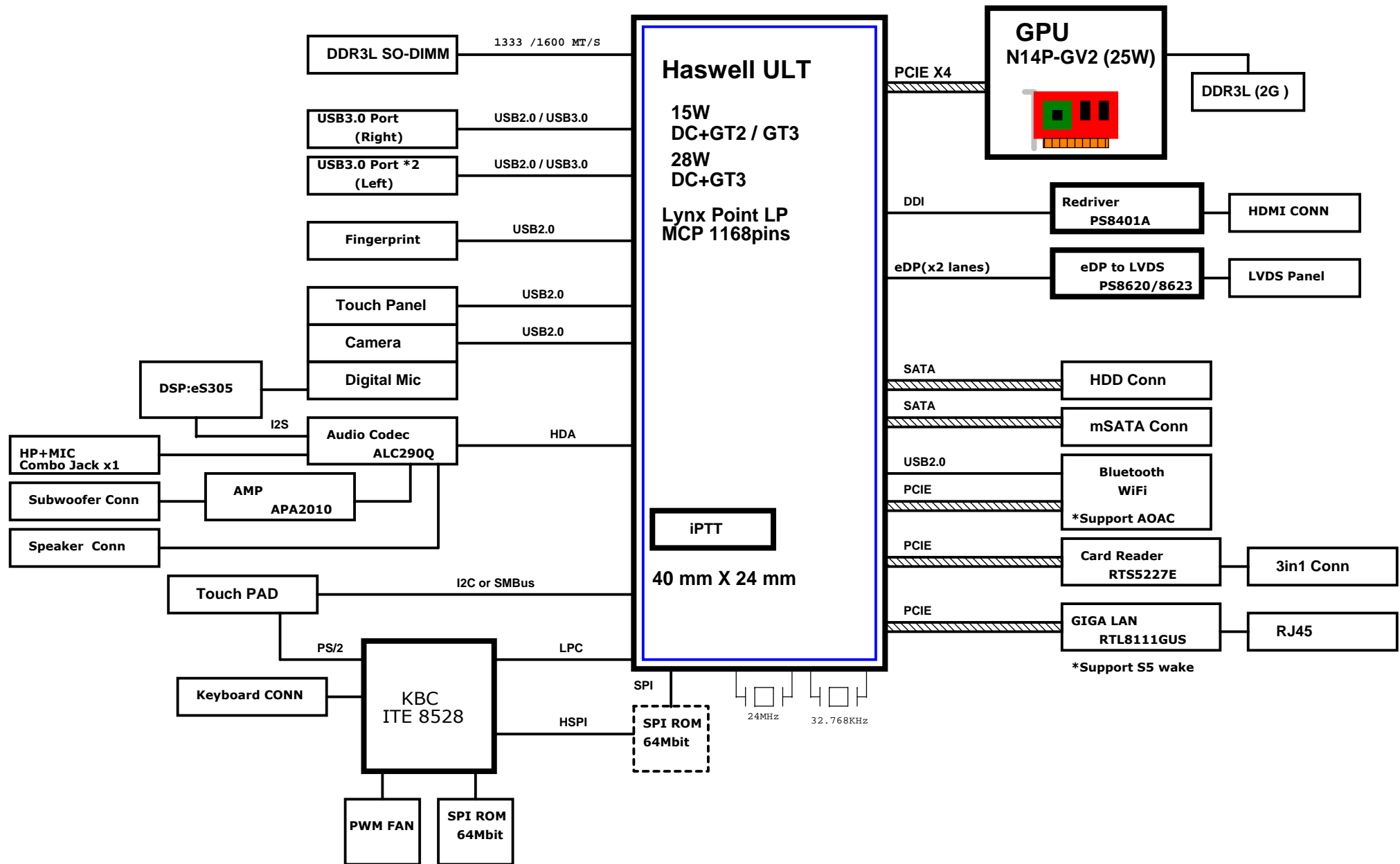


JW8B/C BLOCK DIAGRAM



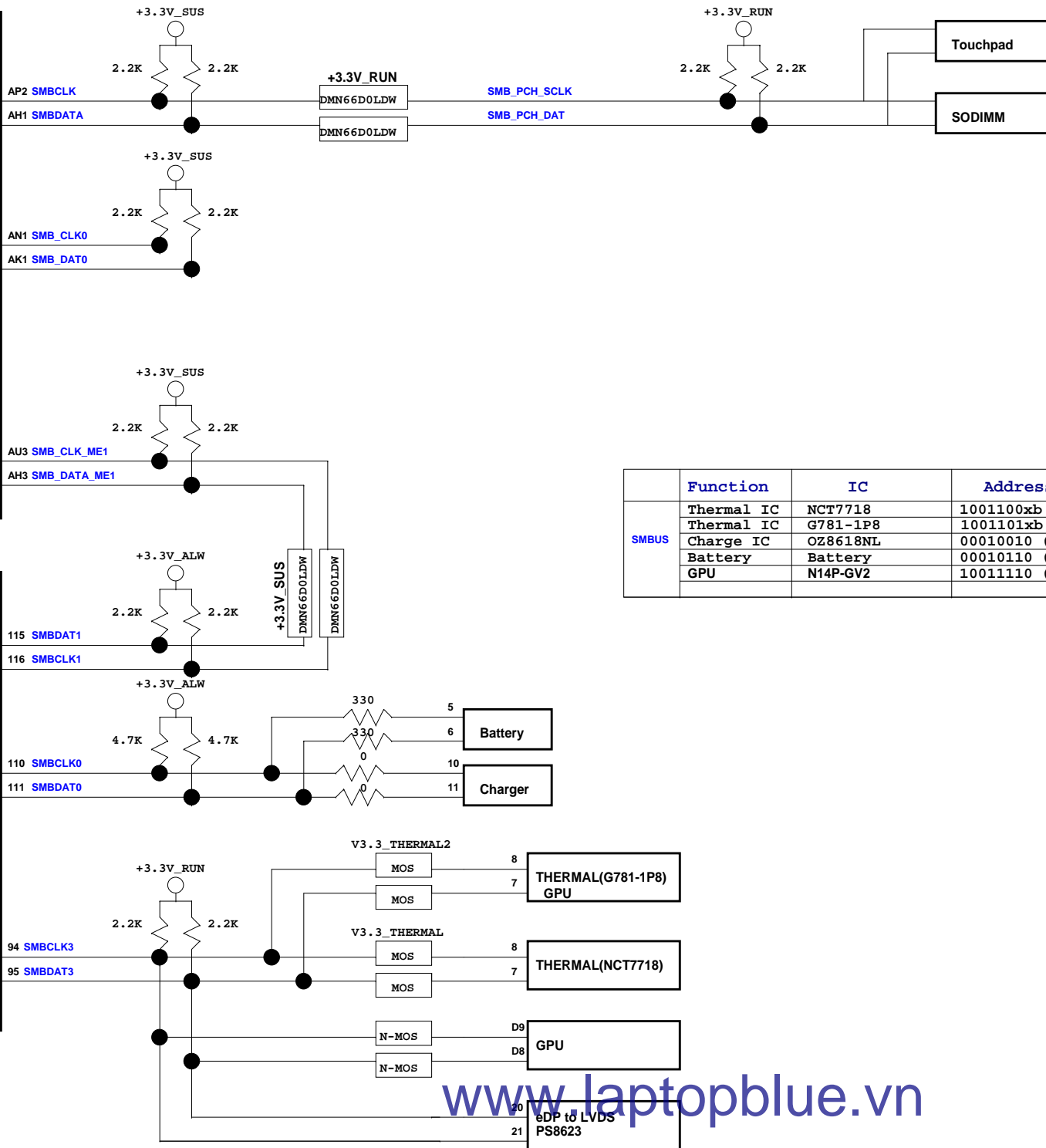
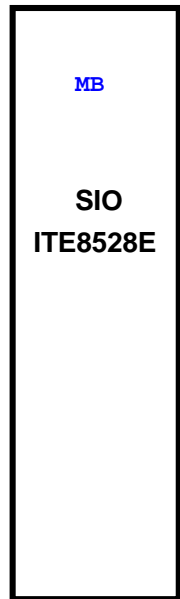
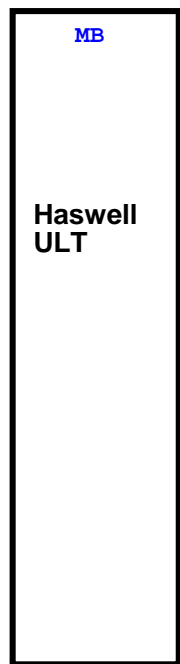
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HSIO Port	USB3.0	PCIE	SATA
1	USB3.0_1 CN6		
2	USB3.0_2 CN4		
3	USB3.0_3 CN5	PCIE1 X	
4	USB3.0_4 X	PCIE2 Card Reader	
5		PCIE3 GIGA LAN	
6		PCIE4 WIFI	
7		PCIE5 GPU 4X	
8		PCIE5 GPU 4X	
9		PCIE5 GPU 4X	
10		PCIE5 GPU 4X	
11		PCIE6 X	SATA3 X
12		PCIE6 X	SATA2 mSATA
13		PCIE6 X	SATA1 HDD
14		PCIE6 X	SATA0 X

PCIE CLK
CLK0 X
CLK1 Card Reader
CLK2 GIGA LAN
CLK3 WIFI
CLK4 GPU 4X
CLK5 X

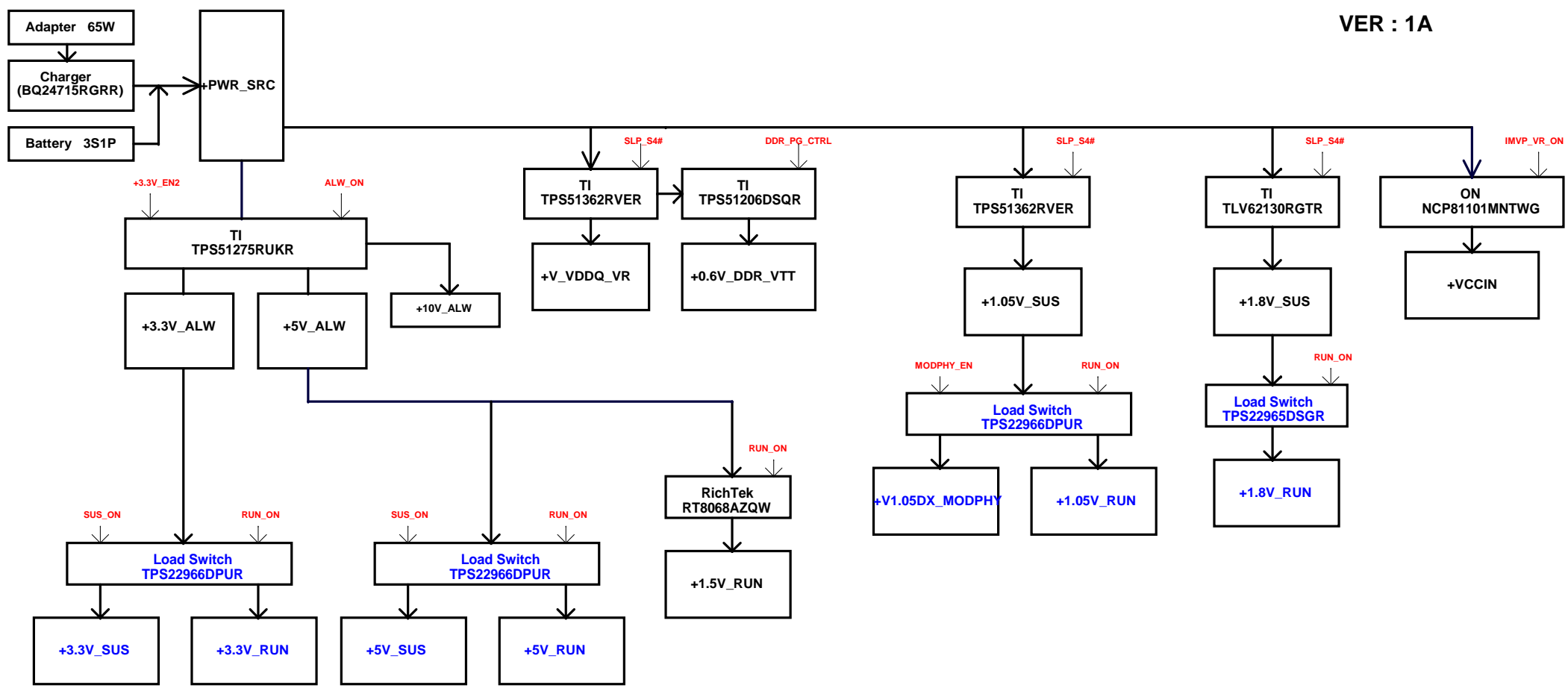
USB2.0
USB2.0_0 CN4
USB2.0_1 CN6
USB2.0_2 CN5
USB2.0_3 Finger Print
USB2.0_4 Camera
USB2.0_5 eTP
USB2.0_6 Blue Tooth
USB2.0_7 Touch Screen

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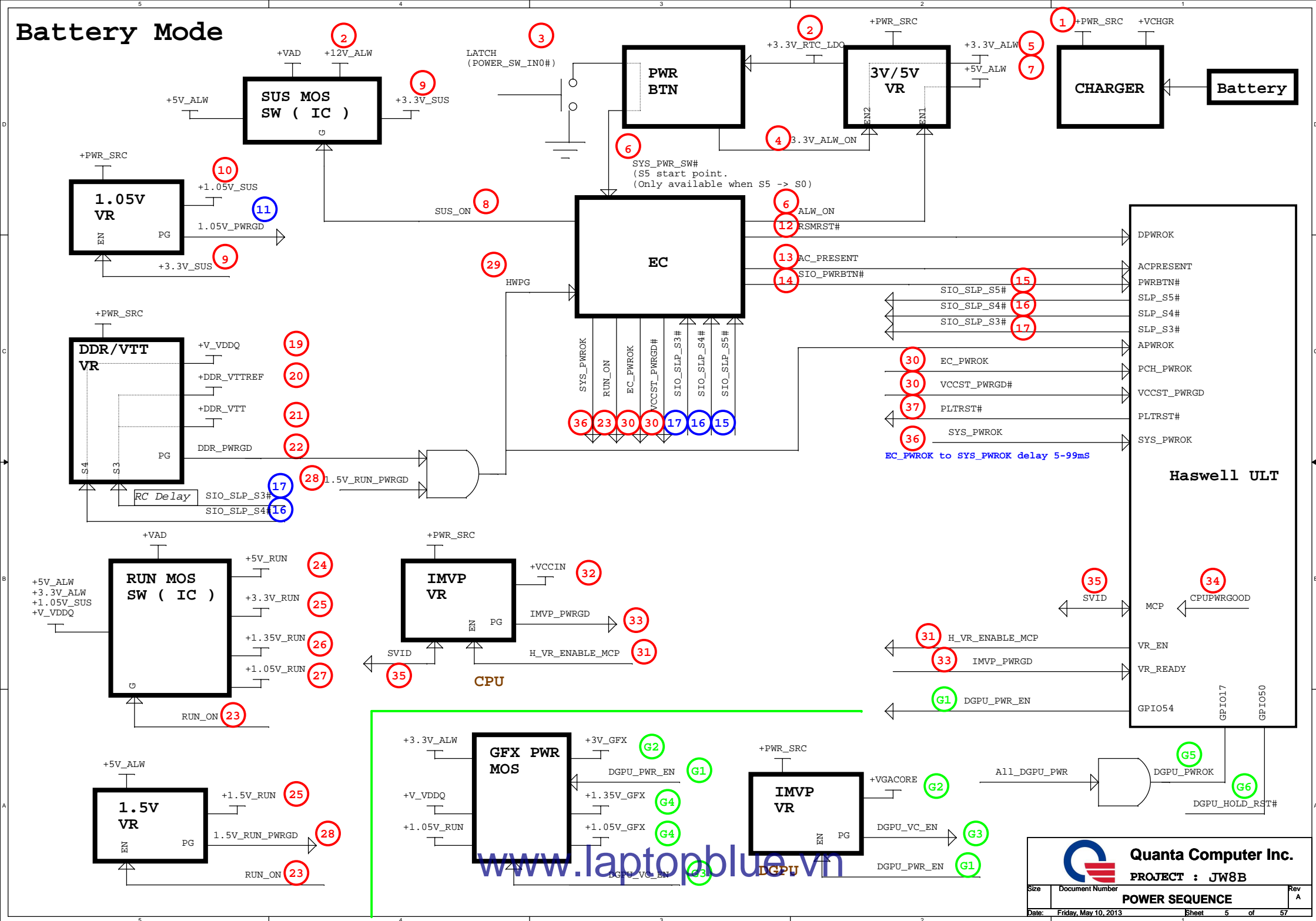


	Function	IC	Address
SMBUS	Thermal IC	NCT7718	1001100xb (98h)
	Thermal IC	G781-1P8	1001101xb (9Ah)
	Charge IC	OZ8618NL	00010010 (0x12h)
	Battery	Battery	00010110 (0X16h)
	GPU	N14P-GV2	10011110 (0X9Eh)

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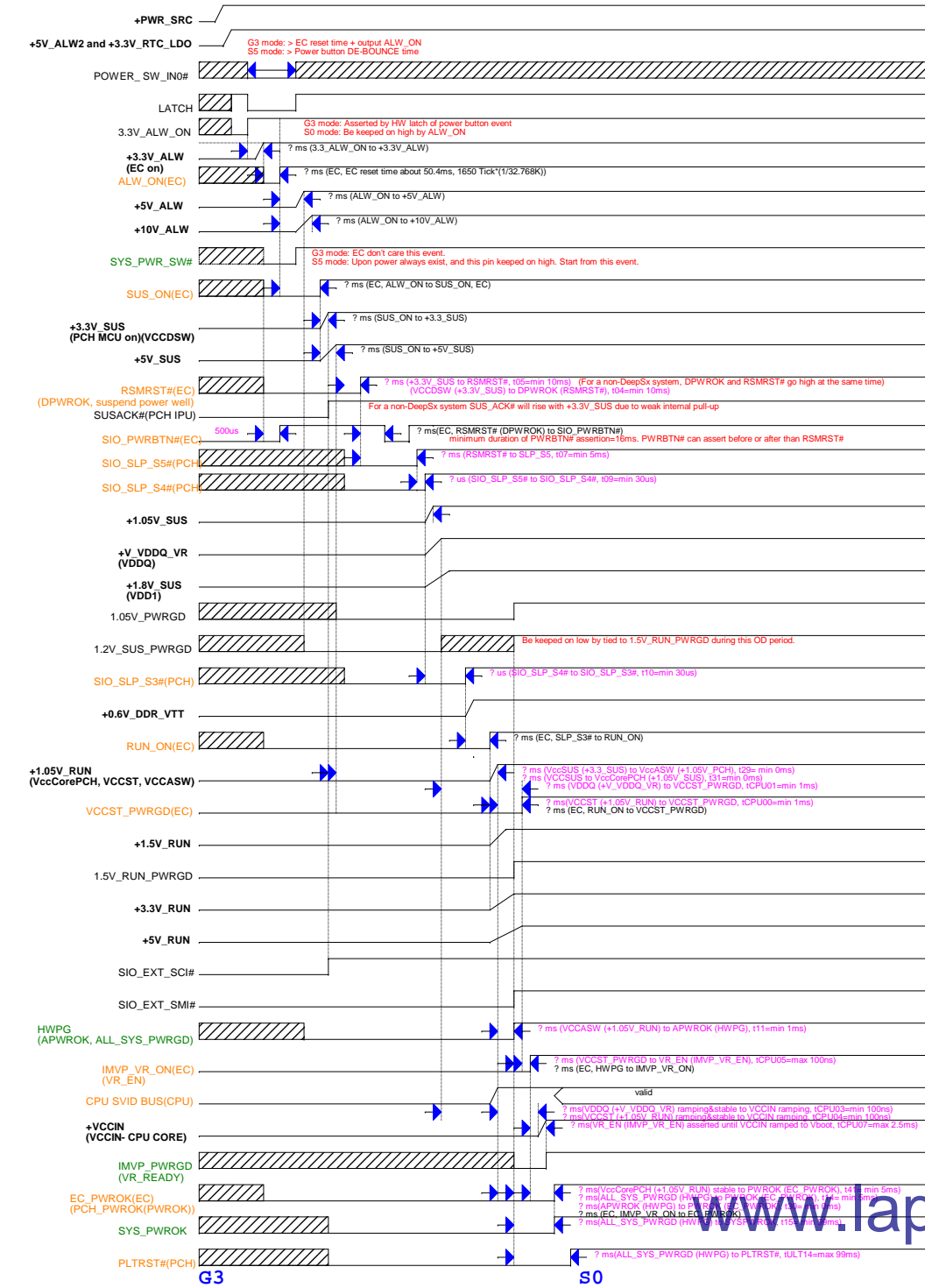


Battery Mode



Power Sequence
(G3 to S0)

Shark Bay ULT PSS, 490828, Rev1.1



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PROJECT : JW8B

Size	Document Number	Rev
	Haswell ULT 1/12	A
Date:	Tuesday, July 16, 2013	Sheet 7 of 57

U14C

SA_D00
SA_D01
SA_D02
SA_D03
SA_D04
SA_D05
SA_D06
SA_D07
SA_D08
SA_D09
SA_D10
SA_D11
SA_D12
SA_D13
SA_D14
SA_D15
SA_D16
SA_D17
SA_D18
SA_D19
SA_D20
SA_D21
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SA_D54
SA_D55
SA_D56
SA_D57
SA_D58
SA_D59
SA_D60
SA_D61
SA_D62
SA_D66

SA_CLK#0
SA_CLK0
SA_CLK#1
SA_CLK1

SA_CKE0
SA_CKE1
SA_CKE2
SA_CKE3

SA_CS#0
SA_CS#1

SA_ODT0

SA_RAS
SA_WE
SA_CAS

SA_BA0
SA_BA1
SA_BA2

SA_MA0
SA_MA1
SA_MA2
SA_MA3
SA_MA4
SA_MA5
SA_MA6
SA_MA7
SA_MA8
SA_MA9
SA_MA10
SA_MA11
SA_MA12
SA_MA13
SA_MA14
SA_MA15

SA_DQS#0
SA_DQS#1
SA_DQS2
SA_DQS3
SA_DQS4
SA_DQS5
SA_DQS6
SA_DQS#7

SA_DQSP0
SA_DQSP1
SA_DQSP2
SA_DQSP3
SA_DQSP4
SA_DQSP5
SA_DQSP6
SA_DQSP7

SM_VREF_CA
SM_VREF_DQ0
SM_VREF_DQ1

SM_VREF_CA AP49 SM_VREF_CA SM_VREF_CA (19)
SM_VREF_DQ0 AR51 SM_VREF_DQ0 SM_VREF_DQ0 (19)
SM_VREF_DQ1 AP51 SM_VREF_DQ1 SM_VREF_DQ1 (19)

Check if not used. NC ?

12/25 Del SM_VREF_DQ0

```
[19] M_B_DQ[63..0] <
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U14D

M B D00 AY31	SB D00
M B D01 AW31	SB D01
M B D02 AY29	SB D02
M B D03 AW29	SB D03
M B D04 AY29	SB D04
M B D05 AU31	SB D05
M B D06 AV29	SB D06
M B D07 AU29	SB D07
M B D08 AY27	SB D08
M B D09 AW27	SB D09
M B D10 AY27	SB D10
M B D11 AW25	SB D11
M B D12 AV27	SB D12
M B D13 AU27	SB D13
M B D14 AV25	SB D14
M B D15 AU25	SB D15
M B D16 AM25	SB D16
M B D17 AK29	SB D17
M B D18 AL28	SB D18
M B D19 AK28	SB D19
M B D20 AR29	SB D20
M B D21 AN29	SB D21
M B D22 AR29	SB D22
M B D23 AP28	SB D23
M B D24 AN26	SB D24
M B D25 AR26	SB D25
M B D26 AR25	SB D26
M B D27 AP25	SB D27
M B D28 AK25	SB D28
M B D29 AM26	SB D29
M B D30 AK25	SB D30
M B D31 AL25	SB D31
M B D32 AY23	SB D32
M B D33AW23	SB D33
M B D34 AY23	SB D34
M B D35AW21	SB D35
M B D36 AV23	SB D36
M B D37 AU23	SB D37
M B D38 AV21	SB D38
M B D39 AU21	SB D39
M B D40 AY17	SB D40
M B D41AW19	SB D41
M B D42 AY17	SB D42
M B D43AW17	SB D43
M B D44 AV19	SB D44
M B D45 AV19	SB D45
M B D46 AV17	SB D46
M B D47 AU17	SB D47
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M B D49 AR22	SB D49
M B D50 AL21	SB D50
M B D51 AM22	SB D51
M B D52 AN22	SB D52
M B D53 AP21	SB D53
M B D54 AK21	SB D54
M B D55 AK22	SB D55
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M B D62 AR18	SB D62
M B D63 AP18	SB D63

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SB_CK0
SB_CK1#1
SB_CK1

SB_CK0E0
SB_CK1E1
SB_CK2E2
SB_CK3E3

SB_CS#0#0
SB_CS#1#1

SB_ODT0

SB_RAS
SB_WE
SB_CAS

SB_BA0#0
SB_BA1#1
SB_BA2#2

SB_MA0#0
SB_MA1#1
SB_MA2#2
SB_MA3#3
SB_MA4#4
SB_MA5#5
SB_MA6#6
SB_MA7#7
SB_MA8#8
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SB_MA10#10
SB_MA11#11
SB_MA12#12
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SB_MA14#14
SB_MA15#15

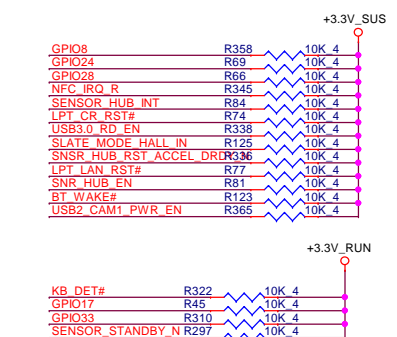
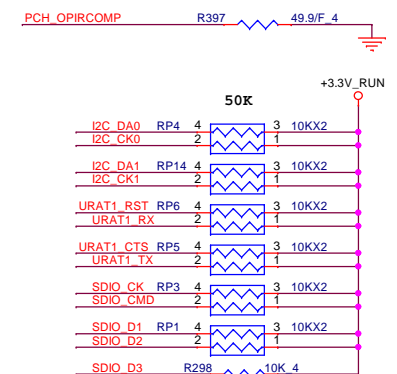
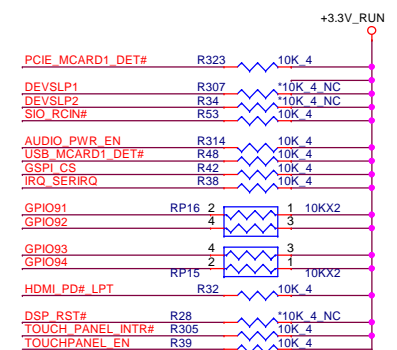
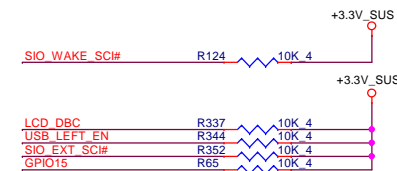
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SB_DQS#1#1
SB_DQS#2#2
SB_DQS#3#3
SB_DQS#4#4
SB_DQS#5#5
SB_DQS#6#6
SB_DQS#7#7

SB_DQSP0#0
SB_DQSP1#1
SB_DQSP2#2
SB_DQSP3#3
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SB_DQSP5#5
SB_DQSP6#6
SB_DQSP7#7
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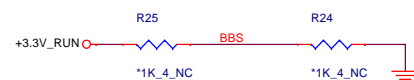
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SB_CK1#		AK38 <td>M_B_CLKN1</td> <td></td> <td>M_B_CLKN1</td> <td>[19]</td>	M_B_CLKN1		M_B_CLKN1	[19]
SB_CK1		AL38 <td>M_B_CLKP1</td> <td></td> <td>M_B_CLKP1</td> <td>[19]</td>	M_B_CLKP1		M_B_CLKP1	[19]
SB_CKE0		AY49 <td>M_B_CKE0</td> <td></td> <td>M_B_CKE0</td> <td>[19]</td>	M_B_CKE0		M_B_CKE0	[19]
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SB_CKE2		AW49				
SB_CKE3		AV50				
SB_CS#0		AK32 <td>M_B_CS#0</td> <td></td> <td>M_B_CS#0</td> <td>[19]</td>	M_B_CS#0		M_B_CS#0	[19]
SB_CS#1		AK32 <td>M_B_CS#1</td> <td></td> <td>M_B_CS#1</td> <td>[19]</td>	M_B_CS#1		M_B_CS#1	[19]
SB_O0T0		AL32				
SB_RAS		AK35 <td>M_B_RAS#</td> <td></td> <td>M_B_RAS#</td> <td>[19]</td>	M_B_RAS#		M_B_RAS#	[19]
SB_WE		AK35 <td>M_B_WE#</td> <td></td> <td>M_B_WE#</td> <td>[19]</td>	M_B_WE#		M_B_WE#	[19]
SB_CAS		AK33 <td>M_B_CAS#</td> <td></td> <td>M_B_CAS#</td> <td>[19]</td>	M_B_CAS#		M_B_CAS#	[19]
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SB_BA2		AU49 <td>M_B_BS#2</td> <td></td> <td>M_B_A[15..0]</td> <td>[19]</td>	M_B_BS#2		M_B_A[15..0]	[19]
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SB_MA2		AP42 <td>M_B_A2</td> <td></td> <td></td> <td></td>	M_B_A2			
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SB_MA7		AY46 <td>M_B_A7</td> <td></td> <td></td> <td></td>	M_B_A7			
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SB_MA9		AU46 <td>M_B_A9</td> <td></td> <td></td> <td></td>	M_B_A9			
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SB_MA11		AV47 <td>M_B_A11</td> <td></td> <td></td> <td></td>	M_B_A11			
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SB_DQS[N3]		AN25 <td>M_B_DQS[N3]</td> <td></td> <td></td> <td></td>	M_B_DQS[N3]			
SB_DQS[N4]		AW22M <td>M_B_DQS[N4]</td> <td></td> <td></td> <td></td>	M_B_DQS[N4]			
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SB_DQS[N6]		AN21 <td>M_B_DQS[N6]</td> <td></td> <td></td> <td></td>	M_B_DQS[N6]			
SB_DQS[N7]		AN18 <td>M_B_DQS[N7]</td> <td></td> <td>M_B_DQSP[7..0]</td> <td>[19]</td>	M_B_DQS[N7]		M_B_DQSP[7..0]	[19]
SB_DQSP0		AV30 <td>M_B_DQSP0</td> <td></td> <td></td> <td></td>	M_B_DQSP0			
SB_DQSP1		AW26M <td>M_B_DQSP1</td> <td></td> <td></td> <td></td>	M_B_DQSP1			
SB_DQSP2		AM28 <td>M_B_DQSP2</td> <td></td> <td></td> <td></td>	M_B_DQSP2			
SB_DQSP3		AM25 <td>M_B_DQSP3</td> <td></td> <td></td> <td></td>	M_B_DQSP3			
SB_DQSP4		AV22 <td>M_B_DQSP4</td> <td></td> <td></td> <td></td>	M_B_DQSP4			
SB_DQSP5		AW18M <td>M_B_DQSP5</td> <td></td> <td></td> <td></td>	M_B_DQSP5			
SB_DQSP6		AM21 <td>M_B_DQSP6</td> <td></td> <td></td> <td></td>	M_B_DQSP6			
SB_DQSP7		AM18 <td>M_B_DQSP7</td> <td></td> <td></td> <td></td>	M_B_DQSP7			

4 OF 19

GPIO Pull-up/Pull-down(CLG)



GPIO86:Boot BIOS Strap Bit	
PU	LPC
PD	SPI (Default IPD)



GPIO66 : Top-Block Swap	
R1547	ENABLE
R1547_NC	DISABLE(Default)



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PROJECT : JW8B

Size	Document Number	Rev
	Haswell ULT 3/12	A
Date:	Thursday, June 13, 2013	Sheet 9 of 57

Haswell ULT (PCIE,USB)

U14K

HSW_ULT_DDR3L

PCIE

USB

11 OF 19

GPU

GIGA LAN

WIFI

USB3.0 Port (Left)

Cardreader

+V1.05S_AUSB3PLL

R20 1 2 3K/F 4
R19 1 2 10.4 SHORT_NC PCIE_IREF

E15
E16
A27
B27
RSVD
PCIE_RCOMP
PCIE_IREF

F10
E10
PERN5_L0
PERP5_L0

C23
C22
PETN5_L0
PETP5_L0

F8
E8
PERN5_L1
PERP5_L1

B23
A23
PETN5_L1
PETP5_L1

H10
G10
PERN5_L2
PERP5_L2

B21
C21
PETN5_L2
PETP5_L2

E6
F6
PERN5_L3
PERP5_L3

B22
A21
PETN5_L3
PETP5_L3

G11
F11
PERN3
PERP3

C29
B30
PETN3
PETP3

F13
G13
PERN4
PERP4

B29
A29
PETN4
PETP4

G17
F17
PERN1/USB3RN3
PERP1/USB3RP3

C30
C31
PETN1/USB3TN3
PETP1/USB3TP3

F15
G15
PERN2/USB3RN4
PERP2/USB3RP4

B31
A31
PETN2/USB3TN4
PETP2/USB3TP4

+3V_S5
+3V_S5
+3V_S5
+3V_S5
OC0/GPIO40
OC1/GPIO41
OC2/GPIO42
OC3/GPIO43

USB3RN1
USB3RP1
USB3TN1
USB3TP1
USB3RN2
USB3RP2
USB3TN2
USB3TP2
AJ10 USB_BIAS
AJ11
AN10 USBPLLMON N
AM10 USBPLLMON P
R105 22.6/F 4
R108 49.9/F 4
R107 49.9/F 4

AL3 USB_OC0#
AT1 USB_OC1#
AH2 USB_OC2#
AV3 USB_RIGHT_EN
USB_OC0#
USB_OC1#
USB_OC2#
USB_RIGHT_EN[34]

USB3.0 Port (Power Share)

USB3.0 Port (Right)

USB3.0 Port (Left)

Finger Print

Camera

eTP Touch Panel

Bluetooth

Touch Panel (JW8)

USB3.0 Port (Power Share)

USB3.0 Port (Right)

HARRIS_BEACH_CS REV 3.0

USB_OC0# R88 1 2 10K 4
USB_OC1# R350 1 2 10K 4
USB_OC2# R332 1 2 10K 4
USB_RIGHT_EN R388 1 2 *100K 4 NC

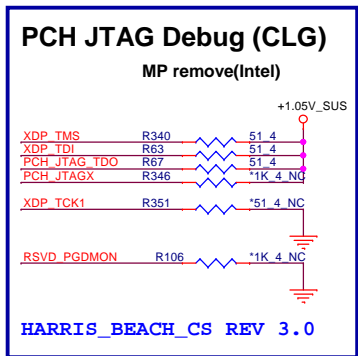
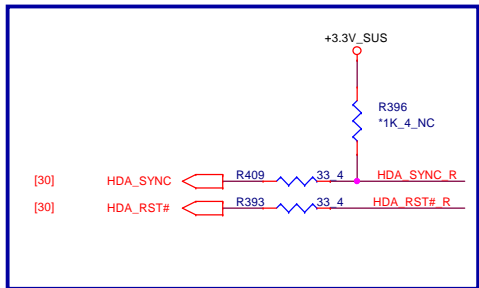
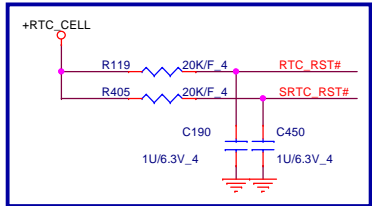
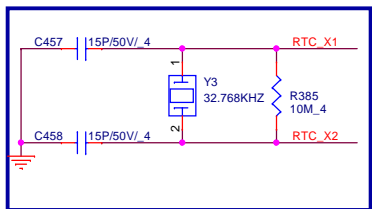
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Quanta Computer Inc.

PROJECT : JW8B

Size	Document Number	Rev A
Haswell ULT 4/12		
Date:	Monday, July 08, 2013	Sheet 10 of 57



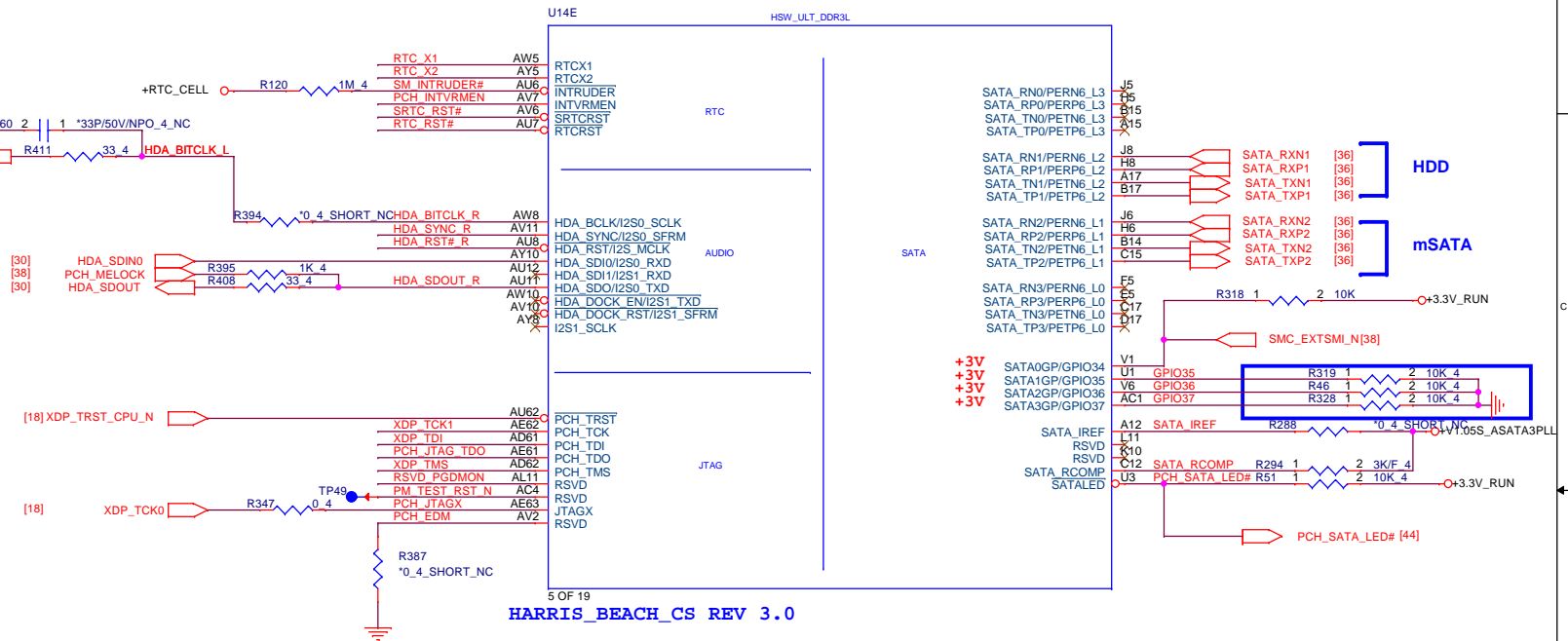
DFXTESTMODE
HIGH - DFXTESTMODE DISABLED(DEFAULT)
LOW - DFXTESTMODE ENABLED

HARRIS_BEACH_CS REV 3.0

PCH Strap Table

Pin Name	Strap description	Sampled	Configuration	note
SPKR	No reboot mode setting	PWROK	0 = Default (weak pull-down 20K) 1 = Setting to No-Reboot mode	
HDA_SDO	Flash Descriptor Security Override / Intel ME Debug Mode	PWROK	0 = Security Effect (Int PD) 1 = Can be Override	
INTVRMEN	Integrated 1.05V VRM enable	ALWAYS	Should be always pull-up	+RTC_CELL - R407 - 330K 4 NC - PCH_INTVRMEN - R392 - 330K 4

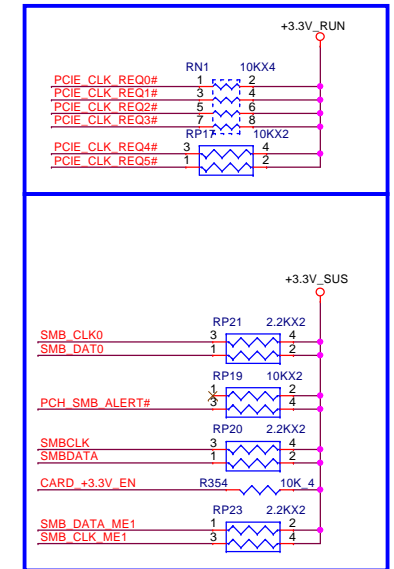
Haswell ULT (RTC, HDA, JTAG, SATA)



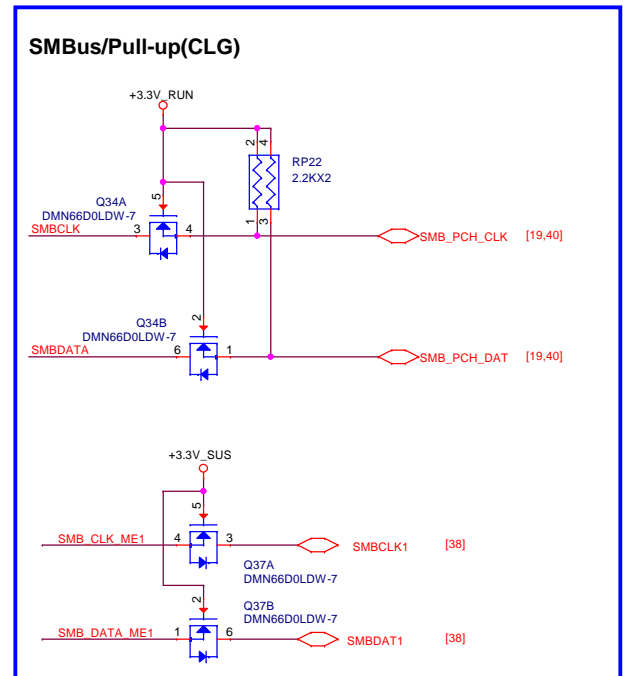
HARRIS_BEACH_CS REV 3.0

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14F HSW_ULT_DDR3L



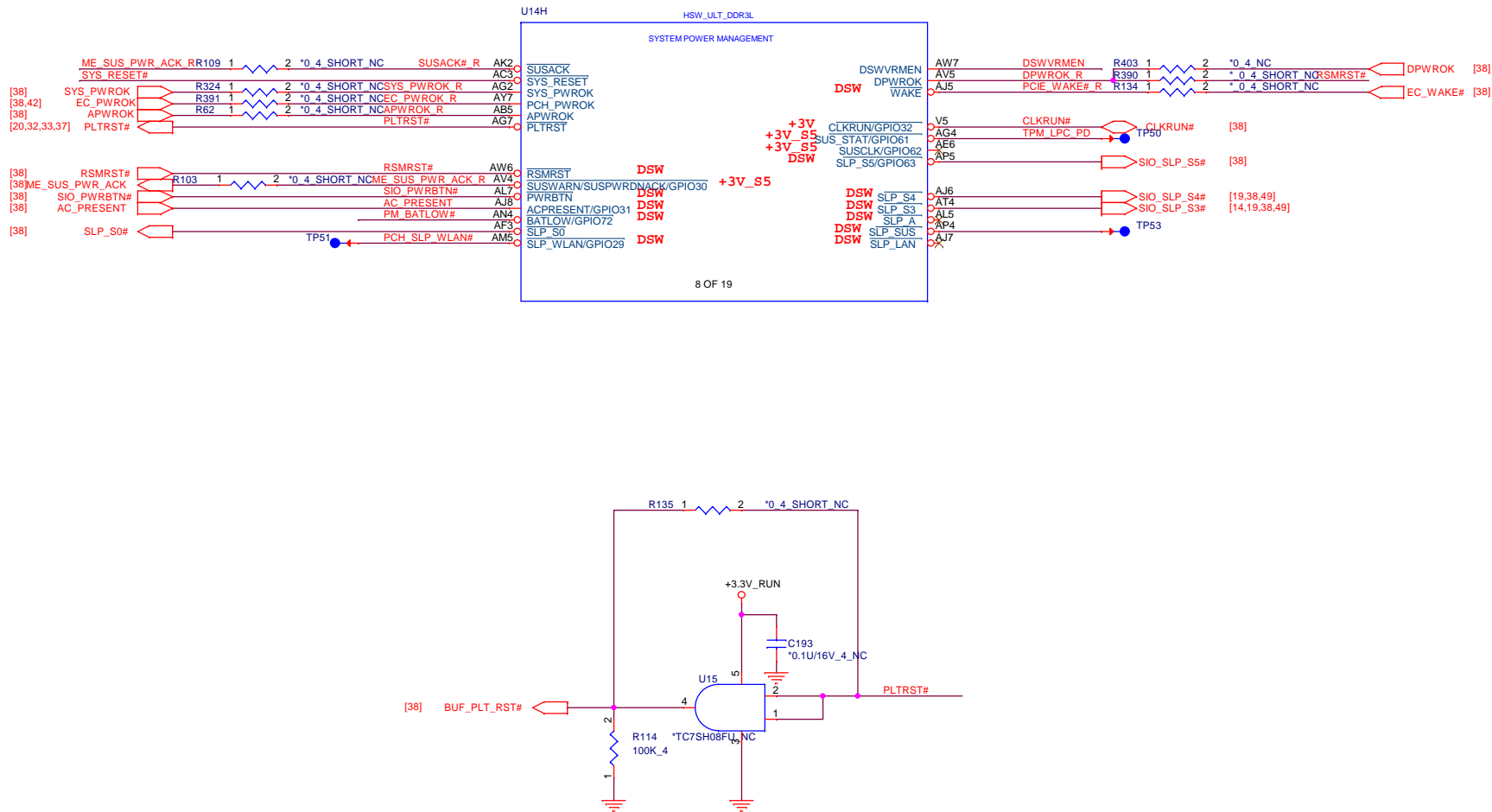
U14G HSW_ULT_DDR3L



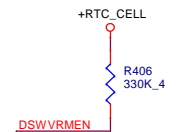
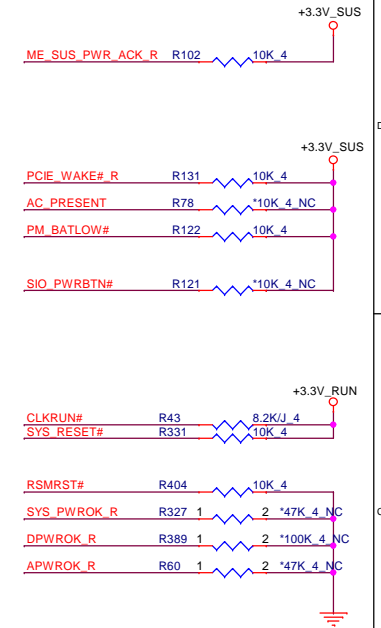
PROJECT : JW8B

Date: Thursday, June 13, 2013 Sheet 12 of 57

Haswell ULT (SYSTEM POWER MANAGEMENT)



PCH Pull-high/low(CLG)



On Die DSW VR Enable

High = Enable (Default)

Low = Disable



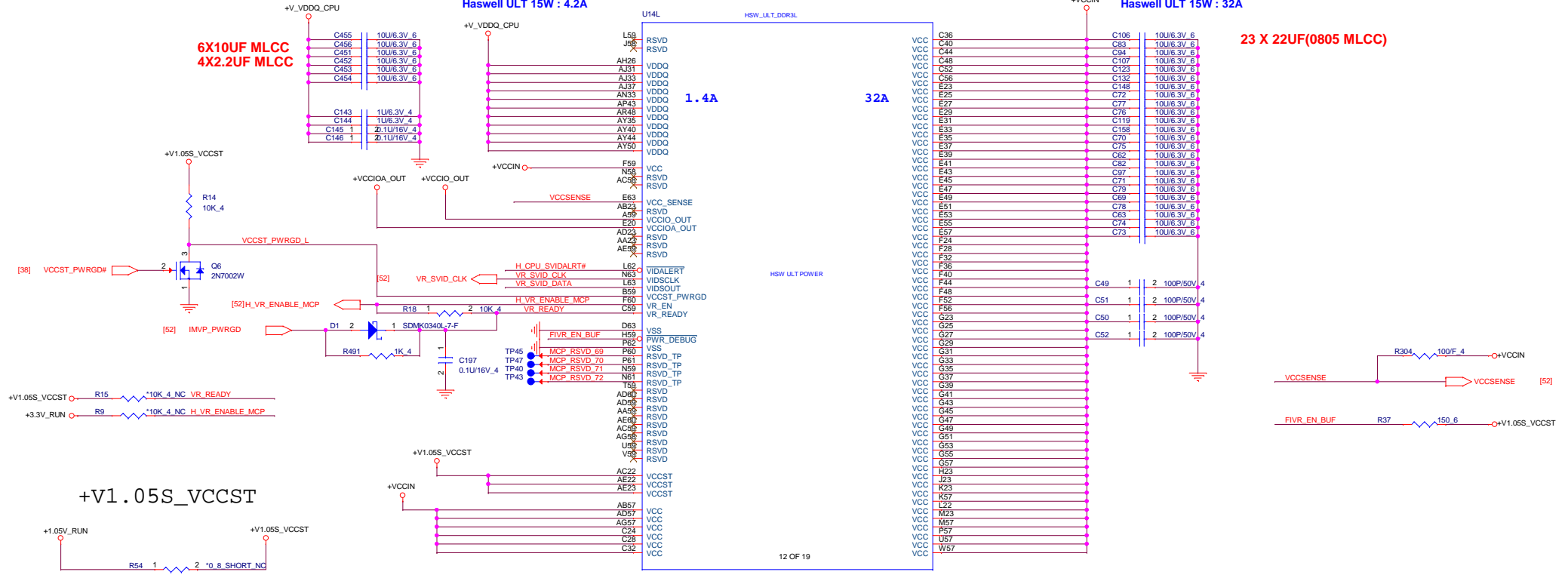
Haswell ULT MCP(POWER)

CPU VDDQ
Haswell ULT 15W : 4.2A

CPU VCC 1/21: 220x23 --> 100x23
Haswell ULT 15W : 32A

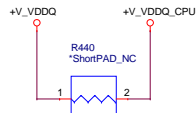
6X10UF MLCC
4X2.2UF MLCC

23 X 22UF(0805 MLCC)



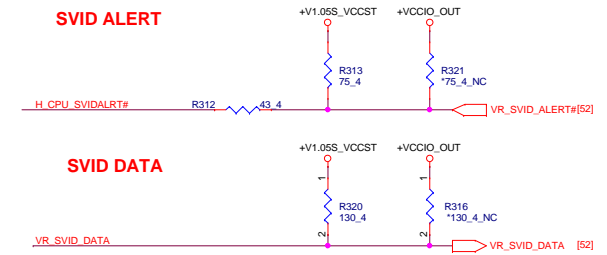
+V1.05S_VCCST

S3 Power reduce



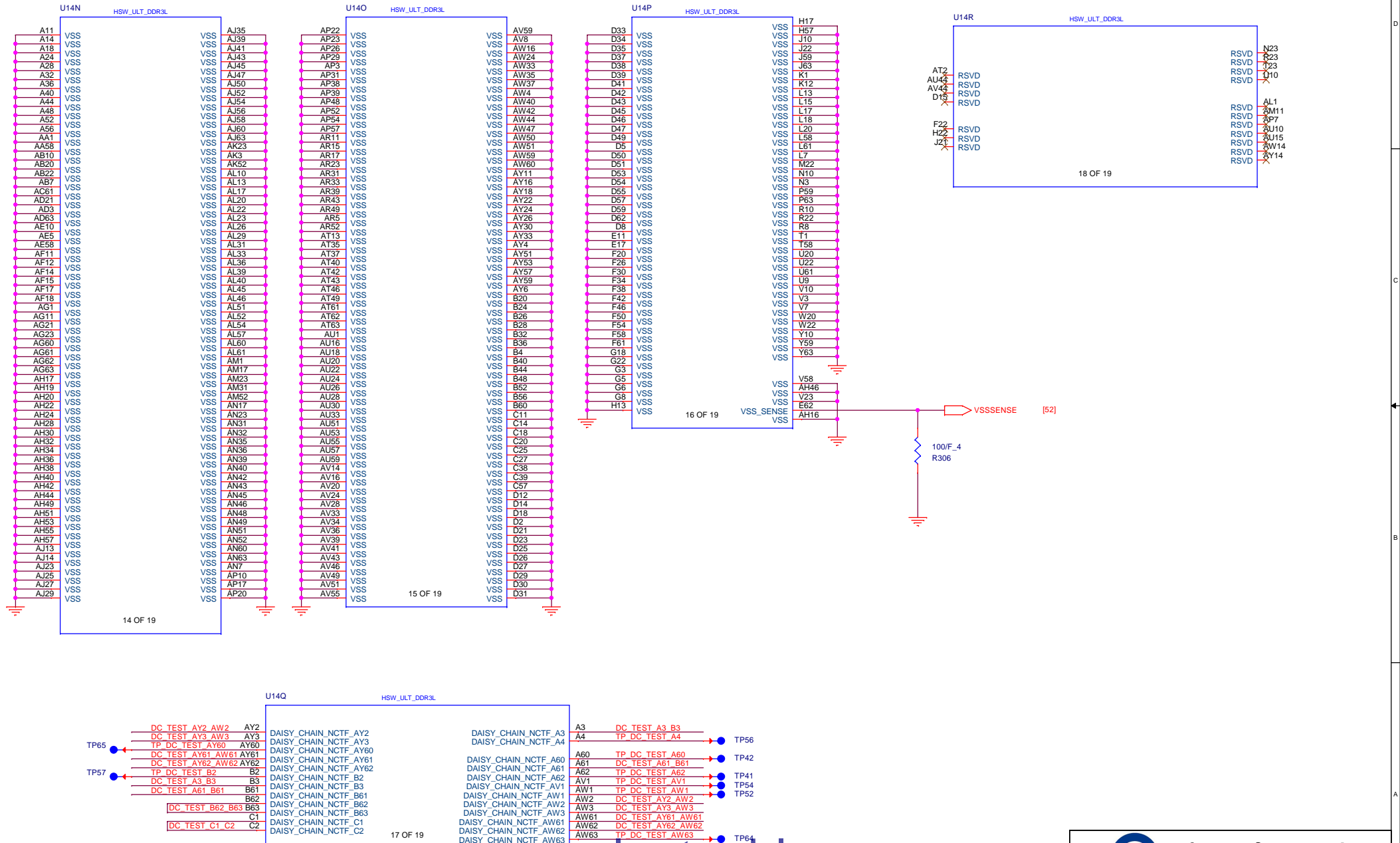
SVID ALERT

SVID DATA



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Haswell ULT (GND)



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PROJECT : JW8B

Size	Document Number	Rev
	Haswell ULT 9/12	A
Date	Wednesday, July 17, 2013	Sheet 15 of 57


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3.3 SUS: 205mA
1.05 SUS: 2066mA
1.05 RUN: 2578mA
3.3 RUN: 58mA

```

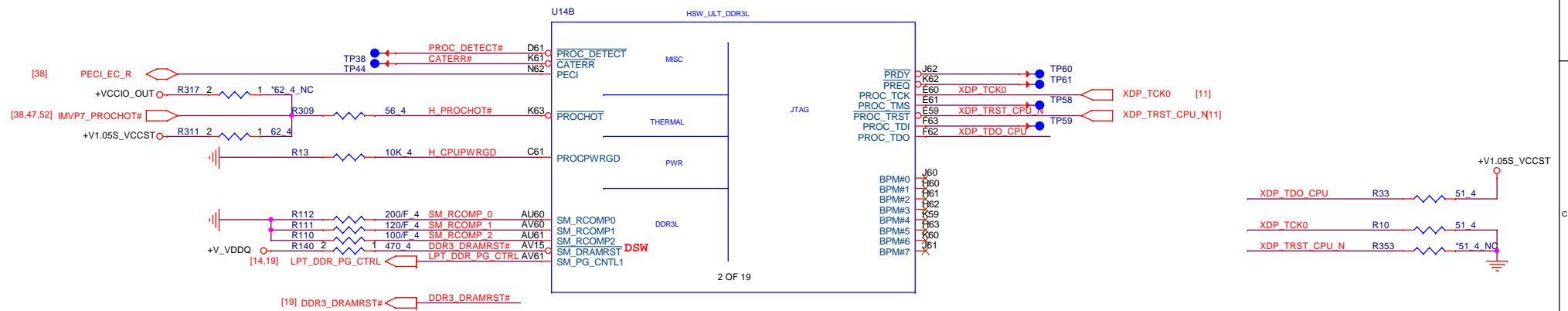


VCCSUS3
129mA

VCC1_05
2.6A

VCCASW
473mA





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PROJECT : JW8B

Size	Document Number	Rev
	Haswell ULT 12/12	A
Date:	Friday, May 10, 2013	Sheet 18 of 57

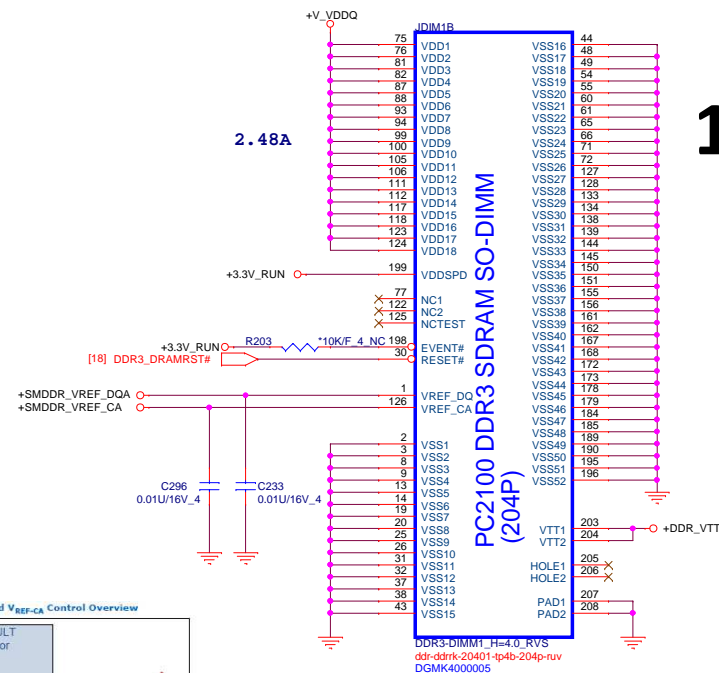
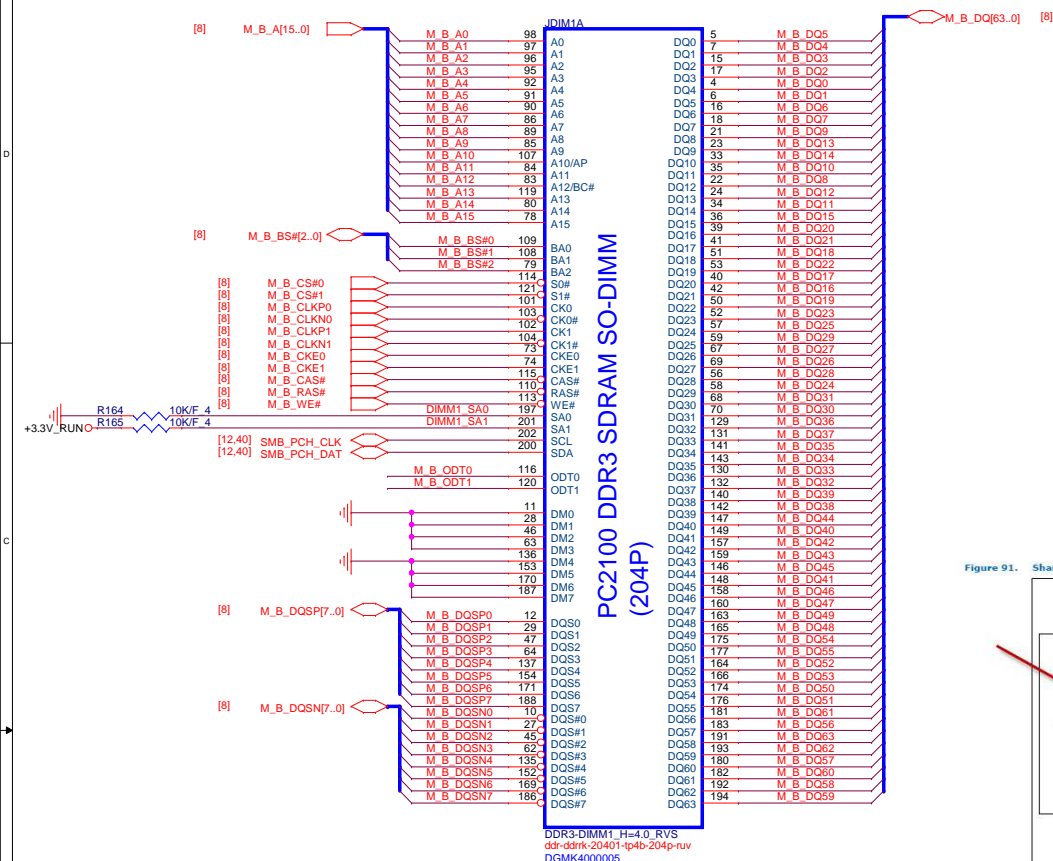
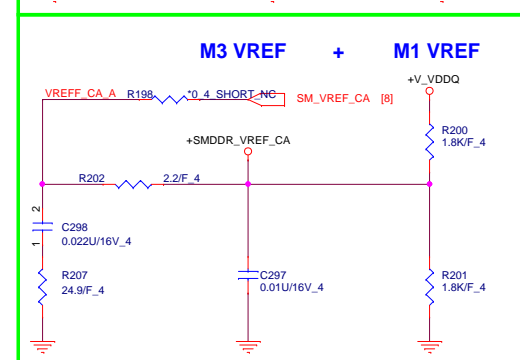
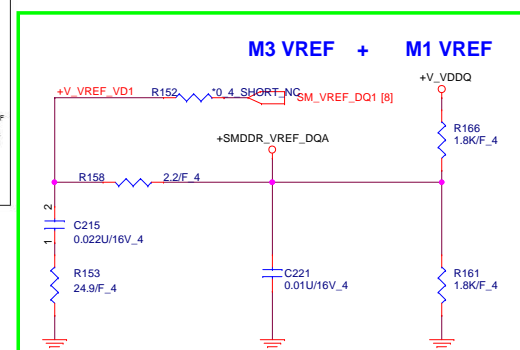
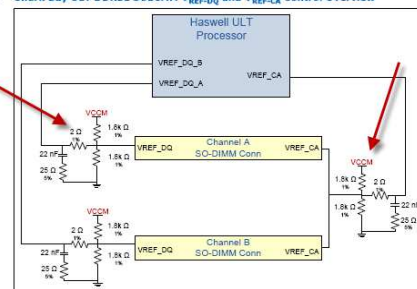
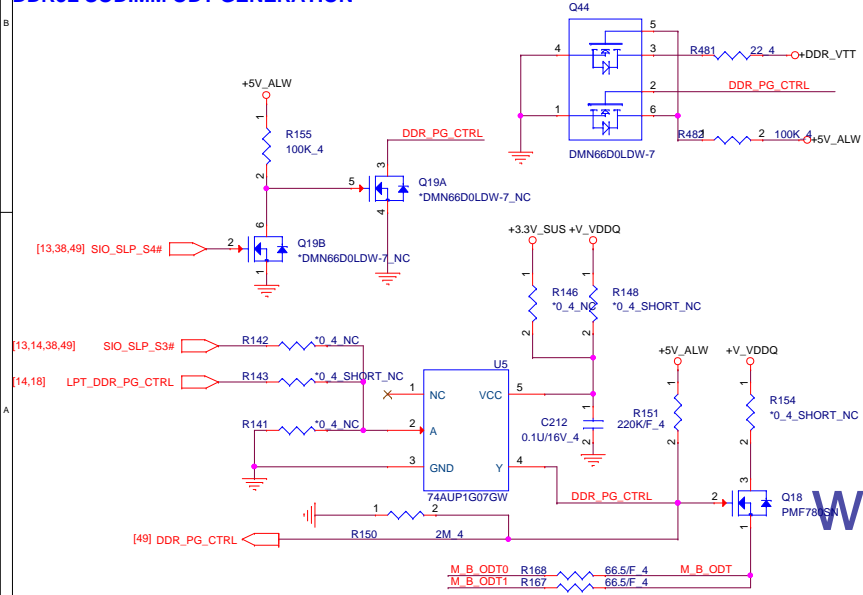


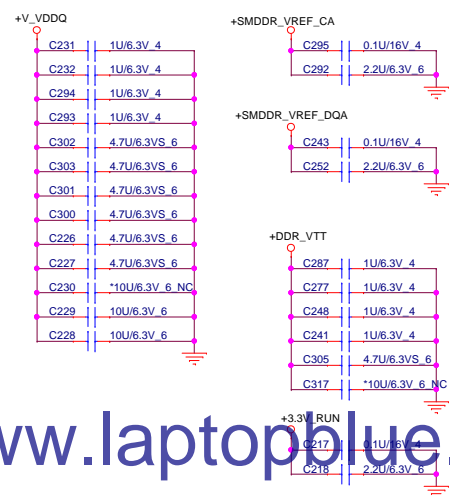
Figure 91. Shark Bay ULT DDR3L SODIMM V_{REF-DD} and V_{REF-CA} Control Overview



DDR3L SODIMM ODT GENERATION

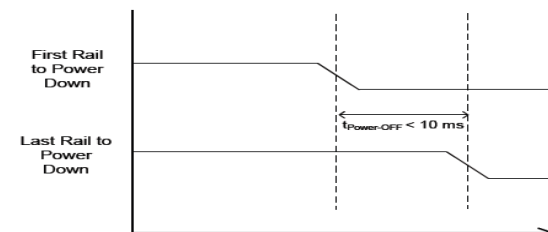
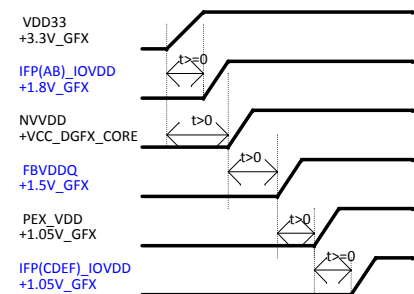
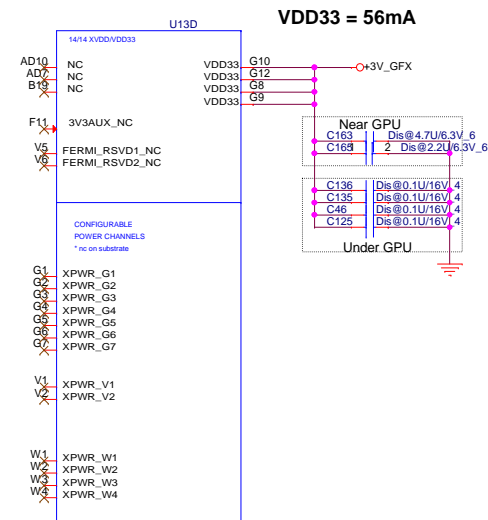
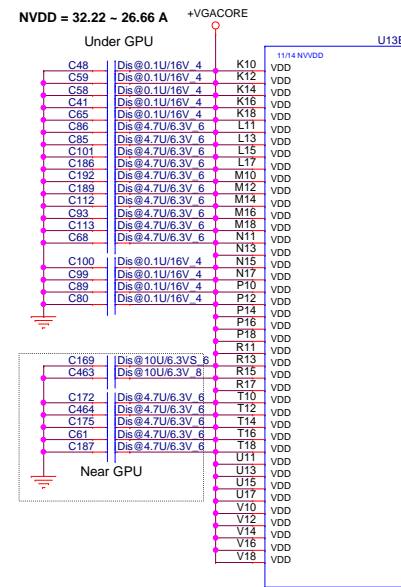
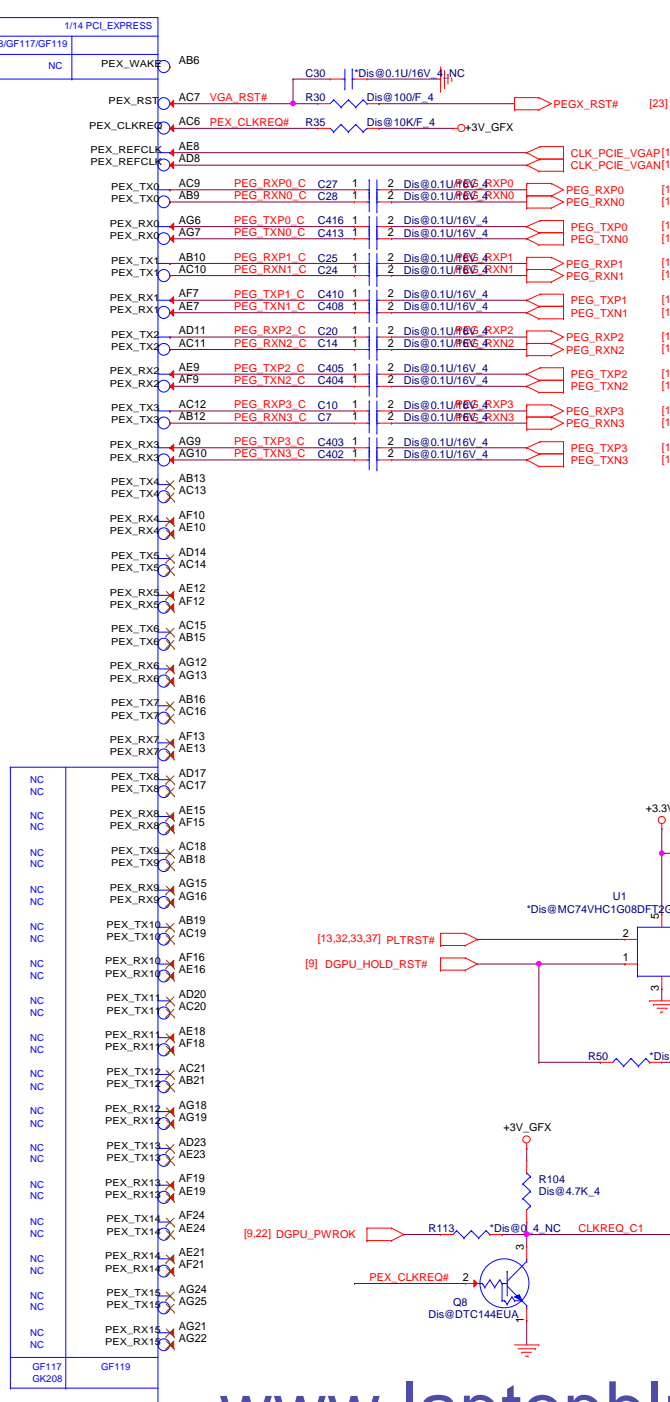
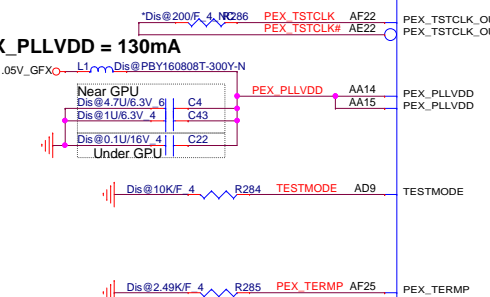


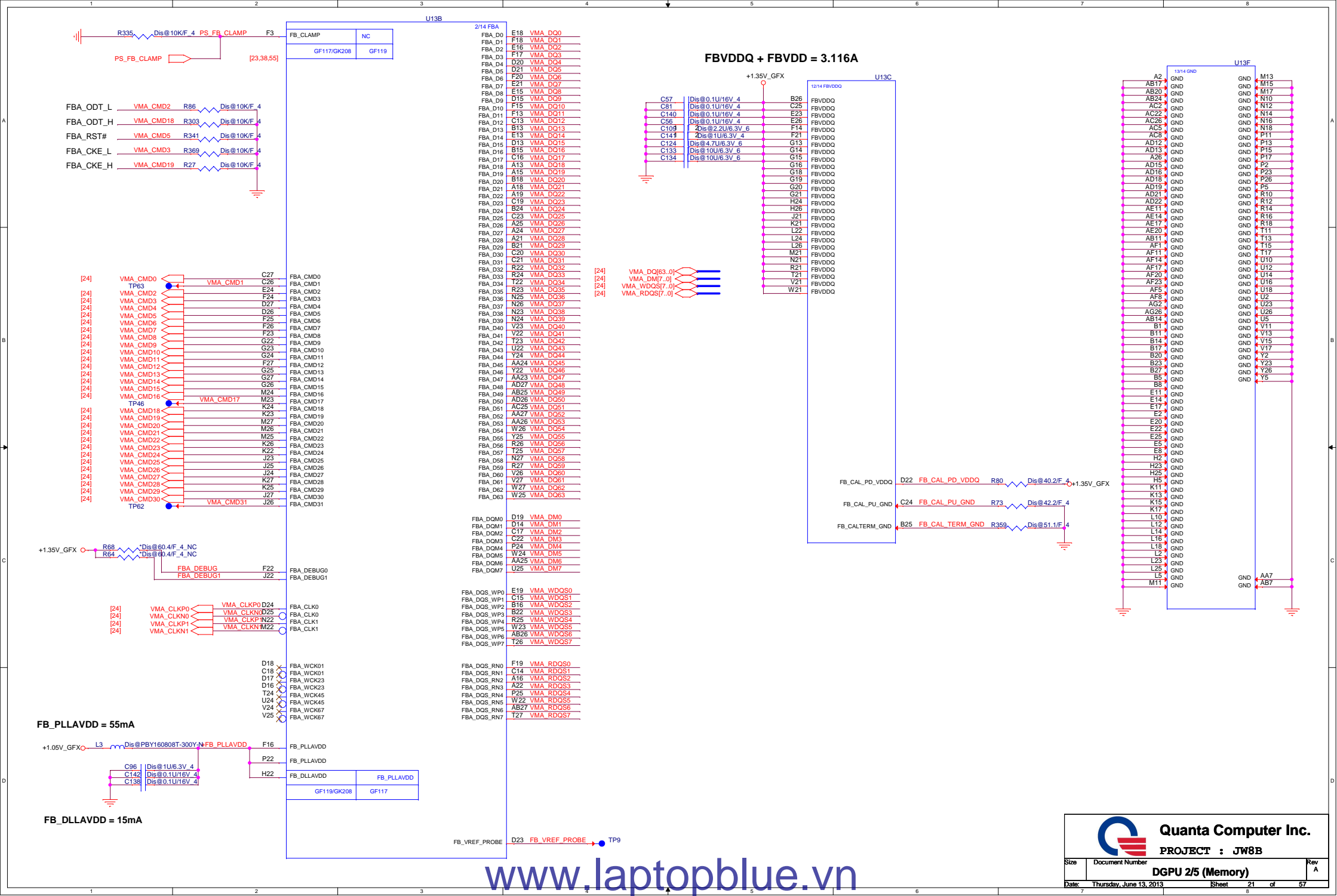
Place these Caps near So-Dimm1.

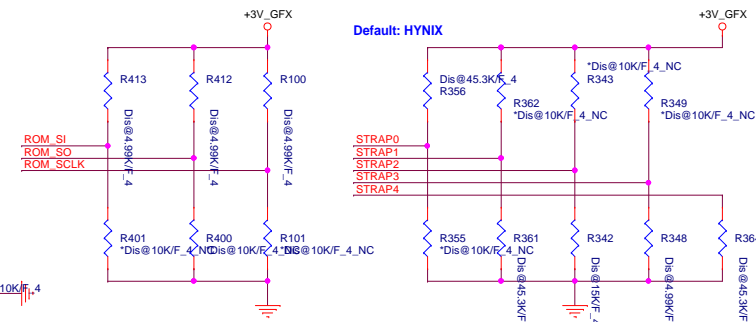
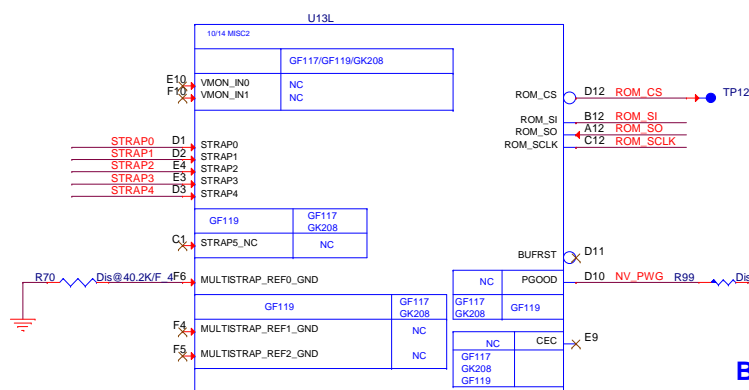


PEX IOVDD + PEX IOVDDQ = 1.042A

PEX_PLL_HVDD +
PEX_SVDD 3V3 = 143mA







4.99K: CS24992FB00 RES CHIP 4.99K 1/16W +1% (0402)
 45K: CS34502FB00 RES CHIP 45K 1/16W +1% (0402)
 15K: CS31502FB24 RES CHIP 15K 1/16W +1% (0402)
 30.1K: CS33012FB18 RES CHIP 30.1K 1/16W +1% (0402)
 34.8K: CS33482FB22 RES CHIP 34.8K 1/16W +1% (0402)

Binary Strap Mode Mapping

Strap Pin name	Strap Mapping	Resistance	Note
ROM_SCLK	PCI_DEVID[4] SUB_VENOR PCI_DEVID[5] PEX_PLL_EN	5Kohm , H	1000 , SUB: no Video BIOS
ROM_SI	RAM_CFG[2] RAM_CFG[1] RAM_CFG[0]	5Kohm , H	4.99K 1000 --> Micron MT41K128M16JT-107G:K (Default) 30.1K 1101 --> Micron MT41K256M16HA-107G:E 34.8K 1110 --> Hynix H5TC4G63AFR-11C
ROM_SO	FB[1] FB[0] SMB_ALT_ADDR VGA_DEVICE	5Kohm , H	1000 , FB: 256 MB (Default) SMB:0x9E
STRAP0	User strap [3:0]	45Kohm , H	1111 , EDID is used
STRAP1	3GIO_CFG[3:0]	45Kohm , D	1111 , USER defined
STRAP2	PCI_DEVID[3:0]	15Kohm , D	010010 , N14P-GV2
STRAP3	SOR[3:0]_EXPOSED	5Kohm , D	0000 , IFPx port not use
STRAP4	RESERVED PCIE_SPEED_GEN3 PCIE_MAX_SPEED DP_PLL_VDD33V	45Kohm , D	0111 , PCIE GEN3 setting

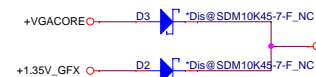
GPIO ASSIGNMENTS (GB2-64)

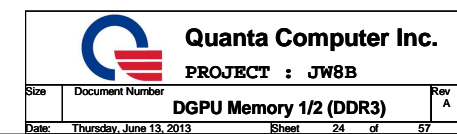
GPIO	I/O	PIN	USAGE
0	IN	FB_CLAMP_MON	FB Clamp monitor
1	OUT	MEM_VDD_CTL	MEMORY VDD ID
2	OUT	LCD_BL_PWM	LCD BACKLIGHT PWM
3	OUT	LCD_VCC	PANEL POWER ENABLE
4	OUT	LCD_BLEN	PANEL BACKLIGHT ENABLE
5		RESERVE	
6	OUT	FB_CLAMP_TGL_REQ#	# --> FB Clamp toggle request
7	OUT	3DVision	3D VISION LEFT/RIGHT VISION
8	I/O	OVERT	ACTIVE LOW THERMAL OVER TEMP
9	I/O	ALERT	ACTIVE LOW THERMAL ALERT
10	OUT	MEM_VREF_CTL	MEMORY VREF CONTROL
11	OUT	PWM_VID	GPU Core VDD PWM control
12	IN	PWR_LEVEL	Power Detect ,HIGH=AC, LOW=DC
13	OUT	PSI	Phase Shedding
14	IN	HPD_A	HOT PLUG DETECT FOR IFPAB
15	IN	HPD_C	HOT PLUG DETECT FOR IFPC
16	OUT	FRM_LCK	MEMMORY VDD CONTROL
17	IN	HPD_D	HOT PLUG DETECT FOR IFPD
18	IN	HPD_E	HOT PLUG DETECT FOR IFPE
19	IN	HPD_F or HPD_B	HOT PLUG DETECT FOR IFPF
20/21		RESERVE	

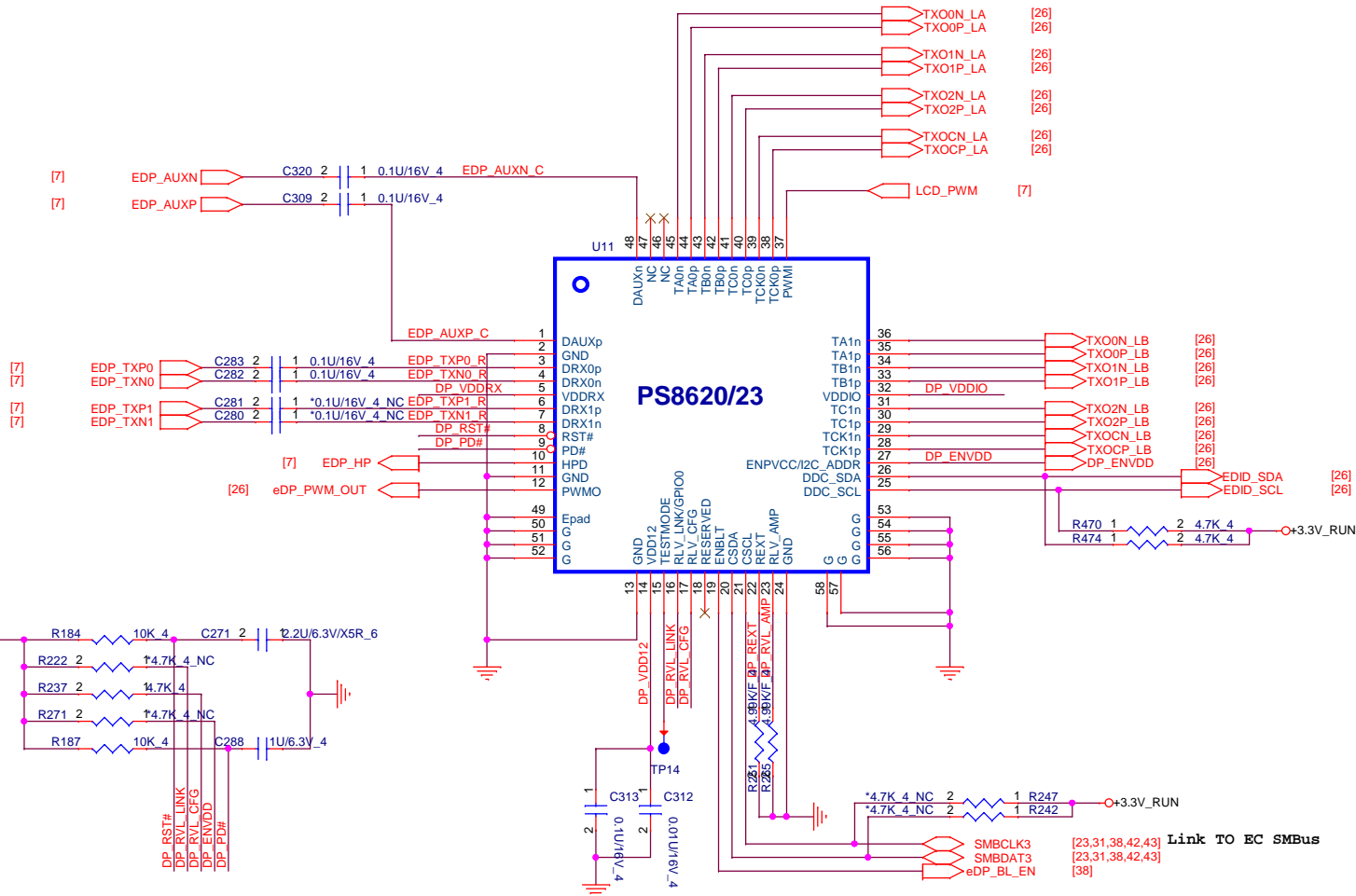
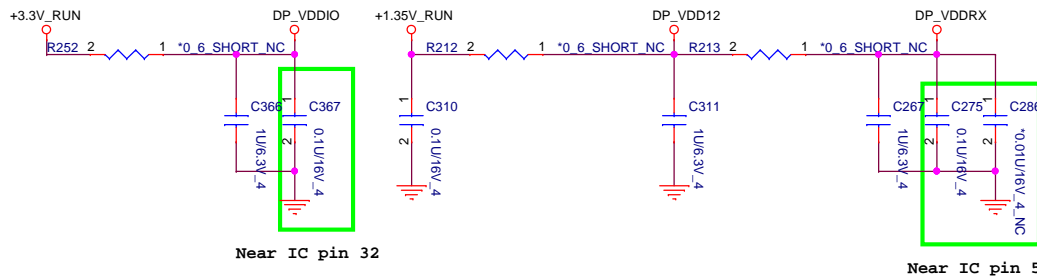
VRAM Configuration Table

RAMCFG [3:0]	DESCRIPTION	Vendor	DELL P/N	QC1 P/N
0000				
1000 0x8	MT41K128M16JT-107G:K (FCBGA)(96P)	Micron	NA	AKD5DGSTL00
1101 0xD	MT41K256M16HA-107G:E	Micron	NA	AKD5PGSTL00
1110 0xE	H5TC4G63AFR-11C	Hynix	NA	AKD5PGWTW05

for meet Power down sequence for +3V_GFX







DP_ENVDD: I2C Slave address selection, internal pull-down ~80K
 L: 0x10h~0x1Fh
 H: 0x90h~0x9Fh

DP_RVL_LINK: LVDS single link or dual link selection, internal pull-down ~80K
 L: Single link LVDS
 H: Dual link LVDS

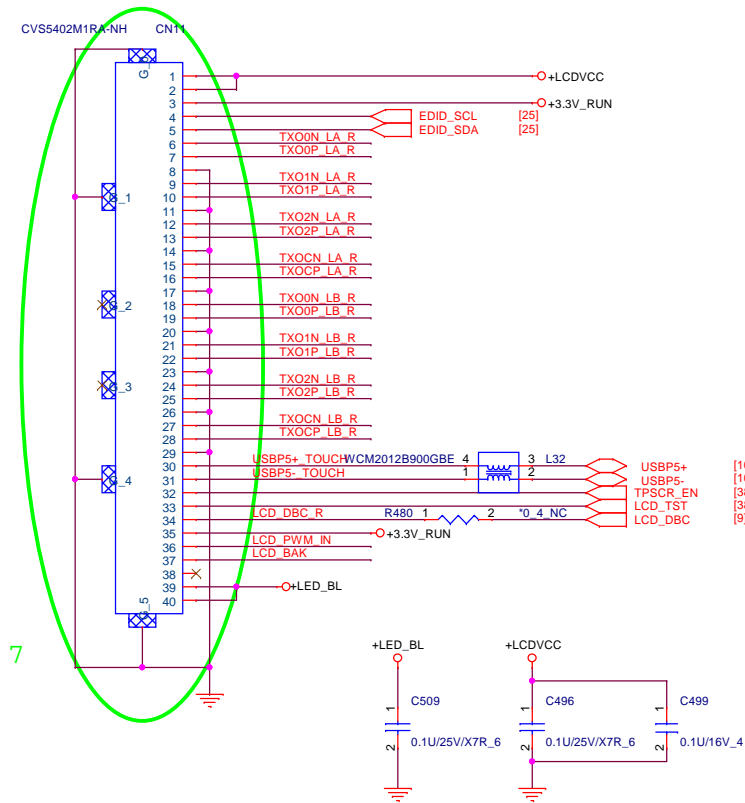
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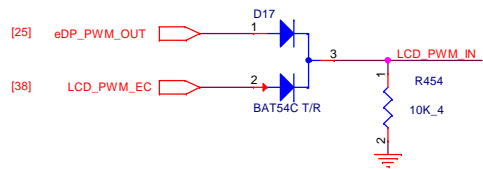
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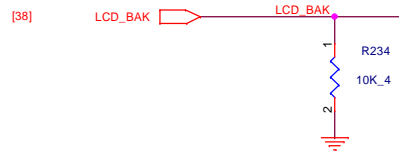
Size	Document Number	Rev A
	eDP to LVDS (PS8620/23)	
Date: Monday, July 08, 2013	Sheet 25 of 57	



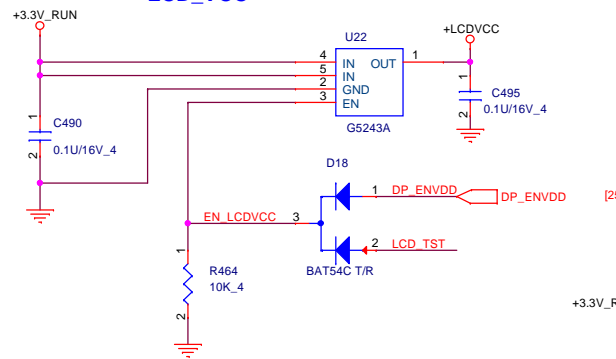
Brightness Control



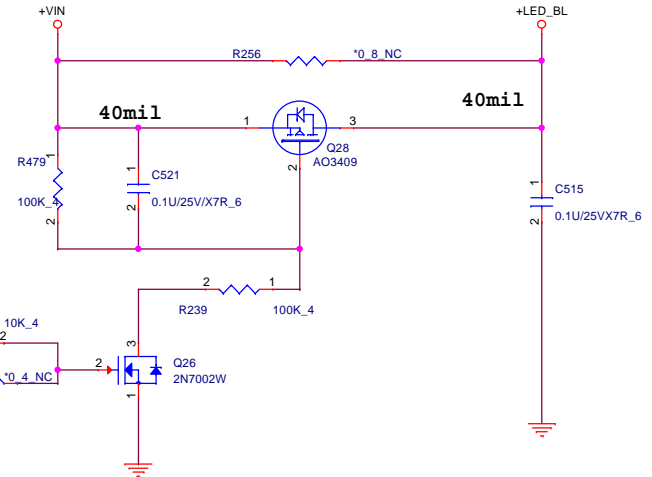
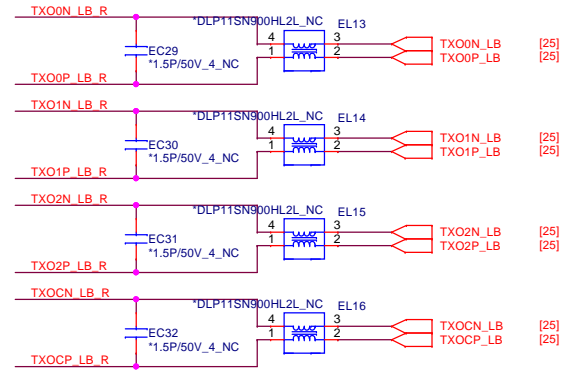
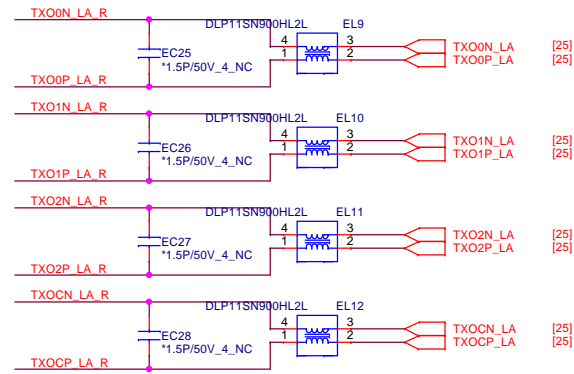
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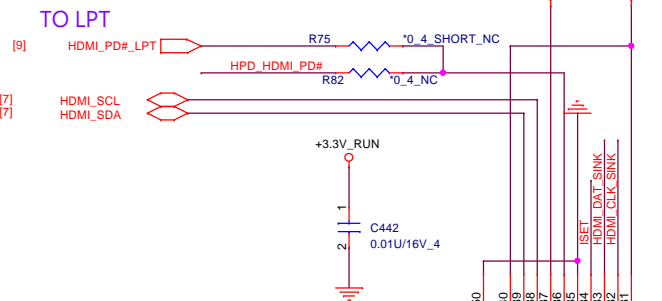
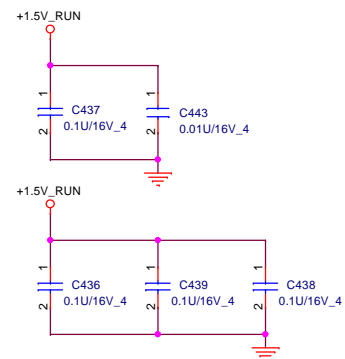


LCD_VCC



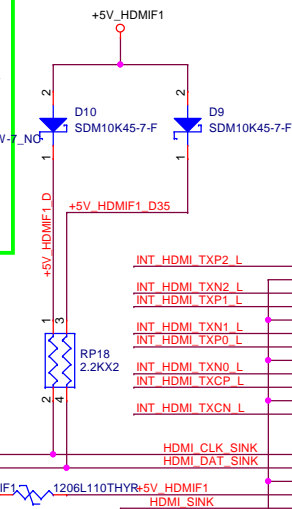
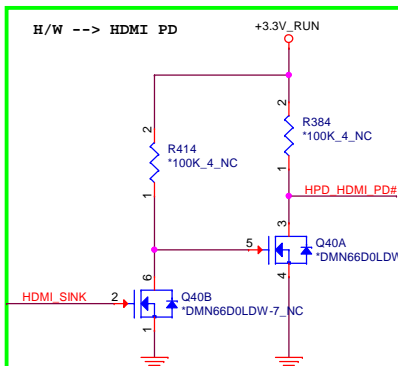
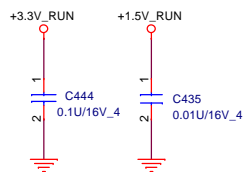
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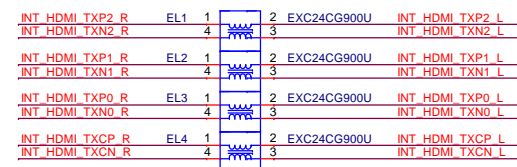
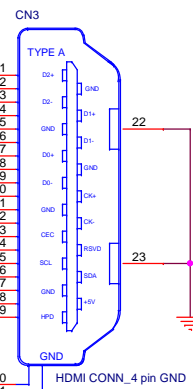


[7] INT_HDMI_TXP2
[7] INT_HDMI_TXN2
[7] INT_HDMI_HP
[7] INT_HDMI_TXP1
[7] INT_HDMI_TXN1
[7] INT_HDMI_TXP0
[7] INT_HDMI_TXN0
[7] INT_HDMI_TXCP
[7] INT_HDMI_TXCN

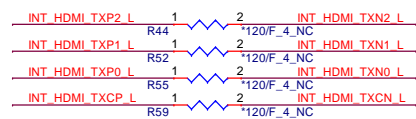
C178 1 2 0.1U/16V_4 INT_HDMI_TXP2_C
C179 1 2 0.1U/16V_4 INT_HDMI_TXN2_C
C180 1 2 0.1U/16V_4 INT_HDMI_TXP1_C
C181 1 2 0.1U/16V_4 INT_HDMI_TXN1_C
C182 1 2 0.1U/16V_4 INT_HDMI_TXP0_C
C183 1 2 0.1U/16V_4 INT_HDMI_TXN0_C
C184 1 2 0.1U/16V_4 INT_HDMI_TXCP_C
C185 1 2 0.1U/16V_4 INT_HDMI_TXCN_C



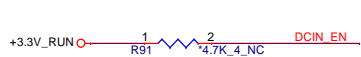
HDMI CN



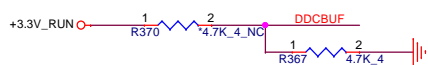
EMI



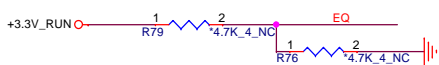
3 Level Input:
L:LOW,internal pull down
H:HIGH, external pull up
M:VDD3/2, both external pill-up and pull-down



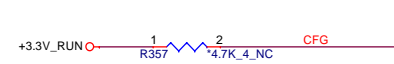
Int pull-down 150k , 3.3V IO
L:default,AC coupling input
H:DC coupling input



L:default,passive DDC pass-through
H:active DDC buffer with default threshold
M:passive DDC pass-through with internal -10Kohm pull up



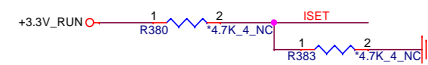
L:programmable EQ for channel loss up to 6.5dB @3Gbps
H:programmable EQ for channel loss up to 9.5dB @3Gbps
M:programmable EQ for channel loss up to 3dB @3Gbps



Int pull-down 150k , 3.3V IO
L:HDMI ID disable
H:HDMI ID enable



L:no pre-emphasis
H:1.6dB pre-emphasis
M:3.0dB pre-emphasis



L:default
H:increase +13%
M:increase -13%

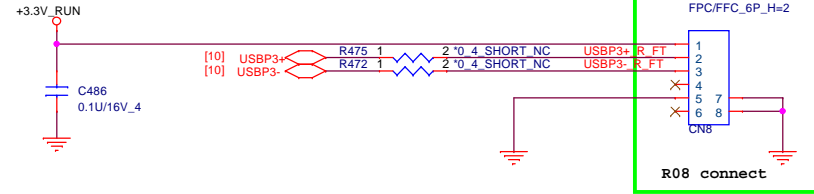
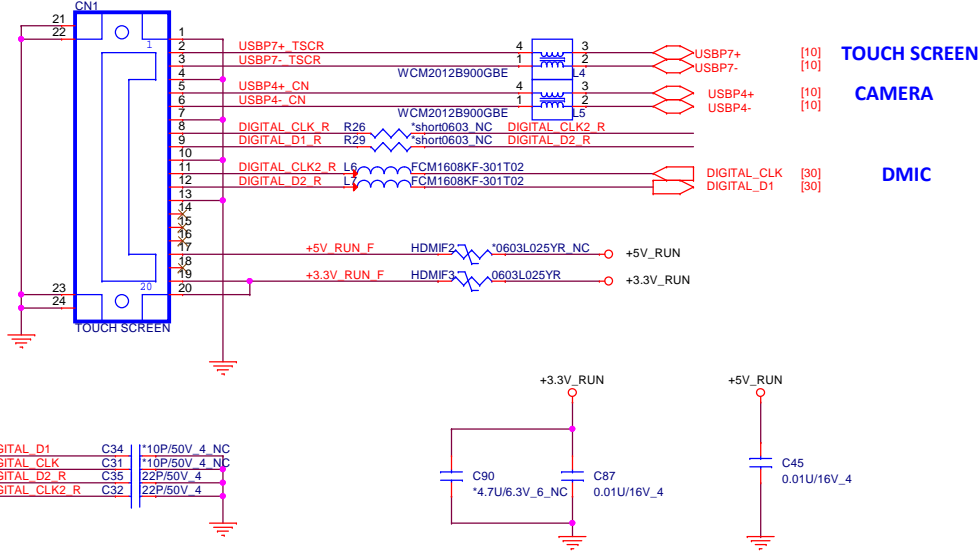
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CAMERA / DMIC

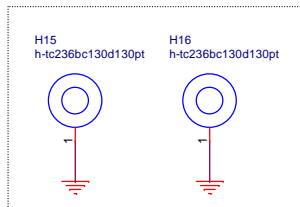
Fingerprint

Conn P/N, Footprint OK. Luke 12/18

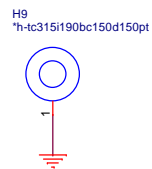
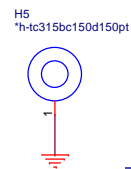
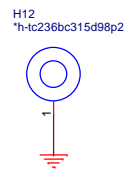
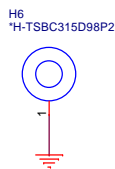
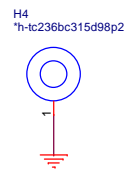
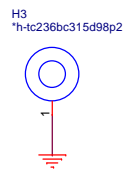
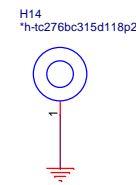
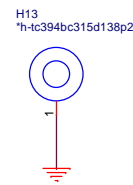
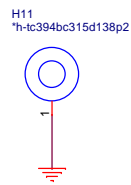
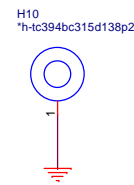
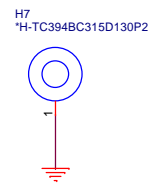
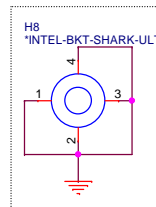


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Mini-PCIE

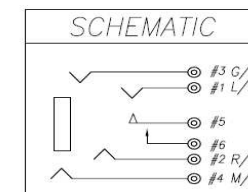
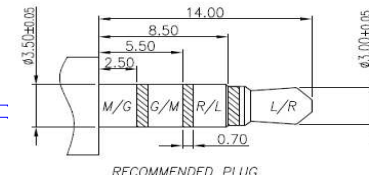
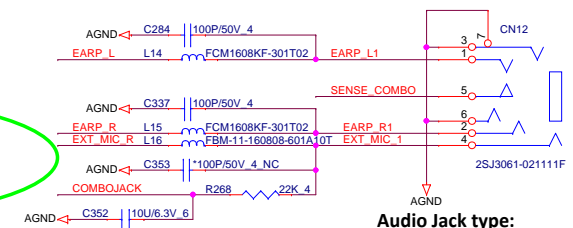
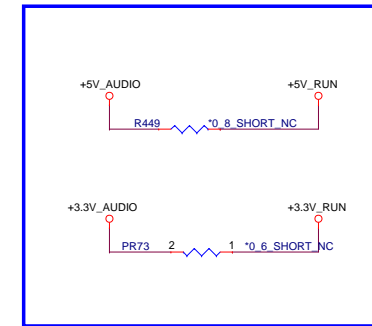


CPU BKT



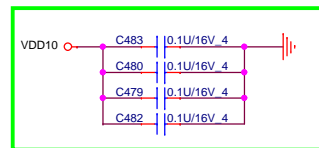
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Date:	Friday, May 10, 2013	Sheet	29 of 57

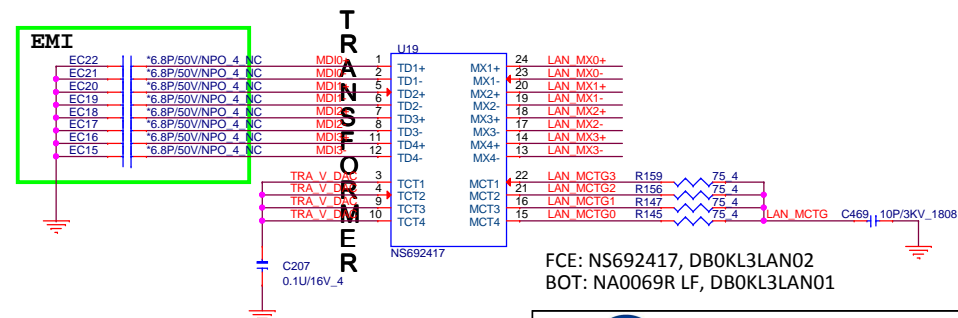
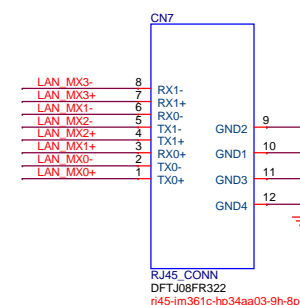
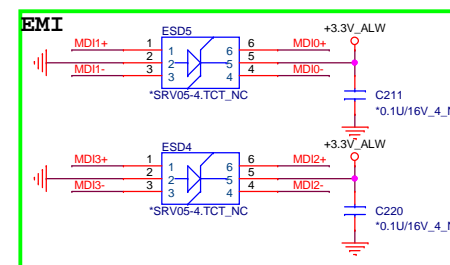
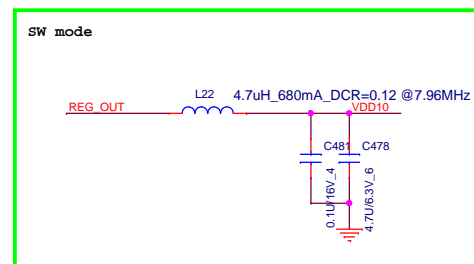
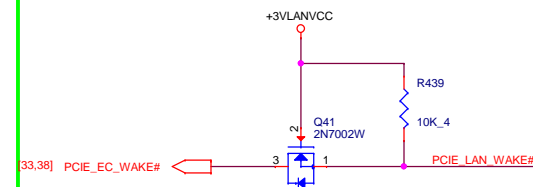
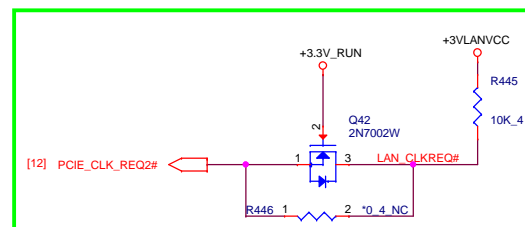
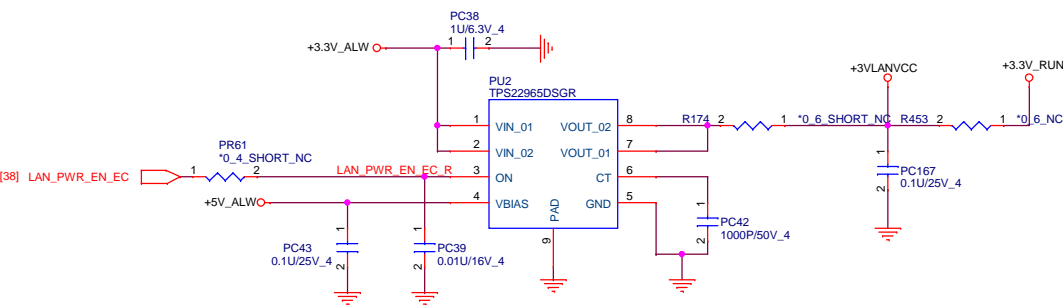
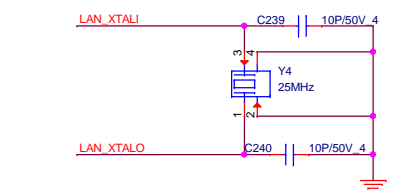
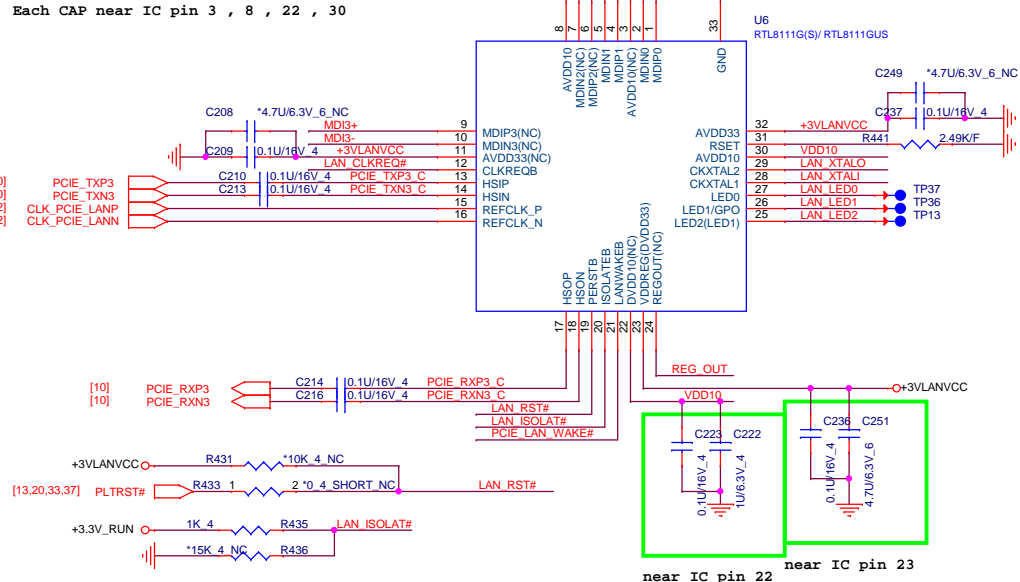


Audio Jack type:
Normal Open
Combo Jack(IPHONE)

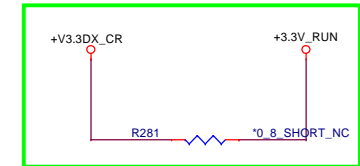
JW8 have support S5 wave up



Each CAP near IC pin 3 , 8 , 22 , 30



FCE: NS692417, DBOKL3LAN02
BOT: NA0069R LF, DBOKL3LAN01



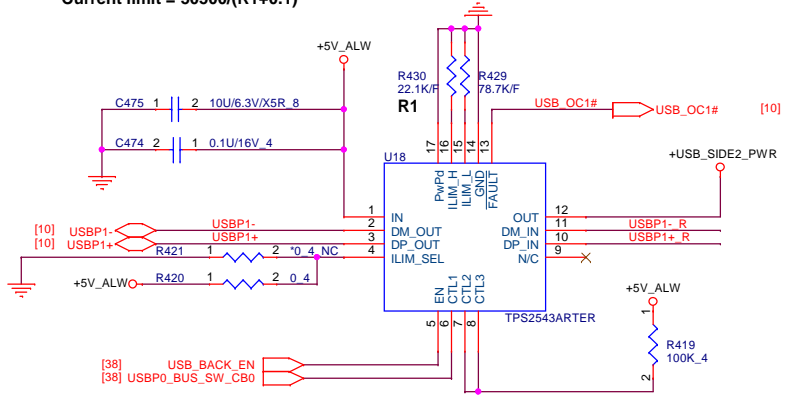
USB3.0 Power Share

USB Power share

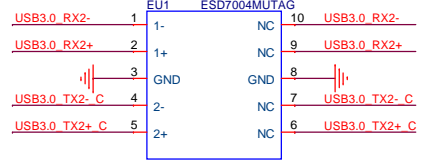
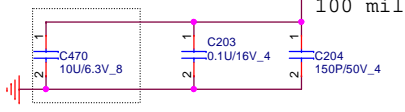
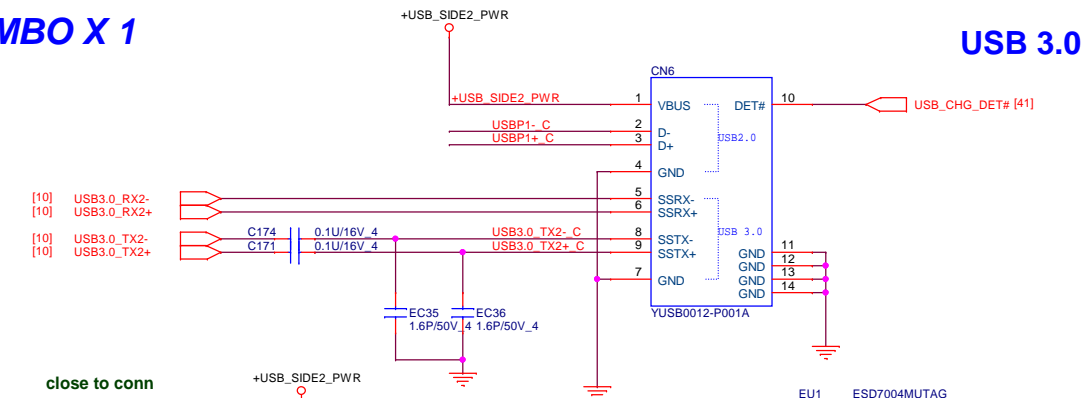
USBP0_BUS_SW_CB0		Mode
Low		DCP, Auto-detect
High		CDP, BC Spec 1.2
OC limitation	R1	mA
	100k ohm	504
	22.1k ohm	2274

Applied Now

Current limit = 50500/(R1+0.1)

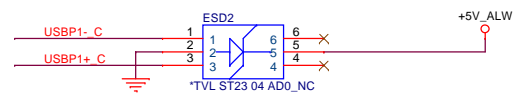
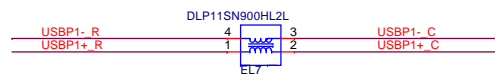


USB3.0/2.0 COMBO X 1



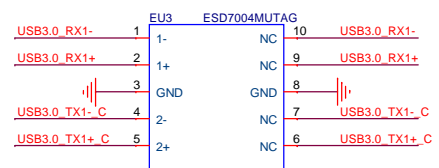
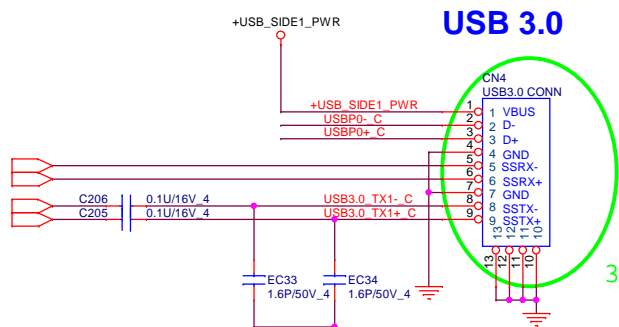
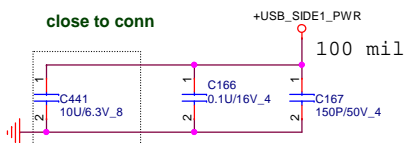
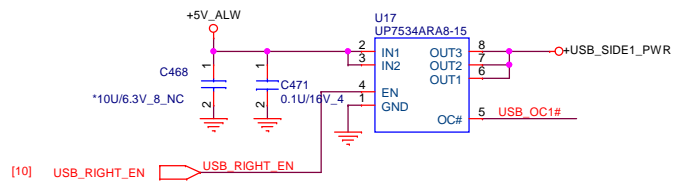
ESD Function

Place ESD diodes as close as USB connector.



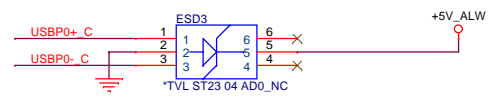
USB3.0/2.0 COMBO

I continuous 1.5A
OC 2.0A M13 Request

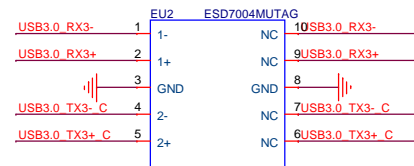
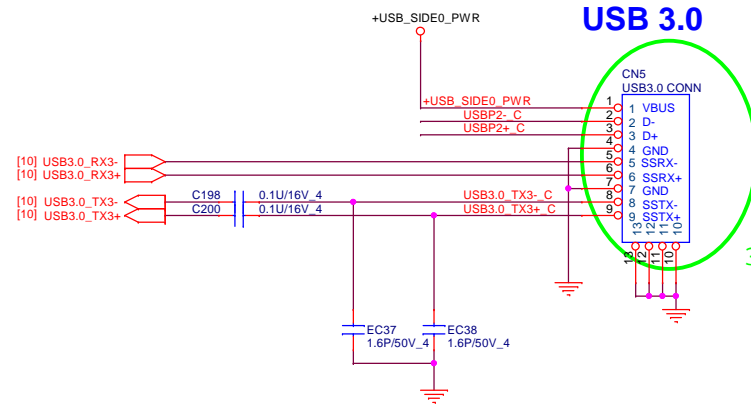
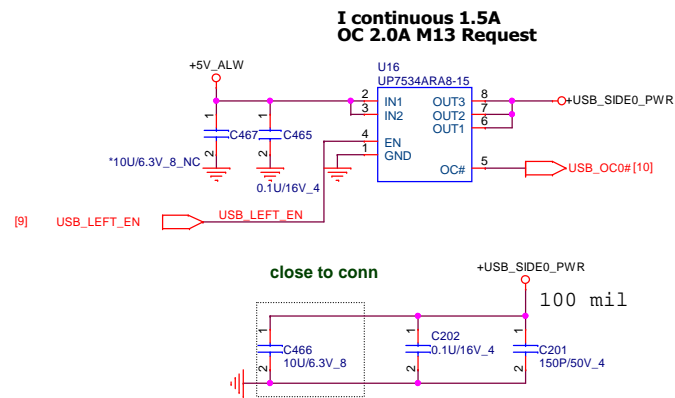


ESD Function

Place ESD diodes as close as USB connector.

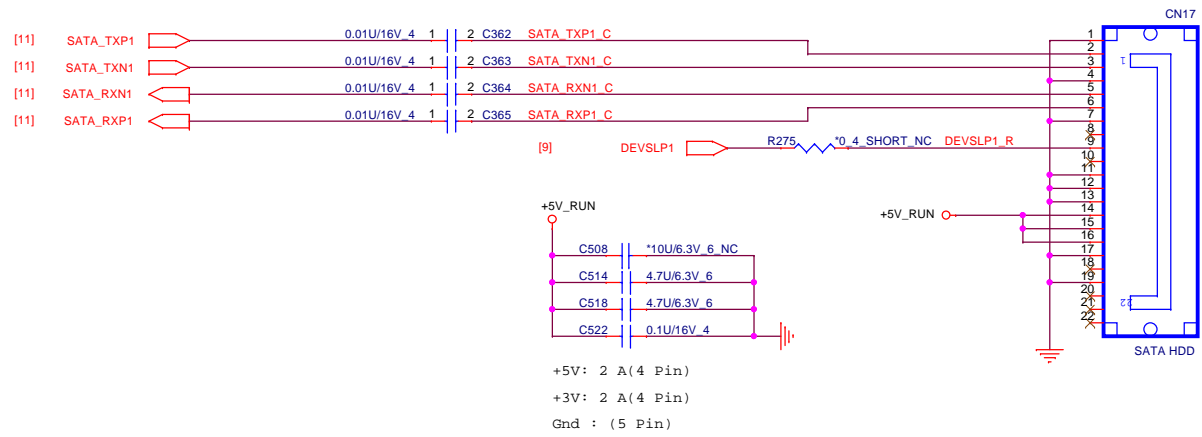


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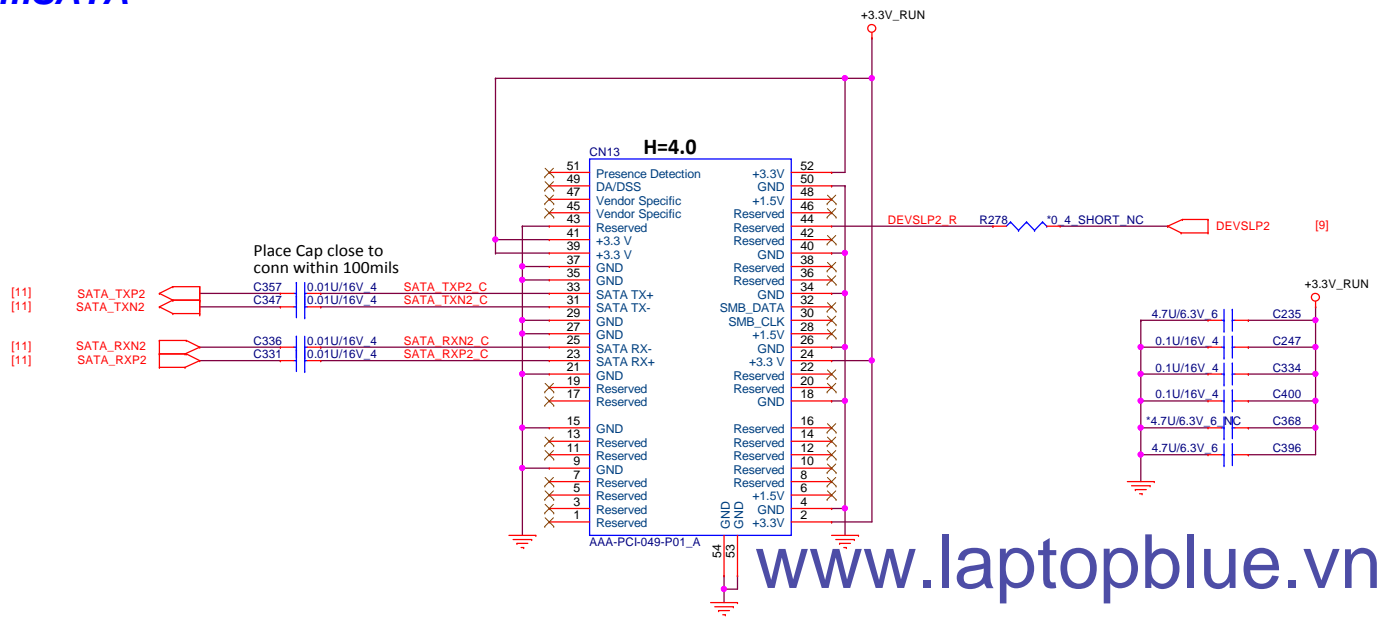


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SATA HDD Connector

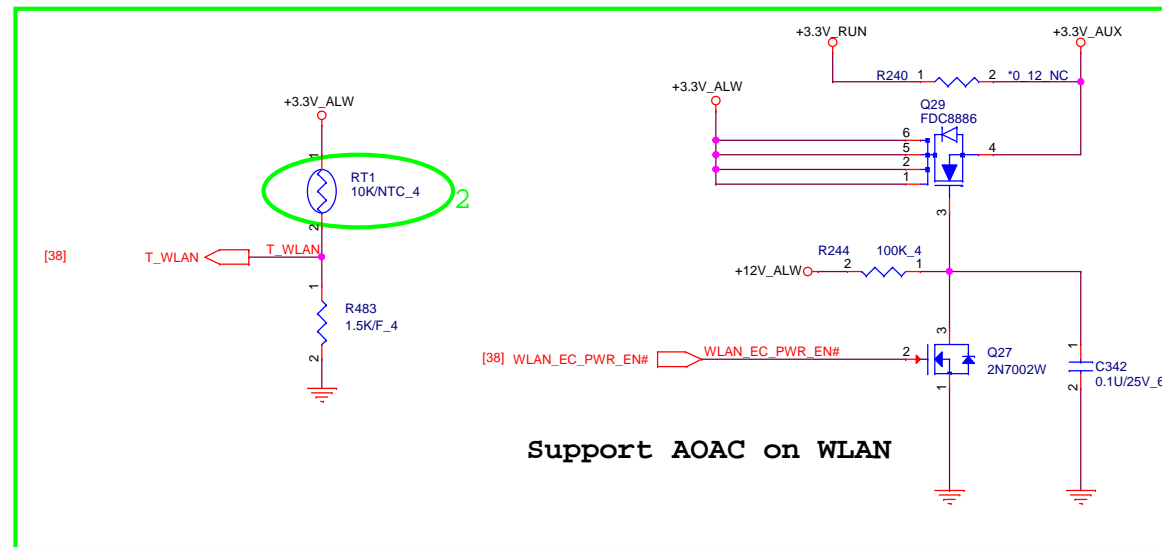
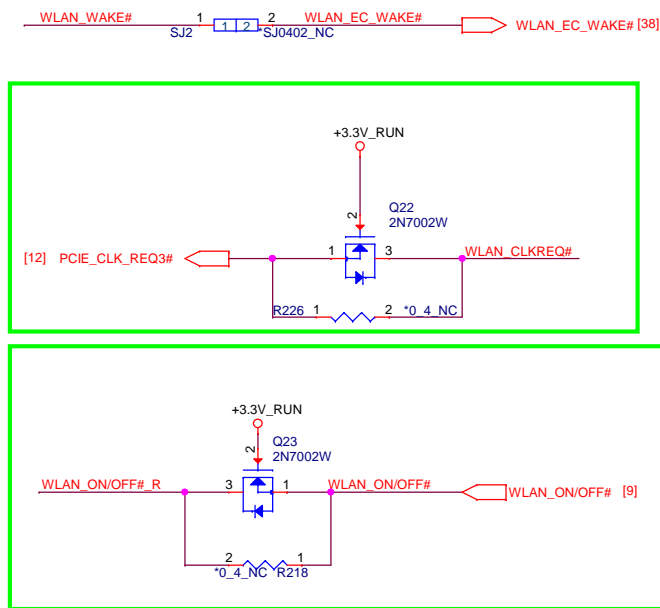
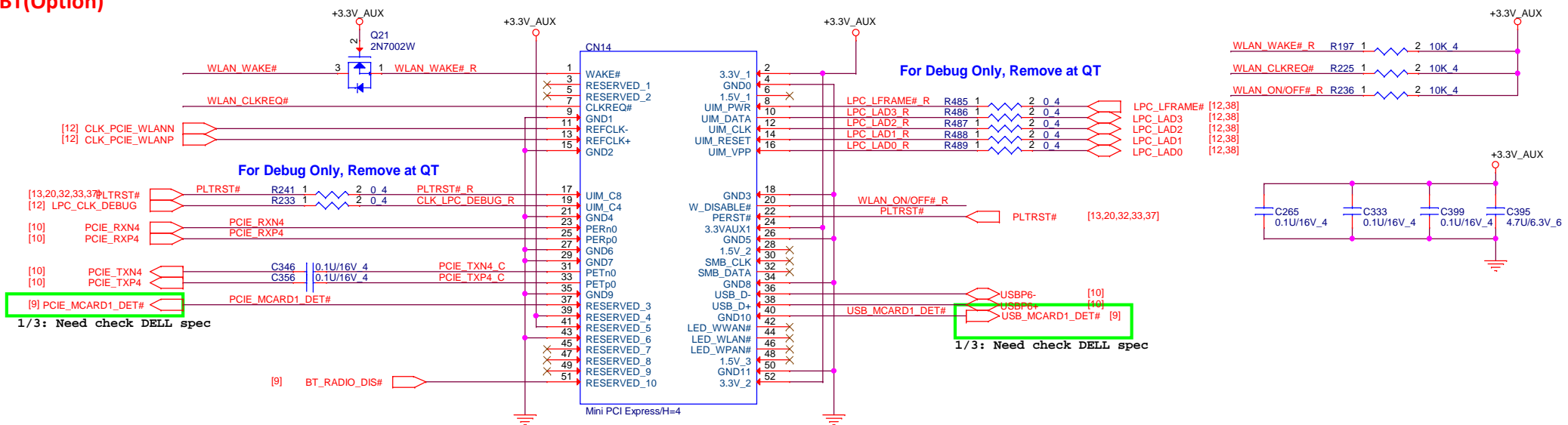


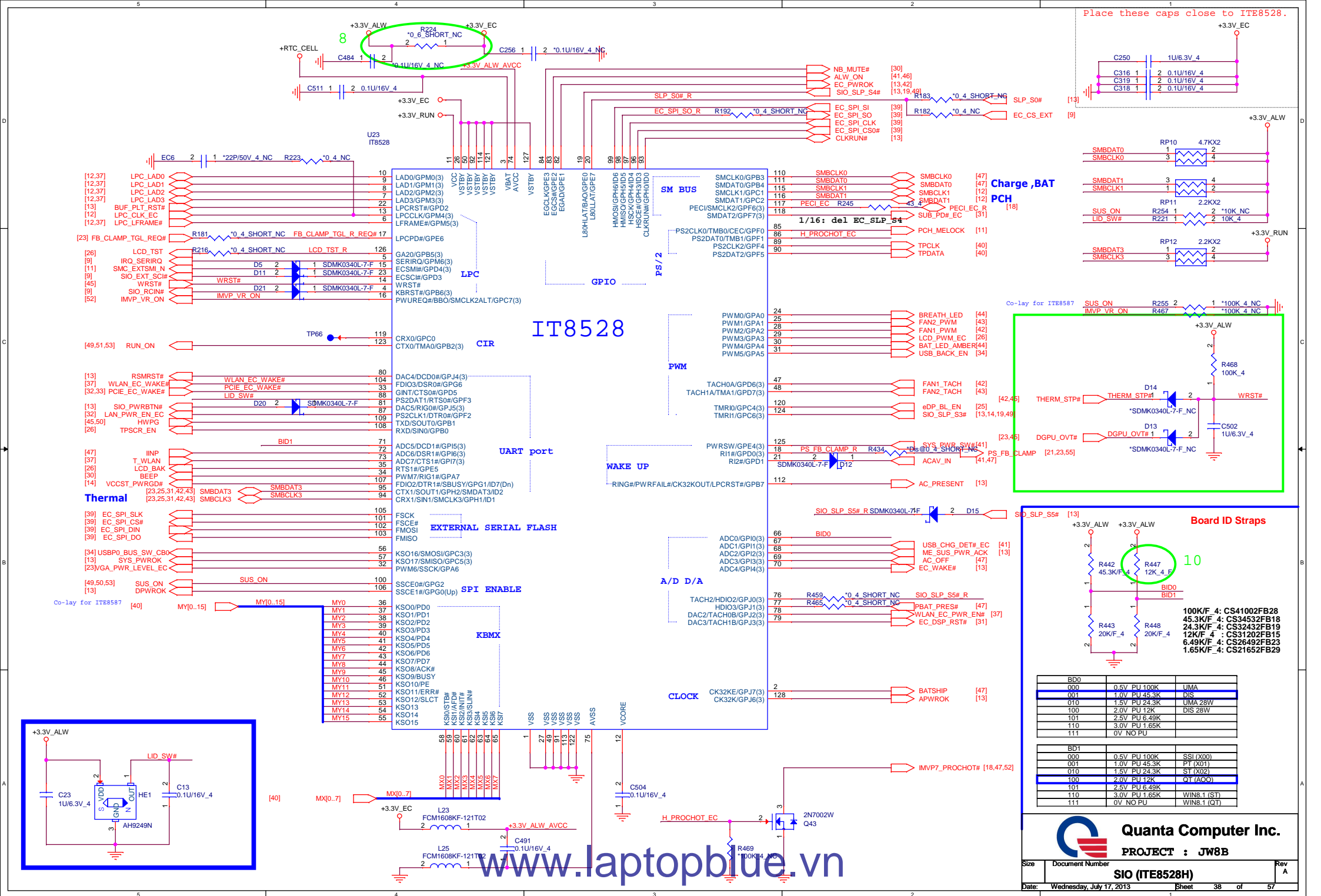
mSATA



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Mini Card WLAN/BT(Optional)

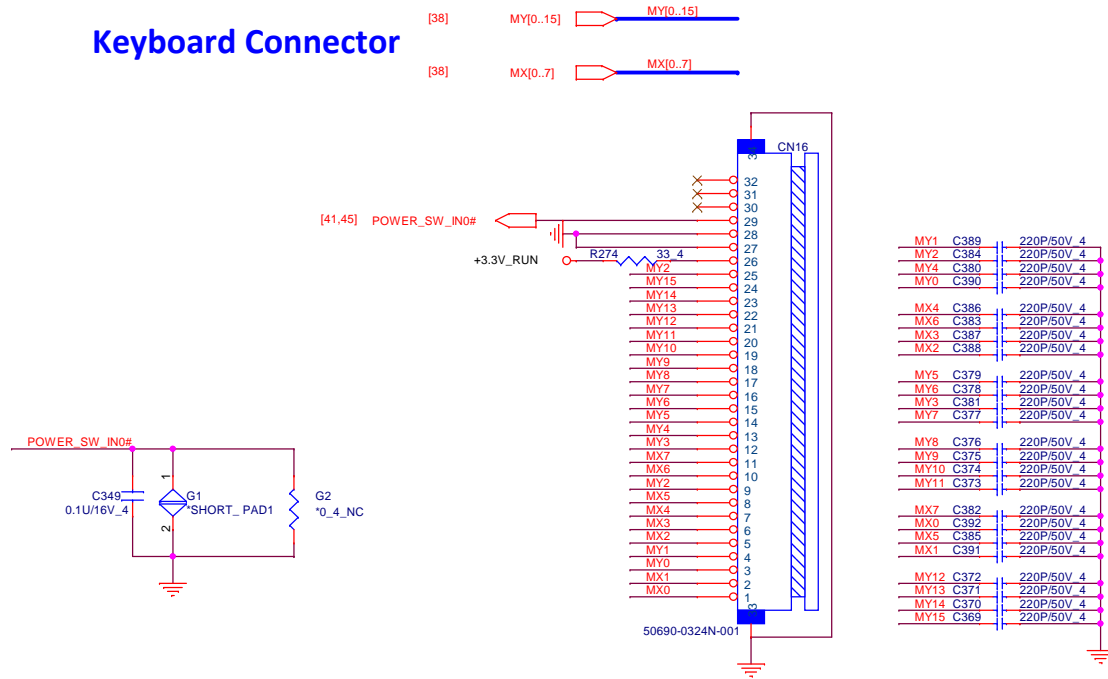




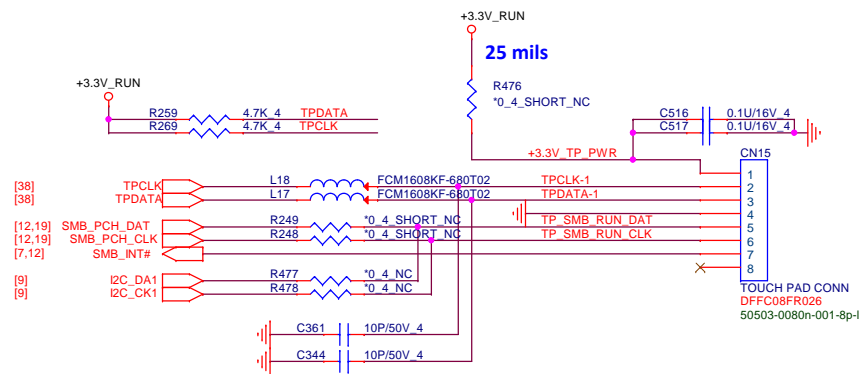
BD0		
000	0.5V PU 100K	UMA
001	1.0V PU 45.3K	DIS
010	1.5V PU 24.3K	UMA 28W
100	2.0V PU 12K	DIS 28W
101	2.5V PU 6.49K	OT (AOC)
110	3.0V PU 1.65K	WIN8.1 (ST)
111	0V NO PU	WIN8.1 (QT)

BD1		
000	0.5V PU 100K	SSI (X00)
001	1.0V PU 45.3K	PT (X01)
010	1.5V PU 24.3K	ST (X02)
100	2.0V PU 12K	OT (AOC)
101	2.5V PU 6.49K	WIN8.1 (ST)
110	3.0V PU 1.65K	WIN8.1 (QT)
111	0V NO PU	WIN8.1 (QT)

Keyboard Connector



Touch Pad Connector



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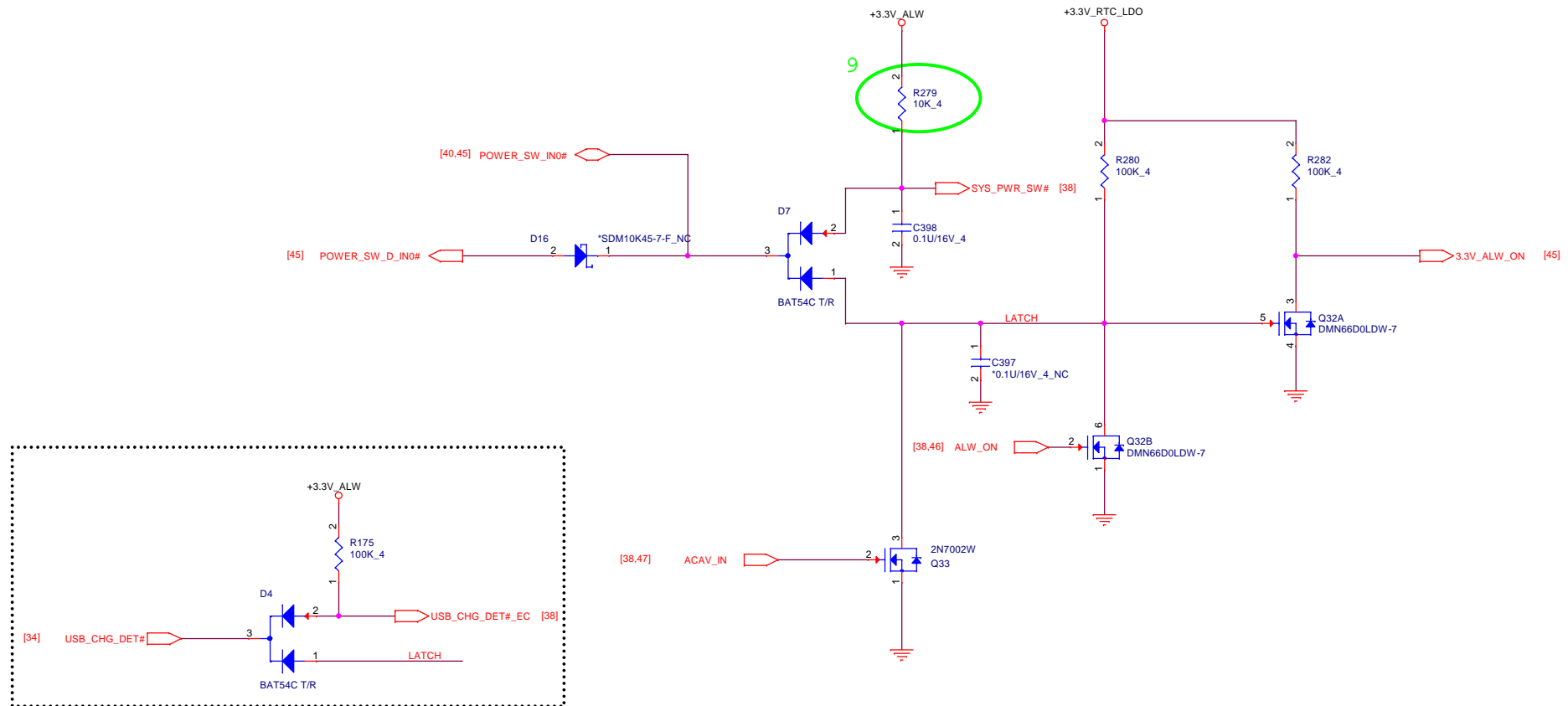


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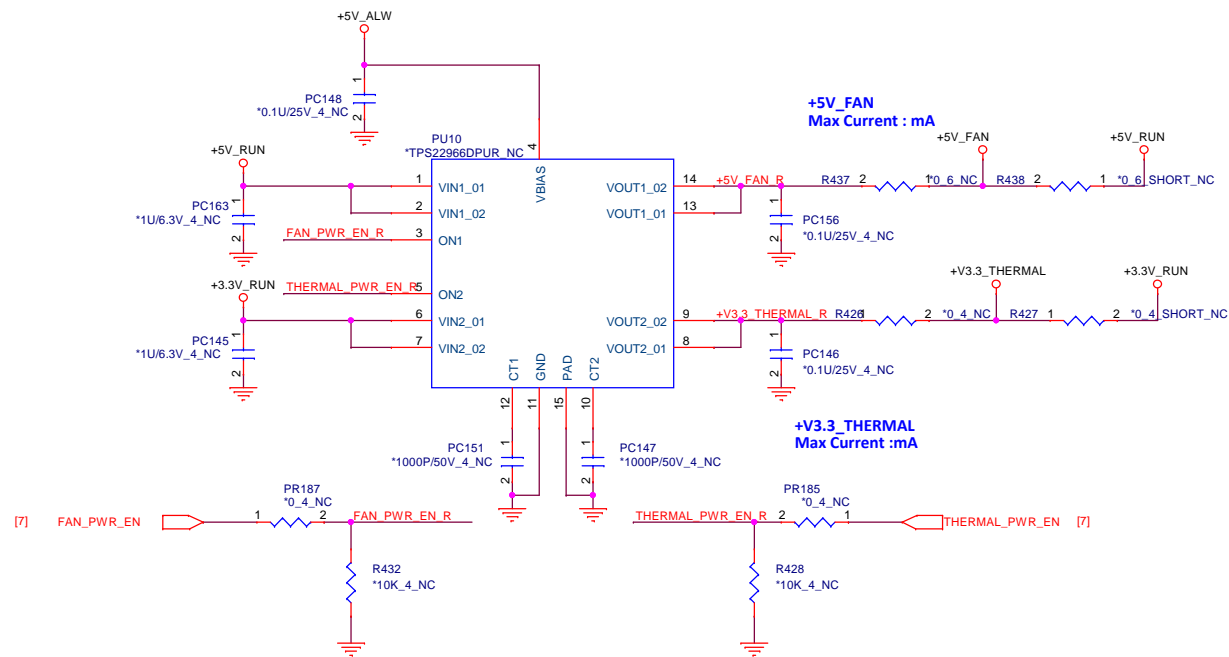
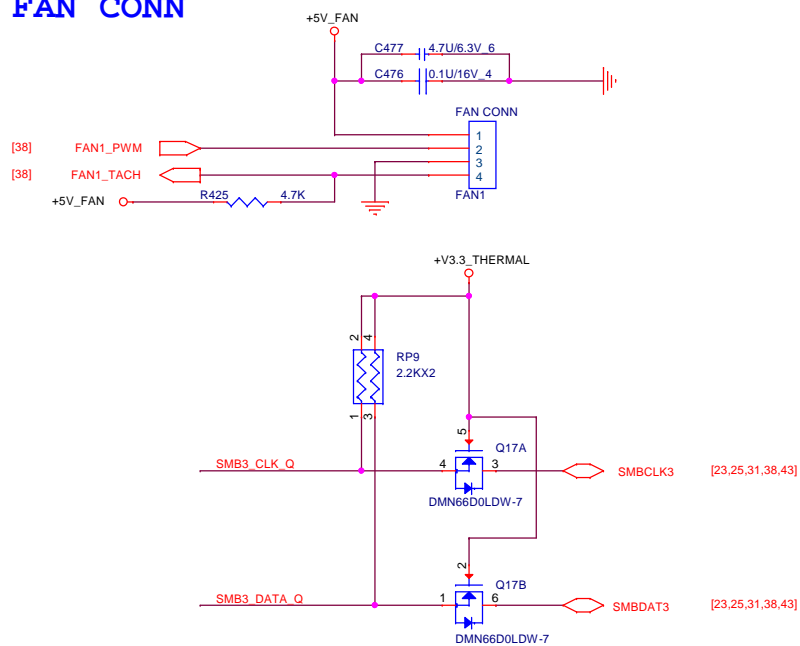
PROJECT : JW8B

Size	Document Number	Rev
	KB/CLK Gen/FAN/TP	A
Date:	Monday, July 08, 2013	Sheet 40 of 57

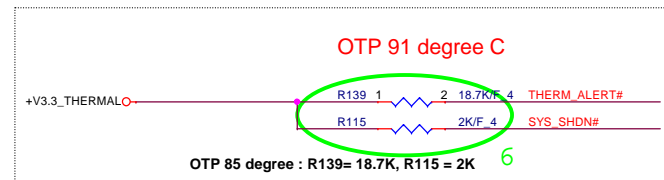
3VALW ON POWER LOGIC



FAN CONN



THERMAL IC

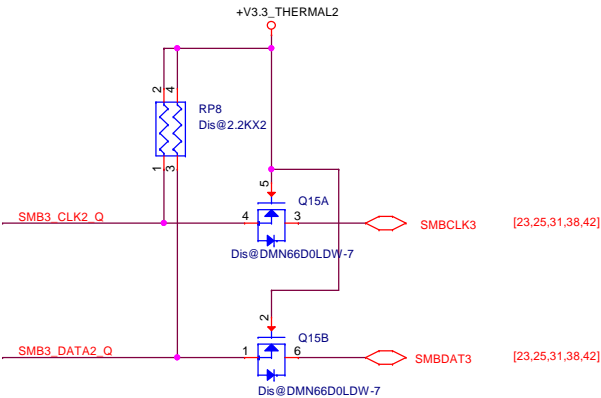
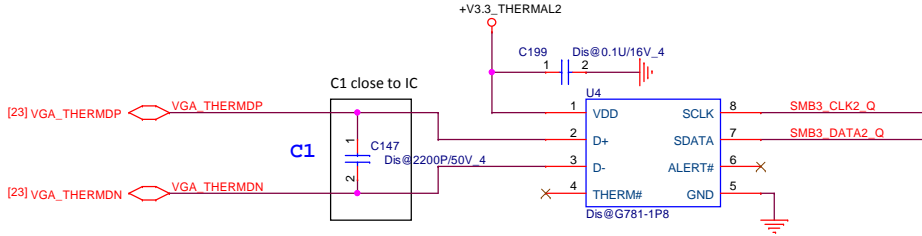


SYS_SHD#	2K	7.5K	10.5K	14K	18.7K
ALERT#					
2K	77'C	87'C	97'C	107'C	117'C
7.5K	79'C	89'C	99'C	109'C	119'C
10.5K	81'C	91'C	101'C	111'C	121'C
14K	83'C	93'C	103'C	113'C	123'C
18.7K	85'C	95'C	105'C	115'C	125'C

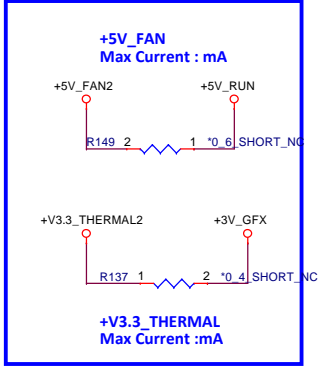
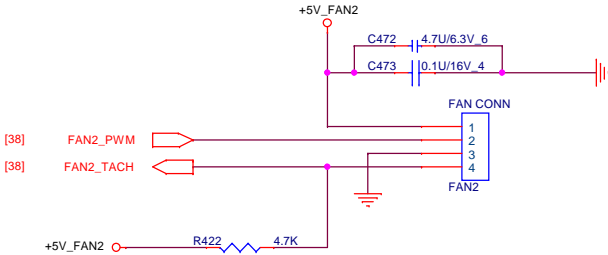
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For GPU use

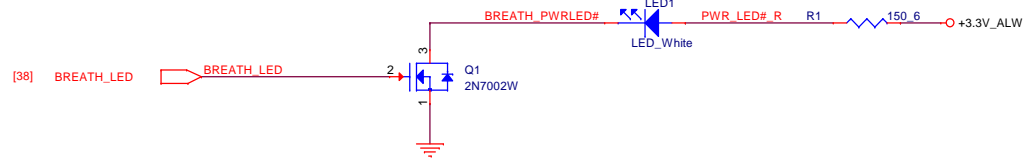
G781-1P8
SMBus address is 1001101xb (9Ah) (x is R/W bit).



FAN CONN

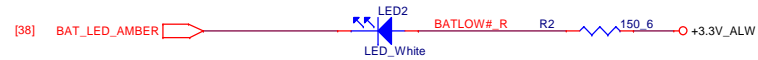


LED Status

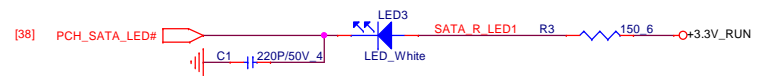


System status LED

Battery charger LED



HDD access LED



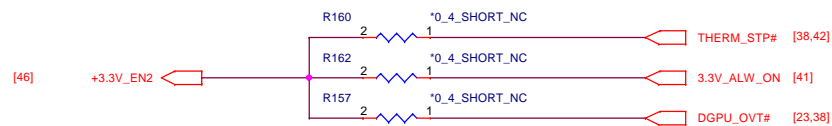
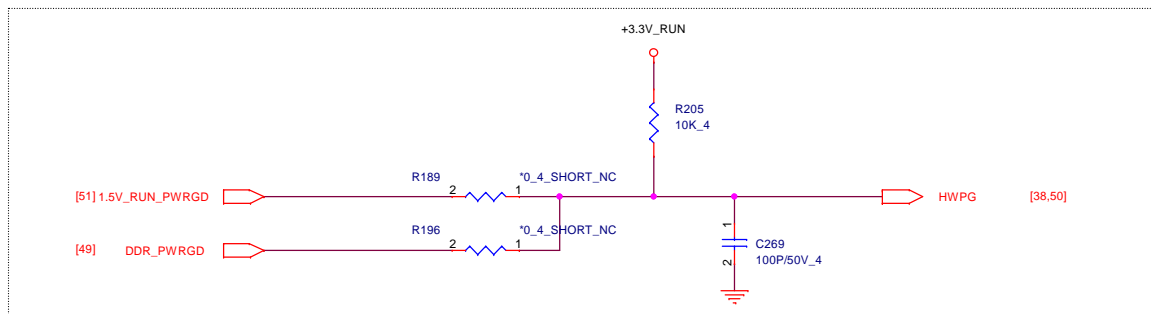
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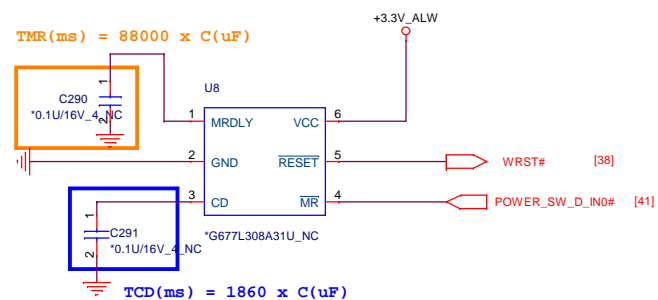
Quanta Computer Inc.

PROJECT : JW8B

Size	Document Number	Rev
	LED	A
Date:	Friday, May 10, 2013	Sheet 44 of 57

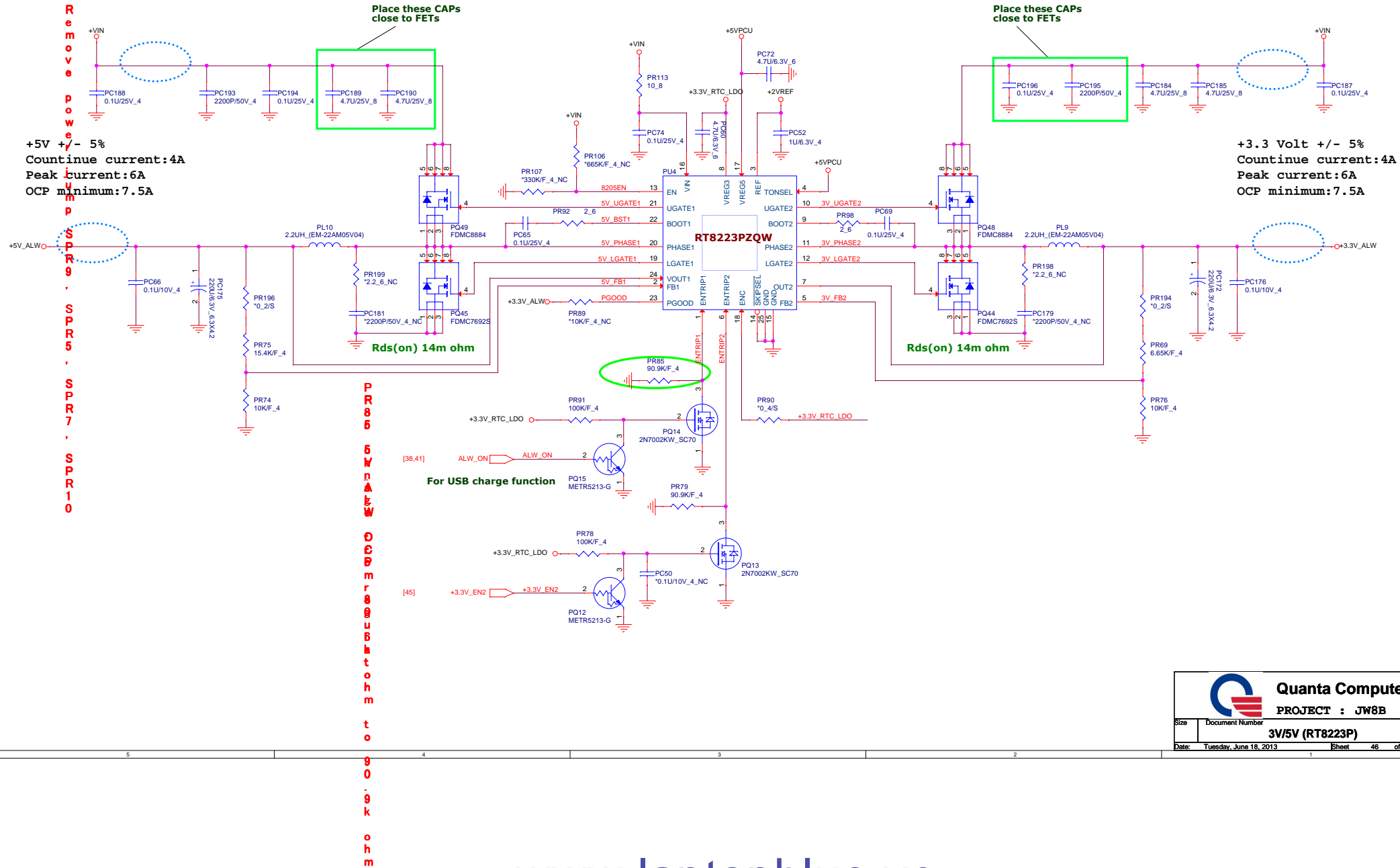


HW reset IC




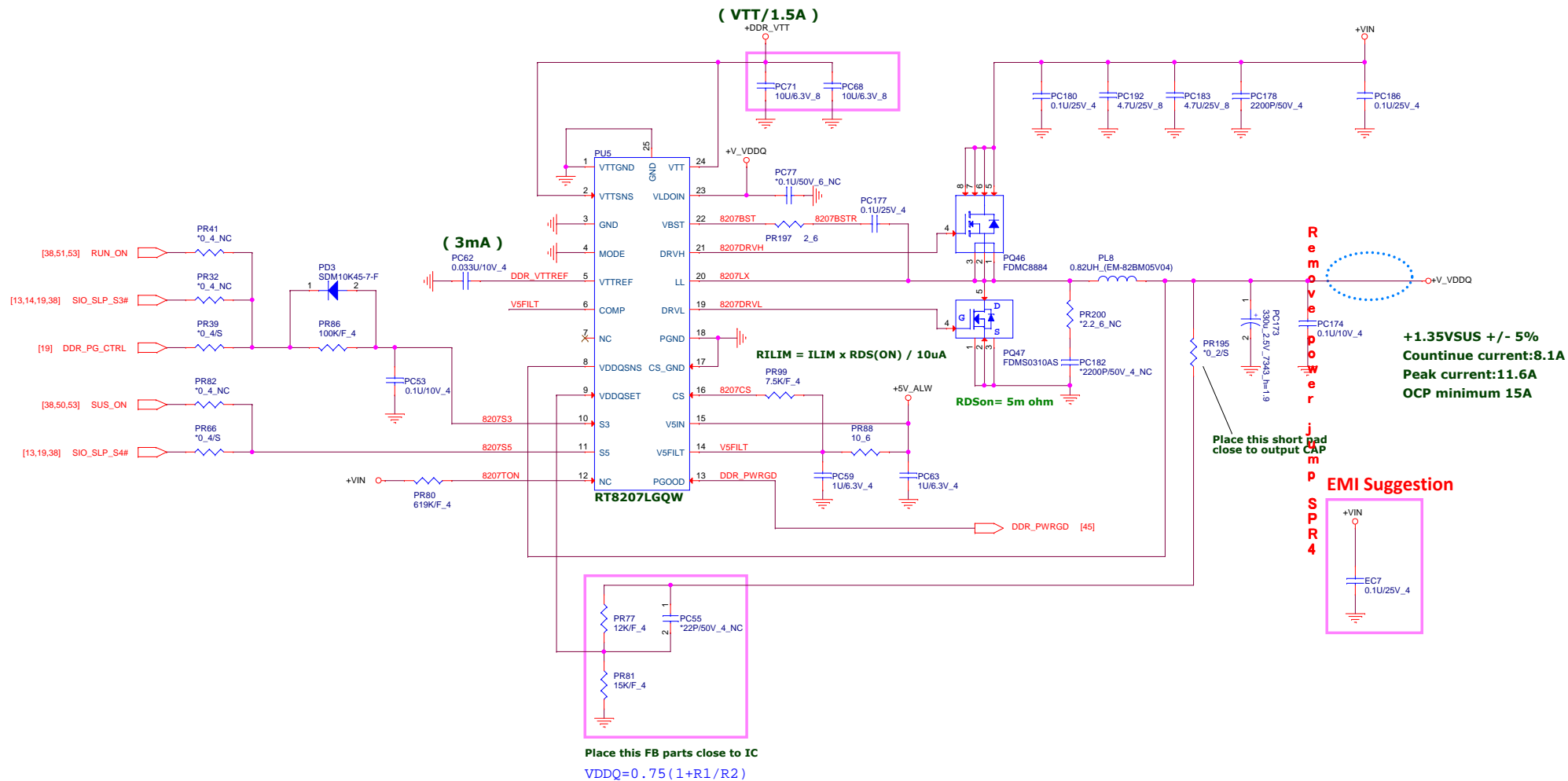
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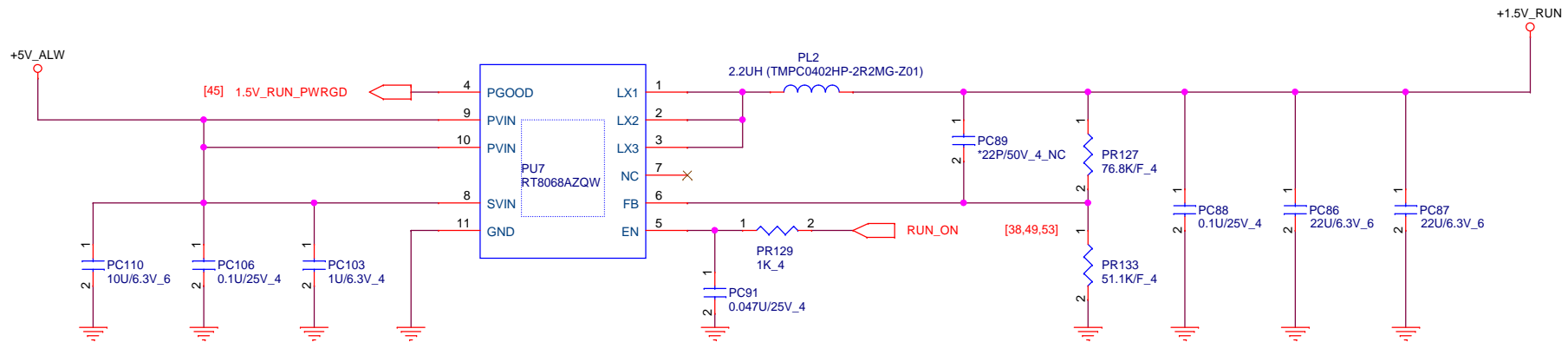
DC/DC +3V_ALW/+5V_ALW/+5V_ALW2 /+15V_ALW



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		Quanta Computer Inc.	
		PROJECT : JW8B	
Size	Document Number		Rev
	NC		A
Date:	Tuesday, June 18, 2013		Sheet 48 of 57





+1.5V_RUN
 1.5 Volt +/- 5%
 Fsw : 1MHz
 TDC : 1A
 Max : 1.5A
 OCP :3A



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PROJECT : JW8B

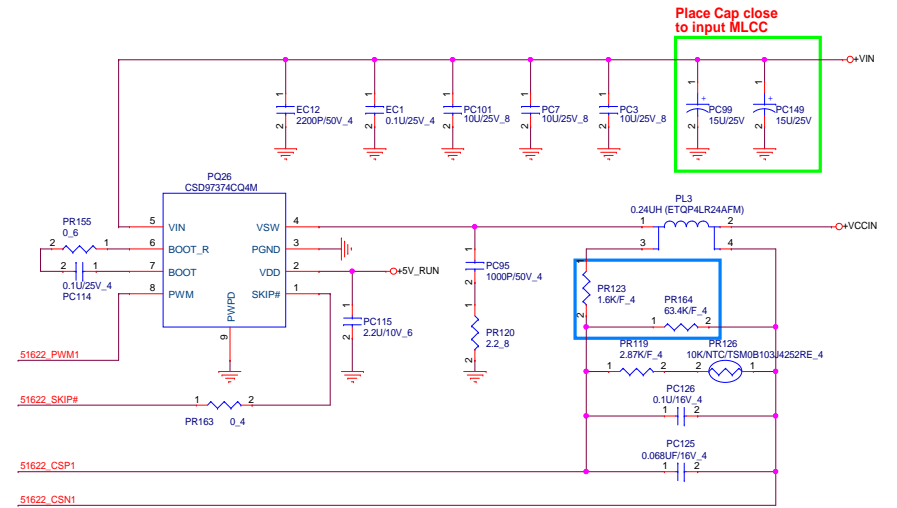
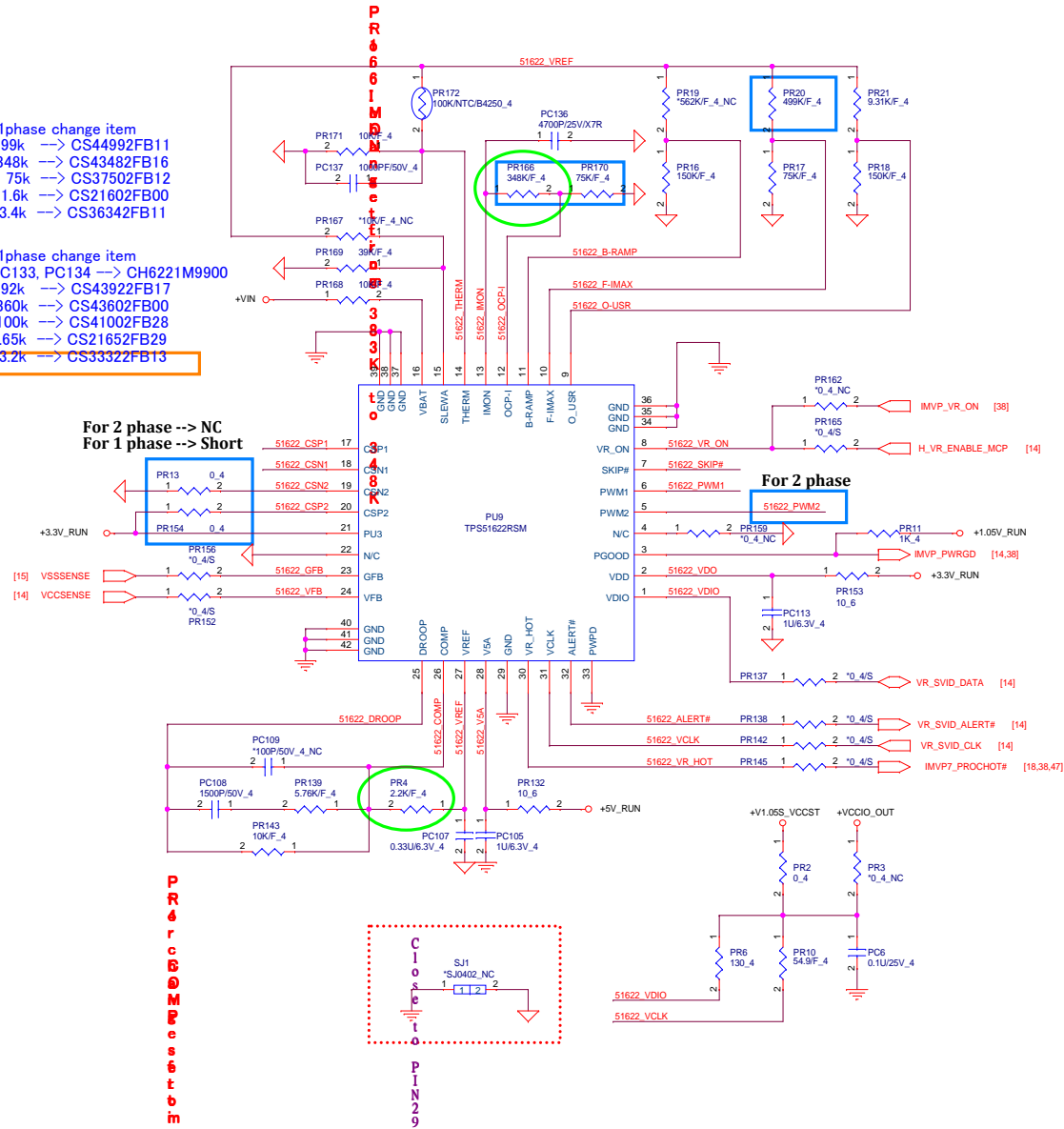
Size	Document Number	Rev
	+1.5V_RUN (RT8068AZQW)	1A

Date: Tuesday, July 09, 2013 Sheet 51 of 57

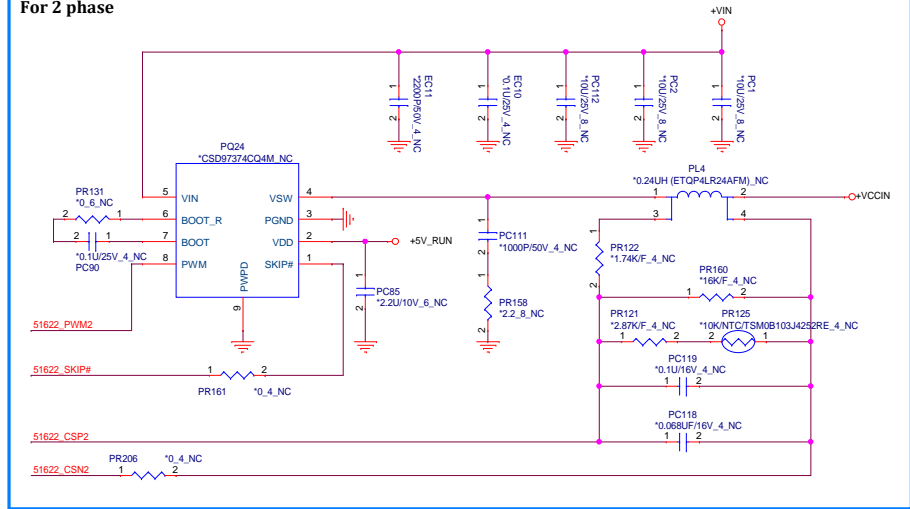
For 15W 1phase change item
 PR20 499k → CS44992FB11
 PR166 348k → CS43482FB16
 PR170 75k → CS37502FB12
 PR123 1.6k → CS21602FB00
 PR164 63.4k → CS36342FB11

For 28W 1phase change item
 PC132, PC133, PC134 → CH6221M9900
 PR20 392k → CS43922FB17
 PR166 360k → CS43602FB00
 PR170 100k → CS41002FB28
 PR123 1.65k → CS21652FB29
 PR164 33.2k → CS33322FB13

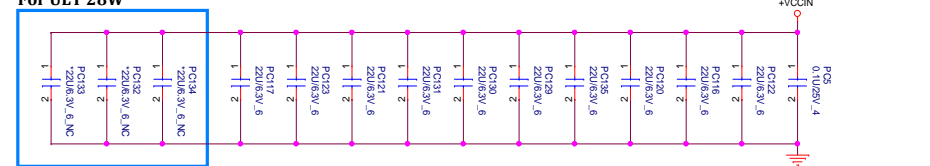
For 2 phase → NC
 For 1 phase → Short

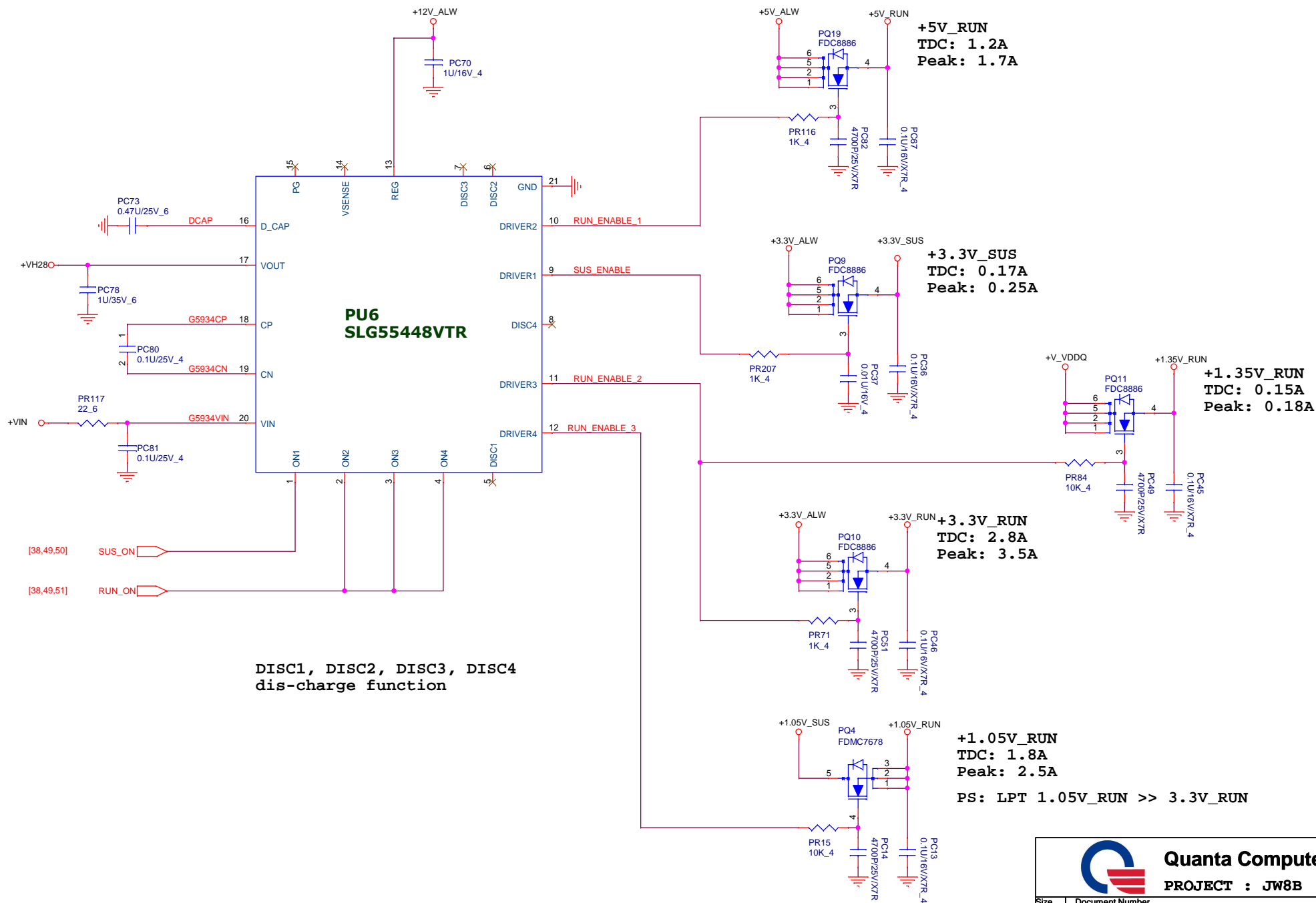


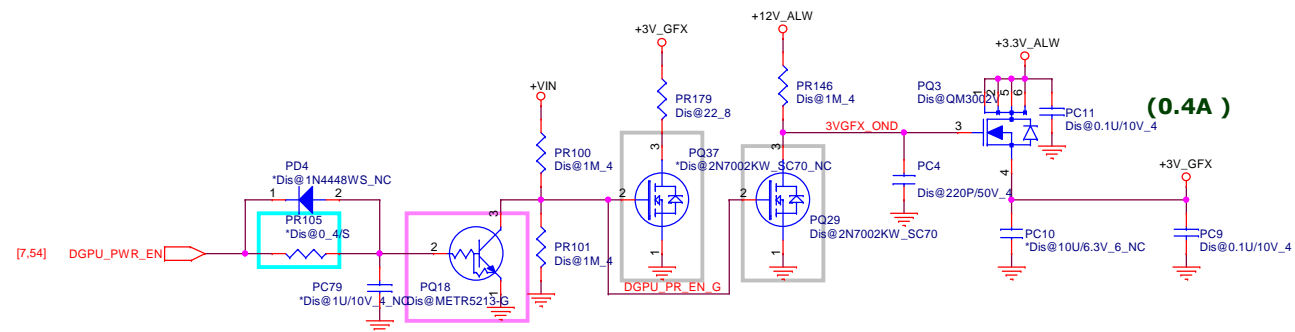
For 2 phase



For ULT 28W

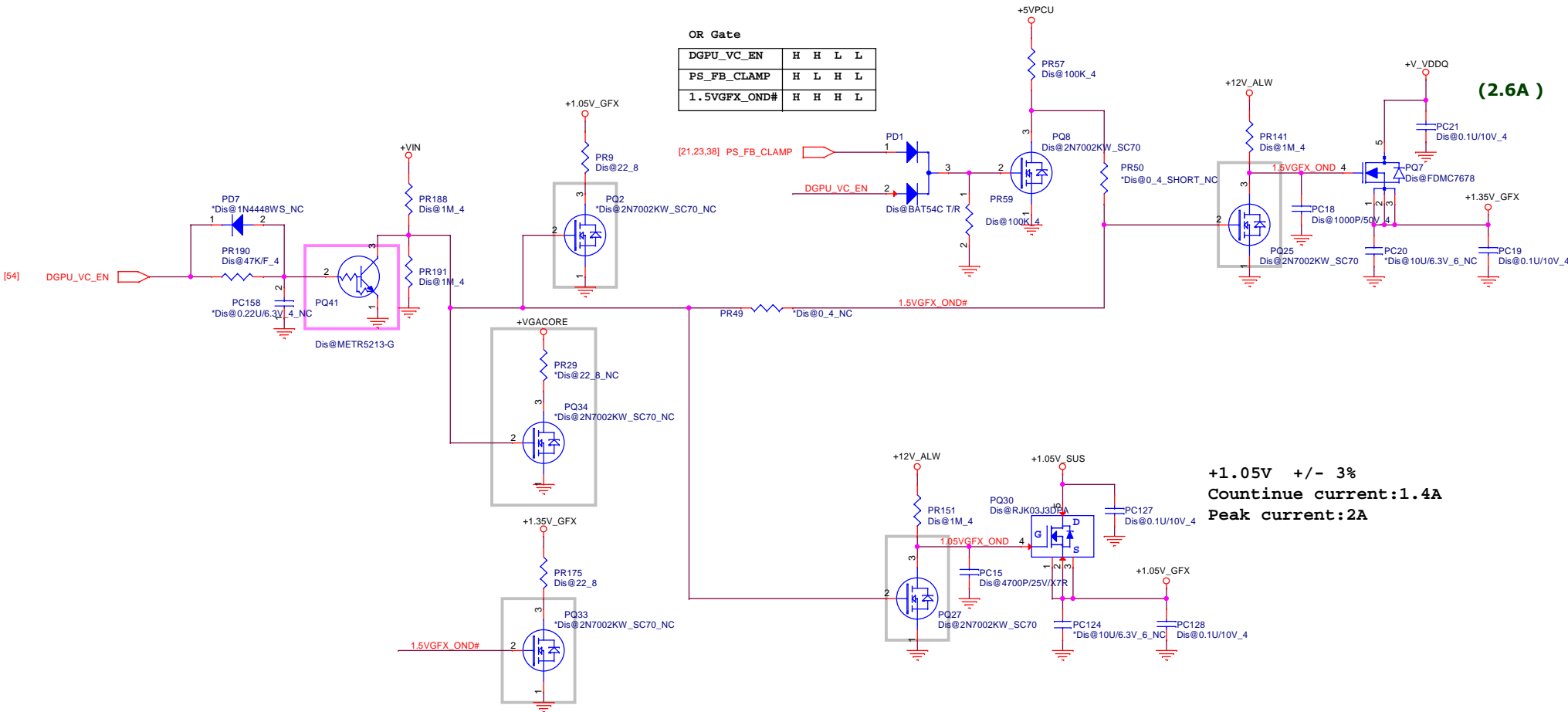
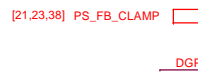






OR Gate

DGPU_VC_EN	H	H	L	L
PS_FB_CLAMP	H	L	H	L
1.5VGFX_OND#	H	H	H	L



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