



Compal Confidential

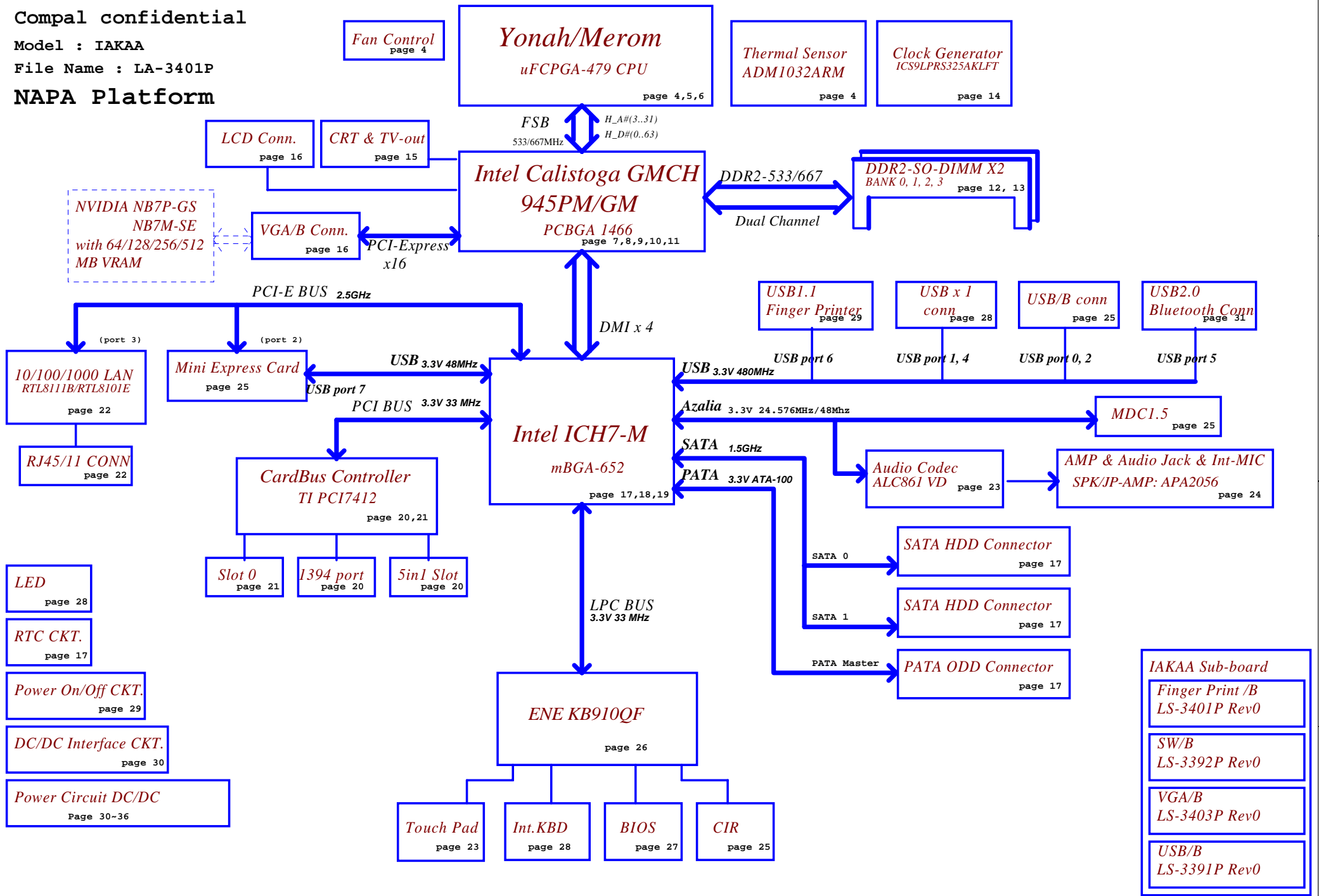
IAKAA LA-3401P Schematics Document

Intel Yonah/Merom with 945PM/GM + DDRII + ICH7M
(+VGA/B NVidia NB7P-GS&NB7M-SE)

2006-10-03

REV: 0.3

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Title	
<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&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>				Cover Sheet	
				Size	Document Number
Date:		Thursday, October 05, 2006		Sheet	1 of 38



IAKAA Sub-board

- Finger Print /B LS-3401P Rev0
- SW/B LS-3392P Rev0
- VGA/B LS-3403P Rev0
- USB/B LS-3391P Rev0

Security Classification	Compal Secret Data	
Issued Date	2006/10/03	Deciphered Date
		2009/10/03
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		
Block Diagram		
Size	Document Number	Rev
	IAKAA M/B LA-3401P	0.3
Date:	Thursday, October 05, 2006	Sheet 2 of 38

Voltage Rails

Power Plane	Description	S1	S3	S5
VIN	Adapter power supply (19V)	NA	NA	NA
B+	AC or battery power rail for power circuit.	NA	NA	NA
+CPU_CORE	Core voltage for CPU	ON	OFF	OFF
+0.9VS	0.9V switched power rail for DDR terminator	ON	OFF	OFF
+VCCP	1.05V switched power rail	ON	OFF	OFF
+1.5VS	1.5V switched power rail	ON	OFF	OFF
+1.8V	1.8V power rail for DDR	ON	ON	OFF
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+2.5VS	2.5V switched power rail	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	ON*
+5VS	5V switched power rail	ON	OFF	OFF
+VSB	+VSB always on power rail	ON	ON	ON*
+RTCVC	RTC power	ON	ON	ON

Note : ON* means that this power plane is ON only with AC power available, otherwise it is OFF.

External PCI Devices

DEVICE	PCI Device ID	IDSEL #	REQ/GNT #	PIRQ
1394	D0	AD20	2	A,B,C,D
CARD BUS	D4	AD20	2	A,B,C,D
5IN1	D4	AD20	2	A,B,C,D

KB910 I2C / SMBUS ADDRESSING

DEVICE	HEX	ADDRESS
SM1 24C16	A0H	1 0 1 0 0 0 0 X b
SM1 SMART BATTERY	16H	0 0 1 0 1 1 X b
SM2 ADM0132	98H	1 0 0 1 1 0 0 X b
CPU THERMAL MONITOR		

ICH7-M SM Bus address

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

Board ID / SKU ID Table for AD channel

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

BOARD ID Table

Board ID	PCB Revision
0	0.1
1	0.2
2	0.3
3	
4	
5	
6	
7	

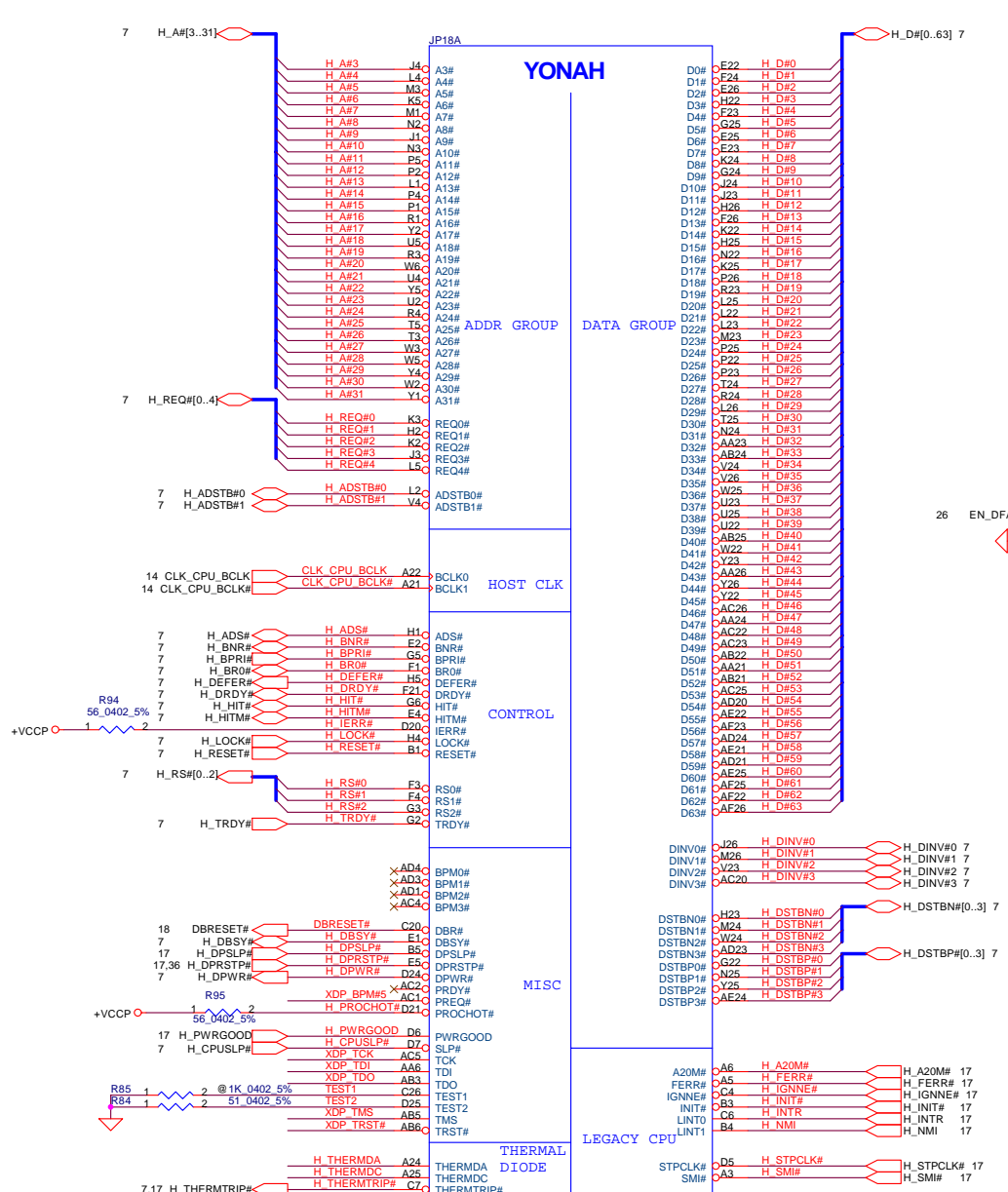
BTO Option Table

BTO Item	BOM Structure
2ND HDD	2HDD@
LAN	100M@ 1000M@
WLAN	KS@
NB	GM@ PM@
BT	BT@
MIC	MIC@
CIR	CIR@
FINGER PRINT	
5IN1	7412@

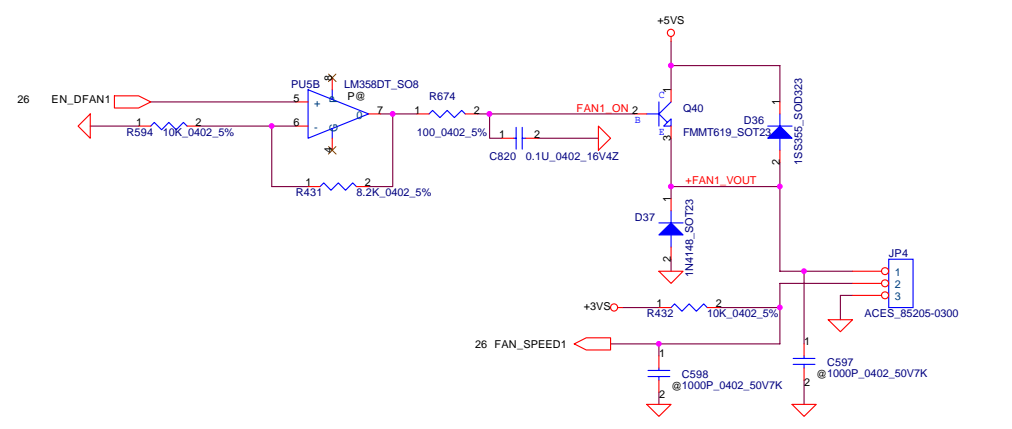
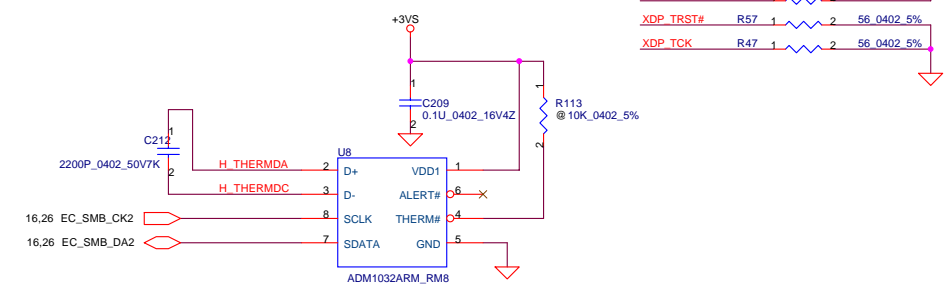
SKU ID Table

SKU ID	SKU
0	10 (10E)
1	10C
2	10G
3	10GC
4	10J (10EJ)
5	10CJ
6	10GJ
7	10GCJ

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	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.				Notes	
				Size	Document Number
				IAKAA MB LA-3401P	
				Date:	Thursday, October 05, 2006
				Sheet	3 of 38

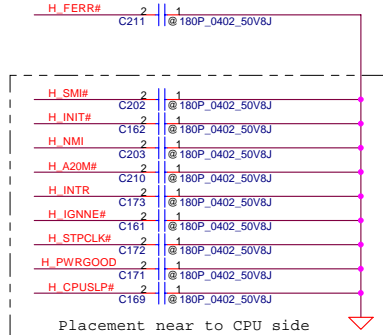


Thermal Sensor ADM1032ARM

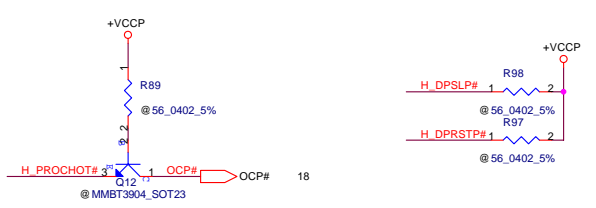


Place close to CPU within 500mil

Placement near to ICH7

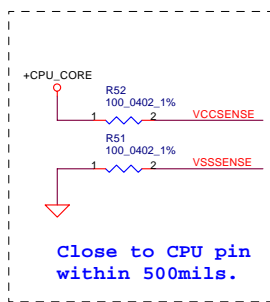
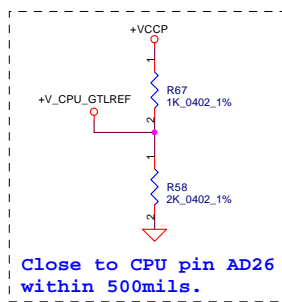


H_THERMDA, H_THERMDC routing together.
Trace width / Spacing = 10 / 10 mil

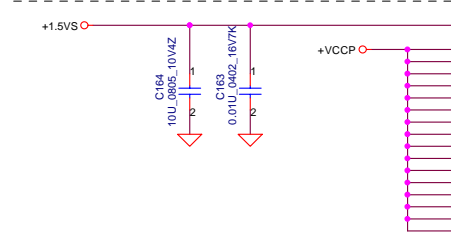


Security Classification		Compal Secret Data	
Issued Date	2006/10/03	Deciphered Date	2009/10/03
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT 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.			

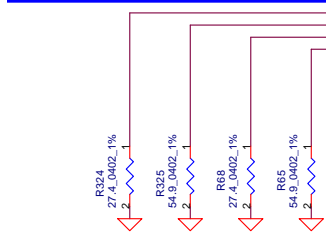
Compal Electronics, Inc.			
Title Yonah CPU in mFCPGA479			
Size	Document Number	Rev	
	IAKAA M/B LA-340IP	0.3	
Date:	Thursday, October 05, 2006	Sheet	4 of 38



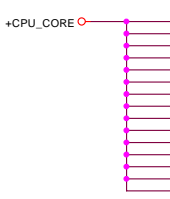
Length match within 25 mils
The trace width 18 mils space
7 mils

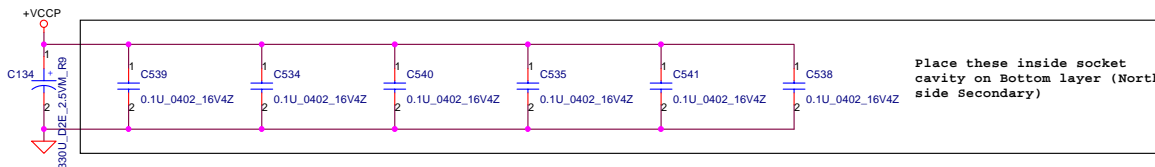
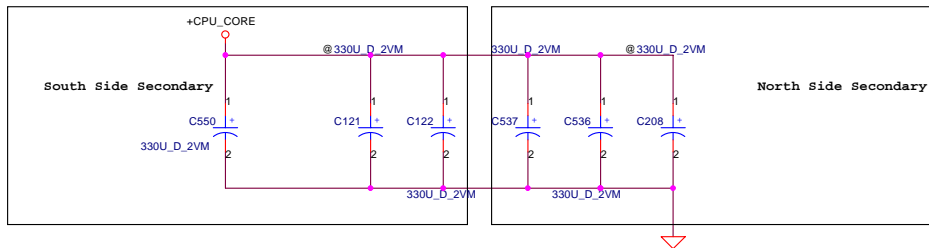
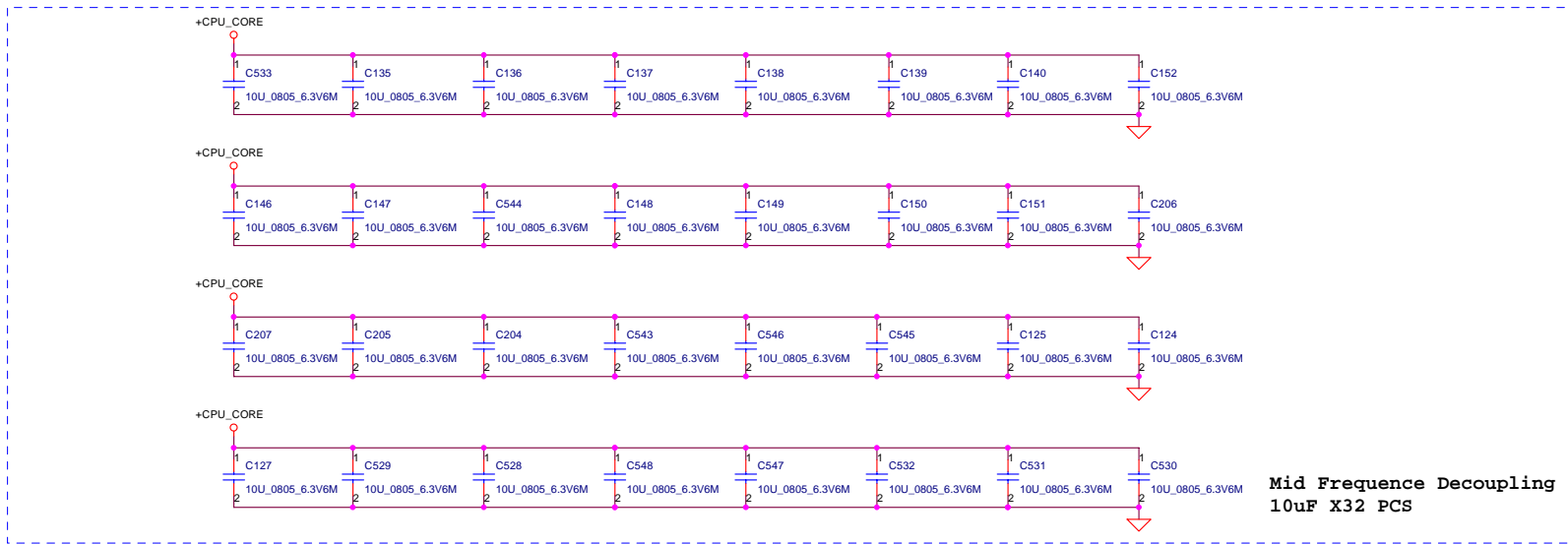


CPU_BSEL	CPU_BSEL2	CPU_BSEL1	CPU_BSEL0
133	0	0	1
166	0	1	1

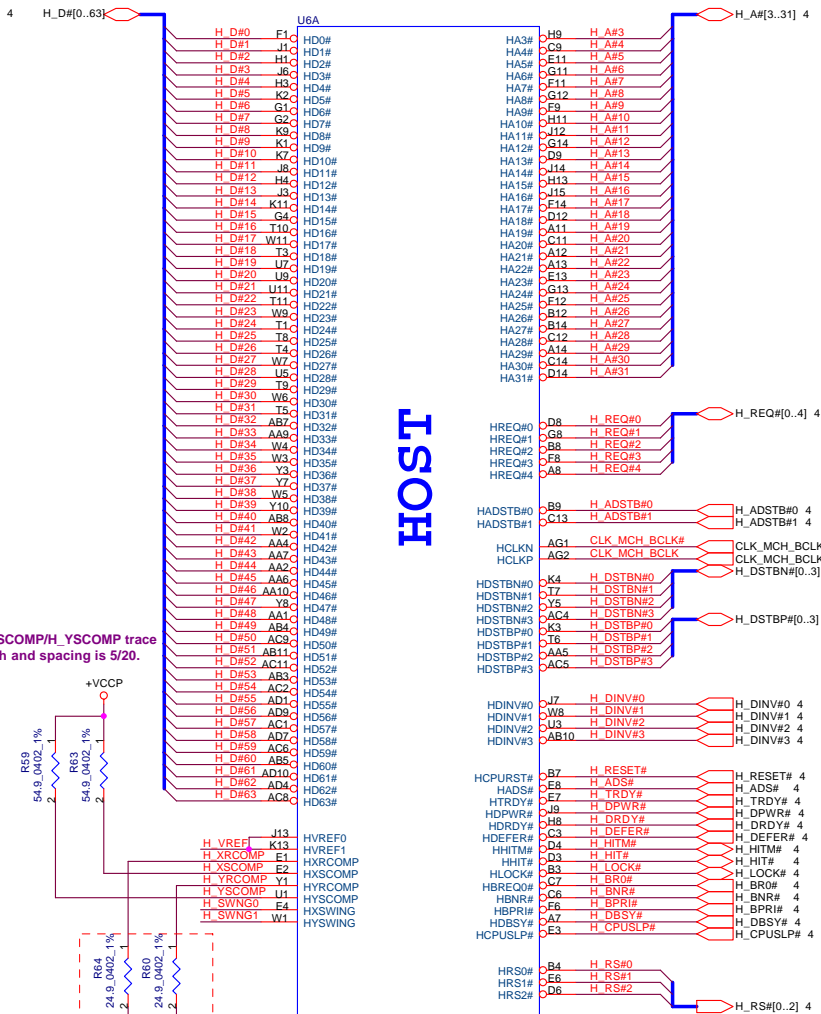


Resistor placed within 0.5" of CPU pin. Trace should be at least 25 mils away from any other toggling signal.





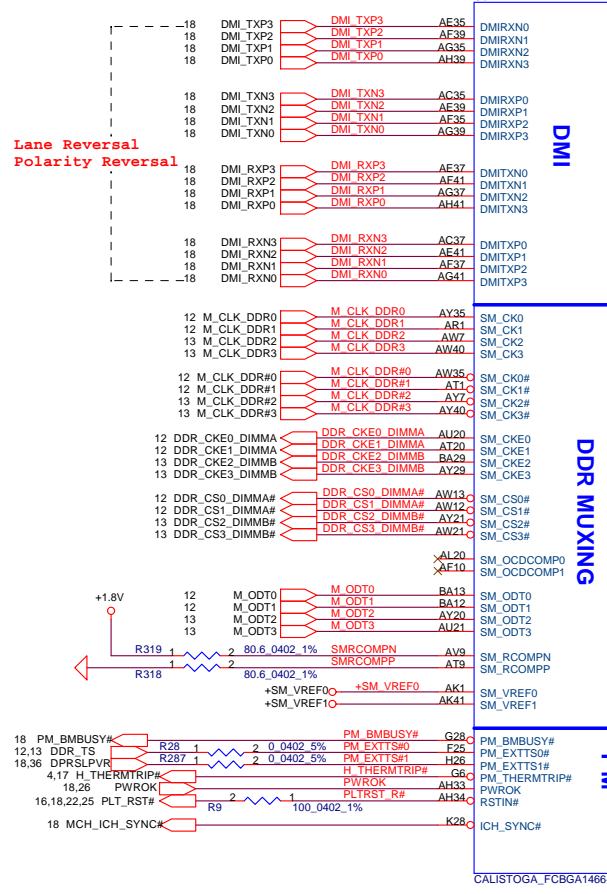
Security Classification	Compal Secret Data			Title Compal Electronics, Inc. CPU Bypass capacitors		
Issued Date	2006/10/03	Deciphered Date	2009/10/03			
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS 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, October 05, 2006					Sheet 6 of 38	



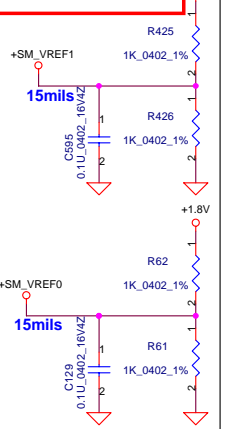
HOST

H_XSCOMP/H_YSCOMP trace width and spacing is 5/20.

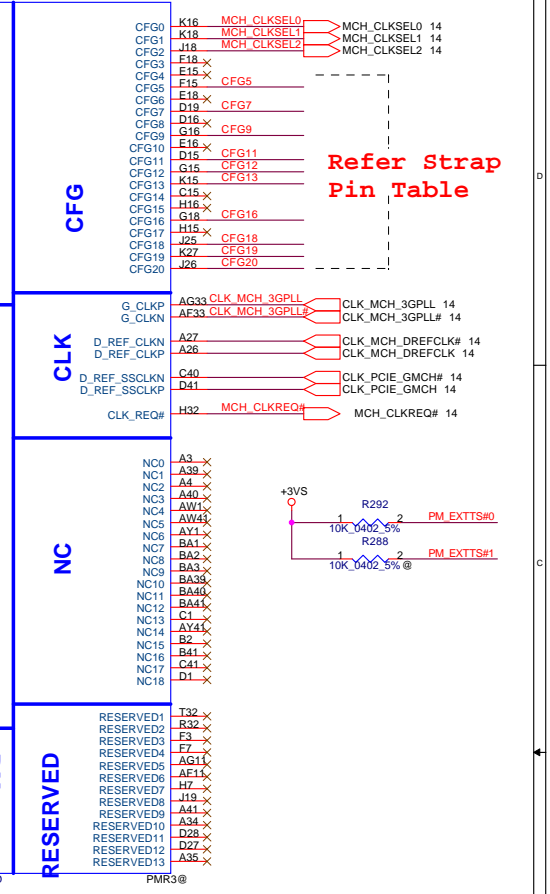
Layout Note: H_XRCOMP / H_YRCOMP / H_VREF / H_SWNG0 / H_SWNG1 trace width and spacing is 18/20.



Layout Note: +SM_VREF0 & +SM_VREF1 trace width and spacing is 20/20.



Modified

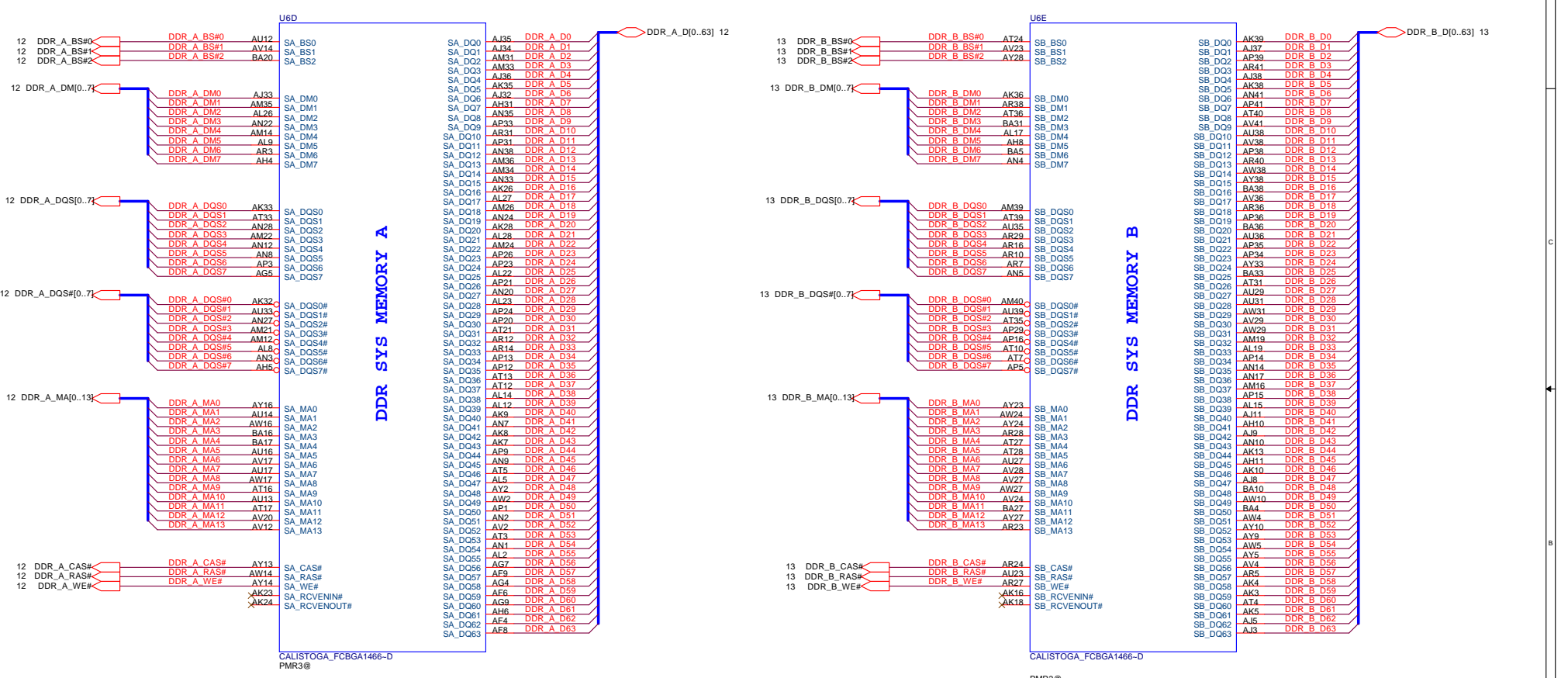


Refer Strap Pin Table

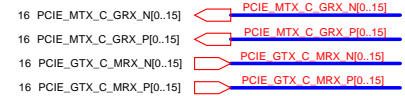
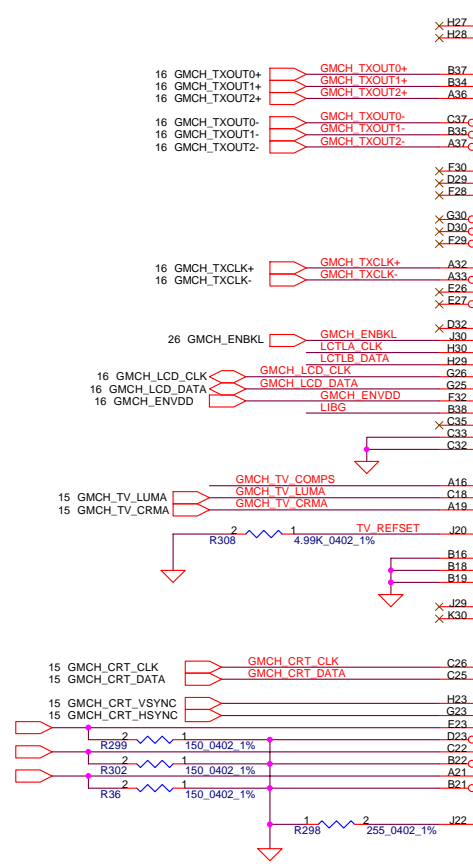
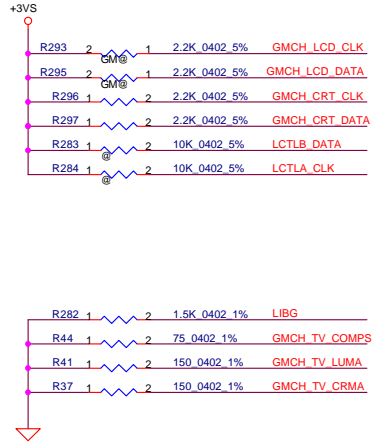
Strap Pin Table		CFG[3:17] have internal pull up	CFG[19:18] have internal pull down
CFG[2:0]	011 = 667MT/s FSB 001 = 533MT/s FSB		
CFG5	0 = DMI x 2 *1 = DMI x 4 (Default)		
CFG7	0 = Reserved *1 = Mobile Yonah CPU (Default)		
CFG9	0 = Lane Reversal Enable *1 = Normal Operation (Default)		
CFG11	0 = Reserved *1 = Calistoga (Default)		
CFG[13:12]	00 = Reserved 01 = XOR Mode Enabled 10 = All Z Mode Enabled *11 = Normal Operation (Default)		
CFG16	0 = Dynamic ODT Disabled *1 = Dynamic ODT Enabled (Default)		
CFG18	*0 = 1.05V (Default) 1 = 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	*0 = Only PCIE or SDVO is operational. (Default) 1 = PCIE/SDVO are operating simu.		

Security Classification	Compal Secret Data		Title
Issued Date	2006/10/03	Deciphered Date	2009/10/03
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.			

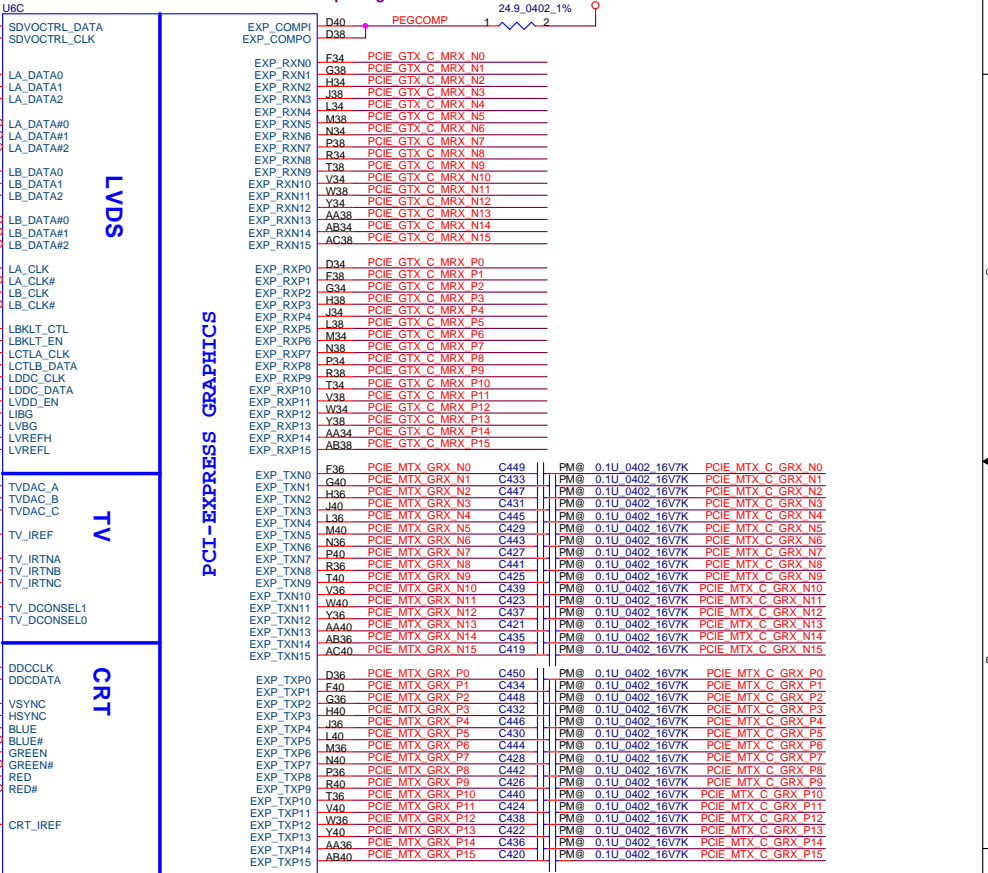
Compal Electronics, Inc.			
Calistoga (1/5)			
Size	Document Number	Rev	
	IAKAA M/B LA-3401P	0.3	
Date:	Thursday, October 05, 2006	Sheet	7 of 38



Security Classification		Compal Secret Data		Title	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Compal Electronics, Inc.	
				Calistoga (2/5)	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				IAKAA M/B LA-3401P	
				Date:	Thursday, October 05, 2006
				Sheet	8 of 38
				Rev	0.3



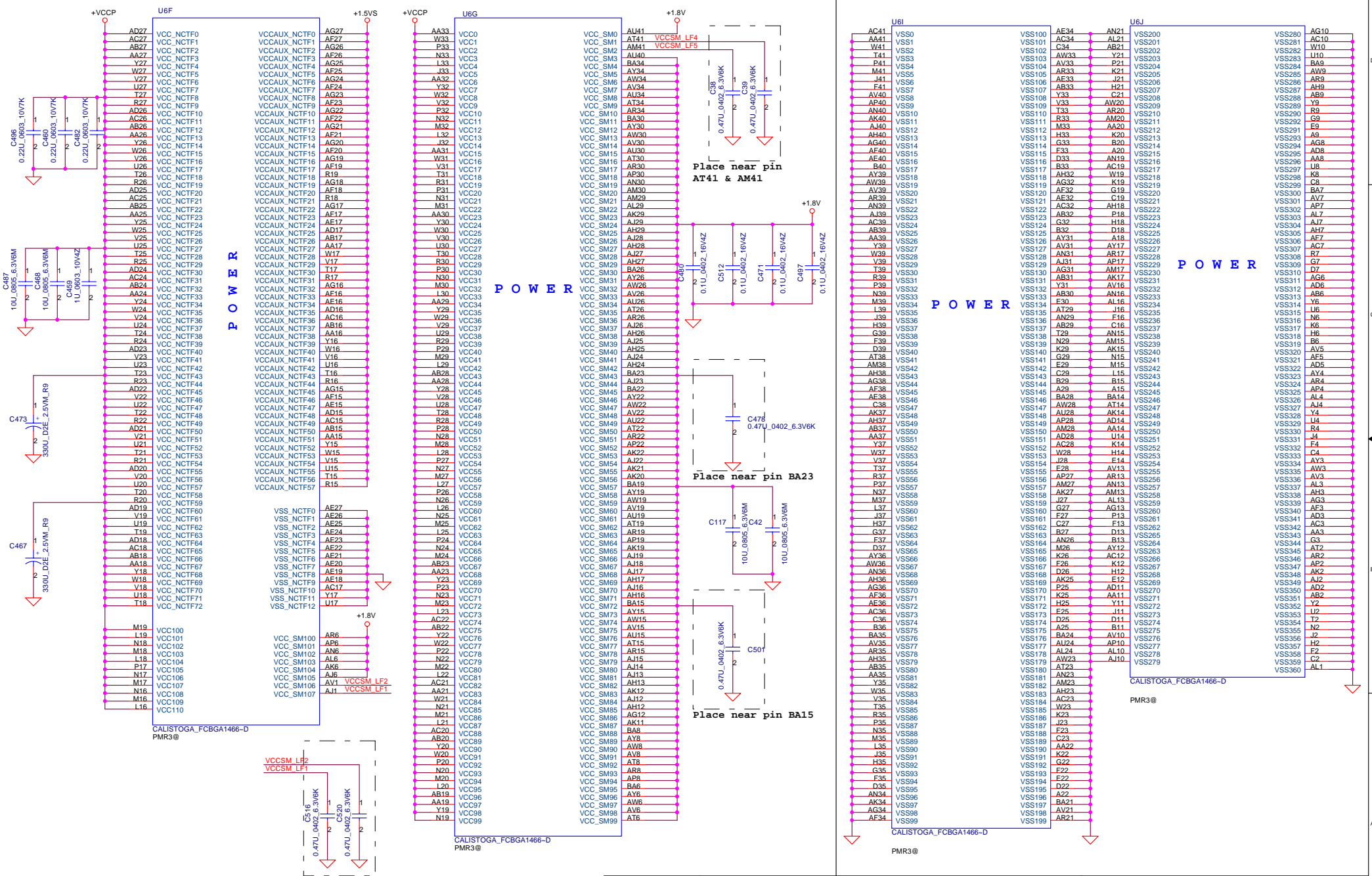
PEGCOMP trace width and spacing is 18/25 mils.



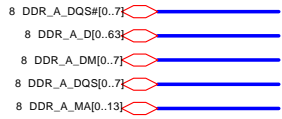
Security Classification	Compal Secret Data			Title	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Calistoga (3/5)	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				IAKAA M/B LA-3401P	Rev 0.3
				Date: Thursday, October 05, 2006	Sheet 9 of 38

POWER

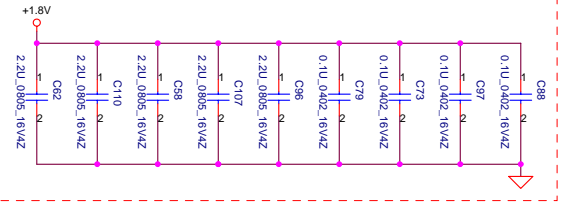
GND



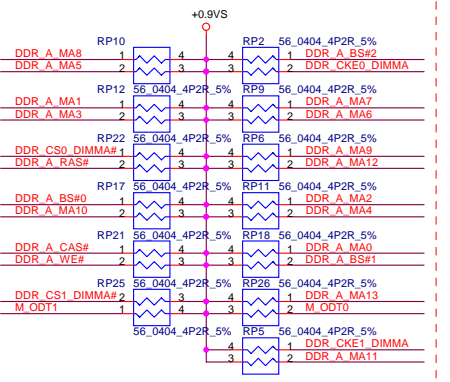
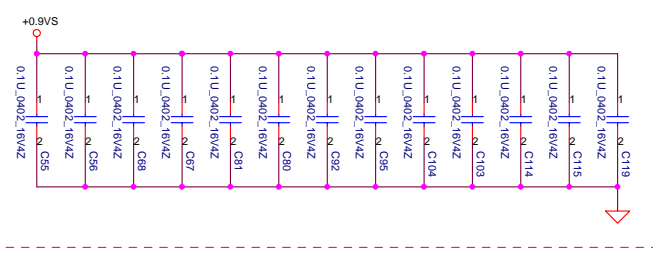
Security Classification	Compal Secret Data		Title	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Calistoga (5/5)
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				
Size	Document Number	Date		Rev
	IAKAA M/B LA-340IP	Thursday, October 05, 2006		0.3
				11 of 38



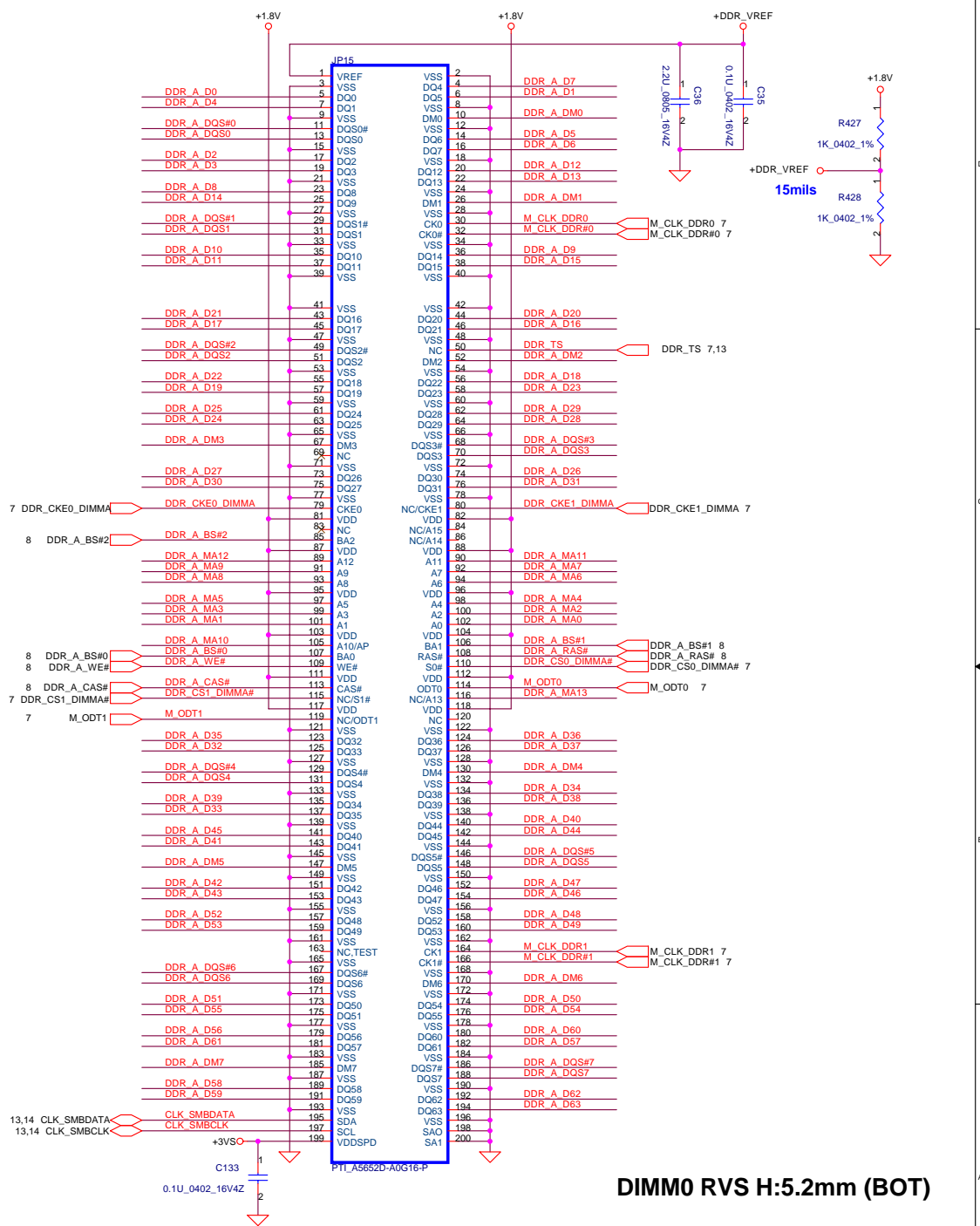
Layout Note:
Place near JP27



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

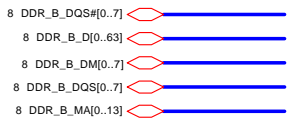


Layout Note:
Place these resistor closely JP27, all trace length Max=1.5"

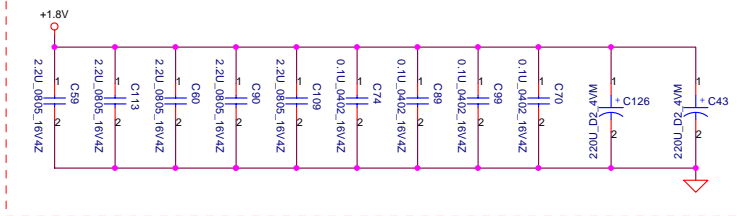


DIMM0 RVS H:5.2mm (BOT)

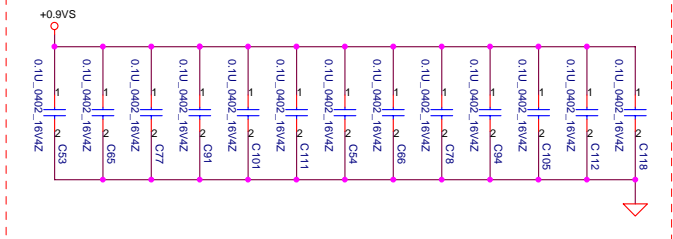
Security Classification	Compal Secret Data			Title	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Compal Electronics, Inc.	
				DDR2-SODIMM SLOT1	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS 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
				IAKAA MB/LA-340IP	
				Date:	Thursday, October 05, 2006
				Sheet	12 of 38
				Rev	0.3



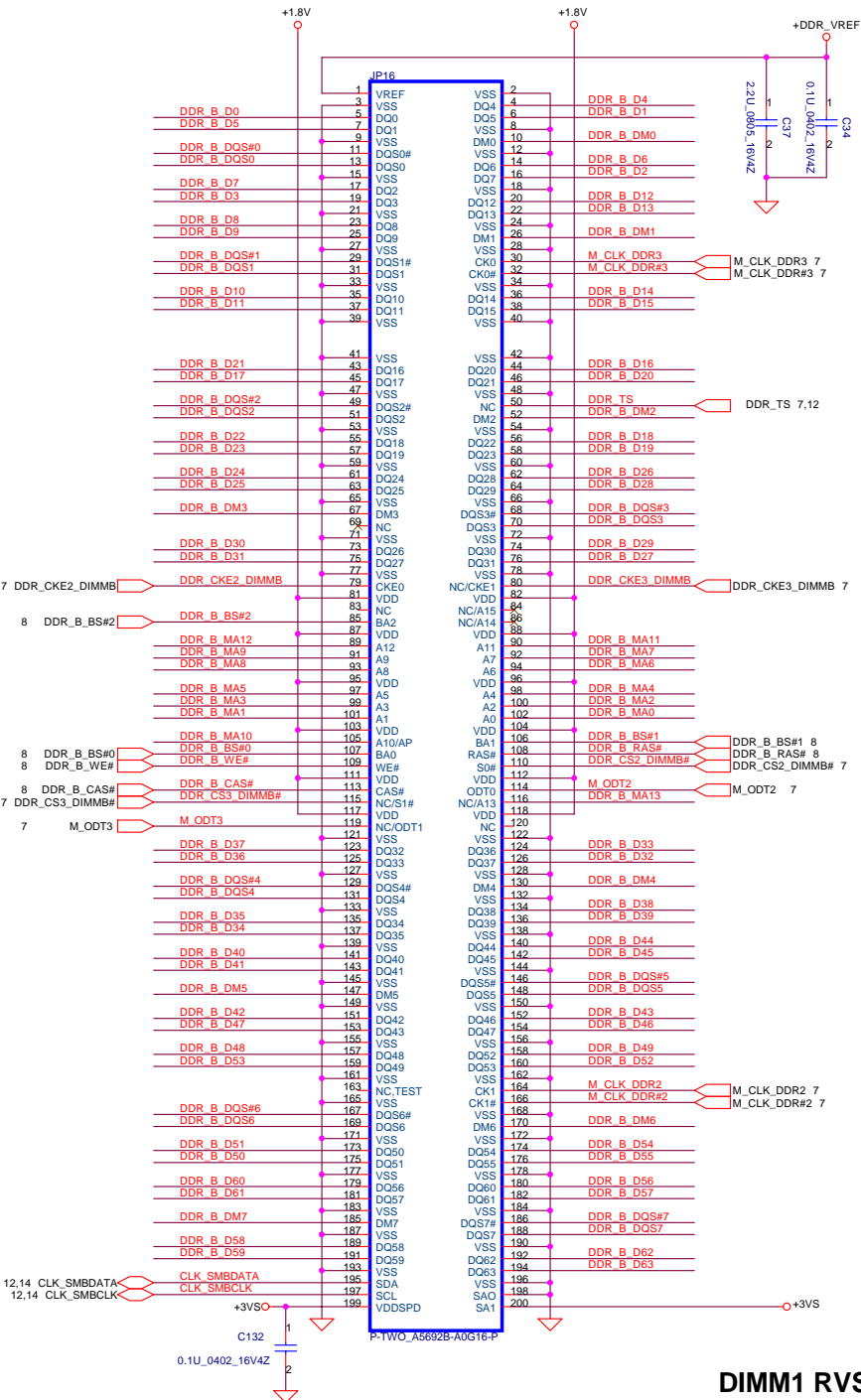
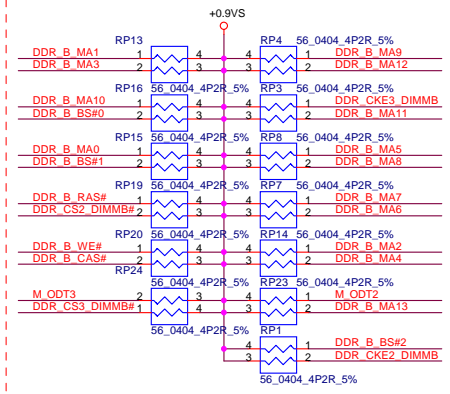
Layout Note:
Place near JP26



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



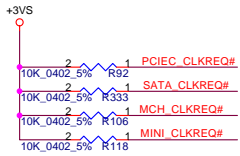
Layout Note:
Place these resistor closely JP26, all trace length Max=1.5"



DIMM1 RVS H:9.2mm (BOT)

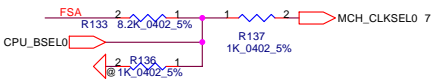
Security Classification		Compal Secret Data	
Issued Date	2006/10/03	Deciphered Date	2009/10/03
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			

Title		Compal Electronics, Inc.	
		DDR11-SODIMM SLOT2	
Size	Document Number	Rev	
	IAXAA MB/LA-340IP	0.3	
Date:	Thursday, October 05, 2006	Sheet	13 of 38

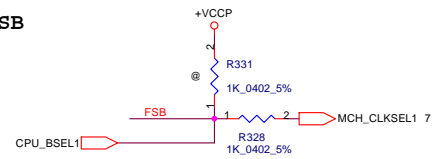


FSLC CLKSEL2	FSLB CLKSEL1	FSLA CLKSEL0	CPU MHz	SRC MHz	PCI MHz
0	0	1	133	100	33.3
0	1	1	166	100	33.3

FSA

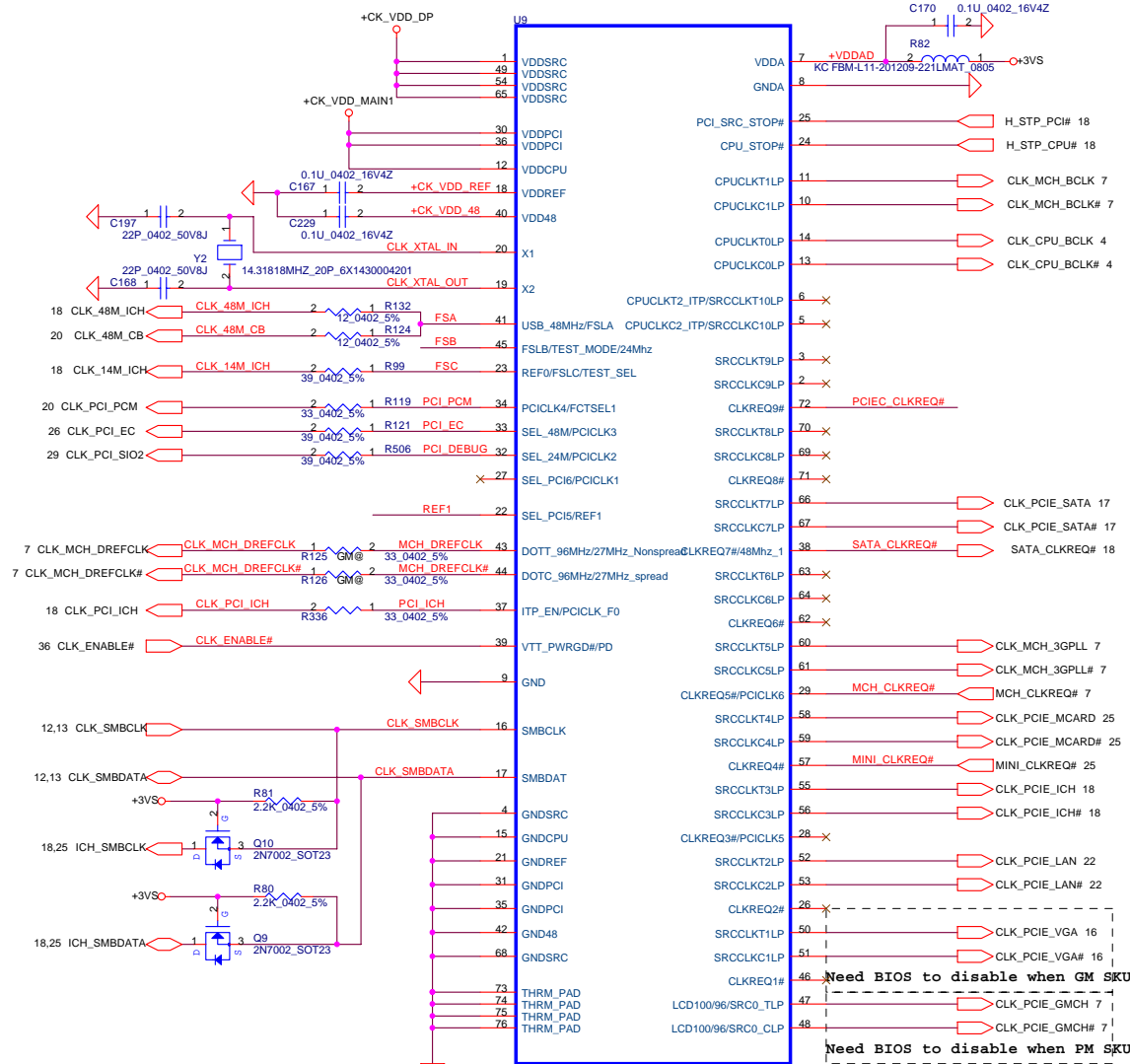
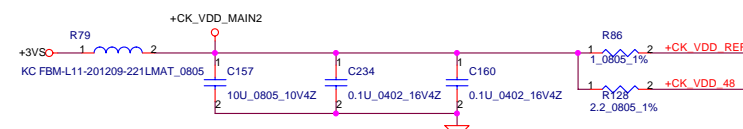
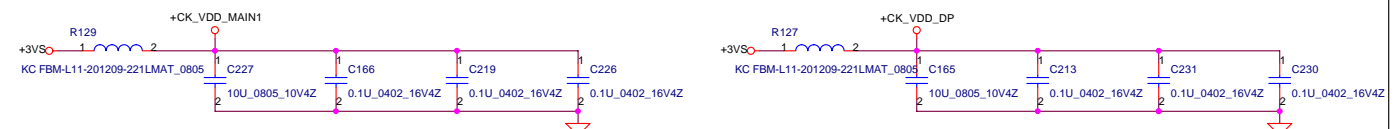
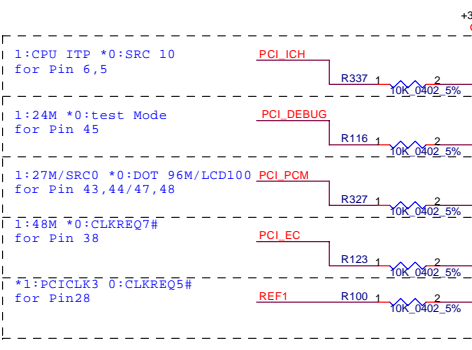
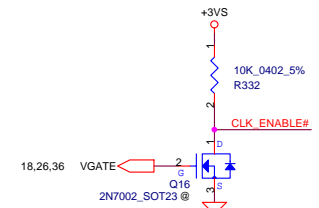
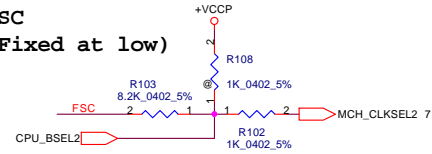


FSB



FSC

(Fixed at low)



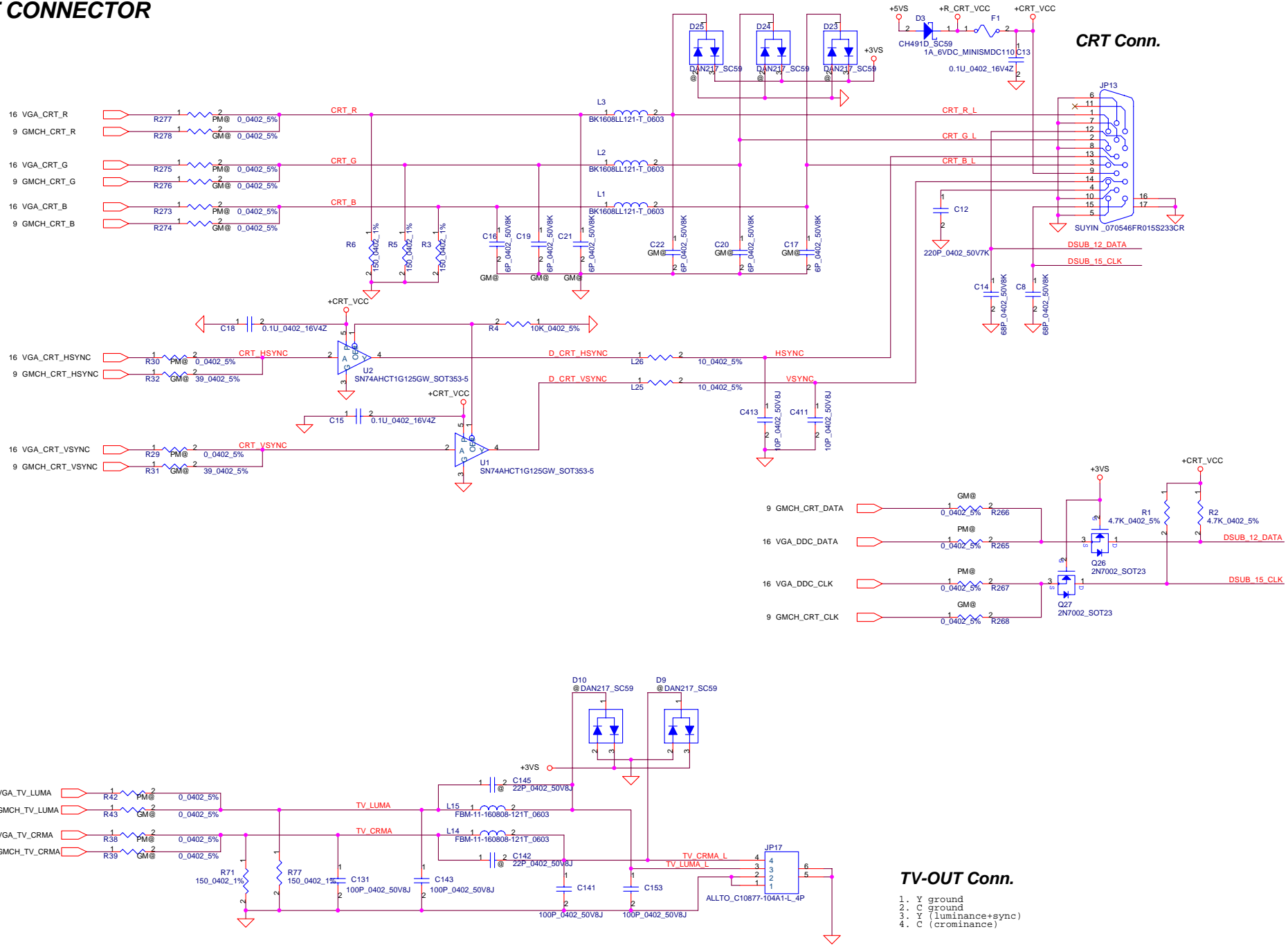
Security Classification	Compal Secret Data	
Issued Date	2006/10/03	Deciphered Date
		2009/10/03

Compal Electronics, Inc.		
Clock generator		
Size	Document Number	Rev
	IAKAA M/B LA-3401P	0.3
Date:	Thursday, October 05, 2006	Sheet 14 of 38

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.

CRT CONNECTOR

Near to JP13

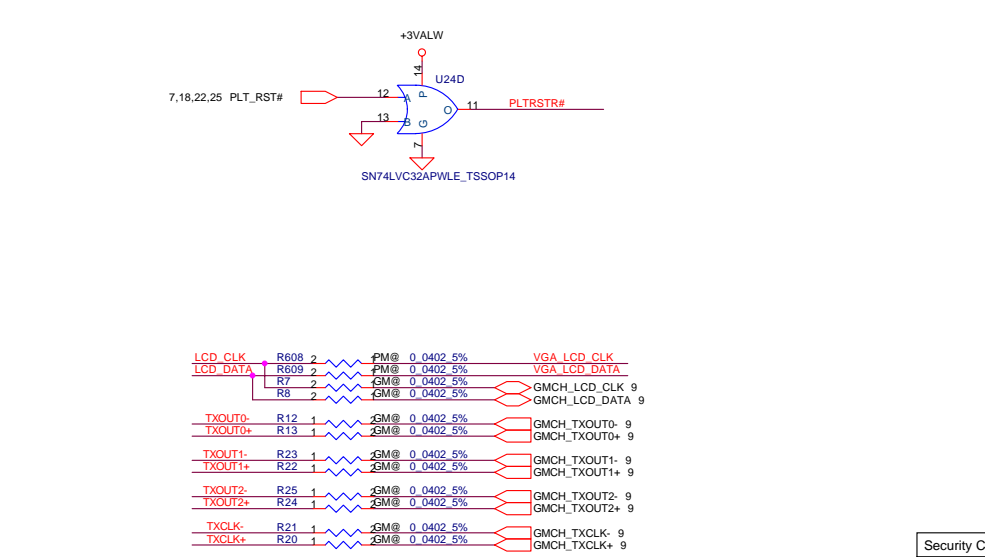
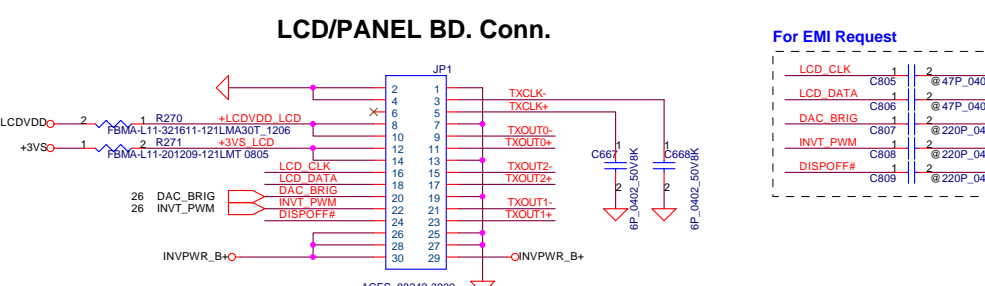
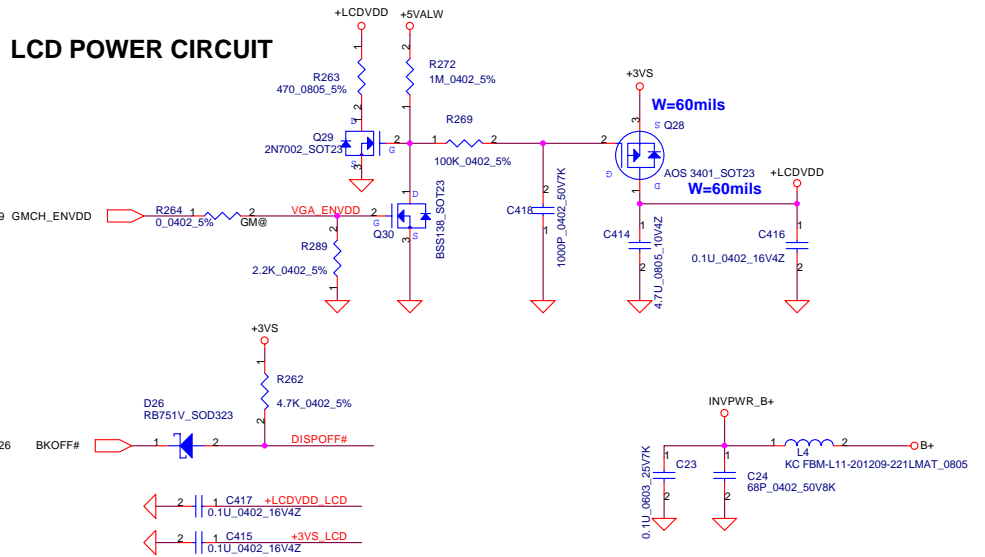


TV-OUT Conn.

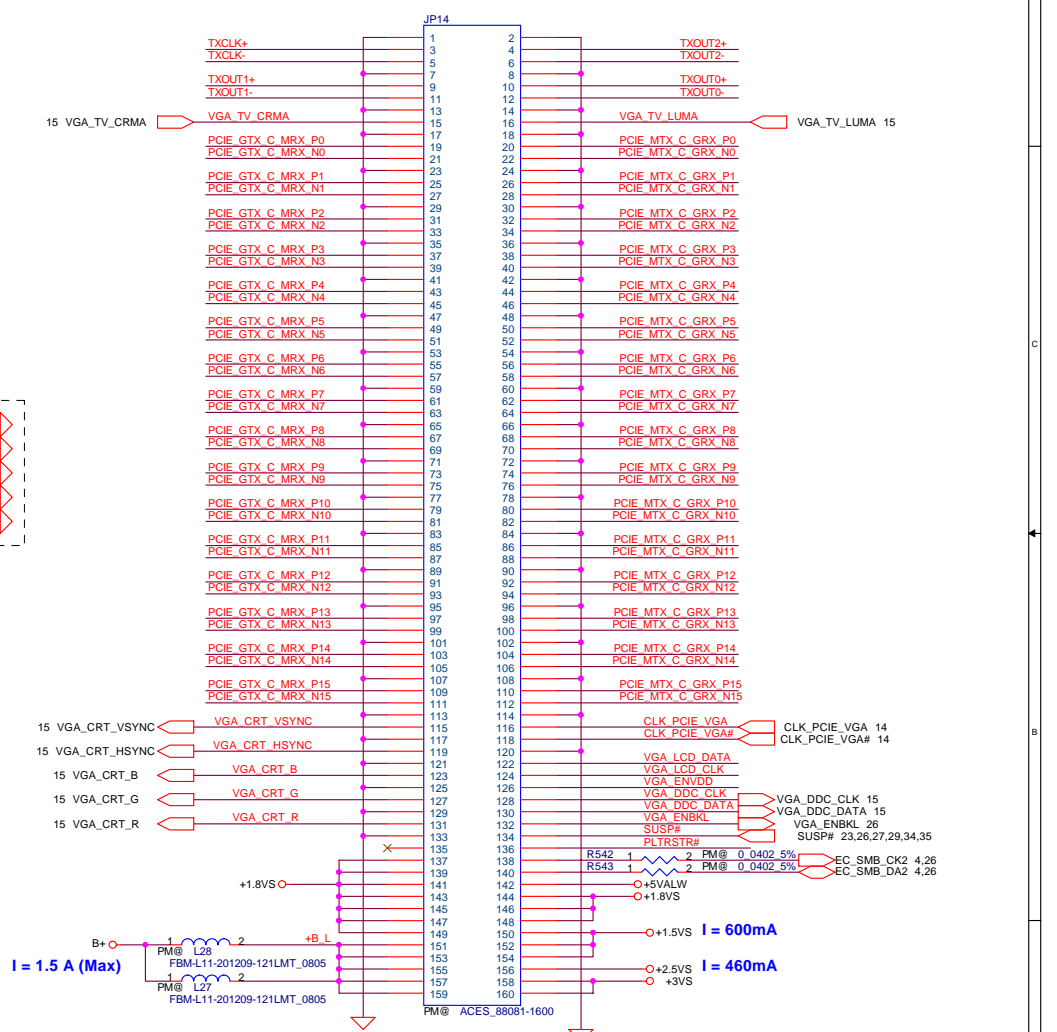
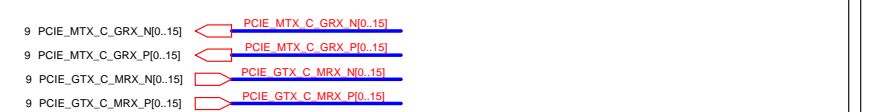
1. Y ground
2. C ground
3. Y (luminance+sync)
4. C (chrominance)

Security Classification	Compal Secret Data			Title		
Issued Date	2006/10/03	Deciphered Date	2009/10/03	CRT & TVout Connector		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	Rev
					IAKAA M/B LA-3401P	0.3
				Date:	Thursday, October 05, 2006	Sheet 15 of 38

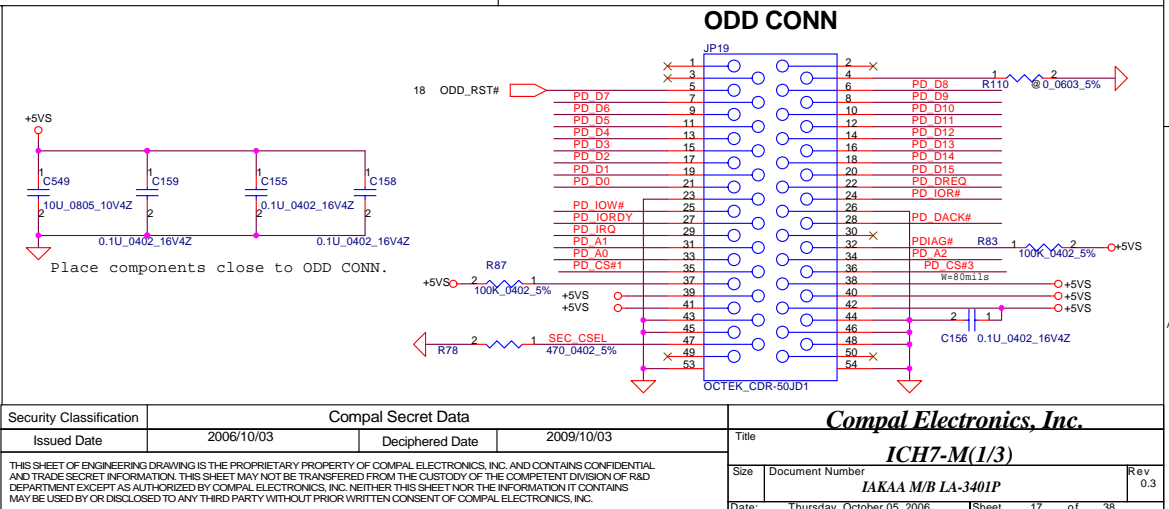
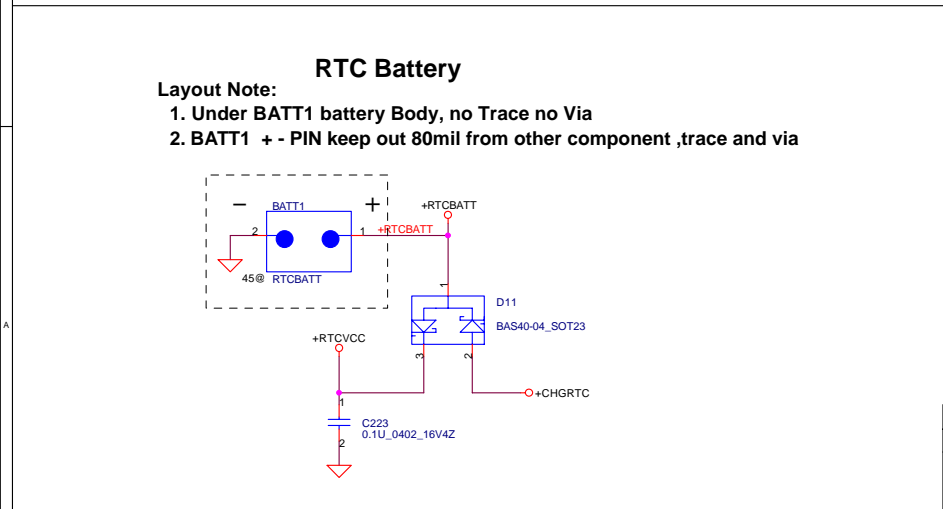
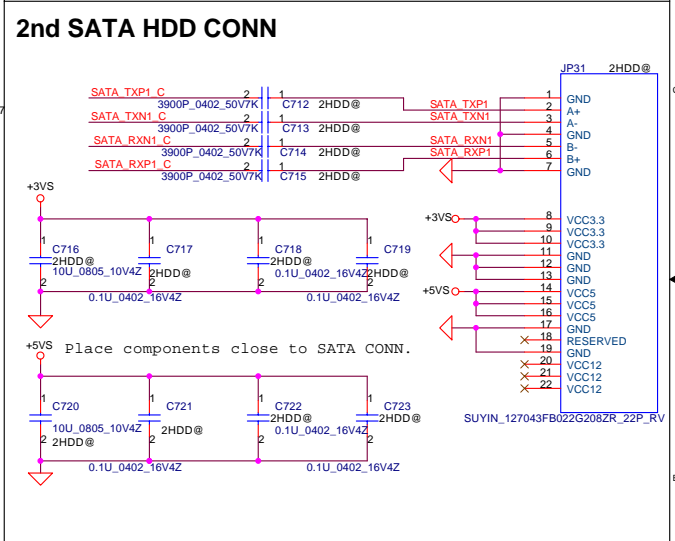
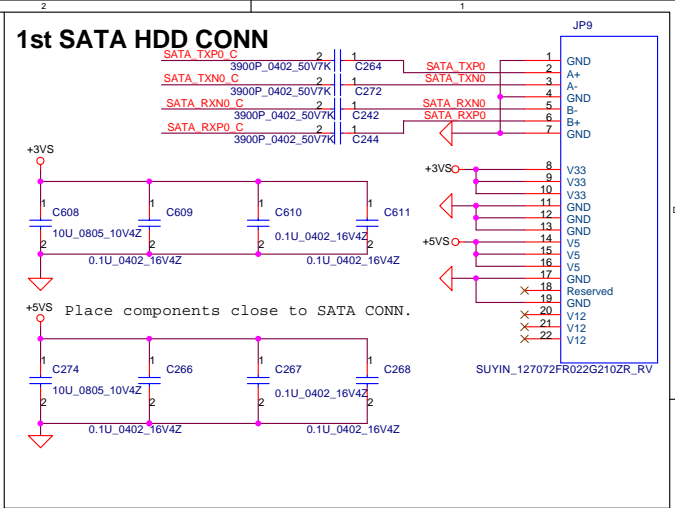
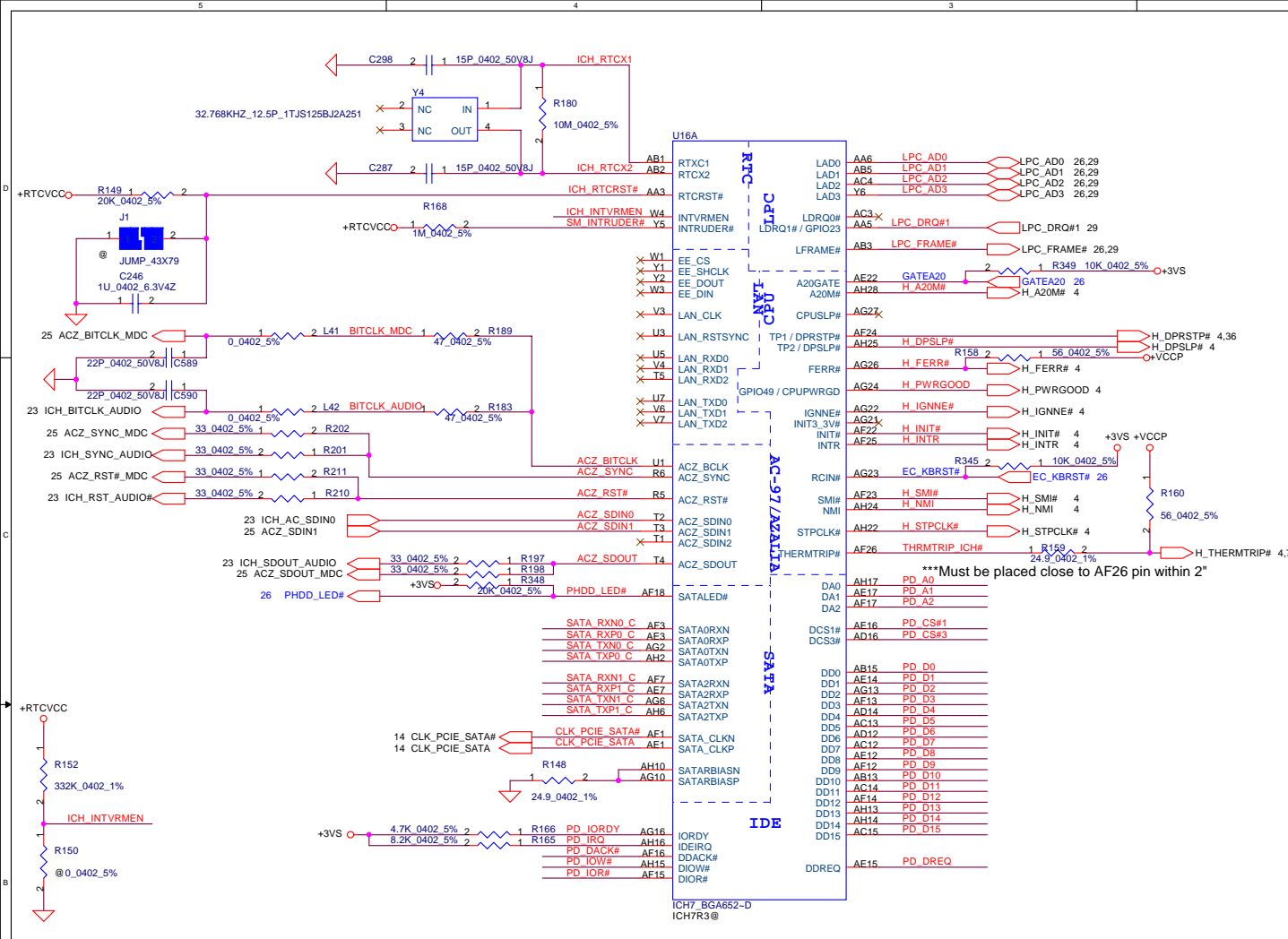
LCD POWER CIRCUIT



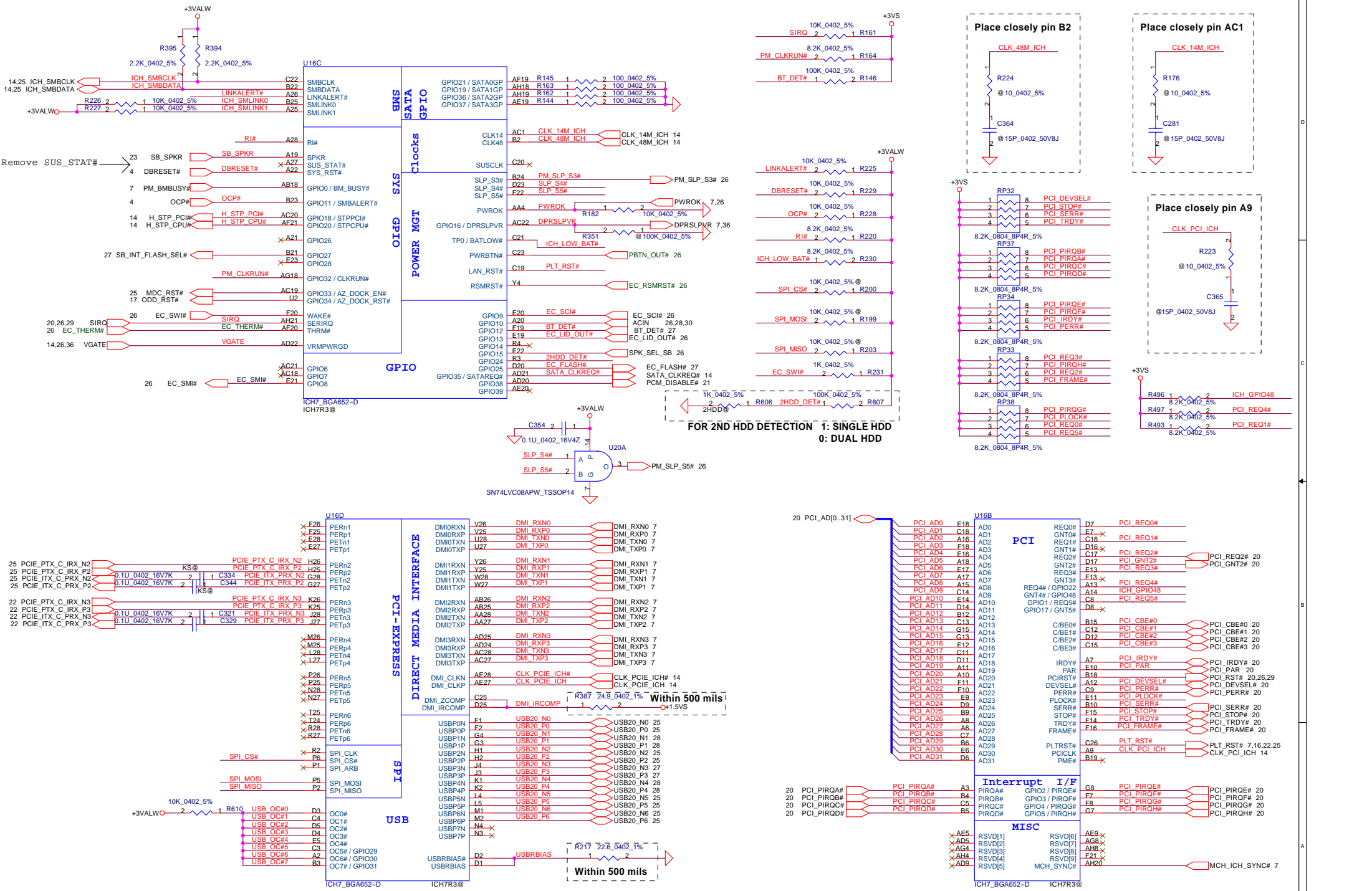
VGA BOARD Conn.



Security Classification		Compal Secret Data		Title	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Compal Electronics, Inc.	
				VGA / 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
				IAKAA M/B LA-3401P	
				Date:	Thursday, October 05, 2006
				Sheet	16 of 38



Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Size Document Number	
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.				IAXAA M/B LA-3401P	
				Date:	Thursday, October 05, 2006 Sheet 17 of 38



Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Size Document Number	
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, October 05, 2006	
				Sheet 18 of 38	

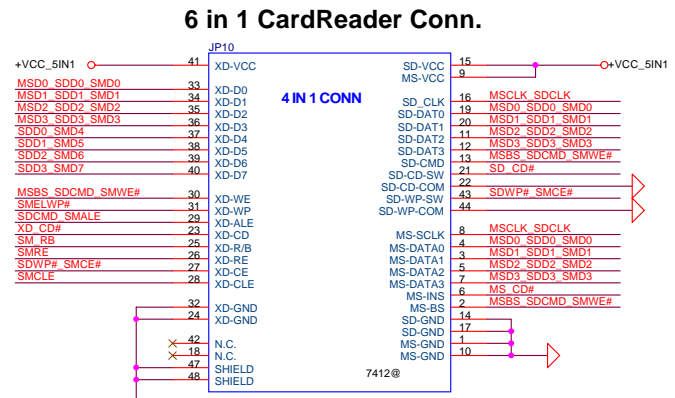
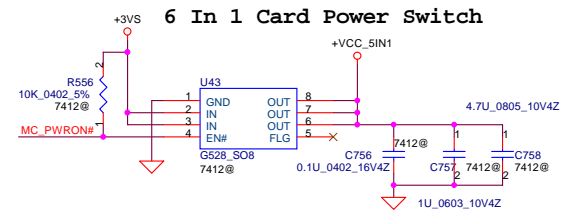
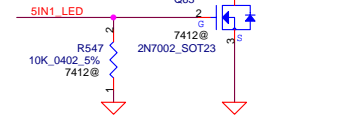
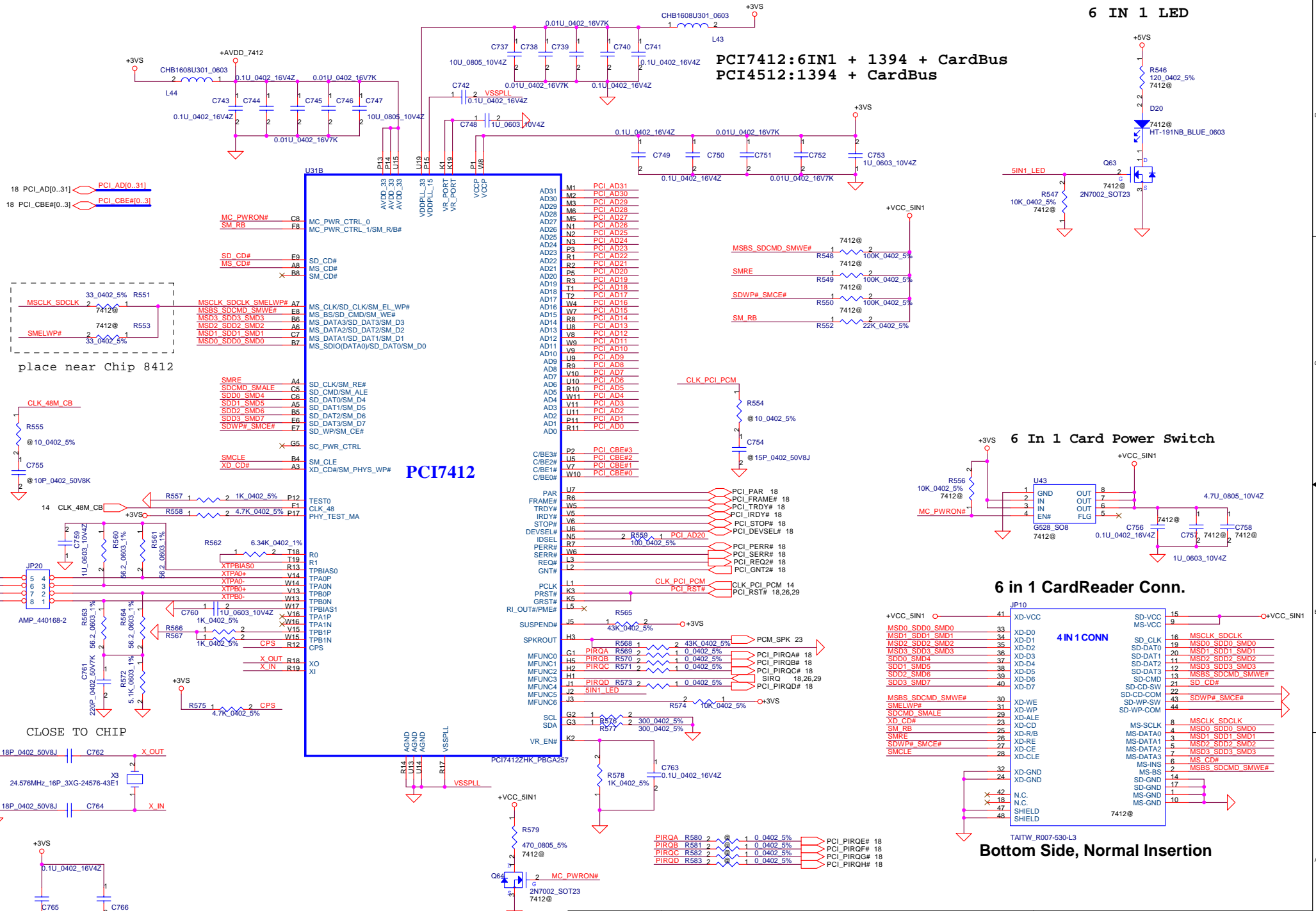
ICH7-M(2/3)

IAKAA M/B LA-340IP

Rev 0.3

6 IN 1 LED

PCI7412:6IN1 + 1394 + CardBus
PCI4512:1394 + CardBus



Bottom Side, Normal Insertion

place near Chip 8412

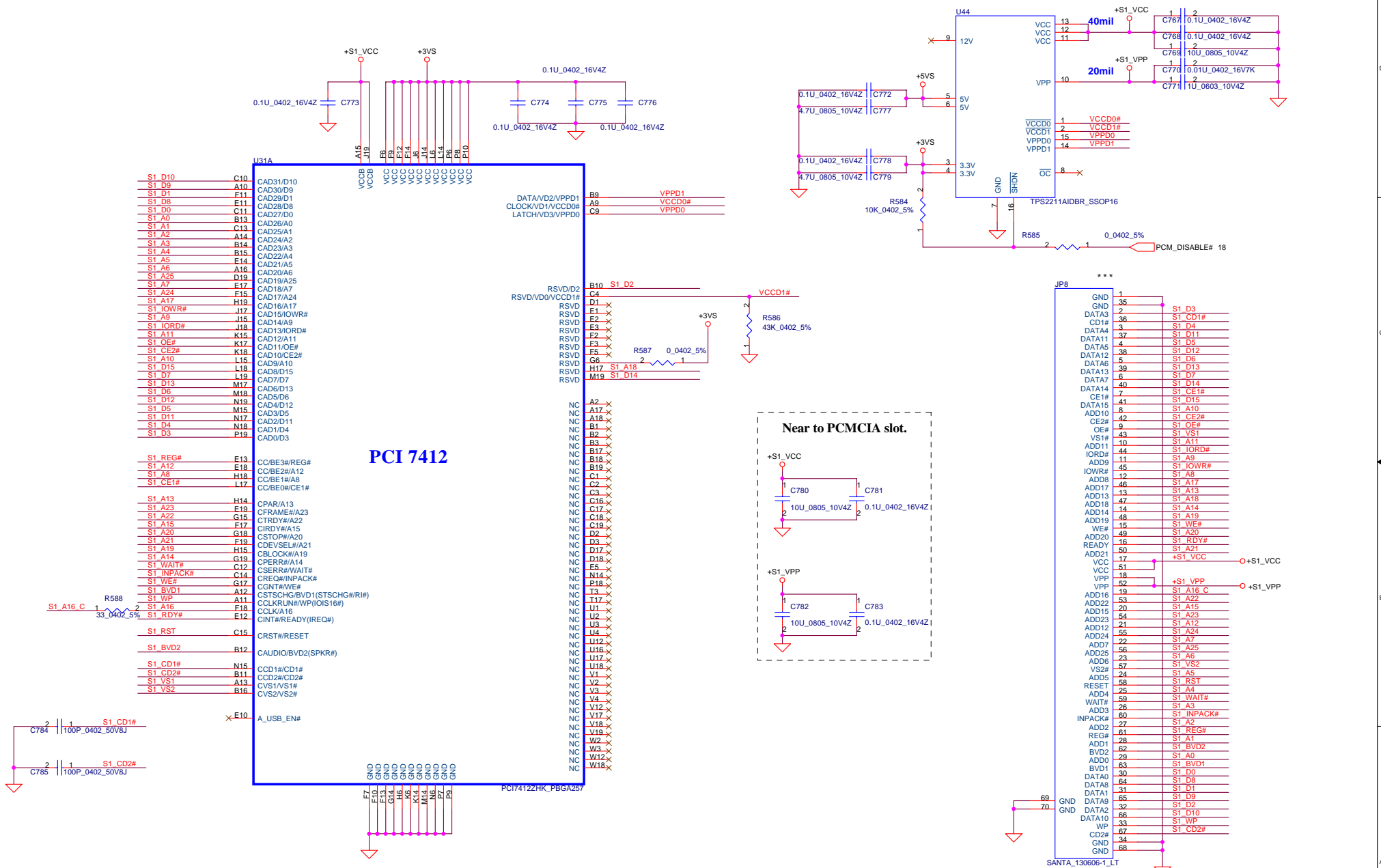
PCI7412

CLOSE TO CHIP

Security Classification		Compal Secret Data	
Issued Date	2006/10/03	Deciphered Date	2009/10/03
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 DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			

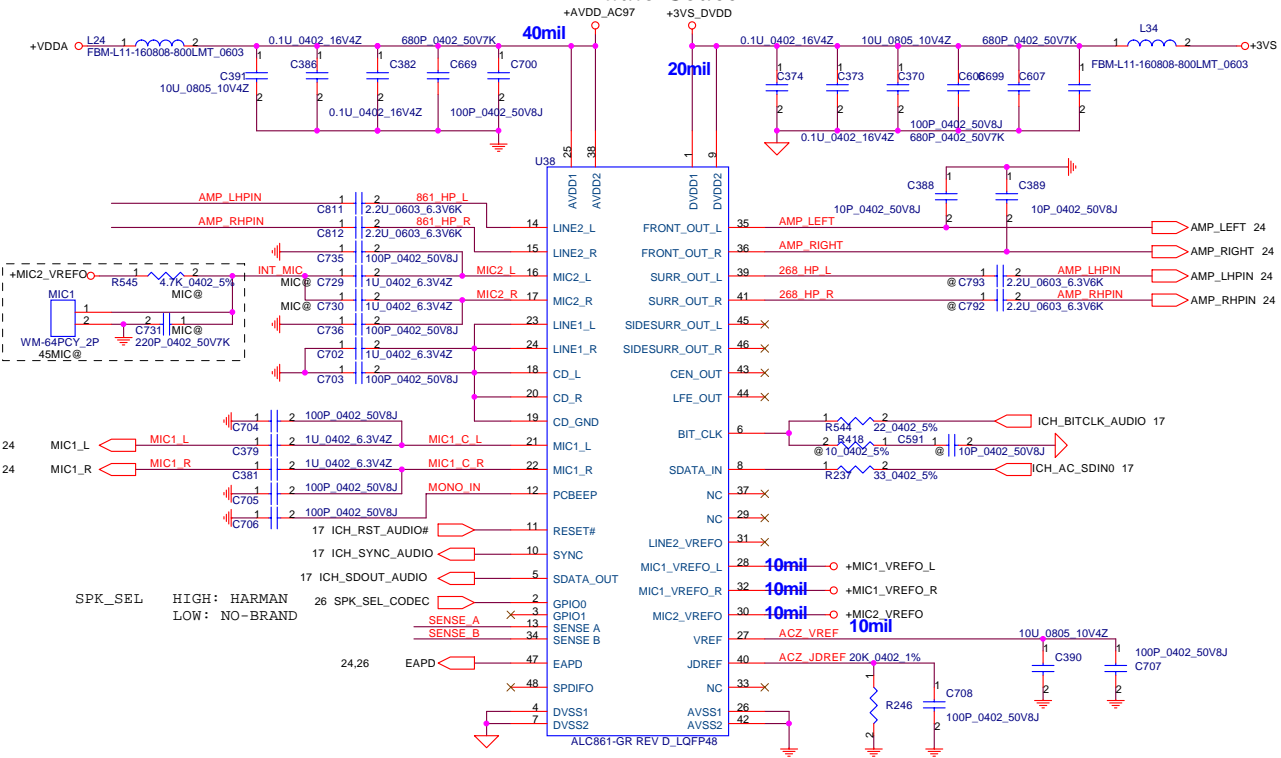
Compal Electronics, Inc.		
Title	PCI7412/PCI1394 CONN/CARD SLOT	
Size	Document Number	Rev
Custom	LA-3171P	0.3
Date:	Thursday, October 05, 2006	Sheet 20 of 38

CardBus Power Switch



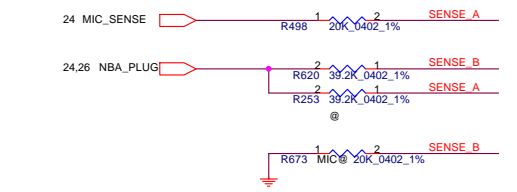
Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	PCI7412/CB/CB SLOT	
<small>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&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-3171P	0.3
			Date:	Thursday, October 05, 2006	Sheet 21 of 38

HD Audio Codec



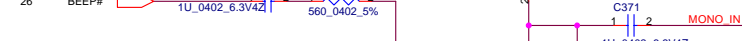
DGND

AGND Change R246 from 5.1K to 20K_0402_1%



Sense Pin	Impedance	Codec Signals
SENSE A	39.2K	PORT-A (PIN 39, 41)
	20K	PORT-B (PIN 21, 22)
	10K	PORT-C (PIN 23, 24)
	5.1K	PORT-D (PIN 35, 36)
SENSE B	39.2K	PORT-E (PIN 14, 15)
	20K	PORT-F (PIN 16, 17)
	10K	PORT-G (PIN 43, 44)
	5.1K	PORT-H (PIN 45, 46)

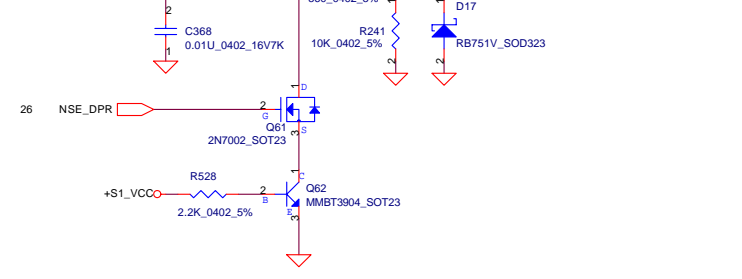
EC Bleep



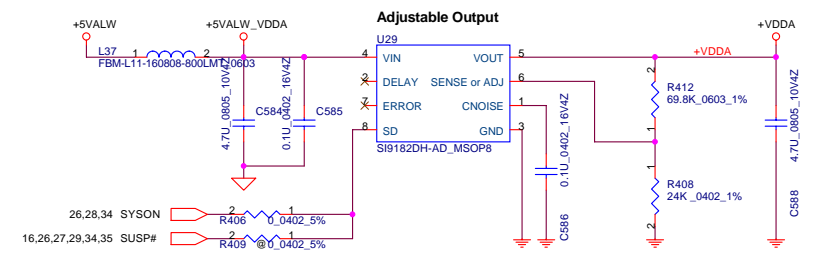
PCI Bleep



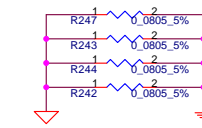
CardBus Bleep



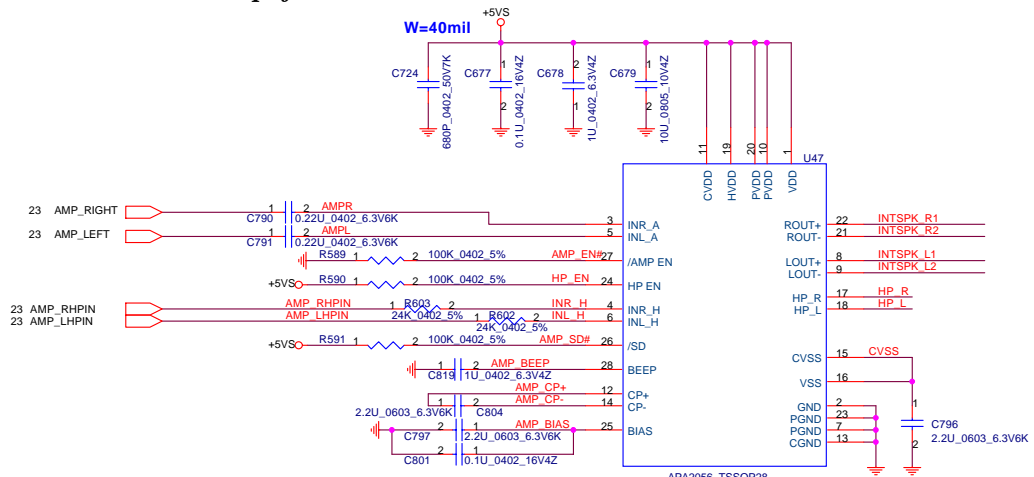
Regulator for CODEC



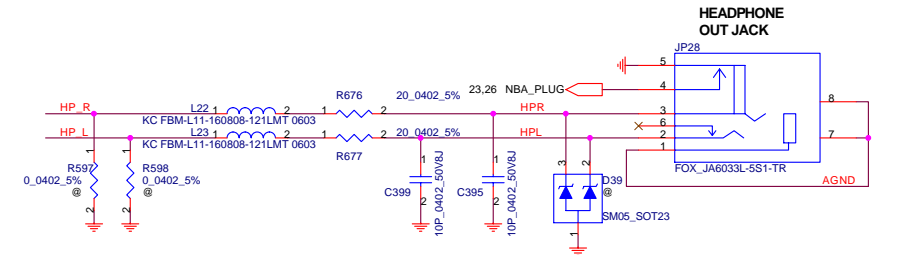
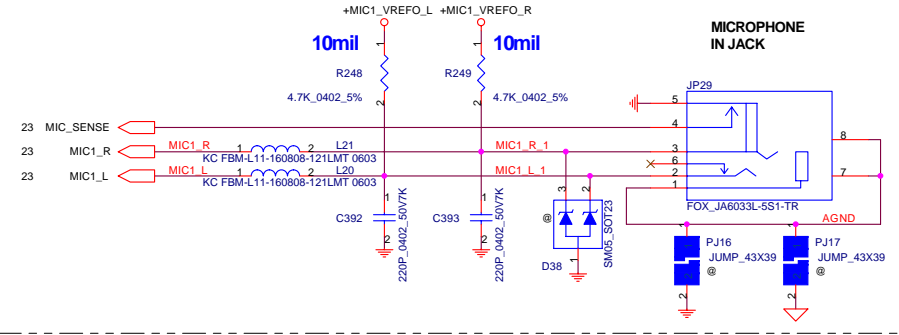
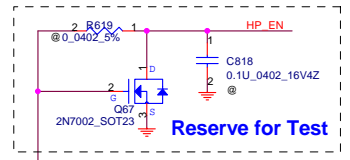
Moat Bridge



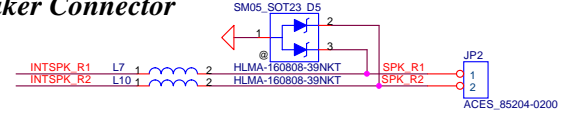
APA2056 SPK/HP Amplifier



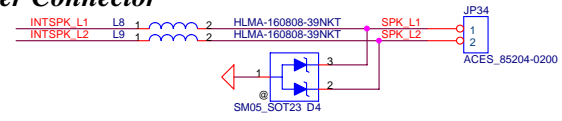
IN_A Gain = 10dB (Internal Speaker)
IN_H Gain = 0dB (Headphone)



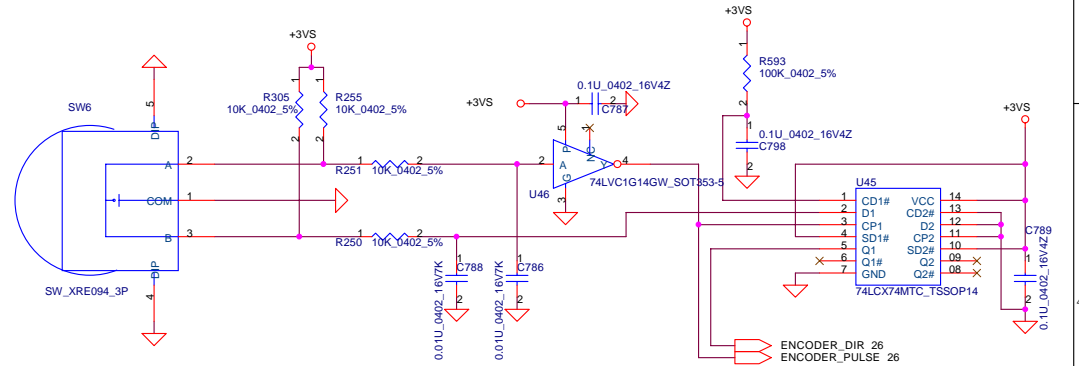
Right Speaker Connector



Left Speaker Connector

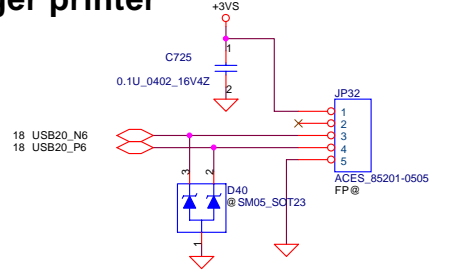


Volume Control

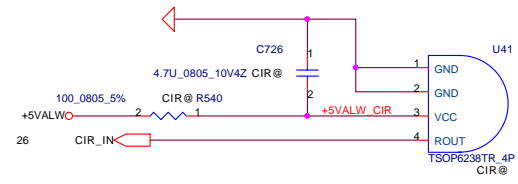


Security Classification	Compal Secret Data		Title	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	AMP/VR/Audio Jack/MIC
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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		Rev
Custom	IAKAA MB LA-3401P	Thursday, October 05, 2006		0.3
Date			Sheet	of
			24	38

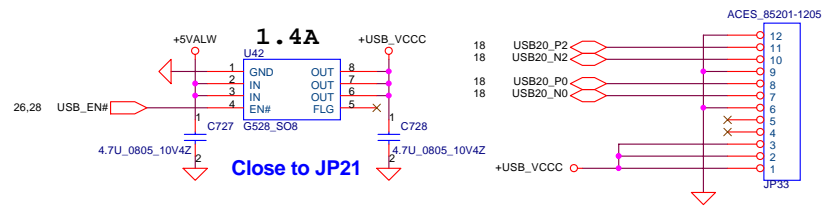
Finger printer



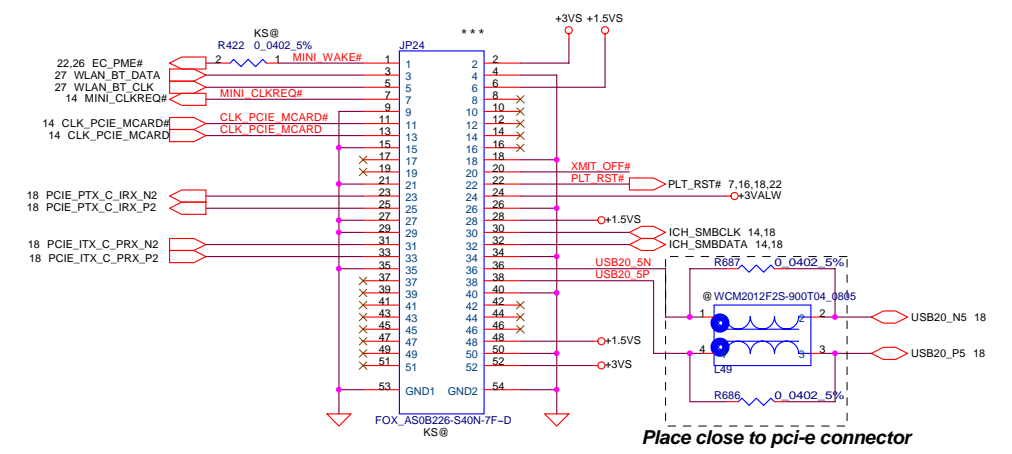
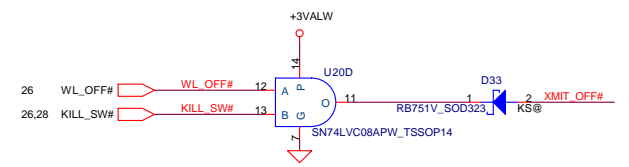
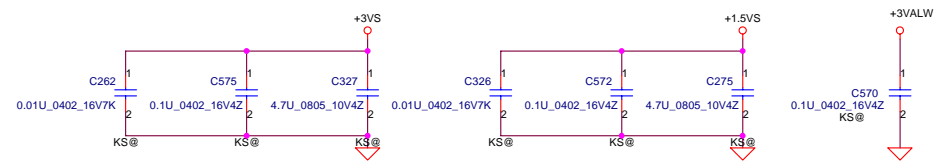
CIR



USB Board

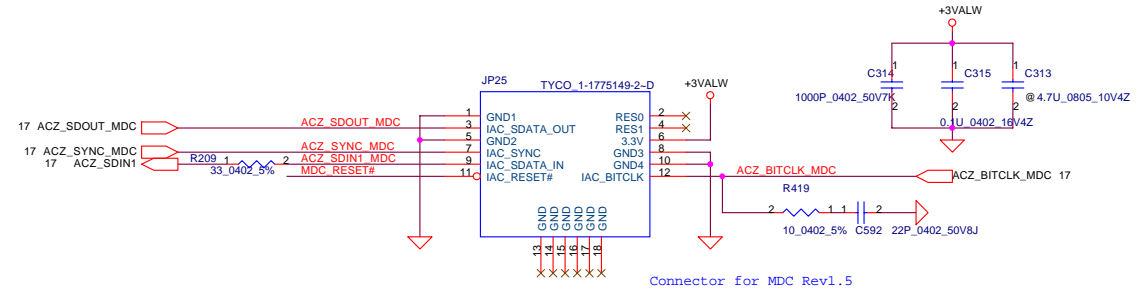
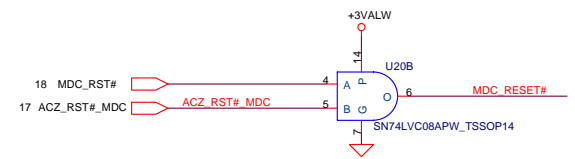


Mini-Express Card



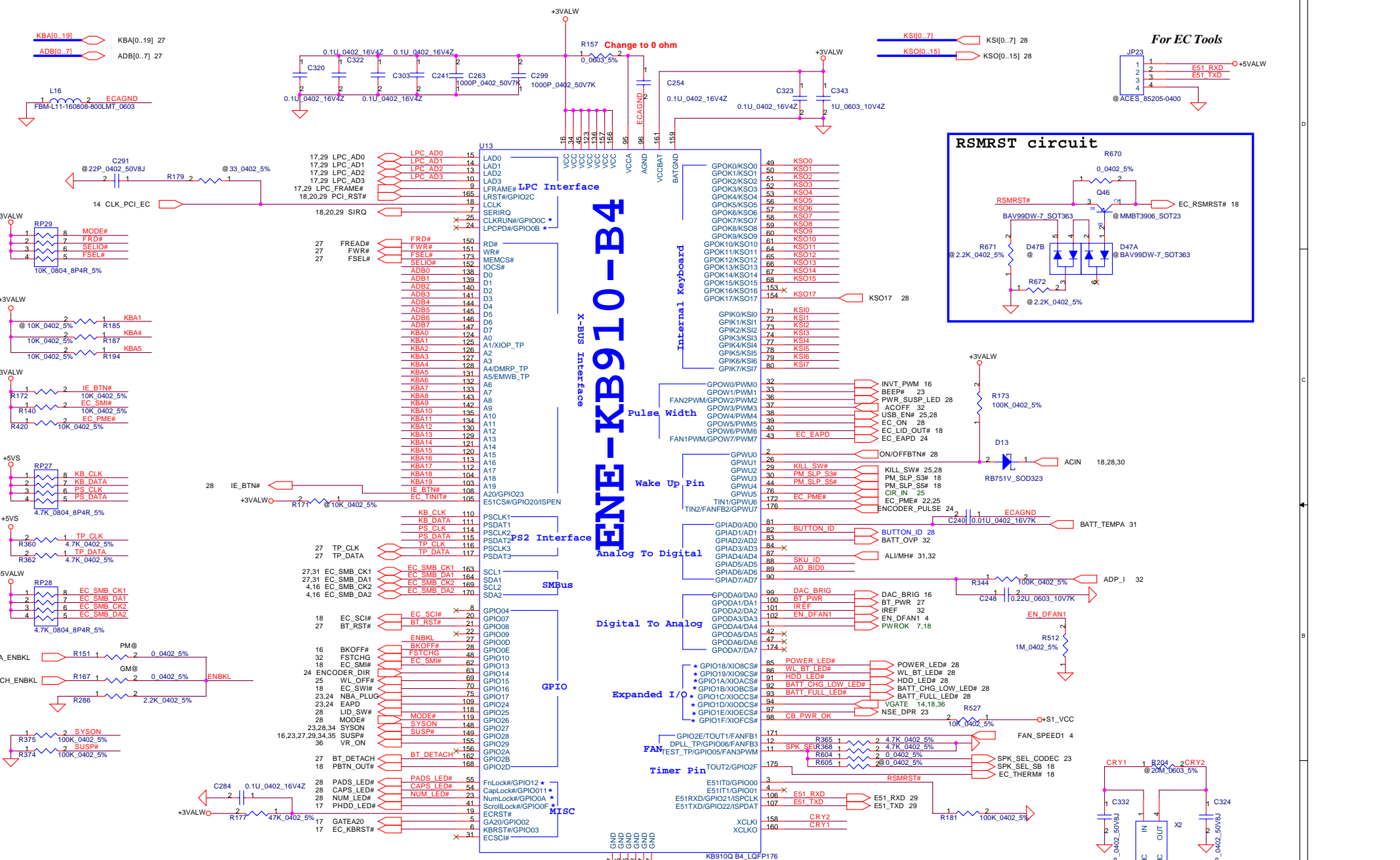
Place close to pci-e connector

MDC 1.5 Conn.



Connector for MDC Rev1.5

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	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
				IAKAA M/B LA-3401P
Date: Thursday, October 05, 2006				Rev. 0.3
Sheet 25 of 38				



SKU_ID 0:10 (10E)	4:10J (10EJ)
1:10C	5:10CJ
2:10G	6:10GJ
3:10GC	7:10GCJ

BUTTON_ID ID0:0	BUTTON
ID2:2	BUTTON
ID4:6	BUTTON

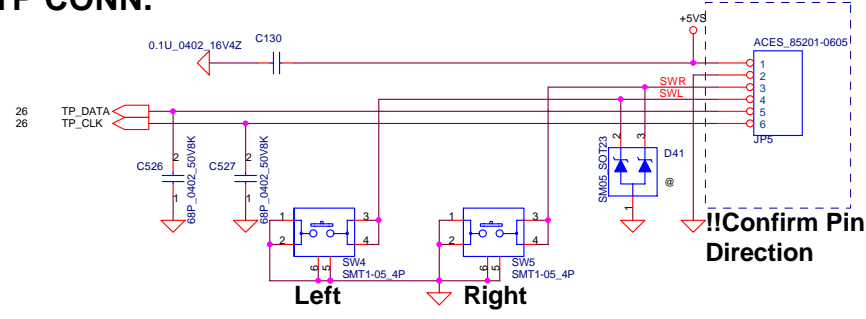
AD_BID0: Board ID
ID = 1 (PCB REV 0.2)

Security Classification	Compal Secret Data	
Issued Date	2006/10/03	Deciphered Date
		2009/10/03

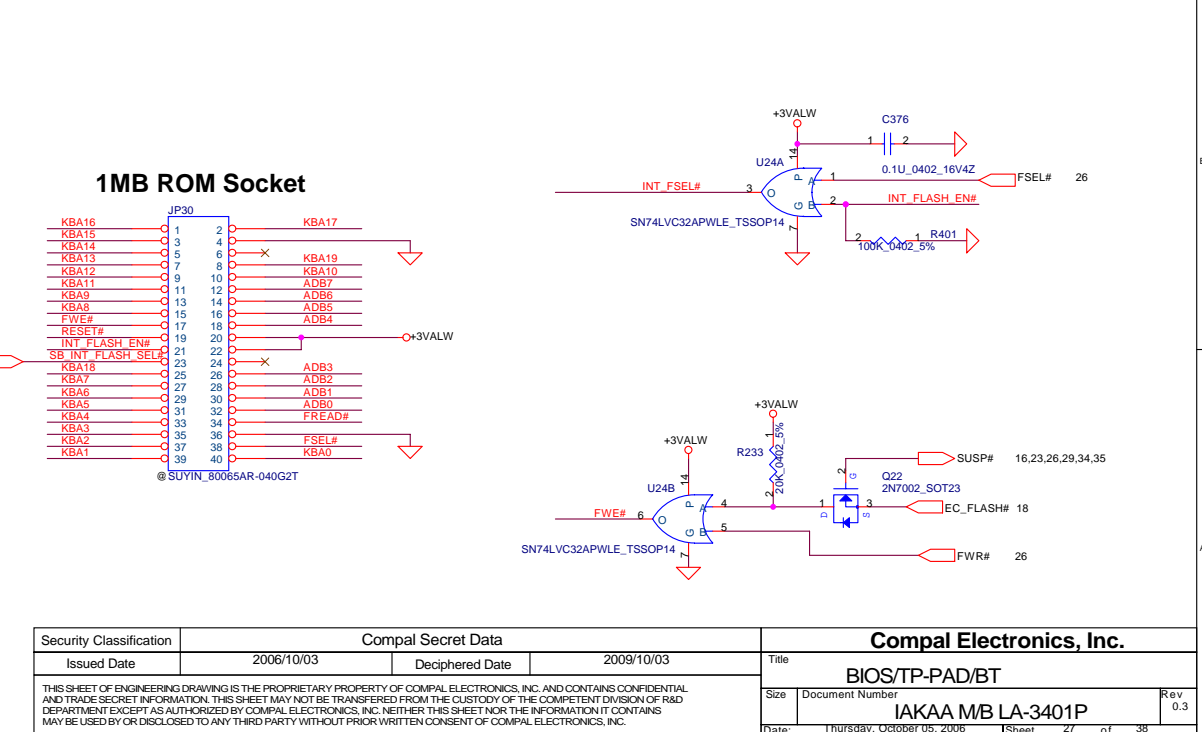
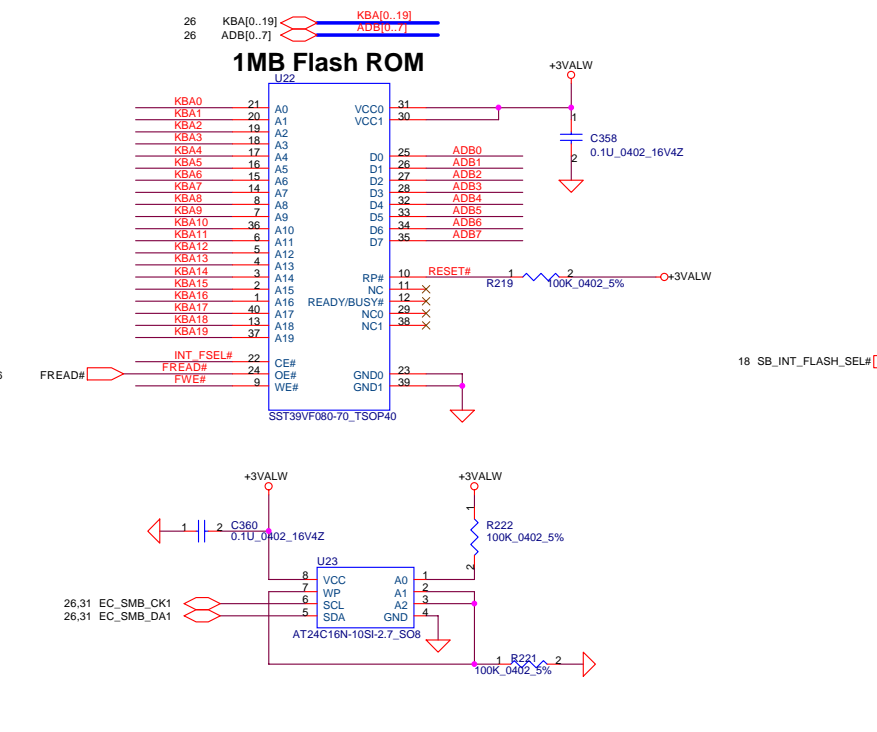
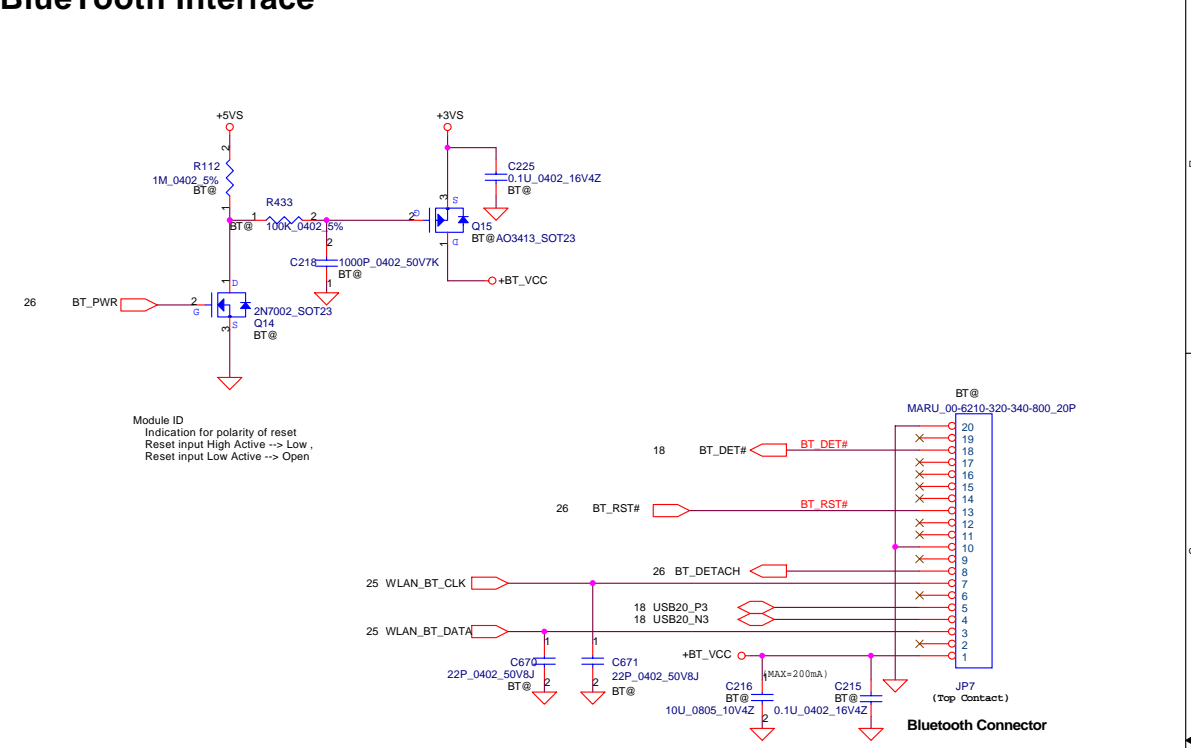
Compal Electronics, Inc.		
ENE-KB910		
Size	Document Number	Rev
	IAKAA M/B LA-3401P	0.3
Date:	Thursday, October 05, 2006	Sheet 26 of 38

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.

TP CONN.

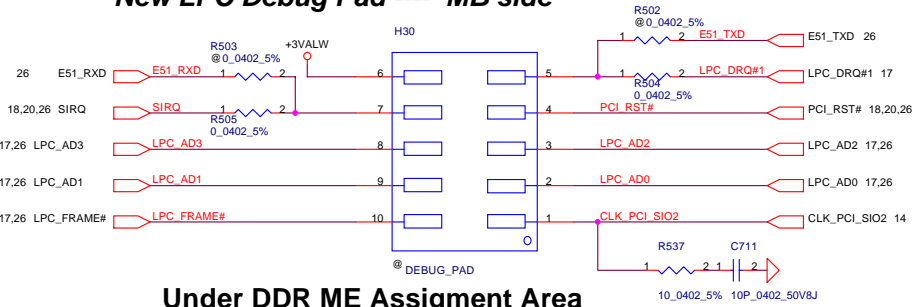


BlueTooth Interface



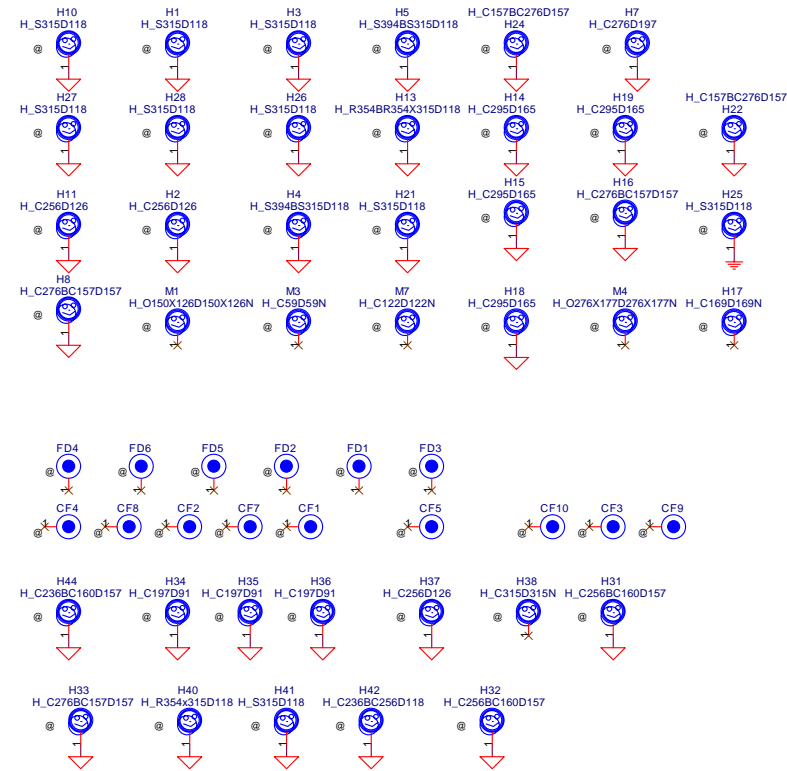
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Title	
				BIOS/TP-PAD/BT	
				IAKAA/MB LA-3401P	
				Size	Rev
				Document Number	0.3
				Date:	Thursday, October 05, 2006
				Sheet	27 of 38

New LPC Debug Pad ---- MB side

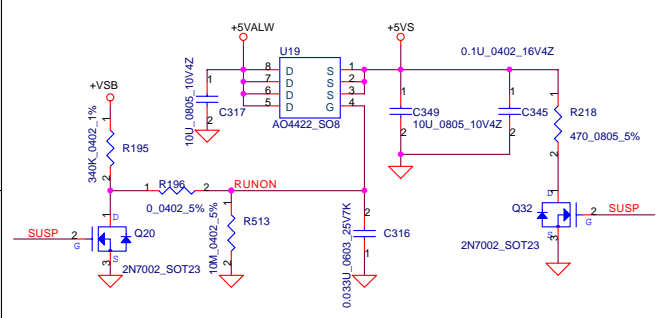


Under DDR ME Assignment Area

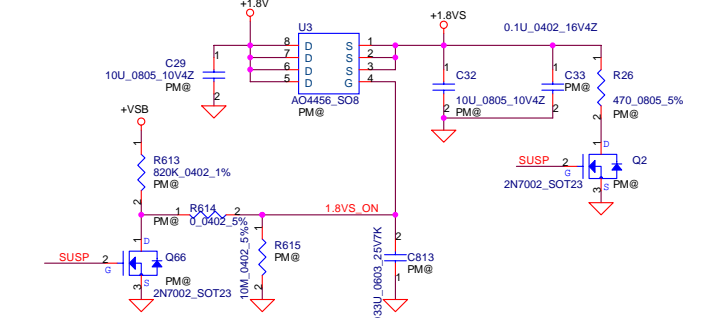
Keep Resistor near Debug Pad and in the same side
Reverse side DIMM ---- Pin 1 keep away DIMM



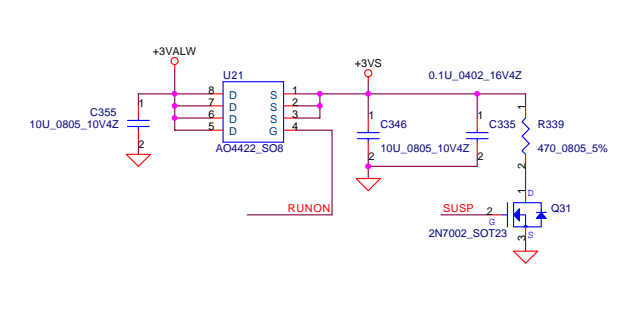
+5VALW to +5VS Transfer



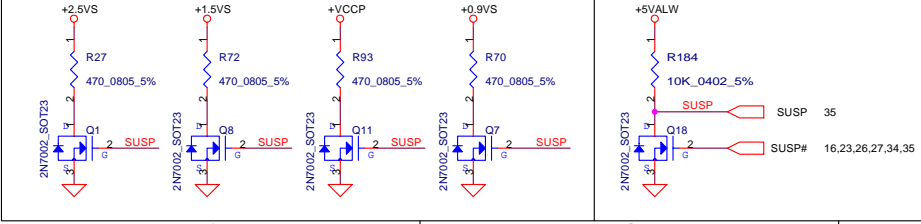
+1.8V to +1.8VS Transfer (Place close to VGA-Connector)



+3VALW to +3VS Transfer



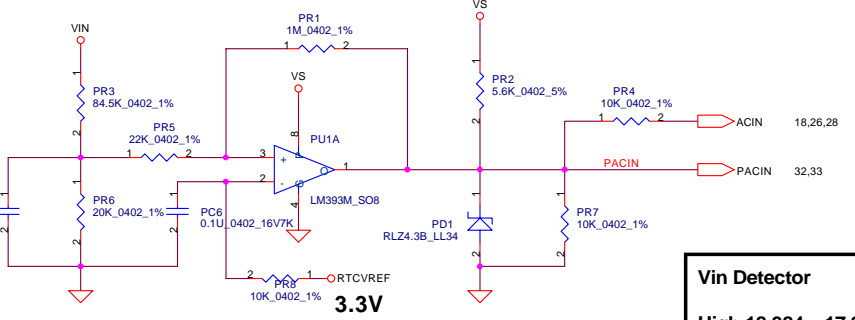
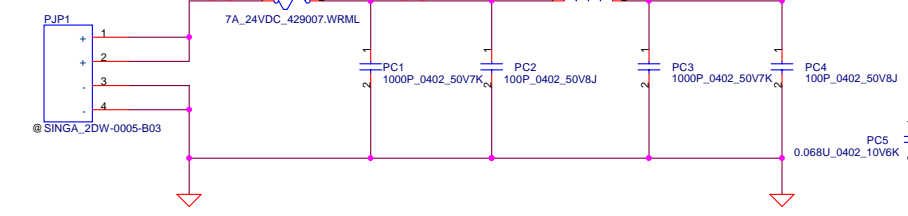
Discharge Circuit



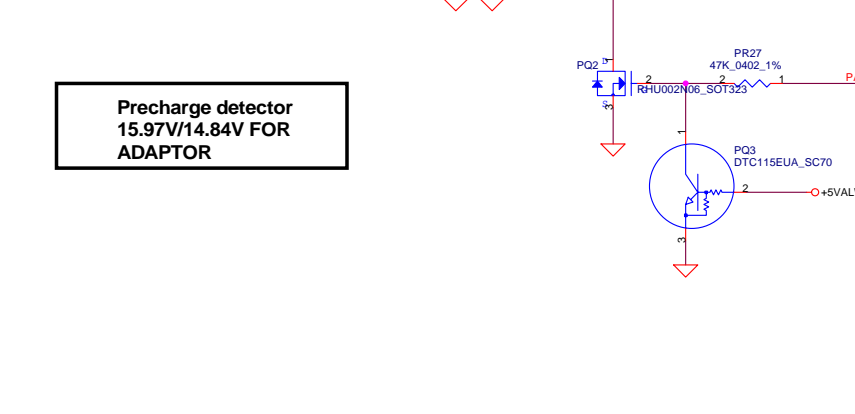
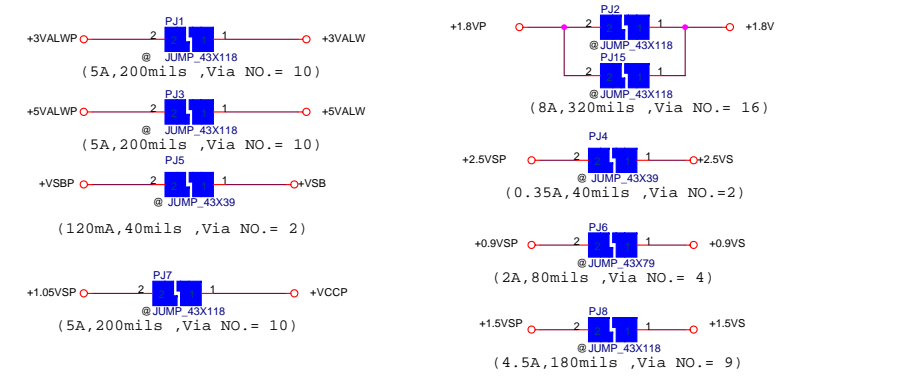
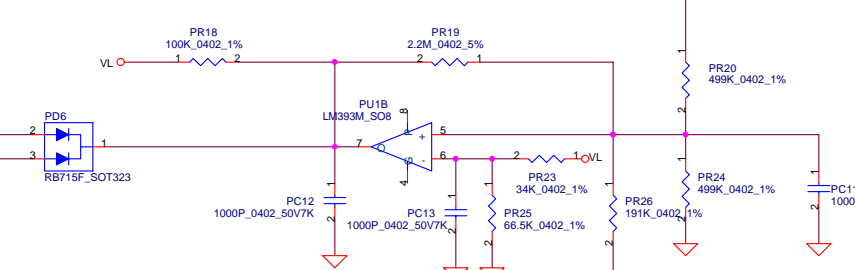
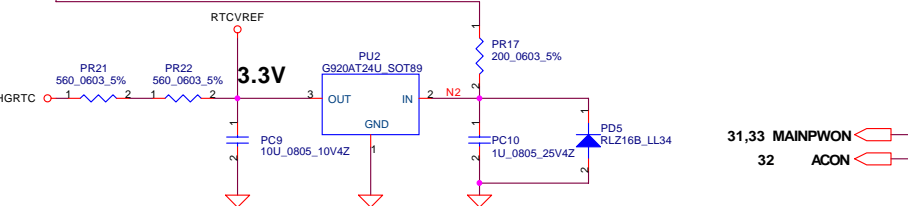
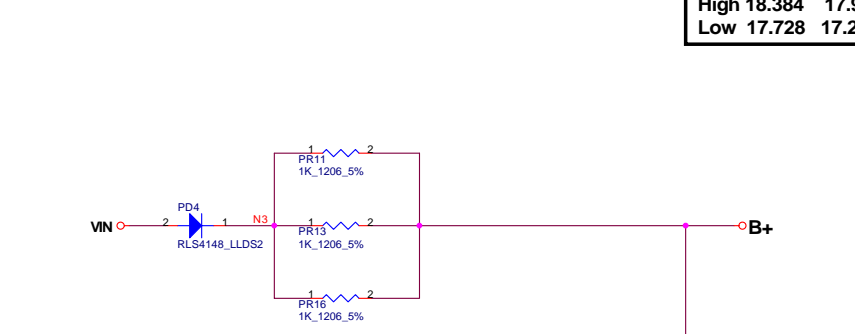
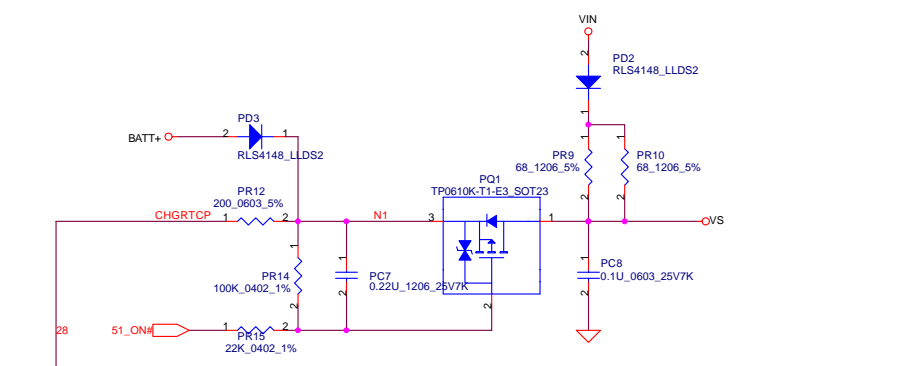
Security Classification	Compal Secret Data	
Issued Date	2006/10/03	Deciphered Date
		2009/10/03
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.		

Title		
Compal Electronics, Inc.		
DC/DC I/F Debug I/F Screw		
Size	Document Number	Rev
	IAKAA M/B LA-340IP	0.3
Date:	Thursday, October 05, 2006	Sheet 29 of 38

DC301001M80



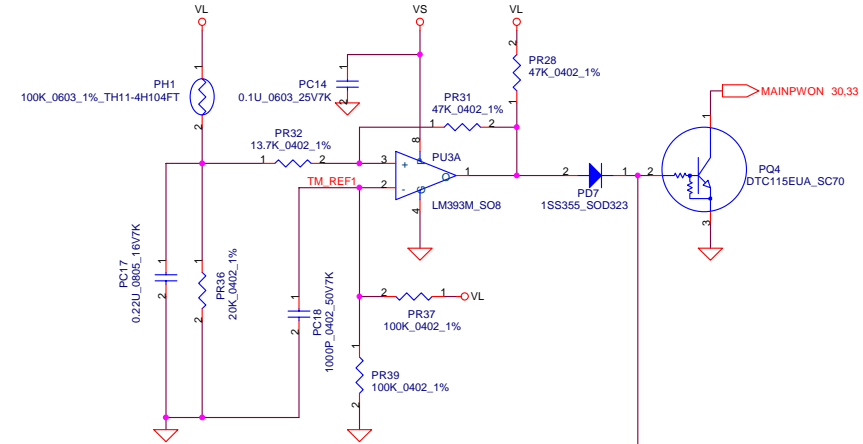
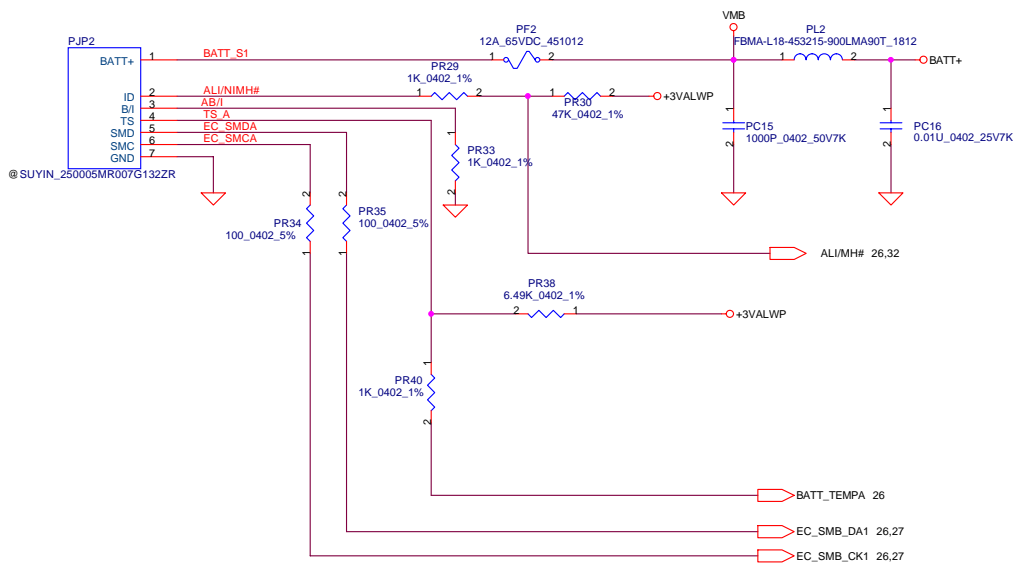
Vin Detector
 High 18.384 17.901 17.430
 Low 17.728 17.257 16.976



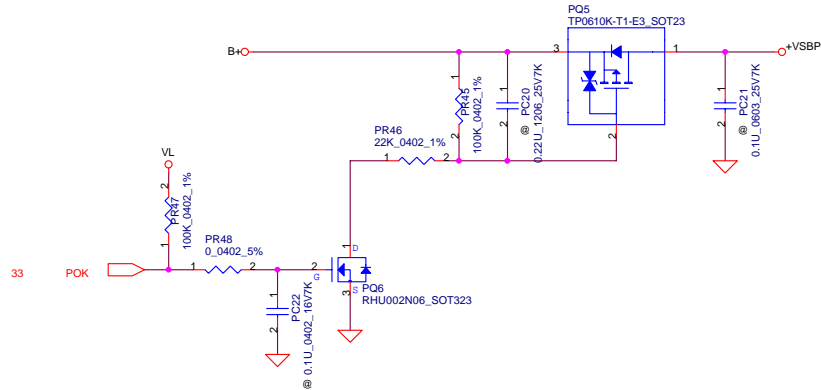
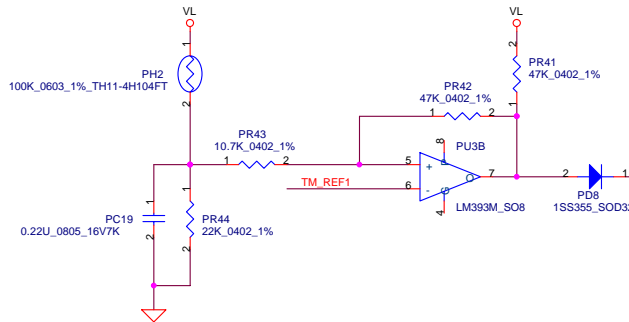
Precharge detector
 15.97V/14.84V FOR ADAPTOR

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	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 & DETECTOR
Size	Document Number	Sheet	30	of 38
Date:	Thursday, October 05, 2006	Rev	0.3	

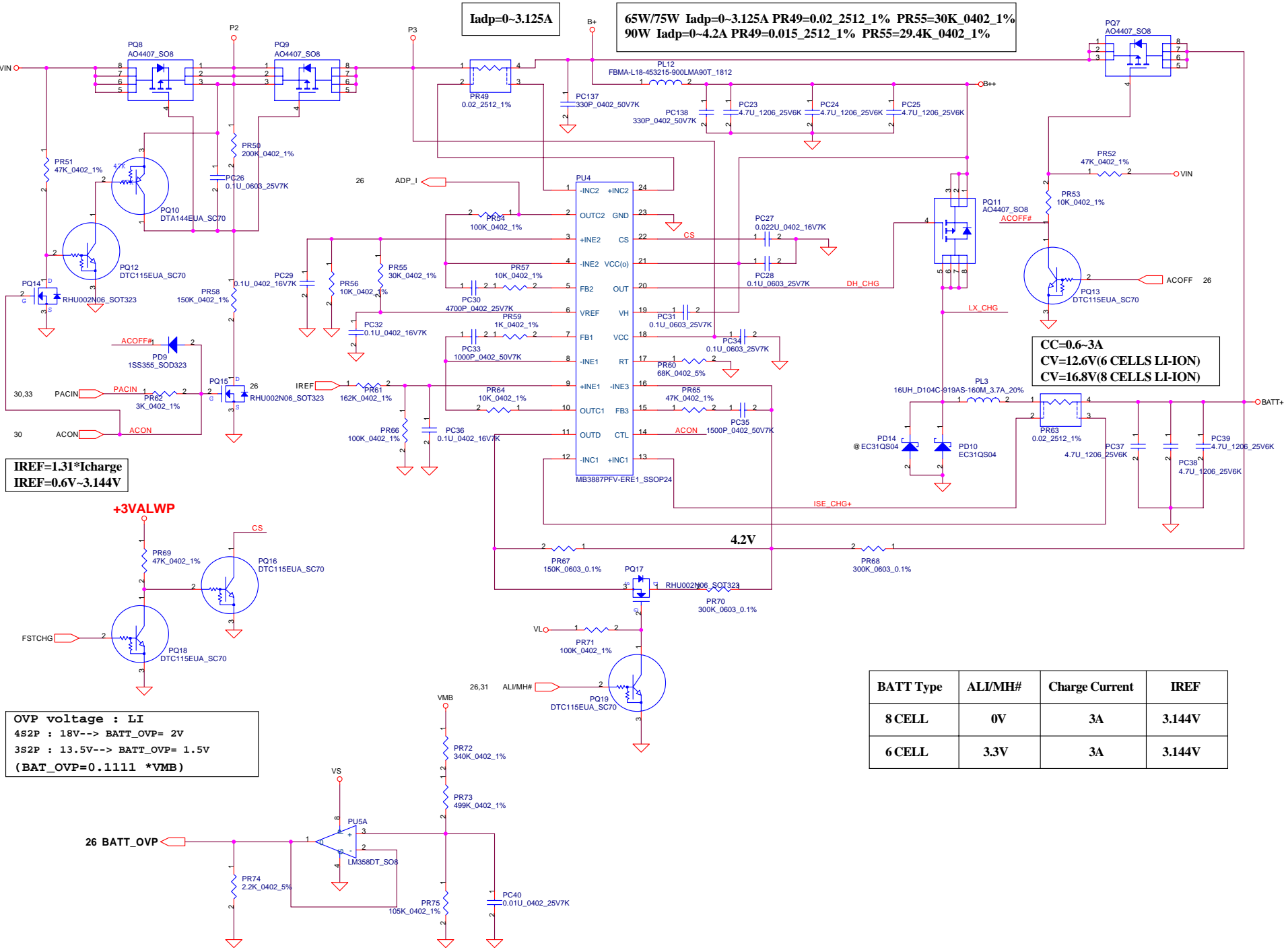
PH1 under CPU botten side :
 CPU thermal protection at 87(86) degree C
 Recovery at 48(47) degree C



PH2 near main Battery CONN :
 BAT. thermal protection at 79 degree C
 Recovery at 45 degree C



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	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.				BATTERY CONN / OTP
Size	Document Number	Rev	0.3	
Date:	Thursday, October 05, 2006	Sheet	31	of 38



Iadp=0~3.125A

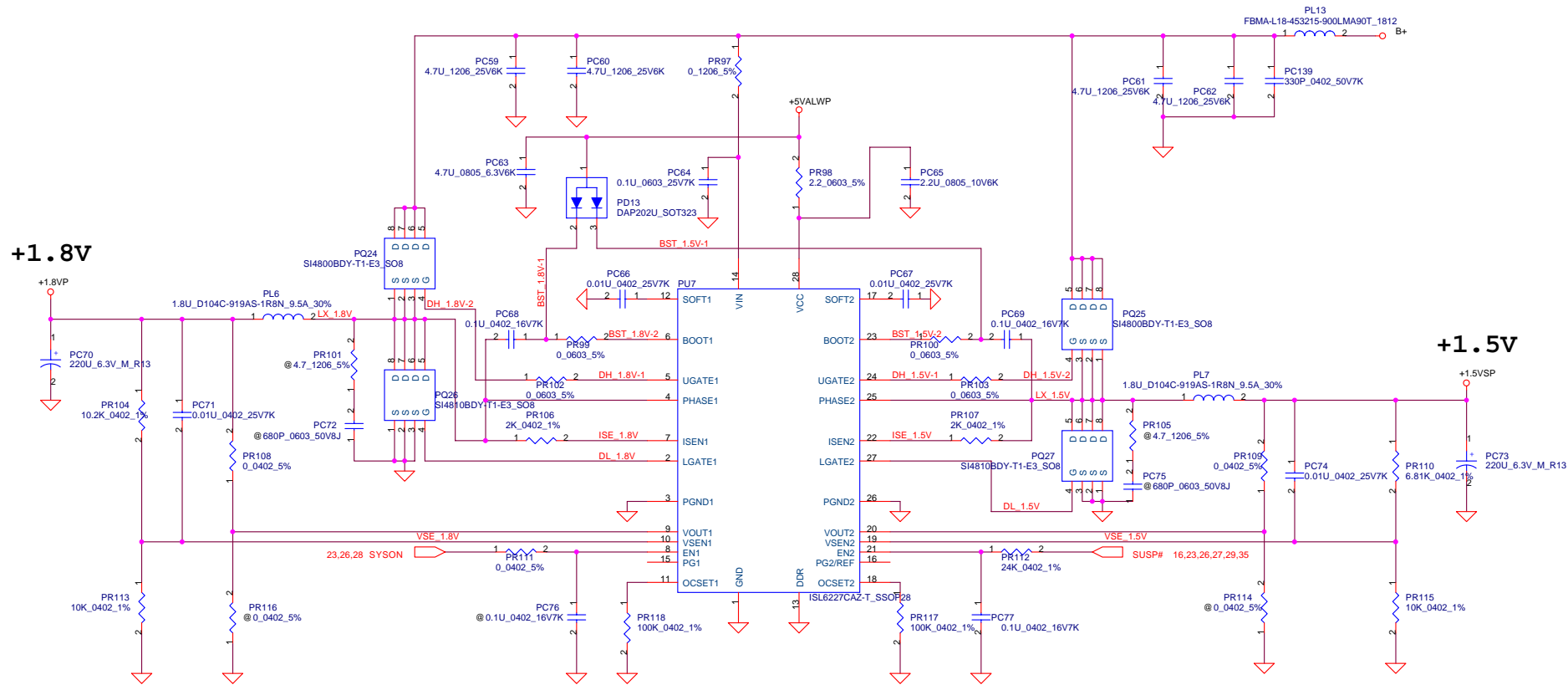
65W/75W Iadp=0~3.125A PR49=0.02_2512_1% PR55=30K_0402_1%
 90W Iadp=0~4.2A PR49=0.015_2512_1% PR55=29.4K_0402_1%

CC=0.6~3A
 CV=12.6V(6 CELLS LI-ION)
 CV=16.8V(8 CELLS LI-ION)

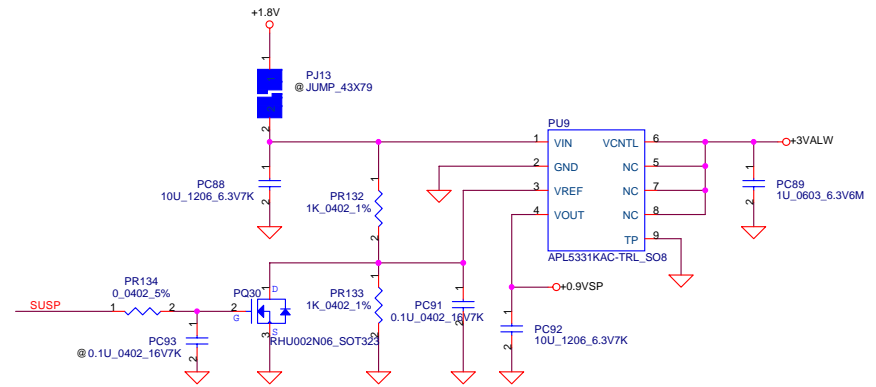
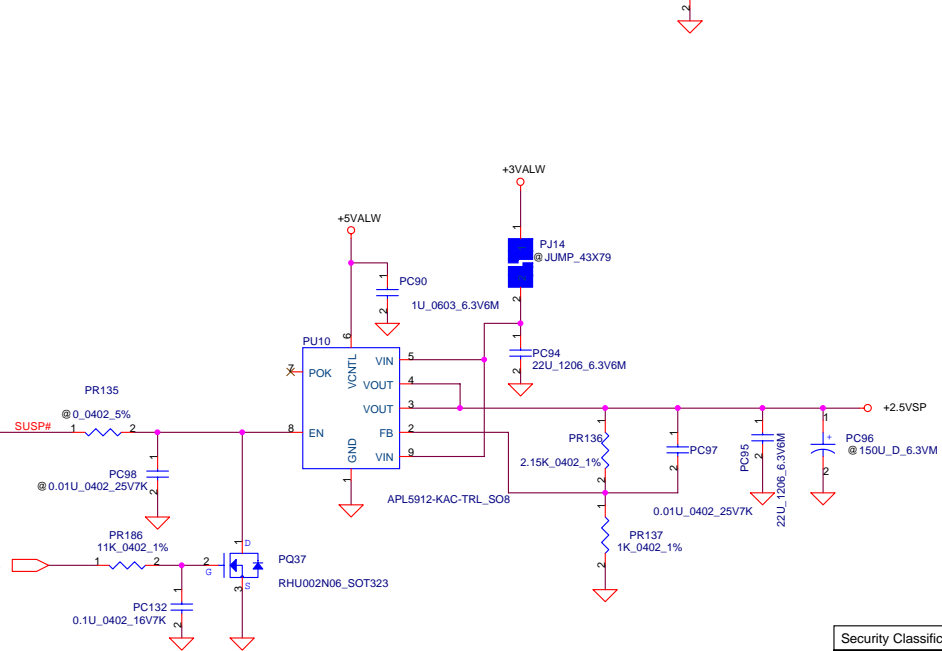
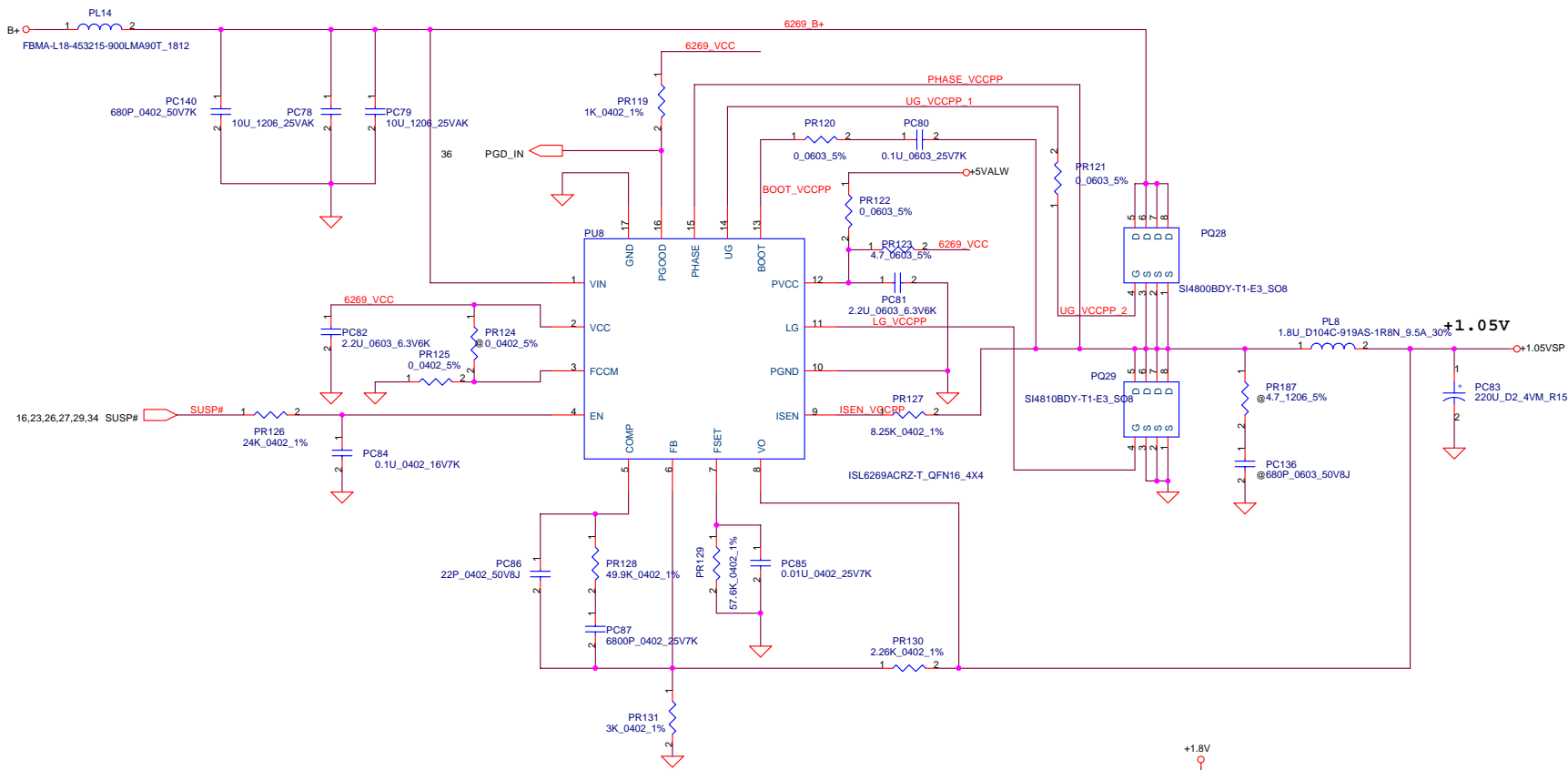
IREF=1.31*Icharge
 IREF=0.6V~3.144V

OVP voltage : LI
 4S2P : 18V--> BATT_OVP= 2V
 3S2P : 13.5V--> BATT_OVP= 1.5V
 (BATT_OVP=0.1111 *VMB)

BATT Type	ALI/MH#	Charge Current	IREF
8 CELL	0V	3A	3.144V
6 CELL	3.3V	3A	3.144V

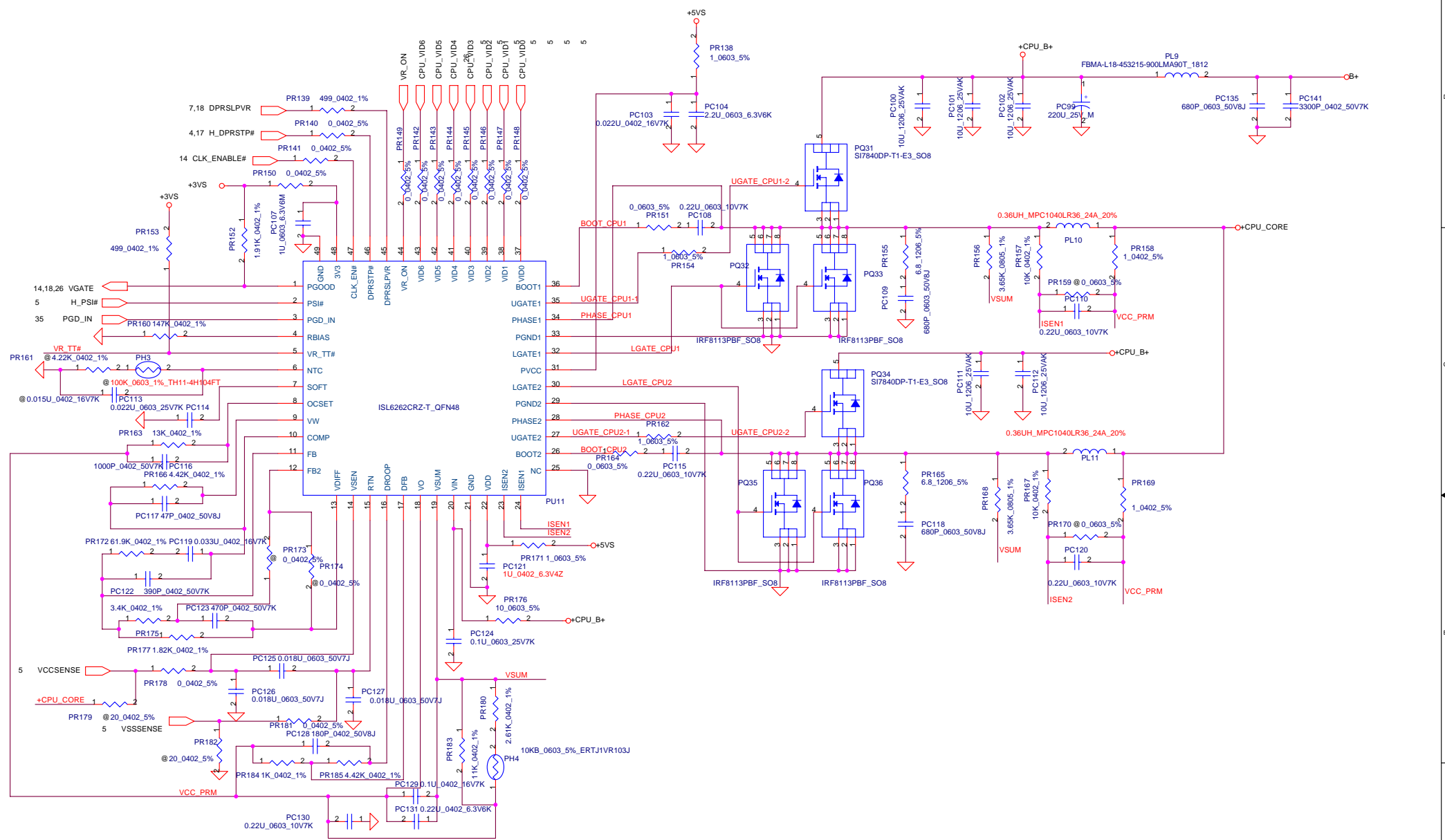


Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				1.8V / 1.5V
Size	Document Number			Rev
Date: Thursday, October 05, 2006	Sheet 34 of 38			0.3



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Title
				2.5V / 0.9V / 1.05V
Size		Document Number	Rev	
			0.3	
Date:	Thursday, October 05, 2006	Sheet	35	of 38

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	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	+CPU_CORE
<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&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>				
Date:	Thursday, October 05, 2006	Sheet	36 of 38	Rev 0.2

PIR (Product Improve Record)

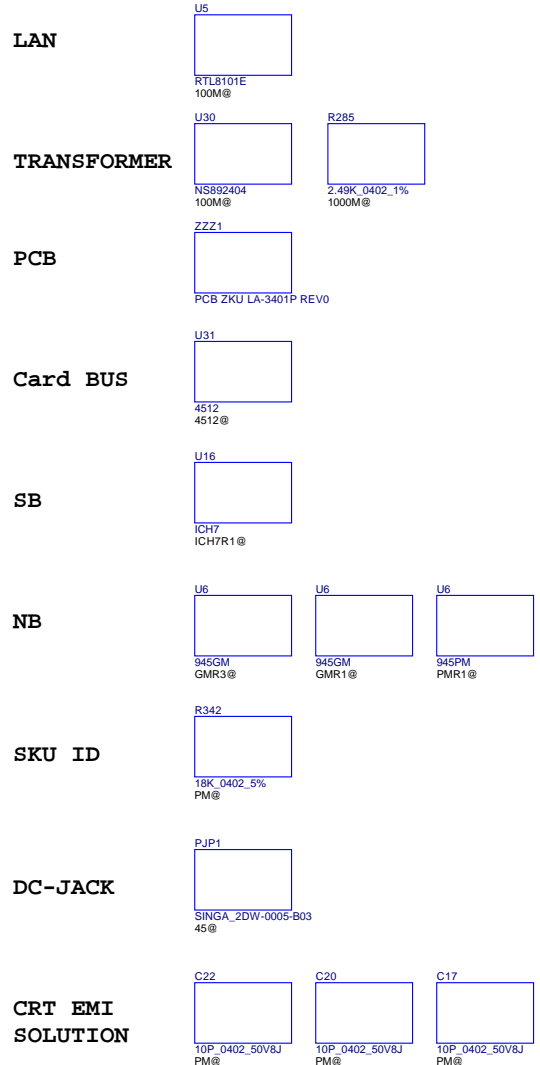
IAKAA LA-3401P SCHEMATIC CHANGE LIST
 REVISION CHANGE: 0.1 TO 0.2

NO	DATE	PAGE	MODIFICATION LIST	PURPOSE
1	0803	23	CHANGE Q25,Q44,R252,R499 TO RESERVED CHANGE R611,R612 TO POP	TO COMPATIBLE WITH NORMAL OPEN AUDIO JACK
2	0810	23	CHANGE C792,C793 TO RESERVE AND MOVE TO PAGE 23 ADD C811 BETWEEN AMP_LHPIN AND 861_HP_L ADD C812 BETWEEN AMP_RHPIN AND 861_HP_R	TO RESERVE HP PATH FOR ALC268 TO CHANGE HP PATH FOR ALC861
3	0814	23 24	ADD R618_1K_0402 BETWEEN Q23.2 AND R240.2 ADD CONNECTION BEEP_MIX FROM Q23.2 TO Q67.2 ADD CONNECTION EAPD TO Q67.3 CONNECT Q67.1,R616.1,C815.1 TOGETHER PULL HIGH R616_20K_0402 TO +VDDA CONNECT C815.2, R599.2 TOGETHER REMOVE Q65 RESERVE C814 BETWEEN AMP_SD# & GND	TO BYPASS BEEP SOUND BEFORE CODEC INITIAL
4	0816	14	CHANGE R121,R506,R99 TO 39_0402	FOR EMI REQUEST
5	0816	15	CHANGE L1,L2,L3 TO 1200HM BEAD	FOR EMI REQUEST
6	0816	28 25	CHANGE U12,U28 FROM G528 TO G548 CHANGE U42 FROM G528 TO G548	FOR INCREASE USB PORT CURRENT RATING

IAKAA LA-3401P SCHEMATIC CHANGE LIST
 REVISION CHANGE: 0.2 TO 0.3

NO	DATE	PAGE	MODIFICATION LIST	PURPOSE
1	0919	16	CONNECT INVPWR_B+ TO JP1.26	INCREASE 1 MORE B+ PIN FOR SUPPORT 2 LAMP LCD
2	0919	23	CONNECT R673_20K_0402 PULL DOWN ON SENSE_B	TO SENSE INTERNAL MIC EXIST OR NOT
3	0919	04	CHANGE U48 TO PU5	TO COST DOWN 1 OP AMP
4	0919	26	RESERVE Q46,D47,R671 FOR RSMRST# SIGNAL	TO MEET INTEL REQUIREMENT
5	0919	23	CHANGE R253 TO RESERVE CONNECT R620 BETWEEN Q25.1,SENSE_B	TO CHANGE HEADPHONE SENSE PIN FROM SENSE_A TO SENSE_B
6	0919	23	ADD R676,R677 TO 200HM	FIX MONO HEADPHONE NOISE ISSUE
7	0926	23	CHANGE C811,C812,C792,C793 TO 2.2uF	IMPROVE HP FREQUENCE RESPONSE
8	0926	24	DEL R520,R521,C681,C683 CHANGE C790,C791 TO 0.22uF	CHNAGE SPEAKER HIGHPASS -3dB POINT TO 100HZ
9	0926	24	CHANGE C804 TO 2.2uF	IMPROVE CHARGE PUMP QUALITY
10	0926	24	DEL R616,R617,R599,C815 ADD C819	NOT TO USE AMP BEEP FUNCTION
11	0926	24	ADD Q67	IMPROVE BOOT BO SOUND
12	0926	24	CHANGE C596 TO 22uF	IMPROVE FAN NOISE
13	0926	24	ADD D48	IMPROVE ESD
14	1003	22	ADD R678,R679,RESERVE L45 ADD R680,R681,RESERVE L46 ADD R682,R683,RESERVE L47 ADD R684,R685,RESERVE L48 ADD NET RJ45_MID10+_L,RJ45_MID10-_L BETWEEN L45,JP11 RJ45_MID11+_L,RJ45_MID11-_L BETWEEN L46,JP11 RJ45_MID12+_L,RJ45_MID12-_L BETWEEN L47,JP11 RJ45_MID13+_L,RJ45_MID13-_L BETWEEN L48,JP11	FOR EMI REQUIREMENT
25			ADD R686,R687,RESERVE L49	FOR EMI REQUIREMENT
28			ADD NET USB20_5P,USB20_5N BETWEEN L49,JP24 ADD R688,R690,RESERVE L50 ADD R689,R691,RESERVE L51 ADD NET USB20_1N,USB20_1P BETWEEN L51,JP12 USB20_4N,USB20_4P BETWEEN L50,JP21	RESERVE FOR USB EMI SOLUTION

FOR ISPD



Security Classification	Compal Secret Data			Title		
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Compal Electronics, Inc. ISPD		
<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&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
					IAKAA M/B LA-3401P	0.3
				Date:	Thursday, October 05, 2006	Sheet 37 of 38

POWER PIR LIST

page Reason for change

Modify list

DVT

35	Change +1.05V IC	Change P08 to ISL6269A(SA00000GU80), add PR122 (0ohm, SD013000080)
36	For EMI team request to add snubber and gate resistor Modify the CUP CORE load line and compensation	Add snuber PR155,PR165(6.8ohm_SD011680B80), PC109,PC118(680p_SE024681J80) and gate resistor PR154,PR162(1ohm_SD013100B80) Change PC103 to 0.022u(SE076223K80), PC104 to 2.2u(SE107225K80), PR185 to 4.42K(SD000004J80), PC129 to 0.1u(SE076104K80, add PC126 (0.0180_SE025183J80), delete PC105 and PC106
31	Modify the CPU OTP point from 84 degC to 87 degC for thermal team request	Change PR36 from 22K to 20K(SD034200280)

PVT

32,34, 35,36	For EMI team request to add bead to reduce board band	Add PL12,PL13,PL14(SM010020720);PC137,PC138,PC139(330p_SE074331K80);PC140(680p_SE074681K80);PC141(3300p_SE074332K80)
33	Reduce the power consumption on S3/S4	Add PR188(0_0402_5%) and unpop PR89
36	Solve the high frequency noise.	Change PC99 from 100U to 220U(SF22004M210)

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/10/03	Deciphered Date	2009/10/03	Title +CPU_CORE	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number HAWAA(LA3141)
				Date:	Thursday, October 05, 2006
				Sheet	38 of 38