Compal Confidential

Model Name : ZIUS6/S7
File Name : LA-A321PR01
BOM P/N:4319OP38L5x -- ZIUS7
4319OP38L0x -- ZIUS6

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ZIUS6/S7 M/B Schematics Document

Intel SharyBay ULT Processor + AMD SUN Pro

2013-03-14

REV:0.2

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Issued Date	2011/06/24	Deciphered Date	2012/07/12	Title: Cover Page
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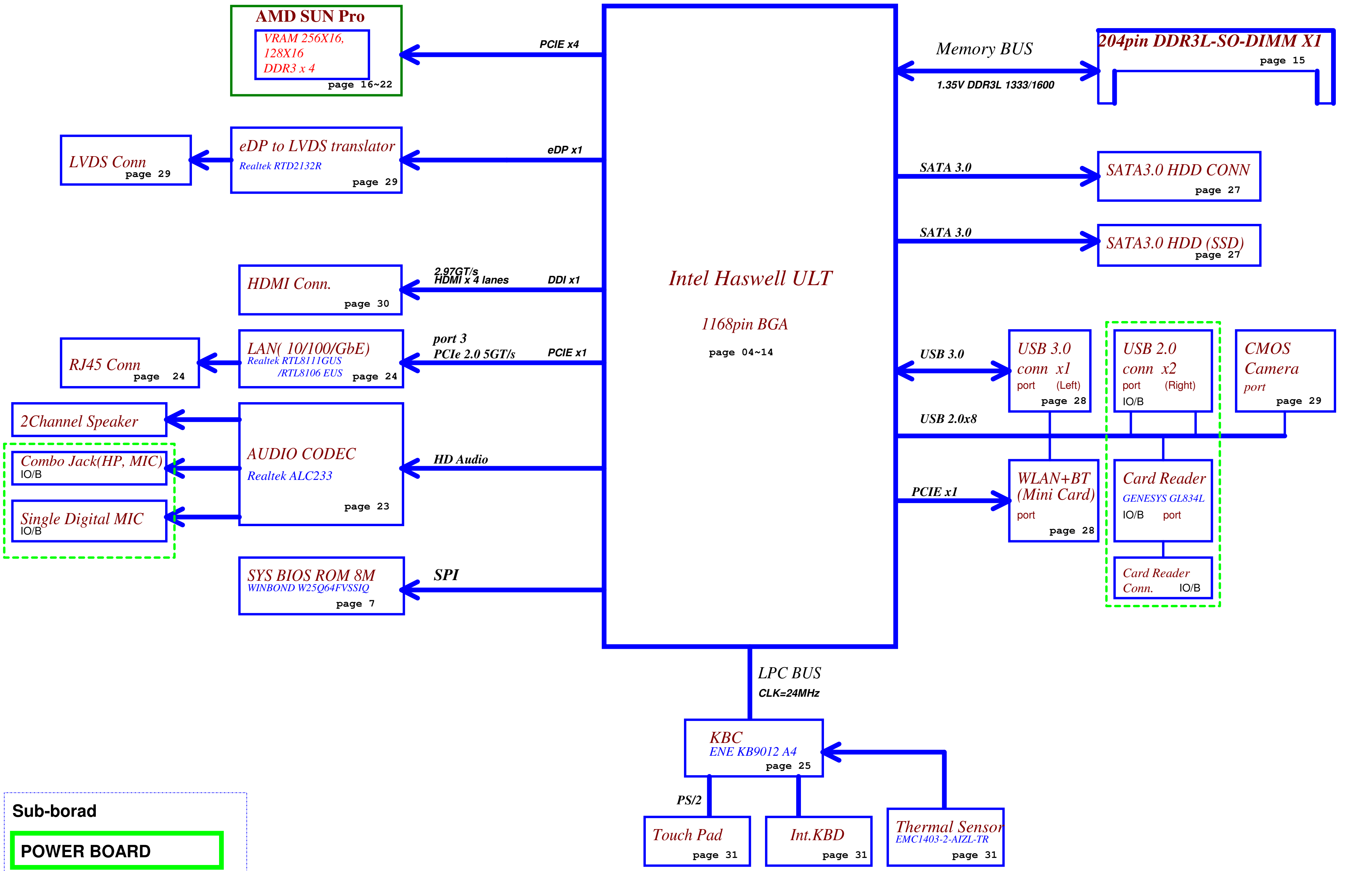
				Date: Thursday, March 14, 2013; Sheet 1 of 46

Compal confidential
File Name :ZIUS6/ZIUS7



Sub-borad

POWER BOARD

LED BOARD

IO Board

Security Classification	Compal Secret Data		
Issued Date	2011/07/21	Deciphered Date	2012/12/31

Compal Electronics, Inc.

Title: **MB Block Diagram**

Size: Custom | Document Number | Rev 0.2

Date: Thursday, March 14, 2013 | Sheet 2 of 46

Voltage Rails

State \ power plane	B+	+5VALW +3VALW	+1.35V	+5VS +3VS +1.5VS +1.05VS_VTT +CPU_CORE +0.675VS +VGA_CORE(PX) +0.95VS_VGA(PX) +3.3VS_VGA(PX) +1.8VS_VGA(PX) +1.5VS_VGA(PX)
S0	O	O	O	O
S3	O	O	O	X
S5 S4/AC	O	O	X	X
S5 S4/ Battery only	X	X	X	X
S5 S4/AC & Battery don't exist	X	X	X	X

STATE \ SIGNAL	SLP_S0#	SLP_S3#	SLP_S4#	SLP_S5#	+VALW	+V	+VS	Clock
Full ON	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	ON
S3 (Suspend to RAM)	LOW	LOW	HIGH	HIGH	ON	ON	OFF	OFF
S4 (Suspend to Disk)	LOW	LOW	LOW	HIGH	ON	OFF	OFF	OFF
S5 (Soft OFF)	LOW	LOW	LOW	LOW	ON	OFF	OFF	OFF

BOM Structure Table

BTO Item	BOM Structure
Connector	ME@
45 LEVEL	45@
Unpop	@
CPU OPTION	CPU1@
INTEL UMA	UMA@
AMD SUN Pro	PX@
VRAM Option	S1G@ M1G@ H1G@ S2G@ M2G@
LAN RTL8111GUS	8111@ SWR@
LAN RTL8106EUS	8106@ SWR@
USB3.0	USB3@
EMI PART	EMI@
ESD PART	ESD@

BOARD ID Table

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

USB 2.0 Port Table

	USB 2.0	Port	3 External USB Port
		0	USB 2.0 Port (I/O Board)
		1	USB 3.0/2.0 Port (MB)
		2	USB 2.0 Port (I/O Board)
		3	Card Reader
		4	Touch Screen (reserve)
		5	Camera
		6	Mini Card (WLAN/BT)
		7	

USB 3.0 Port Table

Port	
1	
2	USB 3.0 Port (MB)
3	
4	

PCIE Port Table

Port	Lane	
1		
2		LAN
3		WLAN
4		
5	0	GPU
	1	
	2	
	3	
6	0	
	1	
	2	
	3	

SATA Port Table

Port	
3	
2	
1	mSATA SSD
0	HDD

EC SM Bus1 address

Device	Address
Smart Battery	
Charger	

EC SM Bus2 address

Device	Address
Thermal Sensor EMC1403-2-AIZL-TR	1001_101xb
Panel - eDP to LVDS translator	
SharkBay ULT	
AMD SUN Pro	

CPU SM Bus address

Device	Address
DDR DIMM0	0XA0
WALN	
Touch Pad	

CPU SML0 Bus address

Device	Address

SMBUS Control Table

	HOST	VGA	BATT	KB9012	SODIMM	WLAN	PANEL sensor ADM1032	Thermal sensor EMC1403	VGA sensor ADM1032	CPU Sensor	Touch Pad	Security ROM	NFC
EC_SMB_CK1 EC_SMB_DA1	KB9012 +3VLP	X	V +3VLP	X	X	X	X	X	X	X	X	X	X
EC_SMB_CK2 EC_SMB_DA2	KB9012 +3VS	V +3VS	X	X	X	X	V +3VS	V +3VS	V +3VS	V +3VALW	X	X	X
SMBCLK SMBDATA	CPU +3VALW	X	X	X	V +3VS	V +3VS	X	X	X	X	V +3VS	V +3VS	V +3VS
SML0CLK SML0DATA	CPU +3VALW	X	X	X	X	X	X	X	X	X	X	X	X
SML1CLK SML1DATA	KB9012 +3VS	X	X	V +3VS	X	X	X	X	X	V +3VALW	X	X	X

CPU part

U1 CPU1@ I5_3317U 1.7G SA00006FY20

U1 CPU2@ I3-4010U 1.7G SA00006SX20

U1 CPU3@ I3-4100U 1.8G SA00006SU20

U1 CPU4@ I5-4250U 1.3G SA00006NM40

U1 CPU5@ I5-4200U 1.6G SA00006SM20

U1 CPU6@ I7-4550U 1.5G SA00006SJ30

U1 CPU7@ I7-4500U 1.8G SA00006SL20

V0.2

PCB part

ZZZ5 PCB 0R LA-A321P REV0 M/B DA600104000

VRAM

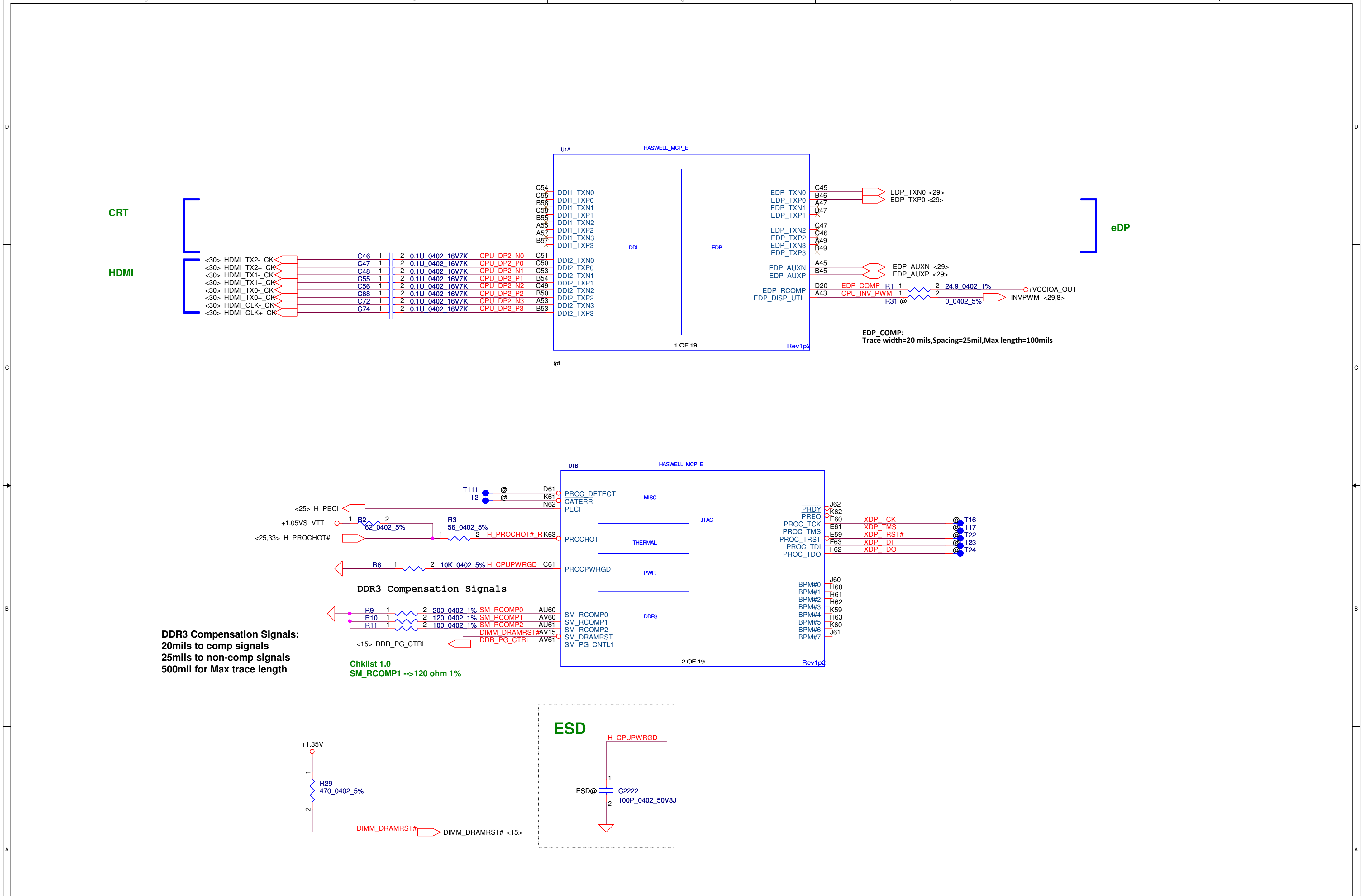
ZZZ3 Samsung S2G@ X7641338L34 K4W4G1646B-HC11

ZZZ7 MICRON M2G@ X7641338L35 MT41K256M16HA-107G:E

ZZZ6 Samsung S1G@ X7641338L31 K4W2G1646E-BC1A

ZZZ4 MICRON M1G@ X7641338L32 MT41J128M16JT-093G:K

ZZZ8 Hunix H1G@ X7641338L33 Hynix 128x16 Vram H5TC2G63FFR-11C



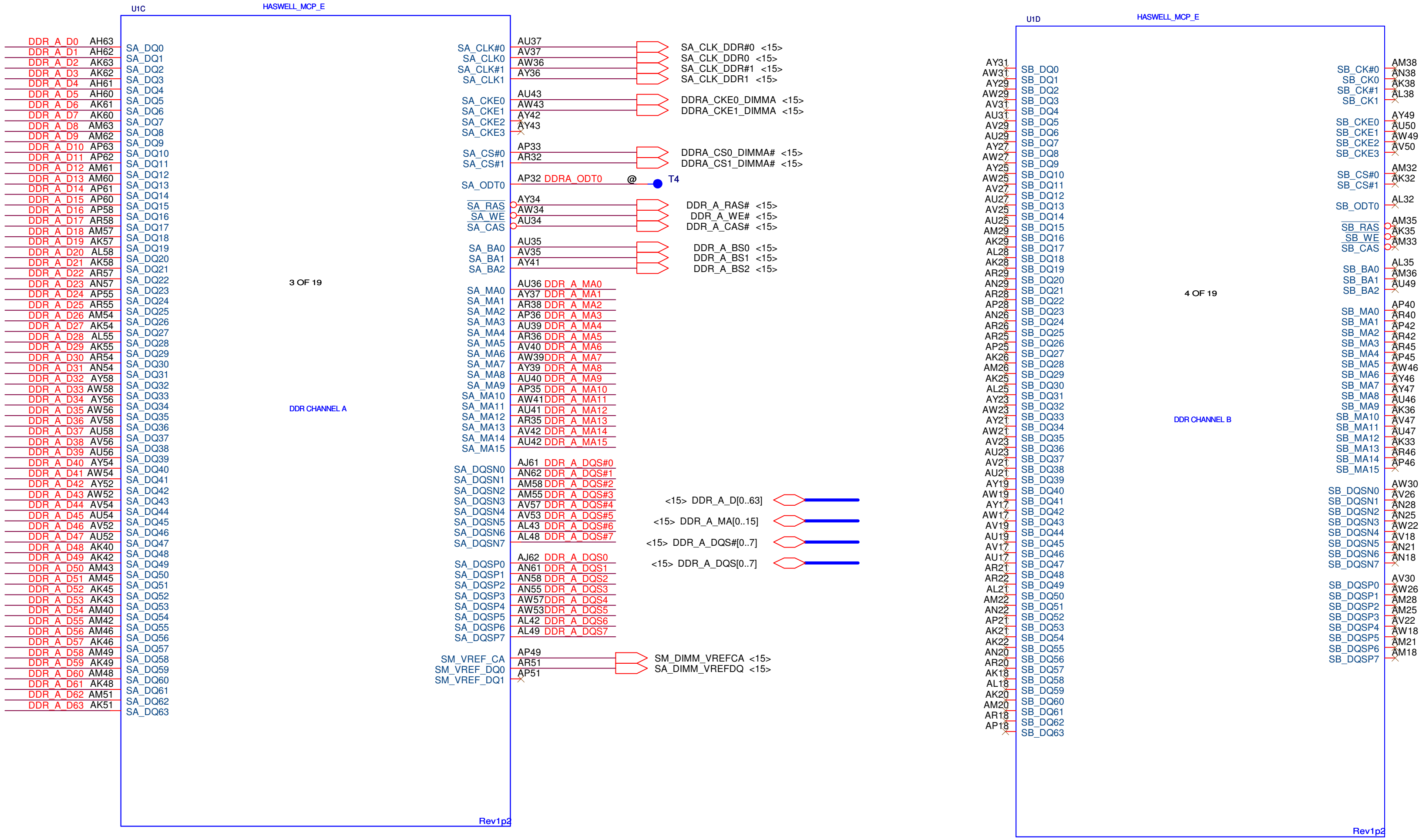
Security Classification	Compal Secret Data		
Issued Date	2011/12/13	Deciphered Date	2012/12/13

Compal Electronics, Inc.

Title: **HSW MCP(1/11) DDI,MSIC,XDP**

Size	Document Number	Rev
Custom	LA-A321PR02	0.2

Date: Thursday, March 14, 2013 | Sheet 4 of 46



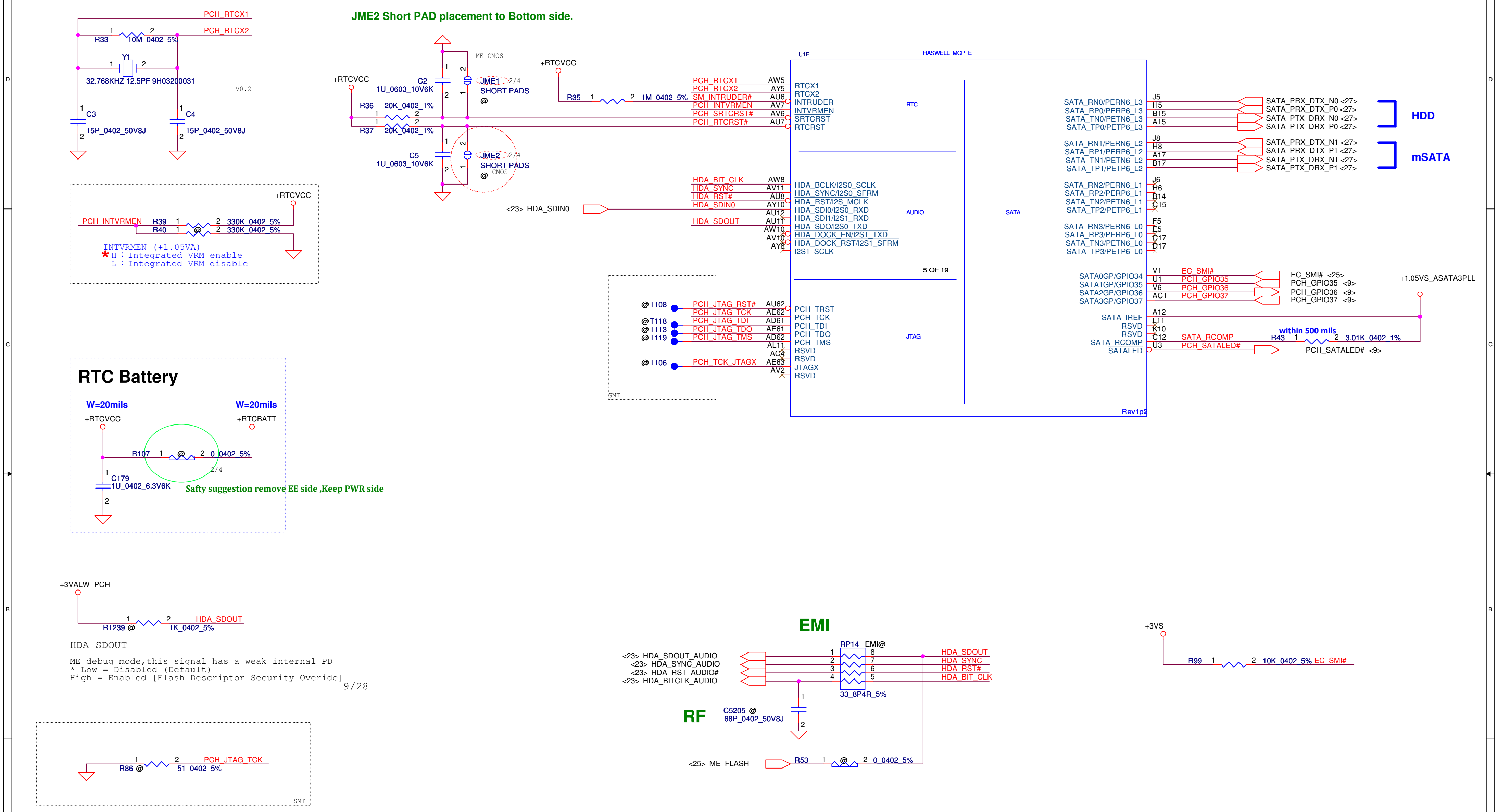
Security Classification	Compal Secret Data		
Issued Date	2011/12/13	Deciphered Date	2012/12/13

Compal Electronics, Inc.

Title: **HSW MCP(2/11) DDRIII**

Size	Document Number	Rev
Custom	LA-A321PR02	0.2

Date: Thursday, March 14, 2013



Security Classification	Compal Secret Data		
Issued Date	2011/12/13	Deciphered Date	2012/12/13

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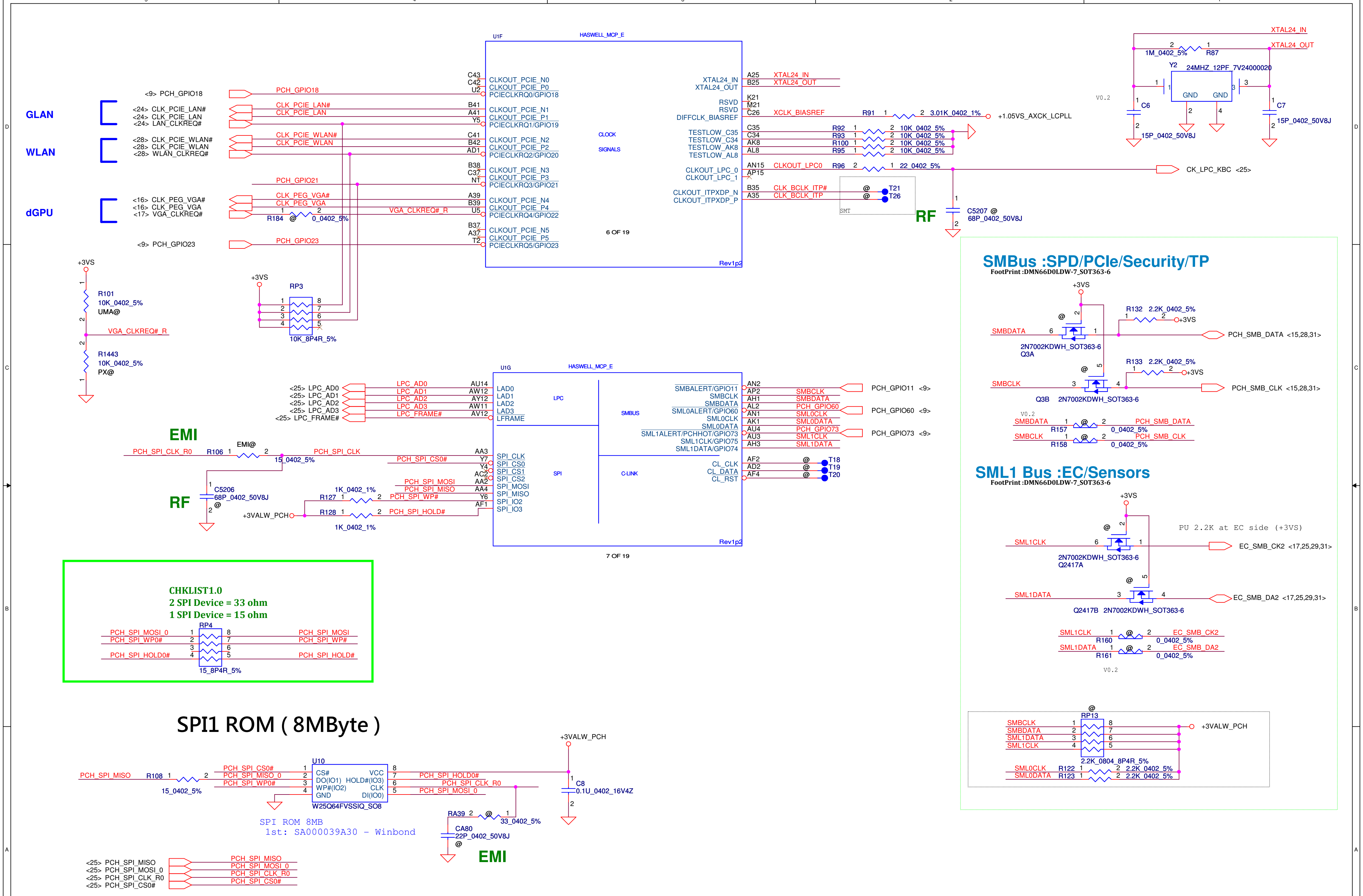
Compal Electronics, Inc.

Title: **HSW MCP(3/11) RTC,SATA,XDP**

Size: Custom | Document Number: LA-A321PR02 | Rev: 0.2

Date: Thursday, March 14, 2013 | Sheet 6 of 46



Security Classification	Compal Secret Data		
Issued Date	2011/12/13	Deciphered Date	2012/12/13

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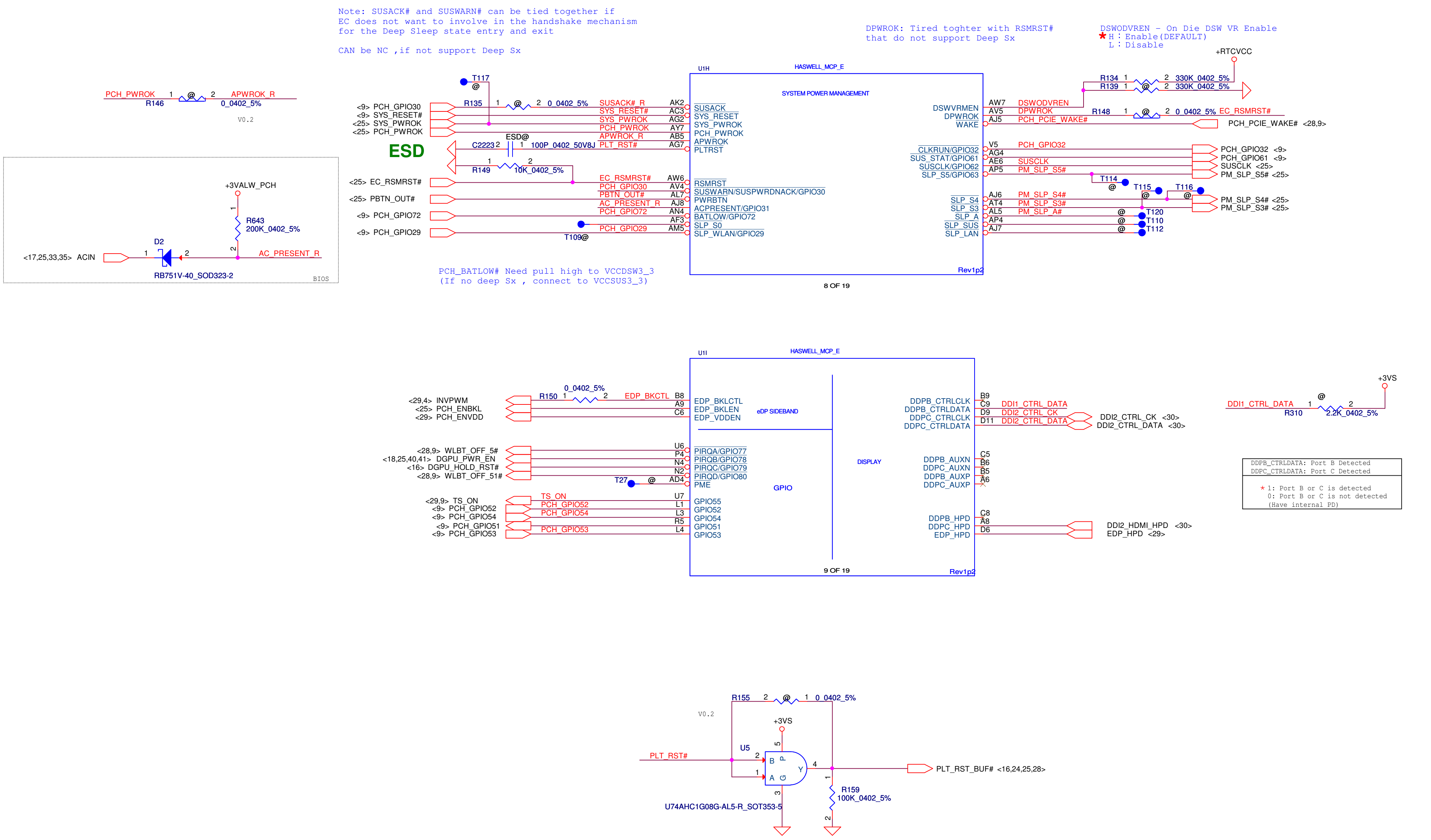
Compal Electronics, Inc.

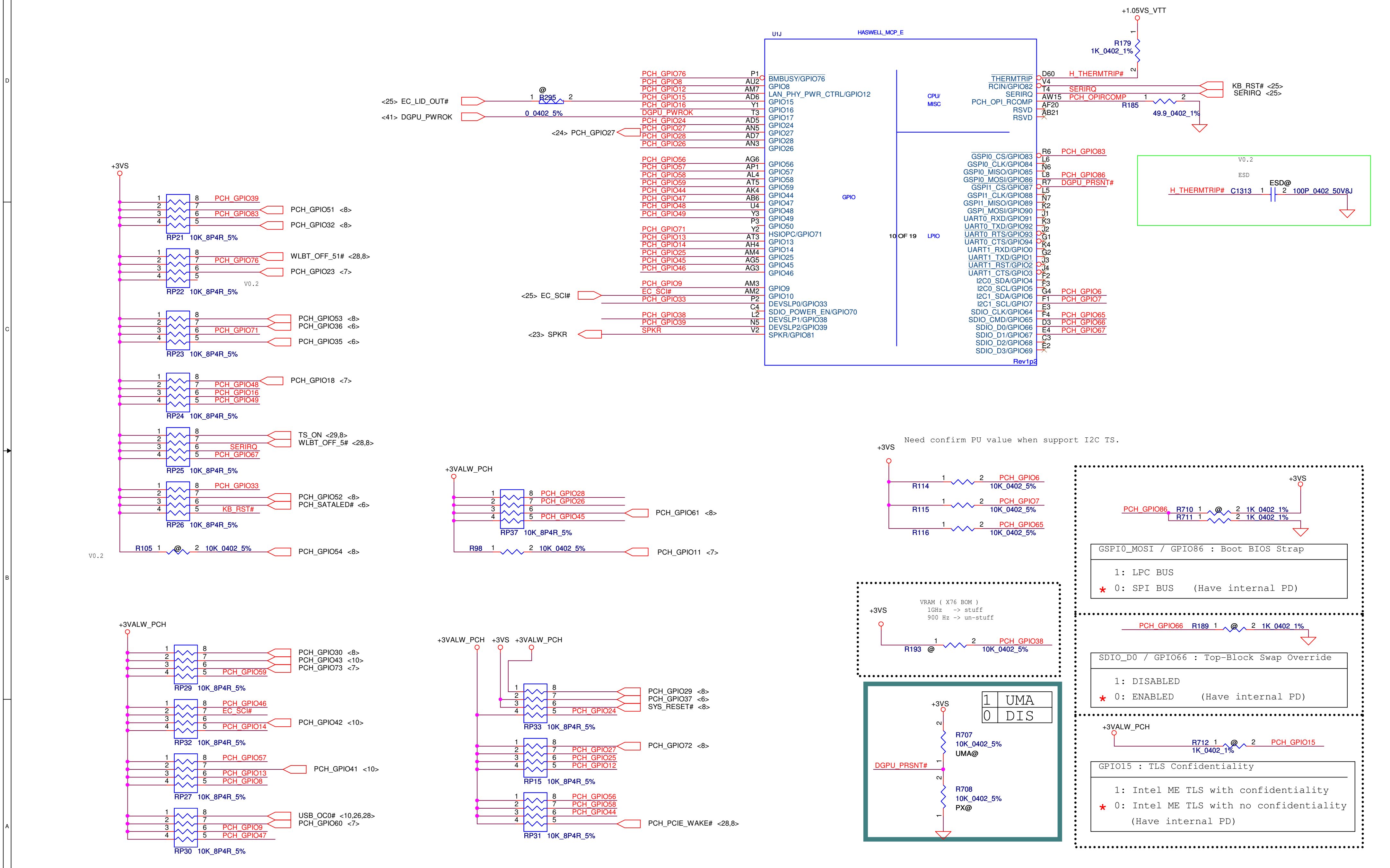
Title: **HSW MCP(4/11) CLK,SPI,SMBUS**

Size: Custom | Document Number: **LA-A321PR02** | Rev: 0.2

Date: Thursday, March 14, 2013 | Sheet 7 of 46

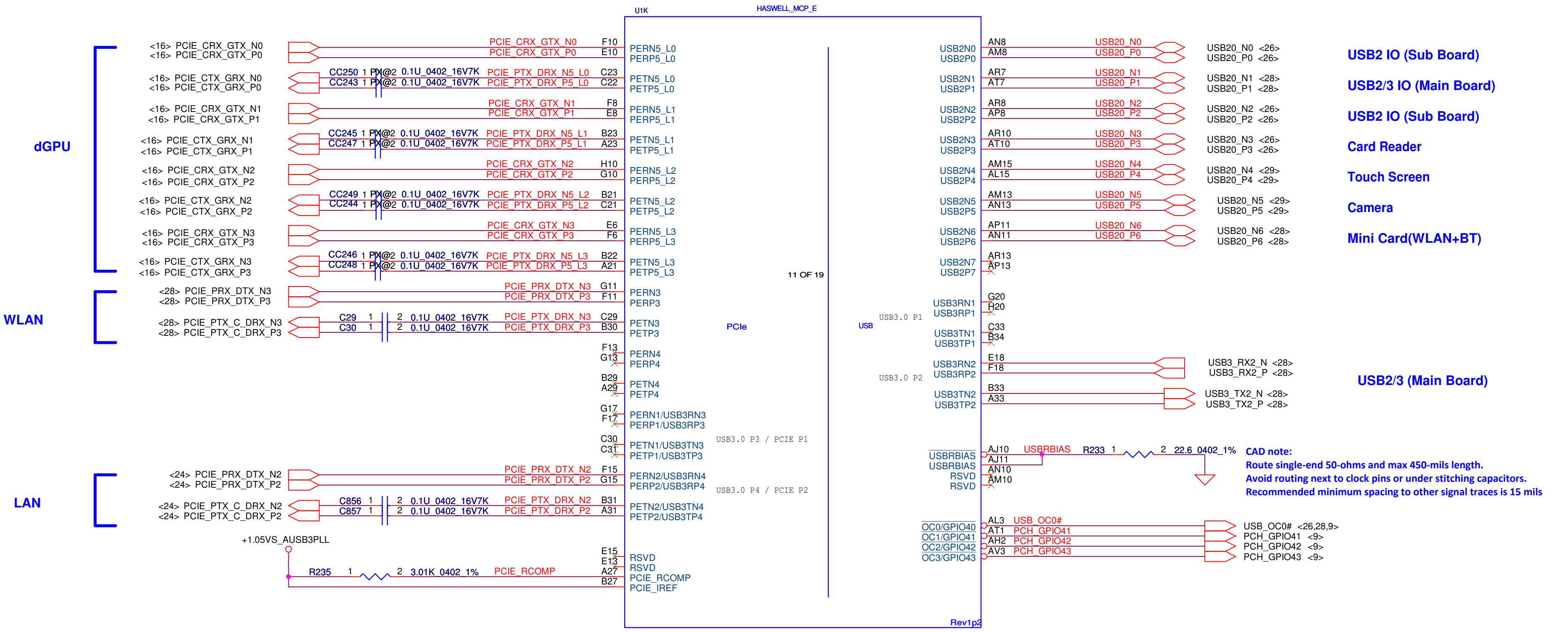


Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2011/12/13	Deciphered Date	2012/12/13	Title: HSW MCP(5/11) PM,GPIO,DDI
				Size: Custom; Document Number: LA-A321PR02; Rev 0.2
				Date: Thursday, March 14, 2013; Sheet 8 of 46



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2011/12/13	Deciphered Date	2012/12/13	Title: HSW MCP(6/11) GPIO,LPIO

Size: Custom | Document Number: LA-A321PR02 | Rev 0.2

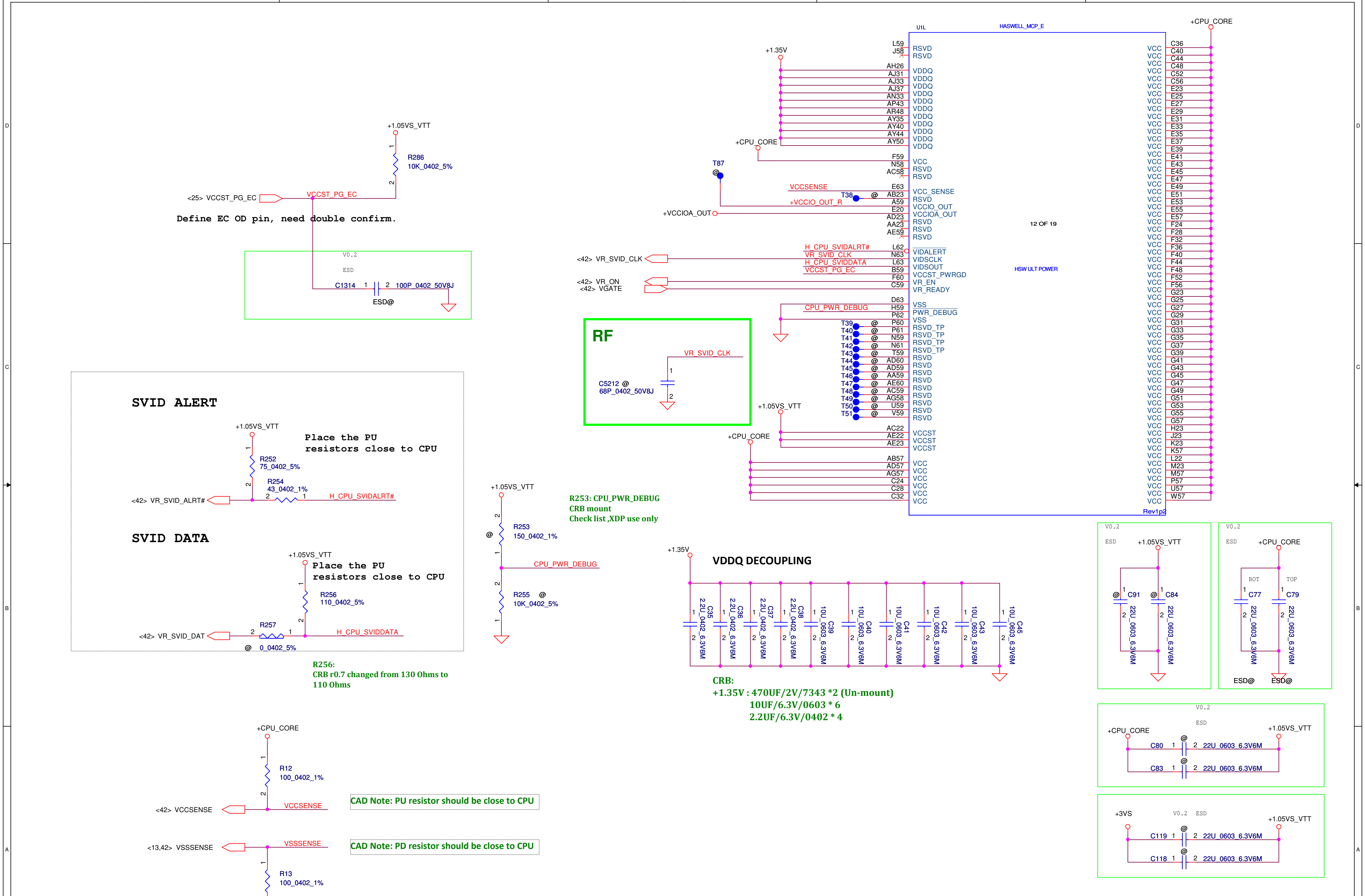


Security Classification	Compal Secret Data		
Issued Date	2011/12/13	Deciphered Date	2012/12/13

Compal Electronics, Inc.

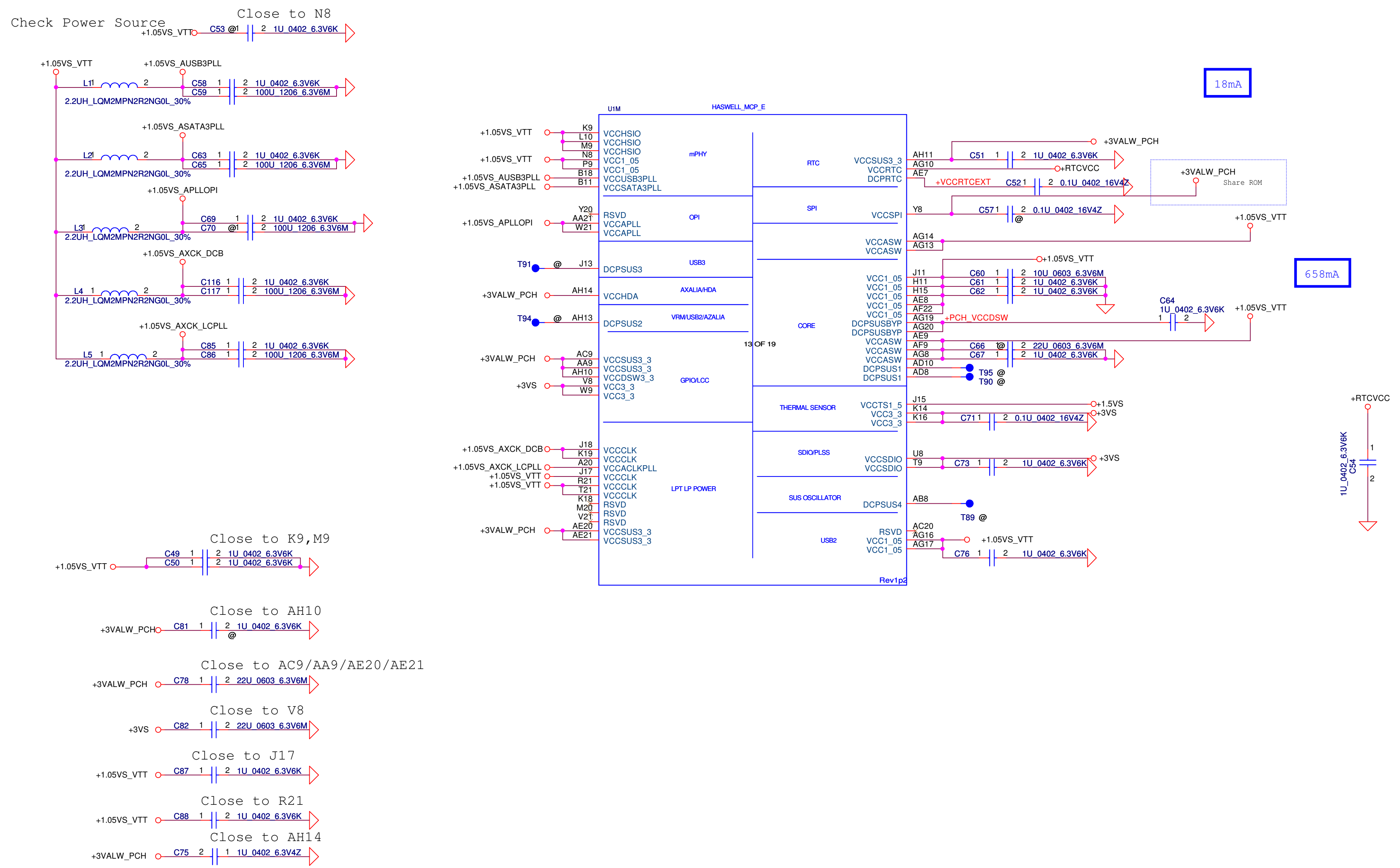
Title: **HSW MCP(7/11) PCIE,USB**

Size: Custom | Document Number: **LA-A321PR02** | Rev 0.2



Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2011/12/13	Deciphered Date 2012/12/13	Title: HSW MCP(8/11) Power

Size: Custom | Document Number: LA-A321PR02 | Rev 0.2



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2011/12/13	Deciphered Date	2012/12/13	Title: HSW MCP(9/11) Power

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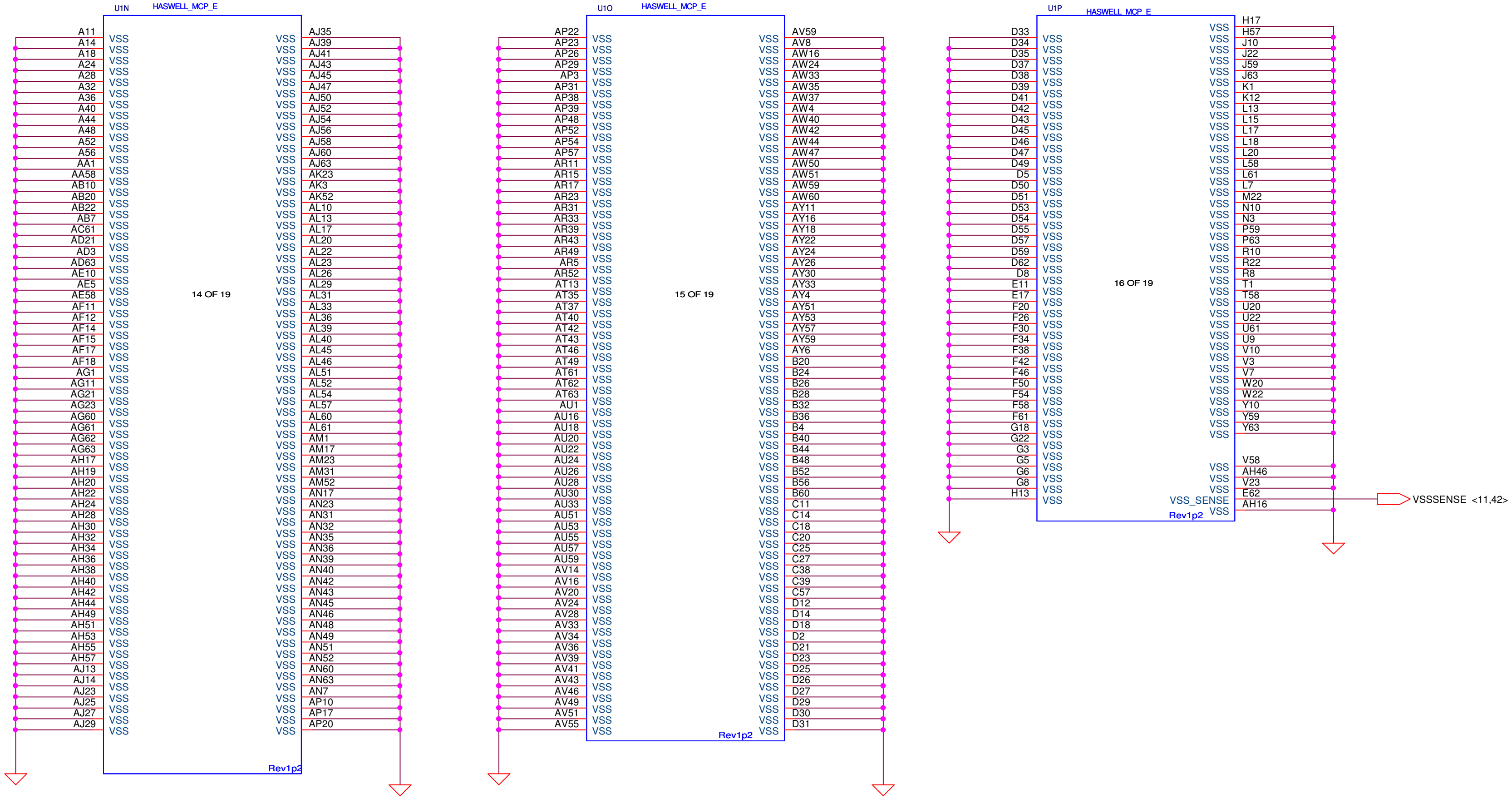
Date: Thursday, March 14, 2013 | Sheet 12 of 46



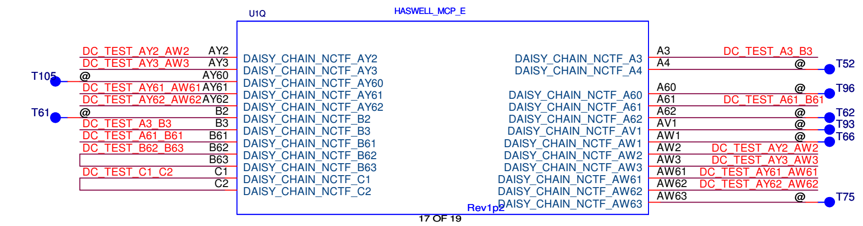
Security Classification	Compal Secret Data		
Issued Date	2011/12/13	Deciphered Date	2012/12/13

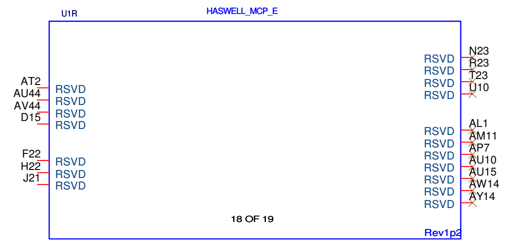
Compal Electronics, Inc.

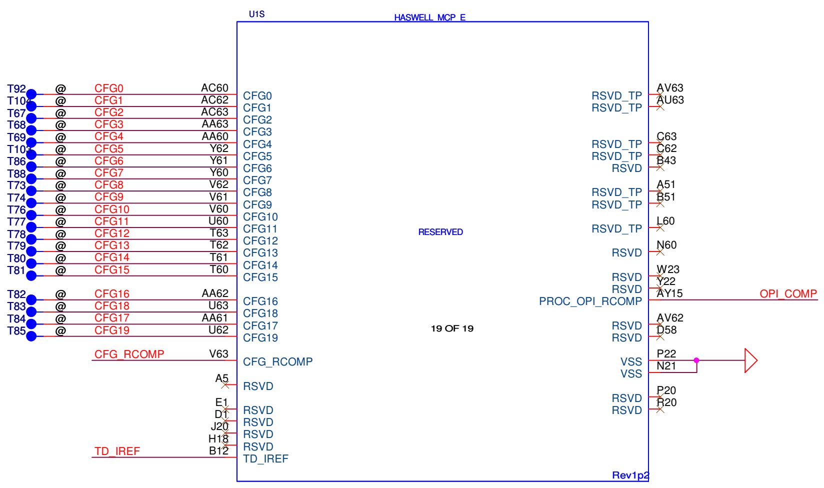
Title: **HSW MCP(10/11) GND**

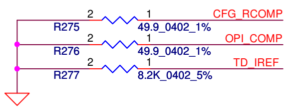
Size: Custom | Document Number: **LA-A321PR02** | Rev: 0.2

Date: Thursday, March 14, 2013 | Sheet 13 of 46

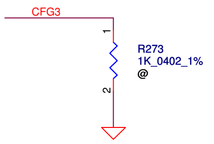




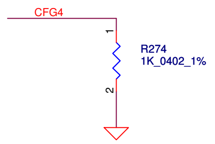




CFG Straps for Processor



Physical Debug Enable (DFX Privacy)	
CFG3	1: DISABLED 0: ENABLED; SET DFX ENABLED BIT IN DEBUG INTERFACE MSR



Display Port Presence Strap	
CFG4	1 : Disabled; No Physical Display Port attached to Embedded Display Port 0 : Enabled; An external Display Port device is connected to the Embedded Display Port

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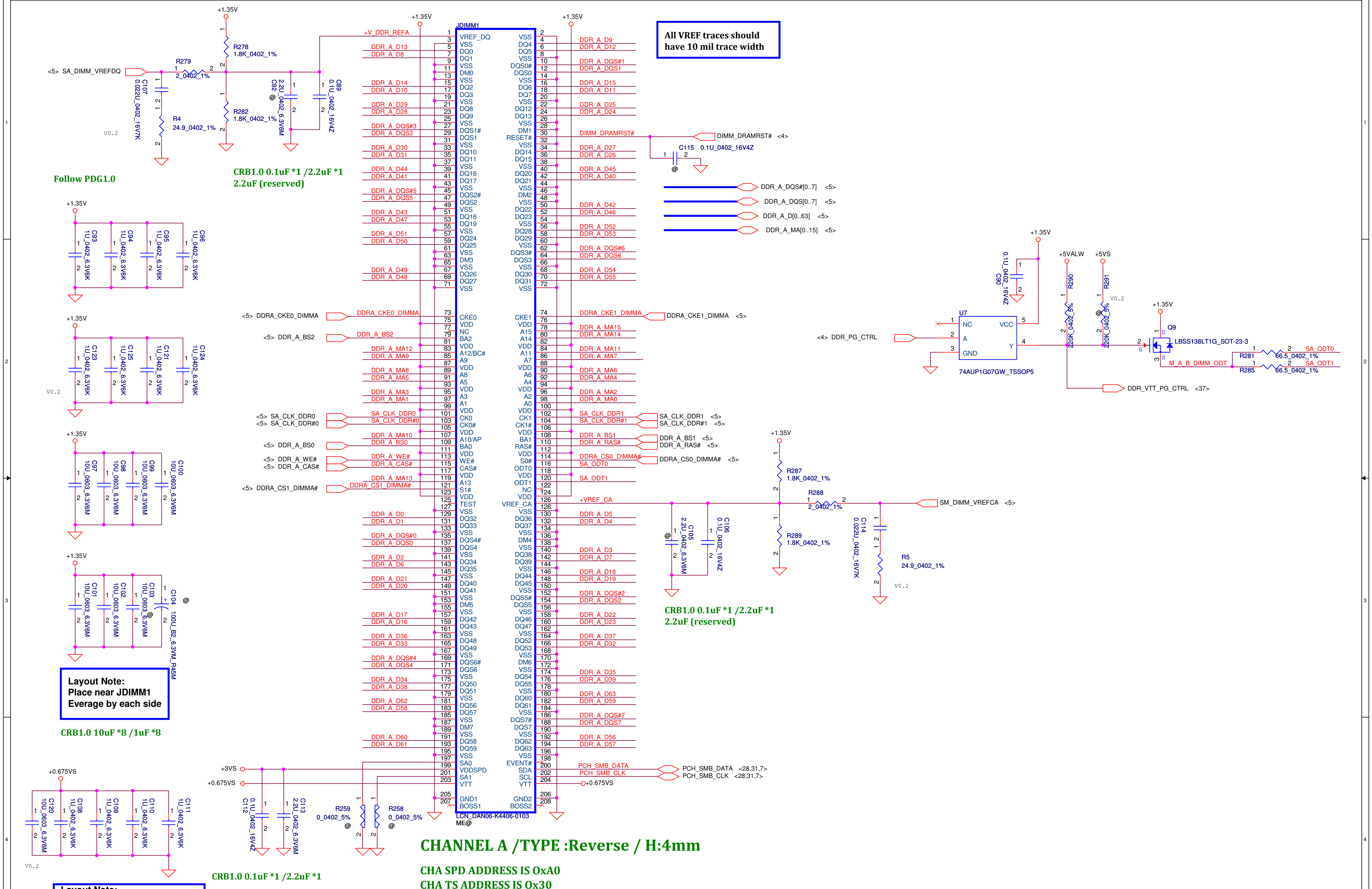
				Date: Thursday, March 14, 2013; Sheet 14 of 46



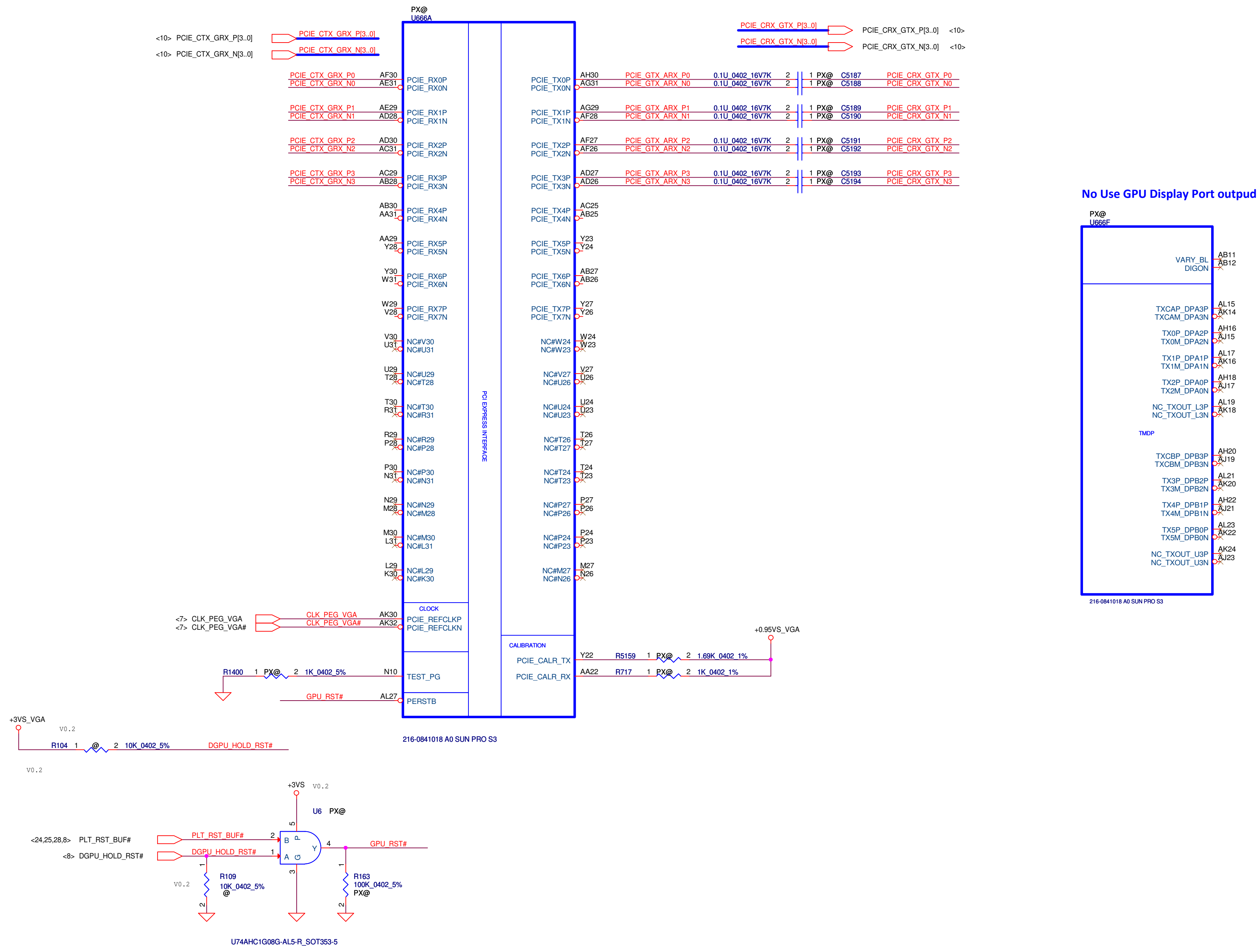
Security Classification	Compal Secret Data		
Issued Date	2011/12/13	Deciphered Date	2012/12/13

Compal Electronics, Inc.

Title: **DDRIII DIMMA**

Size: Custom — Document Number: **LA-A321PR02** — Rev: 0.2

Date: Thursday, March 14, 2013 —



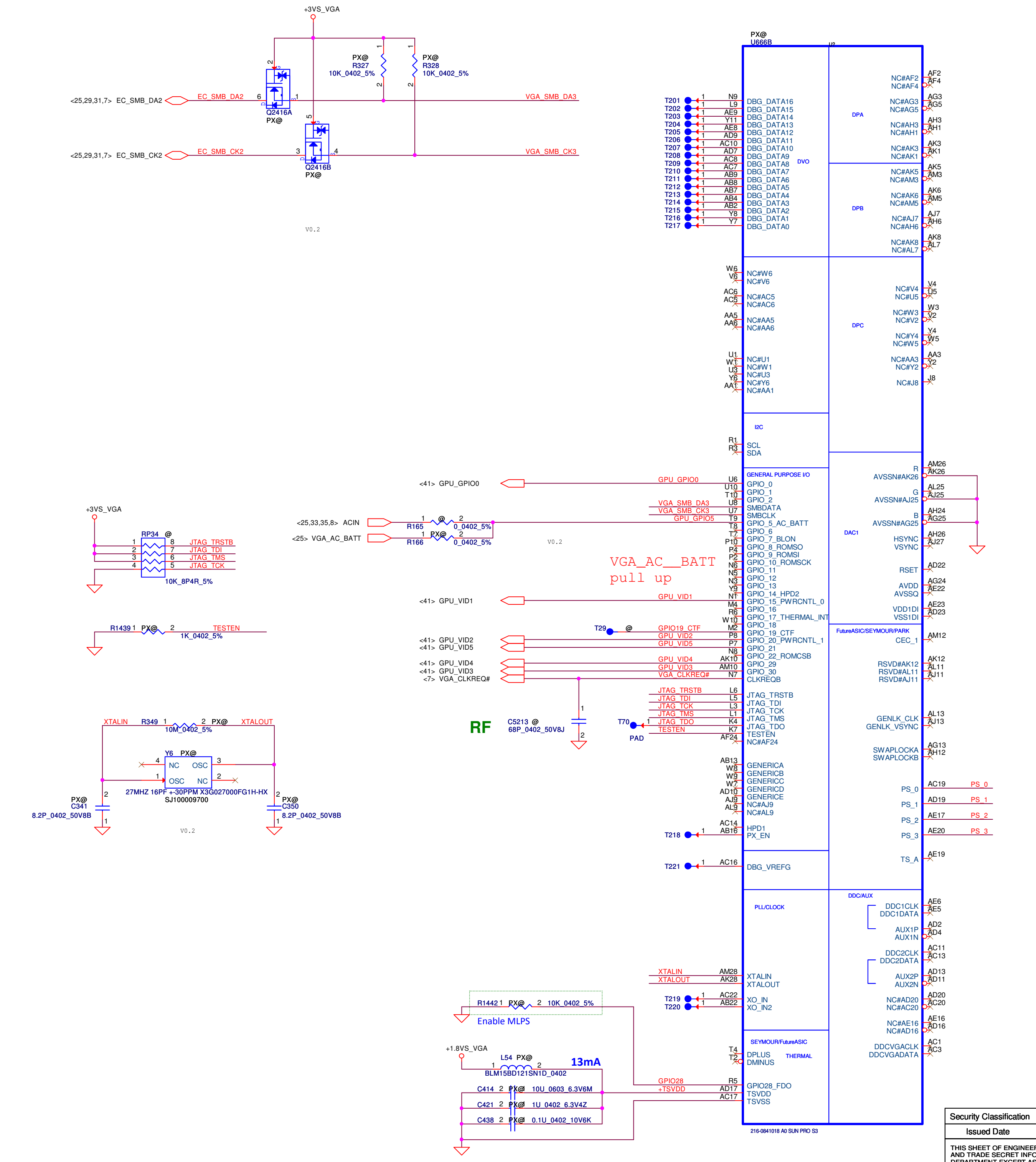
Security Classification	Compal Secret Data		
Issued Date	2013/01/11	Deciphered Date	2013/12/31

Compal Electronics, Inc.

Title: SUN_PCIE/DP

Size: Custom | Document Number: LA-A321PR02 | Rev: 0.2

Date: Thursday, March 14, 2013 | Sheet 16 of 46



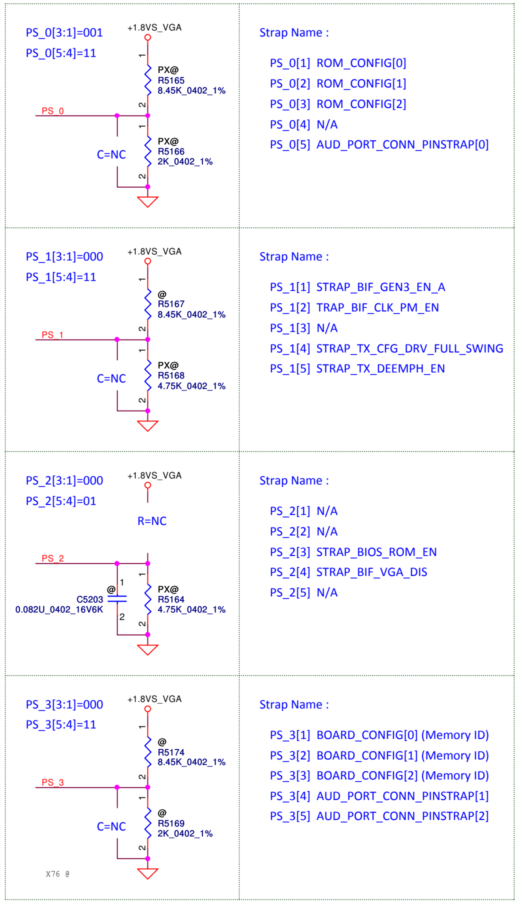
Resistor Divider Lookup Lable

R_pu (ohm)	R_pd (ohm)	Bitd [3:1]
NC	4.75k	000
8.45k	2k	001
4.53k	2k	010
6.98k	4.99k	011
4.53k	4.99k	100
3.24k	5.62k	101
3.4k	10k	110
4.75k	NC	111

0402 1% resistors are equired

Capacitor Divider Lookup Lable

Cap (nF)	Bitd [5:4]
680nF	00
82nF	01
10nF	10
NC	11



PS_0[3:1]=001
PS_0[5:4]=11

Strap Name :
PS_0[1] ROM_CONFIG[0]
PS_0[2] ROM_CONFIG[1]
PS_0[3] ROM_CONFIG[2]
PS_0[4] N/A
PS_0[5] AUD_PORT_CONN_PINSTRAP[0]

PS_1[3:1]=000
PS_1[5:4]=11

Strap Name :
PS_1[1] STRAP_BIF_GEN3_EN_A
PS_1[2] TRAP_BIF_CLK_PM_EN
PS_1[3] N/A
PS_1[4] STRAP_TX_CFG_DRV_FULL_SWING
PS_1[5] STRAP_TX_DEEMPH_EN

PS_2[3:1]=000
PS_2[5:4]=01

Strap Name :
PS_2[1] N/A
PS_2[2] N/A
PS_2[3] STRAP_BIOS_ROM_EN
PS_2[4] STRAP_BIF_VGA_DIS
PS_2[5] N/A

PS_3[3:1]=000
PS_3[5:4]=11

Strap Name :
PS_3[1] BOARD_CONFIG[0] (Memory ID)
PS_3[2] BOARD_CONFIG[1] (Memory ID)
PS_3[3] BOARD_CONFIG[2] (Memory ID)
PS_3[4] AUD_PORT_CONN_PINSTRAP[1]
PS_3[5] AUD_PORT_CONN_PINSTRAP[2]

(default)

Memory ID	Memory Type	Configuration	Size
000	SA000068U00	Samsung K4W2G1646E-BC1A	1GB
001	SA000067500	Micron MT41J128M16JT-093G:K	1GB
010	SA00006H400	Hynix H5TC2G63FFR-11C	1GB
011	SA000068R10	Samsung K4W4G1646B-HC11	2GB
100	SA000065D20	Micron MT41K256M16HA-107G:E	2GB

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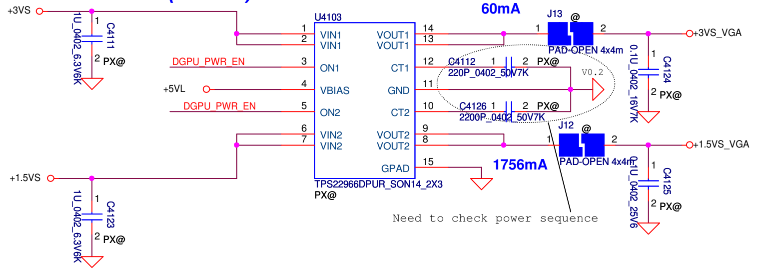
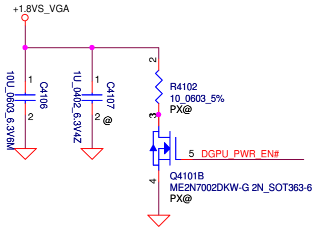
Compal Electronics, Inc.
Title: SUN_MSIC
Size: Custom Document Number: LA-A321PR02 Rev: 0.2

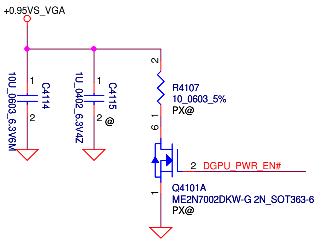
+3VS to +3VSG (60mA)
+1.5V to +1.5VSG (2.096A)



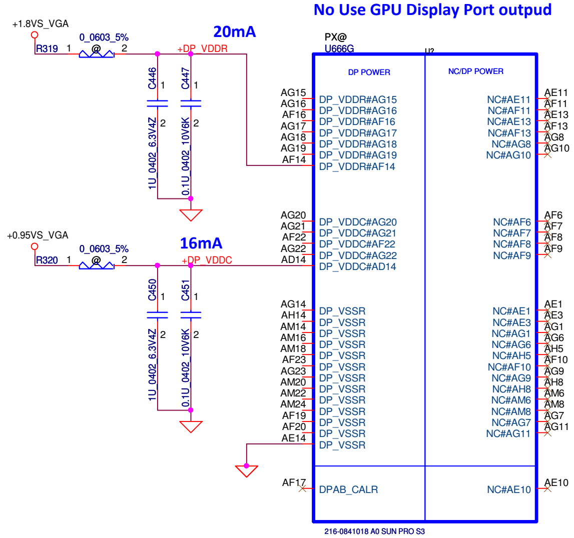
+1.8VALW to +1.8VSG (818mA)

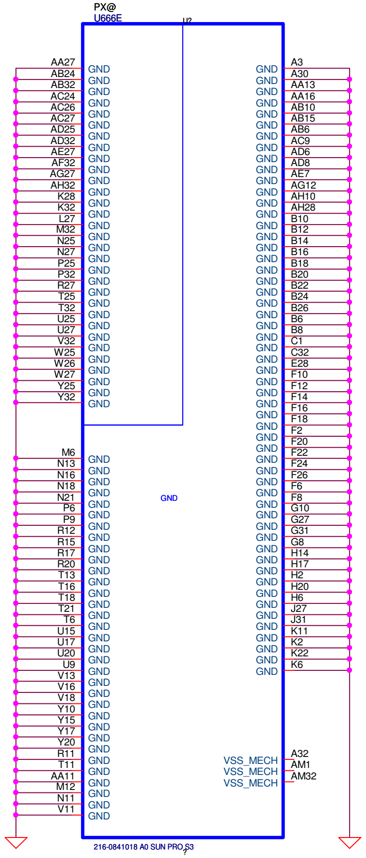


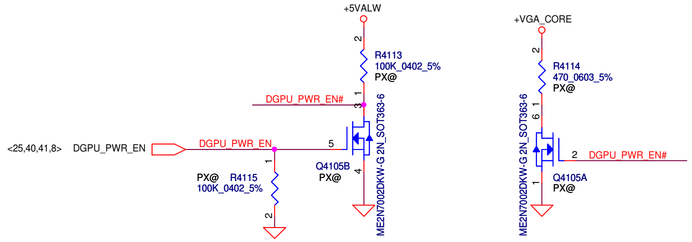
+0.95VALW to +0.95VSG (4.016A)



No Use GPU Display Port outpud







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				Date: Tuesday, March 19, 2013; Sheet 18 of 46

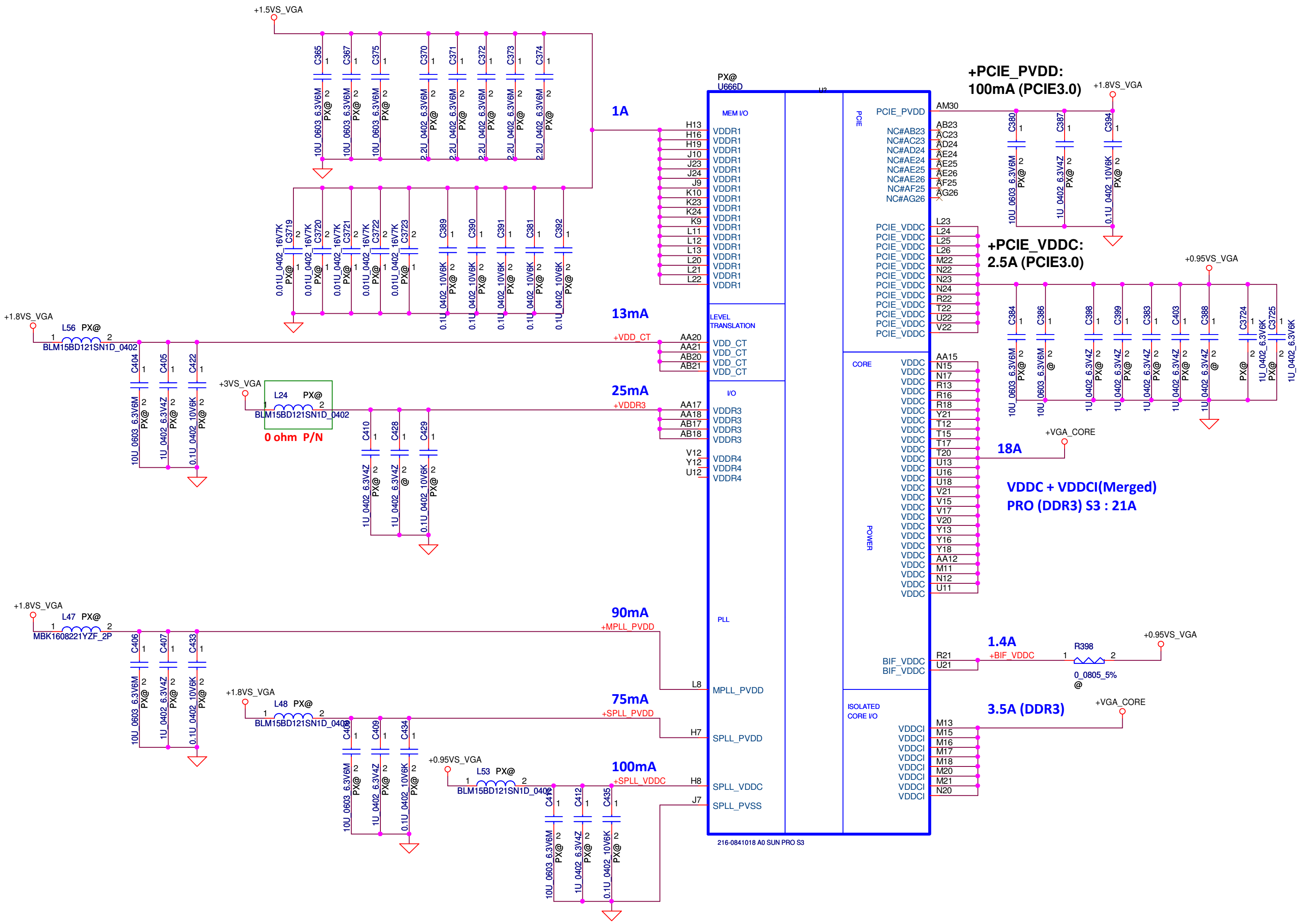
+VGA_CORE		10uF	1uF	0.1uF
VDDC	TBD	5 (1@)	10 (2@)	0
VDDCI	3.5A	1	3	0

+0.95VS_VGA		10uF	1uF	0.1uF
PCIE_VDDC	2.5A	2 (1@)	5 (1@)	0
BIF_VDDC	1.4A	0	0	0
SPLL_VDDC	100mA	1	1	1

+1.5VS_VGA		10uF	1uF	0.1uF
VDDR1	1.5A	3	5	5

+1.8VS_VGA		10uF	1uF	0.1uF
PCIE_PVDD	100mA	1	1	1
MPLL_PVDD	130mA	1	1	1
SPLL_PVDD	75mA	1	1	1
VDDR4	(300mA)	0	0	0
VDD_CT	13mA	1	1	1
+TSVDD	13mA	1	1	1
+DP_VDDR		0	0	0
+DP_VDDC		0	0	0

+3VS_VGA		10uF	1uF	0.1uF
VDDR3	25mA	0	2 (1@)	1



Security Classification	Compal Secret Data		
Issued Date	2013/01/11	Deciphered Date	2013/12/31

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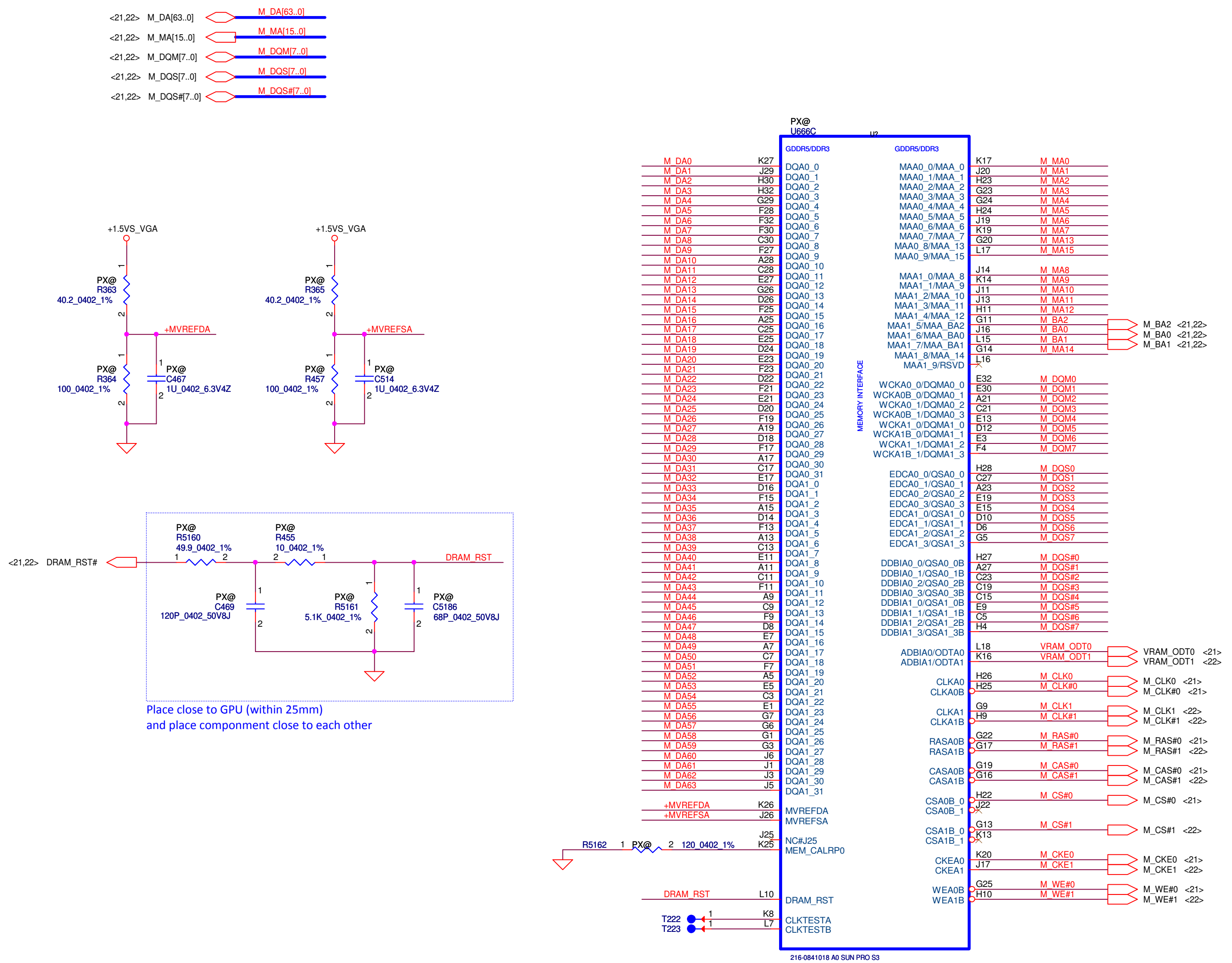
Compal Electronics, Inc.

Title: **SUN_Power**

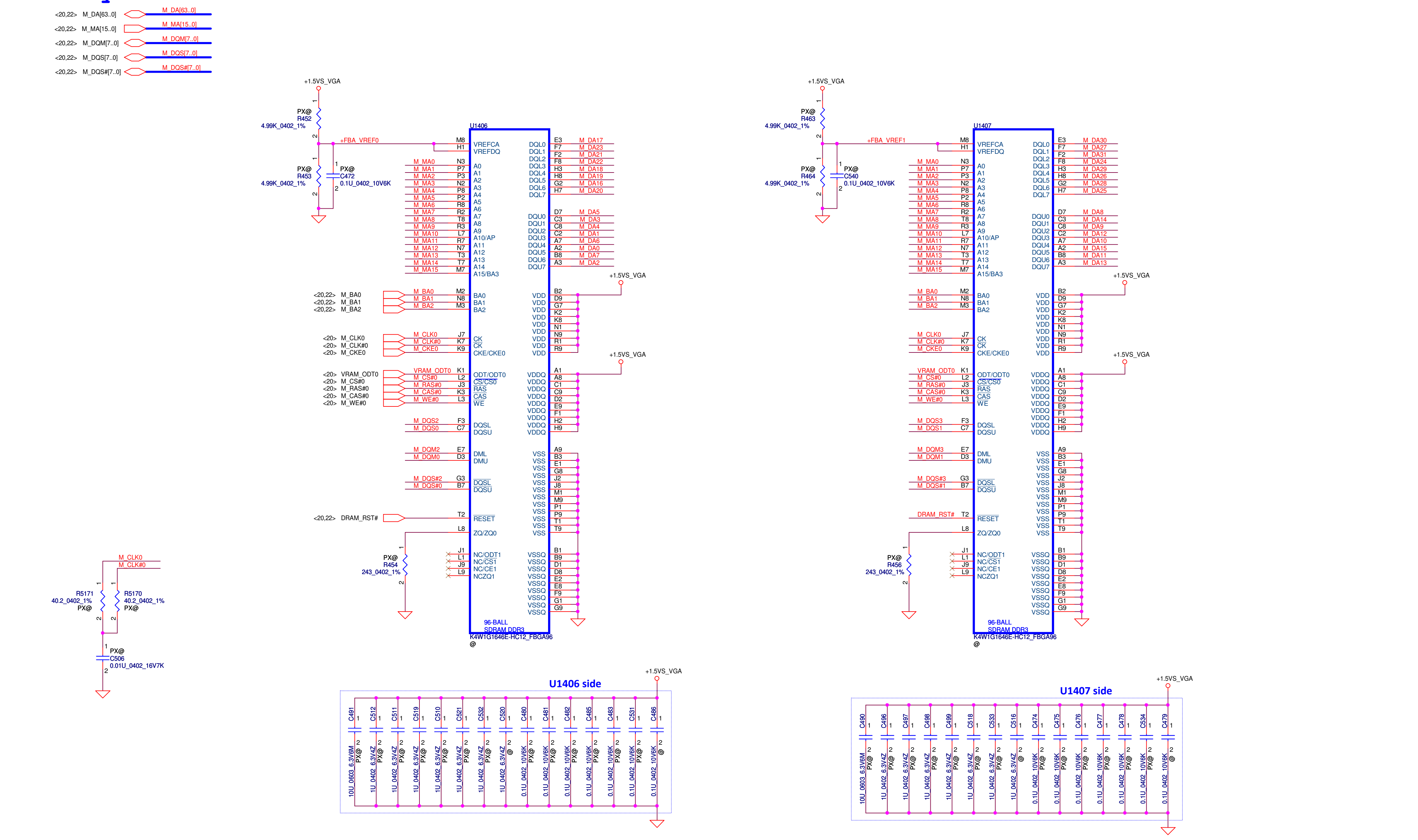
Size: Custom | Document Number: LA-A321PR02 | Rev: 0.2

Date: Thursday, March 14, 2013 | Sheet 19 of 46



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2013/01/11	Deciphered Date	2013/12/31	Title: SUN_MEM
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 TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size: Custom; Document Number: LA-A321PR02; Rev 0.2
				Date: Thursday, March 14, 2013; Sheet 20 of 46

Memory Partition A - Lower 32 bits



Security Classification	Compal Secret Data		
Issued Date	2013/01/11	Deciphered Date	2013/12/31

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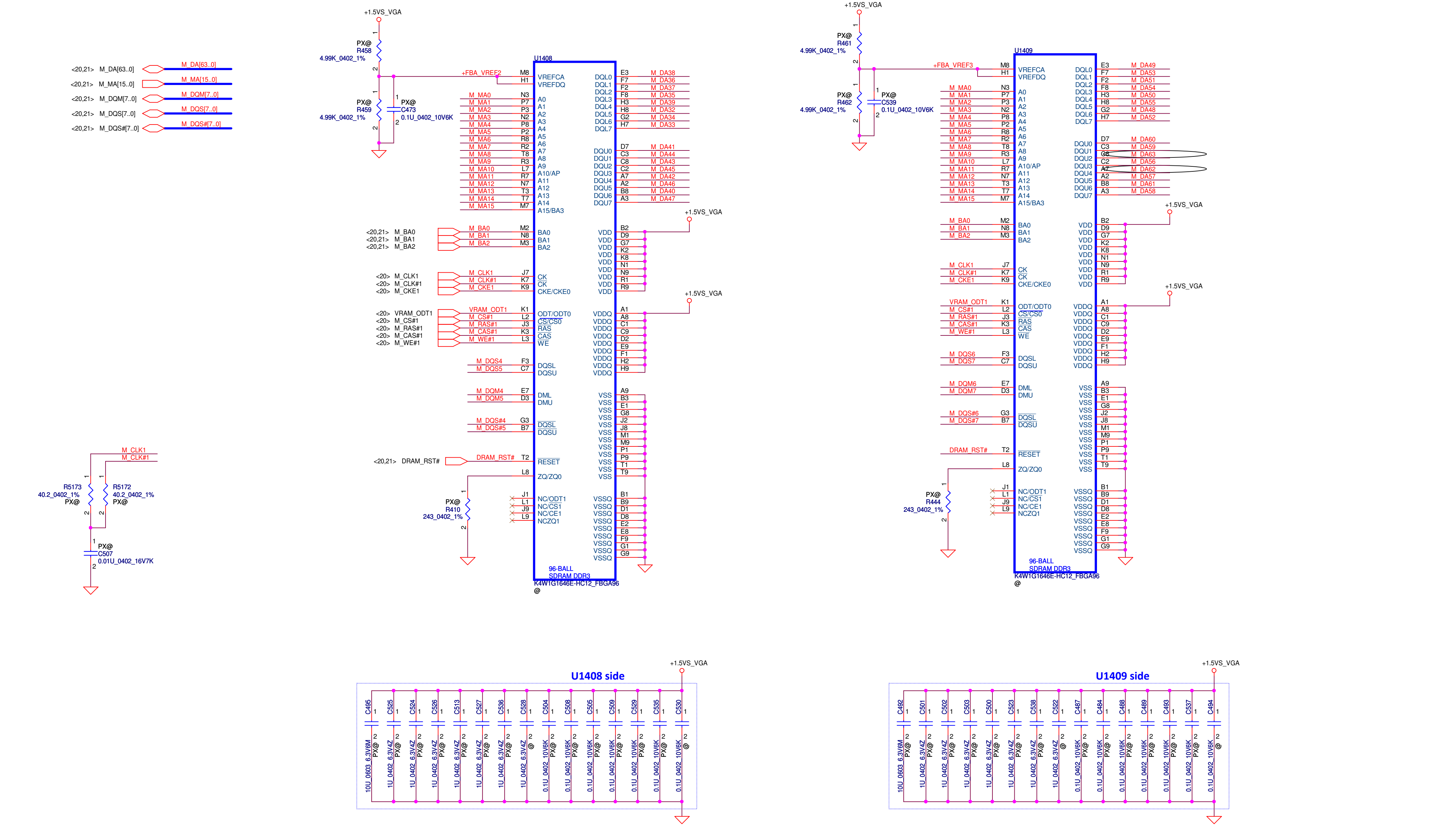
Compal Electronics, Inc.

Title	SUN_VRAM A Lower	
Size: Custom	Document Number: LA-A321PR02	Rev: 0.2
Date: Thursday, March 14, 2013	Sheet 21 of 46	

Memory Partition A - Upper 32 bits

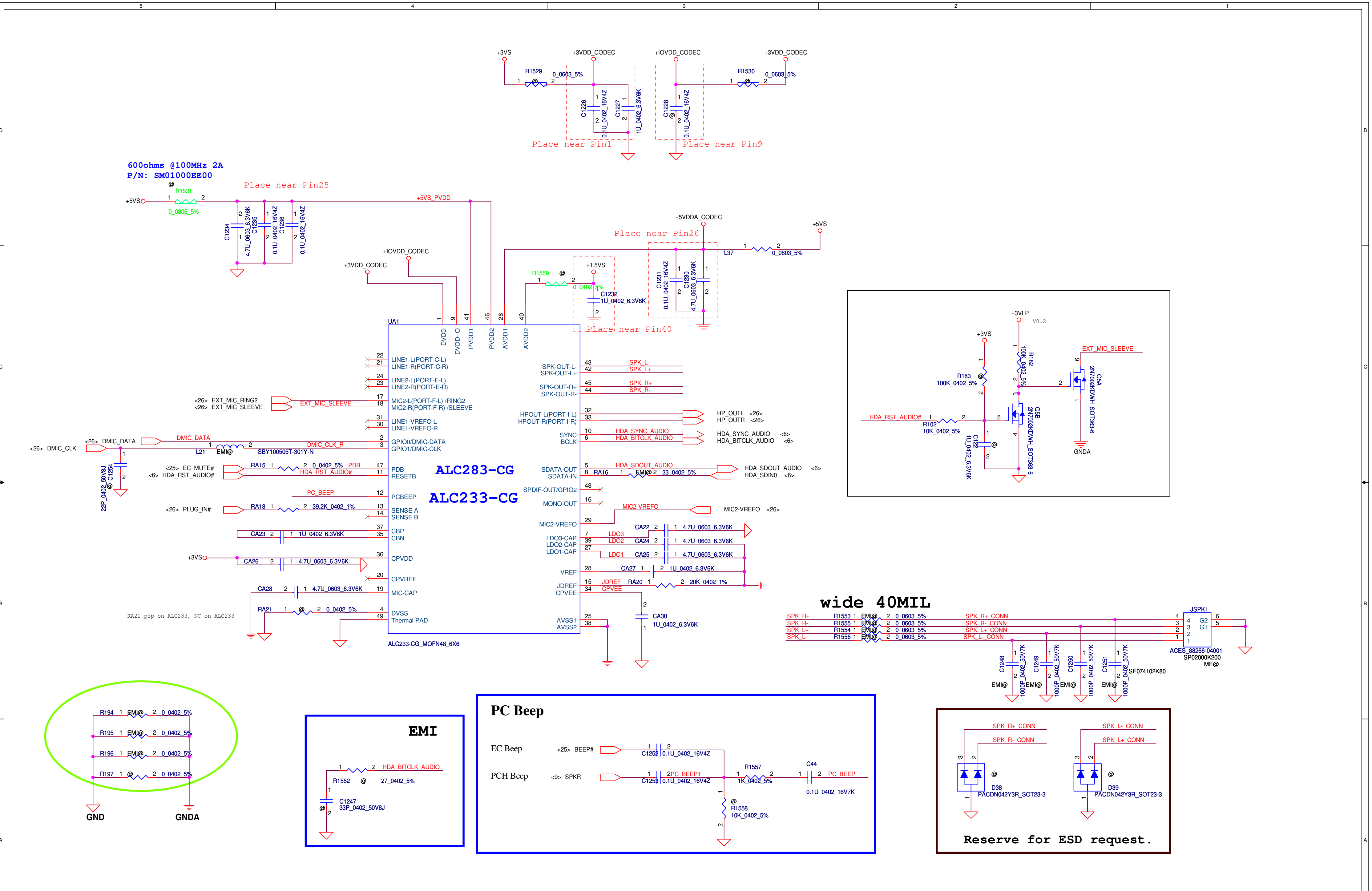


Security Classification	Compal Secret Data		
Issued Date	2013/01/11	Deciphered Date	2013/12/31

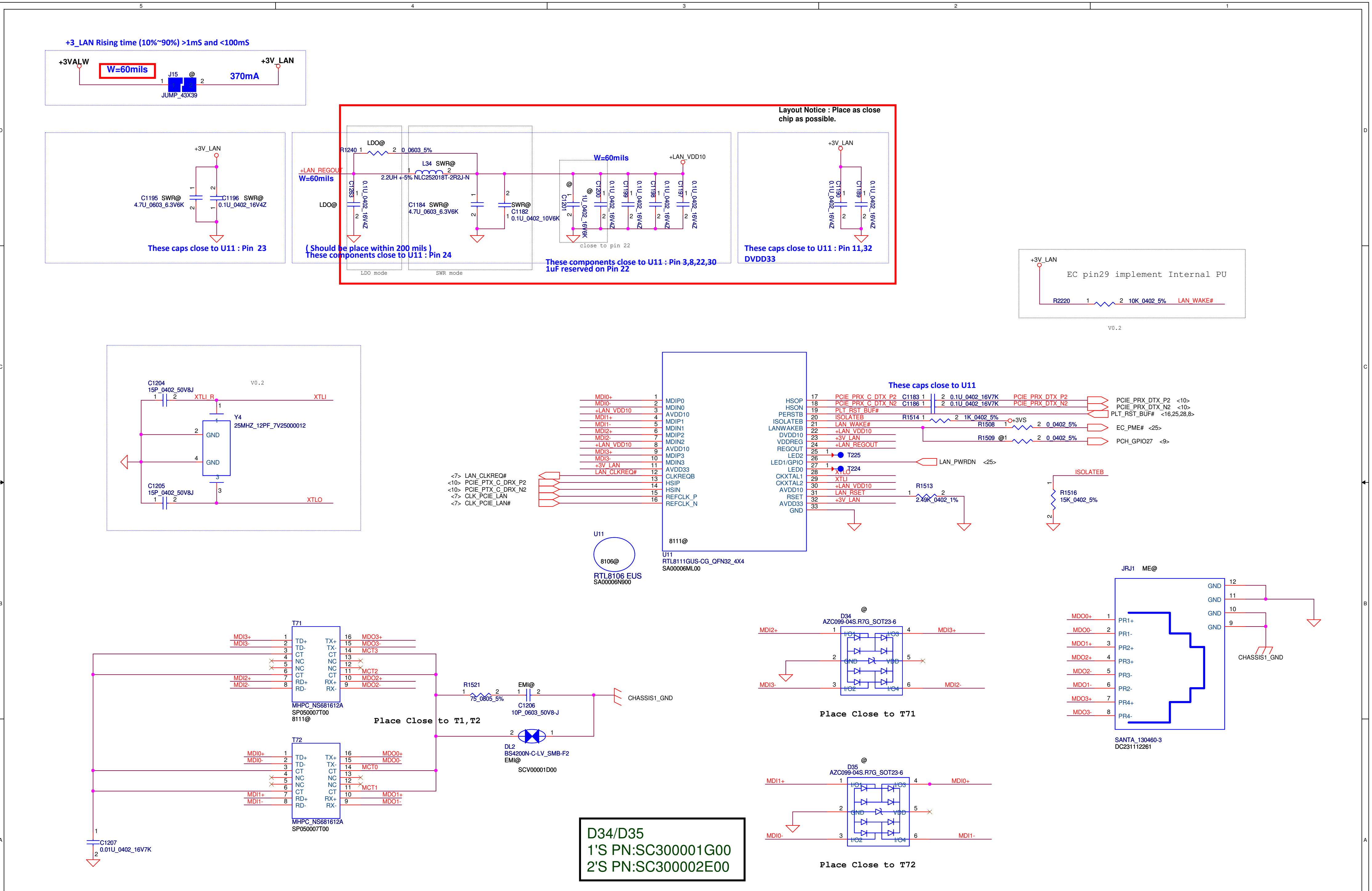
Compal Electronics, Inc.

Title: SUN_VRAM A Upper

Size: Custom | Document Number: LA-A321PR02 | Rev: 0.2



Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2011/07/21	Deciphered Date 2012/12/31	Title: HD Audio Codec_ALC259Q-VC
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 TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			Size: Custom; Document Number: LA-A321PR02; Rev 0.2
			Date: Thursday, March 14, 2013; Sheet 23 of 46

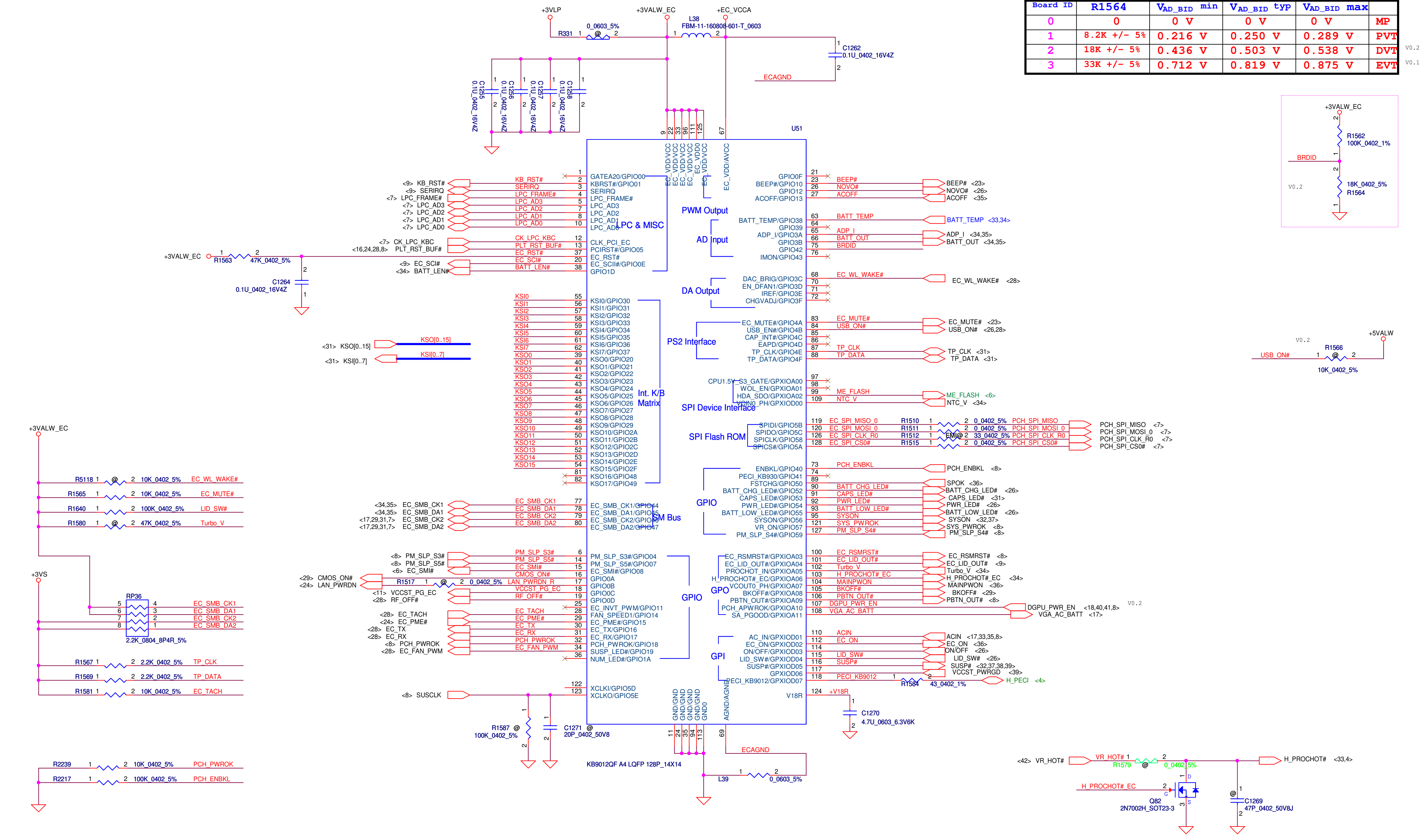


Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2011/06/15	Deciphered Date 2012/07/11	Title: LAN-RTL8111GUS/8106EUS
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			Size: Custom; Document Number: LA-A321PR02; Rev 0.2
			Date: Tuesday, March 19, 2013; Sheet 24 of 46

Vcc	3.3V +/- 5%
R1562	100K +/- 5%

Board ID	R1564	V_{AD_BID} min	V_{AD_BID} typ	V_{AD_BID} max	
0	0	0 V	0 V	0 V	MP
1	8.2K +/- 5%	0.216 V	0.250 V	0.289 V	PVT
2	18K +/- 5%	0.436 V	0.503 V	0.538 V	DVT
3	33K +/- 5%	0.712 V	0.819 V	0.875 V	EVT

V0.2
V0.1



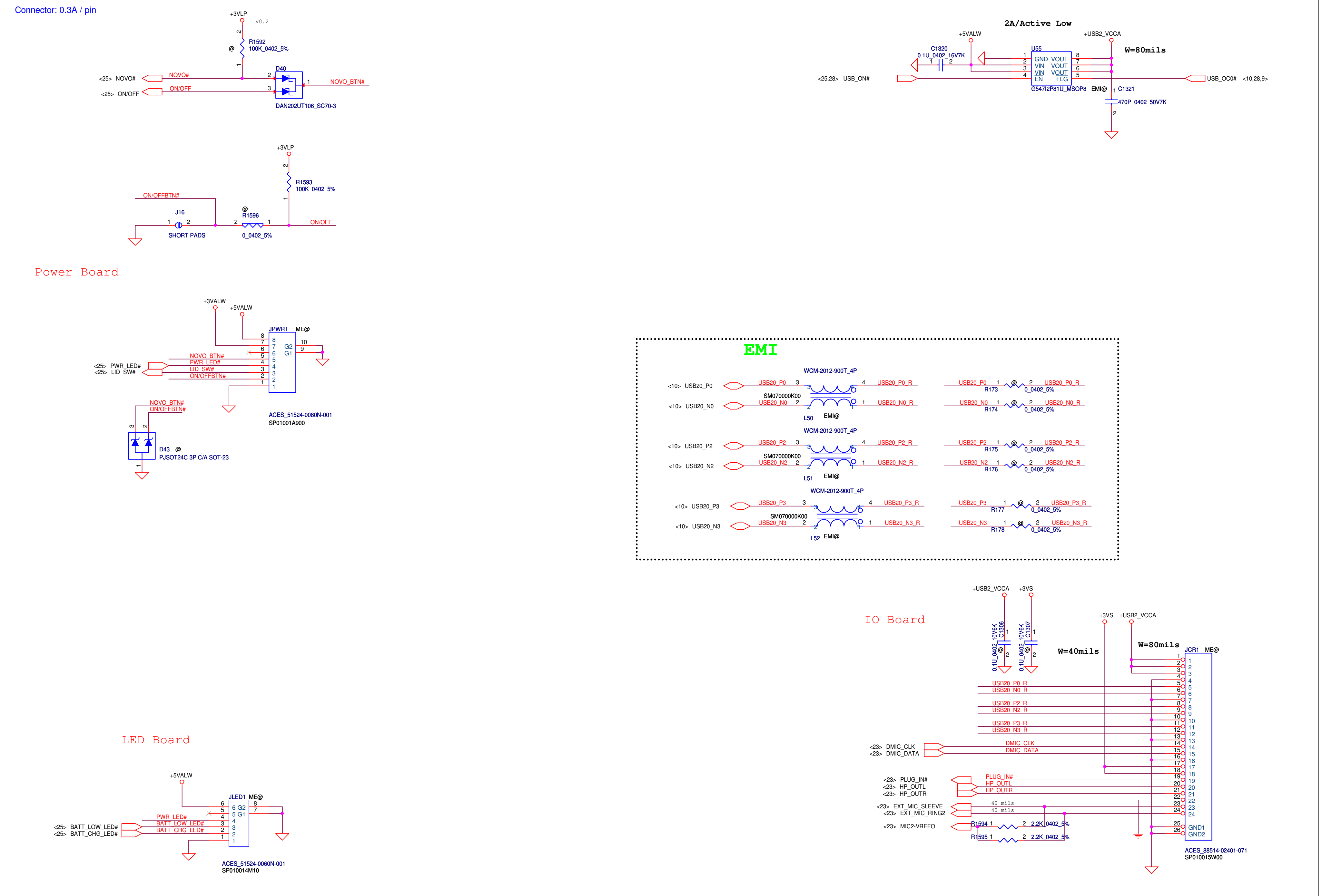
Security Classification	Compal Secret Data		
Issued Date	2011/06/15	Deciphered Date	2012/07/11

Compal Electronics, Inc.

Title: **BIOS & EC I/O Port**

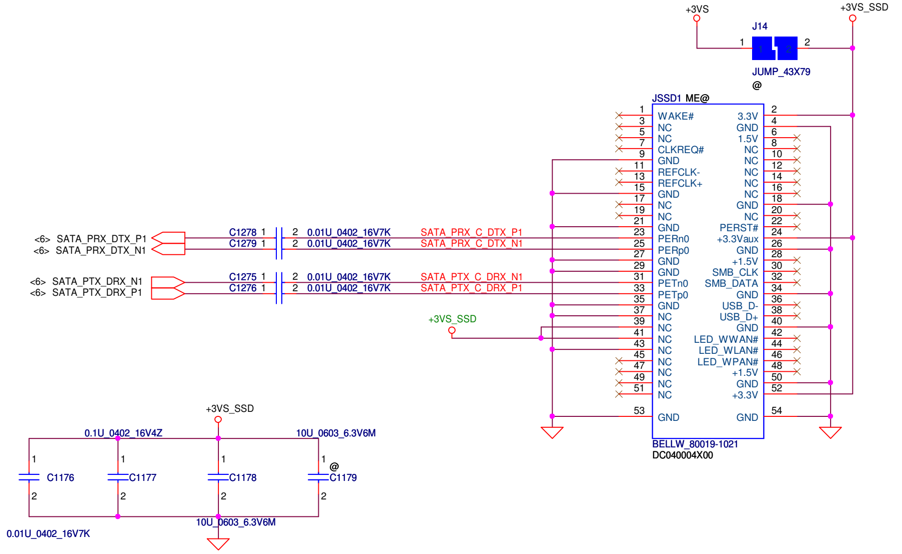
Size: Custom | Document Number: LA-A321PR02 | Rev: 0.2

I/O Board CONN.

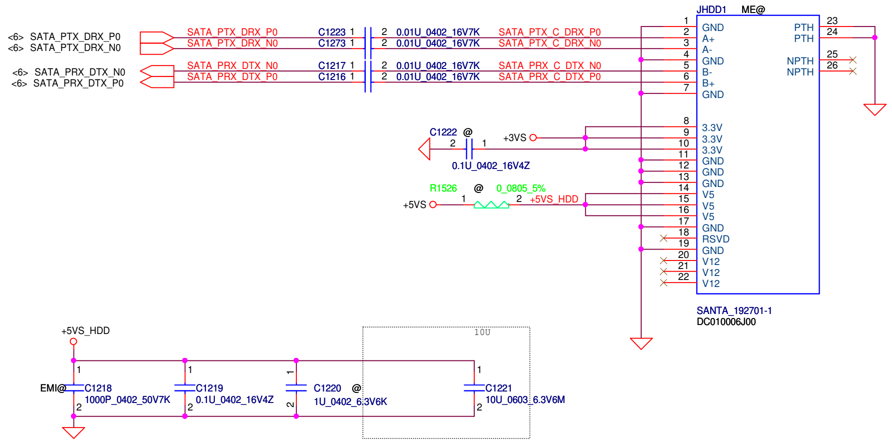


Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2011/06/15	Deciphered Date	2012/07/11	Title: ROM/KBD/PWR/CR/LED/TP Conn.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED 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 C; Document Number LA-A321PR02; Rev 0.2
				Date: Thursday, March 14, 2013; Sheet 26 of 46

mSATA CONN.

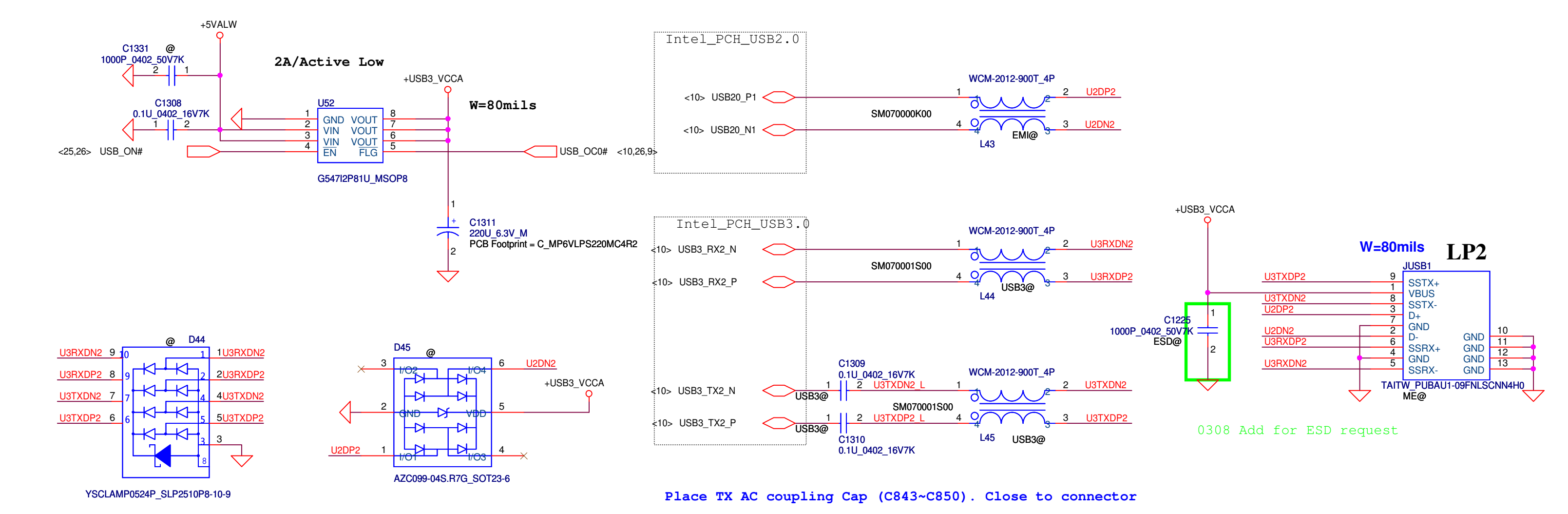


SATA HDD CONN.



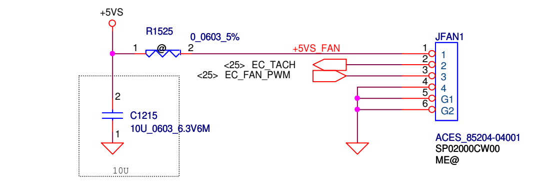
Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2011/06/15	Deciphered Date	2012/07/11	Title: HDD/ODD/BT Connector
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size: Custom; Document Number: LA-A321PR02; Rev 0.2
				Date: Thursday, March 14, 2013; Sheet 27 of 46

USB 3.0 Charger & Conn.

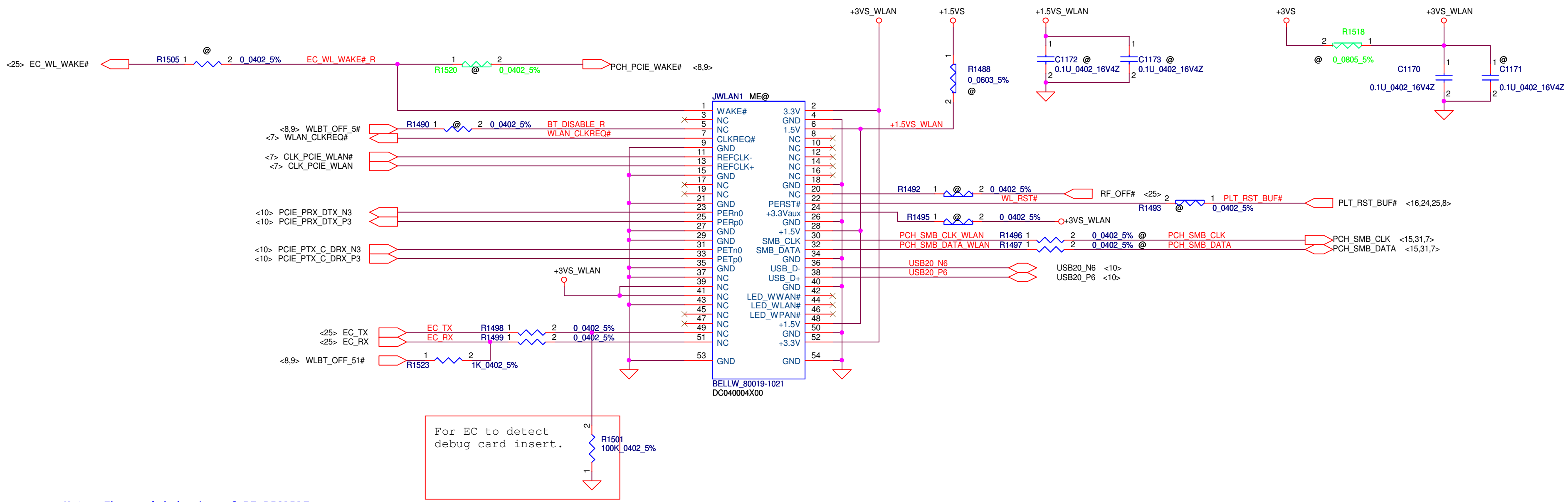


FAN CONN.

FAN1 Conn



Mini-Express Card for WLAN(Half)



Note: The real behavior of BT_DISABLE are
BT_DISABLE=LOW, BT=OFF
BT_DISABLE=HIGH, BT=ON

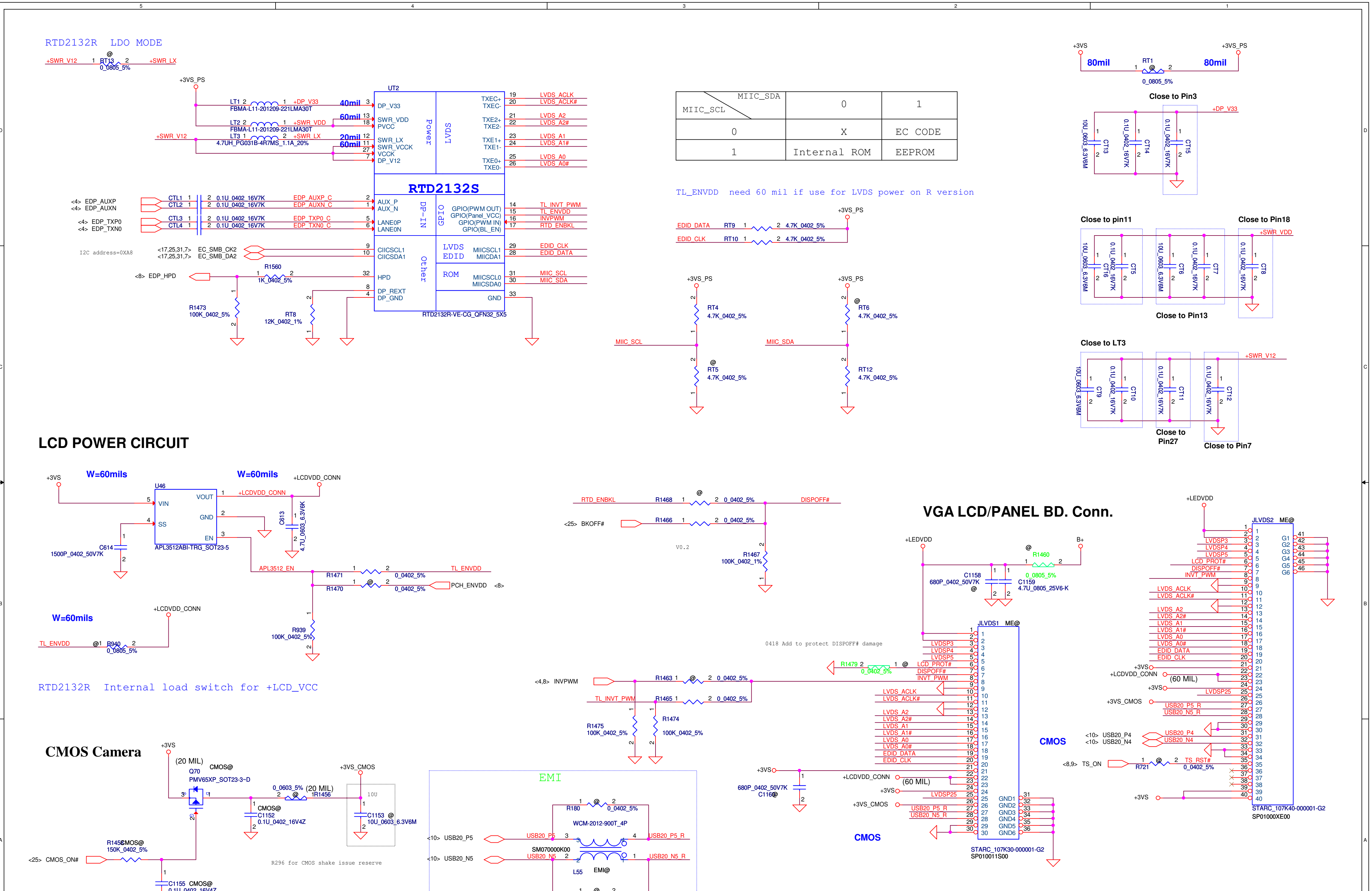
Security Classification	Compal Secret Data		
Issued Date	2011/07/21	Deciphered Date	2012/12/31

Compal Electronics, Inc.

Title: Mini-Card

Size | Document Number: LA-A321PR02 | Rev: 0.2

Date: Thursday, March 14, 2013 | Sheet 28 of 46



MIIC_SDA \ MIIC_SCL	0	1
0	X	EC CODE
1	Internal ROM	EEPROM

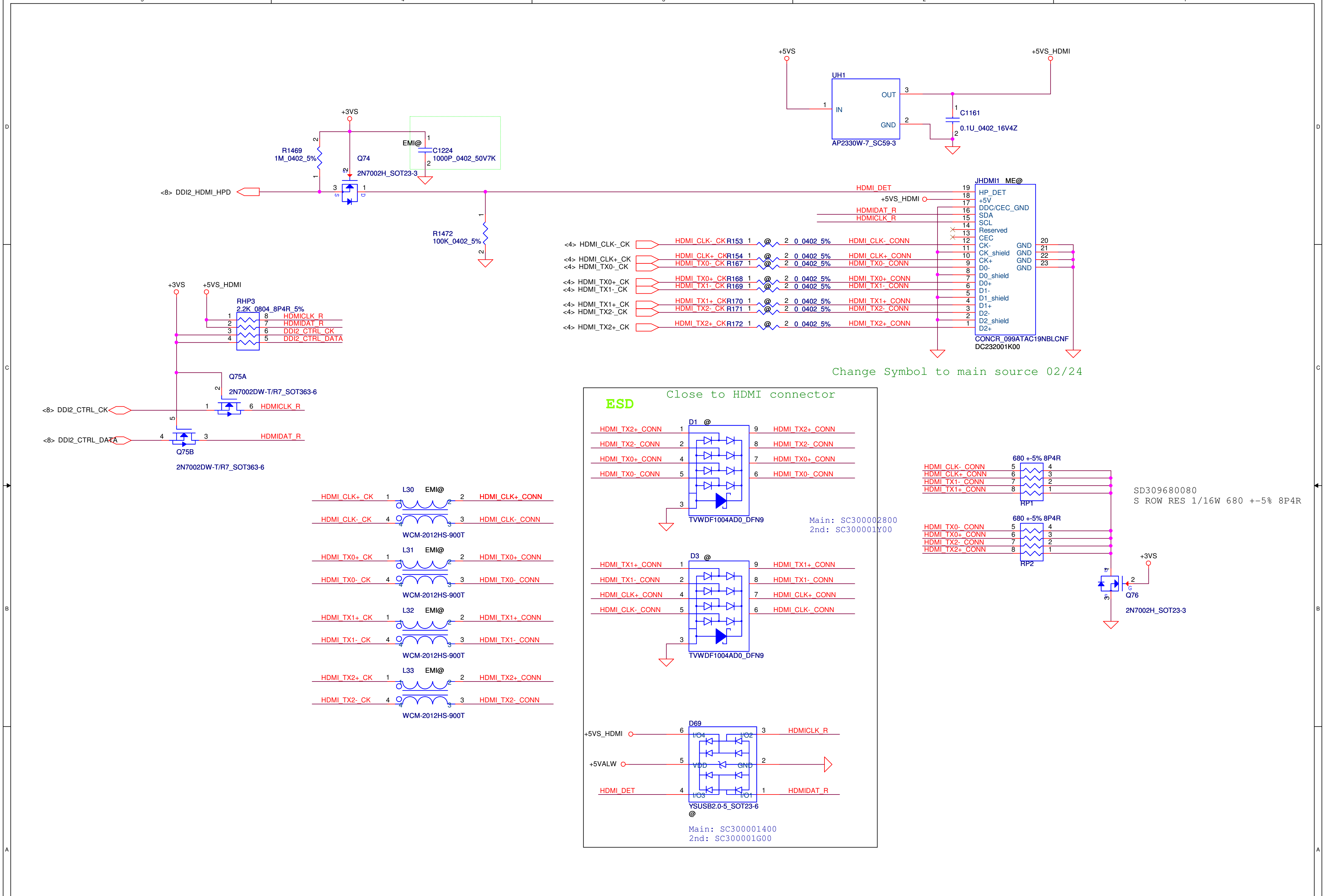
Security Classification	Compal Secret Data		
Issued Date	2011/06/15	Deciphered Date	2012/07/11

Compal Electronics, Inc.

Title: **LVDS/CAMERA**

Size: Custom | Document Number: LA-A321PR02 | Rev: 0.2

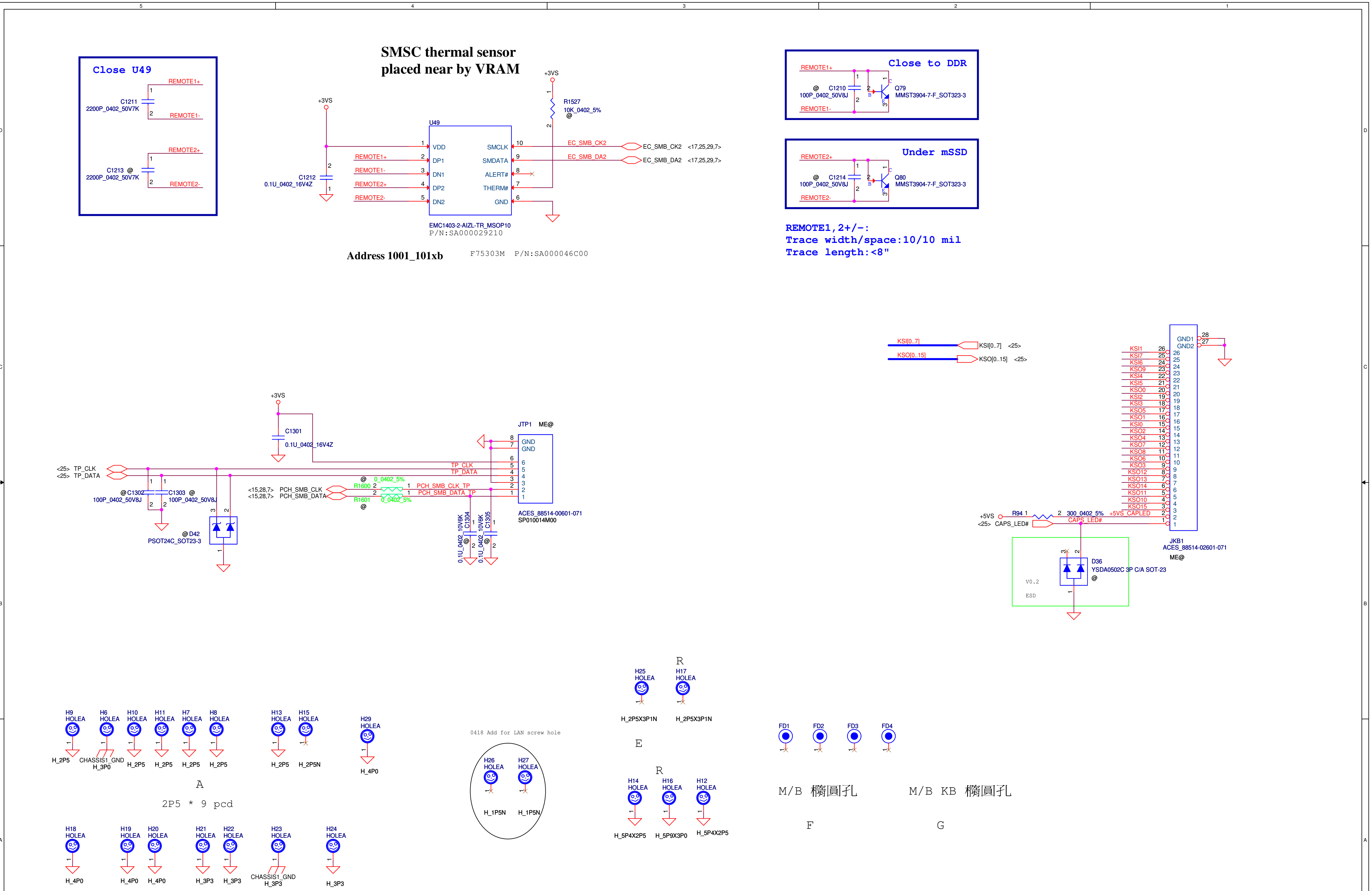
Date: Thursday, March 14, 2013 | Sheet 29 of 46



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2011/06/15	Deciphered Date	2012/07/11	Title: HDMI CONN

Size: Custom | Document Number: LA-A321PR02 | Rev: 0.2

Date: Thursday, March 14, 2013 | Sheet 30 of 46



Security Classification	Compal Secret Data		
Issued Date	2011/06/15	Deciphered Date	2012/07/11

Compal Electronics, Inc.

Title: Fintek-Thermal IC/FAN/screw

Size	Document Number	Rev
Custom	LA-A321PR02	0.2

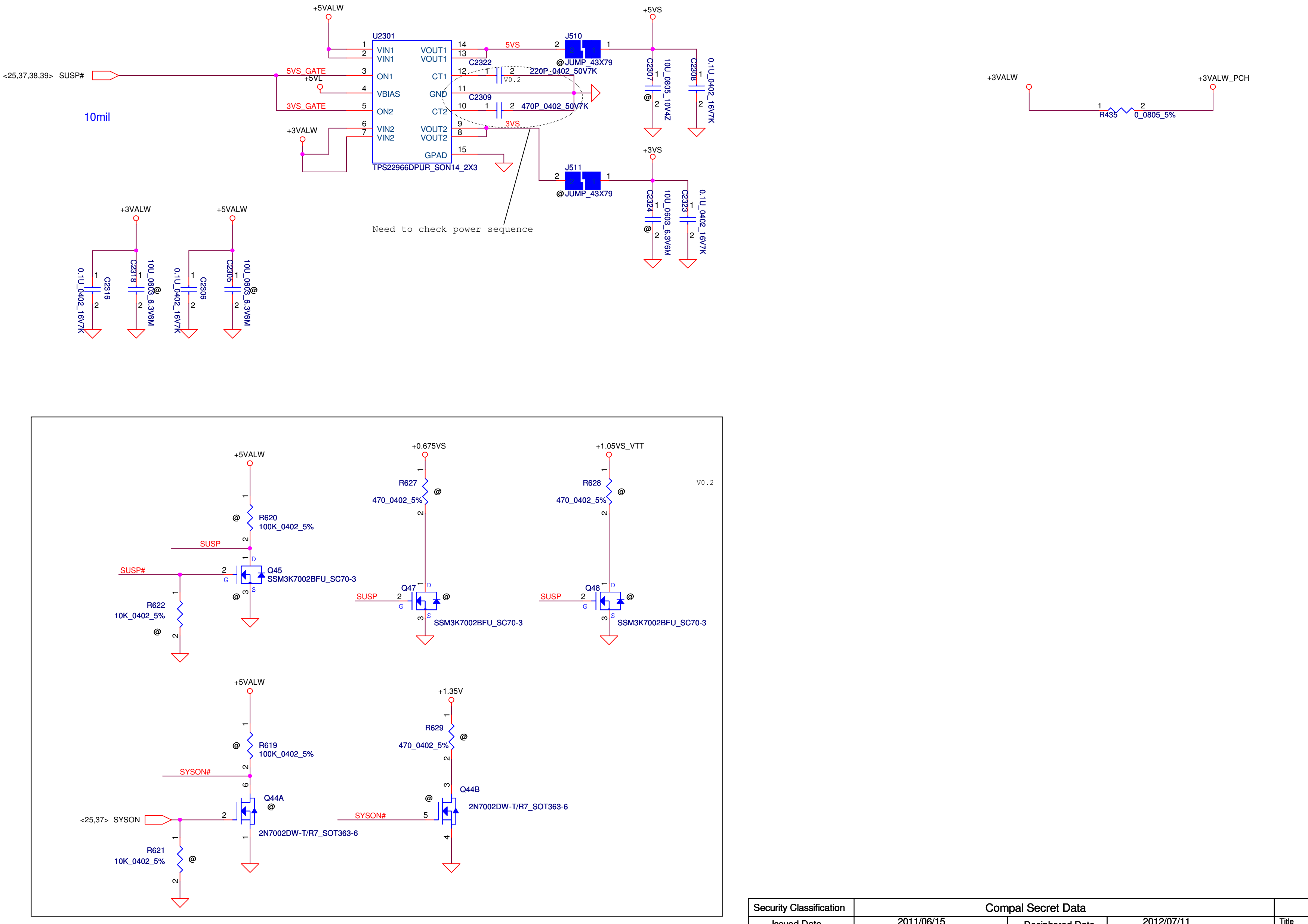
Date: Tuesday, March 19, 2013 Sheet 31 of 46

+5VALW TO +5VS

+3VALW TO +3VS

+3VALW TO +3VALW(PCH AUX Power)

+5VALW TO +5VALW(PCH AUX Power)

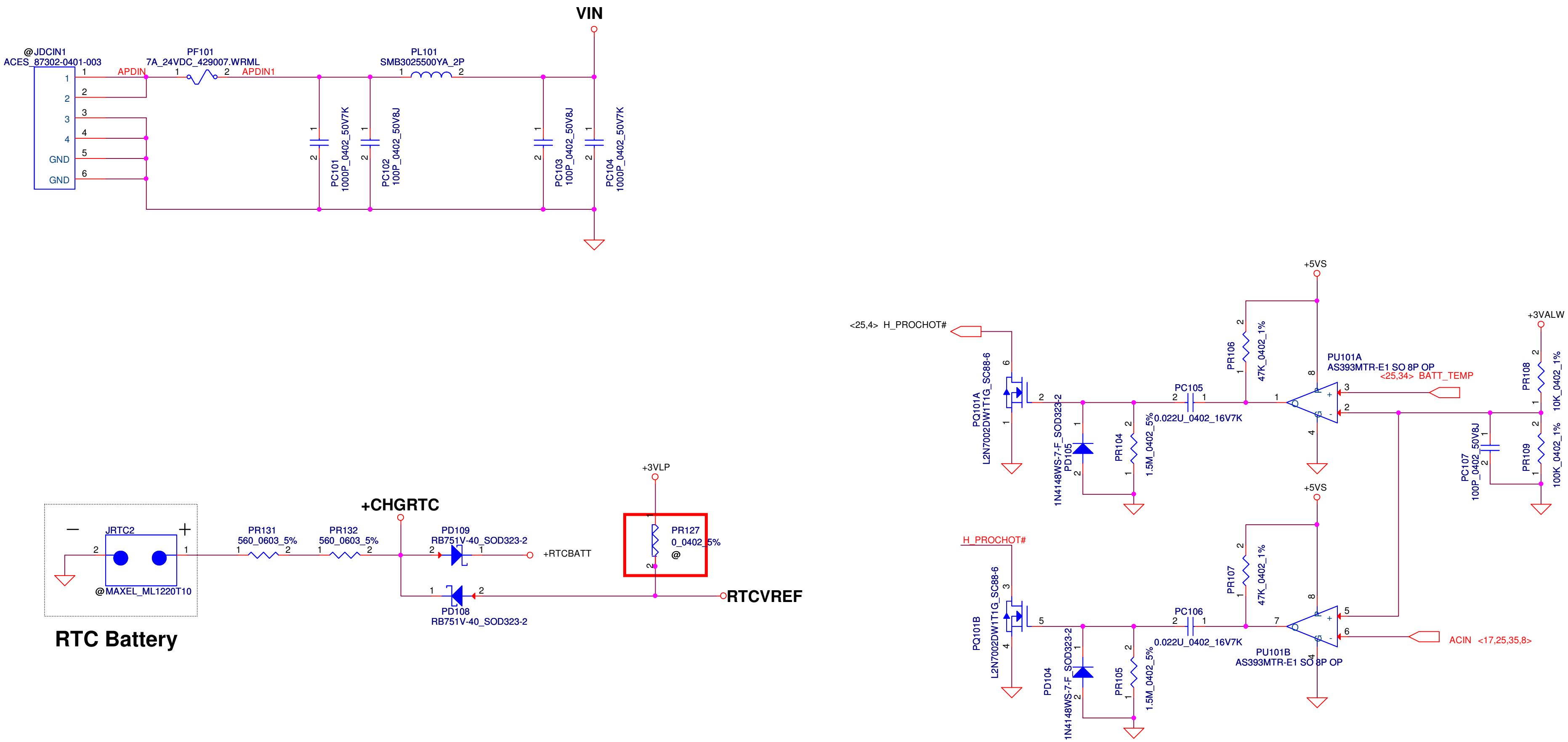


Security Classification	Compal Secret Data		
Issued Date	2011/06/15	Deciphered Date	2012/07/11

Compal Electronics, Inc.

Title: DC Interface

Size	Document Number	Rev
Custom	LA-A321PR02	0.2



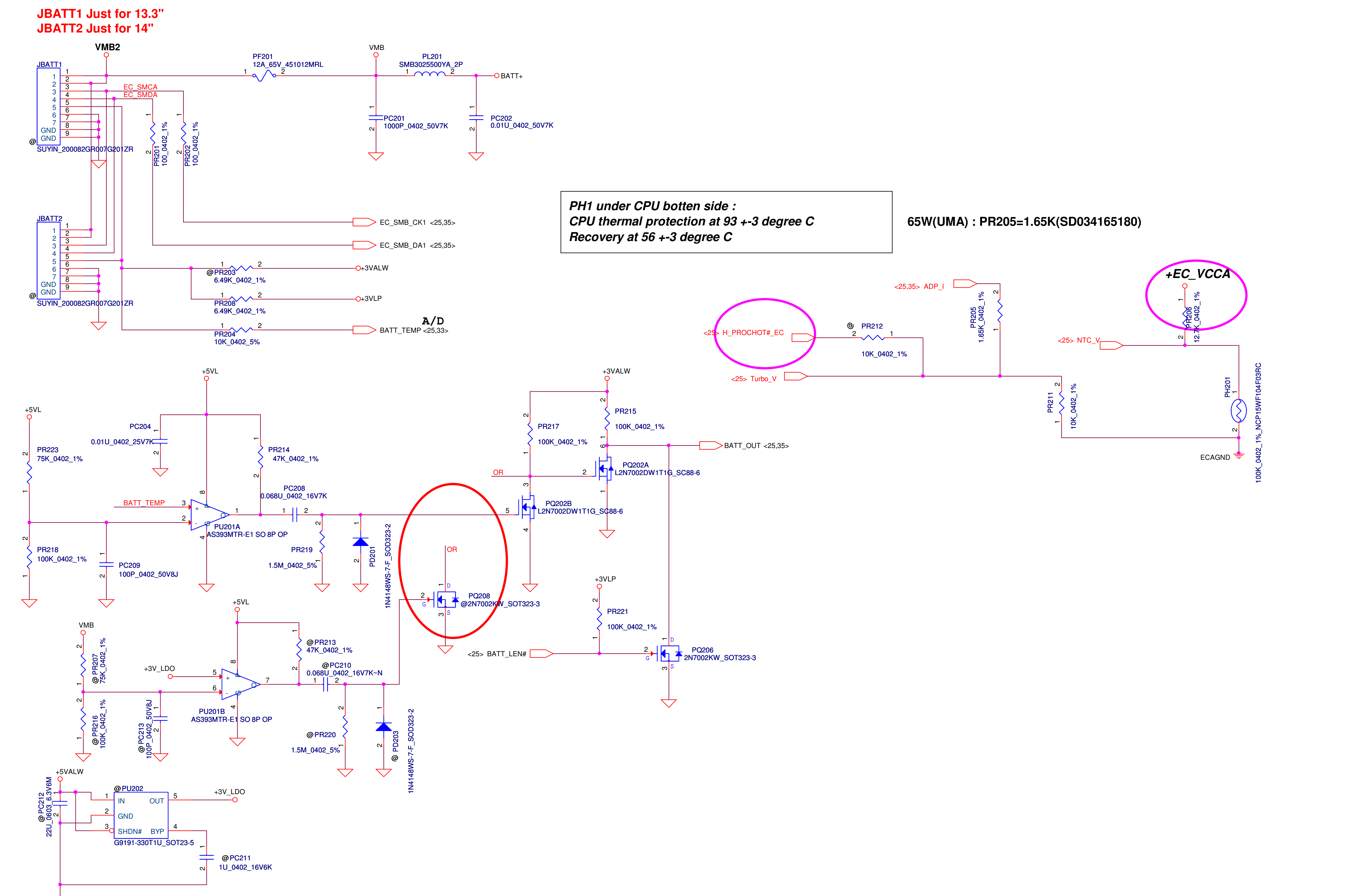
Security Classification	Compal Secret Data		
Issued Date	2010/01/25	Deciphered Date	2012/07/11

Compal Electronics, Inc.

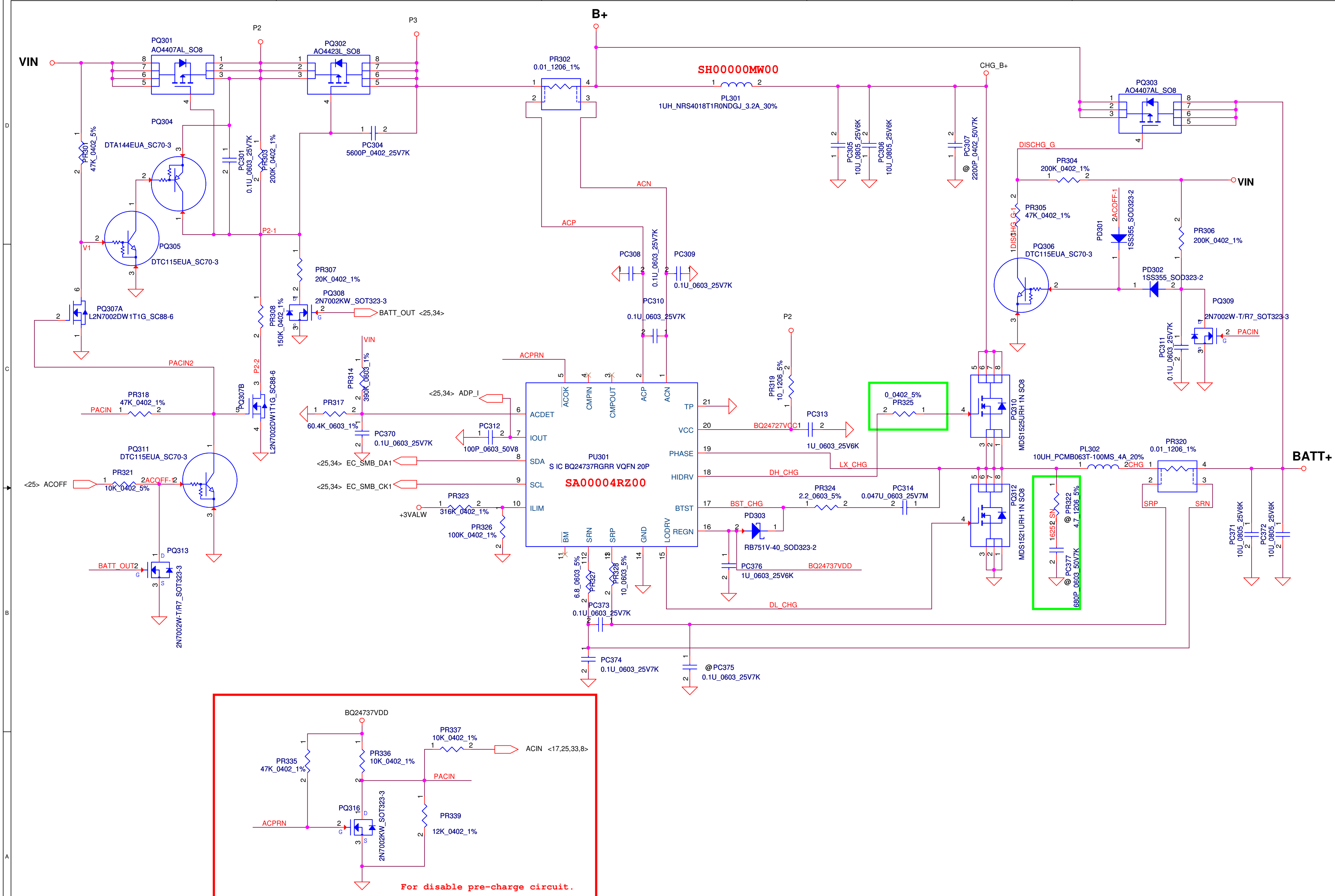
Title: *PWR DCIN*

Size: Custom | Document Number: LA-A321PR01 | Rev: 0.2

Date: Thursday, March 14, 2013 |



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2010/01/25	Deciphered Date	2012/07/11	Title: PWR-BATTERY CONN/OTP
				Size: Custom; Document Number: LA-A321PR01; Rev: 0.2
				Date: Thursday, March 14, 2013; Sheet 34 of 46



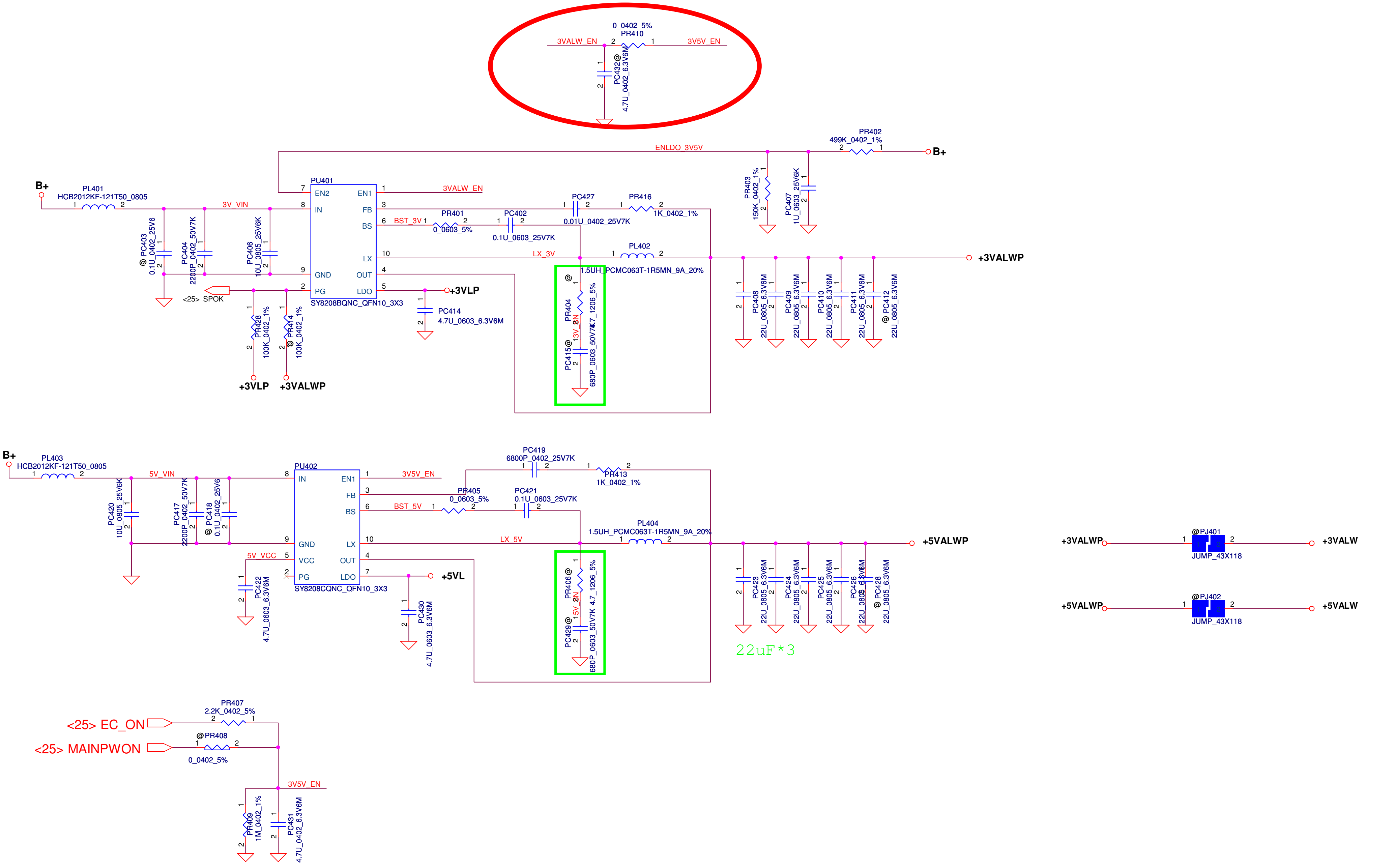
Security Classification	Compal Secret Data		
Issued Date	2010/01/13	Deciphered Date	2012/07/11

Compal Electronics, Inc.

Title: CHARGER

Size | Document Number: LA-A321PR01 | Rev 0.2

Date: Thursday, March 14, 2013 |



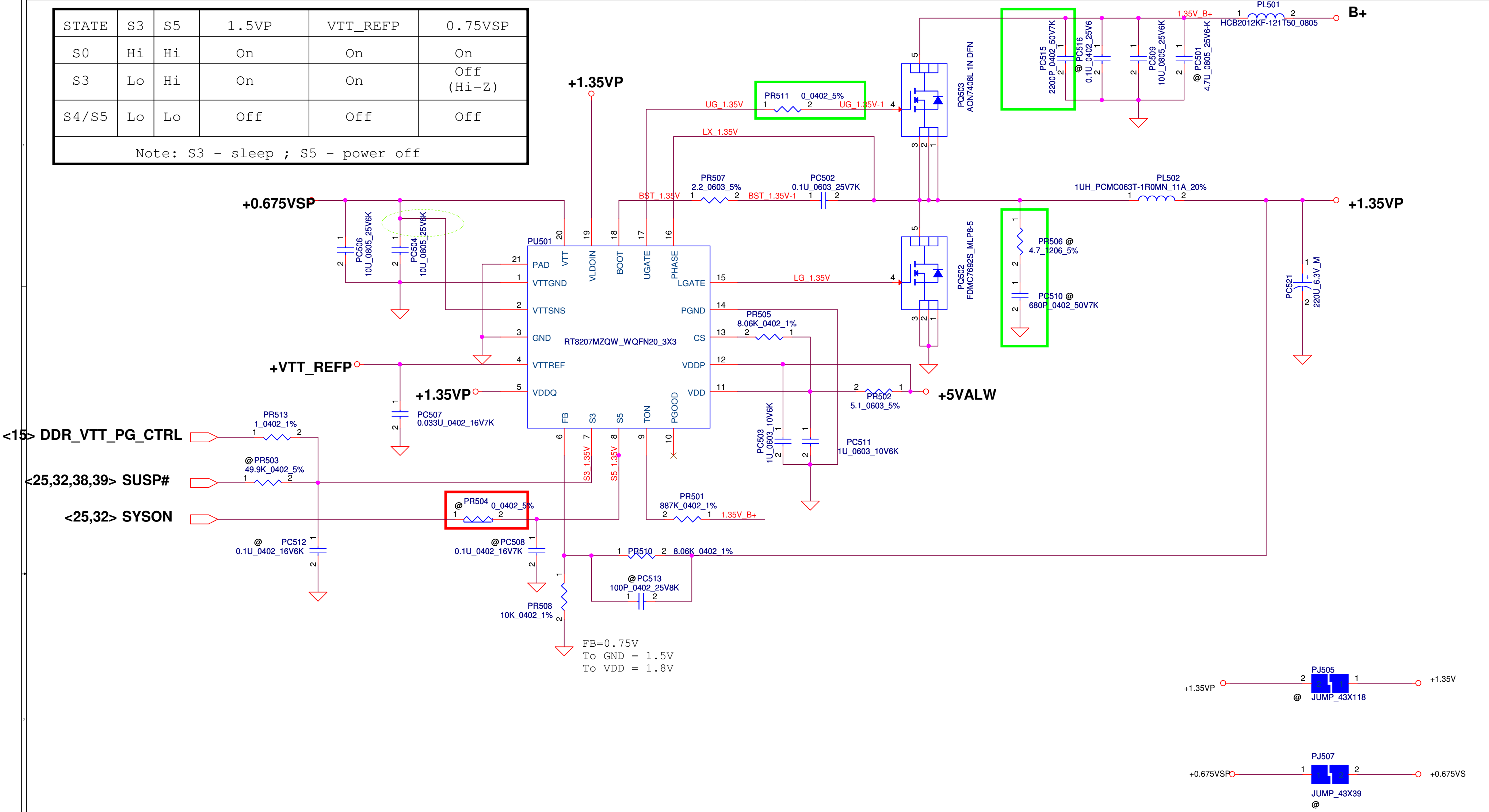
Security Classification	Compal Secret Data		
Issued Date	2011/06/15	Deciphered Date	2012/07/11

Compal Electronics, Inc.

Title	**+3VALW/+5VALW**
Size: Custom	Document Number: LA-A321PR01 — Rev 0.2
Date: Thursday, March 14, 2013	Sheet 36 of 46

STATE	S3	S5	1.5VP	VTT_REFP	0.75VSP
S0	Hi	Hi	On	On	On
S3	Lo	Hi	On	On	Off (Hi-Z)
S4/S5	Lo	Lo	Off	Off	Off

Note: S3 - sleep ; S5 - power off

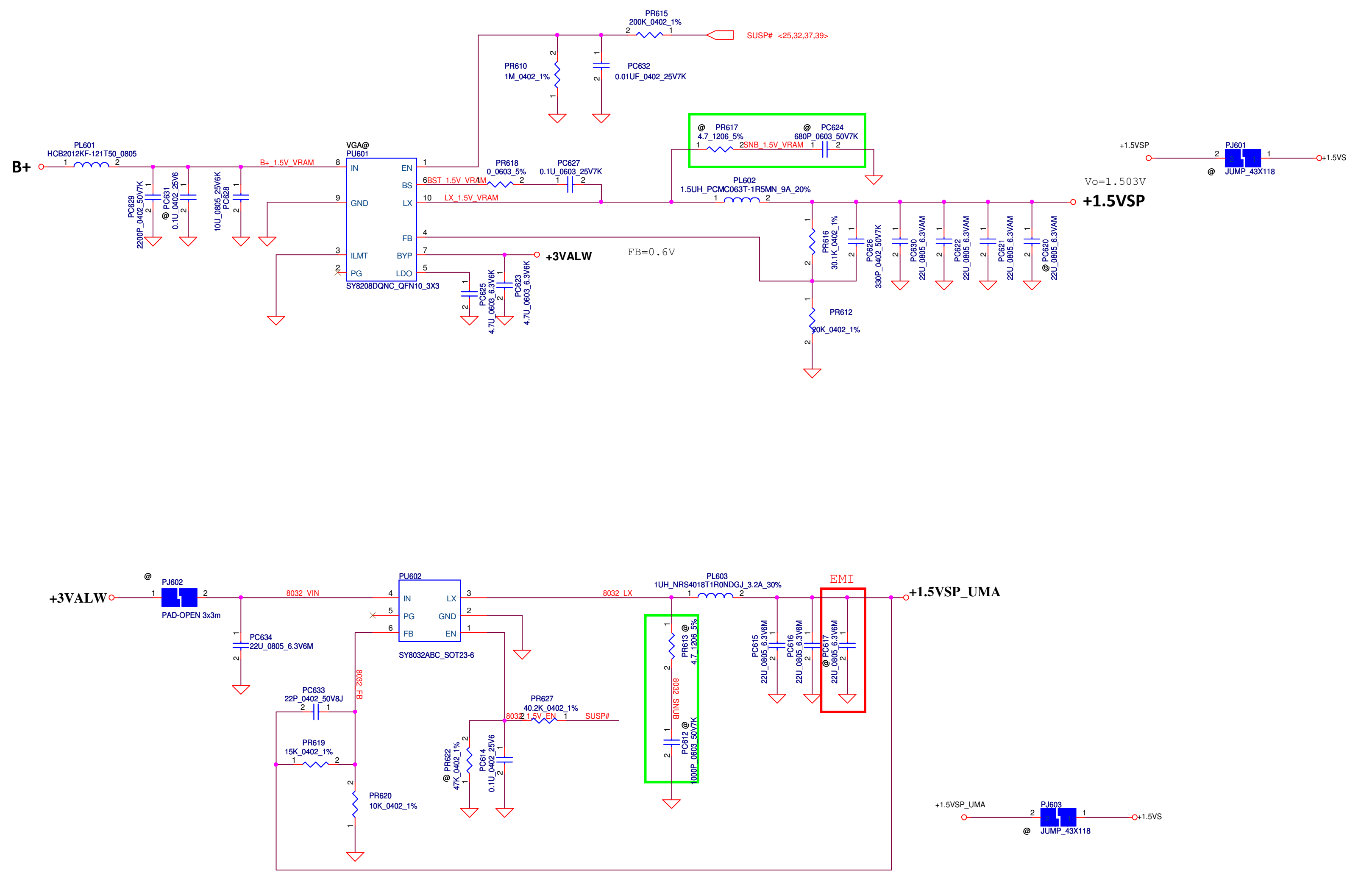


Security Classification	Compal Secret Data		
Issued Date	2010/01/25	Deciphered Date	2012/07/11

Compal Electronics, Inc.

Title: **PWR-+1.5VP/+1.8VSP**

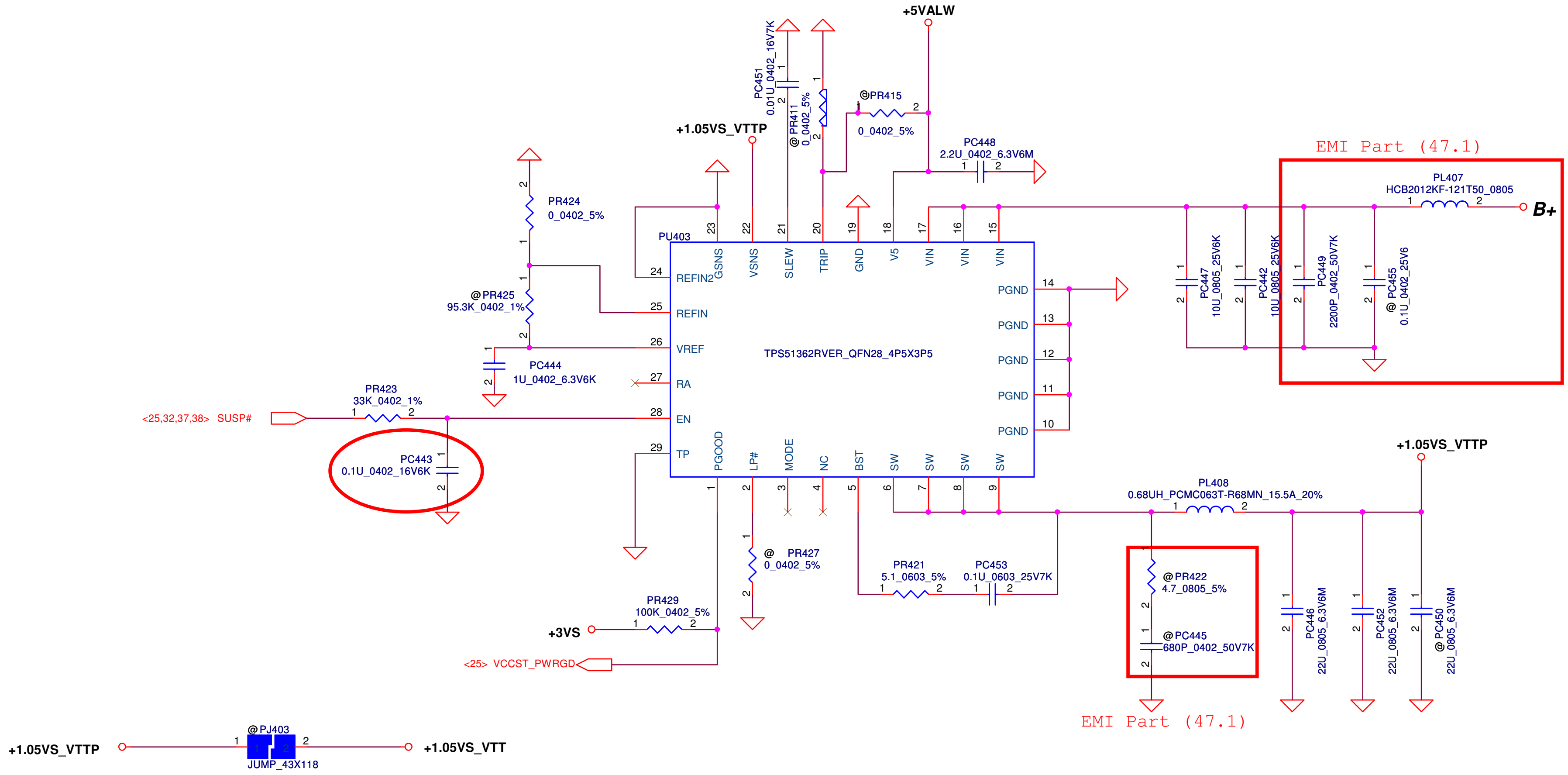
Size: Custom | Document Number: LA-A321PR01 | Rev 0.2



Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2011/06/15	Deciphered Date 2012/07/11	Title: +1.5VSP(VRAM)

Size: C | Document Number: LA-A321PR01 | Rev: 0.2

Date: Thursday, March 14, 2013 |



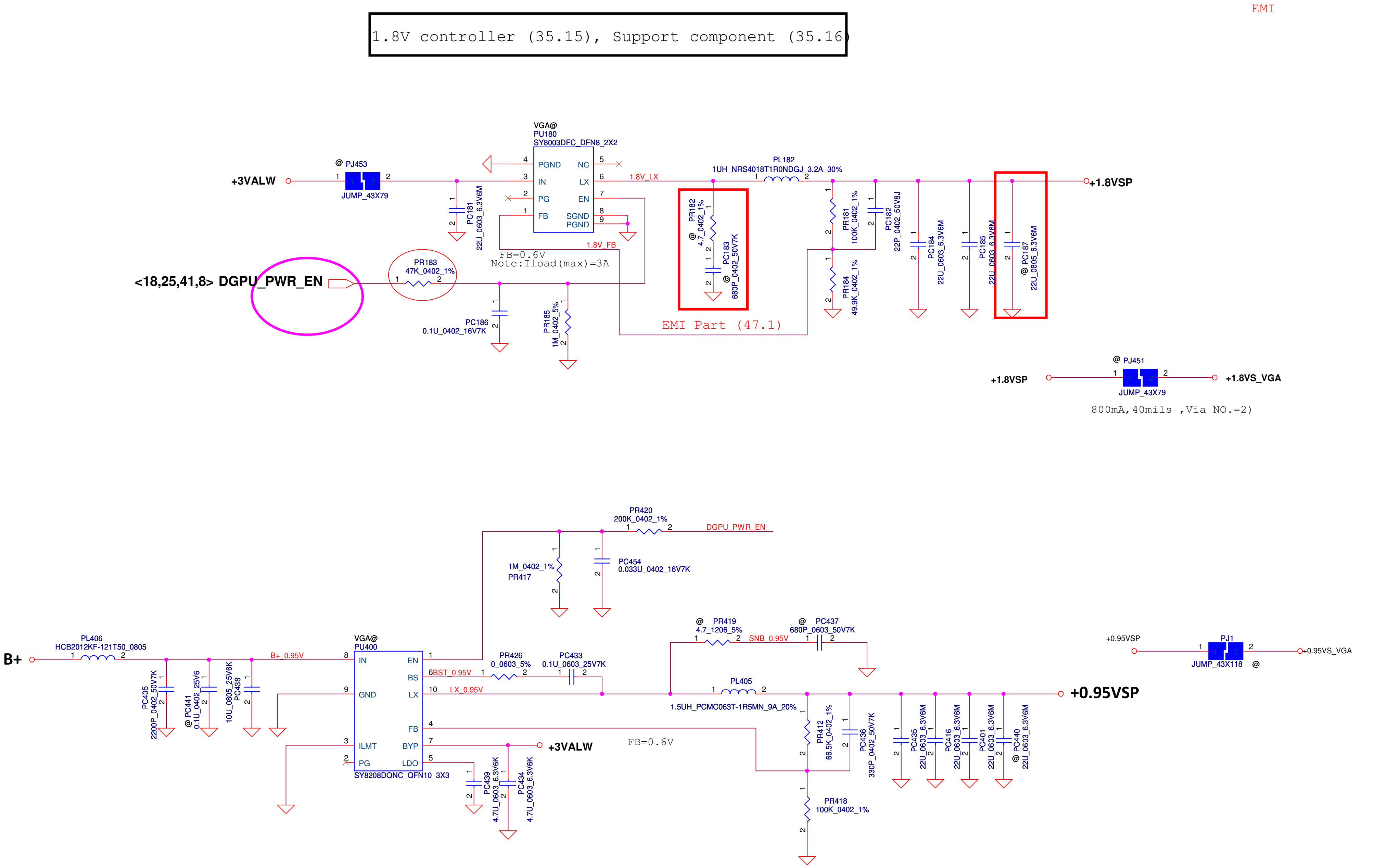
Security Classification	Compal Secret Data		
Issued Date	2010/01/25	Deciphered Date	2012/07/11

Compal Electronics, Inc.

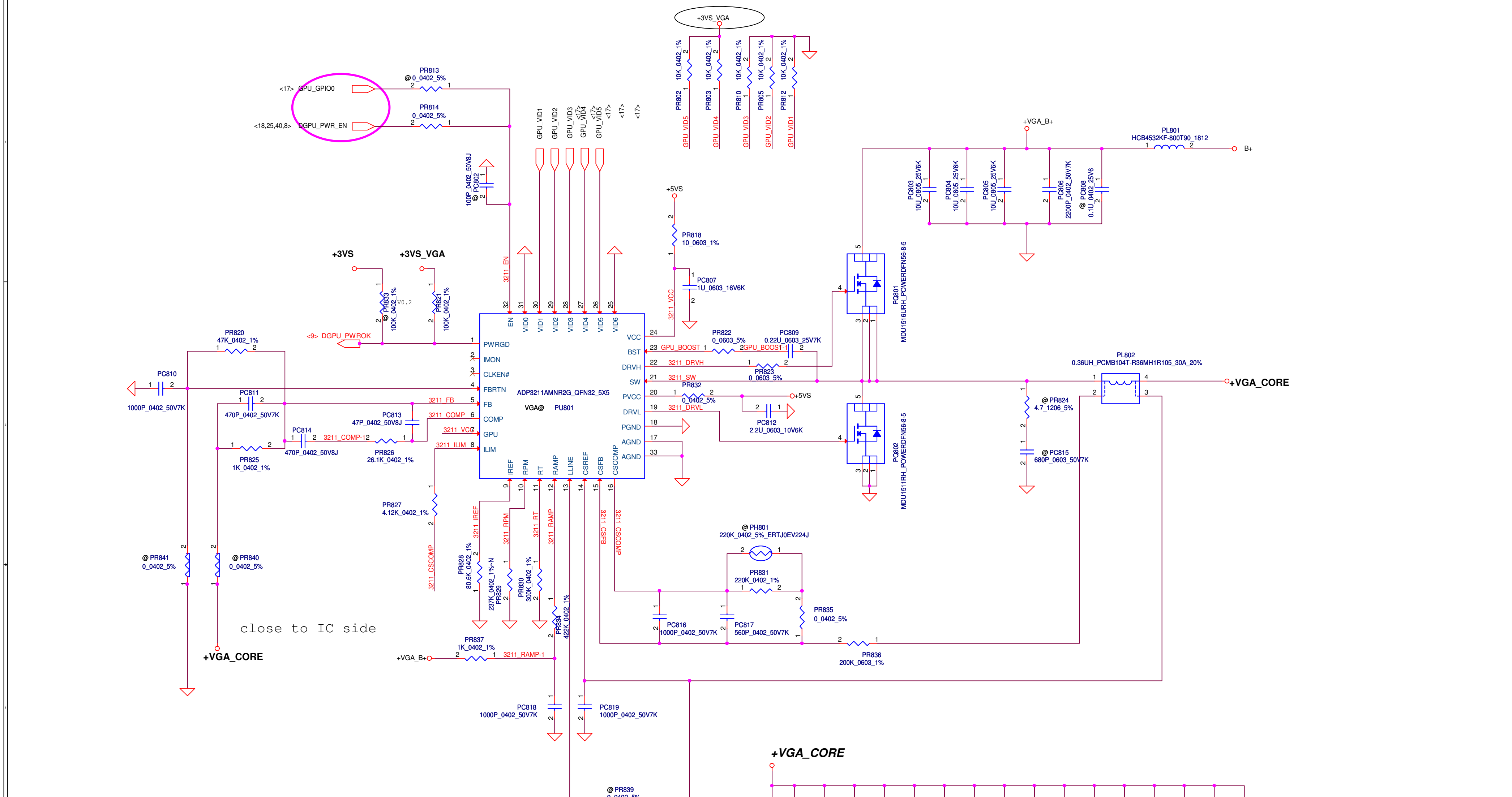
Title: *PWR +1.05VS_VCCPP/*

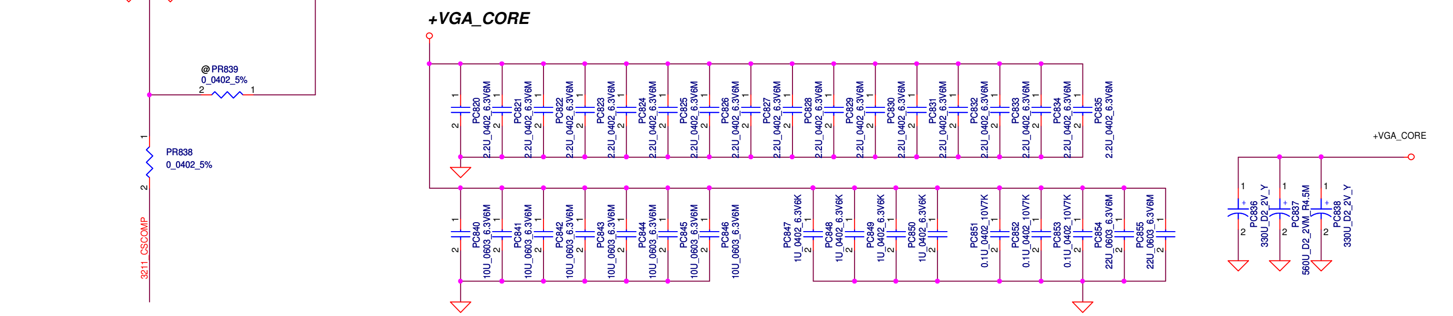
Size	Document Number	Rev
Custom	LA-A321PR01	0.2

Date: Friday, March 15, 2013 —



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2012/09/27	Deciphered Date	2015/09/27	Title: +1.8VSP/+0.95VSP
				Size: Custom; Document Number: LA-A321PR01; Rev: 0.2
				Date: Thursday, March 14, 2013; Sheet 40 of 46





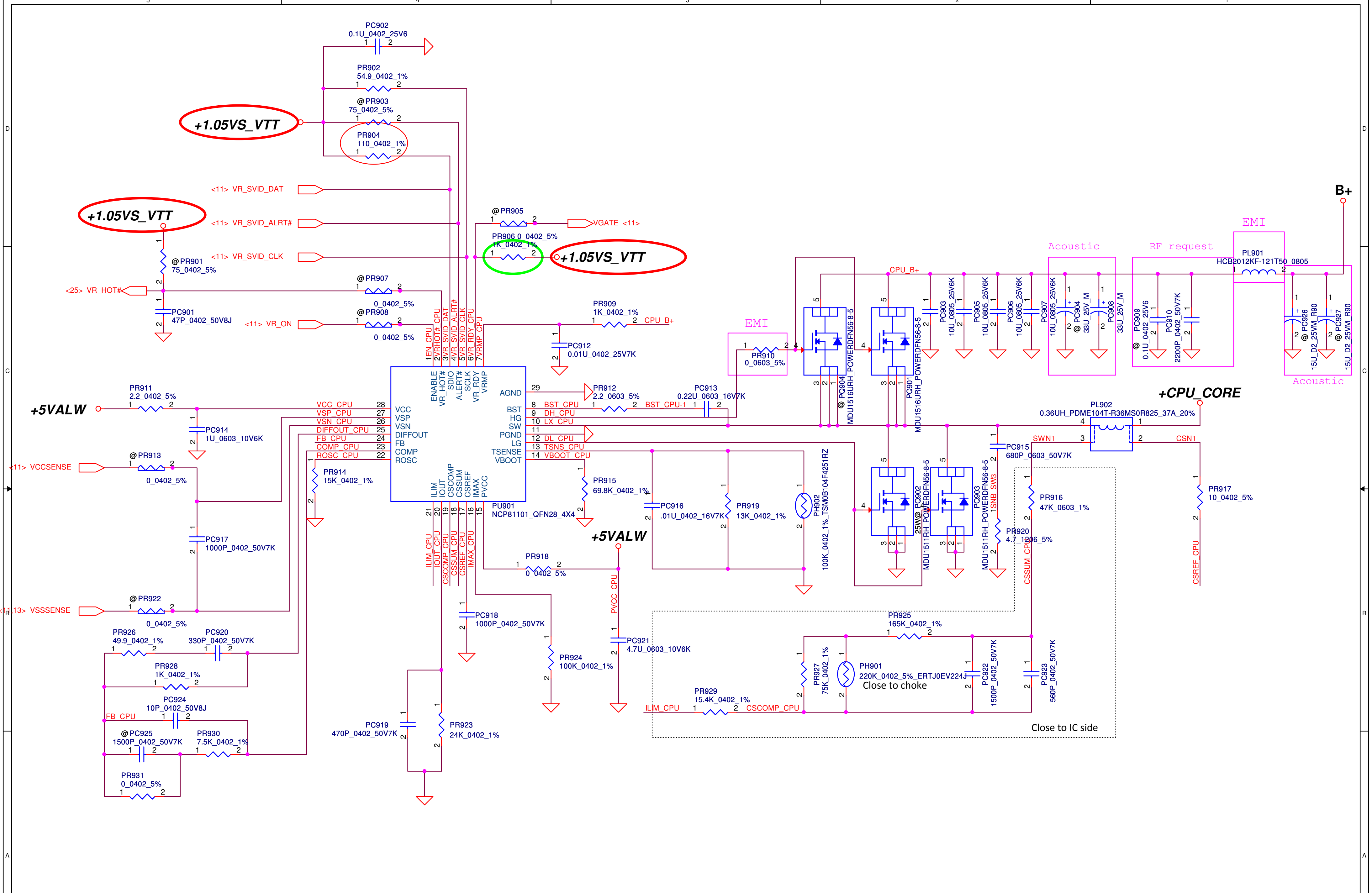
GPIO21 VID5	GPIO29 VID4	GPIO30 VID3	GPIO20 VID2	GPIO15 VID1	VDDC
0	1	1	1	0	1.15V
0	1	1	1	1	1.125V
1	0	0	0	0	1.100V
1	0	0	0	1	1.075V
1	0	0	1	0	1.050V
1	0	0	1	1	1.025V
1	0	1	0	0	1.000V
1	0	1	0	1	0.975V
1	0	1	1	0	0.950V
1	0	1	1	1	0.925V
1	1	0	0	0	0.900V Default
1	1	0	0	1	0.875V
1	1	0	1	0	0.850V
1	1	0	1	1	0.825V
1	1	1	0	0	0.800V
1	1	1	0	1	0.775V

Security Classification	Compal Secret Data		
Issued Date	2011/06/15	Deciphered Date	2012/07/11

Compal Electronics, Inc.

Title: **PWR-VGA_CORE**

Size: C | Document Number: LA-A321PR01 | Rev: 0.2



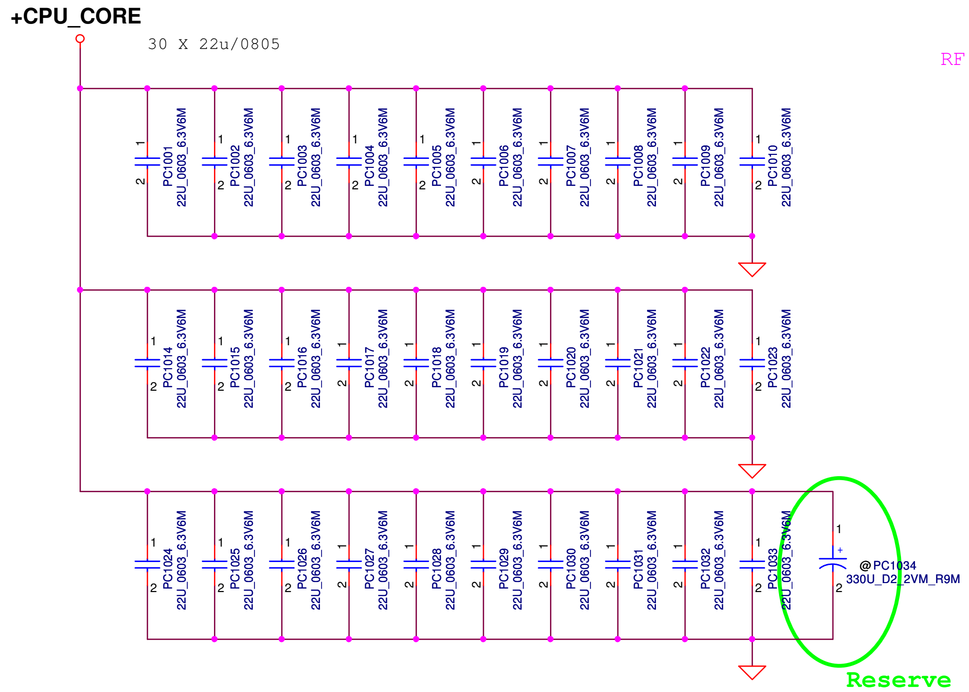
Security Classification	Compal Secret Data		
Issued Date	2012/04/03	Deciphered Date	2014/12/31

Compal Electronics, Inc.

Title: **PWR-CPU_CORE**

Size	Document Number	Rev
	LA-A321PR02	0.2

Date: Thursday, March 14, 2013 | Sheet 42 of 46



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2012/04/03	Deciphered Date	2014/12/31	Title: PWR-PROCESSOR DECOUPLING
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				Date: Thursday, March 14, 2013 / Sheet 43 of 46

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

Item	Modify List	PG#	Reason for change	Date	Phase
1	For HW sequence	44	ADD PR821 100K ohm pull high +VS_VGA	3/11	SDV
2	For HW sequence	37	Remove PC512 0.1U_0402	3/11	SDV
3	For HW sequence	39	Change PC443 to 0.1U_0402	3/11	SDV
4	For HW sequence	40	Change PC186 to 0.1uf	2/7	SDV
5	For HW sequence	40	Change PC454 to 0.033uf	2/7	SDV
6	For HW sequence	40	Change PR183 to 47K ohm	2/7	SDV
7					
9					
10					
11					
12					
13					
14					
15					
16					
17					

Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2013/01/11	Deciphered Date	2013/12/31	Title: PIR (PWR)
				Size: Custom; Document Number: C38-AMD KABINI Schematic; Rev 0.2
				Date: Thursday, March 14, 2013; Sheet 44 of 46

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

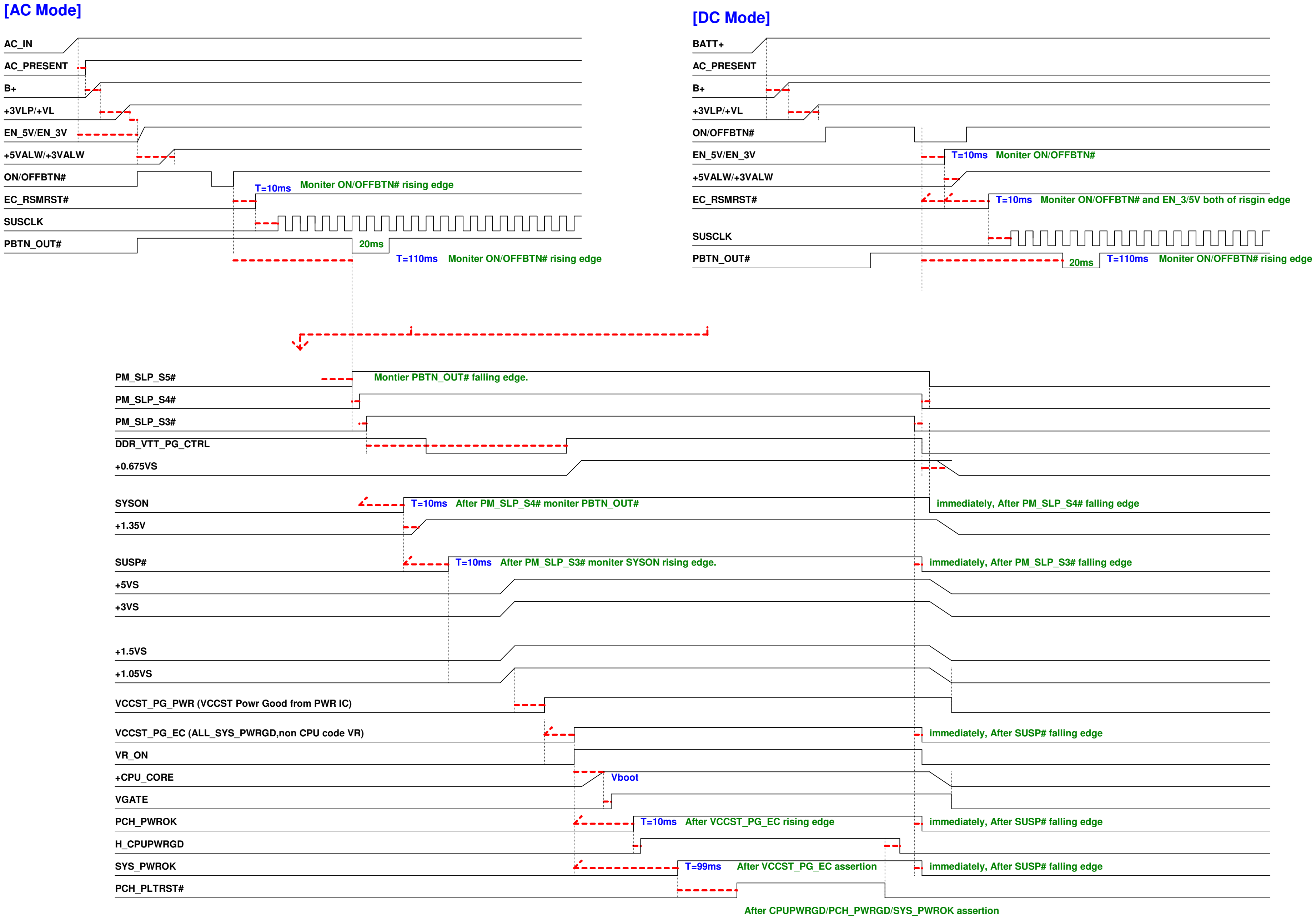
Item	Reason for change	PG#	Modify List	Date	Phase
1					
2					
3					
4					
5					
6					
7					
9					
10					
11					
12					
13					
14					
15					
16					
17					

Security Classification	Compal Secret Data		
Issued Date	2011/07/12	Deciphered Date	2012/07/01

Compal Electronics, Inc.

Title: PIR (EE)

Size: Custom | Document Number: LA-A321P | Rev: 0.2



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2011/08/25	Deciphered Date	2012/07/25	Title: Power Sequence
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				Date: Thursday, March 14, 2013 Sheet 46 of 46