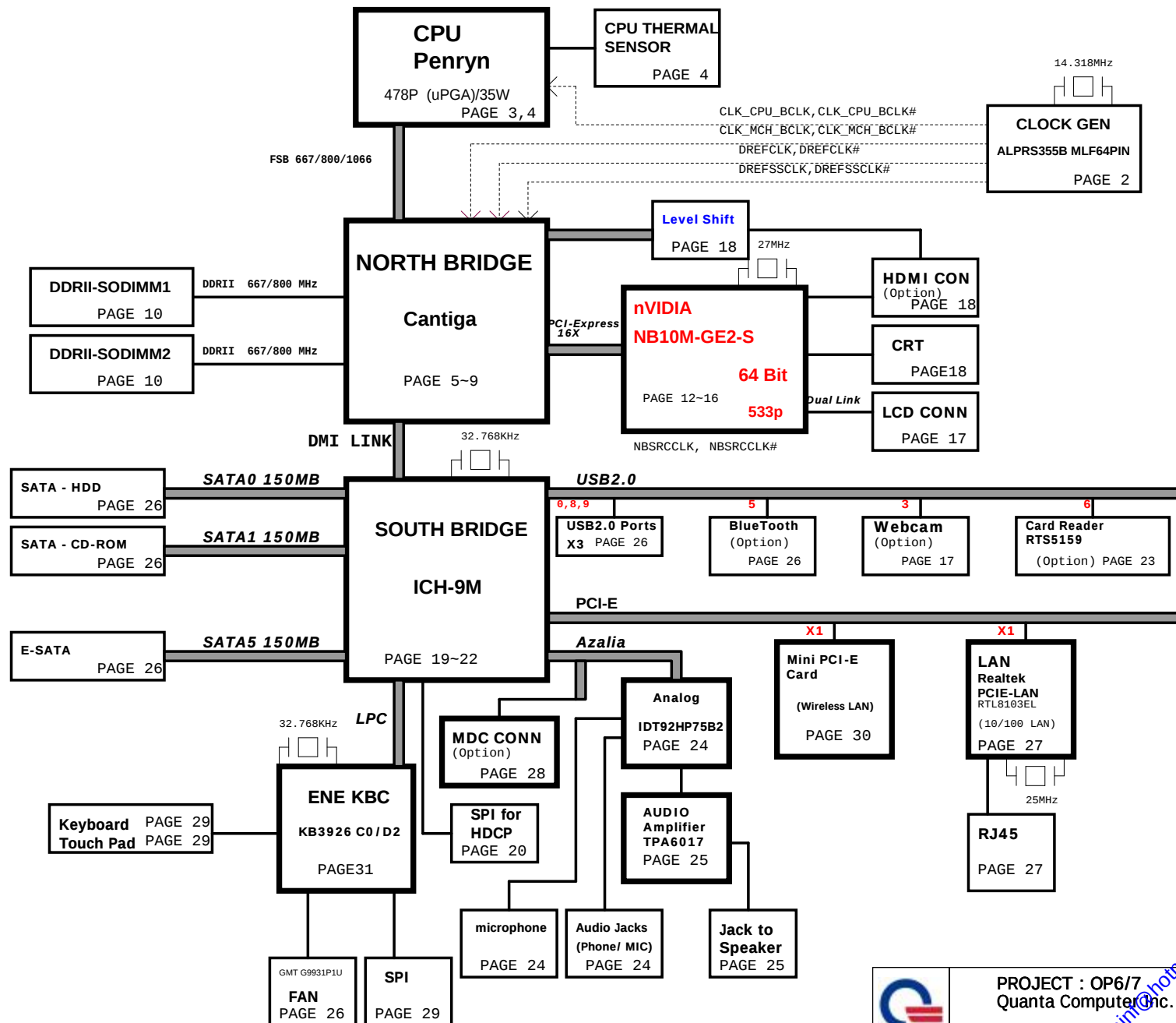


Tango/Ballet BLOCK DIAGRAM

01

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



SYSTEM CHARGER(ISL6251AHAZ-T)
PAGE 31

SYSTEM POWER ISL6237IRZ-T
PAGE 32

DDR II SMDDR_VTERM
1.8V/1.8VSUS(TPS51116REGR)
PAGE 36

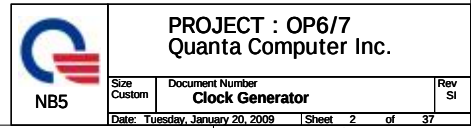
VCCP +1.5V AND GMCH
1.05V(RT8204)
PAGE 33

CPU CORE ISL6266A
PAGE 34



PROJECT : OP6/7
Quanta Computer Inc.

Size Custom	Document Number Block Diagram	Rev A
Date: Tuesday, January 20, 2009	Sheet 1 of 37	





Populate ITP700Flex for bringup



Don't install for DC

Change to +5V

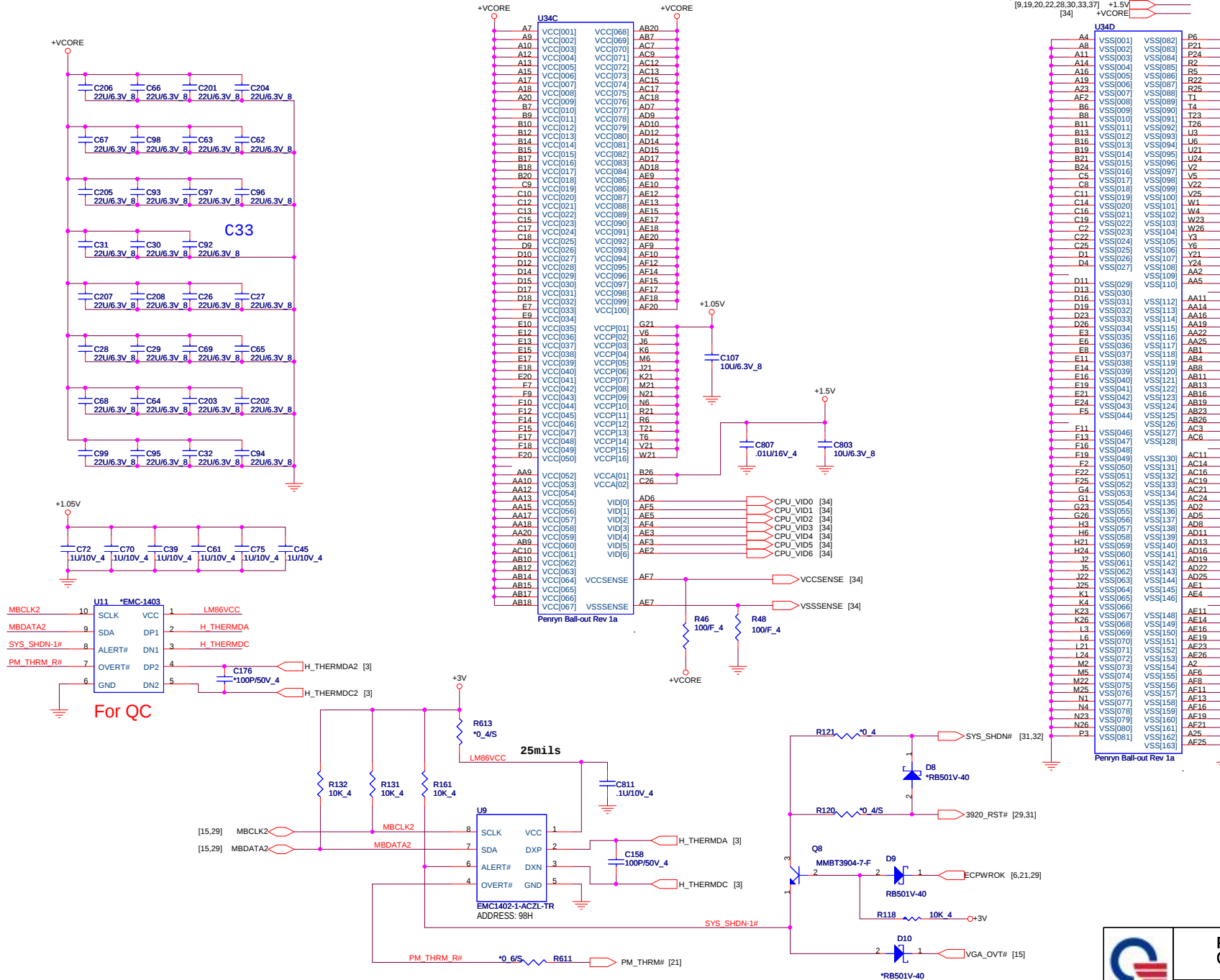


PROJECT OP6/7
Quanta Computer Inc.

Size Custom	Document Number Penryn 1/2
Date: Tuesday, January 20, 2009	Sheet 3 of 37

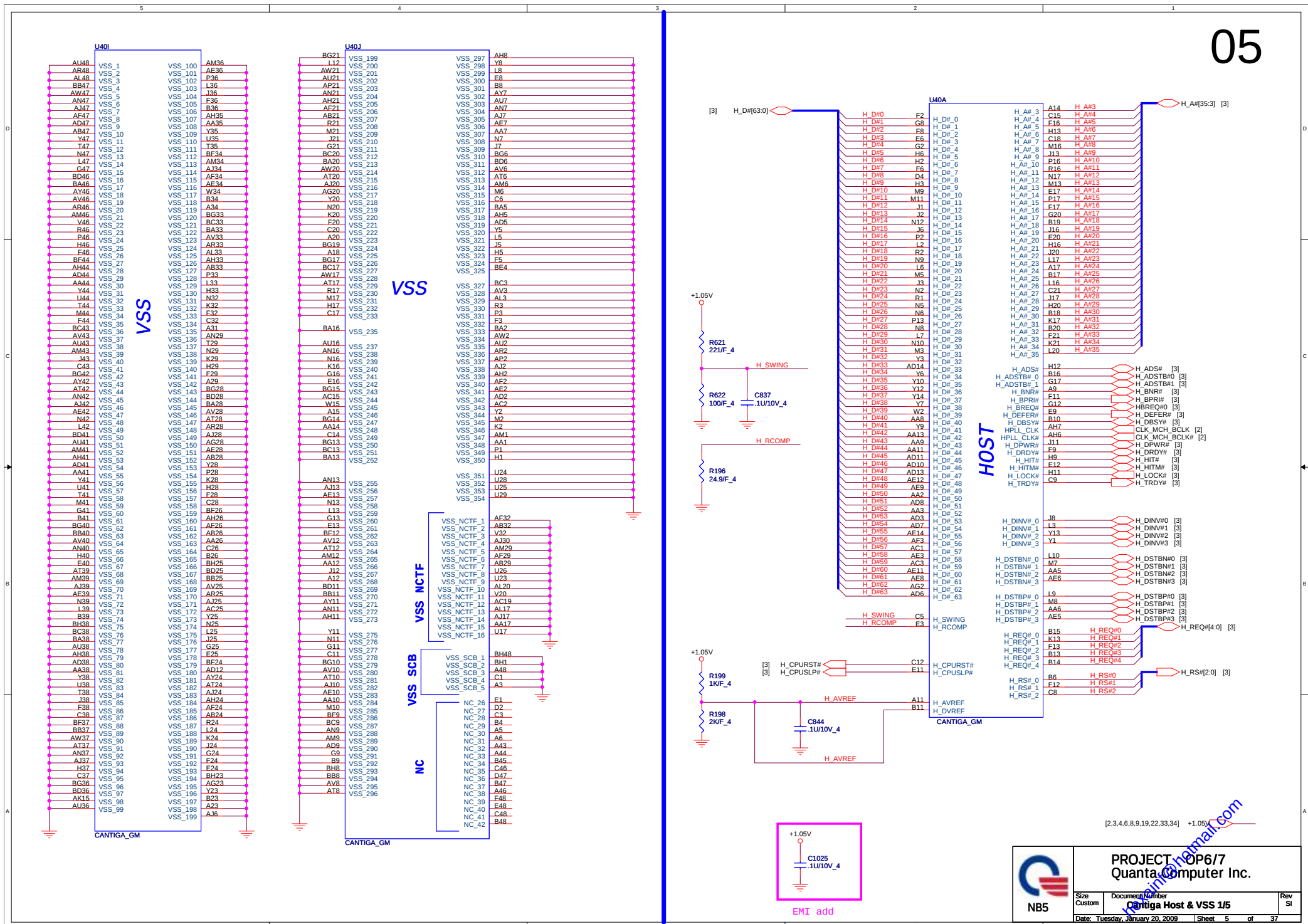
[2,6,9,10,11,12,14,15,17,18,19,20,21,22,24,25,26,27,28,29,30,33,34,37]
 [2,3,5,6,8,9,19,22,33,34]
 [9,19,20,22,28,30,33,37]
 [34]

+3V
 +1.05V
 +1.5V
 +VCORE

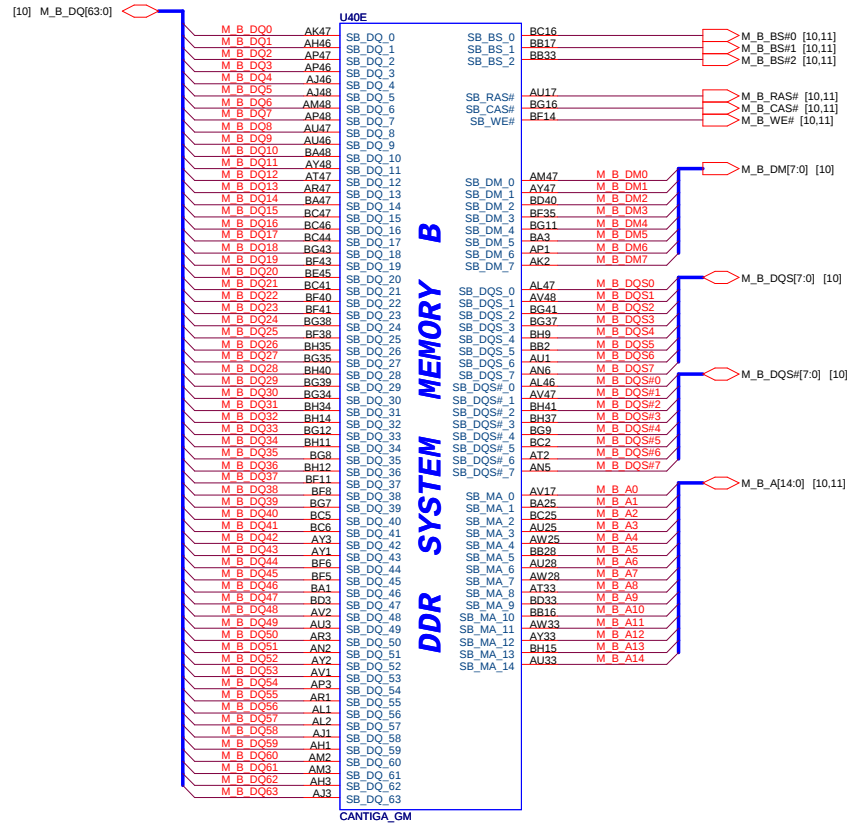
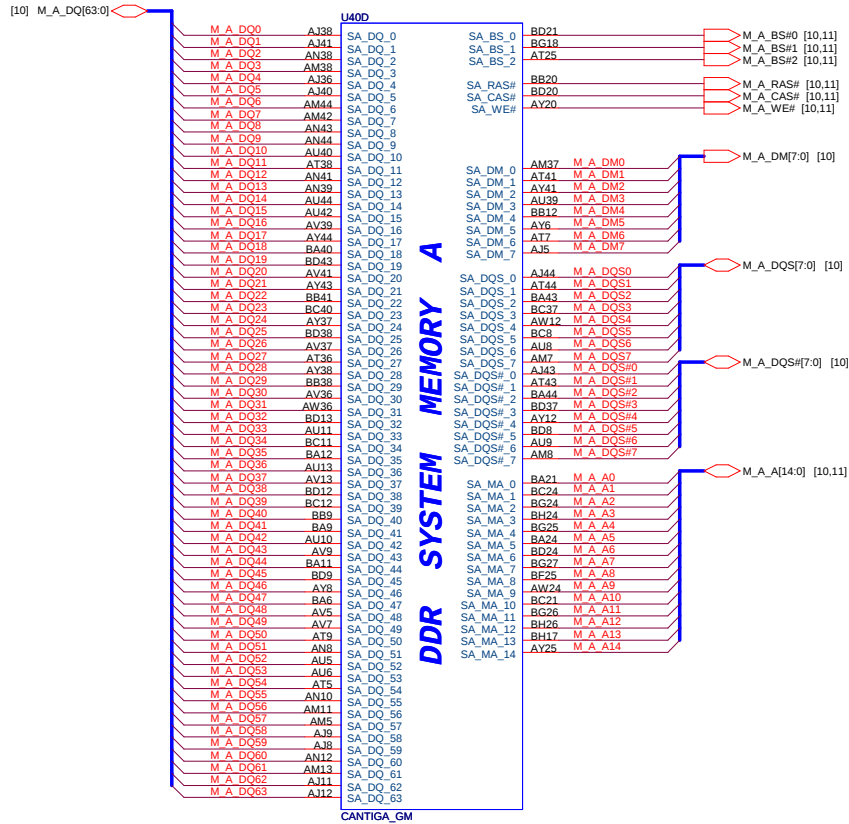


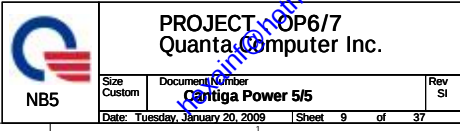
PROJECT : OP6/7
 Quanta Computer Inc.

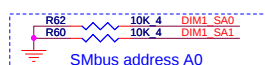
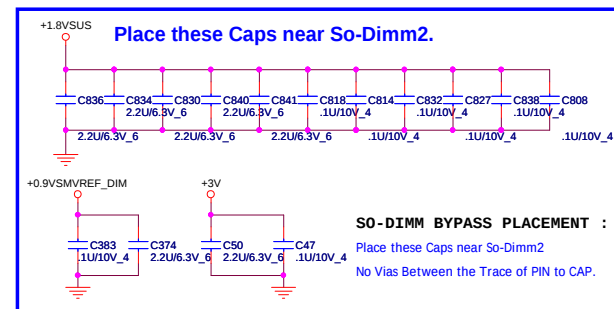
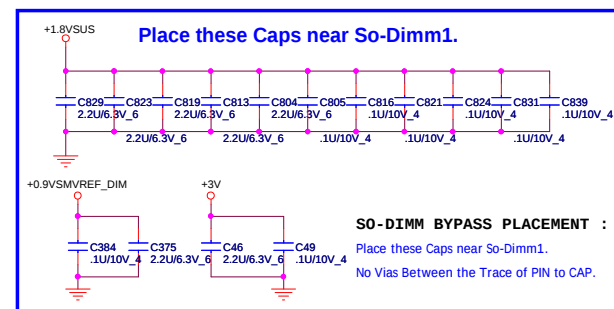
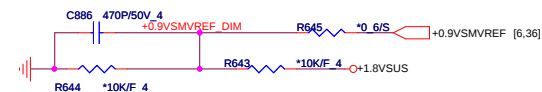
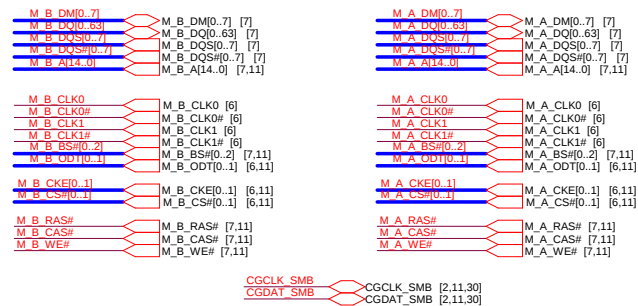
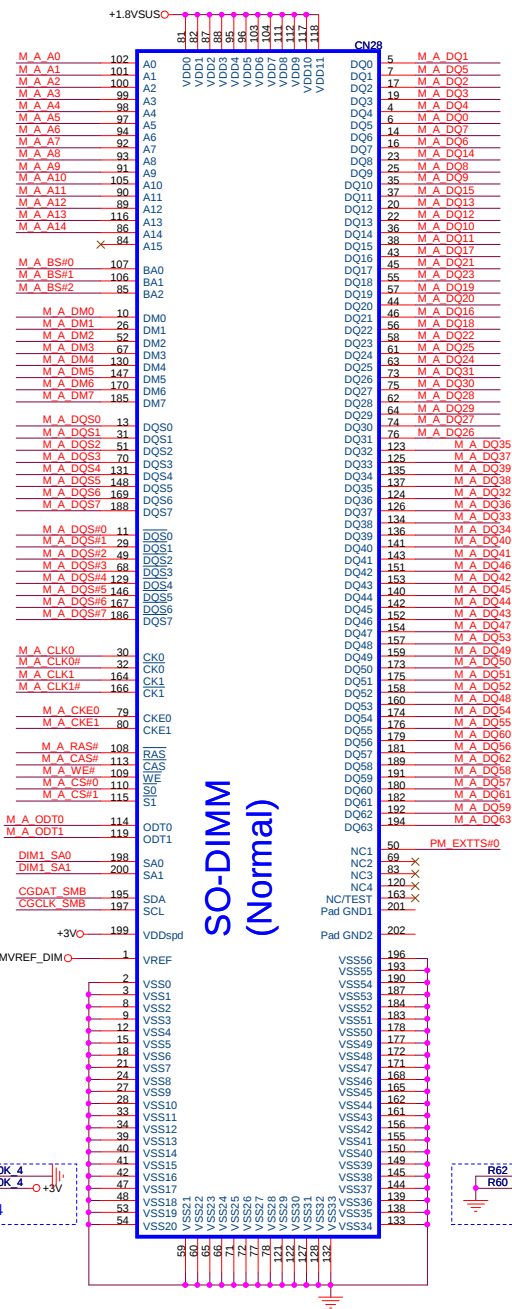
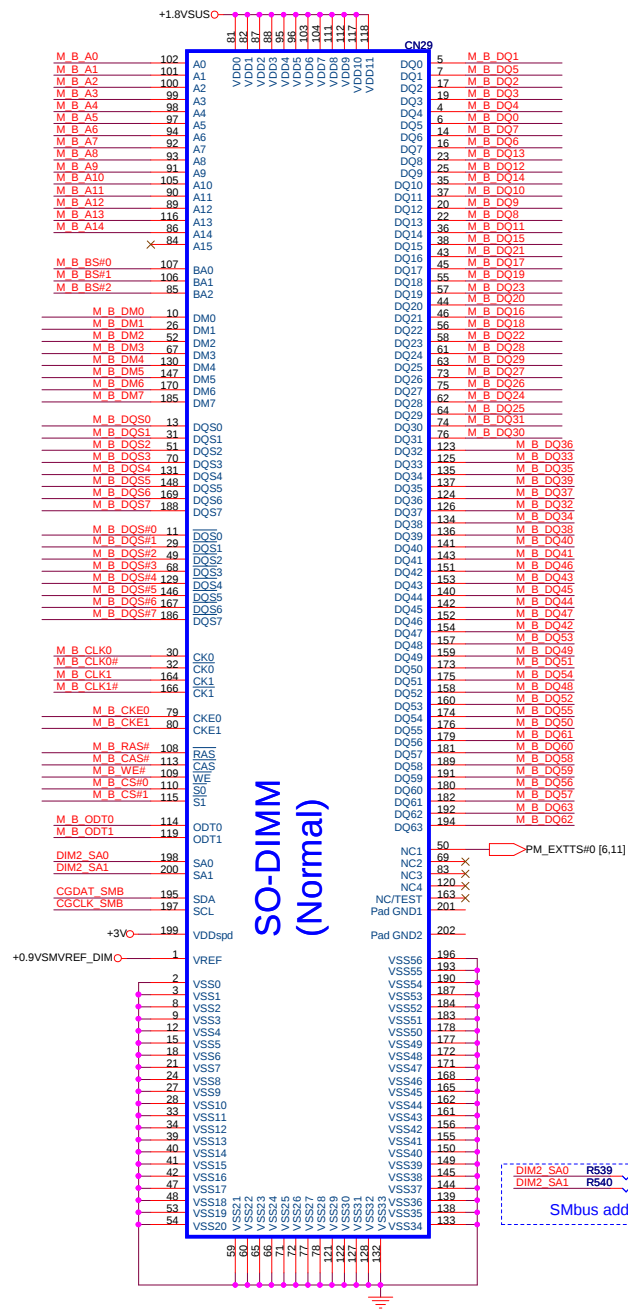
Size	Document Number	Rev
Custom	Penryn & TH Monitor 2/2	SI
Date: Tuesday, January 20, 2009	Sheet 4 of 37	



Size Custom	Document Number Cantiga DMI/DISP 2/5	
Date: Tuesday, January 20, 2009	Sheet 6 of 37	

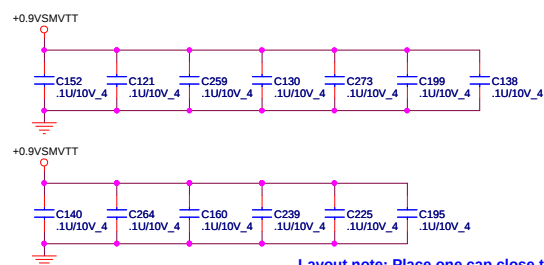






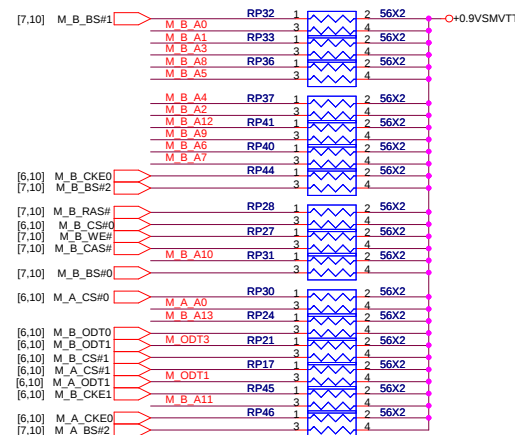
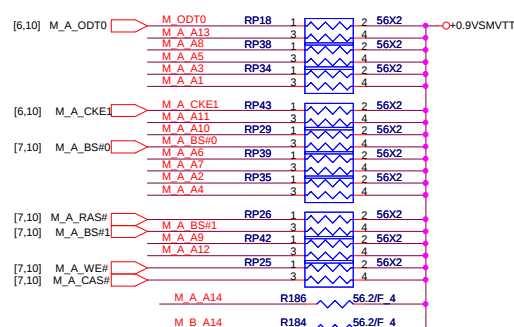
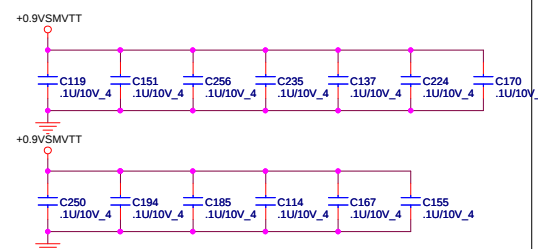
DDRII DUAL CHANNEL A, B.

DDRII A CHANNEL

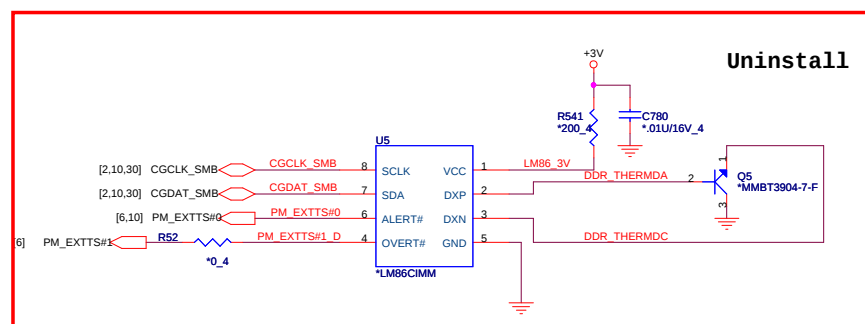


Layout note: Place one cap close to every 2 pullup resistors terminated to SMDDR_VTERM

DDRII B CHANNEL



M_B_A[14..0] M_B_A[14..0] [7..10]
M_A_A[14..0] M_A_A[14..0] [7..10]

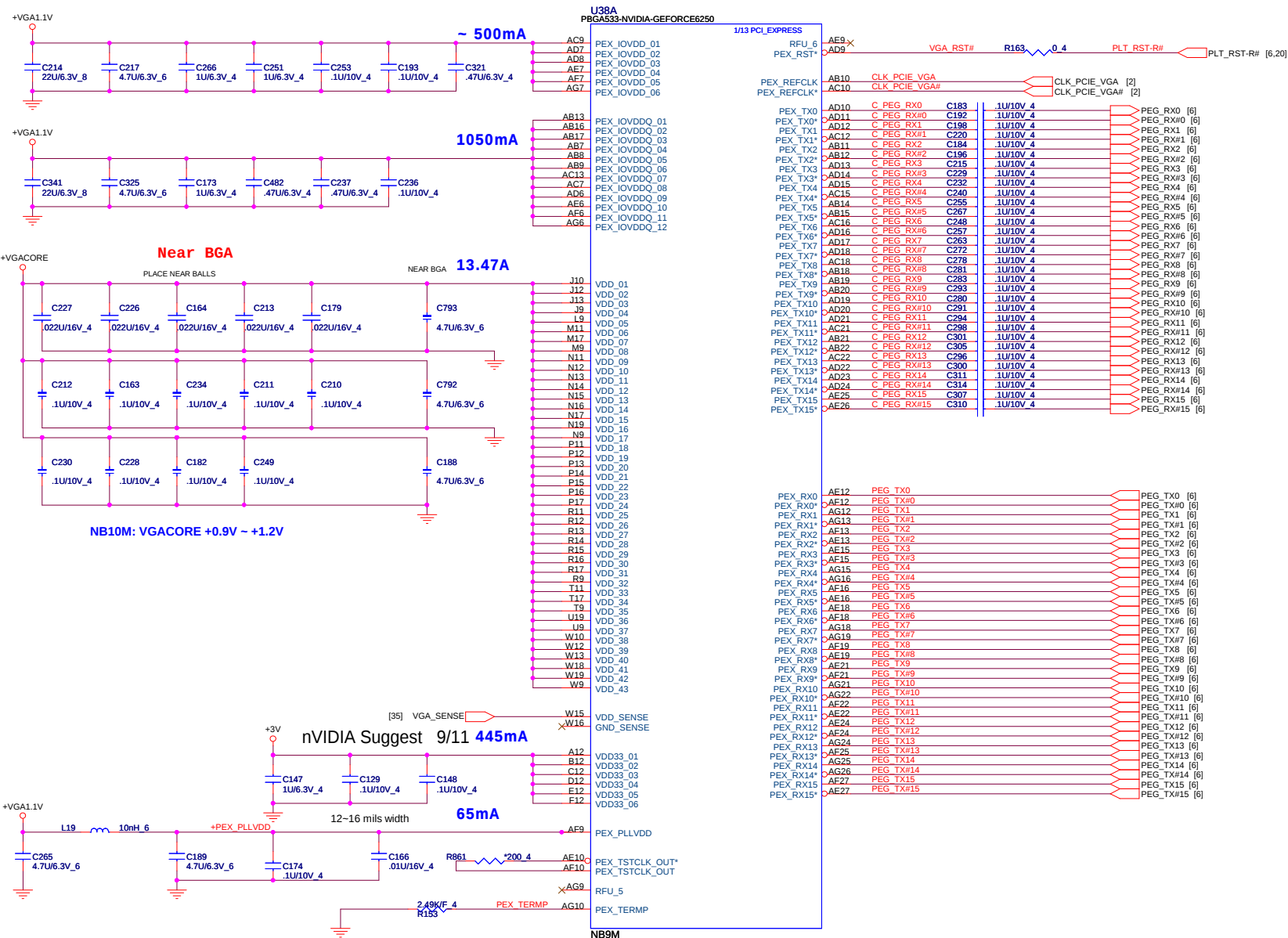


+0.9VSMVTT [36]
+3V [2,4,6,9,10,12,14,15,17,18,19,20,21,22,24,25,26,27,28,29,30,33,34,37]

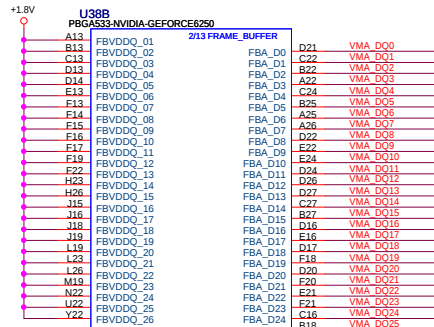


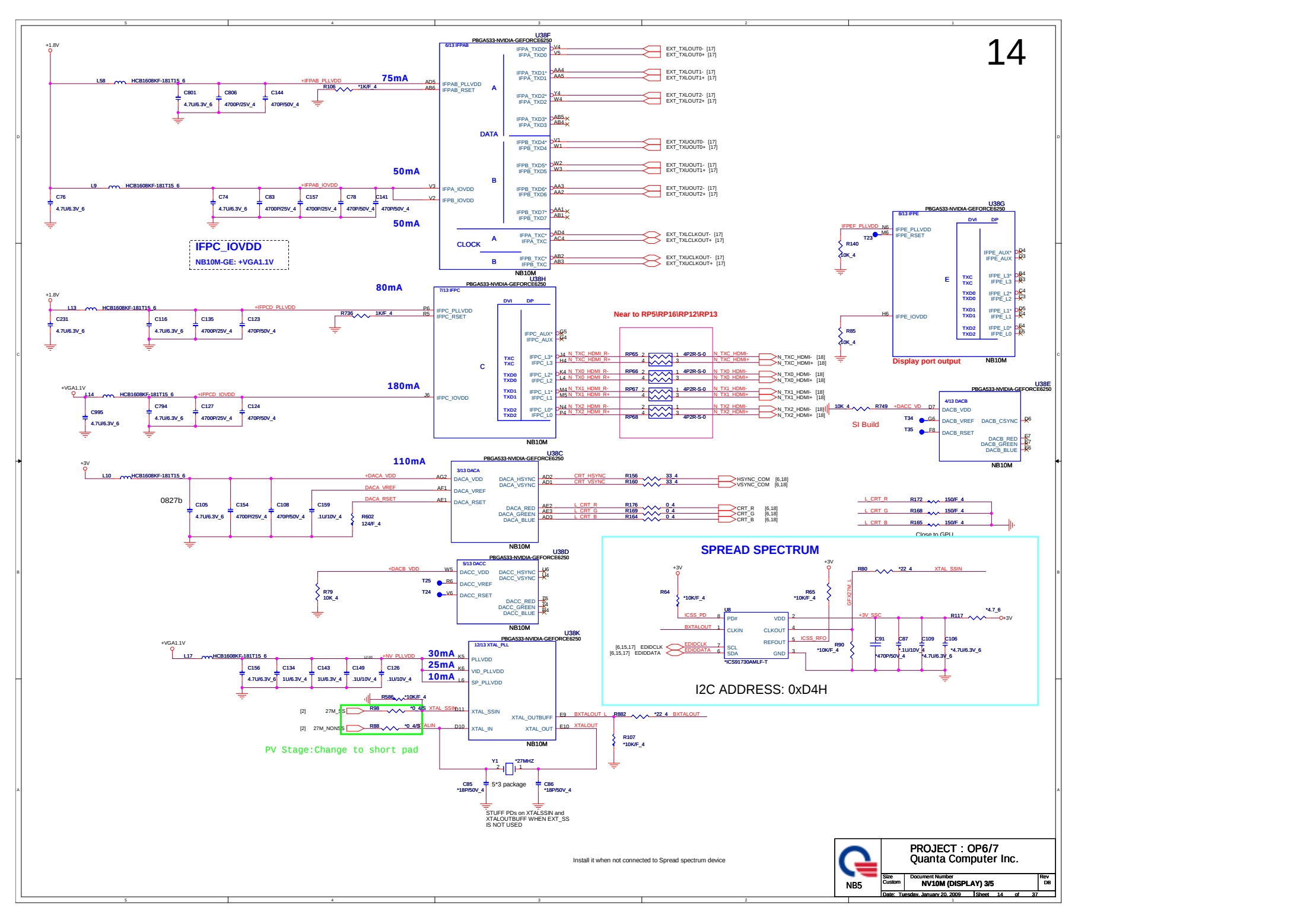
PROJECT OP6/7
Quanta Computer Inc.

Size	Document Number	Rev
Custom	DDR2 termination	SI
Date: Tuesday, January 20, 2009	Sheet 11 of 37	



1.75A



[illegible]

14

75mA

50mA

80mA

180mA

110mA

30mA

25mA

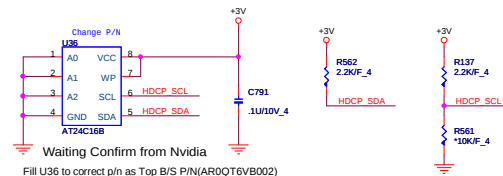
10mA

SPREAD SPECTRUM

I2C ADDRESS: 0xD4H

PROJECT : OP6/7
Quanta Computer Inc.

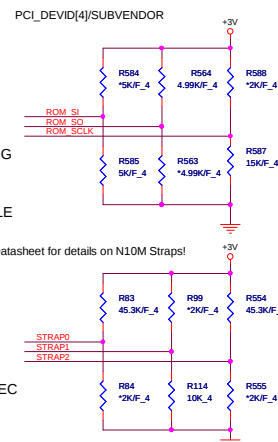
Date: Tuesday, January 20, 2009 Sheet 14 of 37



DHCP ROM	
HDCP_SCL	Low: Crypto ROM Hi: I2C ROM



GPIO	I/O	ACTIVE	USAGE
0	IN	N/A	PRIMARY DVI HOTPLUG
1	IN	N/A	SECONDARY DVI HOTPLUG
2	OUT	HIGH	PANEL BACKLIGHT PWM
3	OUT	HIGH	PANEL POWER ENABLE
4	OUT	HIGH	PANEL BACKLIGHT ENABLE
5	OUT	N/A	NVDD0 VID0
6	OUT	N/A	NVDD0 VID1
7	OUT	N/A	FBVDD0 VID0
8	IN	LOW	THERMAL ALERT
9	OUT	LOW	FAN PWM
10	OUT	N/A	FBVREF SELECT
11	OUT	N/A	SLI SYNC0
12	IN	N/A	AC DETECT
13	OUT	LOW	PS CONTROL OR HDMI_CEC
14	OUT	HIGH	PS CONTROL



RAM ID: ROM SI R585

64M*16	HYN	0000	PD	5K
	SAM	0001	PD	10K
	QIM	0010	PD	15K

PCI DEVID: STRAP2 R554

NB10M-GE2 0x6EF 8 1111 PU 45K

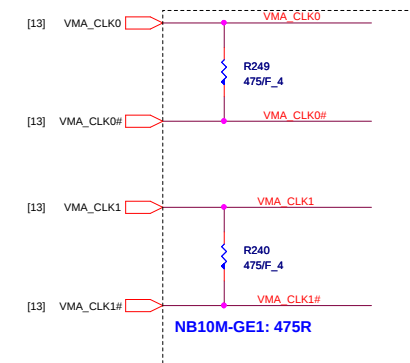
	Logical	Logical Strapping Bit2	Logical Strapping Bit1	Logical Strapping Bit0
ROM_SO	XCLK_277	TMVODE[2]	TMVODE[1]	TMVODE[0]
ROM_SCLK	PCI_DEVIDE[4]	SUB_VENDOR	SLOT_CLK_CFG	PEX_PLL_CN_TERM100
ROM_S1	RAMCFG[3]	RAMCFG[2]	RAMCFG[1]	RAMCFG[0]
STRAP1	PCI_DEVID[3]	PCI_DEVID[2]	PCI_DEVID[1]	PCI_DEVID[0]
STRAP2	3GIO_PADCFG[3]	3GIO_PADCFG[2]	3GIO_PADCFG[1]	3GIO_PADCFG[0]
STRAP0	USER[3]	USER[2]	USER[1]	USER[0]

NB10M VRAM Configuration Table

RAM_CFG[3:0]	DESCRIPTION	Vendor
0000	DDR2 64Mx16x4, 64bit, 512MB	Hynix H5PS1G63EFR-20L
0001	DDR2 64Mx16x4, 64bit, 512MB	K4N1G1640Q-HC20
0010	DDR2 64Mx16x4, 64bit, 512MB	HYB18T1G161C2F-20

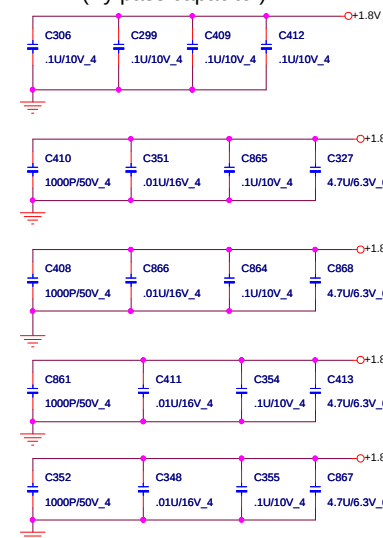
Logical Strap Bit Mapping

	PU-VDD	PD
5K	1000	0000
10K	1001	0001
15K	1010	0010
20K	1011	0011
25K	1100	0100
30K	1101	0101
35K	1110	0110
45K	1111	0111



CS14752FB11 RES CHIP 475 1/16W +-1%(0402)

(By pass capacitor)

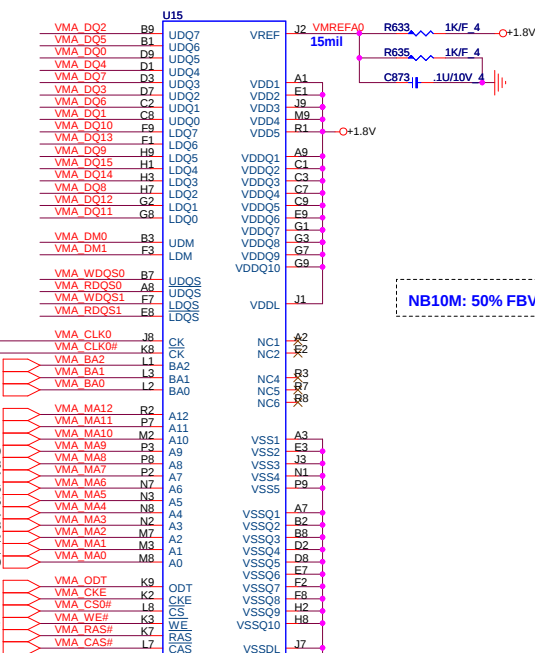


- [13] VMA_DQ[63..0]
- [13] VMA_DM[7..0]
- [13] VMA_WDQS[7..0]
- [13] VMA_RDQS[7..0]
- 256Mb : AKD5JGAT*05
- 512Mb : AKD59G-T*01



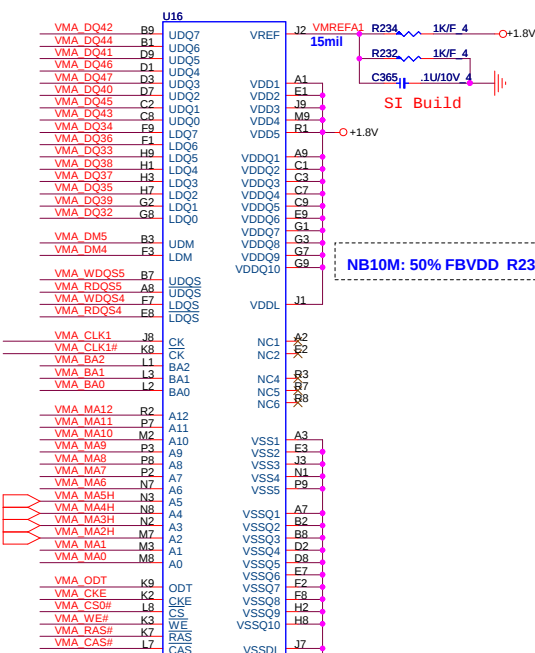
PROJECT : OP6/7
Quanta Computer Inc.

Size	Document Number	Rev
Custom	NV10M VRAM-1(GDDR2 BGA84)	SI
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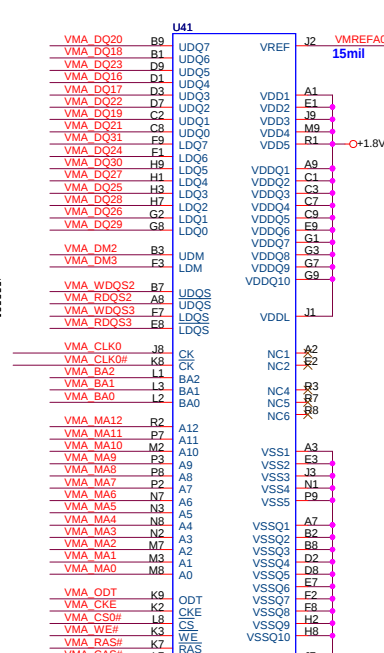
Hynix HY5PS1G1631CFR-25 64Mx16

Samsung K4N1G164QQ-HC25 64Mx16



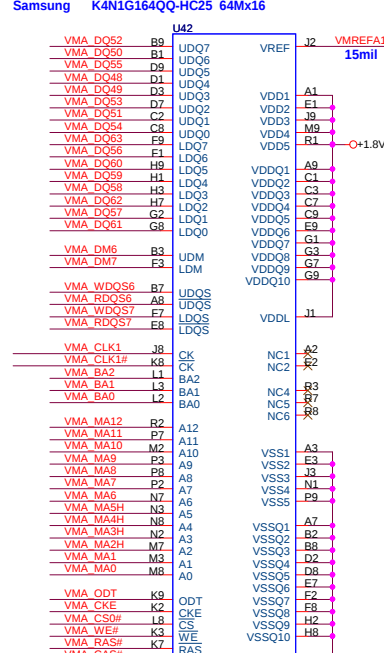
Hynix HY5PS1G1631CFR-25 64Mx16

Samsung K4N1G164QQ-HC25 64Mx16



Hynix HY5PS1G1631CFR-25 64Mx16

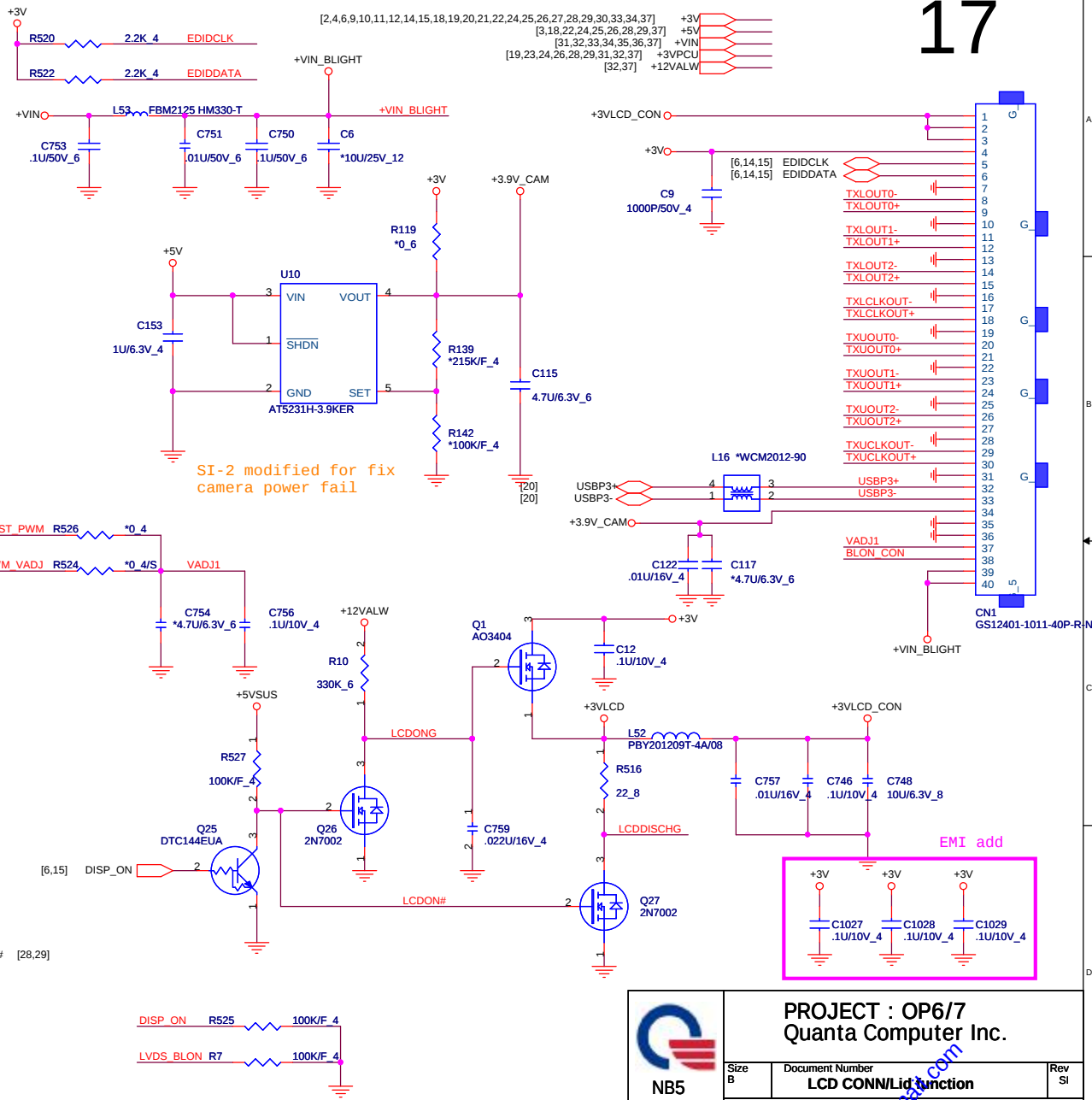
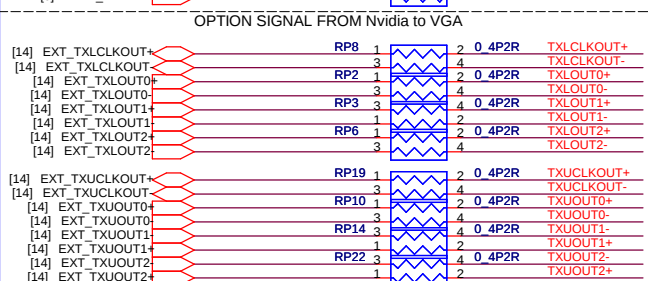
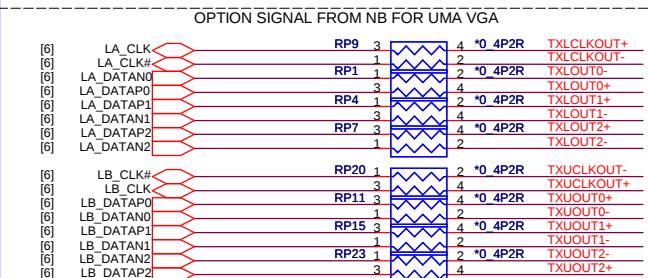
Samsung K4N1G164QQ-HC25 64Mx16



Hynix HY5PS1G1631CFR-25 64Mx16

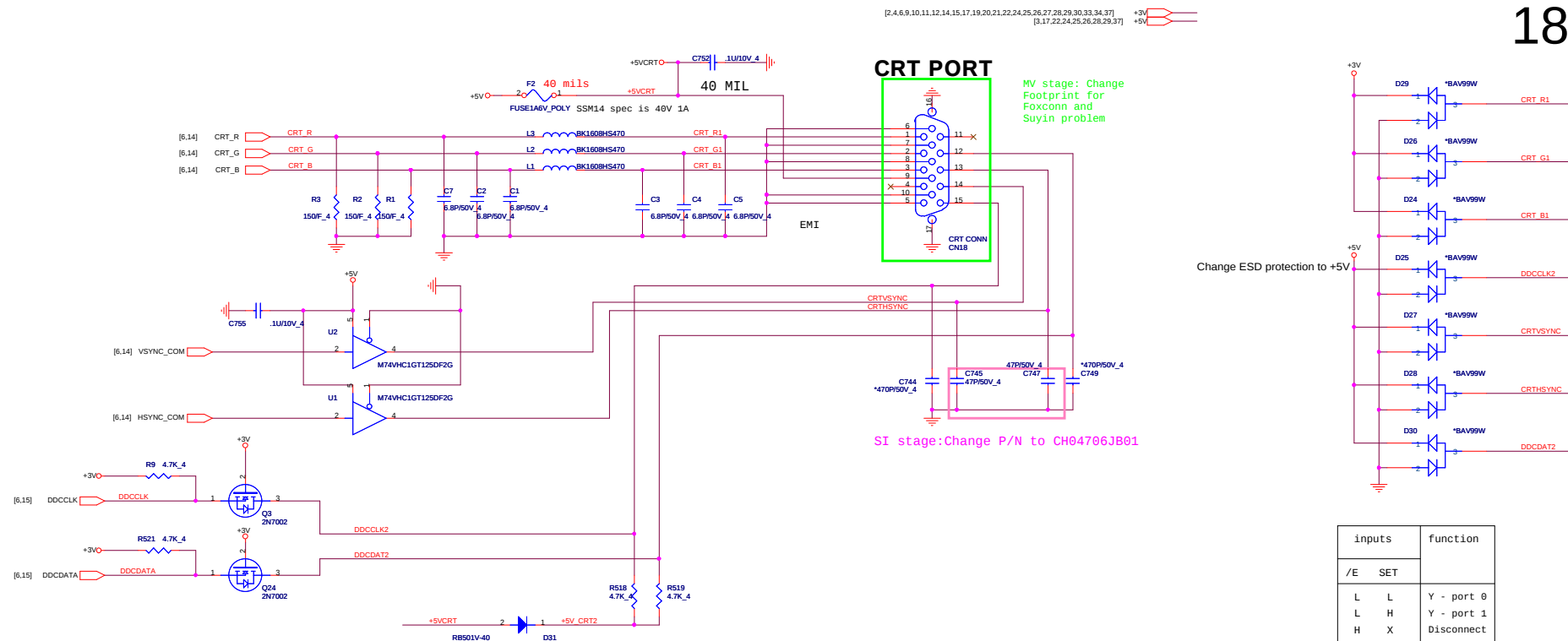
Samsung K4N1G164QQ-HC25 64Mx16

1. If LCD connector near GPU, then place these series Resistors near GPU
2. If LCD connector near N/B, then place these series Resistors near N/B

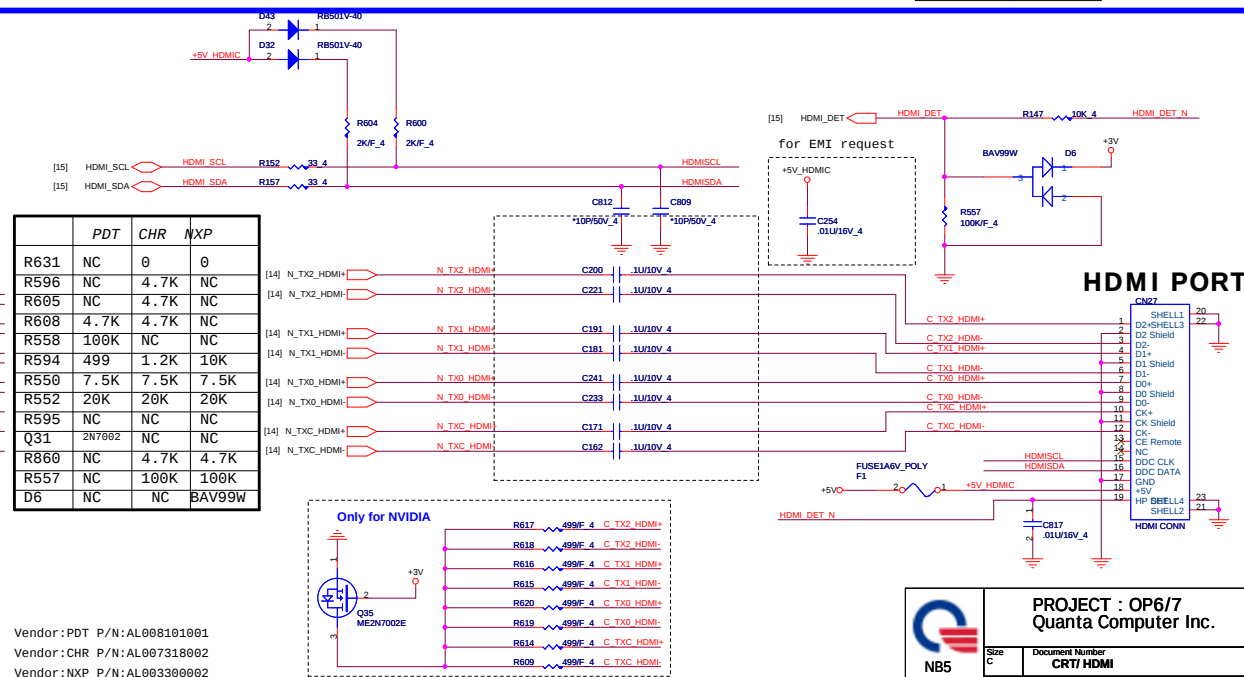
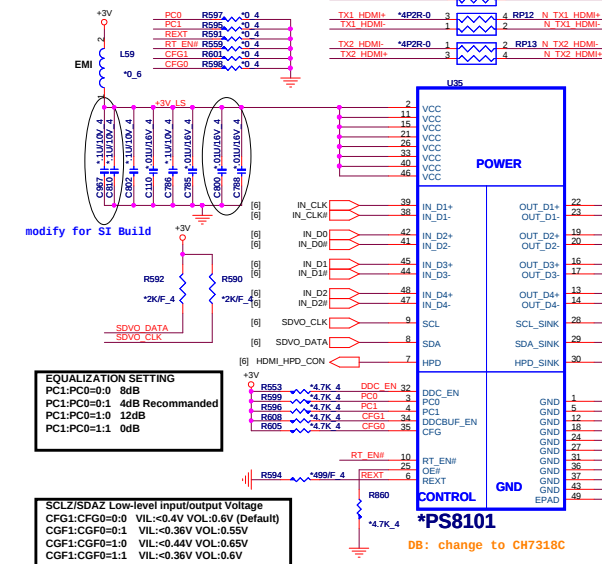


17

 NB5	PROJECT : OP6/7 Quanta Computer Inc.		
	Size B	Document Number LCD CONN/Lid function	Rev SI
	Date: Tuesday, January 20, 2009 Sheet 17 of 37		

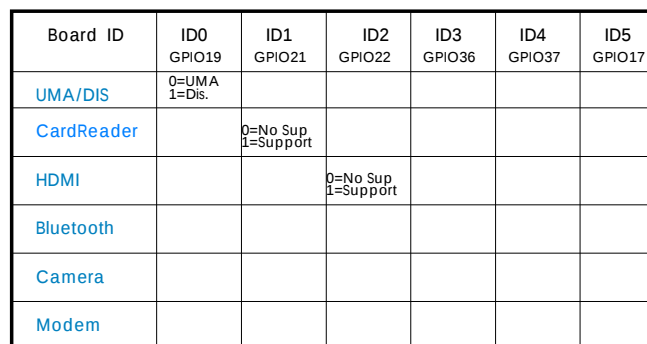
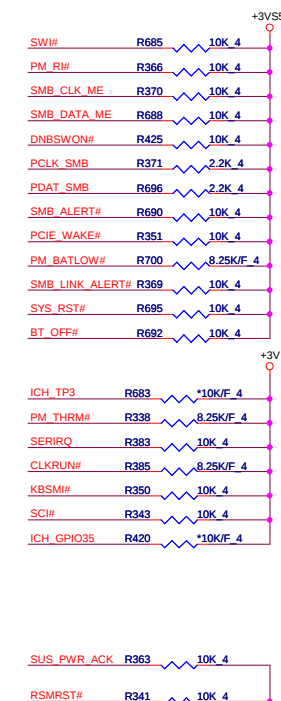


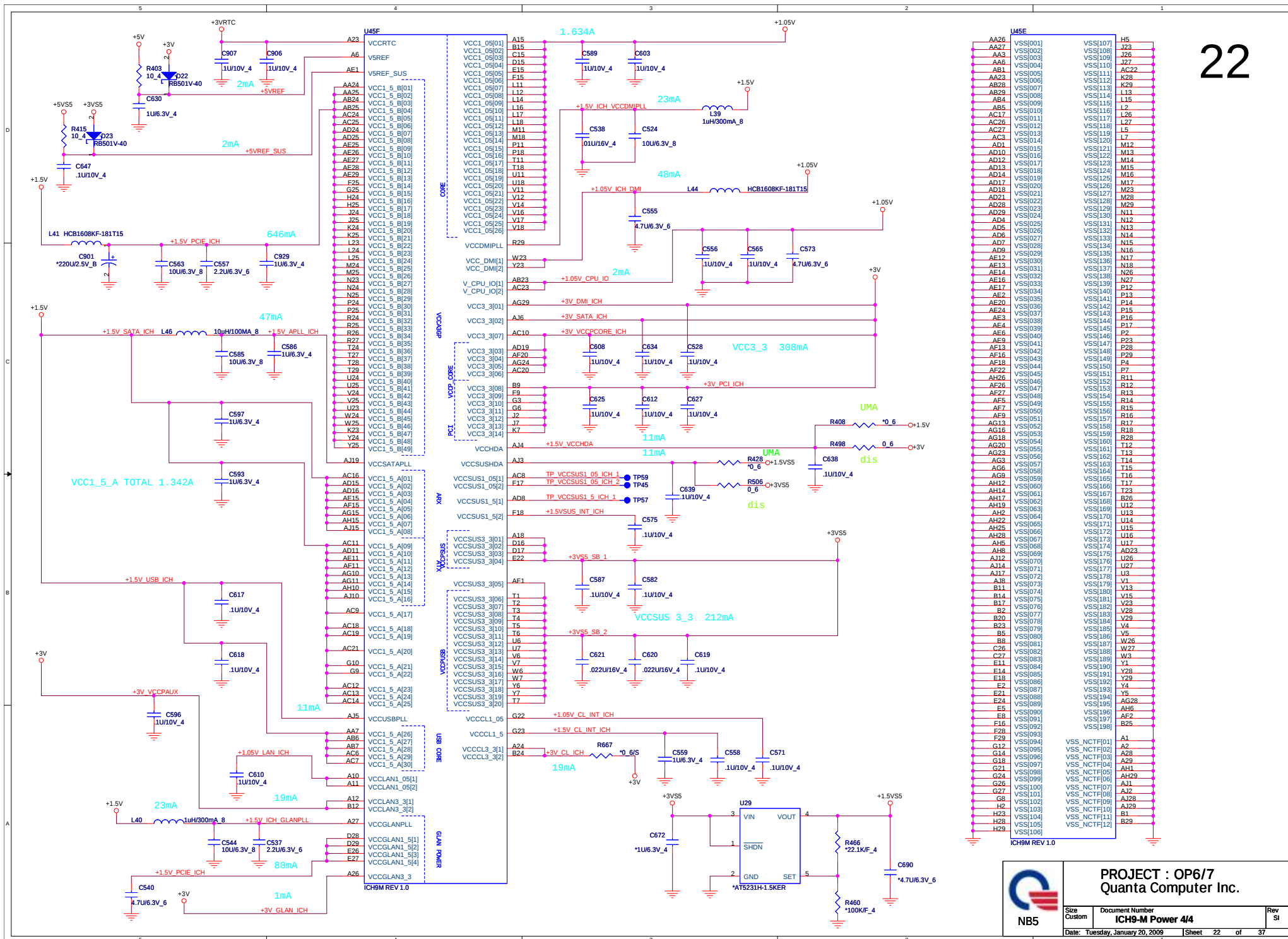
For UMA HDMI function

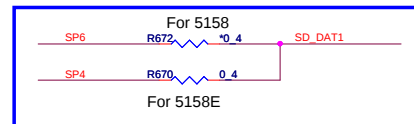




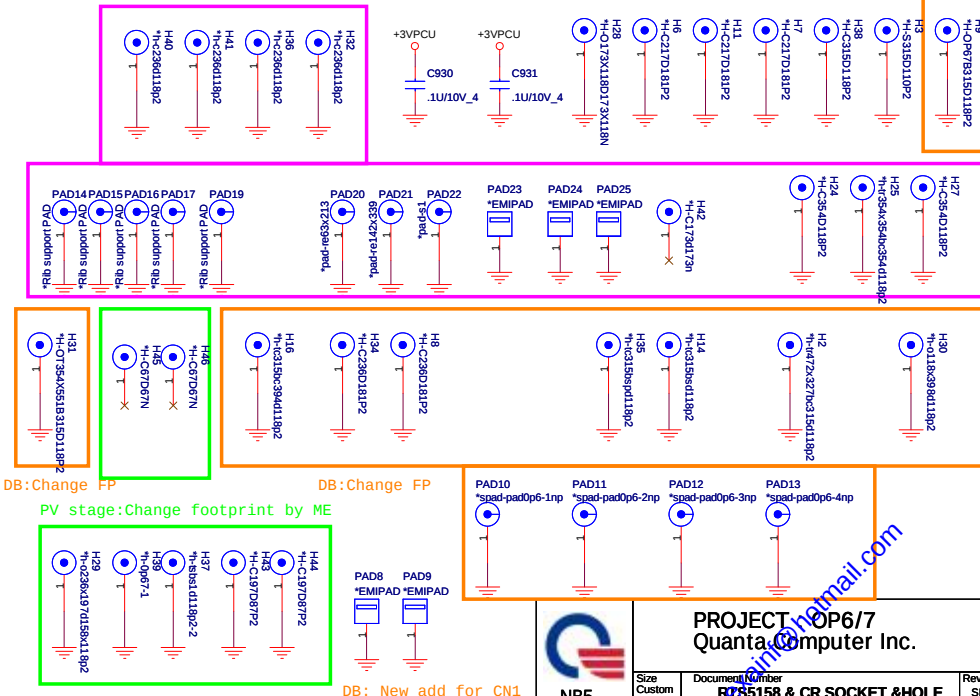


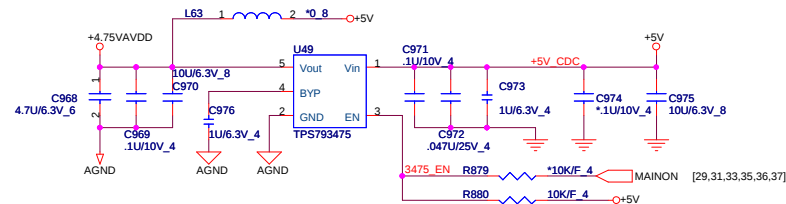
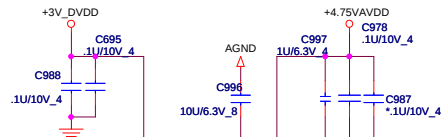
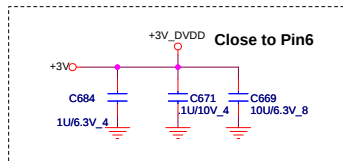




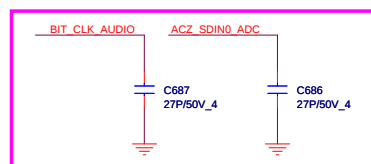


	SD/MMC	MS	XD
SP0			
SP1			XD_CD#
SP2	SD_WP		
SP3	SD_CD#		
SP4	SD_DAT1	XD D4	
SP5		MS_B5	XD D5
SP6		MS_D1	XD D3
SP7	SD_DAT0	MS_D0	XD D2
SP8	SD_DAT7	MS_D2	XD D2
SP9		MS_INS#	
SP10	SD_DAT6	MS_D3	XD D7
SP11	SD_CLK	MS_SCLK	XD D1
SP12	SD_DAT5	XD D0	
SP13	SD_DAT4	XD_WP#	
SP14		XD_R/B#	
SP15	SD_DAT3	XD_WE#	
SP16	SD_DAT2	XD_RE#	
SP17		XD_ALE	
SP18		XD_CE#	
SP19		XD_CLE	

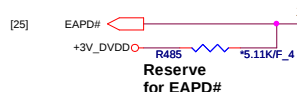




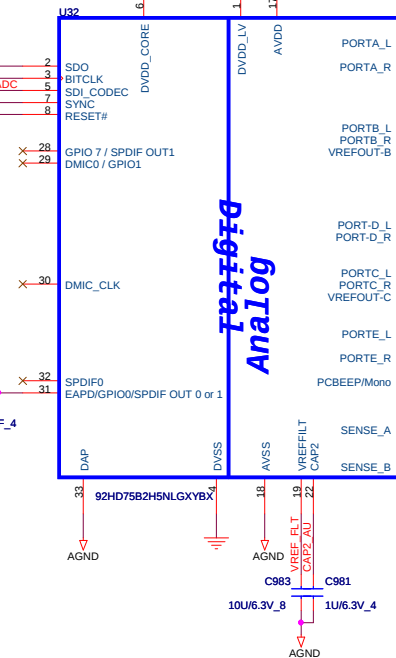
[19] ACZ_SDOUT_AUDIO
[19] BIT_CLK_AUDIO
[19] ACZ_SDIN0
[19] ACZ_SYNC_AUDIO
[19] ACZ_RST#_AUDIO



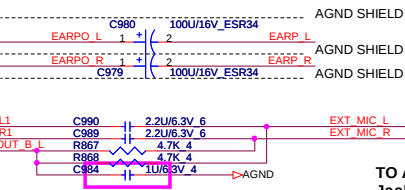
Stuff for EMI



Reserve
for EAPD#



analog



Change to CH5101K9B01

TO Internal

Speakers

Change to CH5101K9B01

SA_A# -->EXT Ear

Phone

SA_B# -->EXT MIC

Stuff CX8HS601002

INT MIC_R

INT MIC_R2

TO Internal

Mic

EMI add

EMI add

EMI add

EMI add

EMI add

EMI add

EMI add

EMI add

EMI add

EMI add

EMI add

EMI add

EMI add

EMI add

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EMI add

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EMI add

EMI add

EMI add

EMI add

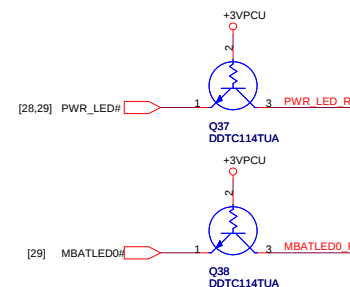
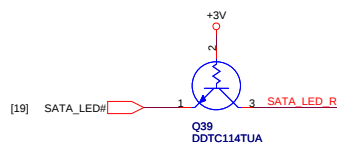
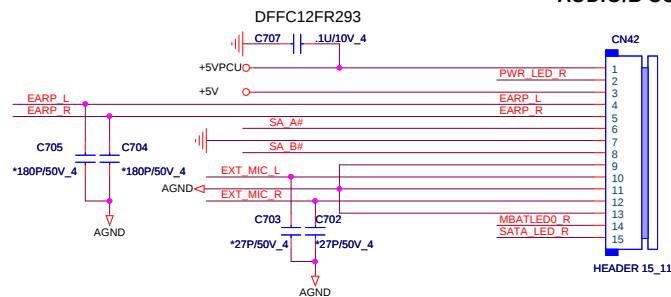
EMI add

EMI add

EMI add

EMI add

AUDIO/B CON.



PROJECT : OP6/7
Quanta Computer Inc.

Size Custom	Document Number Azalia IDT92HD75B3	Rev SI
Date: Tuesday, January 20, 2009	Sheet 24 of 37	

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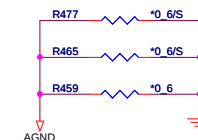
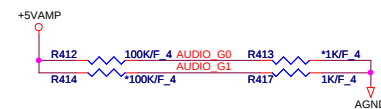
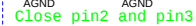
Change R468,R469 from 20K to 0 ohm as HP request



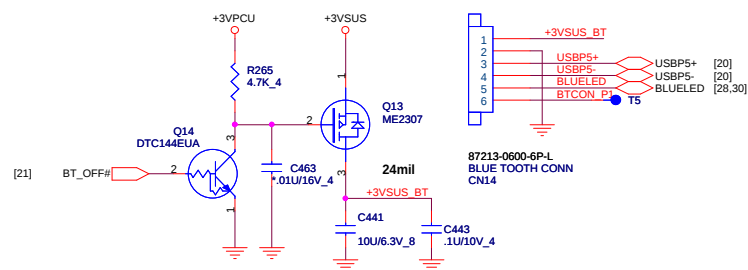
QT6 speaker - - 3.2ohm / 2W

INT. SPEAKER

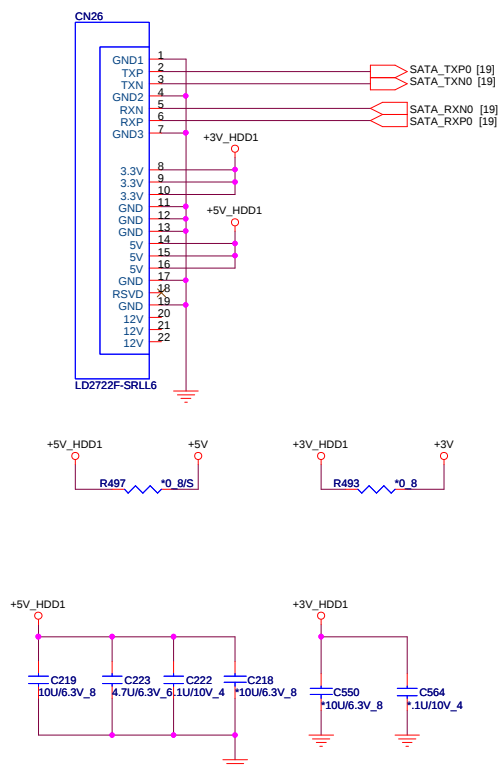
GAIN0	GAIN1	AV	RIN
0	0	6dB	90K
0	1	10dB	70K
1	0	15.6dB	45K
1	1	21.6dB	25K



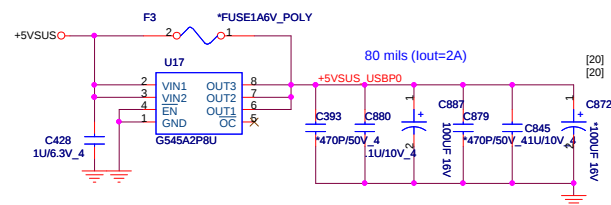
BLUETOOTH



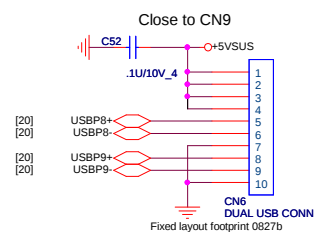
SATA 1 CONNECTOR



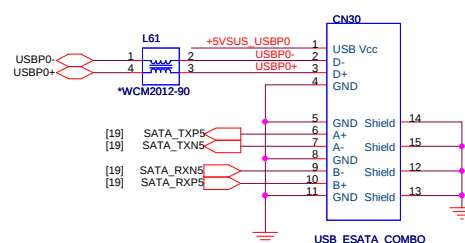
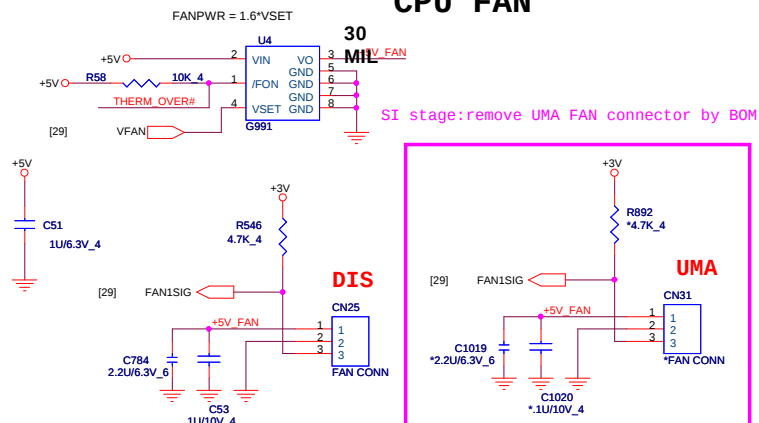
LEFT SIDE USBX1 and E-SATA/USB COMBO



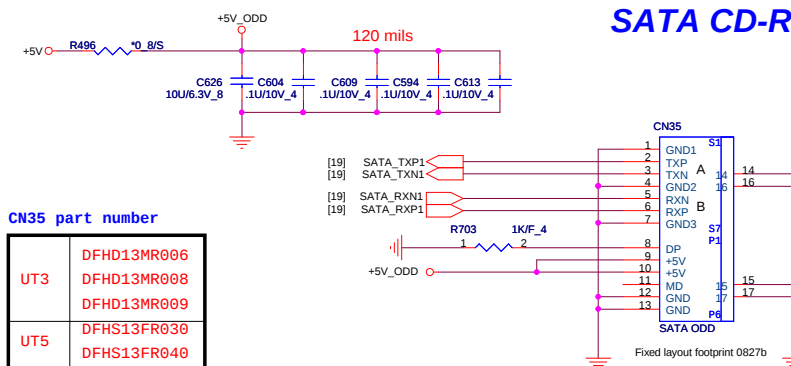
RIGHT SIDE USBX2



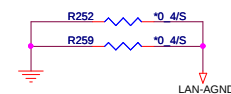
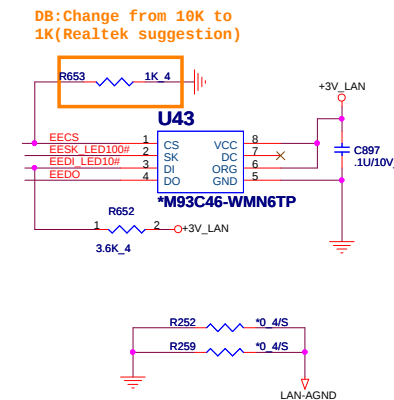
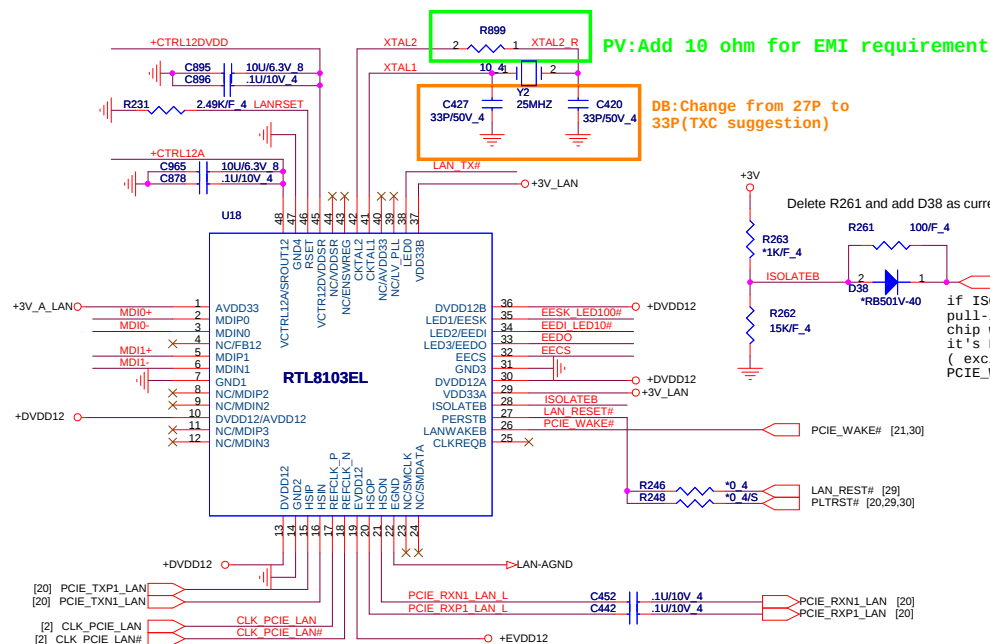
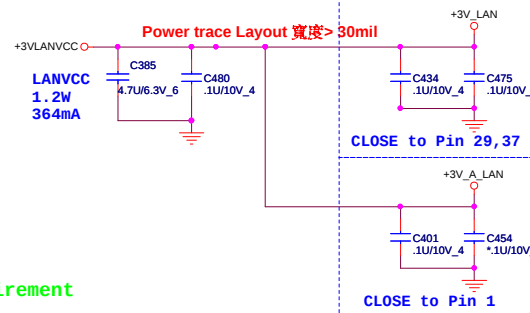
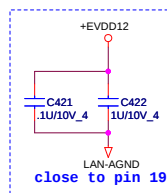
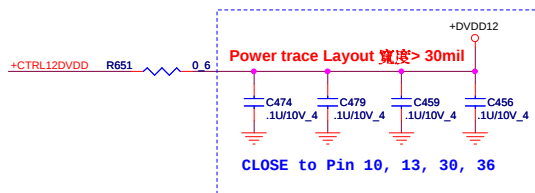
USB & ESATA

**CPU FAN**

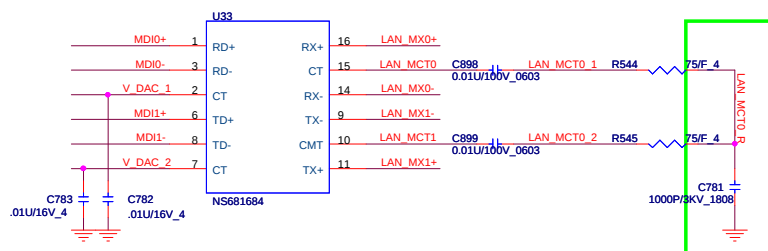
SATA CD-ROM



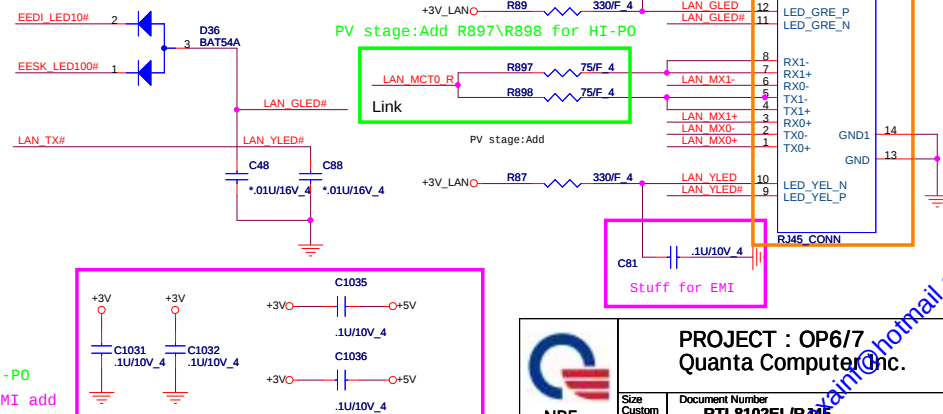
CN35 part number	
UT3	DFHD13MR006
	DFHD13MR008
	DFHD13MR009
UT5	DFHS13FR030
	DFHS13FR040



LAN_Transformer



PV stage:Add LAN_MCT0_R net name for HI-P0

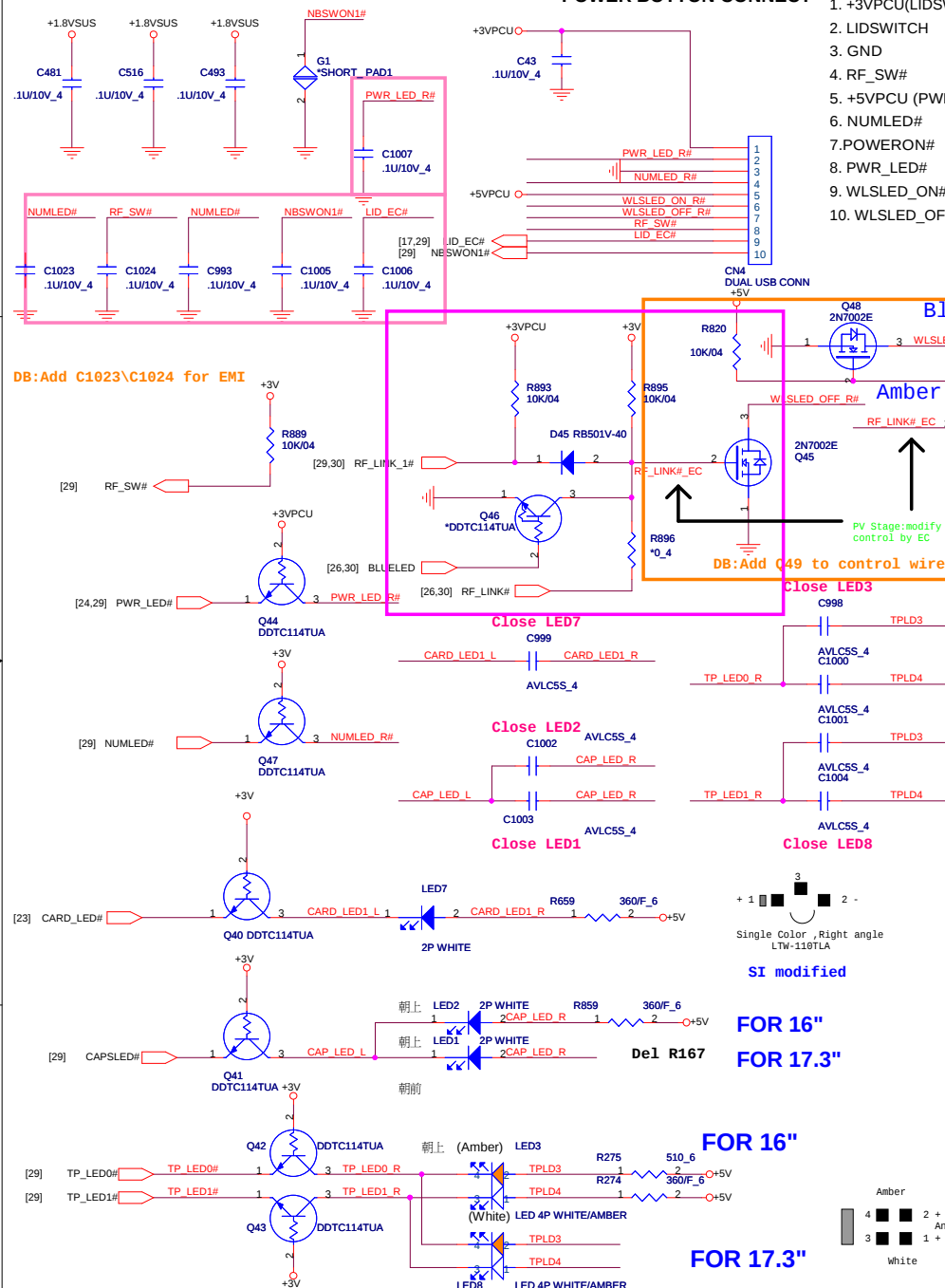


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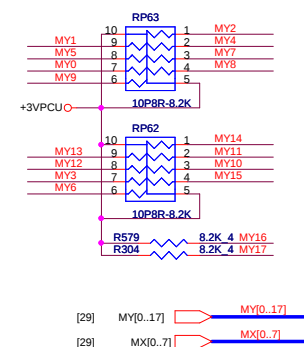
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	RTL8102EL/RJ45	
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POWER BUTTON CONNECT

- 1.+3VPCU(LIDSWITCH PWR)
2. LIDSWITCH
3. GND
4. RF_SW#
- 5.+5VPCU (PWRLED PWR)
6. NUMLED#
- 7.POWERON#
8. PWR_LED#
9. WLSLED_ON#
10. WLSLED_OFF#



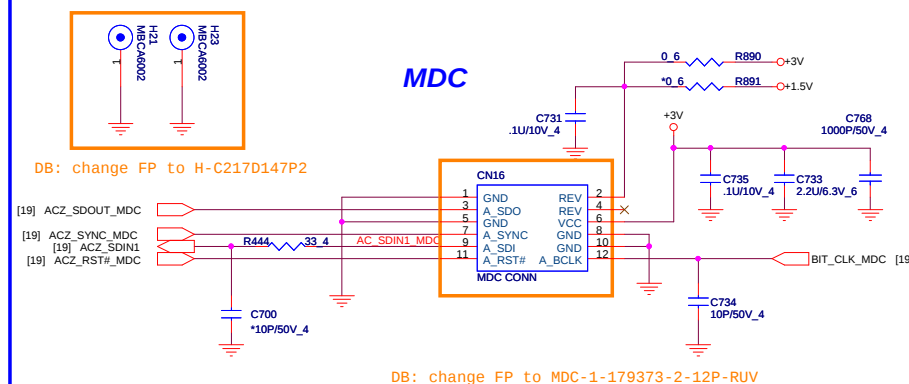
KEYBOARD PULL-UP



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

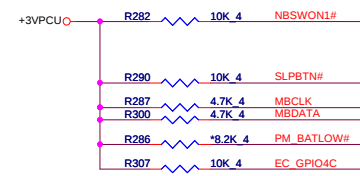
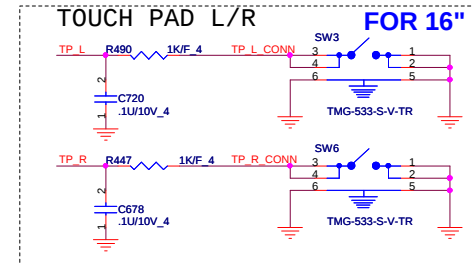
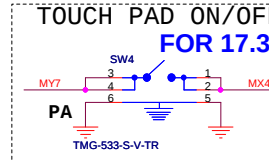
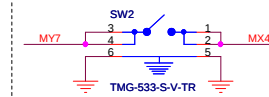
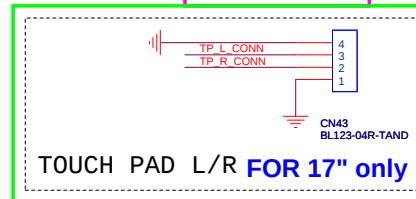
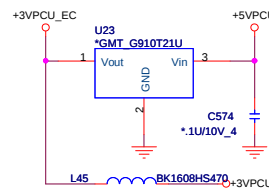
R430 Change to 100k ohm ,pull low

MDC

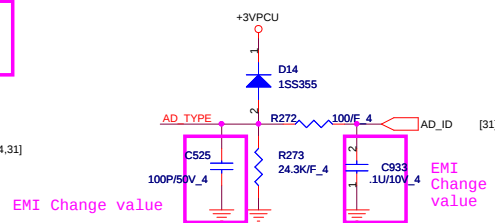
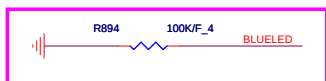
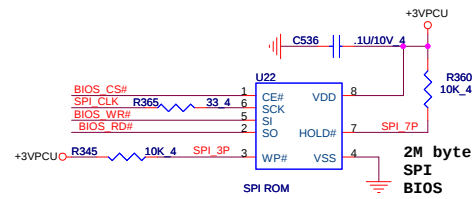


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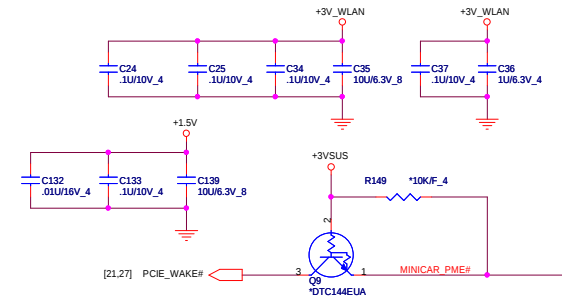
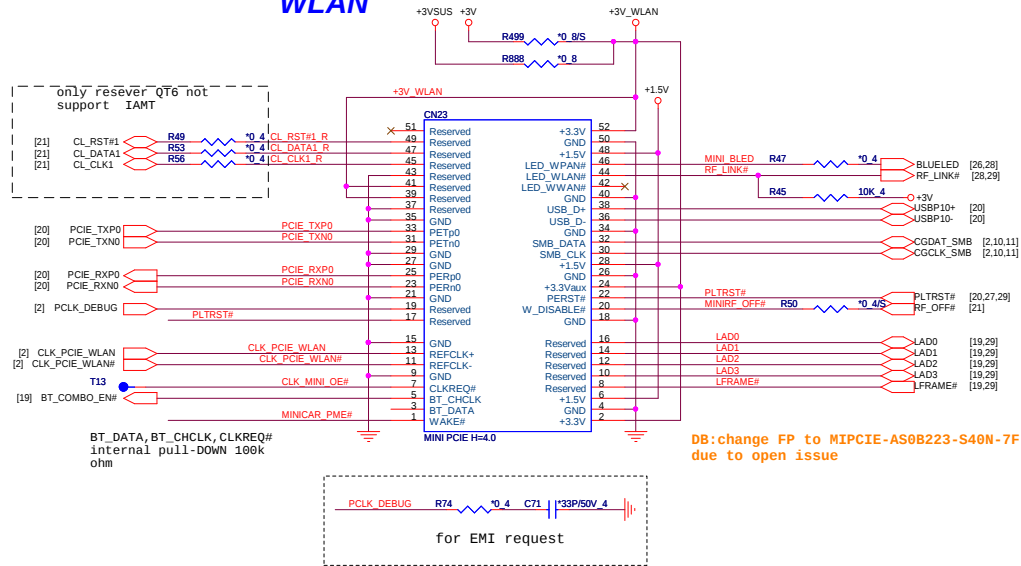
Size	Document Number	Rev
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ID	R851	R852
OP7	10K	N/A
OP6	N/A	10K



Mini PCI-E Card 1
WLAN +3VSUS +3V



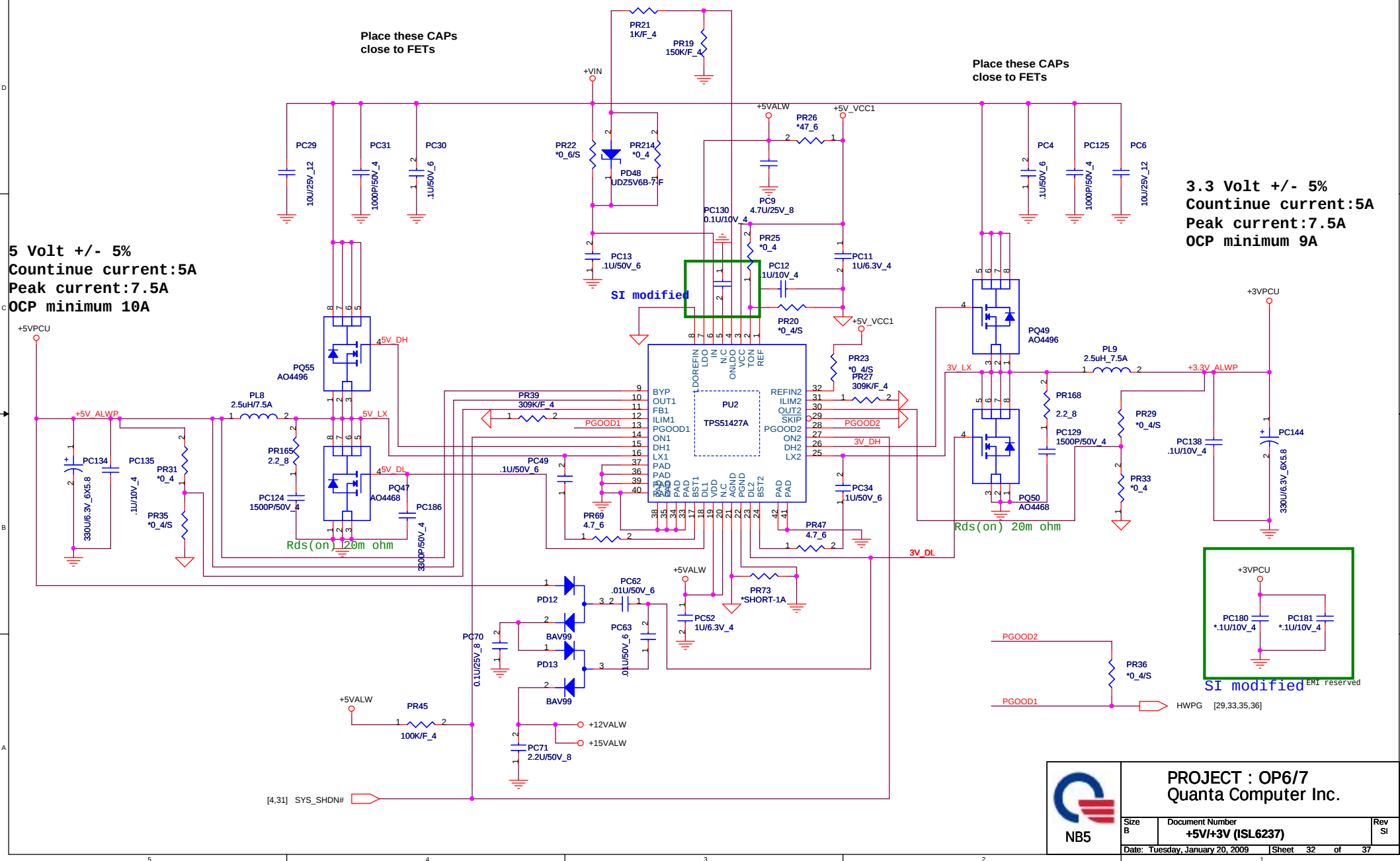
DC/DC +3V_ALW/+5V_ALW/+5V_ALW2 /+12V_ALW

**Place these CAPs
close to FETs**

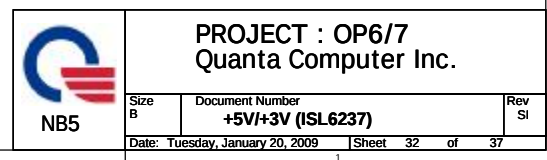
**Place these CAPs
close to FETs**

5 Volt +/- 5%
Continue current:5A
Peak current:7.5A
OCV minimum 10A

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

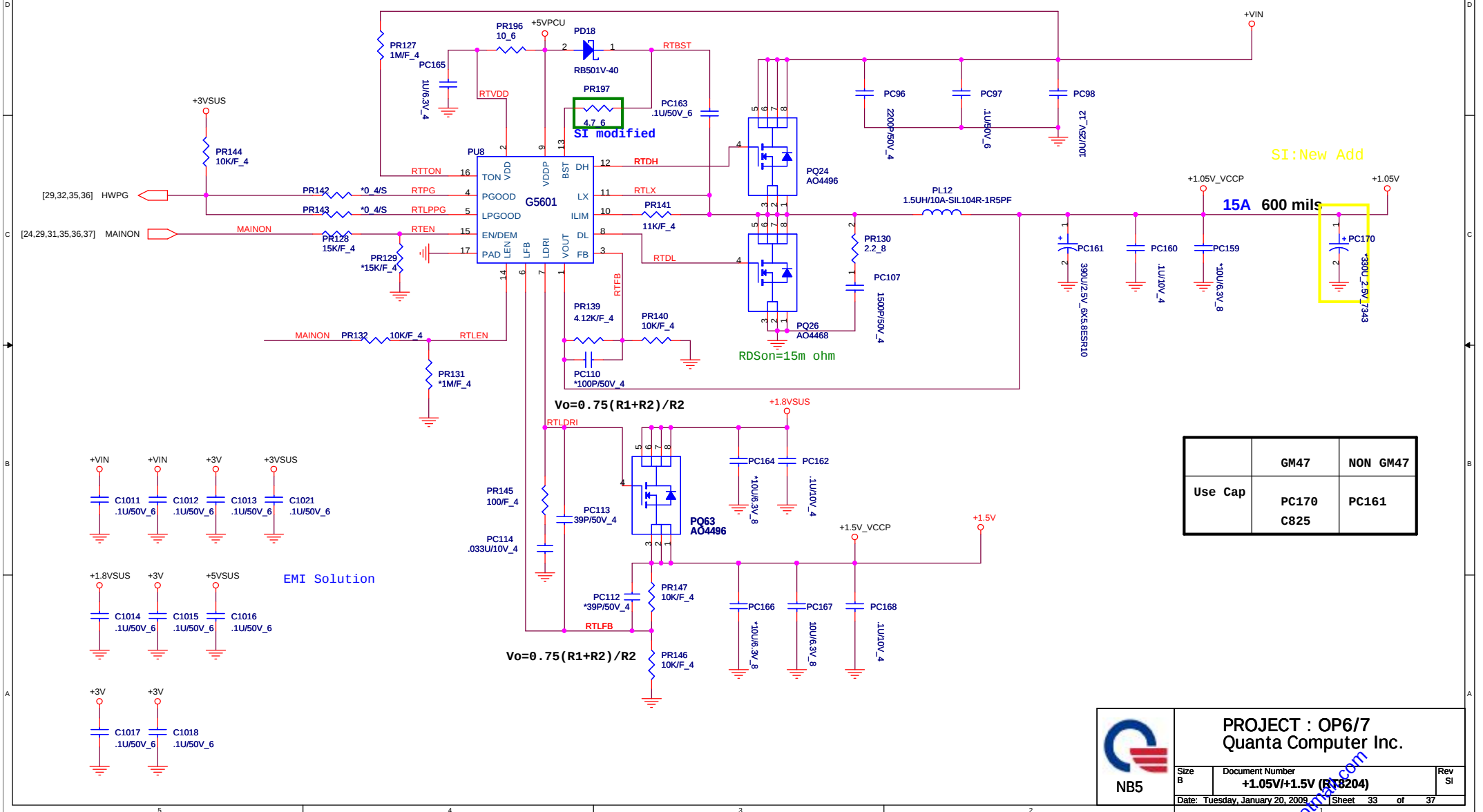


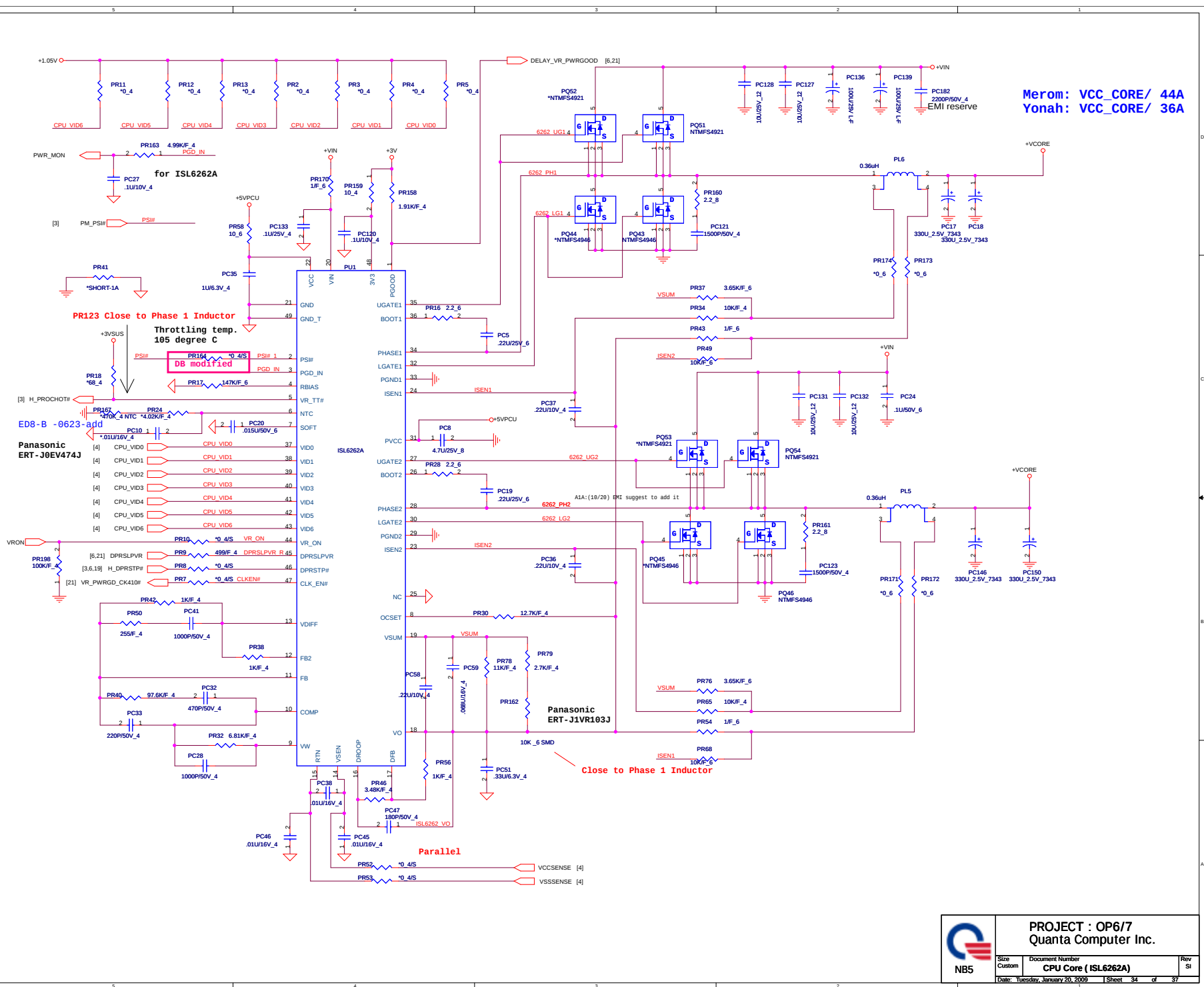
SI modified EMI reserved



VCCP1.05V & +1.5V

+1.05Volt +/- 5%
 Countinue current:7.5A
 Peak current:10A
 OCP minimum 15A



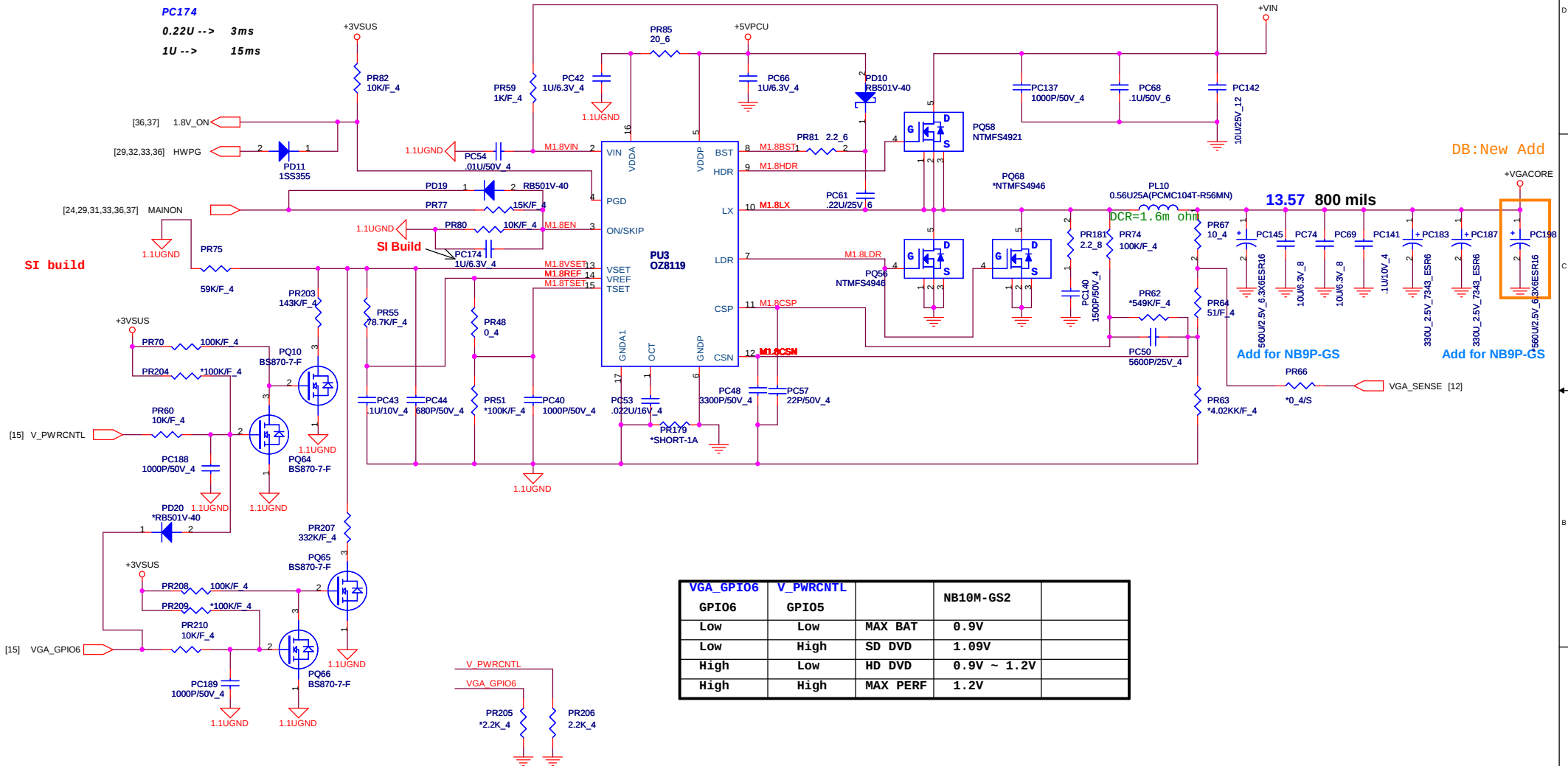


VGA Core & VCC1.1

+1.1V_{olt} +/- 5%
 Countinue current:17.54A
 Peak current:22.8A
 OCP minimum 23A

PC174

0.22U --> 3ms
 1U --> 15ms

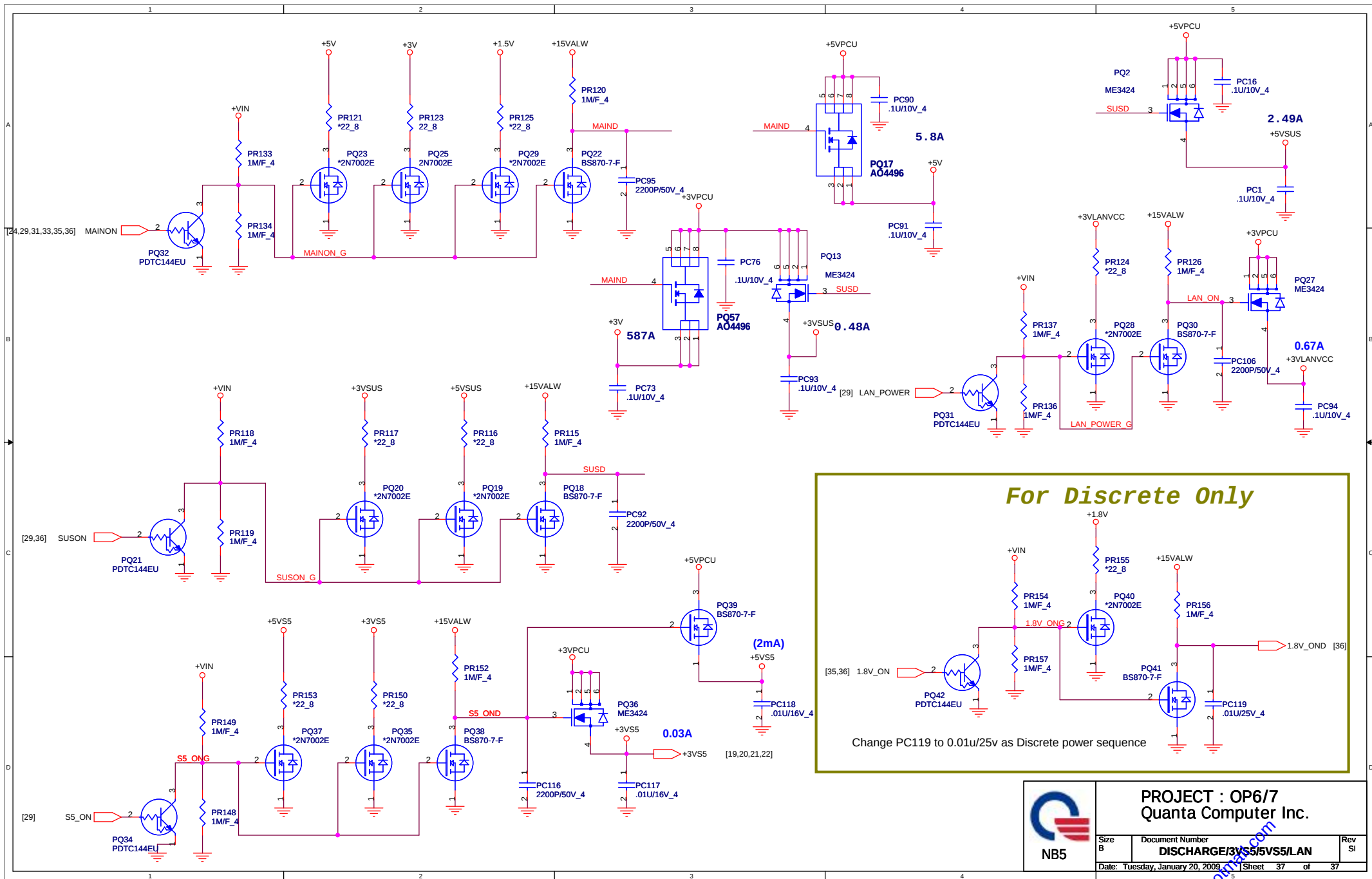


VGA_GPI06	V_PWRCNTL		NB10M-GS2	
Low	Low	MAX BAT	0.9V	
Low	High	SD DVD	1.09V	
High	Low	HD DVD	0.9V ~ 1.2V	
High	High	MAX PERF	1.2V	



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Size
B

Document Number
DISCHARGE/3VS5/5VS5/LAN

Rev
SI

hexair@hottmail.com