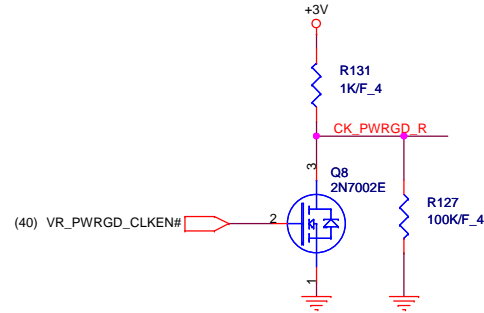
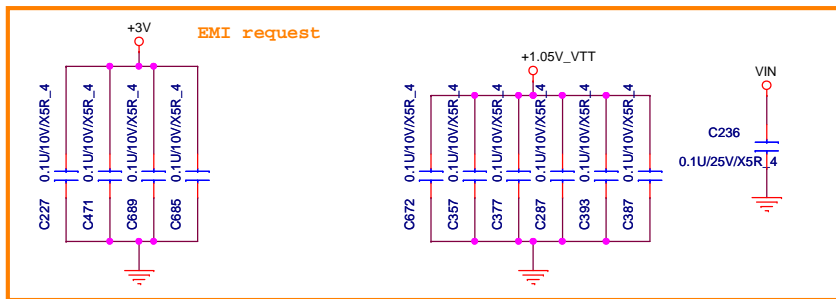
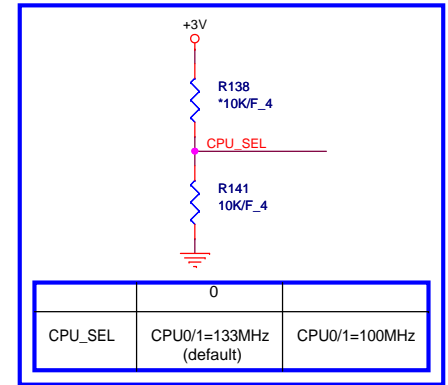
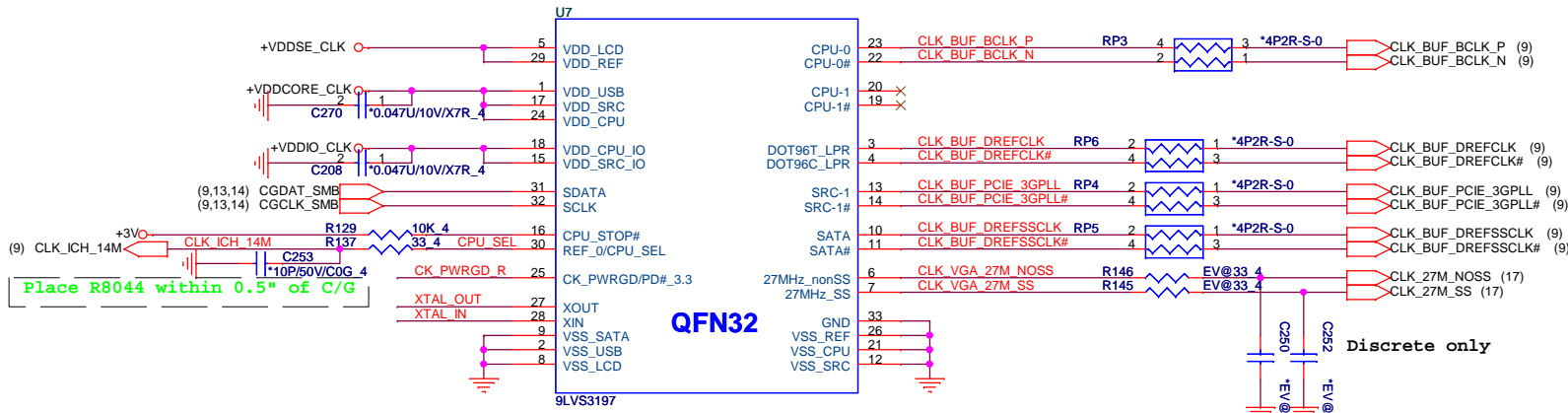
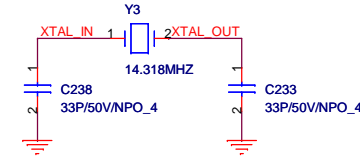
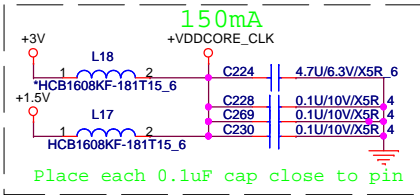
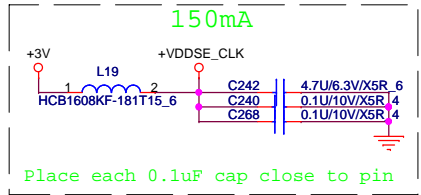
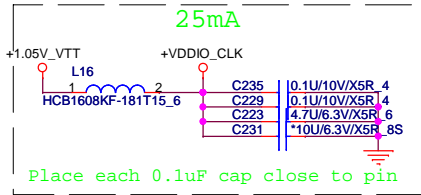


Table of Contents

PAGE	DESCRIPTION
1	Schematic Block Diagram
2	Front Page
3	CLOCK GENERATOR
4-7	Arrandale CPU
8-12	Ibex Peak-M
13-14	DDRIII SO-DIMM
15-19	Discreate VGA (N11M-GE2)
20	LCD + Camera Conn.
21	CRT Conn.
22	HDMI Conn.
23	ATHEROS (AR8151/AR8152)
24	CARD READER(OZ600FJ)
25	AL272/AMP/MIC/SPK
26	USB x 2 /USB+ ESATA
27	USB X2/SIM_CARD/LEDs/RF
28	MINI-Card (WLAN)
29	MINI-Card ( WWAN/SSD)
33	ONFI
34	Express Card
35	K/B & T/P
36	BLUETOOTH
37	FAN & Thermal
38	G-Sensor
39	B To B Conn.
40	ITPM & RFID EEPROM
41	KBC IT8502E
42	HOLD & SKEW
43	Discharge
44	Charger
45	DDR3 (TPSS116REGR)
46	1.05V_VTT & 1.05_PCH (RT8204)
47	3V/5V (MAX17101)
48	CPU (MAX17082)
49	DIS_GFX_VCC (MAX8792)
50	DIS_1.8V_RUN (OZ8116LN)
51	Power Block Dianram
52	XDP
53	Revision & Schematic Value Description
54	BOM Matrix Table

Power States

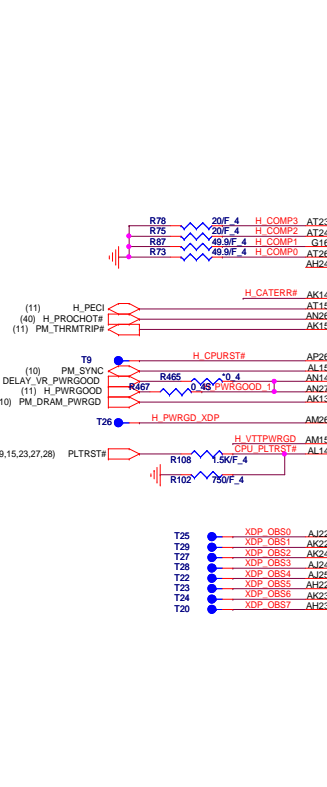
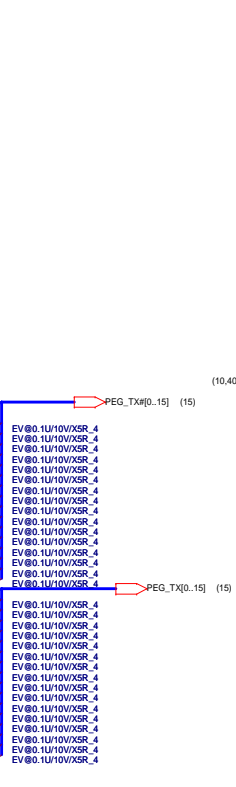
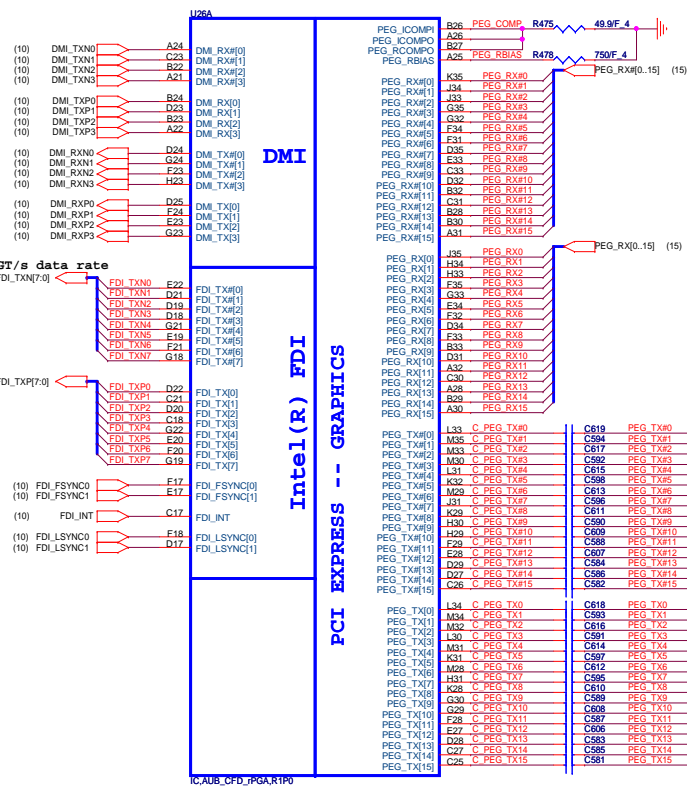
POWER PLANE	VOLTAGE	PAGE	DESCRIPTION	CONTROL SIGNAL	ACTIVE IN
VIN	10V--+20V	23,32,43,44,45,46,47,48,49,50	MAIN POWER		S0-S5
+3VRTC	+3.0V--+3.3V	9,12,41	RTC		S0-S5
3VPCU	+3.3V	9,23,27,30,32,35,39,41,43,44,47	ITE8052 POWER	3V5V_EN	S0-S5
5VPCU	+5V	14,43,44,45,46,47,49,50	DC/DC POWER IC SOURCE	3V5V_EN	S0-S5
+15V	+15V	23,38,43,45,46,47	LARGE POWER	3V5V_EN	S0-S5
LANVCC	+3.3V	27,43	LAN POWER	LAN_ON	
5V_S5	+5V	12,29,30,43	PCH SUS POWER	S5_ON	S0-S3
3V_S5	+3.3V	8,9,10,11,12,43,52	Sys Management,PCH Resume Well,Intel HD Audio,USB,WLAN WIMAX POWER	S5_ON	S0-S3
5VSUS	+5V	23,39,43,48	SLP_S4# CTRLD POWER	SUSON	S0-S3
3VSUS	+3.3V	14,15,30,34,41,43,49	SLP_S4# CTRLD POWER	SUSON	S0-S3
1.5VSUS	+1.5V	4,6,14,15,43,45,46,49,50	SODIMM POWER	SUSON	S0-S3
0.75VSMDDR_VTERM	+0.75V	14,15,43,45	DDR3 SODIMM REFERENCE POWER	MAIN_ON	S0
+5V	+5V	12,18,23,24,25,26,28,35,37,41,43,44	SLP_S3# CTRLD POWER	MAIN_ON	S0
+3V	+3.3V	3,4,8,9,10,11,12,14,15,17,23,25,26,27,28,29,30,31,32,33,34,36,37,38,39,40,41,43,44,45,46,47,48,50,52	SLP_S3# CTRLD POWER	MAIN_ON	S0
+1.8V	+1.8V	6,12,17,18,21,22,33,43,50	LVDS,NVM POWER	MAIN_ON	S0
+1.5V	+1.5V	12,18,19,20,31,32,34,45,46	Mini PCIe,Express Card POWER	MAIN_ON	S0
+1.05V_VTT	+1.05V	4,6,11,12,43,46,48,52	AuBurndale VTT POWER	MAIN_ON	S0
+1.05V_PCH	+1.05V	3,10,12,43,46,52	PCH CORE POWER	1.05V_RUN_ON	S0
+VCC_GFX_CORE	+0.9V--+1.2V	18,21,43,49	VGA CORE POWER	GFXVR_EN	S0
VCC_CORE		6,43,48	CPU CORE POWER	VRON	S0
LCDVCC	+3.3V	23	LCD Power	ENVDD	S0
+5V_ODD	+5V	28	ODD Power	MAIN_ON	S0
+5V_HDD	+5V	28	HDD Power	MAIN_ON	S0
BAT-V	+10V--+17V	44	MAIN BATTERY	CHG_PBATT	S0-S5



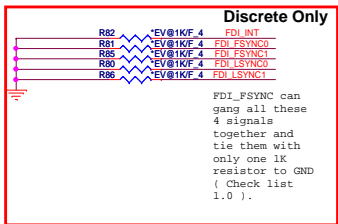
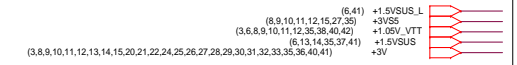
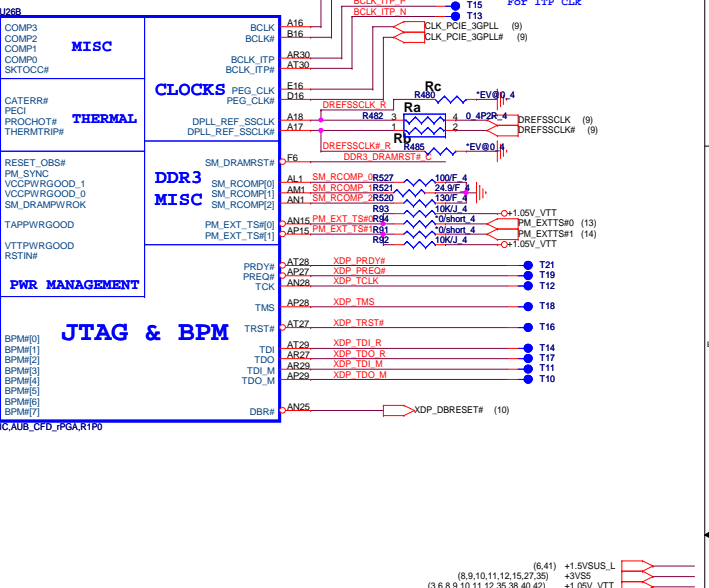
**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size Document Number Rev  
B CLOCK GEN(9LVS3197) 1A

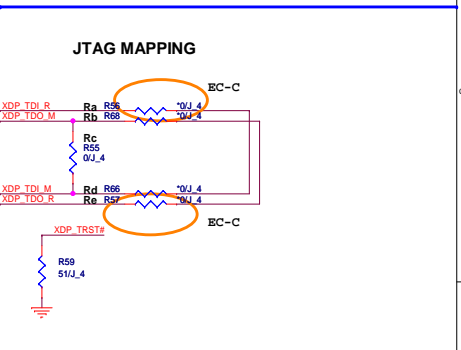
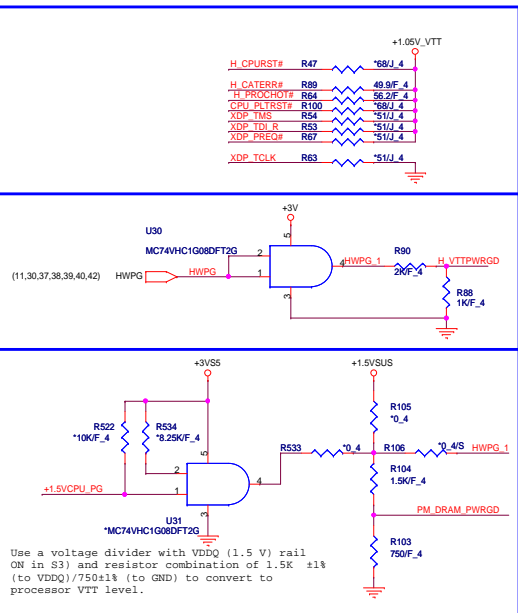
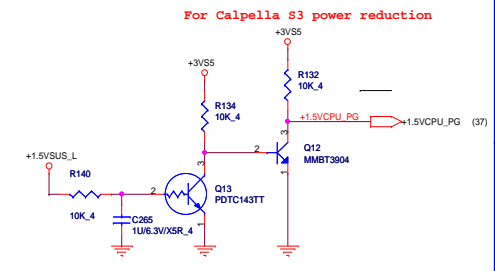
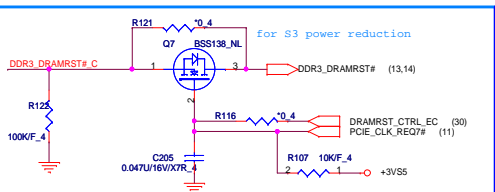
Date: Thursday, April 08, 2010 Sheet 3 of 42



	DIS	UMA
Ra	NA	0 ohm
Rb	0 ohm	NA
Rc	0 ohm	NA



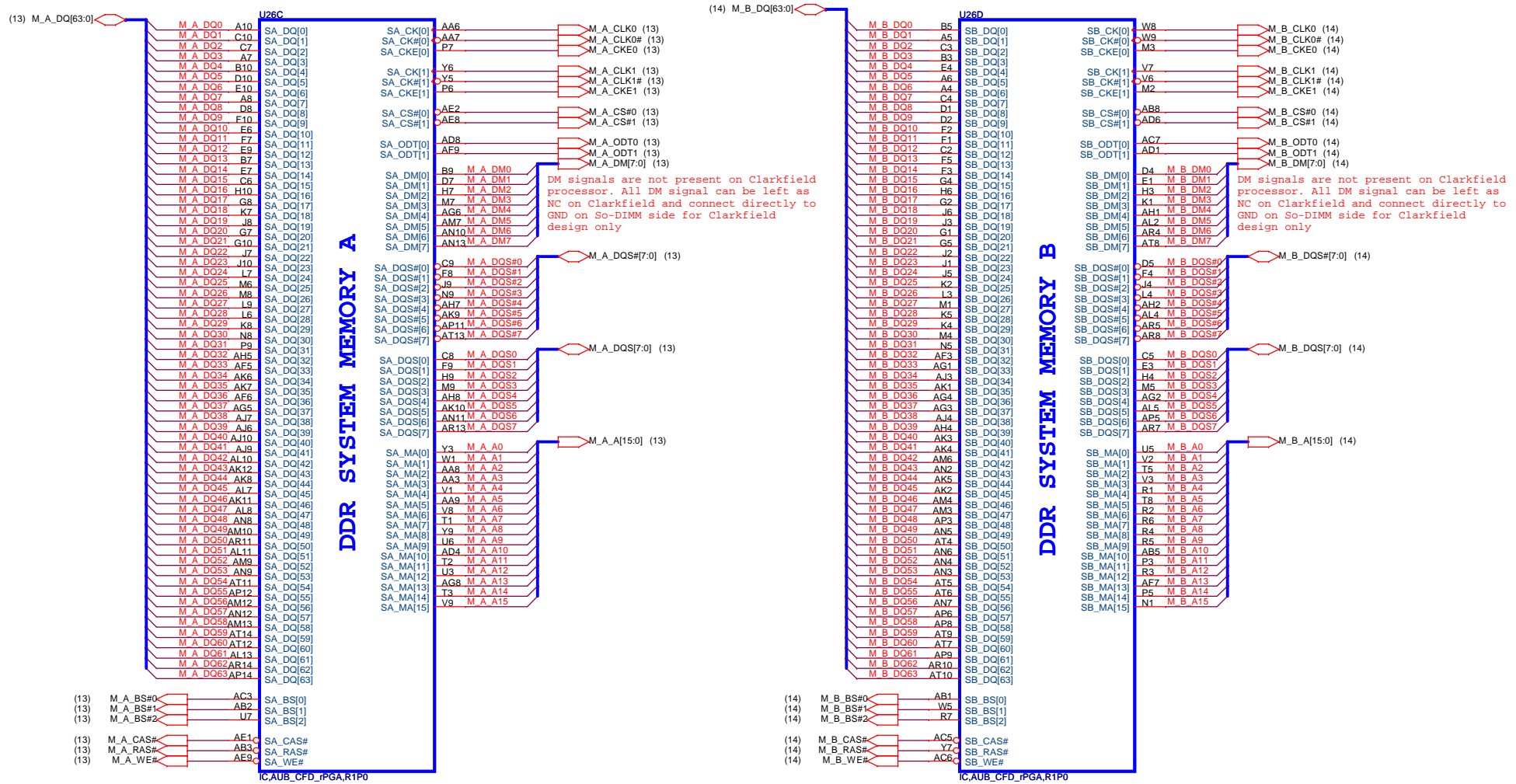
FDI\_FSYNc can gang all these 4 signals together and tie them with only one 1K resistor to GND ( Check list 1.0 ).




Scan Chain	STUFF ->
(Default)	Ra, Rc, Re NO STUFF -> Rb, Rd
CPU Only	Ra, Rb NO STUFF -> Rc, Rd, Re
GMCH Only	Rd, Re NO STUFF -> Ra, Rb, Rc

Use a voltage divider with VDDQ (1.5 V) rail ON in S3) and resistor combination of 1.5K ±1% (to VDDQ)/750±1% (to GND) to convert to processor VIT level.

### AUBURNDALE/CLARKSFIELD PROCESSOR (DDR3)

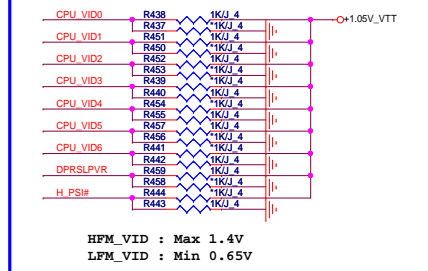
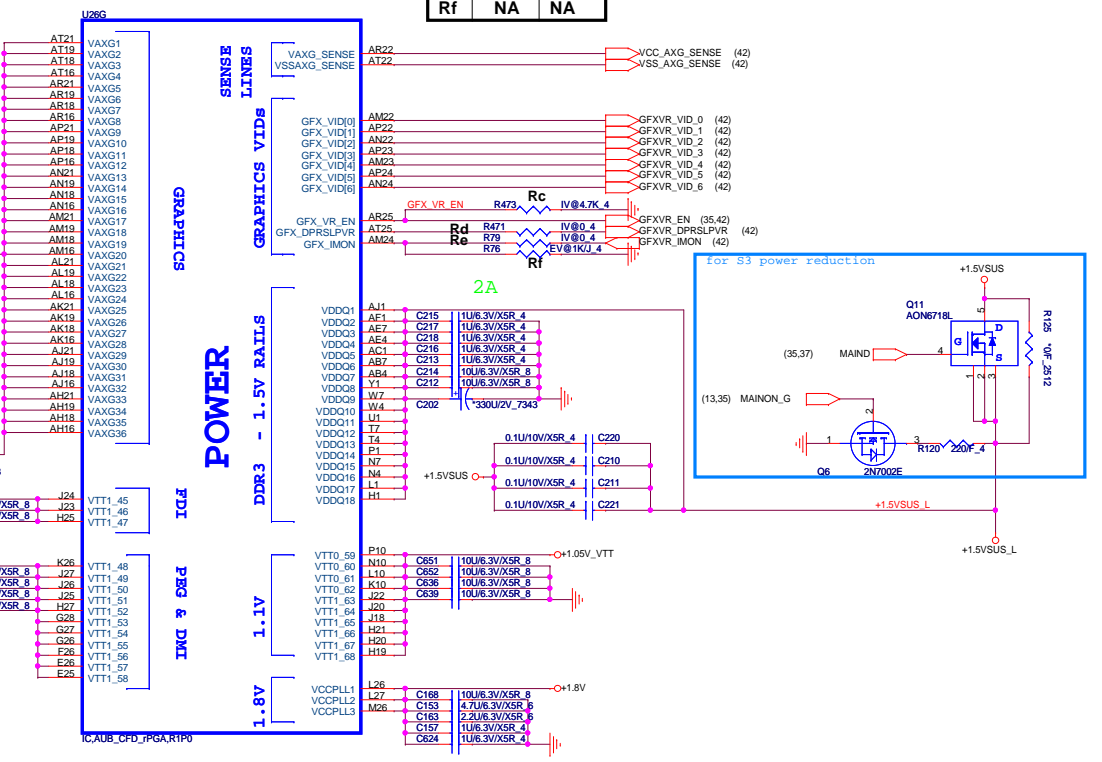
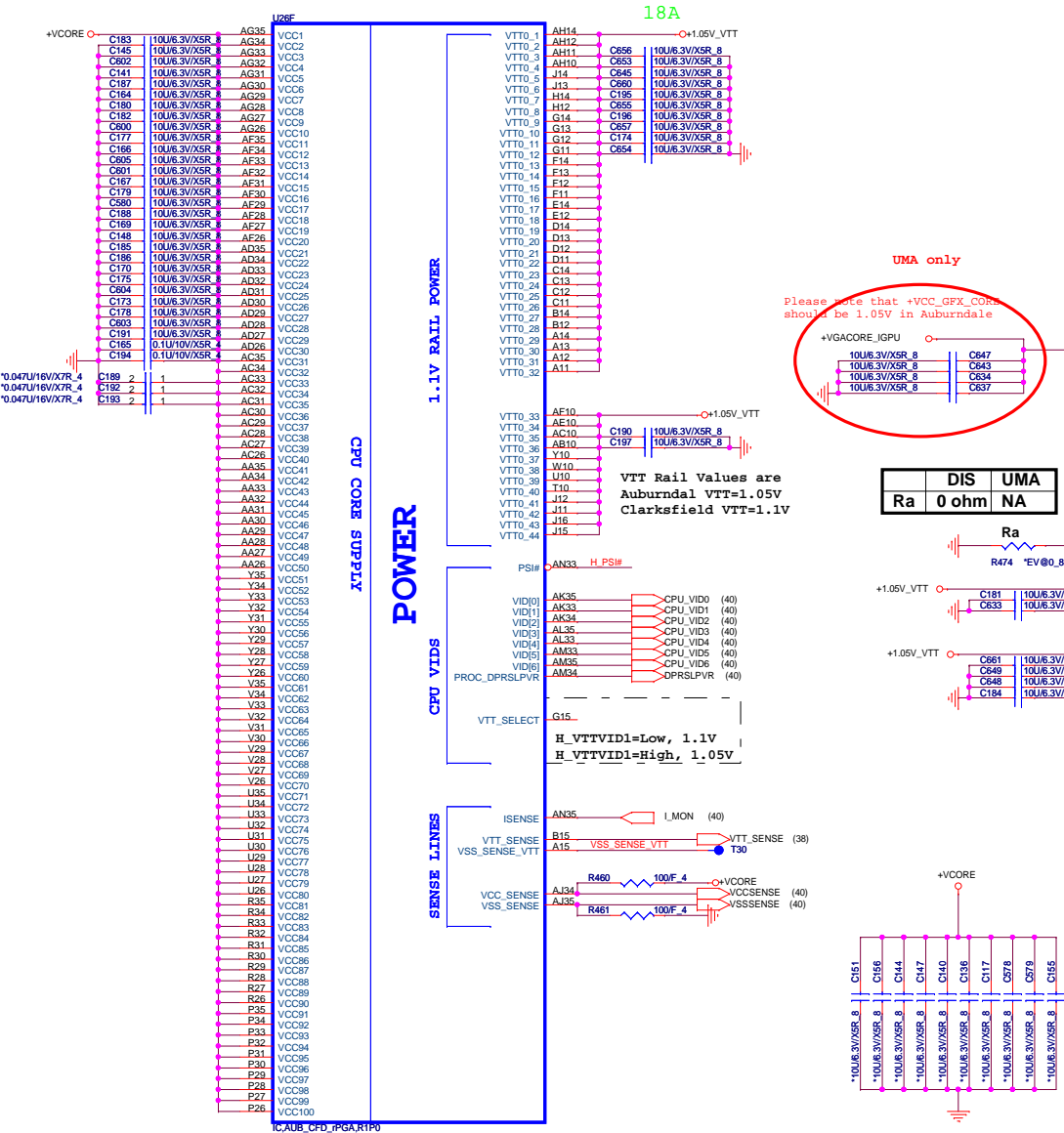




**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	<b>PROCESSOR 2/4(DDR)</b>	1A
Date:	Thursday, April 08, 2010	Sheet 5 of 42

nexant@hotmail.com



**PROJECT : LL7A**

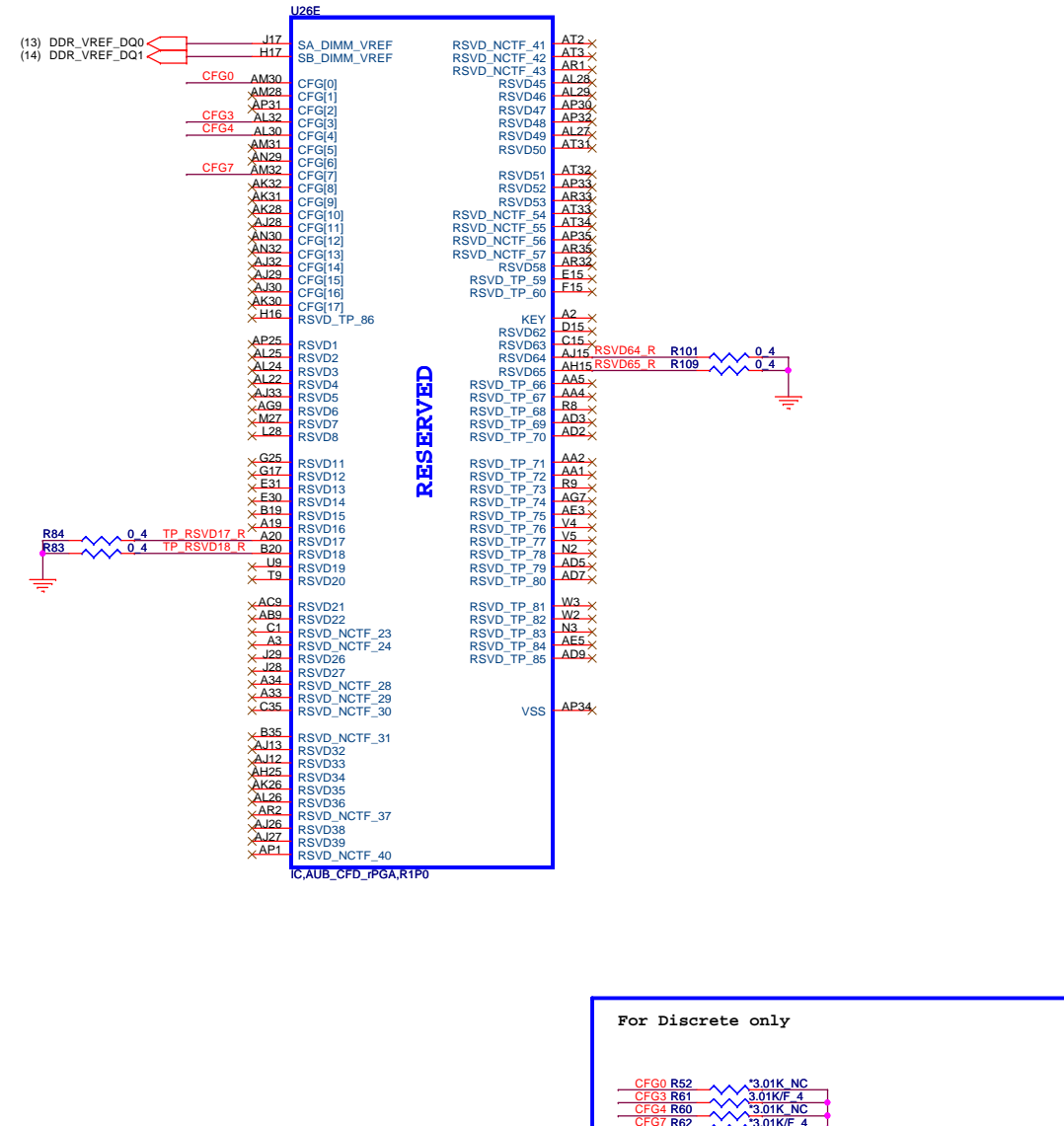
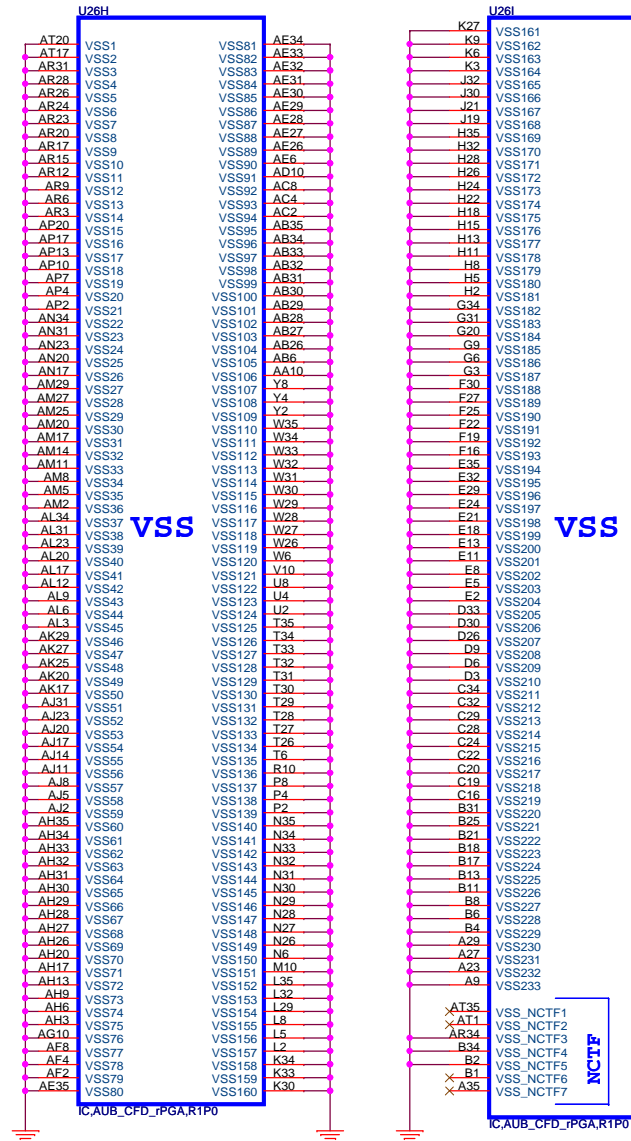
**Quanta Computer Inc.**

Size Custom Document Number **PROCESSOR 3/4(POWER)** Rev 1A

Date: Thursday, April 08, 2010 Sheet 6 of 42

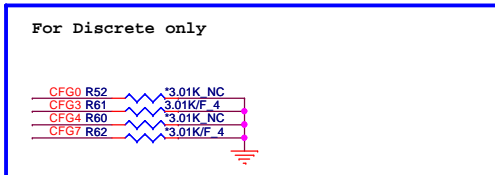
### AUBURNDALE/CLARKSFIELD PROCESSOR (GND)

### AUBURNDALE/CLARKSFIELD PROCESSOR( RESERVED, CFG)



The Clarkfield processor's PCI Express interface may not meet PCI Express 2.0 jitter specifications. Intel recommends placing a 3.01K +/- 5% pull down resistor to VSS on CFG[7] pin for both rPGA and BGA components. This pull down resistor should be removed when this issue is fixed.

	1	0
CFG4 (Display Port Presence)	Disabled; No Physical Display Port attached to Embedded Display Port	Enabled; An external Display port device is connected to the Embedded Display port
CFG0 (PCI-Epress Configuration Select)	Single PEG	Bifurcation enabled
CFG3 (PCI-Epress Static Lane Reversal)	Normal Operation	Lane Numbers Reversed 15 -> 0, 14 -> 1

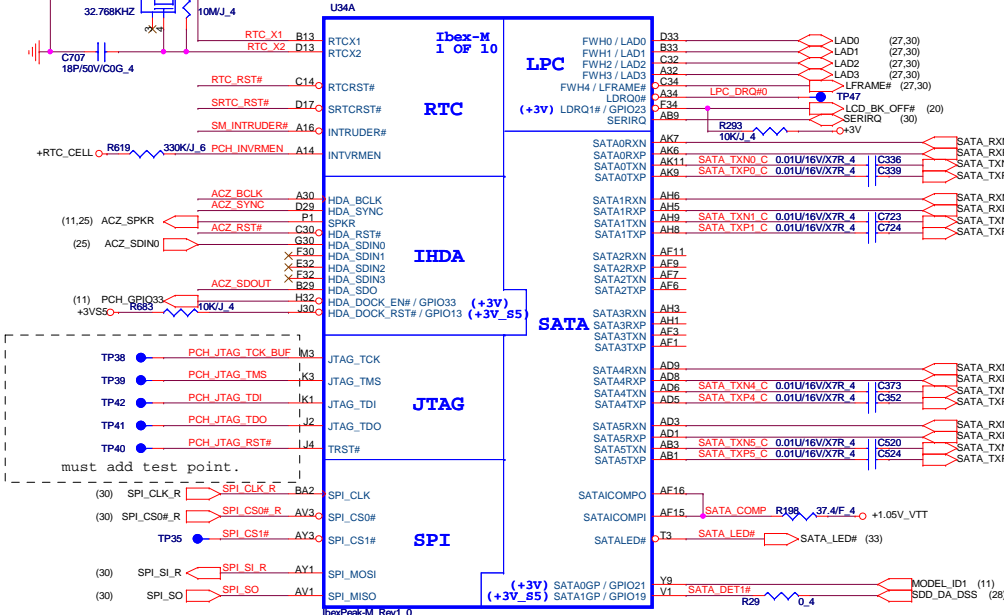


CFG[ 1:0 ] - PCI\_Epress Configuration Select  
 \* 11= 1 x 16 PEG  
 \* 10= 2 x 8 PEG

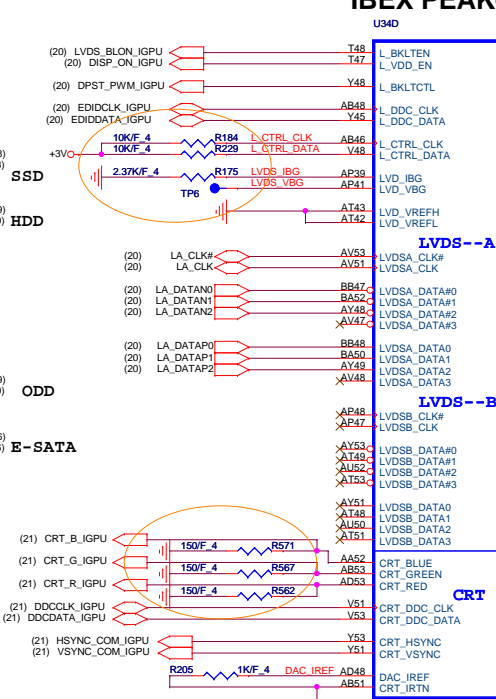
**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size: Custom Document Number: **PROCESSOR 4/4(GND)** Rev: 1A  
 Date: Thursday, April 08, 2010 Sheet 7 of 42

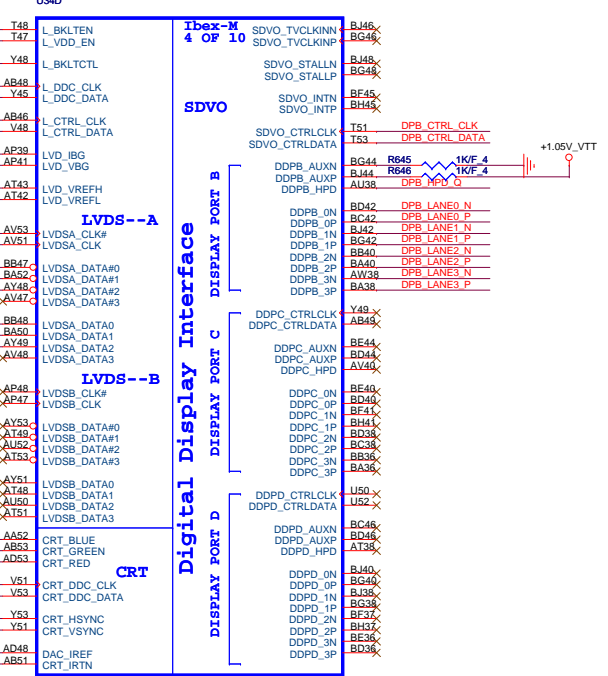
**IBEX PEAK-M (HDA,JTAG,SATA)**



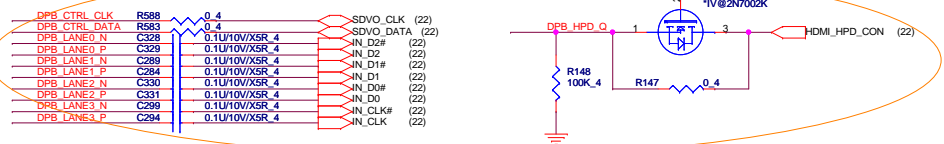
**UMA CRT, LVDS&HDMI signals**



**IBEX PEAK-M (LVDS,DDI)**



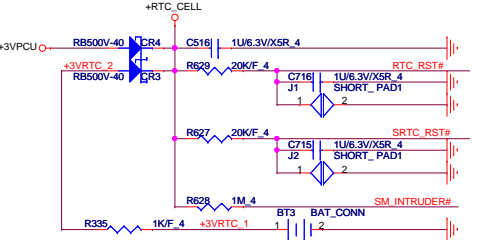
**UMA HDMI signals**



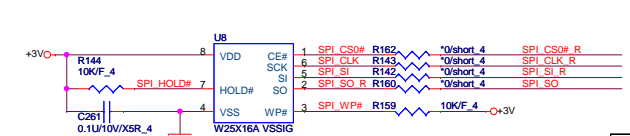
**For AUDIO**



**RTC 1mA**



**4M byte SPI ROM**



Vendor	PN
Socket	DG00800031
WINBOND	AKE39ZP0N00
MAX	AKE39FP0N00



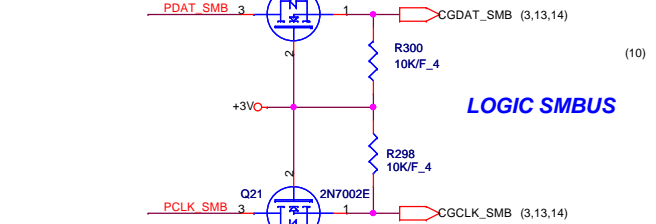
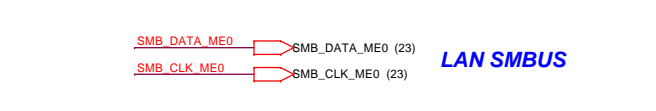
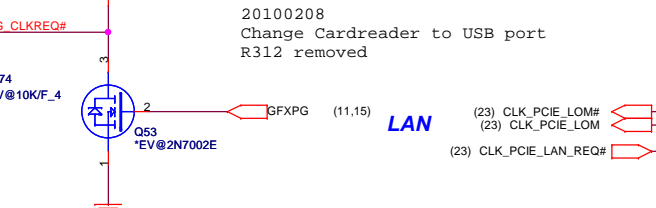
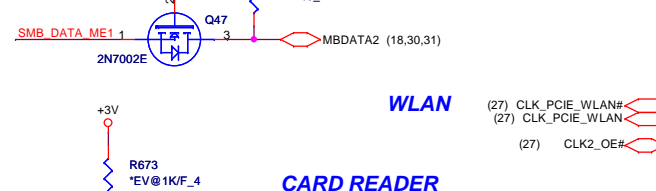
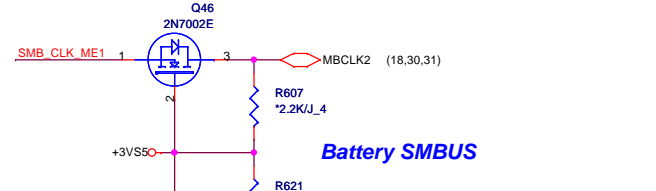
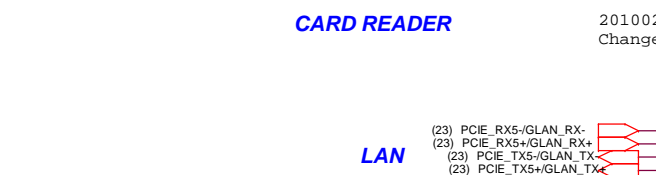
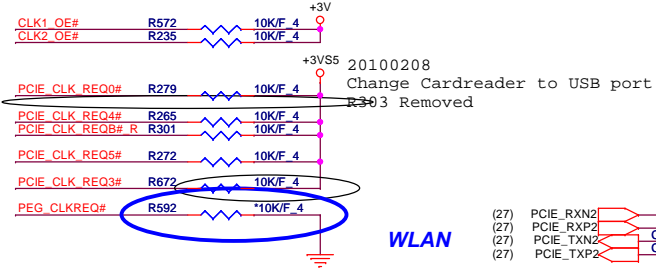


# IBEX PEAK-M (GND)

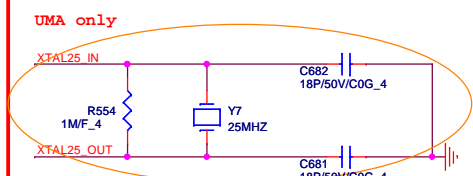
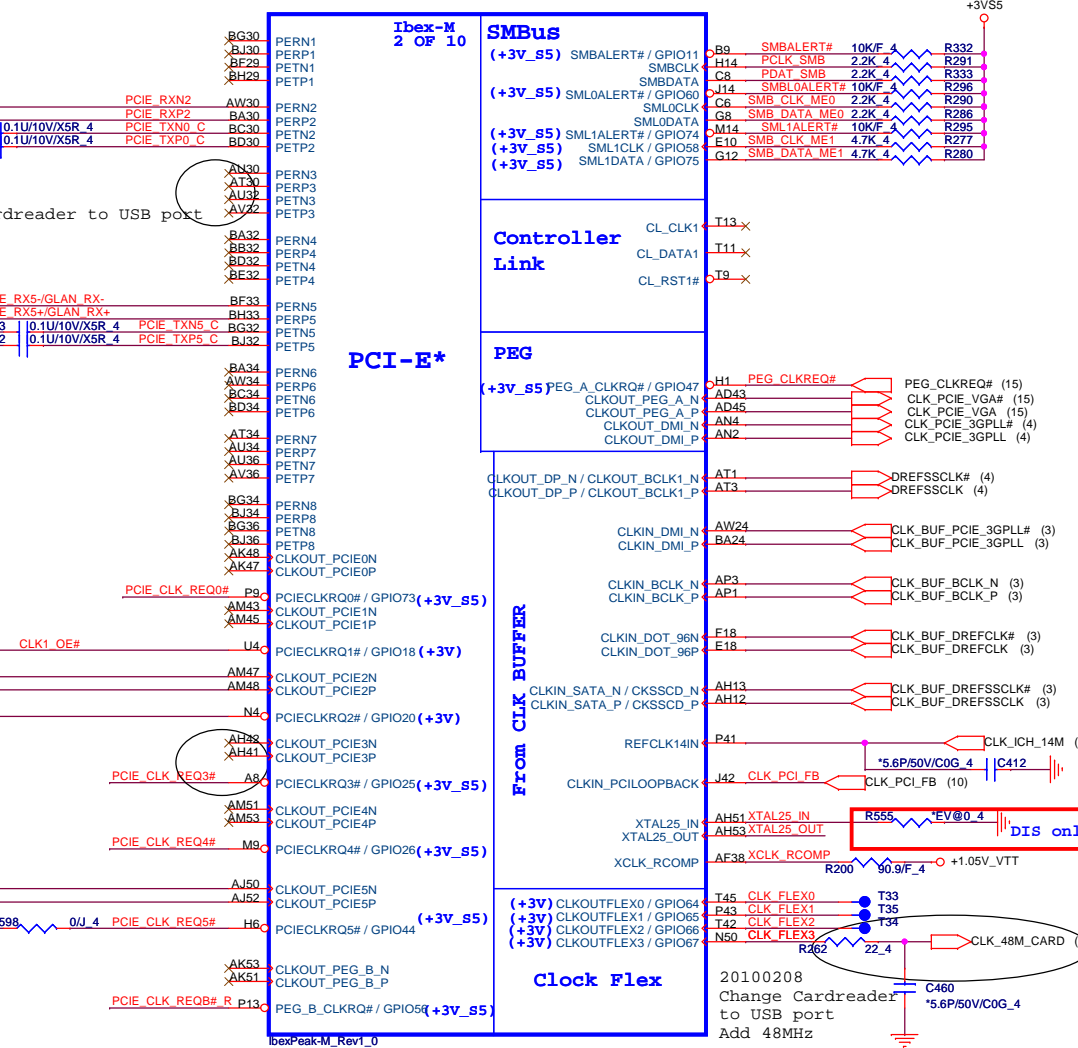
U34I

A77	VSS1(159)	VSS(259)	H49
B11	VSS1(160)	VSS(260)	H5
B15	VSS1(161)	VSS(261)	J24
B19	VSS1(162)	VSS(262)	K11
B23	VSS1(163)	VSS(263)	K43
B31	VSS1(164)	VSS(264)	K47
B35	VSS1(165)	VSS(265)	K7
B39	VSS1(166)	VSS(266)	L14
B43	VSS1(167)	VSS(267)	L18
B47	VSS1(168)	VSS(268)	L2
B7	VSS1(169)	VSS(269)	L22
BG12	VSS1(170)	VSS(270)	L32
BB12	VSS1(171)	VSS(271)	L36
BB16	VSS1(172)	VSS(272)	L40
BB20	VSS1(173)	VSS(273)	L52
BB24	VSS1(174)	VSS(274)	M12
BB30	VSS1(175)	VSS(275)	M16
BB34	VSS1(176)	VSS(276)	M20
BB38	VSS1(177)	VSS(277)	N38
BB42	VSS1(178)	VSS(278)	M38
BB49	VSS1(179)	VSS(279)	M42
BB5	VSS1(180)	VSS(280)	M46
BC10	VSS1(181)	VSS(281)	M49
BC14	VSS1(182)	VSS(282)	M5
BC18	VSS1(183)	VSS(283)	M8
BC2	VSS1(184)	VSS(284)	M9
BC22	VSS1(185)	VSS(285)	P11
BC32	VSS1(186)	VSS(286)	AD15
BC36	VSS1(187)	VSS(287)	P22
BC40	VSS1(188)	VSS(288)	P30
RC44	VSS1(189)	VSS(289)	P32
RC52	VSS1(190)	VSS(290)	P34
BH9	VSS1(191)	VSS(291)	P42
BD48	VSS1(192)	VSS(292)	P45
BD49	VSS1(193)	VSS(293)	R2
BD5	VSS1(194)	VSS(294)	R2
BE12	VSS1(195)	VSS(295)	R2
BE16	VSS1(196)	VSS(296)	R2
BE20	VSS1(197)	VSS(297)	R2
BE30	VSS1(198)	VSS(298)	R2
BE34	VSS1(199)	VSS(299)	R2
BE38	VSS1(201)	VSS(301)	T5
BE42	VSS1(202)	VSS(302)	T8
BE46	VSS1(203)	VSS(303)	T8
BE48	VSS1(204)	VSS(304)	U31
BE50	VSS1(205)	VSS(305)	U32
BE6	VSS1(206)	VSS(306)	U34
BE8	VSS1(207)	VSS(307)	P38
BE9	VSS1(208)	VSS(308)	V11
BF49	VSS1(209)	VSS(309)	V19
BG18	VSS1(210)	VSS(310)	V20
BG24	VSS1(211)	VSS(311)	V22
BG4	VSS1(212)	VSS(312)	V30
RC50	VSS1(213)	VSS(313)	V31
BH11	VSS1(214)	VSS(314)	V32
BH15	VSS1(215)	VSS(315)	V34
BH19	VSS1(216)	VSS(316)	V35
BH23	VSS1(217)	VSS(317)	V38
BH31	VSS1(218)	VSS(318)	V43
BH35	VSS1(219)	VSS(319)	V45
BH39	VSS1(220)	VSS(320)	V46
BH43	VSS1(221)	VSS(321)	V47
BH47	VSS1(222)	VSS(322)	V49
BH7	VSS1(223)	VSS(323)	V5
C12	VSS1(224)	VSS(324)	V7
C50	VSS1(225)	VSS(325)	V8
D51	VSS1(226)	VSS(326)	W2
E12	VSS1(227)	VSS(327)	W52
E16	VSS1(228)	VSS(328)	Y11
E20	VSS1(229)	VSS(329)	Y12
E24	VSS1(230)	VSS(330)	Y15
E30	VSS1(231)	VSS(331)	Y16
E34	VSS1(232)	VSS(332)	Y19
E38	VSS1(233)	VSS(333)	Y28
E42	VSS1(234)	VSS(334)	Y30
E46	VSS1(235)	VSS(335)	Y31
F48	VSS1(236)	VSS(336)	Y32
F6	VSS1(237)	VSS(337)	Y38
F8	VSS1(238)	VSS(338)	Y43
F49	VSS1(239)	VSS(339)	Y46
F5	VSS1(240)	VSS(340)	P49
G10	VSS1(241)	VSS(341)	Y5
G14	VSS1(242)	VSS(342)	Y6
G18	VSS1(243)	VSS(343)	Y8
G2	VSS1(244)	VSS(344)	Y8
G22	VSS1(245)	VSS(345)	I43
G32	VSS1(246)	VSS(346)	AD51
G36	VSS1(247)	VSS(347)	AT8
G40	VSS1(248)	VSS(348)	AD47
G44	VSS1(249)	VSS(349)	AT8
G52	VSS1(250)	VSS(350)	P24
AF39	VSS1(251)	VSS(351)	AM6
H16	VSS1(252)	VSS(352)	AT13
H20	VSS1(253)	VSS(353)	AM5
H30	VSS1(254)	VSS(354)	AK45
H34	VSS1(255)	VSS(355)	AK39
H38	VSS1(256)	VSS(356)	AV14
H42	VSS1(257)	VSS(357)	
H42	VSS1(258)	VSS(358)	

ibexPeak-M\_Rev1\_0



# IBEX PEAK-M (PCI-E, SMBUS, CLK)



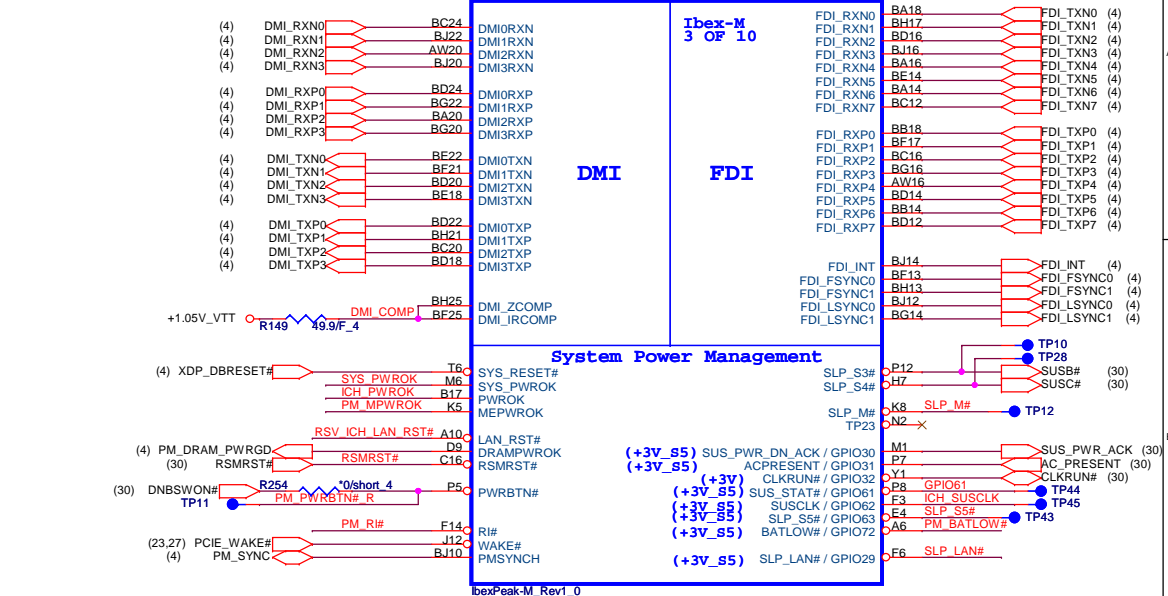
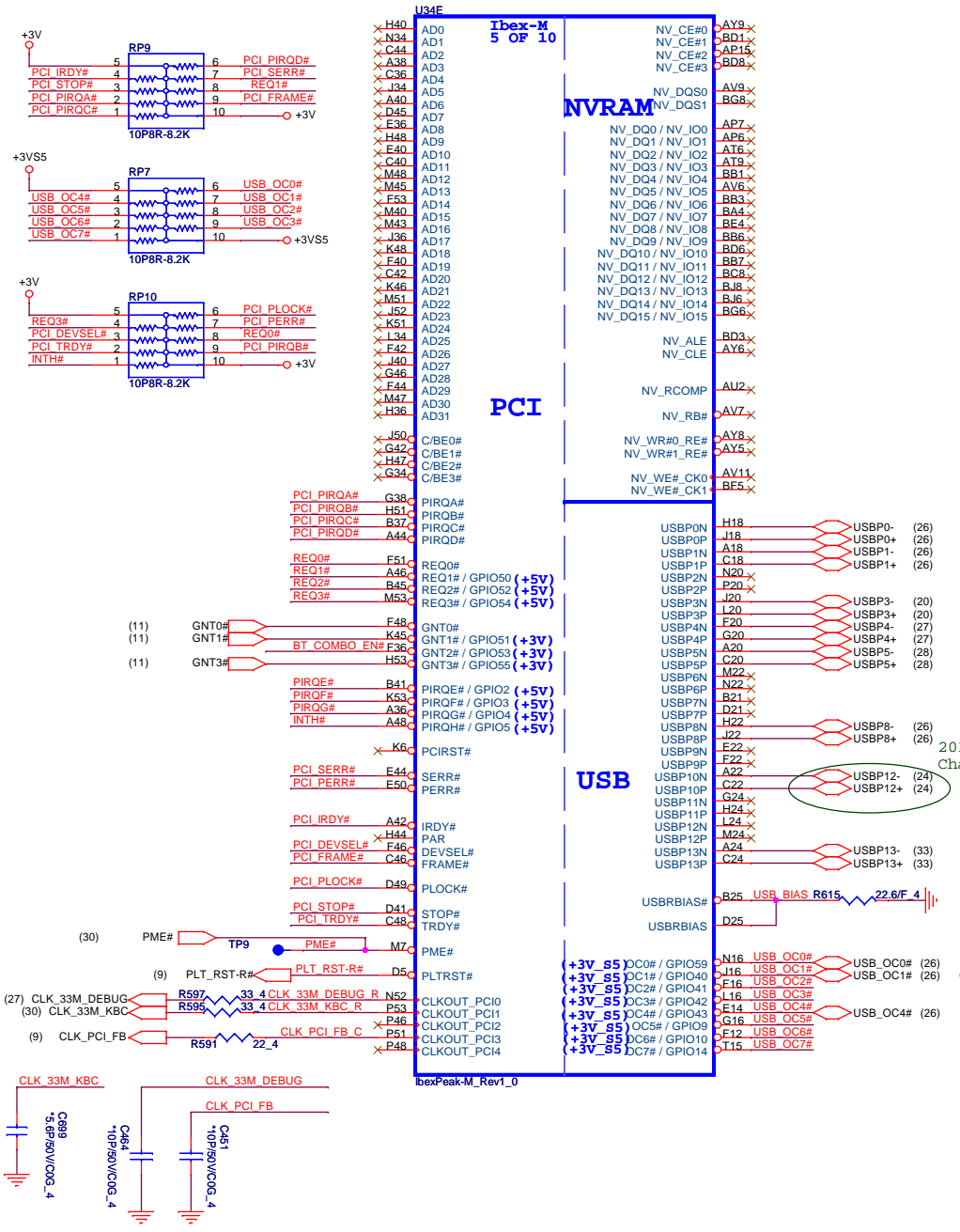
**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size: 4,8,10,11,12,15,27,35  
 Custom: (3,4,6,8,10,11,12,35,38,40,42)  
 Date: Thursday, April 08, 2010

Document Number: **PCH 2/5(PCIE, SMBUS,CK)**  
 Sheet 9 of 42

## IBEX PEAK-M (DMI,FDI,GPIO)

### IBEX PEAK-M (PCI,USB,NVRAM)

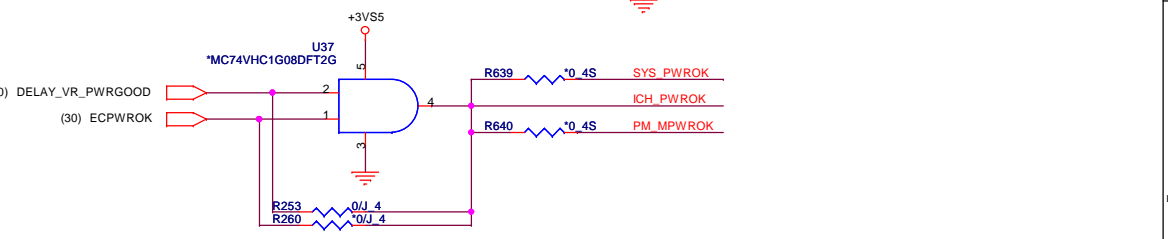


**LEFT SIDE USB 0**  
**LEFT SIDE USB 1**

**CCD**  
**WLAN**  
**WWAN**

**LEFT SIDE USB 3**  
**Card Reader**

**Blue tooth**



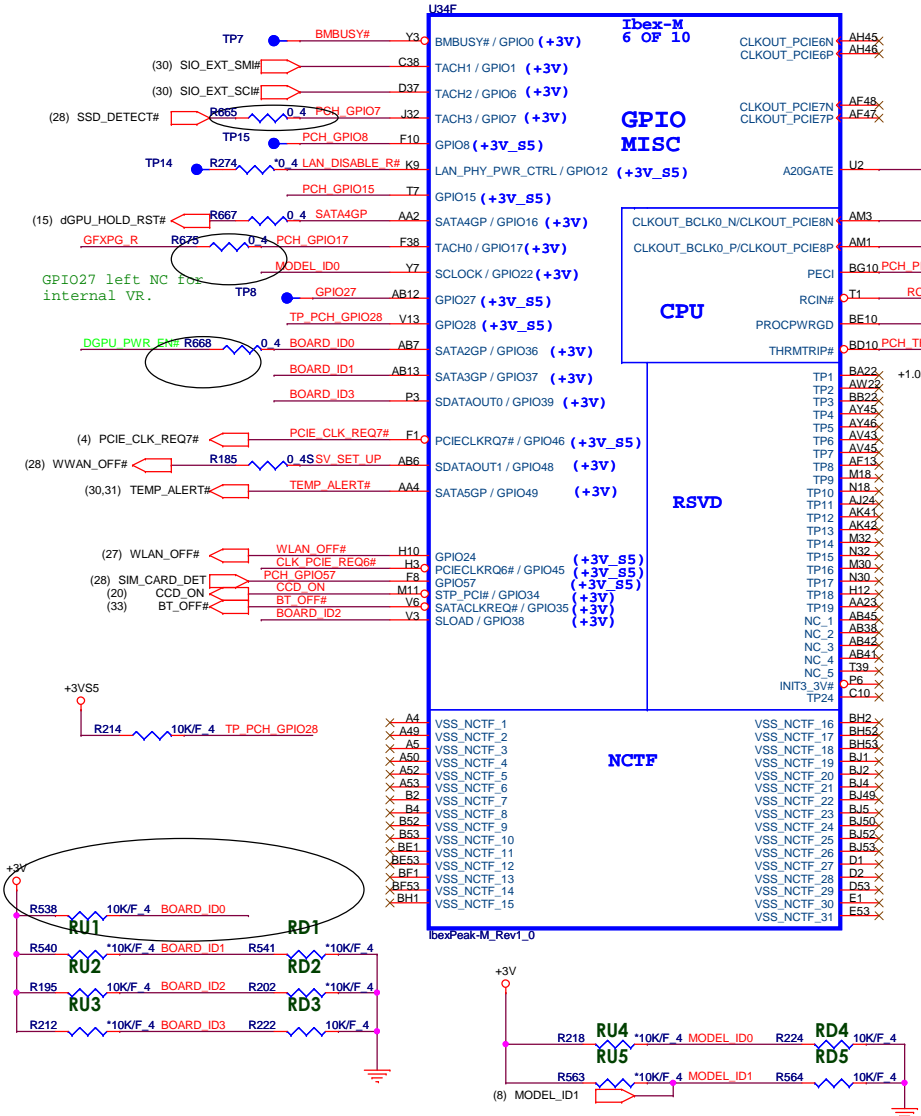
**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size: (3,4,8,9,11,12,13,14,15,20,21,22,24,25,26,27,28,29,30,31,32,33,35,36,40,41)  
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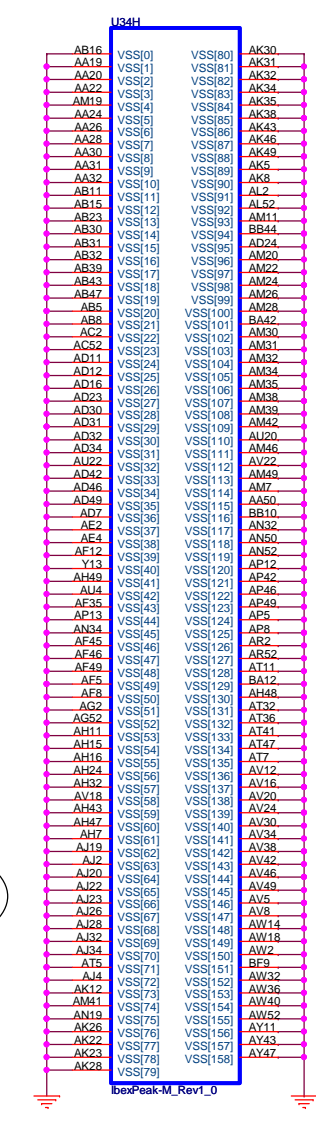
**PCH 3/5(PCI,ONFI,USB,DMI)**

Date: Thursday, April 08, 2010 Sheet 10 of 42

# IBEX PEAK-M (GPIO,VSS\_NCTF,RSVD)



# IBEX PEAK-M (GND)



### A16 swap override Strap/Top-Block Swap Override jumper

GNT3#	Low = A16 swap override/Top-Block Swap Override enabled High = Default
-------	---

### Boot BIOS Strap

PCI_GNT0#	GNT#1	Boot BIOS Location
0	0	LPC
0	1	Reserved (NAND)
1	0	PCI
1	1	SPI

### Danbury Technology Enabled

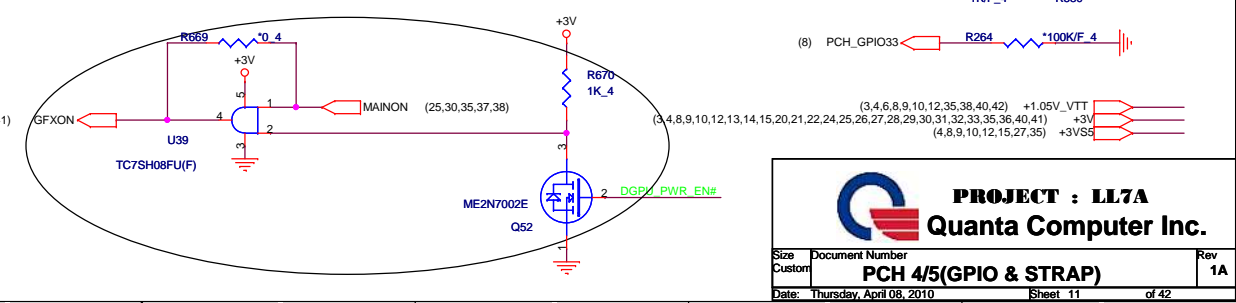
NV_ALE	High = Enable Low = Disable
--------	--------------------------------

### DMI Termination Voltage

NV_CLE	Set to Vcc when LOW Set to Vcc/2 when HIGH
--------	---

Board ID For Function	ID1 GPIO37	ID2 GPIO38	ID3 GPIO39
SDV	0	0	0
SIV	0	0	0
SIT	0	1	0
SVT	1	0	0
SOVP	0	1	0

Model ID	MODEL_ID0	MODEL_ID1
Default	0	0
LL7	0	1
LL7A	1	0

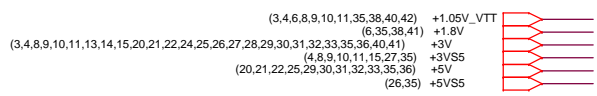
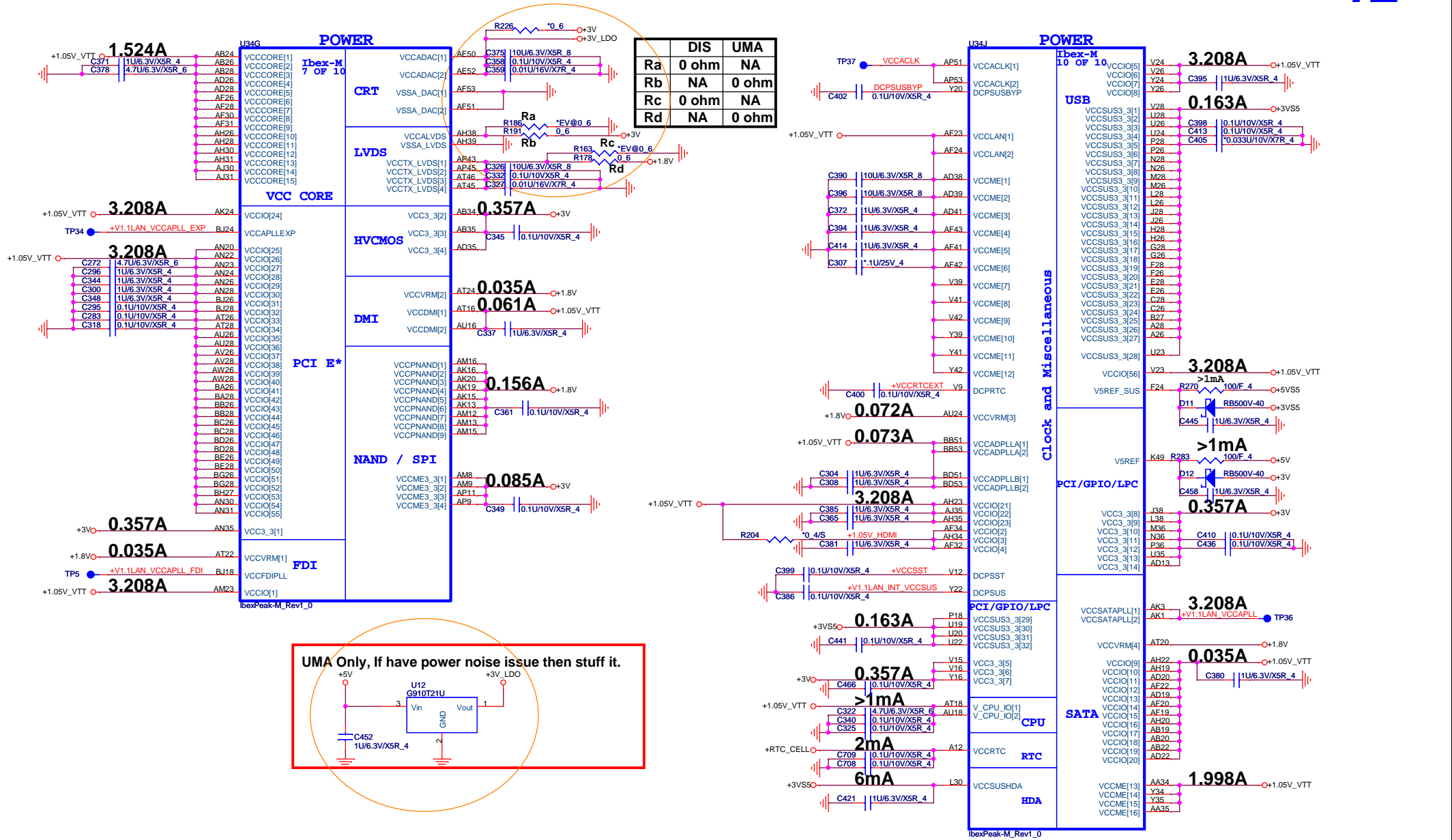



## PROJECT : LL7A

### Quanta Computer Inc.

Size: Custom Document Number: **PCH 4/5(GPIO & STRAP)** Rev: 1A

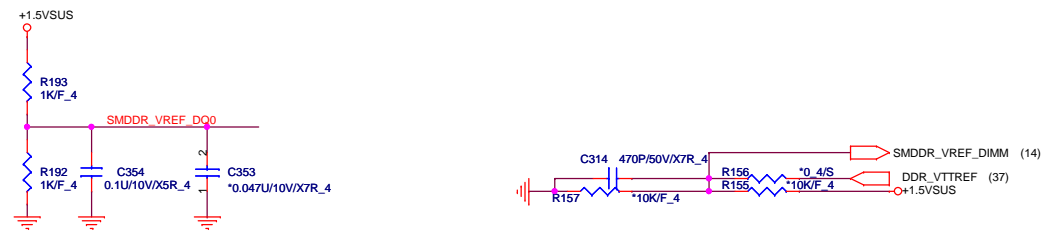
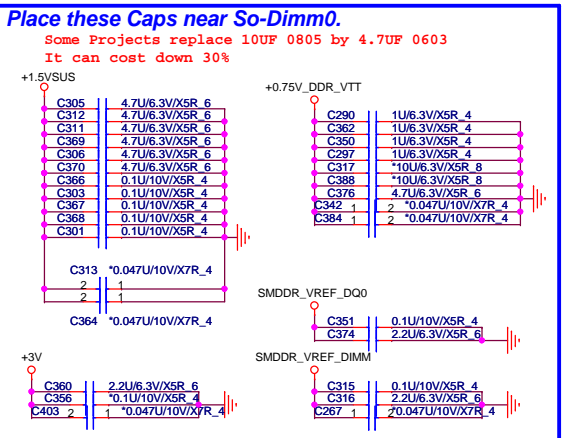
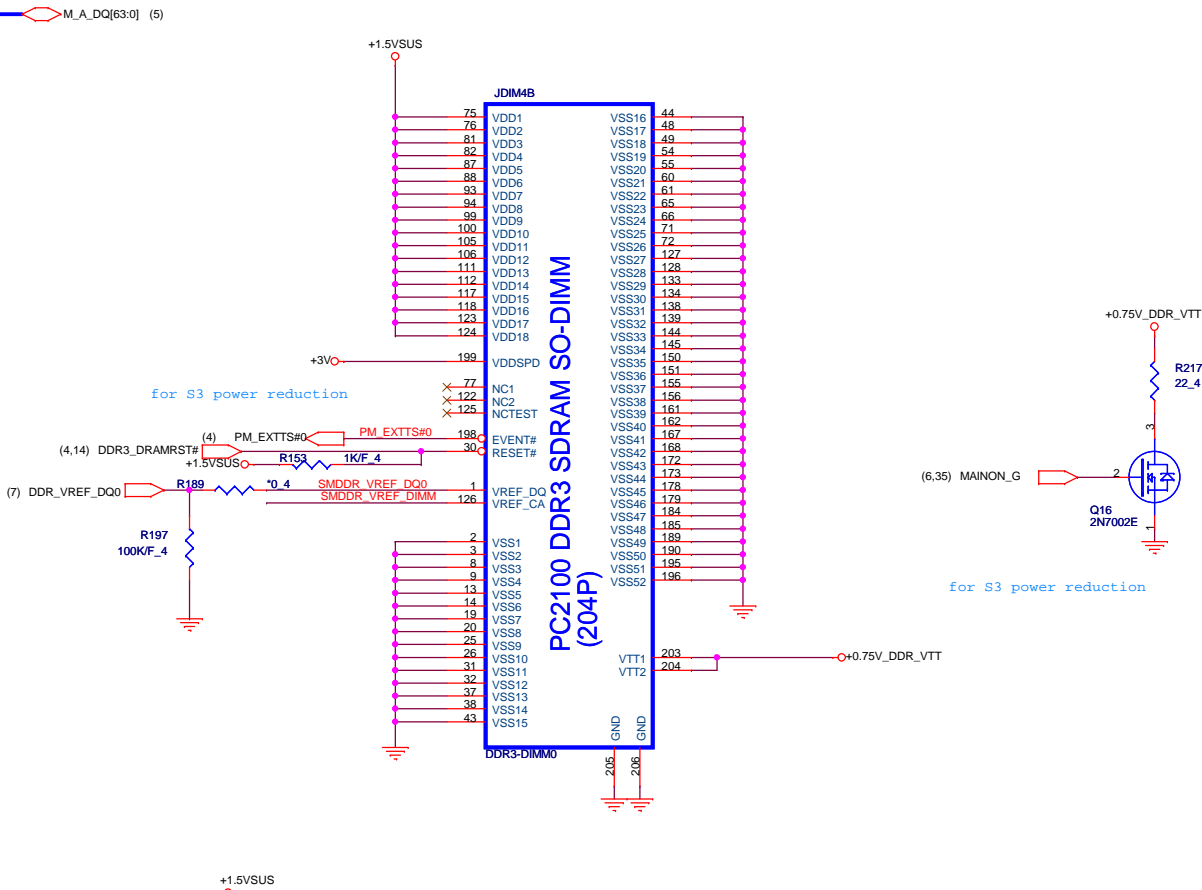
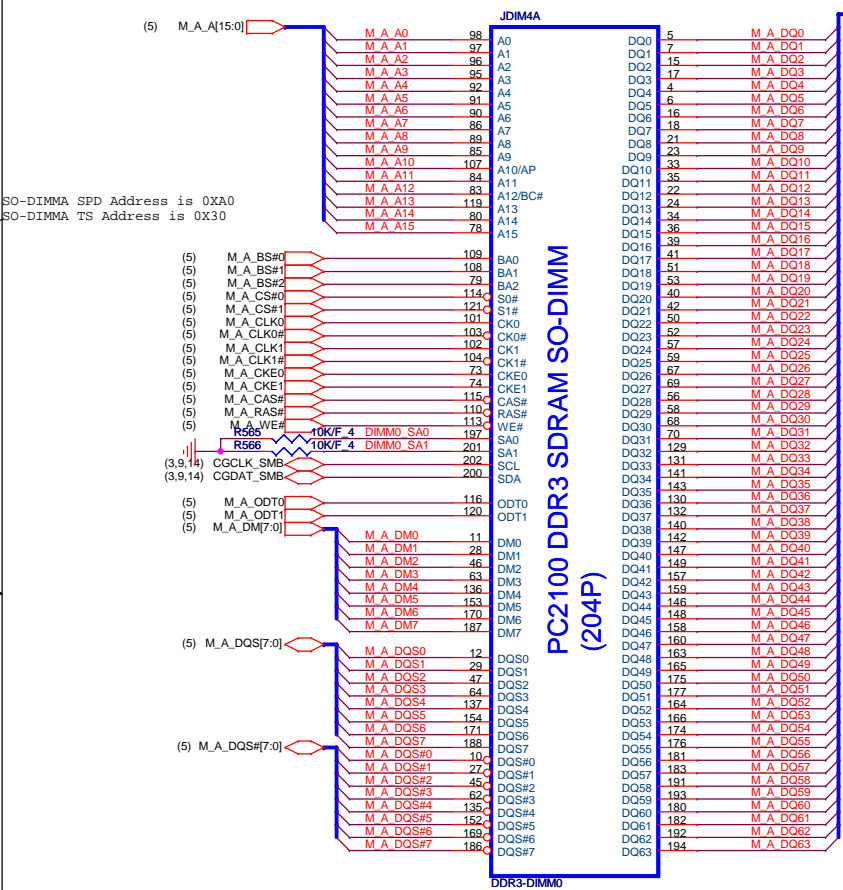
Date: Thursday, April 08, 2010 Sheet 11 of 42





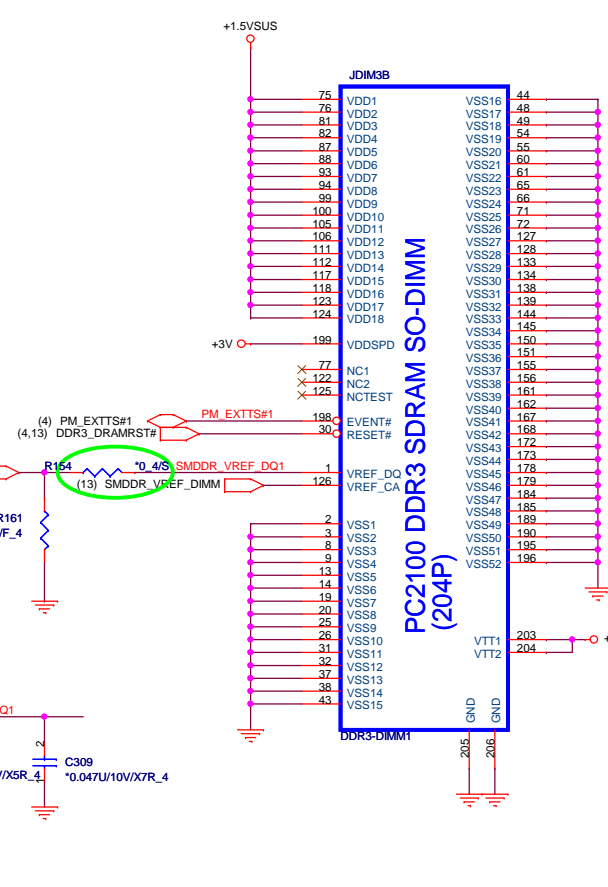
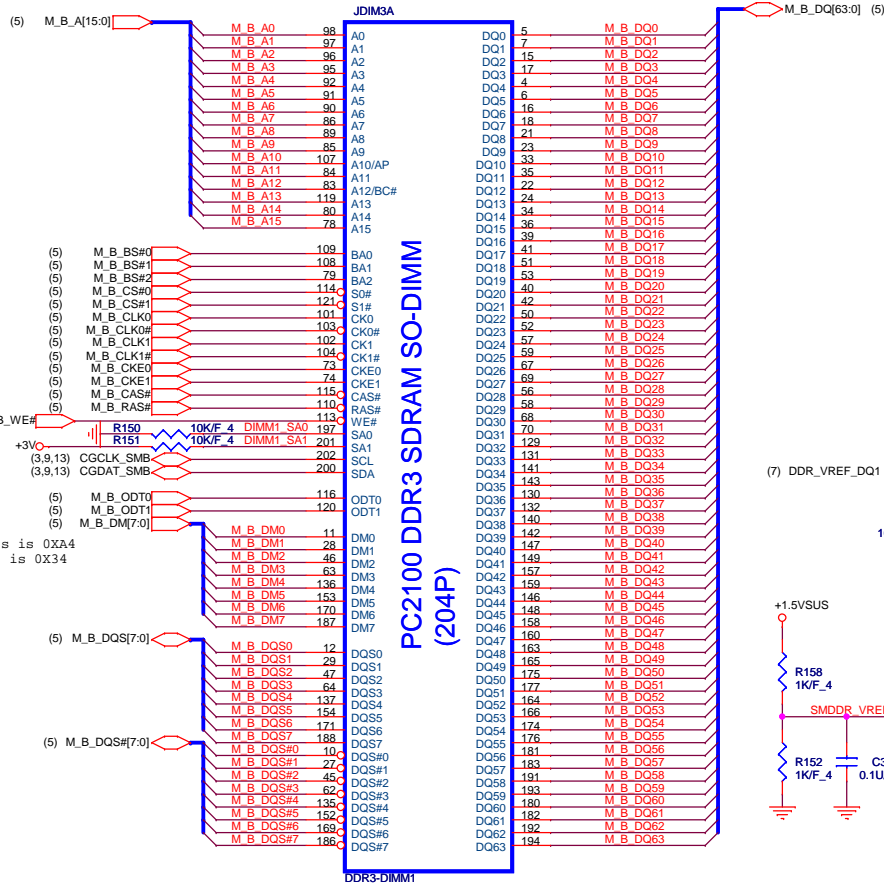
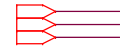
**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	PCH 5/5(POWER)	1A
Date: Thursday, April 08, 2010		Sheet 12 of 42



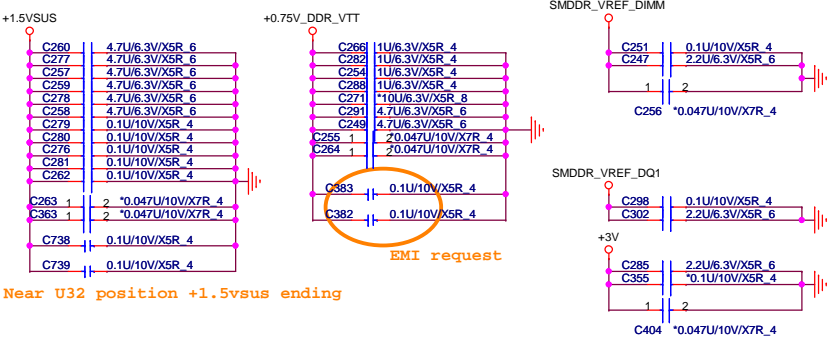
**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	DDR3 DIMM-0	1A
Date:	Thursday, April 08, 2010	Sheet 13 of 42



SO-DIMMB SPD Address is 0X24  
 SO-DIMMB TS Address is 0X34

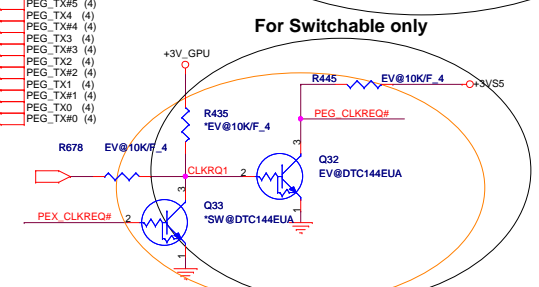
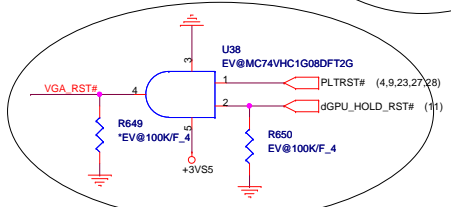
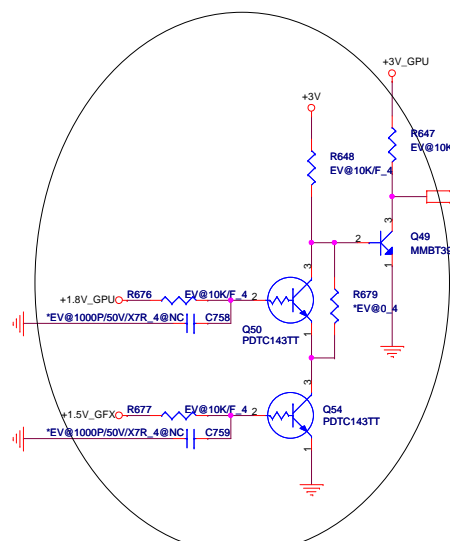
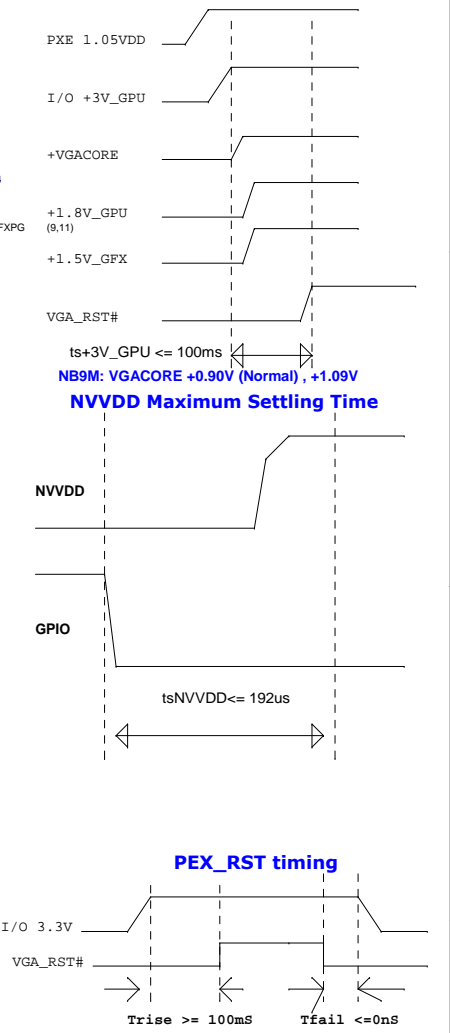
**Place these Caps near So-Dimm1.**  
 Some Projects replace 10UF 0805 by 4.7UF 0603  
 It can cost down 30%



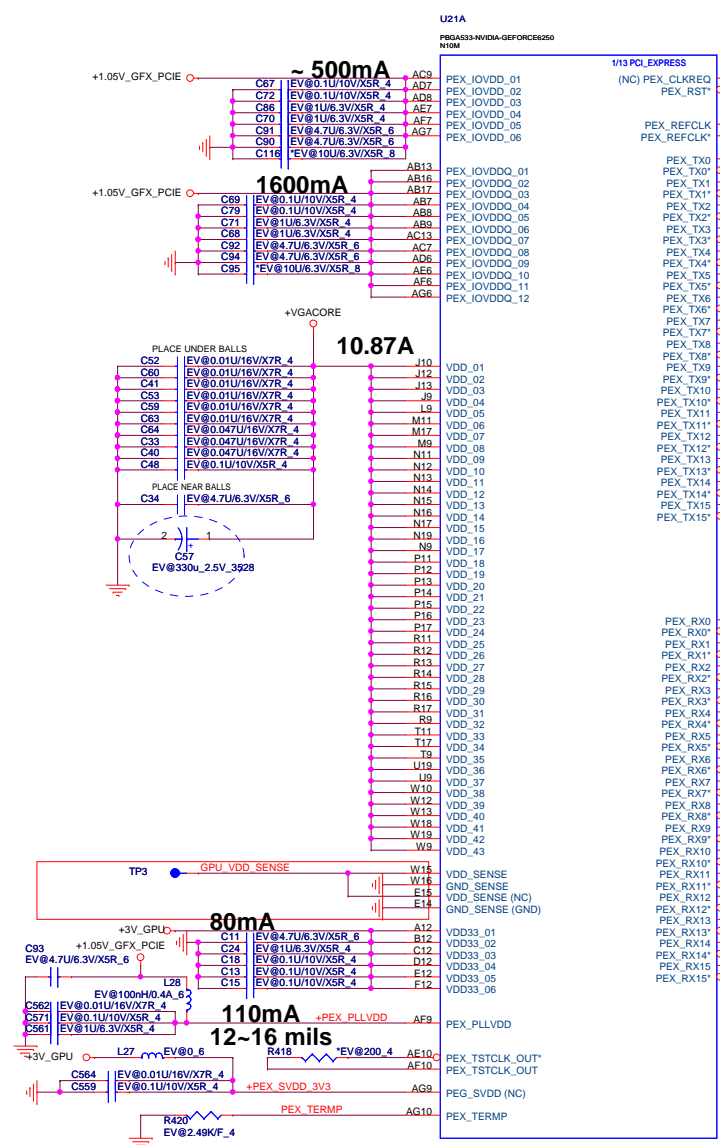
**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Customer	<b>DDR3 DIMM-1</b>	1A
Date:	Thursday, April 08, 2010	Sheet 14 of 42

# power up sequence 15



- (3,4,8,9,10,11,12,13,14,20,21,22,24,25,26,27,28,29,30,31,32,33,35,36,40,41) +3V
- (16,17,35,41) +1.05V\_GFX\_PCIE
- (4,8,9,10,11,12,27,35) +3VSS
- (35,41) +VGACORE

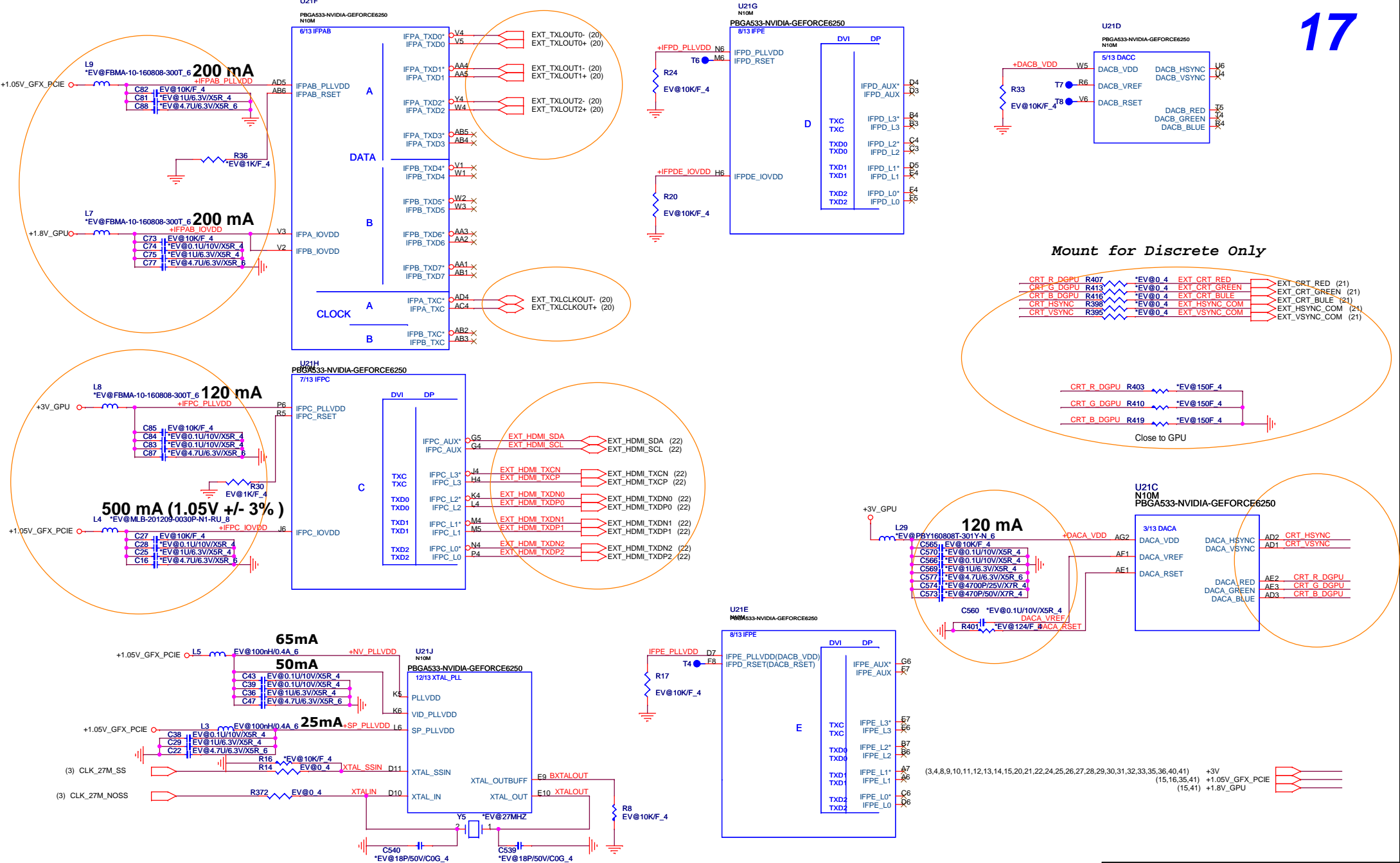


**PROJECT : LL7A**  
**Quanta Computer Inc.**

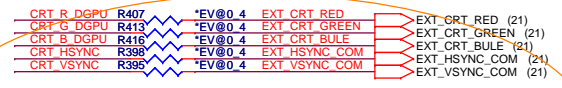
Size Custom	Document Number N11M(PCIE I/F) 1/5	Rev 1A
Date: Thursday, April 08, 2010	Sheet 15	of 42



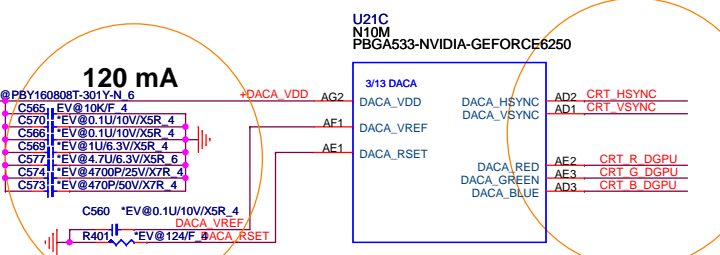




Mount for Discrete Only



Close to GPU



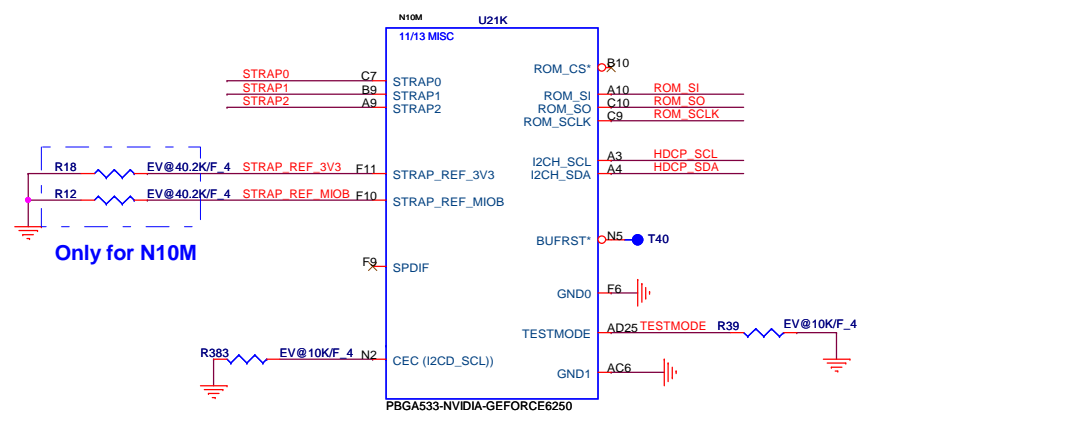
- (3,4,8,9,10,11,12,13,14,15,20,21,22,24,25,26,27,28,29,30,31,32,33,35,36,40,41) +3V
- (15,16,35,41) +1.05V\_GFX\_PCIE
- (15,41) +1.8V\_GPU

STUFF PDs on XTALSSIN and XTALOUTBUFF WHEN EXT\_SS Install it when not connected to Spread spectrum device

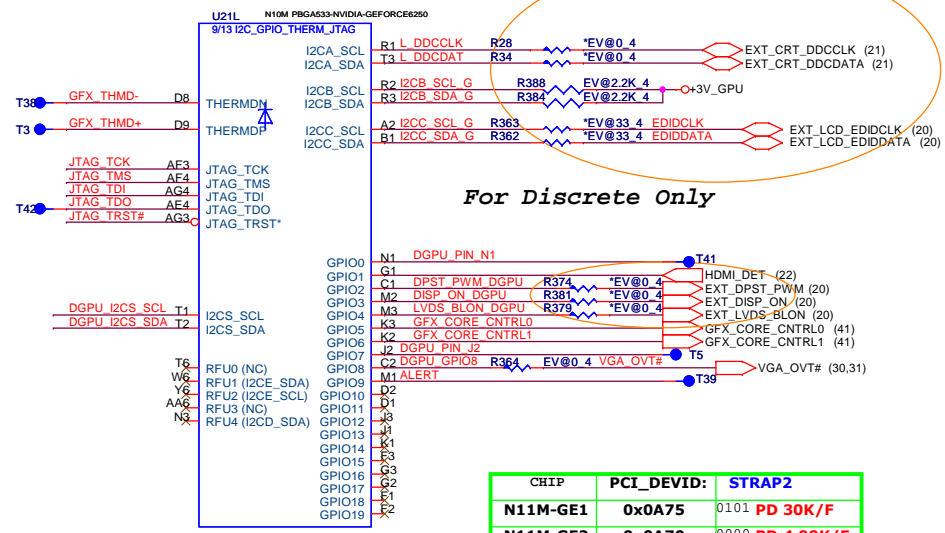
**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	<b>N11M(DISPLAY) 3/5</b>	<b>1A</b>
Date:	Thursday, April 08, 2010	Sheet 17 of 42

SEE Datasheet for details on N10P Straps!



Only for N10M

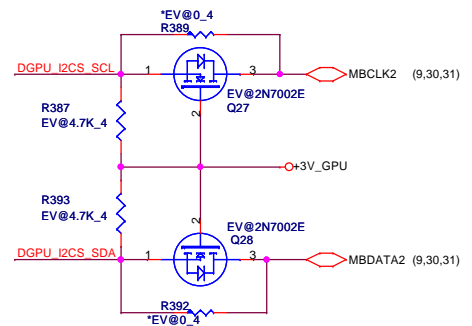


For Discrete Only

CHIP	PCI_DEVID:	STRAP2
N11M-GE1	0x0A75	0101 PD 30K/F
N11M-GE2	0x0A70	0000 PD 4.99K/F

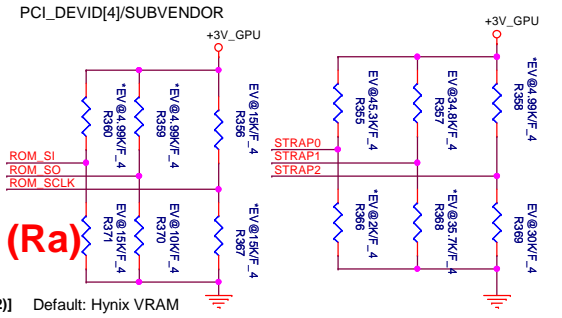
VRAM Type	RAMCFG[0..3]	ROM_SI
Hynix AKD5LZGTW05	0x0A75	0010 PD15K/F
Samsung AKD5LGGT507	0x0A70	0011 PD 20K/F
Hynix AKD5MGGTW00	0x0A75	0110 PD 34.8K/F
Samsung AKD5MGGT501	0x0A70	0111 PD 45.3K/F

GPU Type	STRAP0	STRAP1	ROM_SO	ROM_SCLK
N11M-GE1	PU 45.3K/F	PU 34.8K/F	PD10K/F	PU15K/F
N11M-GE2	PU 45.3K/F	PU 34.8K/F	PD10K/F	PU15K/F



	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

4.99K/F 4: CS24992FB26 [RES CHIP 4.99K 1/16W +1% (0402)]  
 10K/F 4: CS31002FB26 [RES CHIP 10K 1/16W +1% (0402)]  
 15K/F 4: CS31502FB24 [RES CHIP 15K 1/16W +1% (0402)]  
 30K/F 4: CS33002FB13 [RES CHIP 30K 1/16W +1% (0402)]  
 34.8K/F 4: CS33482FB22 [RES CHIP 34.8K 1/16W +1% (0402)]  
 45.3K/F 4: CS34532FB18 [RES CHIP 45.3K 1/16W +1% (0402)]



	Logical Strapping Bit3	Logical Strapping Bit2	Logical Strapping Bit1	Logical Strapping Bit0
ROM_SO	NB10X	XCLK_417	FB_0_BAR_SIZE	SMB_ALT_ADDR
ROM_SCLK	PCI_DEVID[4]	SUB_VENDOR	SLOT_CLK_CFG	PEX_PLL_EN_TERM
ROM_SI	RAMCFG[3]	RAMCFG[2]	RAMCFG[1]	RAMCFG[0]
STRAP2	PCI_DEVID[3]	PCI_DEVID[2]	PCI_DEVID[1]	PCI_DEVID[0]
STRAP1	3GIO_PADCFG[3]	3GIO_PADCFG[2]	3GIO_PADCFG[1]	3GIO_PADCFG[0]
STRAP0	USER[3]	USER[2]	USER[1]	USER[0]

VRAM Configuration Table

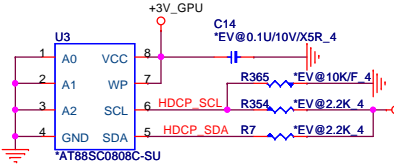
RAMCFG [3:0]	DESCRIPTION	Vendor	Vendor P/N	ROM_SI
0000		Reserved		
0001		Reserved		
0010	DDR3 64Mx16x4, 128bit, 512MB, 800MHz	Hynix	H5TQ1G63BFR-12C	PD 15K/F
0011	DDR3 64Mx16x4, 128bit, 512MB, 800MHz	Samsung	K4W1G1646E-HC12	PD 20K/F
0101		Reserved		
0110	DDR3 128Mx16x4, 128bit, 1GB, 800MHz	Hynix	H5TQ2G63BFR-12C	PD 34.8K/F
0111	DDR3 128Mx16x4, 128bit, 1GB, 800MHz	Samsung	K4W2G1646B-HC12	PD 45.3K/F

(Ra)

GPIO ASSIGNMENTS

GPIO	I/O	ACTIVE	USAGE
0	N/A	N/A	
1	IN	N/A	Hot plug detect for IFP link C
2	OUT	HIGH	PANEL BACKLIGHT PWM
3	OUT	HIGH	PANEL POWER ENABLE
4	OUT	HIGH	PANEL BACKLIGHT ENABLE
5	OUT	N/A	NVDD VID0
6	OUT	N/A	NVDD VID1
7	OUT	N/A	NVDD VID2
8	I/O	LOW	OVERT
9	I/O	LOW	ALERT
10	OUT	N/A	FBVREF SELECT
11	OUT	N/A	SLI SYNC0
12	IN	N/A	PWR_LEVEL
13	OUT	N/A	MEM_VID or power supply control
14	OUT	N/A	PS CONTROL

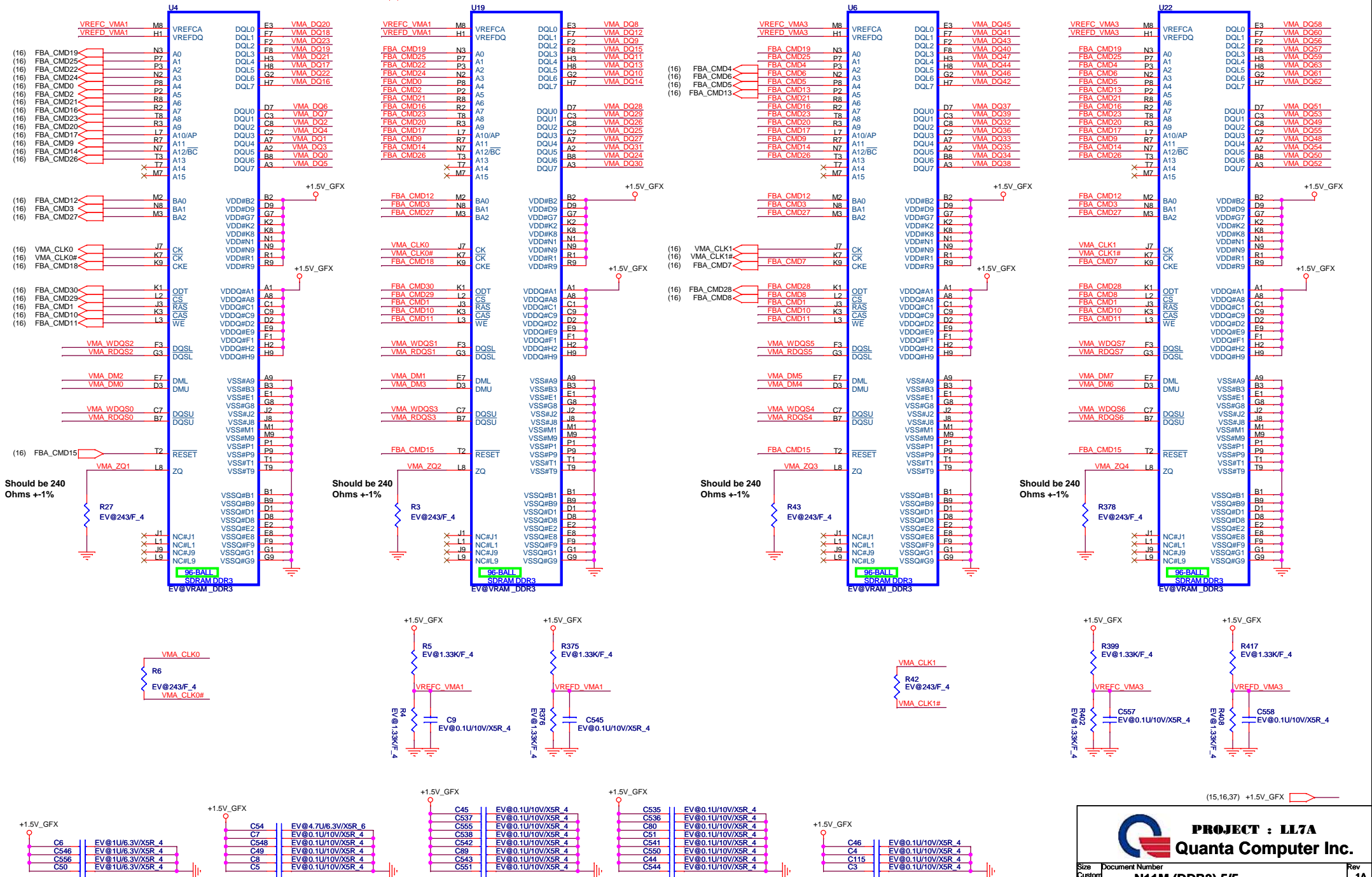
HDCP ROM



DHCP ROM	
HDCP_SCL	Low: Crypto ROM Hi: I2C ROM

PROJECT : Z360  
 Quanta Computer Inc.

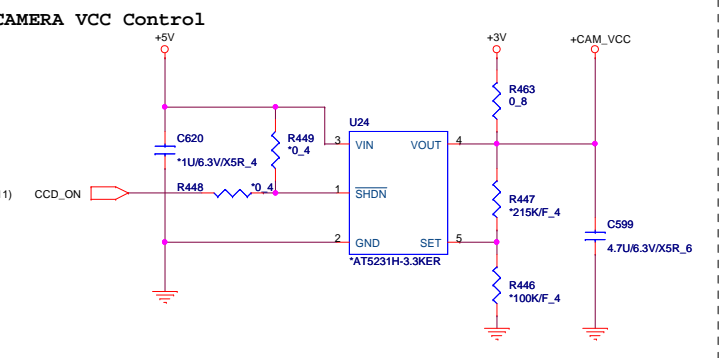
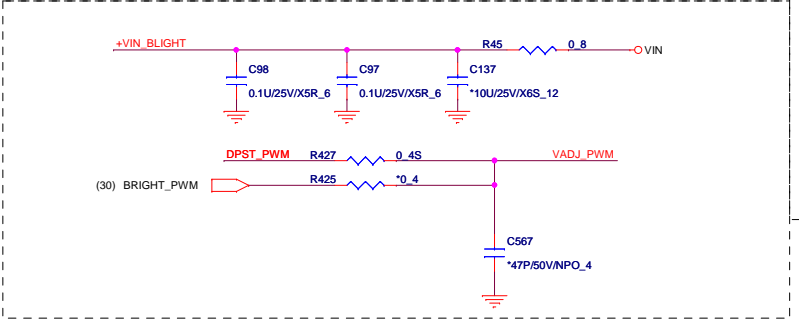
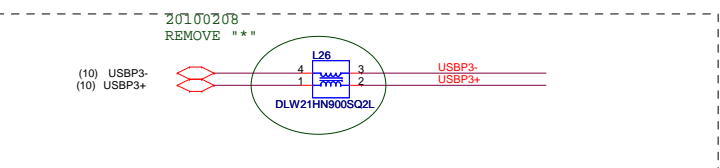
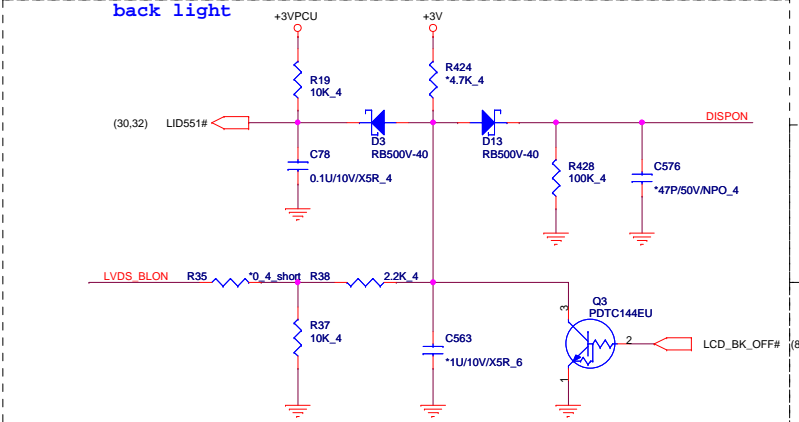
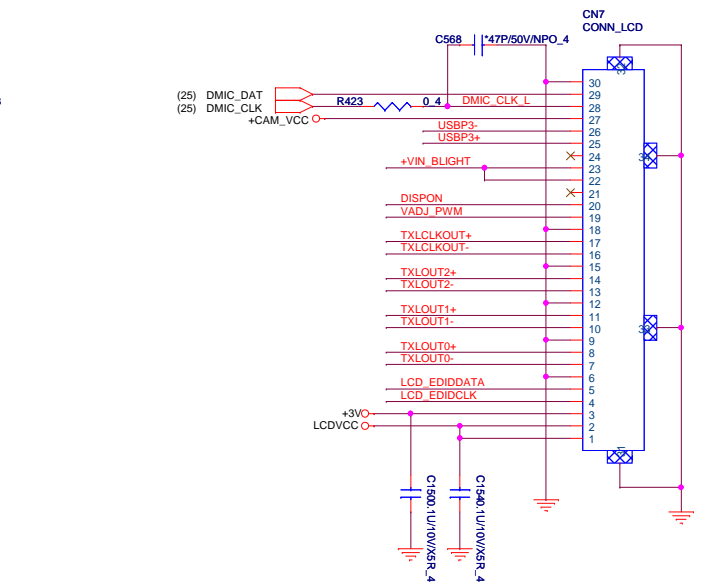
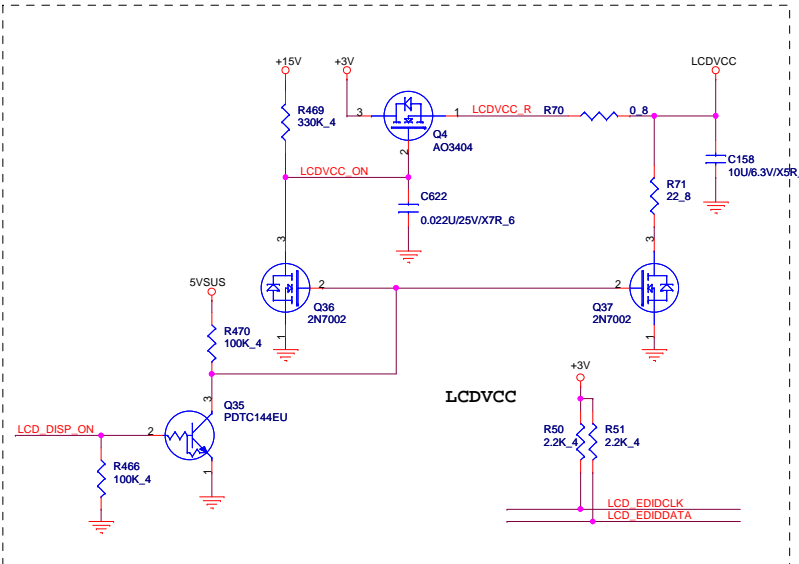
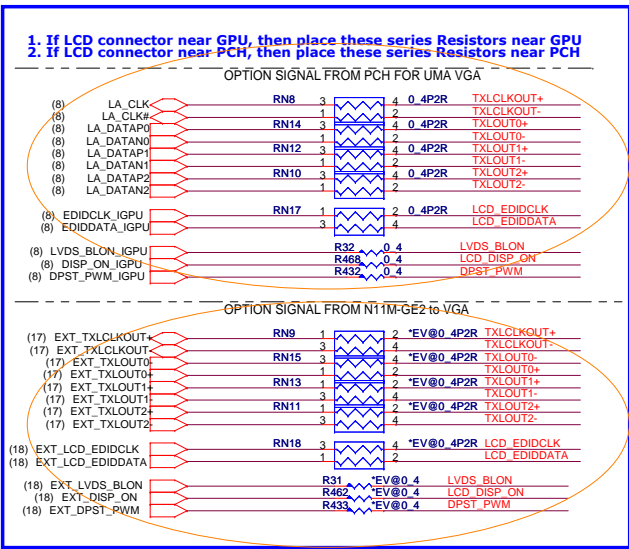
CHANNEL A: 256MB/512MB DDR3

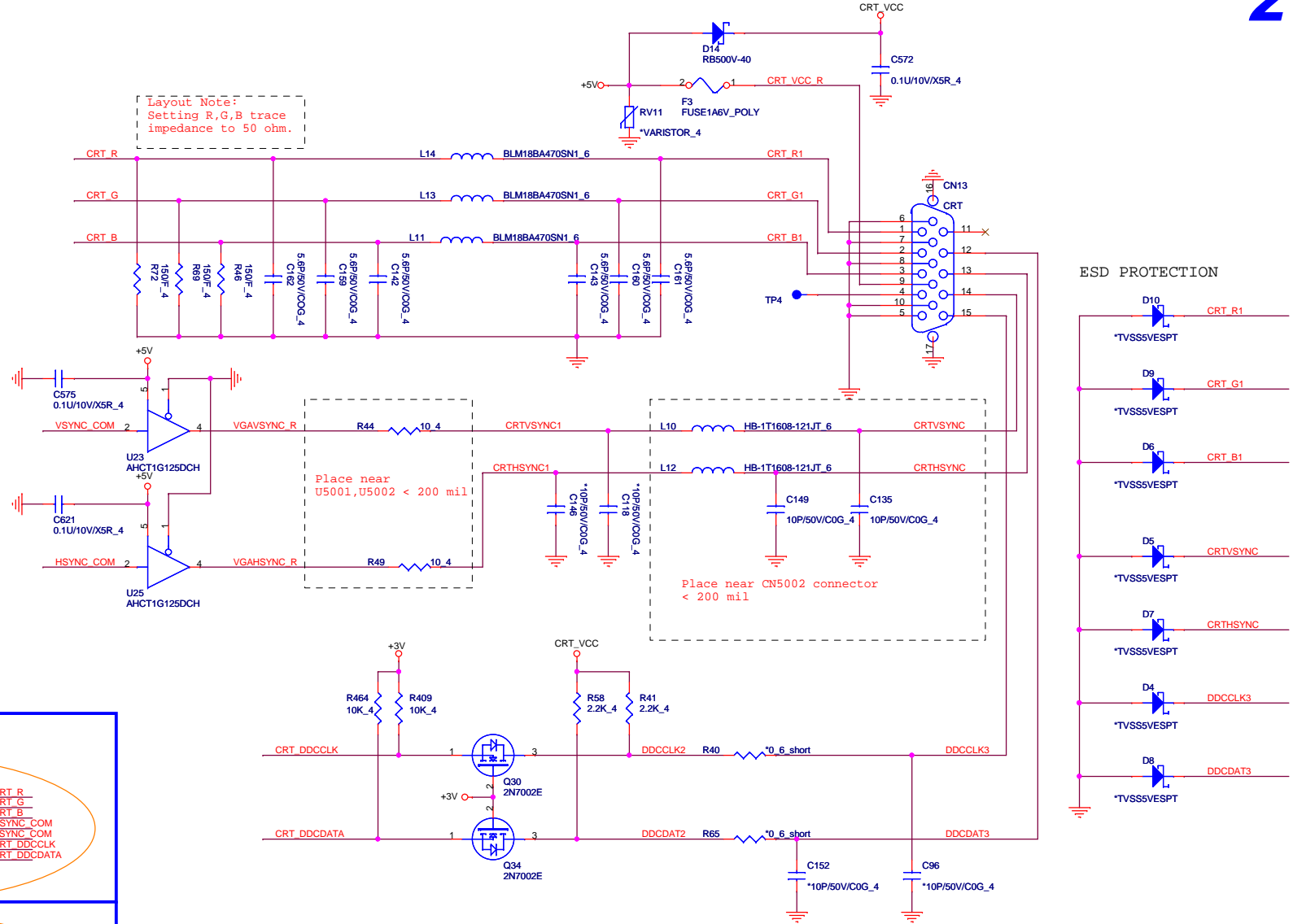


**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	<b>N11M (DDR3) 5/5</b>	<b>1A</b>
Date:	Thursday, April 08, 2010	Sheet 19 of 42

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**PROJECT : LL7A**  
**Quanta Computer Inc.**

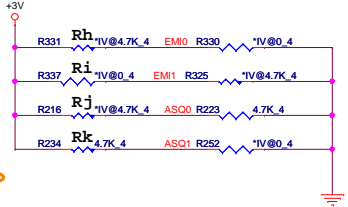
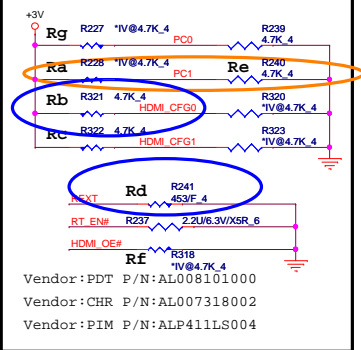
Size: Custom  
 Document Number: **CRT CONN**  
 Date: Thursday, April 08, 2010  
 Rev: 1A  
 Sheet 21 of 42

hexair@hotmail.com

# For UMA HDMI function 22

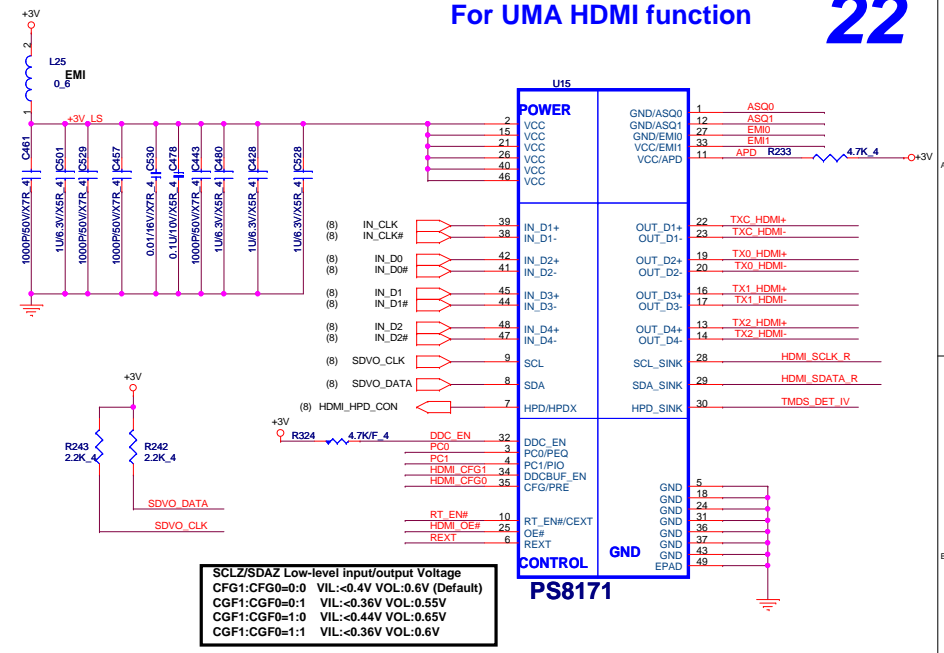
Signals	PDT	CHR	PIM
PC1	Ra	NC	NC
HDMI_CFG0	Rb	NC	NC
HDMI_CFG1	Rc	4.7K	NC
REXT	Rd	499	1.2K 4.7K
PC1	Re	NC	4.7K 4.7K
HDMI_OE#	Rf	NC	4.7K NC
PC0	Rg	4.7K	4.7K 4.7K

Signals	PDT	CHR	PIM
EMI0	Rh	NC	NC
EMI1	Ri	NC	NC
ASQ0	Rj	4.7K	NC
ASQ1	Rk	499	1.2K 4.7K

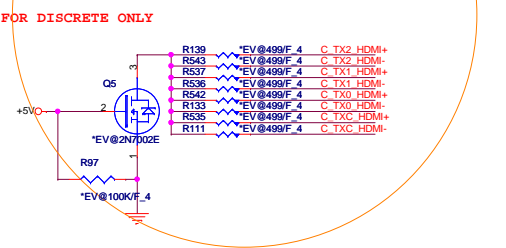
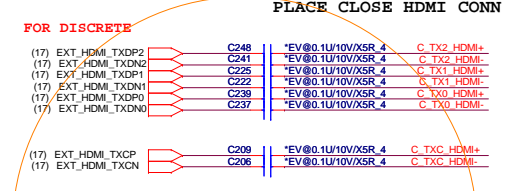
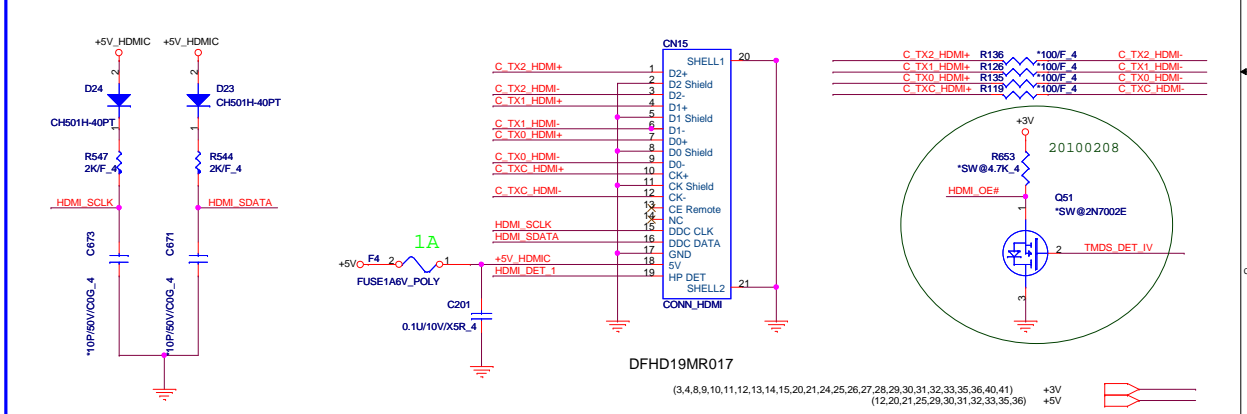
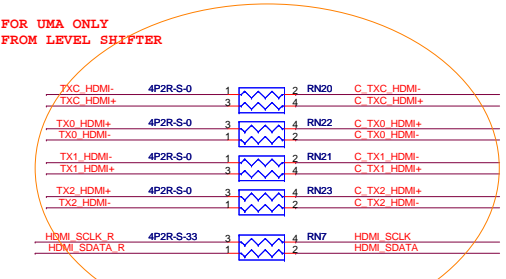


Signals	PS8171
PIN 3	LEVEL EQ
PC0/PEQ	HIGH 7db
	MID 2db
	LOW 4db

Signals	PS8171
PIN 4	LEVEL EQ
PC1/PIO	HIGH 1.2db
	MID 2db
	LOW 0db



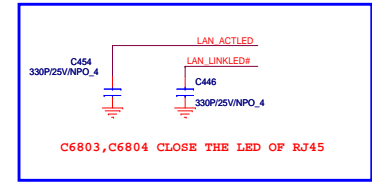
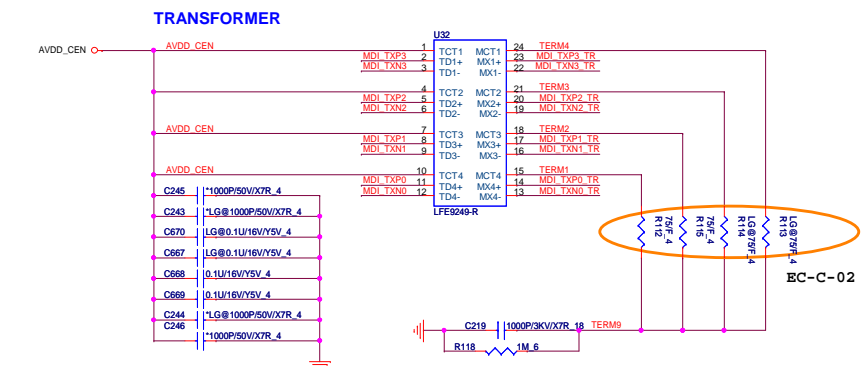
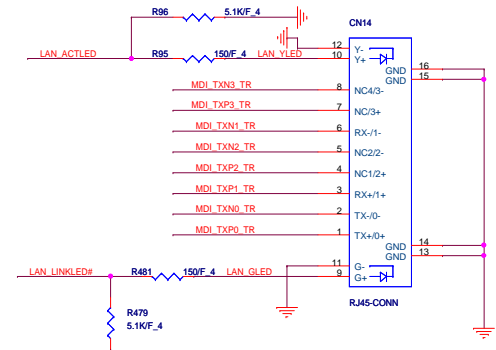
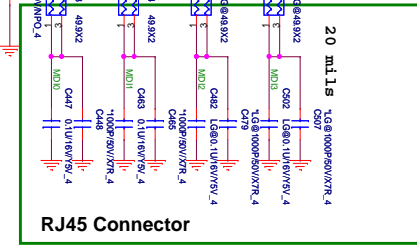
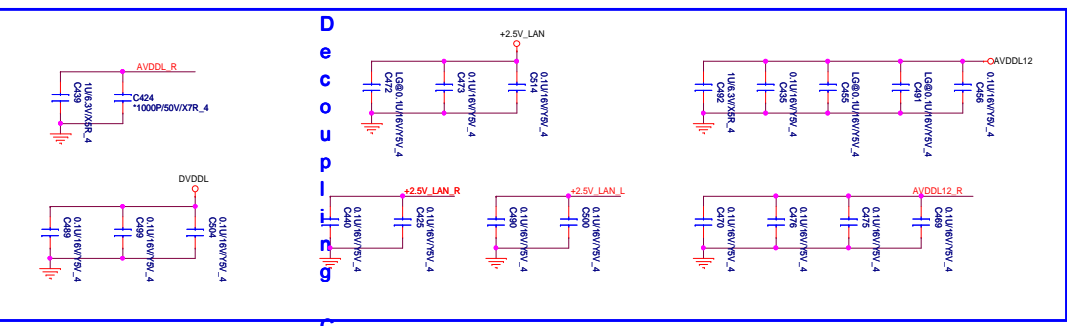
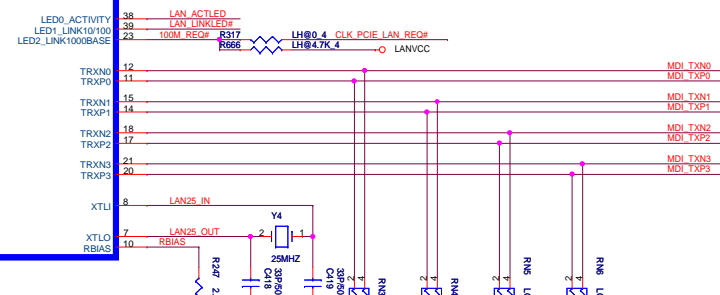
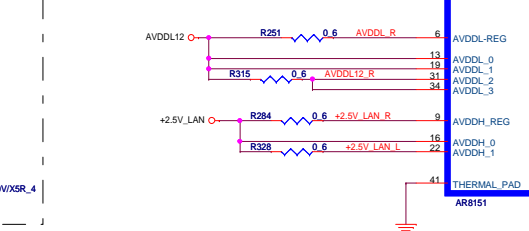
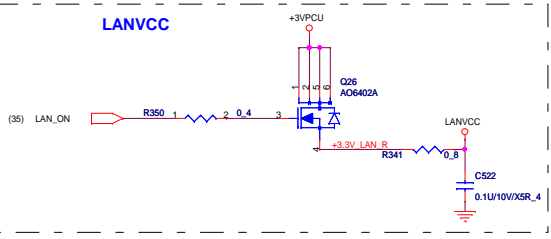
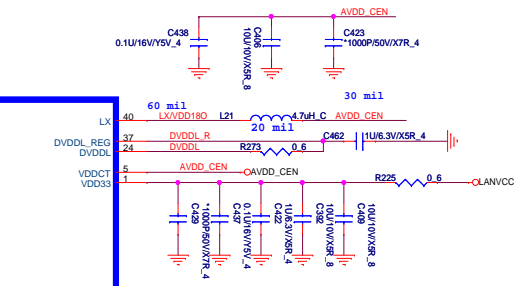
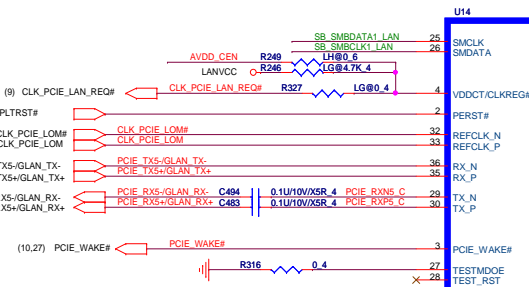
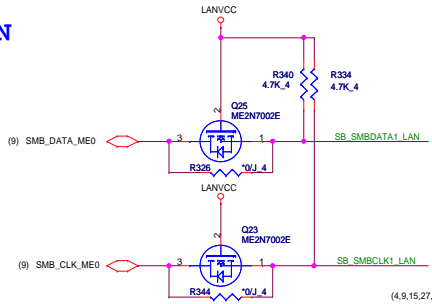
**SCLZ/SDAZ Low-level input/output Voltage**  
 CFG1:CFG0=0:0 VIL:-0.4V VOL:-0.6V (Default)  
 CFG1:CFG0=0:1 VIL:-0.36V VOL:-0.55V  
 CFG1:CFG0=1:0 VIL:-0.44V VOL:-0.65V  
 CFG1:CFG0=1:1 VIL:-0.36V VOL:-0.6V

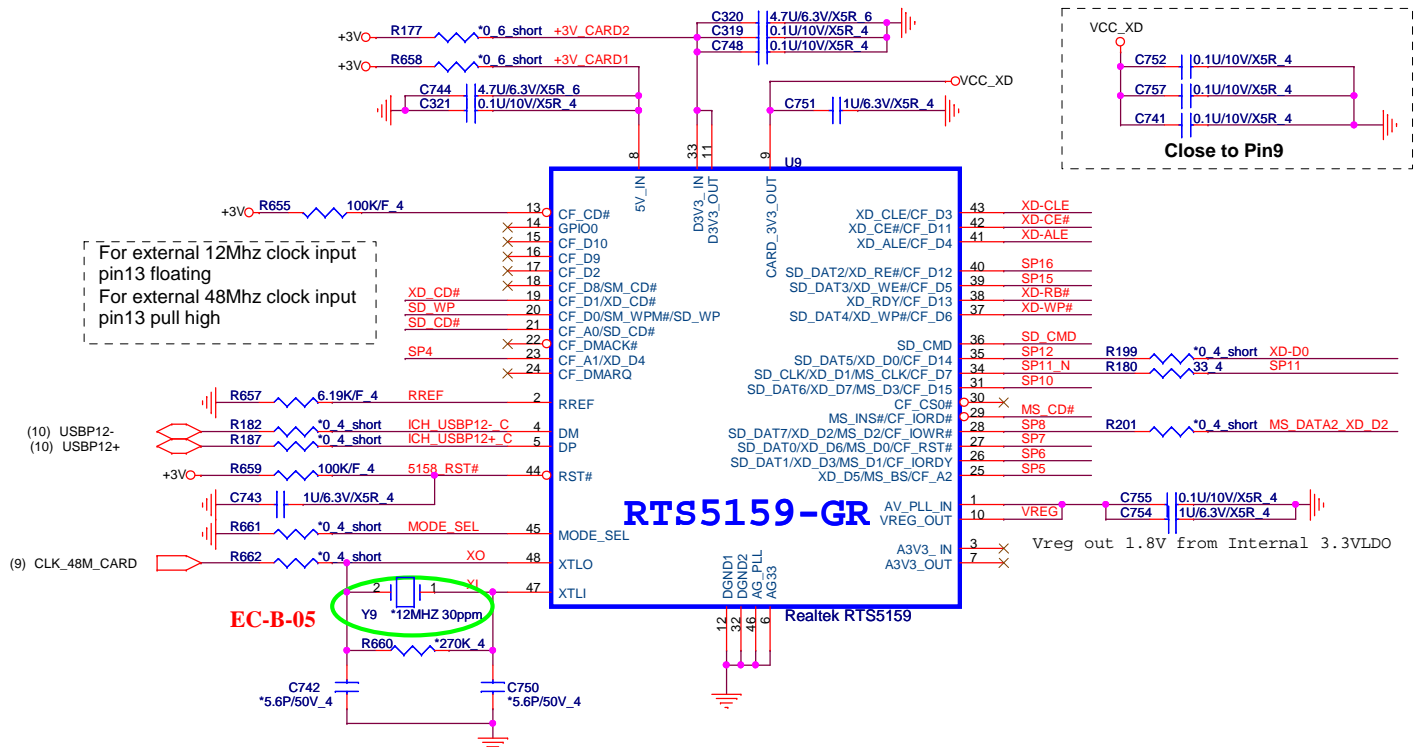


**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size Custom Document Number  
**HDMI CONN**  
 Date: Friday, April 06, 2010 Sheet 22 of 42

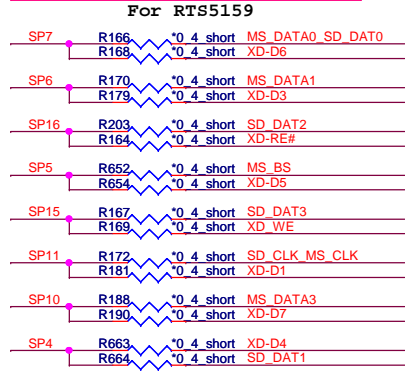
Rev 3A



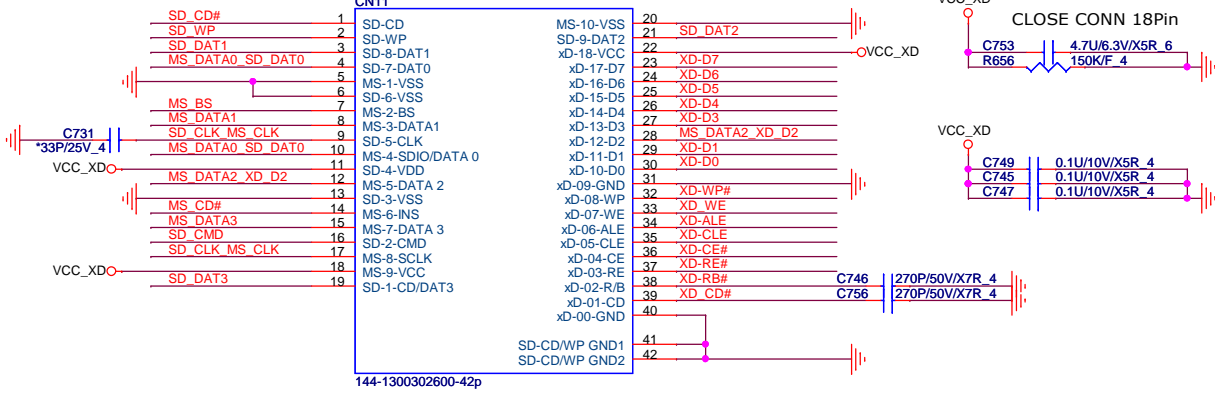



**Note:**

SP0	SD/MMC	MS	XD
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_D6
SP8	SD_DAT7	MS_D2	XD_D2
SP9		MS_IN#	
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_RB#
SP15	SD_DAT3		XD_WE#
SP16	SD_DAT2		XD_RE#
SP17			XD_ALE
SP18			XD_CE#
SP19			XD_CLE



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



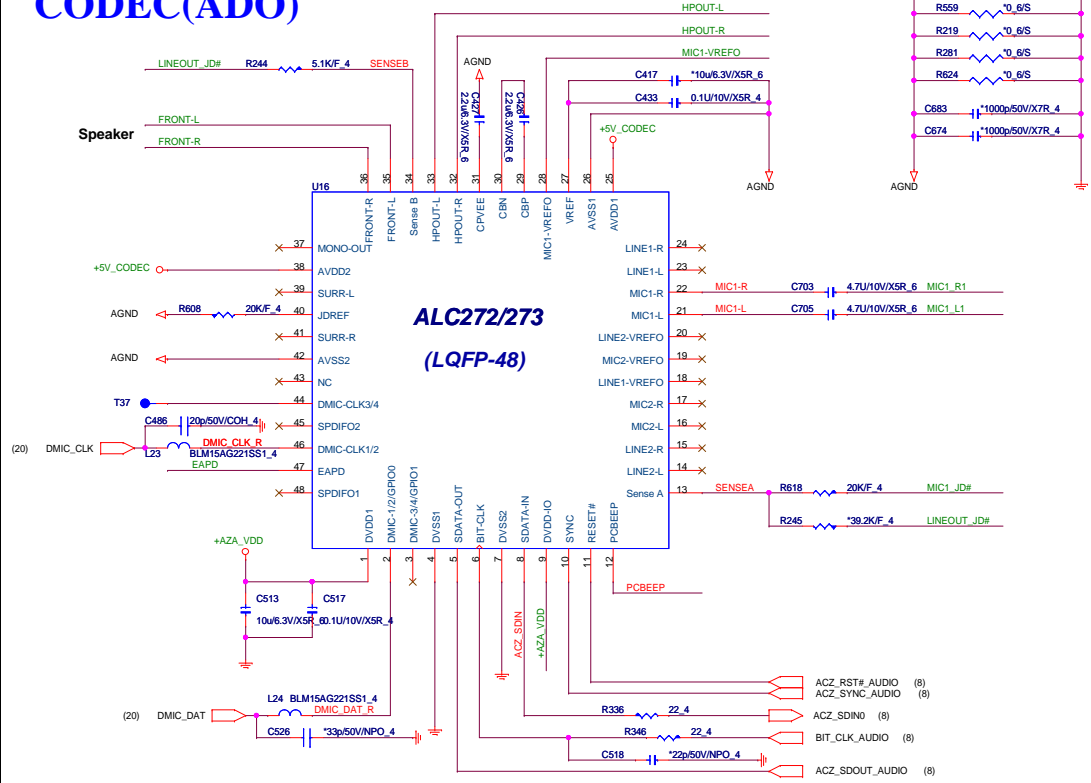


**PROJECT : LL7A**  
**Quanta Computer Inc.**

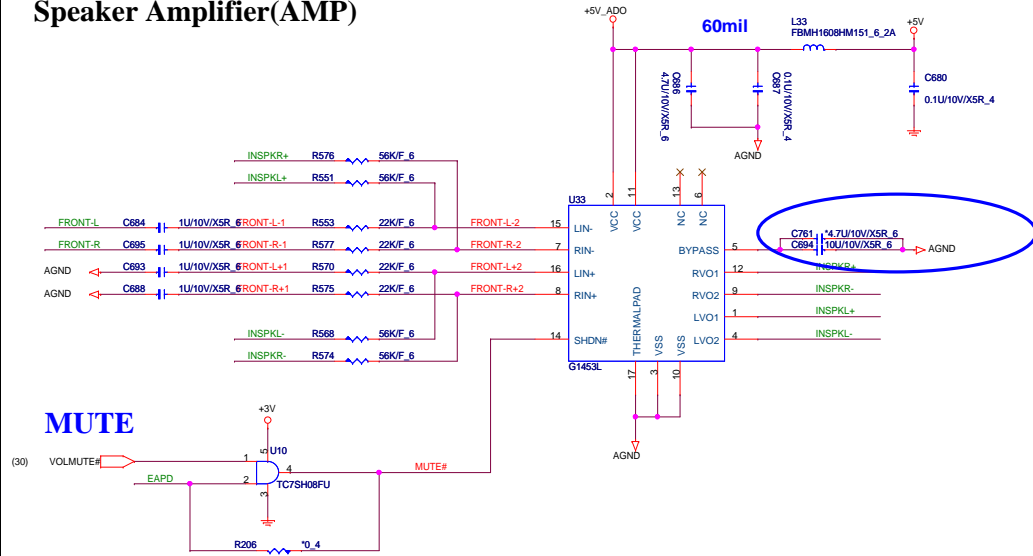
Size B	Document Number <b>CARD READER (Realtek RTS5159)</b>	Rev <b>3A</b>
Date: Thursday, April 08, 2010		Sheet 24 of 42



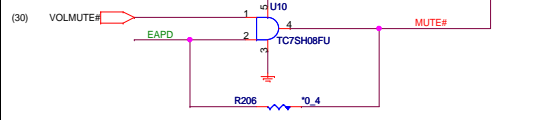
# CODEC(ADO)



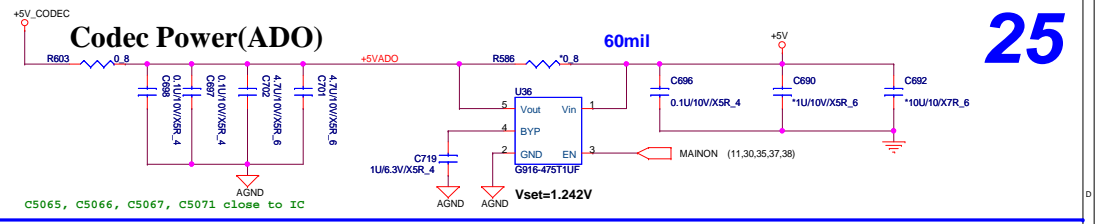
# Speaker Amplifier(AMP)



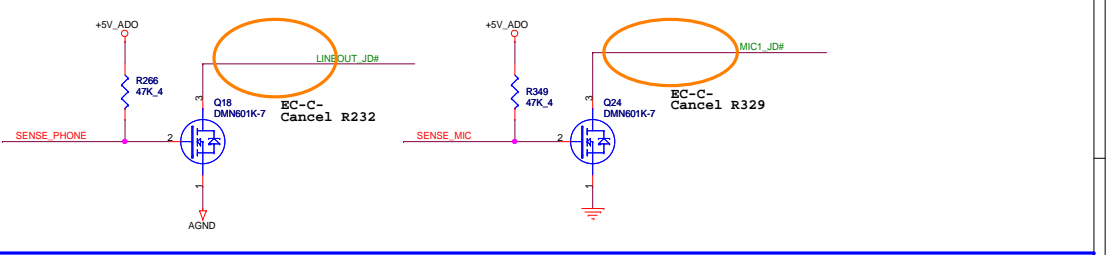
# MUTE



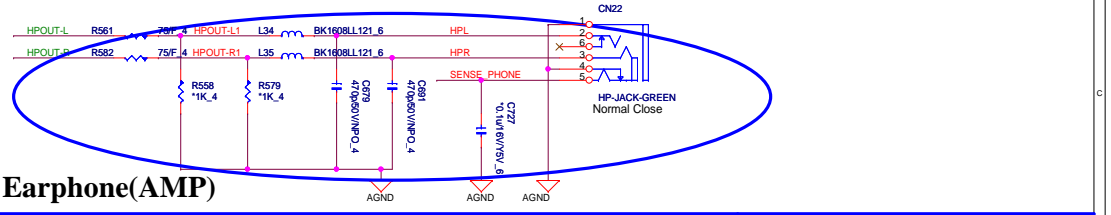
# Codec Power(ADO)



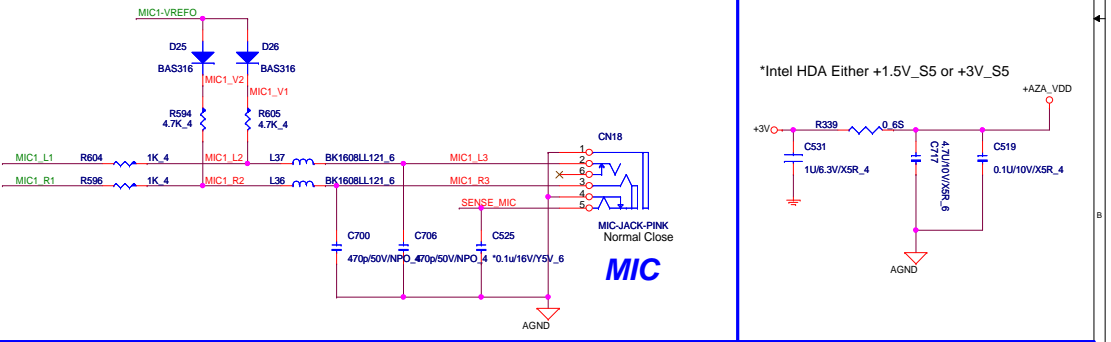
25



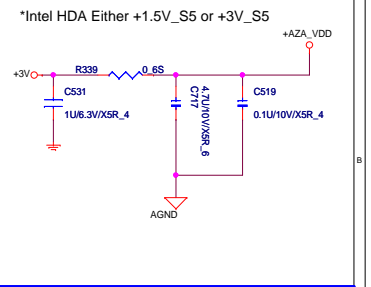
# Earphone(AMP)



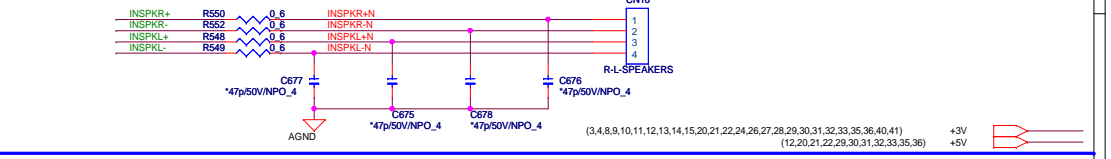
# System MIC(AMP)



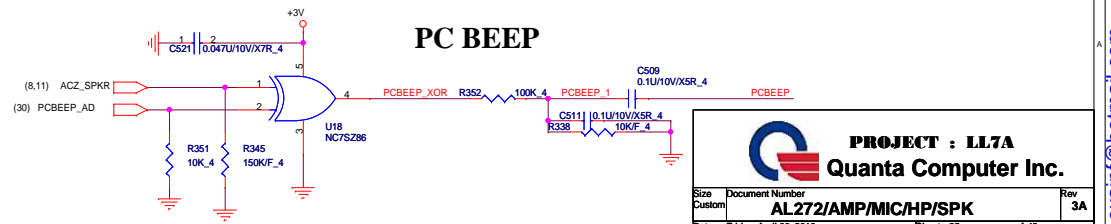
# HDA Power(ADO)



# Speaker(AMP)



# PC BEEP

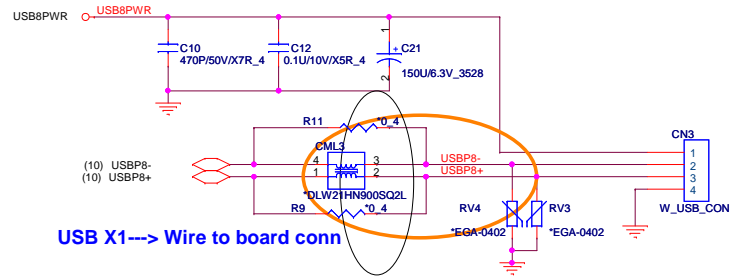
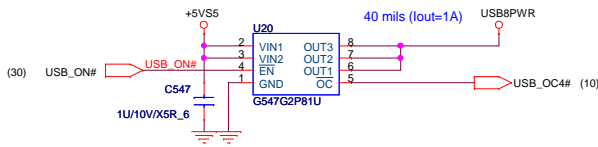


**PROJECT : LL7A**  
**Quanta Computer Inc.**

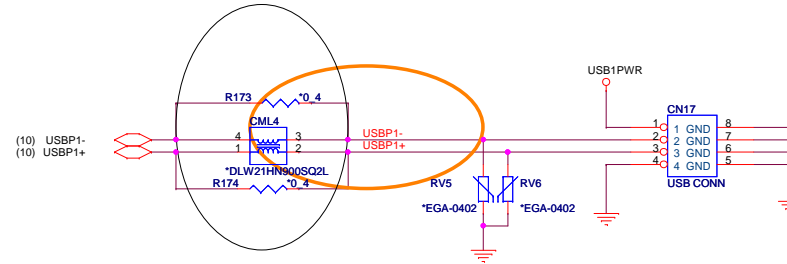
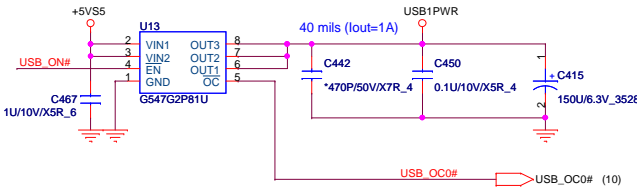
Rev 3A

Date: Friday, April 08, 2010     Sheet 25 of 42     Document Number: **AL272/AMP/MIC/HP/SPK**

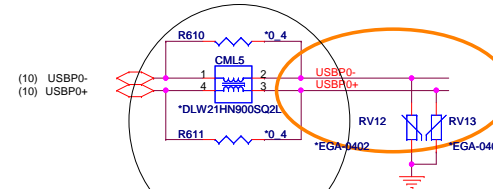
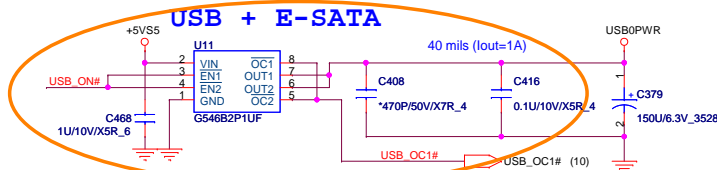
hexaimf@hotmail.com



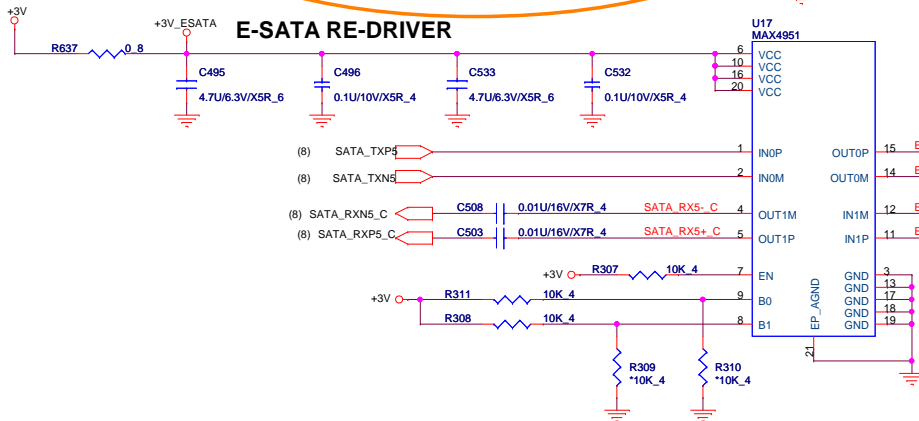
USB 2



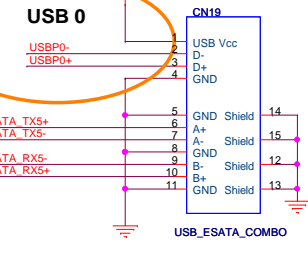
USB 1



E-SATA RE-DRIVER

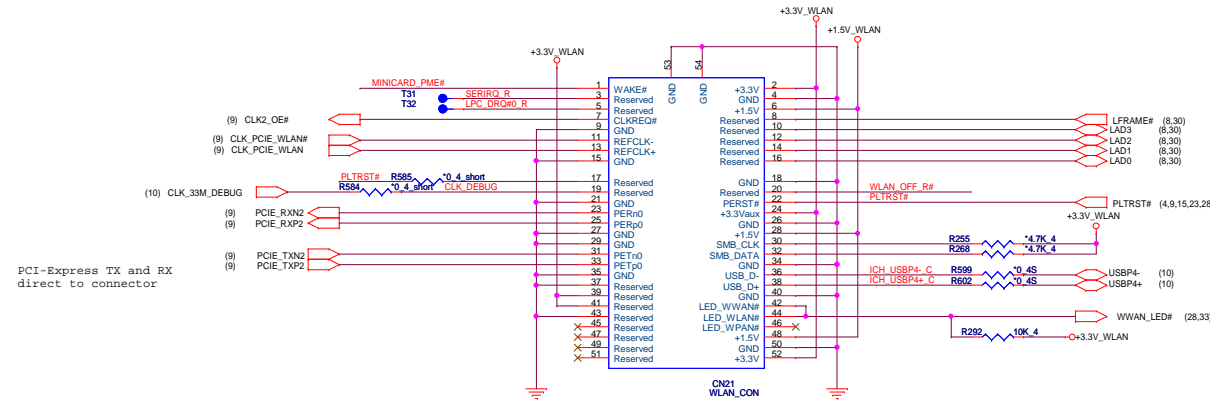


EN	B0	B1	FUNCTION
0	X	X	Standby
1	0	0	Standard SATA Output
1	1	0	Ch 0 Boost Output
1	0	1	Ch 1 Boost Output
1	1	1	Ch 0,1 Boost Output

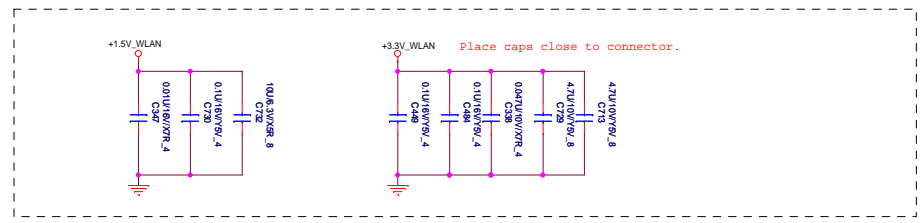
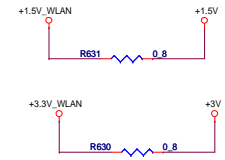
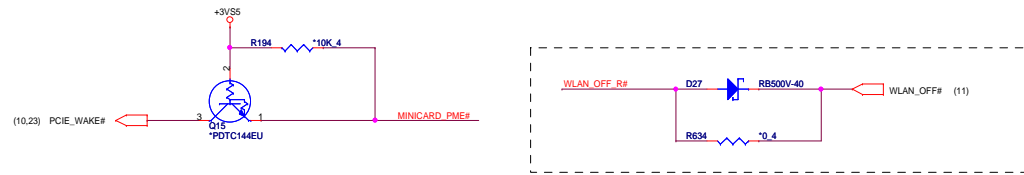
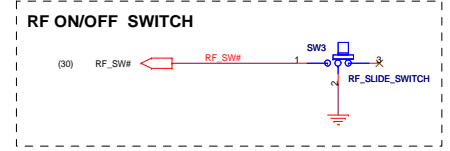


# MiniCard WLAN/WiMAX connector

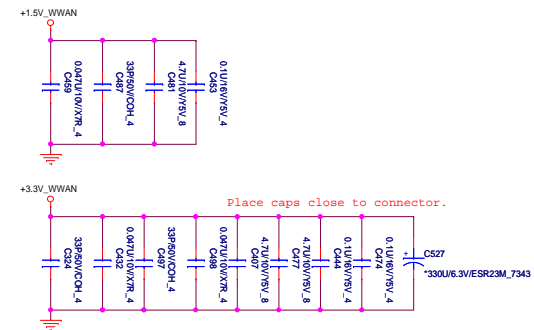
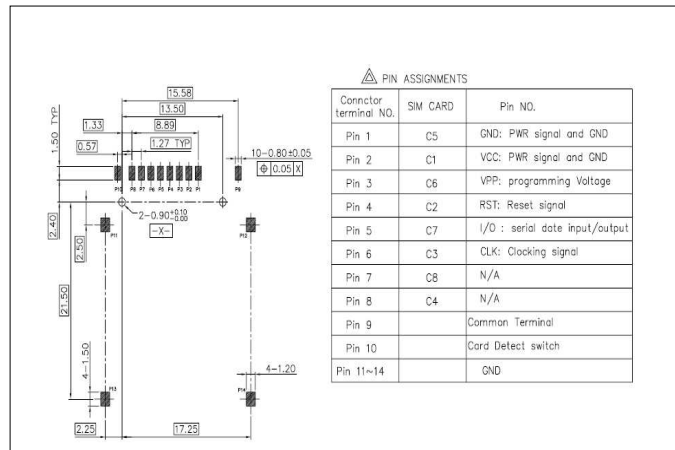
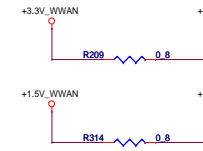
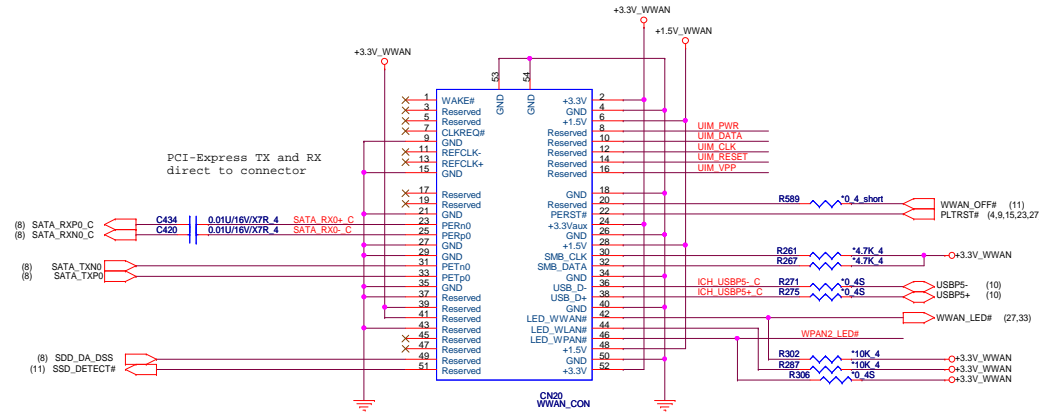
(3,4,8,9,10,11,12,13,14,15,20,21,22,24,25,26,28,29,30,31,32,33,35,36,40,41) (3,28,37) +3V  
 (4,8,9,10,11,12,15,35) +1.5V  
 +3VSS



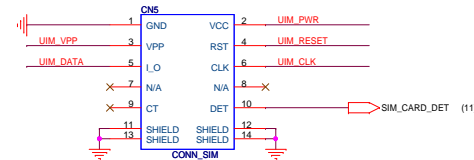
PCI-Express TX and RX direct to connector



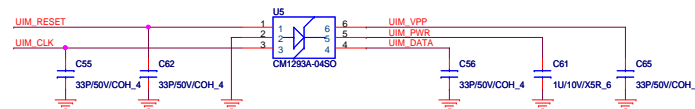
### MiniCard WWAN connector



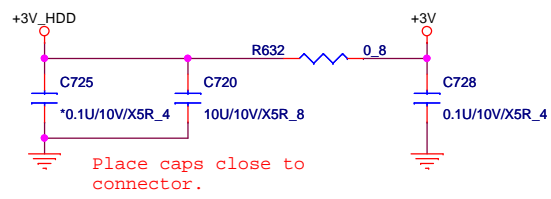
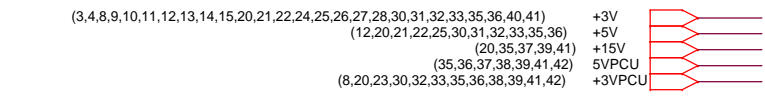
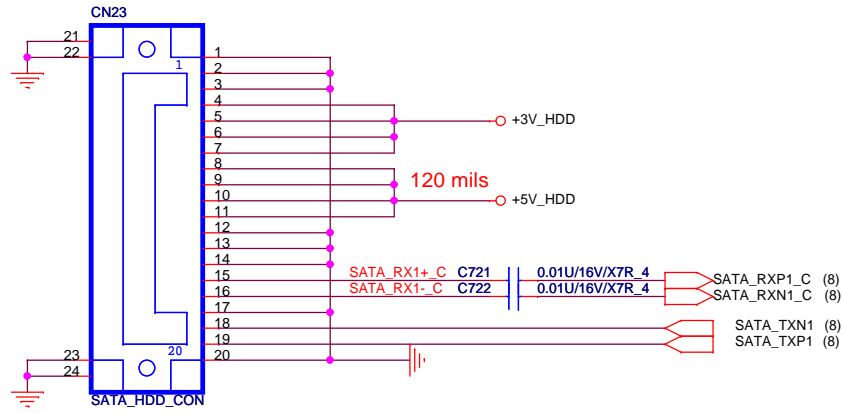
### SIM Card CONN



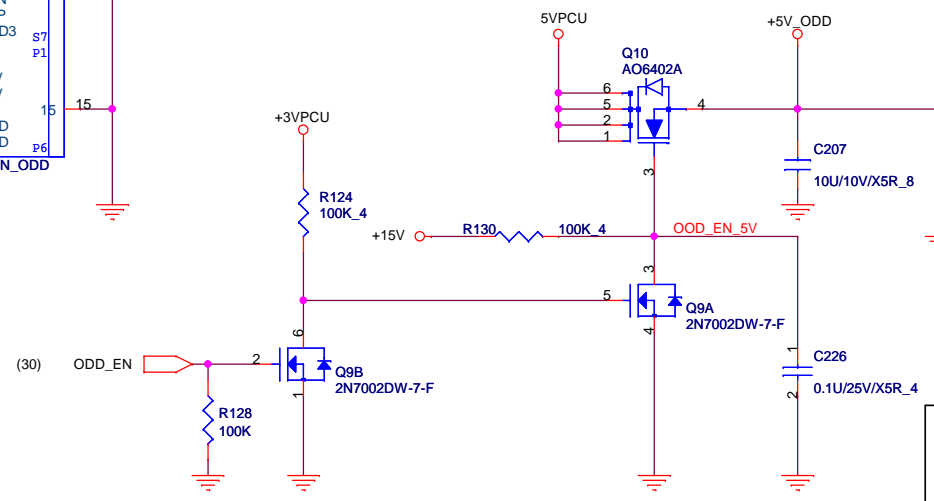
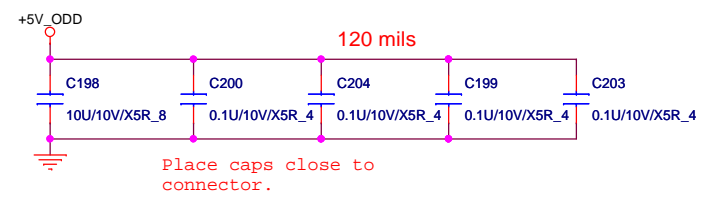
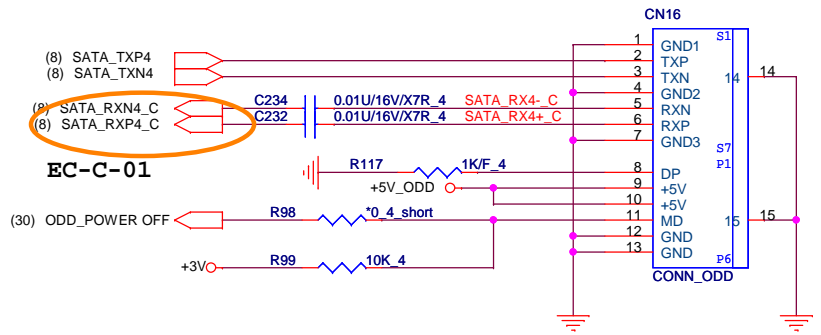
Layout Note:  
UIM\_RESET, UIM\_CLK, UIM\_DATA routing as short as possible



# SATA-HDD CONNECTOR



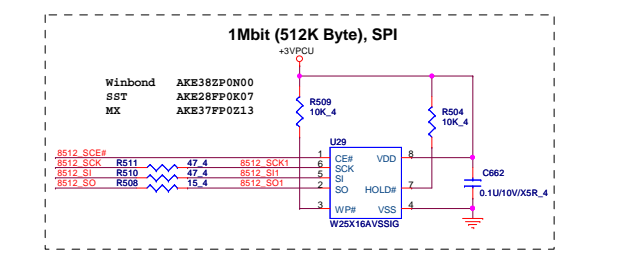
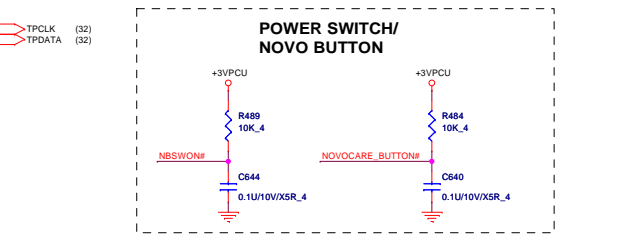
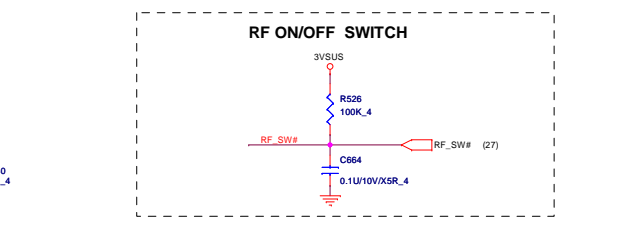
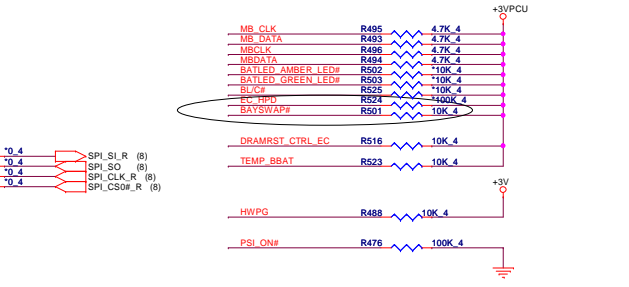
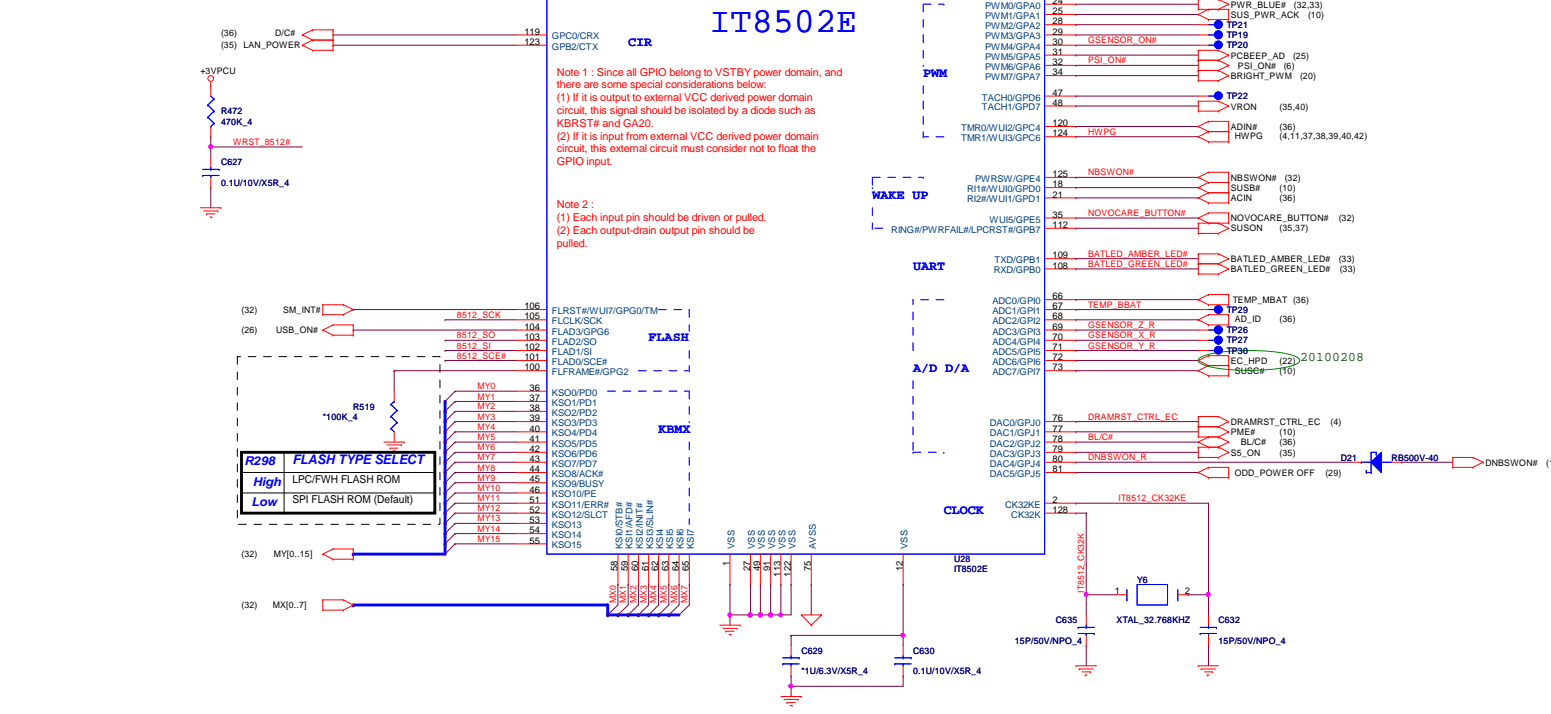
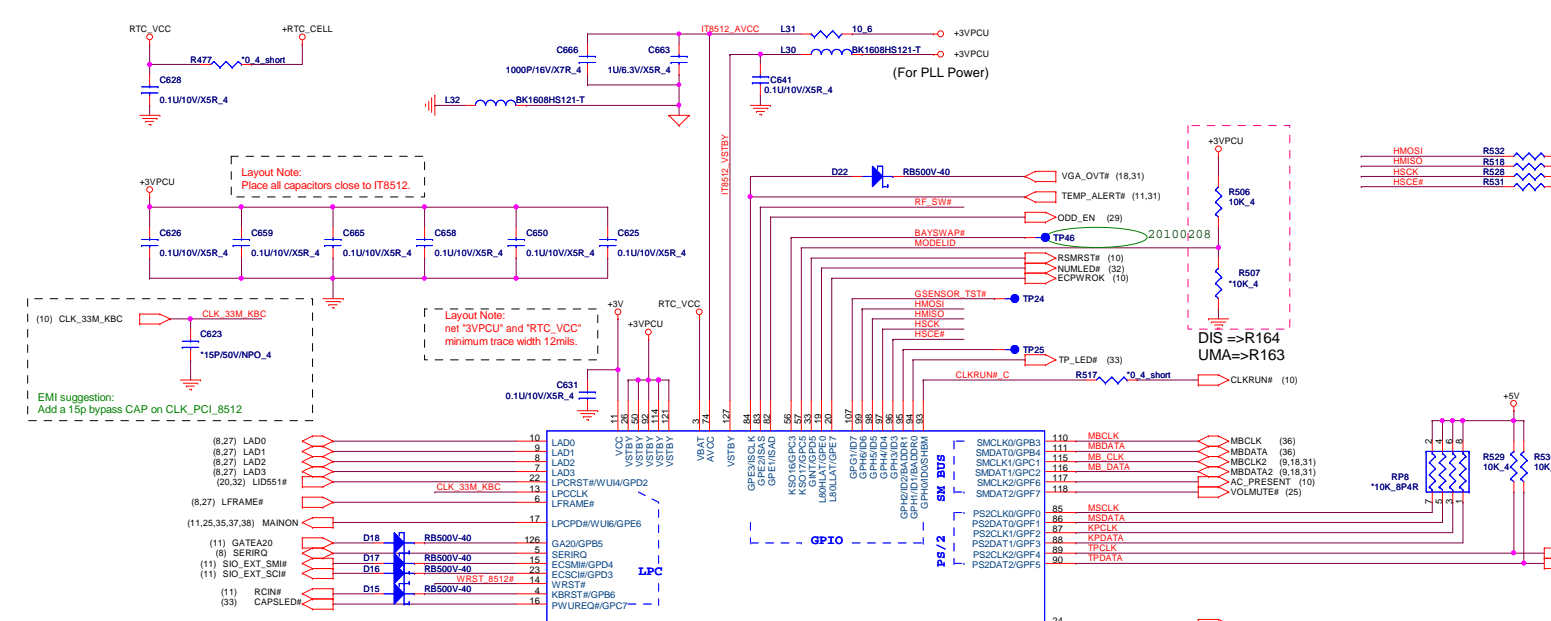
# SATA CD-ROM



**PROJECT : LL7A**  
**Quanta Computer Inc.**

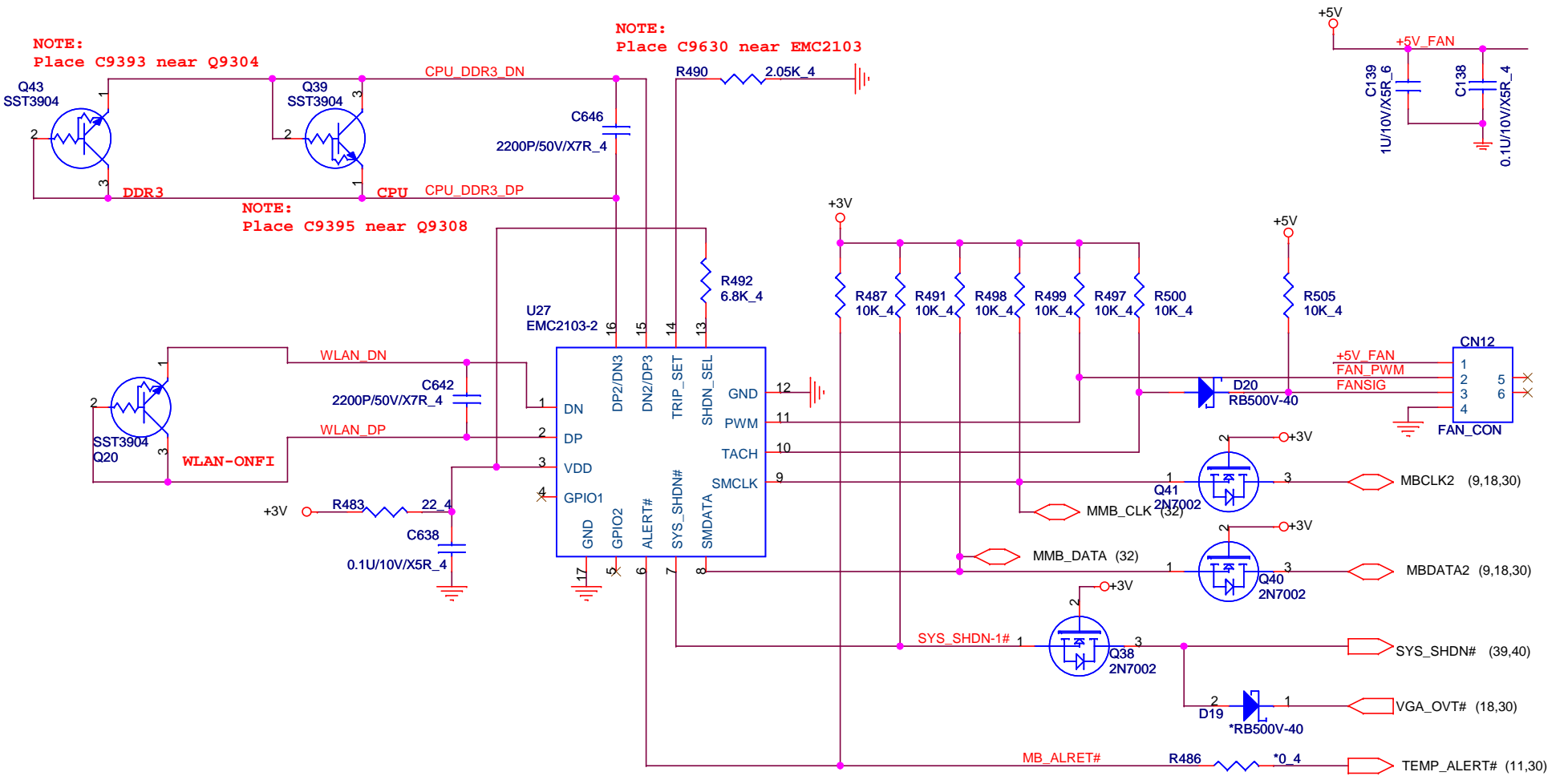
Size Custom	Document Number HDD/ODD	Rev 3A
Date: Thursday, April 08, 2010	Sheet 29	of 42


hexaimf@hotmail.com



# FAN CONTROL

(3,4,8,9,10,11,12,13,14,15,20,21,22,24,25,26,27,28,29,30,32,33,35,36,40,41) +3V  
 (12,20,21,22,25,29,30,32,33,35,36) +5V



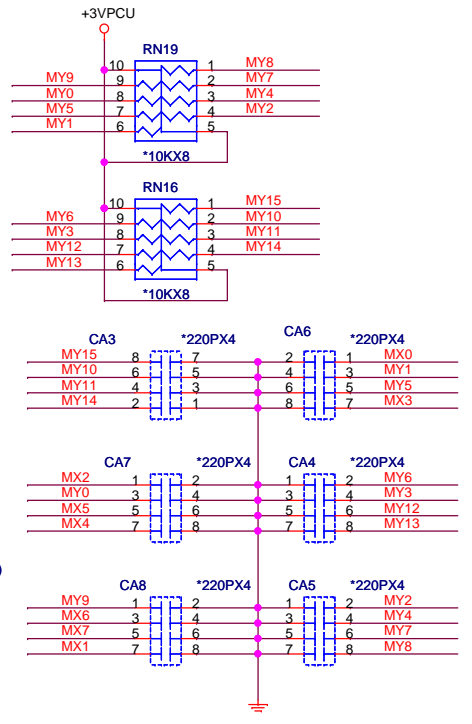
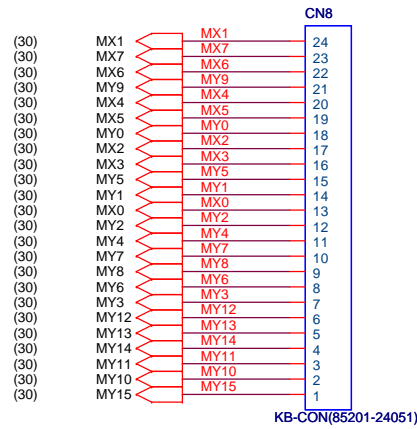


**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	<b>FAN / THERMAL</b>	<b>1A</b>
Date: Thursday, April 08, 2010		Sheet 31 of 42

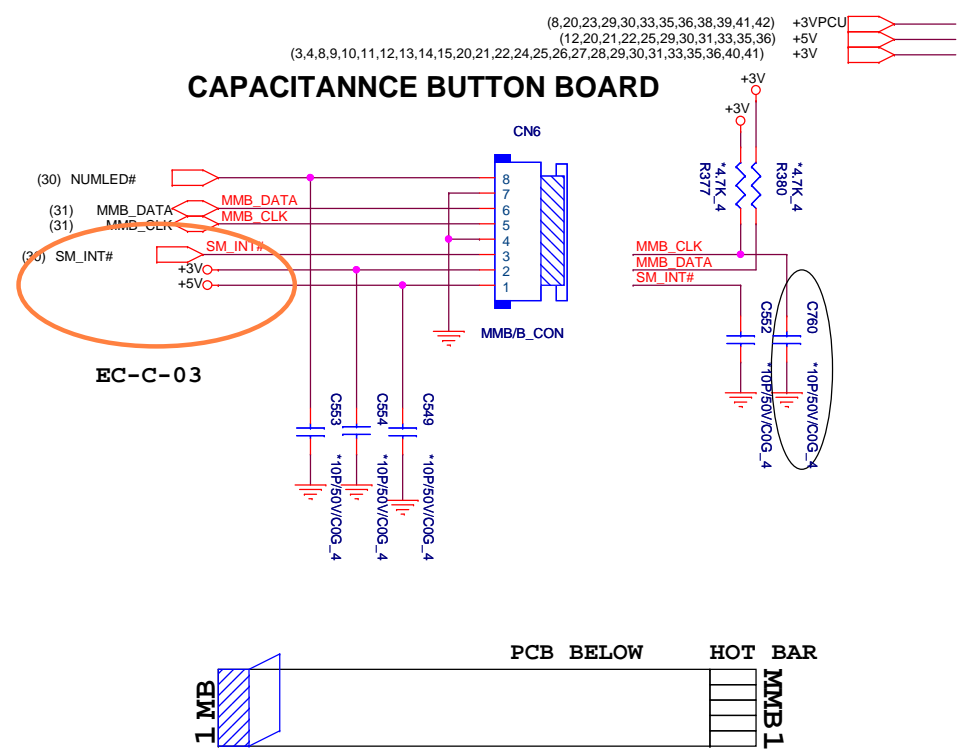
hexaimf@hotmail.com

## KEYBOARD

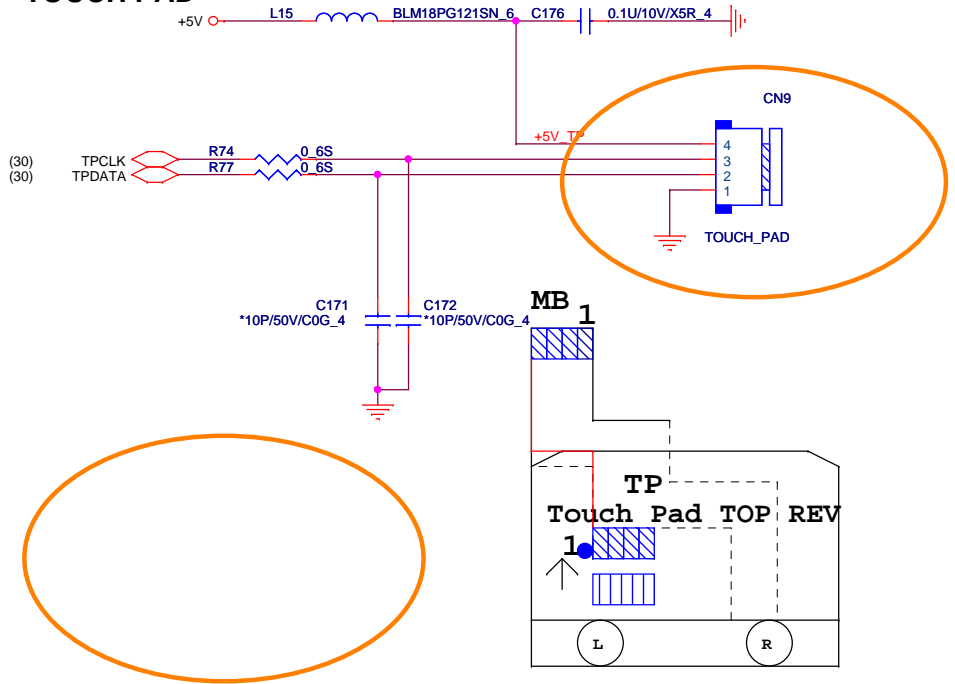


For EMI request

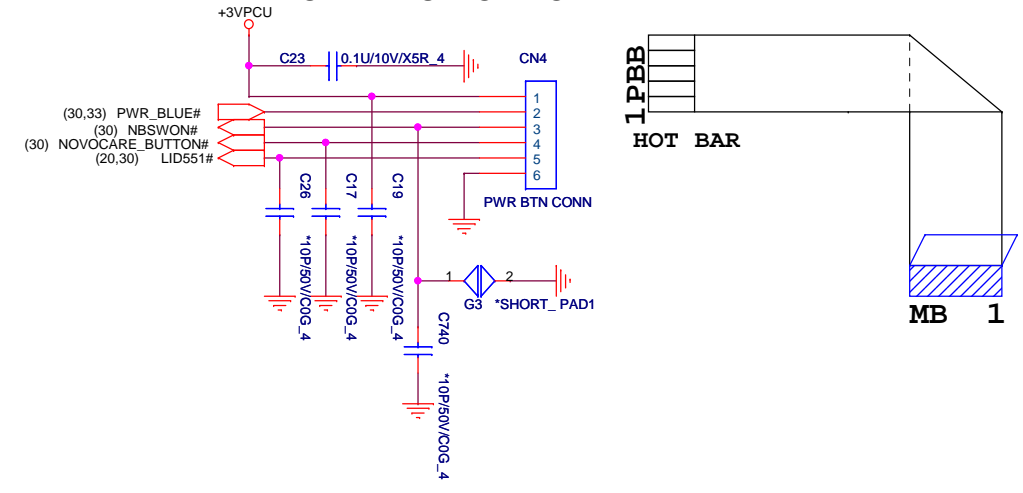
## CAPACITANCE BUTTON BOARD



## TOUCH PAD



## POWER BUTTON BOARD



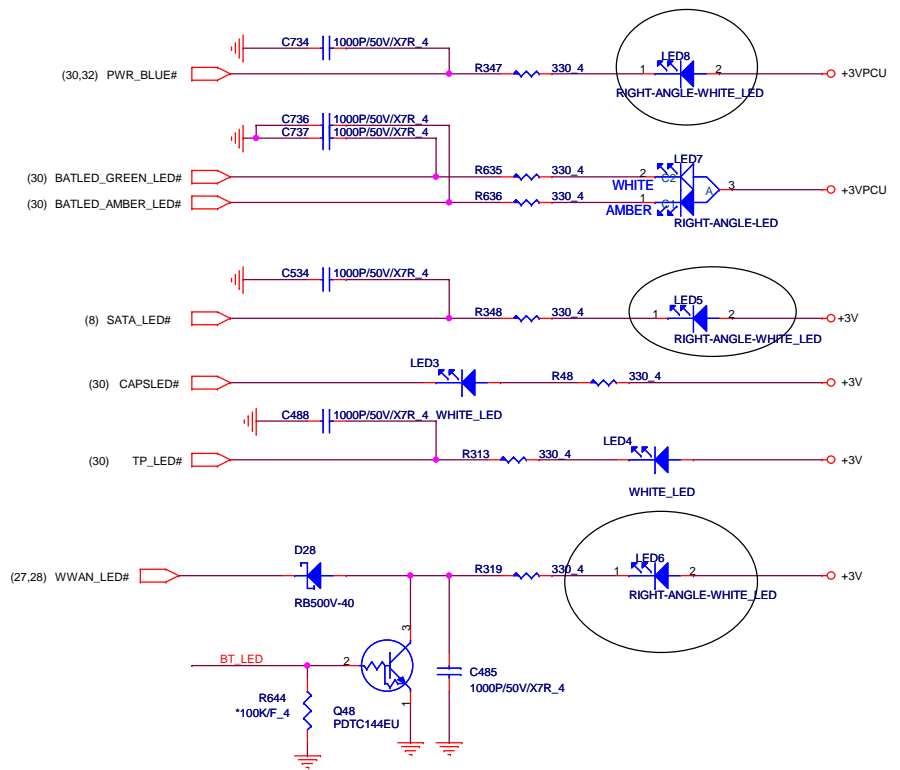
**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custorr	<b>KB/TP/PW-B/CTS</b>	<b>3A</b>
Date: Thursday, April 08, 2010	Sheet 32	of 42

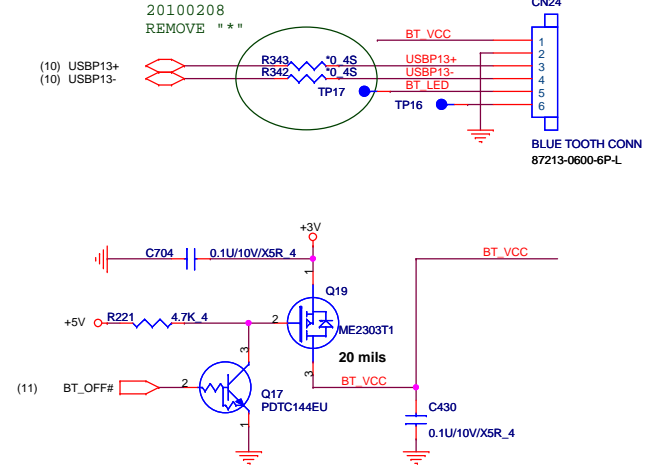


(3,4,8,9,10,11,12,13,14,15,20,21,22,24,25,26,27,28,29,30,31,32,35,36,40,41) +3V  
 (12,20,21,22,25,29,30,31,32,35,36) +5V  
 (8,20,23,29,30,32,35,36,38,39,41,42) +3VPCU

## LED



## BLUETOOTH

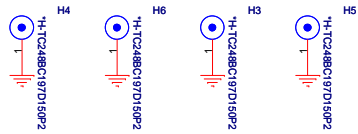


**PROJECT : LL7A**  
**Quanta Computer Inc.**

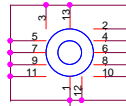
Size	Document Number	Rev
Custom	<b>LED/BT</b>	<b>1A</b>

Date: Thursday, April 08, 2010      Sheet 33 of 42

**CPU BKT**

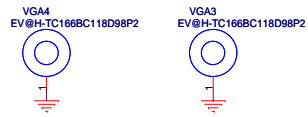


**CRT HOLE**



HOLE6  
\*H-C284D111P2-12  
NEAR AUDIO JACK

**GPU NUT**



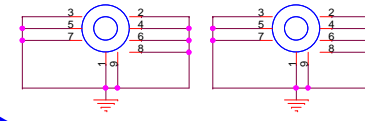
**ODD HOLE**



HOLE9  
\*H-C284I151D111P2

HOLE7  
\*H-C335D111P2

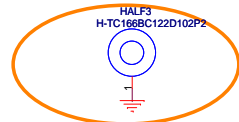
**KEYBOARD HOLE**



HOLE13  
\*H-C284D111P2-8

HOLE14  
\*H-C284D111P2-8

**WLAN nut**



**BATTERY HOLE**



HOLE4  
\*H-C284D111P2-8

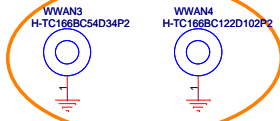
HOLE3  
\*H-C284D111P2-8

**WLAN CABLE HOLE**

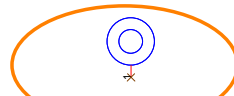


HOLE15  
\*H-C38D98N

**WWAN NUT**

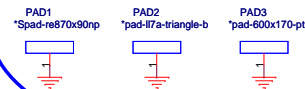


**WLAN CABLE HOLE**

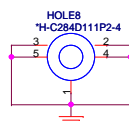


HOLE5  
\*O-LL7A-2

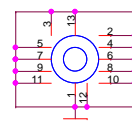
**EMI BATTERY PAD**



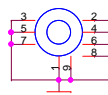
**DDR 3 HOLE**



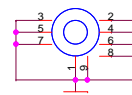
**FRONT HOLE**



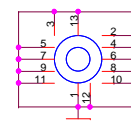
HOLE10  
\*H-C284D111P2-12  
NEAR AUDIO JACK



HOLE12  
\*H-C284D111P2-8  
NEAR PCH BELOW



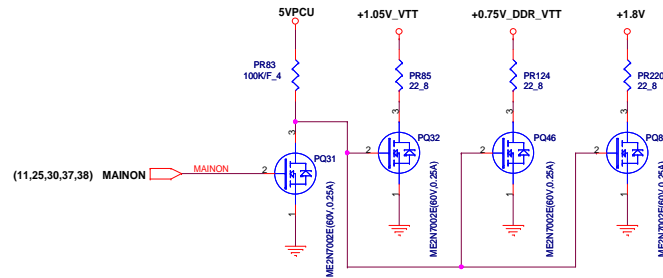
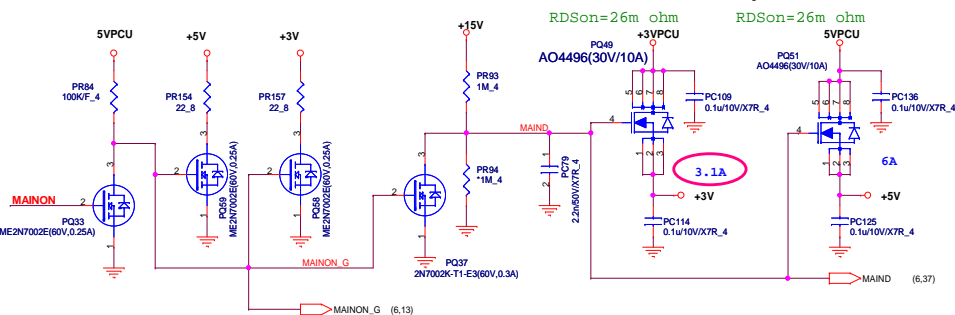
HOLE11  
\*H-C284D111P2-8



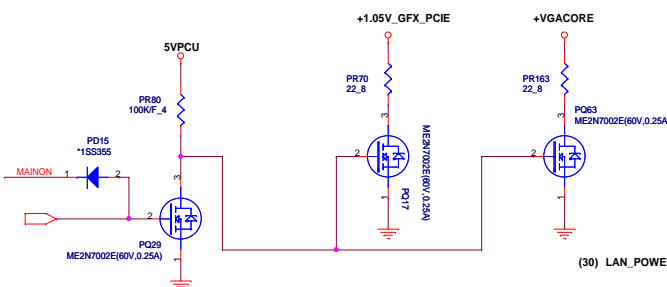
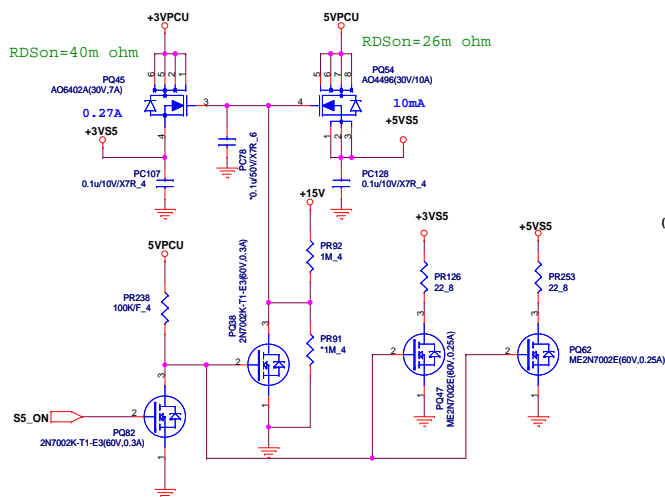
HOLE16  
\*H-C284D111P2-12  
NEAR E-SATA

DISCHARGE

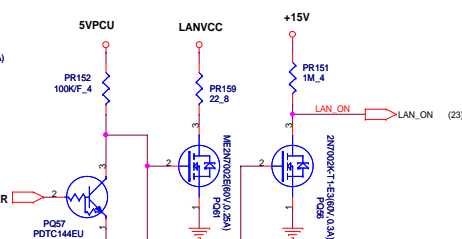
+3V, +5V



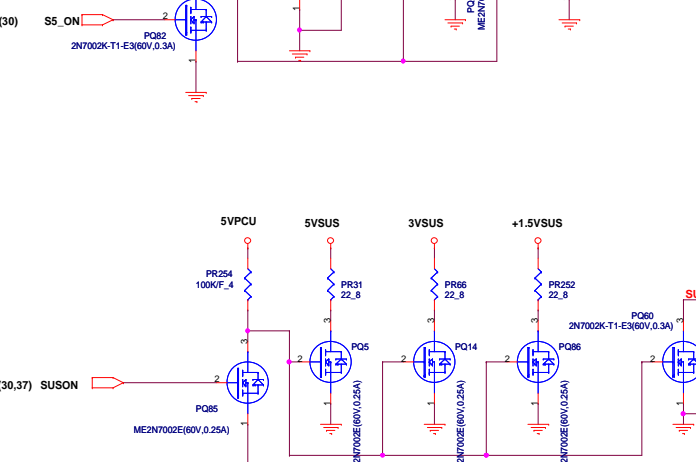
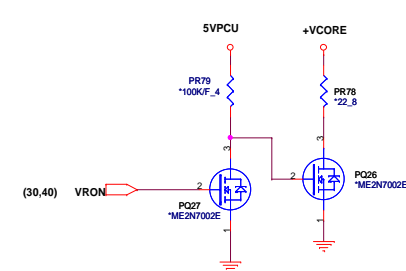
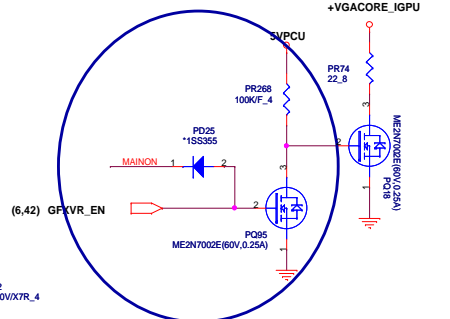
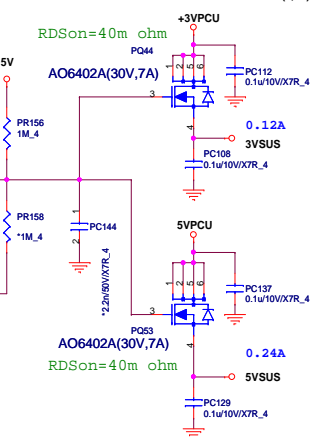
3V\_S5, 5V\_S5



LANVCC



3VSUS, 5VSUS

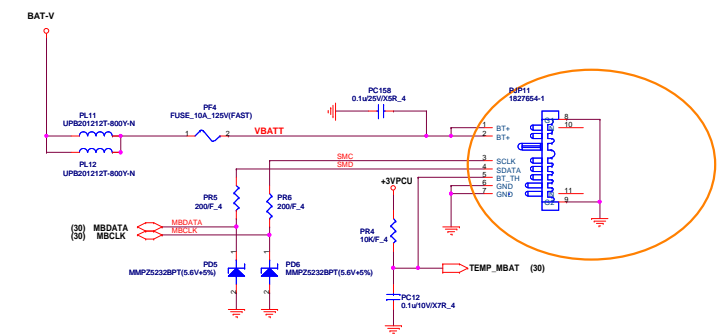
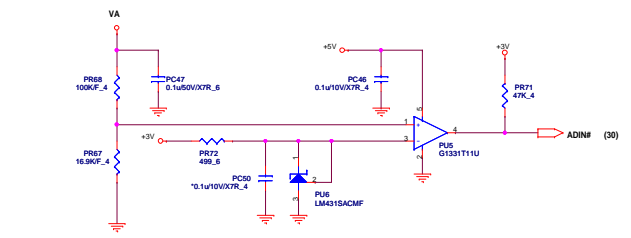
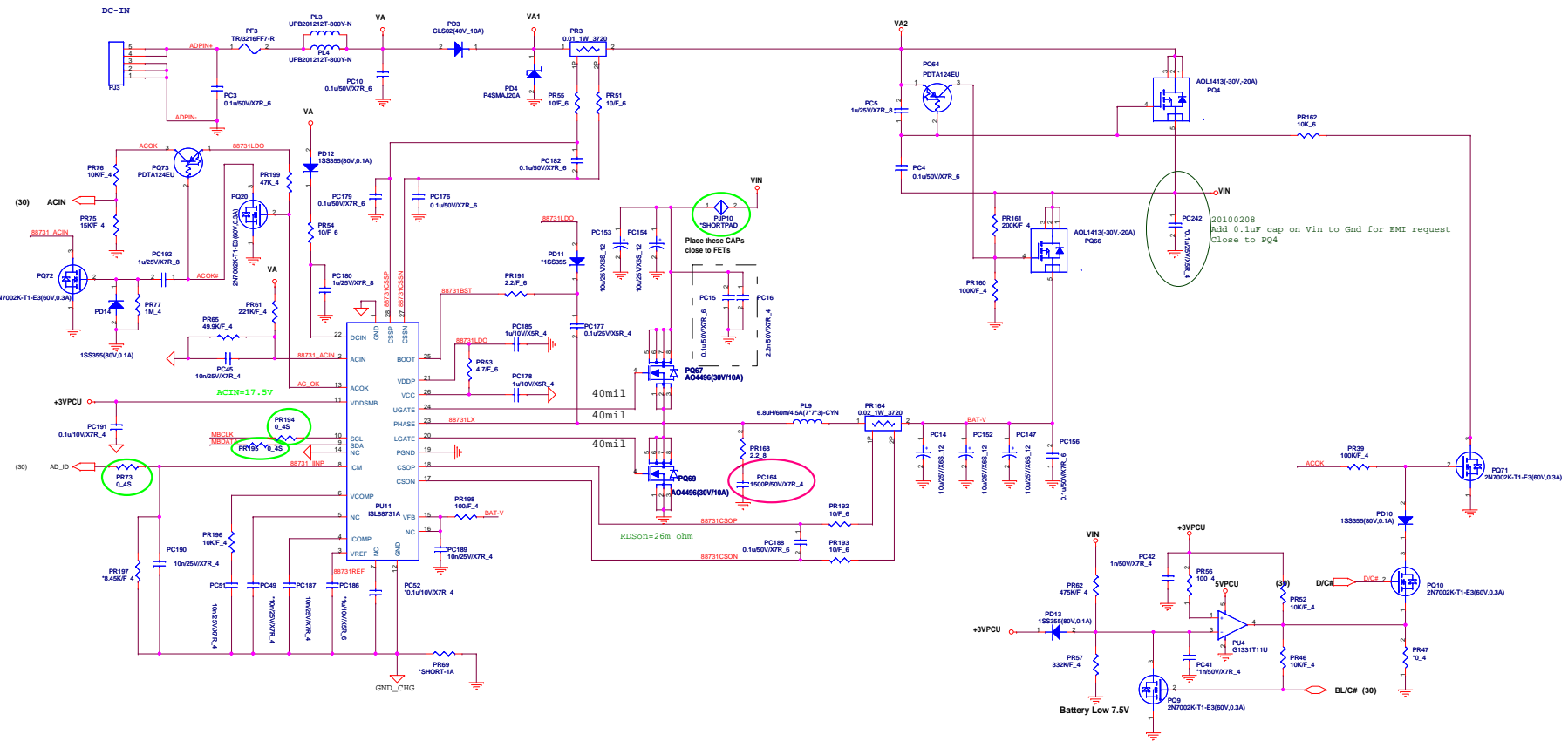


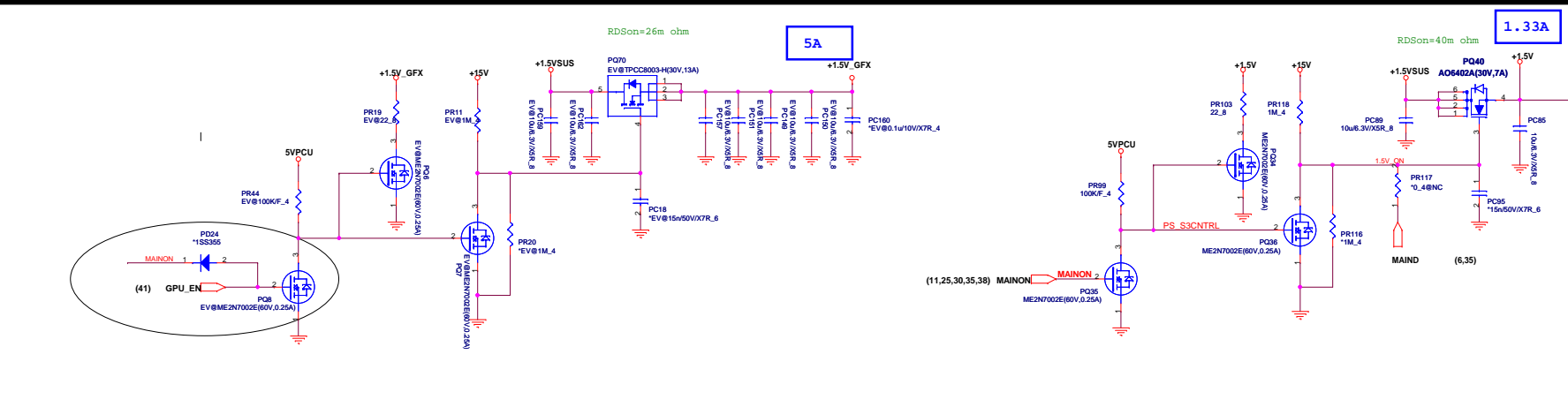
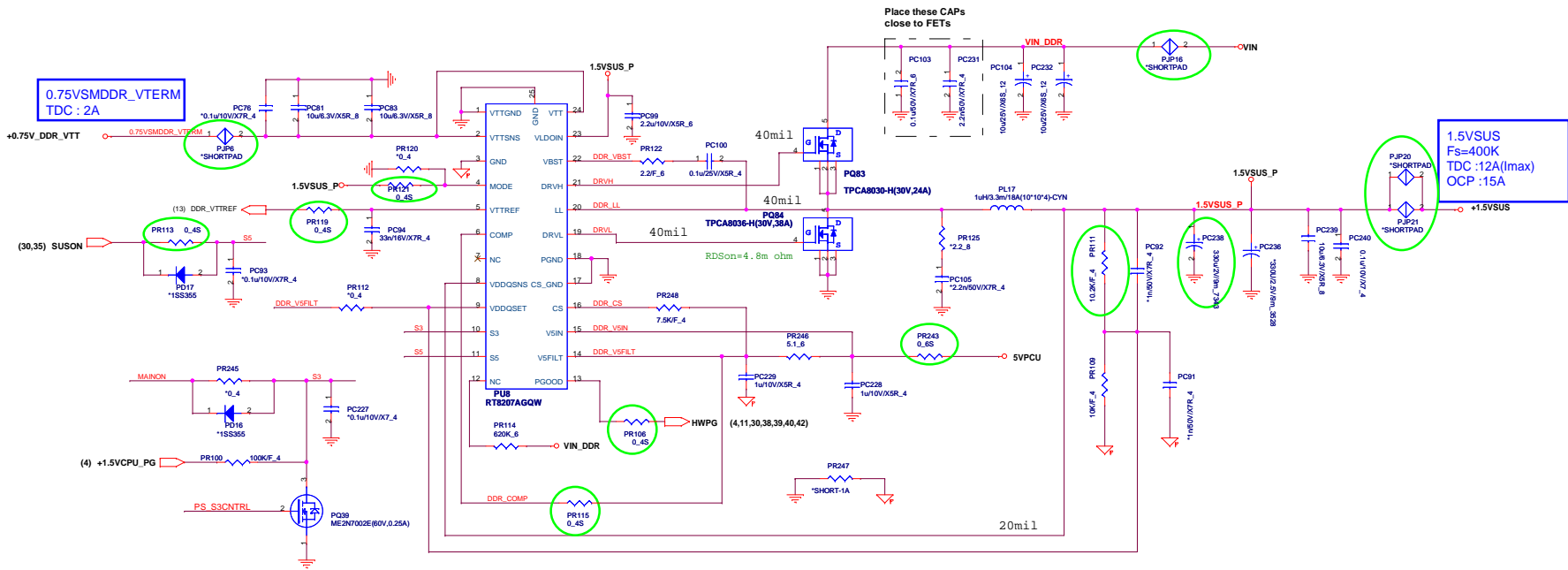
(20,29,37,39,41)	+15V
(3,4,8,9,10,11,12,13,14,15,20,21,22,24,25,26,27,28,29,30,31,32,33,36,40,41)	+3V
(12,20,21,22,25,29,30,31,32,33,36)	+5V
(5,12,38,41)	+1.8V
(3,4,6,8,9,10,11,12,38,40,42)	+1.05V_VTT
(13,14,37)	+0.75V_DDR_VTT
(29,36,37,38,39,41,42)	5VPCU
(8,20,23,29,30,32,33,36,39,41,42)	+3VPCU
(23)	LANVCC
(15,41)	+VGACORE
(15,16,17,41)	+1.05V_GFX_PCIE
(6,42)	+VGACORE_IGPU
(4,8,9,10,11,12,15,27)	+3VSUS
(12,26)	+5VSUS
(20,40,41)	5VSUS
(30,41)	3VSUS
(4,6,13,14,37,41)	+1.5VSUS
(6,40)	+VCROR

**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size	Document Number	Rev
C	DISCHARGE	1A
Date:	Thursday, April 06, 2010	Sheet 35 of 42

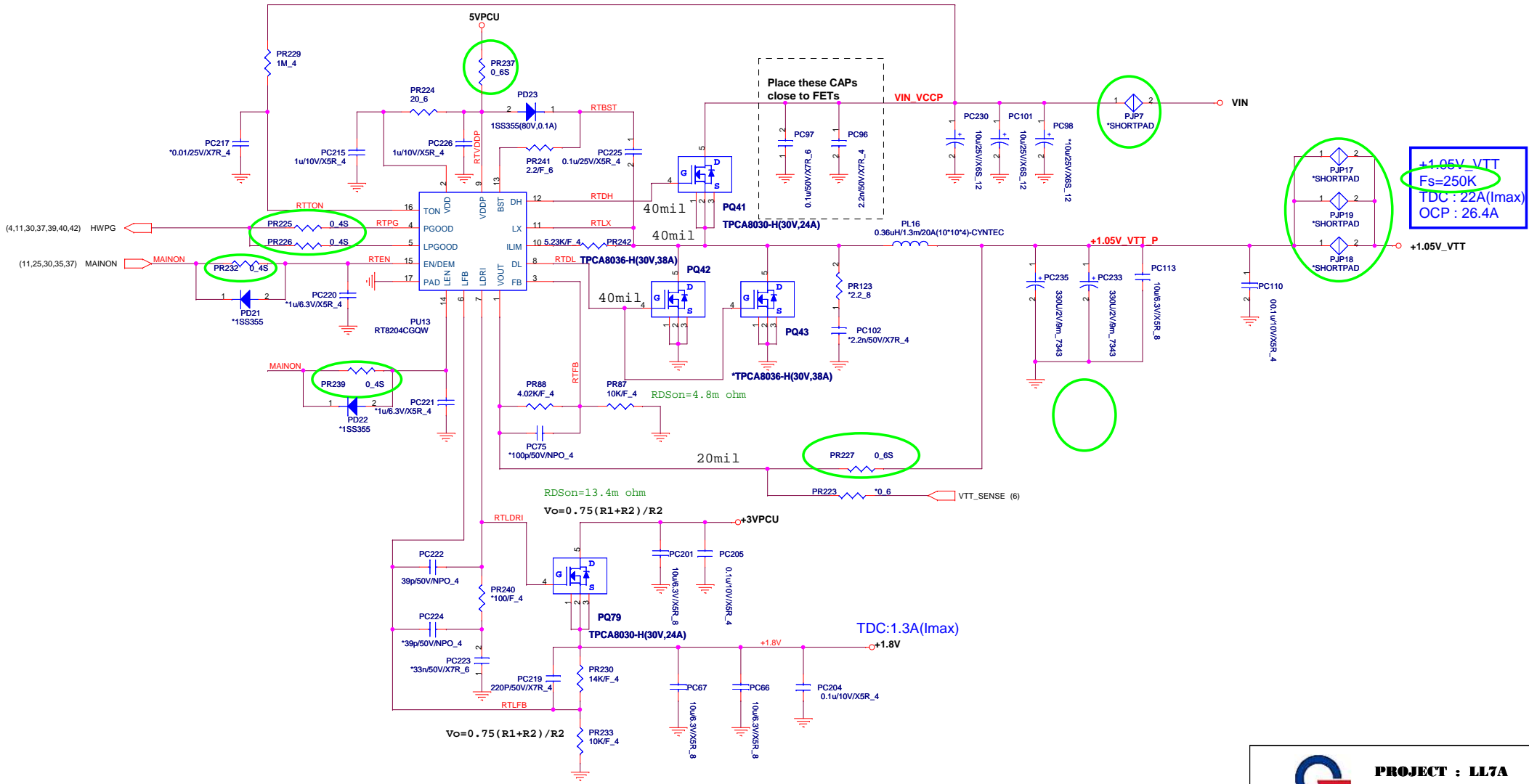
(3,20,37,38,39,40,41,42) VIN  
(8,20,23,29,30,33,33,36,38,39,41,42) +3VPCU  
0,4,8,9,10,11,12,13,14,15,20,21,22,24,25,26,27,28,29,30,31,32,33,35,40,41) +3V  
(12,20,21,22,25,29,30,31,32,33,35) +5V





(3,20,36,38,39,40,41,42)	VIN
(4,6,13,14,35,41)	+1.5VSUS
(29,35,36,38,39,41,42)	5VPCU
(13,14,38)	+0.75V_DDR_VTT
(3,27,28)	+1.5V
(20,29,35,39,41)	+15V
(15,16,19)	+1.5V_GFX

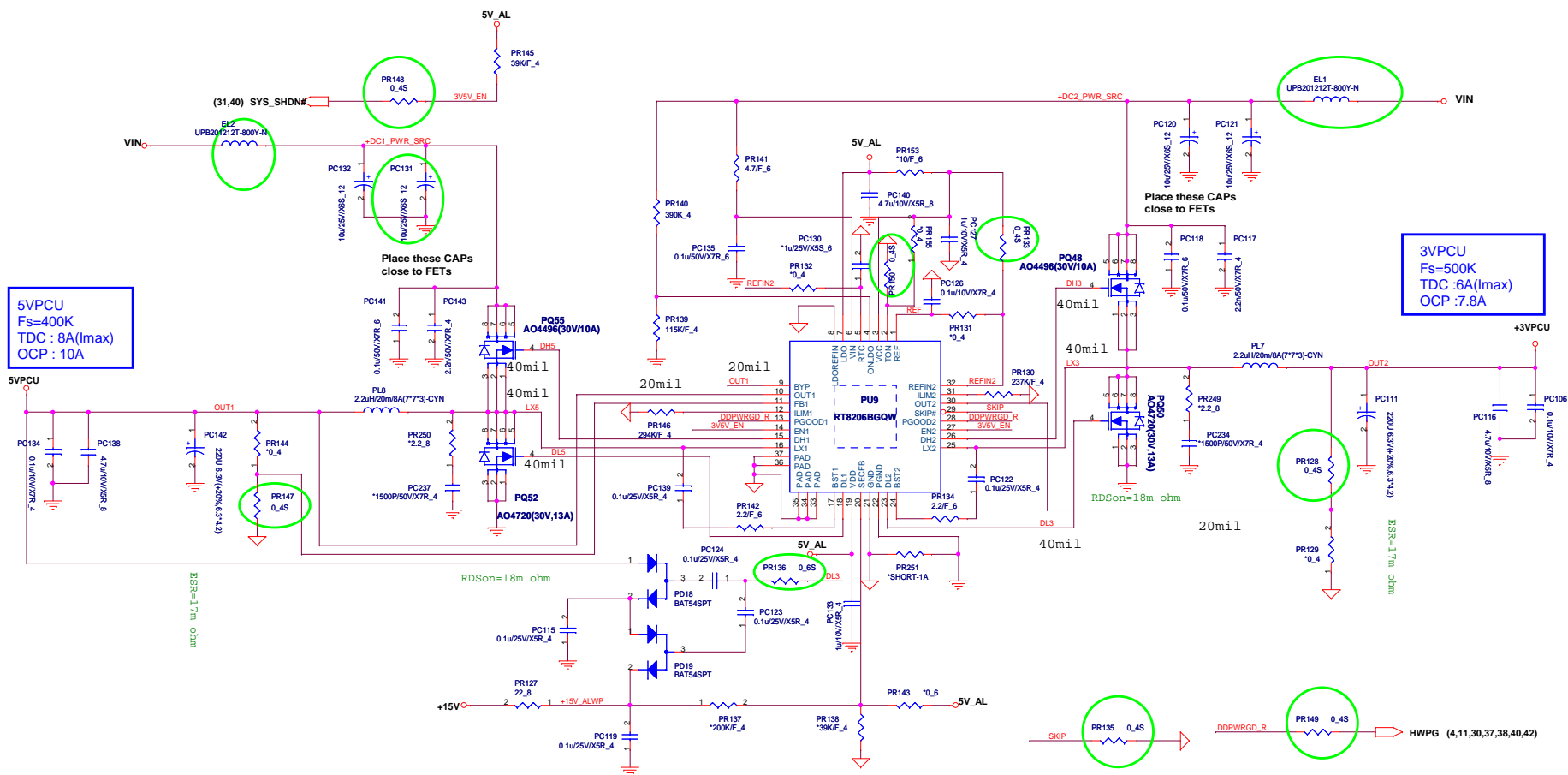
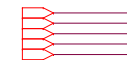
(3,20,36,37,39,40,41,42) VIN  
 (3,4,6,8,9,10,11,12,35,40,42) +1.05V\_VTT  
 (6,12,35,41) +1.8V  
 (8,20,23,29,30,32,33,35,36,39,41,42) +3VPCU  
 (29,35,36,37,39,41,42) 5VPCU



**PROJECT : LL7A**  
**Quanta Computer Inc.**

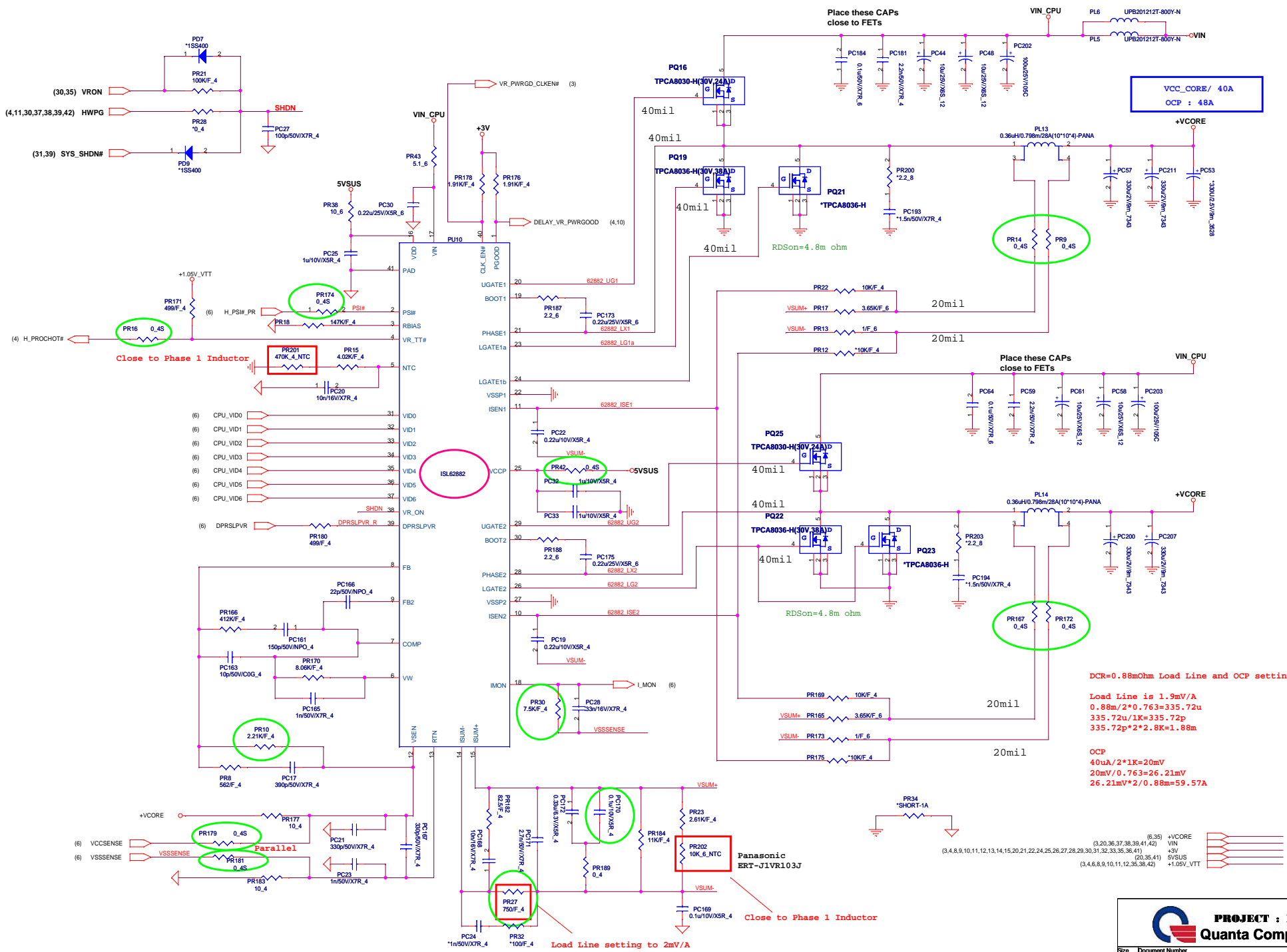
Size	Document Number	Rev
Custom	<b>1.05V_VTT (RT8204C)</b>	<b>1A</b>
Date:	Thursday, April 08, 2010	Sheet 38 of 42

(3,20,36,37,38,40,41,42) VIN  
 (8,20,23,29,30,32,33,35,38,41,42) +3VPCU  
 (29,35,36,37,38,41,42) 5VPCU  
 (6,12,35,38,41) +1.8V  
 (3,4,6,8,9,10,11,12,35,38,40,42) +1.05V\_VTT



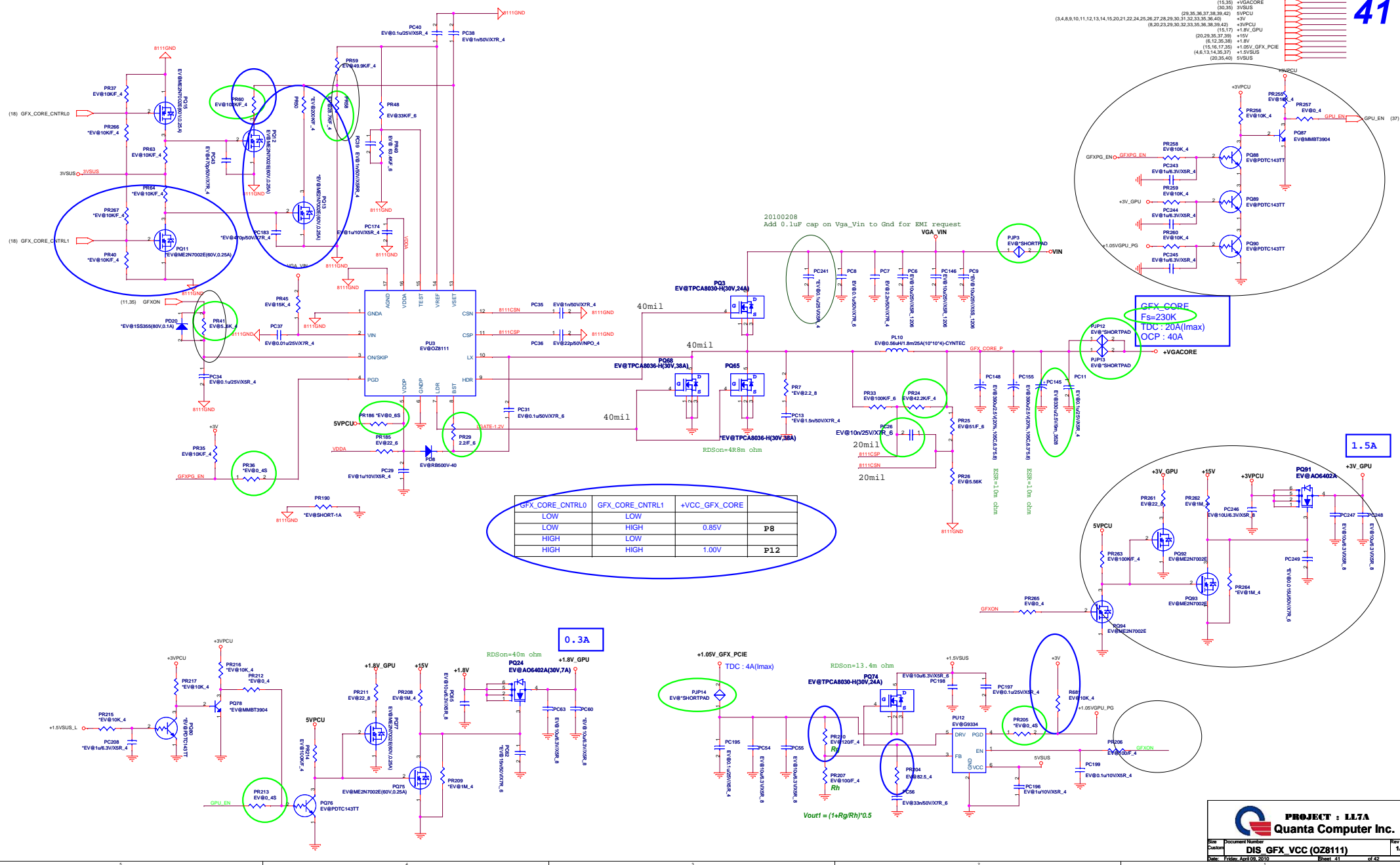
**PROJECT : LL7A**  
**Quanta Computer Inc.**

Size C	Document Number	Rev 1A
	<b>3V/5V (RT8206BGQW)</b>	
Date: Thursday, April 08, 2010	Sheet 39	of 42





(3,20,36,37,38,39,40,42)	VIN
(15,35)	+VGCORE
(30,35)	3VSUS
(29,35,36,37,38,39,42)	+3V
+3V	+3V
(8,20,23,29,30,32,33,35,36,38,39,42)	+3VPCU
(15,17)	+1.8V_GPU
(20,29,35,37,39)	+15V
(6,12,35,38)	+5V
(15,16,17,35)	+1.05V_GFX_PCIE
(4,6,15,16,35,37)	+1.05VSUS
(20,35,40)	5VSUS



GFX_CORE_CNTRL0	GFX_CORE_CNTRL1	+VCC_GFX_CORE	
LOW	LOW	0.85V	P8
LOW	HIGH	LOW	
HIGH	LOW	1.00V	P12
HIGH	HIGH		

**GFX CORE**  
 F<sub>s</sub>=230K  
 TDC: 20A(Max)  
 OCP: 40A

**1.5A**

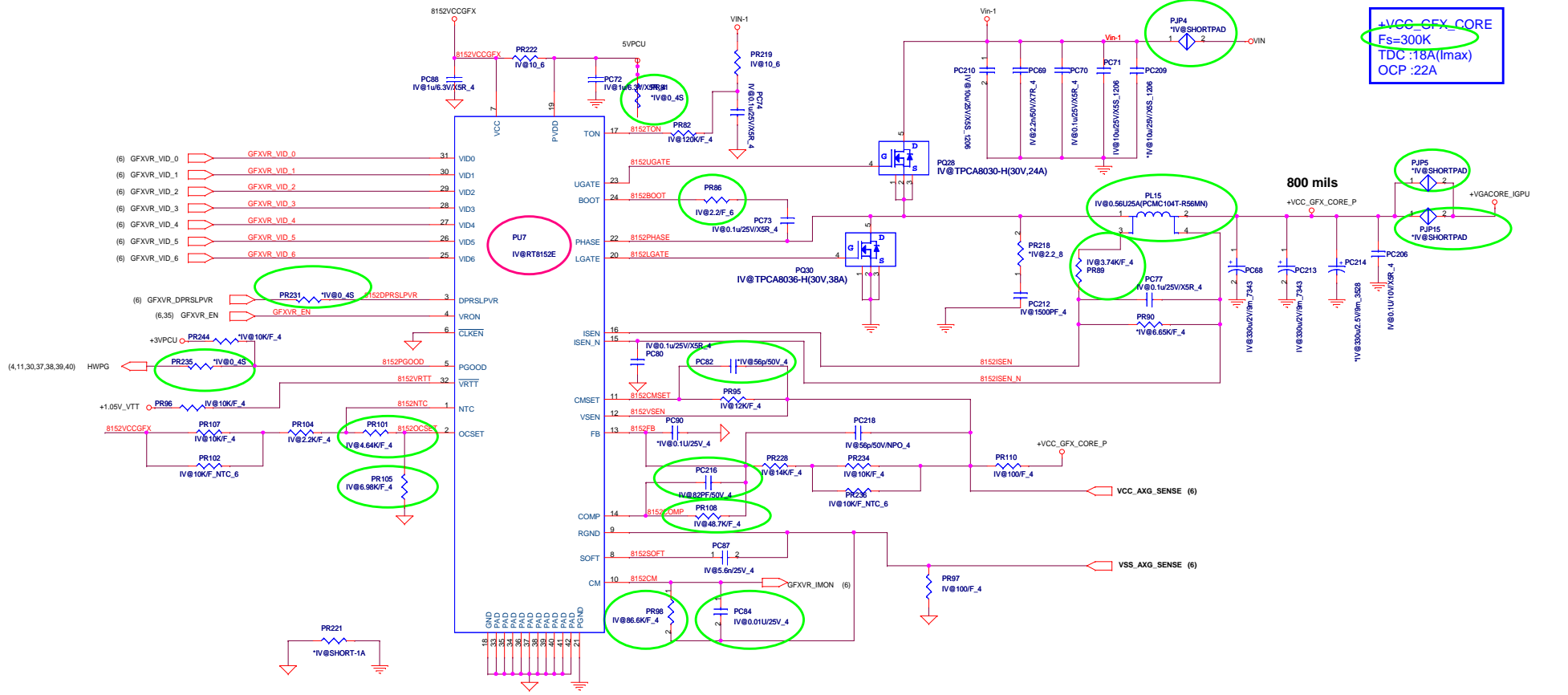
**0.3A**

+1.05V\_GFX\_PCIE  
 TDC: 4A(Max)

$V_{out} = (1+R_g/R_h) \cdot 0.5$

**PROJECT : LL7A**  
**QUANTA Computer Inc.**

Rev	Document Number	New
1A	DIS_GFX_VCC (OZ8111)	
Date:	Friday, April 09, 2010	Sheet: 41 of 42



+VCC\_GFX\_CORE  
Fs=300K  
TDC:18A(I\_max)  
OCP:22A

800 mils

