

Compal Confidential

KAV10 Schematics Document

Intel Diamondville Processor with Calistoga(945GSE) + DDRII + ICH7M

2008-12-30

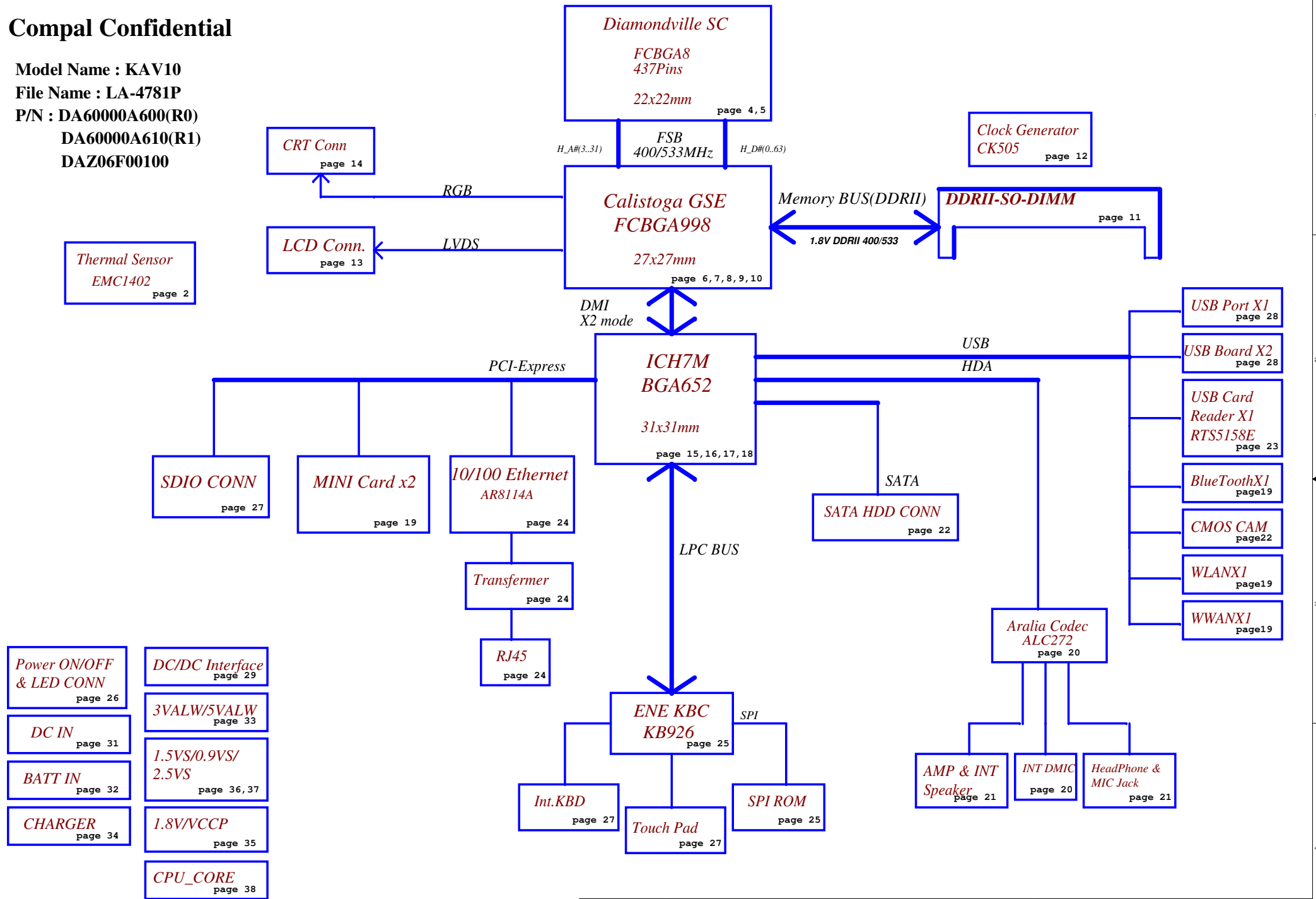
REV: 1.0

Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2006/08/18	Deciphered Date	2007/8/18	Title	Cover Page	
<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
				B	KAV10 LA-4781P	1.0
				Date:	Tuesday, December 30, 2008	Sheet 1 of 40

hotmail.com

Compal Confidential

Model Name : KAV10
File Name : LA-4781P
P/N : DA60000A600(R0)
DA60000A610(R1)
DAZ06F00100



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	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 B	Document Number
				KAV10 LA-4781P	
				Date:	Tuesday, December 30, 2008
				Sheet	2 of 40
				Rev	1.0

Voltage Rails

Power Plane	Description	S1	S3	S5
VIN	Adapter power supply (19V)	N/A	N/A	N/A
B+	AC or battery power rail for power circuit.	N/A	N/A	N/A
+CPU_CORE	Core voltage for CPU	ON	OFF	OFF
+0.9VS	0.9V switched power rail for DDR terminator	ON	OFF	OFF
+VCCP	VCCP 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
+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*
+RTCVCC	RTC power	ON	ON	ON

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

STATE	SIGNAL	SIGNAL						
		SLP_S3#	SLP_S4#	SLP_S5#	+VALW	+V	+VS	ClOCK
Full ON		HIGH	HIGH	HIGH	ON	ON	ON	ON
S1 (Power On Suspend)		HIGH	HIGH	HIGH	ON	ON	ON	LOW
S3 (Suspend to RAM)		LOW	HIGH	HIGH	ON	ON	OFF	OFF
S4 (Suspend to Disk)		LOW	LOW	HIGH	ON	OFF	OFF	OFF
S5 (Soft OFF)		LOW	LOW	LOW	ON	OFF	OFF	OFF

BOARD ID Table(Page 25)

ID	BRD ID	Ra	Rb	Vab
0	R01 (EVT)	NC	0	0V
1	R02 (DVT)	100K	8.2K	0.25V
2	R03 (PVT)	100K	18K	0.50V
3	R10A (MP)	100K	NC	3.3V

External PCI Devices

DEVICE	IDSEL #	REQ/GNT #	PIRQ
--------	---------	-----------	------

No PCI Device

EC SM Bus1 address

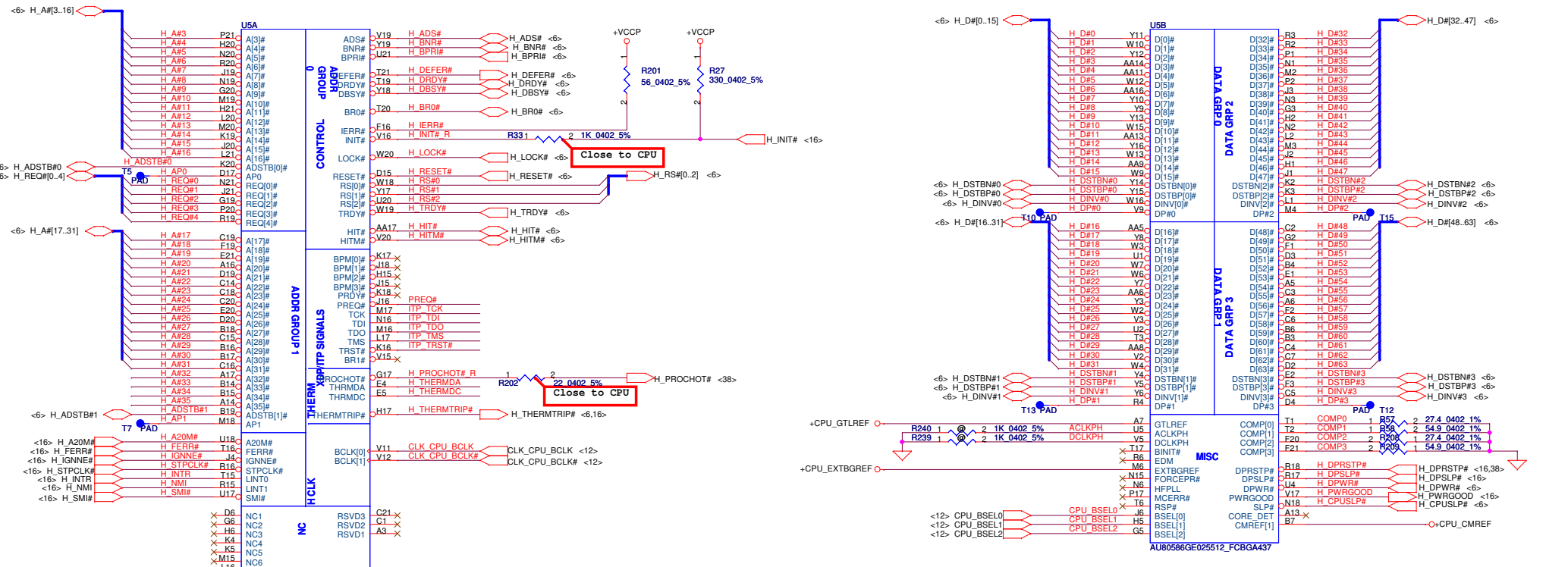
EC SM Bus2 address

Device	Address	Device	Address
Smart Battery	0001 011X b	EMC1402	1001 100X b
EEPROM(24C16/02)	1010 000X b		

ICH7M SM Bus address

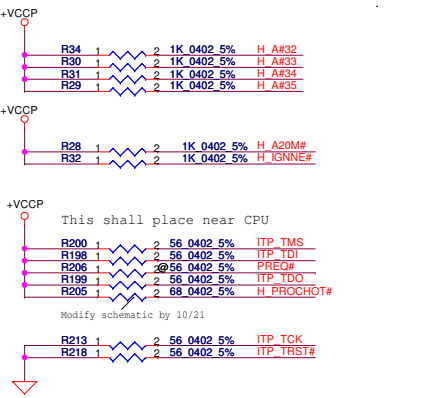
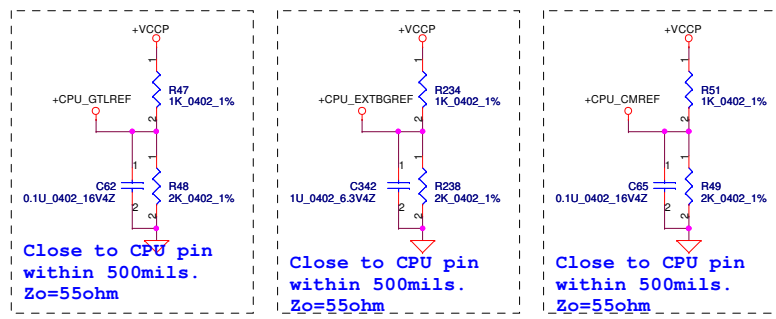
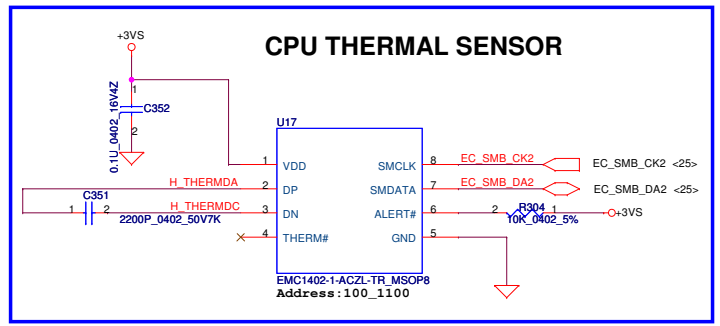
Device	Address
Clock Generator (SLG8SP556VTR)	1101 001Xb
DDR DIMMA	1010 000Xb

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	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 List
Size B	Document Number	Date	Rev	
	KAV00 LA-4781P	Tuesday, December 30, 2008	1.0	
			Sheet	3 of 40

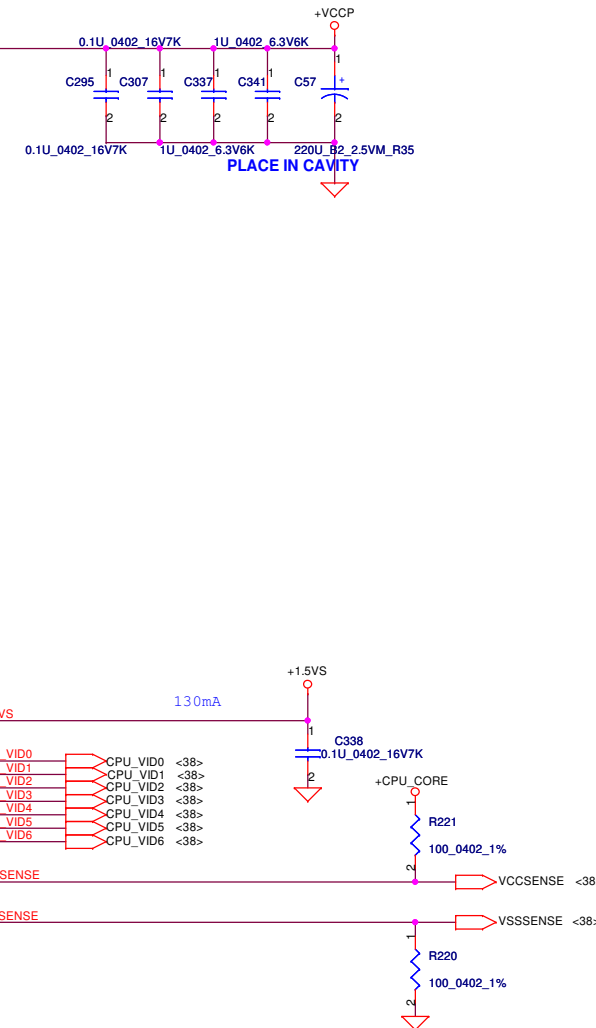
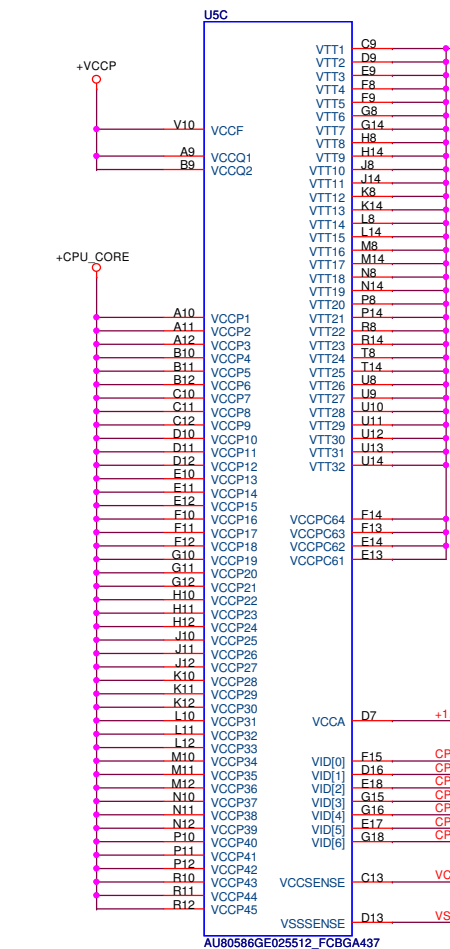
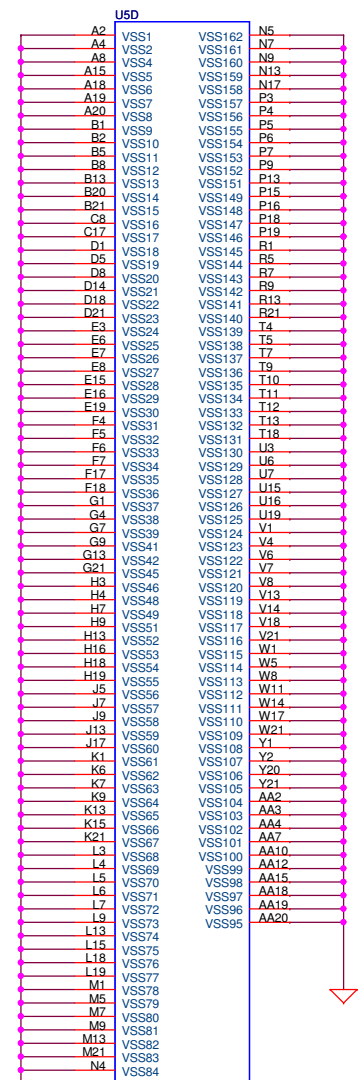


Layout note:
 COMP0,2 connect with $Z_0=27.4\text{ohm} \pm 15\%$, make trace length shorter than 0.5"
 COMP1,3 connect with $Z_0=55\text{ohm} \pm 15\%$, make trace length shorter than 0.5"

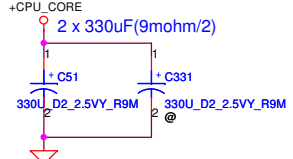
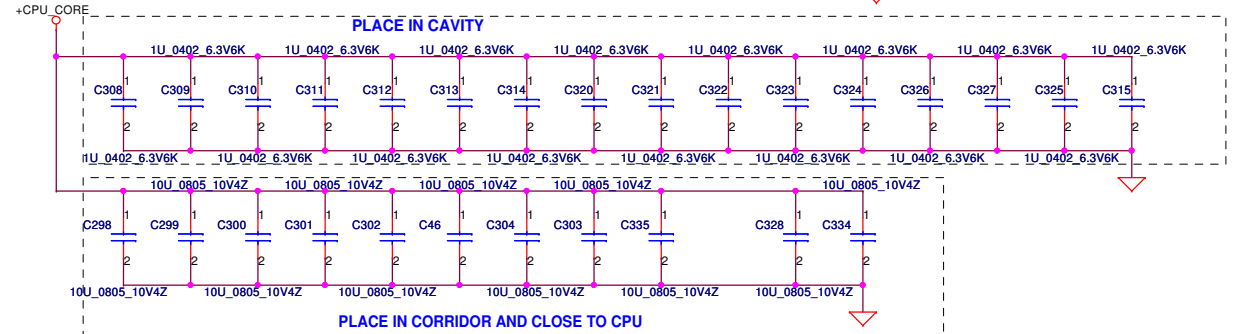
H_THERMDA, H_THERMDC routing together.
 Trace width / Spacing = 10 / 10 mil



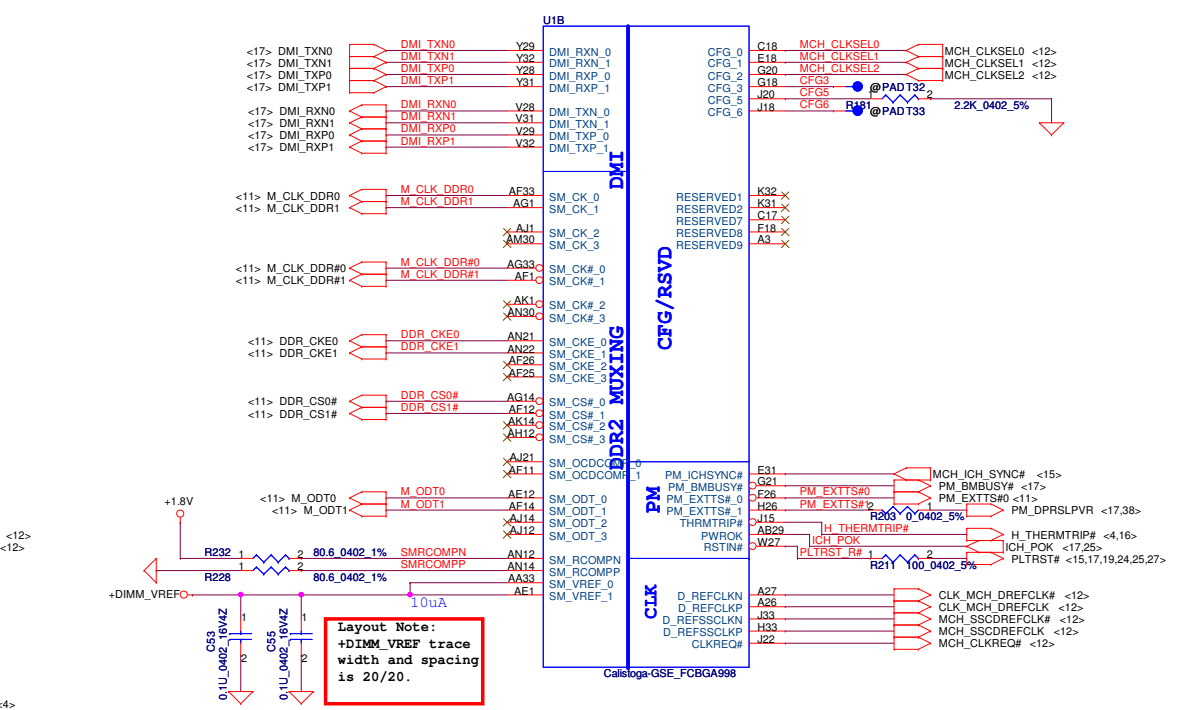
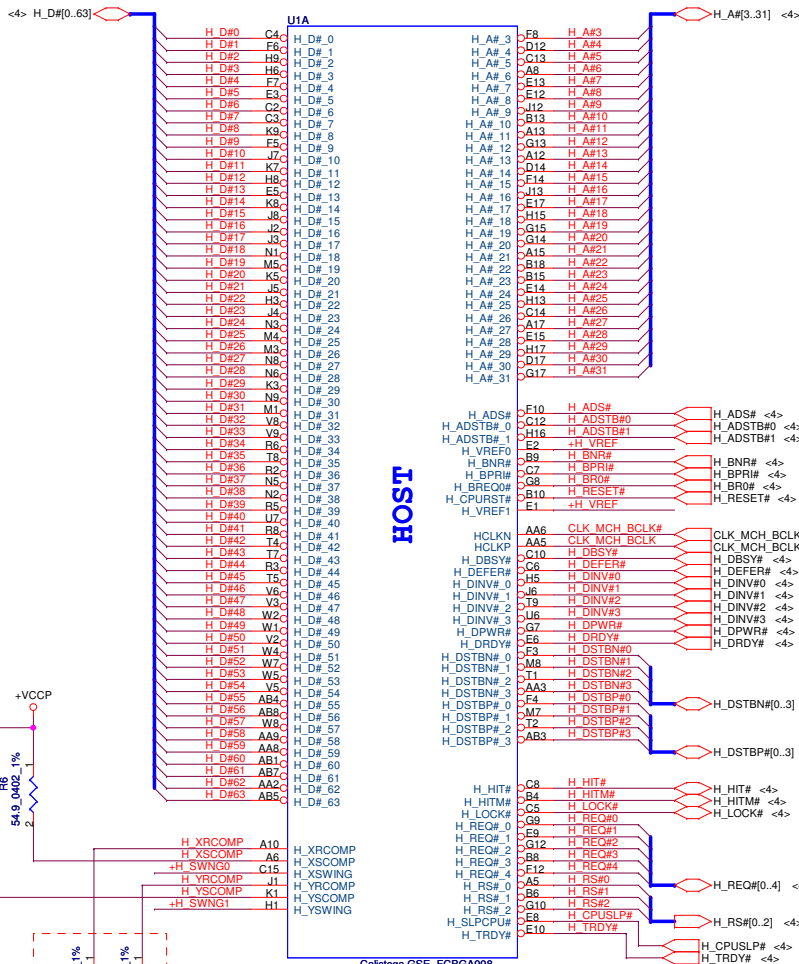
Security Classification		Compal Secret Data		Title	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	Compal Electronics, Inc.	
				Diamondville(1/2)	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS 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	KAV10 LA-4781P
				Date:	Tuesday, December 30, 2008
				Sheet	4 of 40
				Rev	1.0



Length match within 25 mils
The trace space 7 mils,
 $Z_0=27.4\text{ohm}$



Security Classification		Compal Secret Data		Title	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	Diamondville(2/2)	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number
				DAV10 LA-4781P	
				Date:	Tuesday, December 30, 2008
				Sheet	5 of 40

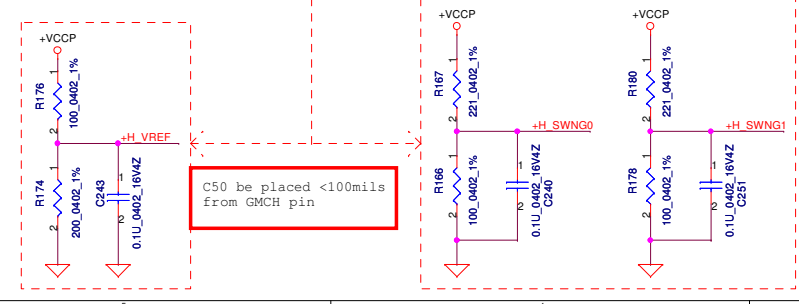


Layout Note:
+DIMM_VREF trace width and spacing is 20/20.

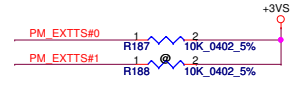
Strap Pin Table

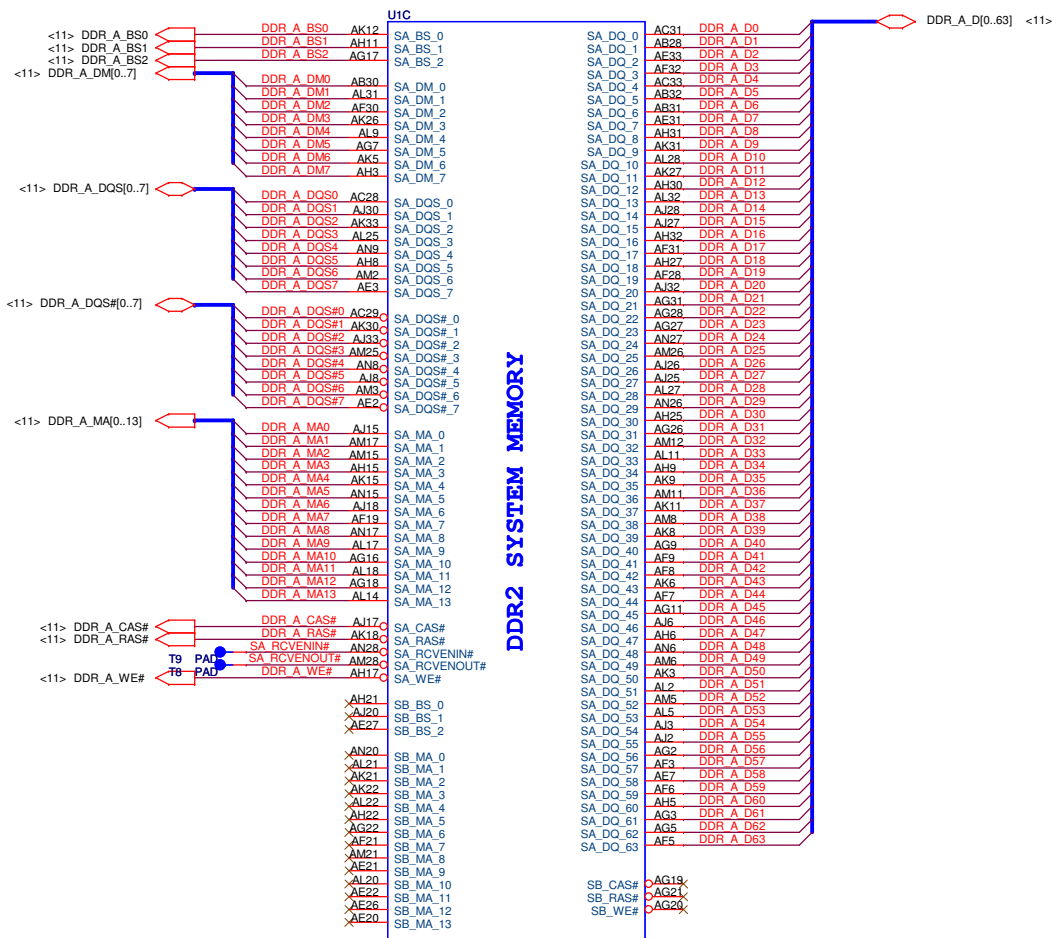
CFG5	Low = DMI x 2 *
	High = DMI x 4

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



Layout Note:
C50 to be placed <100mils from GMCH pin

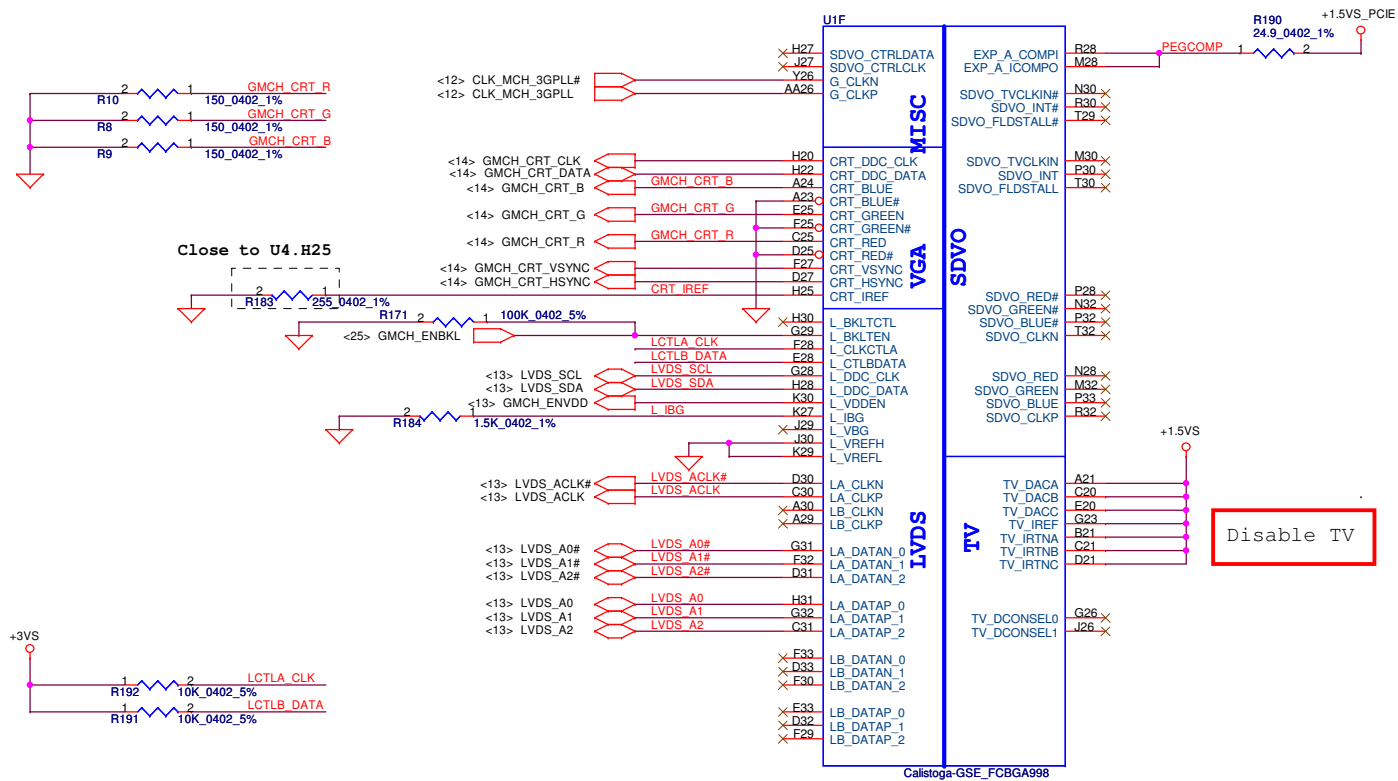




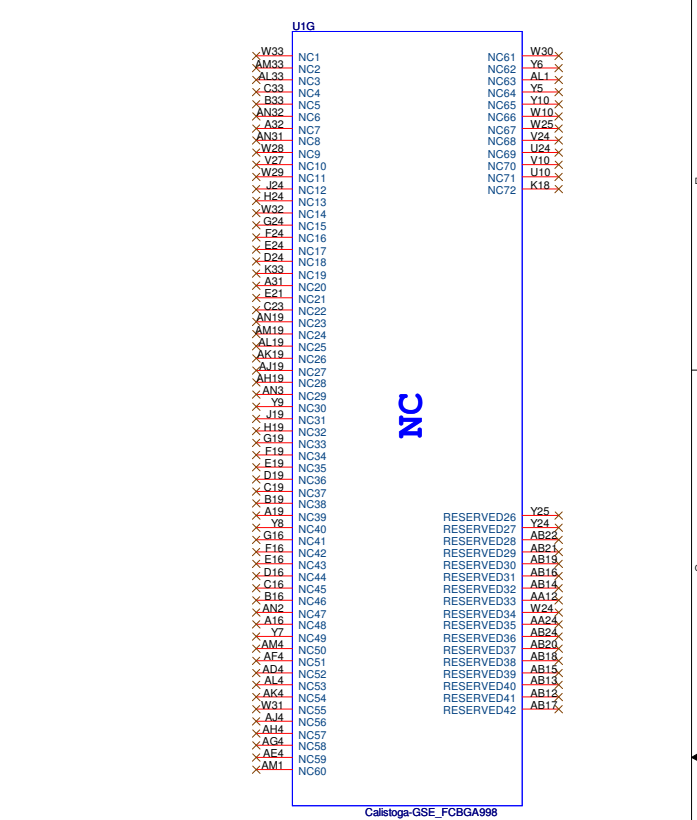
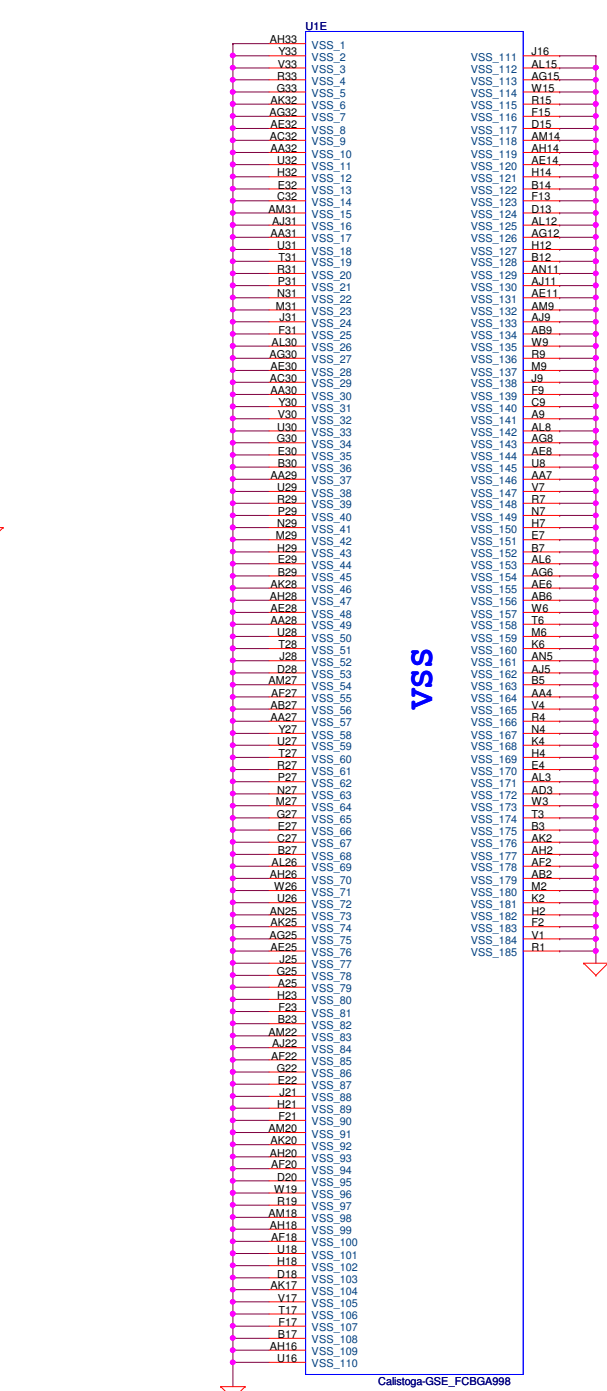
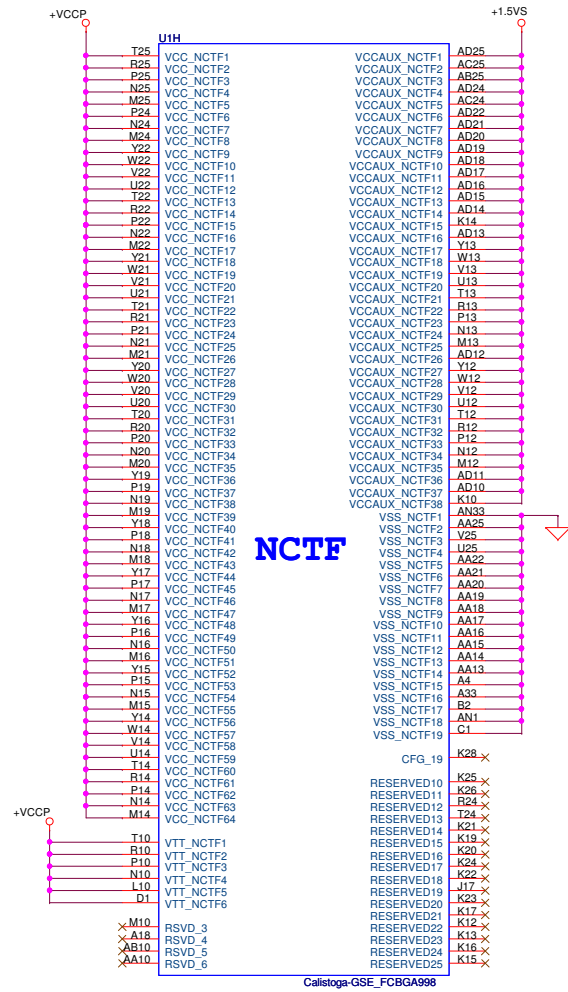
Calistoga-GSE_FCBGA998

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	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(2/5)-DDR2 Size: Custom Document Number: KAV10 LA-4781P Date: Tuesday, December 30, 2008
				Rev: 1.0
				Sheet 7 of 40

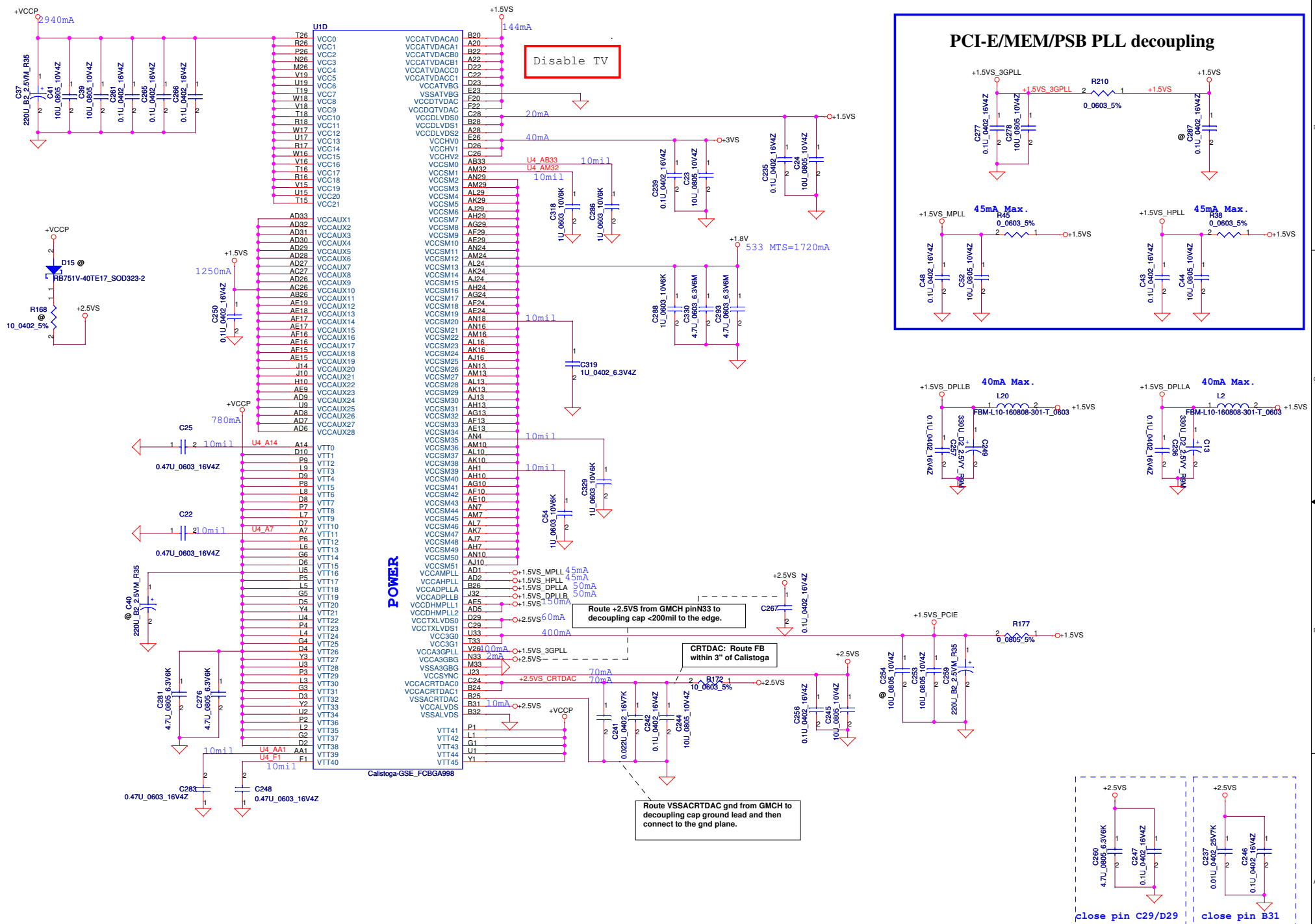
KAV10@hotmail.com



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	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(3/5)-VGA/LVDS/TV	
Size B	Document Number			KAV10 LA-4781P	Rev 1.0
Date:	Tuesday, December 30, 2008		Sheet	8 of 40	



Security Classification		Compal Secret Data		Compal Electronics Inc.		
Issued Date	2006/08/18	Deciphered Date	2007/8/18	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.				Calista(4/5)-PWR/GND		Rev
Size	Document Number	Date		Date		Rev
Custom	KAV10LA-4781P	Tuesday, December 30, 2008		1		1.0
				Sheet		9 of 40

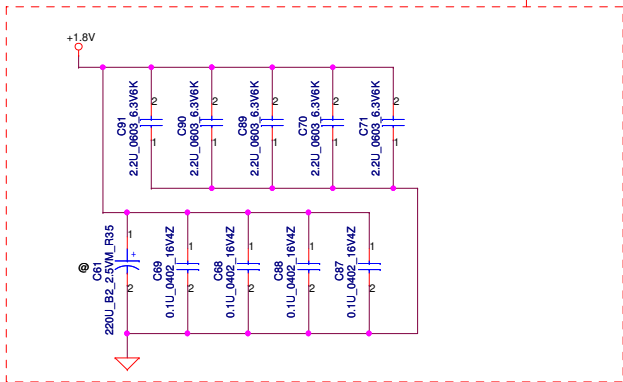


Security Classification		Compal Secret Data	
Issued Date	2006/08/18	Deciphered Date	2007/8/18
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT 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.			

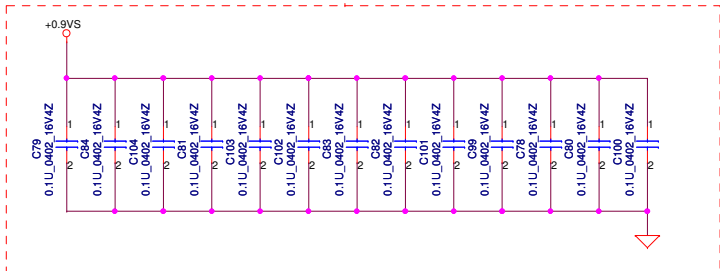
Compal Electronics, Inc.			
Title Calistoga(5/5)-PWR/GND			
Size	Document Number	Rev	
Custom	KAV10 LA-4781P	1.0	
Date:	Tuesday, December 30, 2008	Sheet	10 of 40

- <7> DDR_A_DQS#[0..7]
- <7> DDR_A_D[0..63]
- <7> DDR_A_DM[0..7]
- <7> DDR_A_DOS#[0..7]
- <7> DDR_A_MA#[0..13]

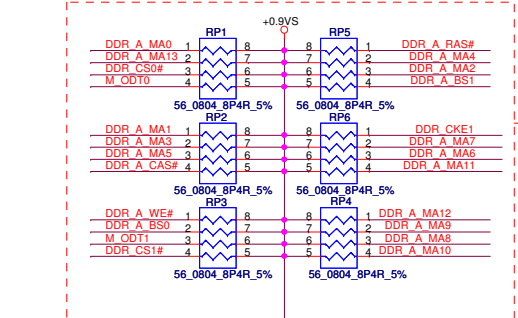
Layout Note:
Place near JDIM1



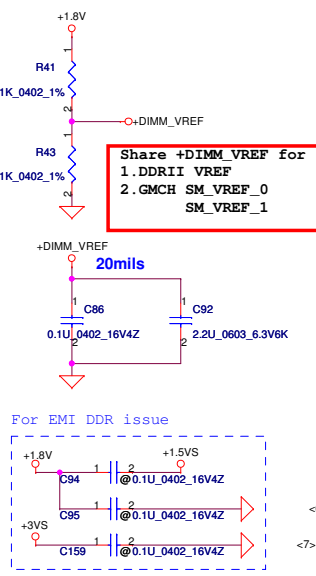
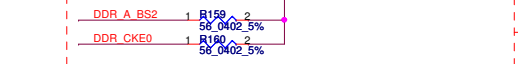
Layout Note:
Place one cap close to every 2 pullup resistors terminated to +0.9VS



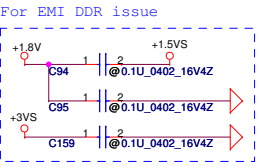
Layout Note:
Place these resistor closely DIMMA, all trace length <750 mil



Layout Note:
Place these resistor closely DIMMA, all trace length Max=1.3"



Share +DIMM_VREF for
1. DDRII VREF
2. GMCH SM_VREF_0
SM_VREF_1



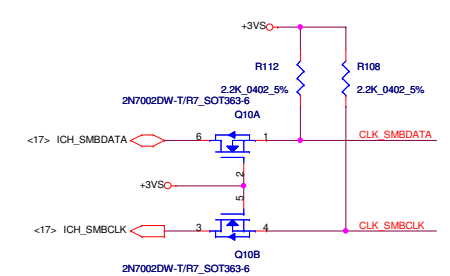
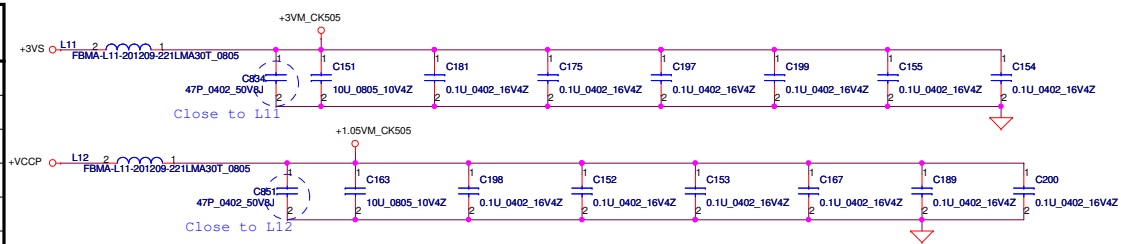
For EMI DDR issue



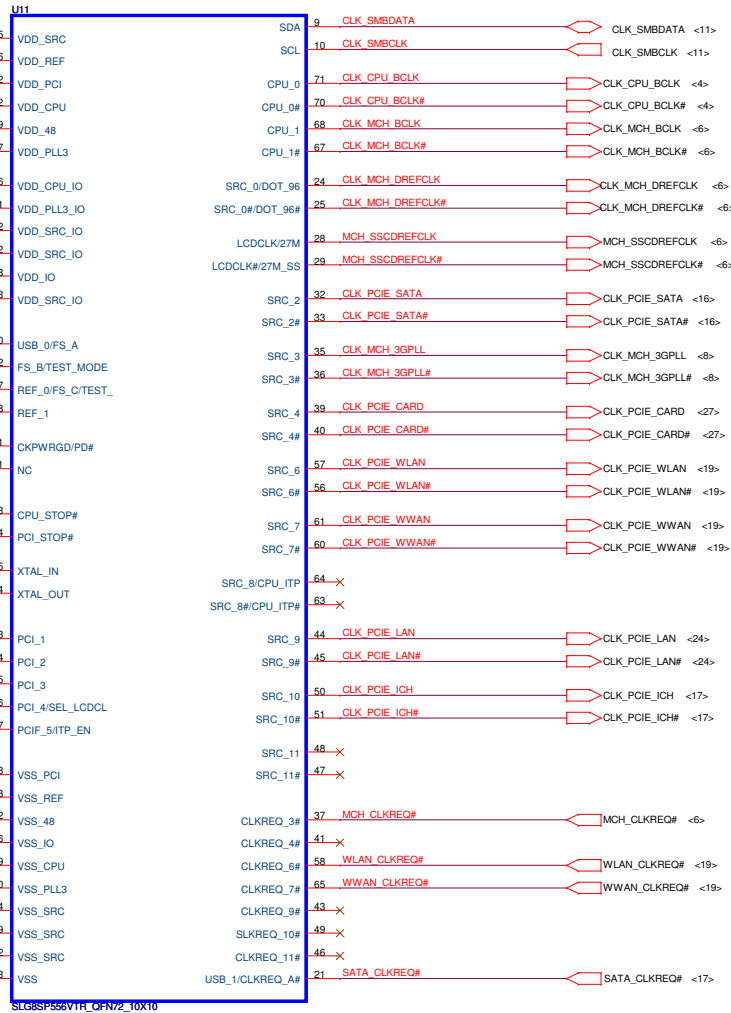
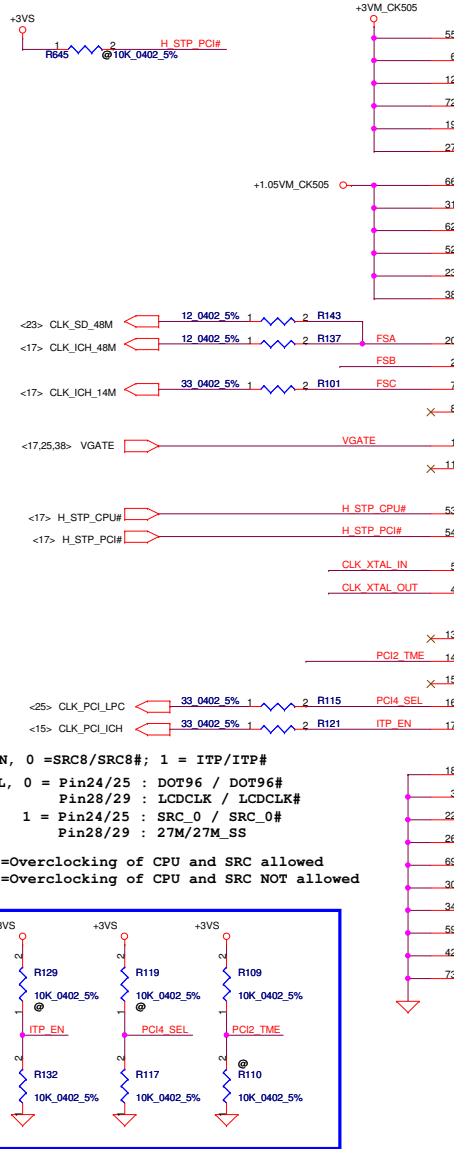
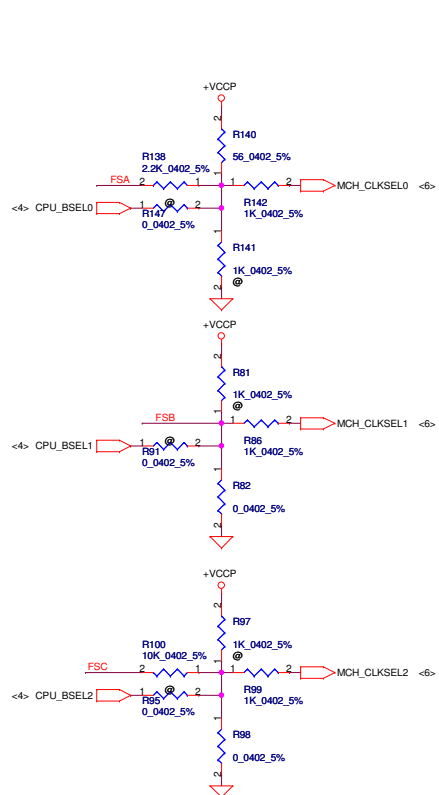
DIMMA

Security Classification	Compal Secret Data		Title
Issued Date	2006/08/18	Deciphered Date	2007/8/18
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. DDRII-S08DIMMA			Rev 1.0 Date: Tuesday, December 30, 2008
Sheet 11 of 40			KAS10 LA-4781P

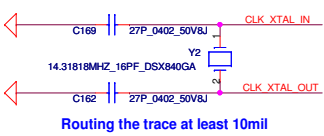
FSC	FSB	FSA	CPU	SRC	PCI	REF	DOT_96	USB
CLKSEL2	CLKSEL1	CLKSEL0	MHz	MHz	MHz	MHz	MHz	MHz
0	0	0	266	100	33.3	14.318	96.0	48.0
0	0	1	133	100	33.3	14.318	96.0	48.0
0	1	0	200	100	33.3	14.318	96.0	48.0
0	1	1	166	100	33.3	14.318	96.0	48.0
1	0	0	333	100	33.3	14.318	96.0	48.0
1	0	1	100	100	33.3	14.318	96.0	48.0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



SA000020K00 (Silego : SLG8SP556VTR)
SA000020H10 (ICS : ICS9LPRS387AKLFT)



For ITP_EN, 0 =SRC8/SRC8#; 1 = ITP/ITP#
For PCI4_SEL, 0 = Pin24/25 : DOT96 / DOT96#
Pin28/29 : LCDCLK / LCDCLK#
1 = Pin24/25 : SRC_0 / SRC_0#
Pin28/29 : 27M/27M_SS
For PCI2_TME:0=Overclocking of CPU and SRC allowed
(ICS only) 1=Overclocking of CPU and SRC NOT allowed



SRC PORT LIST

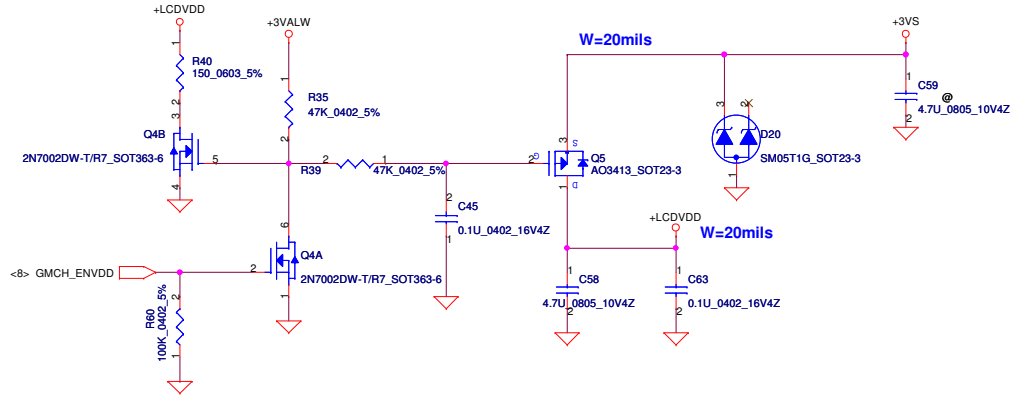
PORT	DEVICE
SRC0	MCH_DREFCLK
SRC2	SATA HDD
SRC3	MCH_3GPLL
SRC4	PCIE_CARDREADER
SRC6	PCIE_WLAN
SRC7	PCIE_WWAN
SRC8	
SRC9	PCIE_LAN
SRC10	PCIE_ICH
SRC11	

REQ PORT LIST

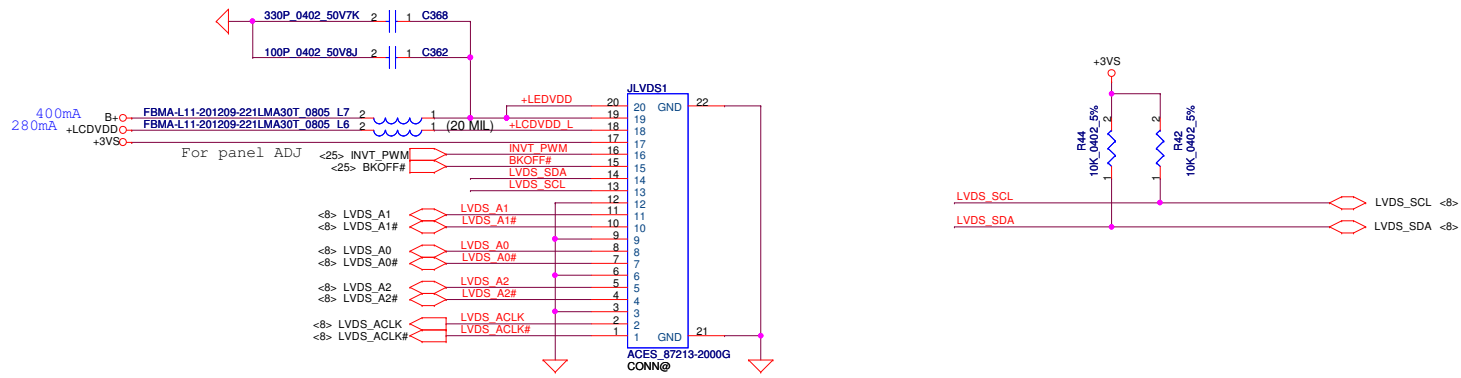
PORT	DEVICE
REQ_3#	MCH_3GPLL
REQ_4#	
REQ_6#	PCIE_WLAN
REQ_7#	PCIE_WWAN
REQ_9#	
REQ_10#	
REQ_11#	
REQ_A#	SATA

Security Classification	Compal Secret Data		Compal Electronics, Inc.		
Issued Date	2007/10/15	Deciphered Date	2007/8/18	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	KAV10 LA-4781P
				Size	Rev 1.0
				Date: Tuesday, December 30, 2008	Sheet 12 of 40

LCD POWER CIRCUIT

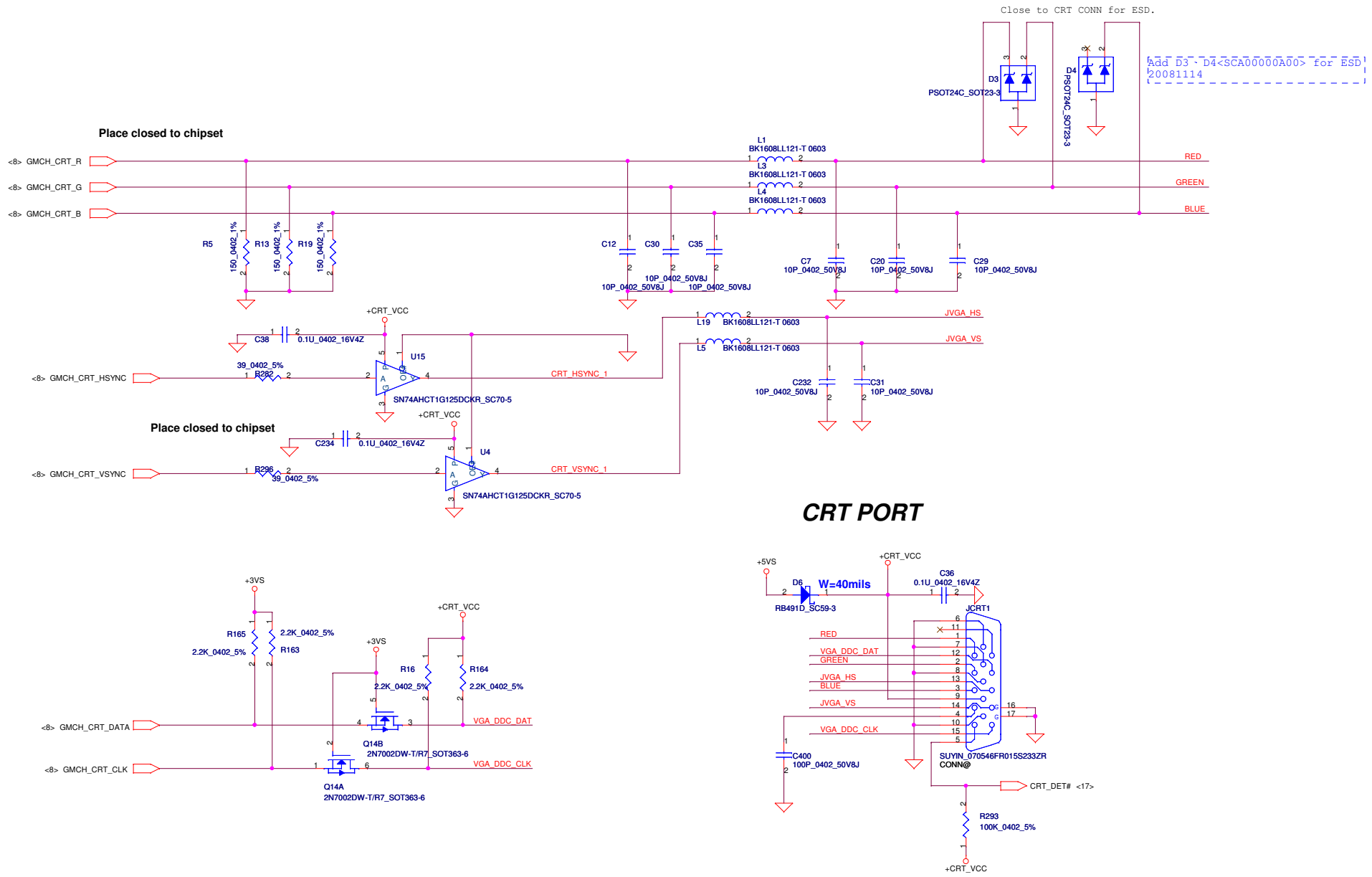


LCD/PANEL BD. Conn.



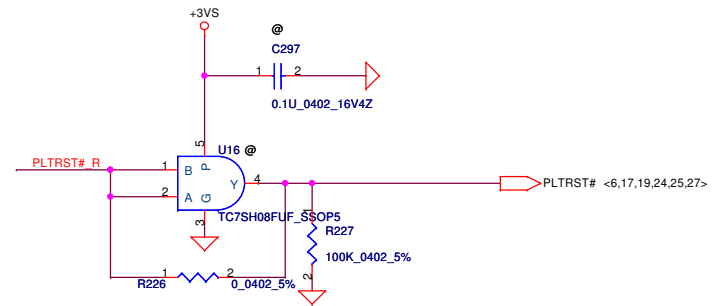
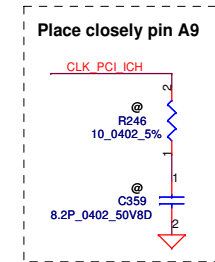
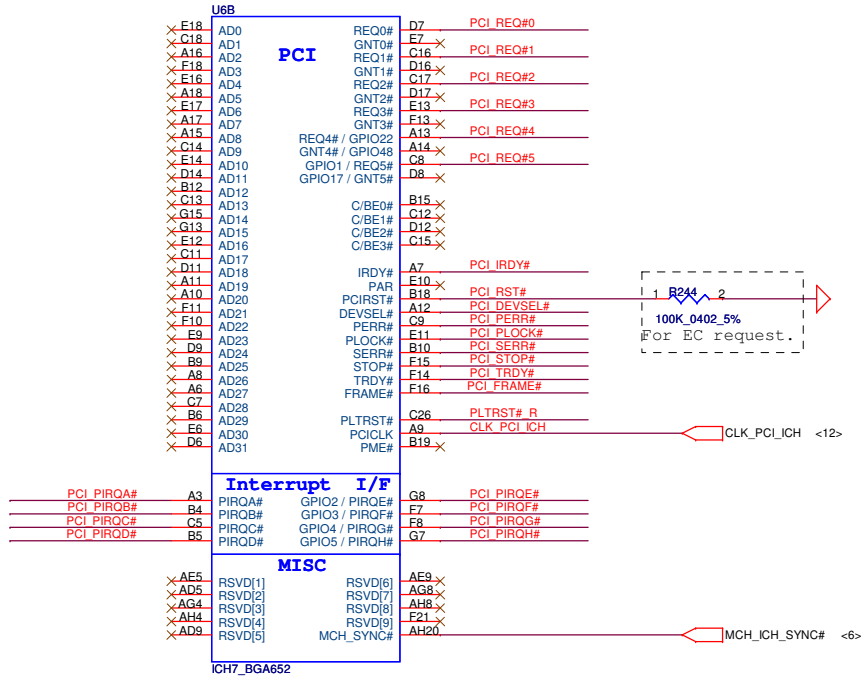
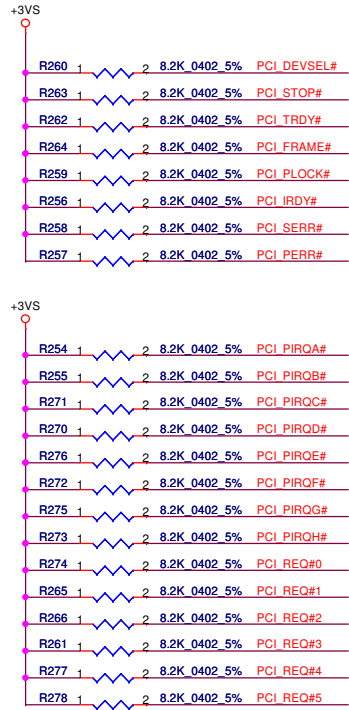
Security Classification		Compal Secret Data		Title	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	LVDS /INVERTER	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number KAV00 LA-4781P
Date: Tuesday, December 30, 2008				Sheet 13	of 40

KAV00@hotmail.com

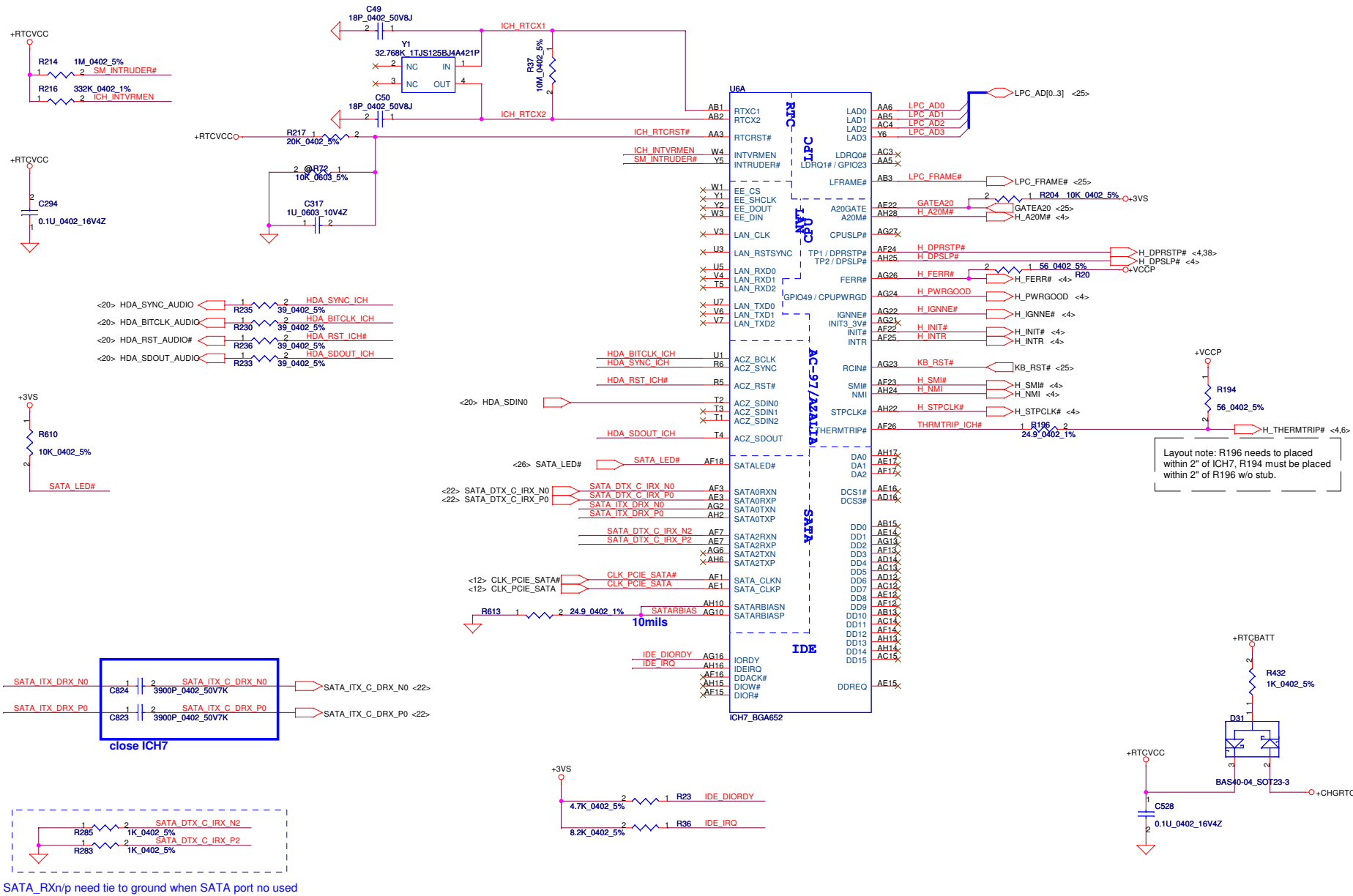


CRT PORT

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	Title	
				CRT PORT	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number
				KAV10 LA-4781P	
				Date:	Tuesday, December 30, 2008
				Sheet	14 of 40
				Rev	1.0

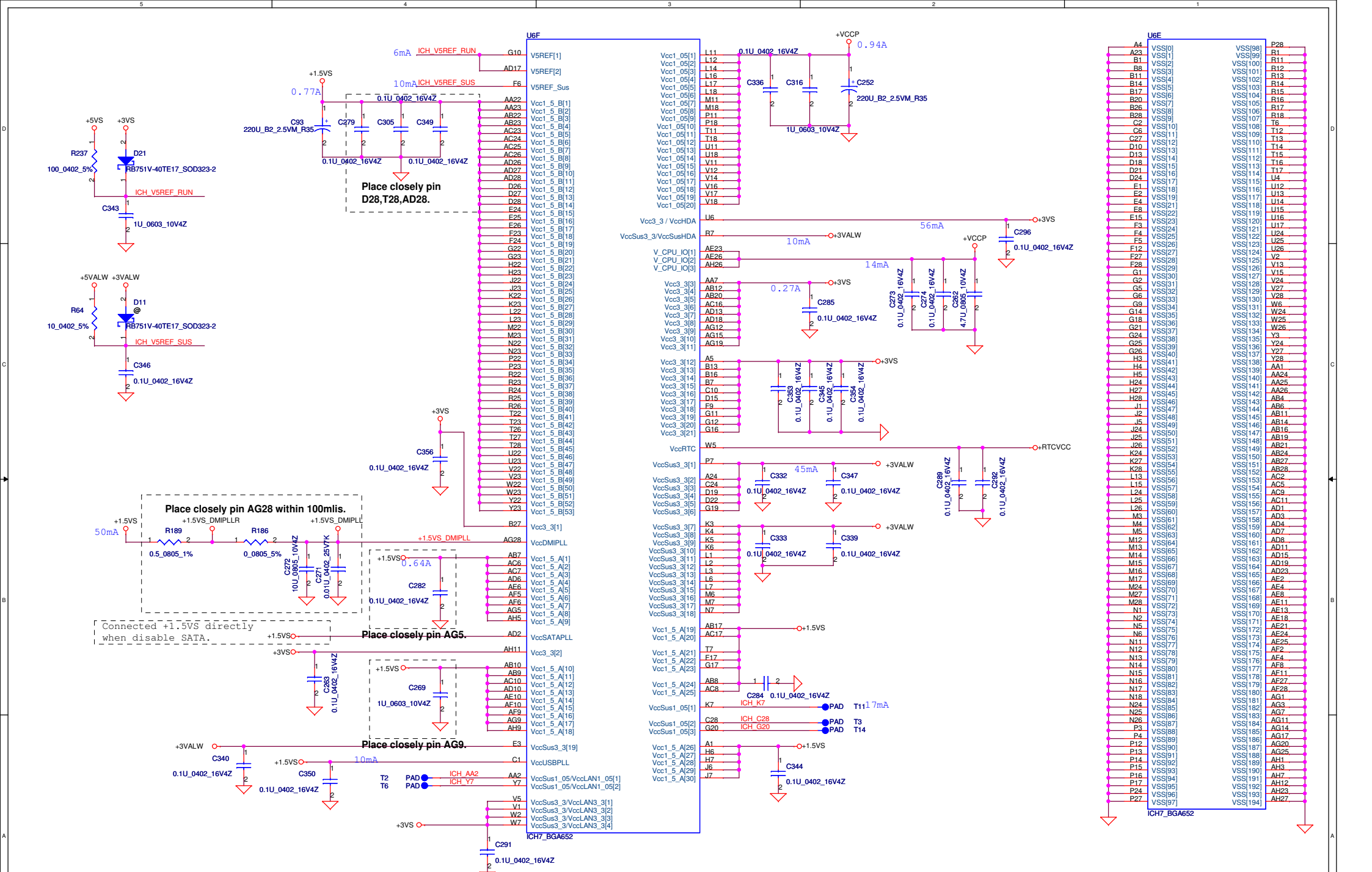


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				ICH7M(1/4)HLB,PCI,HOST	
Size	Document Number			Rev	
				KAY10 LA-4781P	
Date:	Tuesday, December 30, 2008	Sheet	15	of	40



SATA_RXn/p need tie to ground when SATA port not used

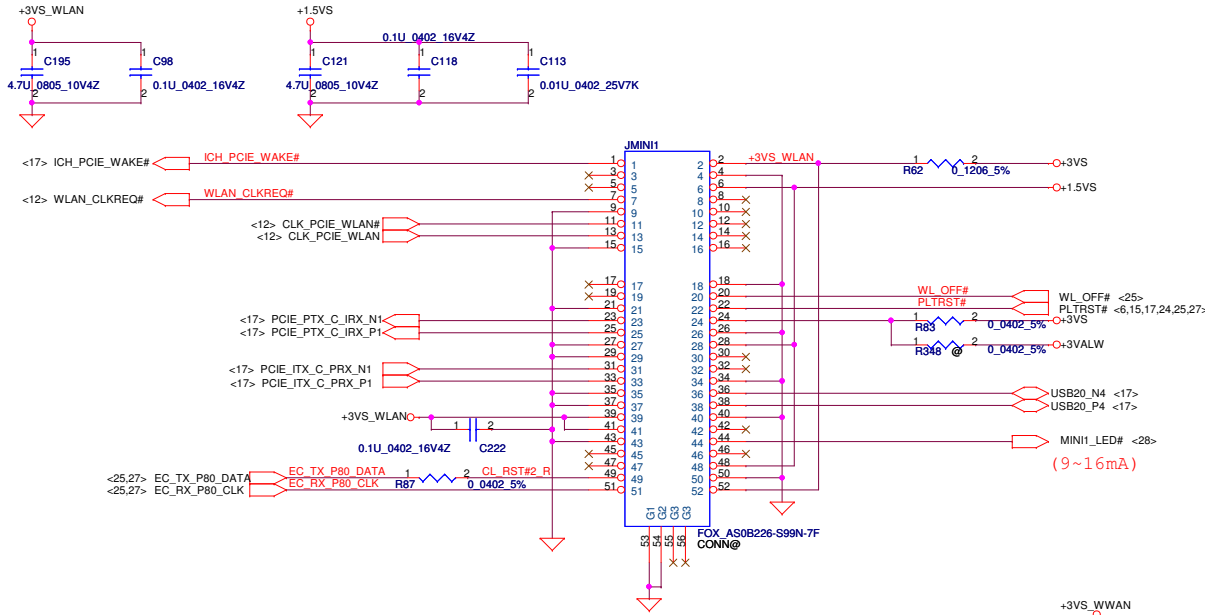
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	Title	
				ICH7M(2/4)LAN,ATA,LPC,RTC	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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	KAV10 LA-4781P
				Date:	Tuesday, December 30, 2008
				Sheet	16 of 40
				Rev	1.0



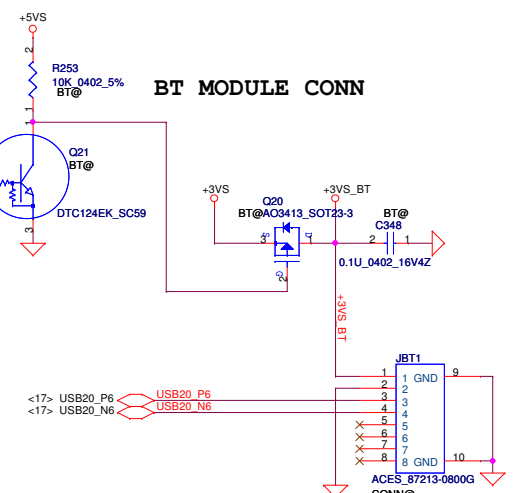
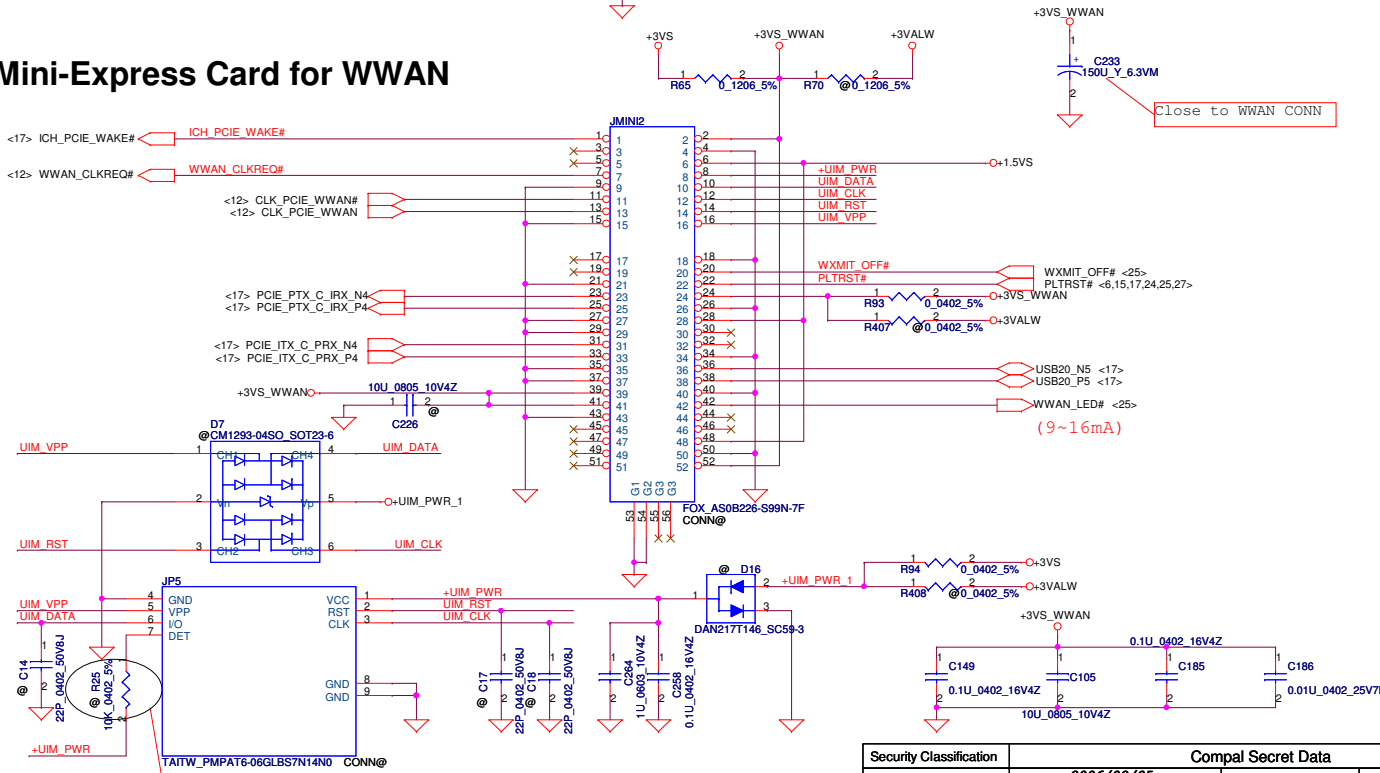
Security Classification	Compal Secret Data	
Issued Date	2006/08/18	Deciphered Date 2007/8/18
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT 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 ICH7M(4/4)POWER/GND		
Size Custom	Document Number KAV10 LA-4781P	Rev 1.0
Date: Tuesday, December 30, 2008	Sheet 18	of 40

Mini-Express Card for WLAN



Mini-Express Card for WWAN



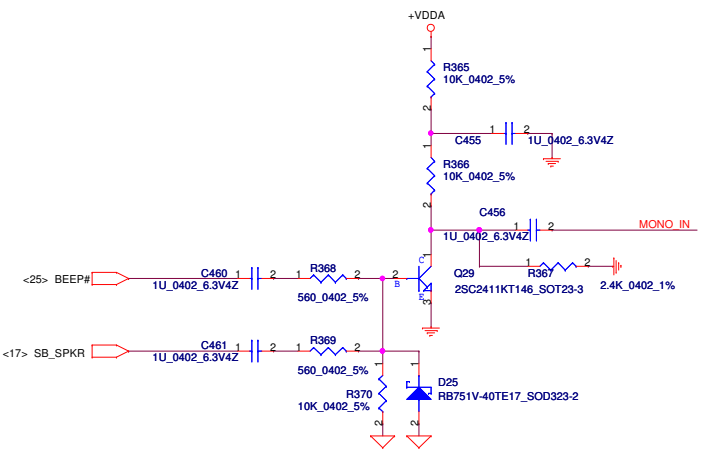
Reserve for SIM card does not meet rise time and pull-up is needed.

Security Classification	Compal Secret Data	
Issued Date	2006/08/05	Deciphered Date
		2007/8/18

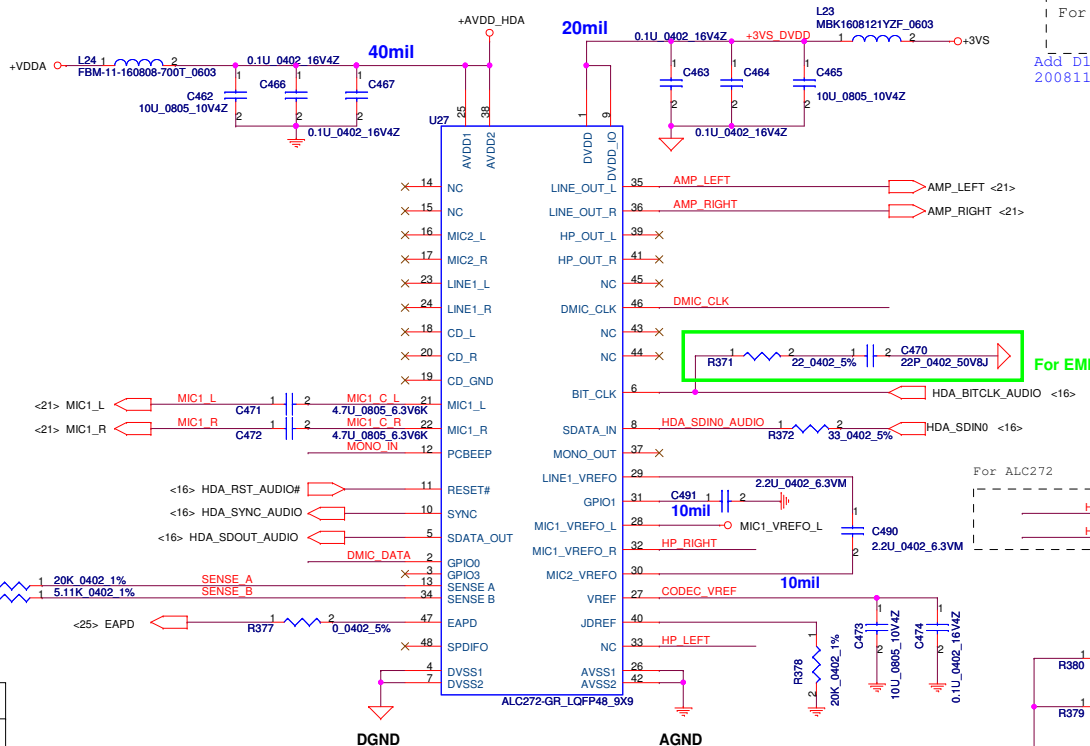
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS 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		
Mini-Card/BT-CONN		
Size	Document Number	Rev
	KAV10LA-4781P	1.0
Date:	Tuesday, December 30, 2008	Sheet 19 of 40

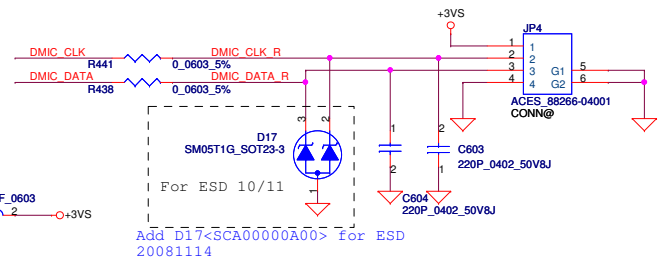
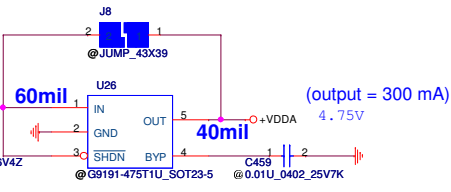
Hotmail.com



HD Audio Codec

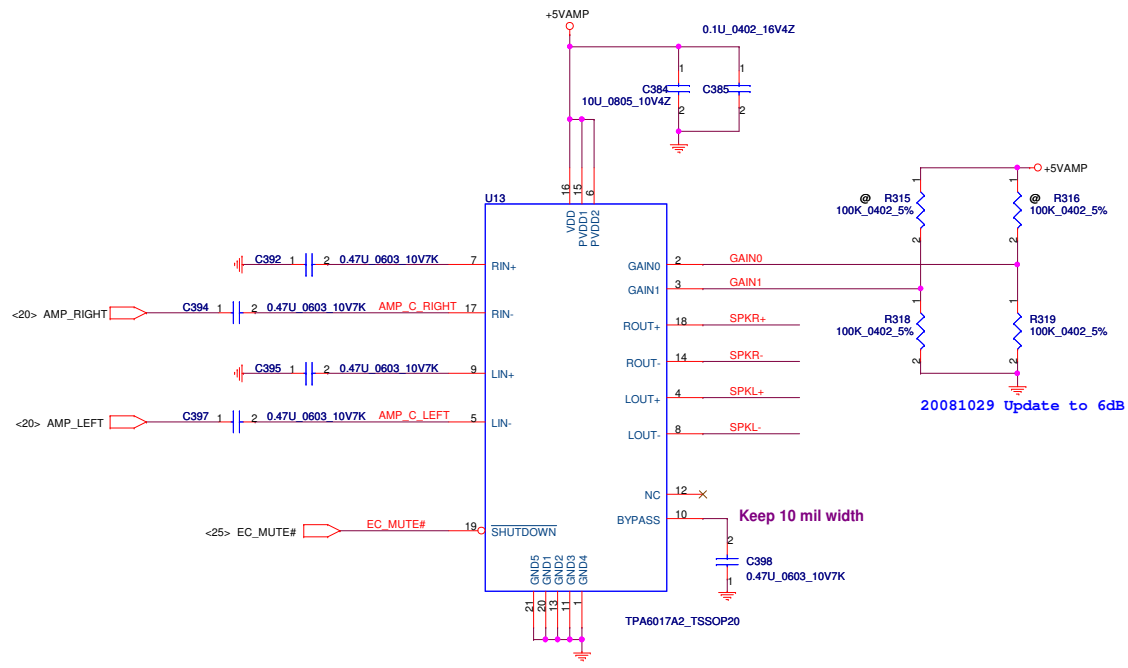


Change to SA00002Ci20 - ALC272X-GR
20081204

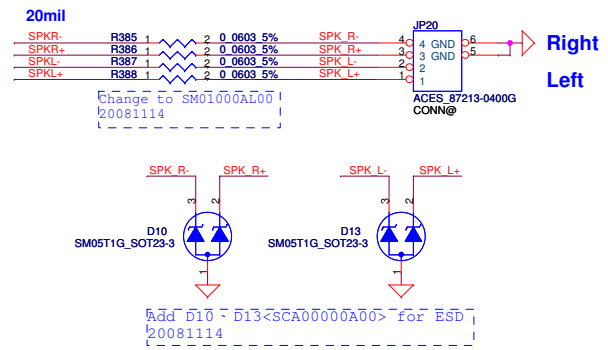


Sense Pin	Impedance	Codec Signals
SENSE A	39.2K	PORT-A (PIN 39, 41)
	20K	PORT-B (PIN 21, 22)
	10K	PORT-C (PIN 23, 24)
	5.1K	PORT-D (PIN 35, 36)
SENSE B	39.2K	PORT-E (PIN 14, 15)
	20K	PORT-F (PIN 16, 17)
	10K	PORT-G (PIN 43, 44)
	5.1K	PORT-H (PIN 45, 46)

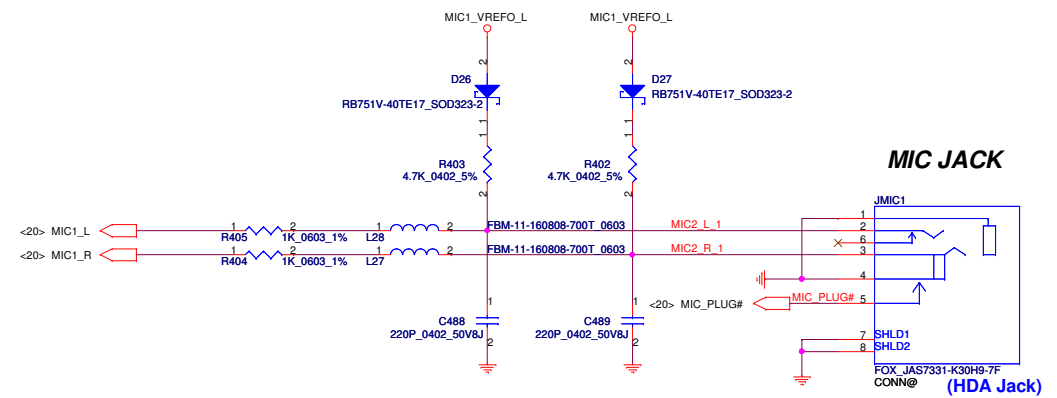
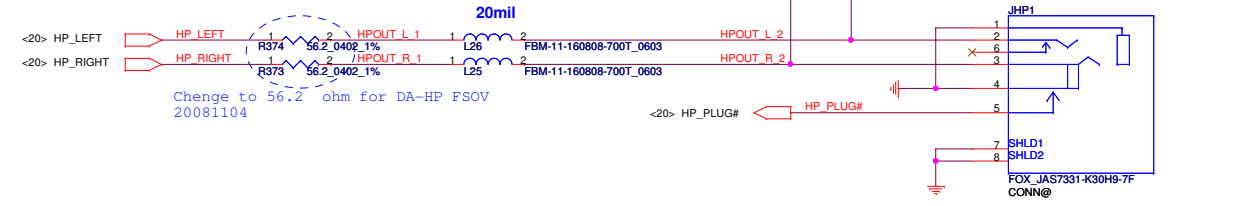
Security Classification	Compal Secret Data			Title		
Issued Date	2006/12/25	Deciphered Date	2007/8/18	HD Audio Codec ALC272		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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	KAV10 LA-4781P	1.0
				Date:	Tuesday, December 30, 2008	Sheet 20 of 40



Int. Speaker Conn.

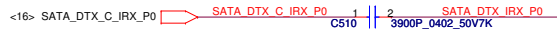
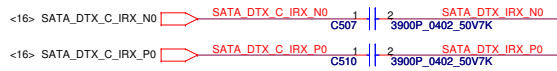
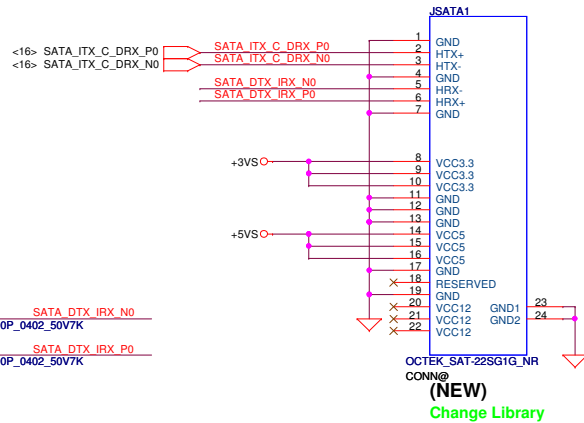


20081029 Update to 6dB

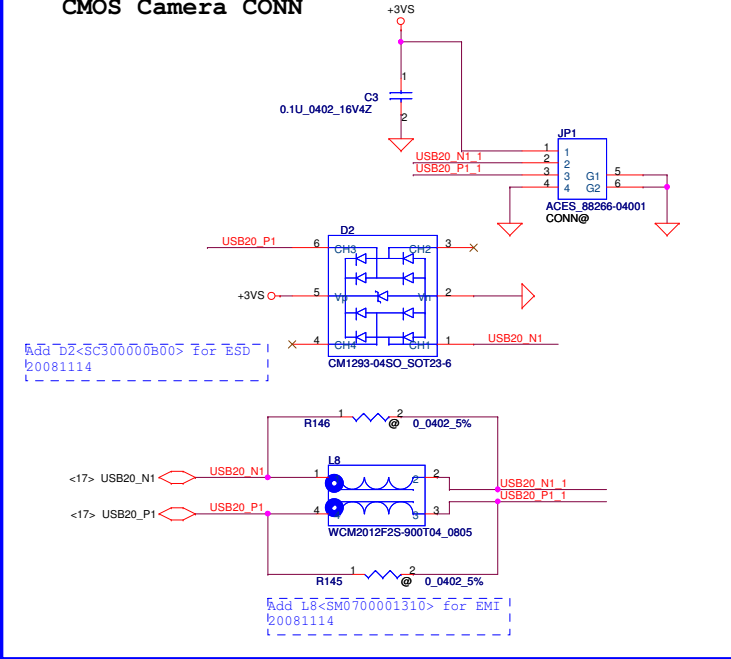


Security Classification		Compal Secret Data		Title	
Issued Date	2006/12/25	Deciphered Date	2007/8/18	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number
				KAV10 LA 4781P	
				Date:	Tuesday, December 30, 2008
				Sheet	21 of 40
				Rev	1.0

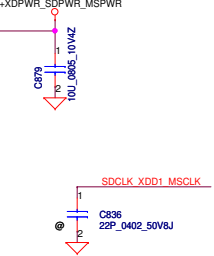
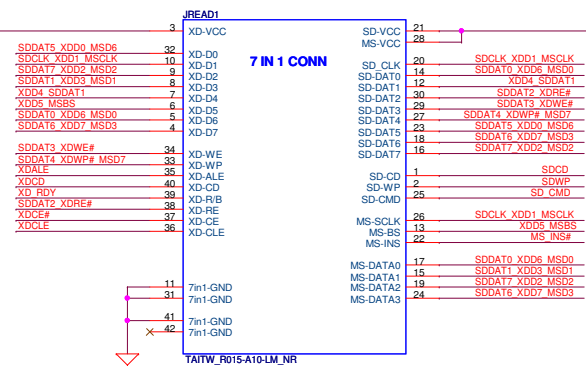
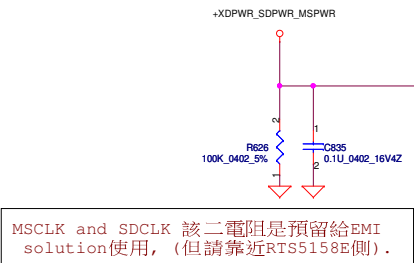
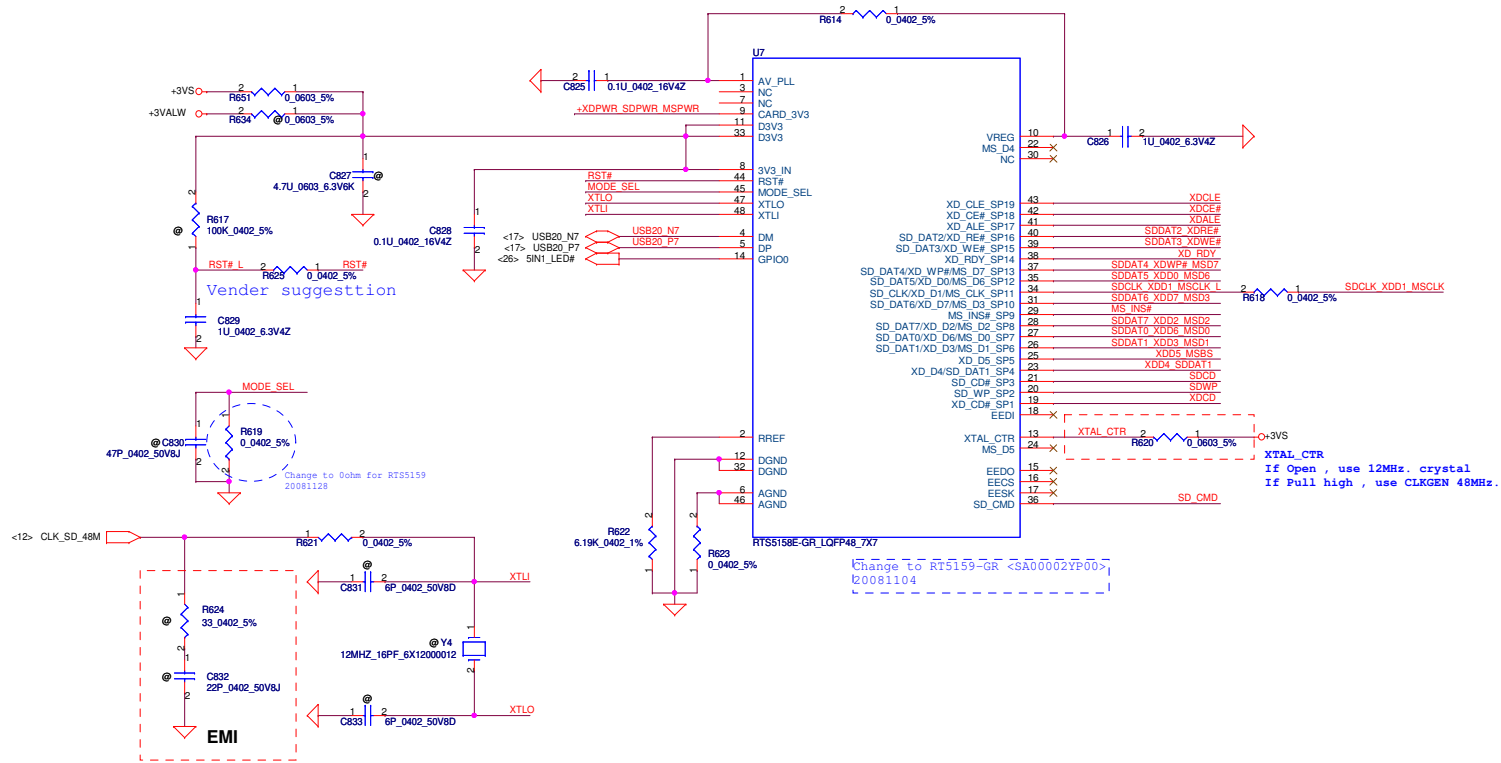
SATA HDD Conn.



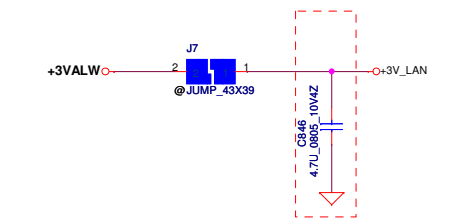
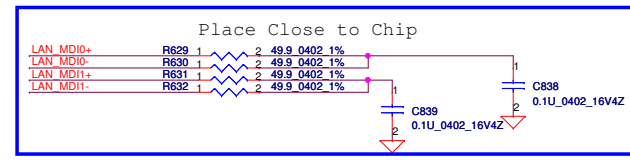
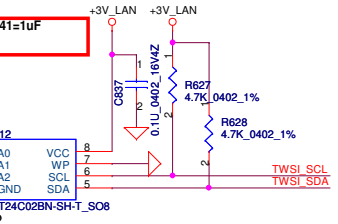
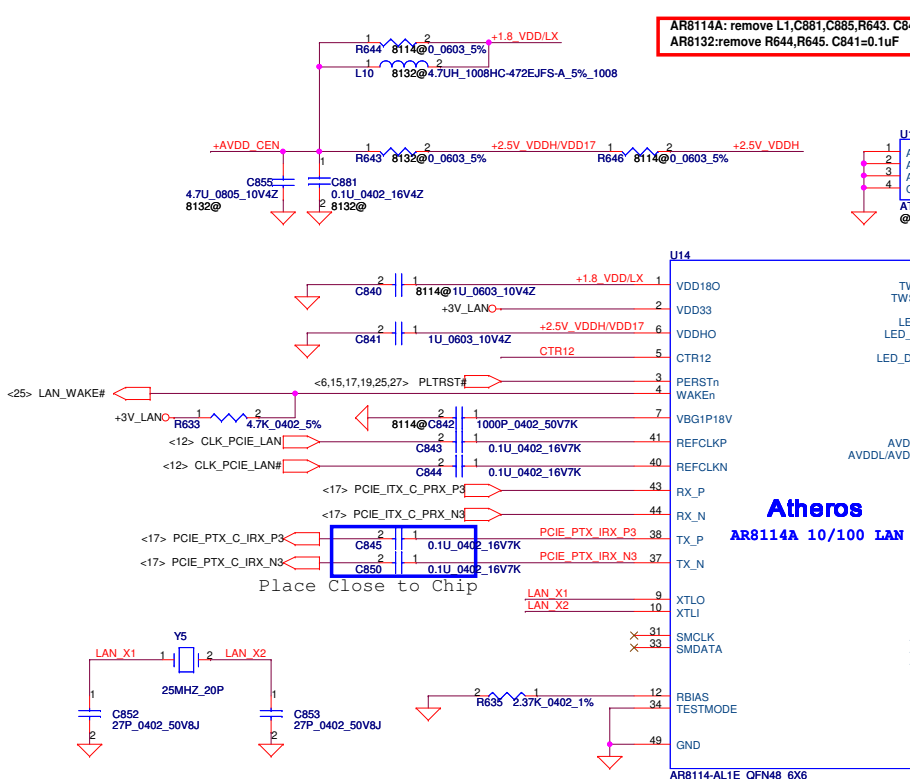
CMOS Camera CONN



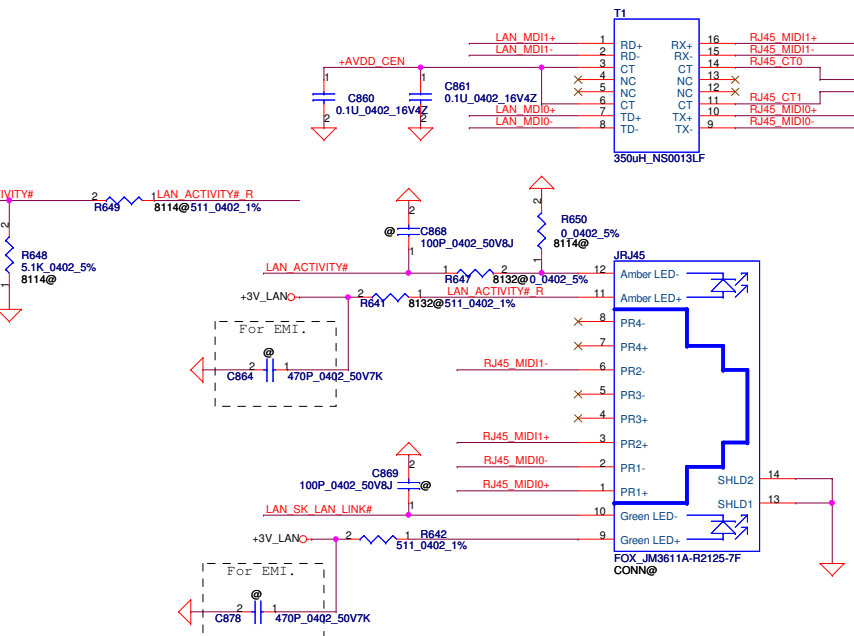
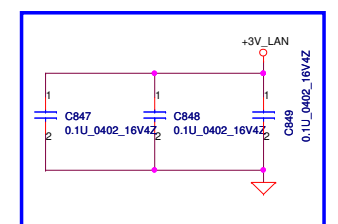
Security Classification		Compal Secret Data		Title		
Issued Date	2006/08/18	Deciphered Date	2007/8/18	SATA HDD/SSD		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number	Rev 1.0
				Date:	Tuesday, December 30, 2008	Sheet 22 of 40



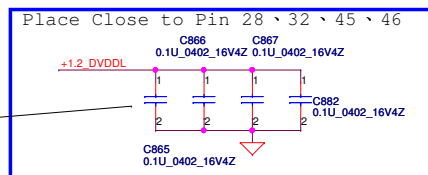
Security Classification		Compal Secret Data		Title	
Issued Date	2006/08/04	Deciphered Date	2007/8/18	5 in 1 Card reader	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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		Sheet	Rev
	KAV1014781P	December 30, 2008		23	1.0



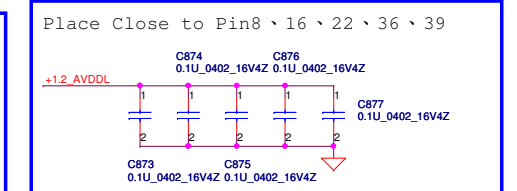
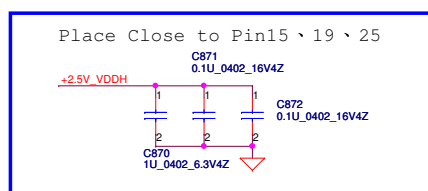
Layout Note : Place as close chip as possible.



C865 close to Pin46
AR8114A: C865=0.1uF
AR8132: C865=1uF

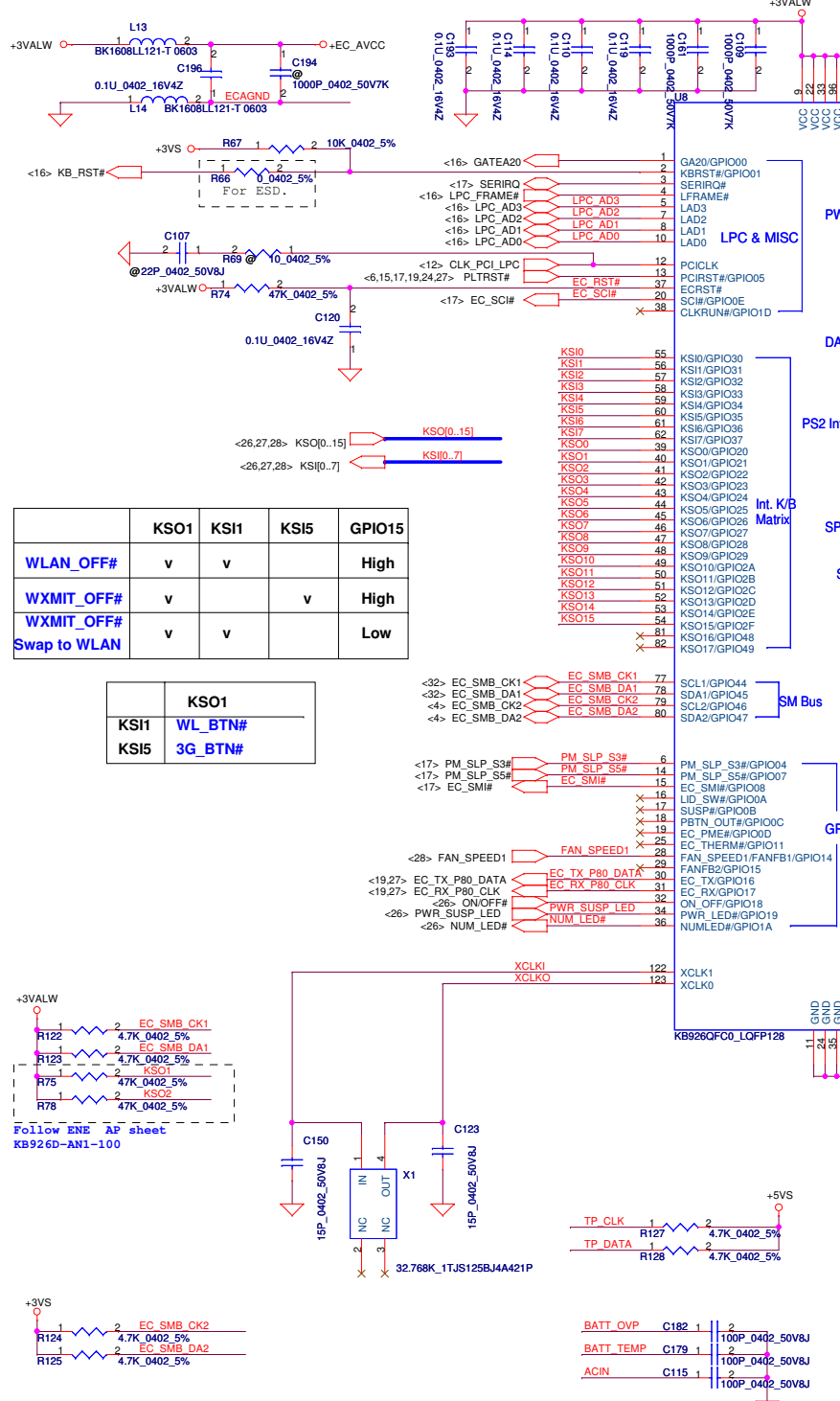


If overclocking, R638, L30 stuffed and R637 removed.
 If not overclocking, R637, L30 stuffed and R638 removed.
 AR8132: L30=0ohm, C856=0.1uF. remove C857



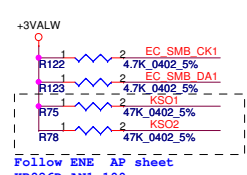
Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2006/08/04	Deciphered Date	2007/8/18	Title		
				AR8114		
				Size	Document Number	Rev
				Custom	KAV10 LA-4781P	1.0
				Date:	Tuesday, December 30, 2008	Sheet 24 of 40

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.

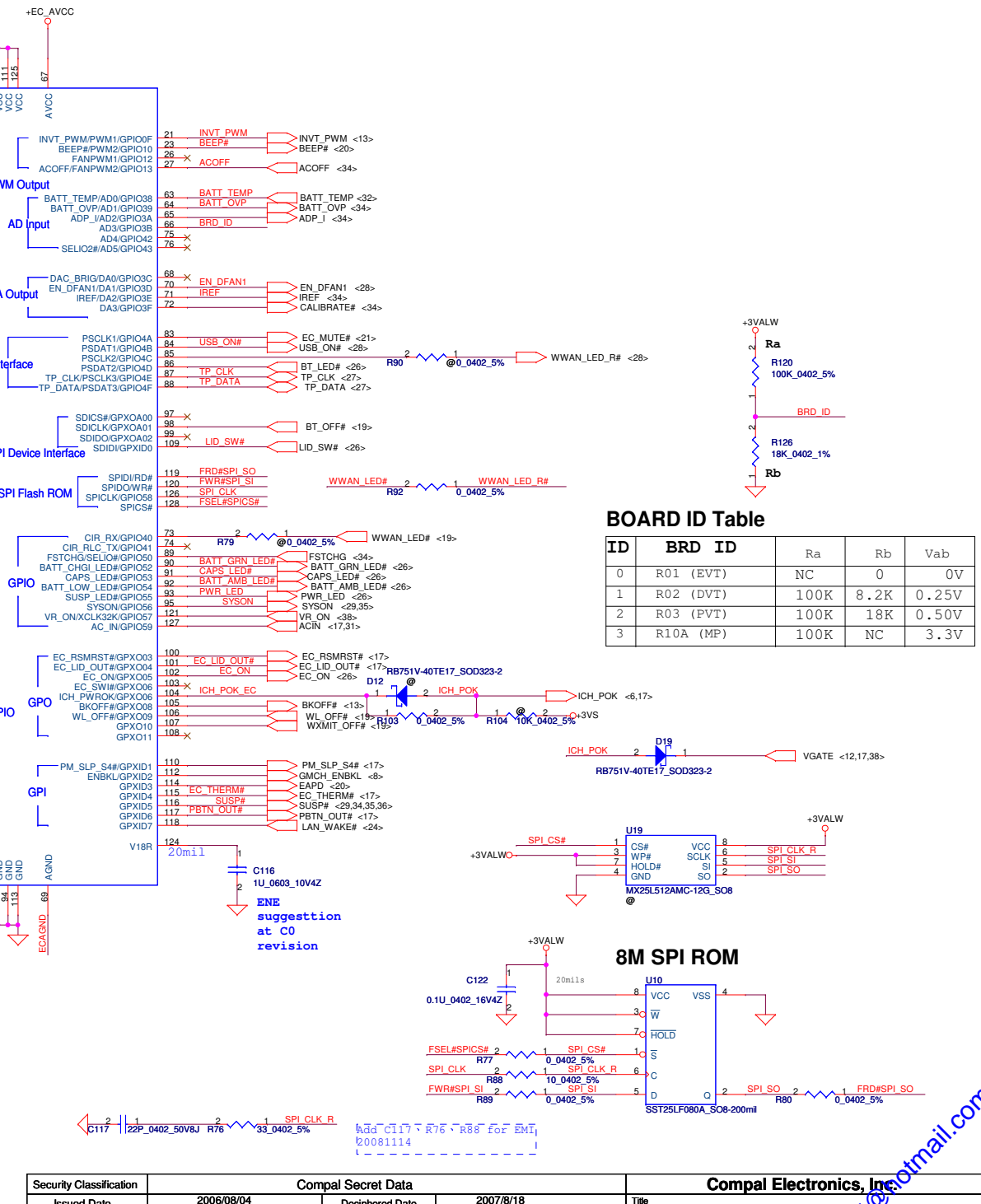
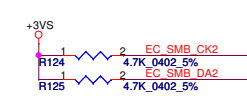


	KSO1	KSI1	KSI5	GPIO15
WLAN_OFF#	v	v		High
WXMIT_OFF#	v		v	High
WXMIT_OFF# Swap to WLAN	v	v		Low

	KSO1
KSI1	WL_BTN#
KSI5	3G_BTN#

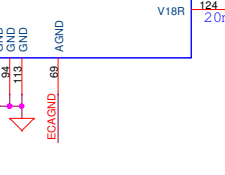


Follow ENE AP sheet
KB926D-AN1-100

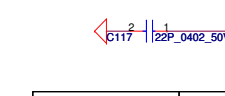


	KSO1	KSI1	KSI5	GPIO15
WLAN_OFF#	v	v		High
WXMIT_OFF#	v		v	High
WXMIT_OFF# Swap to WLAN	v	v		Low

	KSO1
KSI1	WL_BTN#
KSI5	3G_BTN#



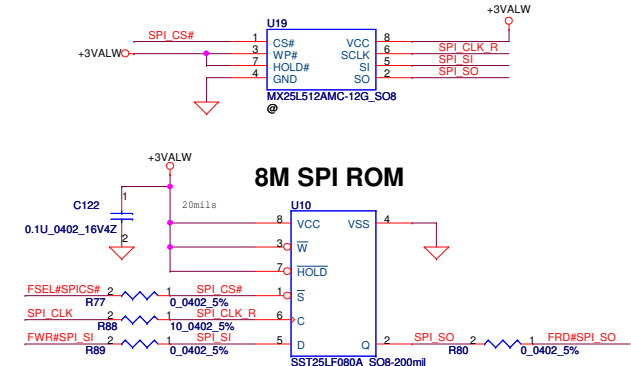
Follow ENE AP sheet
KB926D-AN1-100



BOARD ID Table

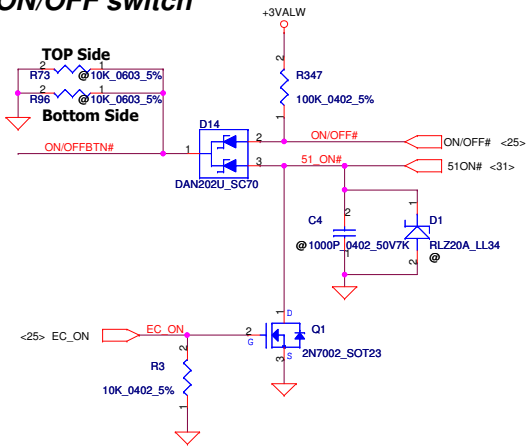
ID	BRD ID	Ra	Rb	Vab
0	R01 (EVT)	NC	0	0V
1	R02 (DVT)	100K	8.2K	0.25V
2	R03 (PVT)	100K	18K	0.50V
3	R10A (MP)	100K	NC	3.3V

8M SPI ROM

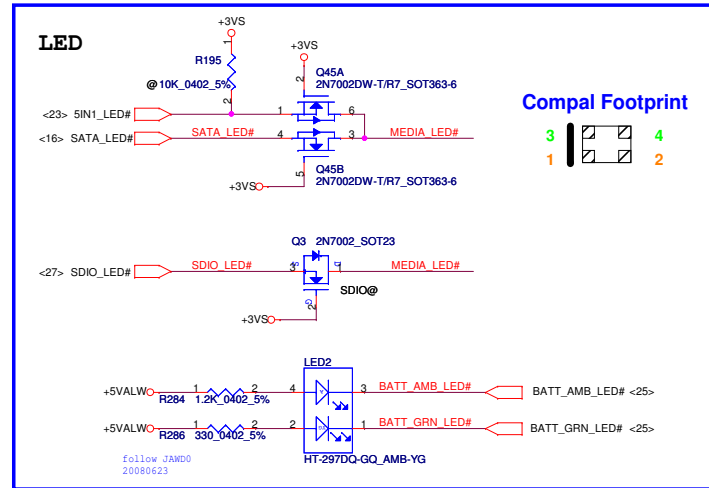
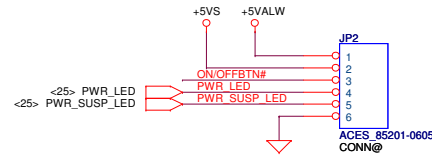


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/08/04	Deciphered Date	2007/8/18	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				KB926/BIOS	
Size	Document Number	Rev		Date	
	KAV10 LA4781P	1.0		Tuesday, December 30, 2008	
				Sheet	25 of 40

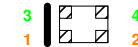
ON/OFF switch



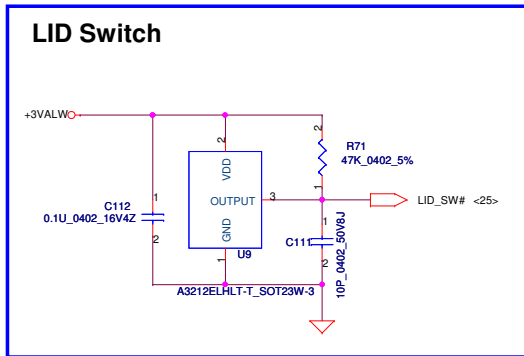
To PWR/B Conn.



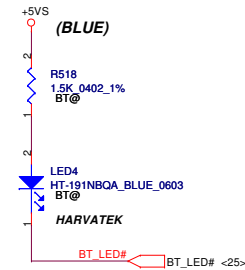
Compal Footprint



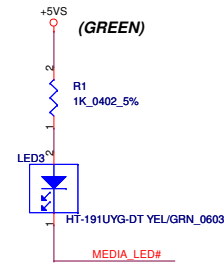
LID Switch



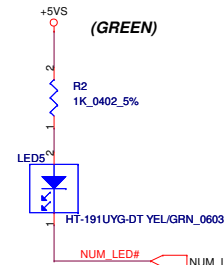
Bluetooth LED



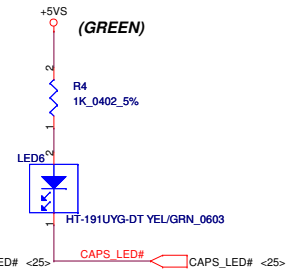
MEDIA_LED



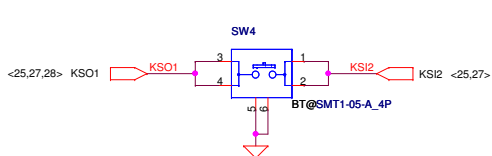
NUM_LED



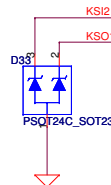
CAPS_LED



Bluetooth Button

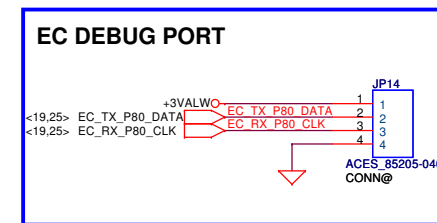
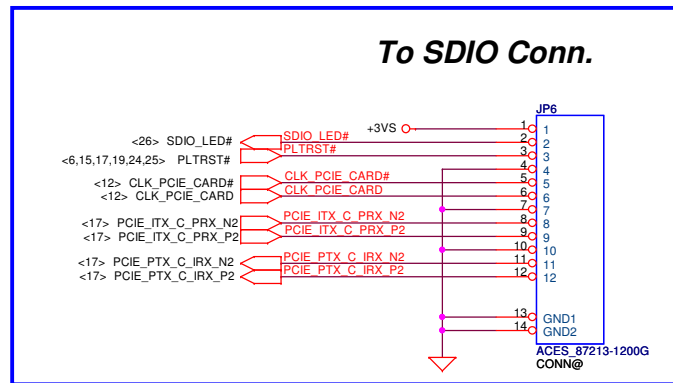
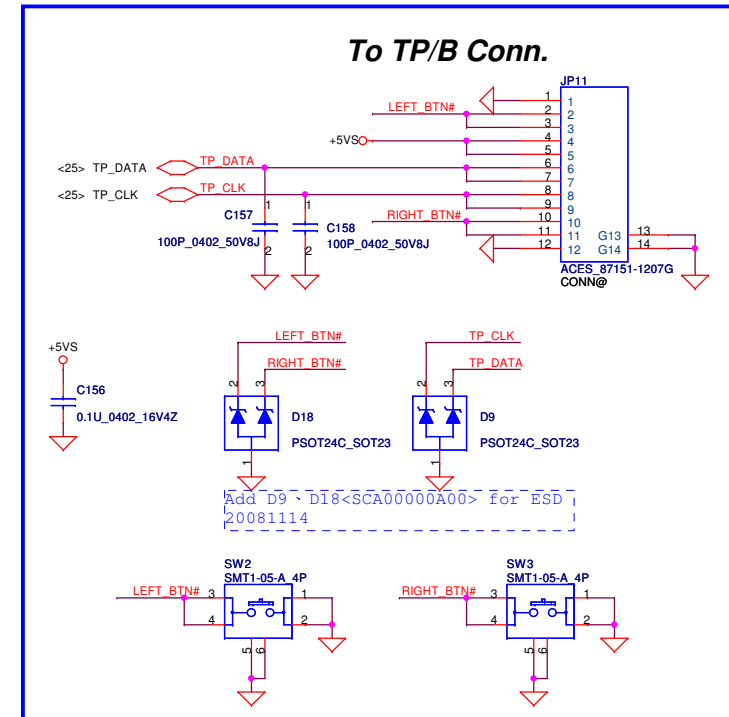
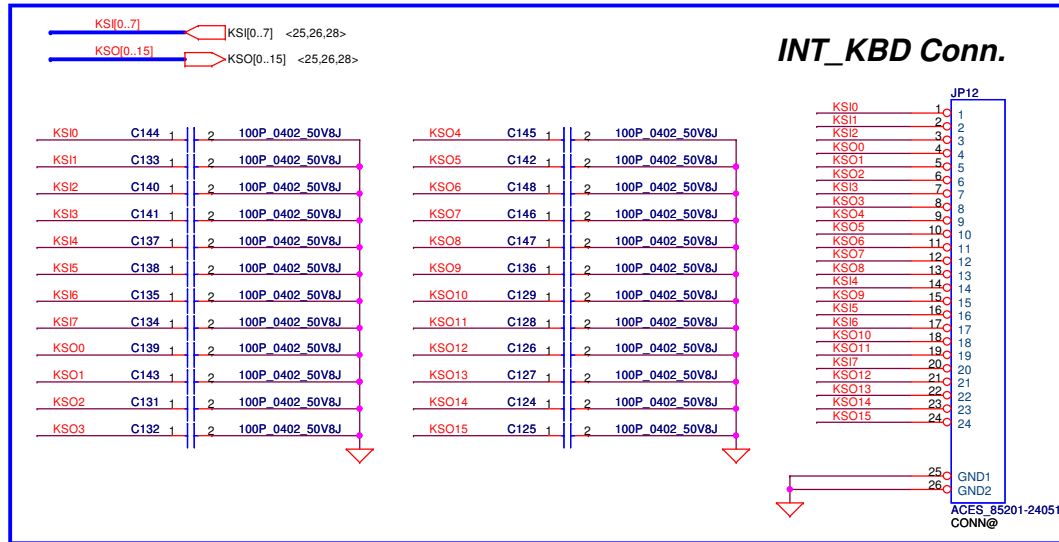


	KSO1
KSI2	BT_BTN#

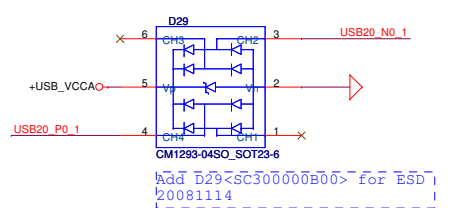
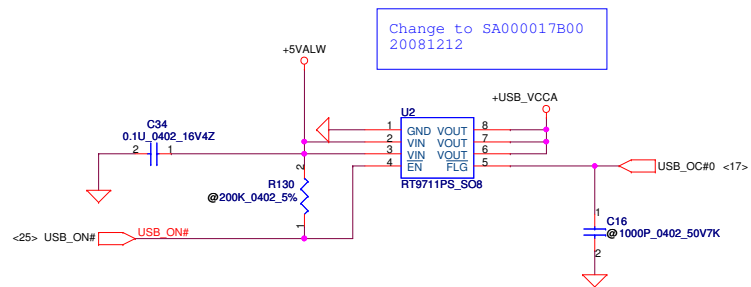


Add D33<SCA00000A00> For ESD
20081114

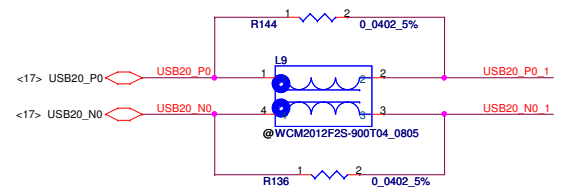
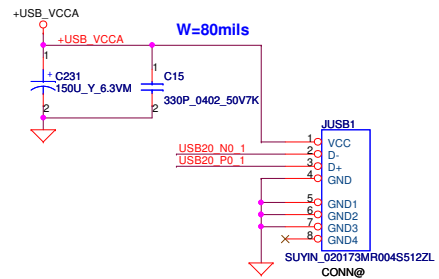
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date		Deciphered Date		Title	
2006/08/18		2007/8/18		LID SW/LED/CMOS	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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	KAV10 LA-4781P	1.0			
Date:	Tuesday, December 30, 2008	Sheet	26	of	40



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2006/08/18	Deciphered Date	2007/8/18	Title	
				KB/SDIO/TP/LFC Debug CONN	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Size	Document Number			Rev	
B	KAY10 LA-4781P			1.0	
Date:	Tuesday, December 30, 2008		Sheet	27 of 40	



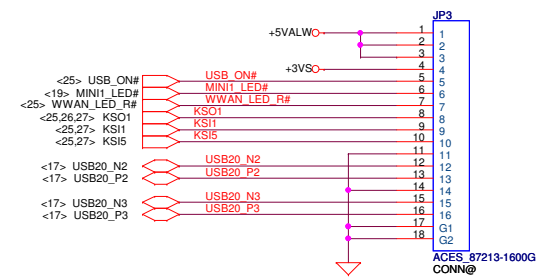
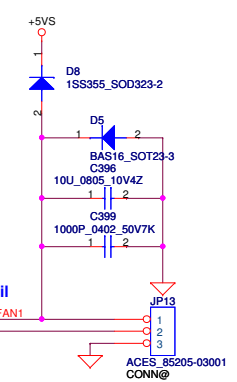
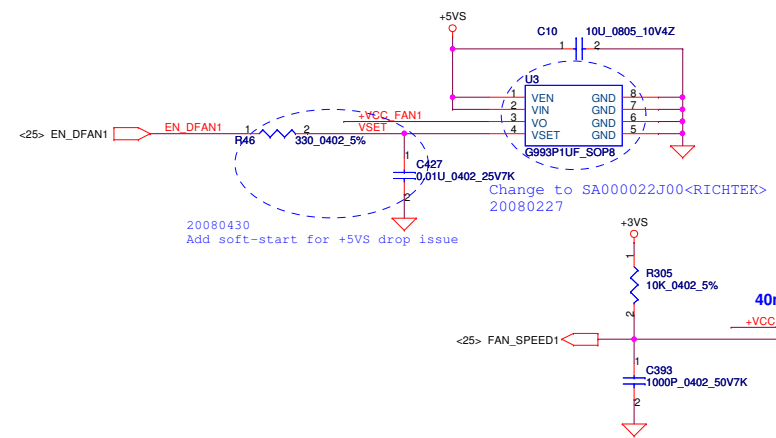
USB CONN. 1



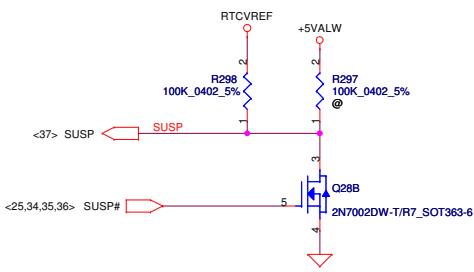
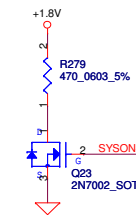
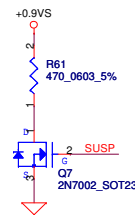
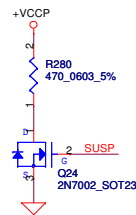
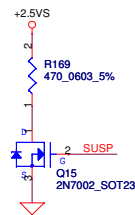
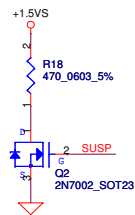
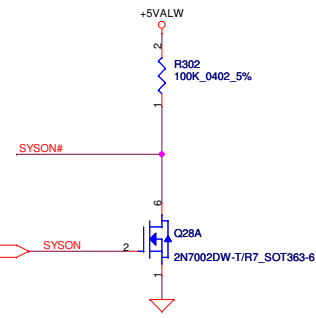
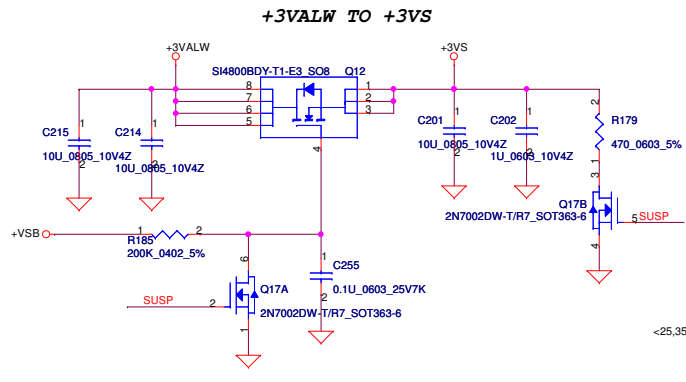
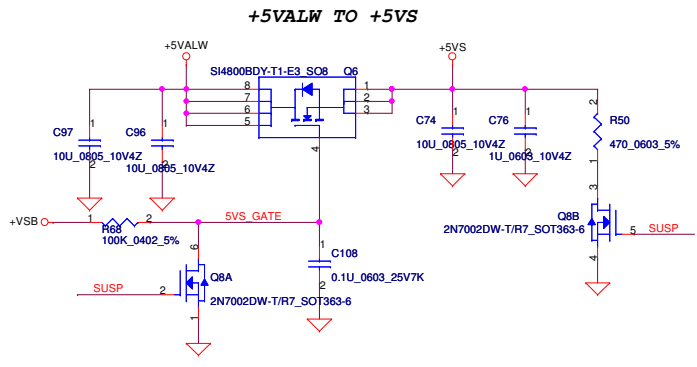
To USB/B Conn.

	KSO1
KSI1	WL_BTN#
KSI5	3G_BTN#

FAN1 Conn

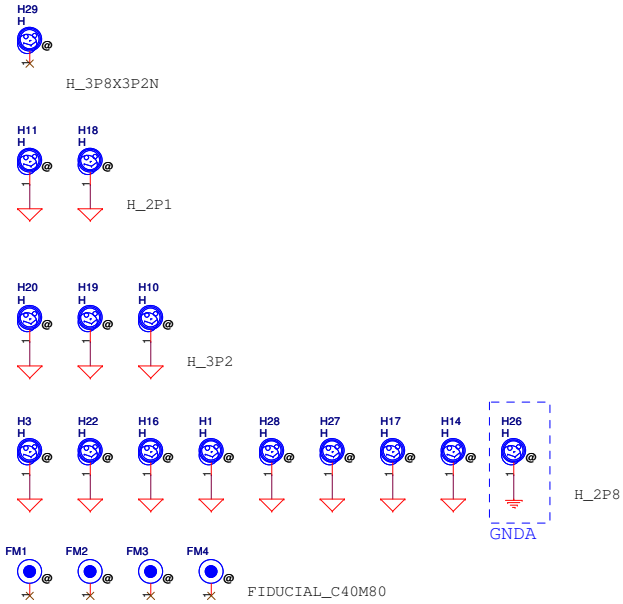


Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2006/08/18	Deciphered Date	2007/8/18	Title		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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
				KAV10 LA-4781P		1.0
				Date:	Tuesday, December 30, 2008	Sheet 26 of 40

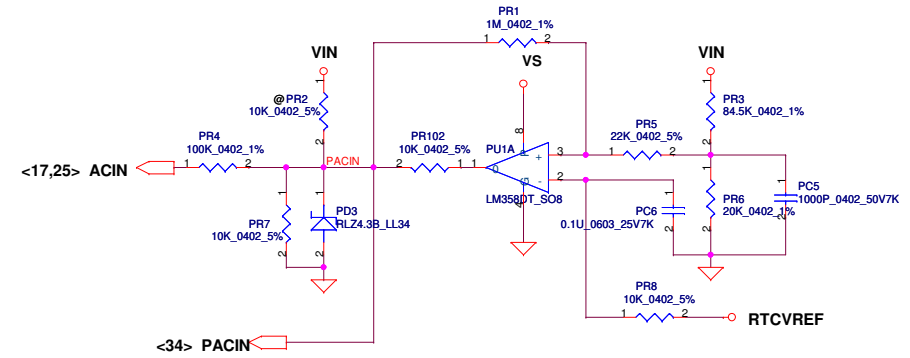
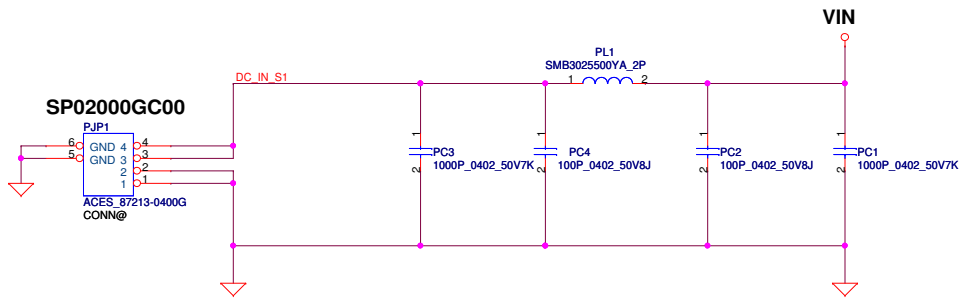


Security Classification	Compal Secret Data			Compal Electronics, Inc. DC INTERFACE		
Issued Date	2006/08/18	Deciphered Date	2007/8/18			
<small>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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 B	Document Number	Rev 1.0
				Date:	Tuesday, December 30, 2008	Sheet 29 of 40

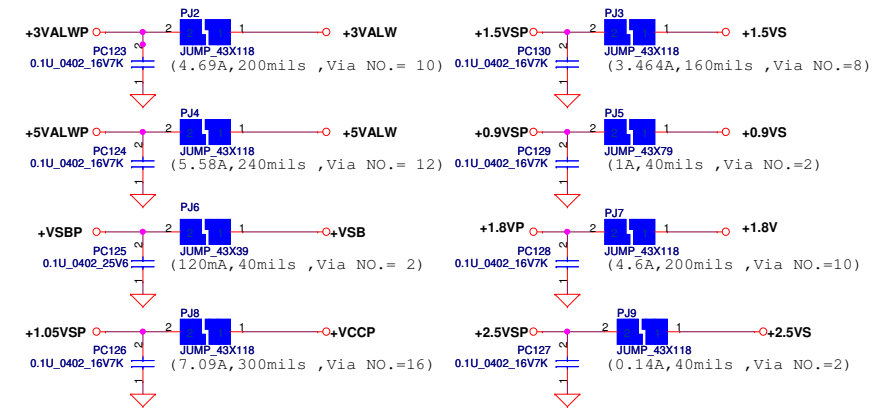
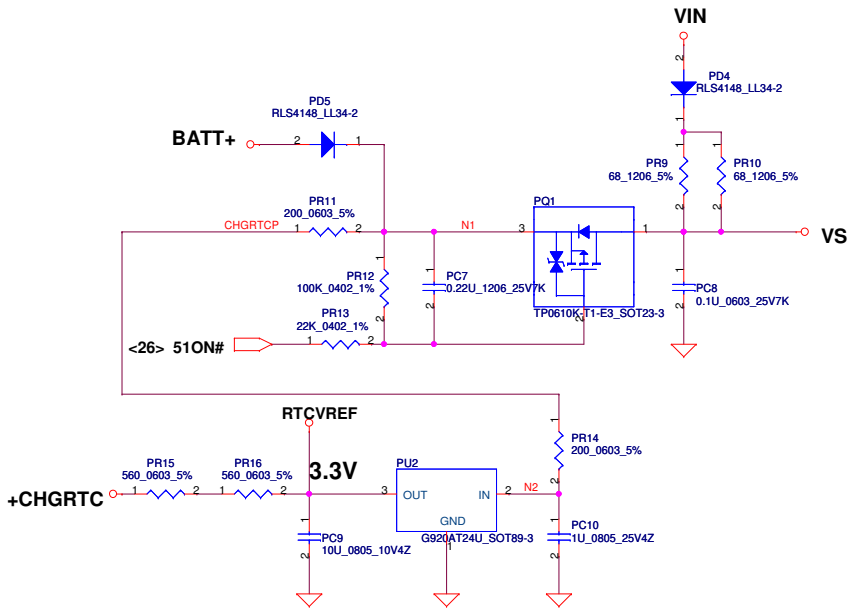
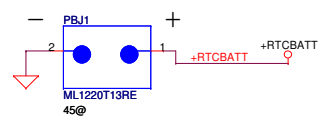
hotmail.com

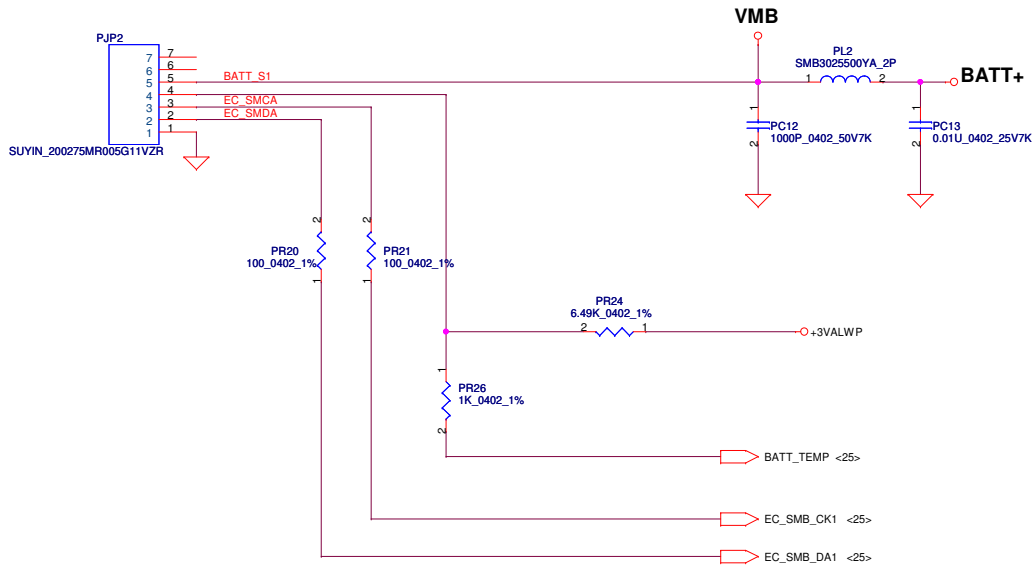


Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2006/08/18	Deciphered Date	2007/8/18	Title Screw		
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size B	Document Number KAV10 LA-4781P	Rev 1.0
				Date: Tuesday, December 30, 2008	Sheet 30	of 40

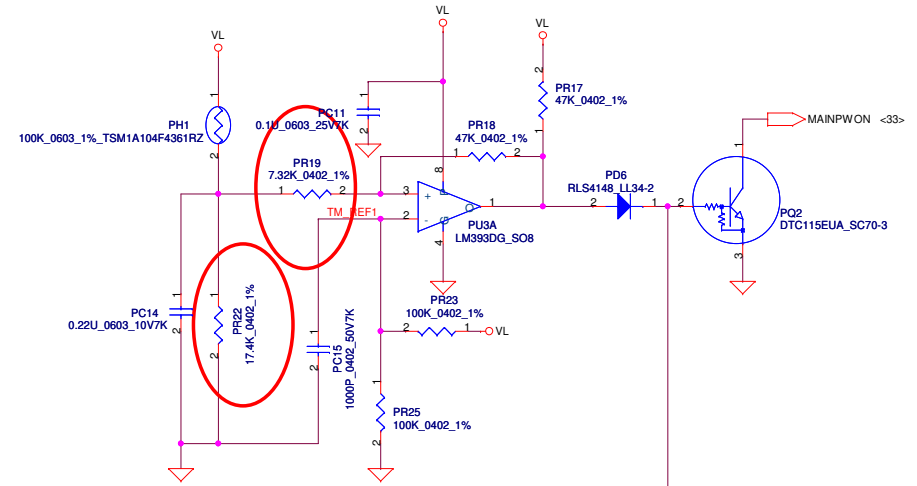


Vin Dectector			
	Min.	Typ	Max.
H-->L	16.976V	17.525V	17.728V
L-->H	17.430V	17.901V	18.384V

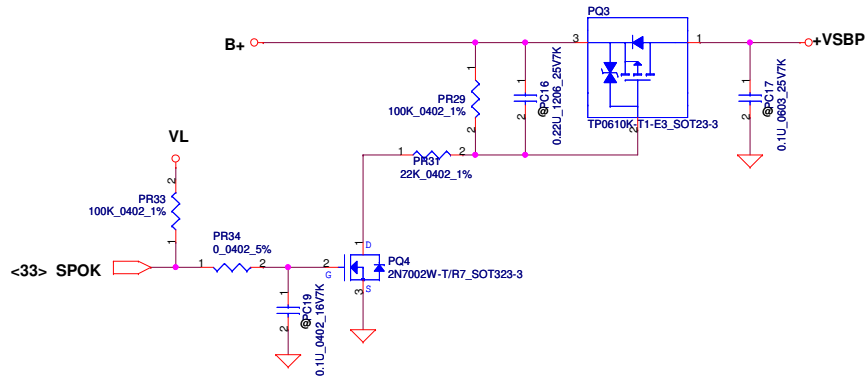
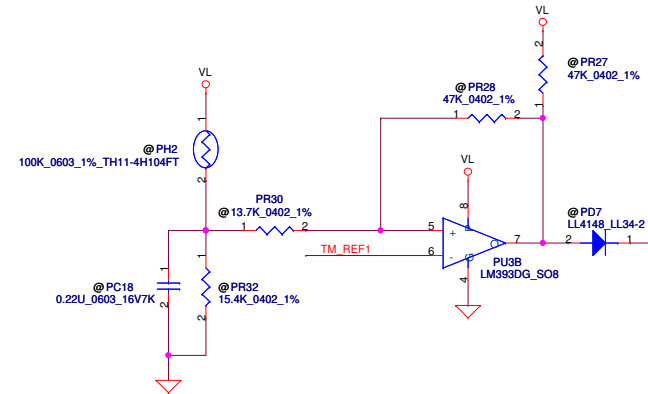




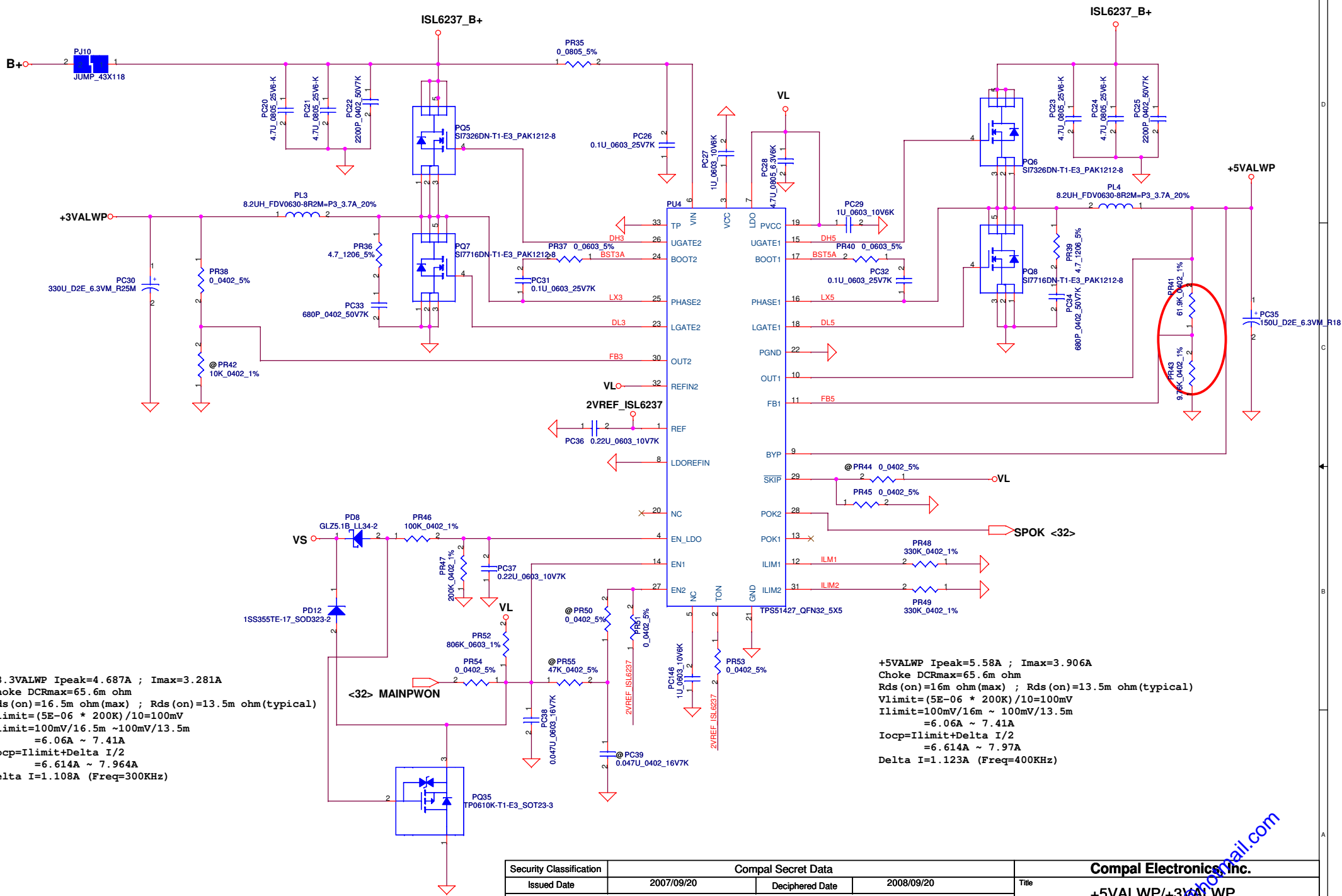
PH1 under CPU botten side :
 CPU thermal protection at 92 degree C
 Recovery at 56 degree C



PH2 near main Battery CONN :
 BAT. thermal protection at 92 degree C
 Recovery at 56 degree C



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/09/20	Deciphered Date	2008/09/20	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	KAV10 LA-4781P		Rev	1.0
Date:	Tuesday, December 30, 2008	Sheet	32	of	39

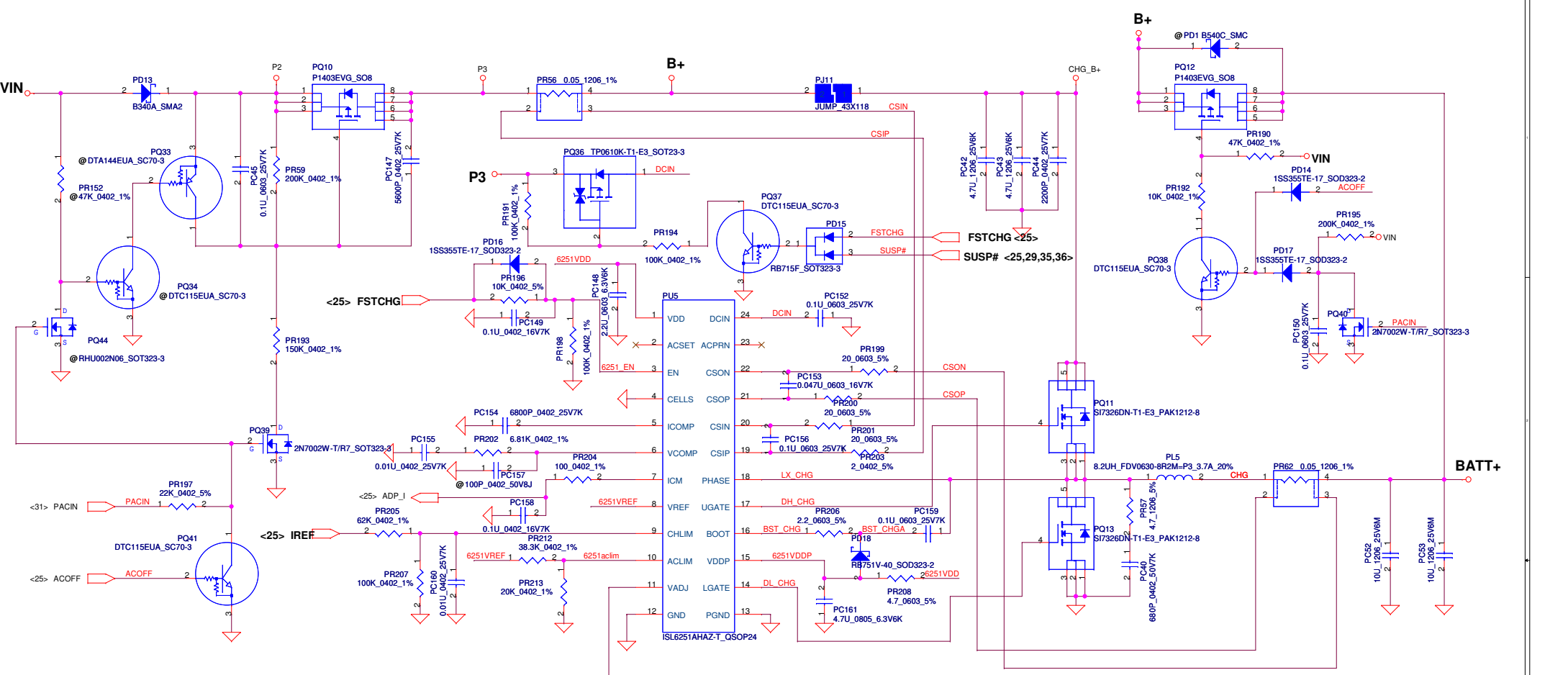


+3.3VALWP Ipeak=4.687A ; Imax=3.281A
 Choke DCRmax=65.6m ohm
 Rds(on)=16.5m ohm(max) ; Rds(on)=13.5m ohm(typical)
 Vlimit=(5E-06 * 200K)/10=100mV
 Ilimit=100mV/16.5m ~ 100mV/13.5m
 =6.06A ~ 7.41A
 Iocp=Ilimit+Delta I/2
 =6.614A ~ 7.964A
 Delta I=1.108A (Freq=300KHz)

+5VALWP Ipeak=5.58A ; Imax=3.906A
 Choke DCRmax=65.6m ohm
 Rds(on)=16m ohm(max) ; Rds(on)=13.5m ohm(typical)
 Vlimit=(5E-06 * 200K)/10=100mV
 Ilimit=100mV/16m ~ 100mV/13.5m
 =6.06A ~ 7.41A
 Iocp=Ilimit+Delta I/2
 =6.614A ~ 7.97A
 Delta I=1.123A (Freq=400KHz)

Security Classification		Compal Secret Data		Compal Electronics Inc.	
Issued Date	2007/09/20	Deciphered Date	2008/09/20	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	Rev
				Custom	1.0
				Date:	Tuesday, December 30, 2008
				Sheet	33 of 39

KAW0 LA-4781P
 hex@compal.com



I_{ada}=0~1.58A (30W) CP = 85%*I_{ada} ; CP = 1.343A

CP mode
 $V_{aclim} = 2.39 * (20K / (20K + 38.3K)) = 0.8199V$
 $I_{input} = (1/0.05) * ((0.05 * V_{aclim}) / 2.39 + 0.05)$
 where $V_{aclim} = 0.8199V$, $I_{input} = 1.343A$

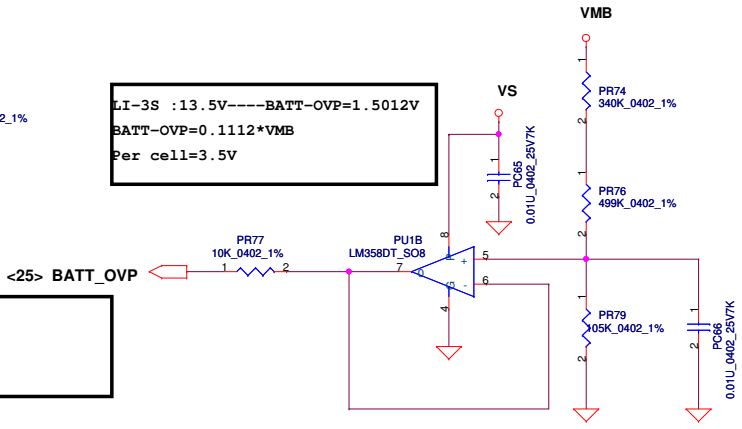
CC=0.3~1.76A
 IREF=1.62*I_{charge}
 IREF=0.486V~2.85V
 3.24V=>2A

BATT Type	Charging Voltage (0x15)	CV mode
Normal 3S LI-ON Cells	12600mV	12.60V

VADJ-->VREF-->4.41V
 VADJ-->Ground-->3.39V
 $V_{cell} = (0.175 * VADJ + 3.99)$

Charger ADJ	Calibrate#	PR211	PR220
4.2V	N/A	@	@
3.99V	L	301K	499K
4.35V	H	301K	499K

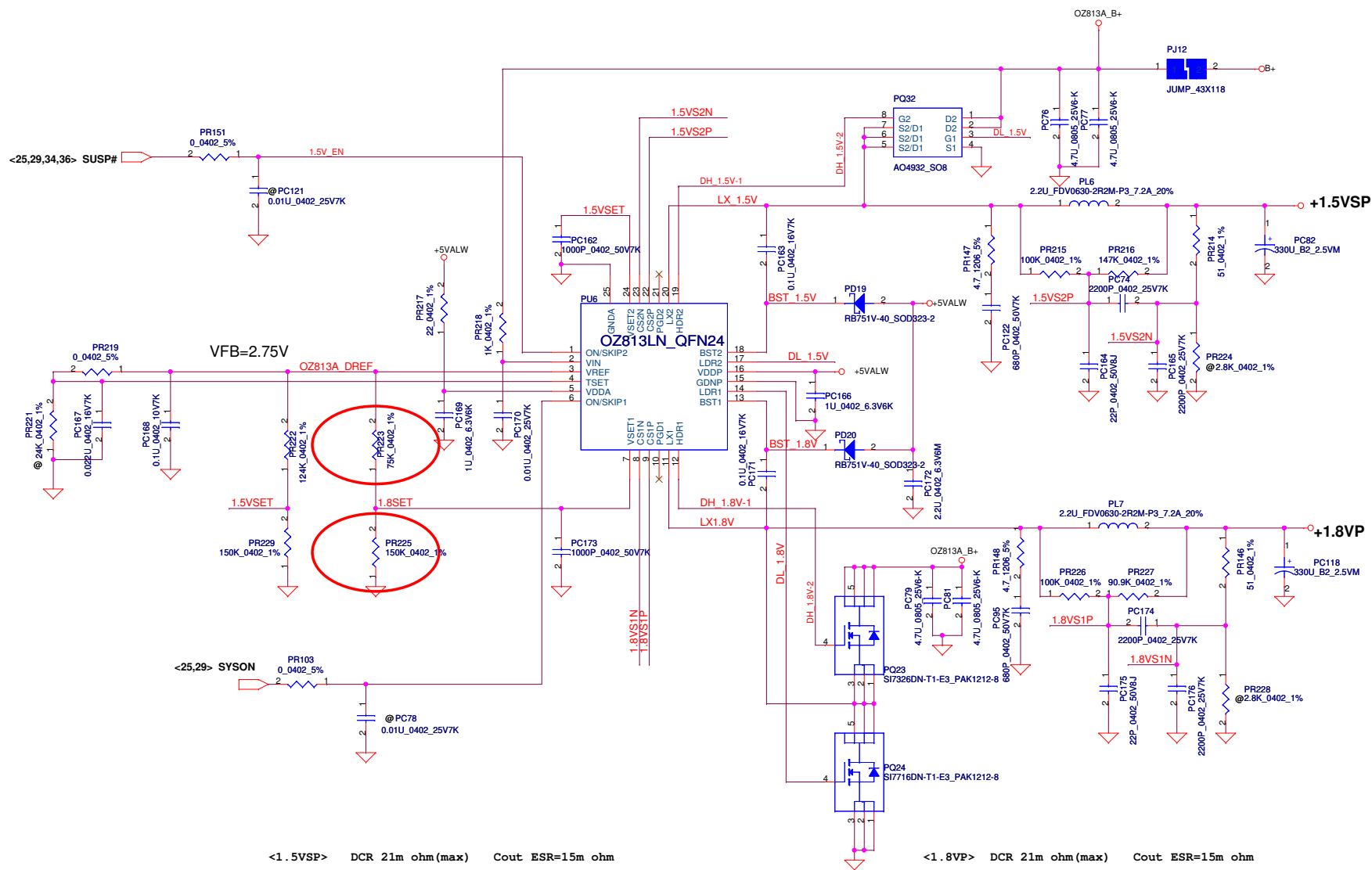
LI-3S :13.5V---BATT-OVP=1.5012V
 BATT-OVP=0.1112*VMB
 per cell=3.5V



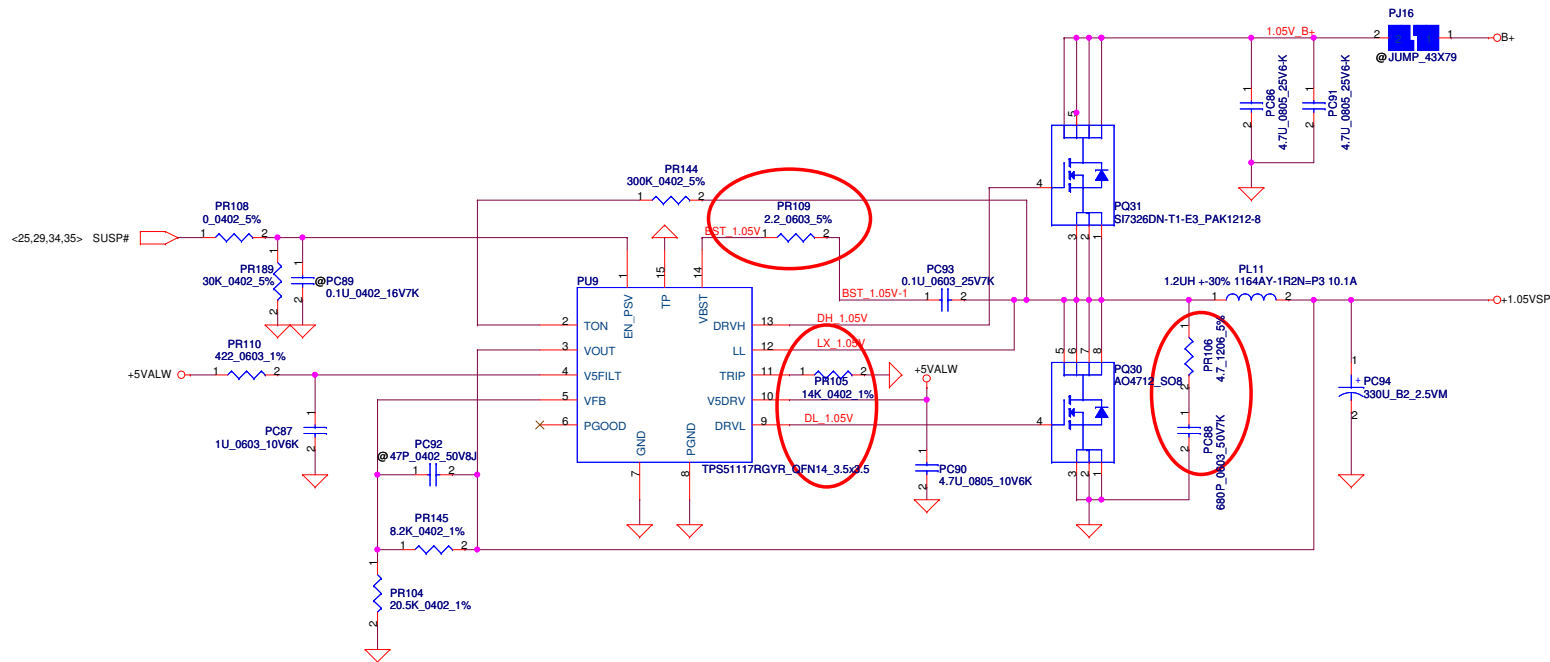
Security Classification		Compal Secret Data	
Issued Date	2007/09/20	Deciphered Date	2008/09/20

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.			
CHARGER			
Size	Document Number	Rev	
Custom	KAV10 LA-4781P	1.0	
Date:	Tuesday, December 30, 2008	Sheet	34 of 39



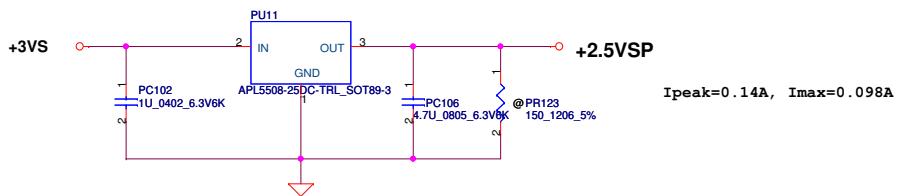
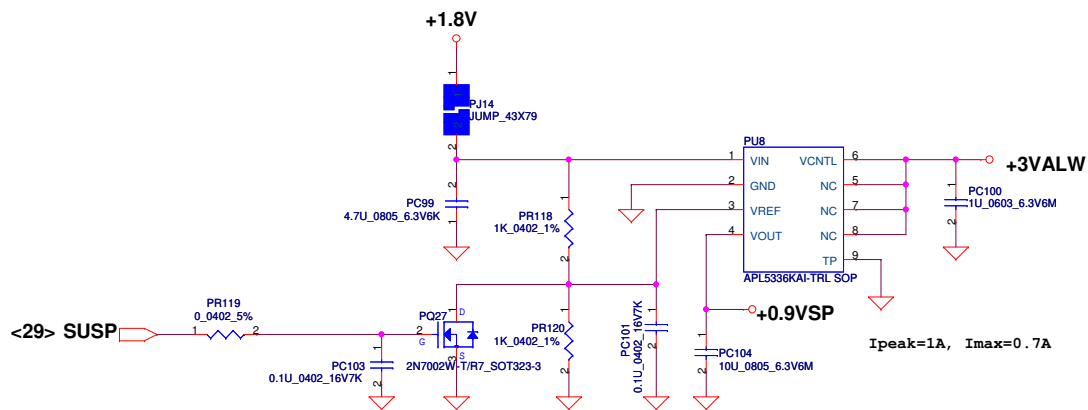
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/09/20	Deciphered Date	2008/09/20	Title	1.5VSP/1.8VP
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY 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		KAV10 LA-4781P	
Custom		1.0			
Date:	Tuesday, December 30, 2008	Sheet	35	of 39	



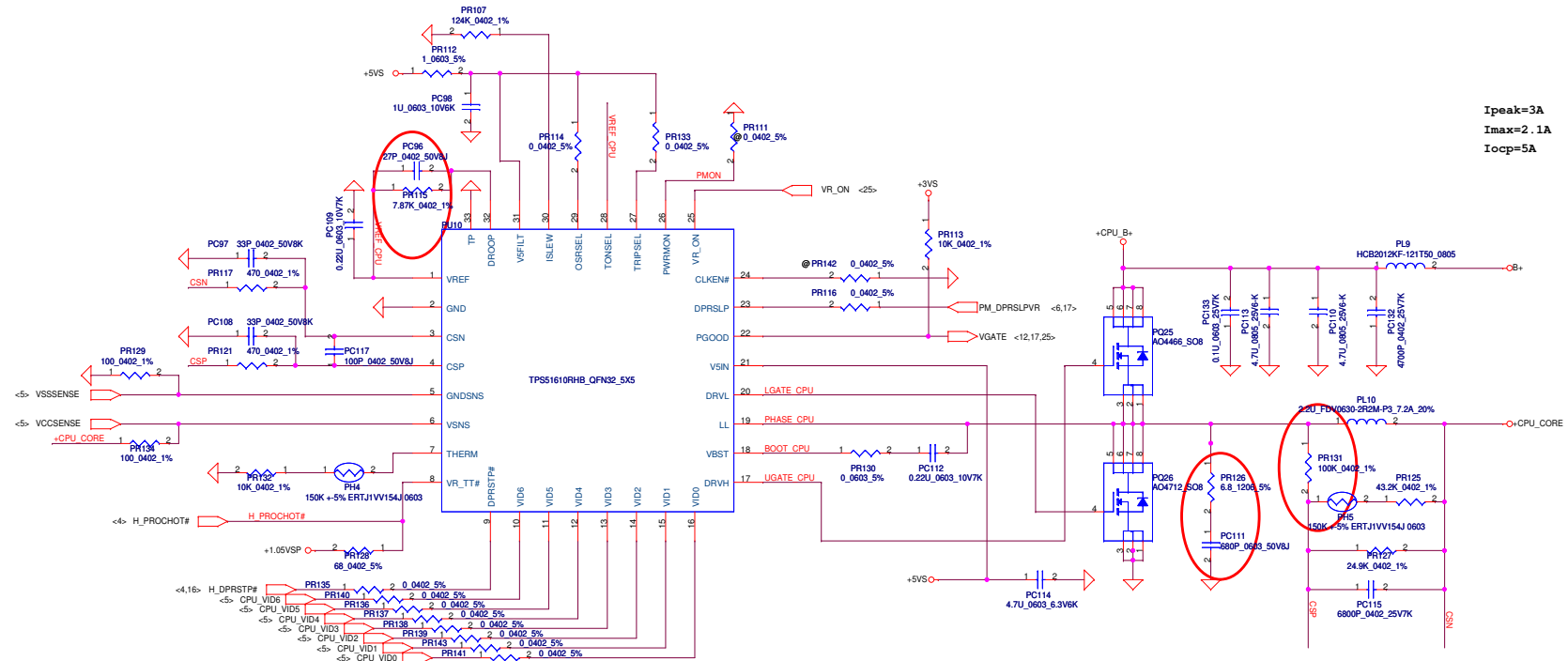
$\langle V_o = 1.05V \rangle$ $V_{FB} = 0.75V$
 $V_o = V_{FB} * (1 + PR145/PR104) = 0.75 * (1 + 8.2K/20.5K) = 1.05V$
 $F_{sw} = 261KHz$

$C_{out} ESR = 15m\ \Omega$ $R_{dson(max)} = 16.5m\ \Omega$ $R_{dson(typical)} = 13.5m\ \Omega$
 $I_{peak} = 7.09A$, $I_{max} = 4.963A$, $I_{ocp} = 8.51A$
 $\Delta I = ((19 - 1.05) * (1.05/19)) / (1.5u * 261K) = 2.53A$
 $\Rightarrow 1/2 \Delta I = 1.265A$
 $V_{trip} = R_{trip} * I_{ocp} = 14K * 10uA = 0.14V$
 $I_{ocpmin} = V_{trip} / (R_{dson(max)} * 1.2) + 1.265$
 $= 0.14 / (0.0165 * 1.2) + 1.265 = 8.34A$
 $I_{ocpmax} = (0.14 / (0.0135 * 1.2)) + 1.265 = 9.91A$
 $I_{ocp} = 8.34A \sim 9.91A$

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/09/20	Deciphered Date	2008/09/20	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.				$+1.05VSP$ Size Custom Document Number KAV10 LA-4781P Date: Tuesday, December 30, 2008 Sheet 36 of 39
Rev	1.0			



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/09/20	Deciphered Date	2008/09/20	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.				+0.9VSP/+2.5VSP LA-10 LA-4781P
Size Custom	Document Number	Rev	1.0	
Date:	Tuesday, December 30, 2008	Sheet	37	of 39



Ipeak=3A
 Imax=2.1A
 Iocp=5A

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/09/20	Deciphered Date	2008/09/20	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.				+CPU_CORE KAV10 LA-4781P Date: Tuesday, December 30, 2008
Size	C	Document Number		Rev
				1.0
				Sheet 38 of 39

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

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
1	Modify CPU_CORE VR_TT# circuit	circuit error	0.1	38	Change PR128 to SD028680A80 (S RES 1/16W 68 +-5% 0402)	08/10/27	DVT
2	Diode modify	BOM error	0.1	31	Change PD3 to SC4LZ43B0T4 (S ZEN DIO RLZ4.3B (LL-34))	08/10/27	DVT
3	Diode modify	BOM error	0.1	31	Change PD4 to SC11N414880 (S DIO RLS4148 LL34)	08/10/27	DVT
4	Diode modify	BOM error	0.1	31	Change PD5 to SC11N414880 (S DIO RLS4148 LL34)	08/10/27	DVT
5	Diode modify	BOM error	0.1	32	Change PD6 to SC11N414880 (S DIO RLS4148 LL34)	08/10/27	DVT
6	Add 3/5V, charger, 1.8/1.5V snubber	For ESD solution	0.1	33	Add PR36 PR39 PR57 PR147 PR148 to SD001470B80 (S RES 1/4W 4.7 +-5% 1206) Add PC33 PC34 PC40 PC122 PC95 to SE074681K80 (S CER CAP 680P 50V K X7R 0402)	08/10/27	DVT
7	Add CPU snubber	For ESD solution	0.1	33	Add PR126 to SD011680B80 (S RES 1/4W 6.8 +-5% 1206) Add PC111 to SE024681J80 (S CER CAP 680P 50V J NPO 0603)	08/10/27	DVT
8	Add CPU_CORE input capacitance	For ESD solution	0.1	38	Add PC133 SE042104K80 (S CER CAP .1U 25V K X7R 0603) Add PC132 SE074222K80 (S CER CAP 2200P 50V K X7R 0402)	08/10/27	DVT
9	Add CPU_CORE input capacitance	For ESD solution	0.1	31	Add PC123 PC124 PC126 PC127 PC128 PC129 PC130 to SE076104K80 (S CER CAP .1U 16V K X7R 0402) Add PC125 to SE072104K80 (S CER CAP 0.1U 25V K Y5V 0402)	08/10/27	DVT
10	Modify 1.05V LMOS	cost down	0.1	31	change PQ30 to SB00000AJ00 (S TR AO4712 1N S08)	08/10/27	DVT
11	Modify 1.05V choke	cost down	0.1	31	change PL11 to SH00000FQ00 (S COIL 1.2UH +-30% 1164AY-1R2N=P3 10.1A)	08/10/27	DVT
12	Modify charger input capacitance size	BOM error	0.1	31	change PC42 PC43 to SE142475K80 (S CER CAP 4.7U 25V K X5R 1206 H1.6)	08/10/29	DVT
13	Modify charger VADJ circuit	circuit error					
14	Modify DIODE BOM (remove ROHN)	BOM error					
15	Modify ACIN circuit	EVI issue solution	0.1	31	change PR4 SD02800008 to SD034100380(100K)	08/11/13	DVT
16	Modify 3/5V circuit	Modify 5V voltage for HW request	0.1	33	change PR43 to SD034976180 (S RES 1/16W 9.76K +-1% 0402) add PR41 SD034619280 (S RES 1/16W 61.9K +-1% 0402)	08/12/26	PVT
17	Modify 1.8V circuit	Modify 1.8V voltage for HW request	0.1	35	change PR223 to SD034750280 (S RES 1/16W 75K +-1% 0402) change PR225 to SD034150380 S RES 1/16W 150K +-1% 0402)	08/12/26	PVT
18	Modify 1.05V circuit	add snubber for SED 3G solution	0.1	36	add PC88 SE025681K80 (S CER CAP 680P 50V K X7R 0603) add PR106 SD001470B80 (S RES 1/4W 4.7 +-5% 1206)	08/12/26	PVT
19	Modify 1.05V circuit	add boost for 1.05v issue	0.1	36	change PR109 to SD013220B80 (S RES 1/10W 2.2 +-5% 0603)	08/12/26	PVT
20							
21							
22							
23							

Security Classification		Compal Secret Data		Compal Electronics, Inc	
Issued Date	2007/09/20	Deciphered Date	2008/09/20	Title PIR (PWR)	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT 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 KAV10 LA-4781P
				Date:	Tuesday, December 30, 2008
				Sheet	39 of 39

shenxinf@hotmail.com

A-TEST Change

- <8/25>
- 1. Update Power SCH
- <8/26>
- 1. Update Power SCH
- 2. Change
D7 SC300000D00 to SC300000000
- 3. Change
C49、C50 SE071180K80 to SE071180J80
- <8/27>
- 1. Updata Power SCH
- 2. Modify
RJ45 temp footprint FOX_JM3611A-R4122-7F_12P-T
- <8/28>
- 1. Updata Power SCH
- <9/1>
- 1. Updata Screw
- <9/5>
- 1. SWAP USB20_1 Signal.
- <9/10>
- 1. Remove Mini card pin55、pin56 的 GND。
- 2. Change JREAD1.42、H26 to GNDA。
- <9/12>
- 1. Swap 3G ESD pin neme。
- <9/15>
- 1. Update Audio Jack footprint
- 2. Chcnge R641、R642 300ohm to 511ohm for Arthros。
- 3. Update L footprint。
- <9/16>
- 1. Update POWER SCH.
- <9/17>
- 1. Update POWER SCH.
- 2. ADD R380、R383 for ESD.
- <9/18>
- 1. Update ATHEROS 10/100 LAN <AR8132/AR8114>
- <9/24>
- 1. Change C870 0.1u to 1u.
- <9/26>
- 1. R88 change to 0ohm.

Pre PVT-TEST Change

- <10/21>
- 1. Remove C389 for Audio can't detect issue on page 16
- 2. Add KSO1/KSO2 PU +3VALW on page25
- 3. Add R205 for schematic mistake on page 04
- 4. Change EC RST to PLTRST on page 25
- 5. Add J8 to cost down Audio LDO on page 20
- 6. Add R72 to reserve +3VALW for 3G on page 19
- 7. Reserve C238 for CRTDAC on page 10
- 8. Add R87 for Debug card on page 19
- 9. Change C108/C255 to 0.1uF for random hang issue
- 10. Change JP3 pin assignment on page 28
- <10/21>
- 1. Update Power SCH
- <10/29>
- 1. Audio AMP 10dB update to 6dB
- <11/3>
- 1. Update Power SCH
- <11/4>
- 1. Change R373、R374 to 56.2 ohm for DA-HP FSOV
- 2. Add C834、C851 for 3G noise
- 3. Change KB926 C1 to D2
- 4. Card reader RT5158E change to RT5159-GR
- <11/5>
- 1. Swap D7 pin define
- <11/10>
- 1. EC add R79、R90、R92 for SMS wakeup。

PVT-TEST Change

- <11/28>
- 1. Reserve C40、C46、C47、C233
- 2. R617 change to 0ohm for RTS5159
- 3. R68 200K change to 100K for sequence
- 4. Remove C47
- 5. Add D30 for LVDS
- 6. Add C55 0.1U
- 7. U2 Change to SA000017B00
-because RT9715 Can't protect
- <12/30>
- 1. Update power MP SCH

Security Classification		Compal Secret Data		Compal Electronics, Inc.		
Issued Date	2006/08/18	Deciphered Date	2007/8/18	Title PIR-HW		
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	KAV10 LA-4781P	1.0
Date: Tuesday, December 30, 2008				Sheet	40	of 40