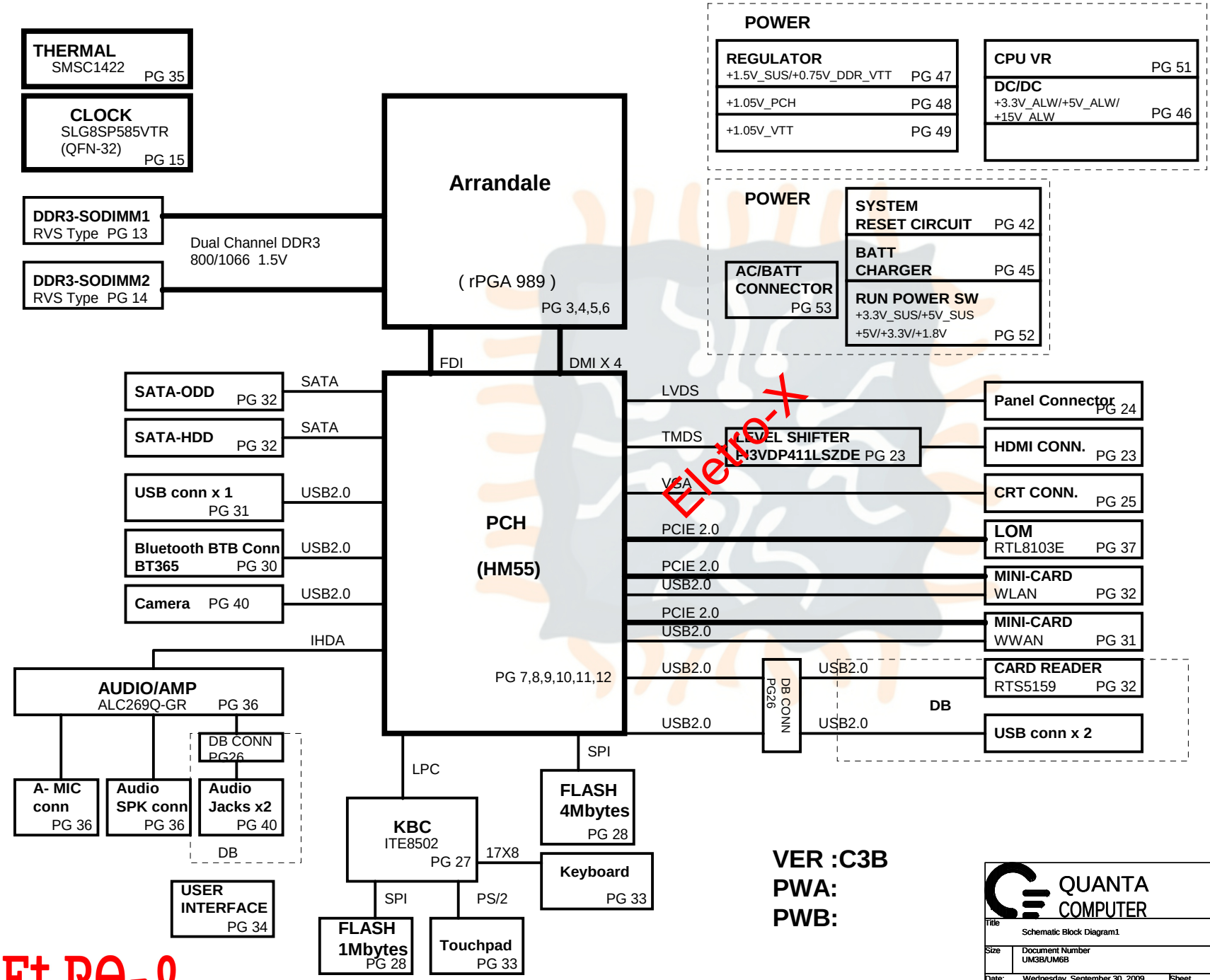
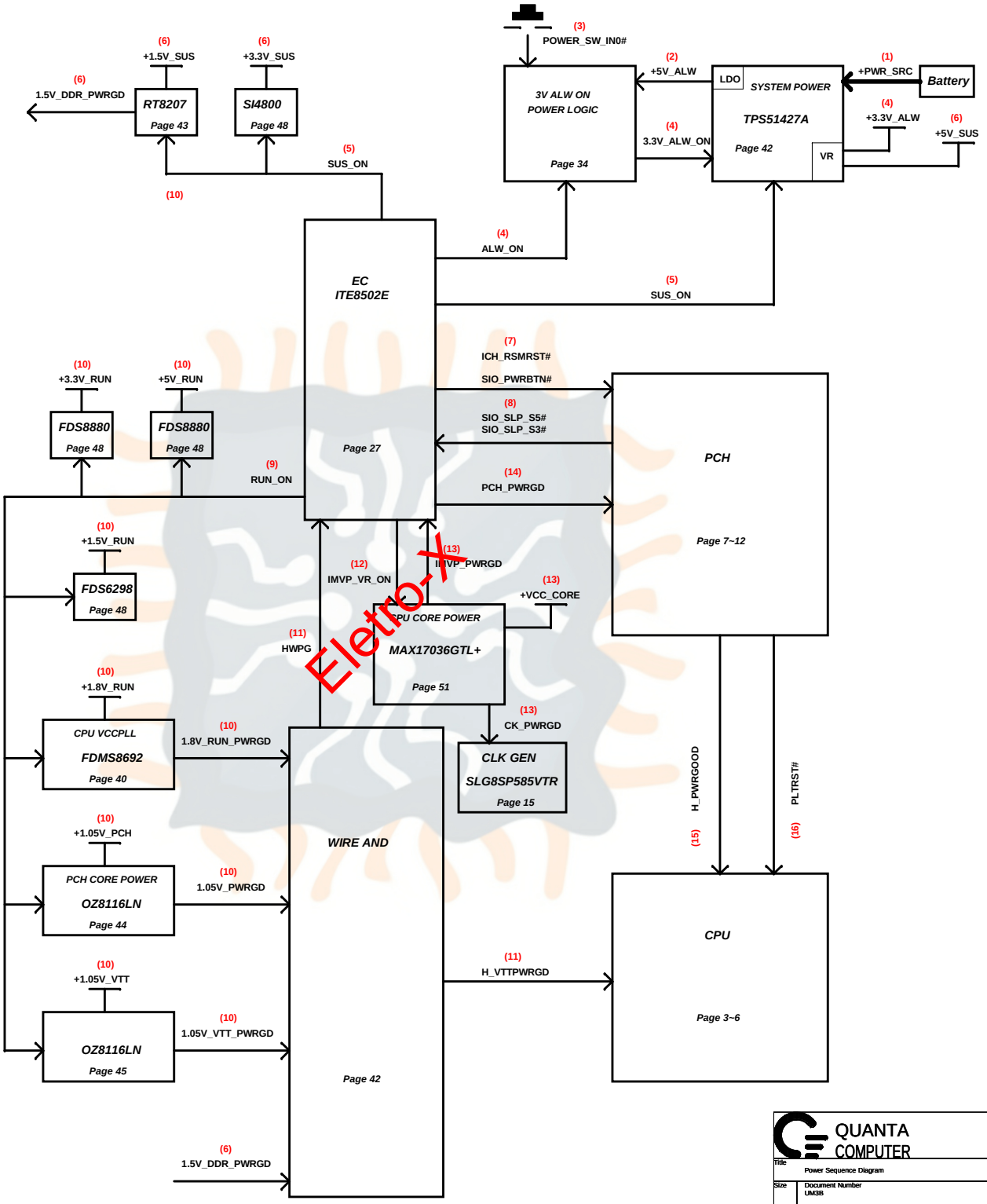
UM3B/UM6B SYSTEM BLOCK DIAGRAM



UM3 Power Design Block Diagram 2009/07/28



(1) +PWR_SRC
(2) +5V_ALW
(3) POWER_SW_IN0
(4) 3.3V_ALW_ON, +3.3V_ALW, ALW_ON
(5) SUS_ON
(6) +5V_SUS, +3.3V_SUS, +1.5V_SUS, 1.5V_DDR_PWRGD
(7) ICH_RSMRST#, SIO_PWRBTN#
(8) SIO_SLP_S5#, SIO_SLP_S4#, SIO_SLP_S3#
(9) RUN_ON
(10) +5V_RUN, +3.3V_RUN, +1.5V_RUN,+1.8V_RUN, +1.05V_VTT,+1.05V_PCH & PWRGD,+0.75V_RUN
(11) HWPG, H_VTTPWRGD
(12) IMVP_VR_ON
(13) +VCC_CORE, IMVP_PWRGD, CK_PWRGD
(14) PCH_PWRGD
(15) H_PWRGOOD
(16) PLTRST#

QUANTA COMPUTER

Title	Power Sequence Diagram	
Size	Document Number UM3B	Rev 1A
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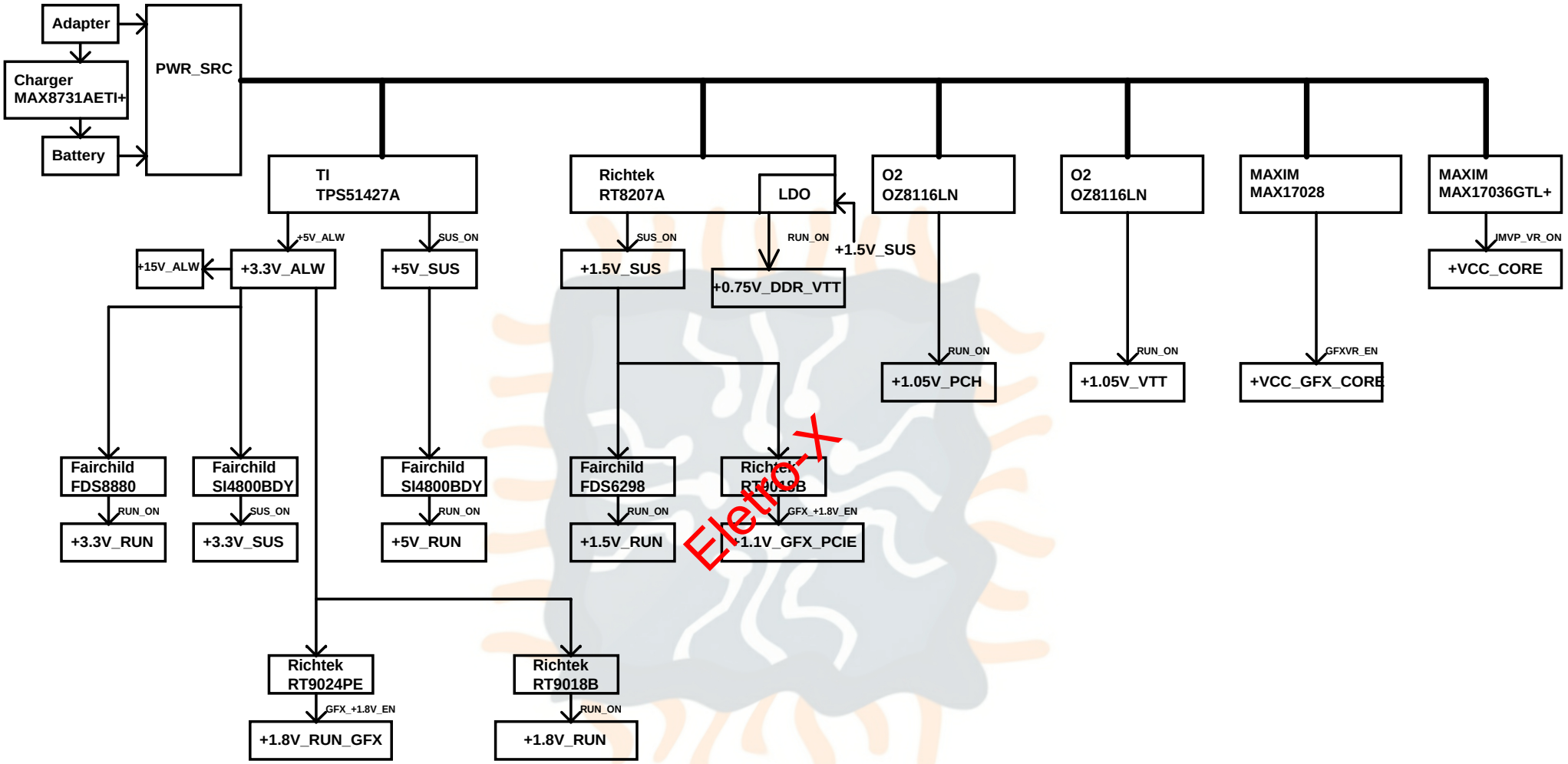
VER : 1A



QUANTA COMPUTER

Title	Schematic Block Diagram1	
Size	Document Number UM3B/UM6B	Rev 1A
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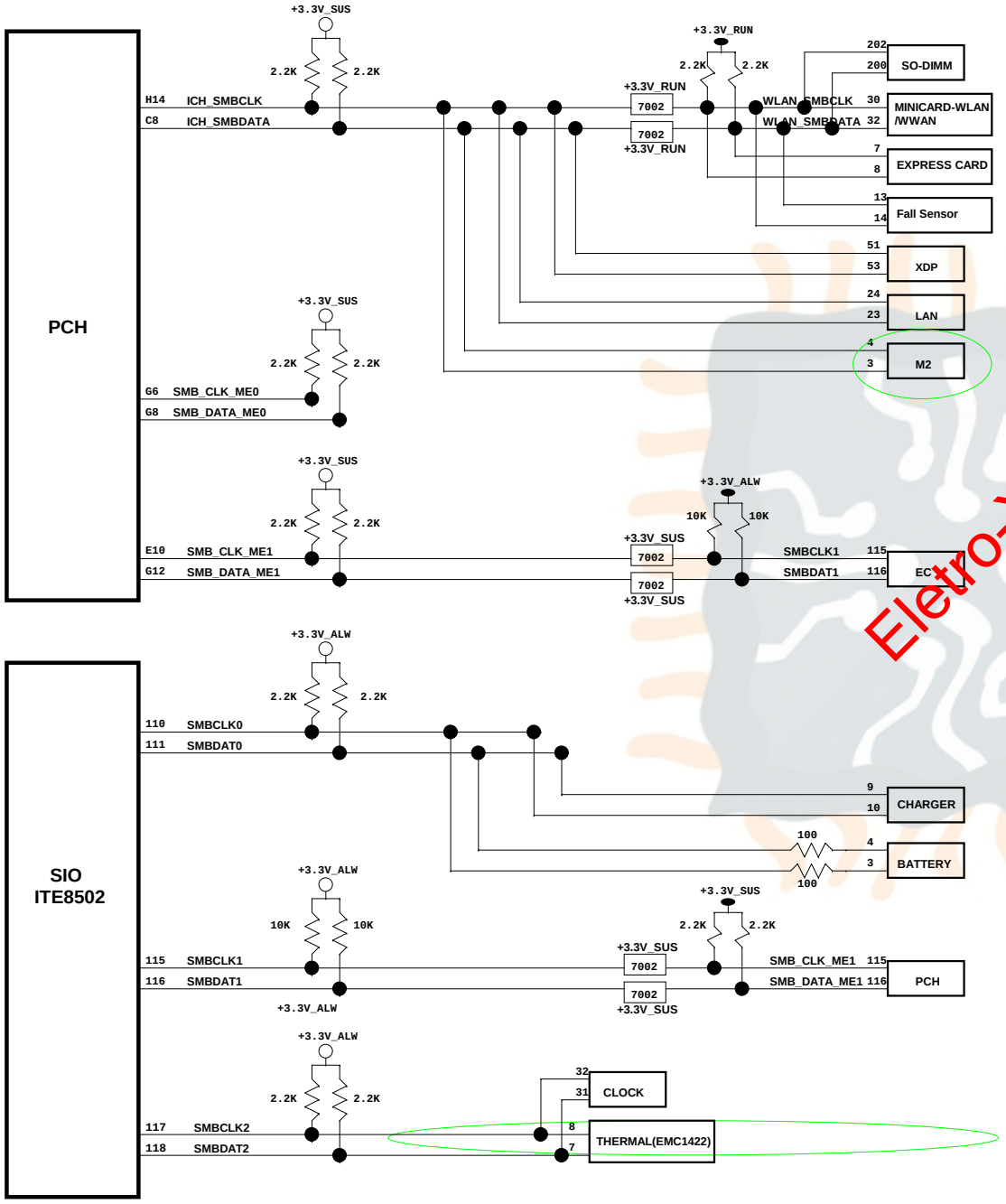

QUANTA COMPUTER

Title: SMBUS BLOCK

Size: | Document Number: UMD5/UMD5 | Rev: 1A

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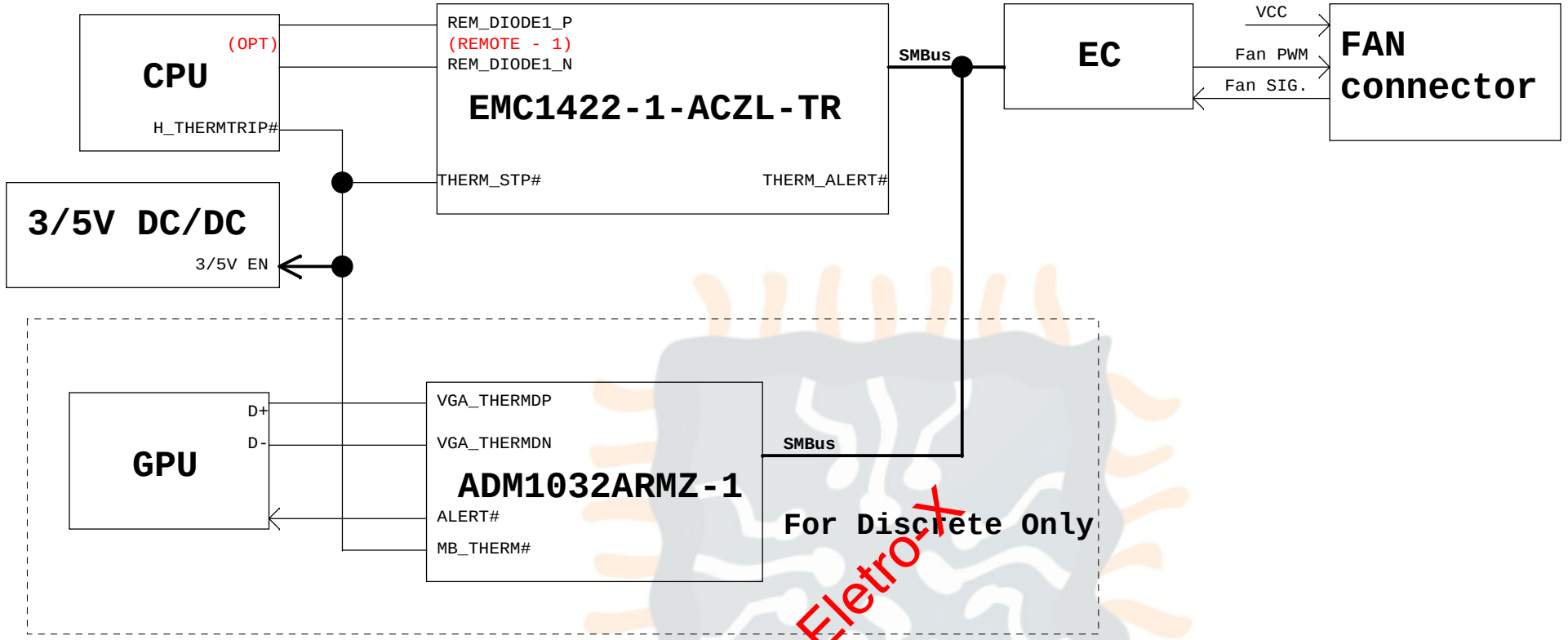

QUANTA COMPUTER

Title	Thermal Map	
Size	Document Number UM3B/UM6B	Rev 1A
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Table of Contents

Power States

POWER PLANE	VOLTAGE	PAGE	DESCRIPTION	CONTROL SIGNAL	ACTIVE IN
+PWR_SRC	10V~+19V	24,30,45,46,47,48,49,50,51	MAIN POWER		S0~S5
+RTC_CELL	+3.0V~+3.3V	08,11,29,30	RTC		S0~S5
+5V_ALW2	+5V	37,46,52,53	LARGE POWER	MAIN POWER	S0~S5
+5V_ALW	+5V	13,33,44,46,47,48,49,50,51,52	LARGE POWER	ALW_ON	S0~S5
+3.3V_ALW	+3.3V	29,30,35,36,37,42,44,45,46,47,51,52,53	8051 POWER	3.3V_ALW_ON	S0~S5
+5V_SUS	+5V	11,33,34,37,51,52	SLP_S5# CTRLD POWER	SUS_ON	
+3.3V_SUS	+3.3V	07,08,09,10,11,13,14,19,24,28,29,37,41,42,44 ,48,49,50,52	SLP_S5# CTRLD POWER	SUS_ON	
+1.5V_SUS	+1.5V	03,05,13,14,47,50,52	SODIMM POWER	SUS_ON	
+0.75V_DDR_VTT	+0.75V	13,14,47,52	SODIMM POWER	RUN_ON	
+5V_RUN	+5V	11,18,24,25,35,36,38,39,40,51,52	SLP_S3# CTRLD POWER	RUN_ON	
+3.3V_RUN	+3.3V	3,7,8,9,10,11,13,14,15,17,24,25,26,28,29,30 ,31,32,33,35,37,38,39,40,41,42,46,51,52,60	SLP_S3# CTRLD POWER	RUN_ON	
+1.8V_RUN	+1.8V	05,11,44,52	SDVO POWER	RUN_ON	
+1.05V_VTT	+1.1V	03,05,10,11,49,60	CPU POWER	RUN_ON	
+1.5V_RUN	+1.5V	11,28,31,32,52	Express Card/Min Card	RUN_ON	
+5V_HDD	+5V	35	HDD Power	HDDC_EN	
+1.05V_PCH	+1.05V	08,09,11,15,48	PCH POWER	RUN_ON	
+VCC_CORE	+0.7V~+1.77V	05,51	CPU CORE POWER	IMVP_VR_ON	
+LCDVCC	+3.3V	24	LCD Power	LCDVCC_TST_EN & ENVDD	
+5V_MOD	+5V	35	MOD Power	MODC_EN	

GND PLANE	PAGE	DESCRIPTION
GND	ALL	

QUANTA COMPUTER

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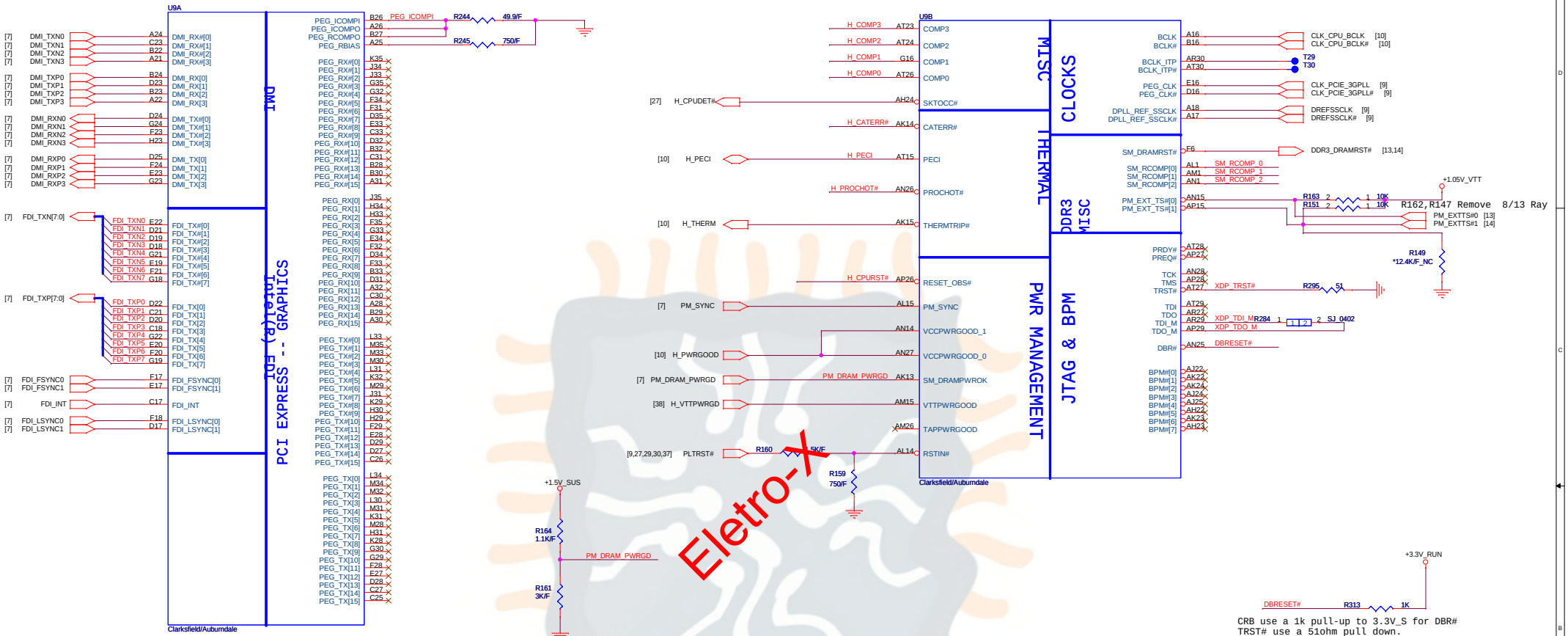
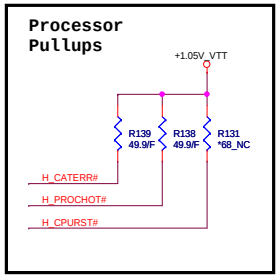
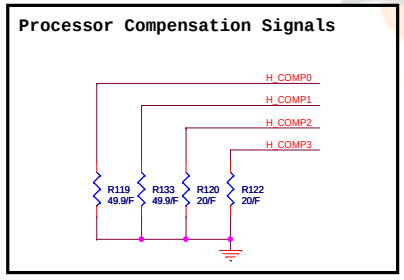
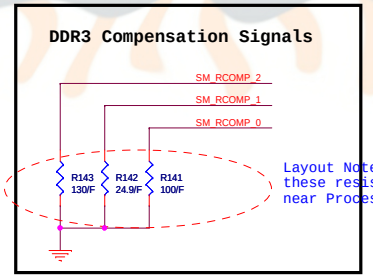
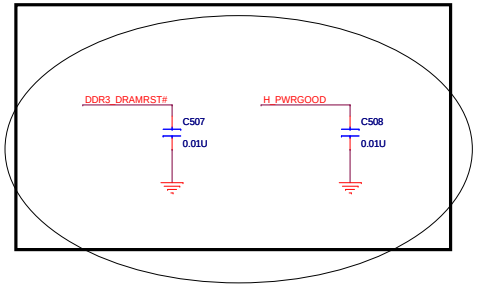








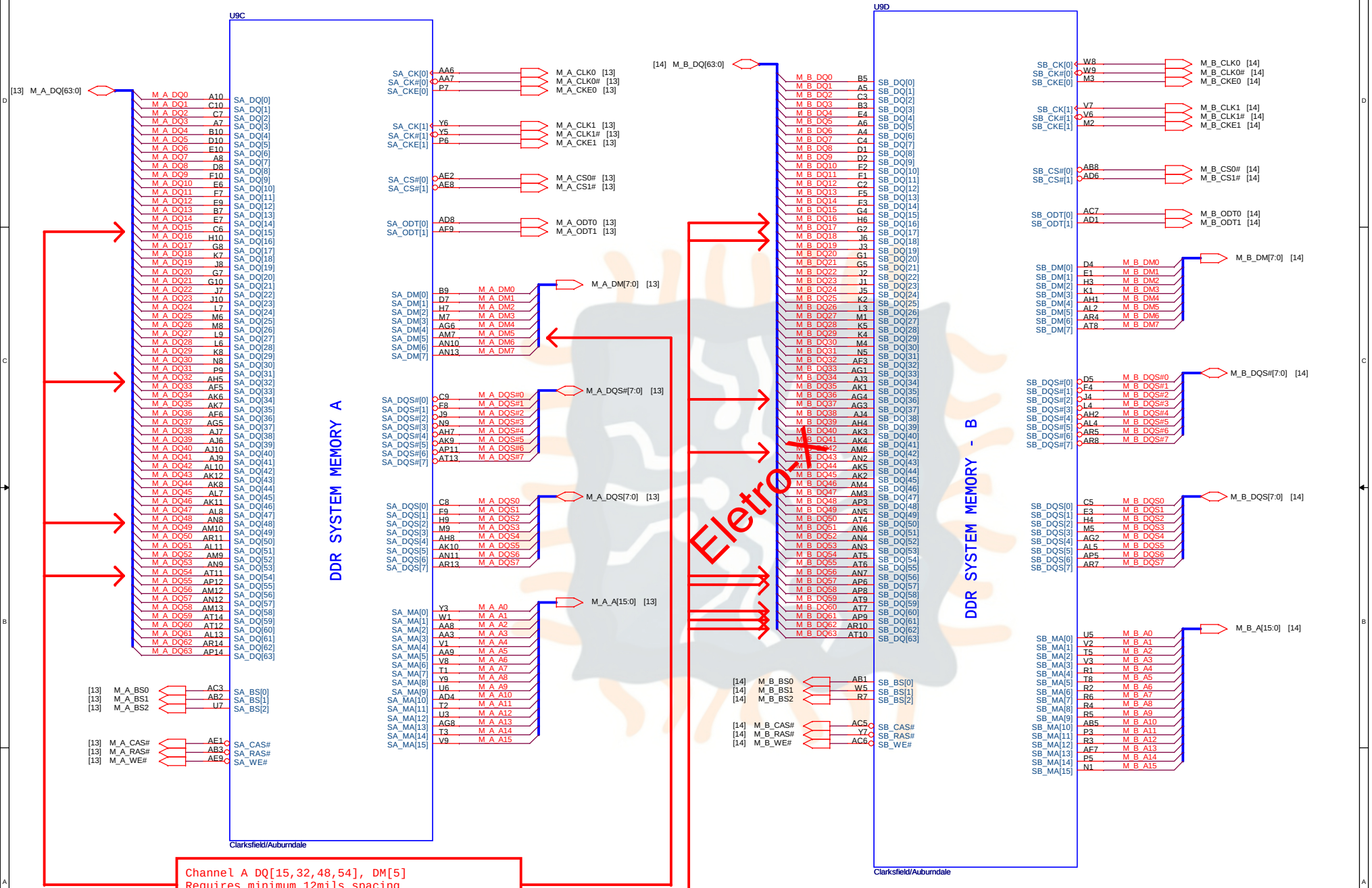


QUANTA COMPUTER

Title	AUBURNDA 1/4
Size	Document Number UM3B/UM6B
Date:	Friday, October 02, 2009

ECETRO-X

AUBURNDALE/CLARKSFIELD PROCESSOR (DDR3)



QUANTA COMPUTER		
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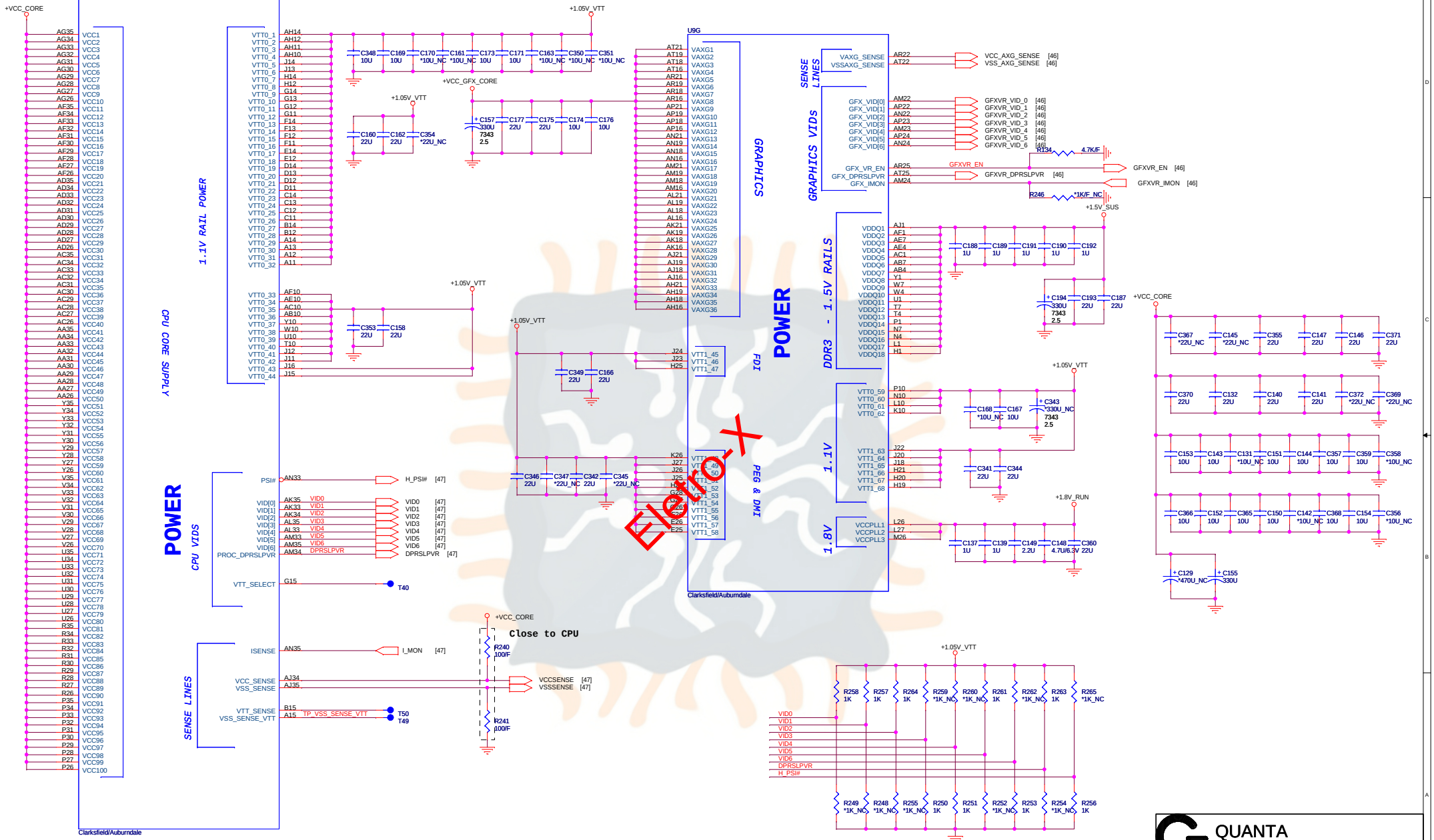
CPU Core Power

AUBURNDALE/CLARKSFIELD PROCESSOR (GRAPHICS POWER)



AUBURNDALE/CLARKSFIELD PROCESSOR (POWER)

QUANTA COMPUTER

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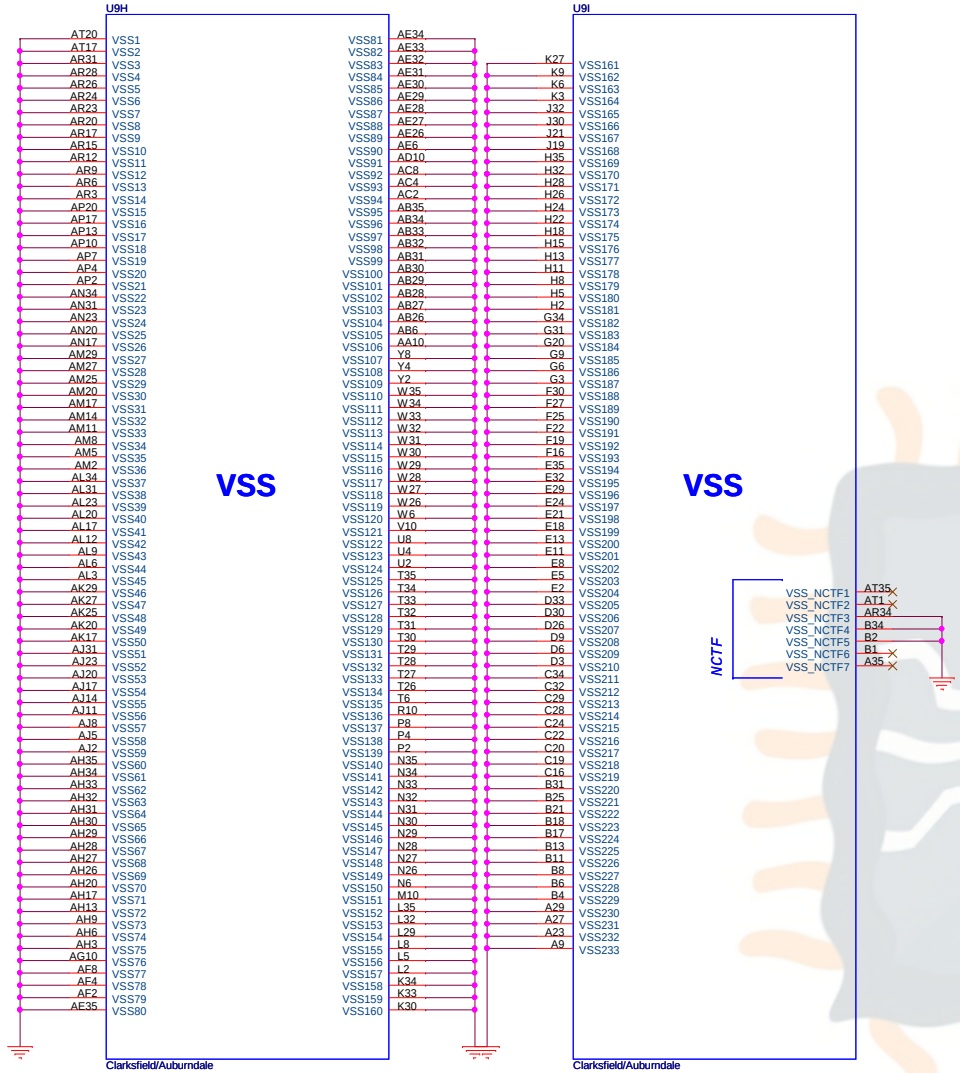
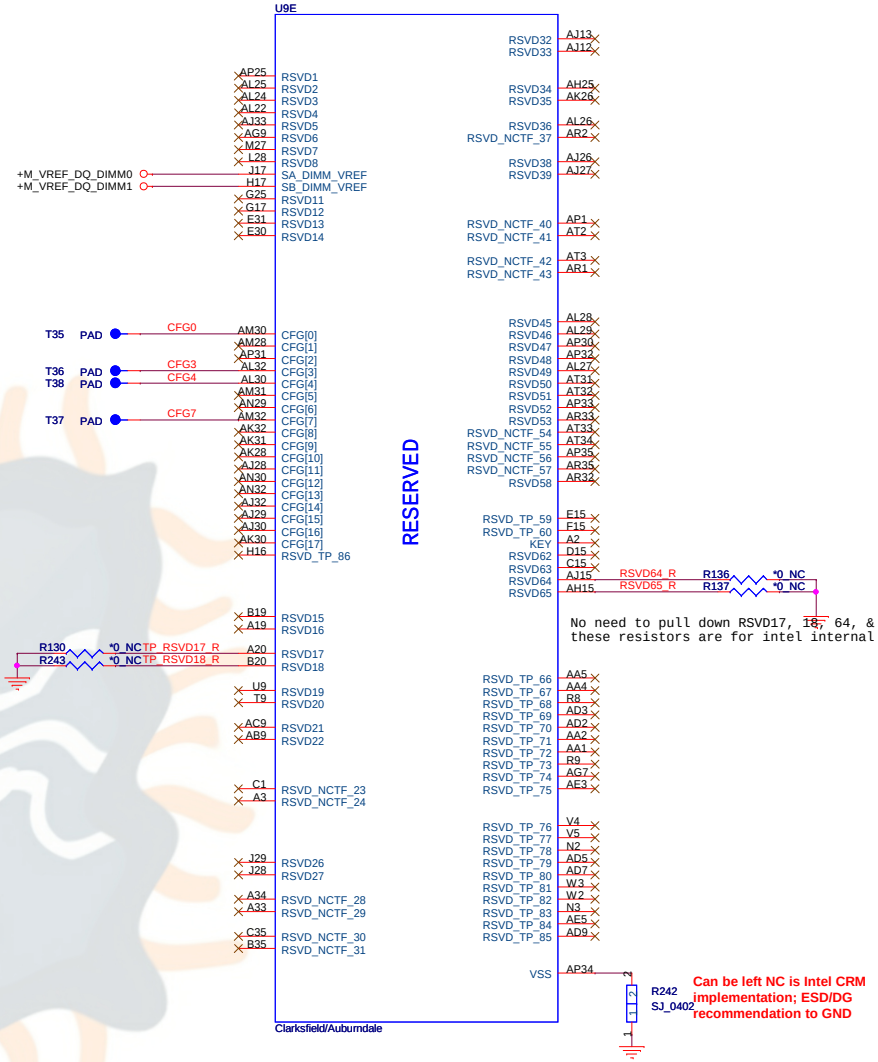
ECETRO-L

AUBURNDALE/CLARKSFIELD PROCESSOR (GND)



AUBURNDALE/CLARKSFIELD PROCESSOR(RESERVED, CFG)



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

QUANTA COMPUTER

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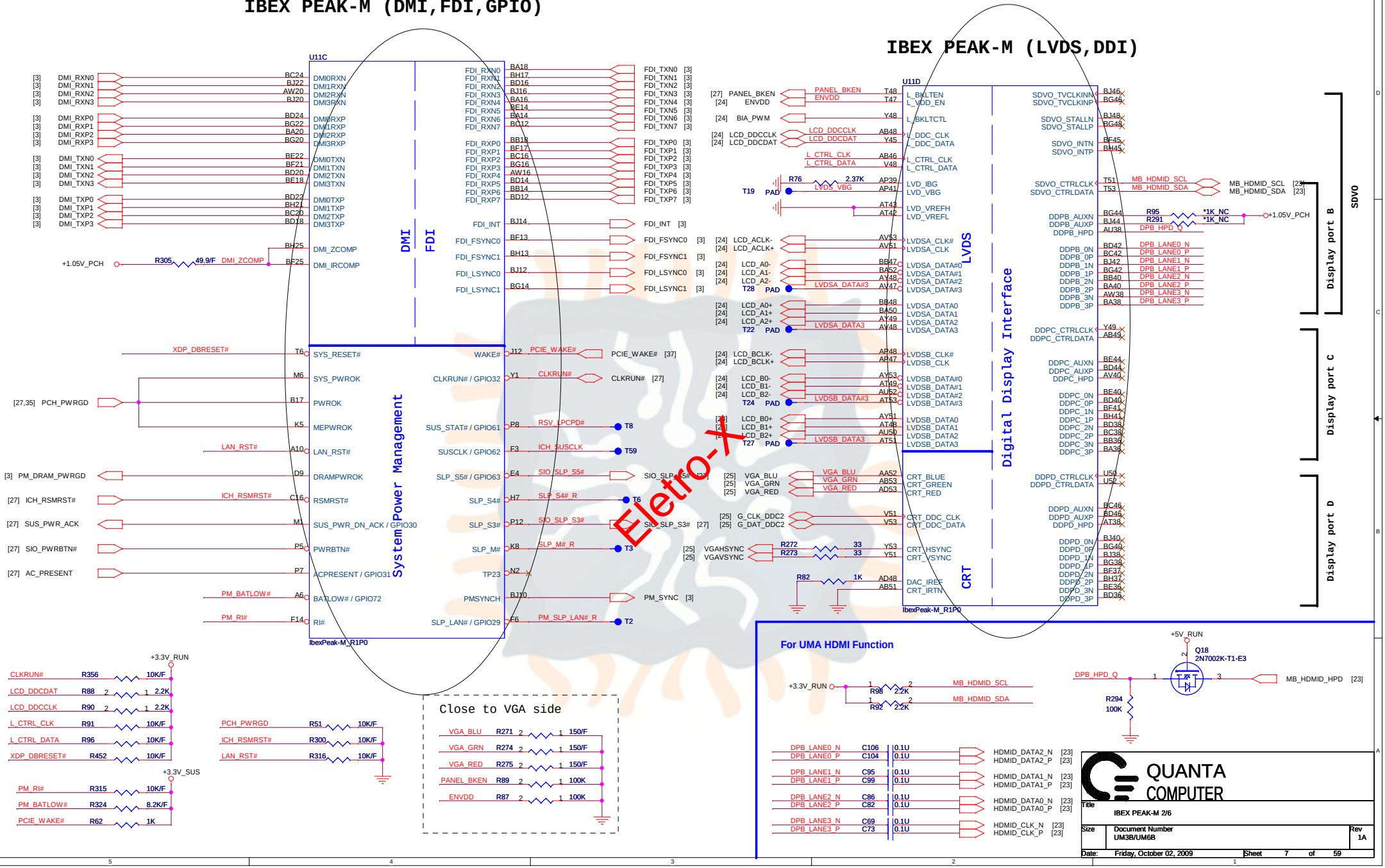
IBEX PEAK-M (DMI,FDI,GPIO)

IBEX PEAK-M (LVDS,DDI)



For UMA HDMI Function

Close to VGA side

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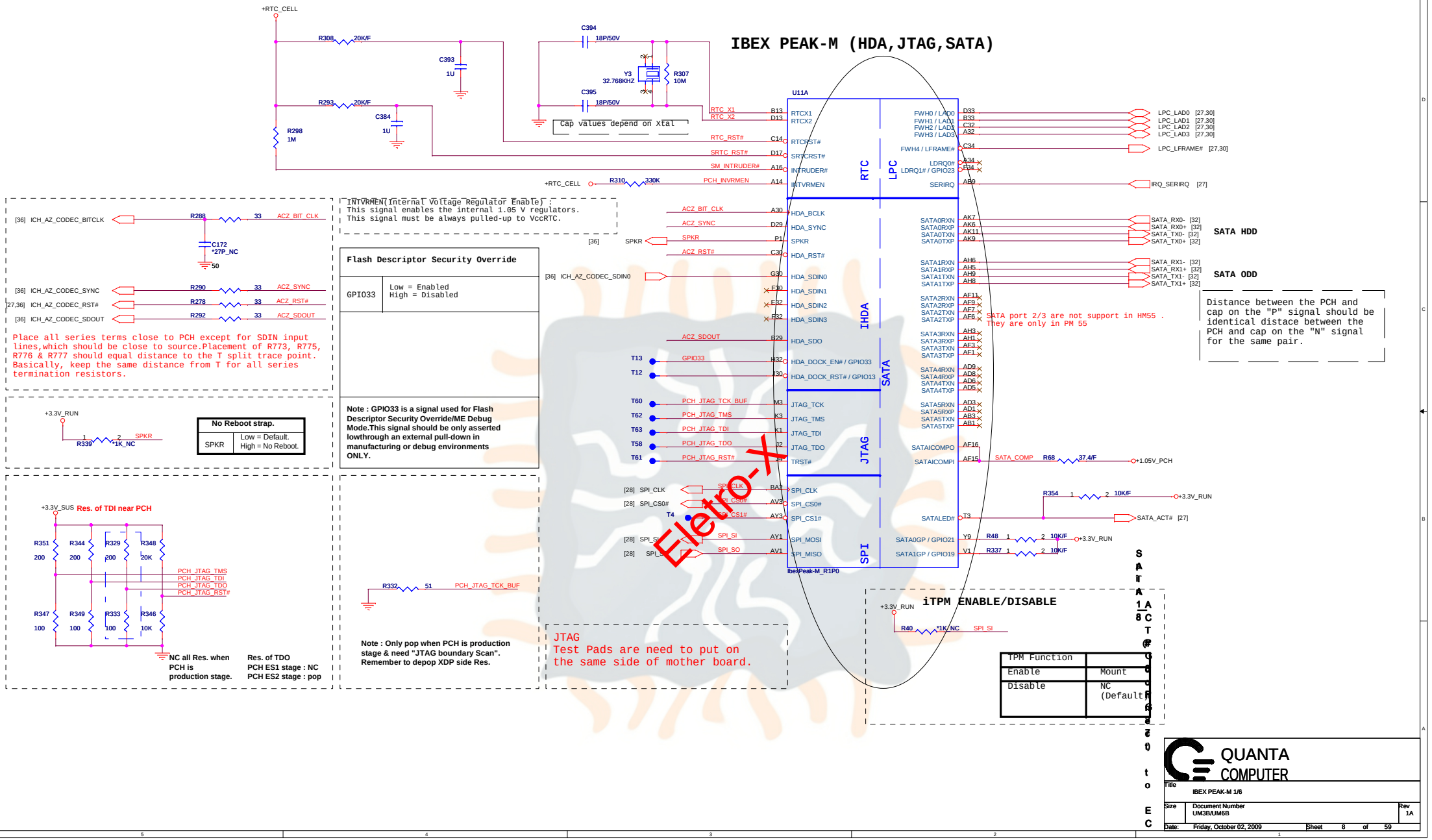
QUANTA COMPUTER

IBEX PEAK-M (HDA,JTAG,SATA)



Title	IBEX PEAK-M 1/6
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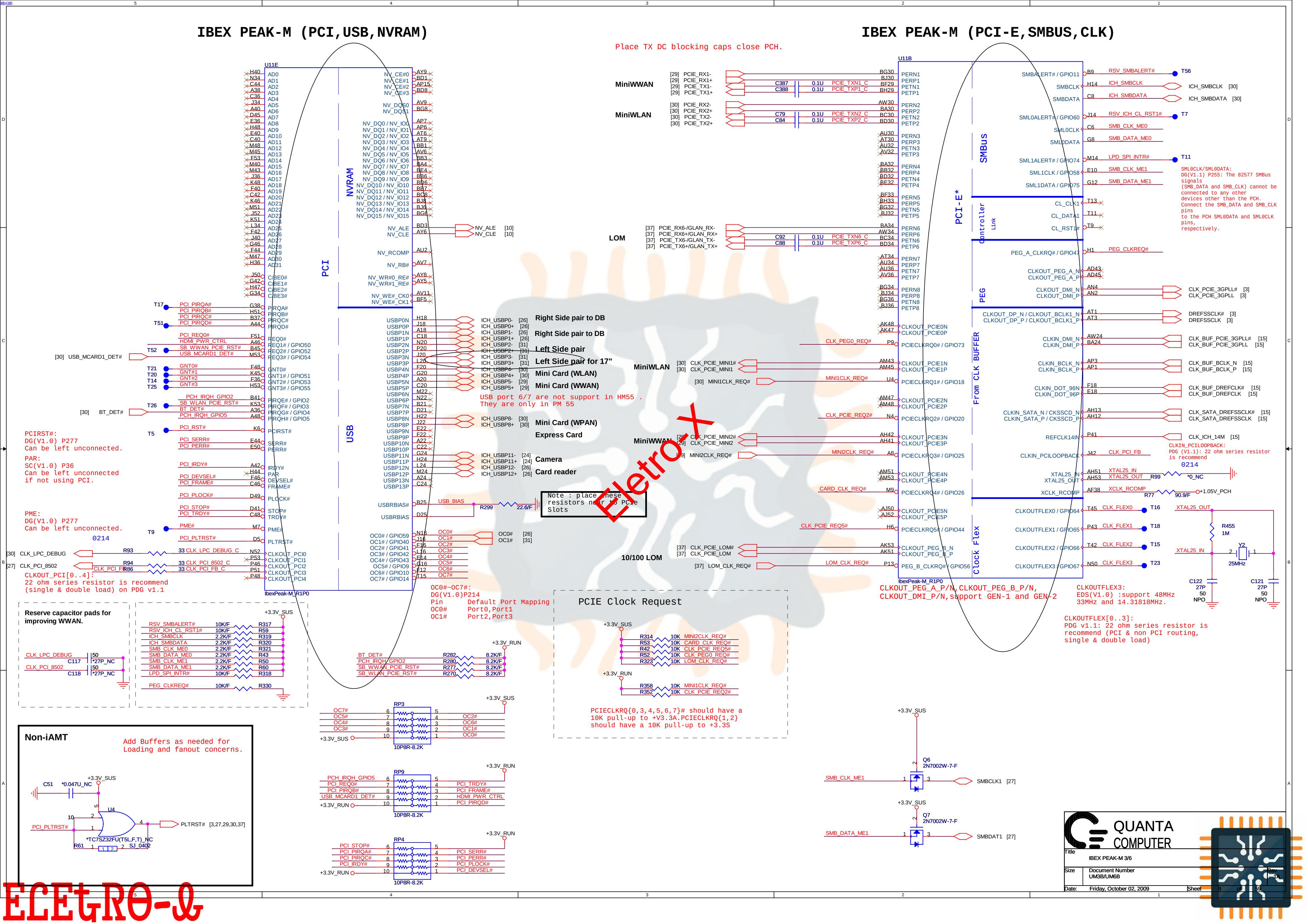
QUANTA COMPUTER

ECEtRO-L



IBEX PEAK-M (PCI,USB,NVRAM)
IBEX PEAK-M (PCI-E,SMBUS,CLK)
Place TX DC blocking caps close PCH.
U11E
U11B
PCI
NVRAM
USB
PCI-E*
SMBus
Controller Link
PEG
From CLK BUFFER
Clock Flex
MiniWWAN
MiniWLAN
LOM
10/100 LOM
Right Side pair to DB
Left Side pair
Left Side pair for 17"
Mini Card (WLAN)
Mini Card (WWAN)
Mini Card (WPAN)
Express Card
Camera
Card reader
USB port 6/7 are not support in HM55 . They are only in PM 55
Note : place these resistors near to PCIe Slots
PCIRST#: DG(V1.0) P277 Can be left unconnected.
PAR: SC(V1.0) P36 Can be left unconnected if not using PCI.
PME: DG(V1.0) P277 Can be left unconnected.
0214
CLKOUT_PCI[0..4]: 22 ohm series resistor is recommend (single & double load) on PDG v1.1
OC0#~OC7#: DG(V1.0)P214
Pin Default Port Mapping
OC0# Port0,Port1
OC1# Port2,Port3
PCIE Clock Request
PCIECLKRQ{0,3,4,5,6,7}# should have a 10K pull-up to +V3.3A.PCIECLKRQ{1,2} should have a 10K pull-up to +3.3S
SMLOCLK/SMLODATA: DG(V1.1) P255: The 82577 SMBus signals (SMB_DATA and SMB_CLK) cannot be connected to any other devices other than the PCH. Connect the SMB_DATA and SMB_CLK pins to the PCH SMLODATA and SMLOCLK pins, respectively.
CLKIN_PCILOOPBACK: PDG (V1.1): 22 ohm series resistor is recommend
CLKOUT_PEG_A_P/N,CLKOUT_PEG_B_P/N, CLKOUT_DMI_P/N,support GEN-1 and GEN-2
CLKOUTFLEX3: EDS(V1.0) :support 48MHz 33MHz and 14.31818MHz.
CLKOUTFLEX[0..3]: PDG v1.1: 22 ohm series resistor is recommend (PCI & non PCI routing, single & double load)
Reserve capacitor pads for improving WWAN.
Non-iAMT
Add Buffers as needed for Loading and fanout concerns.
PLTRST# [3,27,29,30,37]
*TC7SZ32FU(T5L,F,T)_NC
SMBCLK1 [27]
SMBDAT1 [27]
Q6 2N7002W-7-F
Q7 2N7002W-7-F
Y2 25MHz
QUANTA COMPUTER
Title IBEX PEAK-M 3/6
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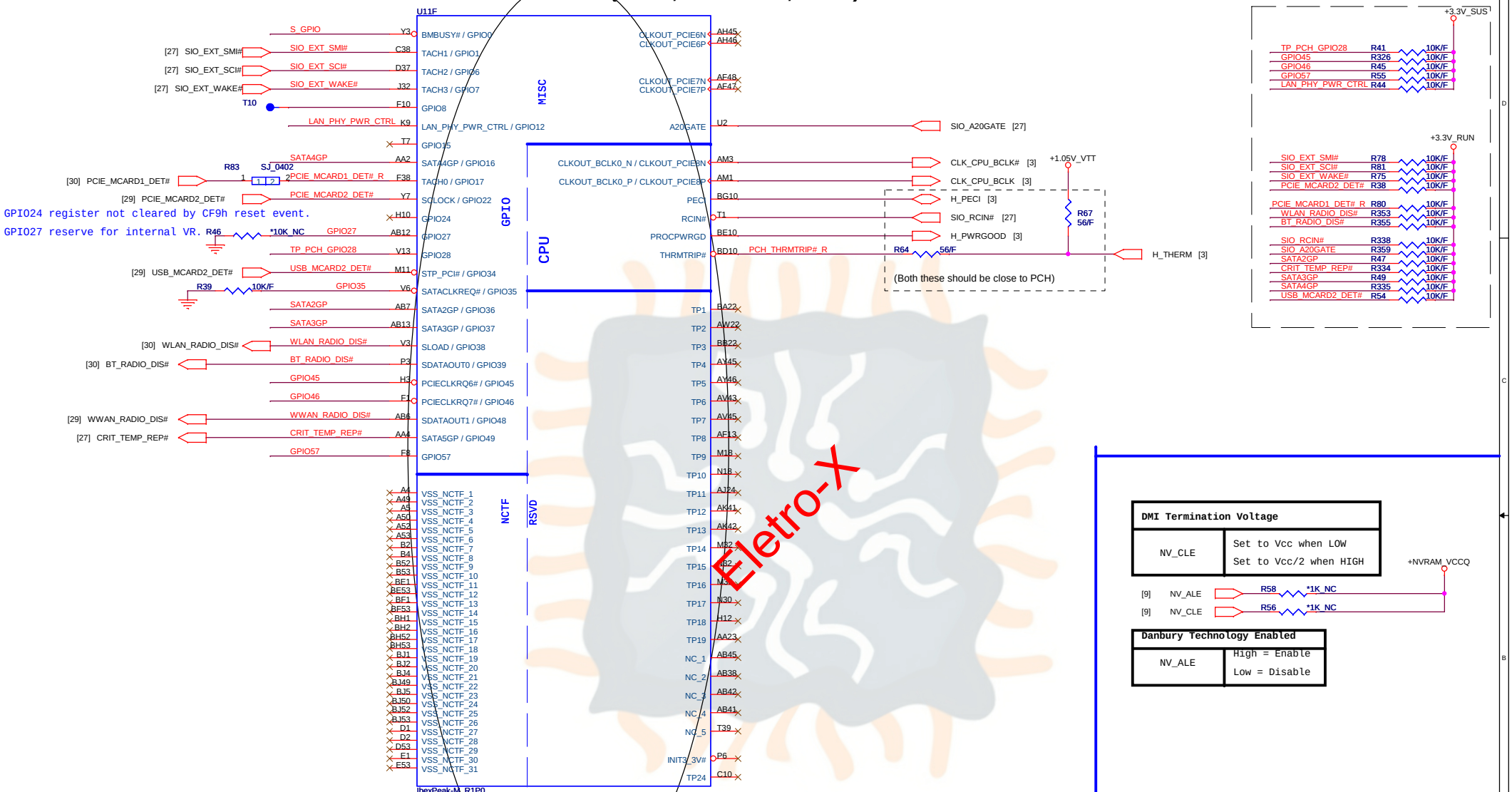
IBEX PEAK-M (GPIO,VSS_NCTF,RSVD)



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

+NVRAM_VCCQ

[9] NV_ALE — R58 *1K_NC

[9] NV_CLE — R56 *1K_NC

Danbury Technology Enabled	
NV_ALE	High = Enable Low = Disable

+3.3V_RUN

S_GPIO — R336 10K/F

WWAN_RADIO_DIS# — R36 10K/F

BMBUSY#:
If not used, require a weak pull-up (8.2- KΩ to 10 kΩ) to Vcc3_3.
CRB(V1.0)P28: it has 1K PU and 100 ohm on this net for validation purpose.

BMBUSY#:(Intel feedback)
Follow CRB checklist, 1K is
for intel BIOS validation purpose.

WWAN_RADIO_DIS#	1-X High = Strong (Default)

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Title	IBEX PEAK-M 4/6
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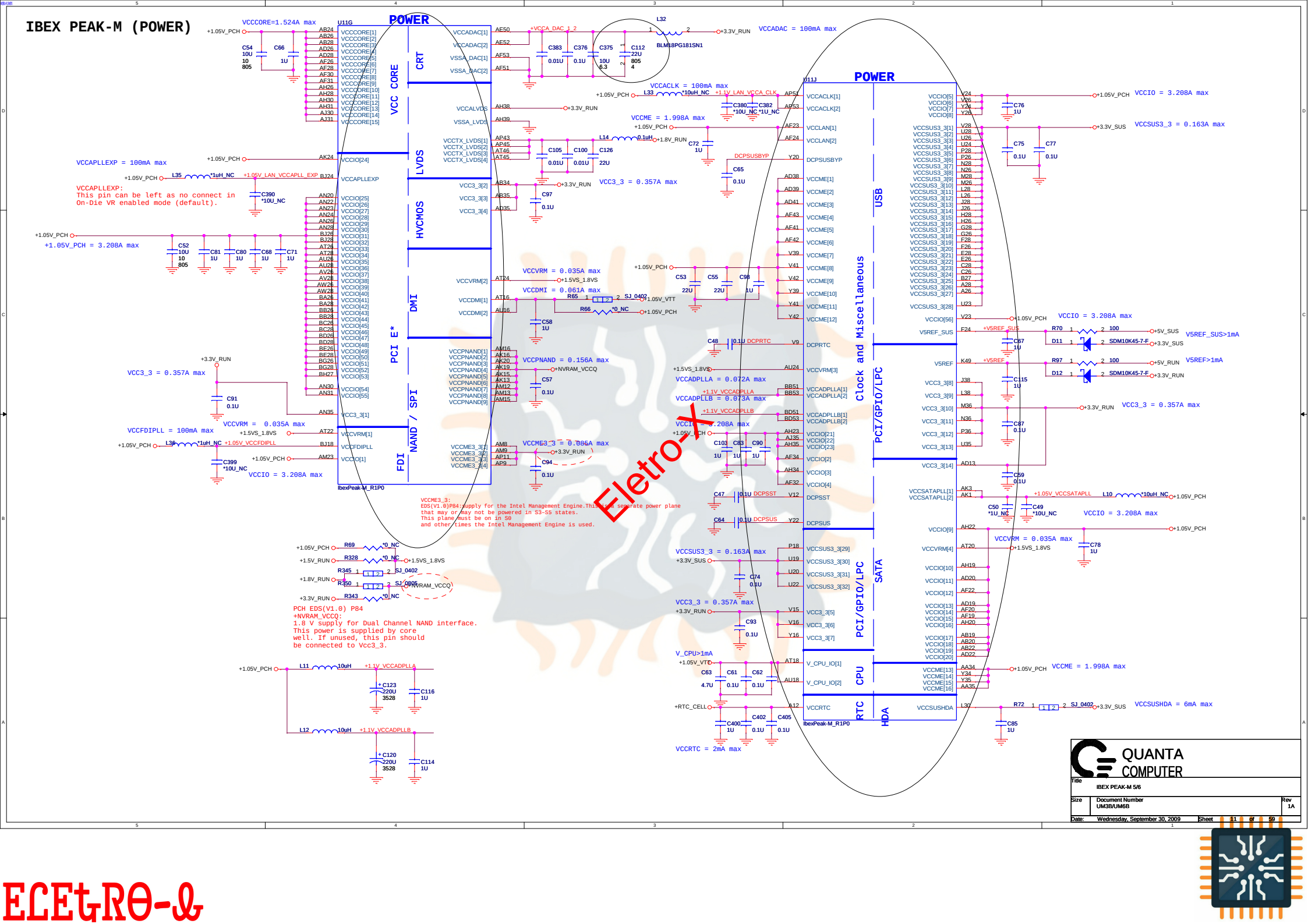
IBEX PEAK-M (POWER)



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Title	IBEX PEAK-M 5/6	
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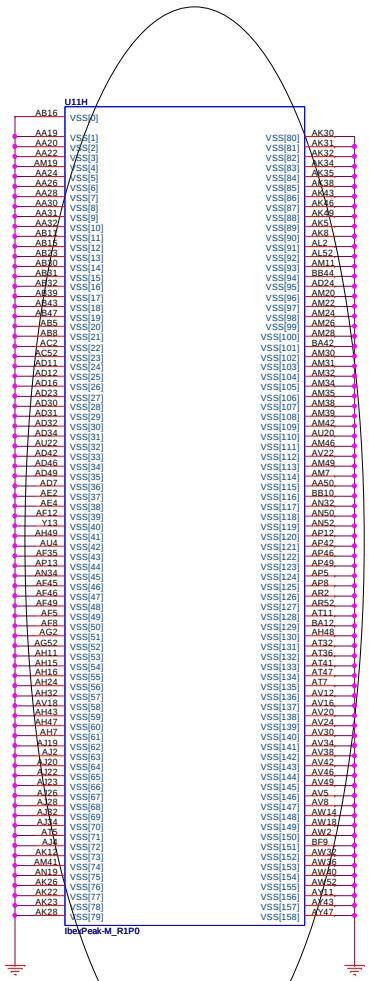
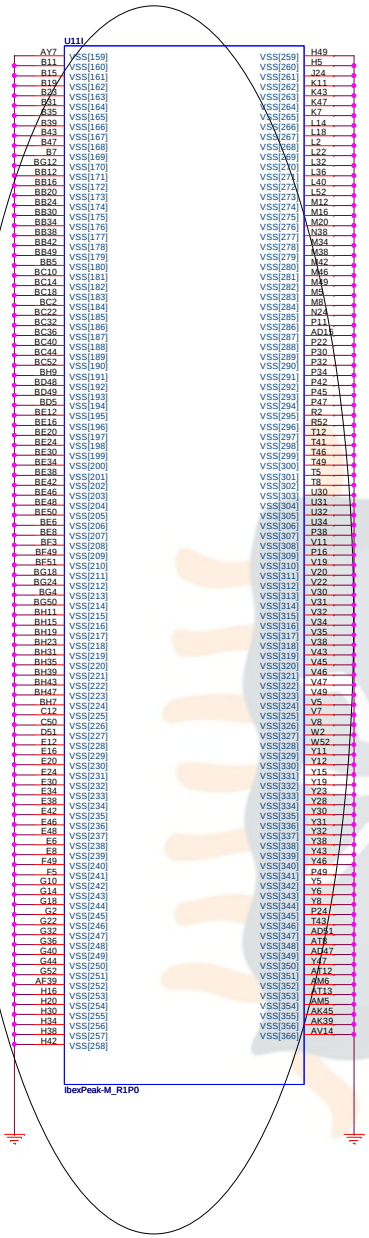
IBEX PEAK-M (GND)





QUANTA COMPUTER		
Title: IBEX PEAK-M 6/6		
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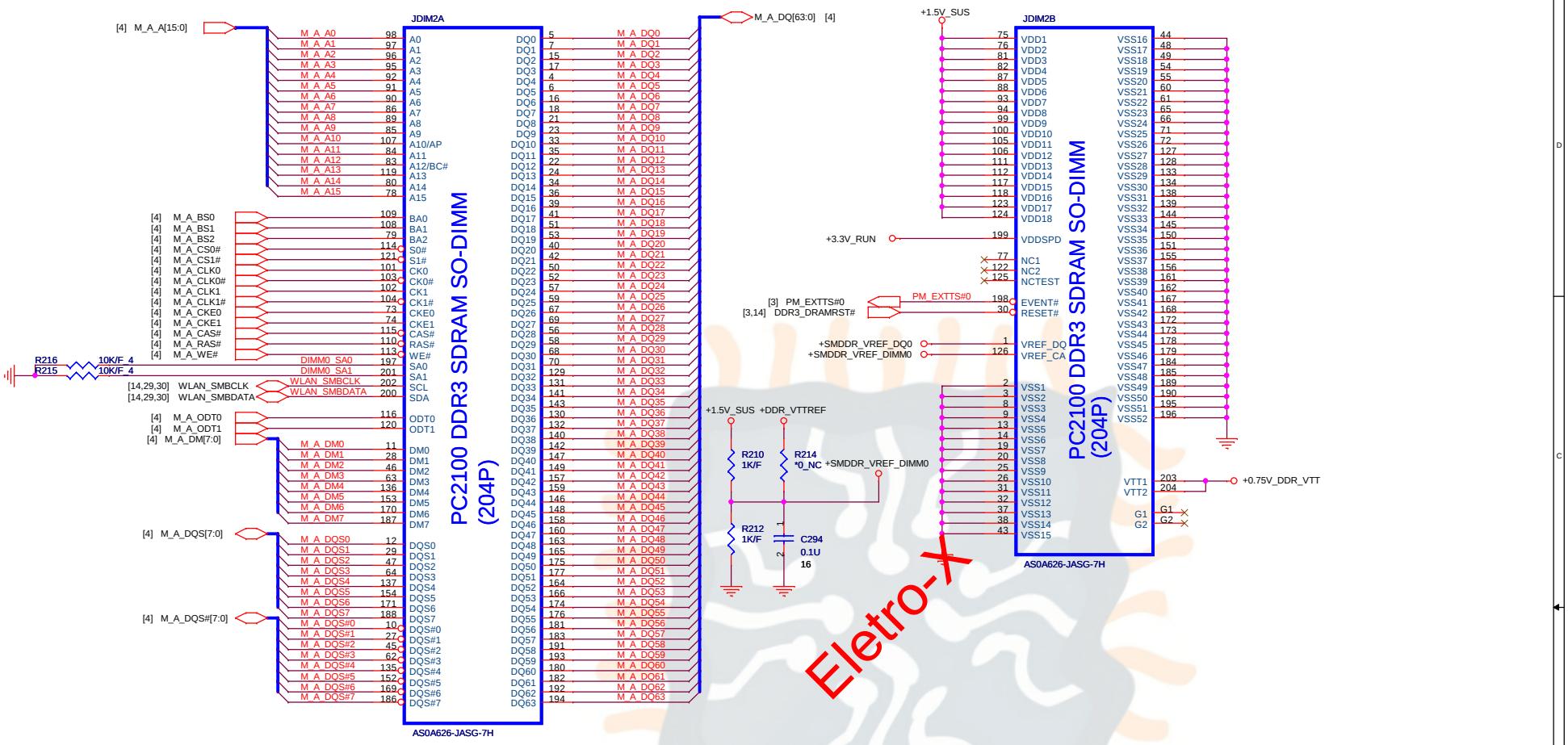

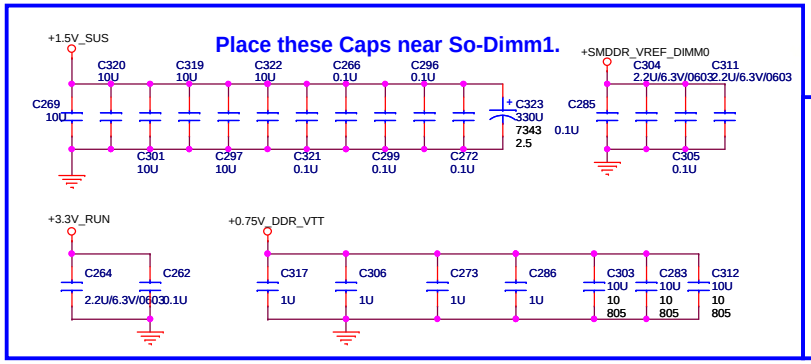

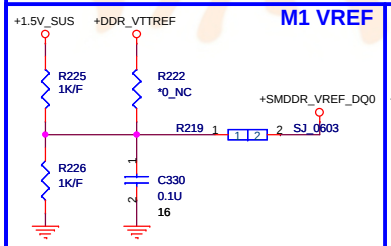

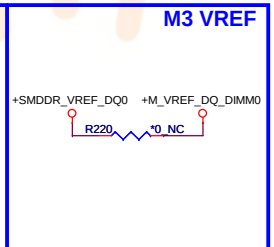

QUANTA COMPUTER

Title	DDR3 DIMM-0	
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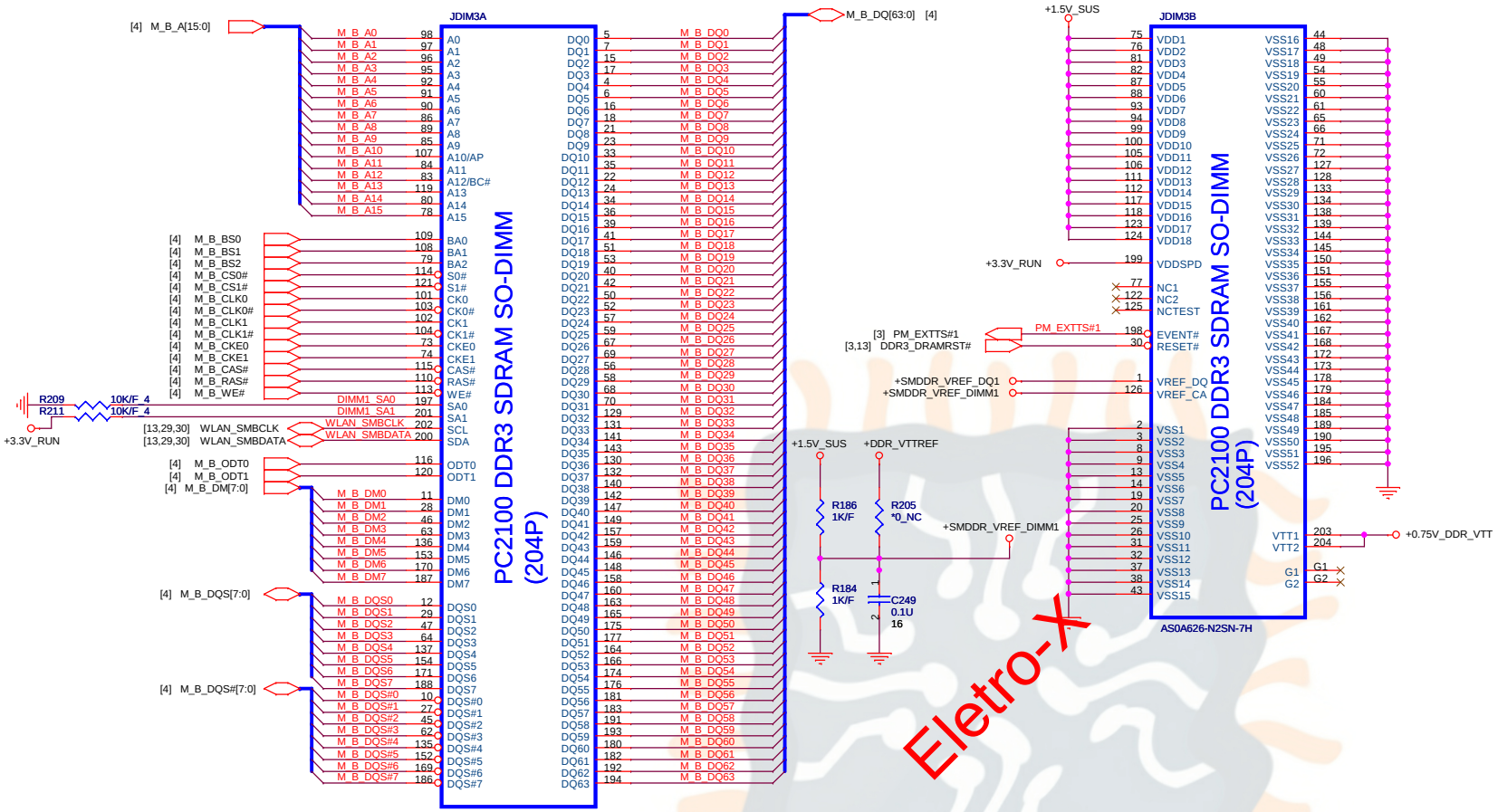

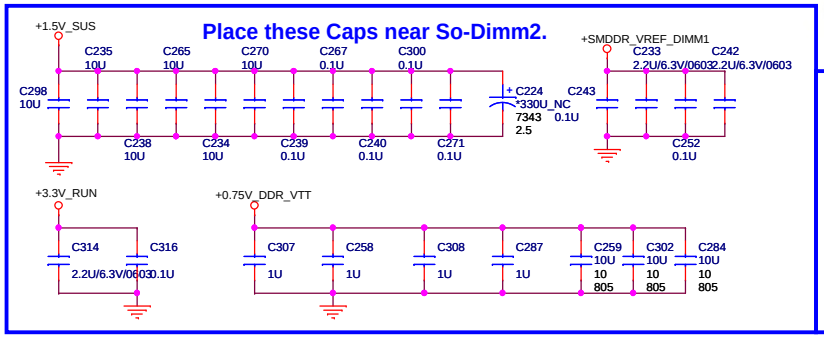

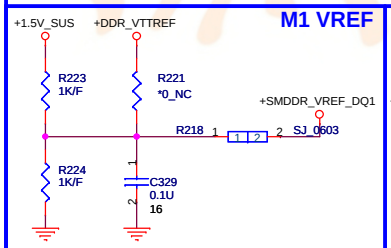

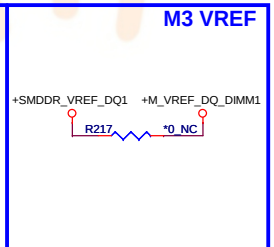

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ECEtRO-X

Realtek: 0.1uFx6pcs, 22uFx1pcs
IDT: 0.1uFx5pcs, 10uFx1pcs

+3.3V_RUN
L37 BLM21PG600SN1D
805
40mil
C392 10U
C409 0.1U
C408 0.1U
C397 0.1U
C396 0.1U
C406 0.1U
0.1uF near the every power pin.
+3.3V_CLK_VDD
+VDDIO_CLK

U12
CK505
QFN32
SLG8SP585VTR

VDD_USB 1
VDD_LCD 5
VDD_SRC 17
VDD_CPU 24
VDD_REF 29
VDD_SRC_IO 15
VDD_CPU_IO 18
VSS_SATA 9
VSS_USB 2
VSS_LCD 8
VSS_SRC 12
VSS_CPU 21
VSS_REF 26

CPU-0 23
CPU-0# 22
CPU-1 20
CPU-1# 19
DOT96T_LPR 3
DOT96C_LPR 4
SRC-1 13
SRC-1# 14
SATA 10
SATA# 11
27MHz_nonSS 6
27MHz_SS 7
GND 33

Place within 0.5" of CLKGEN

CLK_BUF_BCLK_P [9]
CLK_BUF_BCLK_N [9]
CLK_BUF_DREFCLK [9]
CLK_BUF_DREFCLK# [9]
CLK_BUF_PCIE_3GPLL [9]
CLK_BUF_PCIE_3GPLL# [9]
CLK_SATA_DREFSSCLK [9]
CLK_SATA_DREFSSCLK# [9]

+3.3V_RUN
R312 10K
[9] CLK_ICH_14M
CLK_ICH_14M
R322 33
CK_PWRGD
CPU_SEL
CPU_STOP# 16
CK_PWRGD/PD#_3.3 25
REF_0/CPU_SEL 30

Place the 33 ohm
resistors close to the CK 505

XTAL_OUT
XTAL_IN
XOUT 27
XIN 28

[27,35] SMBDAT2
[27,35] SMBCLK2
SMBDAT2
SMBCLK2
SDATA 31
SCLK 32

Realtek: 0.1uFx3pcs, 22uFx1pcs
IDT: 0.1uFx2pcs, 10uFx1pcs

+3.3V_RUN
+1.05V_PCH
R309 *0_NC
R306 0
L34 BLM21PG600SN1D
805
+VDDIO_CLK
40mil
C391 10U
C403 0.1U
C398 0.1U
HP: 10u x2pcs

SLG,IDT: +1.05V
Realtek: +3.3V

Place each 0.1uF cap as close as possible to each VDD IO pin. Place the 10uF caps on the VDD_IO plane.

+VDDIO_CLK:
SLG date sheet (V0.2) P15: Min 1.05V,Max3.465V.
Realtek date sheet(V1.2) P11: Min 1.05V,Max 3.3V.
IDT date sheet(V0.7) P10: Min 0.9975V,Max 3.465V.

Add capacitor pads for improving WWAN.
C410
CLK_ICH_14M
*27P_NC
50

XTAL_IN
Y4
XTAL_OUT
14.318MHZ
C404 33P 50
C401 33P 50

+3.3V_RUN
R327 *4.7K_NC
CPU_SEL
R325 4.7K
C407 *10P/50V_NC
EMI Capacitor

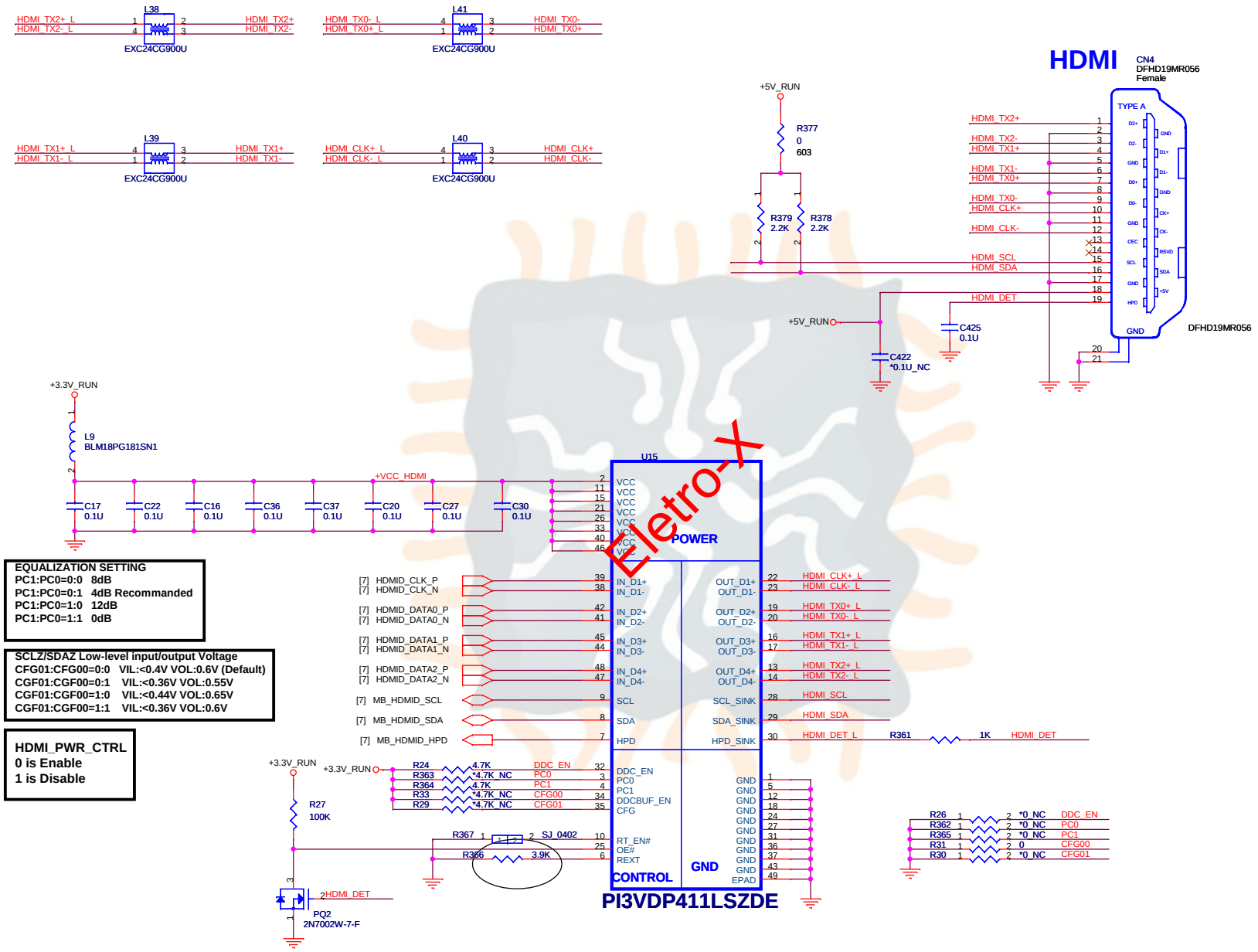
PIN 30	CPU_0	CPU_1
0(default)	133MHz	133MHz
1(0.7V-1.5V)	100MHz	100MHz

CPU_SEL:
SLG date sheet (V0.2) P15:
High Voltage: Min 0.7V, Max 1.5V.
Low Voltage: Min Vss-0.3V, Max 0.35V.
Realtek date sheet(V1.2) P11:
High Voltage: Min 0.7V, Max 1.5V.
Low Voltage: Min Vss-0.3V, Max 0.35V.
IDT date sheet(V0.7) P10:
High Voltage: Min 0.7V, Max 1.5V.
Low Voltage: Min Vss-0.3V, Max 0.35V.

+3.3V_RUN
R311 10K
CK_PWRGD
[47] VR_PWRGD_CLKEN#
Q10 2N7002W-7-F

QUANTA COMPUTER

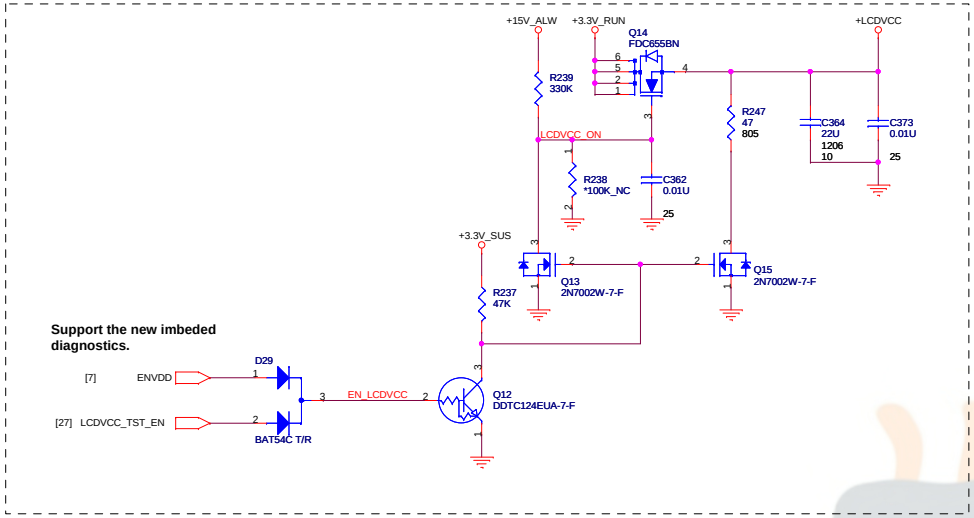
Title	Clock Generator	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 15 of 55	

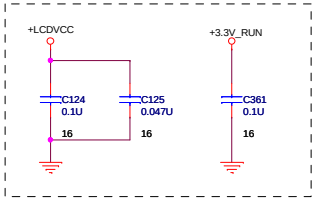


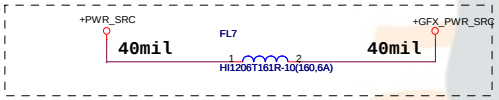
Title	HDMI	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 23 of 59	

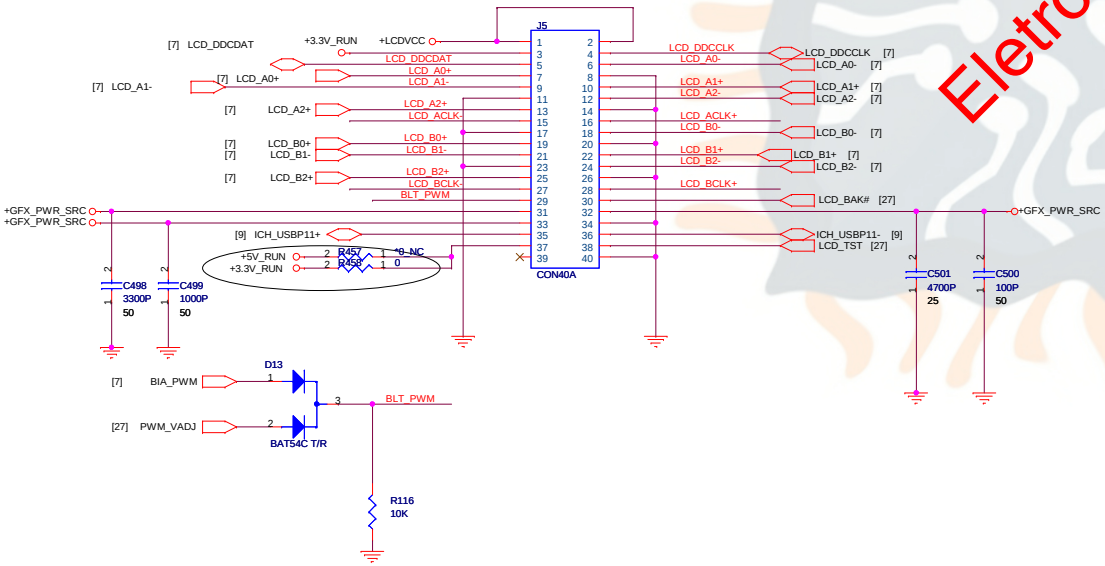
QUANTA COMPUTER

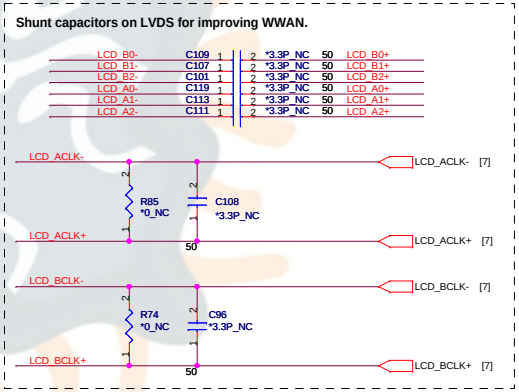
ECE-R0-L





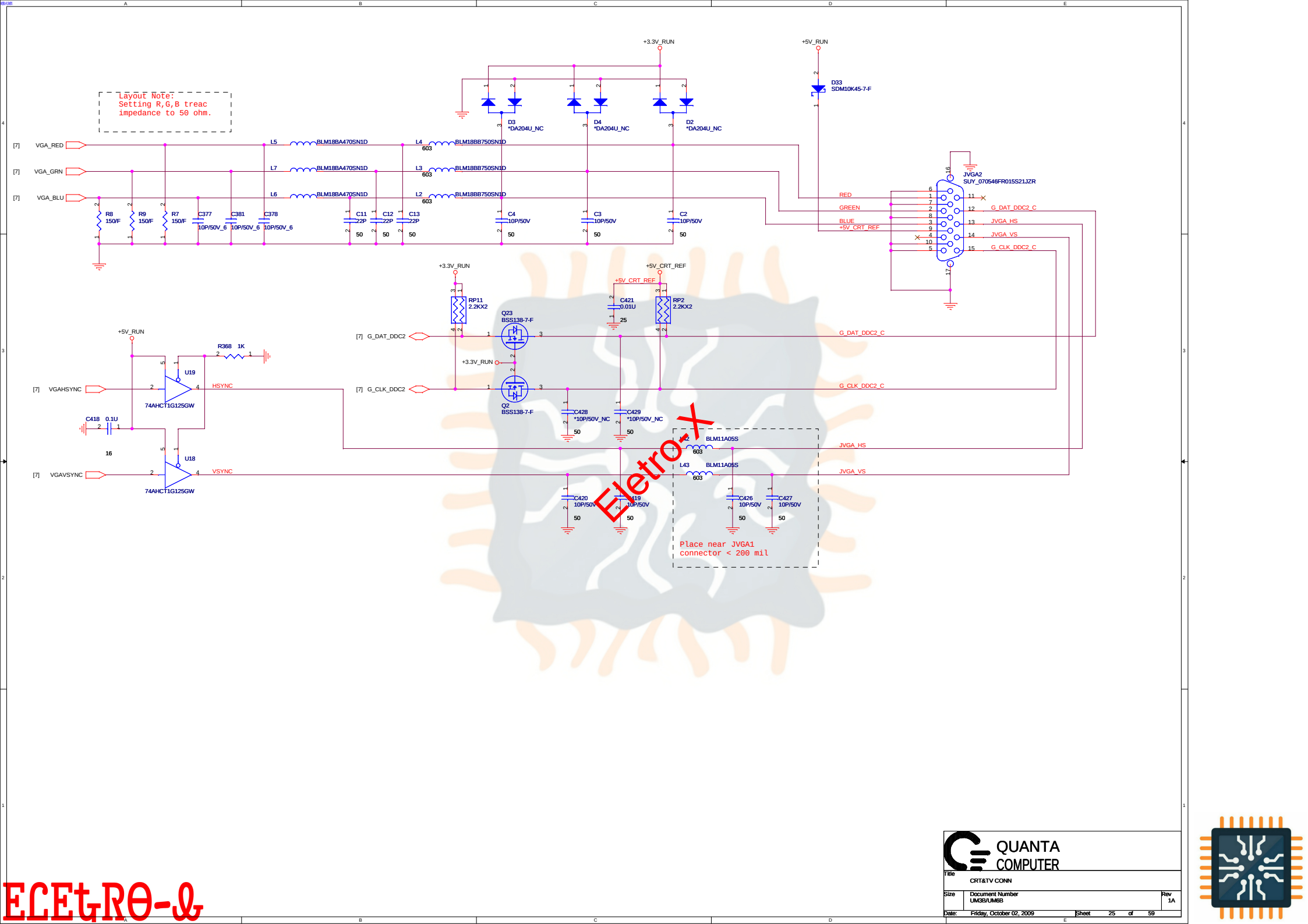


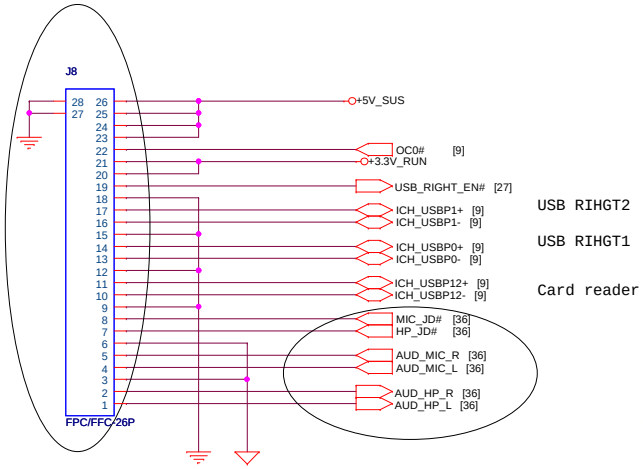




QUANTA COMPUTER

Title	LCD CONN & CK-SSCD	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 24 of 59	

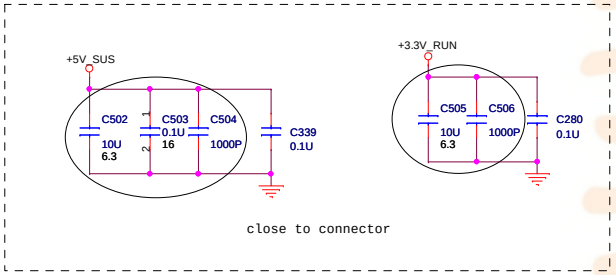

Layout Note:
Setting R,G,B treac
impedance to 50 ohm.
+3.3V_RUN
+5V_RUN
D33
SDM10K45-7-F
D3
*DA204U_NC
D4
*DA204U_NC
D2
*DA204U_NC
[7] VGA_RED
[7] VGA_GRN
[7] VGA_BLU
L5 BLM18BA470SN1D
L7 BLM18BA470SN1D
L6 BLM18BA470SN1D
L4 BLM18BB750SN1D 603
L3 BLM18BB750SN1D 603
L2 BLM18BB750SN1D 603
R8 150/F
R9 150/F
R7 150/F
C377 10P/50V_6
C381 10P/50V_6
C378 10P/50V_6
C11 22P
C12 22P
C13 22P
C4 10P/50V
C3 10P/50V
C2 10P/50V
JVGA2
SUY_070546FR015S21JZR
RED
GREEN
BLUE
+5V_CRT_REF
G_DAT_DDC2_C
JVGA_HS
JVGA_VS
G_CLK_DDC2_C
RP11 2.2KX2
RP2 2.2KX2
Q23 BSS138-7-F
Q2 BSS138-7-F
C421 0.01U
[7] G_DAT_DDC2
[7] G_CLK_DDC2
+5V_RUN
R368 1K
U19
U18
74AHCT1G125GW
[7] VGAHSYNC
[7] VGAVSYNC
HSYNC
VSYNC
C418 0.1U
C428 *10P/50V_NC
C429 *10P/50V_NC
L42 BLM11A05S 603
L43 BLM11A05S 603
C420 10P/50V
C419 10P/50V
C426 10P/50V
C427 10P/50V
Place near JVGA1
connector < 200 mil
Eletro-X
QUANTA
COMPUTER
Title
CRT&TV CONN
Size
Document Number
UM3B/UM6B
Rev
1A
Date: Friday, October 02, 2009
Sheet 25 of 59
ECEtRO-L



USB RIHGT2

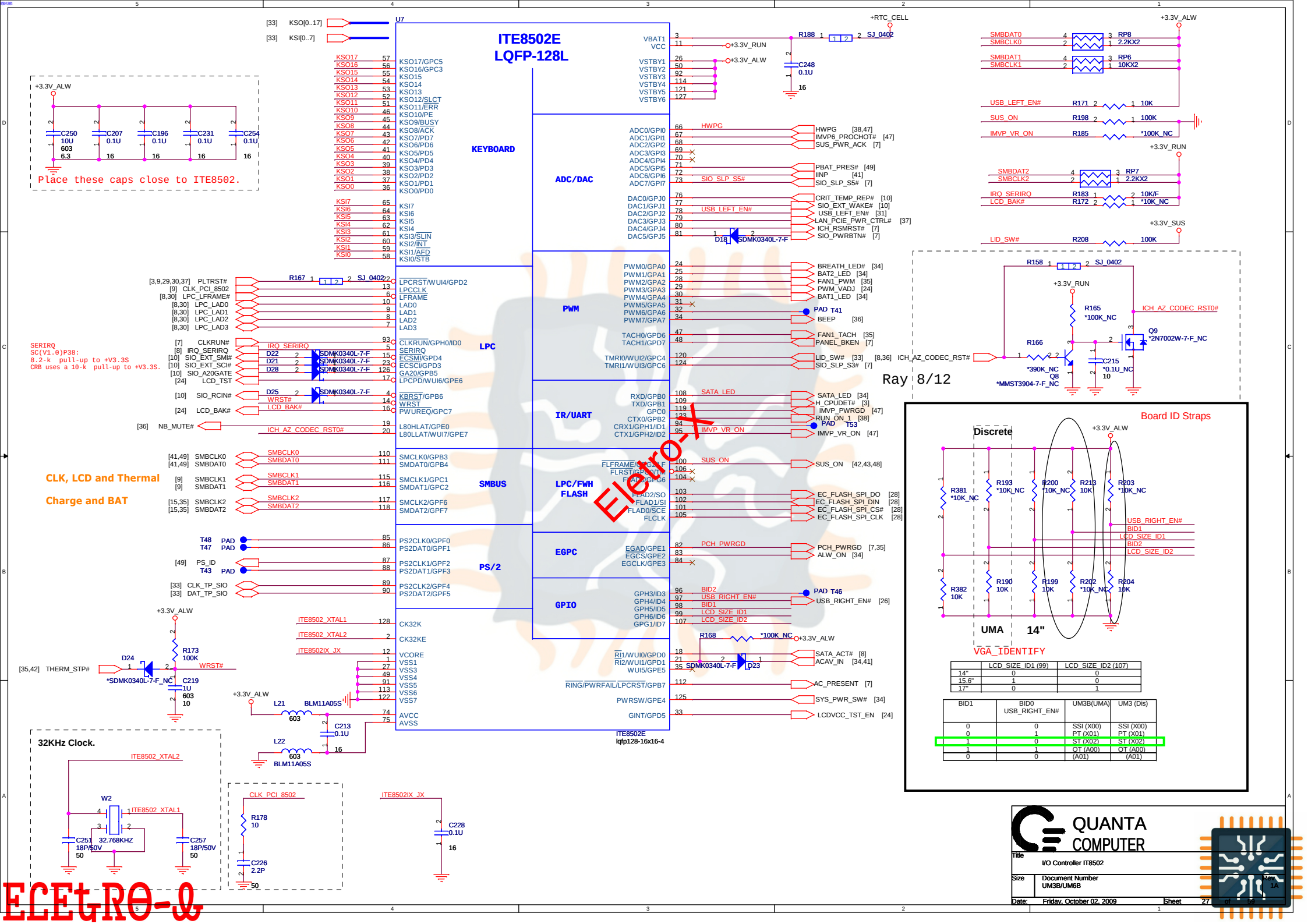
USB RIHGT1

Card reader

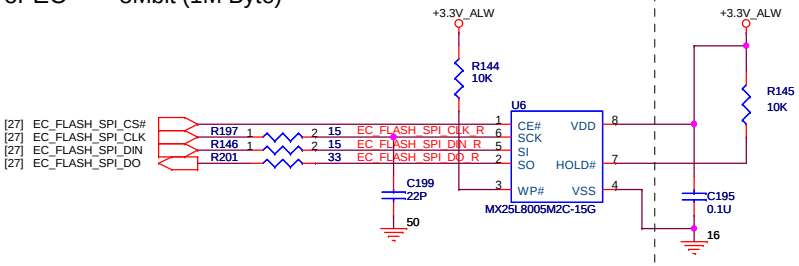


QUANTA COMPUTER

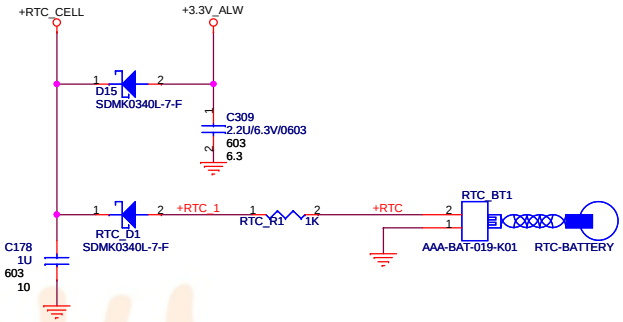
Title	DB(USB PORT/CARD READER/AUDIO JACK) CONN	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 26 of 50	


ITE8502E
LQFP-128L
KEYBOARD
ADC/DAC
PWM
LPC
IR/UART
SMBUS
LPC/FWH
FLASH
EGPC
PS/2
GPIO
ITE8502E
lqfp128-16x16-4
Place these caps close to ITE8502.
CLK, LCD and Thermal
Charge and BAT
32KHz Clock.
Ray 8/12
Board ID Straps
Discrete
UMA
14"
VGA_IDENTIFY
Electro-X
ECEtGR0-0
QUANTA COMPUTER
I/O Controller IT8502
UM3B/UM6B
Friday, October 02, 2009

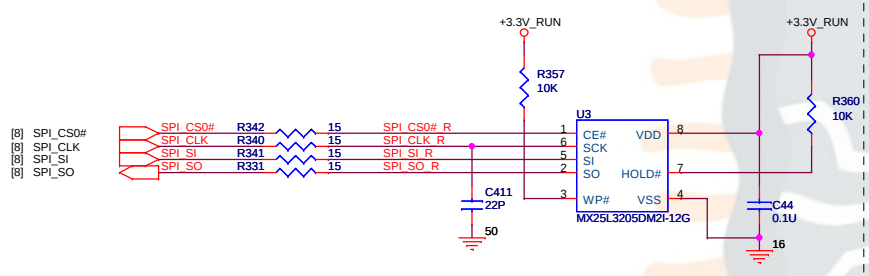
For EC 8Mbit (1M Byte)



RTC BATTERY



For PCH 32Mbit (4M Byte)

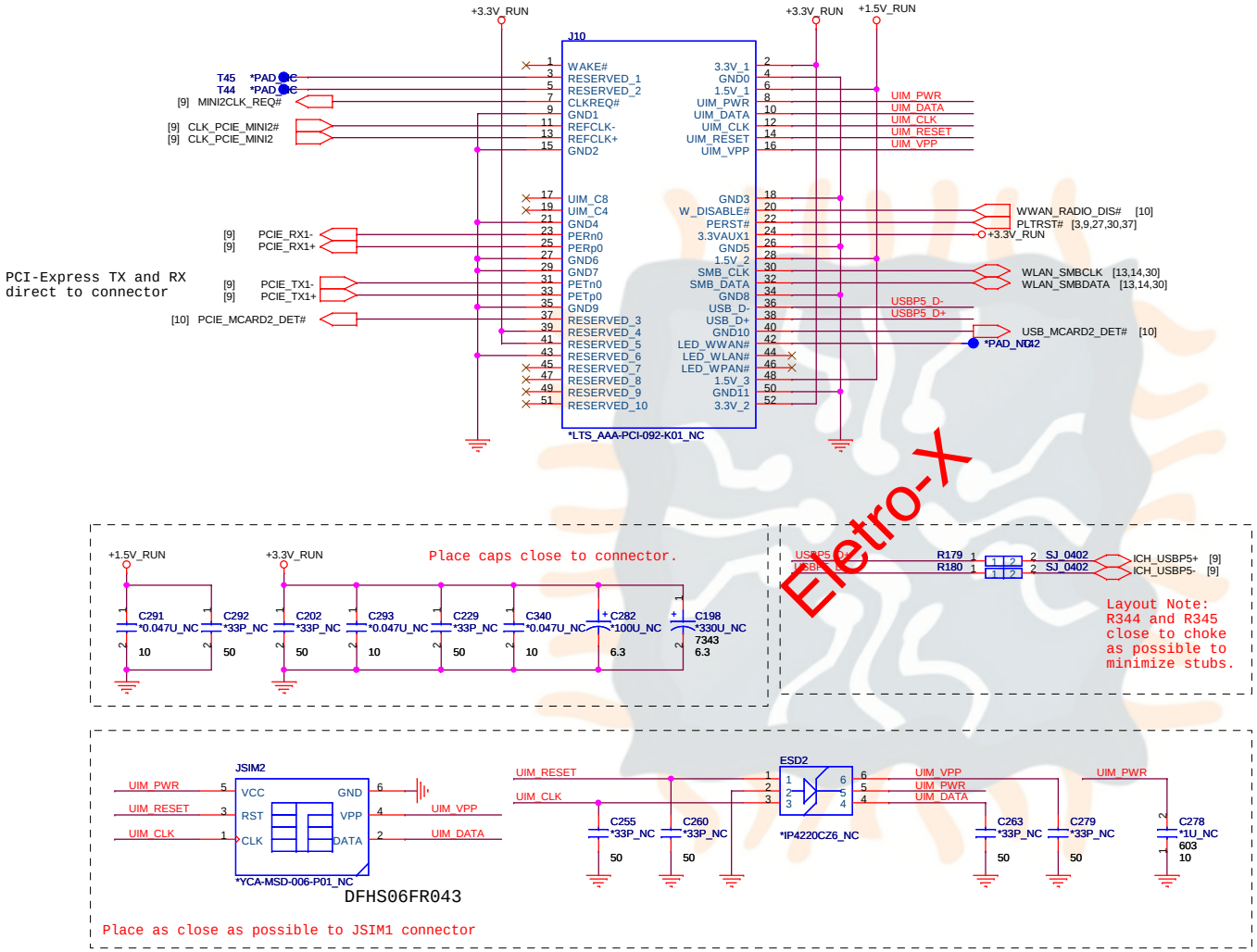


QUANTA COMPUTER

Title	Ultra I/O Controller ECE5028	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 28 of 59	

ECEtRO-X

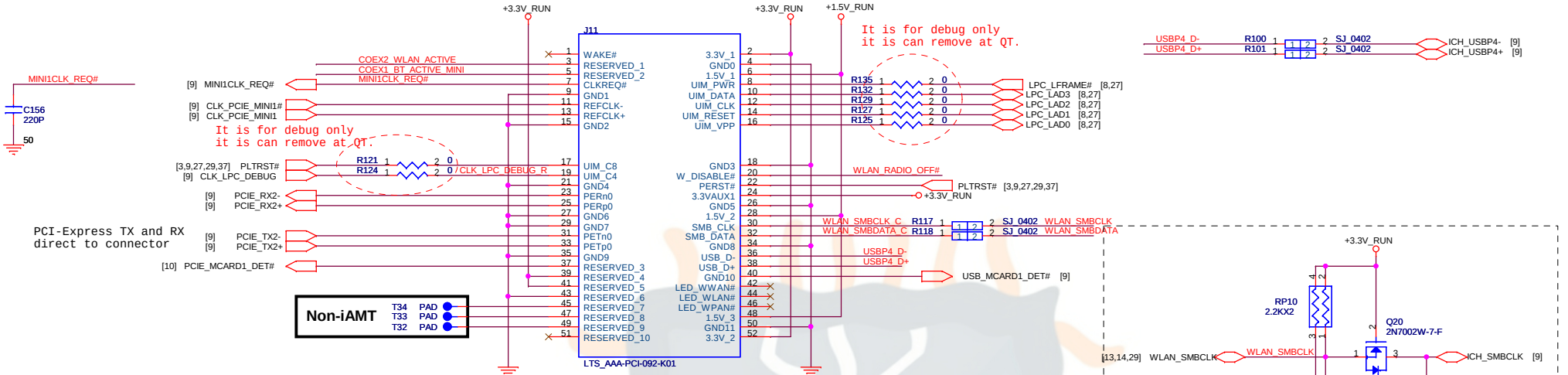
MiniCard WWAN connector



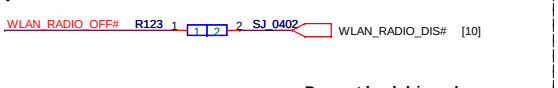
QUANTA COMPUTER

Title	MINI-PCI	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 29 of 59	

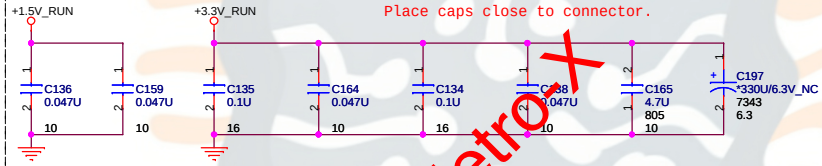
MiniCard WLAN connector

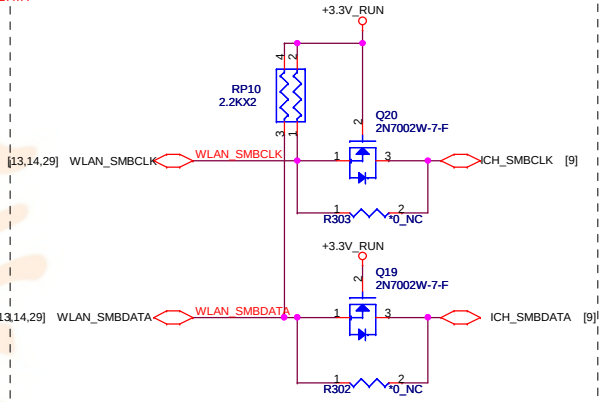


Suport for WoW



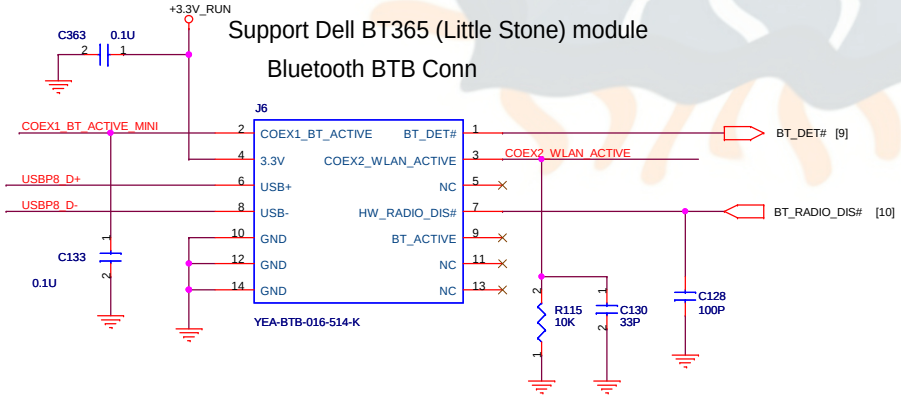
Prevent backdrive when WoW is enabled.

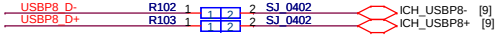




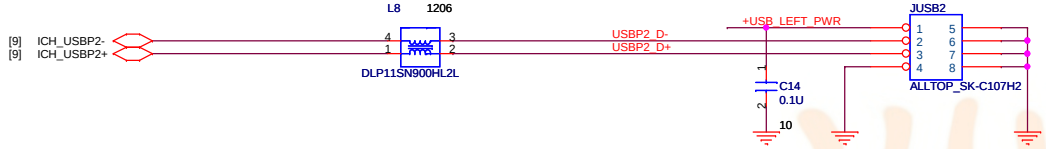
Support Dell BT365 (Little Stone) module

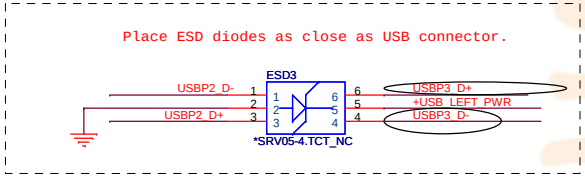
Bluetooth BTB Conn

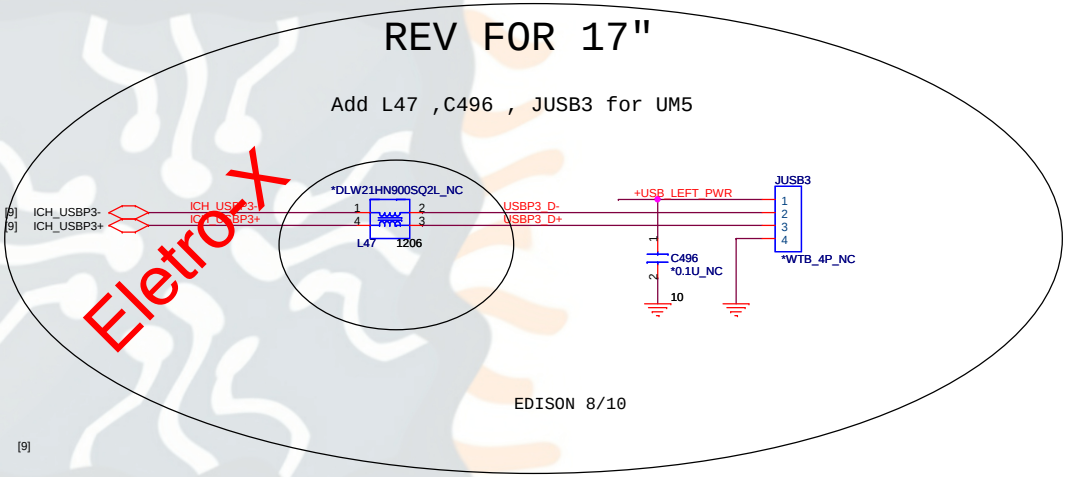


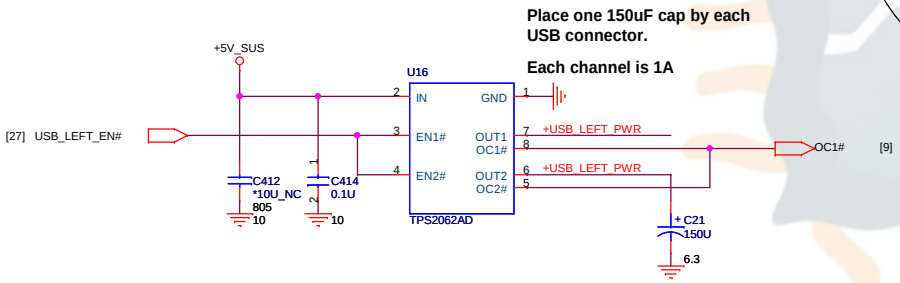


QUANTA COMPUTER		
Title: BT/ MINICARD		
Size	Document Number: UM3B/UM6B	Rev: 1A
Date: Friday, October 02, 2009	Sheet 30 of 59	





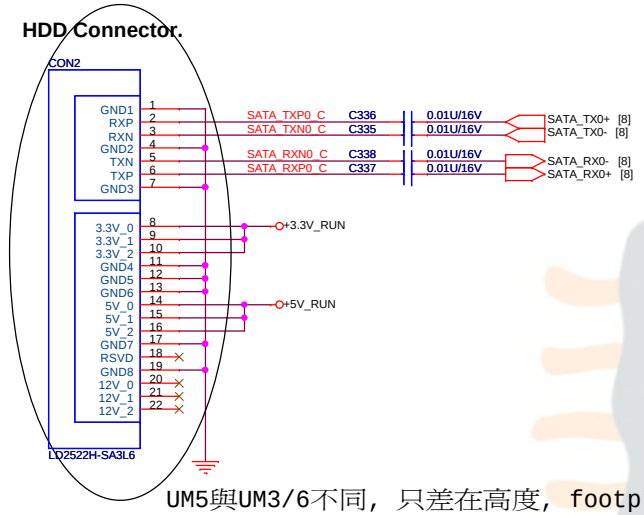




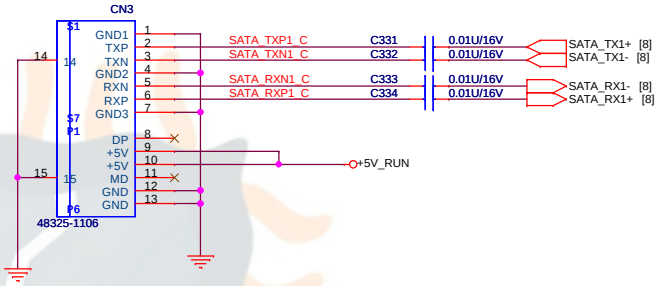
QUANTA COMPUTER

Title	USB	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 31 of 59	

HDD Connector.



ODD Connector

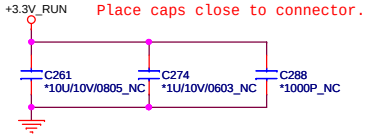


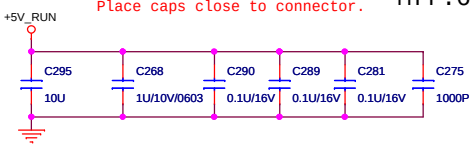
UM5與UM3/6不同，只差在高度，footprint沒變

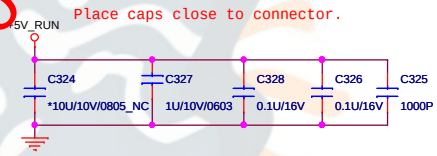
UM5/UM5B
PN:DFHS22FR137
Mfr:67492-1224

UM3/UM3B/UM6/UM6B
PN:
Mfr:67492-1730

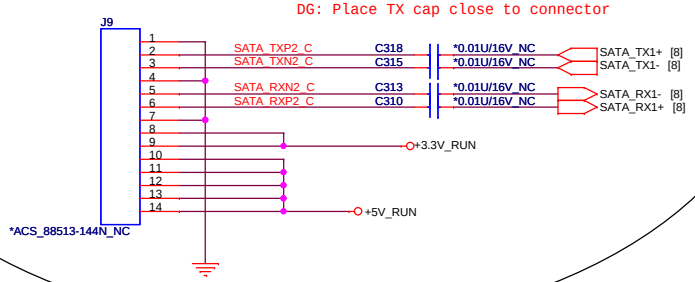
Eletro-X







REV FOR 15.6"



QUANTA COMPUTER

Title	SATA (HDD&CD_ROM)	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 32 of 59	

ECEtRO-X

KEYBOARD CONNECTOR

Top side

[27] KSO[0..17]
[27] KSI[0..7]

LTS_ABA-FPC-014-030-K
JKB2
GND1
GND2
KSO17 KSO10 KSO11 KSO9 KSO14 KSO13 KSO15 KSO16 KSO12 KSO0 KSO2 KSO1 KSO3 KSO8 KSO6 KSO7 KSO4 KSO5 KSI0 KSI3 KSI1 KSI5 KSI2 KSI4 KSI6 KSI7

Touch Pad

+5V_RUN
RP5 4.7KX2
[27] CLK_TP_SIO
[27] LID_SW#
[27] DAT_TP_SIO
L16 BLM18AG601SN1D 603
L17 BLM18AG601SN1D 603
TP_CLK
TP_DATA
+3.3V_SUS
88513-064N
JP2
DFFC06FR022
C185 10P/50V 50
C186 10P/50V 50
C183 10P/50V 50
C182 10P/50V 50
C179 0.1U 16
C181 0.047U 10
C184 0.047U 10
C180 0.1U 16

C201 100P 50 KSI7
C220 100P 50 KSO17

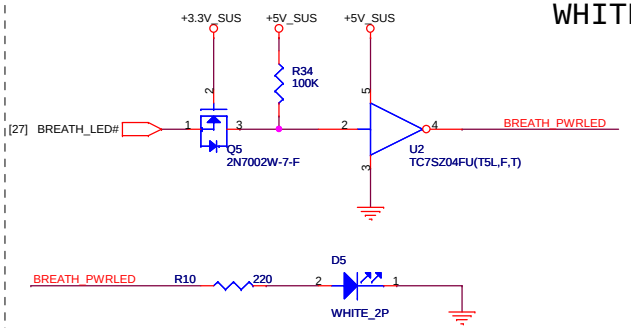
CP6 100PX4 KSO12 KSO16 KSO15 KSO13 1206 50
CP7 100PX4 KSO14 KSO9 KSO11 KSO10 1206 50
CP4 100PX4 KSO4 KSO7 KSO6 KSO8 1206 50
CP5 100PX4 KSO3 KSO1 KSO2 KSO0 1206 50
CP2 100PX4 KSI6 KSI4 KSI2 KSI5 1206 50
CP3 100PX4 KSI1 KSI3 KSI0 KSO5 1206 50

QUANTA COMPUTER

Title	TOUCH PAD, KB CONN	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 33 of 59	

Power

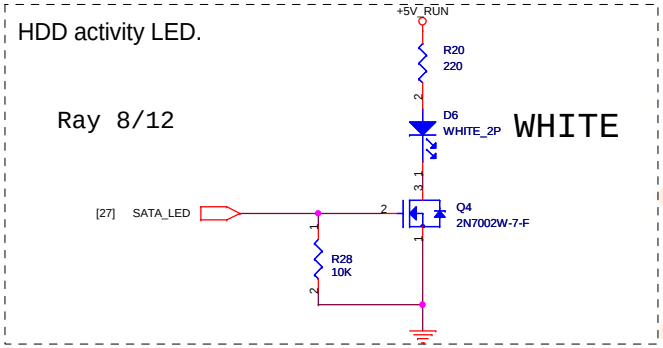
WHITE



HDD activity LED.

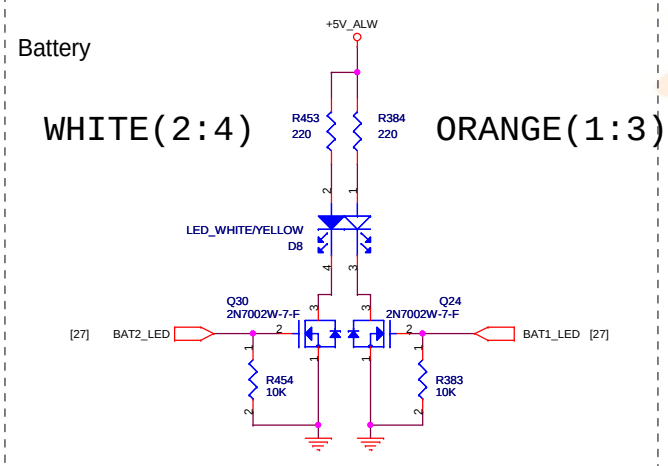
Ray 8/12

WHITE

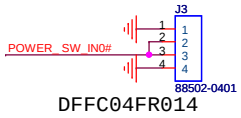


Battery

WHITE(2:4) ORANGE(1:3)



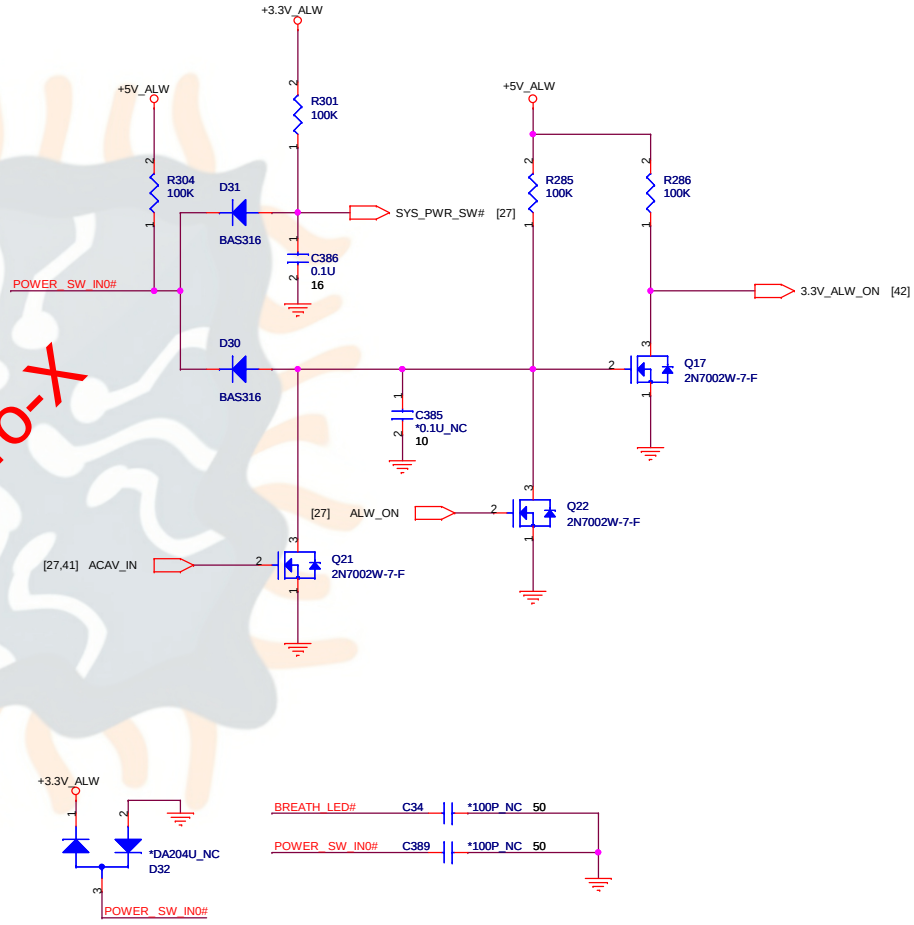
Power button Cable



DFFC04FR014

PIN2,3 connect to POWER_ SW_IN0#

3VALW ON POWER LOGIC

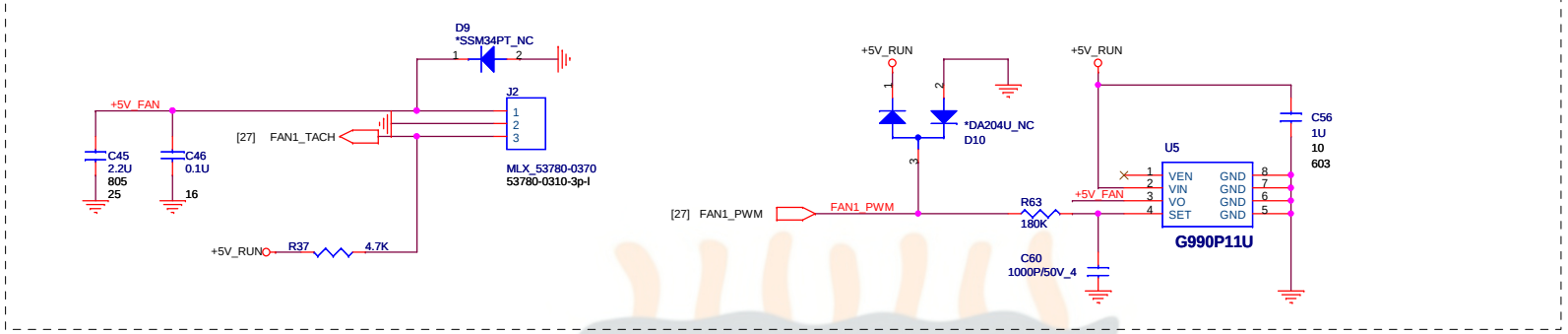


QUANTA COMPUTER

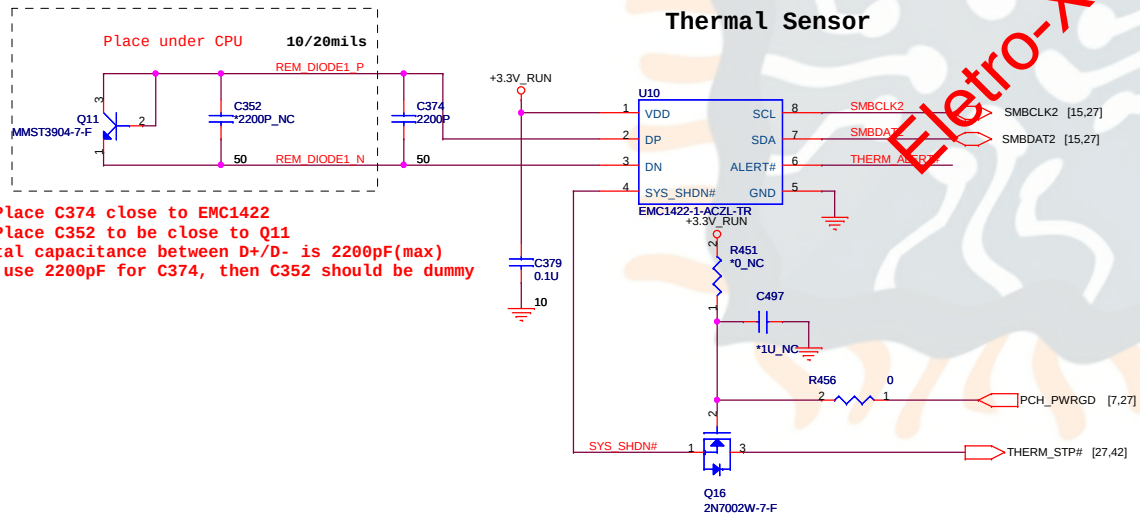
Title	SWITCH, KEYBOARD & LED&Touch Screen Module	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 34 of 59	

FAN CONTROL

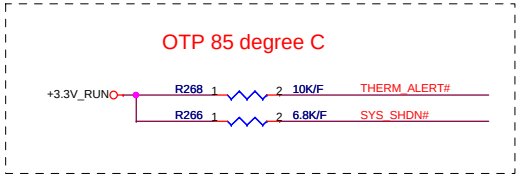
6/23 COPY FROM RM6



Thermal Sensor

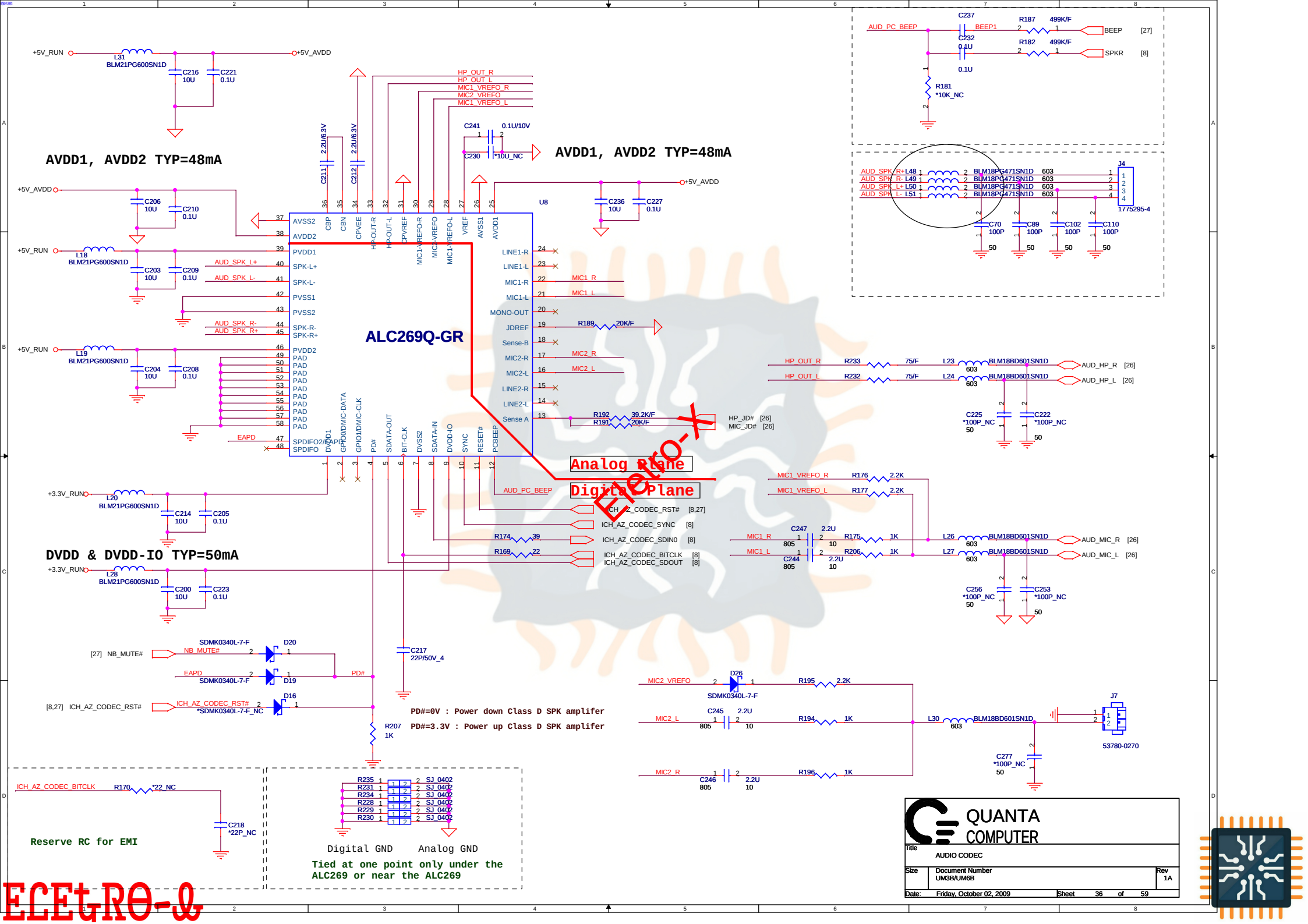


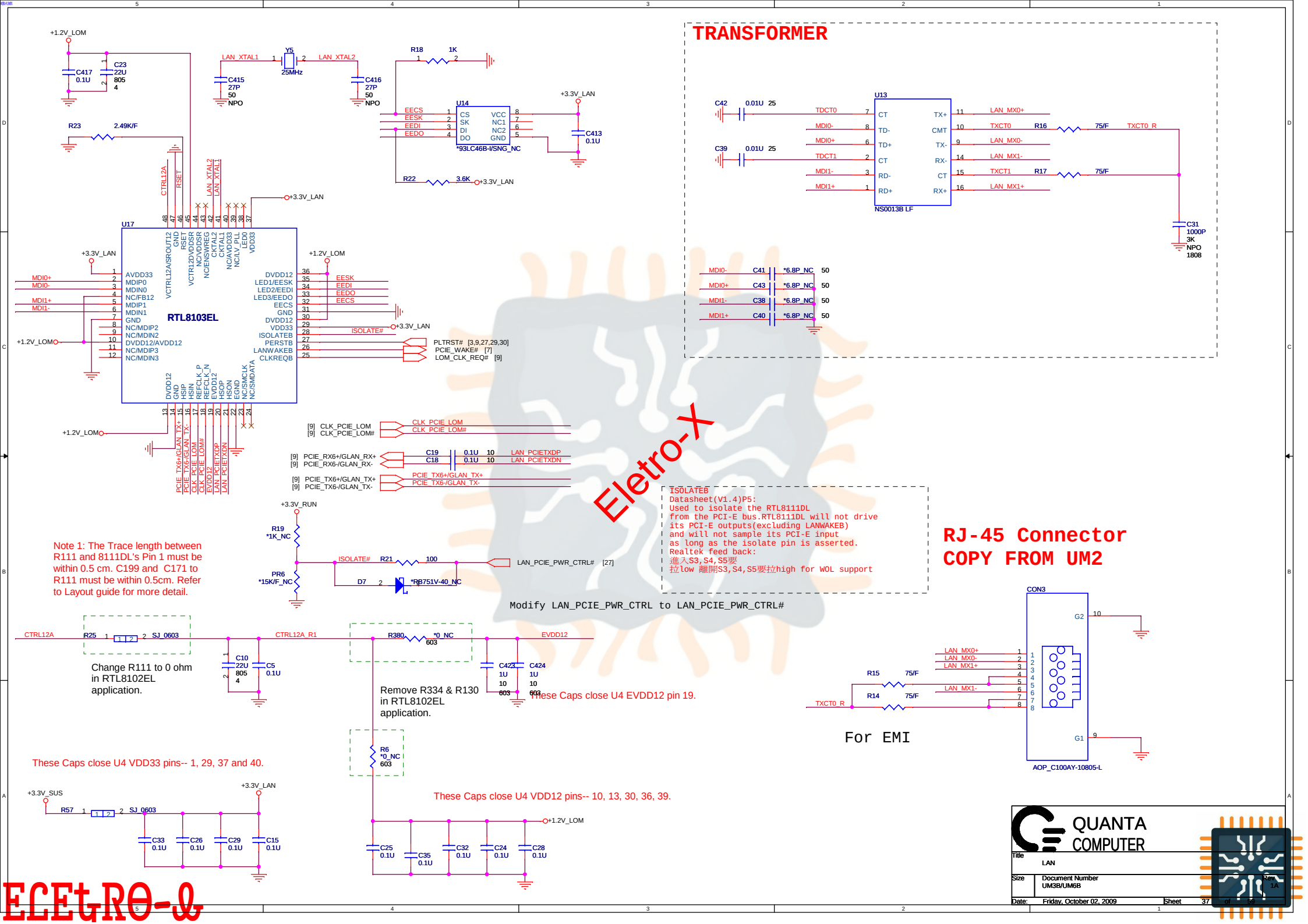
1.Place C374 close to EMC1422
2.Place C352 to be close to Q11
Total capacitance between D+/D- is 2200pF(max)
if use 2200pF for C374, then C352 should be dummy



QUANTA COMPUTER

Title	FAN & THERMAL	
Size	Document Number UM3B/UM6B	Rev 1A
Date: Friday, October 02, 2009	Sheet 35 of 59	


ALC269Q-GR
U8
AVDD1, AVDD2 TYP=48mA
AVDD1, AVDD2 TYP=48mA
DVDD & DVDD-IO TYP=50mA
Analog Plane
Digital Plane
PD#=0V : Power down Class D SPK amplifer
PD#=3.3V : Power up Class D SPK amplifer
Reserve RC for EMI
Digital GND
Analog GND
Tied at one point only under the ALC269 or near the ALC269
QUANTA COMPUTER
AUDIO CODEC
Document Number UM3B/UM6B
Rev 1A
Friday, October 02, 2009
Sheet 36 of 59


TRANSFORMER
RTL8103EL
U17
U13
U14
NS0013B LF
*93LC46B-I/SNG_NC
Y5
25MHz
Eletro-X
ISOLATEB
Datasheet(V1.4)P5:
Used to isolate the RTL8111DL
from the PCI-E bus.RTL8111DL will not drive
its PCI-E outputs(excluding LANWAKEB)
and will not sample its PCI-E input
as long as the isolate pin is asserted.
Realtek feed back:
進入S3,S4,S5要
拉low 離開S3,S4,S5要拉high for WOL support
RJ-45 Connector
COPY FROM UM2
CON3
AOP_C100AY-10805-L
Note 1: The Trace length between R111 and 8111DL's Pin 1 must be within 0.5 cm. C199 and C171 to R111 must be within 0.5cm. Refer to Layout guide for more detail.
Modify LAN_PCIE_PWR_CTRL to LAN_PCIE_PWR_CTRL#
Change R111 to 0 ohm in RTL8102EL application.
Remove R334 & R130 in RTL8102EL application.
These Caps close U4 EVDD12 pin 19.
These Caps close U4 VDD33 pins-- 1, 29, 37 and 40.
These Caps close U4 VDD12 pins-- 10, 13, 30, 36, 39.
For EMI
QUANTA COMPUTER
Title LAN
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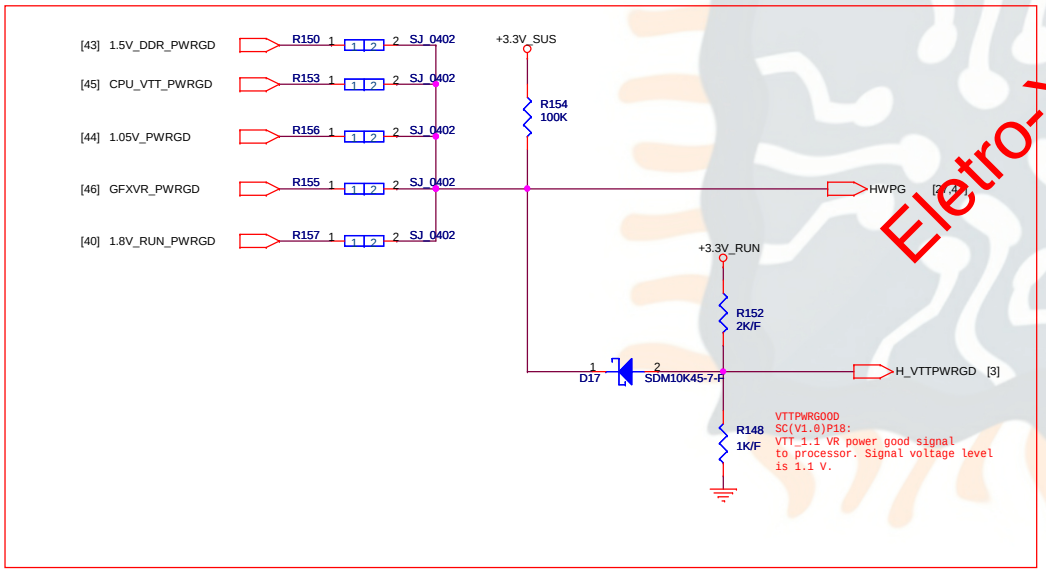
ECEtRO-X



[27] RUN_ON_1 — R32 — SJ_0402 — RUN_ON [40,43,44,45,48]

QUANTA COMPUTER

Title	System Reset Circuit	
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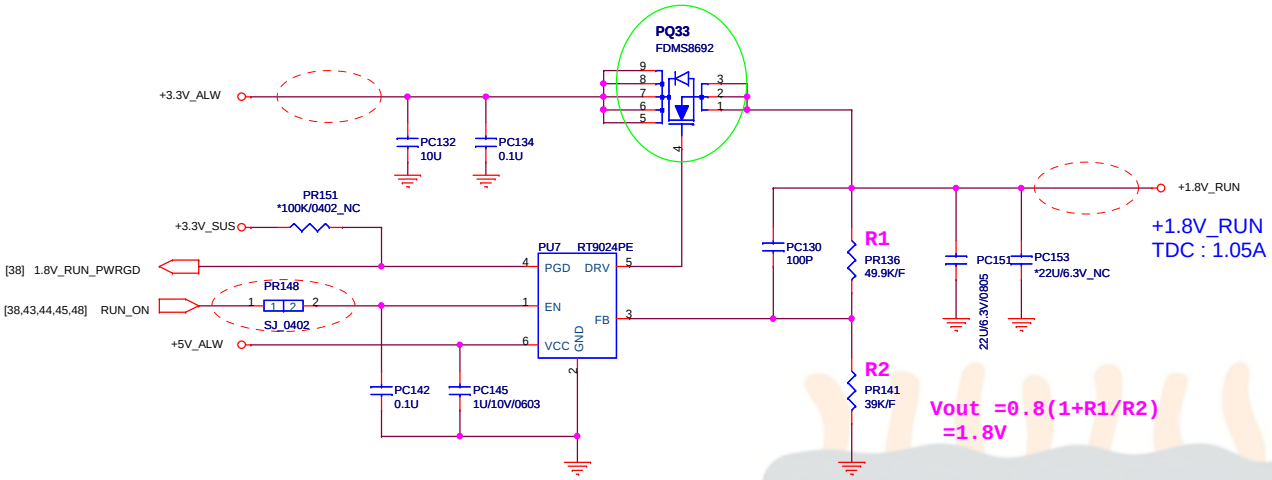

+1.8V_RUN for CPU and PCH 1.8V

09/08: remove PJP11 and PJP18, change PR148 from 0 ohm to shot jump

Title	+1.8V_RUN_GFX (RT9024PE) & +1.8V_RUN(RT9018B)	
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Continuous current : 13A
Rds(on) : 18mohm

Continuous current : 13A
Rds(on) : 18mohm

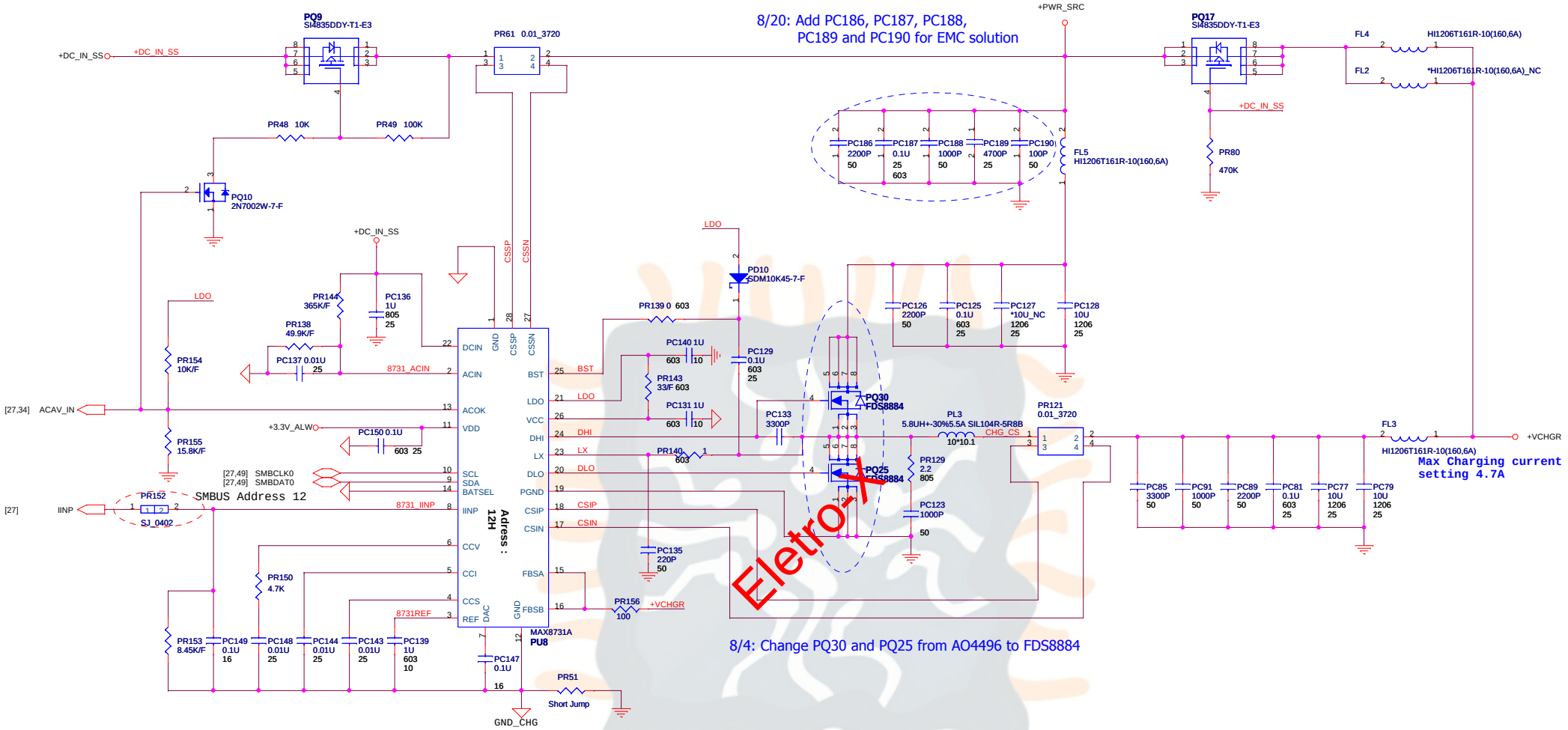
8/20: Add PC186, PC187, PC188, PC189 and PC190 for EMC solution

8/4: Change PQ30 and PQ25 from AO4496 to FDS8884

09/08: change PR152 from 0 ohm to shot jump

SMBUS Address 12

Max Charging current setting 4.7A



QUANTA COMPUTER

Title	Charger (MAX8731)	
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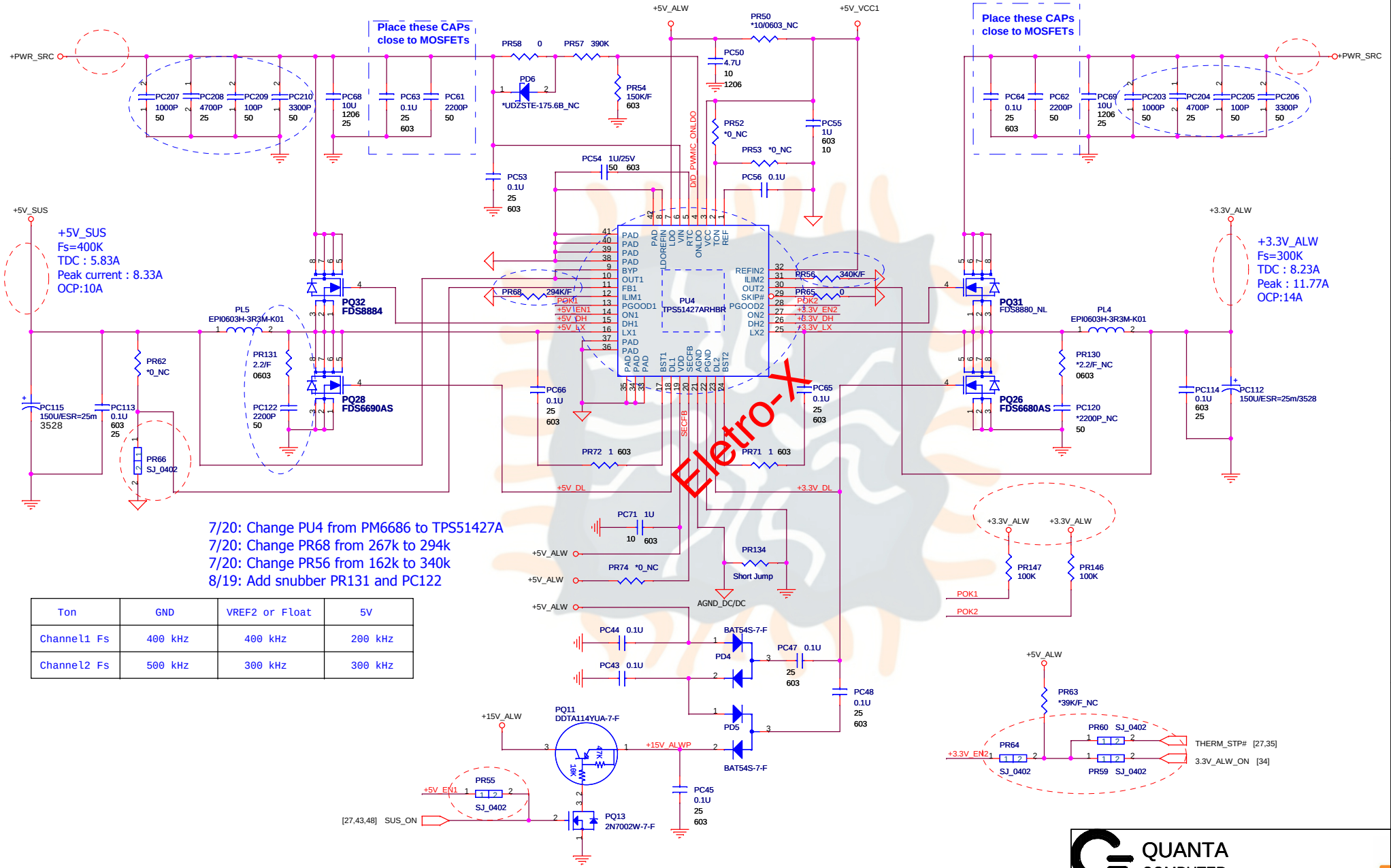
09/08: change PR59, PR60, PR64, PR66, PR55 from 0 ohm to shot jump
09/08: remove PJP8, PJP9, PJP12 and PJP15
8/20: Add PC207, PC208, PC209 and PC210
for EMC solution

8/20: Add PC203, PC204, PC205 and PC206
for EMC solution



7/20: Change PU4 from PM6686 to TPS51427A
7/20: Change PR68 from 267k to 294k
7/20: Change PR56 from 162k to 340k
8/19: Add snubber PR131 and PC122

Ton	GND	VREF2 or Float	5V
Channel1 Fs	400 kHz	400 kHz	200 kHz
Channel2 Fs	500 kHz	300 kHz	300 kHz

QUANTA COMPUTER

Title	3.3V_ALW / 5V_ALW(TPS51427ARHBR)	
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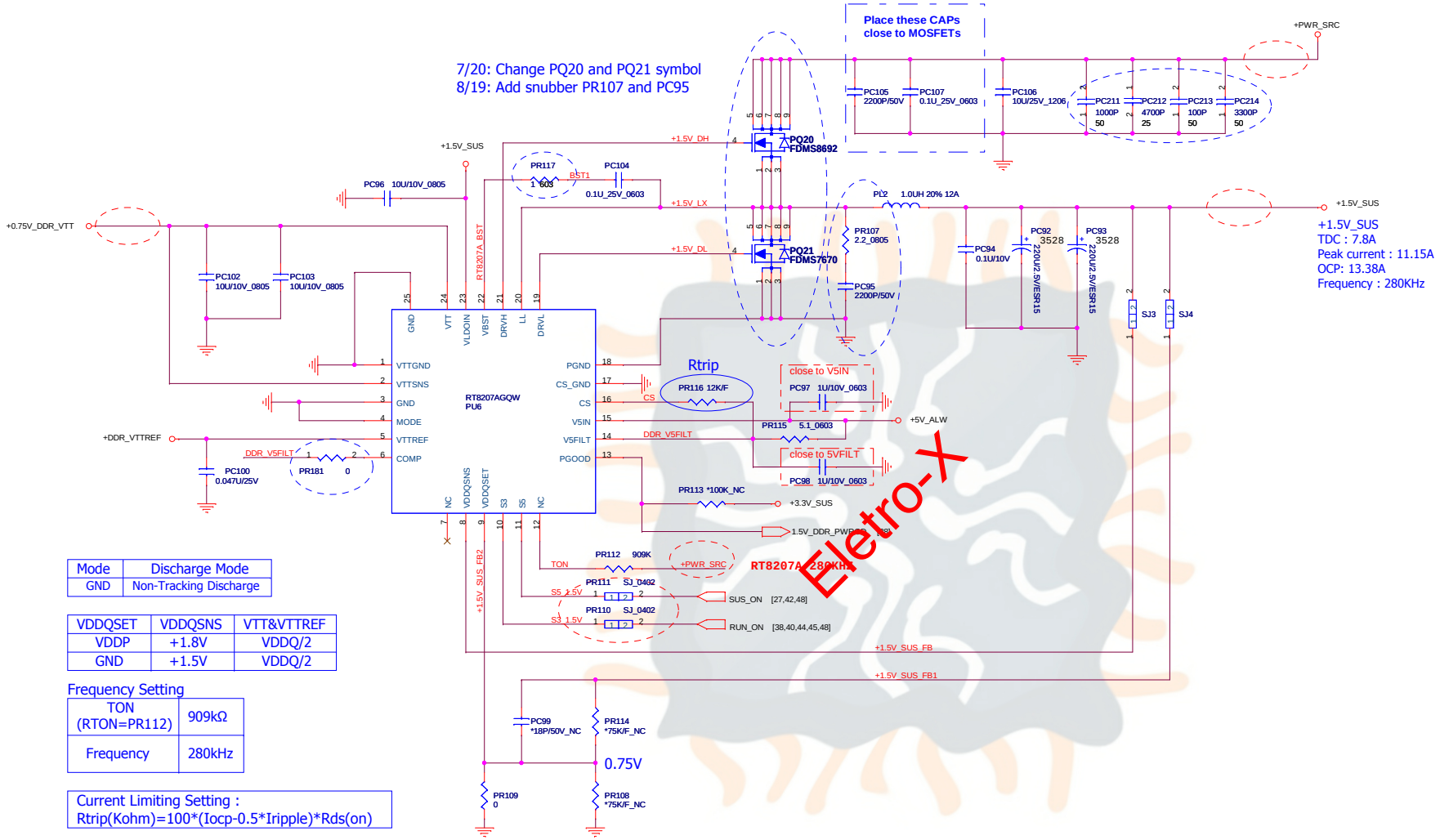
09/08: change PR110 and PR111 from 0 ohm to shot jump
09/08: remove PJP4, PJP5, PJP6 and PJP7

8/20: Add PC211, PC212, PC213 and PC214
for EMC solution

7/20: Change PQ20 and PQ21 symbol
8/19: Add snubber PR107 and PC95



+1.5V_SUS
TDC : 7.8A
Peak current : 11.15A
OCP: 13.38A
Frequency : 280KHz

Mode	Discharge Mode
GND	Non-Tracking Discharge

VDDQSET	VDDQSNS	VTT&VTTREF
VDDP	+1.8V	VDDQ/2
GND	+1.5V	VDDQ/2

Frequency Setting

TON (RTON=PR112)	909kΩ
Frequency	280kHz

Current Limiting Setting :
Rtrip(Kohm)=100*(Iocp-0.5*Iripple)*Rds(on)

Eletro-X

QUANTA COMPUTER		
Title	1.8VSUS & 0.9VTT (TPS51116)	
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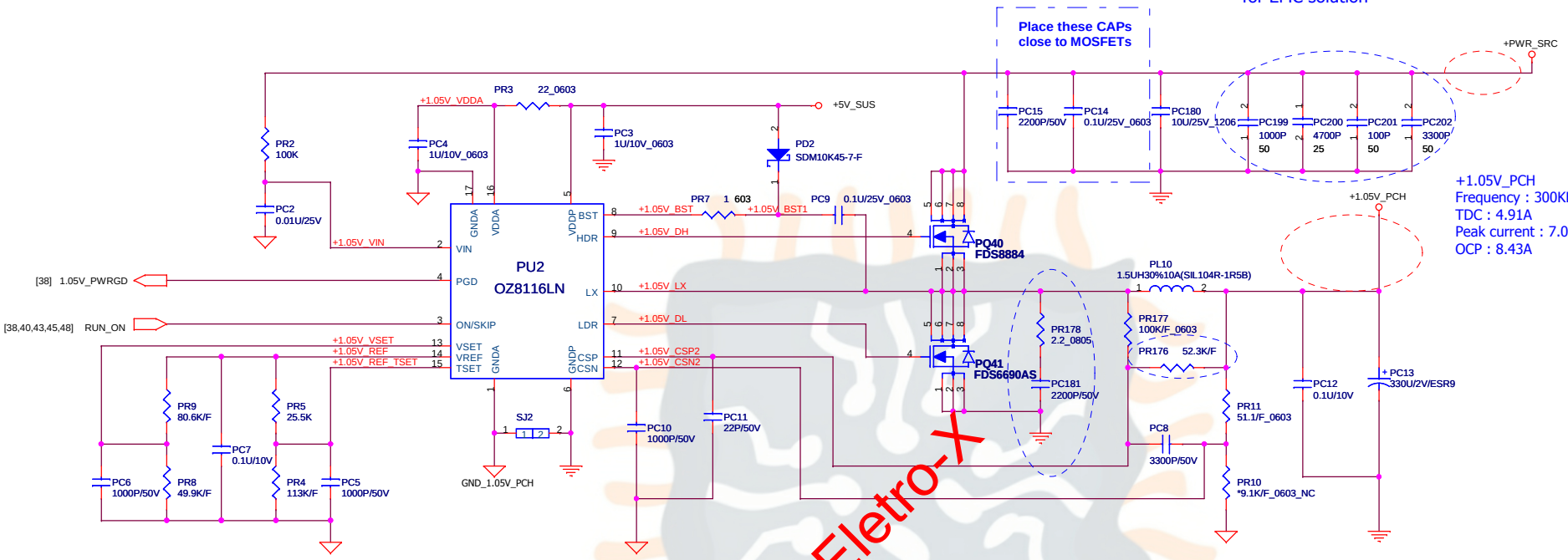
09/08: remove PJP21 and PJP22
8/20: Add PC199, PC200, PC201 and PC202
for EMC solution



7/20: Change PR176 from 47k to 52.3k
8/19: Add snubber PR178 and PC181
8/19: Remove PJP20

Eletro-X

Title	<Title>	
Size	Document Number	Rev
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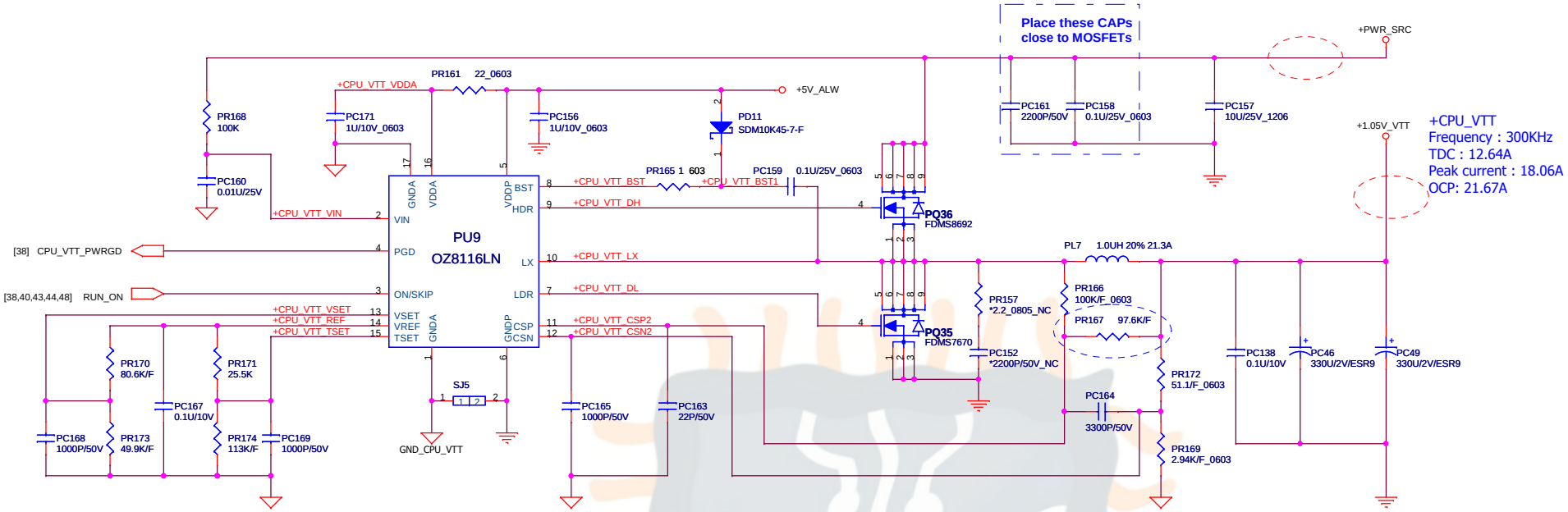

7/20: Change PR167 from 47k to 97.6k
09/08: remove PJP14, PJP17 and PJP19

Eletro-X

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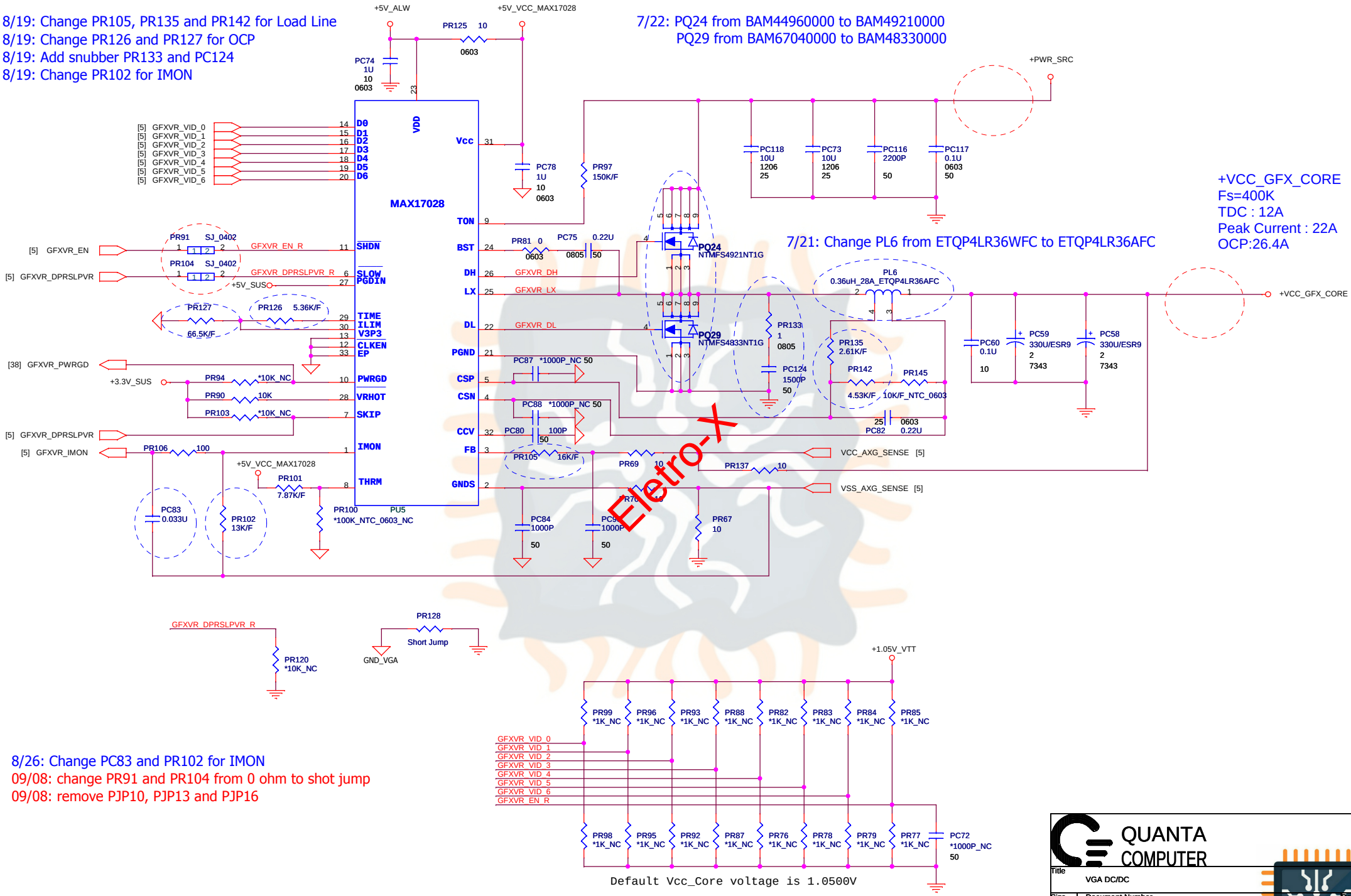
8/19: Change PR105, PR135 and PR142 for Load Line
8/19: Change PR126 and PR127 for OCP
8/19: Add snubber PR133 and PC124
8/19: Change PR102 for IMON

7/22: PQ24 from BAM44960000 to BAM49210000
PQ29 from BAM67040000 to BAM48330000

+VCC_GFX_CORE
Fs=400K
TDC : 12A
Peak Current : 22A
OCP:26.4A

7/21: Change PL6 from ETQP4LR36WFC to ETQP4LR36AFC



8/26: Change PC83 and PR102 for IMON
09/08: change PR91 and PR104 from 0 ohm to shot jump
09/08: remove PJP10, PJP13 and PJP16

QUANTA COMPUTER

Title	VGA DC/DC	
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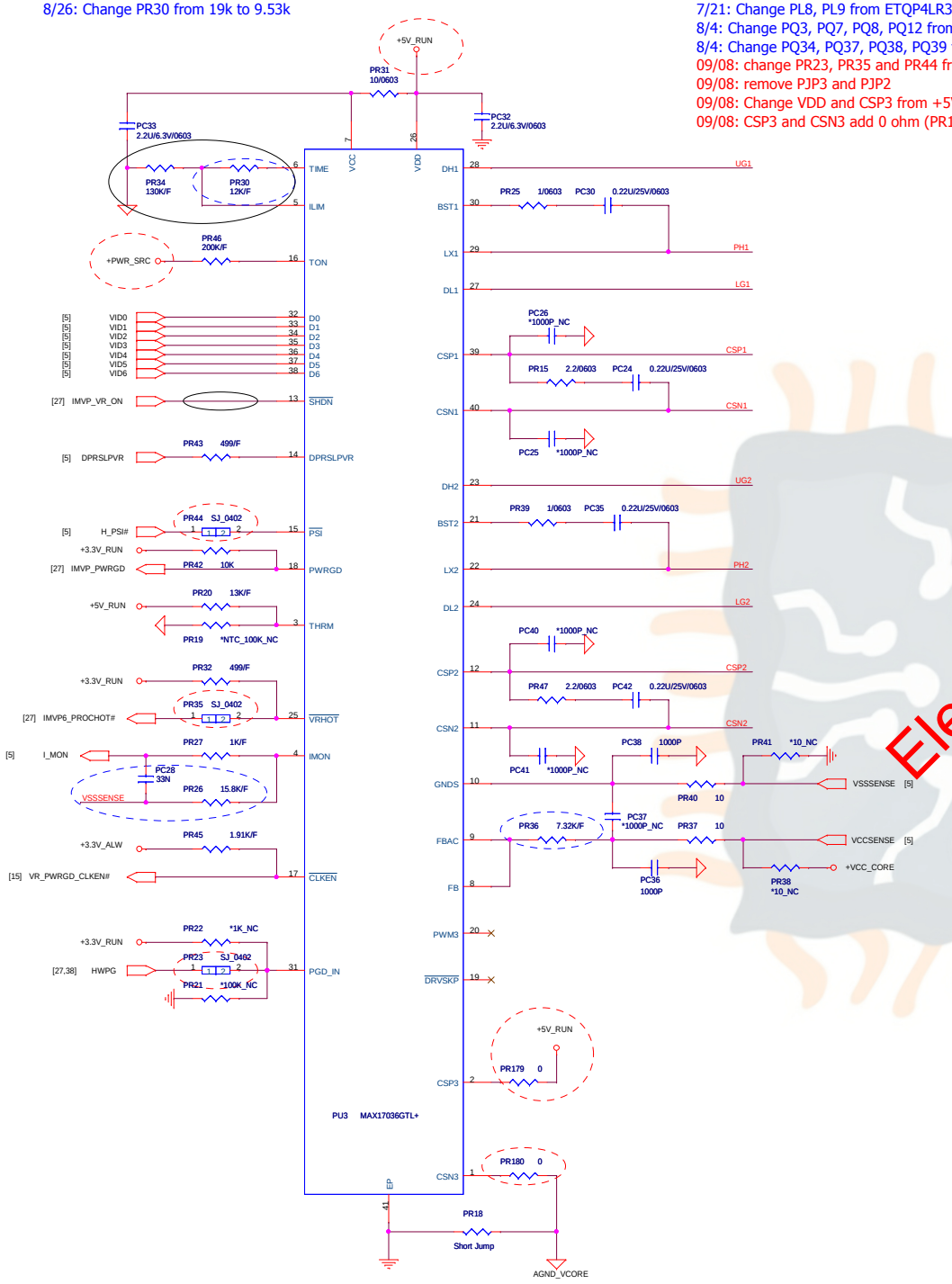
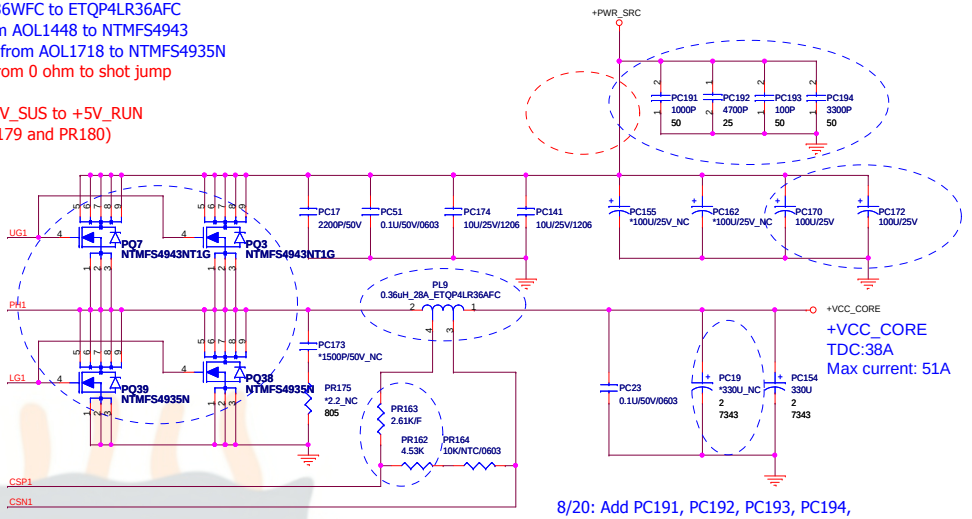
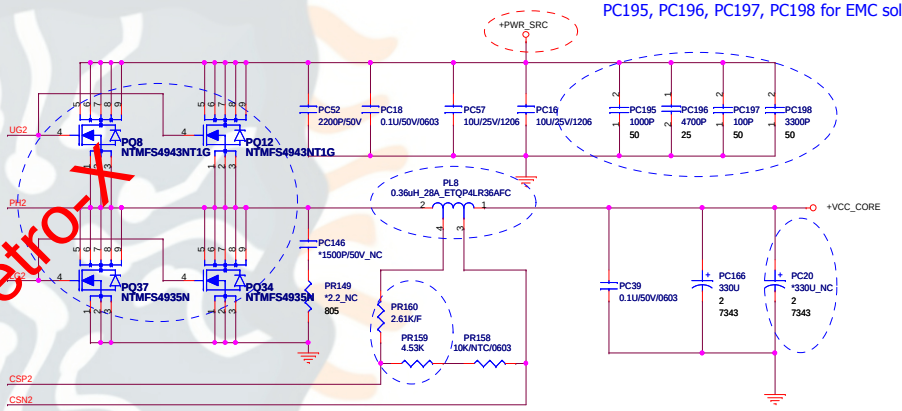
8/26: Change PR30 from 19k to 9.53k

7/21: Change PL8, PL9 from ETQP4LR36WFC to ETQP4LR36AFC
8/4: Change PQ3, PQ7, PQ8, PQ12 from AOL1448 to NTMFS4943
8/4: Change PQ34, PQ37, PQ38, PQ39 from AOL1718 to NTMFS4935N
09/08: change PR23, PR35 and PR44 from 0 ohm to shot jump
09/08: remove PJP3 and PJP2
09/08: Change VDD and CSP3 from +5V_SUS to +5V_RUN
09/08: CSP3 and CSN3 add 0 ohm (PR179 and PR180)





8/20: Add PC191, PC192, PC193, PC194,
PC195, PC196, PC197, PC198 for EMC solution



8/13: NC output cap PC19 and PC20

8/13: Change for Load Line and IMON regulator
change PR26 from 9.53k to 15.8k
change PR36 from 6.8k to 7.32k
change PR159, PR162 from 3.4k to 4.53k
change PR160, PR163 from 1.8k to 2.61k
change PC28 from 0.1uF to 33nF

Title: CPU core (MAX17036)
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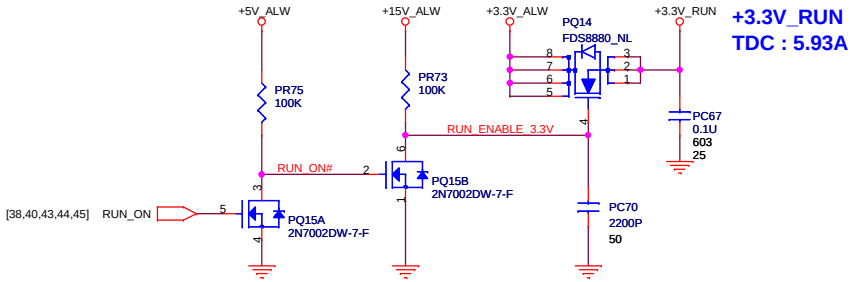
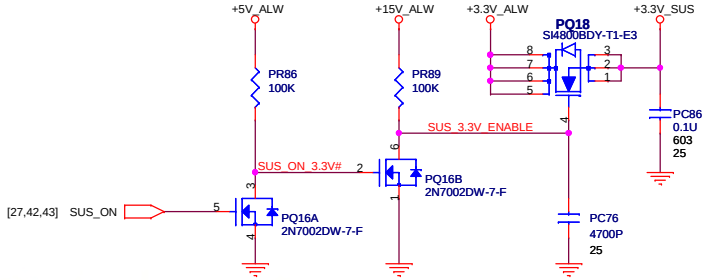
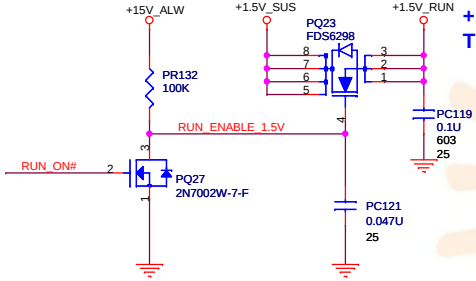


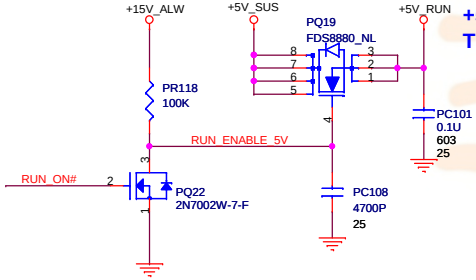
+3.3V_RUN
TDC : 5.93A



+3.3V_SUS
TDC : 0.46A



+1.5V_RUN
TDC : 3.74A



+5V_RUN
TDC : 4.67A

QUANTA COMPUTER

Title	RUN / SUS POWER SW	
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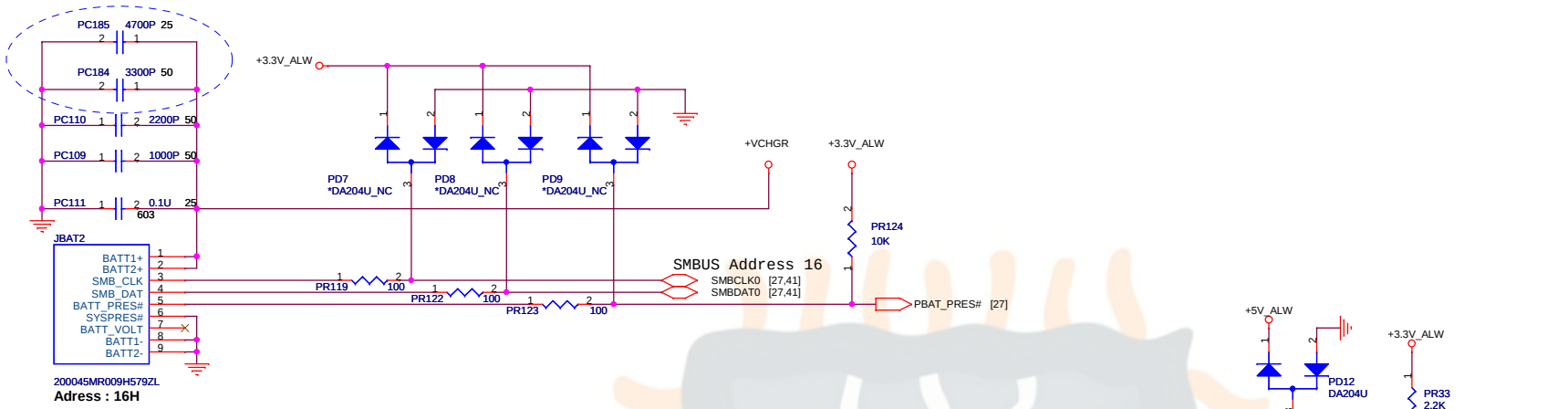
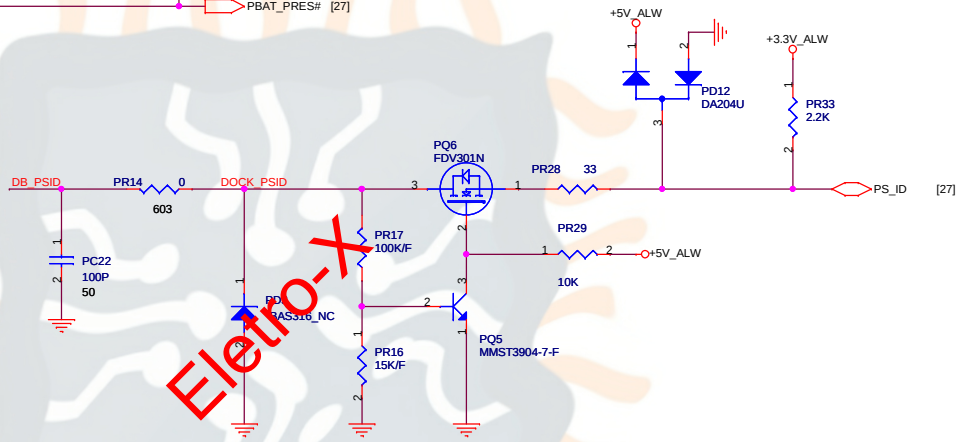
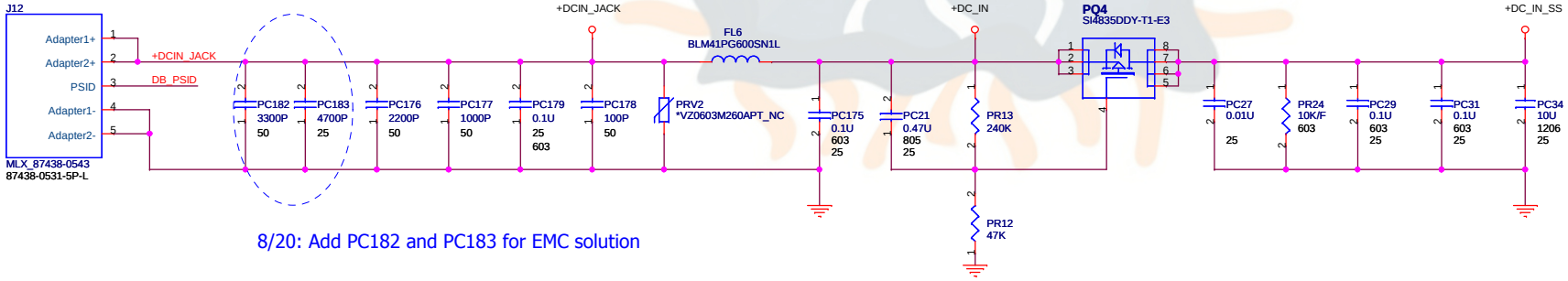
8/20: Add PC184 and PC185 for EMC solution





ZM1



8/20: Add PC182 and PC183 for EMC solution

QUANTA COMPUTER			
Title	DCIN,BATT CONNECTOR		
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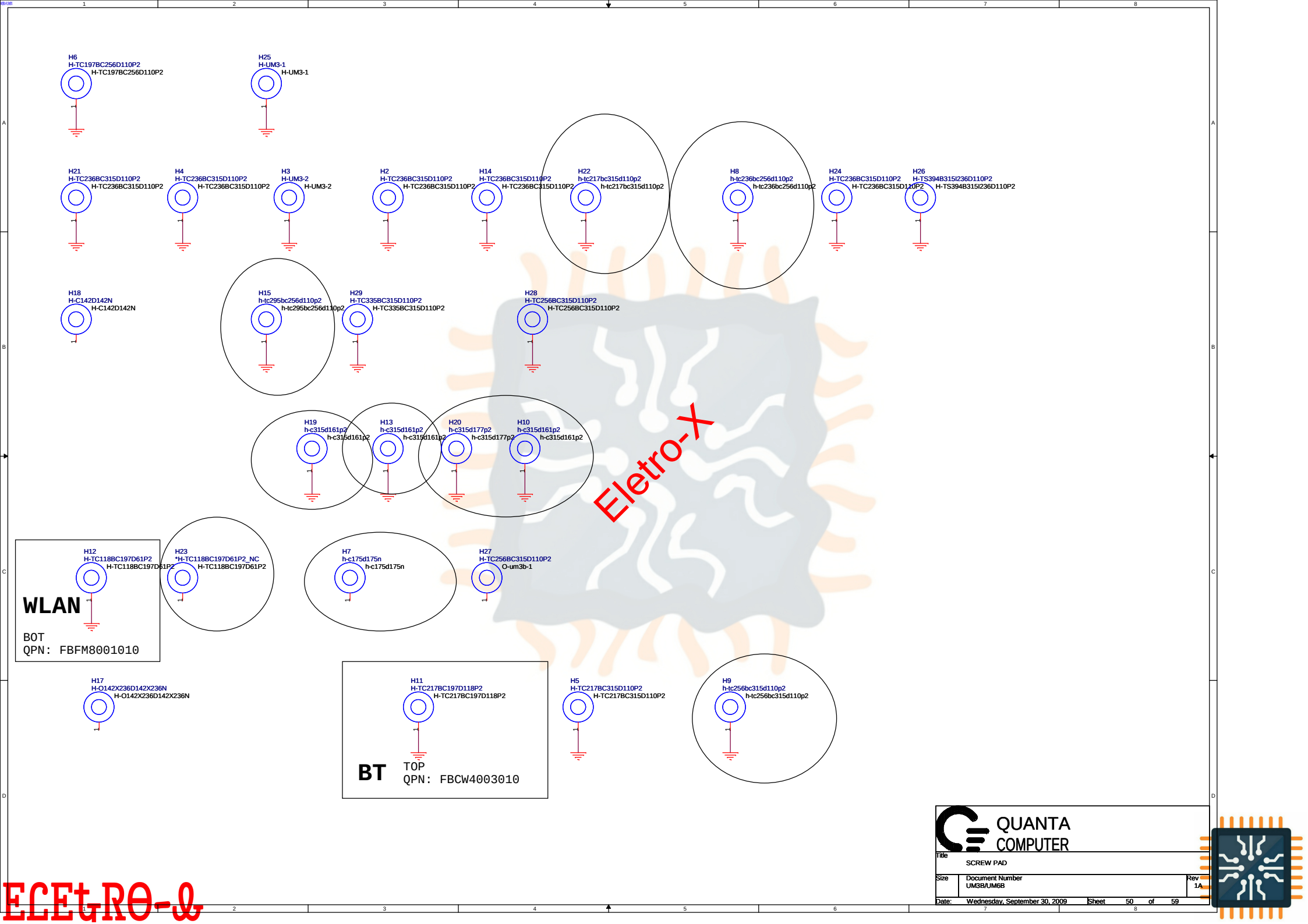
H6
H-TC197BC256D110P2
H-TC197BC256D110P2
H25
H-UM3-1
H-UM3-1
H21
H-TC236BC315D110P2
H-TC236BC315D110P2
H4
H-TC236BC315D110P2
H-TC236BC315D110P2
H3
H-UM3-2
H-UM3-2
H2
H-TC236BC315D110P2
H-TC236BC315D110P2
H14
H-TC236BC315D110P2
H-TC236BC315D110P2
H22
h-tc217bc315d110p2
h-tc217bc315d110p2
H8
h-tc236bc256d110p2
h-tc236bc256d110p2
H24
H-TC236BC315D110P2
H-TC236BC315D110P2
H26
H-TS394B315I236D110P2
H-TS394B315I236D110P2
H18
H-C142D142N
H-C142D142N
H15
h-tc295bc256d110p2
h-tc295bc256d110p2
H29
H-TC335BC315D110P2
H-TC335BC315D110P2
H28
H-TC256BC315D110P2
H-TC256BC315D110P2
H19
h-c315d161p2
h-c315d161p2
H13
h-c315d161p2
h-c315d161p2
H20
h-c315d177p2
h-c315d177p2
H10
h-c315d161p2
h-c315d161p2
Eletro-X
H12
H-TC118BC197D61P2
H-TC118BC197D61P2
WLAN
BOT
QPN: FBFM8001010
H23
*H-TC118BC197D61P2_NC
H-TC118BC197D61P2
H7
h-c175d175n
h-c175d175n
H27
H-TC256BC315D110P2
O-um3b-1
H17
H-O142X236D142X236N
H-O142X236D142X236N
H11
H-TC217BC197D118P2
H-TC217BC197D118P2
BT
TOP
QPN: FBCW4003010
H5
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H-TC217BC315D110P2
H9
h-tc256bc315d110p2
h-tc256bc315d110p2
QUANTA COMPUTER
Title
SCREW PAD
Size
Document Number
UM3B/UM6B
Rev
1A
Date:
Wednesday, September 30, 2009
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