

Compal Confidential

Schematics Document

INTEL AUBURNDALE with IBEX core logic

Cartier UMA

LA-4902P

2009-12-07

REV:1.0

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MUST NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D TO ANY OTHER DIVISION OR PERSON WITHOUT THE PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-4902P
				Date:	Monday, December 14, 2009
				Sheet	1 of 47
				Rev	0.3
				Cover Sheet	

Cartier UMA

XDP Conn.

Page 4

Accelerometer

LIS302DLTR

Page 26

File Name : LA-4902P

Thermal Sensor
EMC2113

Page 4

Fan Control

Page 4

DP Panel

Page 20

VGA

Page 18

Display Port

Page 19

Express Card 54
PCIE X1 + USB X1

Audio Board

WWAN Card
PCIE X1

Page 24

10/100/1000 LAN
Intel Hansville GbE
PHY

Page 21

WLAN Card
WLAN + PCIE X1

Page 23

RJ45 CONN

Page 22

PCI-E BUS

Rico R5C835
Controller

Page 27

1394 port

Page 27

Smart Card

SD/MMC Slot

Audio Board

Intel Ibex Peak M

1071pins

25mm*27mm

Page 12,13,14,15,16,17

ONFI Interface

Braidwood

Page 24

NAND Flash Card

Page 24

LPC BUS

TPM1.2
SLB9635TT

Page 31

SMSC KBC 1098

page 29

SMSC Super I/O
SMCS47N217N

Page 30

Touch Pad CONN.

Page 25

TrackPoint CONN.

Page 25

SPI ROM

8MB

Page 31

Int.KBD

Page 25

COM1
(Docking)

Page 30

LPT
(Docking)

Page 30

DDR3 1066/1333MHz 1.5V

Dual Channel

DDR3-SO-DIMM X 2
BANK 0, 1, 2, 3

Page 9,10

FDI

DMI X4

DP-D

USB2.0

DP-C ; DP-B

DP X 2(Docking)

Page 28

USB x2(Docking)

Page 28

FingerPrinter VFM451
USBx1

Page 31

USB conn x 3(For I/O)
BT Conn USB x 1

Page 26

USB x1(Camara)

Page 20

MDC V1.5

Page 25

RJ11

Page 25

Audio CKT
IDT 92HD75

Audio Board

TPA6047A
AMP & Audio Jack

Audio Board

SATA ODD Connector

Page 12

2.5" SATA HDD Connector

Page 12

Page 36 Docking CONN.

- (2) PS/2 Interfaces
- (2) USB 2.channels
- (2) SATA Channels
- (2) Display Port Channels
- (1) Serial Port
- (1) Parallel Port
- (1) Line In
- (1) Line Out
- (1) RJ45 (10/100/1000)
- (1) VGA
- (1) 2 LAN indicator LED's
- (1) Power Button
- (1) I2C interface

RTC CKT.

Page 12

LED

Audio Board

Power OK CKT.

Page 32

Power On/Off CKT.

Page 25

DC/DC Interface CKT.

Page 33

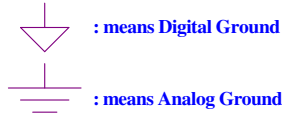
Security Classification		Compal Secret Data	
Issued Date	2008/09/15	Deciphered Date	2009/12/31
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. IT IS TO BE KEPT UNDER THE CUSTODY OF THE COMPETENT DIVISION OF R&D. IT IS NOT TO BE REPRODUCED, COPIED, OR DISCLOSED TO ANY OTHER PERSON OR ORGANIZATION WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.			

Compal Electronics, Inc.			
Block Diagram			
Size	Document Number	Rev	
Custom	LA-4902P	0.3	
Date:	Wednesday, December 09, 2009	Sheet	2 of 47

Voltage Rails (O MEANS ON X MEANS OFF)

power plane State	+RTCVCC	+B +3VL	+5VALW +3VALW	+3VM +1.05VM	+1.5V +0.75V	+5VS +3VS +1.5VS +VCCP +CPU_CORE +1.05VS +1.8VS
S0	O	O	O	O	O	O
S1	O	O	O	O	O	O
S3	O	O	O	O	O	X
S5 S4/AC	O	O	O	O	X	X
S5 S4/ Battery only	O	O	X	X	X	X
S5 S4/AC & Battery don't exist	O	X	X	X	X	X

Symbol Note :



@ : means just reserve , no build
CONN@ : means ME part.

Install below 45 level BOM structure for ver. 0.1

45@ : means just put it in the BOM of 45 level.

Install below 43 level BOM structure for ver. 0.1

DEBUG@ : means just build when PCIE port 80 CARD function enable. *Remove before MP*

N10M@ : Install for N10M Graphic controller

1098@ : Install for 1098 KBC controller

SMBUS Control Table

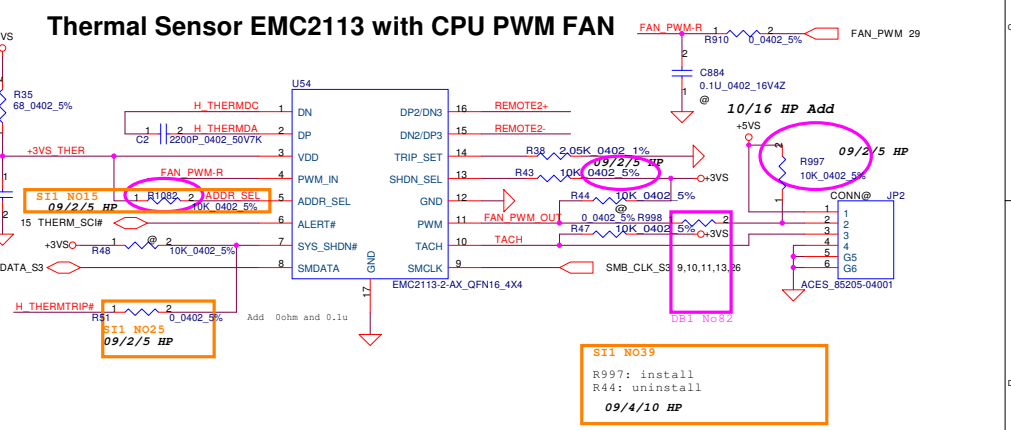
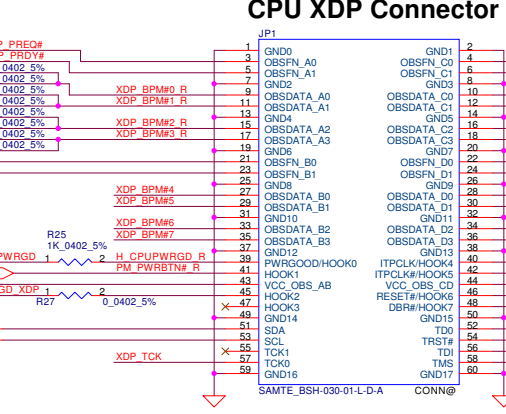
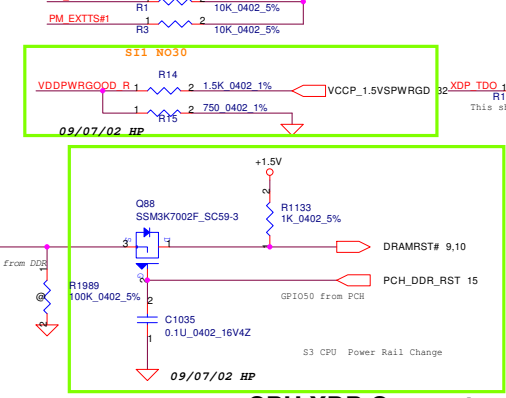
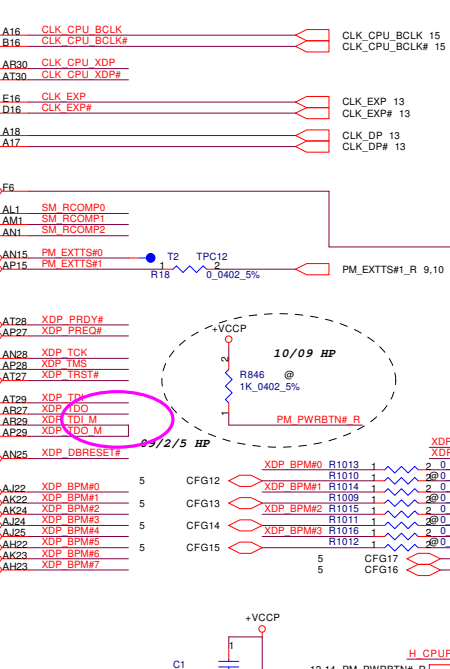
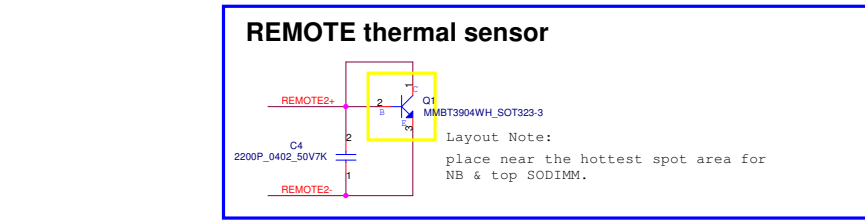
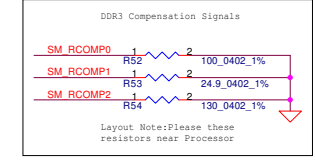
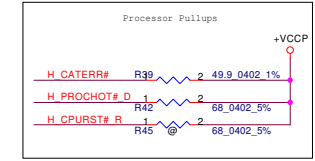
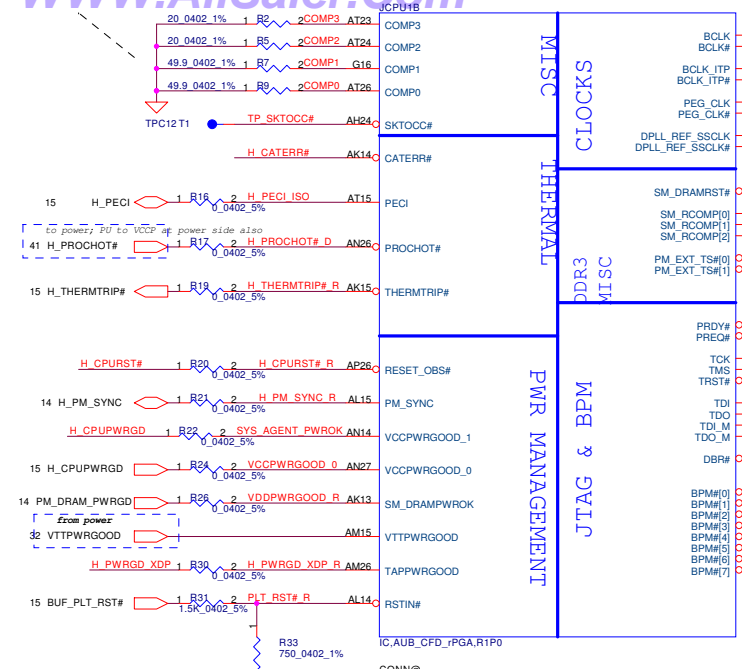
	SOURCE	BATT	XDP	SODIMM	CLK CHIP	MINI CARD	DOCK	NIC	THERMAL SENSOR	G-SENSOR
SMB_EC_CK1 SMB_EC_DA1	SMSC1098	V	X	X	X	X	X	X	X	X
SMBCLK SMBDATA	Calpella	X	V	V	V	V	V	X	X	V
SML0CLK SML0DATA	Calpella	X	X	X	X	X	X	V	X	X
SML1CLK SML1DATA	Calpella	X	X	X	X	X	X	X	V	V

Reserve below BOM structure for ver. 0.1

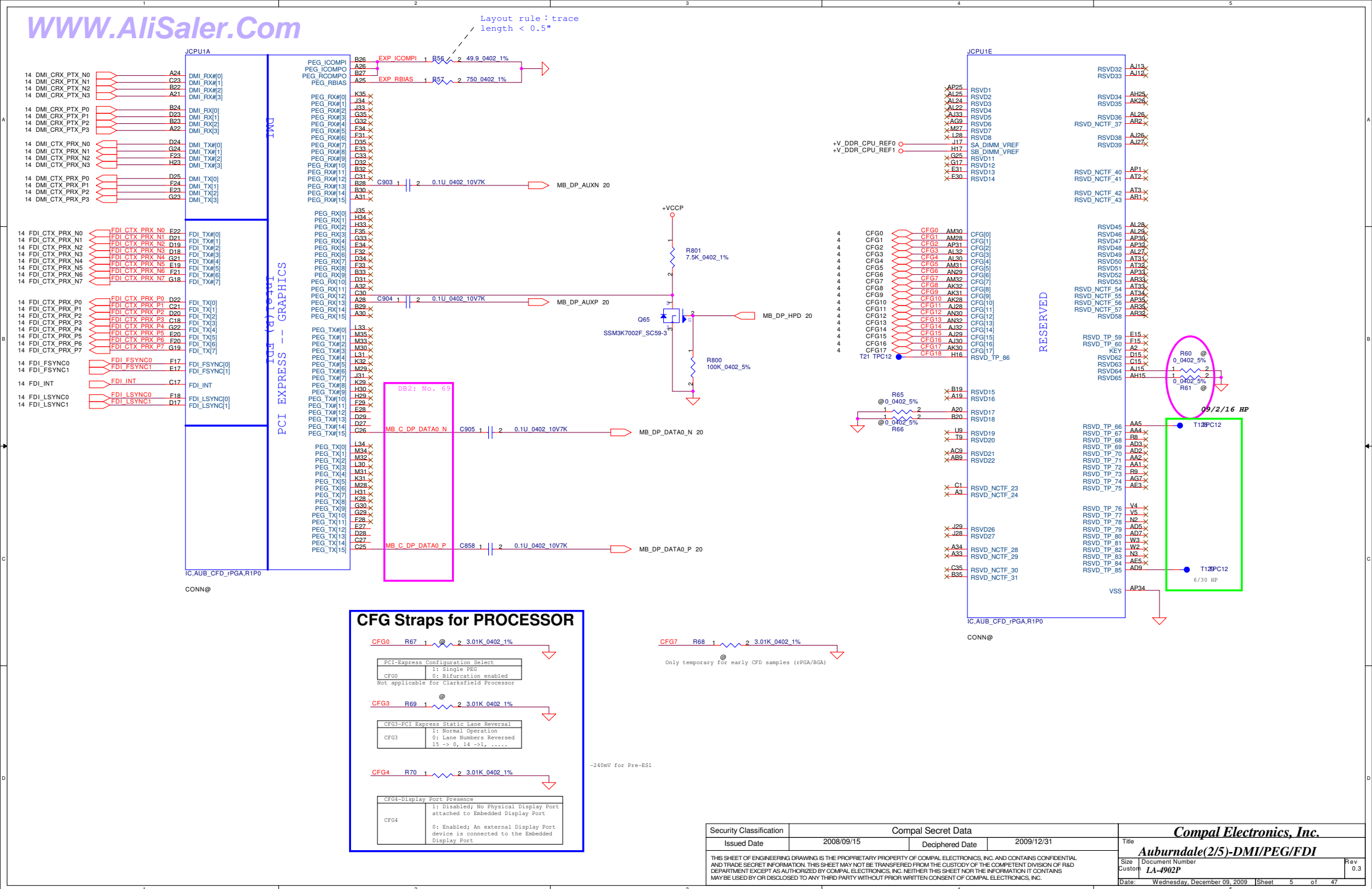
1091@ : Install for 1091 KBC controller

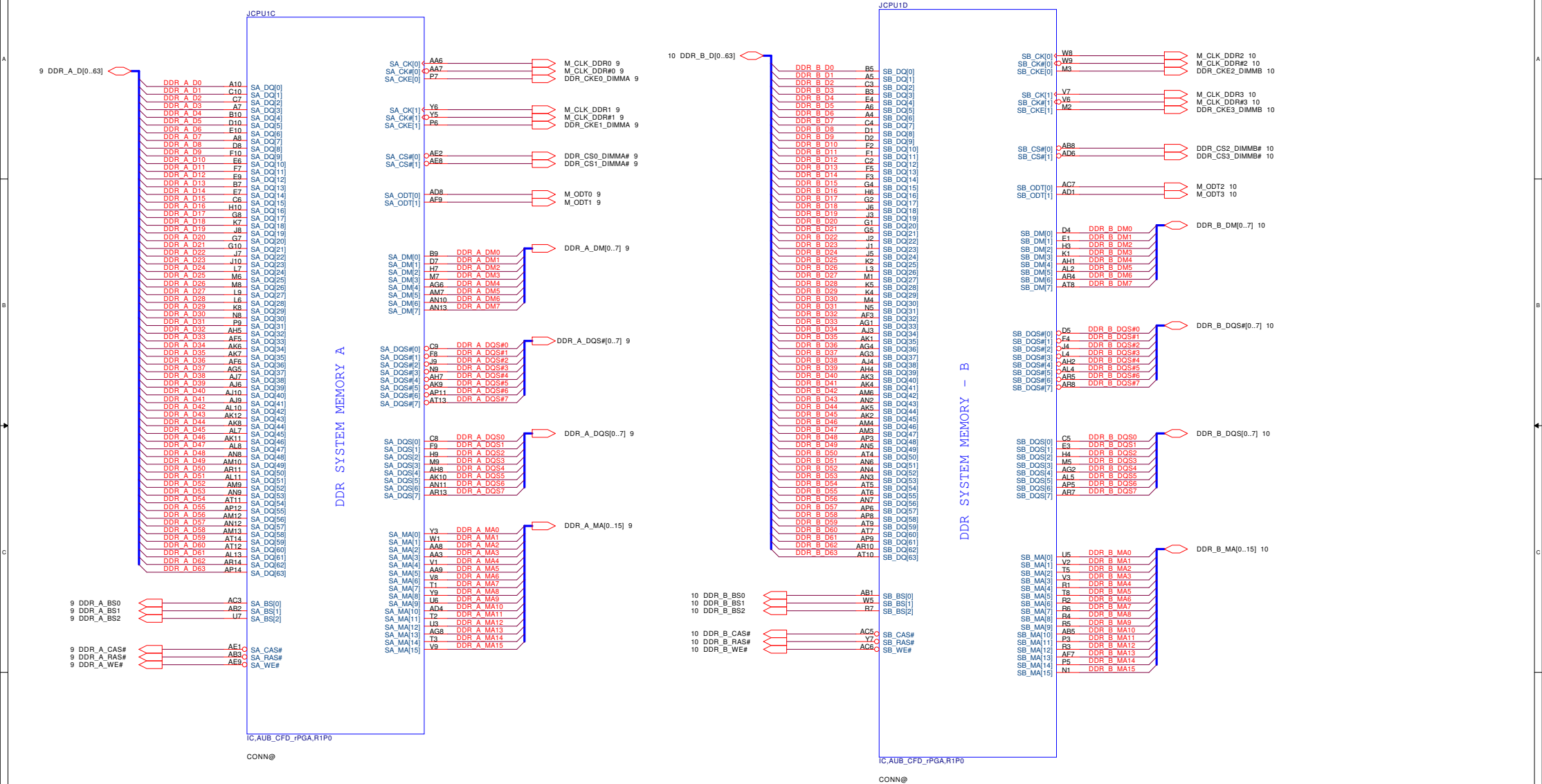
Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET SHALL NOT BE TRANSMITTED, REPRODUCED, COPIED, OR DISCLOSED TO ANY OTHER PERSON OR ENTITY WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.				Notes List	
Size		Document Number			Rev
Customer		LA-4902P			0.3
Date:		Wednesday, December 09, 2009	Sheet	3	of 47

Layout rule: 10mil width trace
length < 0.15" spacing 20mil



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	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.				Auburndale(1/5)-Thermal/XDP
Size	Document Number	Rev	0.3	
Custom	LA-4902P	Date	Wednesday, December 09, 2009	Sheet 4 of 47

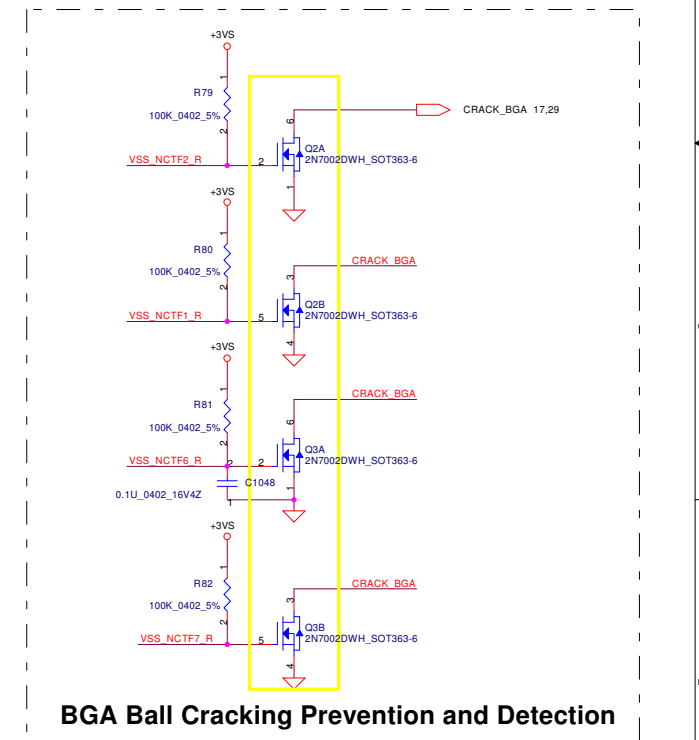
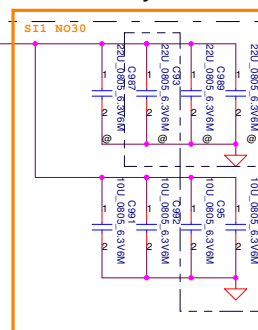
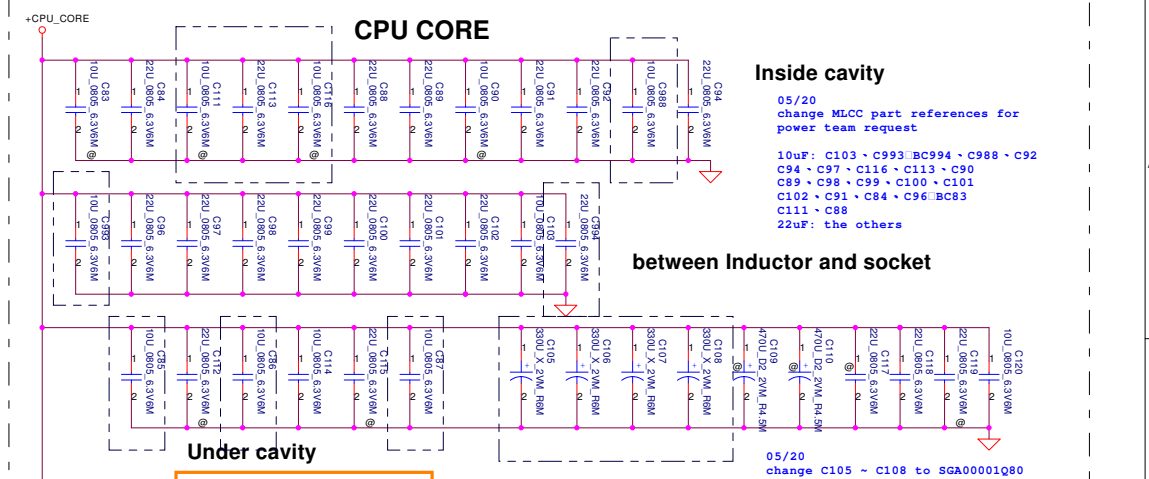
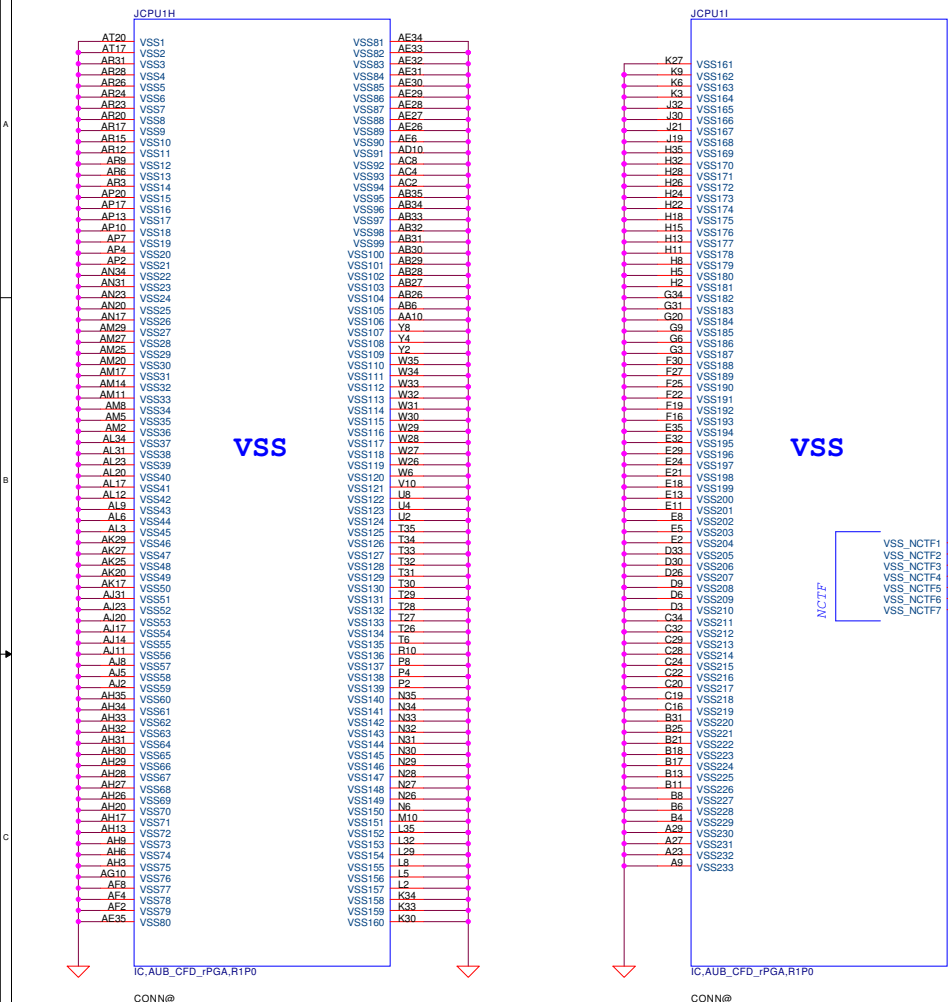




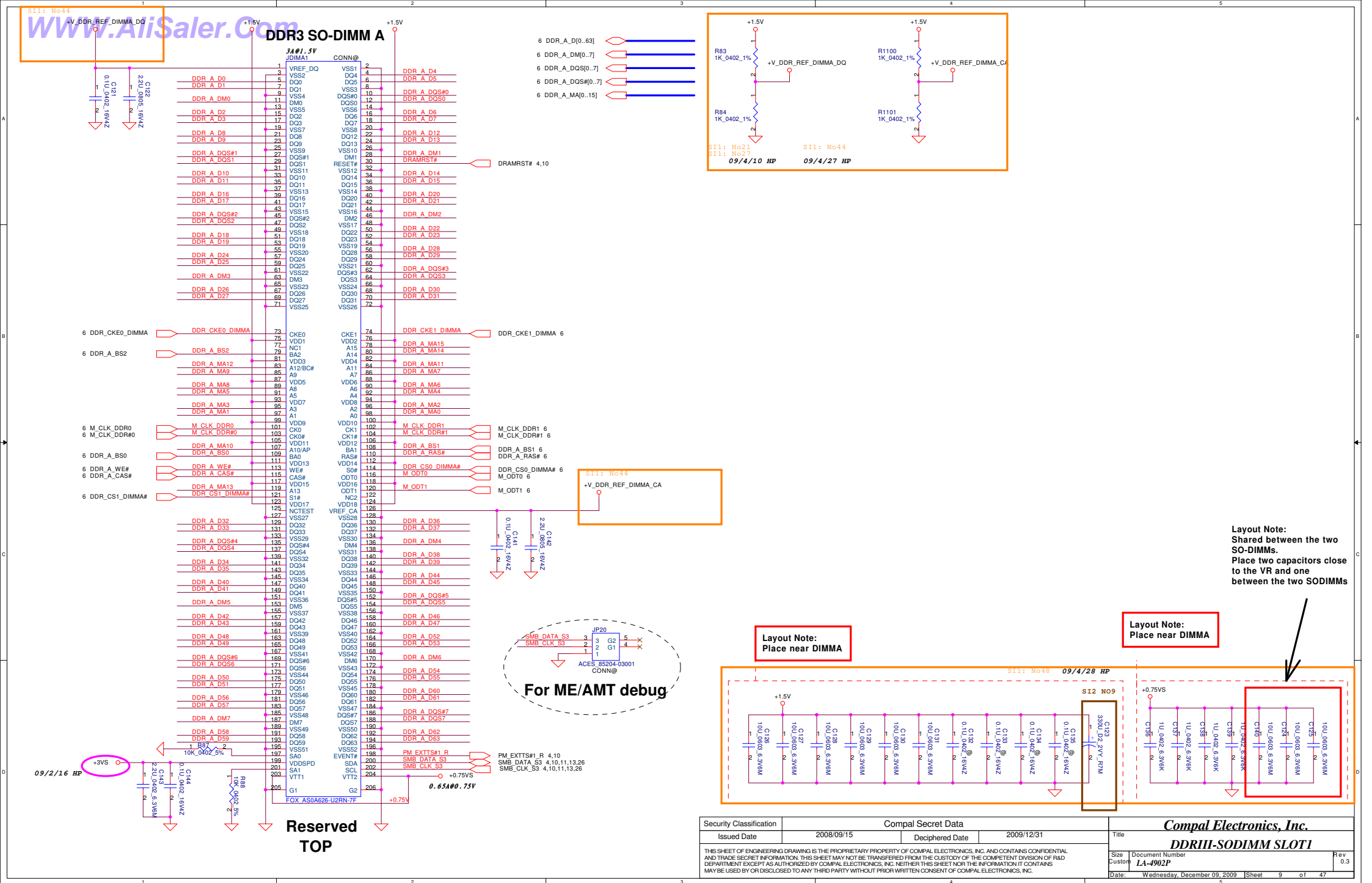
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	Auburndale(3/5)-DDR3
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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-4902P
				Date:	Wednesday, December 09, 2009
				Sheet	6 of 47
				Rev	0.3

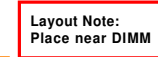
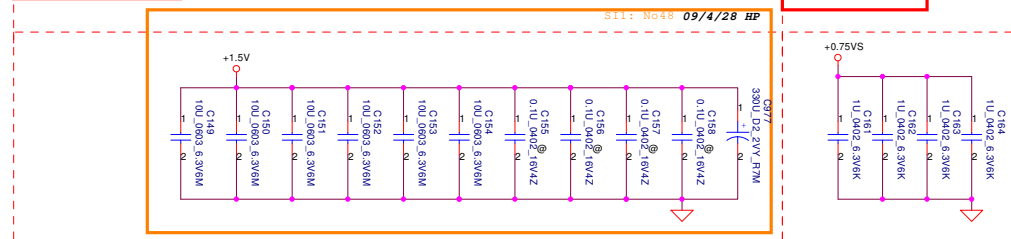
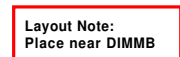
Security Classification	Compal Secret Data			Compal Electronics, Inc. Auburndale(4/5)-PWR		
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS 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	Rev
				Custom	LA-4902P	0.
				Date:	Wednesday, December 09, 2009	Sheet 7 of 47

JCPU1H

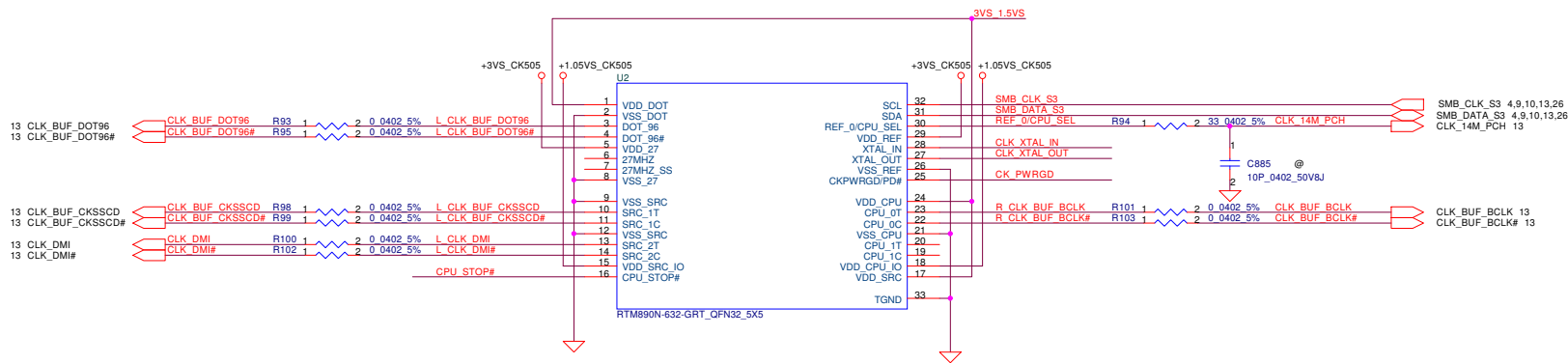


Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	Auburndale(5/5)-GND/Bypass	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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
				Customer	LA-4902P	0.3
				Date:	Wednesday, December 09, 2009	Sheet 8 of 47

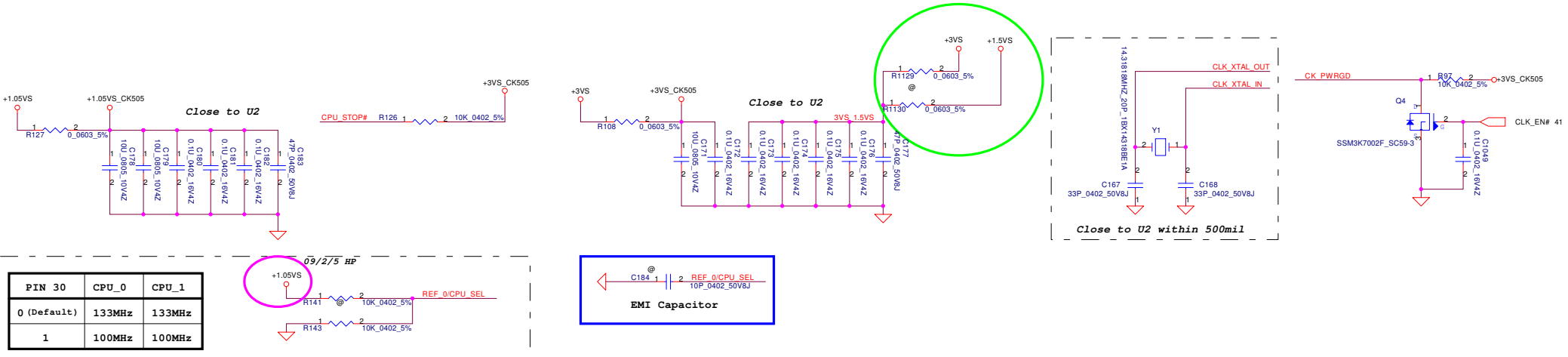




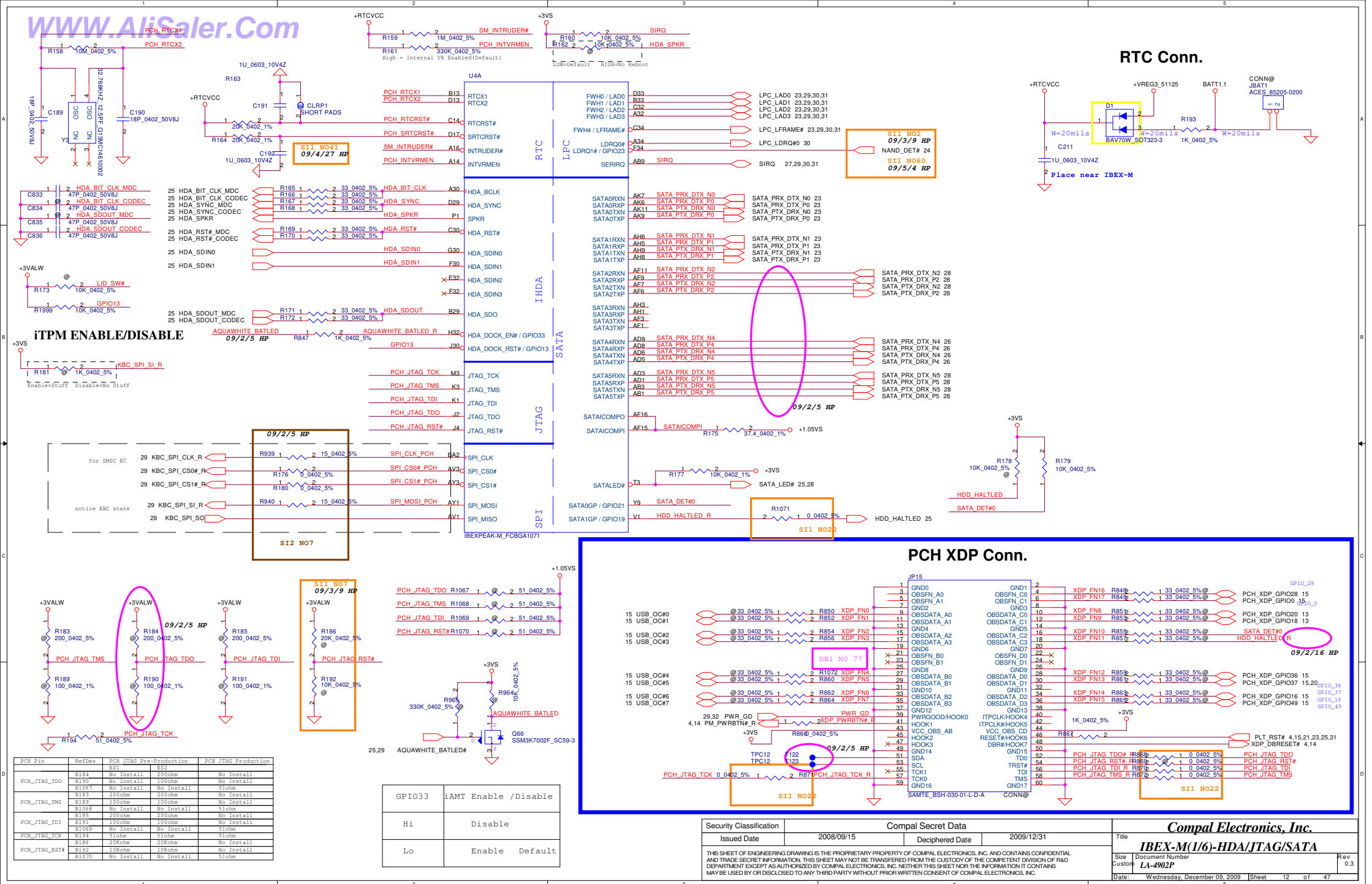
Security Classification		Compal Secret Data		<i>Compal Electronics, Inc.</i> DDRIII-SODIMM SLOT2	
Issued Date		2008/09/15		Deciphered Date	
				2009/12/31	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISIONAL 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	
				Size Document Number <i>LA-4902P</i>	
				Rev. 0.3	
Date: Wednesday, December 09, 2009				Sheet 10 of 47	

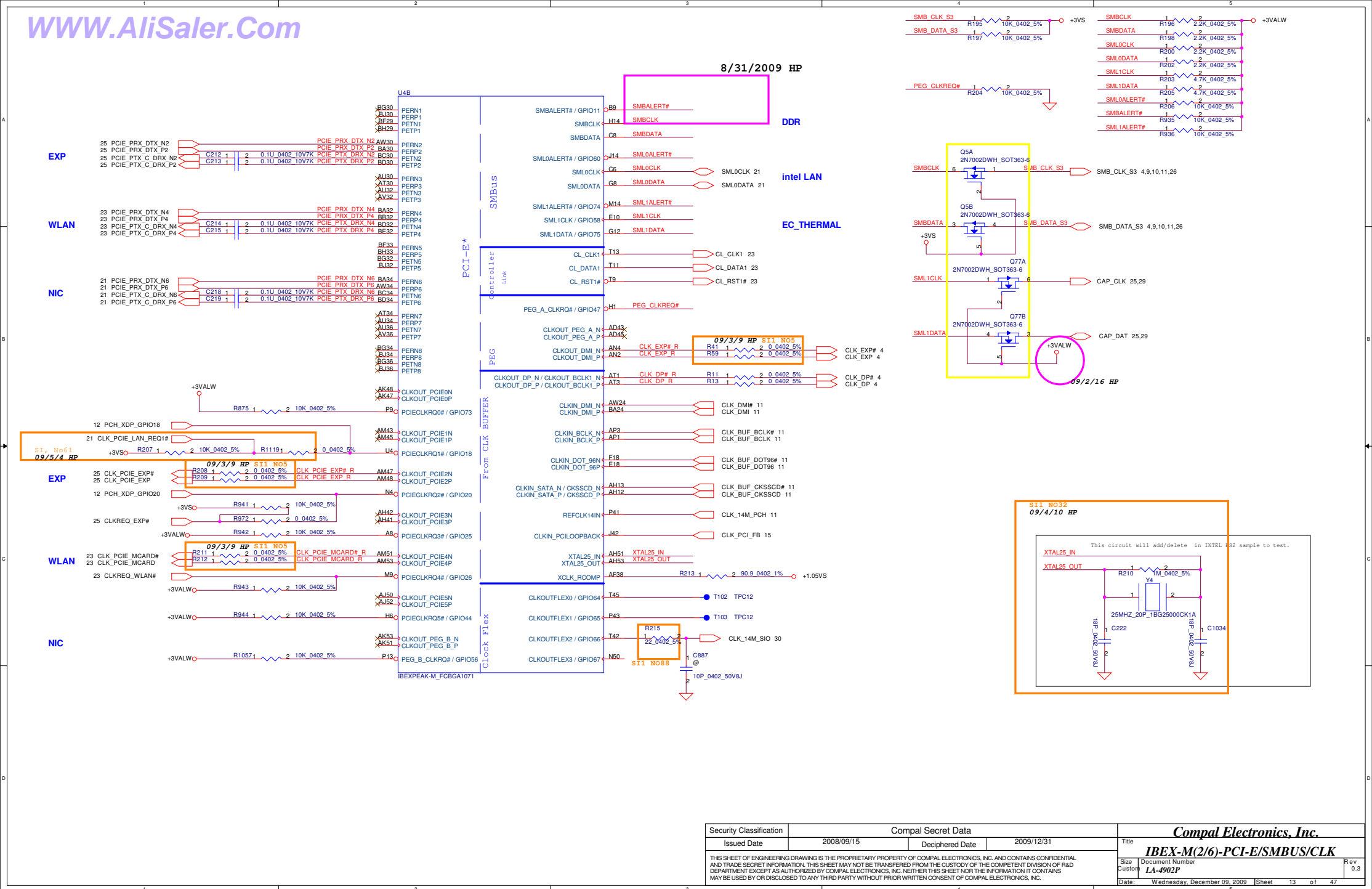


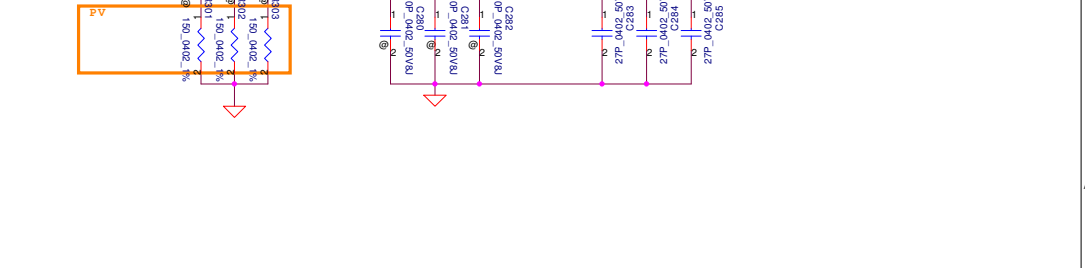
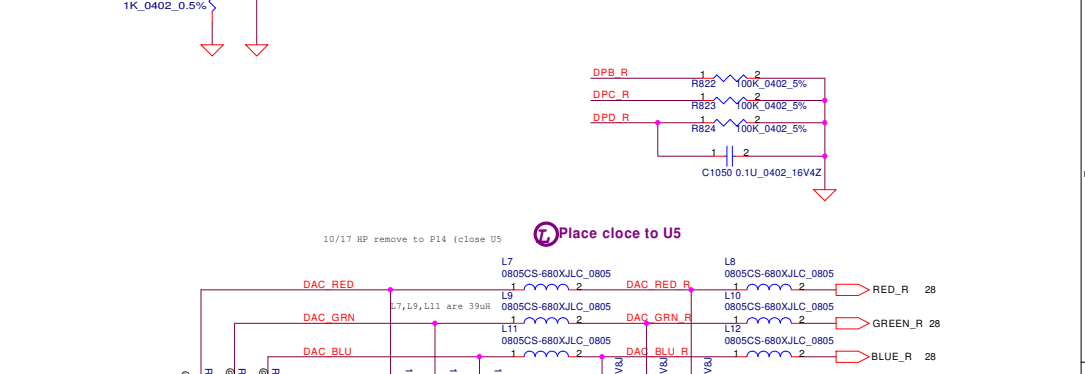
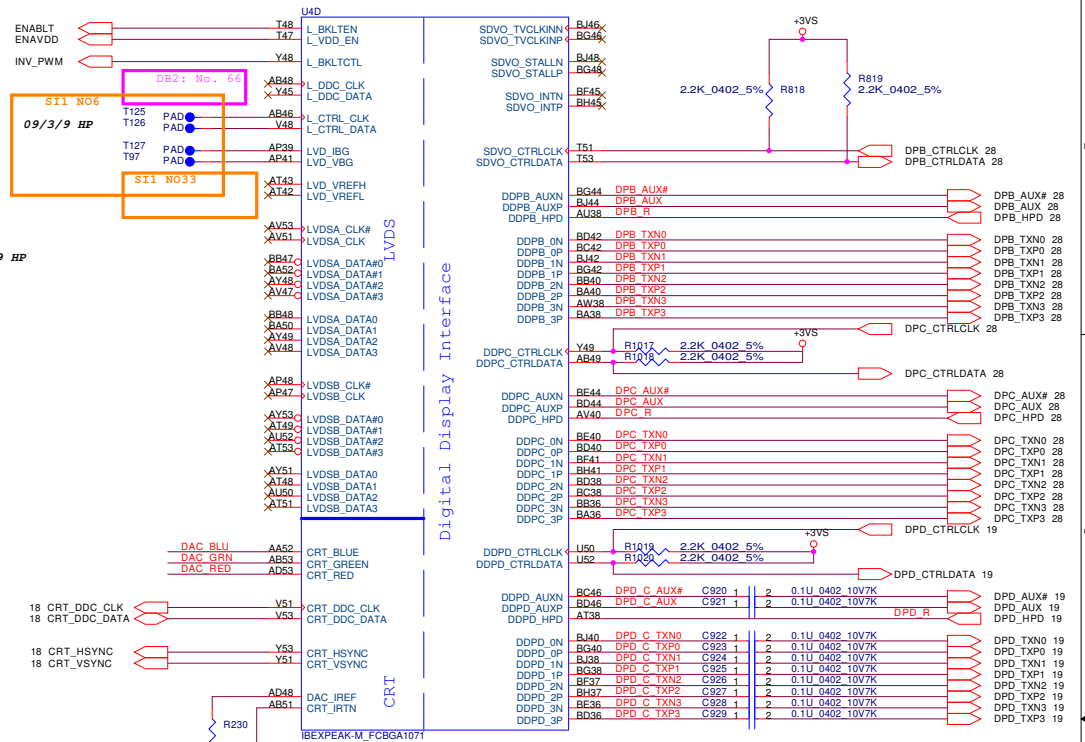
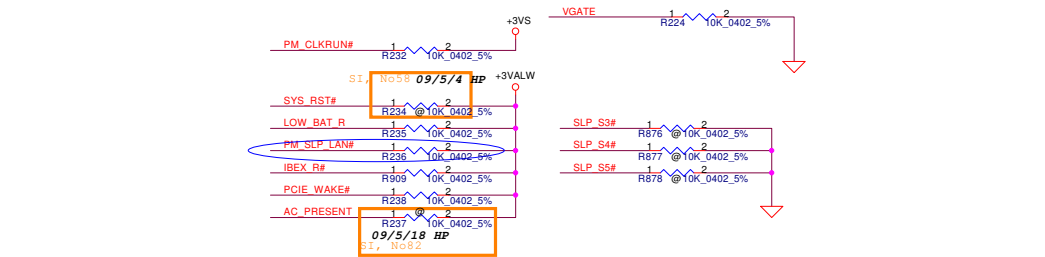
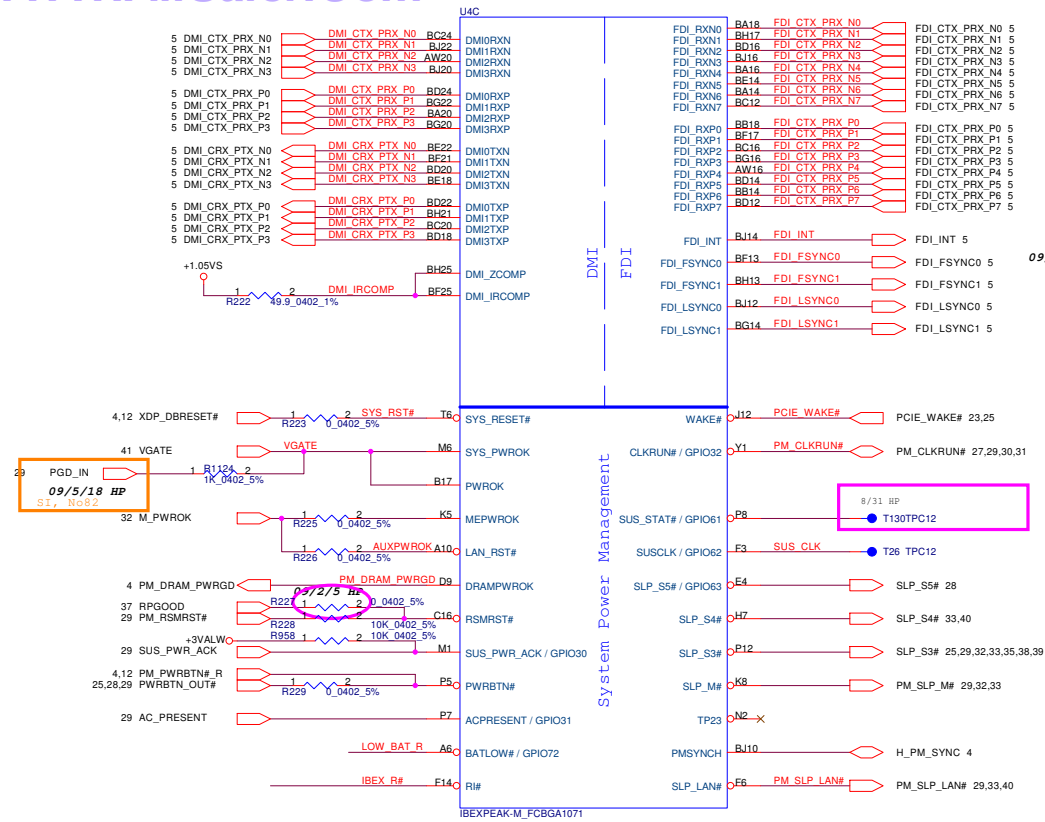
CLK Gen feature 1.5V support 6/29



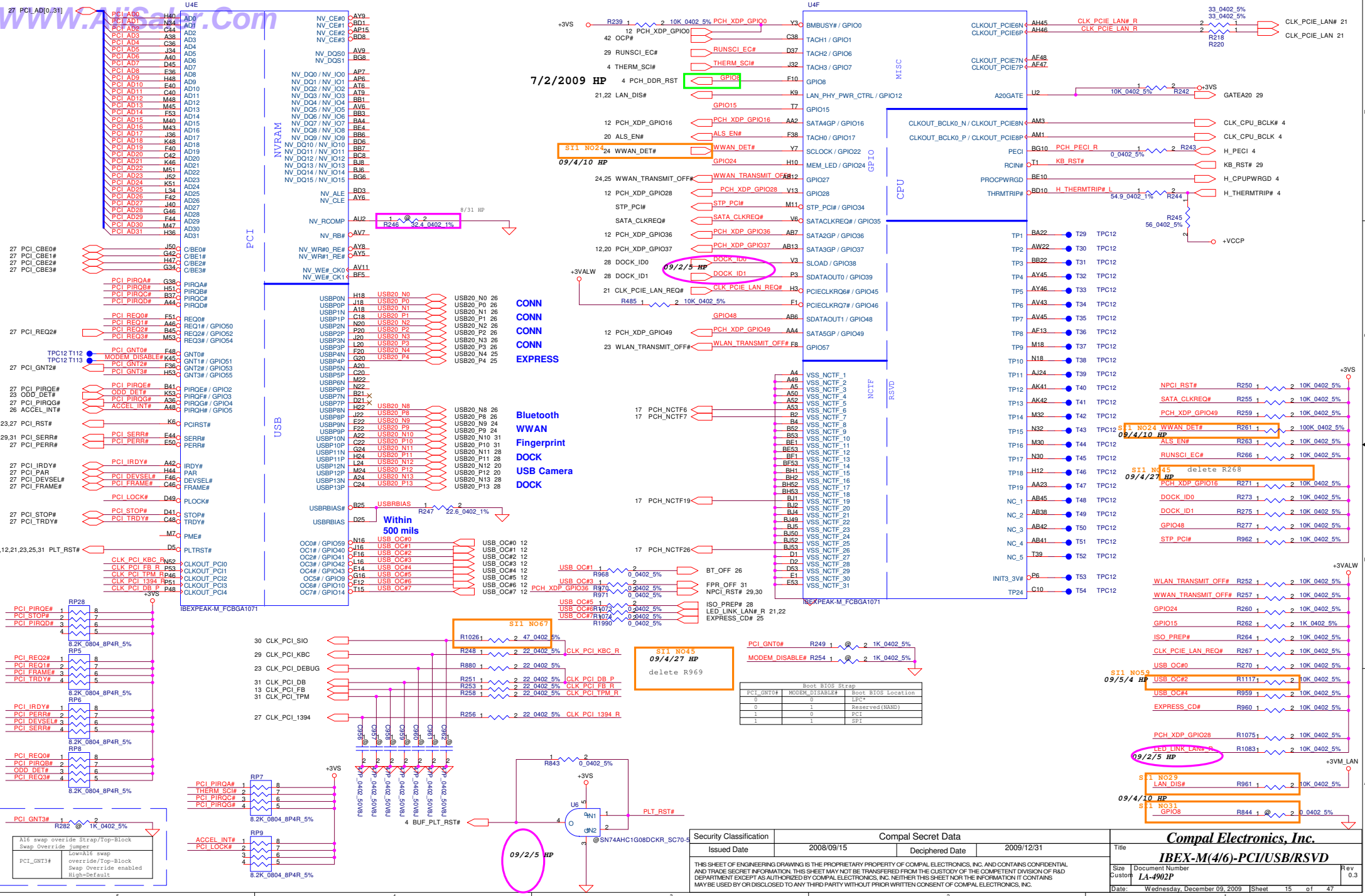
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	CLOCK GENERATOR
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY 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-4902P	Rev 0.3
				Date	Wednesday, December 09, 2009
				Sheet	11 of 47






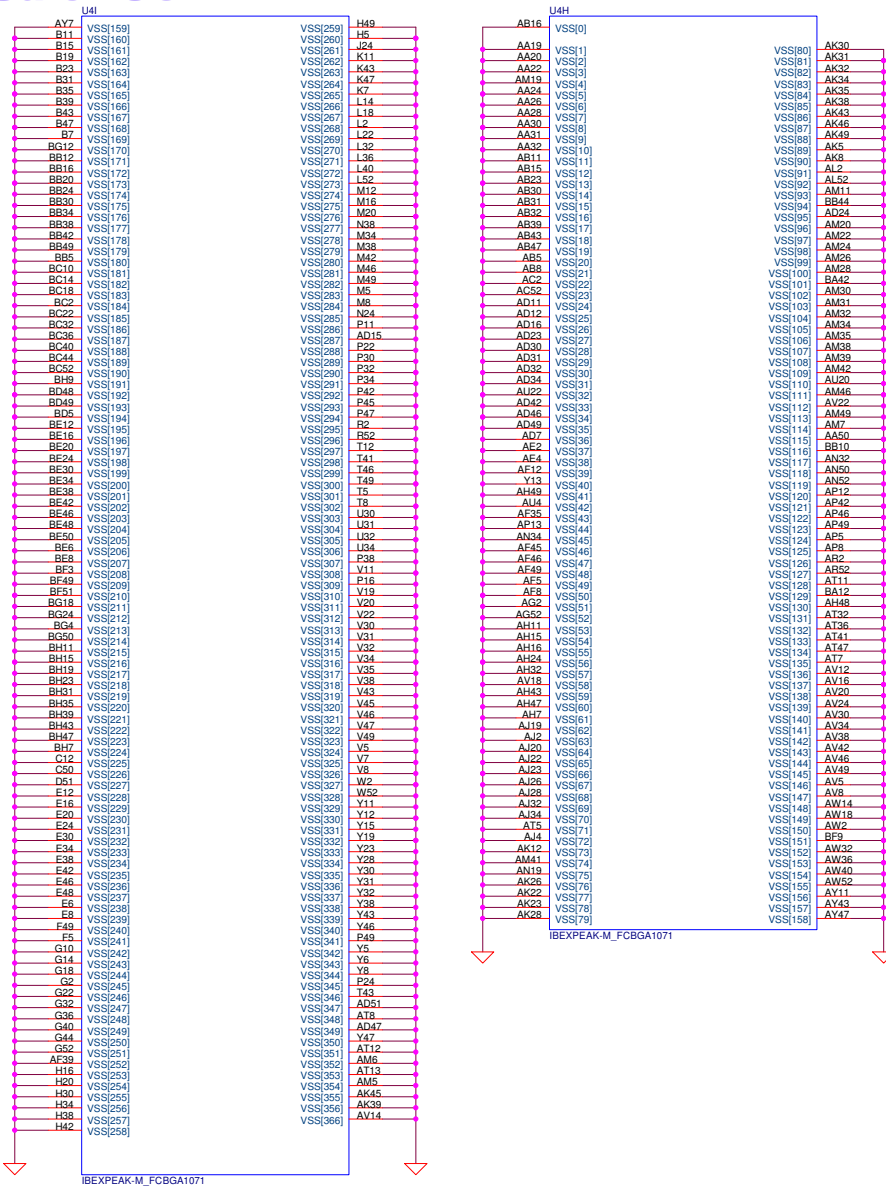


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	IBEX-M(3/6)-DMI/GPIO/LVDS
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS SHALL BE DISCLOSED TO ANY OTHER PERSON WITHOUT THE PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-4902P
				Date	Wednesday, December 09, 2009
				Sheet	14 of 47
				Rev	0.3

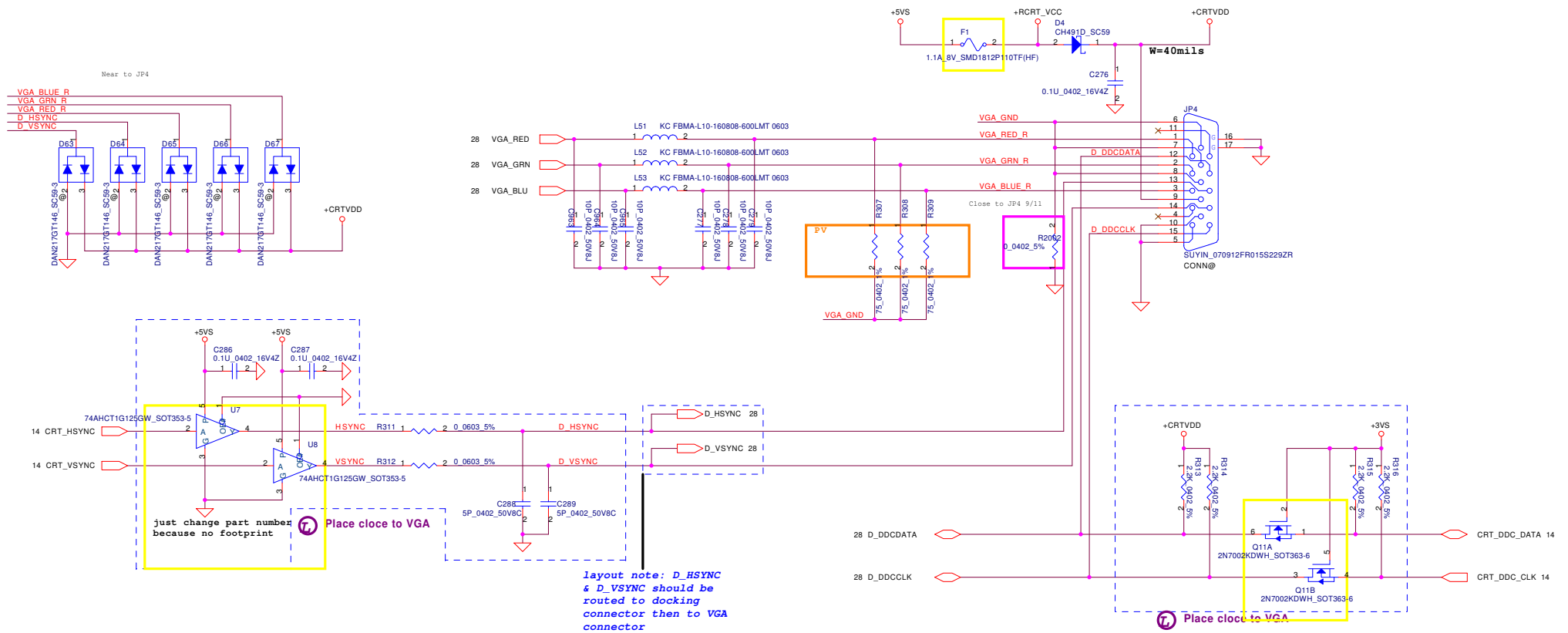




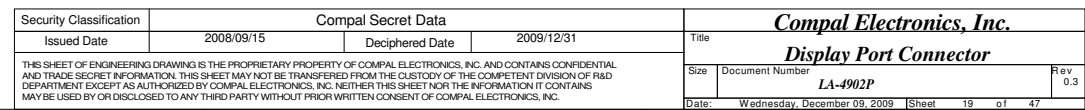
Security Classification	Compal Secret Data		 Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title IBEX-M(5/6)-PWR
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Document Number LA-4902P
				Rev 0.3

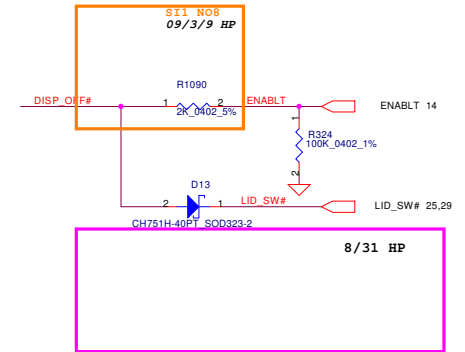
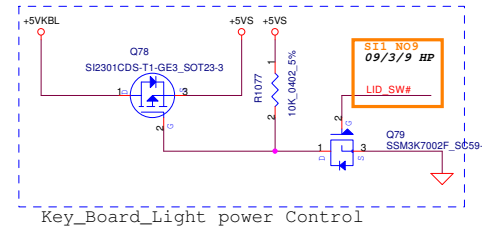
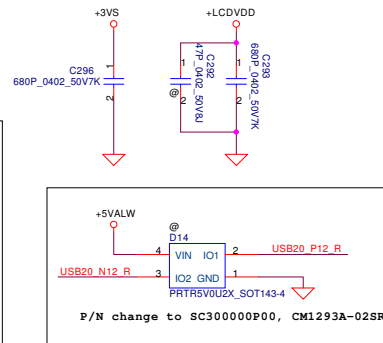
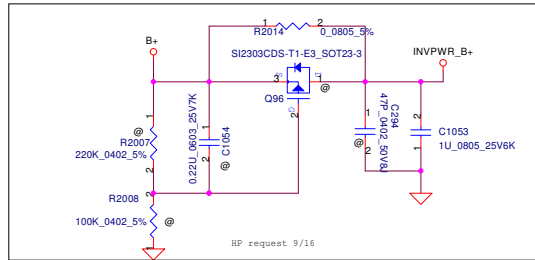


CRT Connector

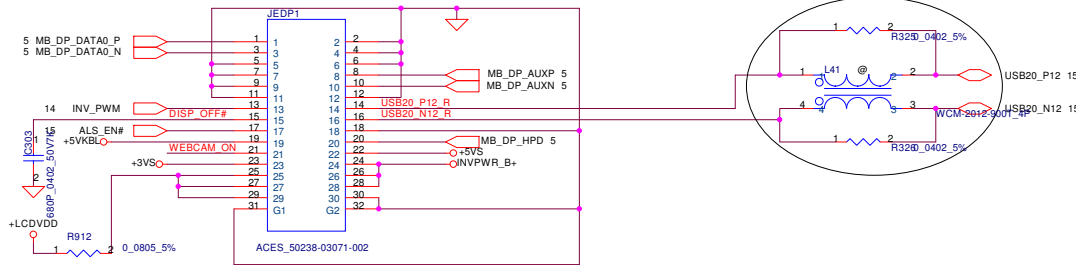


Security Classification		Compal Secret Data		Compal Electronics, Inc. CRT Connector	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY 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
				LA-4902P Date: Wednesday, December 09, 2009 Sheet 18 of 47	

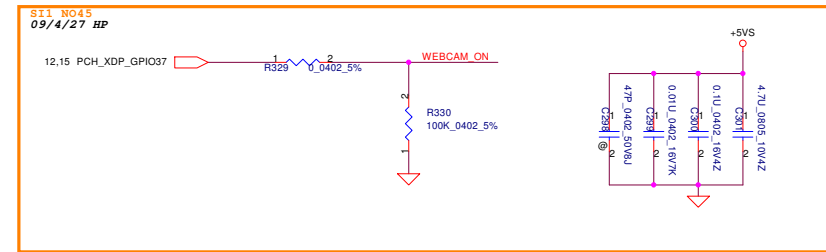




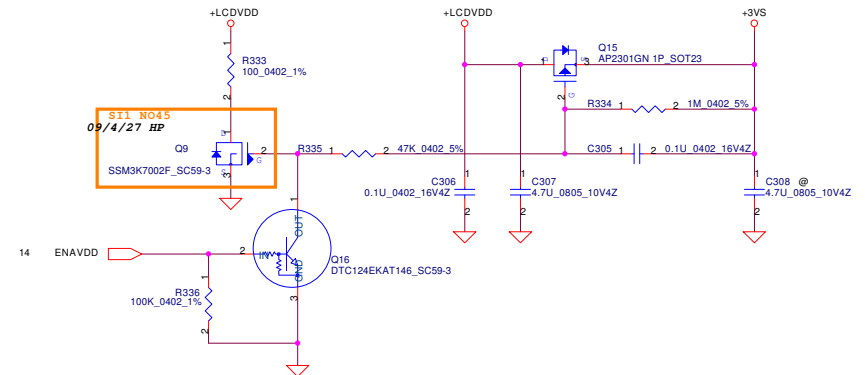
LCD/PANEL BD. CONN.



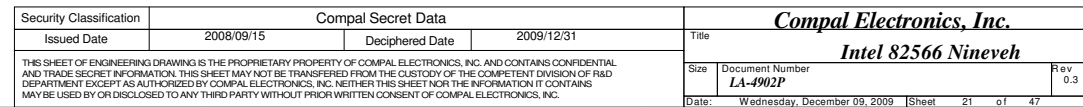
Change eDP LCD connector to 30pin for Coaxial cable 9/13

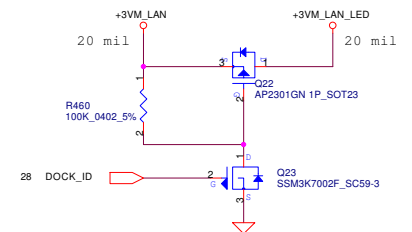
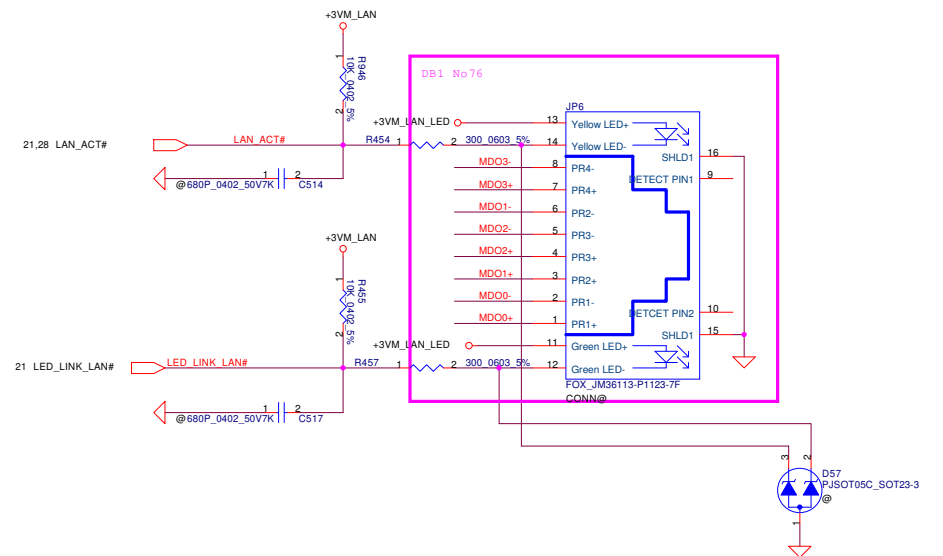
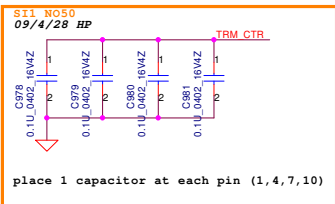
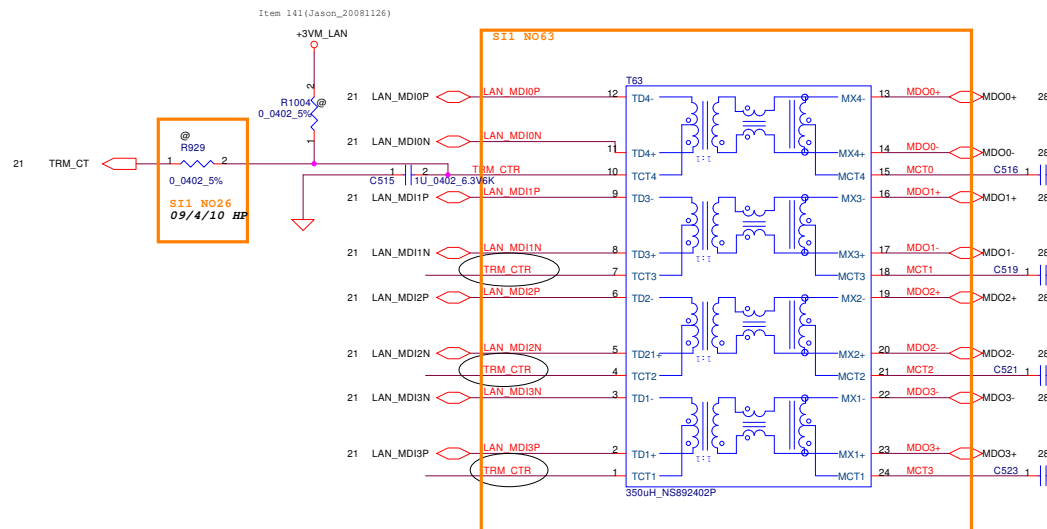
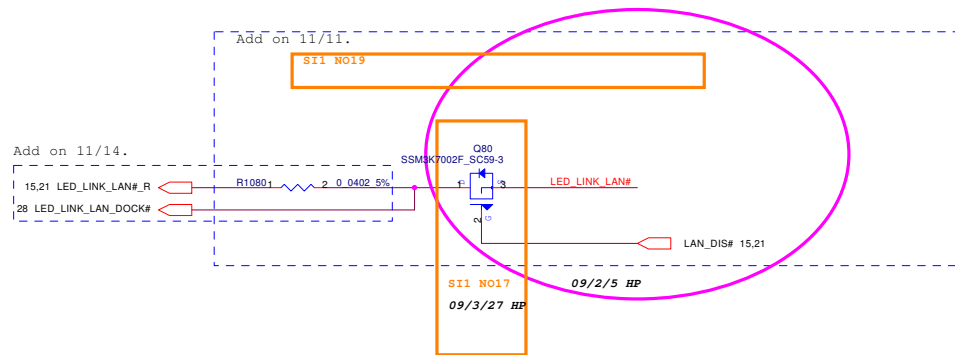


LCD POWER CIRCUIT

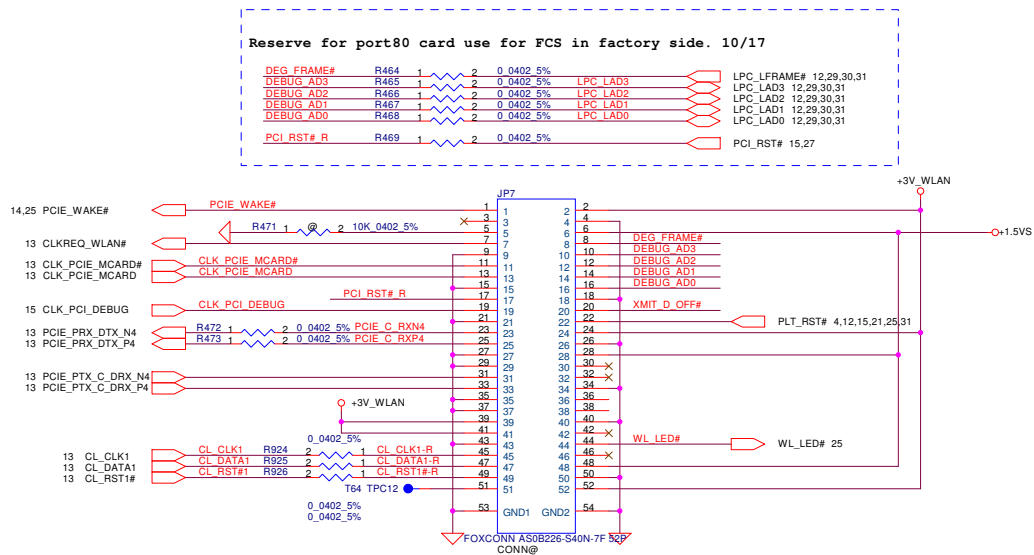
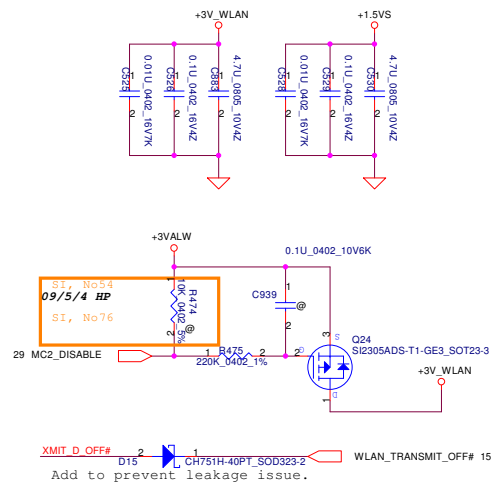


Security Classification	Compal Secret Data		Title	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				LCD CONN & Q-Switch & GPIO Ext.
Size	Document Number	Rev	Date	Wednesday, December 09, 2009
	LA-4902P	0.3	Sheet	20 of 47

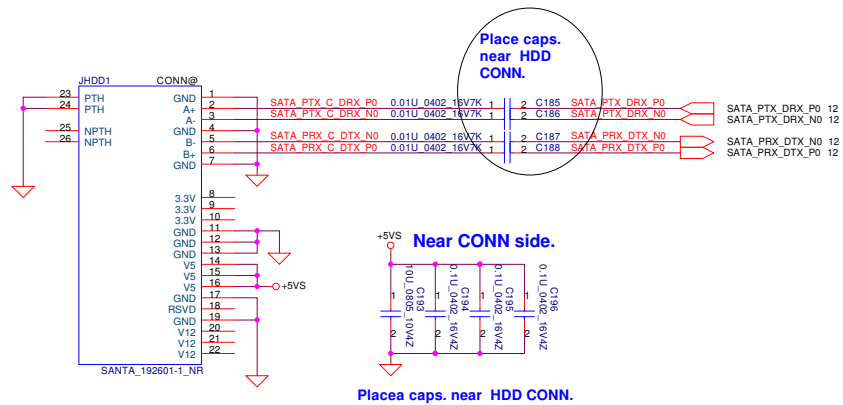




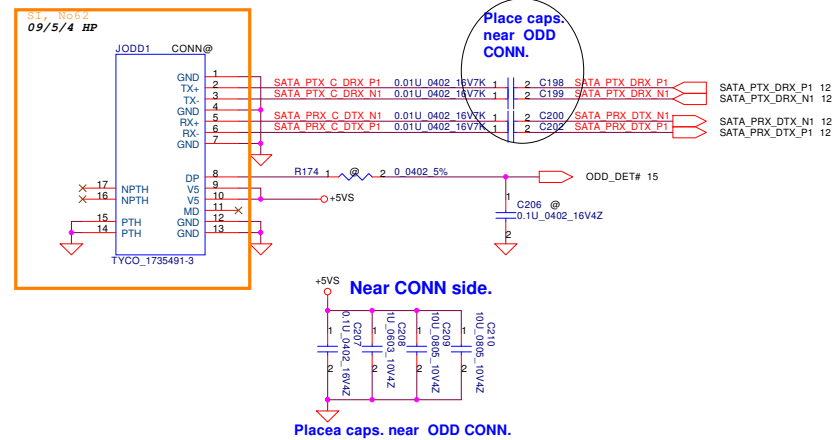
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Magnetic & RJ45	
Size	Document Number	LA-4902P		Rev	0.3
Date:	Wednesday, December 09, 2009	Sheet	22	of	47



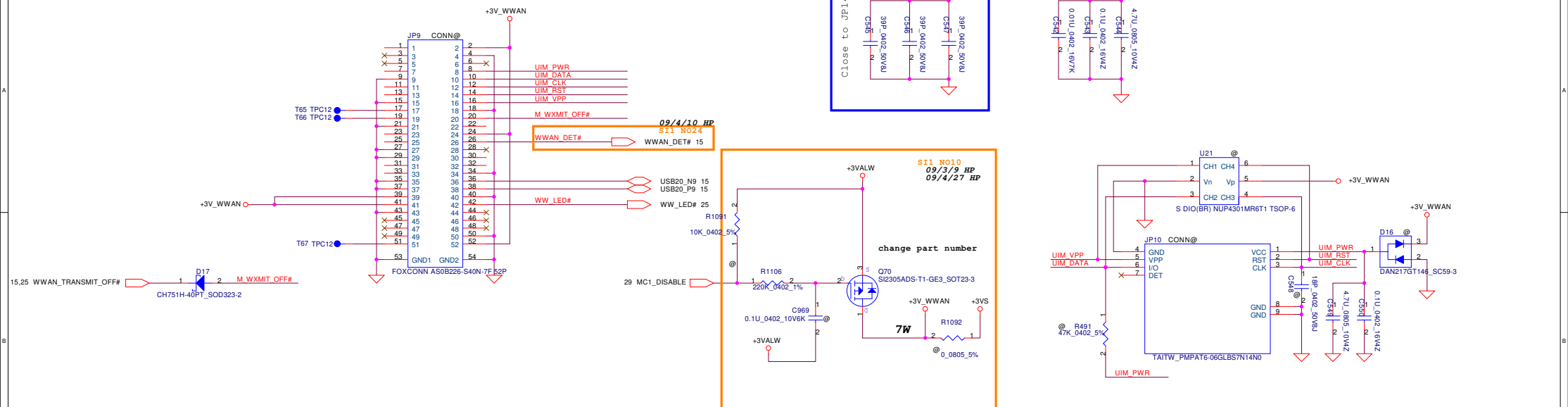
SATA HDD CONN.



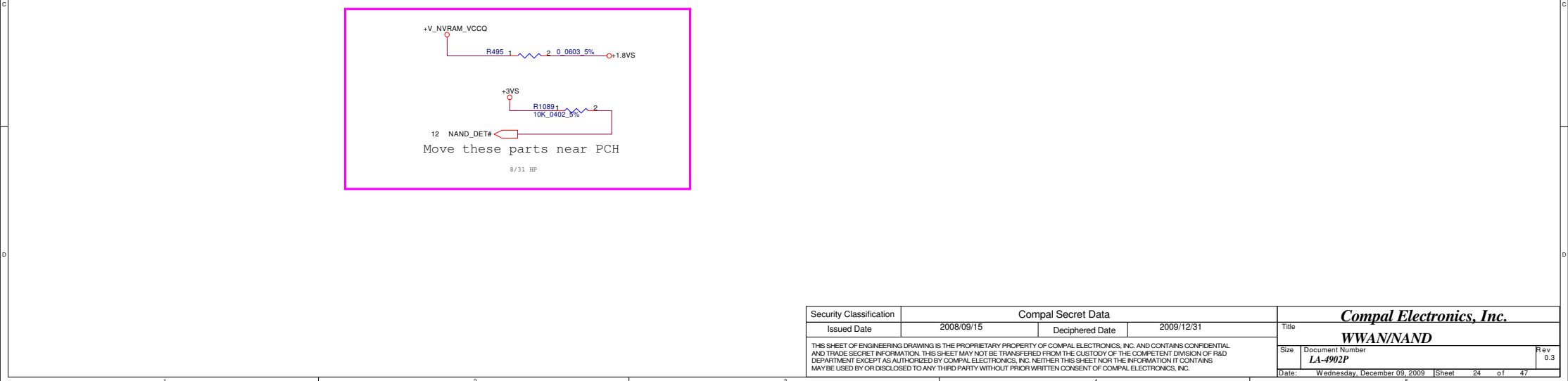
SATA ODD CONN.

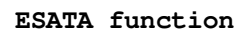
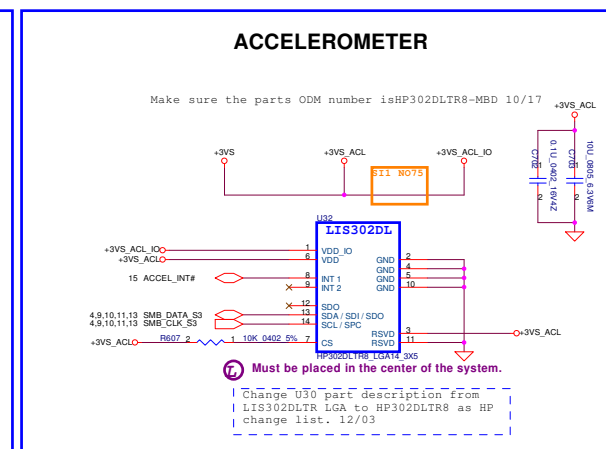
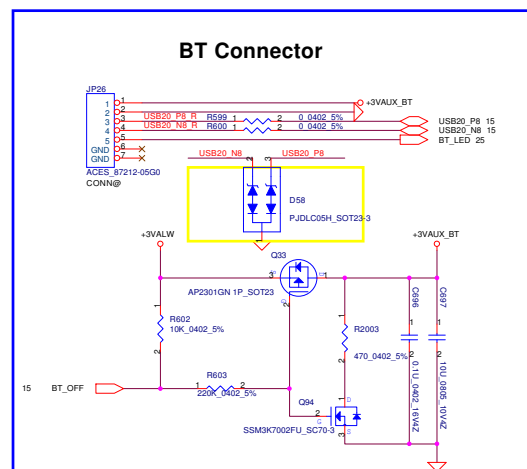
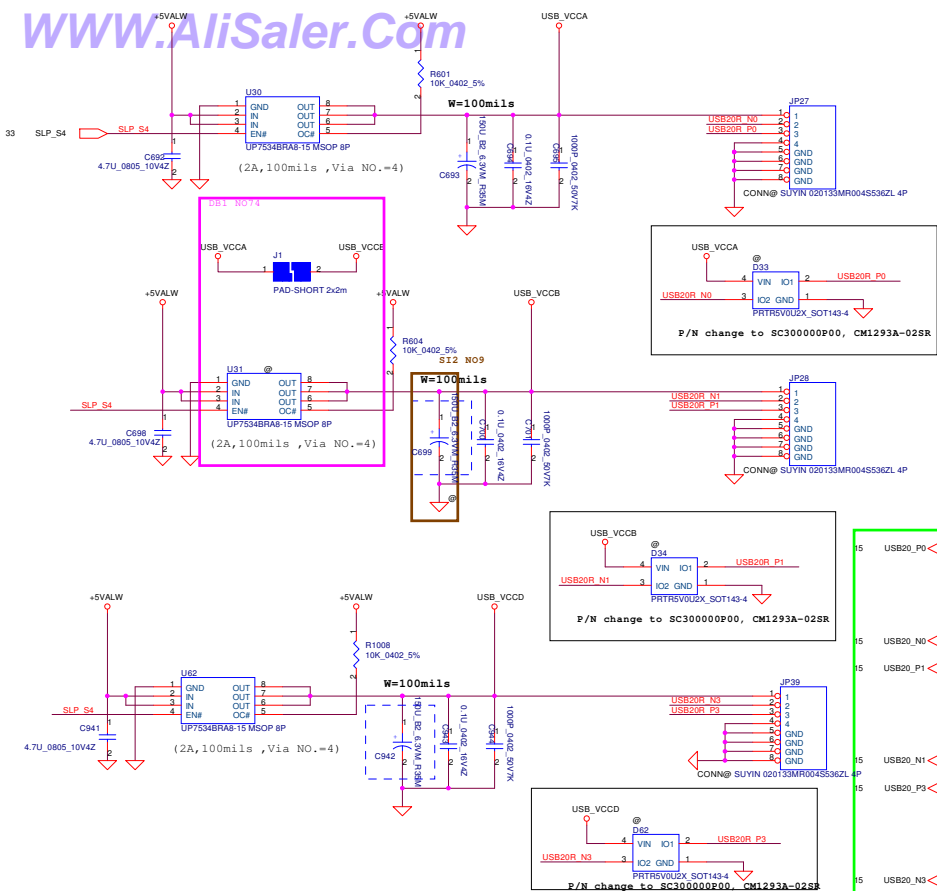


Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	WLAN/ODD/HDD	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev
					LA-4902P	0.3
				Date:	Wednesday, December 09, 2009	Sheet 23 of 47

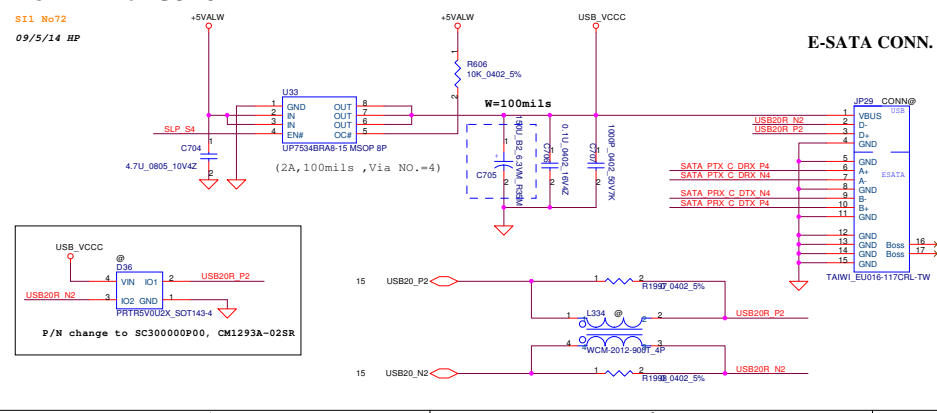


NAND

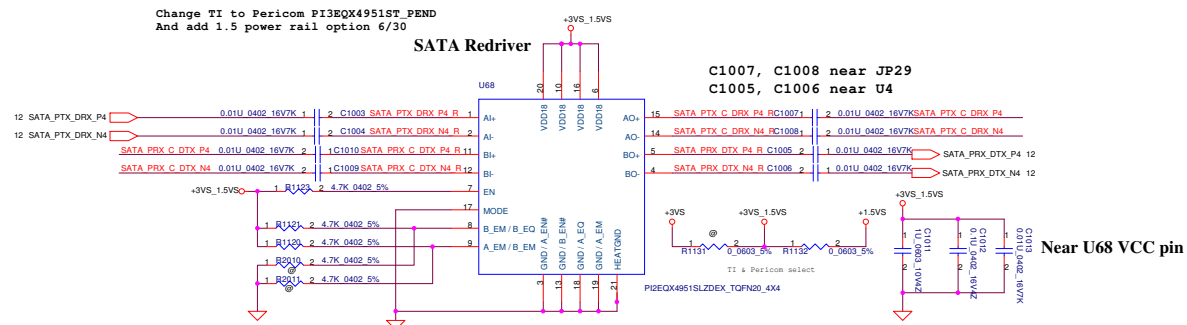




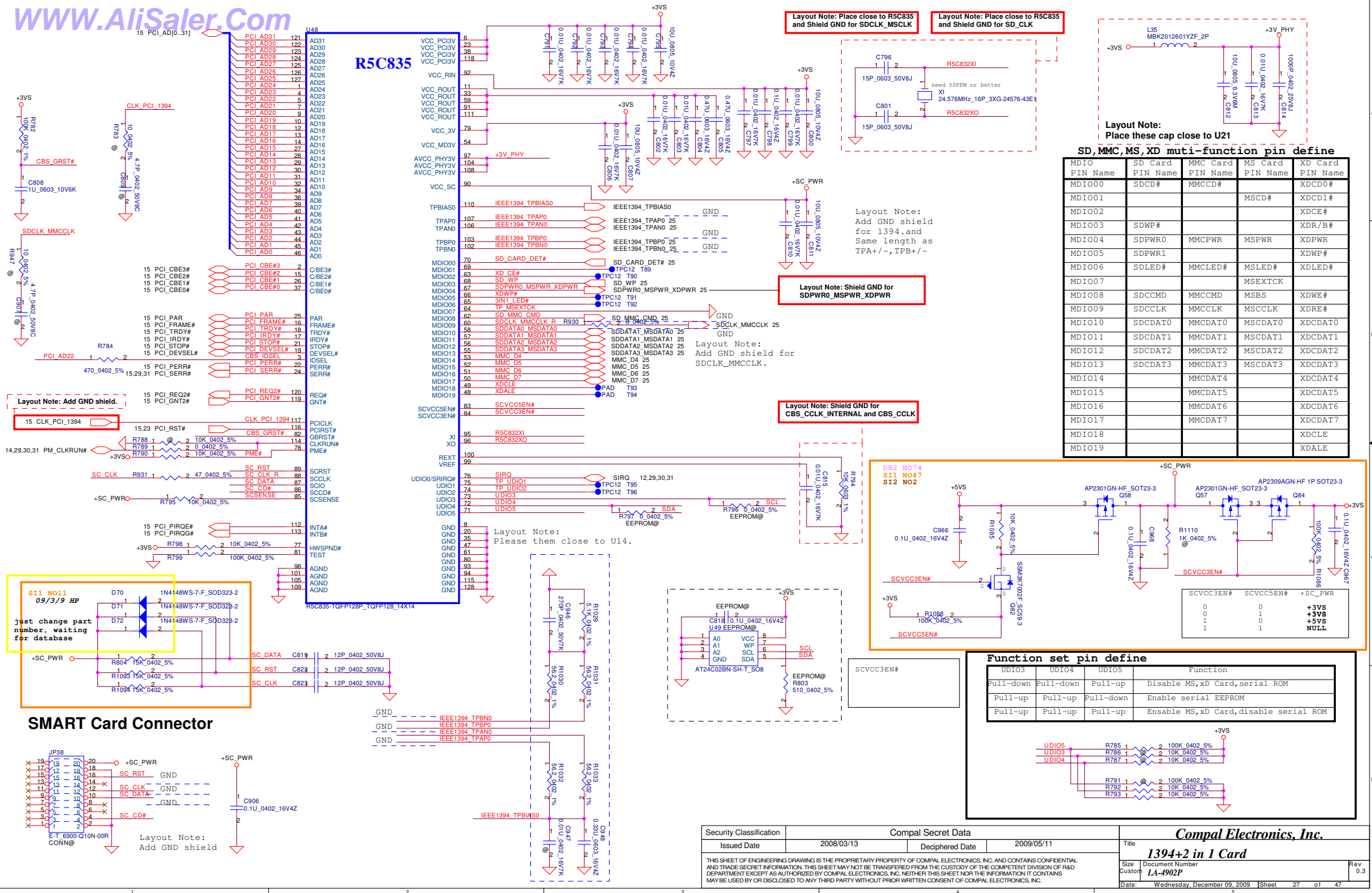
SI1 No72
09/5/14 HP



Change TI to Pericom PI3EQX4951ST_PEND
And add 1.5 power rail option 6/30



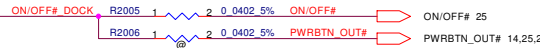
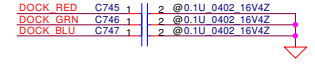
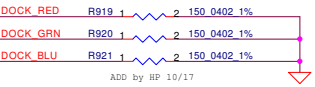
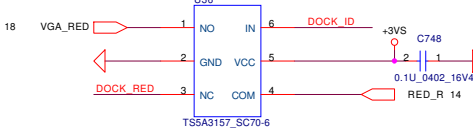
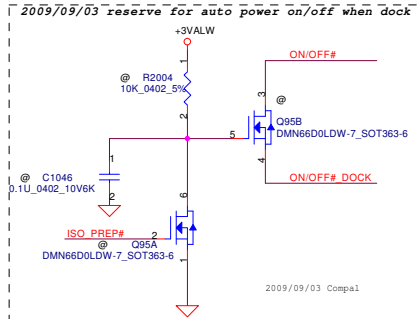
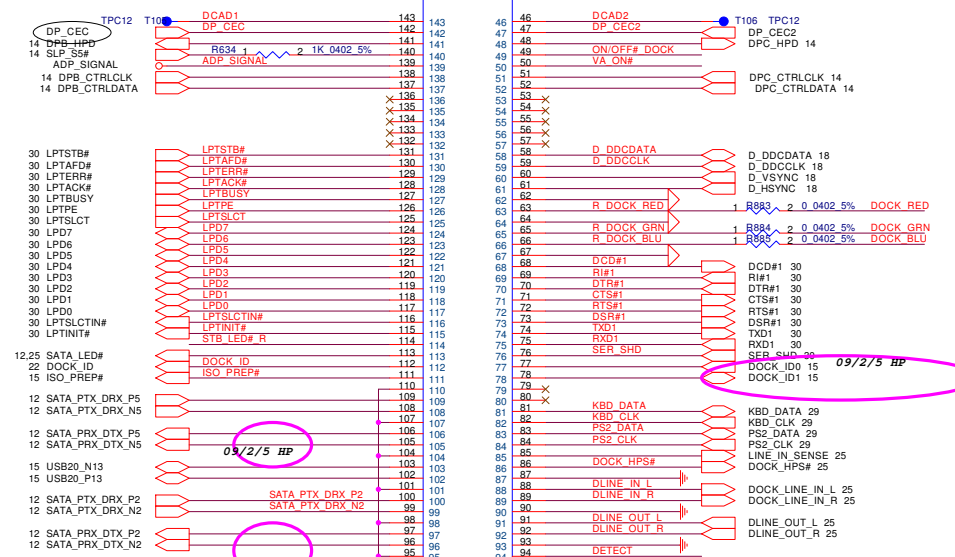
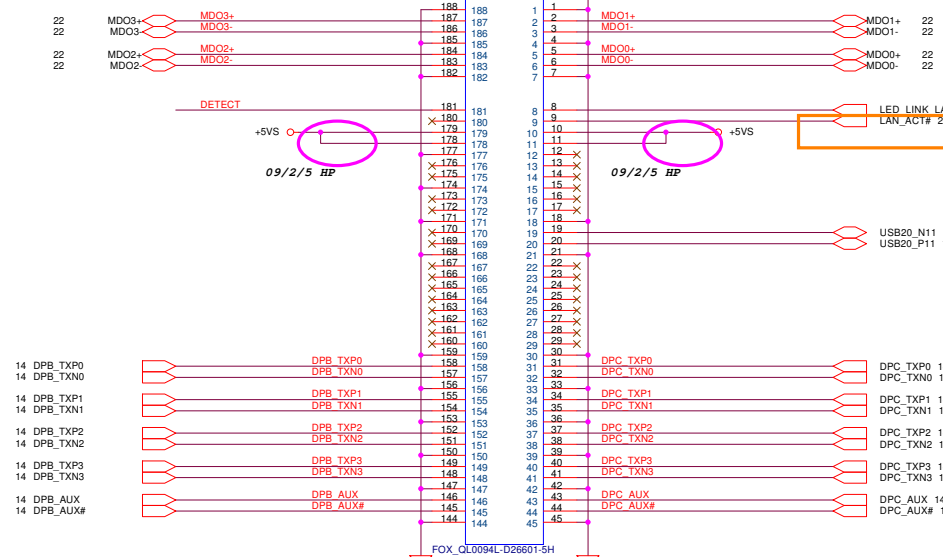
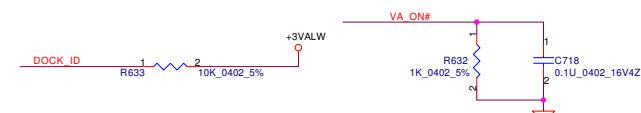
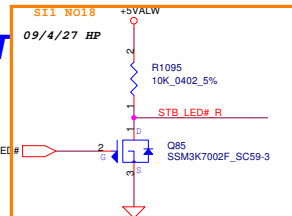
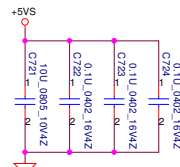
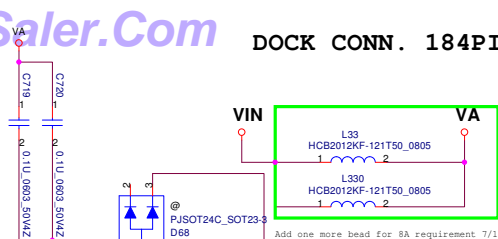
Security Classification	Compal Secret Data			Title		
Issued Date	2008/09/15	Deciphered Date	2009/12/31	USB & BT Connector & Accelerometer		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION. THIS INFORMATION IS NOT TO BE TRANSFERRED OR THE CONTENTS DISCLOSED TO ANY OTHER PARTY OR 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 0
				LA-4902P		
				Date	Wednesday, December 09, 2009	Sheet



DOCK CONN. 184PIN

DOCKING CONNECT

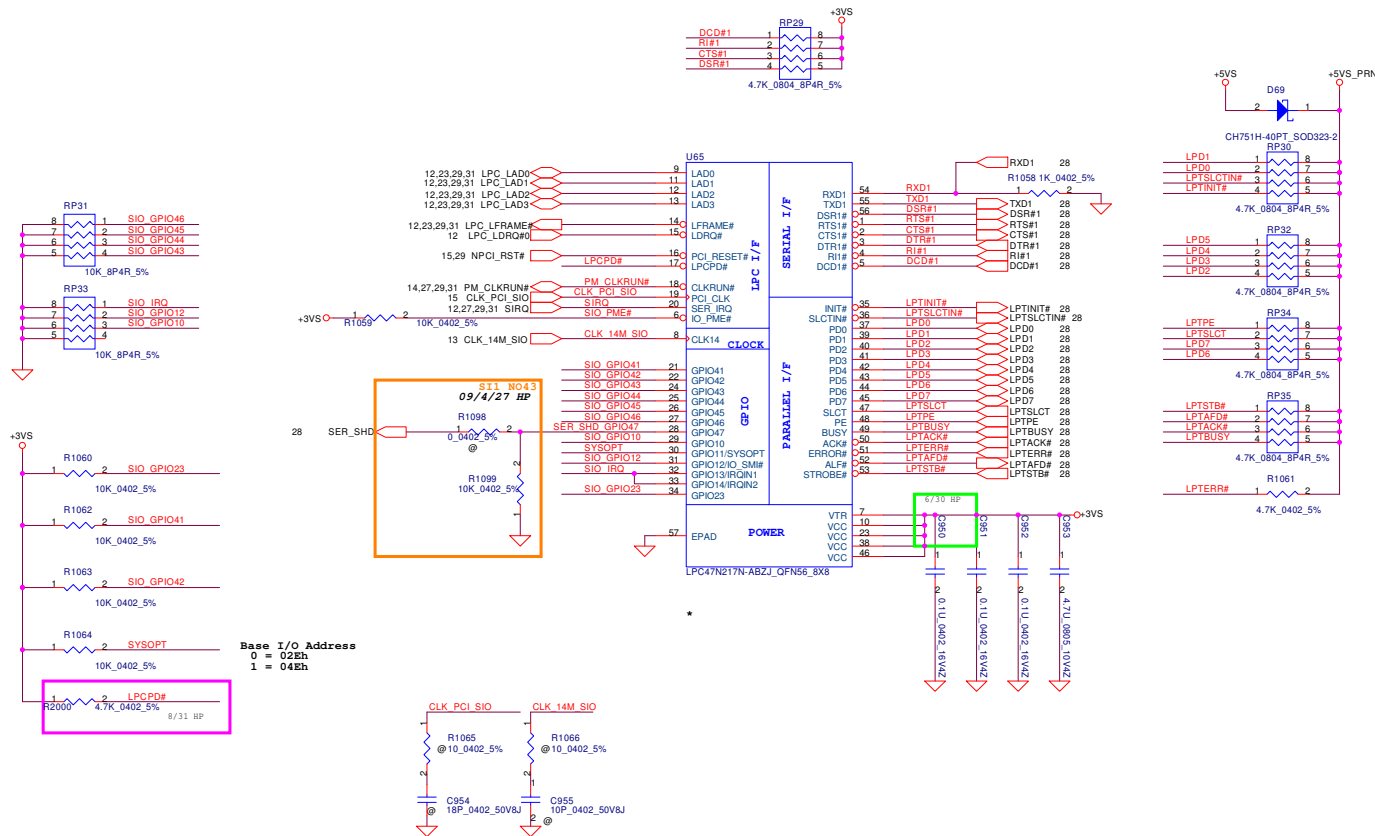
- (1) PCI Express x1 channels
- (2) PS/2 Interfaces
- (2) USB 2.0 channels
- (2) SATA Channels
- (2) Display Port Channels
- (1) Serial Port
- (1) Parallel Port
- (1) Line In
- (1) Line Out
- (1) RJ45 (10/100/1000)
- (1) VGA
- (1) 2 LAN indicator LED's
- (1) Power Button
- (1) I2C interface

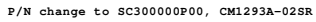


IN	NC<--->COM	NO<--->COM
L	ON	OFF
H	OFF	ON

Security Classification	Compal Secret Data	2009/12/31
Issued Date	2008/09/15	Deciphered Date
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.		
Title	Compal Electronics, Inc.	
Size	DOCK CONN	
Document Number	LA-4902P	
Customer	Date: Wednesday, December 09, 2009	
Sheet	28	of 47





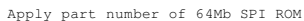


TPM1.2 on board



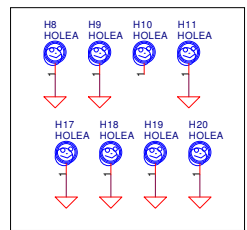
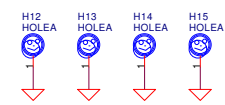
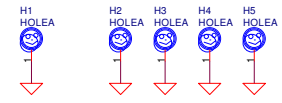
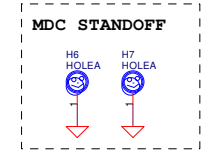
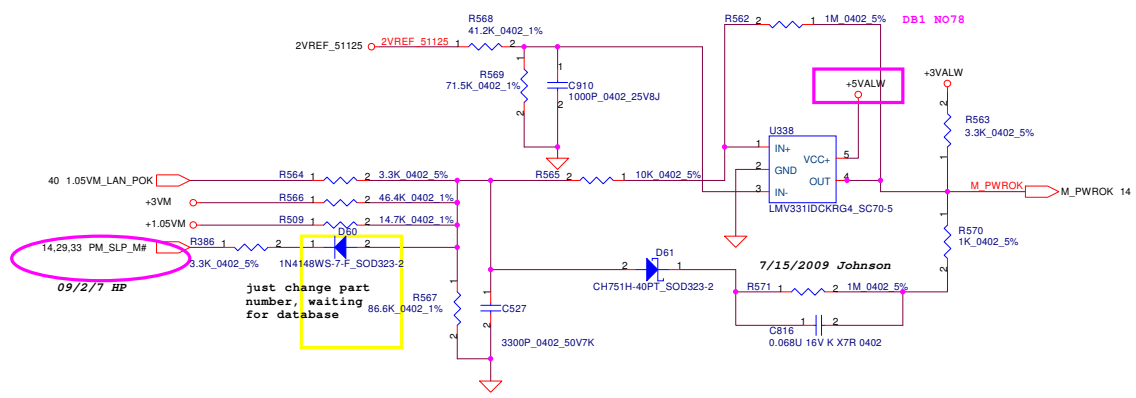
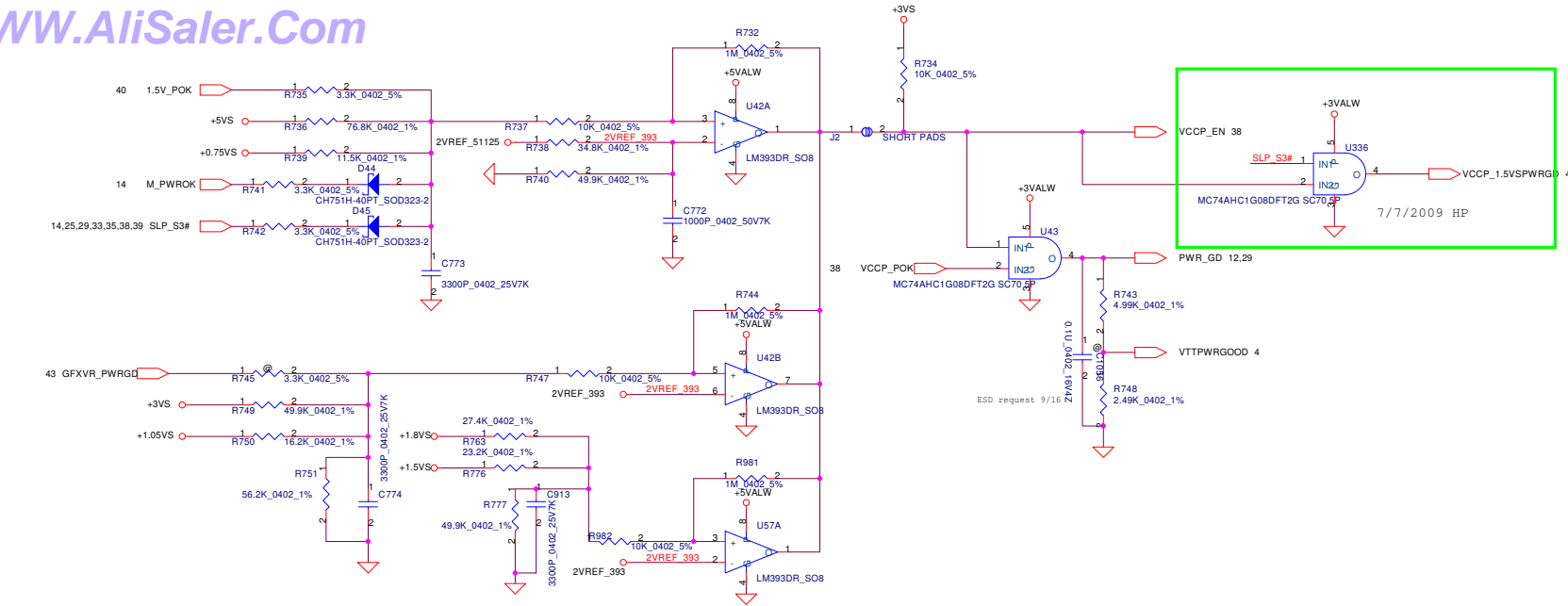
BIOS ROM(8MB)

8MB SPI ROM



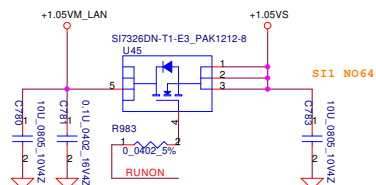
LPC Debug Port

Security Classification		Compal Secret Data		<i>Compal Electronics, Inc.</i>						
Issued Date		2008/09/15	Deciphered Date		2009/12/31	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.						<i>TCG/BIOS ROM/PS2/SW LPC DEBUG</i>				
						Size	Document Number			Rev
						<i>LA-4902P</i>			0.3	
Date:		Wednesday, December 09, 2009		Sheet	31	of 47				

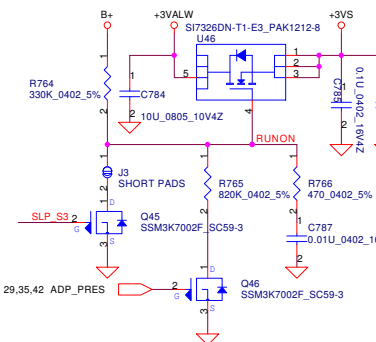


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				POK CKT	
Size	Document Number	Rev		Date	
	LA-4902P	0.3		Wednesday, December 09, 2009	
Sheet		32		of	
47					

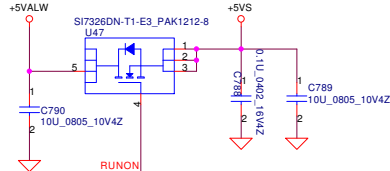
+1.05VM LAN to +1.05VS Transfer



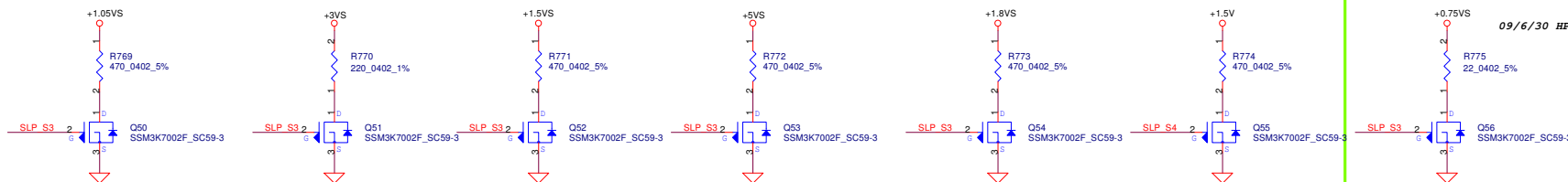
+3VALW to +3VS Transfer



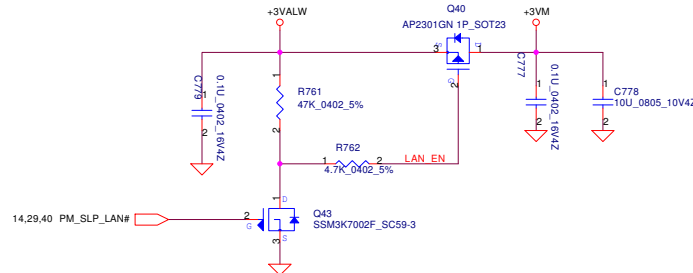
+5VALW to +5VS Transfer



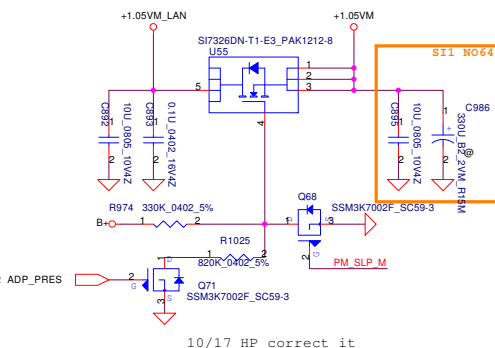
Discharge circuit-1



+3VALW to +3VM Transfer

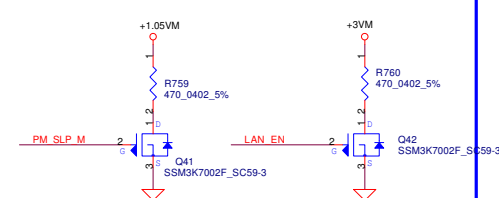


+1.05VM LAN to +1.05VM Transfer

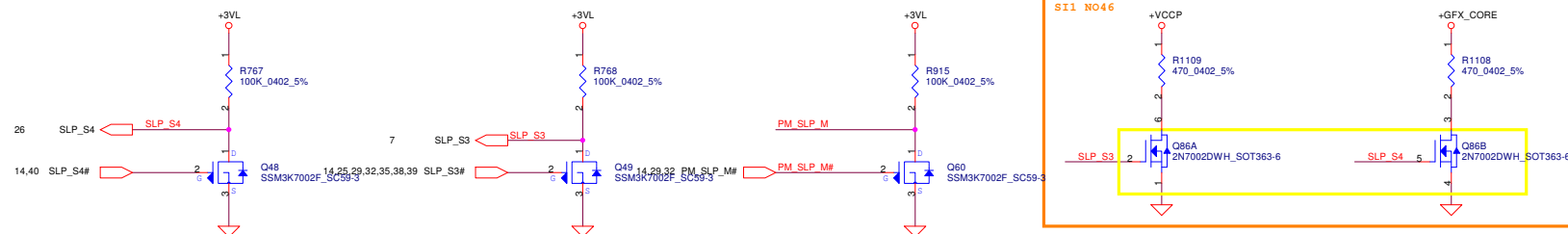
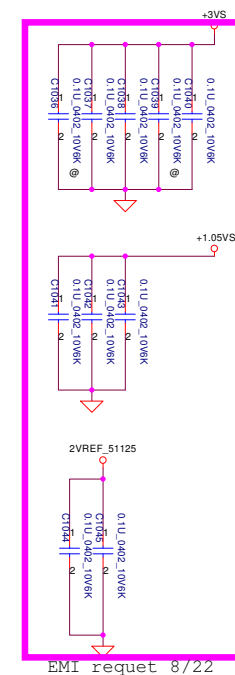
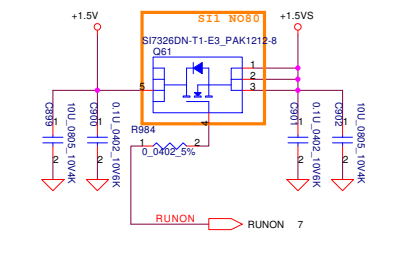


10/17 HP correct it

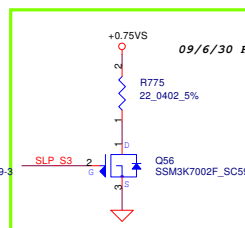
Discharge circuit-2 for V-M



+1.5V to +1.5VS Transfer

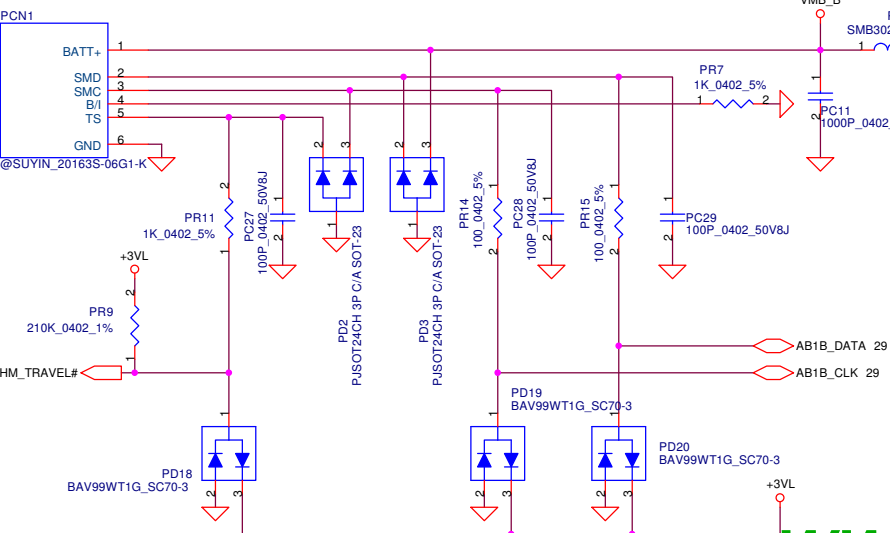
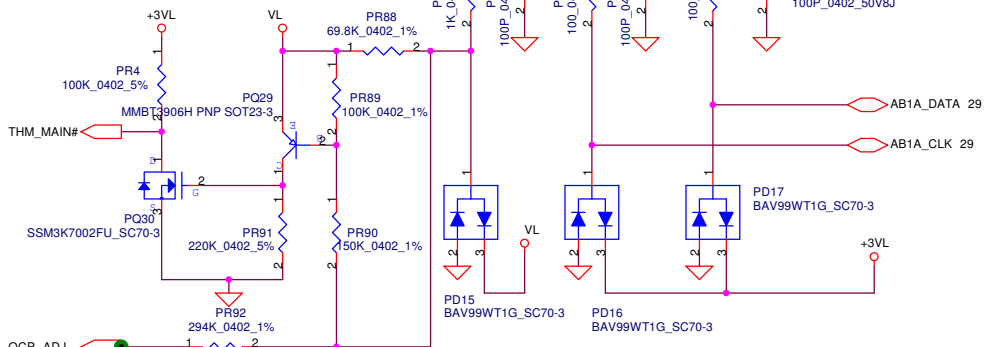
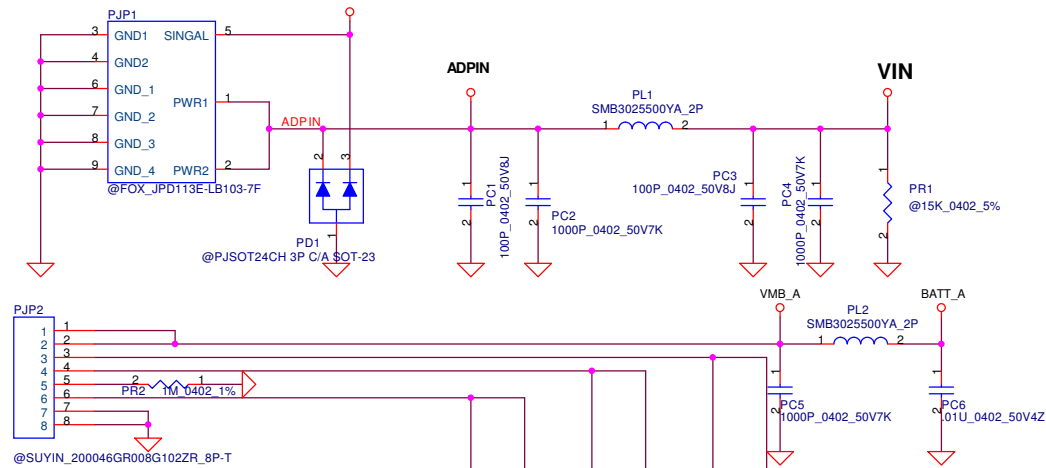


09/6/30 HF

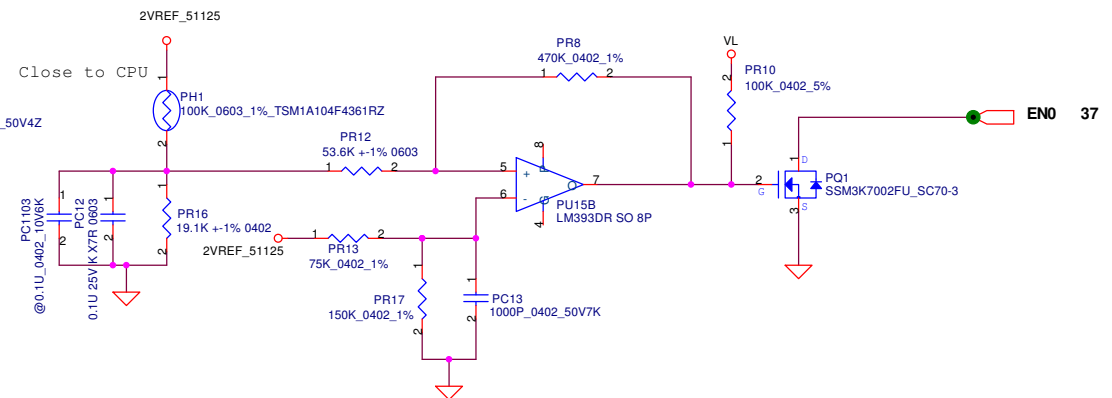


Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2008/09/15	Deciphered Date	2009/12/31	Title	DC/DC Circuits	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number LA-4902P	Rev. 0.
				Date:	Wednesday, December 09, 2009	Sheet 33 of 47

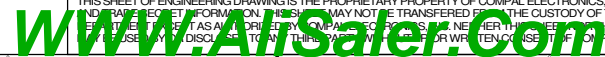
ADP_SIGNAL



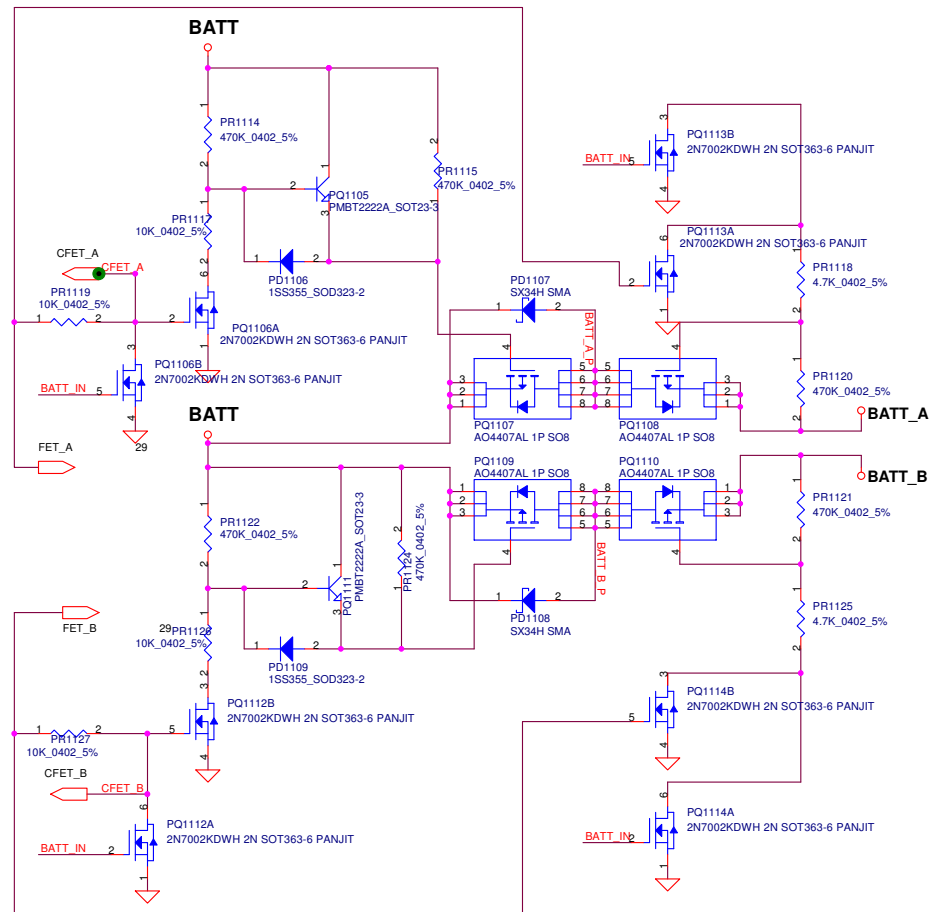
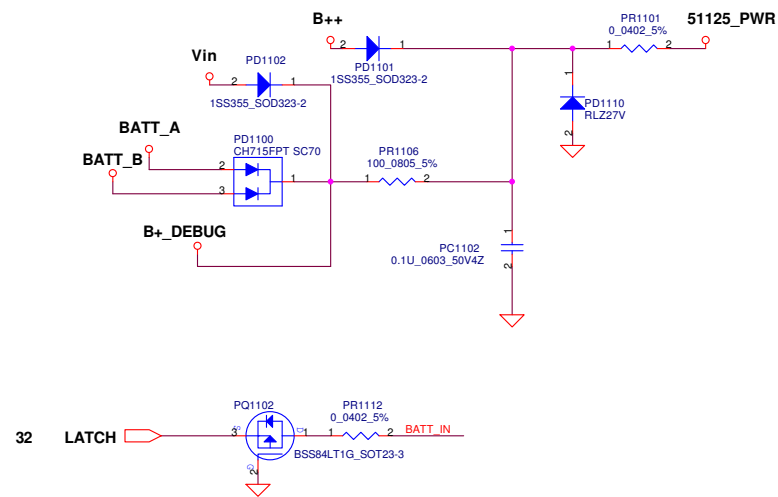
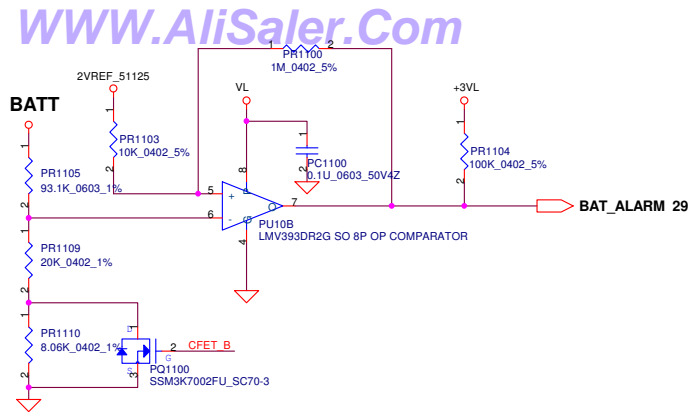
PH1 under CPU botten side :
CPU thermal protection at 90 +-3 degree C
(Need to be checked)



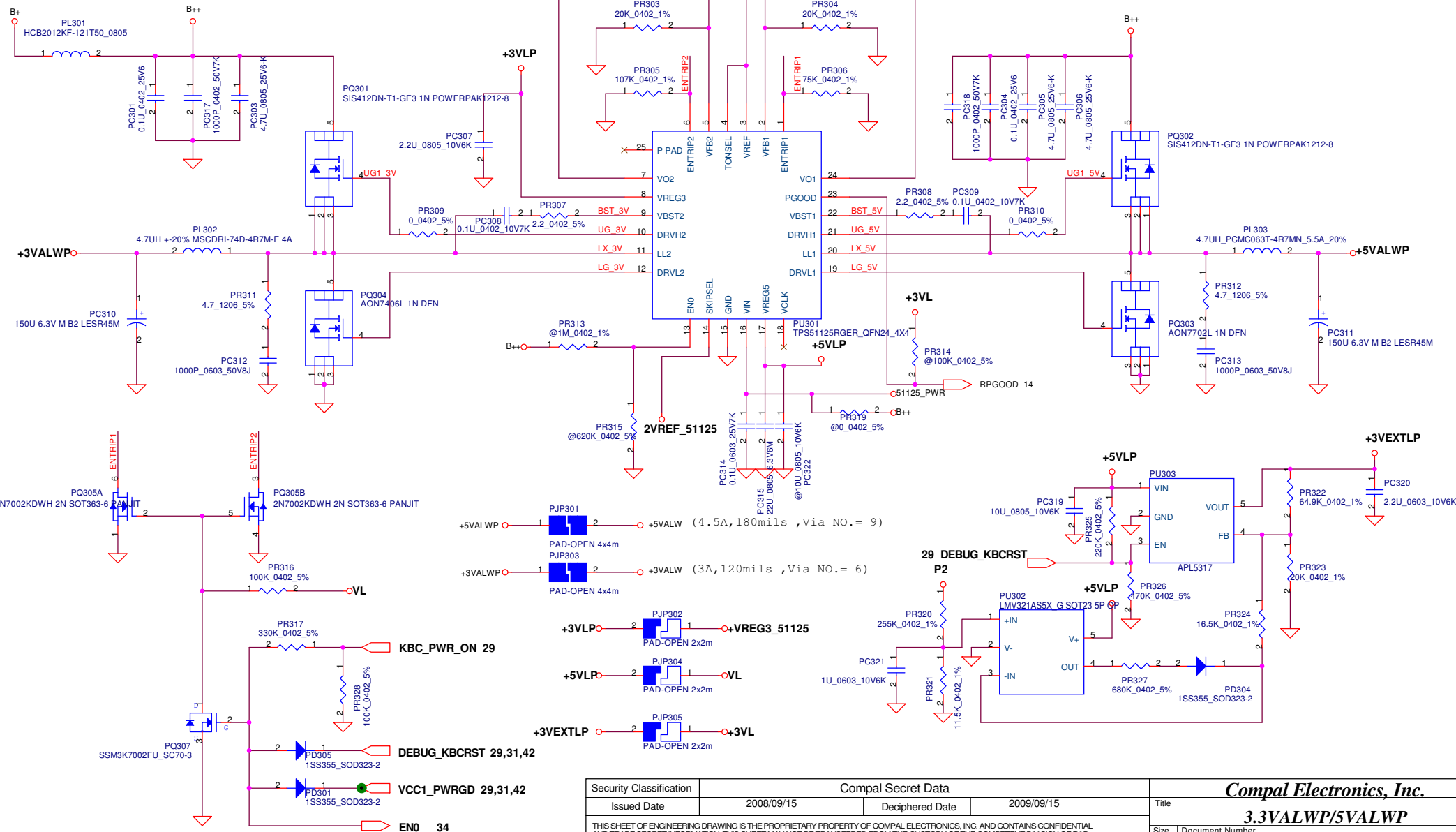
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/09/15	Title	DC-IN/ BATTERY CONN
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. THIS SHEET MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT PRIOR WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-4902P
				Date:	Wednesday, December 09, 2009 Sheet 34 of 44



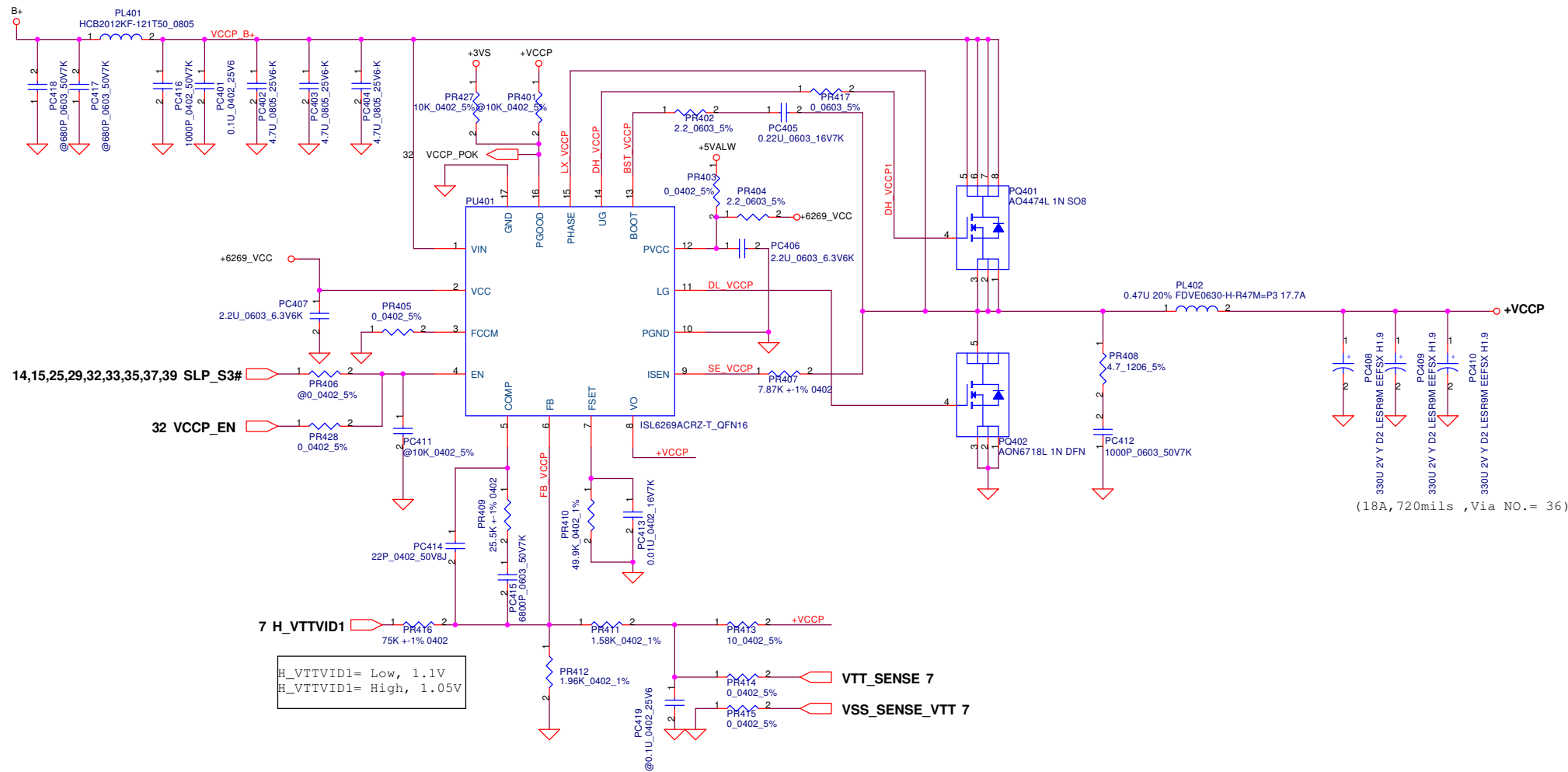
Compal Electronics, Inc.			
Title			
Charger			
Size	Document Number		Rev
	LA-4902P		0.1
Date:	Wednesday, December 09, 2009	Sheet	35 of 44



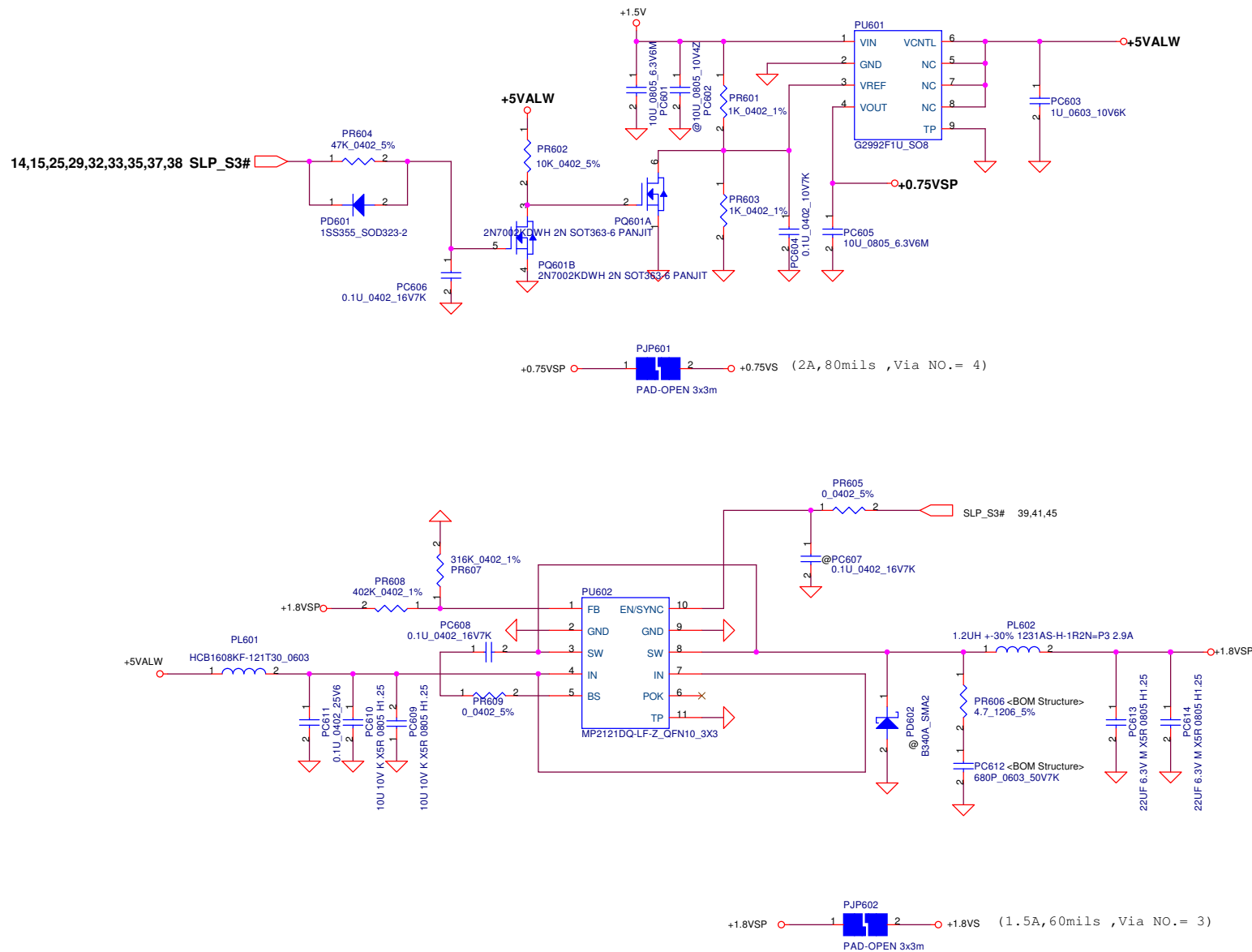
Security Classification		Compal Secret Data		Compal Electronics, Inc. Battery selector	
Issued Date	2008/09/15	Deciphered Date	2009/09/15	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. IT IS HEREBY NOTED THAT IT IS BEING FORWARDED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT TO THE CUSTOMER OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION CONTAINED HEREIN MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.				Size Customer	Document Number LA-4902P
				Date:	Wednesday, December 09, 2009
				Sheet	36 of 44



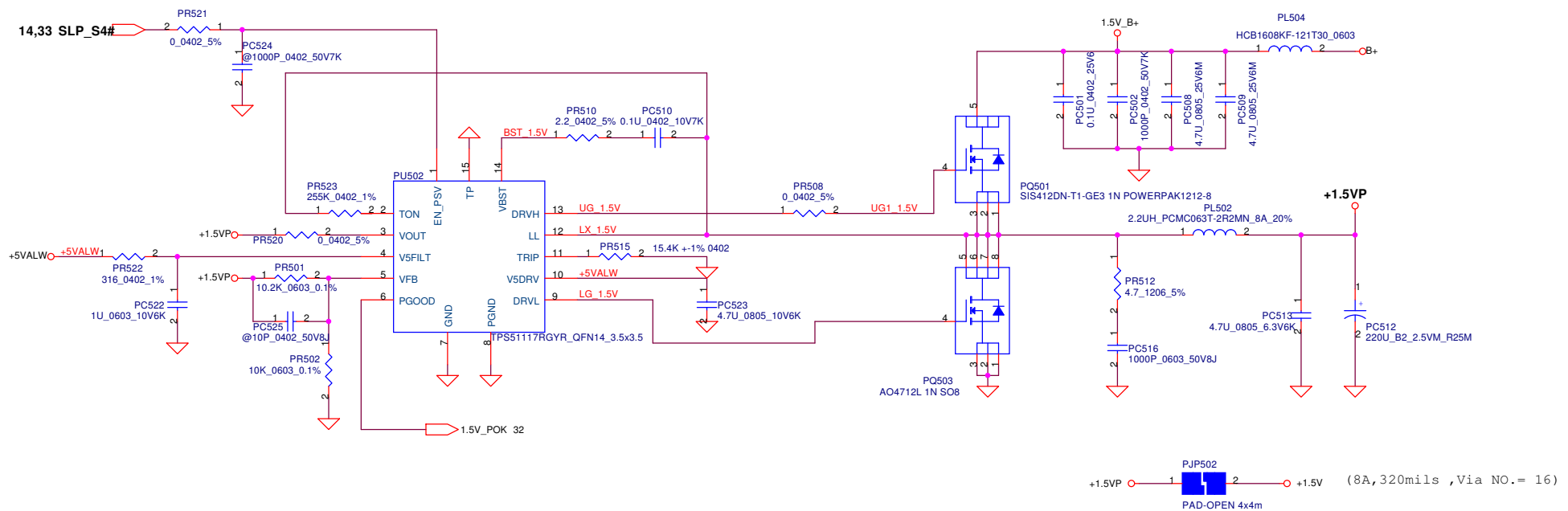
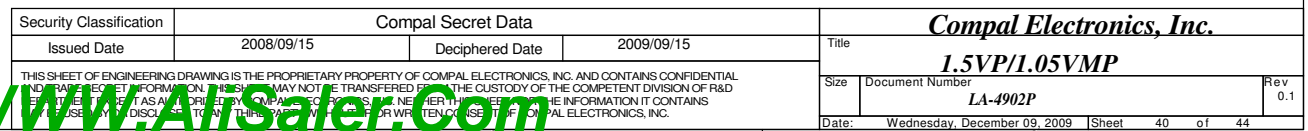
Security Classification		Compal Secret Data		Title	
Issued Date	2008/09/15	Deciphered Date	2009/09/15	3.3VALWP/5VALWP	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D OR FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D TO ANY OTHER DIVISION OF R&D OR TO ANY OTHER COMPANY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				Custom	LA-4902P
				Date	Wednesday, December 09, 2009
				Sheet	37 of 44

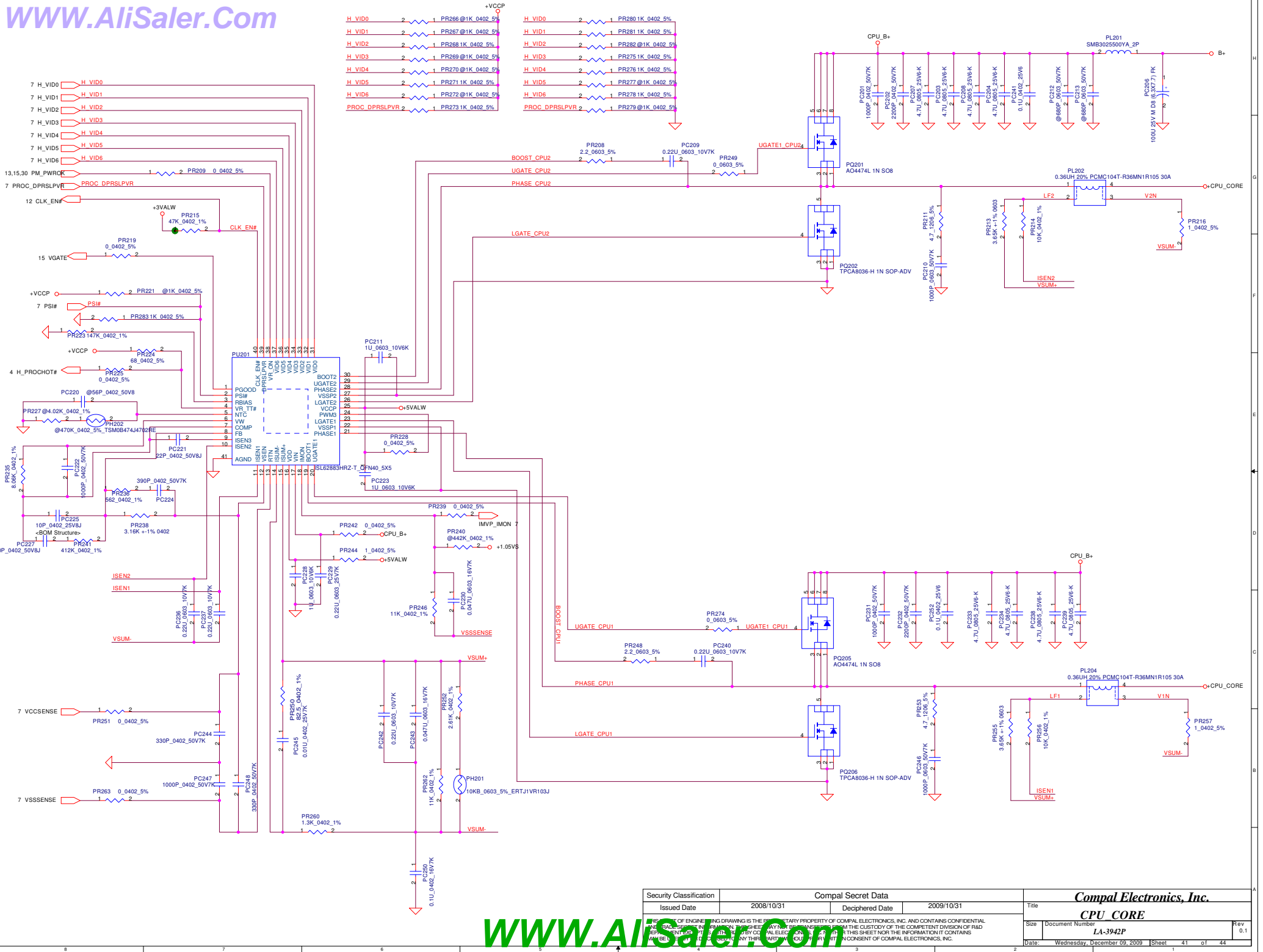


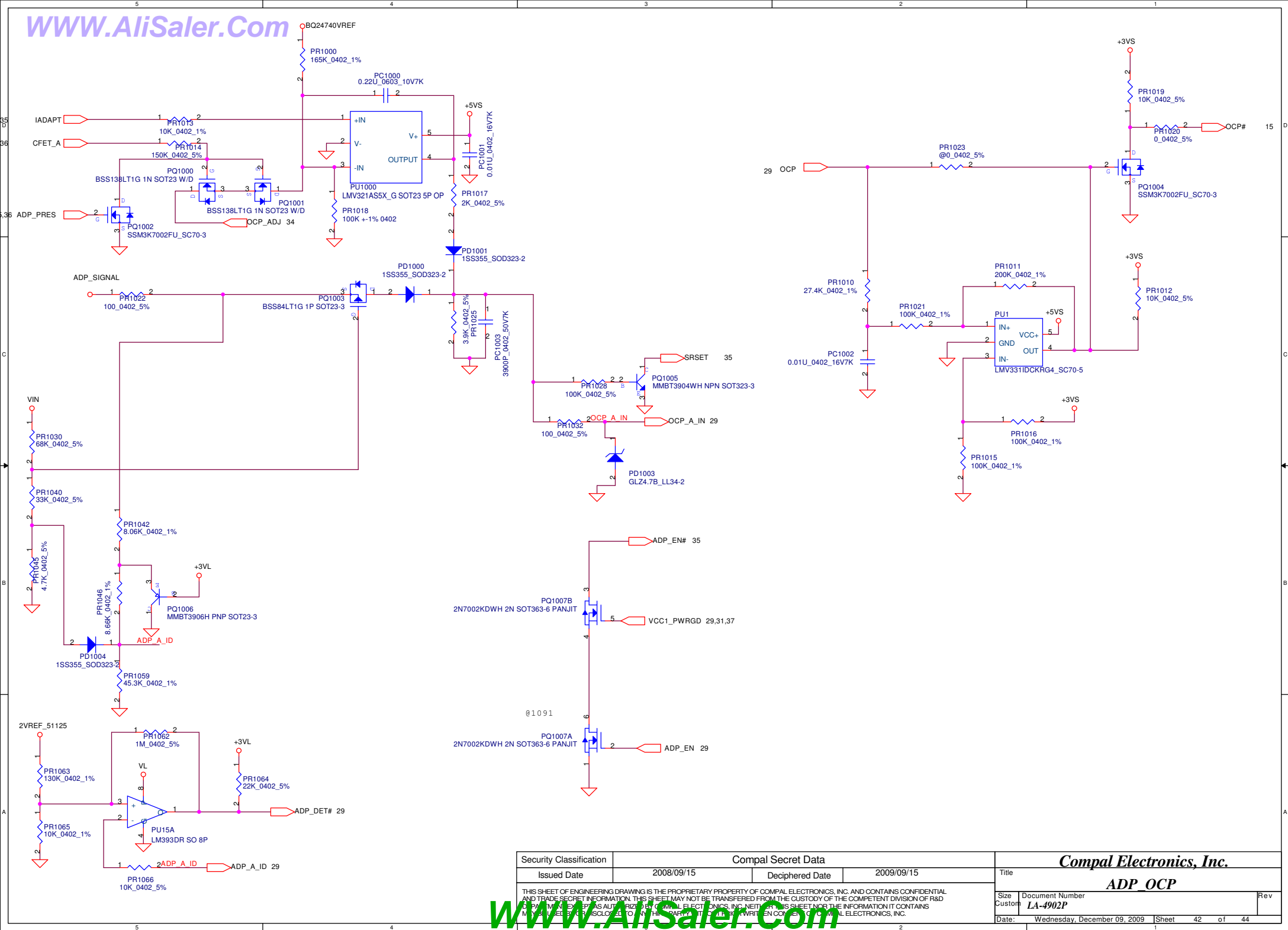
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/09/15	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D WITHOUT THE WRITTEN PERMISSION OF THE COMPETENT DIVISION OF R&D. ANY UNAUTHORIZED DISCLOSURE OR REPRODUCTION OF THIS SHEET IS STRICTLY PROHIBITED. THE INFORMATION IT CONTAINS IS TO BE USED ONLY FOR THE PURPOSES SPECIFIED IN THE DRAWING TITLE AND NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.				1.05V_VCCP	
Size	Document Number	Rev		LA-4902P	
Date:	Wednesday, December 09, 2009	Sheet	38	of	44



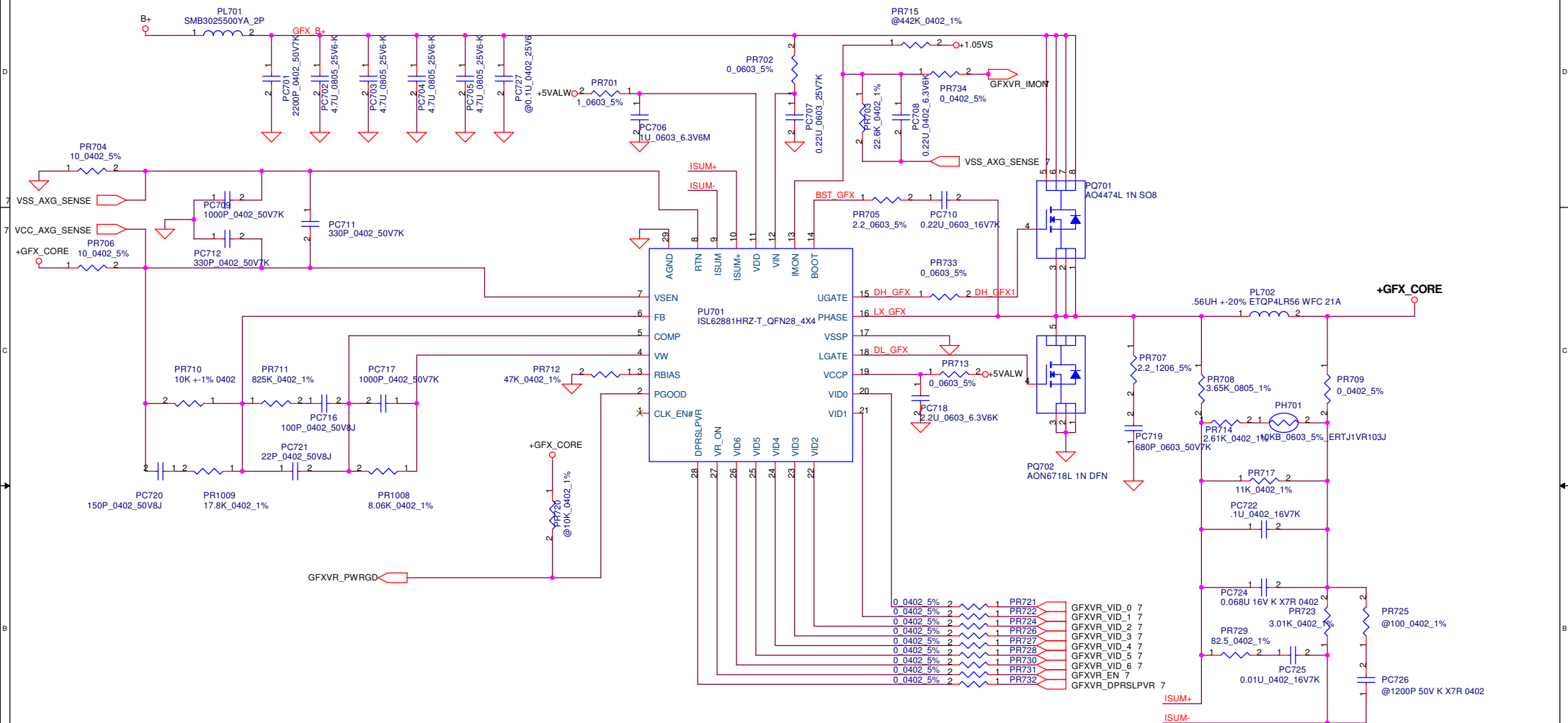
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/09/15	Deciphered Date	2009/09/15	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS INFORMATION MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D ENGINEERING TO ANY OTHER DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				0.75VSP/1.8VSP	
Size	Document Number			Rev	
	LA-4902P			0.1	
Date:	Wednesday, December 09, 2009			Sheet	39 of 44







Security Classification				Compal Secret Data				Compal Electronics, Inc.			
Issued Date				2008/09/15		Deciphered Date		2009/09/15		Title	
										ADP OCP	
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 OR PARTIAL RELEASE AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE REPRODUCED OR DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size		Document Number		Rev			
				Custom		LA-4902P					
				Date		Wednesday, December 09, 2009		Sheet		42 of 44	



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/10/31	Deciphered Date	2009/10/31	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 OR FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D TO ANY OTHER DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				VCCGFX	
Size	Document Number	Rev		Date	
Custom	LA-3942P			Wednesday, December 09, 2009	
Sheet		43		of 44	

Item	Reason for change	PG#	Modify List	Date	Phase
1					
2					
3					
4					
5					
6					
7					

Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2008/09/15	Declassified Date	2008/09/15	Changed-List History	
THIS SHEET OF ENGINEERING DRAWINGS IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE REPRODUCED, COPIED, TRANSMITTED, EITHER BY ANY MEANS, OR BY ANY INFORMATION SYSTEM, OR IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC. ANY UNAUTHORIZED REPRODUCTION OR TRANSMISSION OF THIS SHEET MAY BE SUBJECT TO LEGAL ACTION. THIS SHEET MAY BE USED FOR REFERENCE ONLY AND MAY BE USED FOR REPRODUCTION OR TRANSMISSION ONLY IF IT IS ACCOMPANIED BY A WRITTEN PERMISSION FROM COMPAL ELECTRONICS, INC.			Size	Document Number	
				ILA-492P	
				41	

2/2
No1. P16, for HP item 84, R291,R295,Q274 value change
No2. P20, due to JEDP1 42pin to 50 pin, redefining the signals,
please remember to change footprint, symbol, part number.
No3. P20, JEDP1 change footprint and value
No4. P20, delete PCH LVDS signals and USB_5 for LVDS_CAMERA
No5. P14,15, delete PCH LVDS signals and USB_5 for LVDS_CAMERA
No6. P21, LED0 and LED1 change Back.
No7. P23, HDD/ODD footprint modified.
No8. P20, add 2 pins on JEDP1 by myself, different from database part
No9. P20, use real JEDP1 from database
No10. P12, for HP item 69, delete SMB_DATA_S3, SMB_CLK_S3 and add 2 test points
No11. P14, for HP item 78, install R227
No12. P29, for HP item 82, KB_RST# pull high to +3VS
No13. P4, for HP item 85, uninstall R997 and del R40
No14. P4, for HP item 97, delete R34,R36,R37,R46,R49 and change name
of XDP_TDI & XDP_TDO, and short XDP_TDI_M to XDP_TDO_M
No15. P4, for HP item 98, add a series R between pin3 and 5 on U54
No16. P21, for HP item 12, delete C484-C487, C945, R427, R428, R963, Q18
No17. P22, for HP item 100, delete Q80A
No18. P22, for HP item 101, Source and Drain of Q80B are swapped and change to a single 2N7002
No20. P12&P29, for HP item 103, change R948, R949, R952, R953,
R939, R176, R180, R940 to 0ohm and R950 to 33ohm
No21. P28, for HP item 104, Connect +5VS to JP32 pins 11, 178, 179.
No22. P11, for HP item 105, R141 is connected to +1.05VS
No23. P12, for HP item 106, R1006 and Q706, replace Q70B with a single 7002
No24. P28, for HP item 107, Delete R635-R638 and short the signals
No25. P12, for HP item 108, delete C203-C205 and short the signals
No26. P21, for HP item 110, LED0 and LED1 nets reversed again
No27. P22, for HP item 111, Control signal for Q80B_GATE should be LAN_DIS#
No28. P2, for HP item 112, NO INSTALL R967 for ESI silicon
No29. P12, for HP item 113, INSTALL R847 and change to 1Kohm.
Connect R847.1 to Q66.1 and remove the GND connection at R847.1.
No30. P12, for HP item 80, install R184 and R190
No31. P15 & P28, for HP item 79, GPIO38 and GPIO39 on U4 connect DOCK_ID0
and DOCK_ID1 to the docking connector pins 77 and 78
No32. P15, for HP item 60, delete R283
No33. P29, for HP item 66, change K504 to K503, change 10K to 0 Ohm, change the Table, add a NOR gate
No34. for No 18, change Q80 Source and Drain pin back.
No35. P32, for HP item 115, change PM_SLP_LAN# to PM_SLP_M# at R386-1
No36. P24, for HP item 116, circuits Recuperation because of canceling item 106
No37. P19, for HP item 117, swap DPD_CTRLCLK and DPD_CTRLCLK,
AUX connects to CLK and AUX# connects to DATA,
add isolation nFET in series with Q74A and Q74B.
No38. P15, add 7 47P 0402 but "0" at every clock of PCI
No39. P12, change RTCVCC source from +VREG5_51125 instead of +3VL
No40. ESD change: (1) 0: D63-D67, D14, D57, D32, D68, D33, D34, D36, D62,
No41. ESD change: (2) change P/N: D14, D57, D32, D68, D33, D34, D36, D62, D37
No42. ESD change: (3) affact layout: D14, D33, D34, D36, D62, D37
No43. modify C962 GND disconnection and R70 to GND
No44. modify HP part number, please search"change HP P/N" to know which parts changed.
No45. for Load BOM problems, change some parts as below:
(1) add CONN8: JCPU1, JP5
(2) add P/N for dual 2N7002: Q2,Q3,Q7,Q8,Q81
(3) change P/N: R570, C6, C829, R43, R44, R47
No46. for DRC check,
(1) P23, delete dummy net of JODD1 pin16, 17
(2) P28, add intersheet symbol at SMB_CLK_S3 and SMB_DATA_S3
(3) P21, add a TP at U18.7: LAN_CTRL_L8
(4) P14, delete a dummy net N19910781
(5) P28, change JP32 pin DCAD net name to DCAD1
No47. for parts forbidden:
(1) C829 change to SE026104KN0 (2) R800 change to SD028100380
(3) D68 change to SCA00000E00 (4) C818 change to 0402 SE070104Z80
No48. EMI concern:
(1) install C833, C836, C956
(2) P25, JP25 pin difinition changes.
(3) R931 to 47 ohm
(4) P18, modify CRT circuits: add L and C, change R places, install C
No49. P29, for HP item 123, Change R680 to 100 ohms, and uninstall R699
No50. P29, delete R886, R887 and relative circuits
No51. delete R892 for BATCON
No52. P23, change JODD1 pin16, 17 type to avoid from useless net names
No53. HF parts link database: D1
No54. HF parts link database:
(1) Q78 link SB00000H500
(2) D16, D63-D67 link SC2AN217020
(3) D1 link SC2N202U000
(4) D23-D29 did not link SC2P202U000, just revise manually
(5) Q57 & Q58 link SB000007H10
(6) C263 & C269 link SGA202211D0
(7) lots of 2N7002(Q4, Q23, Q32,Q41,Q42,Q43,Q45,Q46,48,49,50,51,
52,53,54,55,56,60,65,66,68,71,76,79,80) link SB000009080
(8) T63 link SP050002I10
(7) U42A, U42B, U44A, U57A link SA003930080
No55. combine power schematics 0212
No56. P29, for HP item 122, Connect D42-2 to VCORE_GP (not PM_PWROK)
TEST. change U42,U44,U57 value and footprint LM393DG_S08
before netin
No57. change U42,U44,U57 link another SA003930080
2/16
No58. P5, for HP item 126, R60 and R61 should be NO INSTALL.
No59. P12, for HP item 127, Connect R857.1 to HDD_HALTLED instead of HDD_HALTLED
No60. P9,10, for HP item 128, Connect JDIMA1.199 and JDIMB1.199 to 3VS as Intel reference board
No61. P16, for HP item 131, Based on spec, VccTX_LVDS and VCCA_LVD to GND.
No62. P19, for HP item 136, install Q76 and no install R1055 as there must be isolation
No63. P13, for HP item 138, Change Gate of Q77 to +3VALW
No64. change Pb-free
(1)R1058 to SD028100180,
(2)R1059,1060,1062,1063,1064 to SD028100280
(3)R615, 1061 to SD028470180
(4)RP31, RP33 to SD309100280
(5)RP29, 30, 32,34,35 to SD309470180 --> footprint should keep original
(5)C953 to SE053475280
(6)C950, 951, 952 to SE070104Z80
change HF
(1) SW1 to SN100000W10

No65. separate GND signals
(1) P28 and P25, add GNDA and resistors,

No66. P20, change JEDP1 to 24 pin connector, delete LANE[1:3] and EDID, as well as U4 relative signals.
No67. P31, change SPI ROM back to DB1 design, but mount 8pin, unmount 16pin
No68. P19, change misunderstand name:DPD_C_AUX/DPD_C_AUX# to DPD_C_AUX_1/DPD_C_AUX_L#

2/19

No69. P5, delete MB_DP_DATA[1:3] N/P for JEDP pin cutting
No70. C6 and C685 change to SE071100J80 because of Jason's request(vendor doesn't have the original 25V part)
No71. P25, install C888,C889

2/20

No72. for HP item 66, P29, U66.5 should be connected to 3VL so that KBC can read board before boot and apply necessary fixes.
No73. for HP item 103, P31, R1035 should be 0ohm
No74. P27, change SC_PWR circuits for unsurely current

2/23

No74. P26, uninstall U31 and add J1 for cost down
No75. change some test point footprint to IPC12: T61,T62,T1,T55,T97,T22, and P14 lots of points

2/24

No76. P22, JP6 symbol error, modified!

No77. P12, add a net name XDP_FN4

2/25

No78. P32, change U44.8 to +5VALW for HP request

No79. P29, change R680=220 ohms

combine power schematics

No80. P25,

- (1) JP24: redefine the singals of the pins,
- (2) JP25: reverse pin definition

No81.

- (1)U4 change PN to SA00002KV30 for ES2
- (2)P31, &U1, &U2 change to SA000037A00

3/6

No82.

- (1)P29, Firmwave said unmount R1021 and mount R1022
- (2)P4, delete R998 <BOM structure>, otherwise BOM will be error

Security Classification		Compal Secret Data		Title	
Issued Date	2008/03/13	Deciphered Date	2009/05/11		
THIS DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. IT IS TO BE KEPT UNDER THE STRICTEST CONTROL AND NOT TO BE DISCLOSED TO ANY OTHER PERSON OR ORGANIZATION WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC. ANY REPRODUCTION OR TRANSMISSION OF THIS SHEET WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC. IS STRICTLY PROHIBITED. THIS SHEET IS THE PROPERTY OF COMPAL ELECTRONICS, INC. AND IT IS TO BE KEPT UNDER THE STRICTEST CONTROL AND NOT TO BE DISCLOSED TO ANY OTHER PERSON OR ORGANIZATION WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.				Size C	
				Document Number LA-4902P	
				Rev 0.3	
				Date: Wednesday, December 09, 2009	
				Sheet 45 of 47	

5/20
No1. change schematics parts of Q24 and Q70, the same P/N SB923050020

5/25
No2. P27, change R1086 to 100K, R1085 to 10K, delete R1110 like DIS
No3. PCH FN: SA00002KV60; LAN FN: SA00002M040

6/2
No4. P12, change reference name: JBATT1 --> JBAT1
No5. P25 & P31, JP25 and JP30 are reversed(H and V) because of footprint silkscreen problem, remember not to change routing, just change ME pin1
No6. P12, P29, P31, add net names of SPI signals
No7. P12,29,31, change 24.9ohm for SMSC request:R939,R940,R950,R948,R952,R1035

6/18
No8. P19, add 1 fuse on DP power

6/22
No9. P19, as per Johnson's request, for cost down
(1) uninstall C123, C699
(2) change C552 from 150uF to 100uF +0.1uF*2 (not ok)
(3) change C263 and C269 to 100uF (not ok)

Security Classification		Compal Secret Data		Title	
Issued Date		2008/03/13	Deciphered Date	2009/05/11	Hardware revision -SI2
Size		Document Number			Rev
C		LA-4902P			0.3
Date:		Wednesday, December 09, 2009	Sheet	47	of 47