

# Compal Confidential

Couger-Brazos

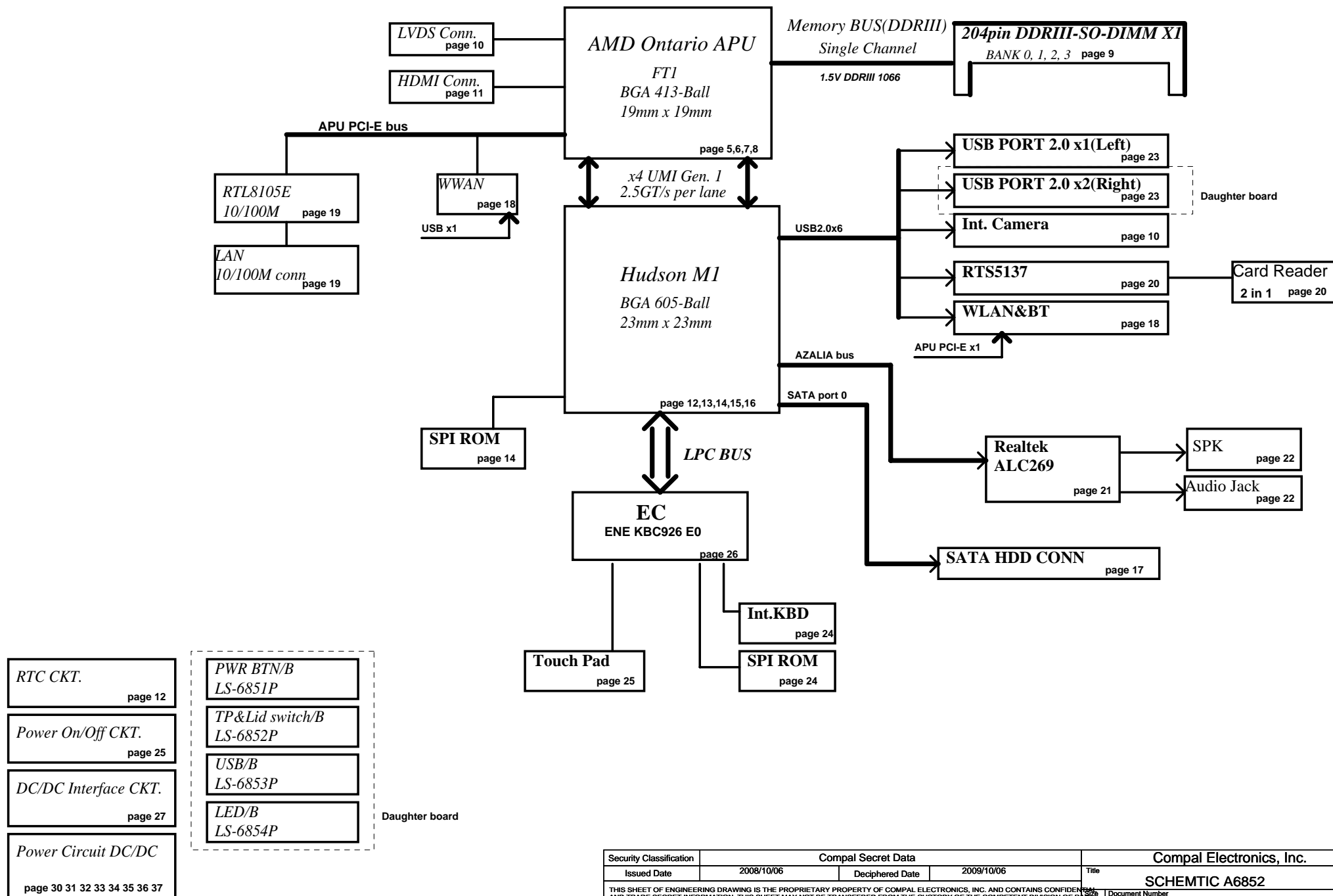
## PBU01 LA-6852P Schematics Document

AMD APU Ontario-FT1 + FCH Hudson-M1

2012-2-20

REV:1.A

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/10/06	Deciphered Date	2009/10/06	Title	SCHEMTIC A6852
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	401990
				Date:	Monday, February 20, 2012
				Rev	D
				Sheet	1 of 37



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/10/06	Deciphered Date	2009/10/06	Title	SCHEMTIC A6852
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 D
				401990	
Date:	Monday, February 20, 2012	Sheet	2	of	37

## Voltage Rails

O MEANS ON X MEANS OFF

power plane / State	B+ +3VL +5VL +RTCVCC	+5VALW +3VALW +1.1VALW	+1.5V	+5VS +3VS +1.8VS +1.5VS +1.1VS +1.0VS +0.75VS +APU_CORE +APU_VDDNB
S0	O	O	O	O
S1	O	O	O	O
S3	O	O	O	X
S5 S4/AC	O	O	X	X
S5 S4/ Battery only	O	X	X	X
S5 S4/AC & Battery don't exist	X	X	X	X

## Symbol Note



: means Digital Ground



: means Analog Ground

@ : means just reserve , no build

DAZ P/N

ZZZ1



LA-6852P

1.2G APU P/N

U1



1.2G APU R3

1G2R3@

1.2G APU P/N

U1



1.2G APU R1

1G2R1@

1G APU P/N

U1



1G APU R1

1GR1@

## BTO (Build-To-Order) Option Table

Function	Sleep&Charger		Sleep&Music			
Description	Support	No Support	Support	No Support		
BTO	CHG@	non-CHG@	ALC269@	ALC259@		

## FCH SM Bus0 Address

## FCH SM Bus1 Address

Power	Device	HEX	Address
+3VS	DDR SO-DIMM 0	A0 H	1010 0000 b

Power	Device	HEX	Address
-------	--------	-----	---------

## EC SM Bus1 Address

## EC SM Bus2 Address

Power	Device	HEX	Address
+3VL	Smart Battery	16 H	0001 011X b

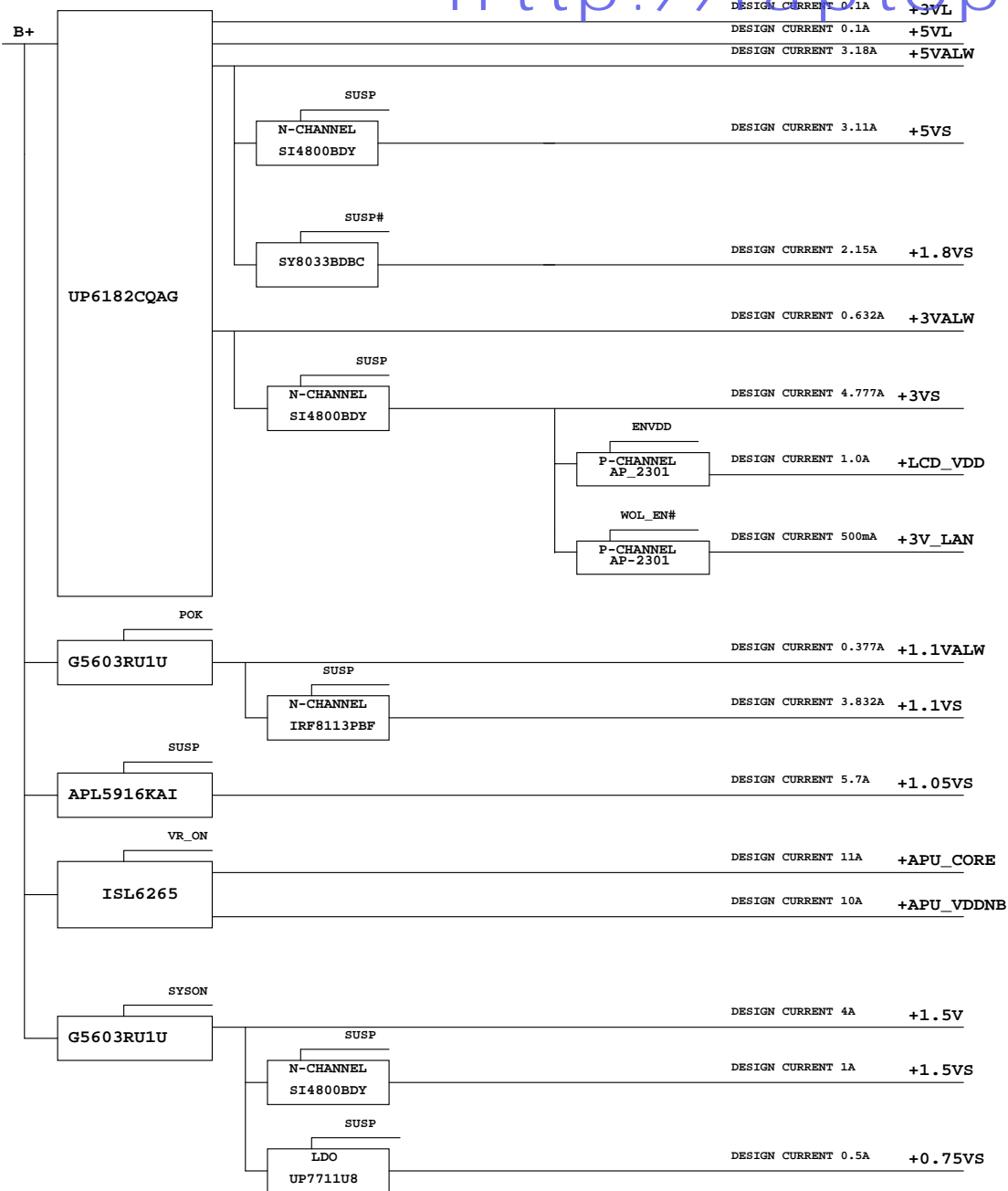
Power	Device	HEX	Address
-------	--------	-----	---------

## SMBUS Control Table

	SOURCE	BATT	CPU THERMAL SENSOR	SODIMM 0	CLK GEN	WLAN WWAN	LCD DDC ROM	HDMI DDC ROM	APU
EC_SMB_CK1 EC_SMB_DA1	KB926	V							
EC_SMB_CK2 EC_SMB_DA2	KB926								V
LCD_EDID_CLK LCD_EDID_DATA	APU FT1						V		
HDMICLK HDMIDAT	APU FT1							V	
FCH_SMCLK0 FCH_SMDAT0	FCH M1			V					
FCH_SMCLK1 FCH_SMDAT1	FCH M1					V			

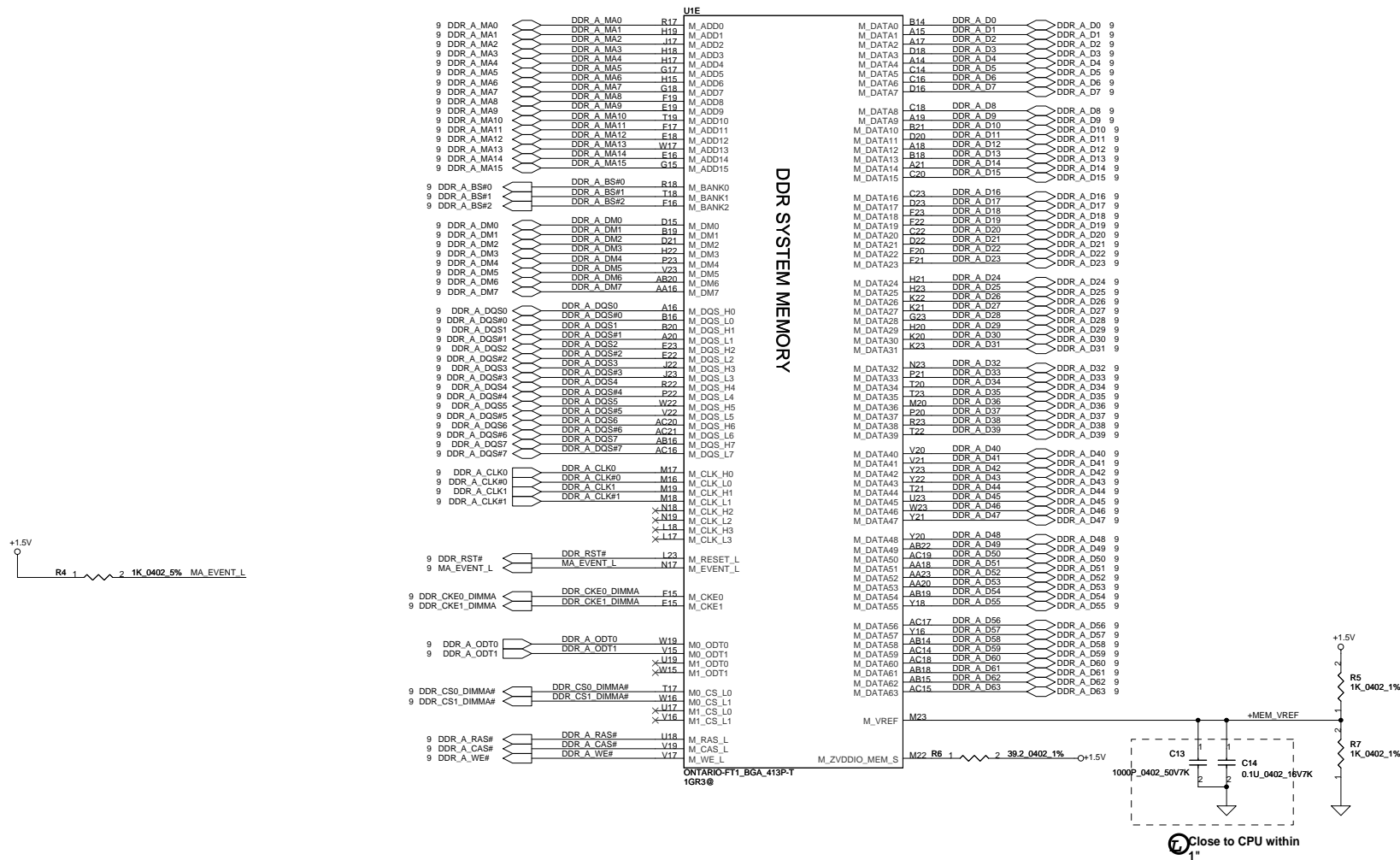
08/05 update pin define

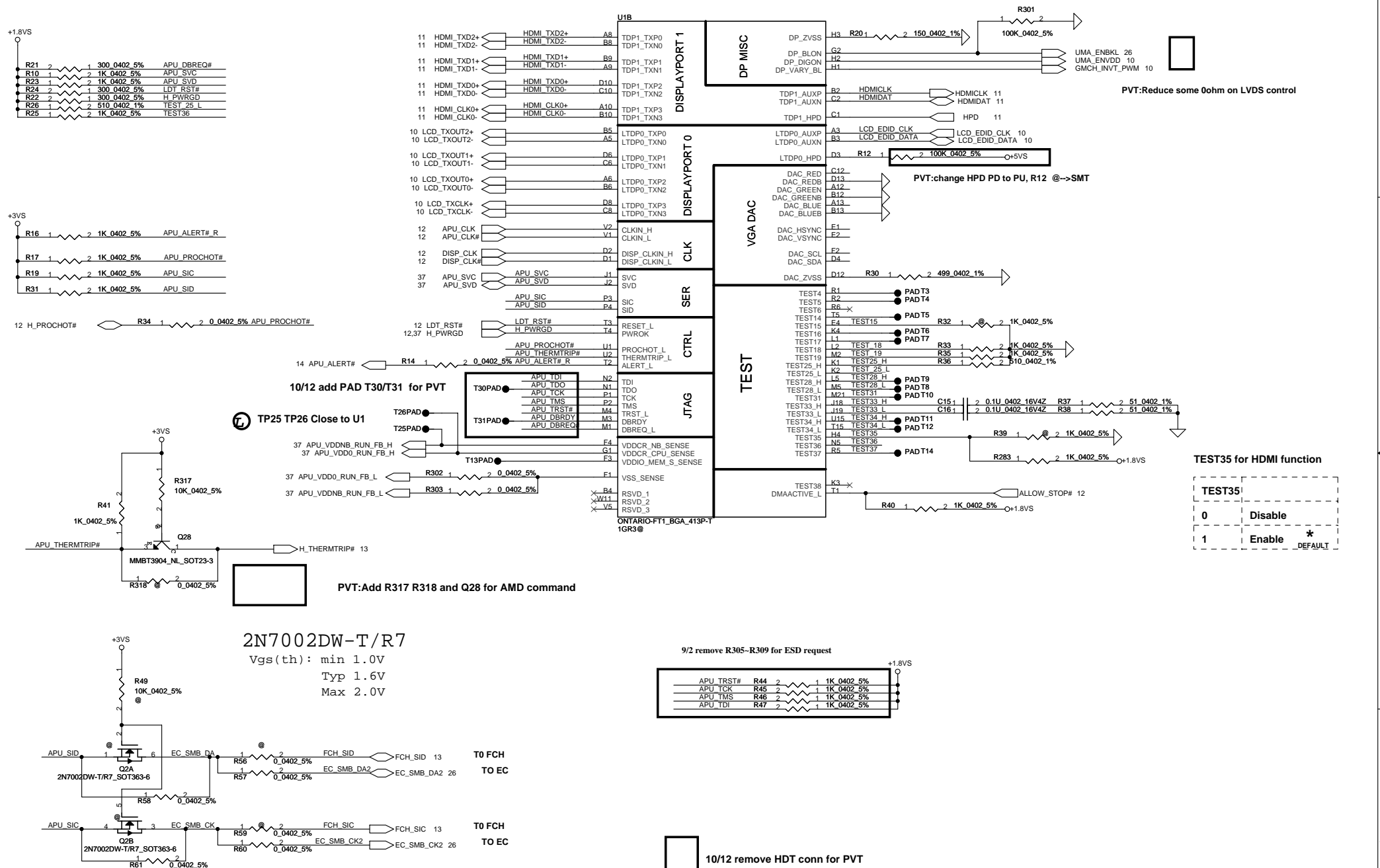
Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2008/10/06	Deciphered Date	2009/10/06	Title	SCHEMATIC A6852	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev B	Document Number	Rev D
				401990		
				Date: Monday, February 20, 2012 Sheet 3 of 37		



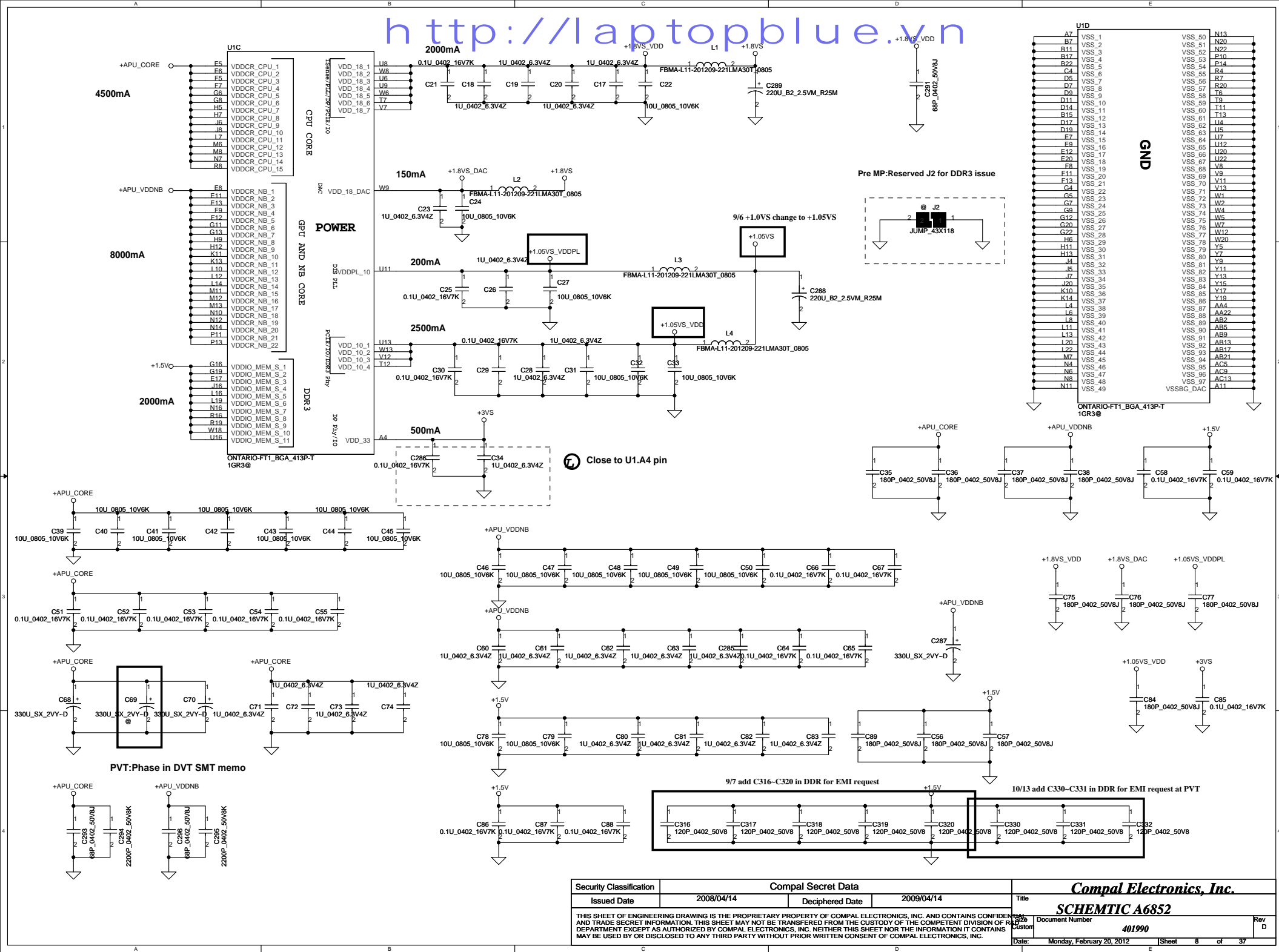
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/10/31	Deciphered Date	2009/10/31	Title	SCHEMATIC A6852
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT 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	401990
				Date	Monday, February 20, 2012
				Sheet	4 of 37







Security Classification		Compal Secret Data			<i>Compal Electronics, Inc.</i>		
Issued Date		2007/5/18	Deciphered Date	2009/06/11	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.					SCHEMATIC A6852		
					Document Number		Rev D
					401990		
					Date:		Monday, February 20, 2012



Security Classification		Compal Secret Data		Title	
Issued Date	2008/04/14	Deciphered Date	2009/04/14	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev D
				401990	
				Date: Monday, February 20, 2012	Sheet 8 of 37



# http://laptopblue.vn

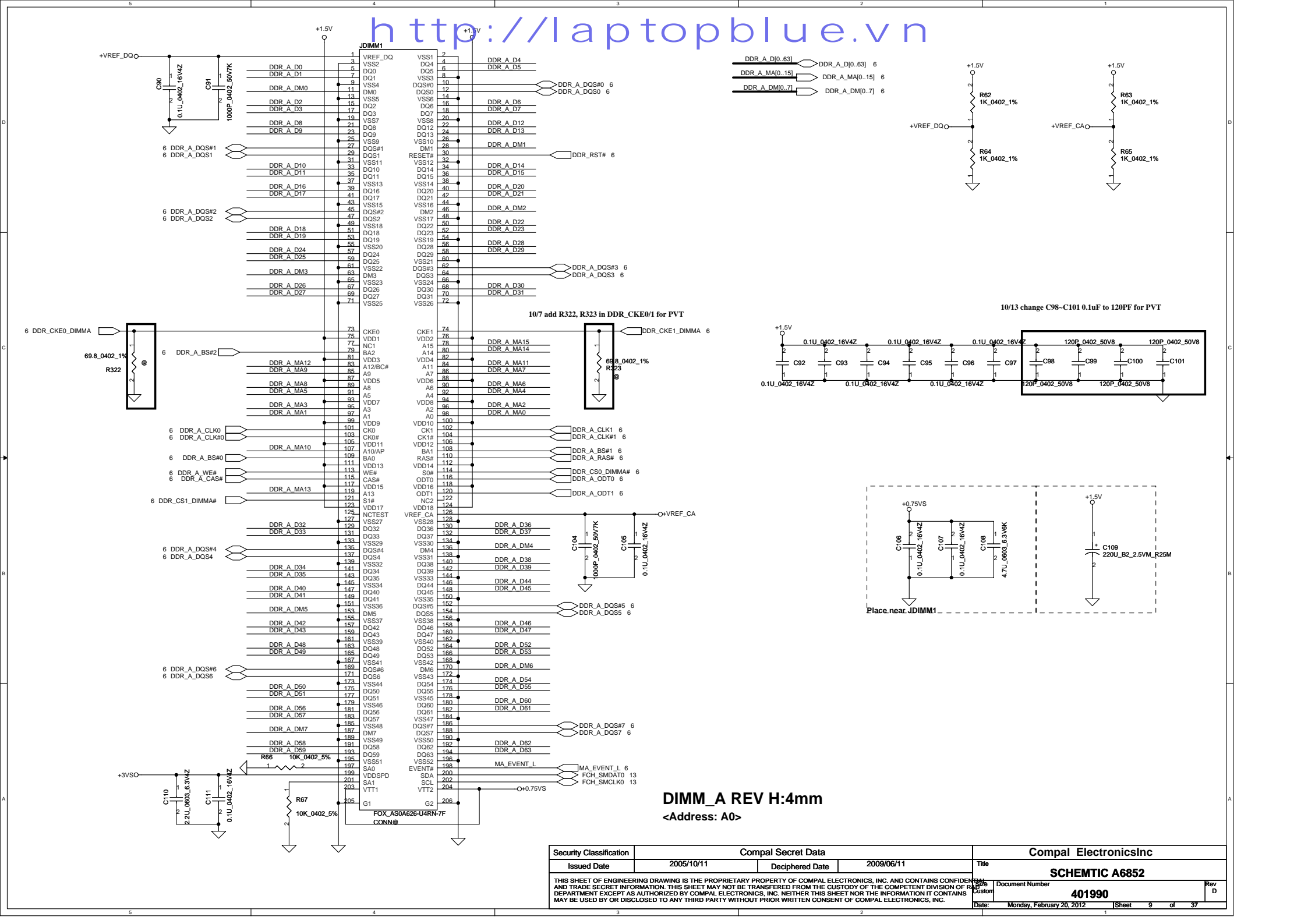
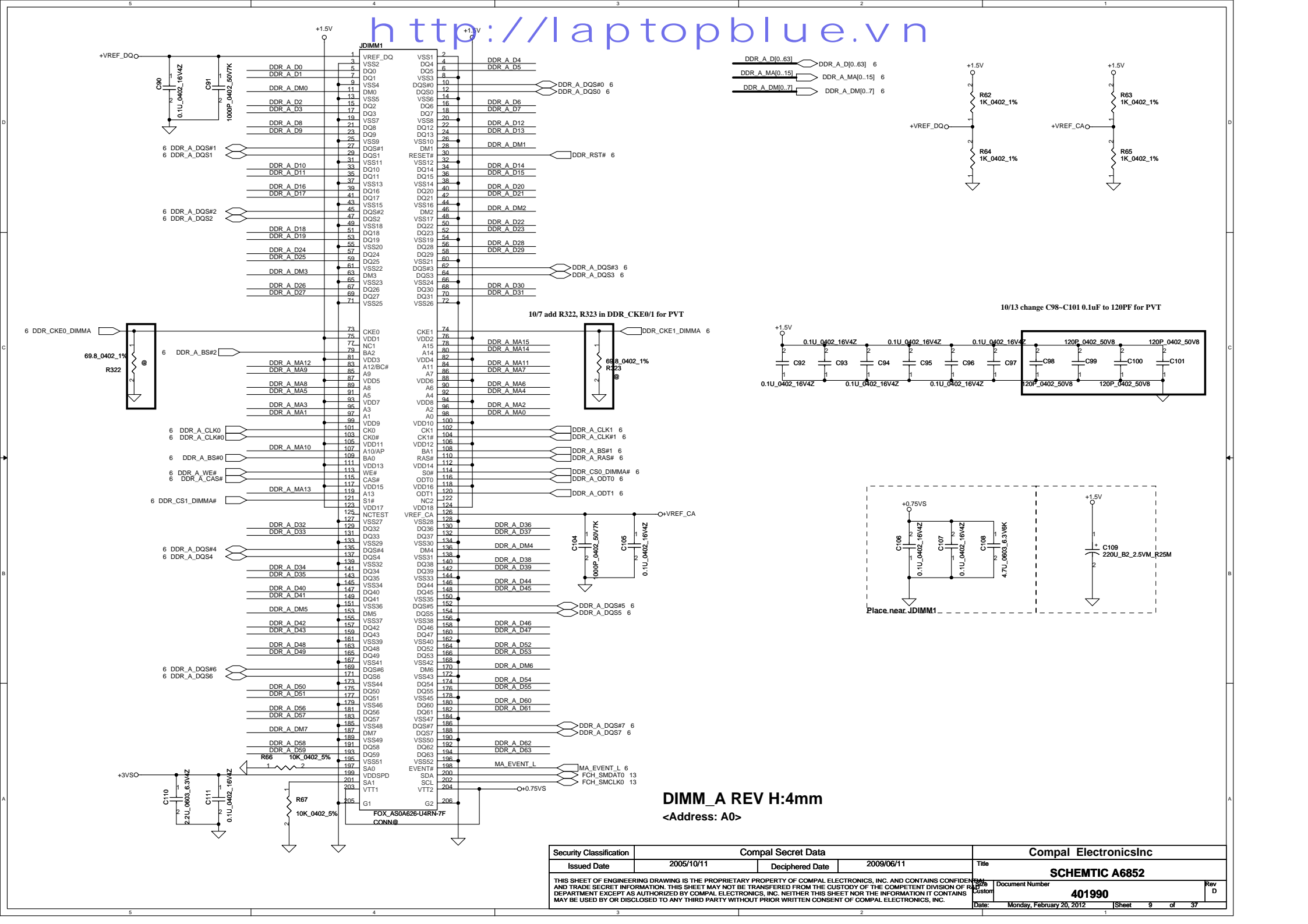
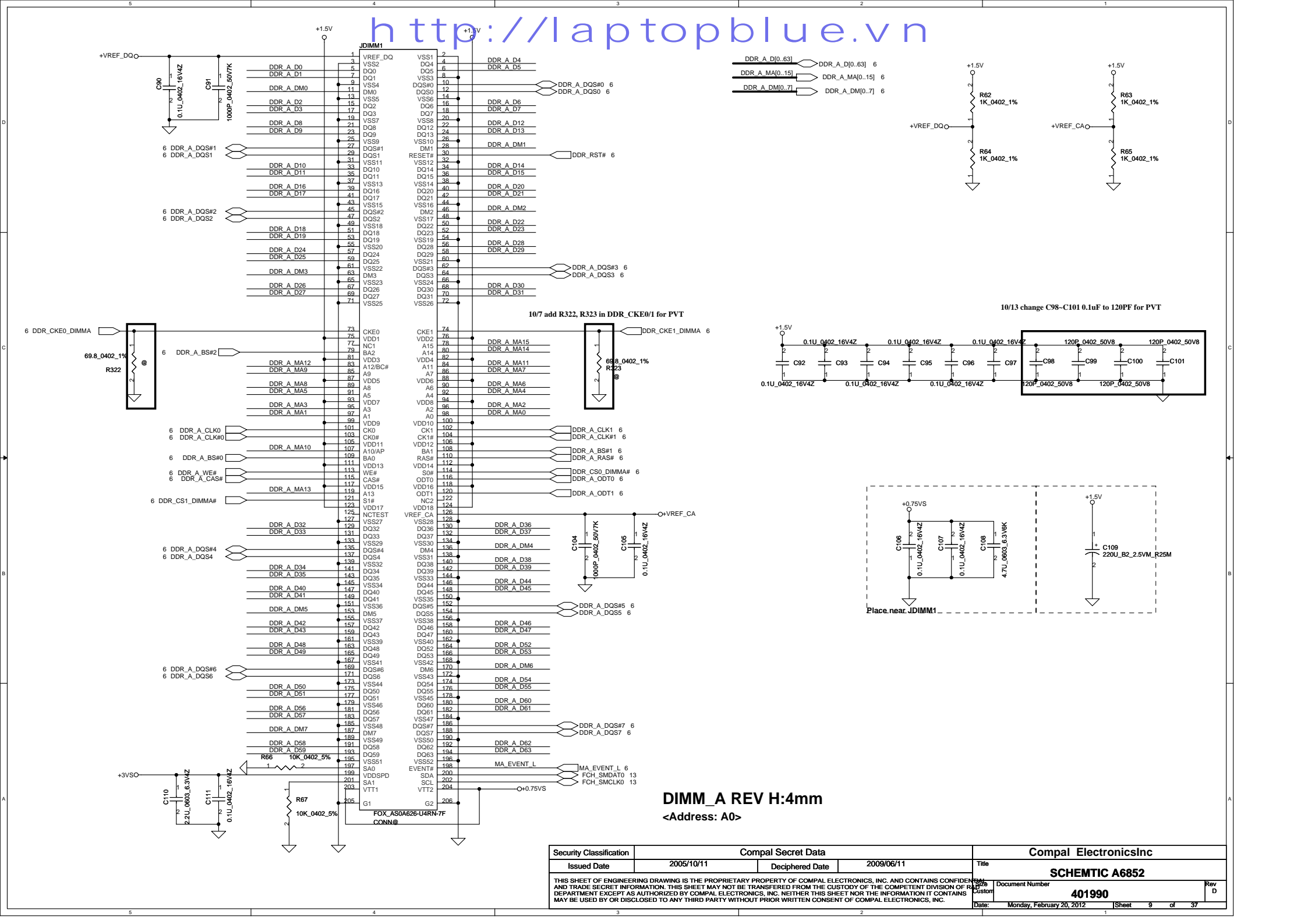
10/7 add R322, R323 in DDR\_CKE0/1 for PVT

10/13 change C98-C101 0.1uF to 120PF for PVT

Place near J1

**DIMM\_A REV H:4mm**  
<Address: A0>

Security Classification		Compal Secret Data		Compal Electronics Inc	
Issued Date	2005/10/11	Deciphered Date	2009/06/11	Title	Schematic A6852
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev D	401990
Date: Monday, February 20, 2012				Sheet 9 of 37	



# http://laptopblue.vn

The schematic diagram illustrates the electrical connections for a DDR memory module, specifically the DIMM\_A REV H:4mm. It shows the pinout for the module, with pins 1 through 72 on the left and 73 through 131 on the right. The module is connected to a +1.5V power supply and a +VREF\_DQ\_O signal. Key components include resistors R322, R323, R62, R63, R64, R65, R66, R67, and capacitors C92, C93, C94, C95, C96, C97, C98, C99, C100, C101, C106, C107, C108, C109, C110, and C111. The diagram also includes assembly notes such as "10/7 add R322, R323 in DDR\_CKE0/1 for PVT" and "10/13 change C98-C101 0.1uF to 120PF for PVT". A security classification table is located at the bottom right, and a title block is at the bottom left.

Security Classification

Security Classification	Compal Secret Data
Issued Date	2005/10/11
Deciphered Date	2009/06/11

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

Document Number

401990

Date: Monday, February 20, 2012

Sheet 9 of 37

Rev D

# http://laptopblue.vn

The schematic diagram illustrates the electrical connections for a DDR memory module, specifically the DIMM\_A REV H:4mm. It shows the pinout for the module, with pins 1 through 72 on the left and 73 through 131 on the right. The module is connected to a +1.5V power supply and a +VREF\_DQ\_O signal. Key components include resistors R322, R323, R62, R63, R64, R65, R66, R67, and capacitors C92, C93, C94, C95, C96, C97, C98, C99, C100, C101, C106, C107, C108, C109, C110, and C111. The diagram also includes assembly notes such as "10/7 add R322, R323 in DDR\_CKE0/1 for PVT" and "10/13 change C98-C101 0.1uF to 120PF for PVT". A security classification table is located at the bottom right, indicating the document is classified as "Compal Secret Data" and "Compal Electronics Inc".

10/7 add R322, R323 in DDR\_CKE0/1 for PVT

10/13 change C98-C101 0.1uF to 120PF for PVT

Place near JDIMM1

DIMM\_A REV H:4mm  
<Address: A0>

Security Classification	Compal Secret Data
Issued Date	2005/10/11
Deciphered Date	2009/06/11

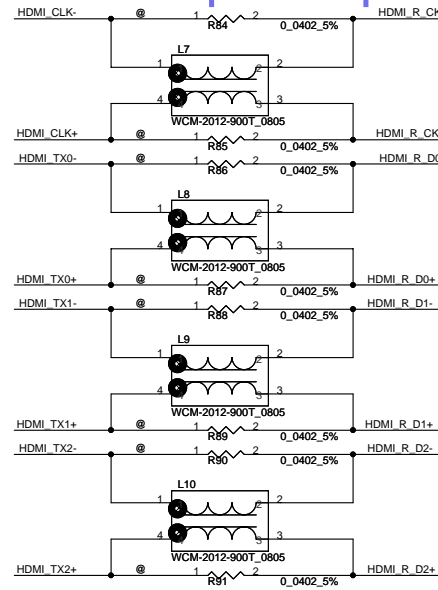
Compal Electronics Inc	
Title	SCHEMATIC A6852
Document Number	401990
Date	Monday, February 20, 2012
Sheet	9 of 37



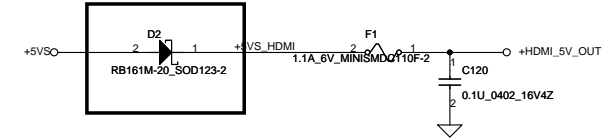
7 HDMI_TXD0+	C124	1	2	0.1U_0402_16V7K	HDMI_TX0+
7 HDMI_TXD0-	C121	1	2	0.1U_0402_16V7K	HDMI_TX0-
7 HDMI_TXD1+	C125	1	2	0.1U_0402_16V7K	HDMI_TX1+
7 HDMI_TXD1-	C126	1	2	0.1U_0402_16V7K	HDMI_TX1-

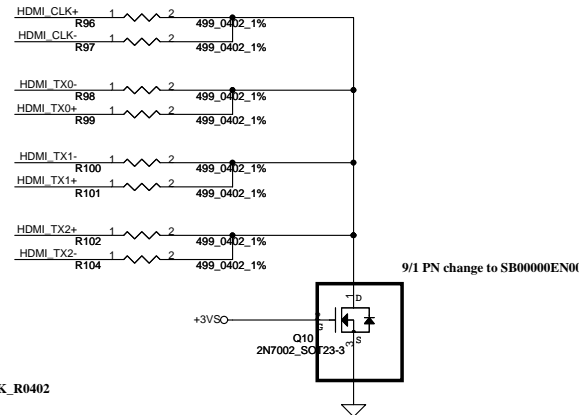
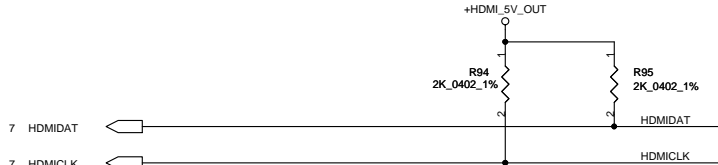
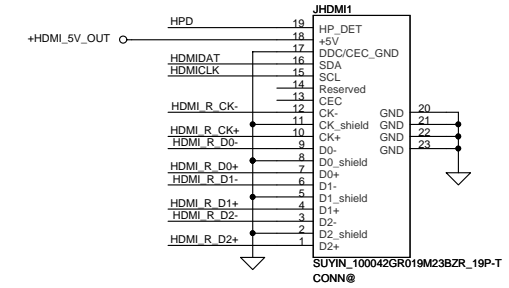
7 HDMI_TXD2+	C122	1	2	0.1U_0402_16V7K	HDMI_TX2+
7 HDMI_TXD2-	C128	1	2	0.1U_0402_16V7K	HDMI_TX2-
7 HDMI_CLK0+	C127	1	2	0.1U_0402_16V7K	HDMI_CLK0+
7 HDMI_CLK0-	C123	1	2	0.1U_0402_16V7K	HDMI_CLK0-



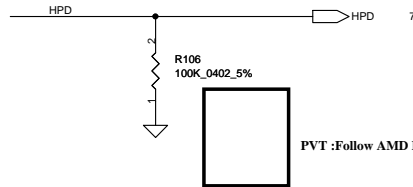
9/1 PN change to SCS00004000



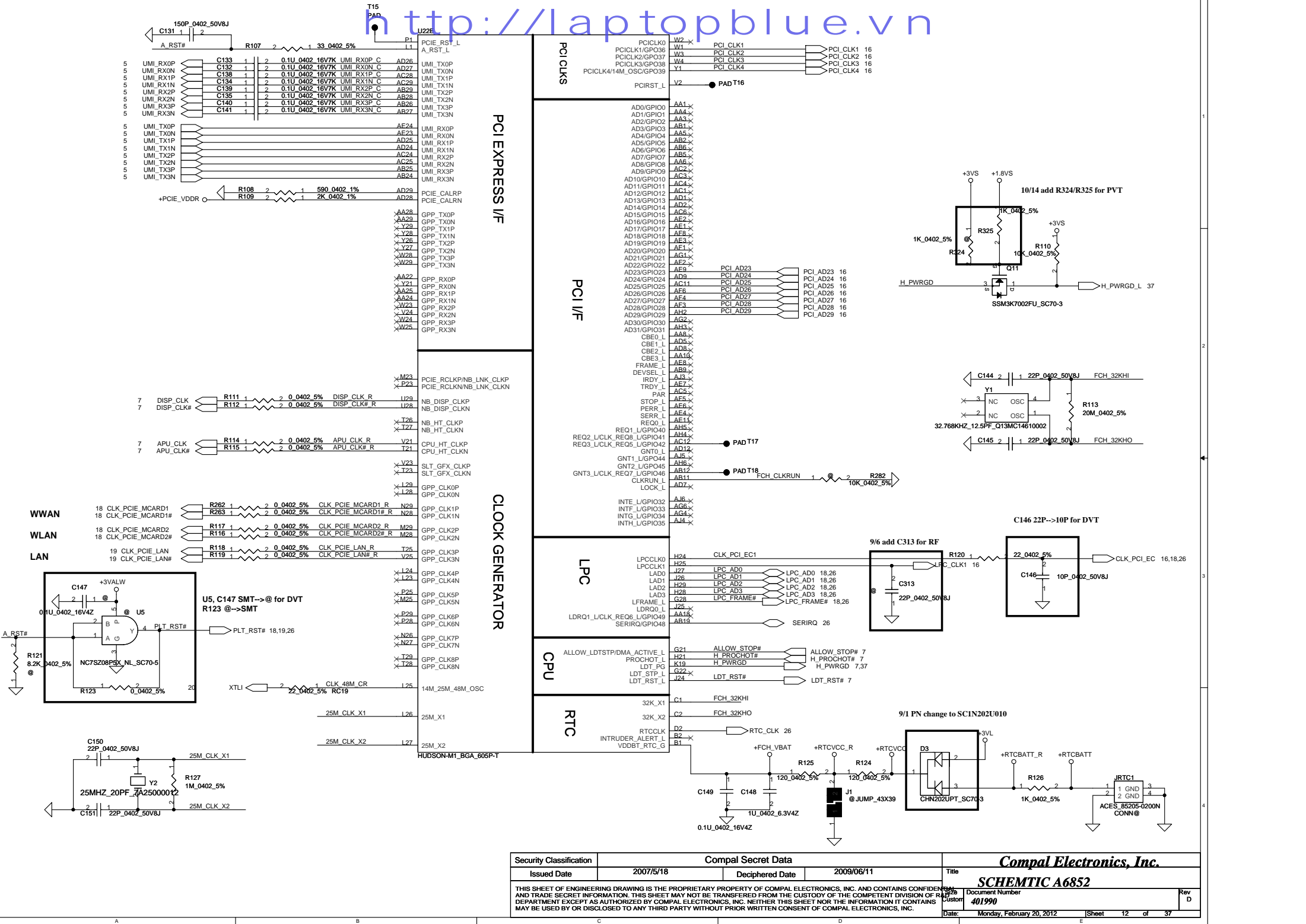
## < HDMI Connector >



9/1 PN change to SB00000EN00



Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2008/10/06	Deciphered Date	2010/03/12	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	401990	Rev D
				Date:	Monday, February 20, 2012	Sheet 11 of 37

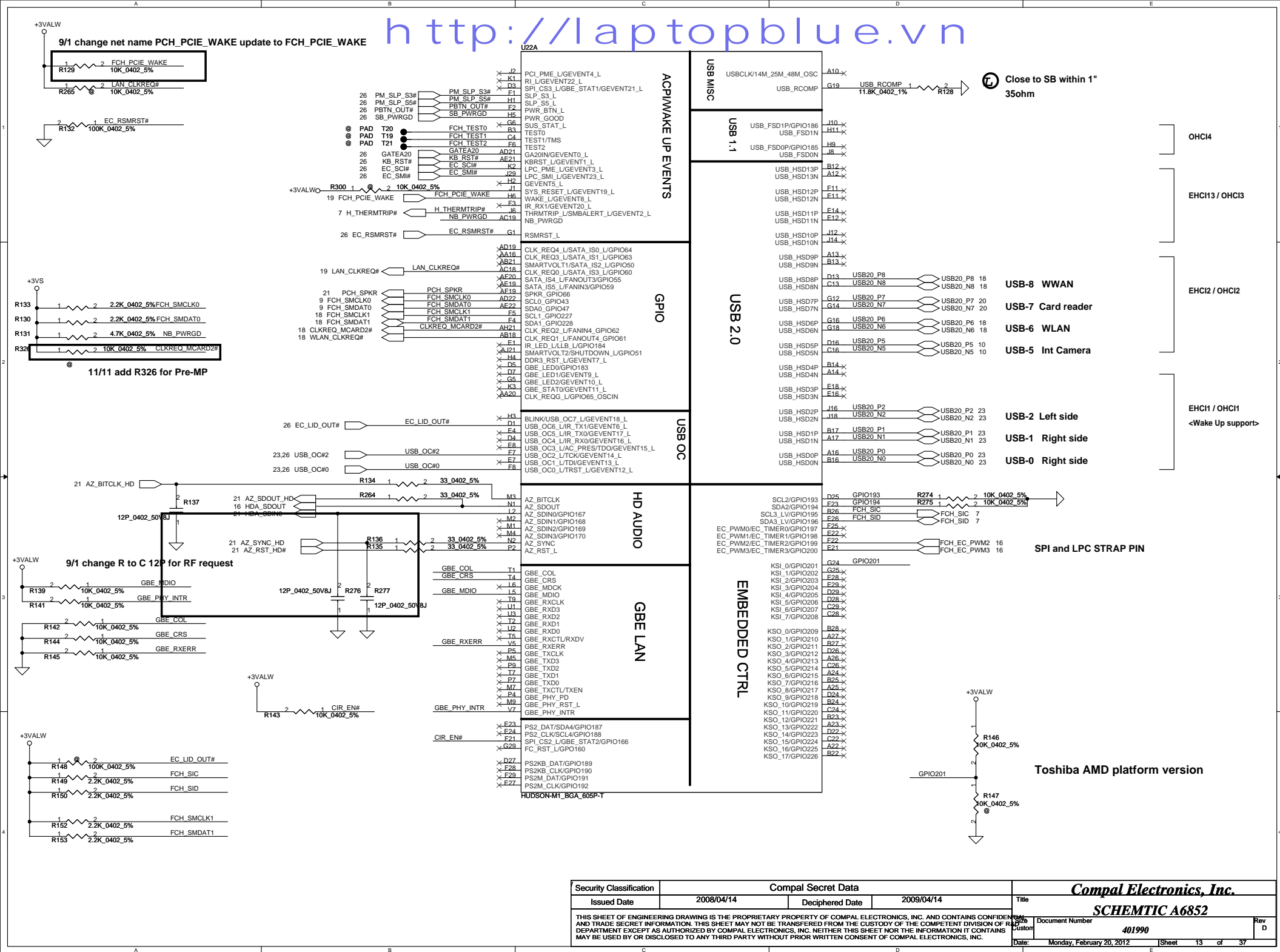


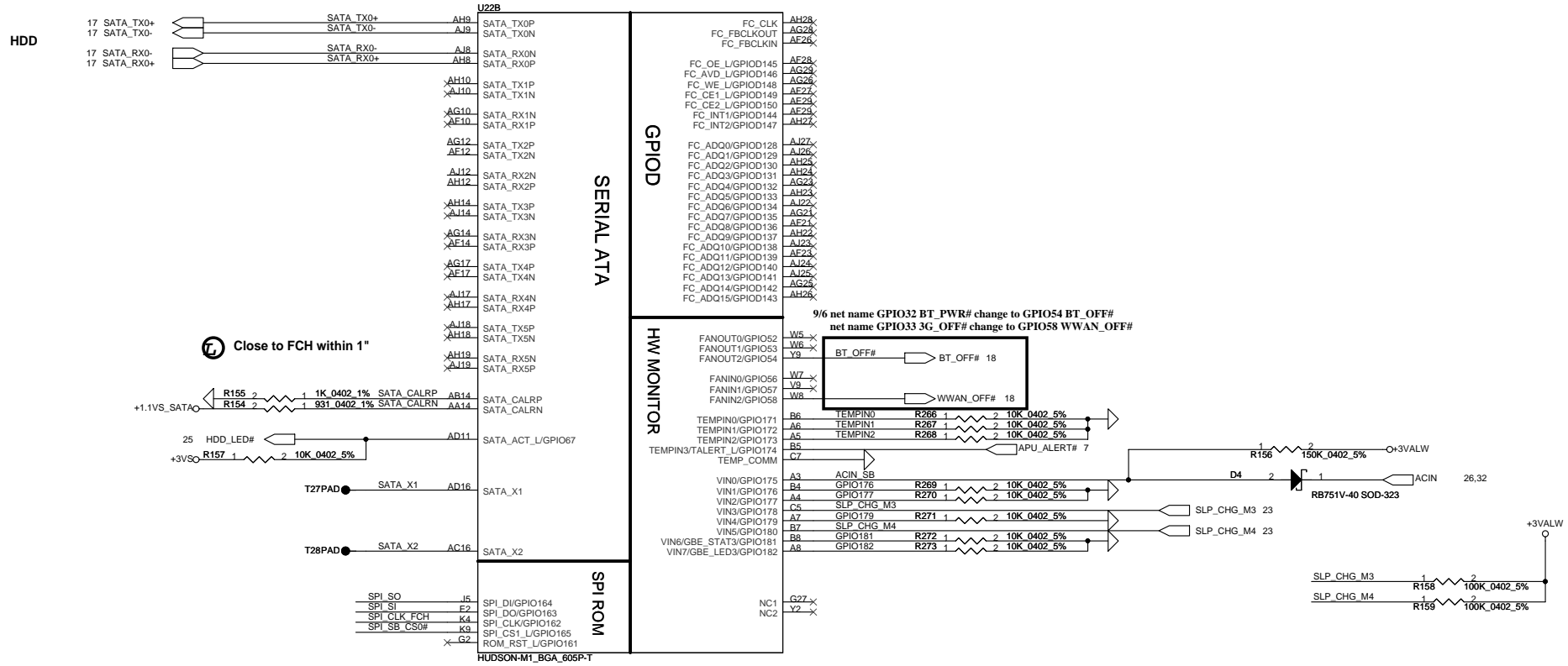
Security Classification		Compal Secret Data		<i>Compal Electronics, Inc.</i>	
Issued Date		2007/5/18		Deciphered Date	
				2009/06/11	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. 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	
				SCHEMTIC A6852	
				Document Number	
				401990	
				Rev D	
Date:				Monday, February 20, 2012	
Sheet				12 of 37	

Compal Electronics, Inc.

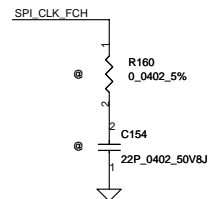
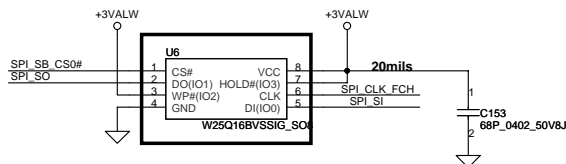
SCHEMATIC A6852

Rev D





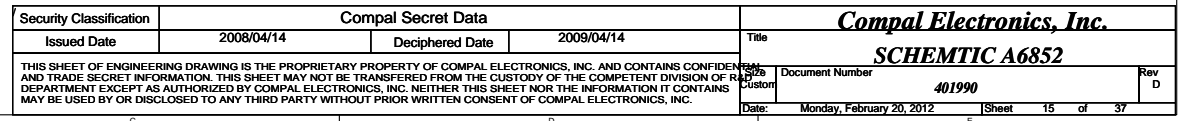
1012 change footprint to SA00003FO00 for PVT



PVT:Phase in DVT SMT memo

Security Classification				Compal Secret Data				Compal Electronics, Inc.			
Issued Date				2008/04/14				Deciphered Date			
2009/04/14				Title				SCHEMATIC A6852			
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				401990			
Date: Monday, February 20, 2012				Rev D				Sheet 14 of 37			

979.4mA





# http://laptopblue.vn

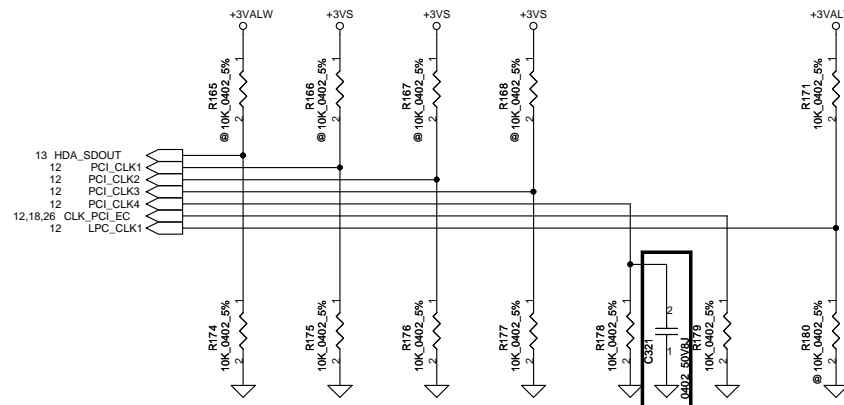
## REQUIRED STRAPS

Check Internal PU/PD

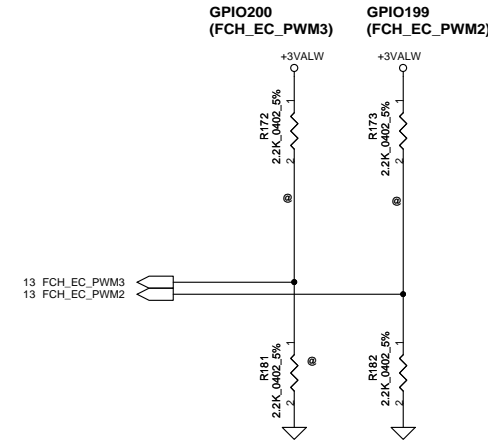
	AZ_SDOUT	PCI_CLK1	PCI_CLK2	PCI_CLK3	PCI_CLK4	CLK_PCI_EC	LPC_CLK1	
PULL HIGH	LOW POWER MODE	ALLOW PCIE GEN2	WATCHDOG TIMER ENABLE	USE DEBUG STRAP	Inter CLK Gen Mode Disable	EC ENABLE	CLOCKGEN ENABLE	
							*	DEFAULT
PULL LOW	Performance MODE	FORCE PCIE GEN1	WATCHDOG TIMER DISABLE	IGNORE DEBUG STRAP	Inter CLK Gen Mode Enable	EC DISABLE	CLOCKGEN DISABLE	
	*	*	*	*	*	*		
	DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT		

	GPIO200 (FCH_EC_PWM3)	GPIO199 (FCH_EC_PWM2)
Reserved	2.2k pull down	2.2k pull down
* SPI	Not contact	2.2k pull down
LPC	2.2k pull down	Not contact
Reserved	Not contact	Not contact

DEFAULT  
07/21 Follow AMD 47791\_SCL



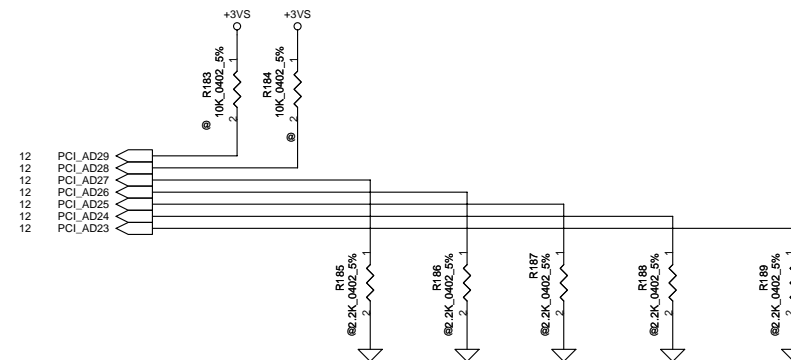
9/7 add C321 for RF request  
11/18 C321 @-->SMT for RF request



## DEBUG STRAPS

M1 HAS 15K INTERNAL PU FOR PCI\_AD[27:23]

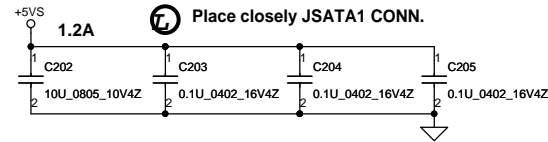
	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE PCI PLL	DISABLE ILA AUTORUN	USE FC PLL	USE DEFAULT PCIE STRAPS	DISABLE PCI MEM BOOT
	DEFAULT	DEFAULT	DEFAULT	DEFAULT	DEFAULT
PULL LOW	BYPASS PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PLL	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT



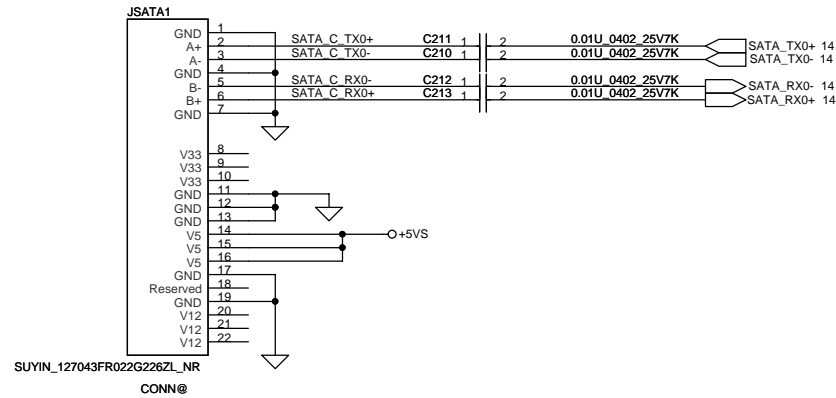
Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2008/10/06	Deciphered Date	2009/10/06	Title	SCHEMATIC A6852	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev	Document Number	Rev D
				Date:	401990	
				Monday, February 20, 2012		
				Sheet	16	of 37



http://laptopblue.vn



### < SATA Connector >



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/04/07	Deciphered Date	2012/10/21	Title	SCHEMATIC A6852
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	401990
				Date	Monday, February 20, 2012
				Sheet	17 of 37

14 BT\_OFF#

3V3

R259 100K 0402\_5%

Q26 2N7002\_SOT23-3

R316 0.0402\_5%

BT\_CTRL

13 CLKREQ\_M

12 CLK\_PCIE\_F

12 CLK\_PCIE\_E

12,16,26 CLK\_PCIE\_E

5 PC

5 PC

26 E51\_TXD

26 E51\_RXD

R320 1 2 0.04

R321 1 2 0.04

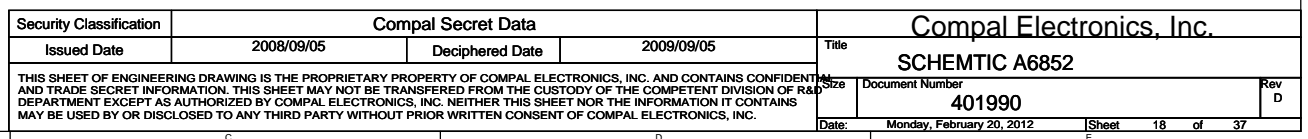
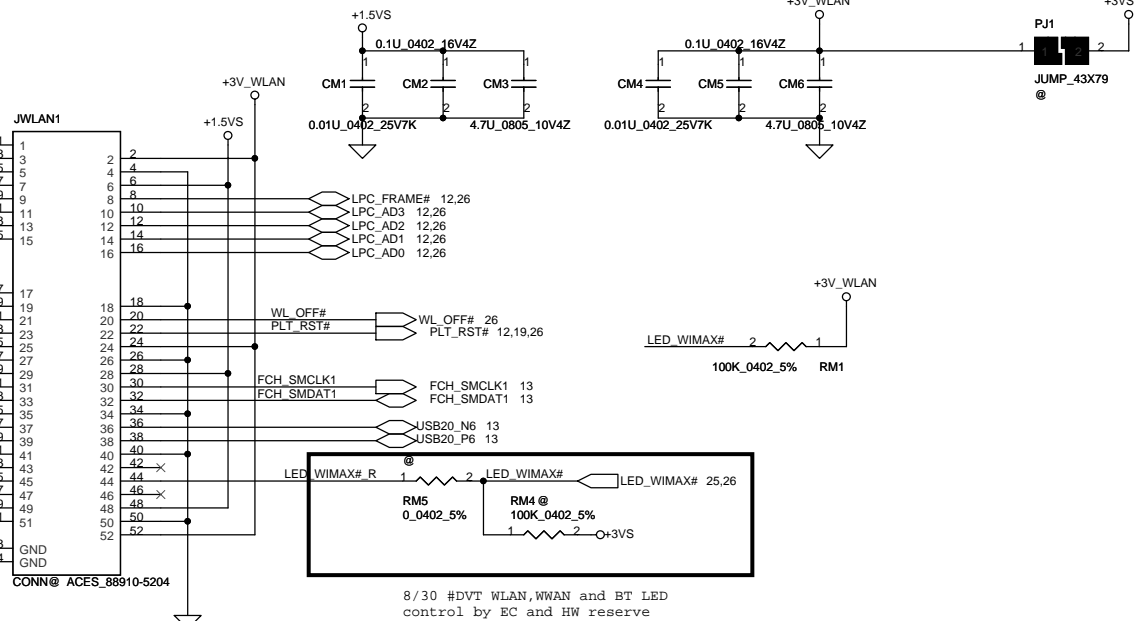
BT\_CTRL 2 1

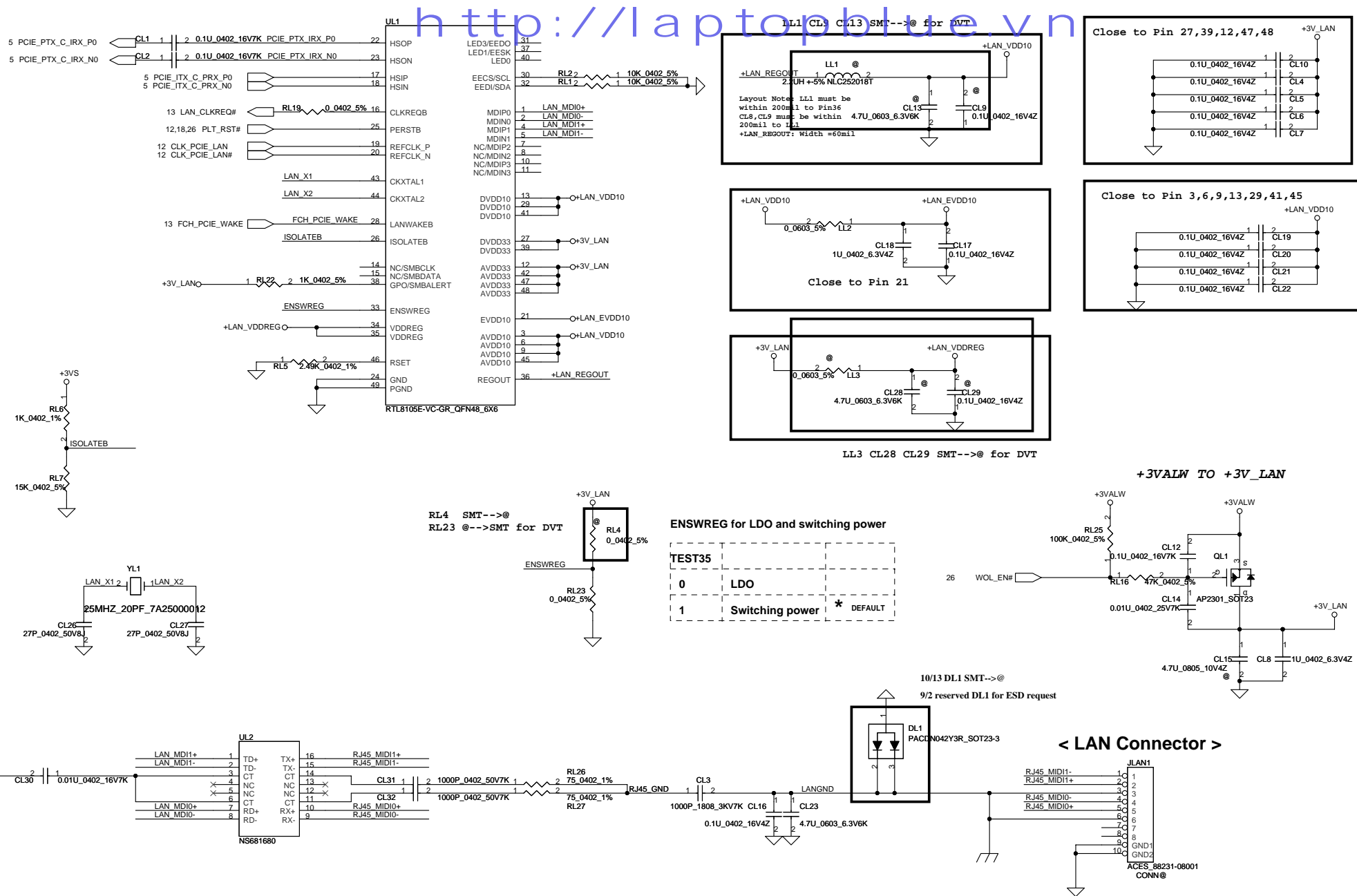
1K 0.02 5%

R319

E51\_RXD R

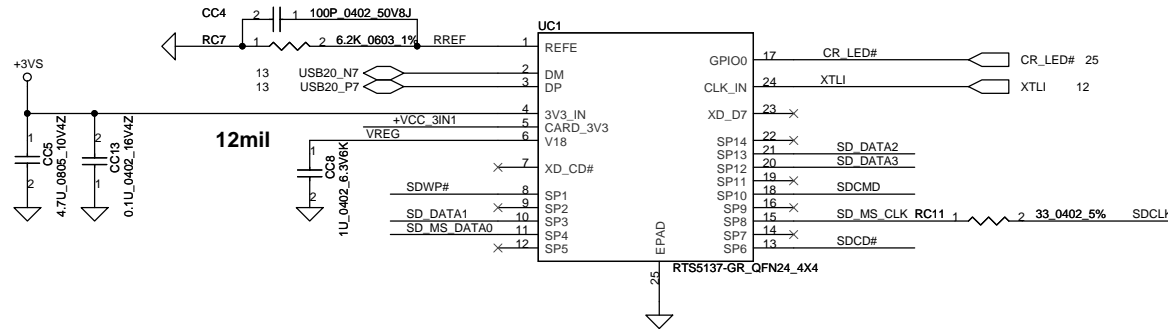
### PCIe Mini Card-3G/WWAN (Slot 2)



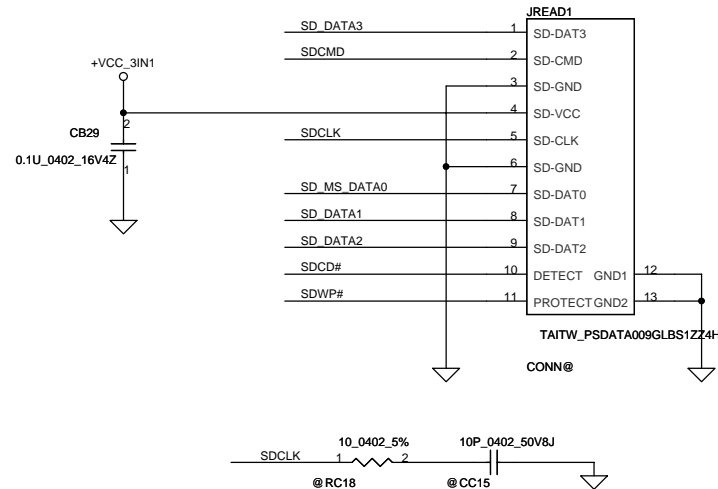


Security Classification		Compal Secret Data				Compal Electronics, Inc.			
Issued Date		2010/01/22		Deciphered Date		2011/01/22		Title	
								SCHEMTIC A6852	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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 D	
						401990			
Date:		Monday, February 20, 2012				Sheet		19 of 37	

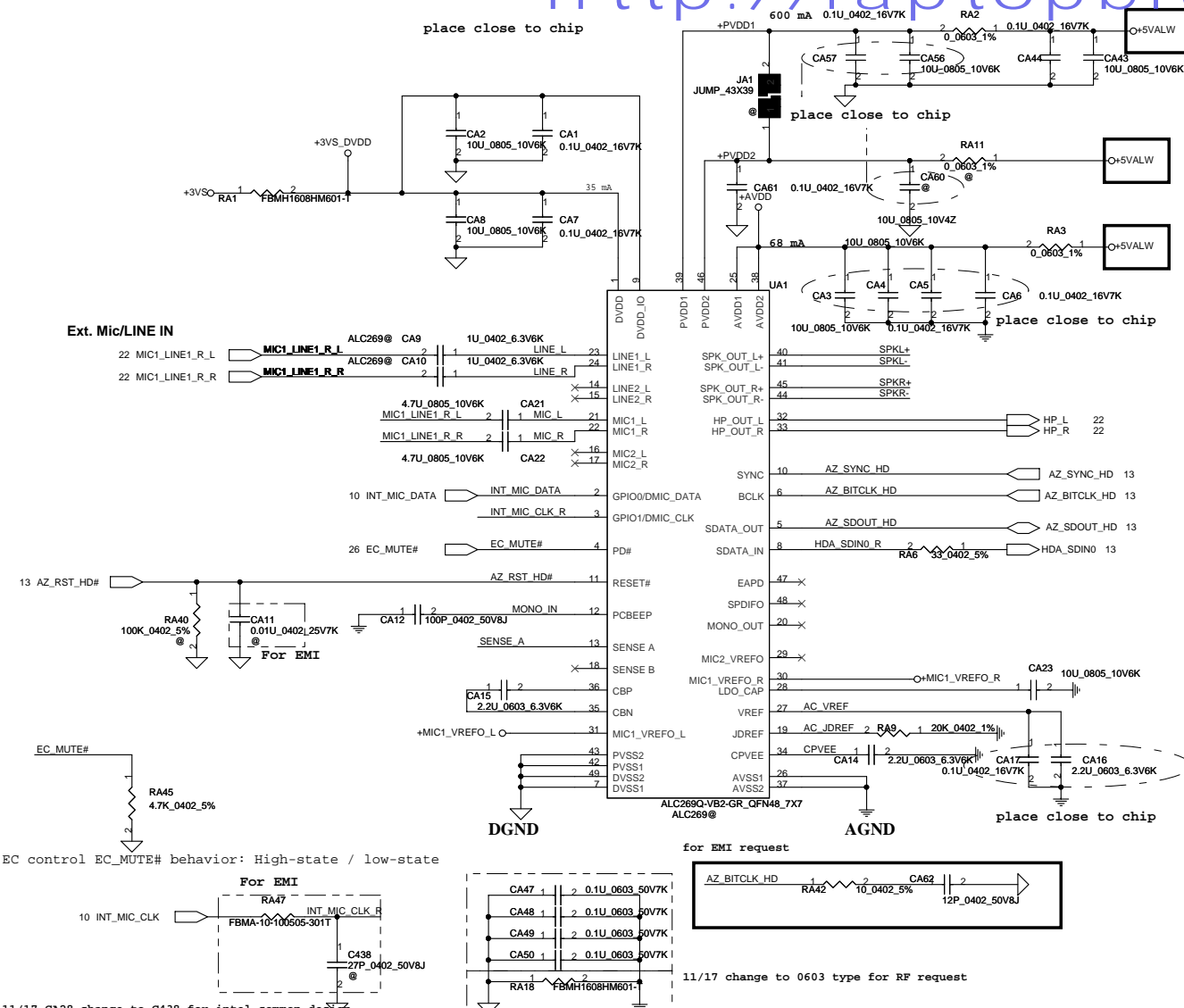
	XD_CD#	SD_WP	MS_CLK
SP1	XD_RDY	SD_WP	MS_CLK
SP2	XD_RE#	SD_WP	MS_INS#
SP3	XD_C#	SD_D1	MS_D7
SP4	XD_C#	SD_D0	MS_D7
SP5	XD_AL#	SD_D7	MS_D3
SP6	XD_W#	SD_CD#	MS_D6
SP7	XD_WP	SD_D6	MS_D6
SP8	XD_D0	SD_CLK	MS_D2
SP9	XD_D1	SD_D5	MS_D0
SP10	XD_D2	SD_CMD	MS_D4
SP11	XD_D3	SD_D4	MS_D1
SP12	XD_D4	SD_D3	MS_D5
SP13	XD_D5	SD_D2	MS_BS
SP14	XD_D6		
	XD_D7		



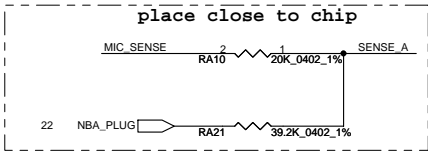
### < 2 in 1 Card Reader >



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/10/15	Deciphered Date	2008/10/15	Title	SCHEMATIC A6852
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	401990
				Date	Monday, February 20, 2012
				Sheet	20 of 37

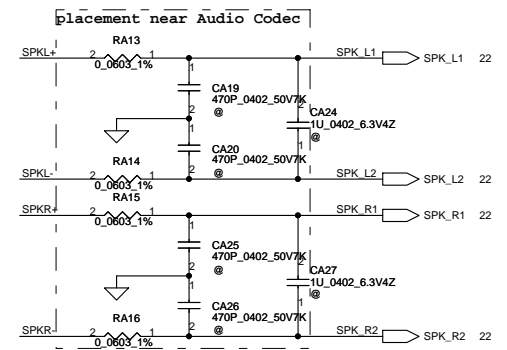


Sense Pin	Impedance	Codec Signals	Function
SENSE A	39.2K	PORT-I (PIN 32, 33)	Headphone out
	20K	PORT-B (PIN 21, 22)	Ext. MIC
	10K	PORT-C (PIN 23, 24)	
	5.1K	(PIN 48)	

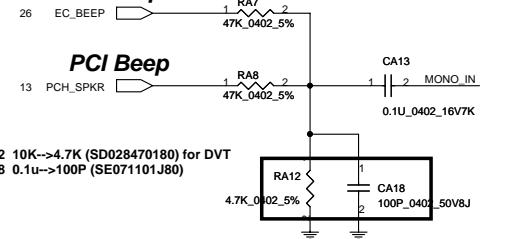


11/16 Delete RA53/RA54 for pre-MP

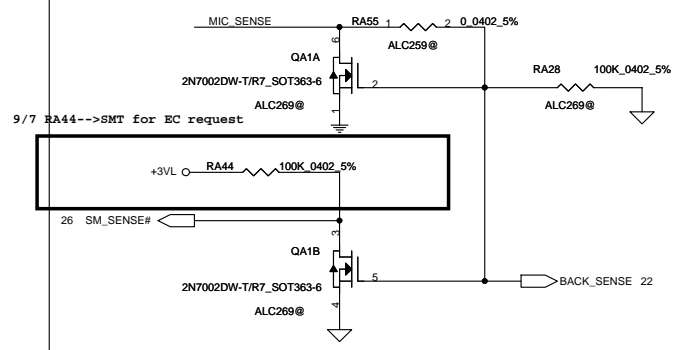
### Speaker Connector



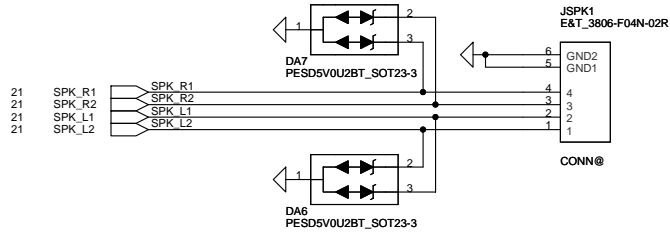
### EC Beep



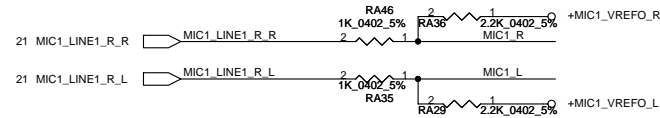
### Beep sound



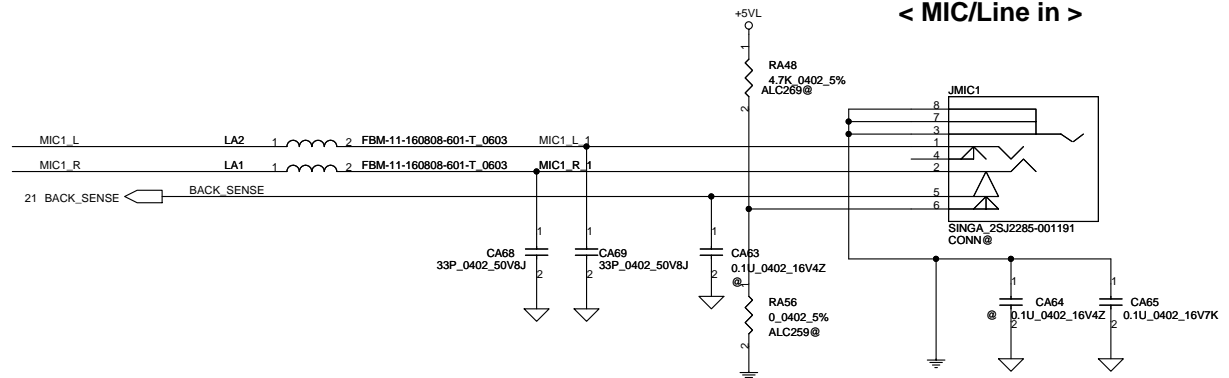
## < SPK connector >



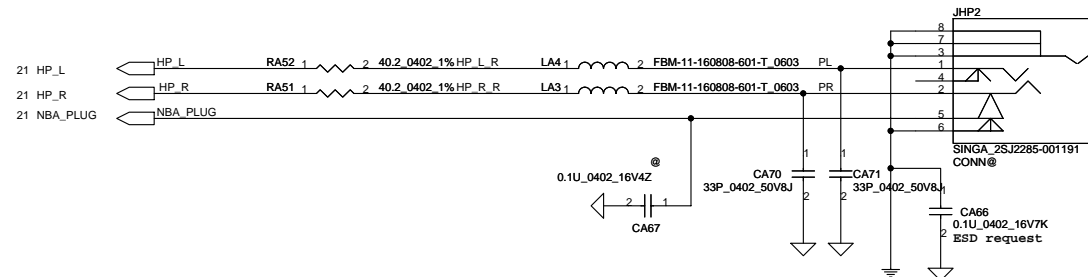
## Ext.MIC/LINE IN JACK



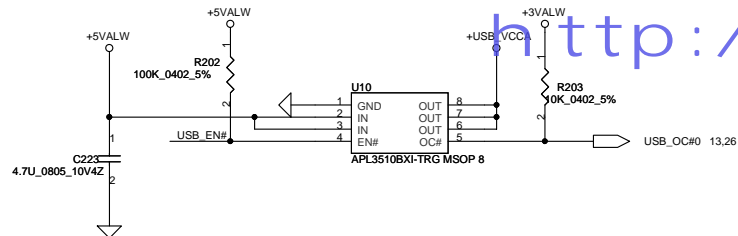
## < MIC/Line in >



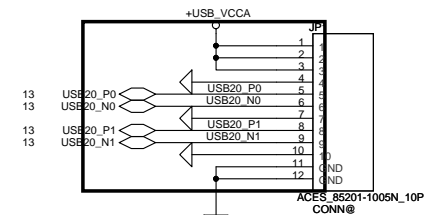
## < Head phone >



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/04/07	Deciphered Date	2012/10/21	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
				401990
				Rev D
				Date: Monday, February 20, 2012
				Sheet 22 of 37

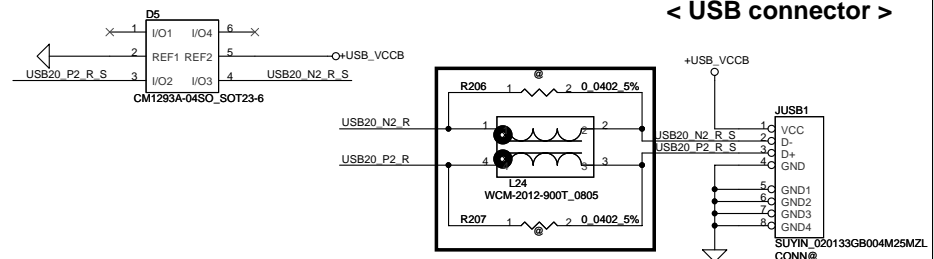
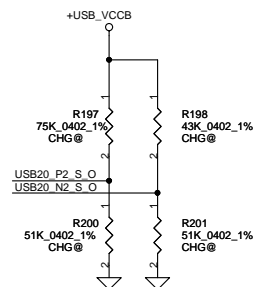
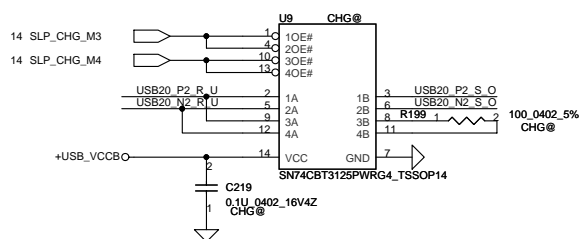
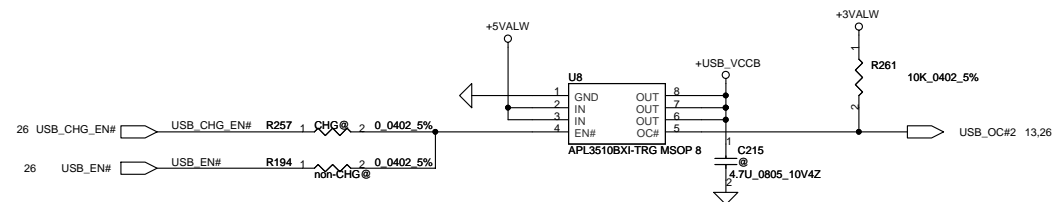
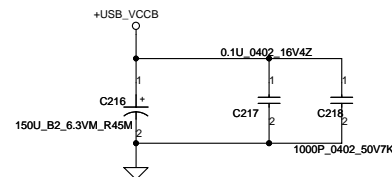
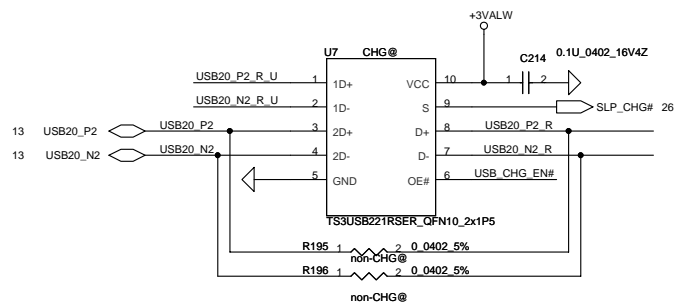


< USB connector >



8/27 add GND pin in USB pin define

## USB Sleep and charge



< USB connector >

10/13 R206/R207 SMT-->@ L24 @-->SMT

	SLP_CHG_M3	SLP_CHG_M4
Mode 3	HIGH	LOW
Mode 4	LOW	HIGH

SLP_CHG	FUNCTION
LOW	D=1D
HIGH	D=2D

Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2007/10/15	Deciphered Date	2008/10/15	Title	SCHEMATIC A6852	
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	401990	Rev D
				Date:	Monday, February 20, 2012	Sheet 23 of 37

Option 1:SPI Flash (2MB\*1) for EC

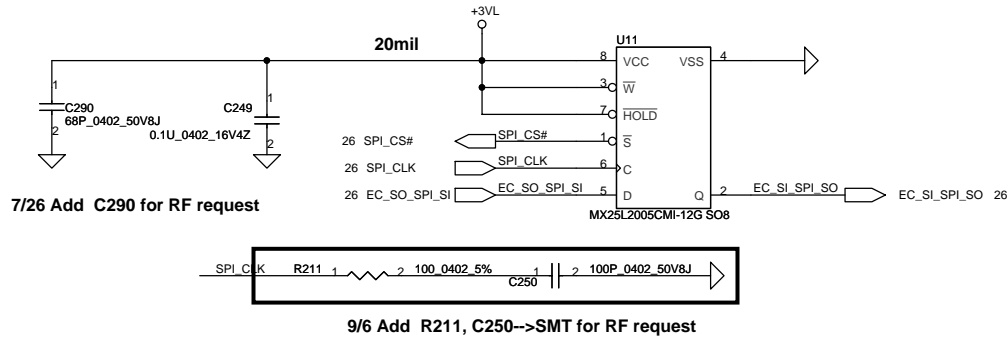
Option 2:SPI Flash (256KB\*1) for EC

SPI Flash (2MB\*1) for SB (set up strap pin)

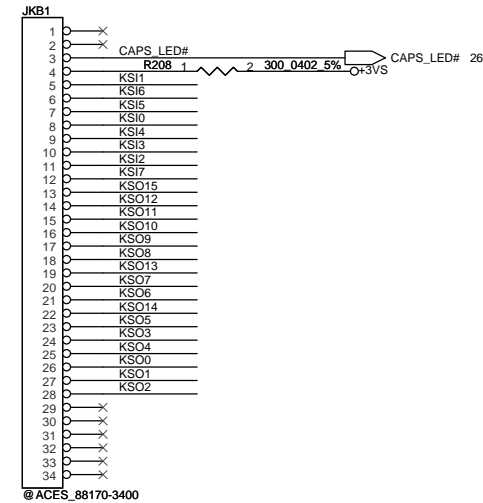
SPI Socket: SP07000F500 & SP07000H900

2MB P/N:Winbond SA00003FO00 S IC FL 16M W25Q16BVSSIG SOIC 8P

256KB P/N:MXIC SA00003GK00 S IC FL 2M MX25L2005CMI-12G SOP 8P

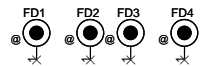
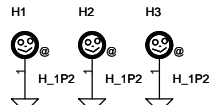


< Key board connector >

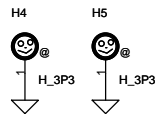


KSI0	C224	1	2	100P_0402_50V8J
KSI1	C225	1	2	100P_0402_50V8J
KSI2	C226	1	2	100P_0402_50V8J
KSI3	C227	1	2	100P_0402_50V8J
KSI4	C228	1	2	100P_0402_50V8J
KSI5	C229	1	2	100P_0402_50V8J
KSI6	C230	1	2	100P_0402_50V8J
KSI7	C231	1	2	100P_0402_50V8J
KSO0	C232	1	2	100P_0402_50V8J
KSO1	C233	1	2	100P_0402_50V8J
KSO2	C234	1	2	100P_0402_50V8J
KSO3	C235	1	2	100P_0402_50V8J
KSO4	C236	1	2	100P_0402_50V8J
KSO5	C237	1	2	100P_0402_50V8J
KSO6	C238	1	2	100P_0402_50V8J
KSO7	C239	1	2	100P_0402_50V8J
KSO8	C240	1	2	100P_0402_50V8J
KSO9	C241	1	2	100P_0402_50V8J
KSO10	C242	1	2	100P_0402_50V8J
KSO11	C243	1	2	100P_0402_50V8J
KSO12	C244	1	2	100P_0402_50V8J
KSO13	C245	1	2	100P_0402_50V8J
KSO14	C246	1	2	100P_0402_50V8J
KSO15	C247	1	2	100P_0402_50V8J
CAPS_LED#	C248	1	2	100P_0402_50V8J

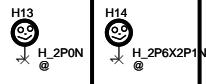
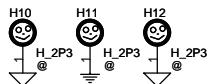
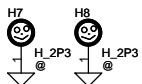
CPU Screw hole



Stand off

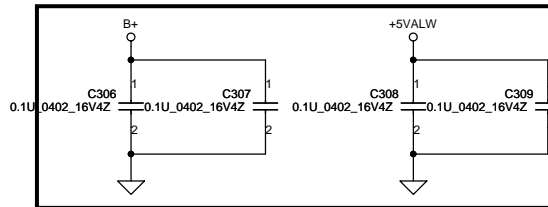


Screw hole

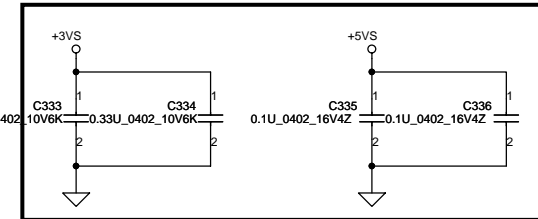


10/07 remove H9, add H14 for PVT

EMI request cap



11/12 add C306-C309 @-->SMT for RF at Pre-MP phase



10/14 add C333-C336 for EMI at PVT phase

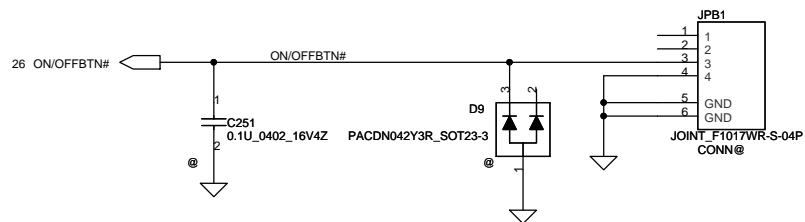
11/17 C333/C334 0.1uF change to 0.33uF for Pre-MP

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2007/10/15	Deciphered Date	2008/10/15	Title	SCHEMATIC A6852
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	401990
				Date	Monday, February 20, 2012
				Sheet	24 of 37

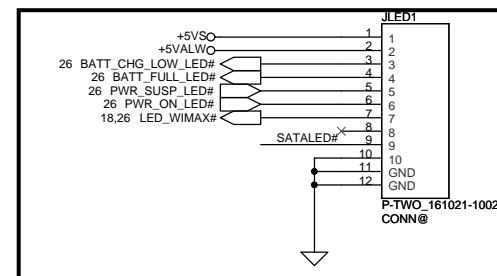


# < PWR BTN connector >

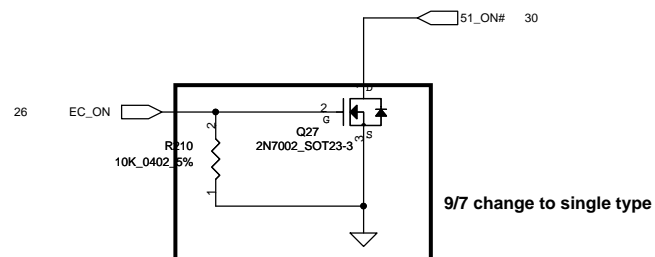
<http://laptopblue.vn>



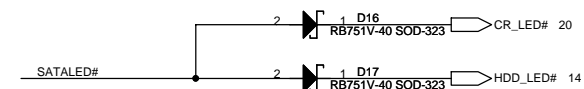
# <LED connector >



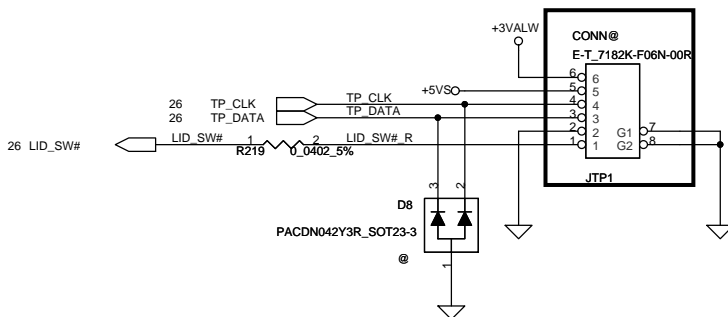
10/13 update LEDconn footprint for PVT



9/7 change to single type



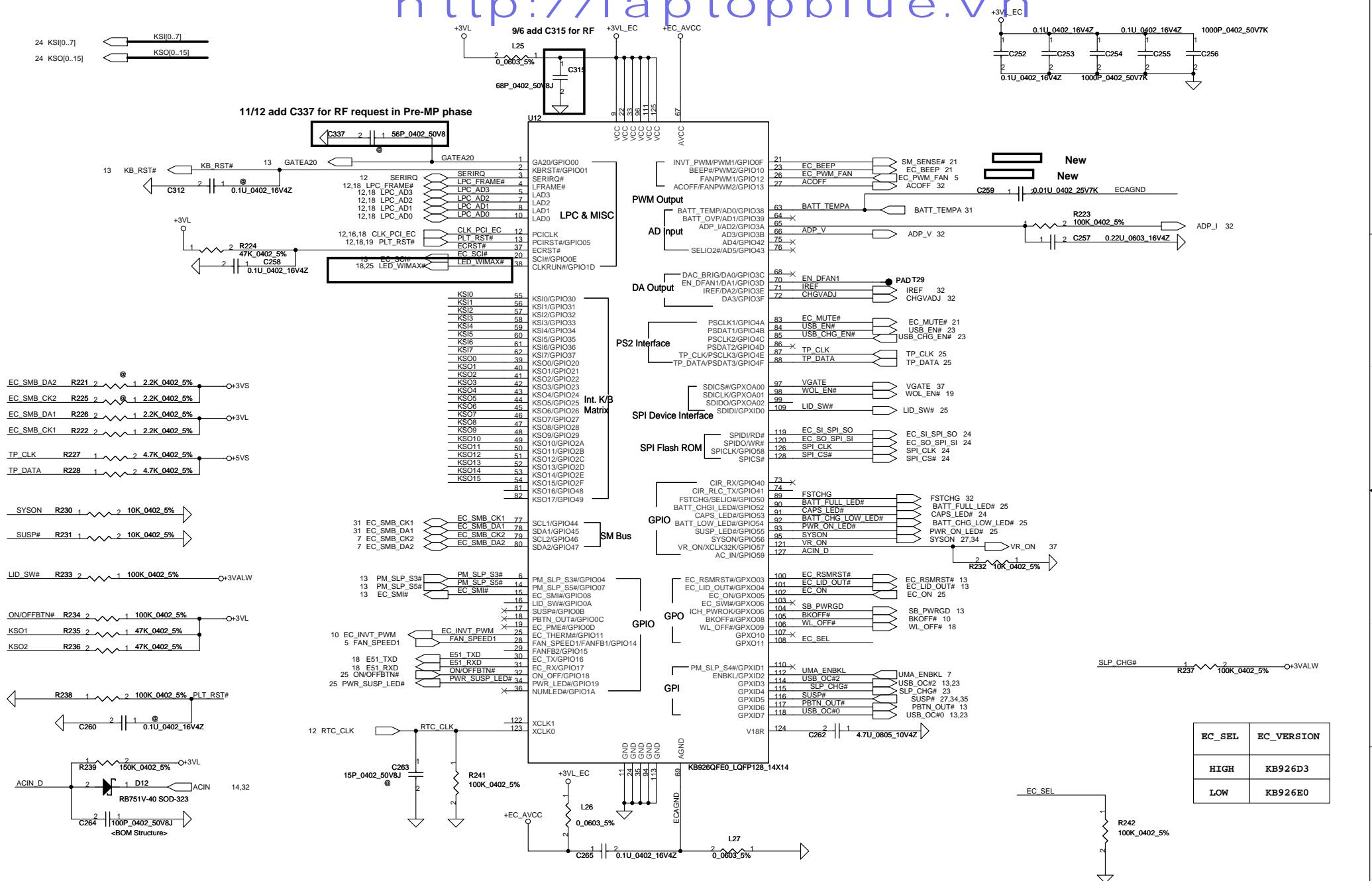
# < T/P and Lid connector >



10/12 update TP conn footprint for PVT

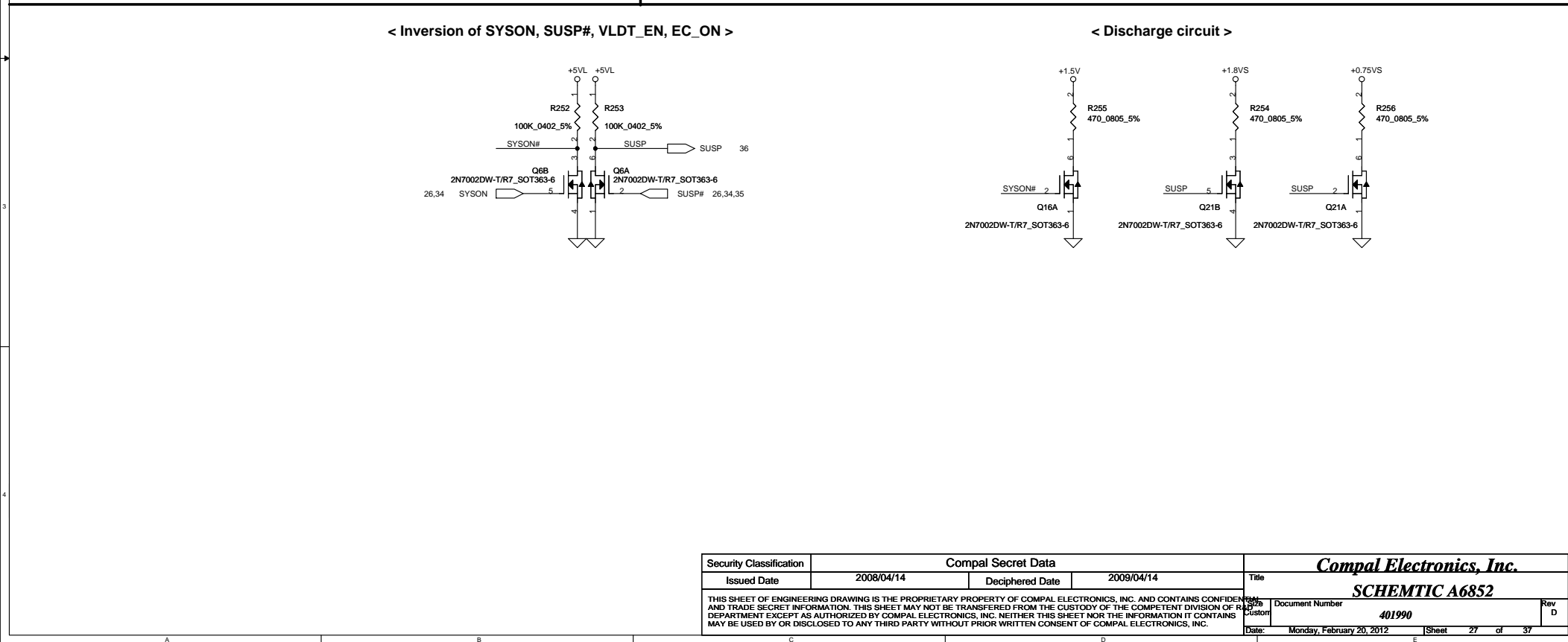
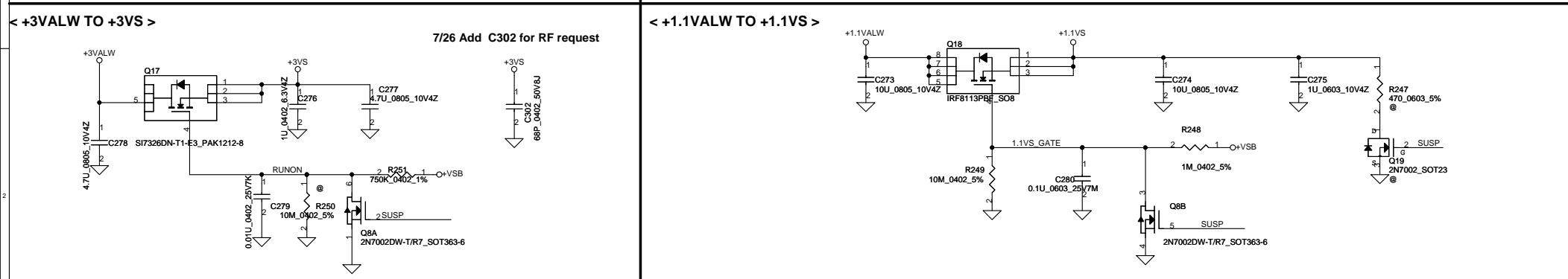
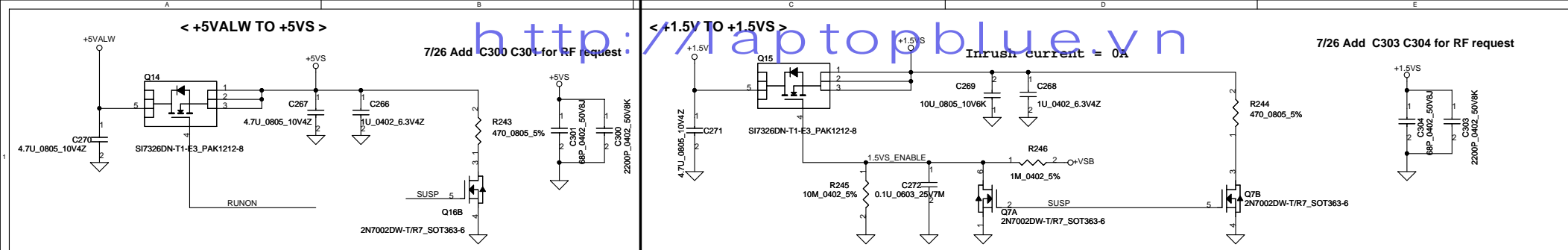
Security Classification	Compal Secret Data		Compal Electronics,Ltd.	
Issued Date	2008/03/25	Deciphered Date	2008/04/	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				SCHEMTIC A6852
Date: Monday, February 20, 2012				Sheet 25 of 37

http://laptopblue.vn

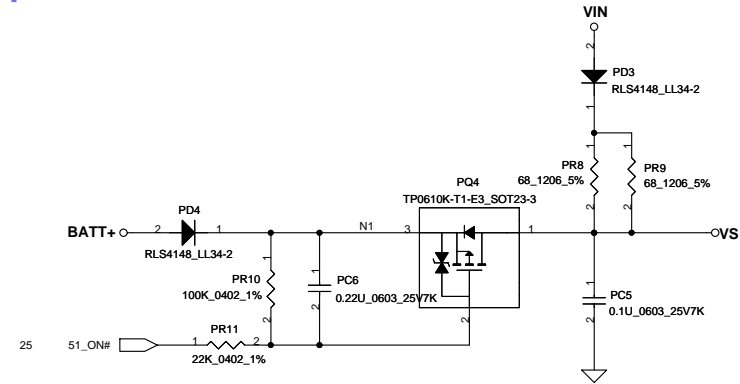
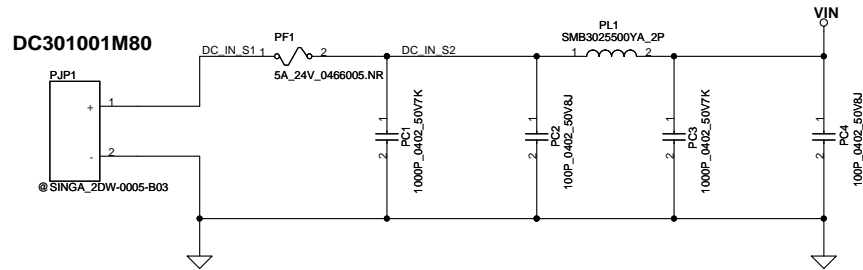


EC_SEL	EC_VERSION
HIGH	KB926D3
LOW	KB926E0

Security Classification		Compal Secret Data			<i>Compal Electronics, Inc.</i> <b>SCHEMTIC A6852</b>			
Issued Date		2008/04/14		Deciphered Date				2009/04/14
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	401990	Rev D
Date: Monday, February 20, 2012						Sheet	26	of 37



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/04/14	Deciphered Date	2009/04/14	Title	SCHEMTIC A6852
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	401990
				Date	Monday, February 20, 2012
				Sheet	27 of 37



③ PJ332  
JUMP\_43X118  
(5A,200mils ,Via NO.= 10)  
OCP=8.6A

③ PJ2  
JUMP\_43X39  
(120mA,20mils ,Via NO.= 1)

③ PJ112  
JUMP\_43X118  
(10A,600mils ,Via NO.= 10)  
OCP=A

③ PJ352  
JUMP\_43X118  
(5A,200mils ,Via NO.= 10)  
OCP=7.9A

③ PJ182  
JUMP\_43X118  
(2.15A,100mils ,Via NO.= 5)  
OCP=A

③ PJ102  
JUMP\_43X118  
(5.7A,240mils ,Via NO.= 12)  
OCP=A

③ PJ3  
JUMP\_43X39  
(100mA,20mils ,Via NO.= 1)

③ PJ152  
JUMP\_43X118  
(5A,200mils ,Via NO.= 10)  
OCP=A

③ PJ76  
JUMP\_43X79  
(0.5A,20mils ,Via NO.= 1)

③ PJ4  
JUMP\_43X39  
(100mA,20mils ,Via NO.= 1)

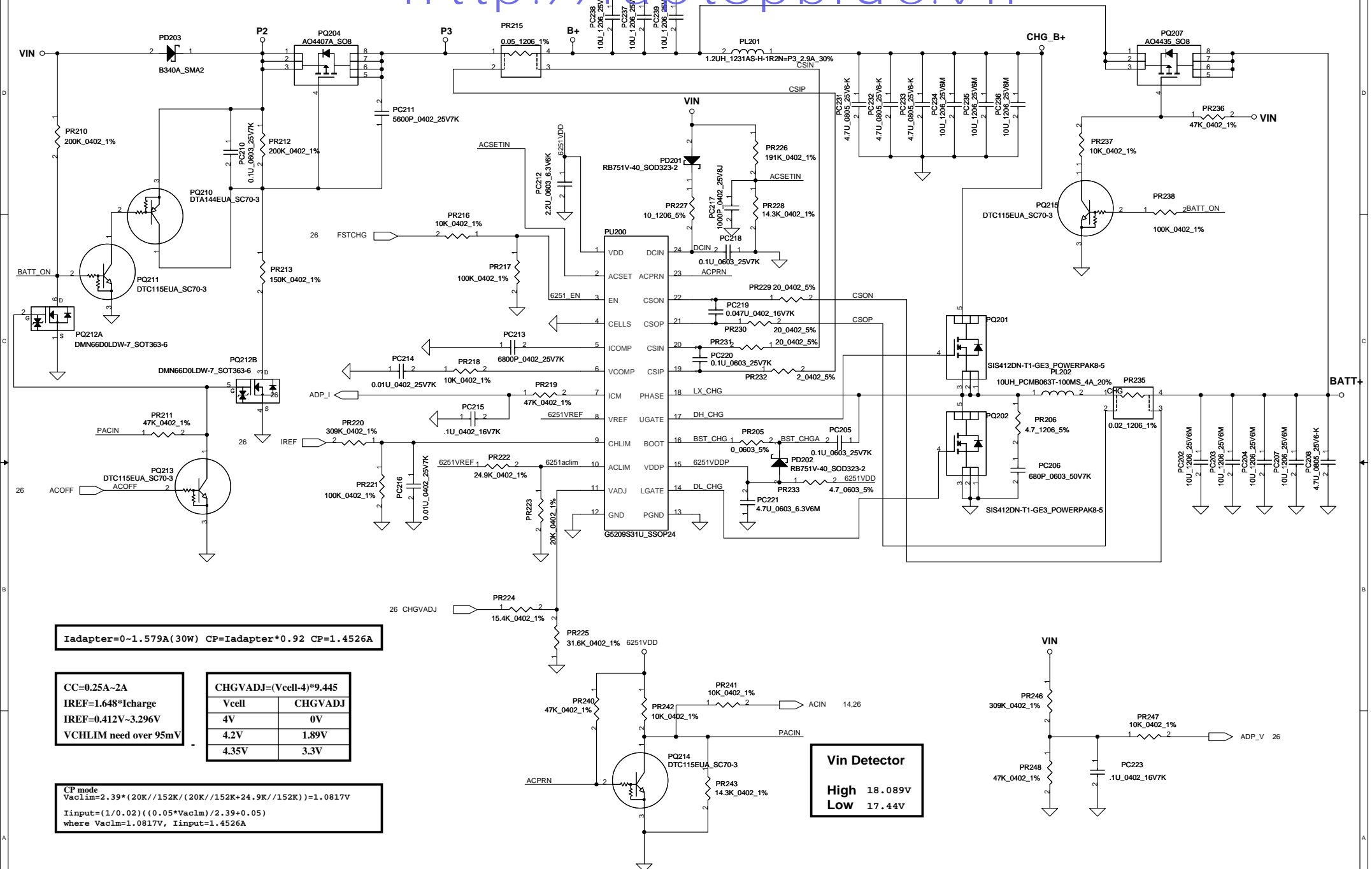
③ PJ5  
JUMP\_43X118  
(10A,400mils ,Via NO.= 20)  
OCP=A

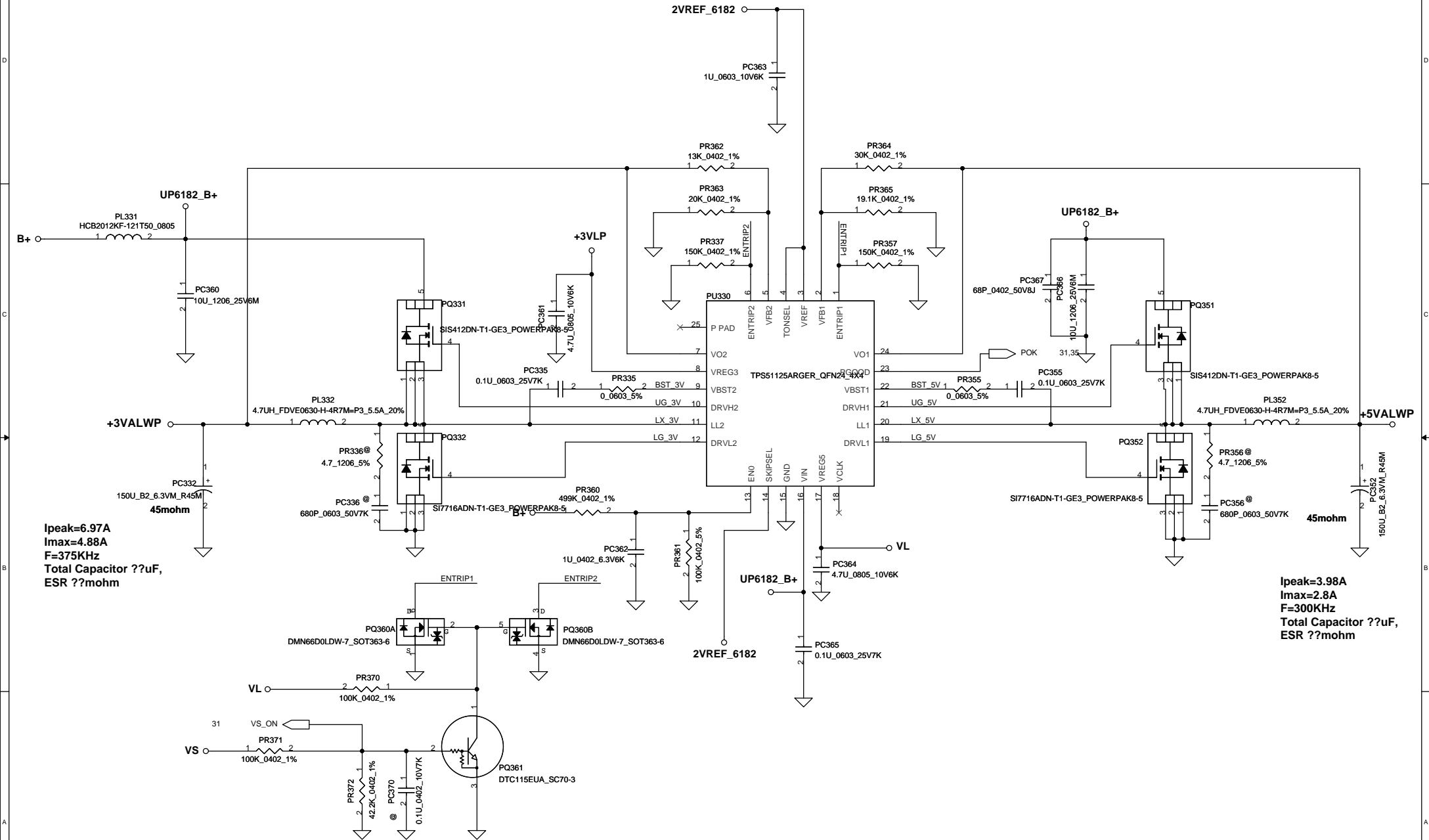
ACIN

Precharge detector			
	Min.	typ.	Max
H-->L	14.42V	14.74V	15.23V
L-->H	15.39V	15.88V	16.39V

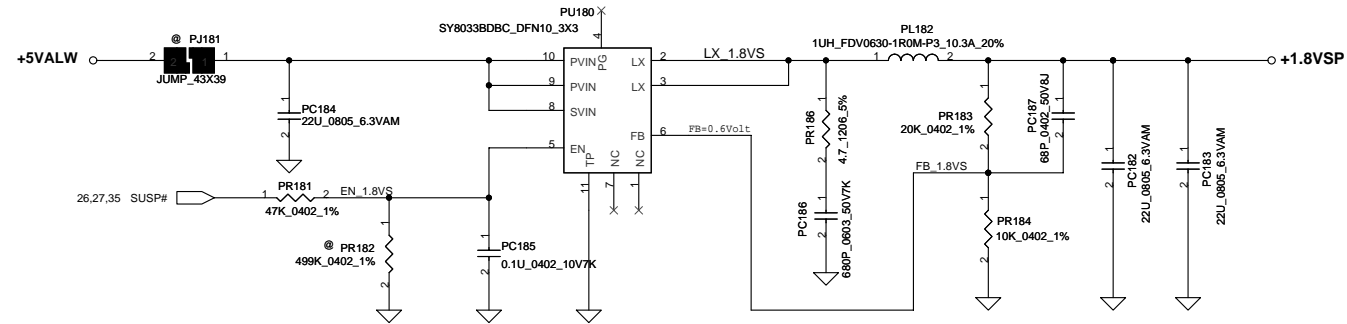
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/11/13	Deciphered Date	2009/04/28	Title	SCHEMATIC A6852
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY 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	401990
				Date	Monday, February 20, 2012
				Sheet	28 of 37



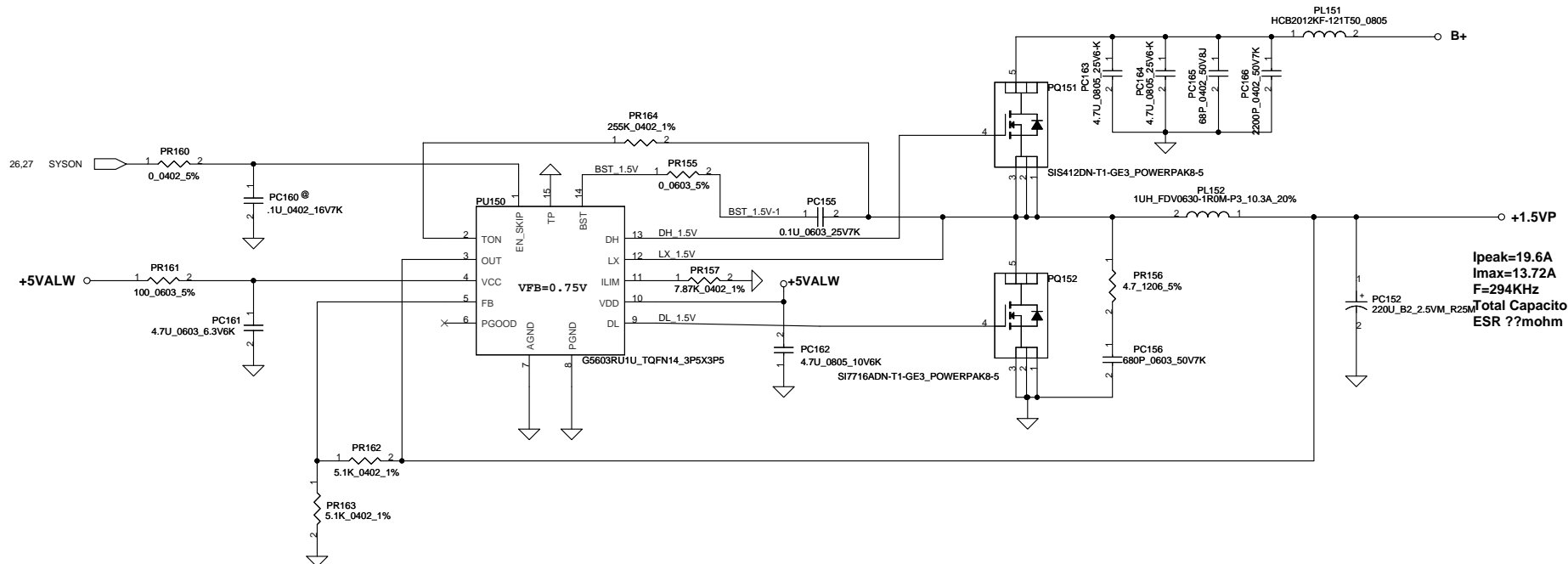




Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/11/13	Deciphered Date	2009/04/28	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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 D
				401990	
Date: Monday, February 20, 2012				Sheet 31	of 37

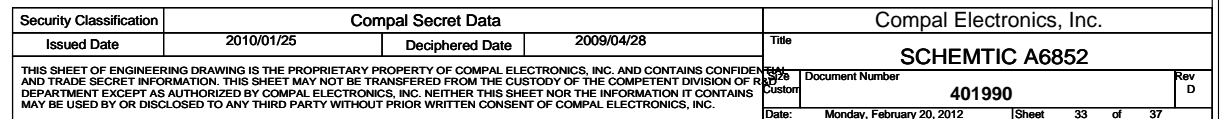
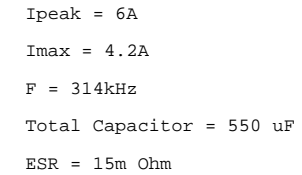


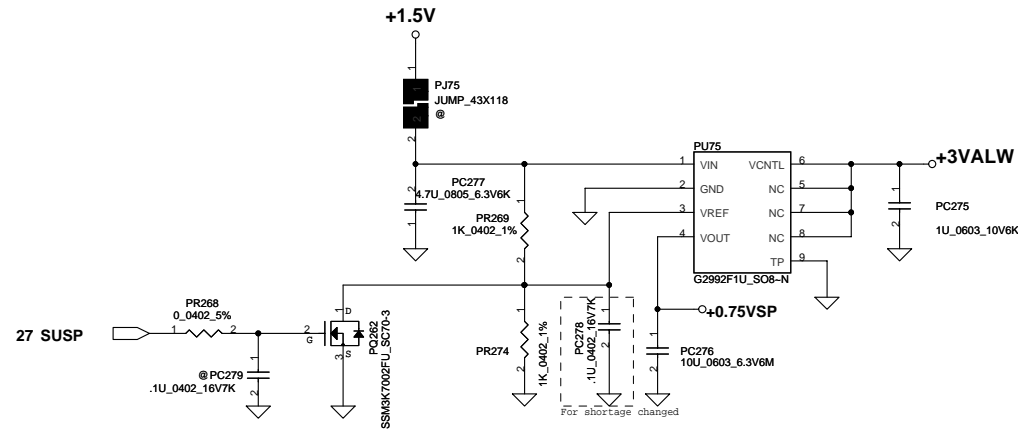
I<sub>peak</sub>=1.308A  
I<sub>LIM</sub> = 4A  
F=1MHz  
Total Capacitor ??uF,  
ESR ??mohm



I<sub>peak</sub>=19.6A  
I<sub>max</sub>=13.72A  
F=294KHz  
Total Capacitor ??uF,  
ESR ??mohm

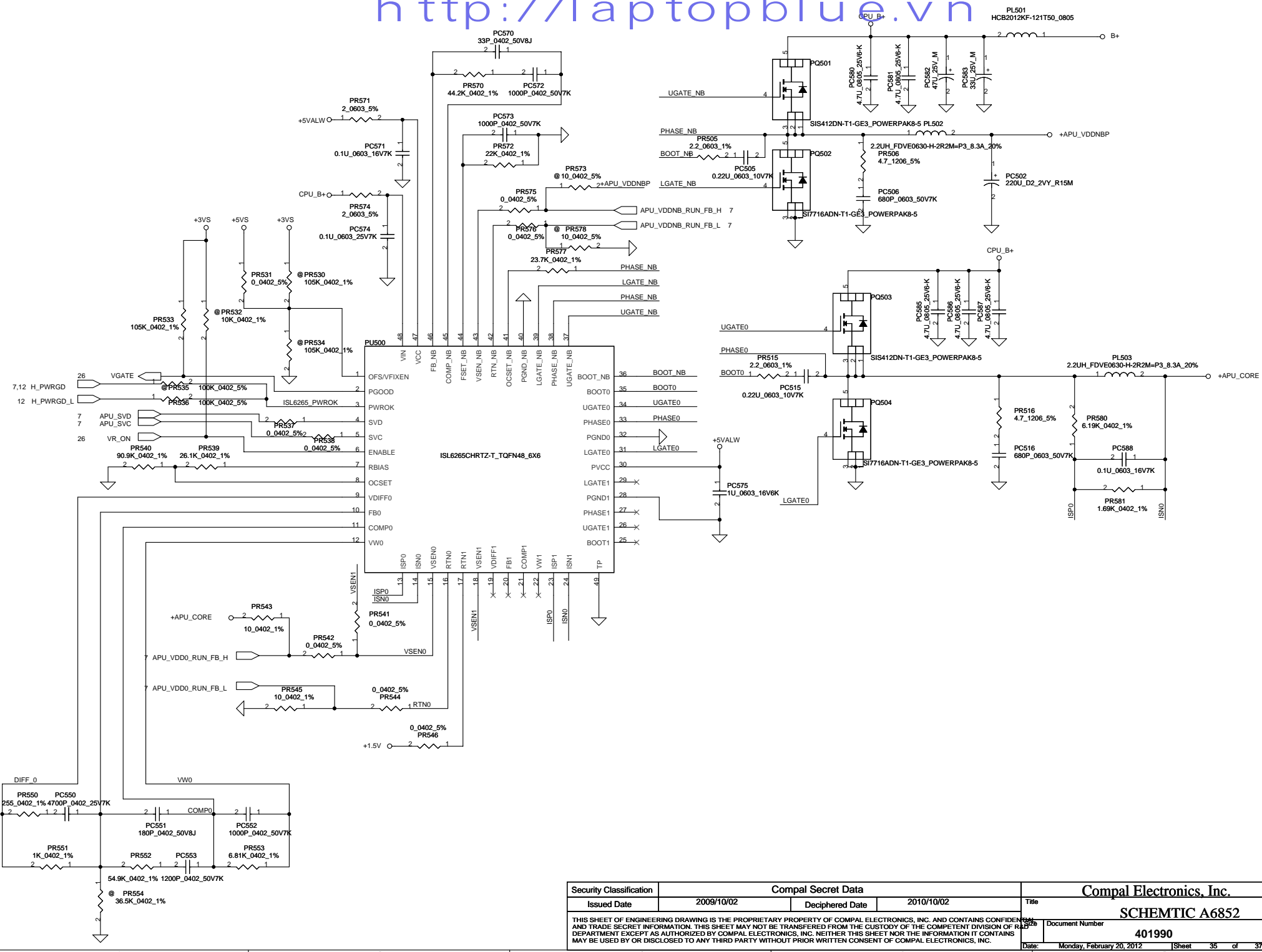






Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/10/02	Deciphered Date	2010/10/02	Title	SCHEMATIC A6852
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY 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	401990
				Date:	Monday, February 20, 2012
				Sheet	34 of 37

http://laptopblue.vn



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/10/02	Deciphered Date	2010/10/02	Title	SCHEMTIC A6852
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	401990
				Date:	Monday, February 20, 2012
				Sheet	35 of 37

Page#	Title	Date	Request Owner	Issue Description	Solution Description
		2010/08/01	POWER		Release
P31	BATTERY CONN / OTP	2010/09/02	POWER	Add PD5,PD6 (For ESD)	DVT
P32	CHARGER	2010/09/02	POWER	Add PR246,PR247,PR248,PC223 (ADP_V)	DVT
P33	3VALWP/5VALWP	2010/09/02	POWER	PR337,PR357 change to 121k	DVT
P33	3VALWP/5VALWP	2010/09/02	POWER	PR365 change to 19.6k	DVT
P34	1.8VSP/1.5VP	2010/09/02	POWER	PR181 change to 150k, PC185 0.1uF	DVT
P35	1.1VALWP/1.0VSP	2010/09/02	POWER	PR91 change to 316k(For 1.05VSP)	DVT
P35	1.1VALWP/1.0VSP	2010/09/02	POWER	PC90 change to 39pF(1.05VSP)	DVT
P37	ACPU_CORE	2010/09/02	POWER	Add PR578 10_0402_5% , PR573 unpop.	DVT
P37	ACPU_CORE	2010/09/02	POWER	PR577 change to 23.7k	DVT
P37	ACPU_CORE	2010/09/02	POWER	PR539 change to 26.1k	DVT
P37	ACPU_CORE	2010/09/02	POWER	PR540 change to 90.9k	DVT
P37	ACPU_CORE	2010/09/02	POWER	PC551 change to 100pF	DVT
P37	ACPU_CORE	2010/09/02	POWER	PR546 change to 0_0402_5%	DVT
P37	ACPU_CORE	2010/09/02	POWER	PR580 change to 6.98k	DVT
P37	ACPU_CORE	2010/09/02	POWER	PR581 change to 1.87k	DVT
P32	CHARGER	2010/09/06	POWER	Add PC207,PC239 10uF (EMI)	DVT

http://laptopblue.vn

Item	Reason for change	PG#	Modify List	Date	Phase
1	Update JLVDS1 footprint	P10	ME request	2009/12	EVT->DVT
2					EVT->DVT
3					EVT->DVT
4					EVT->DVT
5					EVT->DVT
6					EVT->DVT
7					EVT->DVT
8					EVT->DVT
9					EVT->DVT
10					EVT->DVT
11					EVT->DVT
12					EVT->DVT
13					EVT->DVT
14					EVT->DVT
15					EVT->DVT
16					EVT->DVT
17					EVT->DVT
18					EVT->DVT
19					EVT->DVT
20					EVT->DVT
21					EVT->DVT
22					EVT->DVT
23					EVT->DVT
24					EVT->DVT
25					EVT->DVT
26					EVT->DVT
27					EVT->DVT
28					EVT->DVT
29					EVT->DVT
30					EVT->DVT
31					EVT->DVT
32					EVT->DVT
33					EVT->DVT
34					EVT->DVT
35					EVT->DVT
36					EVT->DVT
37					EVT->DVT
38					EVT->DVT
39					EVT->DVT
40					EVT->DVT
41					EVT->DVT
42					EVT->DVT
43					EVT->DVT
44					EVT->DVT
45					EVT->DVT
46					EVT->DVT
47					EVT->DVT
49					EVT->DVT
49					EVT->DVT
50					EVT->DVT
51					EVT->DVT
52					EVT->DVT
53					EVT->DVT
54					EVT->DVT
55					EVT->DVT
56					EVT->DVT
57					EVT->DVT
58					EVT->DVT
59					EVT->DVT
60					EVT->DVT