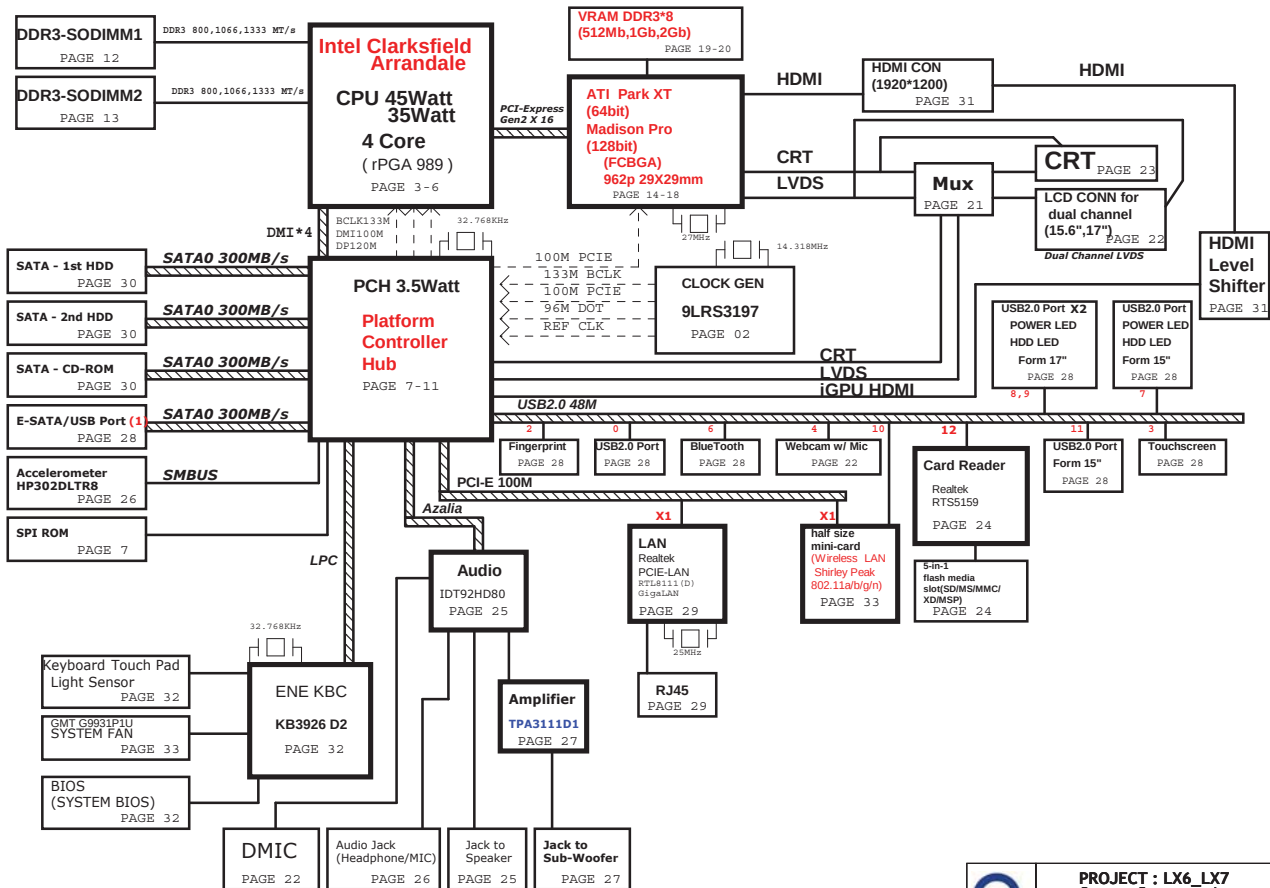


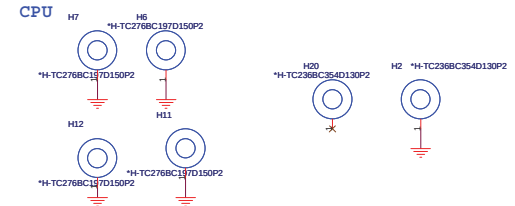
PCB STACK UP

6L Dis.

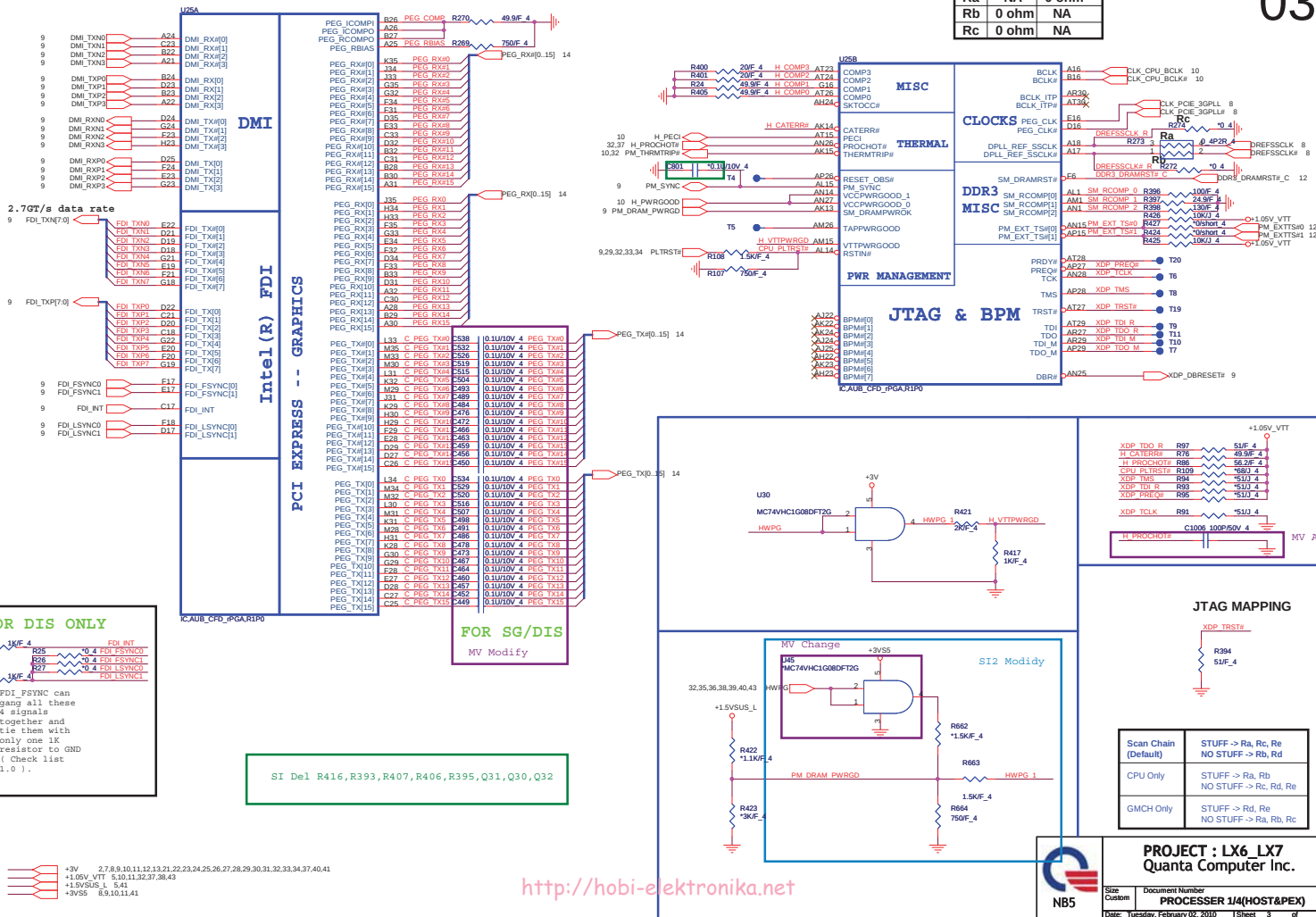
LAYER 1 : TOP
LAYER 2 : SGND
LAYER 3 : IN1(High)
LAYER 4 : IN2(Low)
LAYER 5 : SVCC
LAYER 6 : BOT

LX6/7 (Liverpool) BLOCK DIAGRAM

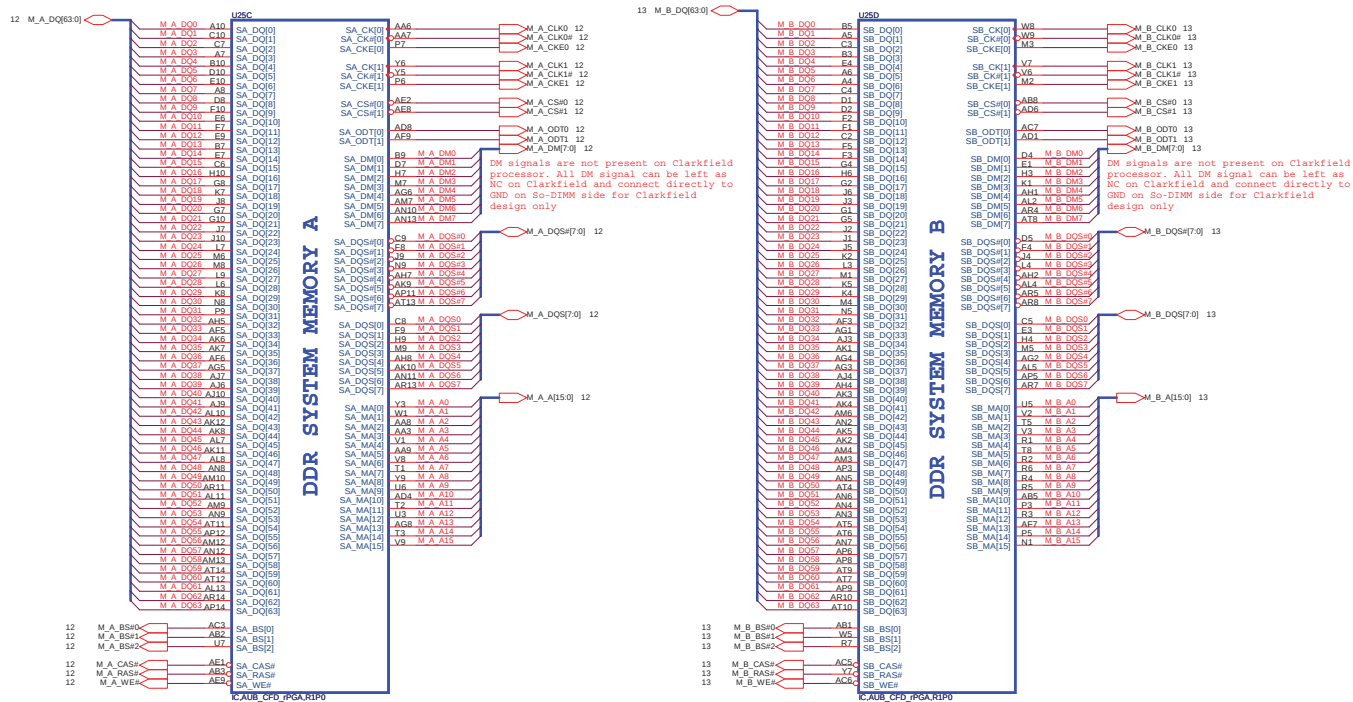




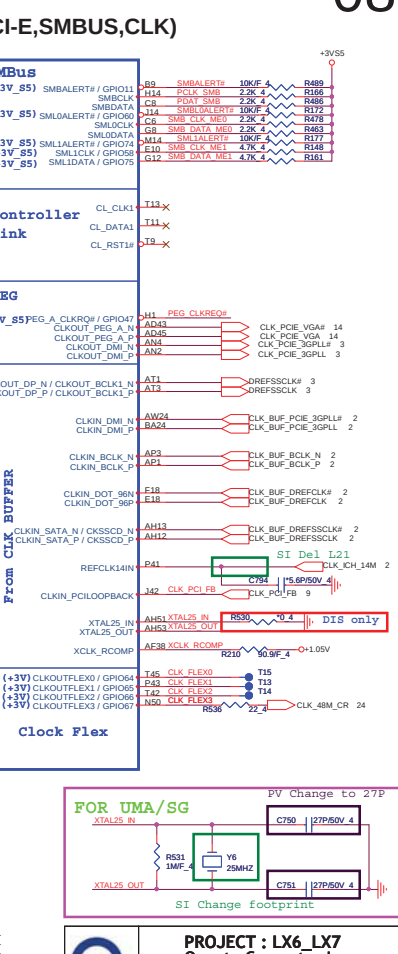
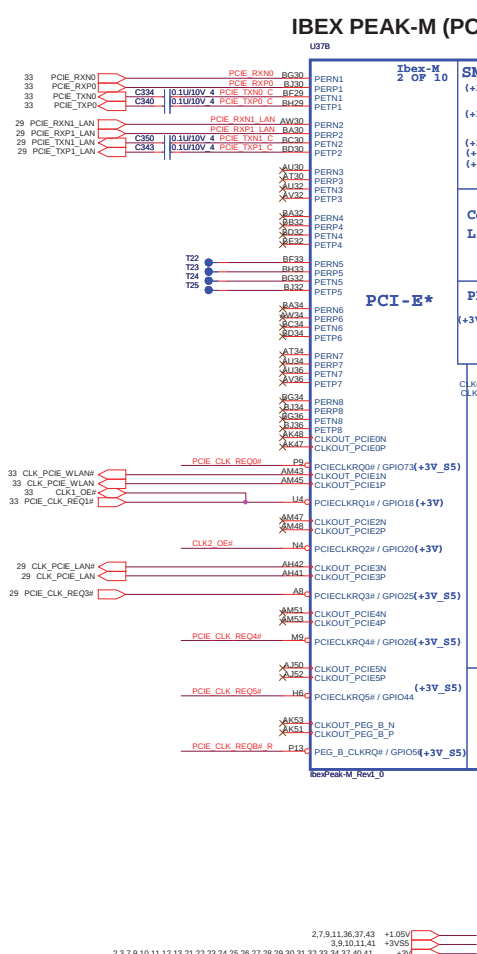
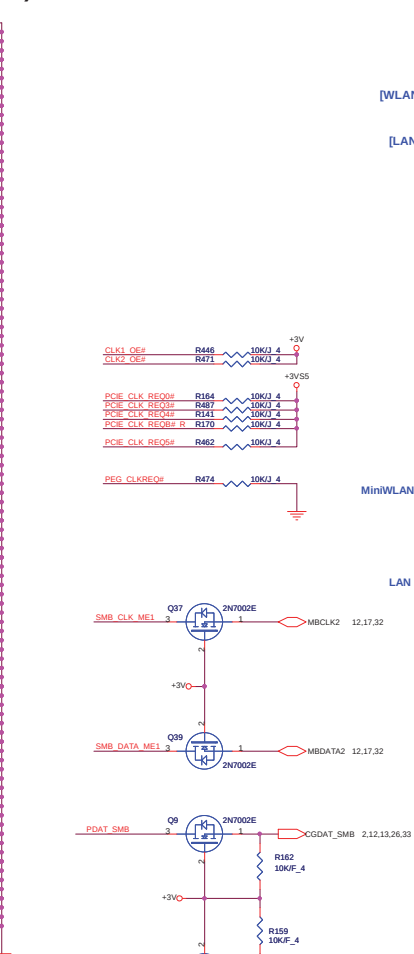
	DIS	SG/UMA
Ra	NA	0 ohm
Rb	0 ohm	NA
Rc	0 ohm	NA



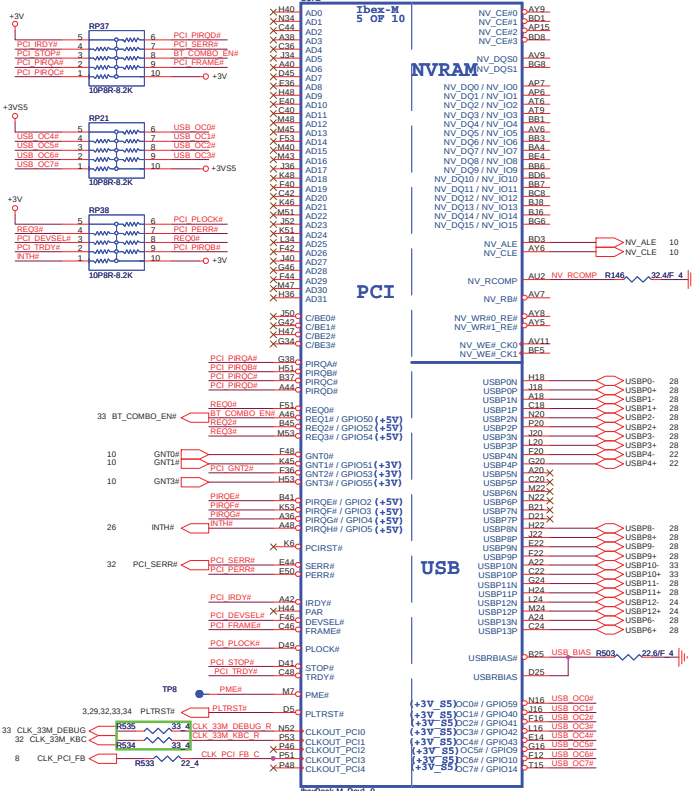
AUBURNDALE/CLARKSFIELD PROCESSOR (DDR3)







U37E



ibexPeak-M Rev1.0



- Left_USB
- E-Sata
- Fingerprint
- Touchscreen
- Webcam

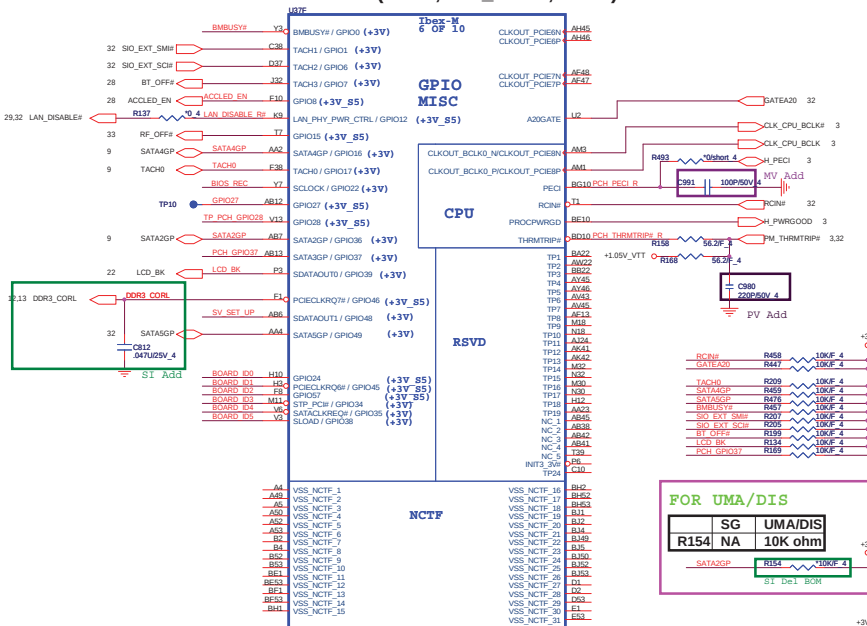
Right_USB 17"/SATA LED
Right_USB 15"/SATA LED
WLAN
Right_USB 15"
Card Reaer
Blue tooth

FOR SG ONLY

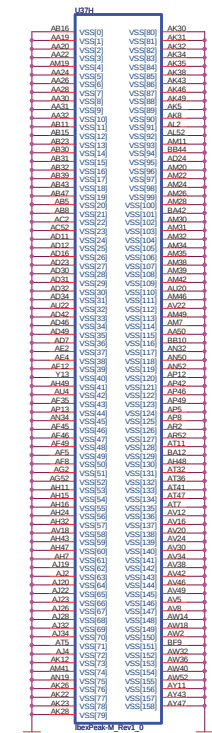
21	DGPU_SELECT#	R515	0 4	REQ2
21	EDIO_SELECT#	R532	0 4	REQ3
21	DMA_SELECT#	R202	0 4	PCI G

objelektronika.net 2,7,8,11,36,37,43 +1,05
2,3,7,13,10,11,12,13,12,23,24,15,28,27,28,29,30,31,12,33,34,37,40,41 +3

IBEX PEAK-M (GPIO,VSS_NCTF,RSVD)



IBEX PEAK-M (GND)

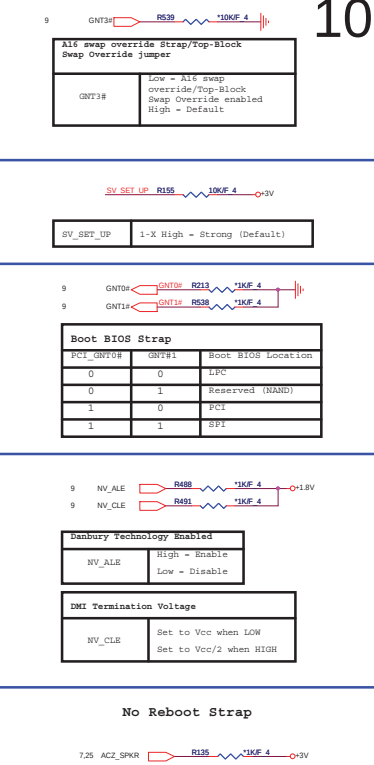
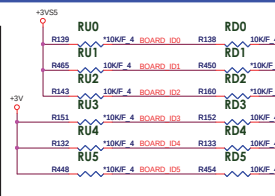


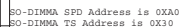
BOARD ID SETTING

Board ID	ID5	ID4	ID3	ID2	ID1	ID0
TBD	RD5 (0)	RD4 (0)	RD3 (0)	RD2 (0)	RD1 (0)	RD0 (1)
TBD	RD5 (0)	RD4 (0)	RD3 (0)	RD2 (0)	RD1 (1)	RD0 (0)
TBD	RD5 (0)	RD4 (0)	RD3 (0)	RD2 (0)	RD1 (1)	RD0 (1)
TBD	RD5 (0)	RD4 (0)	RD3 (0)	RD2 (1)	RD1 (0)	RD0 (0)
TBD	RD5 (0)	RD4 (0)	RD3 (0)	RD2 (1)	RD1 (0)	RD0 (1)
TBD	RD5 (0)	RD4 (0)	RD3 (0)	RD2 (1)	RD1 (1)	RD0 (0)
TBD	RD5 (0)	RD4 (0)	RD3 (0)	RD2 (1)	RD1 (1)	RD0 (1)

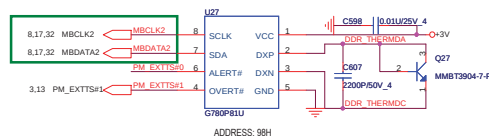
Board ID	ID0	ID1	ID2	ID3	ID4	ID5
LX6	0	1				
LX7	1	0				
Discrete			0	0		
UMA			0	1		
SG			1	0		
LX7_No Subwoofer						

<http://hobi-elektronika.net> PV Add option

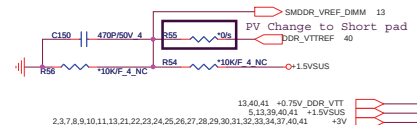


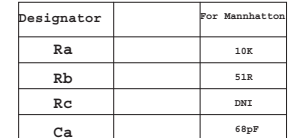


Some Projects replace 10UF 0805 by 4.7UF 0603
It can cost down 30%

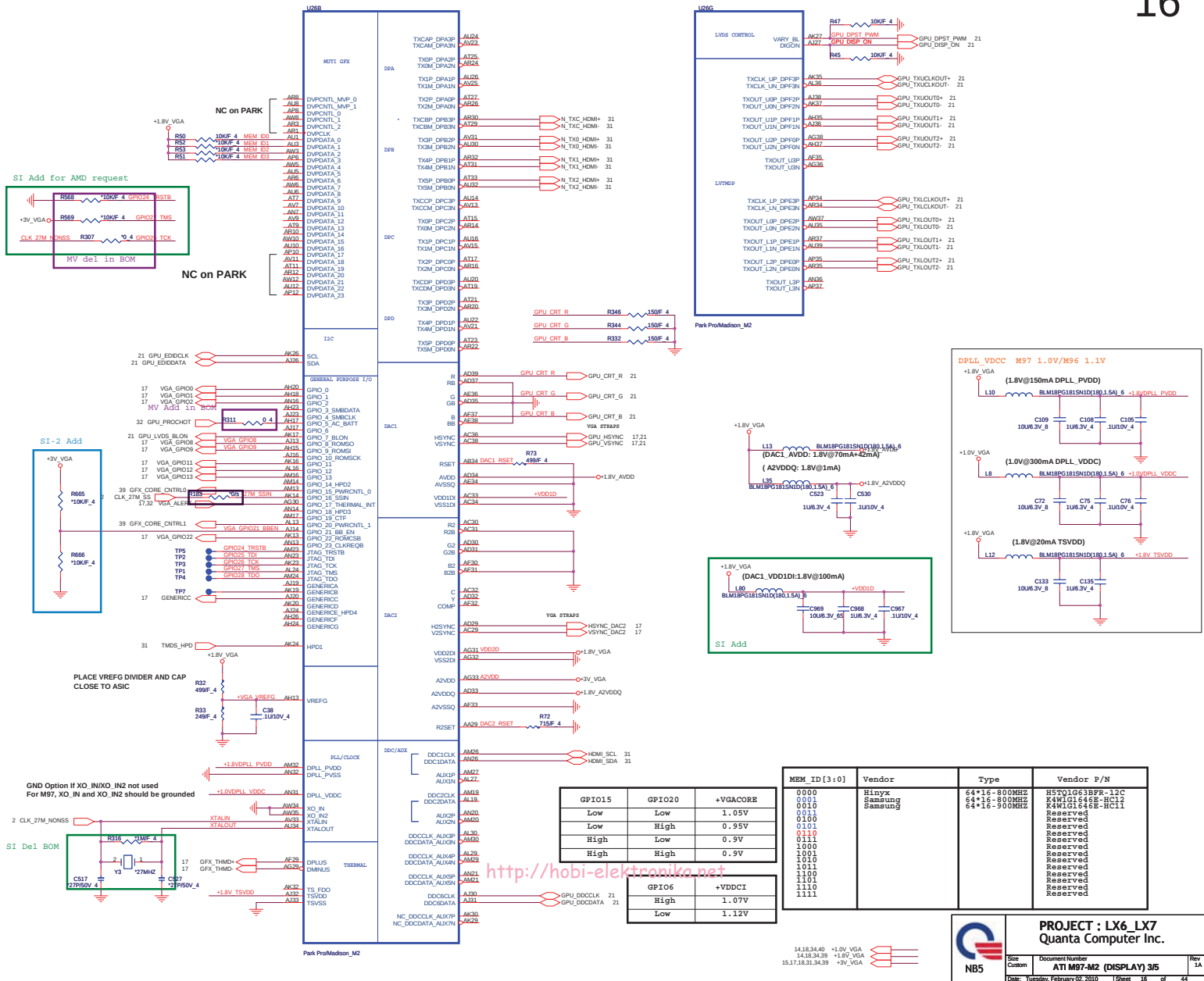


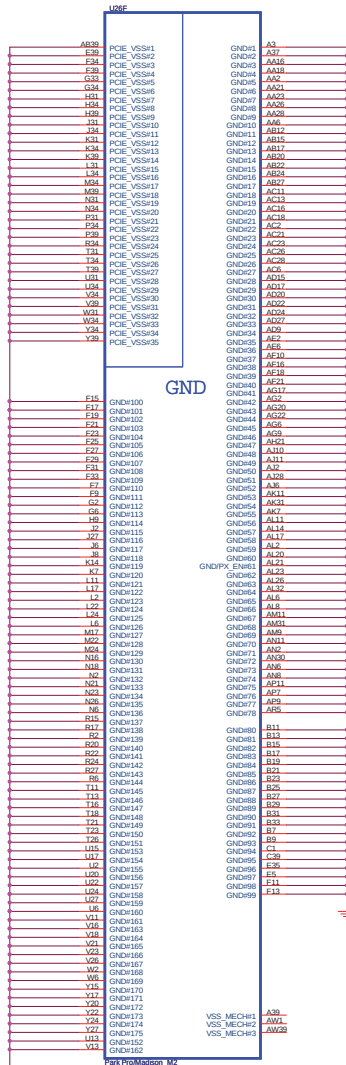
<http://hobi-elektronika.net>



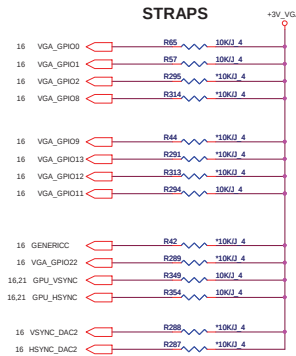


PROJECT : LX6_LX7
Quanta Computer Inc.





STRAPS



Memory Aperture size fix 256M

GPIO9		GPIO13	GPIO12	GPIO11
BIOSROM		ROMIDCFG2	ROMIDCFG1	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

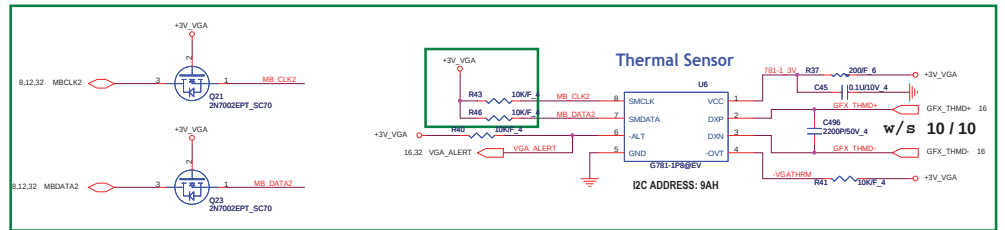
RECOMMENDED SETTINGS
0 = DO NOT INSTALL RESISTOR
1 = INSTALL 10K RESISTOR
X = DESIGN DEPENDANT
NA = NOT APPLICABLE

STRAPS	Pin	DESCRIPTION OF DEFAULT SETTINGS	
TX_PWRS_ENB	GPIO0	Transmitter Power Savings Enable 0: 50% Tx output swing for mobile mode 1: 100% Tx output swing (Default setting for Desktop)	1
TX_DEEMPH_EN	GPIO1	PCI Express Transmitter De-emphasis Enable 0: Tx de-emphasis disabled for mobile 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. 1.5 GT/s capability will be controlled by software.	0
RSVD BF_VGA_DS RSVD	GPIO8 GPIO9 GPIO21	VGA ENABLED	0 0 0
BIOS_ROM_EN	GPIO_22_ROMIDCS	ENABLE EXTERNAL BIOS ROM	0
ROMIDCFG2(0)	GPIO[23:1]	SERIAL ROM TYPE OR MEMORY APERTURE SIZE SELECT	0 0 1
VIP_DEVICE_STRAP_ENA	V2SYN	IGNORE VIP DEVICE STRAPS	0
RSVD AUD[1] AUD[0]	GENERICC HSYN V2SYN	AUD[1] AUD[0] 0: No audio function 1: 1.0 Audio for DisplayPort and HDMI if dongle is detected 1: 1.0 Audio for DisplayPort only 1: 1.1 Audio for both DisplayPort and HDMI	0 0 11

AMD RESERVED CONFIGURATION STRAPS

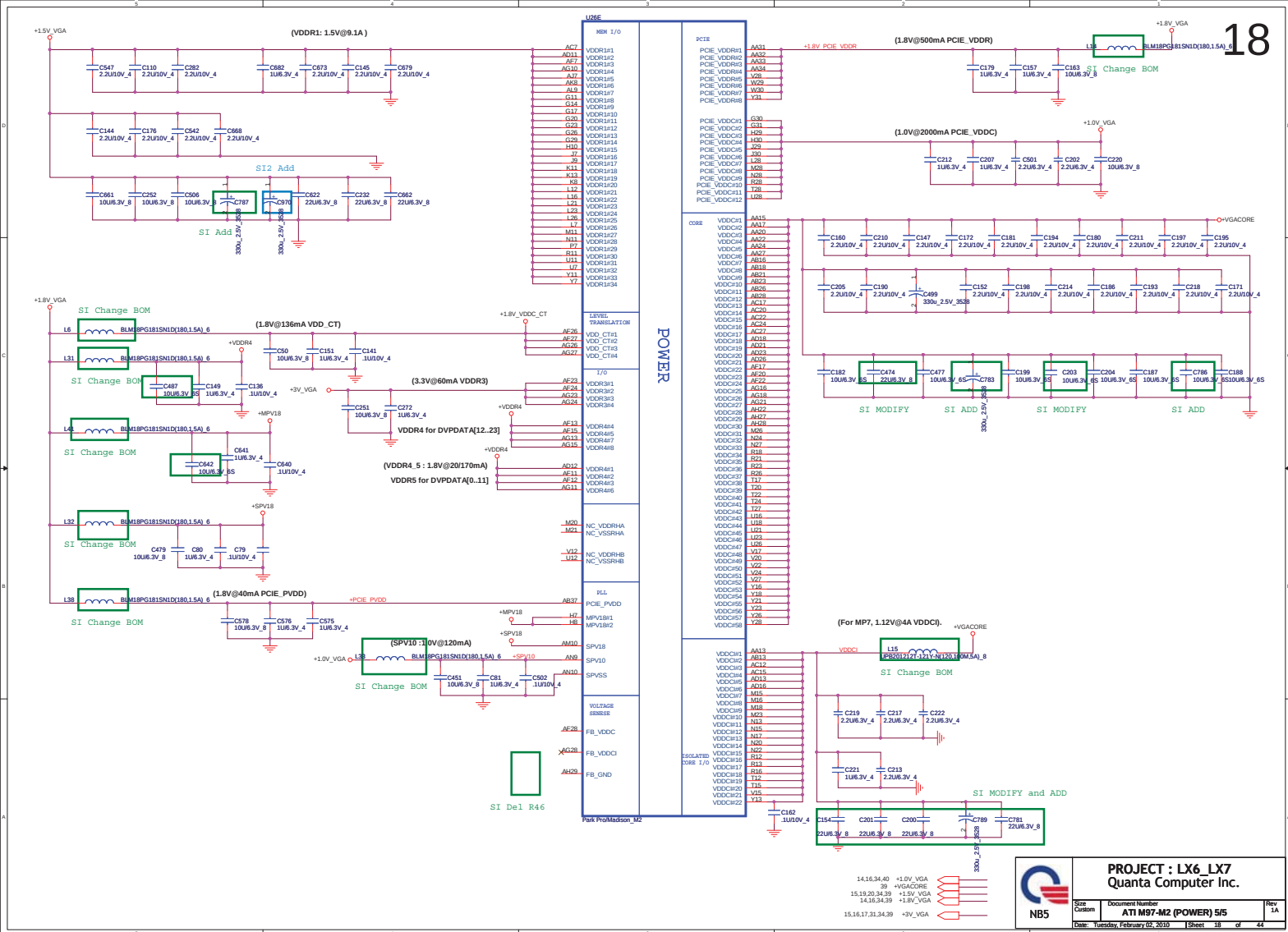
ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOs ARE USED, THEY MUST NOT CONFLICT DURING RESET

HSYN	GENERICC
PULLUP PADS ARE NOT REQUIRED FOR THESE STRAPS BUT IF THESE GPIOs ARE USED, THEY MUST NOT CONFLICT DURING RESET	
GPIO21_BB_EN	



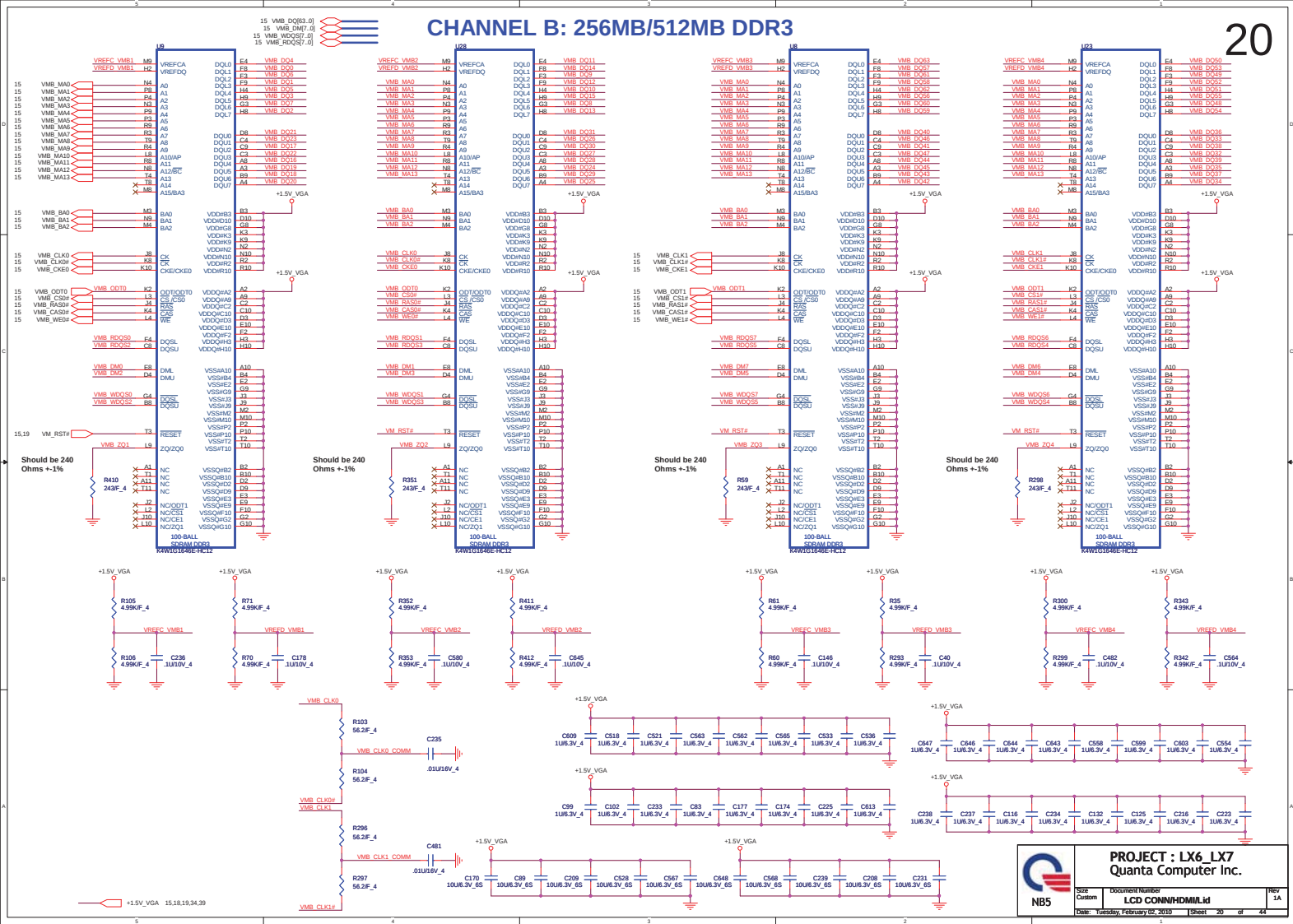
PROJECT : LX6_LX7
Quanta Computer Inc.

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



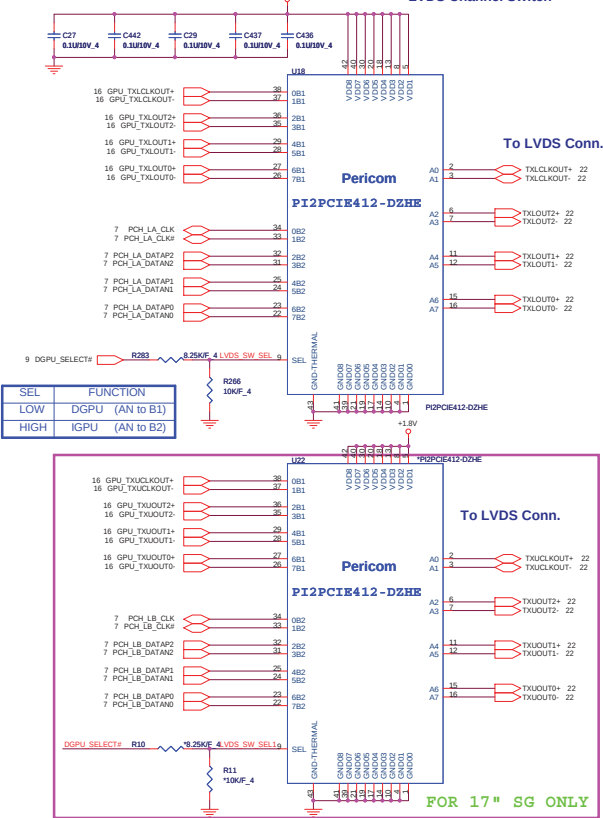
CHANNEL B: 256MB/512MB DDR3

20

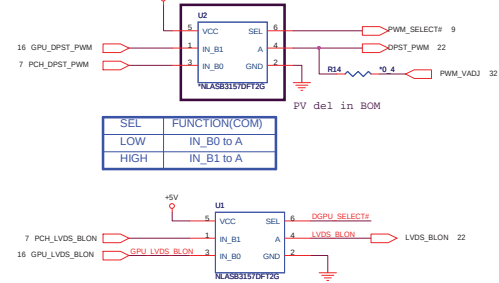


<http://hobi-elektronika.net>

LVDS Channel Switch

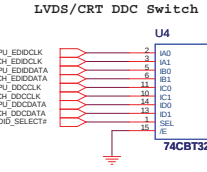


DPST Control

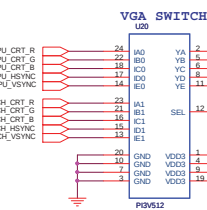


FOR DIS ONLY

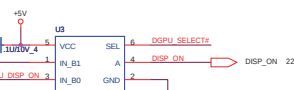
LVDS/CRT DDC Switch



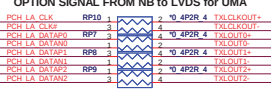
VGA SWITCH



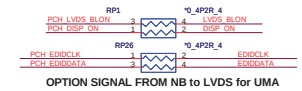
LCDVcc control



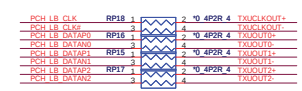
FOR UMA ONLY



OPTION Back Light SIGNAL FROM NB TO LVDS for UMA



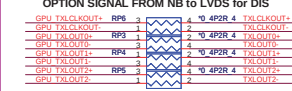
FOR 17"UMA ONLY



FOR UMA/SG



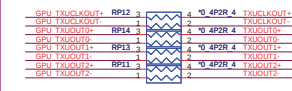
FOR DIS ONLY



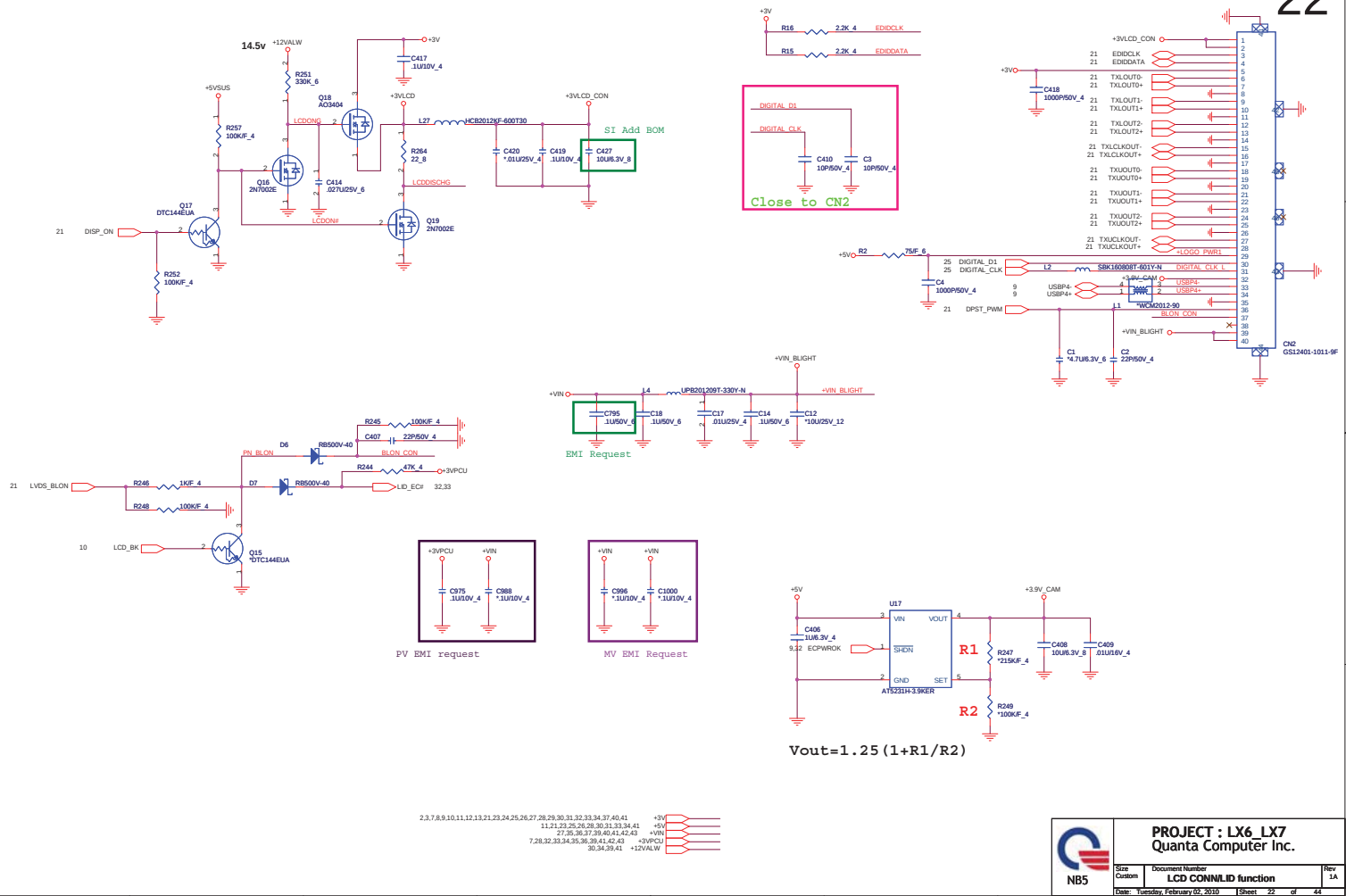
OPTION Back Light SIGNAL FROM NB TO LVDS for DIS

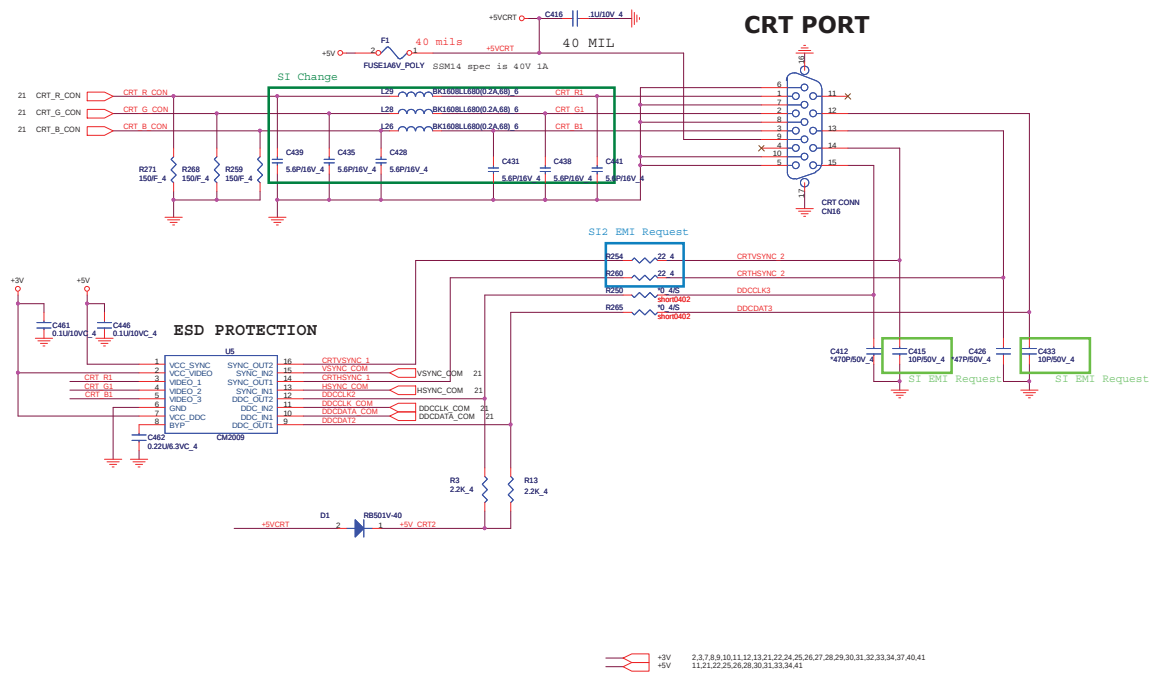


FOR 17"DIS ONLY

PROJECT : LX6_LX7
Quanta Computer Inc.

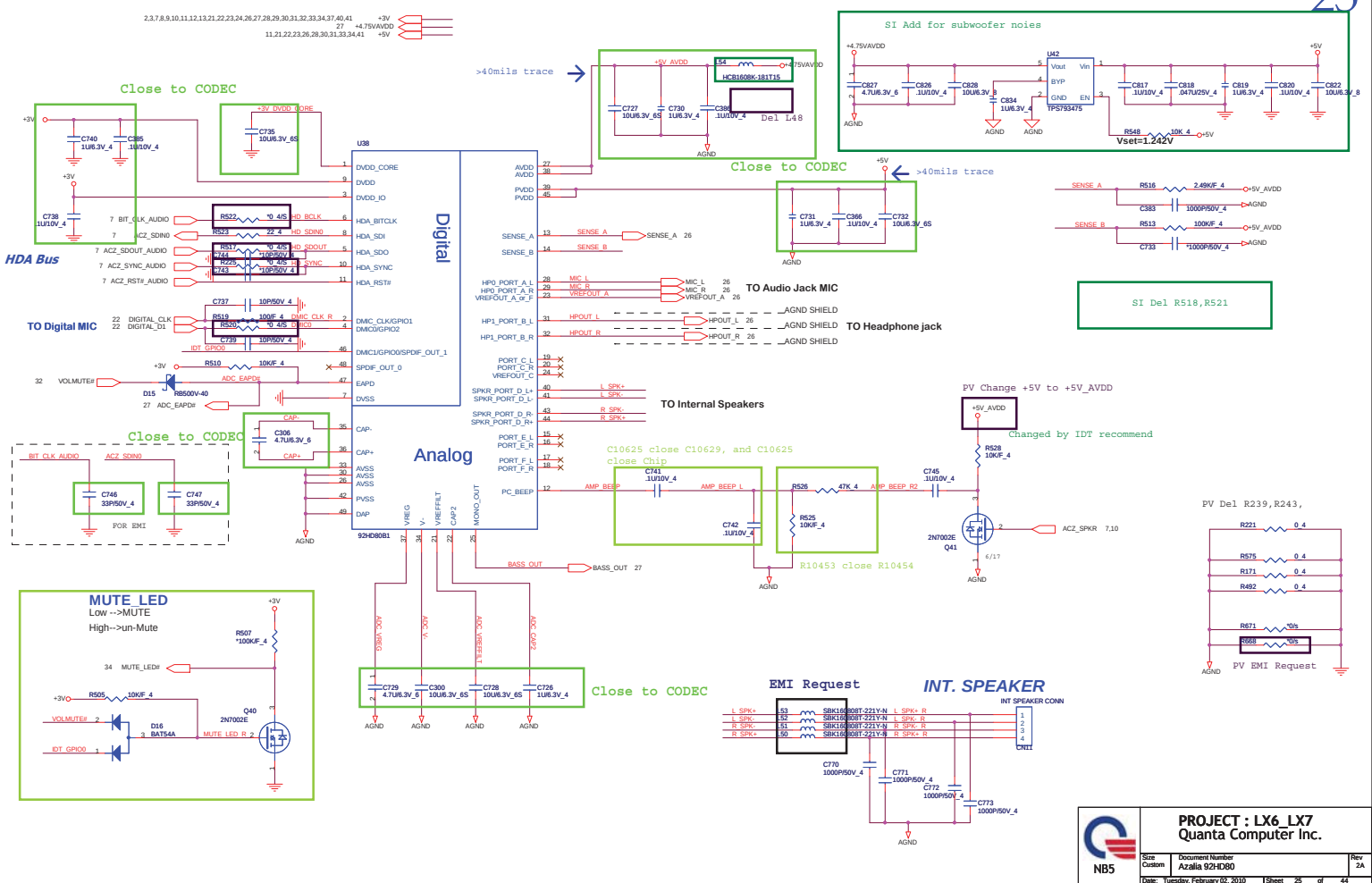
Size	Document Number	SWITCHABLE	Rev
Custom			1A
Date:	Tuesday, February 02, 2010	Sheet	21 of 44





			PROJECT : LX6_LX7 Quanta Computer Inc.	
Doc Crt/HDMI Conn	Doc Number CRT/HDMI Conn	Rev 1A		
Date: Tuesday, February 03, 2010	Sheet 23	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

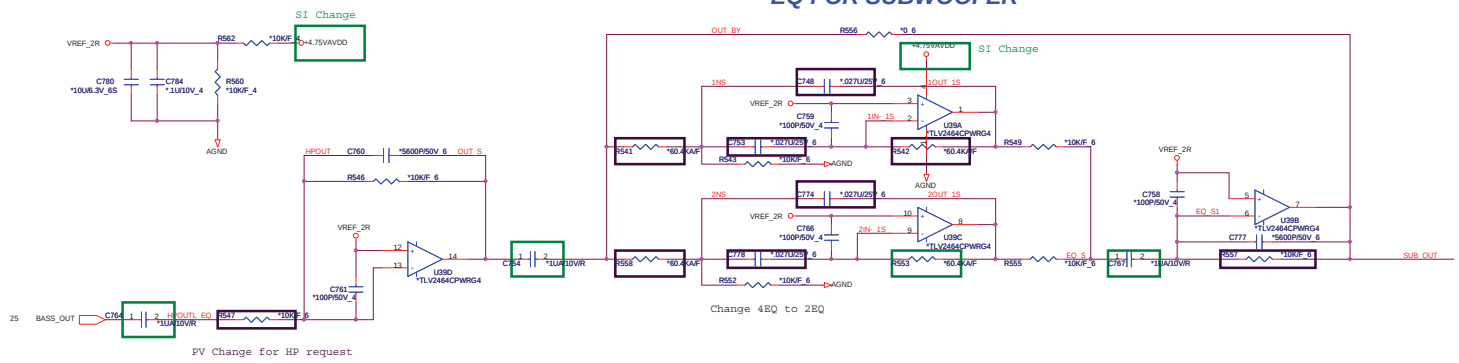




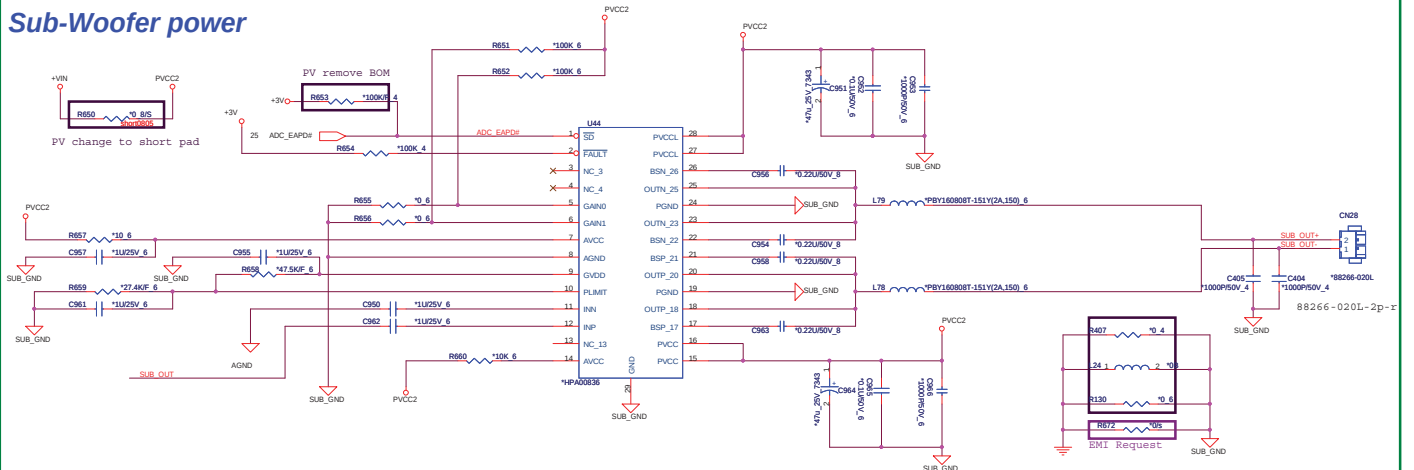
```
SGT-LIS302DLTR interrupt pin default
is low / active Hi , BIOS need to
programming 22h to change status
from active Hi to low
```



<http://hobi-elektronika.net>



Sub-Woofers power



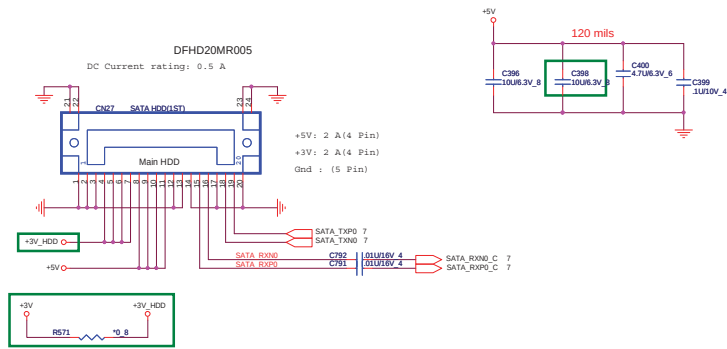
GAIN1	GAIN0	dB
0	0	12
0	1	18
1	0	23.6
1	1	36

PV Del R574, R241, R240

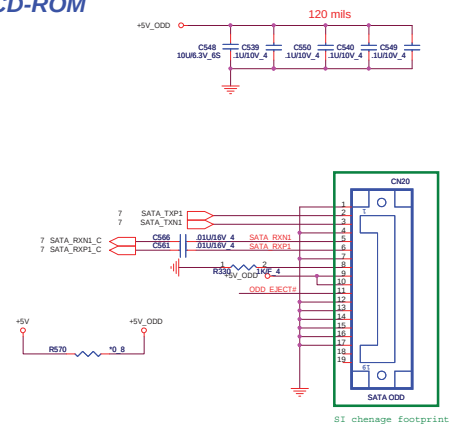
+3V 2,3,7,8,9,10,11,12,13,21,22,23,24,25,26,28,29,30,31,32,33,34,37,40,41
 +4.75VAVDD 25
 +VIN 22,35,36,37,39,40,41,42,43

NB5	PROJECT : LX6_LX7 Quanta Computer Inc.		
	Docu	Docu	Rev
	Docu	Docu	Rev

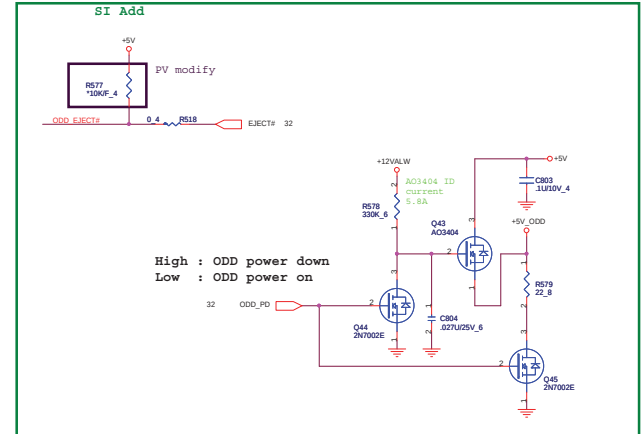
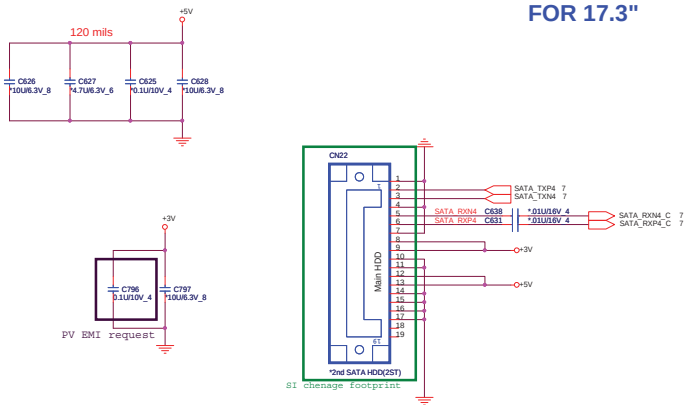
SATA HDD CONNECTOR



SATA CD-ROM



SATA_2 CONNECTOR FOR 17.3"

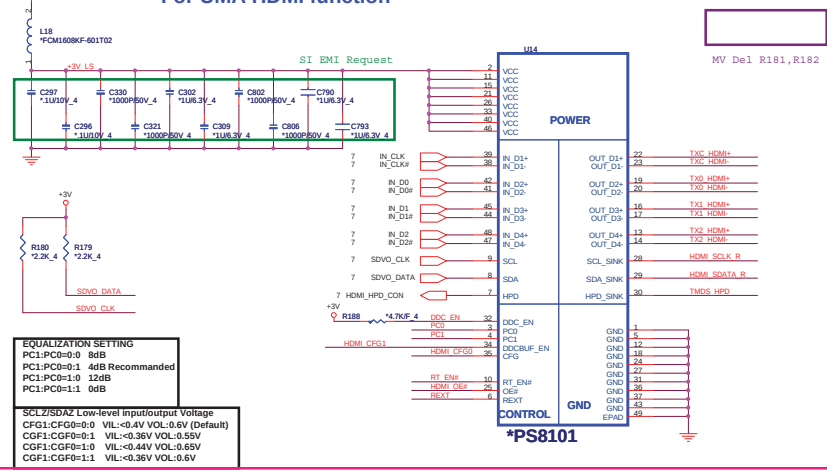


+3V	2,3,7,8,9,10,11,12,13,21,22,23,24,25,26,27,28,29,31,32,33,34,37,40,41
+5V	11,21,22,23,25,26,28,31,33,34,41
+12VVALW	22,34,39,41

PROJECT : LX6_LX7 Quanta Computer Inc.			
Site Chennai	Document Number ODD/HDD/ANANT	Rev 1A	
Date: Tuesday, February 05, 2010	Sheet 30	of 44	

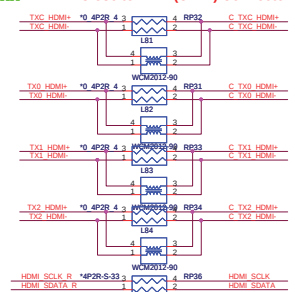
For UMA HDMI function

for UMA



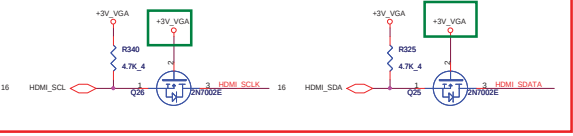
for UMA

Close to HDMI(CN21) Connector



for SG/DIS

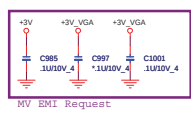
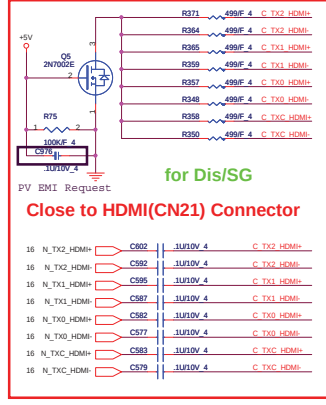
Close to HDMI(CN21) Connector



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

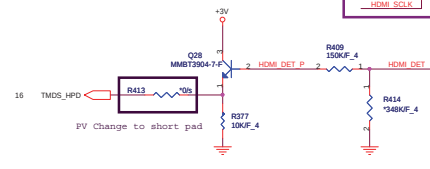
Vendor:PDT P/N:AL008101000
Vendor:CHR P/N:AL007318002
Vendor:PIM P/N:ALP411LS004

U14 for UMA



SI Del Q29,R378,R413,R415

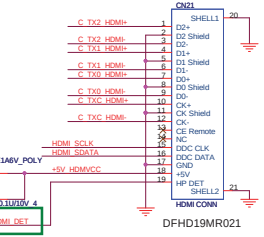
MV Del R670,R669



PV Del R374,R368,R378 BOM

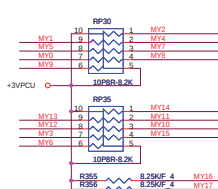
for UMA/DIS/SG

+5V 11,21,22,23,25,26,28,30,33,34,41
+3V 2,3,7,8,9,10,11,12,23,21,22,23,24,25,26,27,28,29,30,32,33,34,37,40,41
+3V_VGA 15,16,17,18,34,39

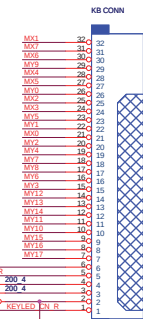


PROJECT : LX6_LX7			
Quanta Computer Inc.			
Size	Document Number	Rev	1A
Custom	KBIPOWER CONN		
Date:	Tuesday, February 03, 2010	Sheet	31 of 44

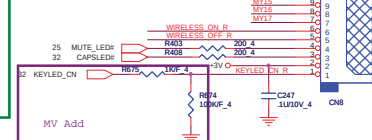
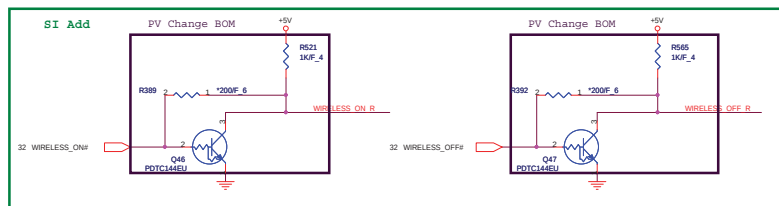
KEYBOARD PULL-UP



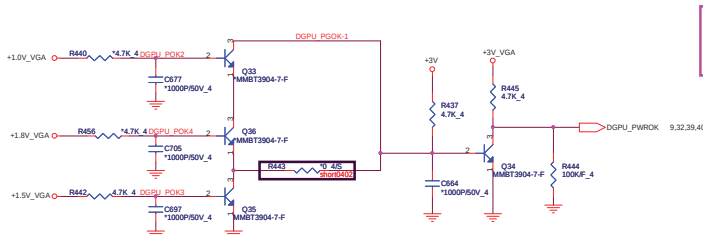
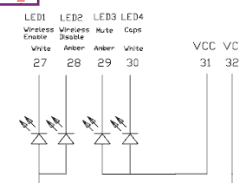
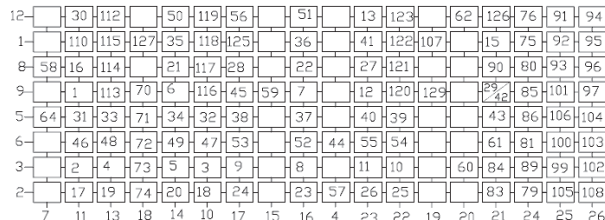
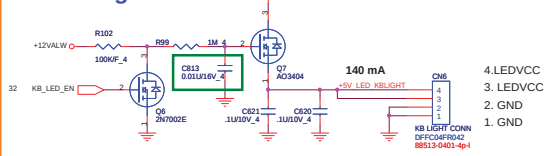
32 MY[0..17] MY[0..17]
32 MX[0..7] MX[0..7]



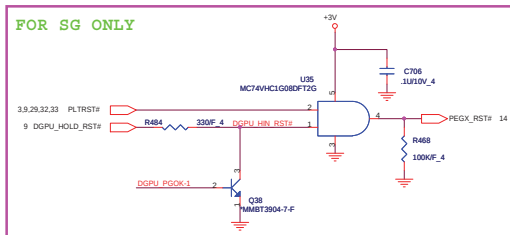
clear ABS 758 resin for key cap.
7 LEDs for 15.4" (total LED current 140mA)
11 LEDs for 17" (Total LED current 220mA)



KB backlight for 15"



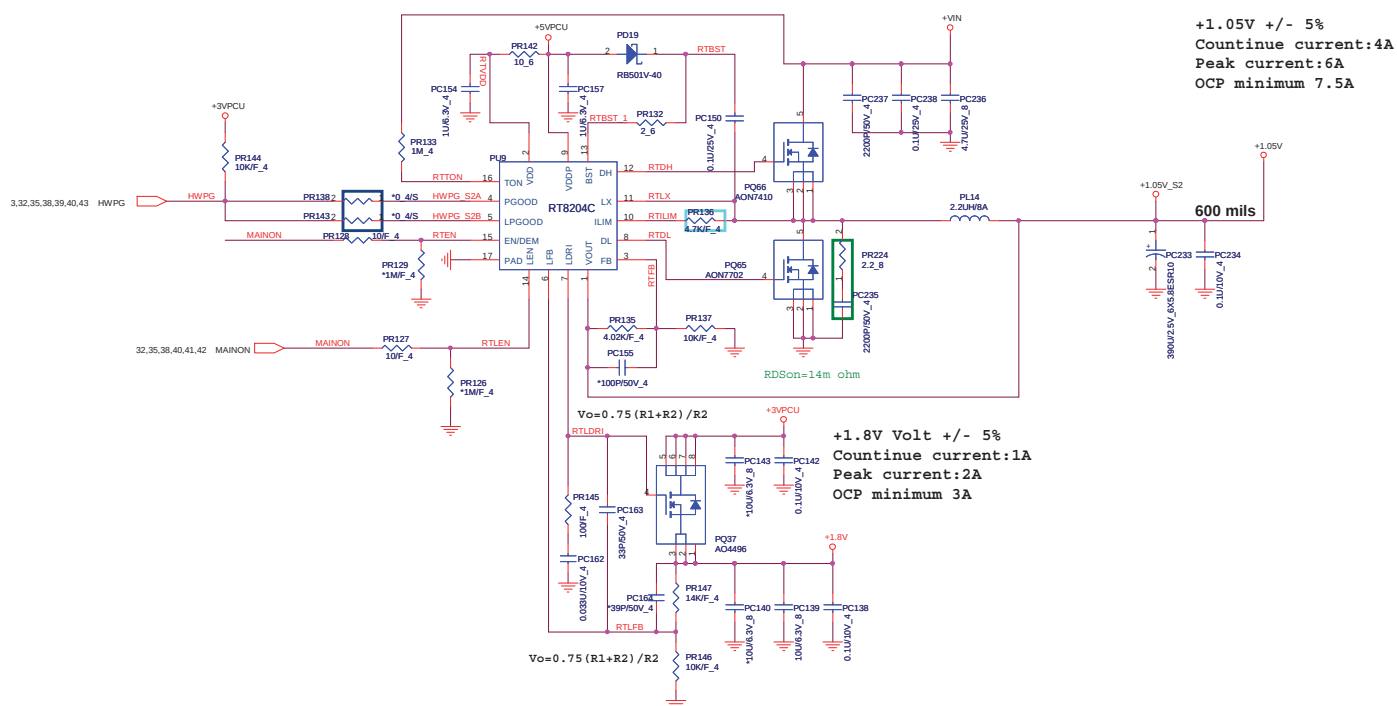
FOR DIS ONLY
PLTRST# R551 10.4 PEXG_RST#



+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 11,21,22,23,25,26,28,30,31,33,41
+3VPCU 7,22,28,32,33,35,36,38,41,42,43
+5V_VGA 15,16,17,18,31,39
+12V_ALW 22,30,39,41
+10V_VGA 14,16,19,40
+1.5V_VGA 15,18,19,20,39
+1.5V_VGA 14,16,18,39

PROJECT : LX6_LX7
Quanta Computer Inc.

Size	Document Number	Rev
Custom	KB	1A
Draw/Modify	February 02, 2015	Sheet 34 of 44



+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

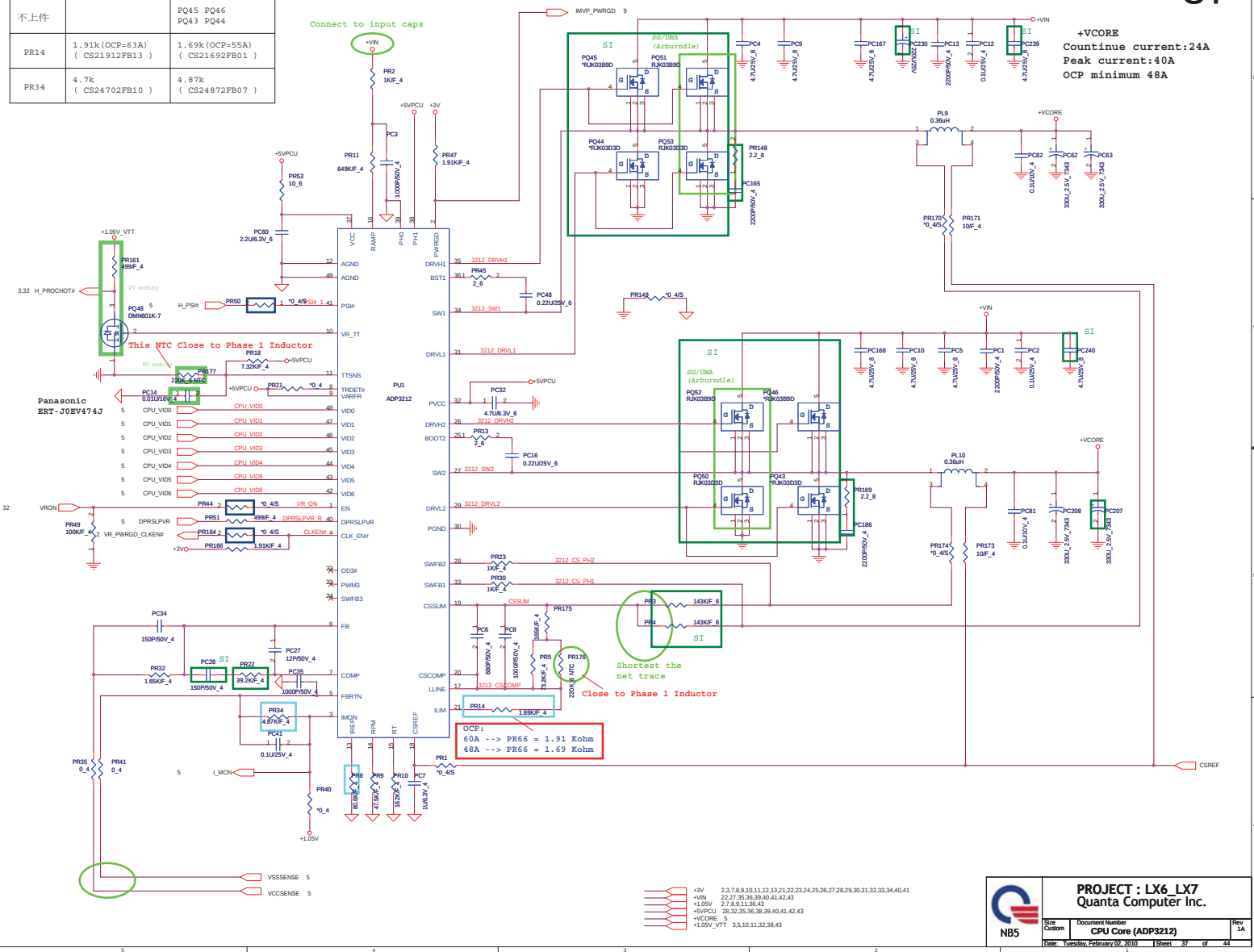


PROJECT : LX6_LX7
Quanta Computer Inc.

Size	Document Number	Rev
Custom	+1.05V/+1.8V (RT8204C)	1A

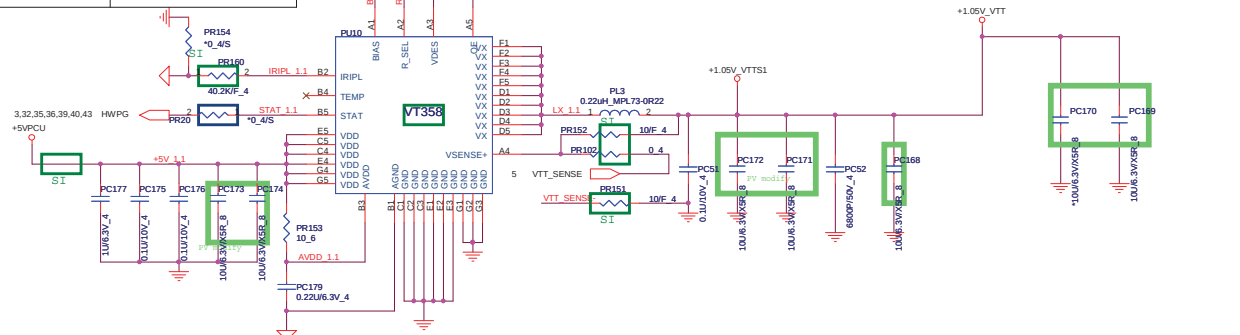
Date: Tuesday, February 02, 2010 Sheet 36 of 44

	DIS (Clarksfield)	SG/UMA (Arbuckle)
不上件		PQ45 PQ46 PQ43 PQ44
PR14	1.91k (OCP=63A) (CS21912FB13)	1.69k (OCP=55A) (CS21692FB01)
PR34	4.7k (CS24702FB10)	4.87k (CS24872FB07)



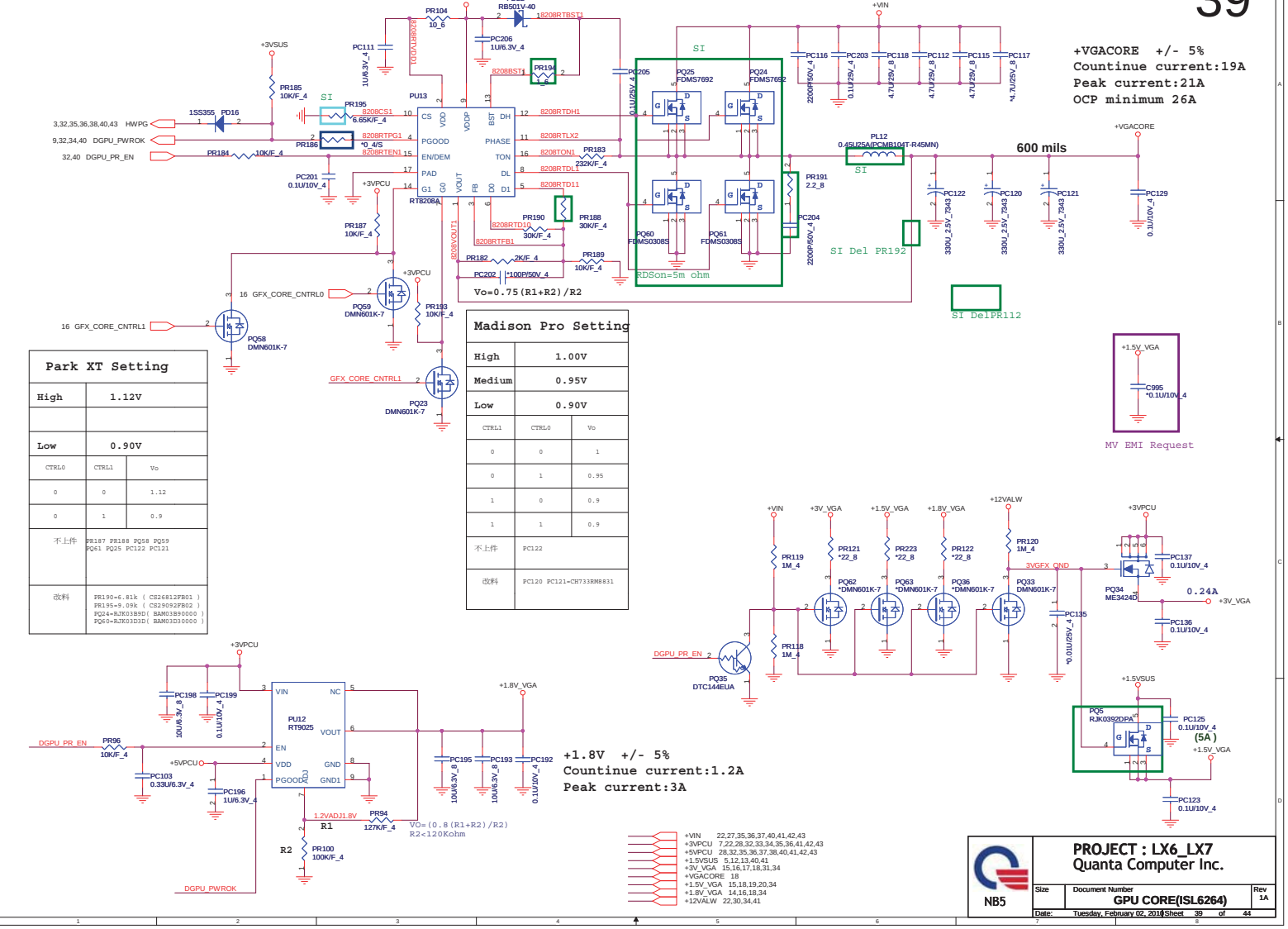
	SG	DIS	UMA
PR156 PR26 PR29 PQ8	Stuff	Stuff	no Stuff
PR157	40.2K (CS34022FB15)	40.2K (CS34022FB15)	38.3K (CS33832FB08)

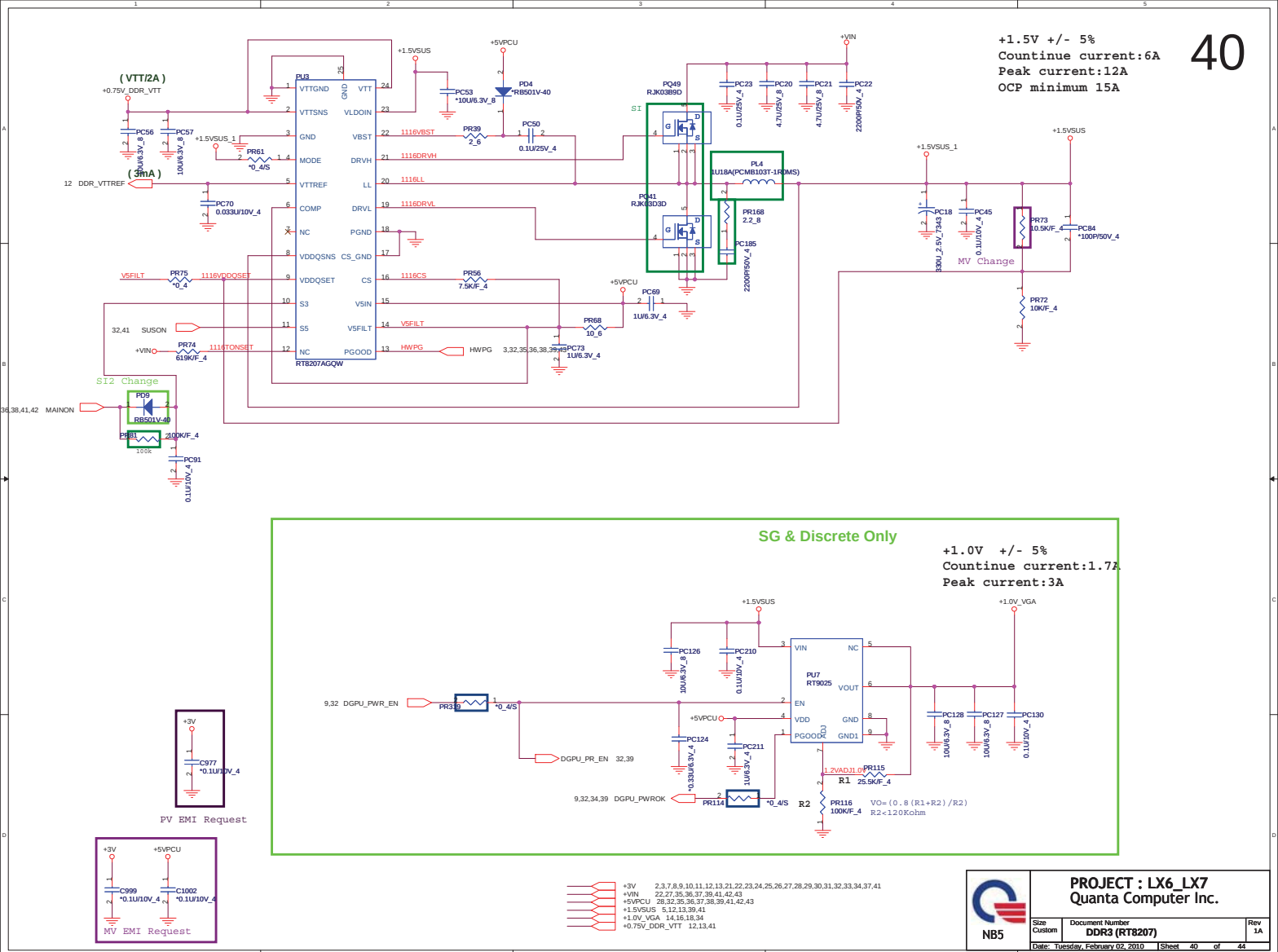
	Clarksfield	Arrairdle
PU10	VT358 (AL000358U00)	VT357 (AL000357U00)
PR160	40.2K (CS34022FB15)	36K (CS33602FB15)
PR158	5.76K (CS25762FB01)	6.49K (CS26492FB23)



PROJECT : LX6_LX7
Quanta Computer Inc.

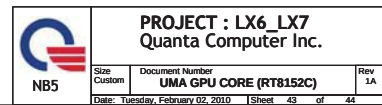
Size	Document Number	Rev
Custom	+1.05V_VTT (VT358)	1A
Date: Tuesday, February 02, 2010	Sheet 38 of 44	

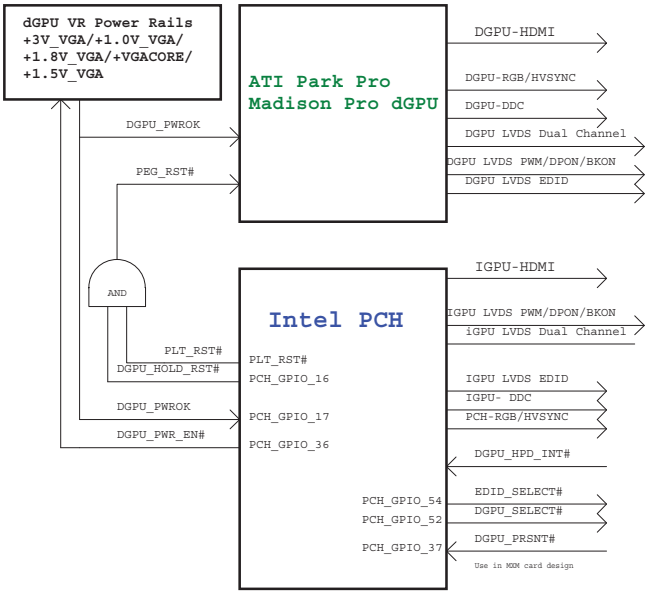




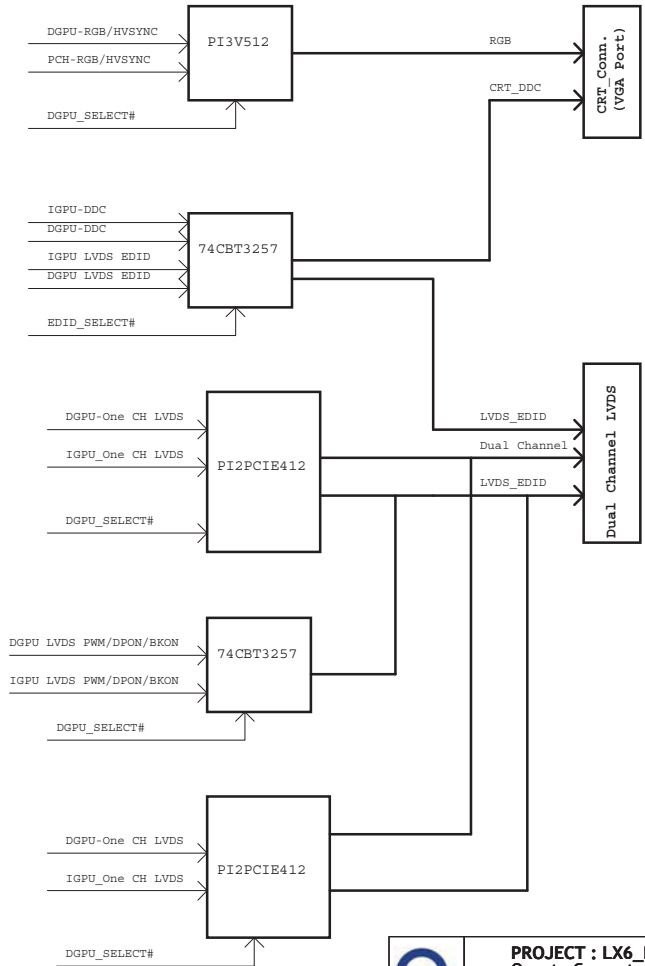








Switchable GPIOs	Descriptions
PCH_GPIO52	DGPU_SELECT#
PCH_GPIO16	DGPU_HOLD_RST#
PCH_GPIO36	DGPU_PWR_EN#
PCH_GPIO17	DGPU_PWR_OK
PCH_GPIO54	EDID_ELECT#
PCH_GPIO37	DGPU_PRSENT#





PROJECT : LX6 LX7
Quanta Computer Inc.

Size Custom	Document Number Switch Blockdiagram	Rev 1A
Date: Tuesday, February 02, 2010		Sheet 44 of 44