| Model | REV |
|---|---|
| MB | 1B |

# CHANGE LIST

**A (ET1 to ET2) stage :REV:C**

1. 11/12 P8----add R566,R567 for DMI CLK FUNCTION
2. 11/12 P8--- add R176.DEL R174 for CLK frequence
3. 11/22 P7---add R416.DEL R46 for CFG STRAP
4. 11/23 P13---change KBSMI# PIN (GPIO9)
5. 11/22 P14---add R181.R187 for PCH_TRST_N pin,del R464
6. 11/23 P14---modify SMBUS function
7. 11/24 P15---change display port pin net
8. 11/12 P15---del PCH DMI CLK
9. 11/12 P16---change PCH GPIO pin(del R244,R581.add R211)
10. 11/23 P17---del R452. add R455 (for disable AT-D function)
11. 11/23 P17---change BIOS from +P3V3_S5 to +VCC3_ME
12. 11/25 P17---change ME power from +P3V3_S5 to +P3V3_ALWAYS
13. 11/23 P21---modify EDID switch function
14. 11/23 P21---add 3 X 1 pin header for EDID
15. 11/23 P22---change TPM IC from WPCT210 to ST19NP18
16. 11/24 P23---add F5,DEL F4 (change webcam power)
17. 11/24 P25---change U14 (footprint error)
18. 11/22 P25---add J4(HDD POWER)
19. 11/24 P26---change Right board.back board connector
20. 11/22 P27---del D14,D14.R346.(power sequence issue)
21. 11/22 P27---change PS2 power from +P5V_S5 to +P5V_always
22. 11/22 P27---add MMB board power
23. 11/24 P27---modify EC SMBUS issue
24. 11/12 P28---DEL PQ19,PQ56,PQ56(power on issue)
25. 11/22 P31---change PQ40,PQ35(for control +P5V_USB_S3,+P5V_DDR_S3 power)
26. 11/22 P33---add main control +VCC1_8_PCH_S0
27. 11/22 P35---add main control +CPU_VTT_S0

**B (ET2 to SDV) stage :REV:D**

1. 12/10 P7----add Co-lay Thermal IC.
2. 12/10 P14--- change R247,R524,R1138,R540,R522 to 0 ohm for audio function
3. 12/10 P14---add Q70,Q71 2n7002,N/A R589,R590 for SMBUS
4. 12/10 P15---add C392,C393 0.1uF(modify DDPC_AUX )
5. 12/10 P15---DEL R146,R150( N/A DPCLK_PCH,no output clock.)
6. 12/10 P21---N/A D3(del VGA IN power)
7. 12/10 P21---Add signal 2270_FUN6,7# and pull hi V33P_VGAIN for OSD function
8. 12/10 P23---Add common choke at Web CAM module
9. 12/10 P23---R9,R10 change to 220ohm for webcam EMI
10. 12/10 P23---modify BT enable power +P5V_S0
11. 12/11 P24---remove CBP/CBN AGND
12. 12/10 P24---remove Cap ,add R20,R21,R22,R25 at speaker.
13. 12/10 P24---add L32,L33 Bead(add power bead for audio percision)
14. 12/10 P24---Change PVDD1/PVSS/PVDD2 from DGND to AGND
15. 12/10 P26---modify right io board connect pin7 and pin8 to GND
16. 12/10 P27---Change EC and Scalar GPIO define
17. 12/10 P27---change Power rail from P5V_S0 to P5V_always for PIR issue
18. 12/11 P28---add PC277,PC278,PC276 for modify signal sequence.
19. 12/11 P28---change Q39,Q40 to BA0014400013
20. 12/11 P31--modify PQ12,PQ36,Q15,Q16,Q26,Q68 for sometime can't boot issue
21. 12/11 P31---PR112/PR114 Chane power rail from P5V_SO to P5V_always for S3 issue
22. 12/11 P30---Add PC275 ,PC68 220uF/9m Ohm change to 330uF/6m Ohm for VTT transient
23. 12/11 P34---Add PC274 for VAXG Vin
24. 12/11 P33---add PC271 for +P1P05V_ME Vout ripple
25. 12/11 P31---mount PC4,PC7 for +P5V_S0 and +P3V3_S0 input Voltage
26. 12/11 P30---mount PC49 for +DDR1V5_S3 input Voltage
27. 12/10 P31---change PQ43(NTMS4800N),PQ44(NTMS4873) to NTMFS4921NT1G for +P5V_S0 Iout current

**C:REV:E**

1. 12/23 P14-del R116.R535;add R118,R514 for CMOS function
2. 12/23 P21-U8 pin 7 pull gnd
3. 12/23 P21-U6 pin 61 change 2270_fun4#-for OSD function
4. 12/23 P21-U6 pin 56 change PWM3 -for OSD function
5. 12/23 P26--Change Right IO CONN pin8 from GND to +P3V3_S0, pin7 from GND to NC
6. 12/23 P21--add SW_CRT1 function-for vga monitor
7. 12/29 P21--Change R615 from 100K_6 to 1K_6
8. 12/28 P26--Change CN37 Pin2 from VGA_5V to +VCC1_8_PCH_S0
9. 12/28 P27-- U16 pin 97 change S3_N-for S3 issue
10. 12/30 P27--add R346--for WOR function
11. 12/30 P23--webcam connector pin6 -->GND,pin7-->webcam_present
12. 12/30 P15-add C395.C396,C394,C397 --for PCI CLK
13. 12/30 P20-CN4 pin1 change +12VP_ATX
14. 12/30 P28-PSU/+P5V_S5/P3V3_S5 change input power +12VP_ATX
15. 12/30 P32-P3V3/P5V_MONITOR_input power change +12VP_ATX
16. 12/30 P29- net +P12V_S0 change to +P12VP_ATX
17. 12/30 P14--Add CN39,CN38

**C:REV:F**

1. 1/15 P7--change C43 from 2200pF to 330pF
2. 1/17 P7--delete U4,C46,R60,R62,R63,R64 circuit-SST thermal IC local in U33, delete dummy IC U4 circuit
3. 1/17 P12--add C300 to 0.1uF
4. 1/17 P14--add R479 8.2k
5. 1/17 P14--delete R589,R590delete SM Bus bridage.
6. 1/17 P14--NA R517 for LAN_DIS_N
7. 1/17 P14--mount R159 1M ohm
8. 1/17 P14--mount R520 8.2K for SCI PIN
9. 1/17 P22--NA R102, Mount R103 10k for cotrol TPM
10. 1/17 P16--NA R190,R229
11. 1/17 P16--delete R581delete ME signal pull hi worng
12. 1/15 P16 --add R244 to 8.2K for BIOS WP control
13. 1/17 P16--add Q72 for HDD LED control singal
14. 1/17 P16--PCH_ME_1R add R1153 (*100K) pull down circuit- for ME sequence.
15. 1/17 P17-Del CS1 BIOS EEPROM
16. 1/17 P21--add R1157,R1159add EDID pull hi resistor to +P5V_monitor
17. 1/17 P21--delete D22 for Scalar direct connect to EC
18. 1/17 P21--U34 Mux IC for EDID and H/VSYNC used
19. 1/17 P21--add U35,R1160,R1161,R1162,C406For internal EDID used.
20. 1/17 P21--add R1156,R1158 add EDID pull hi resistor to +P5V_monitor
21. 1/17 P21--add R1166,R1167add DMIC CLK and DATA pull hi
22. 1/17 P21--add R1154,R1155for Scalar Mux IC dummy pad connect to GND
23. 1/17 P21--delete R607,R608delete Wrong 1.2V monitor power circuit.
24. 1/17 P22--CN10 add +P3V3_S5 connect to pin39,pin41 follow mini PCIE 1.2 spec.
25. 1/17 P23--add R1163,R164,R1165,Q73ADD BT LED control signal circuit
26. 1/17 P23--change F5 pull hi +P5V_S0
27. 1/17 P23--add C407 for CCD power MOS soft start.
28. 1/17 P23--delete F9 no used BT operate voltage F9
29. 1/17 P24--modify BZ1 footprintchange BZ1 footprint
30. 1/17 P25--del U26,U27,U28,U29,U30,U31 ESD IC
31. 1/17 P27delete R584 for BT LED power leakage
32. 1/17 P27--add Q74,R585 For WLAN LED.
33. 1/17 P27--change R611 to 10K for MMB control
34. 1/17 P27--NA U2 for CPU FAN ESD
35. 1/17 P27--NA R380 for PS2 present
36. 1/17 P27--Mount R375 0 ohm
37. 1/17 P27--NA R328 for MMB
38. 1/17 P27--change R377 to 560K,change R346 to 470K add C252 10uF,for WOR_N
39. 1/17 P27--add L34,L35,L36,L37 for EMI issue
40. 1/17 P27--change R381.R382,R383,R384 for Keyboard use
41. 1/17 P27--RTC_VCC change C414 and change to 0.1uF
42. 1/17 P27--delete R374 for COM port IC pull alays power resistor
43. 1/17 P27--delete C37,C101,C23 for FAN PWN control signal
44. 1/17 P27--delete R622,R623 no used PS2 operate voltage.
45. 1/17 P27--add R1168,R1169,R1170 add 330 ohm for FAN ESD protect.
46. 1/17 P27--add C408,C409,C410,C411,C412,C413EC add +P3V3_always power decoulping capacitor.
47. 1/17 P27--change R340,R342 pull hi change R340,R342 pull hi +P3V3_S5
48. 1/17 P27--add C390 for pwrbtn switch debonces.
49. 1/17 P27--add EC pin 95 mainon_1 for S3 issue
50. 1/17 P28--add PC161,PC146 for +P5V_S5
51. 1/17 P28--PR241,PR242,R271,R272 22 ohm and change footprint to RC0805.
52. 1/17 P28-- PR241,PR242,R271,R272 22 ohm and change footprint to RC0805.
53. 1/17 P28--add PQ56,PQ57,PQ65,PQ66add +P5V_S5,+P5V_USB_S3,+P5V_DDR_S3,+P12V_S0 discharge circuit
54. 1/17 P29--Delete D15 wrong circuit
55. 1/17 P30--change PR227,PR230 to 100K
56. 1/17 P31--add PR181,PR2661.PR265,PR264add 3V/5V Enable circuit
57. 1/17 P31--change PC32 and value.
58. 1/17 P31--NA PR181 for Mainon control
59. 1/17 P32-change PR87 for EC_Panel_on
60. 1/17 P33--add R1171 PQ64 1.5V switch add R1171 0ohm connect to +P12V_S0
61. 1/17 P33--NA R534
62. 2/3 P27--D26 and D23 change 0_1206

**C:REV:G**

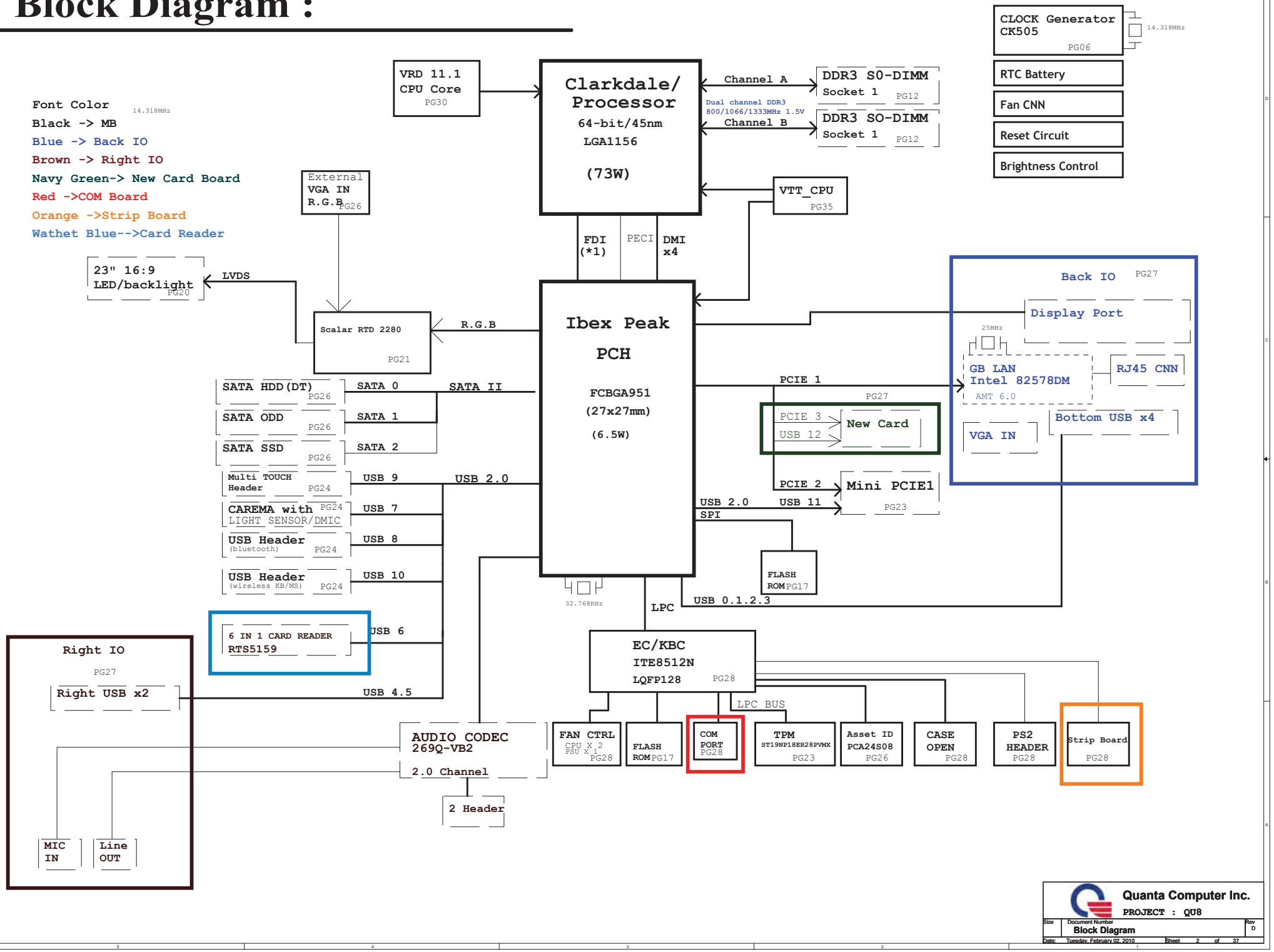
1. 1.2/10 P20,P26--Change CN11,CN28 footprint to 87216-300x-30p-ldh-1-smt, P/N to DFHD30MS760 for SMT issue
2. 2.2/10 P27--Modify EC control pin 28,pin 70 net CPU1_FAN_CTRL, ATTENTION for BIOS issue
3. 3.2/10 P32--Change PR107 pin1 to +P3V3_ALWAYS,NA PR108
4. 4.2/10 P27--Del D23,D26 for MMB brightness issue
5. 5.2/10 P21--Change R609 pin2 from RTD_CLK to RTD_CLK_R, Change R610 pin2 from RTD_DAT to RTD_DAT_R for Scalar update
6. 6.2/10 P21--Add CN36
7. 7.2/11 P22--TPM IC, change R103 source to +P3V3_S0 for leakage issue
8. 8.2/11 P24--Change L25~L28 from 200 ohm to 600 ohm for EMI issue
9. 9.2/22 P24--Change R363 from 22 ohm to 120 ohm for EMI issue
10. 10.2/23 P31--NA PR135 for power change
11. 11.2/23 P14--Change R247 to bottom for EMI issue
12. 12.2/23 P26--Del +VCC1_8_PCH_S0
13. 13.2/24 P26--NA BZ2, change to option

| MODEL | FROM | To |
|---|---|---|
| 1 | | 1C |
| 2 | | 1C |
| 3 | | 1C |
| 4 | | 1C |
| 5 | | 1C |
| 6 | | 1C |
| 7 | | 1C |
| 8 | | 1C |
| 9 | | 1C |
| 10 | | 1C |
| 11 | | 1C |
| 12 | | 1C |
| 13 | | 1C |
| 14 | | 1C |
| 15 | | 1C |
| 16 | | 1C |
| 17 | | 1C |
| 18 | | 1C |
| 19 | | 1C |
| 20 | | 1C |
| 21 | | 1C |
| 22 | | 1C |
| 23 | | 1C |
| 24 | | 1C |
| 25 | | 1C |
| 26 | | 1C |
| 27 | | 1C |
| 28 | | 1C |
| 29 | | 1C |
| 30 | | 1C |
| 31 | | 1C |
| 32 | | 1C |
| 33 | | 1C |
| 34 | | 1C |
| 35 | | 1C |
| 36 | | 1C |
| 37 | | 1C |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PROJECT MODEL : | | APPROVED BY: | Alan Chuang #15569 | DATE: | | DOC NO: | |
| PART NUMBER: | | DRAWING BY: | | REVISON: | 1C | SHEET | 1 OF 1 |

Quanta Computer Inc.
PROJECT : QU8
Size: Document Number: Chabge List Rev: D
Date: Friday, February 26, 2010 Sheet 1 of 37

# Block Diagram :




Quanta Computer Inc.

PROJECT : QU8

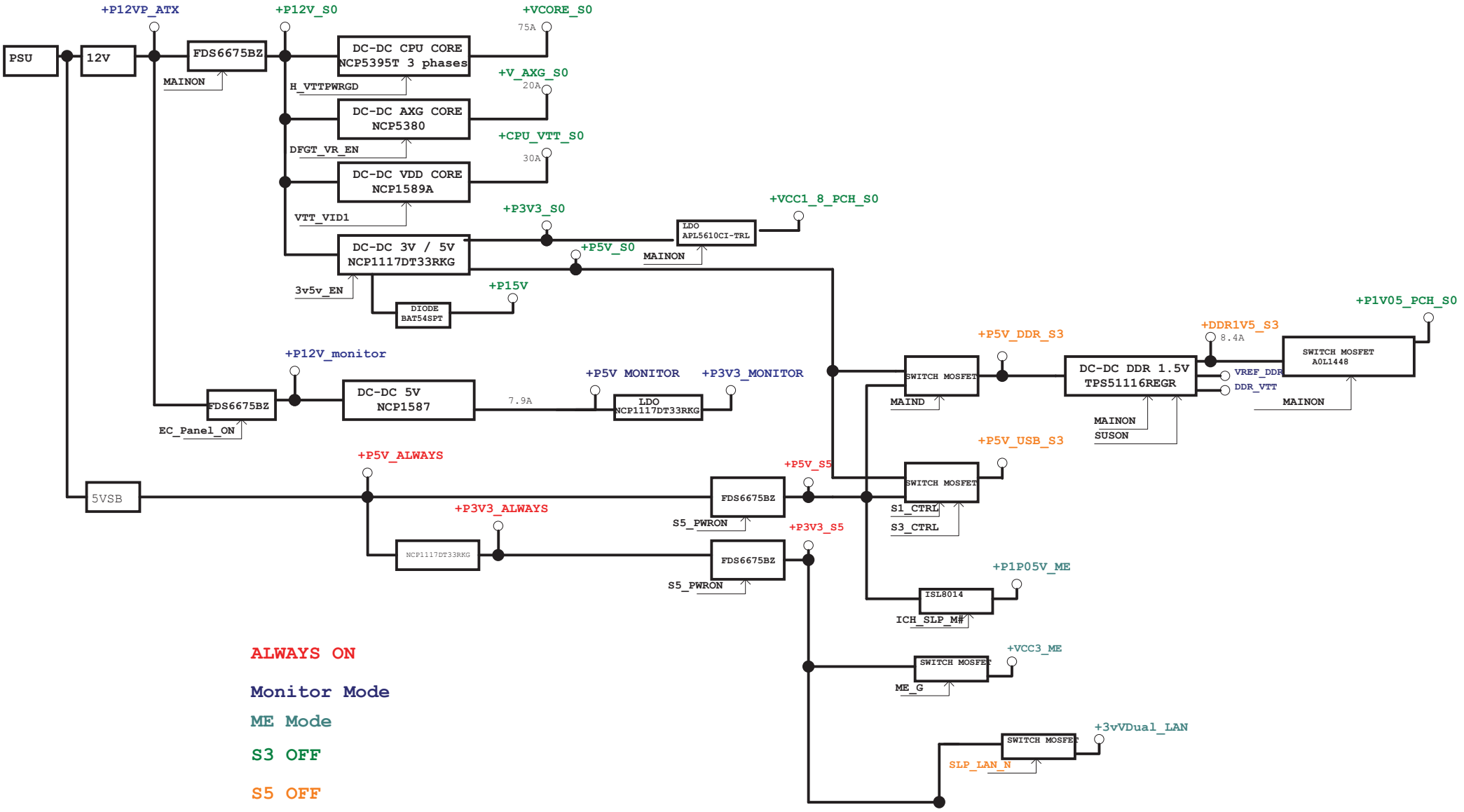
| Size | Document Number | Rev |
|---|---|---|
| | Block Diagram | D |

Date: Tuesday, February 02, 2010 Sheet 2 of 37

# Schematic Page Description :

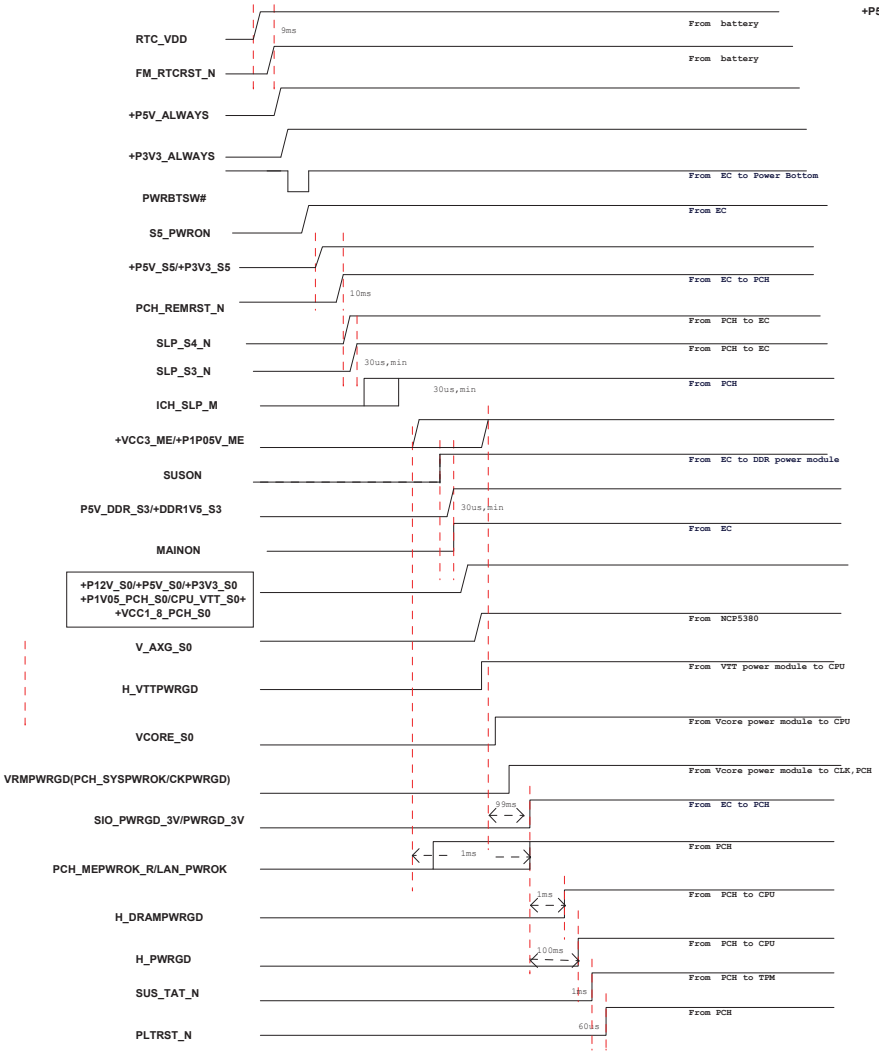



Quanta Computer Inc.
PROJECT : QU8
Size | Document Number: Page Description | Rev: D
Date: Tuesday, February 02, 2010 | Sheet 3 of 37

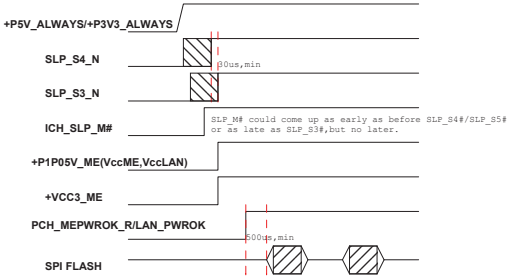



Quanta Computer Inc.
PROJECT : QU8
Power Map/Sequence
Rev: D
Tuesday, February 02, 2010
Sheet 4 of 37

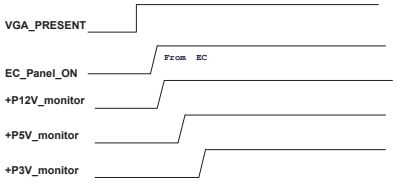
# power on Sequence




## SLP_M#, M3 ON



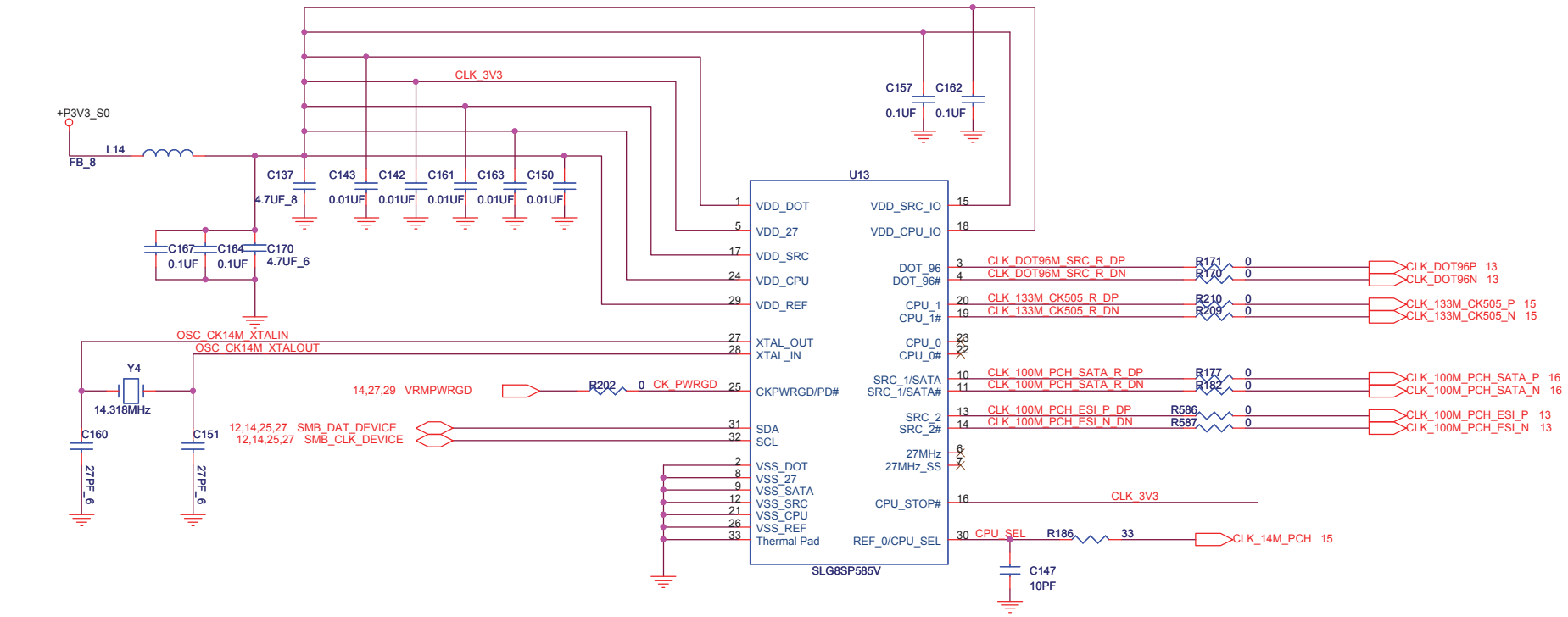

## VGA_IN

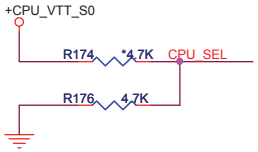



## Voltage Rails

| Power | Voltage | S0~S2 | S3 | S4 | S5 | Ctl Signal |
|---|---|---|---|---|---|---|
| +P5V_ALWAYS | 5V | V | V | V | V | |
| +P3V3_ALWAYS | 3.3V | V | V | V | V | |
| +P5V_S5 | 5V | V | V | V | V | S5_PWRON |
| +P3V3_S5 | 3.3V | V | V | | | S5_PWRON |
| +VCC3_ME | 3V | V | V | | | ME_G |
| +P1P05V_ME | 1.05V | V | V | | | ICH_SLP_M |
| P5V_DDR_S3 | 5V | V | | | | SUSD/MAINON |
| +DDR1V5_S3 | 1.5V | V | | | | SUSD/MAINON |
| +P12V_S0 | 12V | V | | | | MAINON |
| +P5V_S0 | 5V | V | | | | MAINON |
| +P3V3_S0 | 3.3V | V | | | | MAINON |
| +VCC1_8_PCH_S0 | 1.8V | V | | | | MAINON |
| P15V | 15V | V | | | | MAINON |
| +P1V05_PCH_S0 | 1.05V | V | | | | MAINON |
| CPU_VTT_S0+ | 1.1V | V | | | | MAINON |
| V_AXG_S0 | 1.1 | V | | | | CPU_VTT_S0+ |
| VCORE_S0 | 1.1 | V | | | | H_VTTPWRGD |
| +P12V_monitor | 12V | V | | | | EC_Panel_ON |
| +P5V_monitor | 5V | V | | | | EC_Panel_ON |
| +P3V_monitor | 3V | V | | | | EC_Panel_ON |

Quanta Computer Inc.
PROJECT : QU8
Size: Document Number: Power Diagram Rev: D
Date: Tuesday, February 02, 2010 Sheet 5 of 37



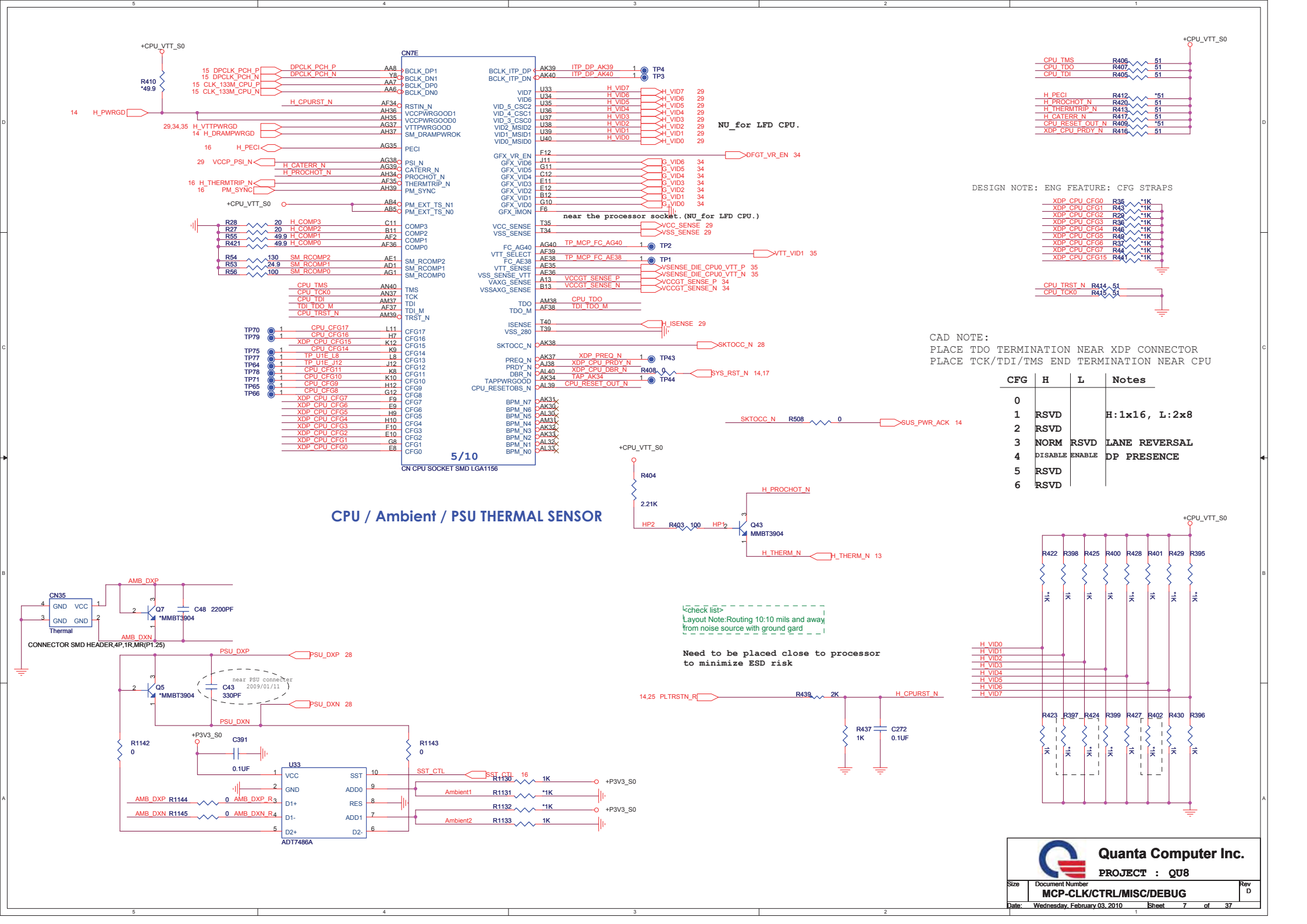

| PIN30 | CPU_0 | CPU_1 |
|---|---|---|
| 0(default) | 133MHZ | 133MHZ |
| 1(0.7v~1.5v) | 100MHZ | 100MHZ |

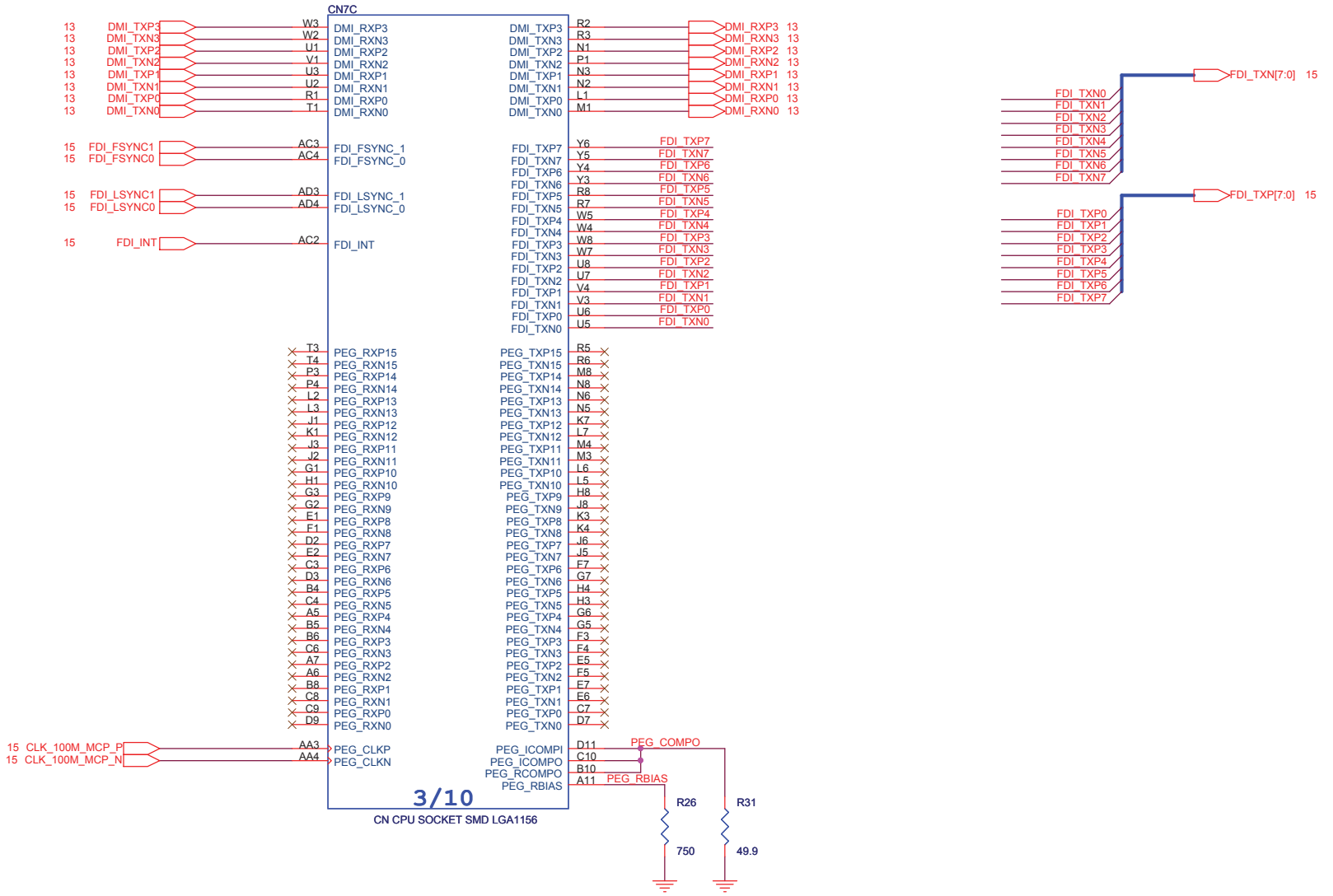
Quanta Computer Inc.

PROJECT : QU8

| Size | Document Number | Rev |
|---|---|---|
| | CK505 | D |

Date: Wednesday, February 03, 2010 Sheet 6 of 37


CN7E
CN CPU SOCKET SMD LGA1156
5/10
NU_for LFD CPU.
near the processor socket.(NU_for LFD CPU.)
DESIGN NOTE: ENG FEATURE: CFG STRAPS
CAD NOTE:
PLACE TDO TERMINATION NEAR XDP CONNECTOR
PLACE TCK/TDI/TMS END TERMINATION NEAR CPU
CFG | H | L | Notes
0
1 RSVD H:1x16, L:2x8
2 RSVD
3 NORM RSVD LANE REVERSAL
4 DISABLE ENABLE DP PRESENCE
5 RSVD
6 RSVD
CPU / Ambient / PSU THERMAL SENSOR
CONNECTOR SMD HEADER,4P,1R,MR(P1.25)
ADT7486A
<check list>
Layout Note:Routing 10:10 mils and away from noise source with ground gard
Need to be placed close to processor to minimize ESD risk
Quanta Computer Inc.
PROJECT : QU8
Document Number
MCP-CLK/CTRL/MISC/DEBUG
Rev D
Date: Wednesday, February 03, 2010
Sheet 7 of 37

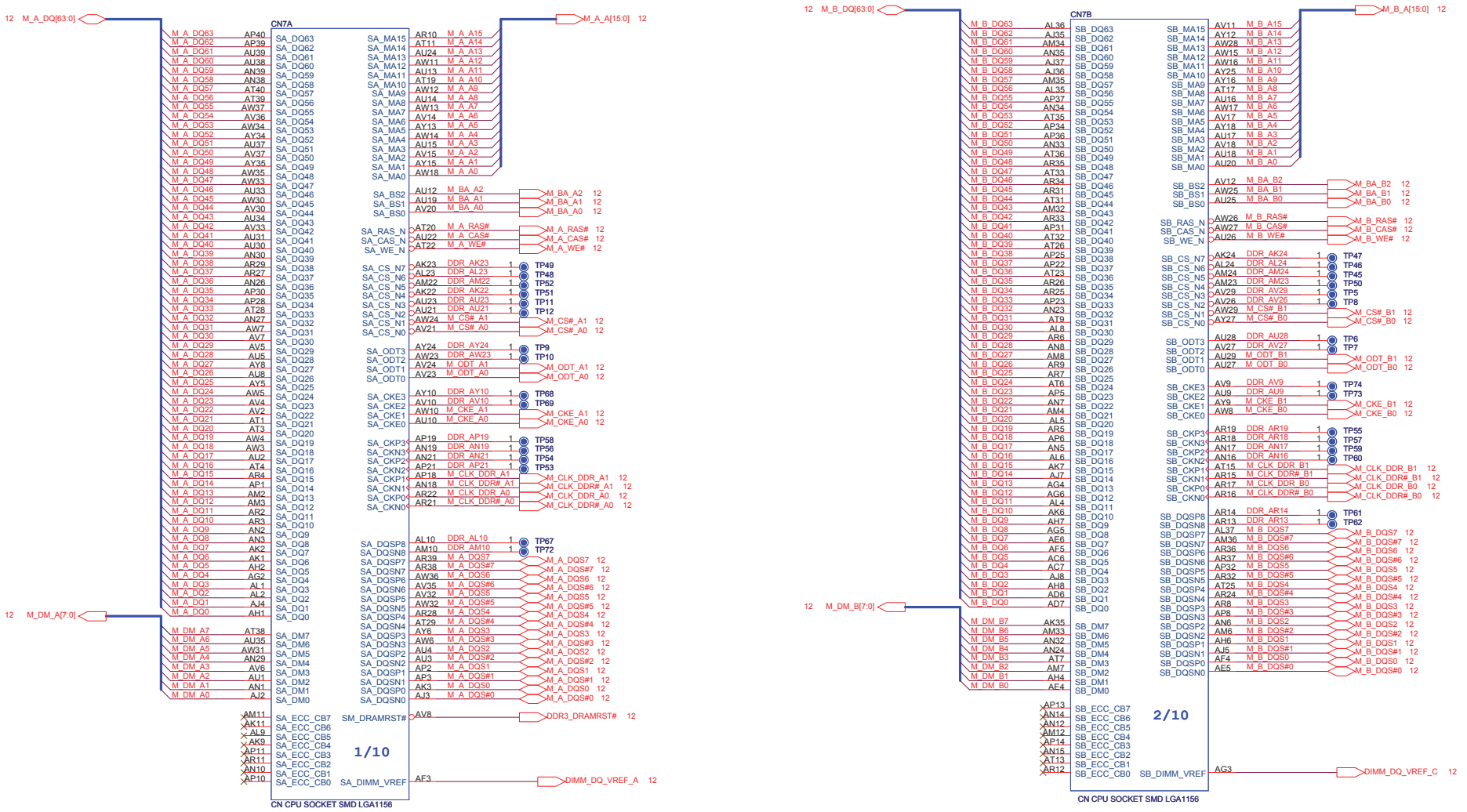



Quanta Computer Inc.

PROJECT : QU8

| Size | Document Number | Rev |
|---|---|---|
| | MCP-PCIE/DMI | D |

Date: Wednesday, February 03, 2010 Sheet 8 of 37

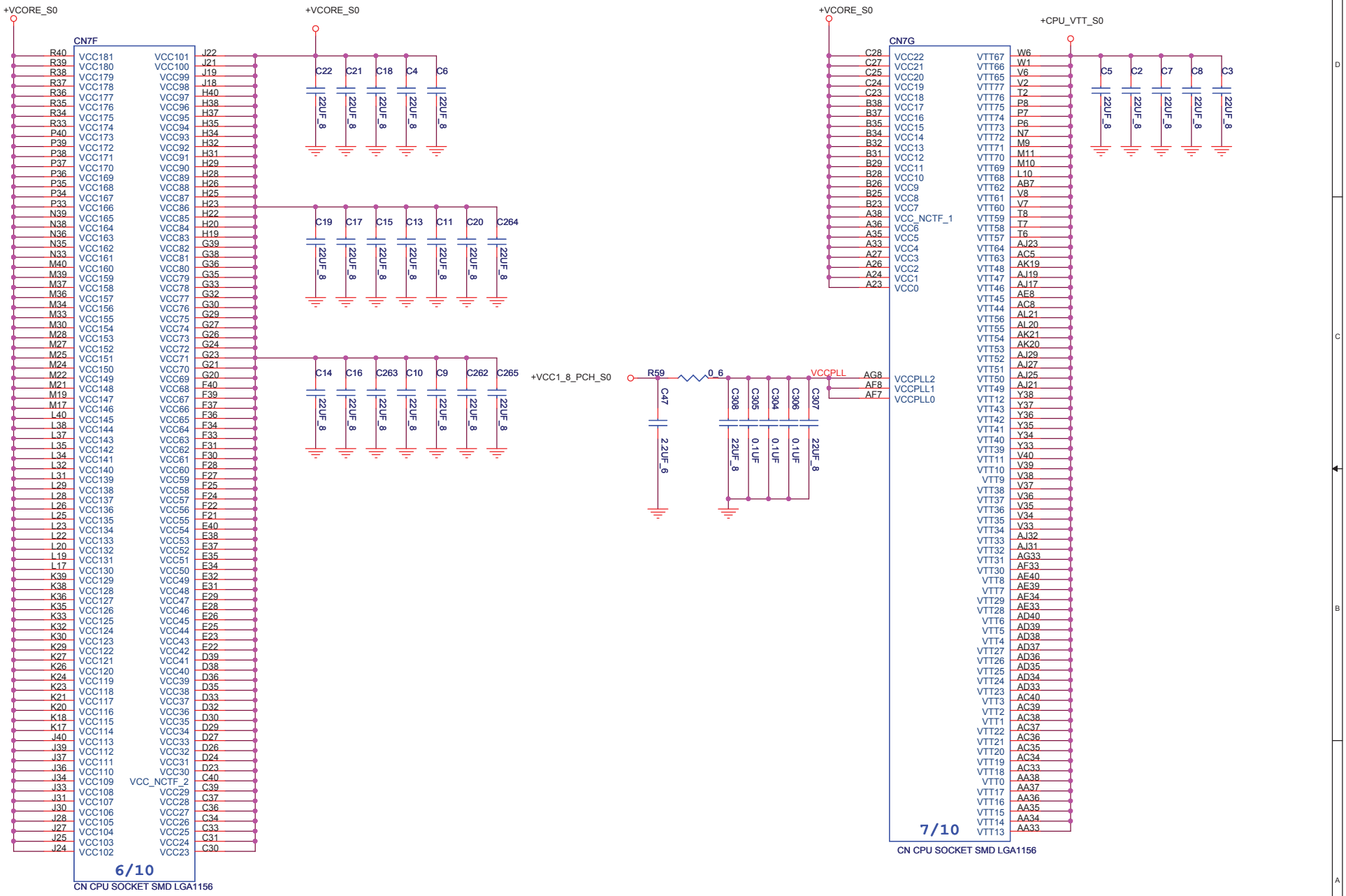



Quanta Computer Inc.

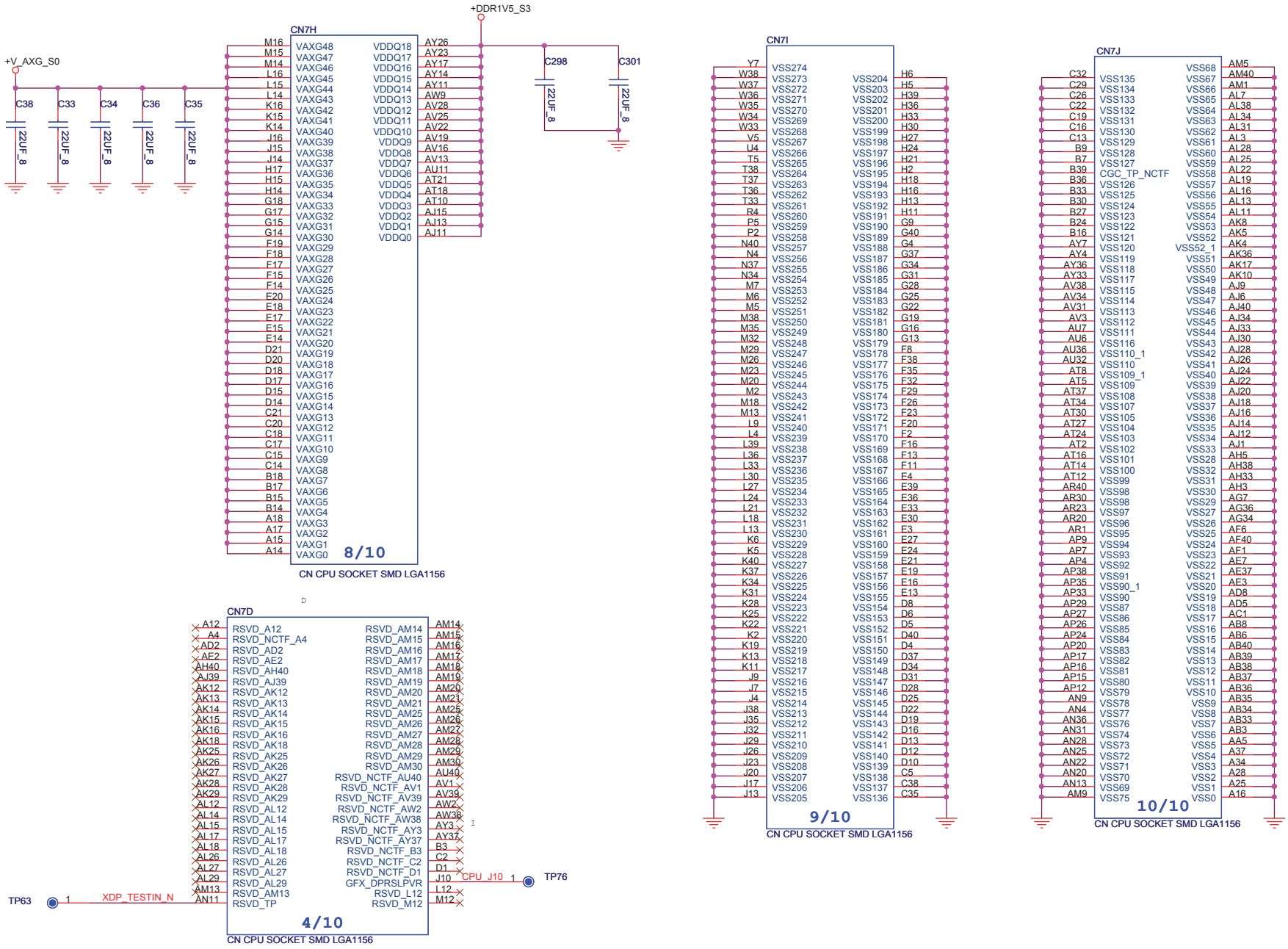
PROJECT : QU8

| Size | Document Number | Rev |
|---|---|---|
| | MCP-DDR3 | D |

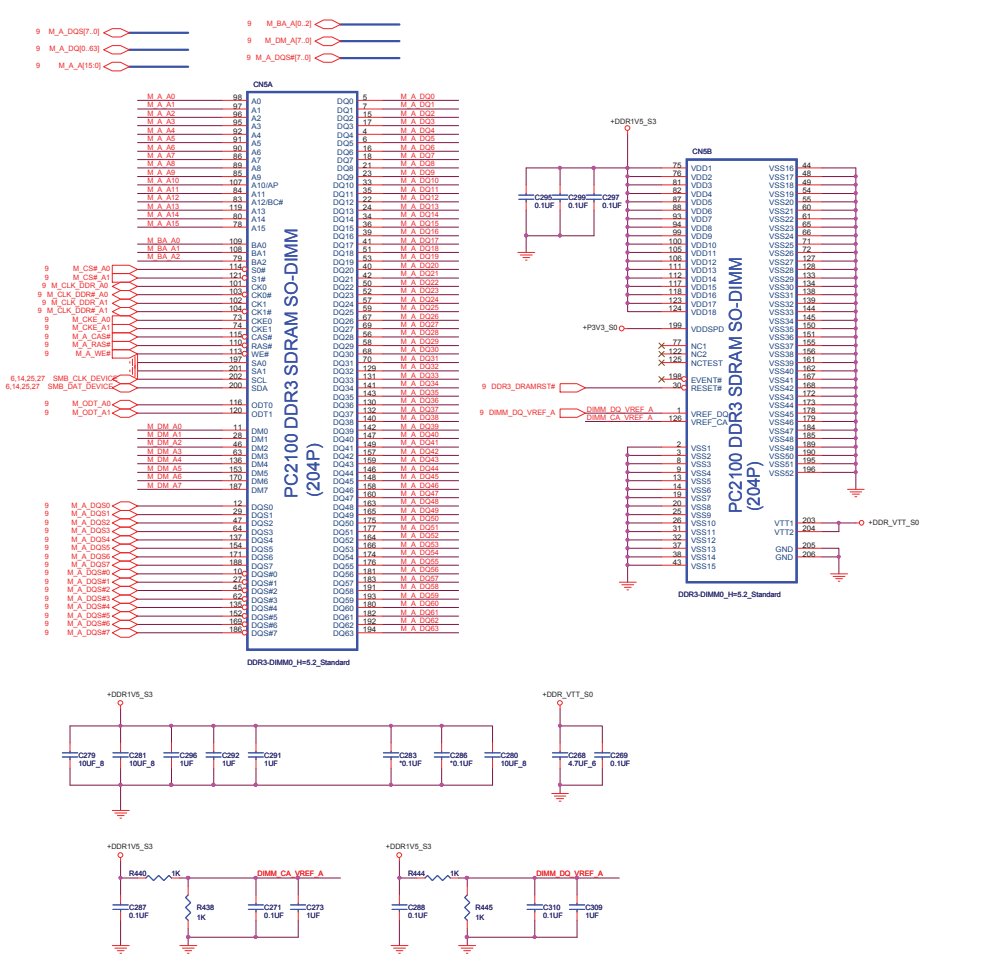
Date: Wednesday, February 03, 2010 Sheet 9 of 37



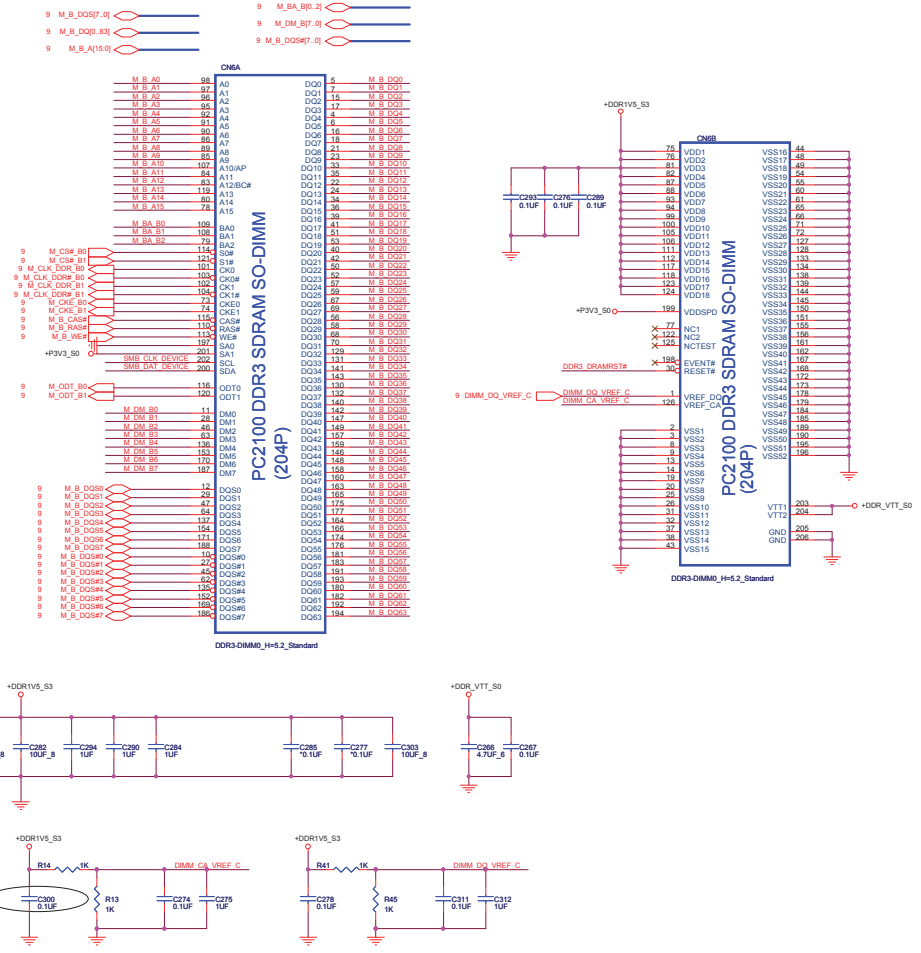

| | | |
|---|---|---|
| Quanta Computer Inc. | | |
| PROJECT : QU8 | | |
| Size | Document Number: MCP-VCCP CONNECTOR | Rev: D |
| Date: Tuesday, February 02, 2010 | Sheet 10 of 37 | |


+V_AXG_S0
+DDR1V5_S3
C38
C33
C34
C36
C35
C298
C301
22UF_8
CN7H
VAXG48 VAXG47 VAXG46 VAXG45 VAXG44 VAXG43 VAXG42 VAXG41 VAXG40 VAXG39 VAXG38 VAXG37 VAXG36 VAXG35 VAXG34 VAXG33 VAXG32 VAXG31 VAXG30 VAXG29 VAXG28 VAXG27 VAXG26 VAXG25 VAXG24 VAXG23 VAXG22 VAXG21 VAXG20 VAXG19 VAXG18 VAXG17 VAXG16 VAXG15 VAXG14 VAXG13 VAXG12 VAXG11 VAXG10 VAXG9 VAXG8 VAXG7 VAXG6 VAXG5 VAXG4 VAXG3 VAXG2 VAXG1 VAXG0
VDDQ18 VDDQ17 VDDQ16 VDDQ15 VDDQ14 VDDQ13 VDDQ12 VDDQ11 VDDQ10 VDDQ9 VDDQ8 VDDQ7 VDDQ6 VDDQ5 VDDQ4 VDDQ3 VDDQ2 VDDQ1 VDDQ0
8/10
CN CPU SOCKET SMD LGA1156
CN7D
RSVD_A12 RSVD_NCTF_A4 RSVD_AD2 RSVD_AE2 RSVD_AH40 RSVD_AJ39 RSVD_AK12 RSVD_AK13 RSVD_AK14 RSVD_AK15 RSVD_AK16 RSVD_AK18 RSVD_AK25 RSVD_AK26 RSVD_AK27 RSVD_AK28 RSVD_AK29 RSVD_AL12 RSVD_AL14 RSVD_AL15 RSVD_AL17 RSVD_AL18 RSVD_AL26 RSVD_AL27 RSVD_AL29 RSVD_AM13 RSVD_TP
RSVD_AM14 RSVD_AM15 RSVD_AM16 RSVD_AM17 RSVD_AM18 RSVD_AM19 RSVD_AM20 RSVD_AM21 RSVD_AM25 RSVD_AM26 RSVD_AM27 RSVD_AM28 RSVD_AM29 RSVD_AM30 RSVD_NCTF_AU40 RSVD_NCTF_AV1 RSVD_NCTF_AV39 RSVD_NCTF_AW2 RSVD_NCTF_AW38 RSVD_NCTF_AY3 RSVD_NCTF_AY37 RSVD_NCTF_B3 RSVD_NCTF_C2 RSVD_NCTF_D1 GFX_DPRSLPVR RSVD_L12 RSVD_M12
4/10
CN CPU SOCKET SMD LGA1156
TP63
XDP_TESTIN_N
CPU_J10
TP76
CN7I
VSS274 VSS273 VSS272 VSS271 VSS270 VSS269 VSS268 VSS267 VSS266 VSS265 VSS264 VSS263 VSS262 VSS261 VSS260 VSS259 VSS258 VSS257 VSS256 VSS255 VSS254 VSS253 VSS252 VSS251 VSS250 VSS249 VSS248 VSS247 VSS246 VSS245 VSS244 VSS243 VSS242 VSS241 VSS240 VSS239 VSS238 VSS237 VSS236 VSS235 VSS234 VSS233 VSS232 VSS231 VSS230 VSS229 VSS228 VSS227 VSS226 VSS225 VSS224 VSS223 VSS222 VSS221 VSS220 VSS219 VSS218 VSS217 VSS216 VSS215 VSS214 VSS213 VSS212 VSS211 VSS210 VSS209 VSS208 VSS207 VSS206 VSS205
VSS204 VSS203 VSS202 VSS201 VSS200 VSS199 VSS198 VSS197 VSS196 VSS195 VSS194 VSS193 VSS192 VSS191 VSS190 VSS189 VSS188 VSS187 VSS186 VSS185 VSS184 VSS183 VSS182 VSS181 VSS180 VSS179 VSS178 VSS177 VSS176 VSS175 VSS174 VSS173 VSS172 VSS171 VSS170 VSS169 VSS168 VSS167 VSS166 VSS165 VSS164 VSS163 VSS162 VSS161 VSS160 VSS159 VSS158 VSS157 VSS156 VSS155 VSS154 VSS153 VSS152 VSS151 VSS150 VSS149 VSS148 VSS147 VSS146 VSS145 VSS144 VSS143 VSS142 VSS141 VSS140 VSS139 VSS138 VSS137 VSS136
9/10
CN CPU SOCKET SMD LGA1156
CN7J
VSS135 VSS134 VSS133 VSS132 VSS131 VSS130 VSS129 VSS128 VSS127 CGC_TP_NCTF VSS126 VSS125 VSS124 VSS123 VSS122 VSS121 VSS120 VSS119 VSS118 VSS117 VSS115 VSS114 VSS113 VSS112 VSS111 VSS116 VSS110_1 VSS110 VSS109_1 VSS109 VSS108 VSS107 VSS105 VSS104 VSS103 VSS102 VSS101 VSS100 VSS99 VSS98 VSS98 VSS97 VSS96 VSS95 VSS94 VSS93 VSS92 VSS91 VSS90_1 VSS90 VSS87 VSS86 VSS85 VSS84 VSS83 VSS82 VSS81 VSS80 VSS79 VSS78 VSS77 VSS76 VSS74 VSS73 VSS72 VSS71 VSS70 VSS69 VSS75
VSS68 VSS67 VSS66 VSS65 VSS64 VSS63 VSS62 VSS61 VSS60 VSS59 VSS58 VSS57 VSS56 VSS55 VSS54 VSS53 VSS52 VSS52_1 VSS51 VSS50 VSS49 VSS48 VSS47 VSS46 VSS45 VSS44 VSS43 VSS42 VSS41 VSS40 VSS39 VSS38 VSS37 VSS36 VSS35 VSS34 VSS33 VSS28 VSS32 VSS31 VSS30 VSS29 VSS27 VSS26 VSS25 VSS24 VSS23 VSS22 VSS21 VSS20 VSS19 VSS18 VSS17 VSS16 VSS15 VSS14 VSS13 VSS12 VSS11 VSS10 VSS9 VSS8 VSS7 VSS6 VSS5 VSS4 VSS3 VSS2 VSS1 VSS0
10/10
CN CPU SOCKET SMD LGA1156
Quanta Computer Inc.
PROJECT : QU8
Size
Document Number
MCP-MISC VCC/GND
Rev D
Date: Tuesday, February 02, 2010
Sheet 11 of 37

# DDR3 CHANNEL A DIMM 0




# DDR3 CHANNEL B DIMM 0

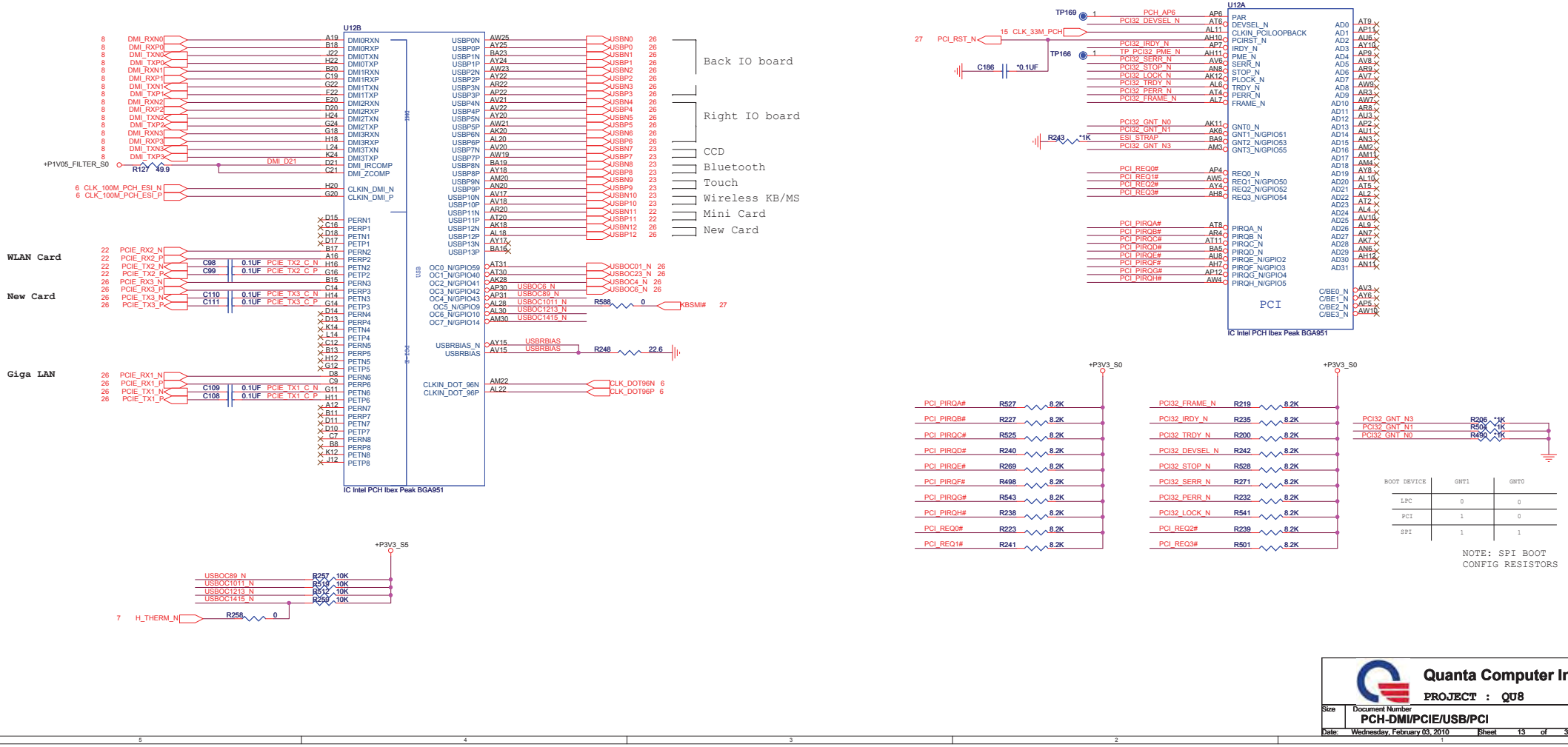









| | | | |
|---|---|---|---|
| Quanta Computer Inc. | | | |
| PROJECT : QU8 | | | |
| Size | Document Number | | Rev |
| | DDR3-CHANNEL A,B | | D |
| Date: Wednesday, February 03, 2010 | Sheet 12 of 37 | | |



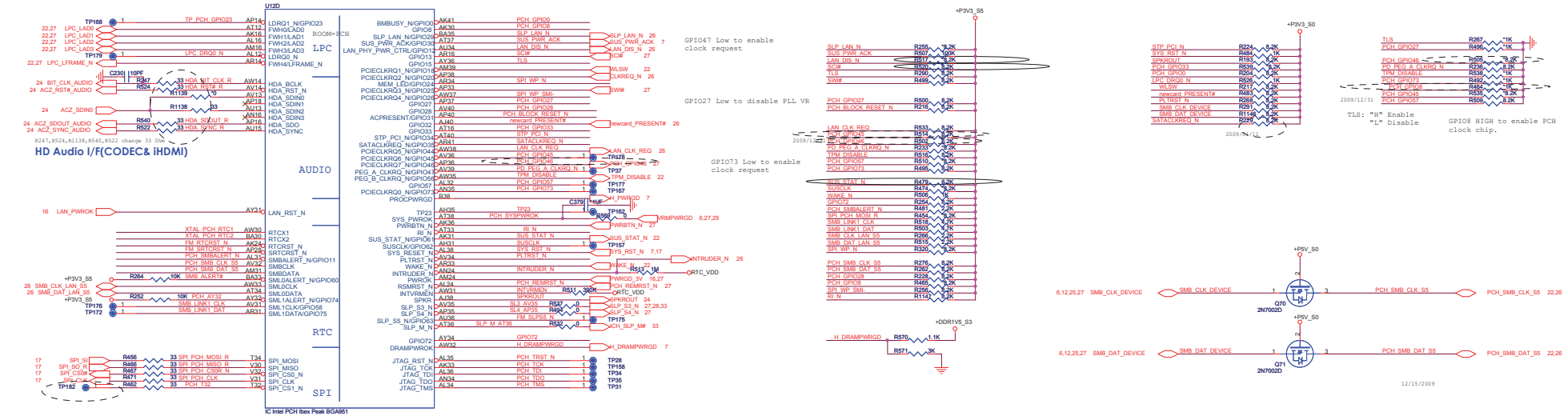

| BOOT DEVICE | GNT1 | GNT0 |
|---|---|---|
| LPC | 0 | 0 |
| PCI | 1 | 0 |
| SPI | 1 | 1 |

Quanta Computer Inc.

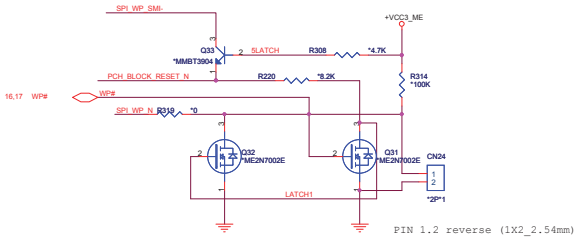
PROJECT : QU8

| Size | Document Number | Rev |
|---|---|---|
| | PCH-DMI/PCIE/USB/PCI | D |

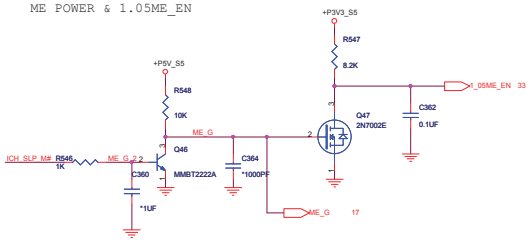
Date: Wednesday, February 03, 2010 Sheet 13 of 37



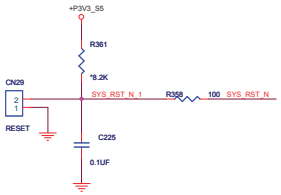

## SPI LATCH



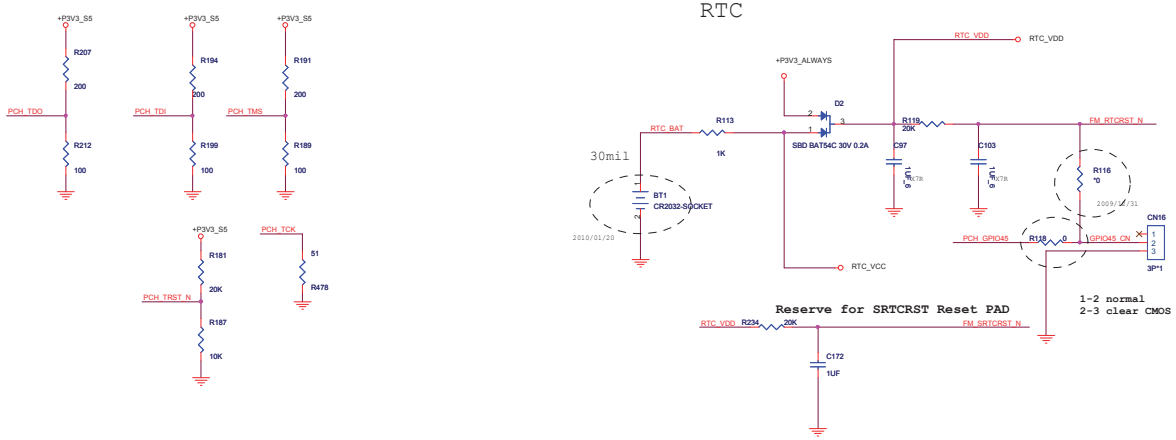

## ME POWER & 1.05ME_EN



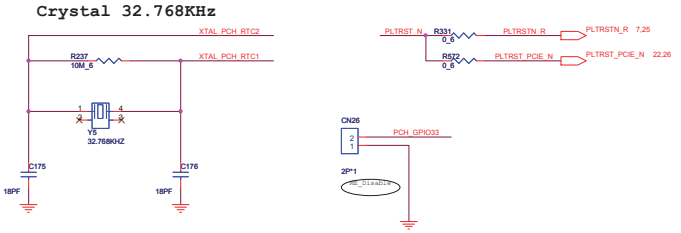
## SYSTEM RESET



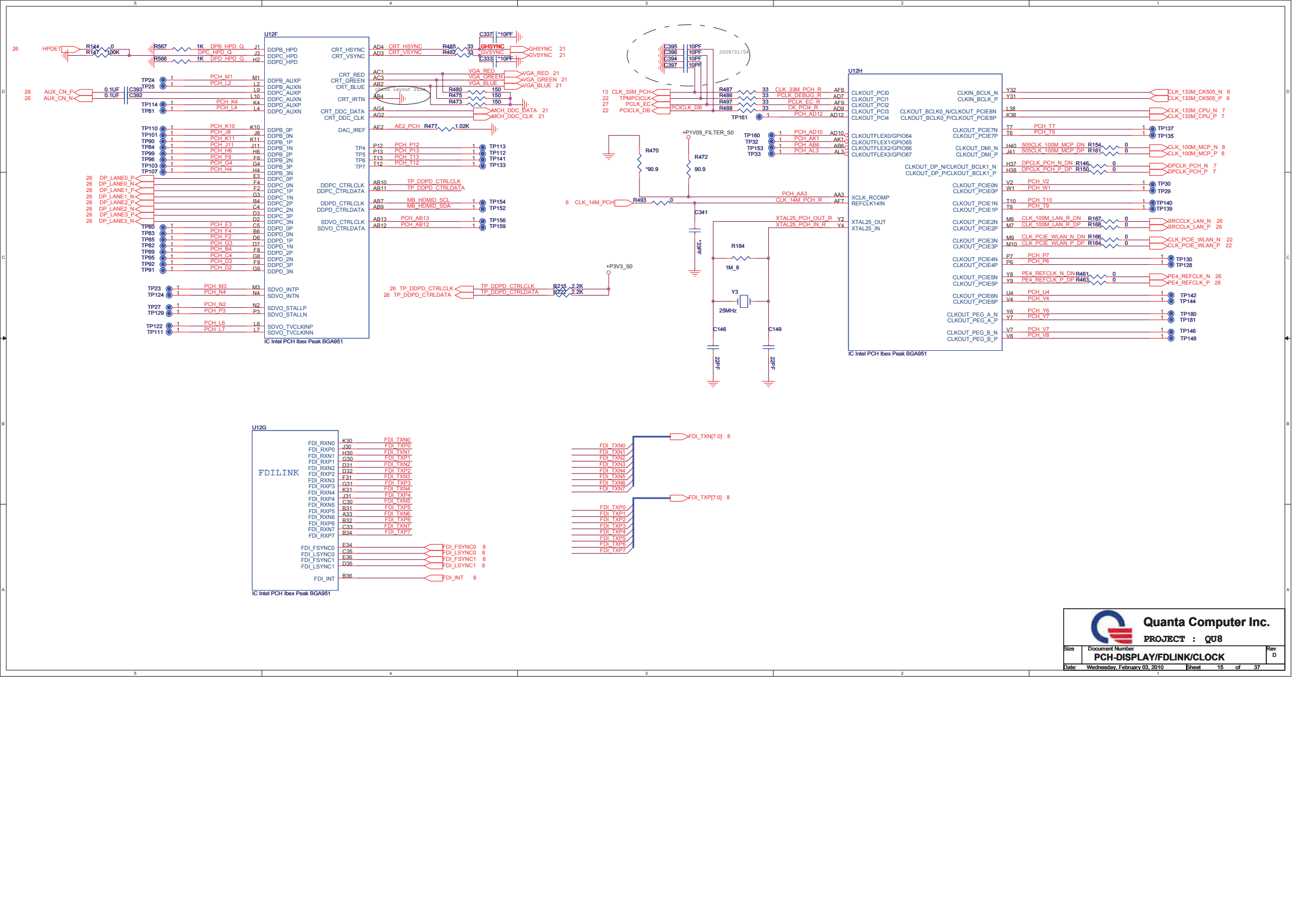
## RTC

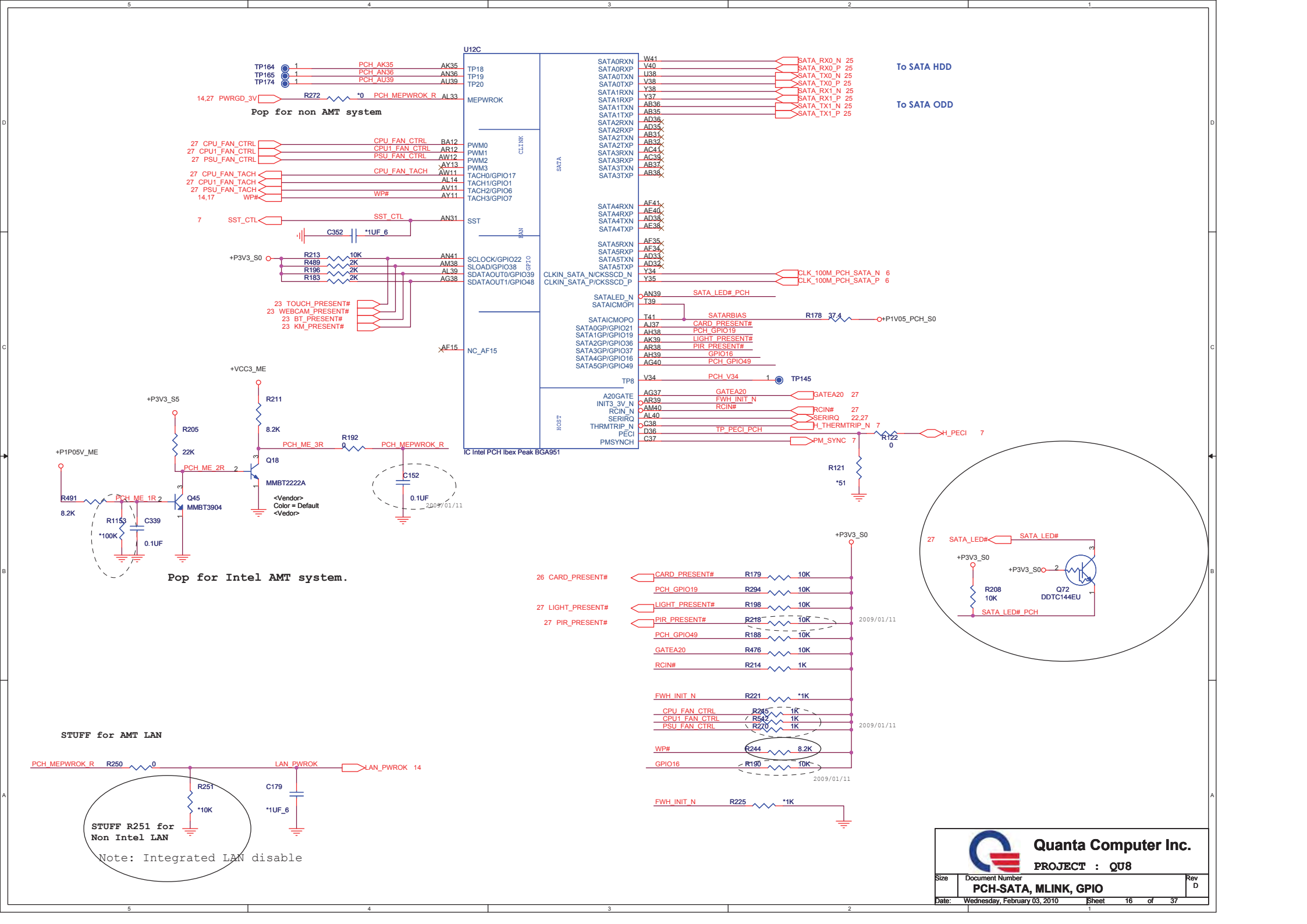


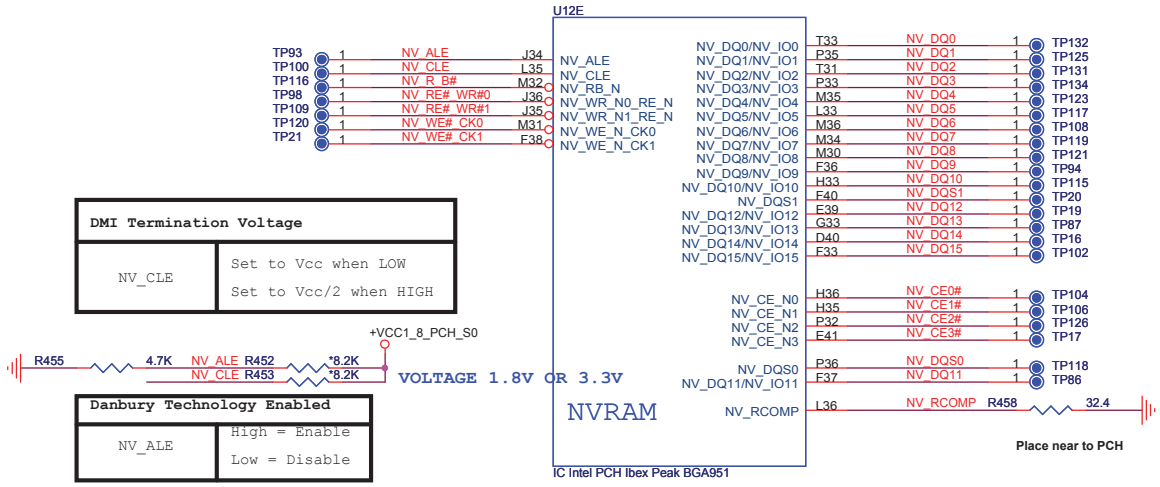

## Crystal 32.768KHz




| | | | |
|---|---|---|---|
| Quanta Computer Inc. | | | |
| PROJECT : QU8 | | | |
| Size | Document Number | | Rev |
| | PCH-PM/GPIO/SMB | | D |
| Date: Wednesday, February 03, 2010 | Sheet 14 of 37 | | |


U12F
IC Intel PCH Ibex Peak BGA951
U12H
IC Intel PCH Ibex Peak BGA951
U12G
FDILINK
IC Intel PCH Ibex Peak BGA951
Quanta Computer Inc.
PROJECT : QU8
PCH-DISPLAY/FDLINK/CLOCK
Size
Document Number
Rev
D
Date: Wednesday, February 03, 2010
Sheet 15 of 37

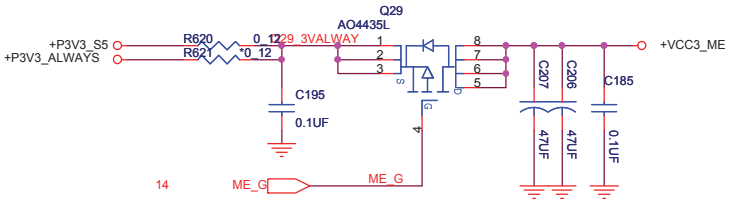

U12C
TP164
TP165
TP174
PCH_AK35
PCH_AN36
PCH_AU39
AK35
AN36
AU39
TP18
TP19
TP20
14,27 PWRGD_3V
R272
*0
PCH_MEPWROK_R
AL33
MEPWROK
Pop for non AMT system
27 CPU_FAN_CTRL
27 CPU1_FAN_CTRL
27 PSU_FAN_CTRL
CPU_FAN_CTRL
CPU1_FAN_CTRL
PSU_FAN_CTRL
BA12
AR12
AW12
PWM0
PWM1
PWM2
PWM3
CLINK
27 CPU_FAN_TACH
27 CPU1_FAN_TACH
27 PSU_FAN_TACH
14,17 WP#
CPU_FAN_TACH
WP#
AY13
AW11
AL14
AV11
AY11
TACH0/GPIO17
TACH1/GPIO1
TACH2/GPIO6
TACH3/GPIO7
7 SST_CTL
SST_CTL
AN31
SST
FAN
C352
*1UF_6
+P3V3_S0
R213
R489
R196
R183
10K
2K
2K
2K
AN41
AM38
AL39
AG38
SCLOCK/GPIO22
SLOAD/GPIO38
SDATAOUT0/GPIO39
SDATAOUT1/GPIO48
GPIO
23 TOUCH_PRESENT#
23 WEBCAM_PRESENT#
23 BT_PRESENT#
23 KM_PRESENT#
AF15
NC_AF15
SATA0RXN
SATA0RXP
SATA0TXN
SATA0TXP
SATA1RXN
SATA1RXP
SATA1TXN
SATA1TXP
SATA2RXN
SATA2RXP
SATA2TXN
SATA2TXP
SATA3RXN
SATA3RXP
SATA3TXN
SATA3TXP
W41
V40
U38
V38
Y38
Y37
AB36
AB35
AD36
AD35
AB31
AB32
AC41
AC39
AB37
AB38
SATA
SATA_RX0_N 25
SATA_RX0_P 25
SATA_TX0_N 25
SATA_TX0_P 25
SATA_RX1_N 25
SATA_RX1_P 25
SATA_TX1_N 25
SATA_TX1_P 25
To SATA HDD
To SATA ODD
SATA4RXN
SATA4RXP
SATA4TXN
SATA4TXP
SATA5RXN
SATA5RXP
SATA5TXN
SATA5TXP
AF41
AE40
AD38
AE38
AF35
AF34
AD33
AD32
CLKIN_SATA_N/CKSSCD_N
CLKIN_SATA_P/CKSSCD_P
Y34
Y35
CLK_100M_PCH_SATA_N 6
CLK_100M_PCH_SATA_P 6
SATALED_N
SATAICMOPI
AN39
T39
SATA_LED# PCH
SATARBIAS
T41
R178 37.4
+P1V05_PCH_S0
SATAICMOPO
SATA0GP/GPIO21
SATA1GP/GPIO19
SATA2GP/GPIO36
SATA3GP/GPIO37
SATA4GP/GPIO16
SATA5GP/GPIO49
AJ37
AH38
AK39
AR38
AH39
AG40
CARD_PRESENT#
PCH_GPIO19
LIGHT_PRESENT#
PIR_PRESENT#
GPIO16
PCH_GPIO49
TP8
V34
PCH_V34
TP145
A20GATE
INIT3_3V_N
RCIN_N
SERIRQ
THRMTRIP_N
PECI
PMSYNCH
AG37
AR39
AM40
AL40
C38
D36
C37
GATEA20
FWH_INIT_N
RCIN#
TP_PECI_PCH
PM_SYNC 7
GATEA20 27
RCIN# 27
SERIRQ 22,27
H_THERMTRIP_N 7
R122
0
H_PECI 7
R121
*51
HOST
IC Intel PCH Ibex Peak BGA951
+VCC3_ME
+P3V3_S5
+P1P05V_ME
R205
22K
R211
8.2K
PCH_ME_3R
R192
0
PCH_MEPWROK_R
PCH_ME_2R
Q18
MMBT2222A
<Vendor>
Color = Default
<Vedor>
C152
0.1UF
2009/01/11
R491
8.2K
PCH_ME_1R
Q45
MMBT3904
R1153
*100K
C339
0.1UF
Pop for Intel AMT system.
+P3V3_S0
26 CARD_PRESENT#
27 LIGHT_PRESENT#
27 PIR_PRESENT#
CARD_PRESENT#
PCH_GPIO19
LIGHT_PRESENT#
PIR_PRESENT#
PCH_GPIO49
GATEA20
RCIN#
R179
R294
R198
R218
R188
R476
R214
10K
10K
10K
10K
10K
10K
1K
2009/01/11
FWH_INIT_N
R221
*1K
CPU_FAN_CTRL
CPU1_FAN_CTRL
PSU_FAN_CTRL
R245
R542
R270
1K
1K
1K
2009/01/11
WP#
R244
8.2K
GPIO16
R190
10K
2009/01/11
FWH_INIT_N
R225
*1K
27 SATA_LED#
SATA_LED#
+P3V3_S0
+P3V3_S0
R208
10K
Q72
DDTC144EU
SATA_LED# PCH
STUFF for AMT LAN
PCH_MEPWROK_R
R250
0
LAN_PWROK
LAN_PWROK 14
R251
*10K
C179
*1UF_6
STUFF R251 for
Non Intel LAN
Note: Integrated LAN disable
Quanta Computer Inc.
PROJECT : QU8
Size
Document Number
PCH-SATA, MLINK, GPIO
Rev
D
Date: Wednesday, February 03, 2010
Sheet 16 of 37



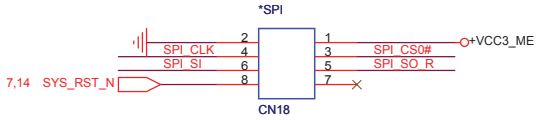

**Default Hi , drive Lo to disable AT-D function.**

Note: For NV_ALE, Intel Anti-Theft Technology is enabled when sampled high . pulling the signal low disable Intel Anti-Theft Technology

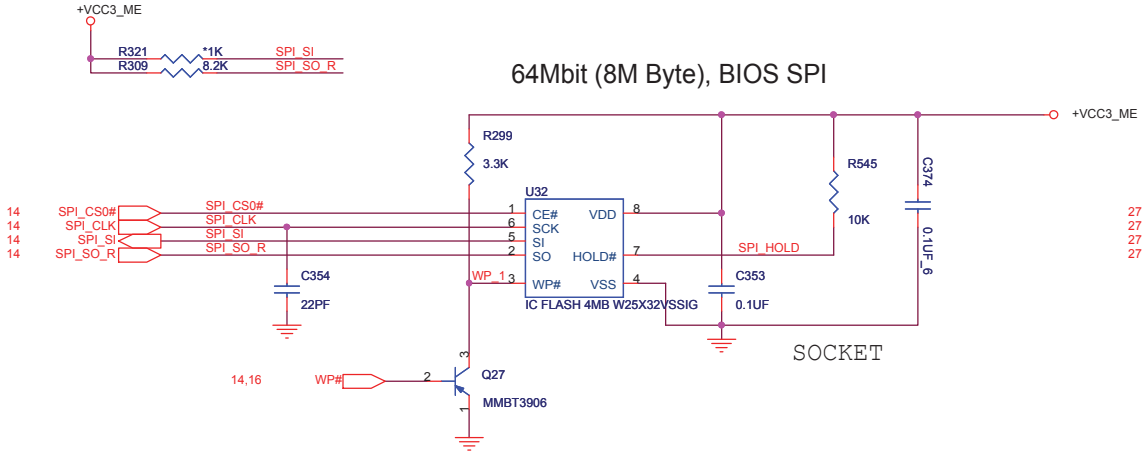
Note: NV_CLE signal should not be pulled low during the time the strap is sampled

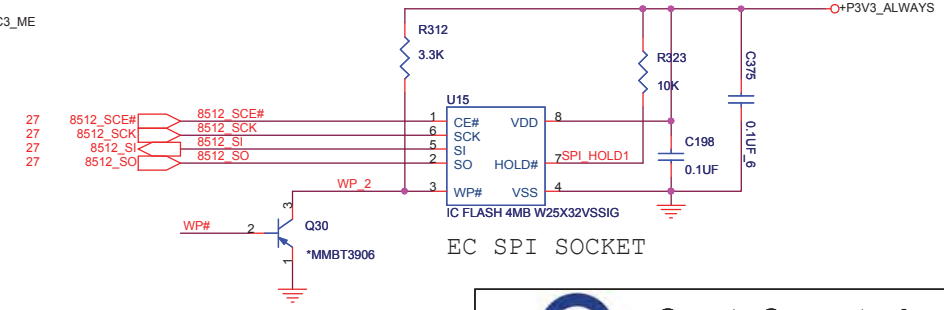



SPI debug header




64Mbit (8M Byte), BIOS SPI

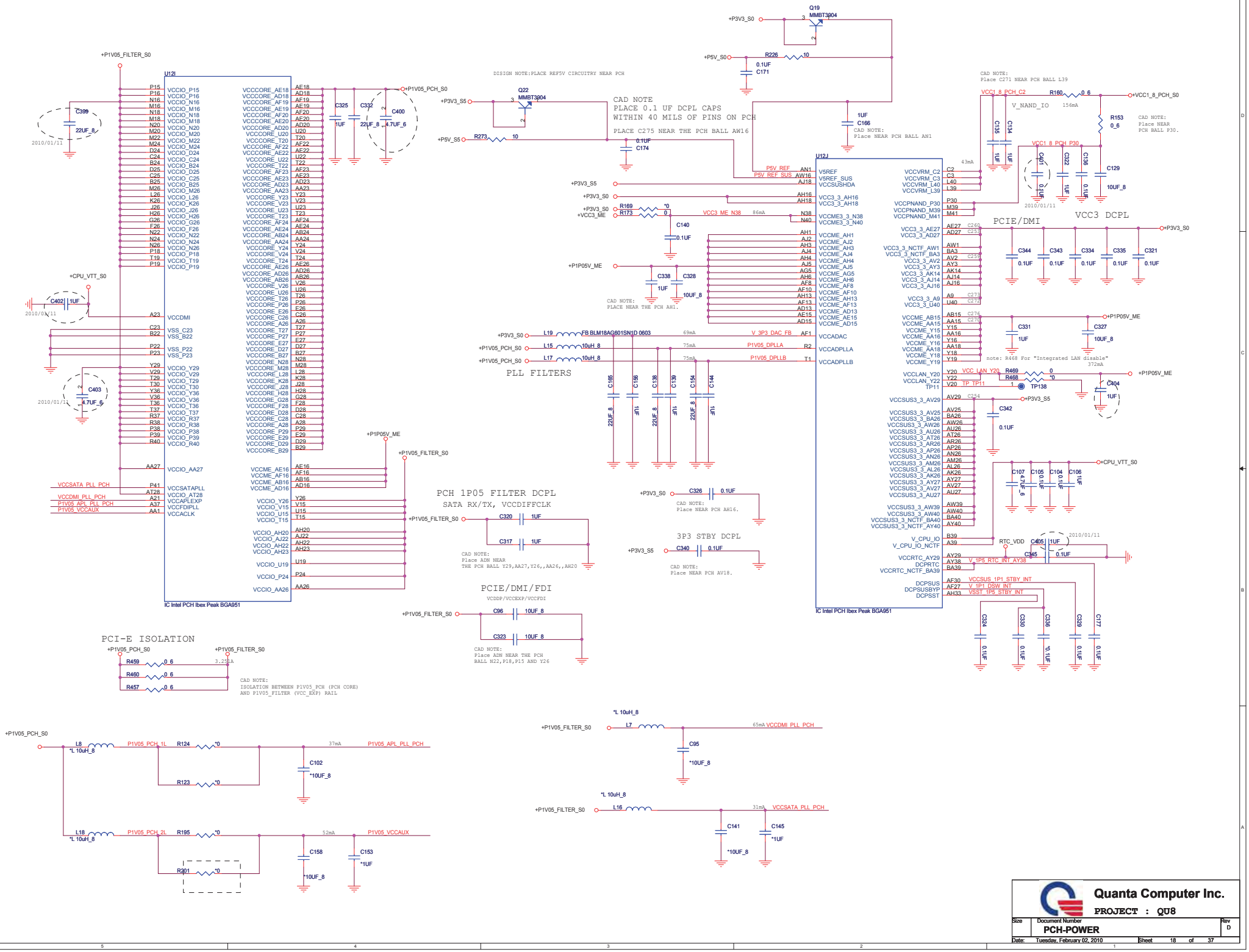


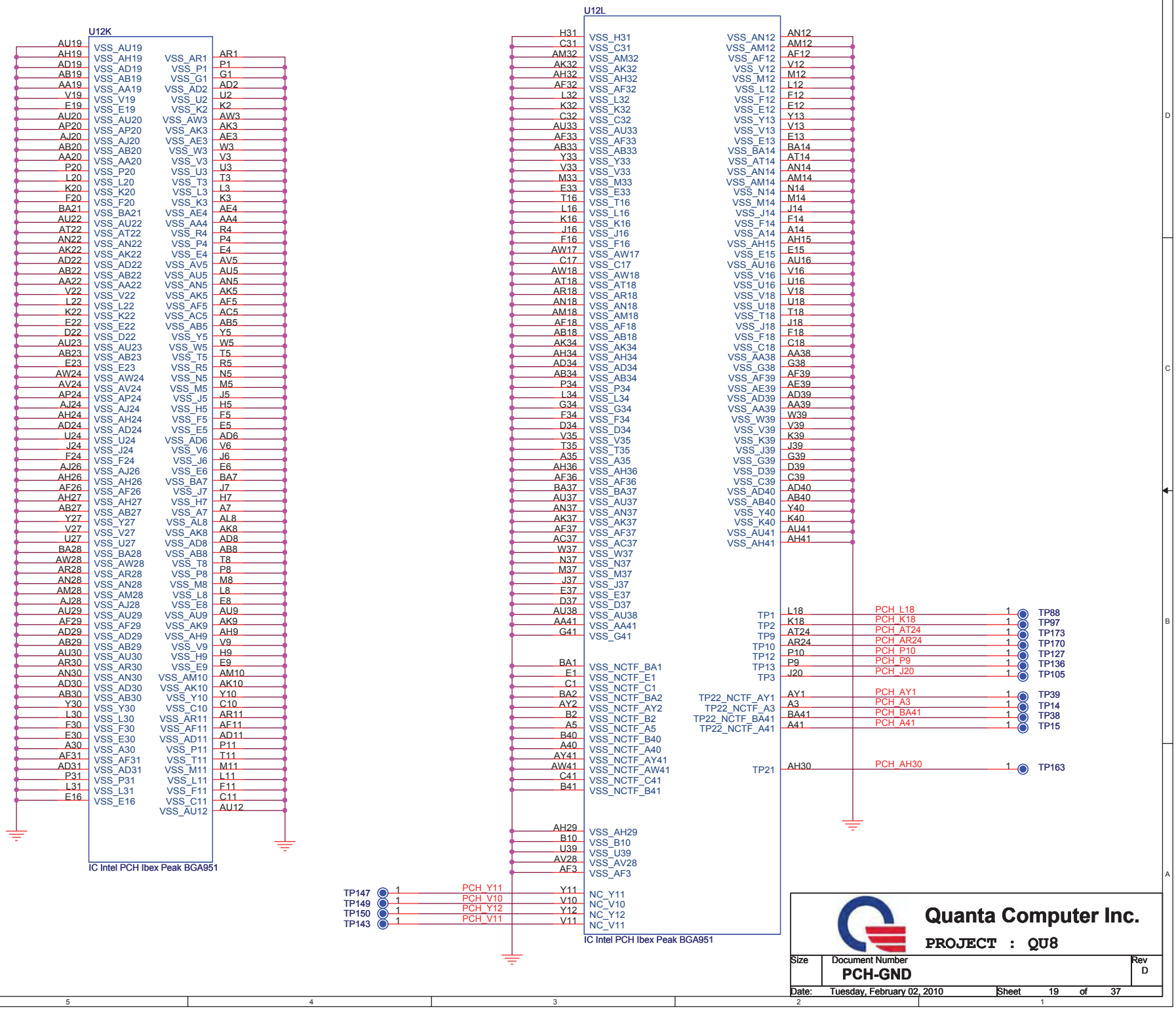



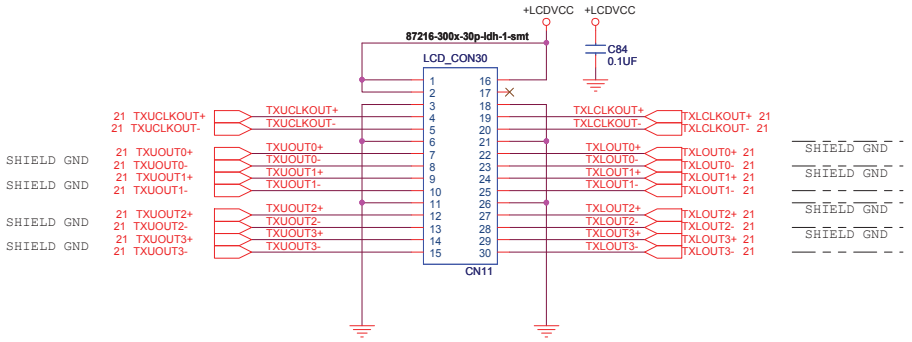

Quanta Computer Inc.

PROJECT : QU8

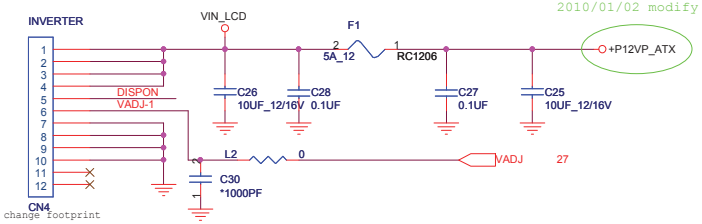
| Size | Document Number | Rev |
|---|---|---|
| | PCH-NV RAM (ONFI)/FLASH | D |
| Date: Wednesday, February 03, 2010 | Sheet 17 of 37 | |


U12I
IC Intel PCH Ibex Peak BGA951
U12J
IC Intel PCH Ibex Peak BGA951
PLL FILTERS
PCH 1P05 FILTER DCPL
SATA RX/TX, VCCDIFFCLK
PCIE/DMI/FDI
VCCDP/VCCEXP/VCCFDI
3P3 STBY DCPL
PCIE/DMI
VCC3 DCPL
PCI-E ISOLATION
CAD NOTE
PLACE 0.1 UF DCPL CAPS
WITHIN 40 MILS OF PINS ON PCH
PLACE C275 NEAR THE PCH BALL AW16
DISIGN NOTE:PLACE REF5V CIRCUITRY NEAR PCH
CAD NOTE:
Place C271 NEAR PCH BALL L39
CAD NOTE:
Place NEAR PCH BALL AN1
CAD NOTE:
Place NEAR PCH BALL P30.
CAD NOTE:
PLACE NEAR THE PCH AH1.
CAD NOTE:
Place NEAR PCH AH16.
CAD NOTE:
Place NEAR PCH AV18.
CAD NOTE:
Place ADN NEAR
THE PCH BALL Y29,AA27,Y26,,AA26,,AH20
CAD NOTE:
Place ADN NEAR THE PCH
BALL N22,P18,P15 AND Y26
CAD NOTE:
ISOLATION BETWEEN P1V05_PCH (PCH CORE)
AND P1V05_FILTER (VCC_EXP) RAIL
note: R468 For "Integrated LAN disable"
Quanta Computer Inc.
PROJECT : QU8
PCH-POWER
Size
Document Number
Rev D
Date: Tuesday, February 02, 2010
Sheet 18 of 37

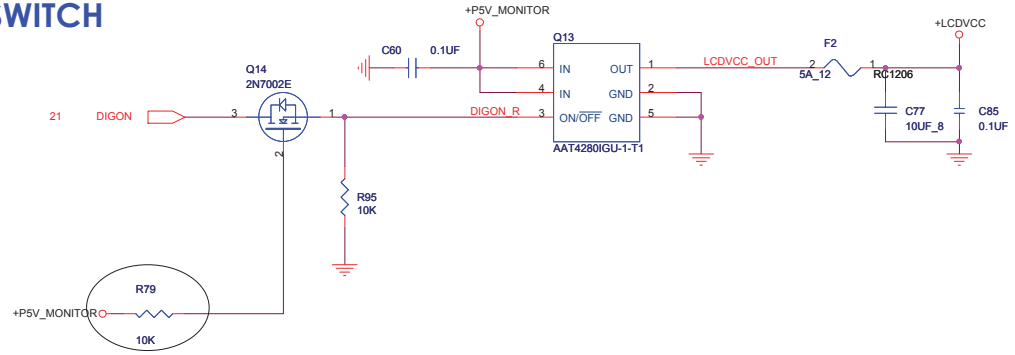

U12K
AU19 VSS_AU19
AH19 VSS_AH19
AD19 VSS_AD19
AB19 VSS_AB19
AA19 VSS_AA19
V19 VSS_V19
E19 VSS_E19
AU20 VSS_AU20
AP20 VSS_AP20
AJ20 VSS_AJ20
AB20 VSS_AB20
AA20 VSS_AA20
P20 VSS_P20
L20 VSS_L20
K20 VSS_K20
F20 VSS_F20
BA21 VSS_BA21
AU22 VSS_AU22
AT22 VSS_AT22
AN22 VSS_AN22
AK22 VSS_AK22
AD22 VSS_AD22
AB22 VSS_AB22
AA22 VSS_AA22
V22 VSS_V22
L22 VSS_L22
K22 VSS_K22
E22 VSS_E22
D22 VSS_D22
AU23 VSS_AU23
AB23 VSS_AB23
E23 VSS_E23
AW24 VSS_AW24
AV24 VSS_AV24
AP24 VSS_AP24
AJ24 VSS_AJ24
AH24 VSS_AH24
AD24 VSS_AD24
U24 VSS_U24
J24 VSS_J24
F24 VSS_F24
AJ26 VSS_AJ26
AH26 VSS_AH26
AF26 VSS_AF26
AH27 VSS_AH27
AB27 VSS_AB27
Y27 VSS_Y27
V27 VSS_V27
U27 VSS_U27
BA28 VSS_BA28
AW28 VSS_AW28
AR28 VSS_AR28
AN28 VSS_AN28
AM28 VSS_AM28
AJ28 VSS_AJ28
AU29 VSS_AU29
AF29 VSS_AF29
AD29 VSS_AD29
AB29 VSS_AB29
AU30 VSS_AU30
AR30 VSS_AR30
AN30 VSS_AN30
AD30 VSS_AD30
AB30 VSS_AB30
Y30 VSS_Y30
L30 VSS_L30
F30 VSS_F30
E30 VSS_E30
A30 VSS_A30
AF31 VSS_AF31
AD31 VSS_AD31
P31 VSS_P31
L31 VSS_L31
E16 VSS_E16
VSS_AR1 AR1
VSS_P1 P1
VSS_G1 G1
VSS_AD2 AD2
VSS_U2 U2
VSS_K2 K2
VSS_AW3 AW3
VSS_AK3 AK3
VSS_AE3 AE3
VSS_W3 W3
VSS_V3 V3
VSS_U3 U3
VSS_T3 T3
VSS_L3 L3
VSS_K3 K3
VSS_AE4 AE4
VSS_AA4 AA4
VSS_R4 R4
VSS_P4 P4
VSS_E4 E4
VSS_AV5 AV5
VSS_AU5 AU5
VSS_AN5 AN5
VSS_AK5 AK5
VSS_AF5 AF5
VSS_AC5 AC5
VSS_AB5 AB5
VSS_Y5 Y5
VSS_W5 W5
VSS_T5 T5
VSS_R5 R5
VSS_N5 N5
VSS_M5 M5
VSS_J5 J5
VSS_H5 H5
VSS_F5 F5
VSS_E5 E5
VSS_AD6 AD6
VSS_V6 V6
VSS_J6 J6
VSS_E6 E6
VSS_BA7 BA7
VSS_J7 J7
VSS_H7 H7
VSS_A7 A7
VSS_AL8 AL8
VSS_AK8 AK8
VSS_AD8 AD8
VSS_AB8 AB8
VSS_T8 T8
VSS_P8 P8
VSS_M8 M8
VSS_L8 L8
VSS_E8 E8
VSS_AU9 AU9
VSS_AK9 AK9
VSS_AH9 AH9
VSS_V9 V9
VSS_H9 H9
VSS_E9 E9
VSS_AM10 AM10
VSS_AK10 AK10
VSS_Y10 Y10
VSS_C10 C10
VSS_AR11 AR11
VSS_AF11 AF11
VSS_AD11 AD11
VSS_P11 P11
VSS_T11 T11
VSS_M11 M11
VSS_L11 L11
VSS_F11 F11
VSS_C11 C11
VSS_AU12 AU12
IC Intel PCH Ibex Peak BGA951
U12L
H31 VSS_H31
C31 VSS_C31
AM32 VSS_AM32
AK32 VSS_AK32
AH32 VSS_AH32
AF32 VSS_AF32
L32 VSS_L32
K32 VSS_K32
C32 VSS_C32
AU33 VSS_AU33
AF33 VSS_AF33
AB33 VSS_AB33
Y33 VSS_Y33
V33 VSS_V33
M33 VSS_M33
E33 VSS_E33
T16 VSS_T16
L16 VSS_L16
K16 VSS_K16
J16 VSS_J16
F16 VSS_F16
AW17 VSS_AW17
C17 VSS_C17
AW18 VSS_AW18
AT18 VSS_AT18
AR18 VSS_AR18
AN18 VSS_AN18
AM18 VSS_AM18
AF18 VSS_AF18
AB18 VSS_AB18
AK34 VSS_AK34
AH34 VSS_AH34
AD34 VSS_AD34
AB34 VSS_AB34
P34 VSS_P34
L34 VSS_L34
G34 VSS_G34
F34 VSS_F34
D34 VSS_D34
V35 VSS_V35
T35 VSS_T35
A35 VSS_A35
AH36 VSS_AH36
AF36 VSS_AF36
BA37 VSS_BA37
AU37 VSS_AU37
AN37 VSS_AN37
AK37 VSS_AK37
AF37 VSS_AF37
AC37 VSS_AC37
W37 VSS_W37
N37 VSS_N37
M37 VSS_M37
J37 VSS_J37
E37 VSS_E37
D37 VSS_D37
AU38 VSS_AU38
AA41 VSS_AA41
G41 VSS_G41
BA1 VSS_NCTF_BA1
E1 VSS_NCTF_E1
C1 VSS_NCTF_C1
BA2 VSS_NCTF_BA2
AY2 VSS_NCTF_AY2
B2 VSS_NCTF_B2
A5 VSS_NCTF_A5
B40 VSS_NCTF_B40
A40 VSS_NCTF_A40
AY41 VSS_NCTF_AY41
AW41 VSS_NCTF_AW41
C41 VSS_NCTF_C41
B41 VSS_NCTF_B41
AH29 VSS_AH29
B10 VSS_B10
U39 VSS_U39
AV28 VSS_AV28
AF3 VSS_AF3
Y11 NC_Y11
V10 NC_V10
Y12 NC_Y12
V11 NC_V11
VSS_AN12 AN12
VSS_AM12 AM12
VSS_AF12 AF12
VSS_V12 V12
VSS_M12 M12
VSS_L12 L12
VSS_F12 F12
VSS_E12 E12
VSS_Y13 Y13
VSS_V13 V13
VSS_E13 E13
VSS_BA14 BA14
VSS_AT14 AT14
VSS_AN14 AN14
VSS_AM14 AM14
VSS_N14 N14
VSS_M14 M14
VSS_J14 J14
VSS_F14 F14
VSS_A14 A14
VSS_AH15 AH15
VSS_E15 E15
VSS_AU16 AU16
VSS_V16 V16
VSS_U16 U16
VSS_V18 V18
VSS_U18 U18
VSS_T18 T18
VSS_J18 J18
VSS_F18 F18
VSS_C18 C18
VSS_AA38 AA38
VSS_G38 G38
VSS_AF39 AF39
VSS_AE39 AE39
VSS_AD39 AD39
VSS_AA39 AA39
VSS_W39 W39
VSS_V39 V39
VSS_K39 K39
VSS_J39 J39
VSS_G39 G39
VSS_D39 D39
VSS_C39 C39
VSS_AD40 AD40
VSS_AB40 AB40
VSS_Y40 Y40
VSS_K40 K40
VSS_AU41 AU41
VSS_AH41 AH41
TP1 L18 PCH_L18 1 TP88
TP2 K18 PCH_K18 1 TP97
TP9 AT24 PCH_AT24 1 TP173
TP10 AR24 PCH_AR24 1 TP170
TP12 P10 PCH_P10 1 TP127
TP13 P9 PCH_P9 1 TP136
TP3 J20 PCH_J20 1 TP105
TP22_NCTF_AY1 AY1 PCH_AY1 1 TP39
TP22_NCTF_A3 A3 PCH_A3 1 TP14
TP22_NCTF_BA41 BA41 PCH_BA41 1 TP38
TP22_NCTF_A41 A41 PCH_A41 1 TP15
TP21 AH30 PCH_AH30 1 TP163
TP147 1 PCH_Y11
TP149 1 PCH_V10
TP150 1 PCH_Y12
TP143 1 PCH_V11
IC Intel PCH Ibex Peak BGA951
Quanta Computer Inc.
PROJECT : QU8
Size
Document Number
PCH-GND
Rev
D
Date: Tuesday, February 02, 2010
Sheet 19 of 37

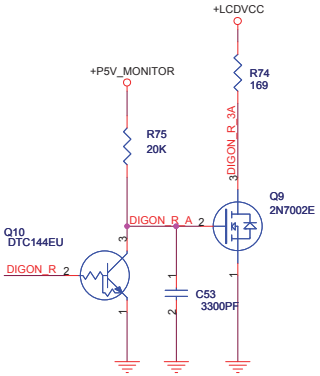



## TO INVERTER POWER

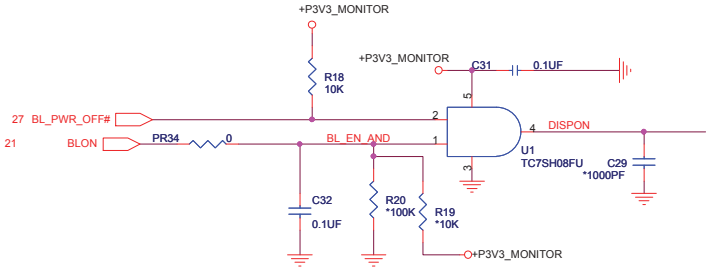



## LCD POWER SWITCH

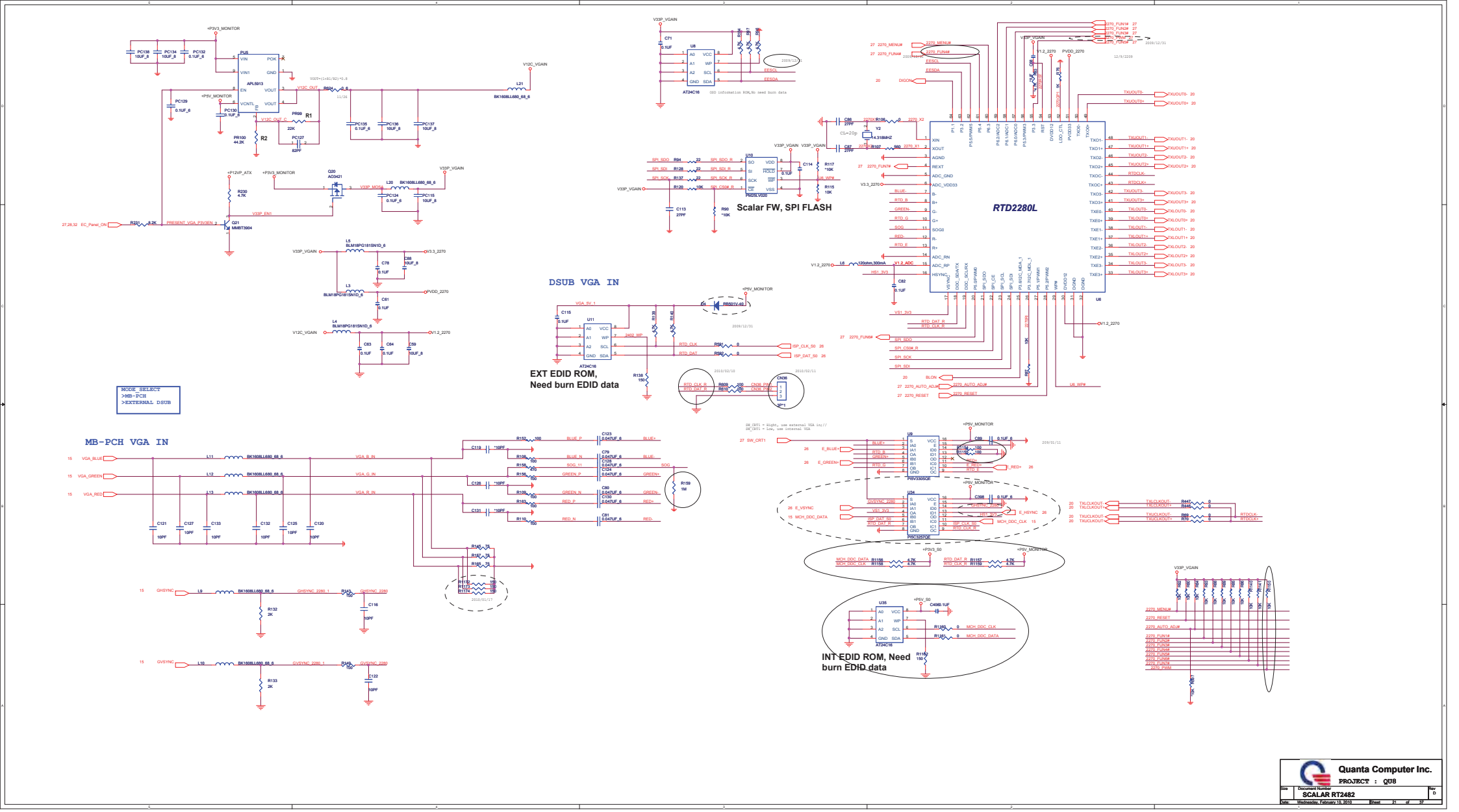



## BACKLIGHT CONTROL

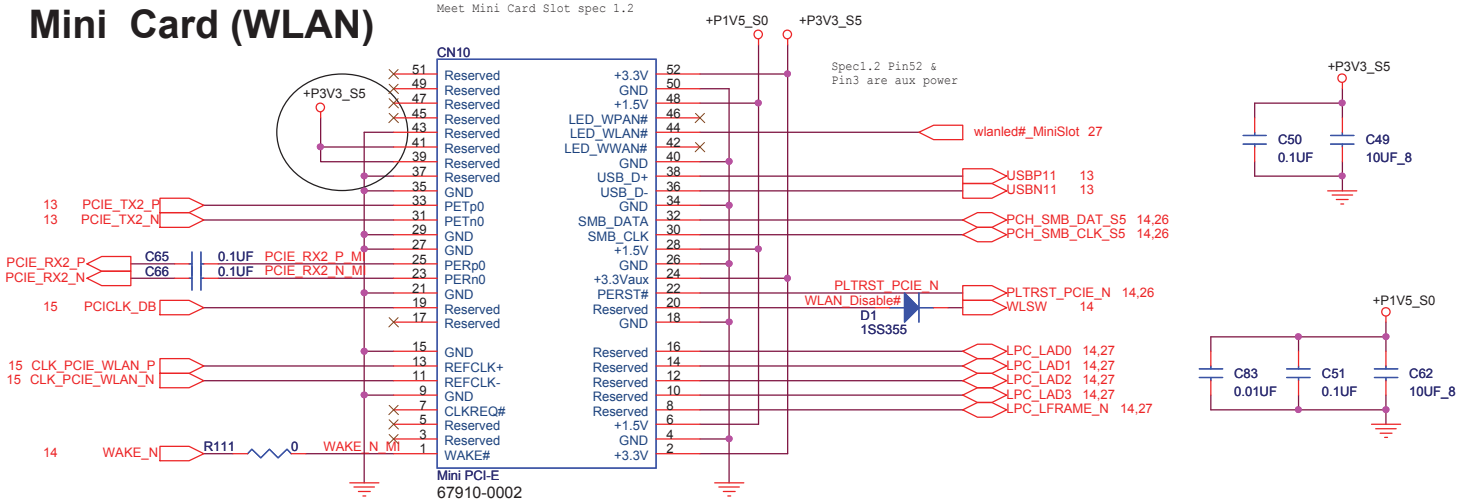



| | | | |
|---|---|---|---|
| Quanta Computer Inc. | | | |
| PROJECT : QU8 | | | |
| Size | Document Number | | Rev |
| | LCD/INVERTER | | D |
| Date: Wednesday, February 10, 2010 | Sheet 20 of 37 | | |

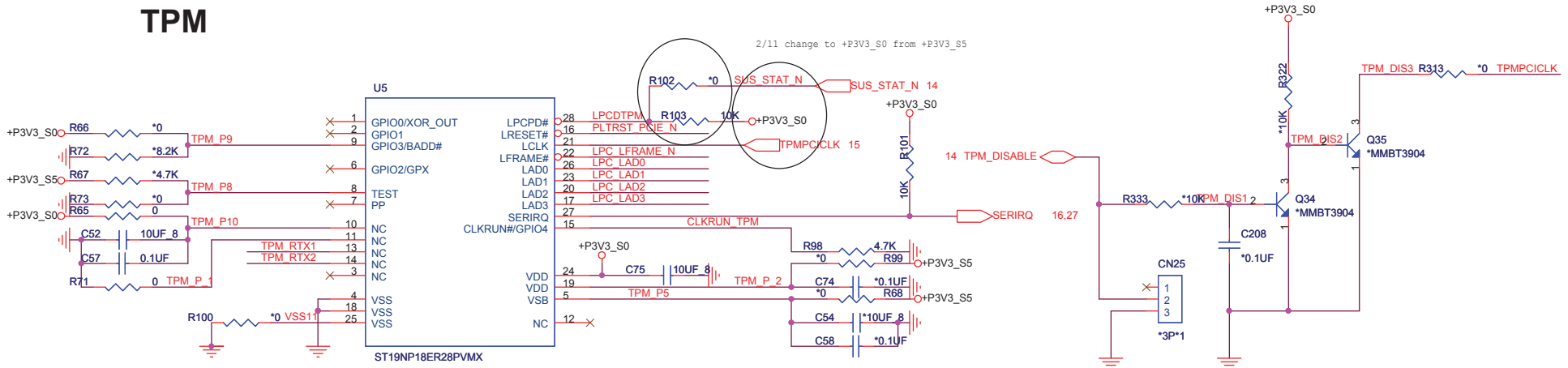



| | | | |
|---|---|---|---|
| Quanta Computer Inc. | | | |
| PROJECT : QU8 | | | |
| Size | Document Number | | Rev |
| | SCALAR RT2482 | | D |
| Date: Wednesday, February 10, 2010 | Sheet 21 of 37 | | |

# Mini Card (WLAN)




# TPM



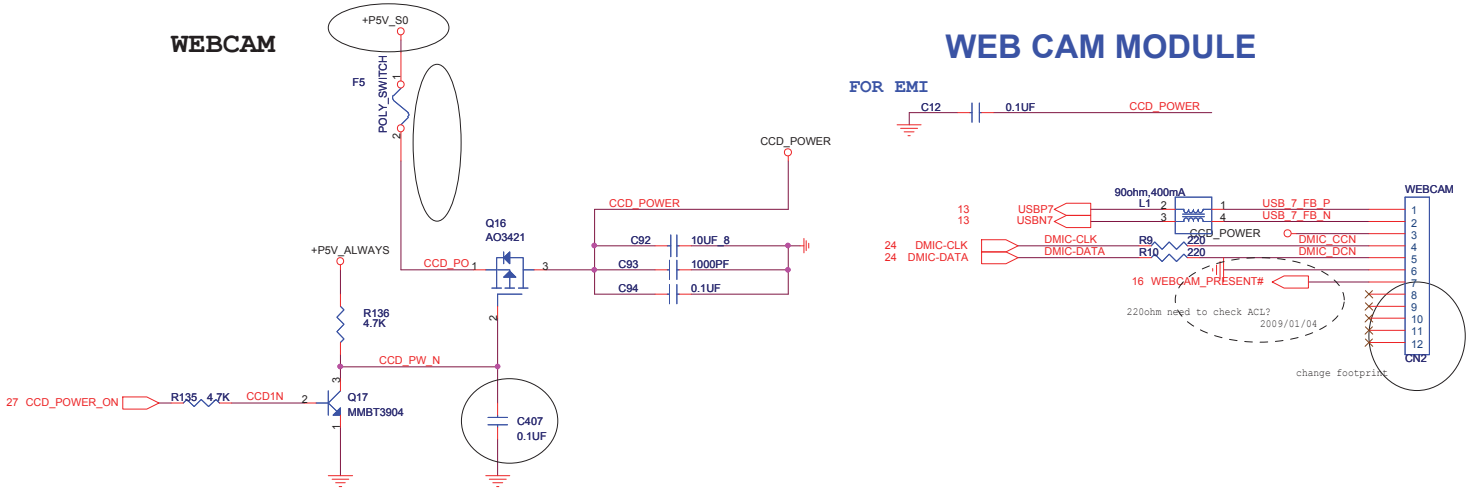

## TPM DISABLE


Quanta Computer Inc.
PROJECT : QU8


| Size | Document Number | Rev |
|---|---|---|
| | MINI CARD / TPM | D |
| Date: Wednesday, February 24, 2010 | Sheet 22 of 37 | |

# WEB CAM MODULE

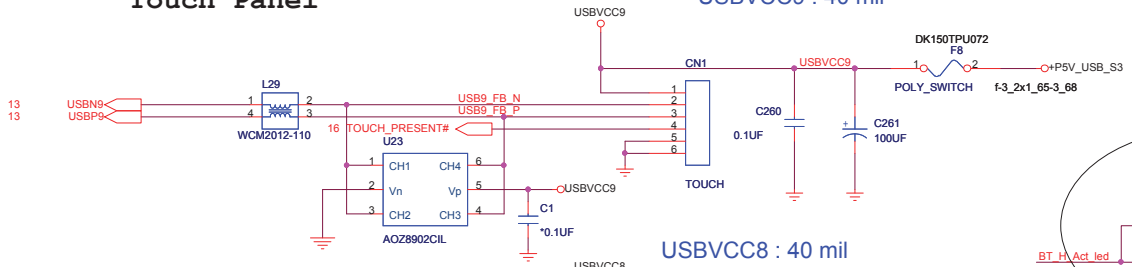
## WEBCAM




## FOR EMI

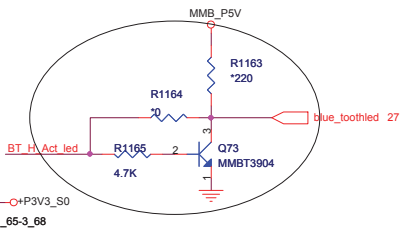



## Touch Panel

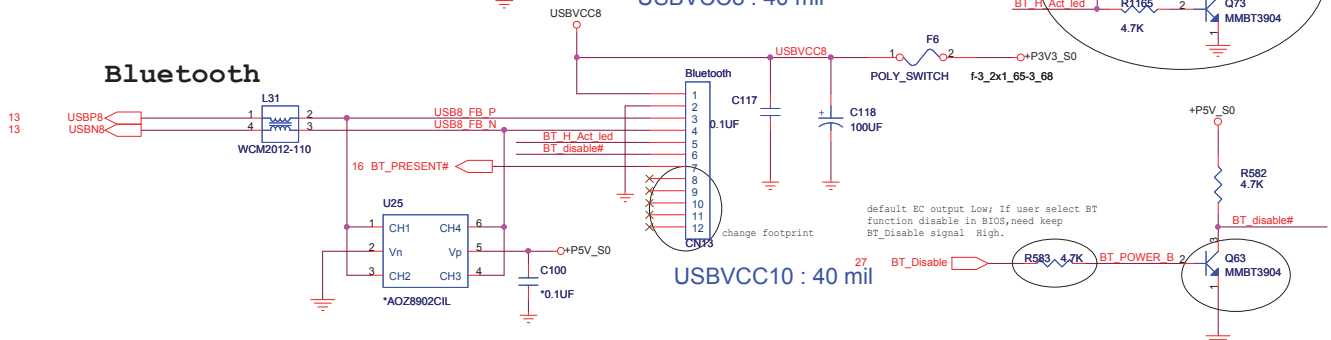



USBVCC9 : 40 mil

USBVCC8 : 40 mil

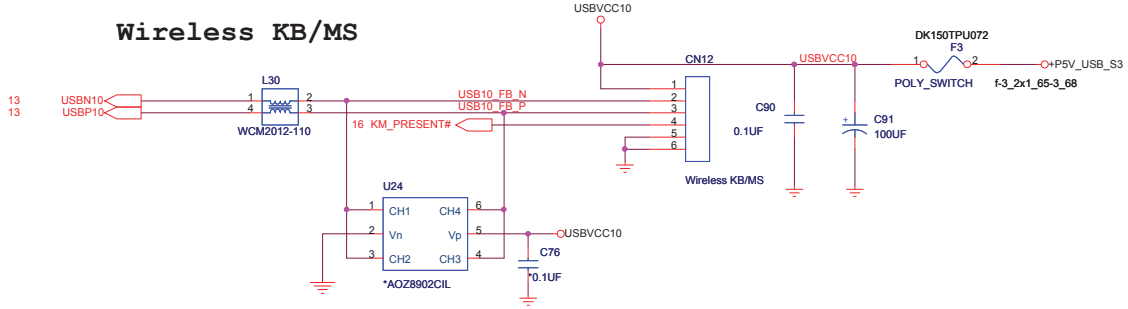



## Bluetooth

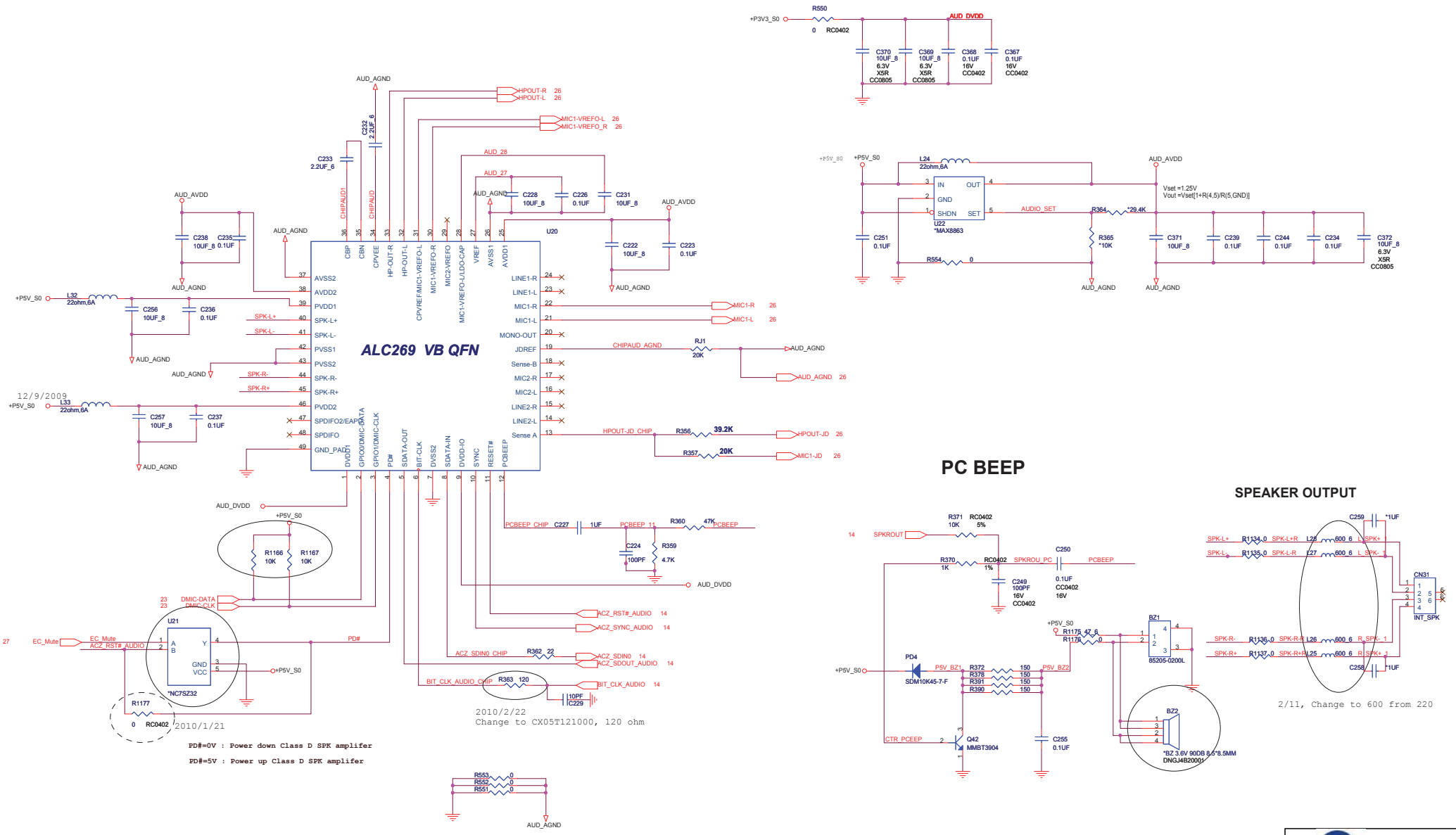



USBVCC10 : 40 mil

## Wireless KB/MS

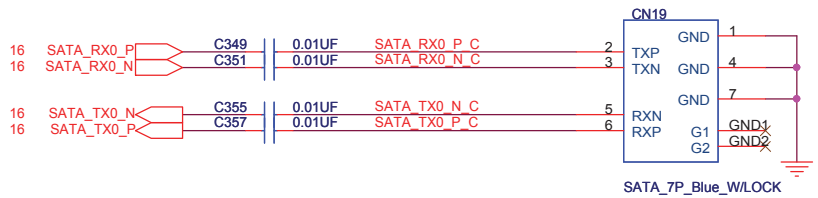



| | | |
|---|---|---|
| Quanta Computer Inc. | | |
| PROJECT : QU8 | | |
| Size | Document Number: WEBCAM/TOUCH | Rev: D |
| Date: Wednesday, February 03, 2010 | Sheet 23 of 37 | |

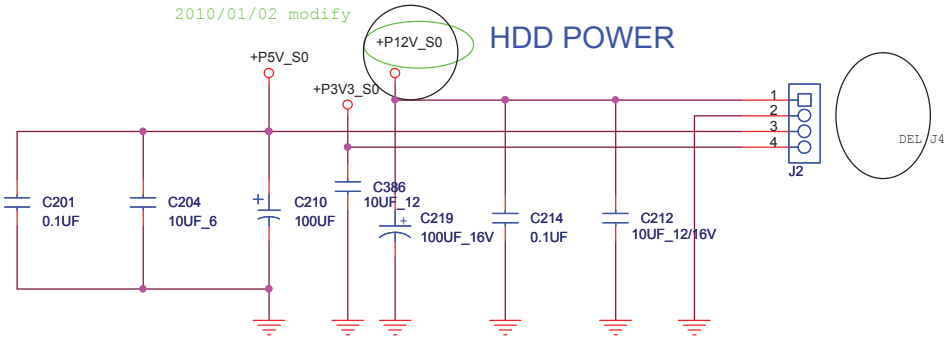



| | | | |
|---|---|---|---|
| Quanta Computer Inc. | | | |
| PROJECT : QU8 | | | |
| Size | Document Number | | Rev |
| | Audio ALC269 | | D |
| Date: Thursday, February 25, 2010 | Sheet 24 of 37 | | |

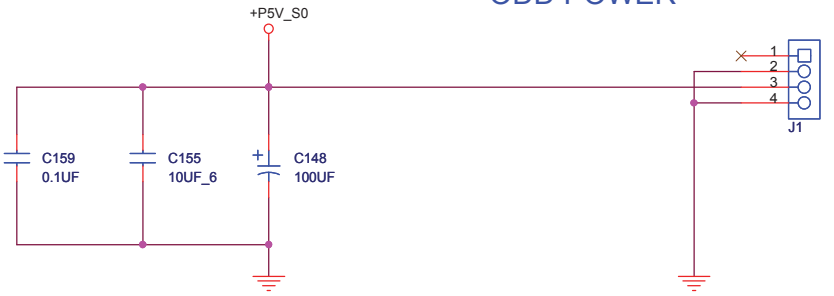
## HDD



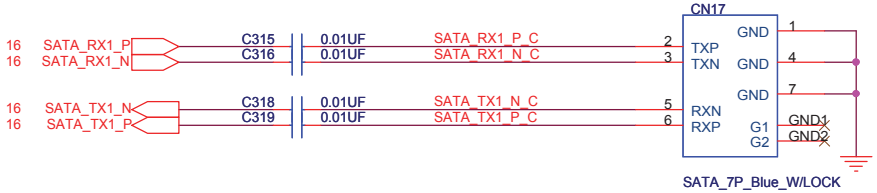

## HDD POWER

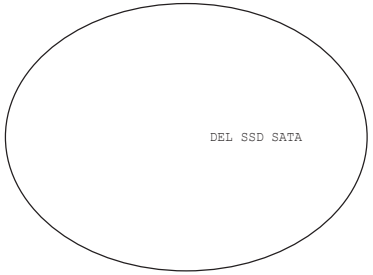



## ODD POWER

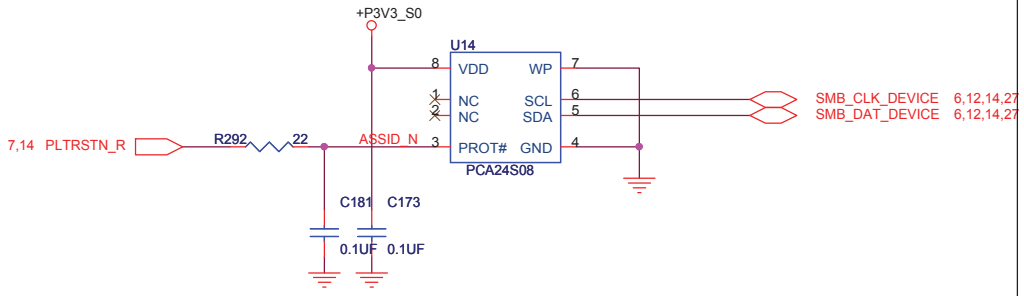



## ODD




## Asset ID

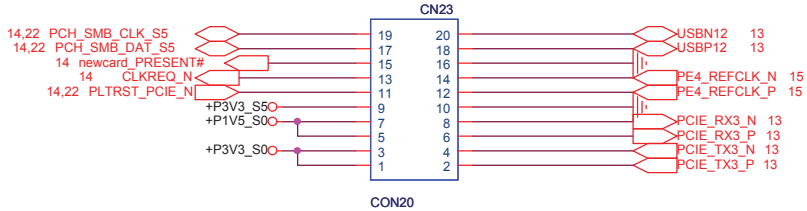



**Quanta Computer Inc.**

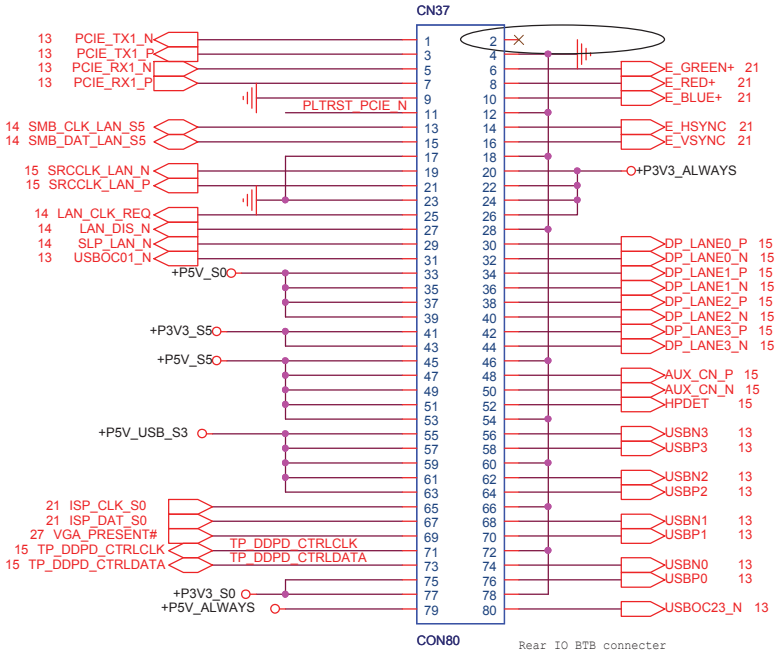
**PROJECT : QU8**

| Size | Document Number | Rev |
|---|---|---|
| | **SATA/Asset ID** | D |
| Date: Wednesday, February 03, 2010 | Sheet 25 of 37 | |

# New Card Board



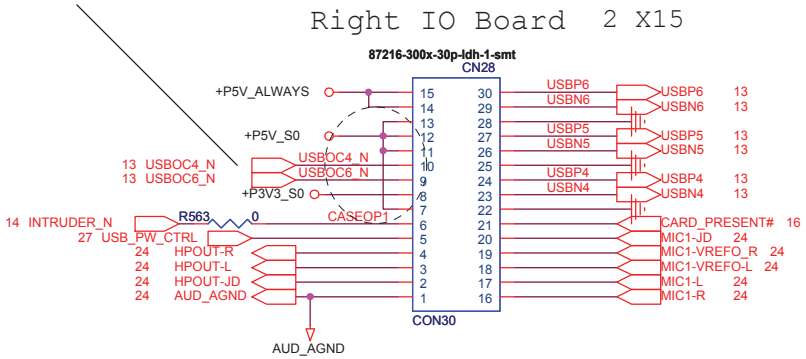

2/23/2010
Del +VCC1_8_PCH_S0

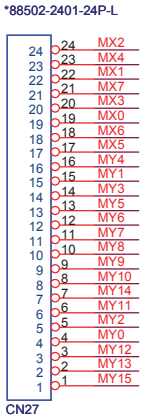


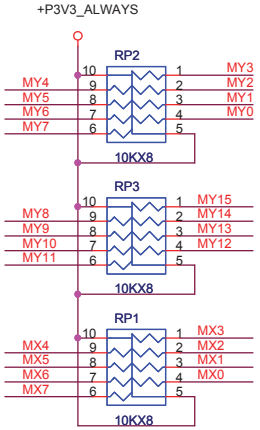

Rear IO BTB connecter

12/28/2009
Change CONN pin8 from GND to +P3V3_S0,
pin7 from GND to NC

# Right IO Board 2 X15

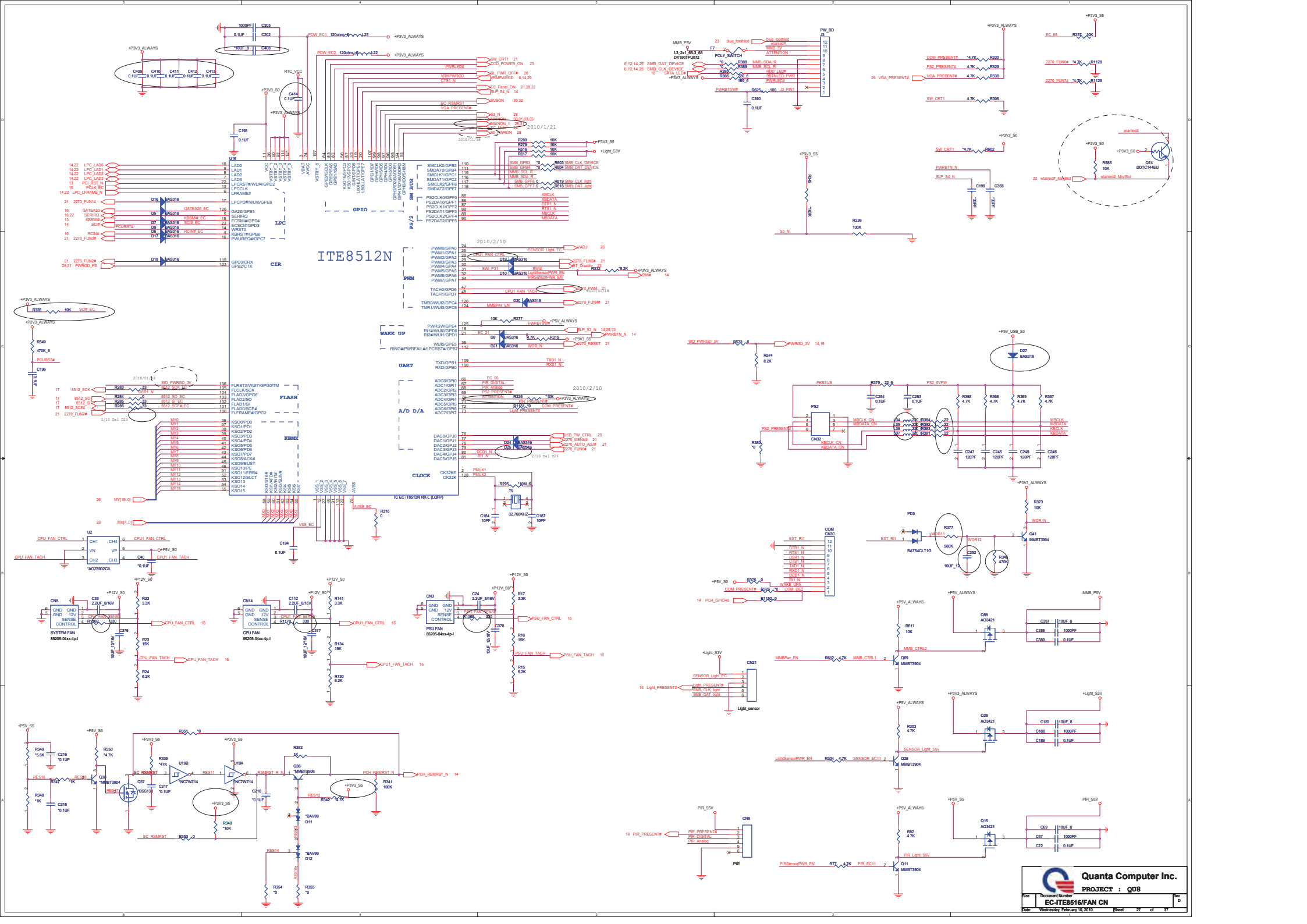


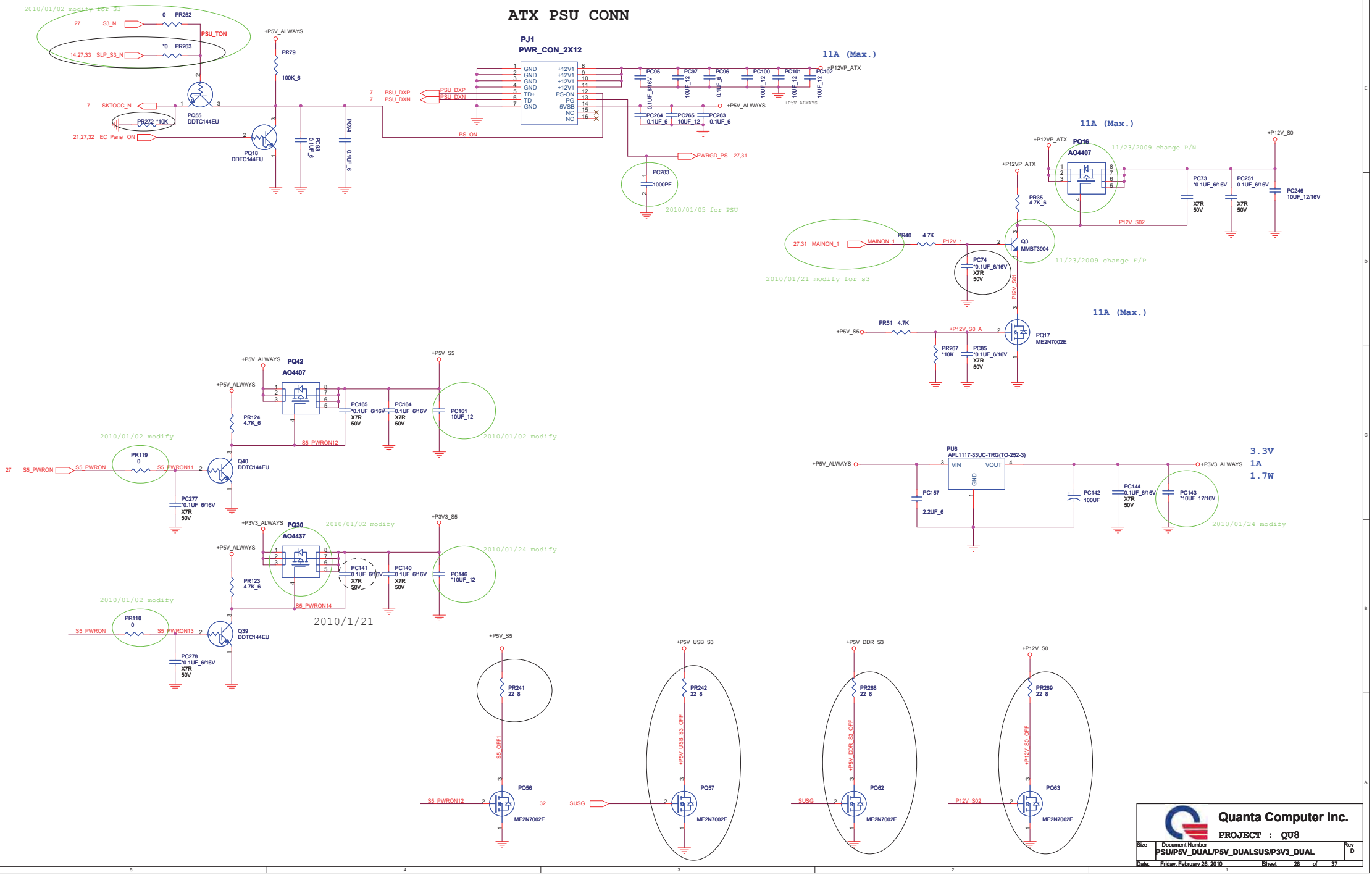




27 MX[7..0]
27 MY[15..0]

| | | |
|---|---|---|
| Quanta Computer Inc. | | |
| PROJECT : QU8 | | |
| Size | Document Number: 27-Daughter Board | Rev: D |
| Date: Tuesday, February 23, 2010 | Sheet 26 of 37 | |


ITE8512N
IC EC IT8512N NX-L (LQFP)
SYSTEM FAN
85205-04xx-4p-l
CPU FAN
85205-04xx-4p-l
PSU FAN
85205-04xx-4p-l
Light_sensor
PIR
Quanta Computer Inc.
PROJECT : QU8
EC-ITE8516/FAN CN
Wednesday, February 10, 2010
27 of 37

# ATX PSU CONN

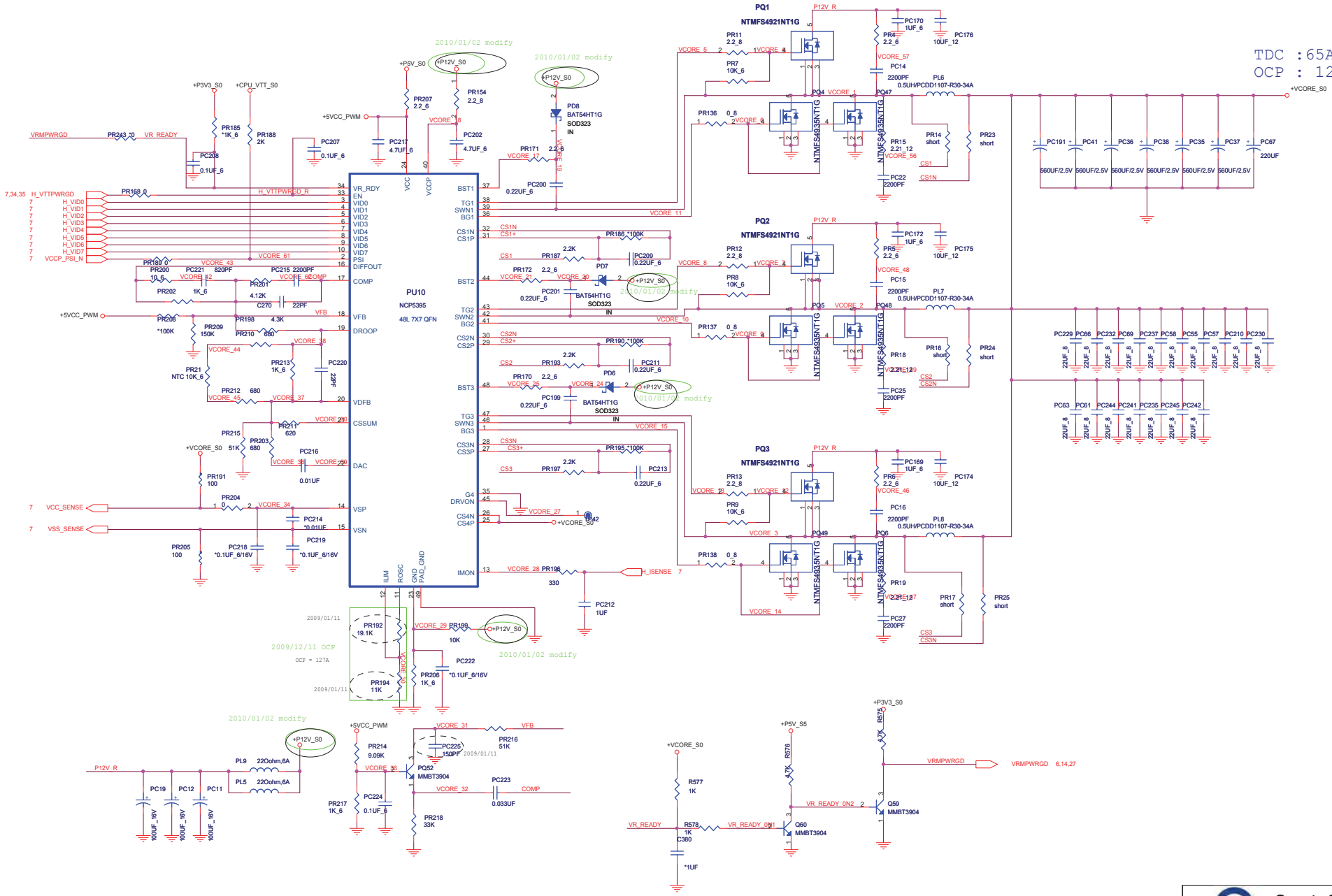


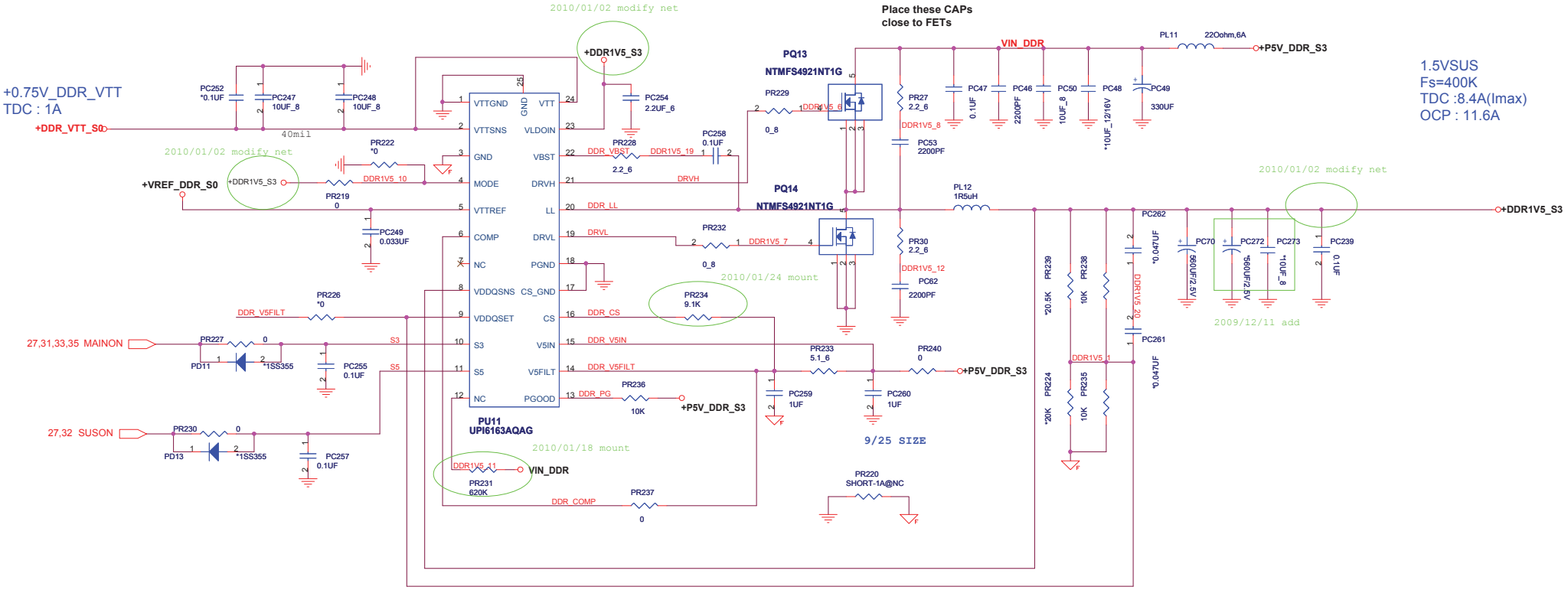

Quanta Computer Inc.

PROJECT : QU8

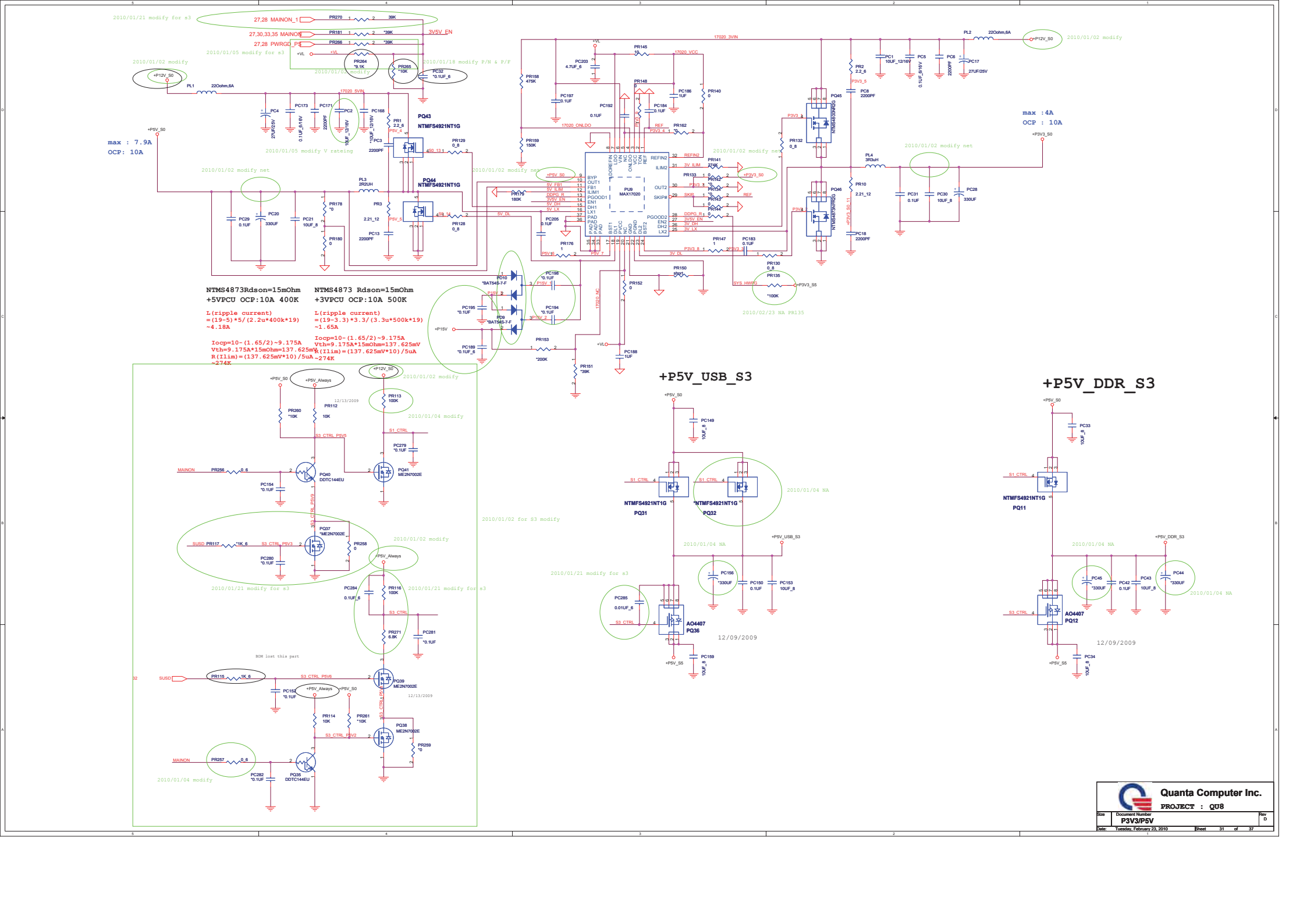
| Size | Document Number | Rev |
|---|---|---|
| | PSU/P5V_DUAL/P5V_DUALSUS/P3V3_DUAL | D |

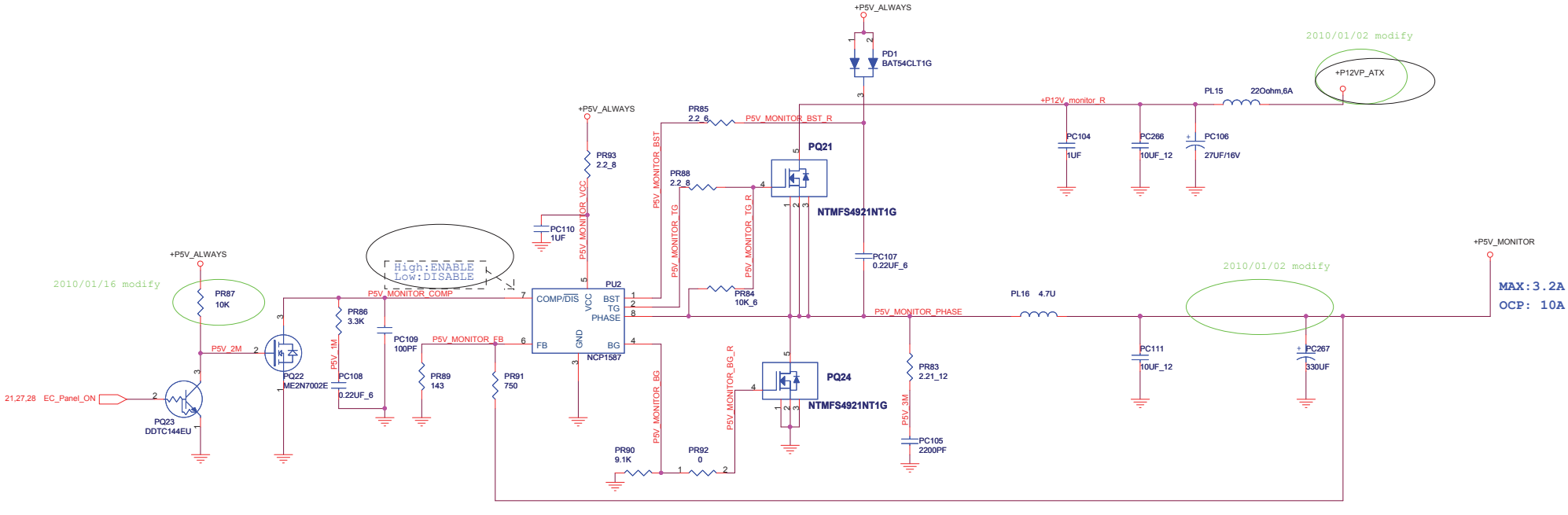
Date: Friday, February 26, 2010 Sheet 28 of 37


TDC :65A(Imax)
OCP : 127A
PU10
NCP5395
48L 7X7 QFN
PQ1
PQ2
PQ3
NTMFS4921NT1G
NTMFS4935NT1G
PL6
PL7
PL8
0.5UH/PCDD1107-R30-34A
PD8
PD7
PD6
BAT54HT1G
SOD323
2010/01/02 modify
2009/12/11 OCP
OCP = 127A
2009/01/11
PQ52
MMBT3904
Q59
Q60
+P12V_S0
+P5V_S0
+P3V3_S0
+CPU_VTT_S0
+5VCC_PWM
+VCORE_S0
P12V_R
+P5V_S5
VRMPWRGD
VR_READY
H_VTTPWRGD
H_ISENSE
VCC_SENSE
VSS_SENSE
VR_RDY
VID0
VID1
VID2
VID3
VID4
VID5
VID6
VID7
PSI
DIFFOUT
COMP
VFB
DROOP
VDFB
CSSUM
DAC
VSP
VSN
IMON
ILIM
ROSC
GND
PAD_GND
VCC
VCCP
BST1
TG1
SWN1
BG1
BST2
TG2
SWN2
BG2
BST3
TG3
SWN3
BG3
DRVON
CS1N
CS1P
CS2N
CS2P
CS3N
CS3P
CS4N
CS4P
Quanta Computer Inc.
PROJECT : QU8
CPU_CORE (NCP5395T)
Size
Document Number
Rev
D
Date: Wednesday, February 03, 2010
Sheet 29 of 37

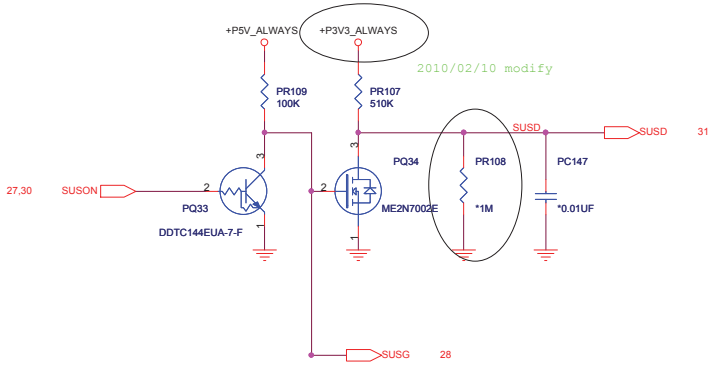


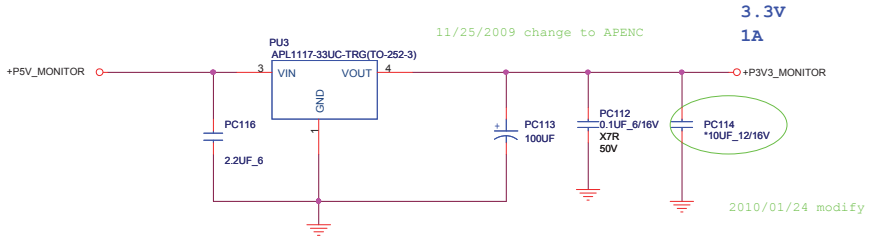

| | | | |
|---|---|---|---|
| Quanta Computer Inc. | | | |
| PROJECT : QU8 | | | |
| Size | Document Number | | Rev |
| | DDR3/VTT1.5V(TPS51116REGR) | | D |
| Date: Wednesday, February 03, 2010 | Sheet 30 of 37 | | |


+P5V_USB_S3
+P5V_DDR_S3
NTMS4873Rdson=15mOhm
+5VPCU OCP:10A 400K
NTMS4873 Rdson=15mOhm
+3VPCU OCP:10A 500K
max : 7.9A
OCP: 10A
max :4A
OCP : 10A
PQ43
NTMFS4921NT1G
PQ44
NTMFS4921NT1G
PQ31
PQ32
PQ11
PQ36
PQ12
AO4407
MAX17020
Quanta Computer Inc.
PROJECT : QU8
P3V3/P5V




OCP ~ 10A



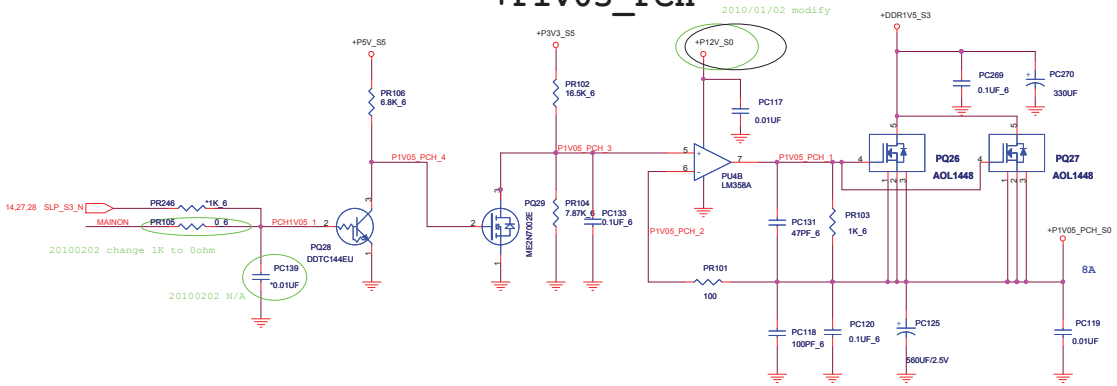

Quanta Computer Inc.

PROJECT : QU8

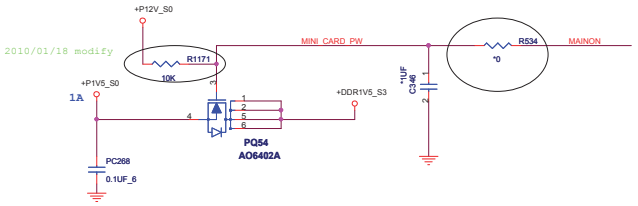
| Size | Document Number | Rev |
|---|---|---|
| | P3V3/P5V | D |

Date: Friday, February 26, 2010 Sheet 32 of 37

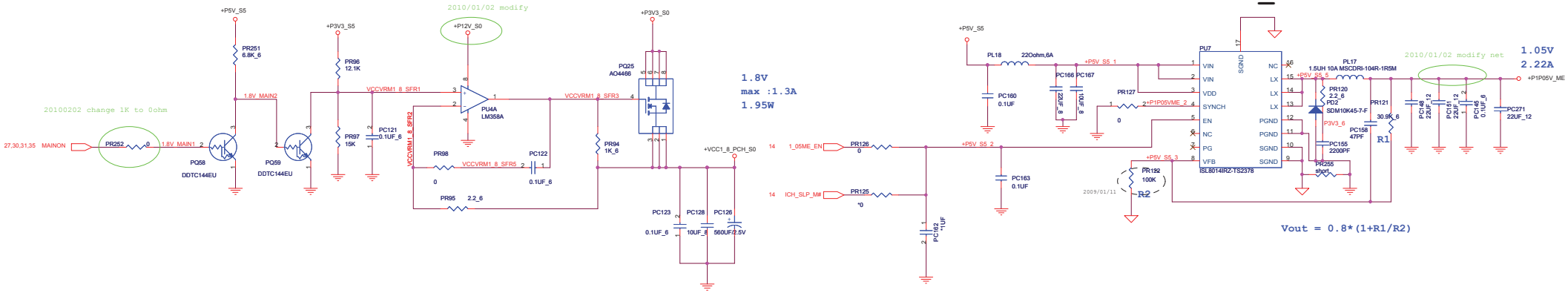
# +P1V05_PCH




# MINI CARD POWER




# +P1P05V_ME

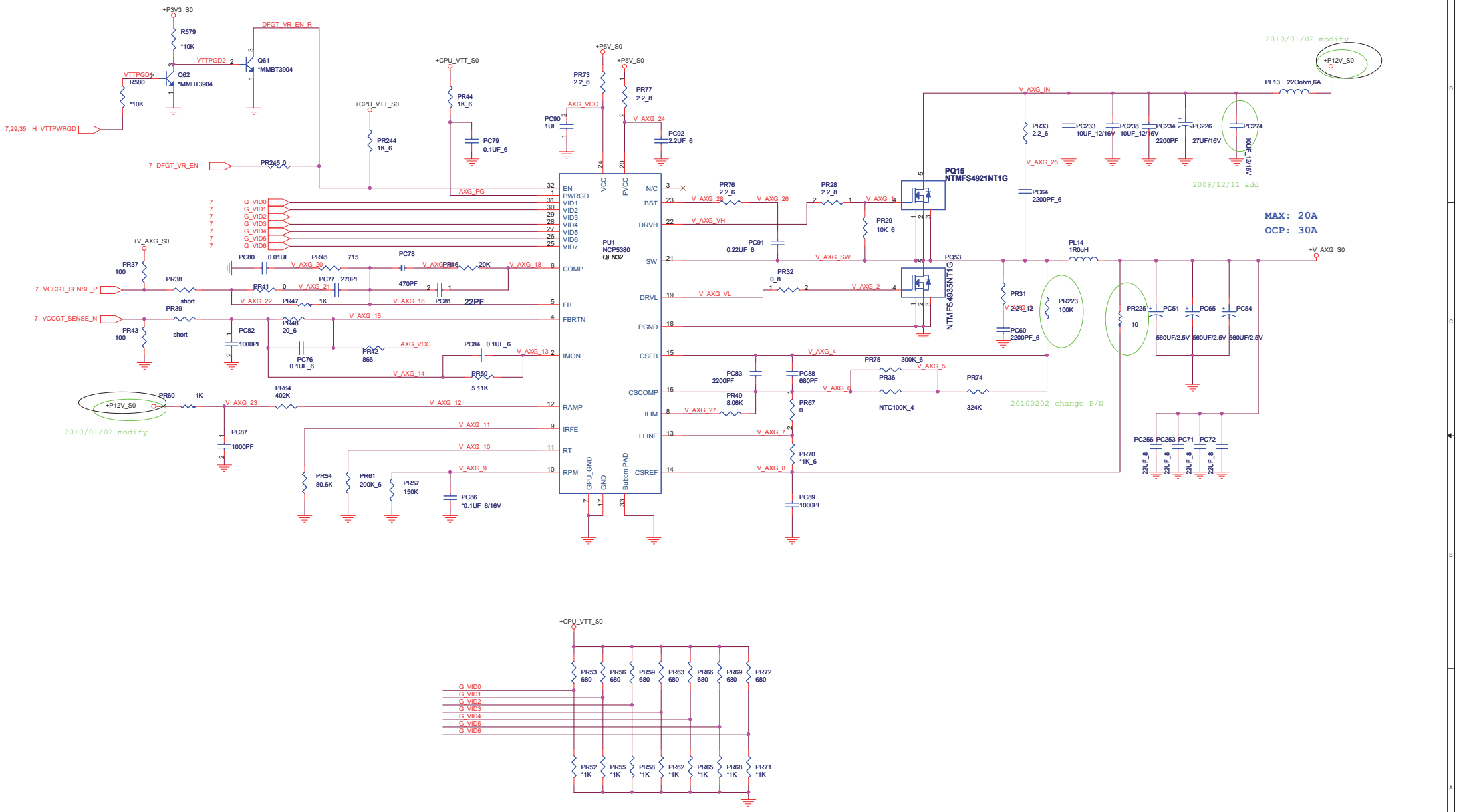



Quanta Computer Inc.

PROJECT : QU8

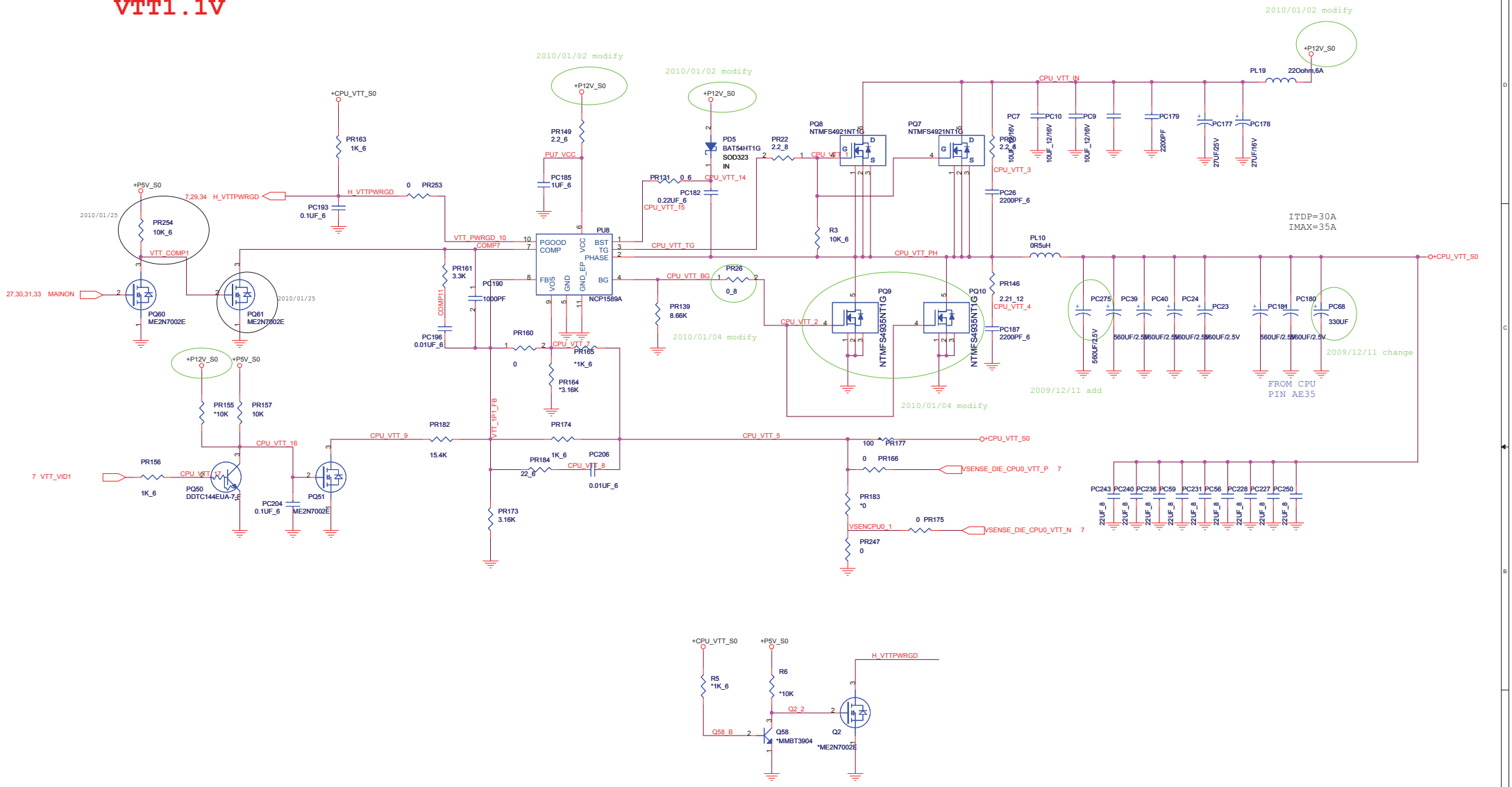
| Size | Document Number | Rev |
|---|---|---|
| | 1P2V/P1V8/P1V05 | D |

Date: Wednesday, February 24, 2010 Sheet 33 of 37




| | | |
|---|---|---|
| Quanta Computer Inc. | | |
| PROJECT : QU8 | | |
| Size | Document Number: VAXG (NCP5380A) | Rev: D |
| Date: Wednesday, February 03, 2010 | Sheet 34 of 37 | |

# VTT1.1V

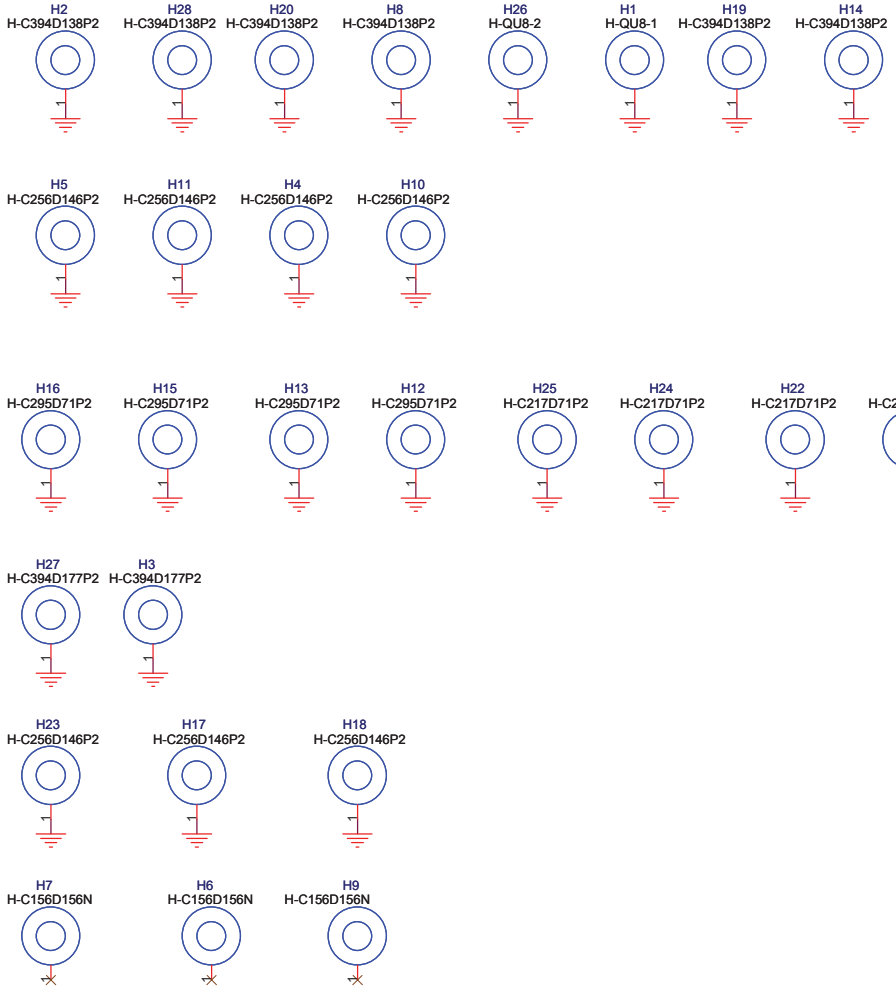



Quanta Computer Inc.

PROJECT : QU8

| Size | Document Number | Rev |
|---|---|---|
| | V_1P1_VTT(NCP1589A) | D |

Date: Wednesday, February 03, 2010 Sheet 35 of 37




Quanta Computer Inc.

PROJECT : QU8

| Size | Document Number | Rev |
|---|---|---|
| | SCREW HOLD, M/E | D |
| Date: Tuesday, February 23, 2010 | Sheet 36 of 37 | |

| NAME | GPIO/PIN | I/O | DESCRIPTION | ACTIVE |
|---|---|---|---|---|
| PCH_GPIO0 | GPIO0 | I | | INITAL : HIGH / ACTIVE : LOW |
| CPU1_FAN_TACH | GPIO1 | B | CPU FAN | |
| PCI_PIRQE# | GPIO2 | I | pull up 8.2K to +3V3_S0 | |
| PCI_PIRQF# | GPIO3 | I | pull up 8.2K to +3V3_S0 | |
| PCI_PIRQG# | GPIO4 | O | pull up 8.2K to +3V3_S0 | |
| PCI_PIRQH# | GPIO5 | O | pull up 8.2K to +3V3_S0 | |
| PSU_FAN_TACH | GPIO6 | I | PSU FAN | |
| WP# | GPIO7 | O | SPI ROM write protect | |
| PCH_GPIO8 | GPIO8 | O | | |
| USBOC1011_N | GPIO9 | O | USB Over current | |
| USBOC1213_N | GPIO10 | O | USB Over current | |
| PCH_SMBALERT_N | GPIO11 | I | pull up 2.2K to +3V3_S5 | |
| LAN_DIS_N | GPIO12 | O | 0 = GPIO12 default is General Purpose (GP) output<br>1 = GPIO12 is used in native mode as LANPHYPC | |
| SCI# | GPIO13 | O | EC TO PCH ,Interrupts for power management events. | |
| USBOC1415_N | GPIO14 | O | USB Over current | |
| TLS | GPIO15 | O | Low=Transport Layer Security (TLS)cipher suite with no confidentiality<br>High =TLS cipher suite with confidentiality | |
| GPIO16 | GPIO16 | I | pull up 10K to +3V3_S5 | |
| CPU_FAN_TACH | GPIO17 | I | CPU Fan Tachometer Inputs | |
| WLSW | GPIO18 | I | WLAN(Mini PCIE) SW | |
| VGA_PRESENT | GPIO19 | I | Serial ATA 1 General Purpose | |
| CLKREQ_N | GPIO20 | I | New card to PCH | |
| CARD_PRESENT | GPIO21 | I | Serial ATA 0 General Purpose | |
| TOUCH_PRESENT | GPIO22 | I | pull up 10K to +3V3 | |
| TP_PCH_GPIO23 | GPIO23 | I | | |
| SPI_WP_N | GPIO24 | O | | |
| SWI# | GPIO25 | O | pull up 8.2K to +3V3_s5 | |
| SPI_WP_SMI | GPIO26 | O | pull up 8.2K to +3V3_s5 | |
| PCH_GPIO27 | GPIO27 | I | enable/disable PLL VR | |
| PCH_GPIO28 | GPIO28 | I | GPIO28 is multiplexed with SPI_CS2# functionality, which may be utilized only for Mobile configurations. | |
| SLP_LAN_N | GPIO29 | | When SLP_LAN# is deasserted it indicates that the Kanbarville PHY device must be powered. (pull up 8.2K to +3V3_S5 (n1)) | |
| SUS_PWR_ACK | GPIO30 | | pull up 100K to +3V3_S5 | |
| PCH_BLOCK_RESET_N | GPIO31 | | pull up 8.2K to +3V3_S5 | |
| newcard_PRESENT | GPIO32 | | Test point | |
| PCH_GPIO33 | GPIO33 | | contact to CN26 (reserve) | |
| STP_PCI_N | GPIO34 | | pull up 8.2K to +3V3_S0 | |
| SATACLKREQ_N | GPIO35 | | pull up 8.2K to +3V3_S5 | |

| NAME | GPIO/PIN | I/O | DESCRIPTION | ACTIVE |
|---|---|---|---|---|
| LIGHT_PRESENT | GPIO36 | I | Serial ATA 2 General Purpose | |
| PIR_PRESENT | GPIO37 | B | Serial ATA 3 General Purpose | |
| WEBCAM_PRESENT | GPIO38 | I | WEBCAM detect | |
| BT_PRESENT | GPIO39 | I | Bluetooth detect | |
| USBOC23_N | GPIO40 | O | USB Over current | |
| USBOC4_N | GPIO41 | O | USB Over current | |
| USBOC6_N | GPIO42 | I | USB Over current | |
| USBOC89_N | GPIO43 | O | USB Over current | |
| LAN_CLK_REQ | GPIO44 | O | Clock Request Signals for PCI Express. PCH to Rack IO | |
| PCH_GPIO45 | GPIO45 | O | contact to CN15 (clear CMOS or normal) | |
| PD_SRC7CLKRQ_N | GPIO46 | O | pull up 8.2K to +3V3_s5 | |
| PD_PEG_A_CLKRQ_N | GPIO47 | I | Clock Request Signals for PEG SLOT6 | |
| KM_PRESENT | GPIO48 | O | Wireless KB/MS detect | |
| KBSMI# | GPIO49 | O | EC to PCH | |
| PCI_REQ1# | GPIO50 | O | pull up 8.2OK to +3V3_S0 | |
| PCI32_GNT_N1 | GPIO51 | O | | |
| PCI_REQ2# | GPIO52 | I | pull up 8.2OK to +3V3_S0 | |
| ESI_STRAP | GPIO53 | I | | |
| PCI_REQ3# | GPIO54 | I | pull up 8.2OK to +3V3_S0 | |
| PCI32_GNT_N3 | GPIO55 | I | | |
| TPM_DISABLE | GPIO56 | I | pull up 8.2K to +3V3_S5 | |
| PCH_GPIO57 | GPIO57 | I | pul low 10K to GND | |
| SMB_LINK1_CLK | GPIO58 | I | SMB0S_CLK (TP176) | |
| USBOC01_N | GPIO59 | I | USB Over current | |
| SMB_ALERT# | GPIO60 | O | pull up 10K to +3V3_S5 | |
| SUS_STAT_N | GPIO61 | O | pull up 8.2K to +3V3_S5 (n1) | |
| SUSCLK | GPIO62 | O | pull up 8.2K to +3V3_Dual | |
| FM_SLPS5_N | GPIO63 | I | Test point(TP175) | |
| PCH_AD10 | GPIO64 | I | | |
| PCH_AK1 | GPIO65 | | | |
| PCH_AB6 | GPIO66 | | | |
| PCH_AL3 | GPIO67 | | | |
| GPIO72 | GPIO72 | | pull up 8.2K to +3V3_S5 | |
| PCH_GPIO73 | GPIO73 | | pull up 10K to +3V3_S0 | |
| PCH_AY32 | GPIO74 | | pull up 10K to +3V3_S5 | |
| SMB_LINK1_DAT | GPIO75 | | SMB0S_DATA (TP172) | |

Quanta Computer Inc.

PROJECT : QU8

| Size | Document Number | Rev |
|---|---|---|
| | GPIO LIST | D |

Date: Tuesday, February 02, 2010 Sheet 37 of 37