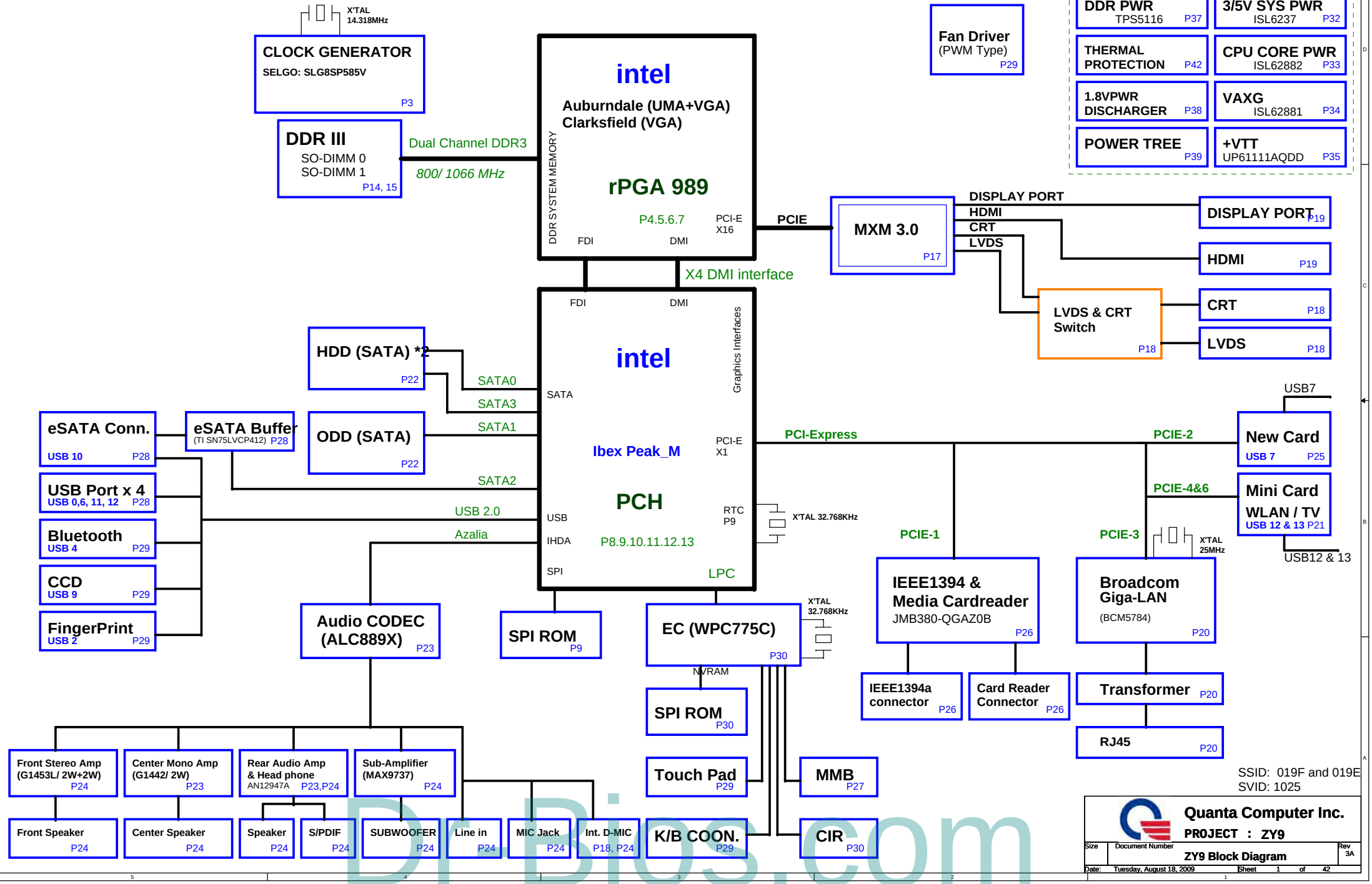
31ZY9MB0000
ZY9 MB ASSY(DC/GM/MXM)ASSY W/O CPU
31ZY9MB0010
ZY9 MB ASSY(QC/GM/MXM)ASSY W/O CPU

ZY9 SYSTEM BLOCK DIAGRAM



SSID: 019F and 019E
SVID: 1025

Quanta Computer Inc.
PROJECT : ZY9

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	ZY9 Block Diagram	3A

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Power States

POWER PLANE	VOLTAGE	DESCRIPTION	CONTROL SIGNAL	ACTIVE IN
VIN	+10V~+19V	MAIN POWER		S0~S5
+RTC_CELL	+3V~+3.3V	RTC		S0~S5
+3VPCU	+3.3V	8051 POWER	ALWON	S0~S5
+5VPCU	+5V	CHARGE POWER	ALWON	S0~S5
+15V	+15V	LARGE POWER	+15V_ALWP	S0~S5
3V_LAN_S5	+3.3V	LAN POWER	AUX_ON	
+5VSUS	+5V		SUSD	
+3VSUS	+3.3V		SUSD	
+1.5VSUS	+1.5V	SODIMM POWER	SUSON	
+0.75V_DDR_VTT	+0.9V	SODIMM POWER	MAINON	
+5V	+5V		MAIND	
+3V	+3.3V		MAIND	
+1.8V	+1.8V		MAINON	
+1.5V	+1.5V	PCH POWER	MAIND	
+1.1V_VTT	+1.05V~+1.1V	CPU POWER	MAINON	
+1.05V	+1.05V	PCH POWER	MAINON	
+VCC_CORE	0V~+1.5V	CPU CORE POWER	VRON	
LCDVCC	+3.3V	LCD Power	LVDS_VDDEN	
MBAT+	+10V~+17V	MAIN BATTERY		
+5V_S5	+5V		S5_ON	
+3V_S5	+3.3V		S5D	

GND PLANE	PAGE	DESCRIPTION
LANGND	20	
E775AGND	30	
ADOGND	23.24	
GND	ALL	

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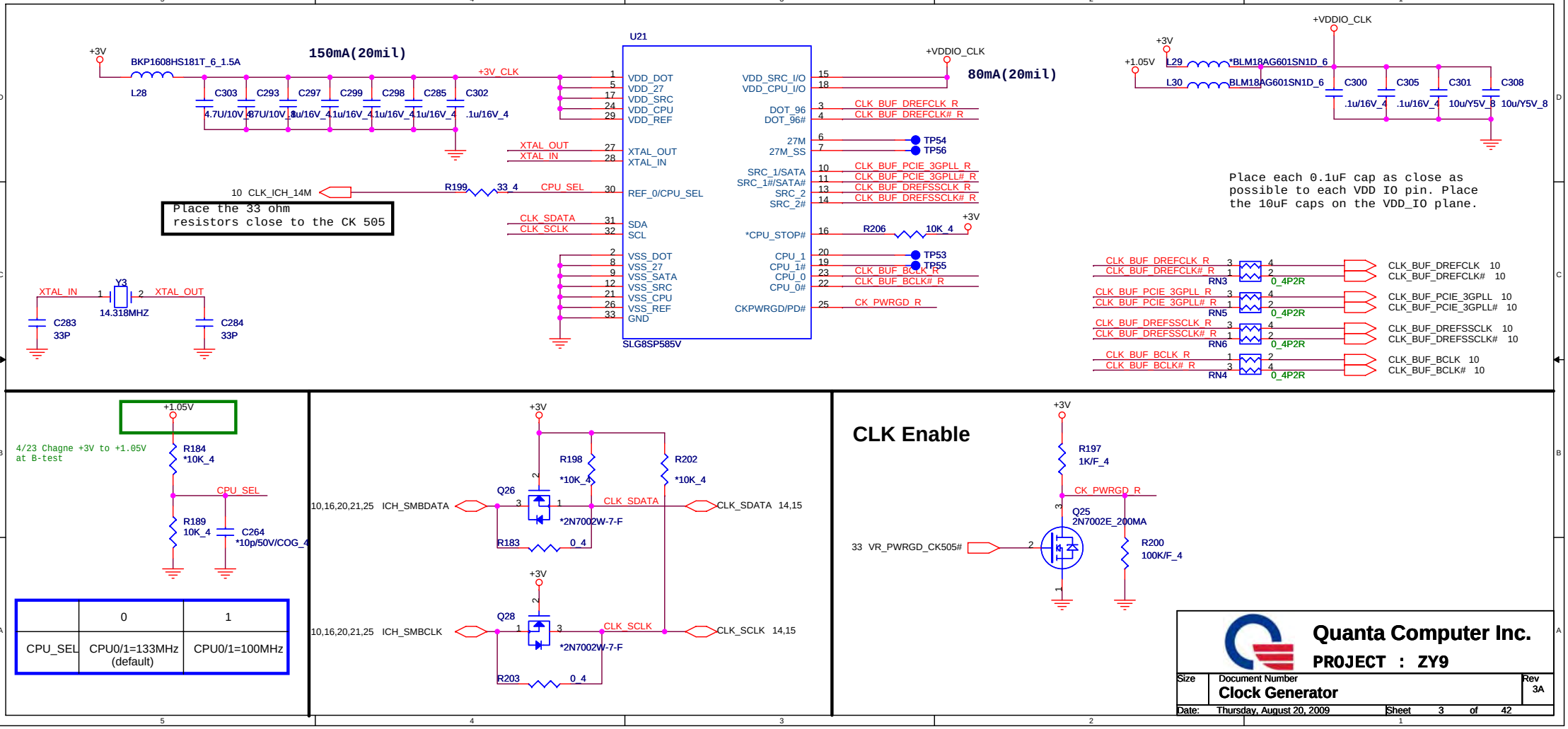

	0	1
CPU_SEL	CPU0/1=133MHz (default)	CPU0/1=100MHz

Quanta Computer Inc.

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	Clock Generator	3A
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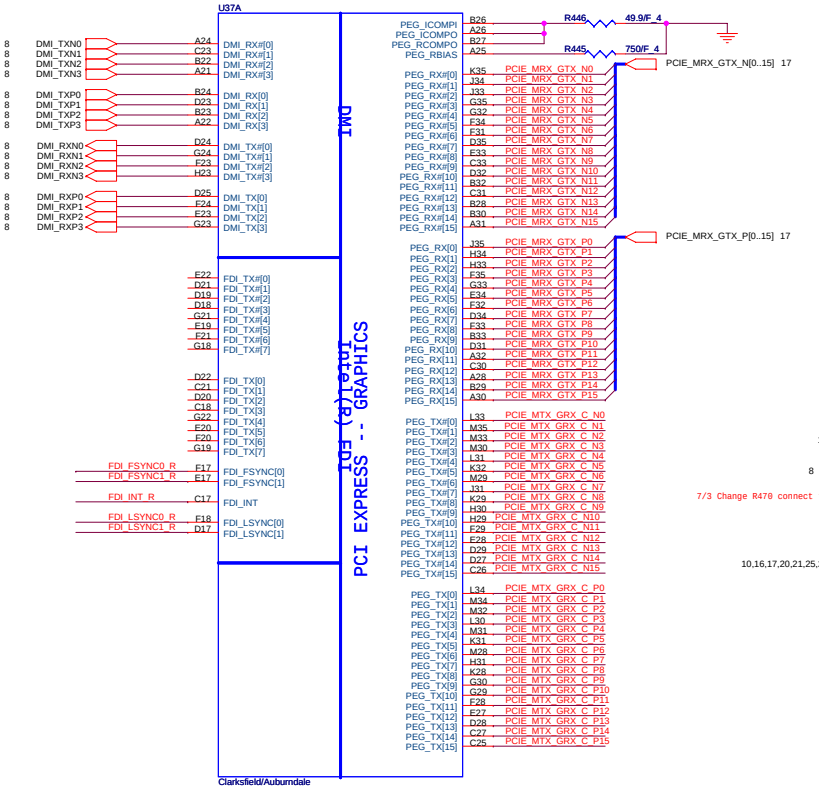
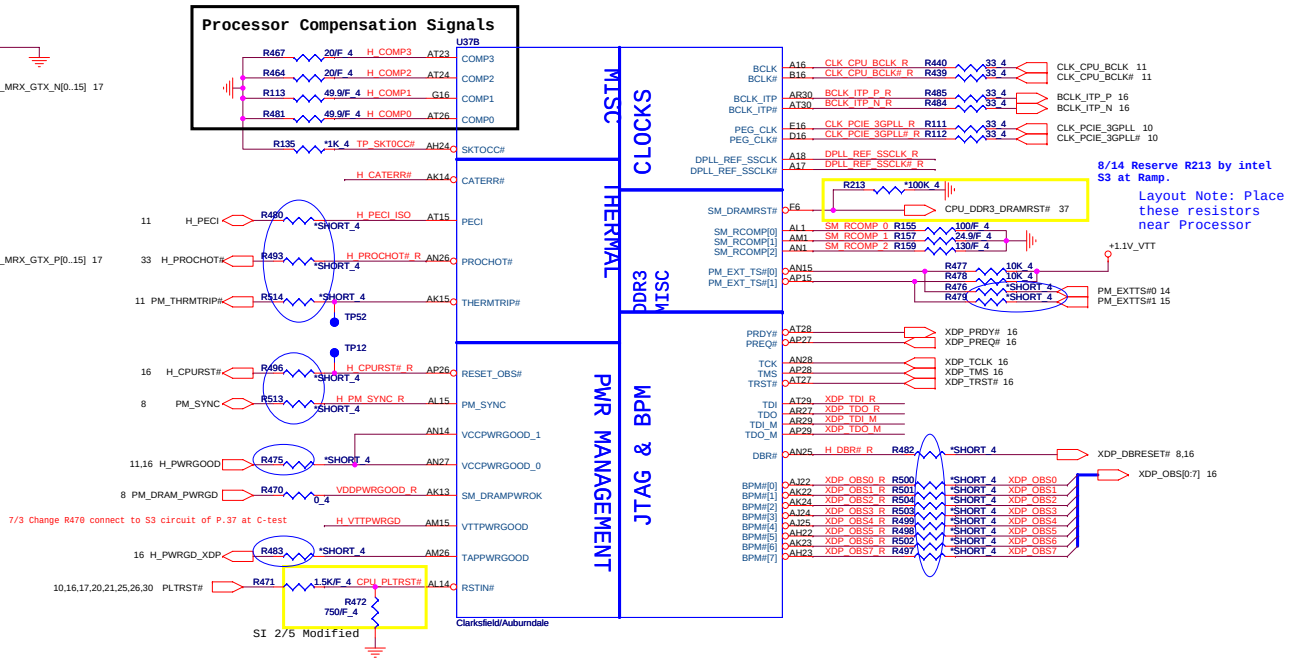
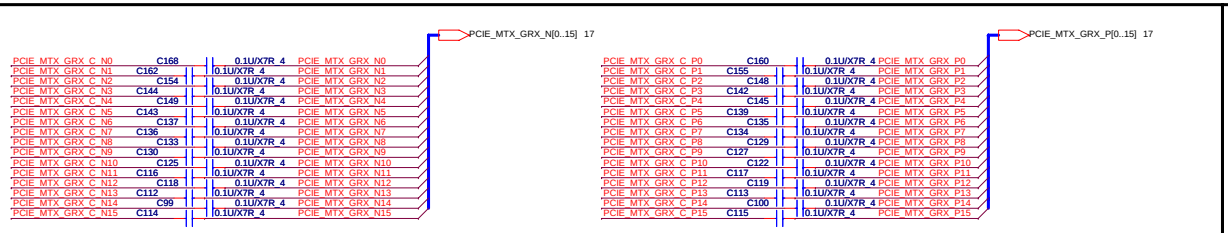
AUBURNDALE/CLARKSFIELD PROCESSOR (DMI,PEG,FDI)

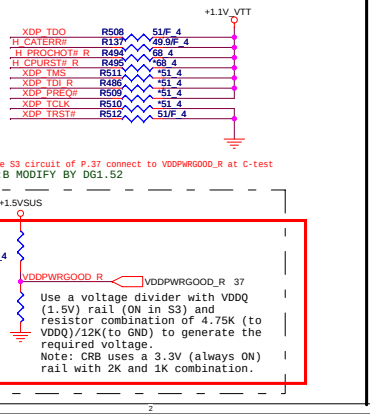


AUBURNDALE/CLARKSFIELD PROCESSOR (CLK,MISC,JTAG)

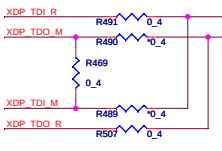




Processor Pullups

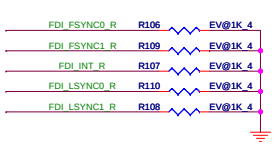


JTAG MAPPING

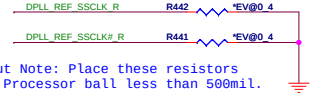


Scan Chain (Default)	STUFF -> R469, R491, R507 NO STUFF -> R489, R490
CPU Only	STUFF -> R490, R491 NO STUFF -> R469, R489, R507
GMCH Only	STUFF -> R489, R507 NO STUFF -> R491, R490, R469

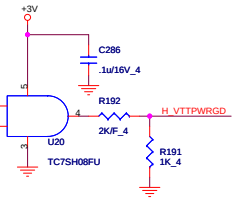
[VGA]



Auburndale Graphics Disabled Guideline
(Checklist 1.0 P52 Auburndale Graphics Disable Guidelines)



Layout Note: Place these resistors near Processor ball less than 500mil.



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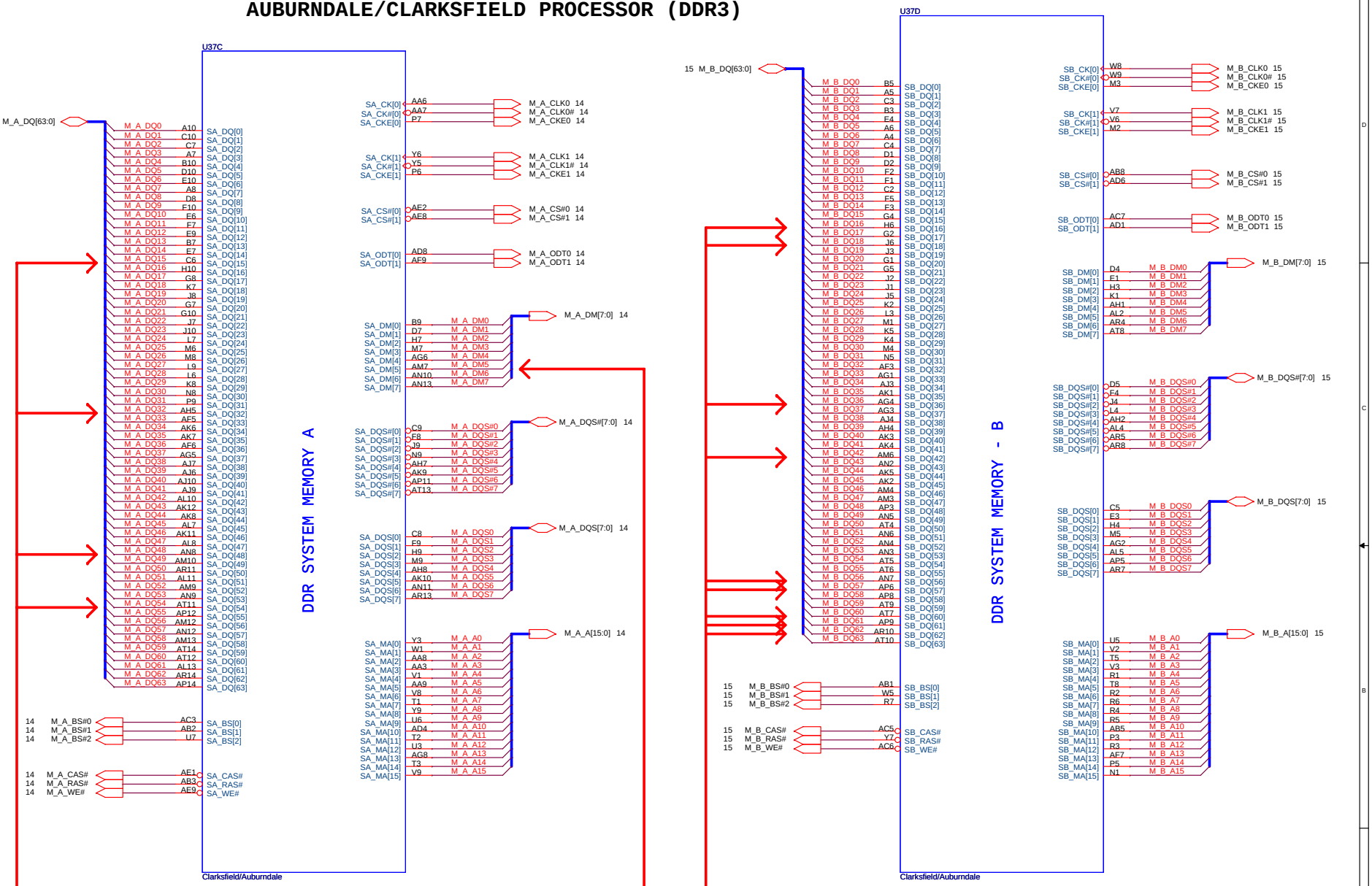
AUBURNDALE/CLARKSFIELD PROCESSOR (DDR3)



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AUBURNDALE/CLARKSFIELD PROCESSOR (GRAPHICS POWER)

CPU Core Power

+VCC_CORE

U37F

48A

1.1V RAIL POWER

CPU CORE SUPPLY

18A

VTT Rail Values are
Auburndal VTT=1.05V
Clarksfield VTT=1.1V

+1.1V_VTT

C501 10U_8
C506 10U_8
C525 10U_8
C531 10U_8
C519 10U_8
C523 10U_8
C504 10U_8
C214 22U_8
C205 22U_8
C511 22U_8
C500 *330u/2V_7343

C223 22U_8
C237 22U_8
TP9
R122 *SHORT_4
R123 *SHORT_4
TP10
C98 1u/10V_4

(15mils)
For CRB use

POWER
CPU VIDS

PSI# AN33 H_PSI# 33

VID[0] AK35 H_VID0 H_VID0 33
VID[1] AK33 H_VID1 H_VID1 33
VID[2] AK34 H_VID2 H_VID2 33
VID[3] AL35 H_VID3 H_VID3 33
VID[4] AL33 H_VID4 H_VID4 33
VID[5] AM33 H_VID5 H_VID5 33
VID[6] AM34 H_VID6 H_VID6 33
PROC_DPRSLPVR ICH_DPRSLPVR 33

VTT_SELECT G15 H_VTTVID1 TP8

H_VTTVID1=Low, 1.1V
H_VTTVID1=High, 1.05V

SENSE LINES

ISENSE AN35 I_MON 33

VCC_SENSE AJ34 R150 100_4 +VCC_CORE VCCSENSE 33
VSS_SENSE AJ35 R146 100_4 VSSSENSE 33

VTT_SENSE B15 VTT_SENSE TP6
VSS_SENSE_VTT A15 TP_VSS_SENSE_VTT TP7

Clarksfield/Auburndale

U37G

SENSE LINES
VAXG_SENSE AR22
VSSAXG_SENSE AT22

GRAPHICS VIDS
GFX_VID[0] AM22
GFX_VID[1] AP22
GFX_VID[2] AN22
GFX_VID[3] AP23
GFX_VID[4] AM23
GFX_VID[5] AP24
GFX_VID[6] AN24

GFX_VR_EN AR25
GFX_DPRSLPVR AT25
GFX_IMON AM24
IMON R193 EV@1K_4

GRAPHICS

POWER

DDR3 - 1.5V RAILS

3A
+1.5V_CPUVDDQ
VDDQ1 AJ1
VDDQ2 AF1
VDDQ3 AE7
VDDQ4 AF4
VDDQ5 AC1
VDDQ6 AB7
VDDQ7 AB4
VDDQ8 W7
VDDQ9 W4
VDDQ10 U1
VDDQ11 T7
VDDQ12 T4
VDDQ13 P1
VDDQ14 N7
VDDQ15 N4
VDDQ16 L1
VDDQ17 H1
VDDQ18

C188 1u/10V_4
C194 1u/10V_4
C241 1u/10V_4
C228 1u/10V_4
C221 1u/10V_4
C203 22U_8
C213 22U_8
C163 *330u/2V_7343

7/2 Change CPU VDDQ from +1.5V_S3 to +1.5V_CPUVDDQ at C test.
6/5 No stuff at RevC by DG1.6

FDI

+1.1V_VTT
C180 22U_8
C509 22U_8
VTT1_45 J24
VTT1_46 J23
VTT1_47 H25

PEG & DMI

+1.1V_VTT
C181 22U_8
C182 22U_8
C197 22U_8
C517 22U_8
VTT1_48 K26
VTT1_49 J27
VTT1_50 J26
VTT1_51 J25
VTT1_52 H27
VTT1_53 G28
VTT1_54 G27
VTT1_55 G26
VTT1_56 F26
VTT1_57 E26
VTT1_58 E25

1.1V

VTT0_59 P10
VTT0_60 N10
VTT0_61 L10
VTT0_62 K10
C184 10u/6.3V_6
C176 10u/6.3V_6

VTT1_63 J22
VTT1_64 J20
VTT1_65 J18
VTT1_66 H21
VTT1_67 H20
VTT1_68 H19
C507 22U_8
C508 22U_8

1.8V

VCCPLL1 L26
VCCPLL2 L27
VCCPLL3 M26
+1.8V
C178 1u/10V_4
C179 1u/10V_4
C503 2.2U_6_H0.5
C502 4.7u_6
C505 22U_8
0.6A

Clarksfield/Auburndale

+1.1V_VTT
R448 1K_4
R450 1K_4
R452 1K_4
R454 *1K_4
R456 *1K_4
R459 1K_4
R461 *1K_4
R466 1K_4
R463 *1K_4
R447 *1K_4
R449 *1K_4
R451 *1K_4
R453 1K_4
R455 1K_4
R458 *1K_4
R460 1K_4
R465 *1K_4
R462 1K_4

H_VID0
H_VID1
H_VID2
H_VID3
H_VID4
H_VID5
H_VID6
ICH_DPRSLPVR
H_PSI#

+VCC_CORE
C199 C530 C526 C512 C222 C238 C174 C191 22U_8
C183 C226 C529 C243 C236 C190 C527 C528 22U_8
C198 C234 C520 C209 C516 C514 C195 C217 10u/6.3V_6
C515 C513 C521 C518 C510 C232 C524 C196 10u/6.3V_6
C498 C480 C208 C522
*330u/2V_7343 330u/2V_7343 *330u/2V_7343 330u/2V_7343

Note:
For Validating IMVP VR R6451 should be STUFF and R2N1 NO_STUFF

HFM_VID : Max 1.4V
LFM_VID : Min 0.65V

AUBURNDALE/CLARKSFIELD PROCESSOR (POWER)

4,7,11,12,16,34,37 +1.1V_VTT
33 +VCC_CORE
11,12,37 +1.8V

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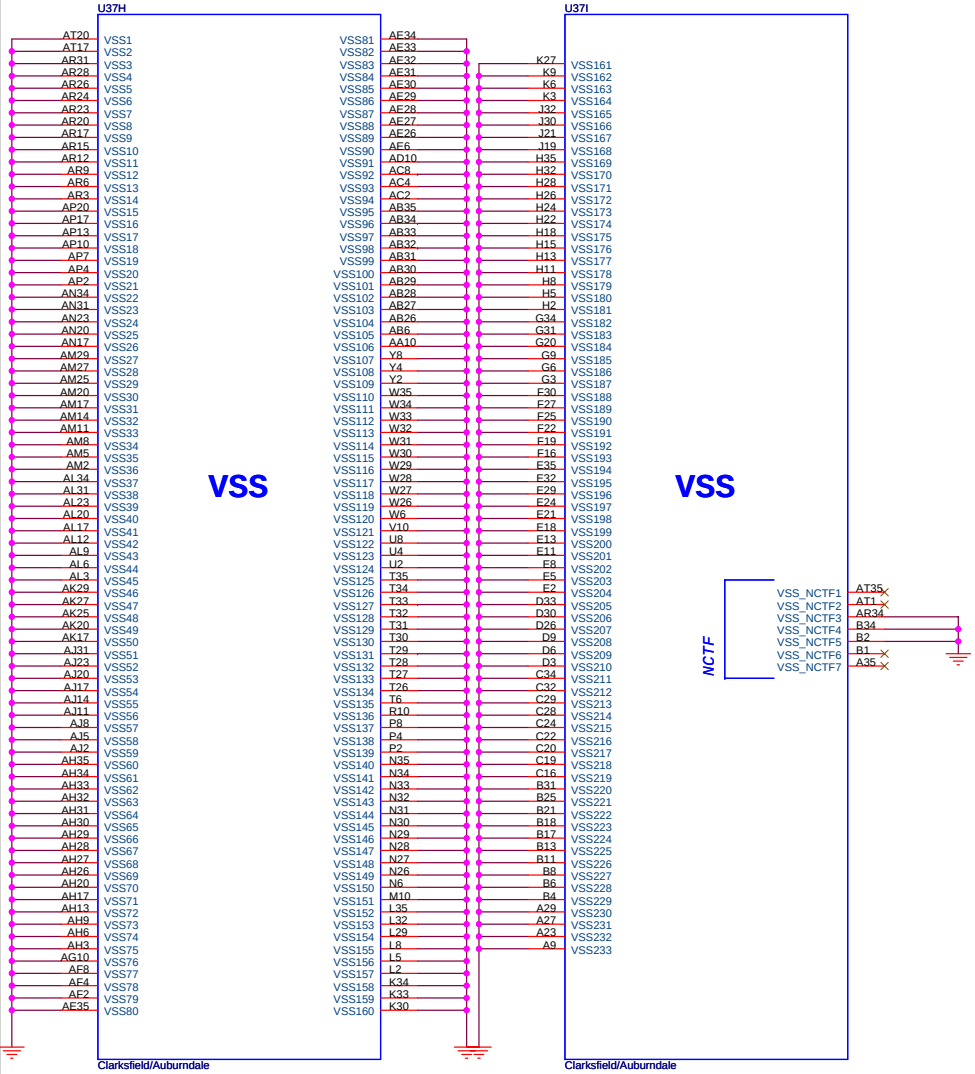
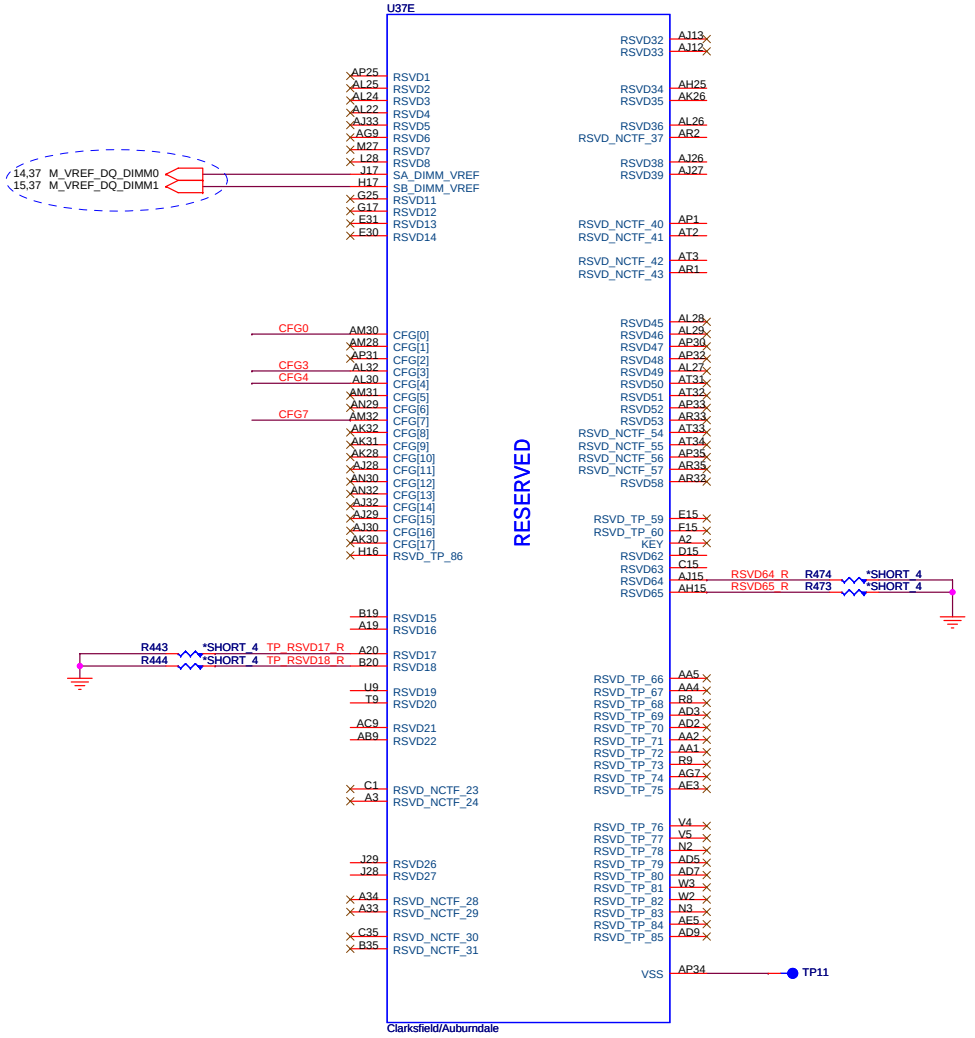
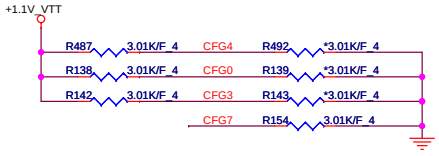
AUBURNDALE/CLARKSFIELD PROCESSOR (GND)



AUBURNDALE/CLARKSFIELD PROCESSOR(RESERVED, CFG)



The Clarkfield processor's PCI Express interface may not meet PCI Express 2.0 jitter specifications. Intel recommends placing a 3.01K +/- 5% pull down resistor to VSS on CFG[7] pin for both rPGA and BGA components. This pull down resistor should be removed when this issue is fixed.



Processor Strapping

	1	0
CFG4 (Display Port Presence)	Disabled; No Physical Display Port attached to Embedded Diplay Port	Enabled; An external Display port device is connected to the Embedded Display port
CFG0 (PCI-Epress Configuration Select)	Single PEG	Bifurcation enabled
CFG3 (PCI-Epress Static Lane Reversal)	Normal Operation	Lane Numbers Reversed

CFG[1:0] - PCI_Epress Configuration Select
*** 11= 1 x 16 PEG**
*** 10= 2 x 8 PEG**

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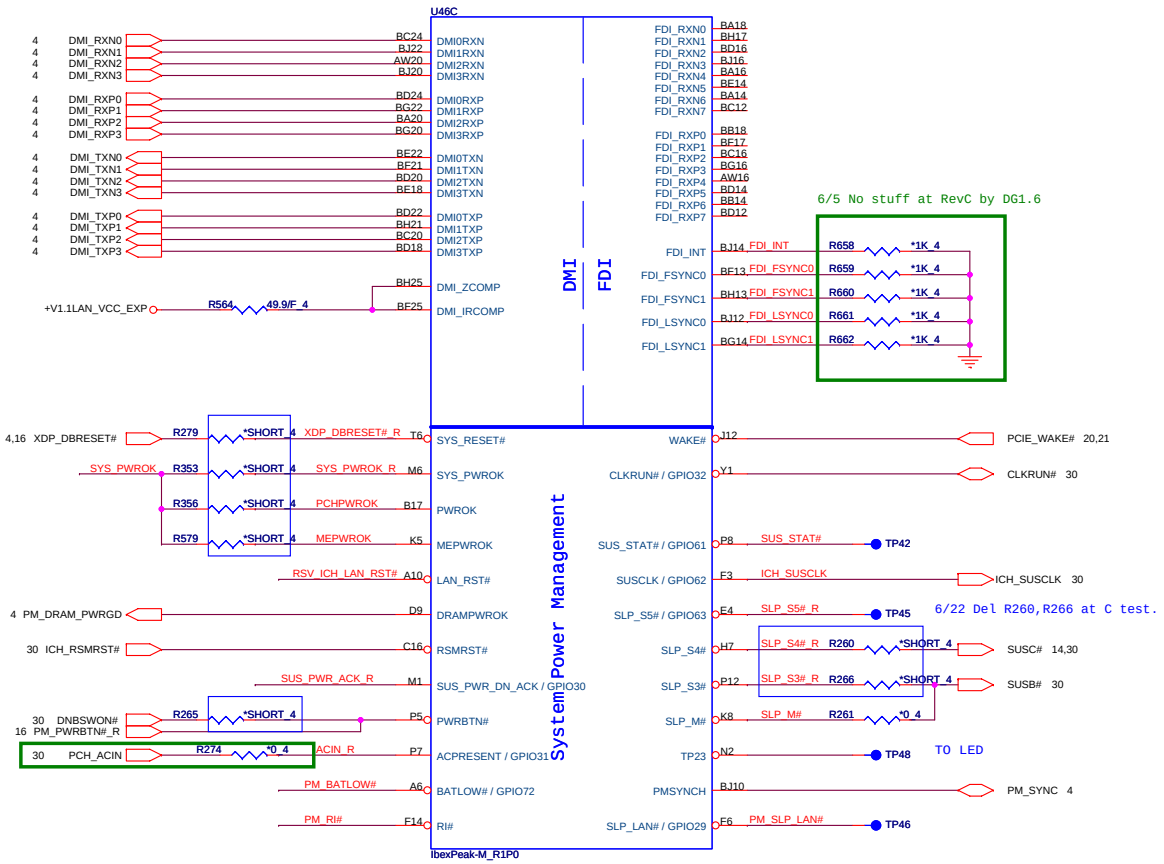
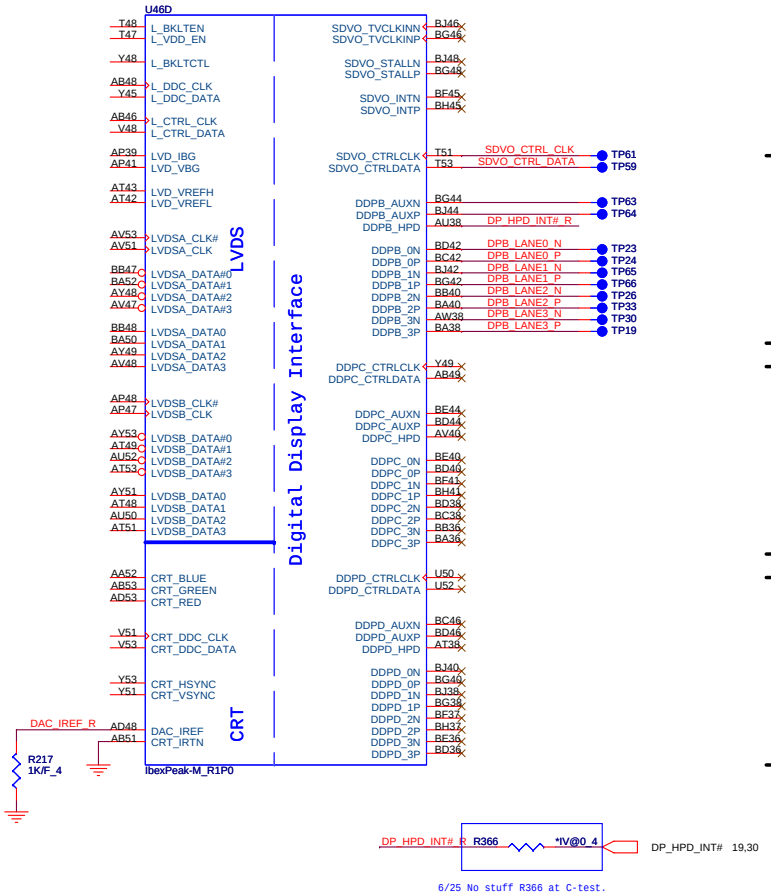
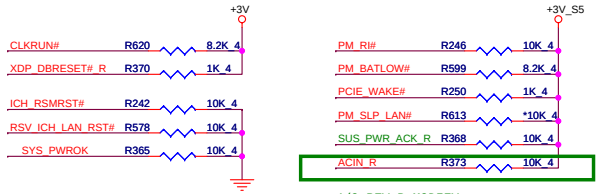
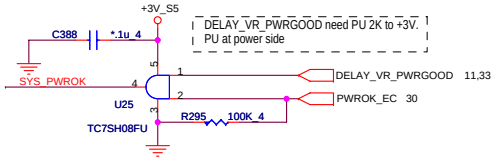
IBEX PEAK-M (DMI,FDI,GPIO)



IBEX PEAK-M (LVDS,DDI)







6/25 No stuff R366 at C-test.

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IBEX PEAK-M (HDA,JTAG,SATA)

RTC Circuitry

CMOS Settings	J5
Clear CMOS	1-2
Save CMOS	1-X (Default)

TPM Settings	J4
Clear ME RTC registers	1-2
Save ME RTC registers	1-X (Default)

INTVRMEN - Integrated SUS 1.1V VRM Enable
High - Enable Internal VRs

Cap values depend on Xtal

7/1 change from +3V_S5 to +3V by intel.

6/21 Non stuff R233 by Intel at C-test.

Distance between the PCH and cap on the "P" signal should be identical distace between the PCH and cap on the "N" signal for the same pair.

Place all series terms close to PCH except for SDIN input lines,which should be close to source.Placement of R773, R775, R776 & R777 should equal distance to the T split trace point. Basically, keep the same distance from T for all series termination resistors.

For PCH 16Mbit (2M Byte), SPI/ 32Mbit (4M Byte), SPI

iTPM ENABLE/DISABLE

TPM Function	R591
Enable	Mount
Disable	NC (Default)

SATA HDD

SATA ODD

E-SATA

2ND SATA HDD

ibexPeak-M_R1P0

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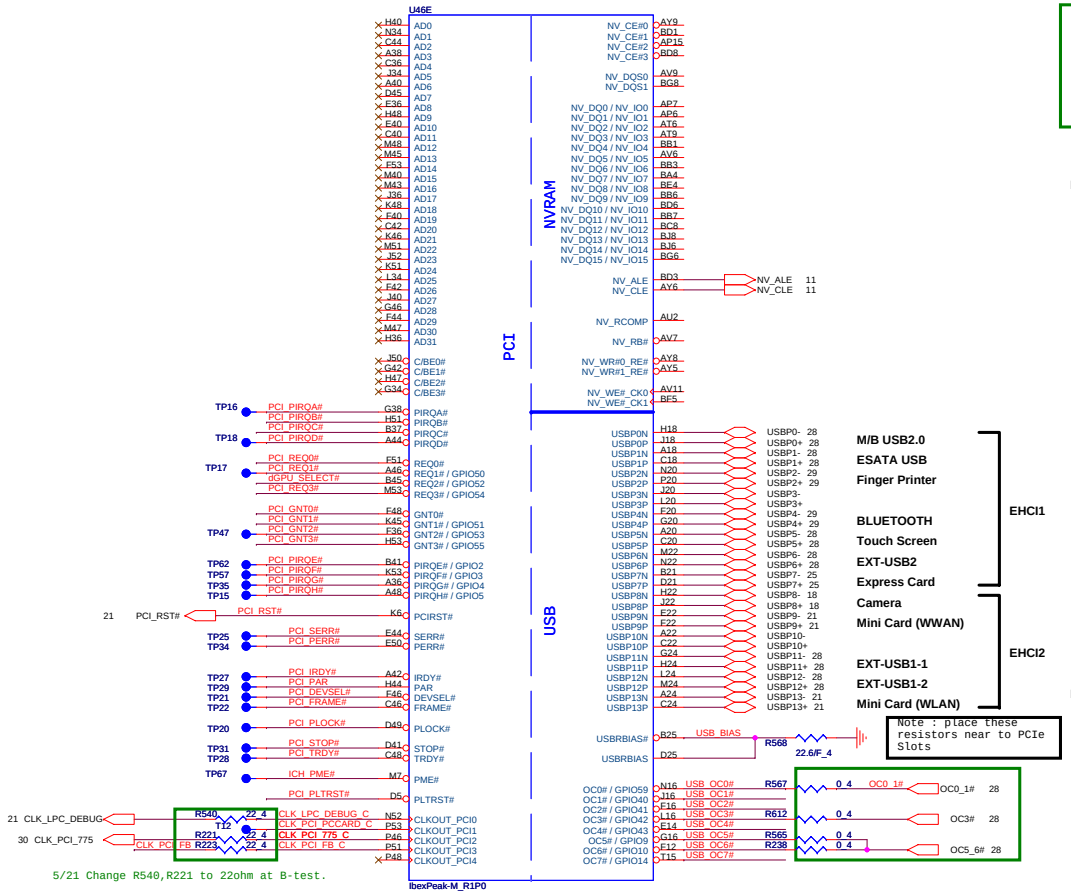
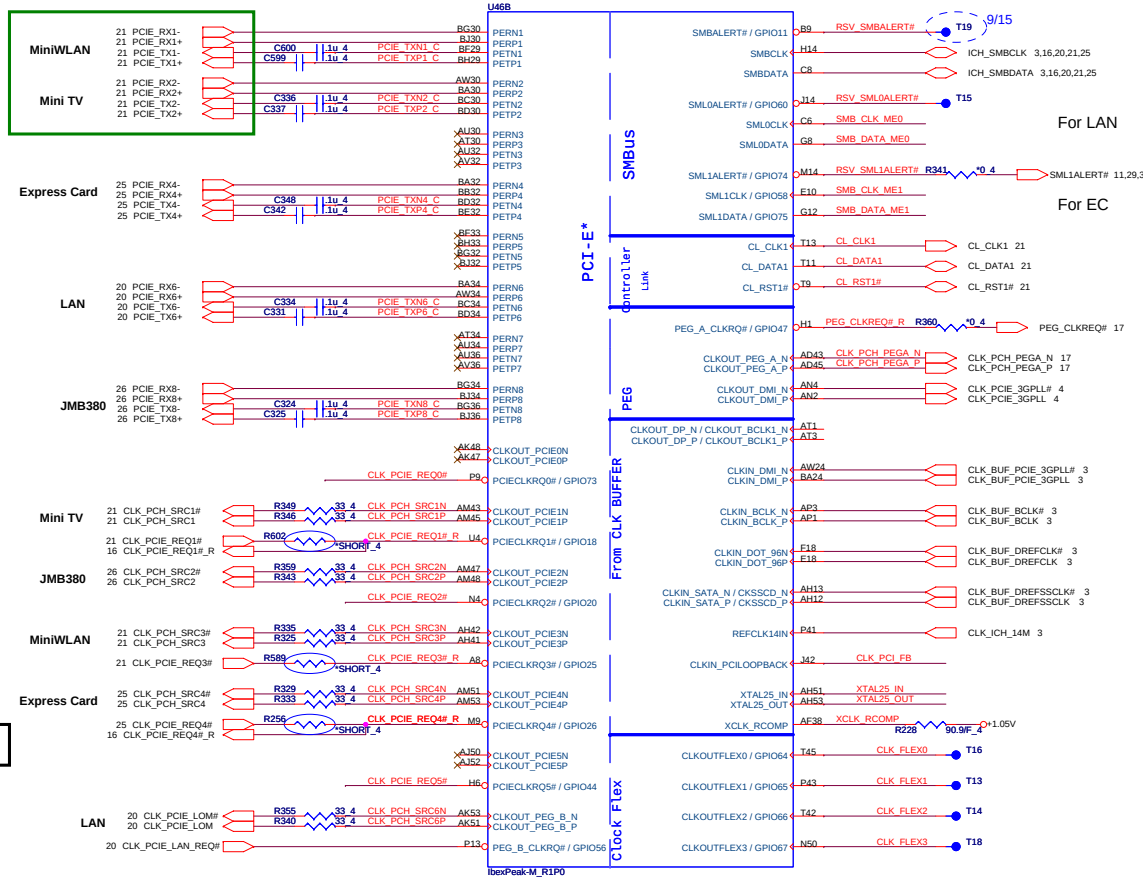
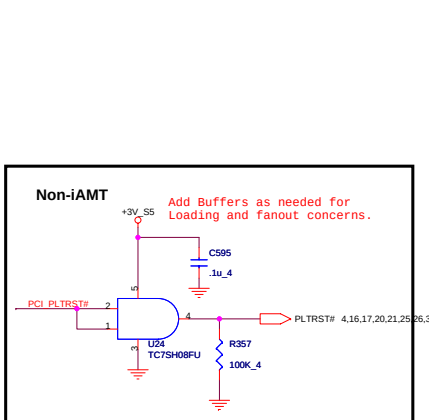
IBEX PEAK-M (PCI,USB,NVRAM)

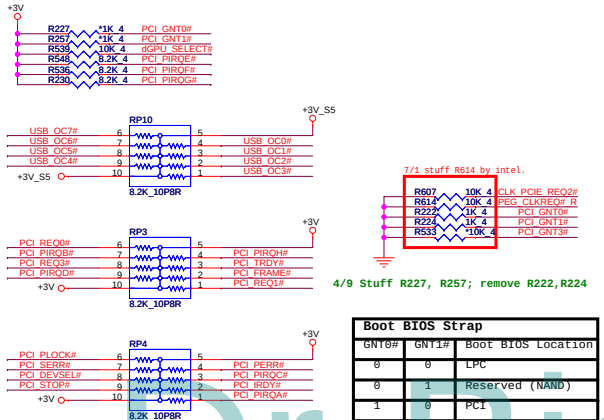
5/14 Change PCIE sequence beween CN21 and CN23 by BIOS at B-test.

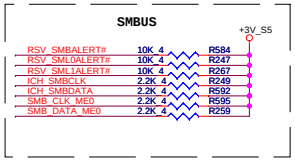


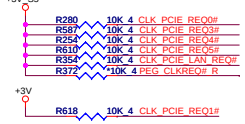
IBEX PEAK-M (PCI-E,SMBUS,CLK)

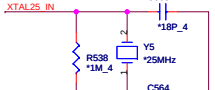


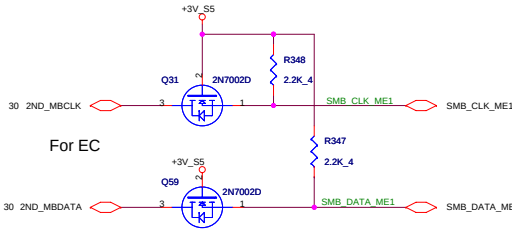


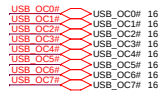












Boot BIOS Strap		
GNT0#	GNT1#	Boot BIOS Location
0	0	LPC
0	1	Reserved (NAND)
1	0	PCI
1	1	SPI

A16 swap override Strap/Top-Block Swap Override jumper	
PCI_GNT3#	Low = A16 swap override/Top-Block Swap Override enabled High = Default

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IBEX PEAK-M (GPIO,VSS_NCTF,RSVD)

U46F

BMBUSY# / GPIO0
TACH1 / GPIO1
TACH2 / GPIO6
TACH3 / GPIO7
GPIO8
LAN_PHY_PWR_CTRL / GPIO12
GPIO15
SATA4GP / GPIO16
TACH0 / GPIO17
SCLOCK / GPIO22
GPIO24
GPIO27
GPIO28
STP_PCI# / GPIO34
SATACLKREQ# / GPIO35
SATA2GP / GPIO36
SATA3GP / GPIO37
SLOAD / GPIO38
SDATAOUT0 / GPIO39
PCIECLKRQ6# / GPIO45
PCIECLKRQ7# / GPIO46
SDATAOUT1 / GPIO48
SATA5GP / GPIO49
GPIO57

MISC
GPIO
CPU
NCTF
RSVD

16 BMBUSY# — BMBUSY# — Y3
30 SIO_EXT_SMI# — SIO_EXT_SMI# — C38
30 SIO_EXT_SCI# — SIO_EXT_SCI# — D37
BOARD_ID0 — J32
7/1 change board_id0 to GPIO7 at C-test
RSV_GPIO8 — F10
TP60 — LAN_DISABLE# — K9
26 CR_WAKE# — CR_WAKE# — T7
16,17 dGPU_HOLD_RST# — dGPU_HOLD_RST# — AA2
17 dGPU_RUNPWROK — R229 *SHORT_4 — dGPU_RUNPWROK_R — F38
GPIO22 — Y7
7/1 GPIO24 NC for Intel suggestion at C-test.
TP69 — GPIO24 — H10
TP58 — GPIO27 — AB12
16 TP_PCH_GPIO28 — V13
STP_PCI# — M11
28 SAVE_LED# — SAVE_LED# — V6
16 dGPU_PWR_EN# — dGPU_PWR_EN# — AB7
16,17 dGPU_PRSNT# — dGPU_PRSNT# — AB13
GPIO38 — V3
GPIO39 — P3
30,37 DDR3_DRAMRST#_EC — R428 *0_4 — GPIO45 — H3
GPIO46 — F1
SV_SET_UP — AB6
16 SATA5GP — R351 0_4 — SATA5GP — AA4
10,29,30 SML1ALERT# — GPIO57 — F8

8/8 Reserve R428 from GPIO46 by intel S3 suggestion at Ramp.

5/12 Reverse R351 connect to EC for Temp Alert at B-test

SATA5GP / GPIO49 / TEMP_ALERT# is used to alert for EC when CPU or Graph/Memory controllers' temperature go out of limit. So connecting GPIO49 to EC and avoid this pin to be used for other purpose

CLKOUT_PCIE6N — AH45 — TP_PCH_PCIE6N — TP49
CLKOUT_PCIE6P — AH46 — TP_PCH_PCIE6P — TP50
CLKOUT_PCIE7N — AF48 — TP_PCH_PCIE7N — TP51
CLKOUT_PCIE7P — AF47 — TP_PCH_PCIE7P — TP44
A20GATE — U2 — SIO_A20GATE 30
CLKOUT_BCLK0_N / CLKOUT_PCIE8N — AM3 — CLK_CPU_BCLK# 4
CLKOUT_BCLK0_P / CLKOUT_PCIE8P — AM1 — CLK_CPU_BCLK 4
PECI — BG10 — PCH_PECI_R — R581 *SHORT_4 — H_PECI 4
RCIN# — T1 — SIO_RCIN# 30
PROCPWRGD — BE10 — H_PWRGOOD 4,16
THRMTRIP# — BD10 — PCH_THRMTRIP#_R — R252 56/F_4 — PM_THRMTRIP# 4
+1.1V_VTT — R251 56/F_4

TP1 — BA22 — TP1_PCH — TP41
TP2 — AW22 — TP2_PCH — TP40
TP3 — BB22
TP4 — AY45
TP5 — AY46
TP6 — AV43
TP7 — AV45
TP8 — AF13
TP9 — M18
TP10 — N18
TP11 — AJ24
TP12 — AK41
TP13 — AK42
TP14 — M32
TP15 — N32
TP16 — M30
TP17 — N30
TP18 — H12
TP19 — AA23
NC_1 — AB45
NC_2 — AB38
NC_3 — AB42
NC_4 — AB41
NC_5 — T39
INIT3_3V# — P6 — TP_INT3_3V — TP68
TP24 — C10

VSS_NCTF_1 — A4
VSS_NCTF_2 — A49
VSS_NCTF_3 — A5
VSS_NCTF_4 — A50
VSS_NCTF_5 — A52
VSS_NCTF_6 — A53
VSS_NCTF_7 — B2
VSS_NCTF_8 — B4
VSS_NCTF_9 — B52
VSS_NCTF_10 — B53
VSS_NCTF_11 — BE1
VSS_NCTF_12 — BE53
VSS_NCTF_13 — BF1
VSS_NCTF_14 — BF53
VSS_NCTF_15 — BH1
VSS_NCTF_16 — BH2
VSS_NCTF_17 — BH52
VSS_NCTF_18 — BH53
VSS_NCTF_19 — BJ1
VSS_NCTF_20 — BJ2
VSS_NCTF_21 — BJ4
VSS_NCTF_22 — BJ49
VSS_NCTF_23 — BJ5
VSS_NCTF_24 — BJ50
VSS_NCTF_25 — BJ52
VSS_NCTF_26 — BJ53
VSS_NCTF_27 — D1
VSS_NCTF_28 — D2
VSS_NCTF_29 — D53
VSS_NCTF_30 — E1
VSS_NCTF_31 — E53

IbexPeak-M_R1P0

+3V_S5
CR_WAKE# — R275 1K_4
RSV_GPIO8 — R258 10K_4
TP_PCH_GPIO28 — R634 10K_4
GPIO45 — R625 10K_4
GPIO46 — R624 10K_4
GPIO57 — R621 *10K_4
LAN_DISABLE# — R285 10K_4

+3V
SIO_EXT_SMI# — R551 10K_4
SIO_EXT_SCI# — R278 10K_4
Del R231 at C-test.
dGPU_PWR_EN# — R631 10K_4
dGPU_RUNPWROK_R — R330 10K_4

+3V
SIO_RCIN# — R601 10K_4
SIO_A20GATE — R616 10K_4
dGPU_HOLD_RST# — R282 10K_4
SATA5GP — R605 10K_4
GPIO22 — R276 10K_4
dGPU_PRSNT# — R604 10K_4
SAVE_LED# — R277 10K_4
STP_PCI# — R623 10K_4
GPIO39 — R600 10K_4
GPIO38 — R603 10K_4

4,6,7,12,16,34,37 +1.1V_VTT
3,10,12,16,22,35,37 +1.05V
3,4,8,9,10,12,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,32,33,34,35,37 +3V
8,9,10,12,14,15,16,20,25,27,29,30,32,37 +3V_S5
6,12,37 +1.8V

+3V_S5 — R641 *10K_4 — BOARD_ID0 — R640 10K_4
GPIO27 — R669 *10K_4
RSV_GPIO8 — R670 *1K_4
GPIO57 — R671 10K_4

4/9 Reserve GPIO8 by ww14 MoW
7/1 Add R671 for GPIO57 PD and not PU for Intel suggestion at C-test.

Integrated Clock Chip Enable	
RSV_GPIO8	High = Disable Low = Enable
BOARD_ID0	High = Touch Screen Low = Discrete

+1.8V
10 NV_ALE — R586 *1K_4
10 NV_CLE — R606 *1K_4

Danbury Technology Enabled	
NV_ALE	High = Enable Low = Disable

DMI Termination Voltage	
NV_CLE	Set to Vcc when LOW Set to Vcc/2 when HIGH

5/12 Reverse Q12,Q11 connect to t SYS_SHDN# at B-test

+1.1V_VTT
8,33 DELAY_VR_PWRGOOD
Q12 *2N7002D
PM_THRMTRIP#
Q11 *MMBT3904
SYS_SHDN# 32,41

+3V
BMBUSY# — R371 8.2K_4
SV_SET_UP — R283 10K_4

SV_SET_UP	1-X High = Strong (Default)

Quanta Computer Inc.
PROJECT : ZY9

Size	Document Number	Rev
	IBEX PEAK-M 4/6	3A

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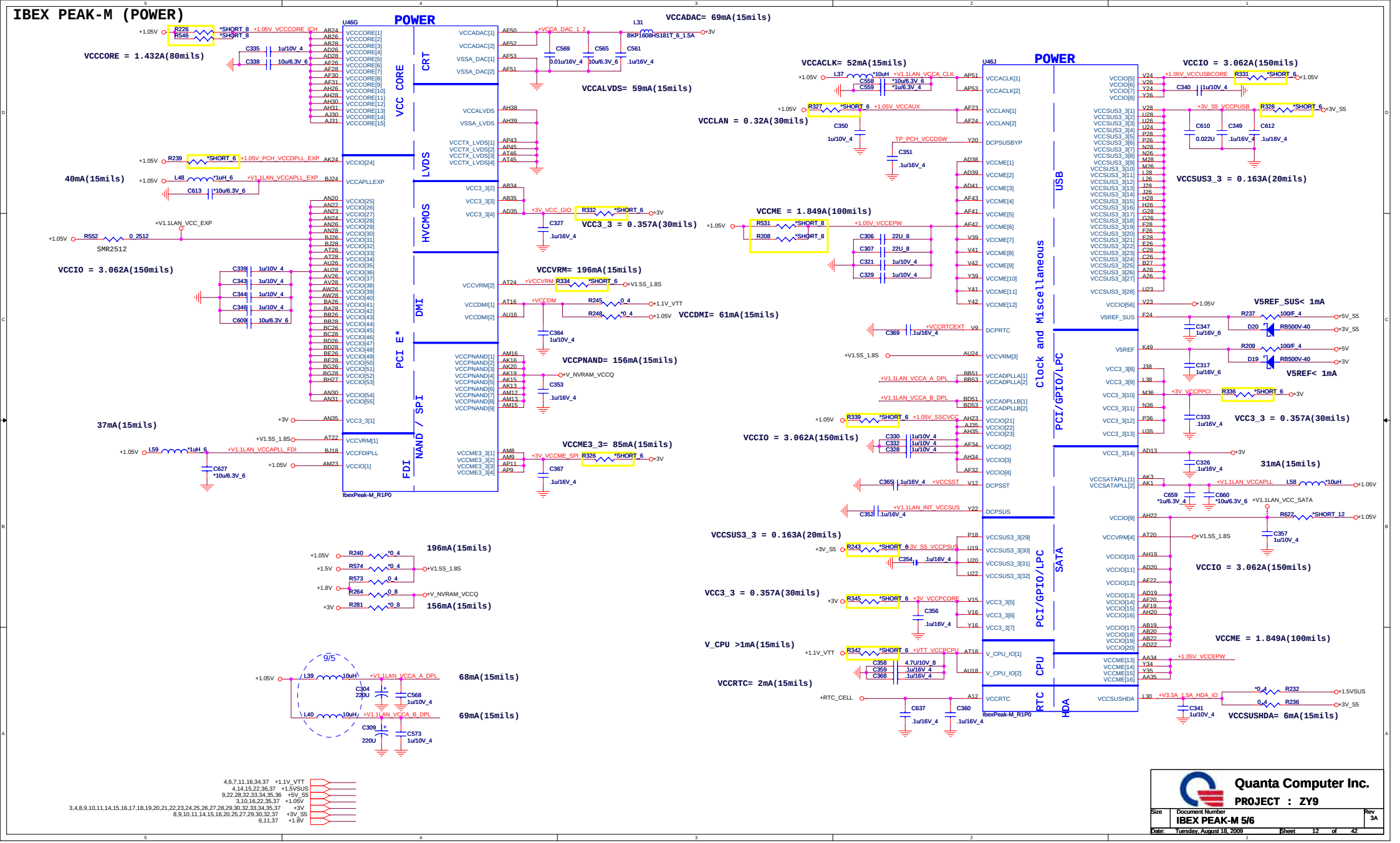
IBEX PEAK-M (POWER)



Quanta Computer Inc.			
PROJECT : ZY9			
Size	Document Number		Rev
	IBEX PEAK-M 5/6		3A
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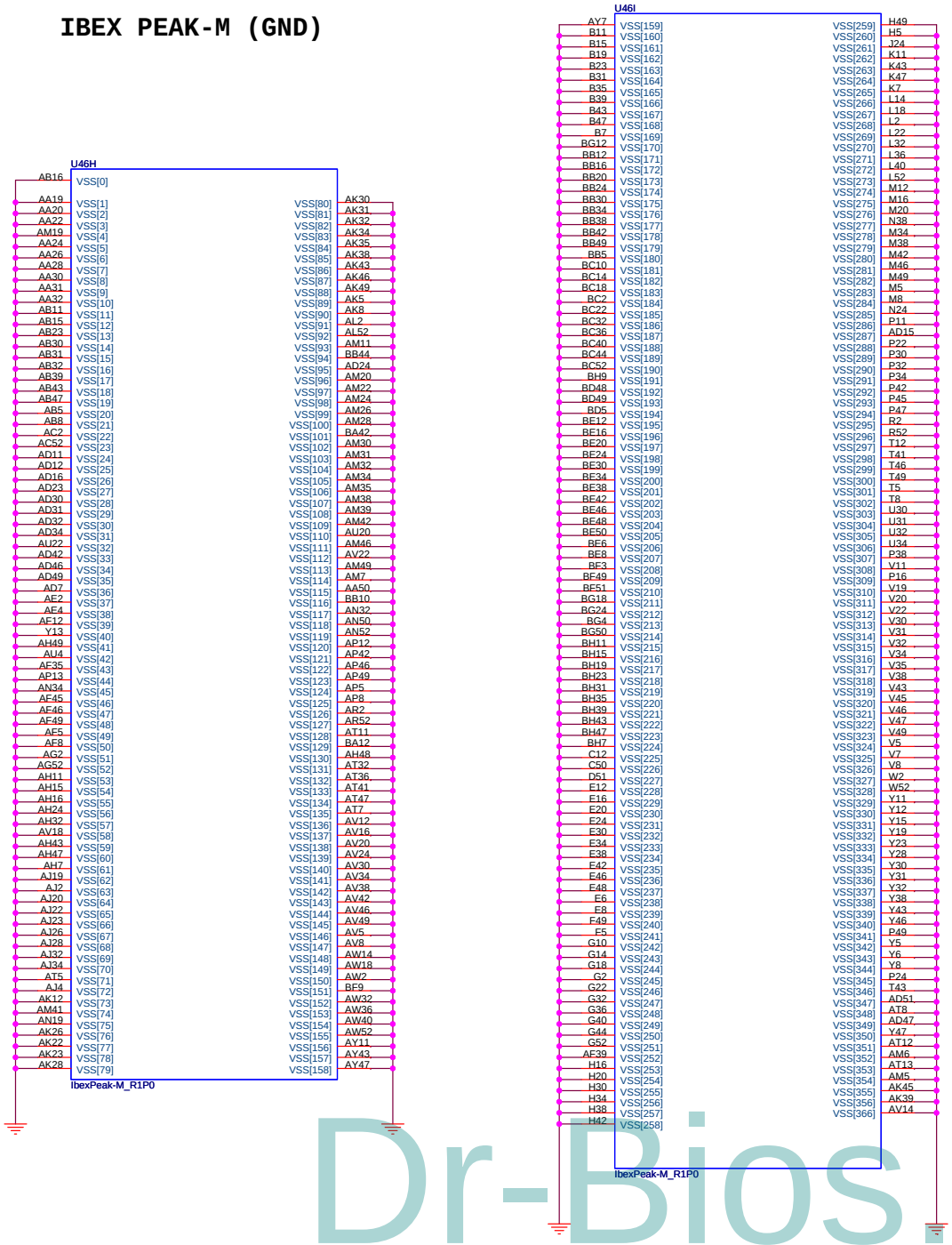
IBEX PEAK-M (GND)



Quanta Computer Inc.

PROJECT : ZY9

Size	Document Number	Rev
	IBEX PEAK-M 6/6	3A
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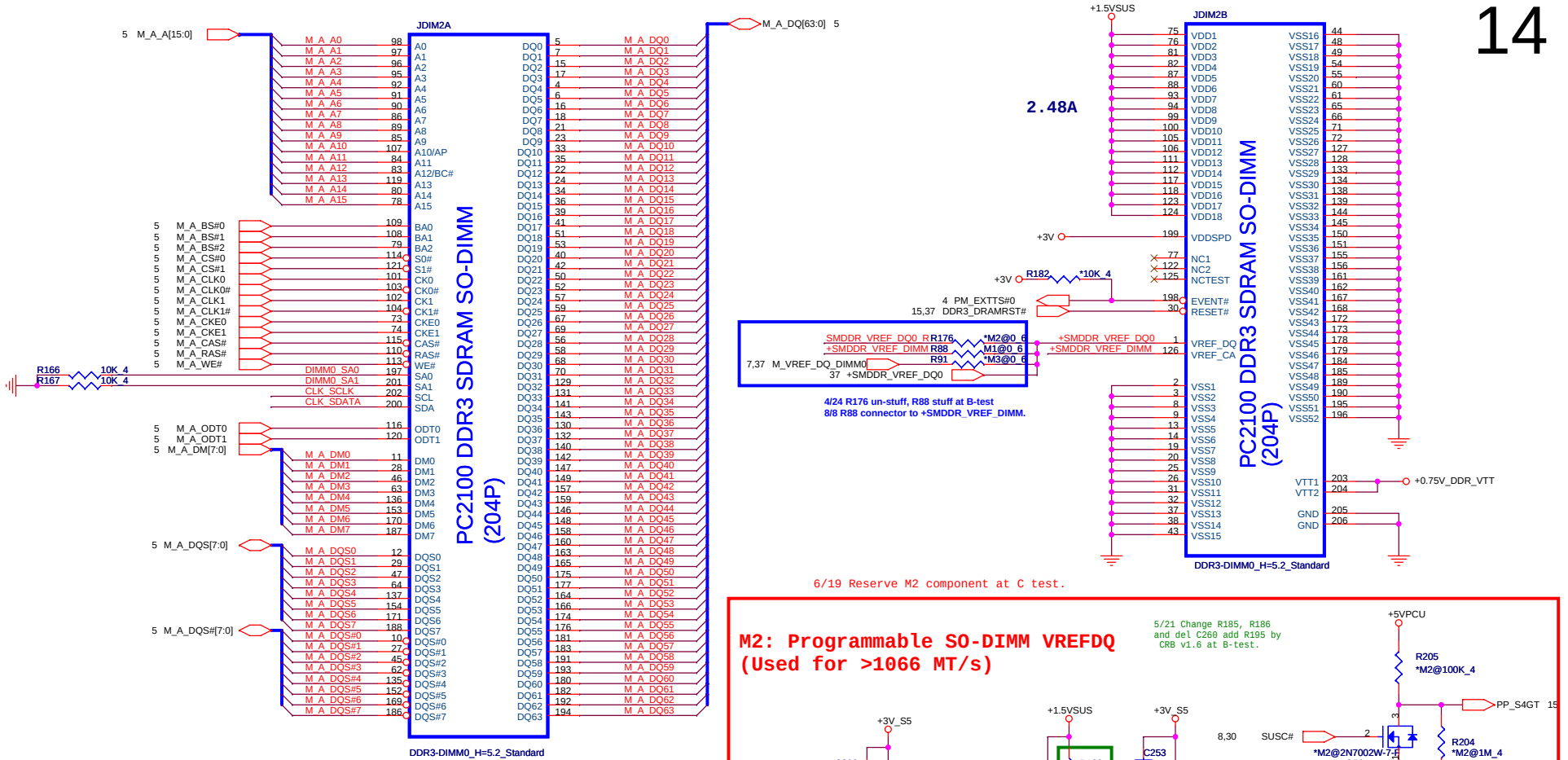
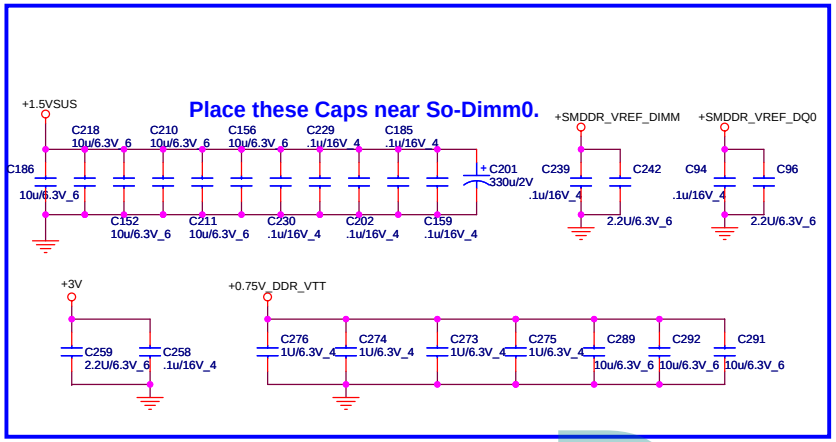
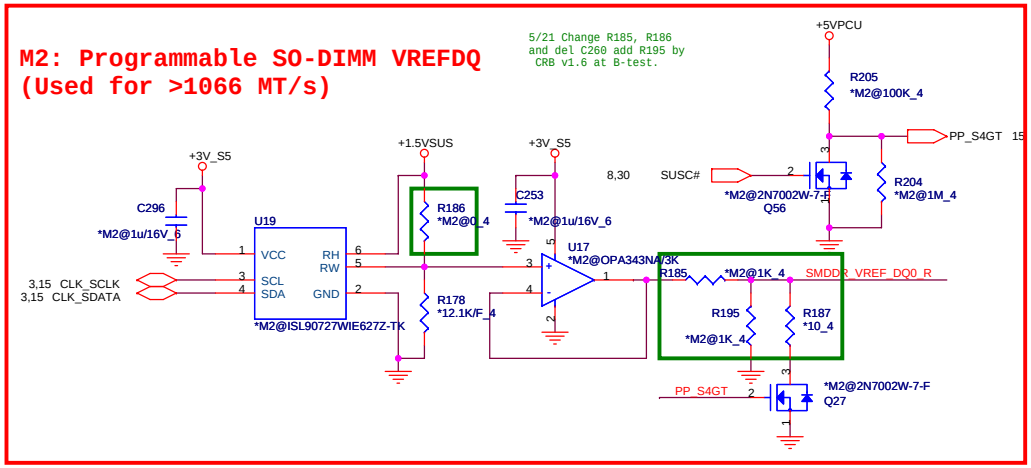


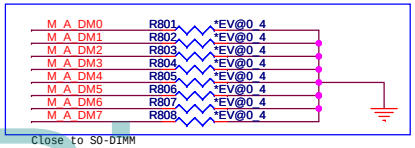


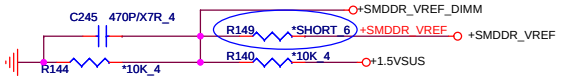
4/24 R176 un-stuff, R88 stuff at B-test
8/8 R88 connector to +SMDDR_VREF_DIMM.

6/19 Reserve M2 component at C test.



6/22 Reserve R801~R808 at C test.





Quanta Computer Inc.
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Size	Document Number	Rev
	DDRIII SO-DIMM-0	3A

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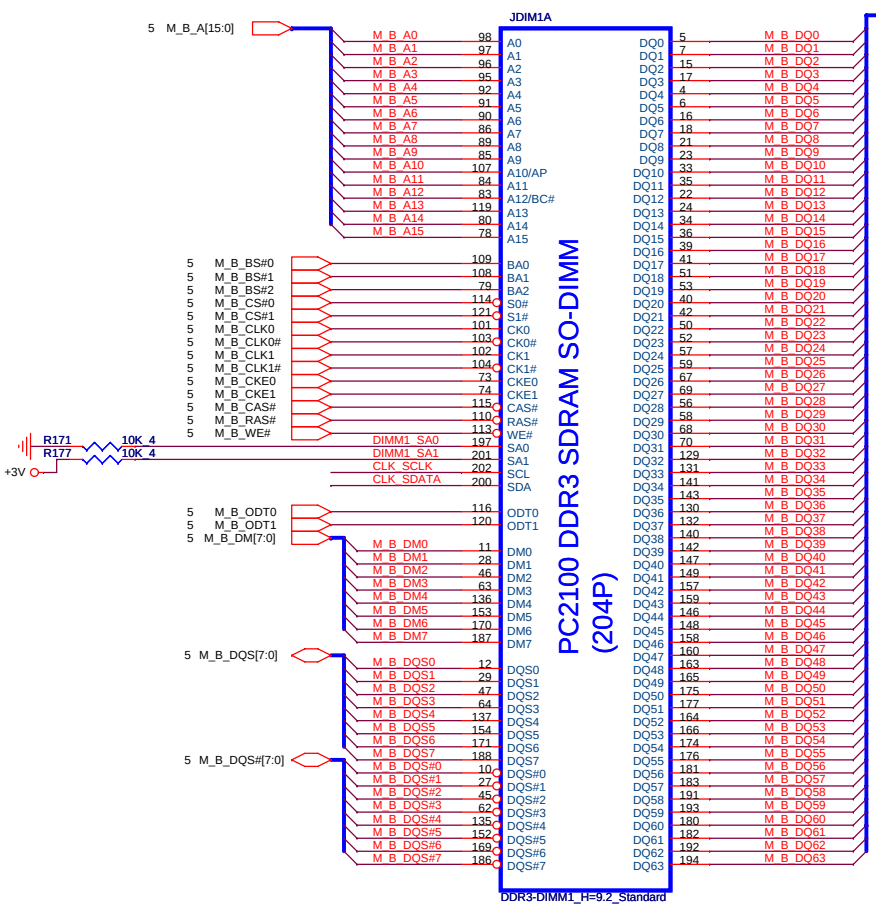
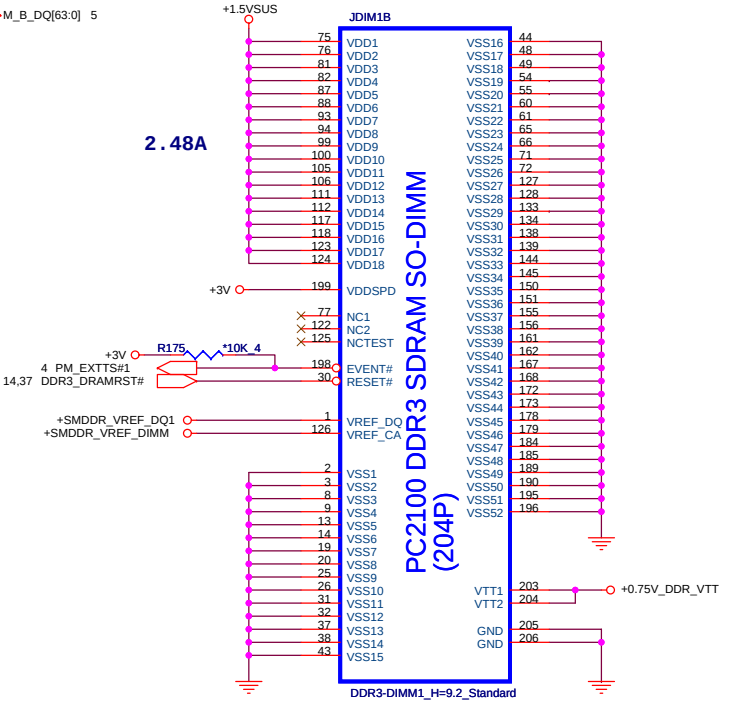
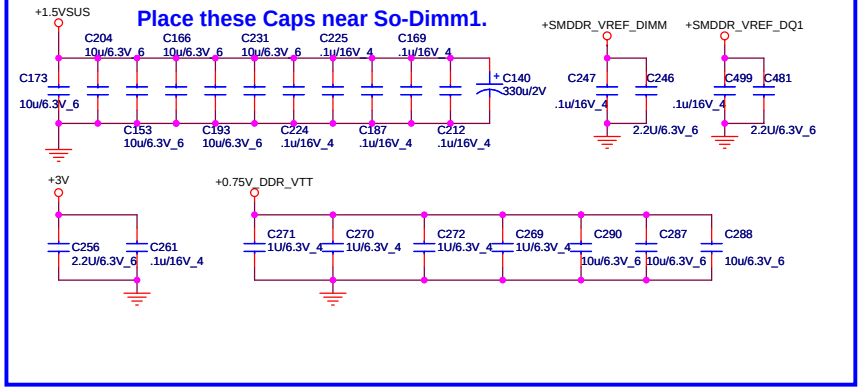
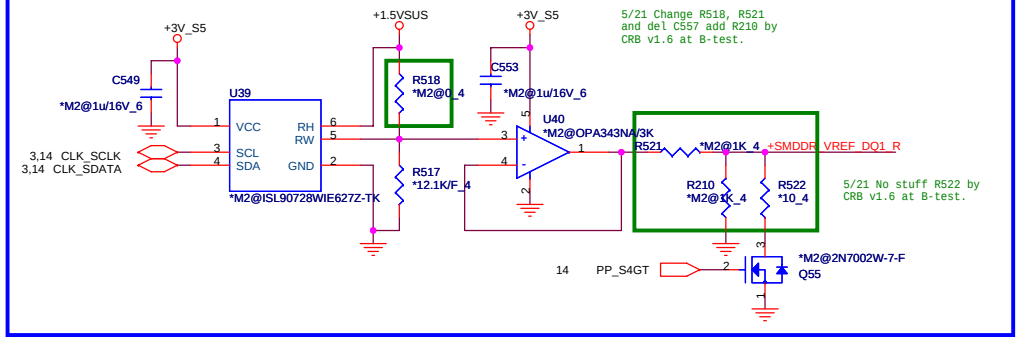




Place these Caps near So-Dimm1.

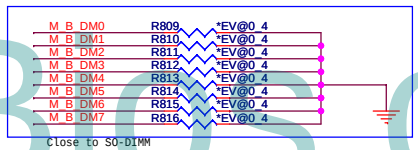


M2: Programmable SO-DIMM VREFDQ (Used for >1066 MT/s)



6/19 Reserve M2 component at C test.

6/22 Reserve R809~R816 at C test.



Quanta Computer Inc.
PROJECT : ZY9

Size	Document Number	Rev
	DDRIII SO-DIMM-1	3A

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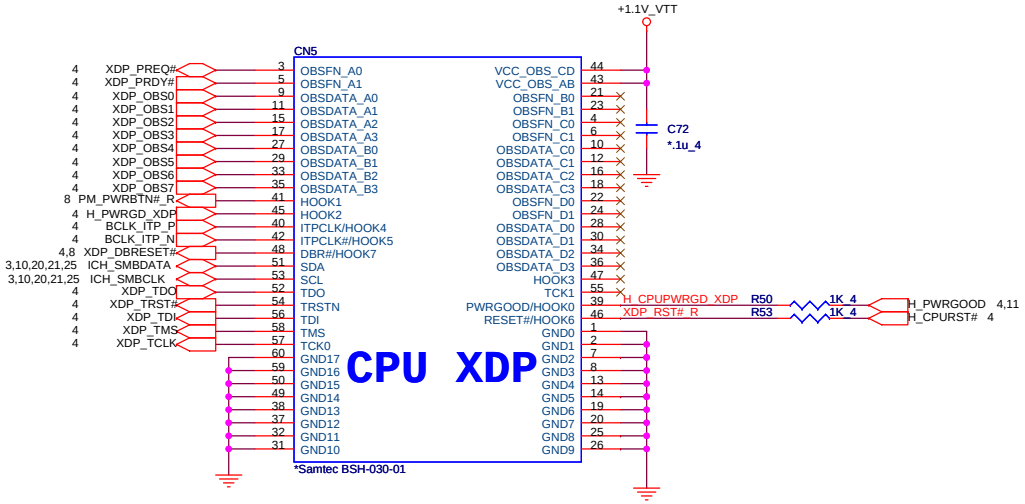

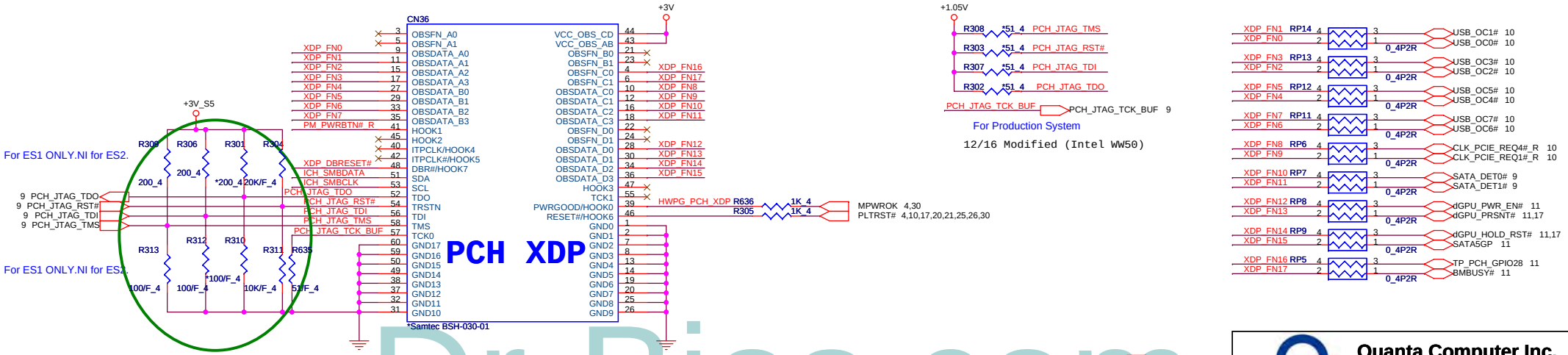

Quanta Computer Inc.
PROJECT : ZY9

Size	Document Number	Rev
	XDP/BRAIDWOOD	3A

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MXM Module

6/25 Change CN22 pin define and footprint at C test.

At 11/21
update MXM footprint to mxm-mm70-314-310b1-1-270p

dGPU_PRSNT#	Sku
Low	MXM
High	WO/ MXM

MXM3.0	n-Vidia	AMD
LVDS	LVDS	LVDS/Int. DP
DP_D	N/A	X
DP_A	HDMI	HDMI
DP_C	Ext. DP/DVI	Ext. DP/DVI
DP_B	N/A	N/A

PEX_Swing adjust

MXM Reset

change to +3V at B-test

Thermo SMBus

Stuff isolate 2N7002 at C-test

change to 2N7002 at B-test

MXM VIN Power switch

MXM 3V/5V Power switch

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Size: Document Number: MXM3.0 Rev: 3A
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CRT

5/22 Change L9,L10,L13 to 75ohm by EMI at B test.

8/12 del R431~R437 at Ramp-test

17 EV_CRT_RED
17 EV_CRT_GRN
17 EV_CRT_BLU
17 EV_VSYNC
17 EV_HSYNC
17 EV_CRTDDAT
17 EV_CRTDCLK

1A/30V D24 RSX101M-30 +5V C423 .22u_4 CRTVDD5

EV_CRT_RED EV_CRT_GRN EV_CRT_BLU
L13 BLM18BA750SN1D
L10 BLM18BA750SN1D
L9 BLM18BA750SN1D
CRT_R1 CRT_G1 CRT_B1
R35 150/F_4 R30 150/F_4 R28 150/F_4
C48 10p/50V_4 C38 10p/50V_4 C28 10p/50V_4 C27 10p/50V_4 C30 10p/50V_4 C45 10p/50V_4

CN17 CRT
CRT_11 DDCDAT_1 CRTHSYNC CRTVSYNC DDCCLK_1

D3 MTW355 CRT_SENSE# 30
D4 *VPORT_6

+3V C432 .1u_4 C426 .1u_4 C425 22u/25V_6 CRT_BYP
U29 CM2009-02QR
VCC_SYNC SYNC_OUT2 SYNC_OUT1 VCC_DDC BYP VCC_VIDEO SYNC_IN2 SYNC_IN1 VIDEO_1 VIDEO_2 VIDEO_3 DDC_IN1 DDC_IN2 DDC_OUT1 DDC_OUT2 GND
CRT_VSYNC1 CRT_HSYNC1 EV_VSYNC EV_HSYNC EV_CRTDCLK EV_CRTDDAT DDCCLK_1 DDCDAT_1
R36 0_4 R29 0_4 R385 2.7K_4 R386 2.7K_4 R384 2.7K_4 R388 2.7K_4
C429 *.1u_4 C44 *10p/50V_4 C31 *10p/50V_4 C424 10p/50V_4 C431 10p/50V_4

LVDS

At 11/13 Modify
30 CONTRAST R401 0_4
17 EV_LVDS_BRIGHT R402 *0_4 LVDS_BRIGHT

3/11 NV request I2C pull-up 4.7K, and MXM module have 4.7K pull-up.

Remove R438, R639 at B-test
17 EV_LVDS_DDCDAT EV_LVDS_DDCDAT
17 EV_LVDS_DDCCLK EV_LVDS_DDCCLK
R397 4.7K_4 R398 4.7K_4
17 EV_LVDS_BLON LVDS_BLON
17 EV_LVDS_VDDEN R656 *SHORT_4 R657 *SHORT_4 LVDS_VDDEN

Reserve RV7,RV8 by ESD at B-test
RV7 *EGA-0402 DMIC_DAT
RV8 *EGA-0402 DMIC_CLK

+3V C4 0.1u/50V_6 C2 1000p/50V_4
VIN C3 4.7u/25V_8 C1 1000p/50V_4

+3V VIN 0.8A
R3 *SHORT_8 R1 *SHORT_8 INVCC0
LCDVCC
EV_LVDS_DDCDAT EV_LVDS_DDCCLK LVDS_BRIGHT BL_ON
23 DMIC_DAT 23 DMIC_CLK
EV_TXLCLKOUT+ EV_TXLCLKOUT- EV_TXLOUT0+ EV_TXLOUT0- EV_TXLOUT1+ EV_TXLOUT1- EV_TXLOUT2+ EV_TXLOUT2- EV_TXUCLKOUT+ EV_TXUCLKOUT- EV_TXUOUT0+ EV_TXUOUT0- EV_TXUOUT1+ EV_TXUOUT1- EV_TXUOUT2+ EV_TXUOUT2-
10 USBP8+ 10 USBP8-
CN1 GS12401-1011-40P-R-NH

LCD Power

+15V R15 330K_6 LCDONG Q6 AO3404 65mil
+3VPCU R11 100K_4 Q4 PDTC143TT LVDS_VDDEN R10 100K_4
C9 .01u/25V_4 Q7 2N7002D
LCDVCC1 65mil R9 22_8 LCDDISCHG
L2 *SHORT_6 L1 *SHORT_6 65mil LCDVCC
C410 .1u/16V_4 C409 .01u/16V_4 C7 22U_8
LCDON# Q3 2N7002D

Backlight Control

+3V R2 10K_4 R14 10K_4 BL_ON D2 BAS316 LID591# 29,30
BL# Q2 2N7002D Q1 DTC144EUA EC_FPBACK# 30
LVDS_BLON Q5 2N7002D R13 100K_4

Quanta Computer Inc.
PROJECT : ZY9
Size | Document Number CRT/LVDS/LID | Rev 3A
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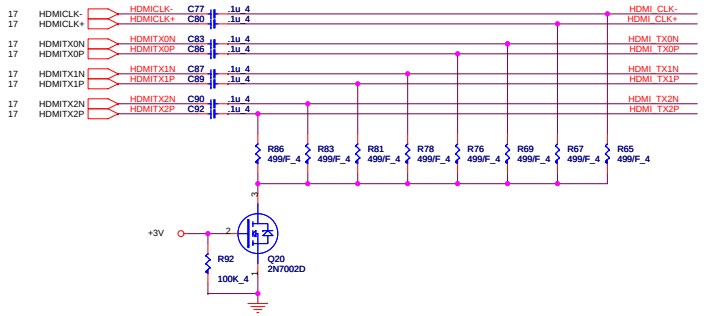
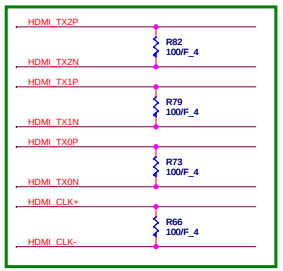
HDMI

TMDS (DC-coupled)
DP(AC-coupled)

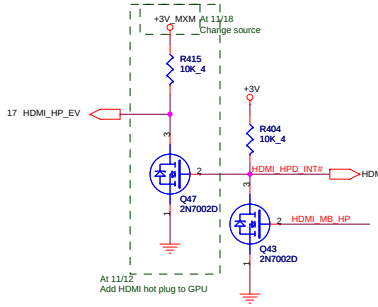


5/14 Stuff R82,R79,R73,R66 by EMI at B test.



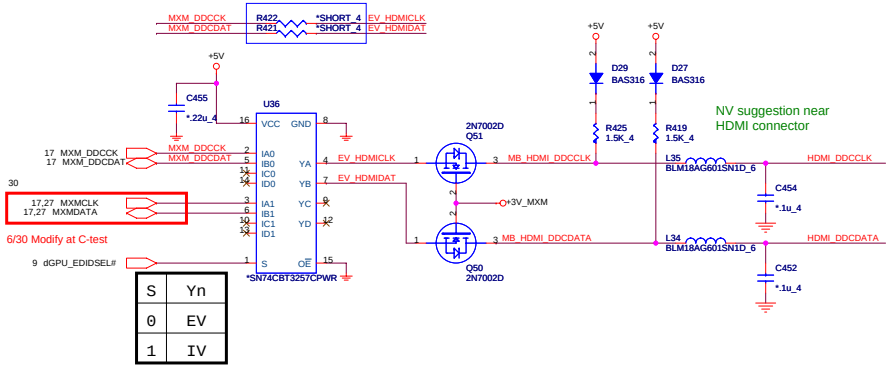
Close CN27

HDMI Hot-PLUG to SB and GPU



SDVO I2C Control

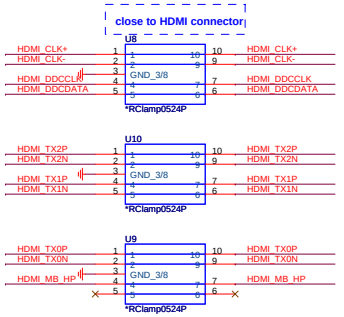
Bypass(default)



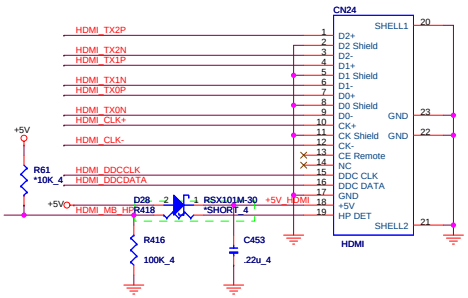
S	Yn
0	EV
1	IV

ESD Protect

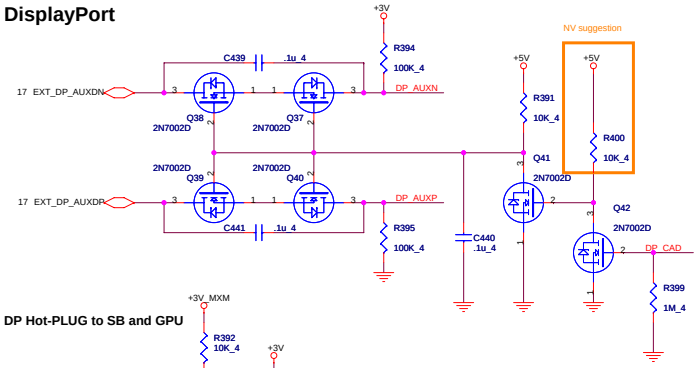
close to HDMI connector



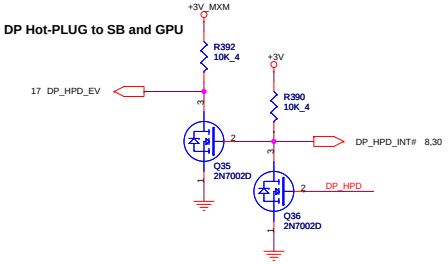
HDMI connector



DisplayPort



DP Hot-PLUG to SB and GPU

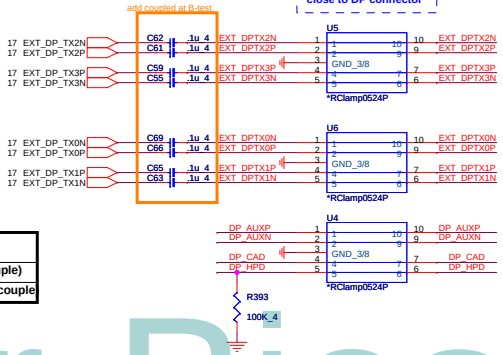


DP_CAD	Behavior
Low	DP signal (AC couple)
High	TMDS signal (DC couple

ESD Protect

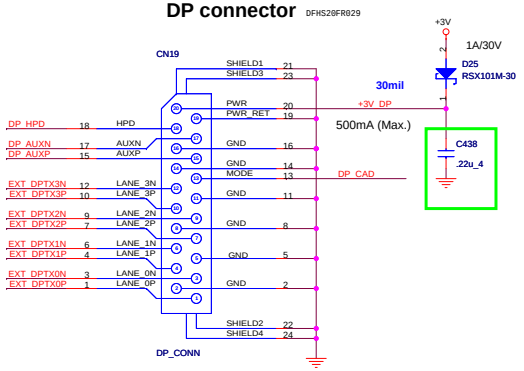
close to DP connector

add coupled at B-test



DP connector

DFHS20FR029



Quanta Computer Inc.
PROJECT : ZY9

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	HDMI/DP	3A

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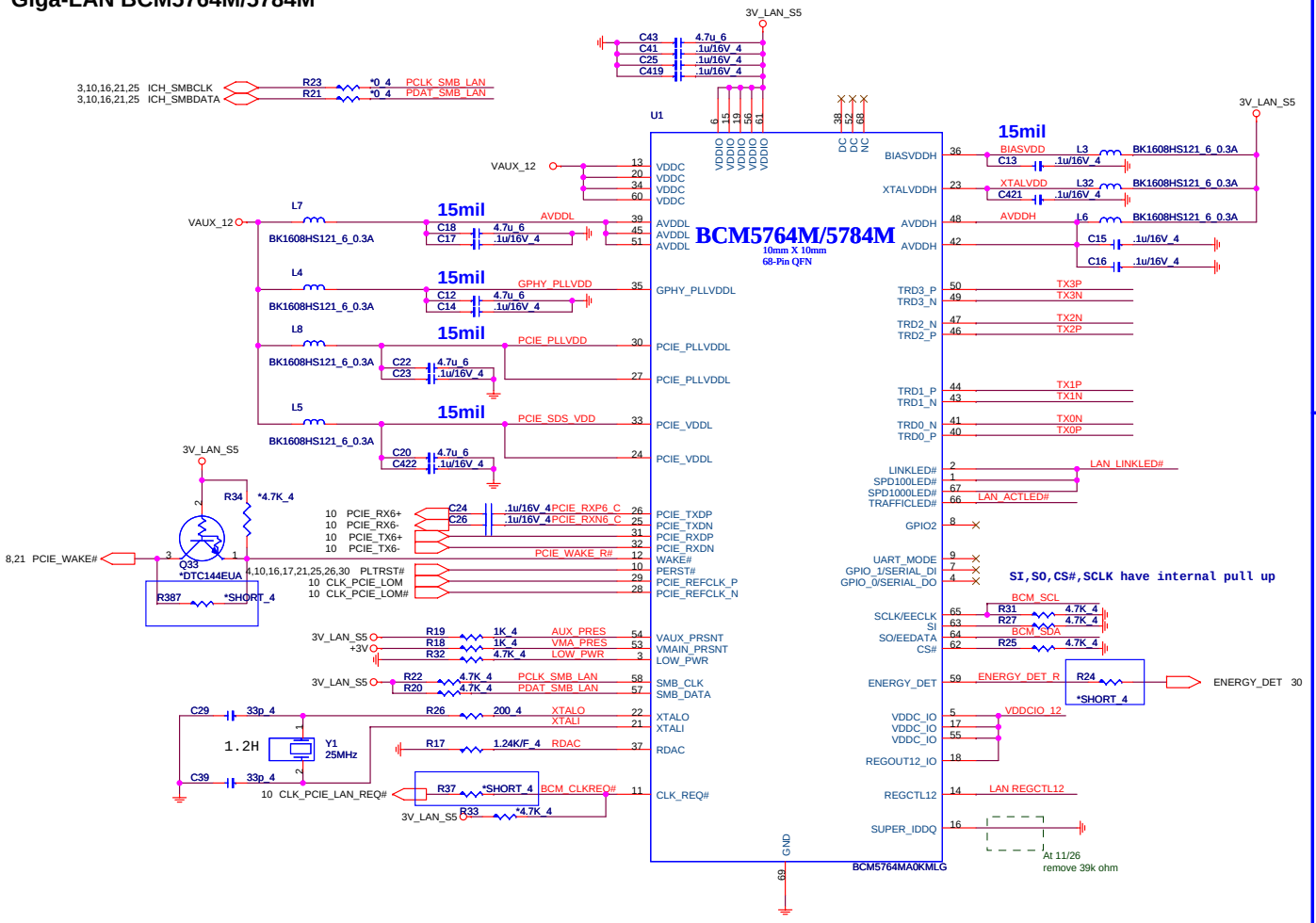
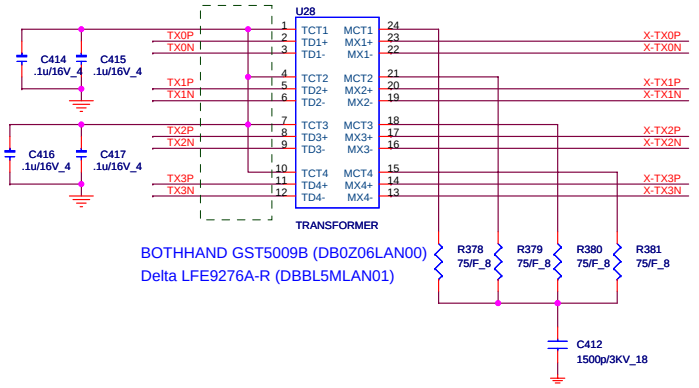
Giga-LAN BCM5764M/5784M

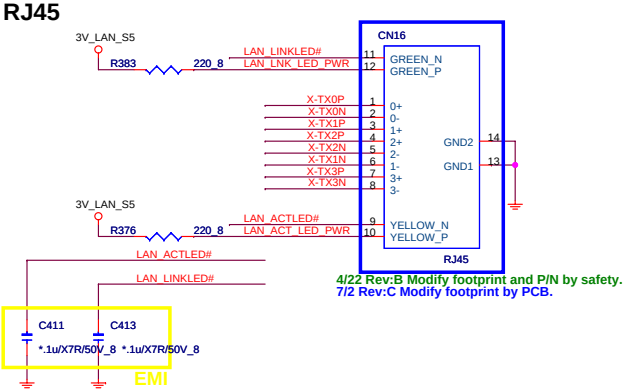


TRANSFORMER

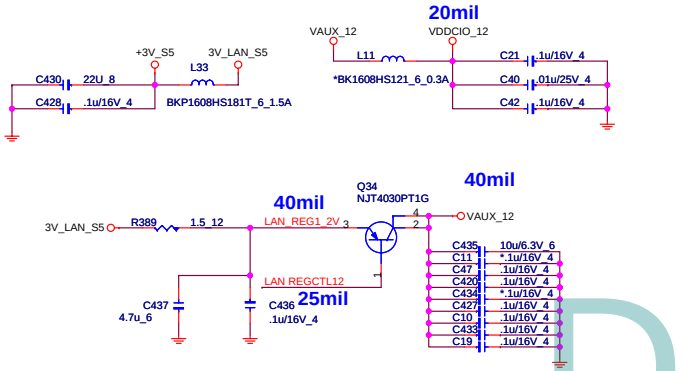
At 11/26
TCT1-4 pin connect toghter



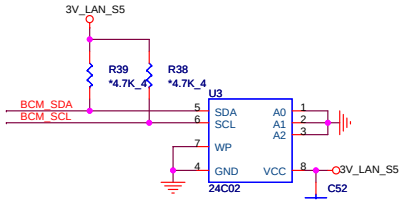
RJ45



LAN POWER



EEPROM



EEPROM Strapping

EEPROM Type	SO	SI	CS#	SCLK
24c02	1	0	0	0

Quanta Computer Inc.
PROJECT : ZY9

Size	Document Number	Rev
	LAN (BCM5764M/5784M)	3A

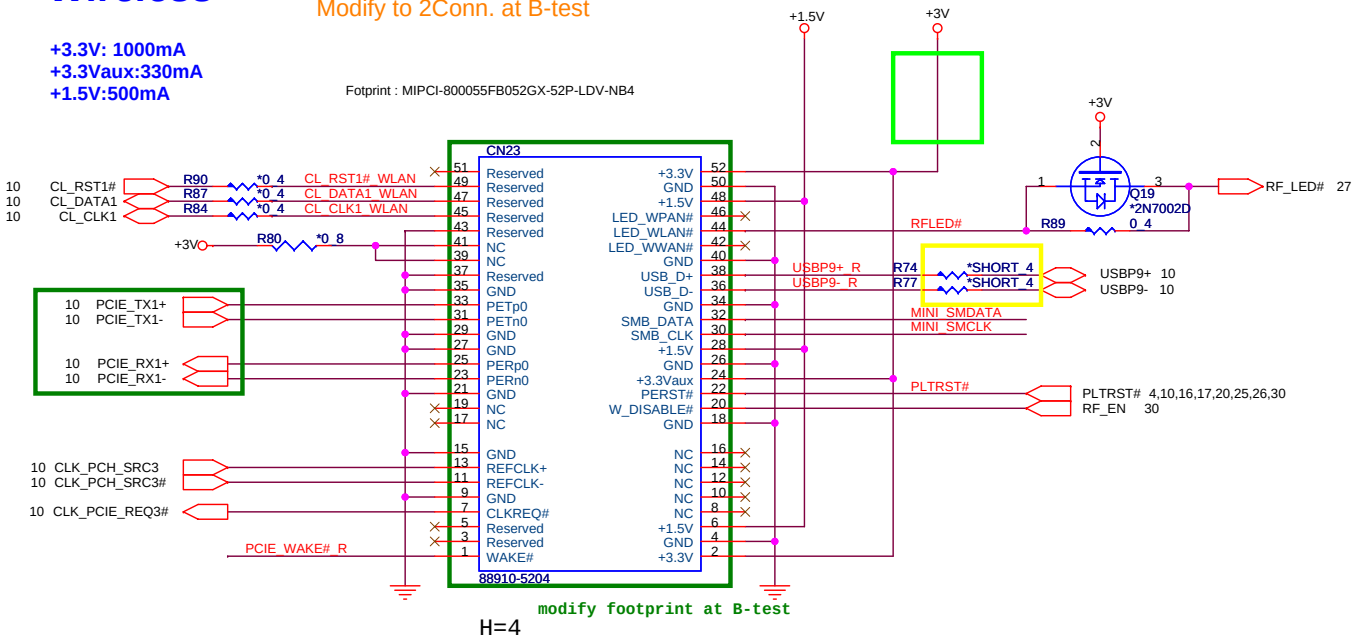
Date: Tuesday, August 18, 2009 Sheet 20 of 42

Wireless

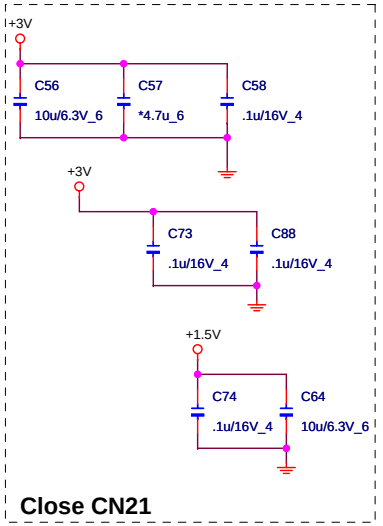
Modify to 2Conn. at B-test

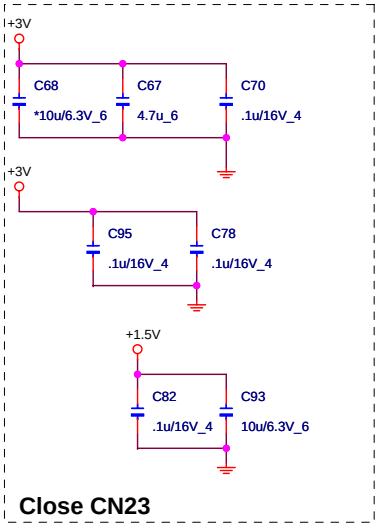
+3.3V: 1000mA
+3.3Vaux:330mA
+1.5V:500mA

Fotprint : MIPCI-800055FB052GX-52P-LDV-NB4



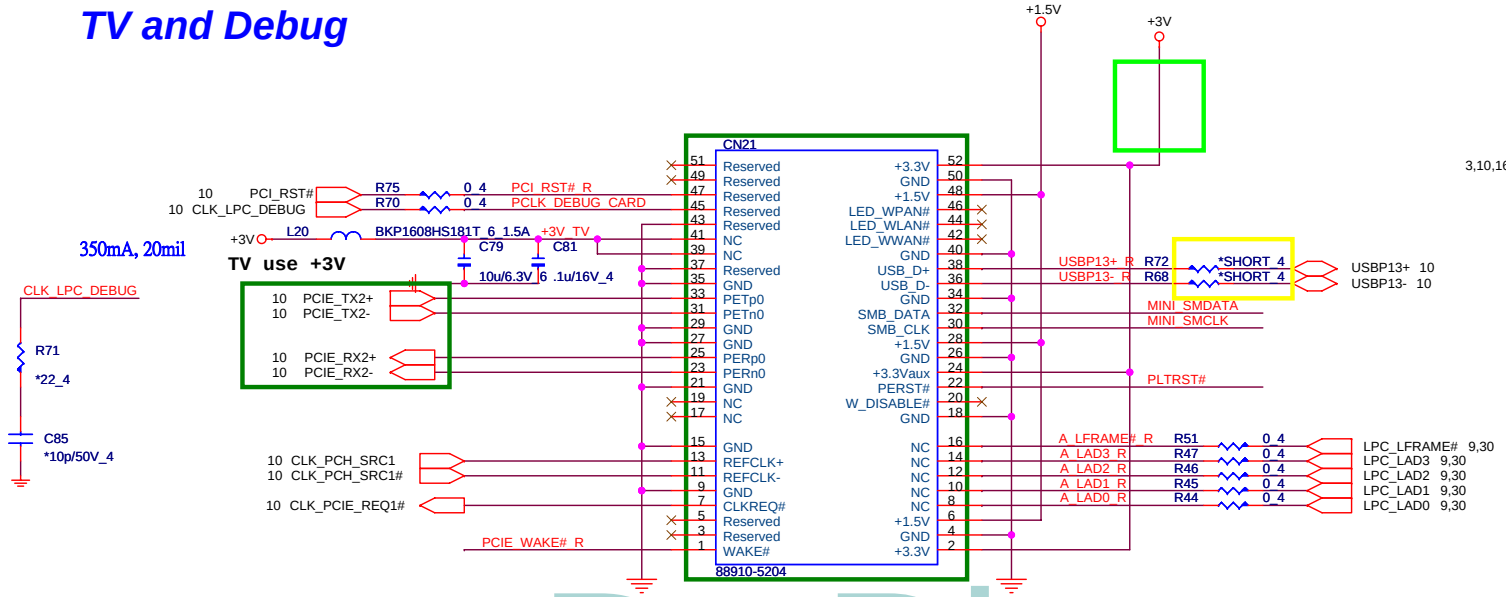
H=4



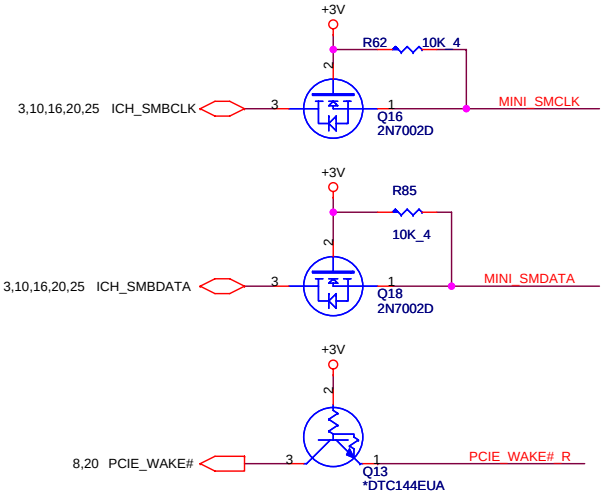


5/14 Change PCIE sequence beween CN21 and CN23 by BIOS at B-test.

TV and Debug



H=9



Quanta Computer Inc.		
PROJECT : ZY9		
Size	Document Number: MINI PCI-E card/TV	Rev: 3A
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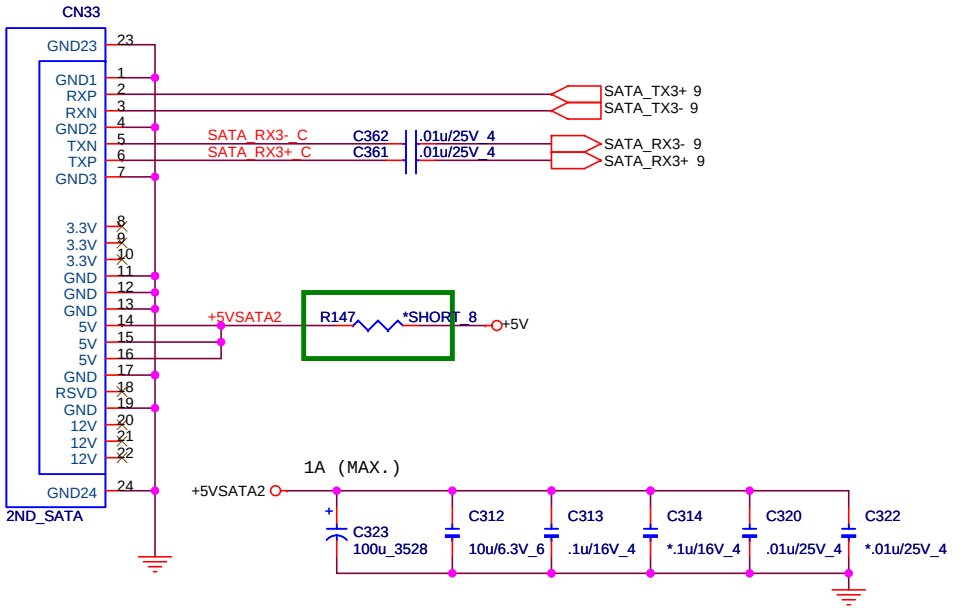
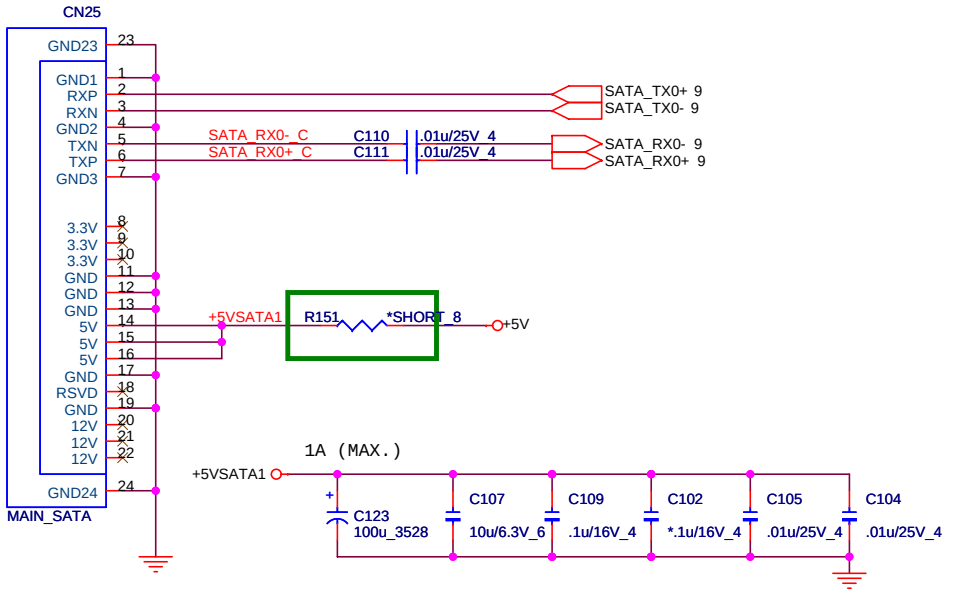
2nd SATA HDD (edge of board)

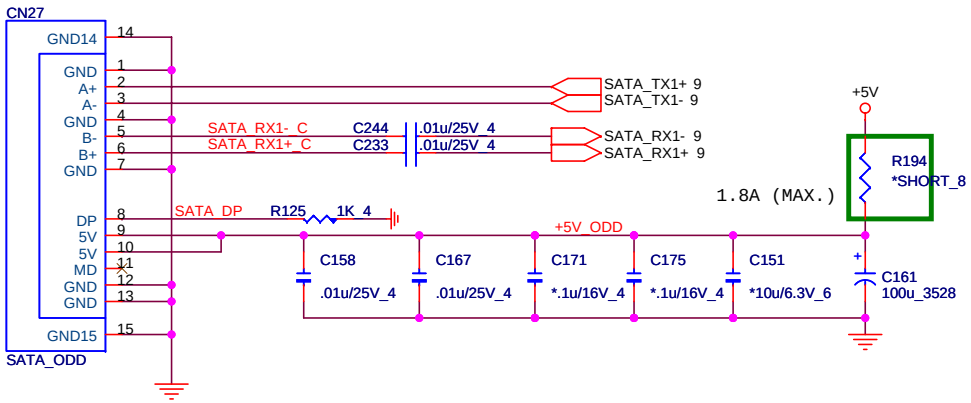


5/13 Add R147,R151,R197 for power consumption measure at B-test.

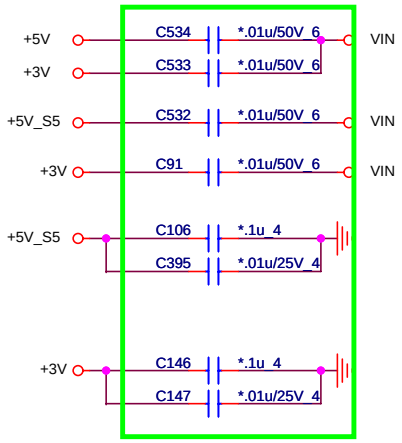
MAIN SATA HDD

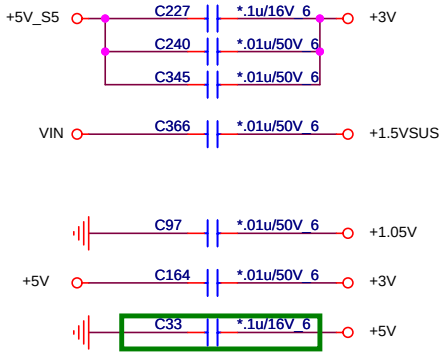


ODD (SATA)



EE RETURN-PATH CAPACITORS





5/14 Move to near C103 for EMI.

Quanta Computer Inc.

PROJECT : ZY9

Size	Document Number	Rev
	SATA-HDD/ODD	3A
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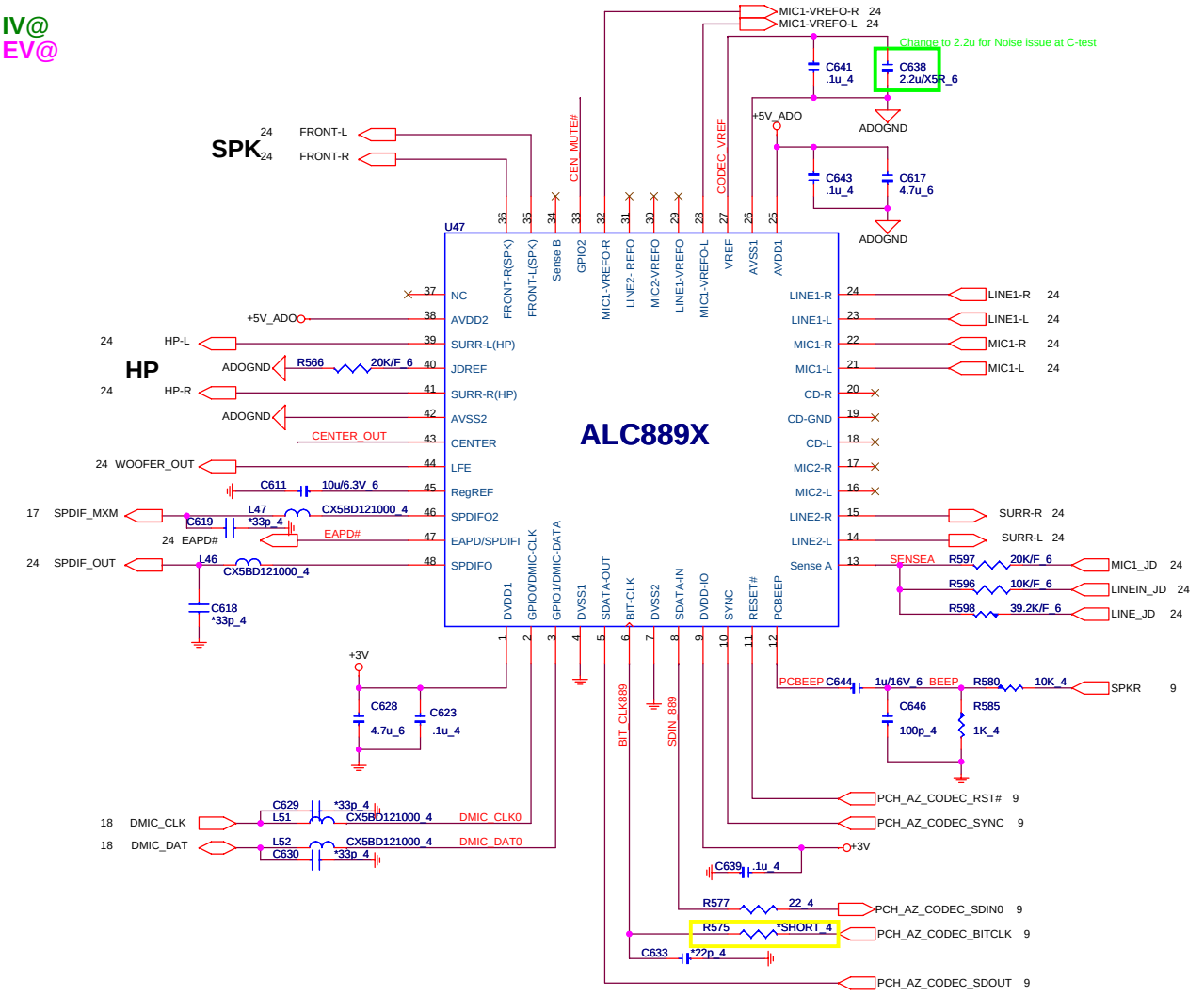
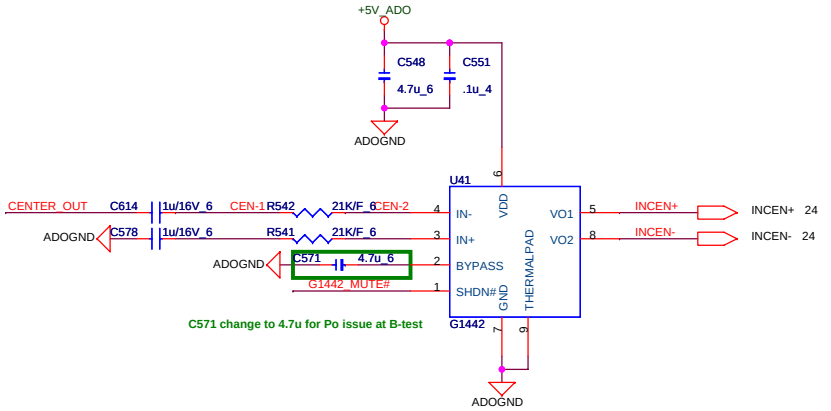
CODEC(ALC889X)

IV@
EV@

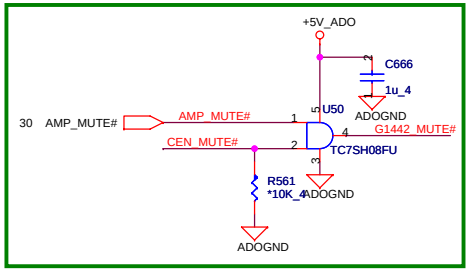


CENTER MONO

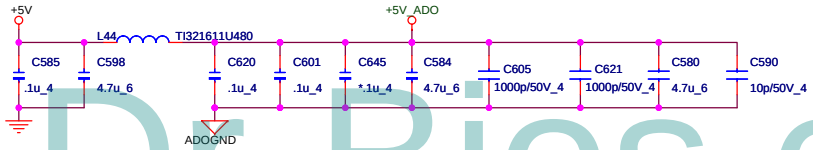


EAPD pin

5/11: Add U50, C666 and R561 for Po issue at B-test



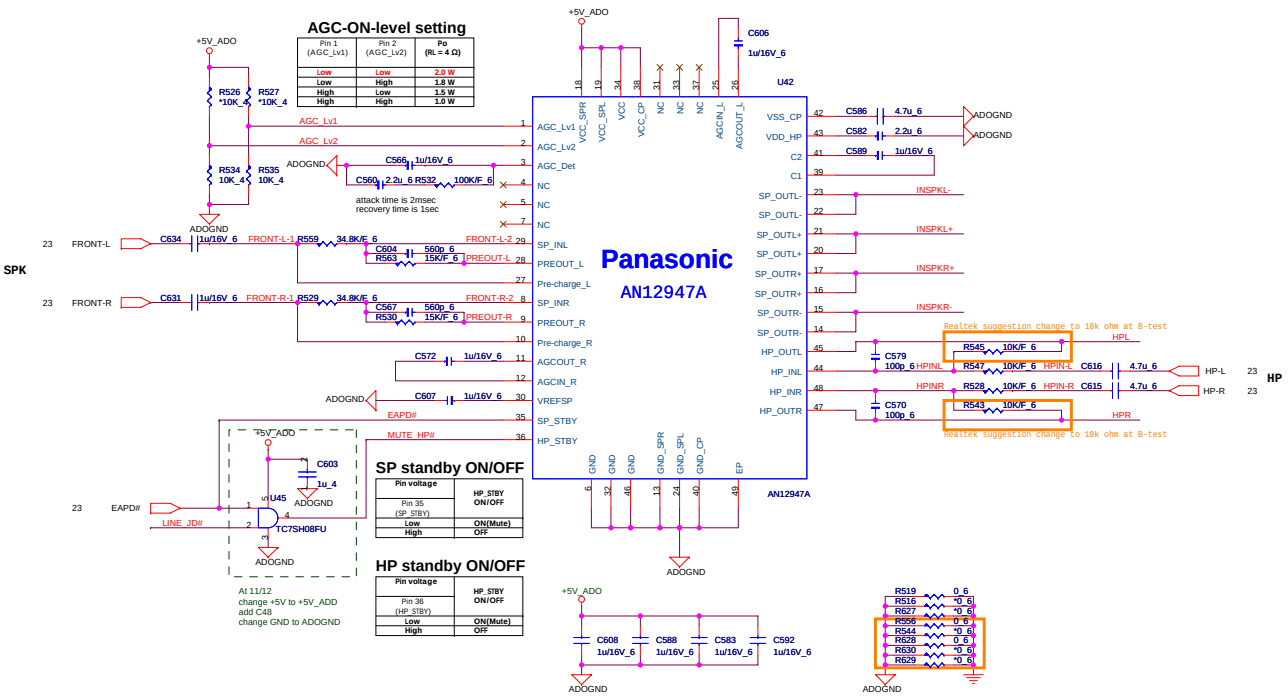
CODEC/AMP Power



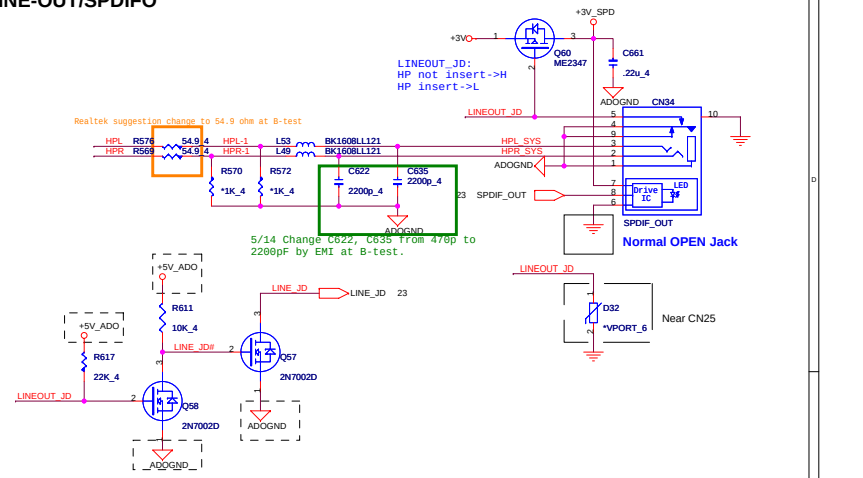
Quanta Computer Inc.
PROJECT : ZY9

Size	Document Number	Rev
	REALTEK ALC889X/MONO-AMP	3A
Date: Tuesday, August 18, 2009	Sheet 23 of 42	

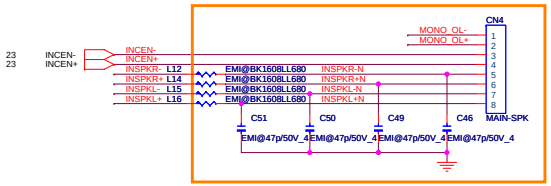
SPEAKER/HP AMP.



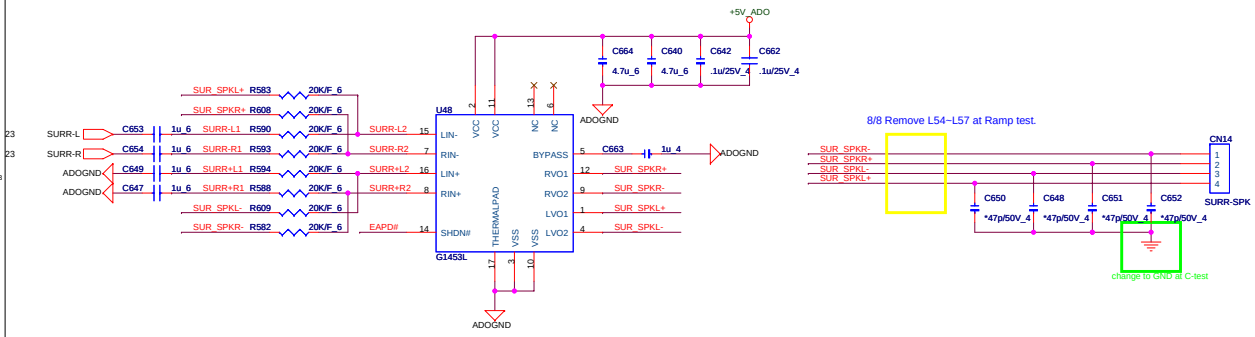
LINE-OUT/SPDIFO



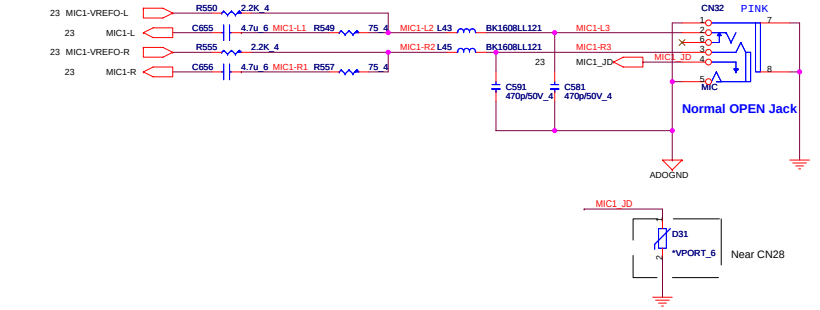
Main SPK/Center/Subwoofer EMI



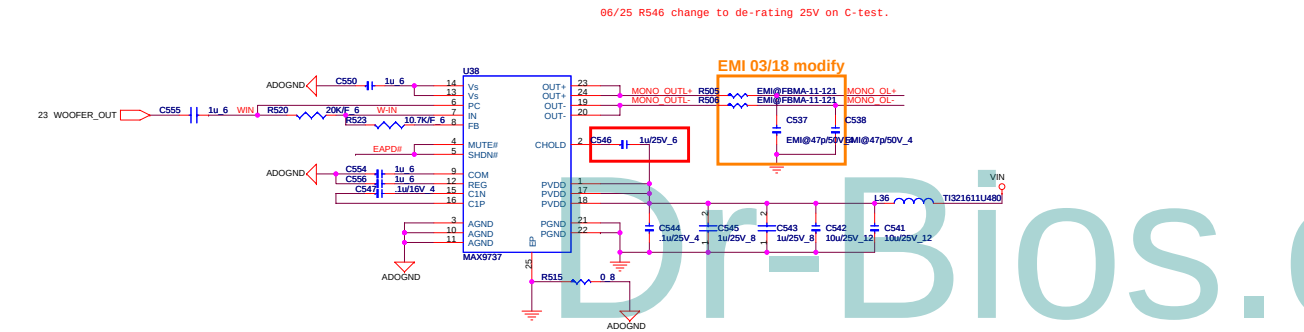
SURR-SPK



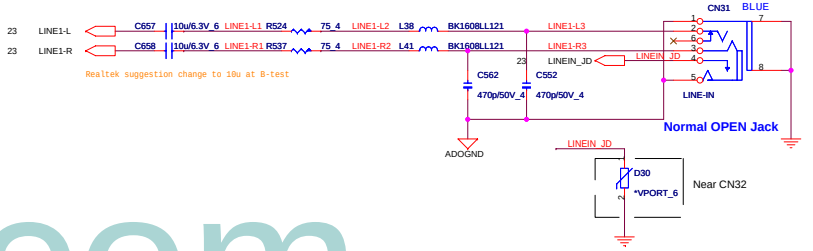
MIC



SUBWOOFER



LINE IN



Quanta Computer Inc.
PROJECT : ZY9
AMP/AUDIO JACK/WOOFER
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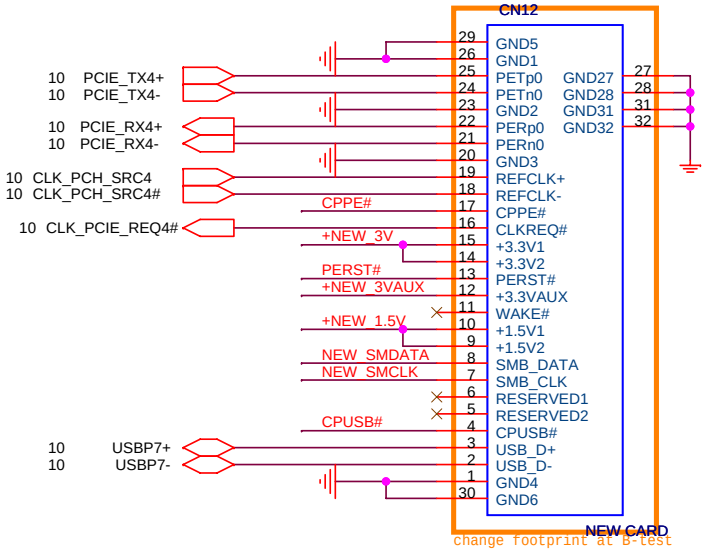
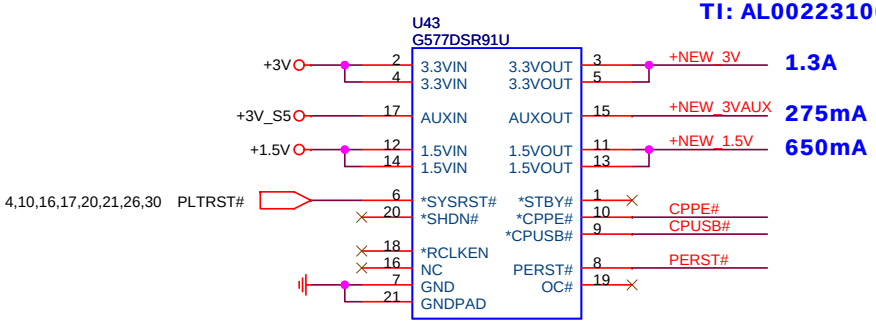
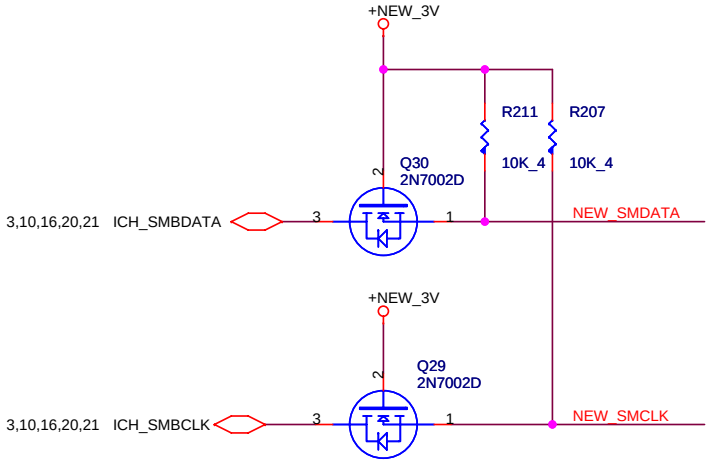
NEW CARD

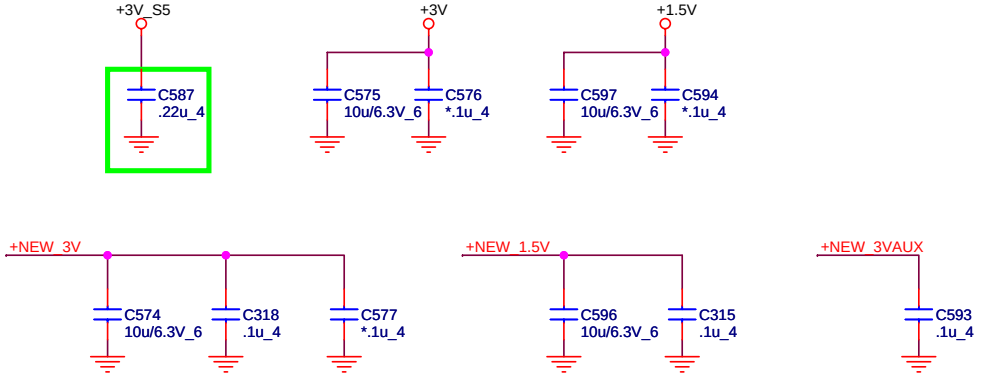


At 11/18
Change GMT cost down version.

NEW CARD'S POWER SWITCH **GMT: AL000577002**
TI: AL002231000







Quanta Computer Inc.
PROJECT : ZY9

Size	Document Number	Rev
	NEW CARD	3A
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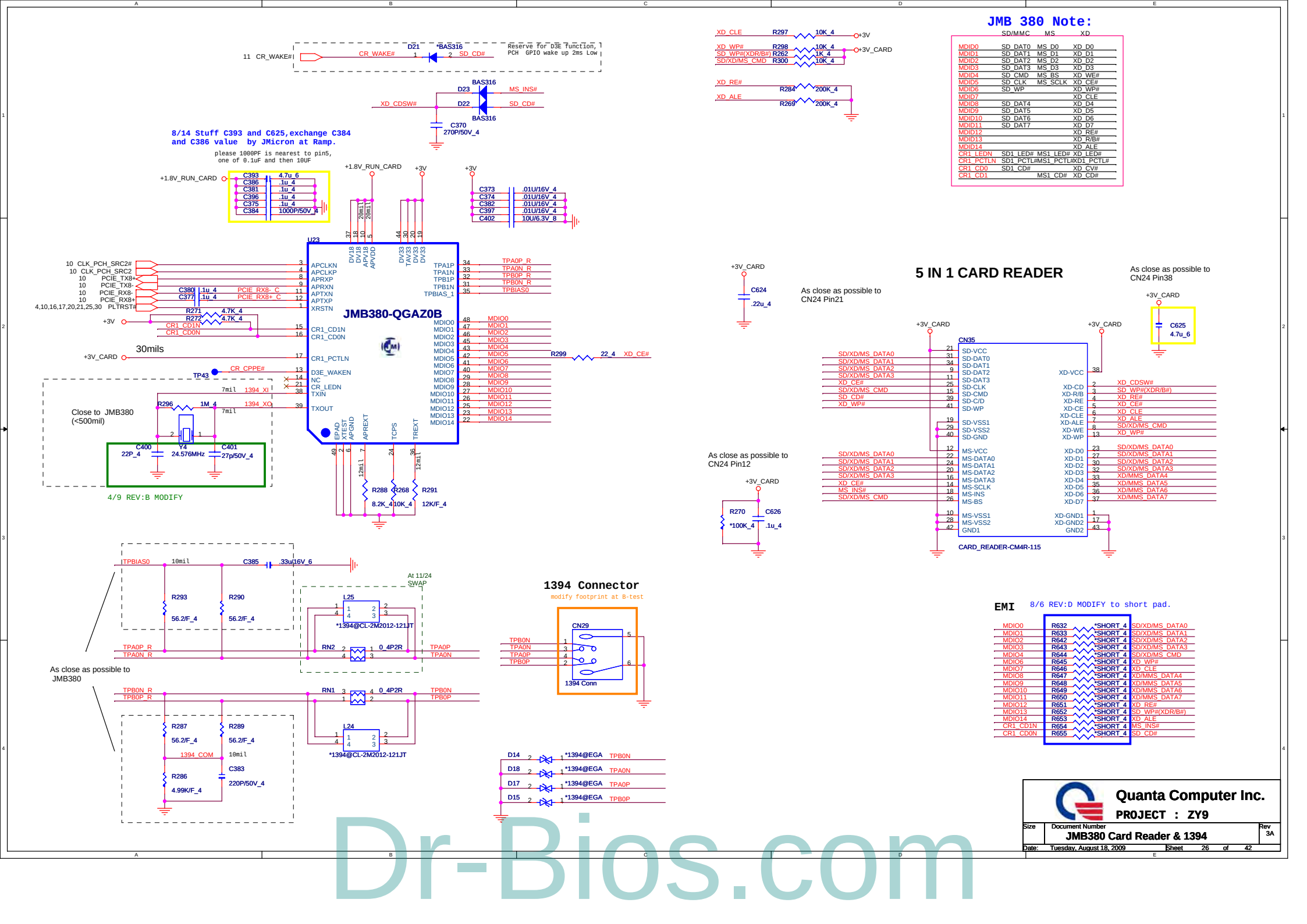
JMB 380 Note:
SD/MMC MS XD
MDID0 SD_DAT0 MS_D0 XD_D0
MDID1 SD_DAT1 MS_D1 XD_D1
MDID2 SD_DAT2 MS_D2 XD_D2
MDID3 SD_DAT3 MS_D3 XD_D3
MDID4 SD_CMD MS_BS XD_WE#
MDID5 SD_CLK MS_SCLK XD_CE#
MDID6 SD_WP XD_WP#
MDID7 XD_CLE
MDID8 SD_DAT4 XD_D4
MDID9 SD_DAT5 XD_D5
MDID10 SD_DAT6 XD_D6
MDID11 SD_DAT7 XD_D7
MDID12 XD_RE#
MDID13 XD_R/B#
MDID14 XD_ALE
CR1_LEDN SD1_LED# MS1_LED# XD_LED#
CR1_PCTLN SD1_PCTL# MS1_PCTL# XD1_PCTL#
CR1_CD0 SD1_CD# XD_CV#
CR1_CD1 MS1_CD# XD_CD#
8/14 Stuff C393 and C625,exchange C384 and C386 value by JMicron at Ramp.
please 1000PF is nearest to pin5, one of 0.1uF and then 10UF
JMB380-QGAZ0B
U23
5 IN 1 CARD READER
CN35
CARD_READER-CM4R-115
1394 Connector
modify footprint at B-test
CN29
1394 Conn
EMI
8/6 REV:D MODIFY to short pad.
Close to JMB380 (<500mil)
4/9 REV:B MODIFY
As close as possible to JMB380
As close as possible to CN24 Pin21
As close as possible to CN24 Pin12
As close as possible to CN24 Pin38
Quanta Computer Inc.
PROJECT : ZY9
JMB380 Card Reader & 1394
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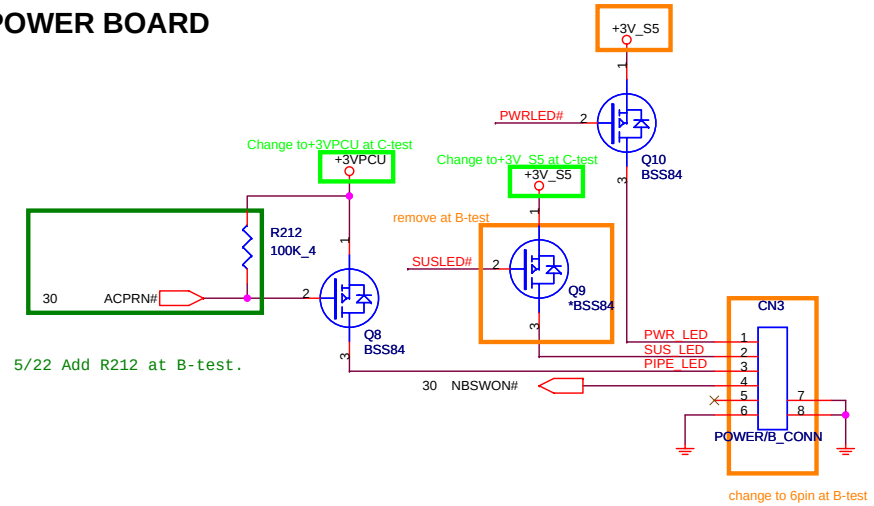
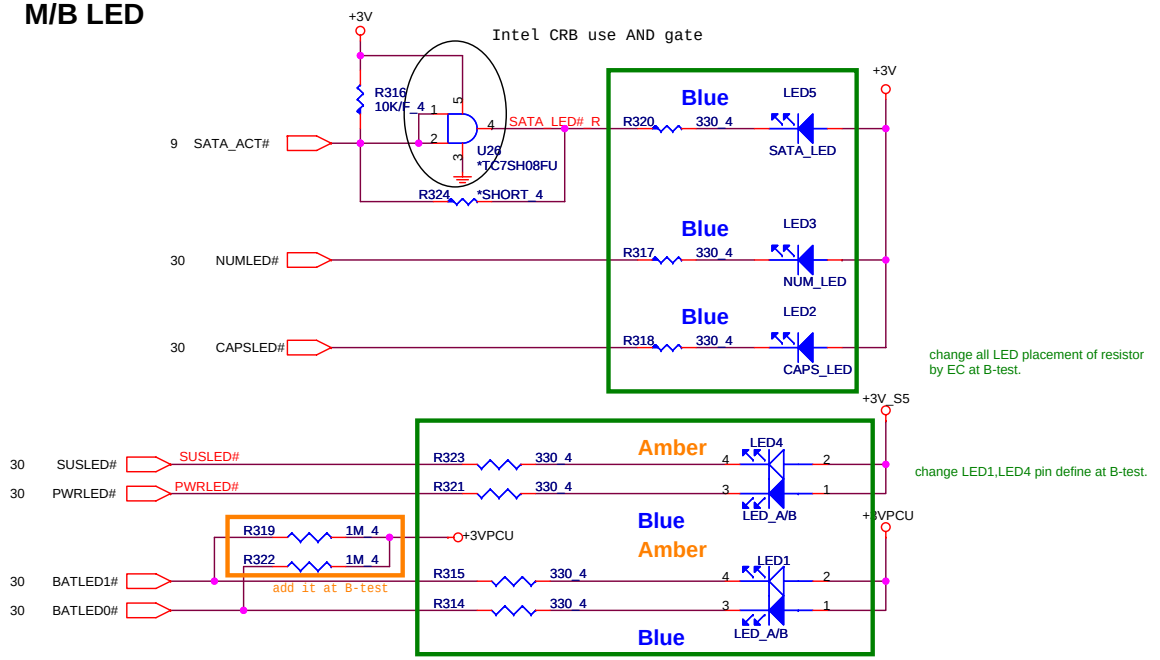
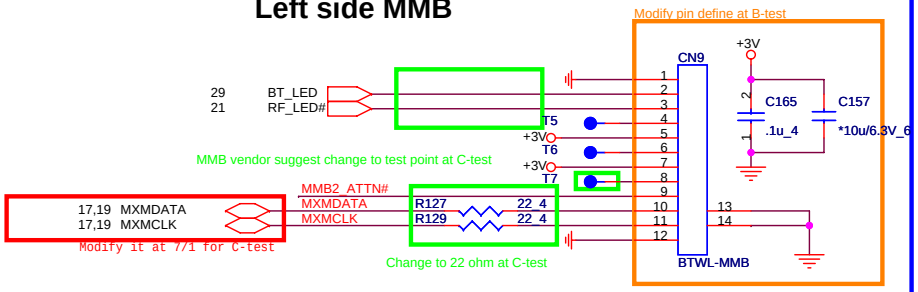
POWER BOARD

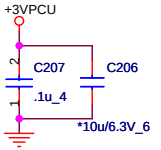


M/B LED

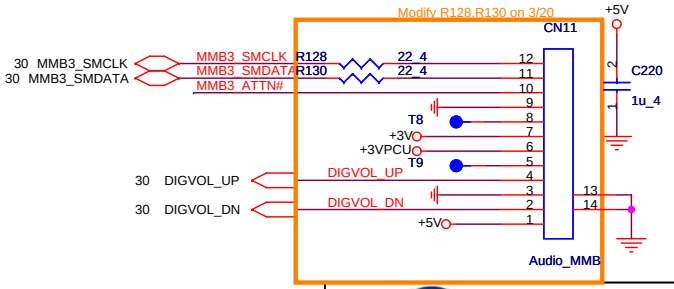


Left side MMB



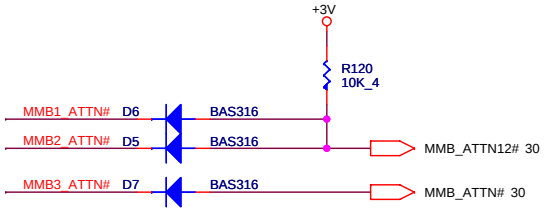


Right Side MMB

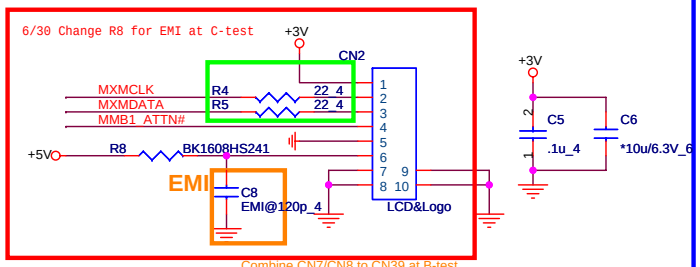


MXMCLK=MXM_SMCLK; MXMDATA=MXM_SMDATA12
MMB1 and MMB2 need add ISOLATE circuit where are on MXM page.

MMB Status



LCD BL_ON/OFF MMB & Backlight Logo LED



Quanta Computer Inc.		
PROJECT : ZY9		
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	POWER/MMB/LAUNCH/LED	3A
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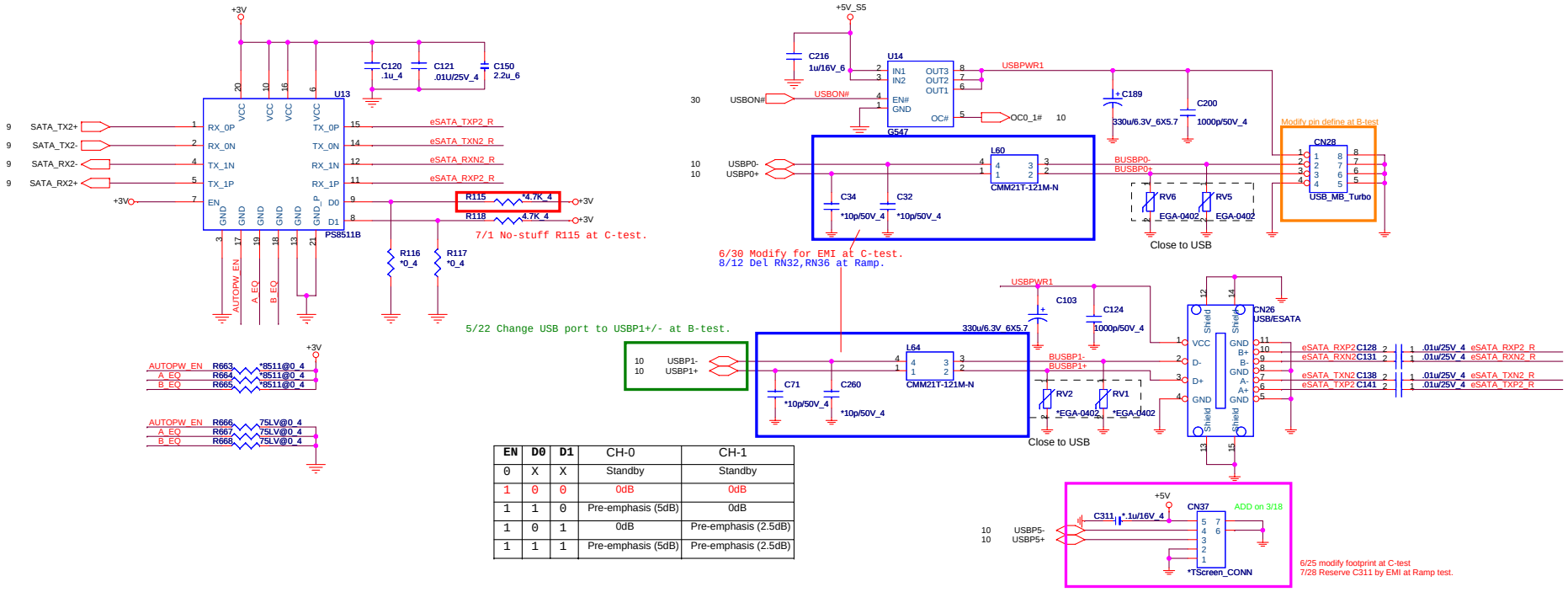
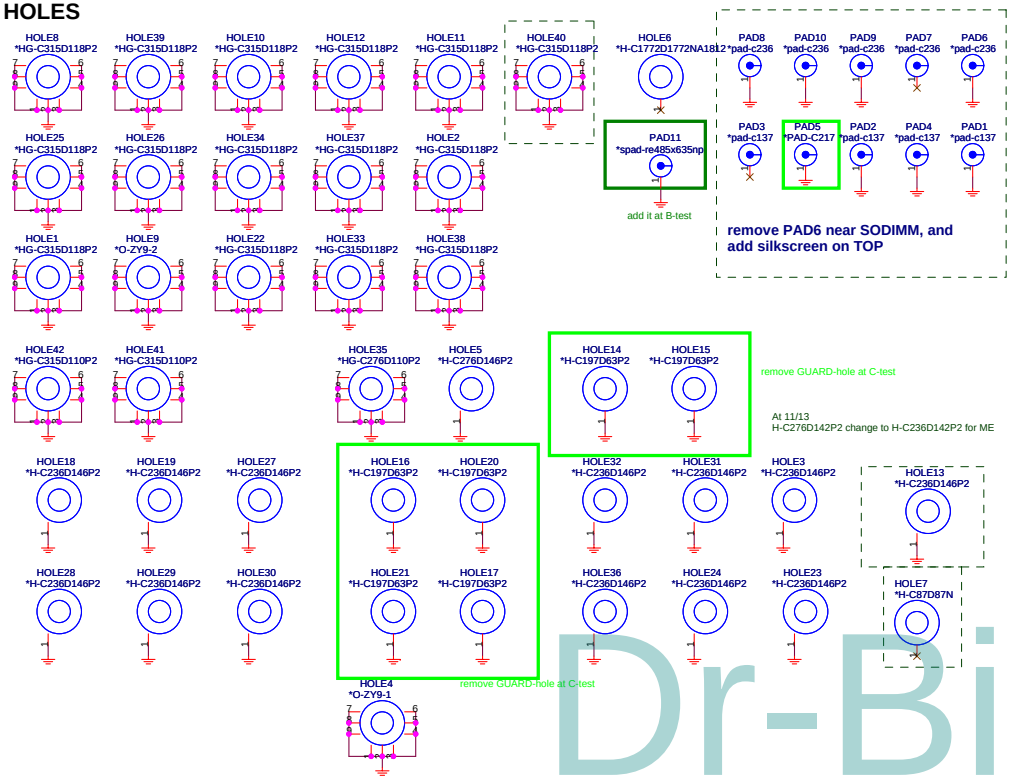
USB & ESATA

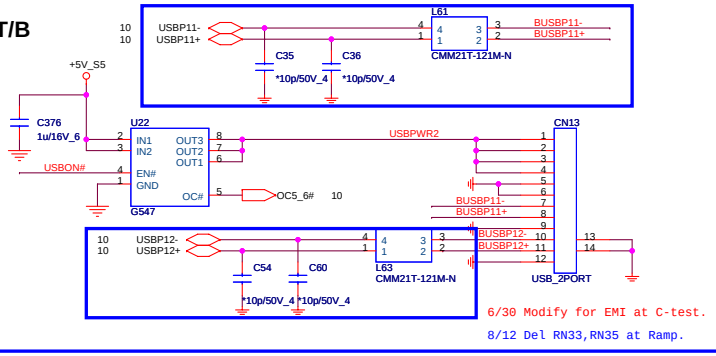


EN	D0	D1	CH-0	CH-1
0	X	X	Standby	Standby
1	0	0	0dB	0dB
1	1	0	Pre-emphasis (5dB)	0dB
1	0	1	0dB	Pre-emphasis (2.5dB)
1	1	1	Pre-emphasis (5dB)	Pre-emphasis (2.5dB)

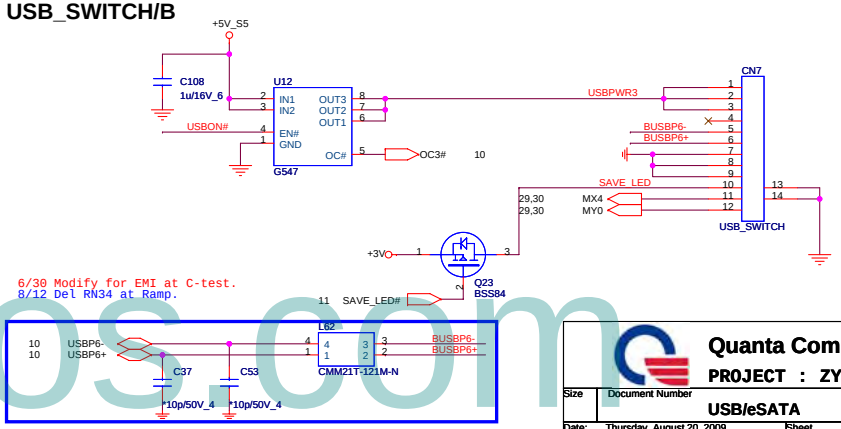
HOLES



USB_2PORT/B



USB_SWITCH/B



Quanta Computer Inc.
PROJECT : ZY9

Size	Document Number	Rev
	USB/eSATA	3A
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INT K/B

At 11/18 SWAP

CP6 CP5 CP1 CP2 CP3 CP4 *100p_8P4C

C75 C76 *100p_4

CN6 KB

RP2 10K_10P8R

TOUCHPAD & Finger-Printer CONN.

L21 BLM21P300S

R121 10K_4 R124 10K_4

C170 .1u/16V_4

20mil

L22 L23 LZA10-2ACB104MT

C177 *.01u/25V_4 C172 *.01u/25V_4

Q24 BSS84

CN10 TP_FP_CONN

RV3 RV4 *EGA-0402

add ESD protect at B-test

BLUETOOTH CONNECTOR

30mil

Q32 AO3413

C387 0.33u/10V_6 R292 47K_4 C399 2.2u_6 C394 1000p/50V_4

R294 4.7K_4

CN15 BT_CONN

C398 *.01u/16V_4

Keyboard LED control

U11 *G991

KBPWR = 1.6*VSET

C101 *2.2u_6 R114 *10K_4

C126 10u/6.3V_6 C132 .01u/25V_4

20mil

change pin define at B-test

CN8 KB_LED

check pin define

Q22 AO3413 R119 10K_4

Q21 DTC144EUA

7/2 Stuff Q22,Q21R119 and no stuff U11,C101 at C-test.

CPU FAN

R408 10K_4 R420 10K_4 R375 *0_4

Q49 MMBT3904

Q48 MMBT3904

R417 10K_4 R407 10K_4 R403 10K_4

CN20 FAN CONN

30mil

5/13 Reserve R375 by EC at B-test.

6/25 Stuff R375 by EC at C-test.

7/22 Un-stuff R375 by EC at Ramp.

Quanta Computer Inc.

PROJECT : ZY9

Size	Document Number	Rev
	KB/FAN/TP+FP/BT	3A

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EC

6/19 Change R196 to 2.2 by EC at C-test.

+3VPCU R196 2.2_6 +3VPCU_EC

0.03A(30mils)

L27 BK1608HS220_6_1A 30mil +A3VPCU

C265 .1u/16V_4 C267 10u/6.3V_6 E775AGND

C235 4.7u_6 C295 .1u/16V_4 C268 *.1u/16V_4 C263 .1u/16V_4 C250 *.1u/16V_4 C215 .1u/16V_4

U16 WPCE775

VCC1 VCC2 VCC3 VCC4 VCC5 AVCC VDD

LFRAME LAD0 LAD1 LAD2 LAD3 LCLK

9,21 LPC_LFRAME# 9,21 LPC_LAD0 9,21 LPC_LAD1 9,21 LPC_LAD2 9,21 LPC_LAD3 10 CLK_PCI_775

CLK_PCI_775 R168 *22_4 C255 *10p/50V_4

8 CLKRUN# 11 SIO_A20GATE 11 SIO_RCIN# 11 SIO_EXT_SCI# 18 EC_FPBACK# 37 +V1.1S1.5S_PWRGD 4,10,16,17,20,21,25,26 PLTRST# 28 USBON# 9 IRQ_SERIRQ 11 SIO_EXT_SMI#

GPIO011/CLKRUN GA20 KBRST ECSCI/GPIO54 GPIO24/LDRQ GPIO10/LPCPD LRESET GPIO67/PWUREQ SERIRQ GPIO65/SMI

D13 BAS16 SCI# uR

LPC_LFRAME# LPC_LAD0 LPC_LAD1 LPC_LAD2 LPC_LAD3 CLK_PCI_775 EC_FPBACK# +V1.1S1.5S_PWRGD PLTRST# USBON# IRQ_SERIRQ

LPC

Del R190 at C-test

29 MX0 29 MX1 29 MX2 29 MX3 28,29 MX4 29 MX5 29 MX6 29 MX7

KBSIN0 KBSIN1 KBSIN2 KBSIN3 KBSIN4 KBSIN5 KBSIN6 KBSIN7

28,29 MY0 29 MY1 29 MY2 29 MY3 29 MY4 29 MY5 29 MY6 29 MY7 29 MY8 29 MY9 29 MY10 29 MY11 29 MY12 29 MY13 29 MY14 29 MY15 29 MY16 29 MY17

KBSOUT0/JENK KBSOUT1/TCK KBSOUT2/TMS KBSOUT3/TDI KBSOUT4/JEN0 KBSOUT5/TDO KBSOUT6/RDY KBSOUT7 KBSOUT8 KBSOUT9 KBSOUT10 KBSOUT11 KBSOUT12/GPIO64 KBSOUT13/GPIO63 KBSOUT14/GPIO62 KBSOUT15/GPIO61/XOR_OUT GPIO60/KBSOUT16 GPIO57/KBSOUT17

KB

31 MBCLK 31 MBDATA 10 2ND_MBCLK 10 2ND_MBDATA

GPIO017/SCL1 GPIO022/SDA1 GPIO073/SCL2 GPIO074/SDA2

MBCLK MBDATA 2ND_MBCLK 2ND_MBDATA

SMB

29 TPCLK 29 TPDATA 8 PCH_ACIN 29 BT_POWERON# 34,35,36,37 MAINON 17 VGA_THERM#

GPIO037/PSCLK1 GPIO035/PSDAT1 GPIO026/PSCLK2 GPIO027PSDAT2 GPIO025/PSCLK3 GPIO012/PSDAT3

TPCLK TPDATA PCH_ACIN BT_POWERON#

PS/2

8 ICH_SUSCLK R457 *781@0_6 E775_32KX1

32KX1/32KCLKIN

R156 20M_6 E775_32KX2 32KX2

R158 33K/F_4 Y2 32.768KHz C248 15p_4 C251 15p_4 E775AGND

4/23 Add net PCH_ACIN connet to PCH at REV:B

GND1 GND2 GND3 GND4 GND5 GND6 AGND VCORF

C249 .1u/16V_4 C266 .1u/16V_4 L26 BK1608HS220_6_1A E775AGND C219 1u_4

VCORF_uR_44

change footprint to lqfp128-16x16-4-zy8 at C-test

A/D

GPI90/DA0 GPI91/AD1 GPI92/AD2 GPI93/AD3 GPO05/AD4 GPO04/AD5

TEMP_MBAT 31 SML1ALERT# 10,11,29 TPD_TRIP ICMNT 31 DIGVOL_UP 27 DIGVOL_DN 27

D/A

GPI94/DA0 GPI95/DA1 GPI96/DA2 GPI97/DA3

S5_DIS 32 KB_LED 29 TP_LED# 29 MAINON_DIS 37

GPIO

GPIO01/TB2 GPIO03/AD6 GPIO06 GPIO07/AD7 GPIO23/SCL3 GPIO30/CIRTX2 GPIO31/SDA3 GPIO32/D_PWM GPIO33/H_PWM GPIO36/TB3 GPIO40/F_PWM GPIO42/TCK GPIO43/TMS GPIO44/TDI GPIO45/E_PWM GPIO46/CIRRXM/TRST GPIO47/SCL4 GPIO50/TDO GPIO51/TA3 GPIO52/CIRTX2/RDY GPIO53/SDA4 GPIO81 GPO82/TRIS GPO84/BADDR0 GPIO41

NBSWON# R D42 BAS16 LID591# MMB3_SMCLK MMB3_SMDATA BATLED0# BATLED1# SUSLED# DDR3_DRAMRST#_EC CL_RST_OUT BADDR0_EC_R

ACIN 17,31 NBSWON# 27 LID591# 18,29 SUSB# 8 MMB3_SMCLK 27 ACPRN# 27 MMB3_SMDATA 27 BATLED0# 27 BATLED1# 27 VRON 33 SUSLED# 27 MXMPWR_EN 17 DDR3_DRAMRST#_EC 11,17 CPUPWR# 23 MMB_ATTN# 27 MXM_SMCLK12 17 D/C# 31 S5_ON 32,41 HDMI_HPD_INT# 19 MXM_SMDATA12 17 DNBSWON# 8 T11 DP_HPD_INT# 8,19

5/19 Add D42 near JP1 at B-test.

Modify Net name on 3/17

TIMER

GPIO56/TA1 GPIO20/TA2 GPIO14/TB1

MMB_ATTN12# 27 SUSON 36 FANSIG 29

GPIO15/A_PWM GPIO21/B_PWM GPIO13/C_PWM GPIO66/G_PWM

NUMLED# PWRLED# CAPSLED#

CONTRAST 18 NUMLED# 27 PWRLED# 27 CAPSLED# 27

SPI

GPIO77/SPI_DI GPO76/SPI_DO/SHBM GPIO75/SPI_SCK

CRT_SENSE# SHBM_R

CRT_SENSE# 18 ENERGY_DET 20

Modify Net name on 3/17

IR

GPIO72/IRRX1/SIN2 GPIO70/IRRX2_IRSL0 GPIO71/IRTX/SOUT2 GPIO87/CIRRXM/SIN_CR GPIO34/CIRRXL GPIO16/CIRTX GPO83/SOUT_CR/BADDR1

RSMRST#_uR PWROK_EC_uR CIRR_X2 HWPG BADDR1_EC_R

R148 *SHORT_4 R145 *SHORT_4

ICH_RSMRST# 8 SUSC# 8,14 PWROK_EC 8 RF_EN 21

FIU

F_SDI F_SDO F_CS0 F_SCK

SPI_SDI_uR SPI_SDO_uR_R SPI_CS0#_uR SPI_SCK_uR_R

R163 22_4 SPI_SDO_uR R169 22_4 SPI_SCK_uR

GPIO55/CLKOUT VCC_POR VREF

ECDB_CLOCK VCC_POR# VREF_uR

T10 R161 47K/F_4 +3VPCU R172 *SHORT_4 A3VPCU

7/22 Reserve C282 near EC on top side.

ICMNT C282 *4.7u_6 E775AGND

D16 BAS316 C254 4.7u_6 C252 .1u/16V_4

7/22 Add C281 near EC on top side.

C281 0.01u/50V_6 E775AGND

Near TP on TOP side

+3V R179 47K_6 RT1 THERMISTOR_100K/1%(NTC) E775AGND

SM BUS ARRANGEMENT TABLE

SM Bus 1	Battery
SM Bus 2	CPU Thermal 1 (98h) and CPU Thermal 2 (9Ah)
SM Bus 3	MMB3 and EEPROM (+3VPCU)
SM Bus 4	MMB1, MMB2 and VGA Thermal (+3V)

I/O ADDRESS SETTING

BADDR1-0	I/O Address	
0 0	XOR TREE TEST MODE	
0 1	CORE DEFINED	
1 0	2Eh	2Fh
1 1	164Eh	164Fh

SHBM=0: Enable shared memory with host BIOS

BADDR0 BADDR0_EC_R R188 10K_4

BADDR1 BADDR1_EC_R R181 *10K_4

SHBM SHBM_R R160 10K_4

7/1 Add R12 by EC at C-test. SPI_SDI_uR R12 100K_4

1/13 Comfirm by vendor mail :
Disabled ('1') if using FWH device on LPC.
Enabled ('0') if using SPI flash for both system BIOS and EC firmware

SM BUS PU

+3VPCU

MBCLK R141 10K_4
MBDATA R136 10K_4
MMB3_SMCLK R173 10K_4
MMB3_SMDATA R174 10K_4

+3V

CRT_SENSE# R162 *10K_4
2ND_MBCLK R132 10K_4
2ND_MBDATA R133 10K_4
MXM_SMCLK12 R152 2.2K_4
MXM_SMDATA12 R153 2.2K_4

change to 10K ohm.
2nd MBCLK/MBDATA and MXM_SMCLK12/MXM_SMDATA12 PU to +3V at B-test

ACER ID

+3VPCU Change to PU +3VPCU at C-test

MMB3_SMCLK MMB3_SMDATA

U15 *24C02 SCL SDA A0 A1 A2 WP VCC GND

C192 .1u/16V_4

5/14 Stuff C192 by EMI at B-test

SPI FLASH

+3VPCU

SPI_SDI_uR R164 22_4 SPI_SDI_uR_R

R16 100K_4 8/17 Add R16 by EC at Ramp

SPI_SDO_uR SPI_SCK_uR +3VPCU R165 10K_4 SPI_CS0#_uR

U18 W25X16AVSSIG SO SI SCK CE VDD HOLD WP VSS

C294 .1u/16V_4

1/13 Comfirm by vendor mail :
If the Southbridge enables 'Long Wait Abort' by default, the flash device should be 50MHz (or faster)

At 11/24 add

Winbond	W25X16AVSSIG	AKE38ZP0N01
MXIC	MX25L1605AM2C-15G	AKE37P0Z13
EON	EN25F16-100HIP	AKE38ZA0Q00
AMIC	A25L016	AKE38ZN0800

HWPG

+3V R134 10K_4

37 HWPG_1.8V D11 BAS316
34,35,37 HWPG_1.05V D12 BAS316
36 HWPG_1.5V D10 *BAS316
32 SYS_HWPG D9 BAS316

HWPG R126 0_4 MPWROK 4,16

ESD Protection

D34	*VARISTOR ESD	BT_POWERON#	
D35	*VARISTOR ESD	LID591#	Near CN10.11
D36	*VARISTOR ESD	NUMLED#	Near R317
D37	*VARISTOR ESD	PWRLED#	Near R321
D38	*VARISTOR ESD	SUSLED#	Near R323
D39	*VARISTOR ESD	CAPSLED#	Near R318
D40	*VARISTOR ESD	BATLED0#	Near R319
D41	*VARISTOR ESD	BATLED1#	Near R320

5/12 Reserve ESD components by EC vendor at B-test

VR Cap.

+3V R170 *10K_4 R180 *10K_4 DIGVOL_UP DIGVOL_DN C257 .1u/16V_4 C262 .1u/16V_4

Place two near EC

POWER-ON Switch

NBSWON# JP1 *SHORT PAD

CIR

+3VPCU +3V_S5 R637 *10K_4 CIRR_X2 C665 4.7U/10V_8 U49 VCC OUT GND GND D33 *VPORT_6 CIR@IRM-V538-TR1 Change Footprint at C-test

INTERNAL KEYBOARD STRIP SET

+3VPCU MY0 R131 10K_4

Quanta Computer Inc.
PROJECT : ZY9

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	WPCE775C_0DG & FLASH	3A

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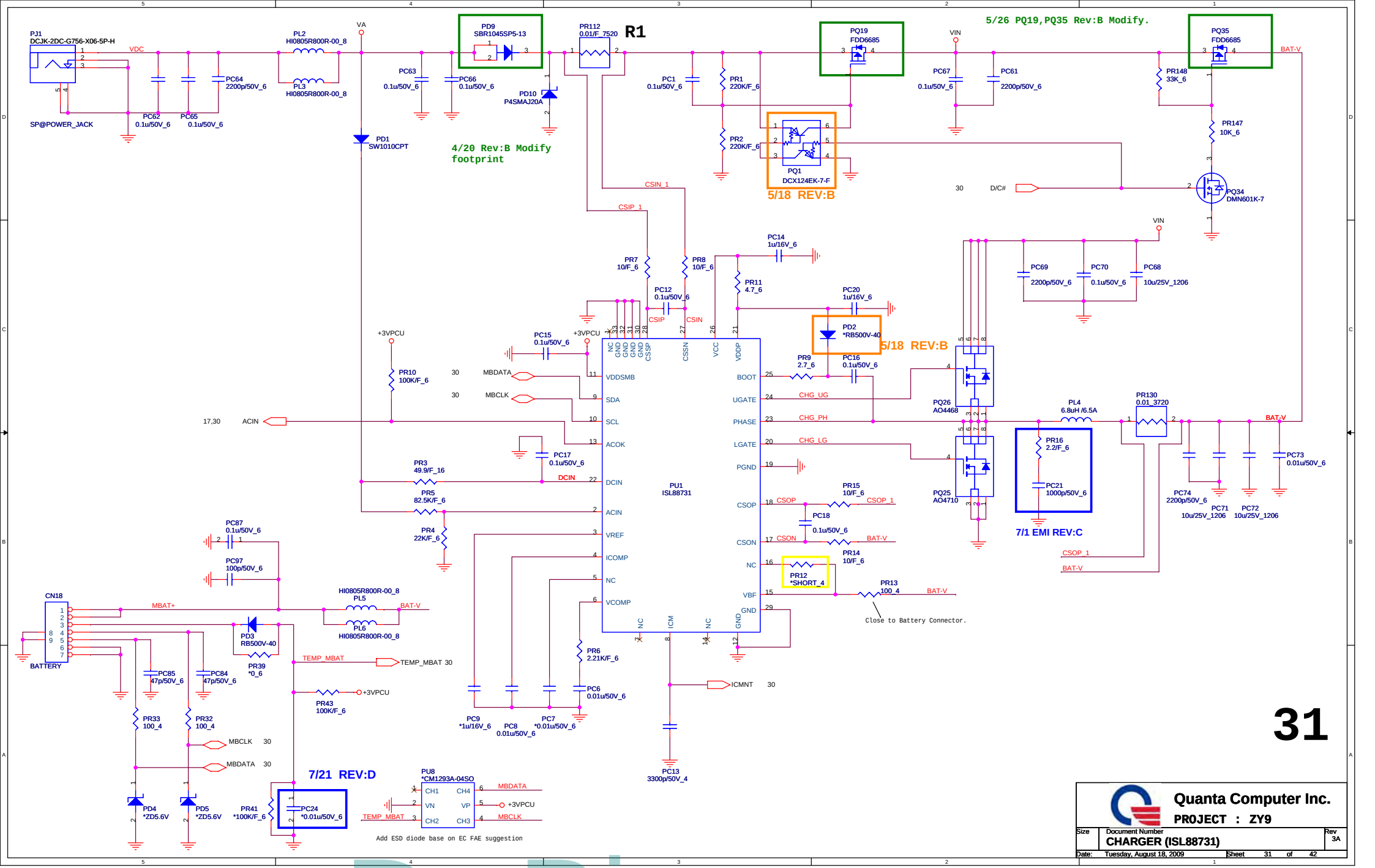
5/26 PQ19,PQ35 Rev:B Modify.
R1
4/20 Rev:B Modify footprint
5/18 REV:B
5/18 REV:B
7/1 EMI REV:C
7/21 REV:D
Close to Battery Connector.
Add ESD diode base on EC FAE suggestion
PU1 ISL88731
PJ1 DCJK-2DC-G756-X06-5P-H
SP@POWER_JACK
BATTERY
CN18
PQ1 DCX124EK-7-F
PQ19 FDD6685
PQ35 FDD6685
PQ34 DMN601K-7
PQ26 AO4468
PQ25 AO4710
PD1 SW1010CPT
PD2 *RB500V-40
PD3 RB500V-40
PD4 *ZD5.6V
PD5 *ZD5.6V
PD9 SBR1045SP5-13
PD10 P4SMAJ20A
PU8 *CM1293A-04SO
PL2 HI0805R800R-00_8
PL3 HI0805R800R-00_8
PL4 6.8uH /6.5A
PL5 HI0805R800R-00_8
PL6 HI0805R800R-00_8
PR112 0.01/F_7520
PR1 220K/F_6
PR2 220K/F_6
PR3 49.9/F_16
PR4 22K/F_6
PR5 82.5K/F_6
PR6 2.21K/F_6
PR7 10/F_6
PR8 10/F_6
PR9 2.7_6
PR10 100K/F_6
PR11 4.7_6
PR12 *SHORT_4
PR13 100_4
PR14 10/F_6
PR15 10/F_6
PR16 2.2/F_6
PR33 100_4
PR32 100_4
PR39 *0_6
PR41 *100K/F_6
PR43 100K/F_6
PR130 0.01_3720
PR147 10K_6
PR148 33K_6
PC1 0.1u/50V_6
PC6 0.01u/50V_6
PC7 *0.01u/50V_6
PC8 0.01u/50V_6
PC9 *1u/16V_6
PC12 0.1u/50V_6
PC13 3300p/50V_4
PC14 1u/16V_6
PC15 0.1u/50V_6
PC16 0.1u/50V_6
PC17 0.1u/50V_6
PC18 0.1u/50V_6
PC20 1u/16V_6
PC21 1000p/50V_6
PC24 *0.01u/50V_6
PC61 2200p/50V_6
PC62 0.1u/50V_6
PC63 0.1u/50V_6
PC64 2200p/50V_6
PC65 0.1u/50V_6
PC66 0.1u/50V_6
PC67 0.1u/50V_6
PC68 10u/25V_1206
PC69 2200p/50V_6
PC70 0.1u/50V_6
PC71 10u/25V_1206
PC72 10u/25V_1206
PC73 0.01u/50V_6
PC74 2200p/50V_6
PC84 47p/50V_6
PC85 47p/50V_6
PC87 0.1u/50V_6
PC97 100p/50V_6
VA
VDC
VIN
BAT-V
MBATT+
+3VPCU
ACIN
MBDATA
MBCLK
DCIN
CSIN_1
CSIP_1
CSIP
CSIN
CHG_UG
CHG_PH
CHG_LG
CSOP
CSOP_1
CSON
BAT-V
ICMNT
TEMP_MBAT
TEMP_MBAT 30
D/C#
30
17,30
NC
GND
CSSP
CSSN
VCC
VDDP
VDDSMB
SDA
SCL
ACOK
DCIN
ACIN
VREF
ICOMP
NC
VCOMP
BOOT
UGATE
PHASE
LGATE
PGND
CSOP
CSON
NC
VBF
GND
NC
ICM
NC
GND
CH1
CH4
VN
VP
CH2
CH3
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Quanta Computer Inc.
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CHARGER (ISL88731)
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3A
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[PWM] MAIND → MAIND 36,37

COMPLEX MARGIN TEST:

For ISL6237 ADJ
mount PR92 , PR80 , PR108 , PR95
No mount PR88 , PR83

For RT8206 ADJ
mount PR88 , PR83 , PR108 , PR95
No mount PR92 , PR80

For ISL6237 & RT8206 Fix
mount PR92 , PR108 , PR80
No mount PR88 , PR83

For TPS51427
PC40 mount 1u/6.3V_4

32

11,41 SYS_SHDN# — PS2 *SHORT_4 — PR84 39K/F_4 — VL

PS1 *SHORT_4 (5V_EN) — PS3 *SHORT_4 (3V_EN)

5/25 REV:B
Reduce ripple noise

VIN — 4/22 REV_B del JP — PC125 27u/25V_6.3X5.7 — PC51 0.1u/50V_6 — PC58 2200p/50V_6 — PC50 *10u/25V_1206

4/22 REV_B del JP — VIN — PC54 10u/25V/X6S_1206 — PC60 *10u/25V/X6S_1206

PC52 0.1u/50V_6 — PC59 2.2n/50V_4 — PC57 10u/25V/X6S_1206

6/29 REV:C
Acoustic issue

PD14 ZD5.6V — PC49 0.1u/50V_6 — PC53 1u/10V_4 — PR82 *0_6

PR104 100K/F_4 — PC56 4.7u/10V_8 — PR79 0_4 — PC48 1u/16V_6 — PR80 0_4 — PR83 *0_4

REF — PC47 0.1u/50V_6

PR81 200K/F_4

13A

PQ6 AOL1448 — 5V_DH — PQ7 AOL1718 — 5V_LX

PL1 1.5uH

PR107 *0_6 — PR86 0_6

PR109 2.2/F_6 — PC164 1000p/50V_6

5/18 REV:B
EMI issue

PC122 330u/6.3V_105C — PC159 10u/25V/X6S_1206 — PC55 330u/6.3V_105C — PC169 0.1u/50V_6

+5VPCU — PR85 95.3K /F_6 — DDPWRGD_R — 5V_EN

PU5 RT8206BGQW

5/18 REV:B
RT 2nd Source

BYP, OUT1, FB1, ILIM1, PGOOD1, EN1, DH1, LX1, PAD, PAD, PAD, PAD, LDOREFIN, LDO, VIN, NC, ONLDO, VCC, TON, REF, REFIN2, ILIM2, OUT2, SKIP#, PGOOD2, EN2, DH2, LX2, BST1, DL1, PVCC, NC, GND, PGND, DL2, BST2

PC167 0.1u/50V_6 — PR87 1/F_6 — PC170 0.1u/50V_6 — PR89 1/F_6

PR103 *0_6 — PC171 1u/16V_6 — PR90 *SHORT_6

PD13 CHN217UPT — PD12 CHN217UPT — PC172 0.1u/50V_6 — PC151 0.1u/50V_6 — PC161 0.1u/50V_6 — PR102 0_6

+15V — PR98 22_8 — +15V_ALWP — PC173 0.1u/50V_6

3V_DH — PQ48 AO4468 — 3V_LX — PQ47 AO4710 — 3V_DL

PR105 196K/F_6 — REFIN2

PL13 2.2uH — PR106 2.2/F_6 — PC160 1000p/50V_6

5/18 REV:B
EMI issue

8.5A

+3VPCU — PC162 0.1u/50V_6 — PC124 330u/6.3V_105C

PR108 0_6 — PR95 *0_6

PR88 *0_4 — PR92 0_4

SKIP — PR101 *0_6 — REF — PR99 0_6

+3VPCU — PR91 *10K/F_6 — DDPWRGD_R — PS4 *SHORT_4 — SYS_HWPG 30

AOL1718 Rds=3~4.3mOhm
+5VPCU OCP:4A 400K

L(ripple current)
=(19-5)*5/(1.5u*400kHz*19)
~6.14A

Iocp=14-(6.14/2)~10.93A
Vth=10.93A*4.3mOhm=46.999mV
R(Ilim)=(46.999mV*10)/5uA
=93.9~95.3K

OCP:8A

L(ripple current)
=(19-3.3)*3.3/(2.2uH*0.5MHz*19)
~2.48A

Iocp=8-(2.48/2)=6.67A
Vth=6.67A*15mOhm=94.714mV
R(Ilim)=(94.714mV*10)/5uA
~191K

VIN — PR111 *1M/F_6 — PR93 22_8 — +3V_S5 — PR97 22_8 — +5V_S5

30 S5_DIS — PQ12 *PDTC144EU — S5_DIS_G — PR159 *1M/F_6

PQ10 DMN601K-7 — PQ17 DMN601K-7

5/18 REV:B

VIN — PR100 1M/F_6 — PR94 1M/F_6 — +15V

30,41 S5_ON — PQ9 PDTC144EU — S5_ON_G — PR96 1M/F_6

PQ8 DMN601K-7 — S5D — +5VPCU — PQ11 AO6402A

5/18 REV:B

PR123 0_4 — S5_DIS_G — S5_ON_G

3.75A — +5V_S5

+5VPCU — MAIND — PQ13 AO4468 — +5V — 8A

+3VPCU — MAIND — PQ14 AO4468 — +3V — 5A

+3VPCU — S5D — PQ15 AO6402A — +3V_S5 — 3A

5/25 stuff PR123, no stuff PQ12,PR111,PR159 at B test.

Quanta Computer Inc.
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	SYSTEM 5V/3V (ISL6237)	3A

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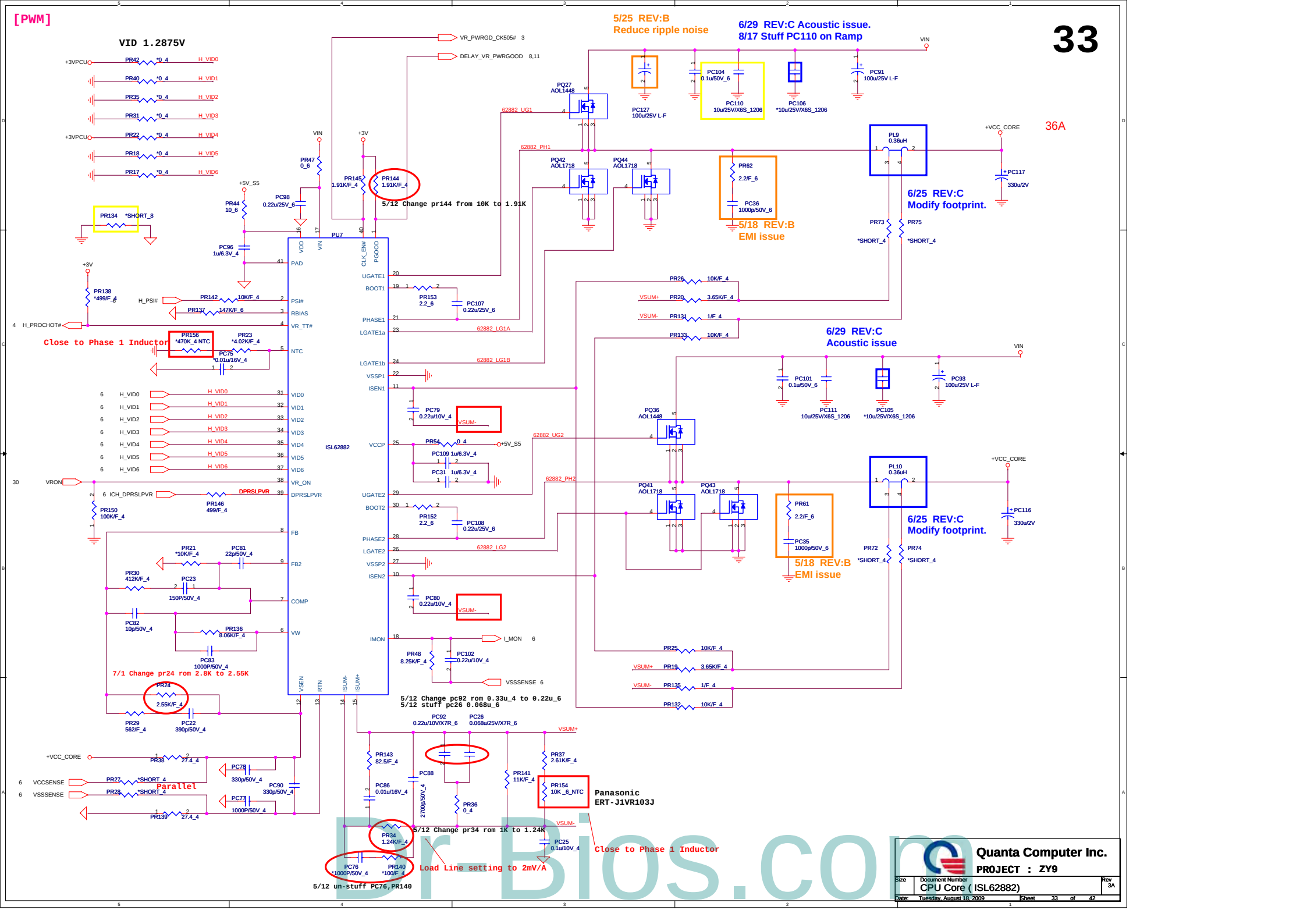
[PWM]
33
VID 1.2875V
5/25 REV:B
Reduce ripple noise
6/29 REV:C Acoustic issue.
8/17 Stuff PC110 on Ramp
36A
VR_PWRGD_CK505# 3
DELAY_VR_PWRGOOD 8,11
VIN
+3VPCU
+3V
+5V_S5
+VCC_CORE
PR42 *0_4 H_VID0
PR40 *0_4 H_VID1
PR35 *0_4 H_VID2
PR31 *0_4 H_VID3
PR22 *0_4 H_VID4
PR18 *0_4 H_VID5
PR17 *0_4 H_VID6
PR134 *SHORT_8
PR47 0_6
PR44 10_6
PC98 0.22u/25V_6
PC96 1u/6.3V_4
PR145 1.91K/F_4
PR144 1.91K/F_4
5/12 Change pr144 from 10K to 1.91K
PU7
ISL62882
VDD
VIN
CLK_EN#
PGOOD
PAD
UGATE1
BOOT1
PHASE1
LGATE1a
LGATE1b
VSSP1
ISEN1
VCCP
UGATE2
BOOT2
PHASE2
LGATE2
VSSP2
ISEN2
IMON
PSI#
RBIAS
VR_TT#
NTC
VID0
VID1
VID2
VID3
VID4
VID5
VID6
VR_ON
DPRSLPVR
FB
FB2
COMP
VW
VSEN
RTN
ISUM-
ISUM+
62882_UG1
62882_PH1
62882_LG1A
62882_LG1B
62882_UG2
62882_PH2
62882_LG2
PQ27 AOL1448
PQ42 AOL1718
PQ44 AOL1718
PQ36 AOL1448
PQ41 AOL1718
PQ43 AOL1718
PC127 100u/25V L-F
PC104 0.1u/50V_6
PC110 10u/25V/X6S_1206
PC106 *10u/25V/X6S_1206
PC91 100u/25V L-F
PL9 0.36uH
PL10 0.36uH
PC117 330u/2V
PC116 330u/2V
PR62 2.2/F_6
PC36 1000p/50V_6
5/18 REV:B
EMI issue
6/25 REV:C
Modify footprint.
PR73 *SHORT_4
PR75 *SHORT_4
PR72 *SHORT_4
PR74 *SHORT_4
PR61 2.2/F_6
PC35 1000p/50V_6
6/29 REV:C
Acoustic issue
PC101 0.1u/50V_6
PC111 10u/25V/X6S_1206
PC105 *10u/25V/X6S_1206
PC93 100u/25V L-F
PR26 10K/F_4
PR20 3.65K/F_4
PR131 1/F_4
PR133 10K/F_4
PR25 10K/F_4
PR19 3.65K/F_4
PR135 1/F_4
PR132 10K/F_4
VSUM+
VSUM-
PR153 2.2_6
PC107 0.22u/25V_6
PR152 2.2_6
PC108 0.22u/25V_6
PC79 0.22u/10V_4
PC80 0.22u/10V_4
PR54 0_4
PC109 1u/6.3V_4
PC31 1u/6.3V_4
PR138 *499/F_4
PR142 10K/F_4
PR137 147K/F_6
PR156 *470K_4 NTC
PR23 *4.02K/F_4
PC75 *0.01u/16V_4
Close to Phase 1 Inductor
PR150 100K/F_4
PR146 499/F_4
PR21 *10K/F_4
PC81 22p/50V_4
PR30 412K/F_4
PC23 150P/50V_4
PC82 10p/50V_4
PR136 8.06K/F_4
PC83 1000P/50V_4
7/1 Change pr24 rom 2.8K to 2.55K
PR24 2.55K/F_4
PR29 562/F_4
PC22 390p/50V_4
PR48 8.25K/F_4
PC102 0.22u/10V_4
5/12 Change pc92 rom 0.33u_4 to 0.22u_6
5/12 stuff pc26 0.068u_6
PC92 0.22u/10V/X7R_6
PC26 0.068u/25V/X7R_6
PR143 82.5/F_4
PC88
PC86 0.01u/16V_4
2700p/50V_4
PR36 0_4
PR141 11K/F_4
PR37 2.61K/F_4
PR154 10K_6_NTC
Panasonic
ERT-J1VR103J
PR34 1.24K/F_4
5/12 Change pr34 rom 1K to 1.24K
PC25 0.1u/10V_4
Close to Phase 1 Inductor
PC76 *1000P/50V_4
PR140 *100/F_4
Load Line setting to 2mV/A
5/12 un-stuff PC76,PR140
PR38 27.4_4
PR27 *SHORT_4
PR28 *SHORT_4
PR139 27.4_4
PC78 330p/50V_4
PC90 330p/50V_4
PC77 1000P/50V_4
Parallel
VCCSENSE
VSSSENSE
H_PROCHOT#
H_PSI#
ICH_DPRSLPVR
VRON
I_MON
VSSSENSE
Quanta Computer Inc.
PROJECT : ZY9
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CPU Core (ISL62882)
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[PWM]

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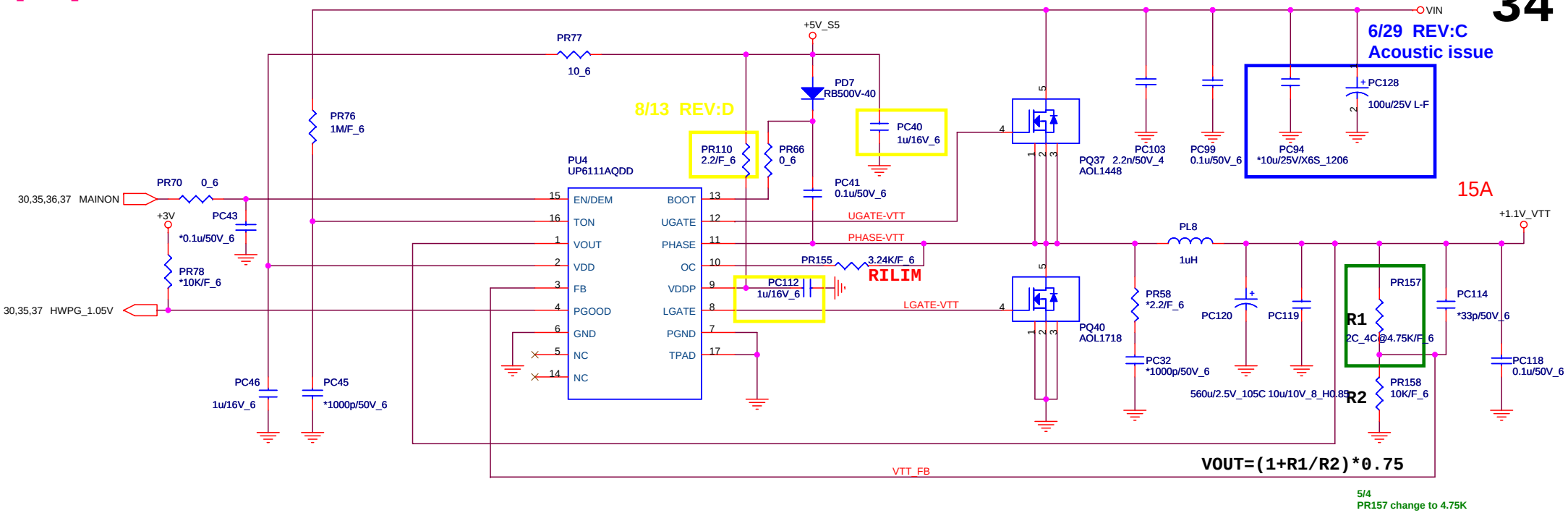

5/4
PR157 change to 4.75K

AO1718 Rdson=3~4.3mOhm

L(ripple current)
=(19-1.05)*1.05/(1u*272k*19)
~3.64A

4.3m*15=RILIM*20uA
RILIM=3.24K(3.22K)

Aurbundale (1.05V) R1 = 4.02K (CS24023F928)
Clarksfield(1.1V) R1 = 4.75K (CS24753F919)

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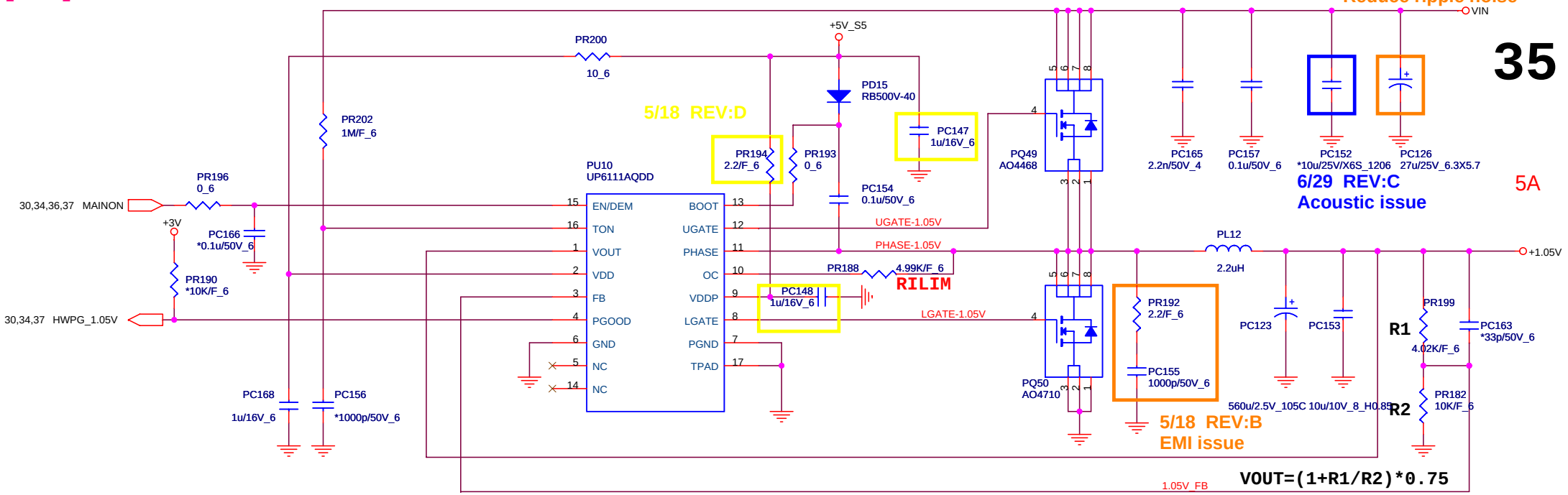
[PWM]

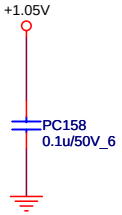
5/25 REV:B
Reduce ripple noise

35



AO4710 Rdson=11.8~14.2mOhm
OCP=7.2-0.8A
L(ripple current)
=(19-1.05)*1.05/(2.2u*272k*19)
~1.6577A

14.2m*7=RILIM*20uA
RILIM=4.99K(4.97K)



Quanta Computer Inc.
PROJECT : ZY9

Size	Document Number	Rev
	+1.05V(UP6111AQDD)	3A

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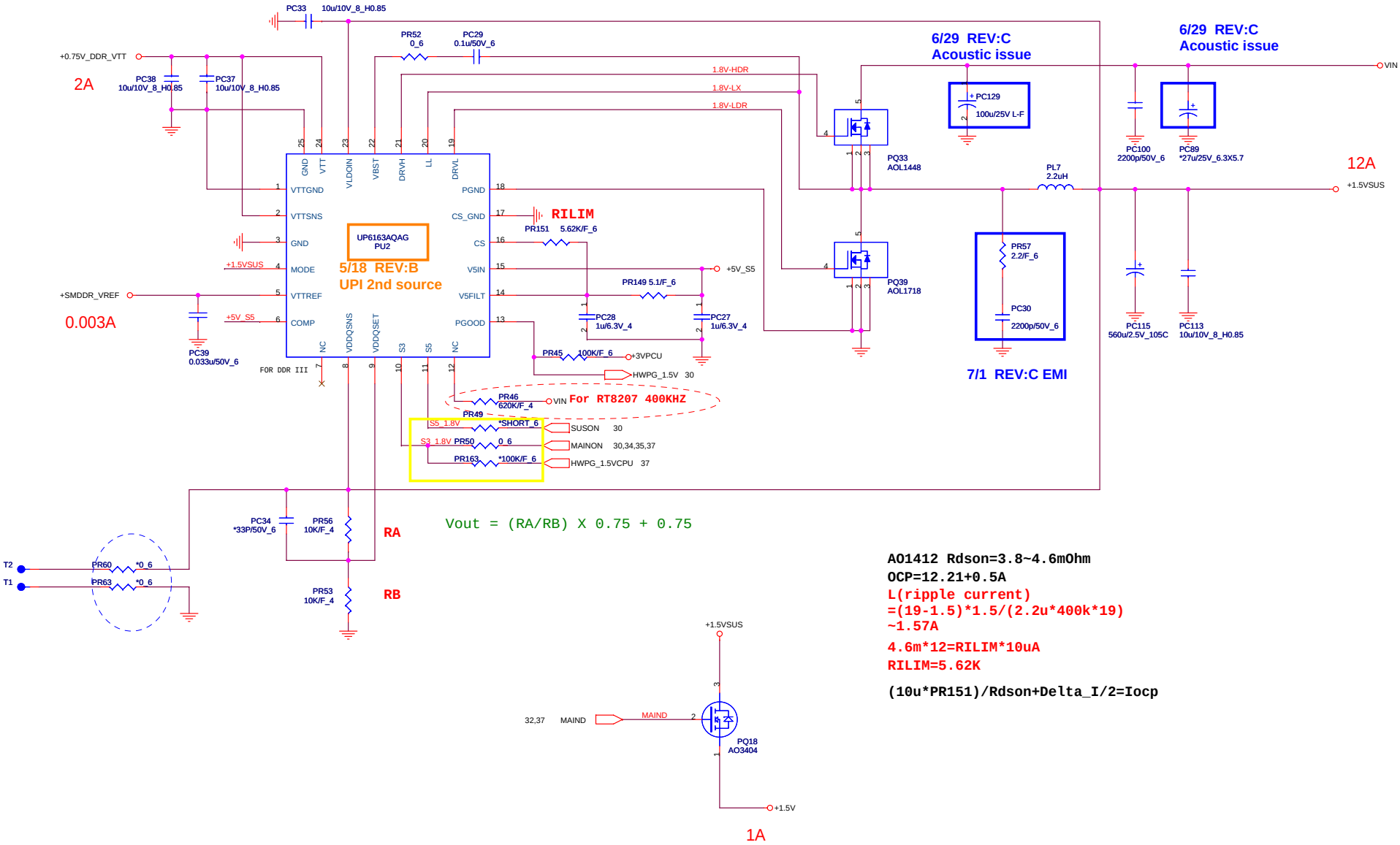

AO1412 Rdson=3.8~4.6mOhm
OCP=12.21+0.5A
L(ripple current)
=(19-1.5)*1.5/(2.2u*400k*19)
~1.57A

4.6m*12=RILIM*10uA
RILIM=5.62K

(10u*PR151)/Rdson+Delta_I/2=Iocp

Quanta Computer Inc.		
PROJECT : ZY9		
Size	Document Number: DDR 1.5V(TPS51116)	Rev 3A
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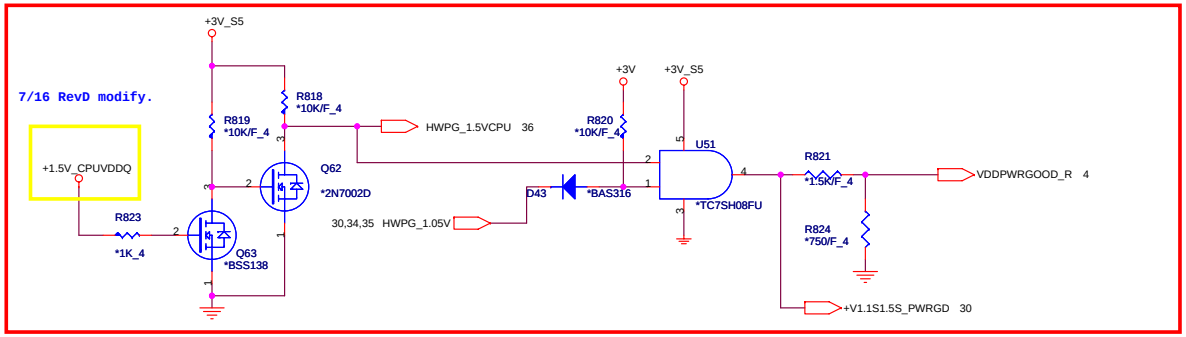
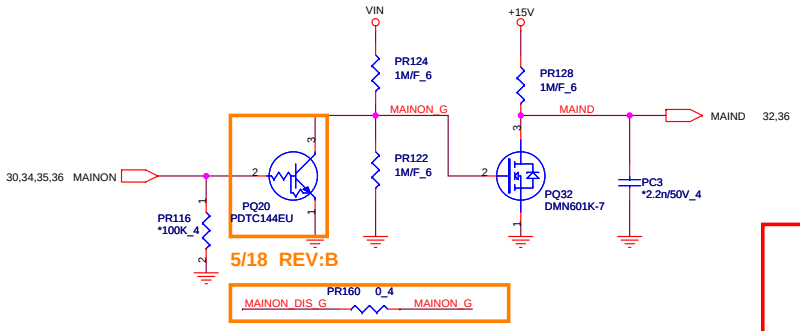
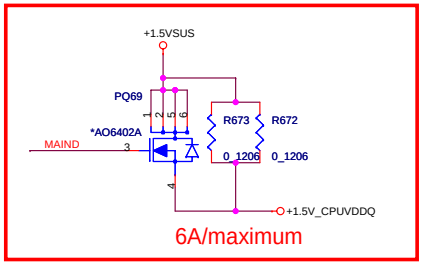
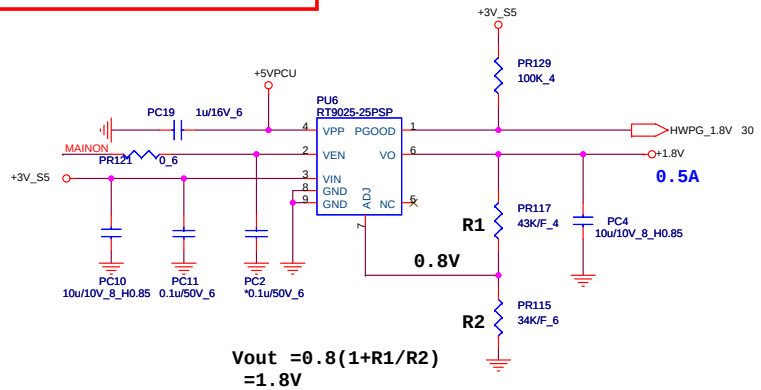




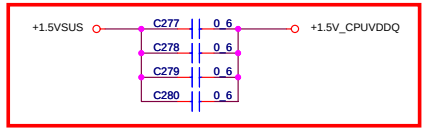
5/25 stuff PR160, no stuff PQ24,PR126,PR125 at B test.

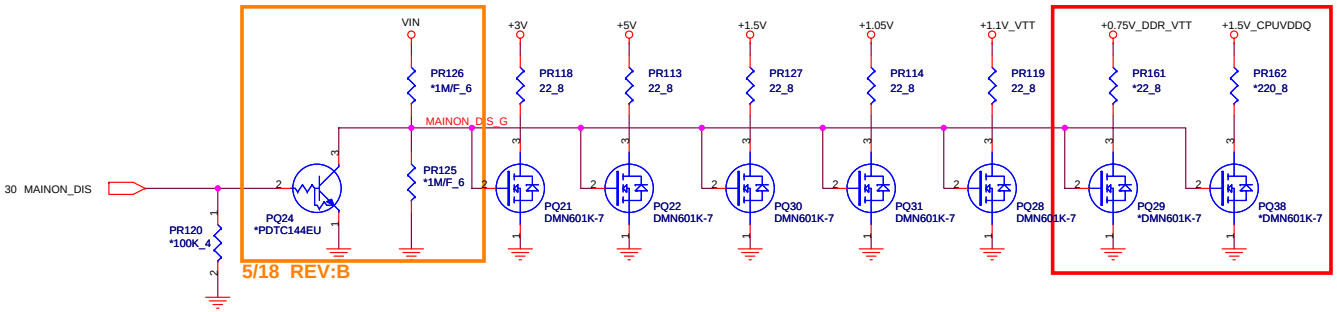


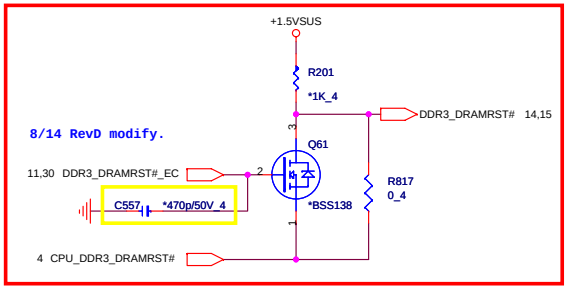


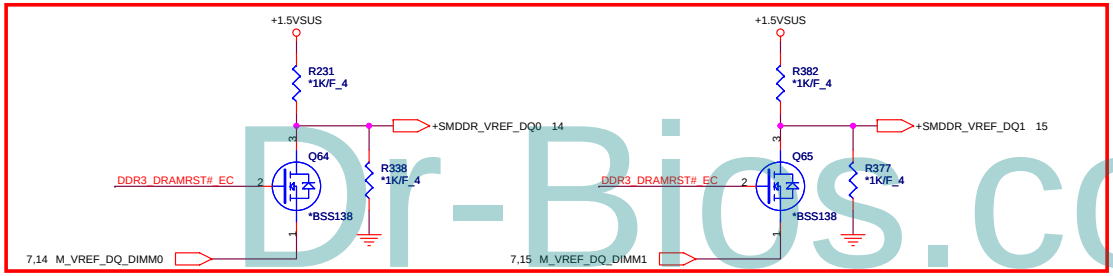
Vout =0.8(1+R1/R2)
=1.8V

S3 power solution: C277~C280 stuff 0.1uF cap;
Normal : Stuff 0ohm to short.









Quanta Computer Inc.
PROJECT : ZY9

Size	Document Number	Rev
	Discharge (1.5V_S5/1.8V)	3A
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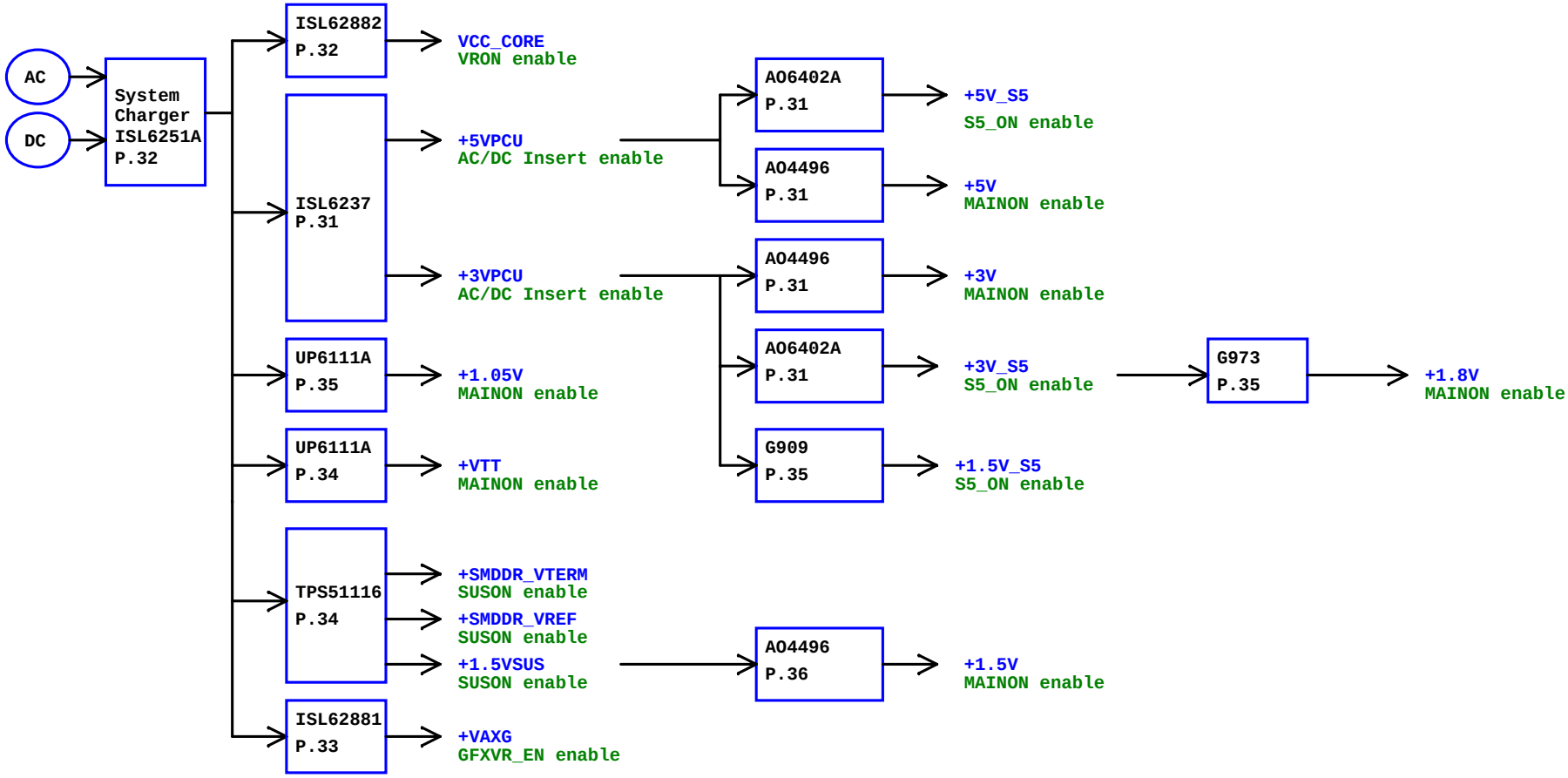

Power Distribution List

Power	Distribution
VCC_CORE	CPU
+5VPCU	ICH8M, RJ45/USB /B, USB/eSATA, Satellite LED, CIR
+3VPCU	RTC, HALL SENSOR, KB, TP/FP/LED /B, Power /B, Kill SW, EC, ID, SPI Flash, CIR
+1.5V	CPU, GMCH, ICH9M, Mini Card, New Card
+1.5VSUS	GMCH, DDR
+SMDDR_VREF	GMCH, DDR
+SMDDR_VTERM	DDR
+1.05V	CPU, CLK, Thermal Trip, GMCH, ICH8M
+5V_S5	ICH8M, G-SENSOR, Felica, USB/eSATA
+5V	CPU, ICH8M, VGA, Camera, CRT, HDMI, SATA HDD, PATA ODD, PCMCIA, TP/FP/LED /B, EC, Speaker, Headphone
+3V	CLK, CPU Thermal Monitor, FAN, GMCH, DDR, ICH8M, VGA, LCD/LED Panel, HALL SENSOR, CRT, HDMI, SATA HDD, PATA ODD, PCMCIA, Mini Card, KB, TP/FP/LED /B, RJ45/USB /B, Bluetooth, MMB, New Card, PC BEEP, EC, Codec (CX20561), VR, Headphone, MDC, Cardreader (OZ129T)
+3V_S5	ICH8M, Mini Card, RJ45/USB /B, New Card
+3VSUS	ICH8M, FP
+1.8V	HDMI, Cardreader (OZ129T)
+1.25V	CLK, GMCH, ICH8M

PCH POWER PLANE

LOGIC	SUPPLY	LEVEL	S0	S3	S4	S5
Fast Flash	VccpNAND	+1.8V/+3.3V	ON	OFF	OFF	OFF
Core	DcpSusByp	+1.05V	ON	OFF	OFF	OFF
CPU	V_CPU_IO	+VTT	ON	OFF	OFF	OFF
PCI	V5REF	+5V/+3V	ON	OFF	OFF	OFF
USB	V5REF_Sus	+5V_S5/+3V_S5	ON	ON	ON	ON
DisplayPort, SATA, PCI	VCC3_3	+3V	ON	OFF	OFF	OFF
Core	VccCore	+1.05V	ON	OFF	OFF	OFF
PCIE/DMI	VccDMI	+VTT/+1.05V	ON	OFF	OFF	OFF
Fast Flash	VccME3_3	+3V	ON	OFF	OFF	OFF
PCIE/DMI,SATA,USB	VccIO	+1.05V	ON	OFF	OFF	OFF
Core	VccLAN	+1.05V	ON	OFF	OFF	OFF
Core	VccME	+1.05V	ON	OFF	OFF	OFF
RTC	VccRTC	+VCCRTC	ON	ON	ON	ON
USB&PCI	VccSus3_3	+3V_S5	ON	ON	ON	ON
IntelR HD Audio	VccSusHDA	+1.5V_S5	ON	ON	ON	ON
Core	VccVRM	+V1.5S_1.8S	ON	OFF	OFF	OFF
CLK	VccAClk	+1.05V	ON	OFF	OFF	OFF
CRT	VccADAC	+3V	ON	OFF	OFF	OFF
DPLL	VccADPLLA	+1.05V	ON	OFF	OFF	OFF
DPLL	VccADPLLB	+1.05V	ON	OFF	OFF	OFF
PCIe/DMI	VccapllEXP	+1.05V	ON	OFF	OFF	OFF
IntelR FDI	VccFDIPLL	+1.05V	ON	OFF	OFF	OFF
SATA	VccSATAPLL	+1.05V	ON	OFF	OFF	OFF
Display	VccTX_LVDS	+1.8V	ON	OFF	OFF	OFF

Quanta Computer Inc.

PROJECT : ZY9

Size	Document Number	Rev
	PCH POWER PLANE	3A

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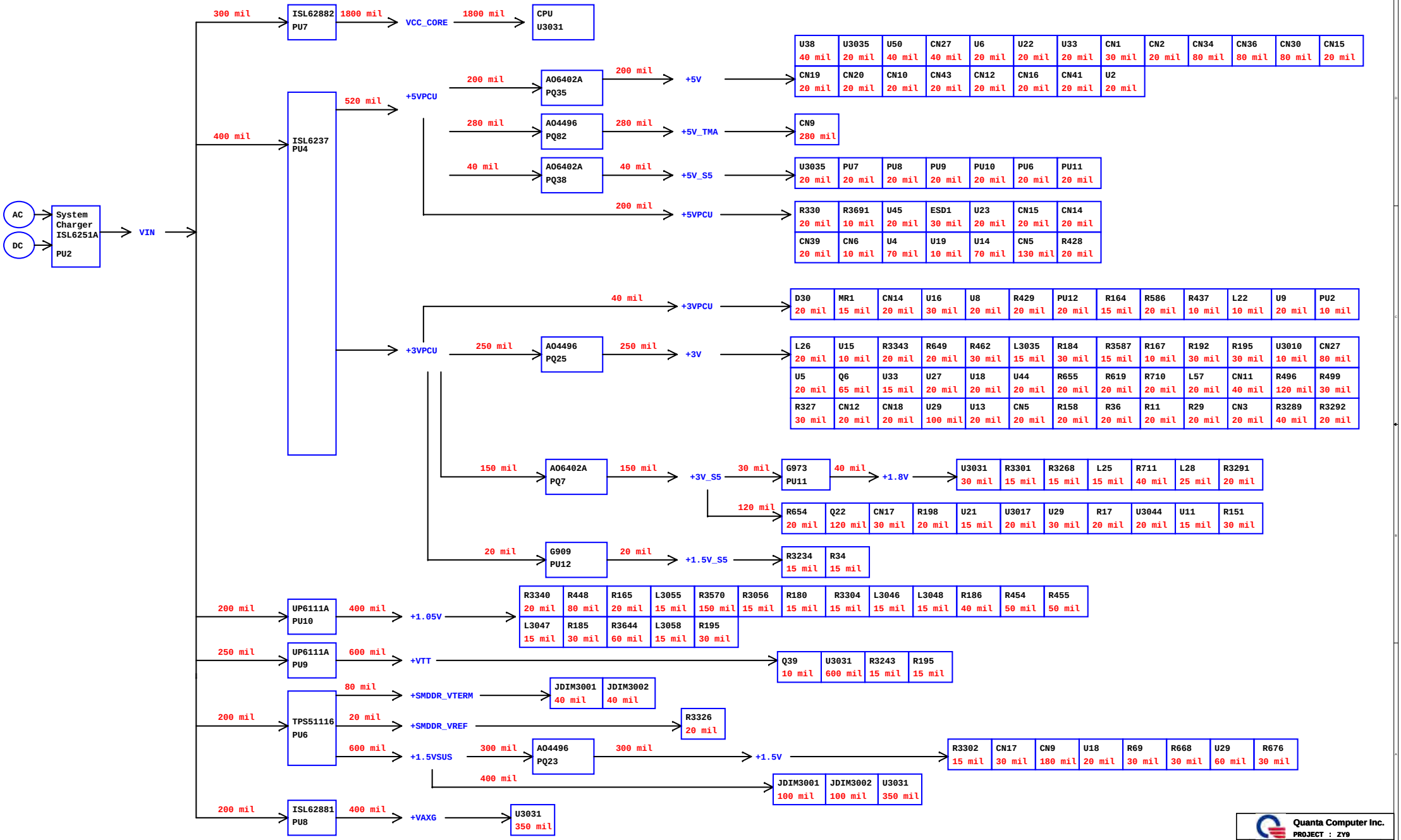
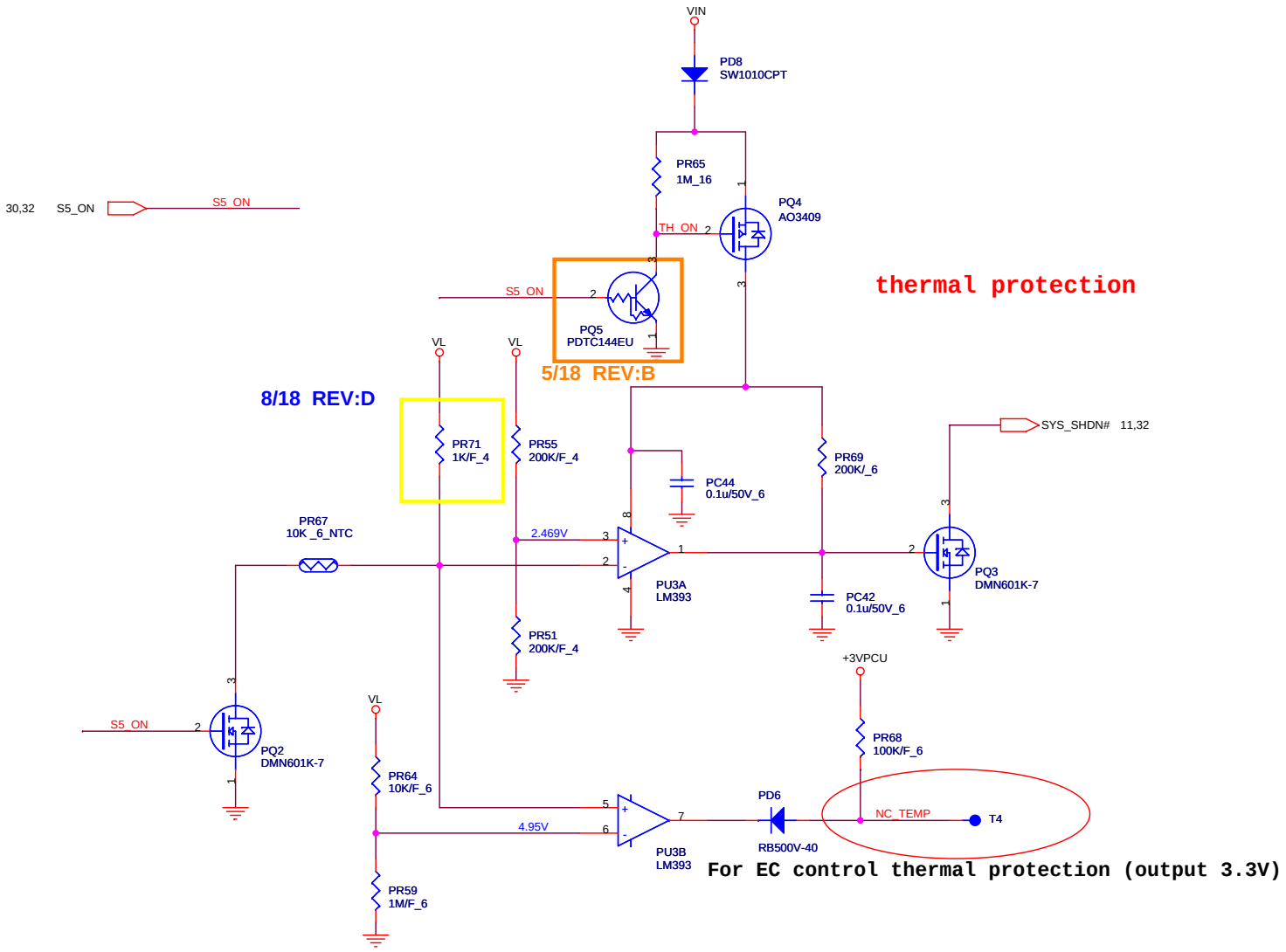

AC
DC
System Charger ISL6251A PU2
VIN
300 mil
ISL62882 PU7
1800 mil
VCC_CORE
1800 mil
CPU U3031
400 mil
ISL6237 PU4
520 mil
+5VPCU
200 mil
AO6402A PQ35
200 mil
+5V
U38 40 mil
U3035 20 mil
U50 40 mil
CN27 40 mil
U6 20 mil
U22 20 mil
U33 20 mil
CN1 30 mil
CN2 20 mil
CN34 80 mil
CN36 80 mil
CN30 80 mil
CN15 20 mil
CN19 20 mil
CN20 20 mil
CN10 20 mil
CN43 20 mil
CN12 20 mil
CN16 20 mil
CN41 20 mil
U2 20 mil
280 mil
AO4496 PQ82
280 mil
+5V_TMA
CN9 280 mil
40 mil
AO6402A PQ38
40 mil
+5V_S5
U3035 20 mil
PU7 20 mil
PU8 20 mil
PU9 20 mil
PU10 20 mil
PU6 20 mil
PU11 20 mil
200 mil
+5VPCU
R330 20 mil
R3691 10 mil
U45 20 mil
ESD1 30 mil
U23 20 mil
CN15 20 mil
CN14 20 mil
CN39 20 mil
CN6 10 mil
U4 70 mil
U19 10 mil
U14 70 mil
CN5 130 mil
R428 20 mil
40 mil
+3VPCU
D30 20 mil
MR1 15 mil
CN14 20 mil
U16 30 mil
U8 20 mil
R429 20 mil
PU12 20 mil
R164 15 mil
R586 20 mil
R437 10 mil
L22 10 mil
U9 20 mil
PU2 10 mil
+3VPCU
250 mil
AO4496 PQ25
250 mil
+3V
L26 20 mil
U15 10 mil
R3343 20 mil
R649 20 mil
R462 30 mil
L3035 15 mil
R184 30 mil
R3587 15 mil
R167 10 mil
R192 30 mil
R195 30 mil
U3010 10 mil
CN27 80 mil
U5 20 mil
Q6 65 mil
U33 15 mil
U27 20 mil
U18 20 mil
U44 20 mil
R655 20 mil
R619 20 mil
R710 20 mil
L57 20 mil
CN11 40 mil
R496 120 mil
R499 30 mil
R327 30 mil
CN12 20 mil
CN18 20 mil
U29 100 mil
U13 20 mil
CN5 20 mil
R158 20 mil
R36 20 mil
R11 20 mil
R29 20 mil
CN3 20 mil
R3289 40 mil
R3292 20 mil
150 mil
AO6402A PQ7
150 mil
+3V_S5
30 mil
G973 PU11
40 mil
+1.8V
U3031 30 mil
R3301 15 mil
R3268 15 mil
L25 15 mil
R711 40 mil
L28 25 mil
R3291 20 mil
120 mil
R654 20 mil
Q22 120 mil
CN17 30 mil
R198 20 mil
U21 15 mil
U3017 20 mil
U29 30 mil
R17 20 mil
U3044 20 mil
U11 15 mil
R151 30 mil
20 mil
G909 PU12
20 mil
+1.5V_S5
R3234 15 mil
R34 15 mil
200 mil
UP6111A PU10
400 mil
+1.05V
R3340 20 mil
R448 80 mil
R165 20 mil
L3055 15 mil
R3570 150 mil
R3056 15 mil
R180 15 mil
R3304 15 mil
L3046 15 mil
L3048 15 mil
R186 40 mil
R454 50 mil
R455 50 mil
L3047 15 mil
R185 30 mil
R3644 60 mil
L3058 15 mil
R195 30 mil
250 mil
UP6111A PU9
600 mil
+VTT
Q39 10 mil
U3031 600 mil
R3243 15 mil
R195 15 mil
200 mil
TPS51116 PU6
80 mil
+SMDDR_VTERM
JDIM3001 40 mil
JDIM3002 40 mil
20 mil
+SMDDR_VREF
R3326 20 mil
600 mil
+1.5VSUS
300 mil
AO4496 PQ23
300 mil
+1.5V
R3302 15 mil
CN17 30 mil
CN9 180 mil
U18 20 mil
R69 30 mil
R668 30 mil
U29 60 mil
R676 30 mil
400 mil
JDIM3001 100 mil
JDIM3002 100 mil
U3031 350 mil
200 mil
ISL62881 PU8
400 mil
+VAXG
U3031 350 mil
Quanta Computer Inc.
PROJECT : ZY9
POWER MANAGEMENT
Tuesday, August 18, 2009



Quanta Computer Inc.		
PROJECT : ZY9		
Size	Document Number: Thermal Protection	Rev: 3A
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CHANGE LIST

Model: ZY9 MB

MODEL: ZY9

REV 1A

FIRST RELEASED: E20080?-???? (PCB: DA0ZY8MB6A0)

REV 2A

4/9 modify

Page4 : R468 change from 4.75K to 1.1Kohm & R488 change from 12K to 3Kohm by DG1.52
Page8 : Add R373 to pull up ACIN on PCH side, R274 net PCH_ACIN connector to EC pin10.
Page10 : Stuff R227, R257; remove R222,R224
Q2,Q5, Q15~Q20,Q29~Q31,Q35~Q43,Q45~Q47,Q50,Q51,Q57~Q59 : 2N7002E(BAM700200F6) change to 2N7002D(BAM700200H2) with ESD protection by SMT.
Page21 : Modify LAN connector footprint and material by safety.
Page21 : Modify CN21,CN23 footprint.
Page28 : Add PAD11.
Page31 :Chang PD9 footprint to power-6_5-1_84-3p by SMT.
Page37 : Stuff PQ28,PQ30,PQ31,PR114,PR119,PR127 by S3 discharge issue.

4/23 modify

Page3 : Chagne CPU_SEL PU +3V to +1.05V at B-test by SLG.
Page14 : R176 un-stuff, R88 stuff at B-test.
Page15 : R525 un-stuff, R429 stuff at B-test.
Page23 : Change C571 to 4.7u for Po issue when boot at B-test
Page26 : Chagne C400 to 22pF, C401 change to 27pF at B-test by HHC.
Page32 : Del power net ISL6237_3V and all JP.
Page33 : Stuff PR61,PR62,PC35,PC36 by EMI.

5/4 modify

Page20 : Change CN16 footprint to rj45-jm36111-n2a22-7h-12p-h by safety test.
Page34 : Change PR157 from 4.02K to 4.75K ohm for Clarksfield CPU.
Page18 : Remove R438, R639 and Reserve RV7,RV8 by ESD at B-test.
Page23 : Add U50, C666 and R561 for Po issue by Realtek at B-test.
Page11 : Reverse R351 connect GPIO49 to EC for Temp Alert & Reverse Q12,Q11 connect to t SYS_SHDN# at B-test.
Page30 : Add ESD components D34~D41 with EC signals ; Stuff C192 by EMI & Add D42 near JP1 at B-test.
Page29 : Reserve R375 connect to Temp_Alert from PCH at B-test.

5/14 modify

Page22 : Add R147,R151,R197 for power consumption measure & move C33 near C103 for EMI at B-test.
Page21 : Change PCIE bus sequence beween CN21 and CN23 by BIOS at B-test.

5/18 modify

Page24 : Change C622, C635 to CH22206KB16 by EMI at B-test.
Page34 : Add PR110 at B-test.
Page35 : Add PR194 at B-test.

5/21 modify

Page9 : 5/21 Change R233 to 1Kohm by Intel at B-test.
Page14: 5/21 No stuff R187 and change R185,R186; del C260 add R195 by CRB v1.6 at B-test.
Page15: 5/21 No stuff R522 and change R518,R521; del C557 add R210 by CRB v1.6 at B-test.
Page18: 5/21 change L9,L10,L13(CX8BA750006) from 47ohm to 75ohm by EMI at B-test.
Page27: 5/22 Add R212 by pipe LED at B-test.
Page10: 5/22 change ESATA USB port10 to port1 and rename OC0_1#, OC3#,OC5_6#; R565 connect to OC5_6# by BIOS at B-test.
Page28: 5/22 change ESATA USB port10 to port1 and rename OC0_1#, OC3#,OC5_6# by BIOS at B-test.
Page32: 5/25 stuff PR123, no stuff PQ12,PR111,PR159 at B test.
Page37: 5/25 stuff PR160, no stuff PQ24,PR126,PR125 at B test.
Page31: 5/25 Change PQ19, PQ35 to FDD6685 by power at B test.

REV 3A

Page14: 6/19 Reserve M2 component and reserve R801~R808 DM connect to GND BY DG1.6 at C test.
Page15: 6/19 Reserve M2 component and reserve R809~R816 DM connect to GND BY DG1.6 at C test.
Page30: 6/19 Change R196 to 2.2 by EC at C-test.
Page9 : 6/21 Non stuff R233 by Intel & R235 change to connect to +3V at C-test.
Page17: 6/25 Delete R63 & Change CN22 pin define and footprint at C test.
Page8: 6/25 Change some 0_4 to *short pad footprint; no stuff R366 at C-test.
Page29 : 6/25 Stuff R375 by EC at C-test.
Page11 : 7/1 Add R671 for GPIO57 PD and not PU; change board_id0 to GPIO7 by Intel suggestion at C-test.
Page 29 : 7/2 Stuff Q22,Q2,1R119 & no stuff U11,C101 by cost down at C-test.
Page37 : 7/2 Add Intel S3 power reduction circuit at C-test.
Page28 : 7/2 no stuff R115 by Parade & add USB EMI chock at C-test.
Page17 : 7/2 no stuff R406 R409 and stuff R411,R412,Q45,Q46 by S3 leakage at C-test.
Page6 : 7/2 Change CPU VDDQ from +1.5V_S3 to +1.5V_CPUVDDQ by Intel at C test.
Page33 : 7/5 Change PC79,PC80 connection from GND to VSUM- by ISL at C test.

REV 3B

Page29: 7/22 Un-stuff R375 by EC at Ramp.
Page30: 7/22 Add C281 and reserve C282 near EC on top side by battery LED abnormal & change RT1 connet form GND to AGND.
Page33: 7/28 Change PU7 from AL062882000 to AL062882001 by Power shutdown issue and stuff PC110 by power on Ramp.
Page28: 7/28 Reserve C311 and change L60~L64 by EMI at Ramp test.
Page26: change resistor to short pad which MDIO0~14, CR1_CD0N,CR1_CD1N short to card reader connector at Ramp test.
Page11: 8/8 Reserve R428 from GPIO46 by intel S3 suggestion at Ramp test.
Page14: 8/8 R88 connector to +SMDDR_VREF_DIMM at Ramp test.
Page24: 8/8 Remove L54~L57 at Ramp test.
Page18: 8/12 del R431~R437 at Ramp-testt; change R29,R36 to 0 ohm.
Page28: 8/12 del RN32~RN36 at Ramp-testt.
Page34: 8/13 Replace and stuff PC112; change PC40 from 4.7uF to 1uF; PR110 from 0 to 2.2ohm by power at Ramp-testt.
Page35: 8/13 Replace and stuff PC148; change PC147 from 4.7uF to 1uF; PR194 form 0 to 2.2ohm by power at Ramp-testt.
Page26: 8/14 Stuff C393 and C625,exchange C384 and C386 value by JMicron at Ramp.
Page4: 8/14 Reserve R213 by intel S3 at Ramp.
Page37: 8/14 Reserve C557 connect to DDR3_DRAMRST#_EC by intel S3 at Ramp.
Page36: 8/14 Reserve PR163 connect to S3_1.8V by intel S3 at Ramp.
Page30: 8/17 SPI_SDI_uR add PD R16 by EC for saving S5 power at Ramp.
Page41: 8/18 Change PR71 to 1K by power at Ramp.

REV 3C

FROM	To
X	1A
X	1A
1A	2A
1A	2A
1A	2A
1A	2A
1A	2A
1A	2A
1A	2A
1A	2A
1A	2A
1A	2A
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3A	3B
3A	3B

DOC NO.	PROJECT MODEL :	ZY8	APPROVED BY:		DATE:	2008/06/27
	PART NUMBER:		DRAWING BY:		REVISON:	1A