

Compal confidential

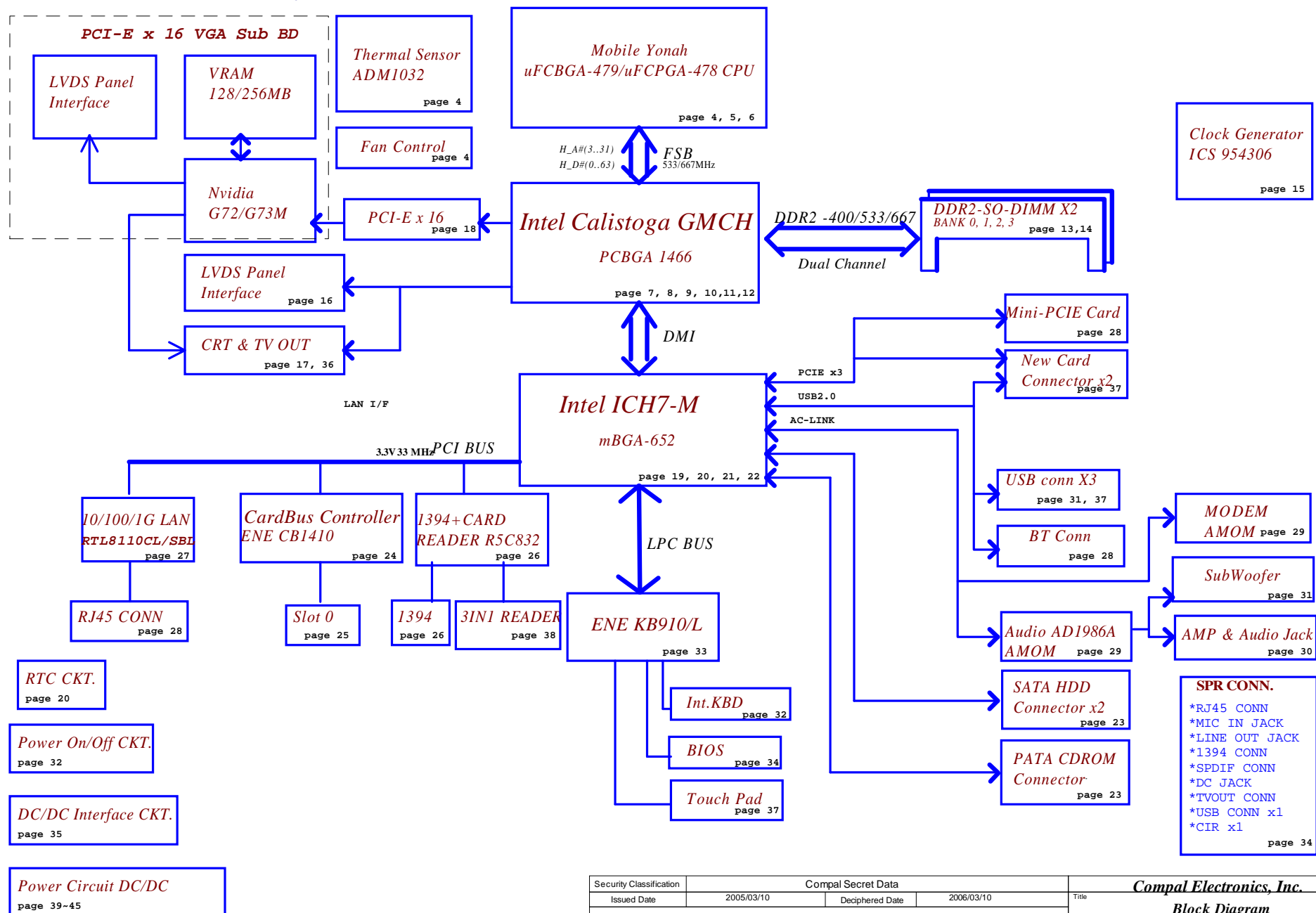
IGL50/51 Schematics Document

Mobile Yonah uFCPGA with Intel
Calistoga_GM/PM+ICH7-M core logic

2006-07-31

REV:0.2

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2005/03/10	Deciphered Date	2006/03/10	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.				Cover Sheet	
				Size	Document Number
				Custom	IGL50/51 LA-3771
				Date	Rev
				星期二, 七月 31, 2006	0.2
				Sheet	1 of 48



Security Classification		Compal Secret Data		<div>Compal Electronics, Inc.</div> <div>Block Diagram</div>							
Issued Date		2005/03/10					Deciphered Date		2006/03/10		
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					
						Size	Document Number			Rev	0
						Custom	1GL50/51 LA-3771				
						Date:	星期一, 七月 31, 2006		Sheet	2	of

[illegible]

+3VALW	KB910L SB RTL8110SBL/CL	mA 160mA
+CPU_CORE	CPU	36A
+VCCP	CPU NB	2.5A 9.8A (14.7A)
+5VS	EXPRESS CARD HDD ODD MDC APA2066 TPA0211 AD1986 USB PORT * 6	1A 1.5A 1.8A 300mA 1A mA 70mA 3A
+3VS	NB EXPRESS CARD CLK_GEN LCDVCC VGA CARD (G7XM) SB R5C832 BIOS ROM KB910L CB1410	480mA 1A 200mA 1A 655mA 680mA mA 15mA 200mA mA
+2.5VS	VGA CARD (G7XM) NB	130mA (143mA)
+1.8V	DDR2_DIMM NB (667Mhz)	8A 3.1A
+1.8VS	GDDR2 VGA CARD (G7XM)	6A 4.06A
+0.9VREF	DDR2_DIMM	10mA
+0.9VS	GDDR2 DDR2_DIMM	1A 2A
+1.5V	SB	40mA
+1.5VS	NB SB MiniCard EXPRESS CARD VGA CARD (G7XM)	8.9A(13.8A) 3.8A 1A 0.65A 2A

EXTERNAL	IDSEL#	REQ/GNT#	PIRQ	
CARD BUS CB1410	AD20	2	PCI_PIRQA#	
CARD READER & 1394 R5C832	AD22	0	PCI_PIRQG#	PCI_PIRQH#
LAN CONTROLLER RTL8110SBL/CL	AD17	3	PCI_PIRQF#	

LANE	DEVICE
1	Express Card
2	Mini Card

PORT	DEVICE
0	LEFT SIDE
1	BLUE TOOTH
2	RIGHT SIDE
3	JP810
4	RIGHT SIDE
5	CMOS
6	RIGHT SIDE

DEVICE	ADDRESS R/W
AT24C16AN	A3/A2 H
SMART BATTERY	17/16 H
ADM1032AR	99/98 H
G7xM (I2CC-Pulled-Up 3.3V)	
G781-1 (RESERVED)	9B/9A
ICH7M SM Bus	
IC9SLP325AKLFT	D3/D2 H (3.3V)
DDR II DIMM0	A1/A0 H (3.3V)
DDR II DIMM1	A3/A2 H (3.3V)
Express Card	NC (2.5V)
Mini-Express	NC (2.5V)

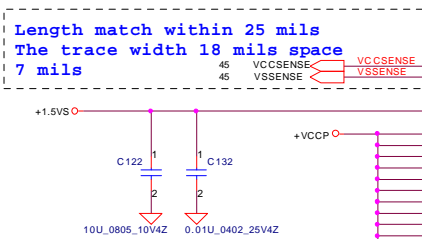
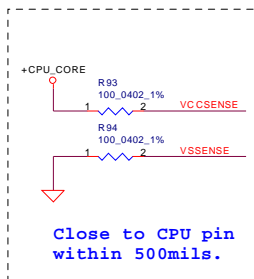
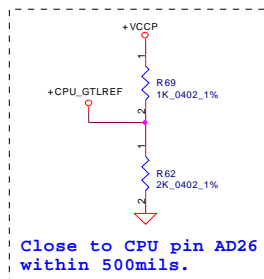
MARK	FUNCTION
@	NC FOR ALL
EXP@	PCIE-NEW CARD
BT@	BLUE TOOTH
UMA@	Internal 945GM
VGA@	External G7xM
SUBWOOFER@	SUBWOOFER
HGT30@	HGT30
CB@	PCMCIA/CARD BUS
GIGA@	8110SBL(SCL)Giga LAN
10/100@	8110CL 10/100Mb LAN

<div> <div>power plane</div> <div>State</div> <div>S4 : STD</div> <div>S5 : SOFT OFF</div> </div>	<div> <div>+B</div> <div>LDO3</div> <div>LDO5</div> </div>	<div> <div>+5VALW</div> <div>+3VALW</div> </div>	<div> <div>+1.8V</div> <div>+5V</div> </div>	<div> <div>+5VS</div> <div>+3VS</div> <div>+2.5VS</div> <div>+1.8VS</div> <div>+1.5VS</div> <div>+VGA_CORE</div> <div>+1.2VS</div> <div>+0.9VS</div> <div>+CPU_CORE</div> <div>+VCCP</div> </div>
S0	○	○	○	○
S1	○	○	○	○
S3 : STR	○	○	○	✗
S5 S4/AC	○	○	✗	✗
S5 S4/ Battery only	○	✗	✗	✗
S5 S4/AC & Battery don't exist	✗	✗	✗	✗

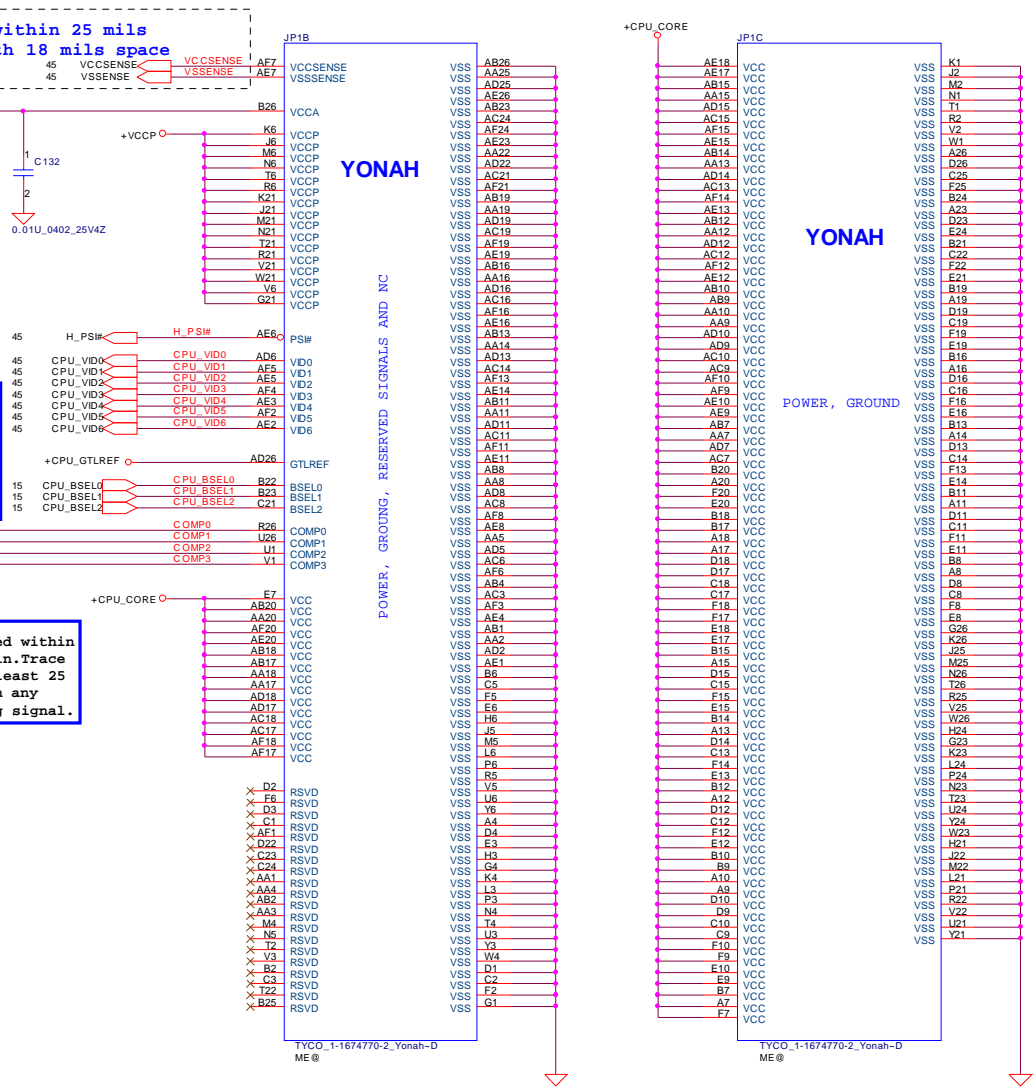
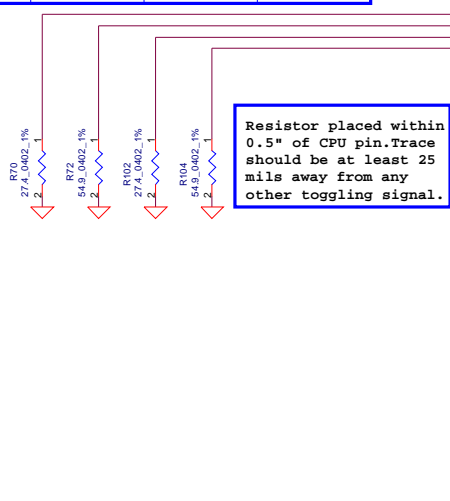
MB ID	P NAME
0	IGL-50
1	IGL-51

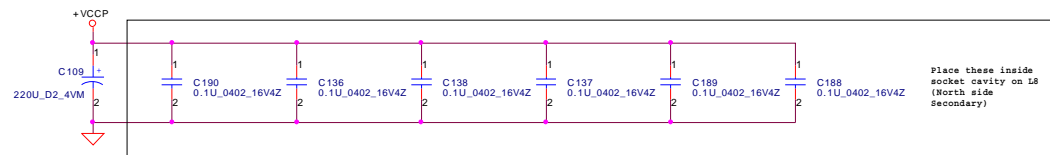
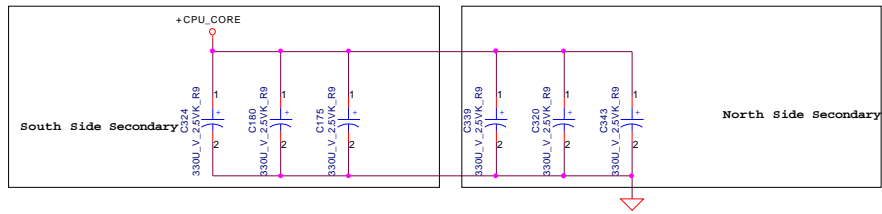
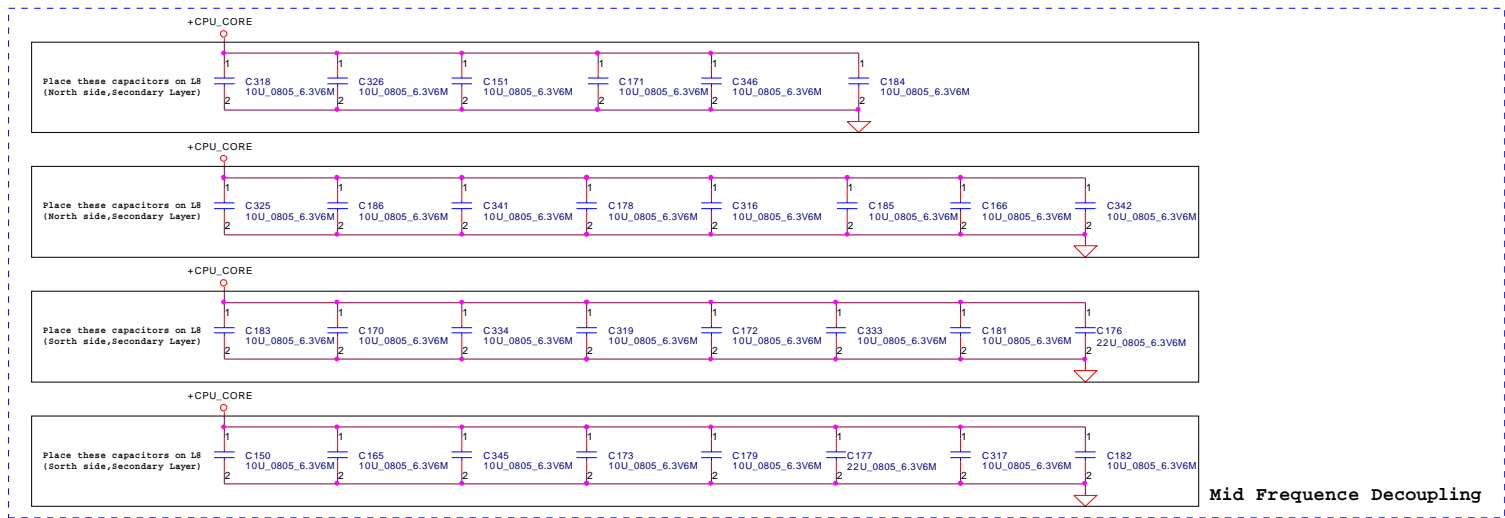
ID	MB REV#	R115(Rb	Vab
0	R0.1 (EVT)	0	0V
1	R0.2 (DVT)	8.2K	0.25V
2	R0.3 (PVT)	18K	0.50V
3	R1.0 (MP)	33K	0.82V
4		56K	1.19V
5		100K	1.65V
6		200K	2.20V
7		NC	3.30V

Security Classification	Compal Secret Data			<p align="center">Compal Electronics, Inc.</p> <p align="center">Notes List</p>	
Issued Date	2005/03/10	Deciphered Date	2006/03/10		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Rev
				Custod	0.
				Document Number 1GL50/51 LA-3771	
Date: 星期五, 七月 31, 2006				Sheet 3 of 48	

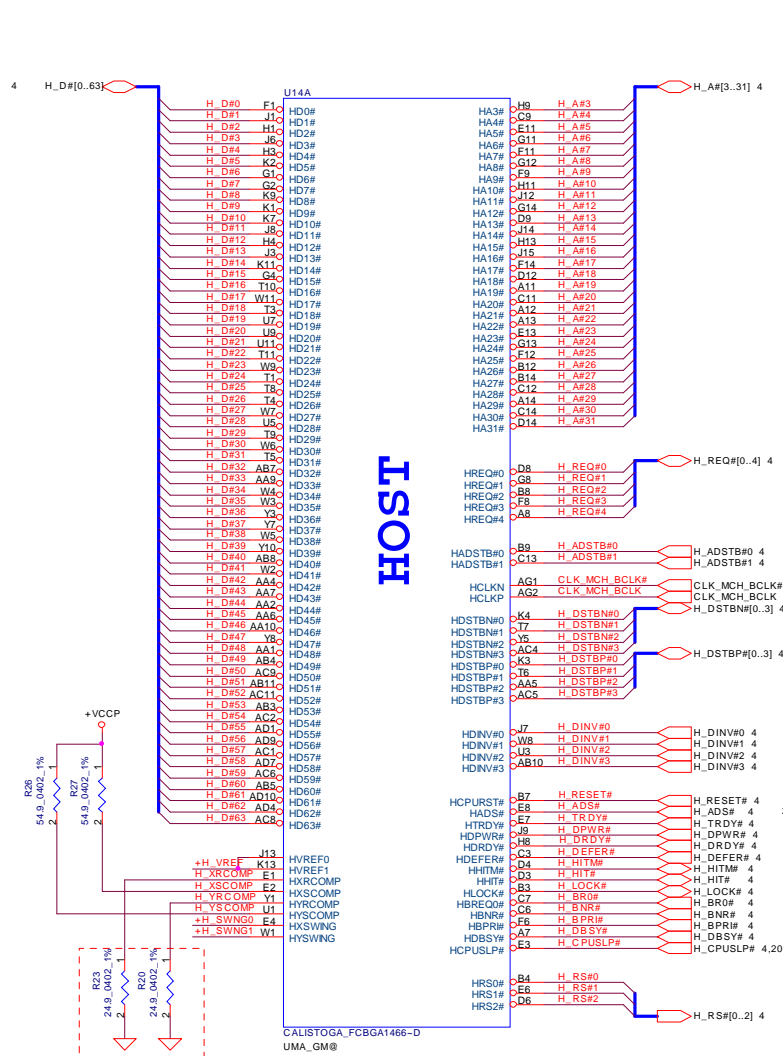


CPU_BSEL	CPU_BSEL2	CPU_BSEL1	CPU_BSEL0
133	0	0	1
166	0	1	1

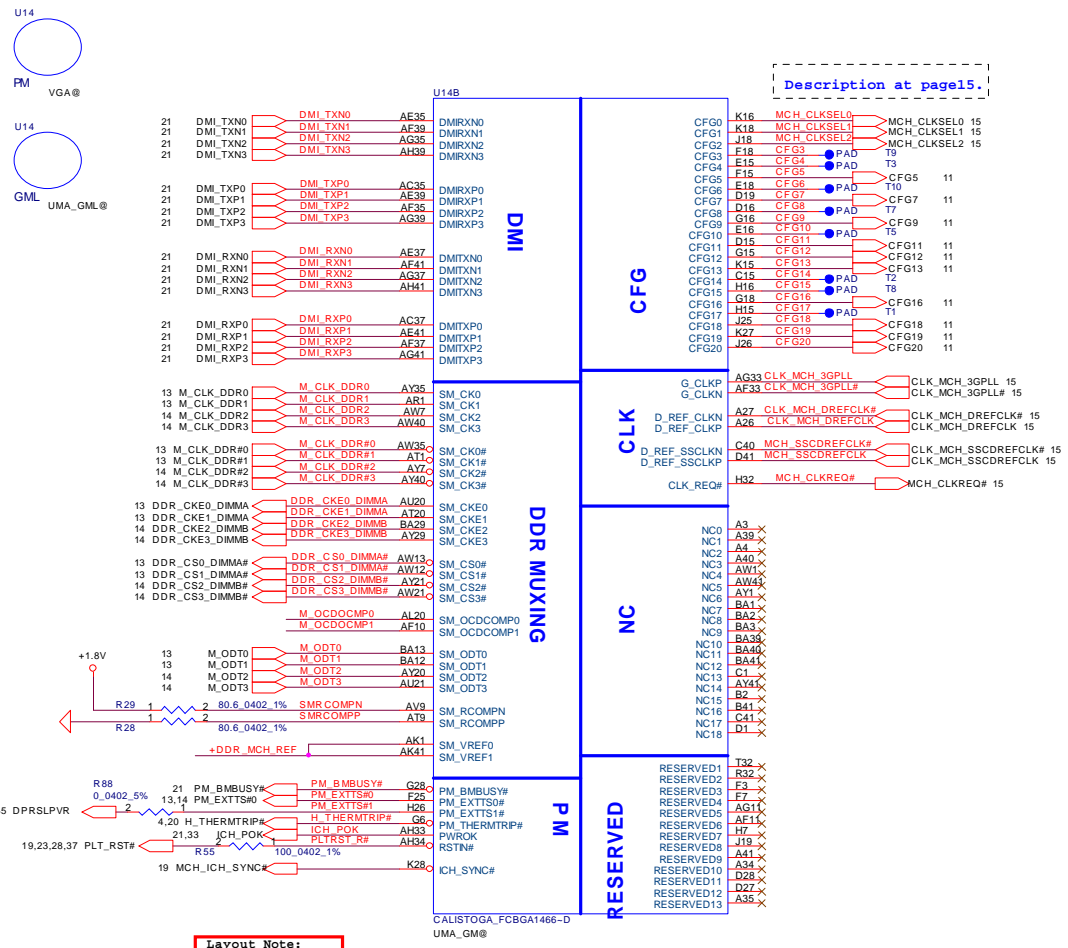
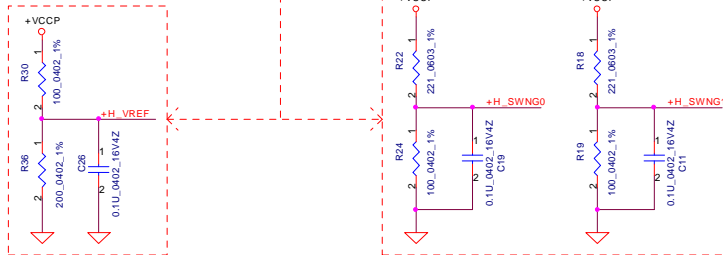




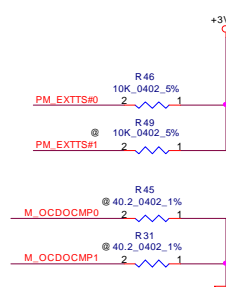
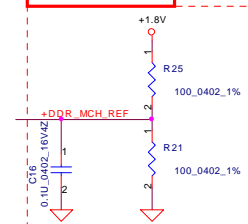
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/10/06	Deciphered Date	2006/10/06	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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
				Customer
				Revision
				Date
				Sheet
				6 of 48
				Rev
				0.1



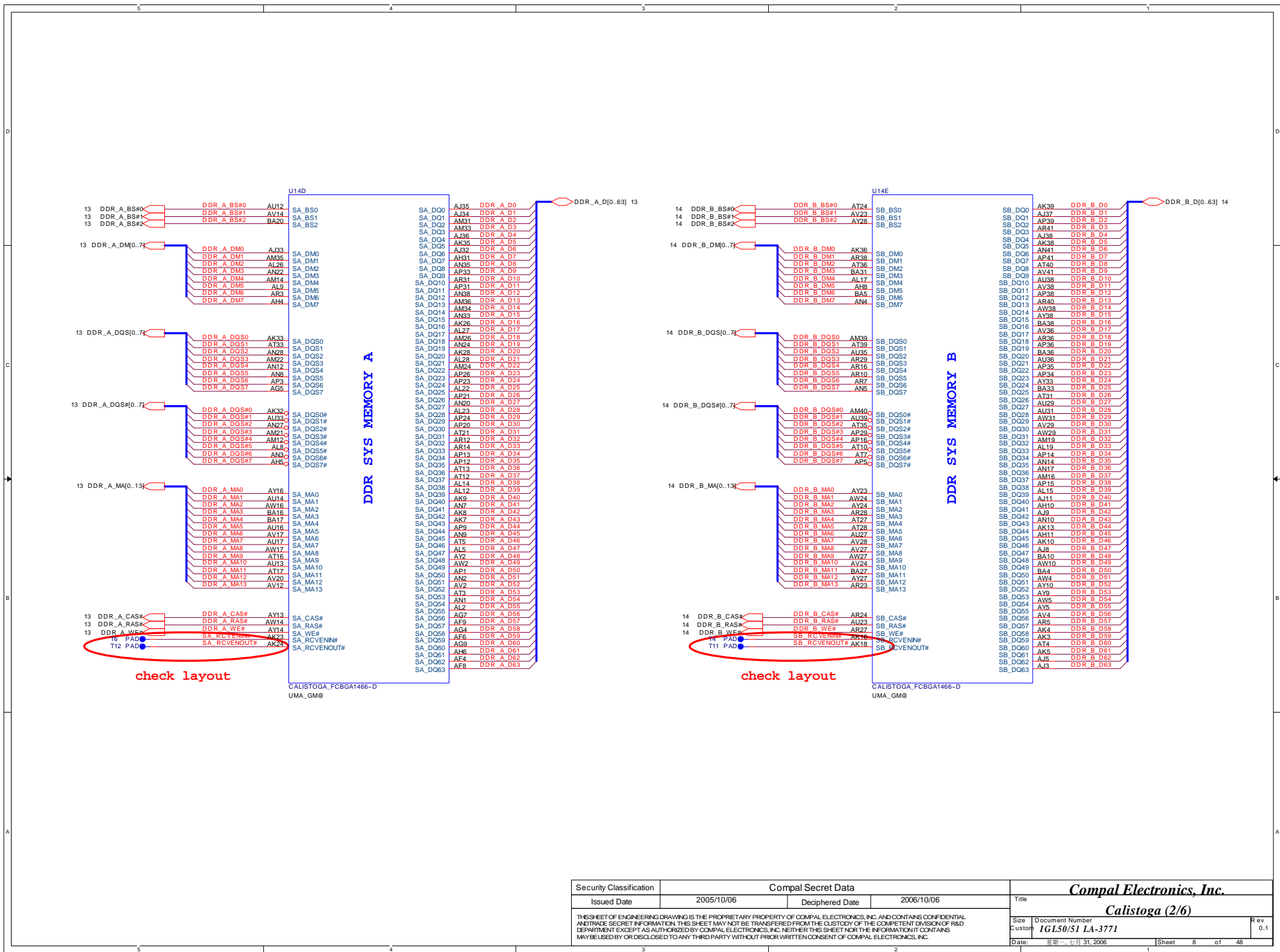
Layout Note:
H_XRCOMP / H_YRCOMP / H_VREF / H_SWNG0 / H_SWNG1 trace width and spacing is 10/20.



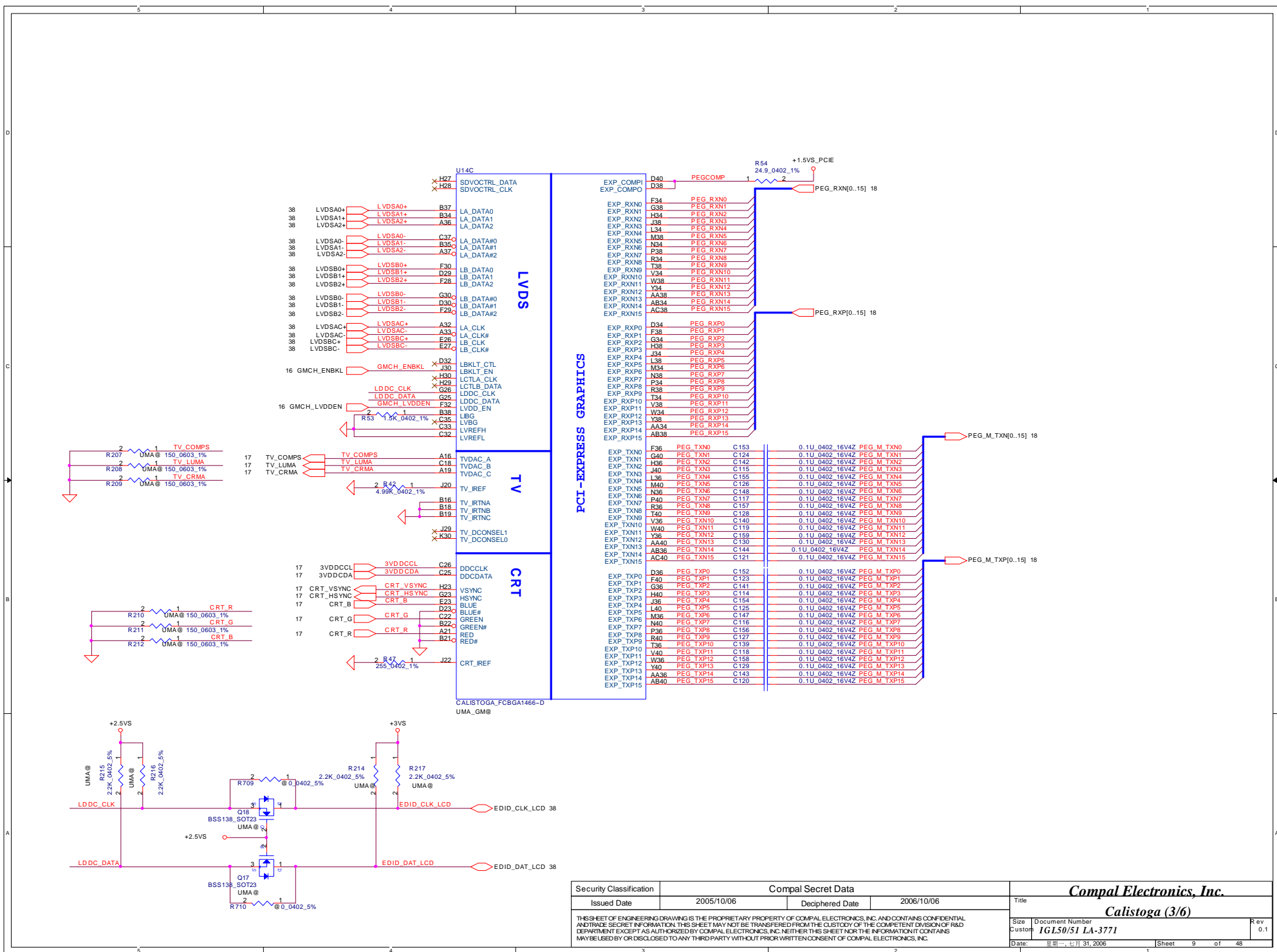
Layout Note:
+DDR_MCH_REF trace width and spacing is 20/20.

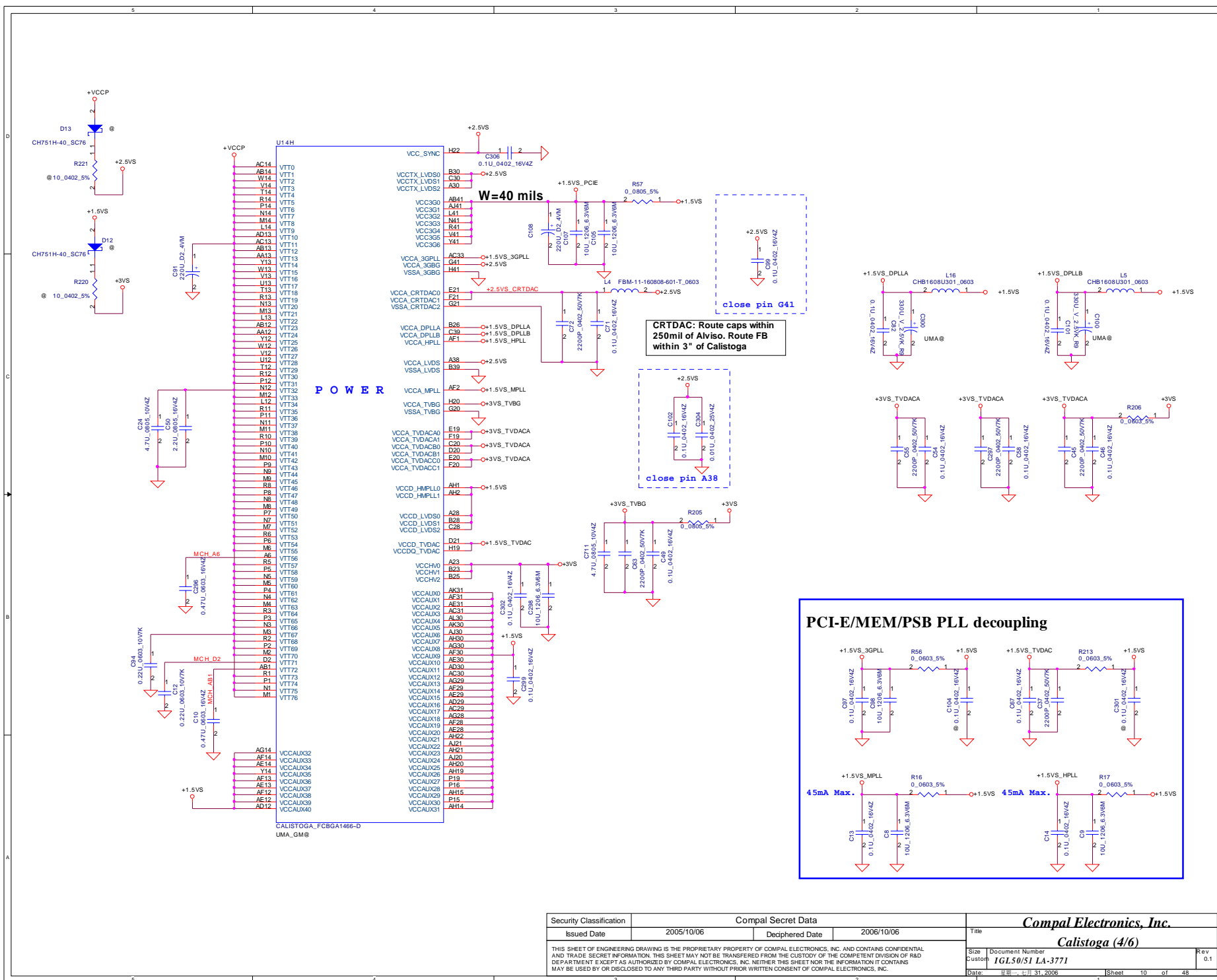


Security Classification				Compal Secret Data				Title			
Issued Date				2005/10/06				2006/10/06			
Deciphered Date				2006/10/06				Document Number			
2005/10/06				2006/10/06				1GL50151 LA-3771			
This sheet of engineering drawing is the proprietary property of Compal Electronics, Inc. and contains 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				Rev			
2005/10/06				2006/10/06				1			
2006/10/06				2006/10/06				7			
2006/10/06				2006/10/06				of			
2006/10/06				2006/10/06				48			



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/10/06	Deciphered Date	2006/10/06	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.				Calistoga (2/6)
Size	Document Number	Rev		0.1
Custom	IGL50151 LA-3771			
Date	星期一, 七月 31, 2006	Sheet	8	of 48





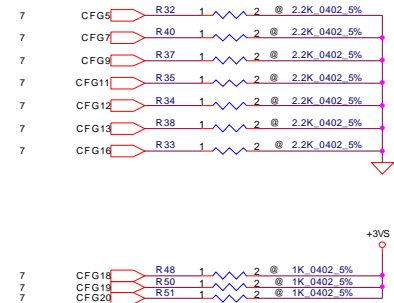
Security Classification	Compal Secret Data		Compal Electronics, Inc. Calistoga (4/6)	
Issued Date	2005/10/06	Deciphered Date	2006/10/06	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RAD 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
				1GL50/51 LA-3771
			Date:	10月31, 2006 Sheet 10 of 48

Strap Pin Table

CFG[3:17] have internal pull up

CFG[19:18] have internal pull down

CFG[2:0]	011 = 667MT/s FSB 001 = 533MT/s FSB
CFG5	0 = DMI x 2 1 = DMI x 4 *(Default)
CFG7	0 = Reserved 1 = Mobile Yonah CPU *(Default)
CFG9	0 = Lane Reversal Enable 1 = Normal Operation (Default)*
CFG6	0 = Reserved
PSB 4X CLK Enable	1 = Calistoga *
CFG[13:12]	00 = Reserved 01 = XOR Mode Enabled 10 = All 7 Mode Enabled 11 = Normal Operation *(Default)
CFG16	0 = Dynamic ODT Disabled 1 = Dynamic ODT Enabled *(Default)
CFG10 CFG18	10 = 1.05V *(Default) 01 = 1.5V
CFG19	0 = Normal Operation *(Default) 1 = DMI Lane Reversal Enable
SDVO_CTRLDATA	0 = No SDVO Device Present *(Default) 1 = SDVO Device Present
CFG20 (PCIE/SDVO select)	0 = Only PCIE or SDVO is operational. *(Default) 1 = PCIE/SDVO are operating simu.

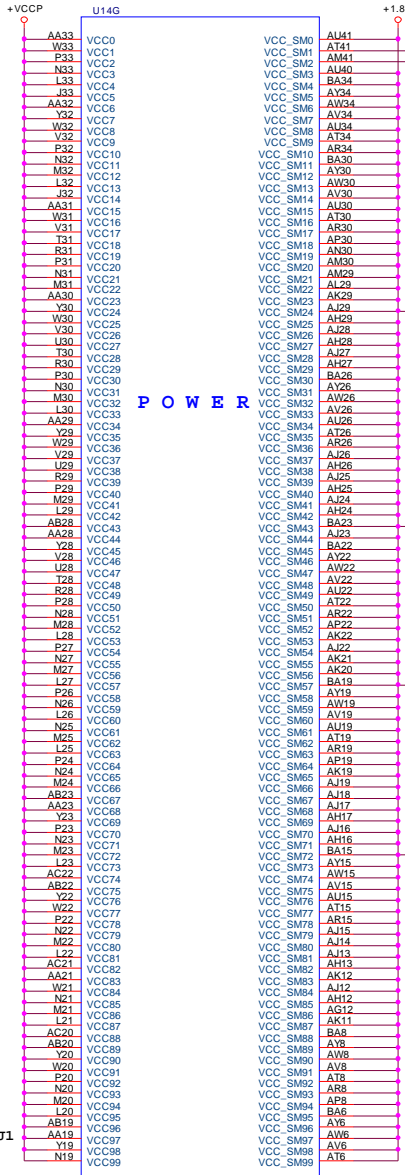
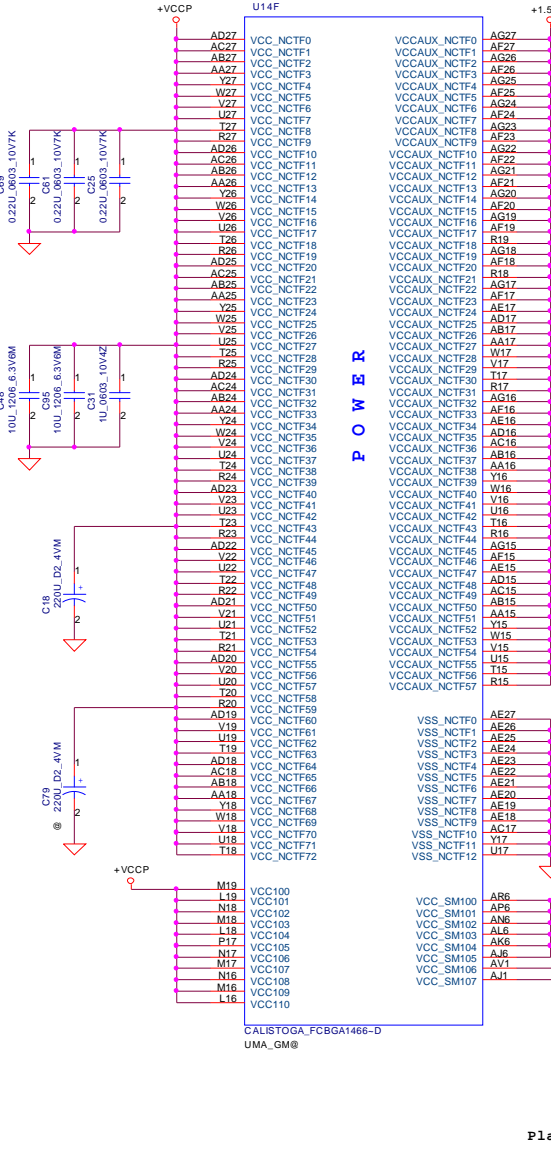


Place near pin AT41 & AM41

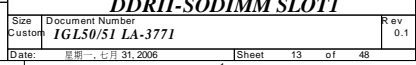
Place near pin BA23

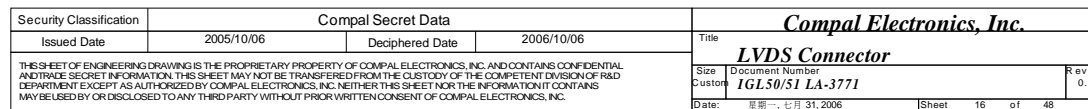
Place near pin BA15

Place near pin AV1 & AJ1

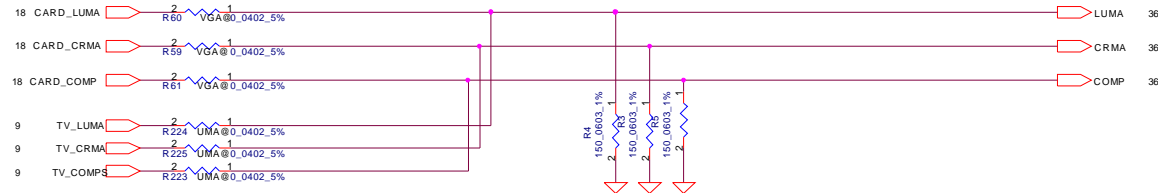


Security Classification	Compal Secret Data	Title	
Issued Date	2005/10/06	Deciphered Date	2006/10/06
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE 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.		<div>Compal Electronics, Inc.</div> <div>Calistoga (5/6)</div> <div>Size Document Number</div> <div>Custom IGL50/51 LA-3771</div> <div>Date 10月 31, 2006</div> <div>Sheet 11 of 48</div> <div>Rev 0.1</div>	



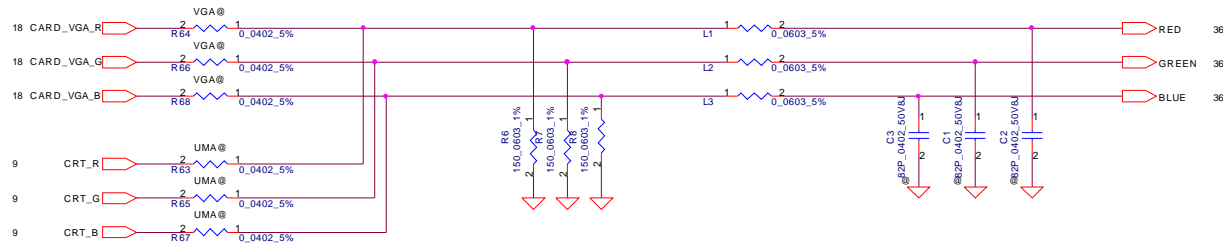


TV-OUT Conn.

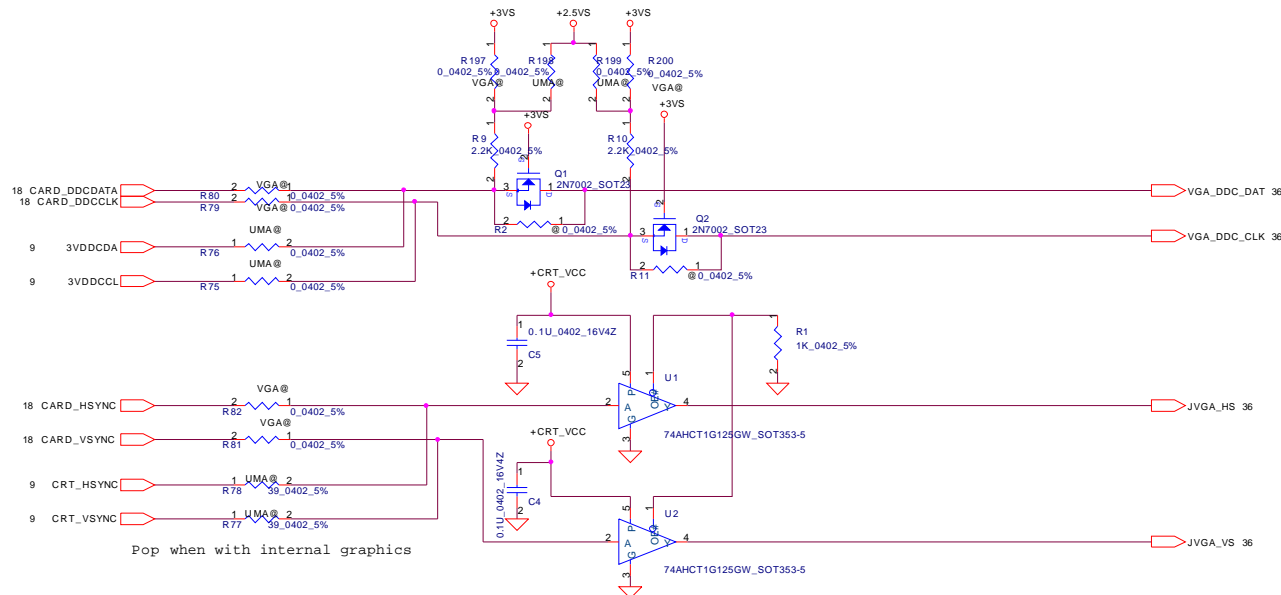


Pop when with internal graphics

CRT Conn.



Pop when with internal graphics

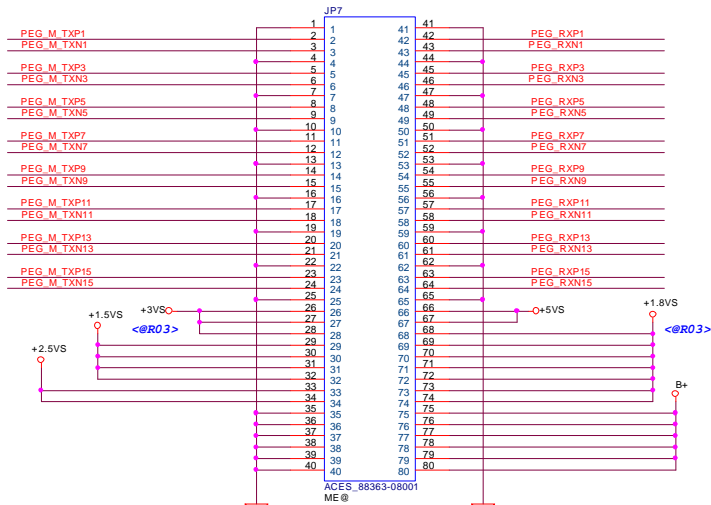


Pop when with internal graphics

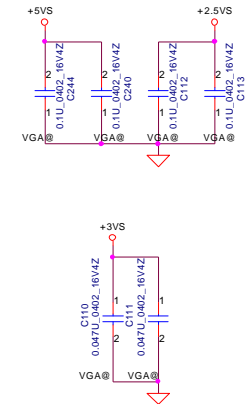
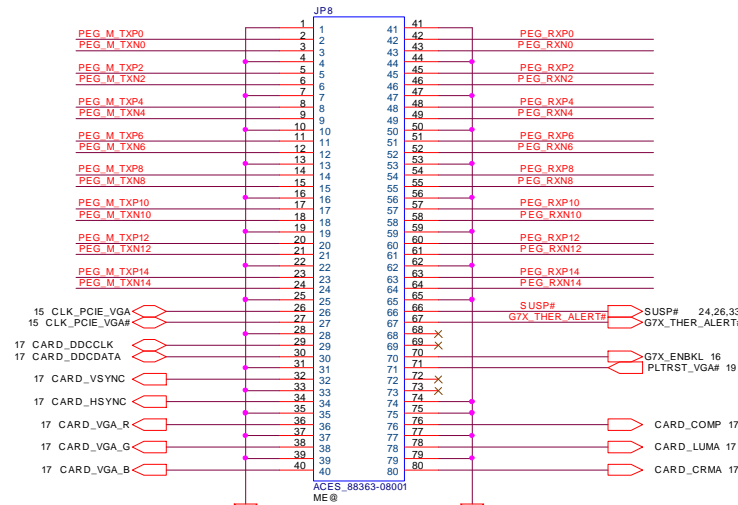
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/10/06	Deciphered Date	2006/10/06	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
				Customer
				Rev
				0.1
				Date: 星期五, 七月 31, 2006
				Sheet 17 of 48

MAX. 4.06A @ 1.8V
MAX. 130mA @ 2.5V
MAX. 655mA @ 3.3V

PEG_M_TXP[0..15] PEG_M_TXP[0..15] 9
PEG_M_TXN[0..15] PEG_M_TXN[0..15] 9
PEG_RXP[0..15] PEG_RXP[0..15] 9
PEG_RXN[0..15] PEG_RXN[0..15] 9



< New Add Pin.28 for +3VS, Pin.68 for +1.8VS @R03 >

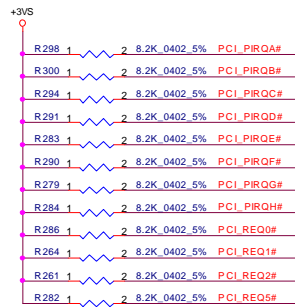
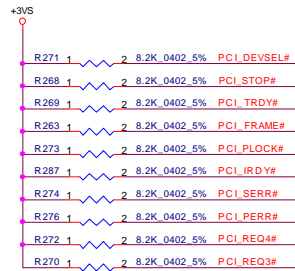


Compal Electronics, Inc.

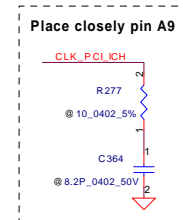
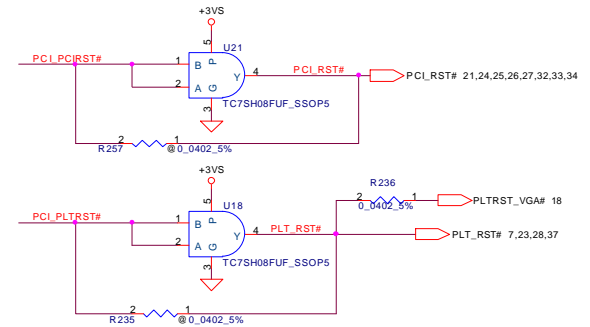
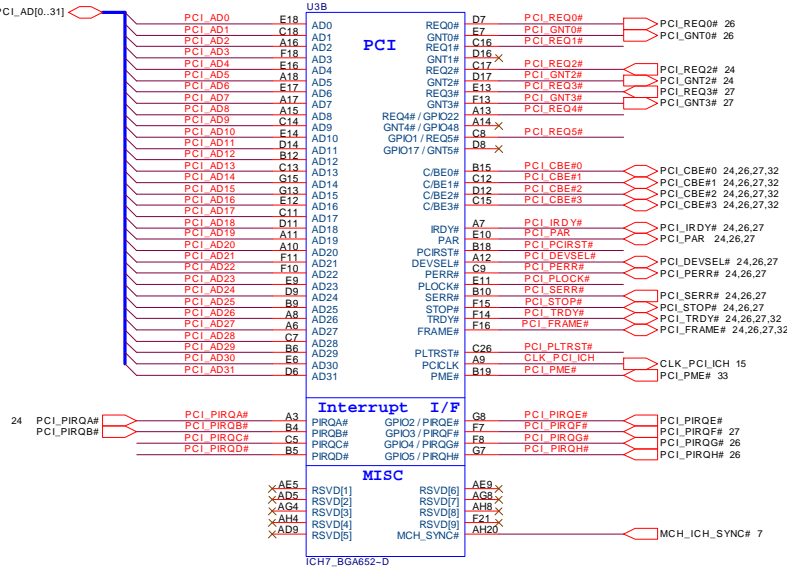
VGA/B connector

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF 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.

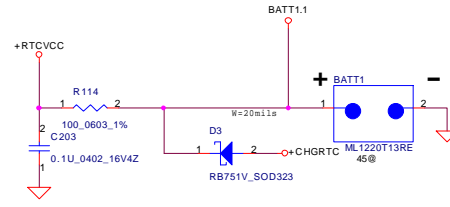
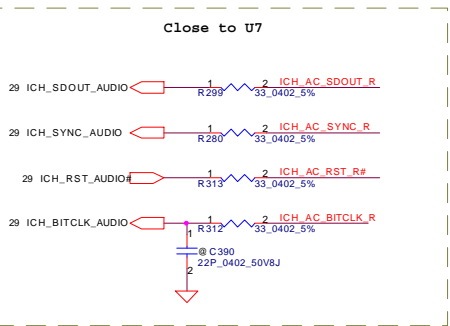
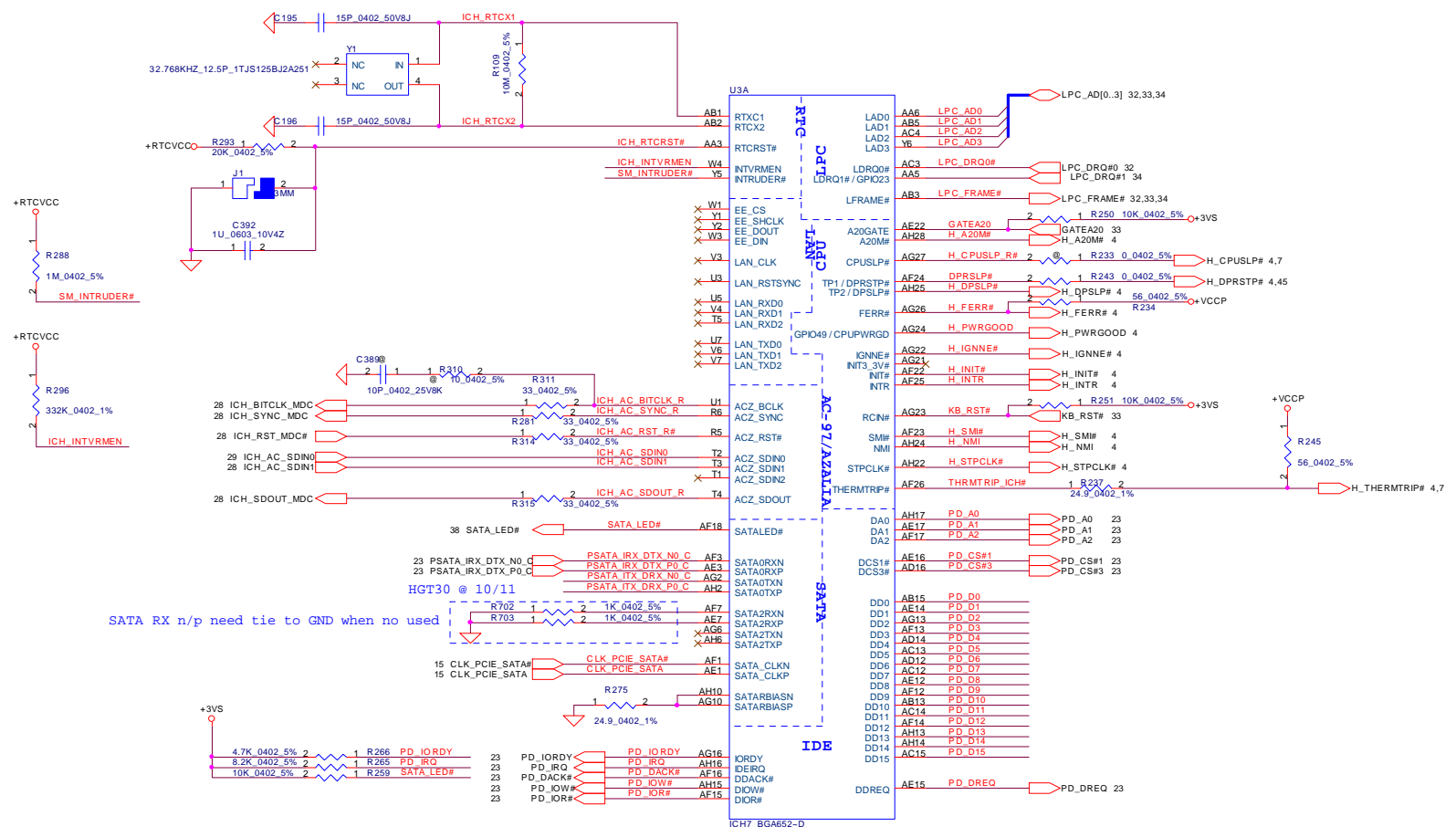
Title	Document Number	Rev
	1GL50/51 LA-3771	0.1
Date	星期一, 七月 31, 2006	Sheet 18 of 48



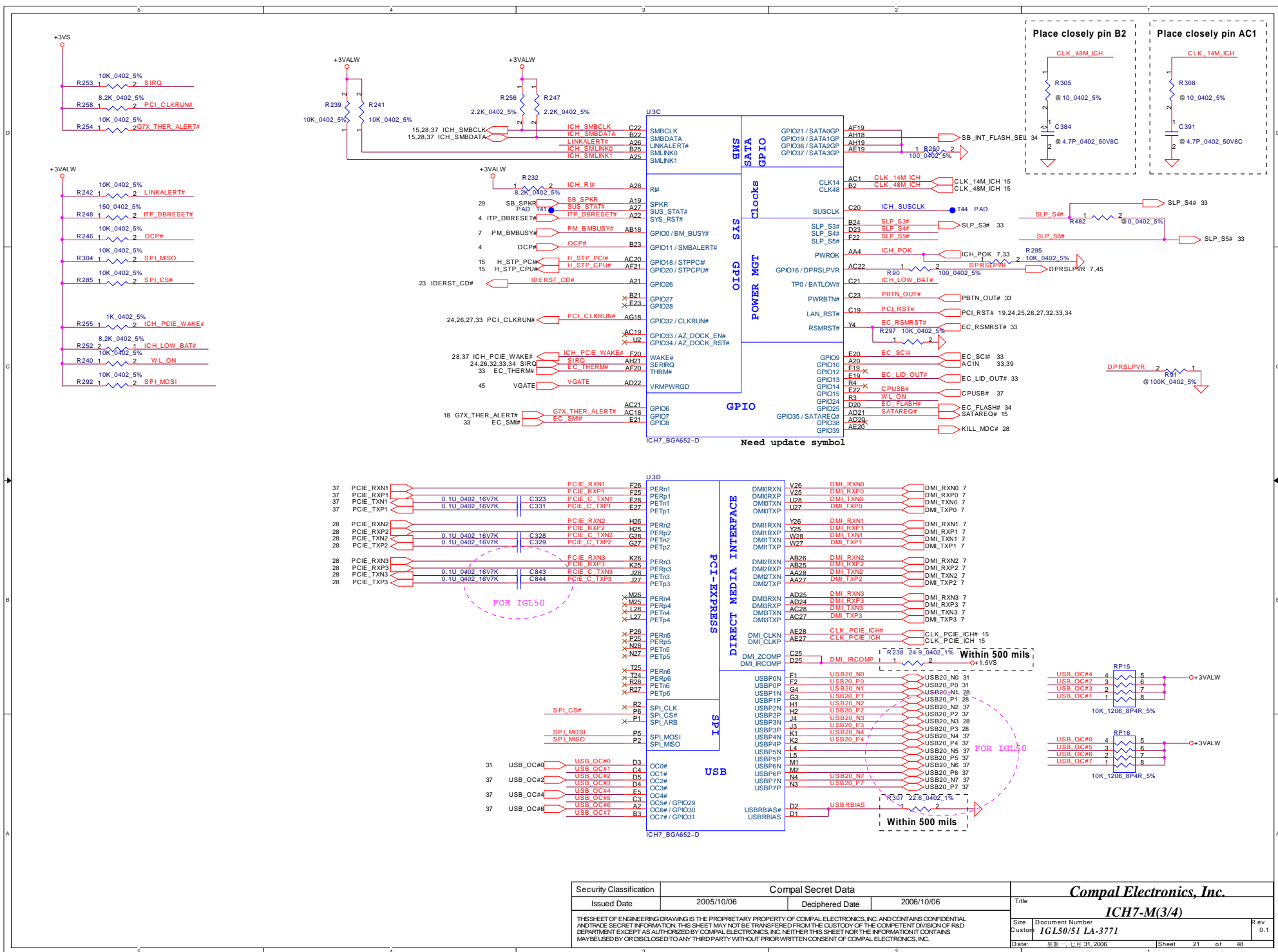
24,26,27,32 PCI_AD[0..31]



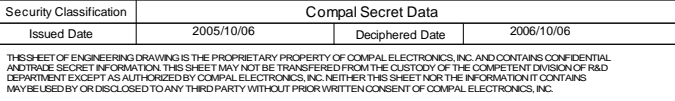
Security Classification		Compal Secret Data		Title		Compal Electronics, Inc.	
Issued Date		2005/10/06		Deciphered Date		2006/10/06	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.		Document Number		Rev		0.1	
Date		2006/10/06		Sheet		19 of 48	

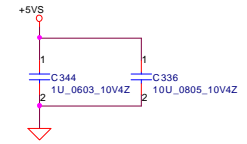
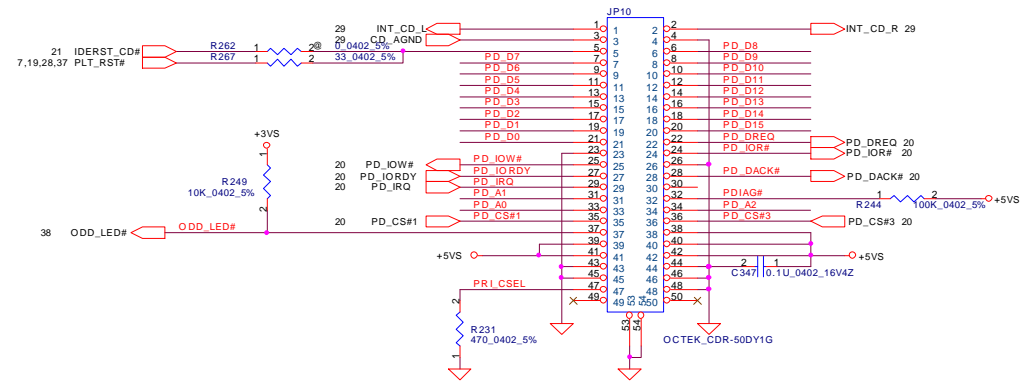
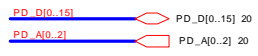
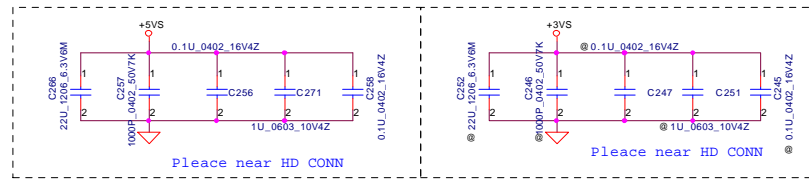
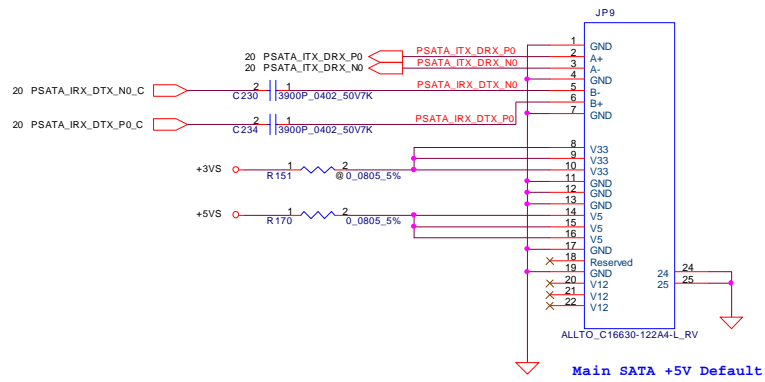


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date		Deciphered Date		Title	
2005/10/06		2006/10/06		ICH7-M(2/4)	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.		Size		Document Number	
				1GL50/51 LA-3771	
				Rev	
				0.1	
				Date	
				2006. 七月 31, 2006	
				Sheet	
				20 of 48	



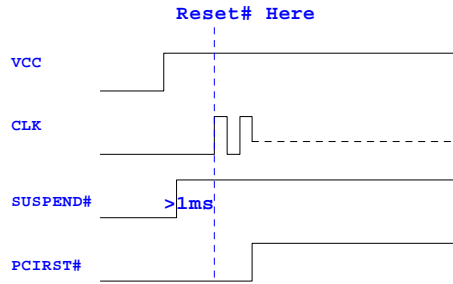
Security Classification		Compal Secret Data		Compal Electronics, Inc. ICH7-M(3/4)	
Issued Date	2005/10/06	Deciphered Date	2006/10/06	Title	
THIS-SET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND/OR SECRET INFORMATION. THIS SHEET MAY NOT BE 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	1GL50/S1 LA-3771
				Date:	星期二, 七月 31, 2006
				Sheet	21 of 48



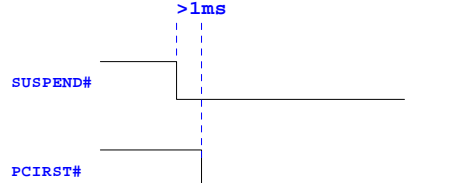


Security Classification		Compal Secret Data		<i>Compal Electronics, Inc.</i>				
Issued Date		2005/10/06	Deciphered Date	2006/10/06	Title			
					<i>HDD & CDROM</i>			
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET 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	IGLS0/51 LA-3771	0.1
Date:		日期: 星期一, 七月 31, 2006		Sheet	23	of	48	

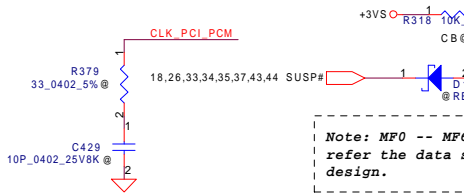
Power on RESET#



Entry S3



SUSPEND# will gate the PCIRST# or GRST#, so need S3 wake up function, SUSPEND# must be LOW ahead the PCIRST# about 1ms.



Note: MF0 -- MF6 must refer the data sheet for design.

CARD_S1_A[0..25] CARD_S1_A[0..25] 25
CARD_S1_D[0..15] CARD_S1_D[0..15] 25
PCI_AD[0..31] PCI_AD[0..31] 19,26,27,32

4.7U_0805_10V4Z
C400
CB @

0.1U_0402_16V4Z
C402
CB @

0.1U_0402_16V4Z
C456
CB @

0.1U_0402_16V4Z
C438
CB @

0.1U_0402_16V4Z
C455
CB @

0.1U_0402_16V4Z
C445
CB @

0.1U_0402_16V4Z
C404
CB @

0.1U_0402_16V4Z
C421
CB @

0.1U_0402_16V4Z
C403
CB @

0.1U_0402_16V4Z
C454
CB @

0.1U_0402_16V4Z
C455
CB @

0.1U_0402_16V4Z
C445
CB @

0.1U_0402_16V4Z
C404
CB @

0.1U_0402_16V4Z
C421
CB @

0.1U_0402_16V4Z
C403
CB @

0.1U_0402_16V4Z
C454
CB @

0.1U_0402_16V4Z
C455
CB @

0.1U_0402_16V4Z
C445
CB @

0.1U_0402_16V4Z
C404
CB @

0.1U_0402_16V4Z
C421
CB @

0.1U_0402_16V4Z
C403
CB @

0.1U_0402_16V4Z
C454
CB @

0.1U_0402_16V4Z
C455
CB @

0.1U_0402_16V4Z
C445
CB @

0.1U_0402_16V4Z
C404
CB @

0.1U_0402_16V4Z
C421
CB @

0.1U_0402_16V4Z
C403
CB @

0.1U_0402_16V4Z
C454
CB @

0.1U_0402_16V4Z
C455
CB @

0.1U_0402_16V4Z
C445
CB @

0.1U_0402_16V4Z
C404
CB @

PQFP 144
22.2 X 22.2 X 1.60

ENE CBI410 just have one vcc plane internal, if want S3 wake-up function(PME#), then at S3 status must keep all Vcc +3V. That is different with TI 1410 and O2-Micro 6912, just keep the VCCI pin +3V, the other vcc can use +3VS.

PCI AD31 3 AD31
PCI AD30 4 AD30
PCI AD29 5 AD29
PCI AD28 7 AD28
PCI AD27 8 AD27
PCI AD26 9 AD26
PCI AD25 10 AD25
PCI AD24 11 AD24
PCI AD23 15 AD23
PCI AD22 16 AD22
PCI AD21 17 AD21
PCI AD20 19 AD20
PCI AD19 23 AD19
PCI AD18 24 AD18
PCI AD17 25 AD17
PCI AD16 26 AD16
PCI AD15 38 AD15
PCI AD14 39 AD14
PCI AD13 40 AD13
PCI AD12 41 AD12
PCI AD11 43 AD11
PCI AD10 45 AD10
PCI AD9 46 AD9
PCI AD8 47 AD8
PCI AD7 49 AD7
PCI AD6 51 AD6
PCI AD5 52 AD5
PCI AD4 53 AD4
PCI AD3 54 AD3
PCI AD2 56 AD2
PCI AD1 56 AD1
PCI AD0 57 AD0

VCCI# 74
VCCD# 72
VPPD1 72
VPPD0 71
VCCD0# 71
VCCD1# 71
VCCP0 44
VCCP1 44
VCCSK0 126
VCCSK1 126
VCC1 138
VCC2 122
VCC3 122
VCC4 122
VCC5 122
VCC6 122
VCC7 122
VCCI 63

CAD31/D10 144
CAD30/D9 142
CAD29/D1 141
CAD28/D8 140
CAD27/D0 139
CAD26/A0 129
CAD25/A1 128
CAD24/A2 127
CAD23/A3 124
CAD22/A4 121
CAD21/A5 120
CAD20/A6 118
CAD19/A25 116
CAD18/A7 115
CAD17/A24 113
CAD16/A17 98
CAD15/IOWR# 96
CAD14/A9 97
CAD13/IORD# 93
CAD12/A11 92
CAD11/OE# 91
CAD10/CE2# 89
CAD9/A10 87
CAD8/D15 85
CAD7/D7 82
CAD6/D13 83
CAD5/D6 80
CAD4/D12 81
CAD3/D5 77
CAD2/D11 79
CAD1/D4 76
CAD0/D3 76

CARD_S1_D10
CARD_S1_D9
CARD_S1_D1
CARD_S1_D8
CARD_S1_D0
CARD_S1_A0
CARD_S1_A1
CARD_S1_A2
CARD_S1_A3
CARD_S1_A4
CARD_S1_A5
CARD_S1_A6
CARD_S1_A25
CARD_S1_A7
CARD_S1_A24
CARD_S1_A17
CARD_S1_IOWR#
CARD_S1_IORD#
CARD_S1_A11
CARD_S1_OE#
CARD_S1_CE2#
CARD_S1_A10
CARD_S1_D15
CARD_S1_D7
CARD_S1_D13
CARD_S1_D6
CARD_S1_D12
CARD_S1_D5
CARD_S1_D11
CARD_S1_D4
CARD_S1_D3

CC/BE3#/REG#
CC/BE2#/A12
CC/BE1#/A8
CC/BE0#/CE1#
CRST#/RESET
CFRAME#/A23
CRDY#/A15
CTRDY#/A22
CDEVSEL#/A21
CSTOP#/A20
CPERR#/A14
CSERR#/WAIT#
CPAR/A13
CREQ#/INPACK#
CGNT#/WE#
CCLK/A16

CARD_S1_REG#
CARD_S1_A12
CARD_S1_A8
CARD_S1_CE1#
CARD_S1_RST
CARD_S1_A23
CARD_S1_A15
CARD_S1_A22
CARD_S1_A21
CARD_S1_A20
CARD_S1_A14
CARD_S1_WAIT#
CARD_S1_A13
CARD_S1_INPACK#
CARD_S1_WE#
CARD_S1_A16
CARD_S1_BVD1
CARD_S1_WP
CARD_S1_A19
CARD_S1_RDY#
PCM_SPK#
CARD_S1_BVD2
CARD_S1_CD2#
CARD_S1_CD1#
CARD_S1_VS2
CARD_S1_VS1

CARD_S1_D10
CARD_S1_D9
CARD_S1_D1
CARD_S1_D8
CARD_S1_D0
CARD_S1_A0
CARD_S1_A1
CARD_S1_A2
CARD_S1_A3
CARD_S1_A4
CARD_S1_A5
CARD_S1_A6
CARD_S1_A25
CARD_S1_A7
CARD_S1_A24
CARD_S1_A17
CARD_S1_IOWR#
CARD_S1_IORD#
CARD_S1_A11
CARD_S1_OE#
CARD_S1_CE2#
CARD_S1_A10
CARD_S1_D15
CARD_S1_D7
CARD_S1_D13
CARD_S1_D6
CARD_S1_D12
CARD_S1_D5
CARD_S1_D11
CARD_S1_D4
CARD_S1_D3

CARD_S1_REG#
CARD_S1_A12
CARD_S1_A8
CARD_S1_CE1#
CARD_S1_RST
CARD_S1_A23
CARD_S1_A15
CARD_S1_A22
CARD_S1_A21
CARD_S1_A20
CARD_S1_A14
CARD_S1_WAIT#
CARD_S1_A13
CARD_S1_INPACK#
CARD_S1_WE#
CARD_S1_A16
CARD_S1_BVD1
CARD_S1_WP
CARD_S1_A19
CARD_S1_RDY#
PCM_SPK#
CARD_S1_BVD2
CARD_S1_CD2#
CARD_S1_CD1#
CARD_S1_VS2
CARD_S1_VS1

CARD_S1_D10
CARD_S1_D9
CARD_S1_D1
CARD_S1_D8
CARD_S1_D0
CARD_S1_A0
CARD_S1_A1
CARD_S1_A2
CARD_S1_A3
CARD_S1_A4
CARD_S1_A5
CARD_S1_A6
CARD_S1_A25
CARD_S1_A7
CARD_S1_A24
CARD_S1_A17
CARD_S1_IOWR#
CARD_S1_IORD#
CARD_S1_A11
CARD_S1_OE#
CARD_S1_CE2#
CARD_S1_A10
CARD_S1_D15
CARD_S1_D7
CARD_S1_D13
CARD_S1_D6
CARD_S1_D12
CARD_S1_D5
CARD_S1_D11
CARD_S1_D4
CARD_S1_D3

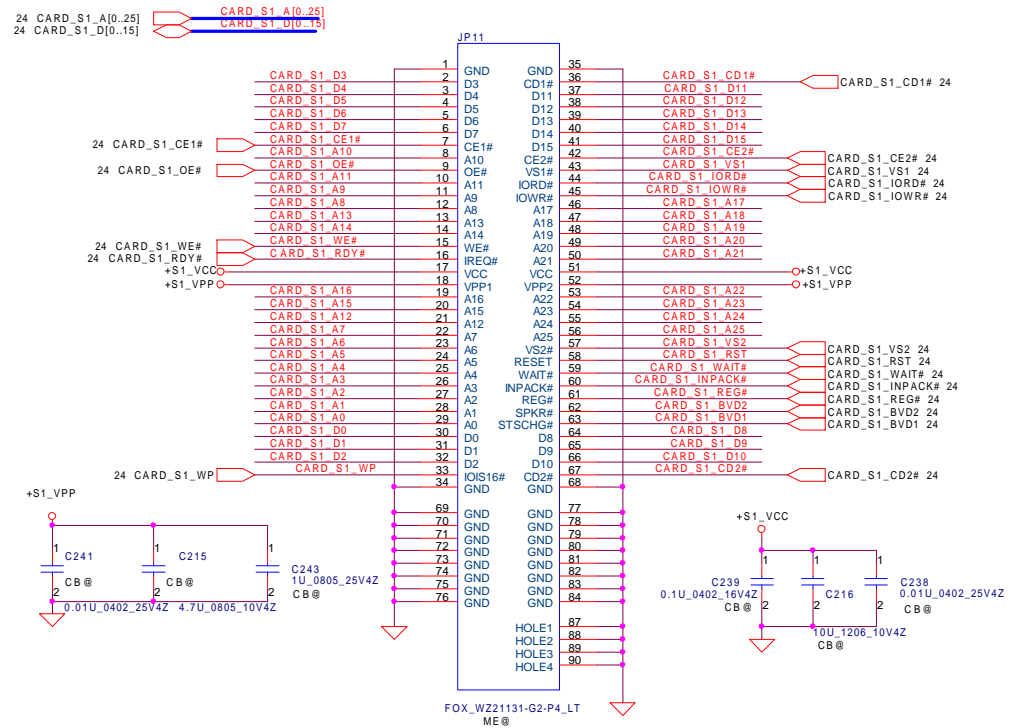
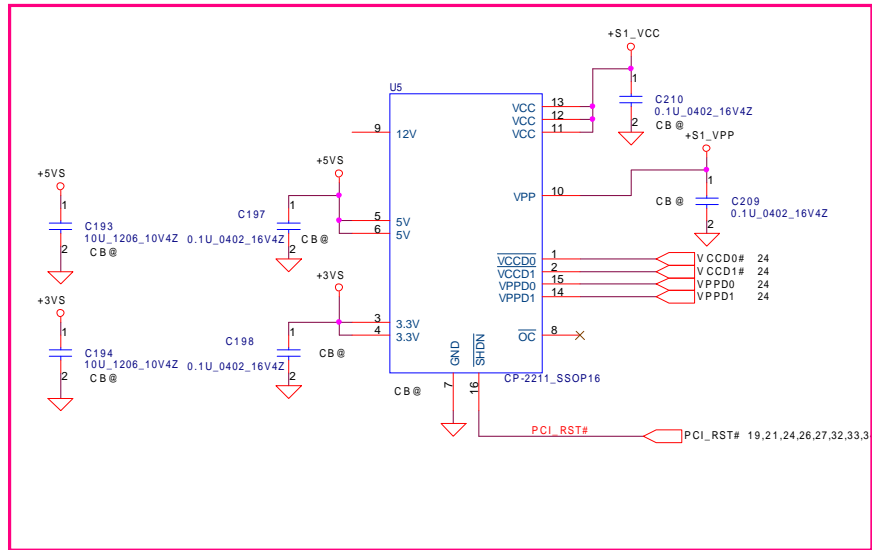
CARD_S1_REG#
CARD_S1_A12
CARD_S1_A8
CARD_S1_CE1#
CARD_S1_RST
CARD_S1_A23
CARD_S1_A15
CARD_S1_A22
CARD_S1_A21
CARD_S1_A20
CARD_S1_A14
CARD_S1_WAIT#
CARD_S1_A13
CARD_S1_INPACK#
CARD_S1_WE#
CARD_S1_A16
CARD_S1_BVD1
CARD_S1_WP
CARD_S1_A19
CARD_S1_RDY#
PCM_SPK#
CARD_S1_BVD2
CARD_S1_CD2#
CARD_S1_CD1#
CARD_S1_VS2
CARD_S1_VS1

CARD_S1_D10
CARD_S1_D9
CARD_S1_D1
CARD_S1_D8
CARD_S1_D0
CARD_S1_A0
CARD_S1_A1
CARD_S1_A2
CARD_S1_A3
CARD_S1_A4
CARD_S1_A5
CARD_S1_A6
CARD_S1_A25
CARD_S1_A7
CARD_S1_A24
CARD_S1_A17
CARD_S1_IOWR#
CARD_S1_IORD#
CARD_S1_A11
CARD_S1_OE#
CARD_S1_CE2#
CARD_S1_A10
CARD_S1_D15
CARD_S1_D7
CARD_S1_D13
CARD_S1_D6
CARD_S1_D12
CARD_S1_D5
CARD_S1_D11
CARD_S1_D4
CARD_S1_D3

CARD_S1_REG#
CARD_S1_A12
CARD_S1_A8
CARD_S1_CE1#
CARD_S1_RST
CARD_S1_A23
CARD_S1_A15
CARD_S1_A22
CARD_S1_A21
CARD_S1_A20
CARD_S1_A14
CARD_S1_WAIT#
CARD_S1_A13
CARD_S1_INPACK#
CARD_S1_WE#
CARD_S1_A16
CARD_S1_BVD1
CARD_S1_WP
CARD_S1_A19
CARD_S1_RDY#
PCM_SPK#
CARD_S1_BVD2
CARD_S1_CD2#
CARD_S1_CD1#
CARD_S1_VS2
CARD_S1_VS1

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/10/06	Deciphered Date	2006/10/06	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.		Document Number		Rev	
CUSTOMER		IGL50/S1 LA-3771		0.1	
Date: 2006/10/06		Sheet 24		of 48	

PCMCIA Power Controller



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/10/06	Deciphered Date	2006/10/06	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.				CardBus Socket	
				Size	Document Number
				Customer	IGL50/51 LA-3771
				Date	Rev
				2006-11-01	0.1
				Sheet	25 of 48

R5C832

SD,MMC,MS,XD muti-function pin define

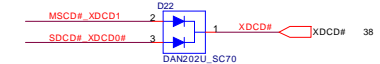
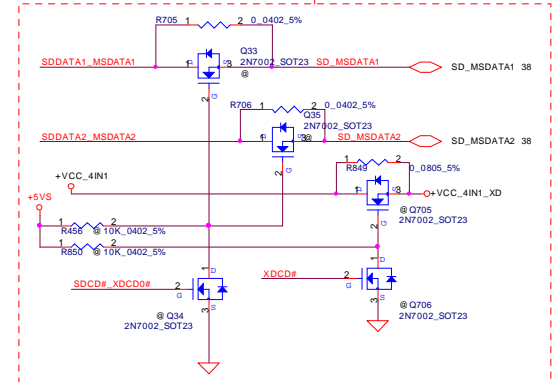
MDIO PIN Name	SD Card PIN Name	MMC Card PIN Name	MS Card PIN Name	XD Card PIN Name
MDIO00	SDCD#	MMCCD#		XDCD0#
MDIO01			MSCD#	XDCD1#
MDIO02				XDCD#
MDIO03	SDWP#			XDR/B#
MDIO04	SDPWR0	MMCPWR	MSWR	XDWR
MDIO05	SDPWR1			XDWR
MDIO06	SDLED#	MMCLED#	MSLED#	XDLED#
MDIO07			MSEXTCK	
MDIO08	SDCCMD	MMCCMD	MSBS	XDWE#
MDIO09	SDCCLK	MMCCLK	MSCCLK	XDRE#
MDIO10	SDCDAT0	MMCDAT	MSCDAT0	XDCDAT0
MDIO11	SDCDAT1		MSCDAT1	XDCDAT1
MDIO12	SDCDAT2		MSCDAT2	XDCDAT2
MDIO13	SDCDAT3		MSCDAT3	XDCDAT3
MDIO14				XDCDAT4
MDIO15				XDCDAT5
MDIO16				XDCDAT6
MDIO17				XDCDAT7
MDIO18				XDCLK
MDIO19				XDALE

Function set pin define

UDIO3	UDIO4	MSEN	XDEN	Function
Pull-up	Pull-up	Pull-up	Pull-up	Enable SD, XD, MS, MMC Card

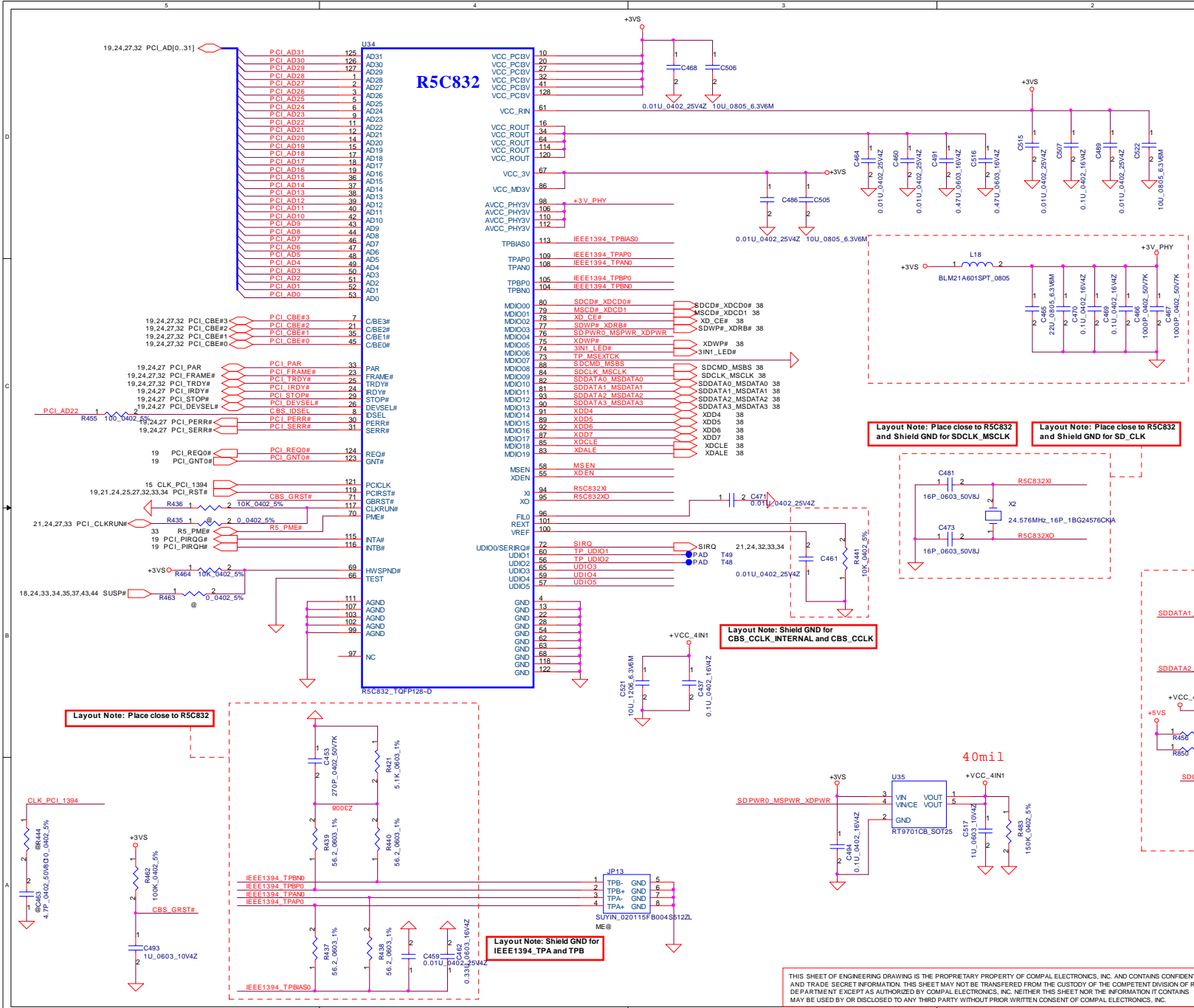


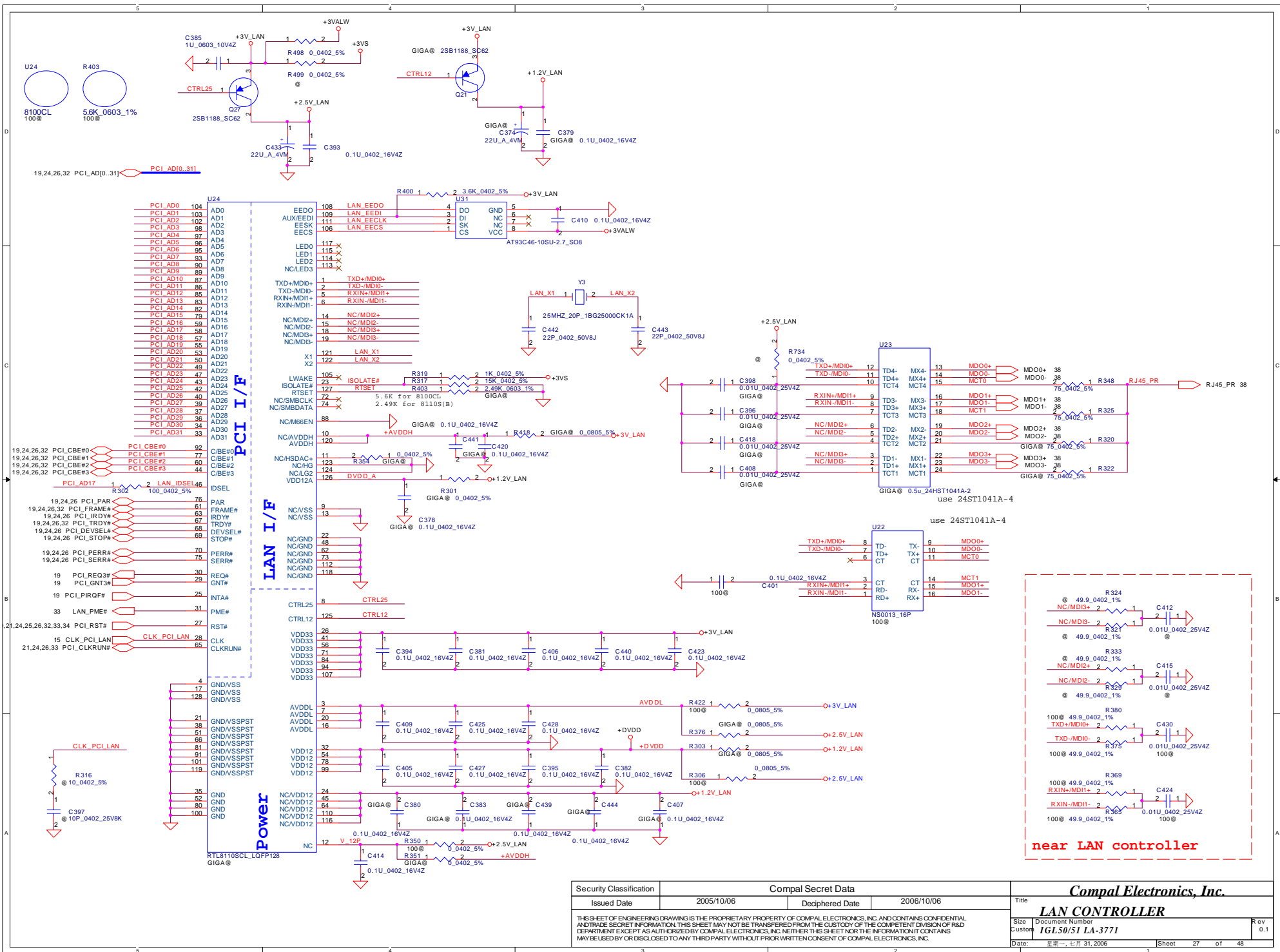
Solve MS Duo Adaptor short problem



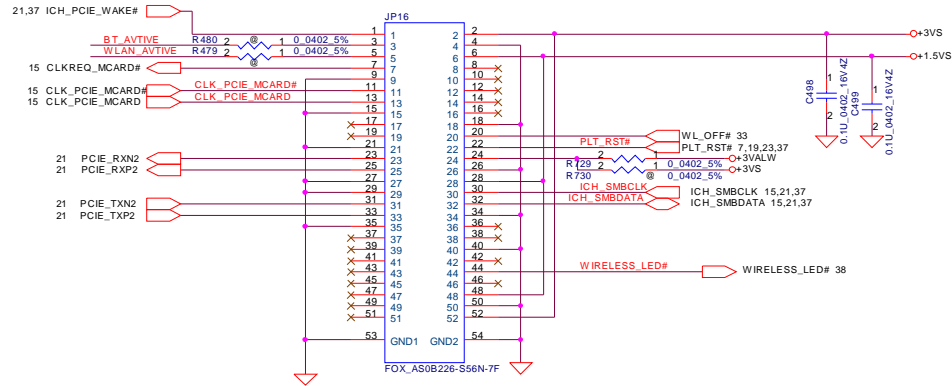
Compal Electronics, Inc.	
Title	1394+3 in 1 Card
Size	Document Number
Date	HGT30/31 LA3061
Rev	0.1

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

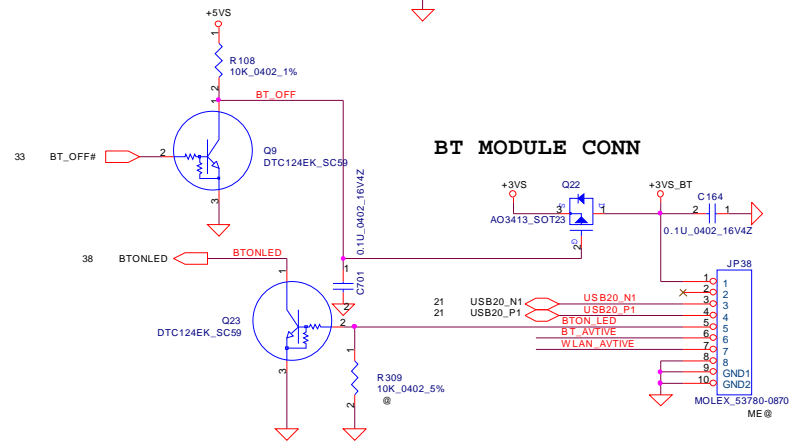
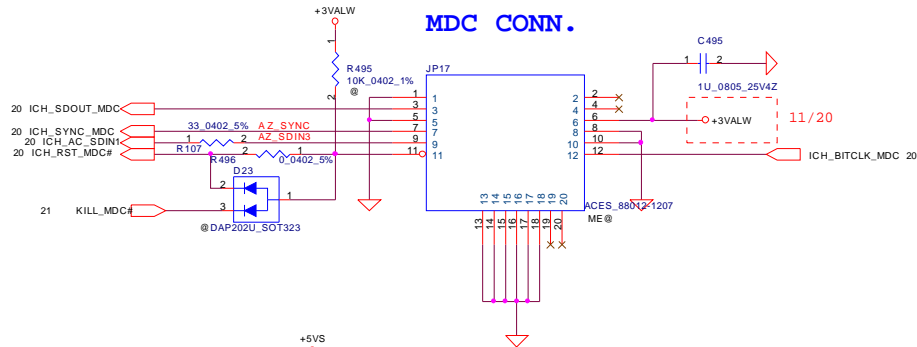
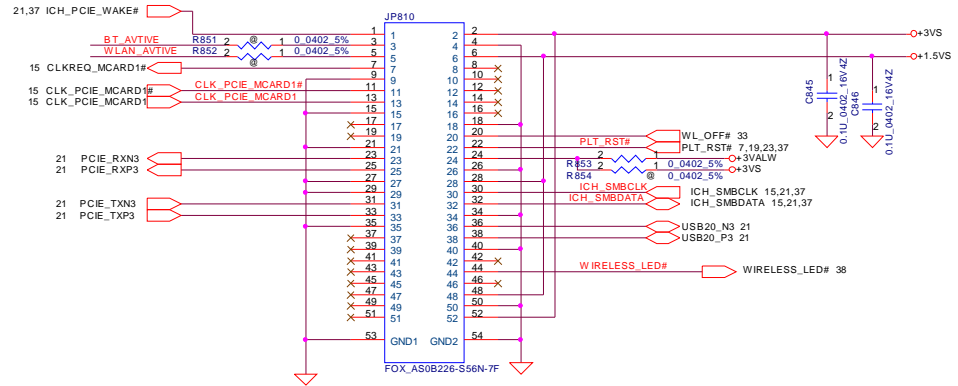




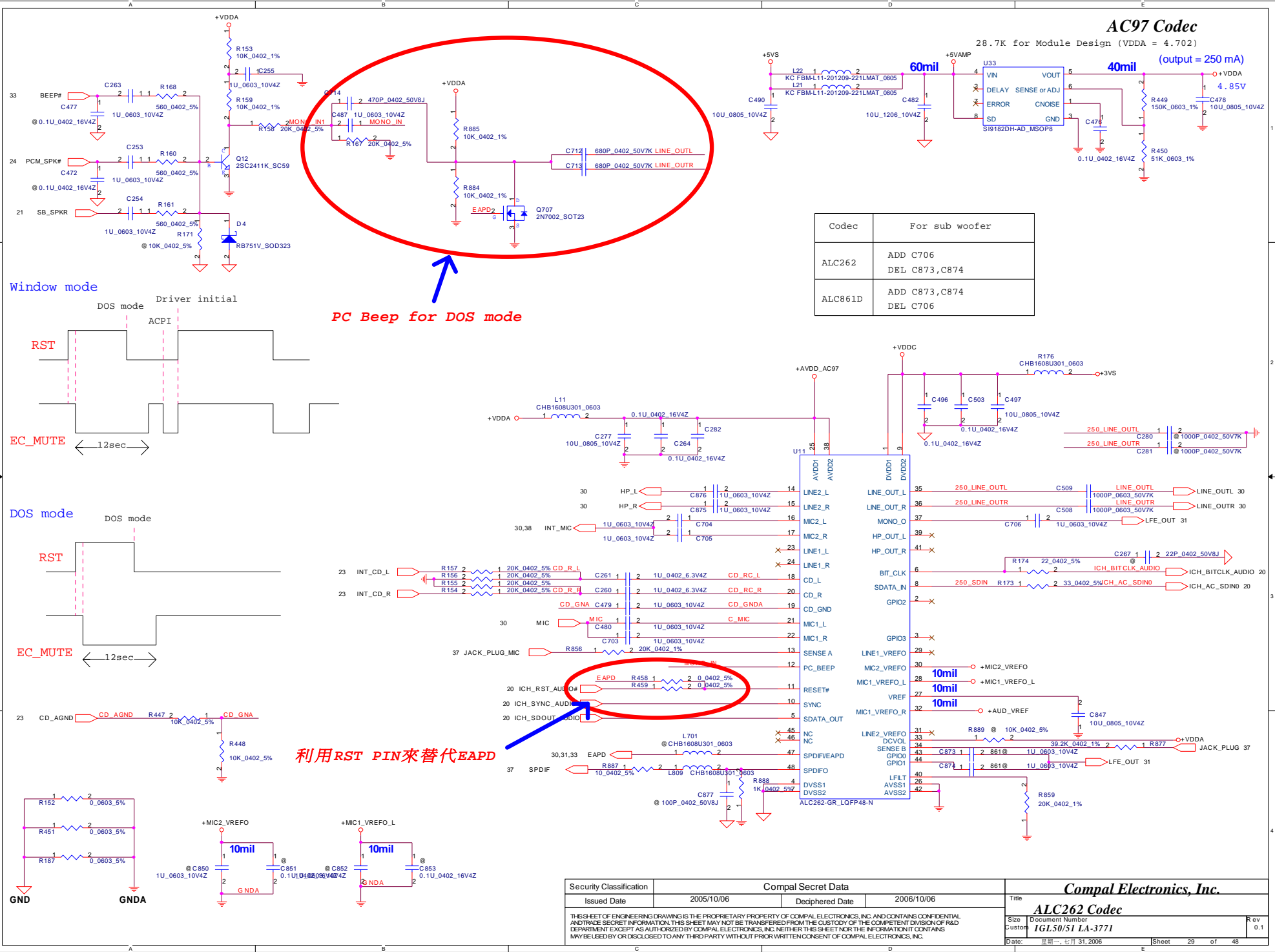
Mini-Express Card(Slot 1-WLAN)

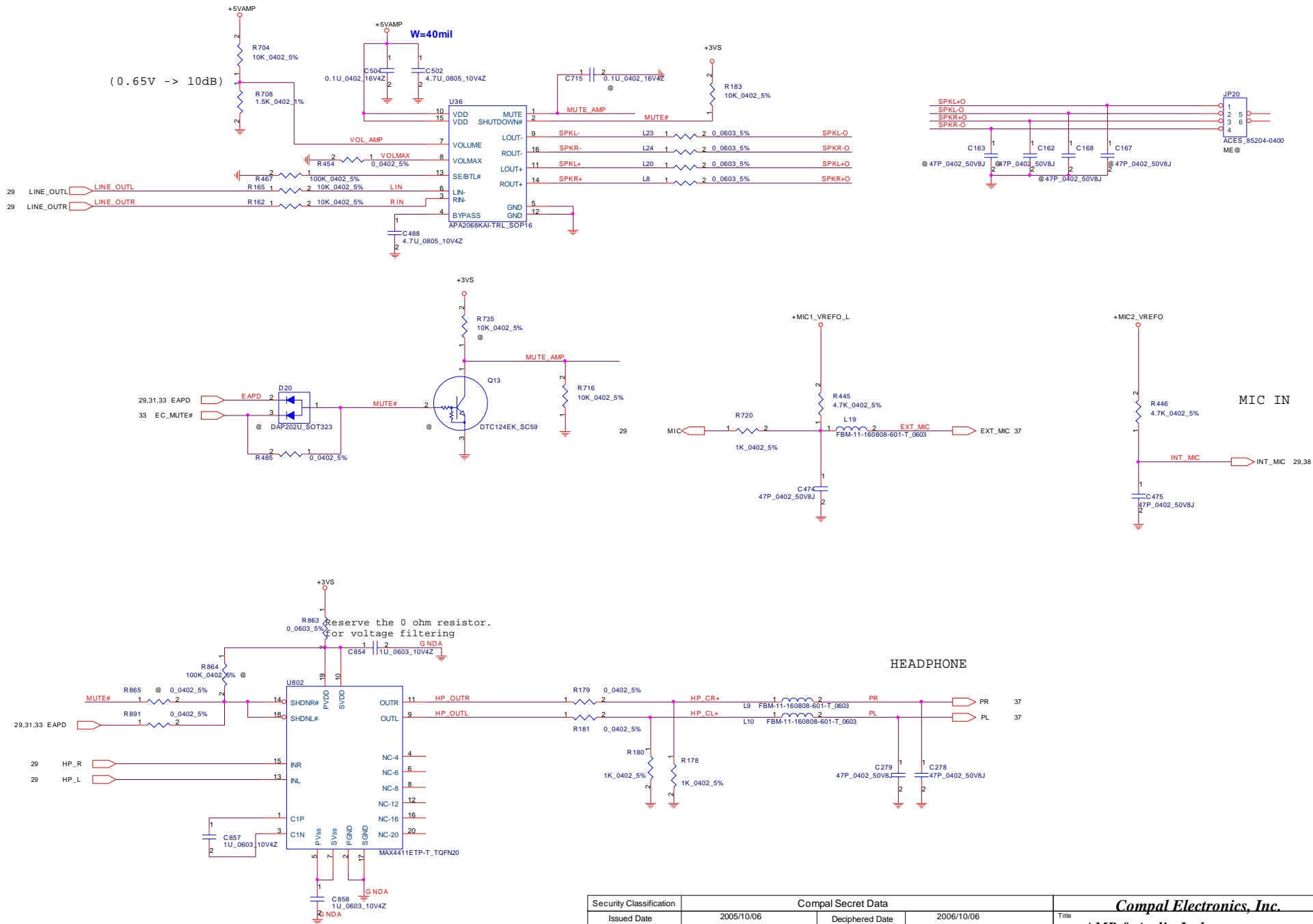


Mini-Express Card(Slot 2-WLAN)



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/10/06	Deciphered Date	2006/10/06	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.				Mini Card / MDC CONN
				Size Document Number
				Custom IGL50/51 LA-3771
				Rev 0.1
				Date: 2006. 07. 31, 2006
				Sheet 28 of 48



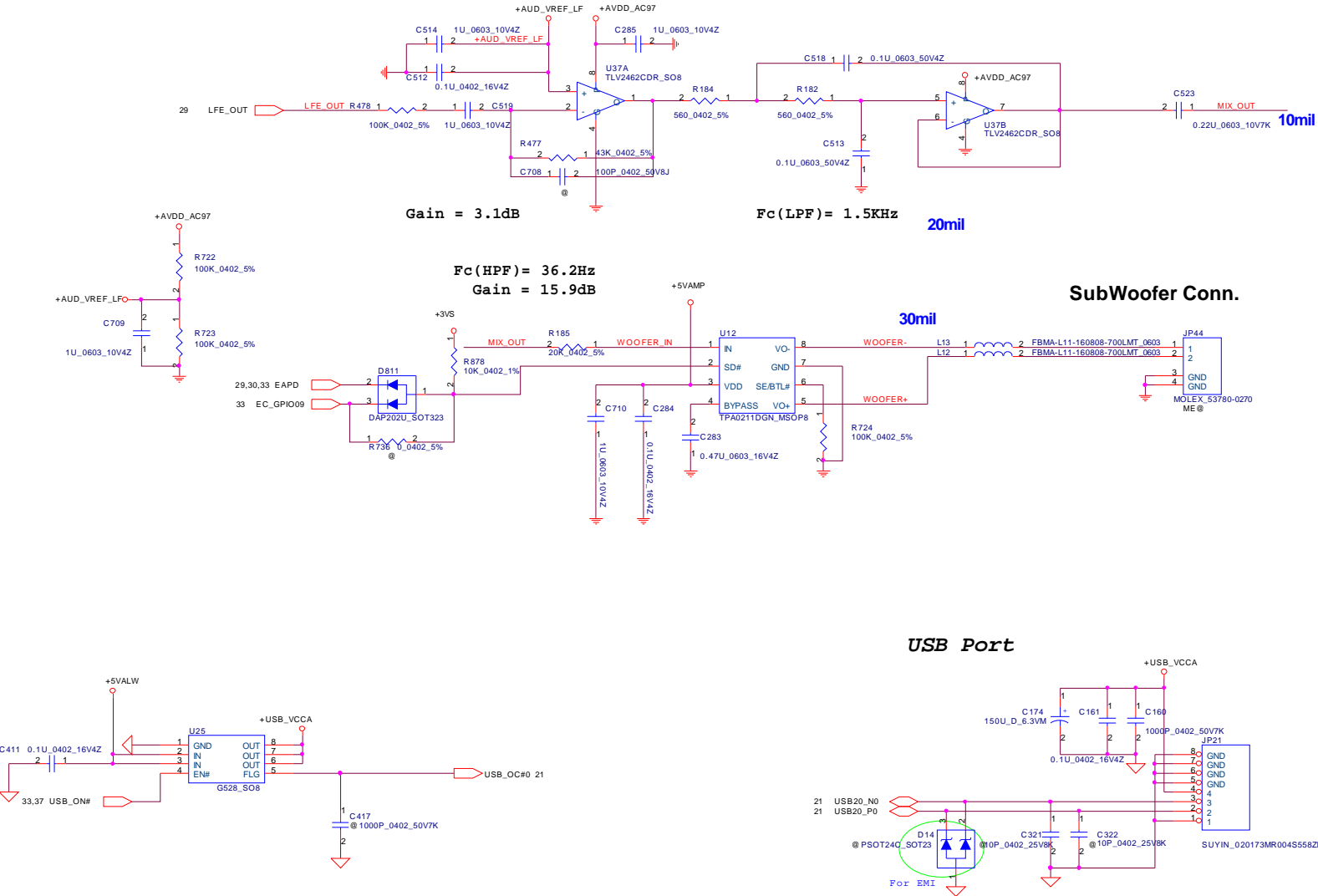


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date		Deciphered Date		Title	
2005/10/06		2006/10/06		AMP & Audio Jack	
Size		Document Number		Rev	
Custom		1GL50/51 LA-3771		0.1	
Date:		2006年 七月 31, 2006		Sheet 30 of 48	

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.

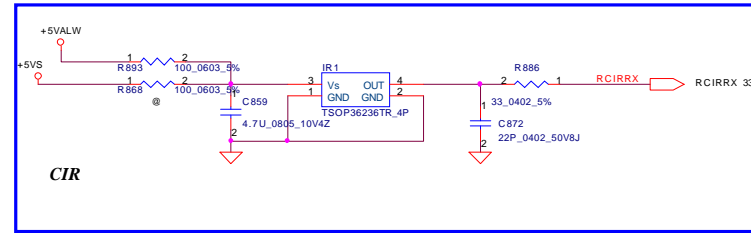
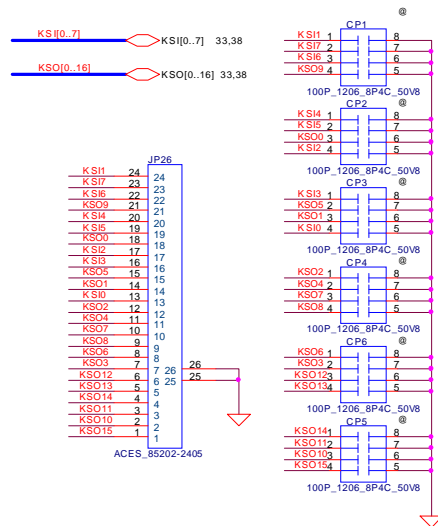
SUBWOOFER (Reserved for C38)

WOOFER@

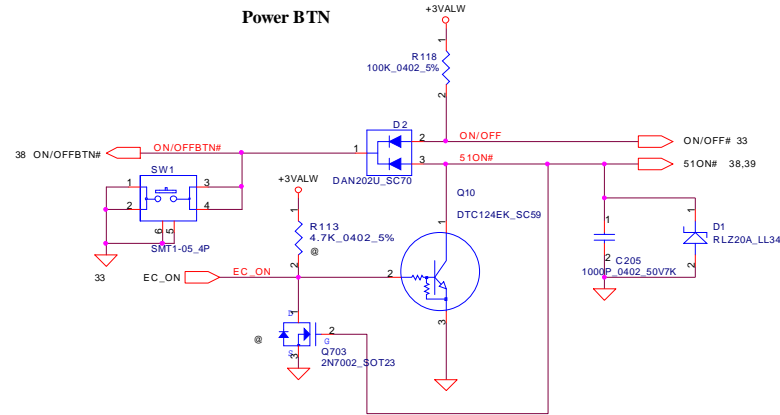


Security Classification		Compal Secret Data		Title	
Issued Date		2005/10/06		Deciphered Date	
		2006/10/06			
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY 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		1GL50/S1 LA-3771		0.1	
Date:		星期二, 八月 01, 2006		Sheet 31 of 48	

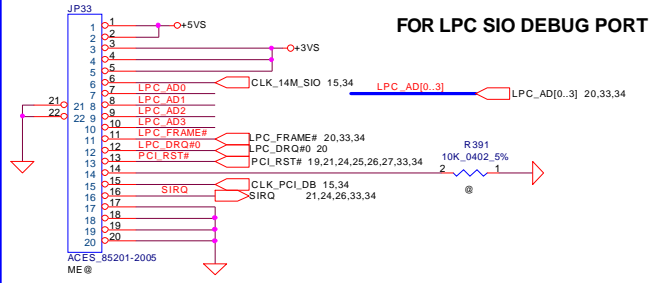
INT_KBD CONN.(TYPE "D" KB)



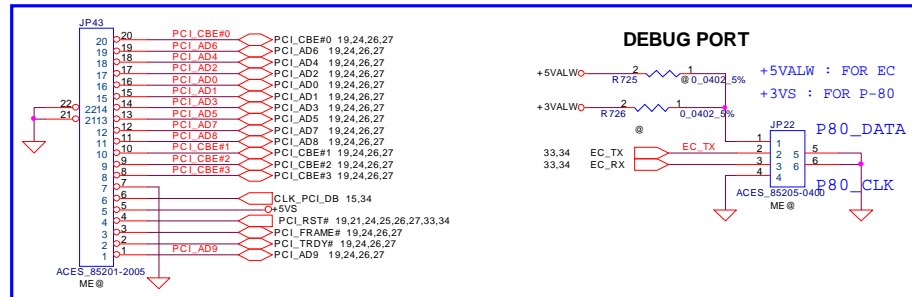
Power BTN



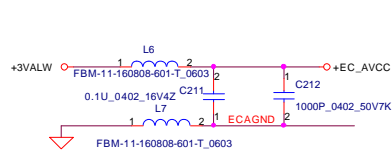
FOR LPC SIO DEBUG PORT



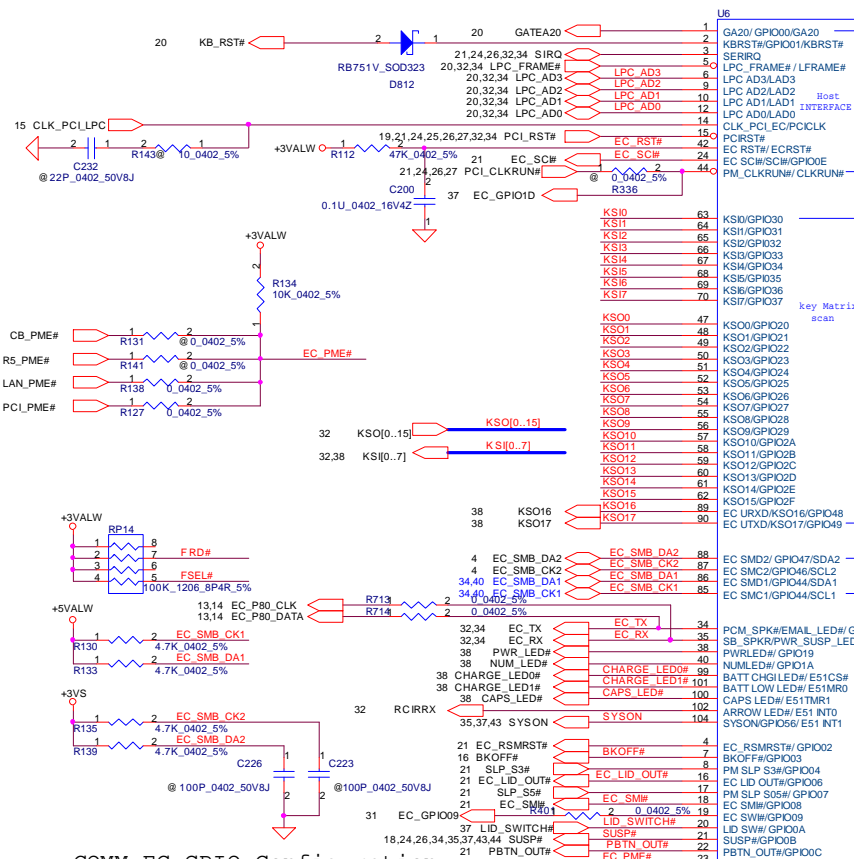
DEBUG PORT



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/10/06	Deciphered Date	2006/10/06	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.				KBD, ON/OFF, T/P, LED/B, DEBUG
				Size Document Number
				Custom IGL50/51 LA-3771
				Rev 0.1
				Date: 2006-07-31
				Sheet 32 of 48

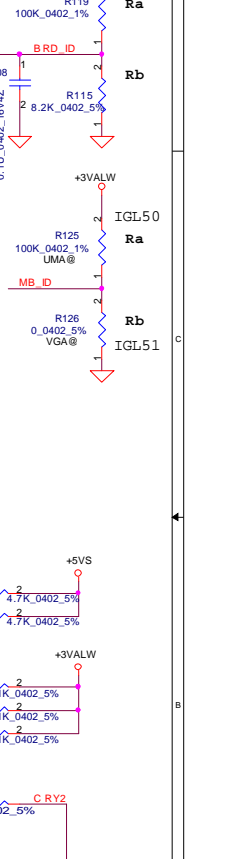
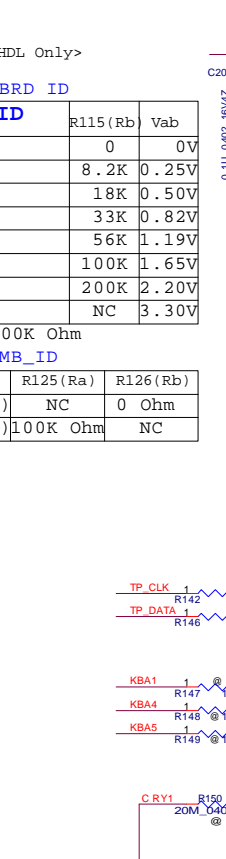
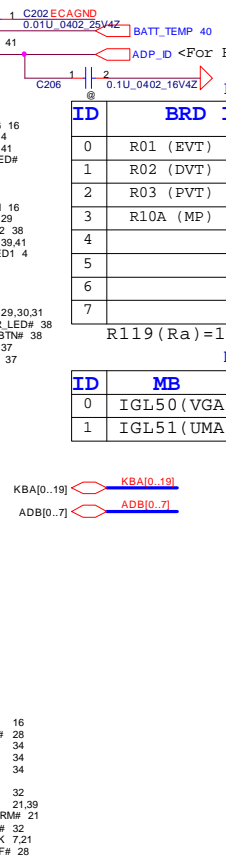
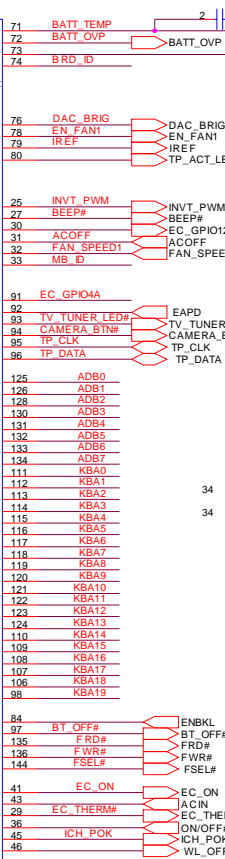
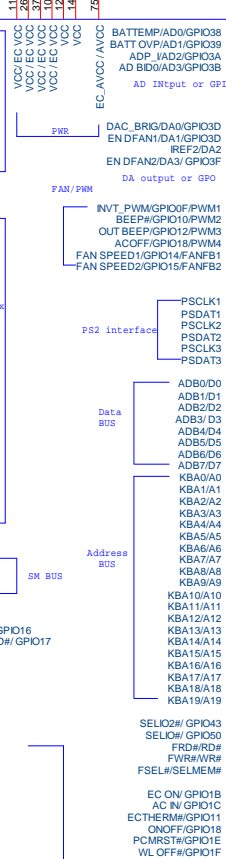


Analog Board ID definition,
Please see page 3.



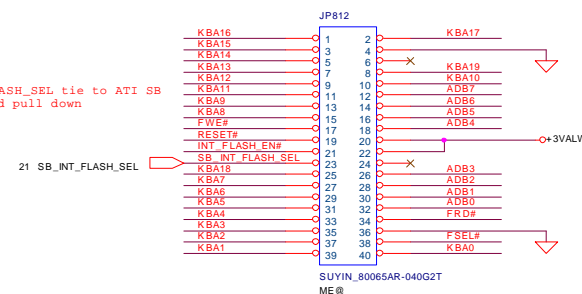
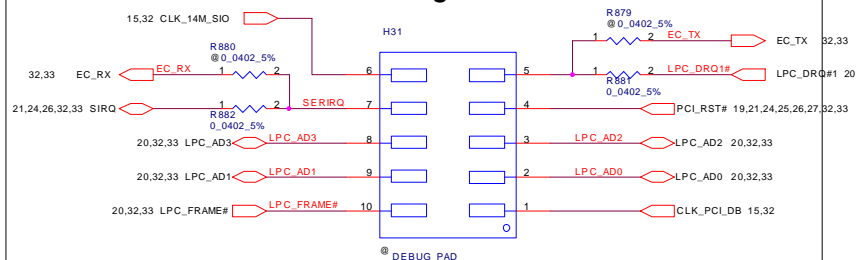
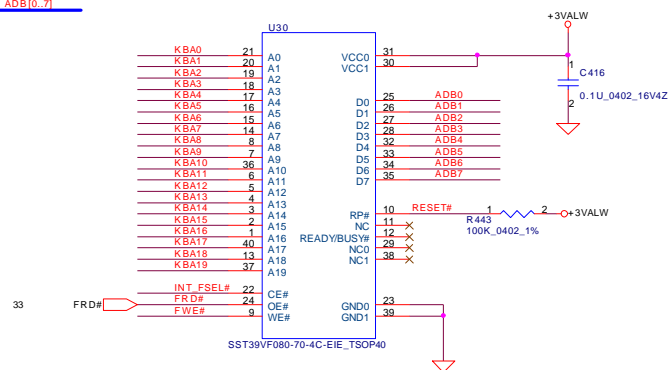
COMM EC_GPIO Configuration

PIN	GPIO	HDL00/HDL10	HGT30/HGT31	IGL50/IGL51
80	EC_GPIO3F	NC	TP_ACT_LED#	NC
19	EC_GPIO09	EASY_KEY1#	LED6#	SUBWOOFER_MUTE#
35	EC_GPIO17	SUSP_LED#	EC_P80_DATA	EC_P80_DATA
44	EC_GPIO1D	NC	LED3#	TP_ACT_LED#
91	EC_GPIO4A	NC	LED4#	USB_ON#
92	EC_GPIO4B	NC	EAPD IN	EAPD IN
93	EC_GPIO4C	NC	LED1#	TV_TUNER_LED#
94	EC_GPIO4D	NC	LED2#	CAMERA_BTN#
102	EC_GPIO55	NC	LED5#	RCIRRX
97	EC_GPIO50	MEDIA#	BT_OFF#	BT_OFF#
137	EC_GPIO57	VOL_UP#	NOVO_BTN#	NOVO_BTN#
142	EC_GPIO58	VOL_DOWN#	SLP_S4#	SLP_S4#
143	EC_GPIO59	KILL_SW#	WIRE_LAN_BTN#	RF_BTN#
30	EC_GPIO12	AMP_MUTE	TP_LOCK_LED#	SUBWOOFER_BTN#

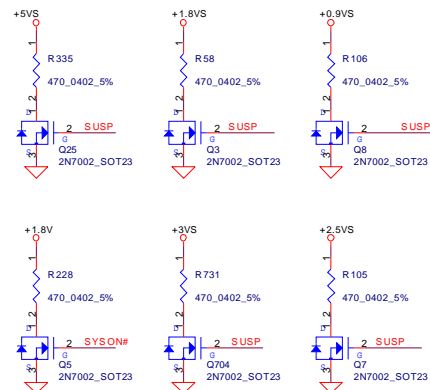
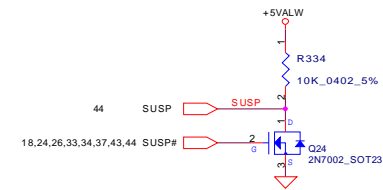
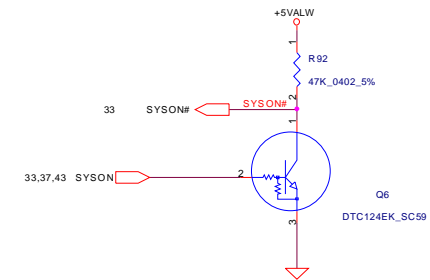


ID	BRD ID	R115 (Rb)	Vab
0	R01 (EVT)	0	0V
1	R02 (DVT)	8.2K	0.25V
2	R03 (PVT)	18K	0.50V
3	R10A (MP)	33K	0.82V
4		56K	1.19V
5		100K	1.65V
6		200K	2.20V
7		NC	3.30V

ID	MB	R125 (Ra)	R126 (Rb)
0	IGL50 (VGA)	NC	0 Ohm
1	IGL51 (UMA)	100K Ohm	NC

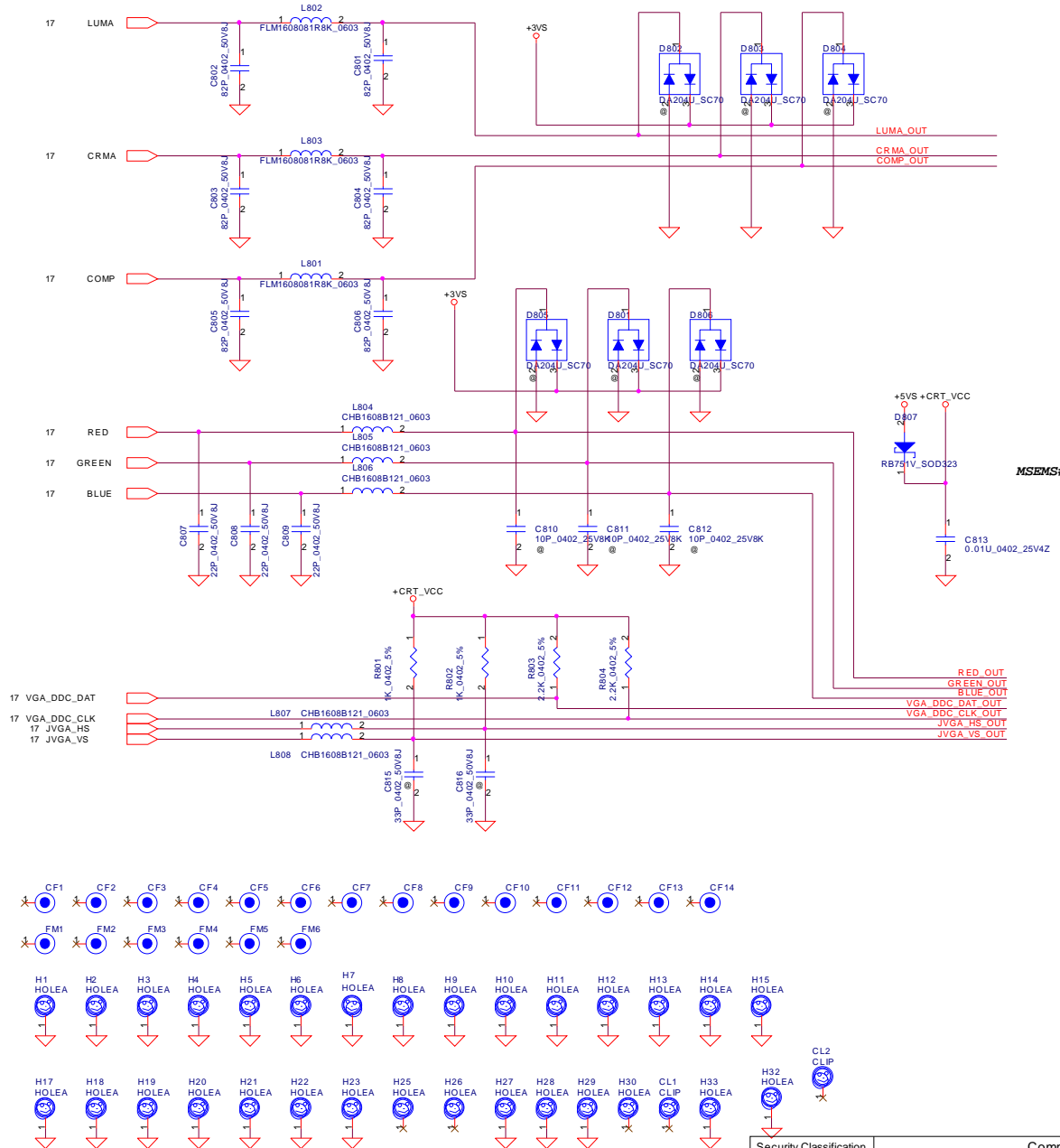


Security Classification		Compal Secret Data		Compal Electronics, Inc. BIOS & EC I/O Port	
Issued Date	2005/10/06	Deciphered Date	2006/10/06	Title	Rev 0.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS 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 1GL50/51 LA-3771	
Date: 星期五 - 十月 31, 2006				ISheet	34 of 48



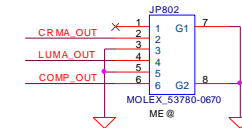
Security Classification		Compal Secret Data		<i>Compal Electronics, Inc.</i>		
Issued Date	2005/10/06	Deciphered Date	2006/10/06	Title		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT 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 REPRODUCED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				<i>DC/DC Circuit</i>		
				Size	Document Number	Rev
				Date	1GL50/51 LA-3771	0.1
				Date: 第 壹 次, 七 月 三 十 一 日, 2006		Sheet 35 of 48

CLOSE TO JTVOUT1

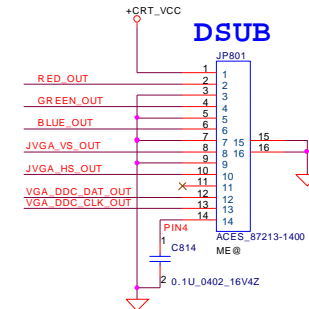


VGA I/O PORT Connector

S-VIDEO



DSUB

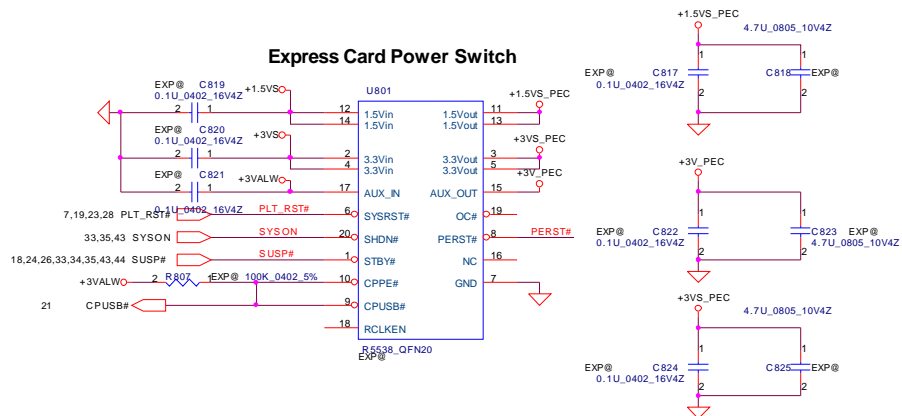


PIN ASSIGNMENT

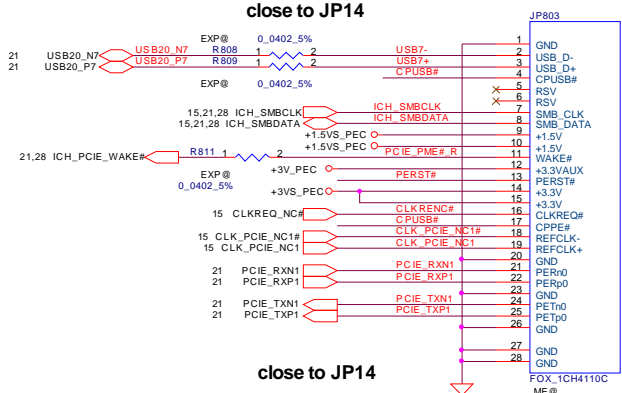
PIN	D-SUB	FUNCTION	PIN	SVIDEO	FUNCTION
1	9	+CART_VCC	1	1	NC
2	1	RED	2	4	CRMA
3	6	GND	3	2	GND
4	2	GREEN	4	3	LUMA
5	7	GND	5	5	GND
6	3	BLUE	6	6	CVBS
7	8	GND			
8	14	VSYNC			
9	10	GND			
10	13	HSYNC			
11	11	SENSE			
12	12	SM_DAT			
13	15	SM_CLK			
14	4	PIN4			

NEW CARD FOR C38

Express Card Power Switch



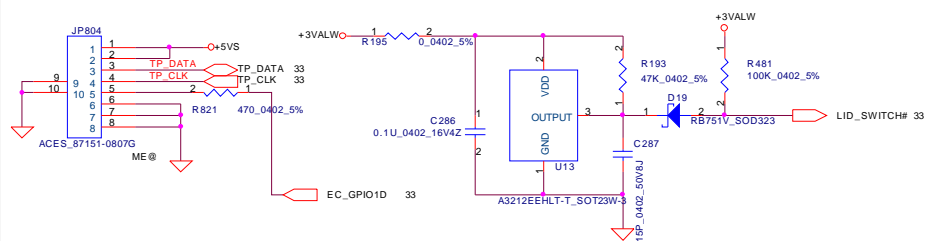
close to JP14



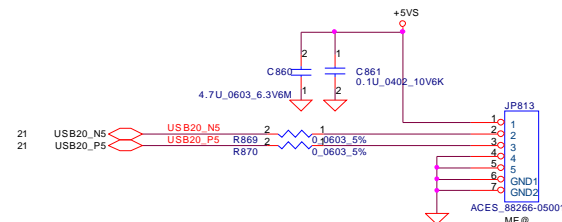
close to JP14

T/P Board

LID Switch

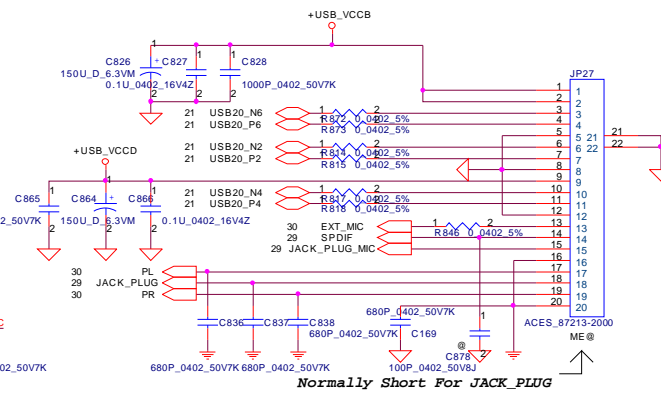
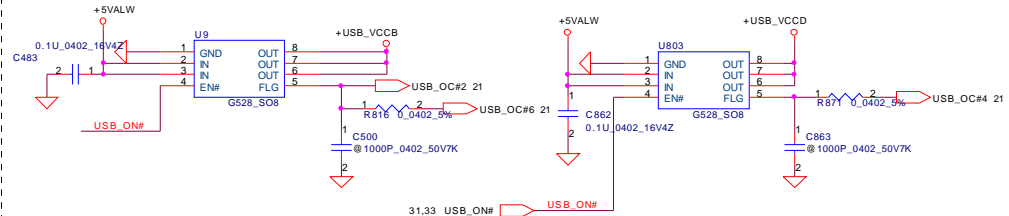


CMOS Camera Conn



USB board

Pulled up on ICH7M side



C835 ~ C838 For EMI Solution

Normally Short For JACK_PLUG

Security Classification	Compal Secret Data		Title	
Issued Date	2005/03/10	Deciphered Date	2006/03/10	INDICATE LED
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 IGL50/51 LA-3771
				Date: 01.01.2006
				Rev 0.1
				Sheet 37 of 48

4 in 1 Card Reader

UMA LCD/PANEL Conn.

The diagram illustrates the internal wiring of a 4-in-1 card reader and its connection to a UMA LCD/PANEL. The card reader section shows connections for SD cards (SD-D0 to SD-D7, SD-CLK, SD-CD, SD-CMD, SD-CD-SW, SD-CD-COM, SD-WP-SW, SD-WP-COM, MS-CLK, MS-DATA0 to MS-DATA3, MS-INS, MS-BS, SD-GND, MS-GND), USB (USB-D0 to USB-D7, USB-CLK, USB-CD, USB-CMD, USB-CD-SW, USB-CD-COM, USB-WP-SW, USB-WP-COM, MS-CLK, MS-DATA0 to MS-DATA3, MS-INS, MS-BS, SD-GND, MS-GND), and a 4-in-1 connector (41 pins). The UMA LCD/PANEL section shows connections for LVDS signals (LVDSAC+, LVDSAC-, LVDSAC2+, LVDSAC2-, LVDSB1+, LVDSB1-, LVDSB0+, LVDSB0-), power lines (+3VSD, +LVDVDD, ME @ ACES, 87216-30006), and ground connections (SHIELD GND, SHIELD GND).

4 in 1 Card Reader

Pin 1: +VCC_4IN1_XD
Pin 2: XD-VCC
Pin 3: SD-VCC
Pin 4: MS-VCC
Pin 5: SD-CLK
Pin 6: SD-D1
Pin 7: SD-D2
Pin 8: SD-D3
Pin 9: SD-D4
Pin 10: SD-D5
Pin 11: SD-D6
Pin 12: SD-D7
Pin 13: SD-CMD
Pin 14: SD-CD-SW
Pin 15: SD-CD-COM
Pin 16: SD-WP-SW
Pin 17: SD-WP-COM
Pin 18: MS-SCLK
Pin 19: MS-DATA0
Pin 20: MS-DATA1
Pin 21: MS-DATA2
Pin 22: MS-DATA3
Pin 23: MS-INS
Pin 24: MS-BS
Pin 25: SD-GND
Pin 26: MS-GND
Pin 27: N.C.
Pin 28: N.C.
Pin 29: SHIELD GND
Pin 30: SHIELD GND

UMA LCD/PANEL Conn.

Pin 1: +VCC_4IN1_XD
Pin 2: XD-VCC
Pin 3: SD-VCC
Pin 4: MS-VCC
Pin 5: SD-CLK
Pin 6: SD-D1
Pin 7: SD-D2
Pin 8: SD-D3
Pin 9: SD-D4
Pin 10: SD-D5
Pin 11: SD-D6
Pin 12: SD-D7
Pin 13: SD-CMD
Pin 14: SD-CD-SW
Pin 15: SD-CD-COM
Pin 16: SD-WP-SW
Pin 17: SD-WP-COM
Pin 18: MS-SCLK
Pin 19: MS-DATA0
Pin 20: MS-DATA1
Pin 21: MS-DATA2
Pin 22: MS-DATA3
Pin 23: MS-INS
Pin 24: MS-BS
Pin 25: SD-GND
Pin 26: MS-GND
Pin 27: N.C.
Pin 28: N.C.
Pin 29: SHIELD GND
Pin 30: SHIELD GND

The image displays a series of circuit diagrams for a custom PCB, organized into sections:

- RJ11+RJ45 CONN:** A schematic showing the connection of an RJ45 connector (RJ45) and an RJ11 connector (RJ11) to a microcontroller (JP807). It includes pin connections for TX1+, TX1-, RX1+, RX1-, TX2+, TX2-, RX2+, RX2-, and SGND1, SGND2. A 100P_1206_2KV7K capacitor is connected to the microcontroller's ME0 pin.
- LED Indicator:** A schematic showing the connection of three LEDs (Blue, Amber, Blue) to a microcontroller (JP807). The LEDs are labeled B, A, and A, corresponding to pins 3, 2, and 1 respectively.
- Wireless / Bluetooth LED:** A schematic showing the connection of three LEDs (Blue, Amber, Blue) to a microcontroller (JP807). The LEDs are labeled B, A, and A, corresponding to pins 3, 2, and 1 respectively.
- STATUS:** A table defining the status of the LEDs:

STATUS	LED
AC	BLUE
Chargin	Blinking Blue
Low BATT	Amber
- Function:** A table defining the function of the buttons:

KEY Matrix	K016	K017
K010	DW-UP	DW-DOWN
K011	DW-ENTER	MUTE
- Dial Wheel:** A schematic showing the connection of a dial wheel to a microcontroller (JP807). The dial wheel has 16 positions, labeled K010 through K017.
- Left Switch BD:** A schematic showing the connection of a left switch board to a microcontroller (JP807). It includes pin connections for TX1+, TX1-, RX1+, RX1-, TX2+, TX2-, RX2+, RX2-, and SGND1, SGND2. A 100P_1206_2KV7K capacitor is connected to the microcontroller's ME0 pin.
- Right Switch BD:** A schematic showing the connection of a right switch board to a microcontroller (JP807). It includes pin connections for TX1+, TX1-, RX1+, RX1-, TX2+, TX2-, RX2+, RX2-, and SGND1, SGND2. A 100P_1206_2KV7K capacitor is connected to the microcontroller's ME0 pin.

MDC CONN

RJ TP
RJ RING
EDL71_MDC

JP809

NOVO BTN

NOVO_BTN#
DAN202U_SC70
D810
EC_GPIO57
51ON#

NOVA_BTN#

INT_MIC
TV_TUNER_LED#
NUM_LED#
CAPS_LED#
SATA_LED#
ODD_LED#
ON/OFFBTN#

Security Classification	Compal Secret Data			Title	INDICATE LED	
Issued Date	2005/03/10	Deciphered Date	2006/03/10	Size	Document Number	Rev
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.				Custom	IGL50/S1 LA-3771	0.1
				Date:	星期一, 七月 31, 2006	Sheet

4.7U_0805_10V4Z

NOVO BTN

NOVA_BTN#

MDC CONN

For EMI

PSOT24C_S0F23

PSOT24C_S0T23

Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/10	Deciphered Date	2006/03/10	INDICATE LED	
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	Rev 0.1
Date: 2006.07.31				Sheet 38	of 48

4.7U_0805_10V4Z

NOVO BTN

NOVA_BTN#

MDC CONN

For EMI

PSOT24C_S0F23

PSOT24C_S0T23

Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/10	Deciphered Date	2006/03/10	INDICATE LED	
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	Rev 0.1
Date: 2006.07.31				Sheet 38	of 48

4.7U_0805_10V4Z

NOVO BTN

NOVA_BTN#

MDC CONN

For EMI

PSOT24C_S0F23

PSOT24C_S0T23

Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/10	Deciphered Date	2006/03/10	INDICATE LED	
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	Rev 0.1
Date: 2006.07.31				Sheet 38	of 48

4.7U_0805_10V4Z

NOVO BTN

NOVA_BTN#

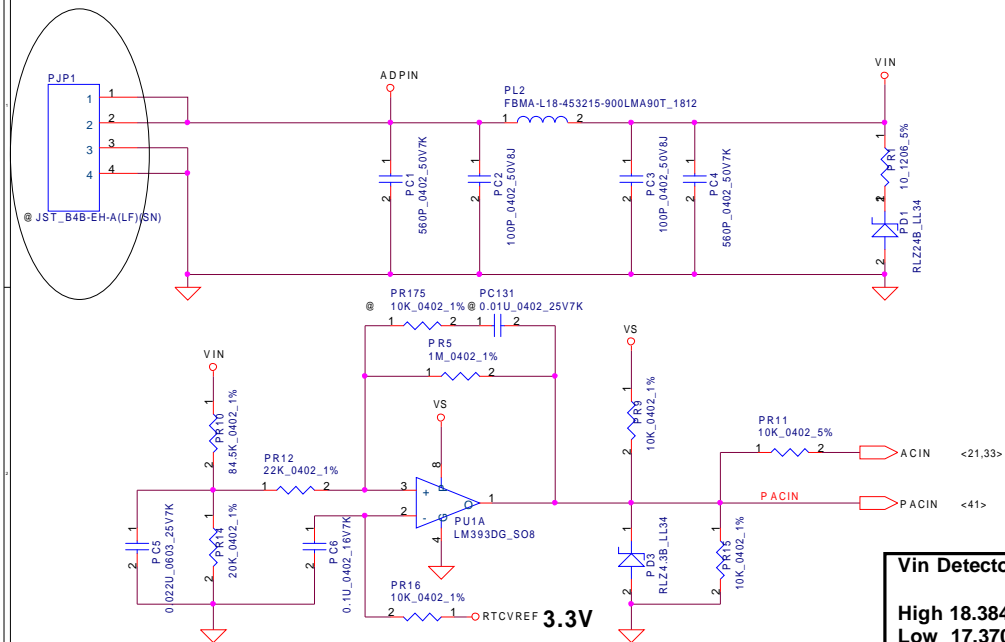
MDC CONN

For EMI

PSOT24C_S0F23

PSOT24C_S0T23

Security Classification		Compal Secret Data		Title	
Issued Date	2005/03/10	Deciphered Date	2006/03/10	INDICATE LED	
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	Rev 0.1
Date: 2006.07.31				Sheet 38	of 48

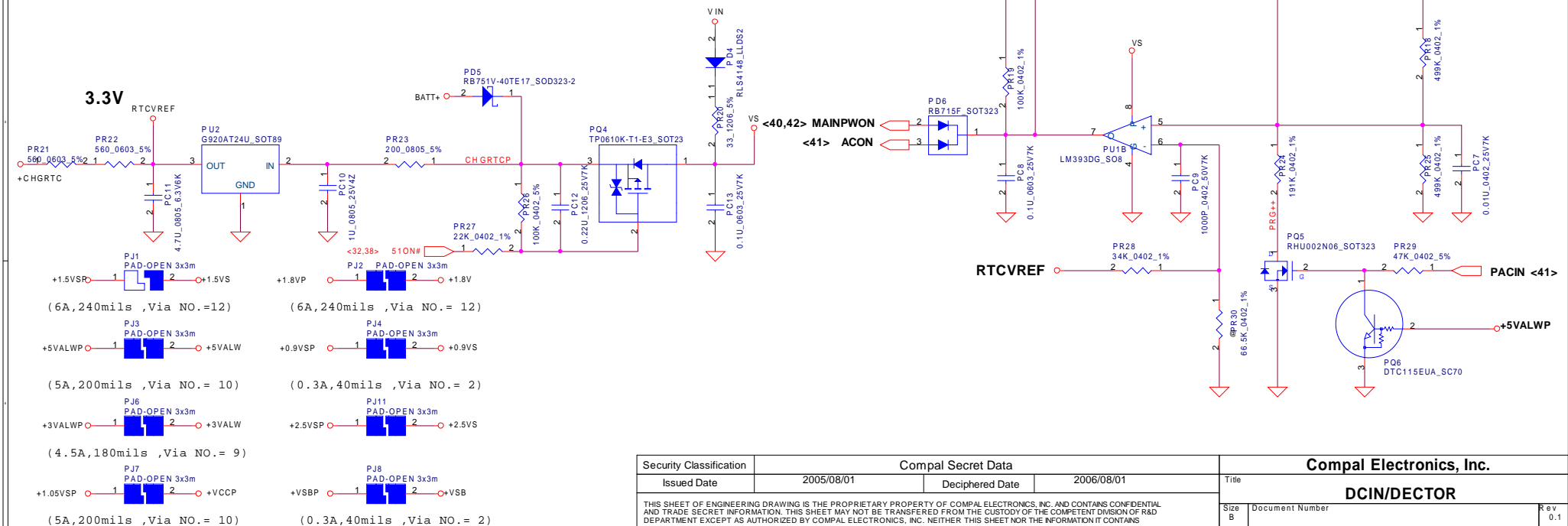


ACIN

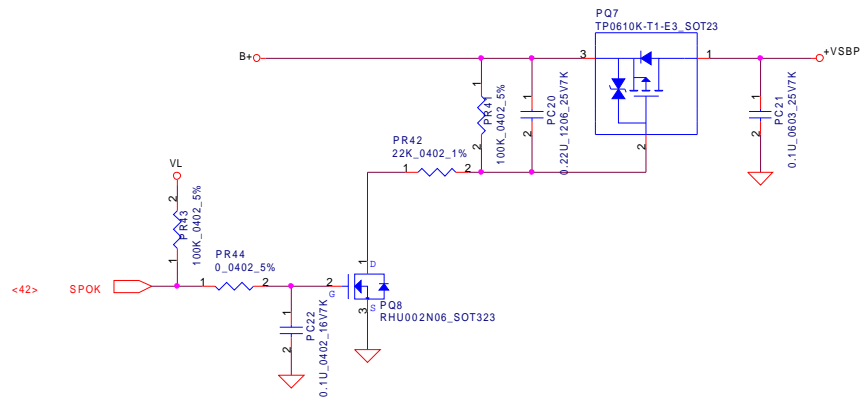
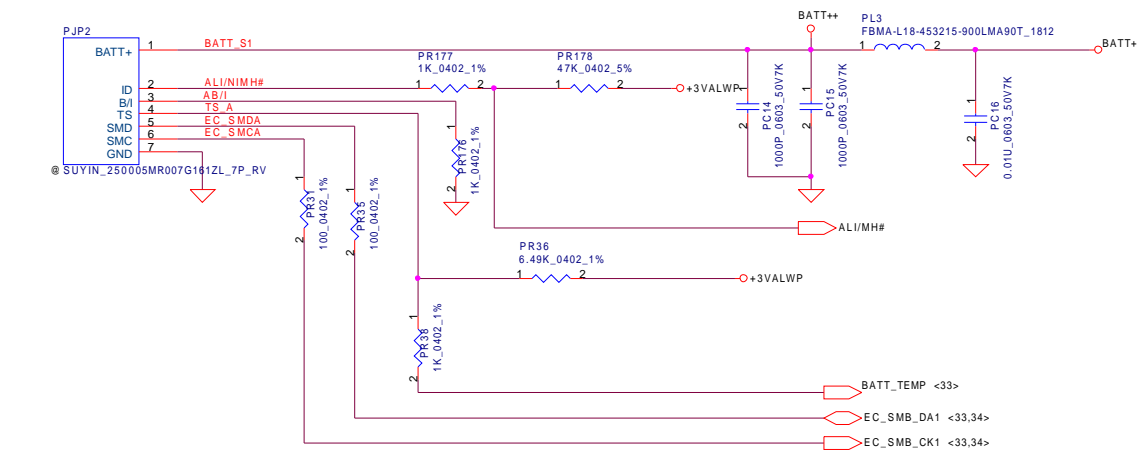
	Precharge detector	Min.	typ.	Max.
H-->L		14.620V	14.853V	15.245V
L-->H		15.534V	15.970V	16.421V

BATT ONLY

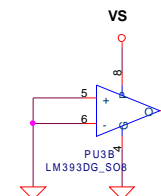
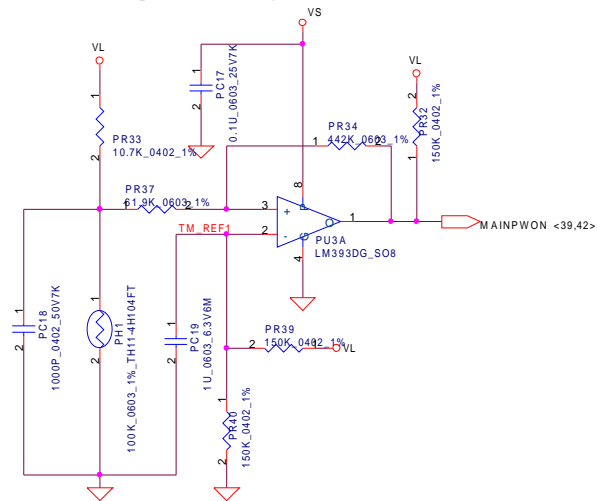
	Precharge detector	Min.	typ.	Max.
H-->L		6.169V	6.231V	6.361V
L-->H		7.168V	7.349V	7.537V



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/08/01	Deciphered Date	2006/08/01	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				DCIN/DECTOR	
Size	B	Document Number		Rev	
Date		星期一, 七月 31, 2006		Sheet	39 of 48



PH1 under CPU botten side :
CPU thermal protection at 85 degree C
Recovery at 70 degree C

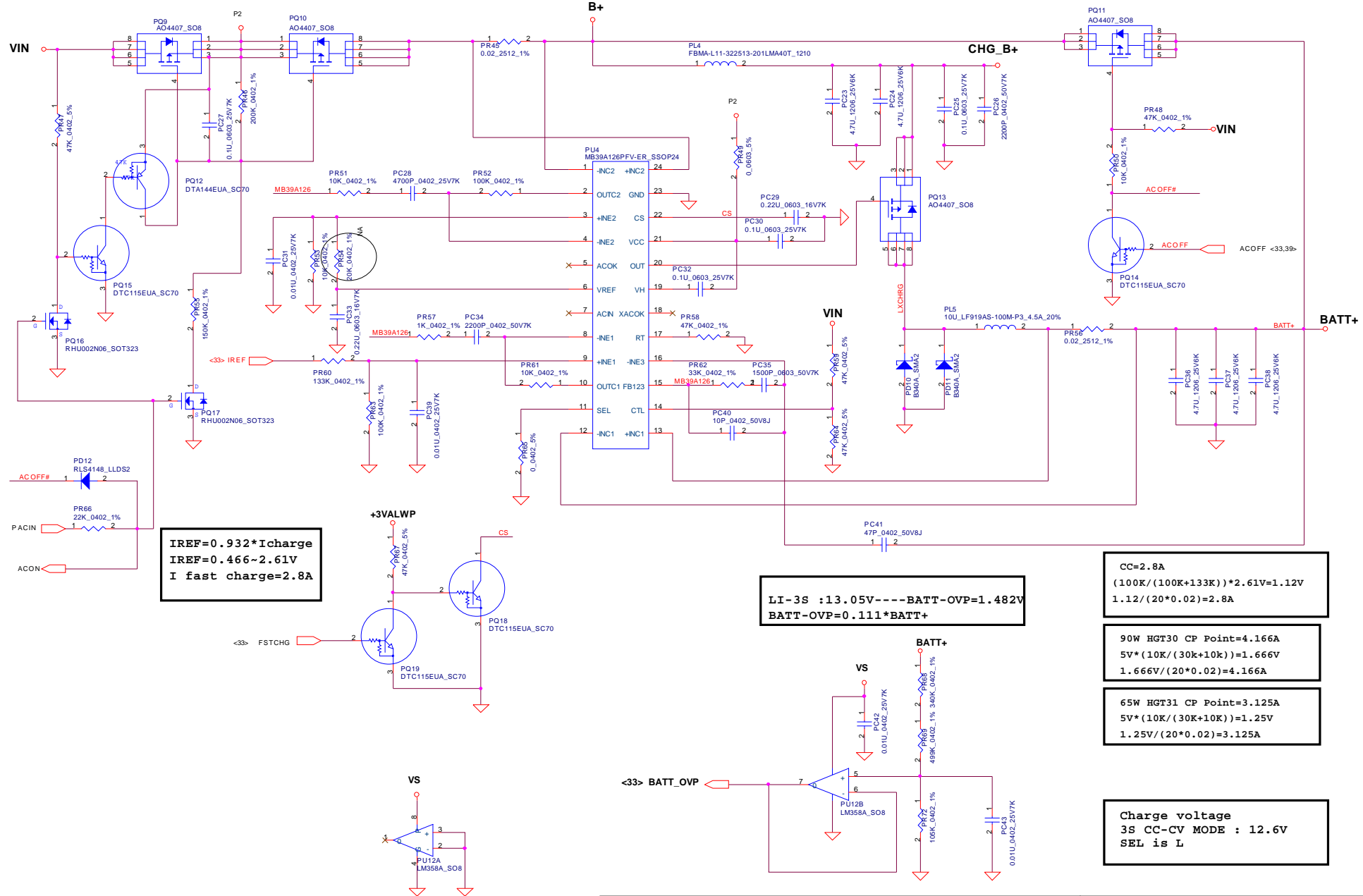


Security Classification		Compal Secret Data				Compal Electronics, Inc.			
Issued Date		2005/08/01		Deciphered Date		2006/08/01		Title	
								BATTERY CONN. / OTP	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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		Rev
						B			0.1
						Date:	星期日, 七月 31, 2006		Sheet

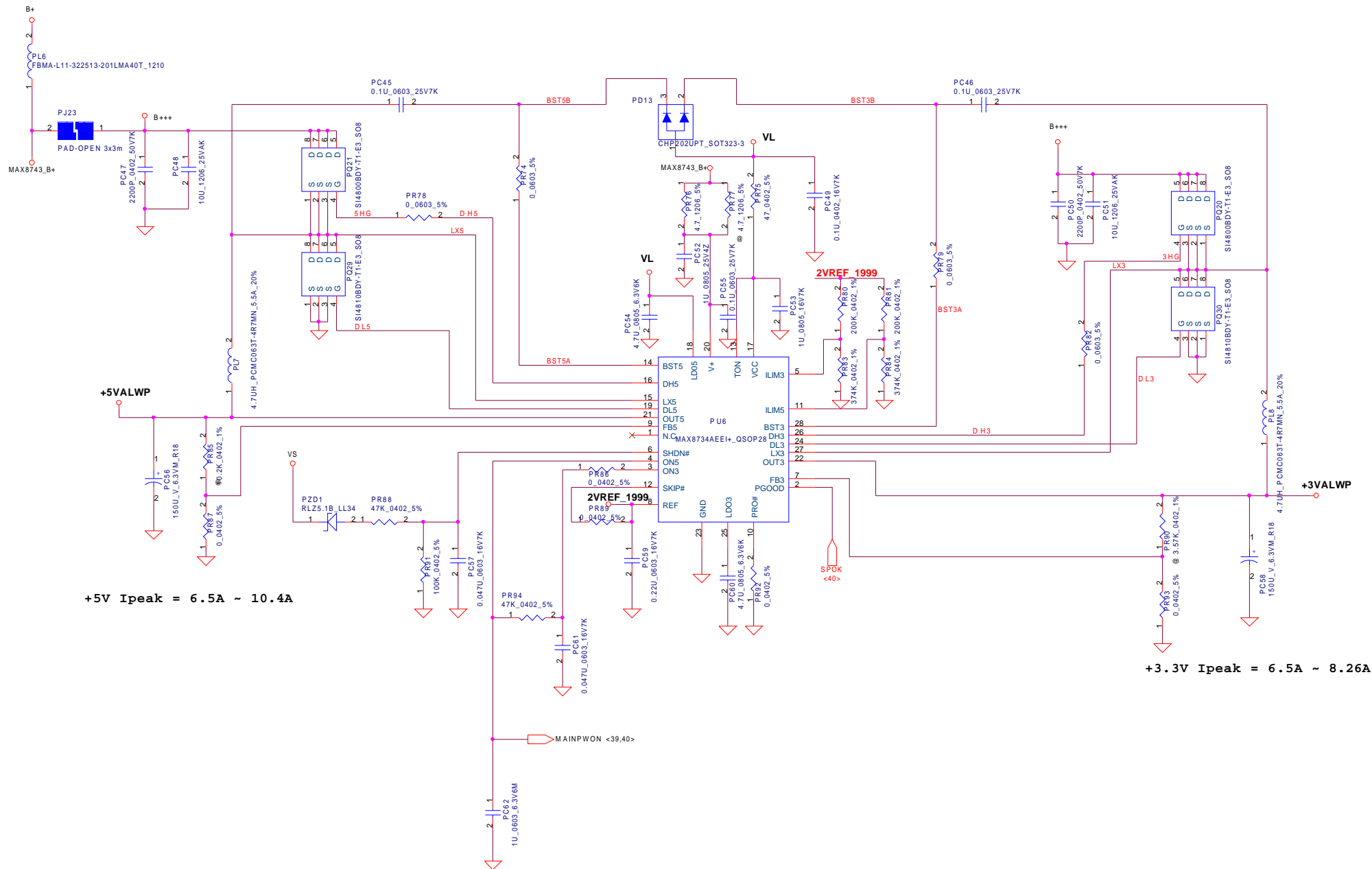
65W PR45=0.02_2512_1% PR54=30K_0402_1% Iadp=0~3.125A
90W PR45=0.02_2512_1% PR54=20K_0402_1% Iadp=0~4.166A

Fosc=14100/Rt=14100/47=300KHz

Charger

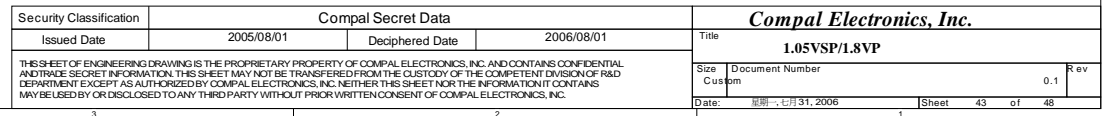


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/08/01	Deciphered Date	2006/08/01	Title	PWR-Charger
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				B	Rev 0.1
				Date	星期一, 七月 31, 2006
				Sheet	41 of 48

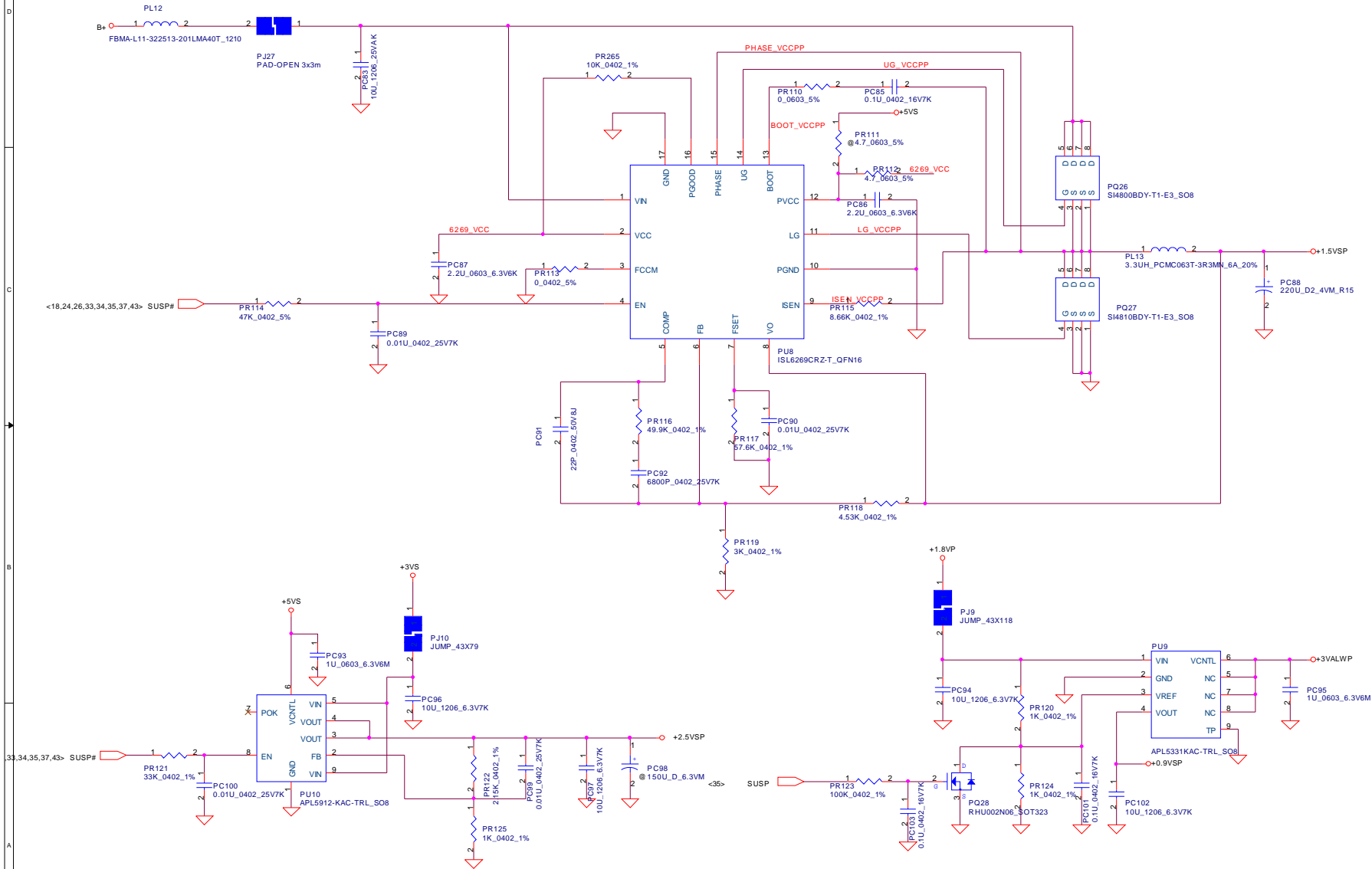


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2005/08/01	Deciphered Date	2006/08/01	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				+5VALWP/+3VALWP	
Size	Document Number	Rev		Date: 星期一, 七月 31, 2006	
Custom		0.1		Sheet 42 of 48	

+1.05VSP Ilimit=6.33A~10.03A



+1.5VSP Ilimit = 9.38A~12.5A



Security Classification		Compal Secret Data		Title	
Issued Date		Deciphered Date		+VCCPP/+2.5VSP/0.9VSP	
2005/08/01		2006/08/01		Size	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.		Document Number		Rev	
		Custom		0.1	
Date:		星期：七月31, 2006		Sheet 44 of 48	

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

Page 1 of 1
for PWR

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	VER	Phase
1		MODIFY 3V/5V current limit to 6.5A~8.1A/6.5A to 10.2A		42	MODIFY PR83/PR84 FROM 499K TO 374K		DVT
2		ADD or decrease CPU CORE ring with EMI solution : snubber		45	Reserve PR224//PR256: 4.7 1206 ,add PC167/PC182:680P		DVT
3		Reserve PR267,PR268 seperate in CPU CORE high side gate for EMI require		45	Reserve PR267,PR268:0 0603		DVT
4		change PJP1 from 5 pin to 4 pin		39	change PJP1 from 5 pin to 4 pin		DVT
5		modify sequecce		43	change PR179 to 100k, PC132 =0.1U		DVT
6		modify Vgate		45	add PQ38:RHU002N06,PR240:2K,delete PR247		
7		Prevent noise interference cpu_core feedback		45	Reserve PC185, PC186, PC187, PC188		
8							
9							
10							
11							
8							
9							

Compal Electronics, Inc.

Title

PIR (PWR)

Size

Document Number

Rev
0.2

Date: 星期三, 七月 31, 2006

Sheet 46 of 48

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

Page 1 of 1

Item	Fixed Issue	Rev.	PG#	Modify List	B.Ver#	Phase
1	PC Beep modify	0.2	29	Modify C714 from 0603 to 0402	0.2	DVT
2	Head Phone no sense	0.2	29	Add R892 for Audio channel B use	0.2	DVT
3	PC BEEP FOR DOS MODE	0.2	29	Change 1u to 680p	0.2	DVT
4	CIR for ALW power	0.2	32	Add R893 for CIR	0.2	DVT
5	To prevent voltage feedback to +3VS from KB_RST#	0.2	33	Add D812	0.2	DVT
6	EAPD change to AC_RST_AUDIO#	0.2	29	Change R458	0.2	DVT
7					0.2	DVT
					0.2	DVT
					0.2	DVT
8					0.2	DVT
9					0.2	DVT
10					0.2	DVT
					0.2	DVT
11					0.2	DVT

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.

Compal Electronics, Inc.		
Title		
PIR		
Size	Document Number	Rev
	HGT30/31 LA-3061	0.0
Date:	星期日, 七月 31, 2006	Sheet 47 of 48

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

Item	Fixed Issue	Rev.	PG#	Modify List	B.Ver#	Phase
12					0.3	PVT
13					0.3	PVT
14					0.3	PVT
15					0.3	PVT
16					0.3	PVT

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.

Compal Electronics, Inc.		
Title PIR		
Size	Document Number HGT30/31 LA-3061	Rev 0.0
Date	星期 四, 七月 31, 2006	
Sheet		48 of 48