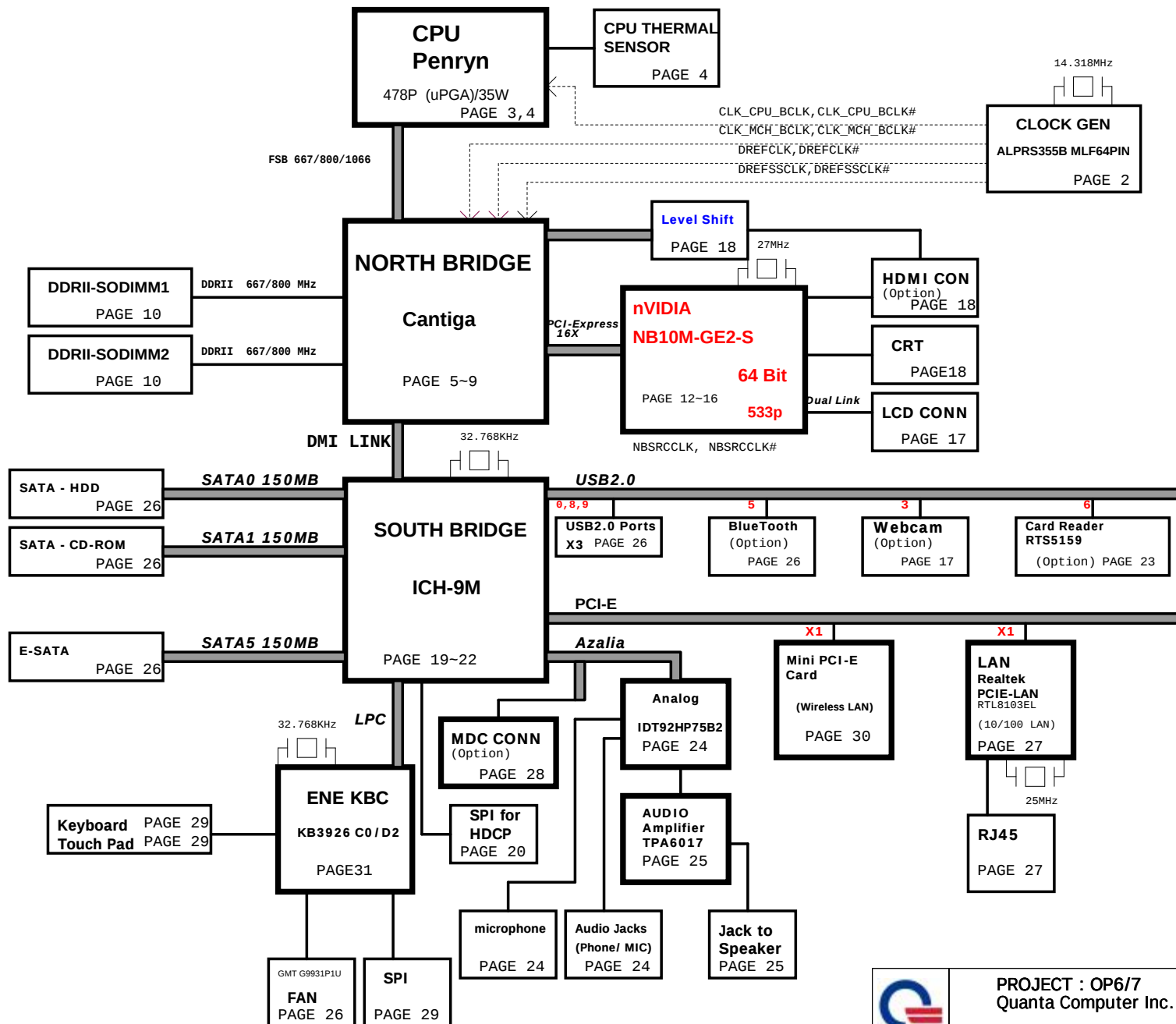


Tango/Ballet BLOCK DIAGRAM

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

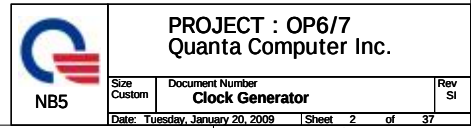
VCCP +1.5V AND GMCH
1.05V(RT8204)
PAGE 33

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

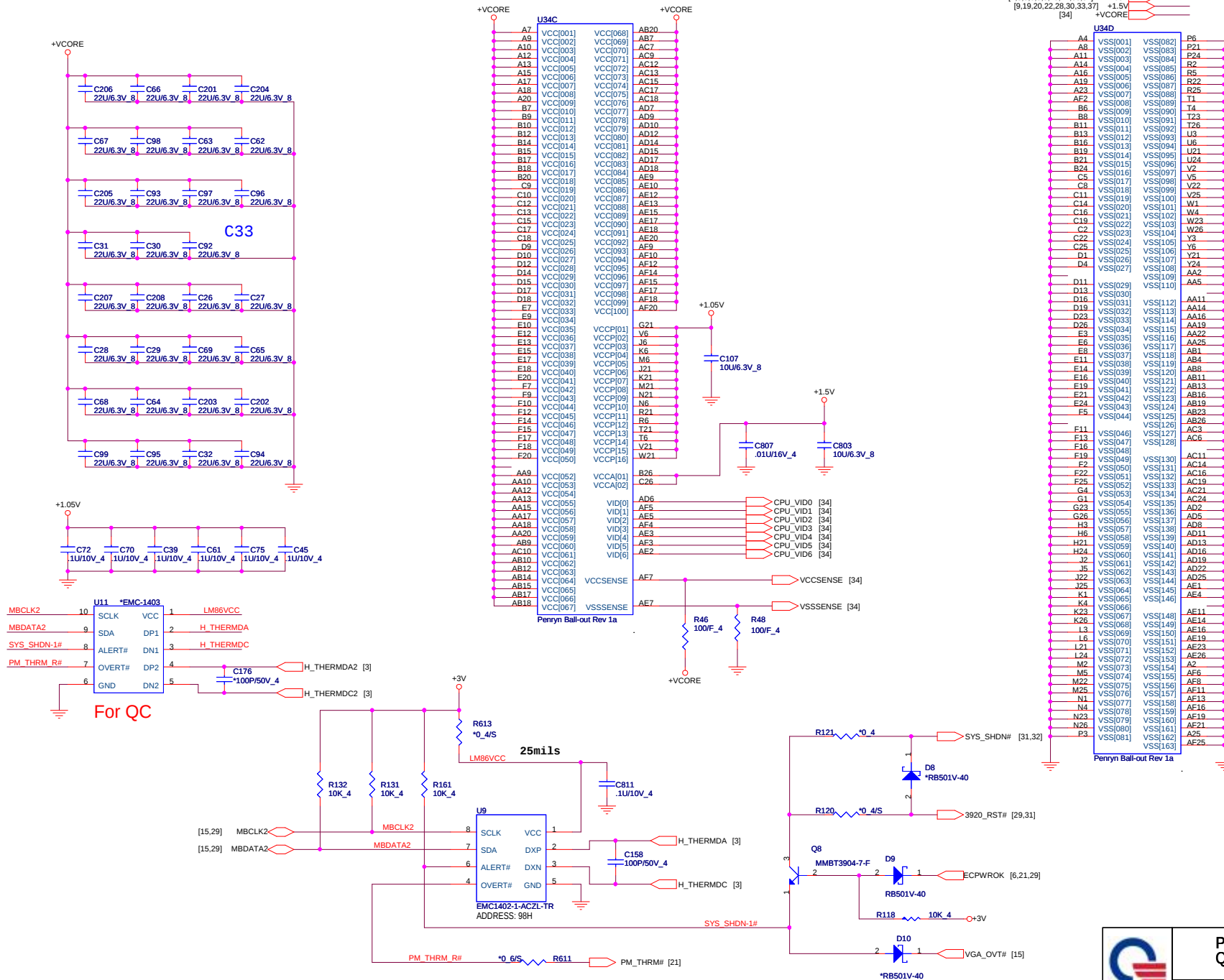
Change to +5V



PROJECT : OP6/7
Quanta Computer Inc.

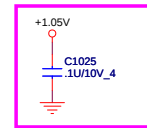
Size Custom	Document Number Penryn 1/2
Date: Tuesday, January 20, 2009	Sheet 3 of 37

[2,6,9,10,11,12,14,15,17,18,19,20,21,22,24,25,26,27,28,29,30,33,34,37] +3V
[2,3,5,6,8,9,19,22,33,34] +1.05V
[9,19,20,22,28,30,33,37] +1.5V
[34] +VCORE

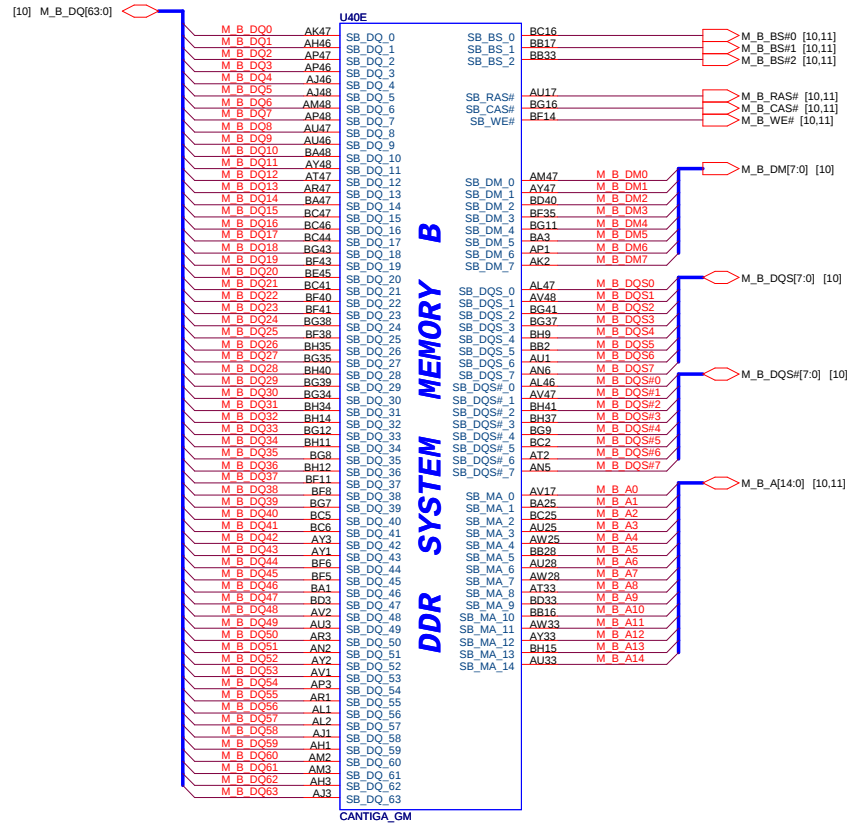
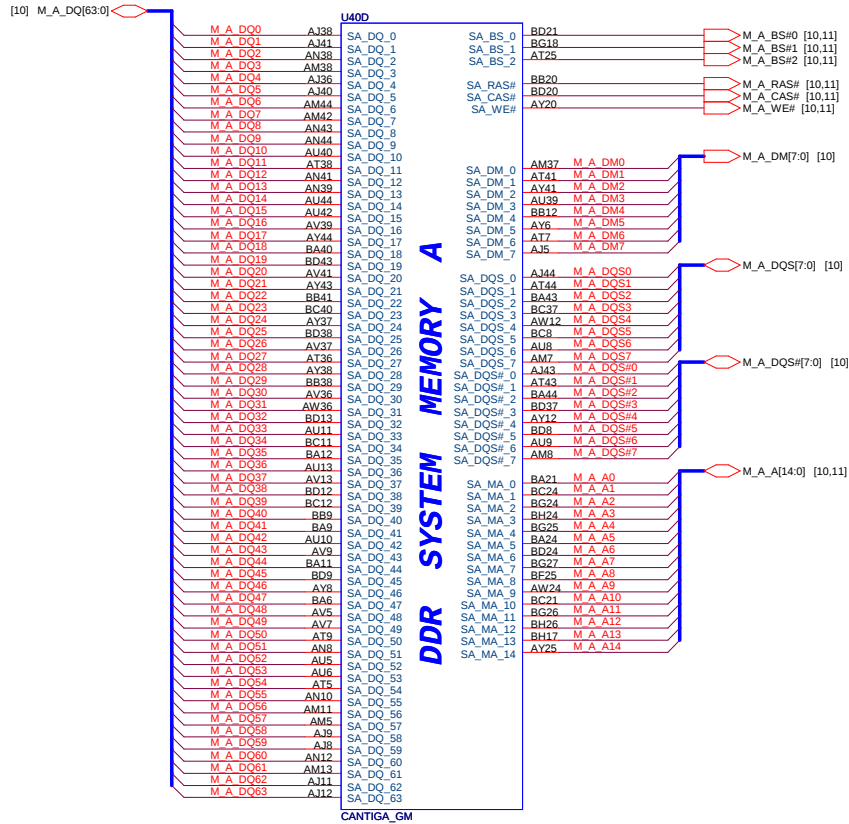


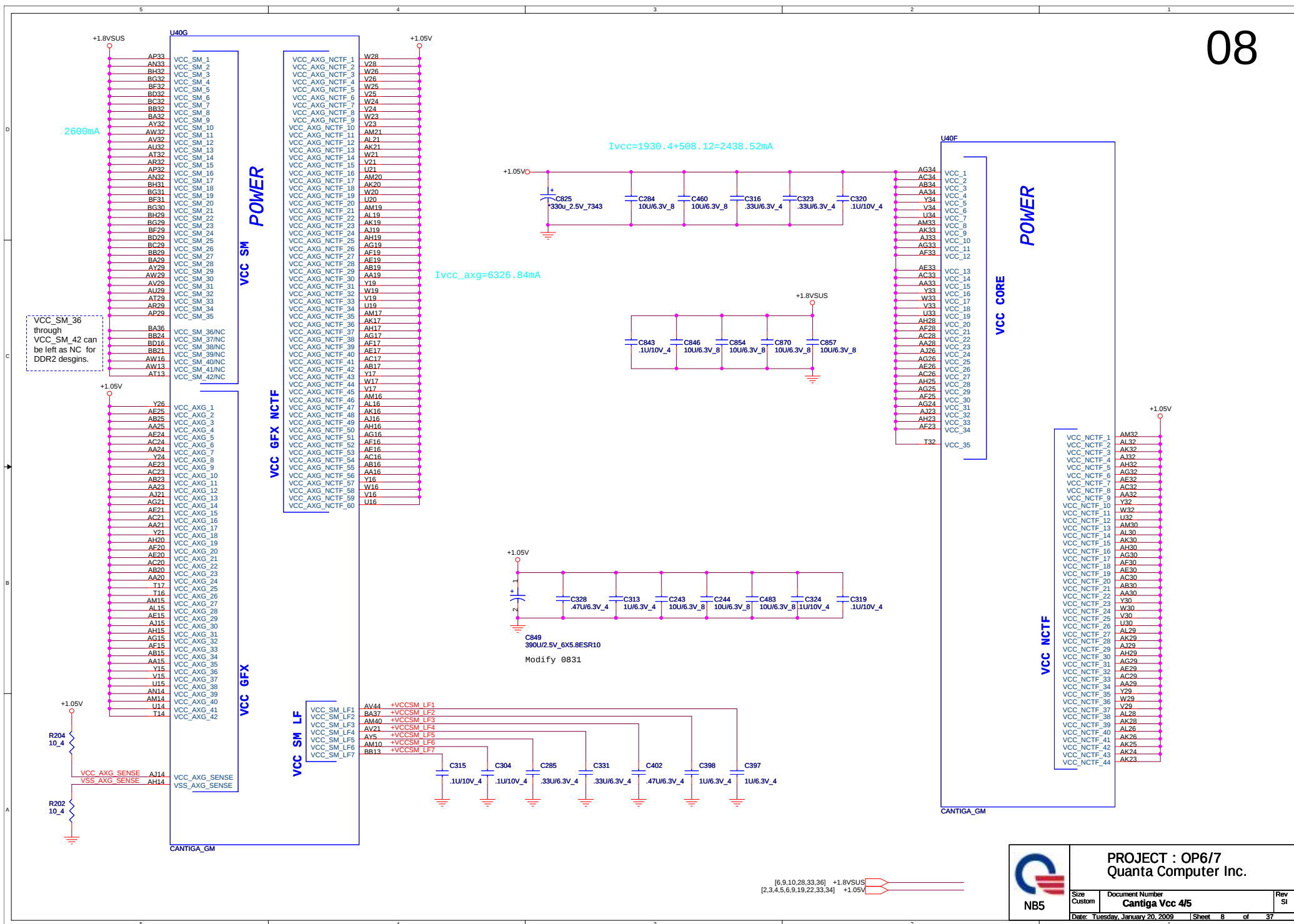
PROJECT : OP6/7
Quanta Computer Inc.

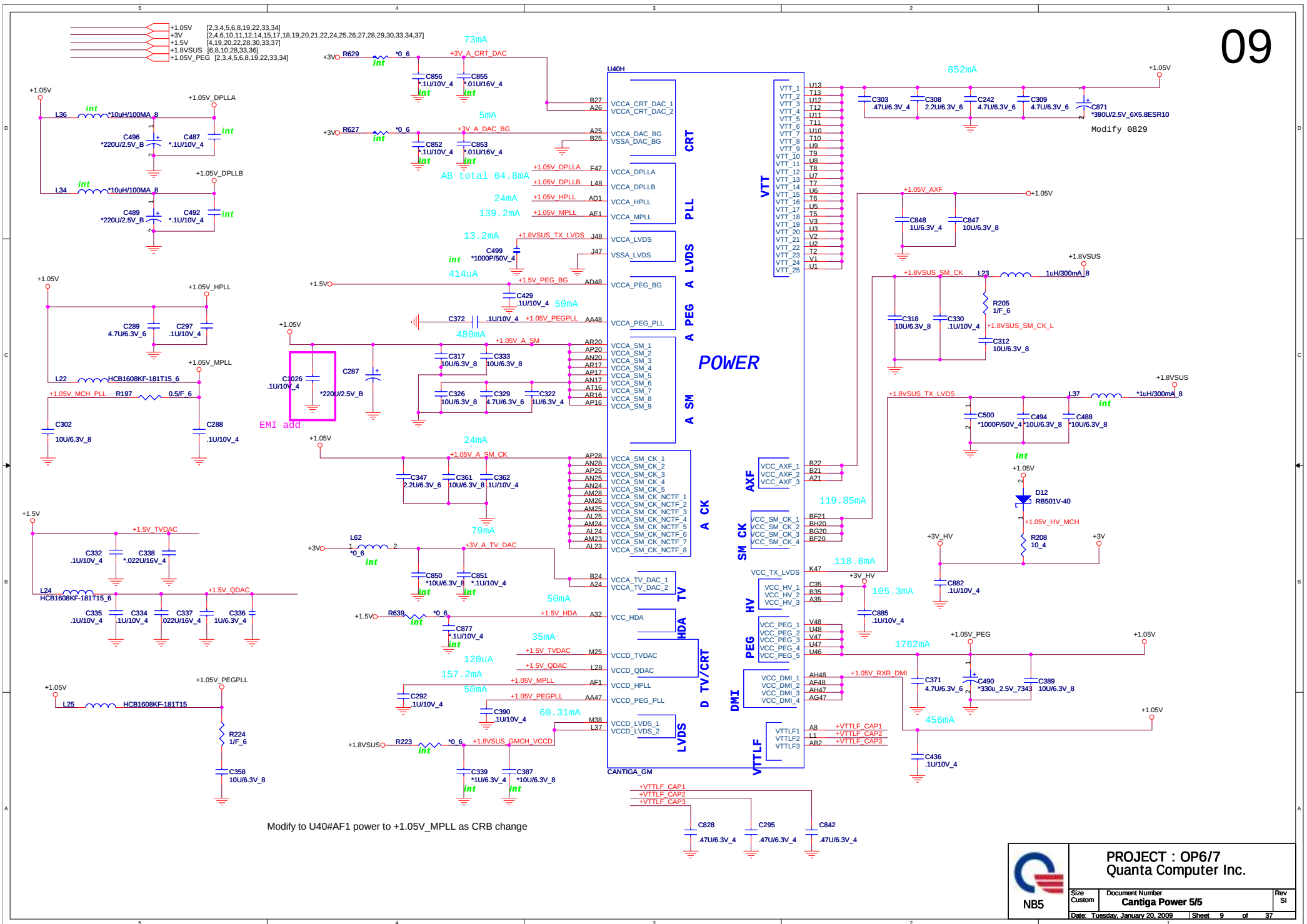
Size	Document Number	Rev
Custom	Penryn & TH Monitor 2/2	SI
Date:	Tuesday, January 20, 2009	Sheet 4 of 37

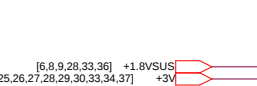
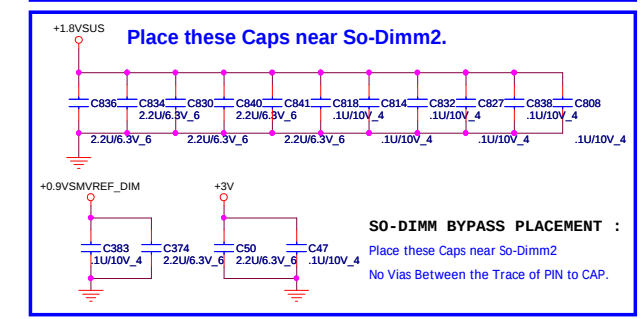


 NB5	Size Custom	Document Number Cantiga DMI/DISP 2/5	
	Date: Tuesday, January 20, 2009		Sheet 6 of



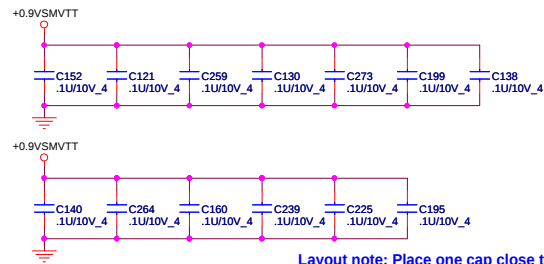






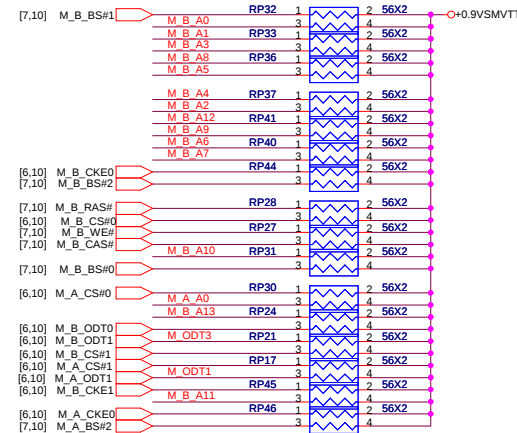
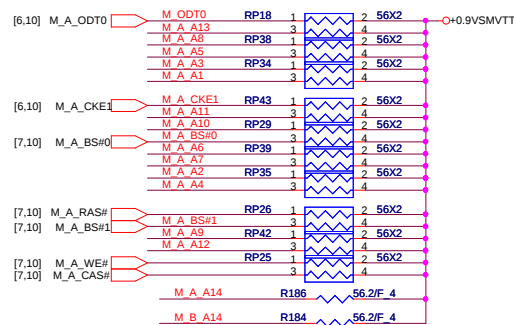
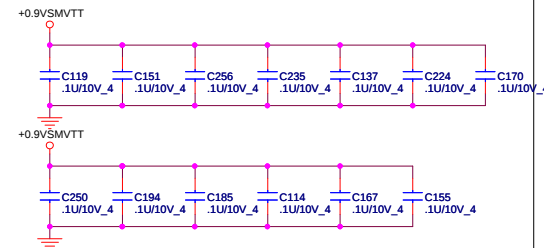
DDRII DUAL CHANNEL A, B.

DDRII A CHANNEL

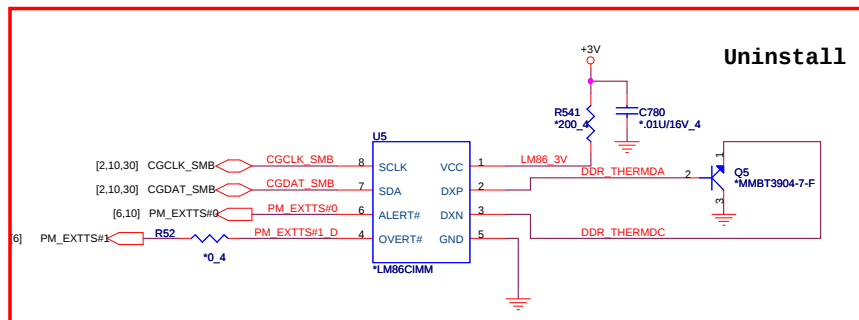


Layout note: Place one cap close to every 2 pullup resistors terminated to SMDDR_VTERM

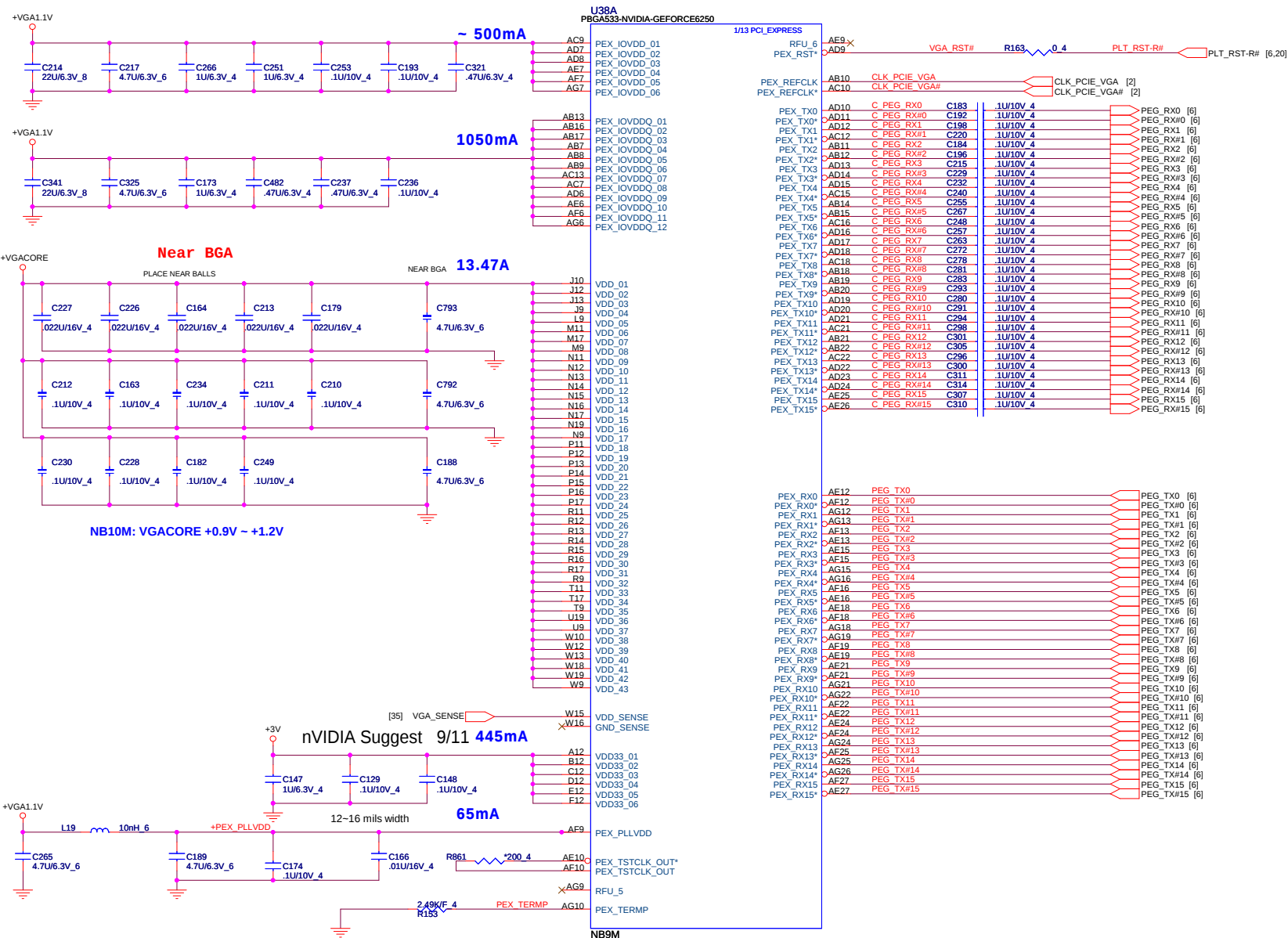
DDRII B CHANNEL



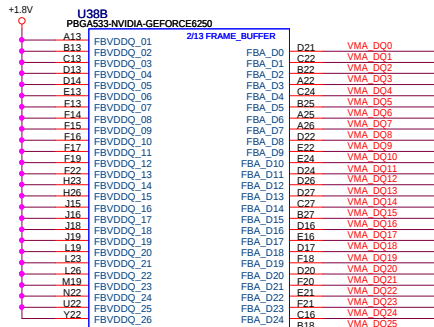
M_B_A[14..0] M_B_A[14..0] [7..10]
M_A_A[14..0] M_A_A[14..0] [7..10]



+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]



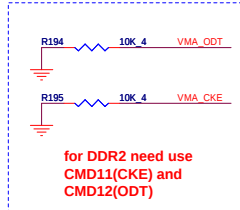
1.75A



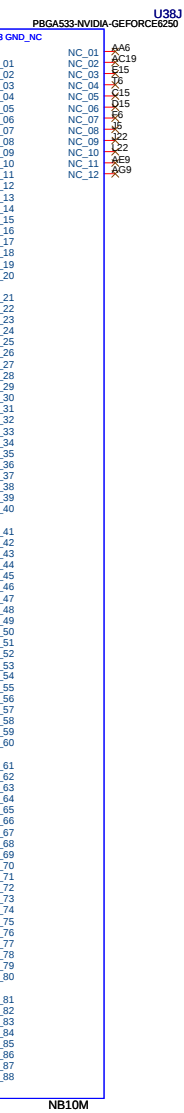
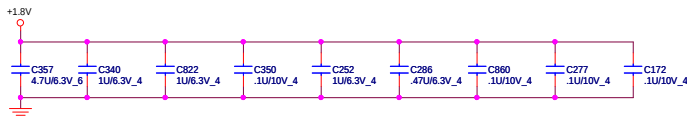
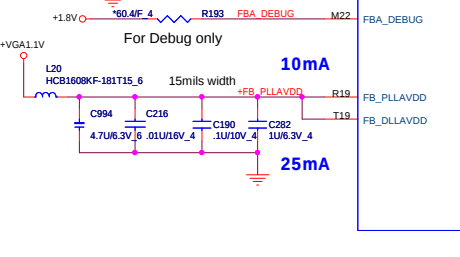
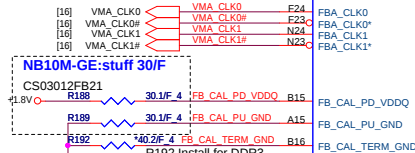
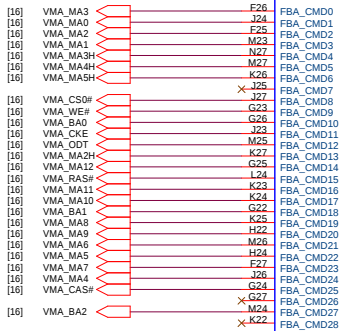
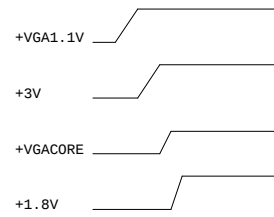
[16] VMA_DQ[63..0]

[16] VMA_DM[7..0]

[16] VMA_WDQS[7..0]



power up sequence



13

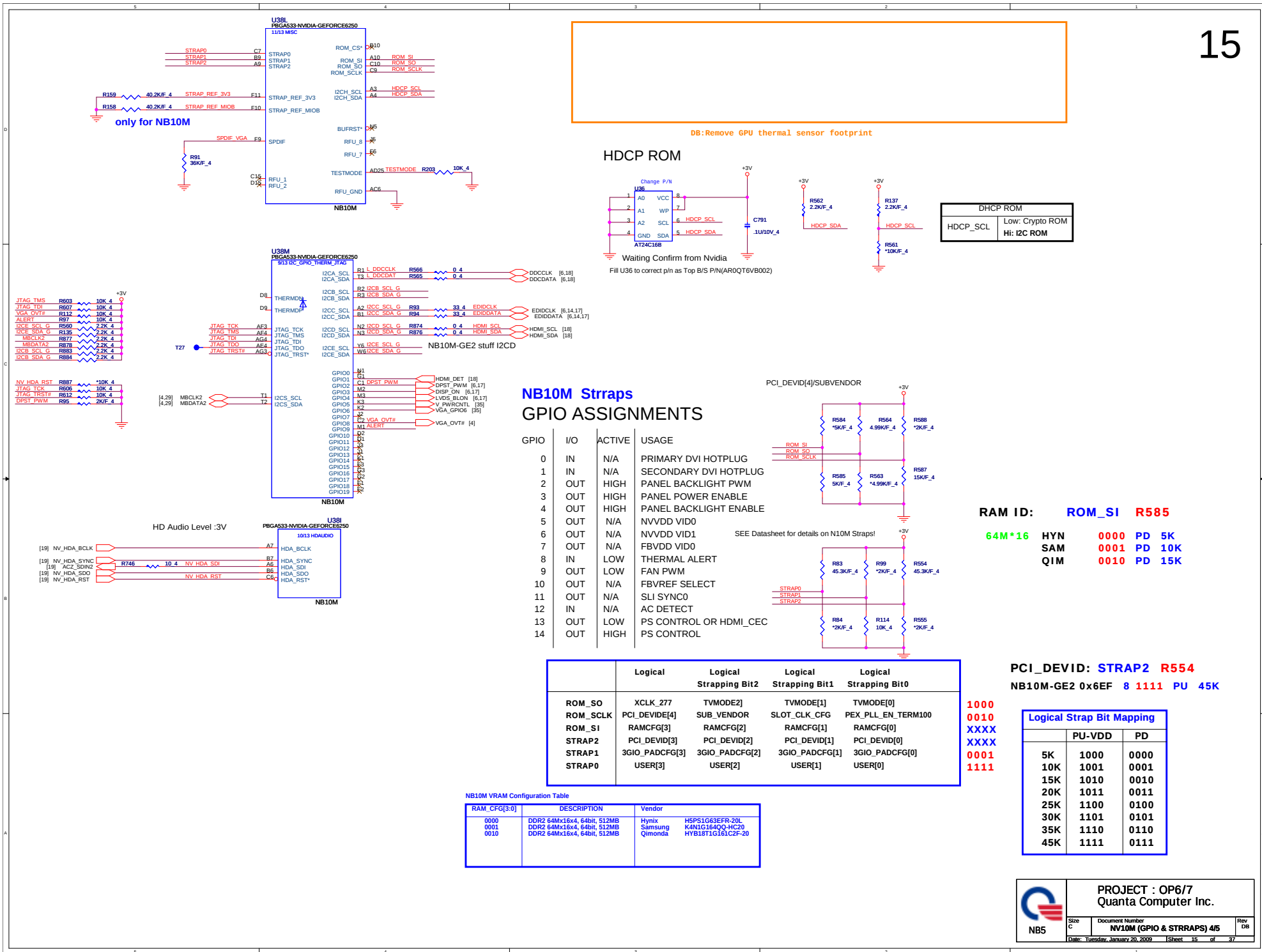


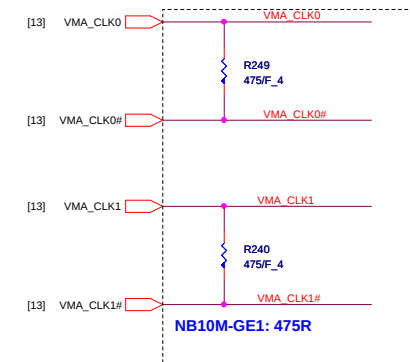
PROJECT : OP6/7
Quanta Computer Inc.

Size	Document Number	Rev
Custom	NV10M (MEMORY I/F) 2/5	D8
Date:	Tuesday, January 20, 2009	Sheet 13 of 37

5	4	3	2
1			

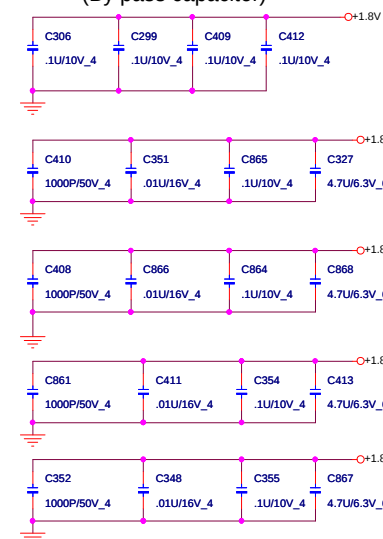
Size Custom	Document Number NV10M (DISPLAY) 3/5	Rev 06
Date: Tuesday, January 20, 2009		Sheet 14 of 37





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

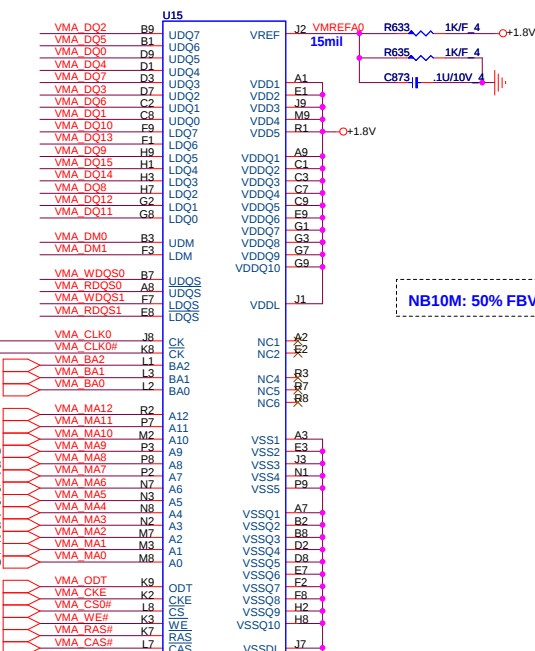
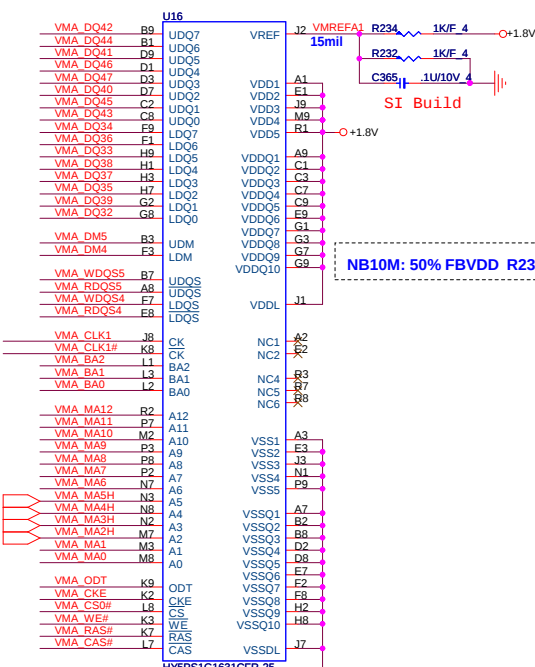
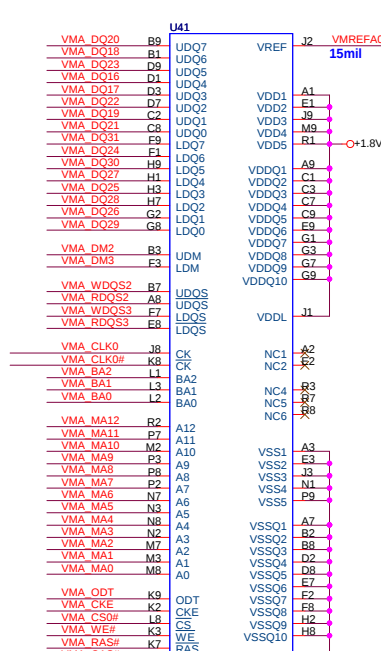
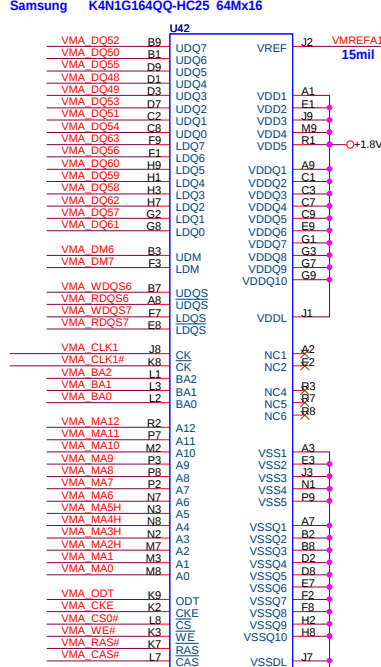
(By pass capacitor)



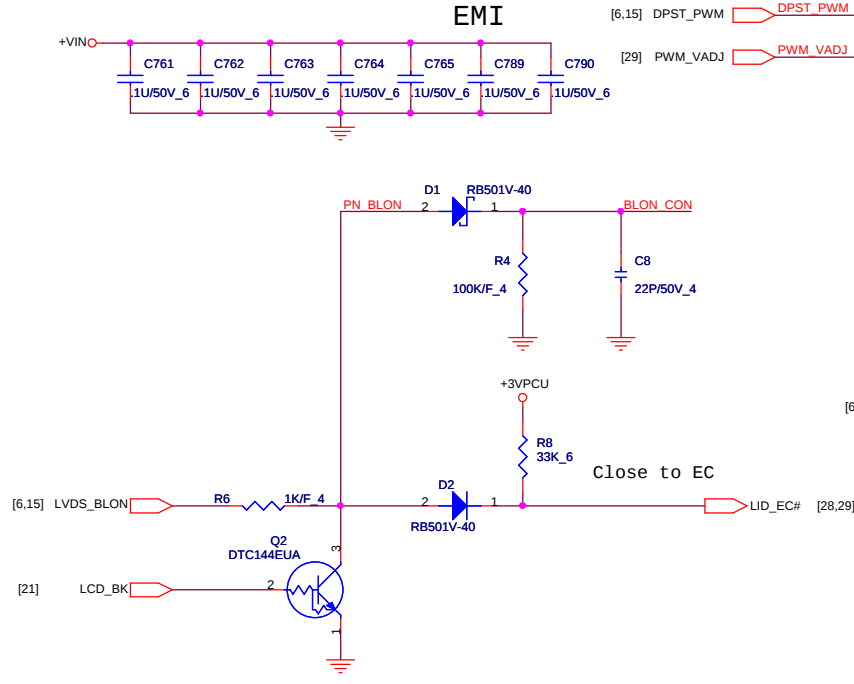
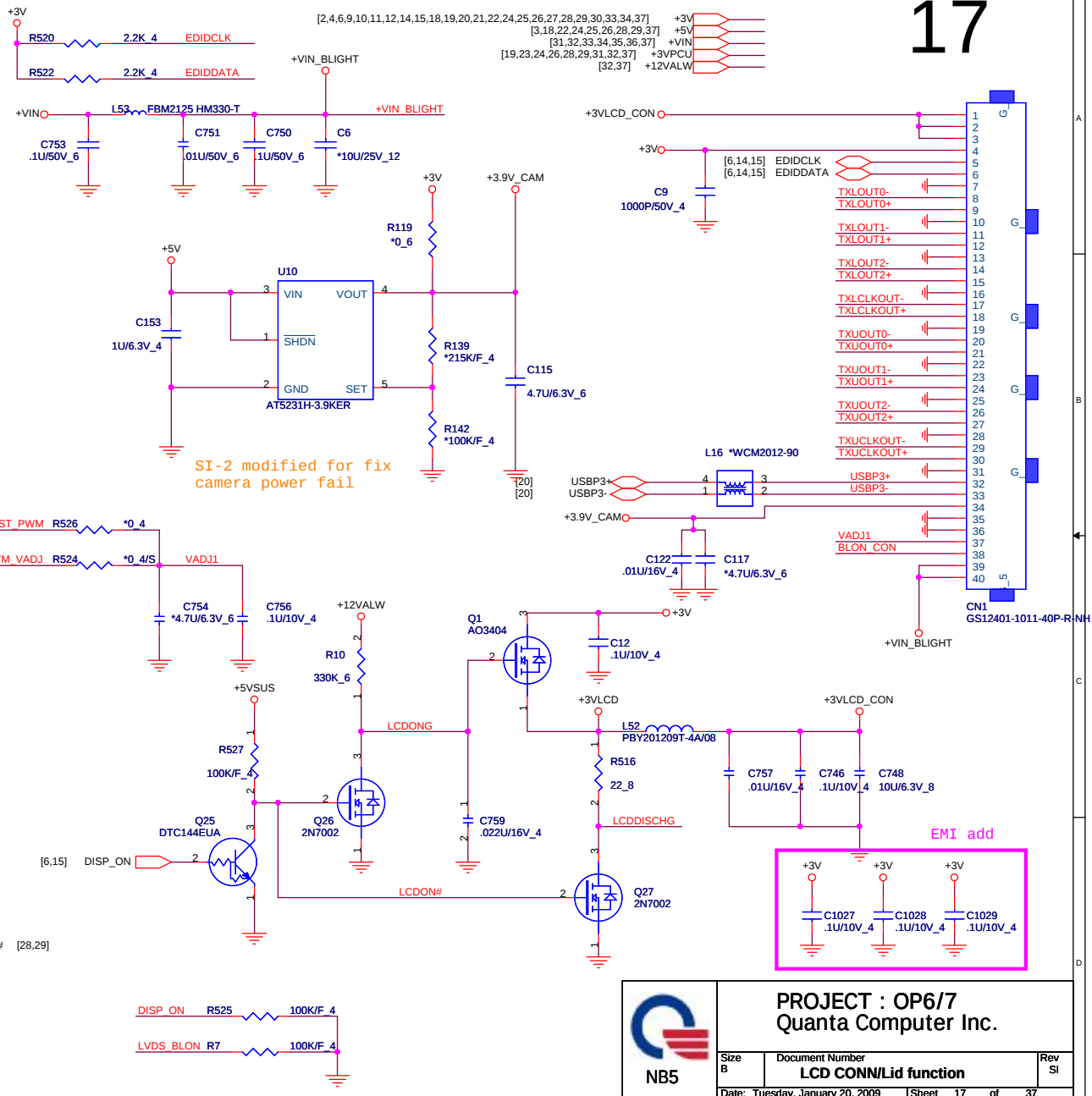
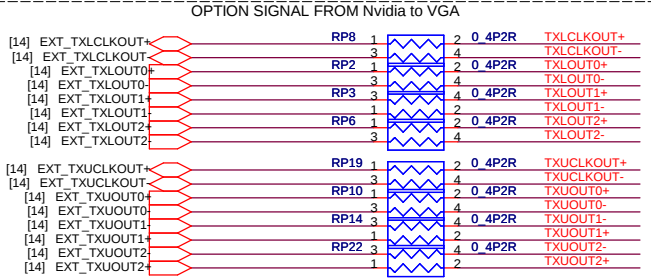
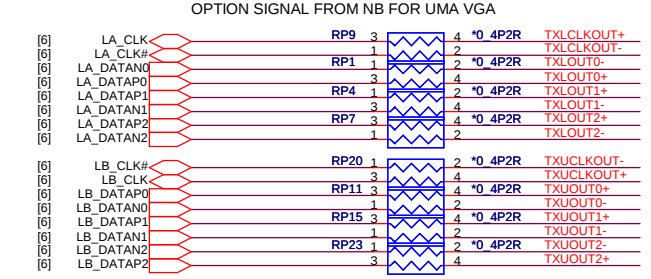
- [13] VMA_DQ[63..0]
- [13] VMA_DM[7..0]
- [13] VMA_WDQS[7..0]
- [13] VMA_RDQS[7..0]

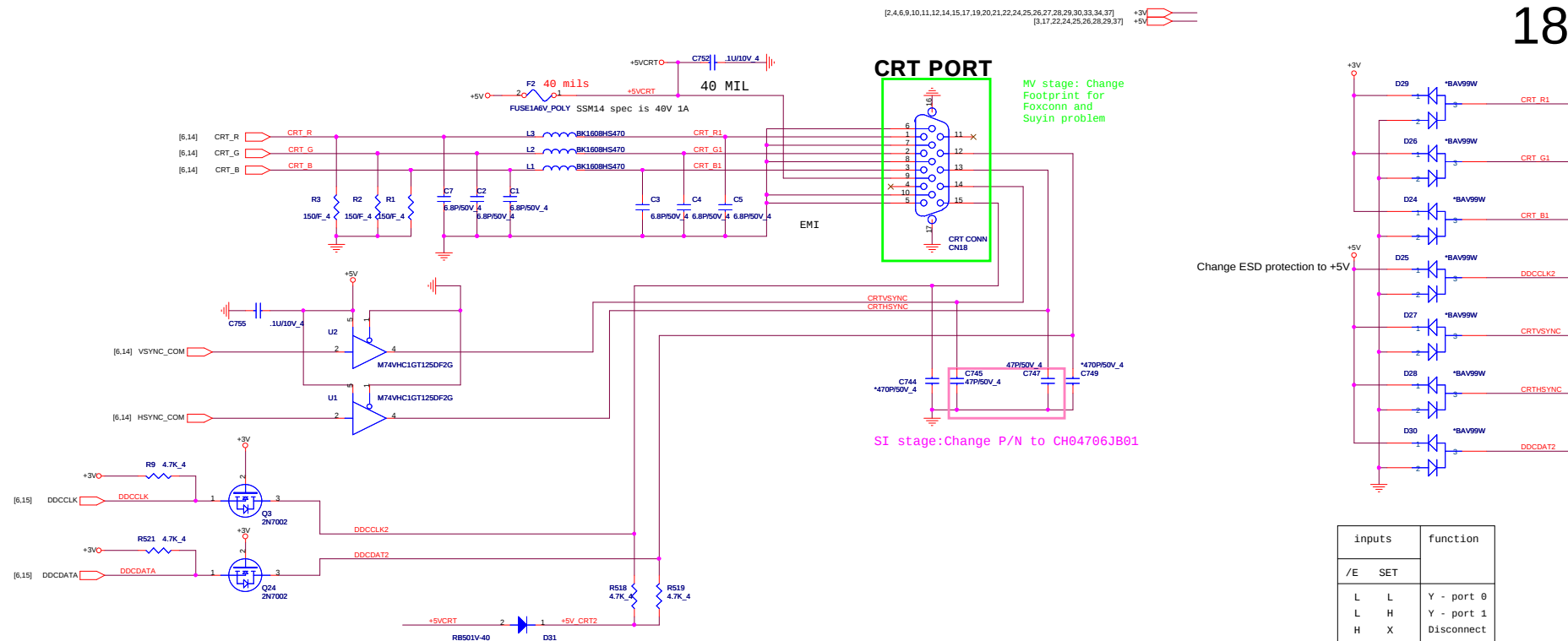
256Mb : AKD5JGAT*05
512Mb : AKD59G-T*01PROJECT : OP6/7
Quanta Computer Inc.

Size	Document Number	Rev
Custom	NV10M VRAM-1(GDDR2 BGA84)	SI
Date: Tuesday, January 20, 2009	Sheet 16 of 37	

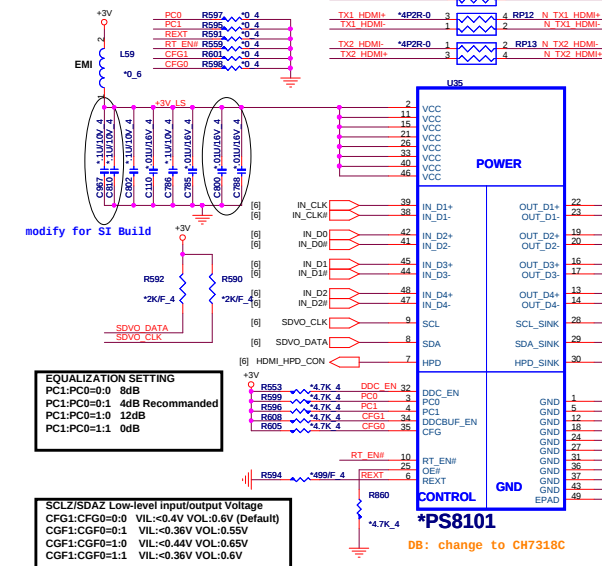
Hynix Samsung HYSPS1G1631CFR-25 64Mx16
K4N1G164QQ-HC25 64Mx16Hynix Samsung HYSPS1G1631CFR-25 64Mx16
K4N1G164QQ-HC25 64Mx16Hynix Samsung HYSPS1G1631CFR-25 64Mx16
K4N1G164QQ-HC25 64Mx16Hynix Samsung HYSPS1G1631CFR-25 64Mx16
K4N1G164QQ-HC25 64Mx16

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



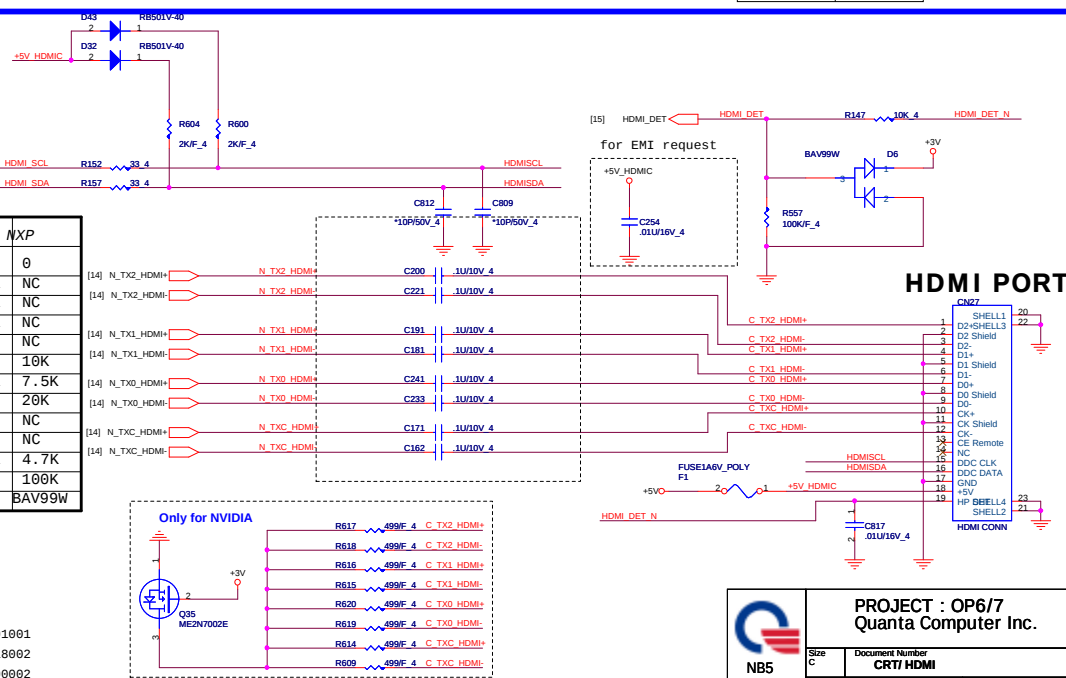


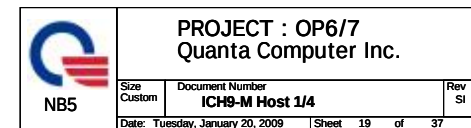
For UMA HDMI function

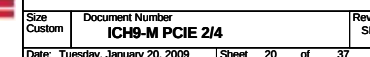


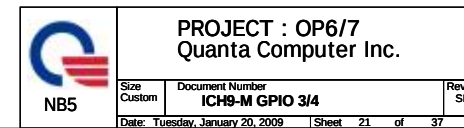
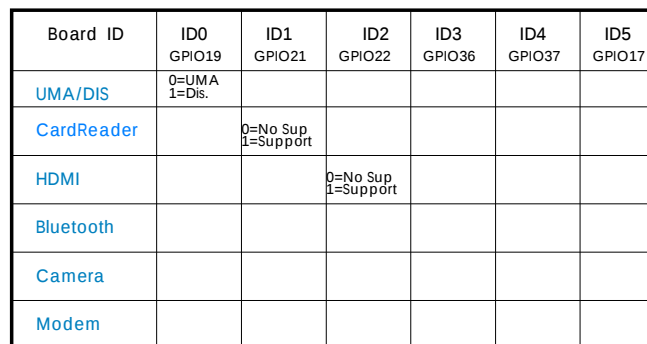
	PDT	CHR	NXP
R631	NC	0	0
R596	NC	4.7K	NC
R605	NC	4.7K	NC
R608	4.7K	4.7K	NC
R558	100K	NC	NC
R594	499	1.2K	10K
R550	7.5K	7.5K	7.5K
R552	20K	20K	20K
R595	NC	NC	NC
Q31	2N7002	NC	NC
R860	NC	4.7K	4.7K
R557	NC	100K	100K
D6	NC	NC	BAV99W

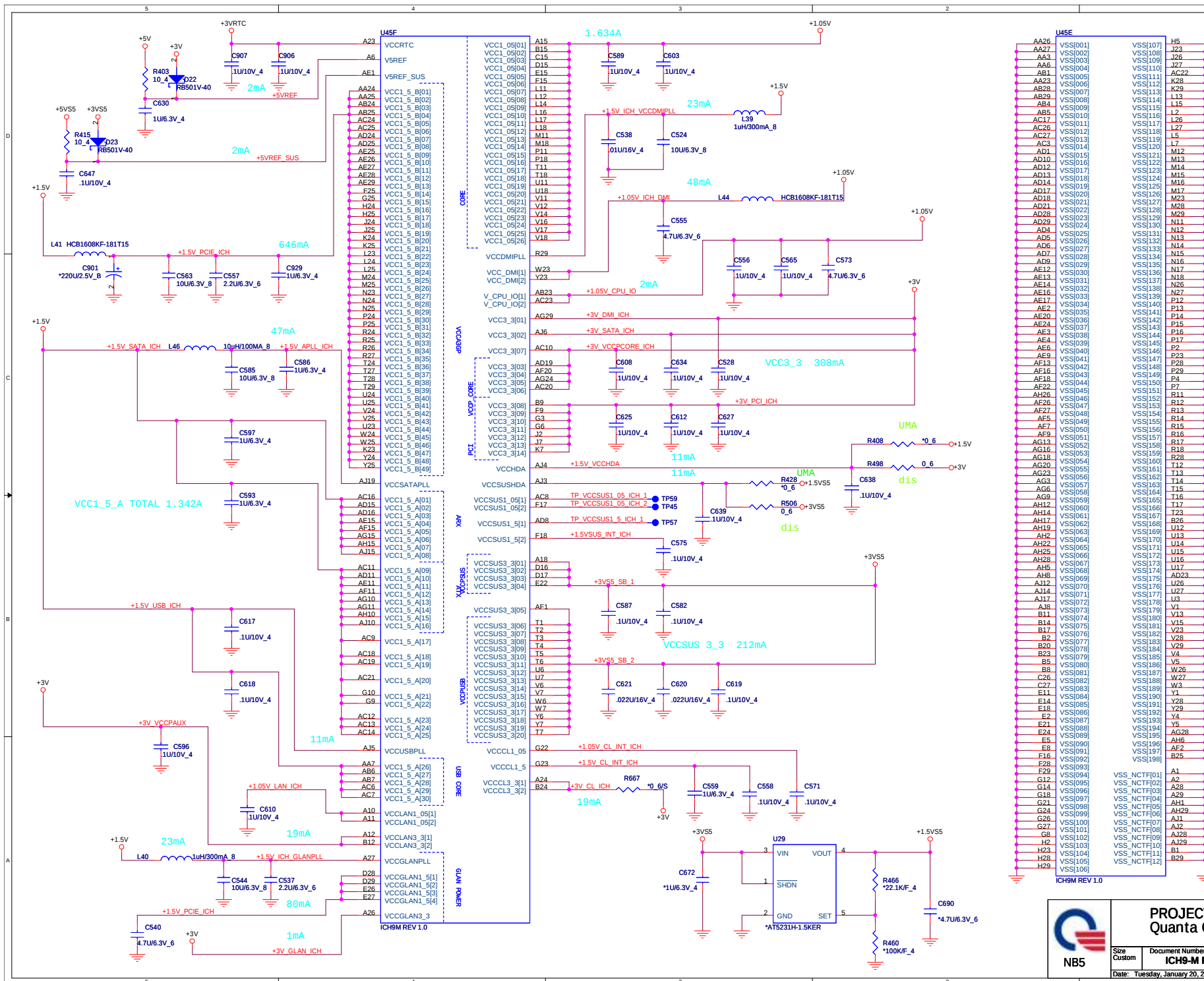
Vendor:PDT P/N:AL008101001
Vendor:CHR P/N:AL007318002
Vendor:NXP P/N:AL003300002

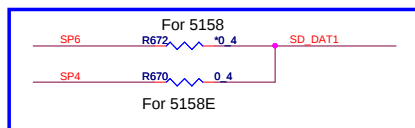












	SD/MMC	MS	XD
SP0			
SP1			XD CD#
SP2	SD WP		
SP3	SD CD#		
SP4	SD DAT1	XD D4	
SP5		MS BS	XD D5
SP6		MS D1	XD D3
SP7	SD DAT0	MS D0	XD D2
SP8	SD DAT7	MS D2	XD D2
SP9		MS INS#	
SP10	SD DAT6	MS D3	XD D7
SP11	SD CLK	MS SCLK	XD D1
SP12	SD DAT5	XD D0	
SP13	SD DAT4	XD WP#	
SP14		XD R/B#	
SP15	SD DAT3	XD WE#	
SP16	SD DAT2	XD RE#	
SP17		XD ALE	
SP18		XD CE#	
SP19		XD CLE	

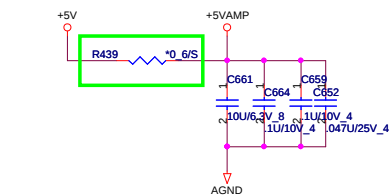




Size Custom	Document Number Azalia IDT92HD75B3	Rev SI
Date: Tuesday, January 20, 2009		Sheet 24 of 37

25

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



Change R410 from 100K to 470K(CS44702FB13)

+3V0 — R410 — 2 — 470K — 1 — 4 — AL

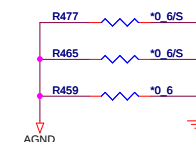
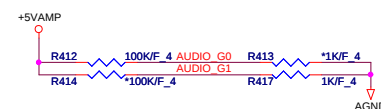
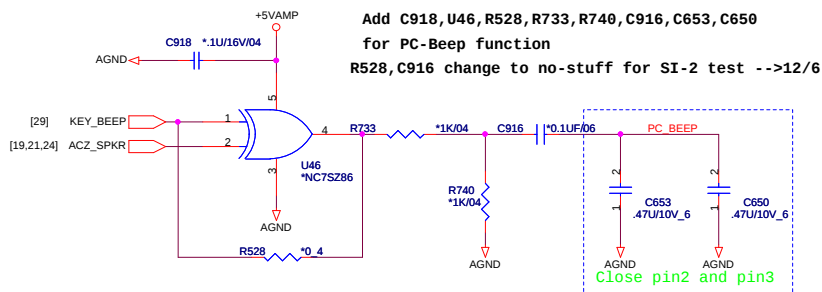
EC [29] VOLMUTE# — 2 — |

HD Audio [24] EAPD# — 1 — |

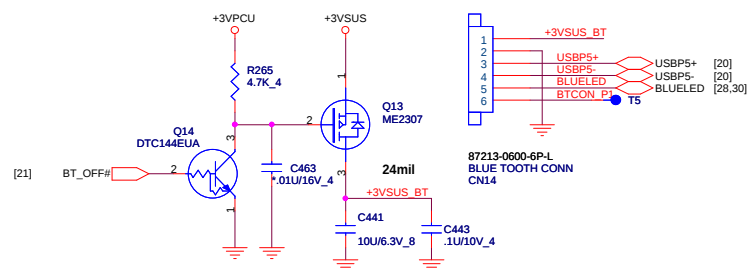
AL001431K04
AL6017A2K12
APA2031 ,AL002031K00

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

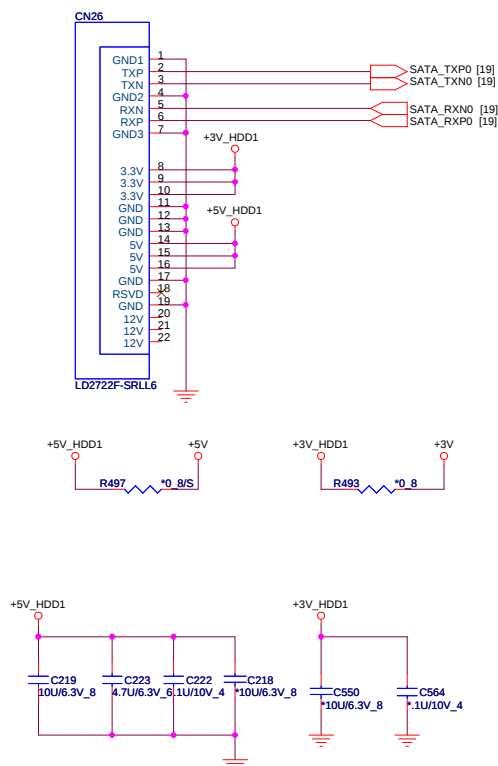
INT. SPEAKER



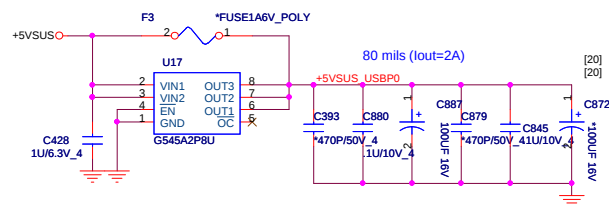
BLUETOOTH



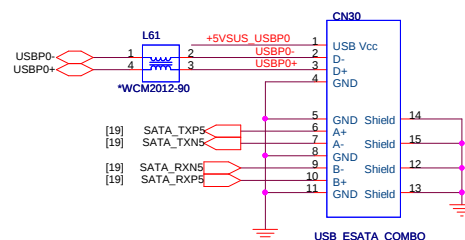
SATA 1 CONNECTOR



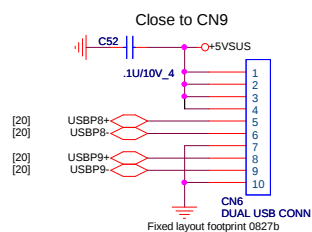
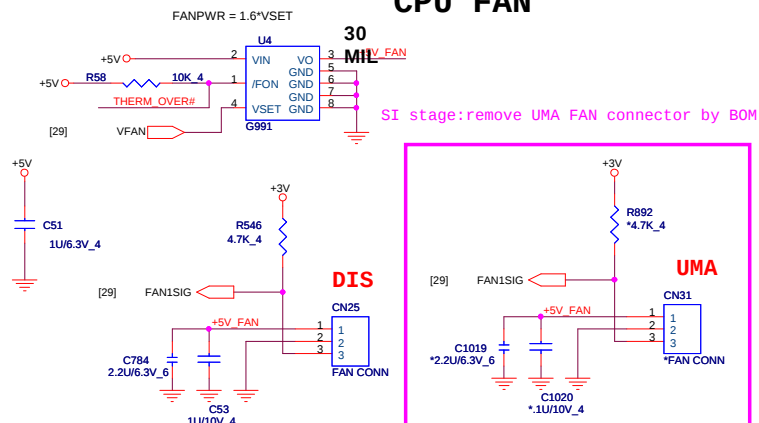
LEFT SIDE USBX1 and E-SATA/USB COMBO



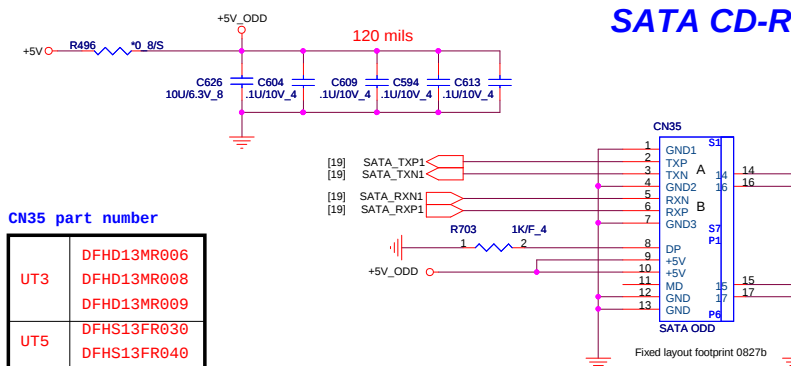
USB & ESATA



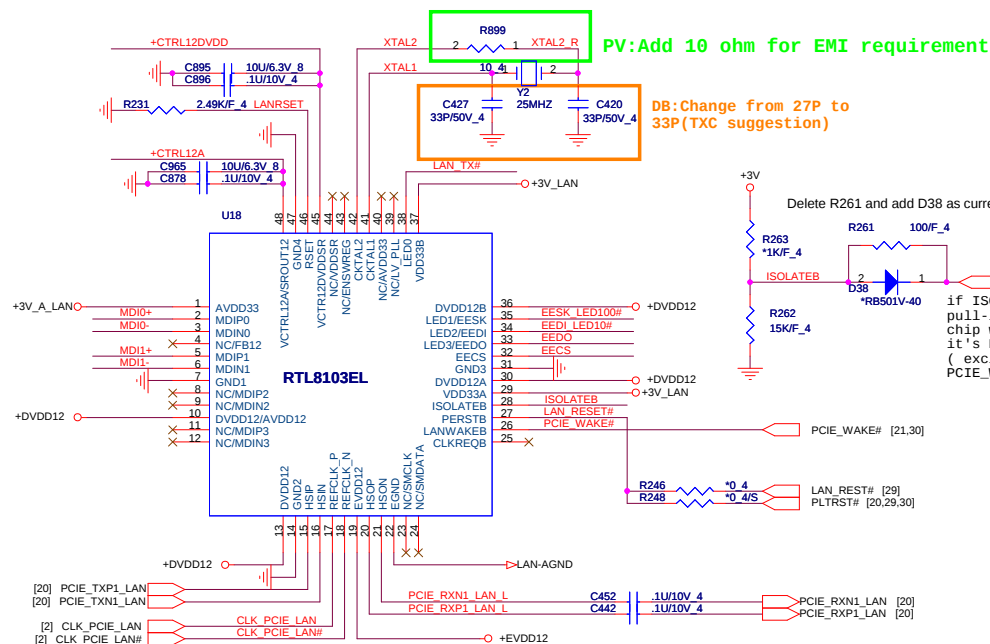
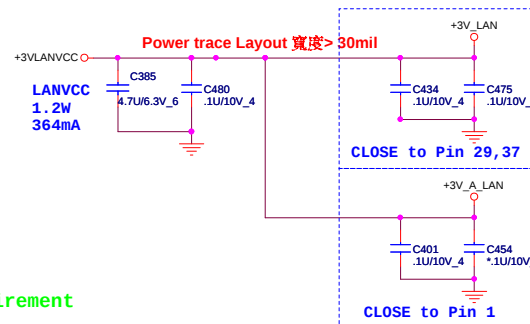
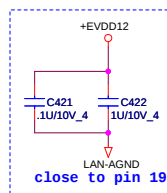
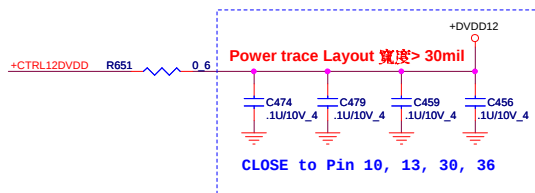
RIGHT SIDE USBX2

**CPU FAN**

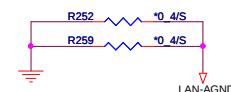
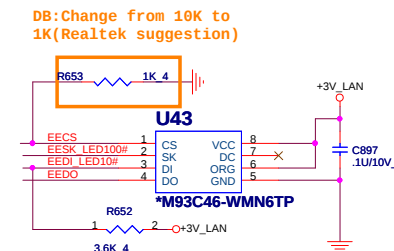
SATA CD-ROM



CN35 part number	
UT3	DFHD13MR006
	DFHD13MR008
	DFHD13MR009
UT5	DFHS13FR030
	DFHS13FR040

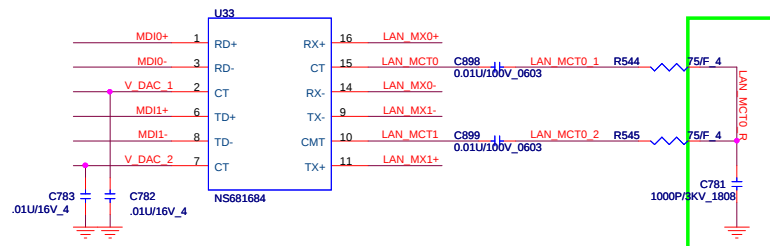


Delete R261 and add D38 as current loss issue
if ISOLATEB pin pull-low, the LAN chip will not drive it's PCI-E outputs (excluding PCIE_WAKE# pin)



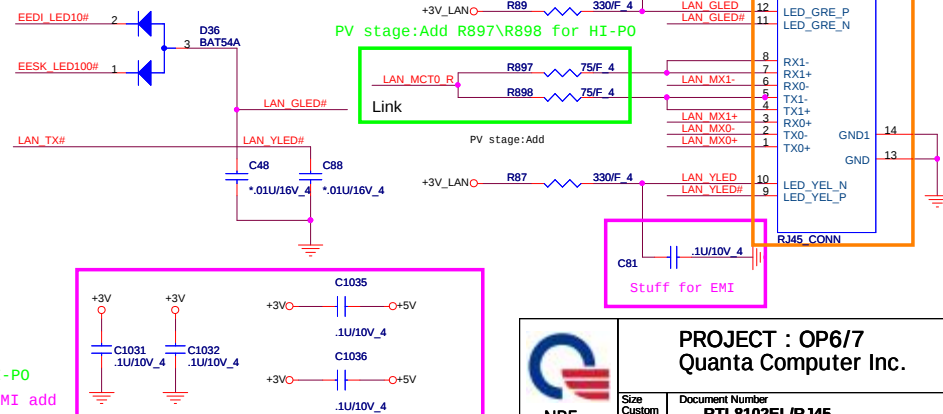
DB: change FP to RJ45-2006103-1-12P-V

LAN_Transformer



PV stage: Add LAN_MCT0_R net name for HI-P0

EMI add

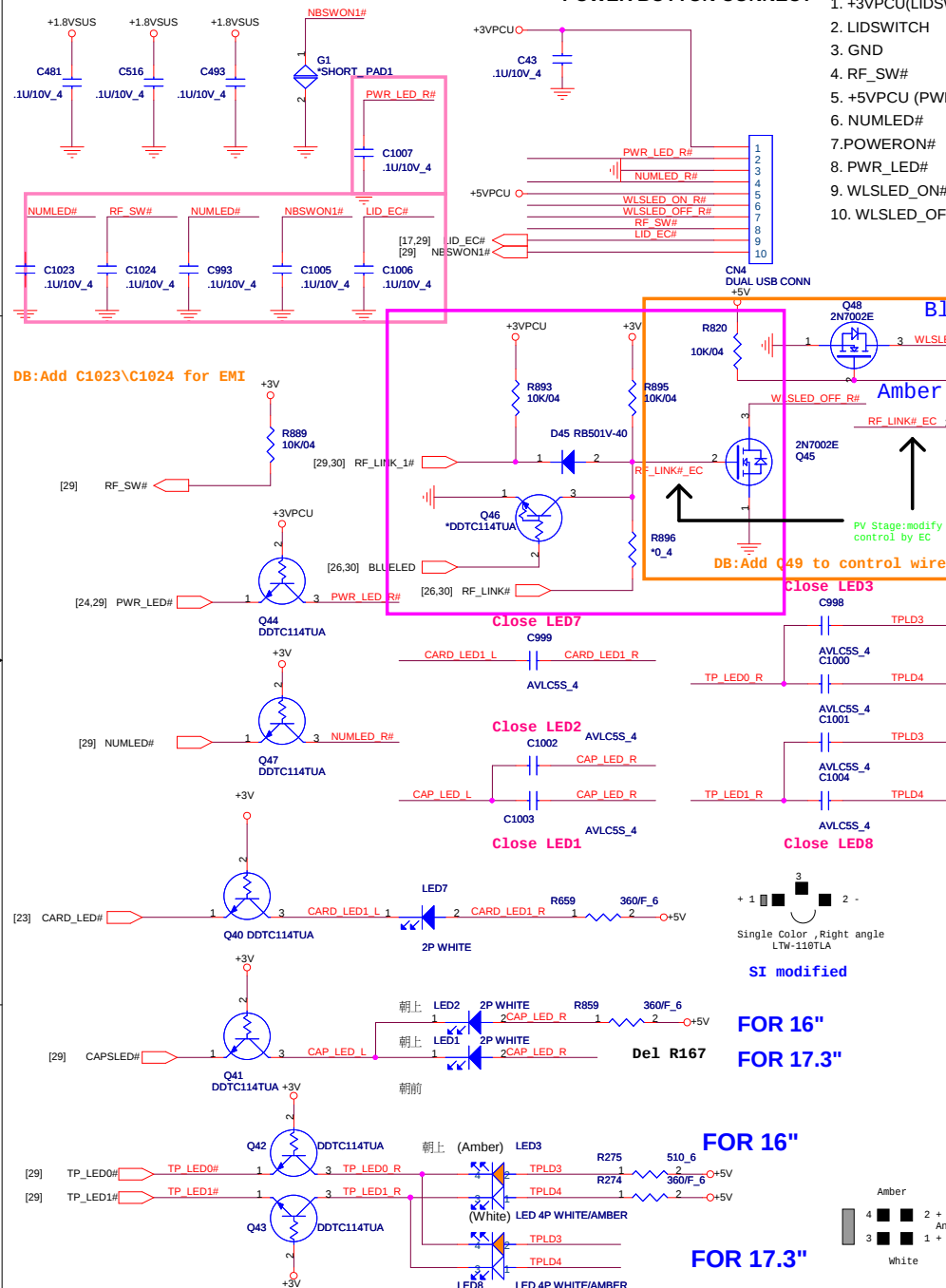


PROJECT : OP6/7
Quanta Computer Inc.

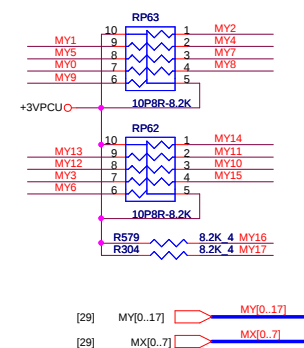
Size Custom	Document Number	Rev Si
	RTL8102EL/RJ45	
Date: Wednesday, February 04, 2009	Sheet 27 of 37	

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#



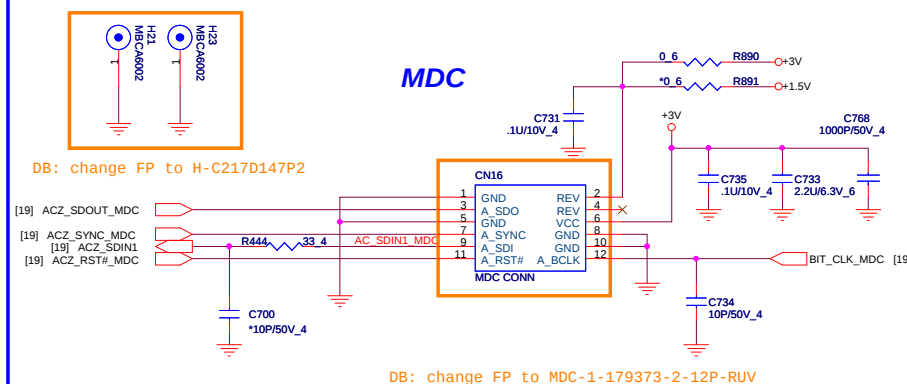
KEYBOARD PULL-UP



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

R430 Change to 100k ohm ,pull low

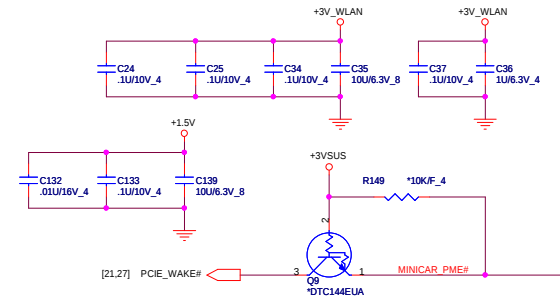
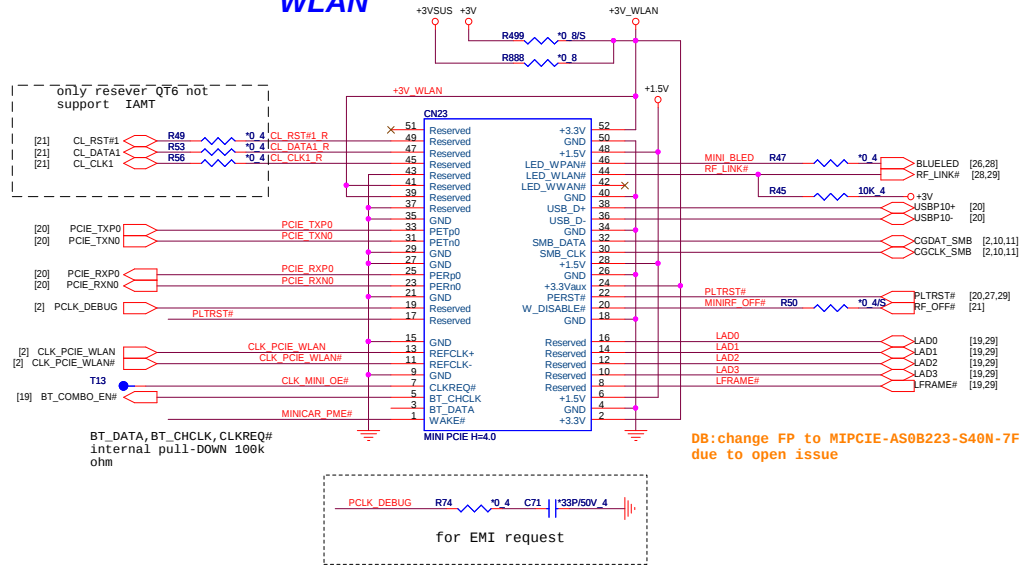
MDC

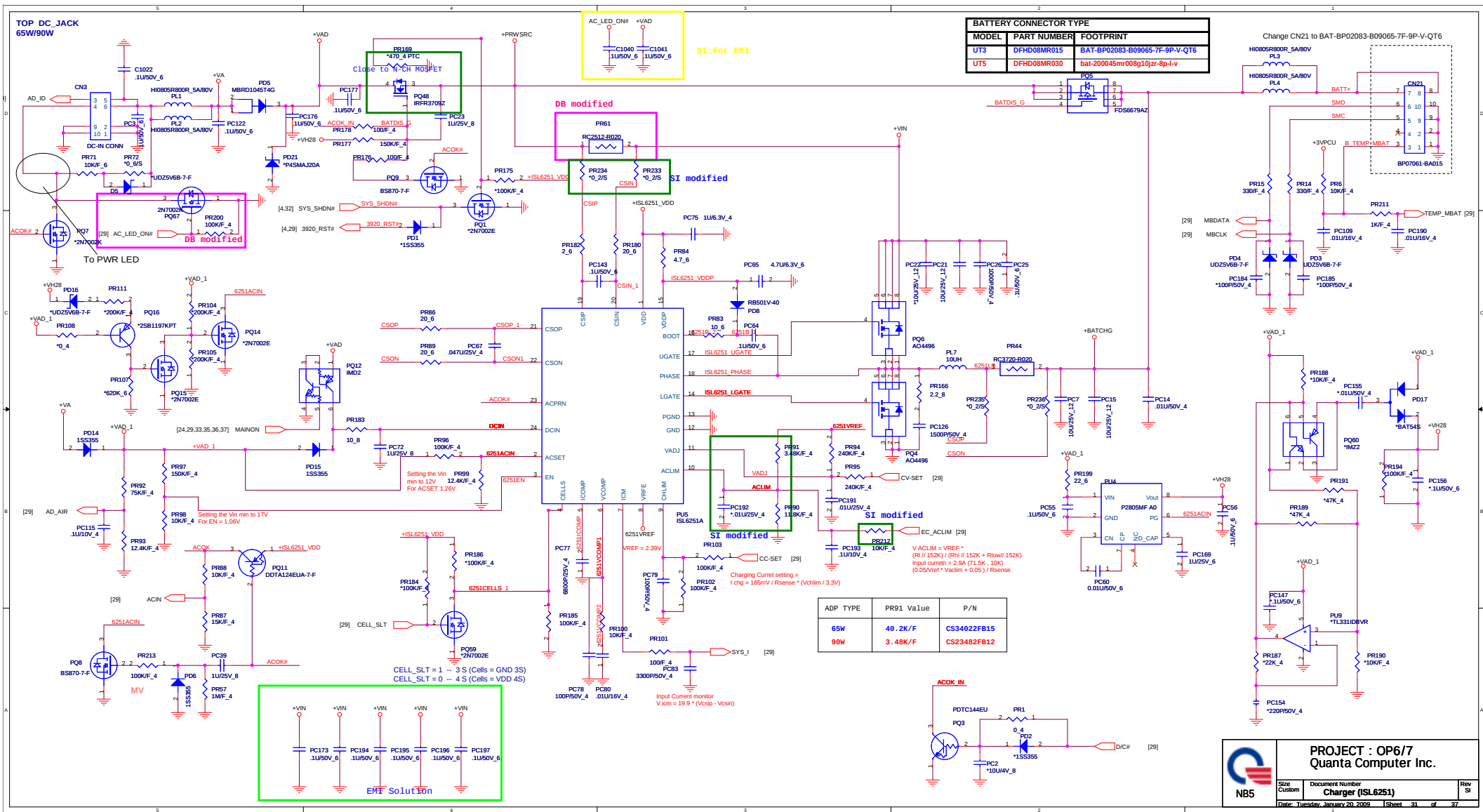


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Mini PCI-E Card 1 WLAN





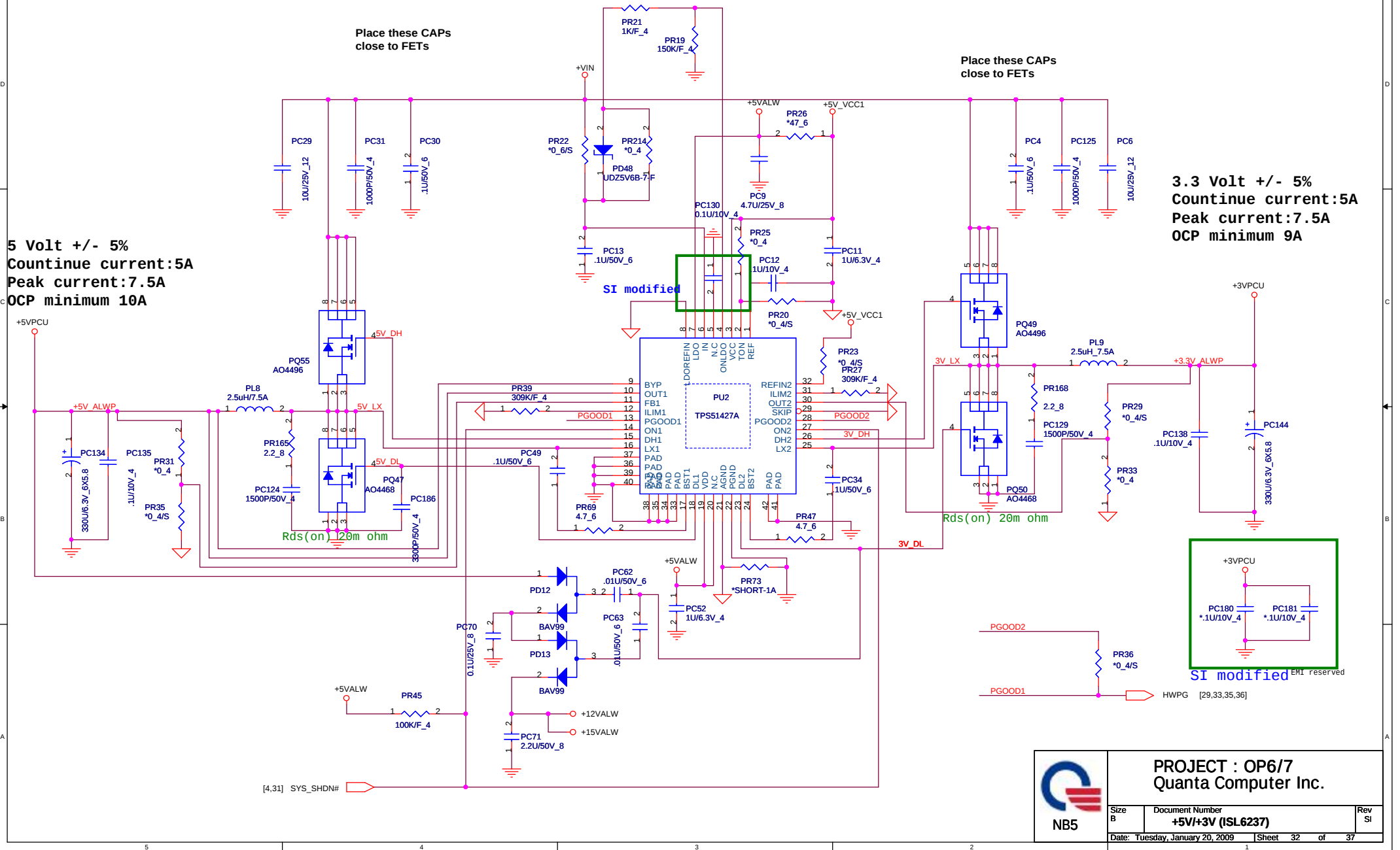
DC/DC +3V_ALW/+5V_ALW/+5V_ALW2 /+12V_ALW

Place these CAPS
close to FETs

Place these CAPS
close to FETs

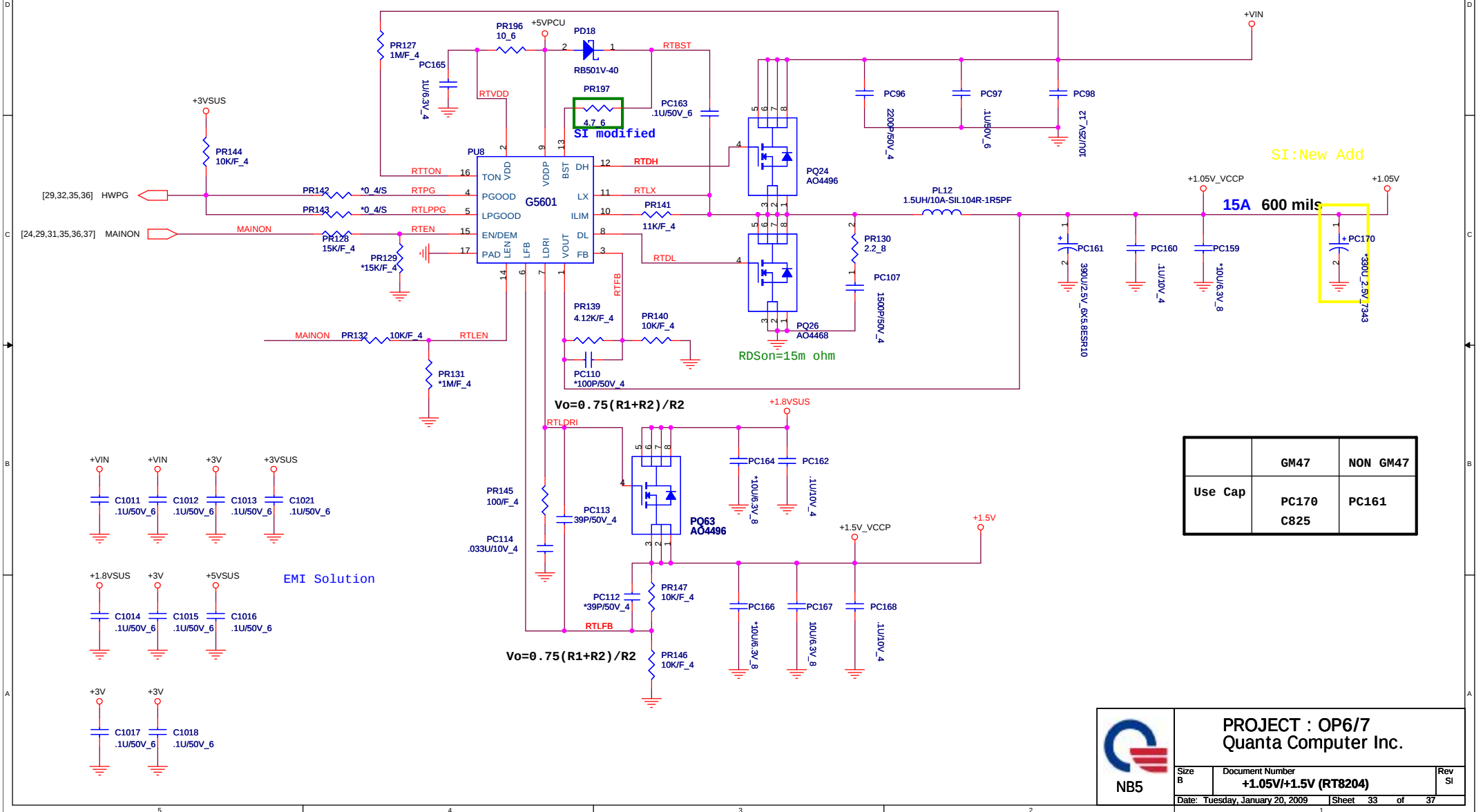
5 Volt +/- 5%
Countinue current:5A
Peak current:7.5A
OCP minimum 10A

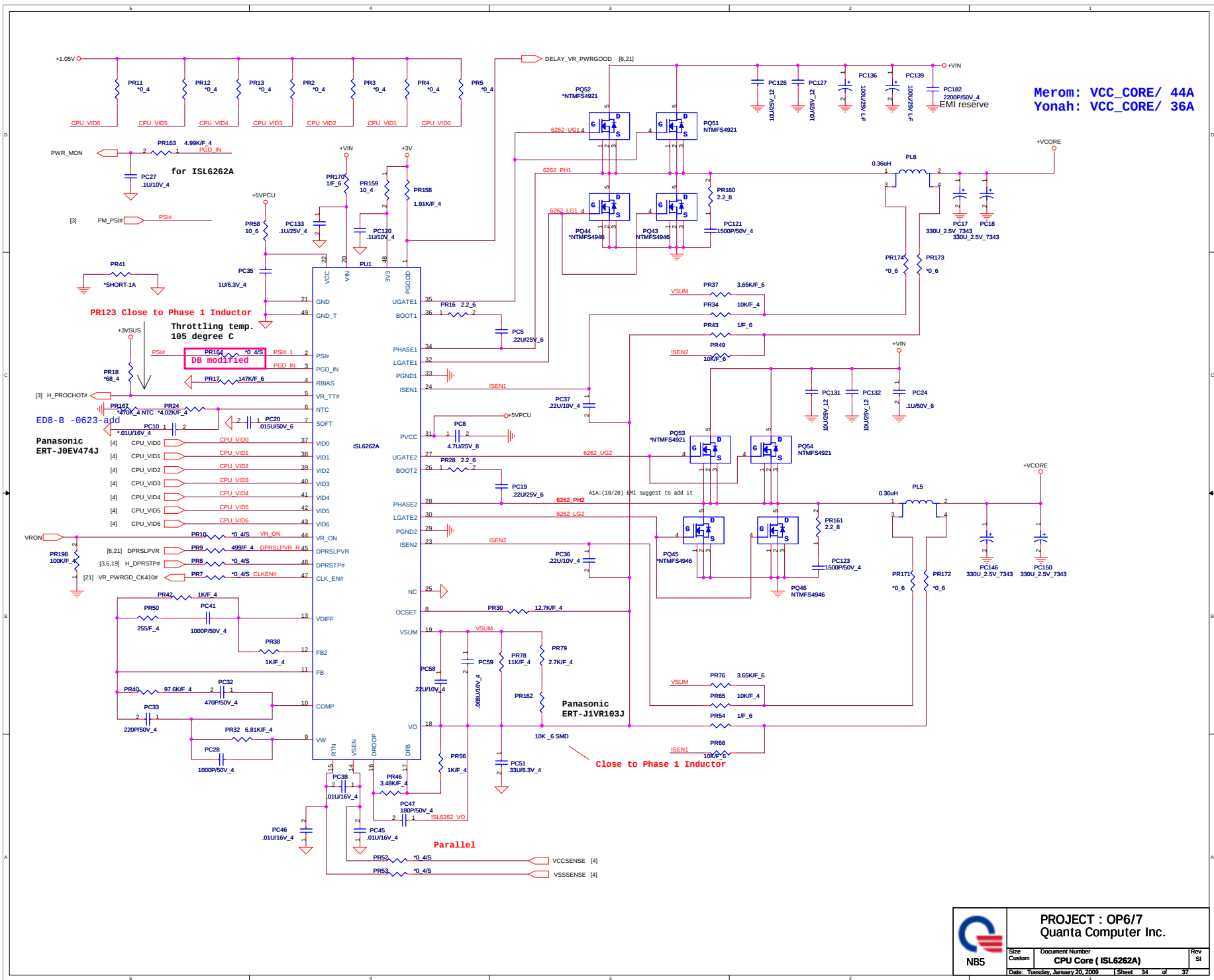
3.3 Volt +/- 5%
Countinue current:5A
Peak current:7.5A
OCP minimum 9A



VCCP1.05V & +1.5V

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





VGA Core & VCC1.1

+1.1Volt +/- 5%
 Countinue current:17.54A
 Peak current:22.8A
 OCP minimum 23A

PC174

0.22U --> 3ms

1U --> 15ms

VGA_GPIO6	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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VGA Core & VCC1.1

+1.1Volt +/- 5%
Countinue current:17.54A
Peak current:22.8A
OCP minimum 23A

PC174
0.22U --> 3ms
1U --> 15ms

VGA_GPIO6	V_PWRCNTL	GPI06	GPI05	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	

DB:New Add

Add for NB9P-GS

Add for NB9P-GS

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NB5

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VGA Core & VCC1.1

+1.1Volt +/- 5%
 Countinue current:17.54A
 Peak current:22.8A
 OCP minimum 23A

PC174

0.22U --> 3ms

1U --> 15ms

VGA_GPIO6	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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VGA Core & VCC1.1

+1.1Volt +/- 5%
 Countinue current:17.54A
 Peak current:22.8A
 OCP minimum 23A

PC174

0.22U --> 3ms

1U --> 15ms

VGA_GPIO6	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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VGA Core & VCC1.1

+1.1Volt +/- 5%
 Countinue current:17.54A
 Peak current:22.8A
 OCP minimum 23A

PC174

0.22U --> 3ms

1U --> 15ms

The schematic diagram illustrates the internal circuitry of the VGA Core & VCC1.1. It features a central core component, PUS OZ8119, which is connected to various input and output pins. The circuit is divided into three main functional blocks: SI build (Signal Input), DB: New Add (Data Bus), and VCC1.1 (Power Supply). The VCC1.1 block includes a power switcher (PQ10) and a voltage regulator (PQ64). The SI build block includes a signal input buffer (PQ65) and a signal output buffer (PQ58). The DB: New Add block includes a data bus buffer (PQ68) and a data output buffer (PQ58). The diagram also shows various capacitors (PC188, PC189, PC187, PC186, PC185, PC184, PC183, PC182, PC181, PC180, PC179, PC178, PC177, PC176, PC175, PC174, PC173, PC172, PC171, PC170, PC169, PC168, PC167, PC166, PC165, PC164, PC163, PC162, PC161, PC160, PC159, PC158, PC157, PC156, PC155, PC154, PC153, PC152, PC151, PC150, PC149, PC148, PC147, PC146, PC145, PC144, PC143, PC142, PC141, PC140, PC139, PC138, PC137, PC136, PC135, PC134, PC133, PC132, PC131, PC130, PC129, PC128, PC127, PC126, PC125, PC124, PC123, PC122, PC121, PC120, PC119, PC118, PC117, PC116, PC115, PC114, PC113, PC112, PC111, PC110, PC109, PC108, PC107, PC106, PC105, PC104, PC103, PC102, PC101, PC100, PC99, PC98, PC97, PC96, PC95, PC94, PC93, PC92, PC91, PC90, PC89, PC88, PC87, PC86, PC85, PC84, PC83, PC82, PC81, PC80, PC79, PC78, PC77, PC76, PC75, PC74, PC73, PC72, PC71, PC70, PC69, PC68, PC67, PC66, PC65, PC64, PC63, PC62, PC61, PC60, PC59, PC58, PC57, PC56, PC55, PC54, PC53, PC52, PC51, PC50, PC49, PC48, PC47, PC46, PC45, PC44, PC43, PC42, PC41, PC40, PC39, PC38, PC37, PC36, PC35, PC34, PC33, PC32, PC31, PC30, PC29, PC28, PC27, PC26, PC25, PC24, PC23, PC22, PC21, PC20, PC19, PC18, PC17, PC16, PC15, PC14, PC13, PC12, PC11, PC10, PC9, PC8, PC7, PC6, PC5, PC4, PC3, PC2, PC1) and resistors (PR82, PR59, PC42, PR85, PC66, PC137, PC68, PC142, PR81, PR22, PR21, PR20, PR19, PR18, PR17, PR16, PR15, PR14, PR13, PR12, PR11, PR10, PR9, PR8, PR7, PR6, PR5, PR4, PR3, PR2, PR1, PR0, PR80, PR77, PR75, PR70, PR204, PR60, PC188, PD20, PR208, PR209, PR210, PC189, PR207, PR206, PR205, PC43, PC44, PR55, PR48, PR51, PC40, PC53, PC48, PC57, PC50, PR63, PR64, PR67, PC145, PC74, PC69, PC141, PC183, PC187, PC198, PC186, PC185, PC184, PC183, PC182, PC181, PC180, PC179, PC178, PC177, PC176, PC175, PC174, PC173, PC172, PC171, PC170, PC169, PC168, PC167, PC166, PC165, PC164, PC163, PC162, PC161, PC160, PC159, PC158, PC157, PC156, PC155, PC154, PC153, PC152, PC151, PC150, PC149, PC148, PC147, PC146, PC145, PC144, PC143, PC142, PC141, PC140, PC139, PC138, PC137, PC136, PC135, PC134, PC133, PC132, PC131, PC130, PC129, PC128, PC127, PC126, PC125, PC124, PC123, PC122, PC121, PC120, PC119, PC118, PC117, PC116

VGA Core & VCC1.1

+1.1Volt +/- 5%
Countinue current:17.54A
Peak current:22.8A
OCP minimum 23A

PC174
0.22U --> 3ms
1U --> 15ms

VGA_GPIO6	V_PWRCNTL		NB10M-GS2	
GPI06	GPI05			
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	

DB:New Add

Add for NB9P-GS

13.57 800 mils

DCR=1.6m ohm

PL10 0.56U25A(PCMC104T-R56MN)

PC198

PC187

PC183

PC141

PC69

PC74

PC145

PR67

PR63

PR66

PC15

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

PC40

PC44

PC43

PC174

PC142

PC68

PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC57

PC48

PC53

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PC137

PC66

PC42

PC179

PC189

PC188

PC140

PC50

PC5

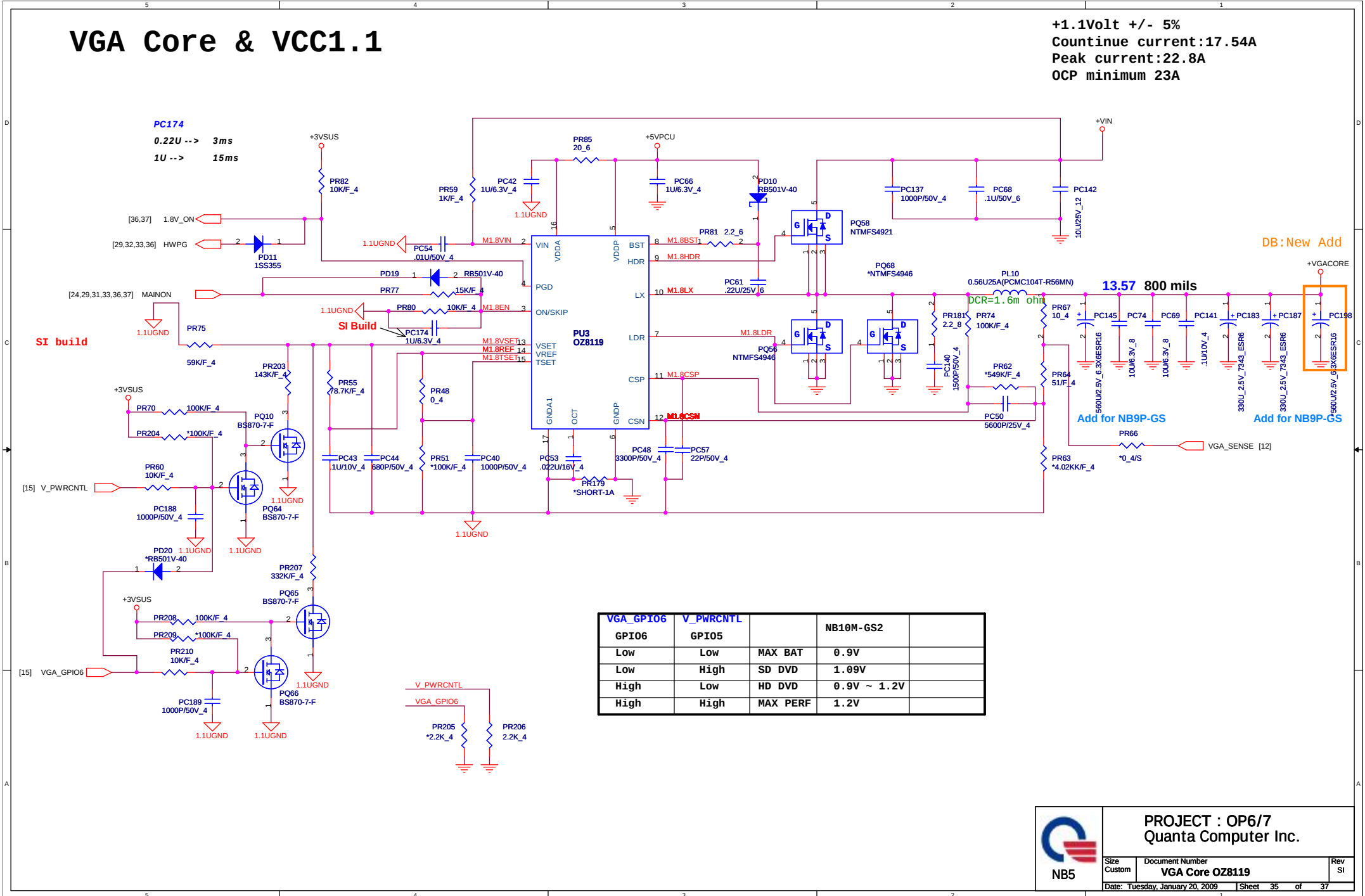
VGA Core & VCC1.1

+1.1Volt +/- 5%
 Countinue current:17.54A
 Peak current:22.8A
 OCP minimum 23A

PC174

0.22U --> 3ms

1U --> 15ms



VGA Core & VCC1.1

+1.1Volt +/- 5%
 Countinue current:17.54A
 Peak current:22.8A
 OCP minimum 23A

PC174
 0.22U --> 3ms
 1U --> 15ms

VGA_GPIO6	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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VGA Core & VCC1.1

+1.1Volt +/- 5%
 Countinue current:17.54A
 Peak current:22.8A
 OCP minimum 23A

PC174
 0.22U --> 3ms
 1U --> 15ms

SI build

DB:New Add

Add for NB9P-GS

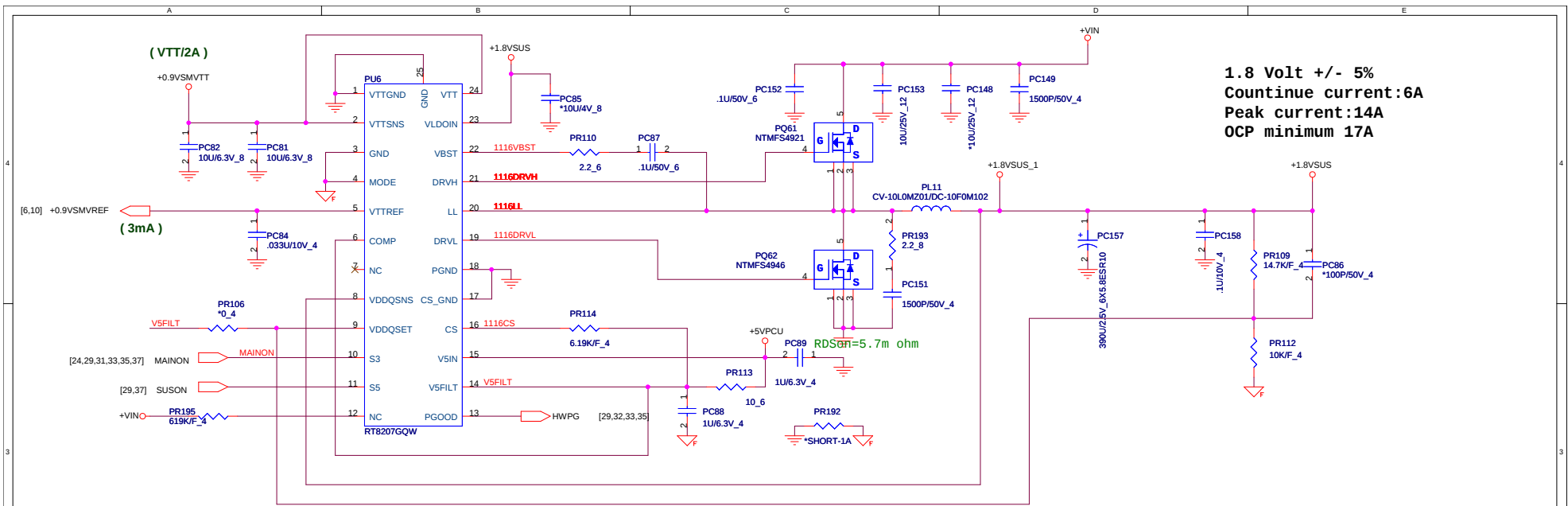
Add for NB9P-GS

VGA_GPIO6	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	

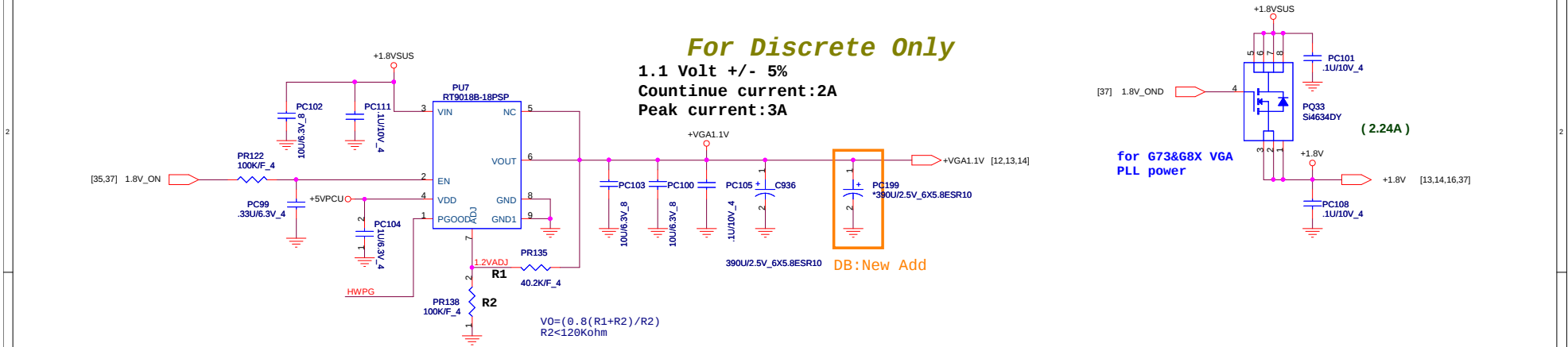
PROJECT : OP6/7
Quanta Computer Inc.

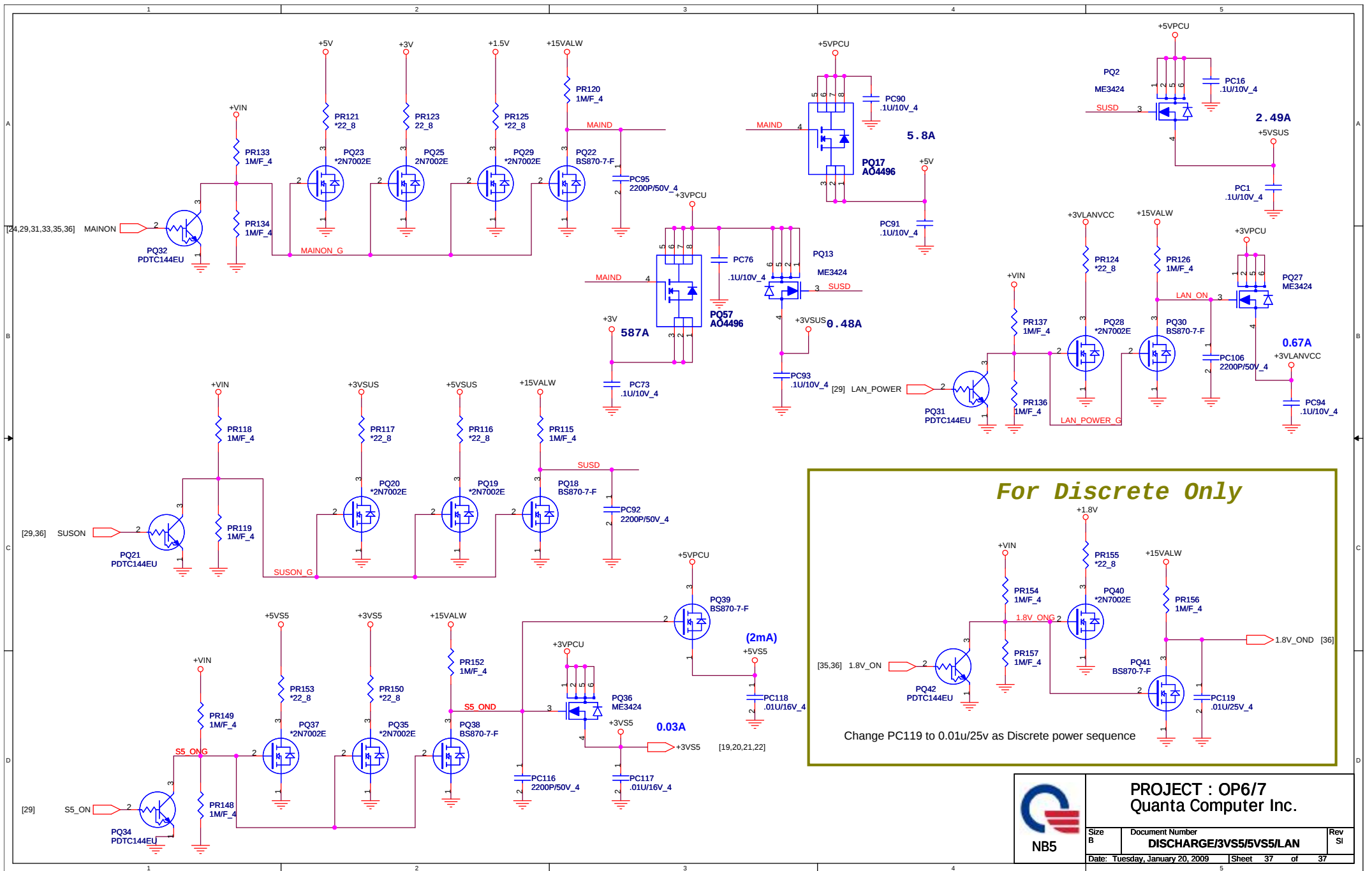
Size Custom Document Number
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Change PR122 tied to 1.8V_ON as power sequence request





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B	DISCHARGE/3VS5/5VS5/LAN	SI
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