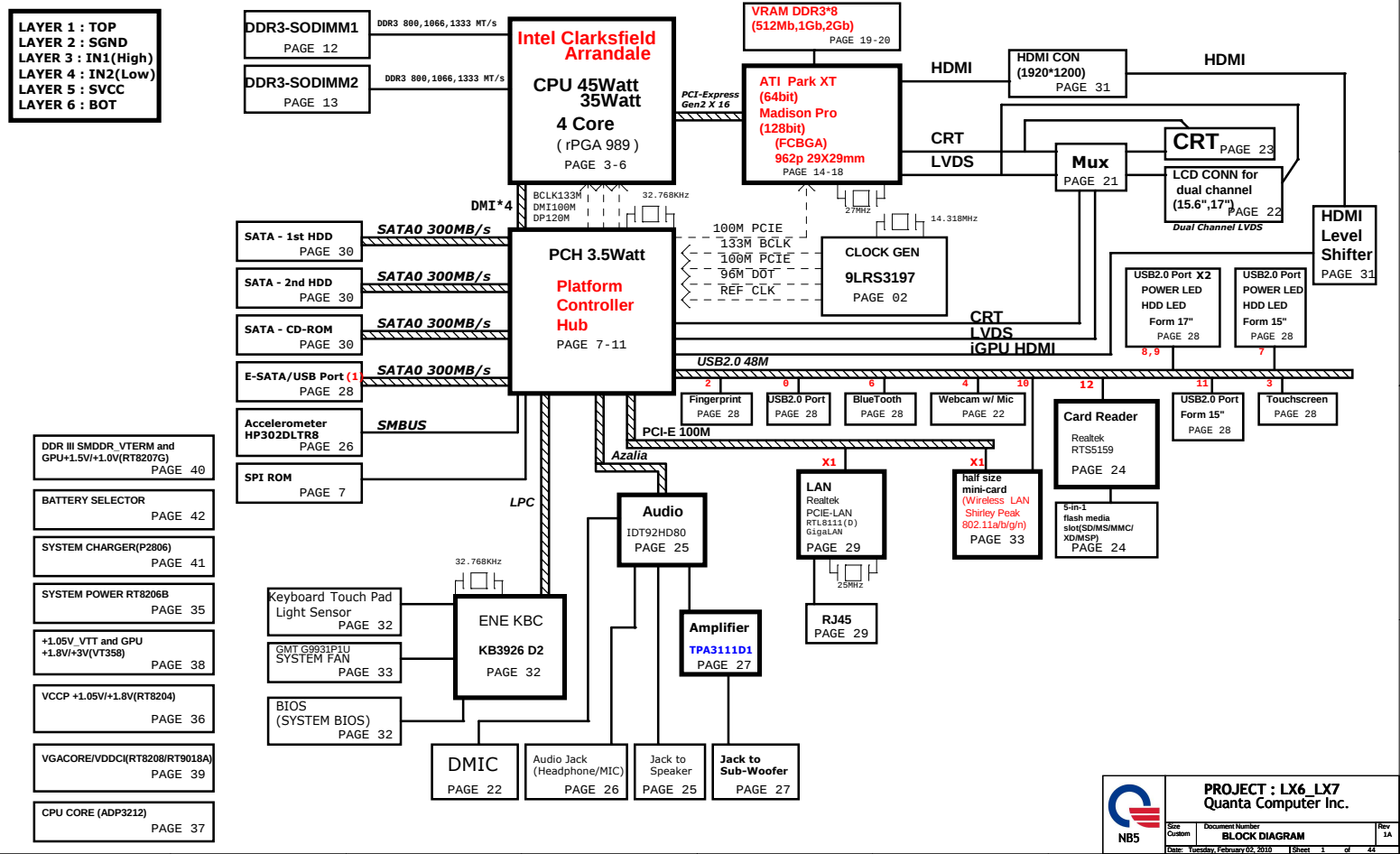
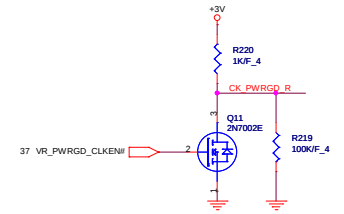
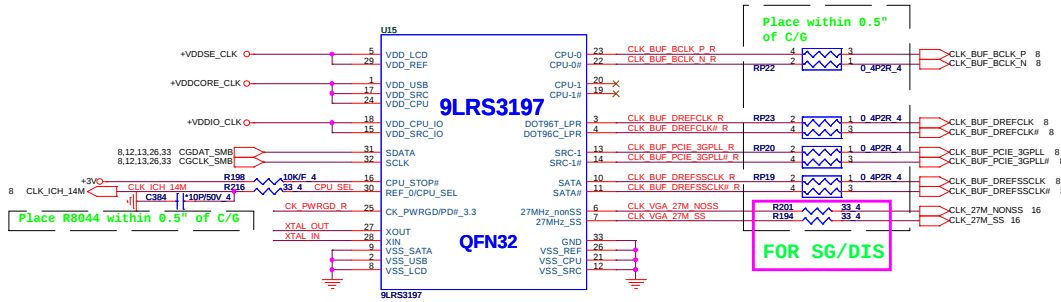
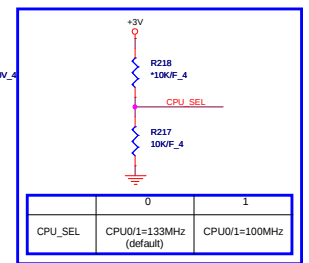
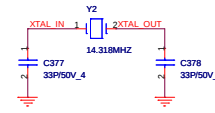
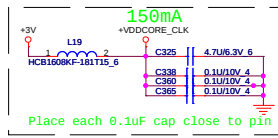
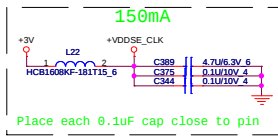
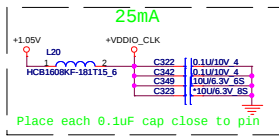


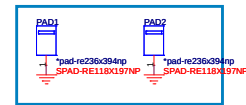
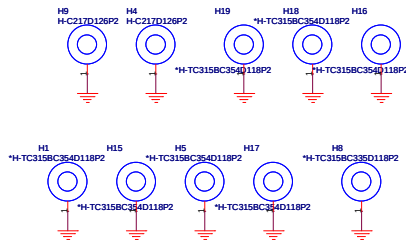
LX6/7 (Liverpool) BLOCK DIAGRAM



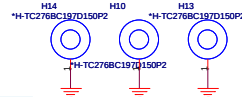


1.05V 7,8,9,11,36,37,43
1.5V 33,41
3V 3,7,8,9,10,11,12,13,21,22,23,24,25,26,27,28,29,30,31,32,33,34,37,40,41

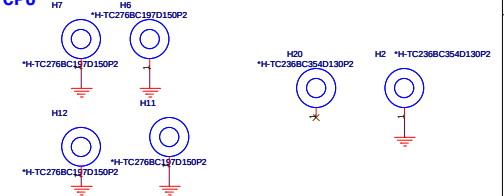
HOLE



GPU



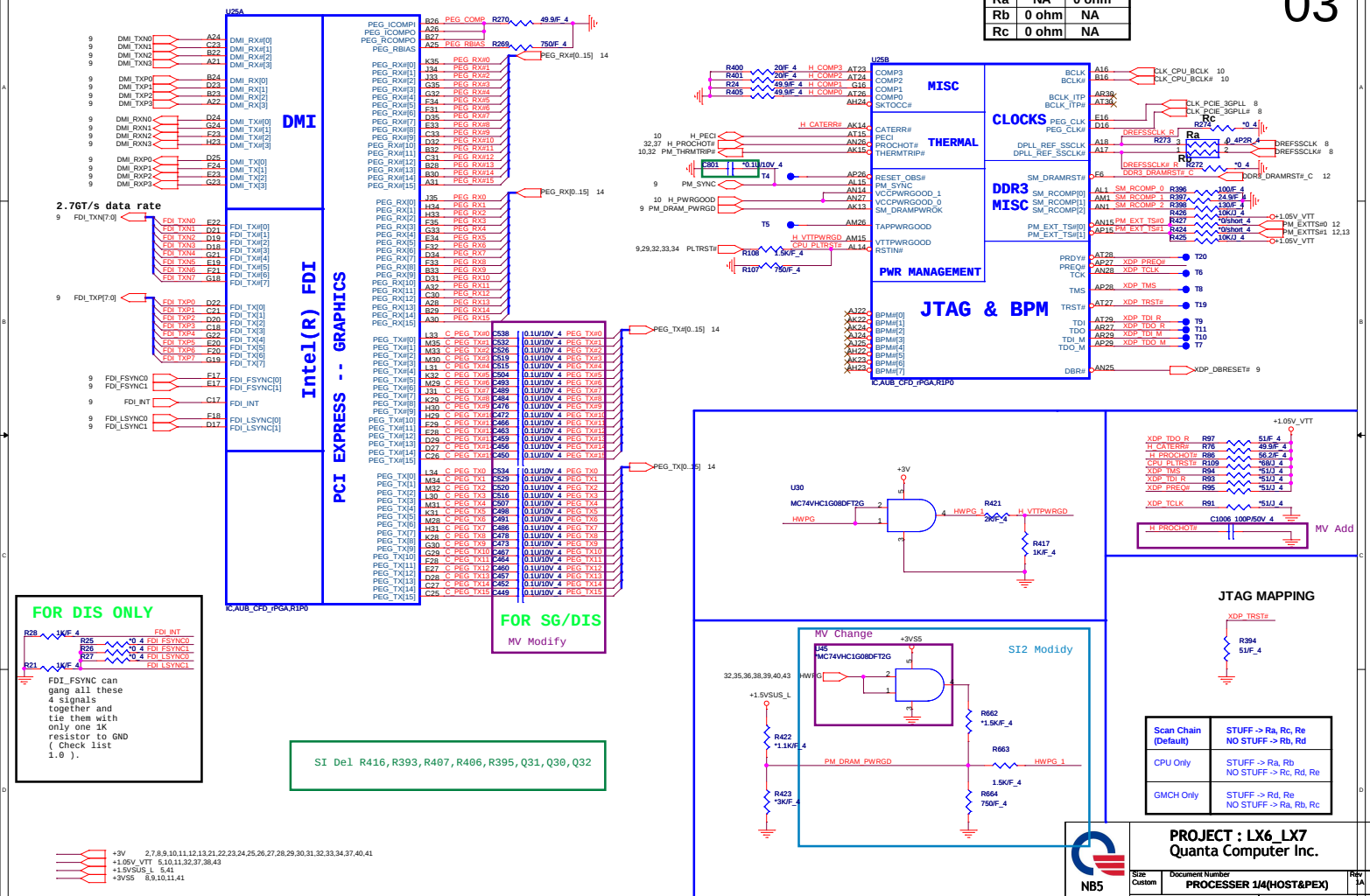
CPU



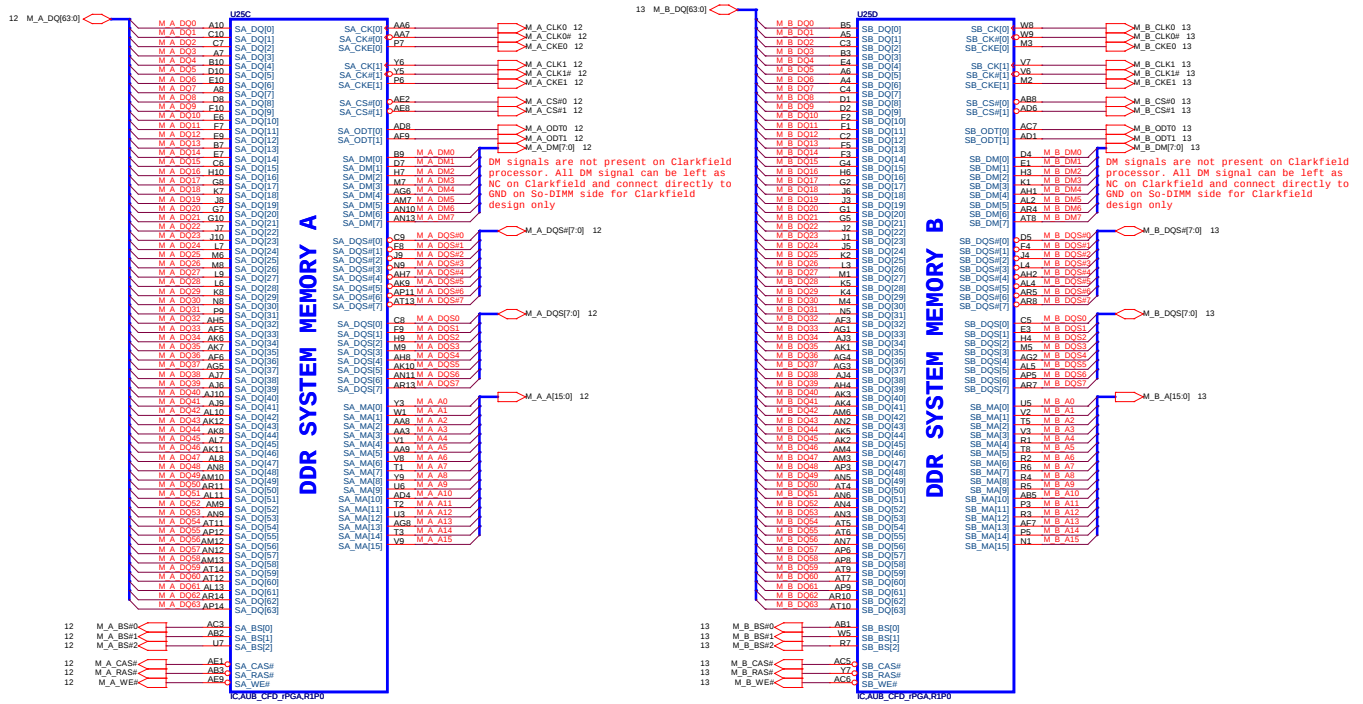
PROJECT : LX6 LX7
Quanta Computer Inc.

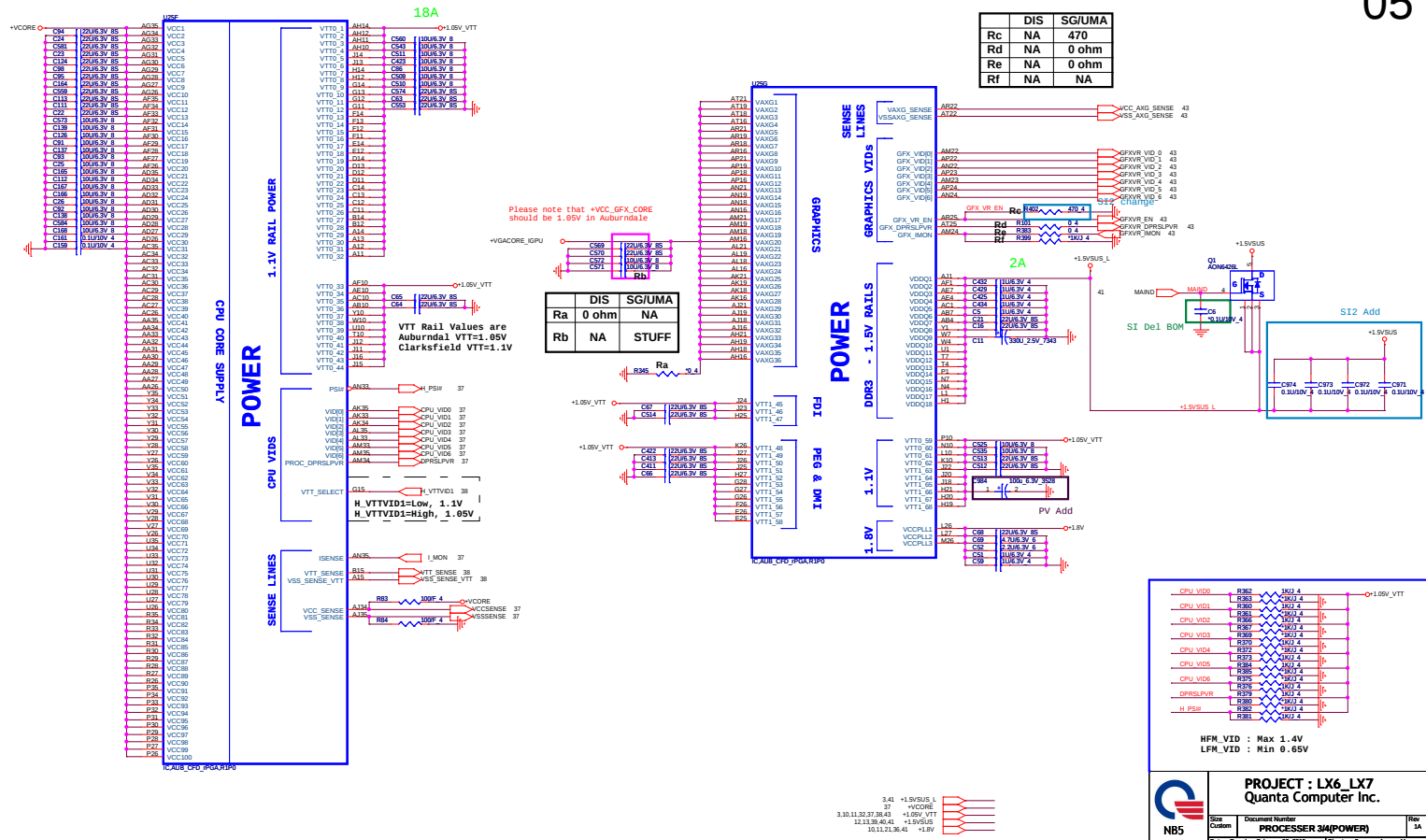
Size	Document Number	Rev
Custom	Clock Gen(9LRS3197)HOLES	1A
Date: Tuesday, February 02, 2010	Sheet 2 of 44	

	DIS	SG/LMA
Ra	NA	0 ohm
Rb	0 ohm	NA
Rc	0 ohm	NA



AUBURNDALE/CLARKSFIELD PROCESSOR (DDR3)

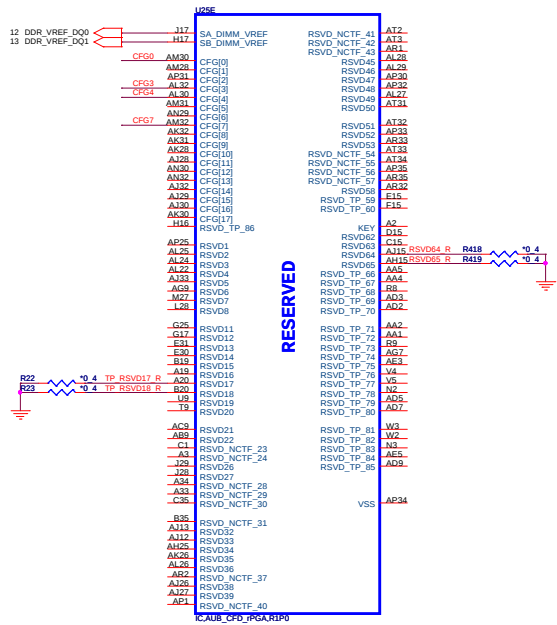
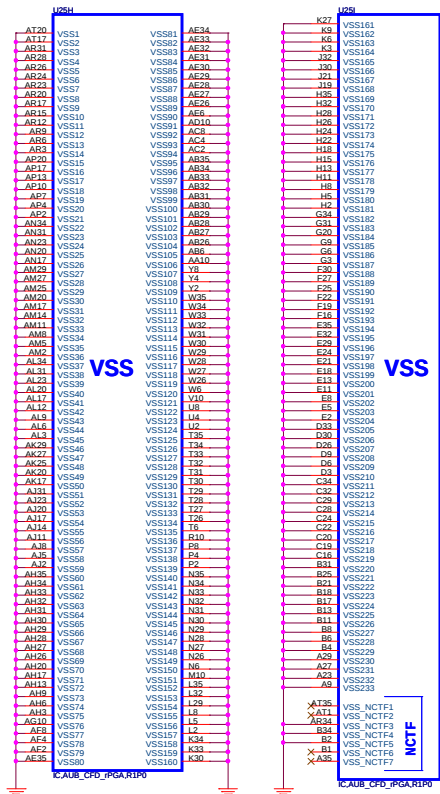




AUBURNDALE/CLARKSFIELD PROCESSOR (GND)

AUBURNDALE/CLARKSFIELD PROCESSOR(RESERVED, CFG)

06



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.

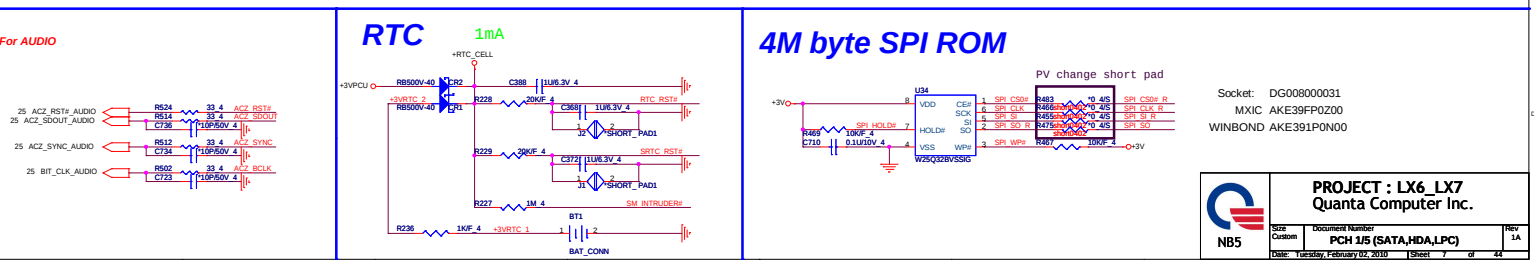
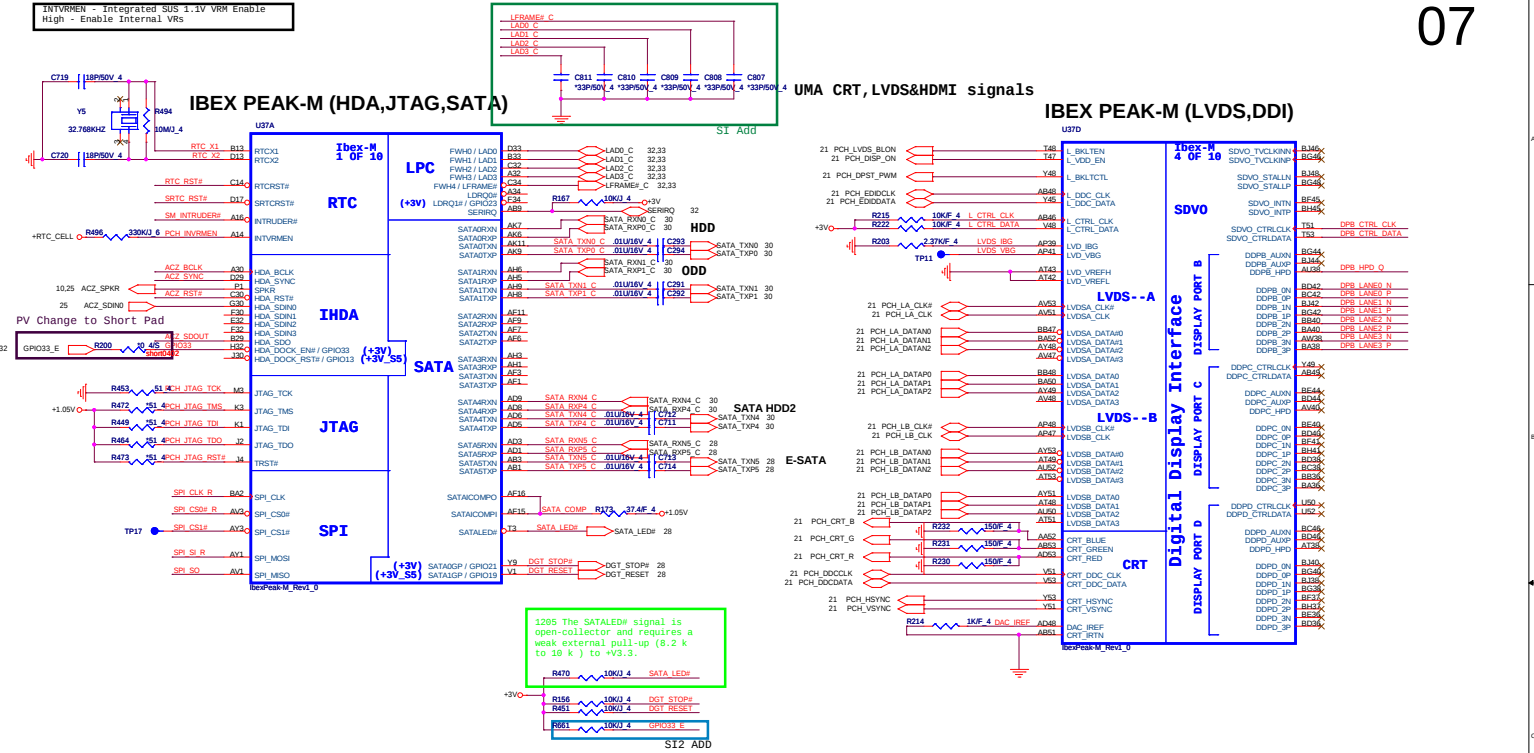
	1	0
CFG4 (Display Port Presence)	Disabled; No Physical Display Port attached to Embedded Display Port	Enabled; An external Display port device is connected to the Embedded Display port
CFG0 (PCI-Epress Configuration Select)	Single PEG	Bifurcation enabled
CFG3 (PCI-Epress Static Lane Reversal)	Normal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

	UMA	SG/DIS
R90	NA	NA
R77	NA	3.01K
R79	NA	NA
R87	NA	NA

CFG6[1:0] - PCI_Epress Configuration Select
* 11= 1 x 16 PEG
* 10= 2 x 8 PEG

PROJECT : LX6_LX7
Quanta Computer Inc.

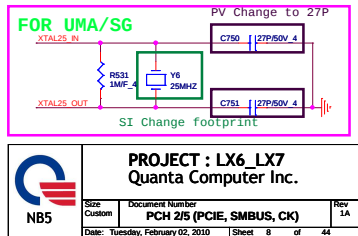
Size: Custom
Document Number: **PROCESSOR 414 (GND)**
Date: Tuesday, February 02, 2010 | Sheet: 6 of 44



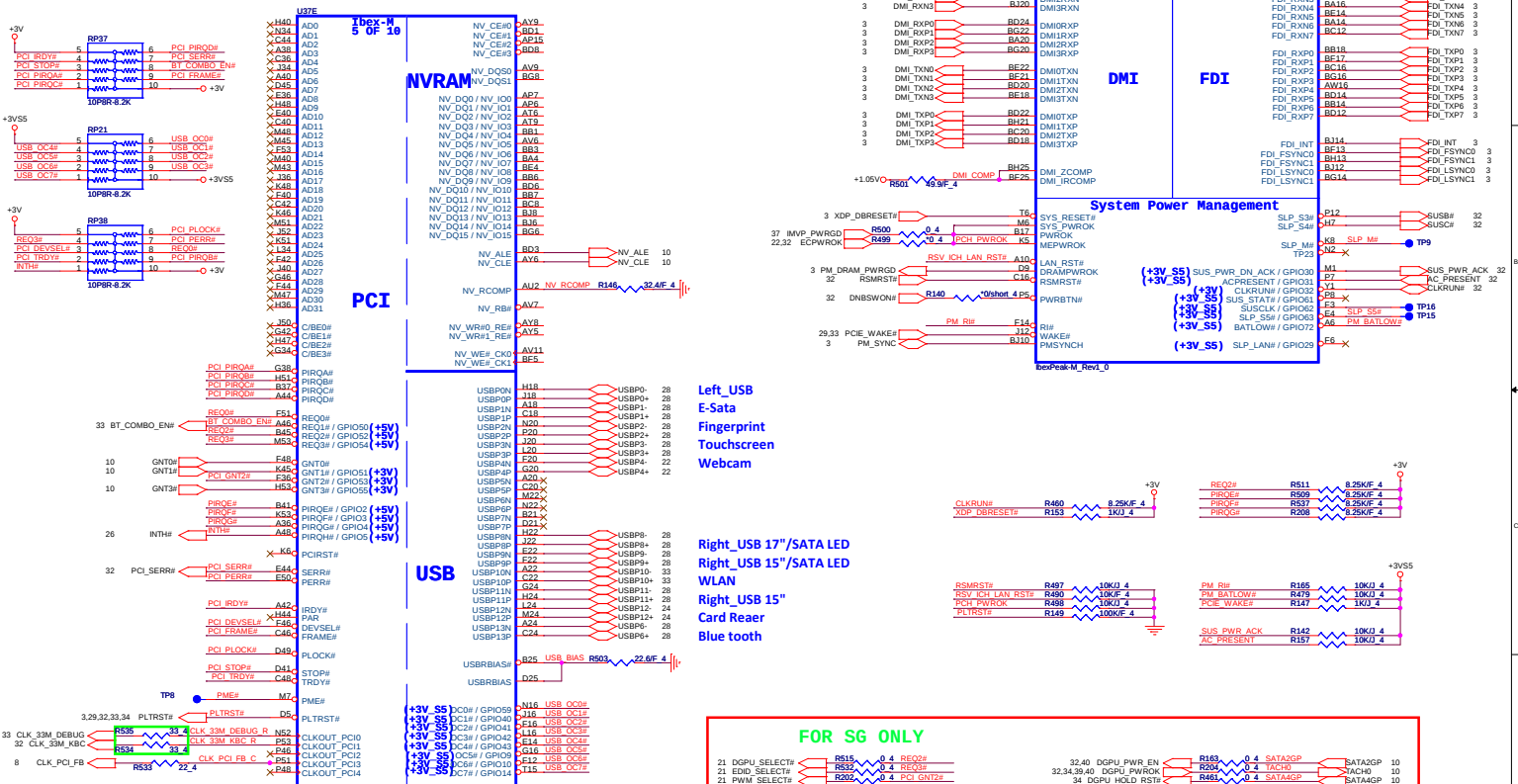
Socket: DG080000031
MXIC AKE39FP0Z00
WINBOND AKE391P0N00

PROJECT : LX6_LX7
Quanta Computer Inc.

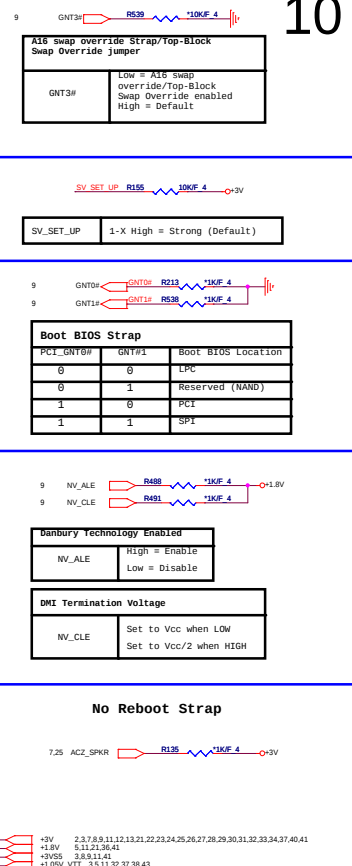
Rev 1A



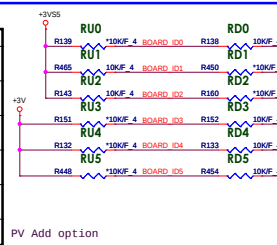
IBEX PEAK-M (PCI, USB, NVRAM)



IBEX PEAK-M (GND)

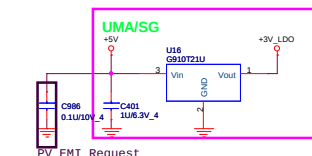


Board ID	ID0	ID1	ID2	ID3	ID4	ID5
LX6	0	1				
LX7	1	0				
Discrete			0	0		
UMA			0	1		
SG			1	0		
LX7 No Subwoofer	1	1				

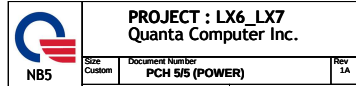
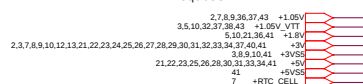
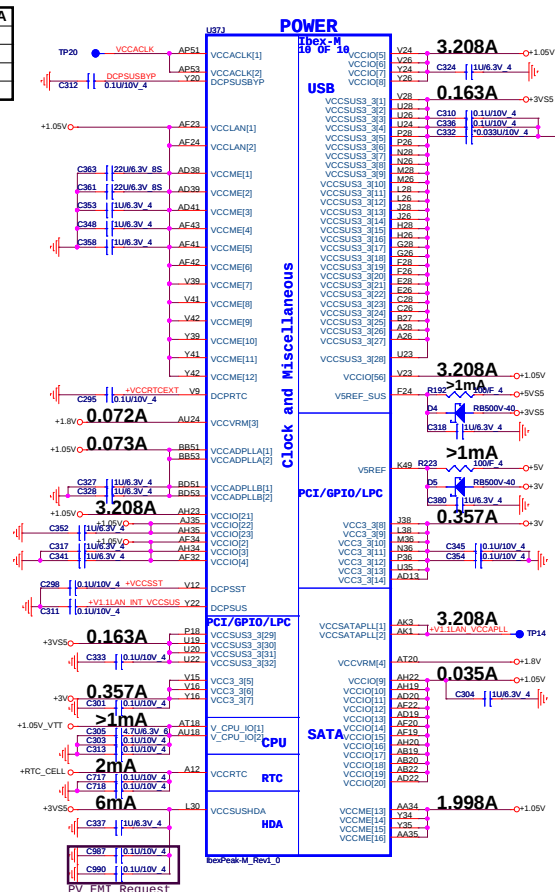


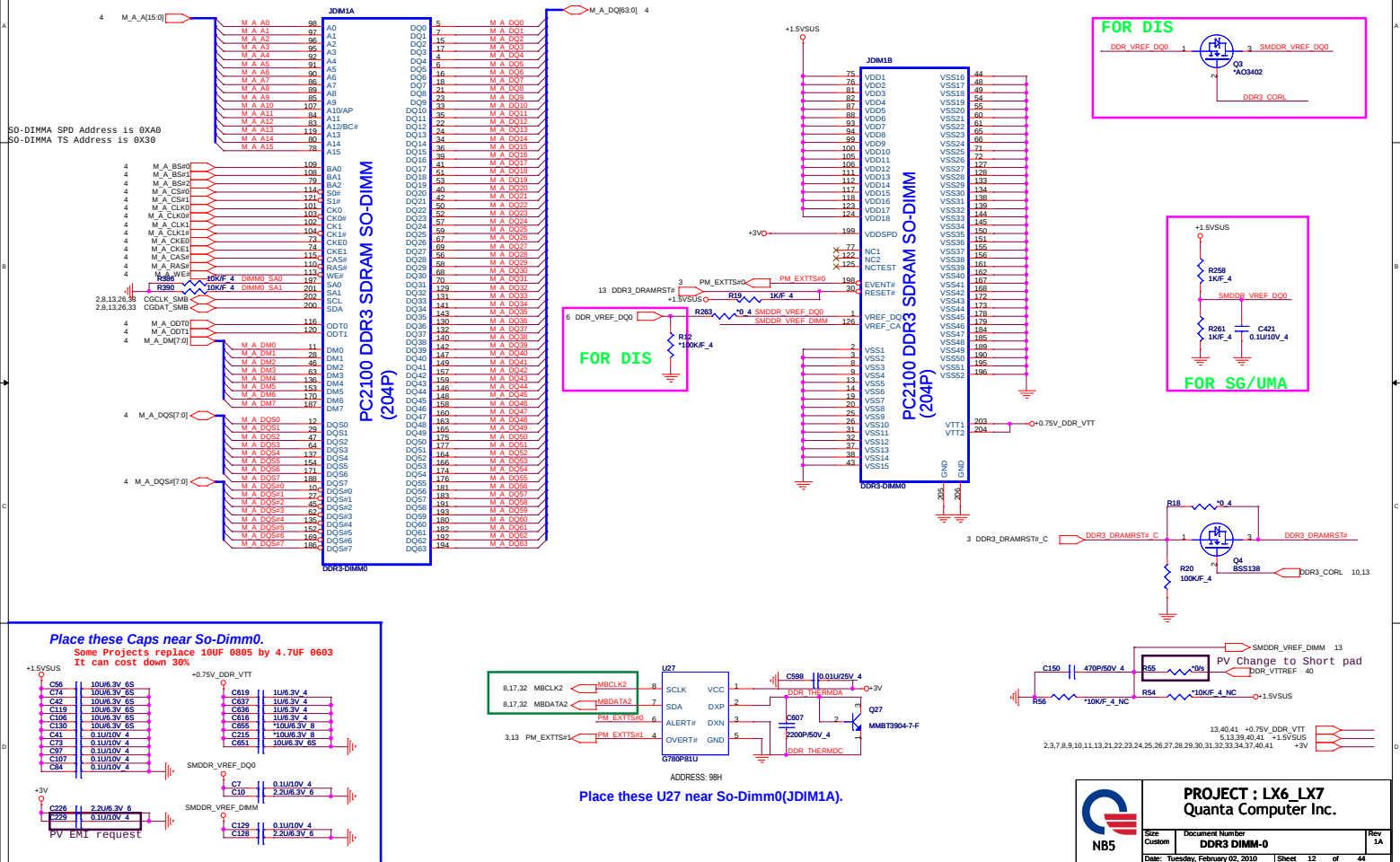
+3V	2.3, 7.8, 9.1, 13.21, 22, 23.24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 37, 40, 41
+1.8V	5, 11, 21, 38, 41
+5VDS	3, 8, 9, 11, 41
+1.05V_VTT	3, 5, 11, 32, 37, 38, 43

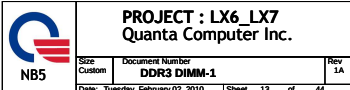
 NB5	PROJECT : LX6_LX7 Quanta Computer Inc.		
	Site Custom	Document Number PCH 4/5 (GPIO & Strap)	Rev 1A
Date: Tuesday, February 02, 2010 15:58:19 of 44			

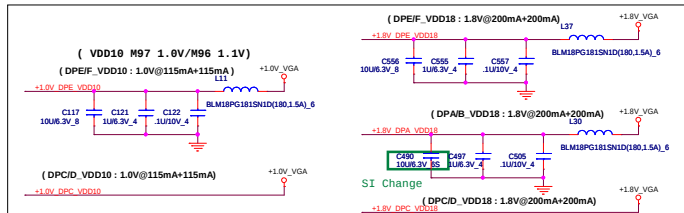
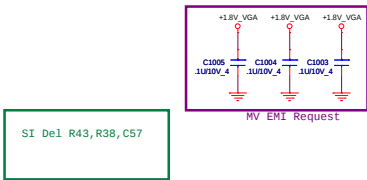
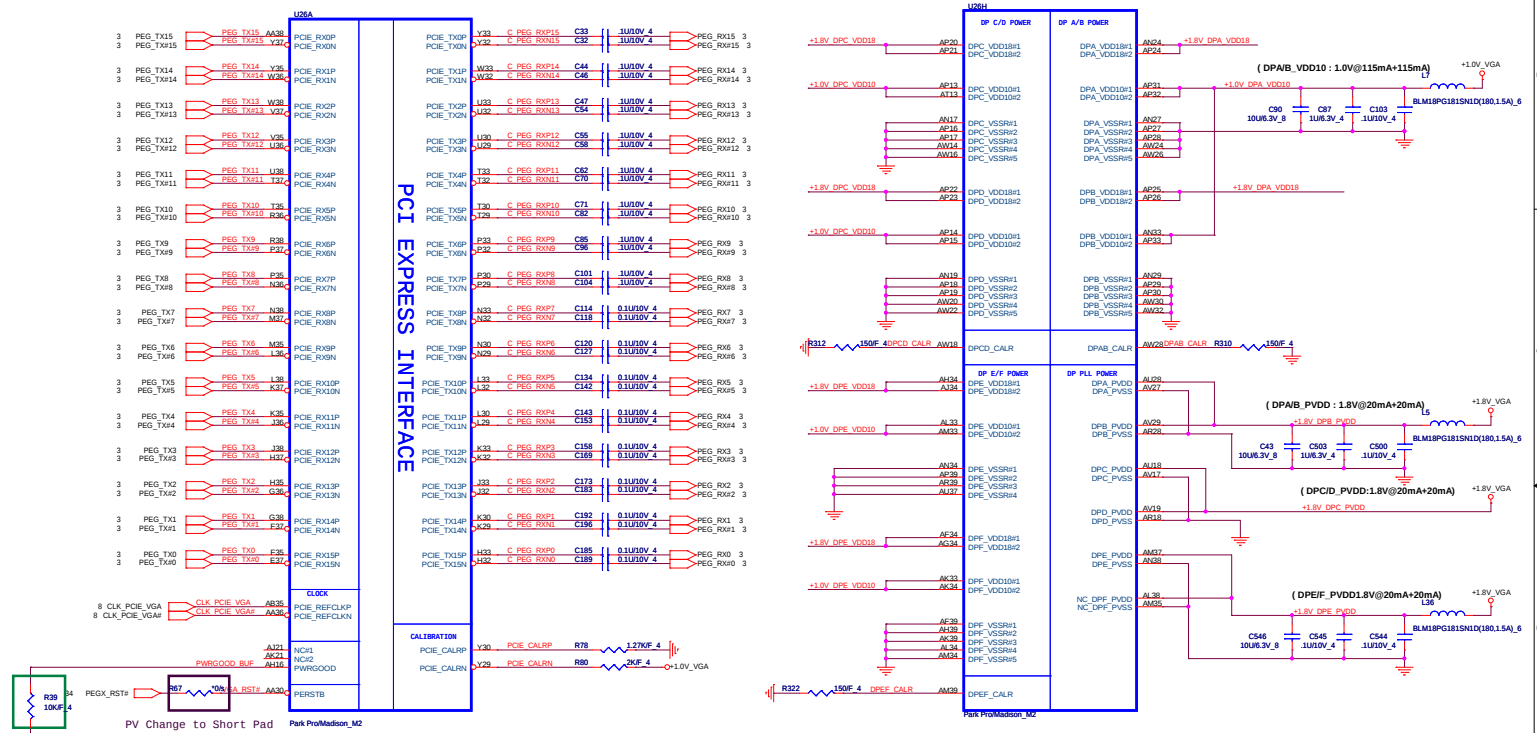


	DIS	SG/UMA
Ra	0 ohm	NA
Rb	NA	0 ohm
Rc	0 ohm	NA
Rd	NA	0 ohm



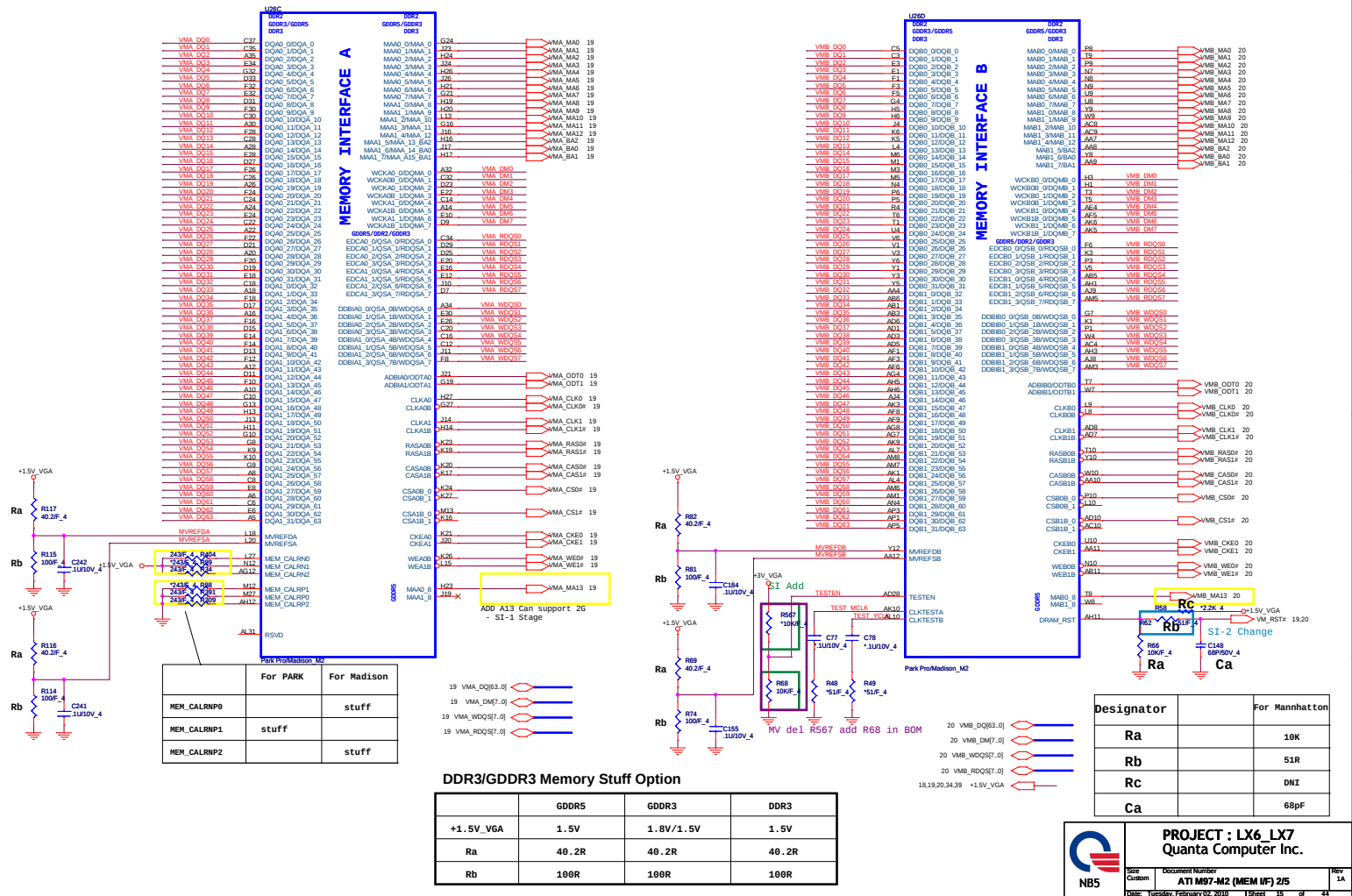


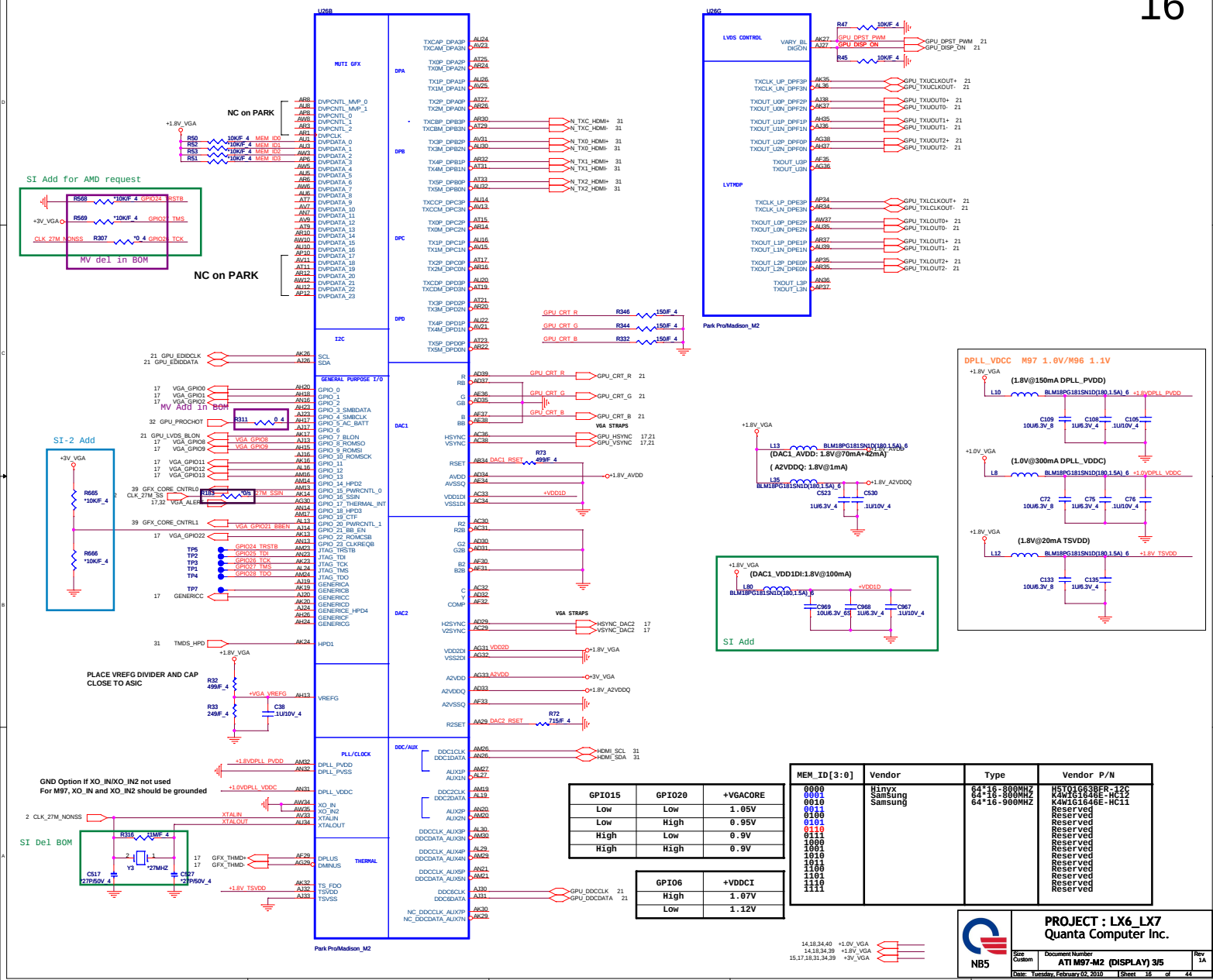


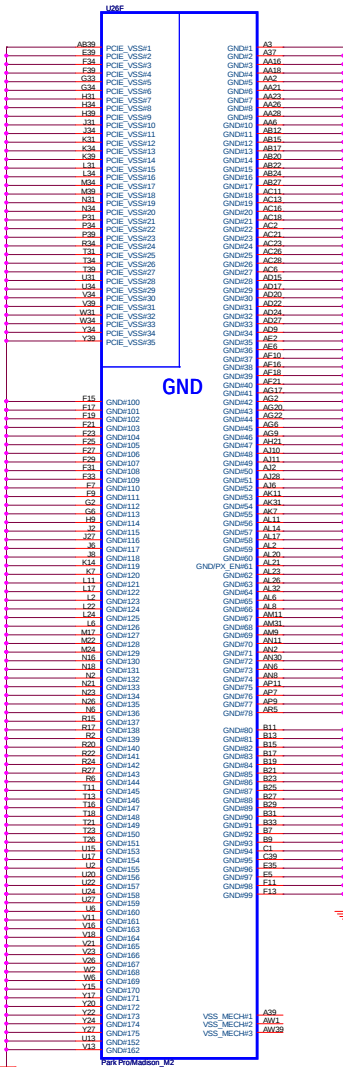


 +3V 2,3,7,8,9,10,11,12,13,21,22,23,24,25,26,27,28,29,30,31,32,33,34,37,40,41
 +1.0V_VGA 16,18,34,40
 +1.8V_VGA 16,18,34,39

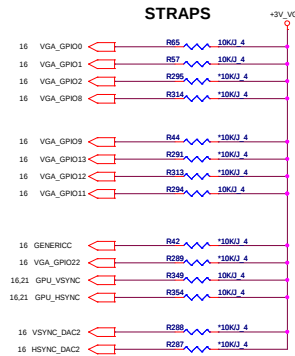
 NB5	PROJECT : LX6_LX7 Quanta Computer Inc.		
	Size Custom	Document Number ATI M97-M2 (PCIE IF) 1/5	Rev 1A
Date: Tuesday, February 02, 2010 Sheet 14 of 44			







STRAPS



Memory Aperture size fix 256M

GPIO9 BIOSROM		GPIO13 ROMIDCFG2	GPIO12 ROMIDCFG1	GPIO11 ROMIDCFG0
0	128M	0	0	0
0	256M	0	0	1
0	64M	0	1	0
0	32M	0	1	1
0	512M	1	0	0
0	1G	1	0	1
0	2G	1	1	0
0	4G	1	1	1

It is a shared pin strap with CONFIG[2:0] if BIOS_ROM_EN is set to 0.

CONFIGURATION STRAPS

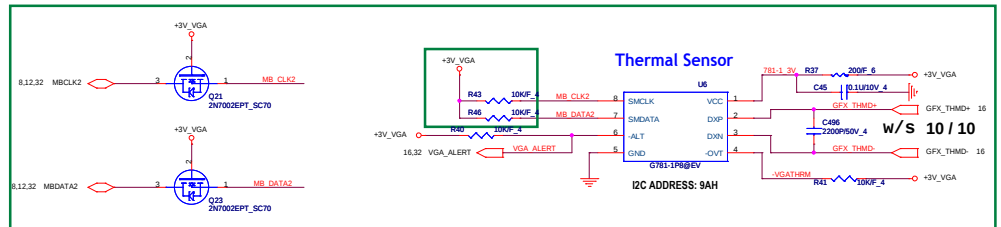
ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOS ARE USED, THEY MUST NOT CONFLICT DURING RESET

STRAPS	PN	DESCRIPTION OF DEFAULT SETTINGS	
TX_PWRFS_ENB	GPIO0	Transmitter Power Savings Enable 0 = 20% Tx output swing for media mode 1 = Full Tx output swing (Default setting for Desktop)	1
TX_DEEMPH_EN	GPIO1	PCI Express Transmitter De-emphasis Enable 1 Tx de-emphasis disabled for media mode 1 Tx de-emphasis enabled (Default setting for Desktop)	1
BIF_GEN2_EN_A	GPIO2	0 = Advertises the PCI-E device as 2.5 GT/s capable at power-on. 1 = Advertises the PCI-E device as 5.0 GT/s capable at power-on. 5.0 GT/s capability will be controlled by software.	0
RSVD BIF_VGA_DIS RSVD	GPIO8 GPIO9 GPIO11	VGA ENABLED	0 0 0
BIOS_RM_EN	GPIO_22_RMCSB	ENABLE EXTERNAL BIOS ROM	0
ROMIDCG2G-0	GPIO[13:11]	SERIAL ROM TYPE OR MEMORY APERTURE SIZE SELECT	0 0 1
VIP_DEVICE_STRAP_ENA	V2SYNC	IGNORE VIP DEVICE STRAPS	
RSVD AUDIO[1] AUDIO[0]	GENERICR HSYNC VSYNC	AUDIO[1] AUDIO[0] 0 No audio function 0,1 Audio for DisplayPort and HDMI if dangle is detected 1,0 Audio for DisplayPort only 1,1 Audio for both DisplayPort and HDMI	0 0 11

AMD RESERVED CONFIGURATION STRAPS

ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOs ARE USED,
THEY MUST NOT CONFLICT DURING RESET

H2SYNCR	GENERICCR
PULLUP PADS ARE NOT REQUIRED FOR THESE STRAPS BUT IF THESE GPIOS ARE USED, THEY MUST NOT CONFLICT DURING RESET	
GPIO21_BB_EN	

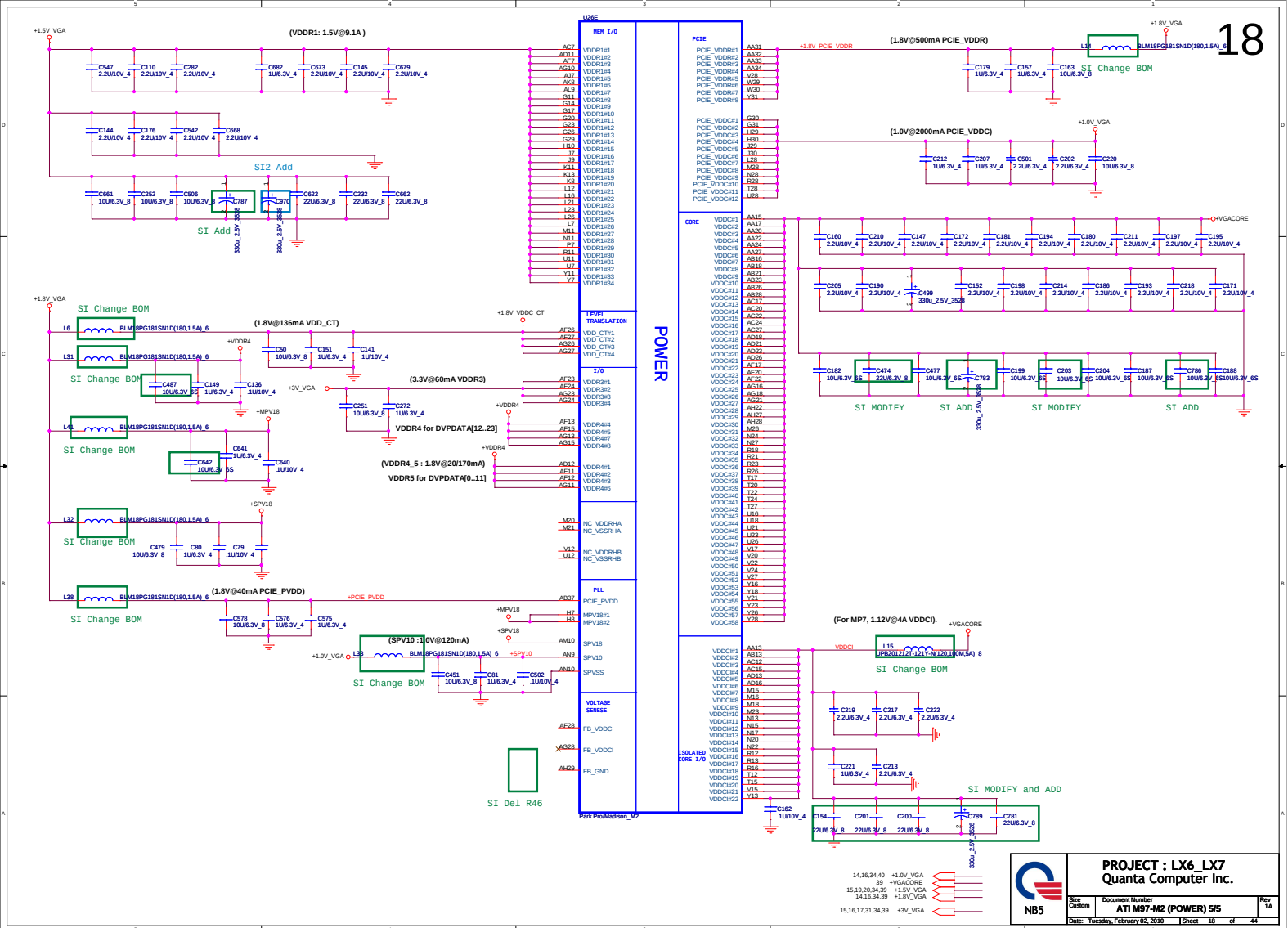


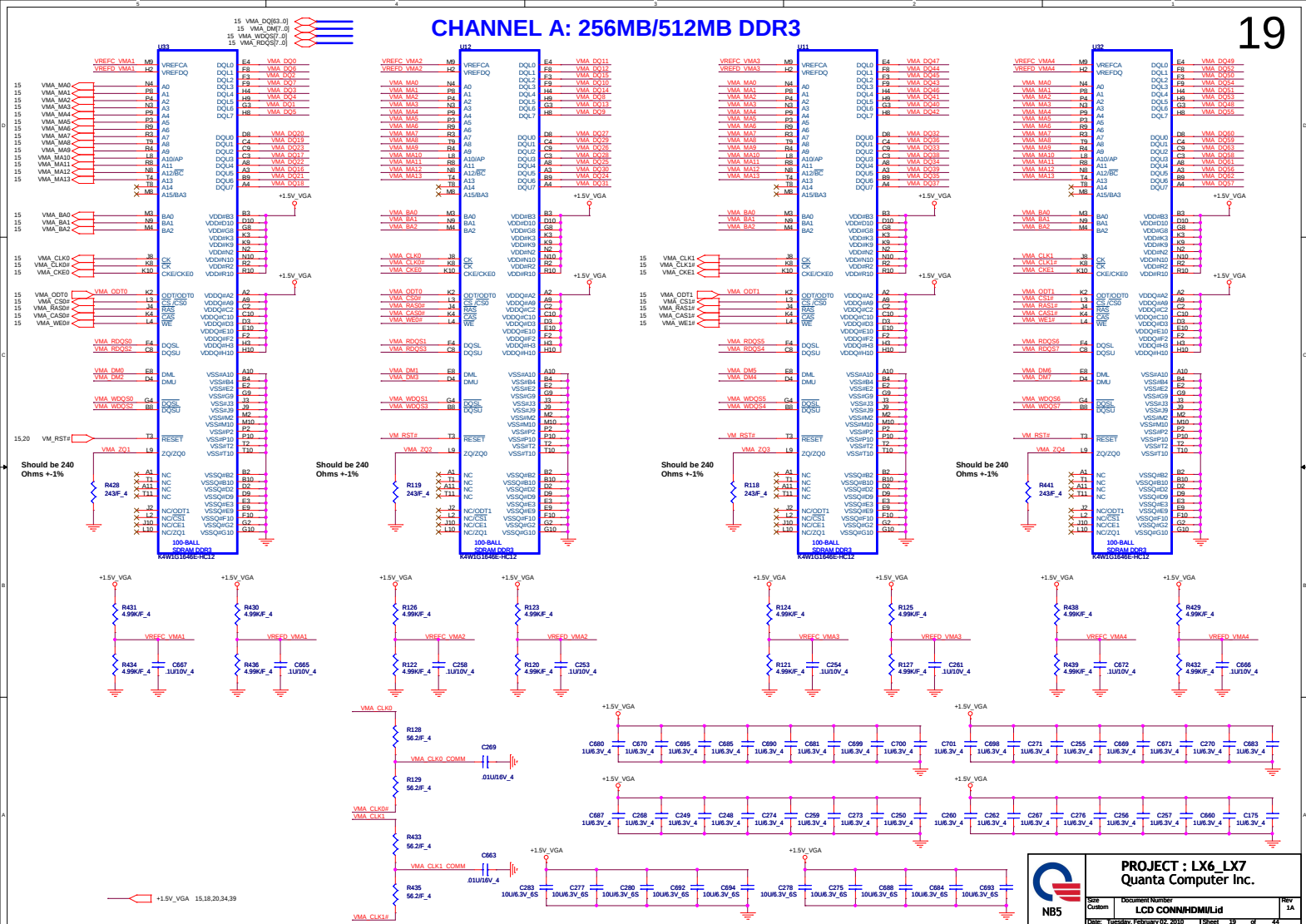
15,16,18,31,34,39 +3V_VGA

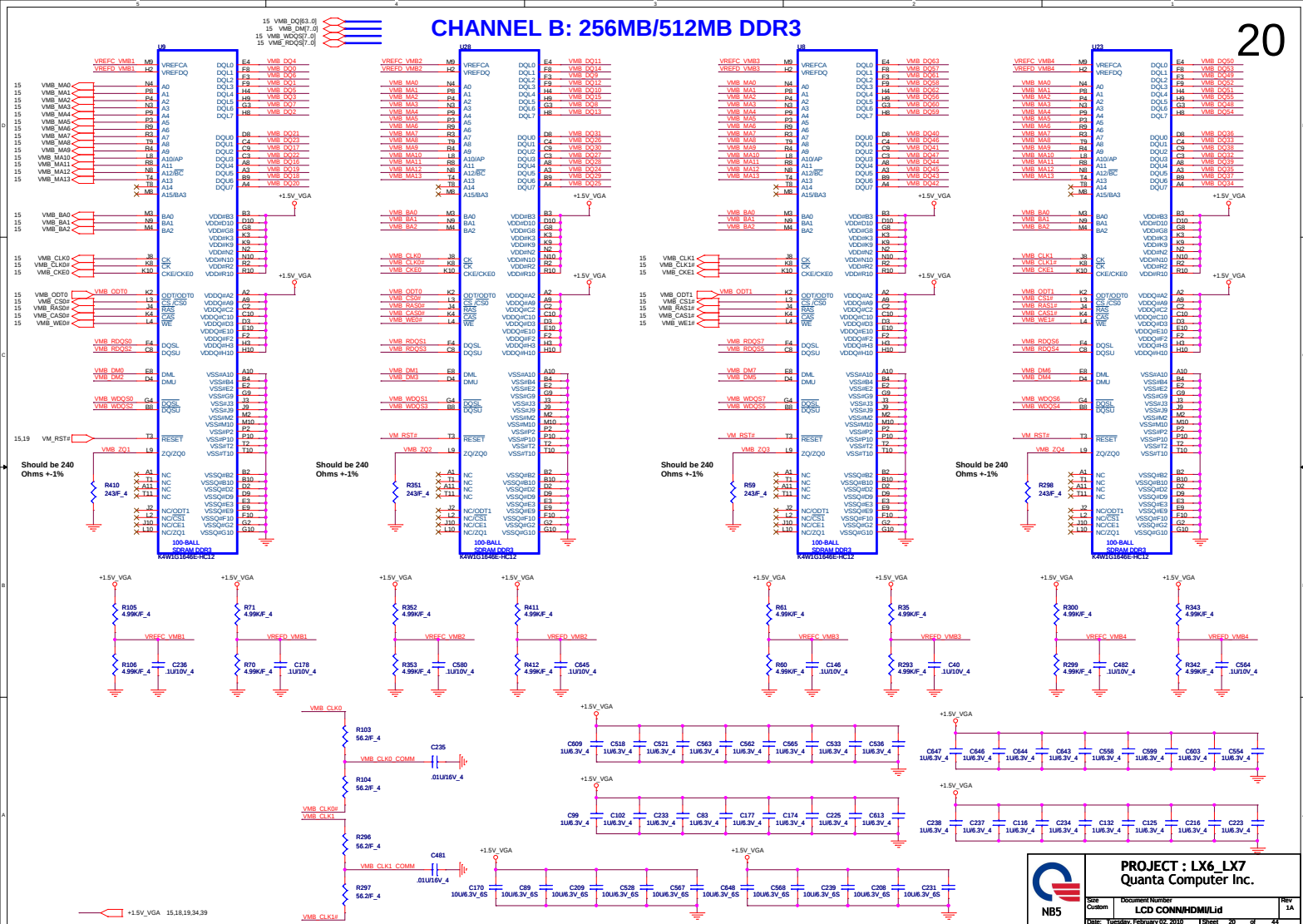


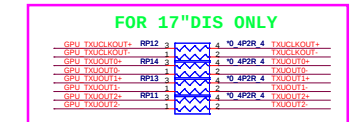
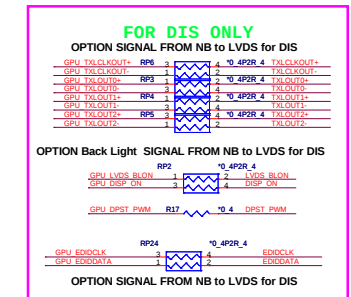
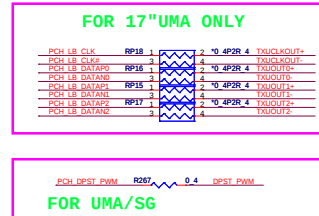
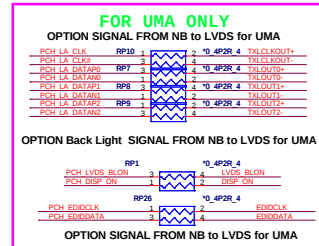
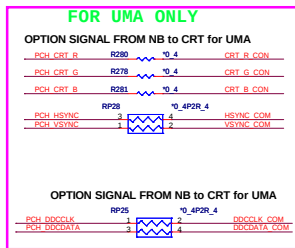
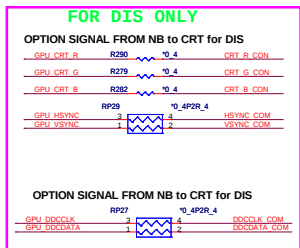
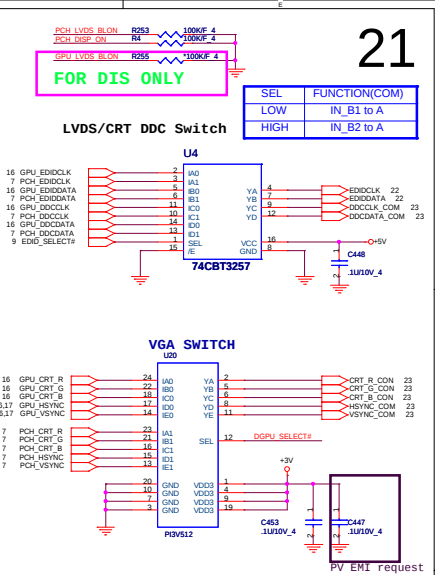
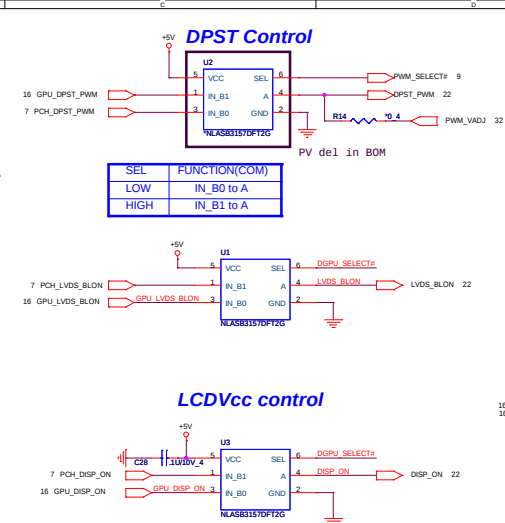
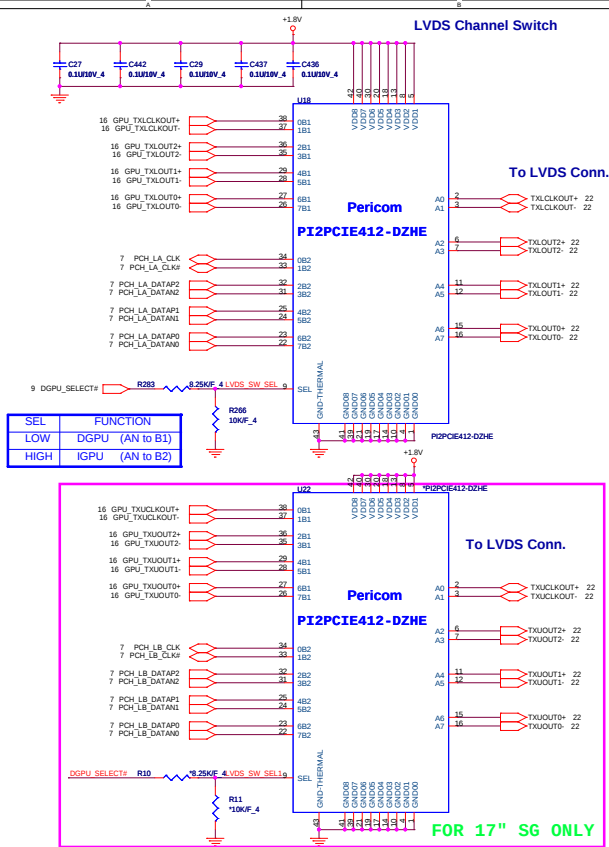
PROJECT : LX6_LX7
Quanta Computer Inc.

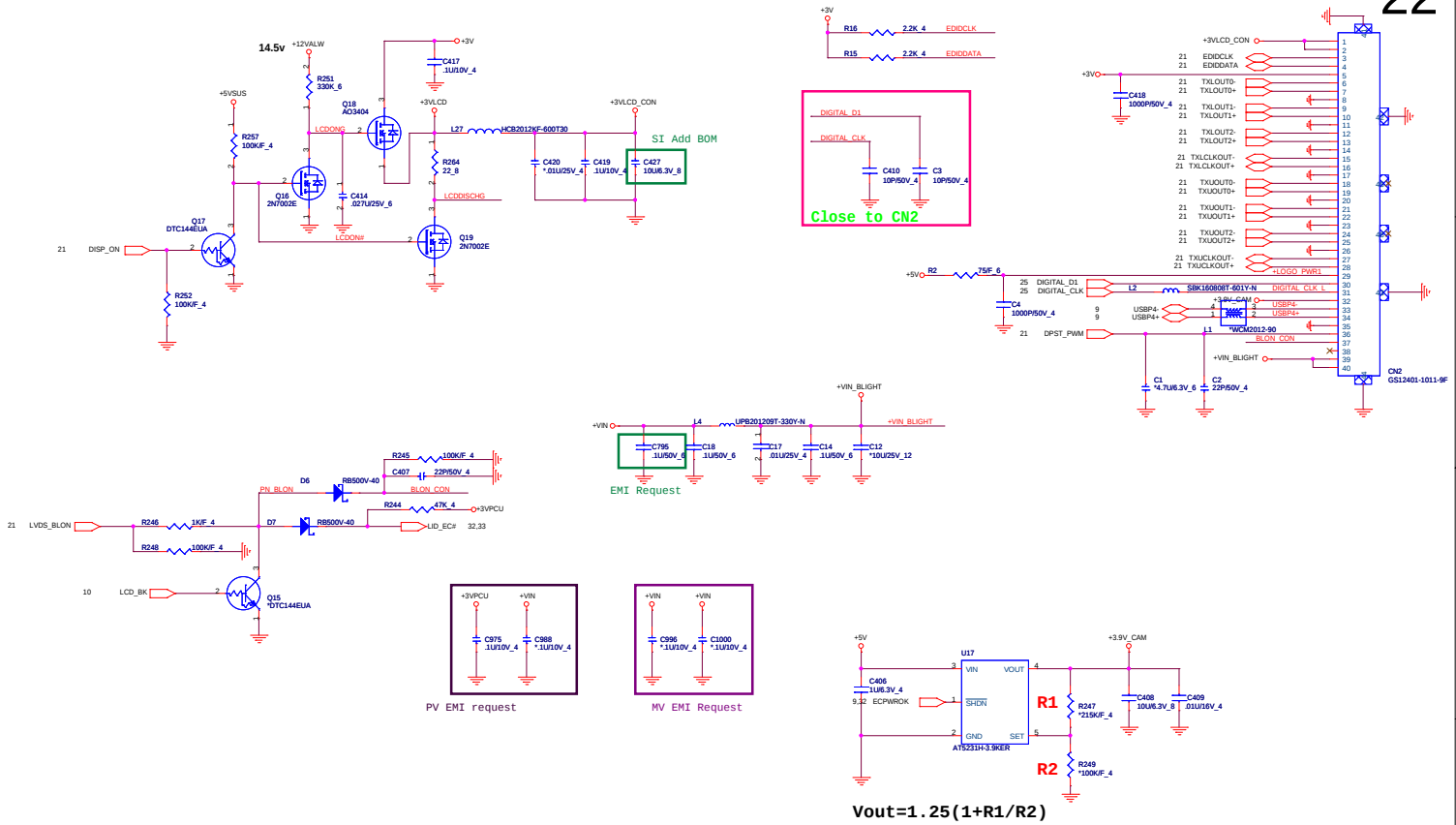
Size Custom	Document Number ATI M97(GND&Str&Ther)4/5	Rev 1A
Date: Tuesday, February 02, 2010		Sheet 17 of 44







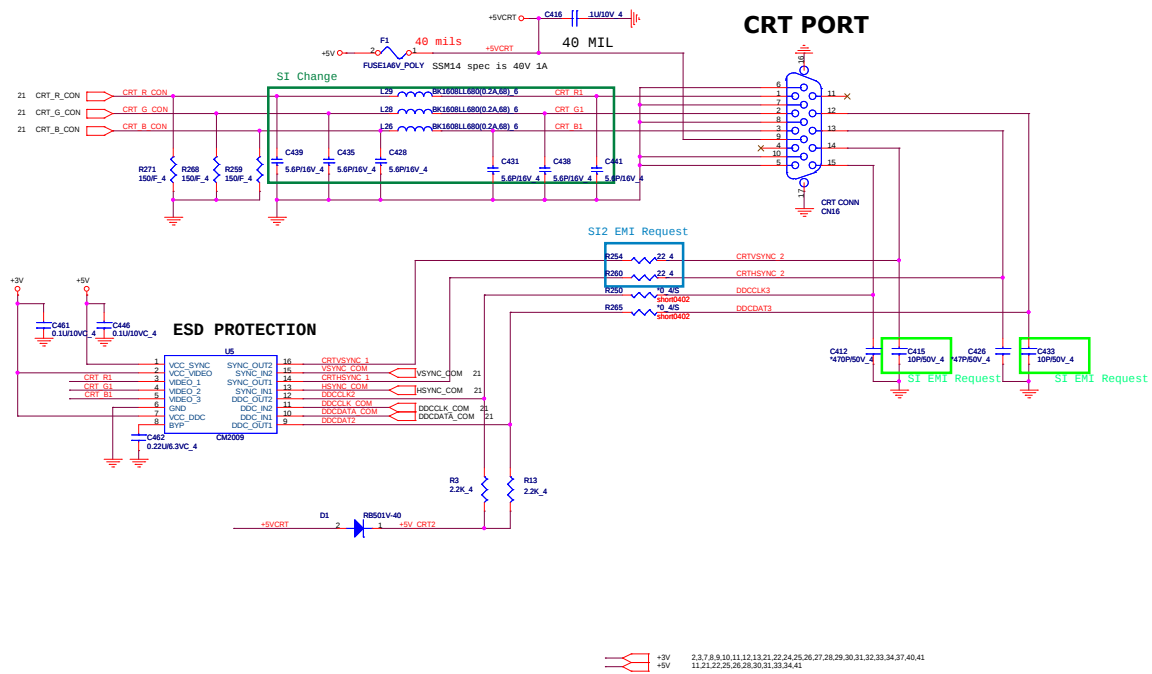


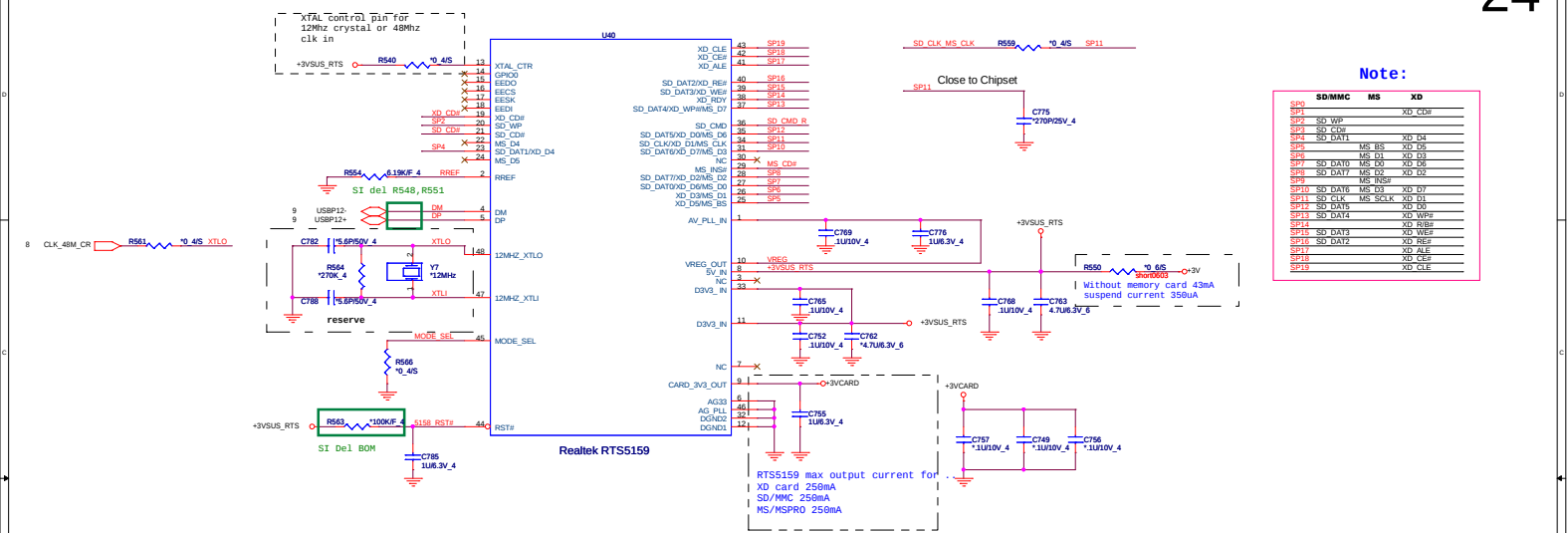


2,3,7,8,9,10,11,12,13,21,23,24,25,26,27,28,29,30,31,32,33,34,37,40,41
 11,21,23,25,26,28,30,31,33,34,41
 27,35,36,37,39,40,41,42,43
 7,28,32,33,34,35,36,39,41,42,43
 30,34,39,41

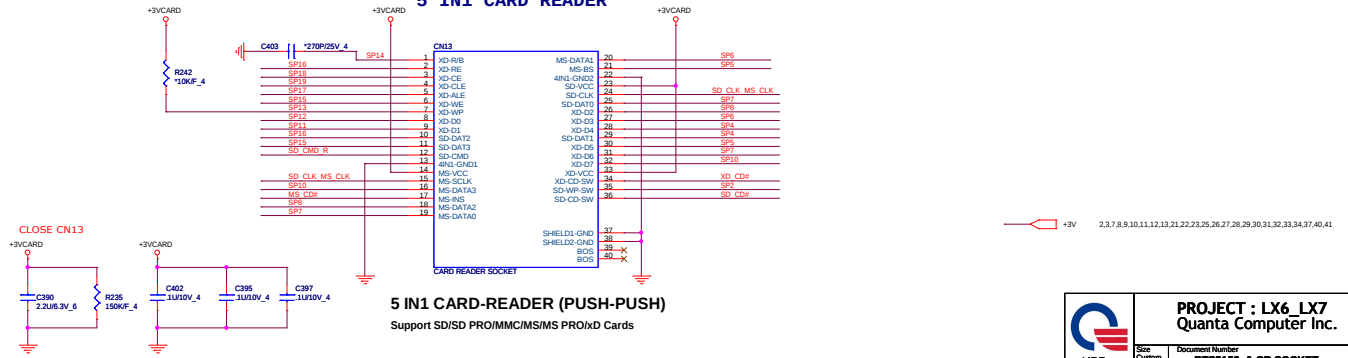
+3V
 +5V
 +5V
 +3VPCU
 +12VALW

PROJECT : LX6_LX7			
Quanta Computer Inc.			
NB5	Doc Name	Document Number	Rev
	LCD CONN14D function		1A
	Date	Tuesday, February 13, 2010	Sheet 22 of 44





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



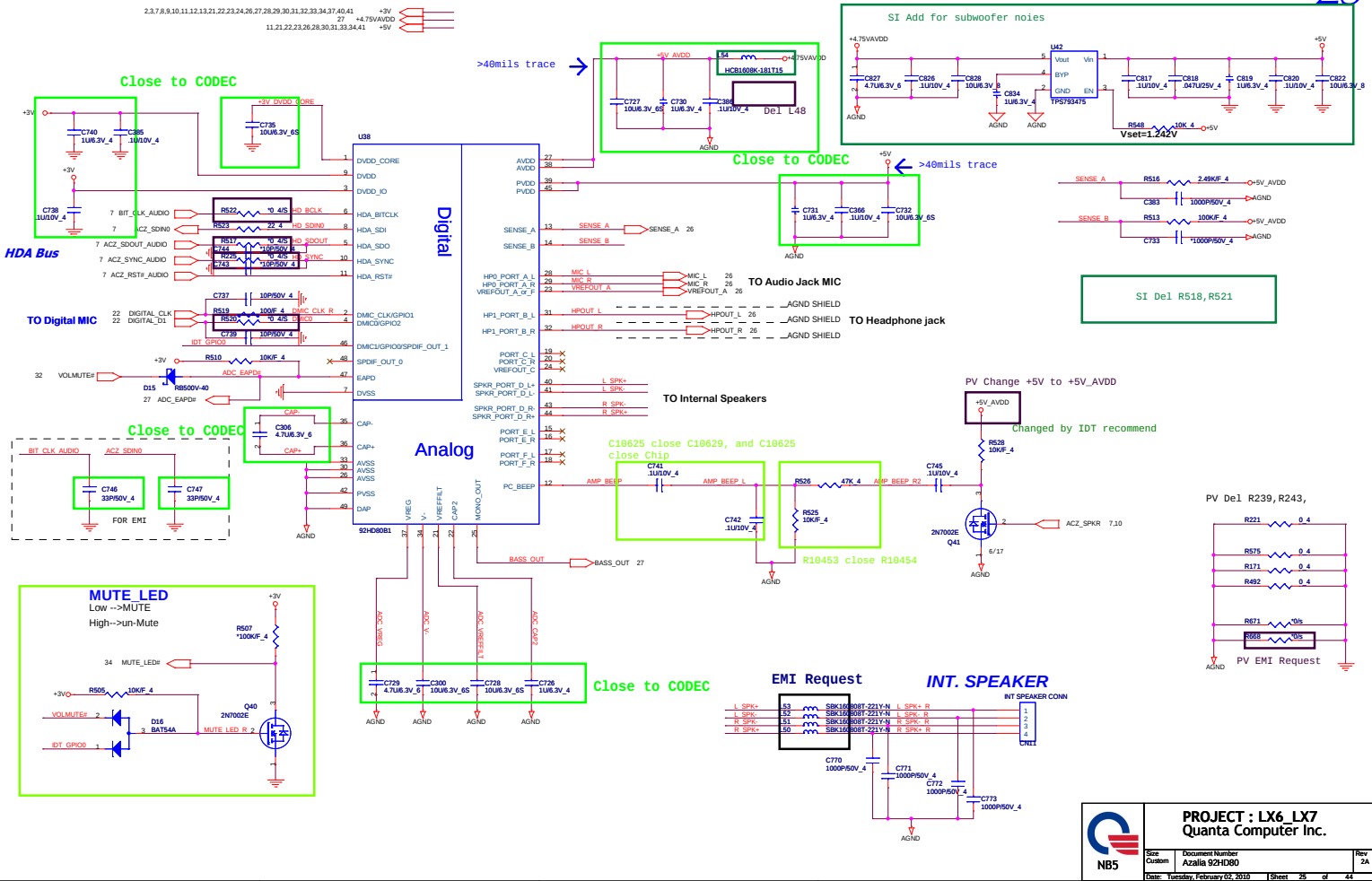
5 IN1 CARD-READER (PUSH-PUSH)
Support SD/SD PRO/MMC/MS/MS PRO/xD Cards



PROJECT : LX6_LX7
Quanta Computer Inc.

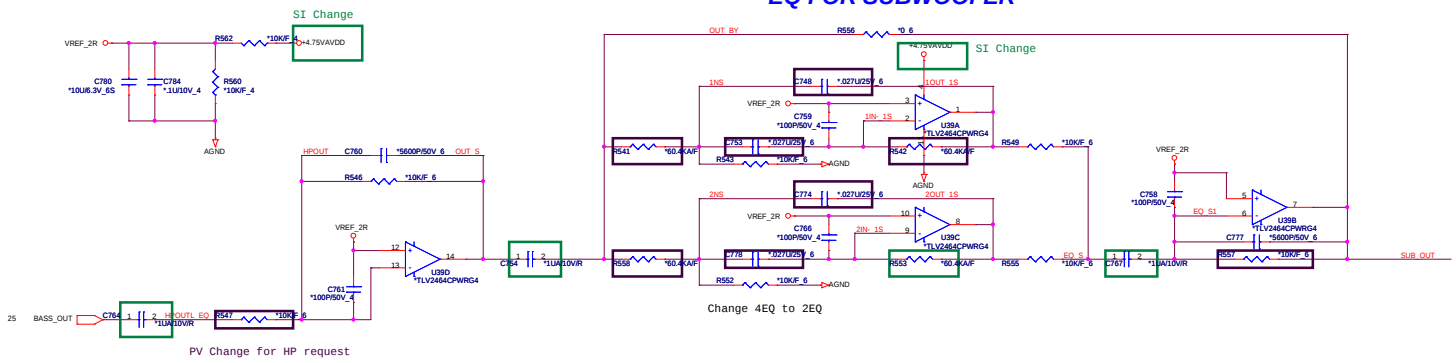
Size Custom	Document Number RTS5159 & CR SOCKET	Rev 1A
Date: Tuesday, February 02, 2010		Sheet 24 of 44

2,3,7,8,9,10,11,12,13,21,22,23,24,26,27,28,29,30,31,32,33,34,37,40,41
27 +4.75VAVDD
11,21,22,23,26,28,30,31,33,34,41 +5V

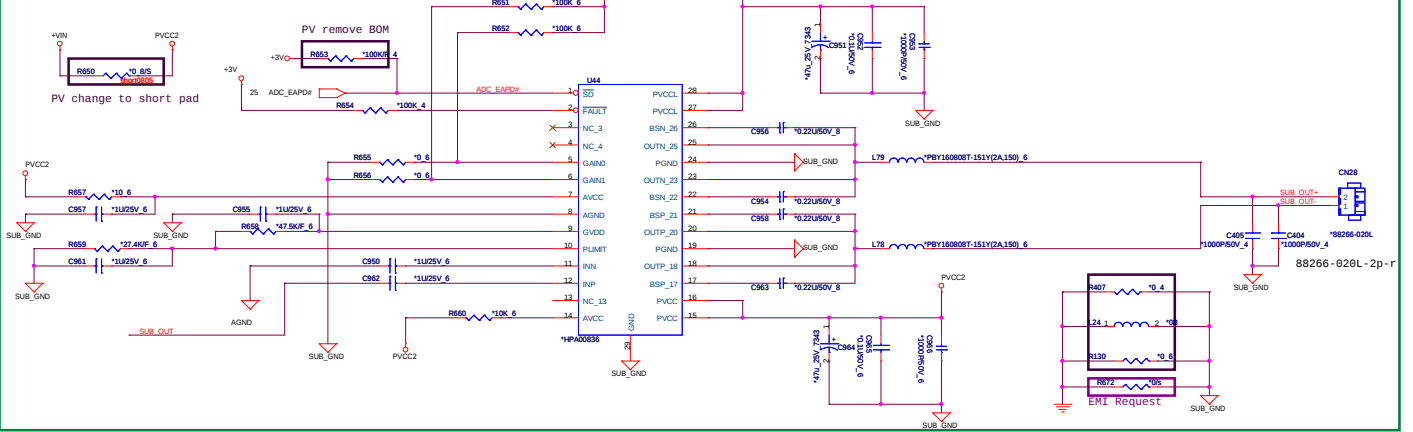




 NB5	PROJECT : LX6_LX7 Quanta Computer Inc.		
	Size Custom	Document Number Audio Jack/Accelerometer	Rev 1A
	Date: Tuesday, February 02, 2010	Sheet 26 of 44	



Sub-Woofers power



PV Del R574, R241, R240

GAIN1	GAIN0	dB
0	0	12
0	1	18
1	0	23.6
1	1	36

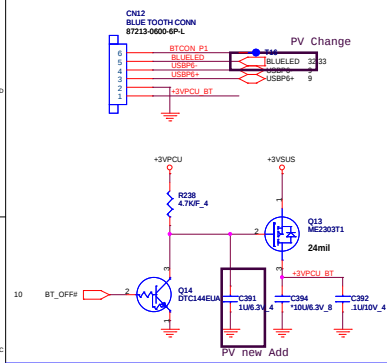
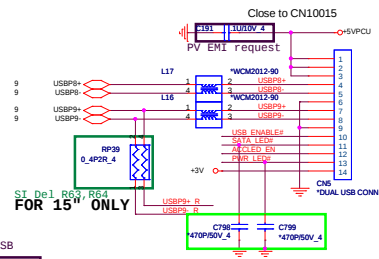
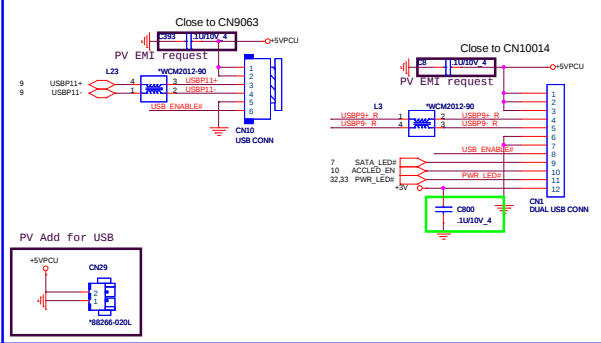
3V 2.3, 7.8, 9.10, 11.12, 13.21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 37, 40, 41

4.75VAVDD 25 22, 35, 36, 37, 39, 40, 41, 42, 43

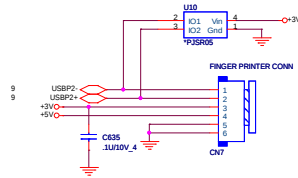
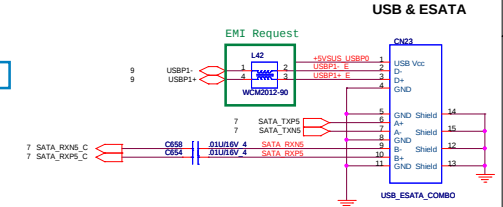
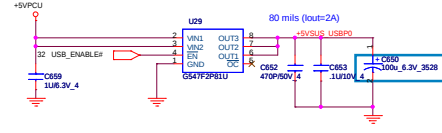
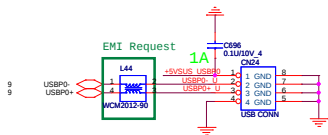
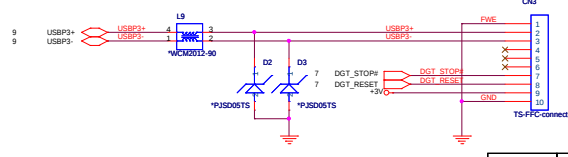
VIN

PROJECT : LX6_LX7
Quanta Computer Inc.

Rev	Document Number	Rev
NB5	SUBWOOFER (EQ & AMP)	1A
Date	Tuesday, February 13, 2010	Sheet 27 of 44

BLUETOOTH**RIGHT SIDE USBX2 for 17"****RIGHT SIDE USB for 15"****USB fingerprint CON**

1. USBP2-
2. USBP2+
3. +3V
4. +5V
5. SYSTEM GND
6. SYSTEM GND

**E-SATA****LEFT USB PORT****Touch screen for 15"**

T : Stuffed for RTL8111DL(10/100/1000)

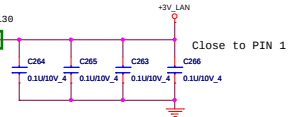
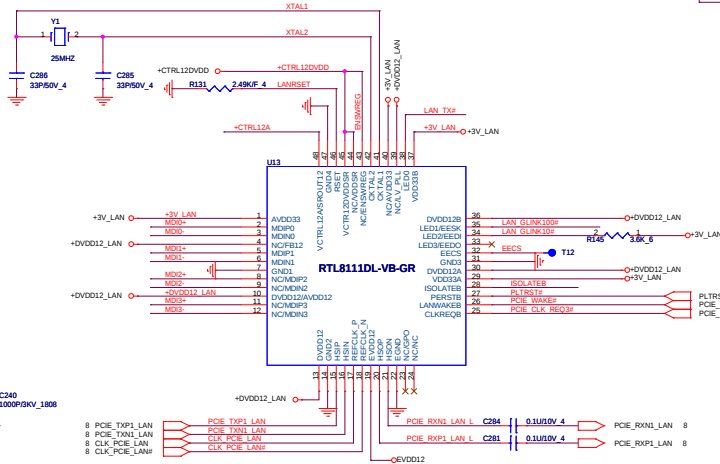
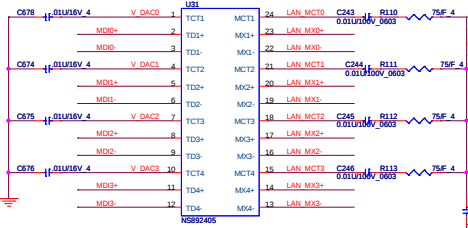
for RTL8111DL use close Pin 44,45

Remove R3571,R3573
R3571 and R3573 are used in
RTL8111DL , remove R3573 if
switching regulator is enable
, Remove R3571 external power
is used.

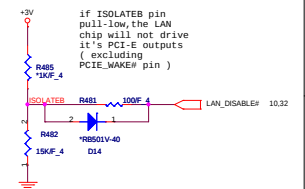
ST del P1

Close to PIN 1

AL08111DB00 RTL8111DL-GR



```
if ISOLATEB pin
pull-low, the LAN
chip will not drive
it's PCI-E outputs
( excluding
PCIE_WAKE# pin )
```

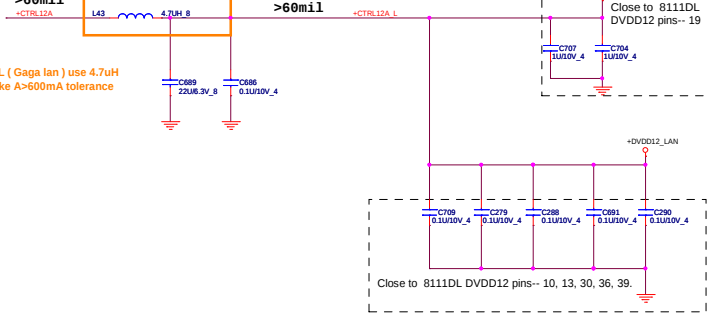


NS892402:GIGABIT

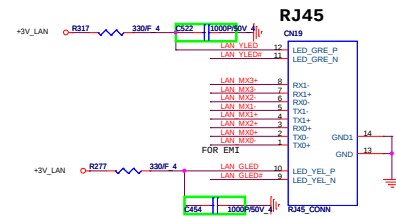
≥60mi l

Power trace Layout 寬度> 60mil

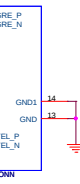
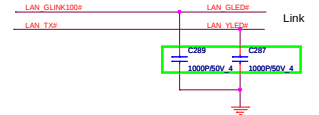
+CTRL12A_L



L23
RTL8111DL (Giga lan) use 4.7uH
power choke A>600mA tolerance
±15%



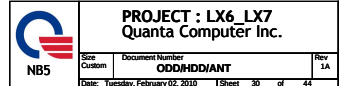
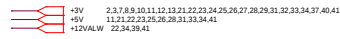
RJ45

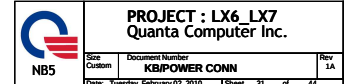


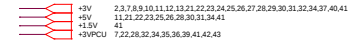
SATA CD-ROM

The diagram shows a circuit for PV modification and current sensing. It includes a +5V supply, a resistor network (R577, 100K_F_4) connected to ODD_E5C7c2, and a 0.4 ohm resistor (R518) connected to E5C7c1_32. A note indicates "PV modify".

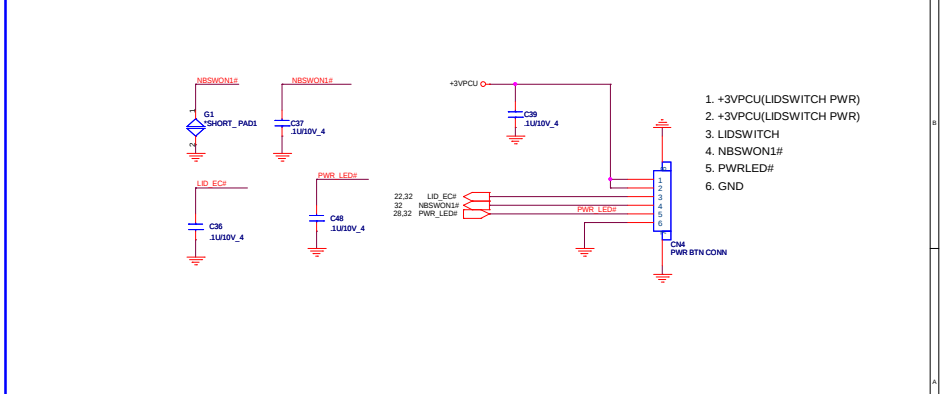
Below this, a more complex circuit is shown. It features a +12VALW supply, a resistor network (R578, 330K_F_5) connected to A03404_ID current 5.5A, and a +5V supply connected to C003 1U10V_4. The circuit includes several MOSFETs (Q43, Q44, Q45, A03404) and resistors (R579, 22_8). A note indicates "High : ODD power down" and "Low : ODD power on".





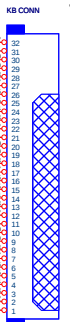
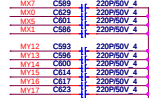
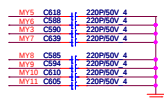
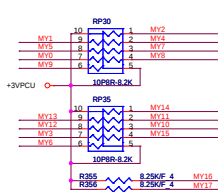


POWER BOTTON CONNECT

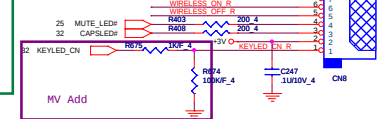
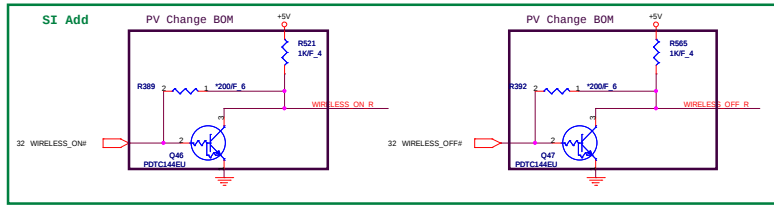


 NB5	PROJECT : LX6_LX7 Quanta Computer Inc.		
	Size Custom	Document Number MINI PCIE CONNFAN	Rev 1A
Date: Tuesday, February 02, 2010 Sheet 33 of 44			

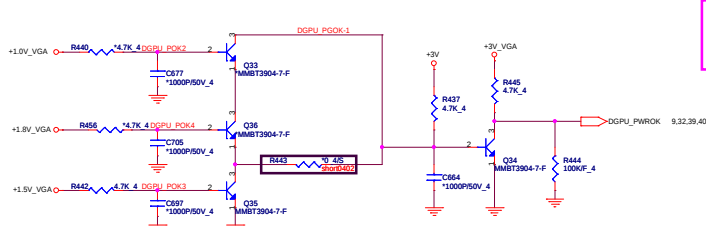
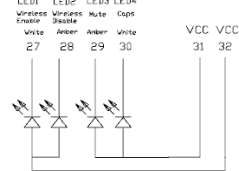
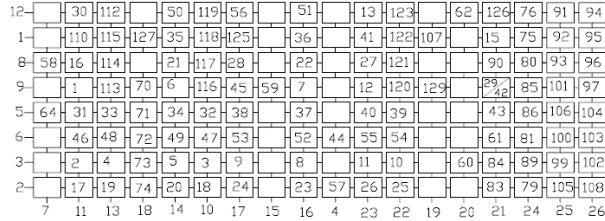
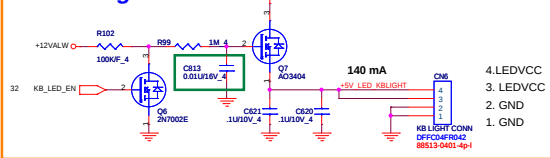
KEYBOARD PULL-UP



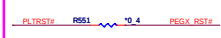
clear ABS 758 resin for key cap.
7 LEDs for 15.4" (total LED current 148mA)
11 LEDs for 17" (Total LED current 220mA)



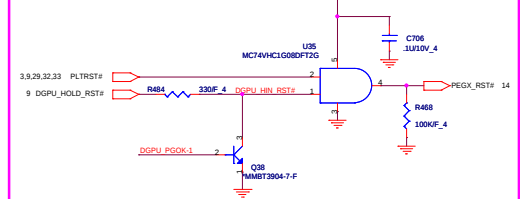
KB backlight for 15"



FOR DIS ONLY



FOR SG ONLY

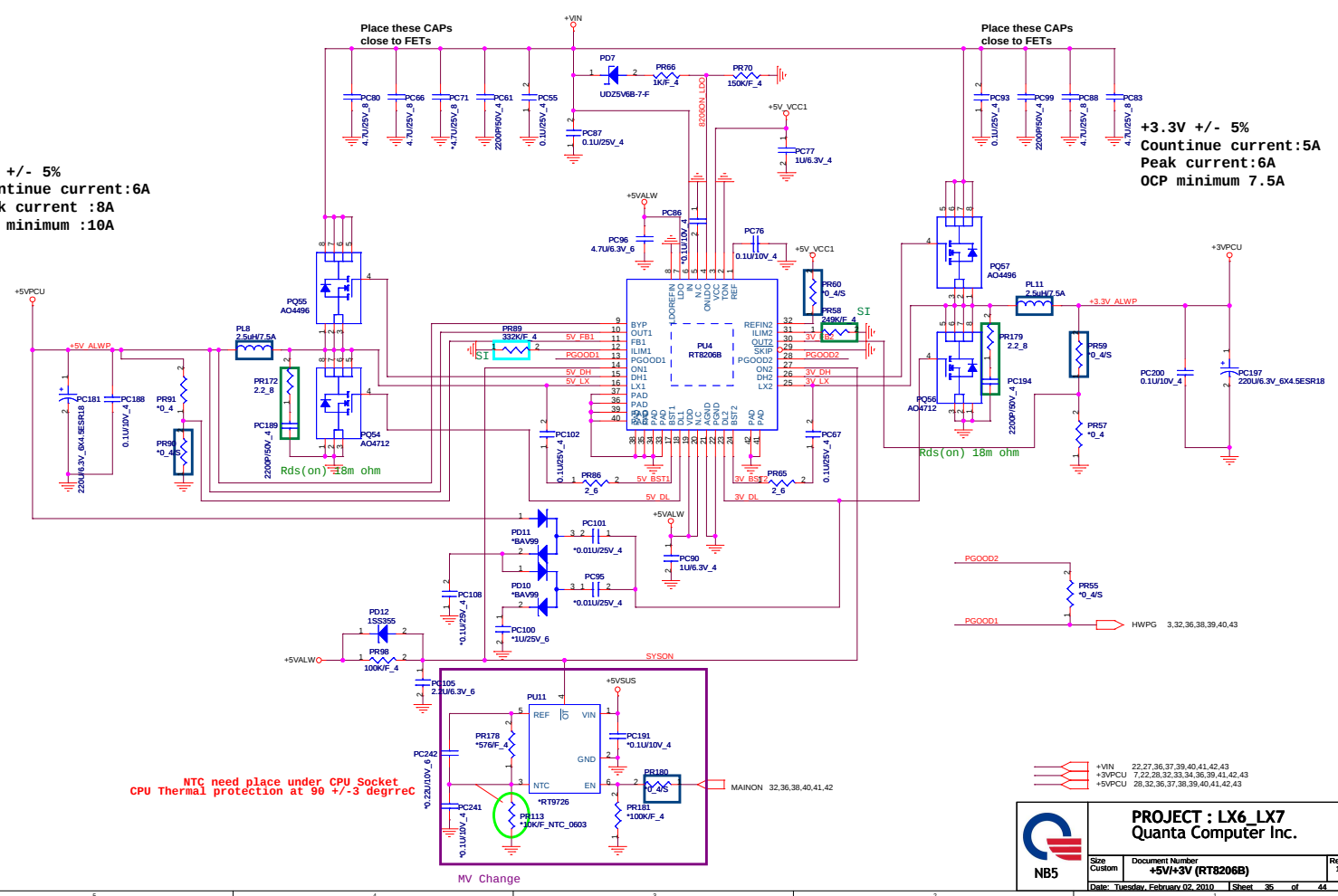


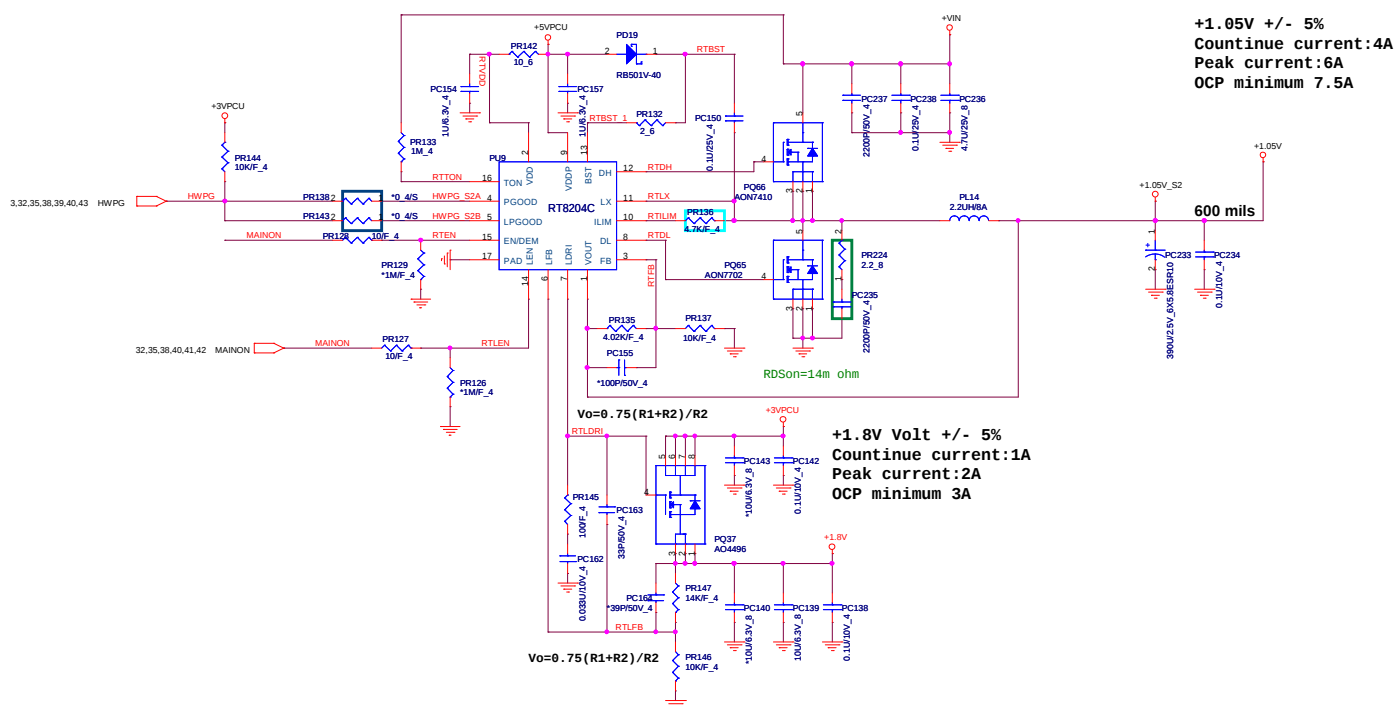
+3V	2,3,7,8,9,10,11,12,13,21,22,23,24,25,26,27,28,29,30,31,32,33,37,40,41
+5V	11,22,23,24,25,26,30,31,33,41
+3VPCU	7,22,23,24,25,26,30,31,33,41
+5V_VGA	15,16,17,18,31,39
+12V_ALW	22,30,39,41
+1.8V_VGA	14,15,16,18
+1.5V_VGA	15,16,18,20,39
+1.8V_VGA	14,15,16,18

PROJECT : LX6_LX7		Quanta Computer Inc.	
Rev	1A	Rev	1A
Doc#	February 02, 2010	Sheet	34 of 44

+5V +/- 5%
 Countinue current:6A
 Peak current :8A
 OCP minimum :10A

+3.3V +/- 5%
 Countinue current:5A
 Peak current:6A
 OCP minimum 7.5A





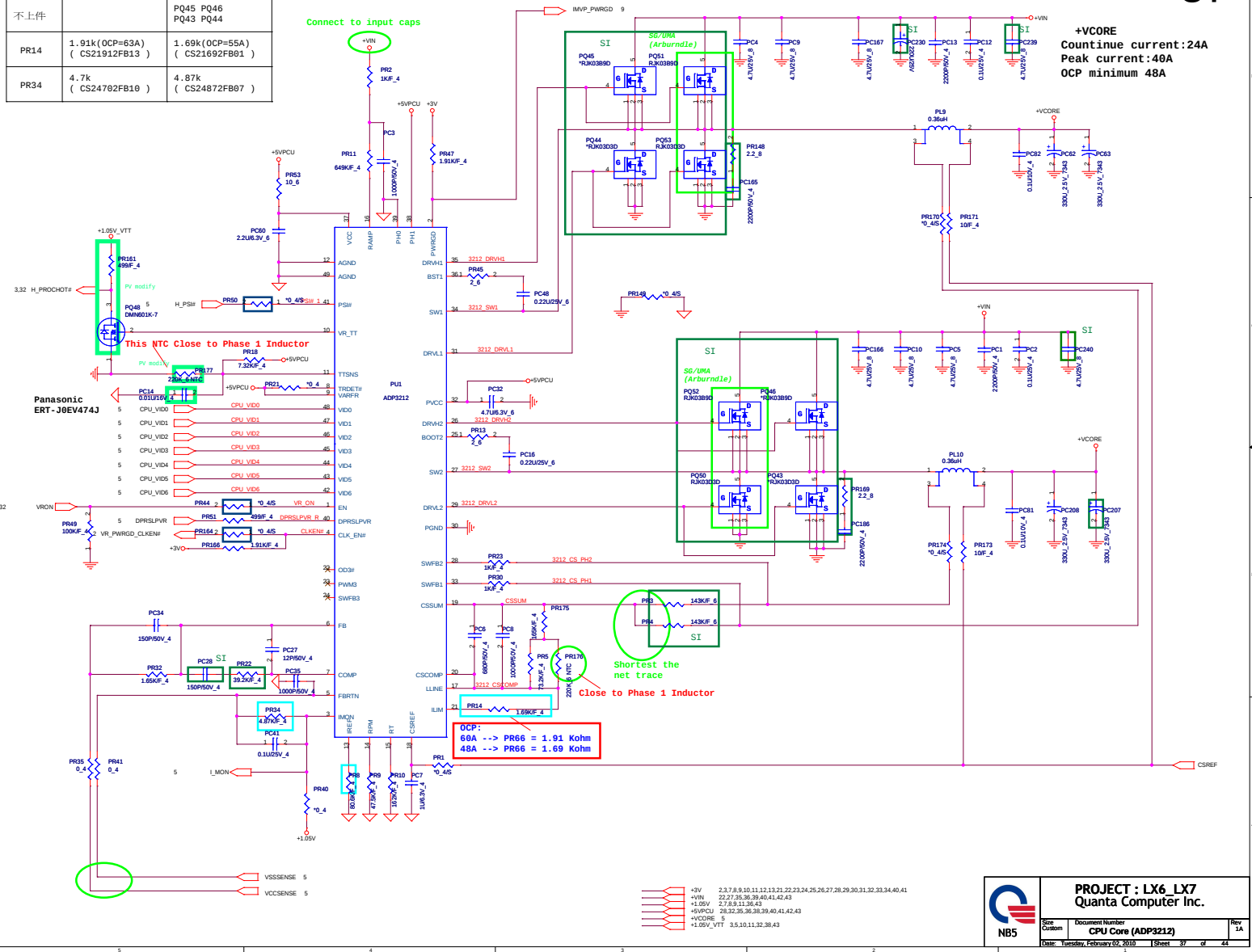
+1.8V	5,10,11,21,41
+VIN	22,27,35,37,39,40,41,42,43
+1.05V	2,7,8,9,11,37,43
+3VPCU	7,22,28,32,33,34,35,39,41,42,43
+5VPCU	28,32,35,37,38,39,40,41,42,43



PROJECT : LX6_LX7
Quanta Computer Inc.

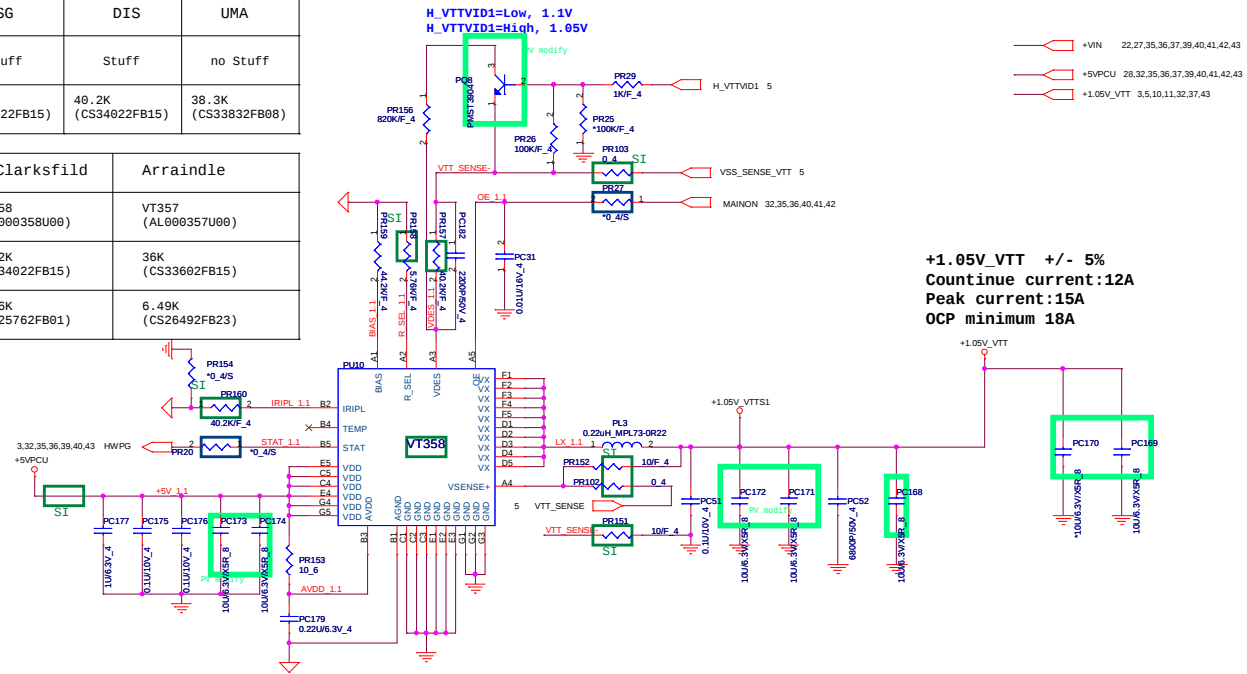
Size	Document Number	Rev
Custom	+1.05V/+1.8V (RT8204C)	1A
Date: Tuesday, February 02, 2010	Sheet 36 of 44	

	DIS (Clarksfield)	SG/UMA (Arburndle)
不上件		PQ45 PQ46 PQ43 PQ44
PR14	1.91k (OCP=63A) (CS21912FB13)	1.69k (OCP=55A) (CS21692FB01)
PR34	4.7k (CS24762FB10)	4.87k (CS24872FB07)



	SG	DIS	UMA
PR156 PR26 PR29 PQ8	Stuff	Stuff	no Stuff
PR157	40.2K (CS34022FB15)	40.2K (CS34022FB15)	38.3K (CS33832FB08)

	Clarksfild	Arraindle
PU10	VT358 (AL000358U00)	VT357 (AL000357U00)
PR160	40.2K (CS34022FB15)	36K (CS33602FB15)
PR158	5.76K (CS25762FB01)	6.49K (CS26492FB23)

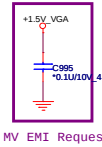


+VGACORE +/- 5%
Countinue current:19A
Peak current:21A
OCP minimum 26A

Park XT Setting		
High	1.12V	
Low	0.90V	
CTRL0	CTRL1	Vo
0	0	1.12
0	1	0.9
不上件		
改料	PR187 PR188 PQ58 PQ59 PQ61 PQ63 PC122 PC121	
	PR190=6.81k (CS26812F801) PR195=5.09k (CS26952F802) PQ24=RXJ0330D (BAW03308000) PQ60=RXJ0330D (BAW03308000)	

Madison Pro Setting		
High	1.00V	
Medium	0.95V	
Low	0.90V	
CTRL1	CTRL0	Vo
0	0	1
0	1	0.95
1	0	0.9
1	1	0.9
不上件		
改料	PC120 PC121=CH733RW8831	

+1.8V +/- 5%
Countinue current:1.2A
Peak current:3A



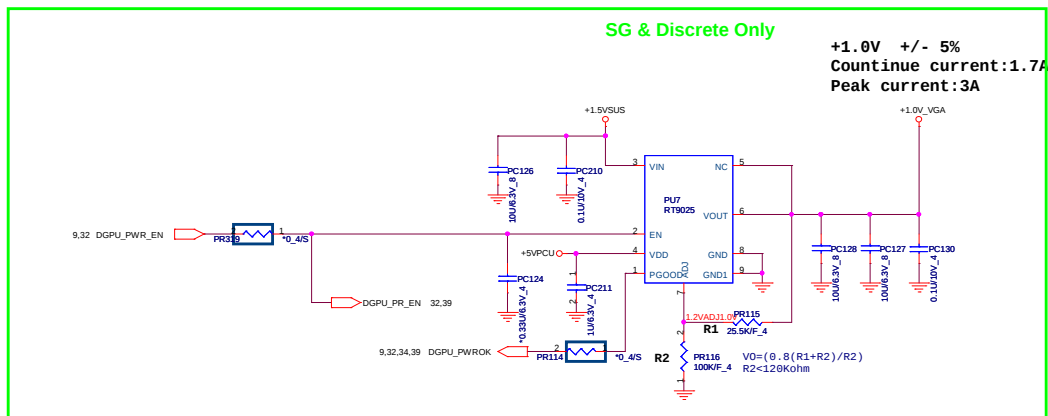
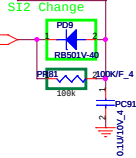
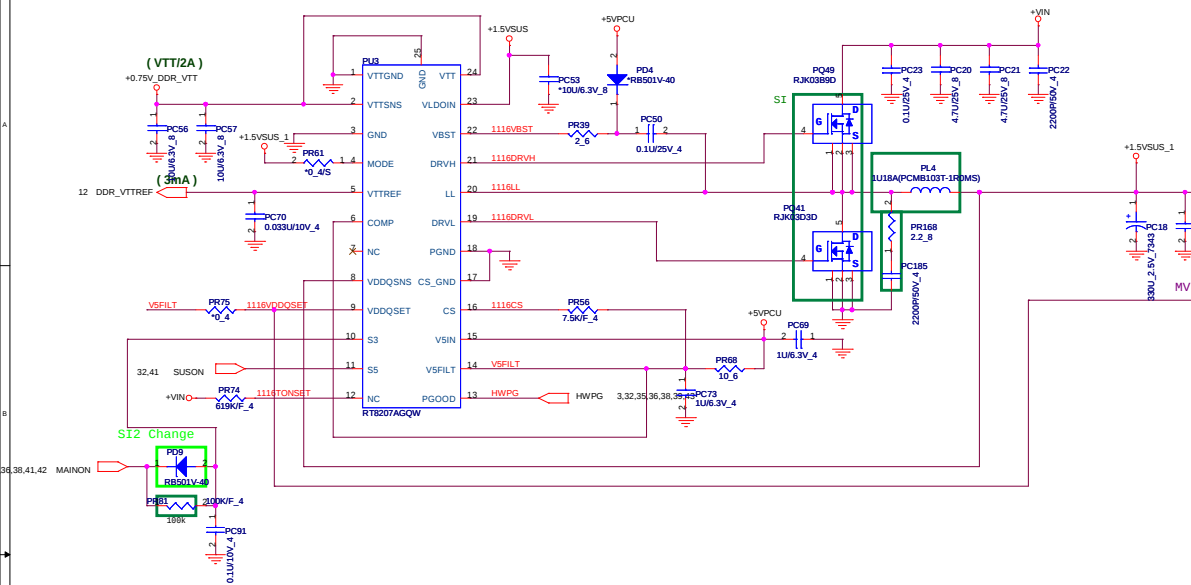
MV EMI Request



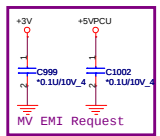
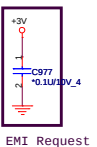
PROJECT : LX6_LX7
Quanta Computer Inc.

Size	Document Number	Rev
	GPU CORE(ISL6264)	1A
Date:	Tuesday, February 02, 2010	Sheet 39 of 44

+1.5V +/- 5%
Countinue current:6A
Peak current:12A
OCP minimum 15A

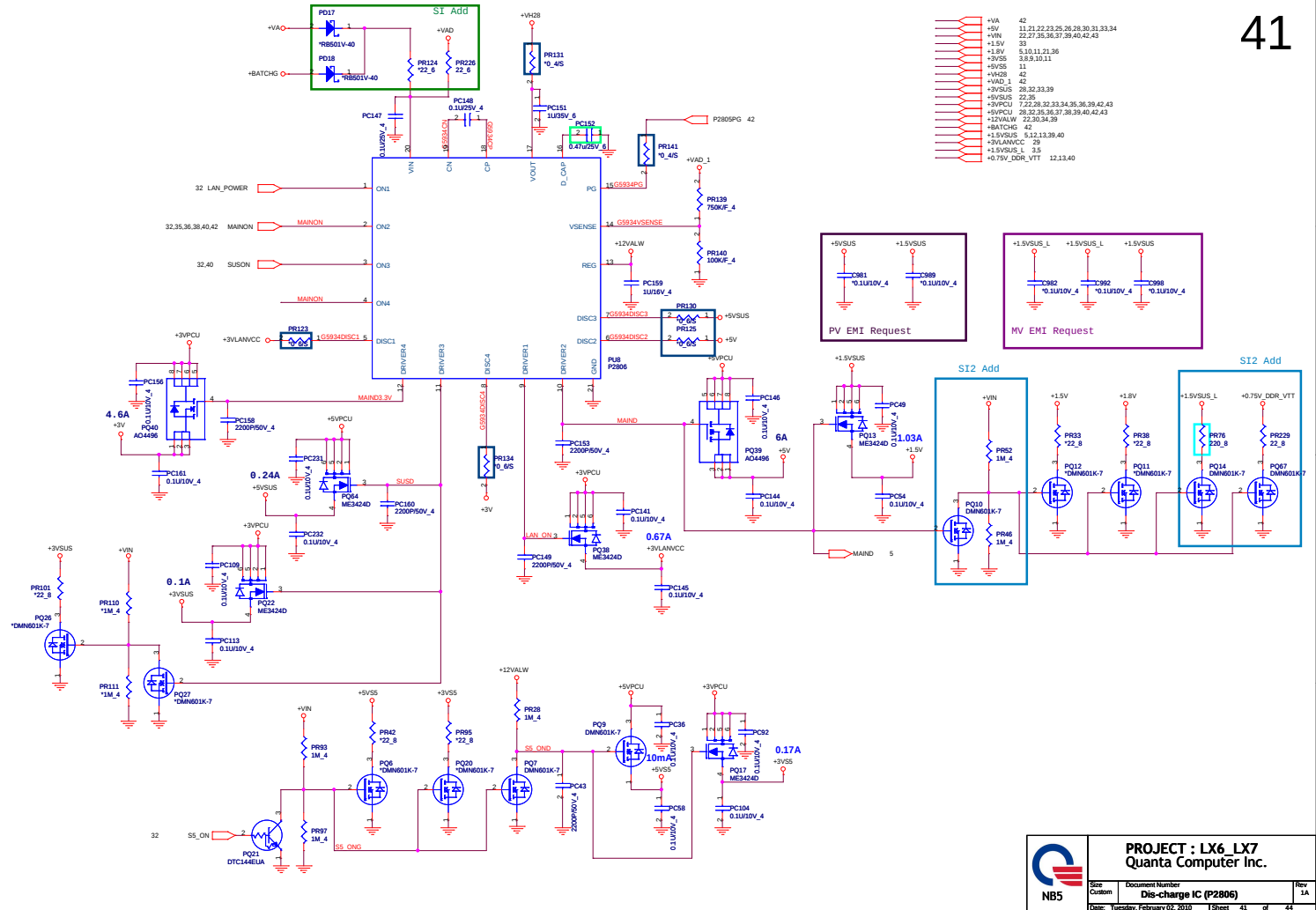


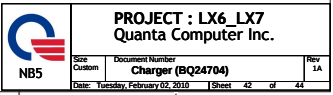
+1.0V +/- 5%
Countinue current:1.7A
Peak current:3A

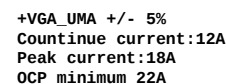


- +3V 2,3,7,8,9,10,11,12,13,21,22,23,24,25,26,27,28,29,30,31,32,33,34,37,41
- +VIN 22,27,35,36,37,39,41,42,43
- +5VPCU 28,32,35,36,37,38,39,41,42,43
- +1.5VSUS 5,12,13,39,41
- +1.0V_VGA 14,16,18,34
- +0.75V_DDR_VTT 12,13,41

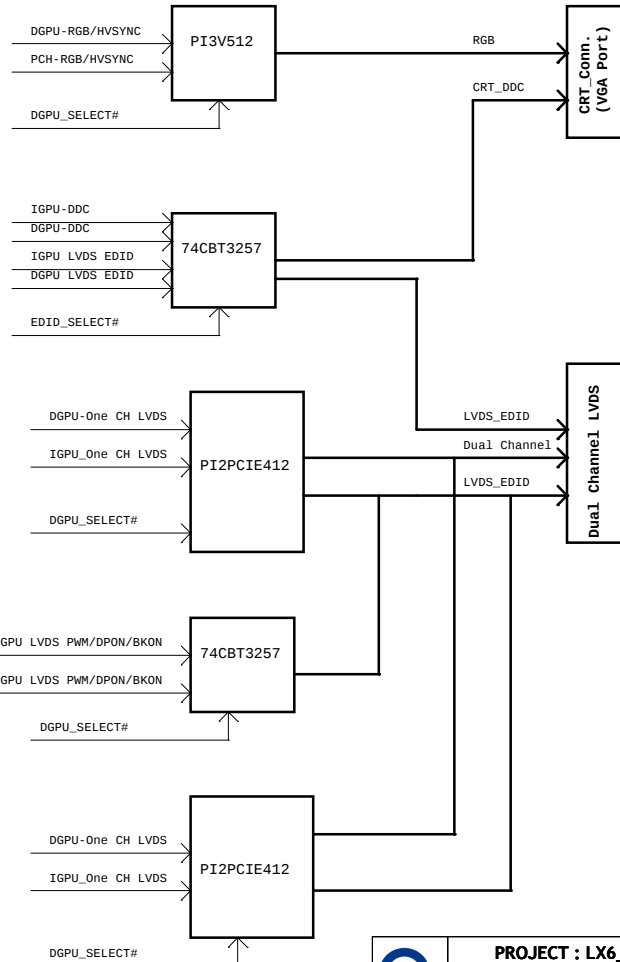
	PROJECT : LX6_LX7 Quanta Computer Inc.		
	Size Custom	Document Number DDR3 (RT8207)	Rev 1A
	Date: Tuesday, February 02, 2010	Sheet 40 of 44	







 NB5	PROJECT : LX6_LX7 Quanta Computer Inc.		
	Size Custom	Document Number UMA GPU CORE (RT8152C)	Rev 1A
Date: Tuesday, February 02, 2010		Sheet 43 of 44	



 NB5	PROJECT : LX6_LX7 Quanta Computer Inc.		
	Size Custom	Document Number Switch Blockdiagram	Rev 1A
	Date: Tuesday, February 02, 2010 Sheet 44 of 44		