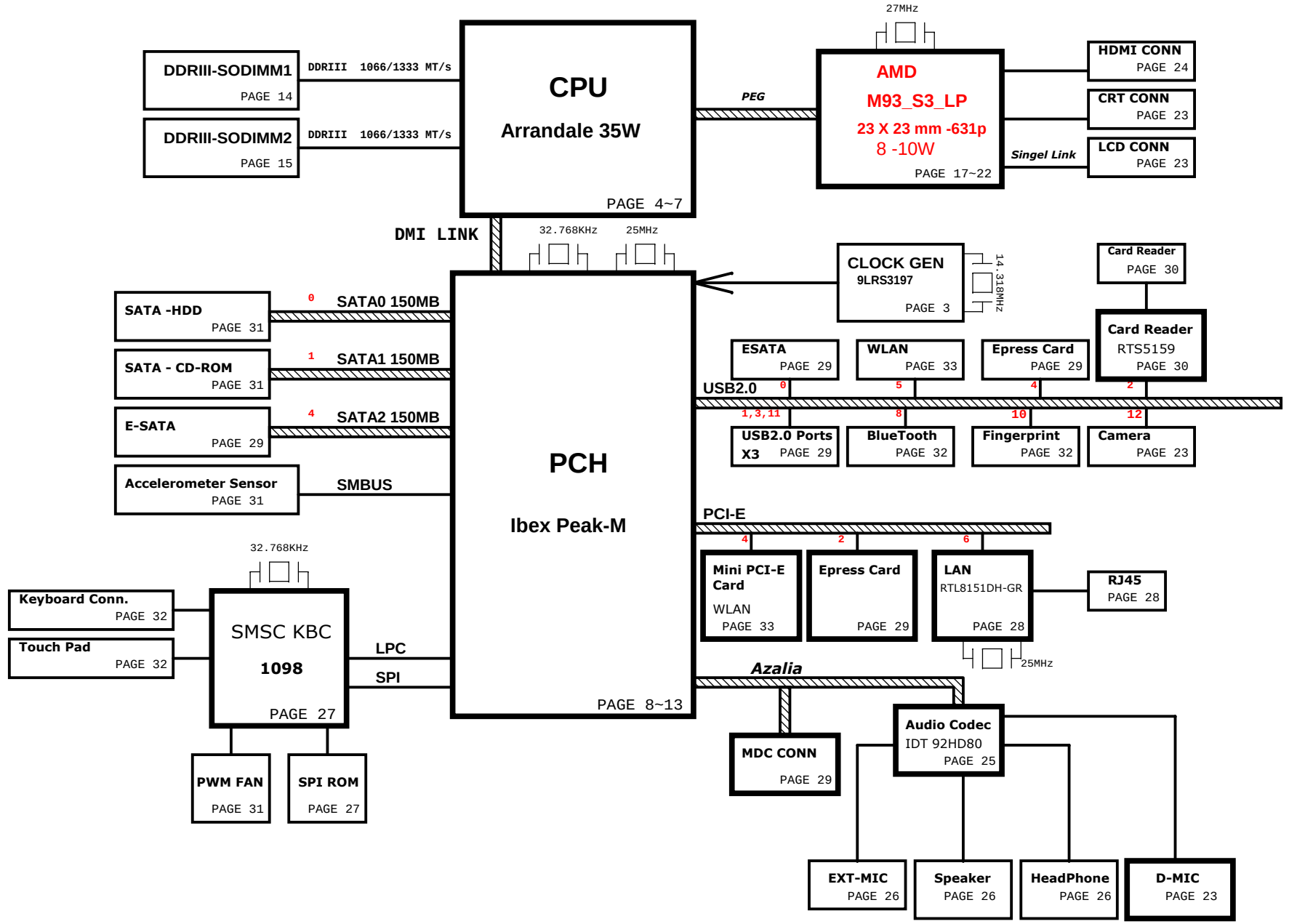
Hamilton 1.0 (SX6-DIS) BLOCK DIAGRAM

01

PCB STACK UP

8L Dis.

LAYER 1 : TOP
LAYER 2 : SGND
LAYER 3 : IN1
LAYER 4 : IN2
LAYER 5 : SVCC
LAYER 6 : IN3
LAYER 7 : SGND
LAYER 8 : BOT



PROJECT : SX6
Quanta Computer Inc.

Size	Document Number	Rev
Custom	BLOCK DIAGRAM	2B

NB5

Date: Tuesday, December 15, 2009 | Sheet 1 of 43

power / State	+RTC_CELL	+VIN +3VPCU	+3VS5 +5VS5	+5VSUS +1.5VSUS	+5V +3V +1.8V_GFX +1.8V +1.5V +1.5V_CPU +1.1V_VTT +1.05V +1.0V_GFX +VGA_CORE +VCORE
S0	ON	ON	ON	ON	ON
S1	ON	ON	ON	ON	ON
S3	ON	ON	ON	ON	OFF
S4/S5 AC	ON	ON	ON	OFF	OFF
S4/S5 DC Only	ON	ON	OFF	OFF	OFF
AC/DC No Exist	ON	OFF	OFF	OFF	OFF

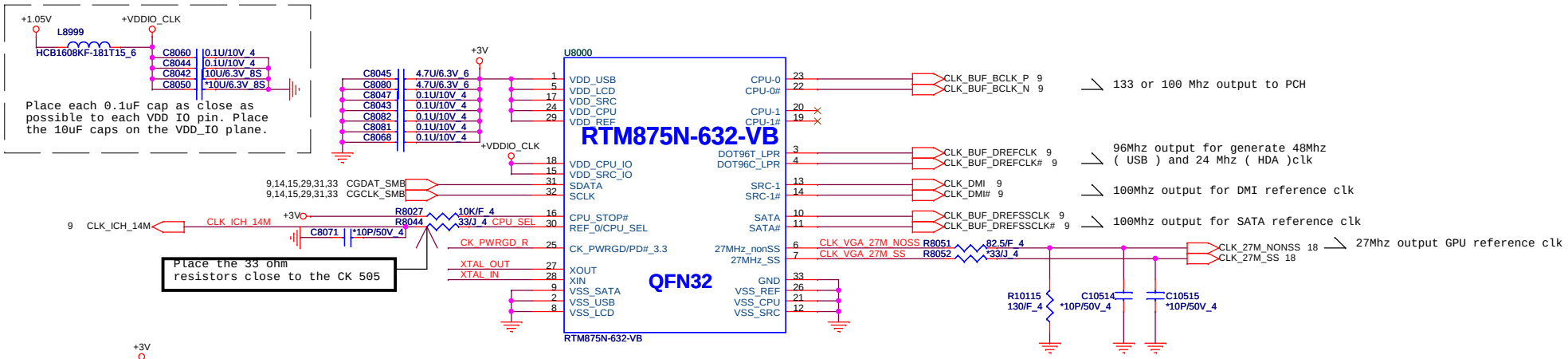
	SOURCE	BATTERY 0x16	CLK GEN 0xD2	Thermal IC 0x98(Write) / 0x99(Read)	G-SENSOR 0x3A(Write) /0x3B(Read)	WLAN	SO-DIMM DIMM0: 0xA0 DIMM1: 0xA2	SMSC 1098	GPU thermal sensor
SMBCLK SMBDATA	PCH	X	Y	Y	Y	Y	Y	X	X
SMB_CLK_ME1 SMB_DAT_ME1	PCH	X	X	X	X	X	X	Y	Y
AB1A_CLK AB1A_DATA	SMSC 1098	Y	X	X	X	X	X	X	X

NB5

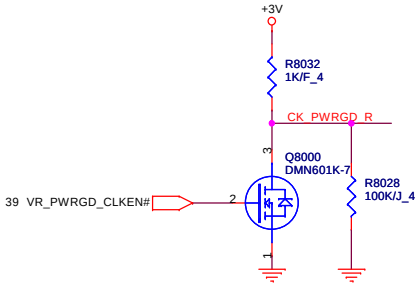
PROJECT : SX6
Quanta Computer Inc.

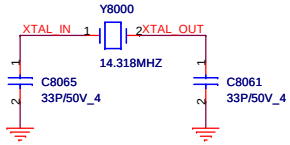
Size	Document Number	Rev
Custom	power rails	2B

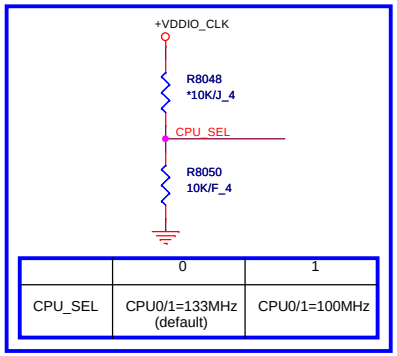
Date: Tuesday, December 15, 2009 | Sheet 2 of 43



AL000875002IC OTHER(32P) RTM875N-632-VB-GRT(QFN)RealteK
AL8SP585000IC OTHER(32P)SLG8SP585VTR(QFN)Silego







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

1,8,9,10,11,12,14,15,16,20,23,25,27,28,29,30,31,32,33,34,35,37,39,42 +3V

NB5

PROJECT : SX6
Quanta Computer Inc.

Size	Document Number	Rev
Custom	CLOCK GEN (9LRS3197)	2B
Date: Tuesday, December 15, 2009	Sheet 3 of 43	

U8009A

DMI

Intel(R) FDI

PCI EXPRESS -- GRAPHICS

IC,AUB_CFD_rPGA,R1P0

U8009B

MISC

THERMAL

CLOCKS

DDR3 MISC

PWR MANAGEMENT

JTAG & BPM

IC,AUB_CFD_rPGA,R1P0

FDI_FSYNC can gang all these 4 signals together and tie them with only one 1K resistor to GND (Check list 1.0).

For S3 leakage issue

MV modified for Intel comment

JTAG MAPPING

Scan Chain (Default)	STUFF -> R97, R89, R90 NO STUFF -> R84, R512
CPU Only	STUFF -> R97, R84 NO STUFF -> R89, R512, R90
GMCH Only	STUFF -> R512, R90 NO STUFF -> R97, R84, R89

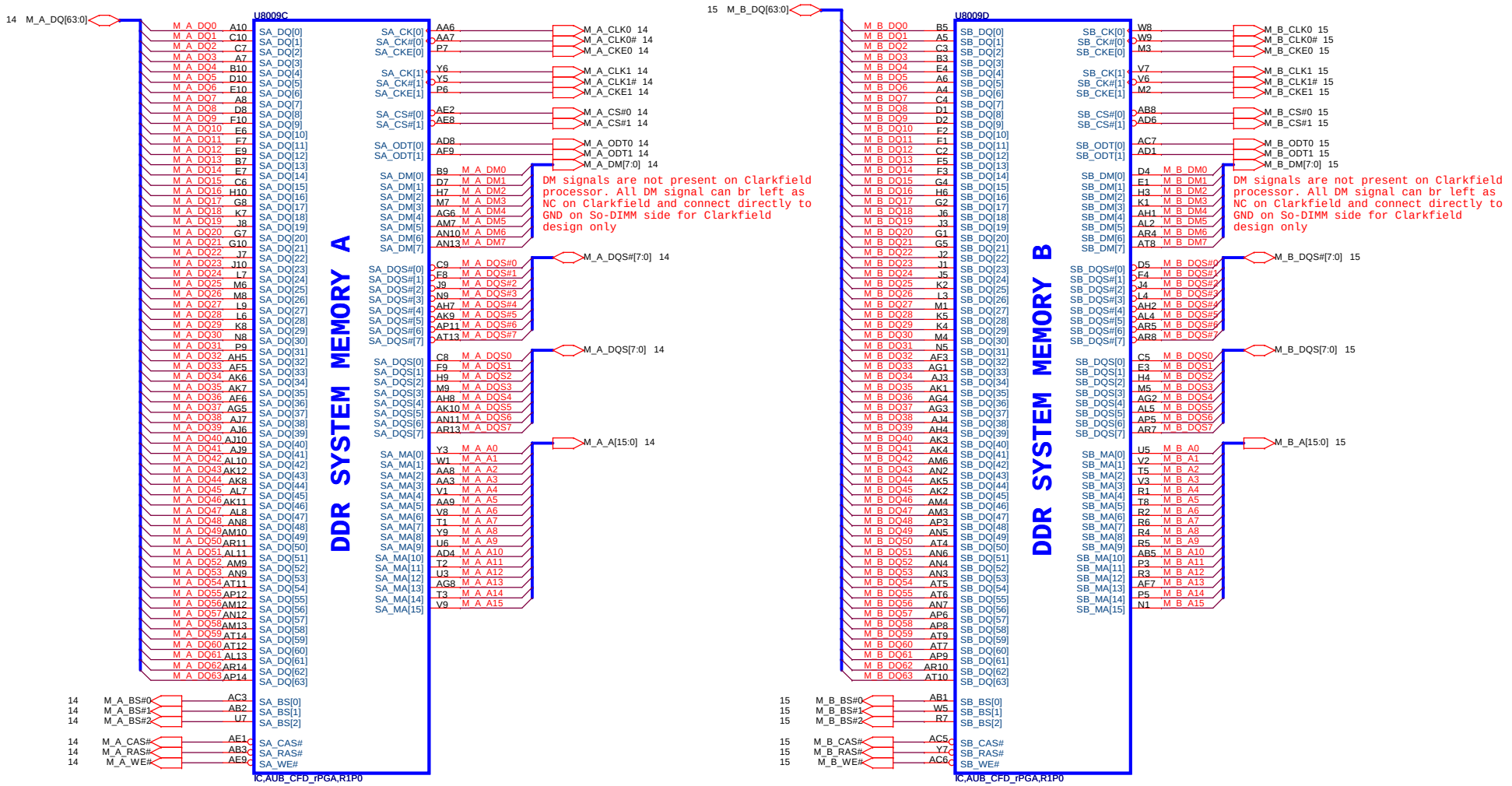
NB5

PROJECT : SX6
Quanta Computer Inc.

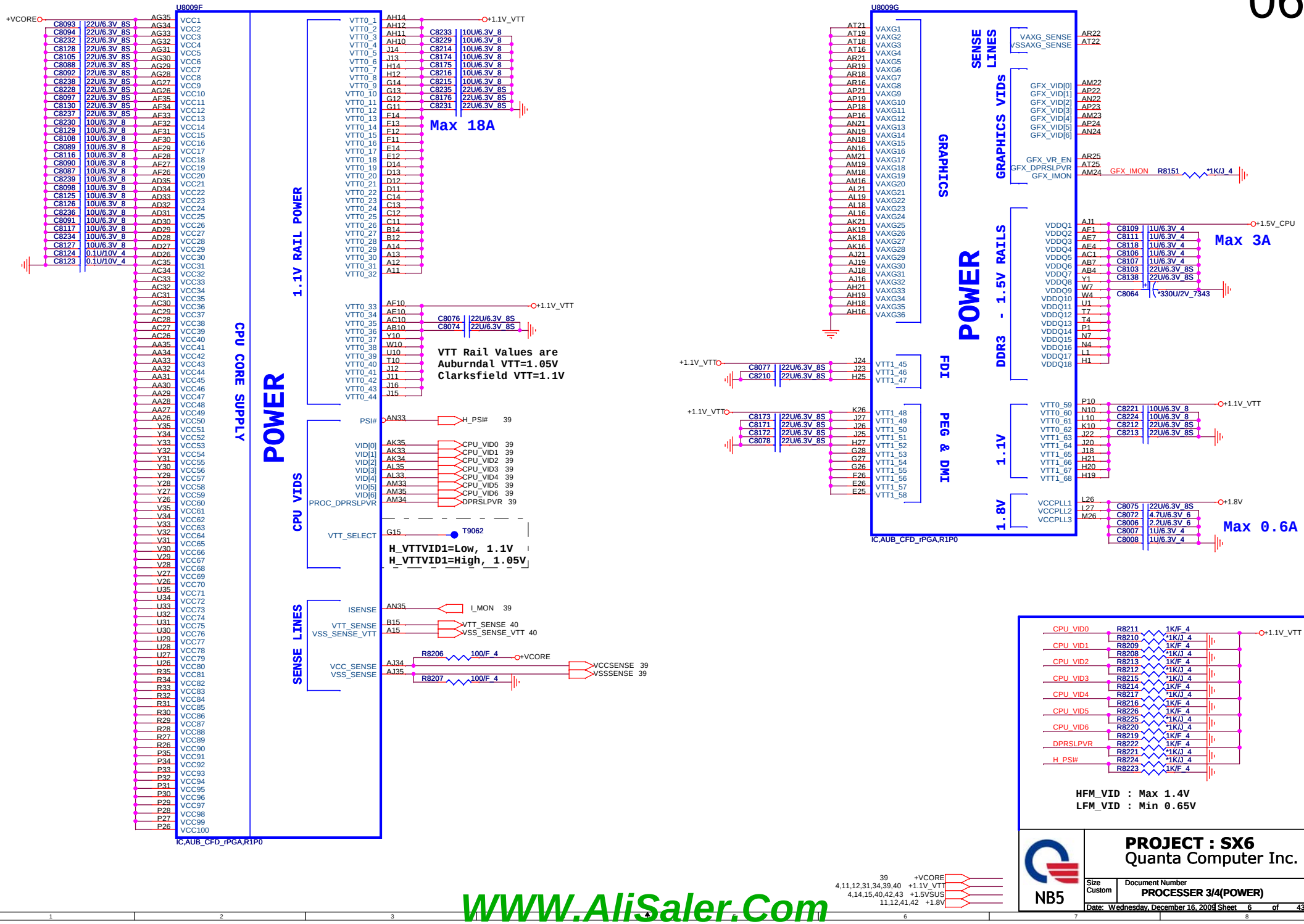
Size	Document Number	Rev
Custom	PROCESSER 1/4(HOST&PEX)	2B

Date: Tuesday, December 22, 2009 Sheet 4 of 43

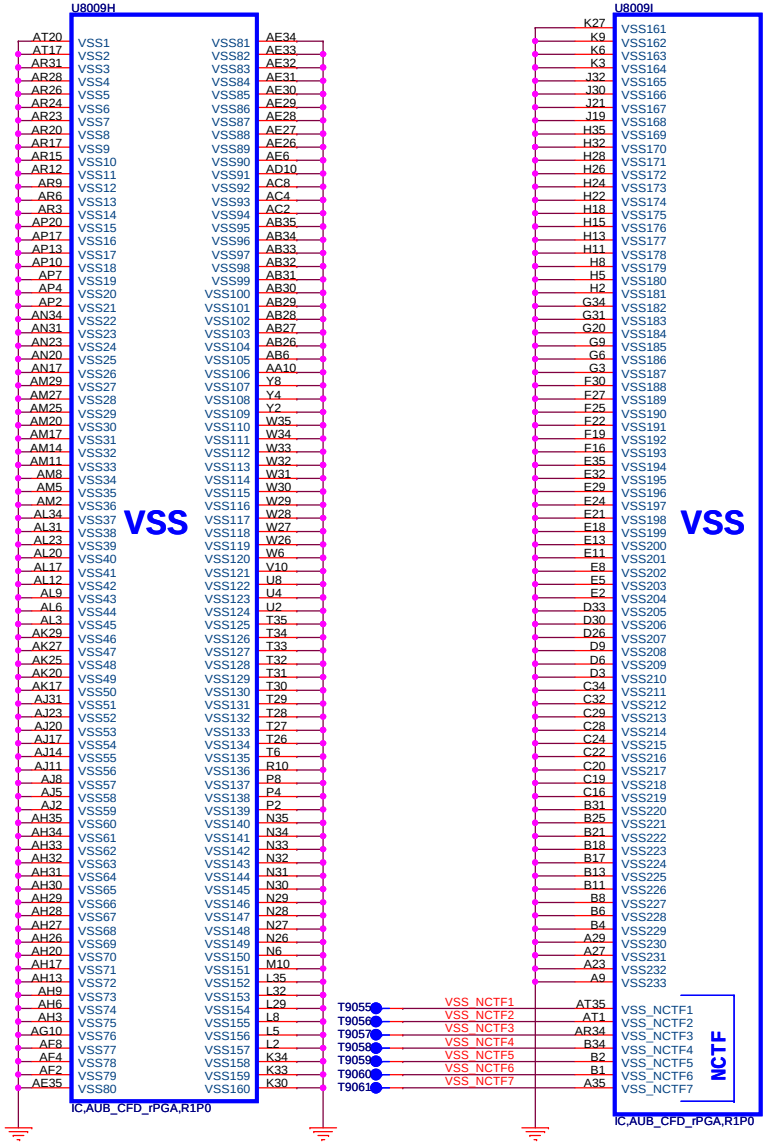
AUBURNDALE/CLARKSFIELD PROCESSOR (DDR3)



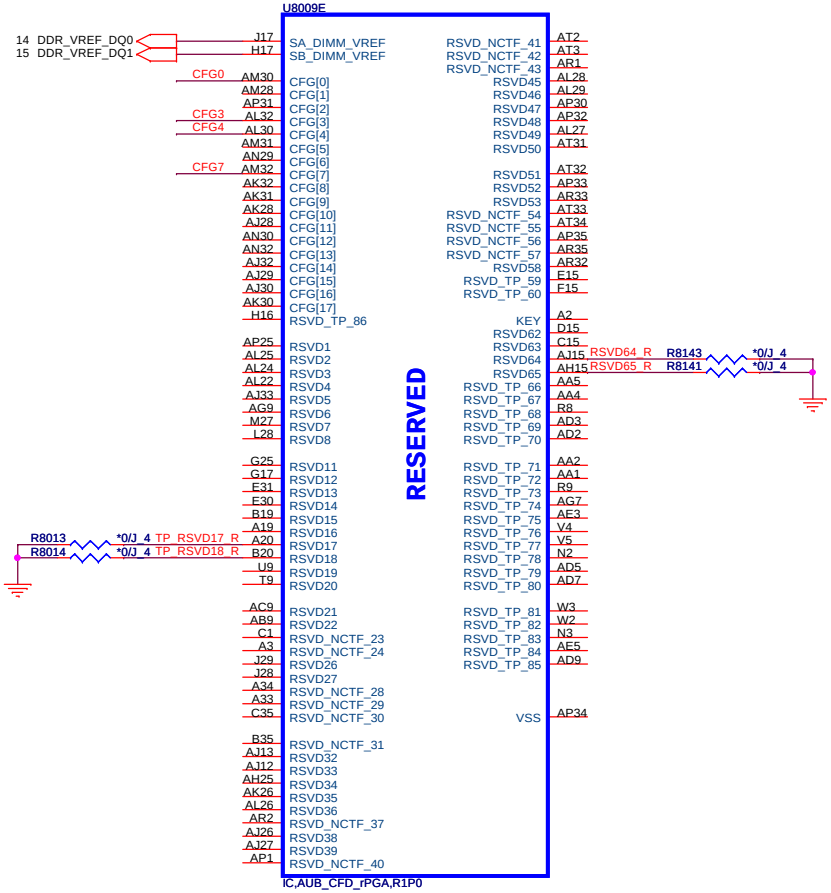
NB5	PROJECT : SX6 Quanta Computer Inc.
Size: Custom	Document Number: PROCESSER 2/4(DDR)
Rev: 2B	
Date: Tuesday, December 15, 2009	Sheet 5 of 43

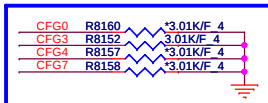


AUBURNDALE/CLARKSFIELD PROCESSOR (GND)



AUBURNDALE/CLARKSFIELD PROCESSOR(RESERVED, CFG)





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

	1	0
CFG4 (Display Port Presence)	Disabled; No Physical Display Port attached to Embedded Diplay Port	Enabled; An external Display port device is connected to the Embedded Display port
CFG0 (PCI-Epress Configuration Select)	Single PEG	Bifurcation enabled
CFG3 (PCI-Epress Static Lane Reversal)	Normal Operation	Lane Numbers Reversed 15 -> 0 , 14 -> 1

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.

NB5

PROJECT : SX6
Quanta Computer Inc.

Size	Document Number	Rev
Custom	PROCESSER 4/4(GND)	2B

Date: Tuesday, December 15, 2009 Sheet 7 of 43

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

IBEX PEAK-M (HDA,JTAG,SATA)

U8007A

Ibex-M 1 OF 10

RTC
IHDA
JTAG
SPI
LPC
SATA

SATA HDD
SATA ODD
E-SATA

must add test point.

PV modified - change from 0ohm to 22ohm

IbexPeak-M_Rev1_0

IBEX PEAK-M (LVDS,DDI)

U8007D

Ibex-M 4 OF 10

Digital Display Interface

SDVO
LVDS--A
LVDS--B
CRT
DISPLAY PORT B
DISPLAY PORT C
DISPLAY PORT D

IbexPeak-M_Rev1_0

For AUDIO

For MDC

RTC

PV modified -

BT1
BAT_CONN

DFWF02MS022
SI change p/n

NB5	PROJECT : SX6 Quanta Computer Inc.		
Size: Custom	Document Number: PCH 2/6 (SATA,HDA,LPC)		Rev: 2B
Date: Tuesday, December 15, 2009	Sheet 8 of 43		

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

09

U8007B

Ibex-M
2 OF 10

PCI-E*

[Epress Card]
[WLAN]
[PCIE_LAN]
New Card
WLAN

SMBus

(+3V_S5) SMBALERT# / GPIO11
SMBCLK
SMBDATA
(+3V_S5) SML0ALERT# / GPIO60
SML0CLK
SML0DATA
(+3V_S5) SML1ALERT# / GPIO74
(+3V_S5) SML1CLK / GPIO58
(+3V_S5) SML1DATA / GPIO75

Controller Link

CL_CLK1
CL_DATA1
CL_RST1#

PEG

(+3V_S5) PEG_A_CLKRQ# / GPIO47
CLKOUT_PEG_A_N
CLKOUT_PEG_A_P
CLKOUT_DMI_N
CLKOUT_DMI_P
CLKOUT_DP_N / CLKOUT_BCLK1_N
CLKOUT_DP_P / CLKOUT_BCLK1_P

From CLK BUFFER

CLKIN_DMI_N
CLKIN_DMI_P
CLKIN_BCLK_N
CLKIN_BCLK_P
CLKIN_DOT_96N
CLKIN_DOT_96P
CLKIN_SATA_N / CKSSCD_N
CLKIN_SATA_P / CKSSCD_P
REFCLK14IN
CLKIN_PCILOOPBACK
XTAL25_IN
XTAL25_OUT
XCLK_RCOMP

Clock Flex

(+3V) CLKOUTFLEX0 / GPIO64
(+3V) CLKOUTFLEX1 / GPIO65
(+3V) CLKOUTFLEX2 / GPIO66
(+3V) CLKOUTFLEX3 / GPIO67

IbexPeak-M_Rev1_0

PV modified - change from 0ohm to short pad

Intel suggest 25MHz X'tal can be removed in POR 3/16

PROJECT : SX6
Quanta Computer Inc.

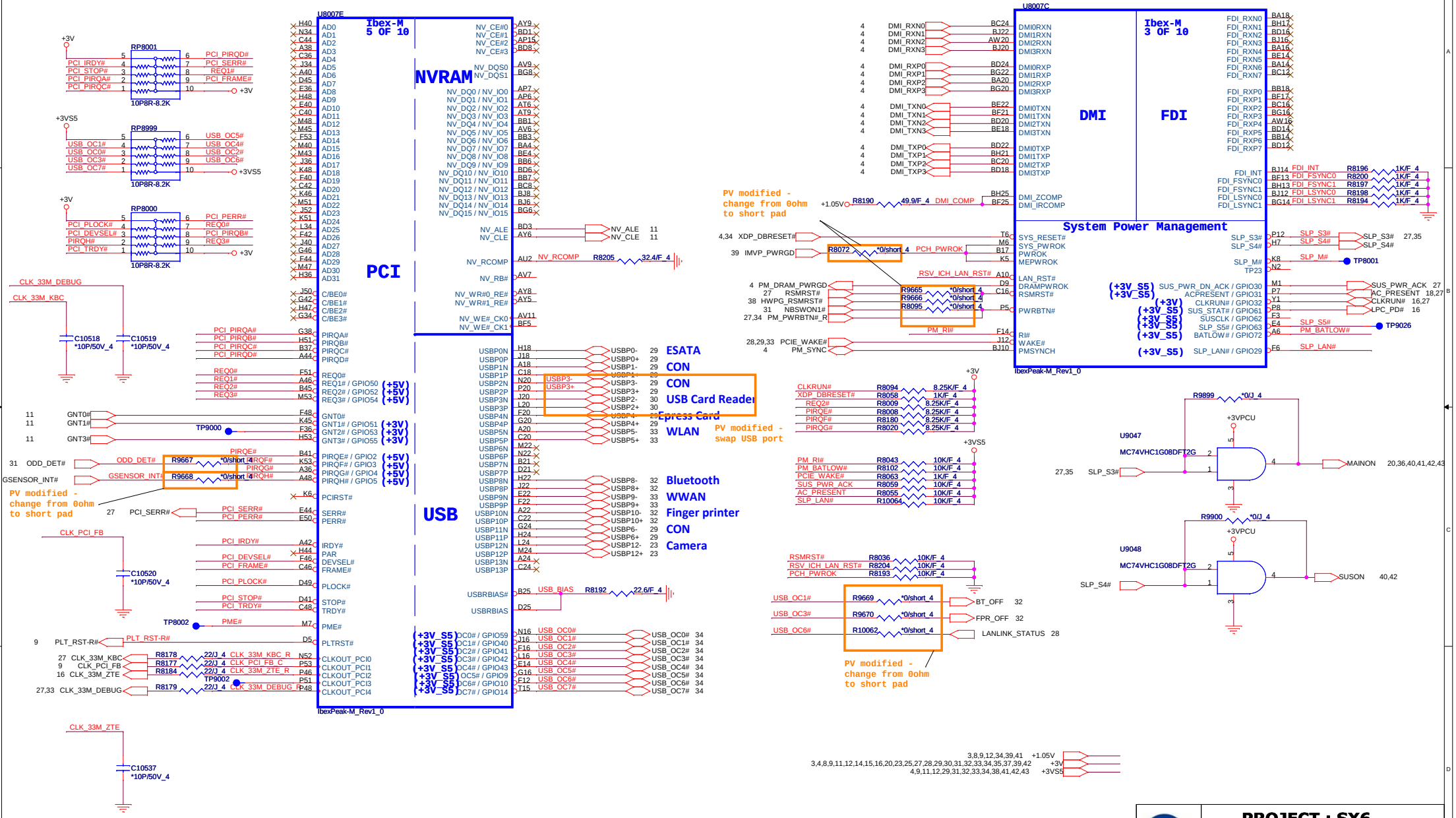
NB5

Size	Document Number	Rev
Custom	PCH 3/6 (PCI,ONFI,USB,CK)	2B

Date: Tuesday, December 15, 2009 | Sheet 9 of 43

IBEX PEAK-M (PCI,USB,NVRAM)

IBEX PEAK-M (DMI,FDI,GPIO)



NB5	PROJECT : SX6 Quanta Computer Inc.	
Size: Custom	Document Number: PCH 6/6 (GND)/ Braidwood	Rev: 2B
Date: Tuesday, December 15, 2009	Sheet 10 of 43	

IBEX PEAK-M (GPIO,VSS_NCTF,RSVD)

U8007F

Ibex-M
6 OF 10

GPIO MISC

BMBUSY# / GPIO0 (+3V)
TACH1 / GPIO1 (+3V)
TACH2 / GPIO6 (+3V)
TACH3 / GPIO7 (+3V)
GPIO8 (+3V_S5)
LAN_PHY_PWR_CTRL / GPIO12 (+3V_S5)
GPIO15 (+3V_S5)
SATA4GP / GPIO16 (+3V)
TACH0 / GPIO17 (+3V)
SCLOCK / GPIO22 (+3V)
GPIO27 (+3V_S5)
GPIO28 (+3V_S5)
SATA2GP / GPIO36 (+3V)
SATA3GP / GPIO37 (+3V)
SDATAOUT0 / GPIO39 (+3V)
PCIECLKRQ7# / GPIO46 (+3V_S5)
SDATAOUT1 / GPIO48 (+3V)
SATA5GP / GPIO49 (+3V)
GPIO24
PCIECLKRQ6# / GPIO45 (+3V_S5)
GPIO57 (+3V_S5)
STP_PCI# / GPIO34 (+3V)
SATACLKREQ# / GPIO33 (+3V)
SLOAD / GPIO38 (+3V)

34 BMBUSY#
37 OCP#
27 SIO_EXT_SCI#
31 THERM_SCI#
4 DDR3_RST
28 CB_IN# — R8075 *0_4 — LAN_CABLE_DET#
PCH_GPIO15
34 SATA4GP
PCH_GPIO17
33 WWAN_DET#
33 WWAN_OFF#
28,34 LAN_DIS#
34 SATA2GP
23,34 SATA3GP
23,34 WEBCAM_OFF
DOCK_ID1
GPIO46
SV_SET_UP
34 SATA5GP
28 PCIE_LAN_CLK_REQ#
33 WLAN_OFF#
STP_PCI#
SATACLKREQ#
DOCK_ID0

CPU

CLKOUT_BCLK0_N/CLKOUT_PCIE8N
CLKOUT_BCLK0_P/CLKOUT_PCIE8P
PECI — BG10 — PCH_PECI_R — R8201 *0/short_4 — H_PECI 4
RCIN# — T1 — KB_RST# 27
PROCPWRGD — BE10 — H_PWRGOOD 4,34
THRMTRIP# — BD10 — PCH_THRMTRIP#_R — R8037 56.2/F_4 — PM_THRMTRIP# 4,31
+1.1V_VTT — R8038 56.2/F_4

RSVD

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

NCTF

VSS_NCTF_1 A4
VSS_NCTF_2 A49
VSS_NCTF_3 A5
VSS_NCTF_4 A50
VSS_NCTF_5 A52
VSS_NCTF_6 A53
VSS_NCTF_7 B2
VSS_NCTF_8 B4
VSS_NCTF_9 B52
VSS_NCTF_10 B53
VSS_NCTF_11 BE1
VSS_NCTF_12 BE53
VSS_NCTF_13 BF1
VSS_NCTF_14 BF53
VSS_NCTF_15 BH1
VSS_NCTF_16 BH2
VSS_NCTF_17 BH52
VSS_NCTF_18 BH53
VSS_NCTF_19 BJ1 — PCH_NCTF19
VSS_NCTF_20 BJ2
VSS_NCTF_21 BJ4
VSS_NCTF_22 BJ49
VSS_NCTF_23 BJ5
VSS_NCTF_24 BJ50
VSS_NCTF_25 BJ52
VSS_NCTF_26 BJ53 — PCH_NCTF26
VSS_NCTF_27 D1
VSS_NCTF_28 D2
VSS_NCTF_29 D53
VSS_NCTF_30 E1
VSS_NCTF_31 E53

PCH_NCTF6
PCH_NCTF7

IbexPeak-M_Rev1_0

PV modified - change from 0ohm to short pad

SATA2GP — R9674 *0/short_4 — NPCI_RST# 27

CLKOUT_PCIE6N AH45 — CLK_PCIE_LAN# 28
CLKOUT_PCIE6P AH46 — CLK_PCIE_LAN 28
LAN
CLKOUT_PCIE7N AF48
CLKOUT_PCIE7P AF47
A20GATE U2 — GATEA20 27
CLK_CPU_BCLK# 4
CLK_CPU_BCLK 4

+3V
R9671 100K/F_4 — Q9046 DMN601K-7 — CRACK_BGA 19,27 — PCH_NCTF6
R9672 100K/F_4 — Q9047 DMN601K-7 — CRACK_BGA 19,27 — PCH_NCTF7
R9673 100K/F_4 — Q9048 DMN601K-7 — CRACK_BGA 19,27 — PCH_NCTF19
R9675 100K/F_4 — Q9049 DMN601K-7 — CRACK_BGA 19,27 — PCH_NCTF26

10 GNT3# — R8182 *10K/J_4

A16 swap override Strap/Top-Block Swap Override jumper	
GNT3#	Low = A16 Swap override/Top-Block Swap Override enabled High = Default

SV_SET_UP R8076 10K/F_4 +3V

SV_SET_UP	1-X High = Strong (Default)

10 GNT0# — R8005 *1K/J_4
10 GNT1# — R8181 *1K/J_4

Boot BIOS Strap		
PCI_GNT0#	GNT#1	Boot BIOS Location
0	0	LPC
0	1	Reserved (NAND)
1	0	PCI
1	1	SPI

10 NV_ALE — R8202 *1K/J_4
10 NV_CLE — R8203 *1K/J_4 — +1.8V

Danbury Technology Enabled	
NV_ALE	High = Enable Low = Disable

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

No Reboot Strap

8,25 SPKR — SPKR R8132 *1K/J_4 — +3V
8 PCH_GPIO33 — R8022 *100K/J_4

+3VS5
DDR3_RST R8065 10K/F_4
PCH_GPIO15 R8026 1K/F_4
LAN_CABLE_DET# R10147 10K/F_4
WWAN_OFF# R9676 10K/F_4
GPIO24 R8085 10K/F_4
WLAN_OFF# R8066 10K/F_4
GPIO46 R9677 10K/F_4
PCIE_LAN_CLK_REQ# R8098 10K/F_4
LAN_DIS# R8033 10K/F_4

+3V
KB_RST# R8106 10K/F_4
GATEA20 R8080 10K/F_4
SATA2GP R8053 10K/F_4
SATA3GP R8040 10K/F_4
SATA4GP R8104 10K/F_4
SATA5GP R8093 10K/F_4
BMBUSY# R8096 10K/F_4
SIO_EXT_SCI# R8018 10K/F_4
THERM_SCI# R8021 10K/F_4
PCH_GPIO17 R8017 10K/F_4
WWAN_DET# R8069 10K/F_4
STP_PCI# R8056 10K/F_4
SATACLKREQ# R8067 10K/F_4
DOCK_ID0 R8068 10K/F_4
DOCK_ID1 R8078 10K/F_4

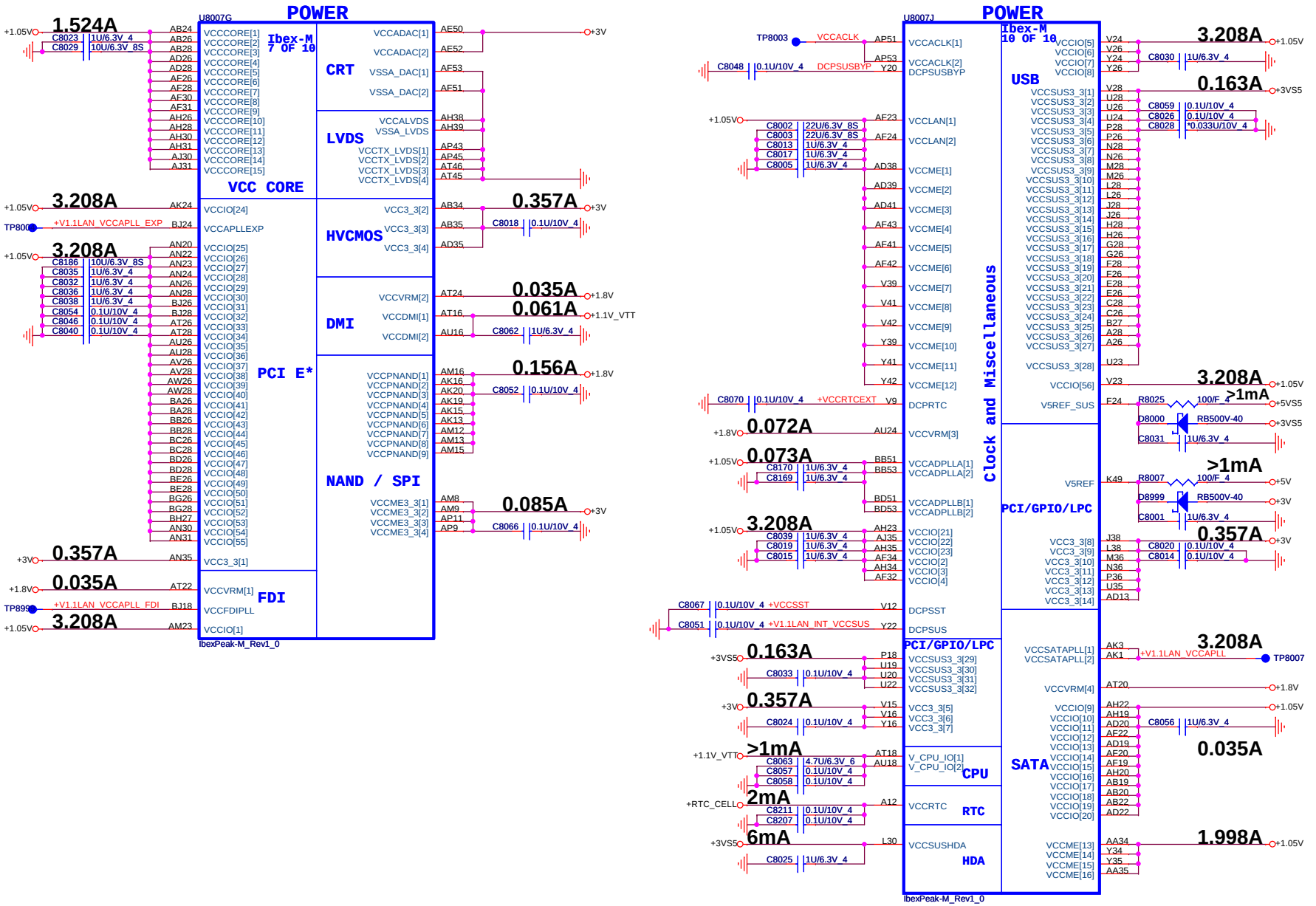
4,6,12,31,34,39,40 +1.1V_VTT
6,12,41,42 +1.8V
3,4,8,9,10,12,14,15,16,20,23,25,27,28,29,30,31,32,33,34,35,37,39,42 +3V
+3VS5

NB5

PROJECT : SX6
Quanta Computer Inc.

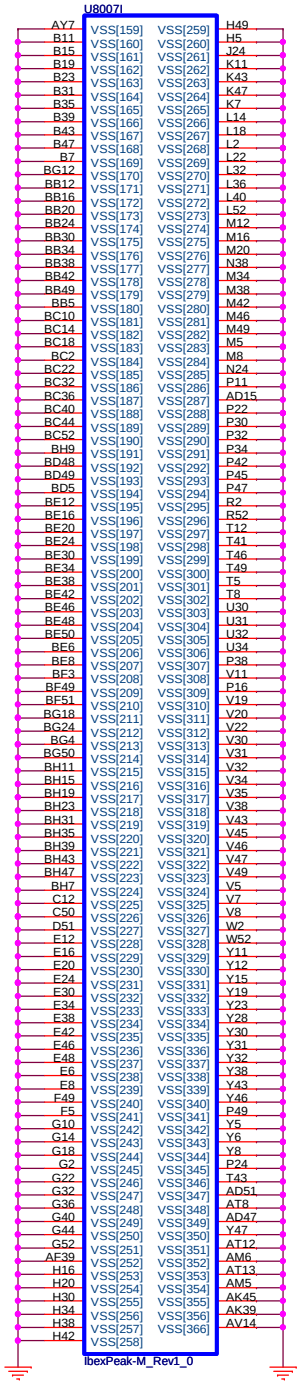
Size	Document Number	Rev
Custom	PCH 4/6 (GPIO & Strap)	2B

Date: Tuesday, December 15, 2009 Sheet 11 of 43

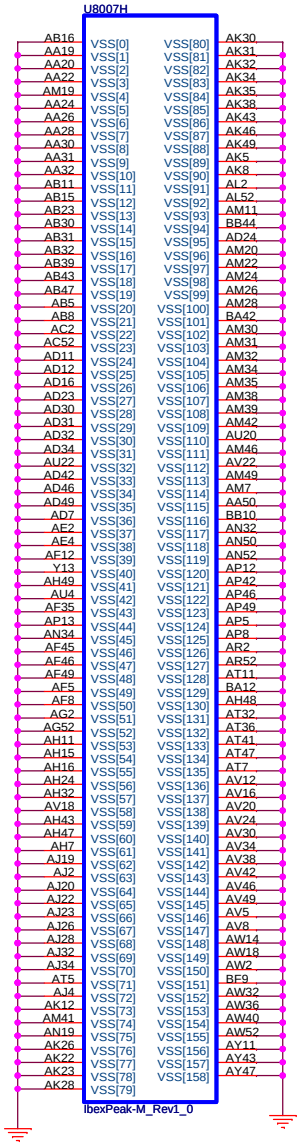


PROJECT : SX6	
Quanta Computer Inc.	
NB5	Size: Custom; Document Number: PCH 5/6 (POWER); Rev: 2B
Date: Tuesday, December 15, 2009	Sheet 12 of 43

IBEX PEAK-M (GND)



IBEX PEAK-M (GND)

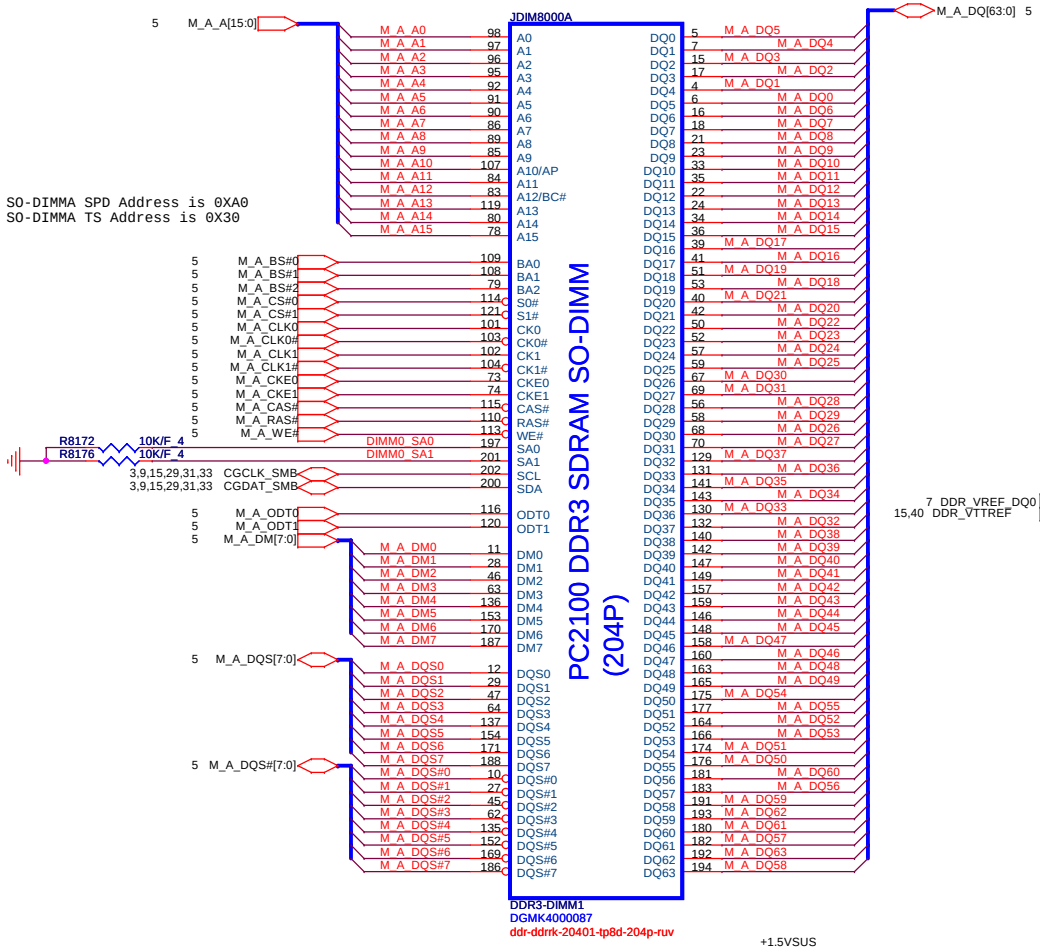


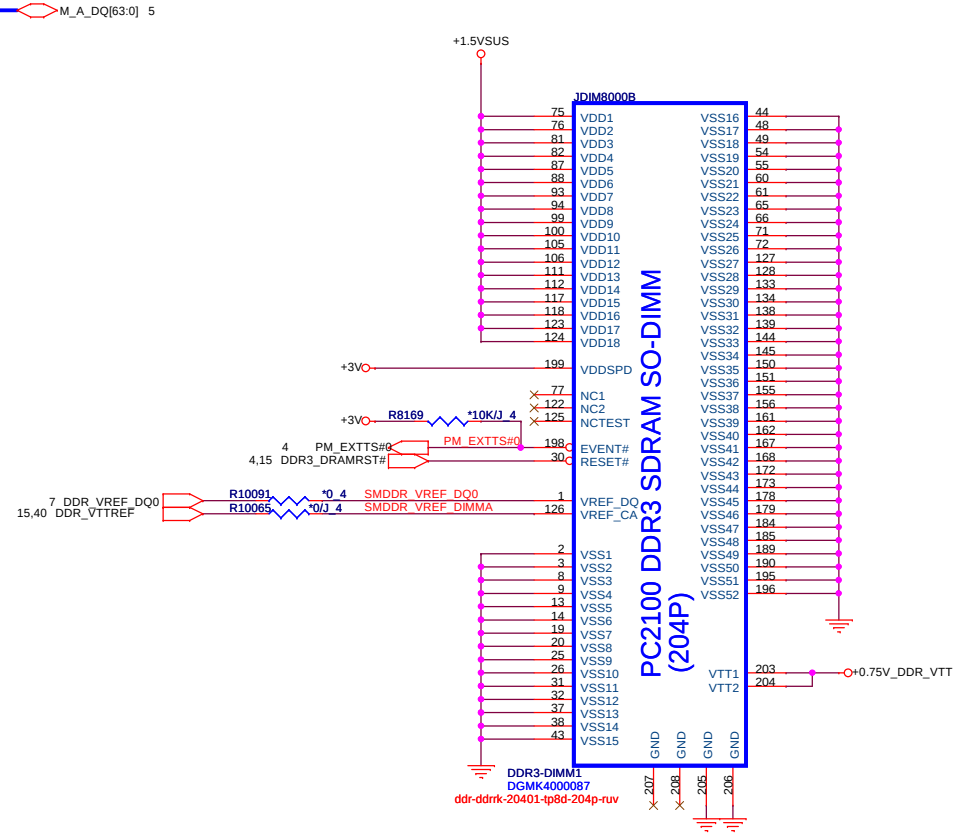
NB5

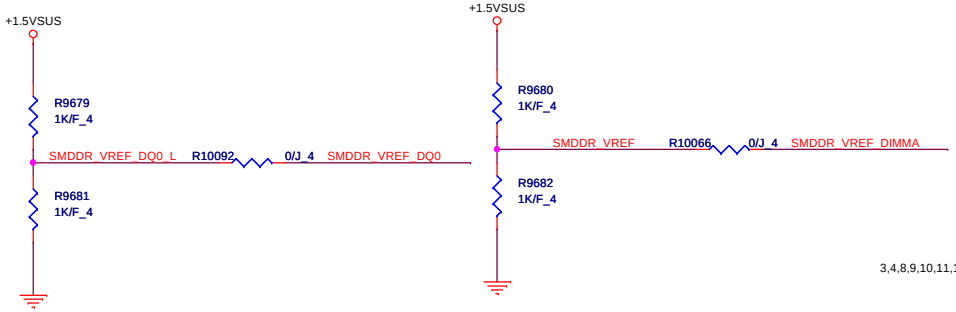
PROJECT : SX6
Quanta Computer Inc.

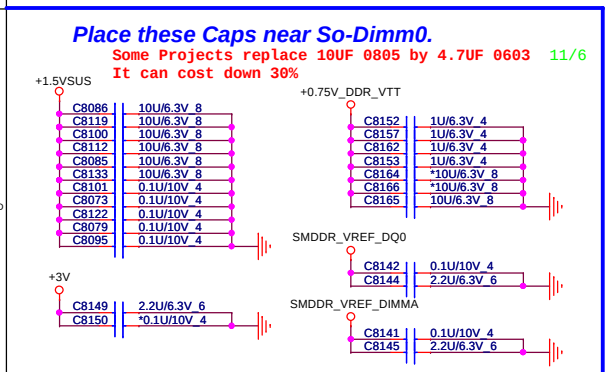
Size	Document Number	Rev
Custom	PCH 6/6 (GND)	2B

Date: Tuesday, December 15, 2009 | Sheet 13 of 43



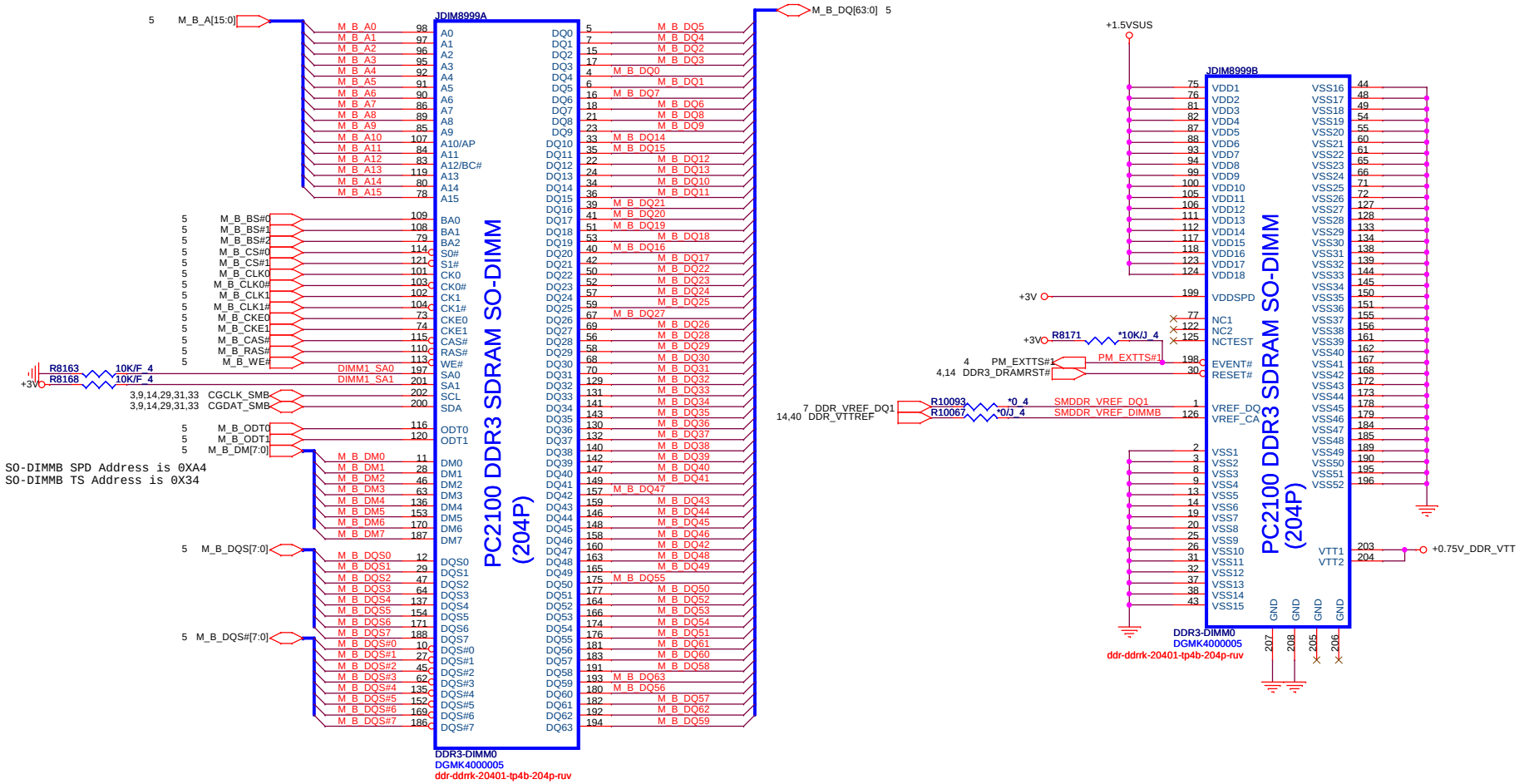






15,40,42 +0.75V_DDR_VTT
4,15,40,42,43 +1.5VSUS
3,4,8,9,10,11,12,15,16,20,23,25,27,28,29,30,31,32,33,34,35,37,39,42 +3V
8,10,23,25,27,31,32,36,37,38 +3VPCU
+5VPCU

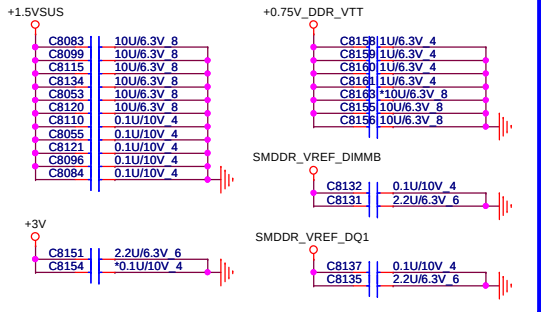
NB5	PROJECT : SX6 Quanta Computer Inc.	
Size: Custom	Document Number: DDR3 DIMM-0	Rev: 2B
Date: Tuesday, December 15, 2009	Sheet 14 of 43	

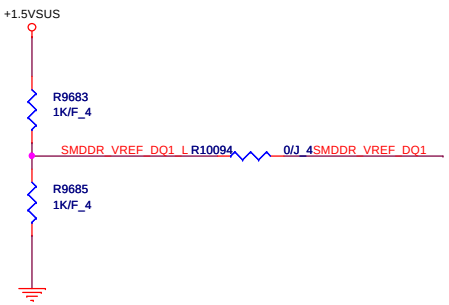


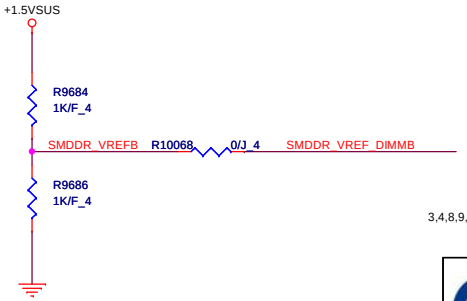
Place these Caps near So-Dimm1.

Some Projects replace 10UF 0805 by 4.7UF 0603

It can cost down 30%







14,40,42 +0.75V_DDR_VTT
4,14,40,42,43 +1.5VSUS
3,4,8,9,10,11,12,14,16,20,23,25,27,28,29,30,31,32,33,34,35,37,39,42 +3V
8,10,23,25,27,31,32,36,37,38 +3VPCU
+5VPCU

PROJECT : SX6
Quanta Computer Inc.

Size	Document Number	Rev
Custom	DDR3 DIMM-1	2B

NB5

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H1 *H-C354D118P2
H2 *H-C354D118P2
H3 *H-C394D276P2
H4 *H-C394D276P2
H5 *H-C197D181P2
H6 *H-C197D181P2
VGA HOLE
H7 *H-TC3741197BC197D181P2
H8 *H-TC3741197BC197D181P2
H9 *H-TC3741197BC197D181P2
H10 *H-TC3741197BC197D181P2
CPU HOLE
H11 *H-TC2768C236D91P2
H12 *H-TC2768C236D91P2
H13 *H-TC2768C236D91P2
H14 *H-TC2768C236D91P2
Epress card screw HOLE
PAD1
PAD2
PAD3
PAD4
PAD5
PAD7
GND PAD
PAD6
PAD8
PAD9
H15 *H-C354D276P2
H16 *H-C354D276P2
H20 *H-TC3548C276D118P2
H22 *H-TC3548C276D118P2
H27 *H-TC394BC354D276P2
H29 *H-TC236BC276D118P2
H30 *H-C433D394P2
H31 *H-C315D276P2
H23 *H-C197D91P2
H24 *H-C197D91P2
HDD screw HOLE
H25 *H-C197D91P2
H26 *H-C197D91P2
ODD screw HOLE
MBAT8002019
H32 *MBAT8002019
WLAN CARD NUT
MBAT8002019
H19 *MBAT8002019
WWAN CARD NUT
H17 MBZR1002015
H18 MBZR1002015
MDC NUT
MBZR1002015

BADD1	BADD0	
0	0	EE/EF
0	1	7E/7F
1	0	2E/2F
1	1	4E/4F(Defult)

U9066
ZTEIC
*SSX44-B-H-Q
LAD0
LAD1
LAD2
LAD3
LFRAME#
PLTRST#
CLK_33M_ZTE
LPCPD#
CLKRUN#
SERIRQ
NC_P
GPIO3
GPIO15
GPIO16
PP
BADD0
BADD1
GND
EPAD
VCC3
+3V
8,27,33 LAD0
8,27,33 LAD1
8,27,33 LAD2
8,27,33 LAD3
8,27,33 LFRAME#
4,9,17,27,28,29,33,34 PLTRST#
10 CLK_33M_ZTE
10 LPC_PD#
10,27 CLKRUN#
8,27 SERIRQ
LPC_PP
BADD0
BADD1
Not Stuff
R9690 *10K/F_4
R9662 *10K/F_4
R9678 *10K/F_4
Not Stuff
CLK_33M_ZTE
R9709 *33
C9981 *10P
Close to U9066
C9982 *0.1U/16V_4
C9983 *0.1U/16V_4
C9984 *0.1U/16V_4
C10464 *1U/6.3V_4

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Quanta Computer Inc.
NB5
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Document Number Hole, Nuts,TCM
Rev 2B
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POWER
+PCIE_VDDR=1.2V
+VDD_MEM1.8V=1.8V
+VGA_CORE=0.9~1.2V

POWER
for M9x-S3 DPx_VDD10=1.1V
for Park-S3 DPx_VDD10=1.0V

U9050A

2.5GT/s bit rate

PCI EXPRESS INTERFACE

PCIE_RX0P / PCIE_RX0N — PEG_TX15 / PEG_TX#15 — AF30 / AE31
PCIE_RX1P / PCIE_RX1N — PEG_TX14 / PEG_TX#14 — AE29 / AD28
PCIE_RX2P / PCIE_RX2N — PEG_TX13 / PEG_TX#13 — AD30 / AC31
PCIE_RX3P / PCIE_RX3N — PEG_TX12 / PEG_TX#12 — AC29 / AB28
PCIE_RX4P / PCIE_RX4N — PEG_TX11 / PEG_TX#11 — AB30 / AA31
PCIE_RX5P / PCIE_RX5N — PEG_TX10 / PEG_TX#10 — AA29 / Y28
PCIE_RX6P / PCIE_RX6N — PEG_TX9 / PEG_TX#9 — Y30 / W31
PCIE_RX7P / PCIE_RX7N — PEG_TX8 / PEG_TX#8 — W29 / V28
PCIE_RX8P / PCIE_RX8N — PEG_TX7 / PEG_TX#7 — V30 / U31
PCIE_RX9P / PCIE_RX9N — PEG_TX6 / PEG_TX#6 — U29 / T28
PCIE_RX10P / PCIE_RX10N — PEG_TX5 / PEG_TX#5 — T30 / R31
PCIE_RX11P / PCIE_RX11N — PEG_TX4 / PEG_TX#4 — R29 / P28
PCIE_RX12P / PCIE_RX12N — PEG_TX3 / PEG_TX#3 — P30 / N31
PCIE_RX13P / PCIE_RX13N — PEG_TX2 / PEG_TX#2 — N29 / M28
PCIE_RX14P / PCIE_RX14N — PEG_TX1 / PEG_TX#1 — M30 / L31
PCIE_RX15P / PCIE_RX15N — PEG_TX0 / PEG_TX#0 — L29 / K30

CLOCK
9 CLK_PCIE_VGA / 9 CLK_PCIE_VGA# — CLK_PCIE_VGA / CLK_PCIE_VGA# — AK30 / AK32
PCIE_REFCLKP / PCIE_REFCLKN

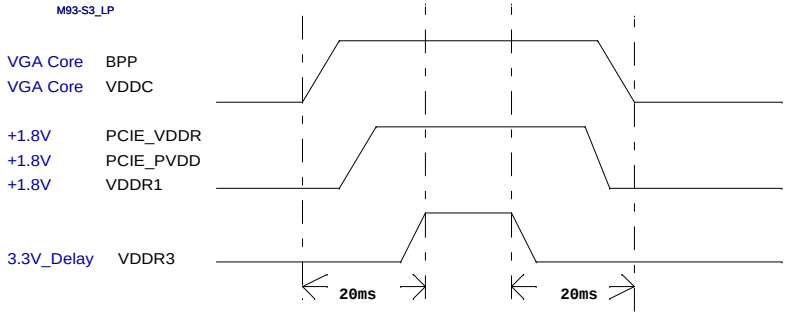
10K/F_4 — R9915 — N10 — PWRGOOD
9,16,27,28,29,33,34 PLTRST# — AL27 — PERSTB

PCIE_TX0P / PCIE_TX0N — AH30 / AG31 — C_PEG_RX15 / C_PEG_RX#15 — C10241 / C10242 — 0.1U/10V_4 — PEG_RX15 / PEG_RX#15
PCIE_TX1P / PCIE_TX1N — AG29 / AF28 — C_PEG_RX14 / C_PEG_RX#14 — C10233 / C10234 — 0.1U/10V_4 — PEG_RX14 / PEG_RX#14
PCIE_TX2P / PCIE_TX2N — AF27 / AF26 — C_PEG_RX13 / C_PEG_RX#13 — C10231 / C10232 — 0.1U/10V_4 — PEG_RX13 / PEG_RX#13
PCIE_TX3P / PCIE_TX3N — AD27 / AD26 — C_PEG_RX12 / C_PEG_RX#12 — C10229 / C10230 — 0.1U/10V_4 — PEG_RX12 / PEG_RX#12
PCIE_TX4P / PCIE_TX4N — AC25 / AB25 — C_PEG_RX11 / C_PEG_RX#11 — C10227 / C10228 — 0.1U/10V_4 — PEG_RX11 / PEG_RX#11
PCIE_TX5P / PCIE_TX5N — Y23 / Y24 — C_PEG_RX10 / C_PEG_RX#10 — C10225 / C10226 — 0.1U/10V_4 — PEG_RX10 / PEG_RX#10
PCIE_TX6P / PCIE_TX6N — AB27 / AB26 — C_PEG_RX9 / C_PEG_RX#9 — C10223 / C10224 — 0.1U/10V_4 — PEG_RX9 / PEG_RX#9
PCIE_TX7P / PCIE_TX7N — Y27 / Y26 — C_PEG_RX8 / C_PEG_RX#8 — C10221 / C10222 — 0.1U/10V_4 — PEG_RX8 / PEG_RX#8
PCIE_TX8P / PCIE_TX8N — W24 / W23 — C_PEG_RX7 / C_PEG_RX#7 — C10219 / C10220 — 0.1U/10V_4 — PEG_RX7 / PEG_RX#7
PCIE_TX9P / PCIE_TX9N — V27 / U26 — C_PEG_RX6 / C_PEG_RX#6 — C10217 / C10218 — 0.1U/10V_4 — PEG_RX6 / PEG_RX#6
PCIE_TX10P / PCIE_TX10N — U24 / U23 — C_PEG_RX5 / C_PEG_RX#5 — C10212 / C10213 — 0.1U/10V_4 — PEG_RX5 / PEG_RX#5
PCIE_TX11P / PCIE_TX11N — T26 / T27 — C_PEG_RX4 / C_PEG_RX#4 — C10210 / C10211 — 0.1U/10V_4 — PEG_RX4 / PEG_RX#4
PCIE_TX12P / PCIE_TX12N — T24 / T23 — C_PEG_RX3 / C_PEG_RX#3 — C10208 / C10209 — 0.1U/10V_4 — PEG_RX3 / PEG_RX#3
PCIE_TX13P / PCIE_TX13N — P27 / P26 — C_PEG_RX2 / C_PEG_RX#2 — C10206 / C10207 — 0.1U/10V_4 — PEG_RX2 / PEG_RX#2
PCIE_TX14P / PCIE_TX14N — P24 / P23 — C_PEG_RX1 / C_PEG_RX#1 — C10204 / C10205 — 0.1U/10V_4 — PEG_RX1 / PEG_RX#1
PCIE_TX15P / PCIE_TX15N — M27 / N26 — C_PEG_RX0 / C_PEG_RX#0 — C10202 / C10203 — 0.1U/10V_4 — PEG_RX0 / PEG_RX#0

CALIBRATION
PCIE_CALRP — Y22 — PCIE_CALRP — R9914 — 1.27K/F_4
PCIE_CALRN — AA22 — PCIE_CALRN — R9916 — 2K/F_4 — +1.1V_PCIE_VDDC

M93-S3_LP

100MHz (+/-300ppm) input frequency,
0-0.7V single-ended swing



U9050G

DP E/F POWER
DP A/B POWER

1.8V(200mA) — +1.8V_DPE_VDD18 — AG15 / AG16 — DPE_VDD18#1 / DPE_VDD18#2
M9x-S3:TMDS 1.1V@170mA LVDS 1.1V@100mA
Park-S3:TMDS 1.0V@110mA LVDS 1.0V@120mA
+1.1V_DPE_VDD10 — AG20 / AG21 — DPE_VDD10#1 / DPE_VDD10#2
DPE_VSSR#1 AG14, DPE_VSSR#2 AH14, DPE_VSSR#3 AM14, DPE_VSSR#4 AM16, DPE_VSSR#5 AM18

1.8V(200mA) — +1.8V_DPF_VDD18 — AF16 / AG17 — DPF_VDD18#1 / DPF_VDD18#2
M9x-S3:TMDS 1.1V@170mA LVDS 1.1V@100mA
Park-S3:TMDS 1.0V@110mA LVDS 1.0V@120mA
+1.1V_DPE_VDD10 — AF22 / AG22 — DPF_VDD10#1 / DPF_VDD10#2
DPF_VSSR#1 AF23, DPF_VSSR#2 AG23, DPF_VSSR#3 AM20, DPF_VSSR#4 AM22, DPF_VSSR#5 AM24

R9912 — 150/F_4 — AF17 — DPEF_CALR

1.8V(20mA) — +1.8V_DPE_PVDD — AG18 / AF19 — DPE_PVDD / DPE_PVSS
1.8V(20mA) — +1.8V_DPE_PVDD — AG19 / AF20 — DPF_PVDD / DPF_PVSS

DP PLL POWER

DPA_VDD18#1 AE11, DPA_VDD18#2 AE11 — 1.8V(130mA) — +1.8V_DPA_PVDD
M9x-S3:1.1V@200mA Park-S3:1.0V@110mA
DPA_VDD10#1 AF6, DPA_VDD10#2 AF7 — +1.1V_DPB_VDD10 — +1.1V_DPB_VDD10
DPA_VSSR#1 AE1, DPA_VSSR#2 AE3, DPA_VSSR#3 AG1, DPA_VSSR#4 AG6, DPA_VSSR#5 AH5

DPB_VDD18#1 AE13, DPB_VDD18#2 AE13 — 1.8V(130mA) — +1.8V_DPA_PVDD
M9x-S3:1.1V@200mA Park-S3:1.0V@110mA
DPB_VDD10#1 AF8, DPB_VDD10#2 AF9 — +1.1V_DPB_VDD10 — BLM18PG181SN1D(180,1.5A)_6 — L9086 — +1.0V_GFX
C10214 — 0.1U/10V_4 — C10215 — 10U/6.3V_8 — C10216 — 1000P/50V_4
DPB_VSSR#1 AE10, DPB_VSSR#2 AG9, DPB_VSSR#3 AH8, DPB_VSSR#4 AM6, DPB_VSSR#5 AM8

DPAB_CALR — AE10 — R9913 — 150/F_4

1.8V(20mA) — DPA_PVDD — +1.8V_DPA_PVDD — AG8 / AG7 — +1.8V_DPA_PVDD
1.8V(20mA) — DPB_PVDD — +1.8V_DPA_PVDD — AG10 / AG11 — +1.8V_DPA_PVDD

M93-S3_LP

+1.1V_DPE_VDD10 — +1.1V_DPE_VDD10 — L9087 — +1.0V_GFX
C10238 — 0.1U/10V_4 — C10239 — 1000P/50V_4 — C10240 — 10U/6.3V_8
BLM18PG181SN1D(180,1.5A)_6

+1.8V_DPA_PVDD — +1.8V_DPA_PVDD — L9088 — +1.8V_GFX
C10235 — 0.1U/10V_4 — C10236 — 1000P/50V_4 — C10237 — 10U/6.3V_8
BLM18PG181SN1D(180,1.5A)_6

+1.8V_DPE_PVDD — +1.8V_DPE_PVDD — L9089 — +1.8V_GFX
C10243 — 0.1U/10V_4 — C10244 — 1000P/50V_4 — C10245 — 10U/6.3V_8
BLM18PG181SN1D(180,1.5A)_6

+1.8V_DPE_VDD18 — L9090 — +1.8V_GFX
C10246 — 0.1U/10V_4 — C10247 — 1U/10V_4 — C10248 — 10U/6.3V_8
BLM18PG181SN1D(180,1.5A)_6

NB5/RD2

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Quanta Computer Inc.

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R9917 10K/F_4 GPIO22
GPIO22(ROMCS#)
PD without external VBIOS ROM

MEM_ID[3:0]	Vendor	Type	Vendor P/N	Quanta P/N
0000 0100	Samsung E-die Hynix Orion-die	64*16-800MHZ 64*16-800MHZ	K4W1G1646E-HC12 H5TQ1G63BFR-12C	AKD5LGGT503 AKD5LZGTW01

I.MEMID_0: ODM, 0'Quanta 1'Wistron
II.MEMID_1: Vram size, 0'512MB, 1'1GB
III.MEMID_2: Vram vender, 0'sunsumg, 1'hyniex.

	上件	不上件
Hynix 512M 0100	R9919	R9921,R9920,R9918

	上件	不上件
Samsung 512M 0000	NA	R9921,R9920,r9919,R9918

	上件	不上件
Hynix 1G 0110	R9919,R9920	R9921,R9918

	上件	不上件
Samsung 1G 0010	R9920	R9921,R9919,R9918

	PWRCNTL1	PWRCNTL0	V-CORE
	1	1	0.9V
	1	0	0.95V
	0	1	1.05V
	0	0	1.1V

	BBEN	BBP
L	0	V-CORE
H	1	+1.8V

for Park-S3 only

M93-S3/ Park-S3:Use 150R Pull down
Park-S3:NC

PV modified - change R9929 from 0ohm to short pad

PV modified - change R9924,R9926,R9928 from 0ohm to short pad

PV modified - change Q9078 and Q9079 pin connection for fix leakage issue

No need "CLK_27M_SS" connect to GPIO_16, since M9x chip support memory SS function in VBIOS

PROJECT : SX6
Quanta Computer Inc.
N85/RD2
Size: Custom | Document Number: Park_Main | Rev: 2B
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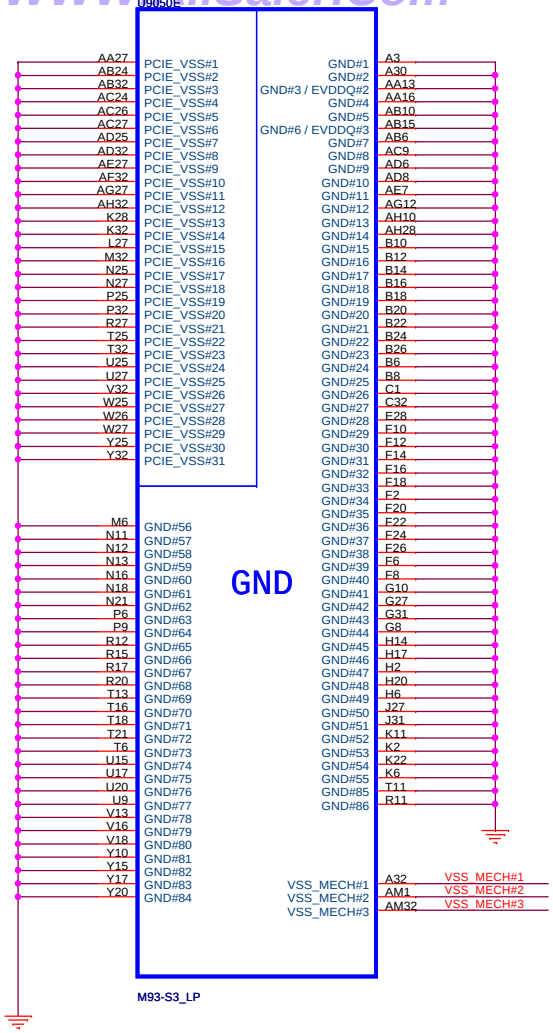

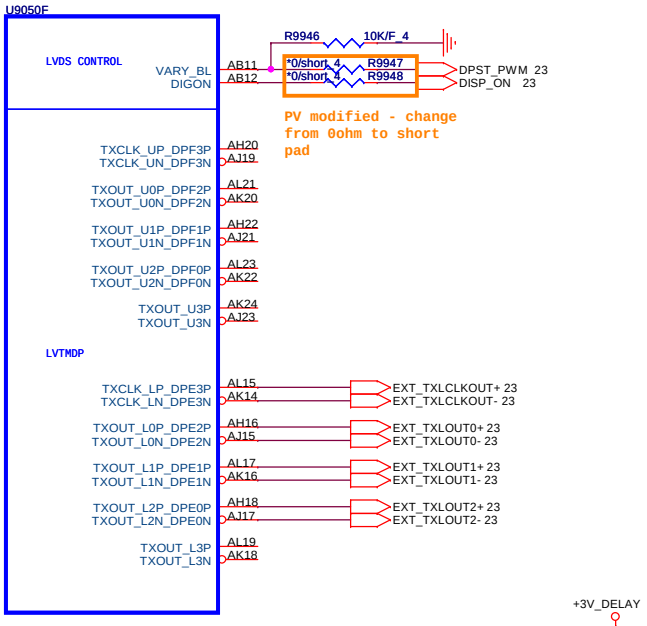

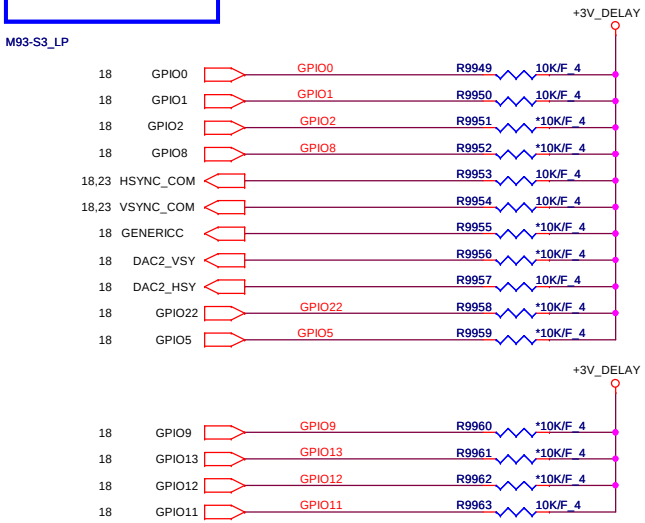

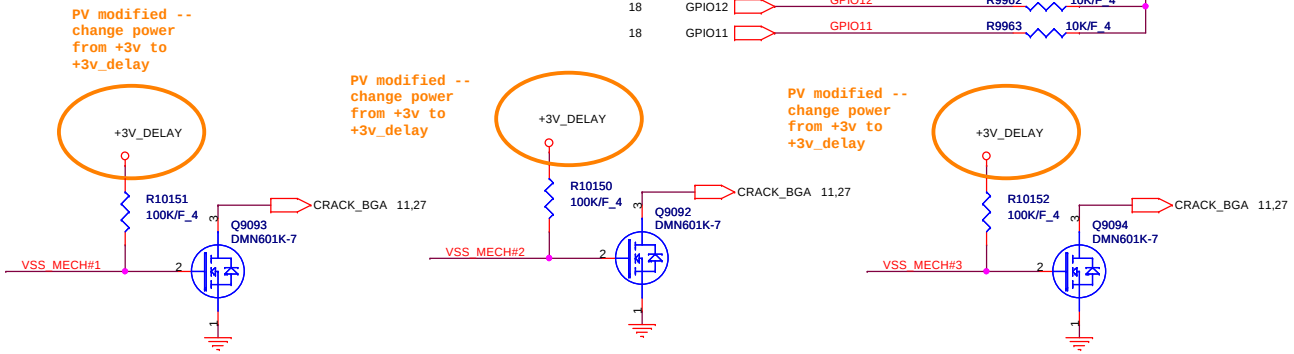

Pin Straps description

Strap Name			Default Value
TX_PWRS_ENB	GPIO0	PCI Express Full TX Output Swing 0: 50% Tx output swing for mobile mode 1: full Tx output swing (Default setting for Desktop)	1
TX_DEEMPH_EN	GPIO1	PCI Express Transmitter De-emphasis Enable 0: Tx de-emphasis disabled for mobile mode 1: Tx de-emphasis enabled (Default setting for Desktop)	1
BIF_GEN2_EN_A	GPIO2	0 = Advertises the PCI-E device as 2.5 GT/s capable at power-on. 1 = Advertises the PCI-E device as 5.0 GT/s capable at power-on. 5.0 GT/s capability will be controlled by software.	1
RSVD BIF_VGA_DIS RSVD	GPIO8 GPIO9 GPIO21	Enable CLKREQ# Power Management 0 - CLKREQ# power management capability is disabled 1 - CLKREQ# power management capability is enabled	0 0 0
BIOS_ROM_EN	GPIO22	Enable external BIOS ROM device 0 - Disable external BIOS ROM device 1 - Enable external BIOS ROM device	1
AUD[0] AUD(1)	VSYNC HSYNC	AUD[1] AUD[0] 00 No Audio function 01 Audio for DisplayPort and HDMI if dongle is detected 10 Audio for DisplayPort only 11 Audio for both DisplayPort and HDMI	1 1
VIP_DEVICE_STRAP_ENA	V2SYNC	If VIP_DEVICE_STRAP_EN is set to ?? then this pin is used to sense whether a VIP slave device is connected to the VIP Host interface. If VIP_DEVICE_STRAP_EN is set to ?? then this pin is not used as a strap at all (i.e. its value during reset is unimportant), and it can be used as a regular GPIO	0
RSVD	GENERICC		0

Memory Aperture size

GPIO9 BIOSROM		GPIO13 ROMIDCFG2	GPIO12 ROMIDCFG1	GPIO11 ROMIDCFG0
0	128M	0	0	0
0	256M	0	0	1
0	64M	0	1	0
0	32M	0	1	1
0	512M	1	0	0
0	1G	1	0	1
0	2G	1	1	0
0	4G	1	1	1

It is a shared pin strap with CONFIG[2:0] if BIOS_ROM_EN is set to 0.

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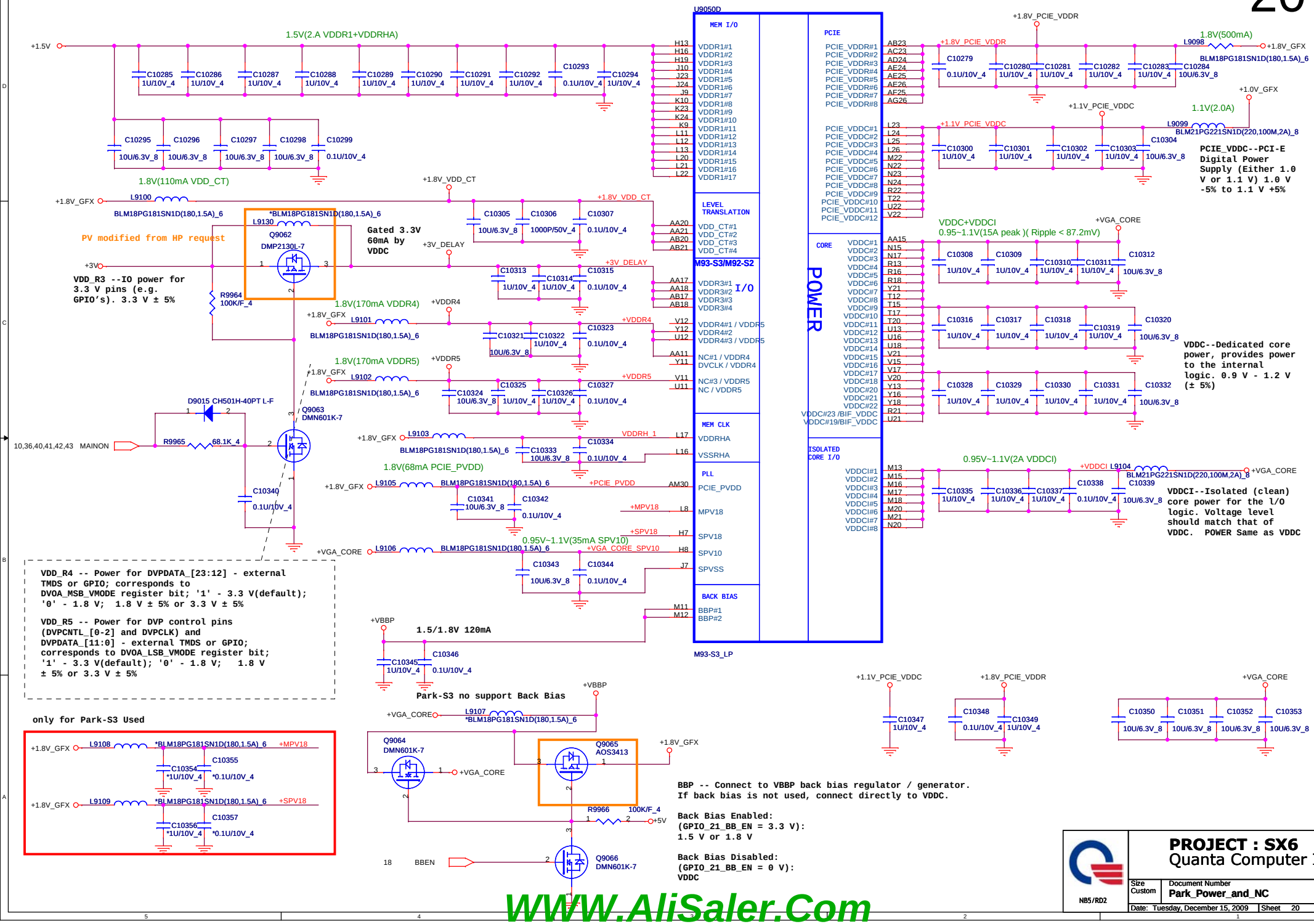
NB5/RD2

PCIE_VDDR--PCI-E I/O power. 1.8 V ± 5%



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Quanta Computer Inc.		
NB5/RD2	Size: Custom	Document Number: Park_Power_and_NC
	Rev: 2B	
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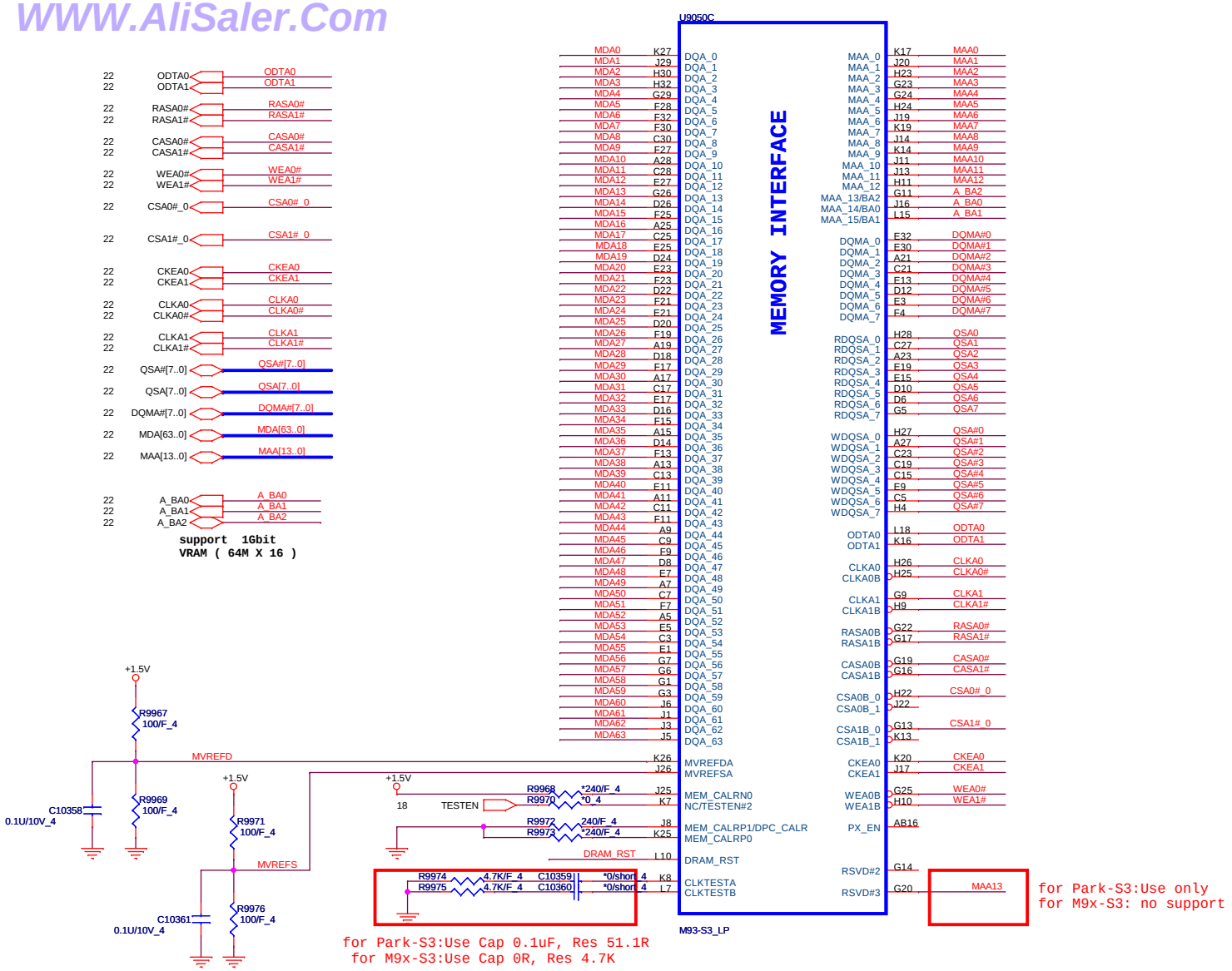
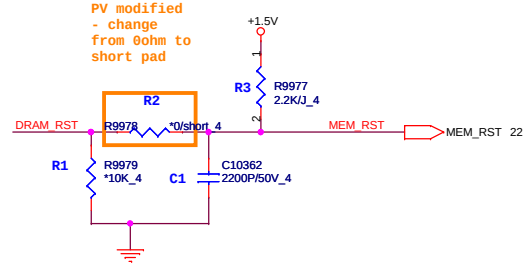


	M9x-S2/S3	Park-S3
MEM_CALRN0(J25) MEM_CALRP0(K25)	NC	240R
MEM_CALRP1(J8)	240R	150R
TESTEN2#2(K7)	NC	0R
R1	NC	10K
R2	0R	680R
R3	2.2K	NC
C1	2.2nF	68pF

240R:CS12402FB03
150R:CS11502FB21

0R:CS00002JB38
680R:CS16802JB27

2.2nF:CH22206KB16
68pF:CH06806JB01



NB5/RD2

PROJECT : SX6
Quanta Computer Inc.

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Custom	Park_MEM_Interface	2B

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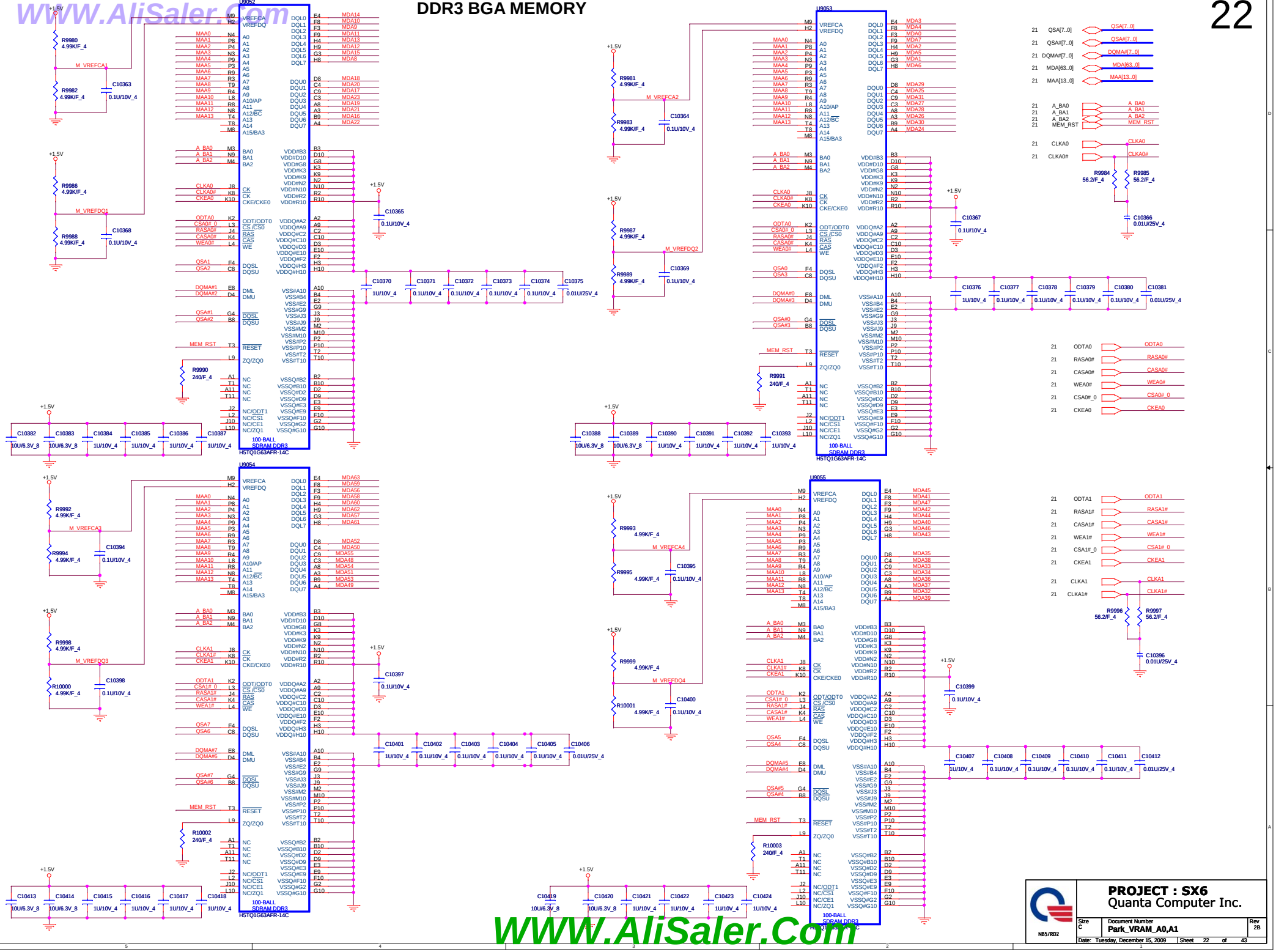
DDR3 BGA MEMORY



PROJECT : SX6
Quanta Computer Inc.

Size	Document Number	Rev
C	Park_VRAM_A0,A1	2B

NB5/RD2

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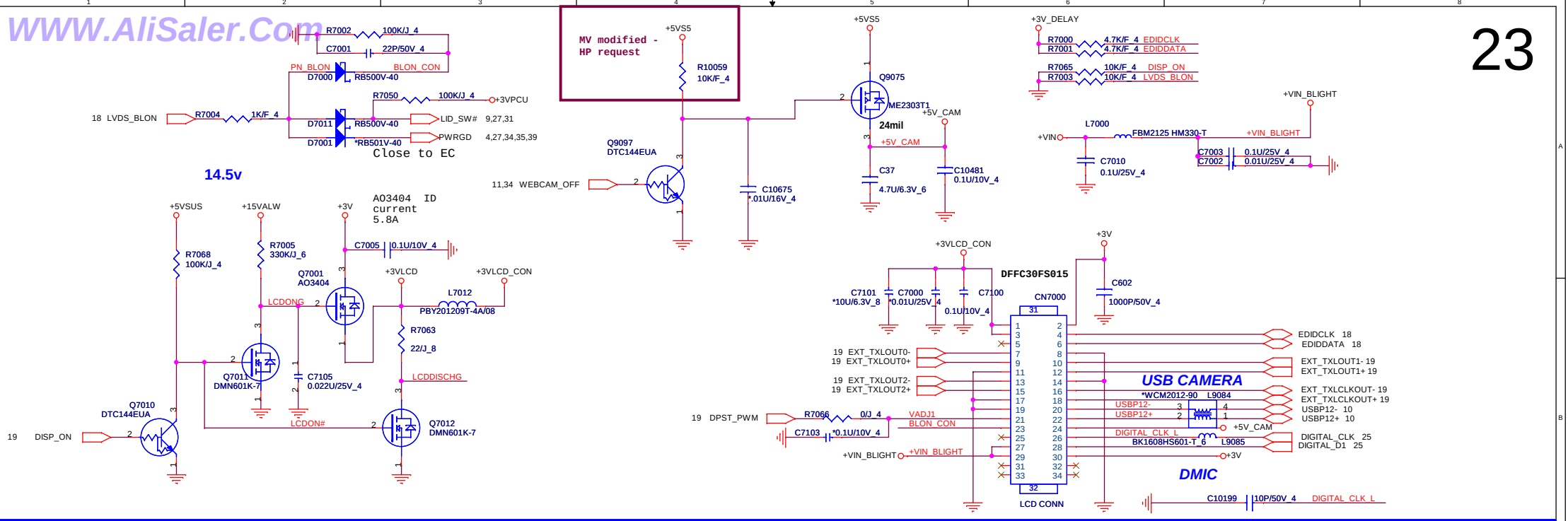
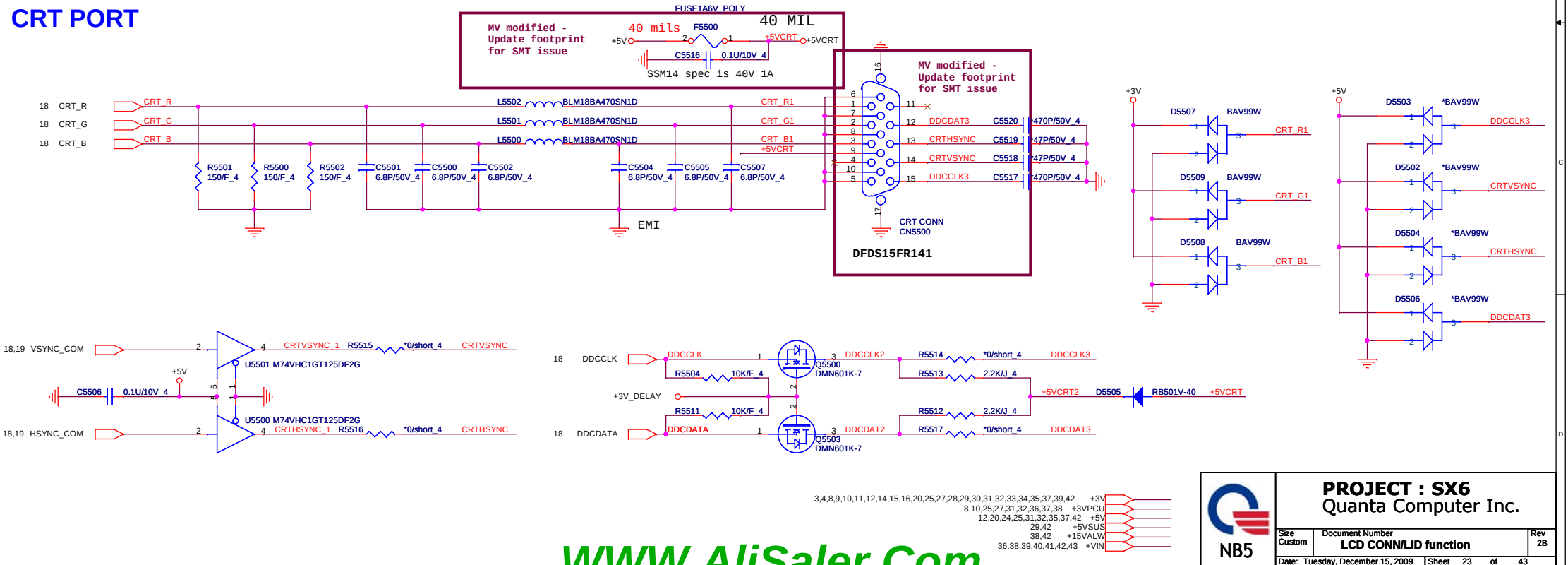


CRT PORT



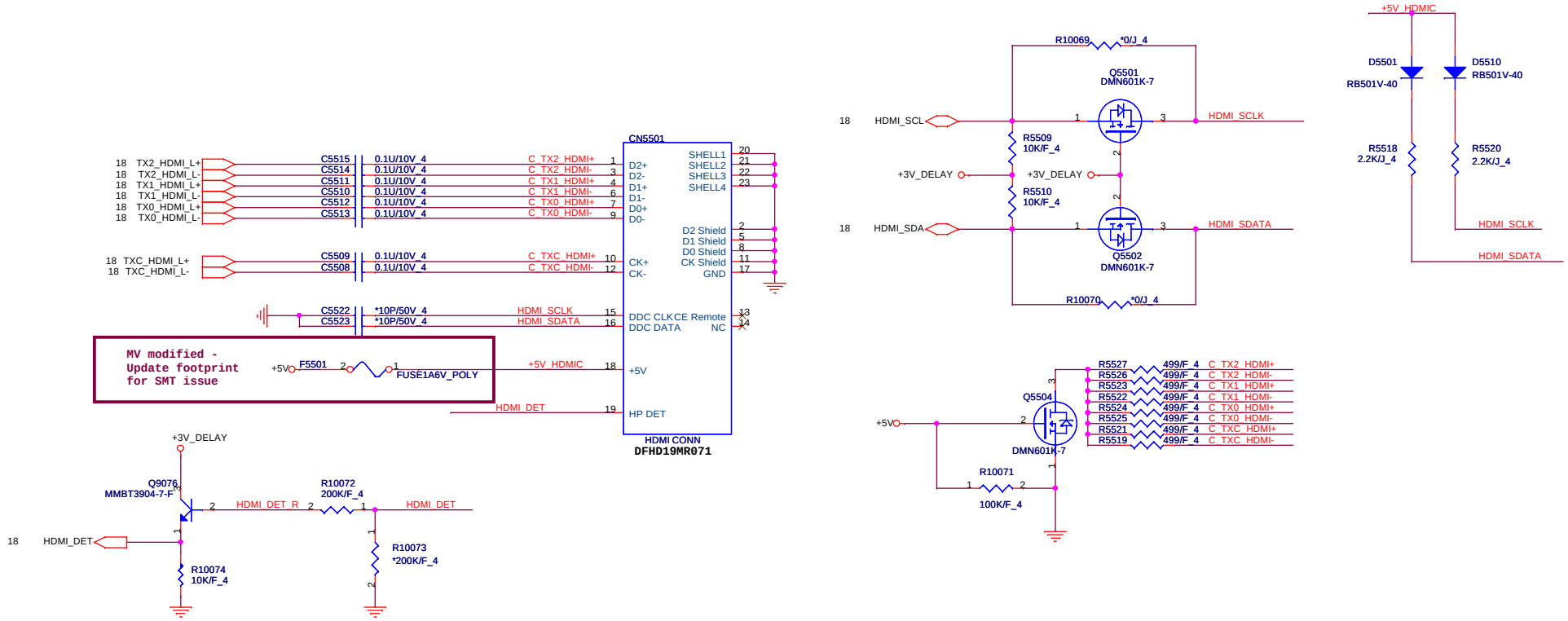
3,4,8,9,10,11,12,14,15,16,20,25,27,28,29,30,31,32,33,34,35,37,39,42 +3V
8,10,25,27,31,32,36,37,38 +3VPCU
12,20,24,25,31,32,35,37,42 +5V
29,42 +5VSUS
38,42 +15VALW
36,38,39,40,41,42,43 +VIN

NB5

PROJECT : SX6
Quanta Computer Inc.

Size	Document Number	Rev
Custom	LCD CONN/LID function	2B
Date: Tuesday, December 15, 2009	Sheet 23 of 43	

HDMI PORT



3,4,8,9,10,11,12,14,15,16,20,23,25,27,28,29,30,31,32,33,34,35,37,39,42 +3V

12,20,23,25,31,32,35,37,42 +5V

NB5	PROJECT : SX6 Quanta Computer Inc.	
Size: Custom	Document Number: HDMI Conn	Rev: 2B
Date: Tuesday, December 15, 2009	Sheet 24 of 43	

PORT	PLACE TO
MONO_OUT	X
PORT A	External MIC
PORT B	HP OUT
PORT C	Internal MIC
PORT D	Internal Speckers

Close to CODEC

Close to CODEC

ALL CAPS CONNECTED TO THE 92HD80Bx
SHOULD BE X7R OR X5R--NO Y5V

U9026

Digital

Analog

92HD80B1

HDA Bus

IDT recommand

PV modified
-Add diodefor
leakage issue

TO Digital MIC

IDT 92HD80 EAPD LOW--mute
HI--enable AMP

SENSE_A -->EXT MIC/Headphone out

TO External MIC Jack

TO Headphone Jack

TO External Speaker

PV modified --- for EMI

MV modified -
ESD issue

PV modified - Hp
request to add

FOR EMI

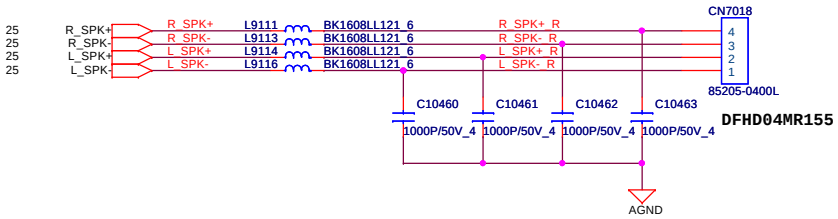
RESERVE

>40mils trace

NB5	PROJECT : SX6 Quanta Computer Inc.		
Size Custom	Document Number IDT92HD80		Rev 2B
Date: Thursday, December 17, 2009	Sheet 25	of	43

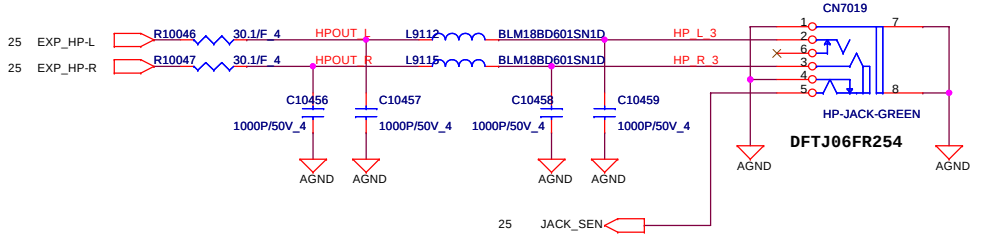
Note: JACK_SEN# is electrically floating when no jack is inserted and shorted to ground when jack is present.

INT. SPEAKER



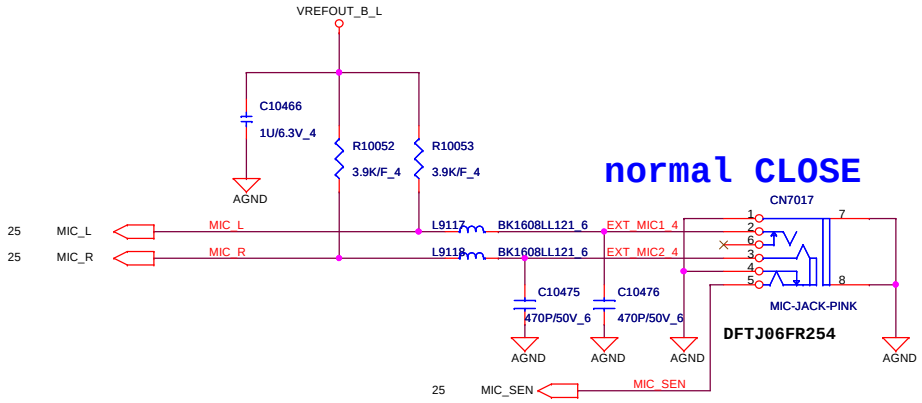
Headphone Jack

normal CLOSE



EXT Mic Jack

normal CLOSE



Note: MIC_SEN# is electrically floating when no jack is inserted and shorted to ground when jack is present.

NB5	PROJECT : SX6 Quanta Computer Inc.	
Size: Custom	Document Number: HP/MIC/SPK	Rev: 2B
Date: Tuesday, December 15, 2009	Sheet 26 of 43	

MV modified -
Remove for MV

CN7016

For debug(BIOS)

PV modified -
add 10uF

PV modified -
change from 0ohm
to short pad

PV modified -
change from 0ohm
to short pad

PV modified -
remove R10201for S5
power leakage issue

PV modified -
change from 0ohm
to short pad

PV modified -
change from 0ohm
to short pad

PV modified -
change from 0ohm
to short pad

PV modified -
change from 0ohm
to short pad

PV modified -
change from 1Kohm
to 200ohm

PV modified -
change from 0ohm
to short pad

PV modified -
change from 0ohm
to short pad

PV modified -
change from 0ohm
to short pad

PV modified from hp request

PV modified from hp request

PV modified -
change from 0ohm
to short pad

MB ID: 1=13"&14",
0=15&17.
for numeric keyboard

SMSC 1098

Keyboard/Mouse Interface

General Purpose I/O Interface

LPC Bus

TQFP128-16X16-4

to detect battery existance

GFX_SEL : PU-UMA , PD-DIS

Debounced AC
present output
signal from KBC
to system BIOS

To BAT SMBUS

4M byte SPI ROM for PCH ME & BIOS

MX25L3205DM2I-12G: AKE39FP0Z00
W25X32VSSIG: AKE39ZP0N00
Socket: DG008000031

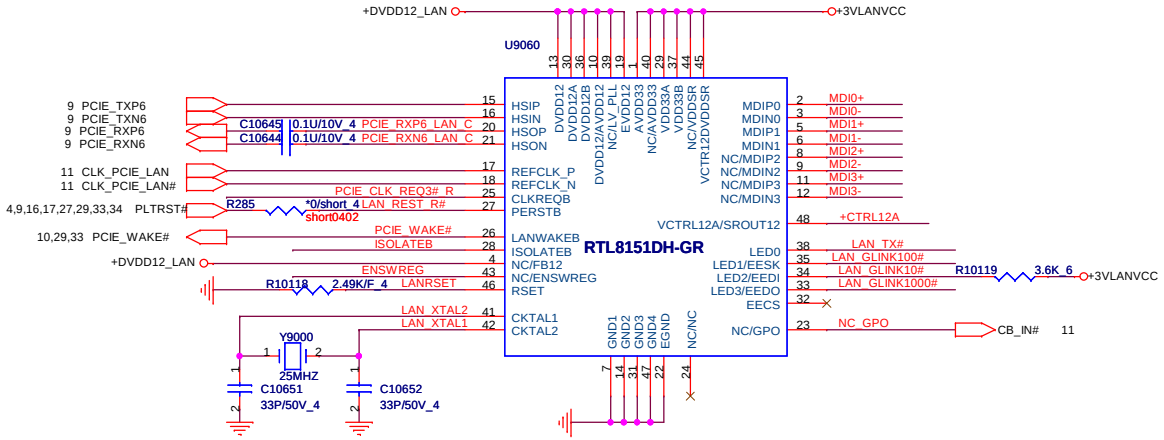
PROJECT : SX6
Quanta Computer Inc.

NB5

Size: Custom | Document Number: SMSC 1098 | Rev: 2B

Date: Tuesday, December 15, 2009 | Sheet 27 of 43

3,4,8,9,10,11,12,14,15,16,20,23,25,27,29,30,31,32,33,34,35,37,39,42 +3V
42 +3VLANVCC



RTL8151DH-GR

+3VLANVCC

Close to PIN 1 — C10482 .1U/10V_4

Close to PIN 29,37,40 — C10483 .1U/10V_4, C10484 .1U/10V_4, C10485 .1U/10V_4

close Pin 44,45 — C10486 .1U/10V_4, C10527 *10U/6.3V_8, C10534 22U/6.3V/X5R_8

>200mil

+DVDD12_LAN

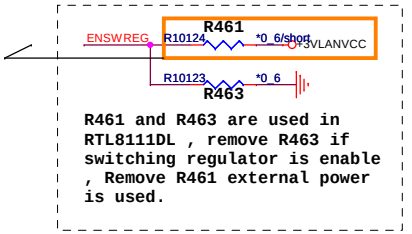
+CTRL12A L9131 L8 4.7UH,+-20%,650MA_1210 >200mil

C10531 22U/6.3V/X5R_8
C10530 .1U/10V_4

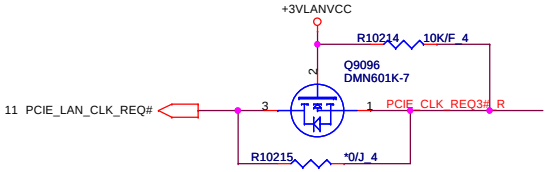
Close to 8111DL DVDD12 pins-- 19
C10536 1U/6.3V_4
C10528 1U/6.3V_4

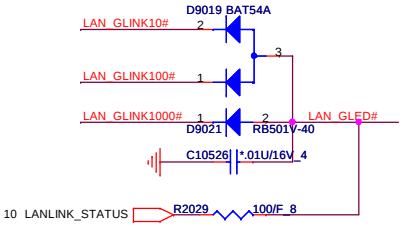
Close to 8111DL DVDD12 pins--10,13,30,36,39.
C10529 .1U/10V_4
C10532 .1U/10V_4
C10535 .1U/10V_4
C10533 .1U/10V_4

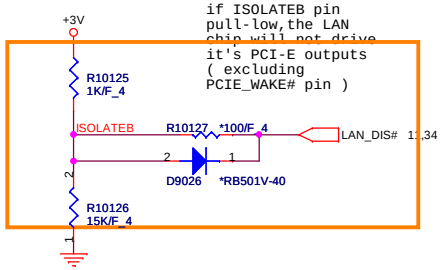
PV modified
- change from 0ohm to short pad



R461 and R463 are used in RTL8111DL , remove R463 if switching regulator is enable , Remove R461 external power is used.



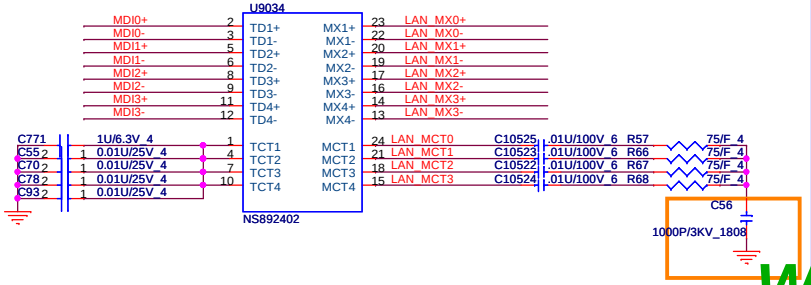




if ISOLATEB pin pull-low,the LAN chip will not drive it's PCI-E outputs (excluding PCIE_WAKE# pin)

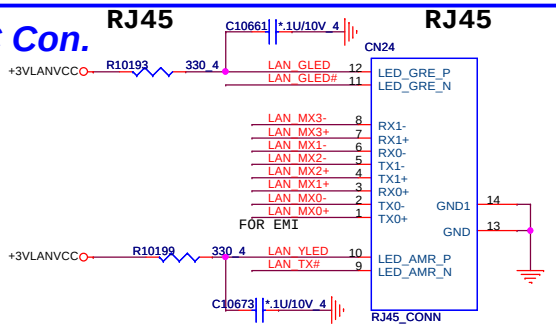
PV modified

Transformer for 10/100/1000



PV modified footprint

Lan and MDC Con.



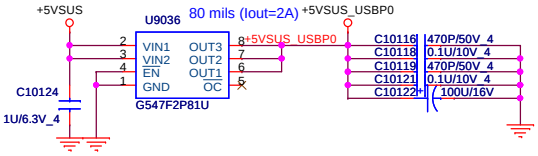
NB5

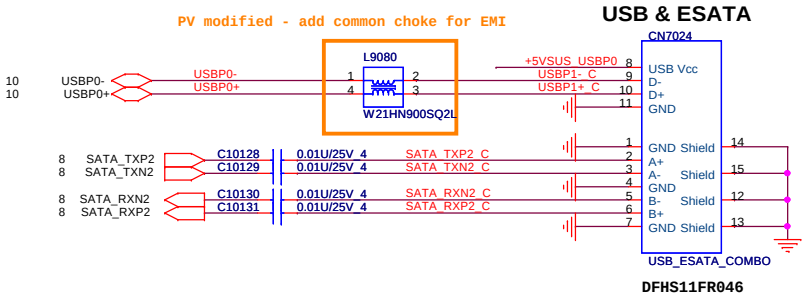
PROJECT : SX6
Quanta Computer Inc.

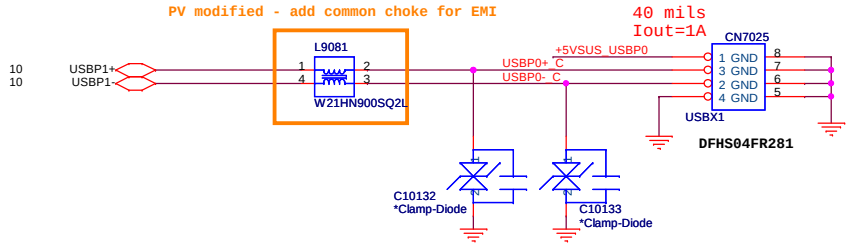
Size	Document Number	Rev
Custom	RTL8151DH-GR	2B

Date: Friday, December 18, 2009 Sheet 28 of 43

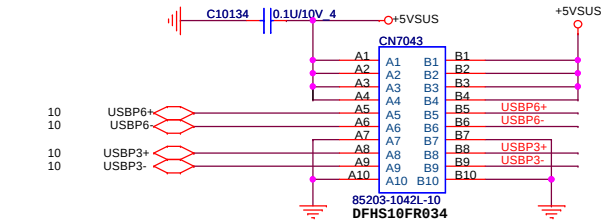
LEFT SIDE USBX1 and E-SATA/USB COMBO

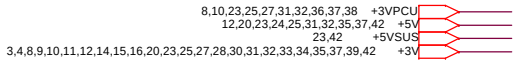




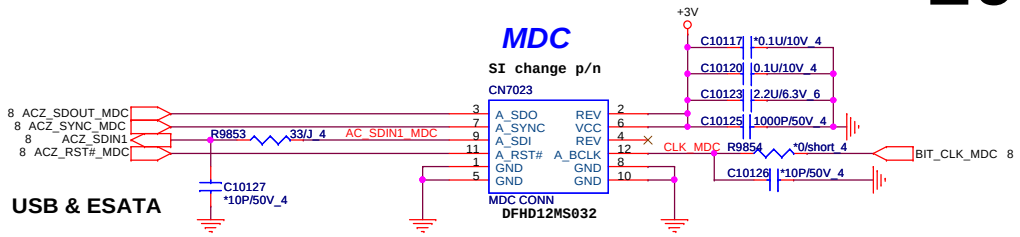


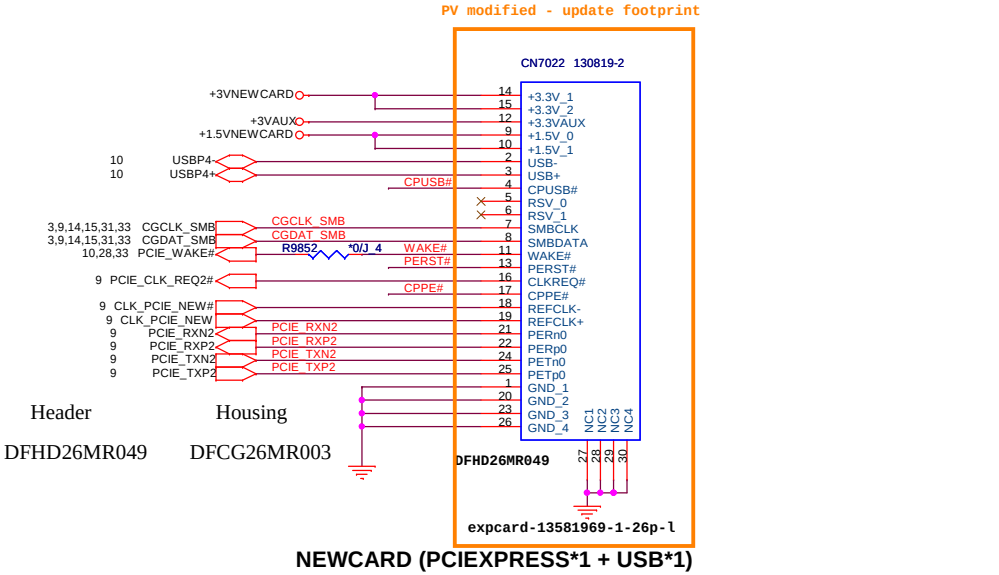
RIGHT SIDE USBX2



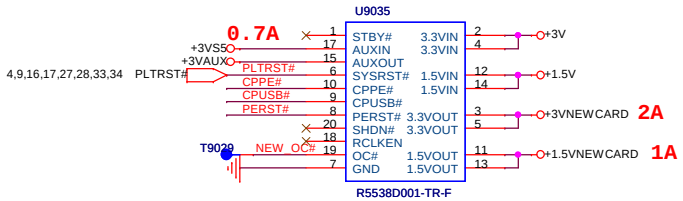


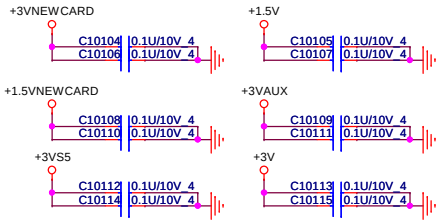
Modem CONN





NEWCARD (PCIEXPRESS*1 + USB*1)





ACS

NB5

PROJECT : SX6
Quanta Computer Inc.

Size	Document Number	Rev
Custom	EXTERNAL USB X2	2B

Date: Wednesday, December 16, 2009 Sheet 29 of 43

3,4,8,9,10,11,12,14,15,16,20,23,25,27,28,29,31,32,33,34,35,37,39,42 +3V

Note:

	SD/MMC 4.2	MS	XD
SP0			
SP1			XD_CD#
SP2	SD_WP		
SP3	SD_CD#		
SP4	SD_DAT1		XD_D4
SP5		MS_BS	XD_D5
SP6		MS_D1	XD_D3
SP7	SD_DAT0	MS_D0	XD_D6
SP8	SD_DAT7/MMC_DAT7	MS_D2	XD_D2
SP9		MS_INS#	
SP10	SD_DAT6/MMC_DAT6	MS_D3	XD_D7
SP11	SD_CLK	MS_SCLK	XD_D1
SP12	SD_DAT5/MMC_DAT5		XD_D0
SP13	SD_DAT4/MMC_DAT4		XD_WP#
SP14			XD_R/B#
SP15	SD_DAT3		XD_WE#
SP16	SD_DAT2		XD_RE#
SP17			XD_ALE
SP18			XD_CE#
SP19			XD_CLE

XTAL control pin for 12Mhz crystal or 48Mhz clk in

+3VSUS_RTS R717 *0/short_4

U56

XTAL_CTR, GPIO0, EEDO, EECS, EESK, EEDI, XD_CD#, SD_WP, SD_CD#, MS_D4, SD_DAT1/XD_D4, MS_D5, RREF, DM, DP, 12MHZ_XTLO, 12MHZ_XTLI, MODE_SEL, RST#

XD_CD# SP2 SD_CD# SP4

R727 6.19K/F_4 RREF

10 USBP2- R724 *0/short_4 DM

10 USBP2+ R722 *0/short_4 DP

9 CLK_48M_CR CLK_48M_CR

C949 *5.6P/50V_4 CLK_48M_CR

R728 *270K_4 *12MHz Y10

C952 *5.6P/50V_4 XTLI_CARD

reserve

MODE_SEL R731 *0/J_4

+3VSUS_RTS R729 *100K/F_4 5158_RST#

C950 1U/6.3V_4

Internal have pull Hi 200K

Realtek RTS5159

XD_CLE, XD_CE#, XD_ALE, SD_DAT2/XD_RE#, SD_DAT3/XD_WE#, XD_RDY, SD_DAT4/XD_WP#/MS_D7, SD_CMD, SD_DAT5/XD_D0/MS_D6, SD_CLK/XD_D1/MS_CLK, SD_DAT6/XD_D2/MS_D7, NC, MS_INS#, SD_DAT7/XD_D2/MS_D2, SD_DAT0/XD_D6/MS_D0, XD_D3/MS_D1, XD_D5/MS_BS, AV_PLL_IN, VREG_OUT, 5V_IN, NC, D3V3_IN, D3V3_IN, NC, CARD_3V3_OUT, AG33, AG_PLL, DGND2, DGND1

SP4 R732 *0/short_4 SD_DAT1

SD_CLK_MS_CLK R725 *0/short_4 SP11

Close to Chipset

SP11 C945 *270P/25V_4

PV modified - change from 0ohm to short pad

C946 0.1U/10V_4 Vreg out 1.8V from Internal 3.3VLDO C926 1U/6.3V_4

+3VSUS_RTS R718 *0_6/short +3V

Without memory card 43mA suspend current 350uA

C936 0.1U/10V_4 C942 4.7U/6.3V_6

C941 0.1U/10V_4

C947 0.1U/10V_4 C948 *4.7U/6.3V_6

+3VSUS_RTS

+3VCARD C931 1U/6.3V_4

+3VCARD C928 *.1U/10V_4 C927 *.1U/10V_4 C930 *.1U/10V_4

RTS5159 max output current for ..
XD card 250mA
SD/MMC 250mA
MS/MSPRO 250mA

+3VCARD C955 2.2U/6.3V_6 R735 150K/F_4

+3VCARD C957 0.1U/10V_4 C958 0.1U/10V_4 C956 0.1U/10V_4

XD,MMC 4.2/SD,MS/MSP 7 IN1 CARD READER

CN42

SD C/D, SD W/P, xD-VCC, xD-DATA7, xD-DATA6, xD-DATA5, xD-DATA4, xD-DATA3, xD-DATA2, XD-DATA1, GND, SD-DATA1, MS-BS, SD-DATA0, MS-DATA1, MMC-DATA7, MS-DATA0, MMC-DATA6, MS-DATA2, SD-CLK, SD-VCC, MS-INS

GND, GND, XD-CD, XD-R/B, XD-RE, XD-CE, XD-CLE, XD-ALE, xD-WE, xD-WP, XD-DATA0, GND, SD-DATA2, SD-DATA3, MS-VCC, MMC-DATA4, MS-SCLK, SD-CMD, MS-DATA3, MMC-DATA5

SD_CD# SP2 +3VCARD SP10 SP7 SP5 SP4 SP6 SP8 SP11 SD_DAT1 SP5 SP7 SP6 SP8 SP7 SP10 SP8 SD_CLK_MS_CLK +3VCARD MS_CD#

XD_CD# SP14 SP16 SP18 SP19 SP17 SP15 XD-WP#_L SP12 SP16 SP15 +3VCARD SP13 SD_CLK_MS_CLK SD_CMD_R SP10 SP12

C10513 *270P/25V_4

+3VCARD R10111 *10K/F_4

R10112 *0_6/short SP13

PLASTREN CM7S-02 CARD READER SOCKET

DFHD42MR011

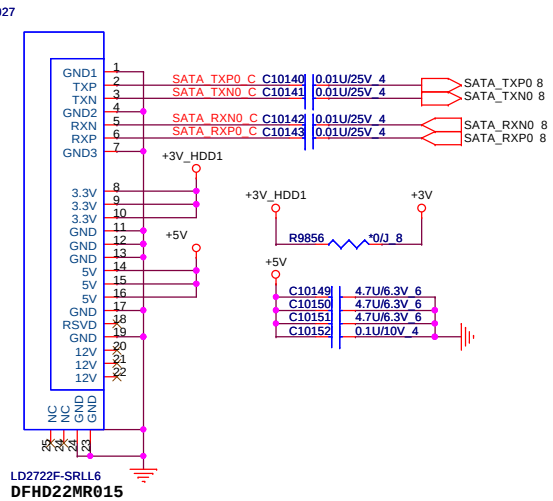
NB5

PROJECT : SX6
Quanta Computer Inc.

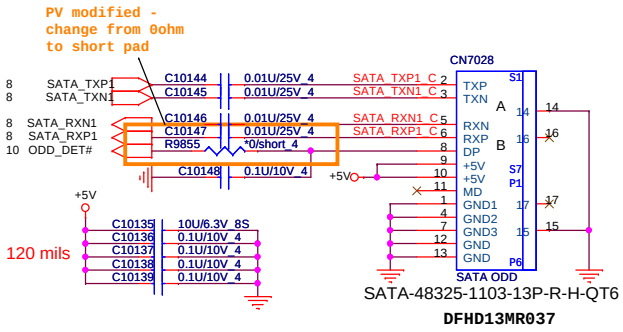
Size	Document Number	Rev
Custom	RTS5159 & CR SOCKET	2B

Date: Tuesday, December 15, 2009 Sheet 30 of 43

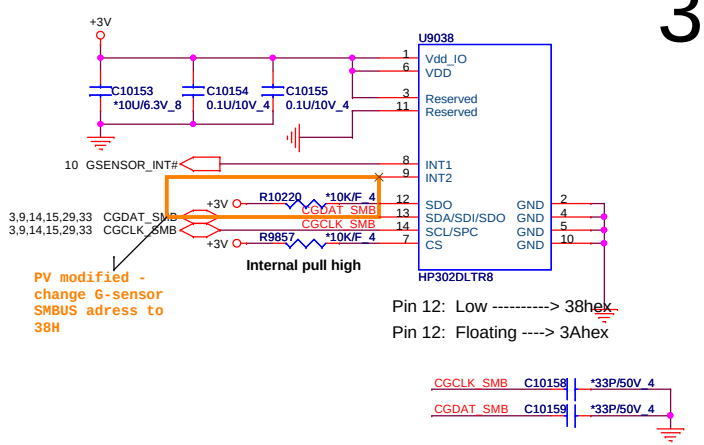
SATA HDD CONNECTOR



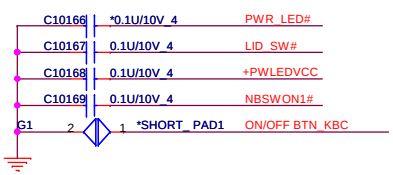
SATA CD-ROM



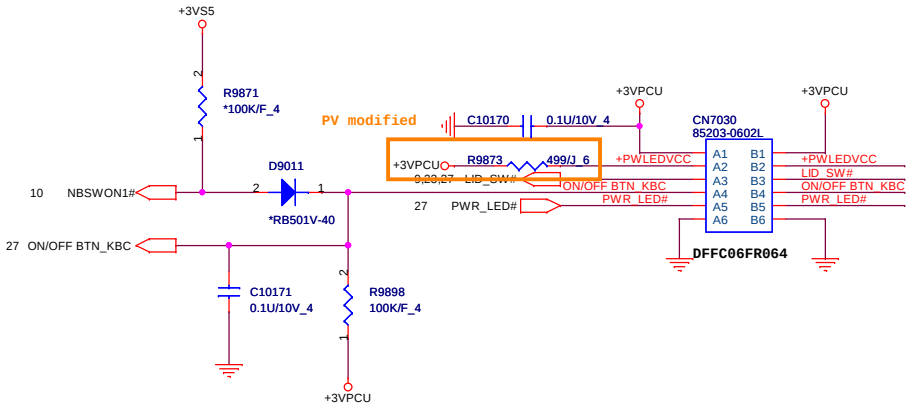
Accelerometer Sensor



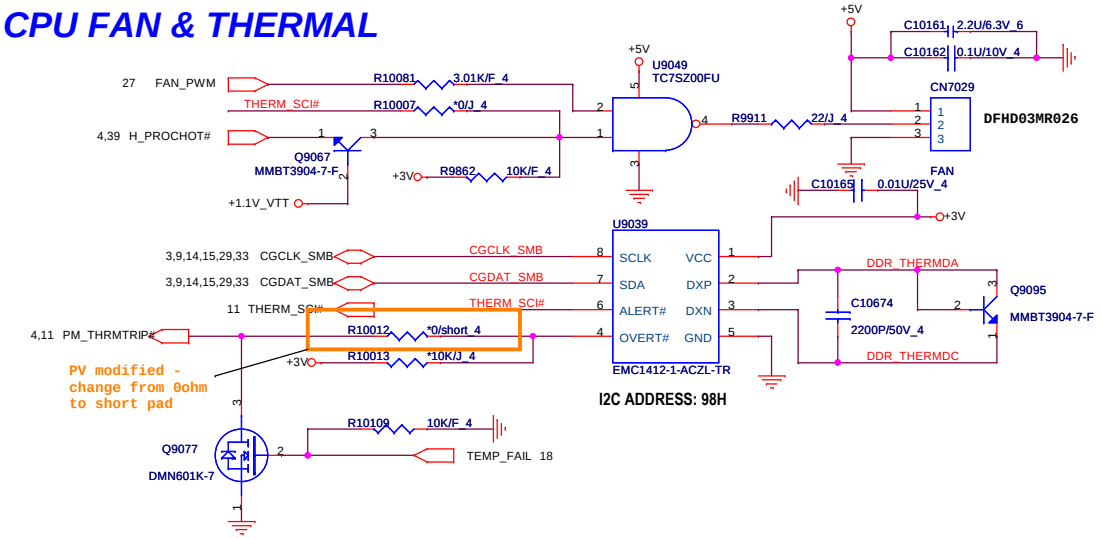
POWER BOTTON CONNECT



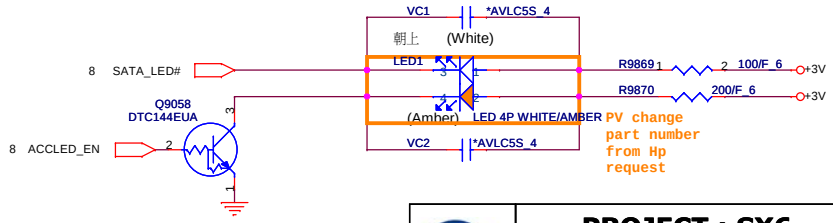
1. +3VPCU(LIDSWITCH PWR)
2. LEDVCC(+3VPCU)
3. LIDSWITCH
4. POWERON#
5. PWRLED#
6. GND



CPU FAN & THERMAL



LED



For:PA

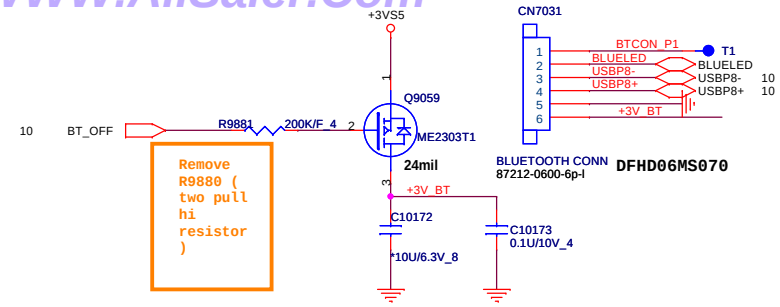
3,4,9,10,11,12,14,15,16,20,23,25,27,28,29,30,32,33,34,35,37,39,42 +3V
8,10,23,25,27,32,36,37,38 +3VPCU
4,9,10,11,12,29,32,33,34,38,41,42,43 +3VS5
12,20,23,24,25,32,35,37,42 +5V
23,38,42 +15VALW

NB5

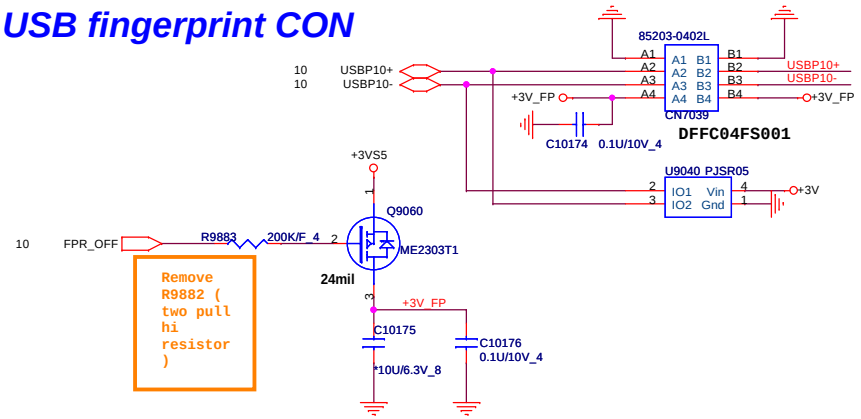
PROJECT : SX6
Quanta Computer Inc.

Size	Document Number	Rev
Custom	ESATA/HDD/ODD/LED/FAN	2B
Date: Tuesday, December 15, 2009	Sheet 31 of 43	

BLUETOOTH

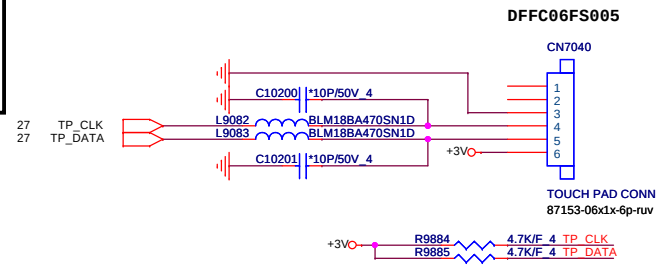


USB fingerprint CON

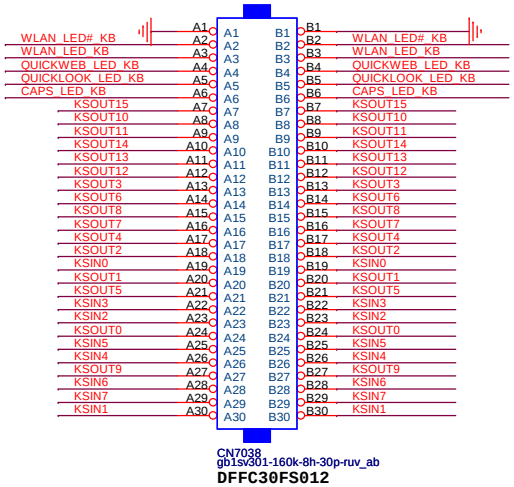


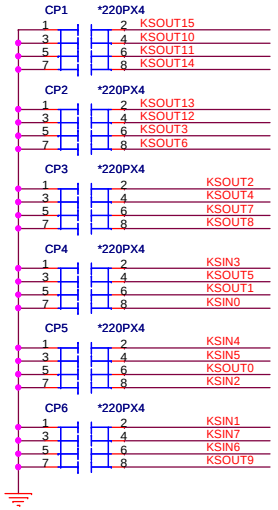
TOUCH PAD CONNECTOR

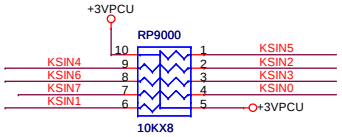
Pin1	VDD
Pin2	DATA
Pin3	CLK
Pin4	GND
Pin5	X
Pin6	X

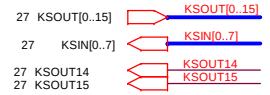


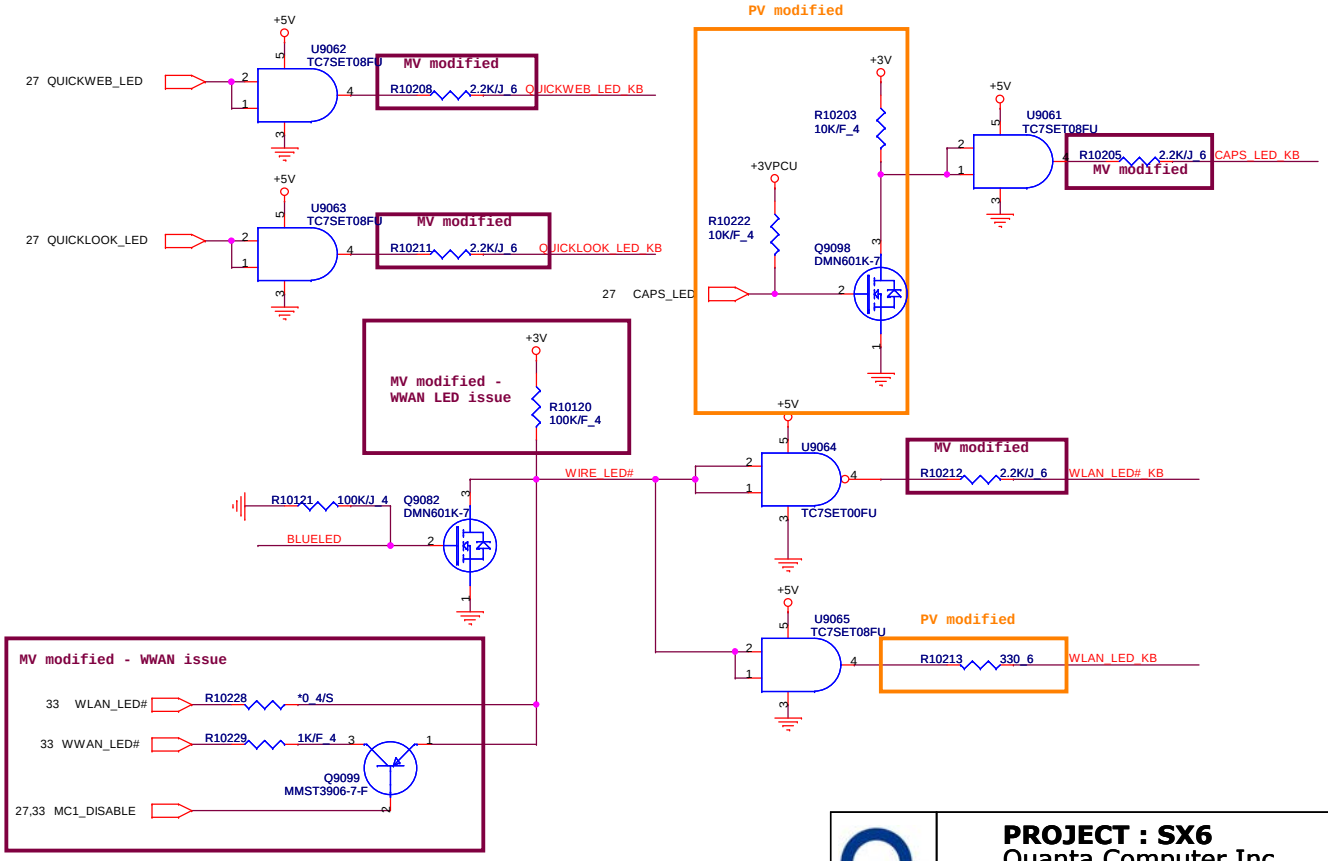
KEYBOARD CONNECTOR.











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Quanta Computer Inc.

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Custom	BT/WC/FT/ESATA/USB/LED	2B
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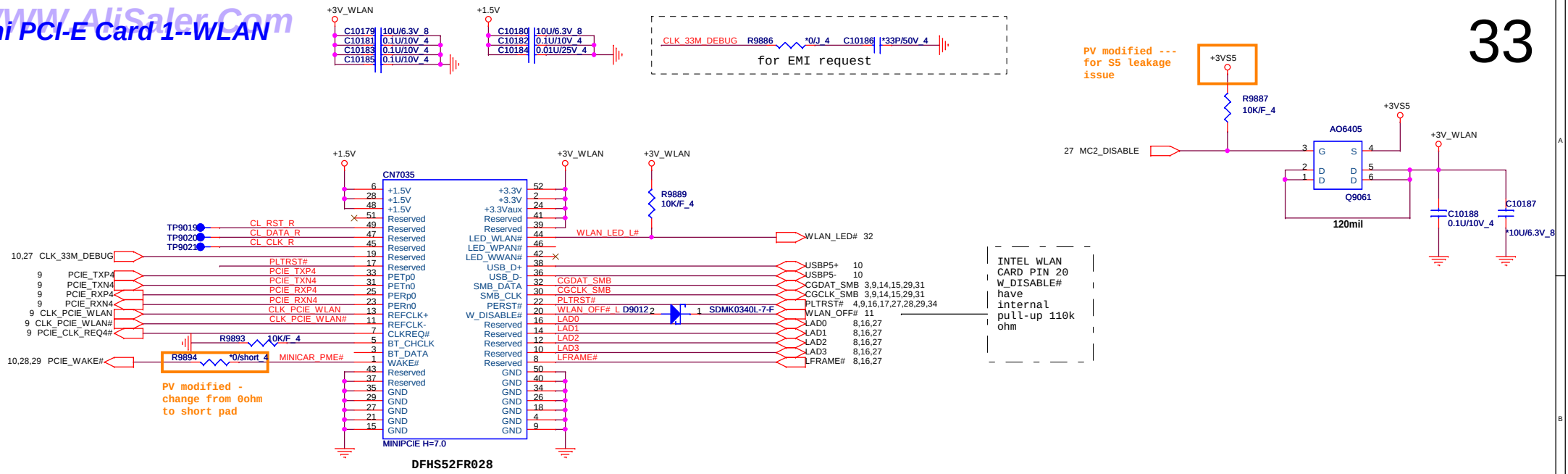
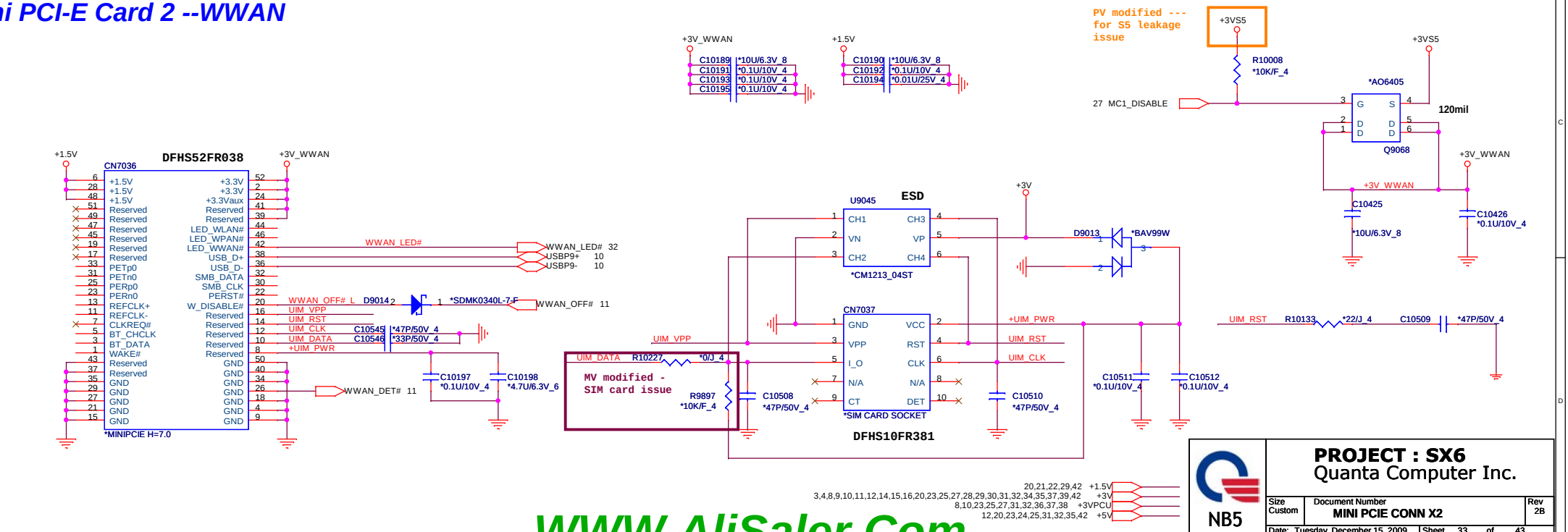
Mini PCI-E Card 1--WLAN



Mini PCI-E Card 2 --WWAN



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Quanta Computer Inc.

Size	Document Number	Rev
Custom	MINI PCIE CONN X2	2B
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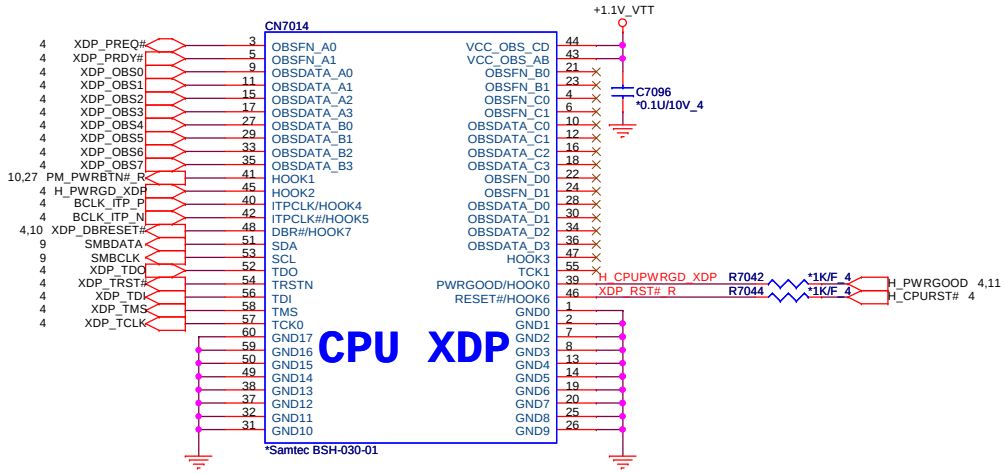
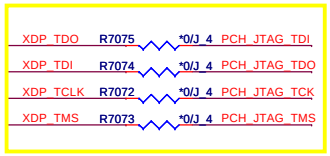
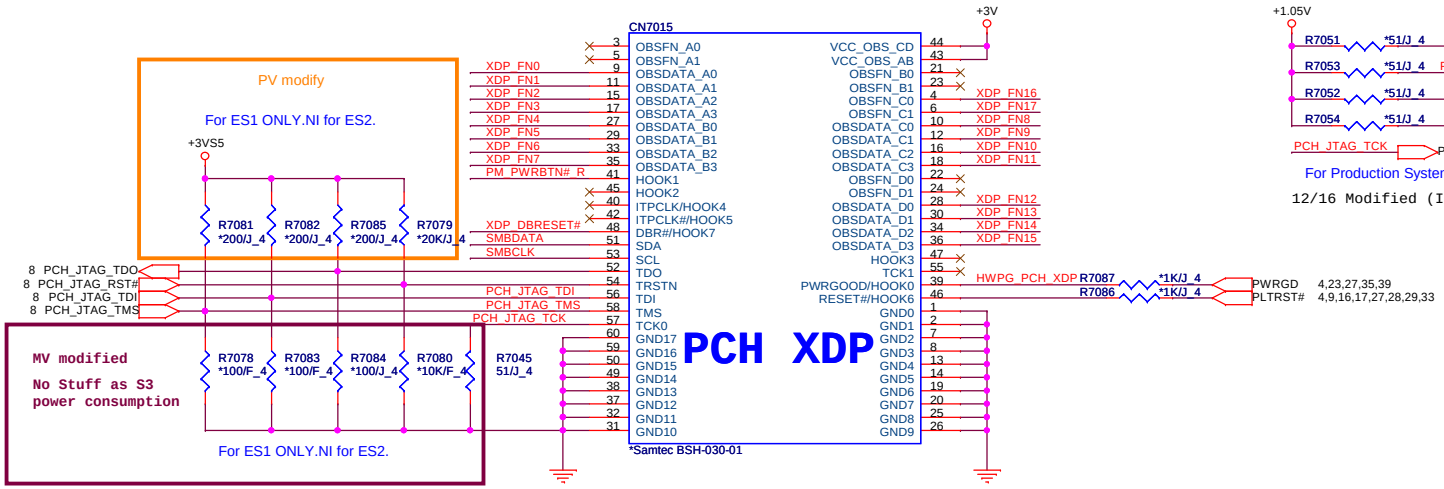
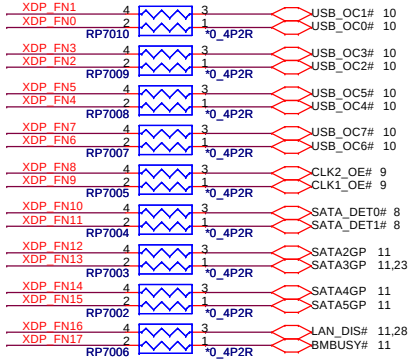


Reserve for BSDL







4,6,11,12,31,39,40 +1.1V_VTT
3,8,9,10,12,39,41 +1.05V
6,11,12,41,42 +1.8V
3,4,8,9,10,11,12,14,15,16,20,23,25,27,28,29,30,31,32,33,35,37,39,42 +3V
4,9,10,11,12,29,31,32,33,38,41,42,43 +3VS5

NB5	PROJECT : SX6 Quanta Computer Inc.	
Size: Custom	Document Number: XDP/BRAIDWOOD	Rev: 2B
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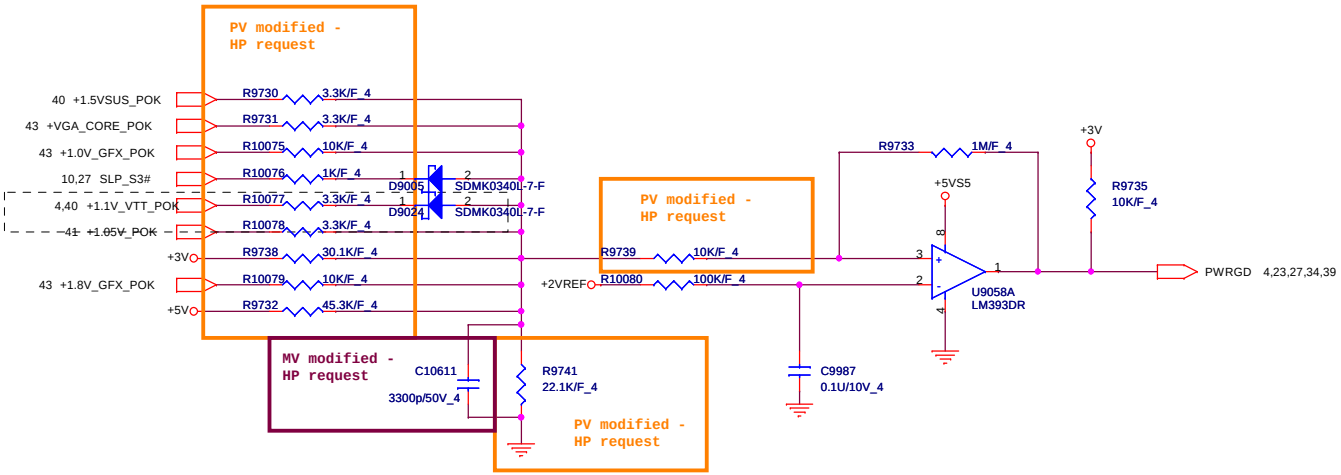

NB5	PROJECT : SX6 Quanta Computer Inc.	
Size: Custom	Document Number: POWER Sequance	Rev: 2B
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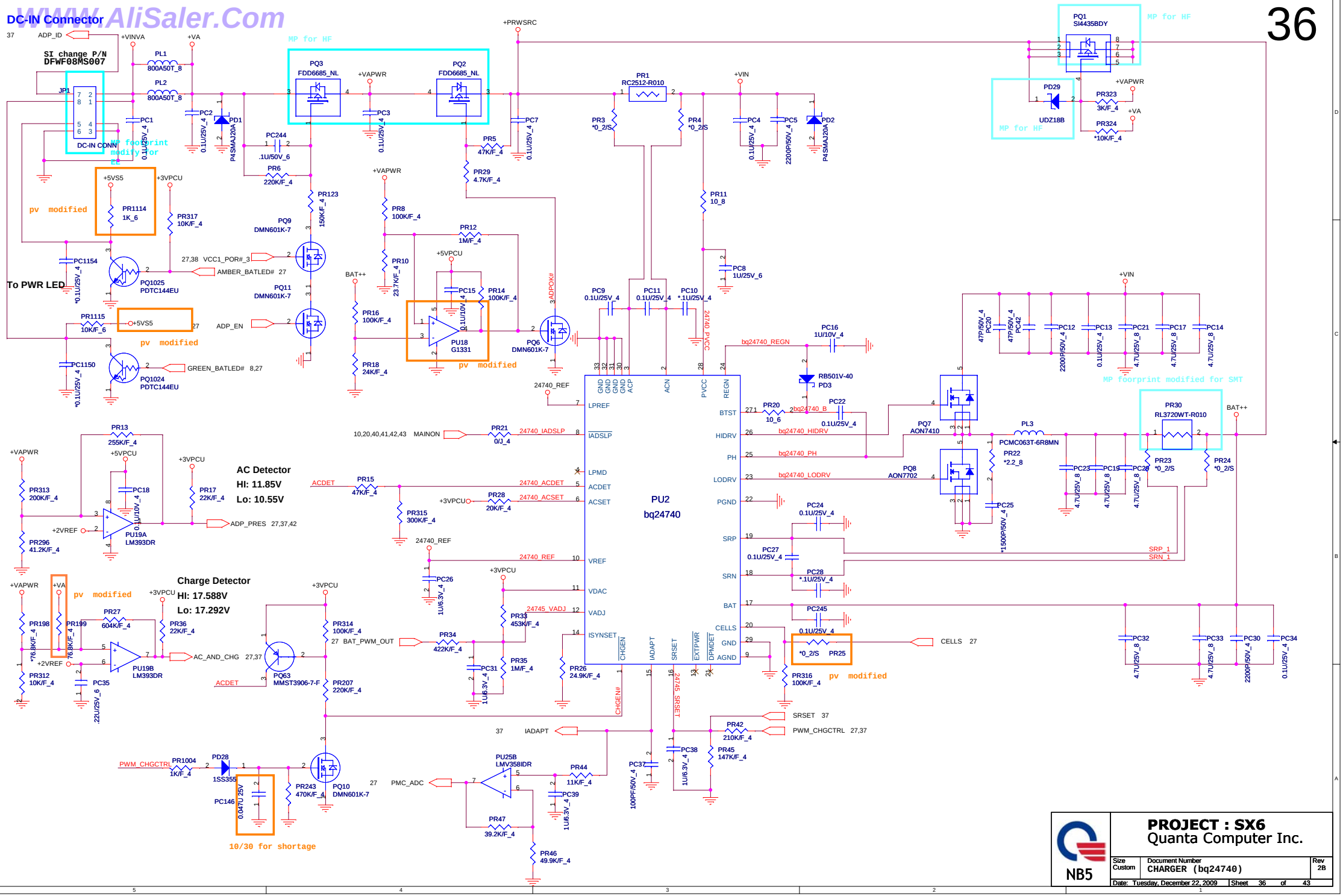

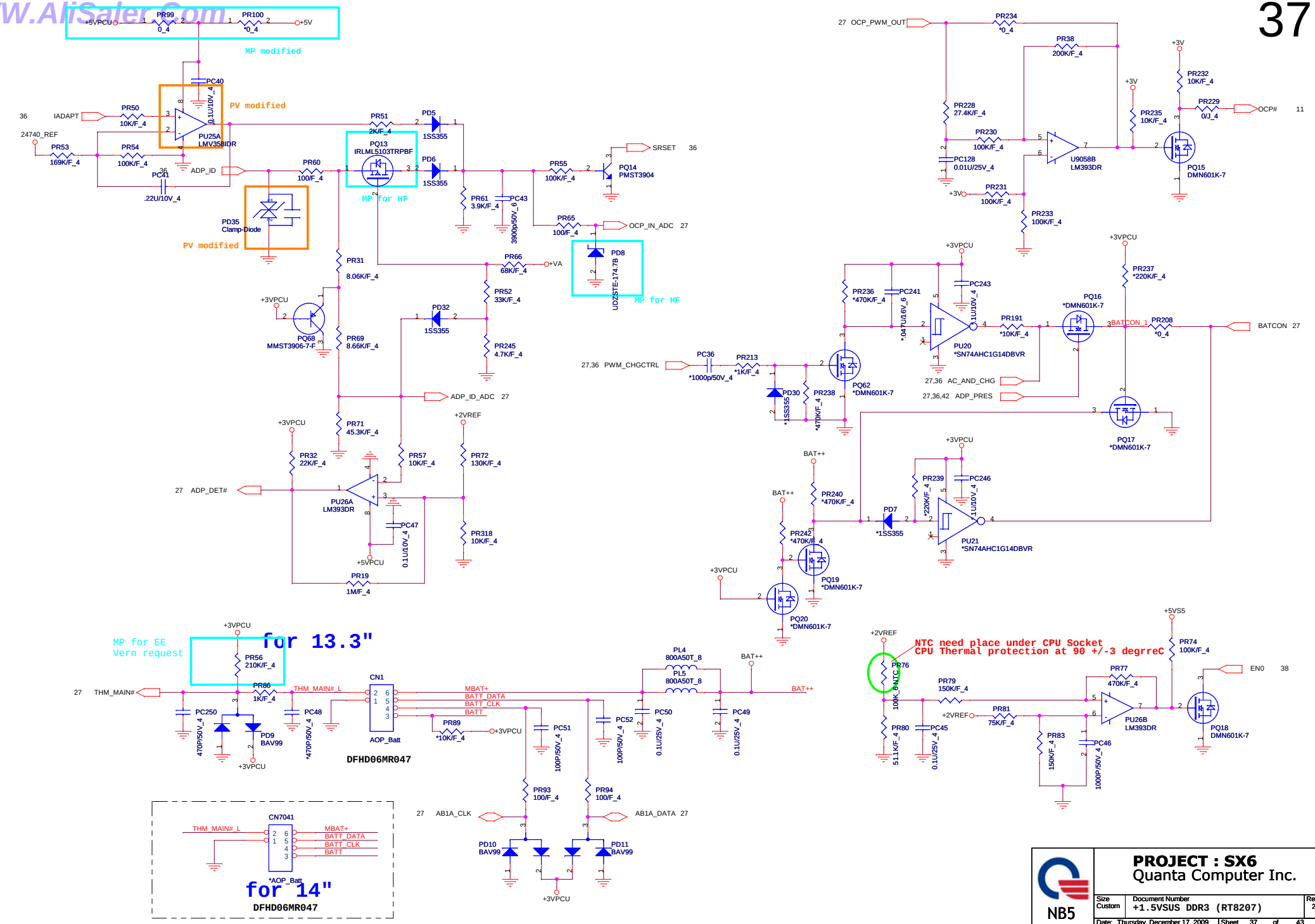

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Quanta Computer Inc.

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Custom	+1.5VSUS DDR3 (RT8207)	2B

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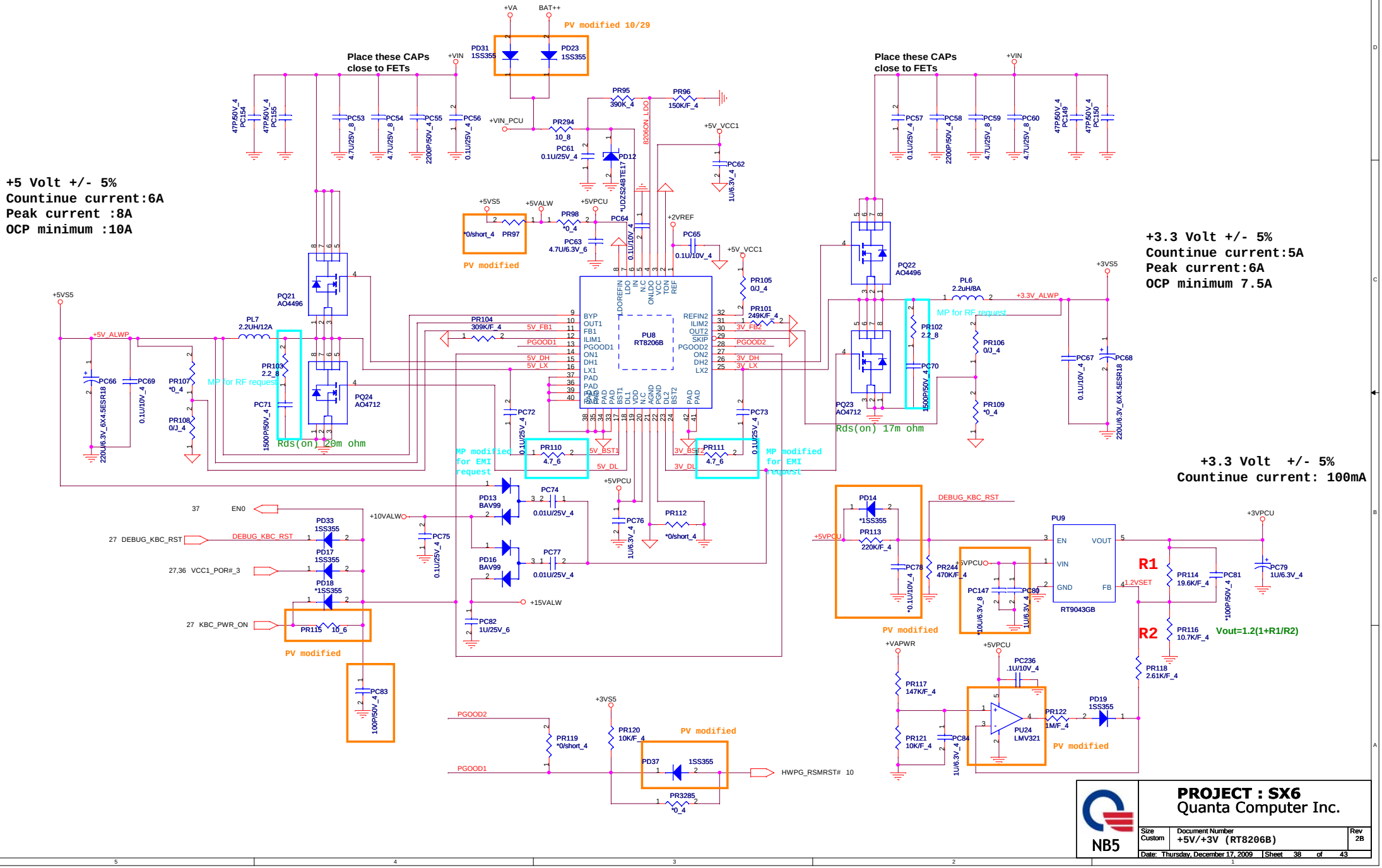
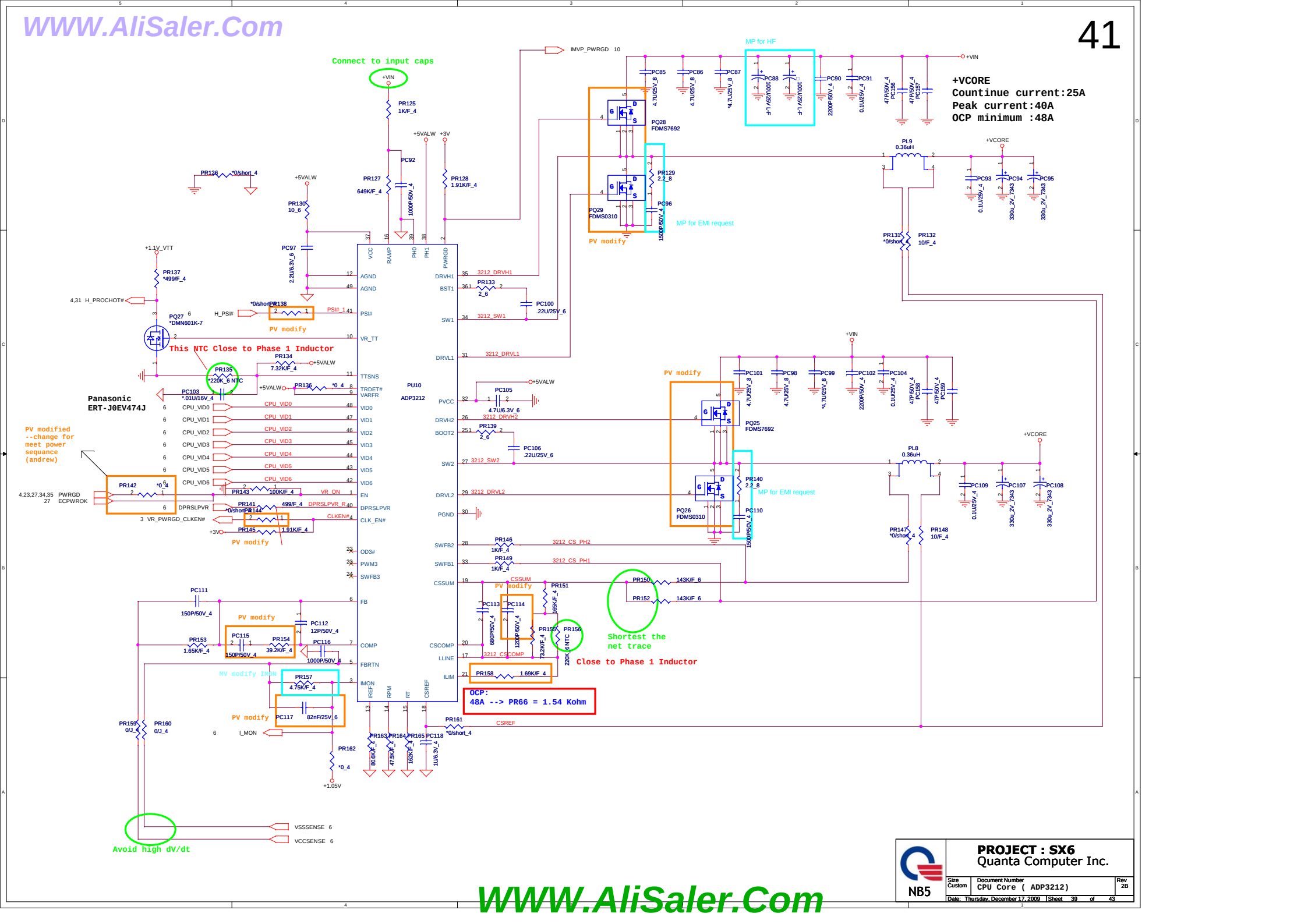
DC/DC +3V_ALW/+5V_ALW/+5V_ALW2 /+15V_ALW





NB5	PROJECT : SX6 Quanta Computer Inc.	
Size: Custom	Document Number: CPU Core (ADP3212)	Rev: 2B
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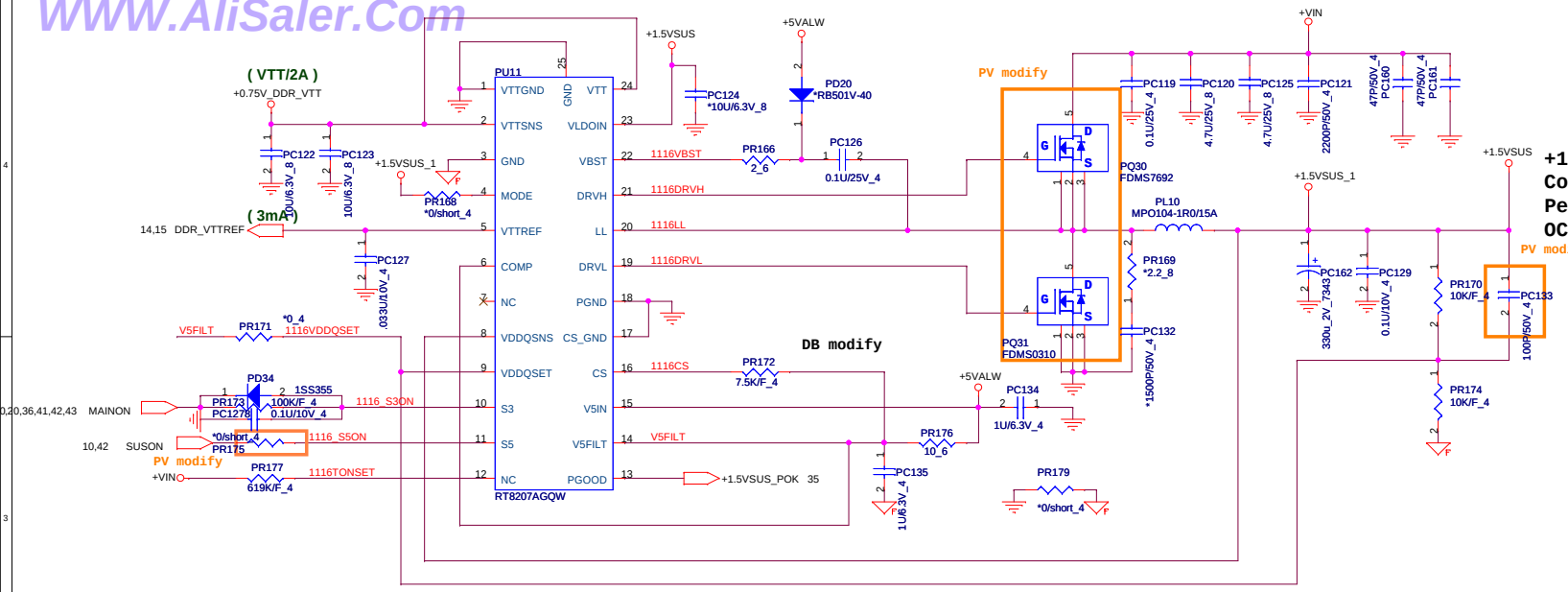

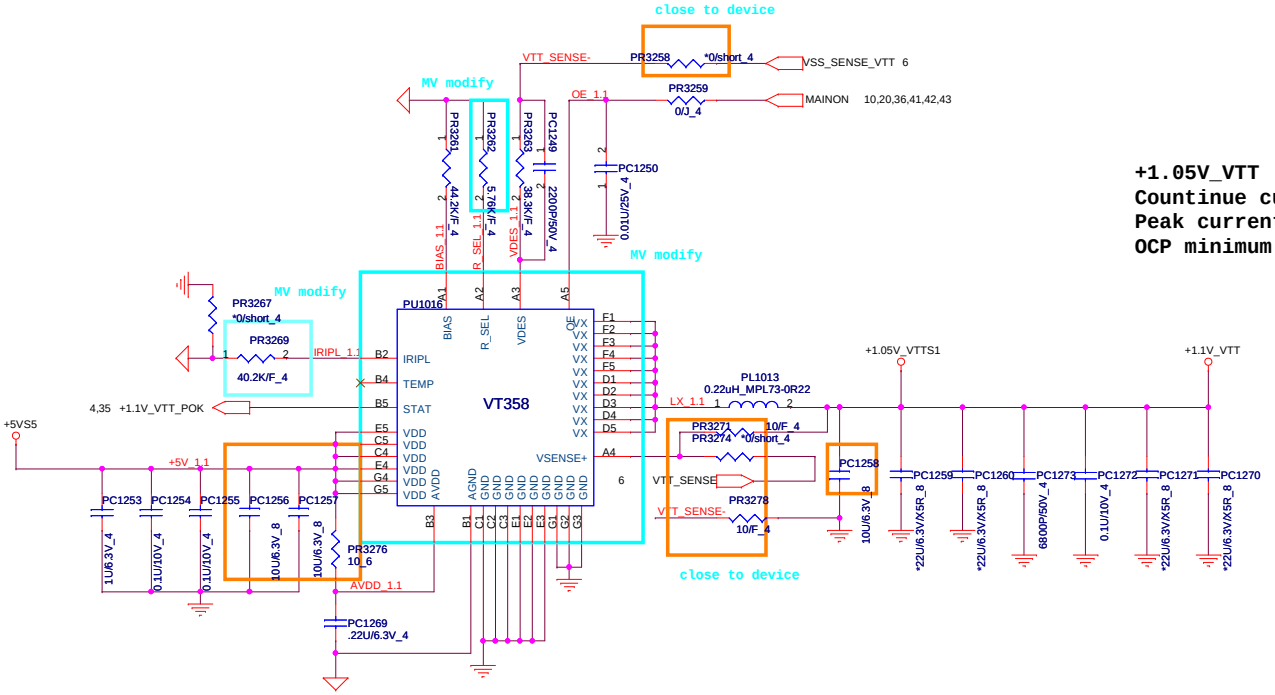

NB5

PROJECT : SX6
Quanta Computer Inc.

Size	Document Number	Rev
Custom	DDR3 (RT8207)	2B

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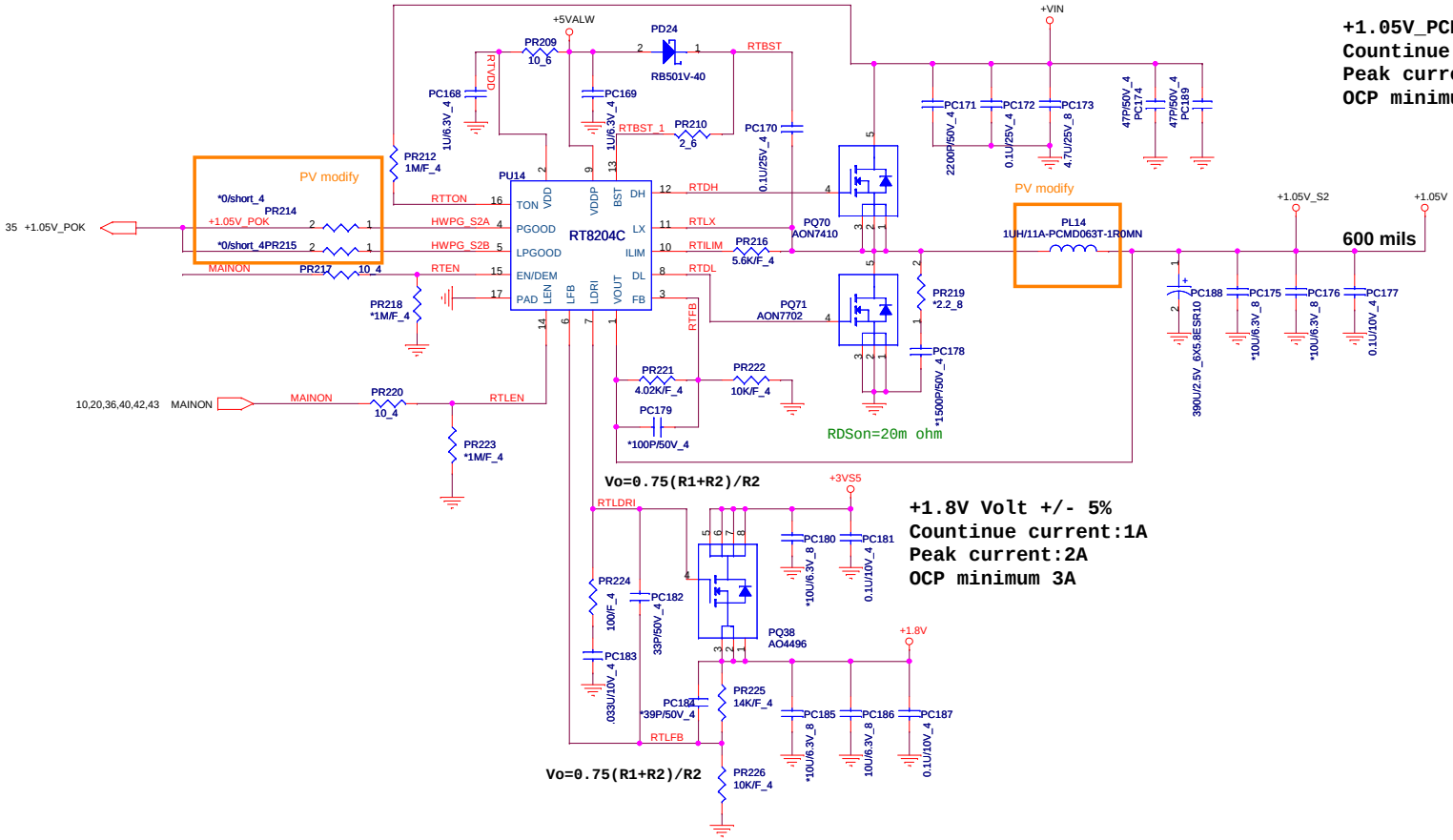

+1.05V_PCH Volt +/- 5%
Countinue current:4A
Peak current:7A
OCP minimum 9A

+1.8V Volt +/- 5%
Countinue current:1A
Peak current:2A
OCP minimum 3A

NB5

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Custom	PCH +1.05V	2B

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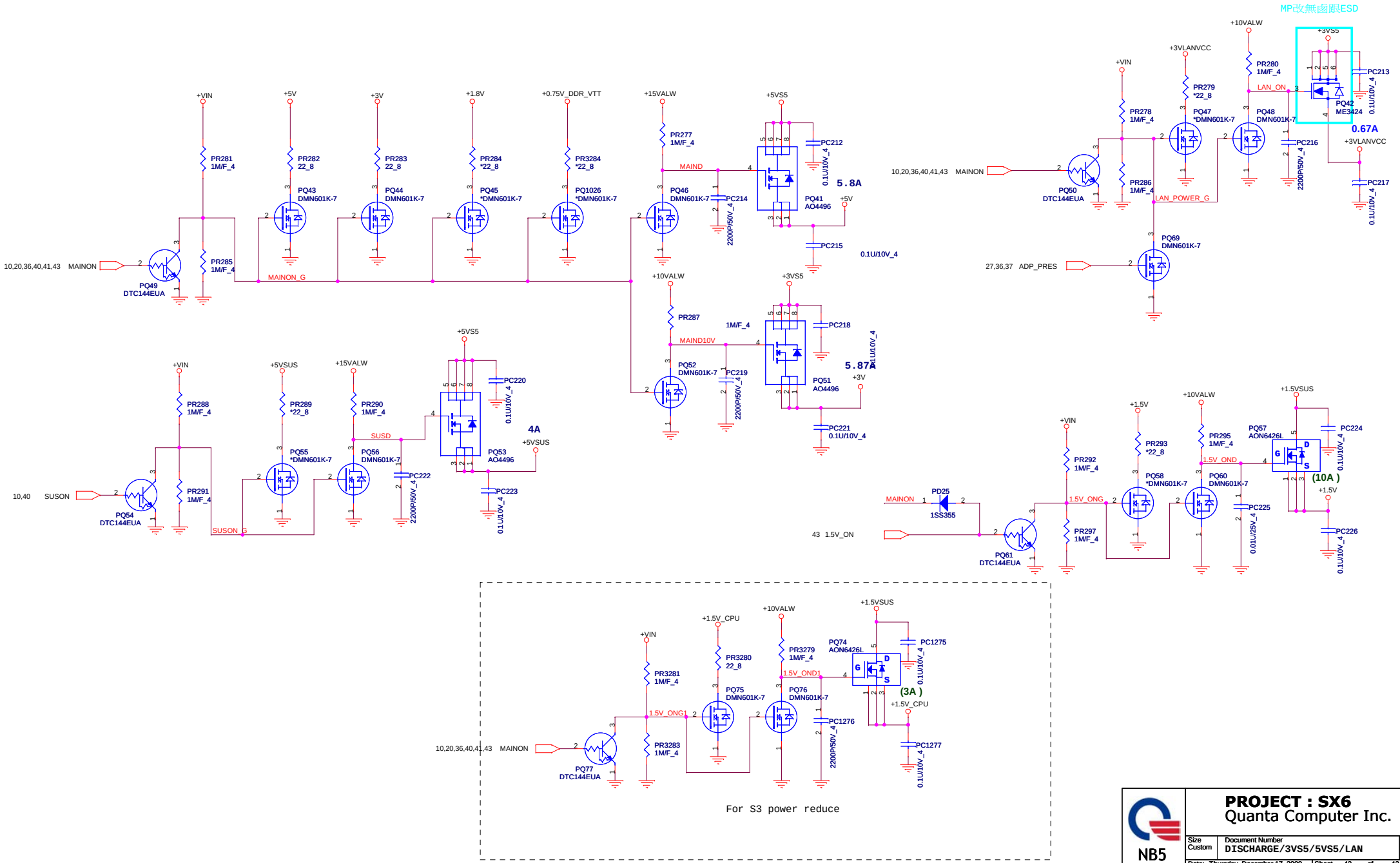

NB5	PROJECT : SX6 Quanta Computer Inc.	
Size: Custom	Document Number: DISCHARGE/3VS5/5VS5/LAN	Rev: 2B
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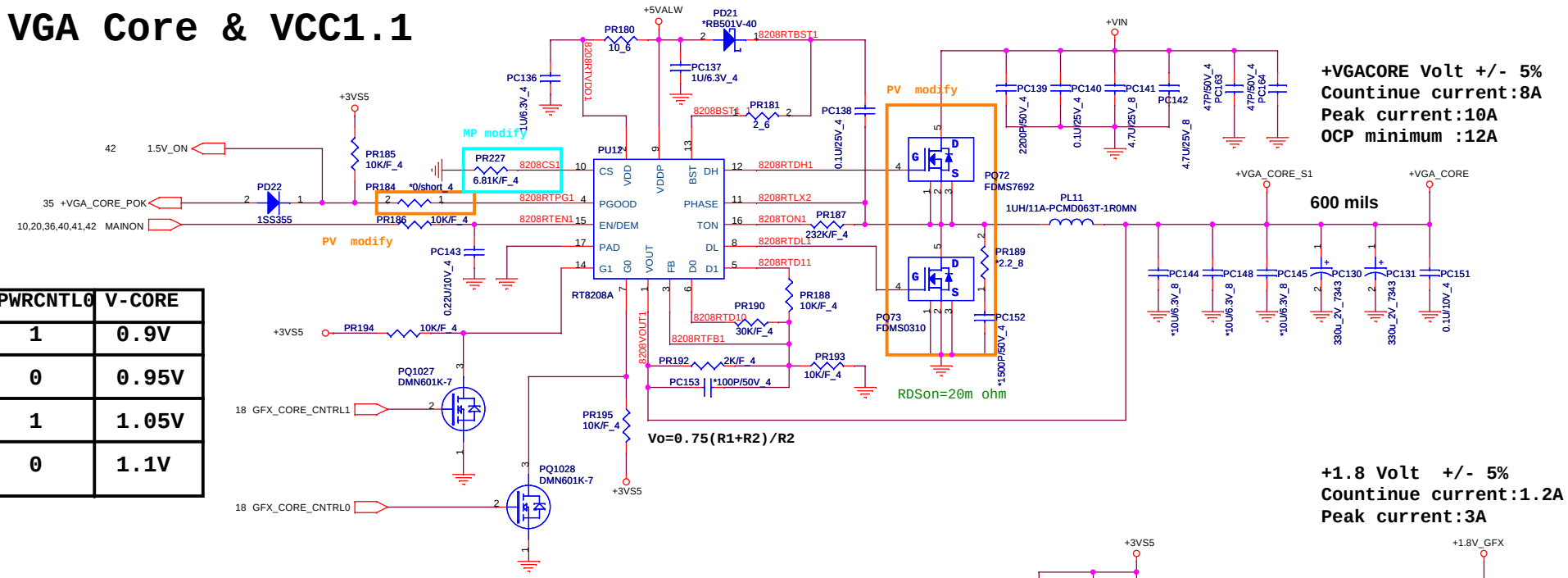
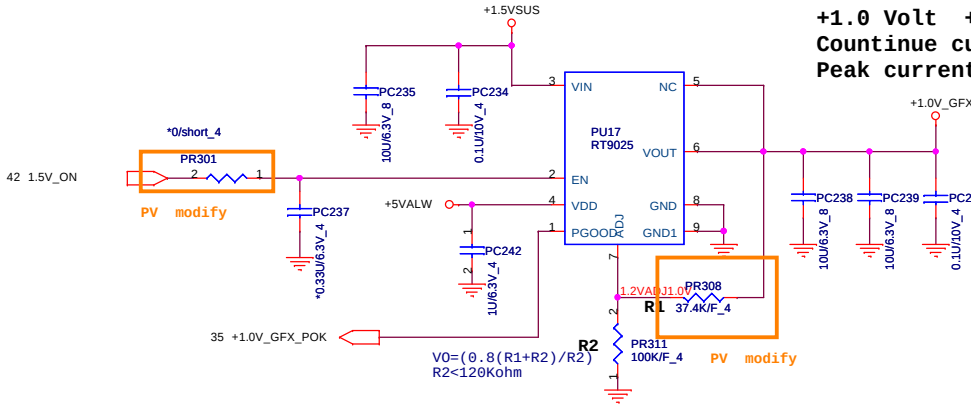
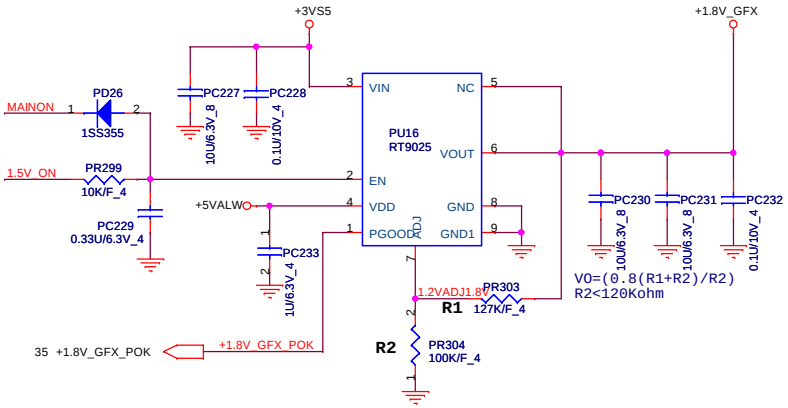
VGA Core & VCC1.1

	PWRCNTL1	PWRCNTL0	V-CORE
	1	1	0.9V
	1	0	0.95V
	0	1	1.05V
	0	0	1.1V







NB5	PROJECT : SX6 Quanta Computer Inc.
Size: Custom	Document Number: VGA Core/+1.8VGFX/1.0VGFX
Rev: 2B	
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