

## QT6 BLOCK DIAGRAM

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

**Cable Docking**

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

PAGE 37

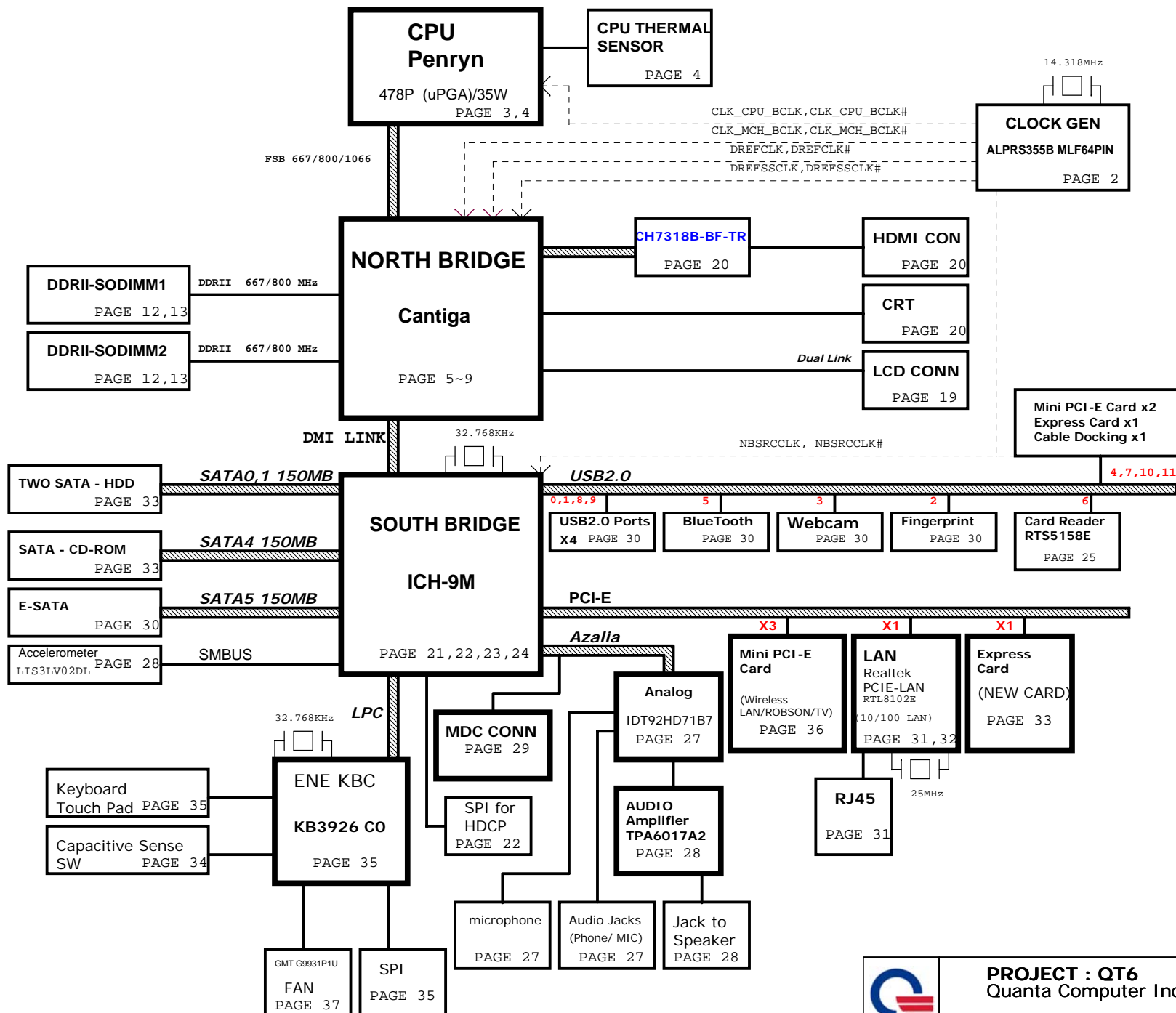
SYSTEM CHARGER(ISL6251AHAZ-T)  
PAGE 38

SYSTEM POWER ISL6237IRZ-T  
PAGE 39

DDR II SMDRR\_VTERM  
1.8V/1.8VSUS(TPSS51116REGR)  
PAGE 43

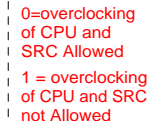
VCCP +1.5V AND GMCH  
1.05V(RT8204)  
PAGE 40

CPU CORE ISL6266A  
PAGE 41



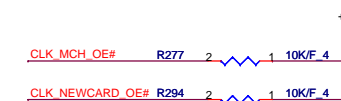
**PROJECT : QT6**  
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Size Custom	Document Number <b>Block Diagram</b>	Rev 2A
Date: Wednesday, February 27, 2008   Sheet 1 of 44		

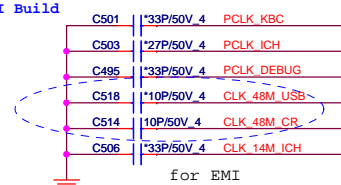
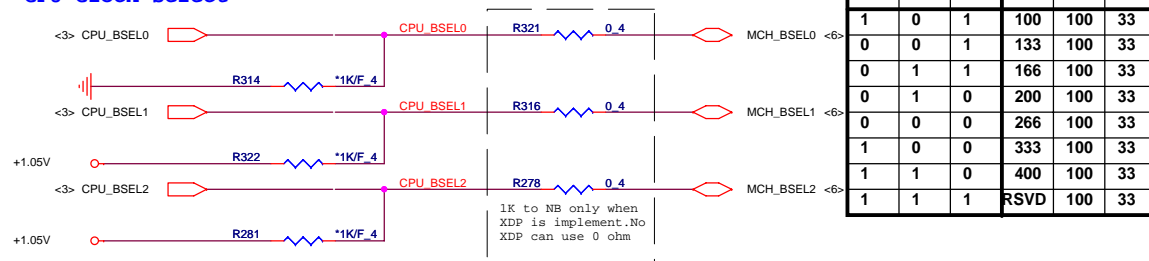


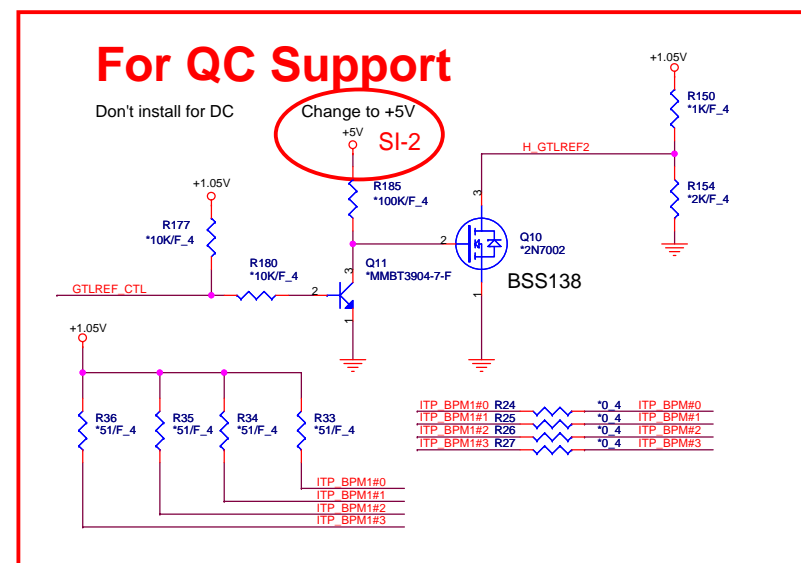
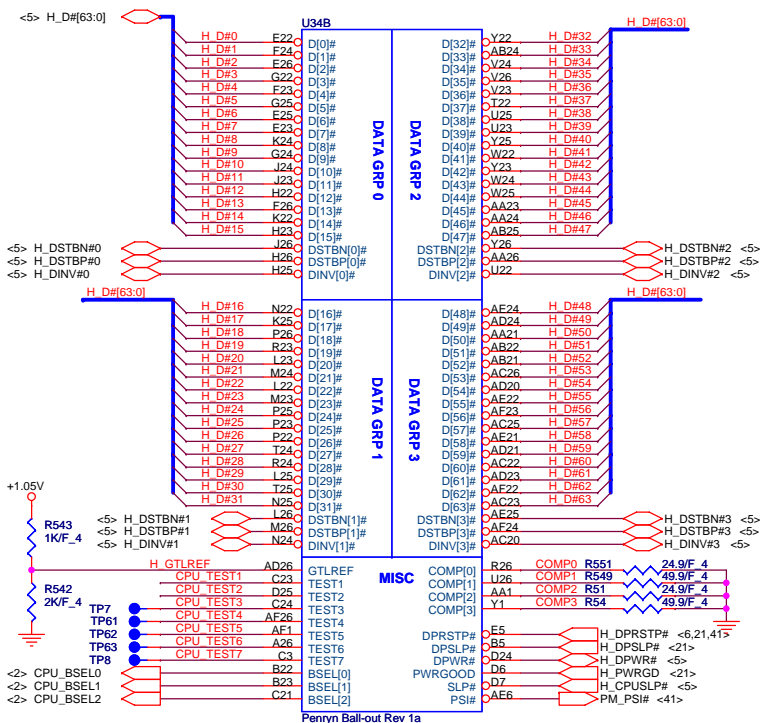
27M_SEL PIN13	PIN20	PIN21	PIN24	PIN25
0=UMA	DOT96T	DOT96C	SRCT1/LCDT_100	SRCT1/LCDT_100
1 = External VGA	SRCT0	SRCC0	27Mout-NSS	27Mout-SS

ICS	ICS9LPRS355BKLF	ALPRS355000
Silego	SLG8SP513VTR	AL8SP513000
Realtek	RTM875N-606-VD-GR	AL000875000



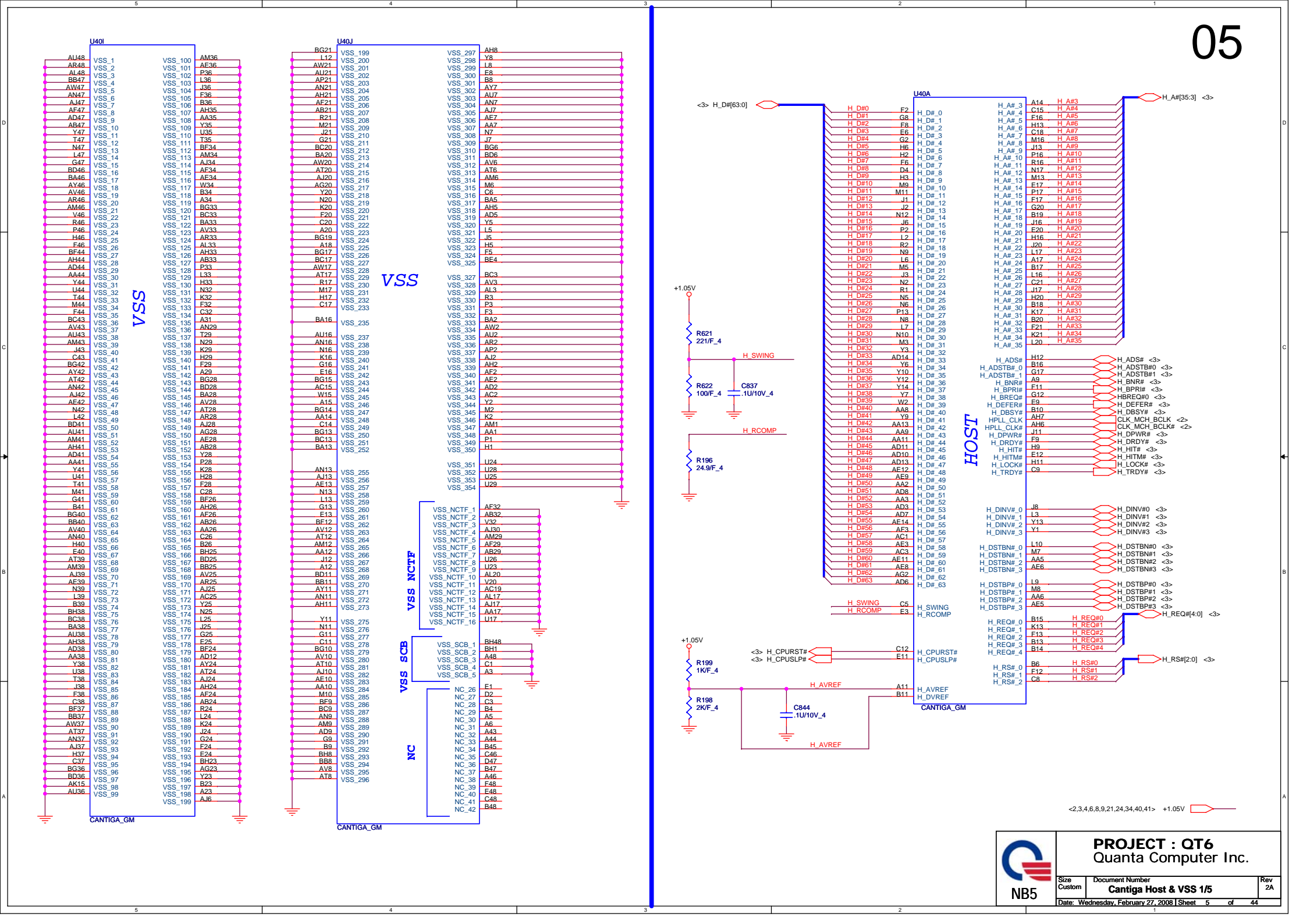
modify for SI Build







Size Custom	Document Number <b>Penryn &amp; TH Monitor 2/2</b>	Rev 2A
Date: Wednesday, February 27, 2008   Sheet 4 of 44		





## MCH\_CFG\_5 DMi2 selection

Low: DMi2  
High: DMi4 (Default)  
MCH\_CFG\_9 PCI Express Graphic Lane

Low: Reverse Lane  
High: Normal operation(Default)  
MCH\_CFG\_19 DMI Lane Reversal

Low: Normal (Default)  
High: Lane Reserved  
MCH\_CFG\_6 ITPM Host Interface

Low: ITPM Host Interface enabled  
High: ITPM Host Interface disabled (Default)  
MCH\_CFG\_7 Intel (R) Management Engine Crypto

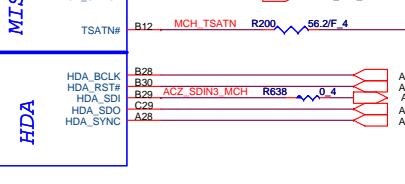
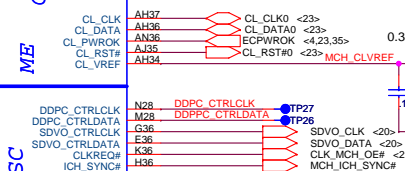
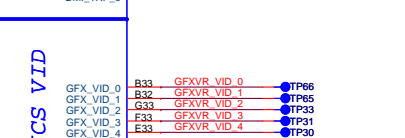
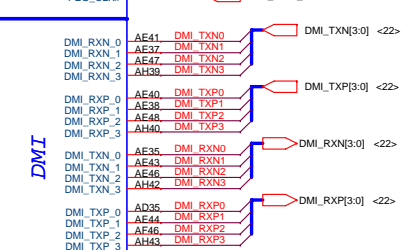
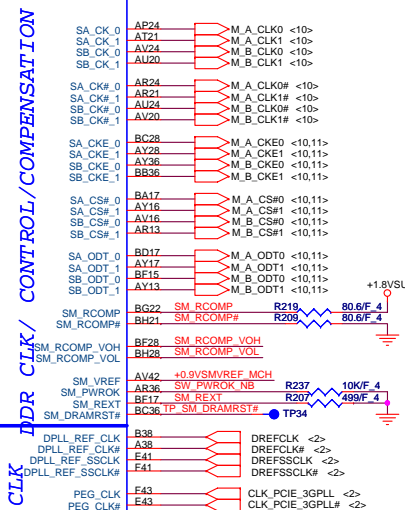
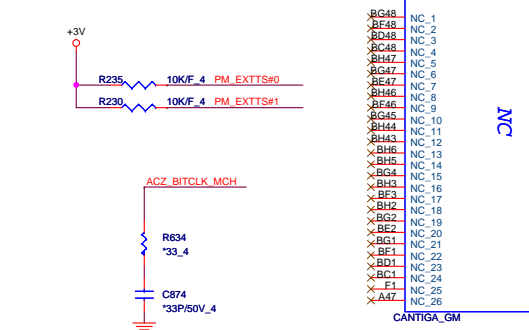
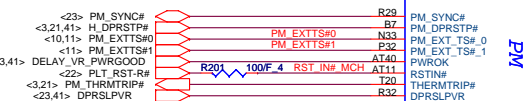
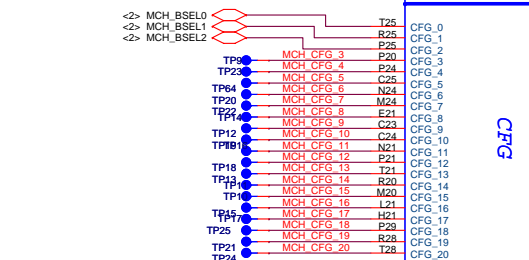
Low: Intel (R) Management Engine Crypto  
TLS cipher suite with no confidentiality  
High: Intel (R) Management Engine Crypto  
TLS cipher suite with no confidentiality (Default)

MCH\_CFG\_10 PCIe Lookback Enable

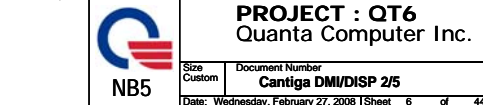
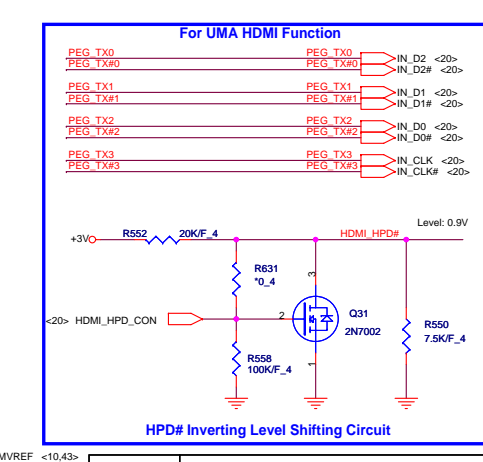
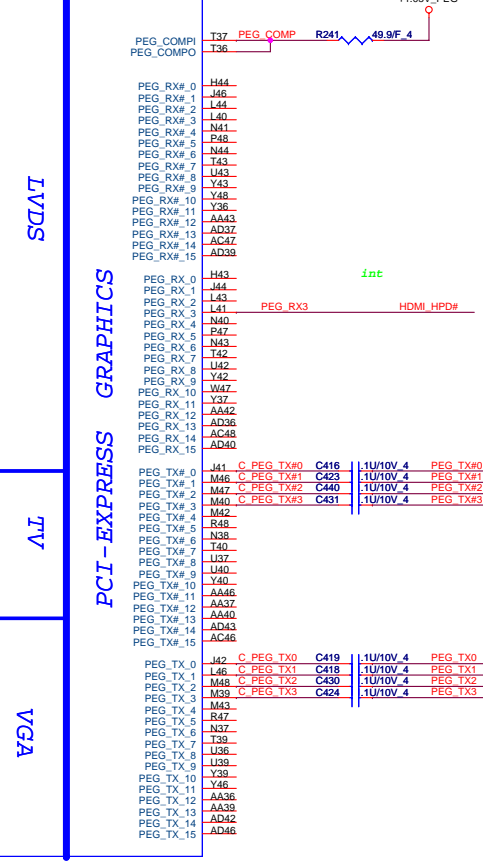
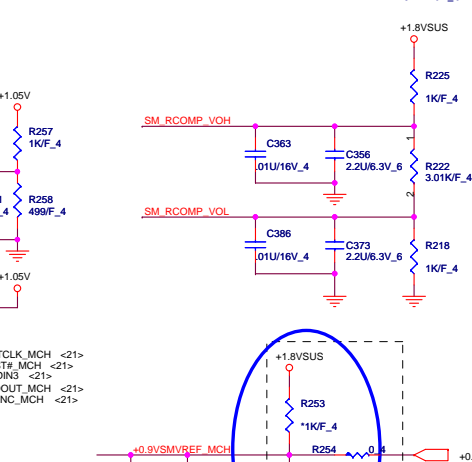
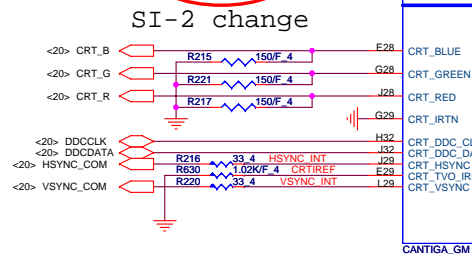
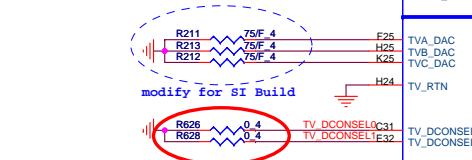
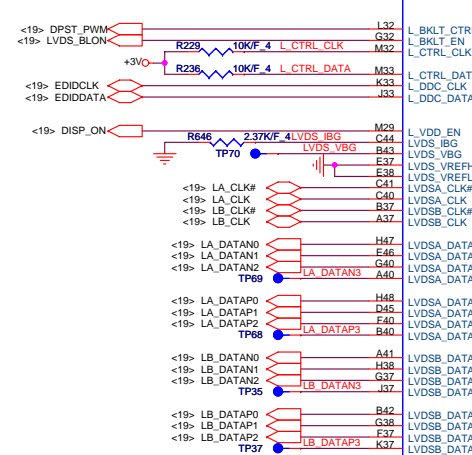
Low: Enabled  
High: Disabled (Default)  
MCH\_CFG\_12/13 XOR/ALLZ/CLOCK Un-gating

MCH\_CFG\_13 MCH\_CFG\_12 Configuration

0	0	Reserved
1	0	XOR Mode enabled
0	1	All-Z Mode enabled
1	1	Normal operation (Default)

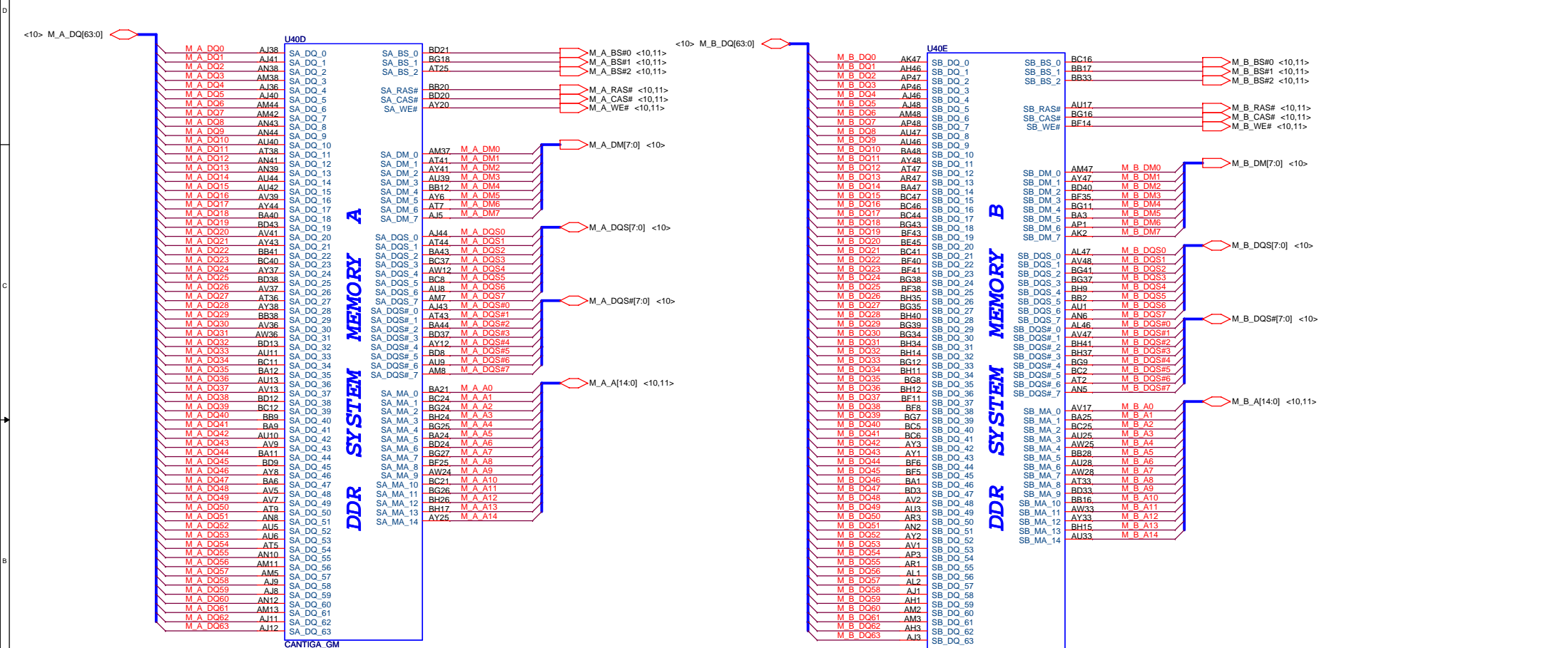


<2,4,9,10,11,19,20,21,22,23,24,27,28,29,30,31,33,36,37,41,44> +3V  
<8,9,10,34,40,43> +1.8VSUS  
<2,3,4,5,8,9,21,24,34,40,41> +1.05V  
<9> +1.05V\_PEG



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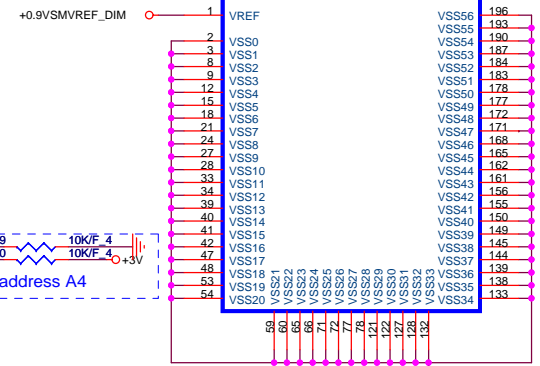
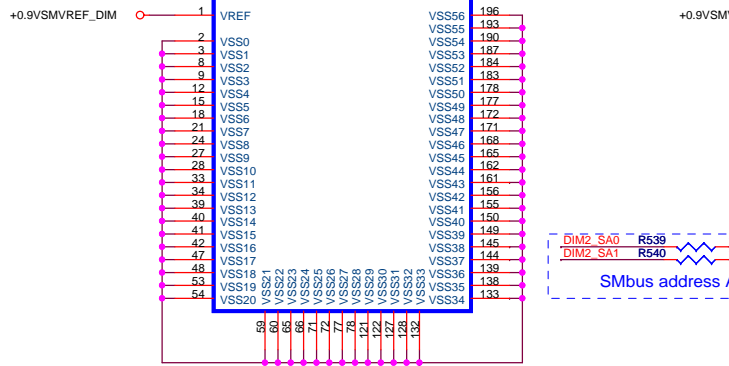
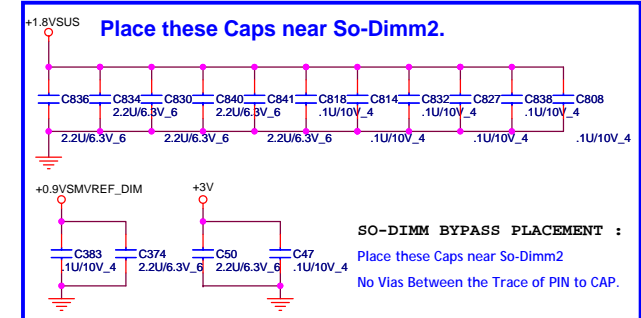
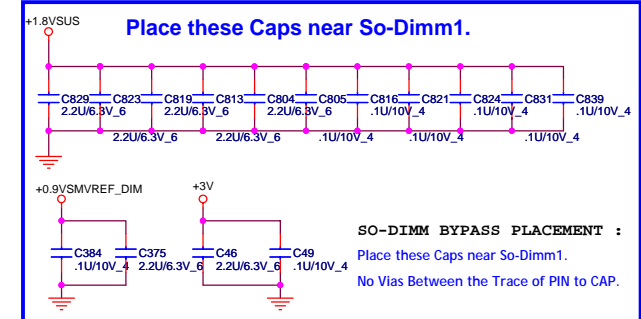
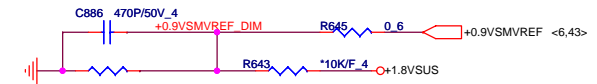
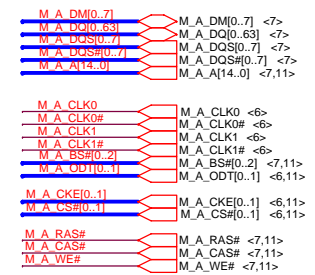
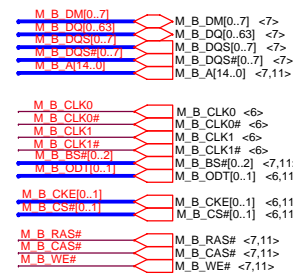
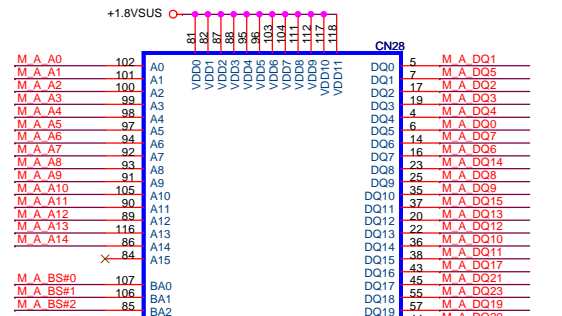
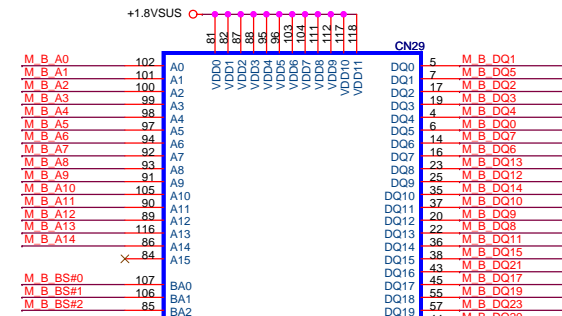
Size Custom	Document Number	Rev 2A
Cantiga DMI/DSP 2/5		
Date: Wednesday, February 27, 2008   Sheet 6 of 44		











H 9.2

H 5.2

<2,4,6,9,11,19,20,21,22,23,24,27,28,29,30,31,33,35,36,37,41,44>

<6,8,9,34,40,43>

+1.8VSUS

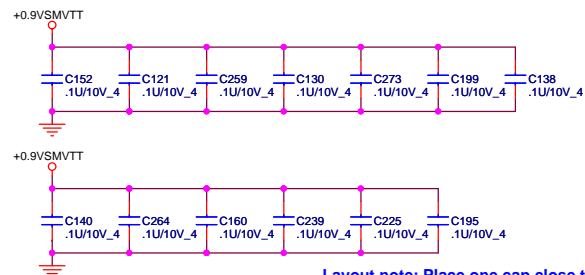
+3V



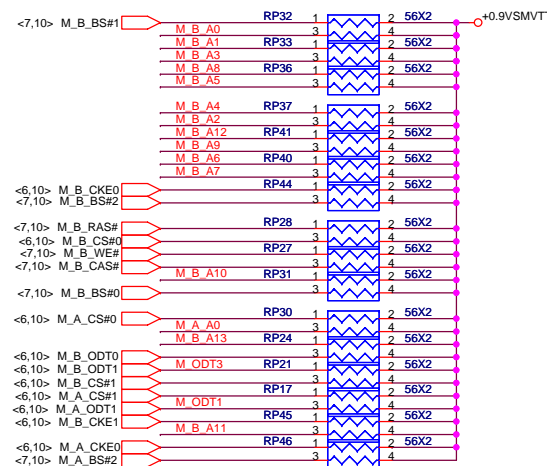
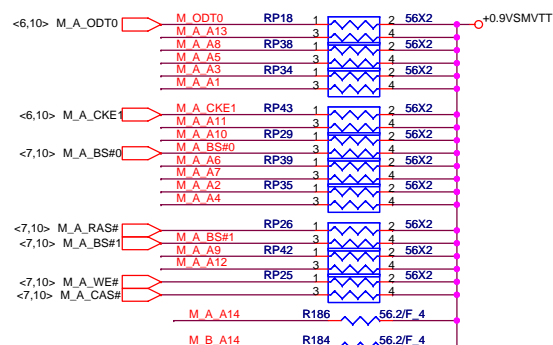
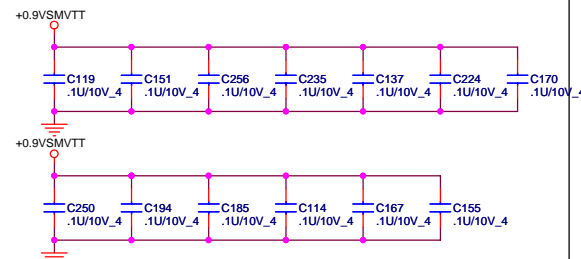
PROJECT : QT6  
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Size Custom Document Number DDR2 DIMM Rev 2A  
Date: Wednesday, February 27, 2008 | Sheet 10 of 44

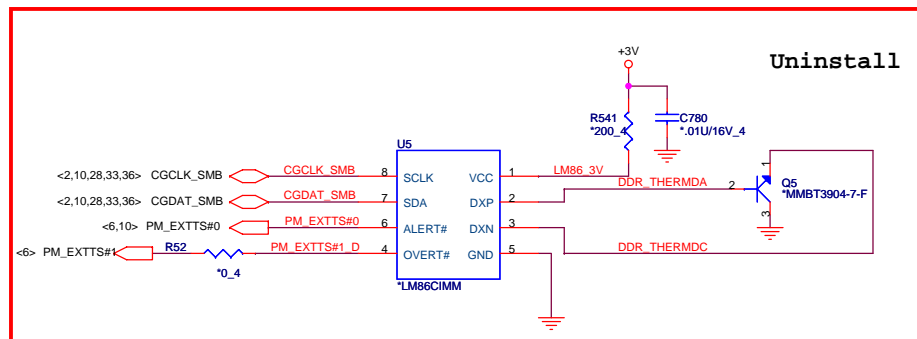
## DDR II B CHANNEL



**Layout note: Place one cap close to every 2 pullup resistors terminated to SMDDR\_VTERM**



M\_B\_A[14..0] <7,10>  
M\_A\_A[14..0] <7,10>



## Uninstall

—  +0.9VSMVTT <43>

—  +3V <2,4,6,9,10,19,20,21,22,23,24,27,28,29,30,31,33,35,36,37,41,44>





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Size	Custom
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Document Number	Blank
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Rev  
2A

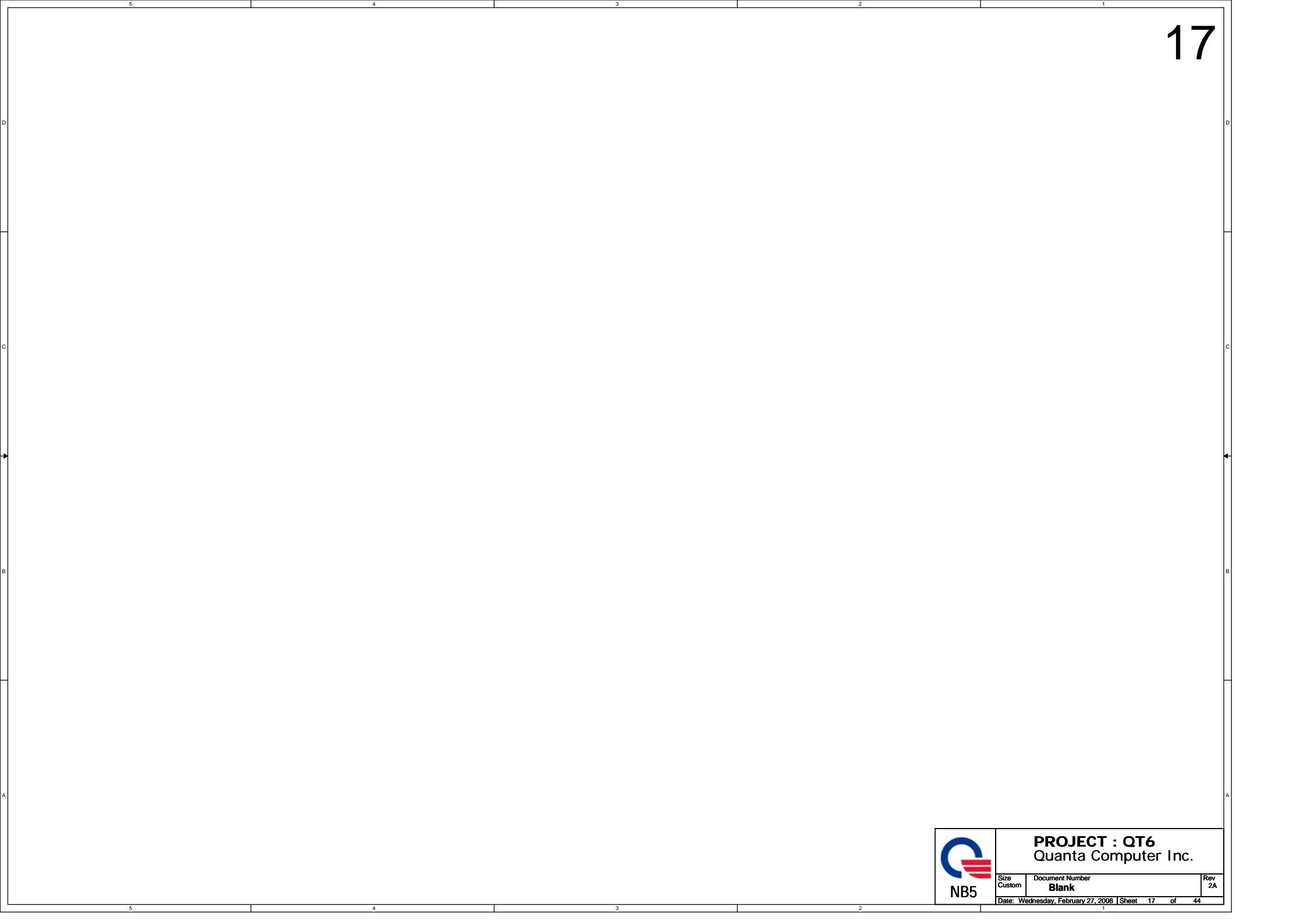
Date: Wednesday, February 27, 2008	Sheet 13 of 44
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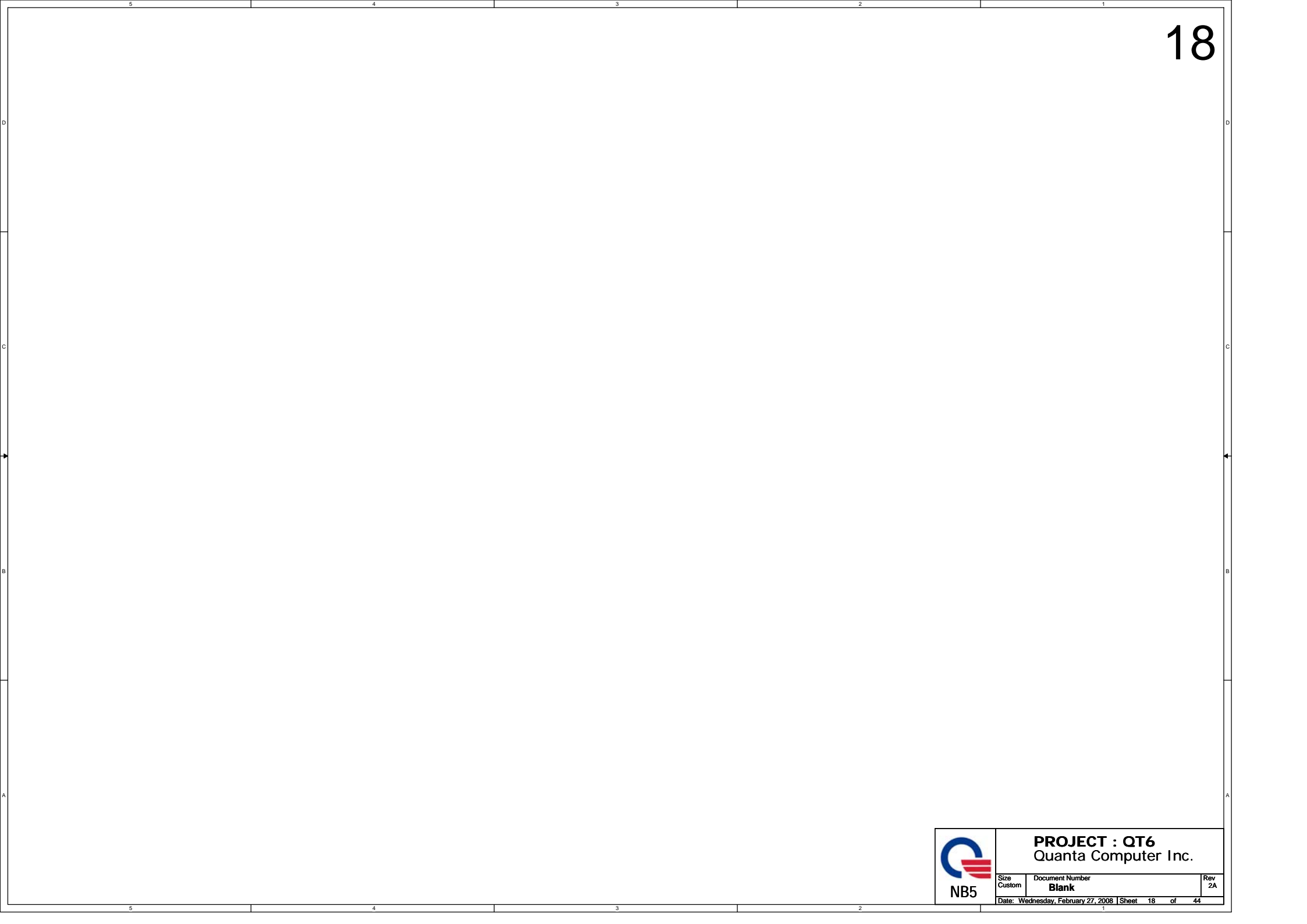








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	Size Custom	Document Number <b>Blank</b>	Rev 2A
	Date: Wednesday, February 27, 2008   Sheet 17 of 44		

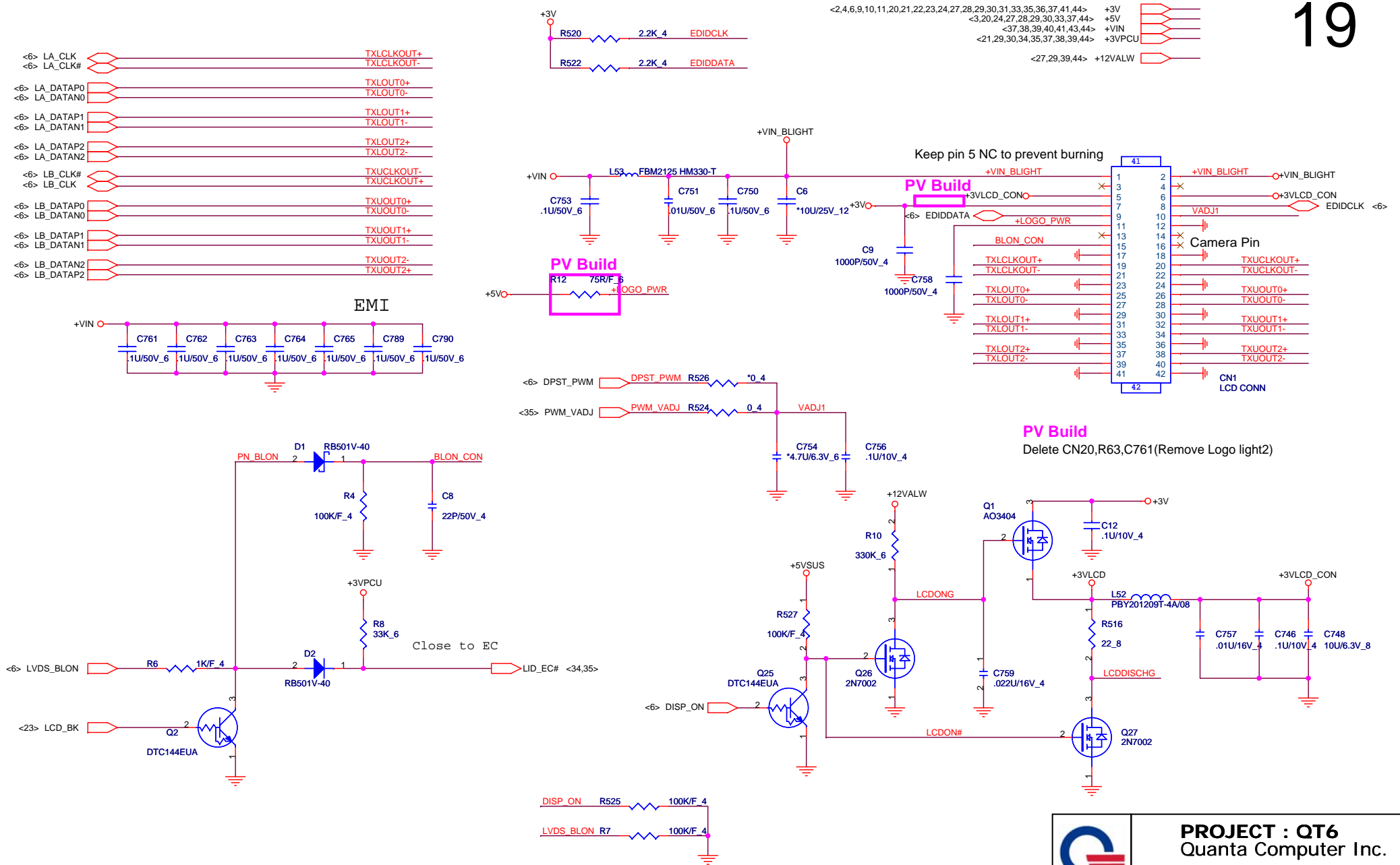


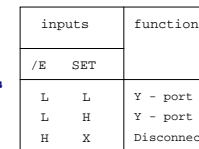
NB5

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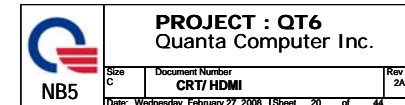
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Date: Wednesday, February 27, 2008   Sheet 18 of 44		

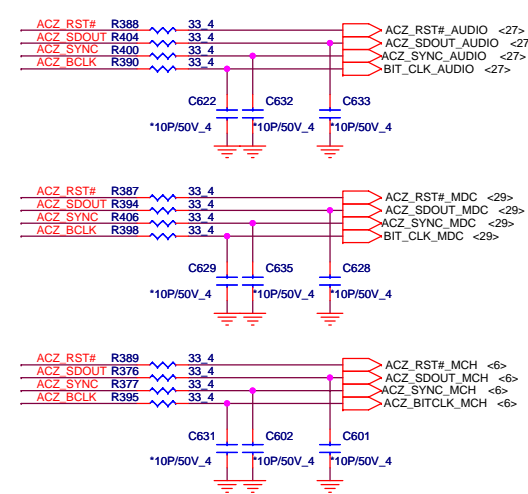






## PV Build



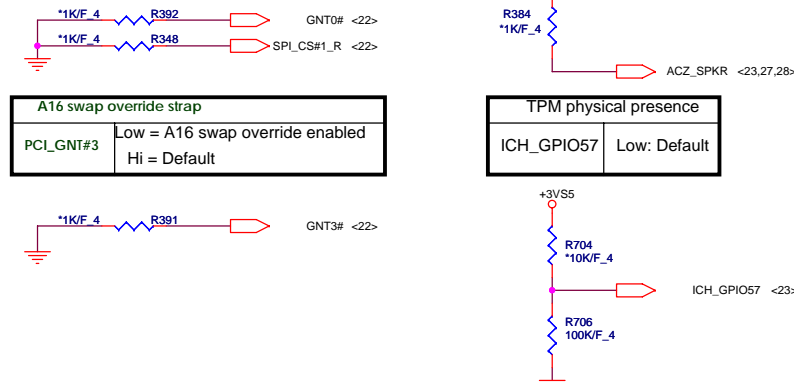


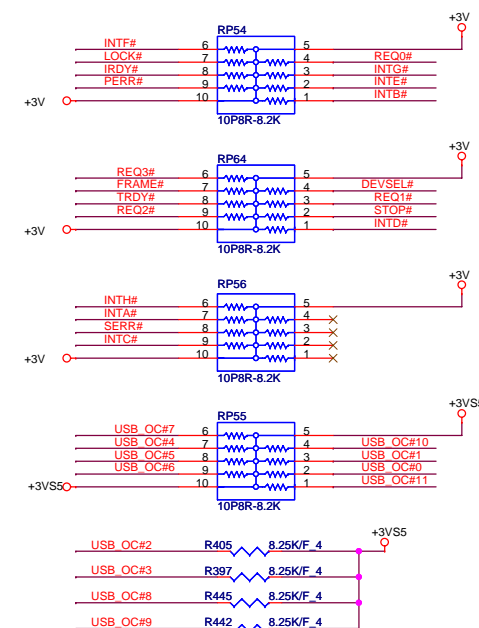
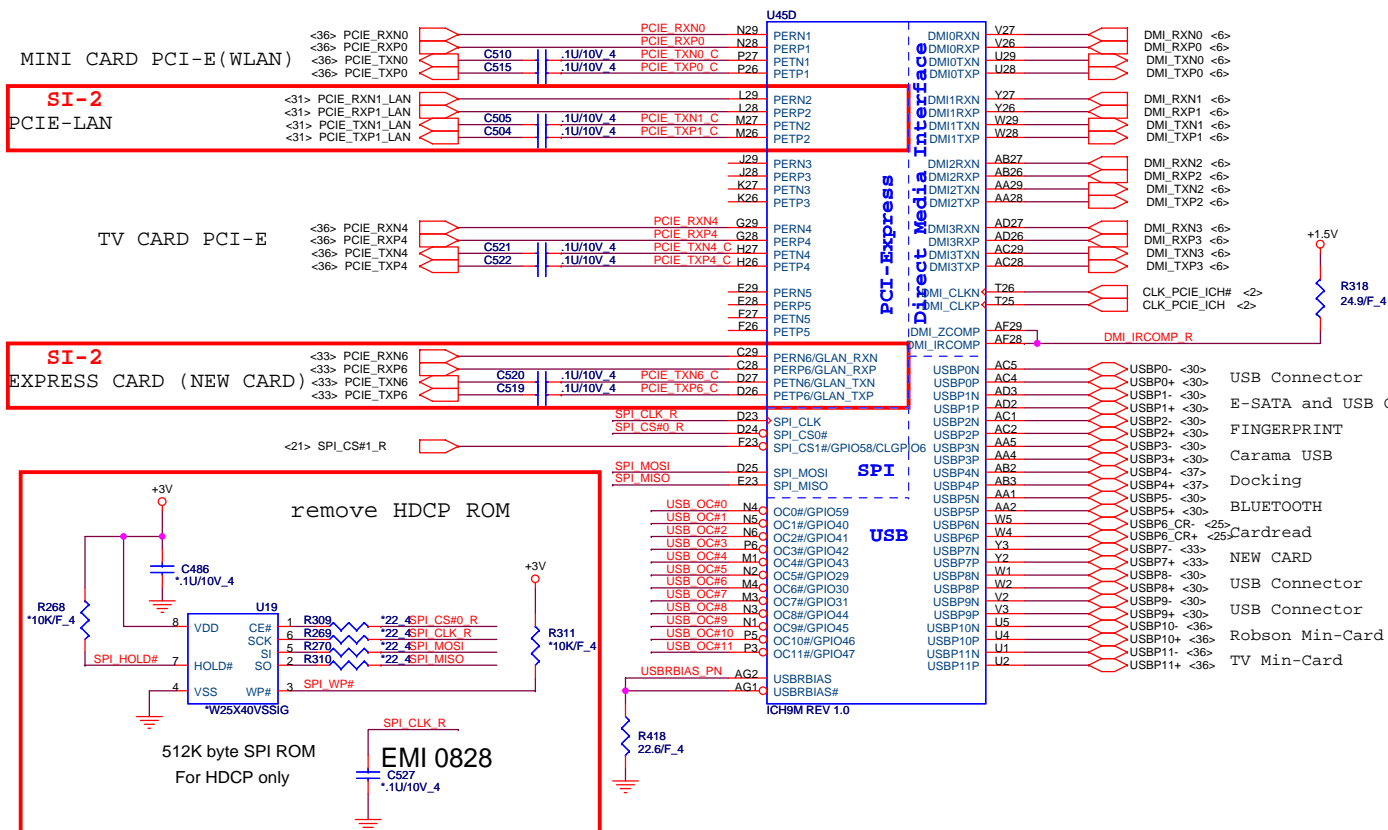
Z_SPKR	Low: Default Hi: No reboot
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(default)

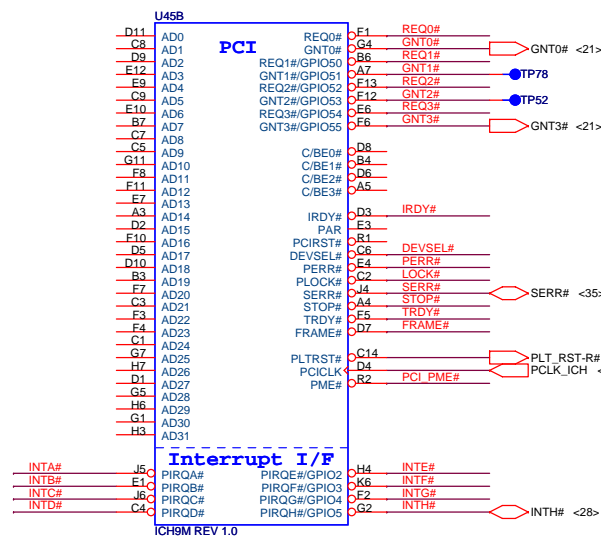
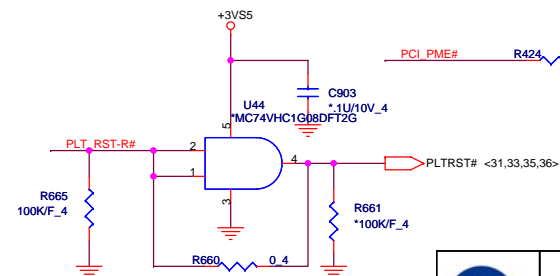
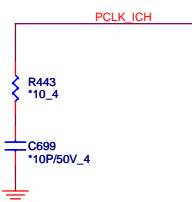
A16 swap override strap	
PCI_GNT#3	Low = A16 swap override enabled Hi = Default

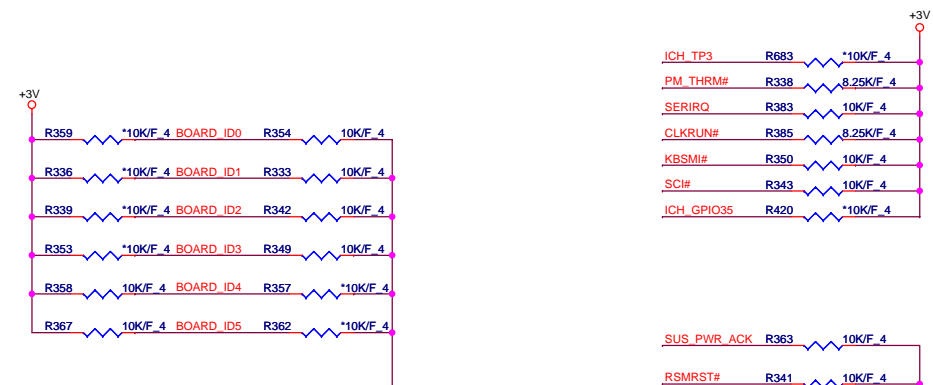
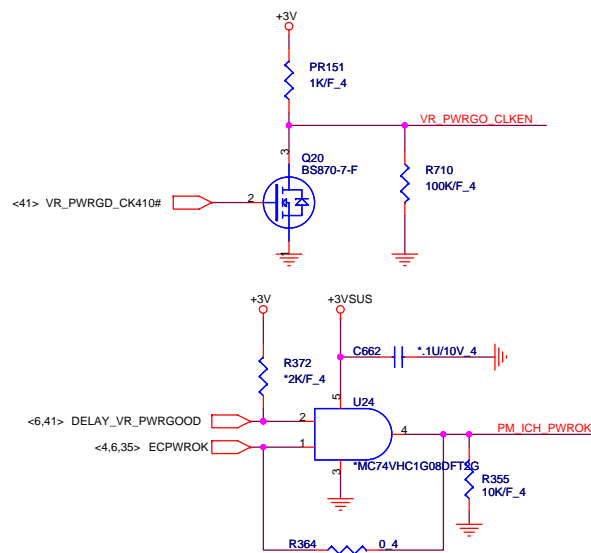
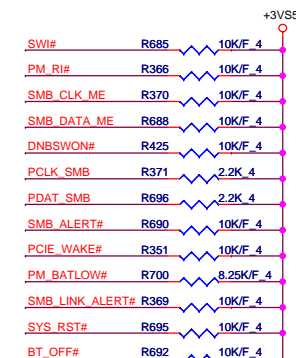
TPM physical presence	
CH_GPIO57	Low: Default






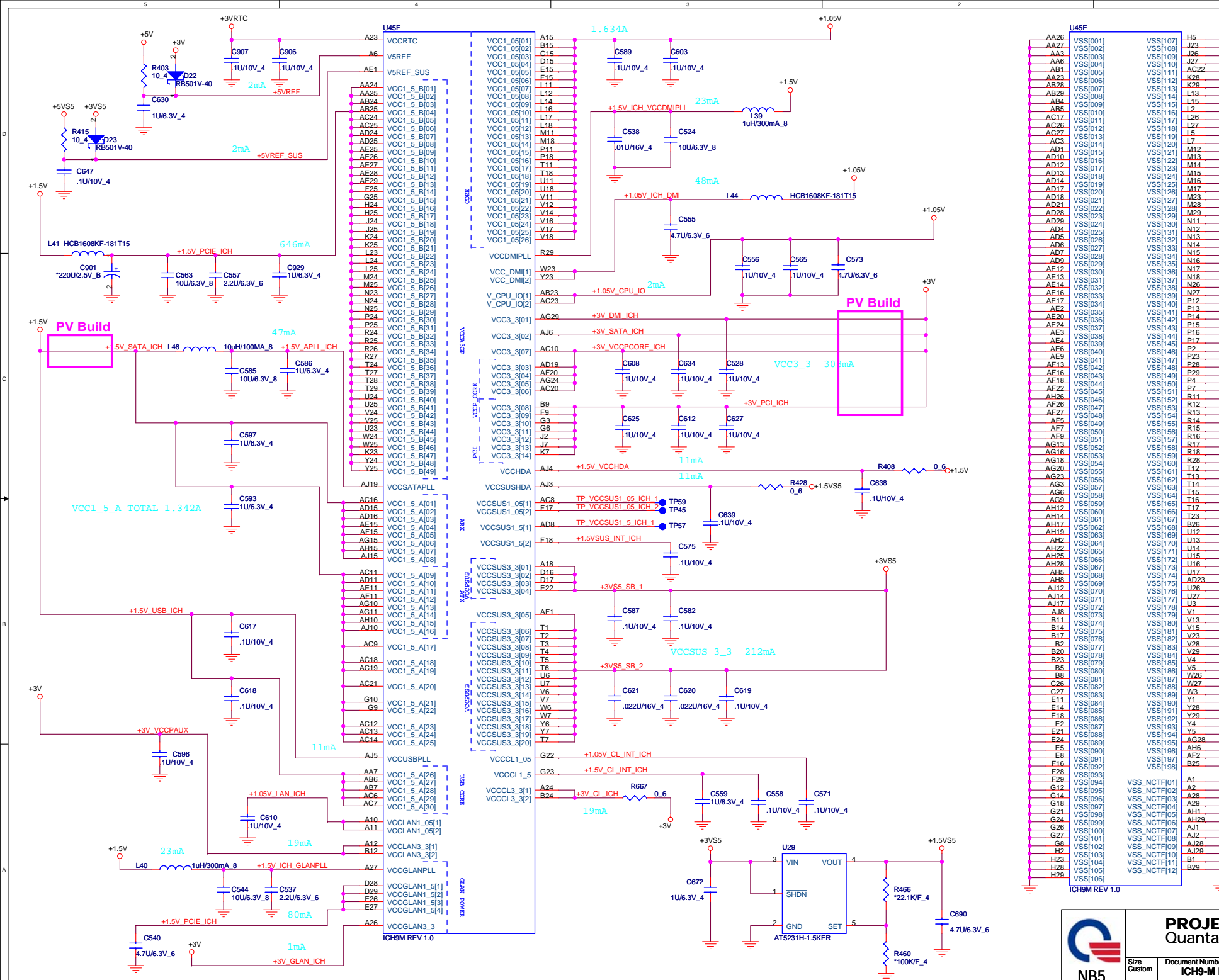
## PV Build

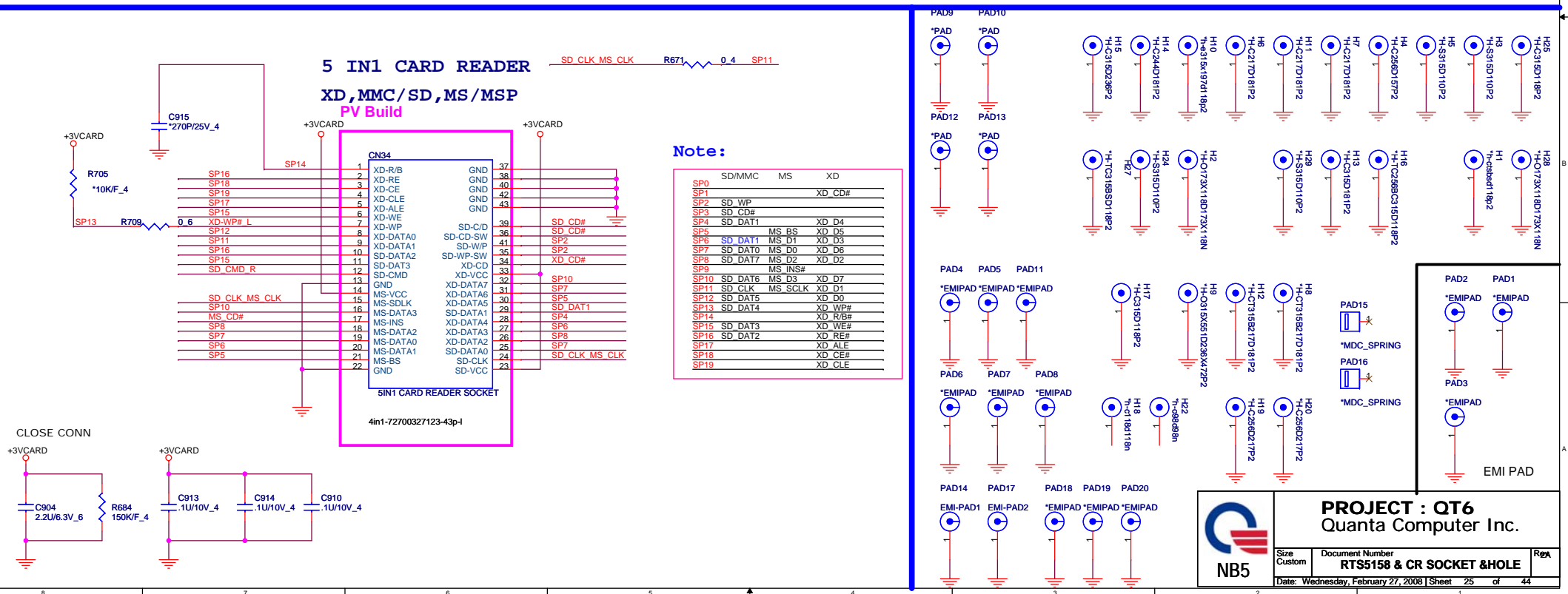
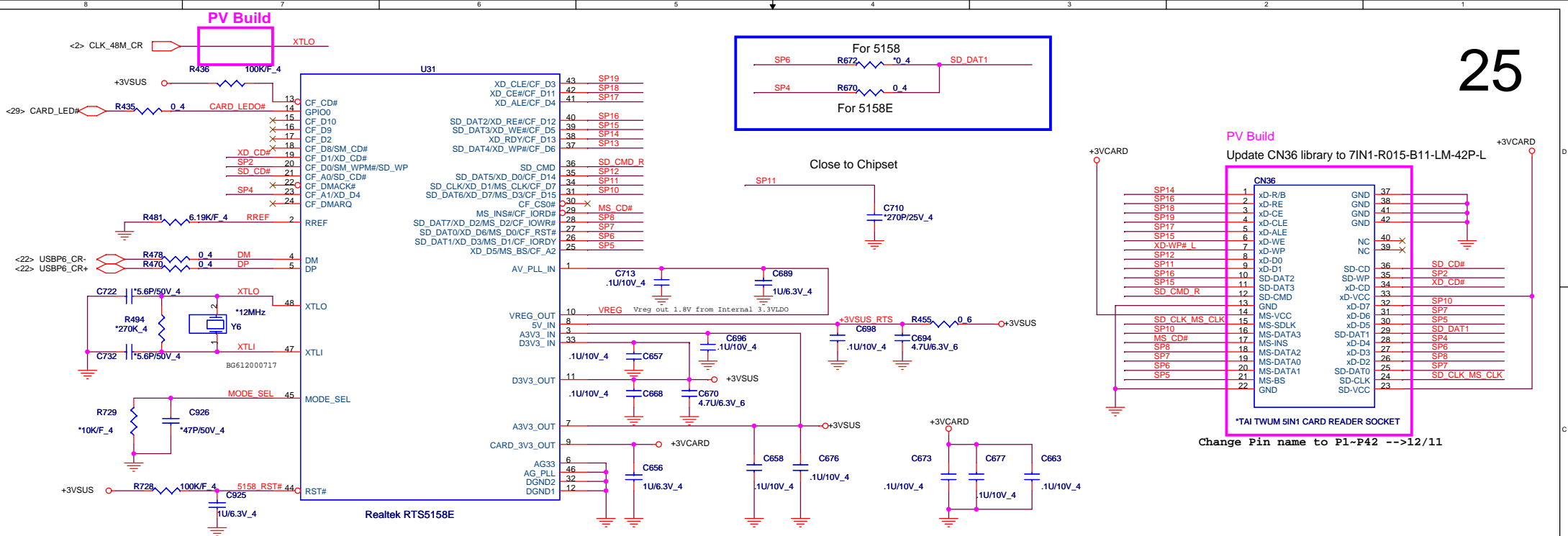




	<b>PROJECT : QT6</b> Quanta Computer Inc.		
	Size Custom	Document Number <b>ICH9-M GPIO 3/4</b>	Rev <b>2A</b>
Date: <b>Wednesday, February 27, 2008</b>   Sheet <b>23</b> of <b>44</b>			



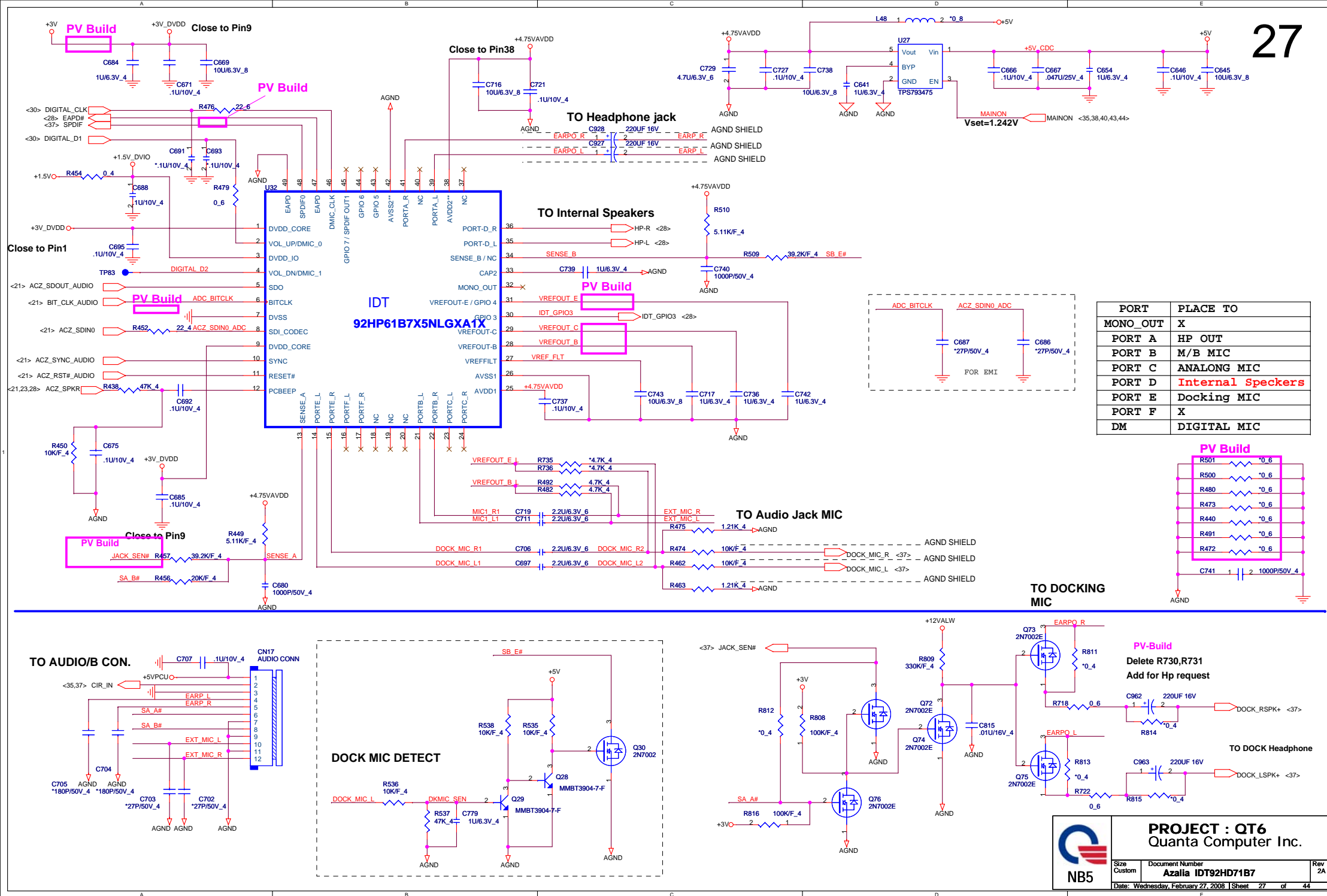






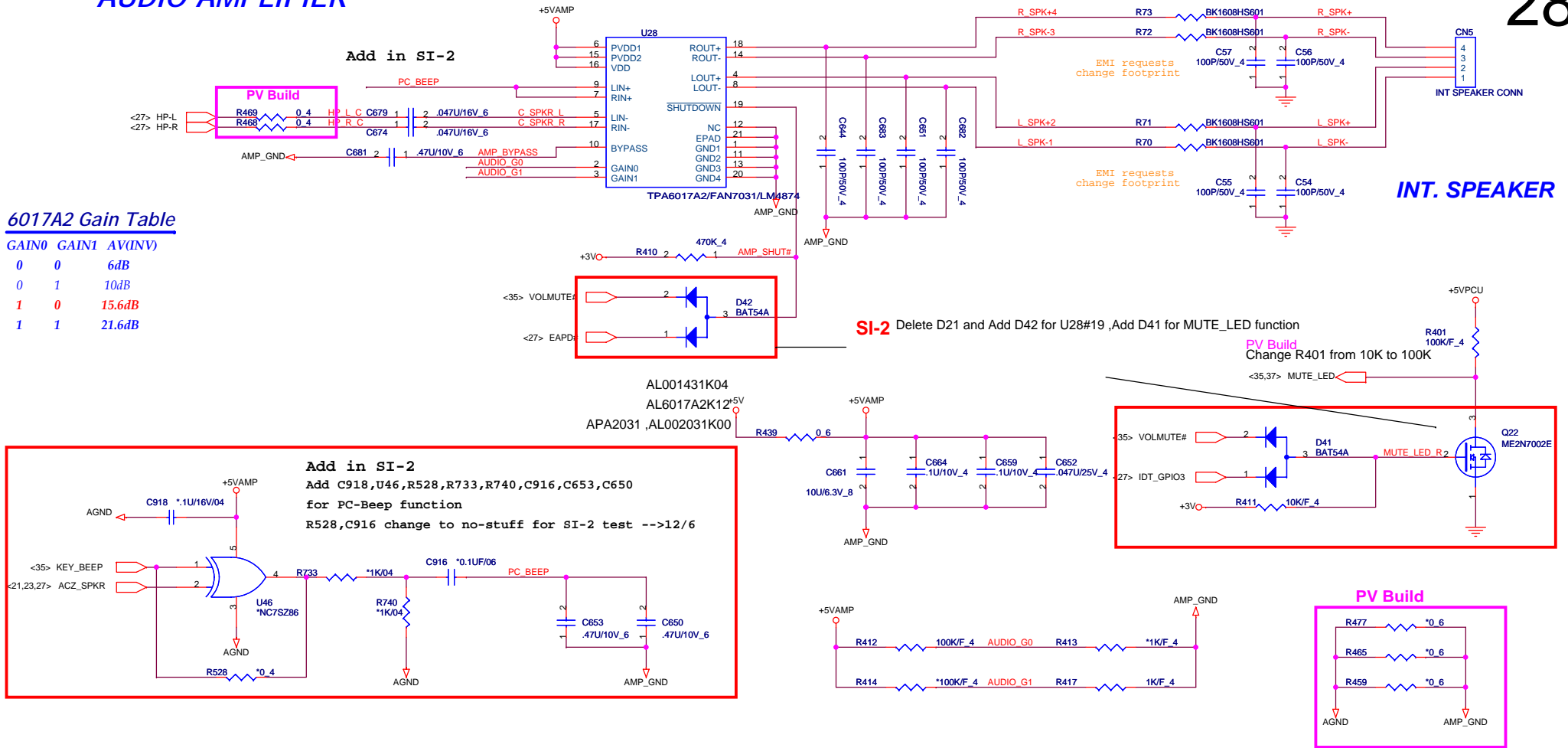
**PROJECT : QT6**  
Quanta Computer Inc.

Size B	Document Number <b>BLANK</b>	Rev 2A
Date: Wednesday, February 27, 2008   Sheet 26 of 44		



# AUDIO AMPLIFIER

28



## 6017A2 Gain Table

GAIN0 GAIN1 AV(INV)

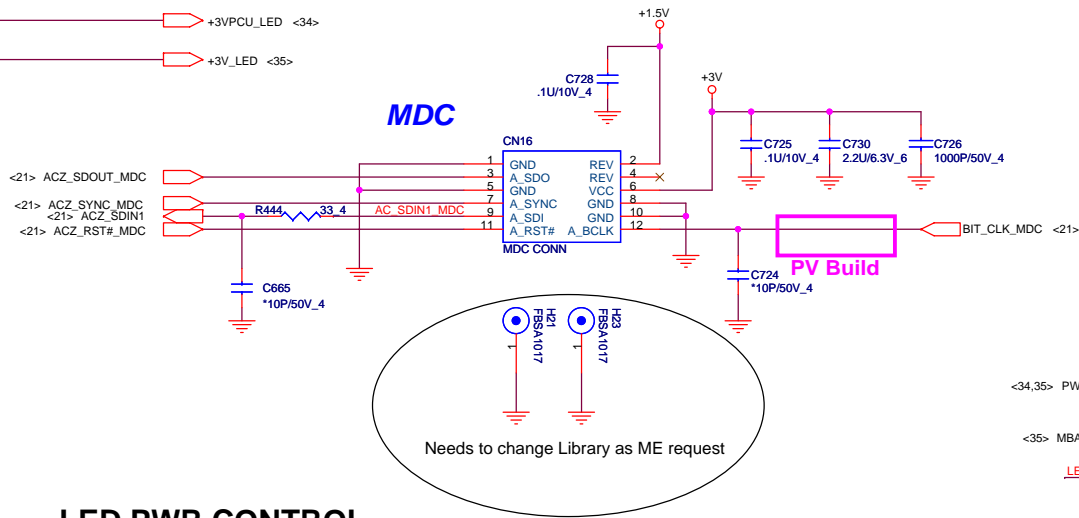
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB



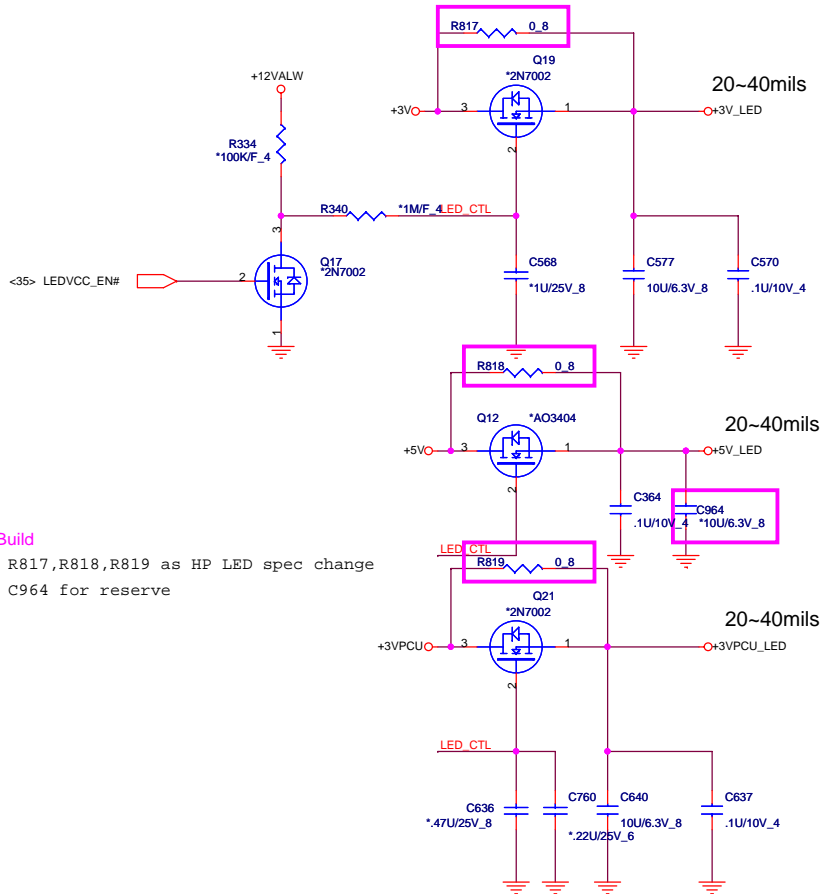
**PROJECT : QT6**  
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Size Custom	Document Number <b>AMP_TPA6017/Accelerometer</b>	Rev 2A
Date: Wednesday, February 27, 2008	Sheet 28	of 44

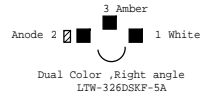
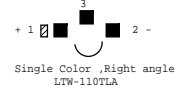
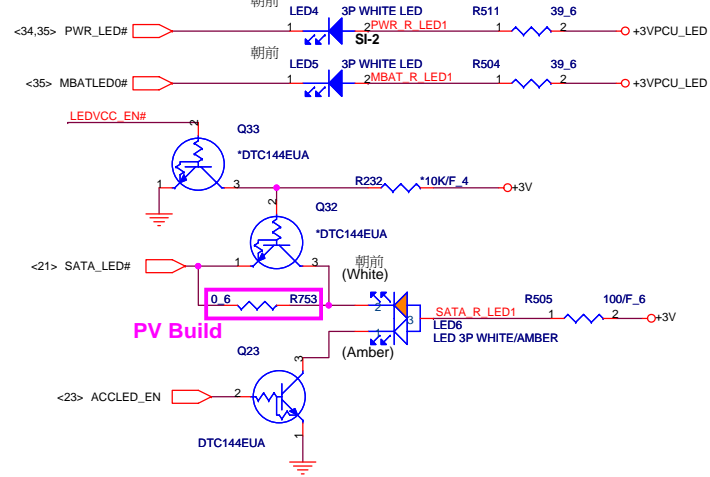
MDC



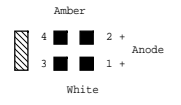
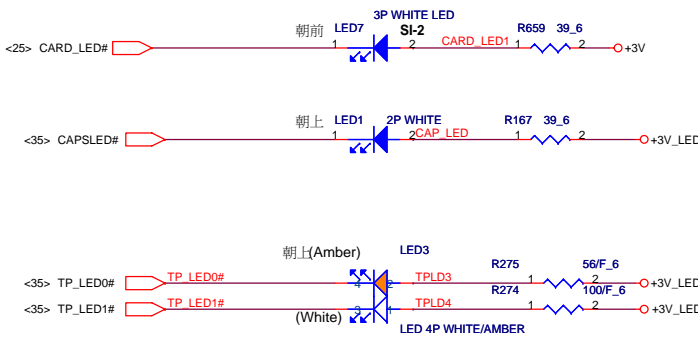
LED PWR CONTROL



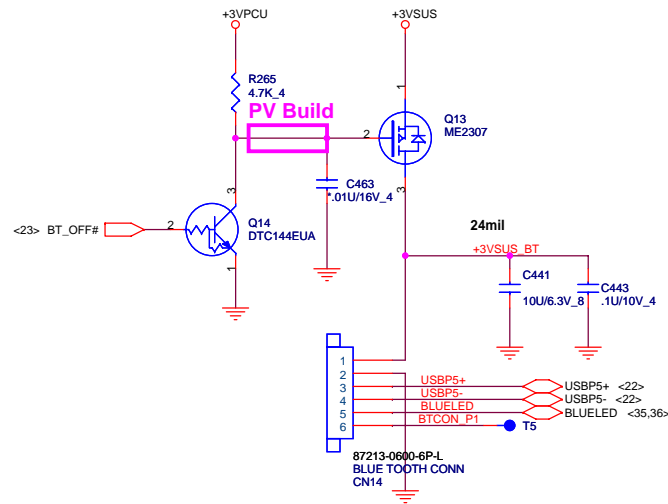
SI-2



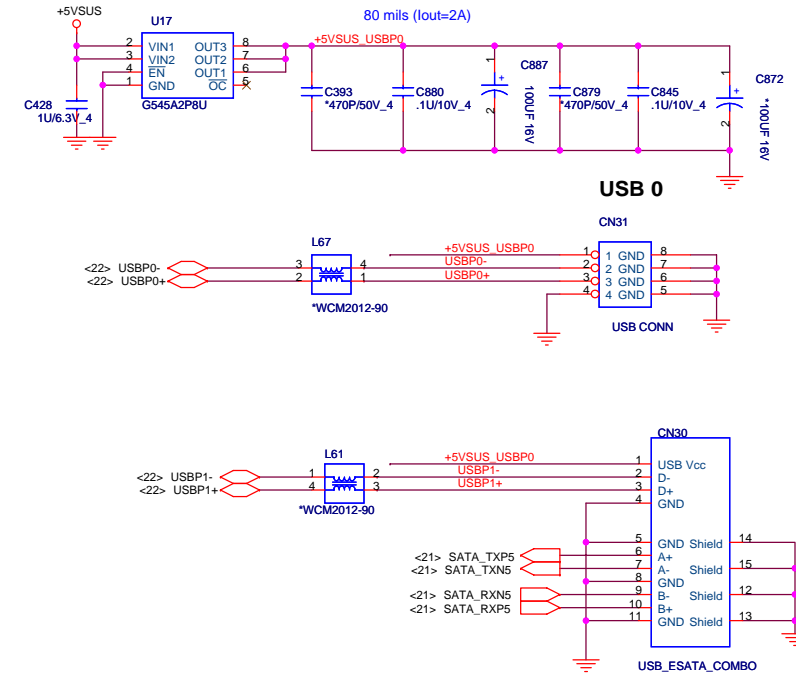
FOR CAP SW BOARD CONN



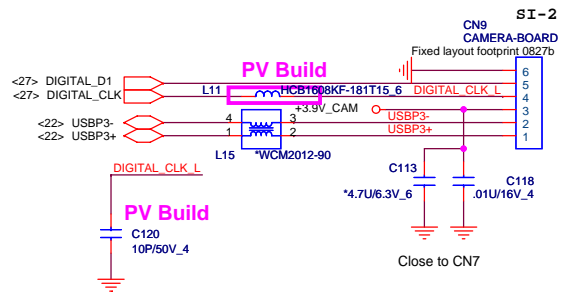
## BLUETOOTH



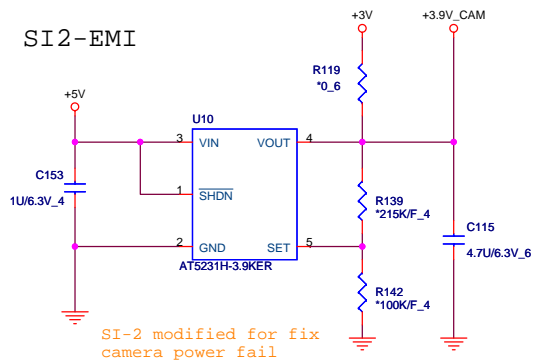
## LEFT SIDE USBX1 and E-SATA/USB COMBO 30



## USB CAMERA /DIGITAL MIC CONNECT

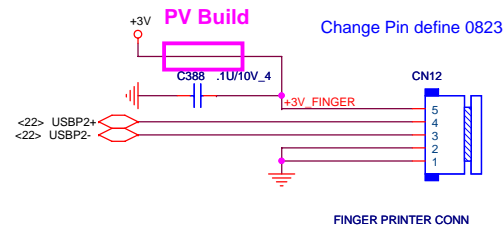


## SI2-EMI



SI-2 modified for fix camera power fail

## USB fingerprint CON



## PV Build

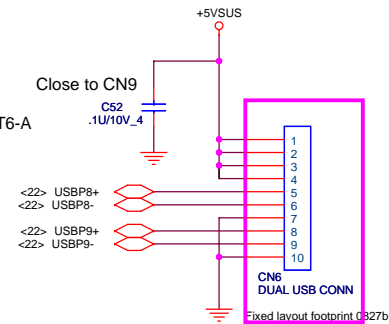
Change CN12 to BL123-05R-5P-L-QT6-A

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

## RIGHT SIDE USBX2

## PV Build

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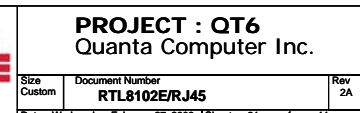


## USB & ESATA

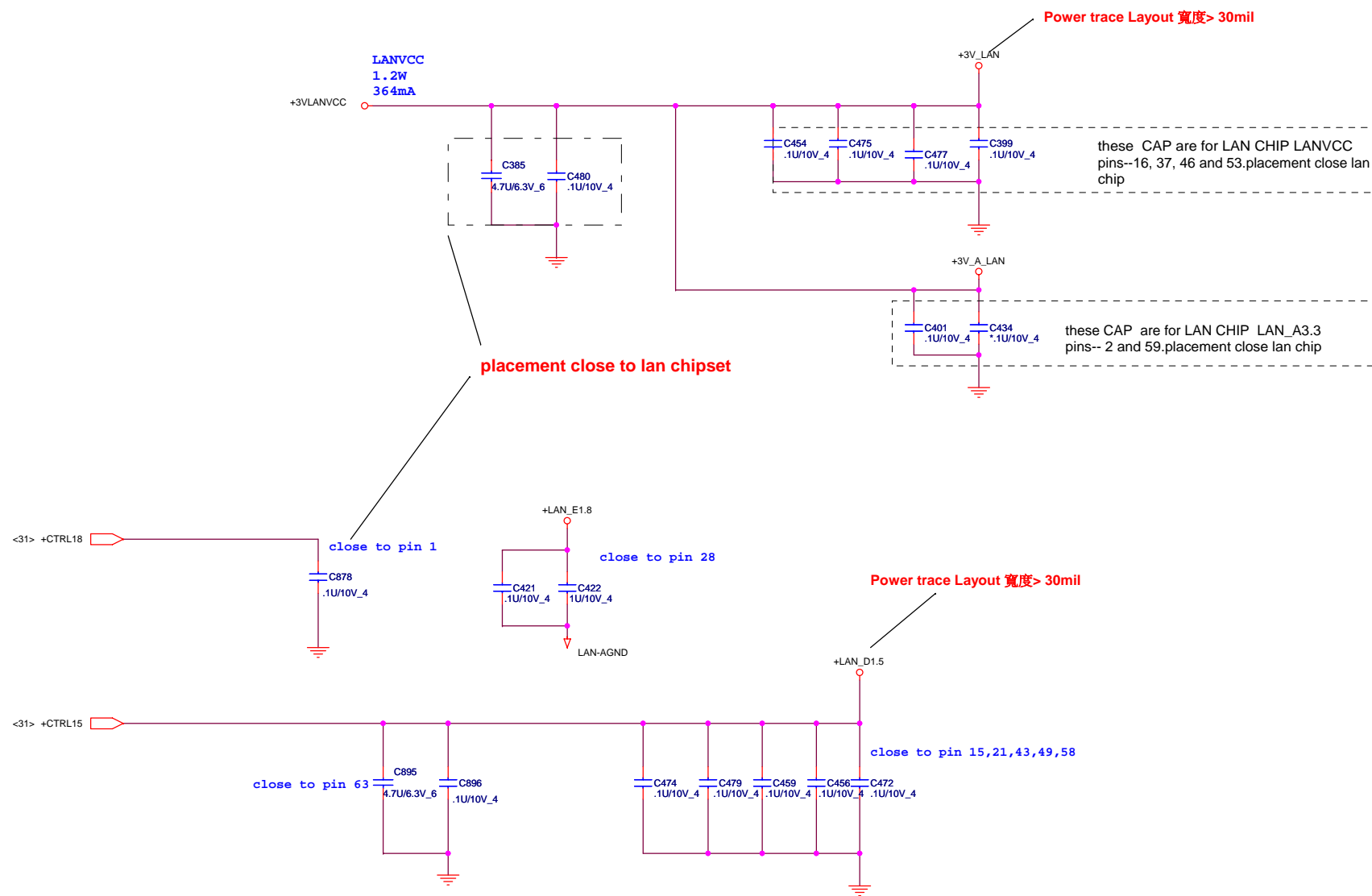


**PROJECT : QT6**  
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Size Custom Document Number **BT/WC/FT/TS/ESATA/USB** Rev 2A  
Date: Wednesday, February 27, 2008 | Sheet 30 of 44



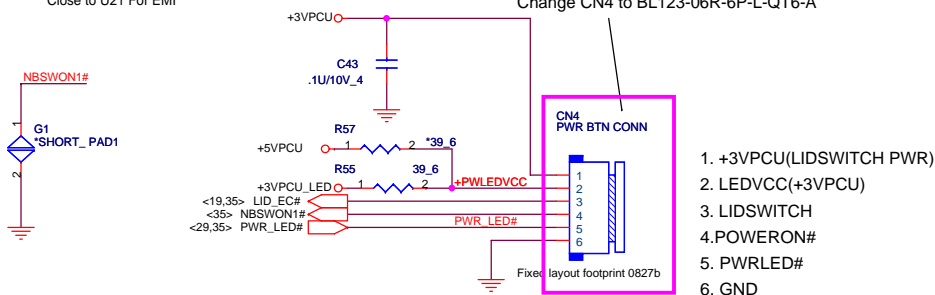




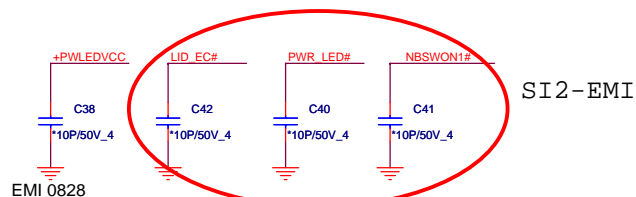


### Close to U21 For EMI

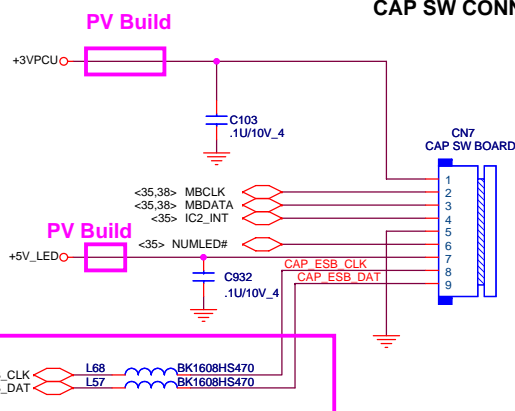
Change CN4 to BL123-06R-6P-L-QT6-A



## POWER BOTTON CONNECT

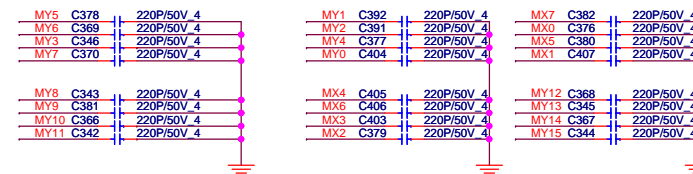
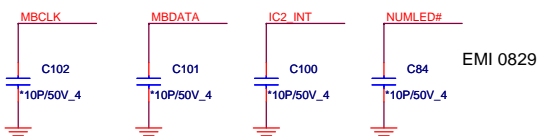


## CAP SW CONNECT

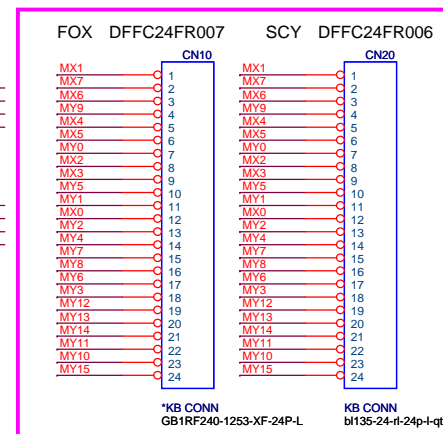
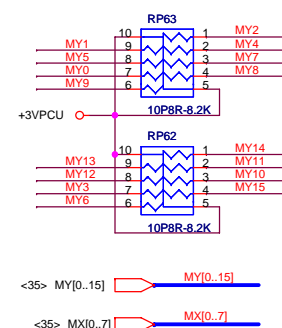


Change CN7 to BL123-09R-9P-L-QT6-A

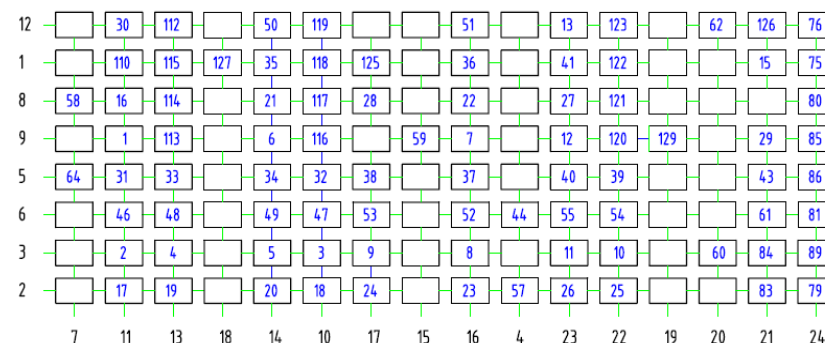
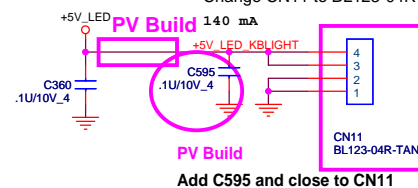
1. +3VPCU
2. MBCLK
3. MBDATA
4. CAP\_INT
5. GND
6. NUM LOCK LED
7. +5V\_LED
8. ESB\_CLK
9. ESB\_DAT



## KEYBOARD PULL-UP



Change CN11 to BL123-04R-4P-L-QT6-A



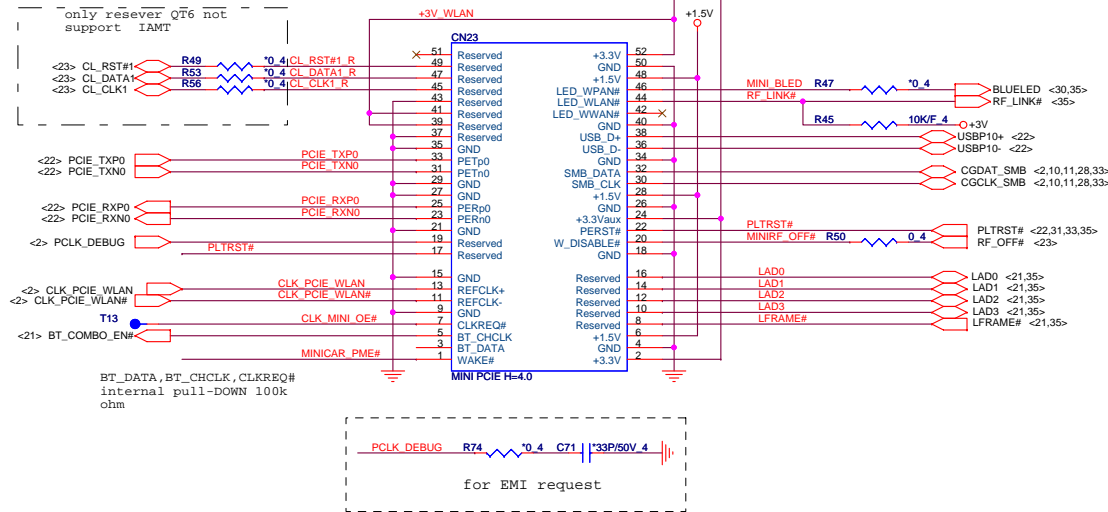


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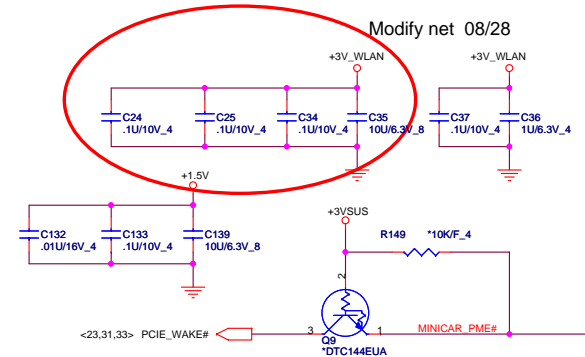
Size Custom	Document Number <b>KB3926/ROM/TP</b>	R
Date: Wednesday, February 27, 2008   Sheet 35 of 44		

# Mini PCI-E Card 1 WLAN

**PV Build** Delete R78 and tied the CN23#24 to R110 direction  
Change CN23 layout footprint to MIPCI-E-AS0B223-S40N-7F-52P-QT6 as ME drawing

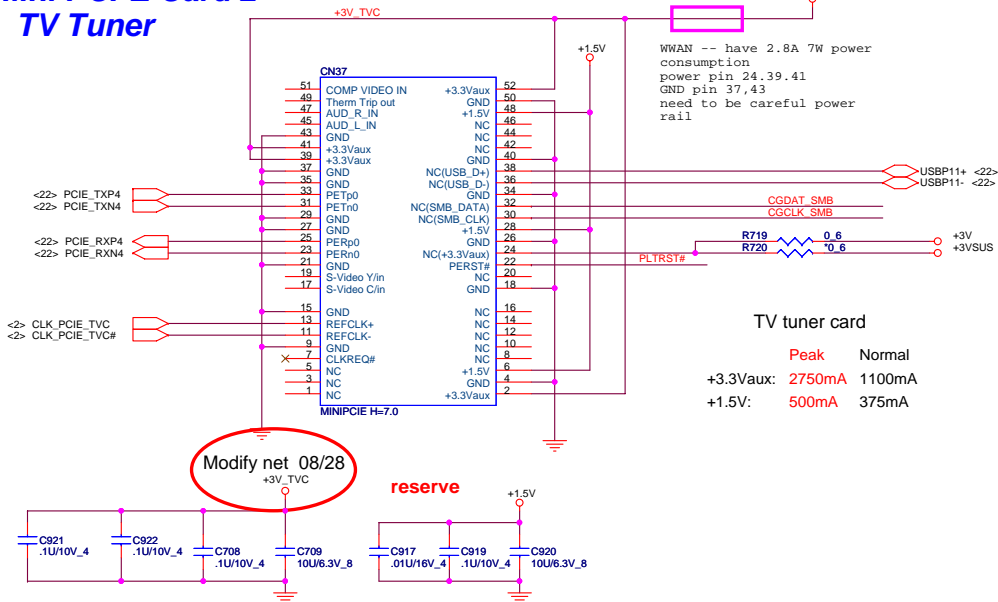


INTEL WLAN  
CARD PIN 20  
W\_DISABLE#  
have  
internal  
pull-up 110k  
ohm



# Mini PCI-E Card 2 TV Tuner

**PV Build**  
WLAN -- have 2.8A 7W power  
consumption  
power pin 24,39,41  
GND pin 37,43  
need to be careful power  
rail

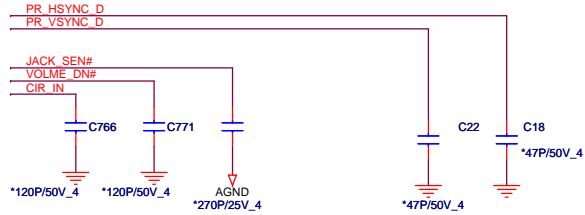
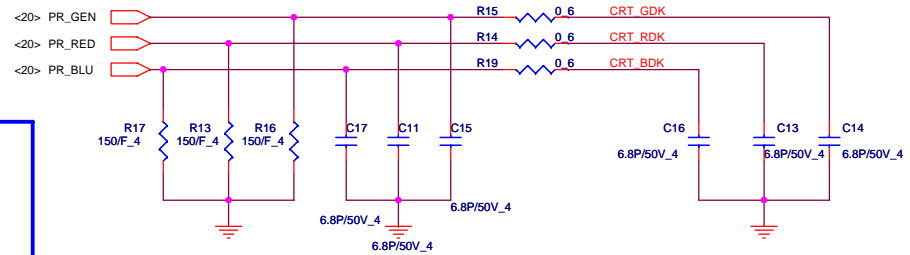
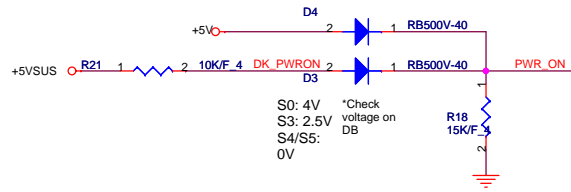
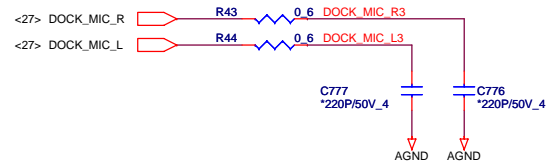
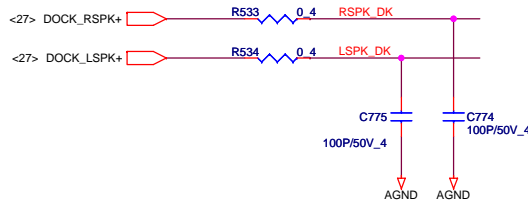
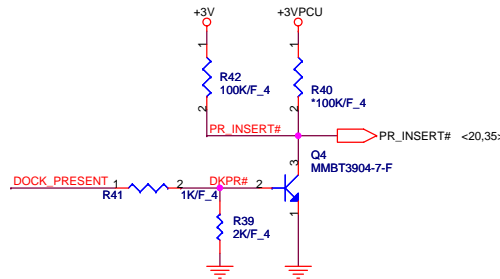
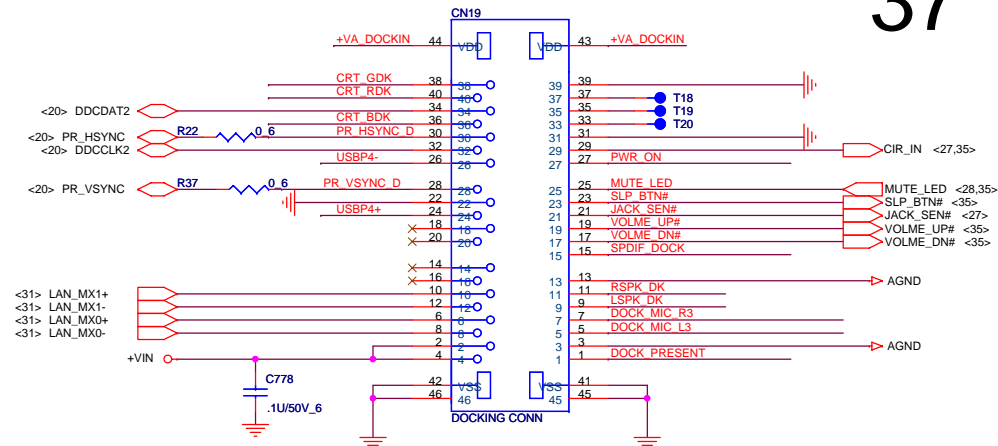
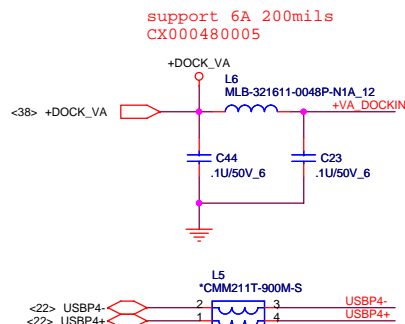
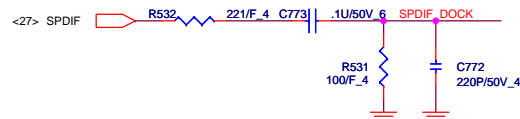


TV tuner card

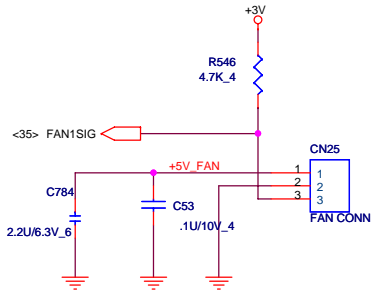
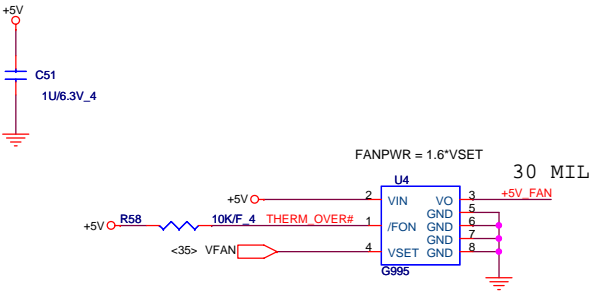
	Peak	Normal
+3.3Vaux:	2750mA	1100mA
+1.5V:	500mA	375mA

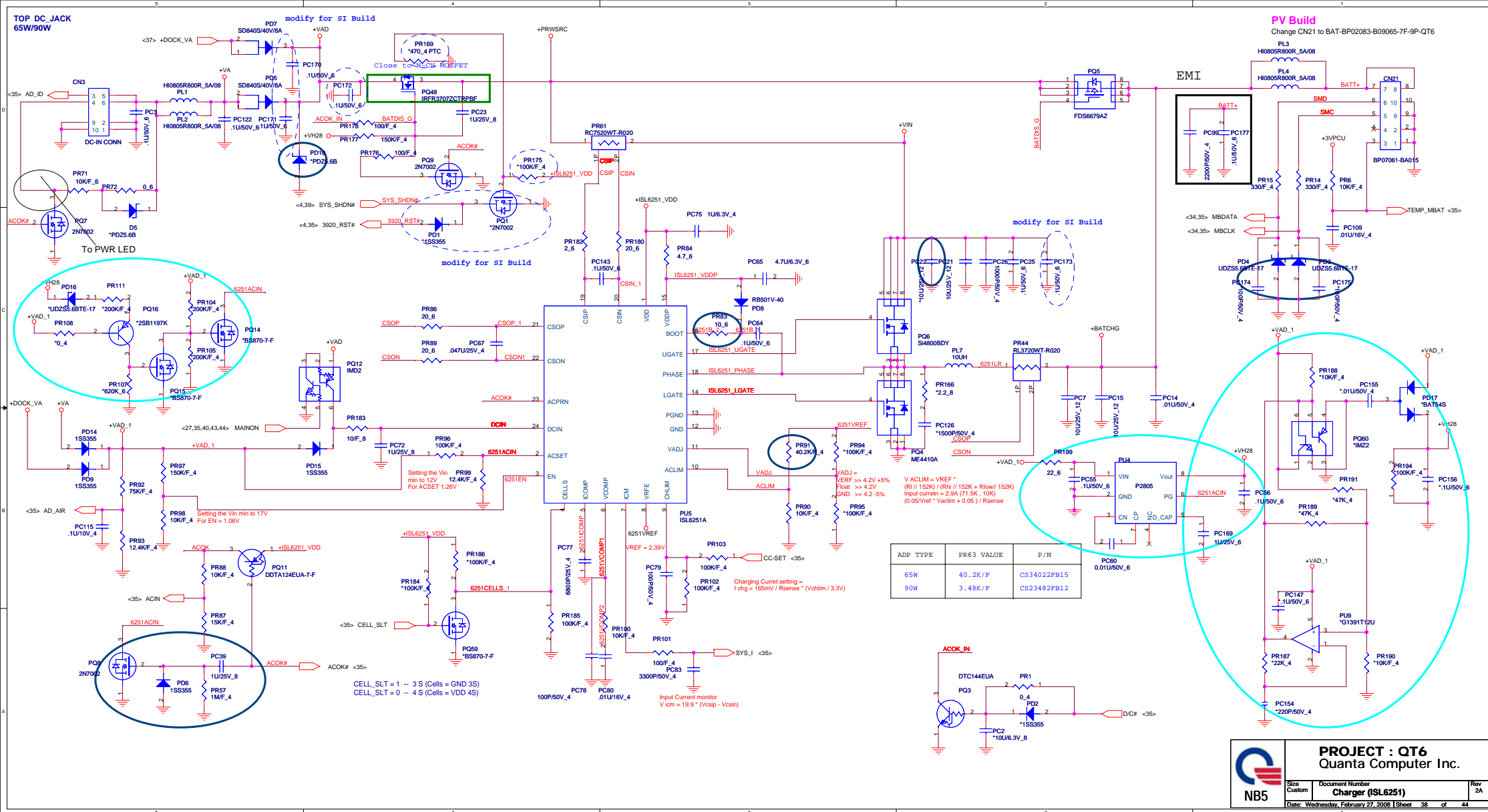
# CABLE DOCK

37



## CPU FAN

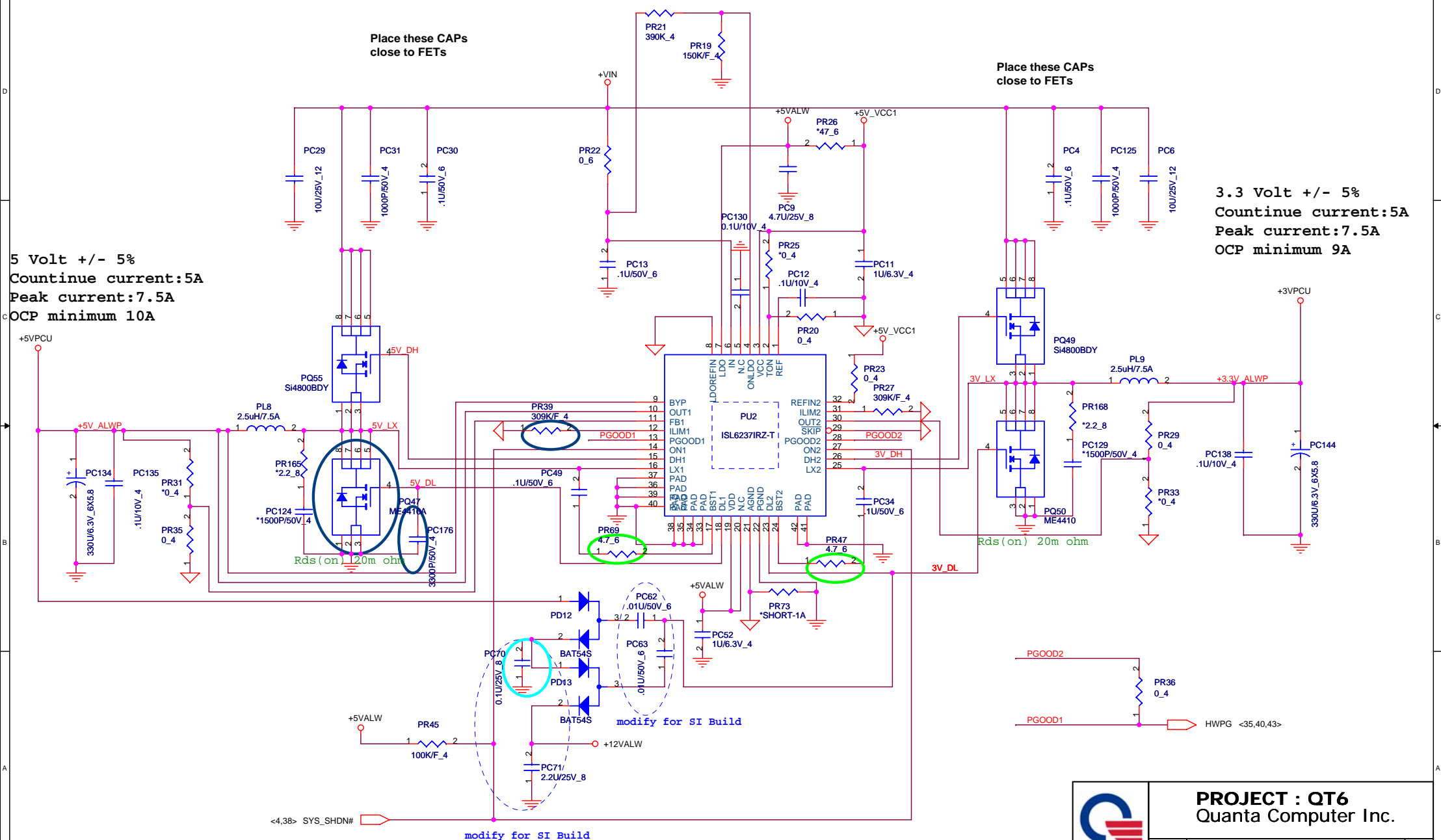




# DC/DC +3V\_ALW/+5V\_ALW/+5V\_ALW2 /+12V\_ALW

5 Volt +/- 5%  
Countinue current:5A  
Peak current:7.5A  
OCP minimum 10A

3.3 Volt +/- 5%  
Countinue current:5A  
Peak current:7.5A  
OCP minimum 9A



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Size	Document Number	Rev
B	+5V/+3V (ISL6237)	2A

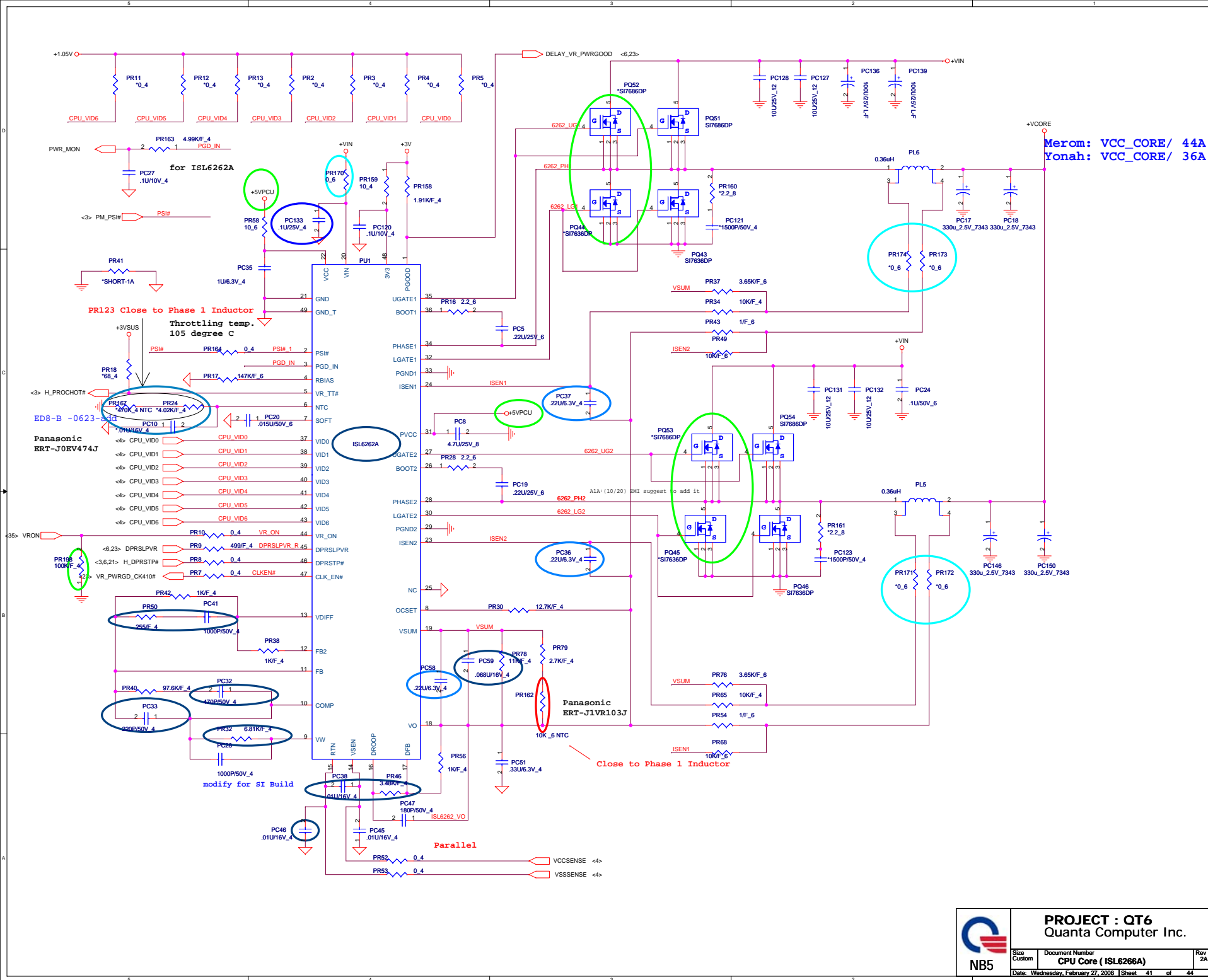
Date: Wednesday, February 27, 2008 | Sheet 39 of 44



+1.05Volt +/- 5%  
Countinue current:7.5A  
Peak current:10A  
OCP minimum 12A



Size B	Document Number <b>+1.05V/+1.5V (RT8204)</b>	Rev 2A
Date: Wednesday, February 27, 2008		Sheet 40 of 44





NB5

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Size  
B

Document Number  
**BLANK**

Rev  
2A

Date: Wednesday, February 27, 2008 Sheet 42 of 44

