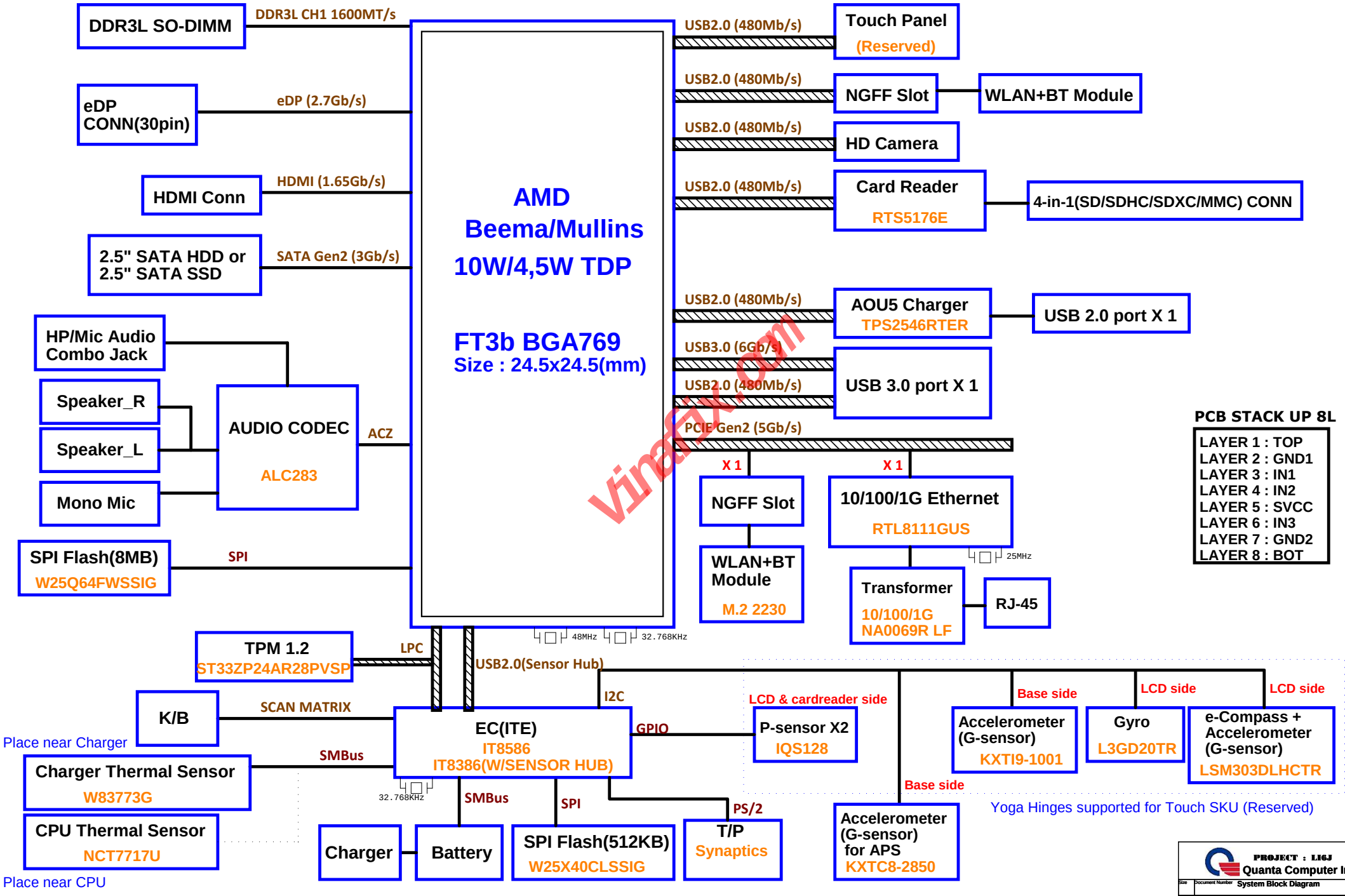
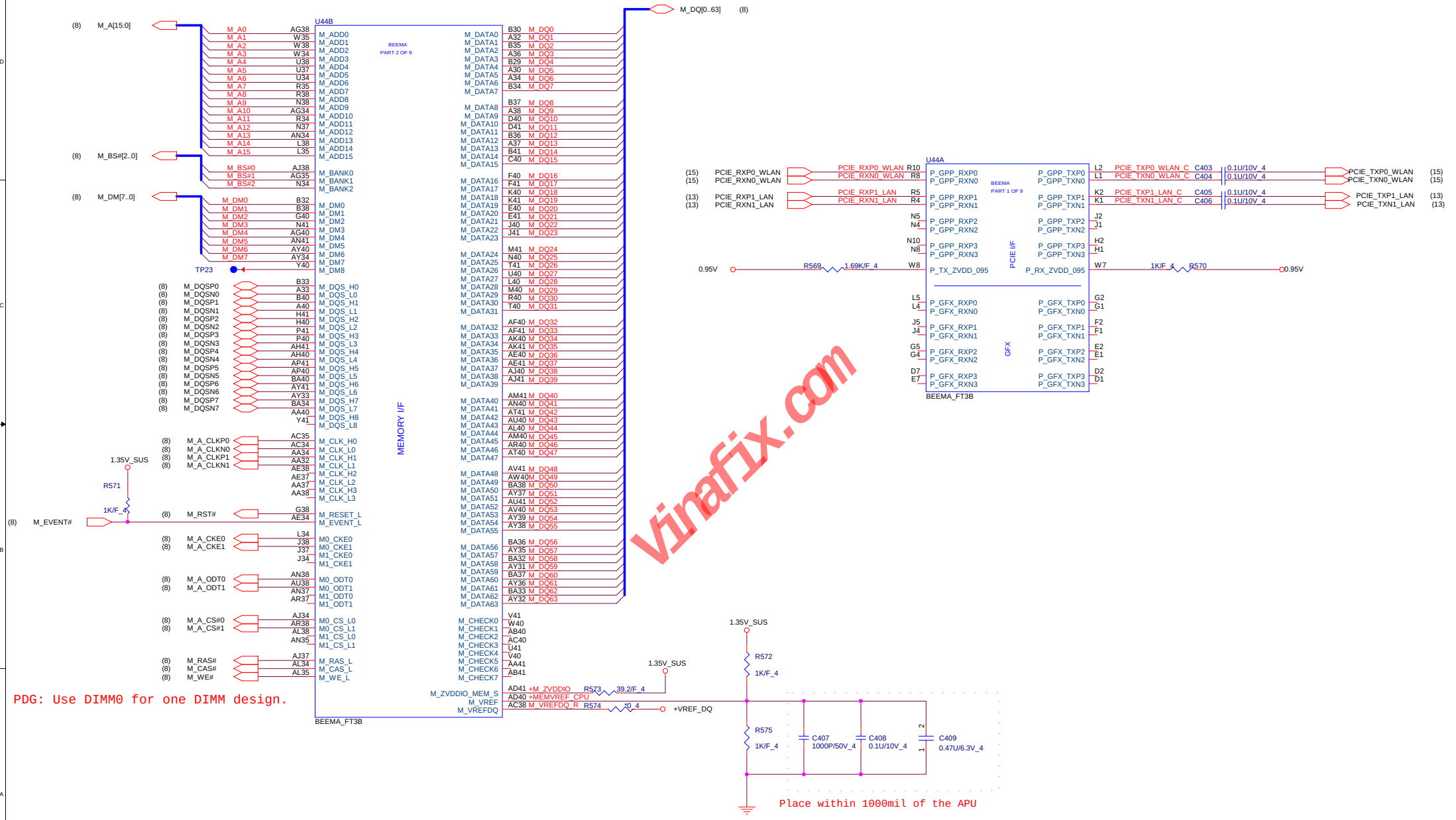
MR1.5 AMD Beema Platform UMA Block Diagram (Windows)





PDG: Use DIMM0 for one DIMM design.

(6,8,25,31) 1.35V_SUS
(8) +VREF_DQ
(5,6,30,31) 0.95V

PROJECT : LIGJ	Quanta Computer Inc.
Size	Document Number: MEM/PCIE (1/6) — Rev: 1A
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+3.3V
R576 1K/F_4 APU_PROCHOT#
R578 1K/F_4 APU_ALERT

+APU_VDD_18
R579 300/F_4 APU_RST#
R580 300/F_4 APU_PWRGD

(23) PROCHOT# R748 0_4
(29) CORE_PWM_PROCHOT# R581 0_4
(18) H_PROCHOT# R583 0_4 APU_PROCHOT#
C424 220P/50V_4
EC new option

HDT+ Debug only
Can remove on SI

+3.3V
C425 *0.1U/10V_4
U45 *TC7SH08FU
APU_RST_L_BUF
APU_RST#
+3.3V 1.8V
R596 *0_4
R597 0_4
0.1U/10V_4
C428
1.8V
R602 1K/F_4
R603 1K/F_4
U46
APU_RST# APU_RST_L_BUF
APU_PWRGD APU_PWROK_BUF
74LVC2G07GW

U44D
BEEMA PART 4 OF 9

HDMI
(10) HDMI_TX2+ A9
(10) HDMI_TX2- B9
(10) HDMI_TX1+ A10
(10) HDMI_TX1- B10
(10) HDMI_TX0+ A11
(10) HDMI_TX0- B11
(10) HDMI_CLK+ A12
(10) HDMI_CLK- B12
TDP1_TXP0 TDP1_TXN0 TDP1_TXP1 TDP1_TXN1 TDP1_TXP2 TDP1_TXN2 TDP1_TXP3 TDP1_TXN3
DISPLAYPORT 1

eDP
(9) EDP_TXP0_C C416 0.1U/10V_4 EDP_TXP0 A4
(9) EDP_TXN0_C C418 0.1U/10V_4 EDP_TXN0 B4
(9) EDP_TXP1_C C422 0.1U/10V_4 EDP_TXP1 A5
(9) EDP_TXN1_C C423 0.1U/10V_4 EDP_TXN1 B5
A6 B6 A7 B7
LTDP0_TXP0 LTDP0_TXN0 LTDP0_TXP1 LTDP0_TXN1 LTDP0_TXP2 LTDP0_TXN2 LTDP0_TXP3 LTDP0_TXN3
DISPLAYPORT 0

(5) CLK_APU_P CLK_APU_P K15
(5) CLK_APU_N CLK_APU_N H15
DISP_CLKIN_H DISP_CLKIN_L
CLK

APU_RST# R747 *0_4 APU_TEMPIN1
APU_PWRGD R540 *0_4 APU_TEMPIN2
MV co-layout Kabini

SVT G31
SVC D27
SVD E29
SIC B22
SID B21
SER

TP27 TP29 TP30
APU_TEMPIN0 A29
APU_TEMPIN1 A20
APU_TEMPIN2 A19
TEMPIN0 TEMPIN1 TEMPIN2 TEMPINRETURN A23

TP31
(4) APU_PROCHOT#
APU_RST# B20
APU_PWRGD B19
APU_PROCHOT# A22
APU_ALERT B18
APU_RST_L APU_PWROK PROCHOT_L ALERT_L
CTRL

C426 *150P/50V_4
C427 *150P/50V_4
APU_TDI D29
APU_TDO D31
APU_TCK D35
APU_TMS D33
APU_TRST# G27
APU_DBRDY B25
APU_DBREQ# A25
TDI TDO TCK TMS TRST_L DBRDY DBREQ_L
JTAG

DIFFERENTIAL ROUTING
(29) APU_VDDNB_RUN_FB_H CPU_VDDNB_RUN_FB_H R604 0_4 VDDCR_NB_SENSE D23
(29) APU_VDD_RUN_FB_H CPU_VDD0_RUN_FB_H R605 0_4 VDDCR_CPU_SENSE G23
(25) VDDIO_FB_H VDDIO_FB_H R606 0_4 VDDIO_SUS_SENSE E25
(29) APU_VDD_RUN_FB_L CPU_VDD0_RUN_FB_L R607 0_4 VSS_SENSE E23
VDDCR_NB_SENSE VDDCR_CPU_SENSE VDDIO_MEM_S_SENSE VSS_SENSE
(26) VDD_095_FB VDD_095_FB AV33
TP40 TP41 VDD_095_FB_L AU33
VDD_095_FB_H VDD_095_FB_L
TP42 TP43 TP44 VDDCR_NB_SENSE VDDCR_CPU_SENSE VDDIO_SUS_SENSE

ANALOG/DISPLAY/MISC
DP MISC
DP_150_ZVSS B16 DP_150_ZVSS R577 150/F_4
DP_2K_ZVSS A21 DP_2K_ZVSS R582 2K/F_4
DP_BLON B17 APU_LVDS_BLON APU_LVDS_BLON (9)
DP_DIGON A17 APU_DISP_ON APU_DISP_ON (9)
DP_VARY_BL A18 APU_DPST_PWM APU_DPST_PWM (9)
TDP1_AUXP D17 HDMI_SCL HDMI_SCL (10)
TDP1_AUXN E17 HDMI_SDA HDMI_SDA (10)
TDP1_HPD H19 HDMI_HPD_Q HDMI_HPD_Q (10)
LTDP0_AUXP D15 EDP_AUXP C417 0.1U/10V_4 EDP_AUXP_C (9)
LTDP0_AUXN E15 EDP_AUXN C419 0.1U/10V_4 EDP_AUXN_C (9)
LTDP0_HPD H17 EDP_HPD EDP_HPD (9)

VGA DAC
DAC_RED B14 DAC_RED R584 1K/F_4 DAC_RED R768 75/F_4
DAC_GREEN A14 DAC_GREEN DAC_GREEN R767 75/F_4
DAC_BLUE B15 DAC_BLUE R585 *1K/F_4 DAC_BLUE R766 75/F_4
DAC_HSYNC G19
DAC_VSYNC E19
DAC_SCL D19
DAC_SDA D21
+3.3V
EDP_HPD R765 100K_4
EDP_AUXP R586 *1.8K_4
EDP_AUXN R587 *1.8K_4

B
DAC_ZVSS A16 DAC_ZVSS R588 499/F_4
THERMDA H27 APU_THERMDA_R TP24
THERMDC H29 APU_THERMDC_R TP25
DIECRACKMON D25 DIECRACKMON TP26
BP0 A27 BP0 R589 *1K/F_4
BP1 B27 BP1 TP28
BP2 A26 BP2 R590 *1K/F_4
BP3 B26 BP3 R591 *1K/F_4
PLLTEST1 B28 APU_TEST18 R592 1K/F_4
PLLTEST0 A28 APU_TEST19 R593 1K/F_4
BYPASSCLK_H B24 BYPASSCLK_H R594 510/F_4
BYPASSCLK_L A24 BYPASSCLK_L R595 510/F_4
PLLCHRZ_H AV35 PLLCHRZ_H TP32
PLLCHRZ_L AU35 PLLCHRZ_L TP33
M_TEST E33 M_TEST TP34
TEST
1.8V
GIO_TSTDTM0_SERIALCLK H21 GIO_TSTDTM0_SERIALCLK R598 *1K/F_4
GIO_TSTDTM0_CLKINIT H25 GIO_TSTDTM0_CLKINIT R599 *1K/F_4
R600 *1K/F_4
R601 *1K/F_4
USB_ATEST0 AJ10 USB_ATEST0 TP35
USB_ATEST1 A18 USB_ATEST1 TP36
M_ANALOGIN R32 M_ANALOGIN TP37
M_ANALOGOUT N32 M_ANALOGOUT TP38
TMON_CAL AP29 TMON_CAL TP39
HDMI_EN/DP_STEREOSYNC E21 HDMI_EN/DP_STEREOSYNC R608 *1K/F_4
R609 *1K/F_4 +3.3V
R203 to NC and pull high to +3V for AMD recommend

BEEMA_FT3B

HDT+ Connector for Debug only

1.8V 1.8V
R614 HDT@1K/F_4
HDT+ HEADER / PLACE ON TOP
J1
APU_TRST# R85 *HDT@10K/F_4
R81 *HDT@10K/F_4
R82 *HDT@10K/F_4
CPU_VDDIO GND GND GND CPU_TRST_L CPU_DBRDY3 CPU_DBRDY2 CPU_DBRDY1 GND CPU_VDDIO
CPU_TCK CPU_TMS CPU_TDI CPU_TDO CPU_PWROK_BUF CPU_RST_L_BUF CPU_DBRDY CPU_DBREQ_L CPU_PLLTEST0 CPU_PLLTEST1
APU_TCK R612 HDT@1K/F_4
APU_TMS R613 HDT@1K/F_4
APU_TDI R611 HDT@1K/F_4
APU_TDO
APU_PWROK_BUF
APU_RST_L_BUF
APU_DBRDY
APU_DBREQ# R616 HDT@1K/F_4
TP45
J108_PLLTST0 R778 *HDT@0_4 APU_TEST19
J108_PLLTST1 R772 *HDT@0_4 APU_TEST18
*HDT@HDT

Serial VID

1.8V
R618 *1K/F_4 R615 *1K/F_4 R619 *1K/F_4
follow check list 17-140
SVT R620 0_4 APU_SVT (29)
SVC R621 33_4 APU_SVC (29)
SVD R623 33_4 APU_SVD (29)
APU_PWRGD R624 0_4 APU_PWRGD_SVID_REG (29)

VFIX MODE — VID Override table (VDD)

SVC	SVD	Boot Voltage
0	0	1.1V
0	1	1.0V
1	0	0.9V
1	1	0.8V

Thermal Sensor

+3.3V
R625 1K/F_4 R626 1K/F_4
(18,20) MBCLK_THRM MBCLK_THRM R627 0_4 APU_SIC
(18,20) MBDATA_THRM MBDATA_THRM R628 0_4 APU_SID

(6,29,30,31) 1.8V
(4,5,6,8,9,10,11,12,13,14,18,19,20,22,23,29,30,31) +3.3V
(6) +APU_VDD_18
(5,9,12,18,19,23,24) 3VPCU
(2,6,8,25,31) 1.35V_SUS
1.8V +3.3V +APU_VDD_18 3VPCU 1.35V_SUS

PROJECT : LIGJ
Quanta Computer Inc.

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	DIS/MI (2/6)	1A

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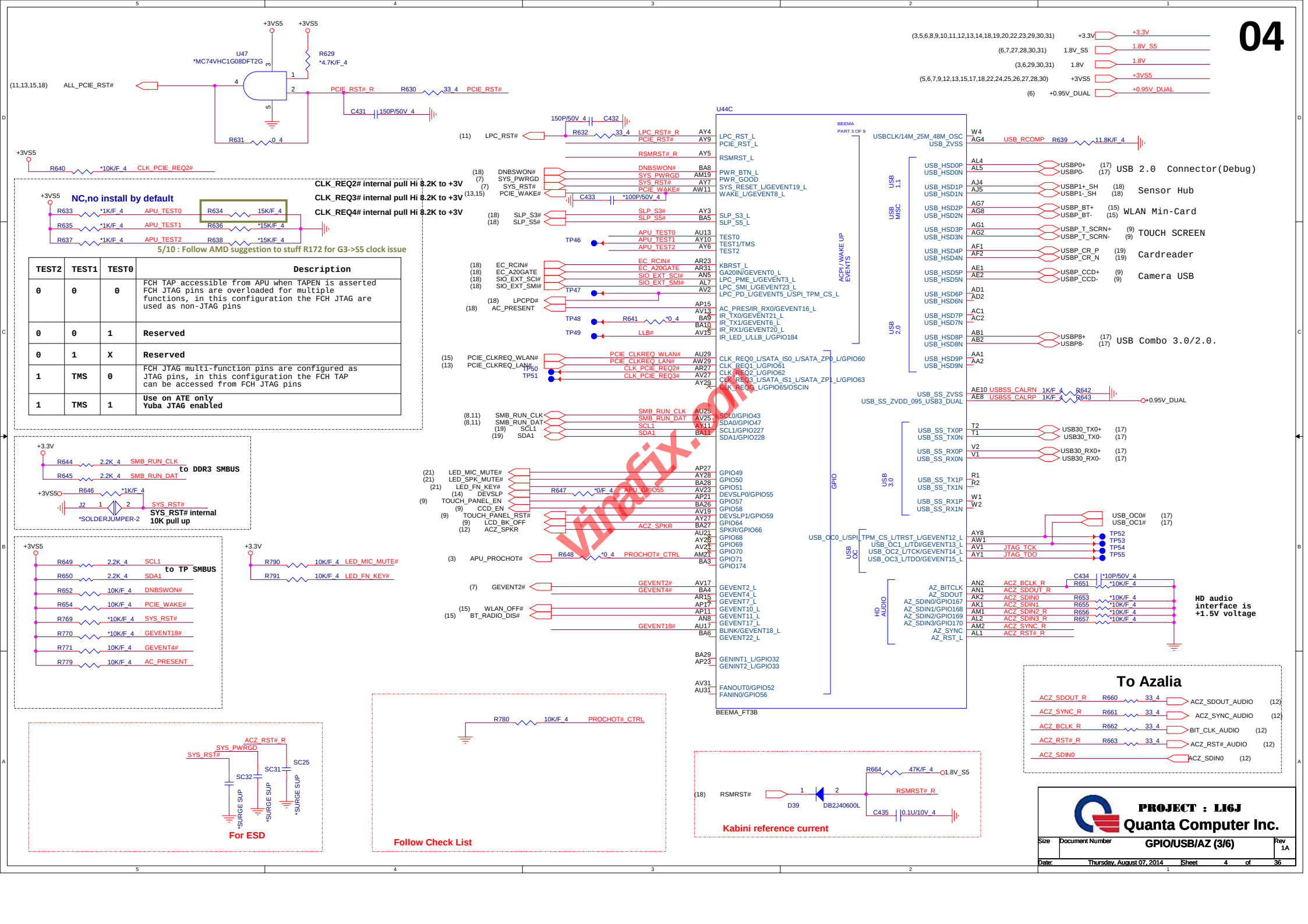

TEST2	TEST1	TEST0	Description
0	0	0	FCH TAP accessible from APU when TAPEN is asserted FCH JTAG pins are overloaded for multiple functions, in this configuration the FCH JTAG are used as non-JTAG pins
0	0	1	Reserved
0	1	X	Reserved
1	TMS	0	FCH JTAG multi-function pins are configured as JTAG pins, in this configuration the FCH TAP can be accessed from FCH JTAG pins
1	TMS	1	Use on ATE only Yuba JTAG enabled

BOARD ID SETTING

Board ID 0	Definition
0	None_Yoga
1	Yoga

Board ID 1	Definition
0	W/TPM
1	W/O TPM

SATA HDD

U44E — BEEMA PART 5 OF 9 — BEEMA_FT3B

SATA_TXP0 BA14 / SATA_TXN0 AY14 — SATA_RXN0 BA16 / SATA_RXP0 AY16 — SATA_TX1P AY19 / SATA_TX1N BA19 — SATA_RX1N AY17 / SATA_RX1P BA17 — SATA_ZVSS / SATA_ZVDD_095 — SATA_ACT_L/GPIO67 BA30 — SATA_X1 AY12 — SATA_X2 BA12

SERIAL ATA

R670 1K/F_4 SATA_CALRN AR19 / R682 1K/F_4 SATA_CALRP AP19 — 0.95V

+3.3V — R683 *560_4/F SB_SATA_LED#

Use with external clock generator only

Integrated Clock Mode: Leave unconnected.

TP56 TP60

Remove for UMA

SD CARD

SD_PWR_CTRL BA23 / SD_CLK/GPIO73 AY22 BOARD_ID3 — SD_CMD/GPIO74 AY23 BOARD_ID0 — SD_CD/GPIO75 AY20 BOARD_ID1 — SD_WP/GPIO76 BA20 BOARD_ID2 — SD_DATA0/GPIO77 BA22 — SD_DATA1/GPIO78 AY21 BOARD_ID4 — SD_DATA2/GPIO79 AY24 BOARD_ID5 — SD_DATA3/GPIO80 BA24 BOARD_ID6 — SD_LED/GPIO45 AY25 BOARD_ID7

+3.3V — R671 R673 R666 R667 R676 R678 R668 R669 *10K/F_4 BOARD_ID0 BOARD_ID1 BOARD_ID2 BOARD_ID3 BOARD_ID4 BOARD_ID5 BOARD_ID6 BOARD_ID7 — R672 R665 R674 R675 R677 R679 R680 R681 10K/F_4

SPI ROM

SPI_CLK/GPIO162 AU7 SPI_CLK — SPI_CS1_L/GPIO165 AW9 SPI_CS0# — SPI_CS2_L/GPIO166 AR4 MEM_1V35 — SPI_DO/GPIO163 AR11 SPI_SO — SPI_DI/GPIO164 AR7 SPI_SI — SPI_HOLD_L/GEVENT9_L AU11 SPI_HOLD# — SPI_WP_L/GPIO161 AU9 SPI_WP — TP57 TP58 TP59 TP61 TP62 TP63 TP64

C436 C437 *10P/50V_4 — LPC_CLK0 (7) / LPC_CLK1 (7) — LPCCLK0 AY2 / LPCCLK1 AW2 — R685 R686 R684 33_4 33_4 22_4 — C438 C439 15P/50V_4 — EC_LPCCLK (18) — TPM_LPCCLK (11) — DEBUG_LCLKOUT (15)

LAD0 AT2 LPC_LAD0 — LAD1 AT1 LPC_LAD1 — LAD2 AR2 LPC_LAD2 — LAD3 AR1 LPC_LAD3 — LFRAME_L AP2 LPC_LFRAME# — LDRQ0_L AP1 LDRQ#0 TP65 — SERIRQ/GPIO48 AV29 EC_IRQ_SERIRQ — LPC_CLKRUN_L AP25 LPC_CLKRUN# — (11,15,18) (7,11,15,18) (11,18)

U4 U5 GFX_CLKP GFX_CLKN

(15) CLK_PCIE_WLANP (15) CLK_PCIE_WLANN — RP1 0X2 CLK_PCIE_WLANP_R AC8 / CLK_PCIE_WLANN_R AC10 — GPP_CLK0P GPP_CLK0N

(13) CLK_PCIE_LANP (13) CLK_PCIE_LANN — RP2 0X2 CLK_PCIE_LANP_R AE4 / CLK_PCIE_LANN_R AE5 — GPP_CLK1P GPP_CLK1N

AC4 AC5 GPP_CLK2P GPP_CLK2N

(3) CLK_APU_P (3) CLK_APU_N — RP3 *0X2 CLK_APU_P_R AA5 / CLK_APU_N_R AA4 — GPP_CLK3P GPP_CLK3N

Integrated Clock Mode: Leave unconnected.

AP13 X14M_25M_48M_OSC

TP66 — C442 6.8P/50V_4 — Y5 48MHZ +-10PPM — R689 1M/F_4 — C443 6.8P/50V_4 — TP67 — 48M_X1 N2 — 48M_X2 N1 — X48M_X1 — X48M_X2

X32K_X1 AJ2 — X32K_X2 AJ1 — 32K_X1 — 32K_X2 — R687 20M_4 — USE GROUND GUARD FOR 32K_X1 AND 32K_X2 — C440 18P/50V_4 — 32.768KHZ Y4 — C441 18P/50V_4

RTCCLK AV11 CLK_RTC — R688 10K/F_4 — +3VS5

VDDBT_RTC_G AN4 — +1.5V_RTC

20MIL — G1 *SHORT_ PAD1 — C444 0.22U/10V_4 — Place C444 close to PIN

+BAT — R684 470/F_4 — +VCCRTC_2 — D40 DB2J40600L — 3VPCU — D41 DB2J40600L — +3VRTC — 20MIL — U49 GND VIN VOUT — IC AP2138N-1.5TRG1 — +1.5V_RTC — C446 10U/6.3V_6

CN18 CONN_RTC — C447 0.1U/10V_4 — C448 1U/10V_4

APU SPI ROM 8M SPI EC ROM

Vender	Size	P/N
WND	8M	AKE3EFP0N07
EON	8M	AKE3EZN0Q01
Socket		DFHS08FS023

SPI_CLK — EC1006 *22P/50V_4 — EMI

+3VS5 — R690 10K/F_4 — C445 0.1U/10V_4 — R693 10K/F_4

SPI_CS0# R691 33_4 EC_BIOS_CS# — SPI_CLK R692 33_4 EC_BIOS_SPI_CLK — SPI_SO R695 33_4 EC_BIOS_WR# — SPI_SI R696 0_4 EC_BIOS_RD# — SPI_WP R697 0_4 EC_SPI_WP_R — R698 10K/F_4 — +3VS5

U48 — CE# SCK SI SO WP# HOLD# VDD VSS — W25Q64FVSSIQ — AKE3EFP0N07 — soic8-8-1_27

SPI_HOLD# R699 0_4

(3,4,6,8,9,10,11,12,13,14,18,19,20,22,23,29,30,31) +3.3V

(2,6,30,31) 0.95V

(4,6,7,9,12,13,15,17,18,22,24,25,26,27,28,30) +3VS5

(9,12,18,19,23,24) 3VPCU

(18) EC_BIOS_CS# — (18) EC_BIOS_SPI_CLK_I — (18) EC_BIOS_WR# — (18) EC_BIOS_RD#

PROJECT : LIGJ

Quanta Computer Inc.

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	SATA/CLK (4/6)	1A
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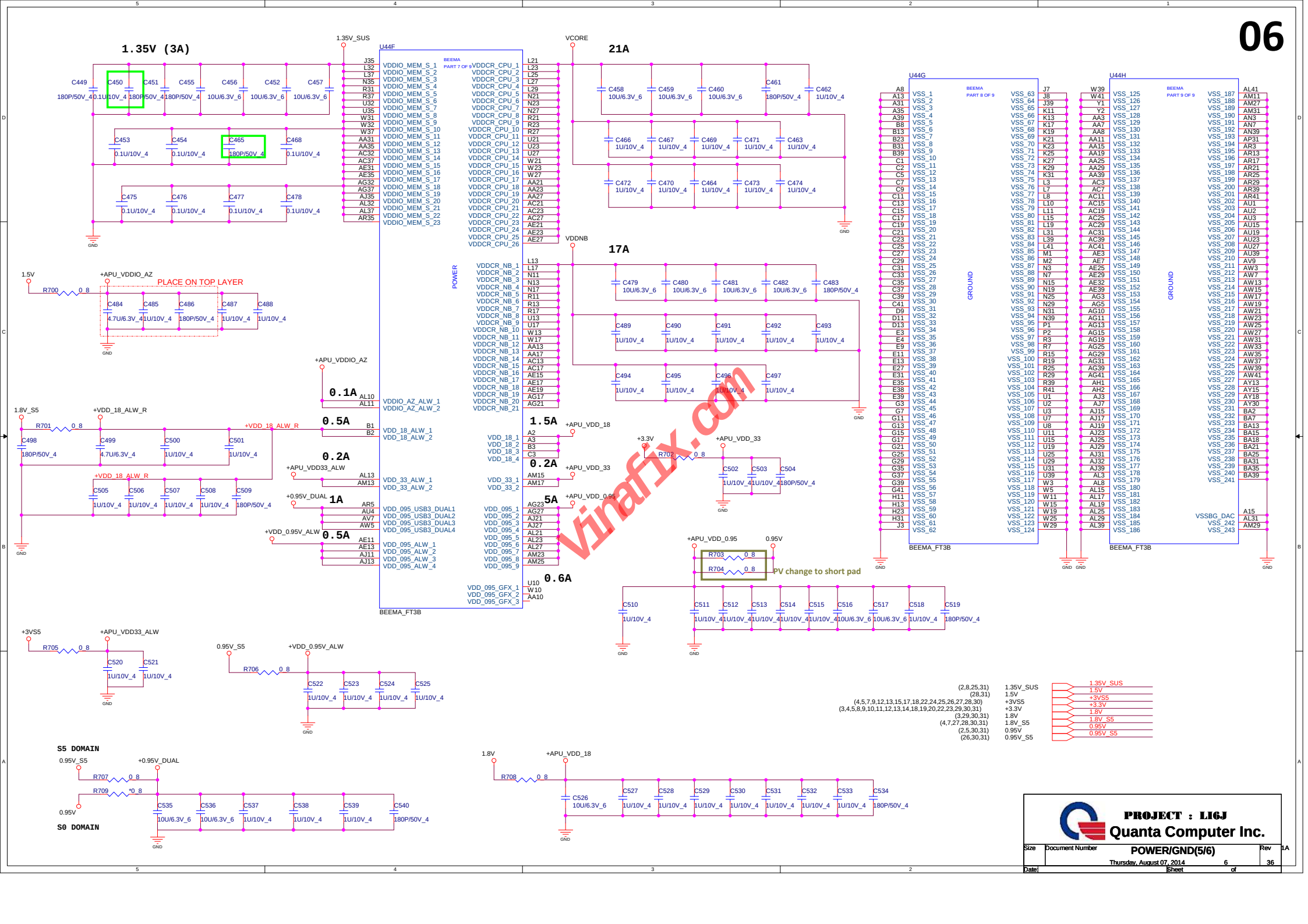
1.35V (3A)
1.35V_SUS
U44F
BEEMA PART 7 OF 9
VCORE
21A
VDDNB
17A
POWER
1.5V
+APU_VDDIO_AZ
PLACE ON TOP LAYER
0.1A
0.5A
0.2A
1A
0.5A
1.5A
0.2A
5A
0.6A
+APU_VDD_18
+APU_VDD_33
+APU_VDD_0.95
+3.3V
+APU_VDD_33
0.95V
PV change to short pad
1.8V_S5
+VDD_18_ALW_R
+0.95V_DUAL
+VDD_0.95V_ALW
+3VS5
+APU_VDD33_ALW
0.95V_S5
S5 DOMAIN
S0 DOMAIN
0.95V_S5
+0.95V_DUAL
0.95V
1.8V
+APU_VDD_18
U44G
U44H
BEEMA PART 8 OF 9
BEEMA PART 9 OF 9
GROUND
BEEMA_FT3B
VSSBG_DAC
1.35V_SUS
1.5V
+3VS5
+3.3V
1.8V
1.8V_S5
0.95V
0.95V_S5
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Quanta Computer Inc.
POWER/GND(5/6)
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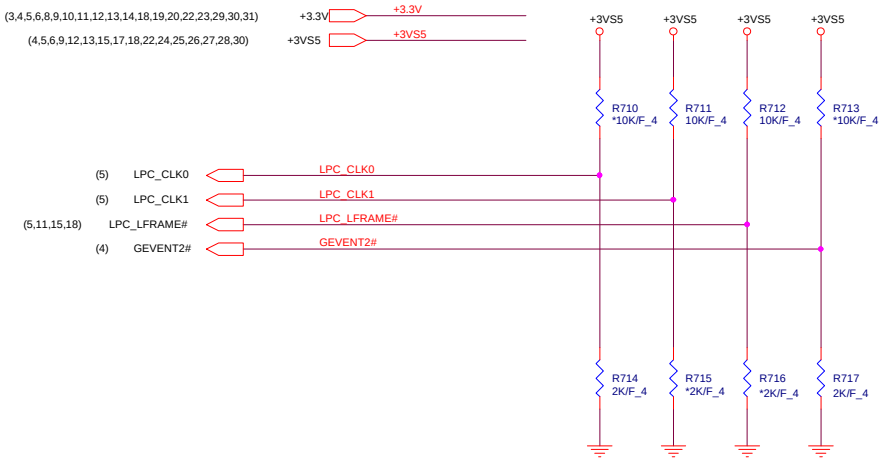
STRAPS PINS

OVERLAP COMMON PADS WHERE POSSIBLE FOR DUAL-OP RESISTORS.



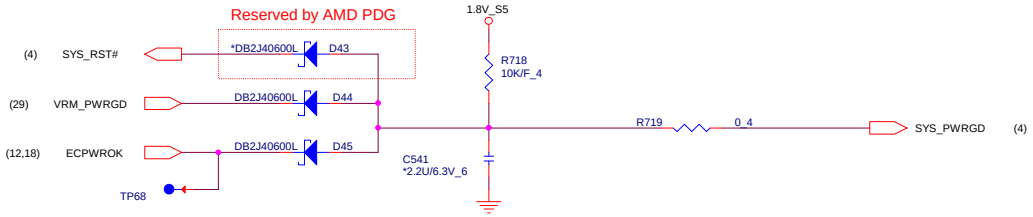
REQUIRED STRAPS

					LPC_CLK0	LPC_CLK1	LFRAME#	GEVENT2#
PULL HIGH					BOOT FAIL TIMER ENABLED	CLKGEN ENABLED DEFAULT	SPI ROM DEFAULT	1.8V SPI ROM
PULL LOW					BOOT FAIL TIMER DISABLED DEFAULT	CLKGEN DISABLED	LPC ROM	3.3V SPI ROM DEFAULT

DEBUG STRAPS

07

SYS PWRGD



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Quanta Computer Inc.

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	STRAP (6/6)	1A
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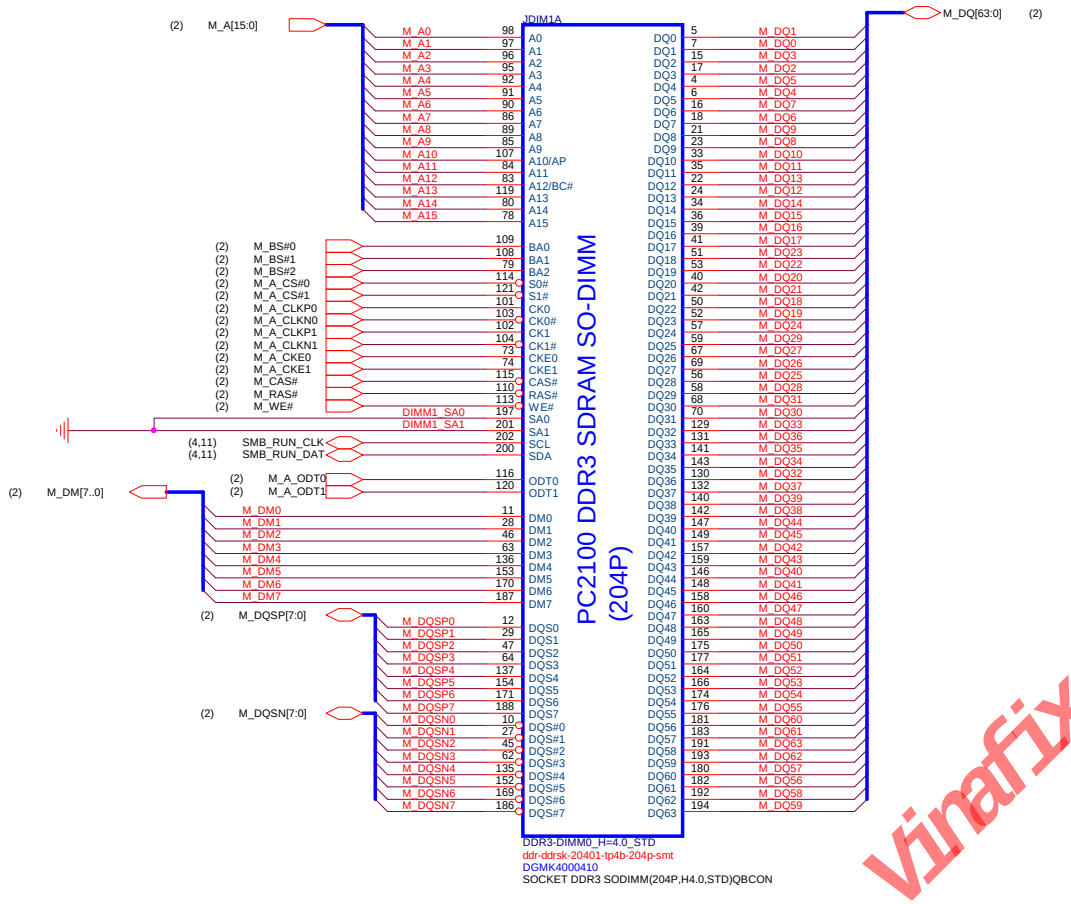
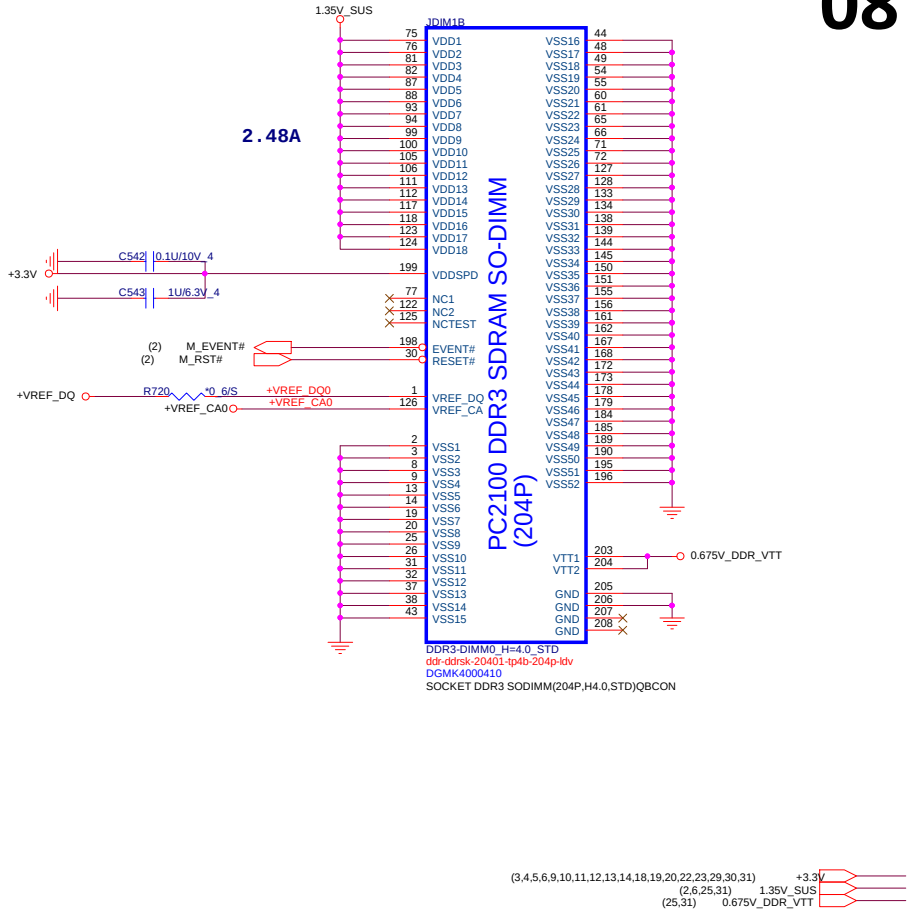
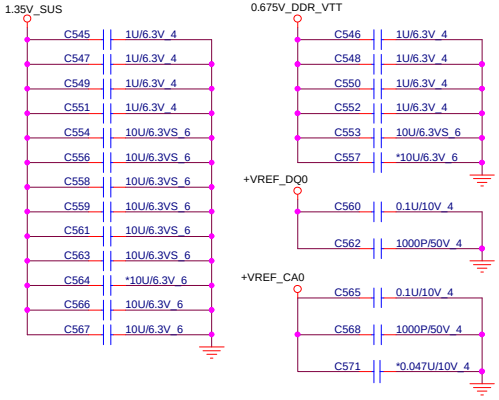
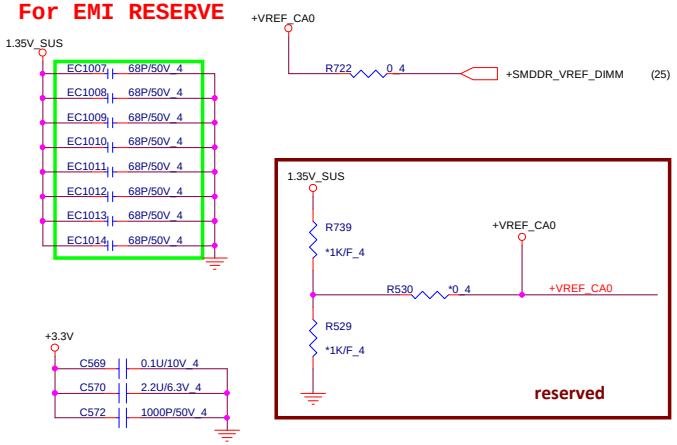




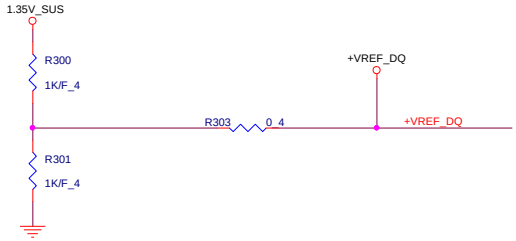
Place these Caps near So-Dimm0.



For EMI RESERVE



Reserved for AMD suggest



PROJECT : LIGJ
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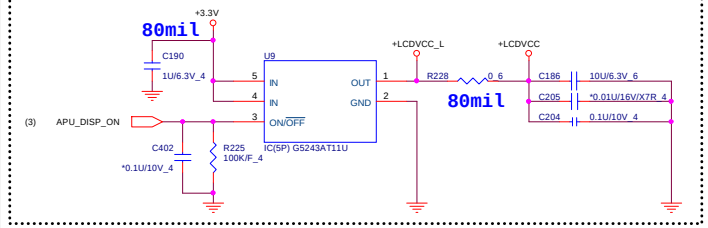
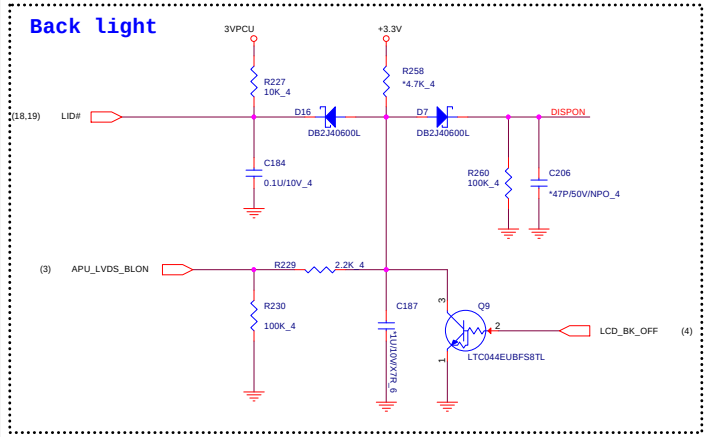
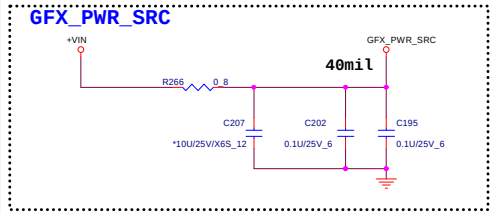
LCDVCC

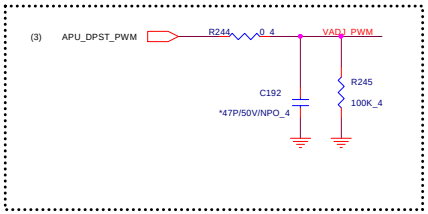


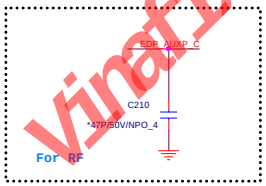
Back light

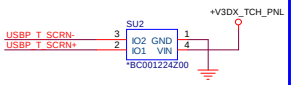


GFX_PWR_SRC

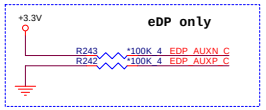




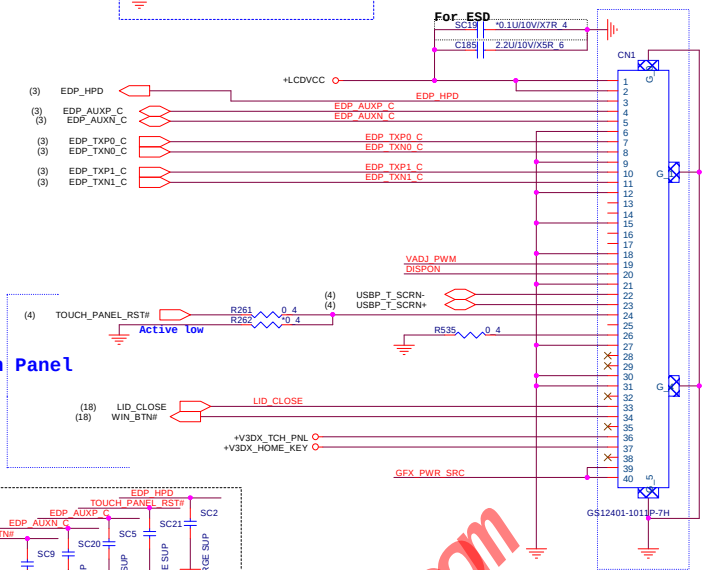


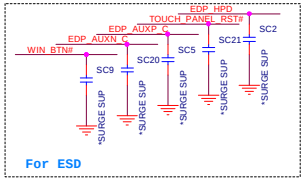


eDP only

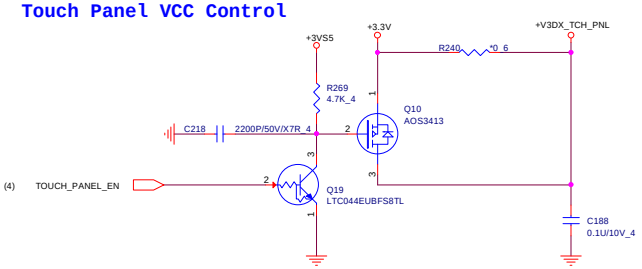


Touch Panel

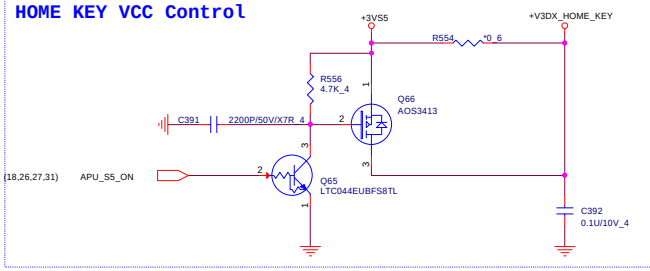


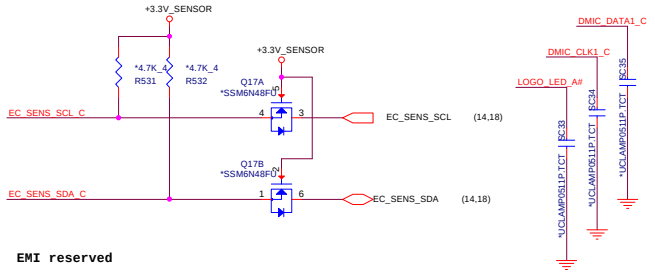


Touch Panel VCC Control

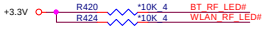


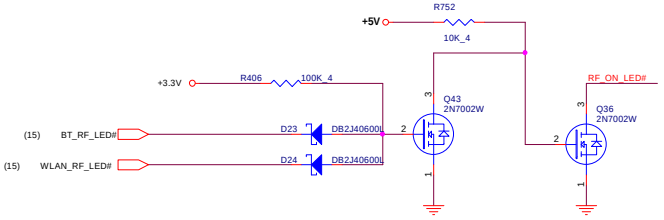
HOME KEY VCC Control

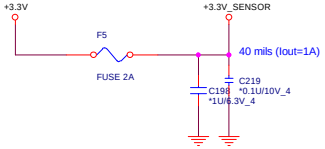


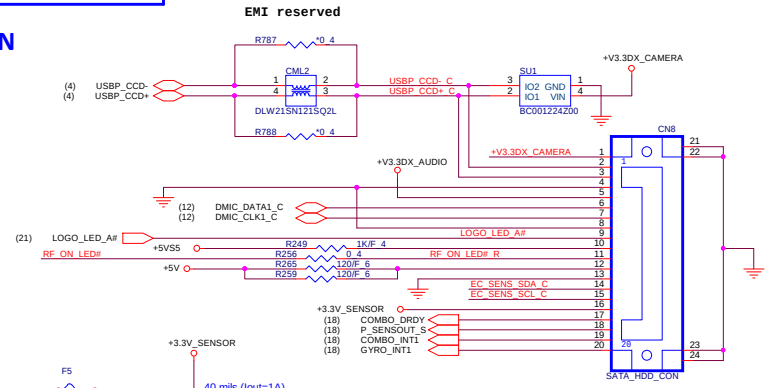


CCD+MIC+LOGO+WLAN LED CONN

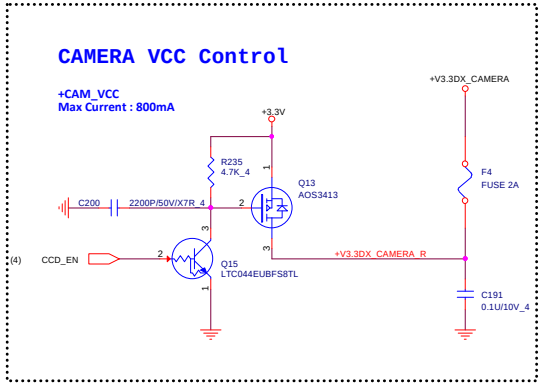








CAMERA VCC Control



PROJECT : LIGJ
Quanta Computer Inc.

Size	Document Number	Rev
	LCD/CAMERA/Touch Panel	1A

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(3,4,5,6,8,9,11,12,13,14,18,19,20,22,23,29,30,31) +3.3V
(9,12,14,20,22,23,30,31) +5V

R8 499/F_4 HDMI_TX2+_C
R9 499/F_4 HDMI_TX2-_C
R10 499/F_4 HDMI_TX1+_C
R12 499/F_4 HDMI_TX1-_C
R14 499/F_4 HDMI_TX0+_C
R16 499/F_4 HDMI_TX0-_C
R20 499/F_4 HDMI_CLK+_C
R22 499/F_4 HDMI_CLK-_C

HDMI_LF

+5V
Q16 DMN601K-7

(3) HDMI_SCL
(3) HDMI_SDA

+3.3V
R342 2.2K_4
R335 2.2K_4

Q25 RUC002N05GZT116
Q24 RUC002N05GZT116

+5V
D18 DB2J40600L
D17 DB2J40600L
R292 2.2K_4
R291 2.2K_4

ESD reserved

(3) HDMI_TX2+ R795 0_4 HDMI_TX2+_M_C194 0.1U/10V_4 HDMI_TX2+_C
(3) HDMI_TX2- R796 0_4 HDMI_TX2-_M_C199 0.1U/10V_4 HDMI_TX2-_C
(3) HDMI_TX1+ R797 0_4 HDMI_TX1+_M_C203 0.1U/10V_4 HDMI_TX1+_C
(3) HDMI_TX1- R798 0_4 HDMI_TX1-_M_C209 0.1U/10V_4 HDMI_TX1-_C
(3) HDMI_TX0+ R799 0_4 HDMI_TX0+_M_C216 0.1U/10V_4 HDMI_TX0+_C
(3) HDMI_TX0- R800 0_4 HDMI_TX0-_M_C220 0.1U/10V_4 HDMI_TX0-_C
(3) HDMI_CLK+ R801 0_4 HDMI_CLK+_M_C222 0.1U/10V_4 HDMI_CLK+_C
(3) HDMI_CLK- R802 0_4 HDMI_CLK-_M_C226 0.1U/10V_4 HDMI_CLK-_C

HDMI_DDC_CLK
HDMI_DDC_DAT

+5V L19 MHC1608S301NBP FUSE1.1A8V_POLY F1 HDMIC_5V
HDMI_HPD

SRV6 TVM1G5R5M76LR_6

CN9 HDMI CONN
SHELL1 20
1 D2+
2 D2 Shield
3 D2-
4 D1+
5 D1 Shield
6 D1-
7 D0+
8 D0 Shield
9 D0- GND 23
10 CK+
11 CK Shield GND 22
12 CK-
13 CE Remote
14 NC
15 DDC CLK
16 DDC DATA
17 GND
18 +5V
19 HP DET
SHELL2 21

HDMI HPD SENSE

+3.3V
R567 1K/F_4
+5V
R568 100K/F_4

(3) HDMI_HPD_Q
HDMI_HPD_Q

Q69B
Q69A
SSM6N48FU Dual
SSM6N48FU Dual

HDMI_DET_R R179 200K_4 HDMI_HPD
R178 100K/F_4

2KV ESD protection

U10 RCLAMP0524PATCT
HDMI_TX2+_C 6 NC CH4 5 HDMI_TX2+_C
HDMI_TX2-_C 7 NC CH3 4 HDMI_TX2-_C
GND 3
HDMI_TX1+_C 9 NC CH2 2 HDMI_TX1+_C
HDMI_TX1-_C 10 NC CH1 1 HDMI_TX1-_C

U12 RCLAMP0524PATCT
HDMI_TX0+_C 6 NC CH4 5 HDMI_TX0+_C
HDMI_TX0-_C 7 NC CH3 4 HDMI_TX0-_C
GND 3
HDMI_CLK+_C 9 NC CH2 2 HDMI_CLK+_C
HDMI_CLK-_C 10 NC CH1 1 HDMI_CLK-_C

U16 RCLAMP0524PATCT
HDMI_DDC_DAT 6 NC CH4 5 HDMI_DDC_DAT
HDMI_DDC_CLK 7 NC CH3 4 HDMI_DDC_CLK
GND 3
HDMIC_5V 9 NC CH2 2 HDMIC_5V
HDMI_HPD 10 NC CH1 1 HDMI_HPD

For ESD
Layout note:Place close to HDMI Conn

EMI reserve for HDMI

HDMI_TX2+_C R254 *150/F_4 HDMI_TX2-_C
HDMI_TX1+_C R263 *150/F_4 HDMI_TX1-_C
HDMI_TX0+_C R268 *150/F_4 HDMI_TX0-_C
HDMI_CLK+_C R280 *150/F_4 HDMI_CLK-_C

HDMIC_5V
EC5
UCLAMP0511P.TCT

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Quanta Computer Inc.

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	HDMI CONN	1A
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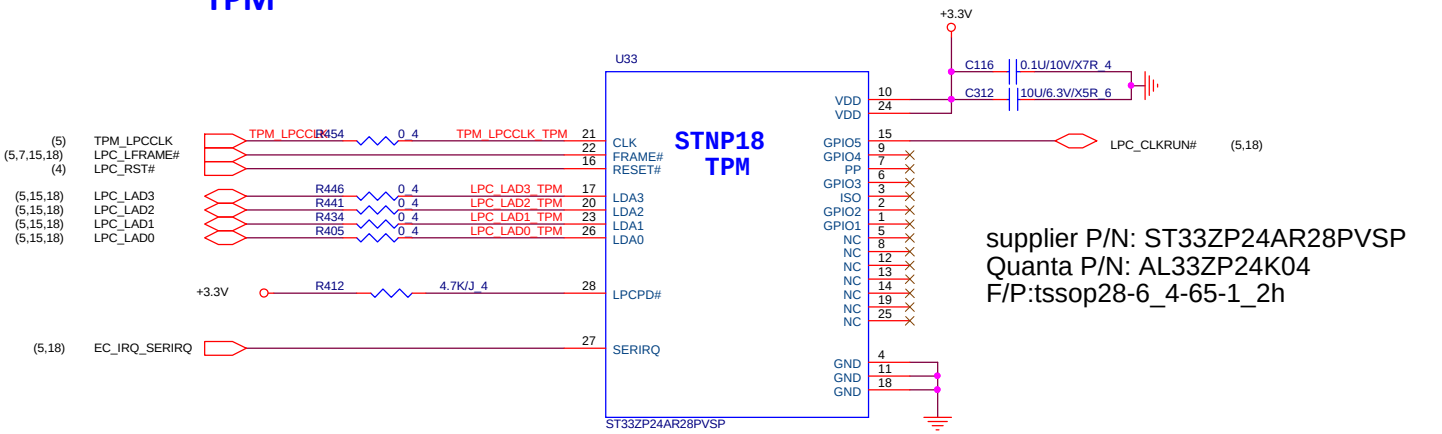
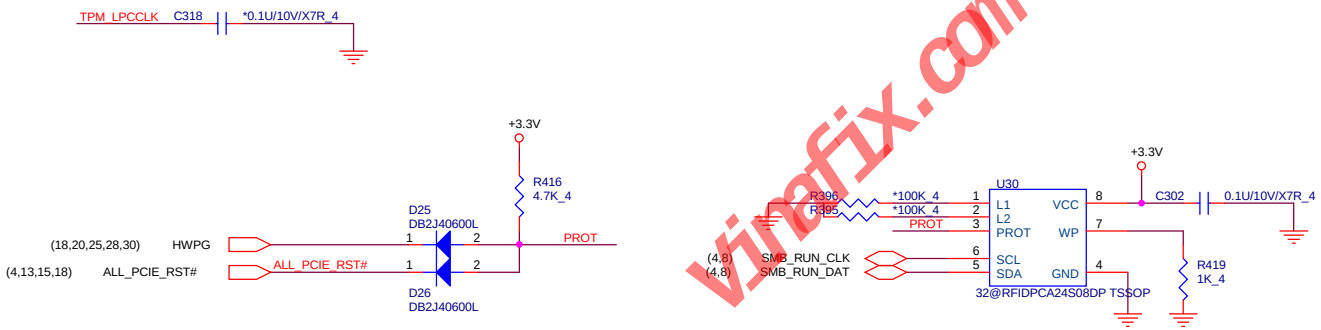
TPM



supplier P/N: ST33ZP24AR28PVSP
Quanta P/N: AL33ZP24K04
F/P:tssop28-6_4-65-1_2h

RFID



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Quanta Computer Inc.

Size	Document Number	Rev
	TPM/RFID	1A

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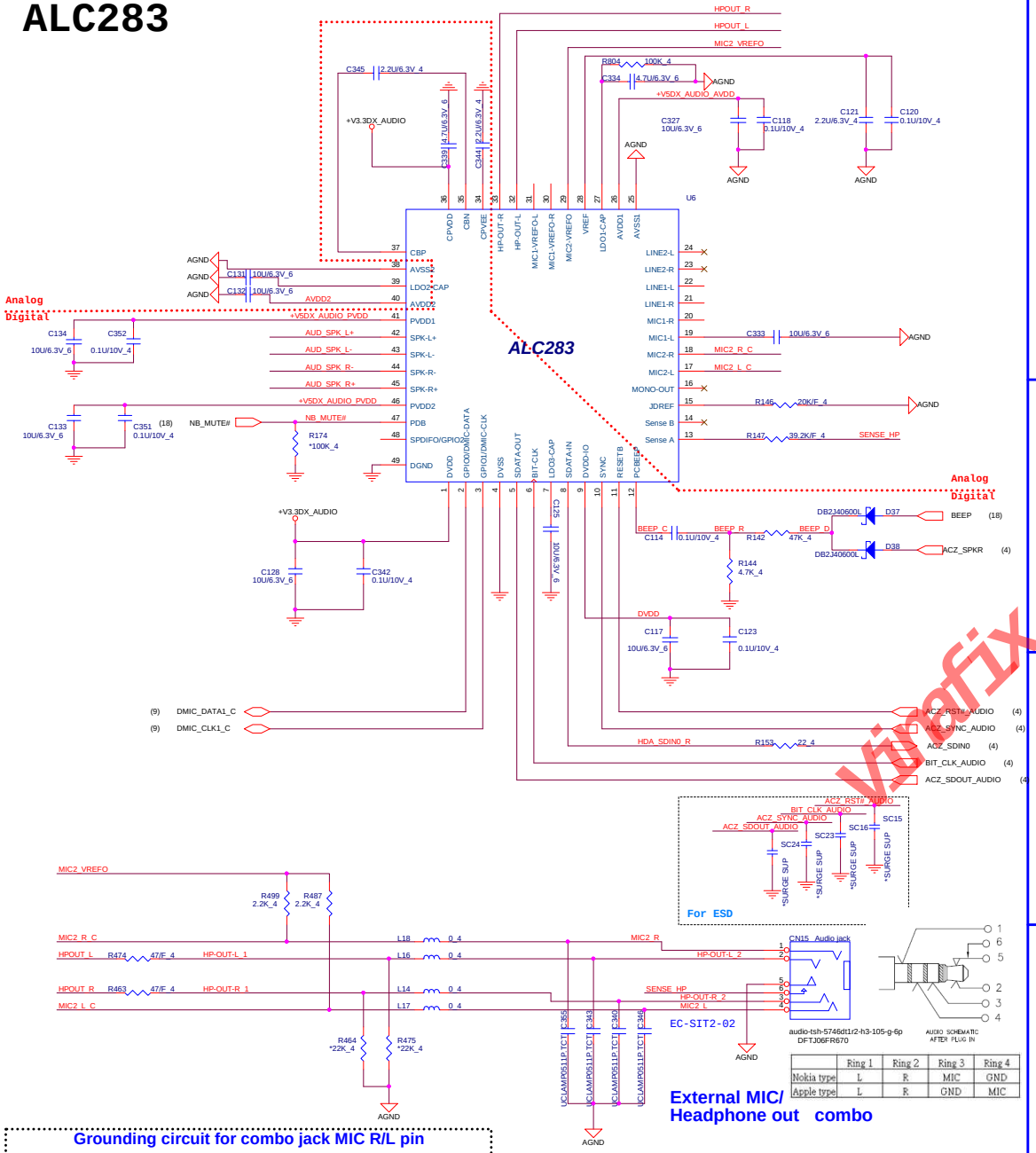
ALC283

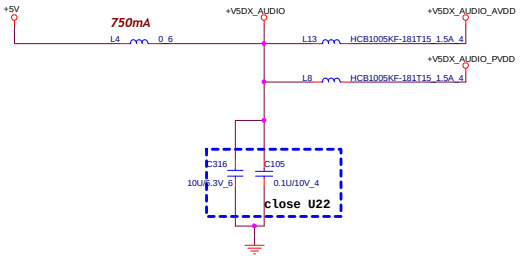


	Ring 1	Ring 2	Ring 3	Ring 4
Nokia type	L	R	MIC	GND
Apple type	L	R	GND	MIC

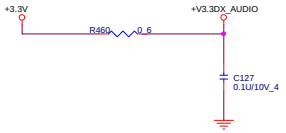
(9,10,14,20,22,23,30,31) +5V
(9,17,21,22,24,25,26,28,29,30,31) +5VS5
(3,4,5,6,8,9,10,11,13,14,18,19,20,22,23,29,30,31) +3.3V
(4,5,6,7,9,13,15,17,18,22,24,25,26,27,28,30) +3V5
(9) +V3.3DX_AUDIO

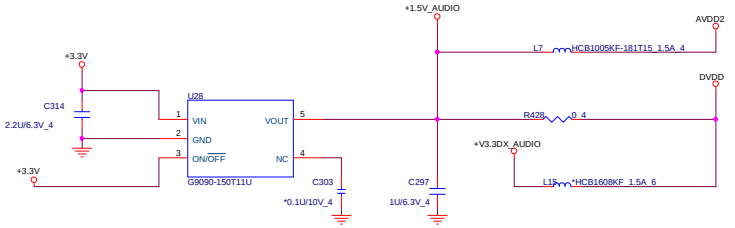
12

CODEC 5V POWER

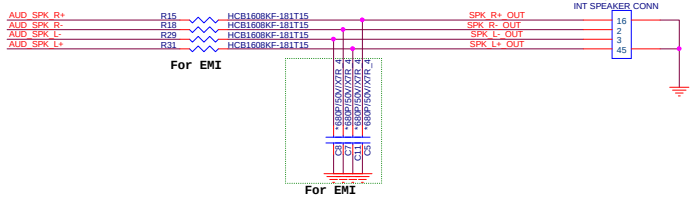


+3.3V_AUDIO_CODEC
Max Current : 419mA





INT Speaker



PROJECT : LIGJ
Quanta Computer Inc.

Size	Document Number	Rev
	Audio(ALC283)	1A

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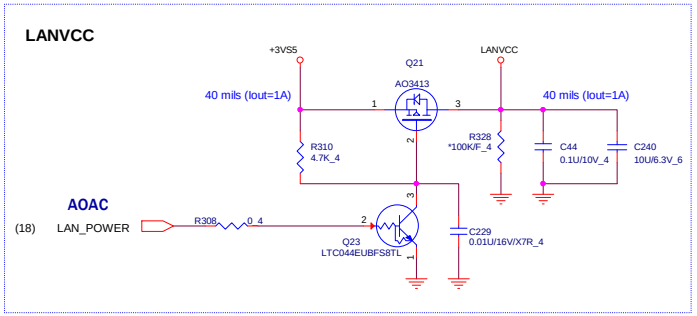
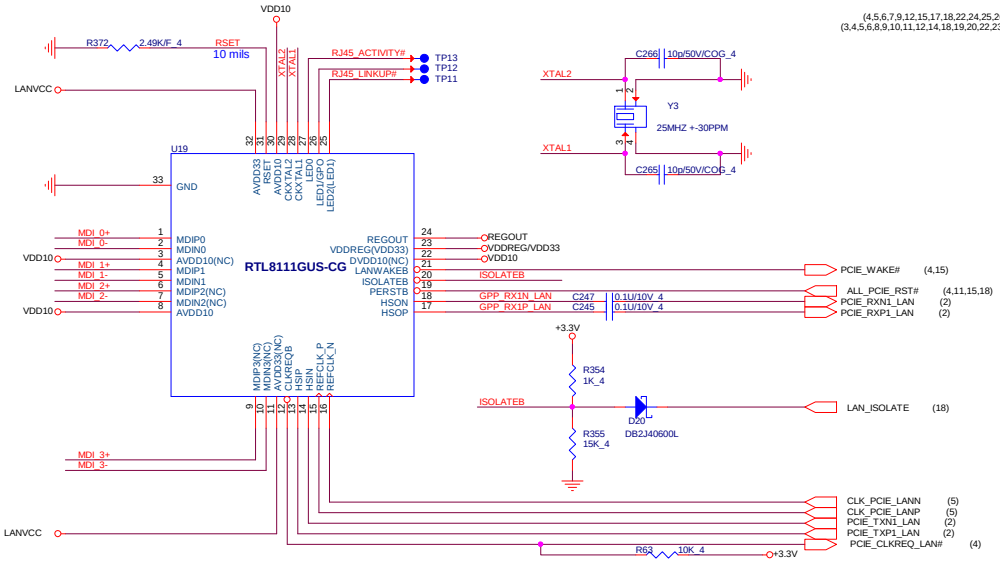
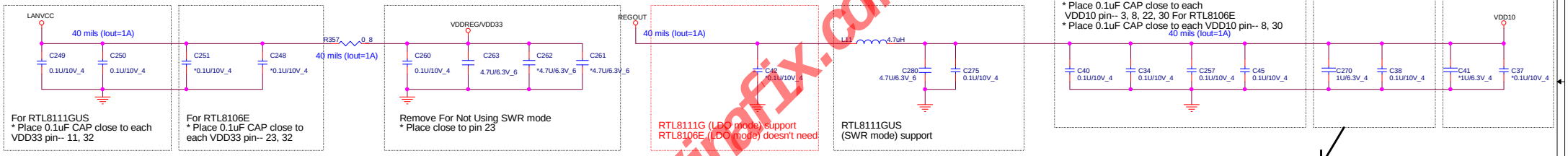


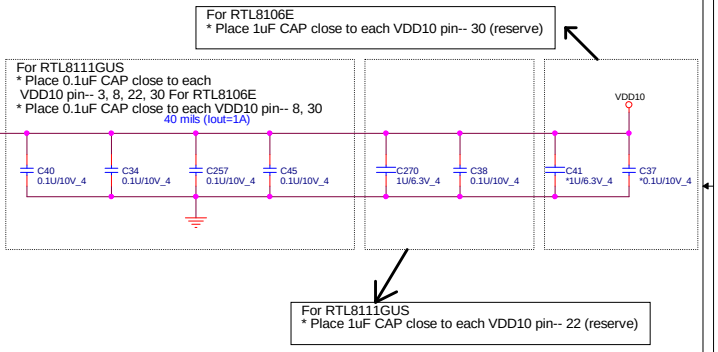
LANVCC
Trace width>60mil,
Trace length<200mil



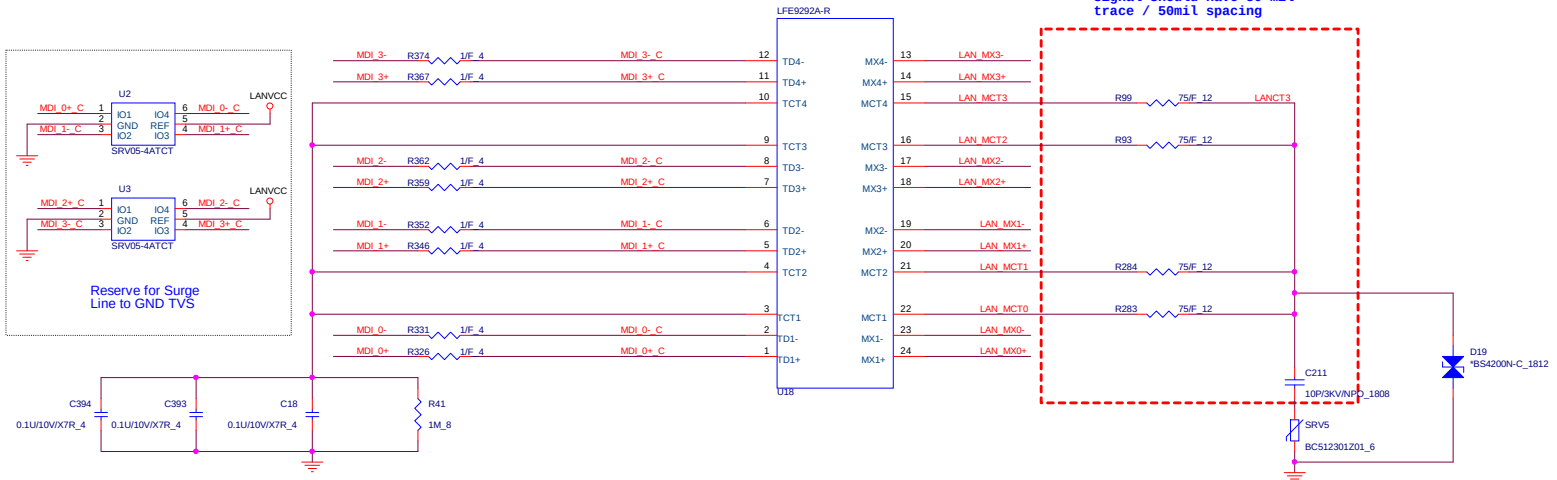
B-stage only 10/100 config.

10/100	RTL8106EUS-CG	AL008106002
1G	RTL8111GUS-CG	AL008111009

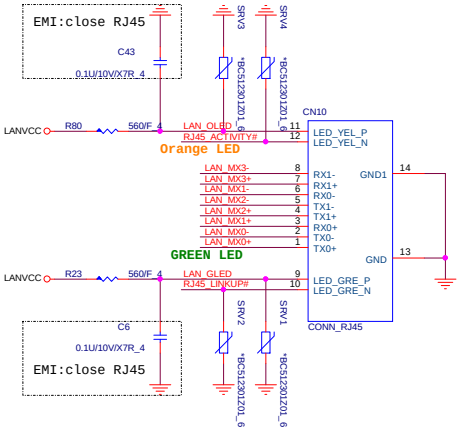




Tramsformer



RJ45 Connector



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Quanta Computer Inc.			
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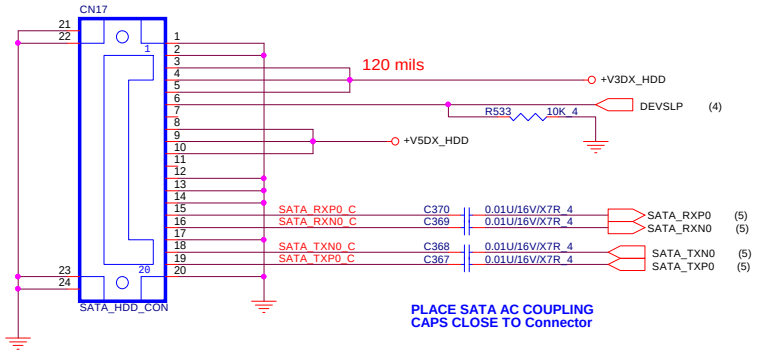
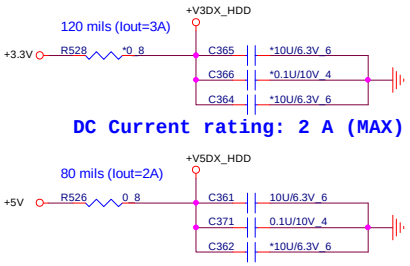
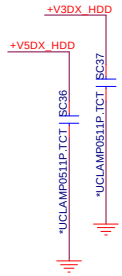
HDD

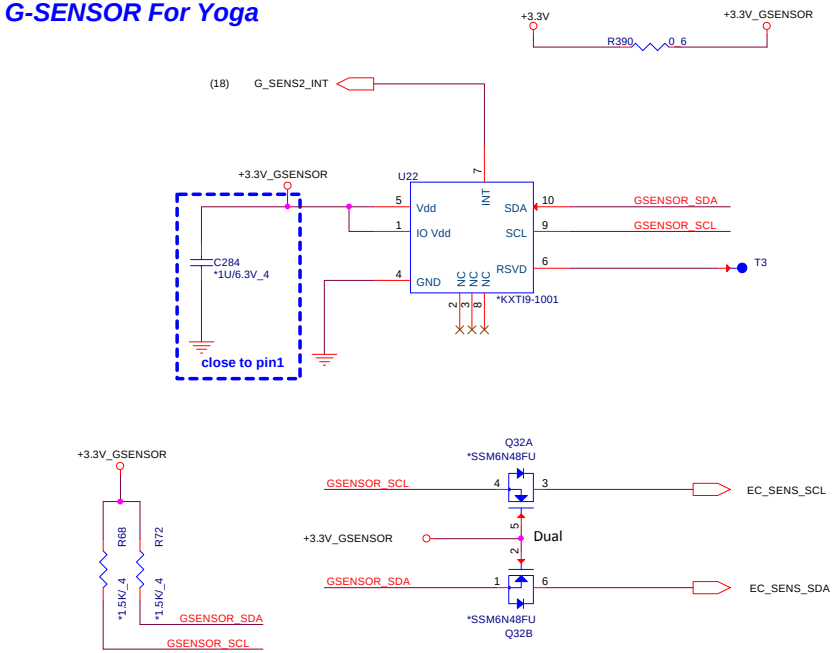
(3,4,5,6,8,9,10,11,12,13,18,19,20,22,23,29,30,31) +3.3V
(9,10,12,20,22,23,30,31) +5V



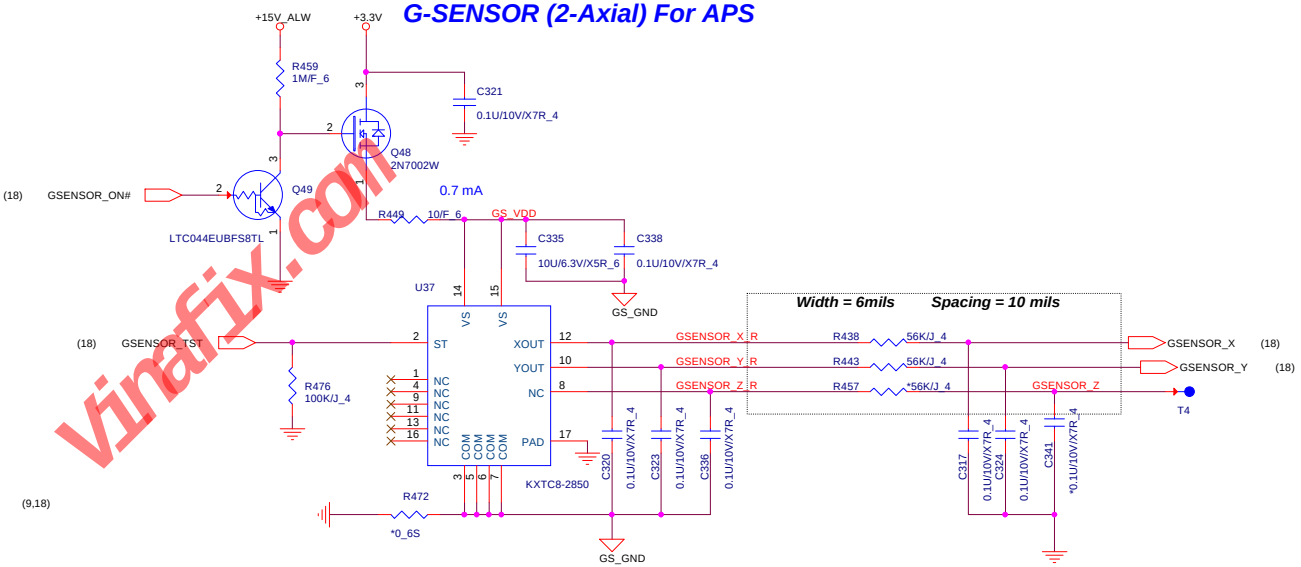




G-SENSOR For Yoga



G-SENSOR (2-Axial) For APS



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Quanta Computer Inc.

Size	Document Number	SATA/G-sensor	Rev
			1A
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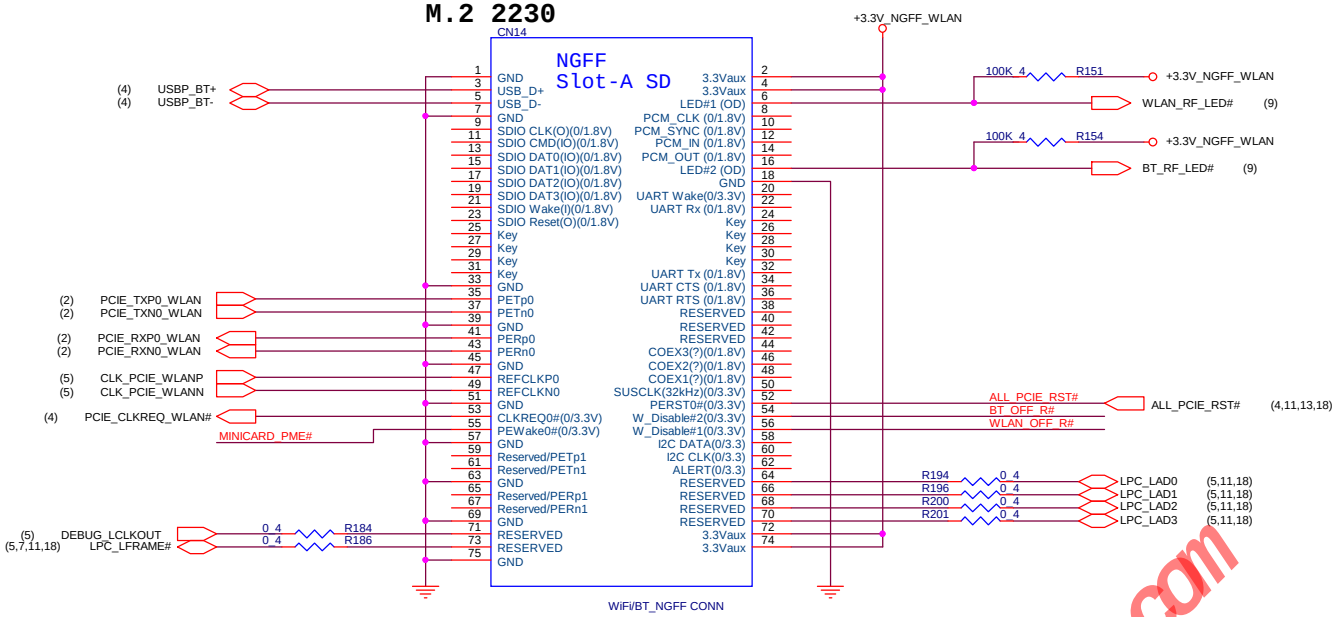
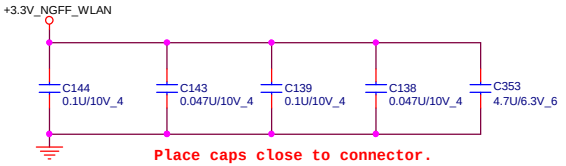
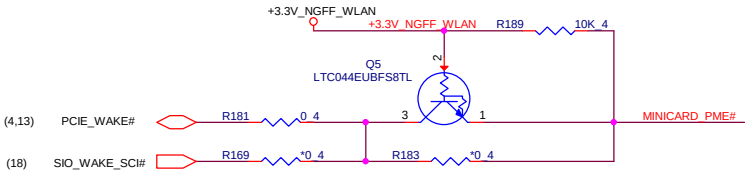
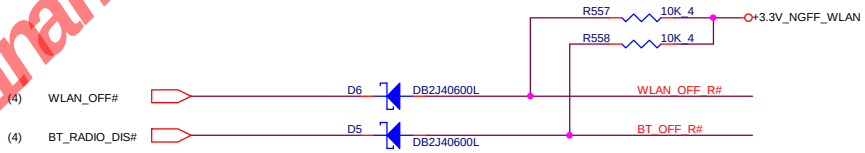
(3,4,5,6,8,9,10,11,12,13,14,18,19,20,22,23,29,30,31) +3.3V
(4,5,6,7,9,12,13,17,18,22,24,25,26,27,28,30) +3VS5

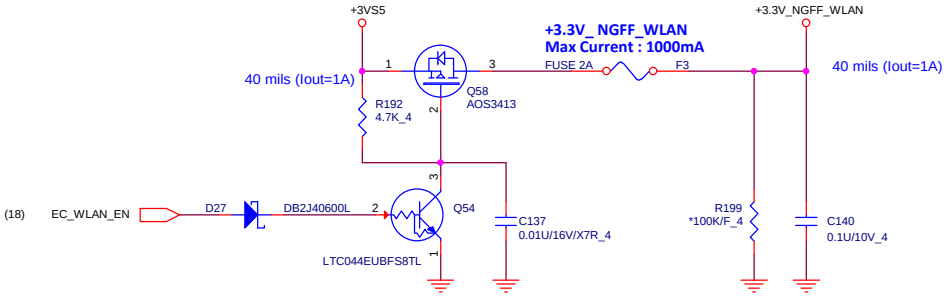
NGFF WiFi/BT connector
M.2 2230

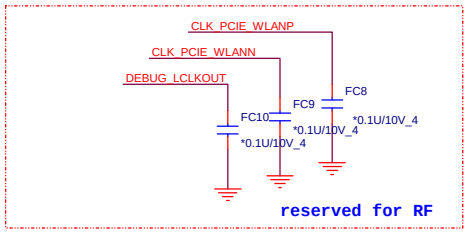












PROJECT : LI6J
Quanta Computer Inc.

Size	Document Number	Rev
	Wifi/BT NGFF	1A
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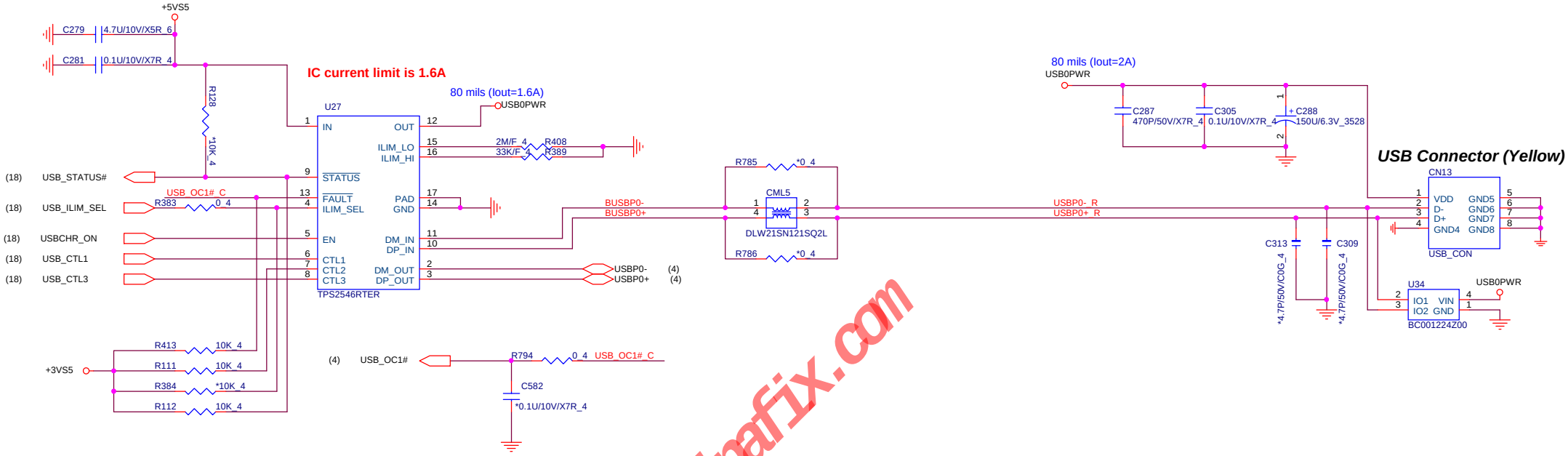
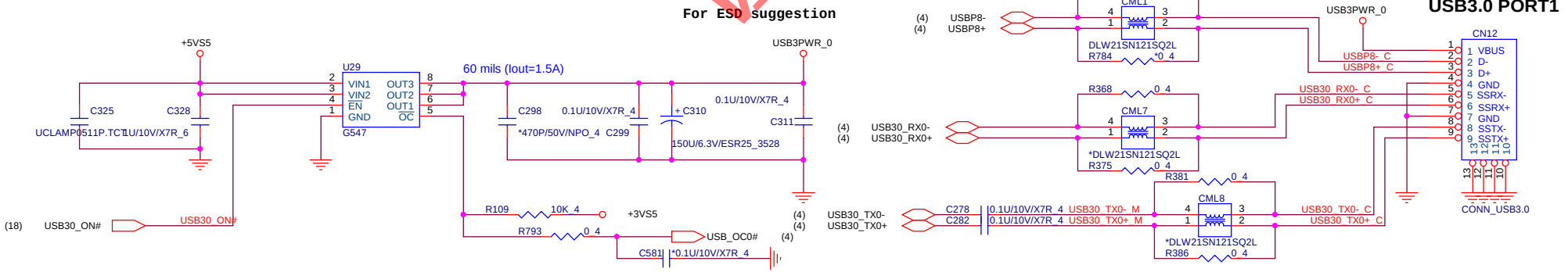
USB 2.0 Port *1

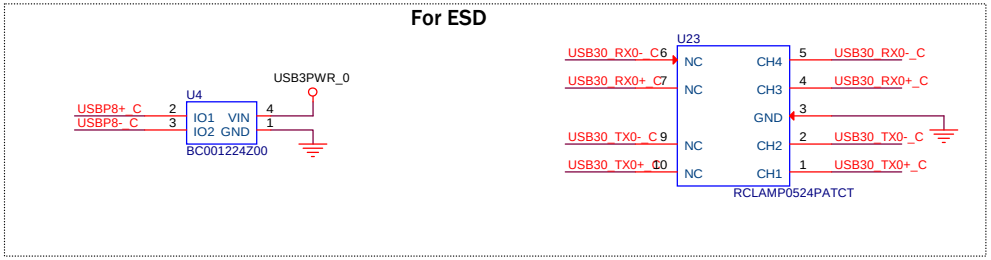
(9,21,22,24,25,26,28,29,30,31) +5VS5
(4,5,6,7,9,12,13,15,18,22,24,25,26,27,28,30) +3VS5
(3,4,5,6,8,9,10,11,12,13,14,18,19,20,22,23,29,30,31) +3.3V

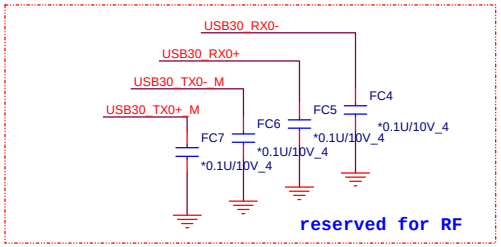
USB2.0 Port1



USB 3.0 Port *1







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Quanta Computer Inc.

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	USB2.0/USB3.0	1A

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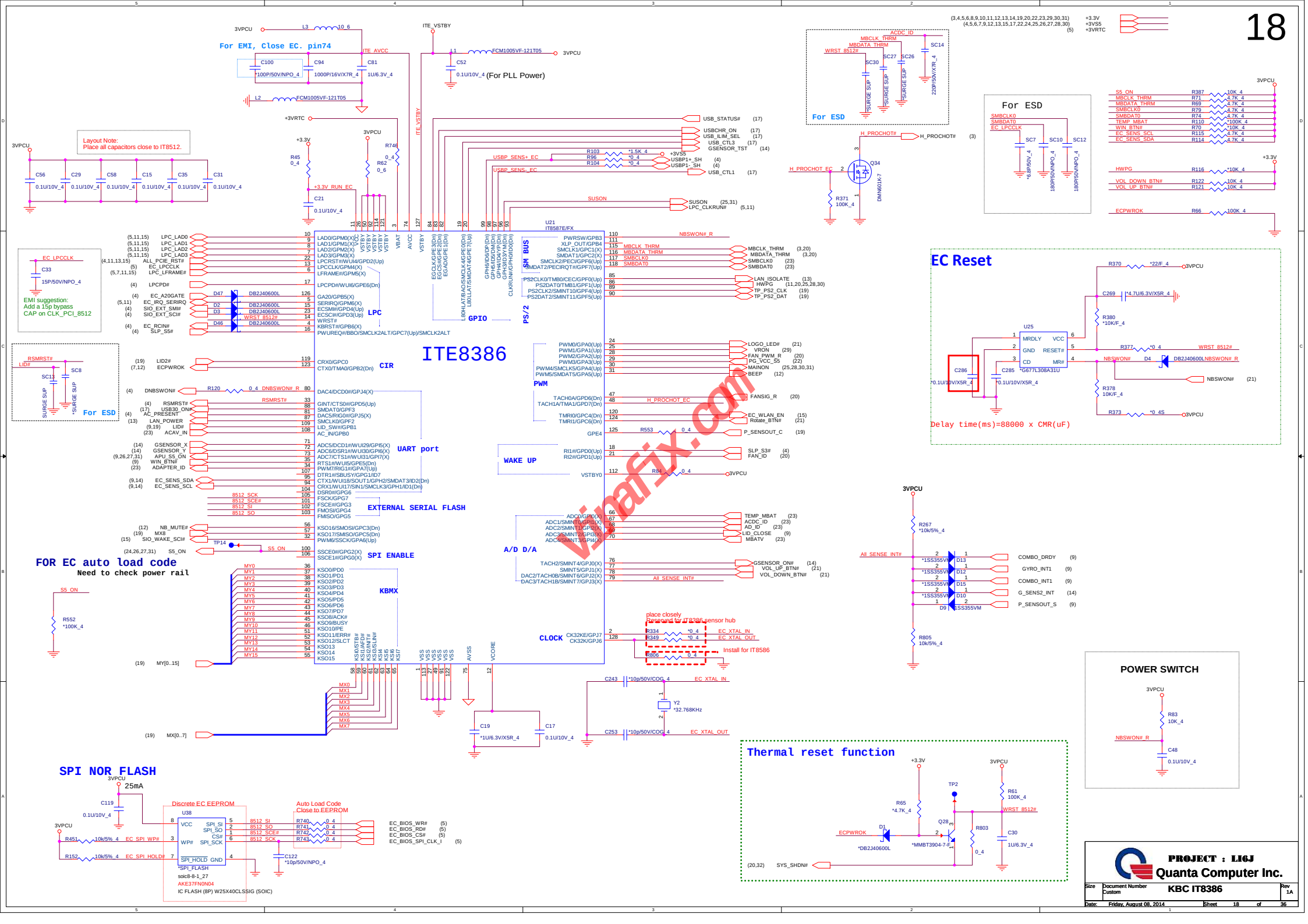
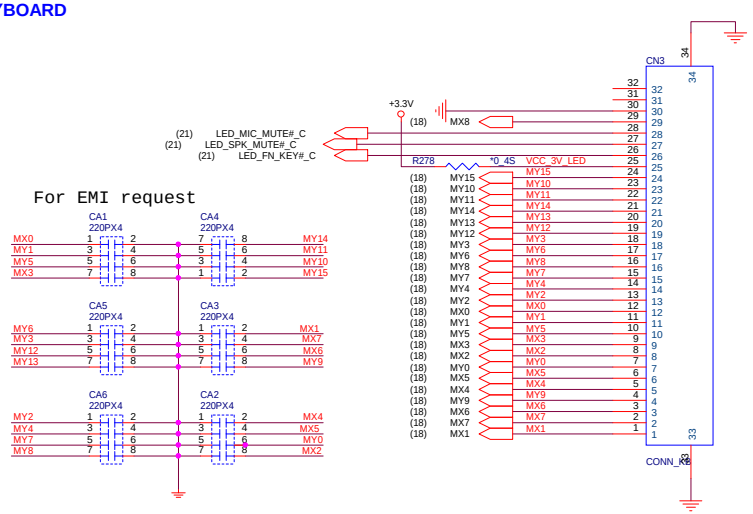
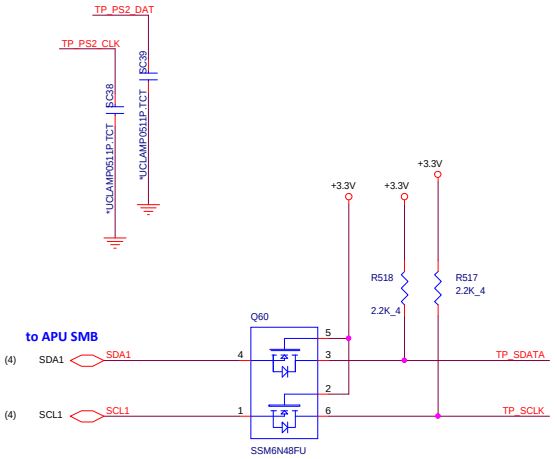

ITE8386
LPC
GPIO
PS/2
SM BUS
CIR
PWM
UART port
EXTERNAL SERIAL FLASH
SPI ENABLE
KBMX
WAKE UP
A/D D/A
CLOCK
For EMI, Close EC. pin74
Layout Note:
Place all capacitors close to IT8512.
EC Reset
Delay time(ms)=88000 x CMR(uF)
For ESD
FOR EC auto load code
Need to check power rail
SPI NOR FLASH
Thermal reset function
POWER SWITCH
Discrete EC EEPROM
Auto Load Code
Close to EEPROM
EMI suggestion:
Add a 15p bypass
CAP on CLK_PCI_8512
Vinafix.com

KEYBOARD



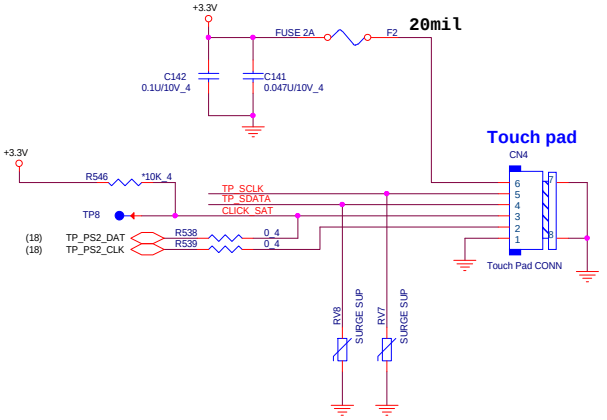
TP Control



(3,4,5,6,8,9,10,11,12,13,14,18,20,22,23,29,30,31) +3.3V

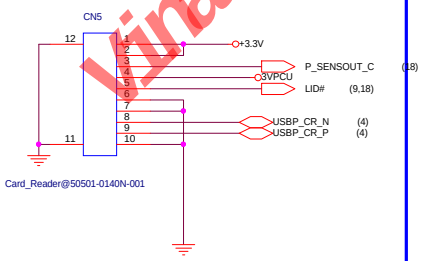
19

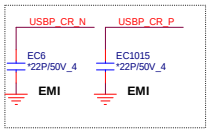
normal Current : 3mA

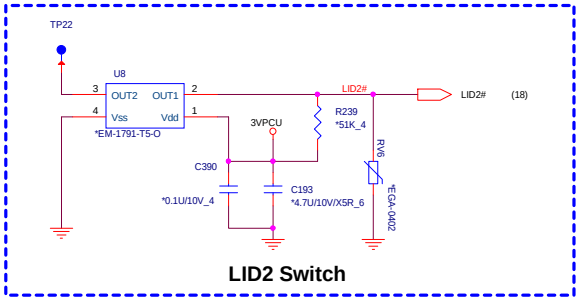


Sensor/B CONN

To Card Reader Board







PROJECT : LI6J

Quanta Computer Inc.

Size	Document Number	Rev
	KB/TP/DB	1A

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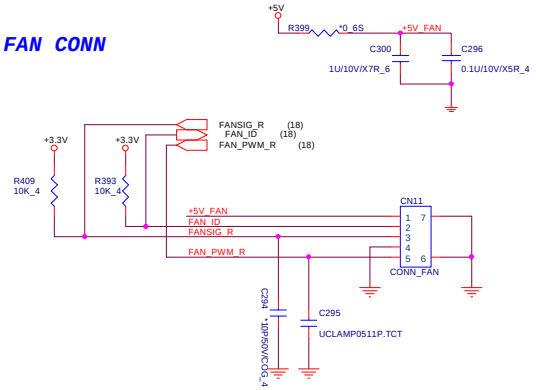
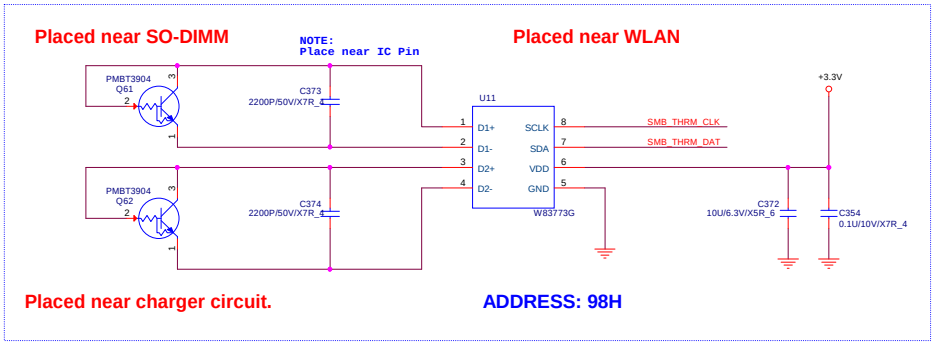
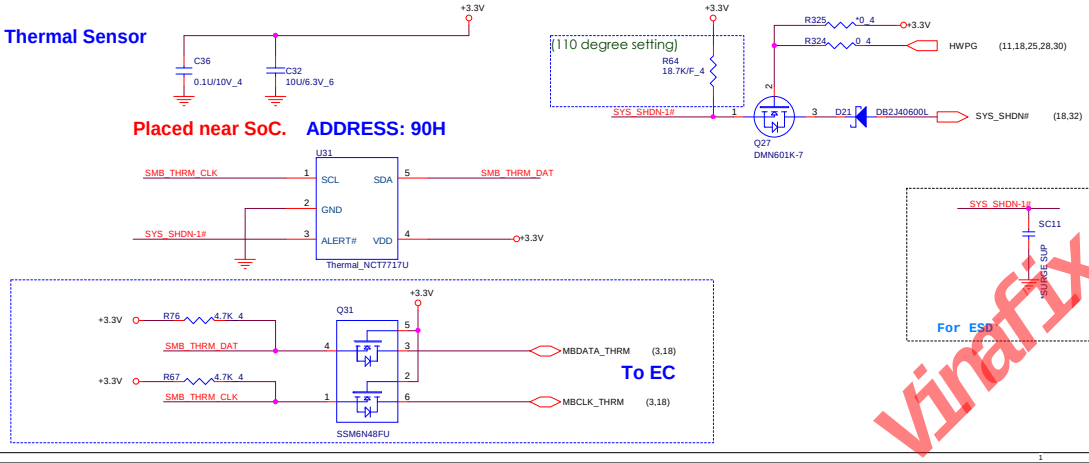
FAN CONN



Thermal Sensor



CPU Thermal Sensor



PROJECT : LIGJ
Quanta Computer Inc.

Size	Document Number	FAN/Thermal	Rev
			1A

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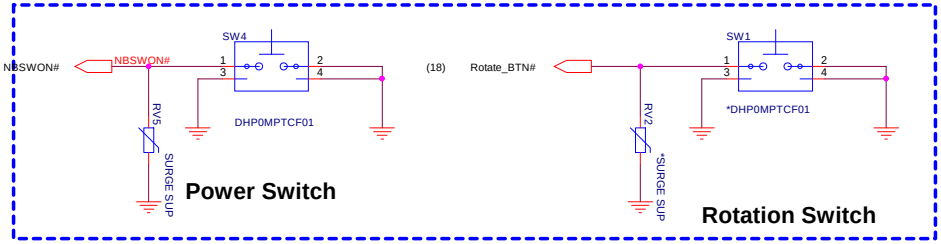
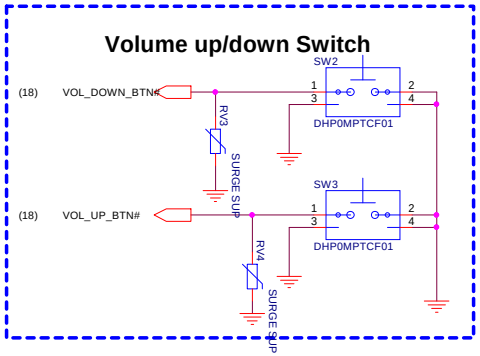
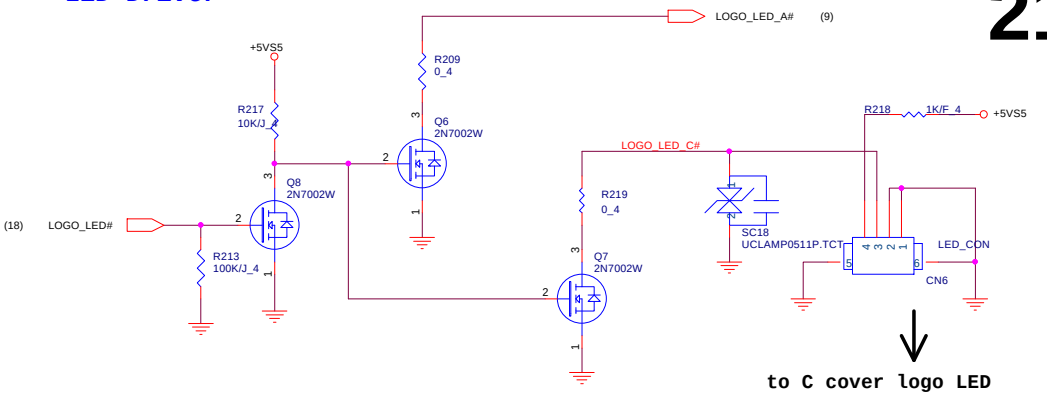
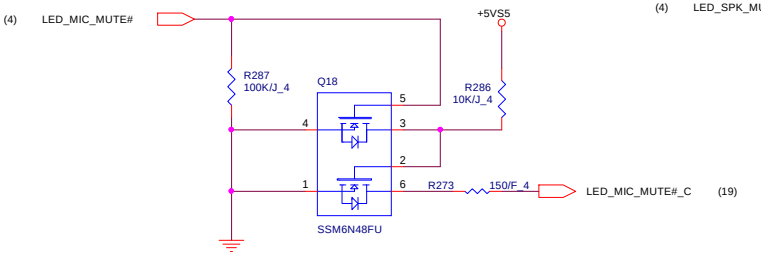
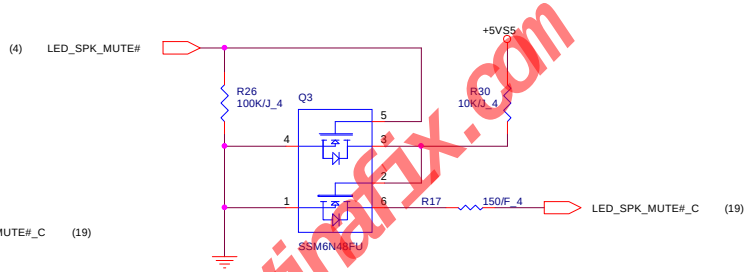
LED Driver

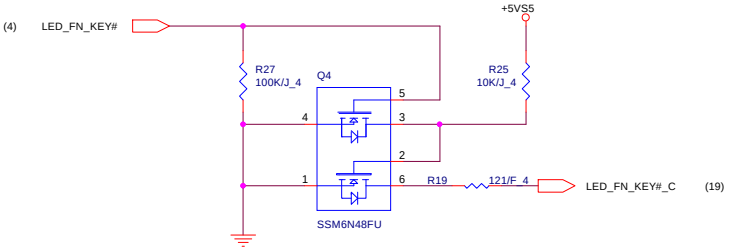










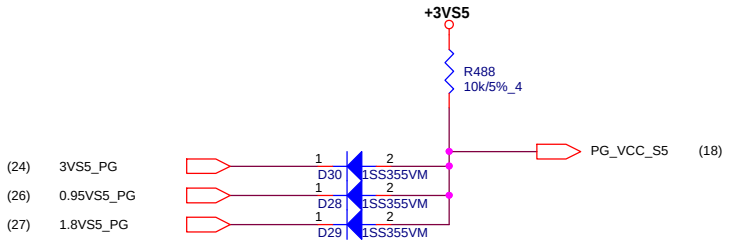


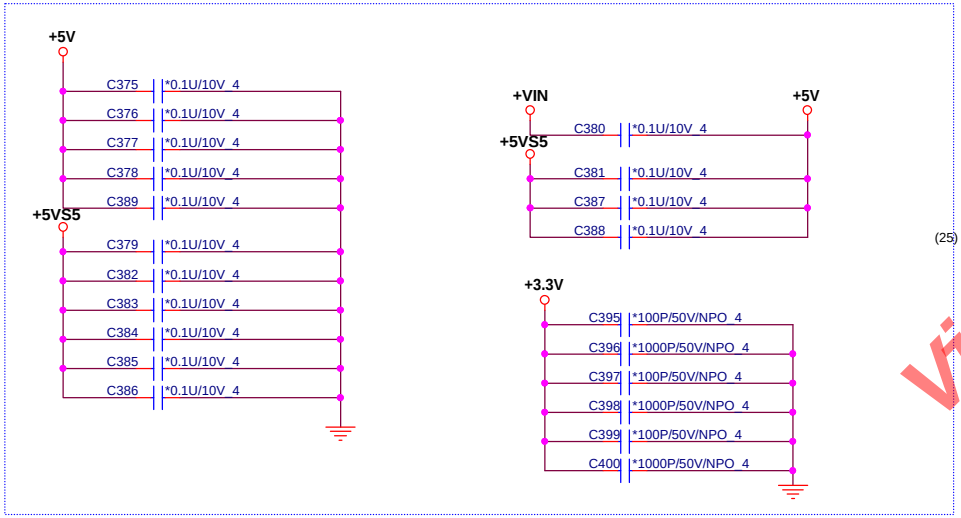
PROJECT : LI6J

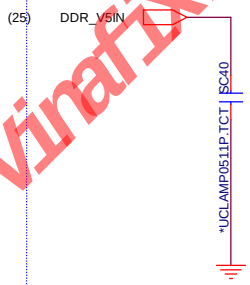
Quanta Computer Inc.

Size	Document Number		Rev
	Custom	POWER BUTTON	1A
Date:	Thursday, August 07, 2014	Sheet 21 of 36	

S5 POWER GOOD



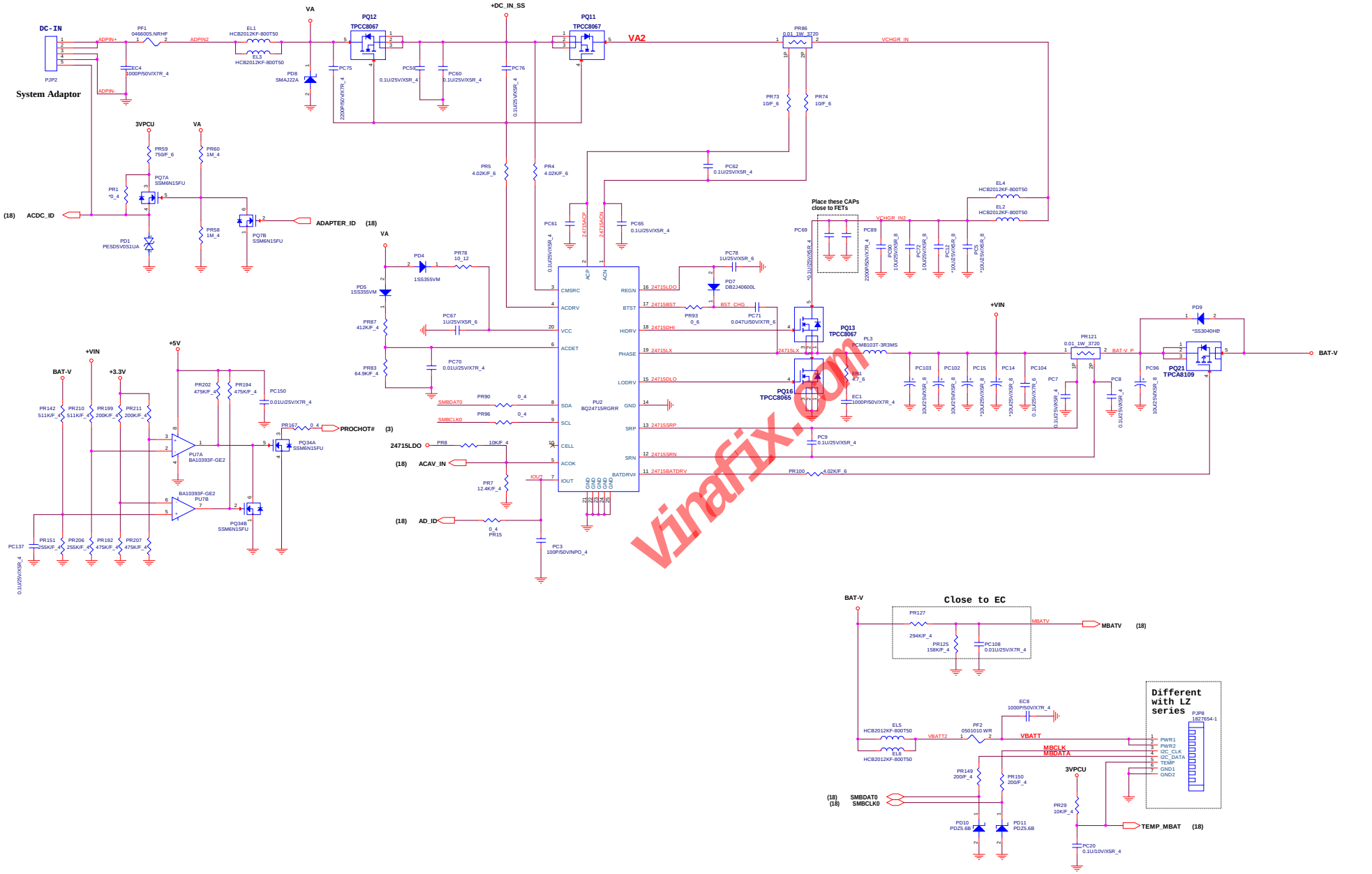




PROJECT : LI6J

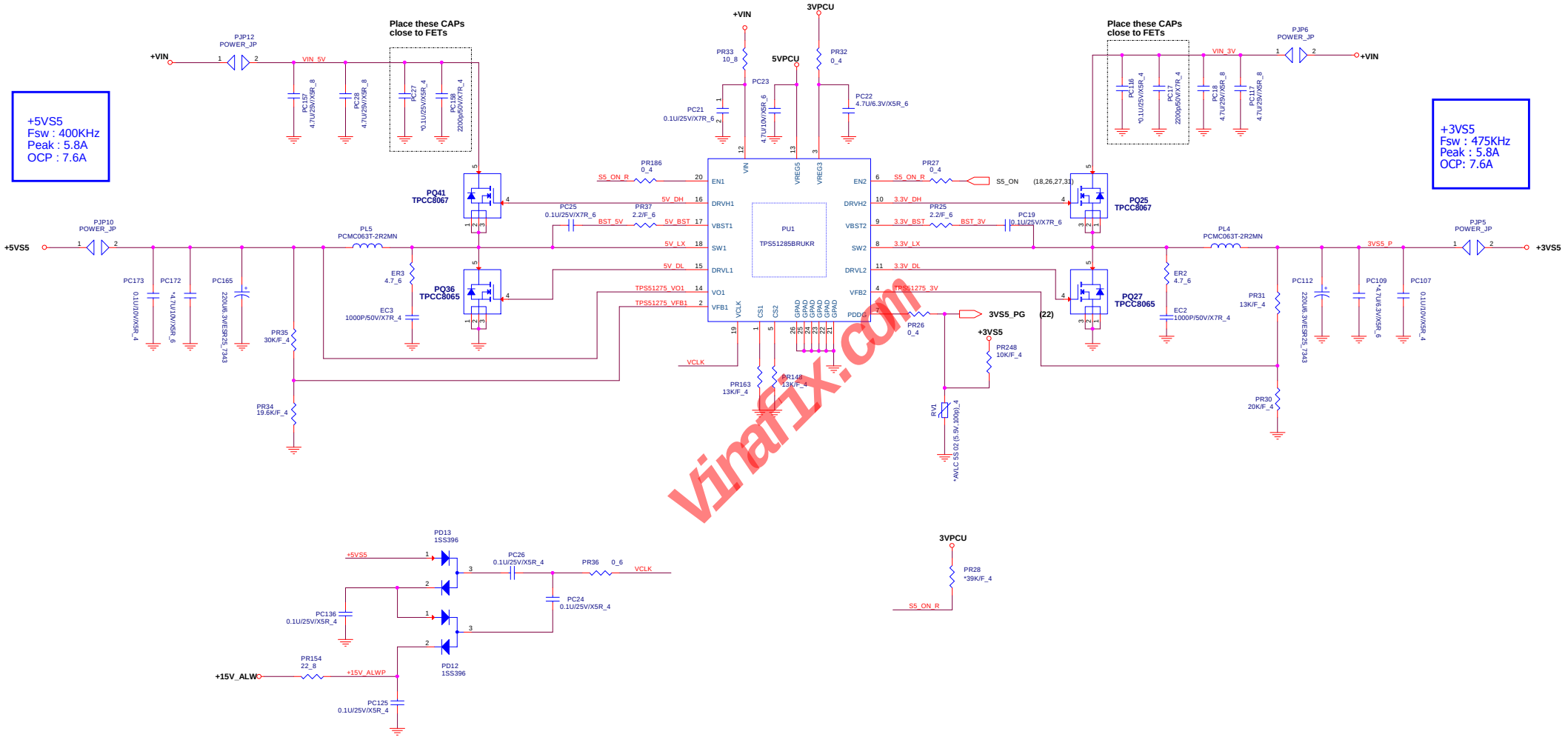
Quanta Computer Inc.

Size	Document Number	Rev
	All Power Good	1A
Date: Thursday, August 07, 2014	Sheet 22 of 36	



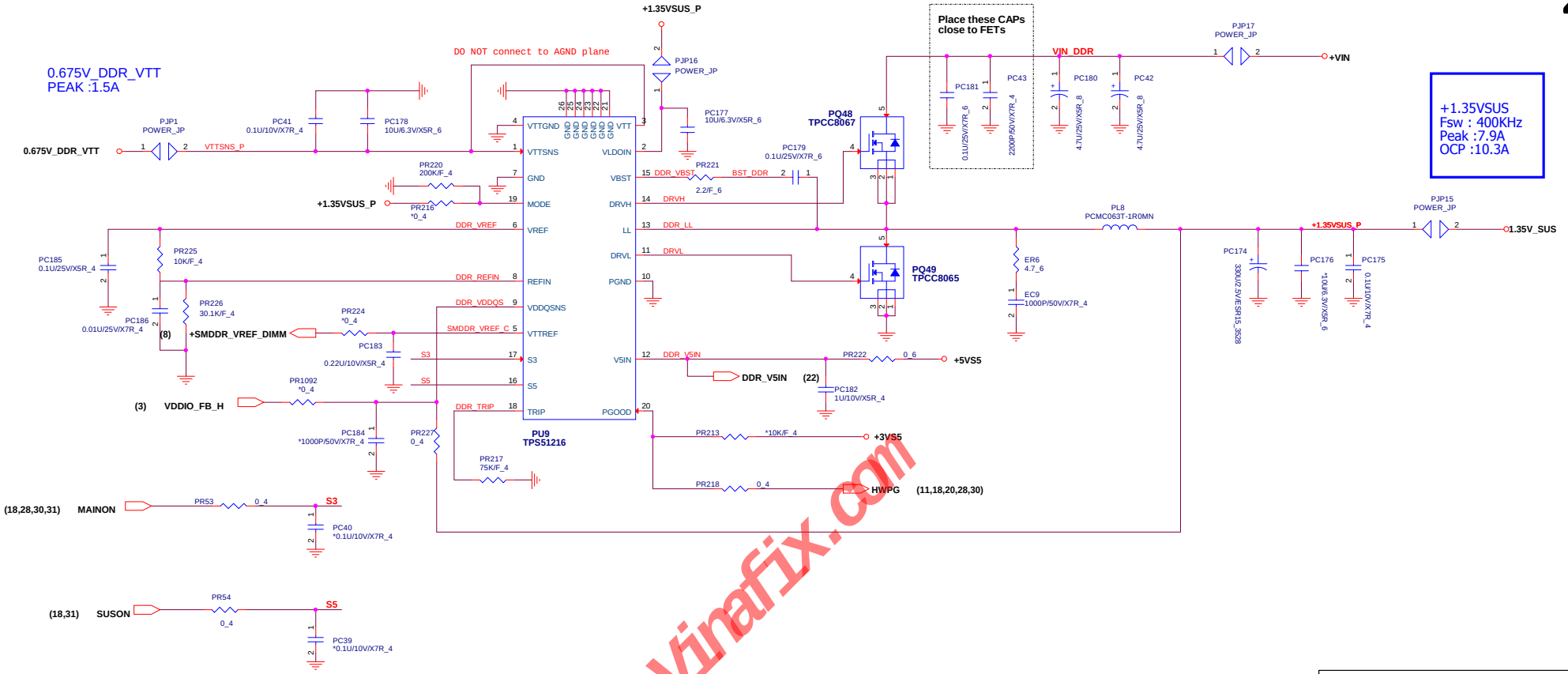
PROJECT : LI5
Quanta Computer Inc.

Size	Document Number	Charger (BQ24715RGRR)	Rev
	Custom		1A
Date: Thursday, August 07, 2014		Sheet 23 of 54	



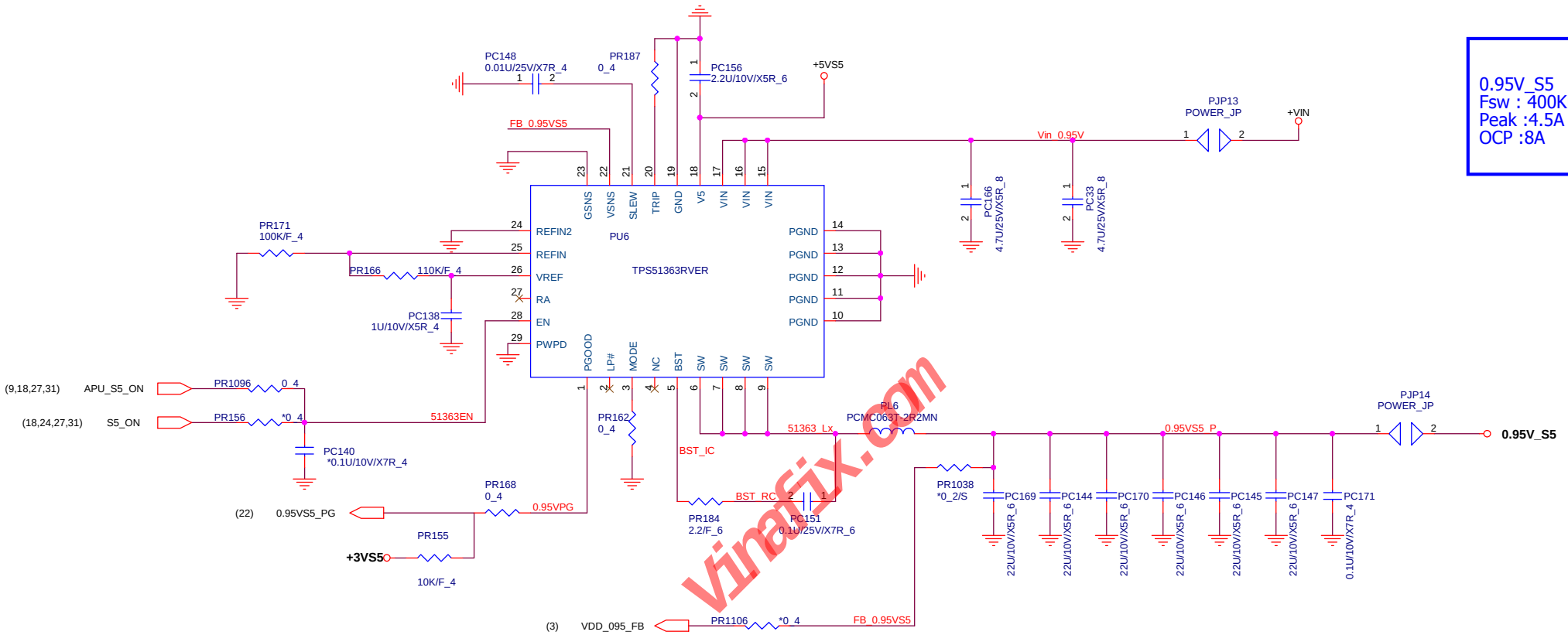
PROJECT : LIGJ
Quanta Computer Inc.

Size	Document Number	+3VS5/+5VS5 (TPS51285BRUKR)	Rev
	Custom		1A
Date:	Thursday, August 07, 2014	Sheet 24 of 36	



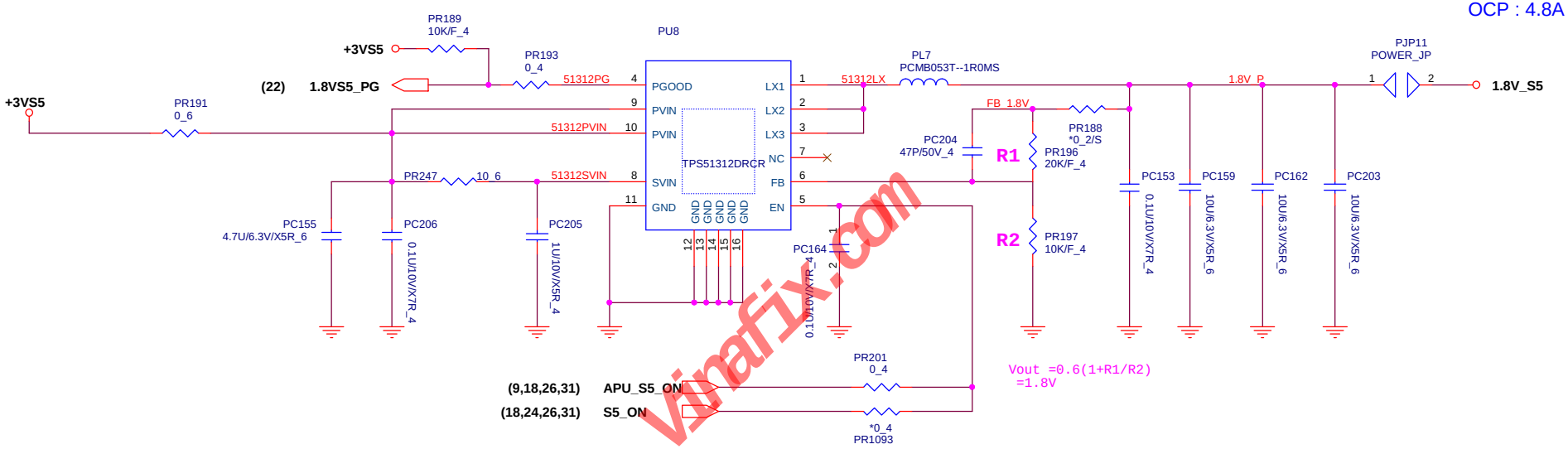
PROJECT : LI6J
Quanta Computer Inc.

Size	Document Number		Rev
	Custom	1.35/0.675V(TPS51216RUKR)	1A
Date:	Thursday, August 07, 2014	Sheet 25 of 36	



PROJECT : LI6J			
Quanta Computer Inc.			
Size B	Document Number	+1.0VS5(RT8068AZQW)	Rev 1A
Date: Thursday, August 07, 2014	Sheet 26 of 36		

1.8V_S5
Fsw : 900KHz
PEAK : 2.1A
OCP : 4.8A



PROJECT : LI6J
Quanta Computer Inc.

Size	Document Number		Rev
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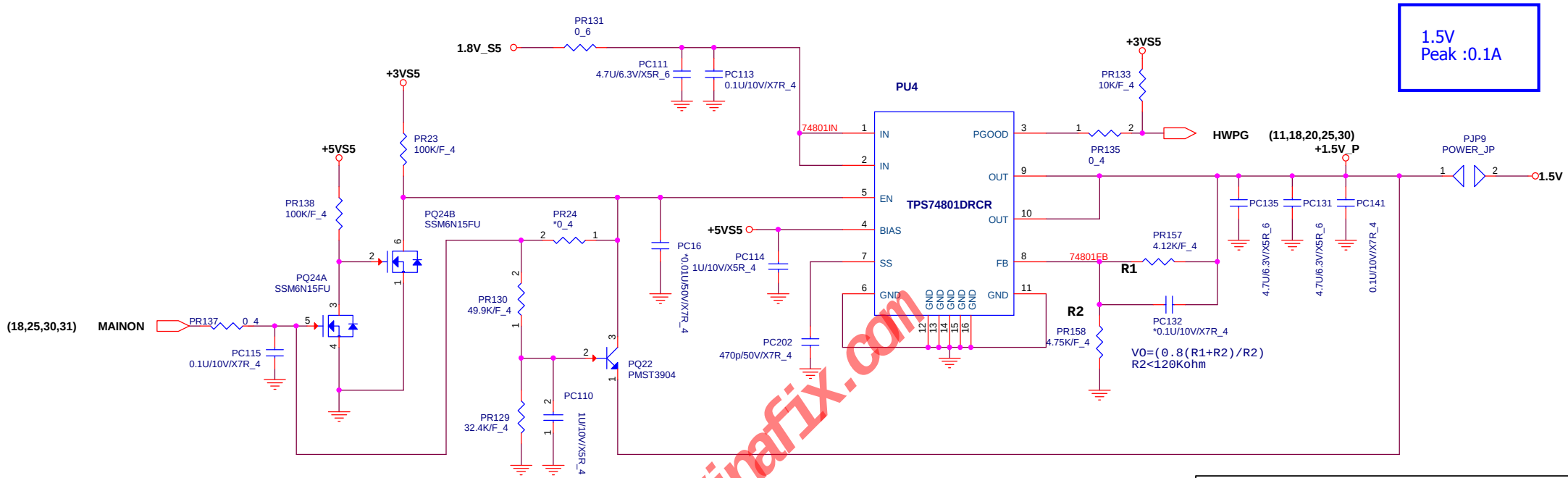
Date: Thursday, August 07, 2014		Sheet 27 of 36	



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Quanta Computer Inc.

Size	Document Number		Rev
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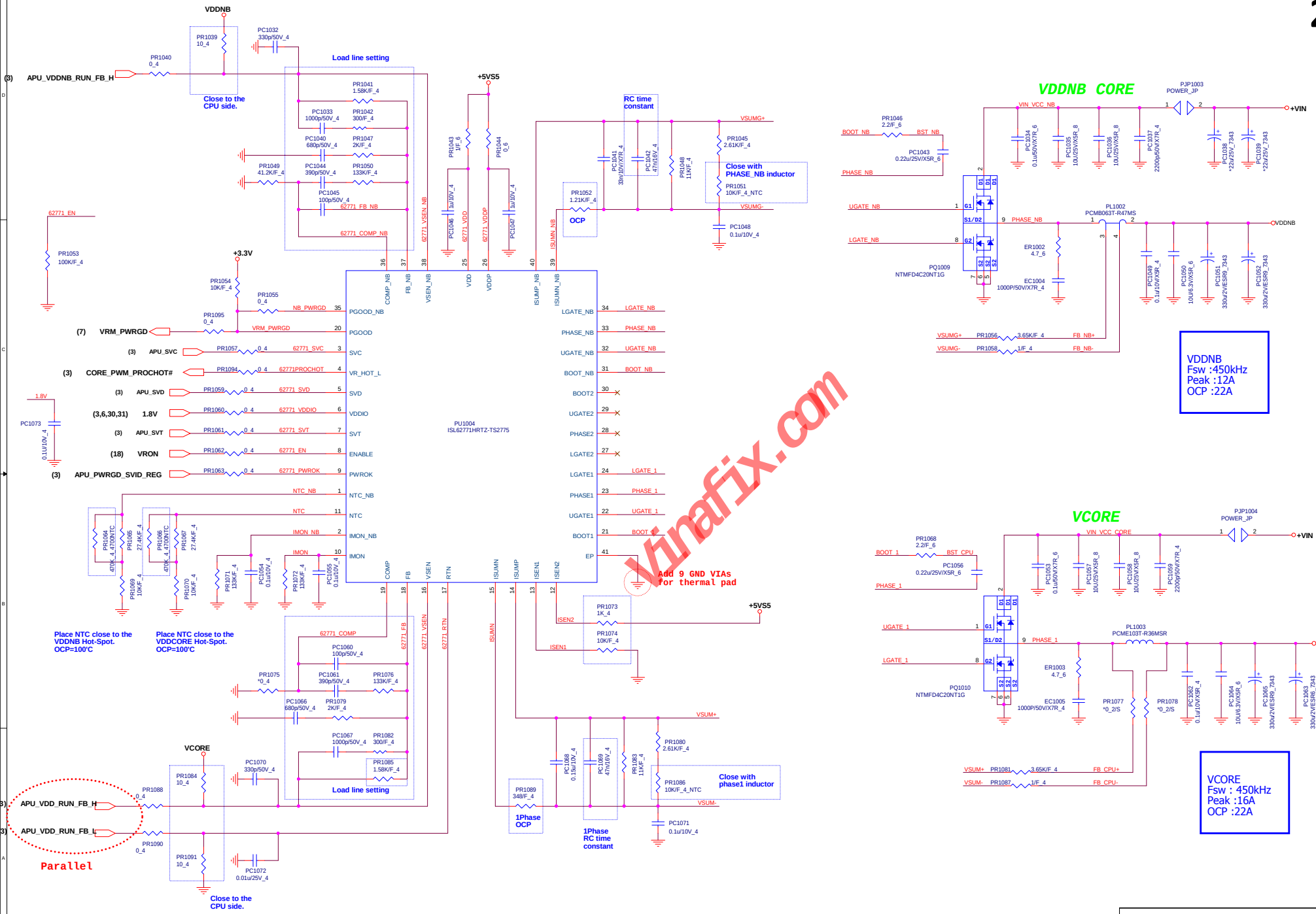
Date:	Thursday, August 07, 2014	Sheet 28 of 36	



PROJECT : LIGJ
Quanta Computer Inc.

Size	Document Number	Rev
C	Vcore (ISL62771)	1A

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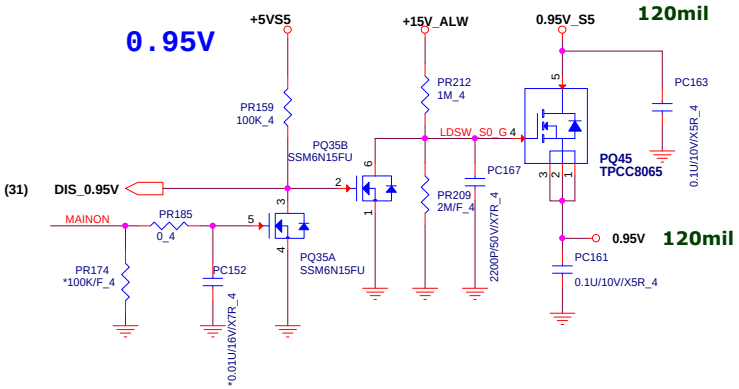
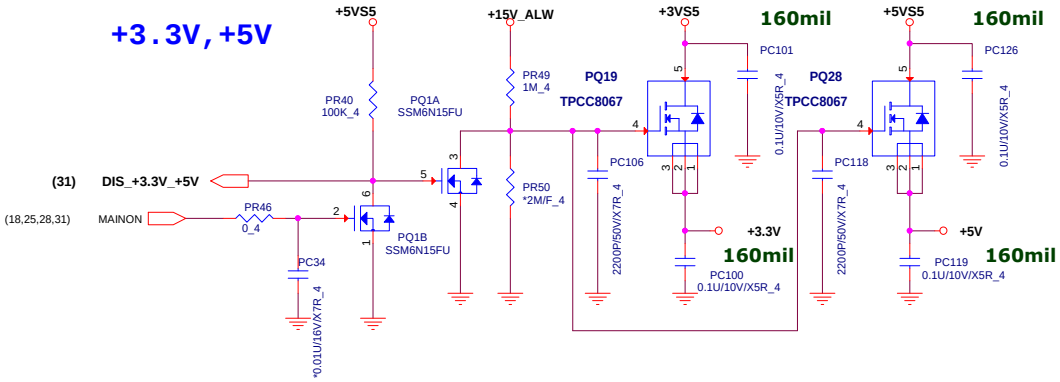
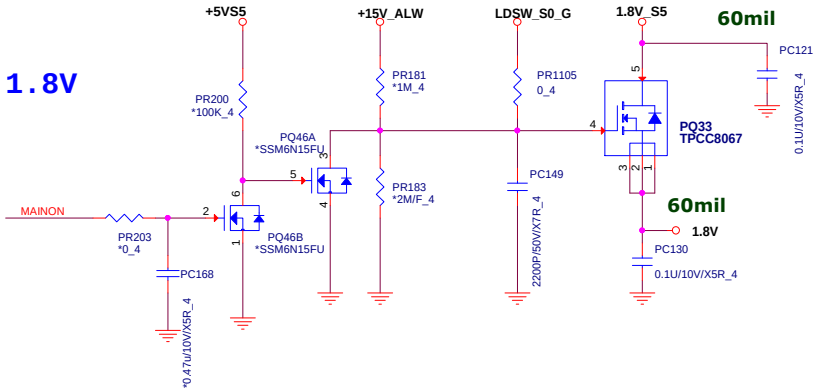
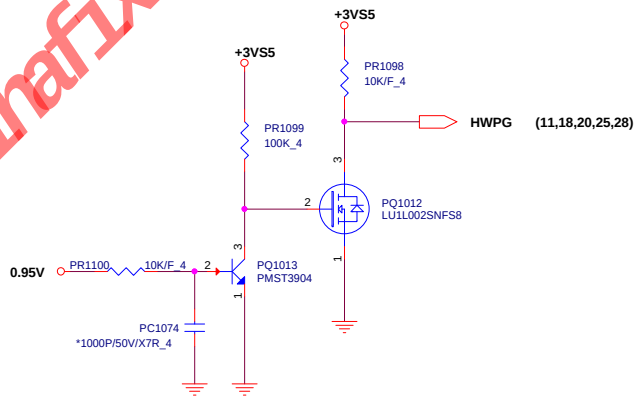
Load switch





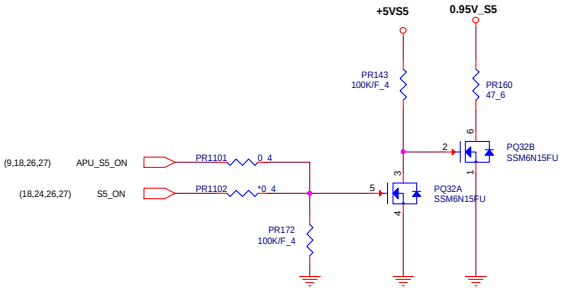


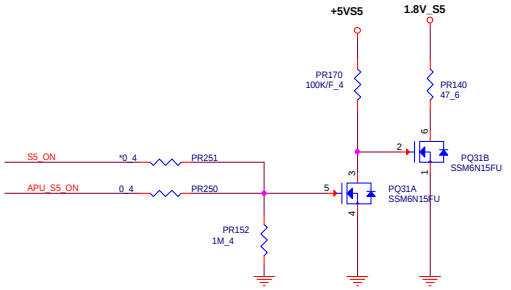


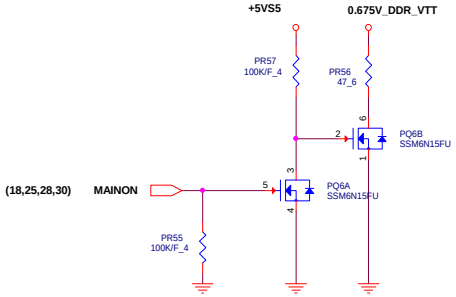
PROJECT : LIGJ
Quanta Computer Inc.

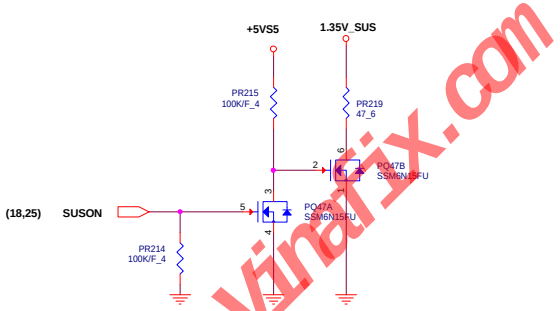
Size	Document Number	Dis-charge	Rev
	Custom		1A
Date:	Thursday, August 07, 2014	Sheet 30 of 36	

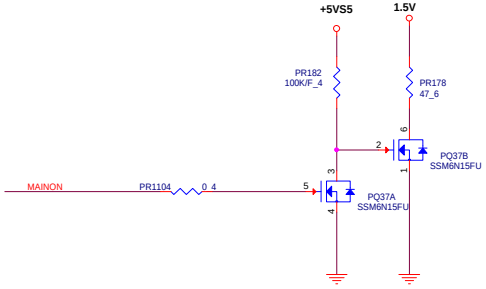
DISCHARGE

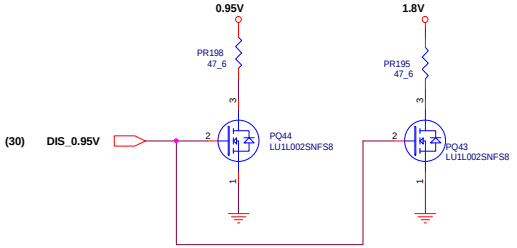


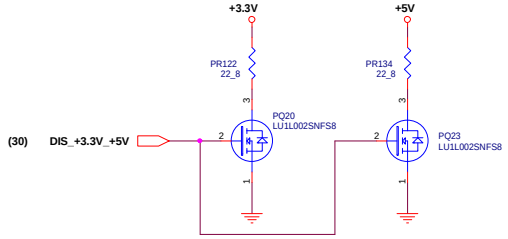












PROJECT : LIGJ
Quanta Computer Inc.

Size	Document Number	Rev
C	Discharge	

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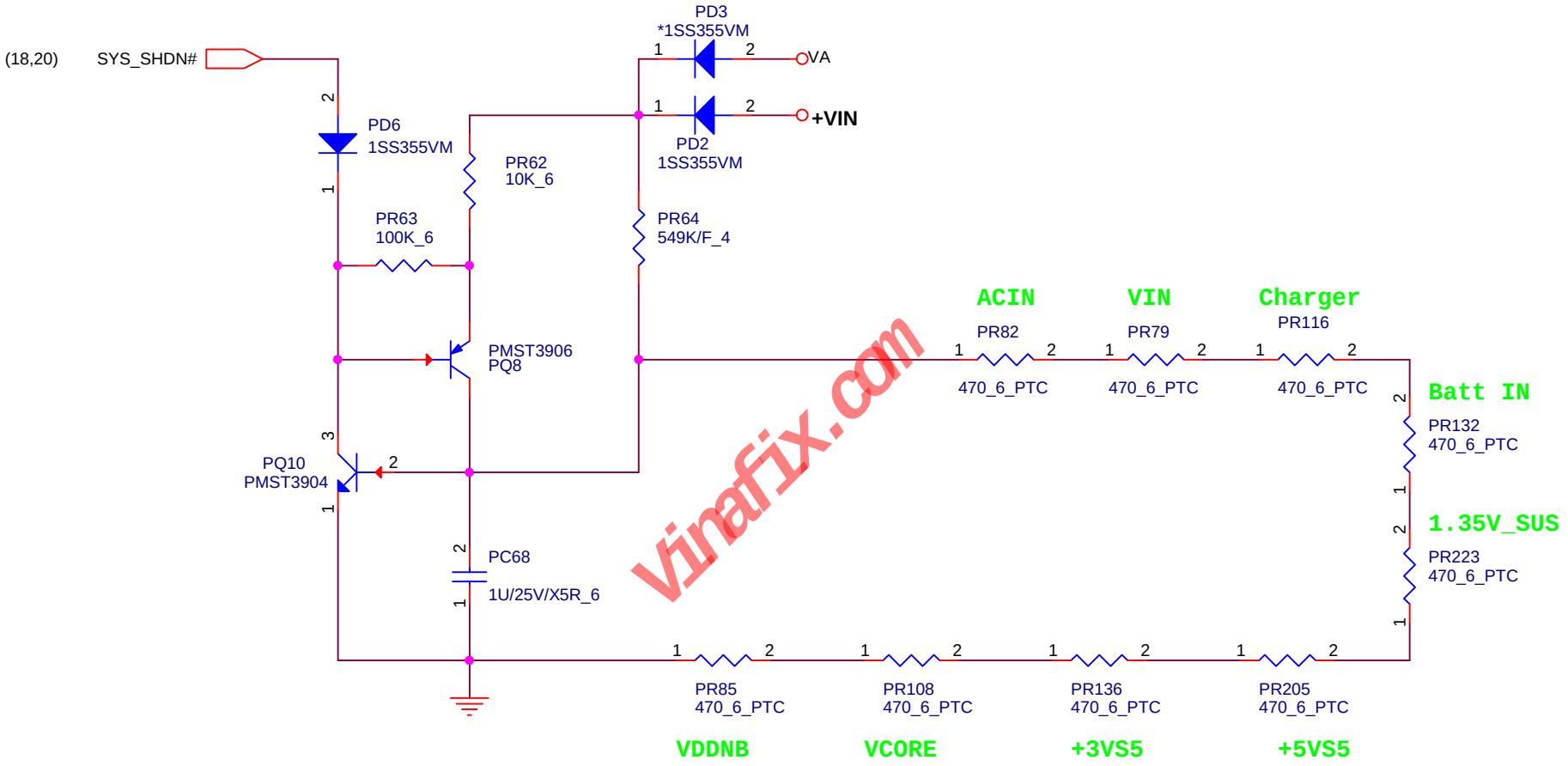

PROJECT : LI6J

Quanta Computer Inc.

Size	Document Number	Rev
A	PTC	1A

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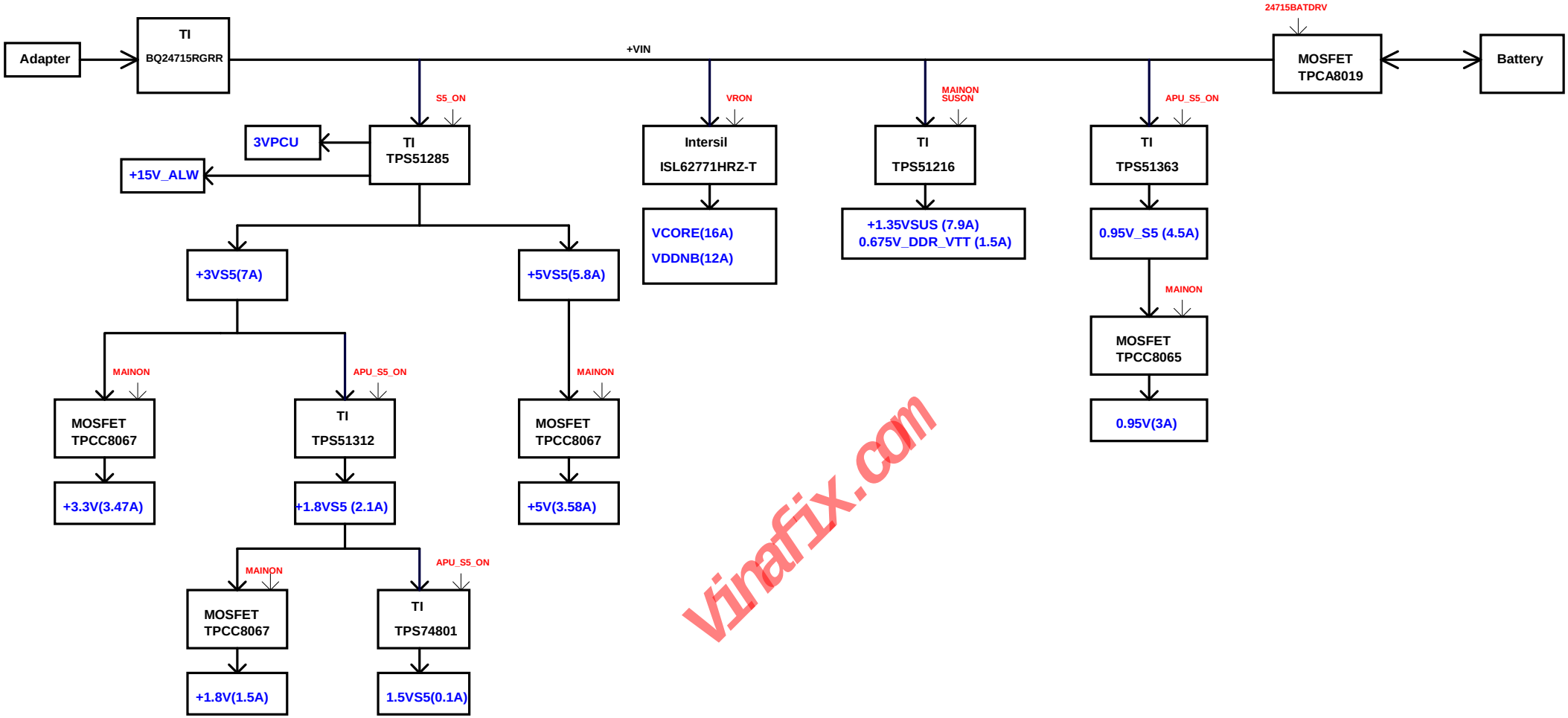

PROJECT : LI6J

Quanta Computer Inc.

Size	Document Number	Rev
	Power Block Diagram	3A
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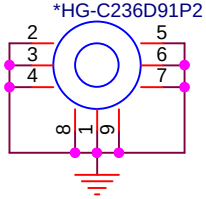
H3
*HG-C236D91P2



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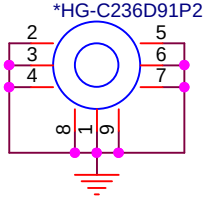

H14
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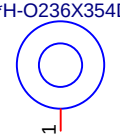

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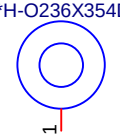

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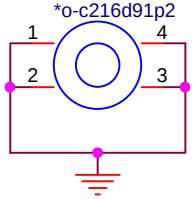

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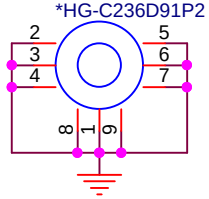

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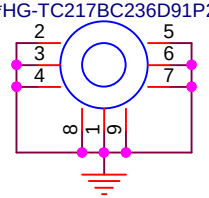

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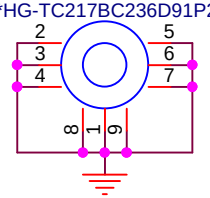

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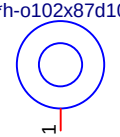

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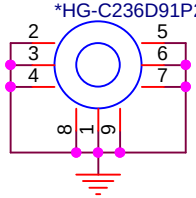

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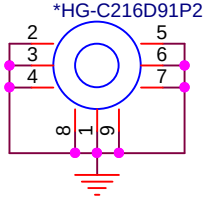

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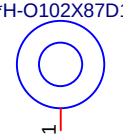

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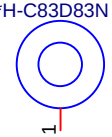
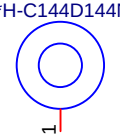


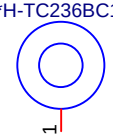
H20
*h-o98x91d98x91n

CPU BKT Holes

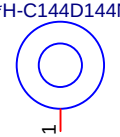
H8
*H-C144D144N



H9
*H-TC236BC197D91P2



H6
*H-C144D144N

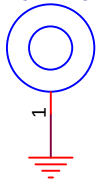


H7
*H-TC236BC197D91P2

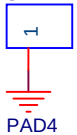
Stuff NUT Location:

NGFF WLAN Nut

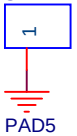
H15
H-TC217BC122D122PT



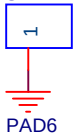
PAD1
*ESD PAD1



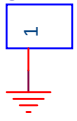
PAD2
*ESD PAD2



PAD3
*ESD PAD3



PAD4
*ESD PAD4



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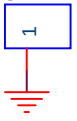
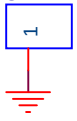


PAD6
*ESD PAD6



ESD request

PROJECT : LI6J

Quanta Computer Inc.

Size	Document Number	Rev
A	Screw Hole	1A

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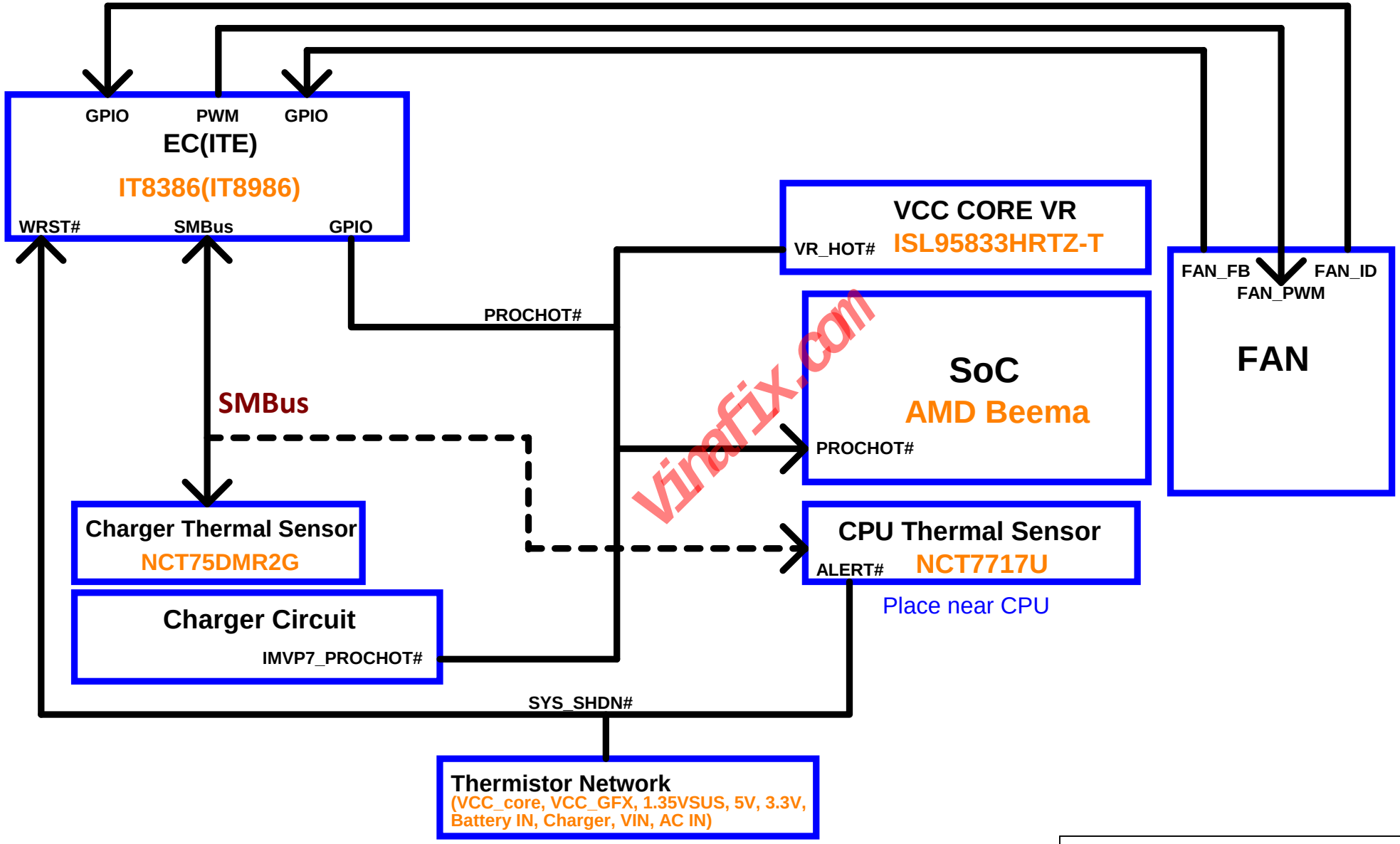

PROJECT : LIGJ

Quanta Computer Inc.

Size	Document Number	Rev
	Thermal Block diagram	1A

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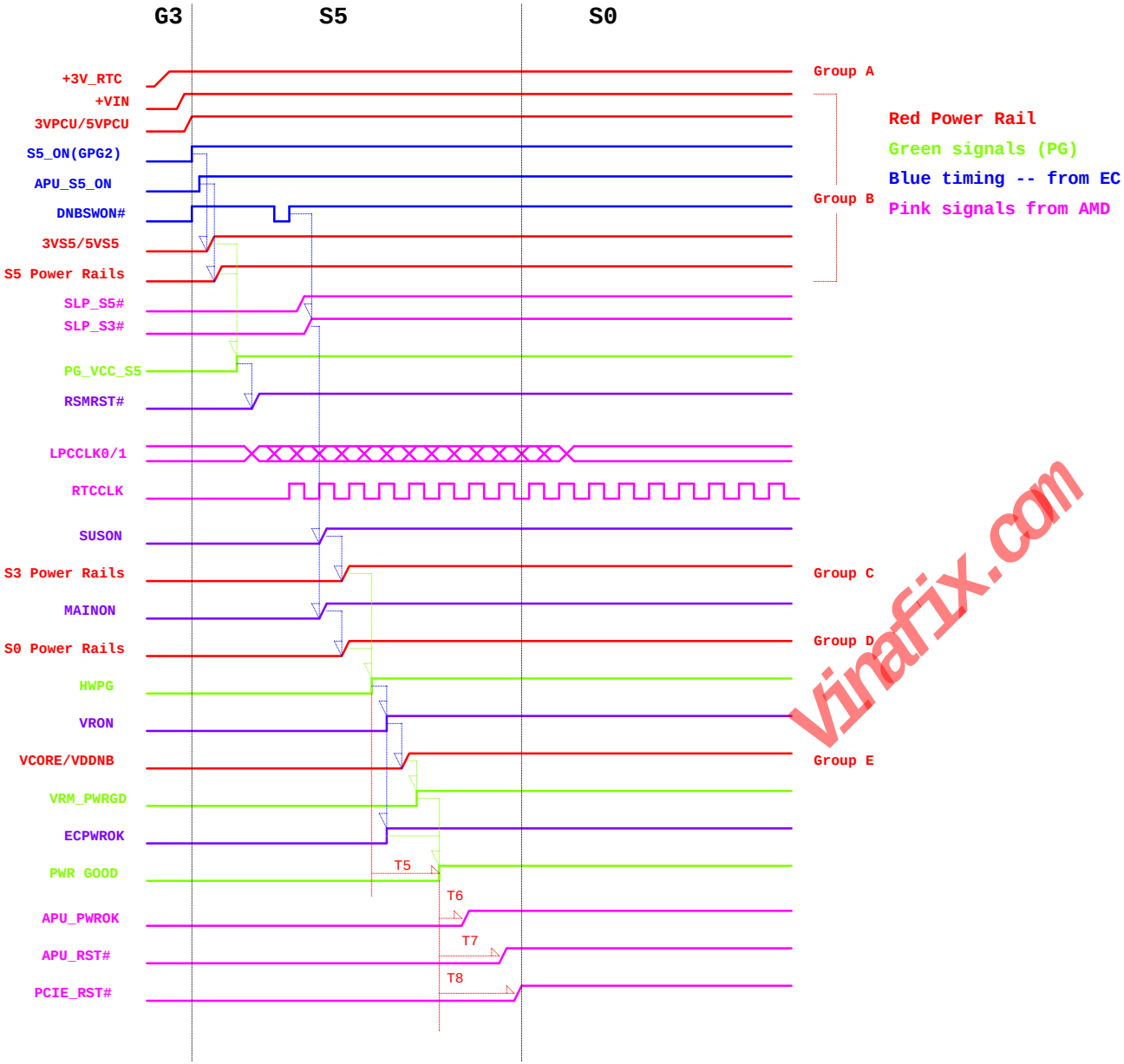
Beema Power on sequence



Red Power Rail

Green signals (PG)

Blue timing -- from EC

Pink signals from AMD

PROJECT : LIGJ		
Quanta Computer Inc.		
Size	Document Number: Custom	Rev: 1A
Power Seqeunce		
Date: Thursday, August 07, 2014	Sheet 38 of 38	