

# Compal confidential

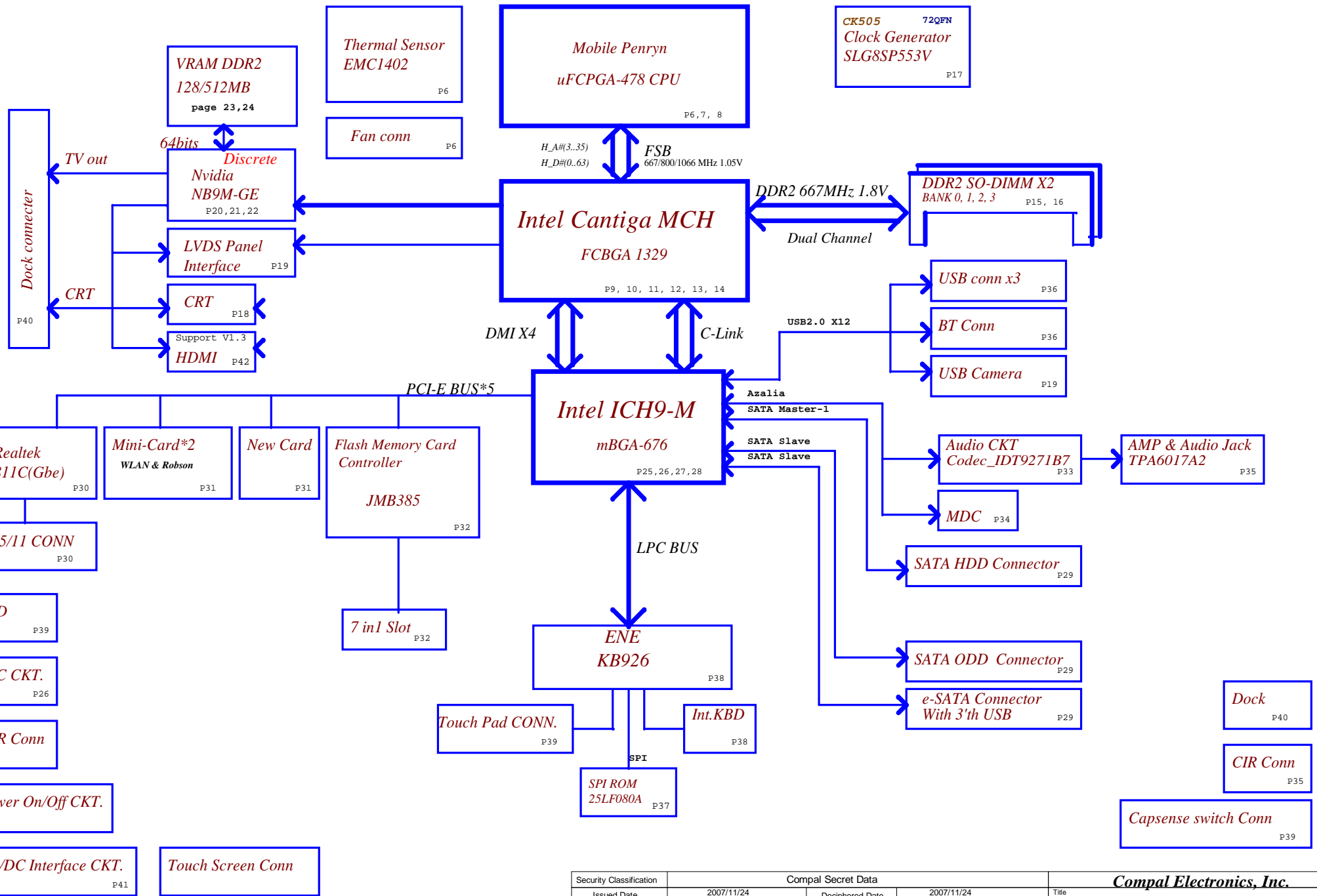
## Schematics Document

Mobile Penryn uFCPGA with Intel  
Cantiga\_PM+ICH9-M core logic

2007-11-24



Security Classification	Compal Secret Data			Title <b>Compal Electronics, Inc.</b>		
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Cover Sheet		
<small>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&amp;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.</small>				Size	Document Number	Rev
				Custom	LA-4102P Blade discrete	0.3
				Date:	Thursday, January 03, 2008	Sheet 1 of 52



Security Classification	Compal Secret Data			Title		
Issued Date	2007/11/24	Deciphered Date	2007/11/24	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.				Size	Document Number	Rev
				Custom	LA-4102P Blade discrete	0.3
				Date:	Thursday, January 03, 2008	Sheet 2 of 52

Block Diagram

## Voltage Rails

O MEANS ON

X MEANS OFF

power plane / State	+B	+5VALW +3VALW	+1.8V	+5VS +3VS +1.5VS +0.9V +VCCP +CPU_CORE +2.5VS +1.8VS +NVVDD +PCIE
S0	O	O	O	O
S1	O	O	O	O
S3	O	O	O	X
S5 S4/AC	O	O	X	X
S5 S4/ Battery only	O	X	X	X
S5 S4/AC & Battery don't exist	X	X	X	X

## Symbol Note :



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

## USB assignment:

USB-0 Right side  
USB-1 Right side  
USB-2 Left side(with ESATA)  
USB-3 Dock  
USB-4 Camera  
USB-5 WLAN  
USB-6 Bluetooth  
USB-7 Finger Printer  
USB-8 MiniCard(WWAN/TV)  
USB-9 Express card  
USB-10 X  
USB-11 X

## PCIe assignment:

PCIe-1 TV tuner/WWAN/Robeson  
PCIe-2 X  
PCIe-3 WLAN  
PCIe-4 GLAN (Marvell)  
PCIe-5 Card reader  
PCIe-6 New Card

## SMBUS Control Table

	SOURCE	INVERTER	BATT	SERIAL EEPROM	Thermal Sensor	SODIMM	CLK CHIP	MINI CARD	Sensor board	NB9M Thermal Sensor	NB9M	G-sensor
SMB_EC_CK1 SMB_EC_DA1	KB926	X	V	V	X	X	X	X	V	X	X	X
SMB_EC_CK2 SMB_EC_DA2	KB926	X	X	X	V	X	X	X	X	V	V	X
ICH_SMBCLK ICH_SMBDATA	ICH9	X	X	X	X	V	V	V	X	X	X	V

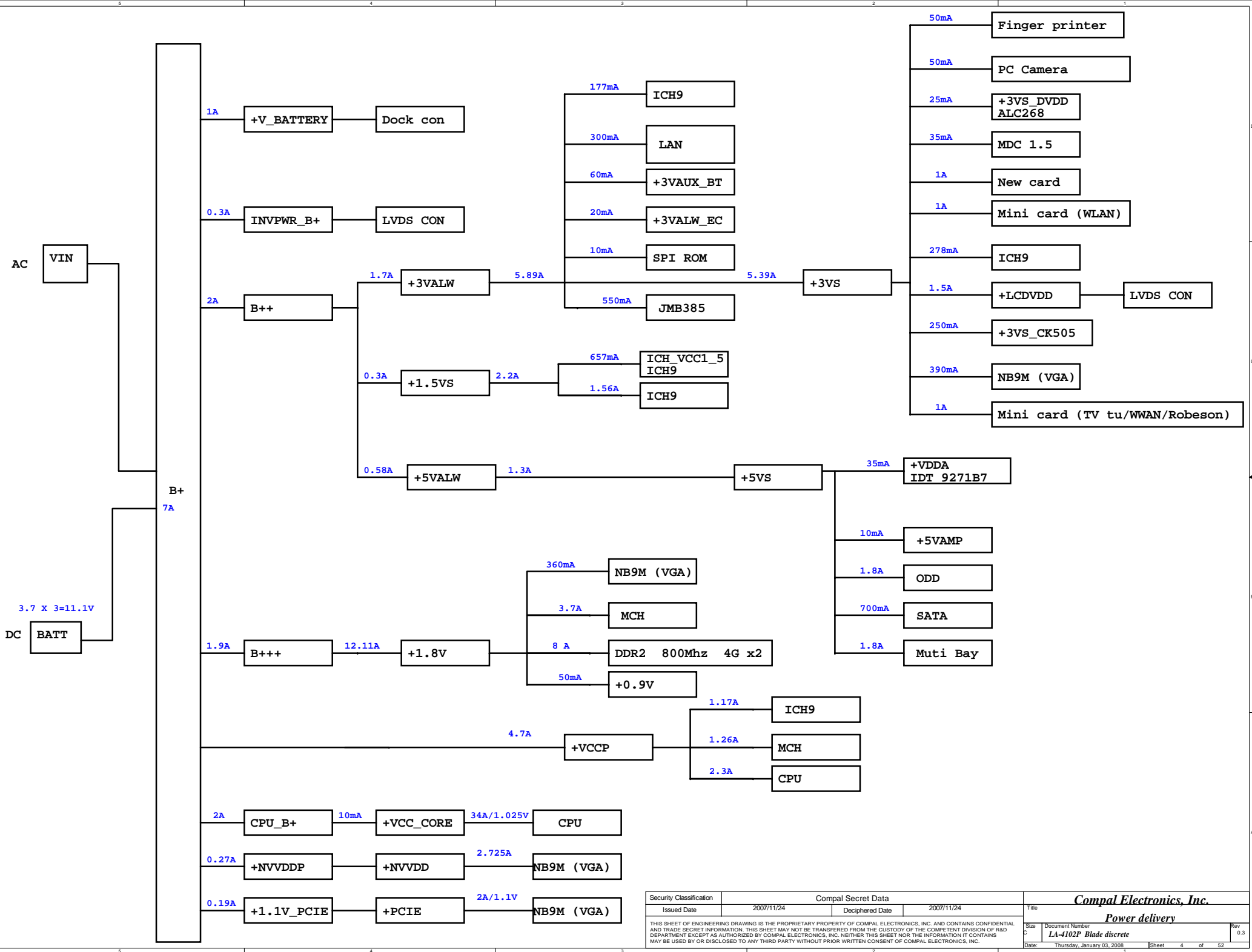
## NB9M SMBUS Control Table

	SOURCE	LVDS	CRT	HDMI
DDC2_DATA DDC2_CLK	NB9M	V	X	X
3VDDCDA 3VDDCCL	NB9M	X	V	X
HDMIDAT_VGA HDMICK_VGA	NB9M	X	X	V

## I2C / SMBUS ADDRESSING

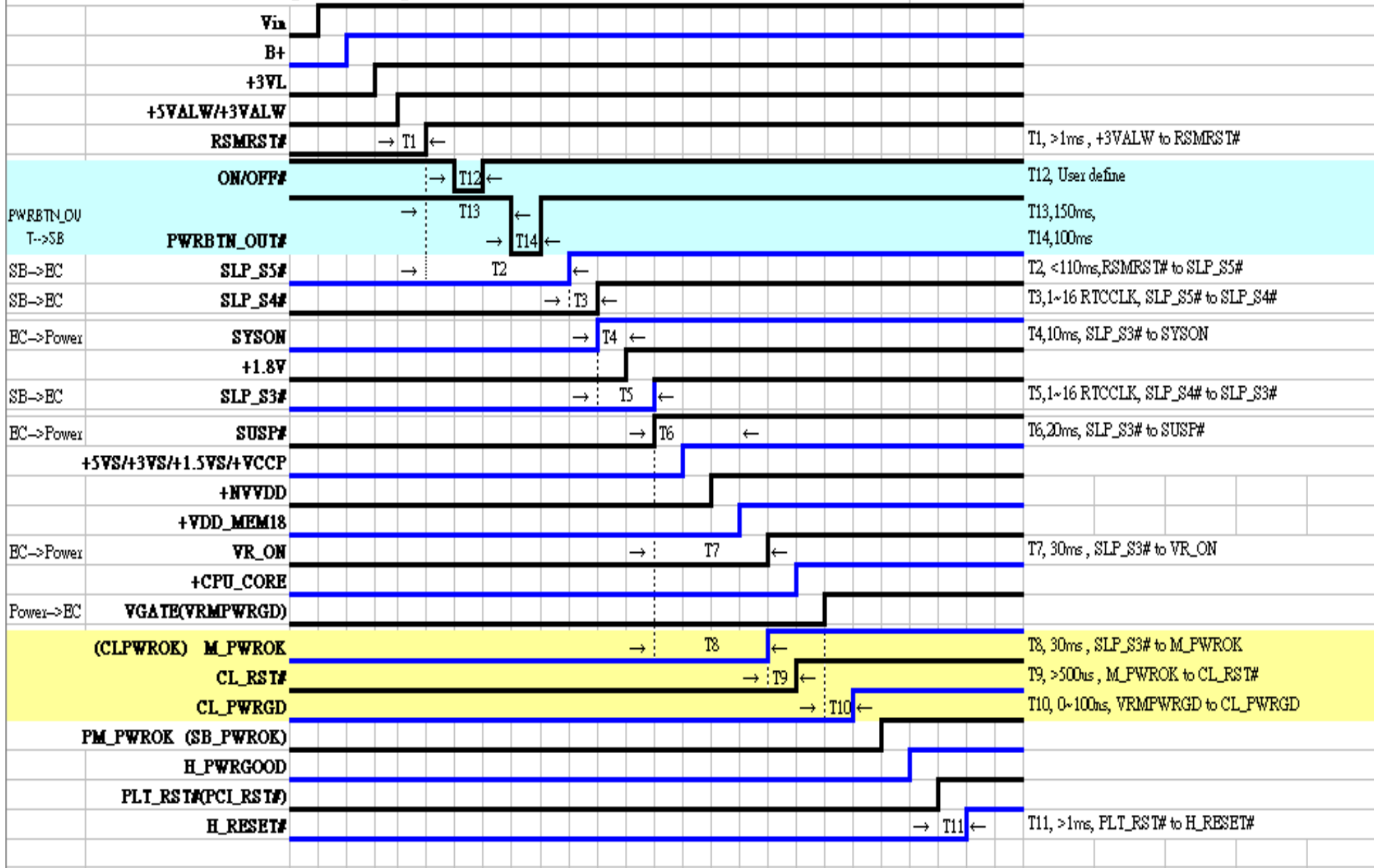
DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	1 0 1 0 0 0 0 0
DDR SO-DIMM 1	A4	1 0 1 0 0 1 0 0
CLOCK GENERATOR (EXT.)	D2	1 1 0 1 0 0 1 0

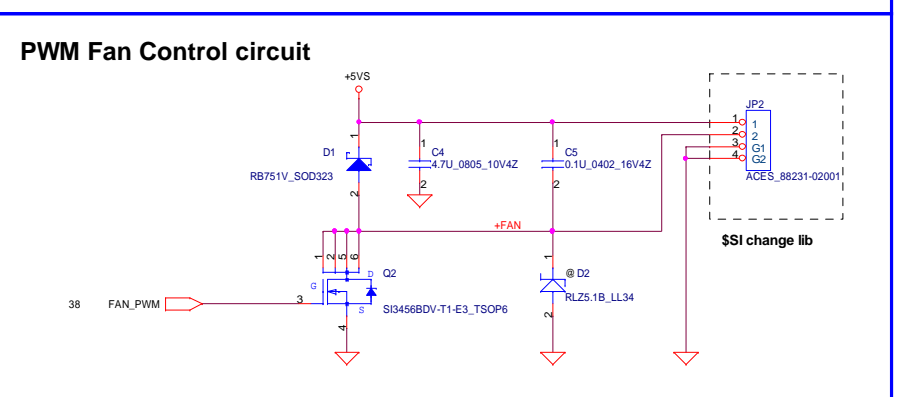
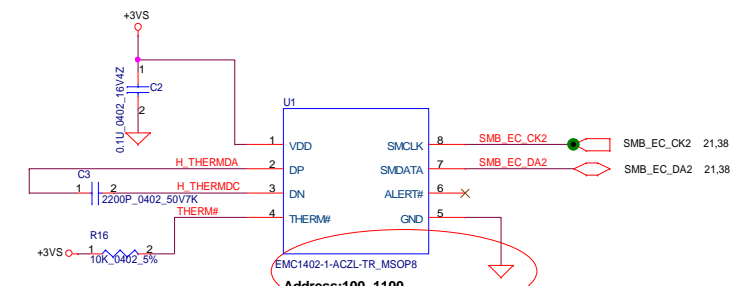
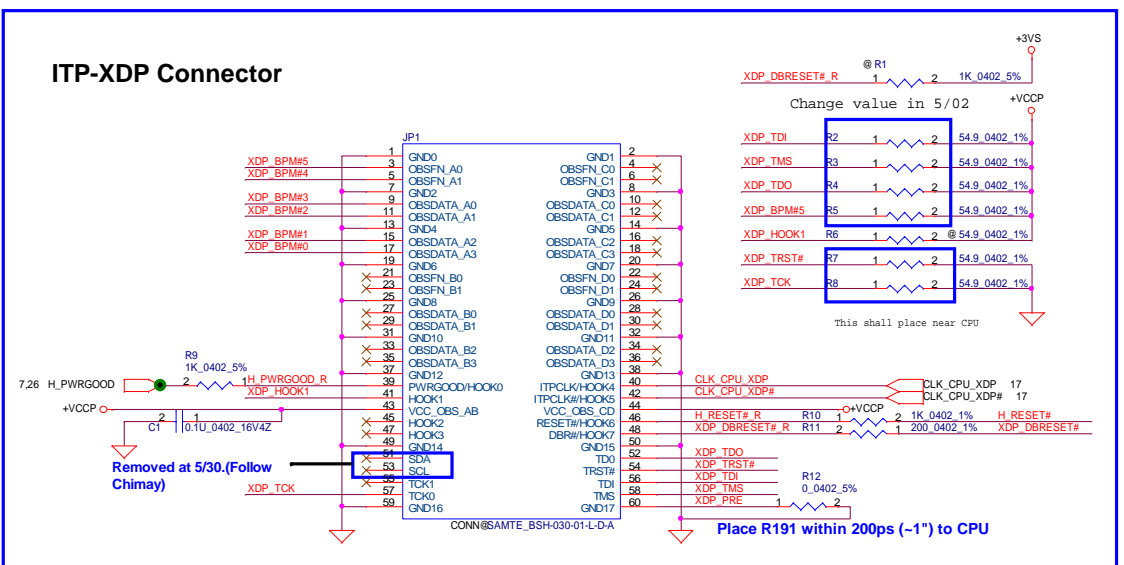
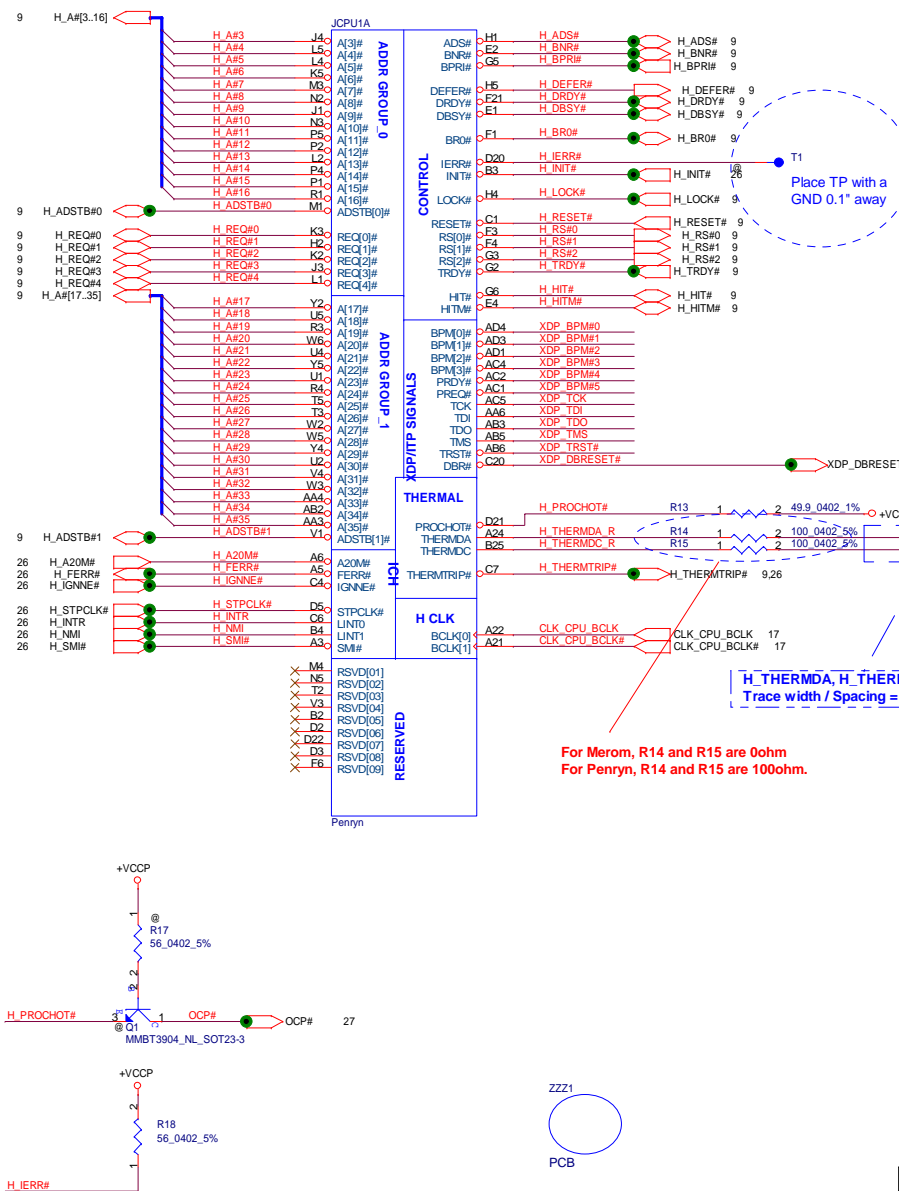
Security Classification	Compal Secret Data		Title		<b>Compal Electronics, Inc.</b>	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Notes List		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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 Custom	Document Number	Rev
Date:	Thursday, January 03, 2008	Sheet	3	of	52	0.3



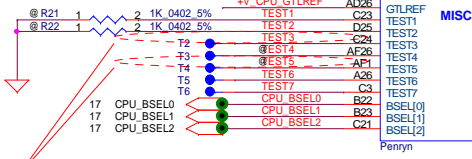
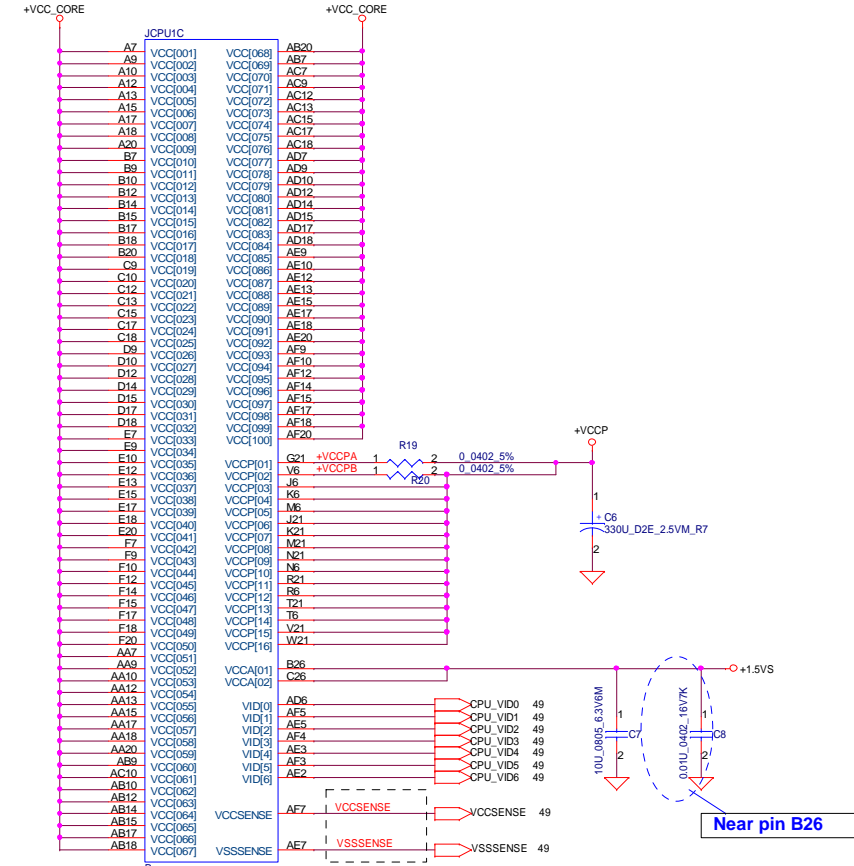
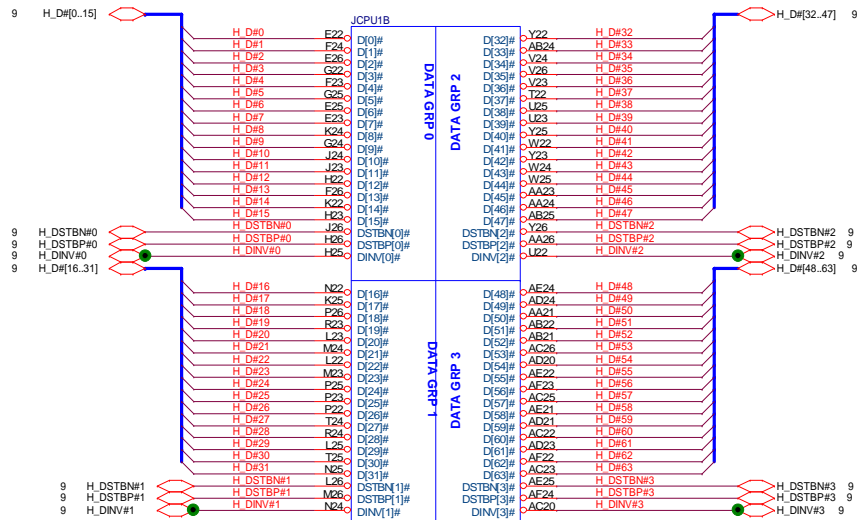
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Title
THIS SHEET OF ENGINEERING DRAWINGS IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev
Size	Document Number	Date		Sheet
C	LA-4102P Blade discrete	Thursday, January 03, 2008		4 of 52
				0.3

# JAL50 Discrete power sequence AC mode





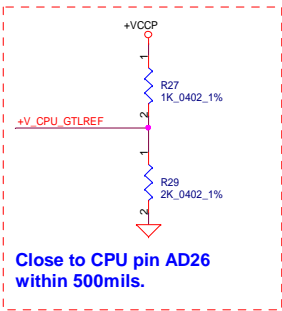
Security Classification		Compal Secret Data		Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Size Custom	Document Number
				LA-4102P Blade discrete	Rev 0.3
Date:	Thursday, January 03, 2008	Sheet	6	of	52



\* Route the TEST3 and TEST5 signals through a ground referenced Zo = 55-ohm trace that ends in a via that is near a GND via and is accessible through an oscilloscope connection.

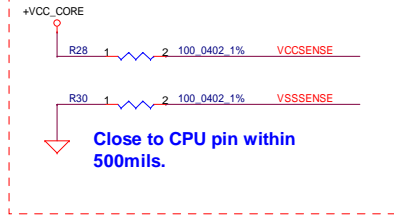
CPU_BSEL	CPU_BSEL2	CPU_BSEL1	CPU_BSEL0
166	0	1	1
200	0	1	0
266	0	0	0

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

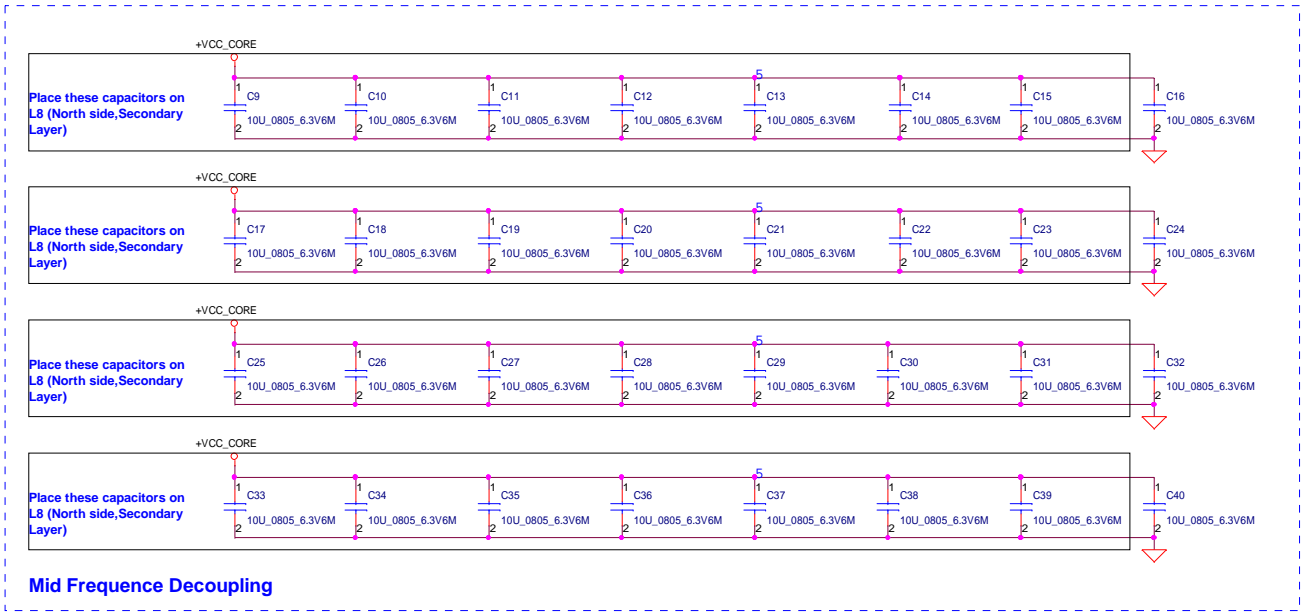
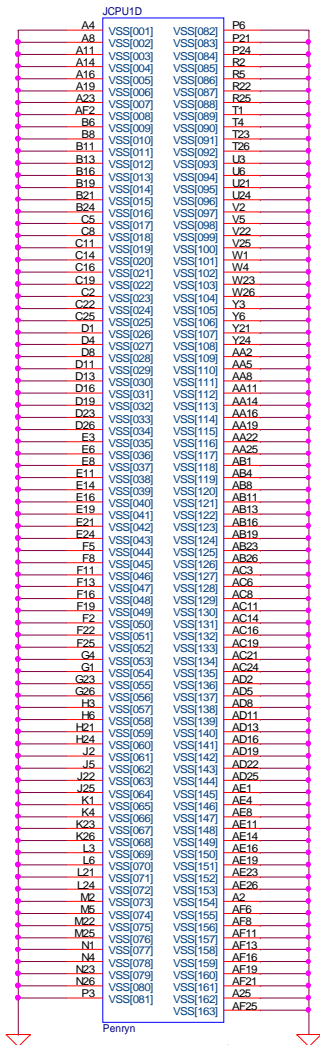


Close to CPU pin AD26 within 500mils.

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

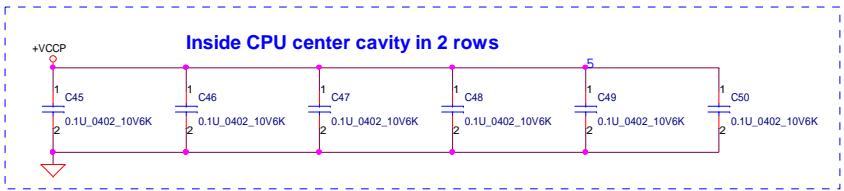
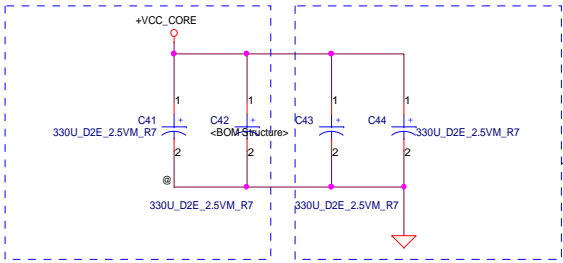


Close to CPU pin within 500mils.



**Mid Frequency Decoupling**

**Near CPU CORE regulator**  
**ESR <= 1.5m ohm**  
**Capacitor > 1980uF**

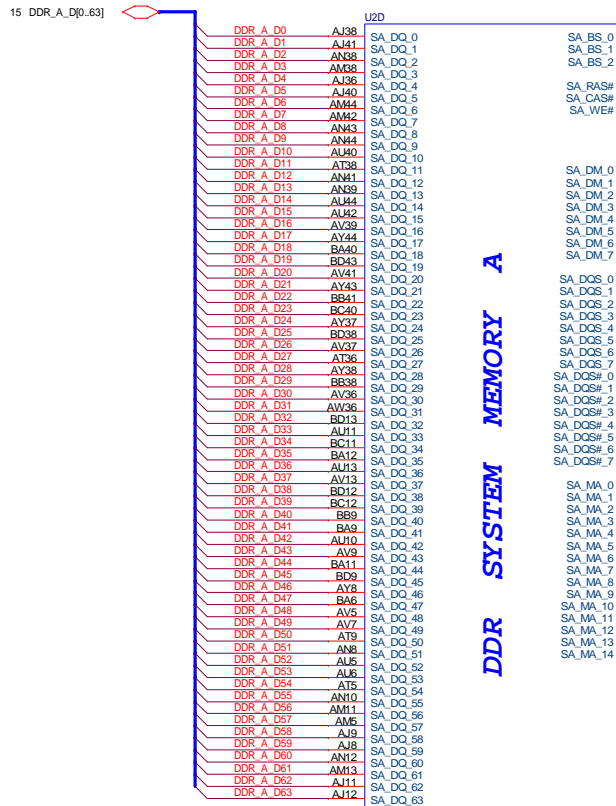


Security Classification	Compal Secret Data		
Issued Date	2007/11/24	Deciphered Date	2007/11/24
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT 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.			

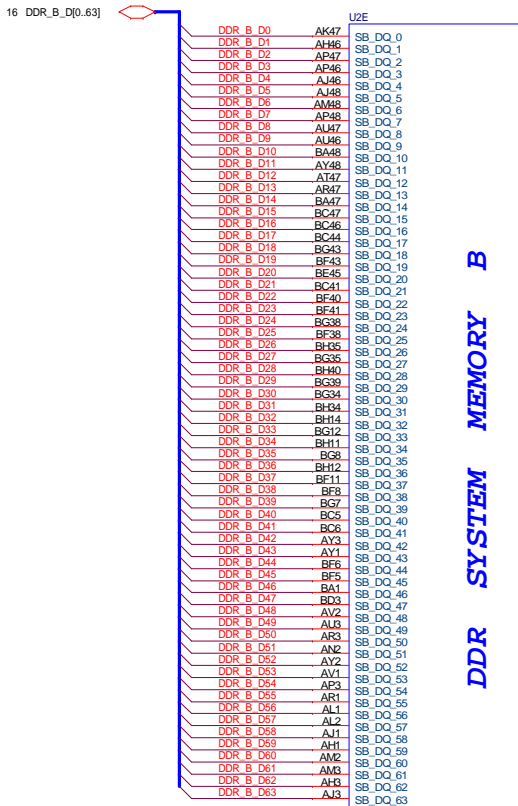
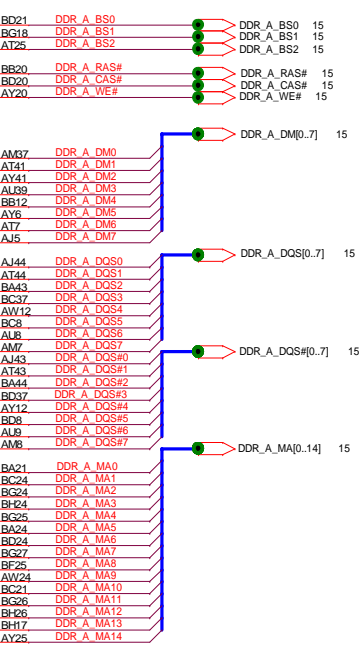
<b>Compal Electronics, Inc.</b> <b>Penryn(3/3)-AGTL+/ITP-XDP</b>		
Title	Document Number	Rev
	<b>LA-4102P Blade discrete</b>	0.3
Date:	Thursday, January 03, 2008	Sheet 8 of 52



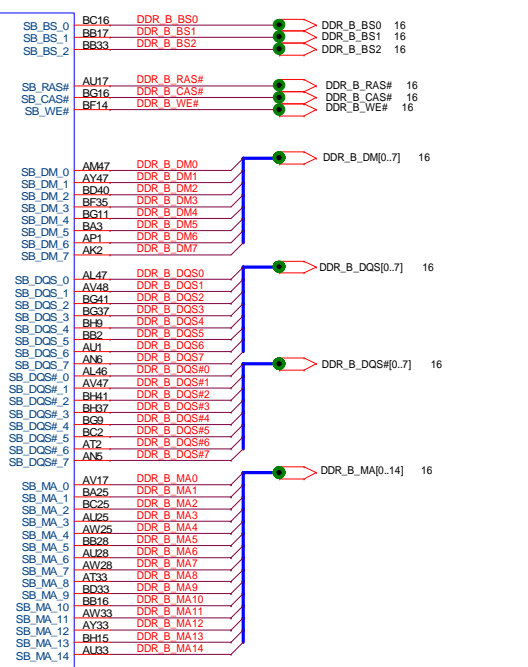




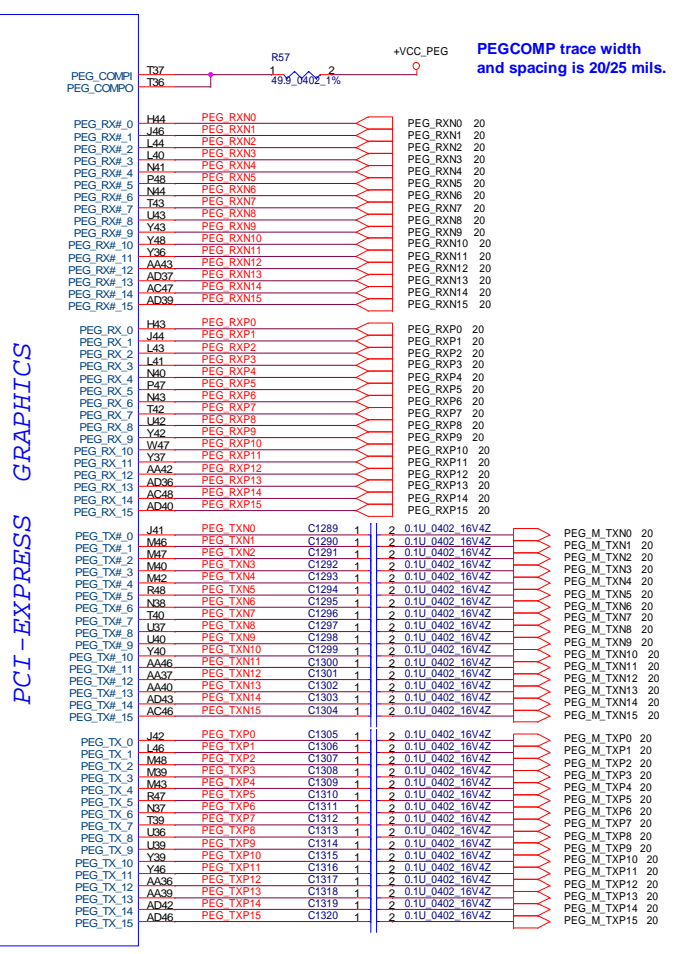
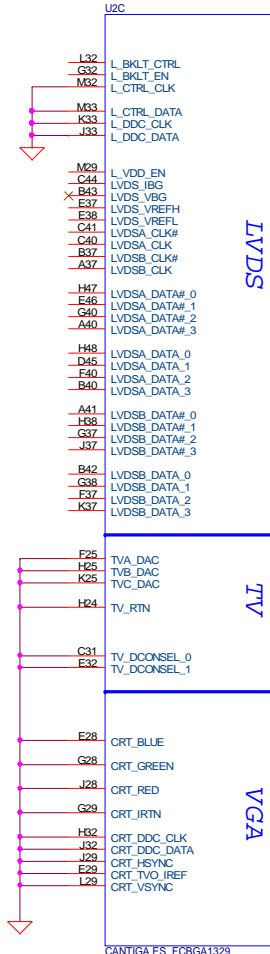
CANTIGA\_ES\_FCBGA1329



CANTIGA\_ES\_FCBGA1329

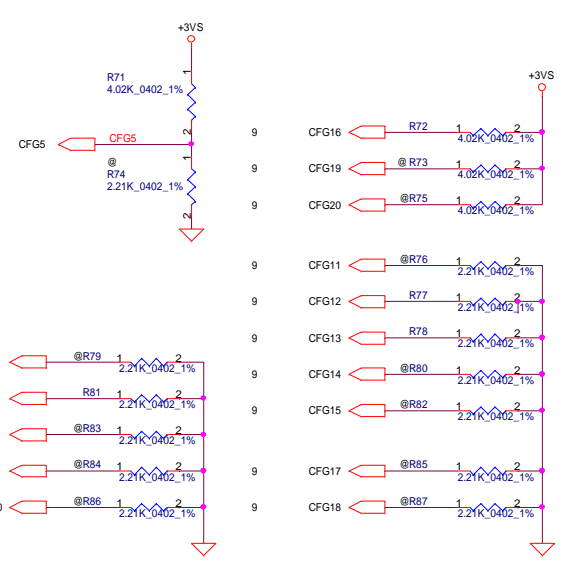


Security Classification	Compal Secret Data		Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Cantiga(2/6)-DDR2 A/B CH Document Number <b>LA-4102P Blade discrete</b> Rev 0.3
Date:	Thursday, January 03, 2008	Sheet	10 of 52	

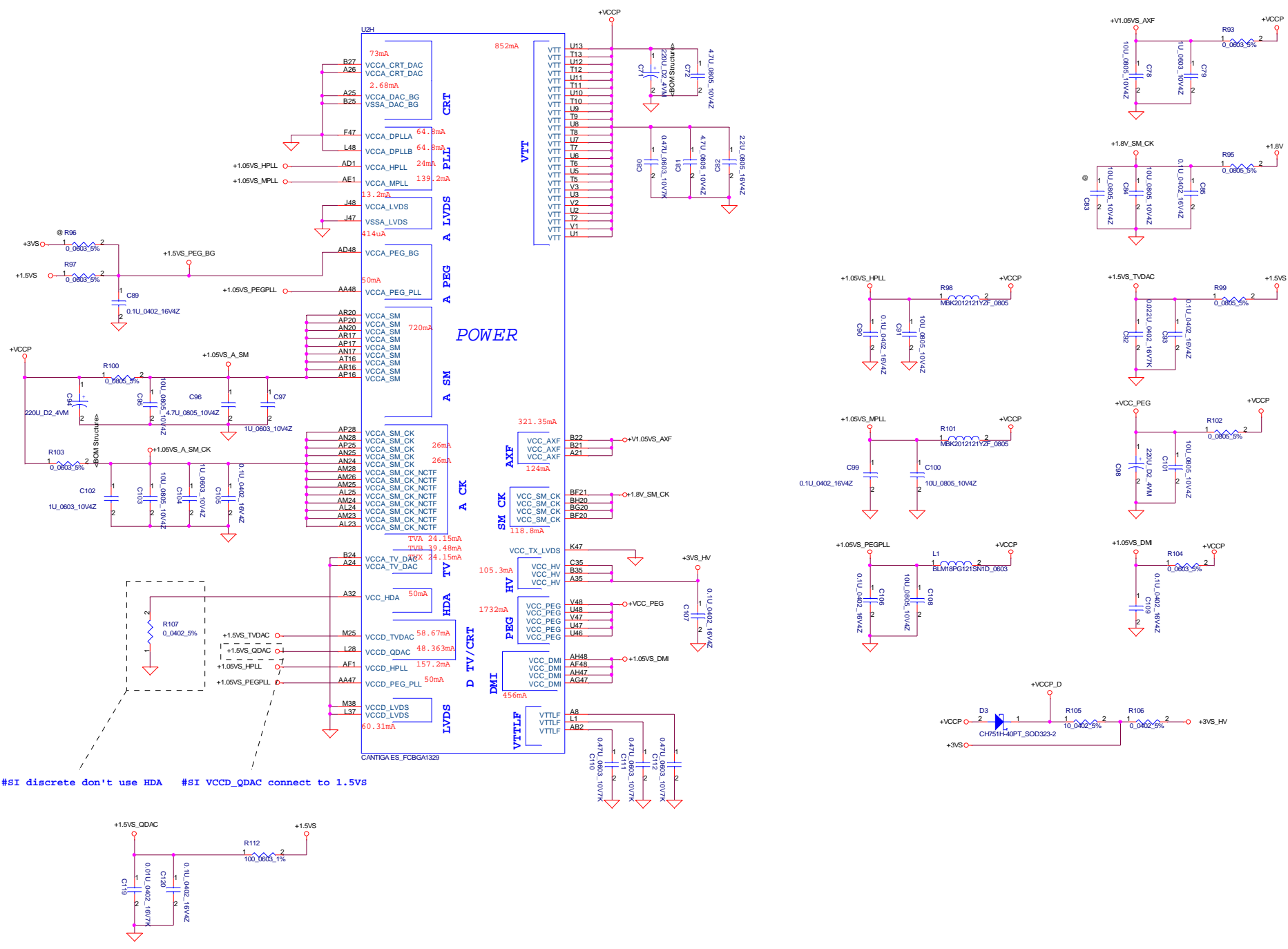


### Strap Pin Table

CFG[2:0] FSB Freq select	000 = FSB 1066MHz 010 = FSB 800MHz 011 = FSB 667MHz Others = Reserved
CFG[4:3]	Reserved
CFG5 (DMI select)	0 = DMI x 2 1 = DMI x 4 *
CFG6	0 = The ITPM Host Interface is enable 1 = The ITPM Host Interface is disable *
CFG7 (Intel Management Engine Crypto strap)	0 = (TLS)chiper suite with no confidentiality 1 = (TLS)chiper suite with confidentiality *
CFG8	Reserved
CFG9 (PCIe Graphics Lane Reversal)	0 = Reverse Lane, 15->0, 14->1 1 = Normal Operation, Lane Number in order *
CFG10 (PCIe Lookback enable)	0 = Enable 1 = Disable *
CFG11	Reserved
CFG[13:12] (XOR/ALLZ)	00 = Reserved 01 = XOR Mode Enabled 10 = All Z Mode Enabled 11 = Normal Operation (Default) *
CFG[15:14]	Reserved
CFG16 (FSB Dynamic ODT)	0 = Disabled 1 = Enabled *
CFG[18:17]	Reserved
CFG19 (DMI Lane Reversal)	0 = Normal Operation (Lane number in Order) * 1 = Reverse Lane
CFG20 (PCIe/SDVO concurrent)	0 = Only PCIe or SDVO is operational. * 1 = PCIe/SDVO are operating simu.

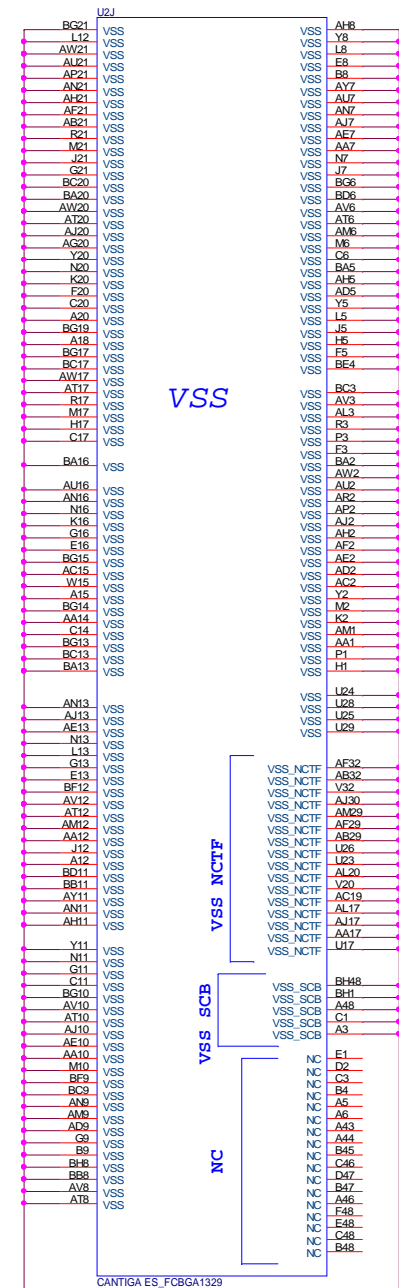
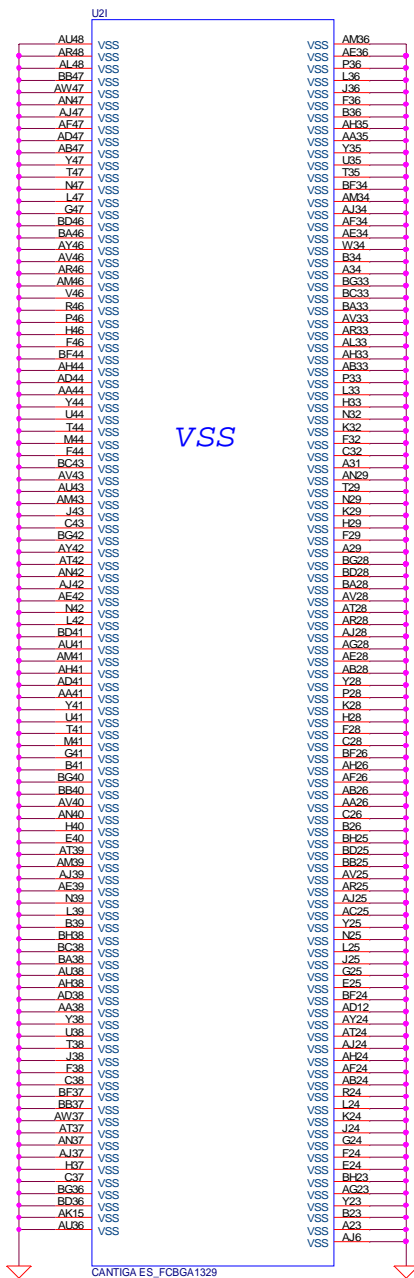


Security Classification	Compal Secret Data		Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				<b>Cantiga(3/6)-VGA/LVDS/TV</b> Size Custom Document Number <b>LA-4102P Blade discrete</b> Date: Thursday, January 03, 2008 Sheet 11 of 52



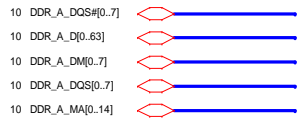
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Title
				<b>Cantiga(4/6)-PWR</b>
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS 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
				<b>LA-4102P Blade discrete</b>
				Rev
				0.3
Date	Thursday, January 03, 2008	Sheet	12	of
				52



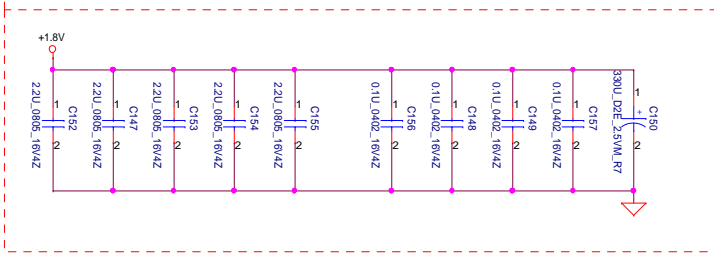


Security Classification	Compal Secret Data			Title		
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Compal Electronics, Inc.		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Size Custom	Document Number	Rev
				LA-4102P	Blade discrete	0.3
Date:	Thursday, January 03, 2008	Sheet	14	of	52	

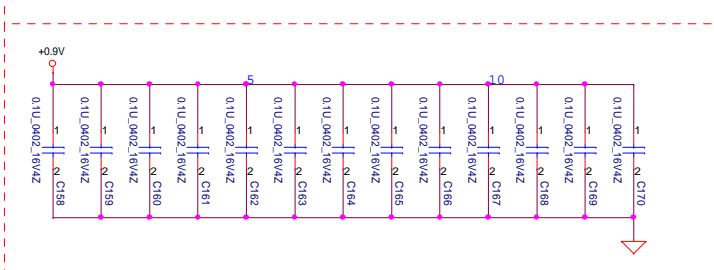




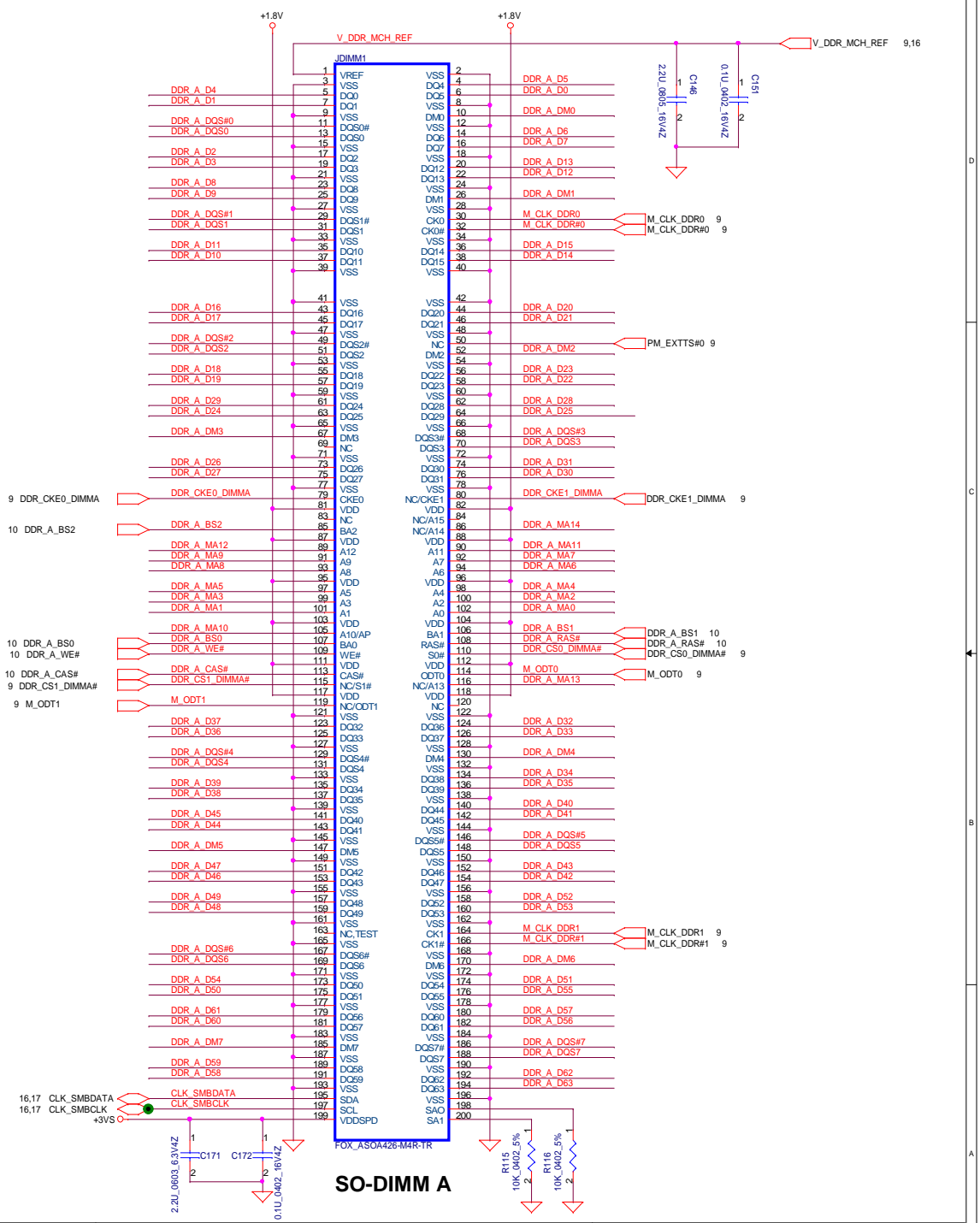
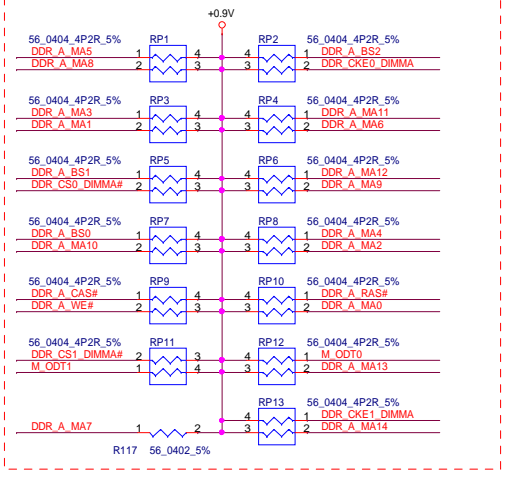
**Layout Note:**  
Place near JP3



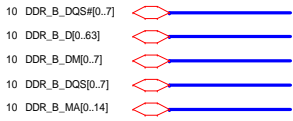
**Layout Note:**  
Place one cap close to every 2 pullup resistors terminated to +0.9V5



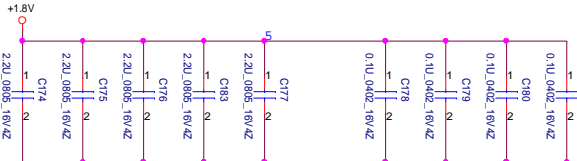
**Layout Note:**  
Place these resistor closely JP3, all trace length Max=1.5"



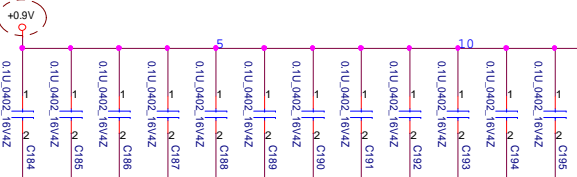
Security Classification	Compal Secret Data		Title	<b>Compal Electronics, Inc.</b>	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	<b>DDR II-SODIMM SLOT1</b>	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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	Date:	Thursday, January 03, 2008	Sheet 15 of 52
	<b>LA-4102P Blade discrete</b>	0.3			



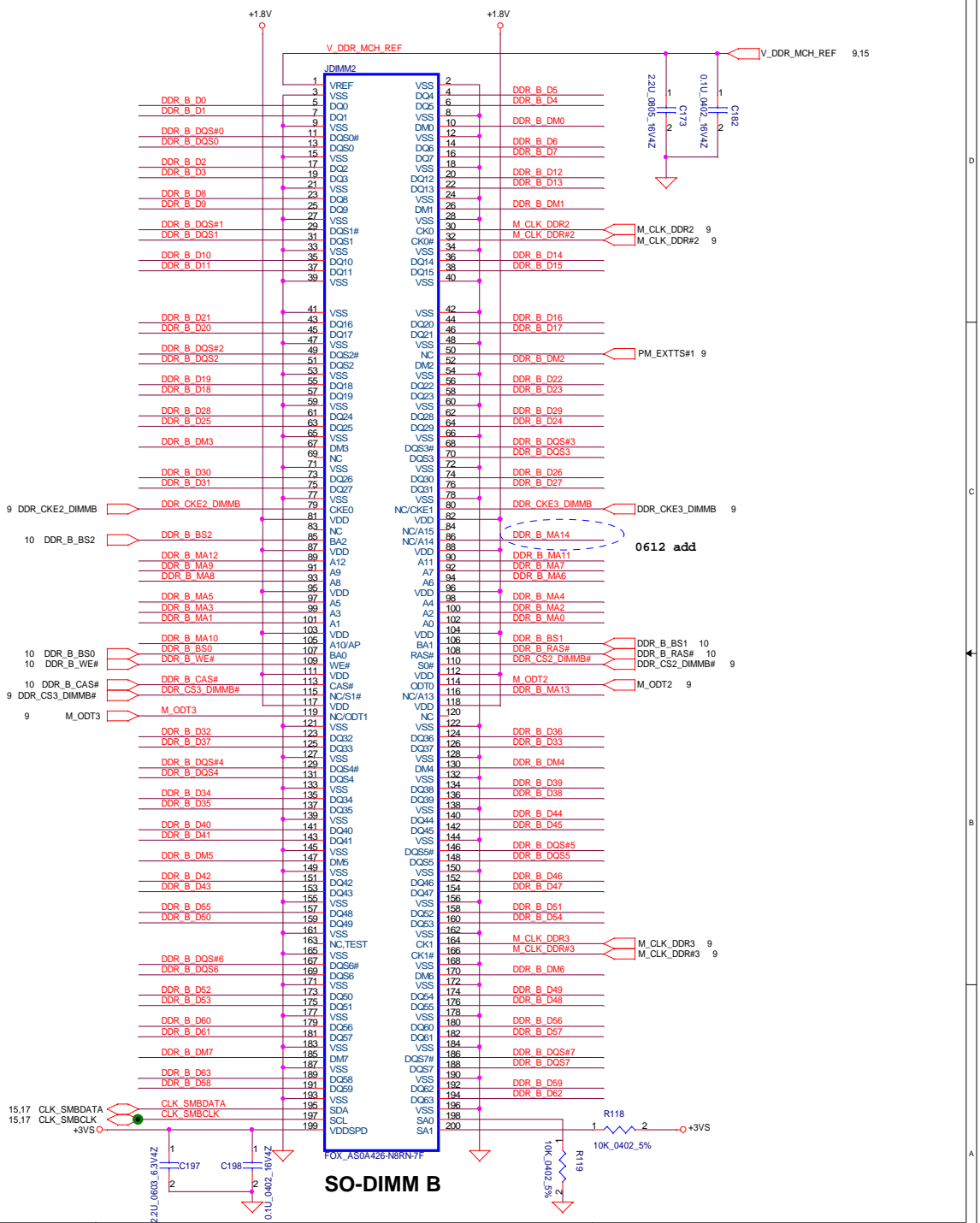
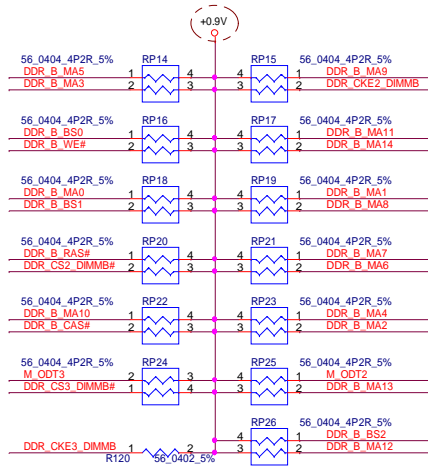
**Layout Note:**  
Place near JP10



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



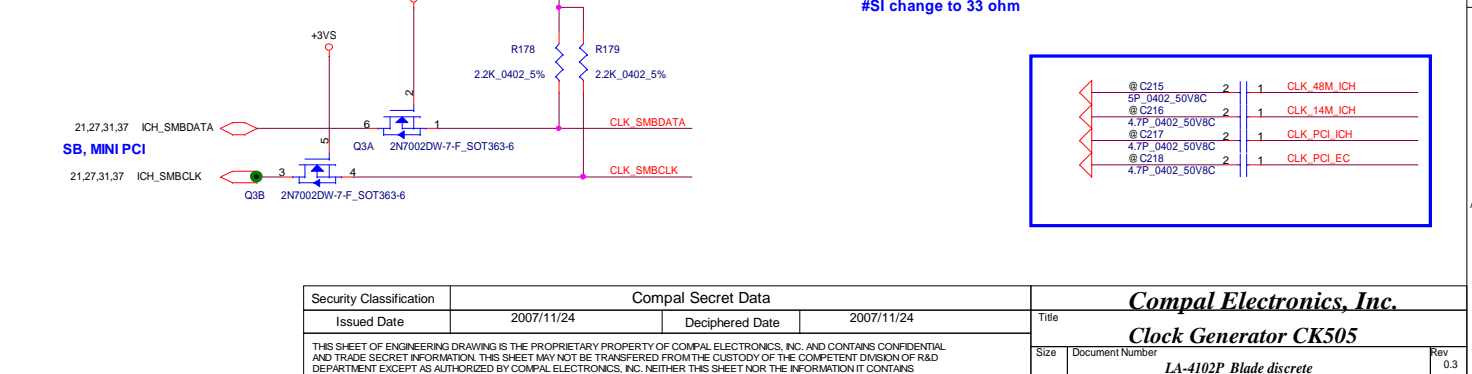
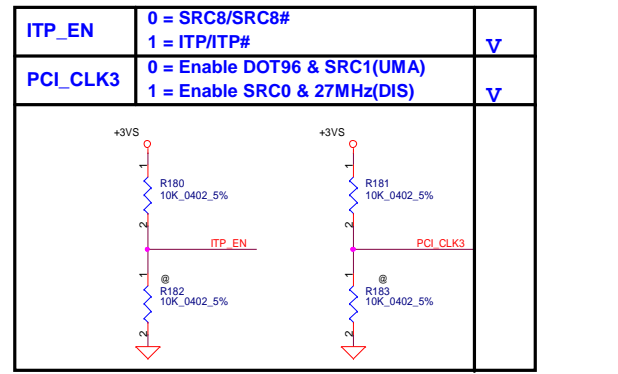
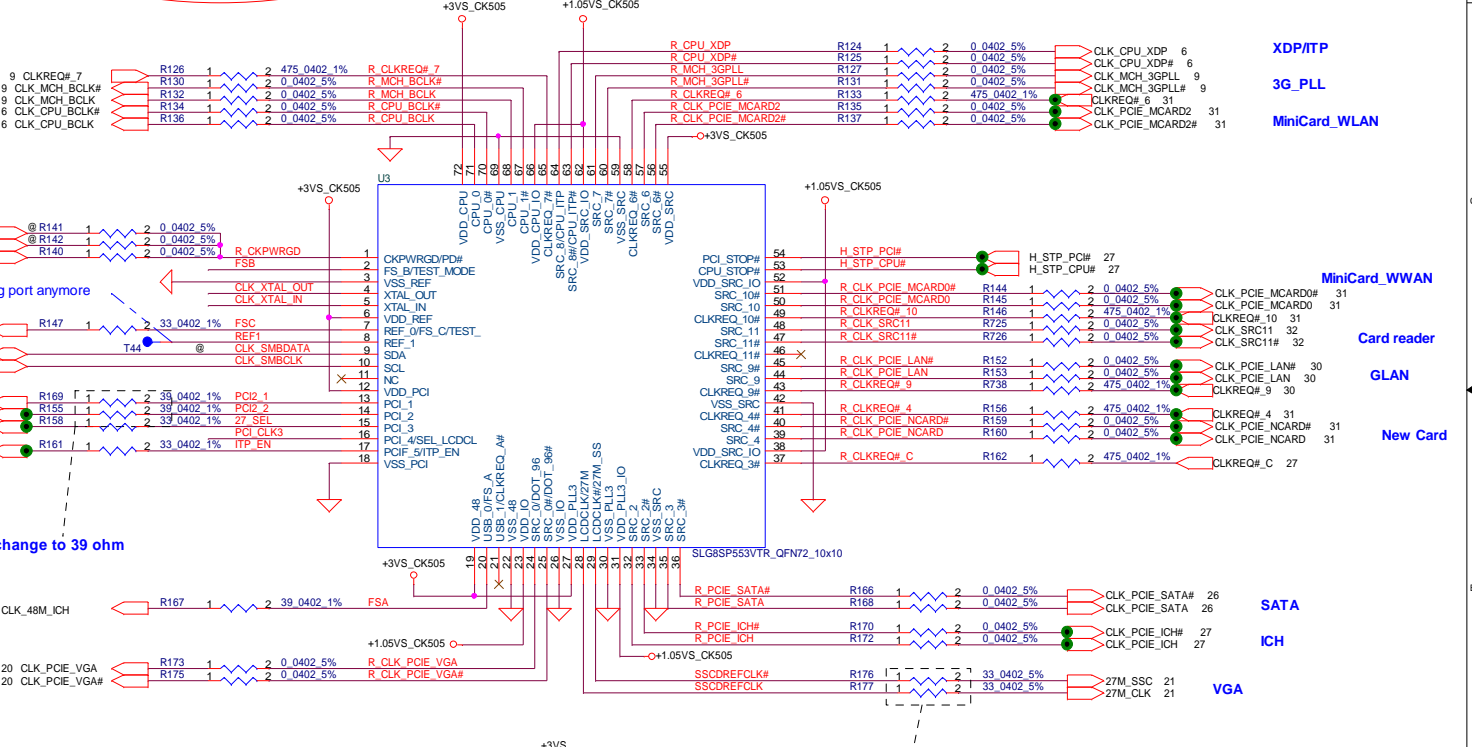
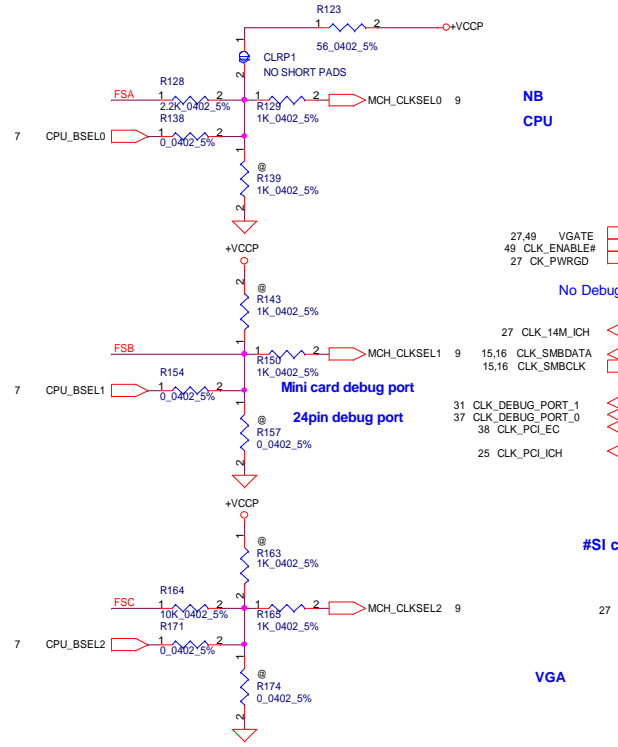
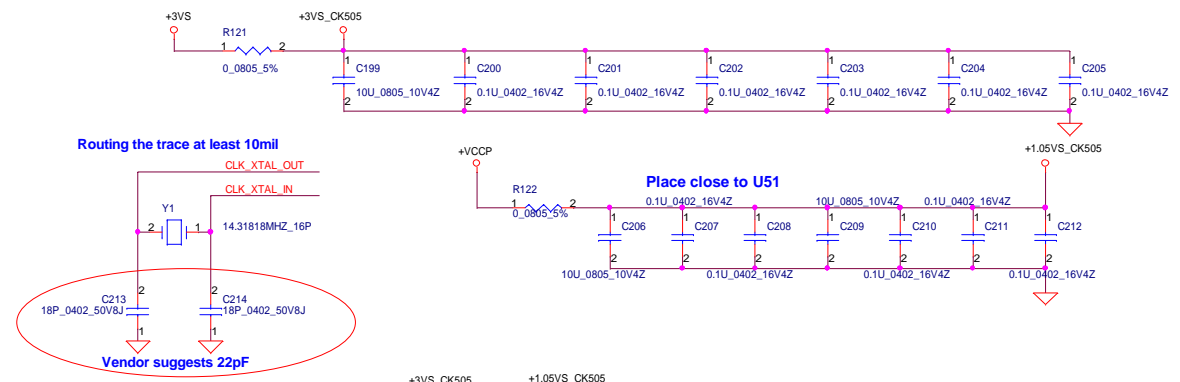
**Layout Note:**  
Place these resistor closely JP3, all trace length Max=1.5"



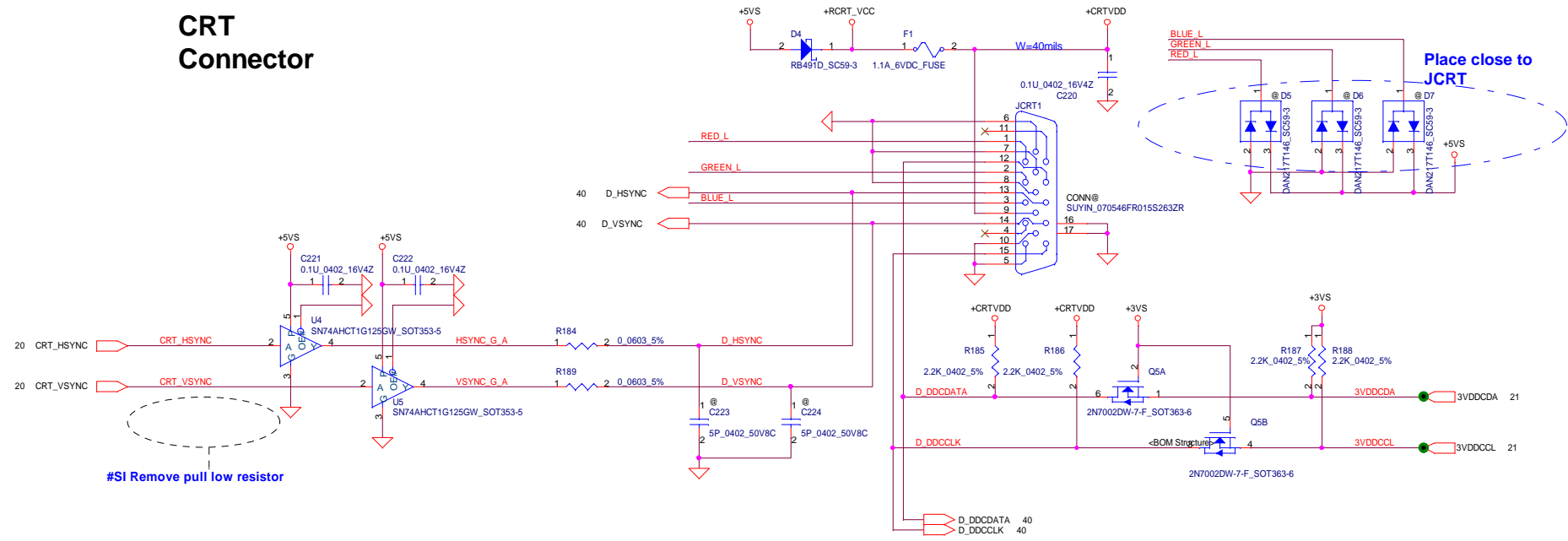
Security Classification		Compal Secret Data		Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Compal Electronics, Inc.	
				<b>DDR II-SODIMM SLOT2</b>	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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-4102P Blade discrete	
				Date	Thursday, January 03, 2008
				Sheet	16 of 52
				Rev	0.3



FSC	FSB	FSA	CPU	SRC	PCI	REF	DOT_96	USB
CLKSEL2	CLKSEL1	CLKSEL0	MHz	MHz	MHz	MHz	MHz	MHz
0	0	0	266	100	33.3	14.318	96.0	48.0
0	0	1	133	100	33.3	14.318	96.0	48.0
0	1	0	200	100	33.3	14.318	96.0	48.0
0	1	1	166	100	33.3	14.318	96.0	48.0
1	0	0	333	100	33.3	14.318	96.0	48.0
1	0	1	100	100	33.3	14.318	96.0	48.0
1	1	0	400	100	33.3	14.318	96.0	48.0
1	1	1						
<b>Reserved</b>								

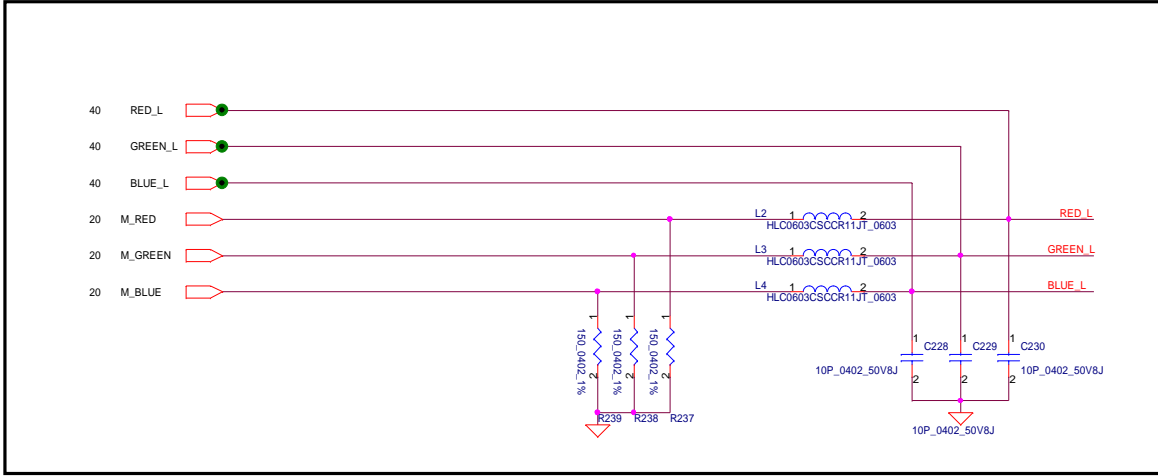


# CRT Connector

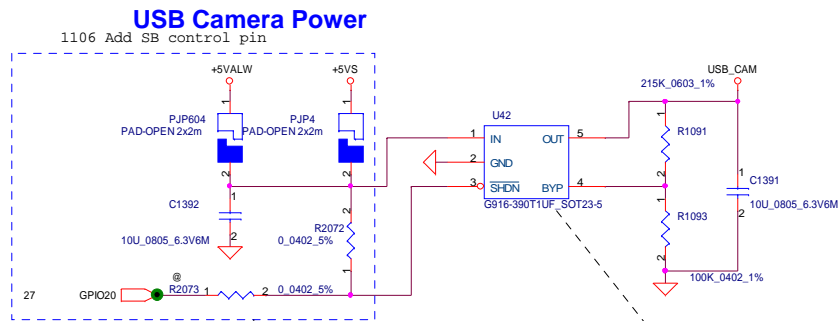
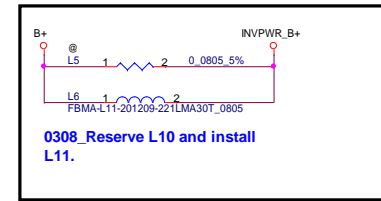
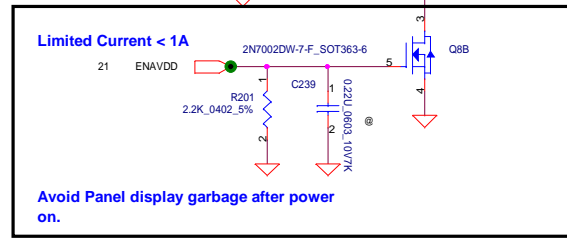
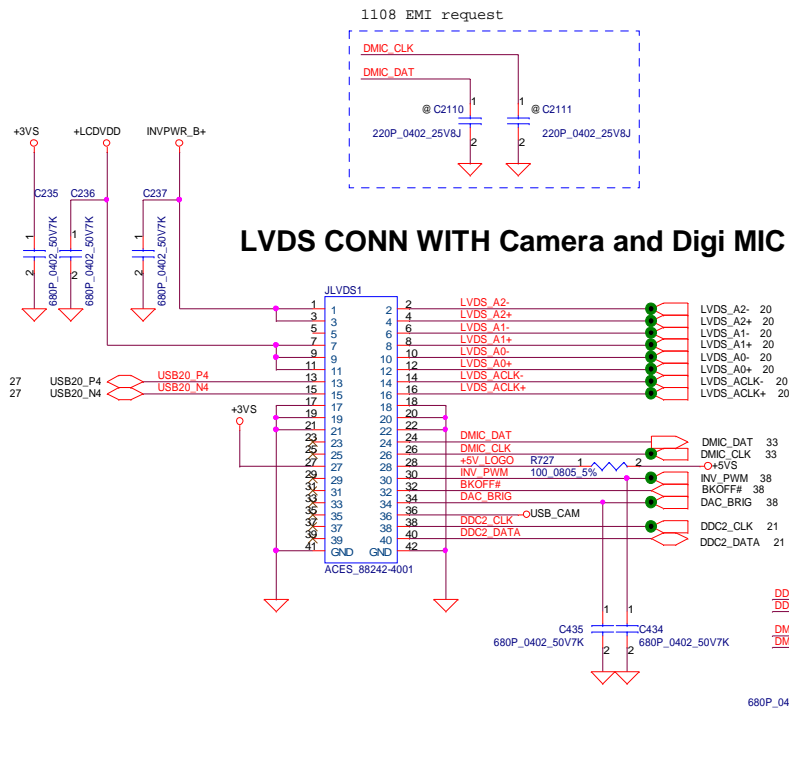


#SI Remove pull low resistor

Place close to JCR1



Security Classification	Compal Secret Data			Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	CRT Connector	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF 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-4102P Blade discrete	
				Date:	Thursday, January 03, 2008
				Sheet	18 of 52
				Rev	0.3



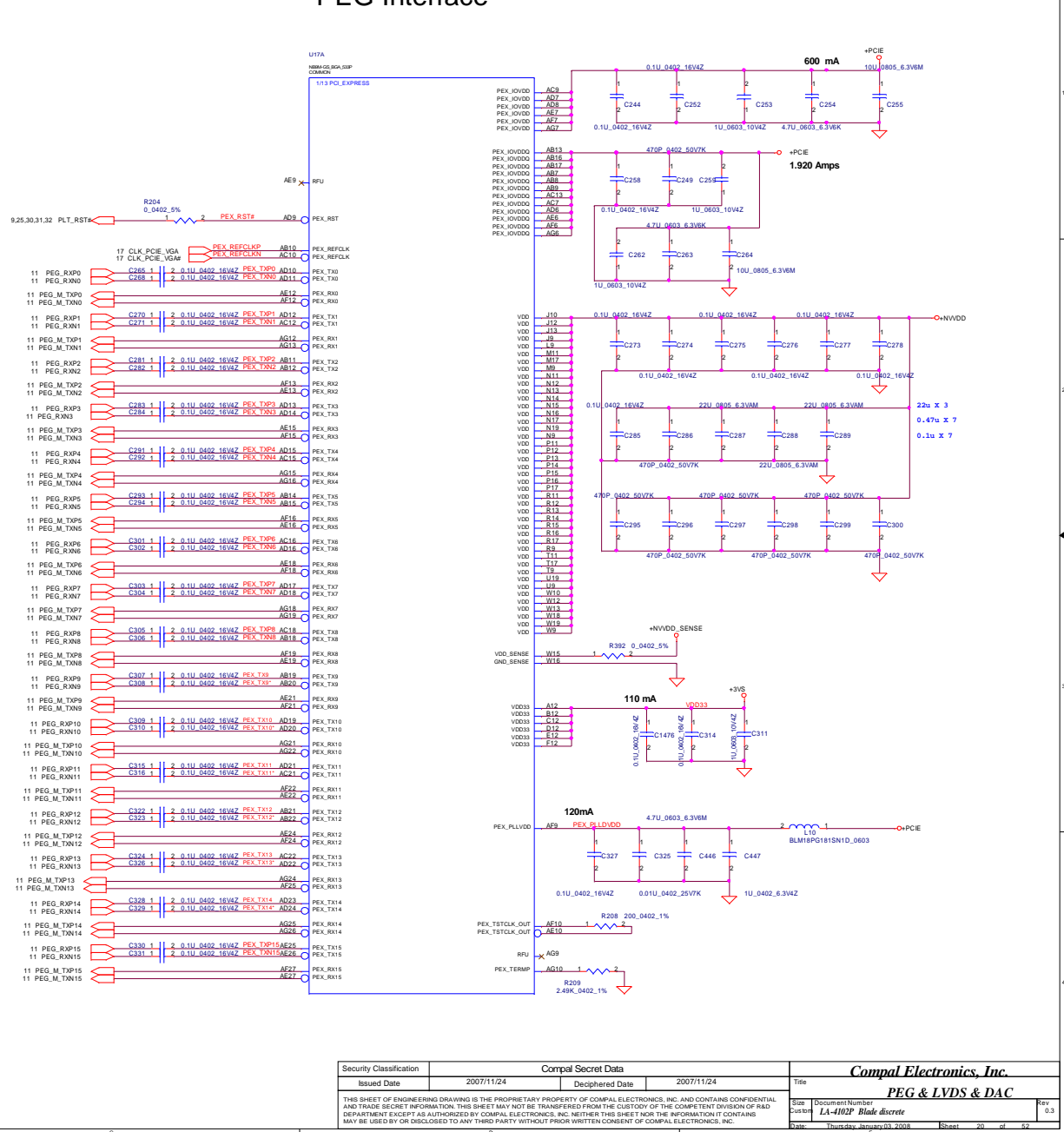
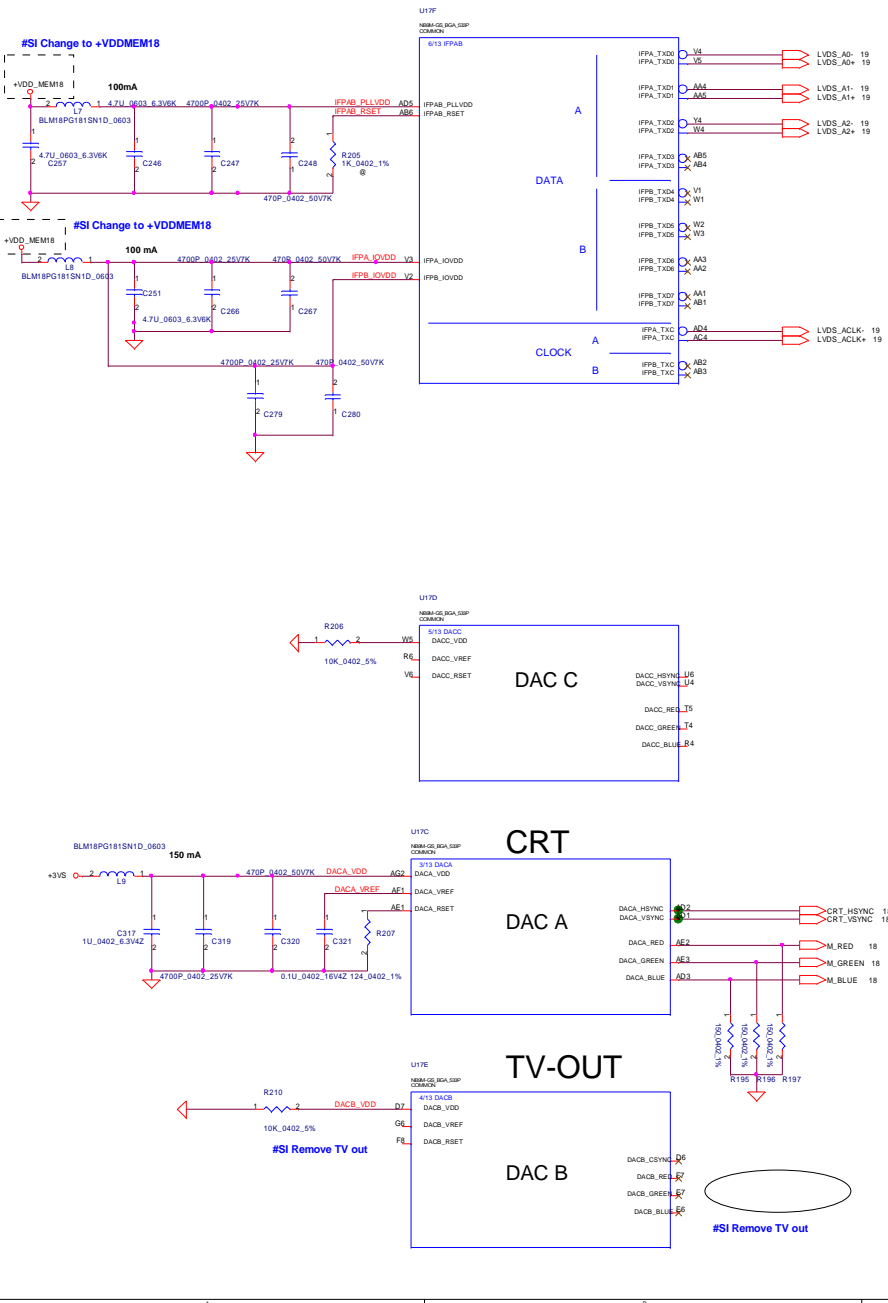
USB\_VCCA is +3.9V  
USB\_VCCA = 1.25X(1+R1091/R1093)

#SI Add GPIO20 control and reserve +5VS

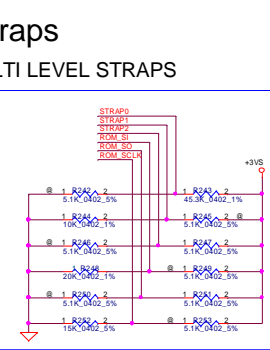
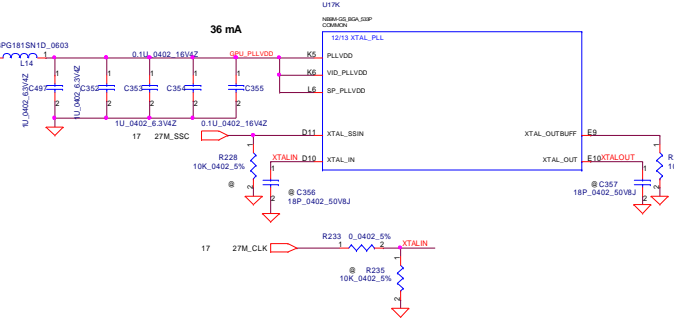
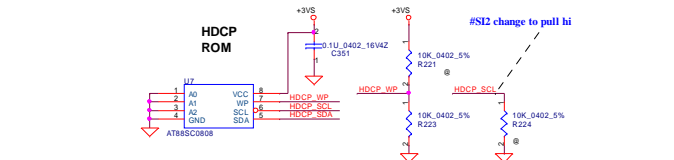
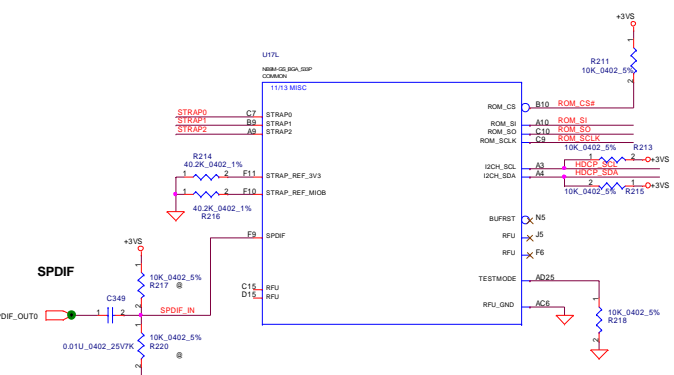
Security Classification	Compal Secret Data			Title		
Issued Date	2007/11/24	Deciphered Date	2007/11/24	LCD CONN.		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev
				LA-4102P Blade discrete		0.3
				Date:	Thursday, January 03, 2008	Sheet 19 of 52

# LVDS & DAC Interface

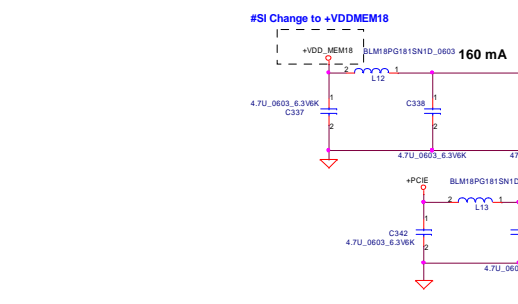
# PEG Interface



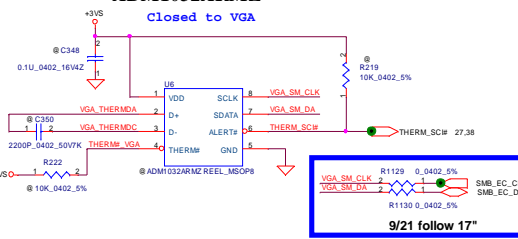
Security Classification	Compal Secret Data		
Issued Date	2007/11/24	Deciphered Date	2007/11/24
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT 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 <b>PEG &amp; LVDS &amp; DAC</b>
Size	Document Number	Rev	0.3
Custom	LA-102P Blade discrete	Date	Thursday, January 03, 2008
	Sheet	20	of 52



Resistor Value	Locating	R248
5.1K_0402_5%	100Mx16 Fujinix	20 Kohms
10K_0402_1%	100Mx16 Samsung	10 Kohms
10K_0402_5%	33Mx16 Fujinix	45 Kohms
10K_0402_5%	33Mx16 Samsung	30 Kohms

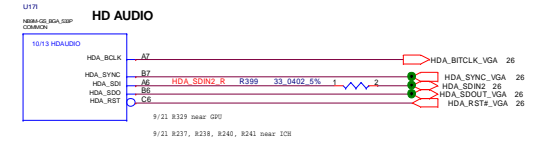


### VGA Thermal Sensor ADM1032ARMZ



GPIO	I/O	ACTIVE	USAGE
GPIO0	IN	N/A	Primary DVI Hot-plug
GPIO1	IN	N/A	2nd DVI Hot-plug
GPIO2	OUT	H	Panel Back-Light PWM
GPIO3	OUT	H	Panel Power Enable
GPIO4	OUT	H	Panel Back-Light Enable
GPIO5	OUT	N/A	NVDD VID0
GPIO6	OUT	N/A	NVDD VID1
GPIO7	OUT	N/A	FBVDD VID0
GPIO8	IN	L	Thermal Alert
GPIO9	OUT	L	FAN PWM
GPIO10	OUT	N/A	FBVref Select
GPIO11	OUT	N/A	SLI SYNCO
GPIO12	IN	N/A	AC Detect
GPIO13	OUT	L	PS Control or HDMI_CEC
GPIO14	OUT	H	PS Control

GPU_VID1	GPU_VID0	+NVDD
0	0	0.9V
0	1	1.09V
1	0	unused



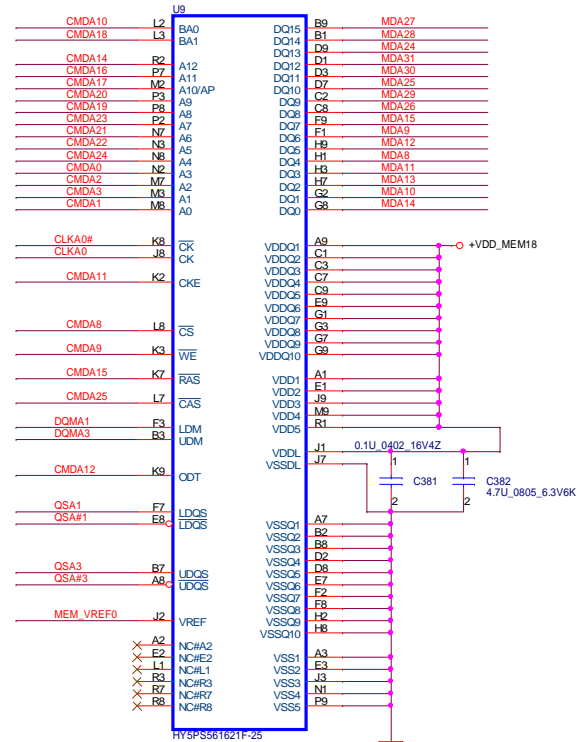
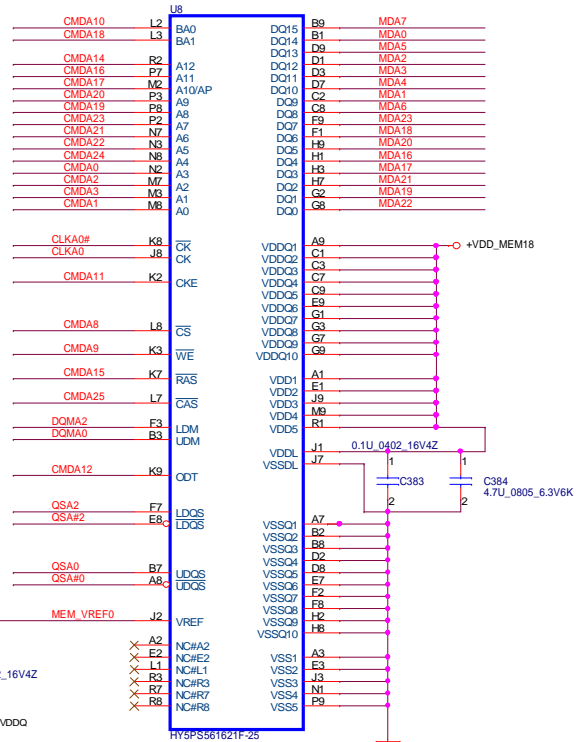
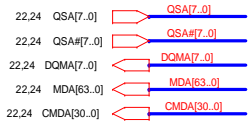
Security Classification		Compal Secret Data		Date	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Title	
				Straps & HDMI	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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-402P Blade discrete	0.3			
Date	Friday, January 04, 2008	Sheet	21	of 52	



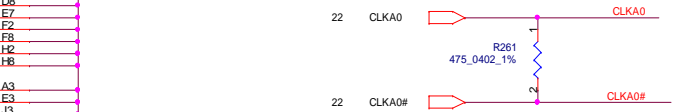
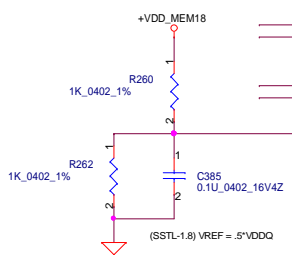
# VRAM DDR2 chips (256MB & 128MB)

32Mx16 DDR2 400MHz \*4==>256MB

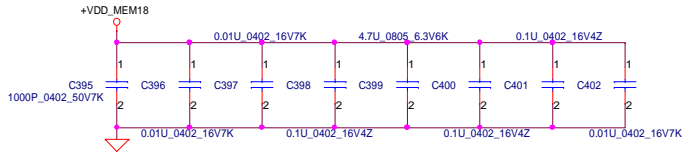
16Mx16 DDR2 400MHz\*4==>128MB



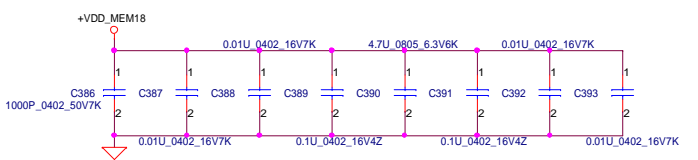
Address	DATA Bus	
CMD0	A3	32..63
CMD1	A0	A0
CMD2	A2	
CMD3	A1	A1
CMD4		A3
CMD5		A4
CMD6		A5
CMD7		
CMD8	CS#	CS#
CMD9	WE#	WE#
CMD10	BA0	BA0
CMD11	CKE	CKE
CMD12	ODT	ODT
CMD13		
CMD14	A12	A12
CMD15	RAS#	RAS#
CMD16	A11	A11
CMD17	A10	A10
CMD18	BA1	BA1
CMD19	A8	A8
CMD20	A9	A9
CMD21	A6	A6
CMD22	A5	
CMD23	A7	A7
CMD24	A4	
CMD25	CAS#	CAS#
CMD26	A13	A13
CMD27	BA2	BA2
CMD28		
CMD29		
CMD30		



## DDR2 BGA MEMORY



## DDR BGA MEMORY

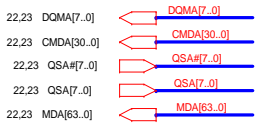


Security Classification	Compal Secret Data		Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	LS-2821 ATI M56-P VGA Board
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev 0.1
Date: Thursday, January 03, 2008				Sheet 7 of 16

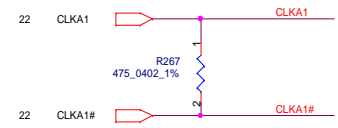
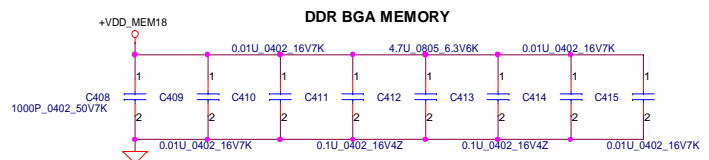
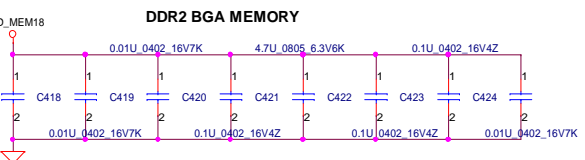
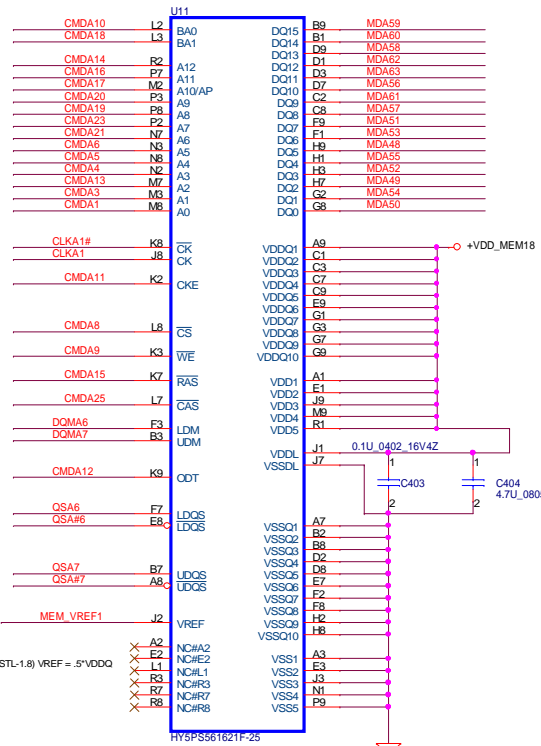
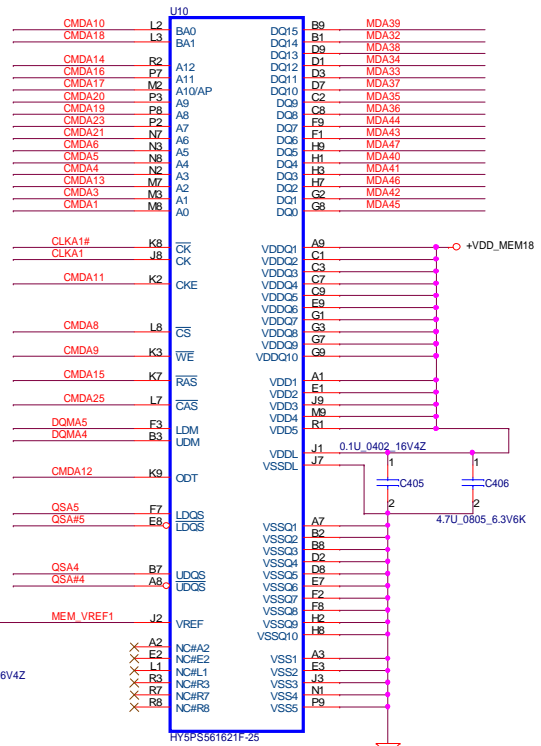
# VRAM DDR2 chips (256MB & 128MB)

32Mx16 DDR2 400MHz \*4==>256MB

16Mx16 DDR2 400MHz\*4==>128MB

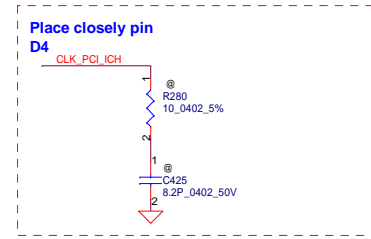
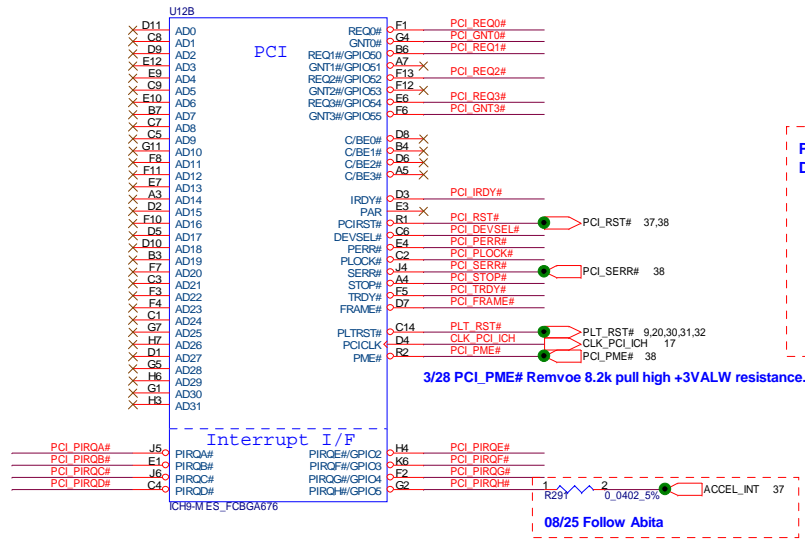
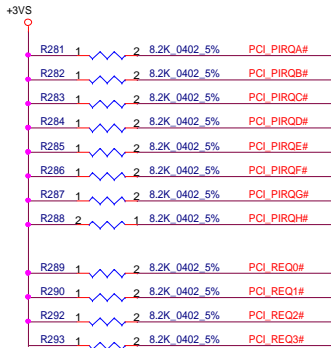
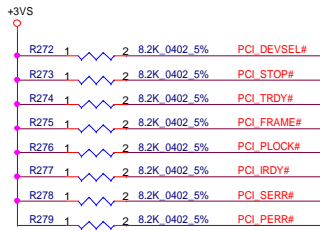


Address	DATA Bus	
	0..31	32..63
CMD0	A3	
CMD1	A0	A0
CMD2	A2	
CMD3	A1	A1
CMD4		A3
CMD5		A4
CMD6		A5
CMD7		
CMD8	CS#	CS#
CMD9	WE#	WE#
CMD10	BA0	BA0
CMD11	CKE	CKE
CMD12	ODT	ODT
CMD13		
CMD14	A12	A12
CMD15	RAS#	RAS#
CMD16	A11	A11
CMD17	A10	A10
CMD18	BA1	BA1
CMD19	A8	A8
CMD20	A9	A9
CMD21	A6	A6
CMD22	A5	
CMD23	A7	A7
CMD24	A4	
CMD25	CAS#	CAS#
CMD26	A13	A13
CMD27	BA2	BA2
CMD28		
CMD29		
CMD30		



Security Classification	Compal Secret Data		Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	
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.				
<b>Compal Electronics, Inc.</b> <b>LS-2821 ATI M56-P VGA Board</b> <b>CHANNEL A EXT. 256M_2</b>			Size	Document Number
Date:	Thursday, January 03, 2008	Sheet	8	of 16





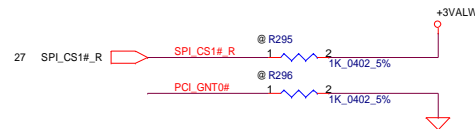
### A16 swap override Strap

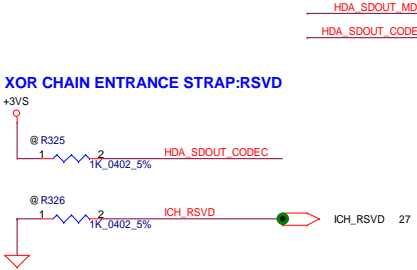
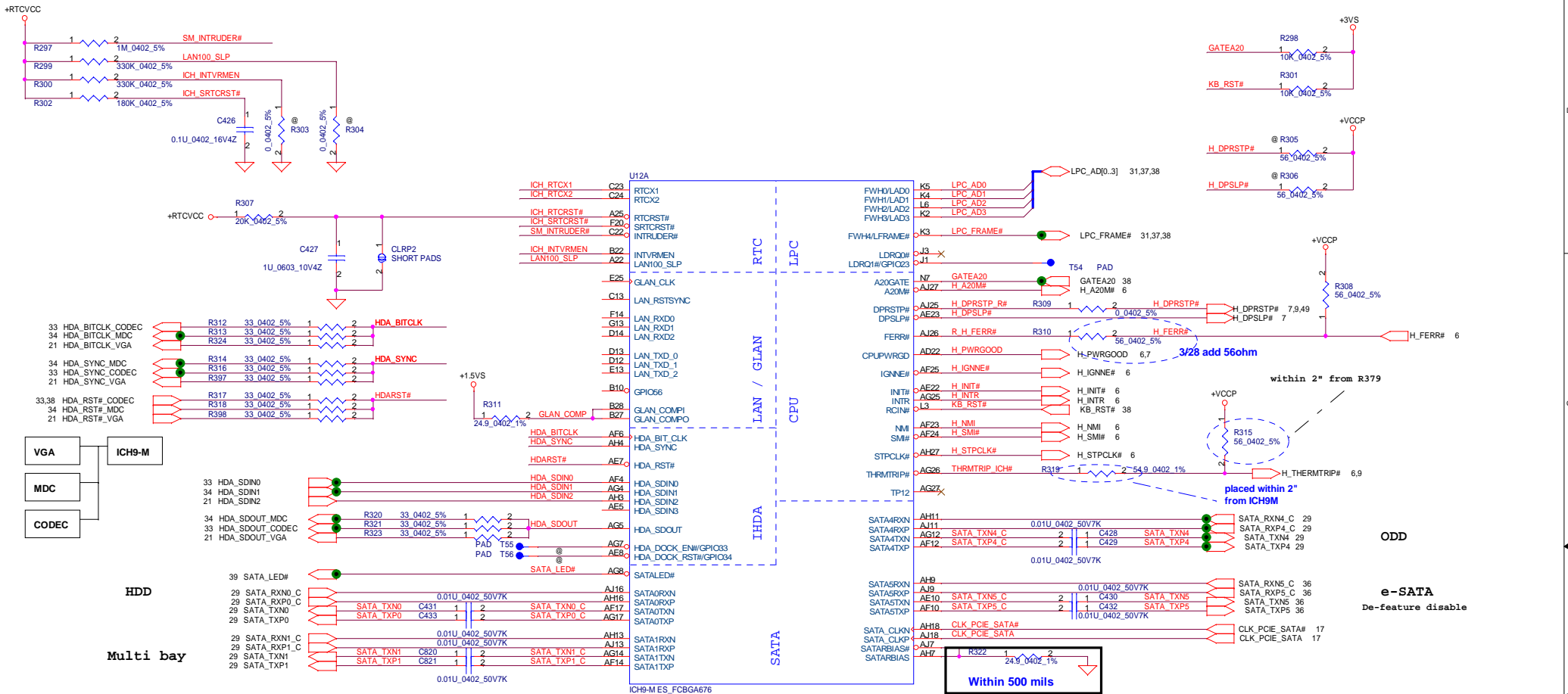
PCI\_GNT3# Low = A16 swap override Enable  
High = Default \*



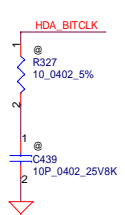
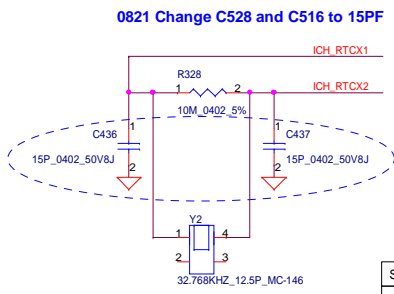
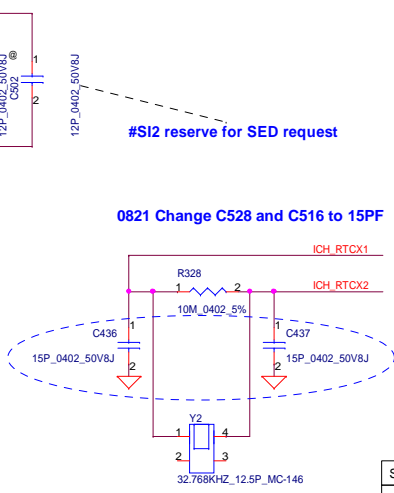
### Boot BIOS Strap

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

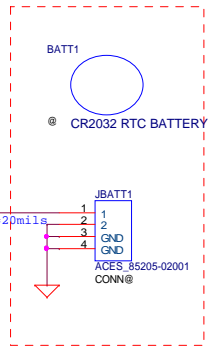
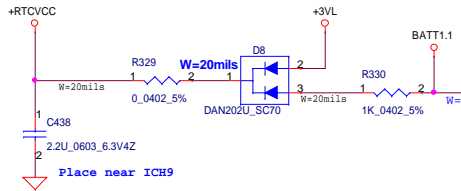


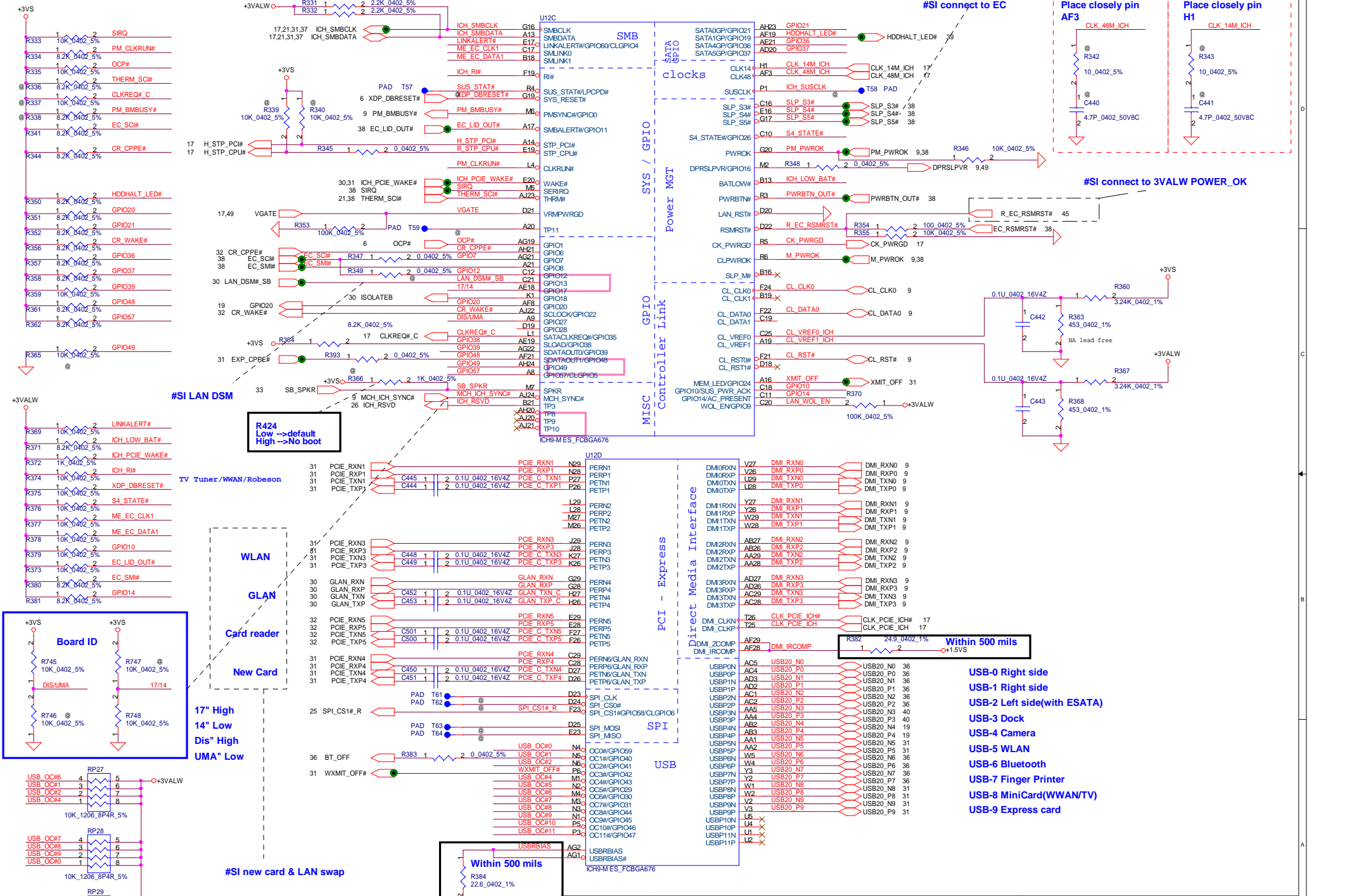


ICH_RSVD	HDA_SDOUT_CODEC
0	0
0	1
1	0
1	1



Within 500 mils





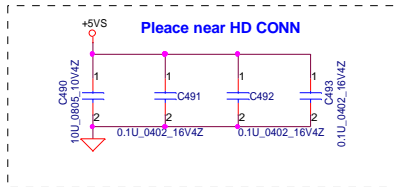
Security Classification	Compal Secret Data	
Issued Date	2007/11/24	Deciphered Date
		2007/11/24

Title		
<b>ICH9(3/4) DMI,USB,GPIO,PCIE</b>		
Size	Document Number	Rev
Custom	LA-4102P Blade discrete	0.3
Date:	Thursday, January 03, 2008	Sheet 27 of 52

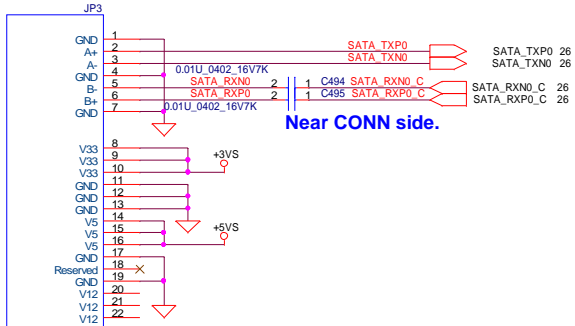
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Thursday, January 03, 2008

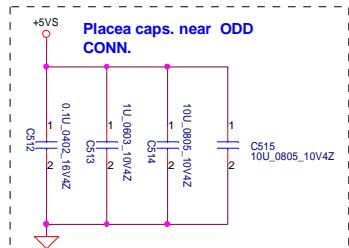




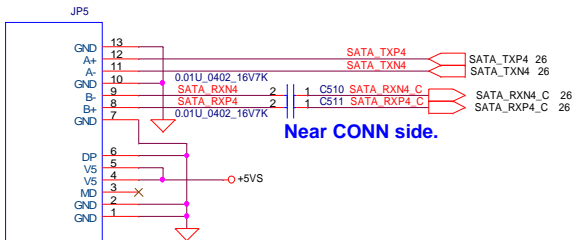
### HDD Connector



SUYIN\_127072FR022GS23\_RV  
CONN@

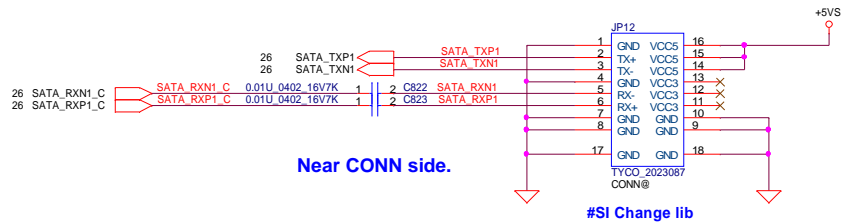


### CD-ROM Connector

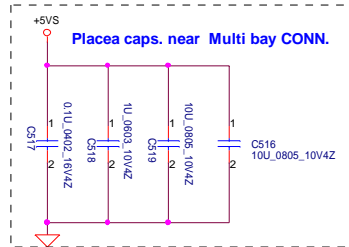


SUYIN\_127382FR013GX092R  
CONN@

### Multi Bay Connector



#SI Change lib  
TYCO\_2023087  
CONN@



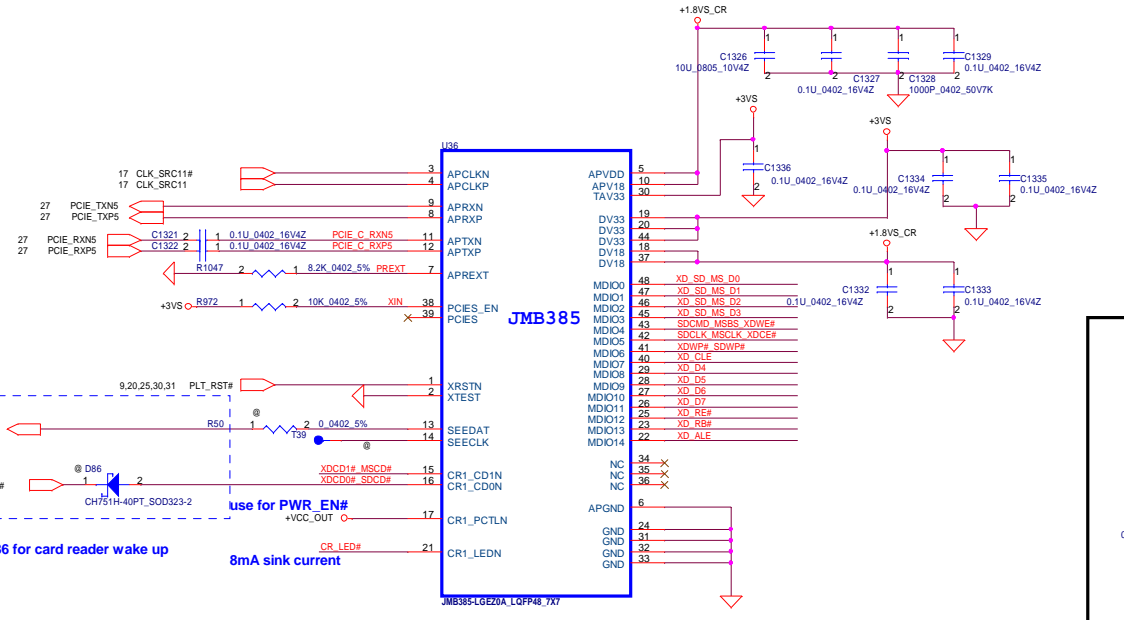
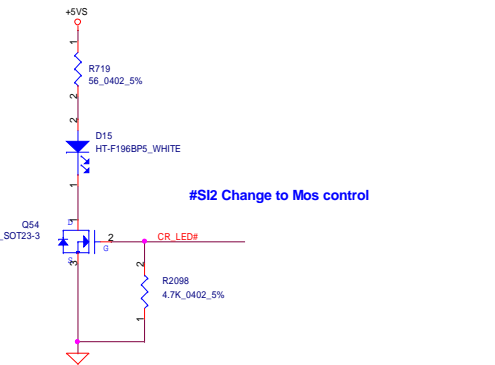
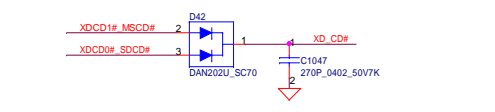
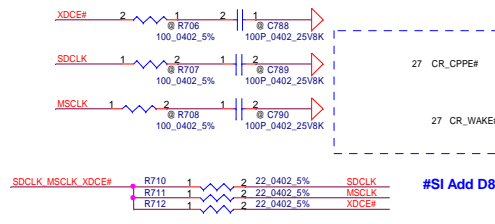
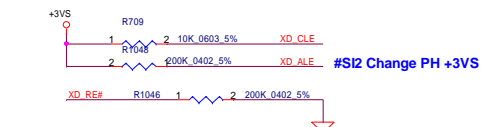
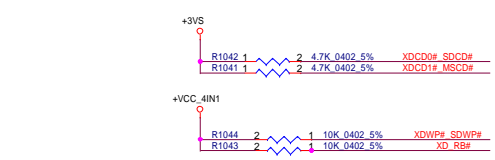
Security Classification	Compal Secret Data	
Issued Date	2007/11/24	Deciphered Date 2007/11/24
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT 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.		

<b>Compal Electronics, Inc.</b>		
<b>HDD &amp; CDROM</b>		
Size Custom	Document Number LA-4102P Blade discrete	Rev 0.3
Date: Thursday, January 03, 2008	Sheet 29	of 52

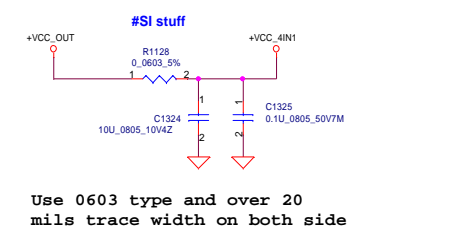




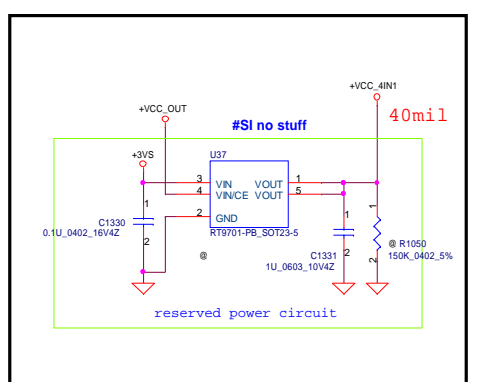




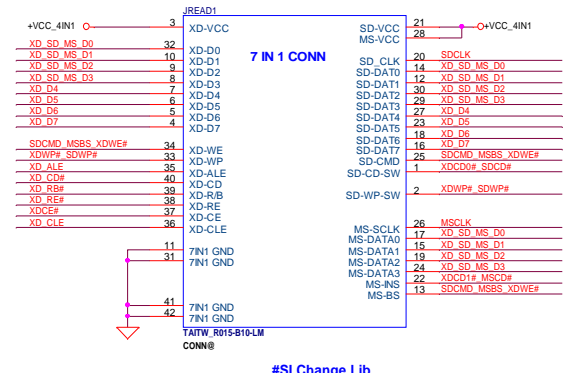
Layout must add a thermal pad pin49



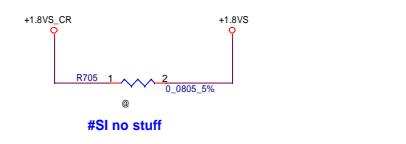
Use 0603 type and over 20 mils trace width on both side



### Card Reader Connector



#SI Change Lib

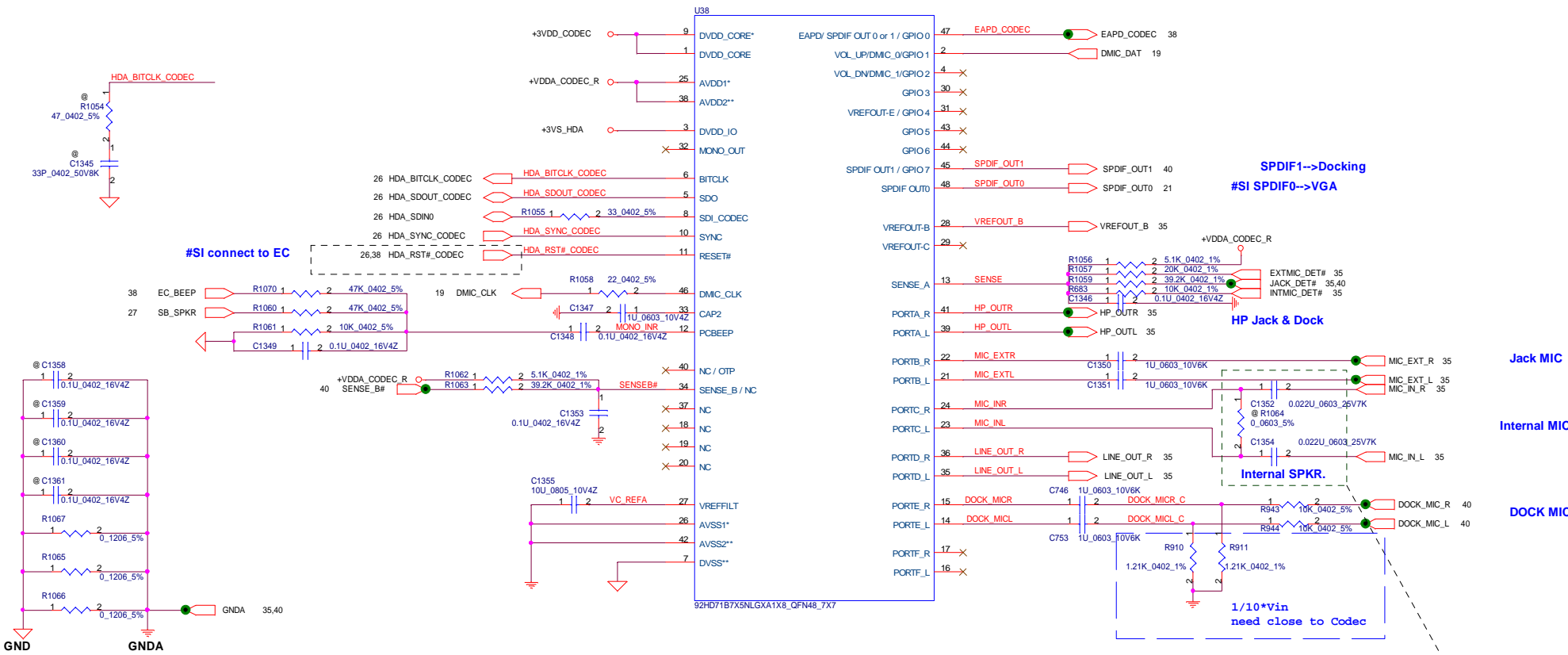
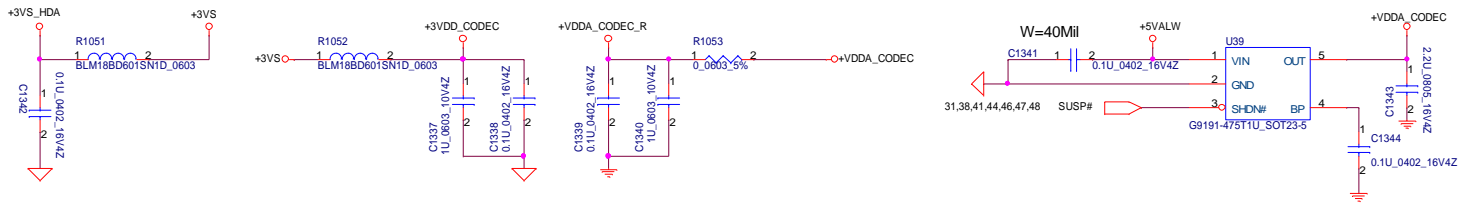


Security Classification	Compal Secret Data		Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Document Number <b>LA-4102P Blade discrete</b>
Date:	Thursday, January 03, 2008	Sheet:	32 of 52	Rev: 0.3



### CODEC POWER

(4.75V)  
300mA



#SI connect to EC

SPDIF1-->Docking  
#SI SPDIF0-->VGA

HP Jack & Dock

Jack MIC

Internal MIC

Internal SPKR.

DOCK MIC

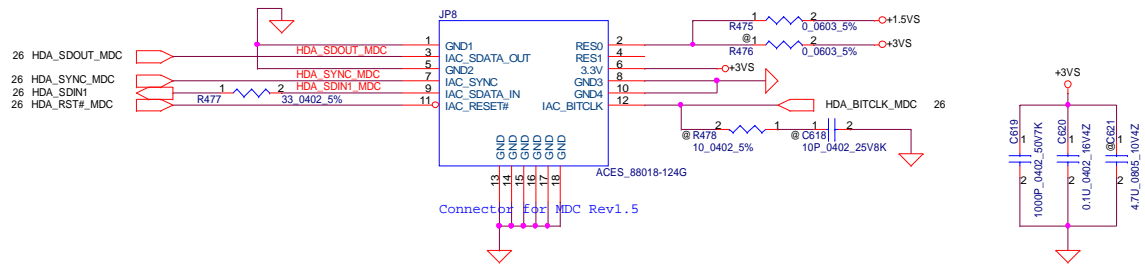
1/10\*Vin  
need close to Codec

#SI -3db test fail

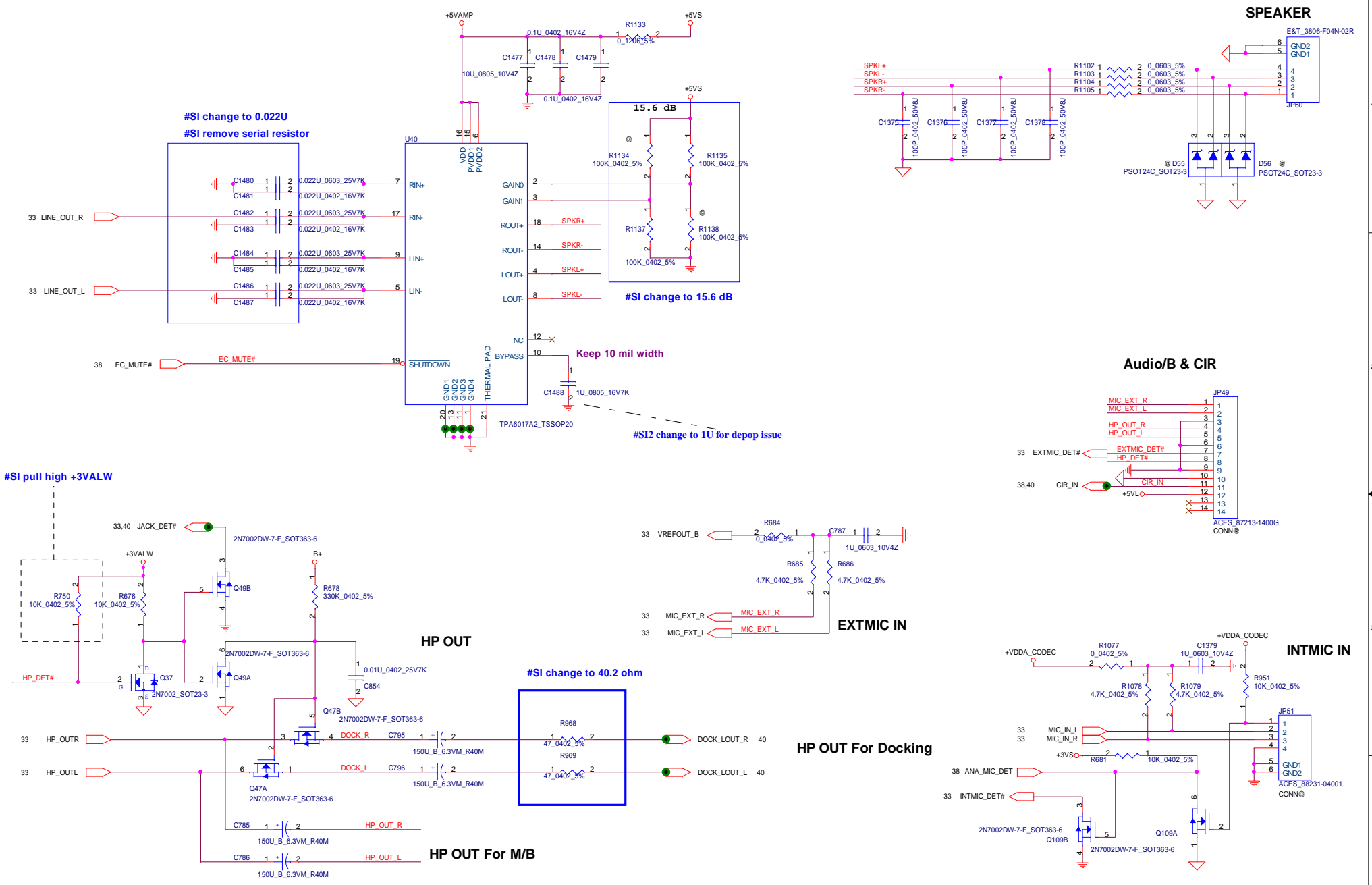
SENSE A		SENSE B	
Port	Resistor	Port	Resistor
A	39.2K	E	39.2K
B	20K	F	20K
C	10K	G	10K
D	5.11K	H	5.11K

Security Classification	Compal Secret Data			Title	Codec_IDT9271B7		
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Size	Document Number	Rev	0.3
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.				Date:	Thursday, January 03, 2008	Sheet	33 of 52

# MDC 1.5 Conn.

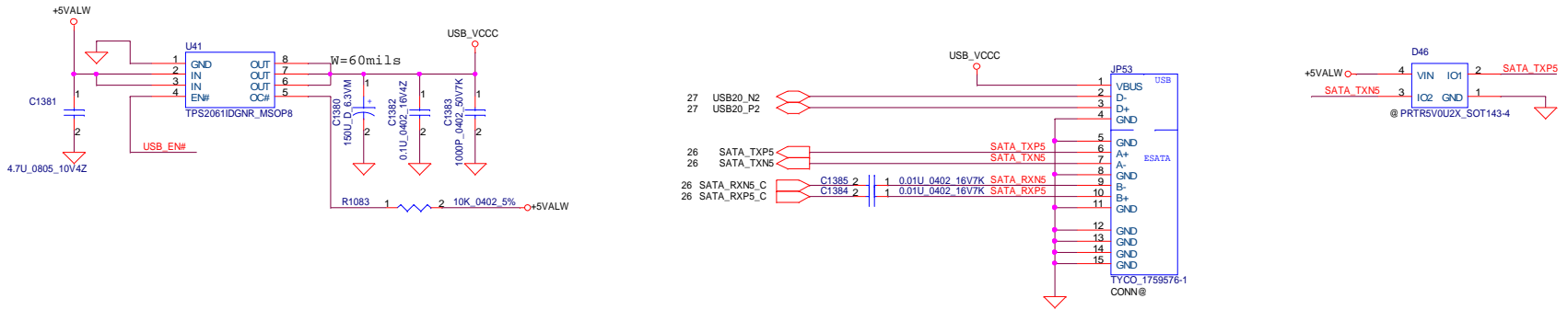


Security Classification	Compal Secret Data			<b>Compal Electronics, Inc.</b> <b>MDC 1.5 &amp; Robson</b>		
Issued Date	2007/11/24	Deciphered Date	2007/11/24			
<small>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&amp;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.</small>				Title Document Number <b>LA-4102P Blade discrete</b>	Rev 0.3	
Date:				Thursday, January 03, 2008	Sheet	34 of 52

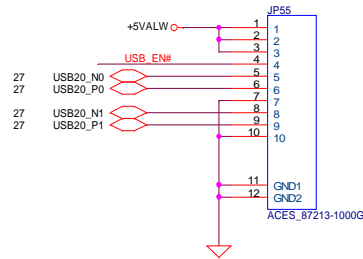


Security Classification		Compal Secret Data		Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	AMP & Audio Jack	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM 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	Custom	Document Number	LA-4102P Blade discrete		Rev
Date:	Thursday, January 03, 2008	Sheet	35	of	52

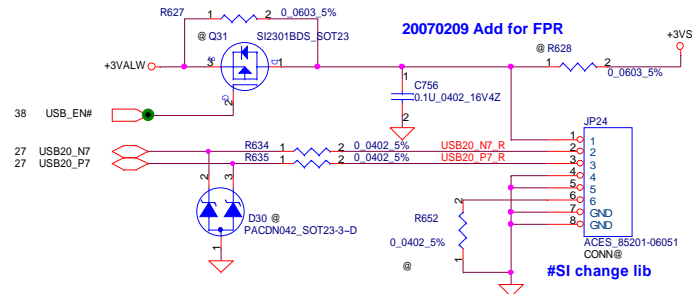
## Left side ESATA/USB combination Connector



## USB cable connector for Right side

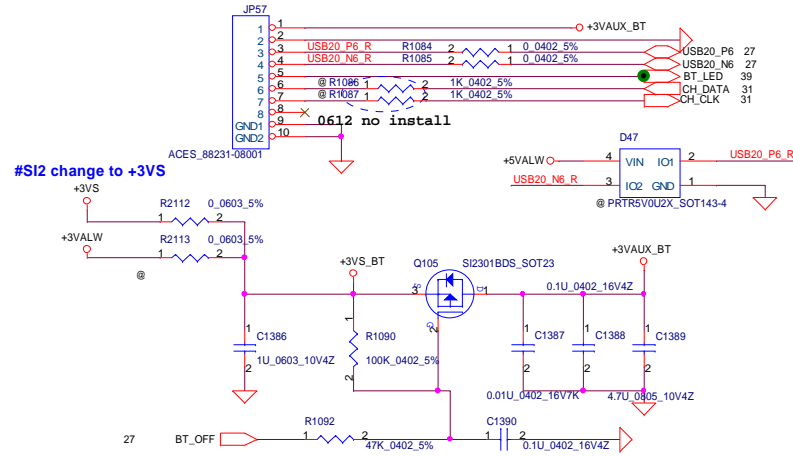


## Finger printer



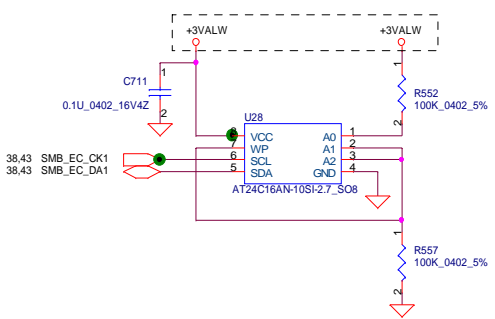
## BT Connector

Need change to New version

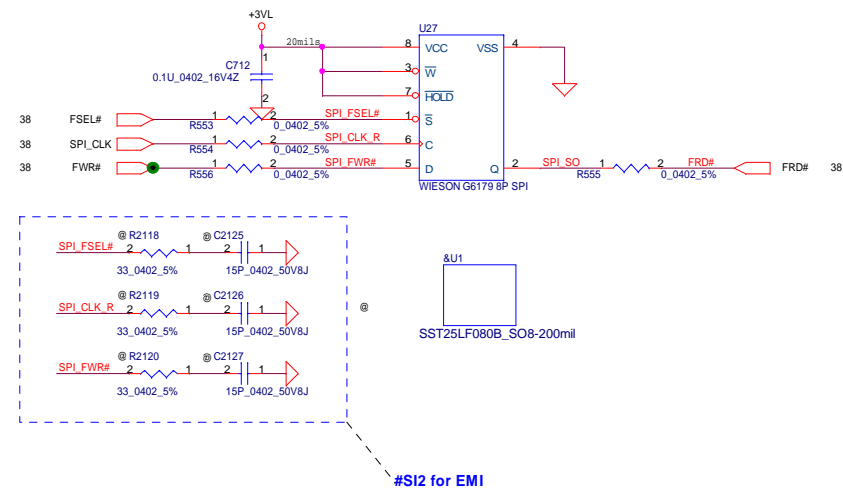


Security Classification	Compal Secret Data		Title	<b>Compal Electronics, Inc.</b>	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	<b>USB, BT, eSATA</b>	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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		0.3	
			LA-4102P Blade discrete		
Date:	Thursday, January 03, 2008	Sheet	36	of	52

#SI change to +3VALW

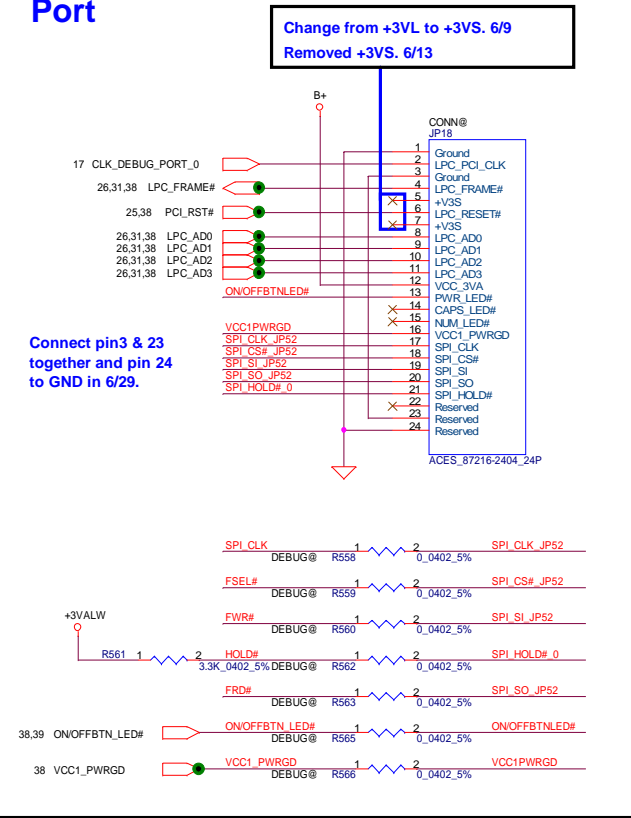


SPI ROM

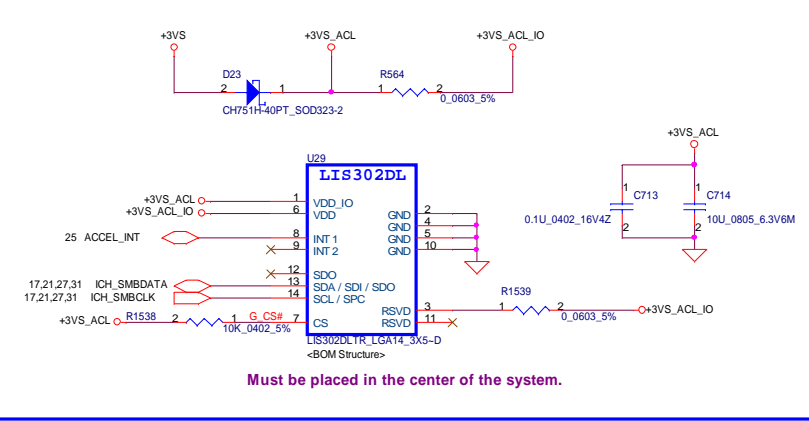


#SI2 for EMI

LPC Debug Port



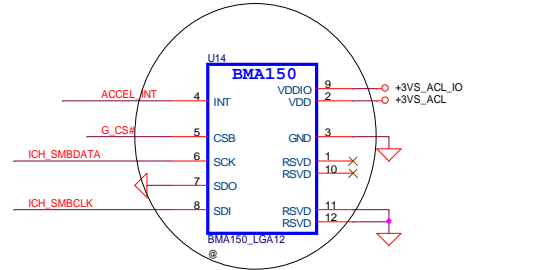
Accelerometer-1



Must be placed in the center of the system.

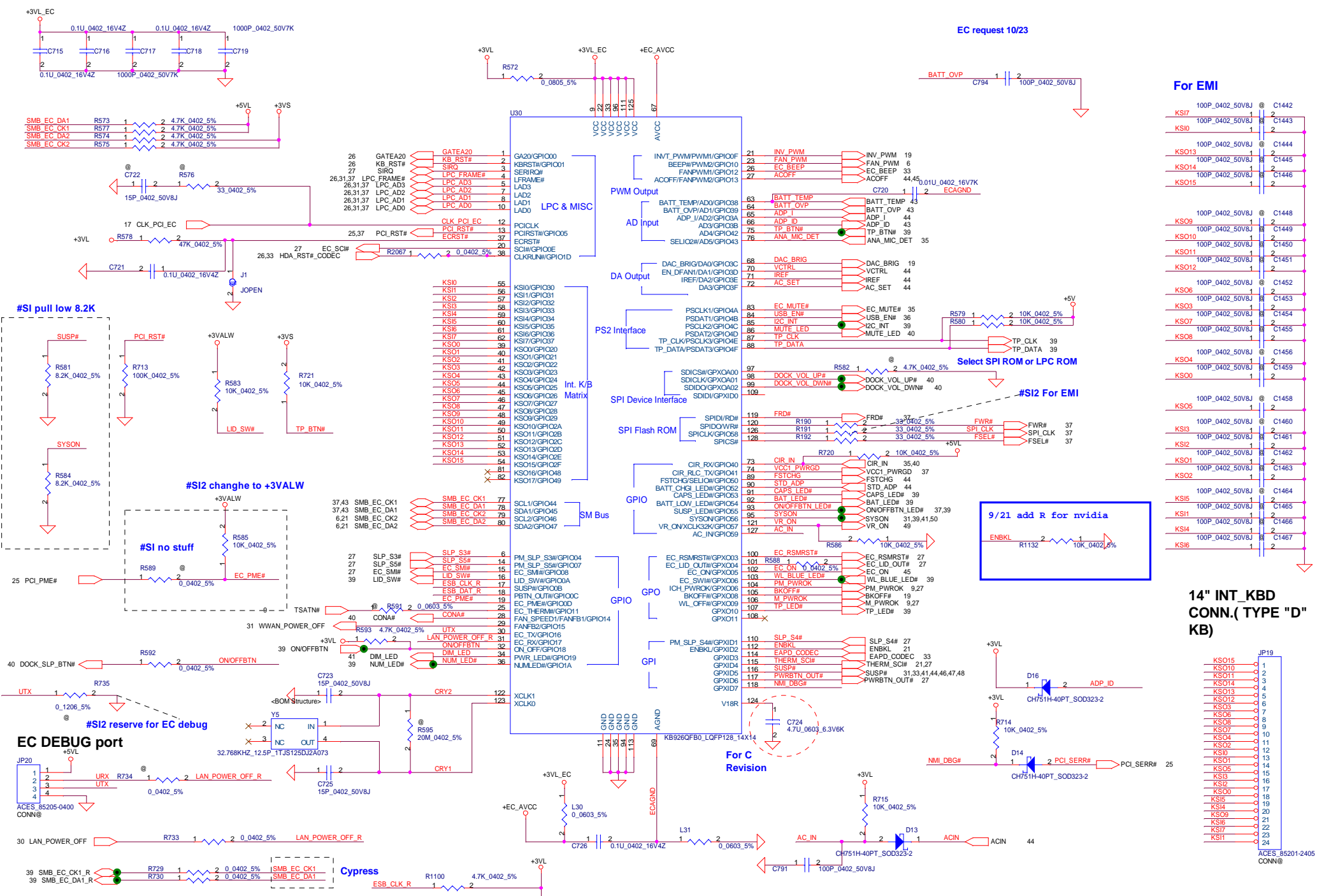
Accelerometer-2

U29 & U14 must be close



#SI co-lay MMA150

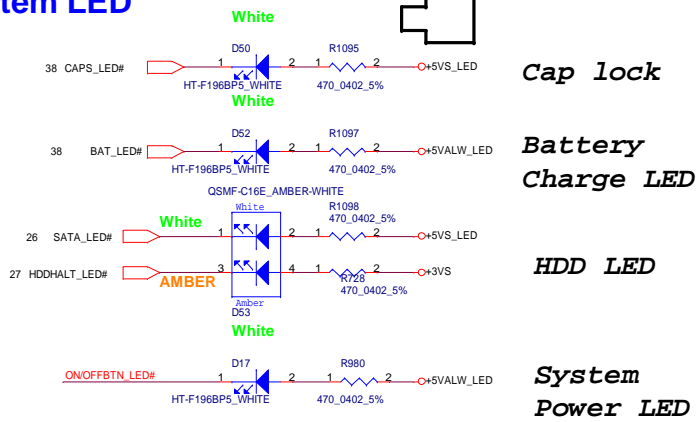
Security Classification	Compal Secret Data		Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF 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-4102P Blade discrete	0.3
Date:	Thursday, January 03, 2008	Sheet	37	of 52



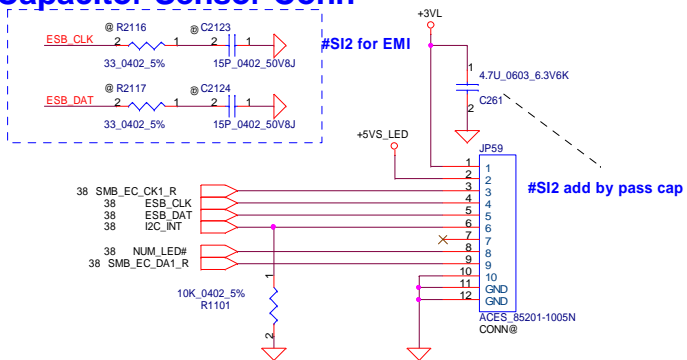
Security Classification		Compal Secret Data	
Issued Date	2007/11/24	Deciphered Date	2007/11/24
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT 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.			

<b>Compal Electronics, Inc.</b>			
<b>EC KB926/KB Conn.</b>			
Size	Document Number	LA-4102P Blade discrete	Rev 0.3
Date:	Thursday, January 03, 2008	Sheet	38 of 52

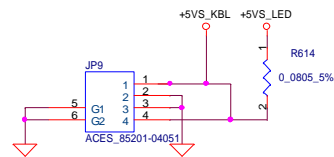
# System LED



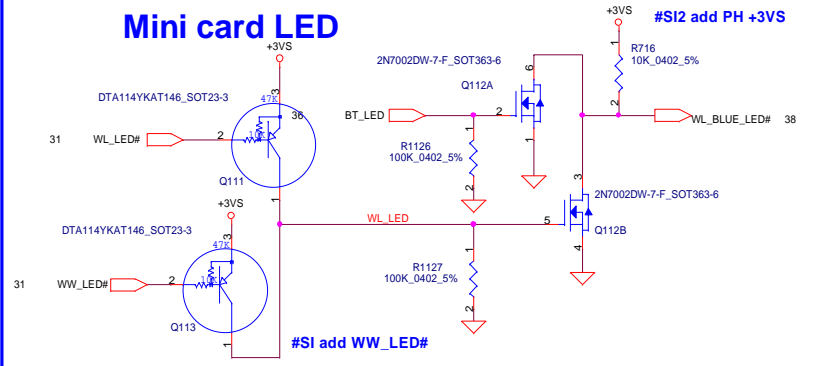
# Capacitor Sensor Conn



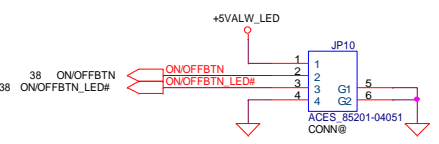
# Keyboard backlight Conn



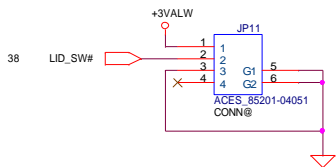
# Mini card LED



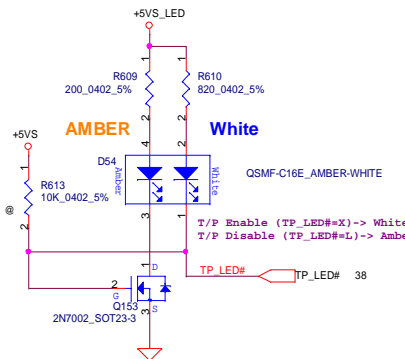
# ON/OFF Button Connector



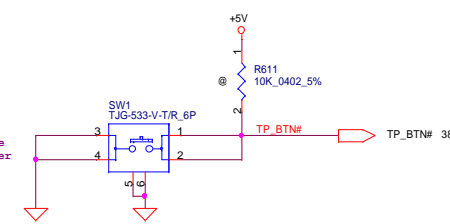
# Lid Switch Connector



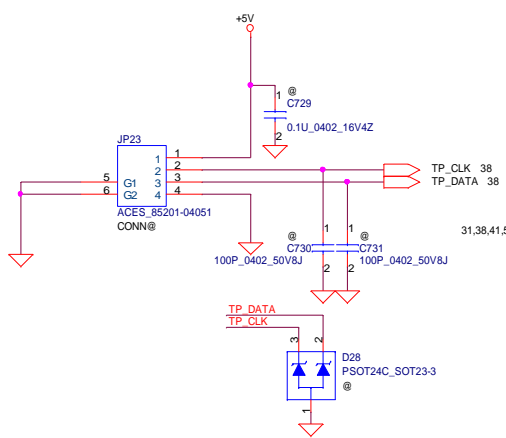
# TouchPAD ON/OFF LED



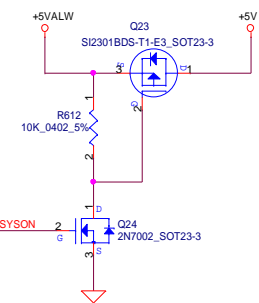
# TP ON/OFF



# T/P Board



# T/P Power

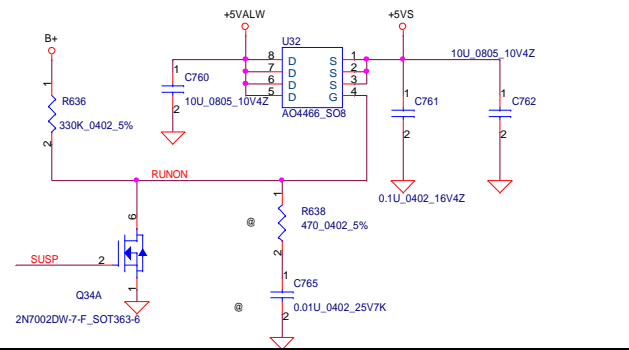


Security Classification	Compal Secret Data		Title	<b>Compal Electronics, Inc.</b>	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	<b>LED, TP,KBL,Cab sensor board</b>	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET 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-4102P Blade discrete	
				Rev	0.3
				Date:	Thursday, January 03, 2008
				Sheet	39 of 52

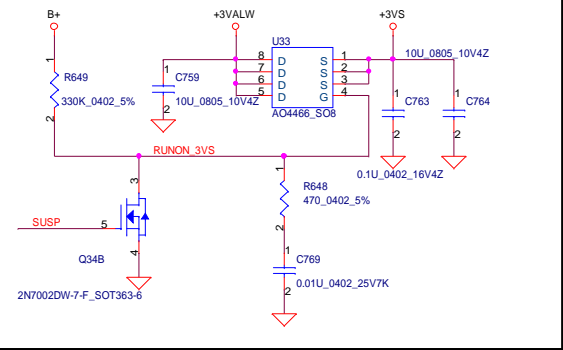




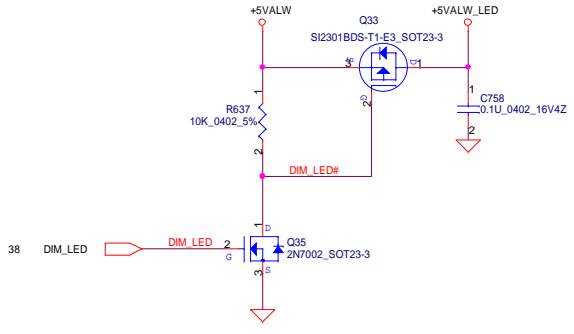
### +5VALW to +5VS Transfer



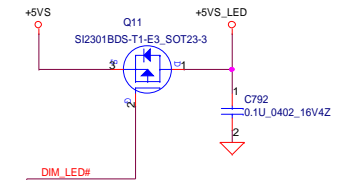
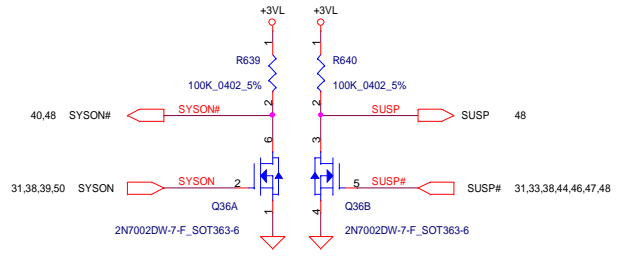
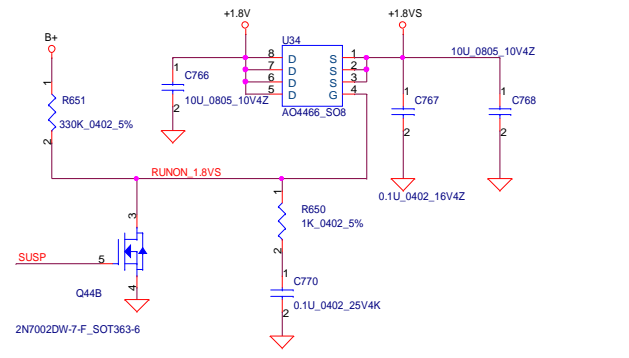
### +3VALW to +3VS Transfer



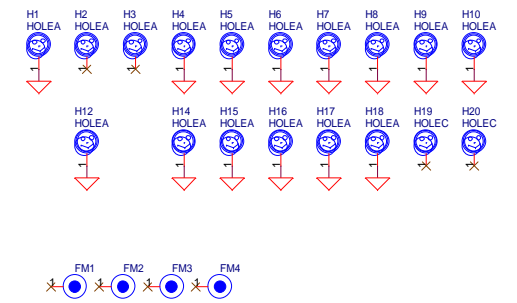
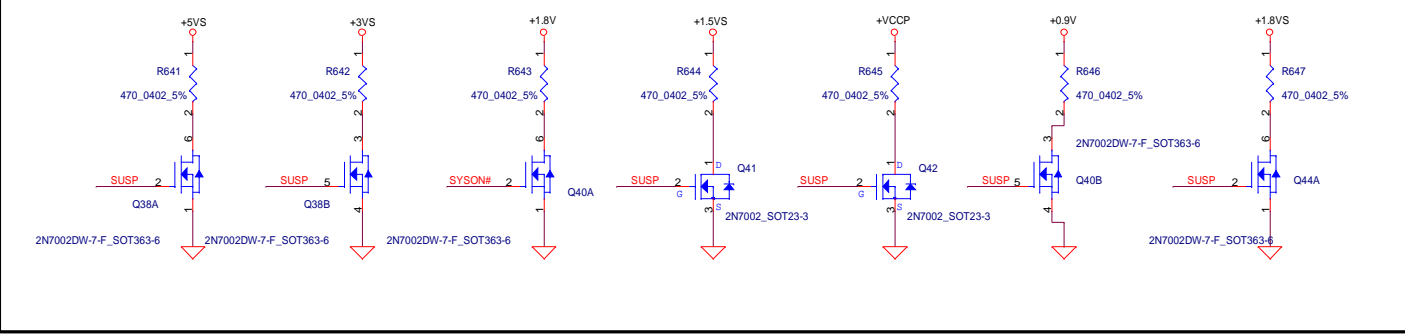
### DIM LED



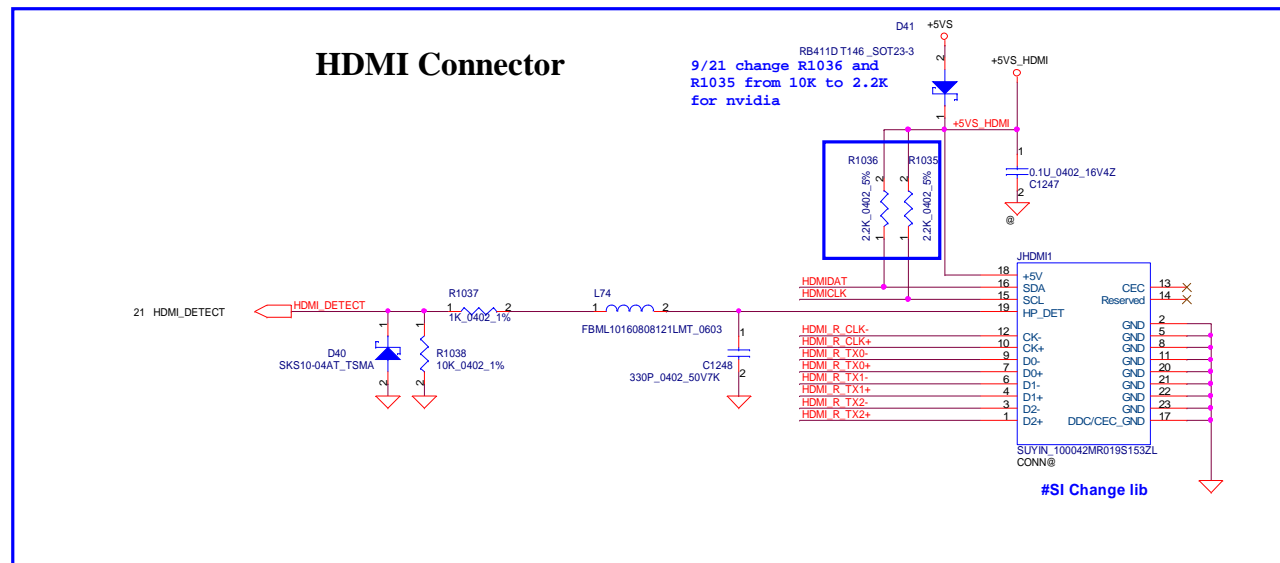
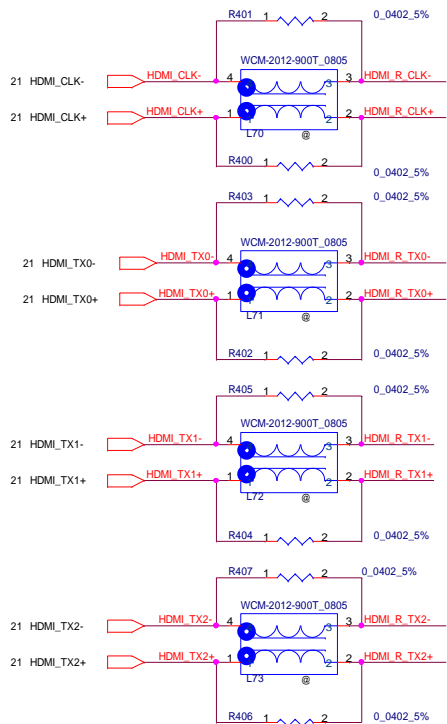
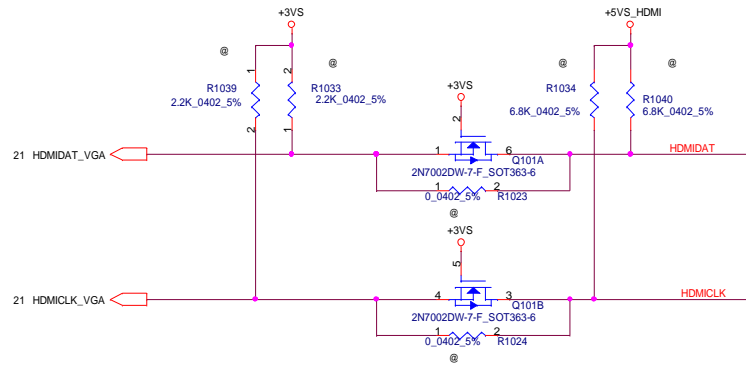
### +1.8V to +1.8VS Transfer



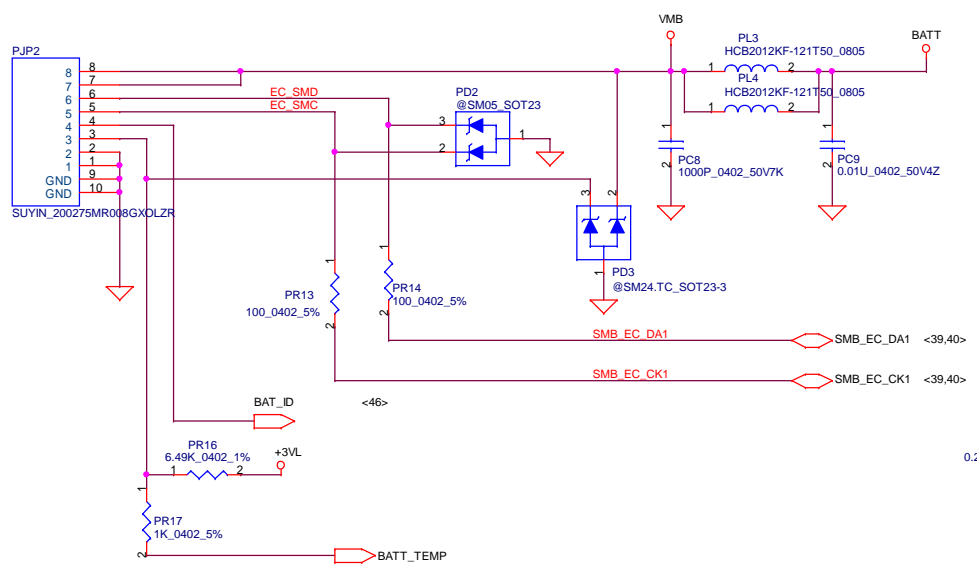
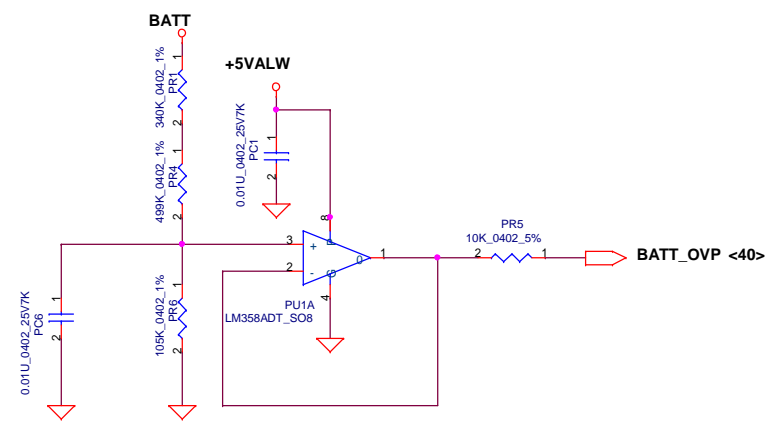
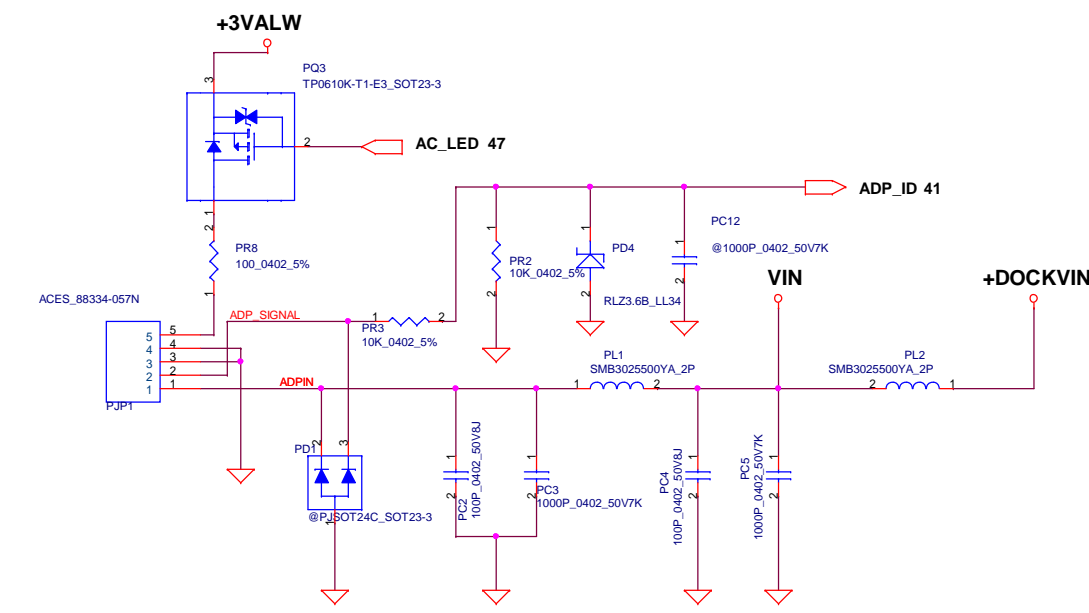
### Discharge circuit



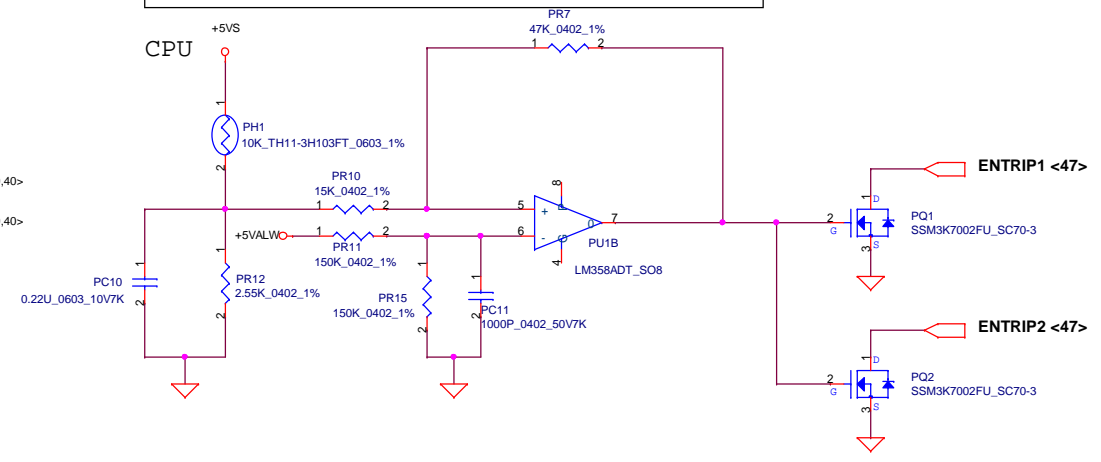
Security Classification	Compal Secret Data			Title		
Issued Date	2007/11/24	Deciphered Date	2007/11/24	Compal Electronics, Inc.		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				DC/DC Interface		
Size		Document Number	Rev		0.3	
Date		Thursday, January 03, 2008		Sheet 41 of 52		



Security Classification	Compal Secret Data			Title		
Issued Date	2007/11/24	Deciphered Date	2007/11/24	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.				Size	Document Number	Rev
				Custom	LA-4102P Blade discrete	0.3
Date:				Thursday, January 03, 2008	Sheet	42 of 52

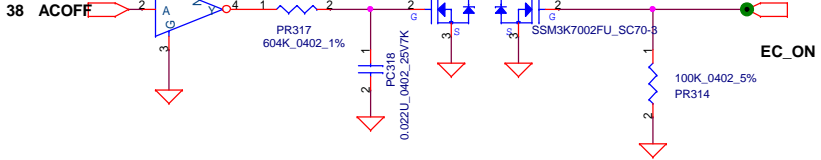
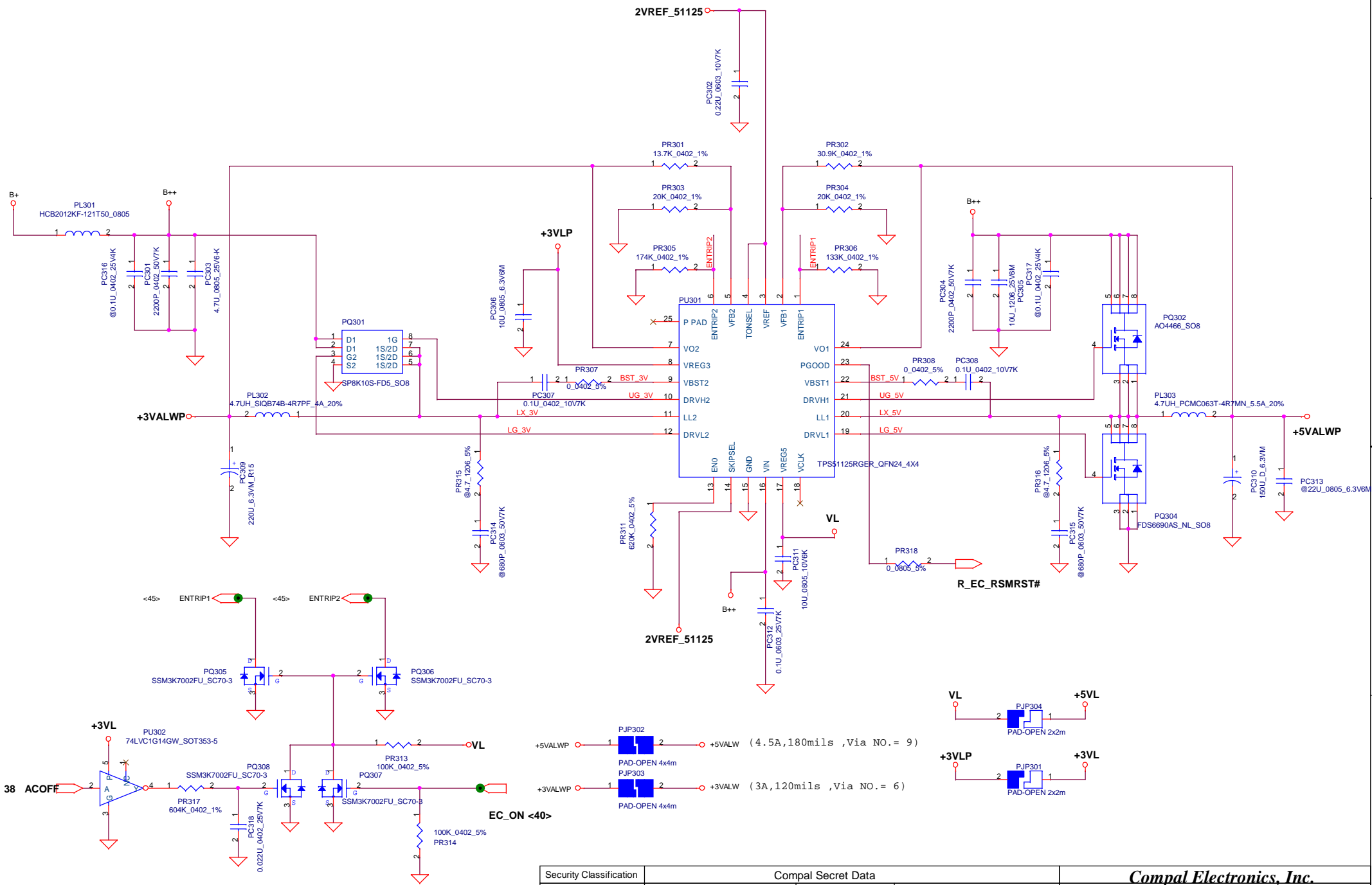


**PH1 under CPU bottom side :**  
 CPU thermal protection at 90 +/- 3 degree C  
 Recovery at 47 +/- 3 degree C



Security Classification		Compal Secret Data		Title	
Issued Date	2007/05/29	Deciphered Date	2008/05/29	DC Connector/CPU OTP	
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-4102P Blade discrete		Rev	0.2
Date:	Thursday, January 03, 2008	Sheet	43	of	52

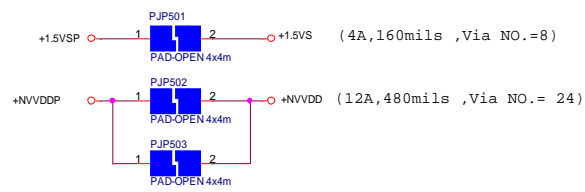
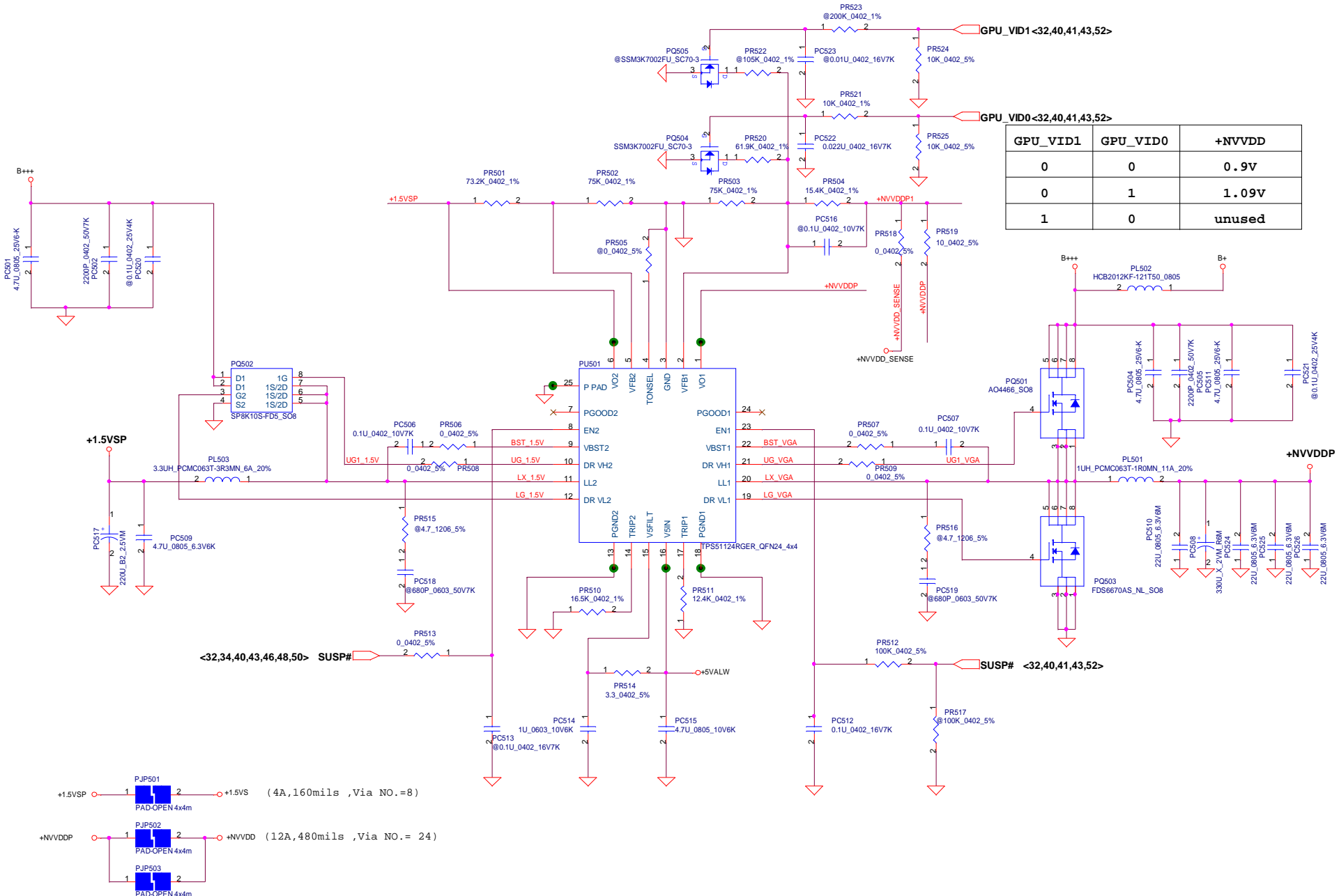




Security Classification		Compal Secret Data	
Issued Date	2007/05/29	Deciphered Date	2008/05/29
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT 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.			

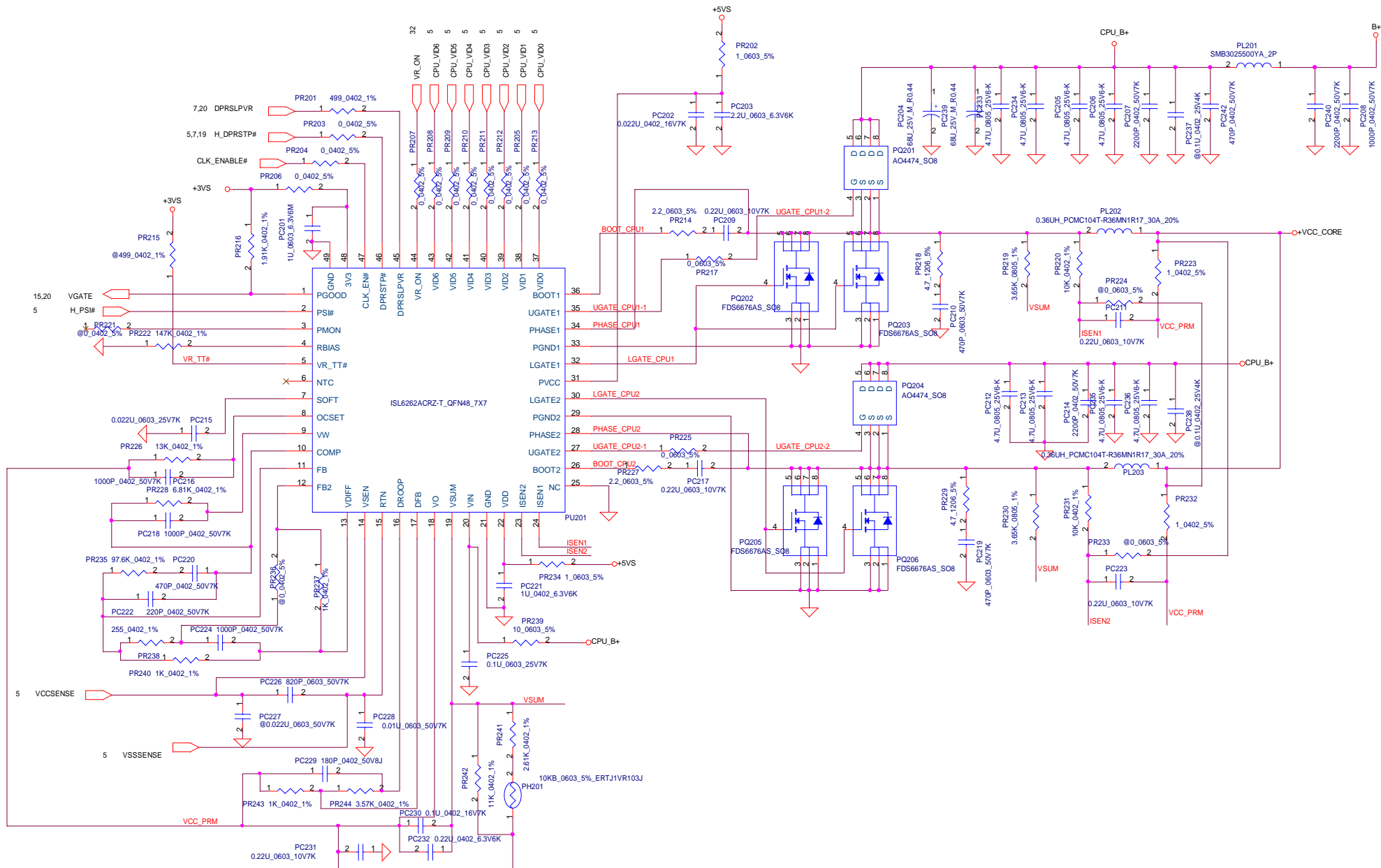
<b>Compal Electronics, Inc.</b> <b>3.3VALWP/5VALWP</b>		
Title		
Size	Document Number	Rev
	<b>LA-4102P Blade discrete</b>	0.2
Date:	Thursday, January 03, 2008	Sheet 45 of 52





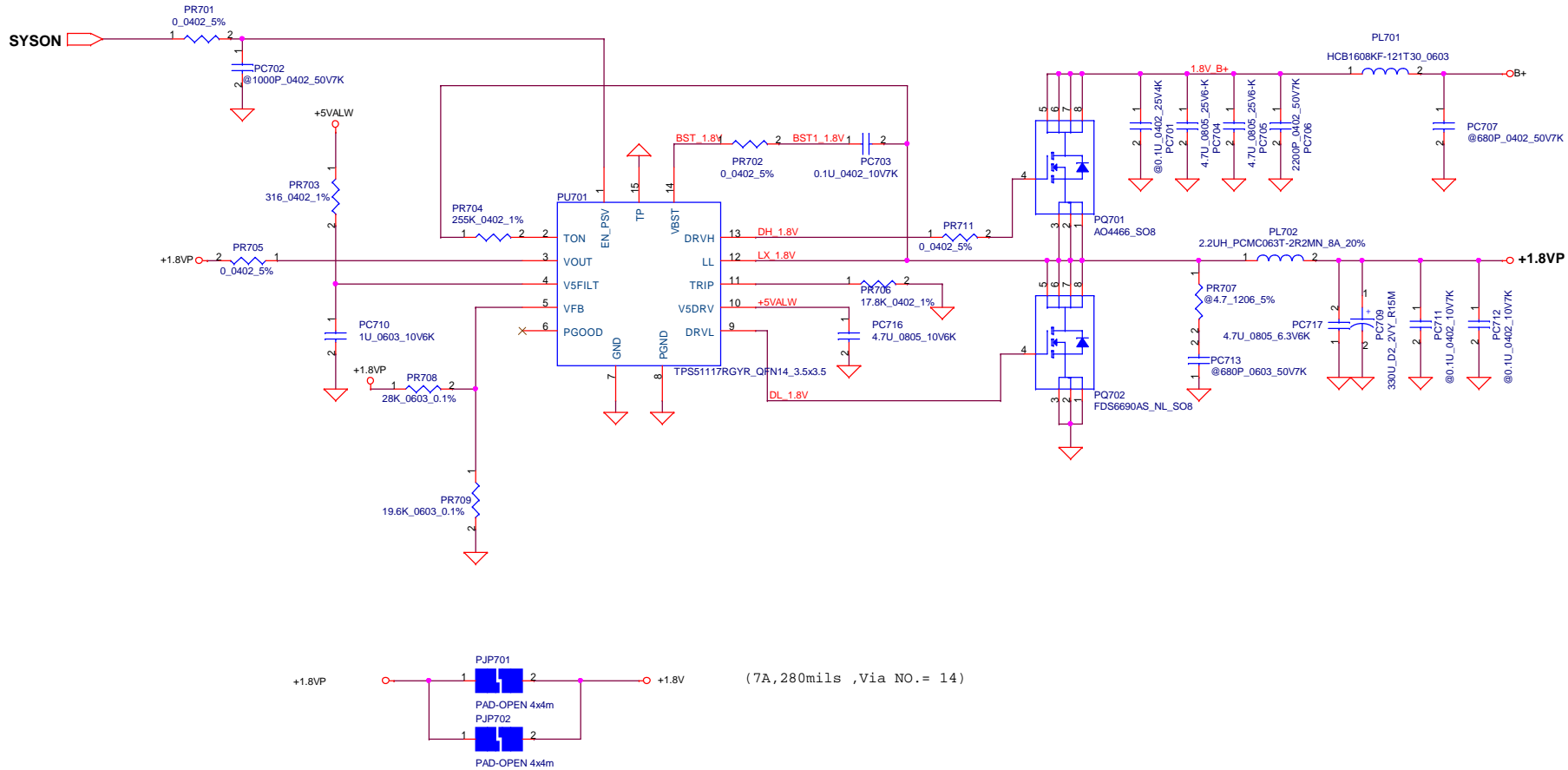






<b>Compal Electronics, Inc.</b>			
Title: <b>+CPU_CORE</b>			
Size: Custom	Document Number:		Rev: 0.2
Date: Thursday, January 03, 2008	Sheet: 49	of 52	

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.



Security Classification	Compal Secret Data			Title <b>1.8VP</b> <i>LA-4102P Blade discrete</i>	
Issued Date	2007/05/29	Deciphered Date	2008/05/29		
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.					
Date:	Thursday, January 03, 2008	Sheet	50	of	52

Item	Fixed Issue (Reason for change)	PAGE	Modify List	Date	Phase
1	Transation Fail	08	C41、C42、C43、C44 Change ESR=7m ohm	11/21	DB
2	Disable TV out function from Docking	20	TV signal unconnected,DACB_VDD pull low 10K (R948).	11/07	DB
3	Update Connetor Library		CRT(JCRT1)、HDMI(JHDMI1)、ESATA(JP53)、Finger print(JJP24)、FAN(JP2)、Speaker(JP60)、Multi bay(JP12)、Dual LED(D53、D54	11/17	DB
4	Delete LVDS B channel	19,20	Schematic Delete	11/17	DB
5	USB camera Footprint error	19	Change U42 to G916-390T1UF SOT23, it adjustable mode, R1091=215K、R1093=100K,Add GPIO 20 to turn off power	11/07	DB
6	Reserve Card reader D3E function	27,32	GPIO6= CR_CPPE#、GPIO22=CR_WAKE#	11/17	DB
7	Swap PCIE LAN and New card	27	Swap PCIE4 and PICE6	11/17	DB
8	Change GPU 1.8VS power	20、21	Change 1.8VS to +VDD_MEM18	11/17	DB
9	Change G sensor control from SB、LED drive by +5VS	27、39	Change G sensor control from SB	11/17	DB
10	Avoid Battery mode can't boot issue	38、45	Add +3VALW GD to EC_RSMRST# to fix Battery mode can't boot issue	11/17	DB
11	Add G sensor ST and Bosch	37	Add G sensor ST and Bosch	11/17	DB
12	Change LAN solution (Marvell to Realtek)	30	Change LAN solution (Marvell to Realtek)	11/17	DB
13	LAN transformer interfere	30	U19 Change to correct transformer type	11/17	DB
14	Cardreader schematic review,add D3E function	32	R709-->10K、R1047-->8.2K、R1128-->Stuff、R705-->@、U37-->@、Cardreader LED-->+5VS、add D3E function	11/17	DB
15	Jack can't detect normal	33	R1059 change from 39.2 to 39.2K	11/17	DB
16	Docking can not power on	40	Add power on circuit D57,Q13R751,R752,R753	11/17	DB
17	HP audio team recommend	33、35	C1480-C1487、C1352、C1354 change to 0.022U、Amp output setup to 15.6 dB、Reserve C747、C748 for GNDA and GND	11/17	DB
18	Audio jack can't detect normal	35	Add Pull up resistor R750 to +3VALW	11/17	DB
19	Docking HP audio test fail	35	Add C795、C796 to avoid DC level, and add R968、R969 to reduce HP out level	11/17	DB
20	Leakage problem	38	Correct direction prectect leakage	11/07	DB
21	EC pin define update	38	Delete EC_PME#、SYSON PU、SUSP# PU、LID_SW# change to +3VALW、Delete CLKRUN#、R582->@ for C0 chip、CIR PU+5VL、add 100P to BATT_OVP(EC recommend)	11/07	DB
22	Can't Hibernation(SLP_S4#)	38	Connect SLP_S4# to SB	11/17	DB
23	EC can't receive docking present	40	CONA# change +3VL	11/12	DB
24				11/07	DB
25					
26					
27					
28					

Security Classification		Compal Secret Data		Title	
Issued Date	2007/11/24	Deciphered Date	2007/11/24	<b>HW PIR</b>	
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
				Date: Thursday, January 03, 2008	
				LA-4102P Blade discrete	

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	43	DC Connector /CPU_OTP	11/06	Compal	Add PD4 & PC12	Add PD4 & PC12	
2	45	3.3VALWP/5VALWP	11/06	Compal	for Layout	Change PQ301, cancel PQ303.	
3	44	Charger	11/06	Compal	EMI solution	Add PC128	
4	49	CPU_CORE	11/06	Compal	EMI solution	Add PC240	
5	47	1.5VSP/VGA_CORE	11/06	Compal	for VGA voltage steps	Add PQ505, PR523, PR524, PR525	
6	45	3.3VALWP/5VALWP	12/31	Compal	PWR request	Add PU302, control signal changed to ACOFF	
7	44	Charger	12/31	Compal	EMI solution	Add PC129, PC130, PC131, PC132, PC133	
8	49	+CPU_CORE	12/31	Compal	EMI solution	Add PC242	
9							
10							
11							
12							
13							
14							

Security Classification		Compal Secret Data		Title	
Issued Date	2007/08/02	Deciphered Date	2008/08/02	<b>Compal Electronics, Inc.</b> <b>Power Changed-List History-1</b>	
<small>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&amp;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.</small>				Size Custom	Rev 0.2
				Date: Thursday, January 03, 2008	Sheet 52 of 52