EW6

CPU CORE Page:26 — VCC_CORE

+3VPCU / +3V_S5/+3VSUS / +3V / +5VSUS/+5V / +12V Page:24 — +3VPCU, +3V_S5, +3VSUS, +3V, +5VSUS, +5V, +12V

+1.8VSUS/+1.8V / +1.2V / SMDDR_VTERM Page:27 — +1.8VSUS, +1.8V, +1.2V, SMDDR_VTERM

+1.8V_S5 / +1.5V / VTT Page:23 — +1.8V_S5, +1.5V, VTT

BATTERY CHARGER Page:25

Power State Table

Power Name	Control Signal	Power State
VCC_CORE	VRON	S0
+3VPCU	N/A	ALWAYS
+3V_S5	S5_ON	S0-S5
+3VSUS	SUSON	S0-S3
+3V	MAINON	S0
+5VSUS	SUSON	S0-S3
+5V	MAINON	S0
+12V	MAINON	S0
+1.2V	MAINON	S0
VTT	MAINON	S0
SMDDR_VTERM	MAINON	S0
+1.8V_S5	S5_ON	S0-S5
+1.8VSUS	SUSON	S0-S3
+1.8V	MAINON	S0
+1.5V	MAINON	S0

CLOCK GEN ICS951413CGLFT Page:4

CELERON-M/PENTIUM-M INTEL Mobile_479 CPU Page:2, 3

HOST BUS 400MHZ

NB ATi RC410MB/RC410MD Page: 5, 6 , 7, 8

- RGB → **CRT** Page: 15
- LVDS → **LVDS** Page: 15
- S-VIDEO → **TV-OUT** Page: 15
- DDR-II → **DDR-II SODIMM1** Page: 13, **DDR-II SODIMM2** Page: 13

2X PCIE

SB ATi SB400 Page: 9, 10, 11, 12

Manufacturing Option:
- SATA → **SATA HDD** Page: 16
- ATA 66/100 → **PATA HDD** Page: 16
- ATA 66/100 → **IDE-ODD** Page: 16

AC97 → **AUDIO CODEC** CONEXANT 20468-31 Page: 18
- **AMP** MAX9750 Page: 19
- **MODEM** CONEXANT 20493-21 Page: 18
  - **MIC IN** Page: 18
  - **SPEAKER** Page: 19
  - **LINE OUT** Page: 19
  - **RJ11** Page: 14

LPC 33MHZ → **KBC** NS PC97551 Page: 21
- **Touchpad** Page: 22
- **Keyboard** Page: 22
- **FLASH** Page: 21
- **FAN** Page: 22

PCI BUS 33MHZ
- **TI PCMCIA** PCI1510A — AD17, REQ3# / GNT3#, INTE# Page: 17 → **TYPE II SLOT** Page: 17
- **MINI-PCI Wireless LAN** — AD20, REQ1# / GNT1#, INTB# , INTC# Page: 22
- **REALTEK** RTL8100CL Page: 14 → **BOTHHAND TRANSFORMER** NS0013 Page: 14 → **RJ45** Page: 14

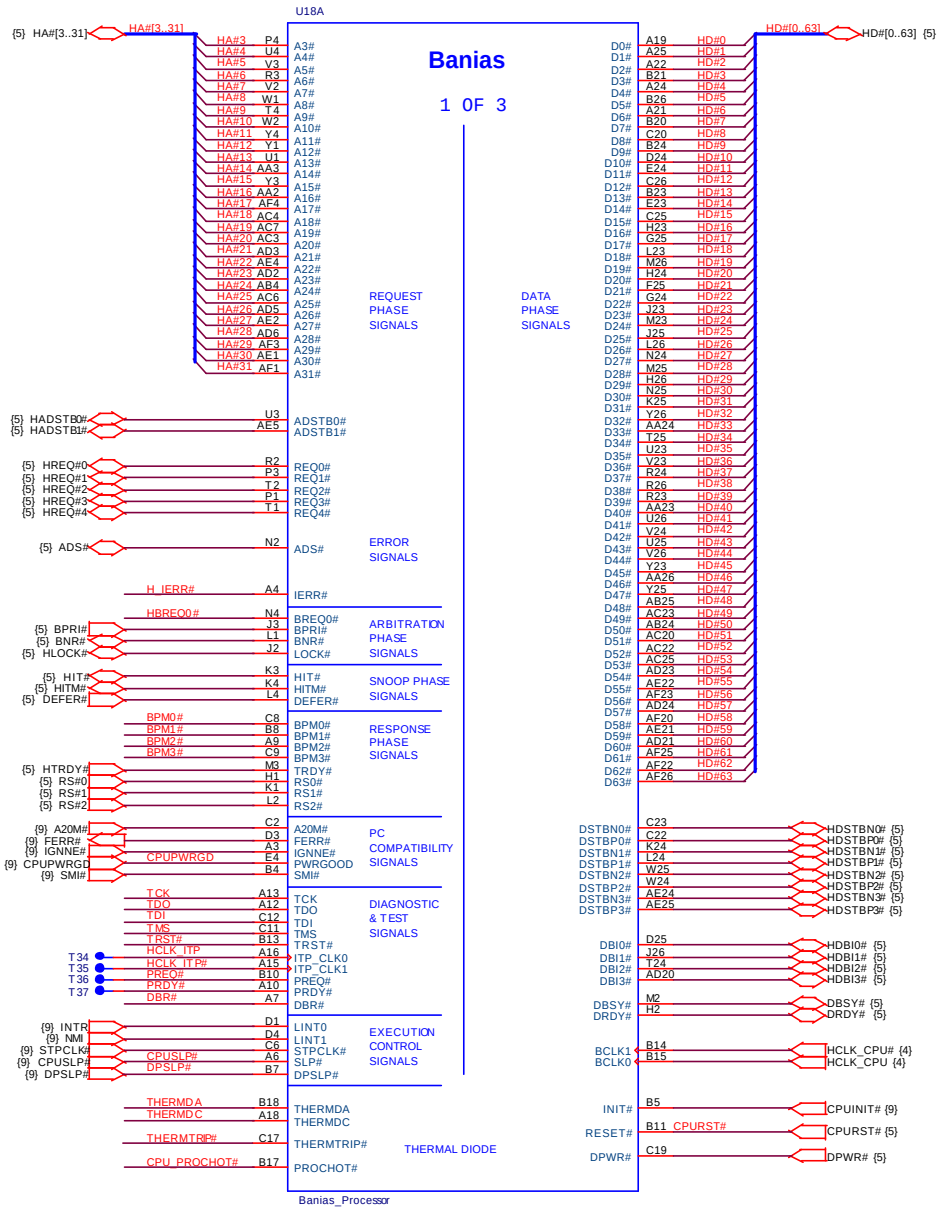
USB 2.0 → **SYSTEM USB PORT *3** Page: 20 — USB2,3,5

PROJECT : EW6

Quanta Computer Inc.

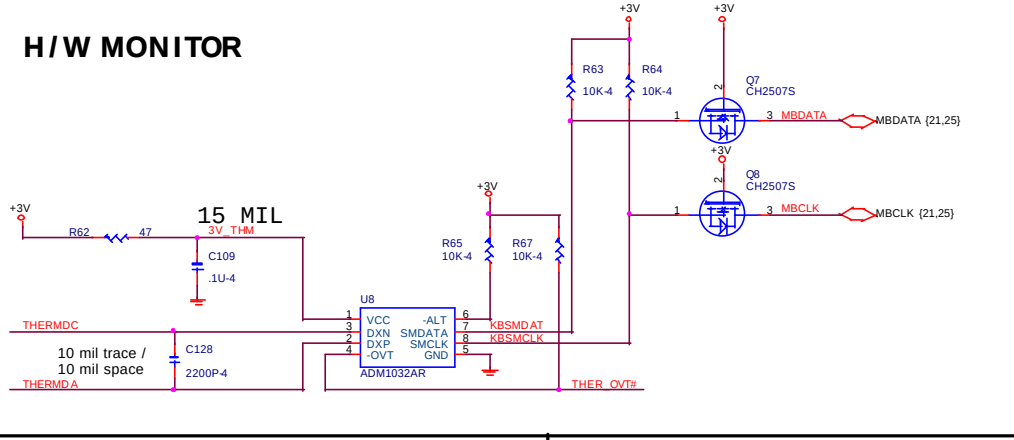
Size	Document Number	Rev
	BLOCK DIAGRAM	1A

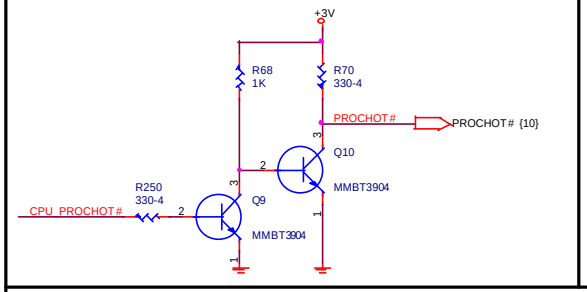
Date: Monday, June 27, 2005 Sheet 1 of 29

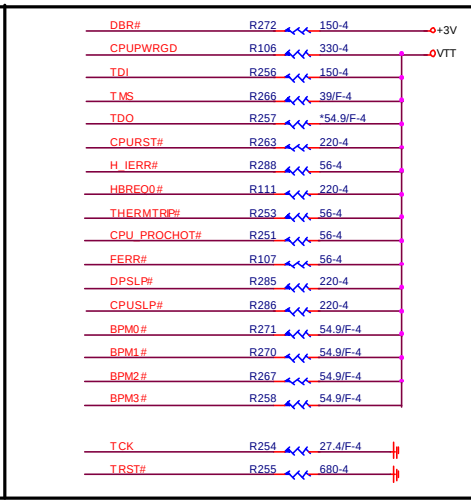


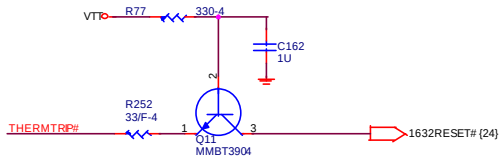
CPU

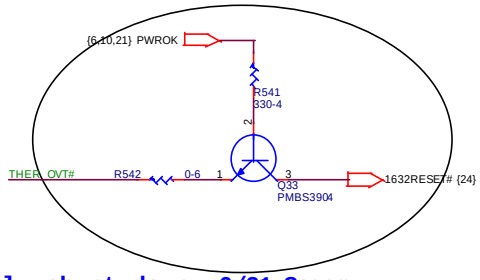
H/W MONITOR









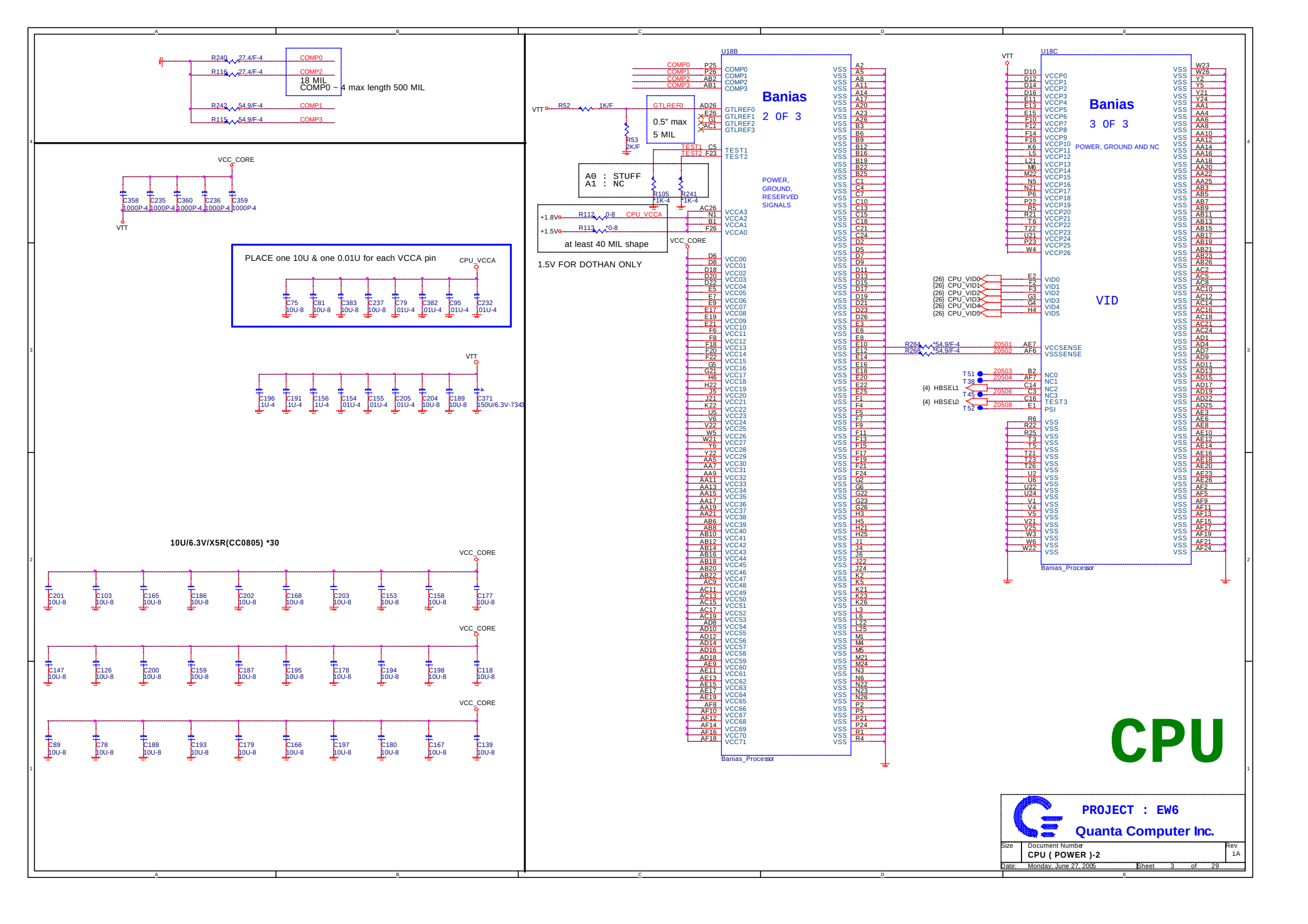


Addition Thermal shunt down 6/21 Sagem

PROJECT : EW6

Quanta Computer Inc.

Size	Document Number	Rev
	CPU (HOST BUS)-1	3A
Date: Monday, June 27, 2005	Sheet 2 of 29	


R240 27.4/F-4 COMP0
R116 27.4/F-4 COMP2
18 MIL
COMP0 ~ 4 max length 500 MIL
R242 54.9/F-4 COMP1
R115 54.9/F-4 COMP3
VCC_CORE
C358 1000P-4
C235 1000P-4
C360 1000P-4
C236 1000P-4
C359 1000P-4
VTT
PLACE one 10U & one 0.01U for each VCCA pin
CPU_VCCA
C75 10U-8
C81 10U-8
C383 10U-8
C237 10U-8
C79 01U-4
C382 01U-4
C95 01U-4
C232 01U-4
VTT
C196 1U-4
C191 1U-4
C156 1U-4
C154 01U-4
C155 01U-4
C205 01U-4
C204 10U-8
C189 10U-8
C371 150U/6.3V-7343
10U/6.3V/X5R(CC0805) *30
VCC_CORE
C201 10U-8
C103 10U-8
C165 10U-8
C186 10U-8
C202 10U-8
C168 10U-8
C203 10U-8
C153 10U-8
C158 10U-8
C177 10U-8
VCC_CORE
C147 10U-8
C126 10U-8
C200 10U-8
C159 10U-8
C187 10U-8
C195 10U-8
C178 10U-8
C194 10U-8
C198 10U-8
C118 10U-8
VCC_CORE
C89 10U-8
C78 10U-8
C188 10U-8
C193 10U-8
C179 10U-8
C166 10U-8
C197 10U-8
C180 10U-8
C167 10U-8
C139 10U-8
U18B
Banias
2 OF 3
COMP0 P25
COMP1 P26
COMP2 AB2
COMP3 AB1
VTT
R52 1K/F
GTLREF0 AD26
0.5" max
5 MIL
R53 2K/F
TEST1 C5
TEST2 F23
A0 : STUFF
A1 : NC
R105 1K-4
R241 1K-4
+1.8V
R112 0-8 CPU_VCCA
+1.5V
R113 *0-8
at least 40 MIL shape
VCC_CORE
1.5V FOR DOTHAN ONLY
POWER, GROUND, RESERVED SIGNALS
Banias_Processor
U18C
Banias
3 OF 3
POWER, GROUND AND NC
VID
{26} CPU_VID0
{26} CPU_VID1
{26} CPU_VID2
{26} CPU_VID3
{26} CPU_VID4
{26} CPU_VID5
R264 *54.9/F-4
R265 *54.9/F-4
Z0501
Z0502
VCCSENSE
VSSSENSE
{4} HBSEL1
{4} HBSEL0
Z0503
Z0504
Z0506
Z0508
NC0
NC1
NC2
NC3
TEST3
PSI
Banias_Processor
CPU
PROJECT : EW6
Quanta Computer Inc.
Size
Document Number
CPU (POWER)-2
Rev
1A
Date: Monday, June 27, 2005
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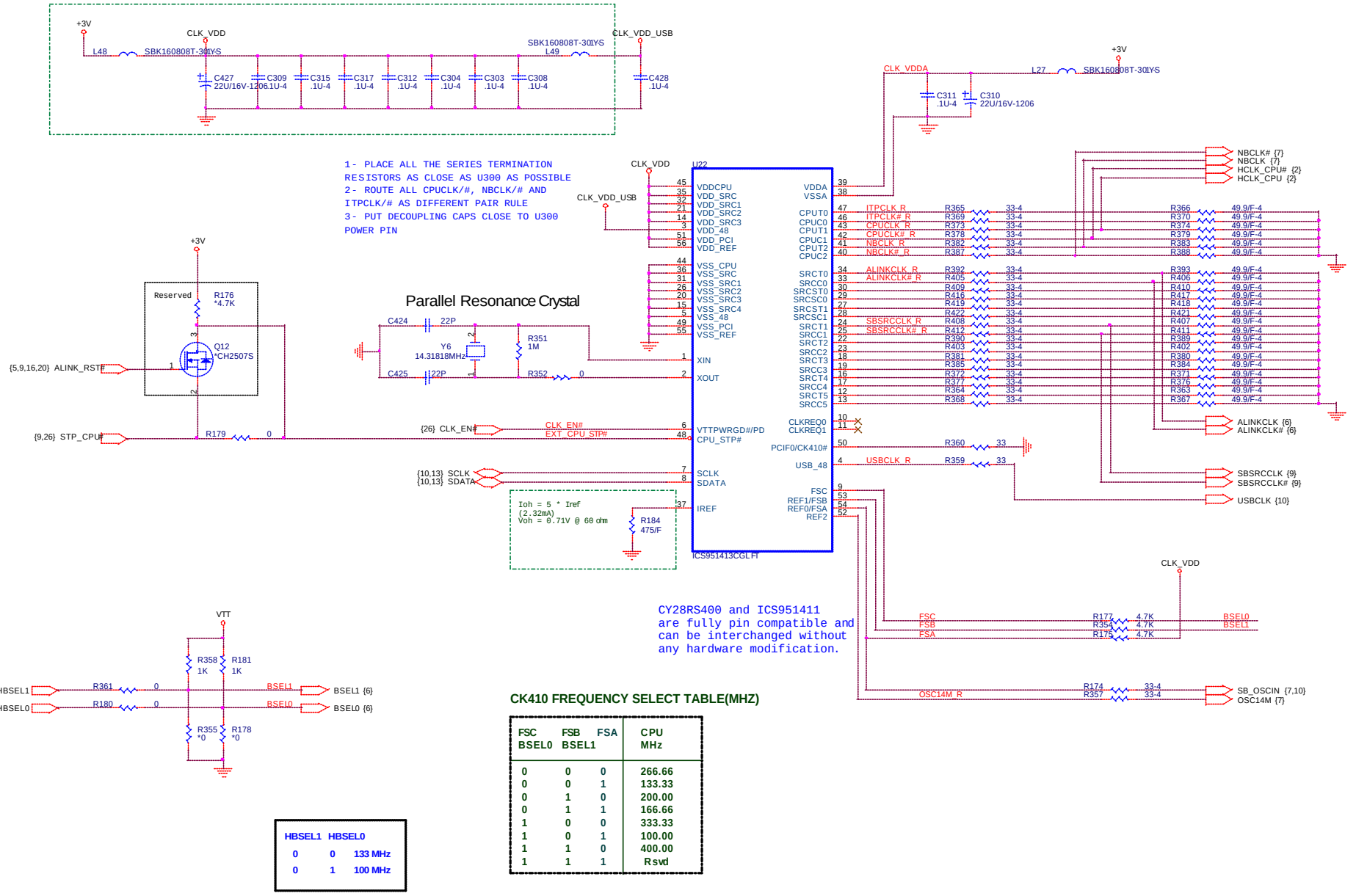

CK410 FREQUENCY SELECT TABLE(MHZ)

FSC BSEL0	FSB BSEL1	FSA	CPU MHz
0	0	0	266.66
0	0	1	133.33
0	1	0	200.00
0	1	1	166.66
1	0	0	333.33
1	0	1	100.00
1	1	0	400.00
1	1	1	Rsvd

HBSEL1	HBSEL0	
0	0	133 MHz
0	1	100 MHz

CLK

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Quanta Computer Inc.

Size	Document Number	Rev
	EXTERNAL CLKGEN	1B

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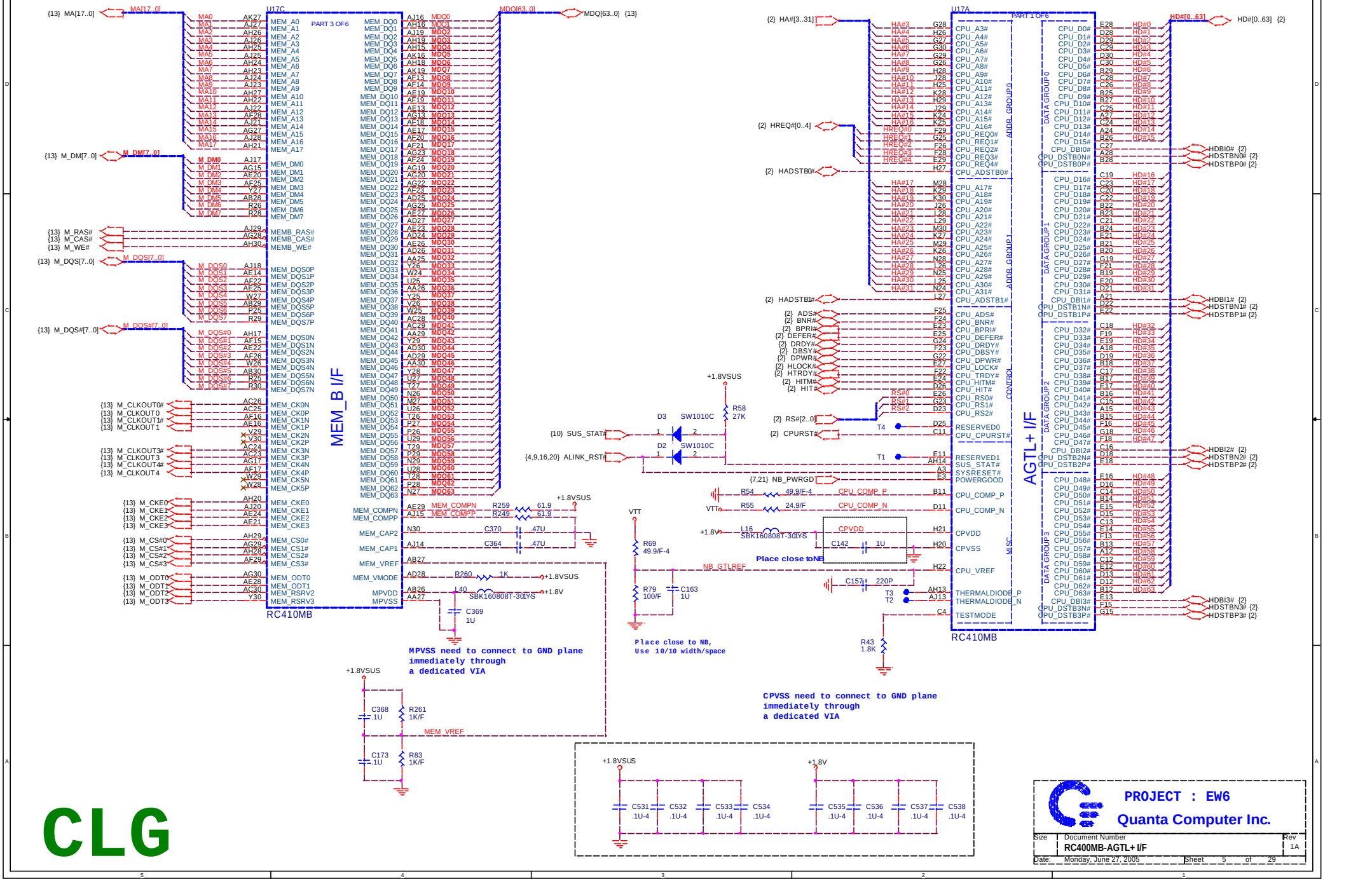
U17C
PART 3 OF6
MEM_B I/F
RC410MB
U17A
PART 1 OF 6
AGTL+ I/F
RC410MB
MA[17..0]
M_DM[7..0]
M_DQS[7..0]
M_DQS#[7..0]
MDQ[63..0]
HD#[0..63]
M_CLKOUT0#
M_CLKOUT0
M_CLKOUT1#
M_CLKOUT1
M_CLKOUT3#
M_CLKOUT3
M_CLKOUT4#
M_CLKOUT4
M_CKE0
M_CKE1
M_CKE2
M_CKE3
M_CS#0
M_CS#1
M_CS#2
M_CS#3
M_ODT0
M_ODT1
M_ODT2
M_ODT3
M_RAS#
M_CAS#
M_WE#
HA#[3..31]
HREQ#[0..4]
HADSTB0#
HADSTB1#
ADS#
BNR#
BPRI#
DEFER#
DRDY#
DBSY#
DPWR#
HLOCK#
HTRDY#
HIT#
HITM#
RS#[2..0]
CPURST#
SUS_STAT#
ALINK_RST#
NB_PWRGD
HDBI0#
HDSTBN0#
HDSTBP0#
HDBI1#
HDSTBN1#
HDSTBP1#
HDBI2#
HDSTBN2#
HDSTBP2#
HDBI3#
HDSTBN3#
HDSTBP3#
+1.8VSUS
+1.8V
VTT
MEM_VREF
MPVSS need to connect to GND plane immediately through a dedicated VIA
Place close to NB, Use 10/10 width/space
CPVSS need to connect to GND plane immediately through a dedicated VIA
Place close to NB
PROJECT : EW6
Quanta Computer Inc.
RC400MB-AGTL+ I/F
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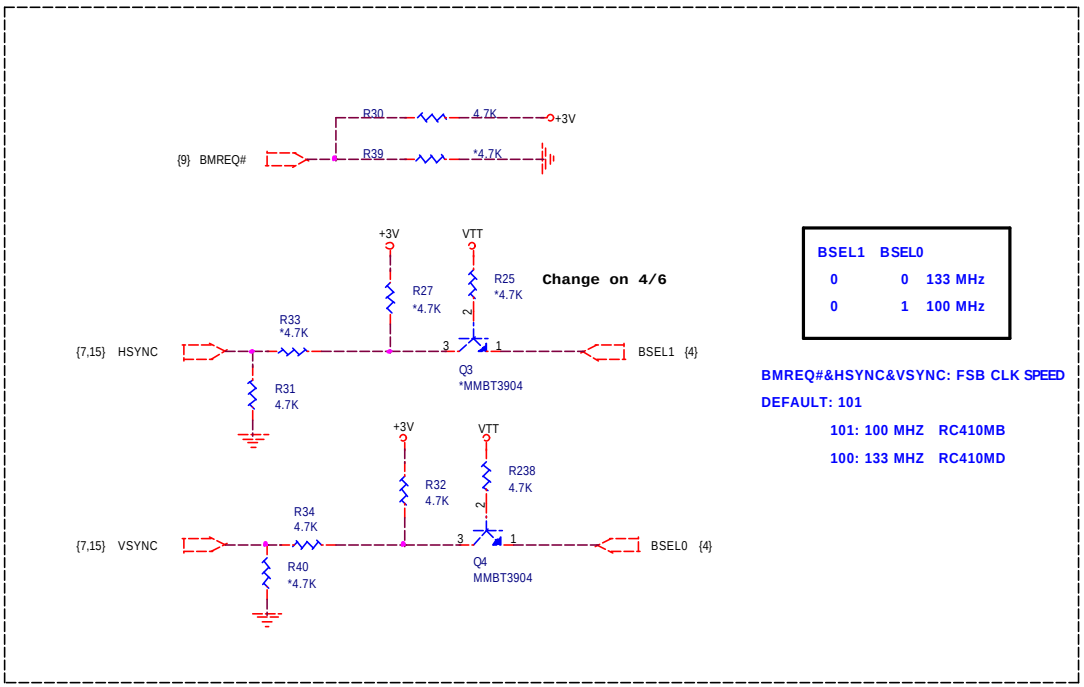
1A



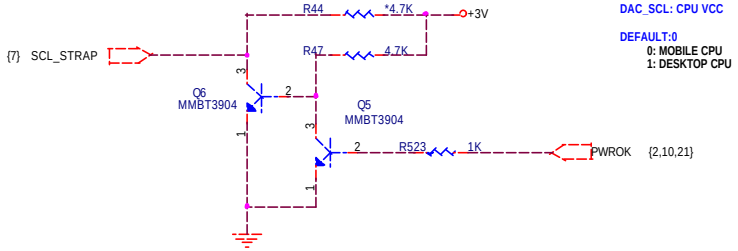
BSEL1	BSEL0	
0	0	133 MHz
0	1	100 MHz

BMREQ#&HSYNC&VSYNC: FSB CLK SPEED

DEFAULT: 101

101: 100 MHZ RC410MB

100: 133 MHZ RC410MD

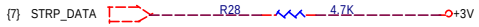


DAC_SCL: CPU VCC

DEFAULT:0

0: MOBILE CPU

1: DESKTOP CPU

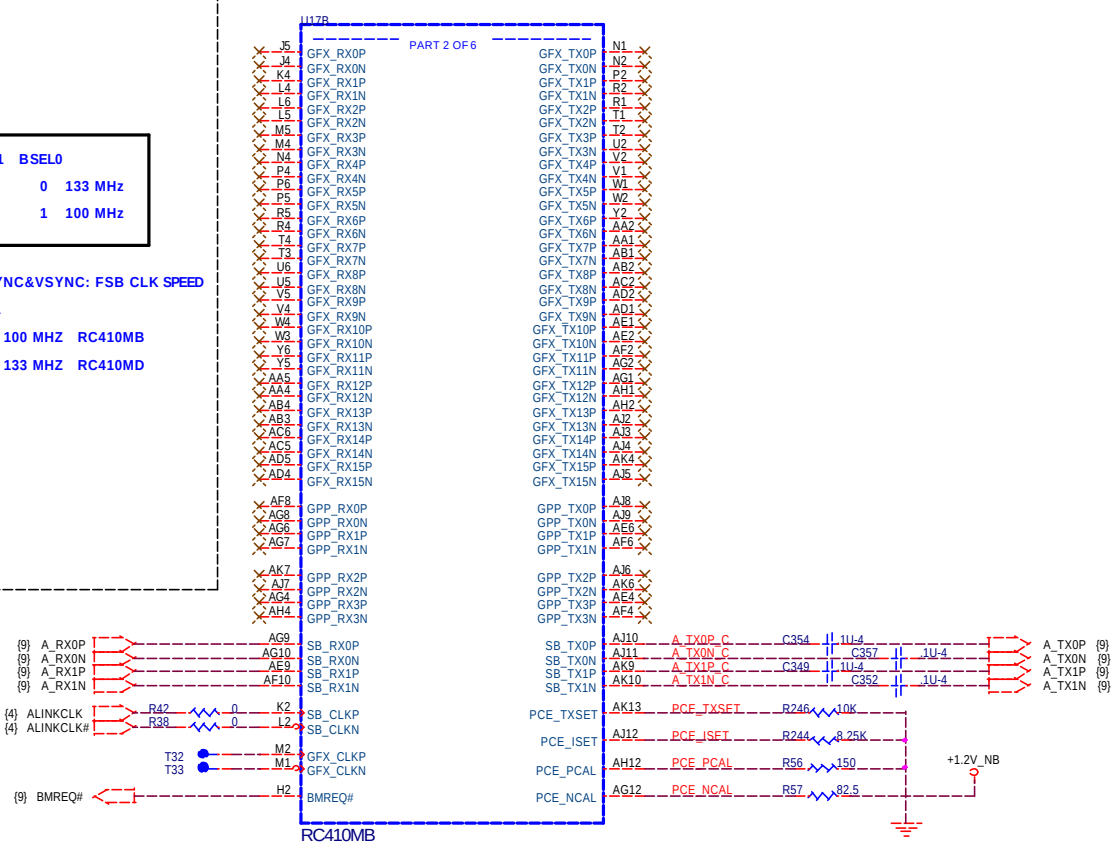


STRP_DATA:Debug strap

DEFAULT:1

0: MEMORY CHANNEL STRAPING

1: E2PROM STRAPING



PROJECT : EW6

Quanta Computer Inc.

Size	Document Number	Rev
	RC400MB-PCIE LINK I/F	2A

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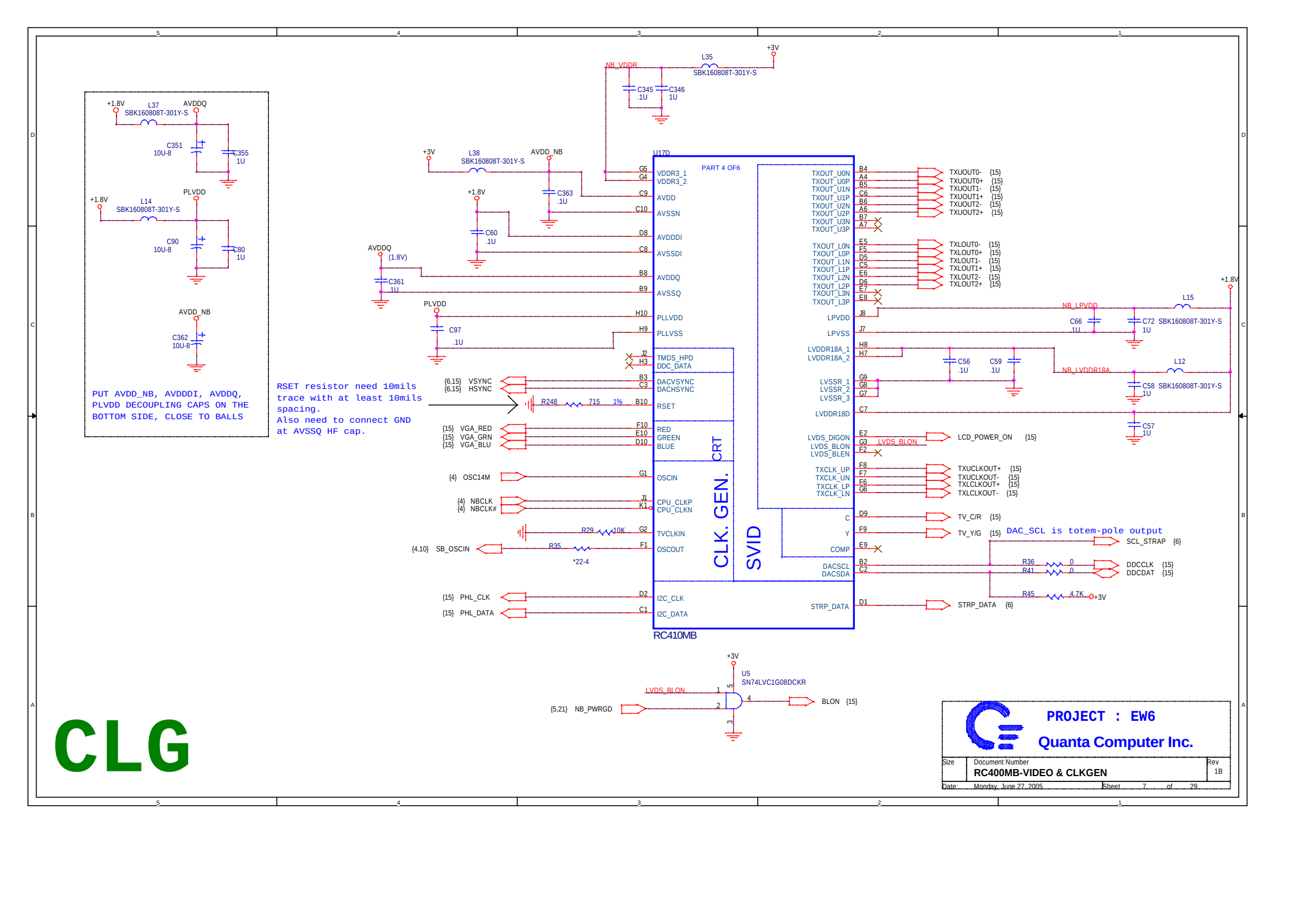
+1.8V
L37
SBK160808T-301Y-S
AVDDQ
C351
10U-8
C355
1U
PLVDD
+1.8V
L14
SBK160808T-301Y-S
C90
10U-8
C80
1U
AVDD_NB
C362
10U-8
PUT AVDD_NB, AVDDDI, AVDDQ, PLVDD DECOUPLING CAPS ON THE BOTTOM SIDE, CLOSE TO BALLS
RSET resistor need 10mils trace with at least 10mils spacing.
Also need to connect GND at AVSSQ HF cap.
+3V
L35
SBK160808T-301Y-S
NB_VDDR
C345
.1U
C346
1U
+3V
L38
SBK160808T-301Y-S
AVDD_NB
+1.8V
C363
.1U
C60
.1U
AVDDQ
(1.8V)
C361
1U
PLVDD
C97
.1U
U17D
PART 4 OF6
G5 VDDR3_1
G4 VDDR3_2
C9 AVDD
C10 AVSSN
D8 AVDDDI
C8 AVSSDI
B8 AVDDQ
B9 AVSSQ
H10 PLLVDD
H9 PLLVSS
J2 TMDS_HPD
H3 DDC_DATA
{6,15} VSYNC
{6,15} HSYNC
B3 DACVSYNC
C3 DACHSYNC
R248 715 1% B10 RSET
{15} VGA_RED
{15} VGA_GRN
{15} VGA_BLU
F10 RED
E10 GREEN
D10 BLUE
CRT
{4} OSC14M
G1 OSCIN
{4} NBCLK
{4} NBCLK#
J1
K1
CPU_CLKP
CPU_CLKN
CLK. GEN.
R29 10K G2 TVCLKIN
{4,10} SB_OSCIN
R35 F1 OSCOUT
*22-4
{15} PHL_CLK
{15} PHL_DATA
D2 I2C_CLK
C1 I2C_DATA
TXOUT_U0N B4
TXOUT_U0P A4
TXOUT_U1N B5
TXOUT_U1P C6
TXOUT_U2N B6
TXOUT_U2P A6
TXOUT_U3N B7
TXOUT_U3P A7
TXUOUT0- {15}
TXUOUT0+ {15}
TXUOUT1- {15}
TXUOUT1+ {15}
TXUOUT2- {15}
TXUOUT2+ {15}
TXOUT_L0N E5
TXOUT_L0P F5
TXOUT_L1N D5
TXOUT_L1P C5
TXOUT_L2N E6
TXOUT_L2P D6
TXOUT_L3N E7
TXOUT_L3P E8
TXLOUT0- {15}
TXLOUT0+ {15}
TXLOUT1- {15}
TXLOUT1+ {15}
TXLOUT2- {15}
TXLOUT2+ {15}
LPVDD J8
LPVSS J7
NB_LPVDD
L15
C66 .1U
C72 1U SBK160808T-301Y-S
+1.8V
LVDDR18A_1 H8
LVDDR18A_2 H7
C56 .1U
C59 .1U
NB_LVDDR18A
L12
C58 1U SBK160808T-301Y-S
LVSSR_1 G9
LVSSR_2 G8
LVSSR_3 G7
LVDDR18D C7
C57 1U
LVDS_DIGON E2
LVDS_BLON G3
LVDS_BLEN F2
LVDS_BLON
LCD_POWER_ON {15}
TXCLK_UP F8
TXCLK_UN F7
TXCLK_LP F6
TXCLK_LN G6
TXUCLKOUT+ {15}
TXUCLKOUT- {15}
TXLCLKOUT+ {15}
TXLCLKOUT- {15}
C D9
Y F9
COMP E9
TV_C/R {15}
TV_Y/G {15}
DAC_SCL is totem-pole output
SVID
DACSCL B2
DACSDA C2
R36 0
R41 0
SCL_STRAP {6}
DDCCLK {15}
DDCDAT {15}
R45 4.7K +3V
STRP_DATA D1
STRP_DATA {6}
RC410MB
+3V
U5
SN74LVC1G08DCKR
LVDS_BLON
{5,21} NB_PWRGD
BLON {15}
CLG
PROJECT : EW6
Quanta Computer Inc.
Size
Document Number
RC400MB-VIDEO & CLKGEN
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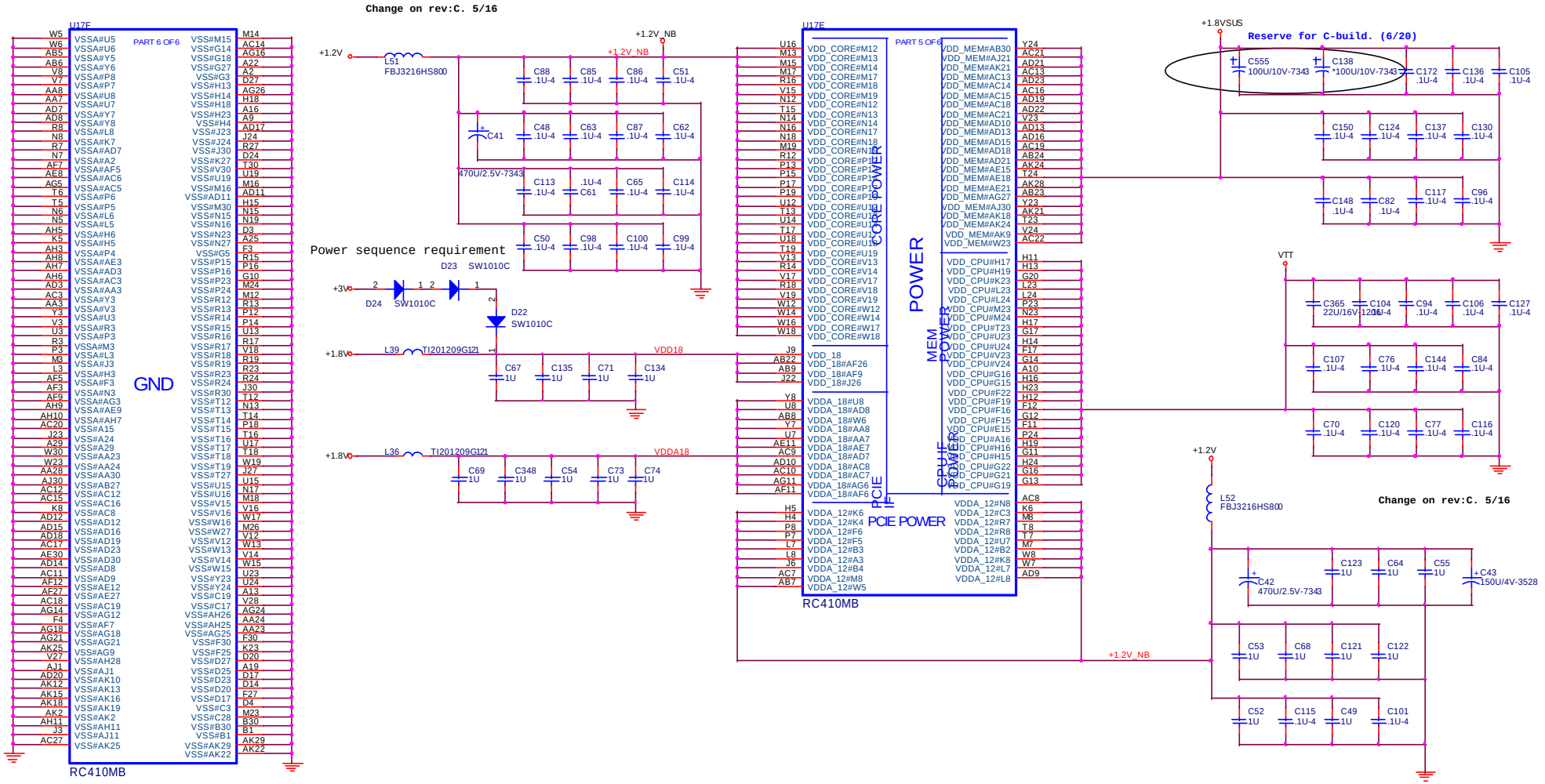
CLG



PROJECT : EW6

Quanta Computer Inc.

Size	Document Number	Rev
	RC400MB-POWER	3A
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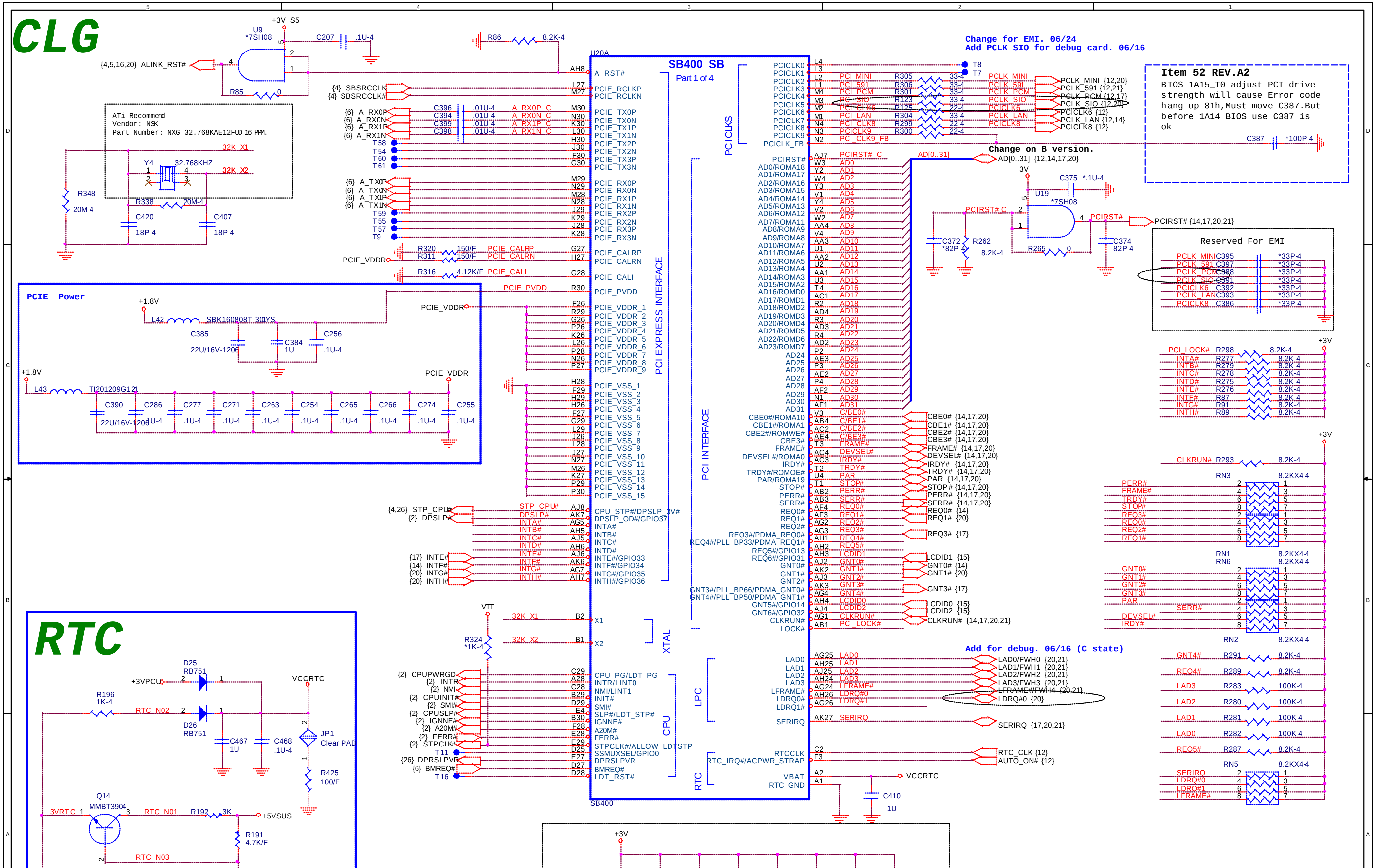

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Quanta Computer Inc.

Size	Document Number	Rev
Custom	SB400 PCIE/PCI/CPU/LPC I/F	3A

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CLG

U20D

SB400 SB

Part 4 of 4

PU/PD

+3V
H_THERMTRIP# R81 10K-4
+3V_S5
PROCHOT# R153 10K-4
EMAIL_LED# R166 4.7K-4
SUSB# R163 4.7K-4
SUSC# R162 4.7K-4
DNBSWON# R148 4.7K-4
TEMP_ALARM# R167 4.7K-4
PME# R164 4.7K-4
SWI# R165 10K-4
SCI# R161 10K-4
GPM7# R152 10K-4
GEVENT8# R147 10K-4
+3V
ROM_CS#/GPIO1 R156 4.7K-4
EXTEVNT1# R333 4.7K-4
FPBACK# R154 4.7K-4
RST_HDD# R155 4.7K-4
SDATA R331 2.2K-4
SCLK R332 2.2K-4
+3V
GPIO11 R159 10K-4
GPIO3 R329 10K-4
GPIO8 R158 10K-4
GPIO9 R330 10K-4
PCSPK R334 10K-4
GPIO12 R160 10K-4
GPIO6 R157 10K-4
GPIO7 R335 4.7K-4
When using it as VGATE, connect it to VRMPG.
AC_SDIN2 R137 8.2K-4
AC_SDIN1 R138 10K-4
CD_SDIN0 R135 10K-4
AC_BITCLK_R R139 10K-4

{22} EMAIL_LED# TEMP_ALARM# C6
{14,17,20} PME# EMAIL_LED# D5
{21} SCI# PME# C4
{21} SUSB# SCI# D3
{21} SUSC# SUSB# B4
{21} DNBSWON# SUSC# E3
{2,6,21} PWROK DNBSWON# B3
{5} SUS_STAT# PWROK C3
SUS_STAT# D4
R316 10K-4 F2
R322 10K-4 E2
{21} GATEA20 GATEA20 A26
{21} RCIN# RCIN# A27
H_THERMTRIP# D6
{21} SWI# SWI# C5
EXTEVNT1# A25
{2} PROCHOT# PROCHOT# D8
GPM7# D7
GEVENT8# D2
{21} RSMRST# RSMRST# D1
SB_14M_X1 A23
SB_14M_X2 B23
T5 AK24
ROM_CS#/GPIO1 B25
GPIO6 C25
GPIO7 C23
{16} RST_HDD# RST_HDD# D24
{15} FPBACK# FPBACK# D23
GPIO3 A27
{18} PCSPK PCSPK C24
{4,13} SCLK SCLK A26
{4,13} SDATA SDATA B26
GPIO9 B27
GPIO8 C26
GPIO11 C27
GPIO12 D26
R134 *10K-4
T56 J2
K3
T10 J3
T53 K2
{18} CD_BITCLKA R314 0-4 AC_BITCLK_R G1
{12,18} CD_SDOUTA R312 33/F-4 AC_DATA_OUT_R G2
{18} CD_SDIN0 CD_SDIN0 H4
AC_SDIN1 G3
AC_SDIN2 G4
{18} CD_SYNC R309 33/F-4 AC_SYNC_R H1
{18} CD_RESET# H3
{12} SB_SPDIF_OUT H2
+3V_S5 R307 10K-4

{4,7} SB_OSCIN R336 0-4
C405 *20P-4 R337 *0-4 SB_14M_X1
Y5 *14.318MHZ R339 *1M-4
C406 *20P-4 R327 *0-4 SB_14M_X2

SB400

ACPI / WAKE UP EVENTS
TALERT#/TEMP_ALARM#/GPIO16
BLINK/GPM6#
PCI_PME#/GEVENT4#
RI#/EXTEVNT0#
SLP_S3#
SLP_S5#
PWR_BTN#
PWR_GOOD
SUS_STAT#
TEST1
TEST0
GA20IN
KBRST#
SMBALERT#/THRMTRIP#/GEVENT2#
LPC_PME#/GEVENT3#
LPC_SMI#/EXTEVNT1#
VOLT_ALERT#/GEVENTS5#
SYS_RESET#/GPM7#
WAKE#/GEVENT8#

CLK / RST
RSMRST#
14M_X1/OSC
14M_X2
SIO_CLK

GPIO
ROM_CS#/GPIO1
GHI#/GPIO6
VGATE/GPIO7
AGP_STP#/GPIO4
AGP_BUSY#/GPIO5
FANOUT0/GPIO3
SPKR/GPIO2
SCL0/GPOCO#
SDA0/GPOC1#
DDC1_SCL/GPIO9
DDC1_SDA/GPIO8
DDC2_SCL/GPIO11
DDC2_SDA/GPIO12

(NOT USED)
NC1
NC4
NC3
NC2

AC97
AC_BITCLK
AC_SDOUT
AC_SDIN0
AC_SDIN1
AC_SDIN2
AC_SYNC
AC_RST#
SPDIF_OUT

USB INTERFACE
48M_X1/USBCLK
48M_X2
USB_RCOMP
USB_VREFOUT
USB_ATEST1
USB_ATEST0
USB_OC0#/GPM0#
USB_OC1#/GPM1#
USB_OC2#/FANOUT1/GPM2#
USB_OC3#/GPM3#
USB_OC4#/GPM4#
USB_OC5#/GPM5#
USB_OC6#/FAN_ALERT#/GEVENT6#
USB_OC7#/CASE_ALERT#/GEVENT7#

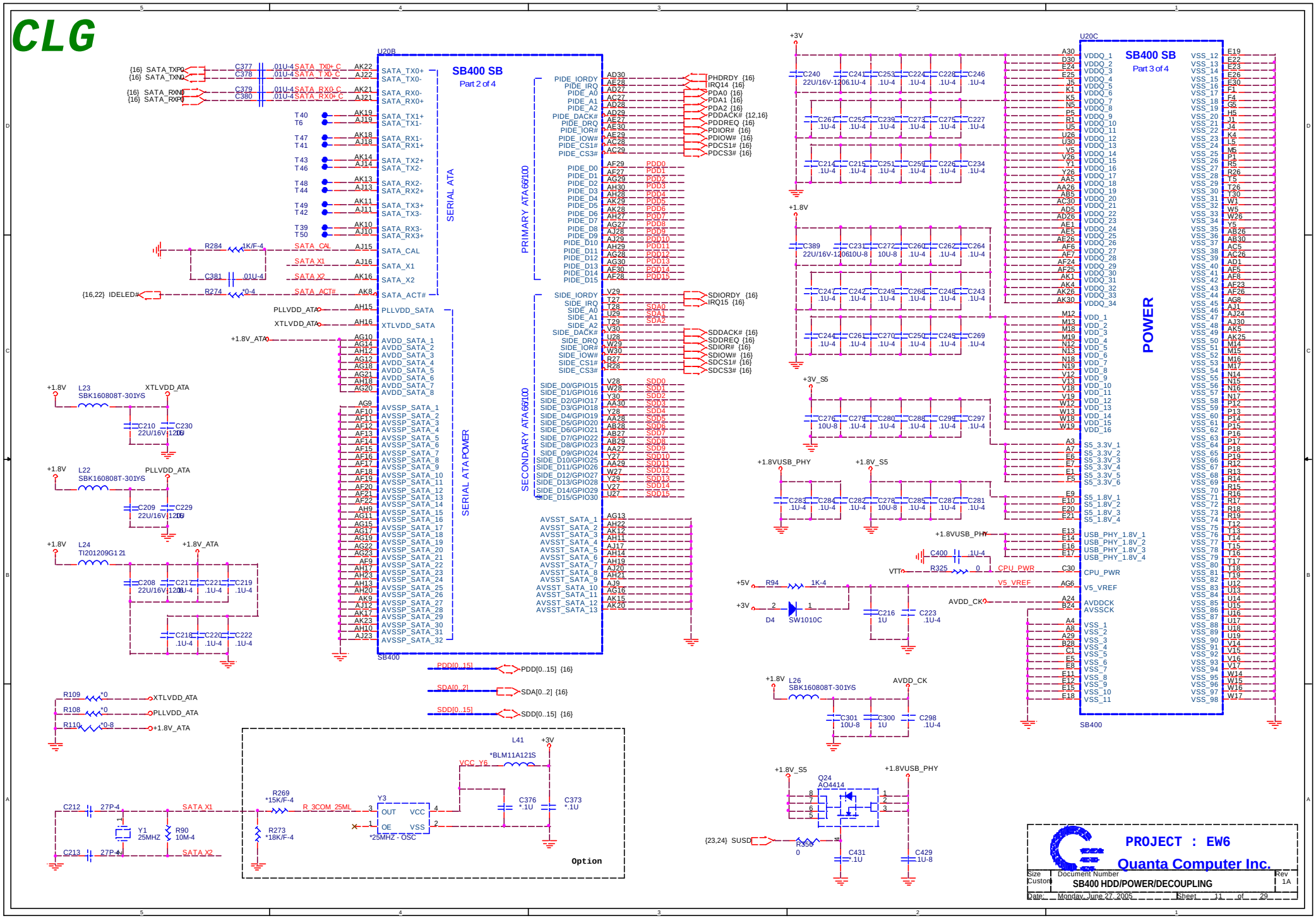
USB_HSDP7+ USB_HSDM7-
USB_HSDP6+ USB_HSDM6-
USB_HSDP5+ USB_HSDM5-
USB_HSDP4+ USB_HSDM4-
USB_HSDP3+ USB_HSDM3-
USB_HSDP2+ USB_HSDM2-
USB_HSDP1+ USB_HSDM1-
USB_HSDP0+ USB_HSDM0-

USB PWR
AVDDTX_0
AVDDTX_1
AVDDTX_2
AVDDTX_3
AVDDRX_0
AVDDRX_1
AVDDRX_2
AVDDRX_3
AVDDC
AVSSC
AVSS_USB_1
AVSS_USB_2
AVSS_USB_3
AVSS_USB_4
AVSS_USB_5
AVSS_USB_6
AVSS_USB_7
AVSS_USB_8
AVSS_USB_9
AVSS_USB_10
AVSS_USB_11
AVSS_USB_12
AVSS_USB_13
AVSS_USB_14
AVSS_USB_15
AVSS_USB_16
AVSS_USB_17
AVSS_USB_18
AVSS_USB_19
AVSS_USB_20
AVSS_USB_21
AVSS_USB_22
AVSS_USB_23
AVSS_USB_24

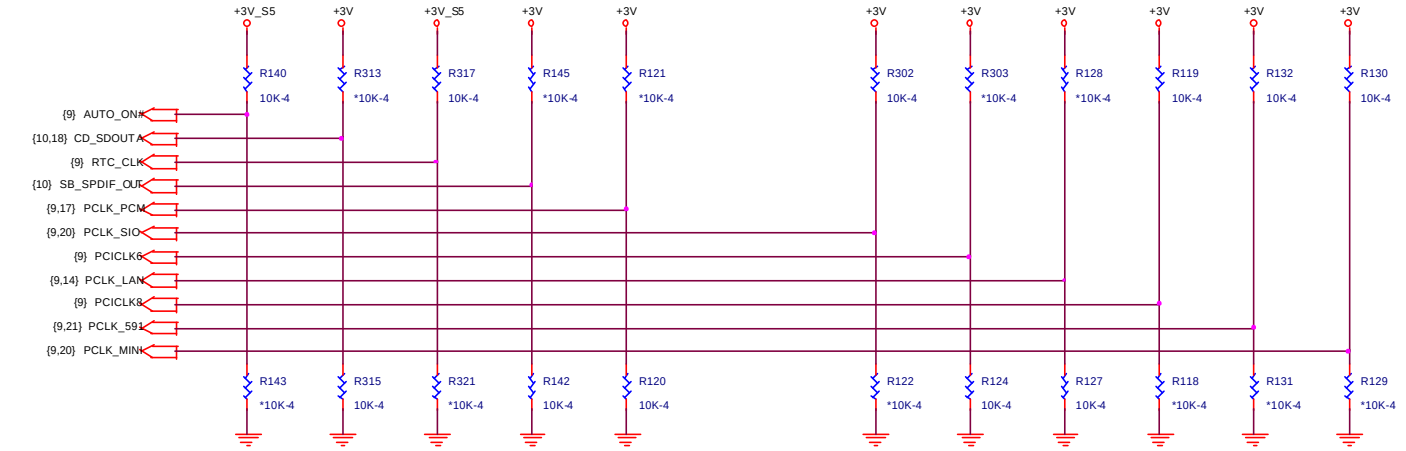
R169 0 USBCLK {4}
R170 *0
R168 *0
A15 SB_48M_X1
B15 SB_48M_X2
C15 USB_RCOMP R171 11.8K
D16 T12
C16 T62
D15 T13
B8 KBSMI# KBSMI# {20,21}
C8 USB_OCP1#
C7 USB_OCP2#
B7 USB_OCP3#
B6 USB_OCP4#
A6 USB_OCP5#
B5 LUSB1
A5 LUSB2
A11 USBP3+ {20}
B11 USBP3- {20}
A10 T68
B10 T64
A14 T15
B14 T14
A13 T69
B13 T67
A18 USBP1+ {20}
B18 USBP1- {20}
A17 T65
B17 T70
A21 USBP0+ {20}
B21 USBP0- {20}
A20 T63
B20 T66
C21 AVDD_USB
C18
D13
D10
D20
D17
C14
C11
A16 +3.3V_AVDDC
B16
A9
A12
A19
A22
B9
B12
B19
B22
C9
C10
C12
C13
C17
C19
C20
C22
D9
D11
D12
D14
D18
D19
D21
D22

USB power
USB power use S3 power,But Over current signal datasheet is S5 only,But ATI FAE say use S3 is ok
+3V_S5
LUSB1 R146 10K-4
LUSB2 R149 10K-4
KBSMI# R151 4.7K-4
USB_OCP1# R150 10K-4
RN4 *10KX4-4
USB_OCP2#
USB_OCP3#
USB_OCP5#
USB_OCP4#
Reserve for EZ4 and PU for USB OCP
+3V_S5
+3VSUS
AVDD_USB
TI201209G121 L46
C412 22U/16V-1206
C409
C290 .1U-4
C294 .1U-4
C292 .1U-4
C293 .1U-4
C289 .1U-4
C291 .1U-4
C295 .1U-4
+3.3V_AVDDC
SBK160808T-301Y-S L44
C415 22U/16V-1206
C408
C296 .1U-4

PROJECT : EW6
Quanta Computer Inc.
Size: Custom
Document Number: SB400 ACPI/GPIO/USB/AC97
Rev: 1A
Date: Monday, June 27, 2005
Sheet 10 of 29


CLG
U20B
SB400 SB
Part 2 of 4
SERIAL ATA
PRIMARY ATA66/100
SECONDARY ATA66/100
SERIAL ATA POWER
SB400
U20C
SB400 SB
Part 3 of 4
POWER
SB400
PROJECT : EW6
Quanta Computer Inc.
SB400 HDD/POWER/DECOUPLING
Size: Custom
Document Number
Rev: 1A
Date: Monday, June 27, 2005
Sheet 11 of 29
Option

CLG

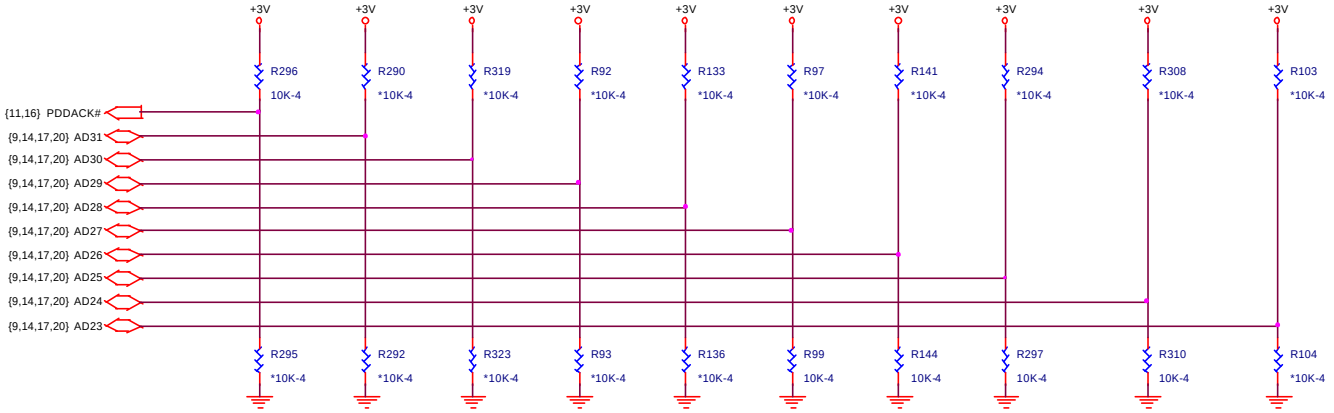


REQUIRED STRAPS

	ACPWRON	AC_SDOUT	RTC_CLK	SPDIF_OUT	PCLK_PCM	PCLK_SIO	PCI_CLK6	PCLK_LAN PCI_CLK8	PCLK_591	PCLK_MINI*
PULL HIGH	MANUAL PWR ON DEFAULT	USE DEBUG STRAPS	INTERNAL RTC DEFAULT	SIO 24MHz	48MHz use Internal PLL	14MHz OSC MODE DEFAULT	CPU I/F = K8	H,H = PCI(X BUS) ROM H,L = LPC ROM I (LPC addresses are translated to the top of the 4G address space) L,H = LPC ROM II DEFAULT (addresses mapped to below 1M) L,L = FWH ROM	USB PHY PWRDOWN DISABLE DEFAULT	48MHz OSC/Clock Buffer
PULL LOW	AUTO PWR ON	IGNORE DEBUG STRAPS DEFAULT	EXTERNAL RTC (NOT SUPPORTED W/ IT8712)	SIO 48MHz DEFAULT	48MHz use External Clock DEFAULT	14MHz XTAL MODE	CPU I/F = P4 DEFAULT		USB PHY PWRDOWN ENABLE	48MHz Crystal Pad DEFAULT

	PCI_CLK4	PCI_CLK5	PCI_CLK6	PCI_CLK7	PCI_CLK8	PCI_CLK3	PCI_CLK2

*This strap is only required if the strap on PCICLK4 is configured for External Clock.



DEBUG STRAPS

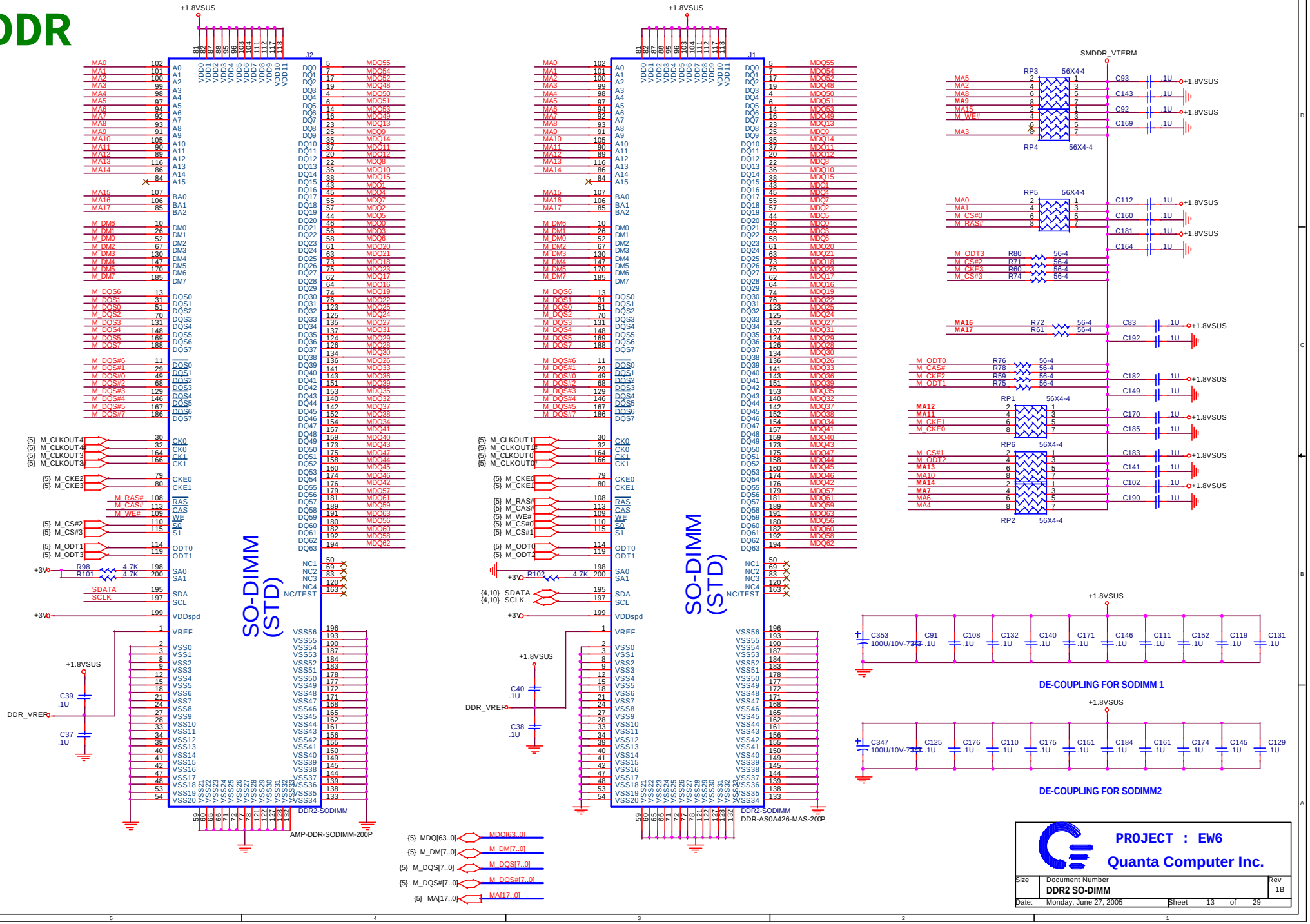
	PDACK#	PCI_AD31	PCI_AD30	PCI_AD29	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE LONG RESET DEFAULT	Reserved	Reserved	Reserved	Reserved	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	Reserved
PULL LOW	USE SHORT RESET					USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	

PROJECT : EW6

Quanta Computer Inc.

Size	Document Number	Rev
Custom	SB400 STRAPS	1A
Date: Monday, June 27, 2005	Sheet 12 of 29	

DDR



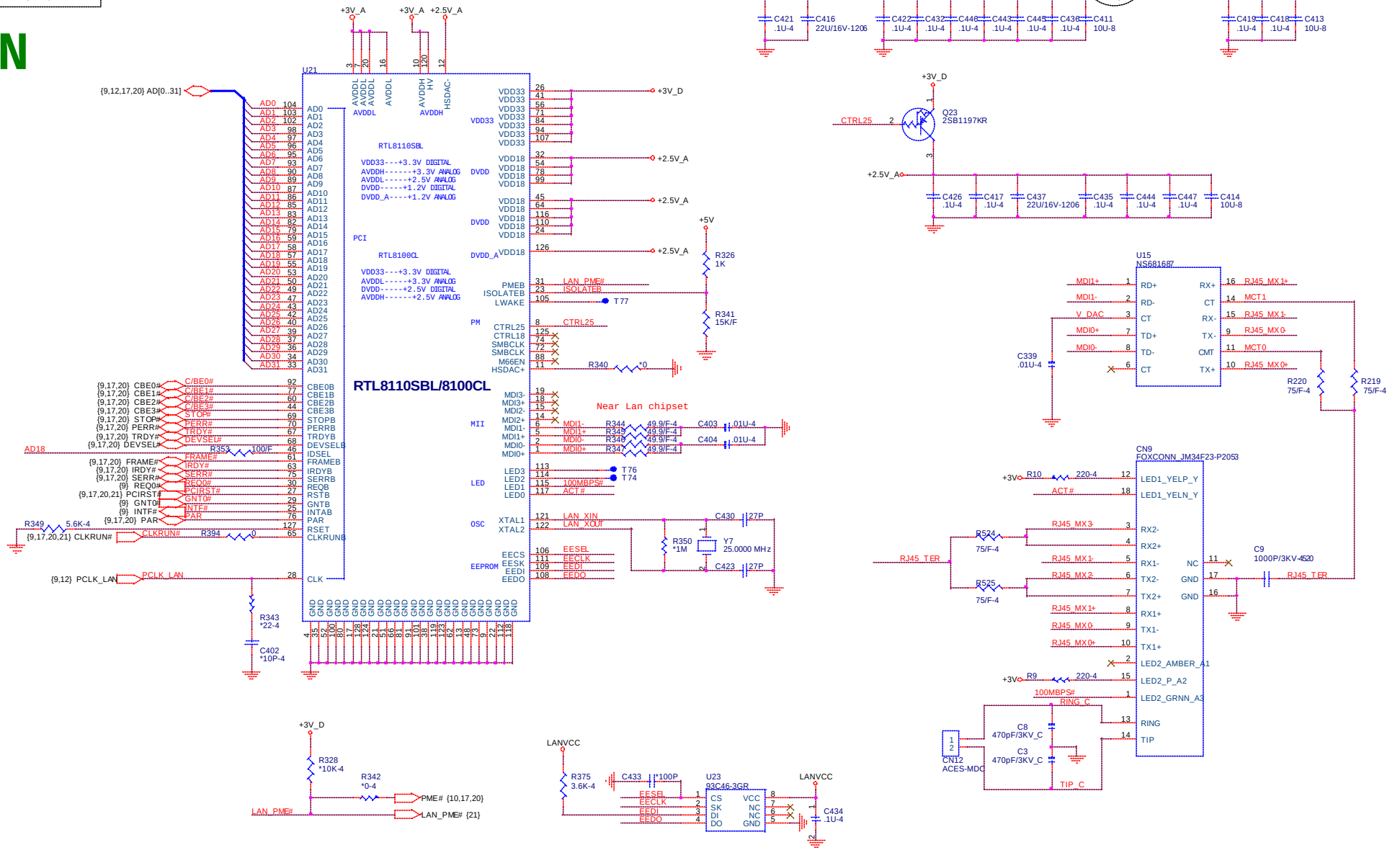
PROJECT : EW6

Quanta Computer Inc.

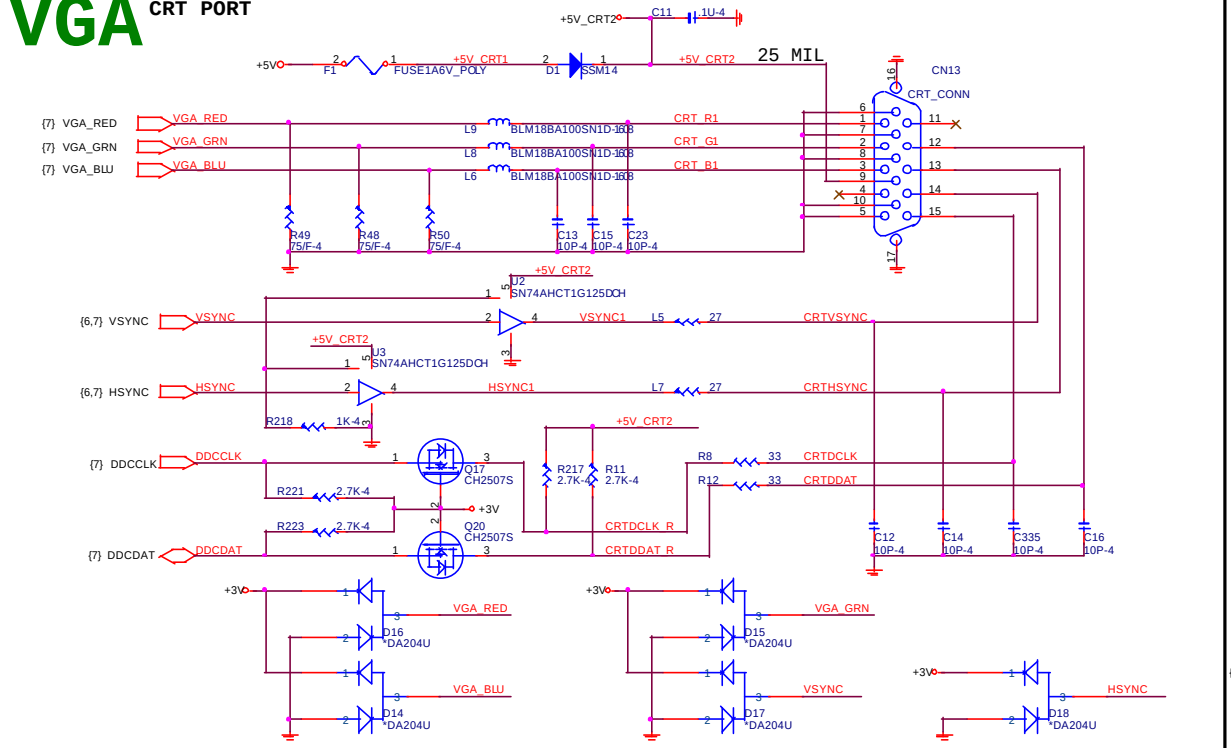
Size	Document Number	Rev
	DDR2 SO-DIMM	1B
Date: Monday, June 27, 2005	Sheet 13 of 29	

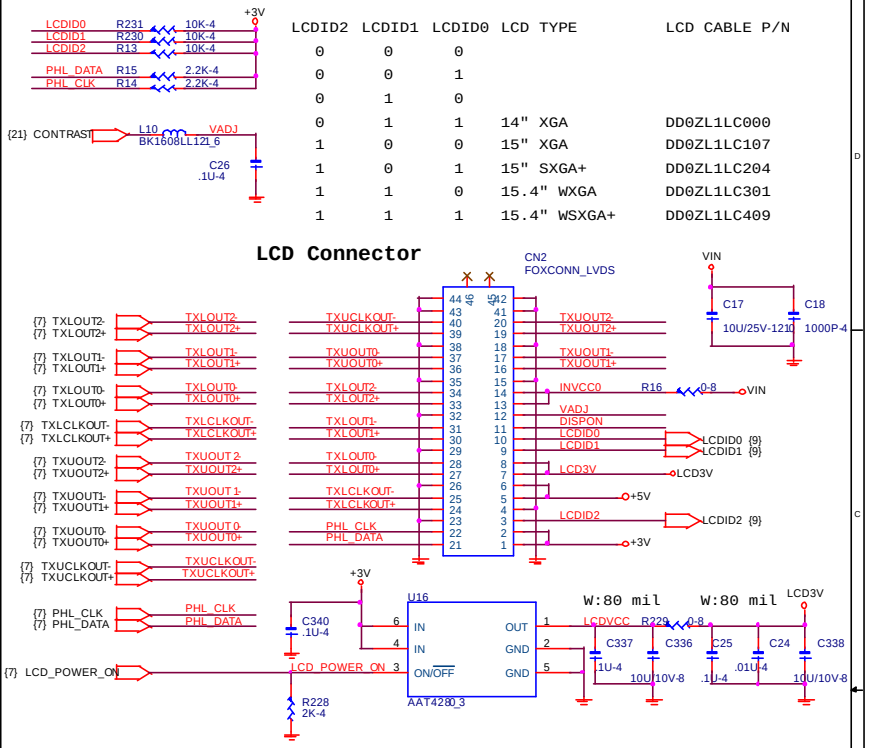
ID Select : AD18
Interrupt Pin : INTD#
Request Indicate : REQ0#
Grant Indicate : GNT0#

LAN

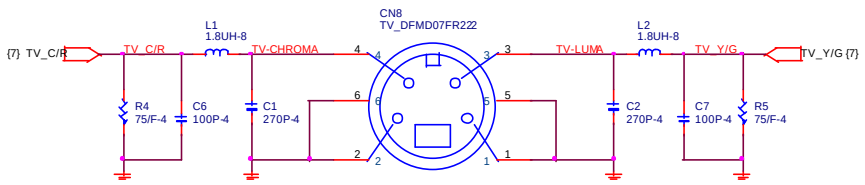


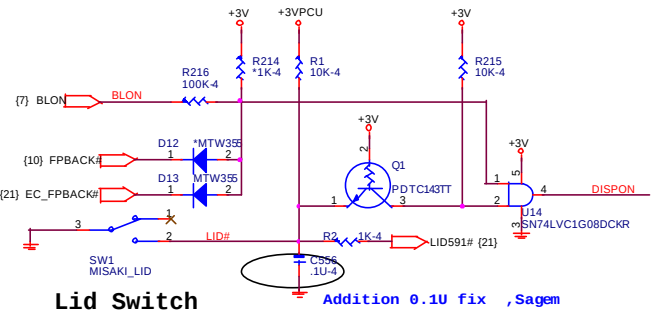
VGA CRT PORT





S-VIDEO





Lid Switch

Addition 0.1U fix ,Sagem

OTH

FOR MODEM MODULE

HOLE20 *H-C268D157P2
HOLE21 H-C268D157P2
ADGAD
R444 *0
C514 .01U-4
AUDGND

FOR CPU HEATSINK

HOLE15 H-C283D165P2
HOLE11 H-C283D165P2
HOLE16 H-C283D165P2

HOLE5 *H-C268D165P2

HOLE17 *H-C276D11P2
HOLE23 *H-C276D11P2
R126 *0
C257 .01U-4
R454 *0
C523 .01U-4

HOLE25 *H-C276D11P2
HOLE22 *H-C276D11P2
HOLE24 *H-C276D11P2
HOLE13 *H-C276D11I160P2
HOLE3 *H-C276D11P2
HOLE19 *H-C276D11P2
HOLE1 *H-C276M220D110P2
HOLE4 H-C197D118P2

FOR NB HEATSINK

HOLE18 *H-C283D165P2
HOLE10 *H-C283D165P2
HOLE9 *H-C283D165P2
HOLE14 *H-C283D165P2

HOLE8 *H-C315D11P2
HOLE12 *H-C323D110P2
HOLE6 *H-C323D110P2
HOLE7 *H-C323D110P2
HOLE2 H-C276M220D110P2

FOR M/B HOLE

Size	Document Number	Rev
	VGA Ports, LID, & HOLES	3A
Date: Monday, June 27, 2005	Sheet 15 of 29	

IDE

HDD CONN

{11} PDD[0..15]

PDD8 PDD9 PDD10 PDD11 PDD12 PDD13 PDD14 PDD15 PDD0 PDD1 PDD2 PDD3 PDD4 PDD5 PDD6 PDD7

DEL on BOM .6/24

CLOSE IDE SIDE

+3V R233 *10K-4 IRQ14

PDD7 R239 10K-4

PDDREQ R235 5.6K-4

+3V R247 *10K-4

{10} RST_HDD# RST_HDD# R245 *22-4 -RST_HDD0

{4,5,9,20} ALINK_RST# ALINK_RST# R243 22-4

CN16

-RST_HDD0 PDD7 PDD6 PDD5 PDD4 PDD3 PDD2 PDD1 PDD0

PDD8 PDD9 PDD10 PDD11 PDD12 PDD13 PDD14 PDD15

{11} PDDREQ
{11} PDIOW#
{11} PDIOR#
{11} PHDRDY
{11,12} PDDACK#
{11} IRQ14
{11} PDA1
{11} PDA0
{11} PDCS1#

PHDRDY IRQ14

PSEL R234 470-4

R232 *10K-4

PDA2 {11}
PDCS3# {11}

+5V

C45 .1U-4 C29 1000P-4 HDD_CON C32 .1U-4 C30 150U/6.3V-7343

HDLED# 1 D19 2 IDELED# {11,22}

MTW355

C341 *100K-4

+5V C31 .1U-4 C44 .1U-4

+5V C547 .1U-4 C548 .1U-4 C549 .1U-4 C550 .1U-4 C551 .1U-4

Add for EMI 4/12.

*SA@Serial_ATA
HDD-127043FR022G209ZR-22P

CN17

GND24 12V 12V 12V GND RSVD GND 5V 5V 5V GND GND GND 3.3V 3.3V 3.3V GND3 TXP TXN GND2 RXN RXP GND1 GND23

+5V

+3.3VSATA R26 *0-8 +3V

SATA_RXP0 SATA_RXN0 SATA_TXN0 SATA_TXP0

SATA_RXP0 {11}
SATA_RXN0 {11}
SATA_TXN0 {11}
SATA_TXP0 {11}

ODD CONN

{11} SDD[0..15]

SDD8 SDD9 SDD10 SDD11 SDD12 SDD13 SDD14 SDD15 SDD0 SDD1 SDD2 SDD3 SDD4 SDD5 SDD6 SDD7

+3V R187 *10K-4 IRQ15

SDDREQ R193 5.6K-4

SDD7 R199 10K-4

+3V R202 *10K-4

ALINK_RST# R203 22-4 -RST_RBAY0

CN22

-RST_RBAY0 SDD7 SDD6 SDD5 SDD4 SDD3 SDD2 SDD1 SDD0

SDD8 SDD9 SDD10 SDD11 SDD12 SDD13 SDD14 SDD15 SDDREQ SDIOR#

SDDREQ {11}
SDIOR# {11}

{11} SDIOW#
{11} SDIORDY
{11} IRQ15
{11} SDA1
{11} SDA0
{11} SDCS1#

SDIOW# SDIORDY IRQ15 SDA1 SDA0 SDCS1# CDLED#

SDDACK#

SDDACK# {11}

SDA2 SDCS3#

SDA2 {11}
SDCS3# {11}

IDELED# 2 D9 1 MTW355

+5V

RCSEL_R R182 470-4

51 52 C1242S-15001

C316 1000P-4 C319 .1U-4 C314 .1U-4 C46 .1U-4 C439 150U/6.3V-7343

+5V

PROJECT : EW6

Quanta Computer Inc.

Size	Document Number	Rev
	HDD & CDROM	3A

Date: Monday, June 27, 2005 Sheet 16 of 29

ID Select : AD17
Interrupt Pin : INTE#
Request Indicate : REQ3#
Grant Indicate : GNT3#

CBS

CARDBUS SLOT

U30-1 PCI1510PGE

U30-2 PCI1510PGE

U30-4 PCI1510PGE

CN5 CARDBUS-SANTA

Near TPS2211A

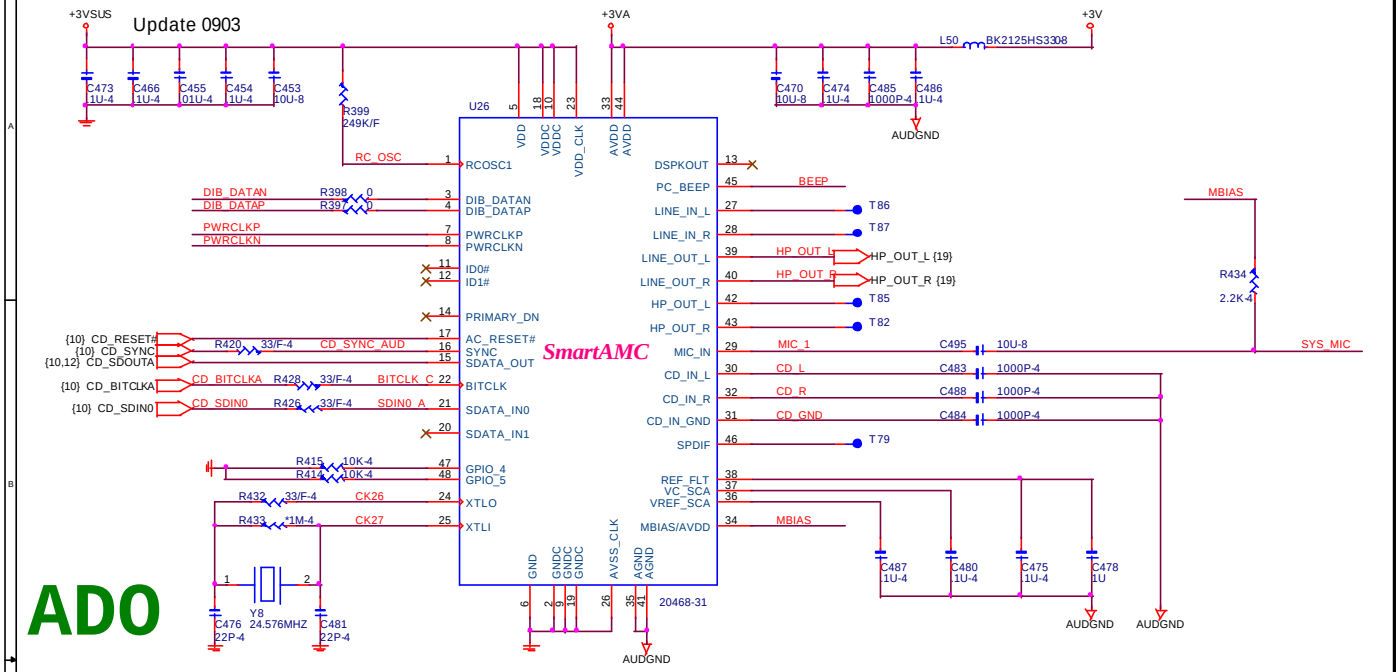
Near Slot

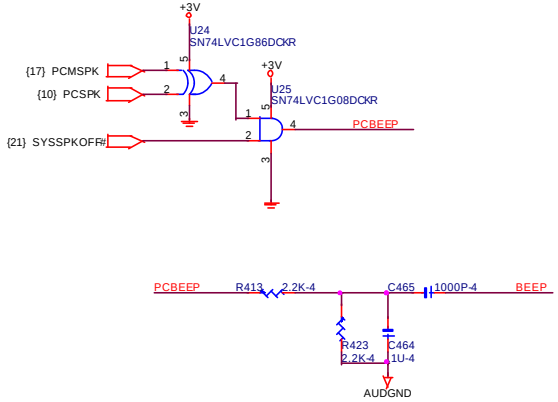
Near Chipset

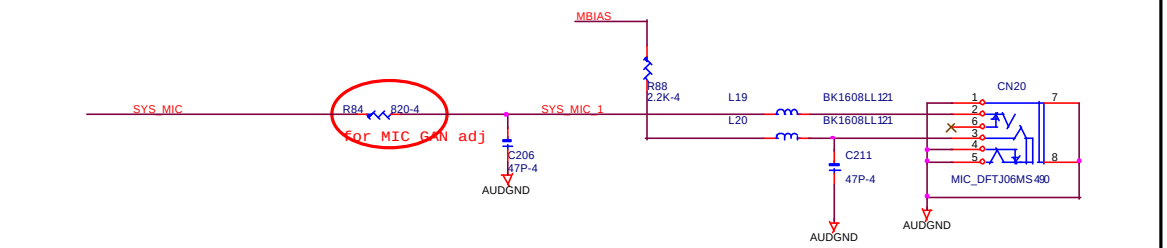
+3V Plane

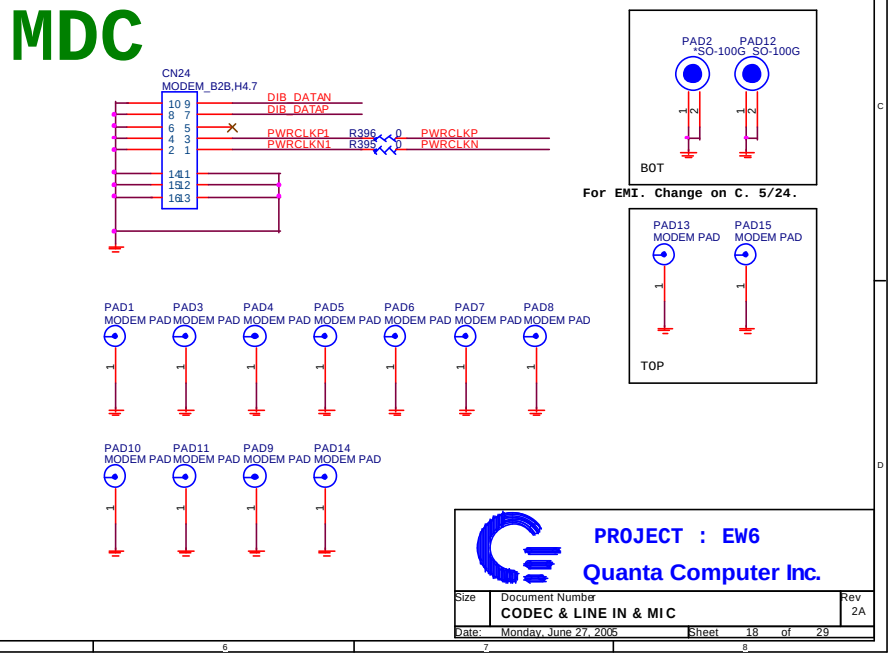
Near Chipset

PROJECT :	EW6
Quanta Computer Inc.	
Size	Document Number: PCMCIA CONTROLLER — Rev: 1B
Date: Monday, June 27, 2005	Sheet 17 of 29









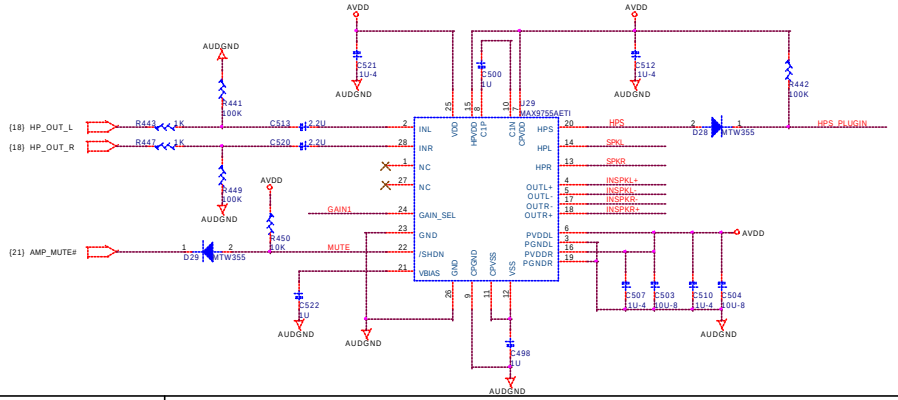
PROJECT : EW6

Quanta Computer Inc.

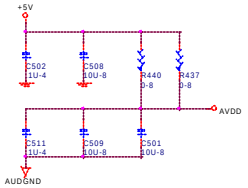
Size	Document Number	Rev
	CODEC & LINE IN & MIC	2A
Date: Monday, June 27, 2005	Sheet 18 of 29	

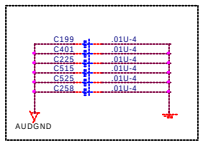
ADO

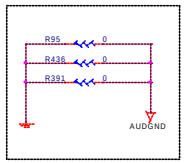
GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0

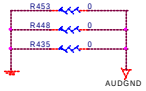


AMP POWER

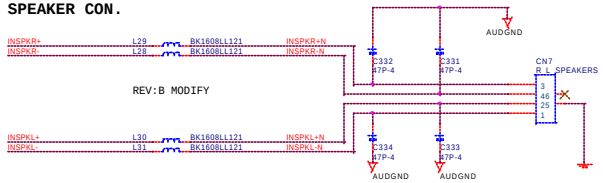




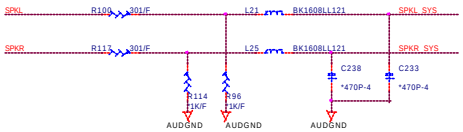




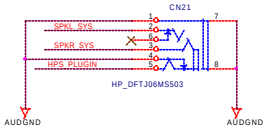
SPEAKER CON.



LINE-OUT



LINE OUT



PROJECT : EW6
Quanta Computer Inc.

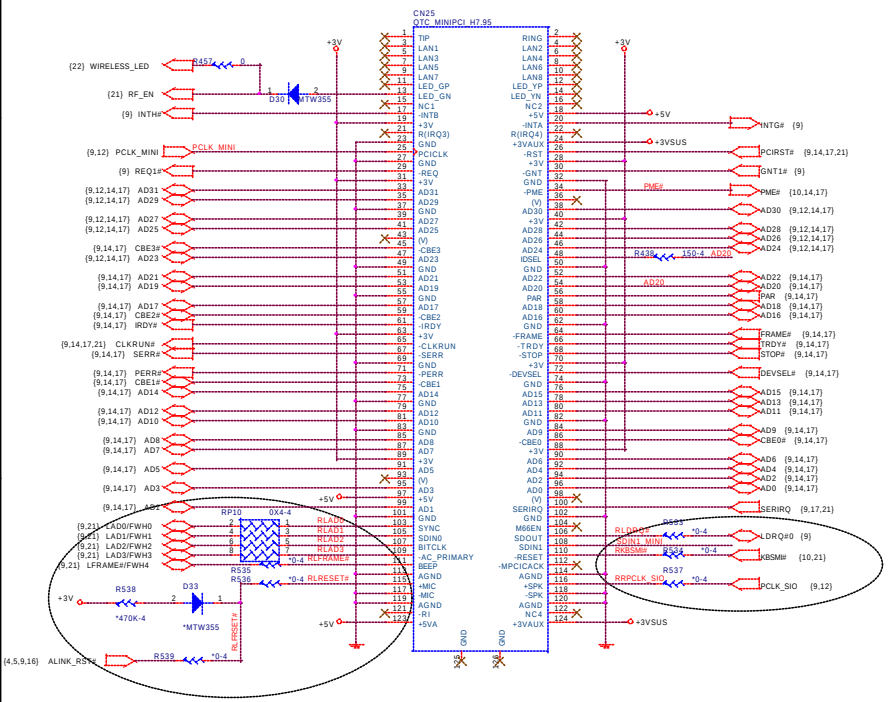
Size	Document Number	Rev
	AUDIO AMP	2A

Date: Monday, June 27, 2005 Sheet 19 of 29

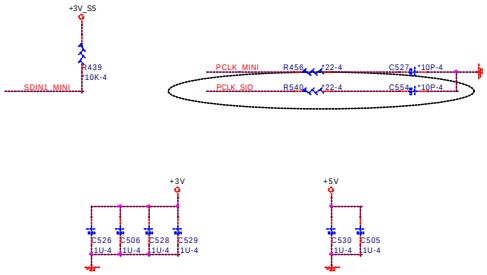
MPC

ID Select : AD20
Interrupt Pin : INTB# , INTC#
Request Indicate : REQ1#
Grant Indicate : GNT1#

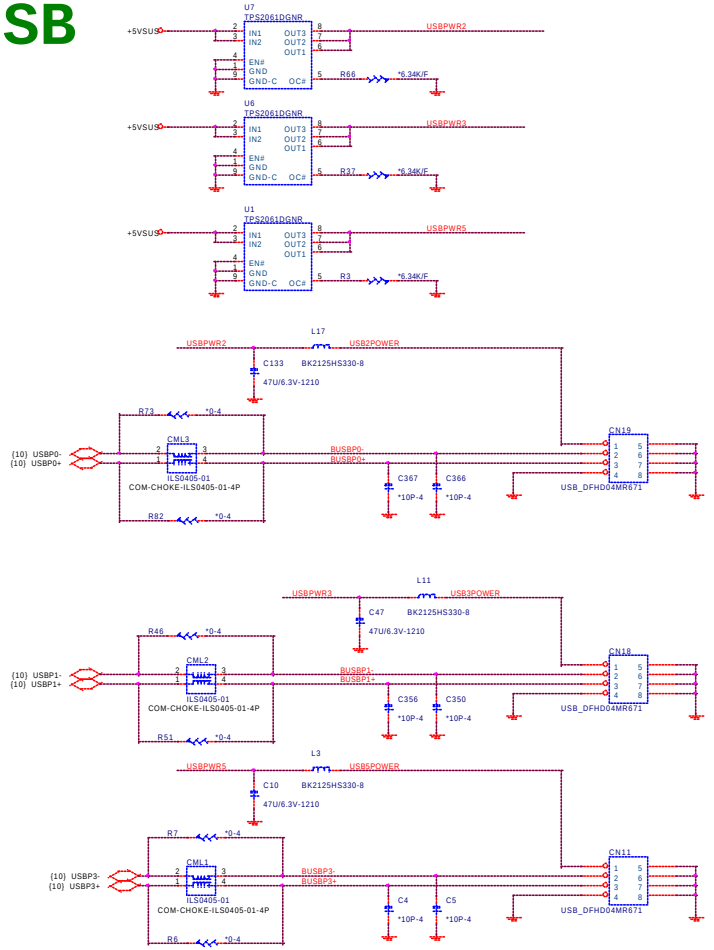
MINI-PCI



Add for debug. 06/16 (C state)



USB



PROJECT : EW6
Quanta Computer Inc.

Size	Document Number	Rev
	MINI PCI,USB	3A

Date: Monday, June 27, 2005 Sheet 20 of 29

KBC

REV:B MODIFY FOR EMI

LDRQ#(pin 8) internal is no use

Should have a 0.1uF capacitor close to every GND-VCC pair + one larger cap on the supply.

SHBM=1: Enable shared memory with host BIOS

BADDR1-0	I/O Address	
	Index	Data
0 0	2E	2F
0 1	4E	4F
1 0	(HCFGBAH, HCFGBAL)(HCFGBAH, HCFGBAL)+1	
1 1	Reserved	

Reserve on C build. 6/27

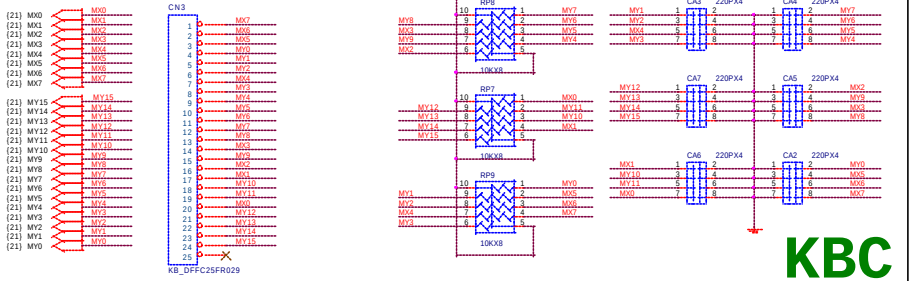
BIU configuration should match flash speed used

FOR 97551 ONLY

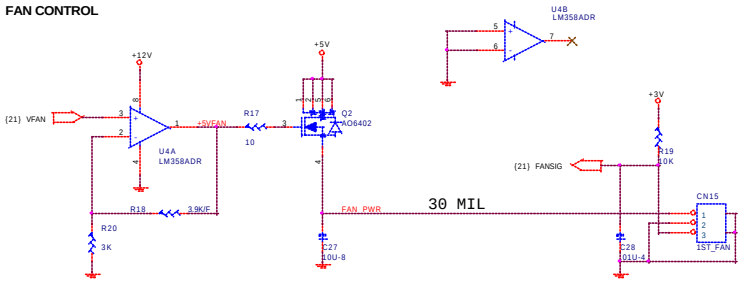
FWH

PROJECT : EW6		
Quanta Computer Inc.		
Size	Document Number	Rev
	PC97551 & FLASH	2A
Date: Monday, June 27, 2005	Sheet 21 of 29	

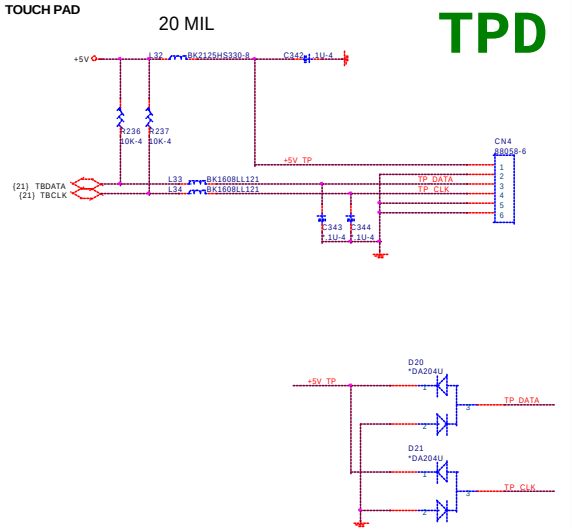
INT K/B

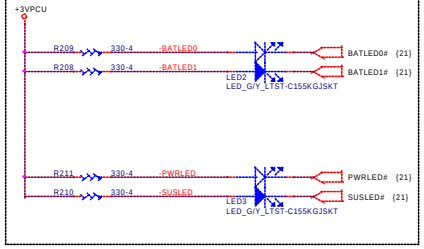


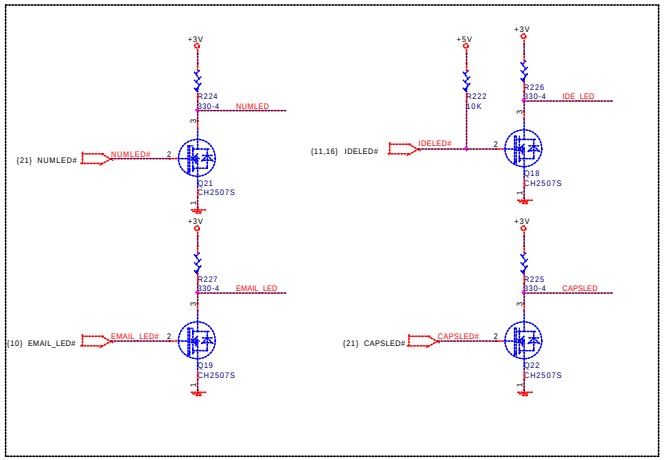
FAN CONTROL

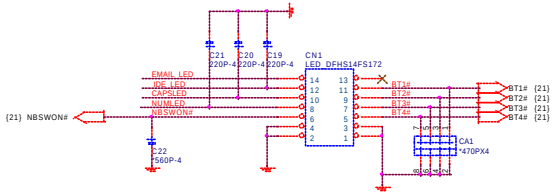


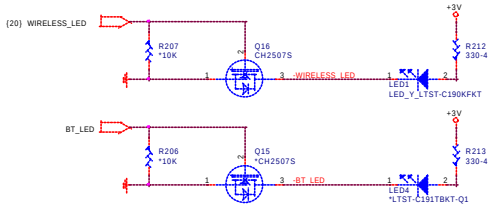
TOUCH PAD



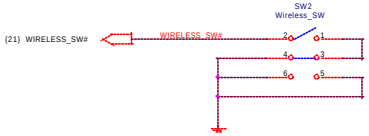








SWITCH



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Quanta Computer Inc.

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	T/P,FAN,SWITCH,LED,K/B	1B

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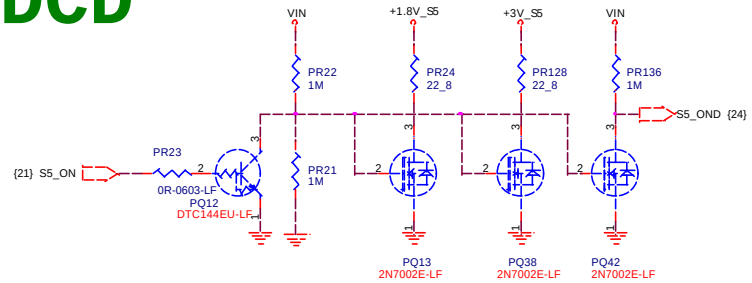
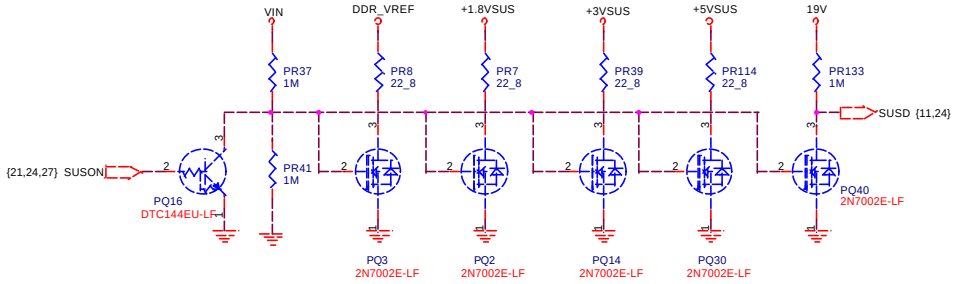
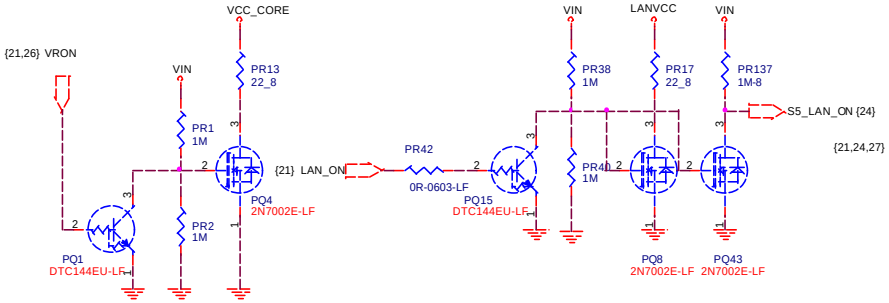
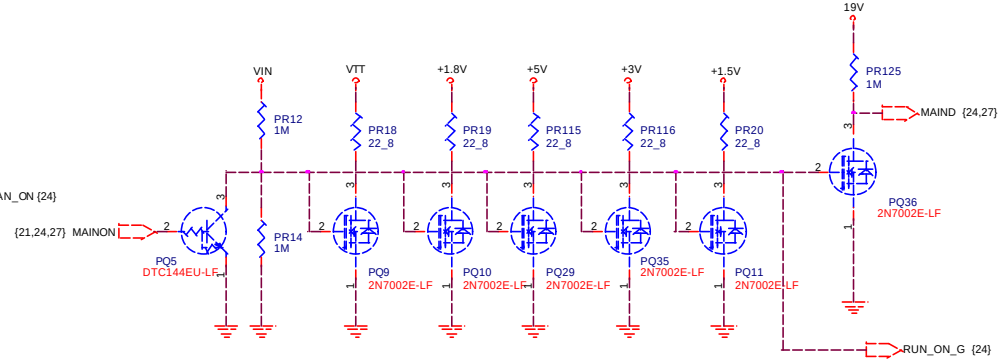
DCD

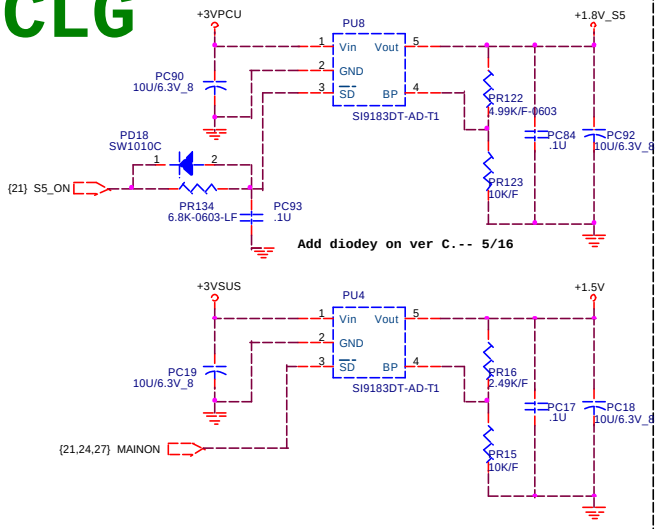


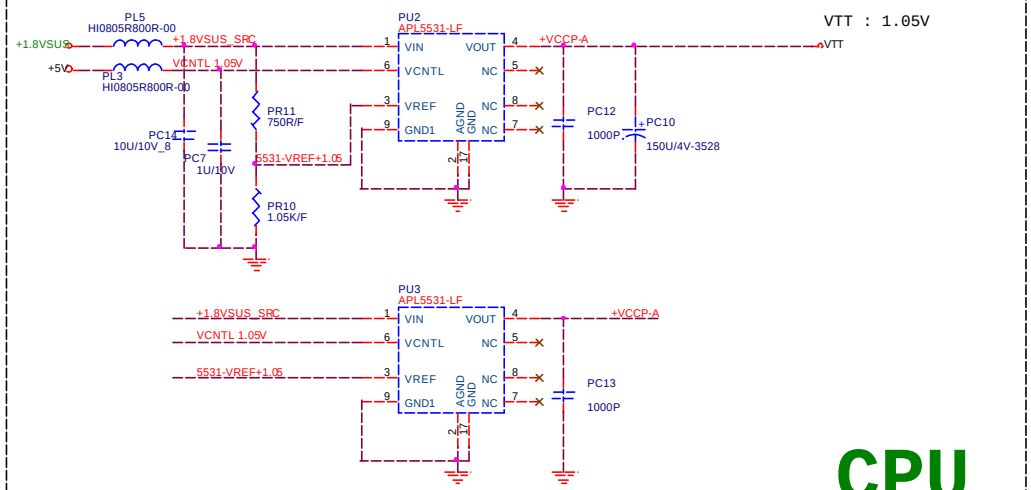






CLG





CPU

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Quanta Computer Inc.

Size	Document Number	Rev
Custom	DISCHAGE&+1.8V	2A
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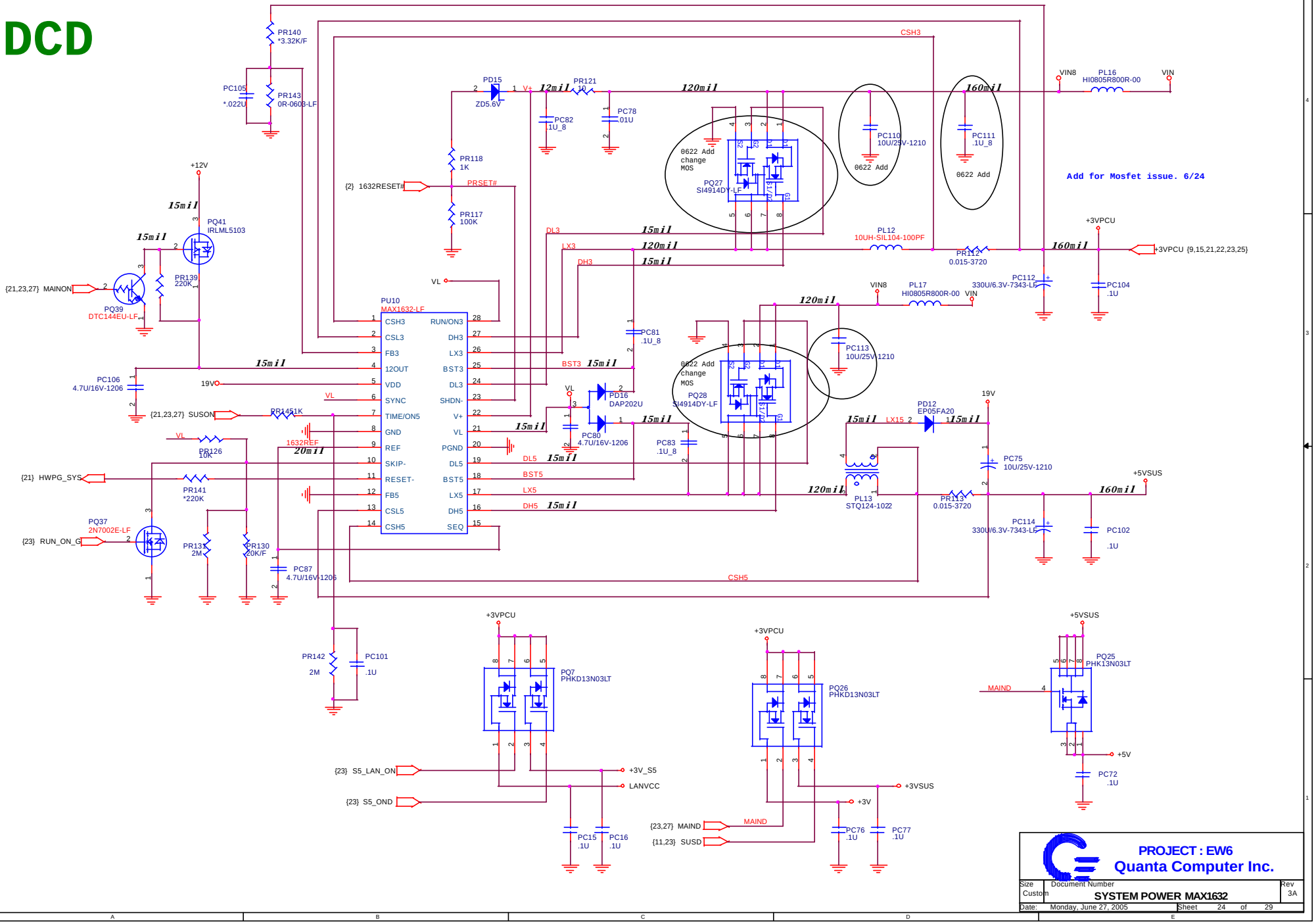
DCD


PR140 *3.32K/F
PC105 *.022U
PR143 0R-0603-LF
PD15 ZD5.6V
PR121 10
PC82 .1U_8
PC78 .01U
CSH3
VIN8
PL16 HI0805R800R-00
VIN
PR118 1K
PRSET#
{2} 1632RESET#
PR117 100K
+12V
PQ41 IRLML5103
PR139 220K
{21,23,27} MAINON
PQ39 DTC144EU-LF
PU10 MAX1632-LF
CSH3
CSL3
FB3
12OUT
VDD
SYNC
TIME/ON5
GND
REF
SKIP-
RESET-
FB5
CSL5
CSH5
RUN/ON3
DH3
LX3
BST3
DL3
SHDN-
V+
VL
PGND
DL5
BST5
LX5
DH5
SEQ
0622 Add change MOS
PQ27 SI4914DY-LF
PC110 10U/25V-1210
0622 Add
PC111 .1U_8
0622 Add
Add for Mosfet issue. 6/24
PL12 10UH-SIL104-100PF
PR112 0.015-3720
+3VPCU
+3VPCU {9,15,21,22,23,25}
PC112 330U/6.3V-7343-LF
PC104 .1U
PL17 HI0805R800R-00
PC113 10U/25V-1210
PQ28 SI4914DY-LF
PC81 .1U_8
PC80 4.7U/16V-1206
PD16 DAP202U
PC83 .1U_8
19V
PC106 4.7U/16V-1206
{21,23,27} SUSON
PR145 1K
1632REF
PR126 10K
{21} HWPG_SYS
PR141 *220K
PQ37 2N7002E-LF
{23} RUN_ON_G
PR131 2M
PR130 20K/F
PC87 4.7U/16V-1206
PD12 EP05FA20
LX15
PL13 STQ124-1022
PR113 0.015-3720
PC75 10U/25V-1210
PC114 330U/6.3V-7343-LF
PC102 .1U
+5VSUS
PR142 2M
PC101 .1U
PQ7 PHKD13N03LT
{23} S5_LAN_ON
{23} S5_OND
+3V_S5
LANVCC
PC15 .1U
PC16 .1U
PQ26 PHKD13N03LT
{23,27} MAIND
{11,23} SUSD
+3V
+3VSUS
PC76 .1U
PC77 .1U
PQ25 PHK13N03LT
MAIND
+5V
PC72 .1U
PROJECT : EW6
Quanta Computer Inc.
Size Custom
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SYSTEM POWER MAX1632
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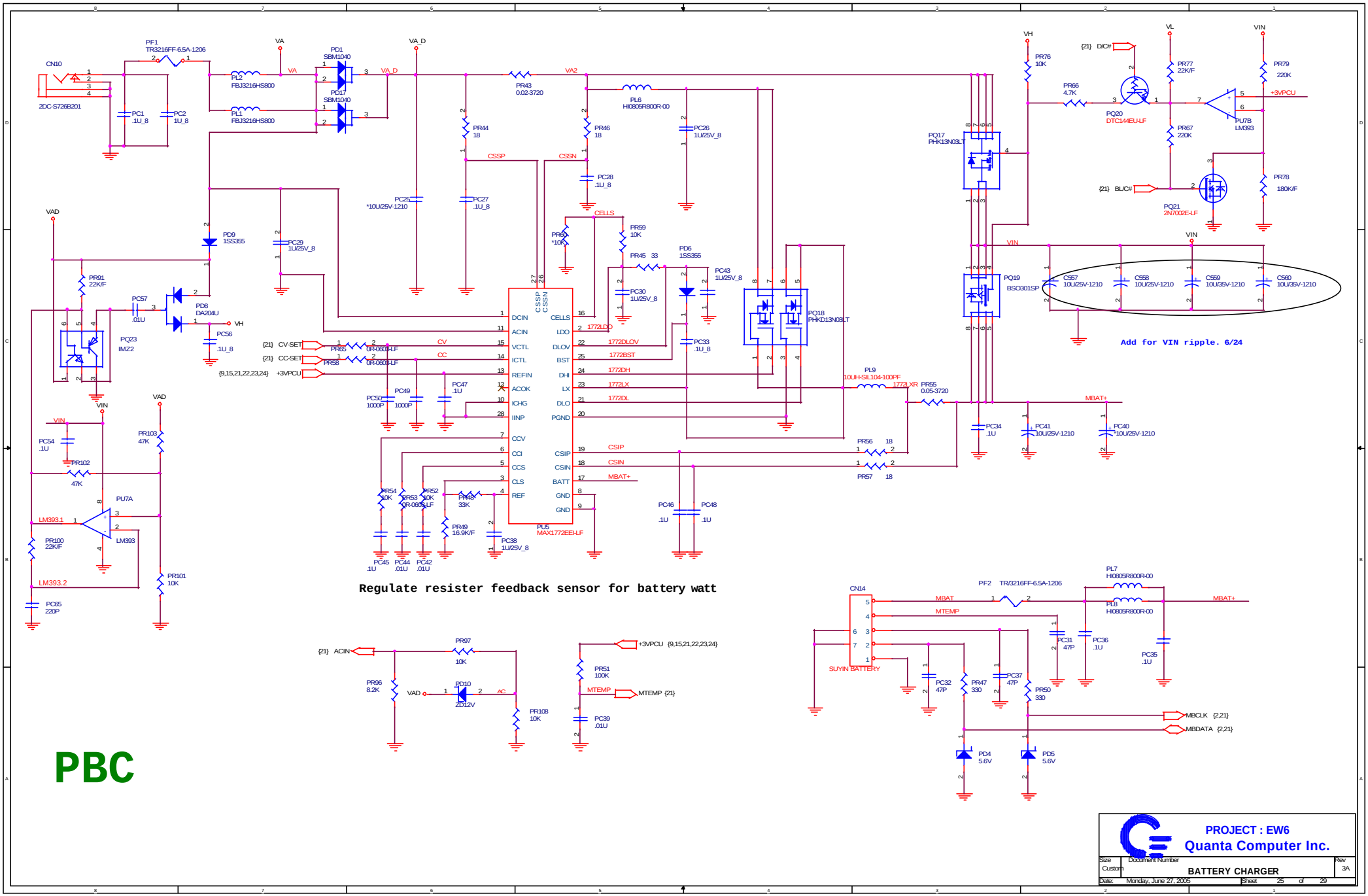
CN10
2DC-S726B201
PF1
TR3216FF-6.5A-1206
PC1 .1U_8
PC2 1U_8
VA
VA_D
PL2 FBJ3216HS800
PL1 FBJ3216HS800
PD1 SBM1040
PD17 SBM1040
PR43 0.02-3720
VA2
PL6 HI0805R800R-00
PR44 18
PR46 18
PC26 1U25V_8
CSSP
CSSN
PC28 .1U_8
PC25 *10U/25V-1210
PC27 .1U_8
CELLS
PR60 *10K
PR59 10K
PR45 33
PD6 1SS355
PC43 1U25V_8
PC30 1U25V_8
PC33 .1U_8
PD9 1SS355
PC29 1U25V_8
PR91 22K/F
PC57 .01U
PD8 DA204U
PQ23 IMZ2
PC56 .1U_8
{21} CV-SET
{21} CC-SET
{9,15,21,22,23,24} +3VPCU
PR65 0R-0603-LF
PR58 0R-0603-LF
CV
CC
PC47 .1U
PC50 1000P
PC49 1000P
PU5 MAX1772EEH-LF
DCIN
ACIN
VCTL
ICTL
REFIN
ACOK
ICHG
IINP
CCV
CCI
CCS
CLS
REF
CELLS
LDO
DLOV
BST
DHI
LX
DLO
PGND
CSIP
CSIN
BATT
GND
1772LDO
1772DLOV
1772BST
1772DH
1772LX
1772DL
MBAT+
PR54 10K
PR53 0R-0603-LF
PR52 10K
PR48 33K
PR49 16.9K/F
PC38 1U25V_8
PC45 .1U
PC44 .01U
PC42 .01U
PC46 .1U
PC48 .1U
PQ18 PHKD13N03LT
PL9 10UH-SIL104-100PF
1772LXR
PR55 0.05-3720
PR56 18
PR57 18
PC34 .1U
PC41 10U/25V-1210
PC40 *10U/25V-1210
VH
PR76 10K
PR66 4.7K
{21} D/C#
PQ20 DTC144EU-LF
VL
PR77 22K/F
PR67 220K
PQ21 2N7002E-LF
{21} BL/C#
VIN
PR79 220K
+3VPCU
PU7B LM393
PR78 180K/F
PQ17 PHK13N03LT
PQ19 BSO301SP
C557 10U/25V-1210
C558 10U/25V-1210
C559 10U/35V-1210
C560 10U/35V-1210
Add for VIN ripple. 6/24
VAD
VIN
PR91 22K/F
PC57 .01U
PD8 DA204U
PQ23 IMZ2
PC56 .1U_8
VH
PC54 .1U
PR103 47K
PR102 47K
PU7A
LM393.1
LM393.2
LM393
PR100 22K/F
PR101 10K
PC65 220P
Regulate resister feedback sensor for battery watt
{21} ACIN
PR97 10K
PR96 8.2K
PD10 2D12V
PR108 10K
PR51 100K
MTEMP
MTEMP {21}
PC39 .01U
CN14
SUYIN BATTERY
PF2 TR3216FF-6.5A-1206
MBAT
MTEMP
PL7 HI0805R800R-00
PL8 HI0805R800R-00
MBAT+
PC31 47P
PC36 .1U
PC35 .1U
PC32 47P
PR47 330
PC37 47P
PR50 330
MBCLK {2,21}
MBDATA {2,21}
PD4 5.6V
PD5 5.6V
PBC
PROJECT : EW6
Quanta Computer Inc.
Size
Custom
Document Number
BATTERY CHARGER
Rev
3A
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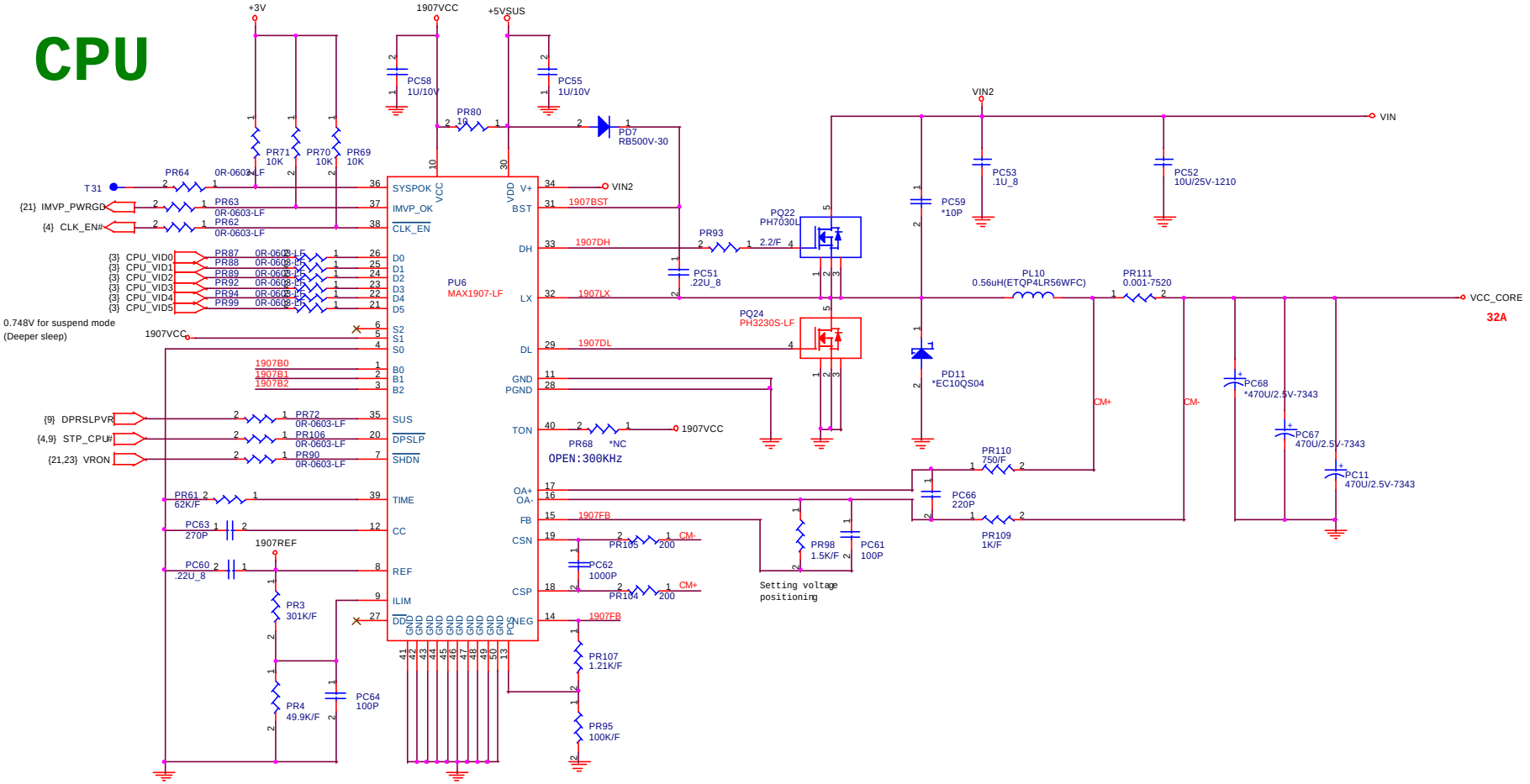
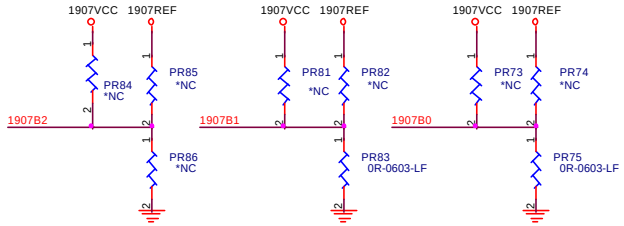
CPU





Setting boot voltage=1.2V

SUSPEND MODE (SUS=HIGH)

S2	S1	S0	Output
OPEN	VCC	GND	0.748V

VCC_BOOT

B2	B1	B0	Output
OPEN	GND	GND	1.708V
REF	REF	REF	1.372V
OPEN	OPEN	OPEN	1.036V
VCC	VCC	VCC	0.700V
REF	VCC	VCC	1.212V

D5	D4	D3	D2	D1	D0	Output	D5	D4	D3	D2	D1	D0	Output
1	0	0	0	0	0	1.196V	0	0	0	0	0	0	1.708V
1	0	0	0	0	1	1.180V	0	0	0	0	0	1	1.692V
1	0	0	0	1	0	1.164V	0	0	0	0	1	0	1.676V
1	0	0	0	1	1	1.148V	0	0	0	0	1	1	1.660V
1	0	0	1	0	0	1.132V	0	0	0	1	0	0	1.644V
1	0	0	1	0	1	1.116V	0	0	0	1	0	1	1.628V
1	0	0	1	1	0	1.100V	0	0	0	1	1	0	1.612V
1	0	0	1	1	1	1.084V	0	0	0	1	1	1	1.596V
1	0	1	0	0	0	1.068V	0	0	1	0	0	0	1.580V
1	0	1	0	0	1	1.052V	0	0	1	0	0	1	1.564V
1	0	1	0	1	0	1.036V	0	0	1	0	1	0	1.548V
1	0	1	0	1	1	1.020V	0	0	1	0	1	1	1.532V
1	0	1	1	0	0	1.004V	0	0	1	1	0	0	1.516V
1	0	1	1	0	1	0.988V	0	0	1	1	0	1	1.500V
1	0	1	1	1	0	0.972V	0	0	1	1	1	0	1.484V
1	0	1	1	1	1	0.956V	0	0	1	1	1	1	1.468V
1	1	0	0	0	0	0.940V	0	1	0	0	0	0	1.452V
1	1	0	0	0	1	0.924V	0	1	0	0	0	1	1.436V
1	1	0	0	1	0	0.908V	0	1	0	0	1	0	1.420V
1	1	0	0	1	1	0.892V	0	1	0	0	1	1	1.404V
1	1	0	1	0	0	0.876V	0	1	0	1	0	0	1.388V
1	1	0	1	0	1	0.860V	0	1	0	1	0	1	1.372V
1	1	0	1	1	0	0.844V	0	1	0	1	1	0	1.356V
1	1	0	1	1	1	0.828V	0	1	0	1	1	1	1.340V
1	1	1	0	0	0	0.812V	0	1	1	0	0	0	1.324V
1	1	1	0	0	1	0.796V	0	1	1	0	0	1	1.308V
1	1	1	0	1	0	0.780V	0	1	1	0	1	0	1.292V
1	1	1	0	1	1	0.764V	0	1	1	0	1	1	1.276V
1	1	1	1	0	0	0.748V	0	1	1	1	0	0	1.260V
1	1	1	1	0	1	0.732V	0	1	1	1	0	1	1.244V
1	1	1	1	1	0	0.716V	0	1	1	1	1	0	1.228V
1	1	1	1	1	1	0.700V	0	1	1	1	1	1	1.212V

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Custom	CPU CORE	1A
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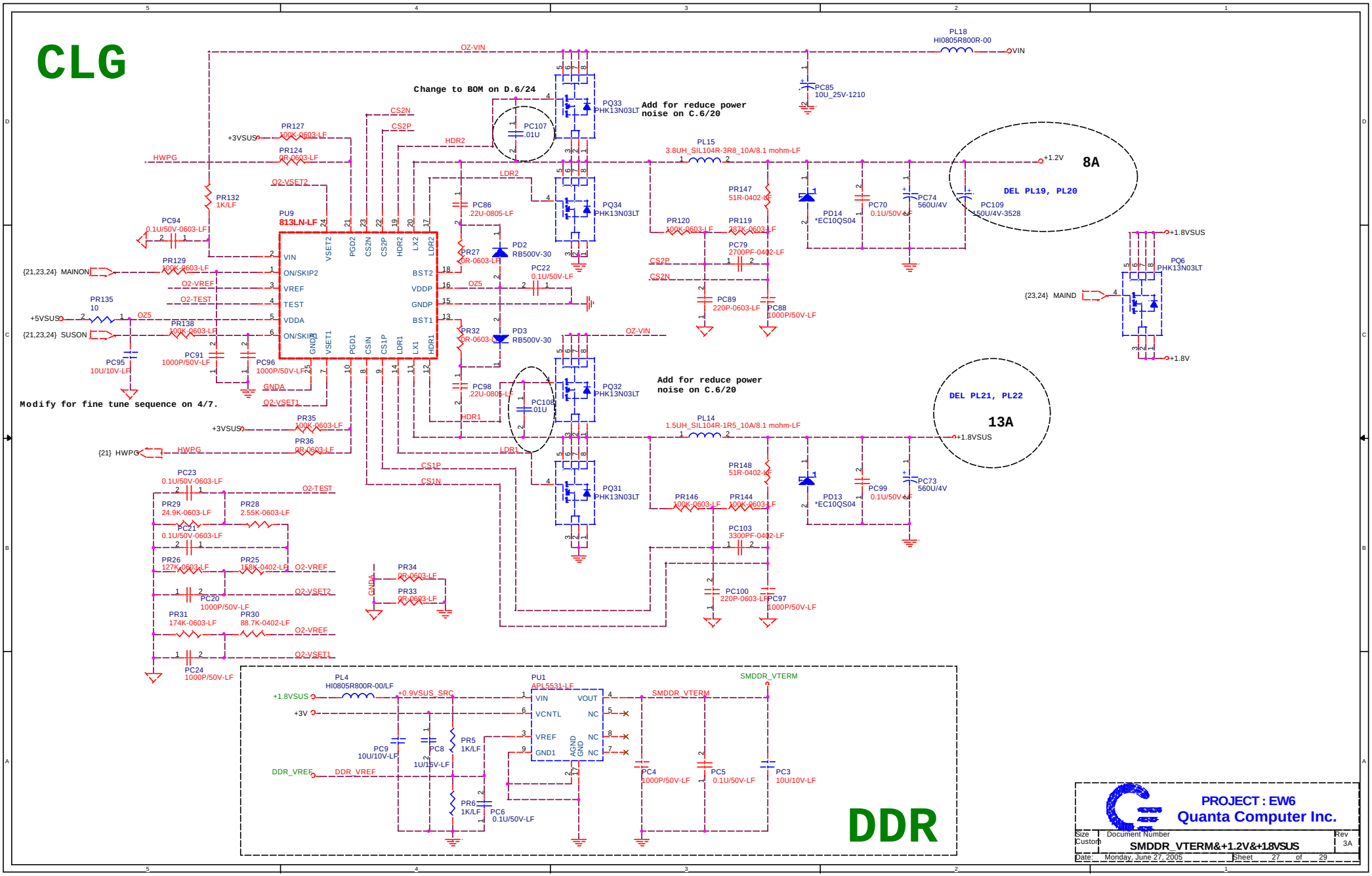
CLG
Change to BOM on D.6/24
Add for reduce power noise on C.6/20
Add for reduce power noise on C.6/20
Modify for fine tune sequence on 4/7.
DEL PL19, PL20
8A
DEL PL21, PL22
13A
DDR
PROJECT : EW6
Quanta Computer Inc.
SMDDR_VTERM&+1.2V&+1.8VSUS
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