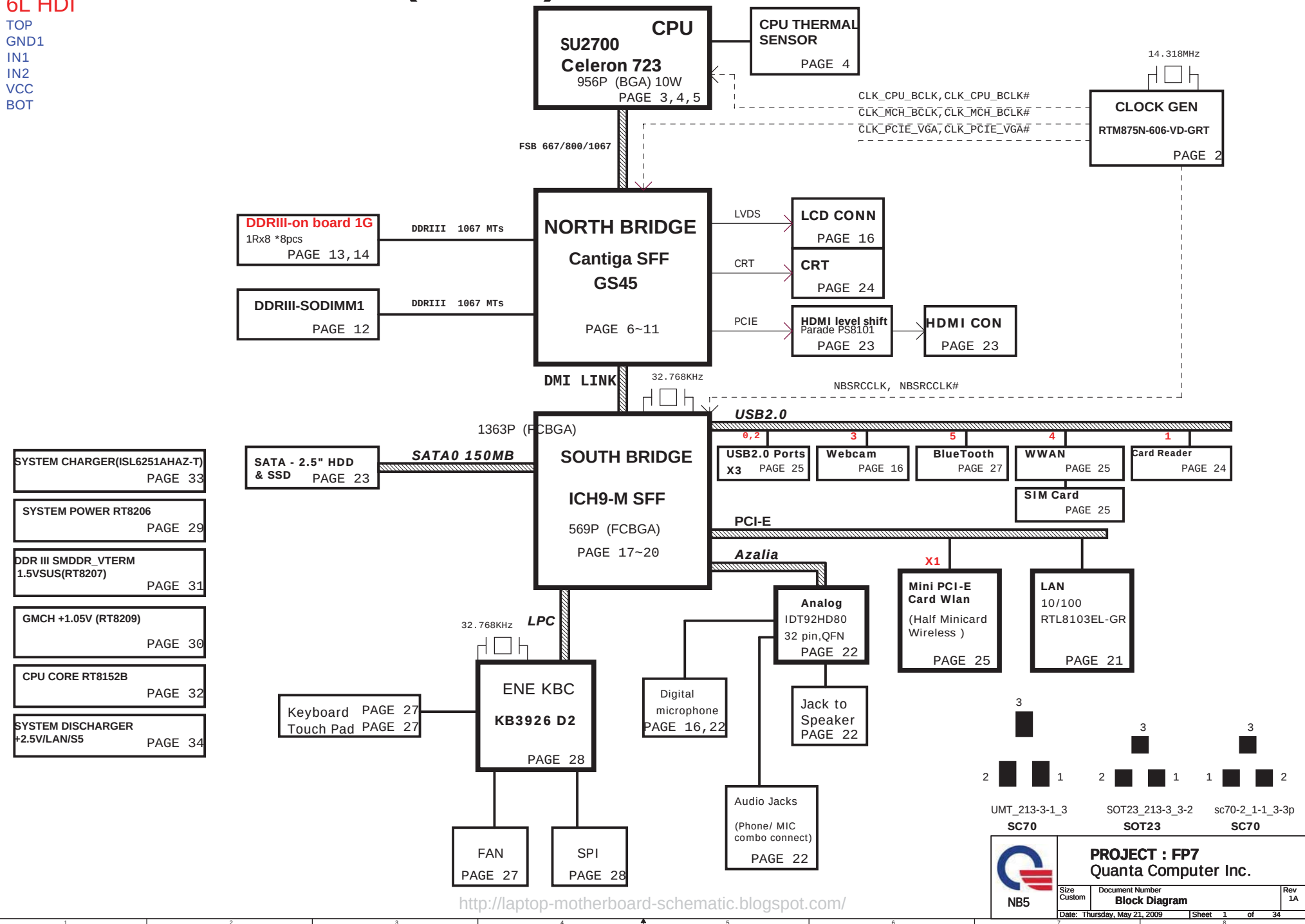


FP7 (CULV) BLOCK DIAGRAM

01

PCB STACK UP
6L HDI

TOP
GND1
IN1
IN2
VCC
BOT



<http://laptop-motherboard-schematic.blogspot.com/>

5/1354321

1.Del Vcc_HDA R5234 (short0402)
2.C5533, C5541, C5205, C5291, R5233 嘲枯 BGA 條啾 ,叫 ㄟfoot print磊PAD 確 よ
3.op6v-0513 update net import 瓜,叫腊t ㄟ ン swap pin
4.PR158 net change from +5VSUS to +3VSUS.
5.PR182 net change from +10VALW to +15VALW.
6.NET NAME Change from R_CLK_VAG_OE# to R_CLK_WWAN_OE#.
7.NET NAME Change from CLK_VGA_OE# to CLK_WWAN_OE#.
8.New add R8 ,R9, R10 ㄟ CRT_R,CRT_G,CRT_B for EMI

5/14

1.New add C7362 C7366 C7357 C7378 C7379 C7367 for CRT RGB EMI
2.New add GND PAD Footprint SPAD-RE170x945
3.del T5007,T5037,T5039,T5044.

5/15

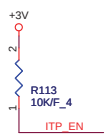
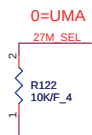
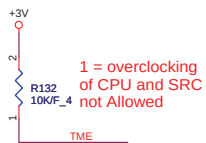
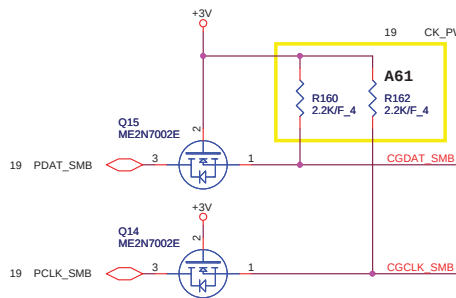
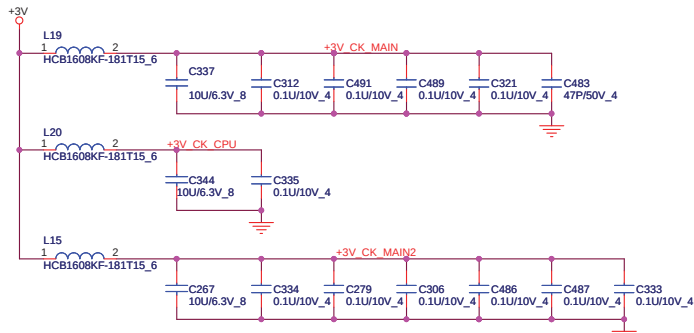
1.update power schematic for LV cup 纂潰.

5/18

1.update rename.
2.Del H7034,H7033.
3.C7354 and C7359 璫 ン.
4.NEW ADD KBC test PAD on GPXA and GPXD
5.Change footprint CN14,CN3,CN4,CN5,CN7,CN9,PL4,PL5,PL6
6.New add C557 for EMI.
7.R124 Footprint change to RC0402
8.Change LAN from G to 10/100(传Transformer)
9.WWAN-->New add R368,R360,C512,C513,C522.
10.DEL NET-->MDI2+,MDI2-,MDI3+,MDI3- .
11.ADD R734,C534,R378,RC523 for HSYNCcmVSYNC.

<http://laptop-motherboard-schematic.blogspot.com/>

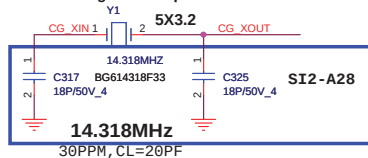
Title		
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Size	Document Number	Rev
A3	<Doc>	<RevCo
Date:	Thursday, May 21, 2009	Sheet 1 of 1



For Realtek reserve

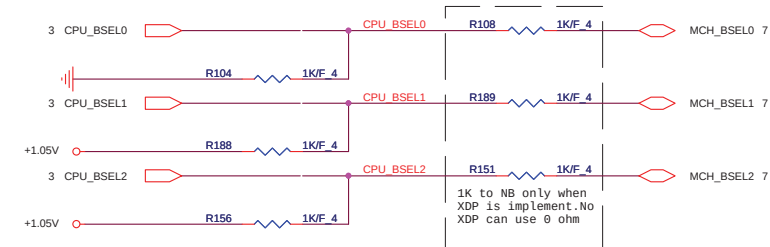


Change to 33p

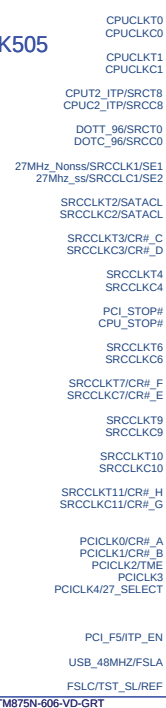


27M_SEL PIN13	PIN20	PIN21	PIN24	PIN25
0=UMA	DOT96T	DOT96C	SRCT1/LCDT_100	SRCT1/LCDT_100
1 = External VGA	SRCT0	SRCC0	27Mout-NSS	27Mout-SS

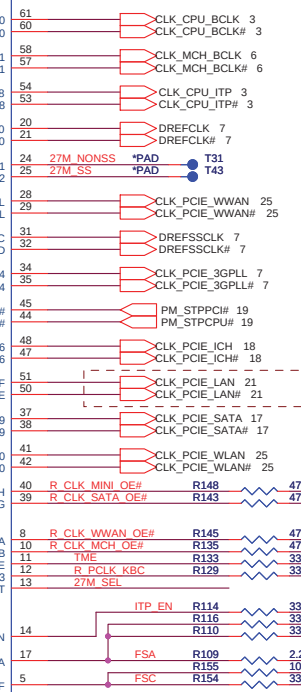
CPU Clock select



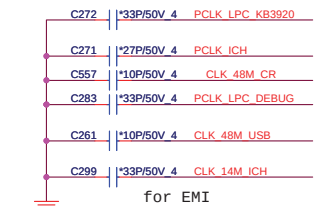
CK505

CK505
Realtek
Silago

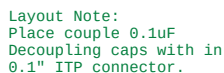
QFN64

RTM875N-606-VD-GR AL000875000
SLG8SP513VTR AL8SP513000

CR#	SRC	CLKREQ	SRC Port
CR#_B	SRC 1,4	CLK_MCH_OE#	SRC4
CR#_A	SRC 0,2	CLK_VGA_OE#	SRC2
CR#_G	SRC 9	CLK_SATA_OE#	SRC9
CR#_H	SRC 10	CLK_MINI_OE#	SRC10



FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

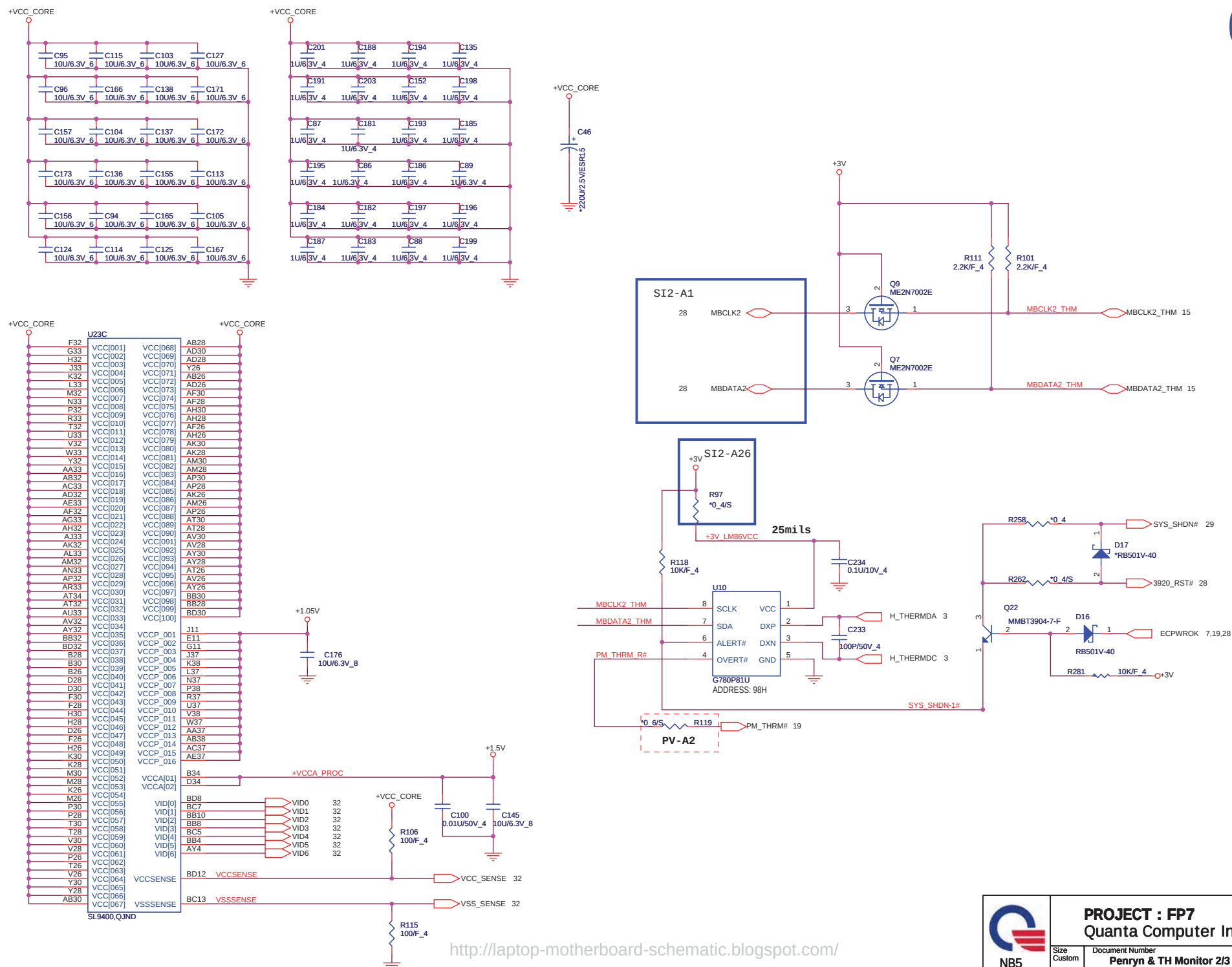


*PAD T14 CPU TEST3
*PAD T40 CPU TEST5
*PAD T37 CPU TEST6

For the purpose of testability, route these signals through a ground referenced Z0 = 55ohm trace that ends in a via that is near a GND via and is accessible through an oscilloscope connection.



Size Custom	Document Number Penryn (HOST BUS) 1/3	R
Date: Monday, May 25, 2009	Sheet 3 of 34	

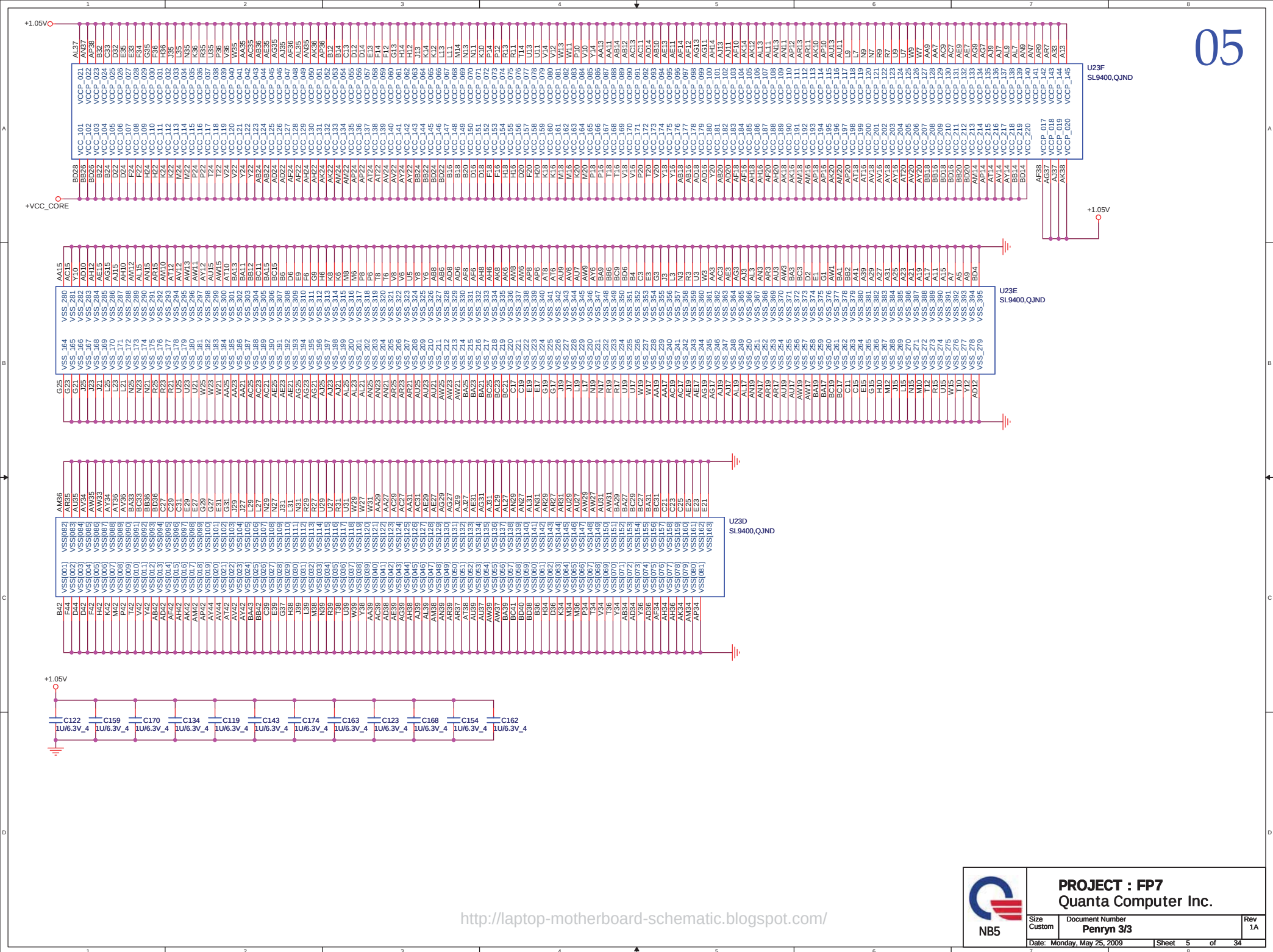


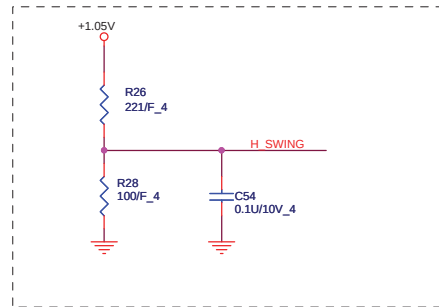
<http://laptop-motherboard-schematic.blogspot.com/>



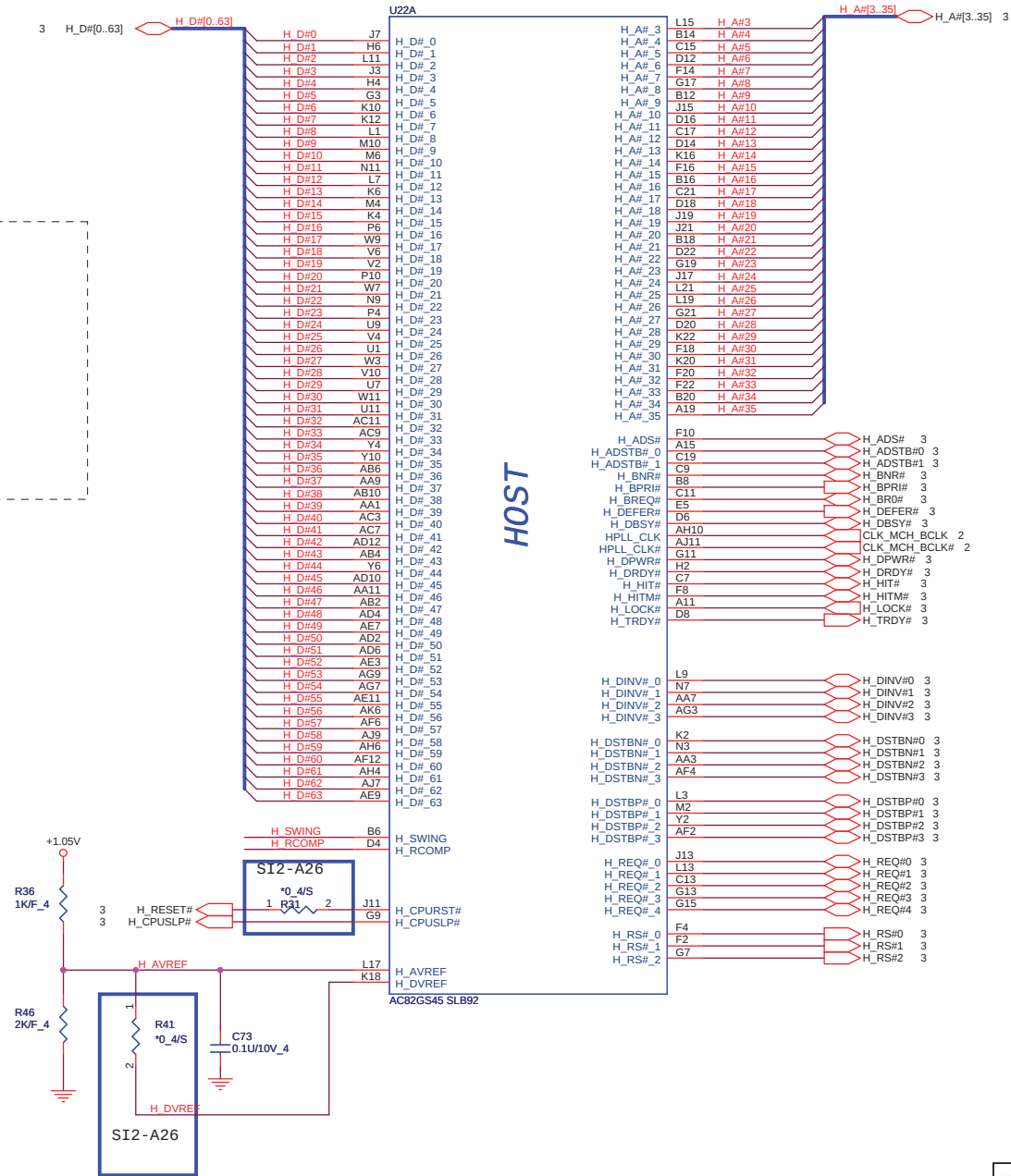
PROJECT : FP7
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Penryn & TH Monitor 2/3	2B
Date: Monday, May 25, 2009	Sheet 4 of 34	



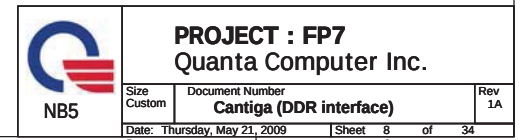


Layout Note:
H_RCOMP trace should be
10-mil wide with 20-mil
spacing.



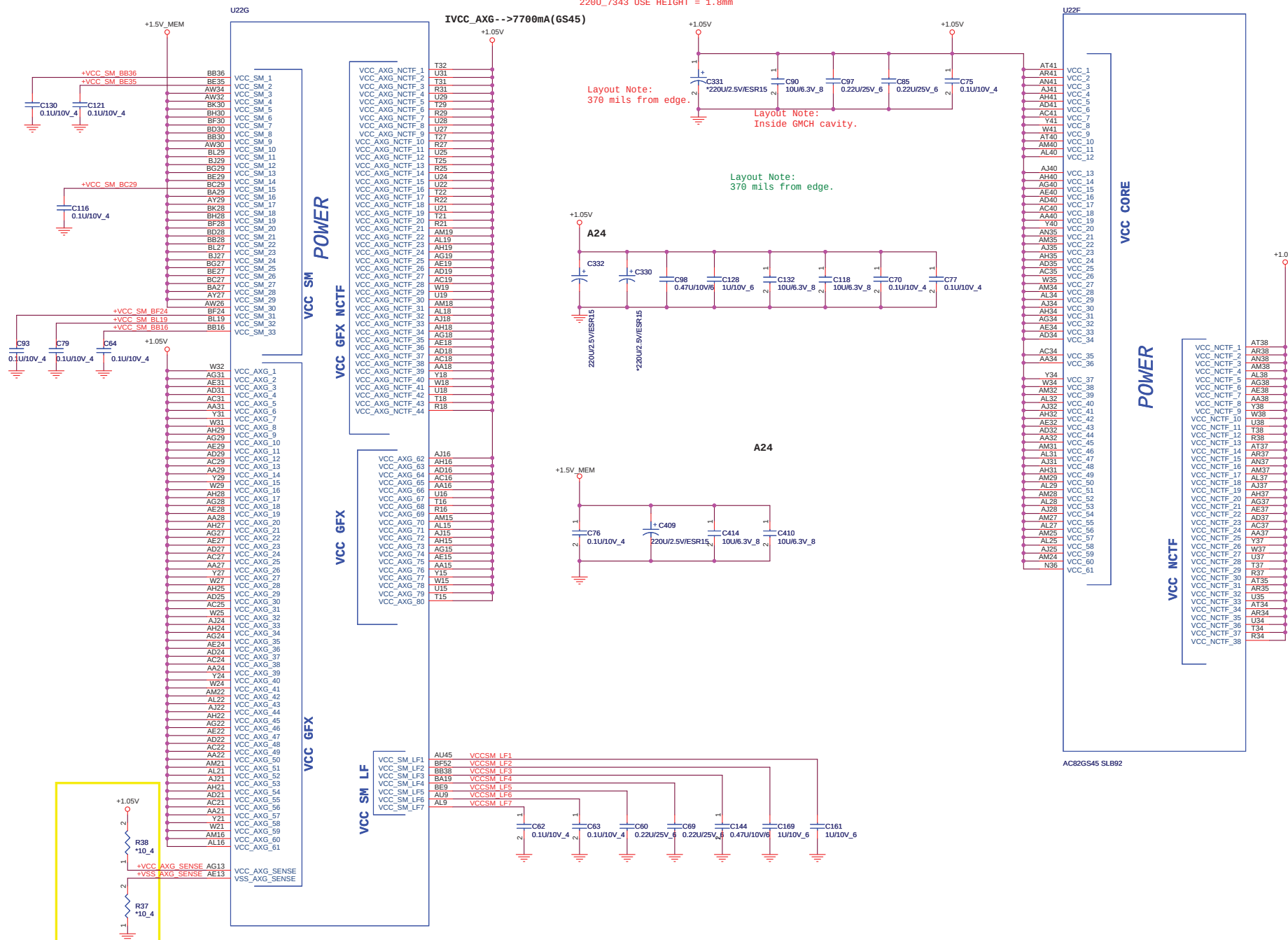
<http://laptop-motherboard-schematic.blogspot.com/>

 NB5	PROJECT : FP7 Quanta Computer Inc.		
	Size Custom	Document Number Cantiga hot	Rev 1A
Date: Thursday, May 21, 2009 Sheet 6 of 34			



Ivcc_sm (DDR3,1.5V,1066MTs) -->4140mA

220U_7343 USE HEIGHT = 1.8mm



render standby feature is not implemented can be left

<http://laptop-motherboard-schematic.blogspot.com/>



PROJECT : FP7
Quanta Computer Inc.

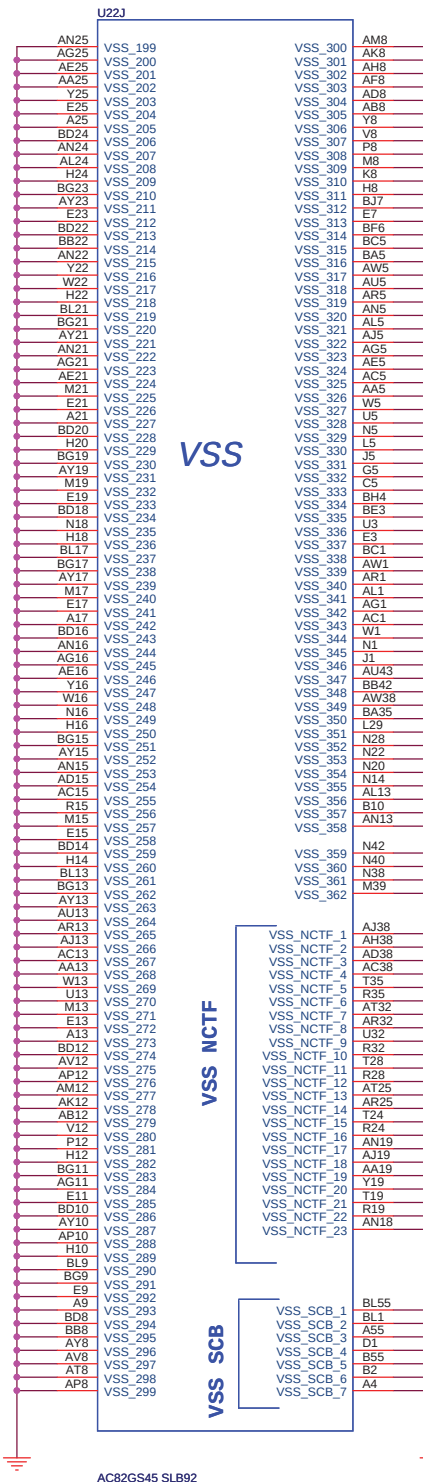
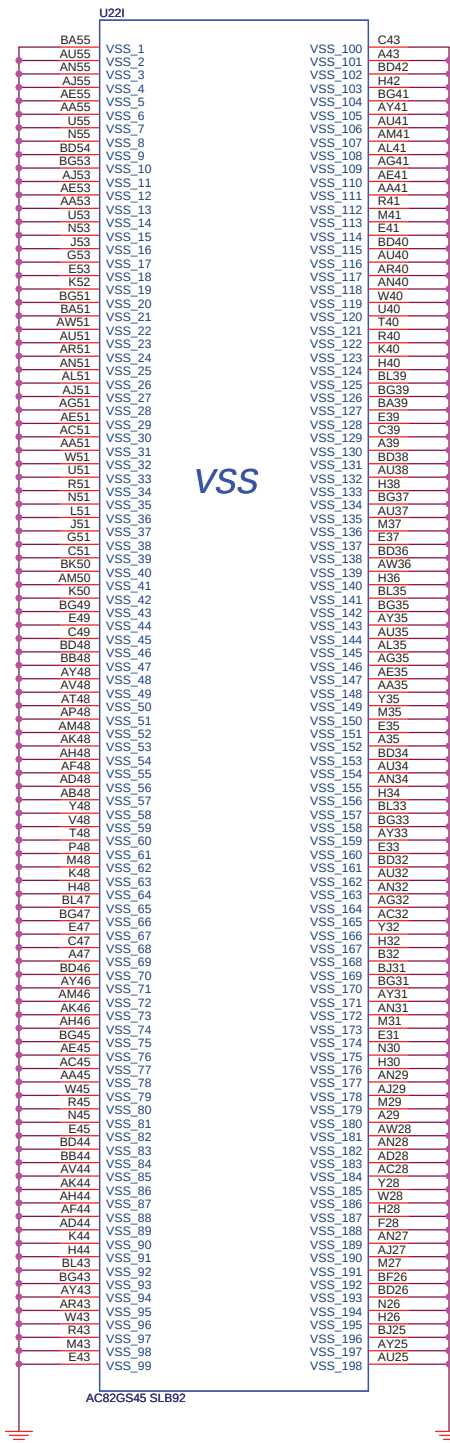
Size Custom	Document Number Cantiga (Vcc)
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Rev
1A

Date: Thursday, May 21, 2009 Sheet 9 of 34

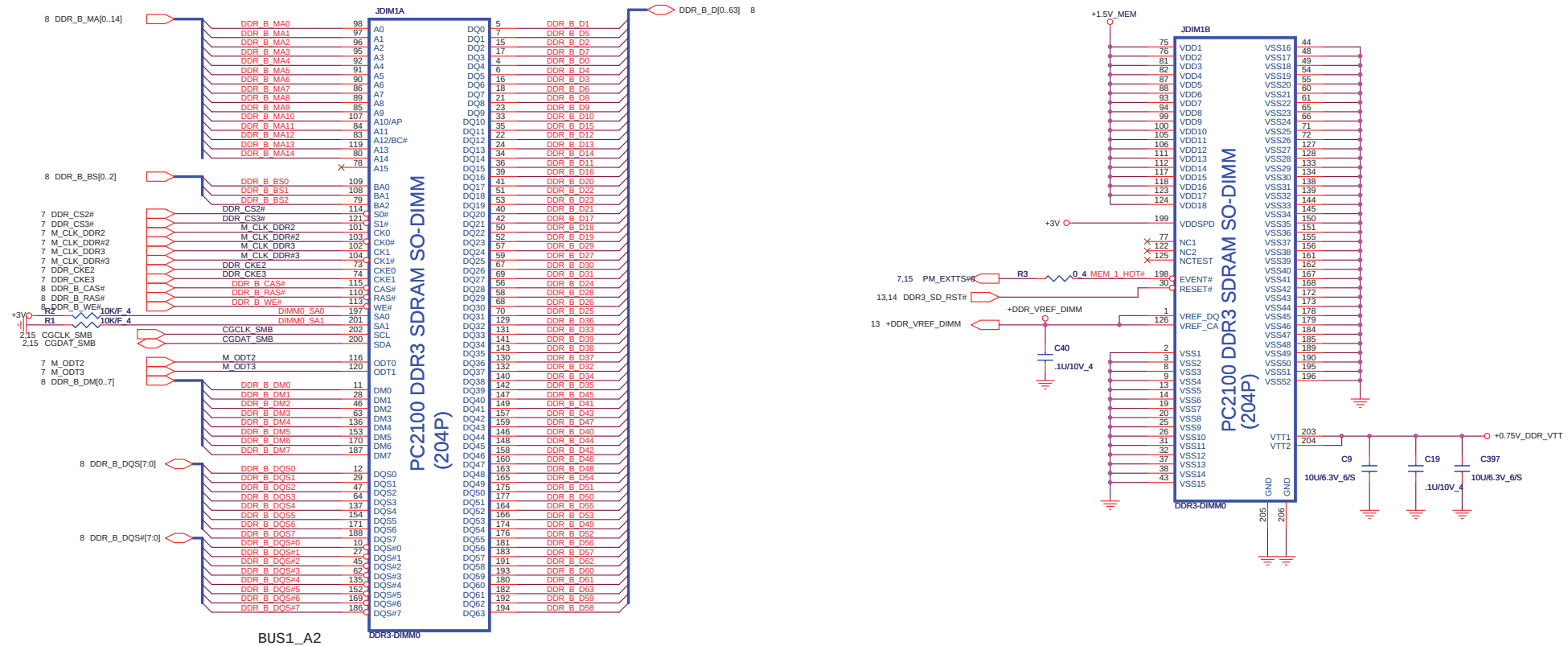


Size Custom	Document Number Cantiga (Power)	Rev 1A
Date: Thursday, May 21, 2009	Sheet 10 of 34	



PROJECT : FP7
Quanta Computer Inc.

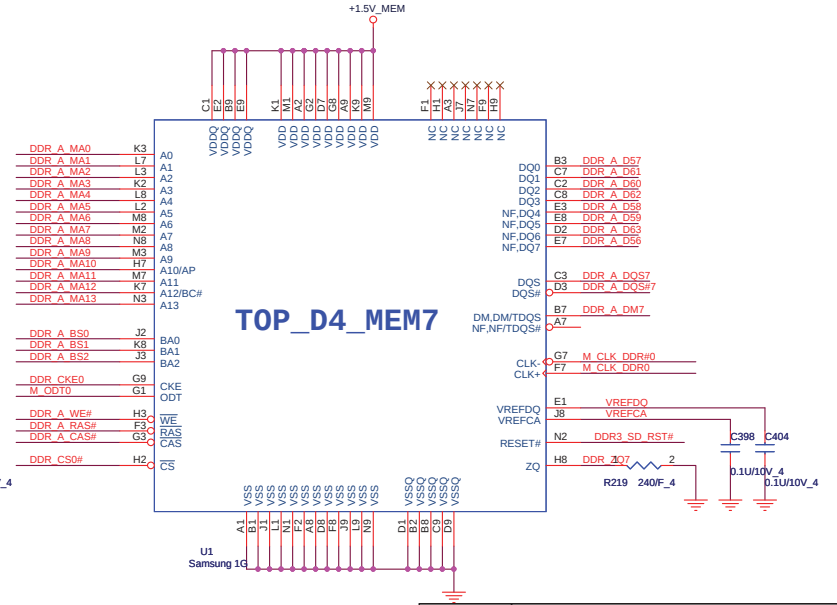
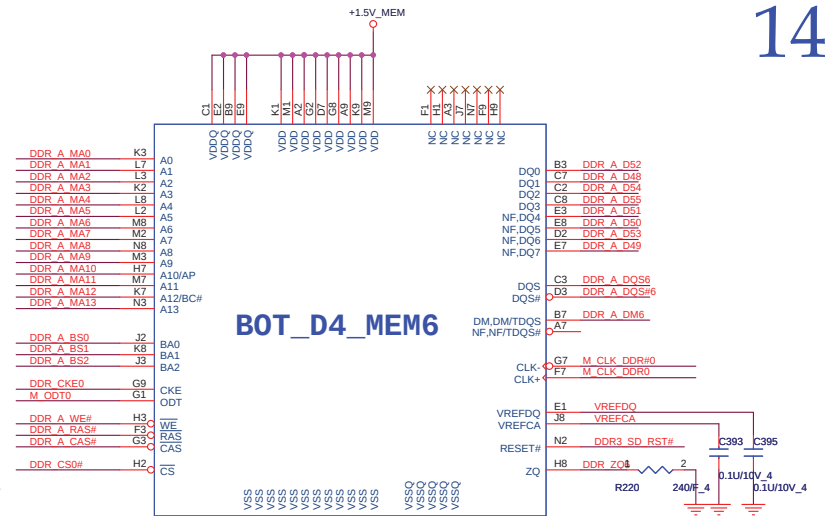
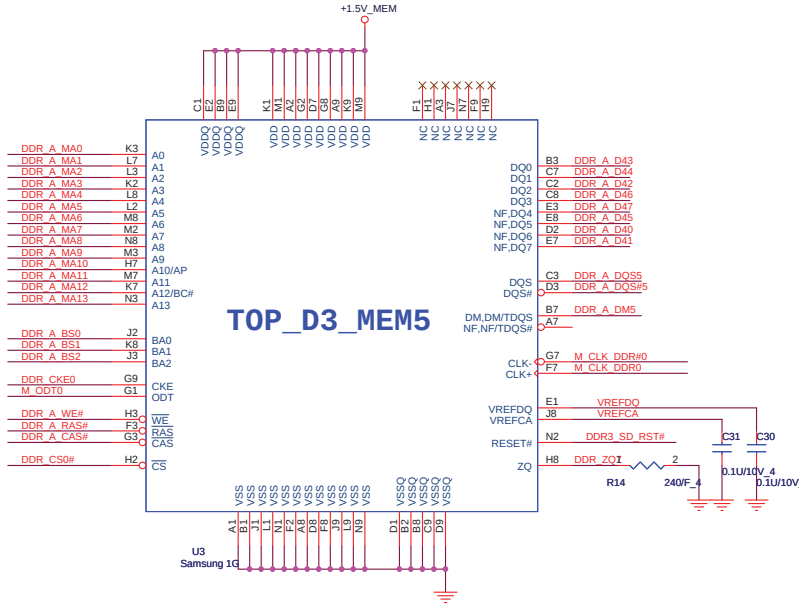
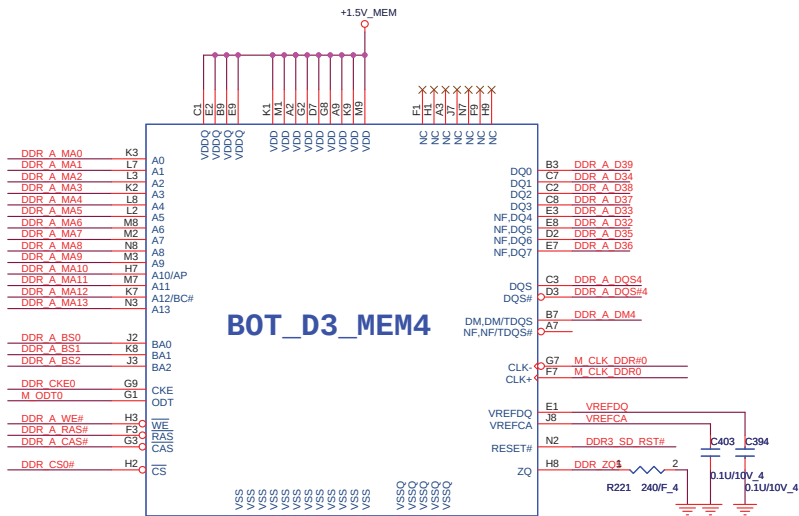
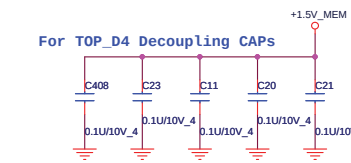
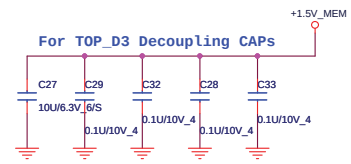
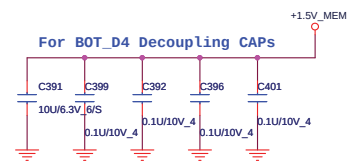
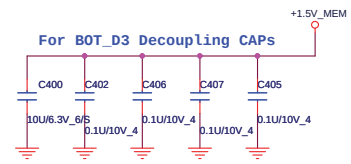
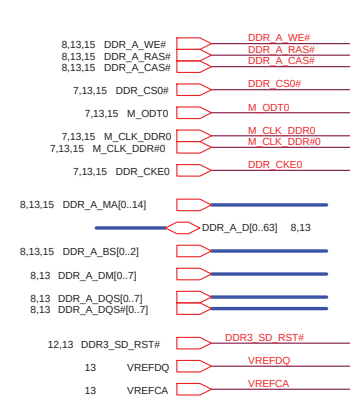
Size Custom	Document Number Cantiga (Vss)	Rev 1A
Date: Thursday, May 21, 2009	Sheet 11 of 34	



PROJECT : FP7
Quanta Computer Inc.

Size Custom	Document Number DDR3 SO-DIMM(200P)	Rev 1A
Date: Thursday, May 21, 2009		Sheet 12 of 34

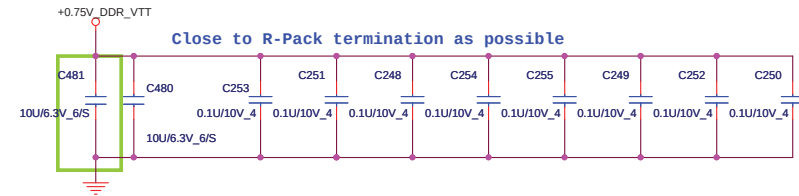
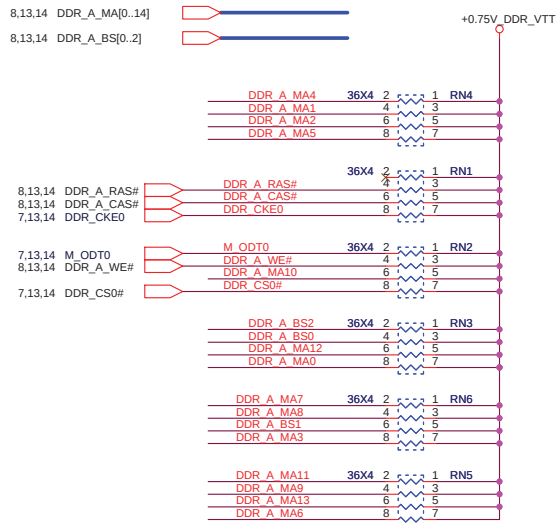




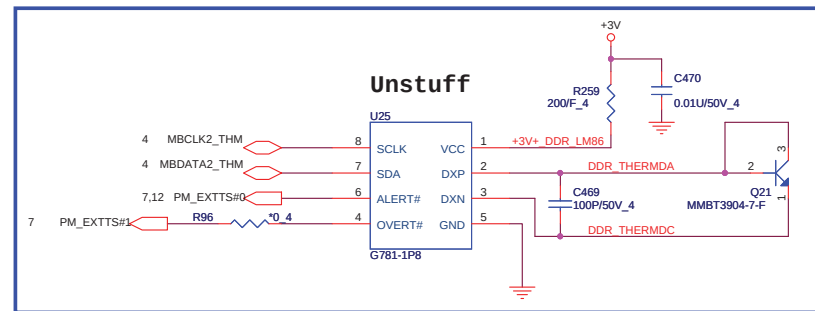
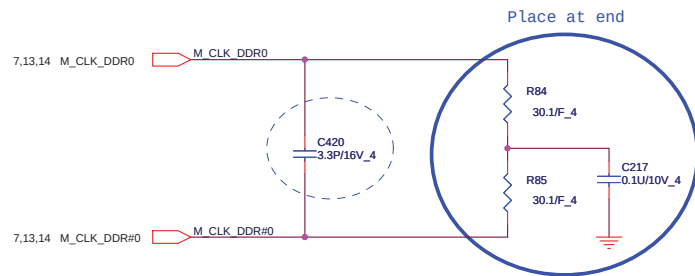
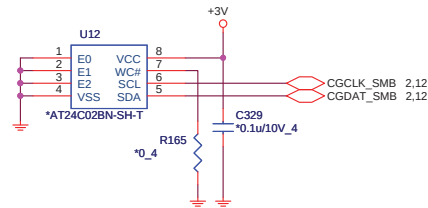
PROJECT : FP7
Quanta Computer Inc.

Size Custom Document Number
Date: Thursday, May 21, 2009 Sheet 14 of 34

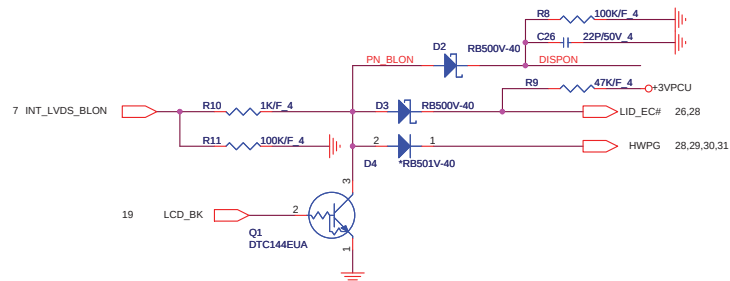
Rev 1A



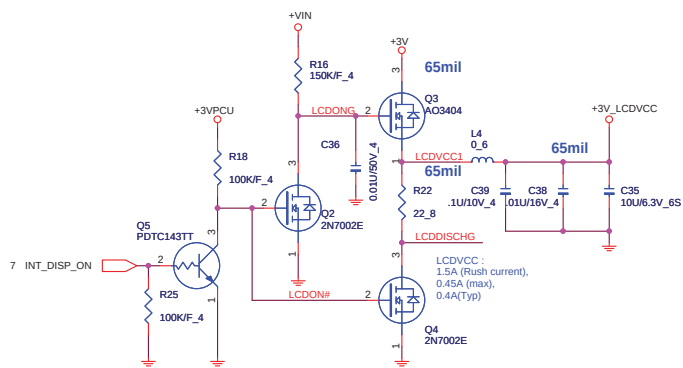
change C434 footprint to 0603



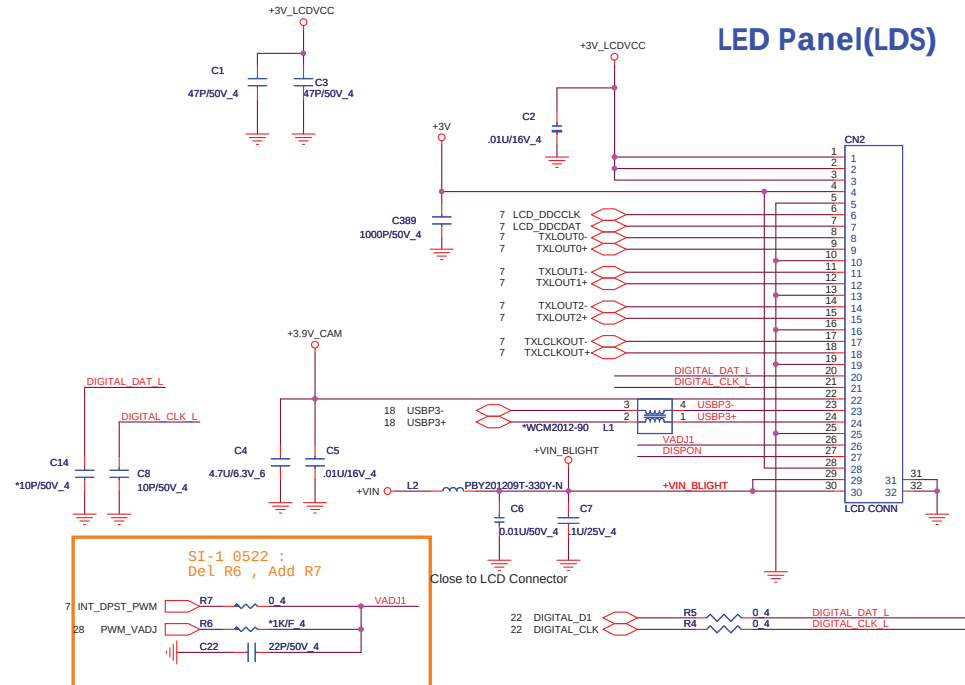
Backlight Control(LDS)



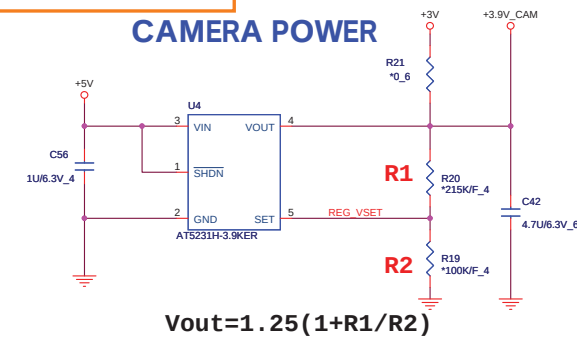
LCD POWER SWITCH



Request by HP RF(47Px2)

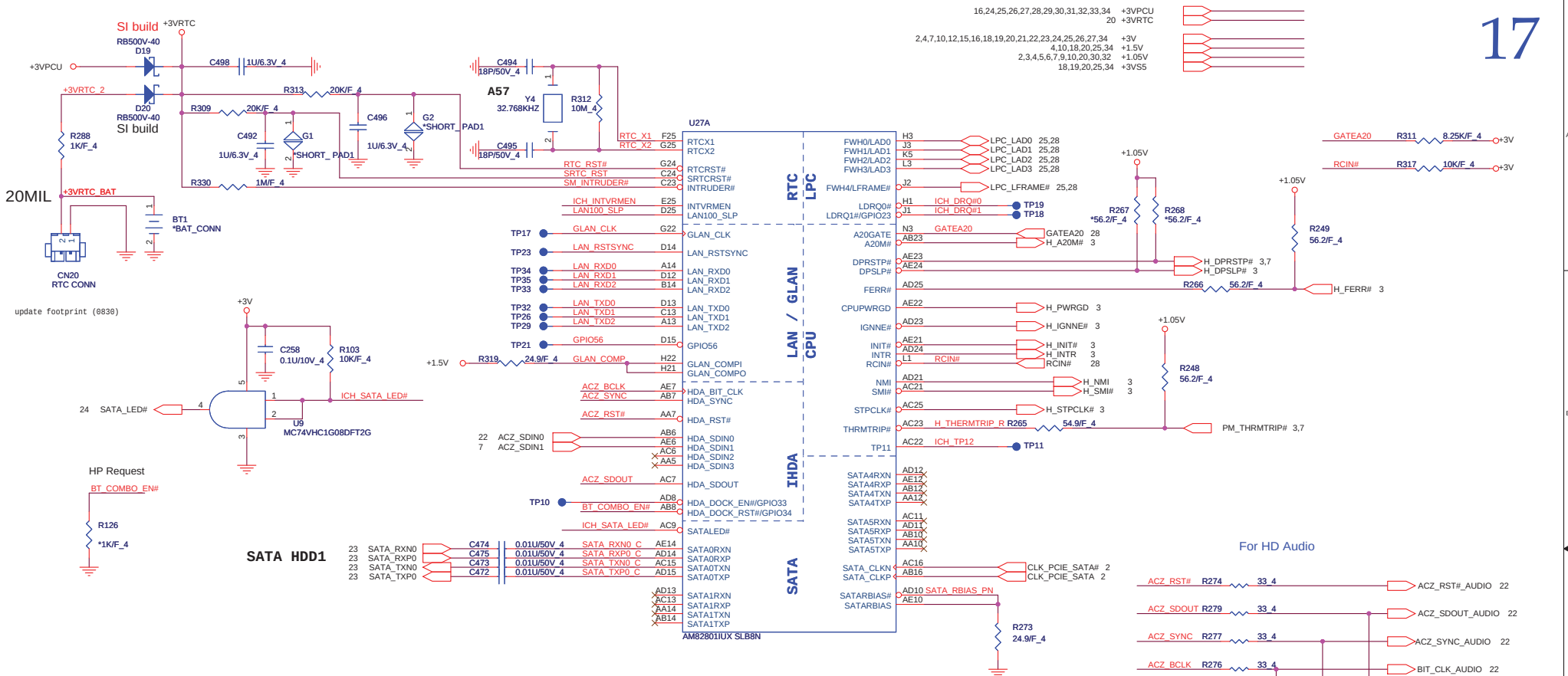


CAMERA POWER



$$V_{out} = 1.25(1 + R1/R2)$$

		PROJECT : FP7	
		Quanta Computer Inc.	
Size	Document Number	Rev	
Custom	LED Panel / Camera	1A	
Date: Monday, May 25, 2009	Sheet 16	of 34	



SB Strap

XOR Chain Entrance Strap

ICH_TP3	HDA_SDOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal operation(Default)
1	1	Set PCIE port config bit 1

ICH9 Boot BIOS select

STRAP	PCI_GNT0#	SPI_CS#1
SPI	0	1
PCI	1	0
LPC	1	1

(default)

A16 swap override strap

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

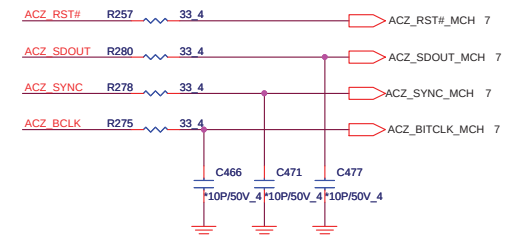
No Reboot Strap

ACZ_SPKR	Low: Default Hi: No reboot
----------	-------------------------------

TPM physical presence

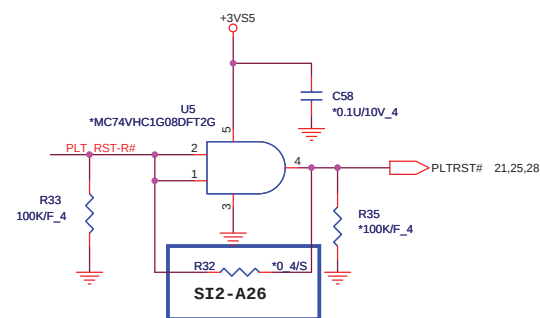
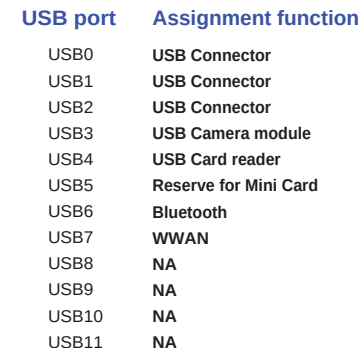
ICH_GPIO57	Low: Default
------------	--------------

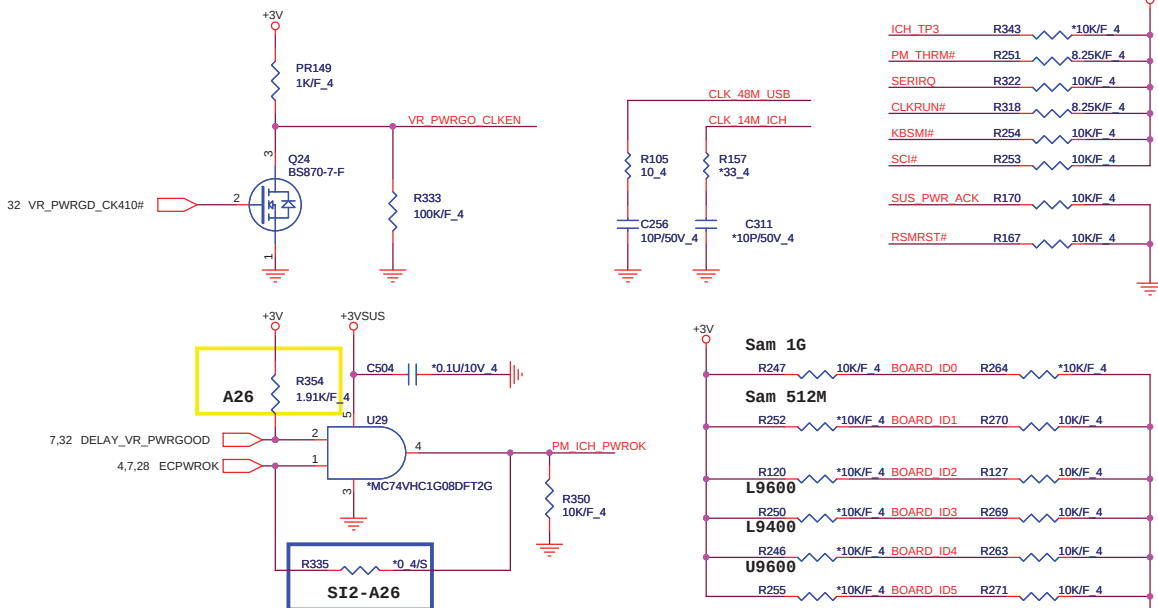
Connect UMA HDA



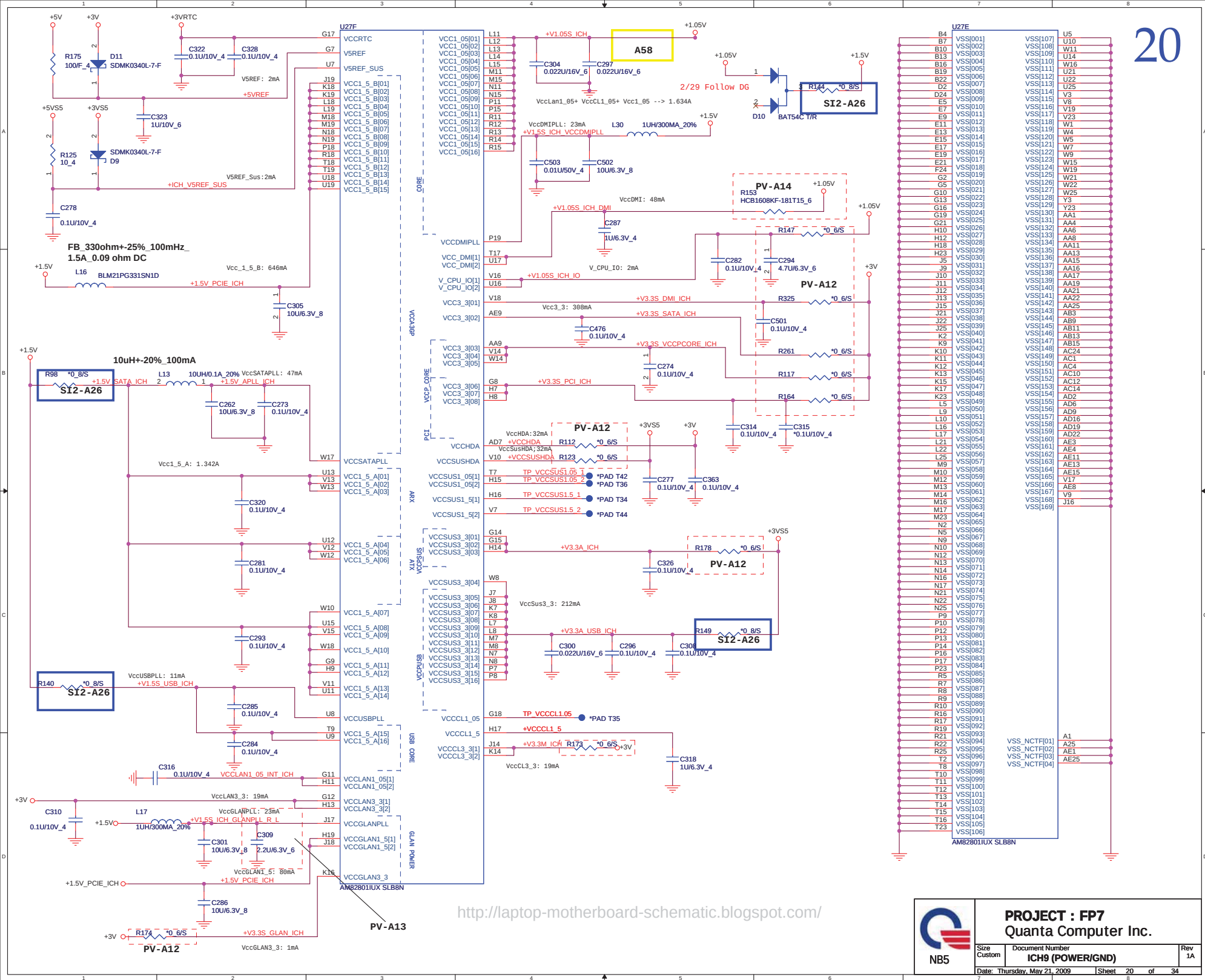
PROJECT : FP7
Quanta Computer Inc.

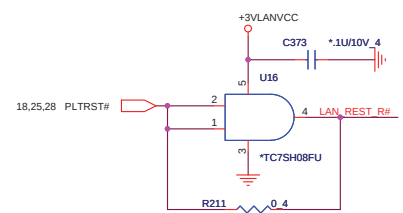
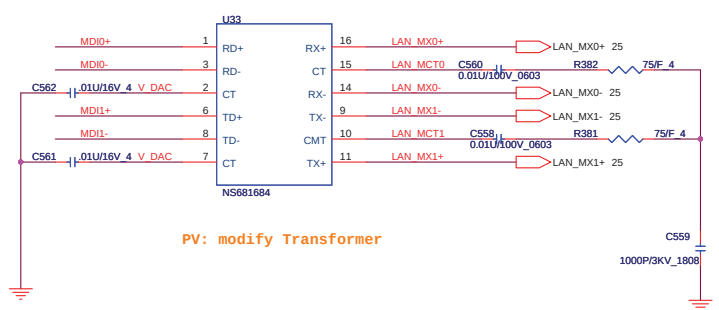
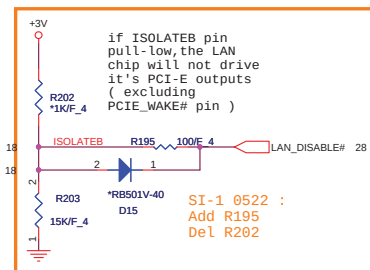
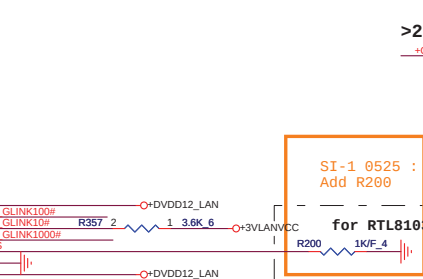
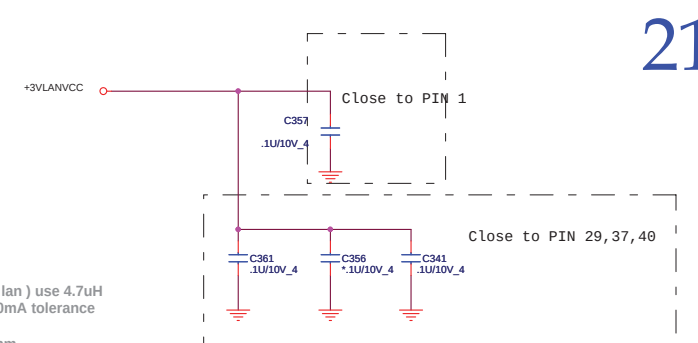
Size Custom	Document Number ICH9 (SATA/CPU)	Rev 1A
Date: Thursday, May 21, 2009	Sheet 17 of 34	

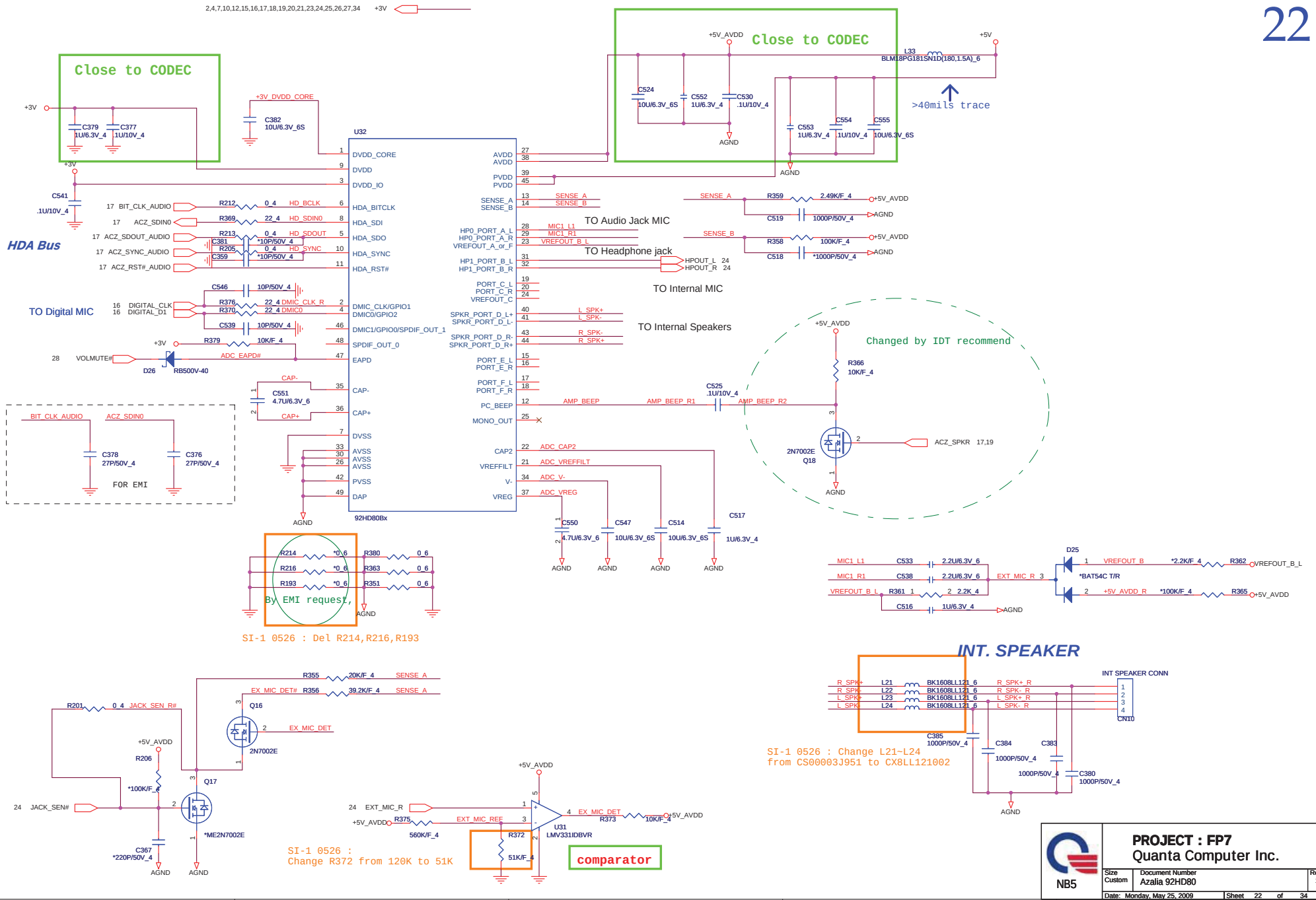




PV		Update Board ID table					
		Board ID table					
	Board ID 0 GPIO19	Board ID 1 GPIO21	Board ID 2 GPIO22	Board ID 3 GPIO36	Board ID 4 GPIO37	Board ID 5 GPIO17	
RESERVE	0	0	0	0	0	0	
Samsung 1G	1	0	0	0	0	0	
Samsung 512M	0	1	0	0	0	0	
RESERVE	0	0	0	0	0	0	
L9600 2.13G	1	0	0	1	0	0	
L9400 1.86G	1	0	0	0	1	0	
U9600 1.6G	1	0	0	0	0	1	

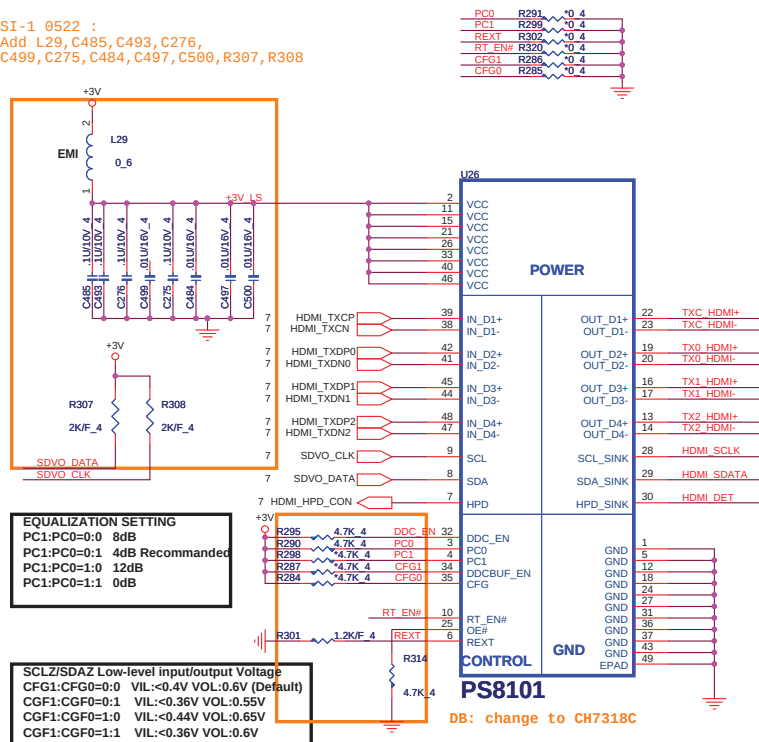






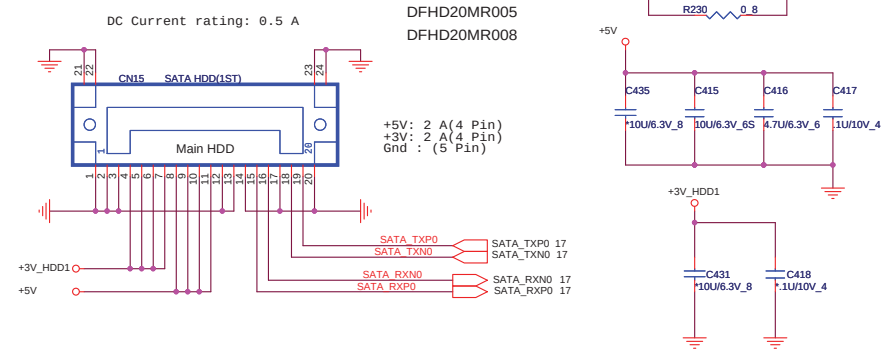
	PDT	CHR	NXP
R631	NC	0	0
R596	NC	4.7K	NC
R605	NC	4.7K	NC
R608	4.7K	4.7K	NC
R558	100K	NC	NC
R594	499	1.2K	10K
R550	7.5K	7.5K	7.5K
R552	20K	20K	20K
R595	NC	NC	NC
Q31	2N7002	NC	NC
R860	NC	4.7K	4.7K
R557	NC	100K	100K
D6	NC	NC	BAV99W

SI-1 0522 :
Add L29, C485, C493, C276,
C499, C275, C484, C497, C500, R307, R308

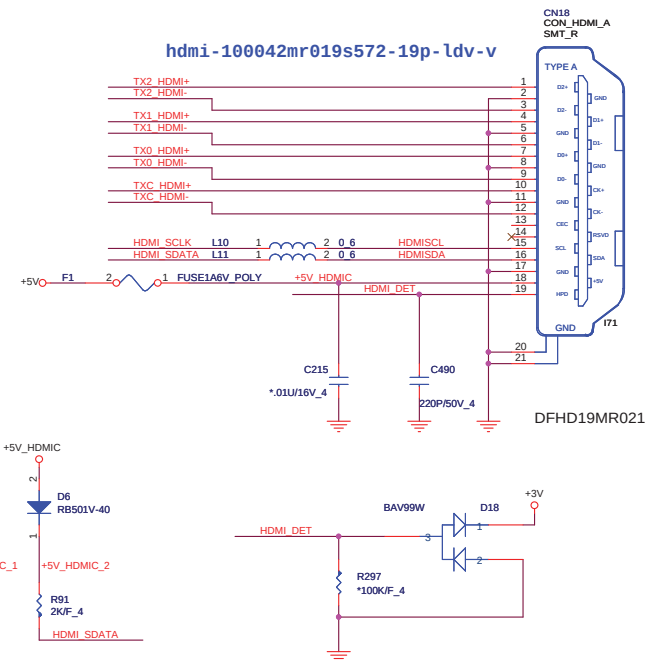


SI-1 0522 :
Add R295, R290, R301, R314
Change R301 from 499 to 1.2K

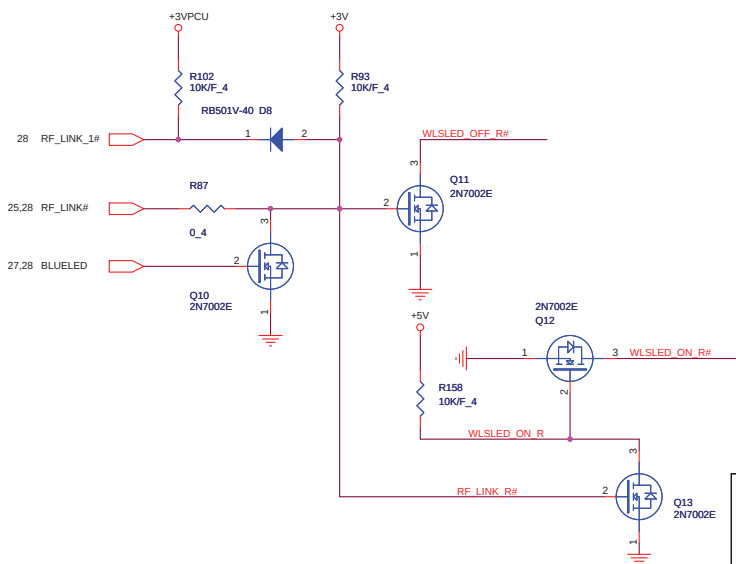
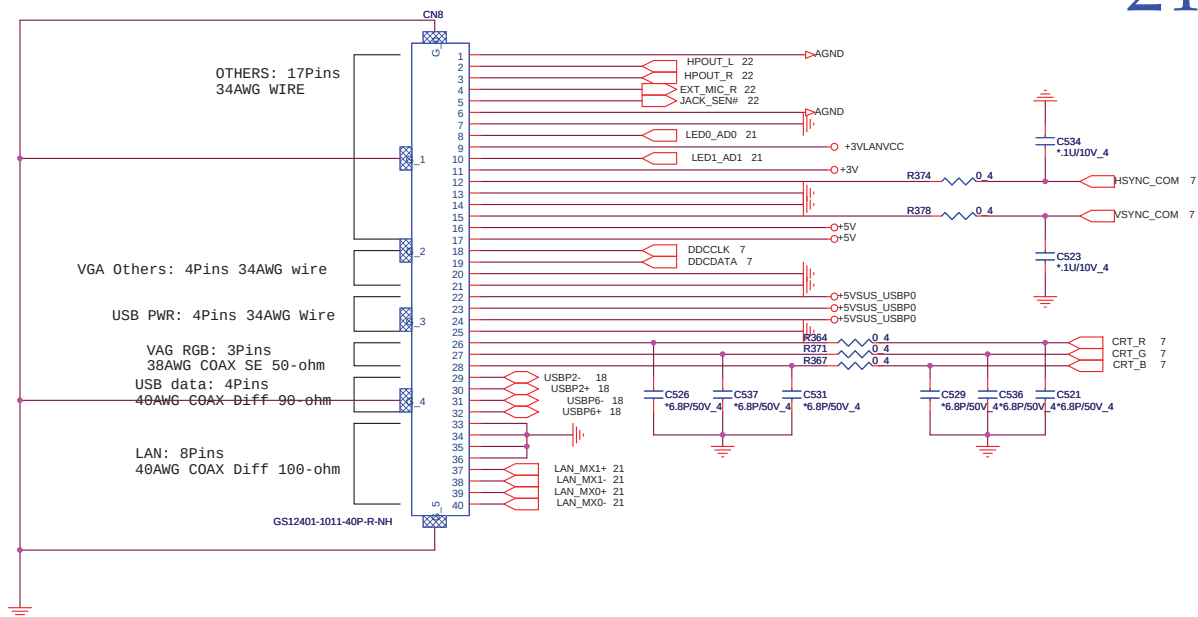
2.5" SATA HDD OR SSD(TOSHIBA)



HDMI Connector



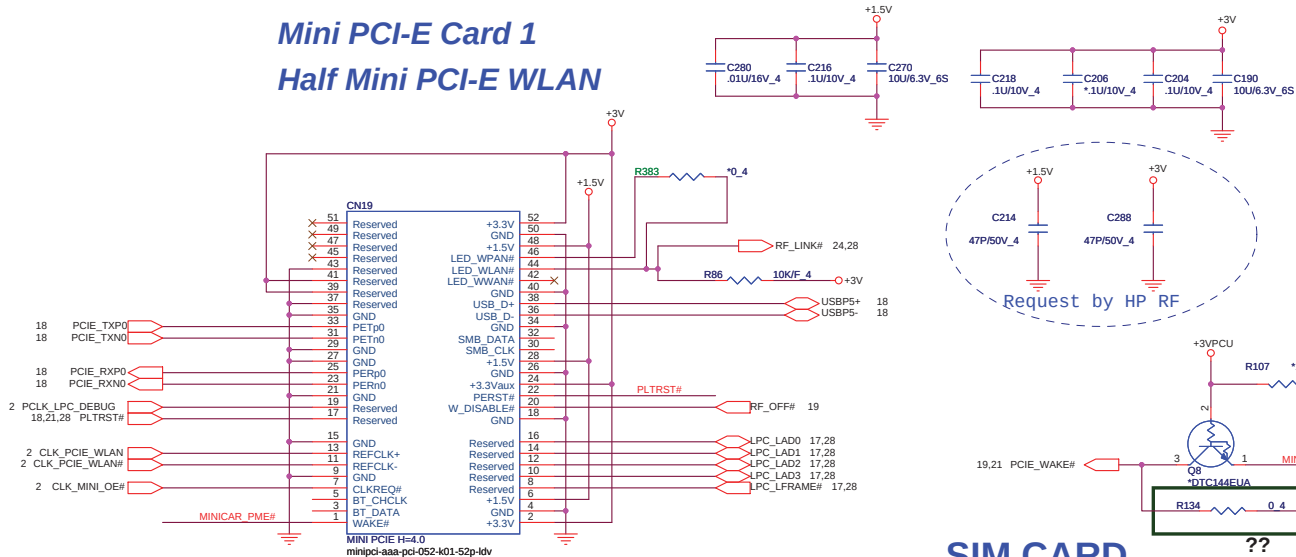
NB5	PROJECT : FP7 Quanta Computer Inc.		
	Size Custom	Document Number HDD/HDMI	Rev 1A
Date: Monday, May 25, 2009 Sheet 23 of 34			



PROJECT : FP7
Quanta Computer Inc.

Size Custom	Document Number CR DB CONN	Rev 1A
Date: Thursday, May 21, 2009		Sheet 24 of 34

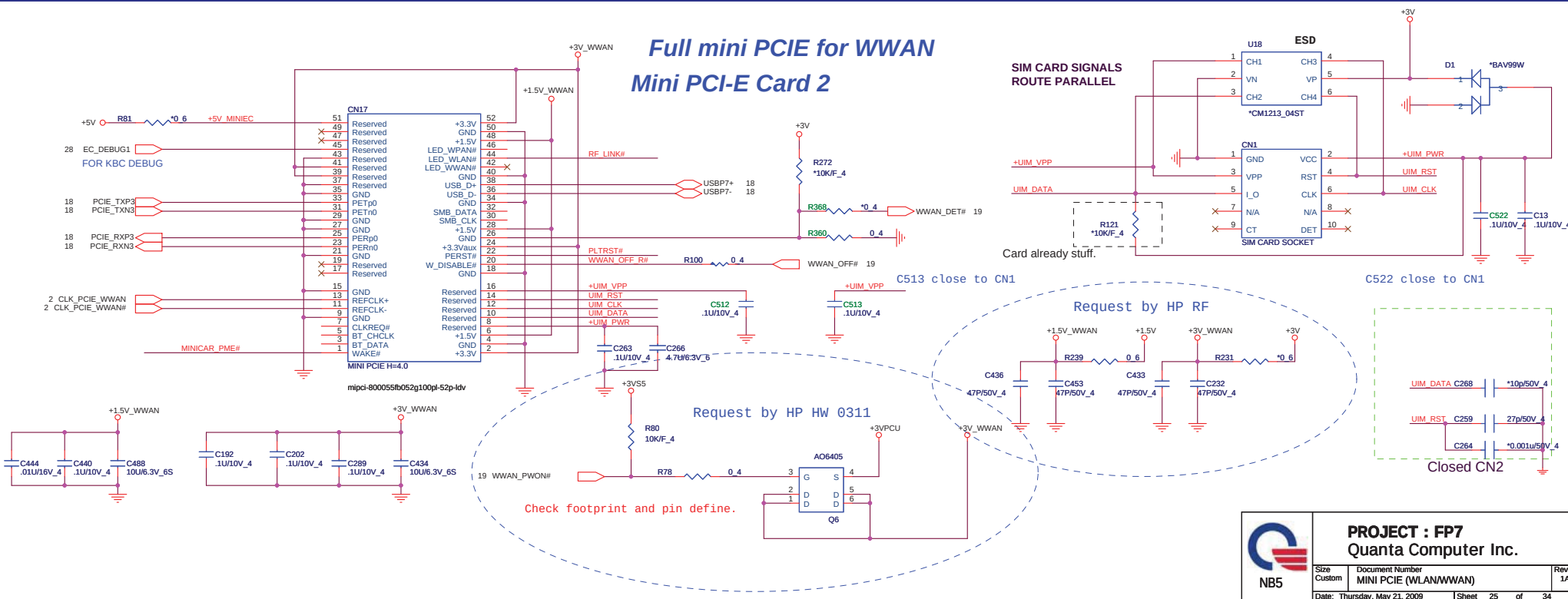
Mini PCI-E Card 1
Half Mini PCI-E WLAN



The value of the capacitor is suggest by Siemens HQ expert.
For against 900MHz RF interference. The value of capacitor is 27pF.
For against 1800MHz RF interference. The value of capacitor is 10pF.
1nF/10nF value capacitor use for against ESD purpose.

SIM CARD

Full mini PCIE for WWAN
Mini PCI-E Card 2



Check footprint and pin define.

Request by HP RF

C522 close to CN1

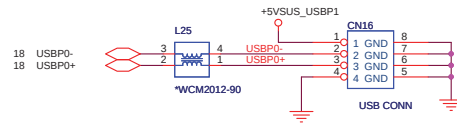
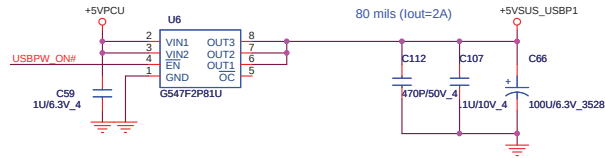
— Closed CN:



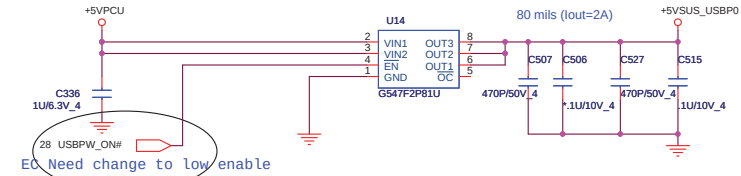
PROJECT : FP7
Quanta Computer Inc.

Size Custom	Document Number MINI PCIE (WLAN/WWAN)	Rev 1A
Date: Thursday, May 21, 2009	Sheet 25 of 34	

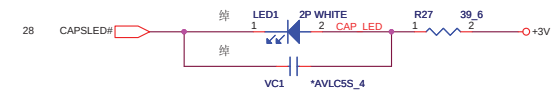
1x Left side USB PORT



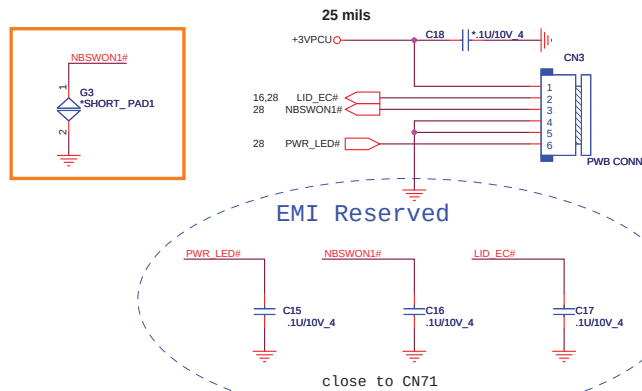
For Right 2xUSB Ports PWR



CAPS LEDs

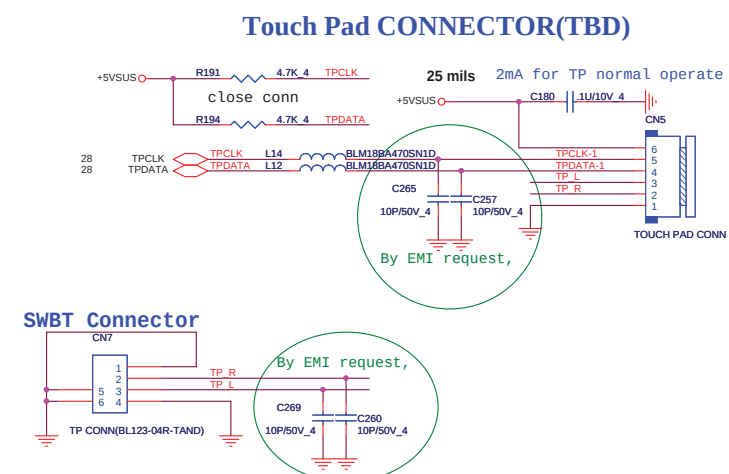


PWR BT CONN.

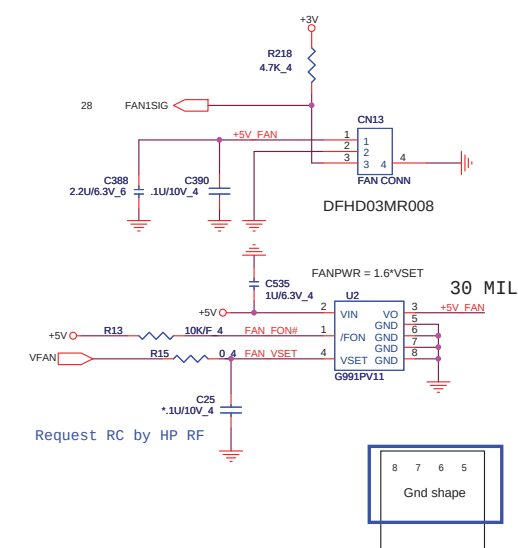


		PROJECT : FP7 Quanta Computer Inc.	
Size	Custom	Document Number	USB CON/LED/PWR/BT
Date:	Thursday, May 21, 2009	Sheet	26 of 34
Rev		1A	

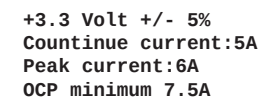
27



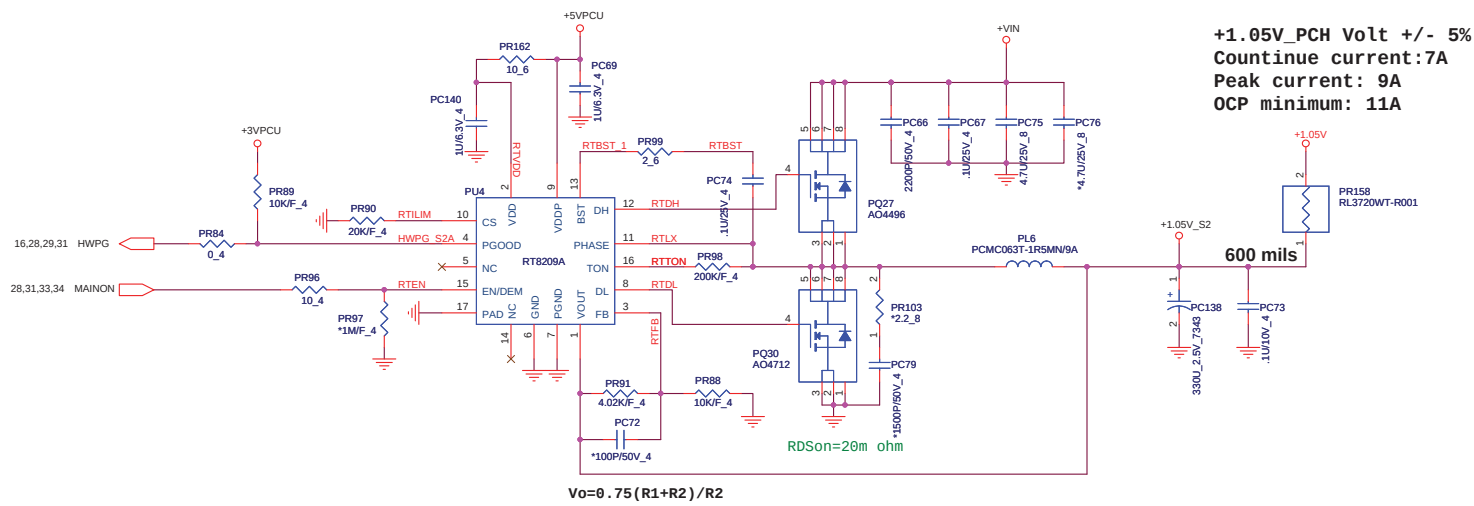
CPU FAN





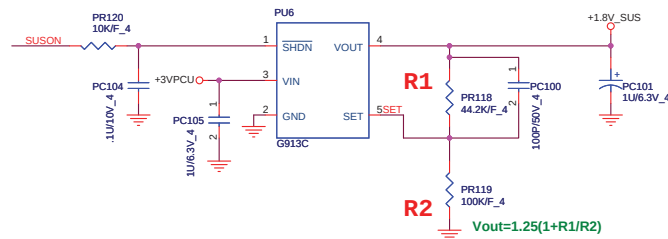
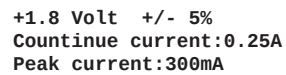


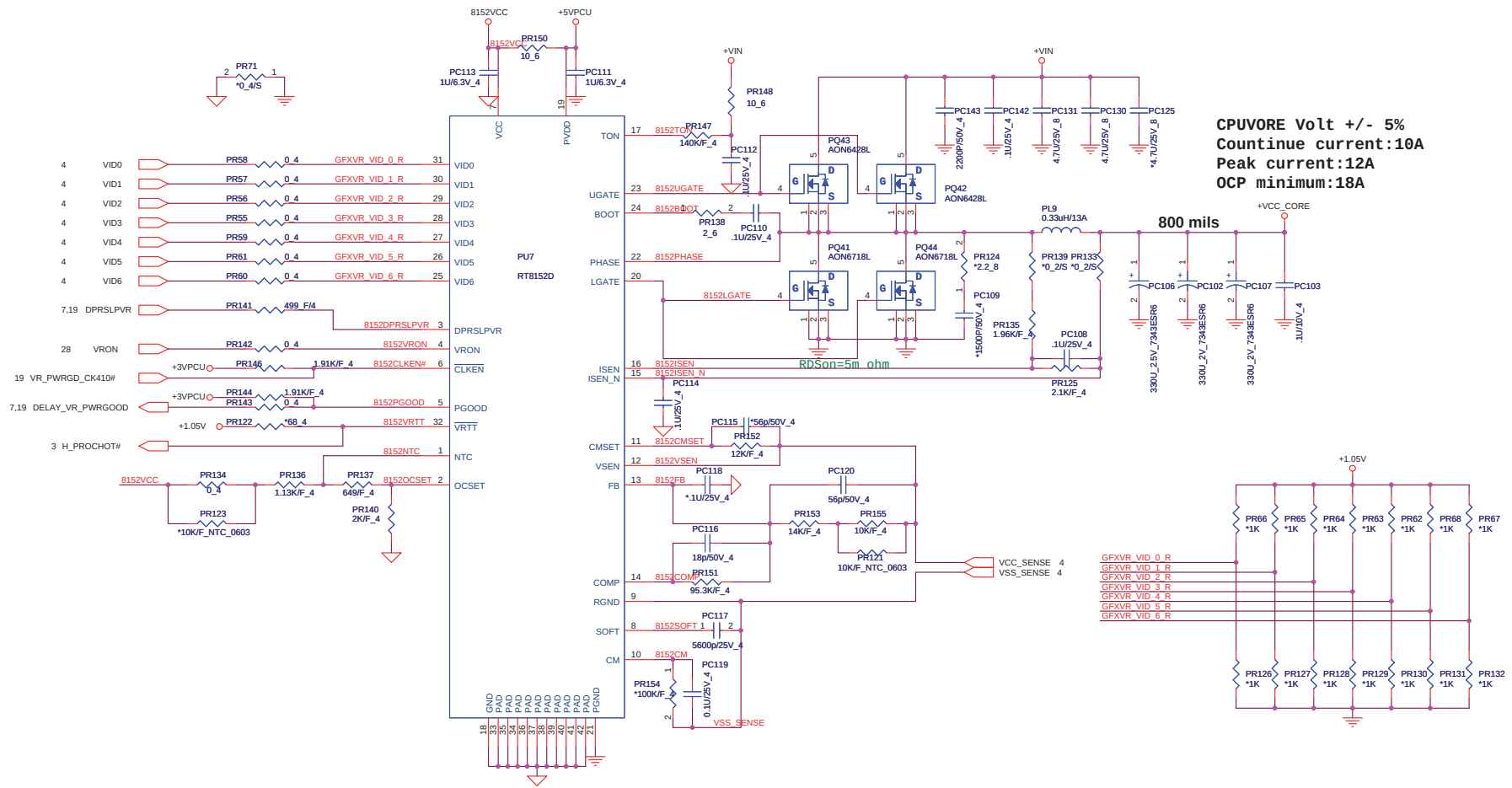
 NB5	PROJECT : FP7 (CULV) Quanta Computer Inc.		
	Size Custom	Document Number +5V/+3V (RT8206B)	Rev 1A
Date: Thursday, May 21, 2009		Sheet 20 of 34	



+1.05V_PCH Volt +/- 5%
Continue current: 7A
Peak current: 9A
OCP minimum: 11A

 NB5	PROJECT : FP7 (CULV) Quanta Computer Inc.		
	Size Custom	Document Number +1.1V VTT / PCH	Rev 1A
Date: Thursday, May 21, 2009		Sheet 30 of 34	

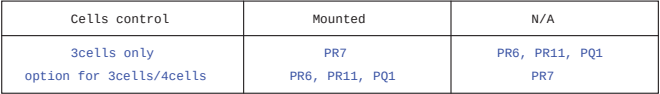




CPU TYPE	PL9	PC102	PC107	PR135	PR125	PR151	PR140	PR137	PR136	PQ43, PQ44
LV	0.33uH_DC+33K0M000	ESR6_CH733RM8831	ESR6_CH733RM8831	1.96K_CS21962FB08	2.1K_CS22102FB12	95.3K_CS39532FB03	2K_CS22002FB19	649_CS16492FB13	1.13K_CS21132FB13	POP
CULV	0.82uH_DC+82D0M000	ESR9_CH733RY8802	NA	2.49K_CS22492FB22	2.49K_CS22492FB22	191K_CS41912FB17	1.5K_CS21502FB14	330_CS13302FB11	715_CS17152FB17	NA

PROJECT : FP7 (CULV)
Quanta Computer Inc.

Size Custom	Document Number VCore (RT8152A)	Rev 1A
Date: Thursday, May 21, 2009		Sheet 32 of 34



Size Custom	Document Number Charger (ISL6251)	Rev 1A
Date: Thursday, May 21, 2009		Sheet 33 of 34

