	73.12	48.00	Reserved
1	0	0	100.00	100.00	66.66	33.33	48.00	Reserved
1	0	1	133.33	100.00	66.66	33.33	48.00	Reserved
1	1	1	200.00	100.00	66.66	33.33	48.00	Normal HAMMER operation

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.

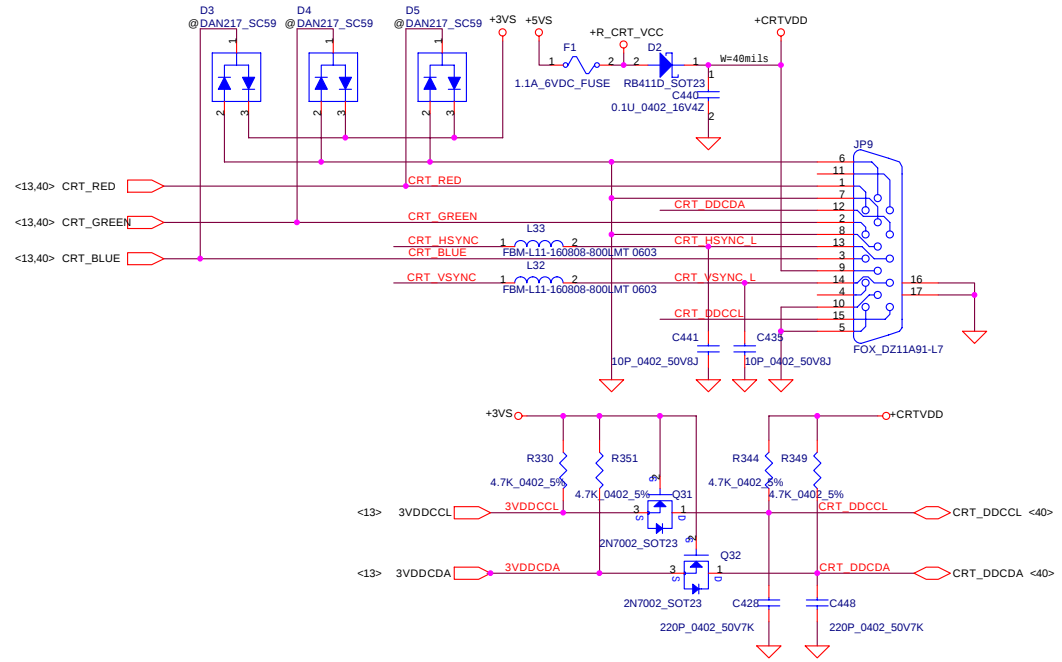
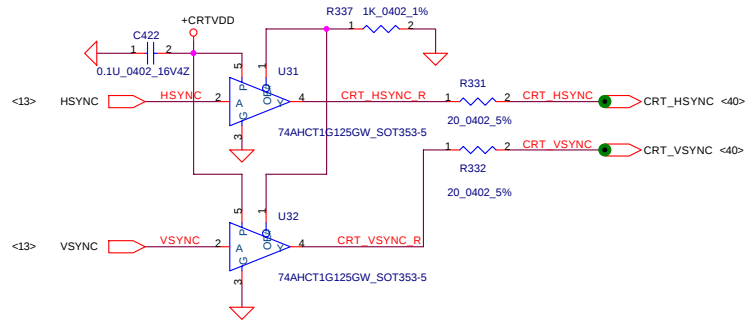
LCD Panel Connector

The cap.'s colselly to LCD CONN.



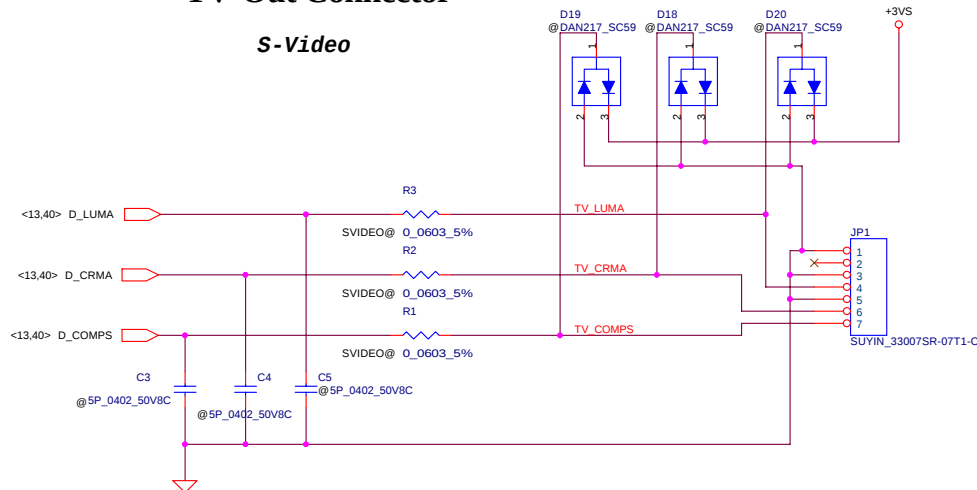
Security Classification		Compal Secret Data					
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Title			
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY 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.				LVDS Connector			
				Size	Document Number		Rev
				Custom	LA-2541		0.4
				Date:	Friday, April 15, 2005	Sheet	16 of 58

CRT CONNECTOR

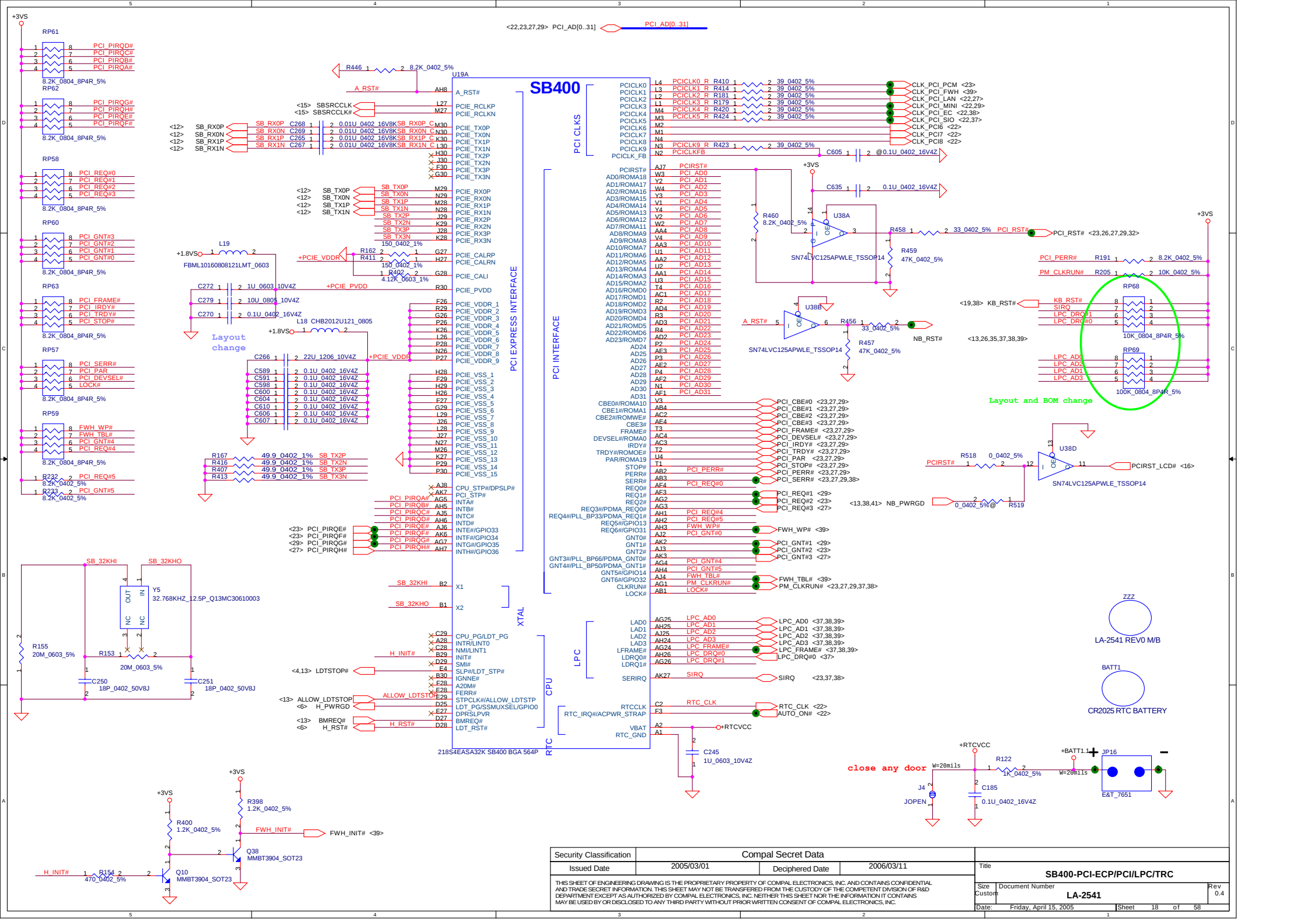


TV-Out Connector

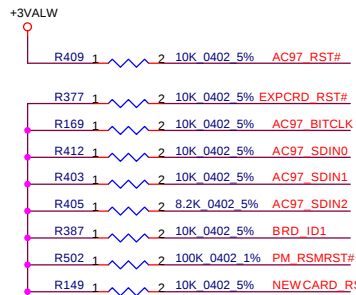
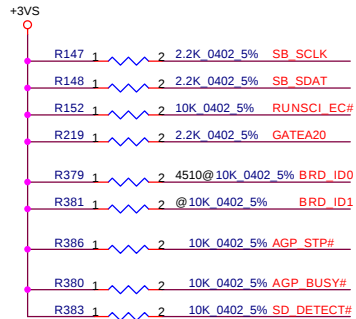
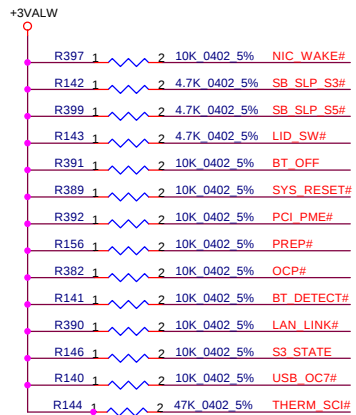
S-Video



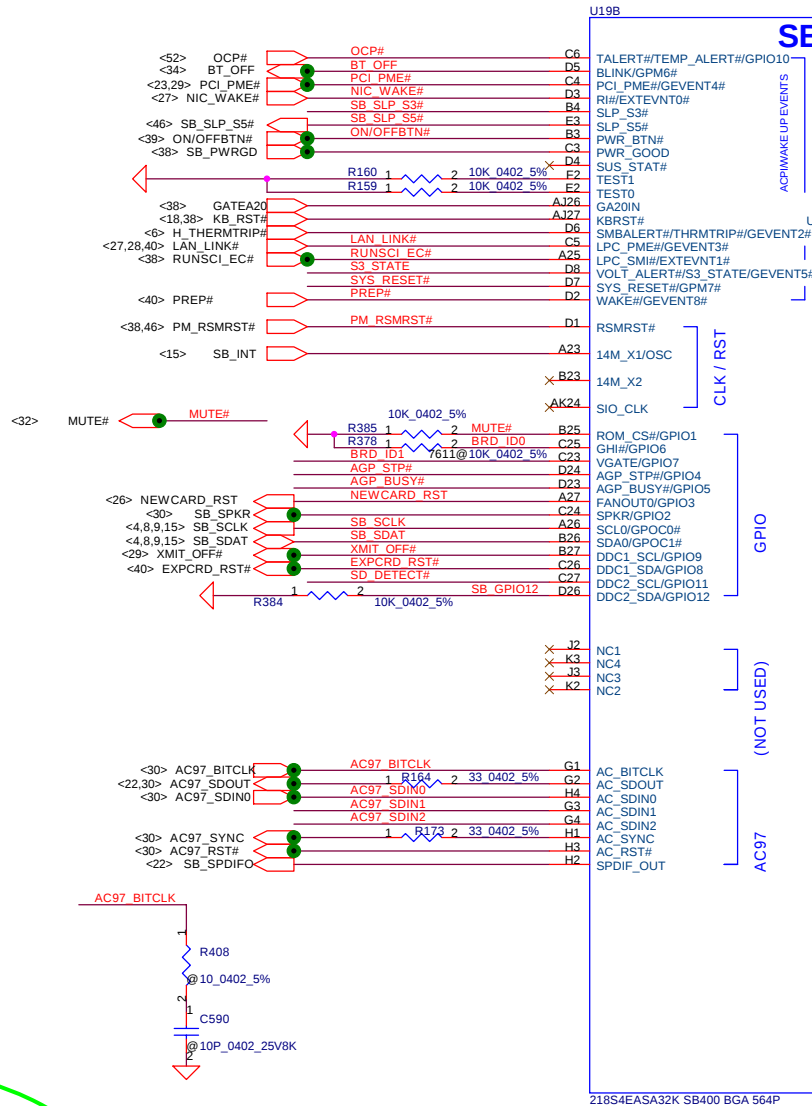
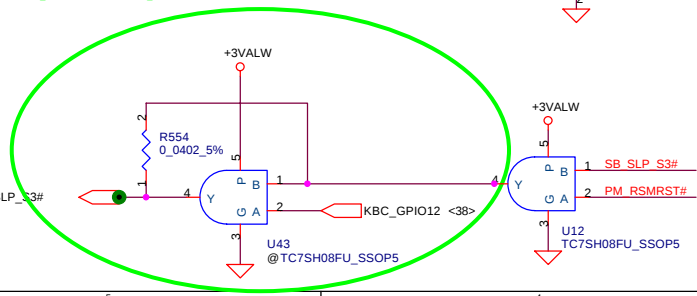
Security Classification	Compal Secret Data			Title		
Issued Date	2005/03/01	Deciphered Date	2006/03/11	CRT & TV out Connector		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Size	Document Number	Rev
				Custom	LA-2541	0.4
				Date:	Friday, April 15, 2005	Sheet 17 of 58



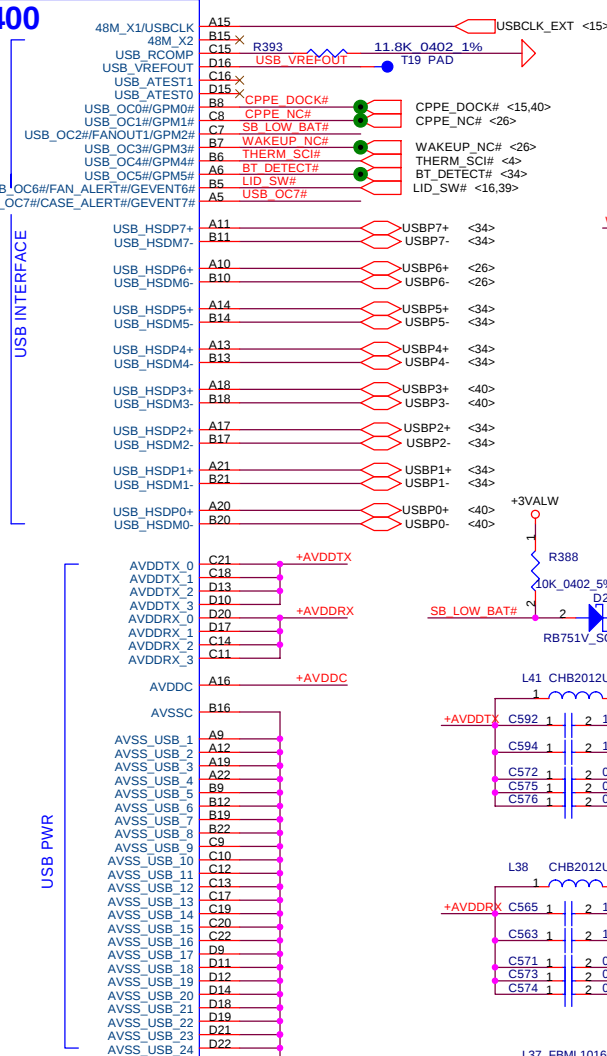
Board ID Settings		
BRD ID1	BRD ID0	feature
0	0	full-featured
0	1	de-featured



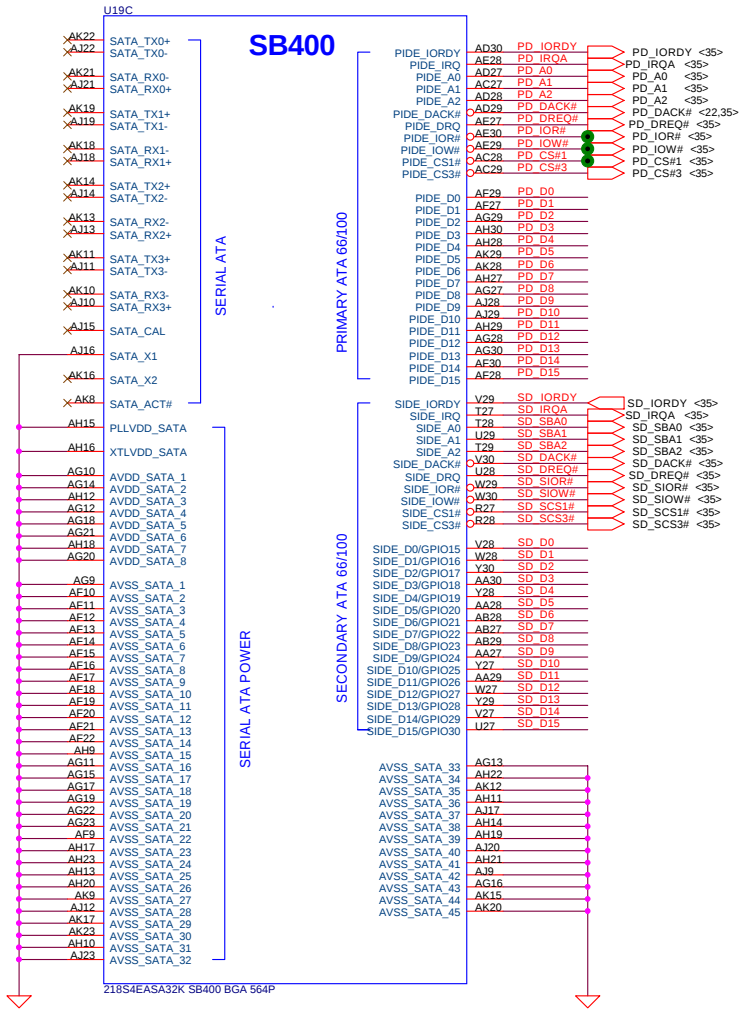
BOM and layout modify



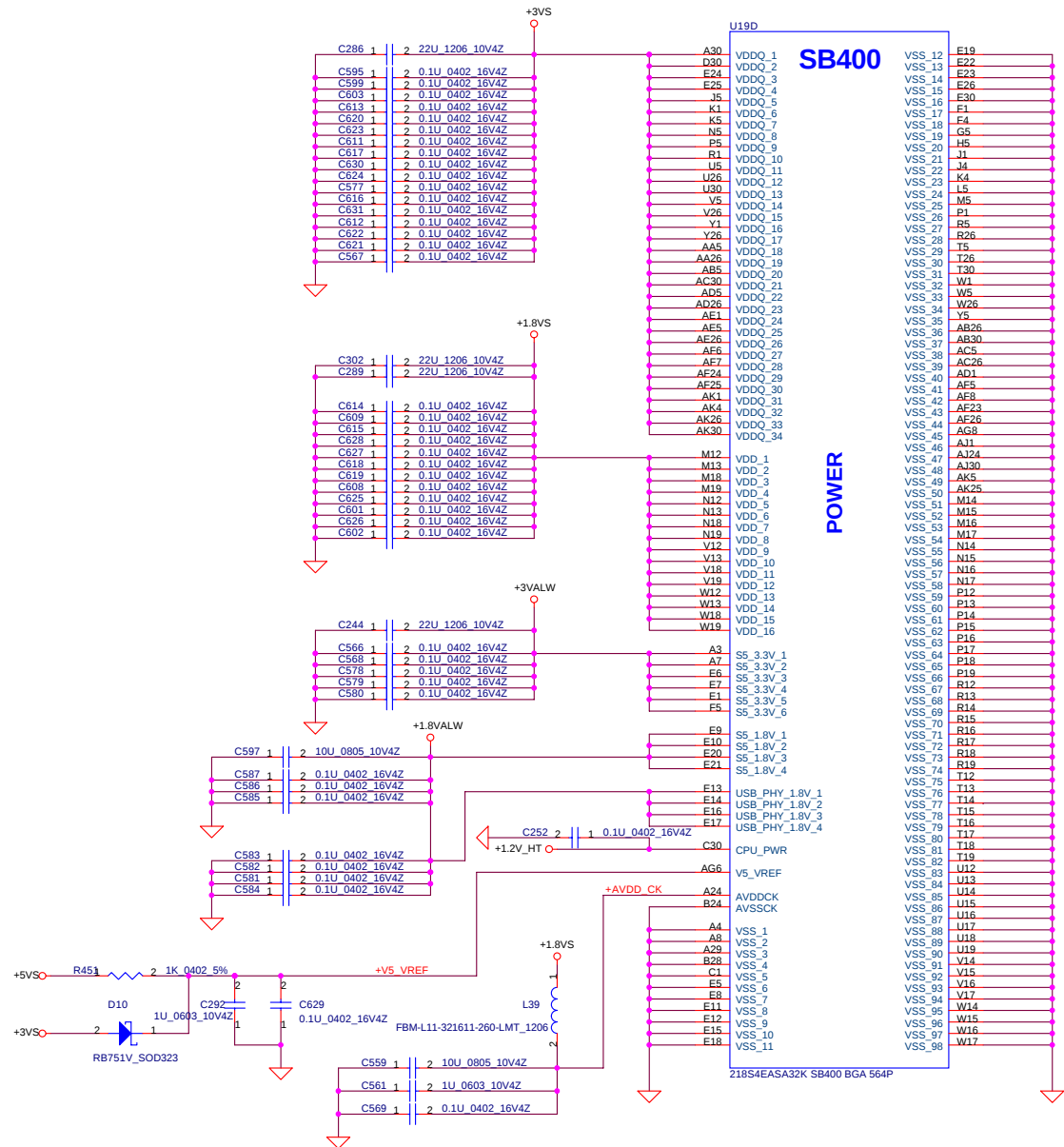
SB400



Security Classification		Compal Secret Data									
Issued Date		2005/03/01		Deciphered Date		2006/03/11		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.						SB400 USB/ACPI/AC97/GPIO					
						Size		Document Number		Rev	
						Customer		LA-2541		0.4	
						Date:		Friday, April 15, 2005		Sheet 19 of 58	

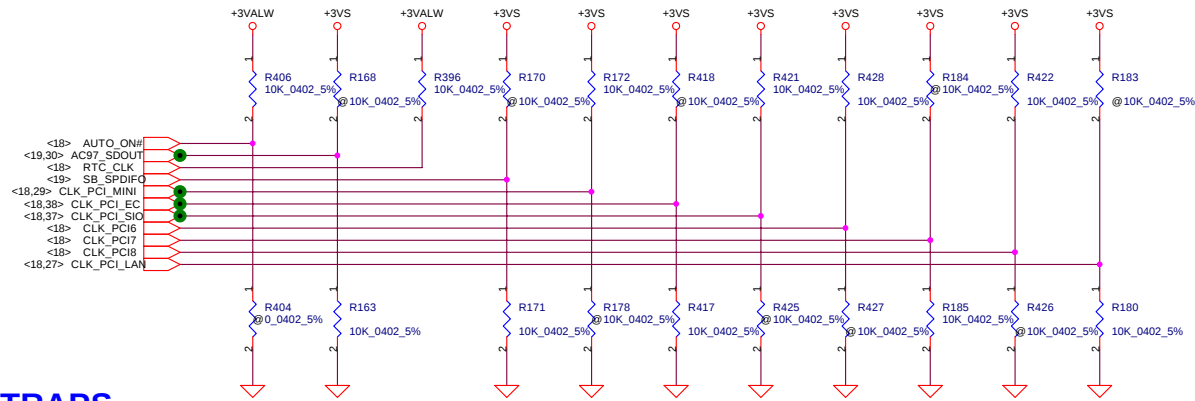


Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	SB400 IDE/SATA	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM 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-2541
				Date: Friday, April 15, 2005	Rev 0.4
				Sheet 20 of 58	



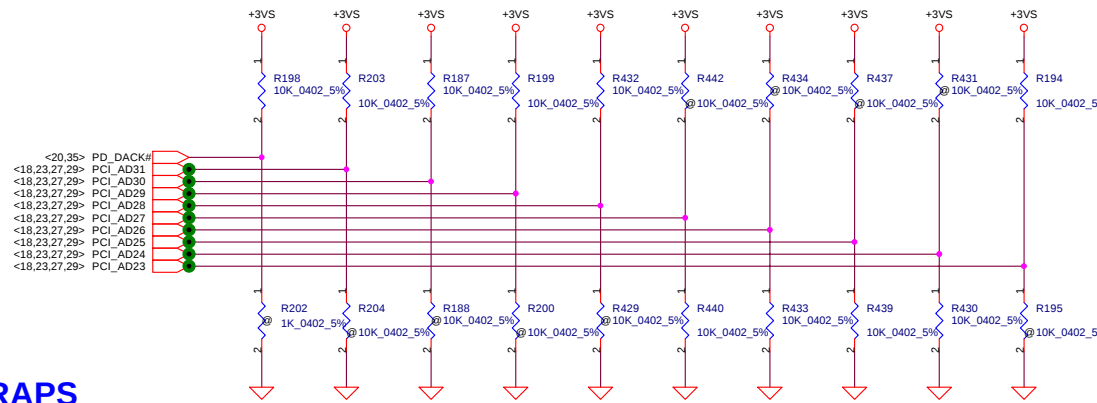
Security Classification	Compal Secret Data			Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	SB400 Power/GND	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number
				LA-2541	
				Date:	Friday, April 15, 2005
				Sheet	21 of 58
				Rev	0.4

REQUIRED STRAPS



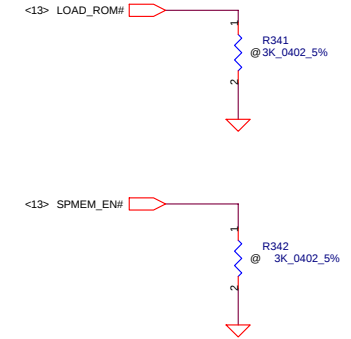
	AUTO_ON#	AC97_SDOOUT	RTC_CLK	SB_SPDIFO	CLK_PCI_LAN	CLK_PCI_MINI	CLK_PCI_EC	CLK_PCI_SIO	CLK_PCI6	CLK_PCI7	CLK_PCI8
PULL HIGH	MANUAL PWR ON DEFAULT	USE DEBUG STRAPS	INTERNAL RTC DEFAULT	SIO 24MHz	48MHz XTAL MODE	USB PHY PWRDOWN DISABLE DEFAULT	INTERNAL 48MHz DEFAULT	14MHz OSC MODE DEFAULT	CPU I/F = K8 DEFAULT	ROM TYPE H,H = PCI ROM H,L = PMC LPC ROM L,H = NORMAL LPC ROM L,L = FWH ROM	
PULL LOW	AUTO PWR ON	IGNORE DEBUG STRAPS DEFAULT	EXTERNAL RTC (NOT SUPPORTED W/ IT8712)	SIO 48MHz DEFAULT	48MHz OSC / Clock buffer MODE DEFAULT	USB PHY PWRDOWN ENABLE	EXTERNAL 48MHz	14MHz XTAL MODE	CPU I/F = P4		

DEBUG STRAPS



	PD_DACK#	PCI_AD31	PCI_AD30	PCI_AD29	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE LONG RESET DEFAULT	PLL CHARGE PUMP CTRL BIT 1 HI DEFAULT	PLL CHARGE PUMP CTRL BIT 0 HI DEFAULT	PLL VCO CTRL BIT 1 HI DEFAULT	PLL VCO CTRL BIT 0 HI DEFAULT	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	USE USB PLL
PULL LOW	USE SHORT RESET	PLL CHARGE PUMP CTRL BIT 1 LO	PLL CHARGE PUMP CTRL BIT 0 LO	PLL VCO CTRL BIT 1 LO	PLL VCO CTRL BIT 0 LO	USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	BY PASS USB PLL DEFAULT

NB STRAPS (internal pulled up)



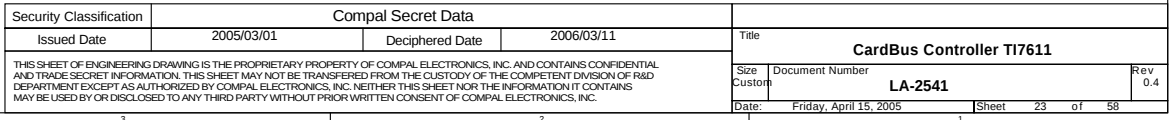
LOAD_ROM#:LOAD ROM STRAP ENABLE strap

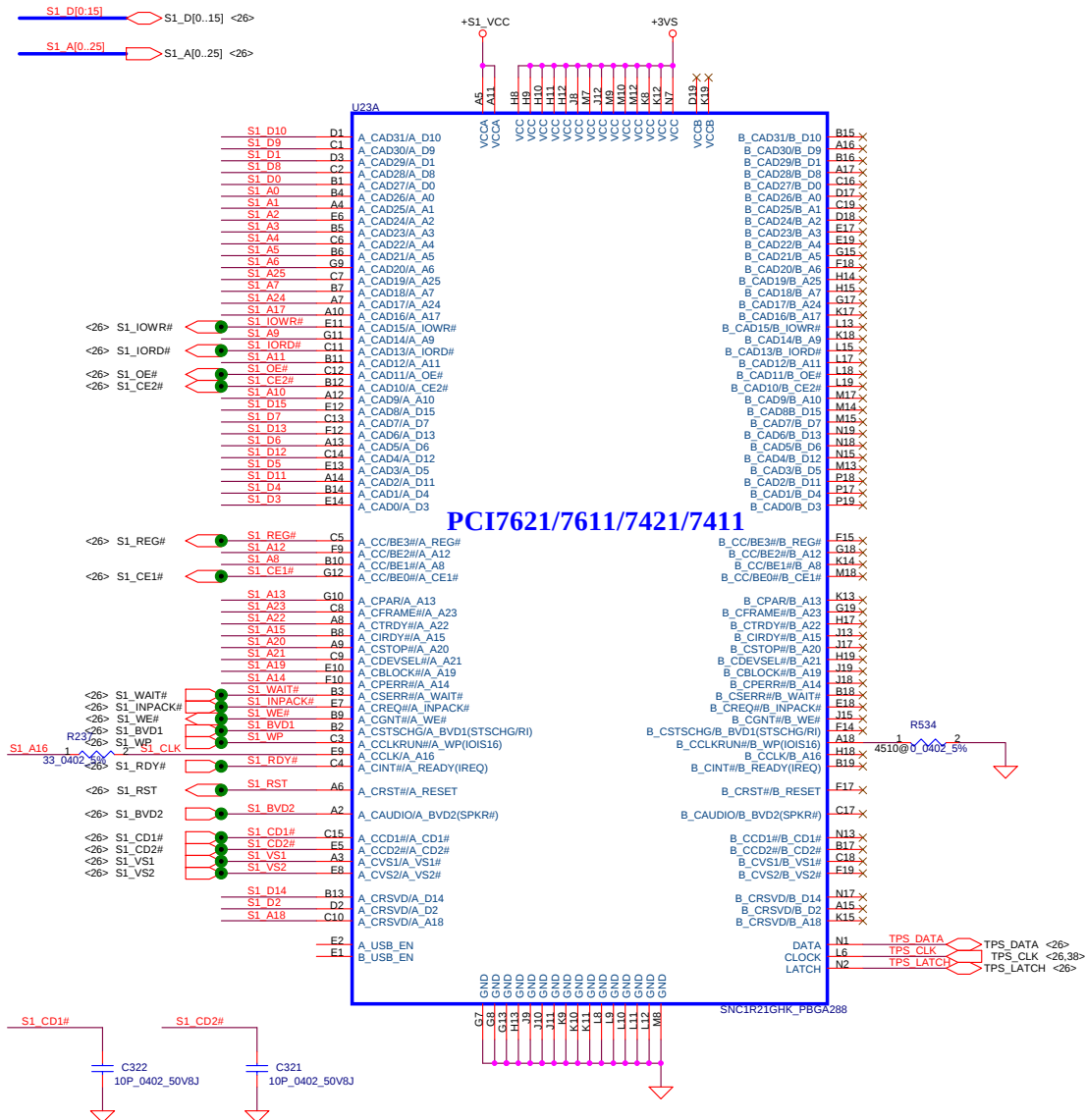
High, LOAD ROM STRAP DISABLE
Low, LOAD ROM STRAP ENABLE

SPMEM_EN#:SIDE PORT MEMORY ENABLE strap

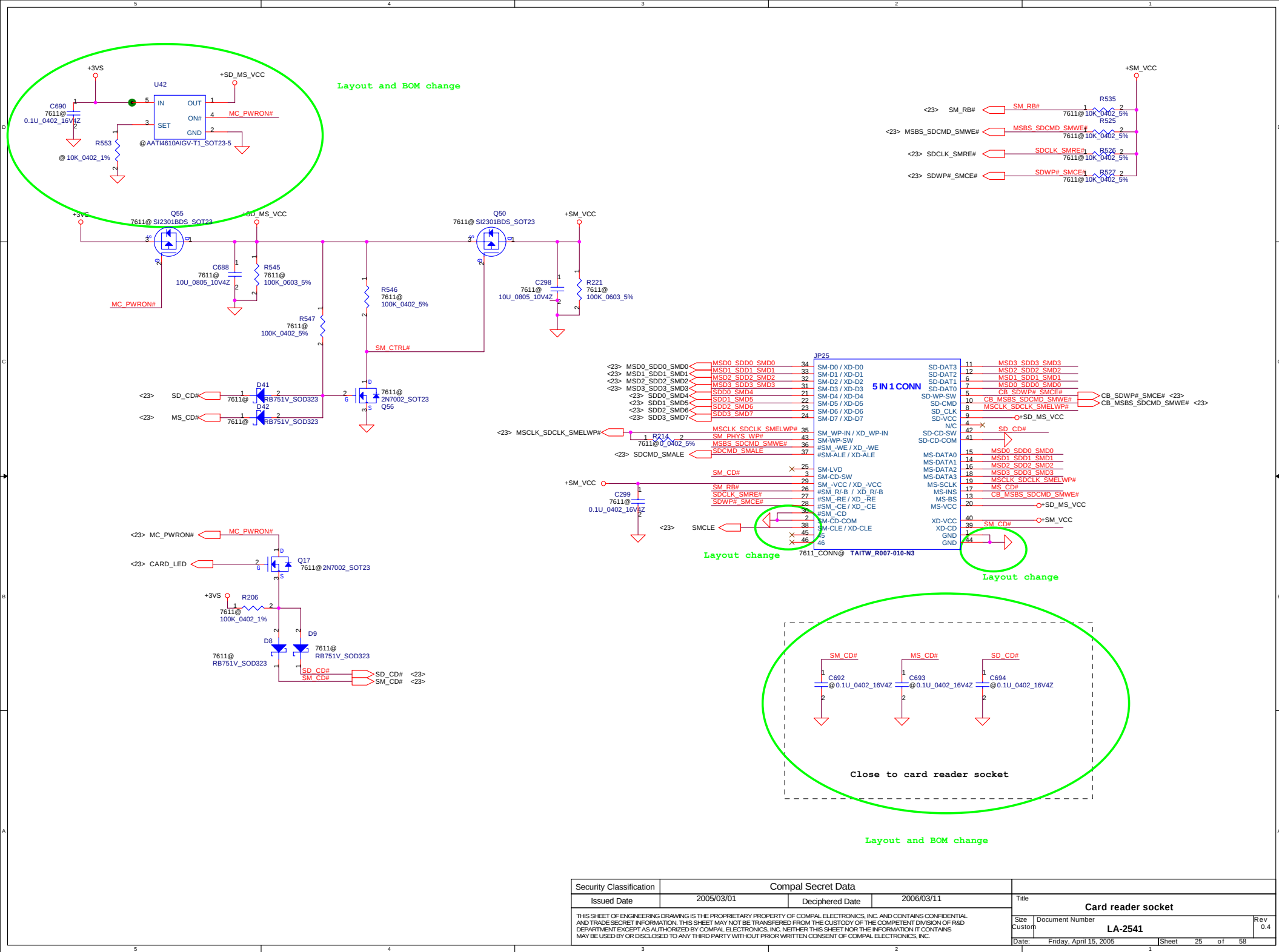
High, SIDE PORT MEMORY DISABLE
Low, SIDE PORT MEMORY ENABLE

Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Hardware Strap	
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-2541
Date: Friday, April 15, 2005				Sheet	Rev 0.4
1				22	58





Security Classification				Compal Secret Data				Title			
Issued Date				2005/03/01				Deciphered Date			
				2006/03/11				CardBus controller TI 7611			
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-2541				Rev			
				0.4				Date			
				Friday, April 15, 2005				Sheet			
				24				of			
				58							



CardBus Power Switch

The schematic diagram illustrates the CardBus Power Switch circuit. It features two main integrated circuits: U20 (SNP1X2IDBR_SSOP24) and U16 (SNP1X11AIDBR_SSOP16).

U20 (SNP1X2IDBR_SSOP24) Connections:

- Control Signals:**
 - TPS_DATA (Pin 3) connected to <24> TPS_DATA
 - TPS_CLK (Pin 4) connected to <24.38> TPS_CLK
 - TPS_LATCH (Pin 5) connected to <24> TPS_LATCH
 - PCI_RST# (Pin 12) connected to <18,23,27,29,32> PCI_RST#
- Power and Ground:**
 - 12V (Pin 20) and 12V (Pin 7) connected to 12V supply
 - 3.3V (Pin 14) connected to 3.3V supply
 - 5V (Pin 2) and 5V (Pin 24) connected to 5V supply
 - GND (Pin 11) connected to ground
 - NC1 (Pin 17), NC2 (Pin 18), NC3 (Pin 19), NC4 (Pin 21), NC5 (Pin 22), NC6 (Pin 23), NC7 (Pin 25), NC8 (Pin 26) are not connected.
- Other Pins:**
 - DATA (Pin 13) connected to CLOCK LATCH RESET#
 - OC# (Pin 15) connected to SHDN#
 - AVPP (Pin 8) connected to +S1_VPP
 - AVCC (Pin 9) connected to +S1_VCC

U16 (SNP1X11AIDBR_SSOP16) Connections:

- Power and Ground:**
 - +5V (Pin 5) and +5V (Pin 6) connected to +5V supply
 - +3V (Pin 3) and +3V (Pin 4) connected to +3V supply
 - +1V_VPP (Pin 10) connected to +S1_VPP
 - VCC (Pin 13), VCC (Pin 12), and VCC (Pin 11) connected to VCC supply
 - VPP (Pin 14) connected to VPP supply
 - GND (Pin 16) connected to ground
 - SHDN (Pin 15) connected to ground
- Control Signals:**
 - TPS_CLK (Pin 1) connected to TPS_CLK
 - TPS_LATCH (Pin 2) connected to TPS_LATCH
 - TPS_DATA (Pin 14) connected to TPS_DATA
- Other Pins:**
 - VCCD0 (Pin 1) connected to VCCD1# <23>
 - VCCD1 (Pin 2) connected to VCCD1# <23>
 - VPPD0 (Pin 15) connected to VPPD1
 - VPPD1 (Pin 14) connected to VPPD1
 - OC (Pin 8) is not connected.

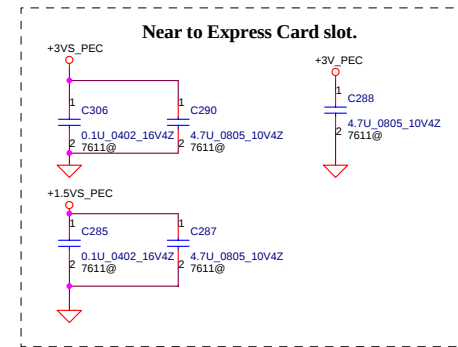
Capacitors and Resistors:

- C281, C283, C282, C284: 0.1uF, 0402, 16V4Z capacitors.
- C259, C258, C275, C278: 0.1uF, 0402, 16V4Z capacitors.
- R290, R193: 43K, 0402, 5% resistors.

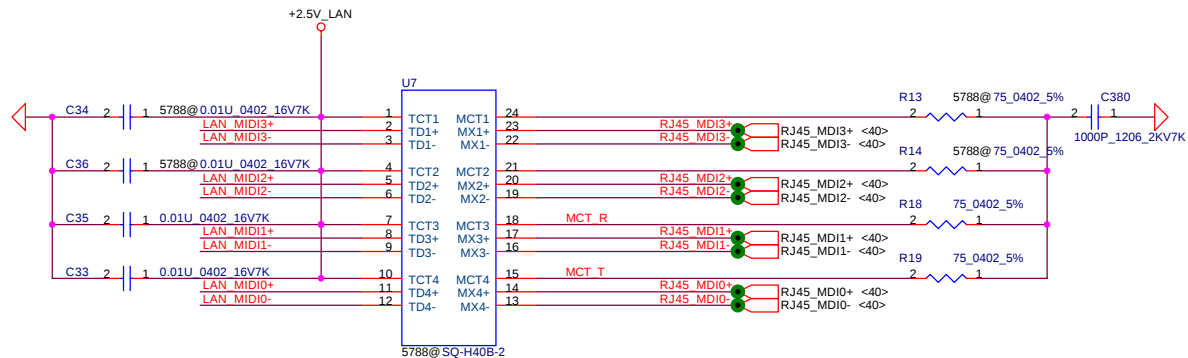
CardBus Connector:

- 7611@SNP1X2IDBR_SSOP24
- 4510@10K_0402_5%
- 4510@SNP1X11AIDBR_SSOP16

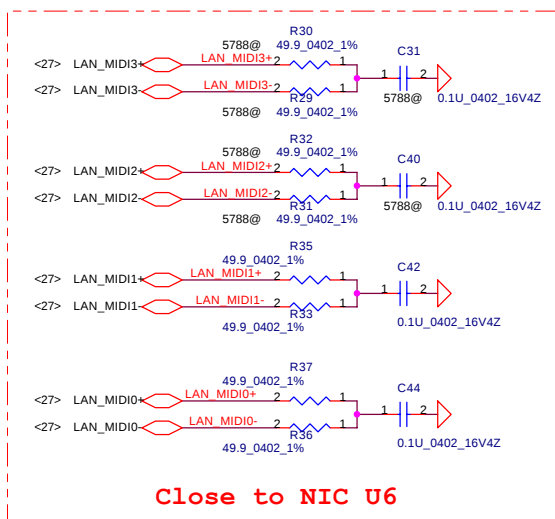
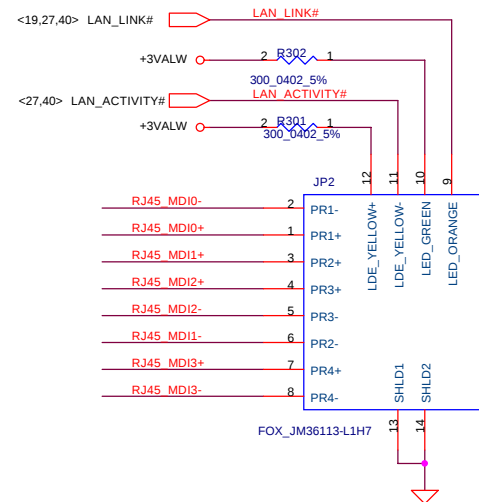
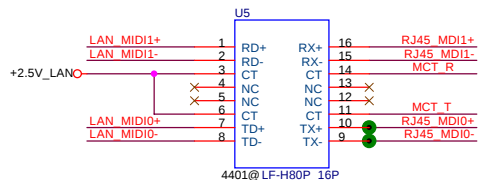
New Card Power Switch



Security Classification	Compal Secret Data						
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Title PCMCIA /Express card socket			
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev	
				Custom	LA-2541	0.4	
				Date:	Friday, April 15, 2005	Sheet	26 of 58

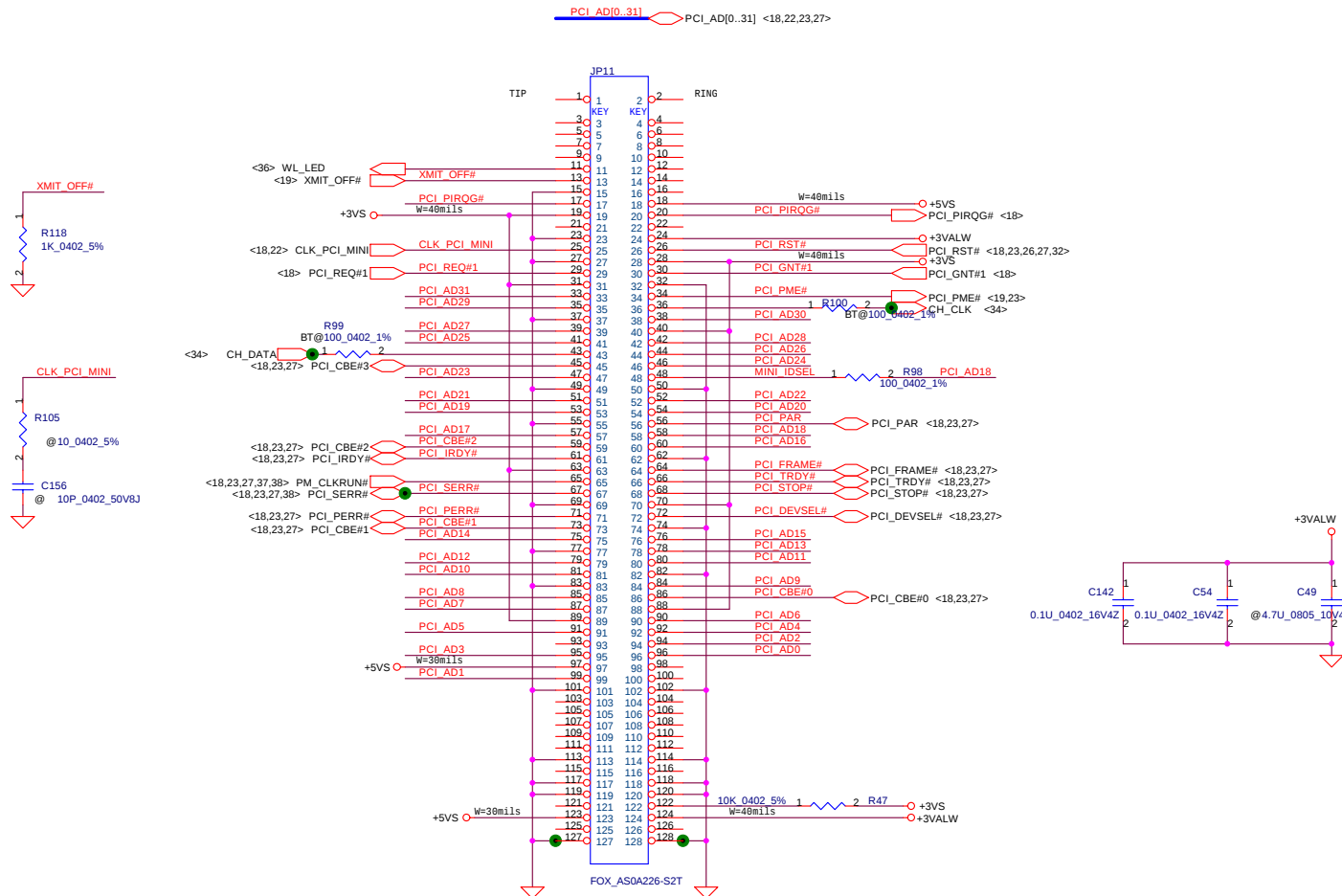
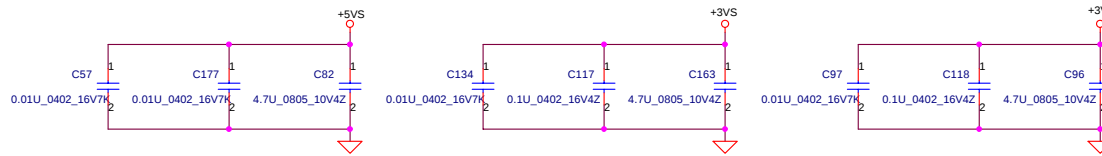


BOM change

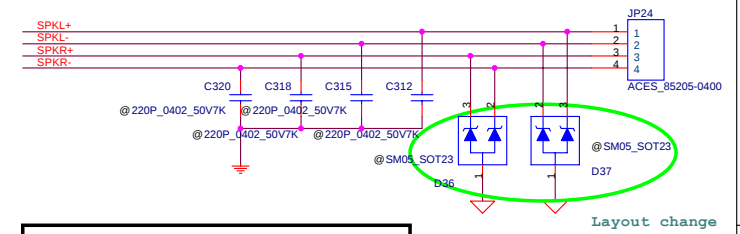
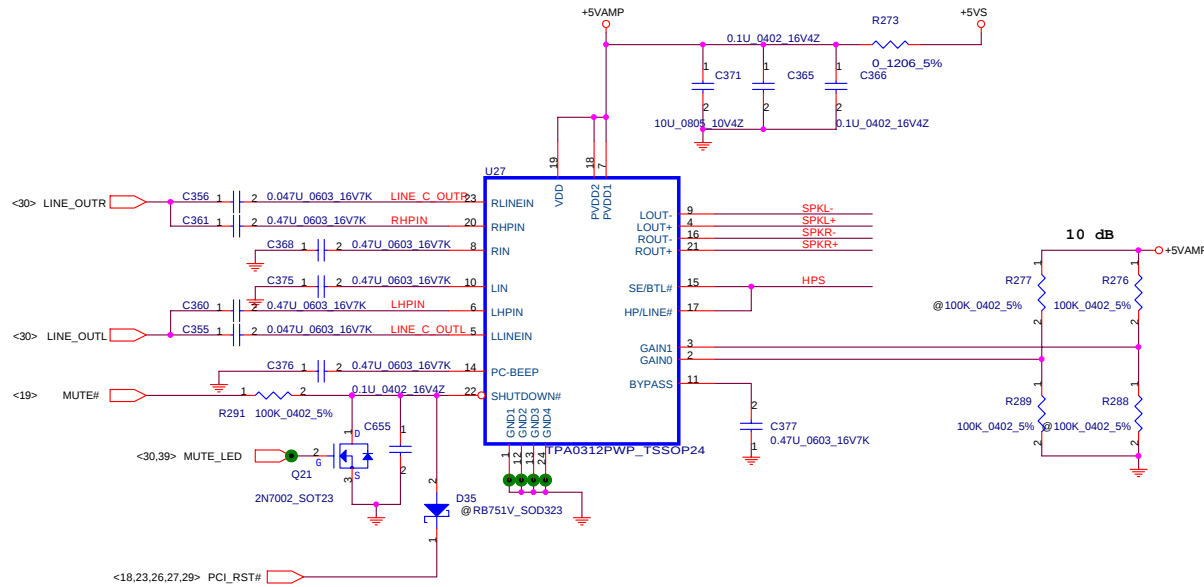


Close to NIC U6

Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	LAN Magnetic & RJ45	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number
				LA-2541	
				Date:	Friday, April 15, 2005
				Sheet	28 of 58
				Rev	0.4

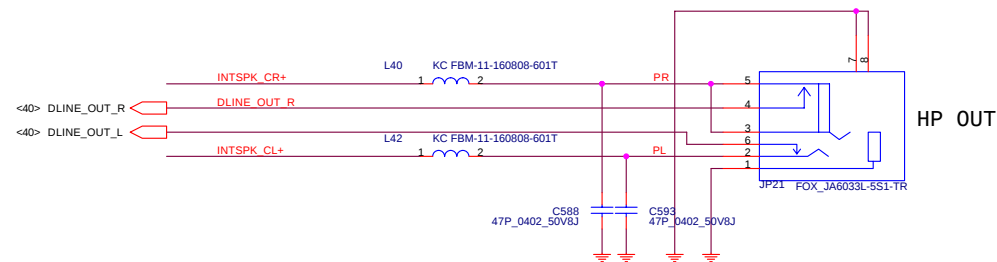
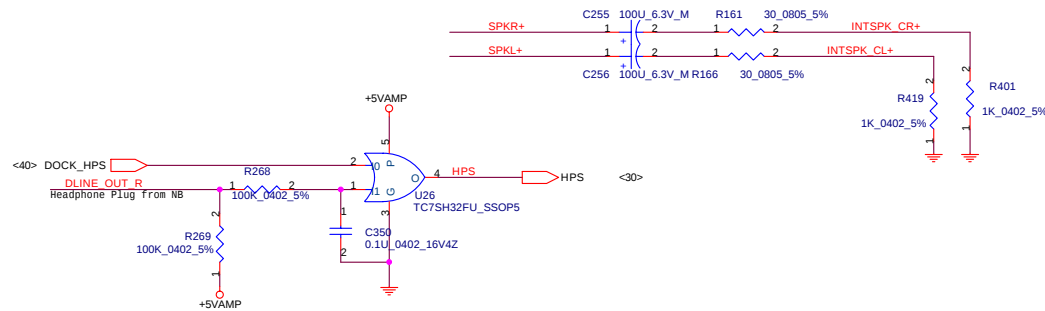


Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Mini PCI slot	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM 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-2541
				Date Friday, April 15, 2005	Rev 0.4
				Sheet 29	of 58



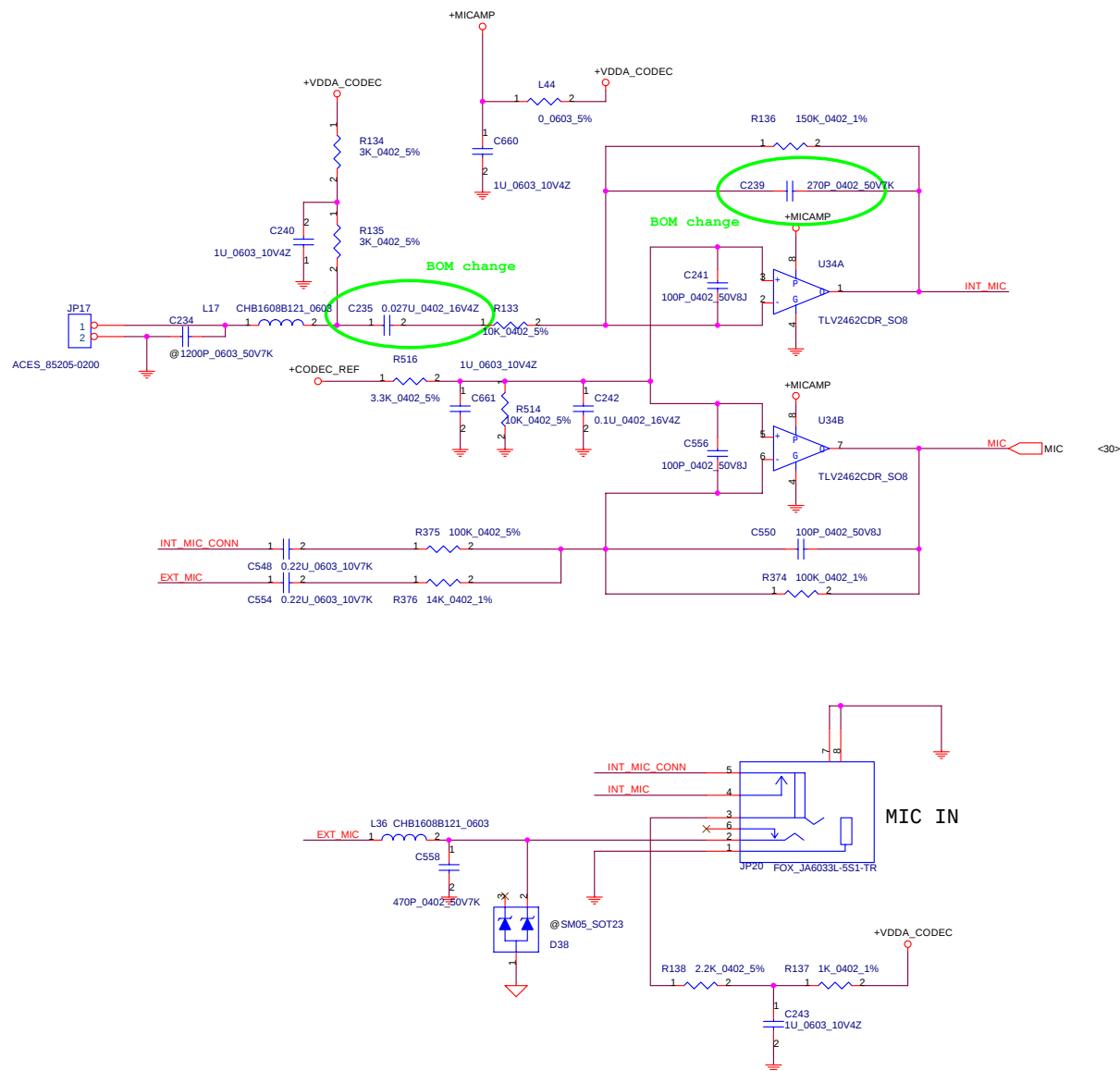
Gain Settings		
GAIN0	GAIN1	Av (inv)
0	0	6 dB
0	1	10 dB
1	0	15.6 dB
1	1	21.6 dB

HEADPHONE OUT/LINE OUT

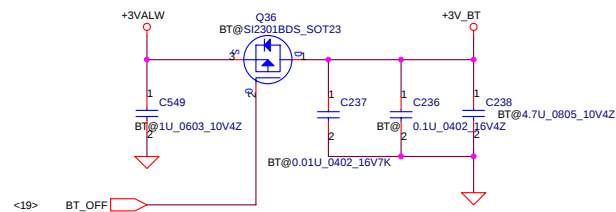
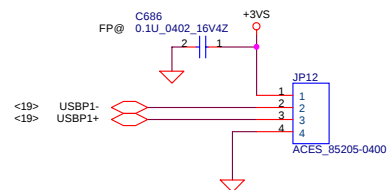
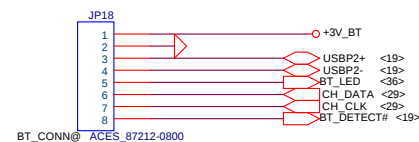
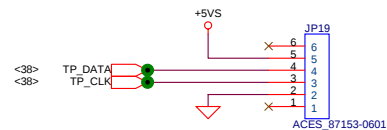
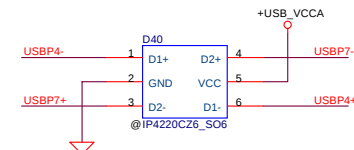
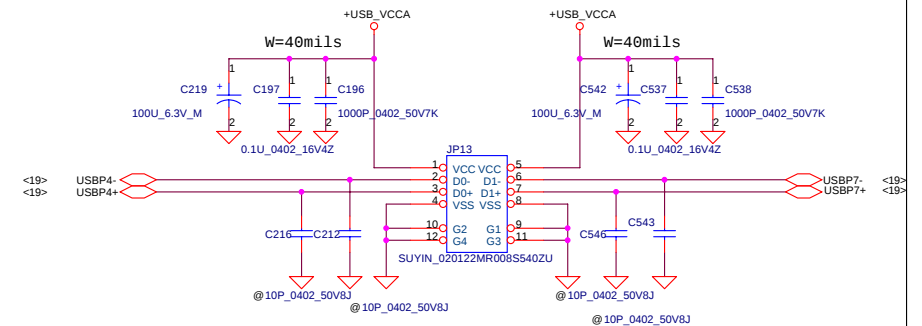
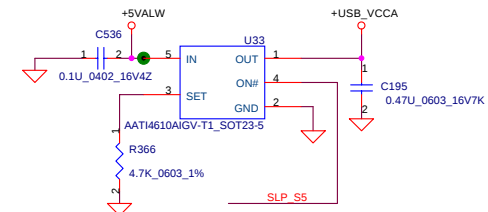


Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	AMP & Audio Jack	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-2541
				Date	Friday, April 15, 2005
				Sheet	32 of 58
				Rev	0.4

Internal / External MIC



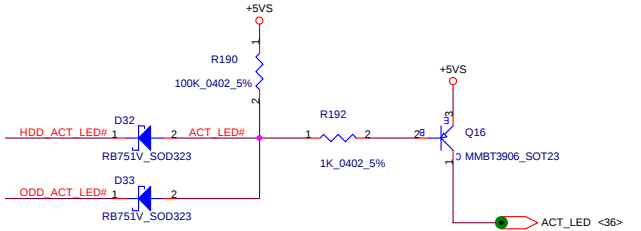
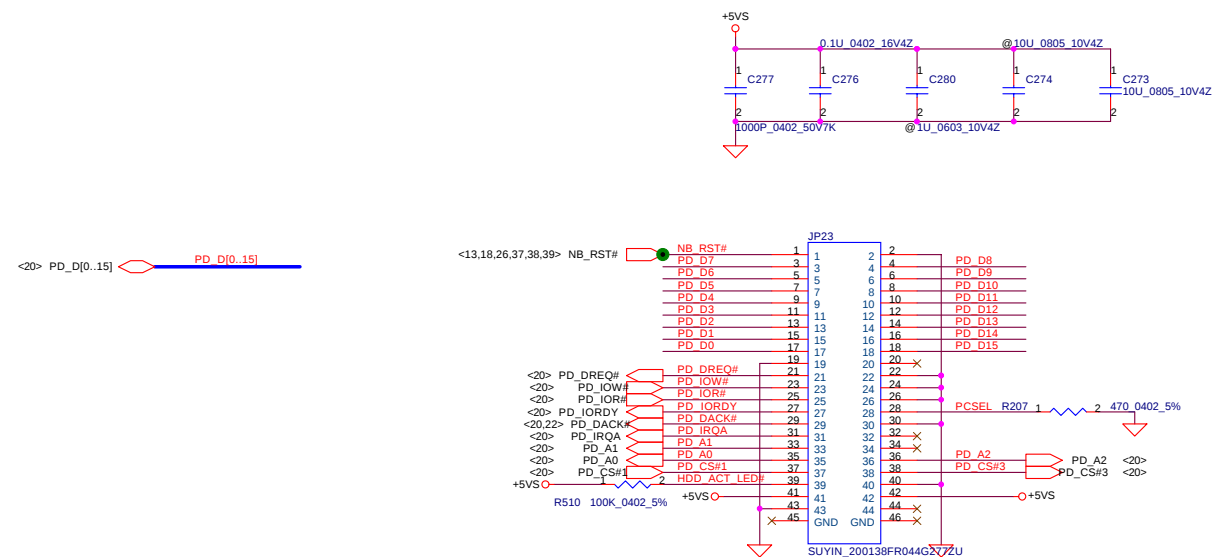
Security Classification	Compal Secret Data					
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Title		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY 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.				Internal / External MIC		
				Size	Document Number	Rev
				Custom	LA-2541	0.4
Date:	Friday, April 15, 2005	Sheet	33	of	58	



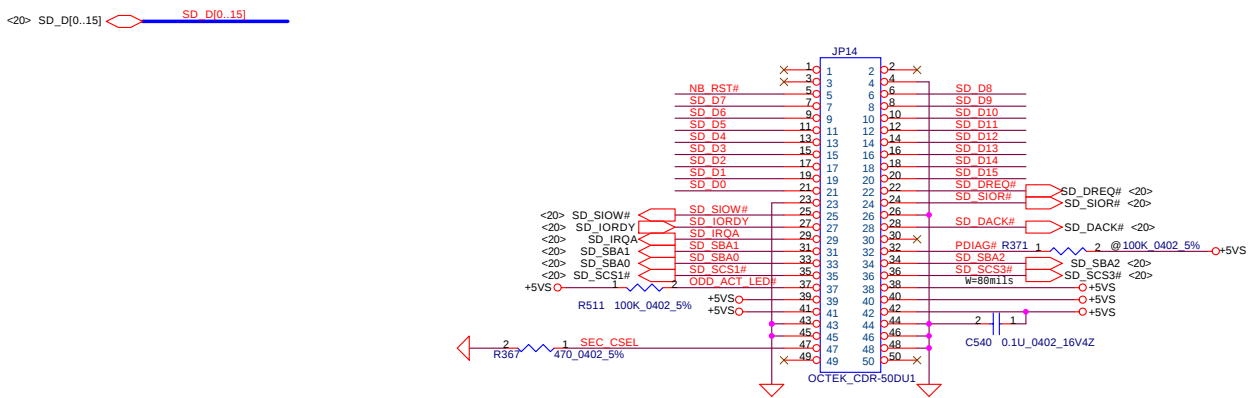
Security Classification		Compal Secret Data				
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Title		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY 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.				Bluetooth & USB CONN.		
				Size	Document Number	Rev
				Custom	LA-2541	0.4
Date:	Friday, April 15, 2005	Sheet	34	of	58	

HDD/ODDModule

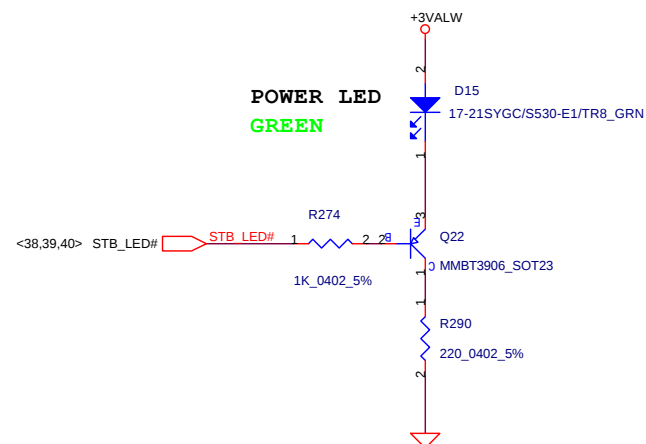
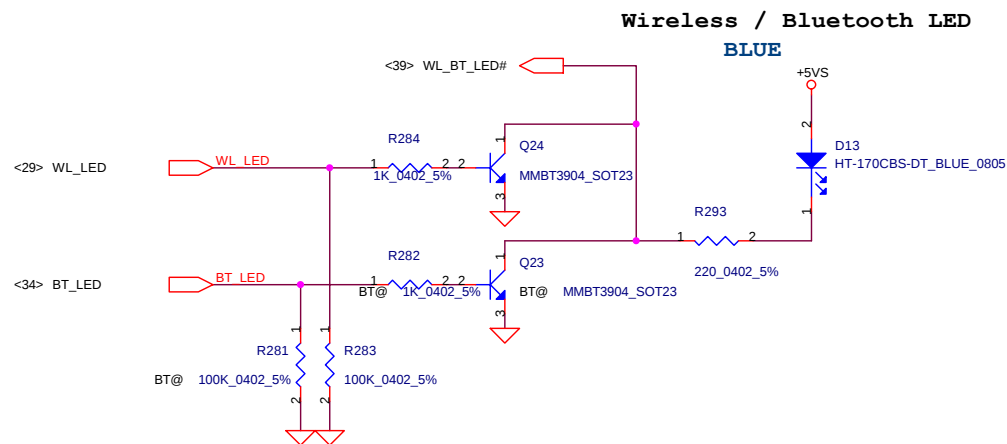
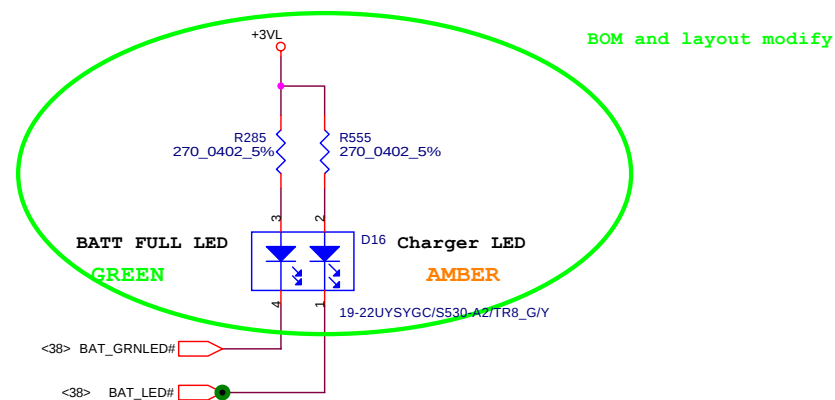
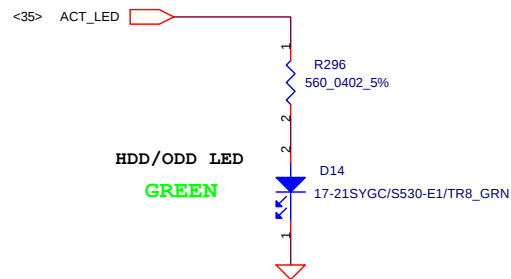
Placea caps. near HDD CONN.



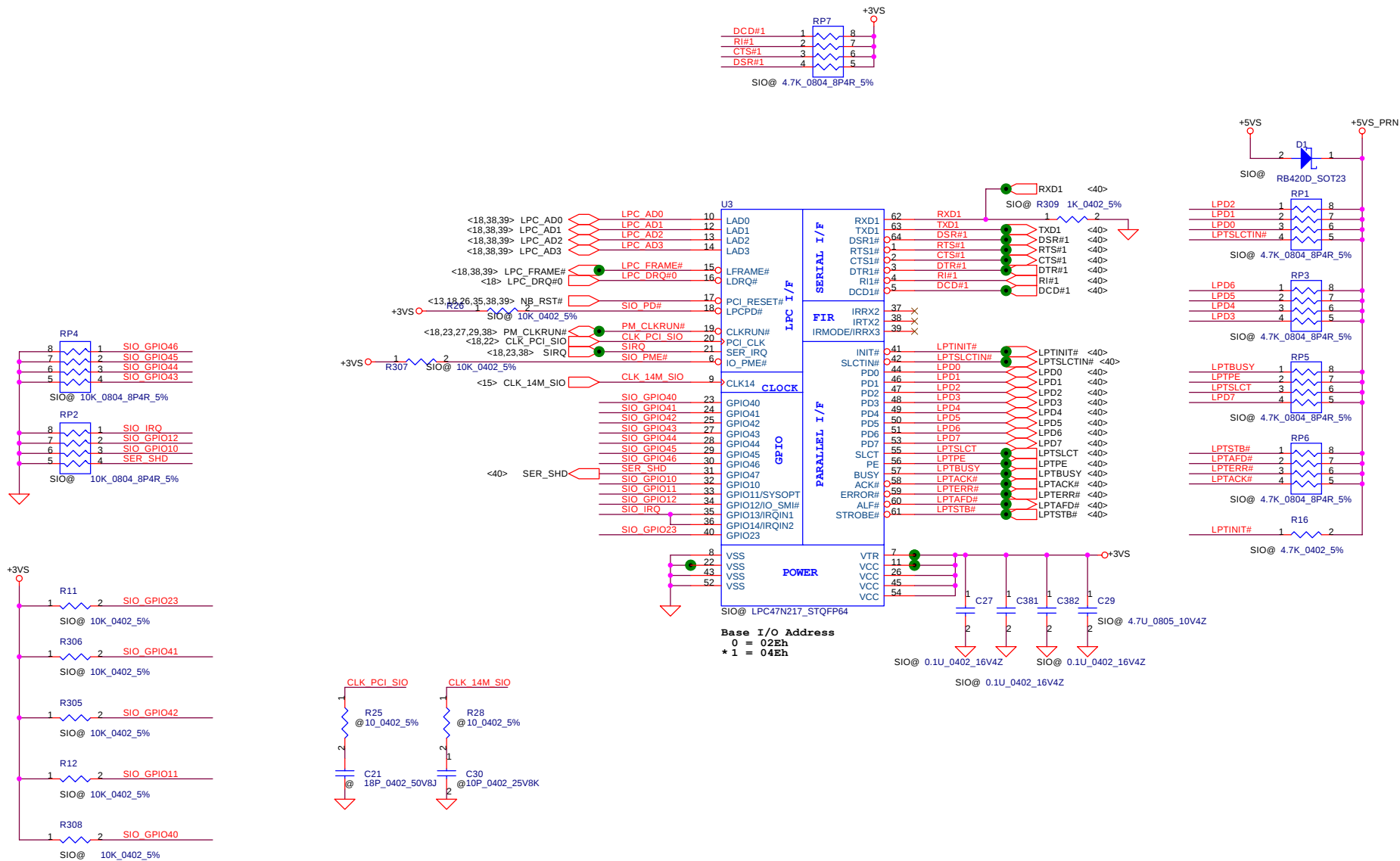
Place caps. near ODD CONN.



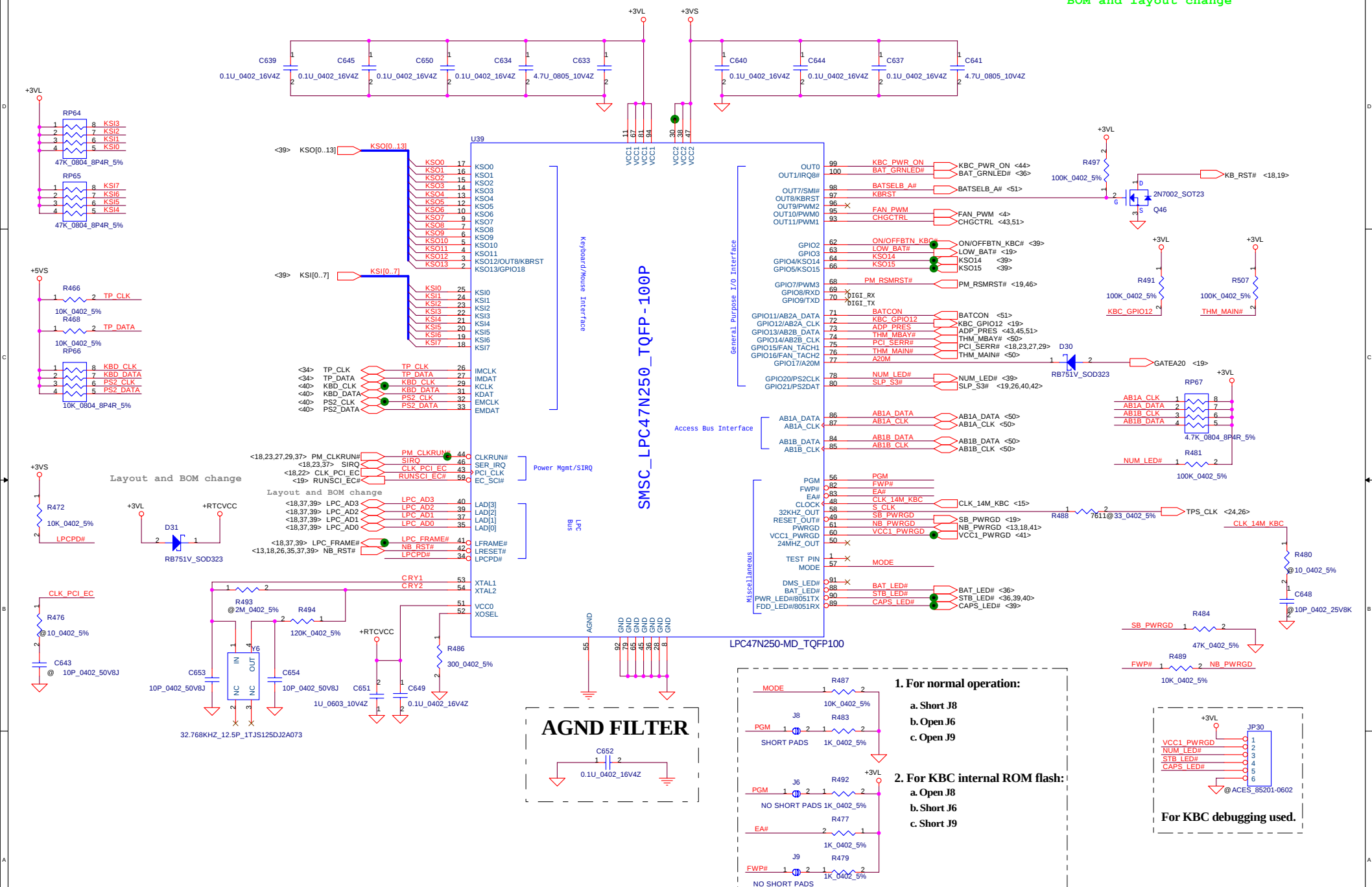
Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	HDD / ODD connector	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Size Custom	Document Number LA-2541
				Date Friday, April 15, 2005	Rev 0.4
				Sheet 35	of 58



Security Classification	Compal Secret Data					
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Title		
				LED INDICATOR		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev
				B	LA-2541	0.4
				Date:	Friday, April 15, 2005	Sheet 36 of 58

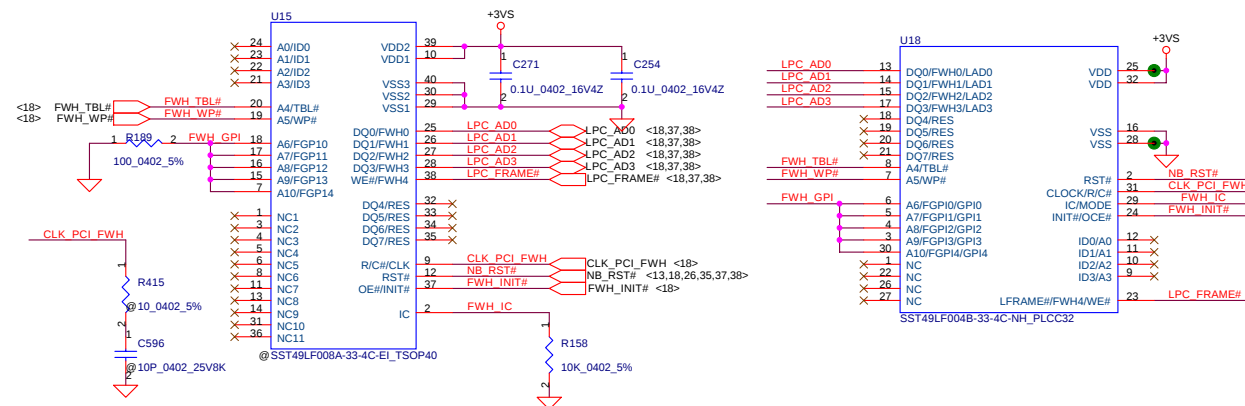


Security Classification		Compal Secret Data			
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-2541
				Date:	Friday, April 15, 2005
				Sheet	37 of 58
				Rev	0.4



Security Classification		Compal Secret Data			
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Title	EC LPC47N250
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Rev
				Custom	0.4
				Document Number	LA-2541
Date:		Friday, April 15, 2005		Sheet	38 of 58

BIOS ROM

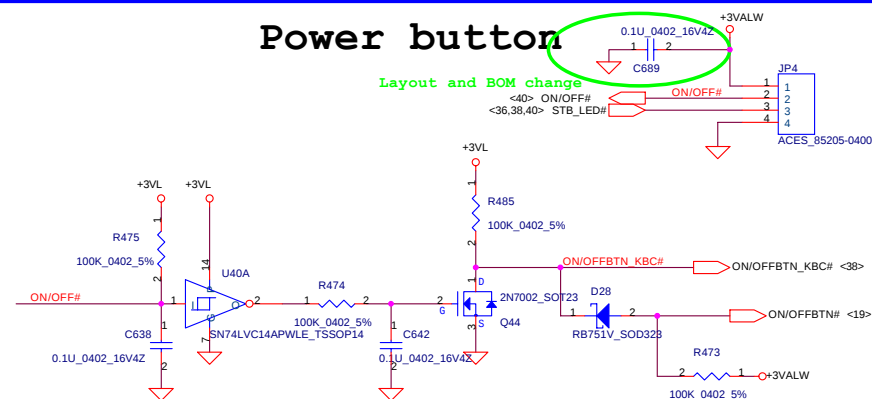


Switch Board conn. / LID Switch

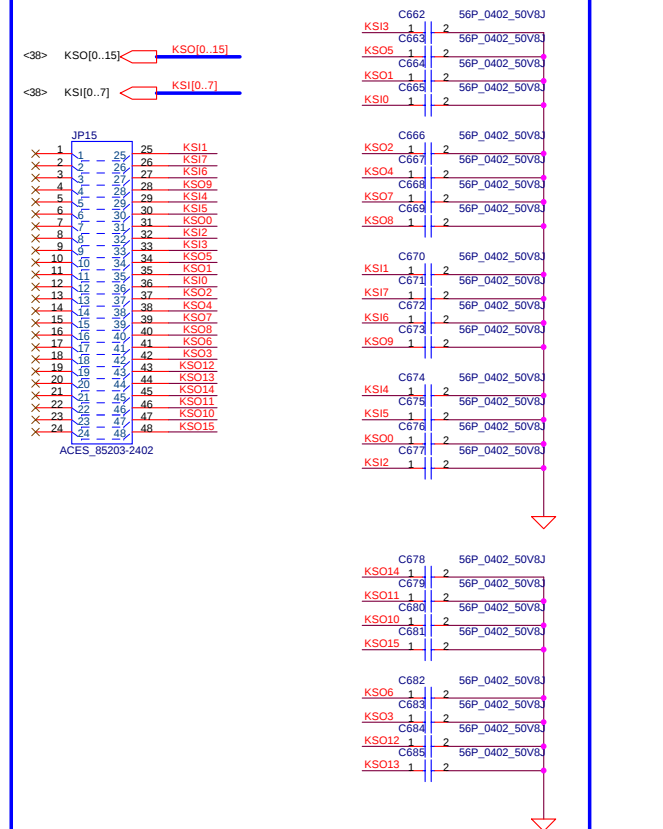


Power button

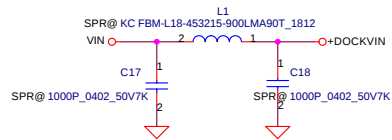
Layout and BOM change



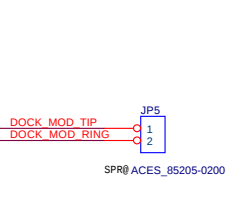
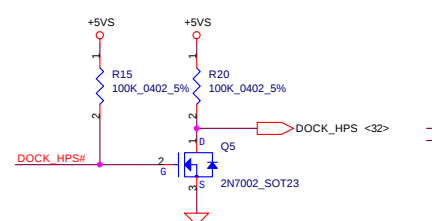
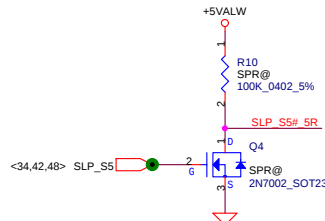
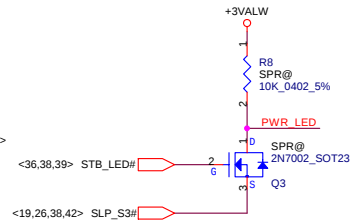
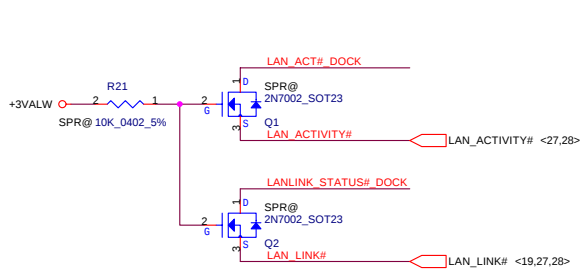
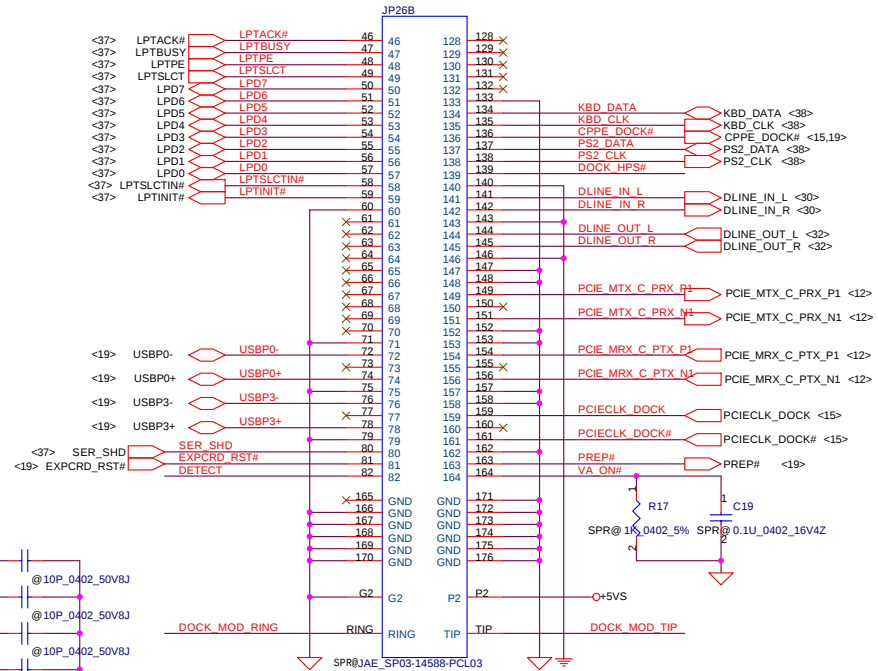
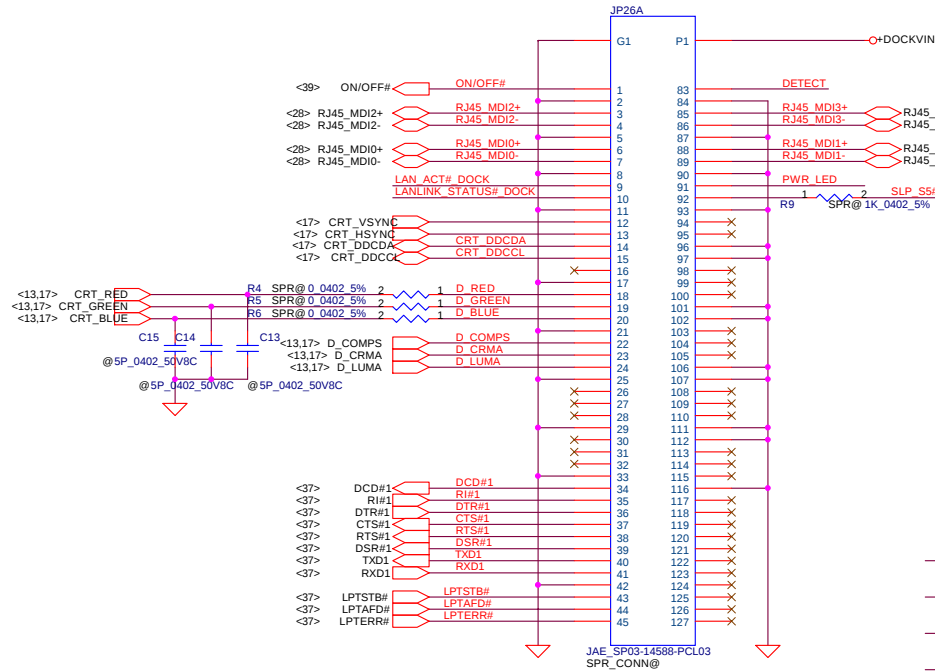
INT KBD CONN.



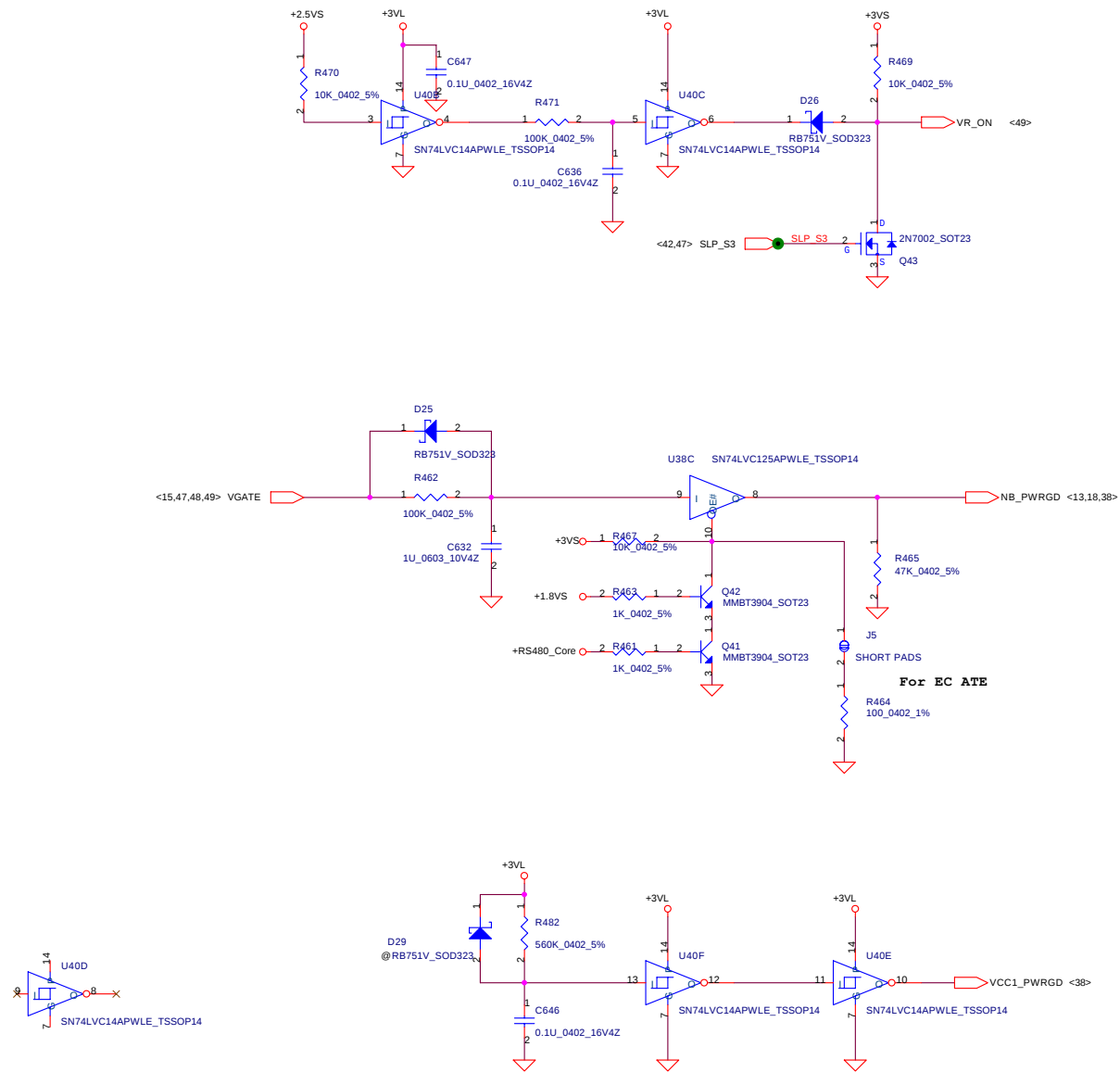
Security Classification		Compal Secret Data			
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Title	BIOS BOM/SW BD CONN/KB CONN
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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-2541
				Date: Friday, April 15, 2005	Sheet 39 of 58
				Rev 0.4	



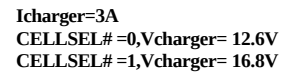
DOCK CONN. 184PIN



Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	SPR 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.				Size Custom	Document Number LA-2541
				Date Friday, April 15, 2005	Rev 0.4
				Sheet 40	of 58

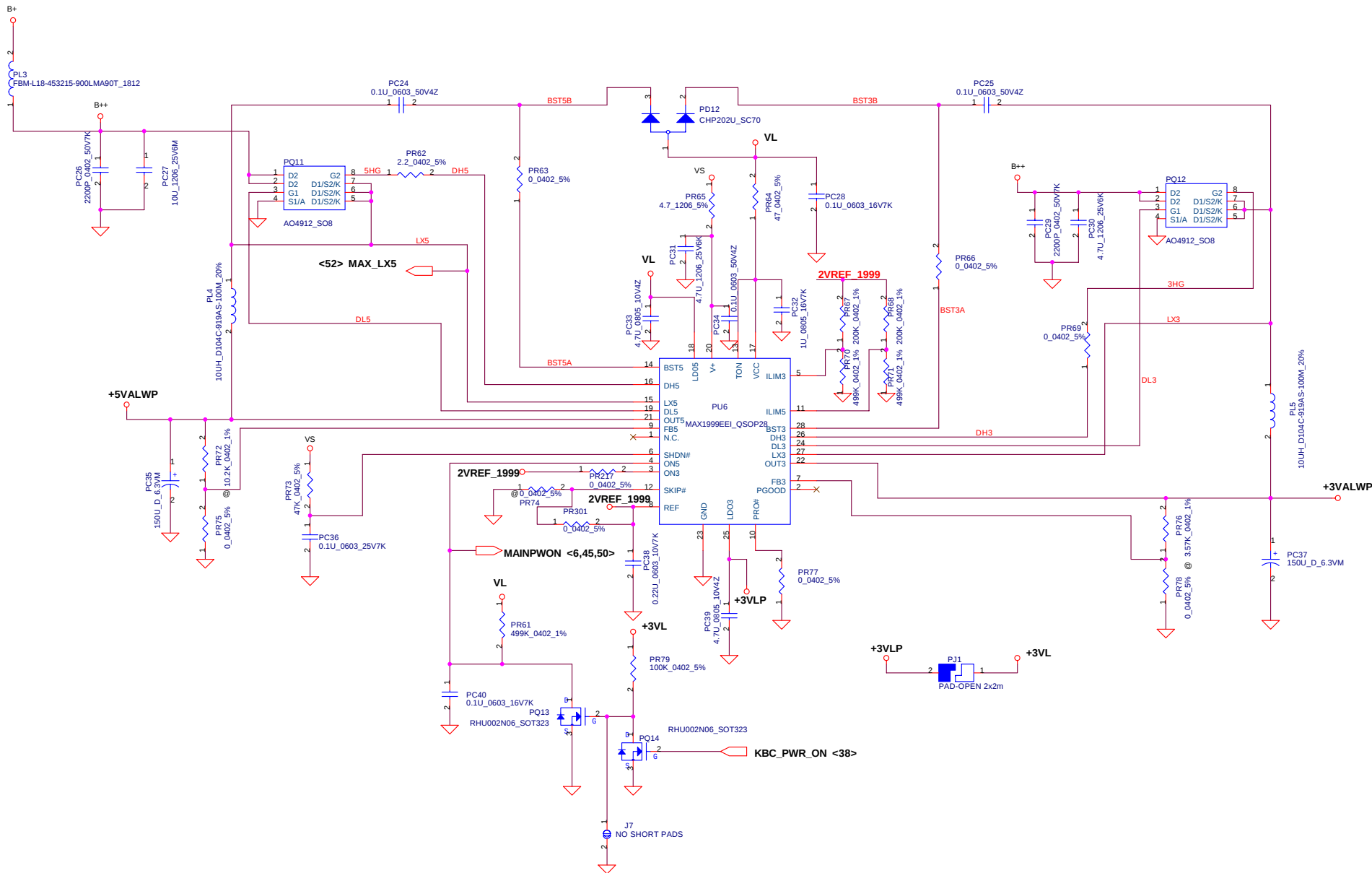


Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	Power OK	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE 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-2541
				Date: Friday, April 15, 2005	Rev 0.4
				Sheet 41	of 58

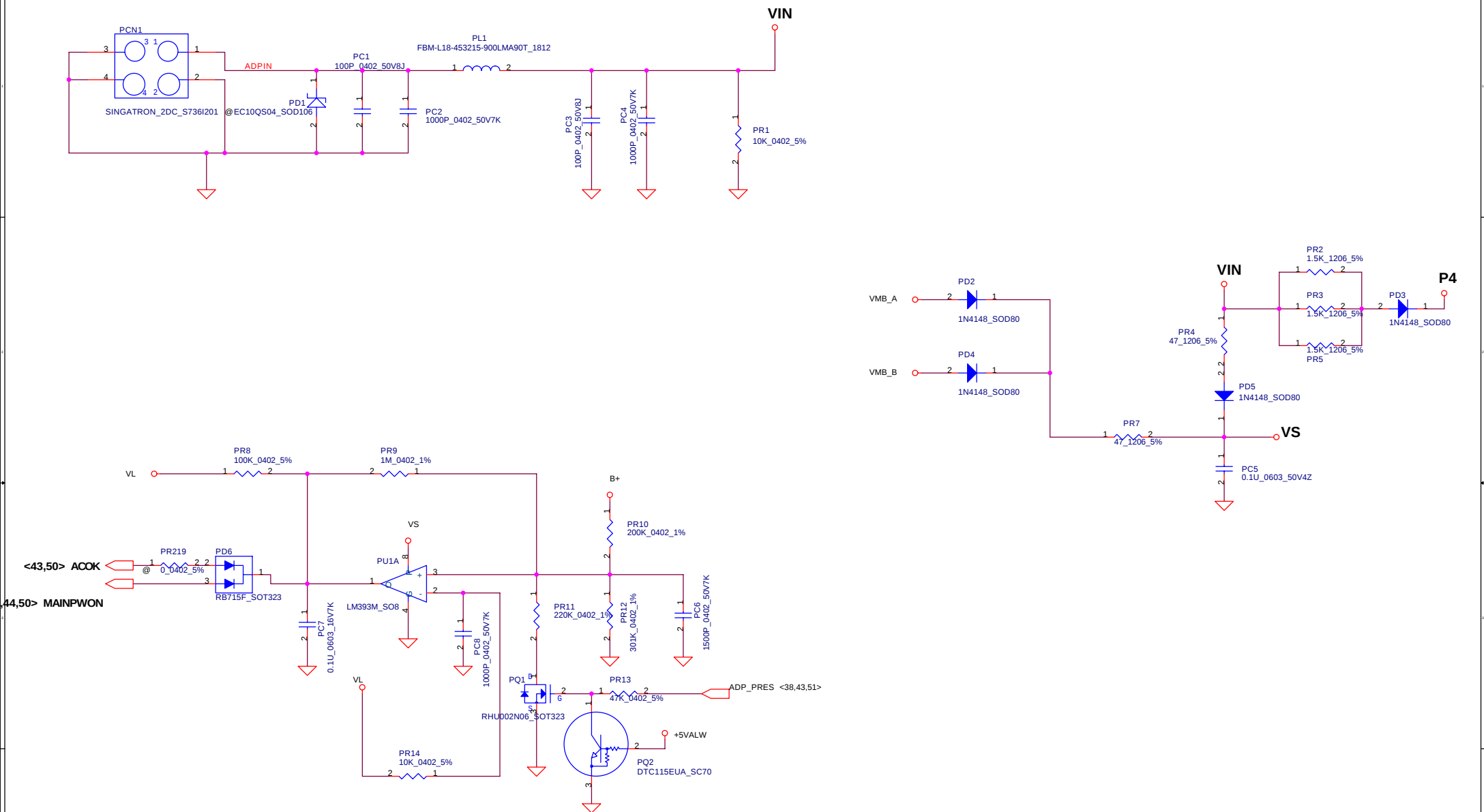


Security Classification	Compal Secret Data			Title Charger		
Issued Date	2005/03/01	Deciphered Date	2006/03/01			
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE 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	Rev 0.4
				Date:	Friday, April 15, 2005	Sheet 43 of 57

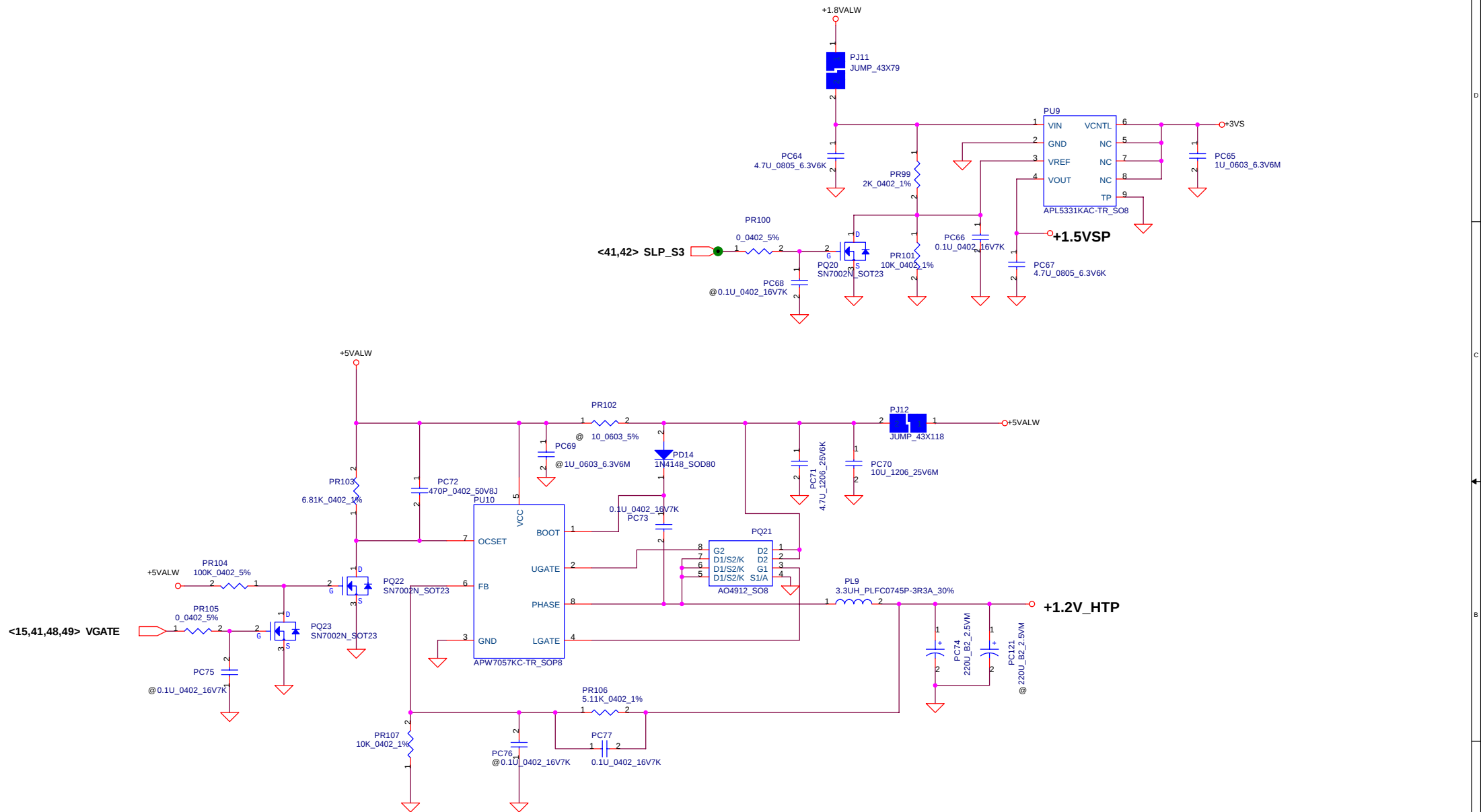
+3.3V/+5V



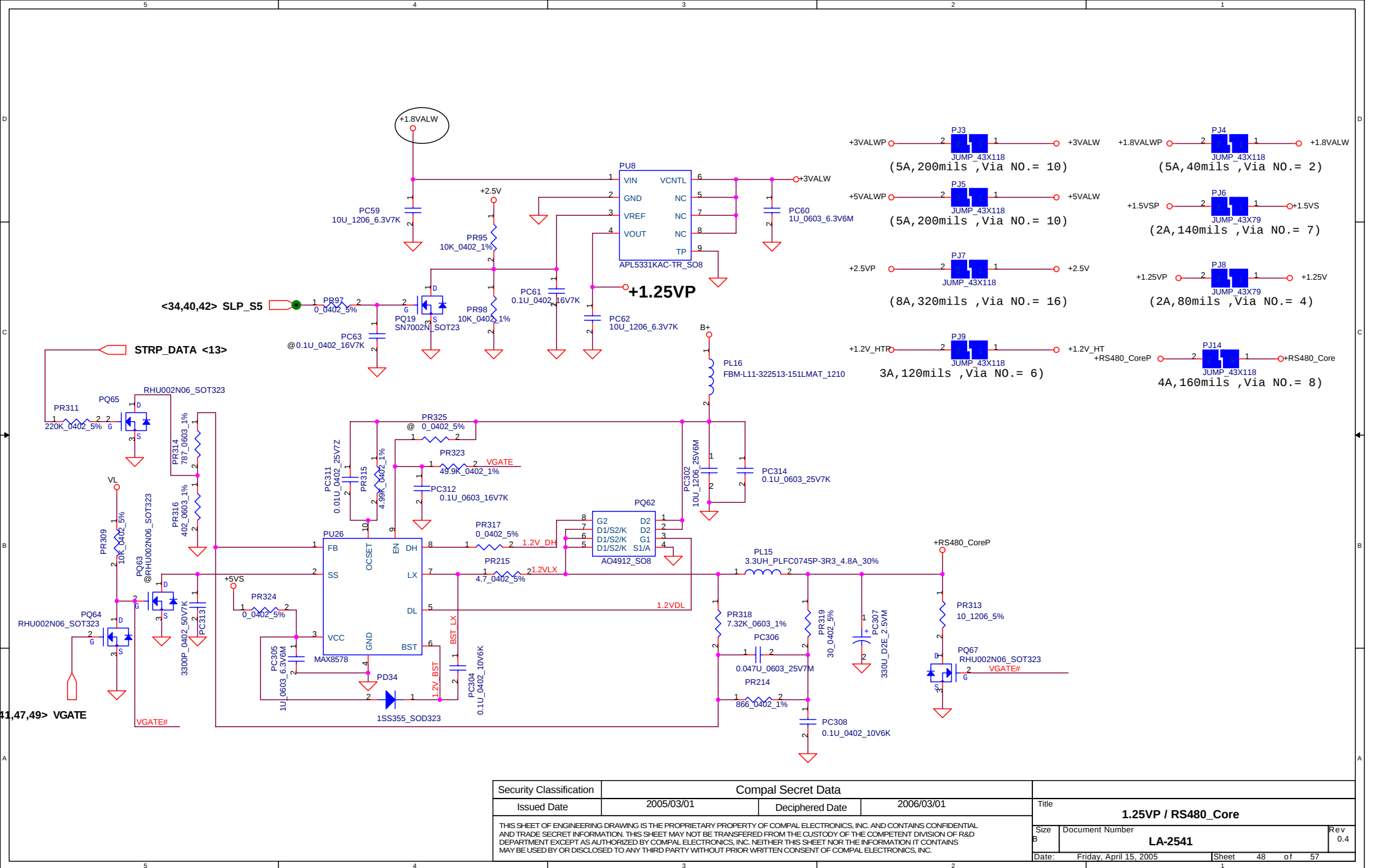
Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/01	3.3V / 5V	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number LA-2541
				Date: Friday, April 15, 2005	Sheet 44 of 57
				Rev 0.4	

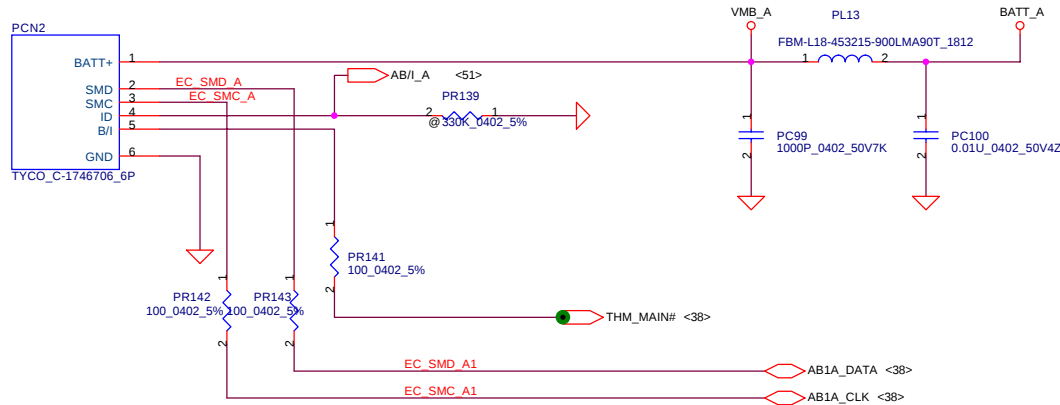


Security Classification		Compal Secret Data			
Issued Date	2005/03/01	Deciphered Date	2006/03/01	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-2541
				Date:	Friday, April 15, 2005
				Sheet	45 of 57
				Rev	0.4

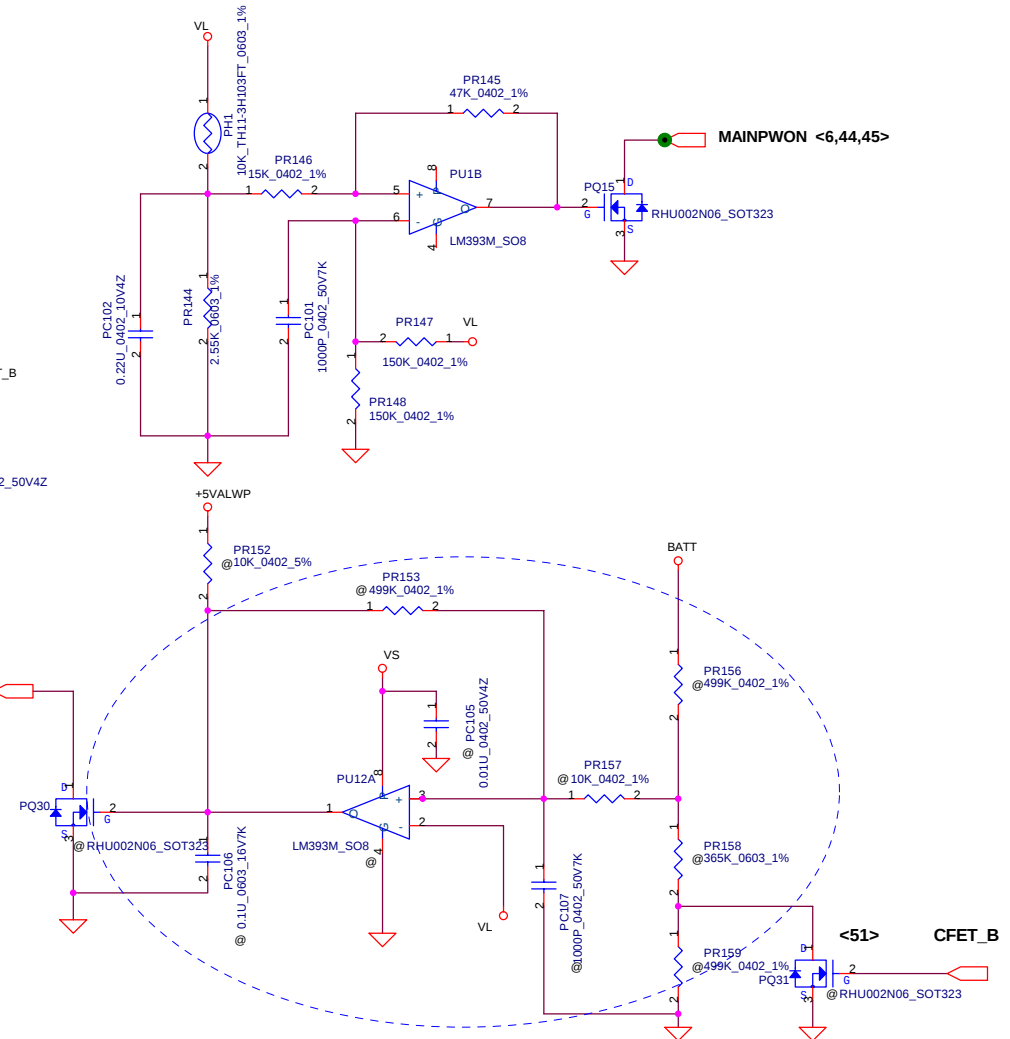
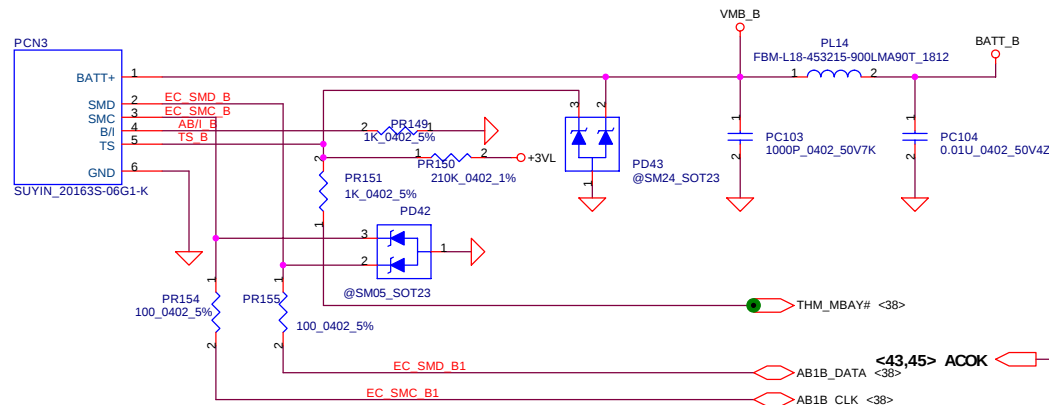


Security Classification		Compal Secret Data			
Issued Date	2005/03/01	Deciphered Date	2006/03/01	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size A3	Document Number LA-2541
				Date: Friday, April 15, 2005	Rev 0.4
				Sheet 47	of 57

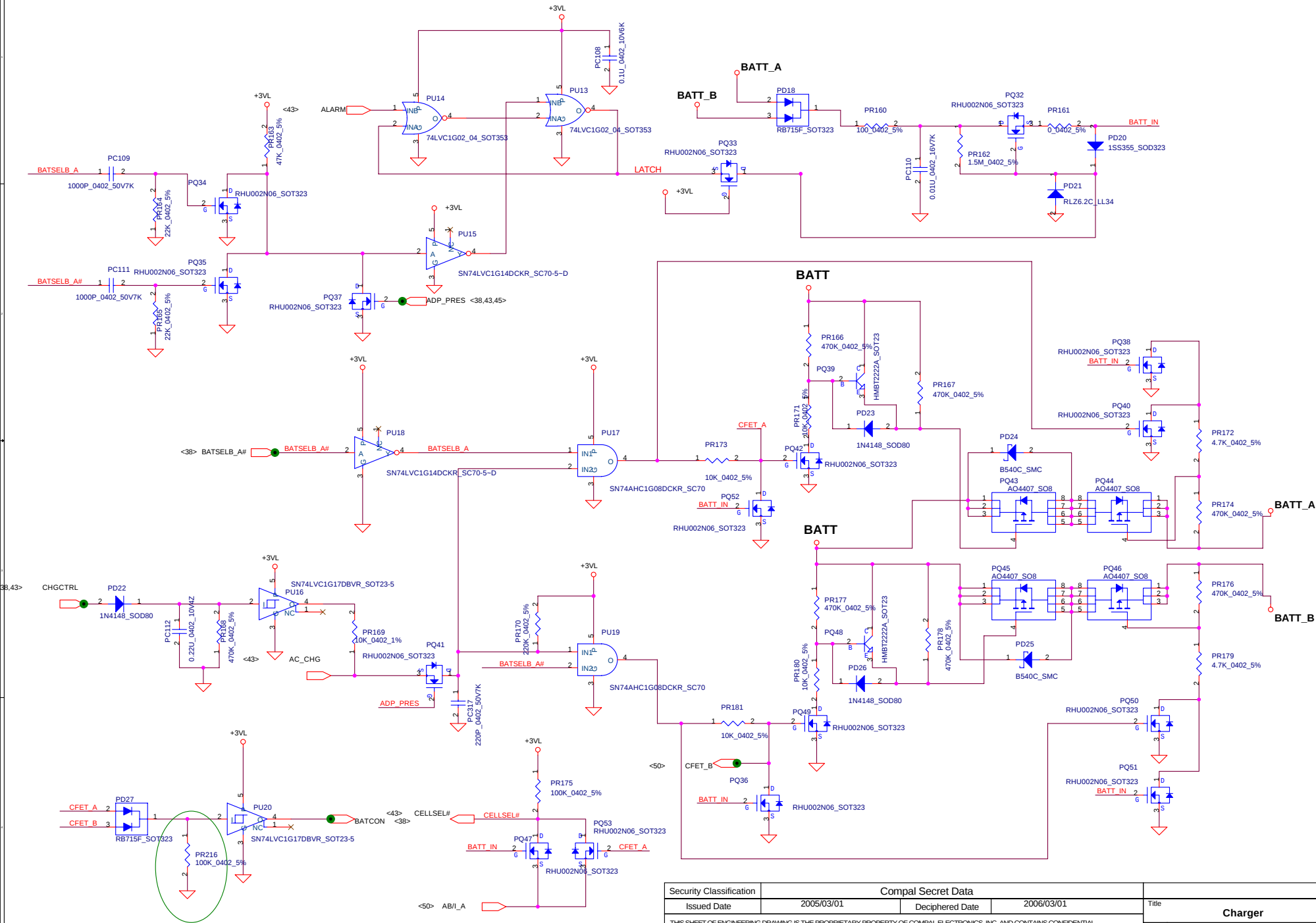




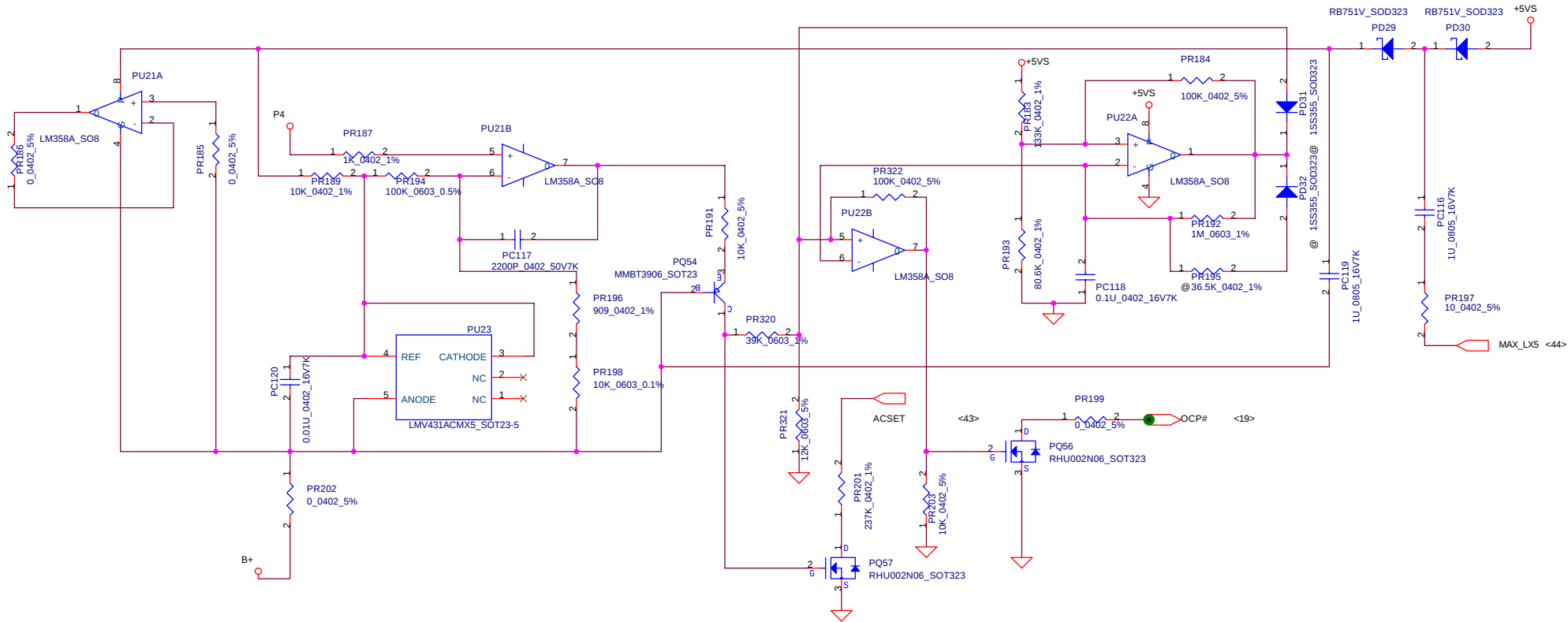
PH1 near CPU :
PCBA thermal protection at 90 degree C
Recovery at 45 degree C



Security Classification		Compal Secret Data			
Issued Date	2005/03/01	Deciphered Date	2006/03/01	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-2541
				Date:	Friday, April 15, 2005
				Sheet	50 of 57
				Rev	0.4



Security Classification		Compal Secret Data			
Issued Date	2005/03/01	Deciphered Date	2006/03/01	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.				Size Custom	Document Number LA-2541
				Rev 0.4	
Date: Friday, April 15, 2005		Sheet 51		of 57	



Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/01	System OCP throttle	
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-2541	
				Date:	Friday, April 15, 2005
				Sheet	52 of 57
				Rev	0.4

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

[illegible]

Security Classification		Compal Secret Data					
Issued Date	2005/03/01	Deciphered Date	2006/03/01	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.				PWR PIR Sheet (1)			
				Size	Document Number	Rev	
				Customer	LA-2541	0.4	
				Date:	Friday, April 15, 2005	Sheet	53 of 57

Item	Fixed Issue	Reason for change	PAGE	Modify List	M.B. Ver.
<93.08.09>	1	codec is the primary codec and must be tied to AC_SDINO	19, 30	Change AC97_SDIN2 to AC97_SDINO for CODEC	0.1
	2	Conexant recommendation	30	Change R351 and R352 to be zero ohm resistors	0.1
	3	This shutdown pin of TPS2211A does not have a internal pullup	26	Add R770	0.1
	4	AMD recommendation	6	Connect pin 3(SD#) of U4 to +3VS directly	0.1
<93.08.11>	5	Driving standby/power LED by STB_LED# pin directly for cost saving.	36	Delete Q79, R384 and R578	0.1
	6	If +2.5VDDA can be connected to +2.5VS directly, we can save the cost of U4	6	Reserve R772	0.1
	7	TI recommendation	23,24 26	Add Q85, D50, D51, R773, R774, R775 and C665. Change C403 and C406 from 0.33uF to 1uF Connect pin 12 of U12 to PCI_RST#	0.1
	8	ATI recommendation	18	Change R141 from 4.53k 1% to 5.49k 1%	0.1
	9	HP request	27, 28 33 18	Change NIC from RTL8110SBL to BCM5788M Reserve C704 Add R799, R800, R801 and R802	0.1
<93.08.11>	10	re-annotation for process rule	4~30, 32~42	re-annotation for all components, excluding MOM and power components.	0.1
<93.10.18>	11	Power saving	5, 8 23 36	Change R51, R60, R320 and R326 from 100 ohm to 1K ohm Change R496 from 150 ohm to 220 ohm Change R285, R290 and R293 from 150 ohm to 220 ohm; Change R296 from 300 ohm to 560 ohm	0.2
	12	Delete useless components which were reserved in rev.0.1	7, 13	Delete C233, C523, R321, C409, U30, R234, C293 and U21	0.2
	13	Pin-9(FS2) of U8(Clock gen.) is not a clock output pin.	13	Delete R95, add R72.	0.2
	14	Use Link# instead of Activity# for NIC_LINK# function	19	Connect U19.C5 to LAN_LINK#	0.2
	15	CARD_LED is an active high signal	23	Change Q45 from MMBT3906 to MMBT3904	0.2
	16	PETp0 and PETn0 should be connected to Tx on the host, PERp0 and PERn0 should be connected to Rx on the host.	26	Swap these differential pairs	0.2
	17	Add an inverter between KBRST from KBC(U39) to KBRST# in SB400(U19)	38	Add Q46 and R497	0.2
	18	The reset signal(PCI_RST#) for LPC BIOS ROM de-assert too late	39	Use NB_RST#(A_RST#) instead of PCI_RST#	0.2
	19	PowerPlay support	13, 14	Add R327, connect U9.E10 to power circuit. Change VDD_CORE of U9 from +1.2V_HT to +R5480_Core	0.2
	20	VariBright support	13, 38	Add R499 and R501, reserve R498 and R500 depopulate R499 and R501, populate R498 and R500	0.2
	21	HP request	19 36 38 15	Add R502 Change Bat_LED to be on +3VL rail Add R503, R504 and R505 Delete Q40, add R508(reserved), R509 and Q47	0.2
<93.10.21>	22	Main battery pin definition change	38	Change the net of U39.76 from THM_MAIN# to KBC_6PIO16; Add R507	0.2
	23	Mandatory ATI R5480 Design Change(PA_RS480F1)	11	Change R357 from 1K ohm to 0 ohm, delete R355 and R363 from BOM.	0.2

Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	HW PIR Sheet(1)	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number LA-2541
				Date Friday, April 15, 2005	Rev 0.4
				Sheet 54	of 58

Item	Fixed Issue	Reason for change	PAGE	Modify List	M.B. Ver.
<93.11.18>	45	HP request	18	Add R518 and R519	0.2
			16	Add R517	
<93.12.23>	46	Remove unused component	18	Del U17,R182,R186	0.3
			19	Del R139	
			33	Del L43	
	47	Fixed ENVDD pulse when power on	13	Add R521	0.3
	48	Fixed V_VS,SLP_S3 and SLP55 pulse when ALWS apply	19	Add U12 (AND gate)	0.3
			42	Pull high R175 and R176 to VL	
	49	Support Smart Card	23,25	Change U23 from 7411 to 7611	0.3
				U23 pin k7 pull high to +5VS	
	50	Support XD 1.2	23,25	Reserve U41 (Quick switch)	0.3
				Add R522,R523,R524,R525,R526,R527	
	51	Improve LAN performance	27	Change R29 to 1.21K	0.3
			28	Change U7 to PULSE_H5007	
<93.12.29>	52	Reserve ESD diode on external MIC and speaker connector	32	Reseve D36,D37	0.3
			33	Reserve D38	
<94.01.07>	53	Remove unused component	2	Del R103,R104,R106,R107 (10K 0402 5%)	0.3
			18	Del PJ13,U17,R186,R182 (Modify net name from +1.9VS to +1.8VS)	
			19	Del R150,Y4,C246,C247,C248,C248,C249,Y3,R151,U37,R394	
			38	Del R520,C662,R505,R501,R503,R504	
	54	Reserve ESD diode on USB port	34	Reserve D39,D40,D41	0.3
	55	For TI request	23,25	Del R522,R523,R524 (on quick switch)	0.3
				Change R452 to 2.2K	
				Change JP25,pin5 net name to CB_SDWP#_SMCE#	
				Change JP25,pin10 net name to CB_MSBS_SDCMD_SMWE#	
				Change JP25,pin13 net name to CB_MSBS_SDCMD_SMWE#	
	56	For TI request	23,25	Reserve R531	0.3
				Add R532 on net CLK_48M_CB for 7611	
				Add R533 on net CLK_48M_CB for 4510	
				Add R534 for 4510	
	57	For MS card issue	25	Add R535	0.3
				Del R452	
				Add R536,R537,R538,R539,R540	
				Del R453	
<94.01.13>	58	For HP recomment	04 18	Del Q19	0.3
				Add R544,Q50,R543R545	
				Reserve U42,Q49,R542,R541,C687,R546	
				Change R336 to 1.2K 0402 5%	0.3
				Change R398 and R400 to 1.2K	

Security Classification	Compal Secret Data			Title		
Issued Date	2005/03/01	Deciphered Date	2006/03/11	HW PIR Sheet (3)		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev
				Custom	LA-2541	0.4
				Date:	Friday, April 15, 2005	Sheet 56 of 58

<94.02.24>

Item	Fixed Issue	Reason for change	PAGE	Modify List	M.B. Ver.
59		Improve EMI issue on DDR data bus	8	Change RP8,RP11,RP14~RP17,RP20,RP23,RP24,RP27,RP36,RP37,RP40,RP43,RP44,RP47,RP48,RP51,RP53,RP56 from 10 Ω to 39 Ω	0.4
60		For S3,S4 resume issue	13	Change L34 from FBML10160808121LMT bead to 150 Ω 1% resistor	0.4
			18	Change C268,C269,C265,C267 from 0.1u to 0.01u	
61		Support HW throttling (OCP)	19	Change U19.C6 NETNAME from THERM_SCI to OCP#	0.4
			19	Change U19.B6 NETNAME from OCP# to THERM_SCI	
61		Can't detect Nee card when warm boot	19	Change MINIPCI_DIS# NETNAME to NEWCARD_RST	0.4
			19	Del R395 and R530	
			19	Change R149 from pull high to pull down	
			19,29	Change MINIPCI_RST# NETNAME to PCI_RST#	
			26	Add Q51	
62		Modify LED brightness	36	Change R285 from 220 Ω to 68 Ω	0.4
63		Remove unused component and footprint	28	Del R303,Q25,Q26	0.4
			38	Del R478	
<94.03.07>	64	Connect Mini PCI clamp to GND	29	Connect JP11.127 and JP11.128 to GND	0.4
	65	Remove unused footprint	15	Del R62,R63,R77	0.4
	66	Fixed ATI SB400 32.576MHz RTC accuracy issue	18	Change Y5 to EPSON 12.5P 20ppm crystal	0.4
	67	Modem time drift issue	30	Change C363 and C367 to 15PF	0.4
<94.03.09>	68	Separate Cardreader SM_XD power rail	25	Del U42,R545,R546 Add R546,R547,Q56,D41,D42	0.4
	69	Change SB 14.318MHz from NB to clock gen	13	Delete R67 footprint and let NB OSCOUT pin NC.	0.4
			19	Delete R529 footprint ,connect SB 14.318MHz from clock gen	
	70	Change clock gen 14.318MHz driving method	15	Let Clock gen pin 54 only drive 14.318MHz to SB Let Clock gen pin 53 drive 14.318MHz to Super IO and KBC	0.4
	71	Strap on SB400 PCICLK2 redefine.	25	Pop R180 and unpop R183	0.4
	72	For ATI recommend to modify PCIE driving strength	12	Change R121 to 8.25K Ω , R120 to 82.5 Ω	0.4
	73	For ATI recommend	19	Let SB SUS_STAT# NC	0.4
			13	NB SUS_STAT# pull high to 1.8VS, R360 change to 4.7K Ω , R364 change to 470K Ω	
	74	Reserve USB ESD diode footprint Reserve resistor footprint between A_ground and D_ground for ESD concern	34	Reserve D39 and D40 footprint	0.4
			30	Reserve R548,R549,R550,R551,R552 footprint	
	75	Broadcom 5788M version change	27	Change 5788M from revA3 to revA5	0.4
	76	TI 7611 version change	23	Change TI 7611 from revA to revC	0.4
	77	Amber LED change for HP request	36	Change D16 to 19-22UYSYG/S530-A2/TR8 19X16 G/Y	0.4
	78	Layout space save	18	Add RP68,RP69 Del R449,R210,R211,R450,R446,R447,R212,R220	

Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	HW PIR Sheet (4)	
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-2541
				Date: Friday, April 15, 2005	Rev 0.4
				Sheet 57	of 58

<94.04.11>

Item	Fixed Issue	Reason for change	PAGE	Modify List	M. B. Ver.
79		DDR memtest failed	8	Change RP8,RP11,RP14~RP17,RP20,RP23,RP24,RP27,RP36,RP37,RP40,RP43,RP44,RP47,RP48,RP51,RP53,RP56 from 39Ω to 10Ω	0.5
80		Workaround for S3 resume failed	19	Reserve U43 and add R554	0.5
81		For Sandisk MS pro 512MB card issue	23	Change R209,R224,R536,R537,R538,R539,R540 to 0 ohm	0.5
82		For insert MS card shut down issue	25	Reserve U42,R553 and add C690 Change Cardreader socket pin 45,46 to N.C. Change Cardreader socket pin 1 to GND	0.5
83		For SM card detect abnormal issue	26	Change cardreader pin30 to GND	0.5
84		Charger and BATT full LED brightness abnormaml	36	Add R555	0.5
85		Improve EMI issue	39	Add C689	0.5
86		Improve internal mic noise	33	Change C235 to 0.047u and C239 to 220p	0.5
87		TI recommend	23 25	Reserve R556 (pull down on CARD_LED) Reserve C692,C693,C694 (0.1u cap on card detect pin)	
88		Improve internal mic noise	33	Change C235 to 0.027u and C239 to 270p	

<94.04.14>

Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/01	Deciphered Date	2006/03/11	HW PIR Sheet (5)	
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-2541
				Date: Friday, April 15, 2005	Rev 0.4
				Sheet 58 of 58	

www.s-manuals.com