

UT12 SYSTEM DIAGRAM



01

PCB STACK UP

LAYER 1 : TOP
LAYER 2 : IN1
LAYER 3 : IN2
LAYER 4 : VCC
LAYER 5 : IN3
LAYER 6 : BOT

Cable Docking

VGA
RJ-45
CIR/Pwr btn
SPDIF Out
Stereo MIC
Headphone Jack
USB Port
VOL Cntr

PAGE 37

SYSTEM CHARGER(ISL6251A)
PAGE 44

SYSTEM POWER ISL6236IRZA-T
PAGE 38

DDR II SMD DR_VTERM
1.8V/1.8VSUS(TPS51116REG)
PAGE 41

VCCP +1.1V AND +1.2V(MAX8717)
PAGE 39

VGACORE(1.1V-1.2V)Oz8118
PAGE 42

CPU CORE ISL6265A
PAGE 40

SMBUS TABLE		
SB--SCL0/SD0	Clock gen/Robson/TV tuner /DDR2/DDR2 thermal/Accelerometer	+3V
	epress card Wlan Card	+3VS5
EC --SCL/SD	Battery charge/discharge	+3VPCU
EC--SCL2/SD2	VGA thermal/system thermal	+3V

DDRII-SODIMM1
PAGE 7, 8
DDRII 667/800 MHz

DDRII-SODIMM2
PAGE 7, 8
DDRII 667/800 MHz

AMD
Griffin
S1G2 Processor
638P (uPGA)/35W
PAGE 3, 4, 5, 6

CPU THERMAL
SENSOR
PAGE 5

14.318MHz

CLOCK GEN
ICS9LPRS476AKLFT-->HP
SLG8SP626VTR-->HP
RTM880N-795 -->HP
PAGE 2

PCI-E

LAN
Realtek
PCIE-LAN
RTL8102E/8111C
(10/100/GigaLAN)
PAGE 31, 32

Express
Card
(NEW CARD)
PAGE 33

Mini PCI-E
Card
(Wireless LAN/TV
TUNNER)
PAGE 36

NORTH BRIDGE
RX781 / RS780MN
A12
21mm X 21mm, 528pin BGA
PAGE 8, 9, 10, 11,

PCI-Express 16X

HDMI
PAGE 23

CRT
PAGE 24

LVDS
PAGE 23

M96-SCE A11
64 Bit,DDR3*8
PAGE 17, 18, 19
20, 21, 22

PCI-E WLAN Card x1
PAGE 36

TV-TUNER Card x1
PAGE 36

Express Card x1
PAGE 33

Cable Docking x1
PAGE 37

ALINK X4

SOUTH BRIDGE
SB700 A12
21mm X 21mm, 528pin BGA
4.5W(Ext)
4.3W(Int)
PAGE 12, 13, 14, 15, 16

USB2.0

USB2.0 Ports
X3
PAGE 30

Blueflame
PAGE 30

Webcam
X1
PAGE 30

Fingerprint
PAGE 30

TWO SATA - HDD
PAGE 33

SATA - CD-ROM
PAGE 33

E-SATA
PAGE 30

Accelerometer
LIS3LV02DL
PAGE 28

Keyboard
Touch Pad
PAGE 34

CIR (AUDIO CONN)
PAGE 27

Capacitive Sense
SW
PAGE 34

SMBUS

LPC

ENE KBC
KB3926 Cx
PAGE 35

FAN
PAGE 37

SPI
PAGE 35

MDC CONN
PAGE 29

Azalia

IDT
92HD71B7
PAGE 27

AUDIO
Amplifier
TPA6017A2
PAGE 28

Digital MIC
PAGE 30

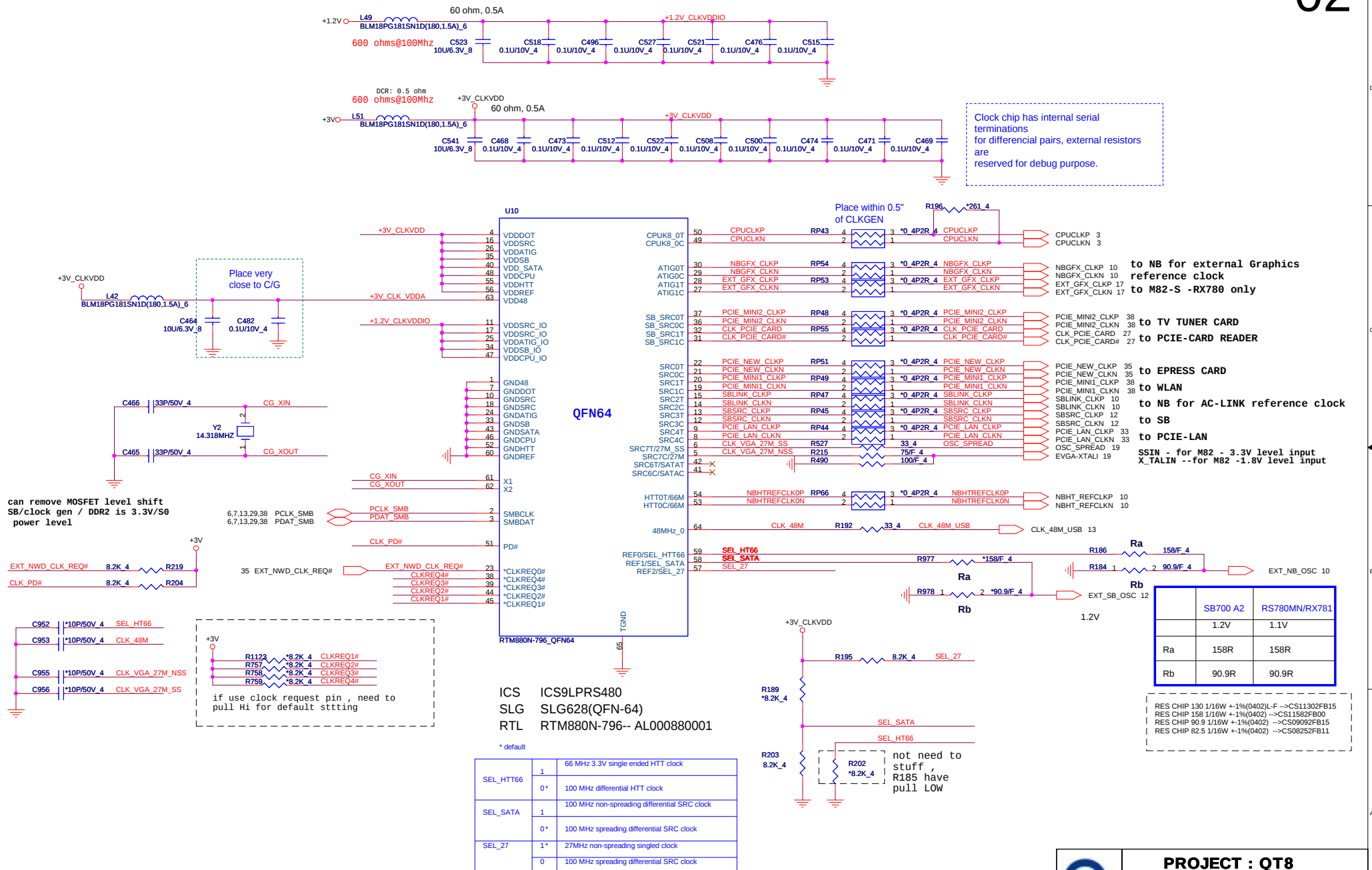
AUDIO CONN
(Phone/ MIC)
PAGE 27

Audio
Conn
PAGE 28



PROJECT : QT8
Quanta Computer Inc.

Size Custom Document Number
Block Diagram
Date: Thursday, October 16, 2008 Sheet 1 of 48 Rev 1A



- Clock chip has internal serial terminations for differential pairs, external resistors are reserved for debug purpose.

```
0  to NB for external Graphics
0  reference clock
17
17 to M82-S -RX780 only
```

```

P 38 to TV TUNER CARD
N 38
O 27 to PCIE-CARD READER
# 27

```

P 35 to EPRESS CARD

to WLAN

```

10 to NB for AC-LINK reference clock
12 to SB

```

33 to PCIE-LAN

```

19      SSIN - for M82 - 3.3V level input
      XTALIN --for M82 -1.8V level input

```

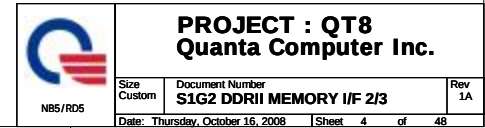
	SB700 A2	RS780MN/RX781
	1.2V	1.1V
Ra	158R	158R
Rb	90.9R	90.9R

```
RES CHIP 130 1/16W +-1%(0402)L-F -->CS11302FB15
RES CHIP 158 1/16W +-1%(0402) -->CS11582FB00
RES CHIP 90.9 1/16W +-1%(0402) -->CS09092FB15
RES CHIP 82.5 1/16W +-1%(0402) -->CS08252FB11
```

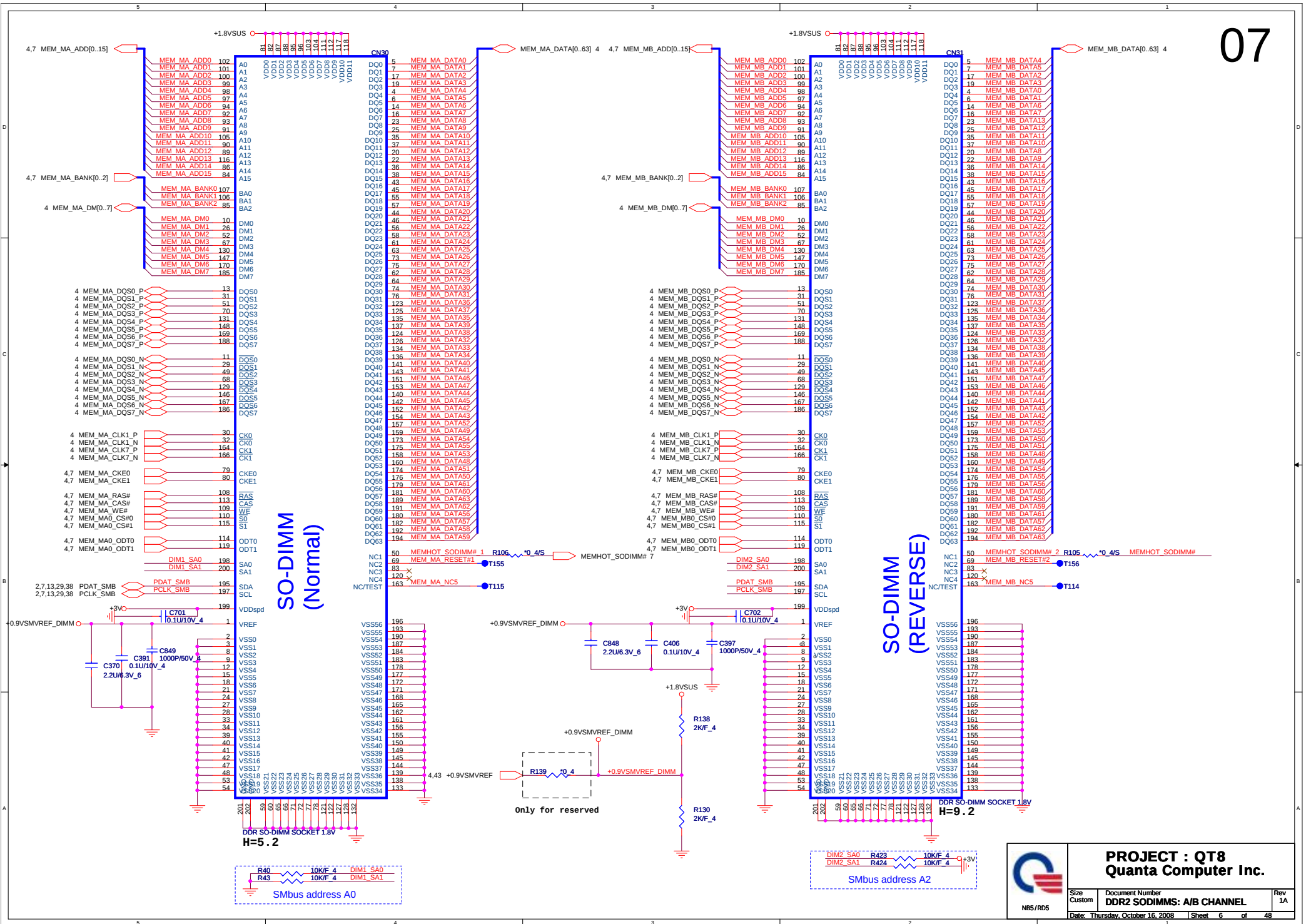
SEL_HTT66	1	66 MHz 3.3V single ended HTT clock
	0*	100 MHz differential HTT clock
SEL_SATA	1	100 MHz non-spreading differential SRC clock
	0*	100 MHz spreading differential SRC clock
SEL_27	1*	27MHz non-spreading singled clock
	0	100 MHz spreading differential SRC clock



Size Custom	Document Number S1G2 HT,CTL I/F 1/3
Date: Thursday, October 16, 2008	Sheet 3 of 48

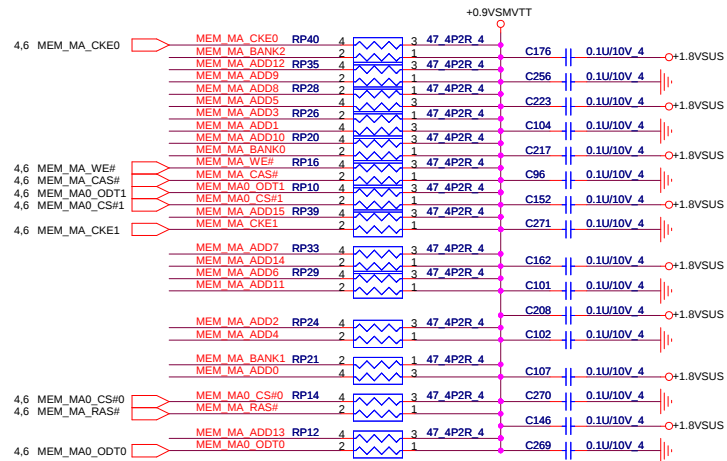




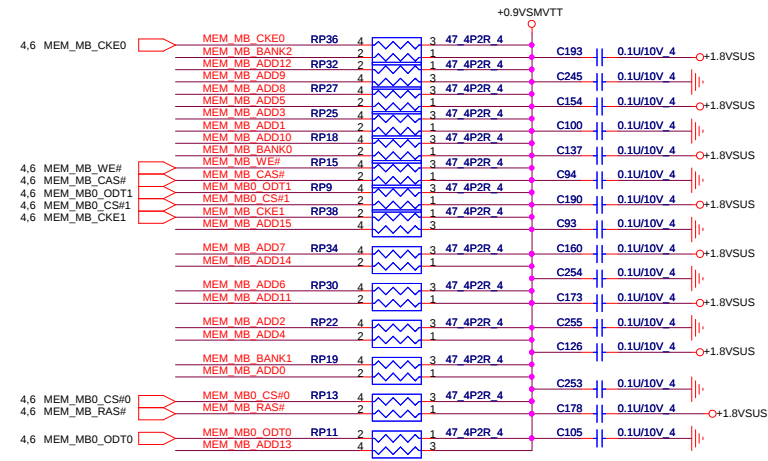
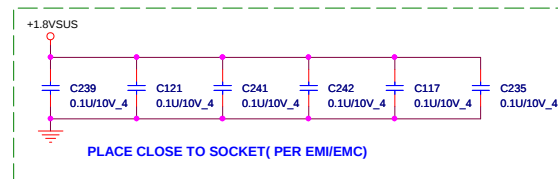


4,6 MEM_MA_ADD[0..15]  MEM_MA_ADD[0..15]
4,6 MEM_MA_BANK[0..2]  MEM_MA_BANK[0..2]

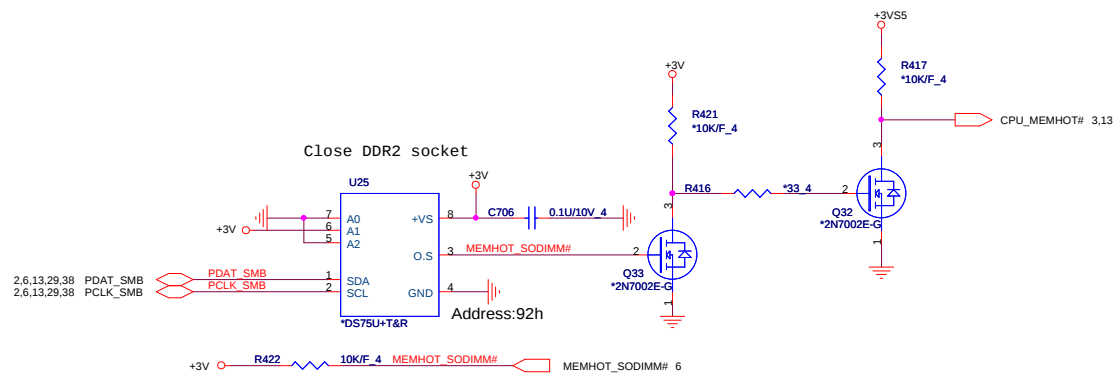
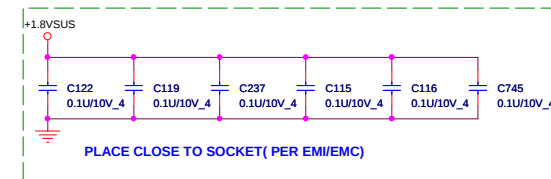
4,6 MEM_MB_ADD[0..15]  MEM_MB_ADD[0..15]
4,6 MEM_MB_BANK[0..2]  MEM_MB_BANK[0..2]



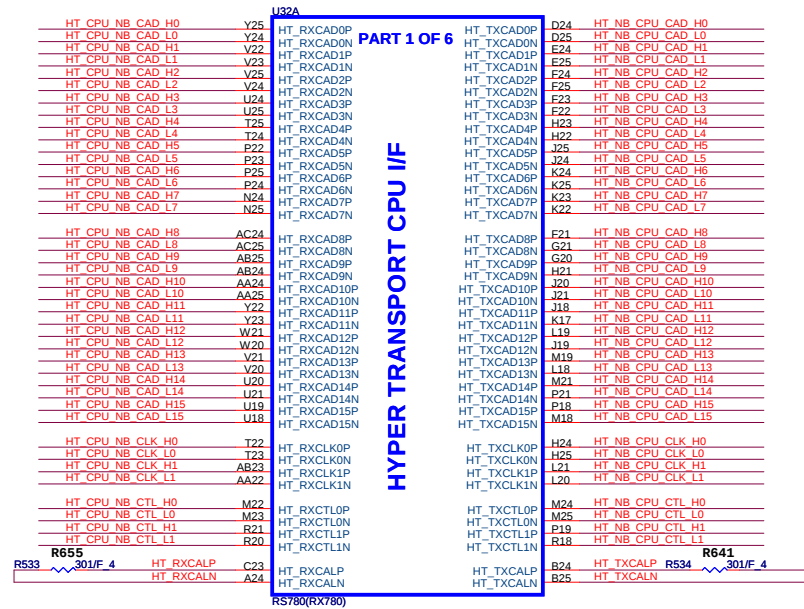
PLACE CLOSE TO PROCESSOR
WITHIN 1.5 INCH



PLACE CLOSE TO PROCESSOR
WITHIN 1.5 INCH



 NB5/RD5	PROJECT : QT8		
	Quanta Computer Inc.		
	Size Custom	Document Number DDR2 SODIMMS TERMINATIONS	Rev 1A
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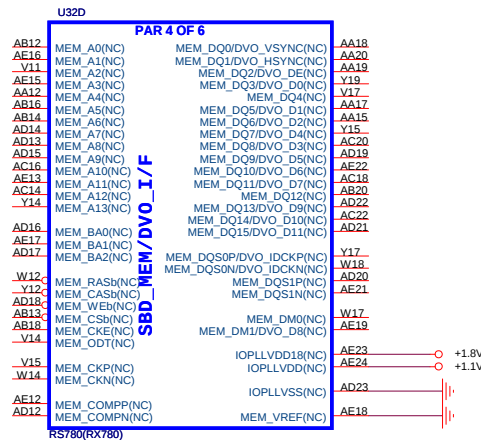


signals	RS780	RX780
HT_TXCALP	R641 301 ohm 1%	R641 1.21k ohm 1%
HT_TXCALN		
HT_RXCALP	R655 301 ohm 1%	R655 1.21k ohm 1%
HT_RXCALN		

RES CHIP 1.21K 1/16W +-1%(0402)
P/N : CS21212FB18

RES CHIP 301 1/16W +-1%(0402)
P/N : CS13012FB14

This block is for UMA RS780 only , RX780 can
remove all component



IOPLLVD18 - memory PLL
not applicable to RX780

IOPLLVD - memory PLL
not applicable to RX780



PROJECT : QT8
Quanta Computer Inc.

Size Custom Document Number
RS740/RS780-HT LINK I/F 1/5
Date: Thursday, October 16, 2008 Sheet 8 of 48

Rev
1A


```

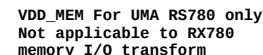
Enables Debug Bus access
through memory T/O pads and GPIO.
1 : Enable RX780 , Default
0 : Disable RX780

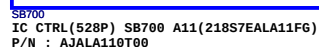
```

 NBS/RDS	PROJECT : QT8 Quanta Computer Inc.		
	Size Custom	Document Number RS740/RS780-SYSTEM I/F 3/5	Rev 1A
Date: Thursday, October 16, 2008 Sheet 10 of 48			



PIN NAME	RX780	RS780	PIN NAME	RX780	RS780
VDDHT	+1.1V	+1.1V	IOPLLVD	NC	+1.1V
VDDHTRX	+1.1V	+1.1V	AVDD	NC	+3.3V
VDDHTTX	+1.2V	+1.2V	AVDDDI	NC	+1.8V
VDDA18PCIE	+1.8V	+1.8V	AVDDQ	NC	+1.8V
VDDG18	+1.8V	+1.8V	PLLVD	NC	+1.1V
VDD18_MEM	NC	+1.8V	PLLVD18	NC	+1.8V
VDDPCIE	+1.1V	+1.1V	VDDA18PCIEPLL	+1.8V	+1.8V
VDDC	+1.1V	+1.1V	VDDA18HTPLL	+1.8V	+1.8V
VDD_MEM	NC	+1.8V/1.5V	VDDLTP18	NC	+1.8V
VDDG33	NC	+3.3V	VDDL718	NC	+1.8V
IOPLLVD18	NC	+1.8V	VDDL733	NC	NC





Size Custom	Document Number SB700-PCIE/PCI/CPU/LPC 1/4
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+3VSUS NC only ,Can't be install



+3V SCL0/SDATA0 is 3V tolerance
AMD datasheet define it
Clock gen/Robson/TV tuner /DDR2/DDR2 thermal/Accelerometer

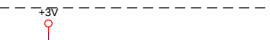


+3VS5 SCL1/SDATA1 is 3V/S5 tolerance
AMD datasheet define it

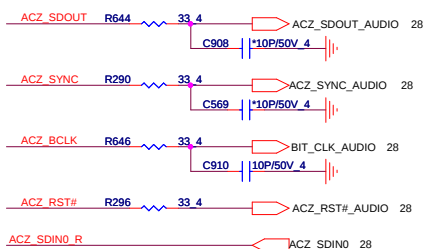


remove pull hi
(chip internal
have pull hi)

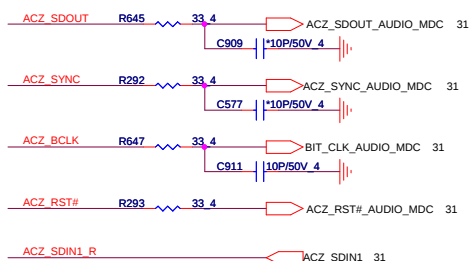
+3VS5 SCL2/SDATA2 is 3V/S5 tolerance
AMD datasheet define it



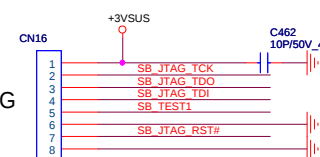
To Azalia



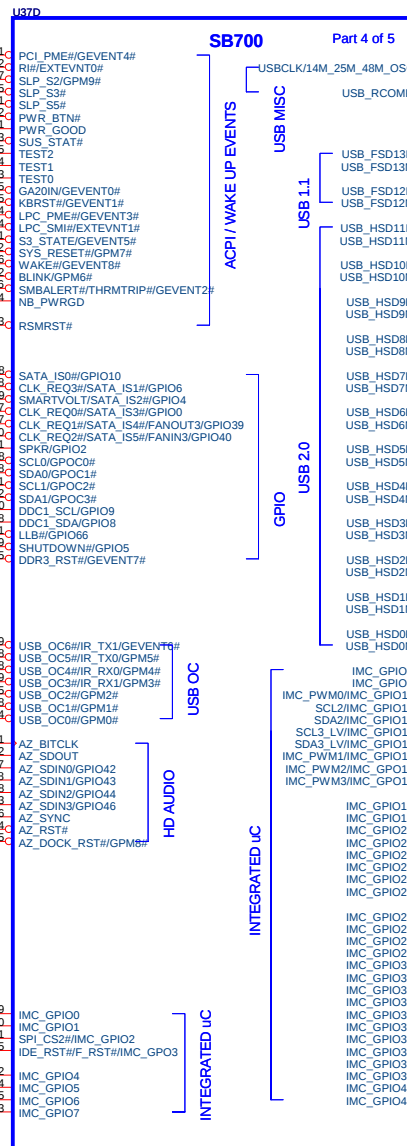
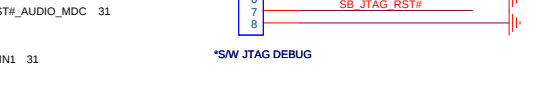
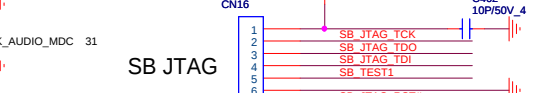
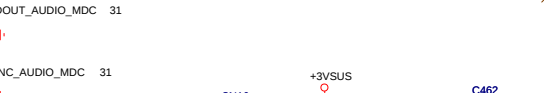
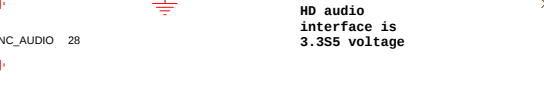
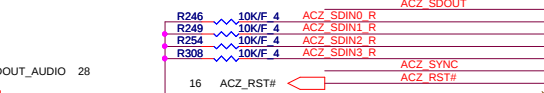
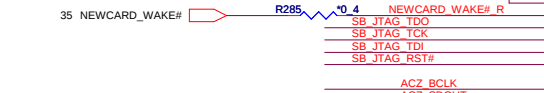
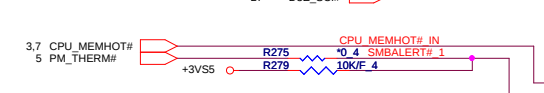
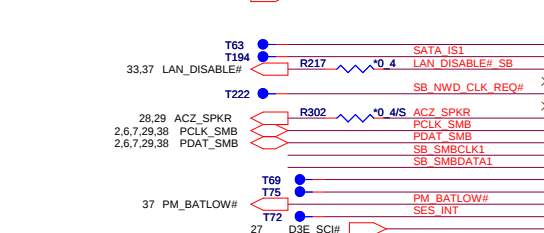
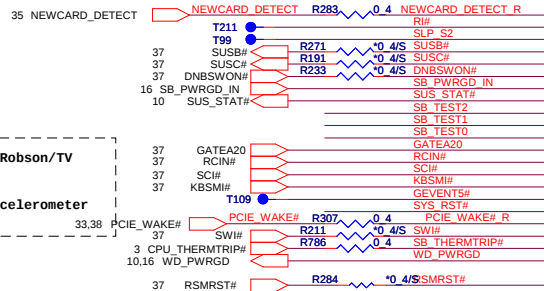
To Modem Board



SB JTAG



*SW JTAG DEBUG



SB700

SB700 Part 4 of 5

USBCLK/14M_25M_48M_OSC

USB_RCOMP

USB_FSD13P

USB_FSD13N

USB_FSD12P

USB_FSD12N

USB_HSD11P

USB_HSD11N

USB_HSD10P

USB_HSD10N

USB_HSD9P

USB_HSD9N

USB_HSD8P

USB_HSD8N

USB_HSD7P

USB_HSD7N

USB_HSD6P

USB_HSD6N

USB_HSD5P

USB_HSD5N

USB_HSD4P

USB_HSD4N

USB_HSD3P

USB_HSD3N

USB_HSD2P

USB_HSD2N

USB_HSD1P

USB_HSD1N

USB_HSD0P

USB_HSD0N

IMC_GPIO8

IMC_GPIO9

IMC_GPIO10

IMC_GPIO11

IMC_GPIO12

IMC_GPIO13

IMC_GPIO14

IMC_GPIO15

IMC_GPIO16

IMC_GPIO17

IMC_GPIO18

IMC_GPIO19

IMC_GPIO20

IMC_GPIO21

IMC_GPIO22

IMC_GPIO23

IMC_GPIO24

IMC_GPIO25

IMC_GPIO26

IMC_GPIO27

IMC_GPIO28

IMC_GPIO29

IMC_GPIO30

IMC_GPIO31

IMC_GPIO32

IMC_GPIO33

CLK_48M_USB

USB_RCOMP_SB

CLK_48M_USB

USB_FSD13P

USB_FSD13N

USB_FSD12P

USB_FSD12N

USB_HSD11P

USB_HSD11N

USB_HSD10P

USB_HSD10N

USB_HSD9P

USB_HSD9N

USB_HSD8P

USB_HSD8N

USB_HSD7P

USB_HSD7N

USB_HSD6P

USB_HSD6N

USB_HSD5P

USB_HSD5N

USB_HSD4P

USB_HSD4N

USB_HSD3P

USB_HSD3N

USB_HSD2P

USB_HSD2N

USB_HSD1P

USB_HSD1N

USB_HSD0P

USB_HSD0N

IMC_GPIO8

IMC_GPIO9

IMC_GPIO10

IMC_GPIO11

IMC_GPIO12

IMC_GPIO13

IMC_GPIO14

IMC_GPIO15

IMC_GPIO16

IMC_GPIO17

IMC_GPIO18

IMC_GPIO19

IMC_GPIO20

IMC_GPIO21

IMC_GPIO22

IMC_GPIO23

IMC_GPIO24

IMC_GPIO25

IMC_GPIO26

IMC_GPIO27

IMC_GPIO28

IMC_GPIO29

IMC_GPIO30

IMC_GPIO31

IMC_GPIO32



PROJECT : QT8
Quanta Computer Inc.

Size Custom Document Number
SB700-ACPI/GPIO/USB 2/4

Date: Thursday, October 16, 2008 Sheet 13 of 48



Size Custom	Document Number SB700-PWR/DECOUPLING 4/4	Rev 1A
Date: Thursday, October 16, 2008		Sheet 15 of 48

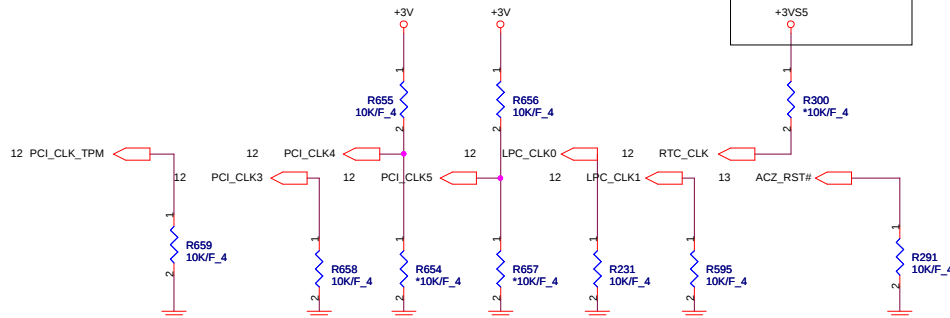


OVERLAP COMMON PADS WHERE
POSSIBLE FOR DUAL-OP RESISTORS.

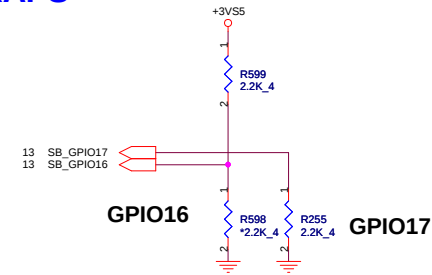
16

REQUIRED STRAPS

It must ready
refofe RSMRST#



	PCI_CLK_TPM	PCI_CLK3	PCI_CLK4	PCI_CLK5	LPC_CLK0	LPC_CLK1	RTC_CLK	AZ_RST#
PULL HIGH	BOOTFAIL TIMER ENABLED	USE DEBUG STRAPS	RESERVED	RESERVED	IMC ENABLED	CLKGEN ENABLED	INTERNAL RTC DEFAULT	ENABLE PCI ROM BOOT
PULL LOW	BOOTFAIL TIMER DISABLED DEFAULT	IGNORE DEBUG STRAPS DEFAULT			IMC DISABLED DEFAULT	CLKGEN DISABLED DEFAULT	EXT. RTC (PD on X1, apply 32KHz to RTC_CLK)	DISABLE PCI ROM BOOT DEFAULT

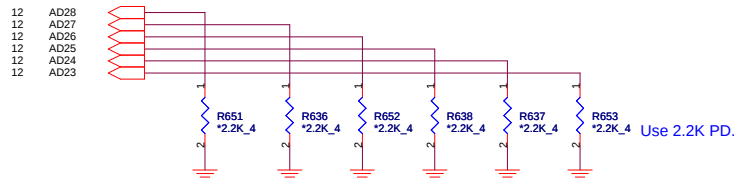


GPIO16 GPIO17

TYPE	GPIO16	GPIO17
FWH	L : 2.2K pull down	L : 2.2K pull down
LPC	NC	L : 2.2K pull down
SPI	L : 2.2K pull down	NC
RSVD	NC	NC

DEBUG STRAPS

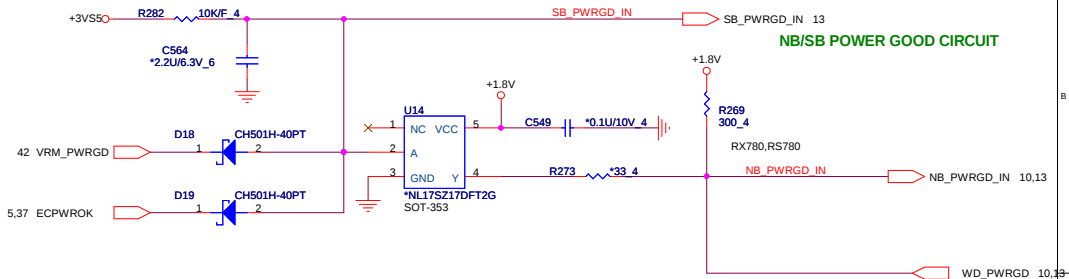
SB700 HAS 15K INTERNAL PU FOR PCI_AD[28:23]



Use 2.2K PD.

	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE LONG RESET DEFAULT	USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	RESERVED
PULL LOW	USE SHORT RESET	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	

NB_PWRGD_IN:
RS780/RX780 = 1.8V; RS740 = 3.3V
Do NOT share it with SB_PWRGD when use Internal Clk Gen
(Need SB PLL initialize firstly)



NB/SB POWER GOOD CIRCUIT

AL17S217000 IC(5P) NL17S217DFT2G(SOT-353) SOT-353
ALUC1G17000 IC OTHER(5P) SN74AUC1G17DBVR(SOT23-5) SOT23-5

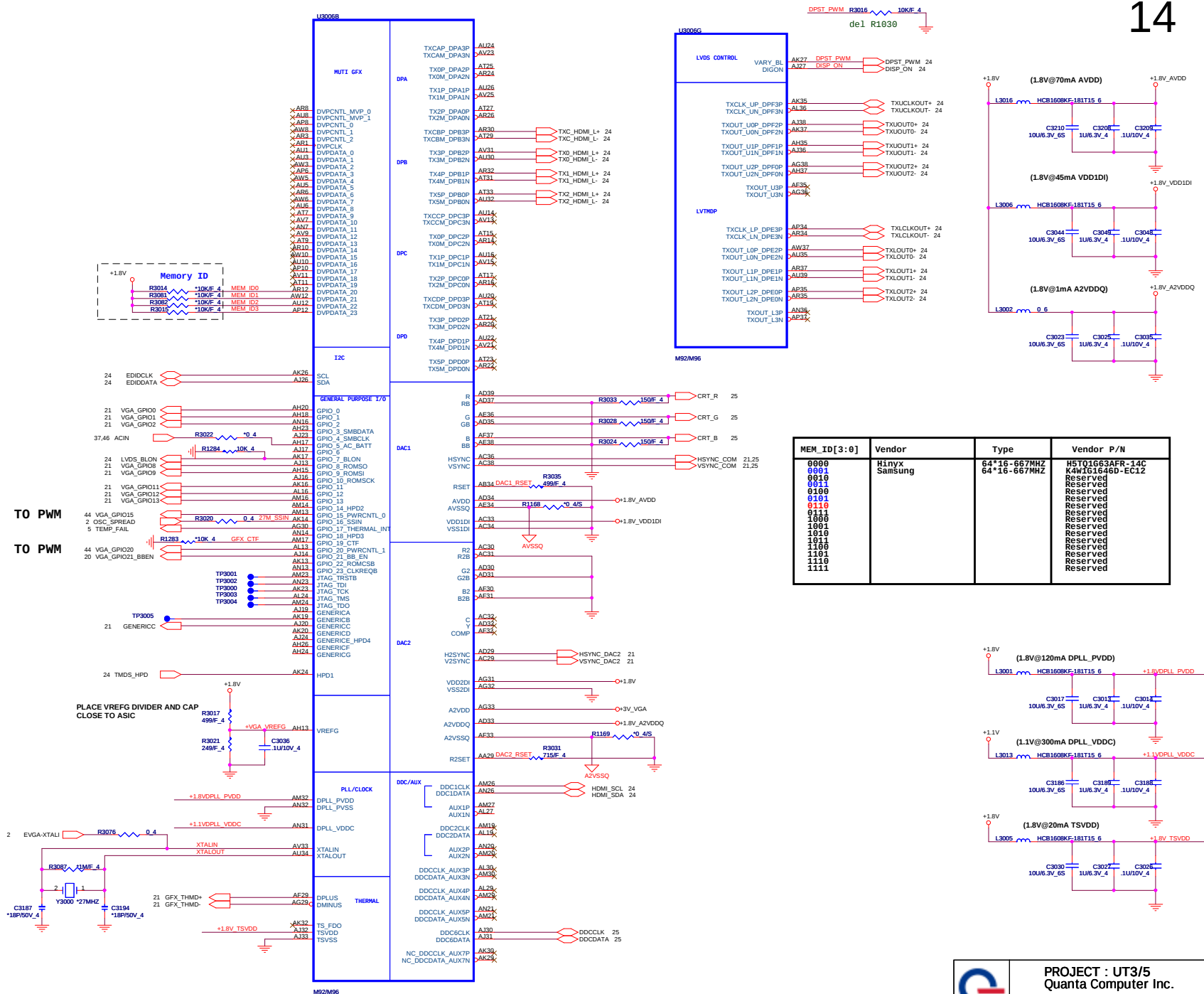


PROJECT : QT8
Quanta Computer Inc.

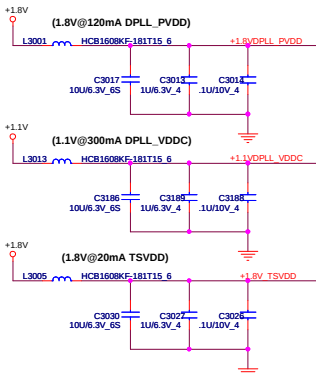
Size Custom	Document Number SB700-STRAPS	Rev 1A
Date: Thursday, October 16, 2008 Sheet 16 of 48		

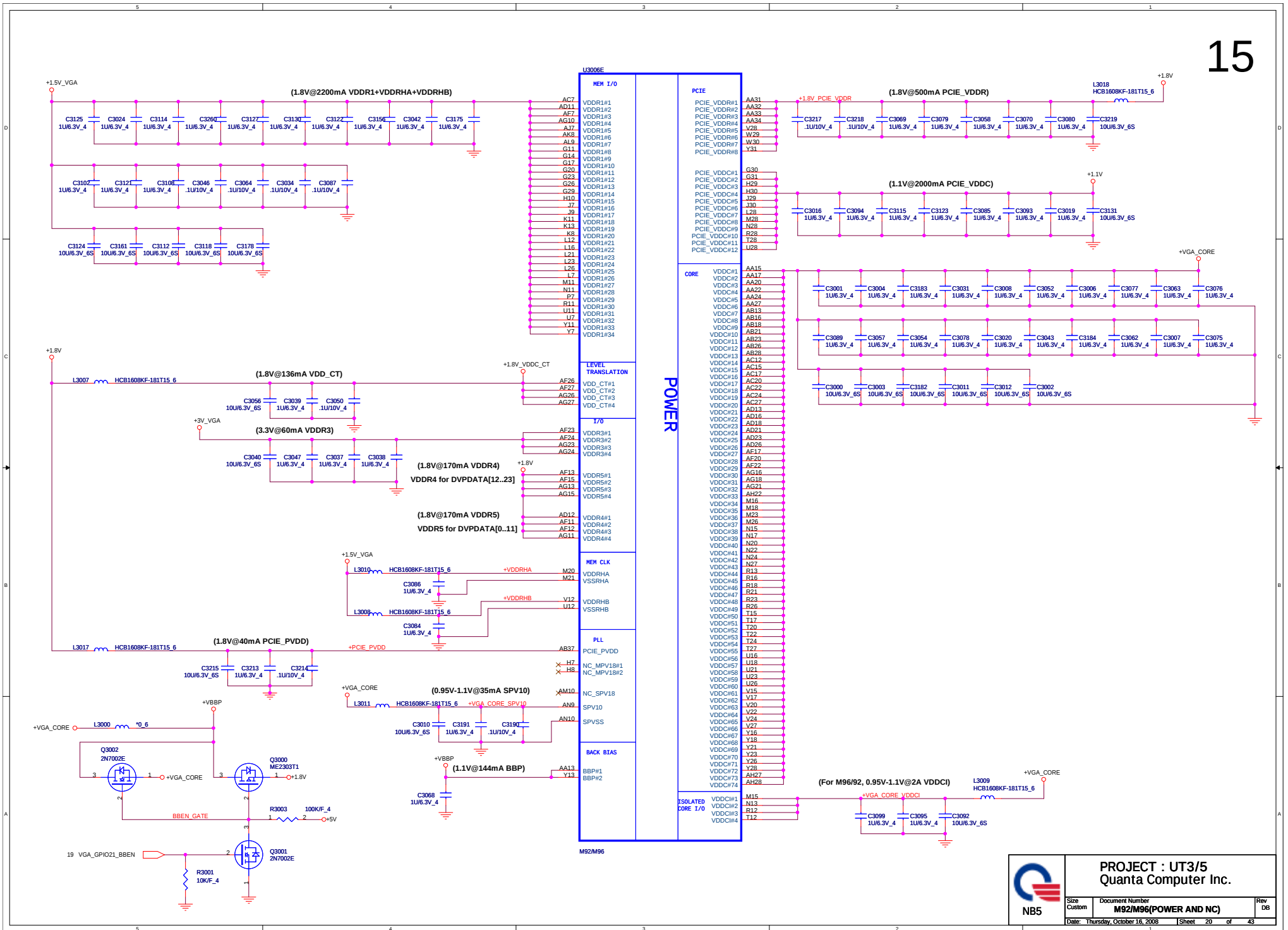


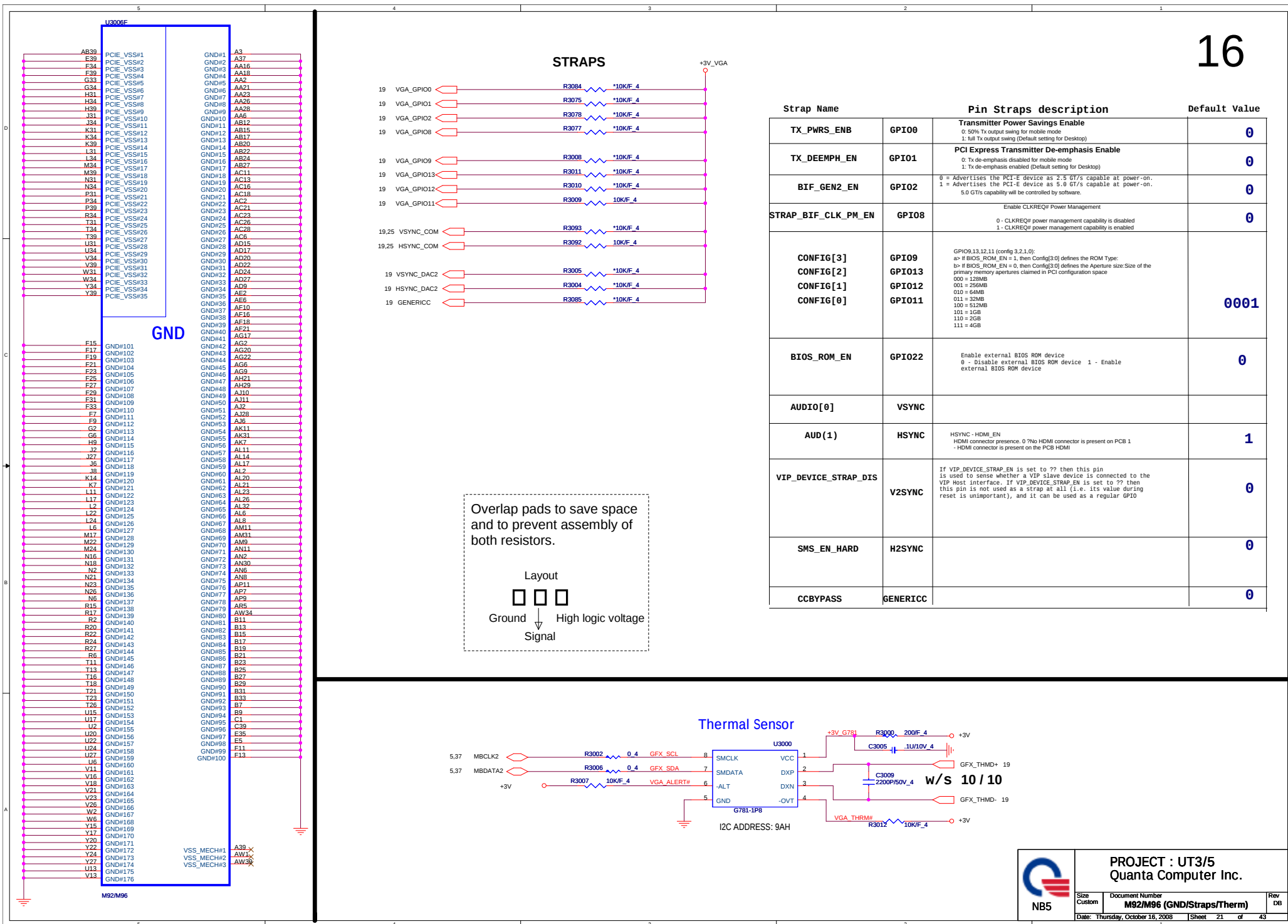


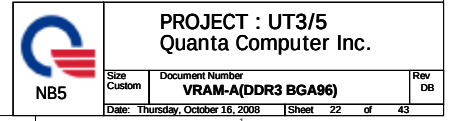


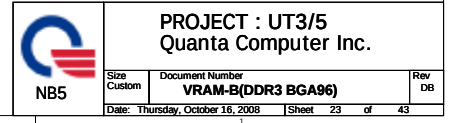
MEM_ID[3:0]	Vendor	Type	Vendor P/N
0000	Hinyx	64*16-667MHZ	H5TQ1G63AFR-14C
0001	SamSung	64*16-667MHZ	K4W1G16EDD-EC12
0010			Reserved
0011			Reserved
0100			Reserved
0101			Reserved
0110			Reserved
0111			Reserved
1000			Reserved
1001			Reserved
1010			Reserved
1011			Reserved
1100			Reserved
1101			Reserved
1110			Reserved
1111			Reserved

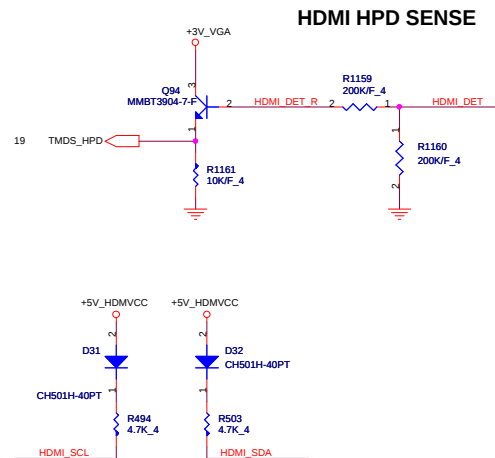
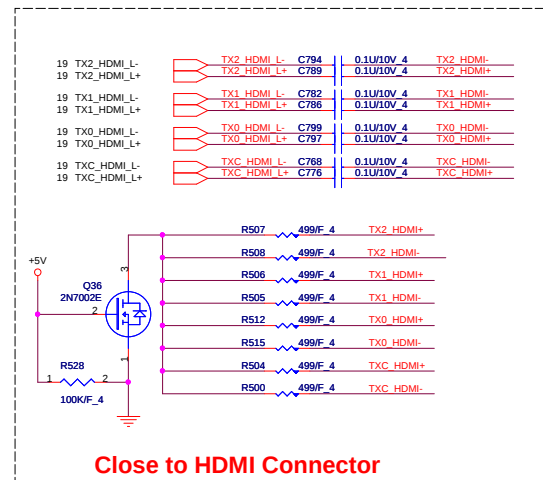
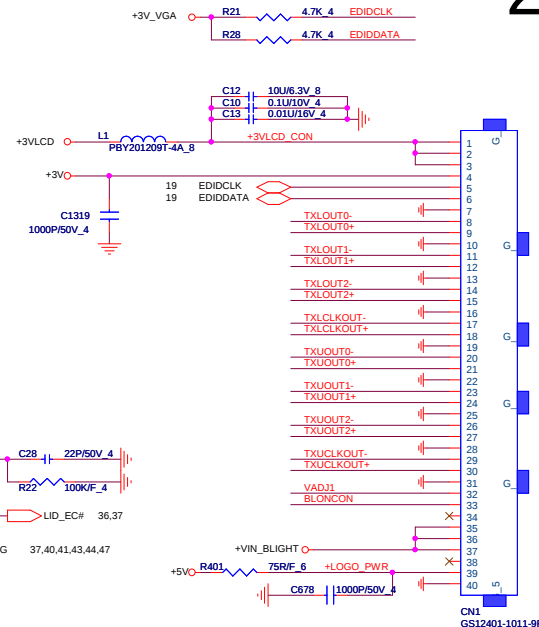
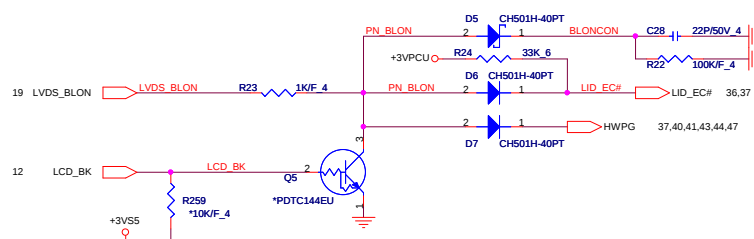
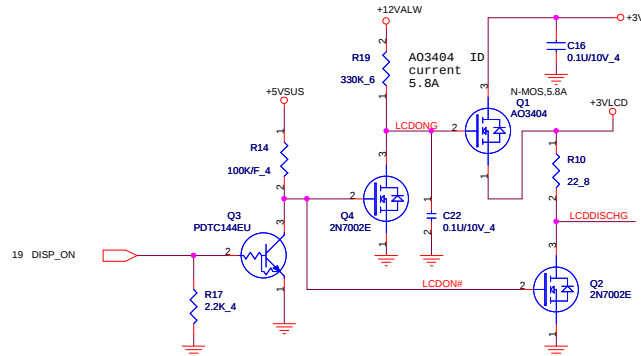
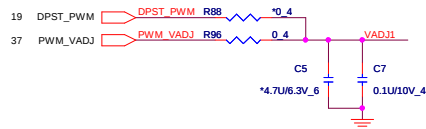
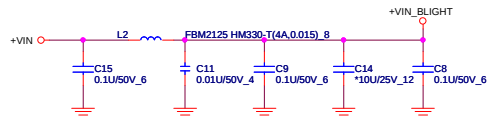
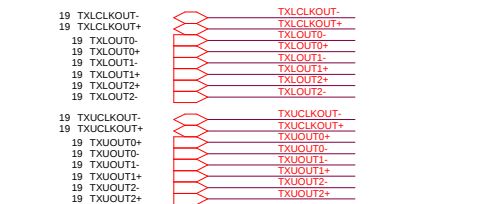




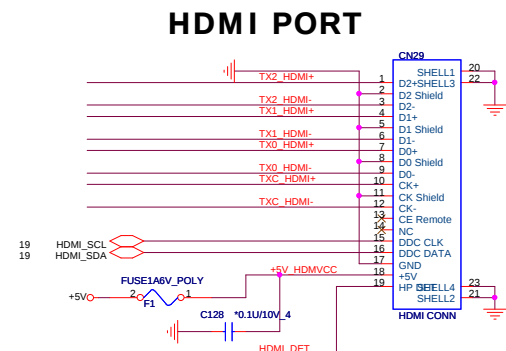






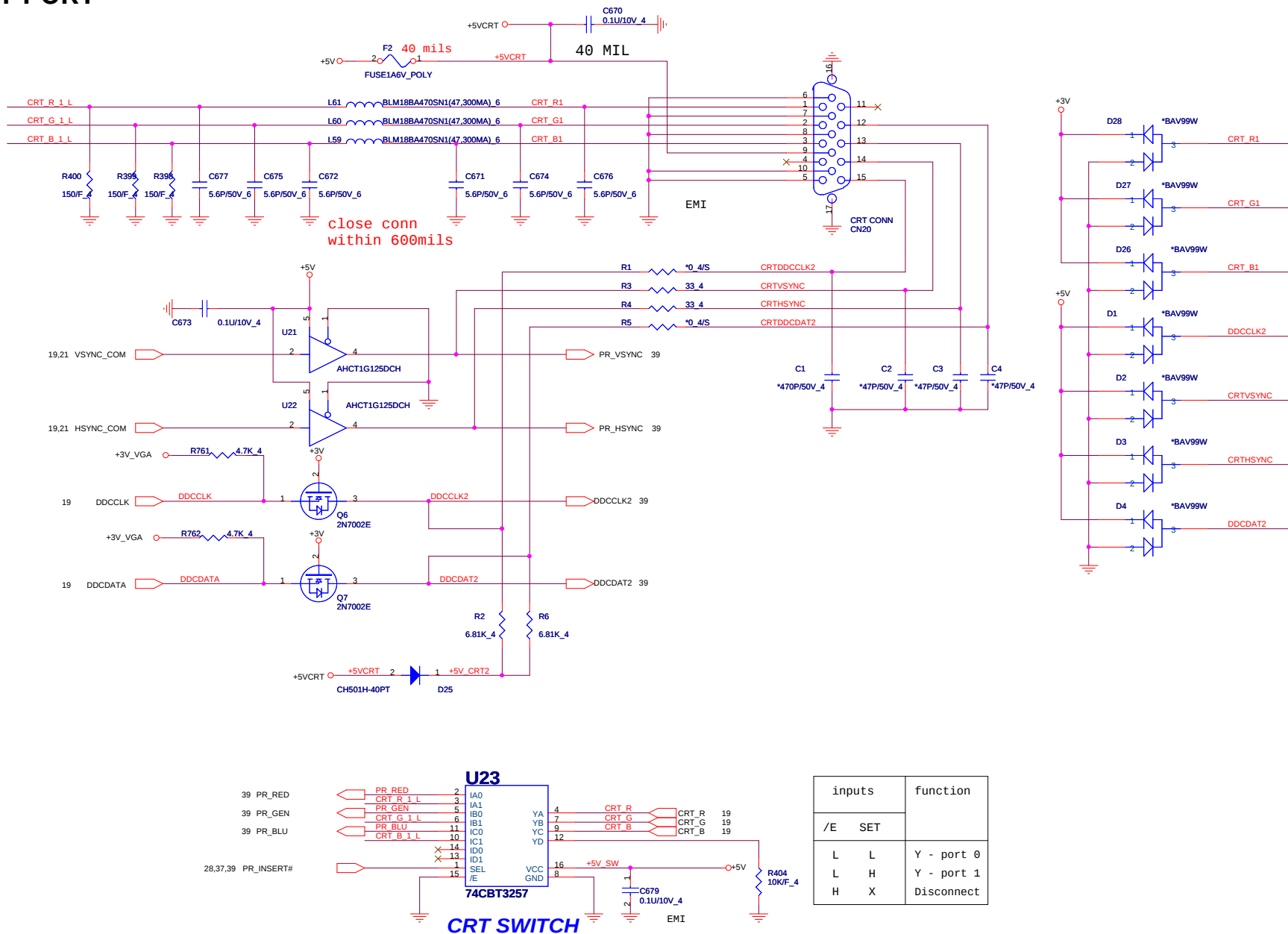


Change R494,
R503 to 4.7K for
AMD on PV
PV2
DIS use 4.7K
UMA use 2K



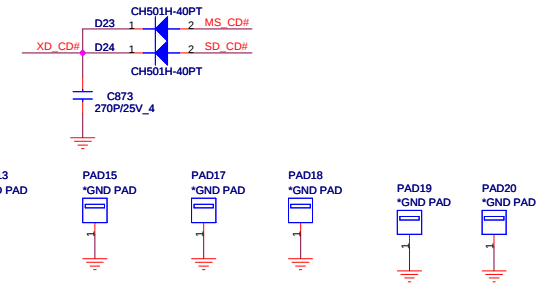
PROJECT : QT8
Quanta Computer Inc.

Size Custom Document Number LCD CONN,HDMI CONN Rev 1A
Date: Thursday, October 16, 2008 Sheet 24 of 48

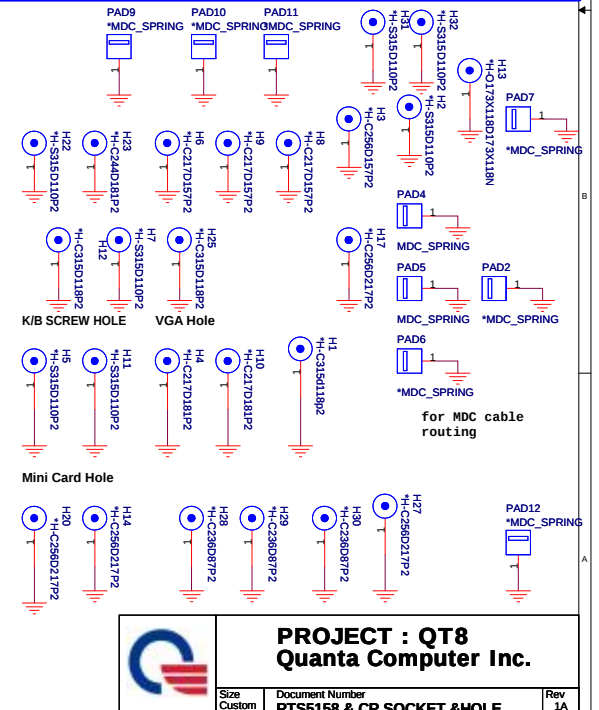
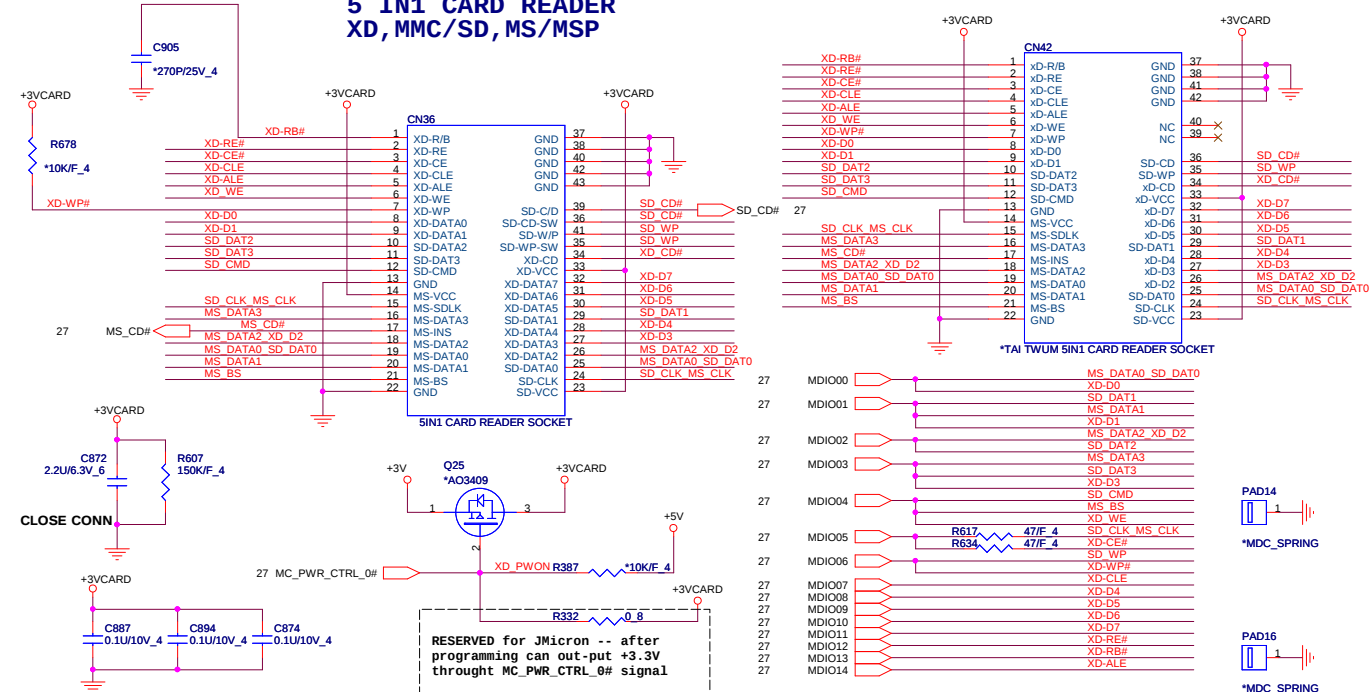


PROJECT : QT8
Quanta Computer Inc.

Size Custom Document Number CRT Rev 1A
Date: Thursday, October 16, 2008 | Sheet 25 of 48



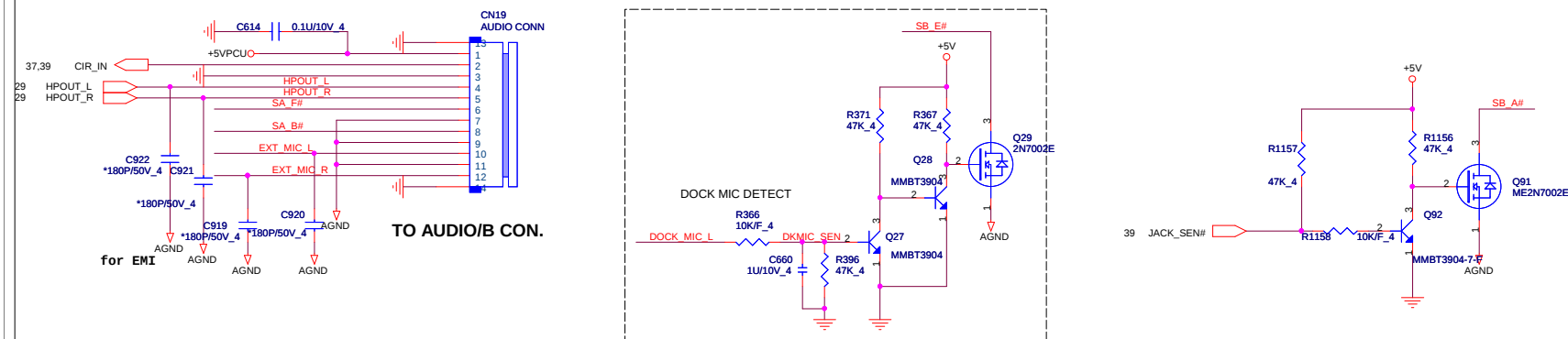
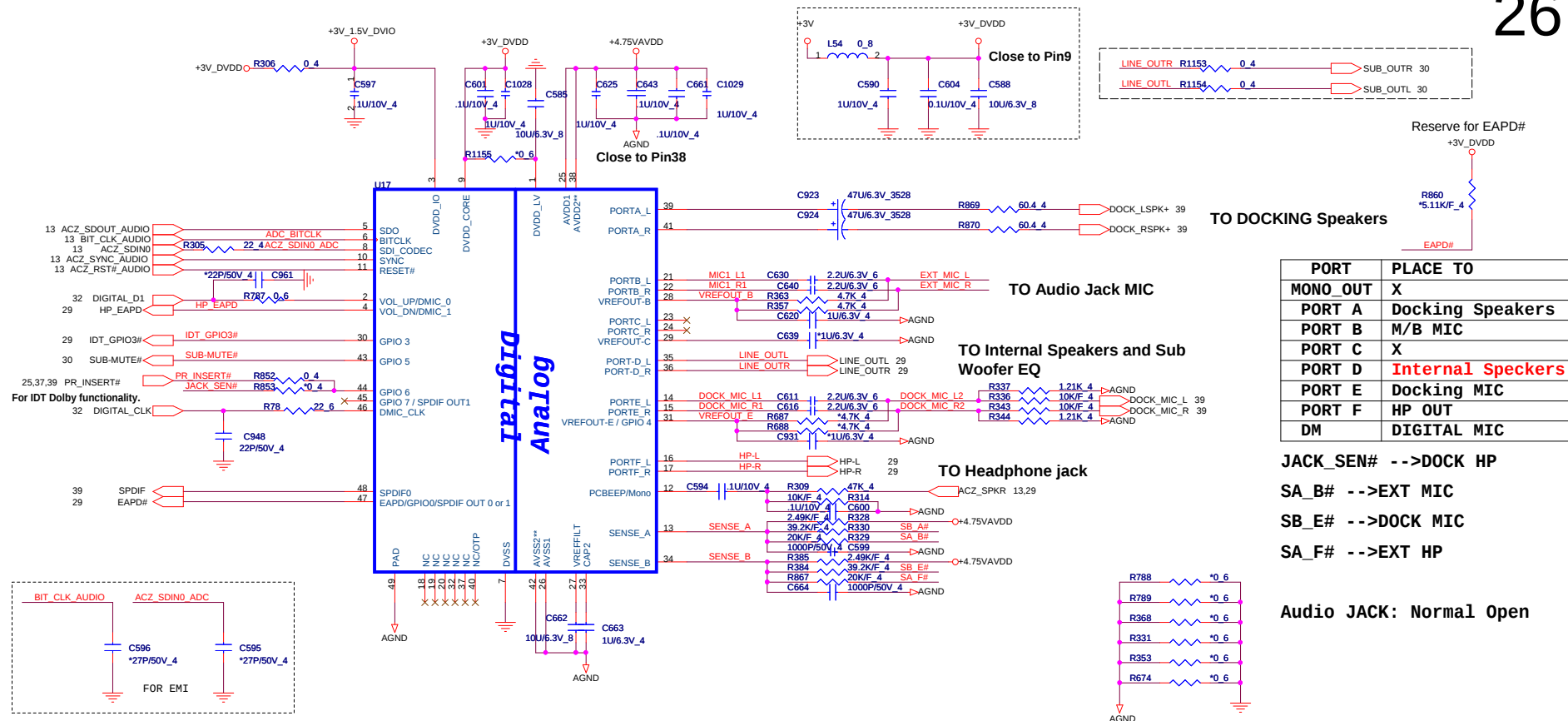
5 IN1 CARD READER XD, MMC/SD, MS/MSP



PROJECT : QT8
Quanta Computer Inc.

Size Custom Document Number
RTS5158 & CR SOCKET & HOLE
Date: Thursday, October 16, 2008 Sheet 26 of 48
Rev 1A



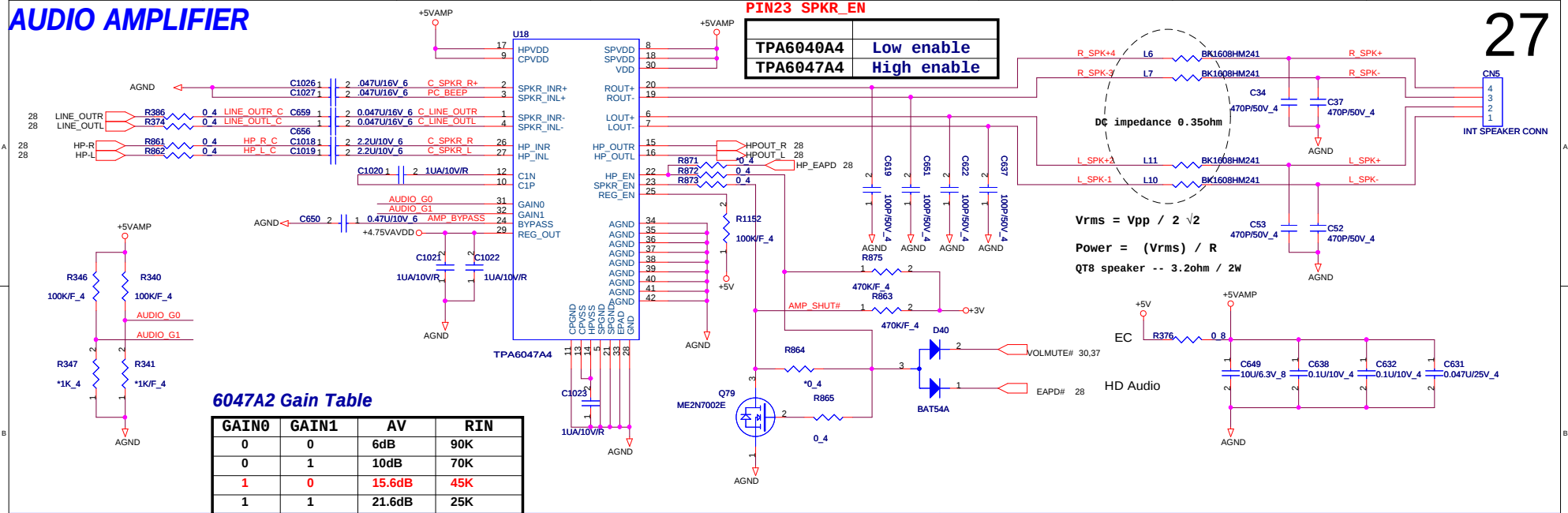


PROJECT : QT8
Quanta Computer Inc.

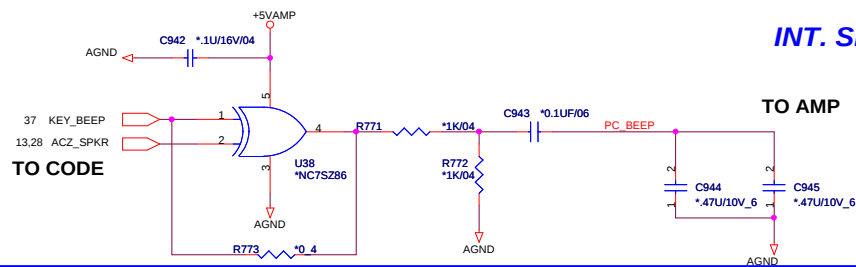
Size Custom Document Number
Azalia AD1883
 Date: Thursday, October 16, 2008 Sheet 26 of 48

Rev 1A

AUDIO AMPLIFIER

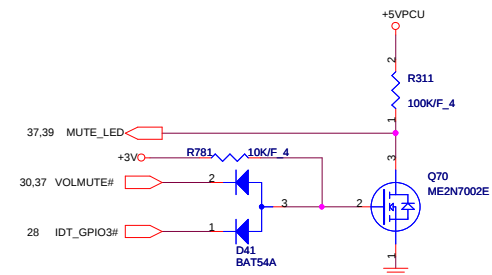


PC-BEEP

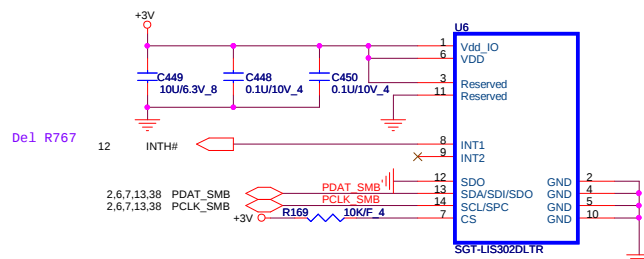


MUTE_LED

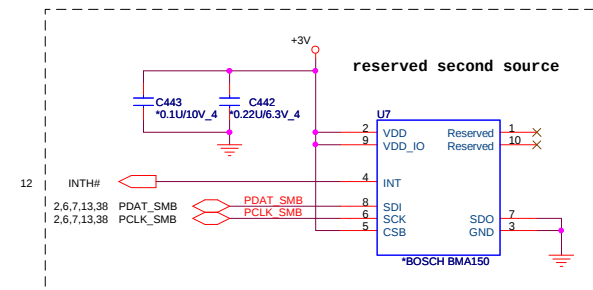
Low --> un-MUTE
High --> Mute



Acceleration sensor



SGT-LIS302DLTR interrupt pin default is low / active Hi, BIOS need to programming 22h to change status from active Hi to low

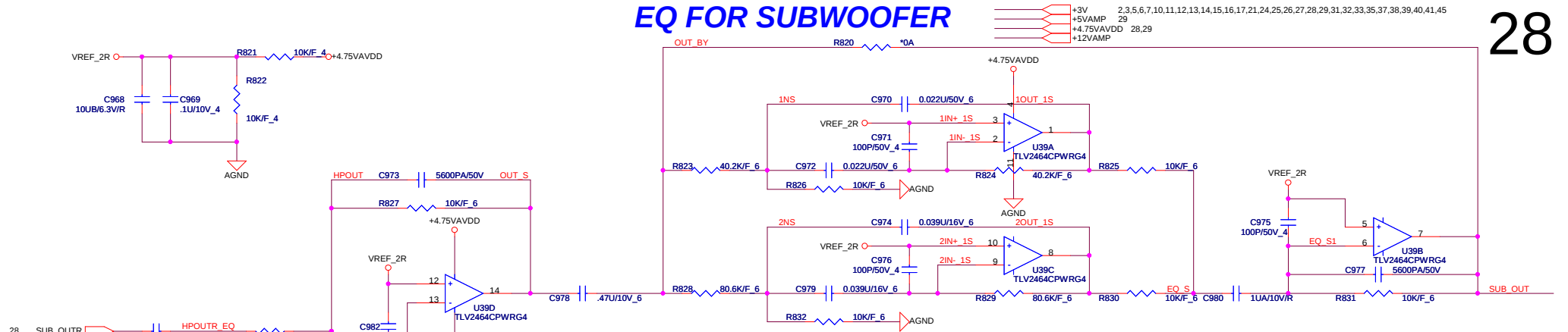


PROJECT : QT8
Quanta Computer Inc.

Size Custom Document Number **AMP_TPA6017/INT SPK** Rev 1A
Date: Thursday, October 16, 2008 Sheet 29 of 48

EQ FOR SUBWOOFER

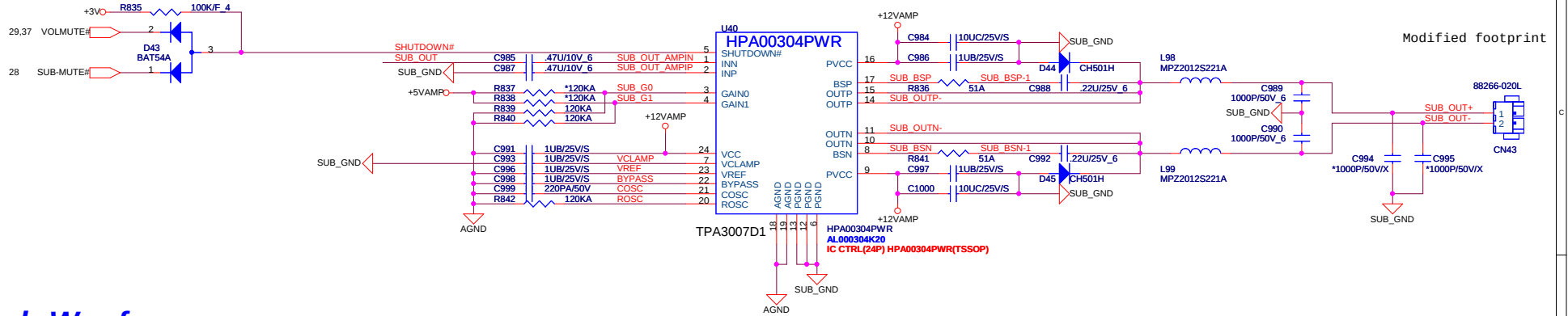
28



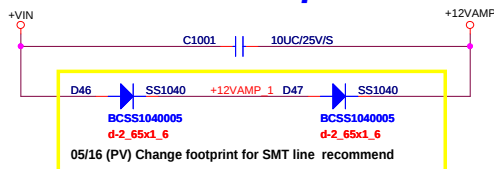
Change 4EQ to 2EQ

MODEL	UT1	UT2
R823	60.4K/F_6	40.2K/F_6
R824	60.4K/F_6	40.2K/F_6
R828	60.4K/F_6	80.6K/F_6
R829	60.4K/F_6	80.6K/F_6
C970	0.027U/25V_6	0.022U/50V_6
C972	0.027U/25V_6	0.022U/50V_6
C974	0.027U/25V_6	0.039U/16V_6
C979	0.027U/25V_6	0.039U/16V_6

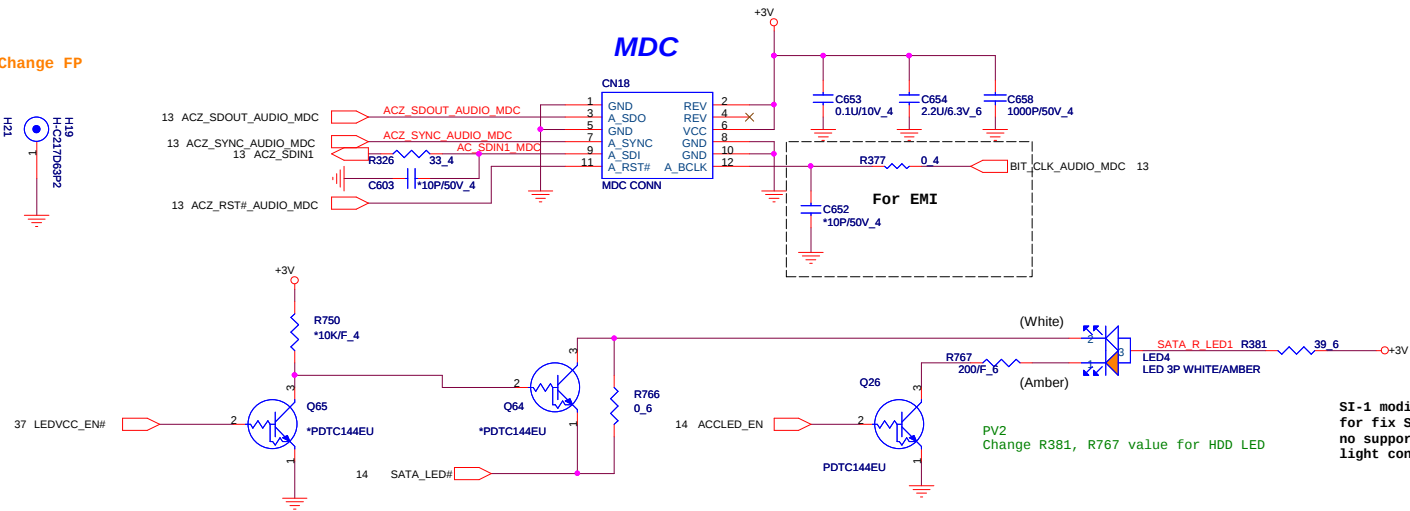
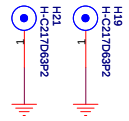
05/26 (PV) FOR BOM update.



Sub-Woofer power



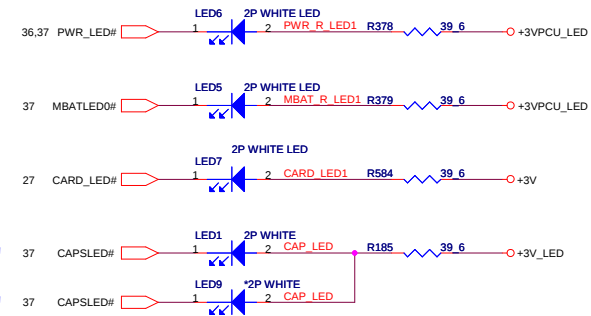
DB-1 Change FP



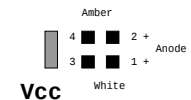
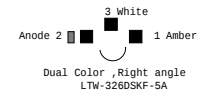
LED



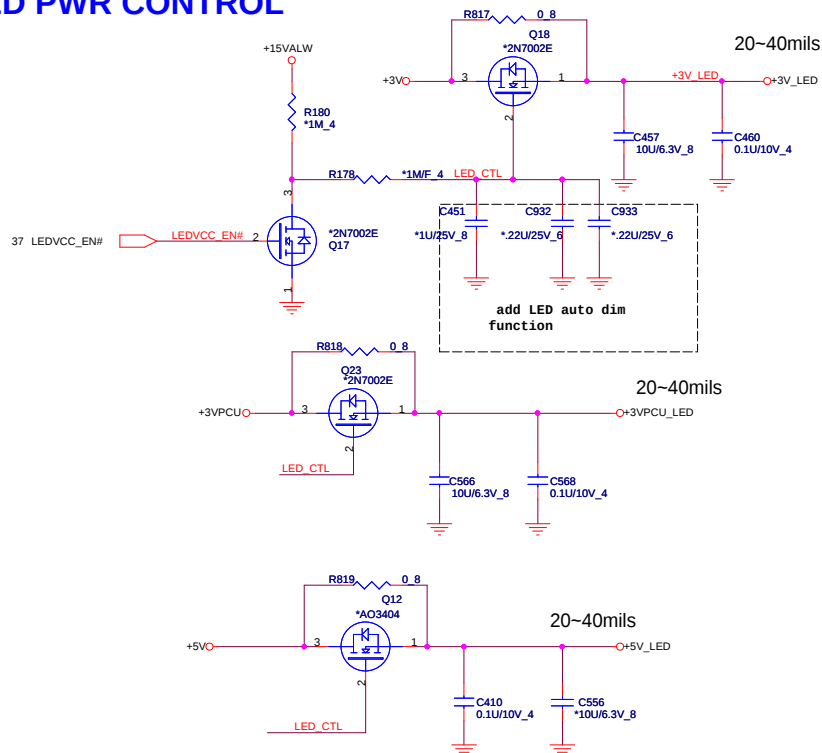
SI-1 modified --
for fix SATA LED
no support LED
light control



SI-1 modified --
change LED part
number



LED PWR CONTROL



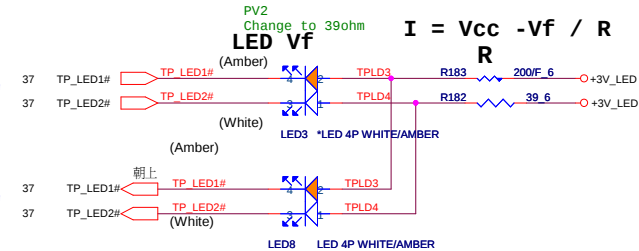
LED1 for 17.3"

LED9 for 16.3"

LED3 for 16.3"

LED8 for 17.3"

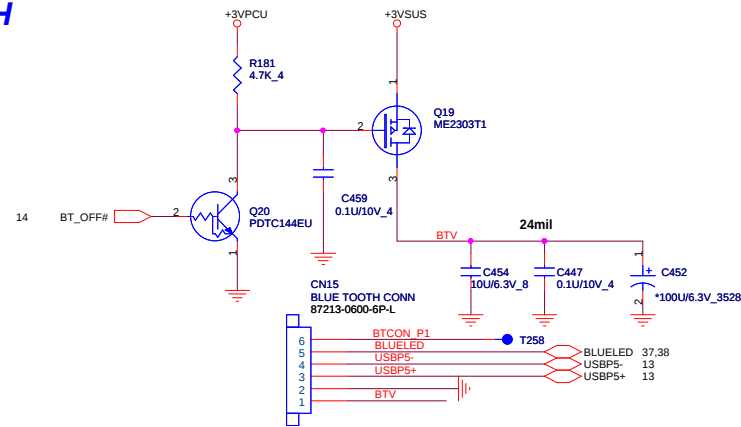
$$I = \frac{V_{cc} - V_f}{R}$$



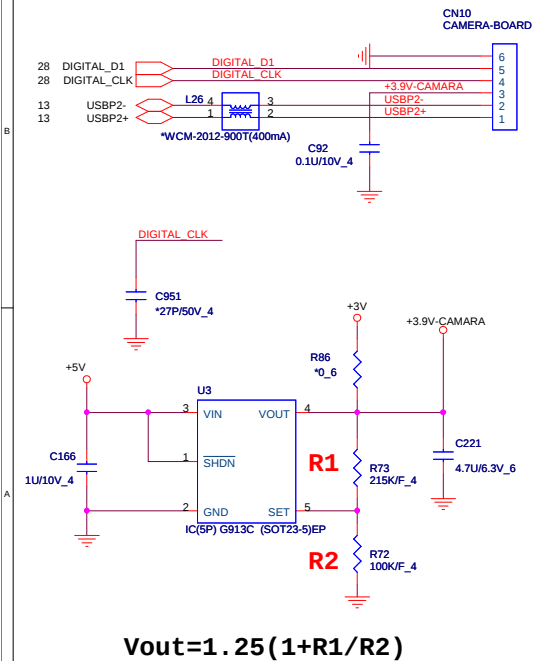
PROJECT : QT8
Quanta Computer Inc.

Size Custom	Document Number MDC1.5 Con Accelerometer/LED	Rev 1A
Date: Thursday, October 16, 2008	Sheet 31 of 48	

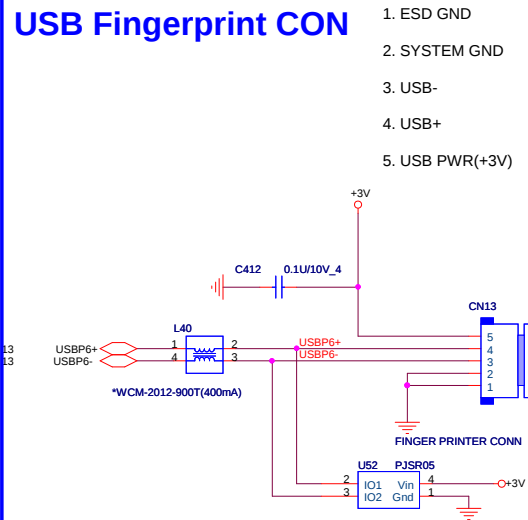
BLUETOOTH



USB CAMERA CONNECT



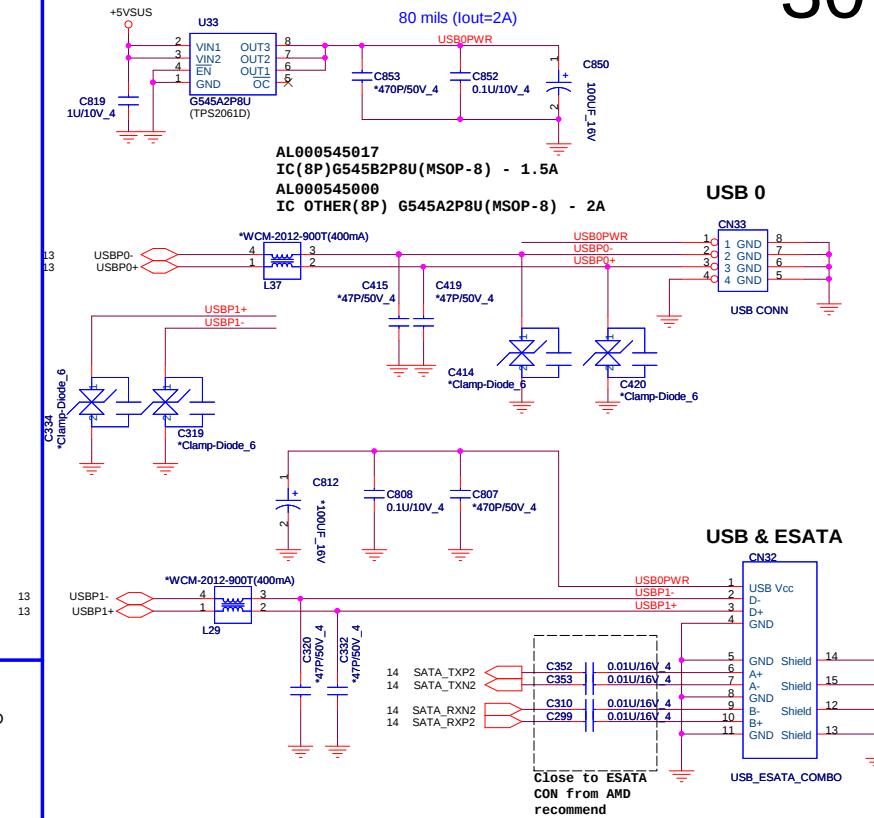
USB Fingerprint CON



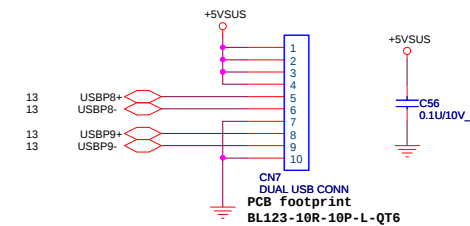
1. ESD GND
2. SYSTEM GND
3. USB-
4. USB+
5. USB PWR(+3V)

LEFT SIDE USBX1 and E-SATA/USB COMBO

30

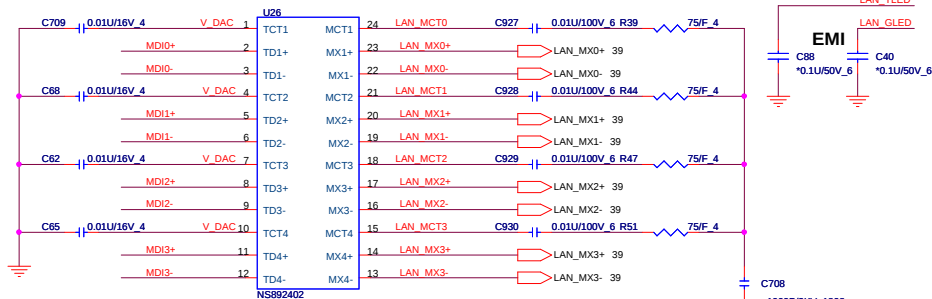
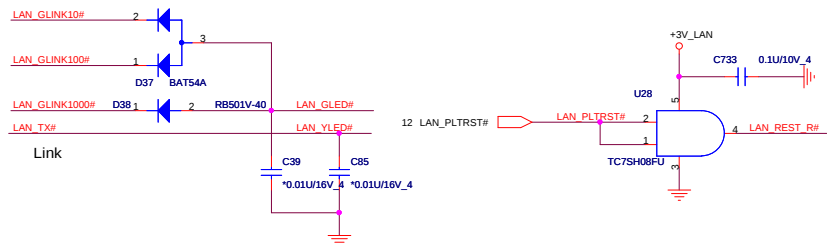
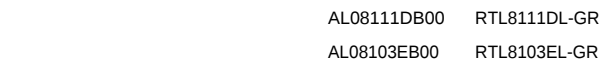
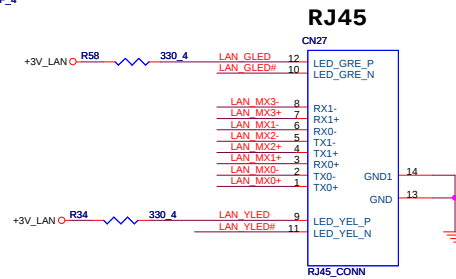
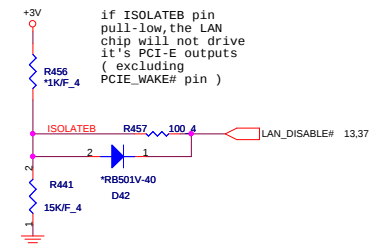
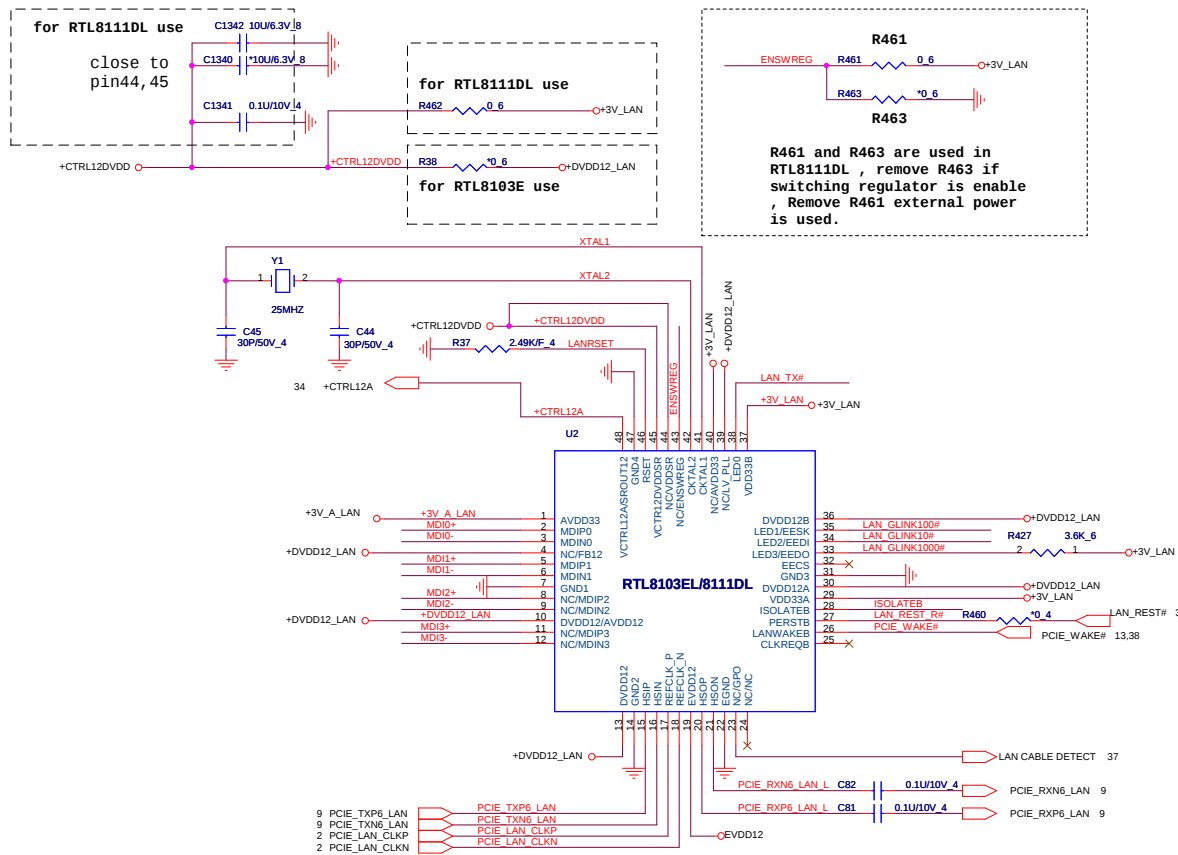


RIGHT SIDE USBX2



PROJECT : QT8
Quanta Computer Inc.

Size Custom	Document Number BT/WEBCAM/FT/USBX4/ESATA	Rev 1A
Date: Thursday, October 16, 2008	Sheet 32 of 48	



NS892402:GIGABIT

NS892405:10/100

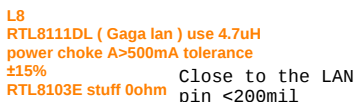
DB0AT9LAN05

DB0ZB1LAN04



PROJECT : UT12
Quanta Computer Inc.

Size Custom	Document Number RTL8111C/8101E/RJ11-RJ45 CN	Rev 1A
Date: Thursday, October 16, 2008		Sheet 33 of 47



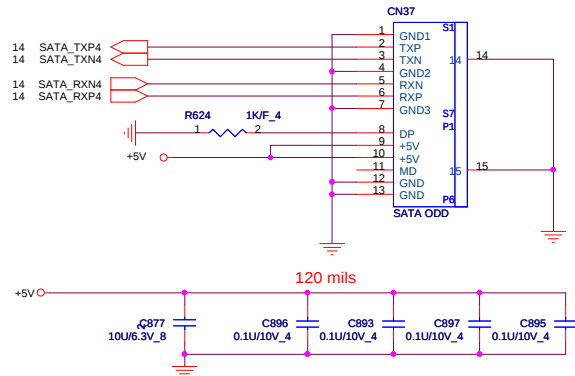
>30mil



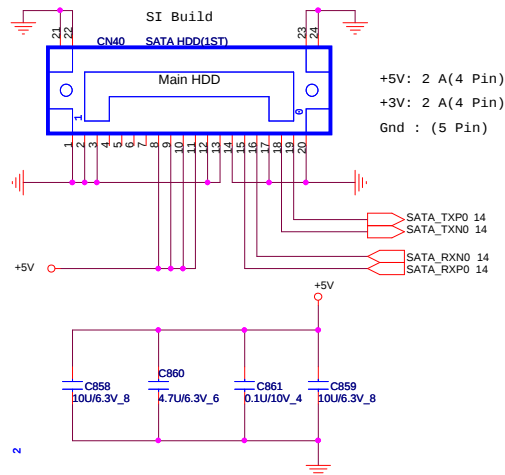
NB5

Size Custom	Document Number LAN Power
Date: Thursday, October 16, 2008	Sheet 34 of 4

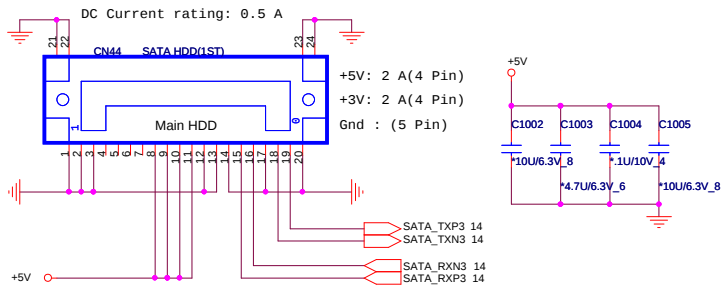
SATA CD-ROM



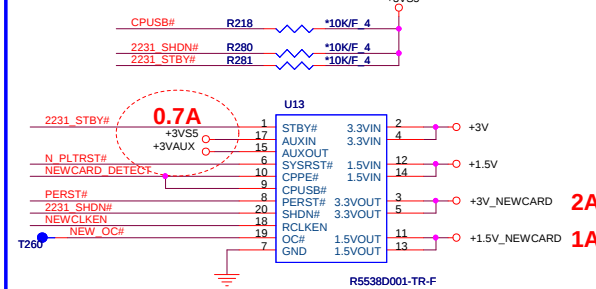
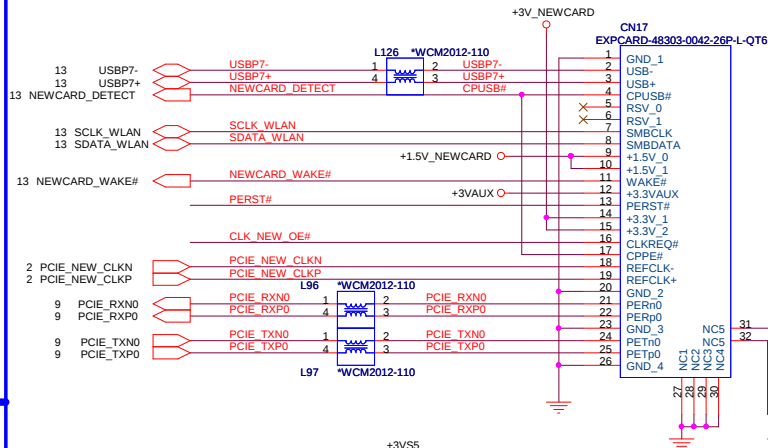
SATA_1 HDD CONNECTOR



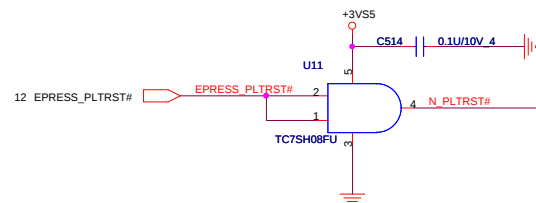
SATA_2 CONNECTOR



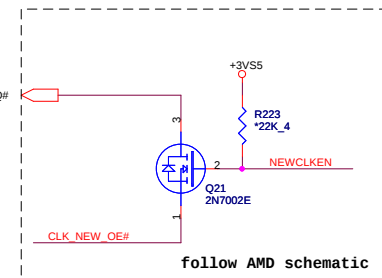
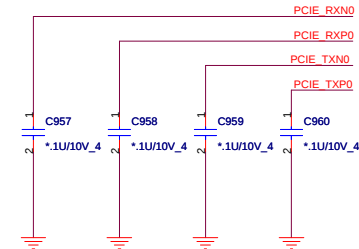
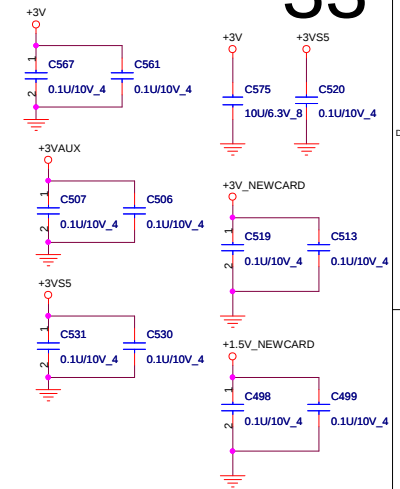
NEWCARD



pin name	pull hi/low
CPPE#	internal pull up to AUXIN
SYSRST#	internal pull up to AUXIN
CPPEB#	internal pull up to AUXIN
PERST#	a logic level power good
SHDN#	internal pull up to AUXIN
RCLKEN	internal pull up to AUXIN
OC#	over current status
STBY#	internal pull up to AUXIN



NEWCARD (PCIEXPRESS*1 + USB*1)

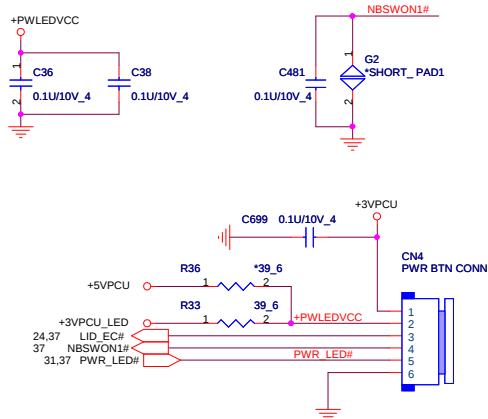


PROJECT : QT8
Quanta Computer Inc.



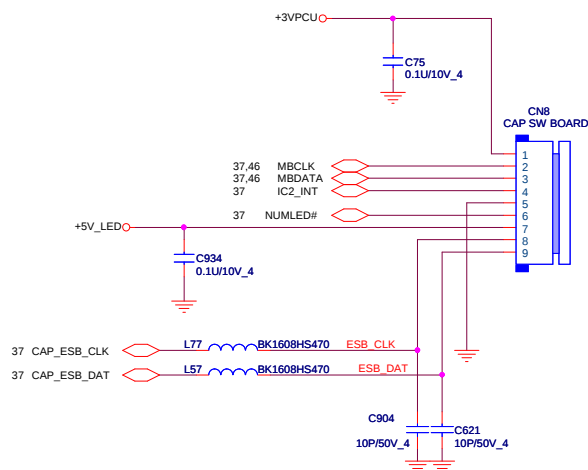
Size	Document Number	Rev
Custom	NEW CARD/SATA ODD/SATA HDD	1A
Date: Thursday, October 16, 2008	Sheet 35 of 48	

POWER BUTTON CONNECT



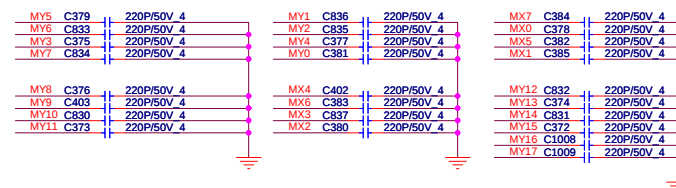
1. +3VPCU(LIDSWITCH PWR)
2. LEDVCC(+3VPCU)
3. LIDSWITCH
4. POWERON#
5. PWRLED#
6. GND

CAP SW CONNECT

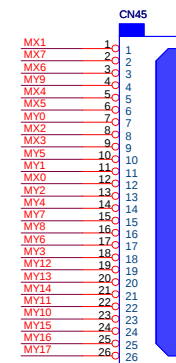
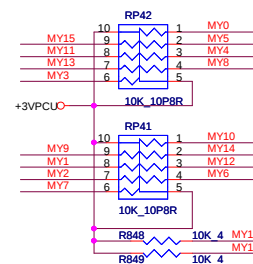


1. +3VPCU
2. MBCLK
3. MBDATA
4. CAP_INT
5. GND
6. NUM LOCK LED
7. +5V
8. ESB_CLK
9. ESB_DAT

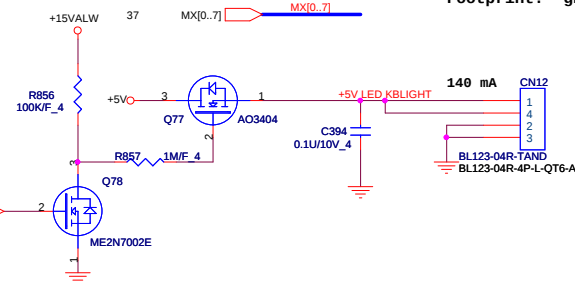
34



KEYBOARD PULL-UP



Footprint: "gb1rf260-1253-7f-26p-1"

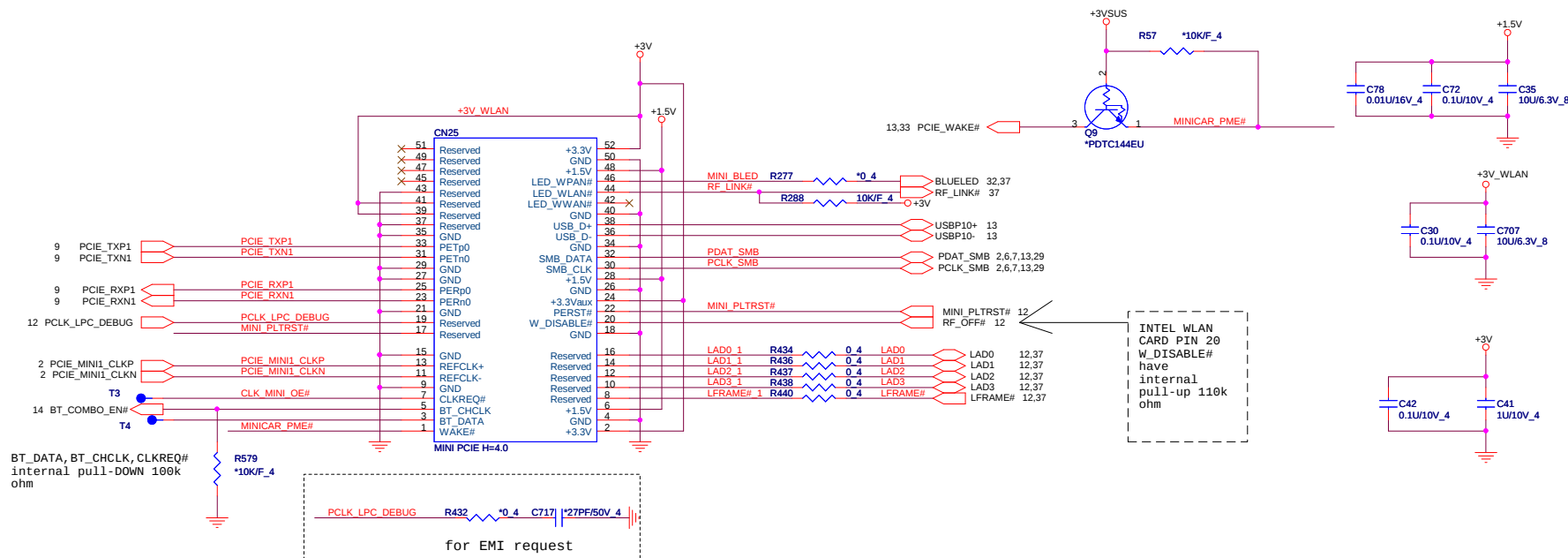


PROJECT : QT8
Quanta Computer Inc.

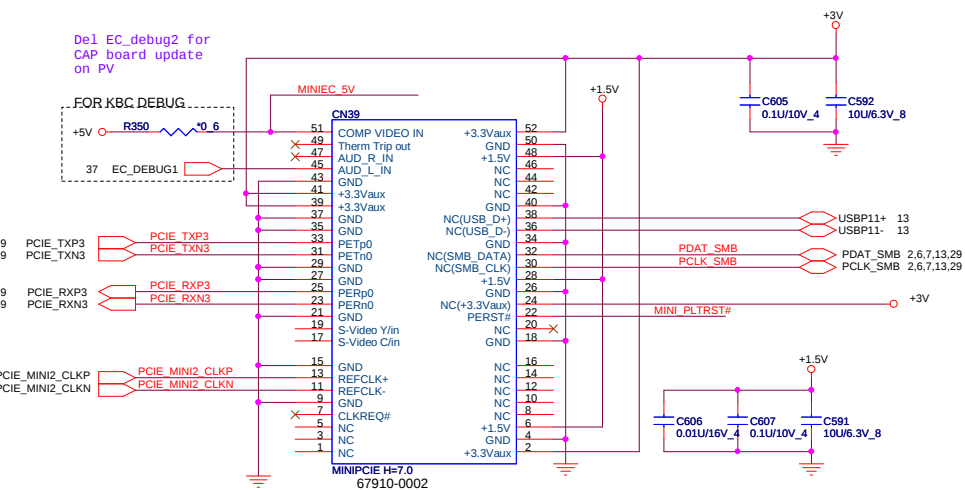
Size Custom	Document Number LED/KEYBOARD/SW	Rev 1A
Date: Thursday, October 16, 2008	Sheet 36 of 48	

Mini PCI-E Card 1 WLAN

36



Mini PCI-E Card 2 TV tuner card



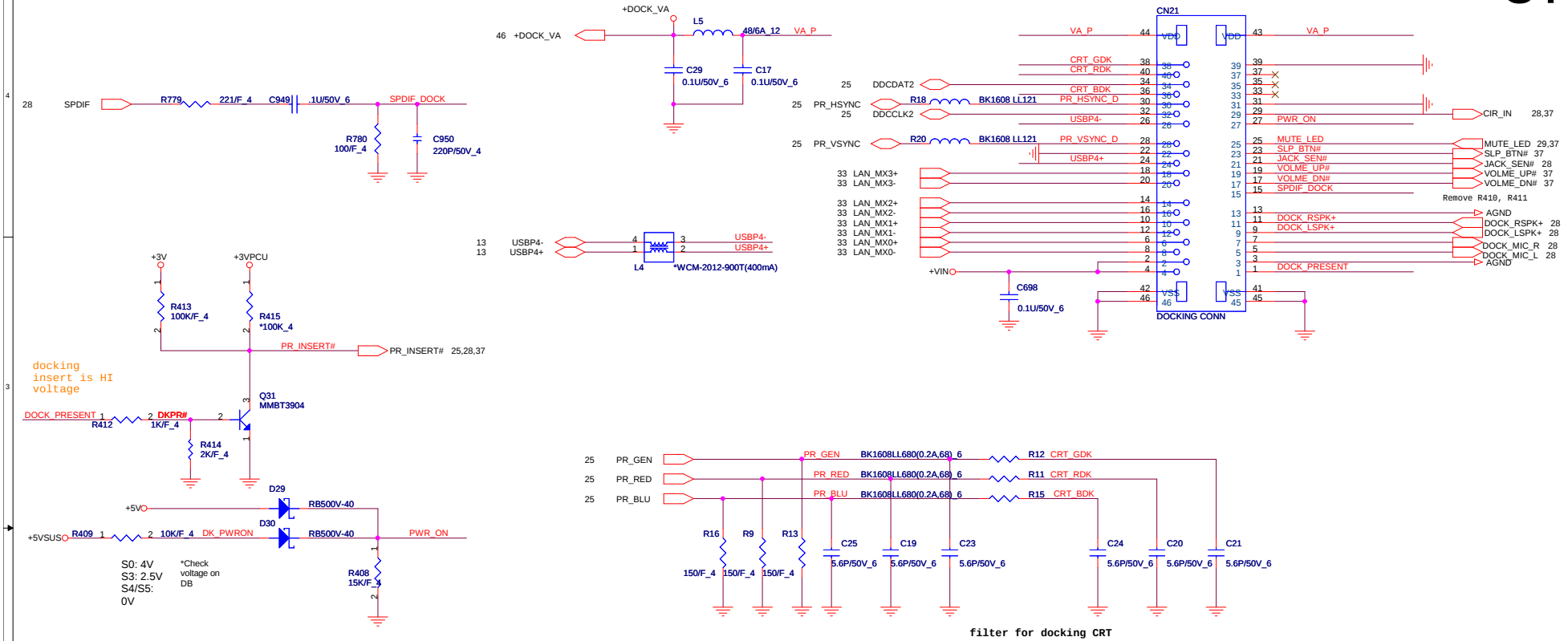
PROJECT : QT8
Quanta Computer Inc.

Size Custom	Document Number Mini CARD X 3	Rev 1A
Date: Thursday, October 16, 2008	Sheet 38	of 48

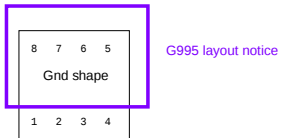
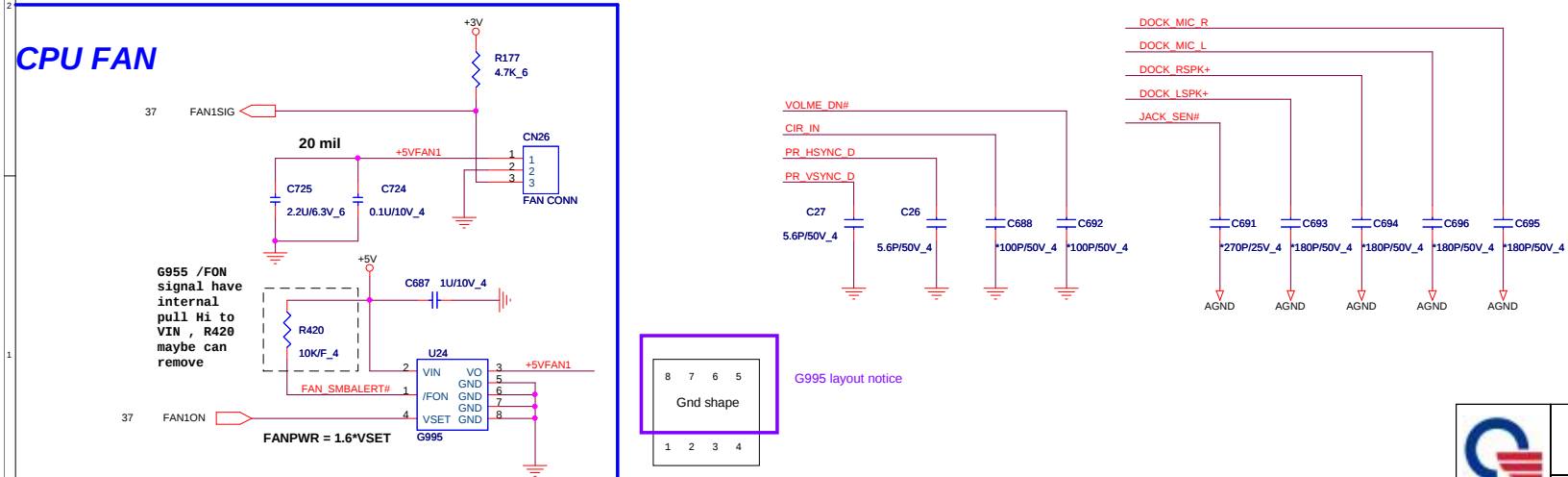
CABLE DOCK

support 6A 200mils
CX000480005

37



CPU FAN



PROJECT : QT8
Quanta Computer Inc.

Size Custom	Document Number CABLE DOCKING/FAN	R
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 +5VPCU 28,29,36,37,41,42,43,44,47
 +3VPCU 5,12,24,31,32,36,37,39,42,43,44,46
 +3VSUS 13,32,38,41,43,44,45
 +3VS5 5,7,12,13,14,15,16,24,27,35,45
 +5VSUS 24,32,37,39,45
 +5V 5,15,20,24,25,26,28,29,31,32,35,36,38,39,44,45
 +LANVCC

5 Volt +/- 5%
+5VPCU
C/C: 8A
P/C: 10A

TON: 5V / 3.3V
GND = 400 / 500KHz
REF = 400 / 300KHz
VCC = 200 / 300KHz

3.3 Volt +/- 5%

+3VPCU
C/C: 8A
P/C: 10A

+3V
6.76A

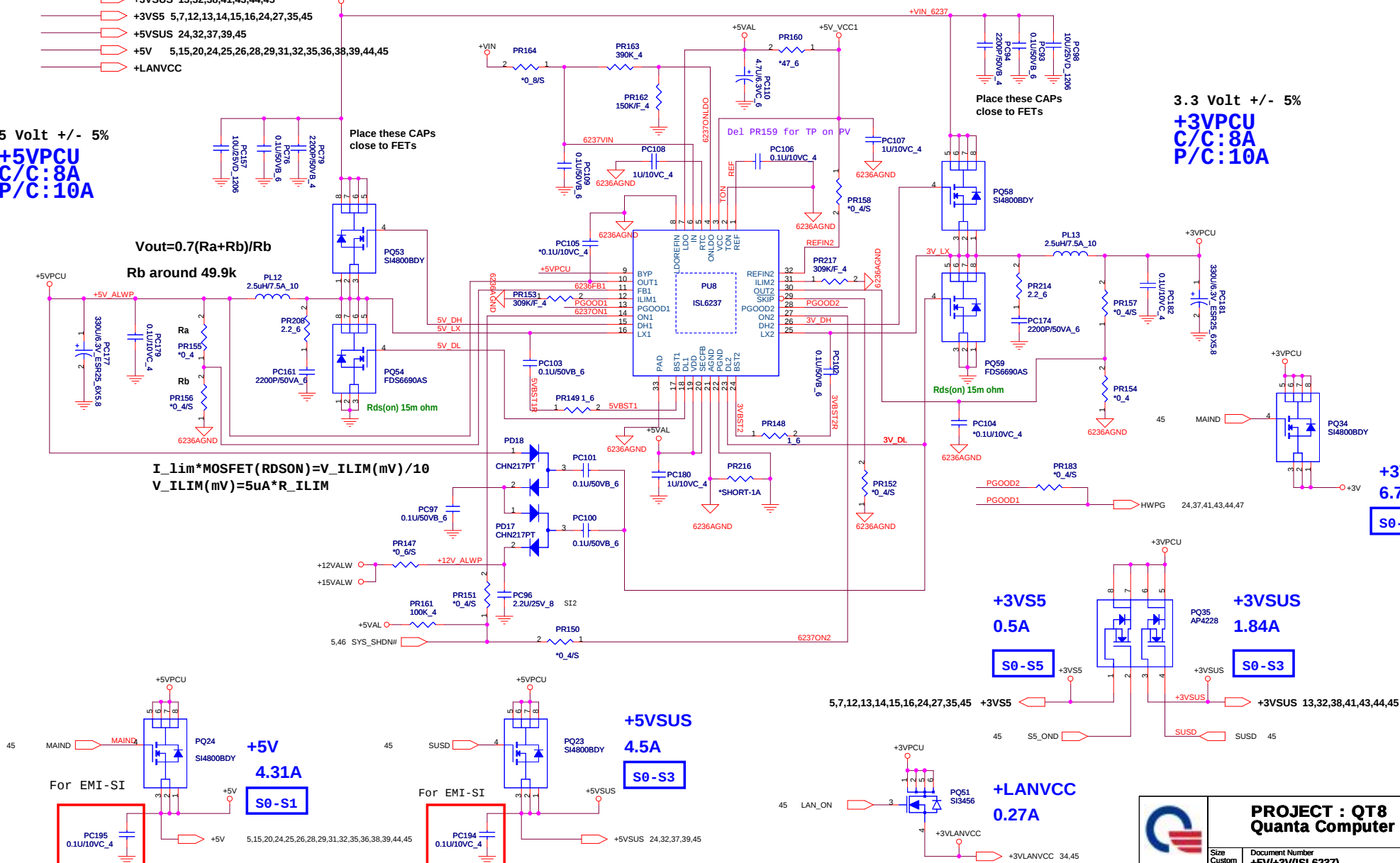
+3VS5
0.5A

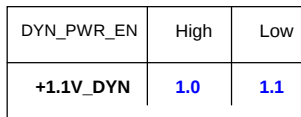
+3VSUS
1.84A

+5VSUS
4.5A
S0-S3

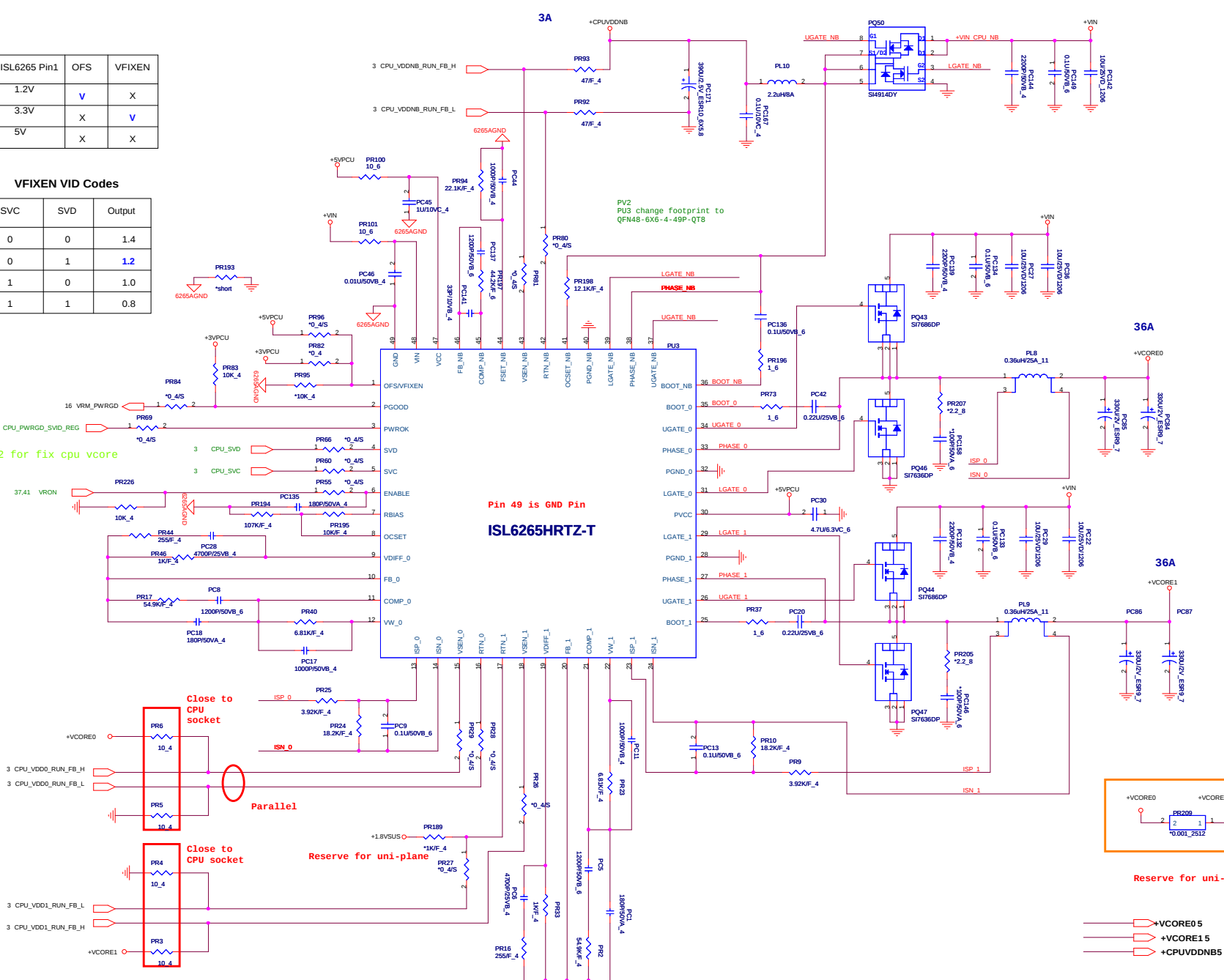
+LANVCC
0.27A

+5V
4.31A
S0-S1





SVC	SVD	Output
0	0	1.4
0	1	1.2
1	0	1.0
1	1	0.8



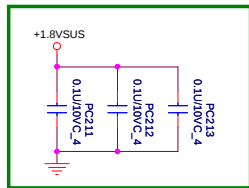
Pin 49 is GND Pin

Reserve for uni-plane

Diagram showing three power pins:

- +VCORE05
- +VCORE15
- +CPUVDDNB5

Add 0.1u CAP PC211, PC212, PC213 for EMI

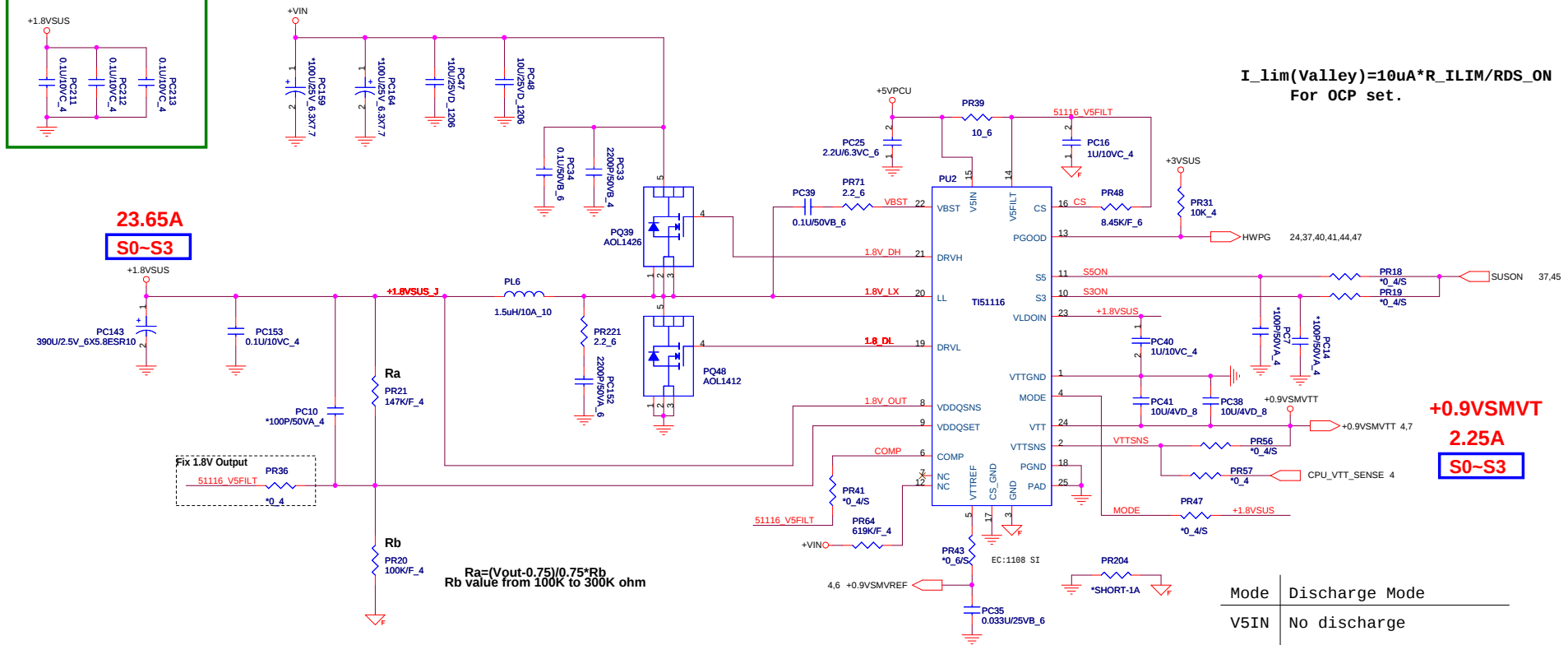


+2.5V 3
+1.8VSUS 3,4,5,6,7,42,44,47

$I_{lim}(\text{Valley}) = 10\mu A * R_{ILIM} / R_{DS_ON}$
For OCP set.

23.65A

S0-S3



+0.9VSMVT

2.25A

S0-S3

$$R_a = (V_{out} - 0.75) / 0.75 * R_b$$

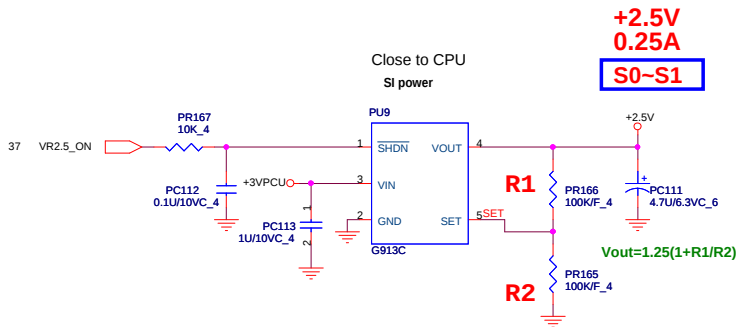
Rb value from 100K to 300K ohm

Mode	Discharge Mode
V5IN	No discharge
VDDQ	Tracking discharge
Gnd	Non-tracking discharge

$$V_TRIP(mV) = R_TRIP(Kohm) * 10(\mu A)$$

$$I_OCP = V_trip / R_{ds_on} + I_Ripple / 2$$

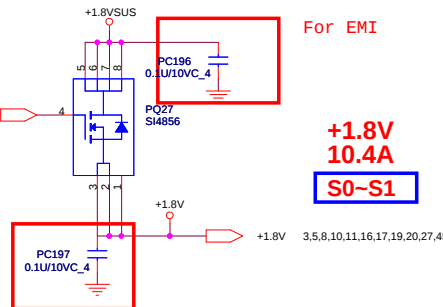
VDDQSET	VDDQ(V)	VTTREF and Vtt	Note
GND	2.5	V_ vddqsns/2	DDR
V5IN	1.8	V_ vddqsns/2	DDR2
FB	adjustable	V_VDDQSN/2	1.5V < VDDQ < 3V



+2.5V

0.25A

S0-S1



For EMI

+1.8V

10.4A

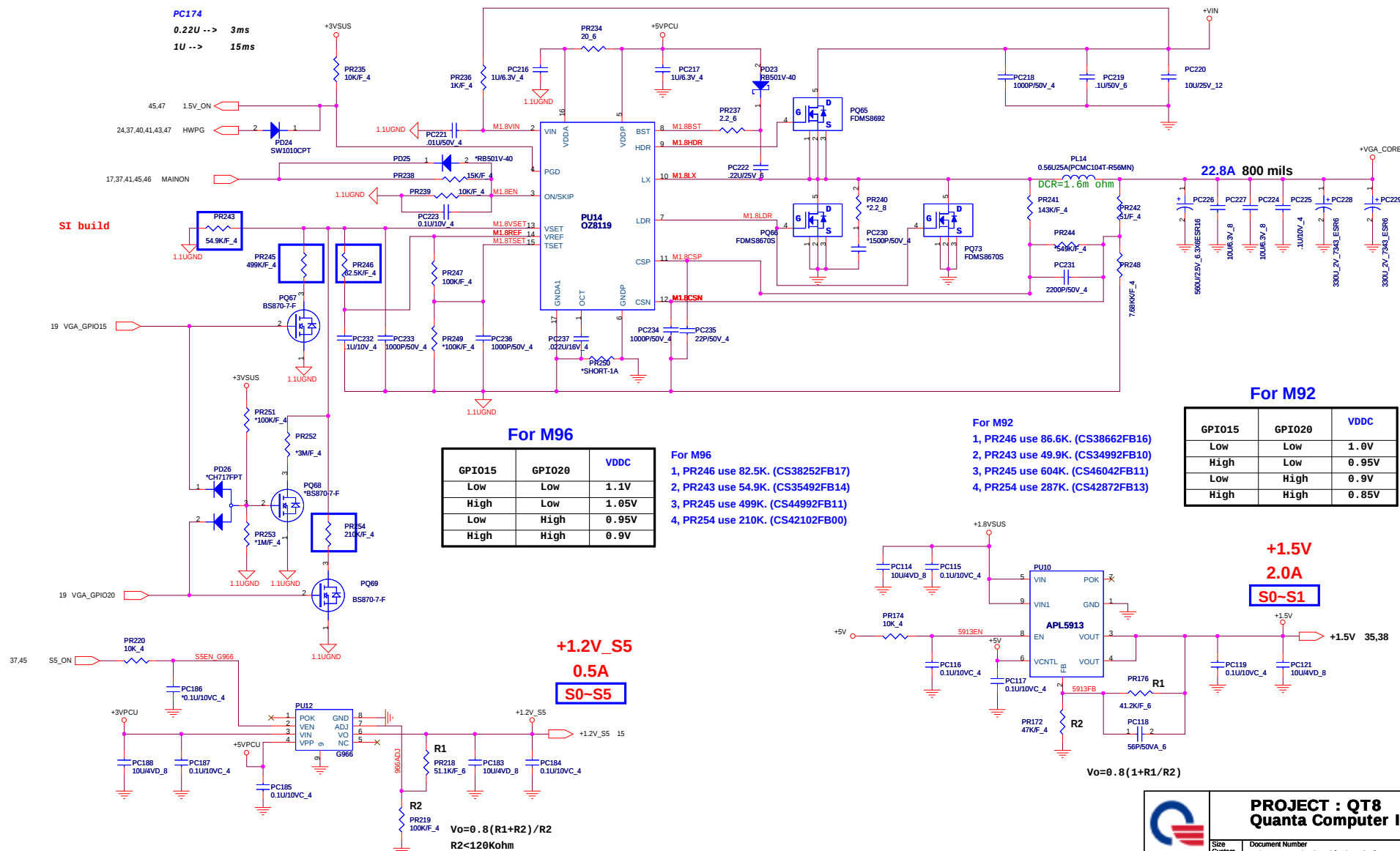
S0-S1

Discrete: SI4856
UMA: SI4800

	PROJECT : QT8	
	Quanta Computer Inc.	
	Size Custom	Document Number
1.8VSUS/DDR_VTERI/+1.8V/2.5V	Rev 1A	
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+1.1Volt +/- 5%
Continue current:17.54A
Peak current:22.8A
OCP minimum 23A

44



For M92

GPI015	GPI020	VDDC
Low	Low	1.0V
High	Low	0.95V
Low	High	0.9V
High	High	0.85V

For M92

- 1, PR246 use 86.6K. (CS38662FB16)
- 2, PR243 use 49.9K. (CS34992FB10)
- 3, PR245 use 604K. (CS46042FB11)
- 4, PR254 use 287K. (CS42872FB13)

For M96

- 1, PR246 use 82.5K. (CS38252FB17)
- 2, PR243 use 54.9K. (CS35492FB14)
- 3, PR245 use 499K. (CS44992FB11)
- 4, PR254 use 210K. (CS42102FB00)

+1.5V
2.0A

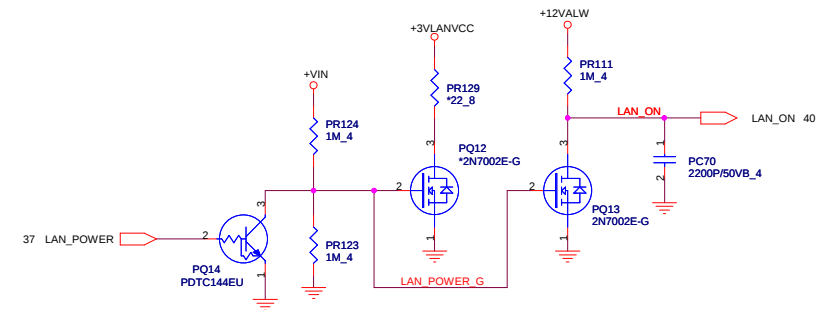
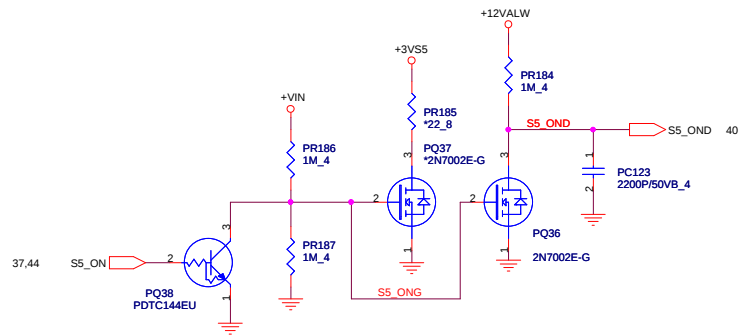
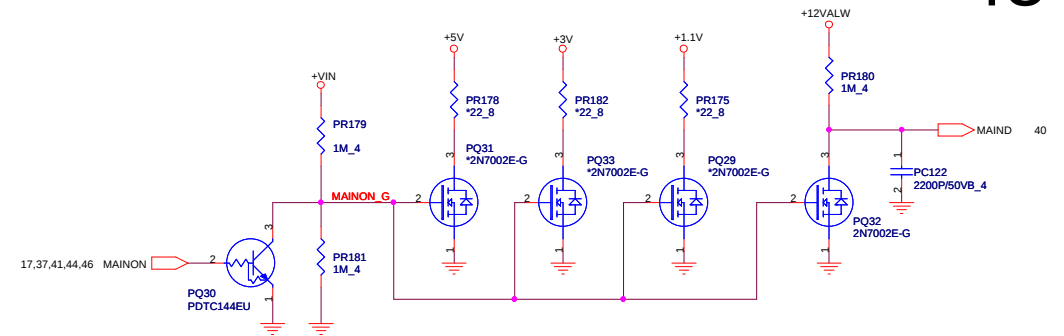
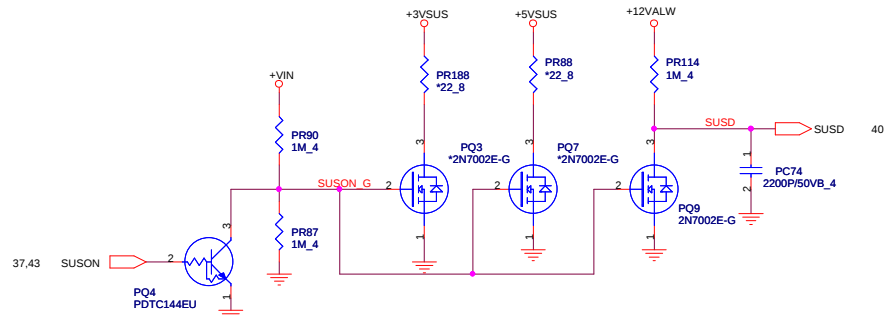
S0~S1

➤ +1.5V 35.38

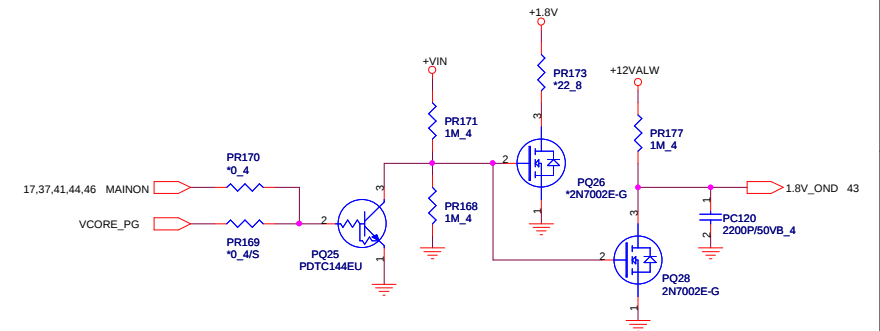
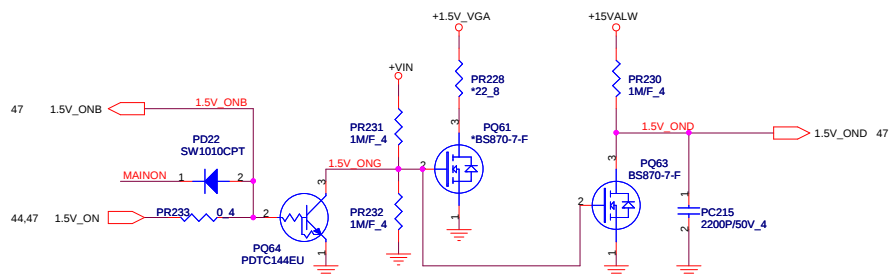
$$V_0 = 0.8(1 + R_1/R_2)$$


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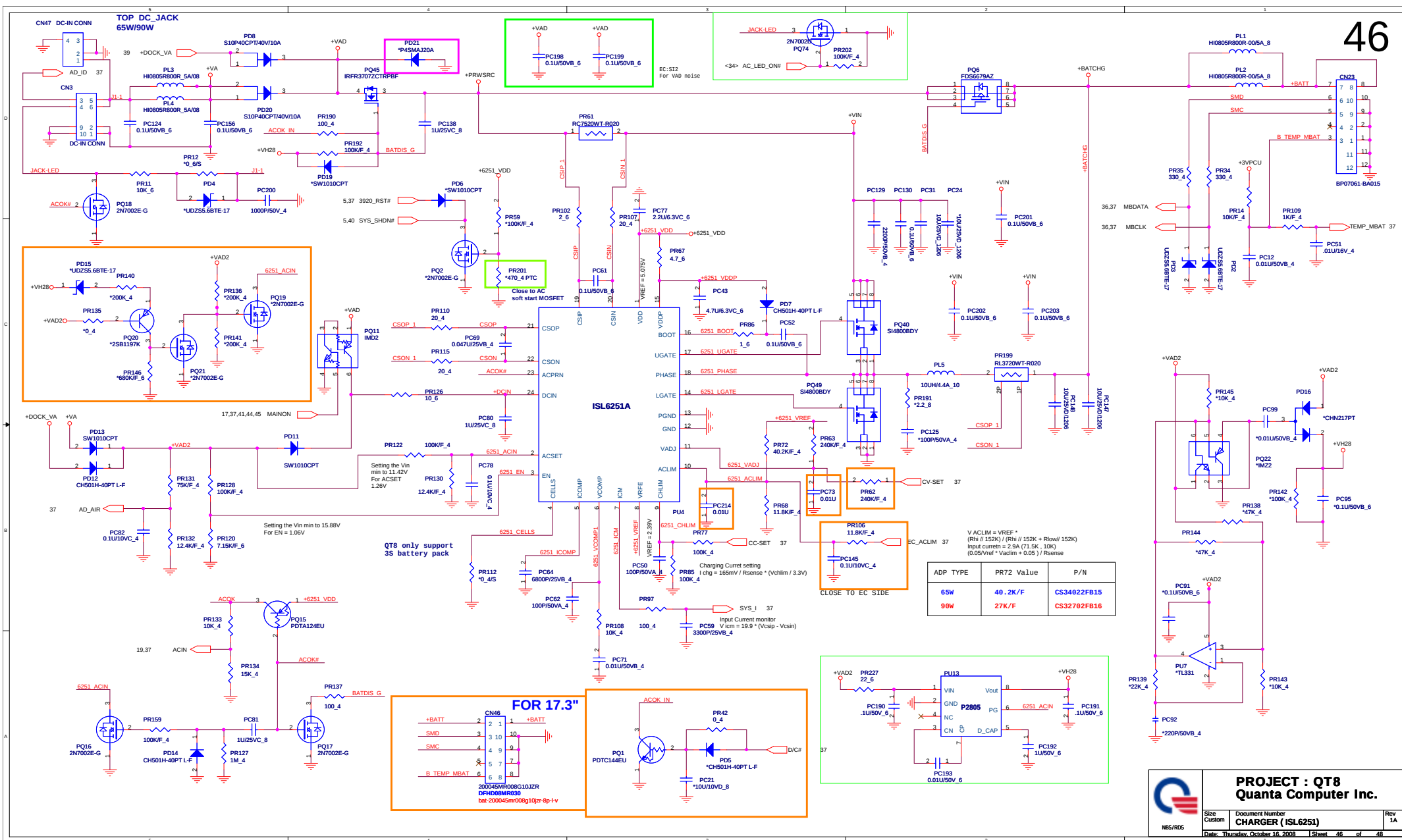


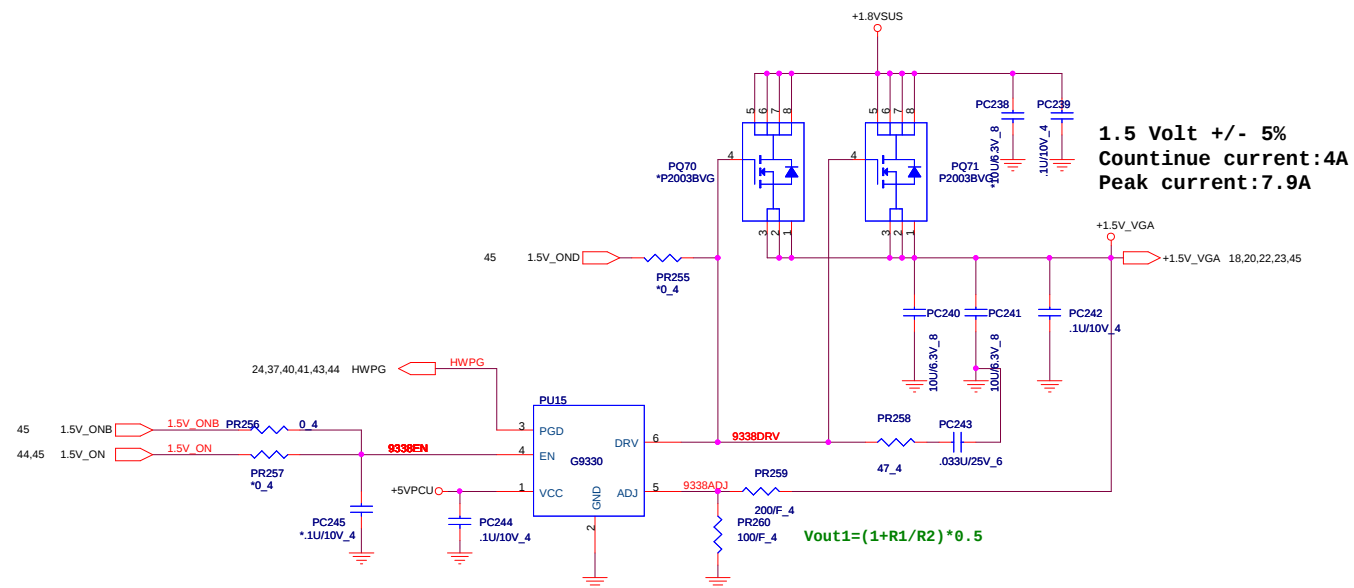
For Discrete Only



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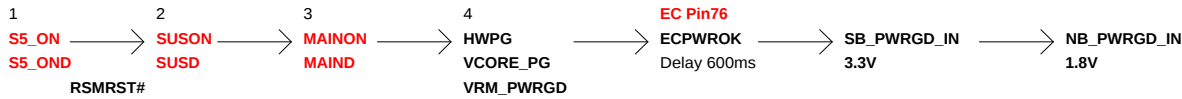
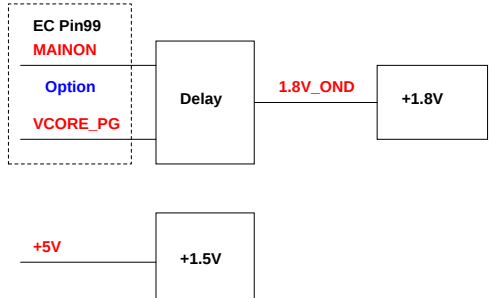
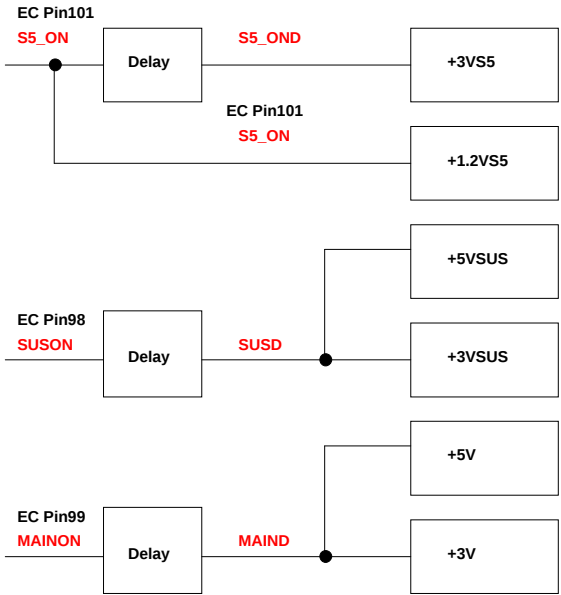
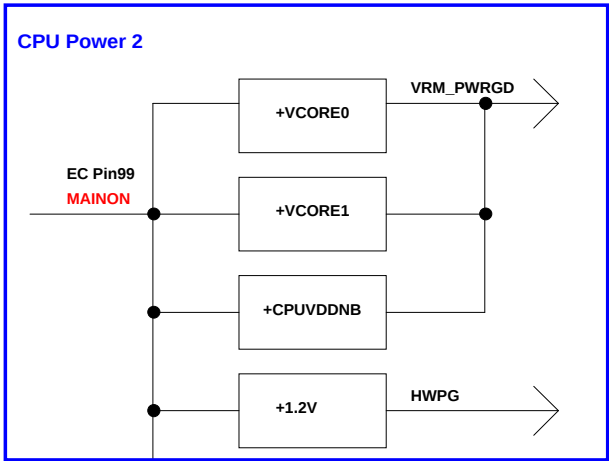
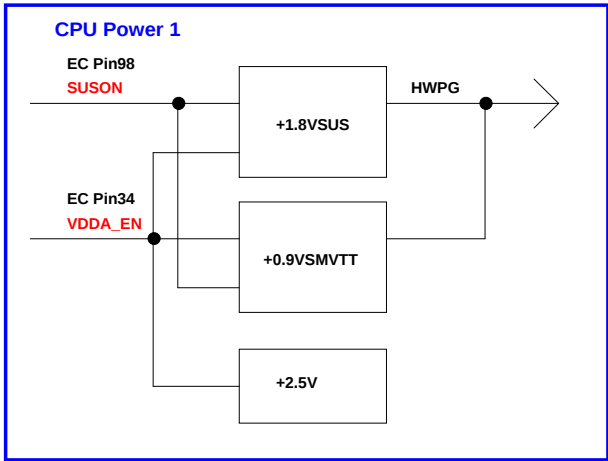


VRAM	Mounted	N/A	PQ33 P/N
Others	PR218, PR219, PR220, PR226, PR231, PC196, PC197, PC199, PC201, PD20, PU10	PR232	BAM44960000
Samsung	PR232	PR218, PR219, PR220, PR226, PR231, PC196, PC197, PC199, PC201, PD20, PU10	BAM48560029



PROJECT : UT3/5
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Custom	+1.5V_VGA	DB
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