

Compal Confidential

2014 S-series(400series) Rolo/Reeses/Raisinnet

INTEL Sharkbay & Crescent bay ULT –U processor with DDR3L

Date : 2014/02/18

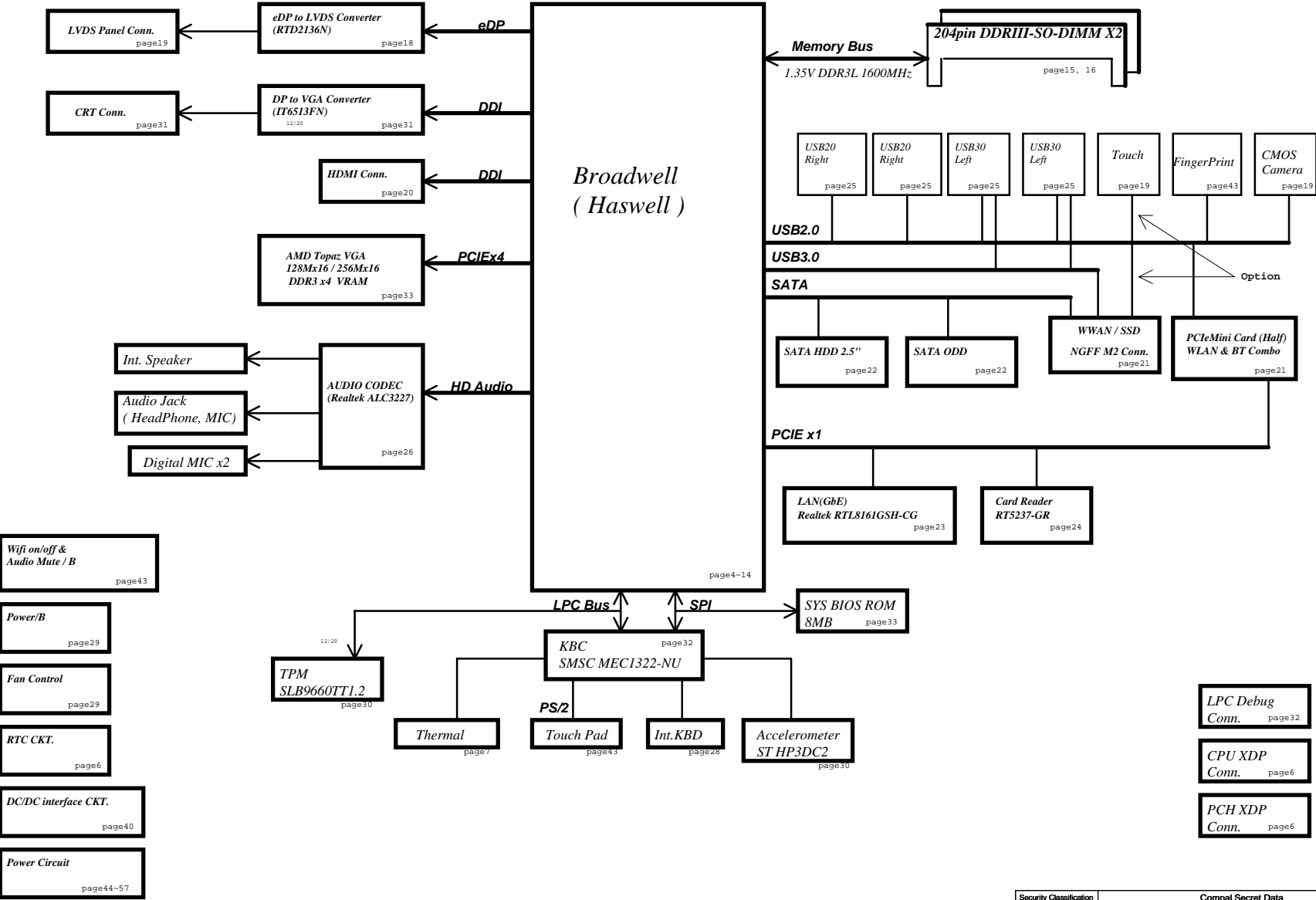
Version 0.5

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Issued Date	2011/06/29	Deciphered Date	2011/06/29	Title	Cover Page
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				LA-B181P	0.5
				Date: Tuesday, March 25, 2014	Sheet 1 of 62

Model Name :

Intel Broadwell U / Haswell Block Diagram

Project Name :

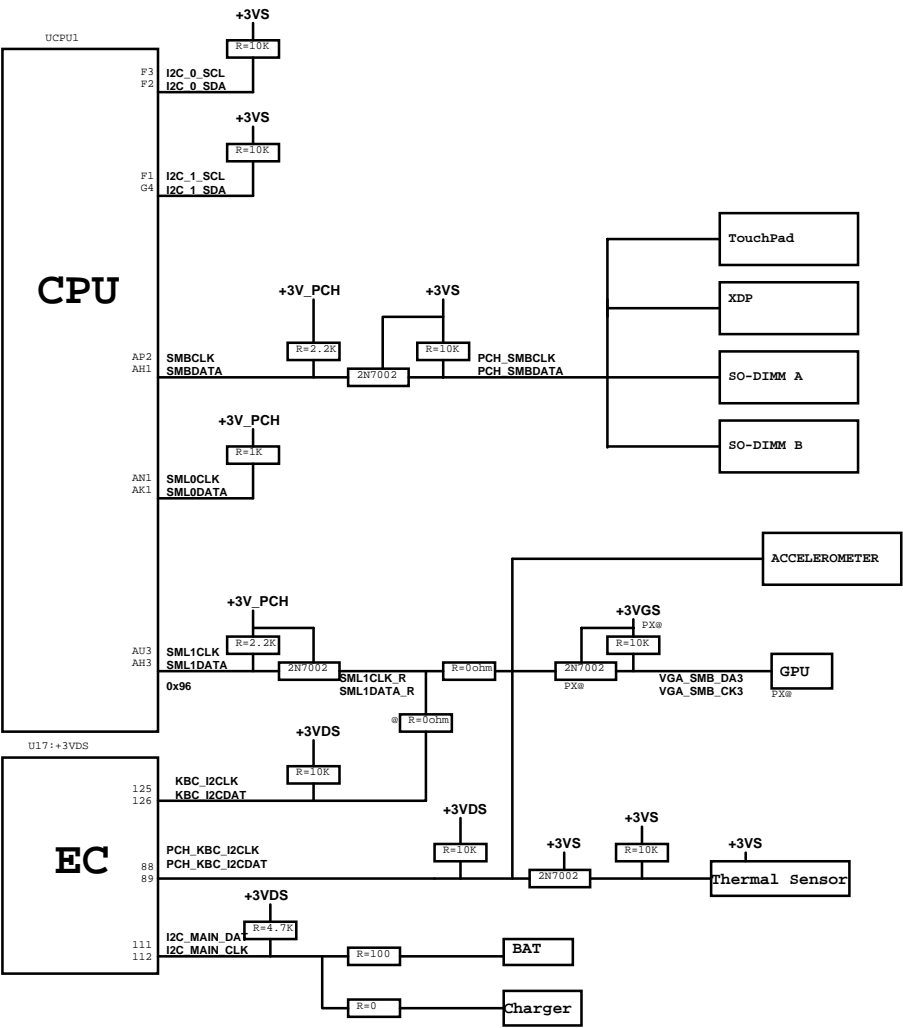


CPU DC/DC	
TPS51622ARSMR 50~51	
INPUTS	OUTPUTS
B+	VCC_VORE
SYSTEM DC/DC	
RT8243AZQW 47	
INPUTS	OUTPUTS
B+	3VDS/5VDS
SYSTEM DC/DC	
RT8207MZQW 48	
INPUTS	OUTPUTS
B+	1.35V_VDDQ 0.675VS
SYSTEM DC/DC	
SY8206DQNC 49	
INPUTS	OUTPUTS
B+	1.05VS
SYSTEM DC/DC	
SY8003DFC 52	
INPUTS	OUTPUTS
B+	1.5VS
SYSTEM DC/DC	
RT8880BGQW 54~55	
INPUTS	OUTPUTS
B+	+VGA_CORE
SYSTEM DC/DC	
SY8003DFC 56	
INPUTS	OUTPUTS
B+	+1.8VS_VGA
SYSTEM DC/DC	
SY8003DFC 57	
INPUTS	OUTPUTS
B+	+0.95VS_VGA

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@ is NO SMT part (empty)
short@ : short pad , don't pop.
@EMI@, @ESD@, @RF@ : Reserve , don't pop.
RF@ : RF team request, must add.
EMI@ : EMI team request, must add.
ESD@ : ESD team request, must add.

LVDS@ : Support LVDS panel. WWAN@ : For WWAN function. PX@ : GPU BOM config.
eDP@ : Support eDP panel.

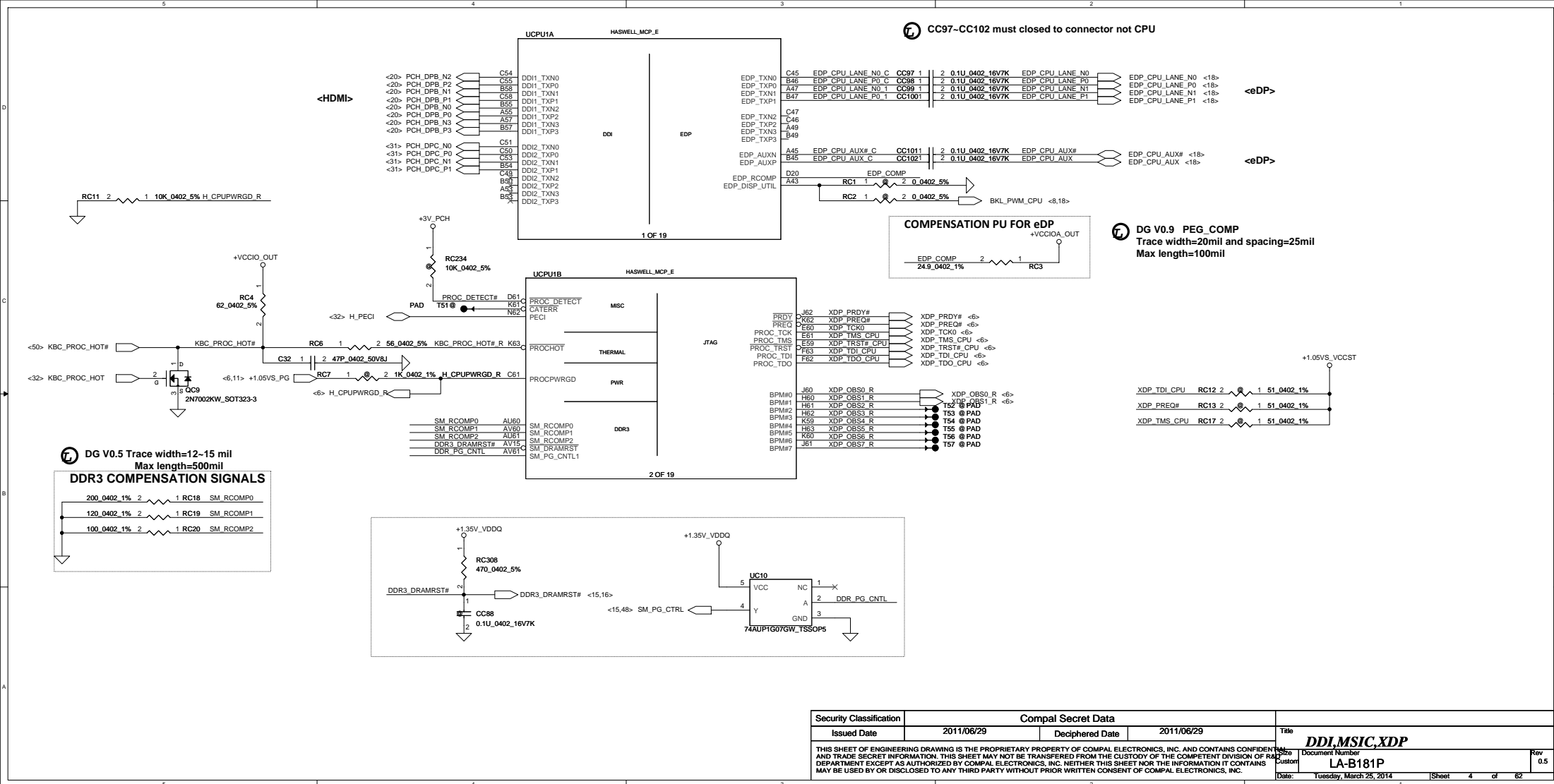


<USB2.0 port>

USB2.0 port	DESTINATION
0	CS
1	USB 2.0(Right side)
2	USB 2.0(Right side)
3	WLAN/BT
4	Finger Print
5	WWAN Touch (Option)
6	Camera
7	USB 2.0(Left side)

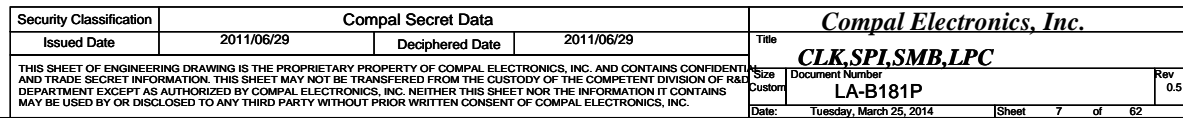
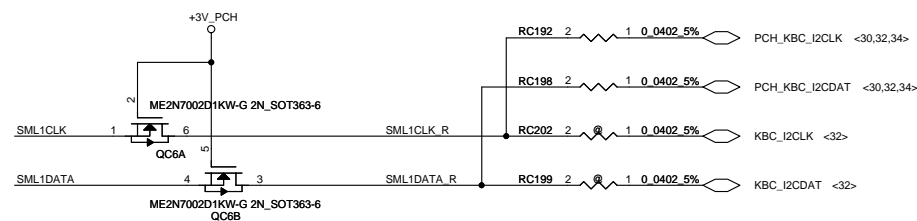
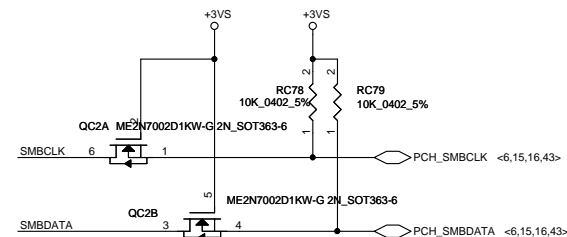
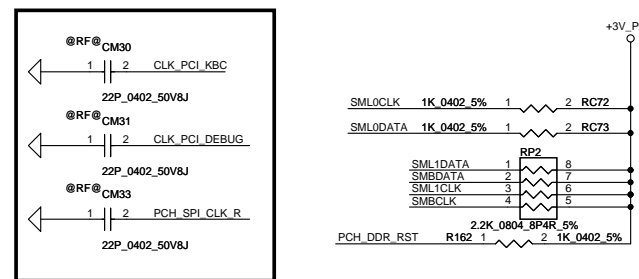
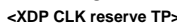
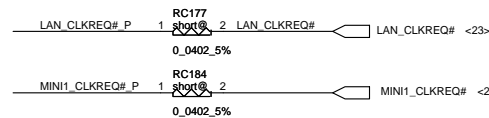
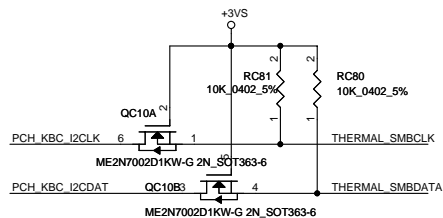
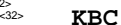
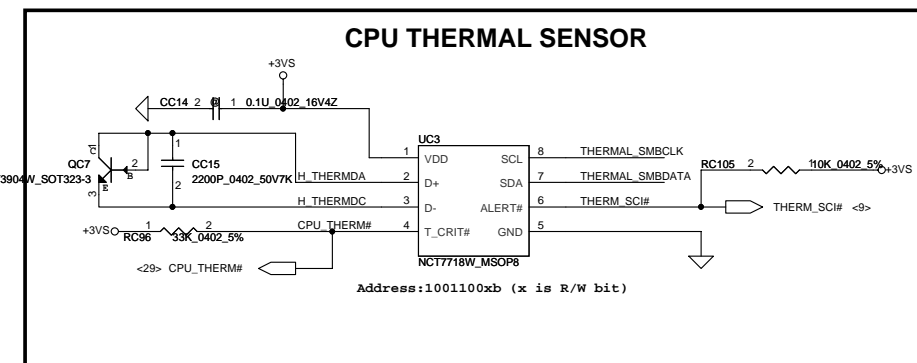
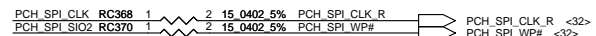
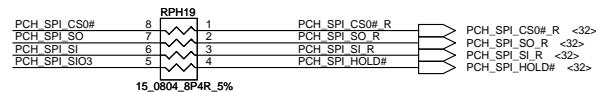
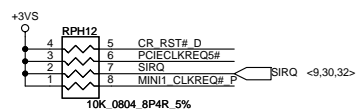
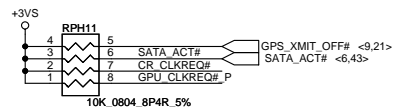
<PCI-E,SATA,USB3.0>

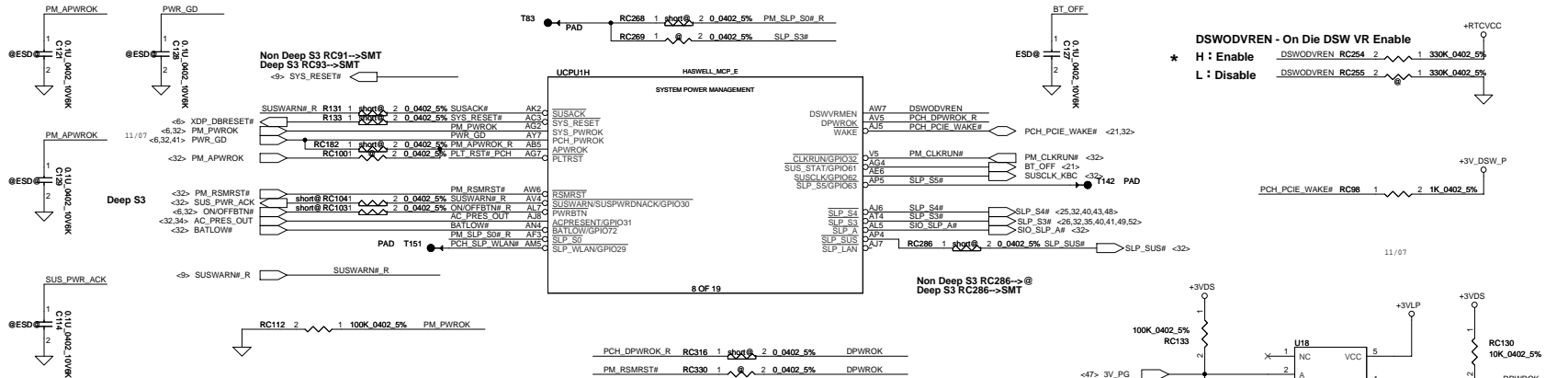
Lane#	PCI-E	SATA	USB3.0	DESTINATION
1			0	CS
2			1	USB3.0
3	1		2	WWAN (M.2)
4	2		3	Card reader(PCI-E)
5	3			10/100/1000 LAN
6	4			WLAN (M.2)
7				GPU(DiS only)
8				GPU(DiS only)
9				GPU(DiS only)
10				GPU(DiS only)
11	L3	3		2.5" HDD
12	L2	2		ODD
13	L1	1		
14	L0	0		SSD(NGFF)





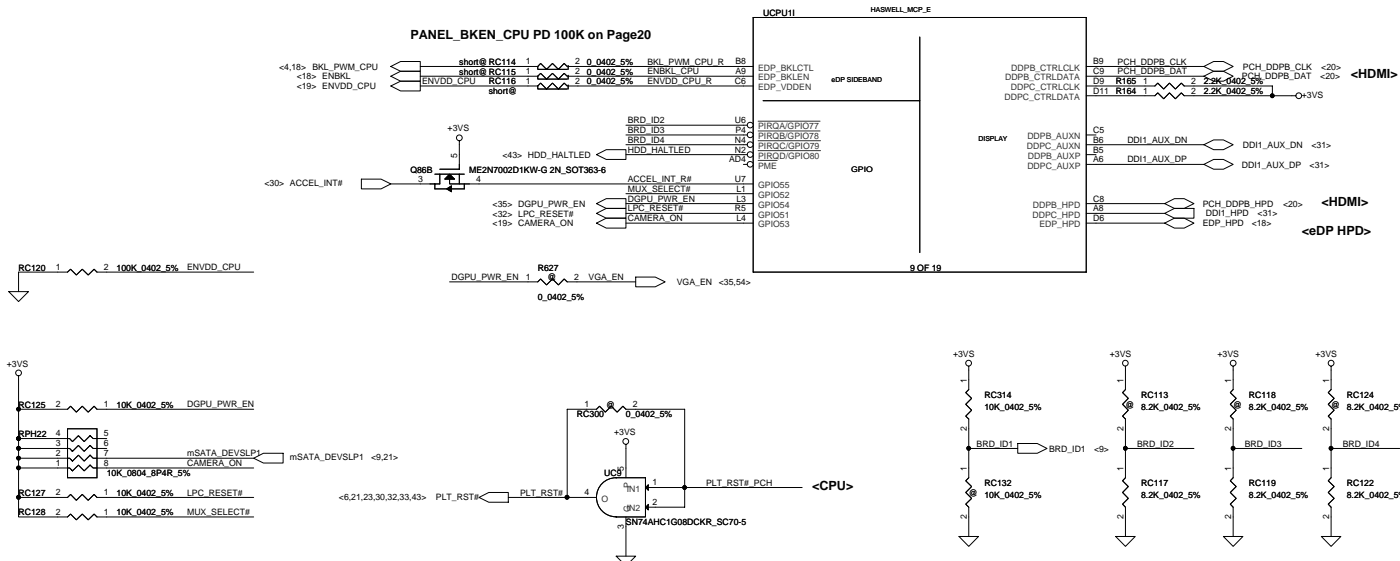
Security Classification	Compal Secret Data		<i>Compal Electronics, Inc.</i>		Title	
Issued Date	2011/06/29	Deciphered Date	2011/06/29	RTC, SSTA, HDA, JTAG LA-B181P		Rev 0.5
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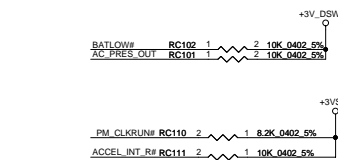
Intel ME-EC Interaction Signal List with and without M3 support

Signal Name	Platform With M3 Support (e.g., Intel AMT)	Platform Without M3 Support
SUSWRDNACK (GPIO39)	Required	Required
ACPRESENT (GPIO31)	Required	Required
SLP_A#	Required	[Tie to SLP_S3#] Note: If SLP_S3# is not routed from FCH to EC, then SLP_A# becomes required from Intel ME-EC perspective.

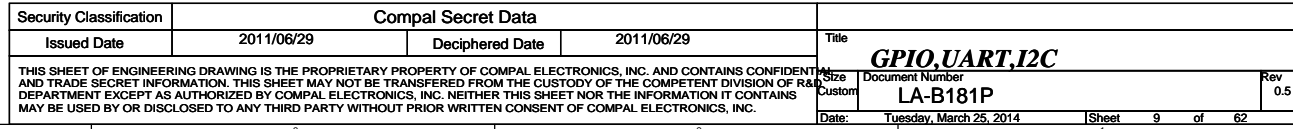


Pinout on customer's board,
as in the PDG, CDI #514849

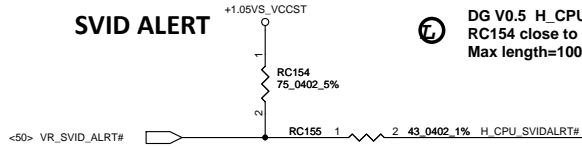
Pin	Pin
1 VccSus3_3	10 GND
2 SLP_S3#	11 PWRBTN#
3 VccDSW3_3	12 GND
4 SLP_S5#	13 SYS_RESET#
5 SLP_S4#	14 GND
6 SLP_A#	15 SLP_S0#
7 +3.3DS	16 NC
8 GND	17 NC
9 RTORST#	14 NC



	BRD_ID1	BRD_ID2	BRD_ID3	BRD_ID4
Board	GPIO76	GPIO77	GPIO78	GPIO79
0.1 DB0	0	0	0	0
0.1 DB1	0	0	0	1
0.1 DB2	0	0	1	0
0.1 SI1	0	1	0	0
0.1 SI1B	0	1	0	1
0.1 SI2	0	1	1	0
0.1	0	1	1	1
0.2 PV1	1	0	0	0
0.2	1	0	0	1
0.2	1	0	1	0
0.2	1	0	1	1
0.2	1	1	0	0
0.2	1	1	0	1
0.2	1	1	1	0
0.2	1	1	1	1

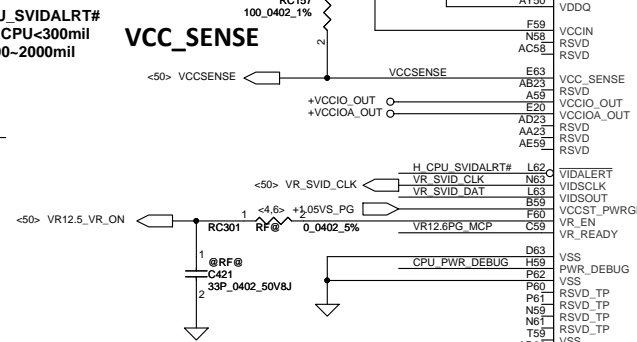


SVID ALERT

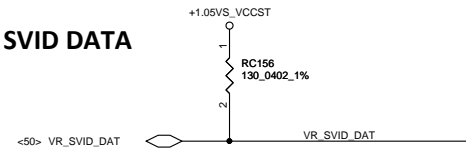


DG V0.5 H_CPU_SVIDALRT#
RC154 close to CPU<300mil
Max length=1000~2000mil

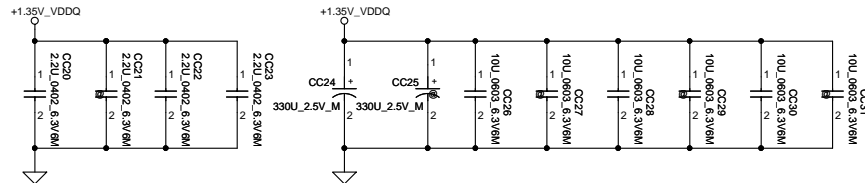
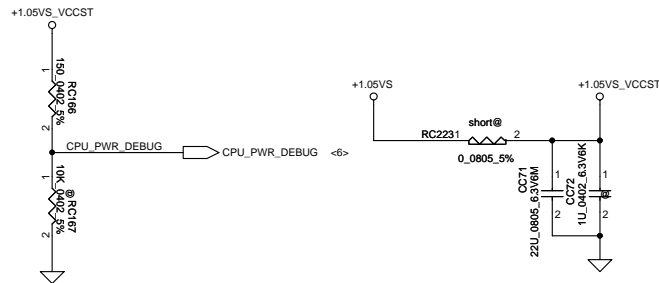
VCC_SENSE



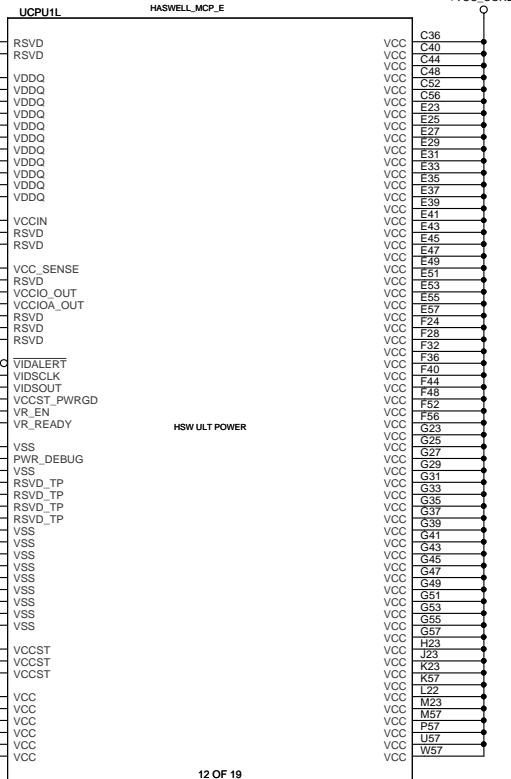
SVID DATA



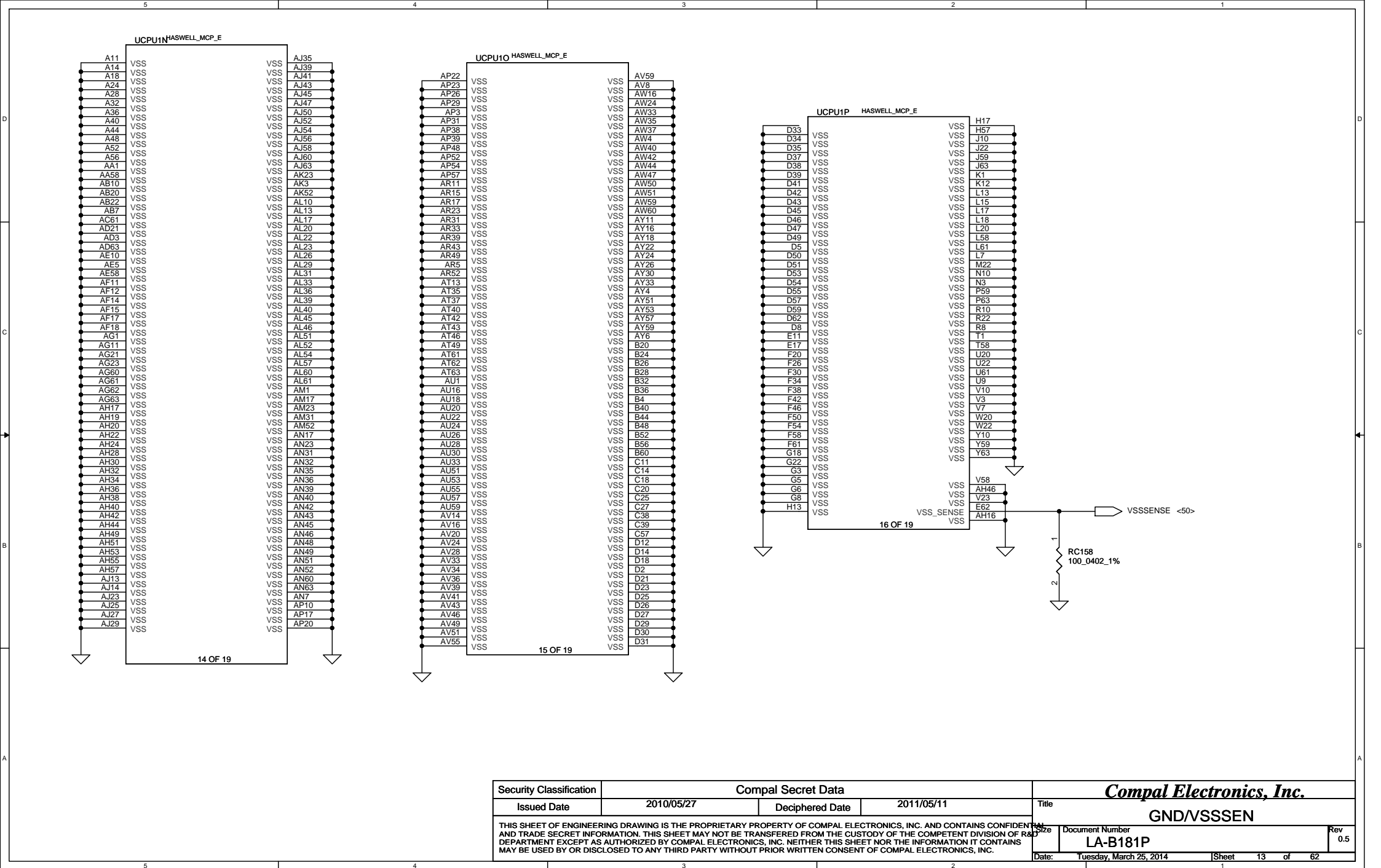
DG V0.5 VIDSOUT
RC156 close to CPU<500mil
Max length=1000~2000mil

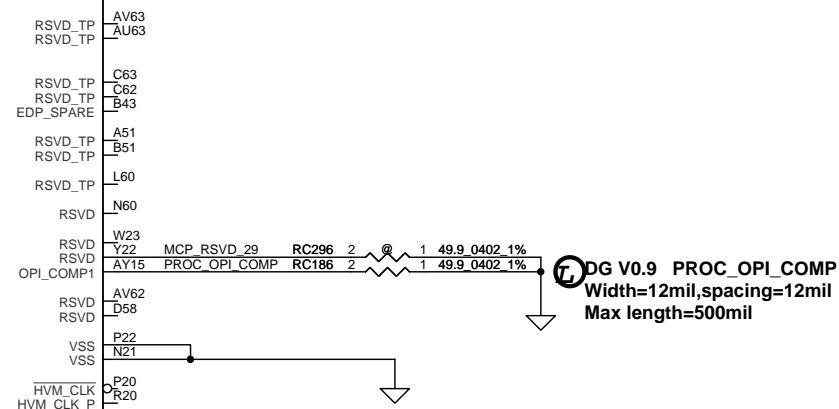
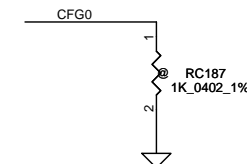
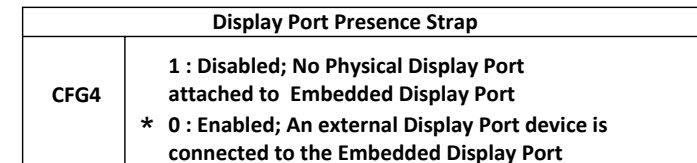
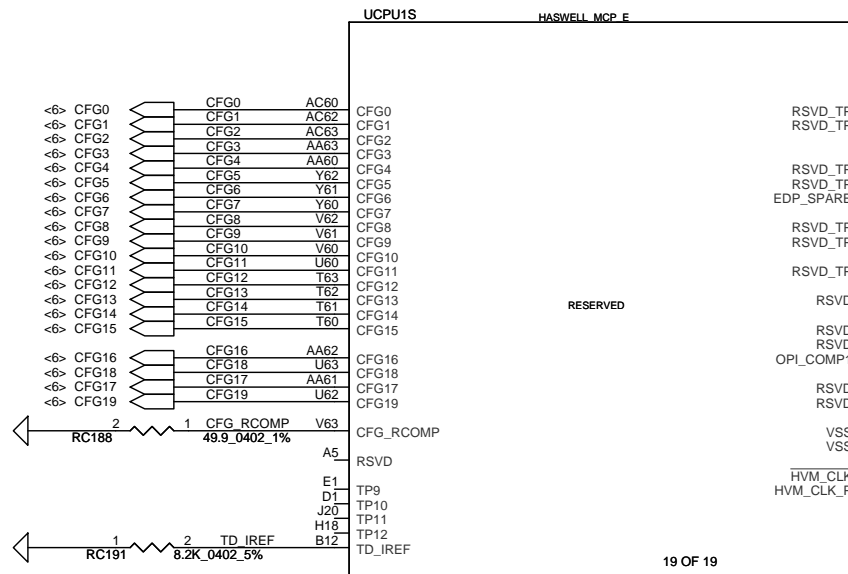
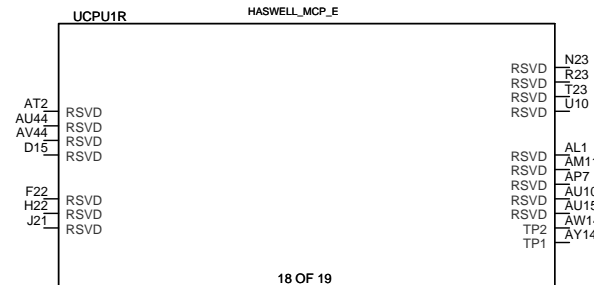
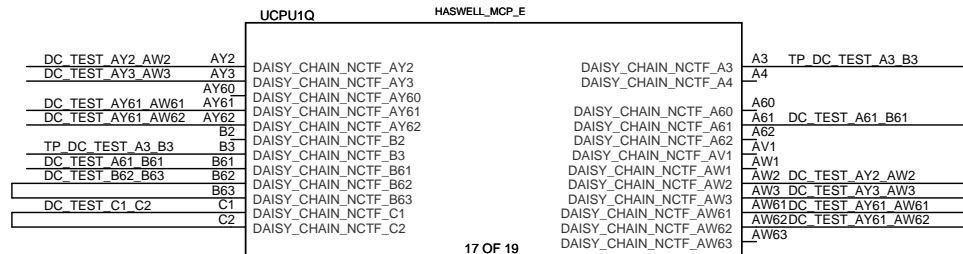


+VCC_CORE@10000mA

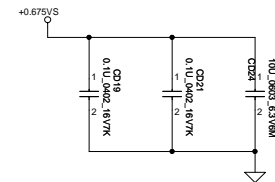


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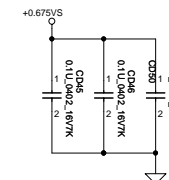




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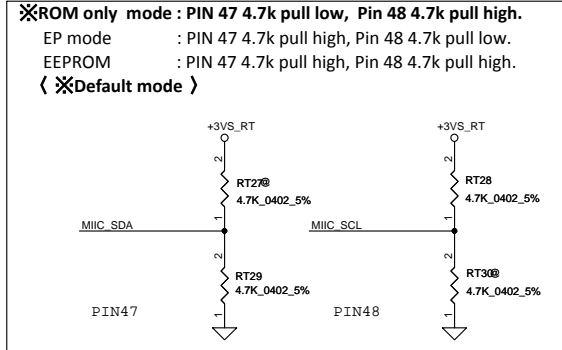
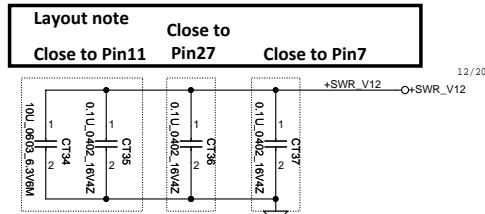
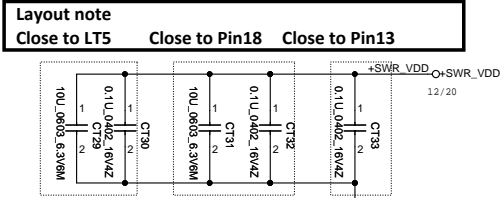
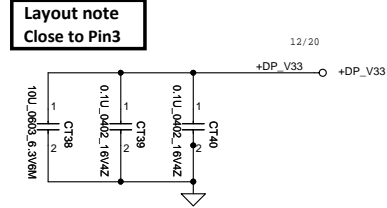
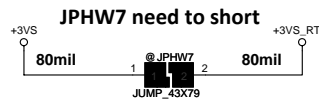


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DDR3L VREF

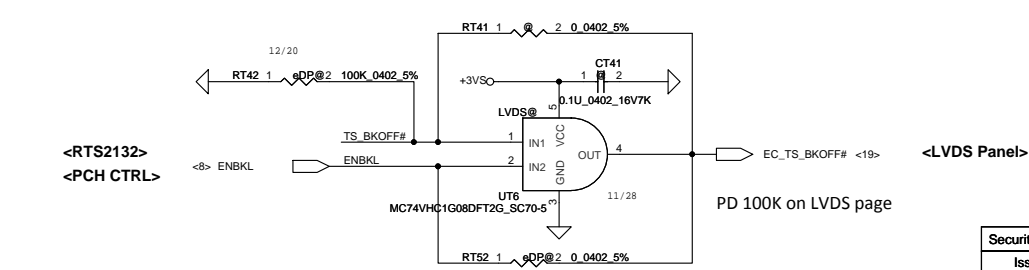
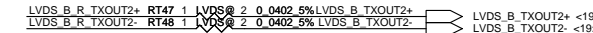
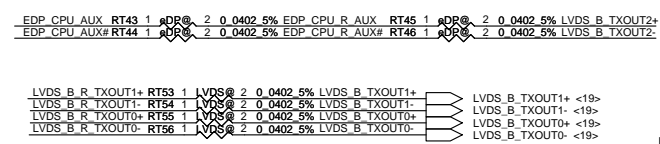
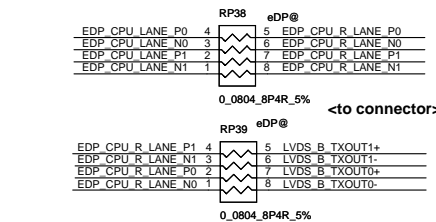
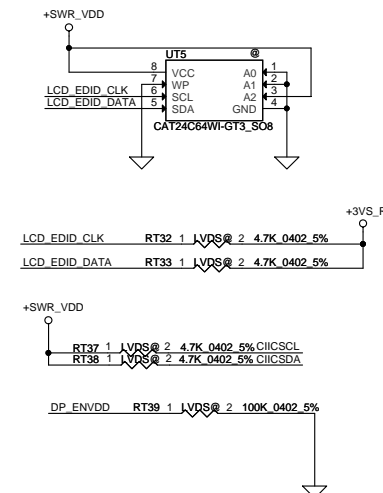
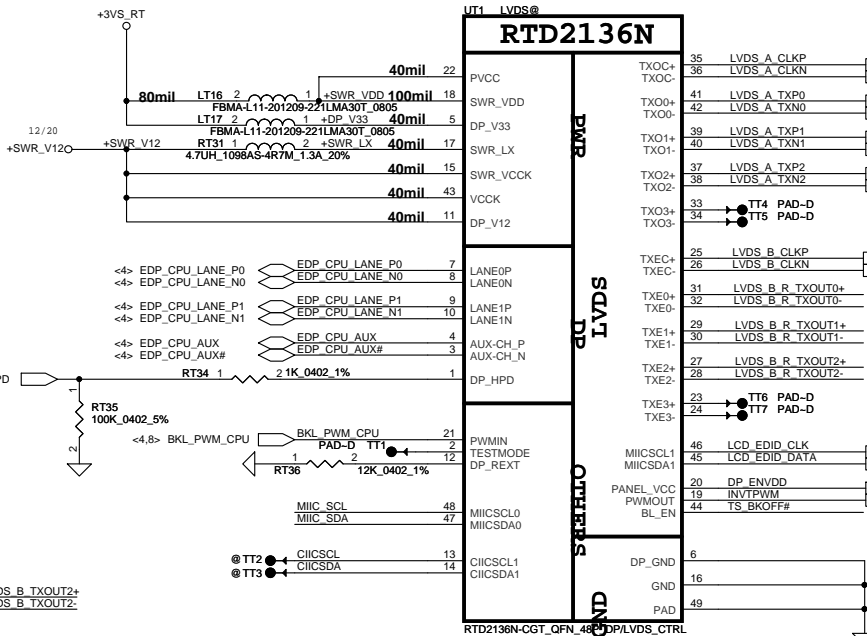


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SWR / LDO Mode select		
	LDO	SWR
2132S	Do not support	mount LT7
2132R	Use 0 ohm	mount LT7

✖ If use 2132R, please select LDO mode as default.



	PIN15	PIN16	Accept voltage input (high level)
2132S	TL_ENVDD	2132S	3.3V
2132R	+LCD_VDD *	2132R	1.5~3.3V

* Version R internal Power Switch, can output 1A, Rds(on)=0.2 ohm

* Version R has internal level shifter, remove level shifter circuit on AMD platform

2132S	2132R
1. Support SWR mode	1. Support LDO mode and SWR mode 2. Internal ROM 3. Support LCD_VDD(internal Power switch) 4. Integrates Level shifter

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Issued Date	2013/3/1	Deciphered Date	2015/3/1	Title	LVDS Translator-RTD2132R				
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Camera

<10> USB20_P6

<10> USB20_N6

USB20_P6 R

USB20_N6 R

R170 1 2 0.0402 5%

L12 EMI @

R171 1 2 0.0402 5%

DLW21HN900HQ2L_4P

	GPIO92 PLT_ID2	GPIO93 PLT_ID3
Rolo 14"	0	1
Reeses 15"	1	0
Raisinet 17"	1	1

RF@C119
10P_0402_50V8J

RF@C120
10P_0402_50V8J

LCD_CLK

LCD_DATA

+5V

+3V

RF@C139
0.1U_0402_10V6K

RF@C140
0.1U_0402_10V6K

INVPWR_B+

0.0805 5%

EMI 1 L1

EMI 2 L2

0.0805 5%

B+

EMI C17

680p_0402_50V7K

EMI C18

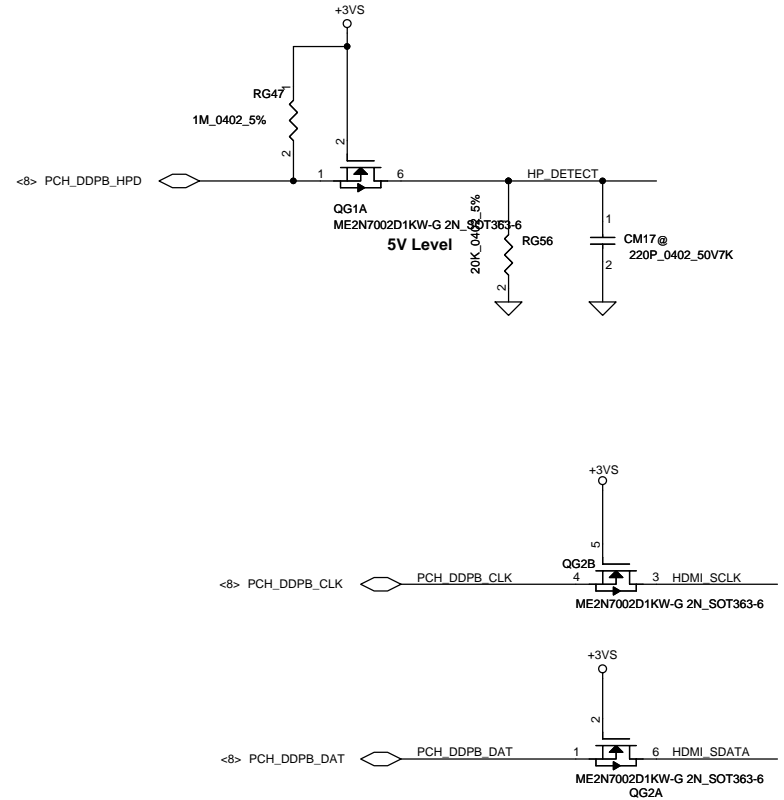
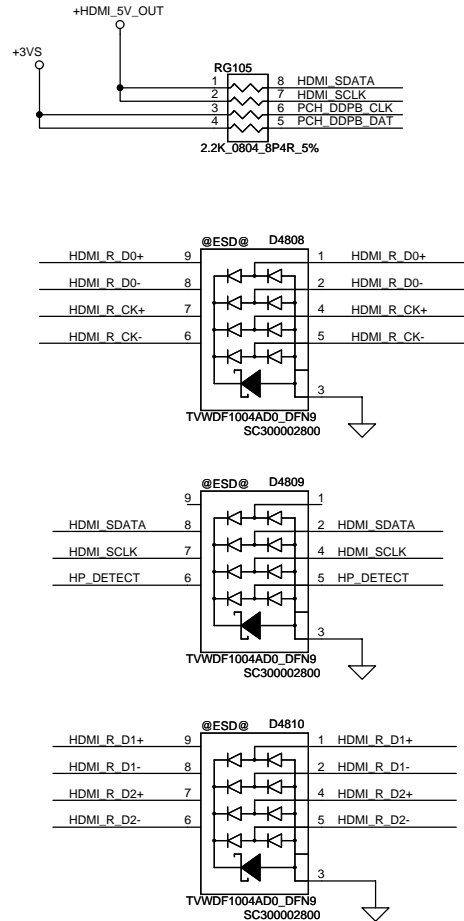
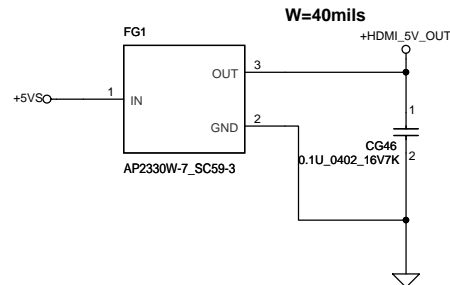
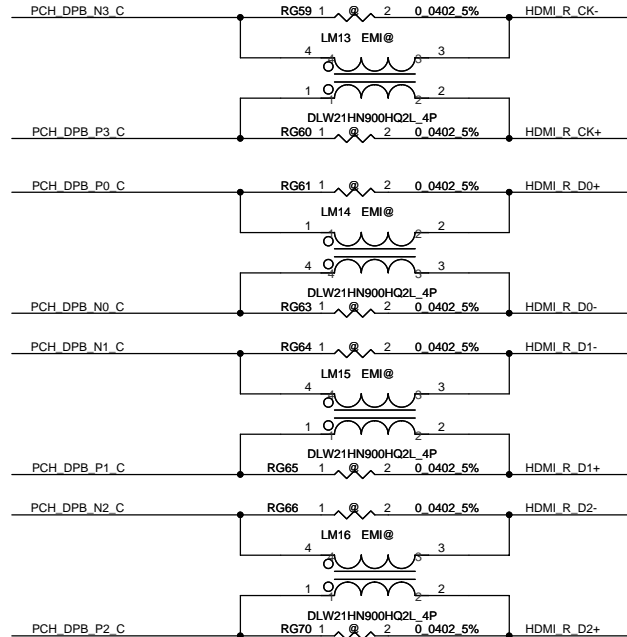
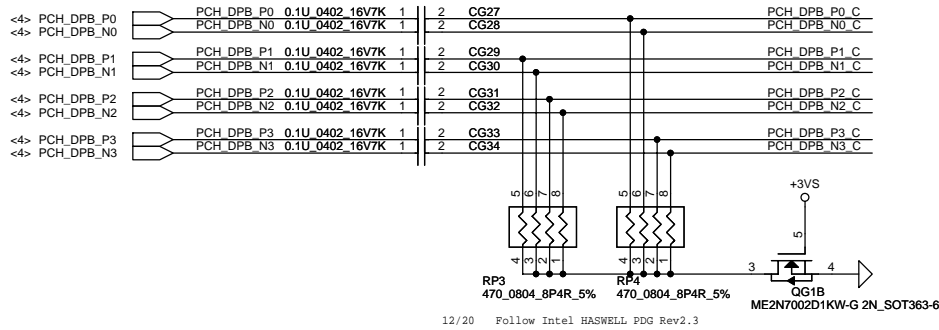
68p_0402_50V8J

SM10010014520 3000ma
220ohm @100mhz
DCR 0.04

The diagram illustrates the JLVDS1 interface, showing the connection between a camera module and a display module. The camera module components include LA2, LA1, FBMA-L10-160808-301, FBMA-L10-160808-301, CAMERA_ON, and LVDS_B signals. The display module components include INVPWR, EDP_HPD_PANEL_R, LCDVDD, +3VSO, INVPWM, DISOFF#, +5VSO, +3VSO, D MIC L DATA, D MIC L CLK, USB20_P6_R, USB20_N6_R, LCD_EDID_CLK, LCD_EDID_DATA, and LVDS_A signals. The diagram shows a complex wiring harness connecting these components, with a note indicating a short circuit between R168 and R169.

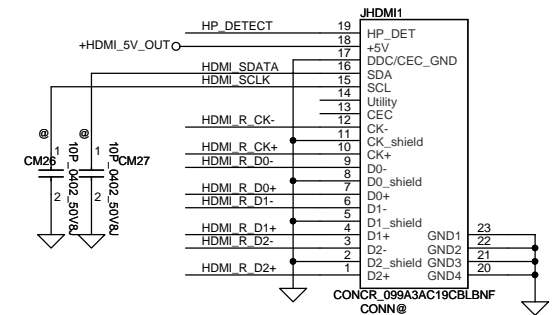
Security Classification	Compal Secret Data			Compal Electronics, Inc.			
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title	LVDS Connector		
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				Date:	Tuesday, March 25, 2014	Sheet	19 of 62

<CPU>



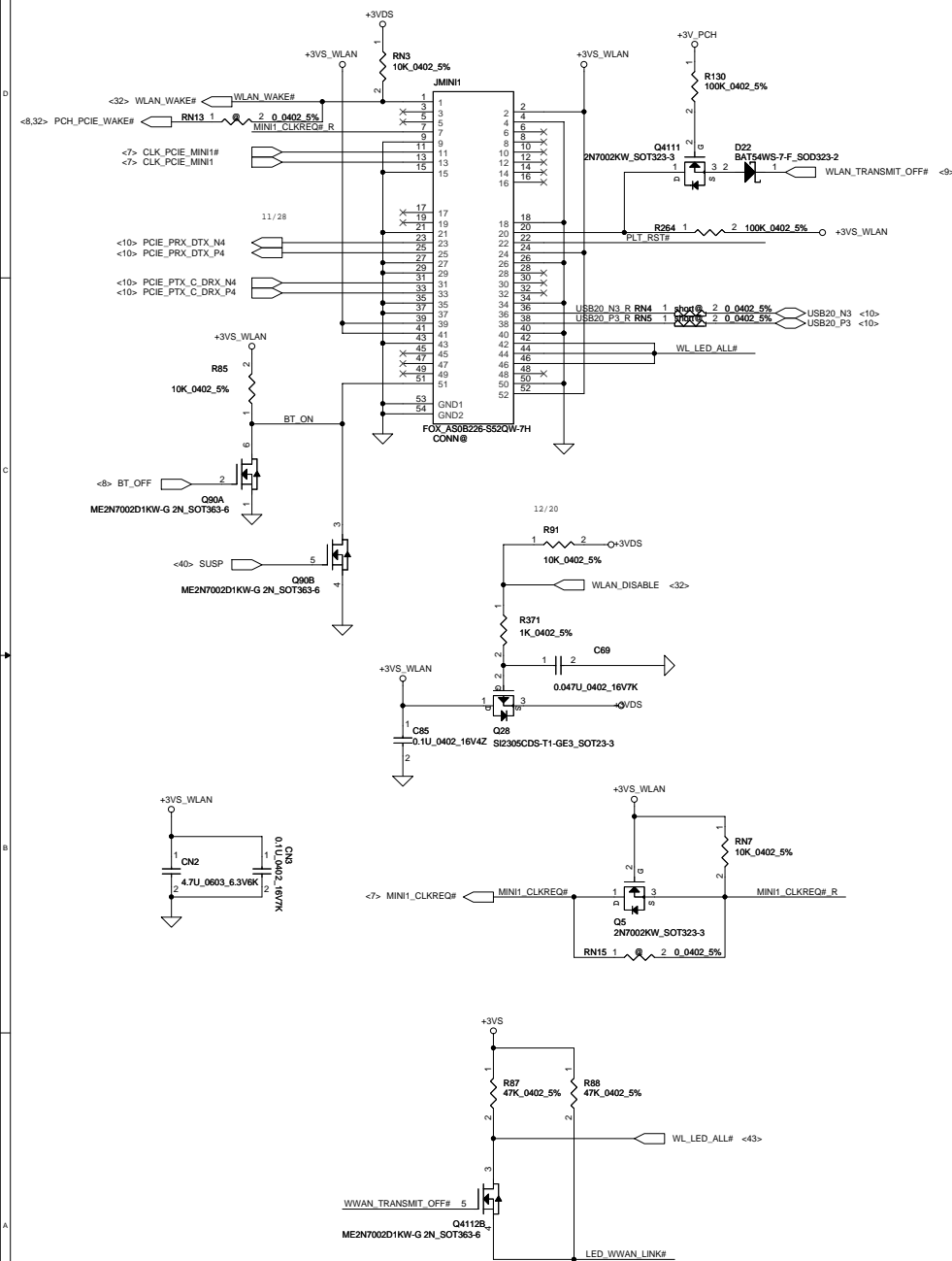
5V PULL UP IN CONNECTER SIDE

HDMI Conn.

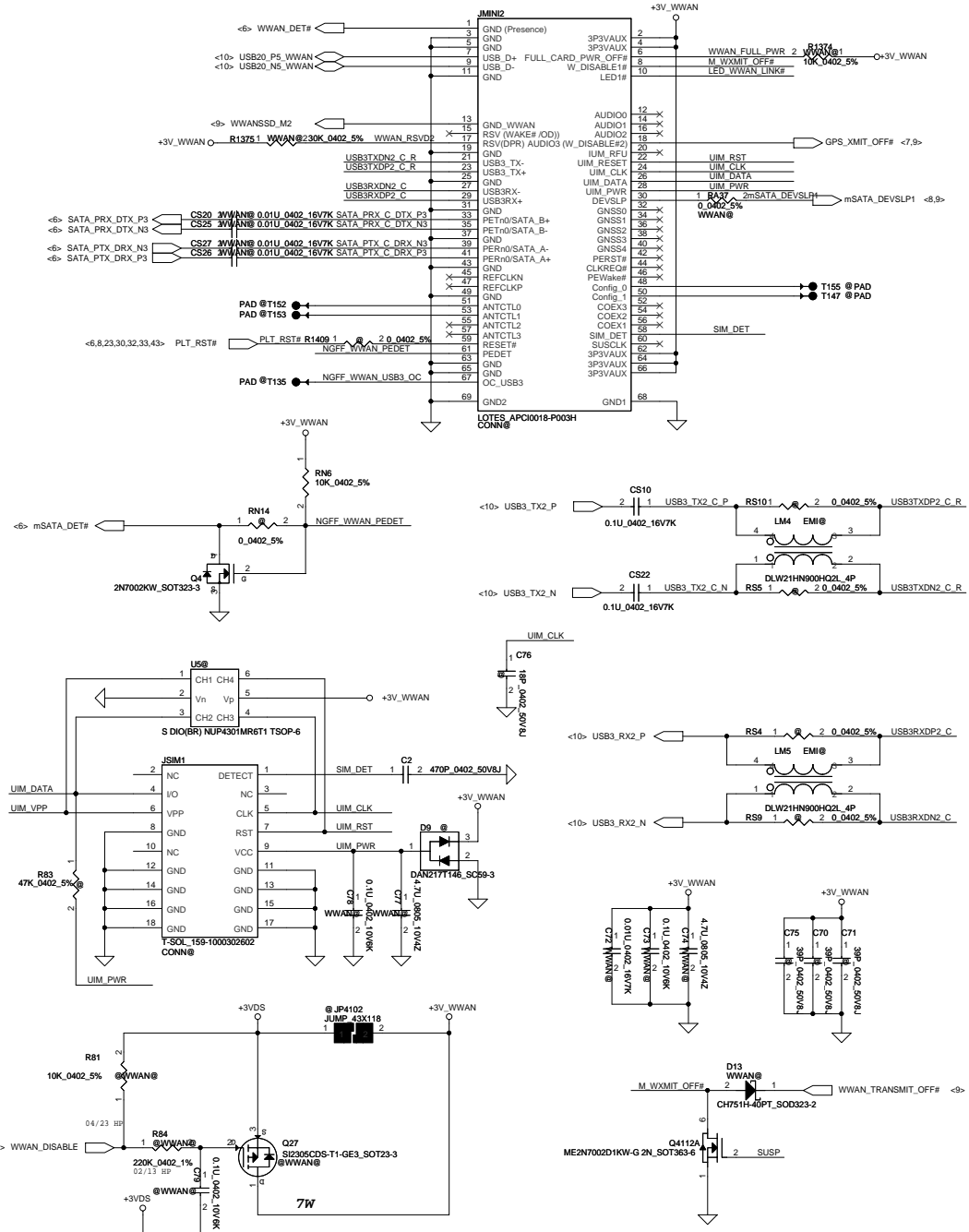


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2011/06/29	Deciphered Date	2011/06/29	Title	HDMI Conn/Level shift
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					LA-B181P
				Date	Tuesday, March 25, 2014
				Sheet	20 of 62
				Rev	0.5

WLAN



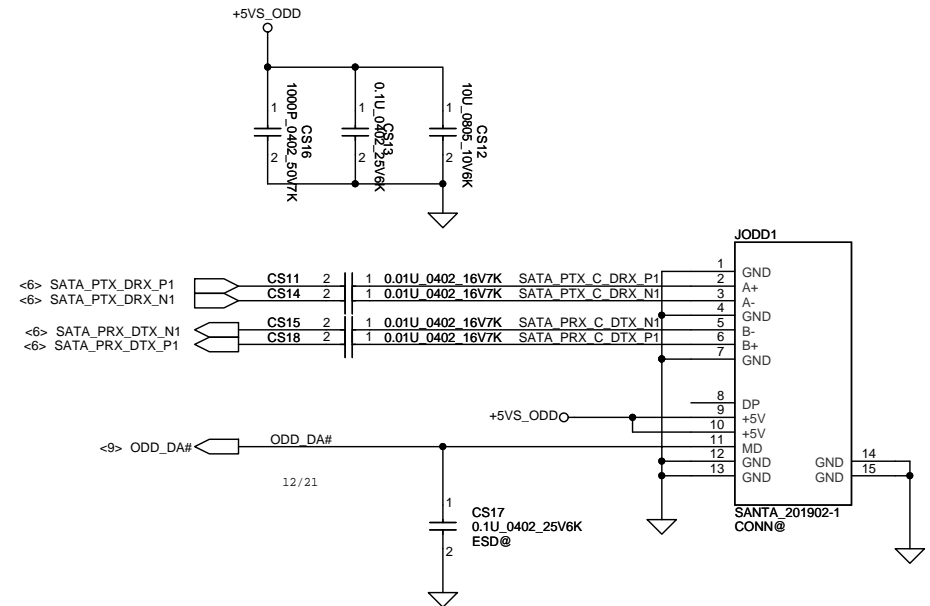
WWAN



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Issued Date		2013/02/26		Deciphered Date		2015/07/08		Title					
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								Size		Document Number		Rev 0.5	
								LA-B181P					
Date:								Tuesday, March 25, 2014		Sheet 21 of 62			

2.5" SATA HDD connector

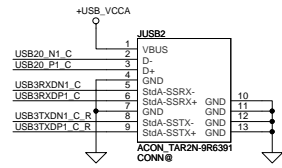
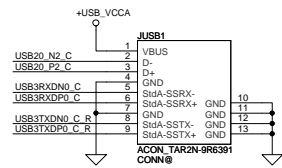
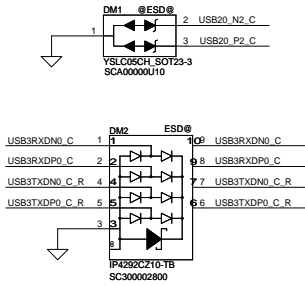
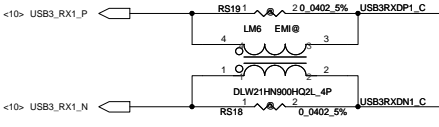
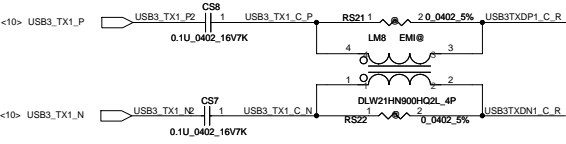
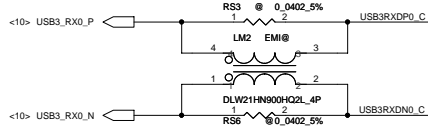
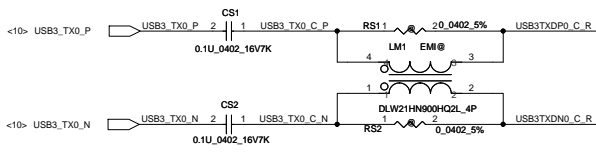
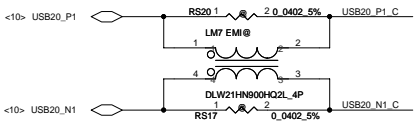
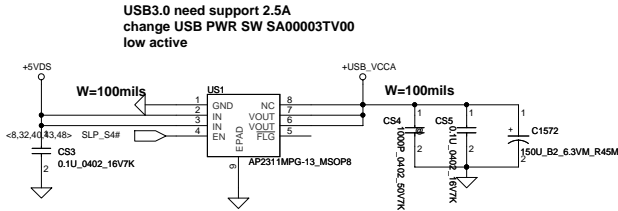
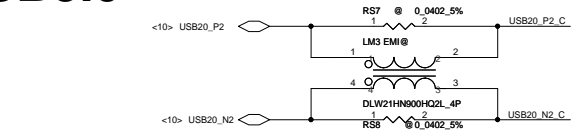
The schematic for the 2.5" SATA HDD connector shows a +5VS input. This input is connected to a network of components: a resistor R201 (1 0.0603, 5%) and a diode short@ (2) in parallel, followed by another resistor R212 (1 0.0603, 5%) and a diode short@ (2) in parallel. The output of this network is +5VS_HDD1. A parallel combination of capacitors C149 (10u 0603, 6.3V/6M) and C150 (0.1u 0603, -16V/7K) is connected between +5VS_HDD1 and ground.



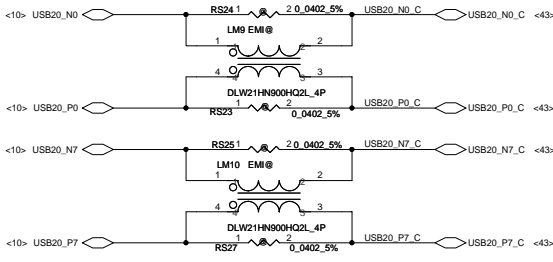
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Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title	ODD/SATA Conn	
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				B	LA-B181P	0.5
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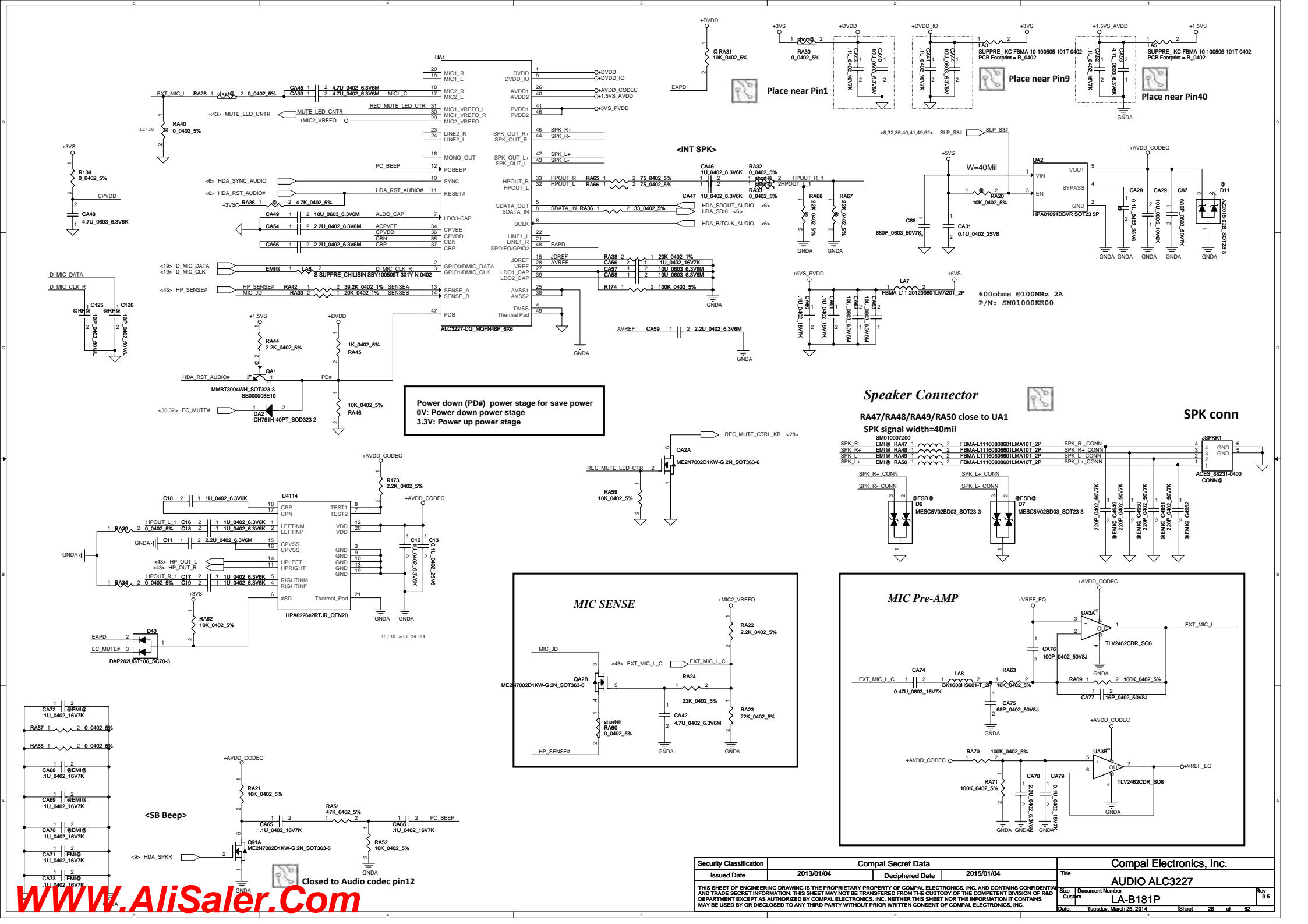
Security Classification	Compal Secret Data			Title
Issued Date	2011/06/29	Deciphered Date	2011/06/29	Card Reader RTS5237
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USB3.0



USB2.0

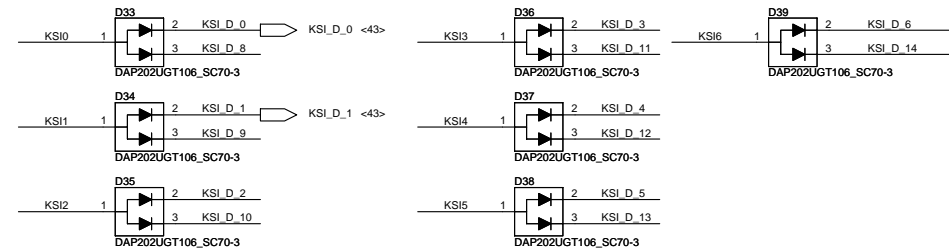
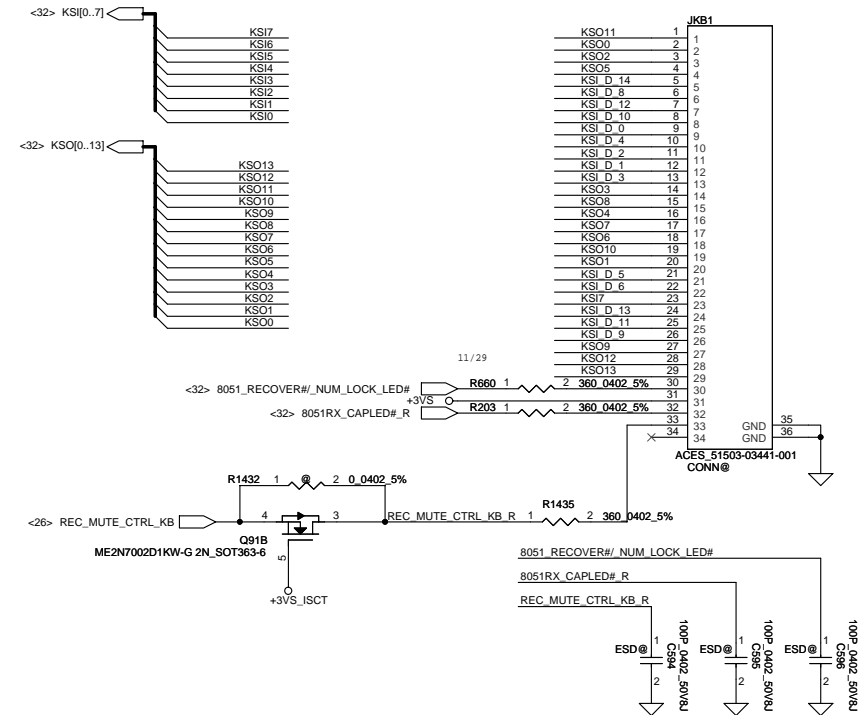
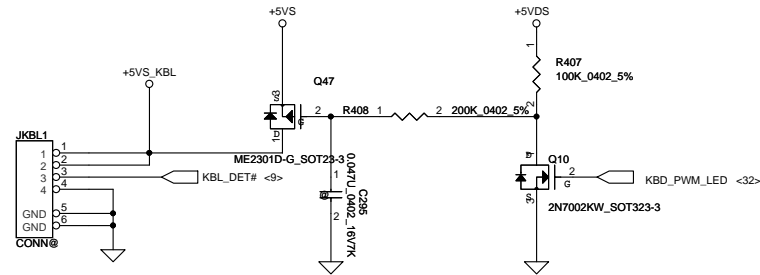




5	4	3	2	1																										
D				D																										
C				C																										
B				B																										
A				A																										
<div><table><tr><td>Security Classification</td><td colspan="3">Compal Secret Data</td><td colspan="2">Compal Electronics, Inc.</td></tr><tr><td>Issued Date</td><td>2012/03/23</td><td>Deciphered Date</td><td>2012/10/21</td><td>Title</td><td>Audio SPK Conn/Jack/MIC</td></tr><tr><td colspan="4" rowspan="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 THRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.</td><td>Size C</td><td>Document Number LA-B181P</td></tr><tr><td>Date: Tuesday, March 25, 2014</td><td>Rev 0.5</td></tr><tr><td colspan="4"></td><td>Sheet 27 of 62</td><td></td></tr></table></div>					Security Classification	Compal Secret Data			Compal Electronics, Inc.		Issued Date	2012/03/23	Deciphered Date	2012/10/21	Title	Audio SPK Conn/Jack/MIC	THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size C	Document Number LA-B181P	Date: Tuesday, March 25, 2014	Rev 0.5					Sheet 27 of 62	
Security Classification	Compal Secret Data			Compal Electronics, Inc.																										
Issued Date	2012/03/23	Deciphered Date	2012/10/21	Title	Audio SPK Conn/Jack/MIC																									
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				Date: Tuesday, March 25, 2014	Rev 0.5																									
				Sheet 27 of 62																										
5	4	3	2	1																										

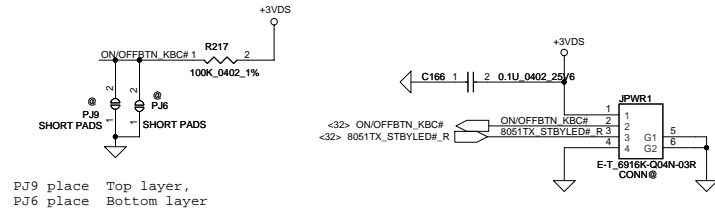
Keyboard conn

KB backlight Conn

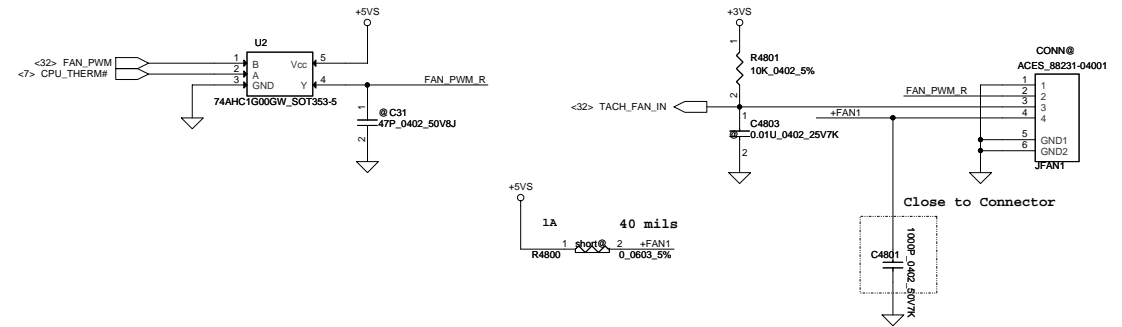


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				LA-B181P	0.5
				Date: Tuesday, March 25, 2014	Sheet 28 of 62

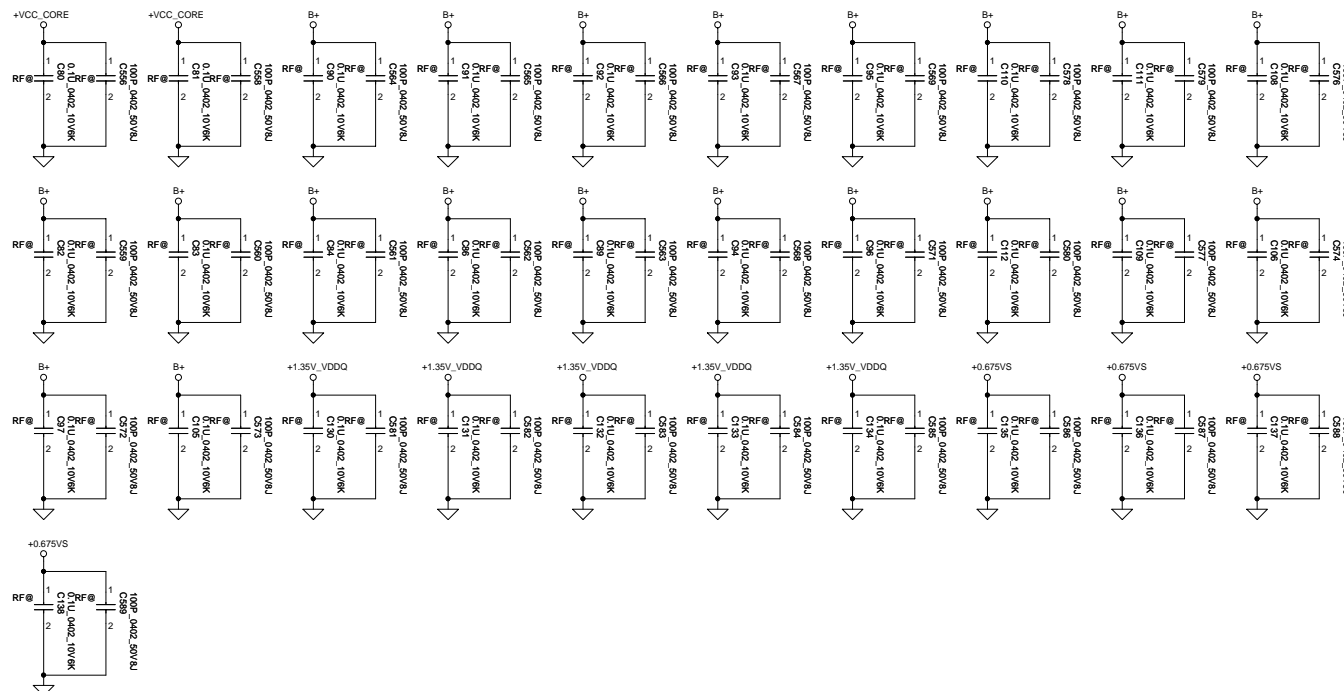
Power Button Connector



Fan Control Circuit

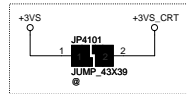


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Date: Tuesday, March 25, 2014					Sheet 29 of 62

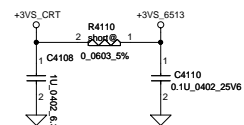


Security Classification		Compal Secret Data		Compal Electronics, Inc. LED/Screw hole		
Issued Date		Deciphered Date		Title		
2013/02/26		2015/07/08		Size Document Number Rev LA-B181P 0		
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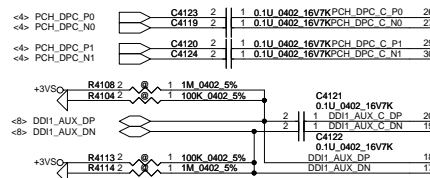
For Power consumption Measurement



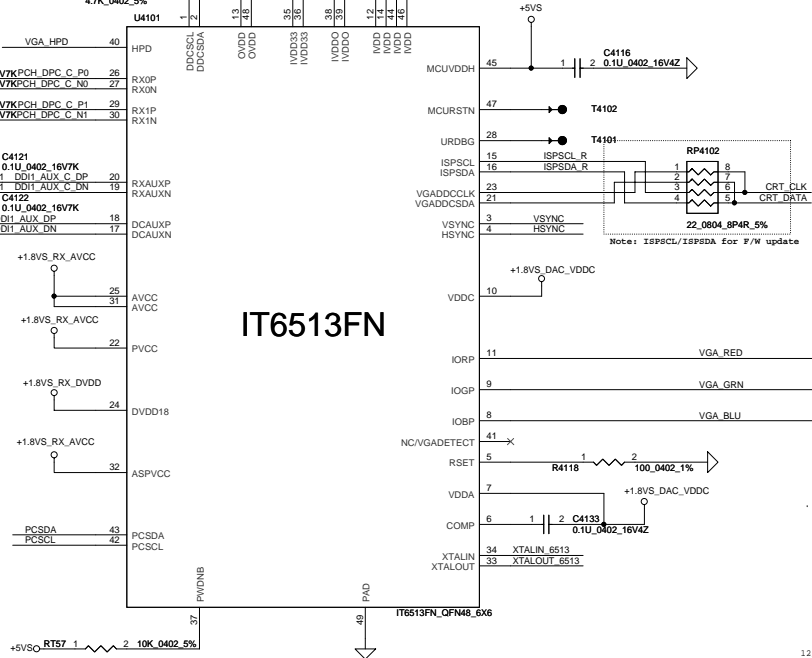
+3VS TO +3VS_6513



CPU DD11
(2-Lane only)



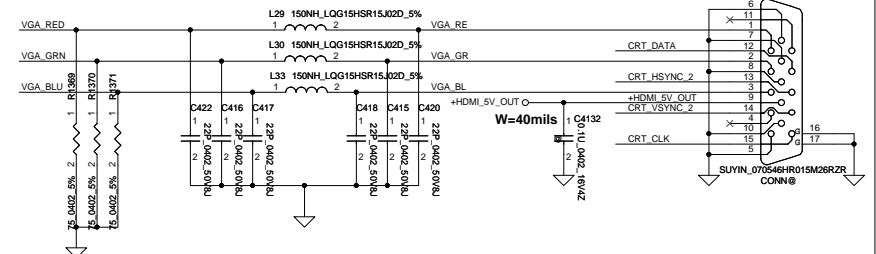
IT6513FN



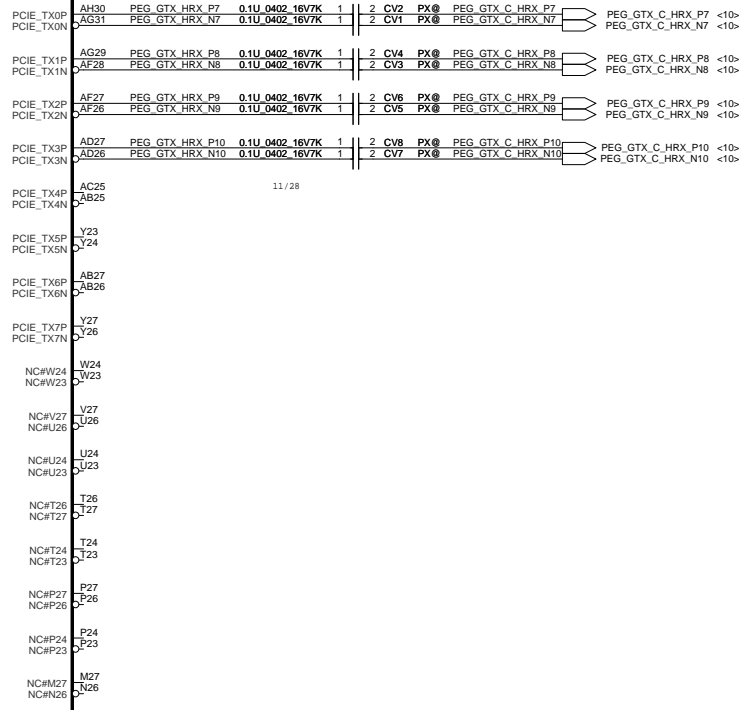
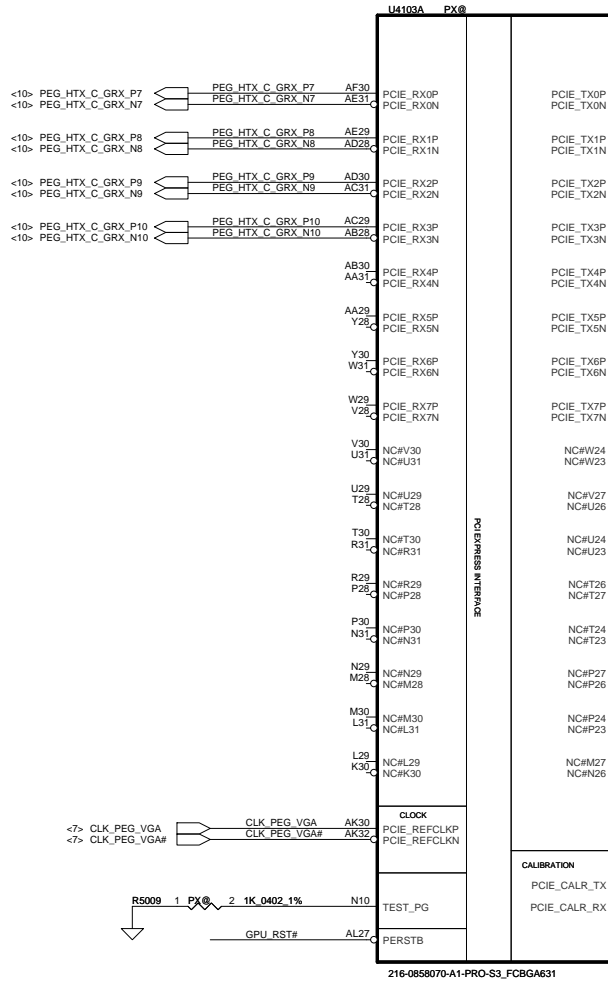
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12/20

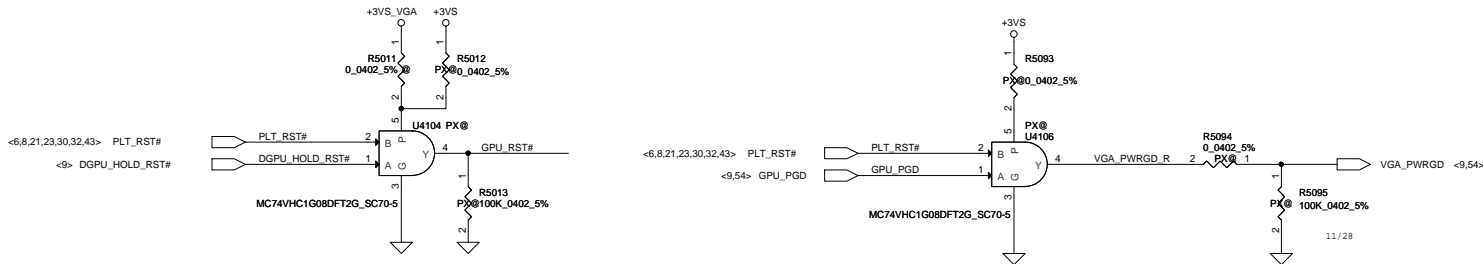
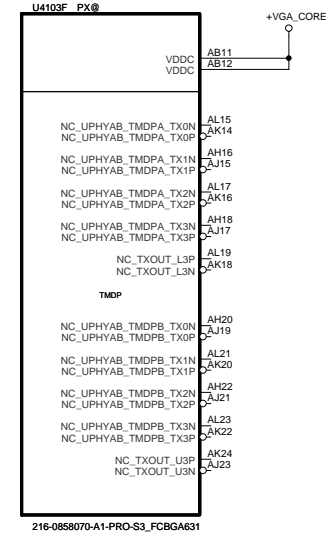
CRT Connector



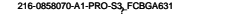
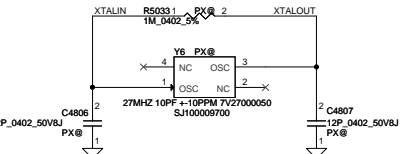
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				Document Number
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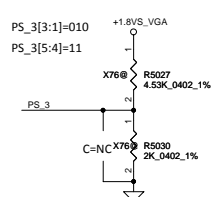
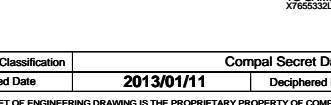
No Use GPU Display Port output



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Issued Date	2013/01/11	Deciphered Date	2013/12/31	Title	Topaz PCIe/DP
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				Document Number	LA-B181P
				Date	Tuesday, March 25, 2014
				Sheet	33 of 62



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

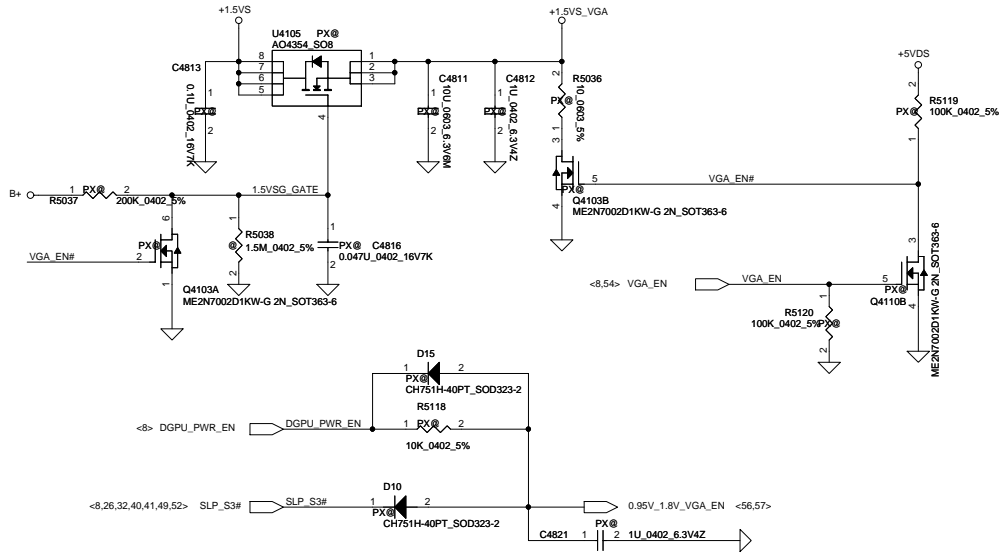


Strap Name :

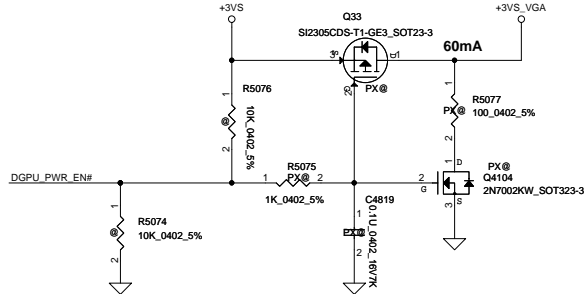
PS_3[1]	BOARD_CONFIG[0] (Memory ID)
PS_3[2]	BOARD_CONFIG[1] (Memory ID)
PS_3[3]	BOARD_CONFIG[2] (Memory ID)
PS_3[4]	AUD_PORT_CONN_PINSTRAP[1]
PS_3[5]	AUD_PORT_CONN_PINSTRAP[2]

ZZZ1	ZZZ2	ZZZ3	ZZZ4	ZZZ5	ZZZ6
					
X761G@ 1G SAMSUNG	X762G@ 2G SAMSUNG	X761G@ 1G HYNIX	X762G@ 2G HYNIX	X761G@ 1G MICRON	X762G@ 2G MICRON

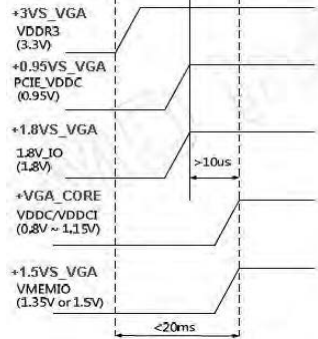
+1.5VS to +1.5VS_VGA (2.096A)



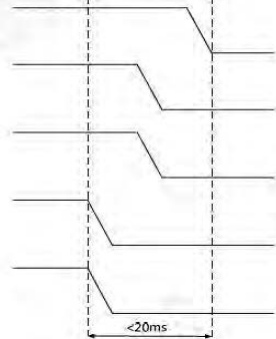
+3VS to +3VS_VGA (25mA)



POWER UP

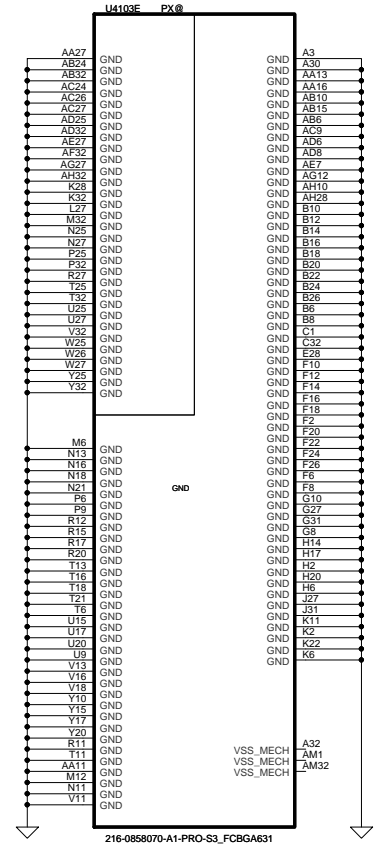
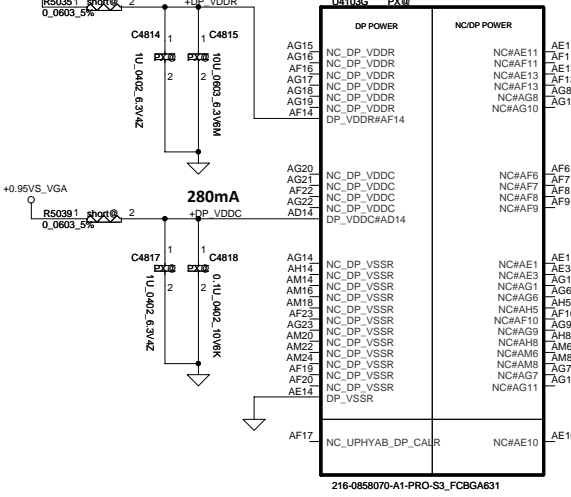


POWER DOWN



370mA (HDMI) 188mA (Display Port)

No Use GPU Display Port output



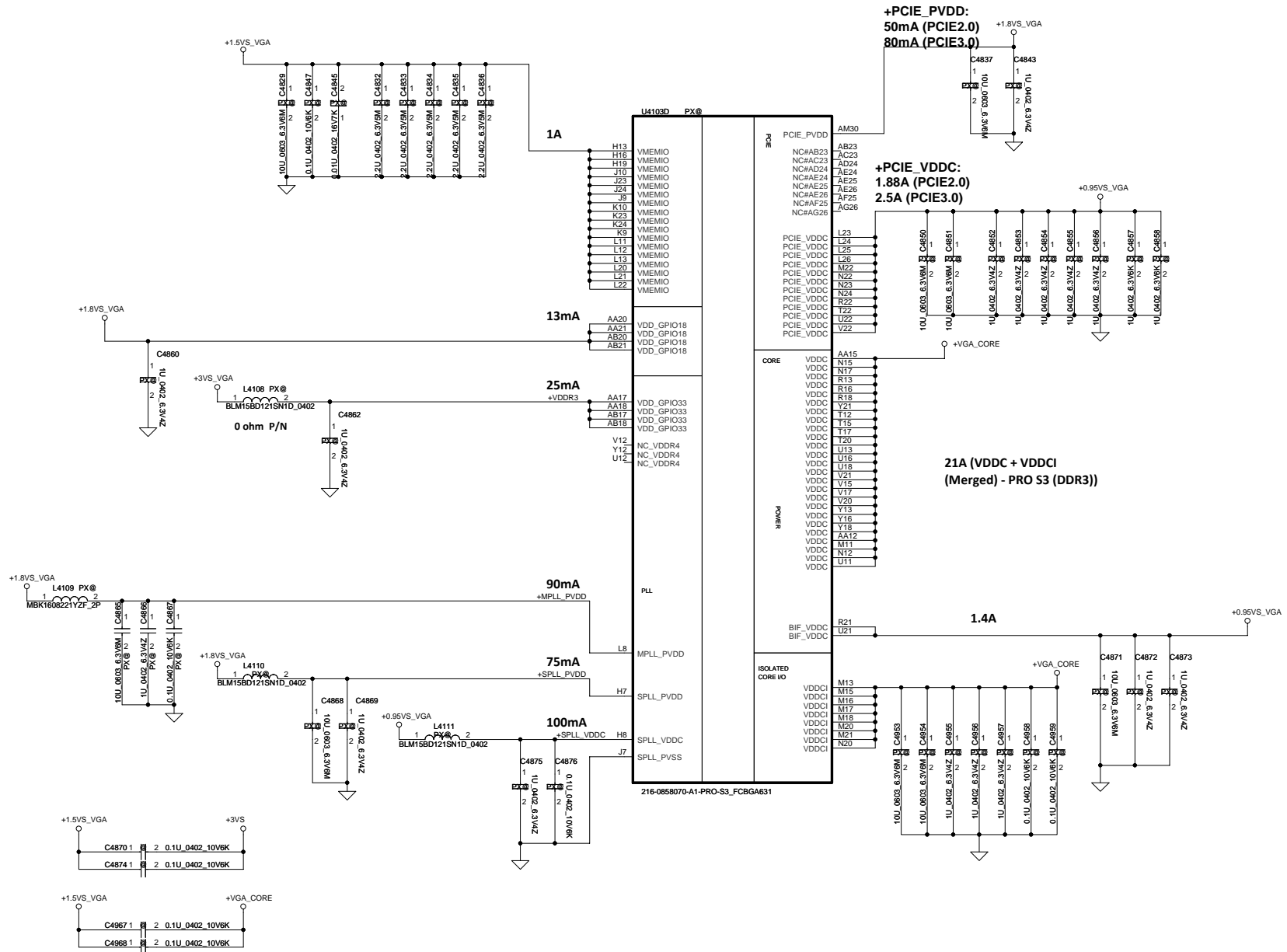
+VGA_CORE	10uF	1uF	0.1uF
VDDC	TBD	5 (1@)	10 (2@)
VDDCI	3.5A	1	3

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

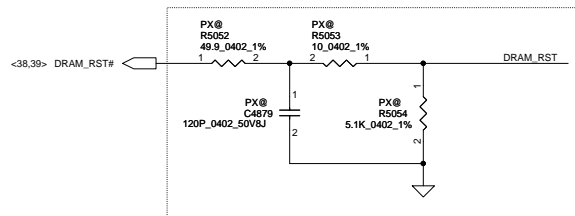
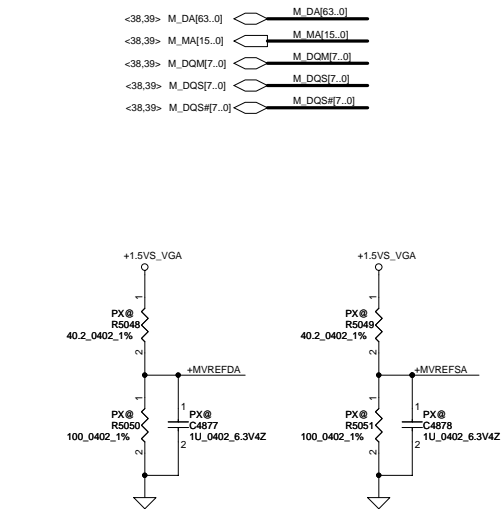
+1.5VS_VGA	10uF	1uF	0.1uF
VDDR1	1.5A	3	5

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

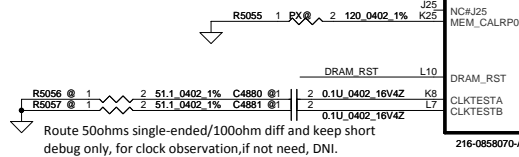
+3VS_VGA	10uF	1uF	0.1uF
VDDR3	25mA	0	2 (1@)



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Issued Date	2013/01/11	Deciphered Date	2013/12/31	Topaz Power	Rev 0.5
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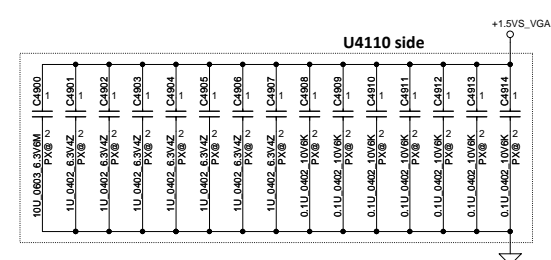
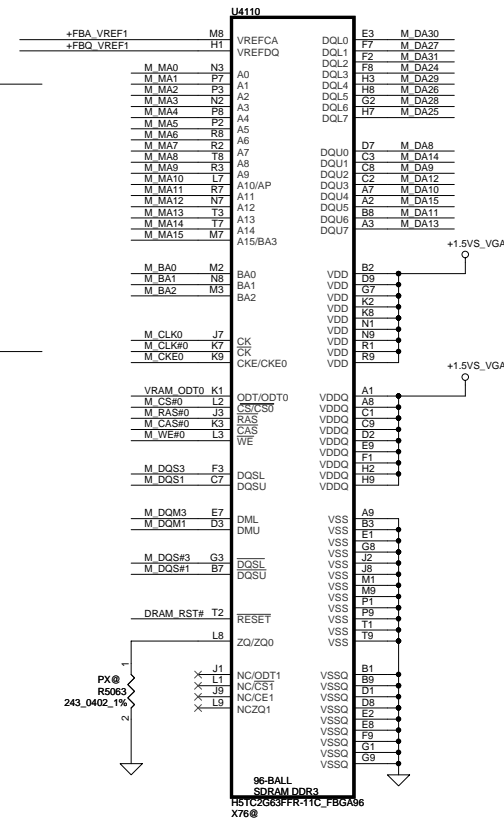
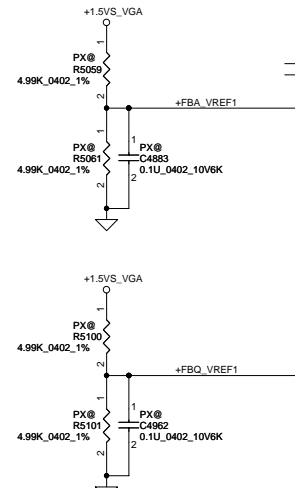
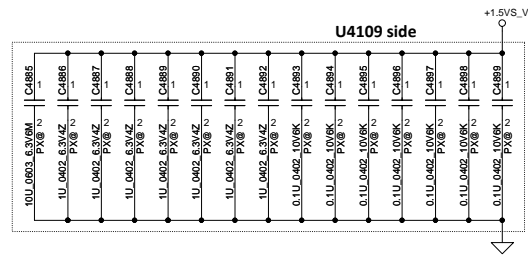
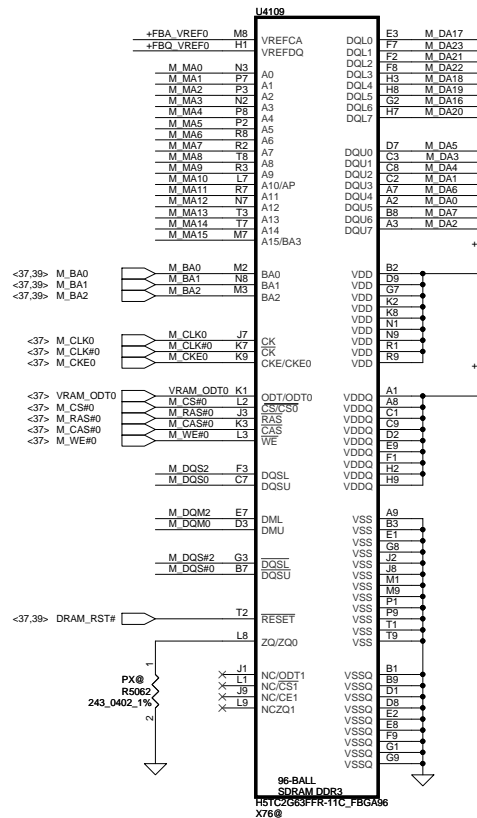
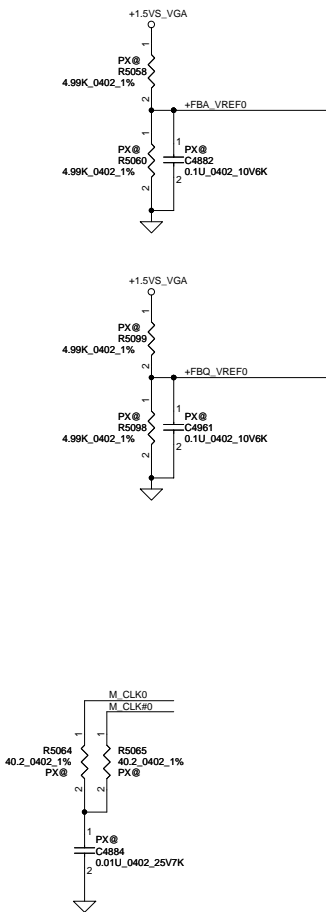


Place close to GPU (within 25mm)
and place component close to each other

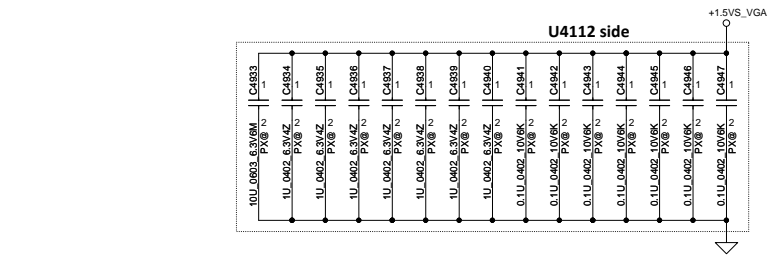
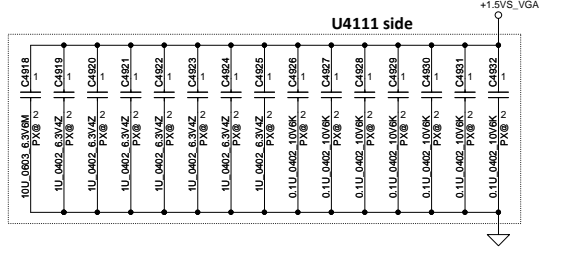


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M_DA3	H32	QDA0_3	MAA0_3	G23	M_MAO3
M_DA4	G29	QDA0_4	MAA0_4	G24	M_MAO4
M_DA5	F28	QDA0_5	MAA0_5	H24	M_MAO5
M_DA6	F35	QDA0_6	MAA0_6	J19	M_MAO6
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M_DA8	C30	QDA0_8	MAA0_8	G20	M_MAO13
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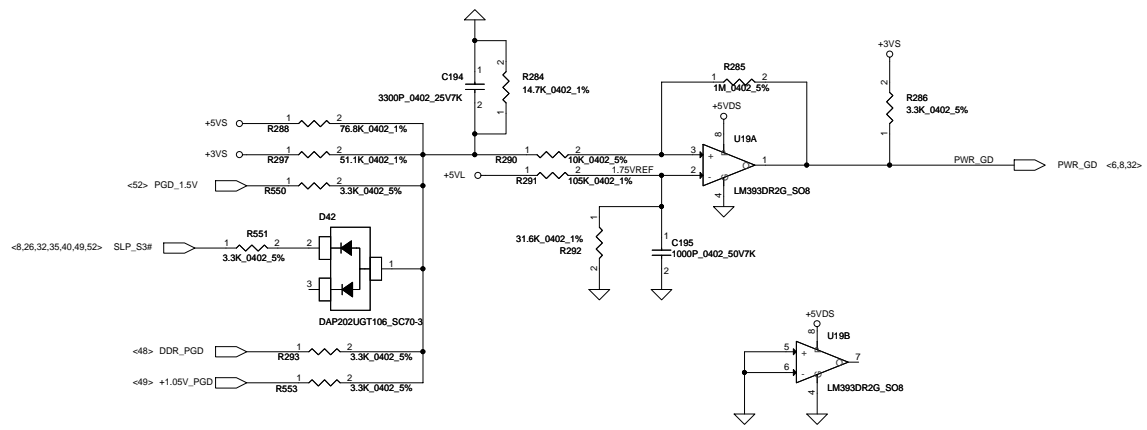
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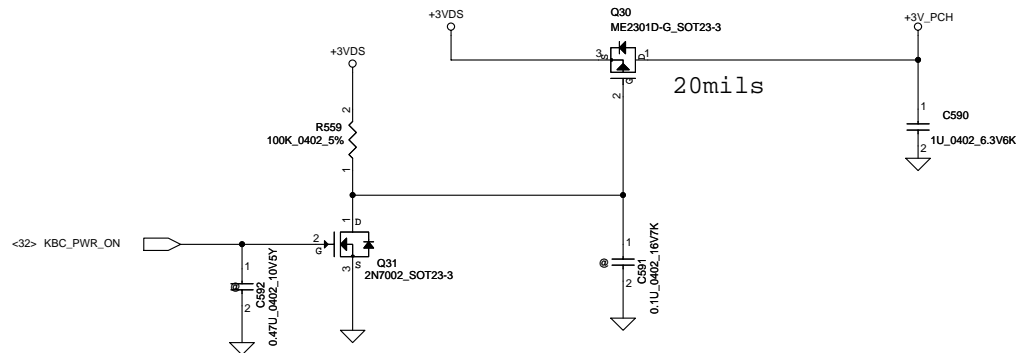
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Issued Date	2013/01/11	Deciphered Date	2013/12/31	Title	Topaz_VRAM A Lower	
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				Custom	LA-B181P	0.5
				Date:	Tuesday, March 25, 2014	Sheet 38 of 62



Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2013/01/11	Deciphered Date	2013/12/31	Title	Topaz VRAM A Upper	
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				Custom	LA-B181P	0.5
Date:				Tuesday, March 25, 2014	Sheet	39 of 62

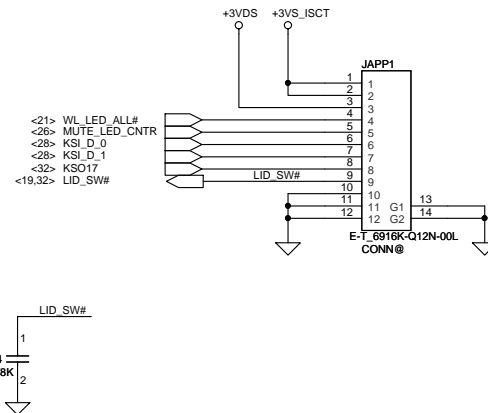
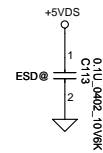


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			Date: Tuesday, March 25, 2014	Sheet 41 of 62

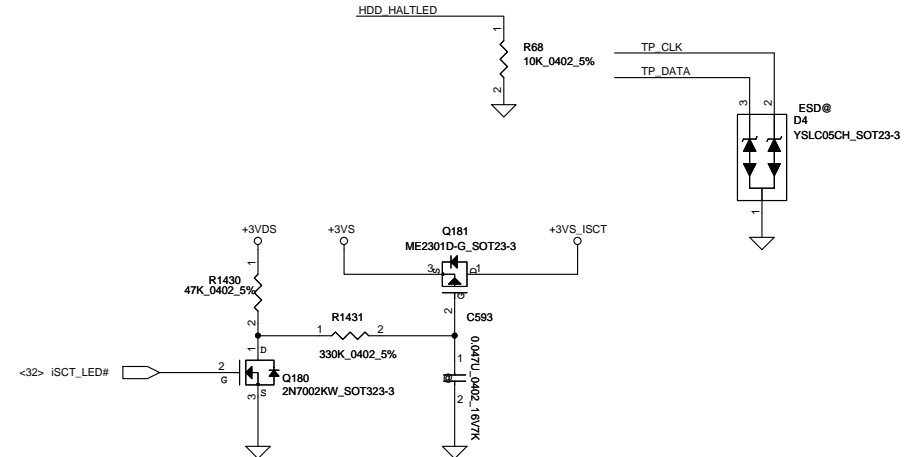
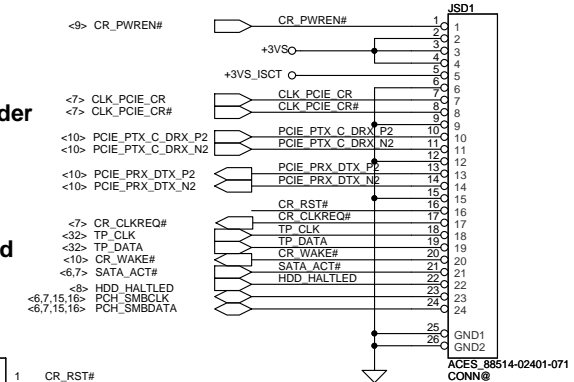


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								Size	
								Custom	
								Document Number	
								LA-B181P	
								Date:	
								Tuesday, March 25, 2014	
						Sheet		42 of 62	
								Rev 0.5	

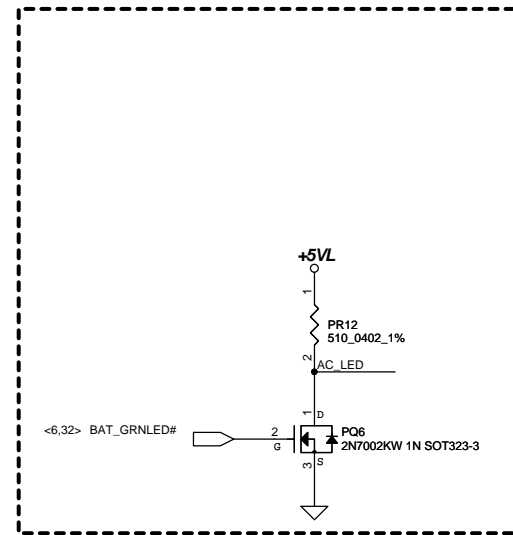
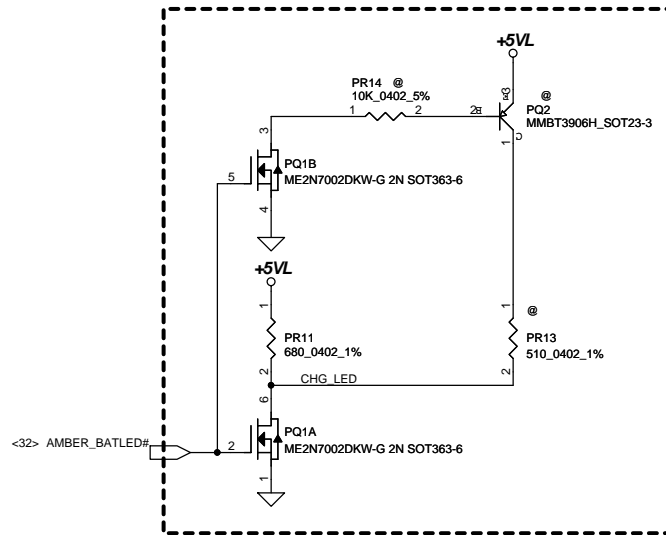
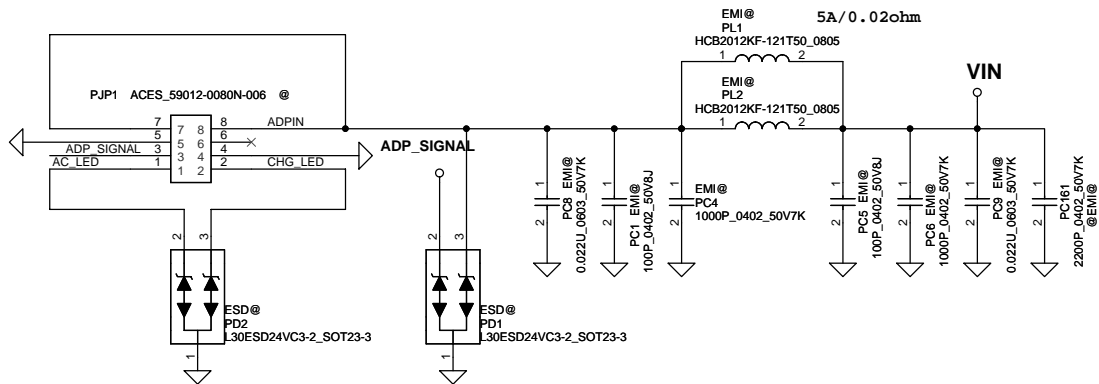
Combo Jack



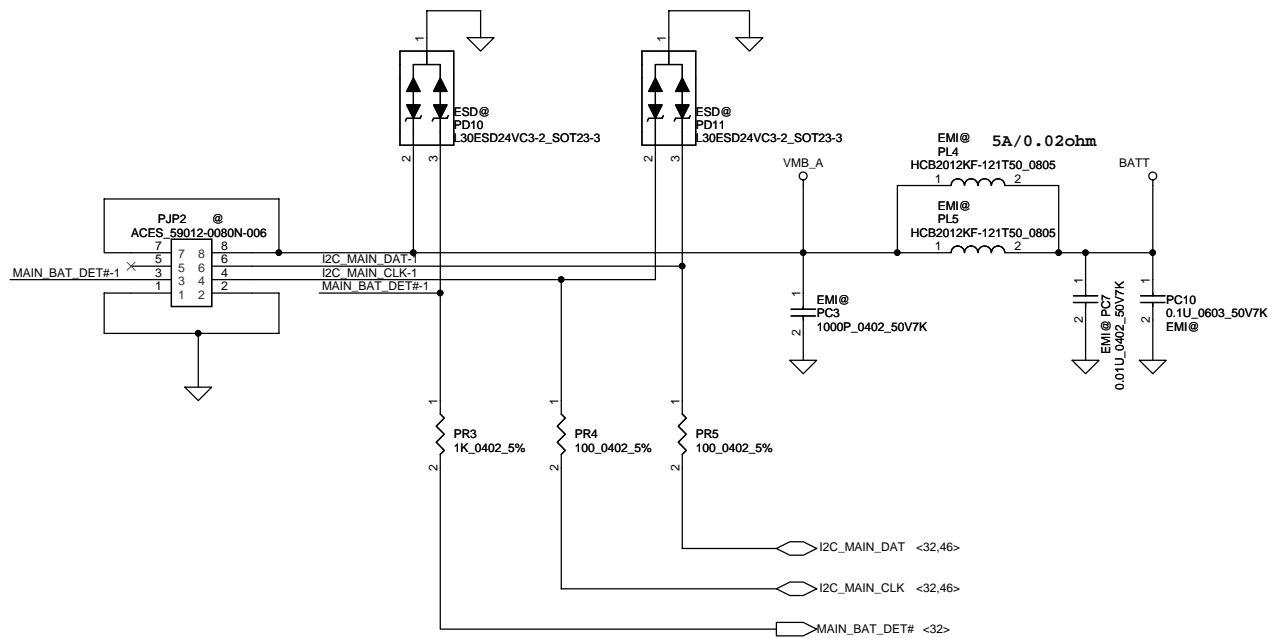
Touch Pad



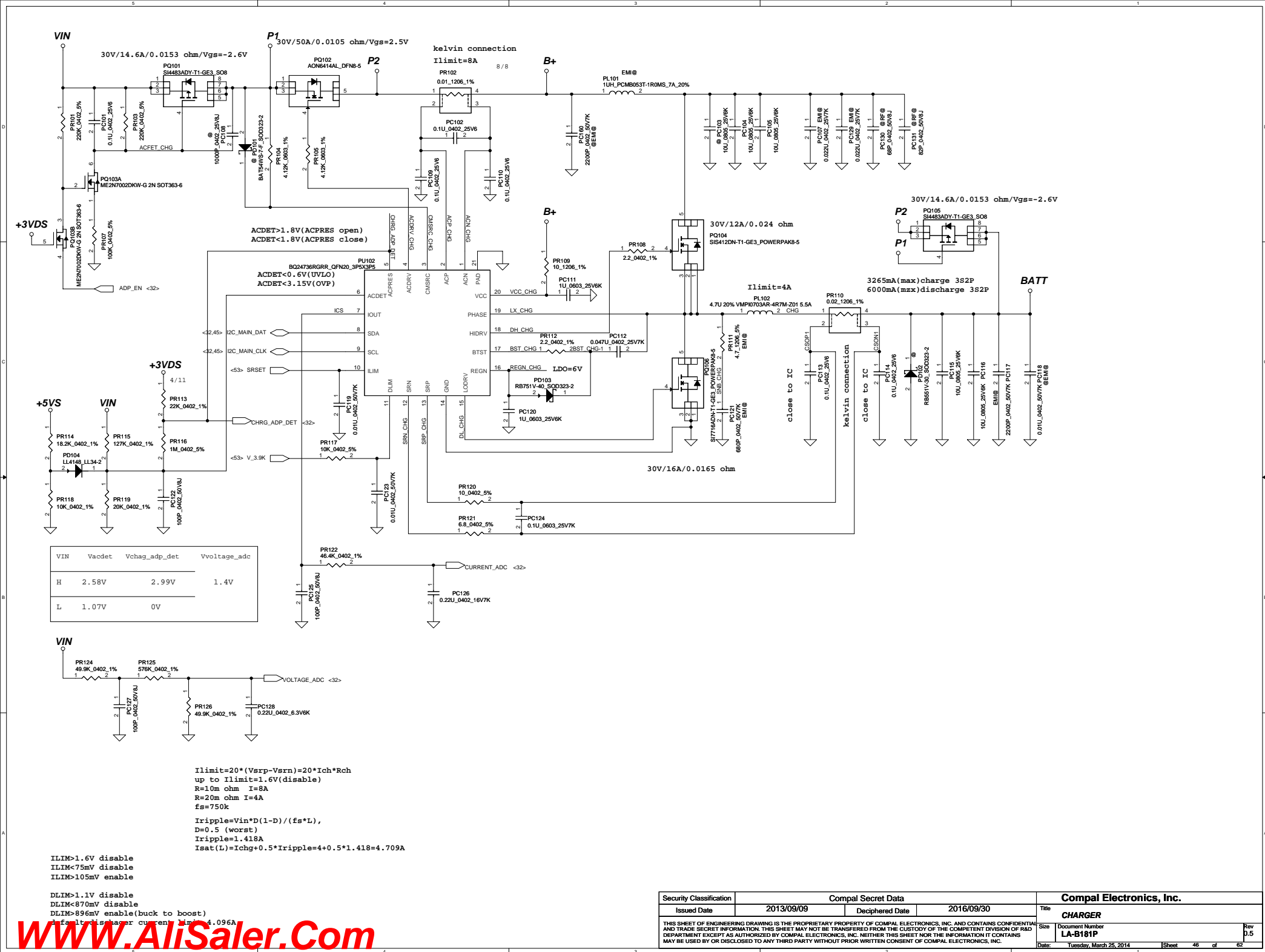
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VIN	Vacdet	Vchag_adp_det	Vvoltage_adc
H	2.58V	2.99V	1.4V
L	1.07V	0V	

$I_{limit} = 20 * (V_{srp} - V_{srn}) = 20 * I_{ch} * R_{ch}$
up to $I_{limit} = 1.6V$ (disable)
 $R = 10m\ \Omega$ $I = 8A$
 $R = 20m\ \Omega$ $I = 4A$
 $f_s = 750k$
 $I_{ripple} = V_{in} * D * (1 - D) / (f_s * L)$
 $D = 0.5$ (worst)
 $I_{ripple} = 1.418A$
 $I_{sat}(L) = I_{chg} + 0.5 * I_{ripple} = 4 + 0.5 * 1.418 = 4.709A$

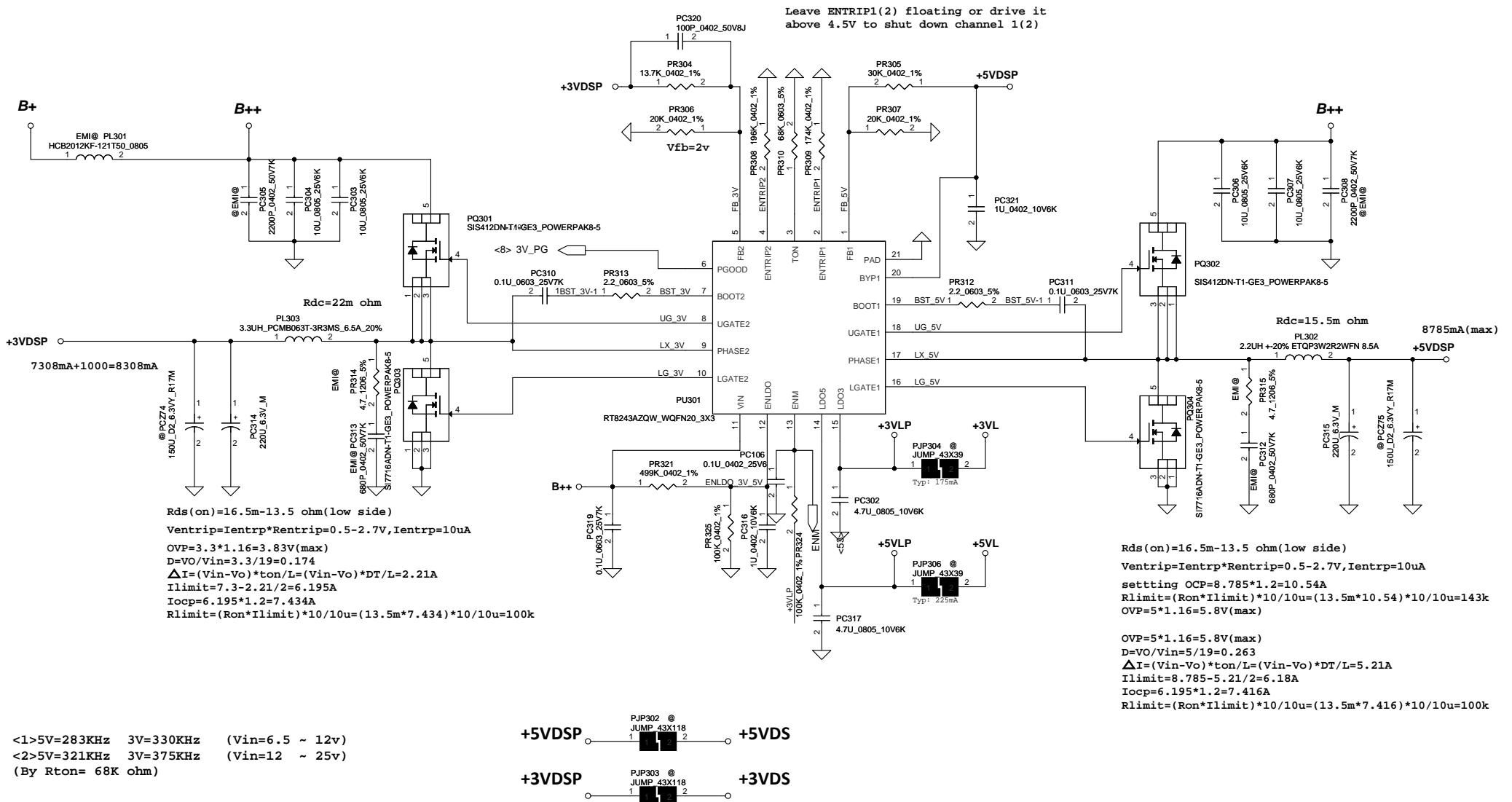
ILIM>1.6V disable
ILIM<75mV disable
ILIM>105mV enable

DLIM>1.1V disable
DLIM<870mV disable
DLIM>896mV enable(buck to boost)

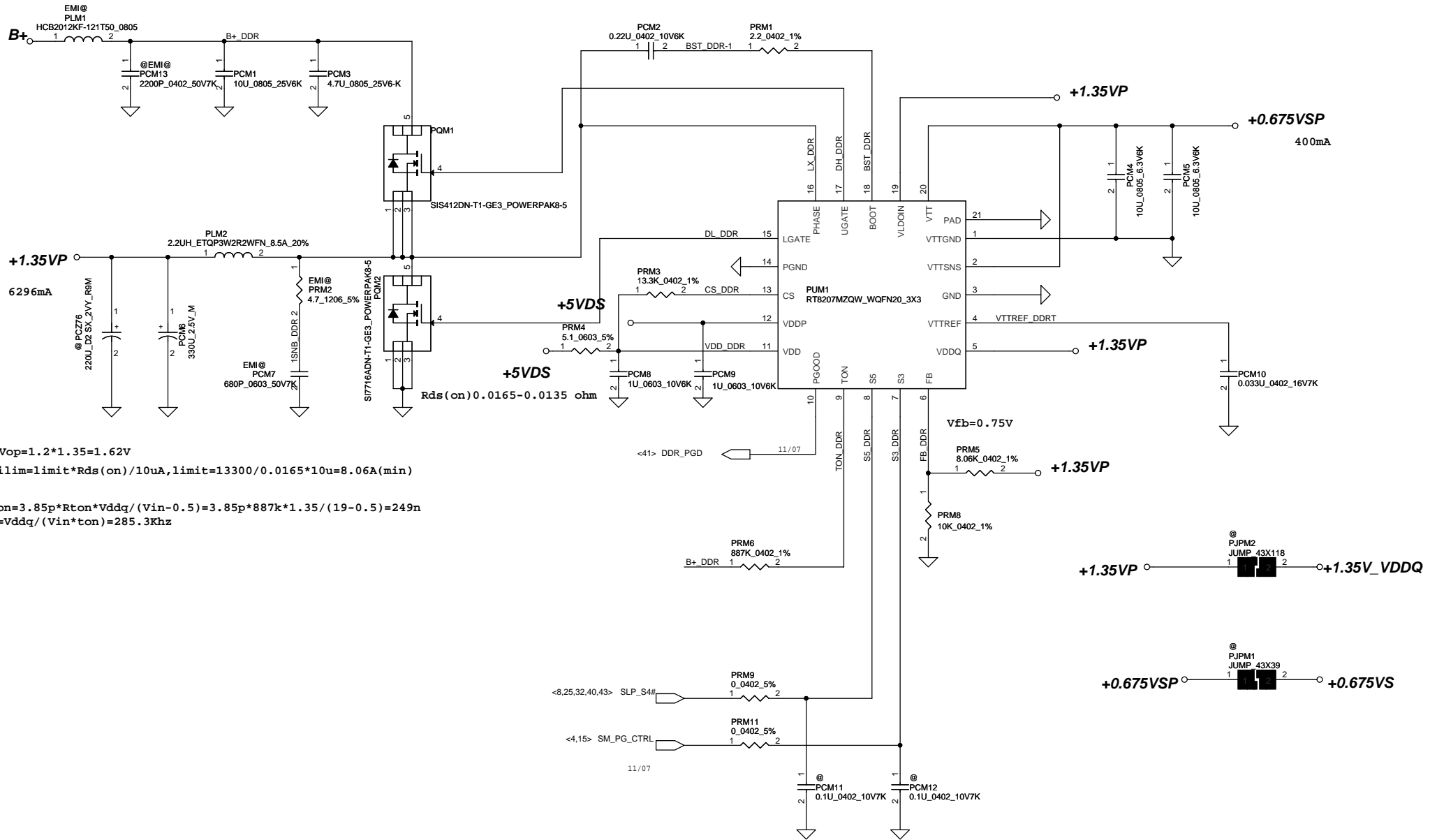
if f_s it is discharge current limit 4.096A

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Compal Electronics, Inc.				LA-B181P
3VDSP/5VDSP				Sheet 47 of 62
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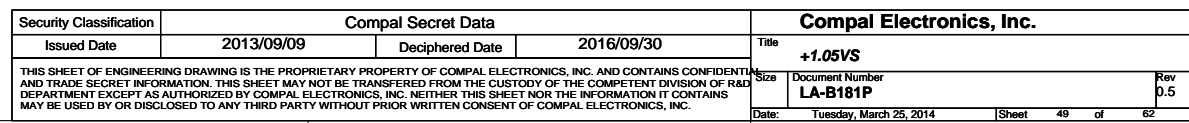
$$V_{op} = 1.2 \times 1.35 = 1.62V$$

$$R_{lim} = \text{limit} \times R_{ds(on)} / 10uA, \text{limit} = 13300 / 0.0165 \times 10u = 8.06A(\text{min})$$

$$t_{on} = 3.85p \times R_{ton} \times V_{ddq} / (V_{in} - 0.5) = 3.85p \times 887k \times 1.35 / (19 - 0.5) = 249n$$

$$f = V_{ddq} / (V_{in} \times t_{on}) = 285.3Khz$$

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PRZ5:Vo-usr=1.7*(150/(150+9.53))=1.598V
Vusr=540mV
PRZ11:disable OSR&PT,Rosr=150k
PRZ10:setting fs R=150==>1Mhz
Ramp setting:
PRZ9=100K type:160mV
PRZ9>=150K type:40mV
boot voltage setting:
Vb-ram=1V==>2V
Vb-ram=0V==>1.7V
Vb-ram>1.525V==>0V

Iccmax=32A(15w),Iccmax=40A(28w)
IccTDC=10A(15w),IccTDC=16A(28w)
IccDyn=27A(15w),IccDyn=32A(28w)
OCP voatge seeting:
PRZ8=39K ==>18.9mV
Vimon=1.7V
Rp_n=10.74k Rcs(eff)=0.6m ohm
1.7V=10*(1+Rimon/39k)*0.6m*32,Rimon=345k

ALERT goes low,THERM=1.08V
VR_HOT goes low,THERM=1.1V

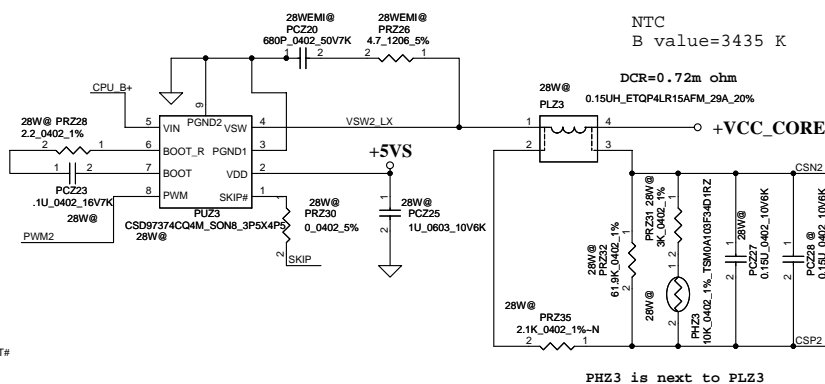
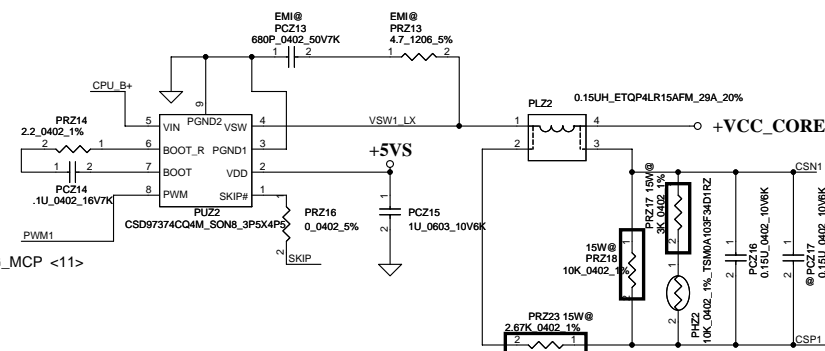
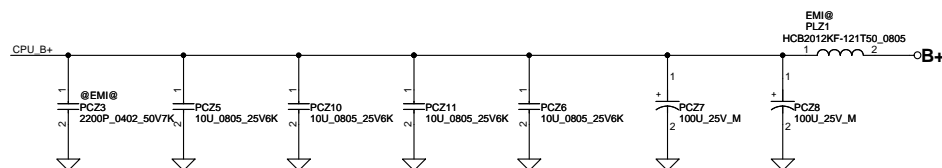
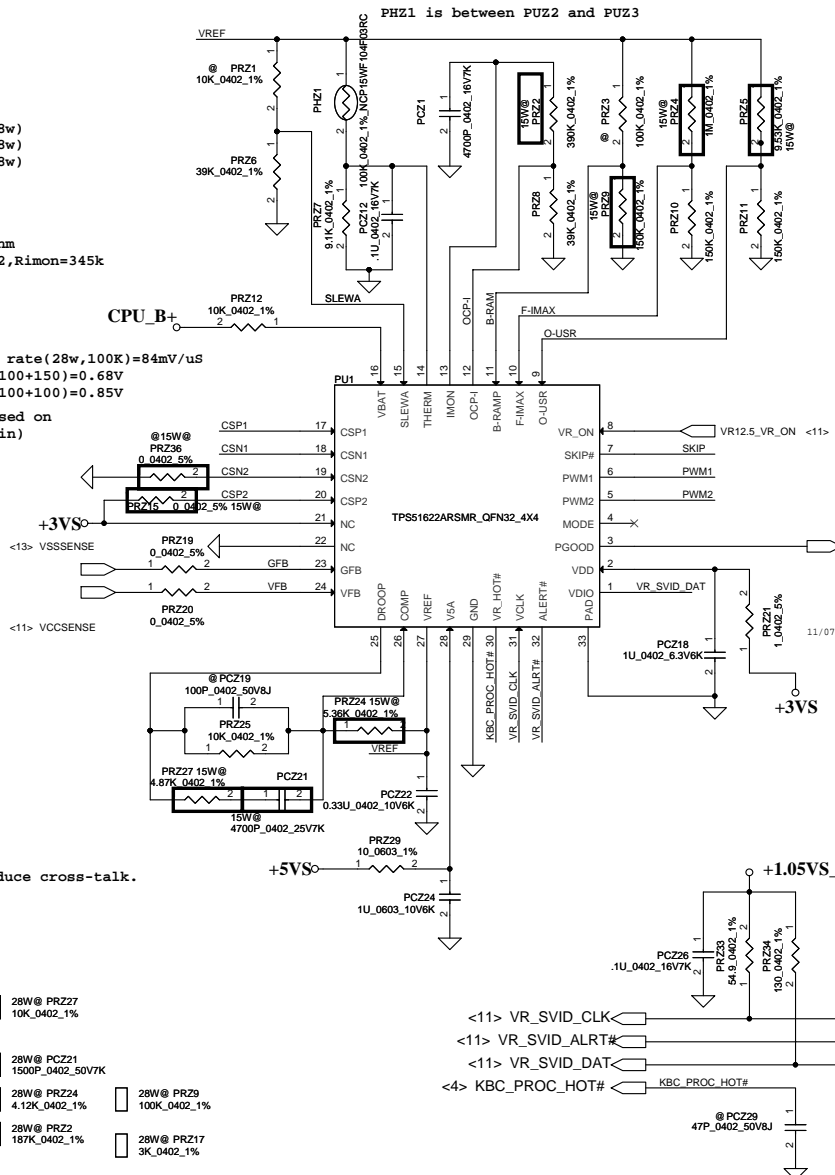
slew rate(15w,150K)=96mV/uS,slew rate(28w,100K)=84mV/uS
address selection(15w):1.7*100/(100+150)=0.68V
address selection(28w):1.7*100/(100+100)=0.85V
On-tome(ton):ON-time is fixed based on
the input voltage (at the VBAT pin)

Vssense and Vccsense need to
be difference pair
Droop>Error amplifier output.

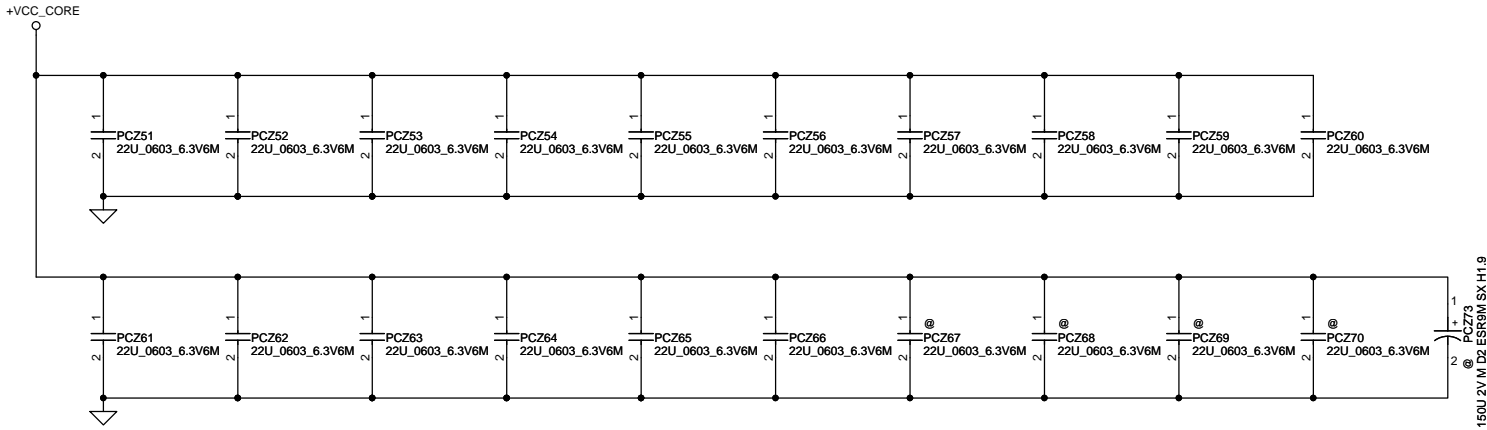
ALERT between VCLK and VDIO to reduce cross-talk.

- 28W@ PRZ27
10K_0402_1%
- 28W@ PRZ24
4.12K_0402_1%
- 28W@ PRZ2
187K_0402_1%
- 28W@ PRZ4
806K_0402_1%
- 28W@ PRZ5
280K_0402_1%
- 28W@ PRZ9
100K_0402_1%
- 28W@ PRZ17
3K_0402_1%
- 28W@ PRZ23
2.1K_0402_1%
- 28W@ PRZ18
61.9K_0402_1%

not mount 需特别注意 (15w@,28w@)

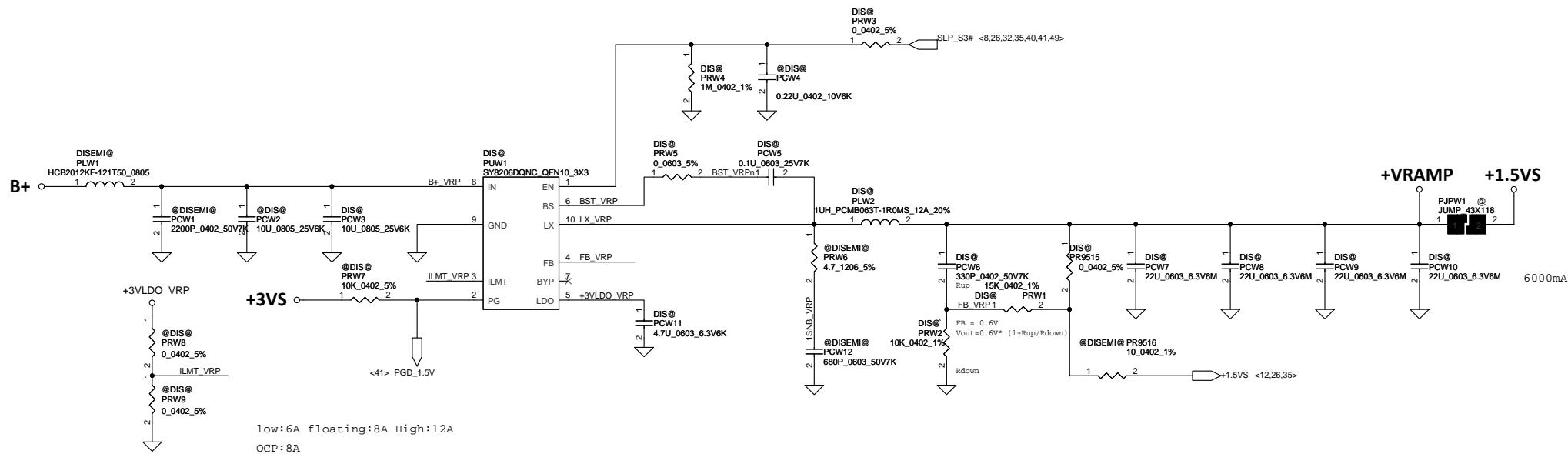
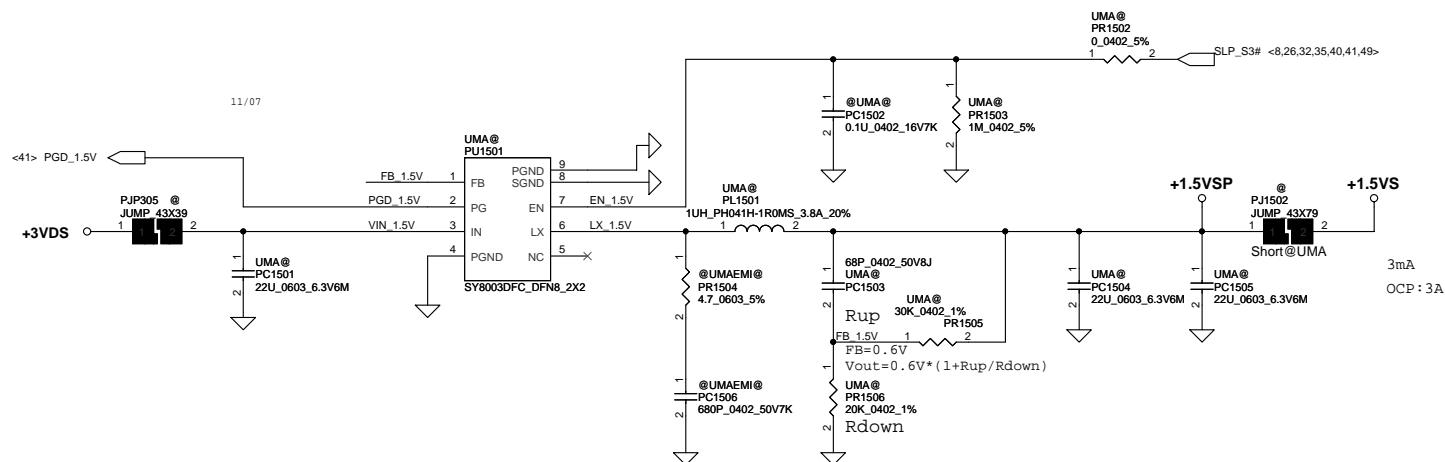


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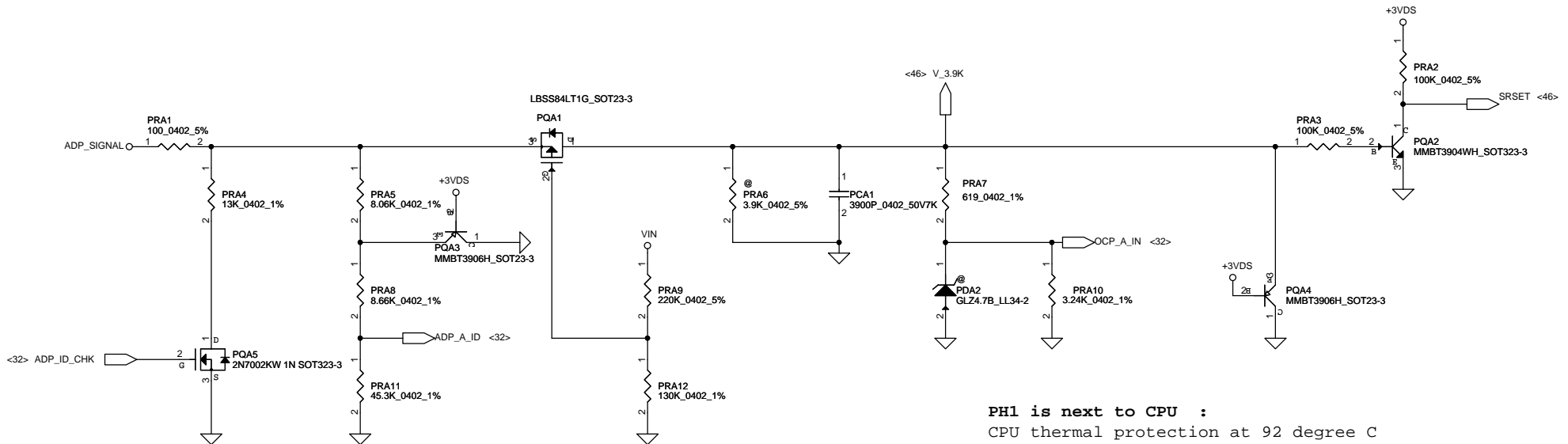


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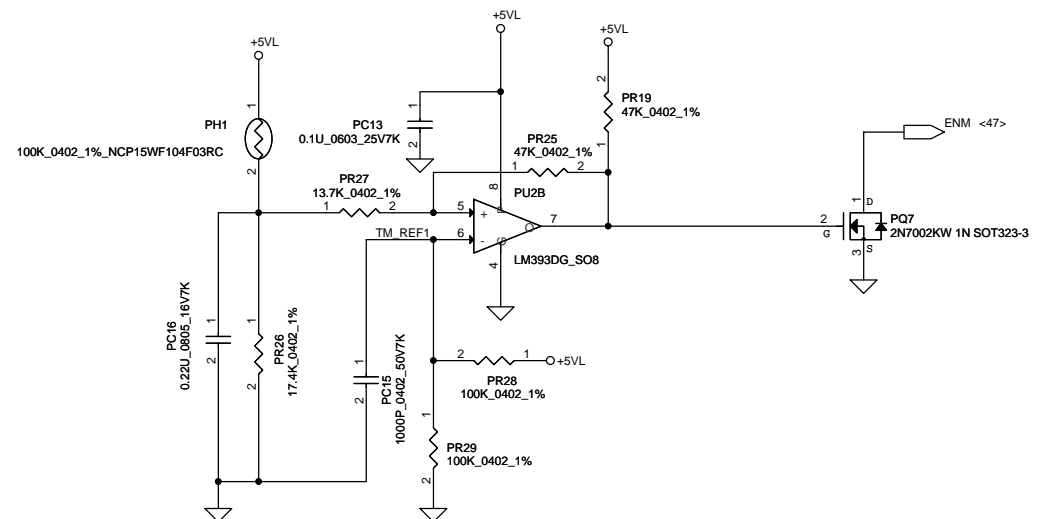
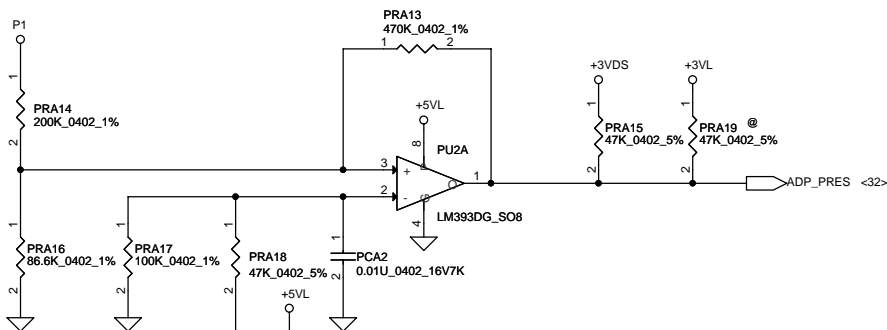
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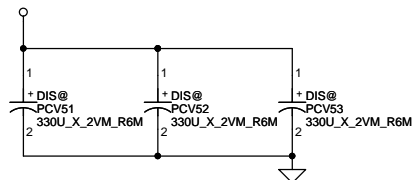


MEMO:PRA4 and PQA5 are not mount

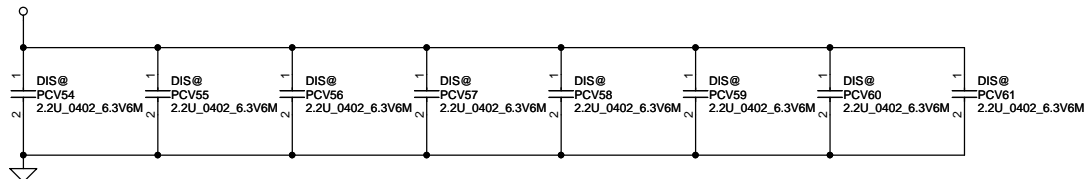


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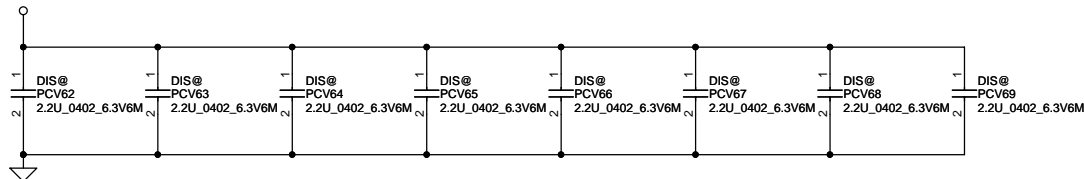
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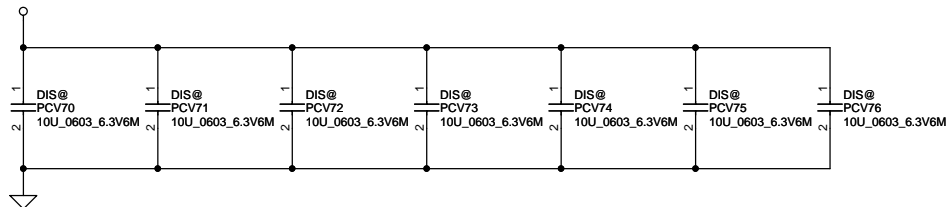
+VGA_CORE



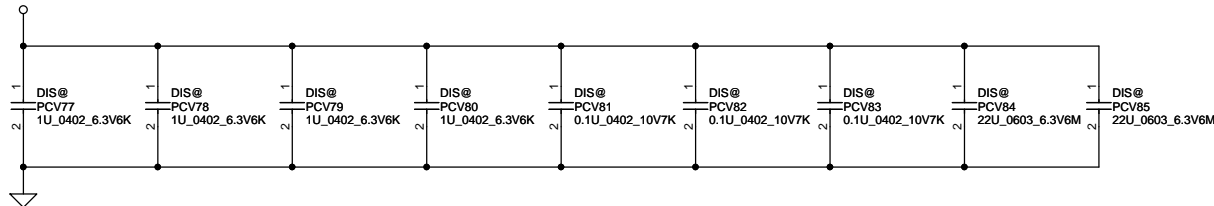
+VGA_CORE



+VGA_CORE

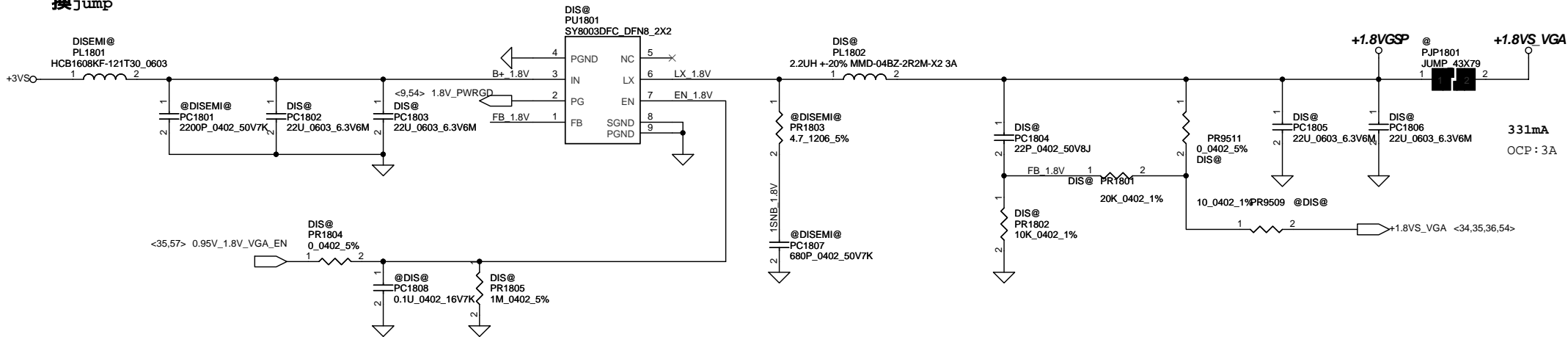


+VGA_CORE

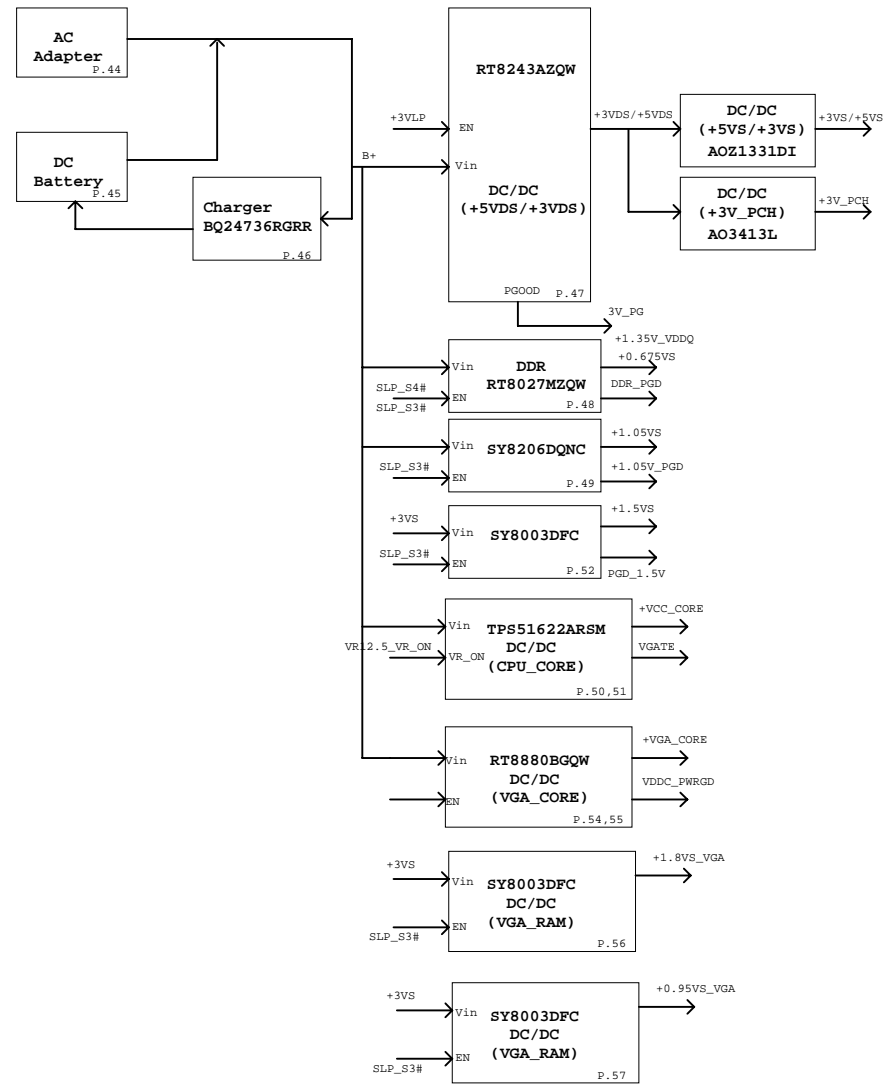


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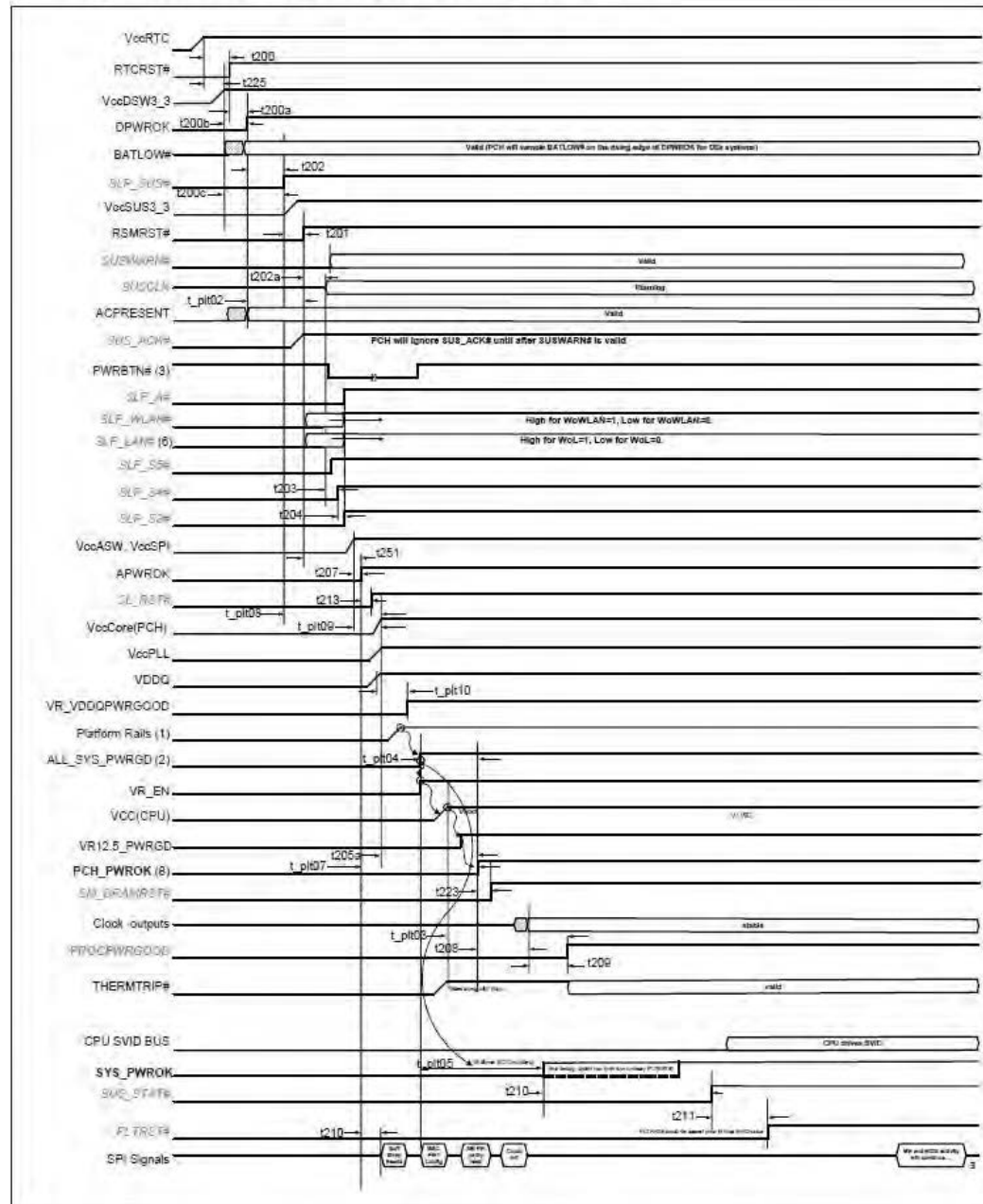


CPU DC/DC	
TPS51622ARSMR	50-51
INPUTS	OUTPUTS
B+	VCC_CORE
SYSTEM DC/DC	
RT8243AZQW	47
INPUTS	OUTPUTS
B+	3VDS/5VDS
SYSTEM DC/DC	
RT8207MZQW	48
INPUTS	OUTPUTS
B+	1.35V_VDDQ
	0.675VS
SYSTEM DC/DC	
SY8206DQNC	49
INPUTS	OUTPUTS
B+	1.05VS
SYSTEM DC/DC	
SY8003DFC	52
INPUTS	OUTPUTS
B+	1.5VS
SYSTEM DC/DC	
RT8880BGQW	54-55
INPUTS	OUTPUTS
B+	+VGA_CORE
SYSTEM DC/DC	
SY8003DFC	56
INPUTS	OUTPUTS
B+	+1.8VS_VGA
SYSTEM DC/DC	
SY8003DFC	57
INPUTS	OUTPUTS
B+	+0.95VS_VGA

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				Date	10/25/2014
				Drawn	58
				Check	59

Power ON Sequence

Timing Diagram for G3 to S0/M0 [Deep Sx Platform]



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

Item	Date	Fixed Issue	Reason for change	Modify List	Phase
1	20131030		Delete 1.PQ307 2.charger air line power circuit 3.change AON7506 to SI7716(PQ106) 4.change NDS0610 to LBSS84L 5.change AON7506 to SI7716 6.change 47U 6.3V to 22U 6.3V (PCH8,PCH9) 7.PR9512 mount	1.customer request 2.customer request 3.customer common part 4.compal change 5.customer common part 6.vender reveiw	DB0 DB0 DB0 DB0
2	20131031		1.10U_0805_25V==>2200p_0402_50V not mount(PC160) 2.PC107,PR111,PC121,PC305,PR314 PC313,PC308,PR315,PC312,PCH4,PCZ3,PRZ13,PCZ13 PCZ20,PCZ26,PCW1,PCV4,PRV70,PCV107 3.change 147K_0402_1% to 237K_0402_1% (PRV34) change 560P_0402_50V7K to 470P_0402_50V7 (PCV88) change 10.7K_0402_1% to 22.6K_0402_1%(PRV47) change 9.76K_0402_1% to 5.6K_0402_1%(PRV51) change 15K_0402_1% to 19.1K_0402_1%(PRV55) change 910K_0402_5% to 20.5K_0402_1%(PRV75) change 910k_0402_1% to 910_0402_1%(PRV53) change 3.48K_0402_1% to 3.4K_0402_1%(PRV69) change 910k_0402_1% to 910_0402_1%(PRV77) 4.remove PR9510,PR9512,PR9514,PR9513 5.remove PC318,PRH10,PRW10,PCW13 6. PRH8,PRW8 not mount 7.22u/0805 6.3V to 22u/0603 6.3V PC1504,PC1501 PC1505,PC1802,PC1803,PC1805,PC1806,PC9502,PC9503, PC9505,PC9506,PCH9,PCH10,PCH11,PCH8 8.0.22U_0402_6.3V6K to 0.22U_0603_50V7K (PC128)	1.EMI feedback 2.EMI feedback 3.power vender feedback 4.power change fb sense 5.for compal module design 6.current limit design	DB0 DB0 DB0 DB1 DB1 DB1 DB1 DB1 SI1 SI1 SI1
3	20131101		1.remove PRW11	1.HW request	
4	20131112		1.not mount PRW7 2.change 0_0402_1% to 0_0402_5%(PR1502,PR1804, PR9504,PR9508,PR9511,PR9515)	2.AMD request	
5	20131202		1.not mount PRZ36,PRV32 and PCV86 2.PC128 change 0.22U_0603_25V to 0.22U_0402_6.3V6K 3.add PD16,PRV43 4.add PRV45,PRV48,PCV99 and PRV50	1.PWR request 2.PWR request 3. customer request 4.richtek request	SI1 SI1 SI2
					SI2

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

Item	Date	Fixed Issue	Reason for change	Modify List	Phase
6	20131210		add PRV78 1K_0402_1% PRV62 5.76K_0402_1% PRV64 10K_0402_1% PRV80 1K_0402_1% PRV79 10K_0402_1% PRV52 137K_0402_1%	RITCHTEK issue request	DB0 DB0 DB0 DB0
	20131221		PRM2 Change 4.7_1206_5% to 0_1206_5% PCM7 Change 680P_0603_50V7K to 1000P_0603_50V7K PR314 not mount==>mount PC313 not mount==>mount PR315 not mount==>mount PC312 not mount==>mount PCZ13 not mount==>mount PRZ13 not mount==>mount PCZ20 not mount==>mount (28W) PRZ26 not mount==>mount (28W)	EMI request	DB0 DB0 DB0 DB1 DB1
	20131226		PRV31 Change 10_0402_1% to 1_0402_1% PRV34 Change 127K_0402_1% to 84.5K_0402_1% PRV47 Change 22.6K_0402_1% to 7.32K_0402_1% PRV51 Change 5.6K_0402_1% to 12.4K_0402_1% PRV55 Change 19.1K_0402_1% to 14K_0402_1% PRV75 Change 20.5K_0402_1% to 2.8K_0402_1% PRV77 Change 910_0402_1% to 1.3K_0402_1% PRV53 Change 910_0402_1% to 1.3K_0402_1% PC128 Change 0.22U_0603_6.3V to 0.22U_0402_6.3V	RITCHTEK issue request	DB1 DB1 DB1 DB1 SI1
	20140102		PRM2 Change 0_1206_5% to 4.7_1206_5% PCM7 Change 1000P_0603_50V7K to 680P_0603_50V7K PUV1 change RT8880BGQW to RT8880CGQW	EMI request RITCHTEK request	SI1 SI1
	20140103		PR14,PQ2 and PR13 are not mount. PR11 Change 330_0402_1% to 680_0402_1%	Customer request	
	20140106		PRV80 mount==>not mount PRV79 not mount==>mount	RITCHTEK issue request	
	20140213		add PC8,PC9 and PC10 mount PR111,PC121,PC107 and PC129 PC107 2200P_0402_50V7K==>0.022_0402 25V PC129 0.1U_0402_50V7K==>0.022_0402_25V	EMC request EMC request	
	20140214		add PC161 2200P_0402_50V7K not mount	EMC request	SI1 SI1 SI2 SI2

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ZPL40/50/70 from DB to DB-R LA-B181P REV:0.1 -> 0.2 Modify <2013.11.28~ 2013.12.03>

Rev.	Item	Date	Impact	Change Cause	Modify Description
0.2	1	11/28	OKT, LAYOUT	6	-Design Issue
0.2	2	11/28	OKT, LAYOUT	7	-Follow CHICLET
0.2	3	11/28	OKT	8	-DGPU_PWR_EN voltage level incorrect issue
0.2	4	11/28	OKT, LAYOUT	9	-DGPU power on sequence
0.2	5	11/28	OKT, LAYOUT	18	-Footprint incorrect issue
0.2	6	11/28	OKT, LAYOUT	21	-No used.
0.2	7	11/28	OKT	23	-O3S can't turn on issue
0.2	8	11/28	OKT	30	-Follow HP BIOS code request
0.2	9	11/28	OKT, LAYOUT	32	-Avoid leakage issue.
0.2	10	11/28	OKT, LAYOUT	32	-Footprint incorrect issue
0.2	11	11/28	OKT, LAYOUT	33	-Design issue
0.2	12	11/28	OKT, LAYOUT	28	-Current limit
0.2	13	11/29	OKT, LAYOUT	30	-Vendor request
0.2	14	11/29	OKT	32	-Follow CHICLET
0.2	15	12/02	OKT, LAYOUT	6	-Follow CHICLET
0.2	16	12/02	OKT, LAYOUT	32	-Follow CHICLET
0.2	17	12/02	OKT, LAYOUT	23	-leakage issue and FAR suggest
0.2	18	12/02	OKT, LAYOUT	34	-Follow 2013 RRR
0.2	19	12/02	OKT	35	-DGPU power on sequence
0.2	20	12/03	OKT, LAYOUT	40	-Follow CHICLET

ZPL40/50/70 from DB-R to SI LA-B181P REV:0.2 -> 0.3 Modify <2013.12.04~ 2013.12.17>

0.3	1	12/04	OKT, LAYOUT	29	-Follow 2013 RRR
0.3	2	12/05	OKT	35	-DGPU power on sequence
0.3	3	12/05	OKT	9	-DGPU power on sequence
0.3	4	12/05	OKT	10, 33	-For PCIE Gen2
0.3	5	12/06	OKT	12	-Follow CHICLET
0.3	6	12/06	OKT	11	-Follow INTEL schematic
0.3	7	12/06	OKT, LAYOUT	29	-Platform ID identify
0.3	8	12/06	OKT, LAYOUT	30	-Follow CHICLET
0.3	9	12/06	OKT, LAYOUT	40	-Follow CHICLET
0.3	10	12/09	OKT, LAYOUT	43	-No leakage issue
0.3	11	12/09	OKT	26	-Follow CHICLET
0.3	12	12/09	OKT, LAYOUT	17	-Follow INTEL schematic
0.3	13	12/09	OKT, LAYOUT	11	-Follow INTEL schematic
0.3	14	12/09	OKT, LAYOUT	12	-Follow INTEL schematic
0.3	15	12/10	OKT, LAYOUT	10	-For WWAN, Touch share USB port
0.3	16	12/10	OKT, LAYOUT	4	-Follow CHICLET
0.3	17	12/11	OKT, LAYOUT	6	-Follow INTEL schematic
0.3	18	12/11	OKT, LAYOUT	21	-solve SIM card can't detect issue
0.3	19	12/13	OKT, LAYOUT	9	-Follow Runt
0.3	20	12/13	OKT	8	-solve DGPU power issue
0.3	21	12/13	OKT, LAYOUT	21	-Follow Runt
0.3	22	12/13	OKT, LAYOUT	22	-ODD power issue
0.3	23	12/13	OKT, LAYOUT	23	-LAN power issue
0.3	24	12/13	OKT, LAYOUT	21	-no need
0.3	25	12/13	OKT	25	-For V drop test
0.3	26	12/13	OKT, LAYOUT	9	-HP request
0.3	27	12/13	OKT, LAYOUT	21	-For GPIO initial status
0.3	28	12/14	OKT, LAYOUT	12	-solve power ripple
0.3	29	12/16	OKT, LAYOUT	9	-reserve for MPHY sequence

ZPL40/50/70 from DB-R to SI LA-B181P REV:0.3 -> 0.4 Modify <2013.12.18~ 2013.12.25>

0.4	1	12/20	OKT	9	-Follow HP request
0.4	2	12/20	OKT, LAYOUT	15	-Follow Intel PDG
0.4	3	12/20	OKT, LAYOUT	16	-Follow Intel PDG
0.4	4	12/20	OKT, LAYOUT	18	-Follow Vendor request
0.4	5	12/20	OKT	19	-Follow HP request
0.4	6	12/20	OKT	20	-Follow Intel PDG
0.4	7	12/20	OKT	21	-Compal Request
0.4	8	12/20	OKT, LAYOUT	22	-Customer modify GPIO table.
0.4	9	12/20	OKT	23	-Prepare leakage issue when S3, S5
0.4	10	12/20	OKT	24	-Vendor Request
0.4	11	12/20	OKT	31	-Vendor Request
0.4	12	12/20	OKT, LAYOUT	40	-Follow Compal common design
0.4	13	12/23	OKT, LAYOUT	30	-Follow RF team request
0.4	14	12/24	OKT, LAYOUT		-Follow ESD team request

ZPL40/50/70 from SI to PV-I LA-B181P REV:0.3 -> 0.4 Modify <2014.02.05~2014.>

0.5	1	02/05	OKT	21	-OSDUB pull high
0.5	2	02/05	OKT	18, 19	-For LVDS SKU
0.5	3	02/05	OKT	19	-For eDP SKU
0.5	4	02/05	OKT	19	-For Lid Switch issue
0.5	5	02/05	OKT, LAYOUT	22	-For ODD issue
0.5	6	02/05	OKT, LAYOUT		
0.5	7	02/10	OKT, LAYOUT	35	-For GPU Power Sequence
0.5	8	02/10	OKT, LAYOUT	28	-Follow ESD team request
0.5	9	02/10	LAYOUT	31	-Move U4101 circuit close to JCRT
0.5	10	02/11	OKT, LAYOUT	40	-SL559M1470VTR is single source issue
0.5	11	02/12	OKT		-improve VSA_PWRGD signal quality
0.5	12	02/13	OKT, LAYOUT	11, 19	-Follow RF team request
0.5	13	02/14	OKT, LAYOUT		-Follow HP request