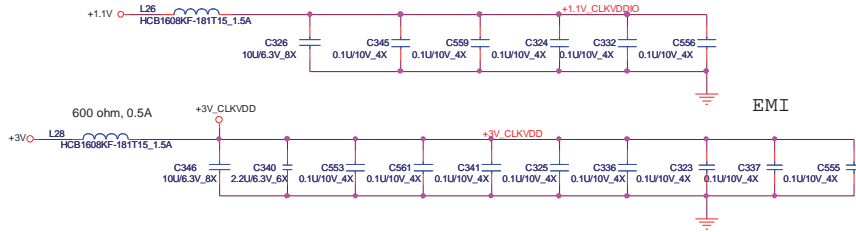


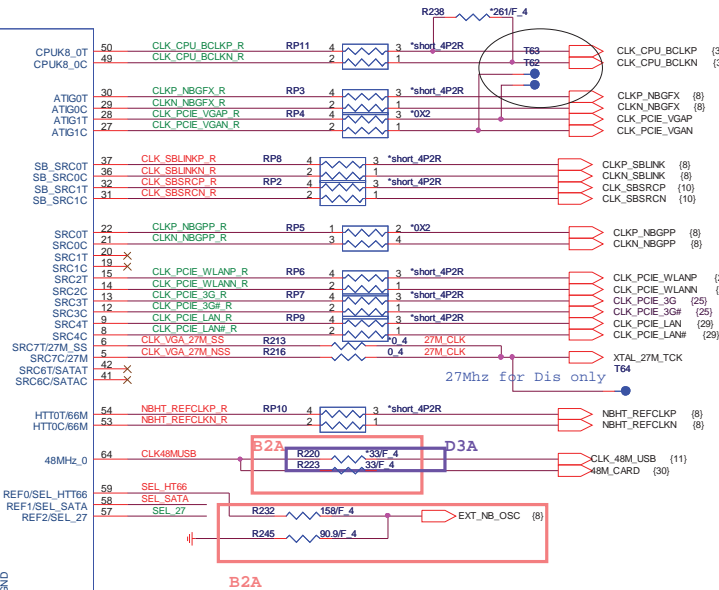
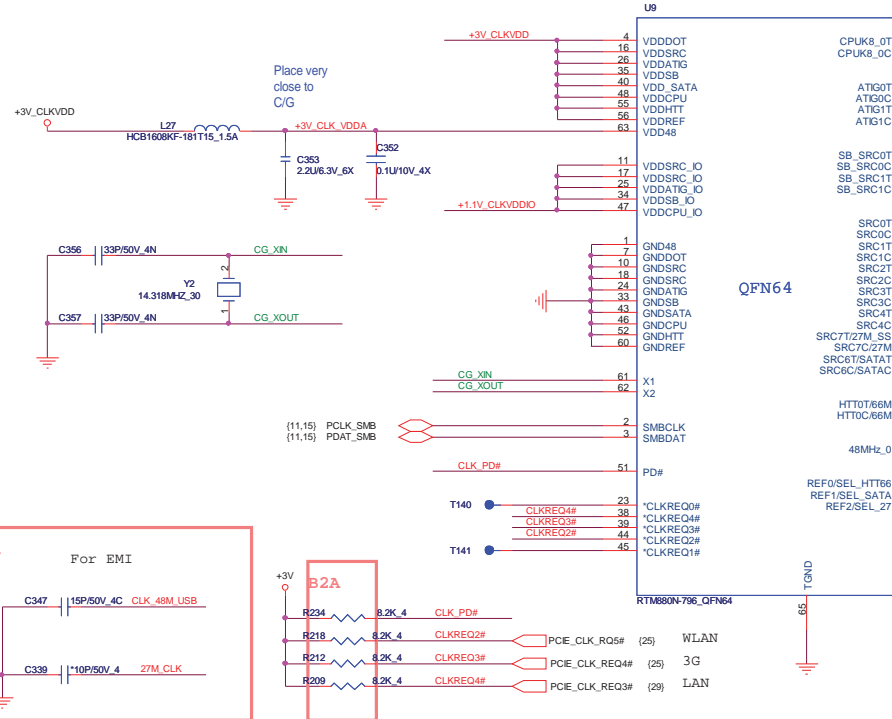
[illegible]

CLOCK GENERATOR



CLOCKS name	Discrete	Clock pin function
NBGF_X_CLKP NBGF_X_CLKN	RP48 STUFF	to NB for VGA reference clock
EXT_GF_X_CLKP EXT_GF_X_CLKN	RP47 STUFF	to Park-S3 external reference clock -Discrete only
SBLINK_CLKP SBLINK_CLKN	RP43 STUFF	to NB for AC-LINK reference clock
CLK_VGA_27M_SS CLK_VGA_27M_NSS	R213,R215 STUFF	To Park-S3 27Mhz - Discrete only

Need check the net name for the short pad



to CPU

to NB

TO VGA CARD

EXTERNAL MODE to NB-AC-LINK

EXTERNAL MODE to SB

Reserve ONLY

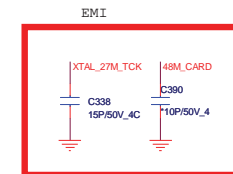
to WLAI

to 3G

to LAN

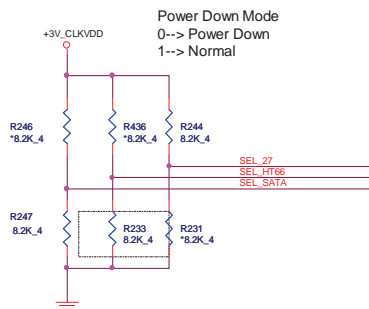
to VGA

667



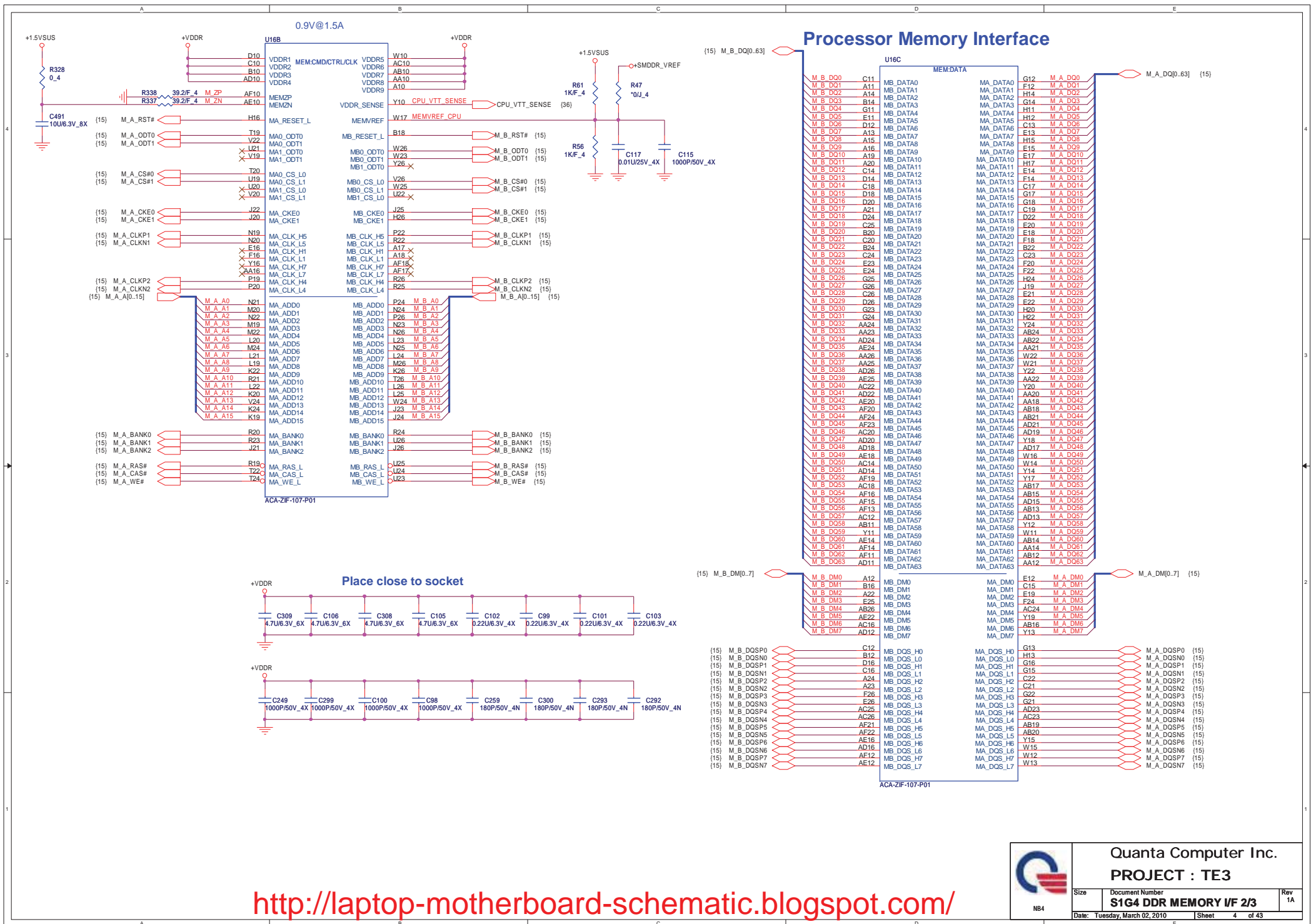
- * default

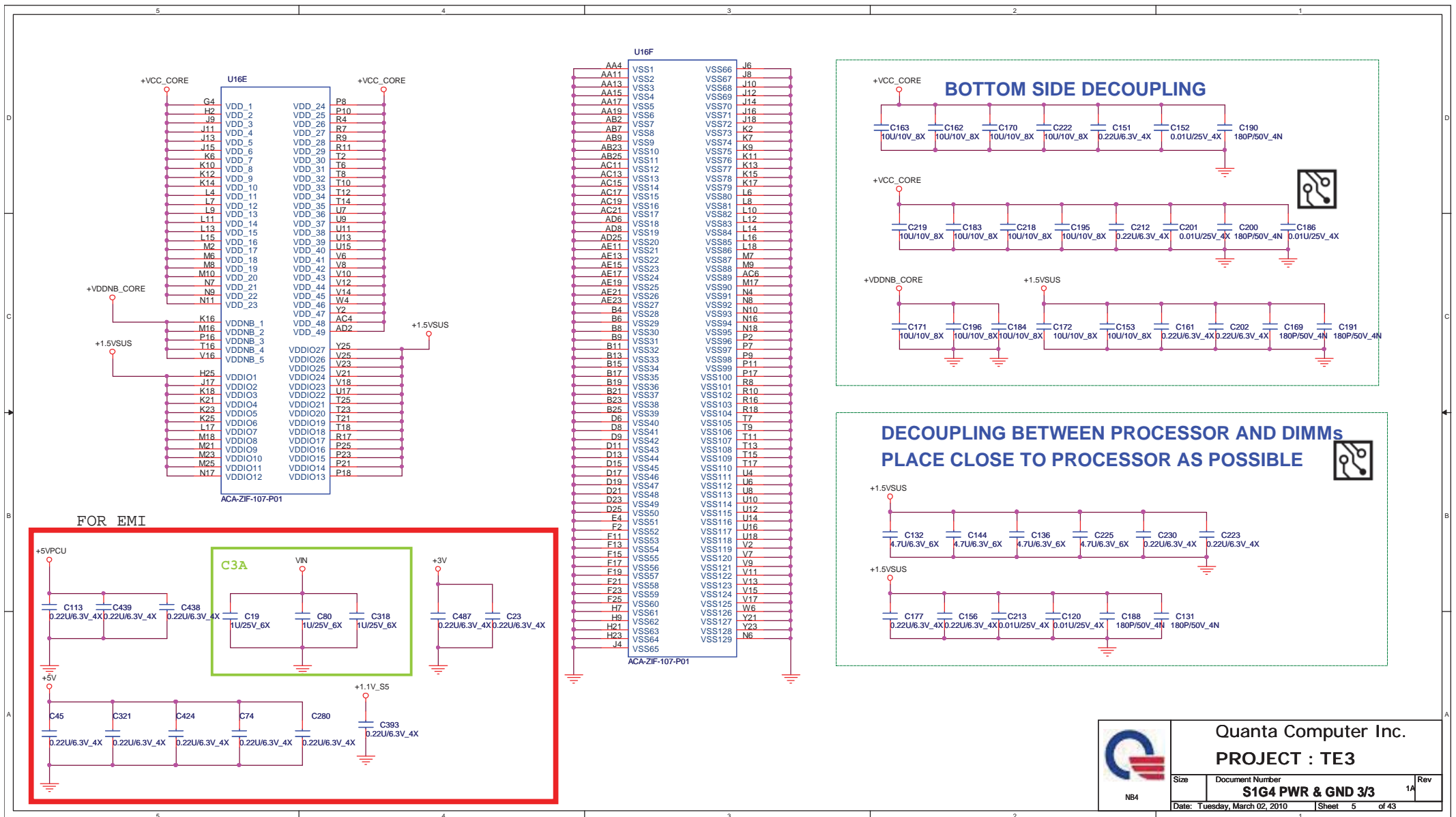
SEL_HTT66	1	66 MHz 3.3V single ended HTT clock
	0*	100 MHz differential HTT clock
SEL_SATA	1	100 MHz non-spreading differential SRC clock
	0*	100 MHz spreading differential SRC clock
SEL_27	1*	27MHz non-spreading singled clock
	0	100 MHz spreading differential SRC clock



Power Down Mode
0--> Power Down
1--> Normal

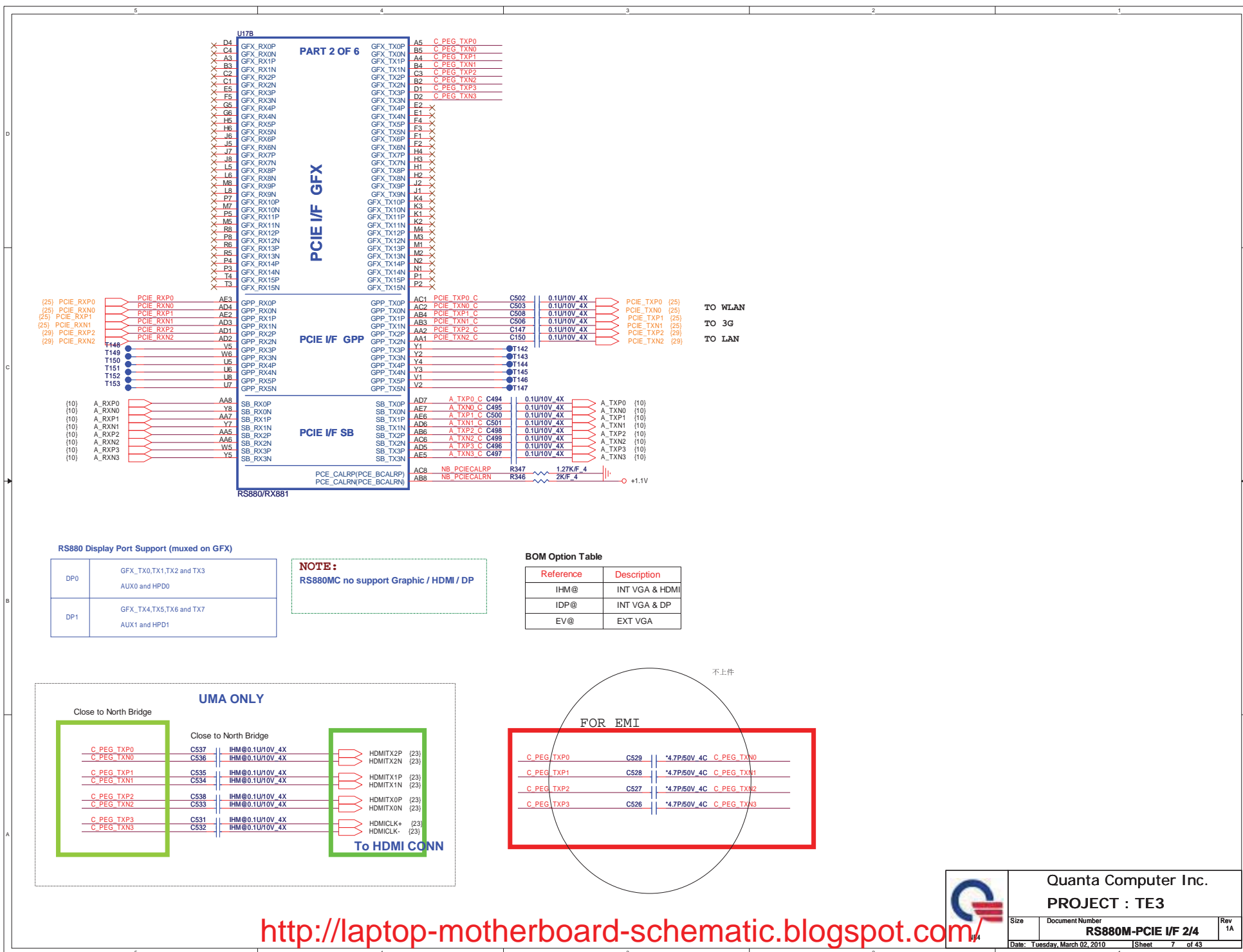
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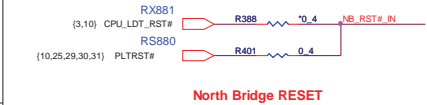
<http://laptop-motherboard-schematic.blogspot.com/>





BOM Option Table		
Reference	Description	
IV@	INT VGA	
EV@	EXT VGA	
IHM@	INT VGA & HDMI	
IDP@	INT VGA & DP	
ICRT@	INT VGA & CRT	

[CLG]
[CLG]-IV@
[CRT]-ICRT@



For Internal clock mode ONLY



RS880 Mobile Platforms: Two-level voltage scaling solution used; Pulled down through a 2-k? 5% resistor and connected to the Northbridge core power supply (circuit.don't need to do something for the RX881)

RX881

NB_CORE_ON R403 10K_4 3V

RS880

Debug Bus

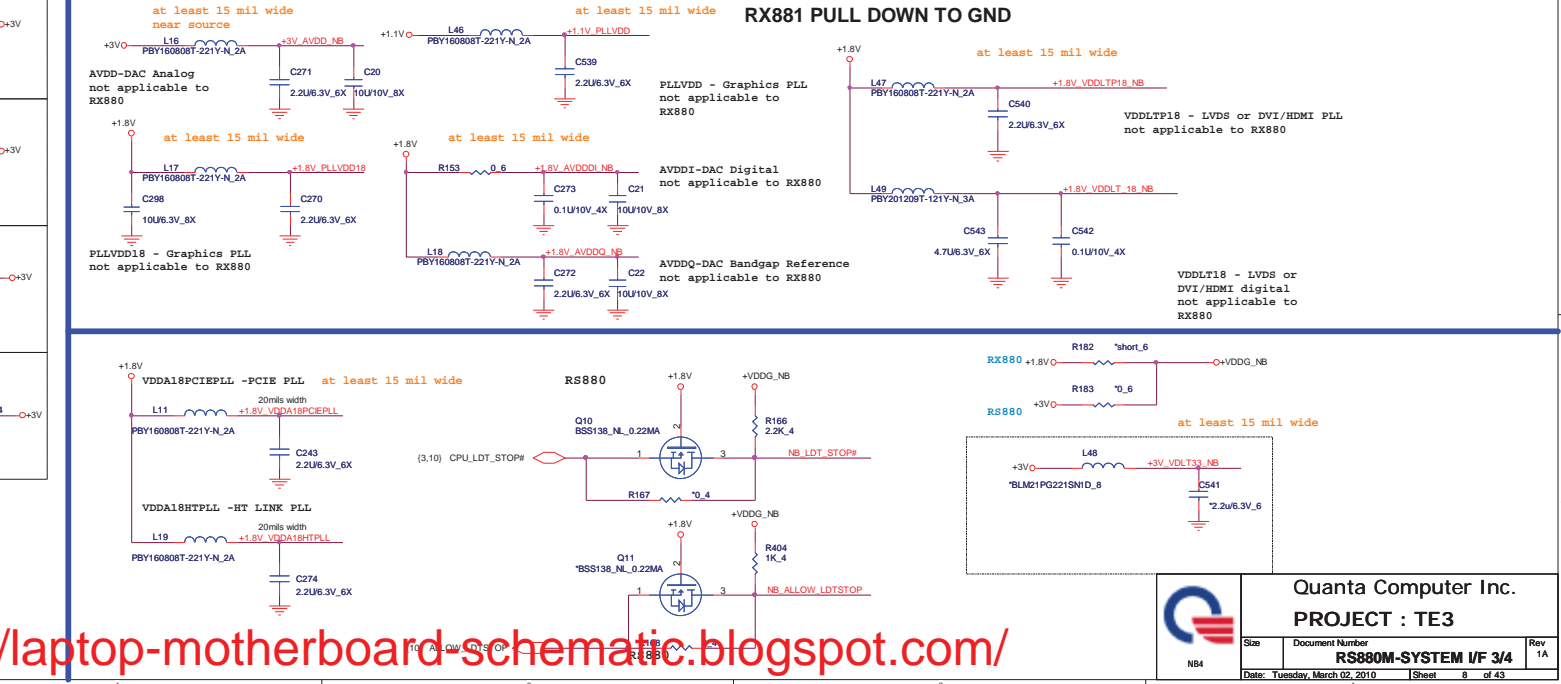
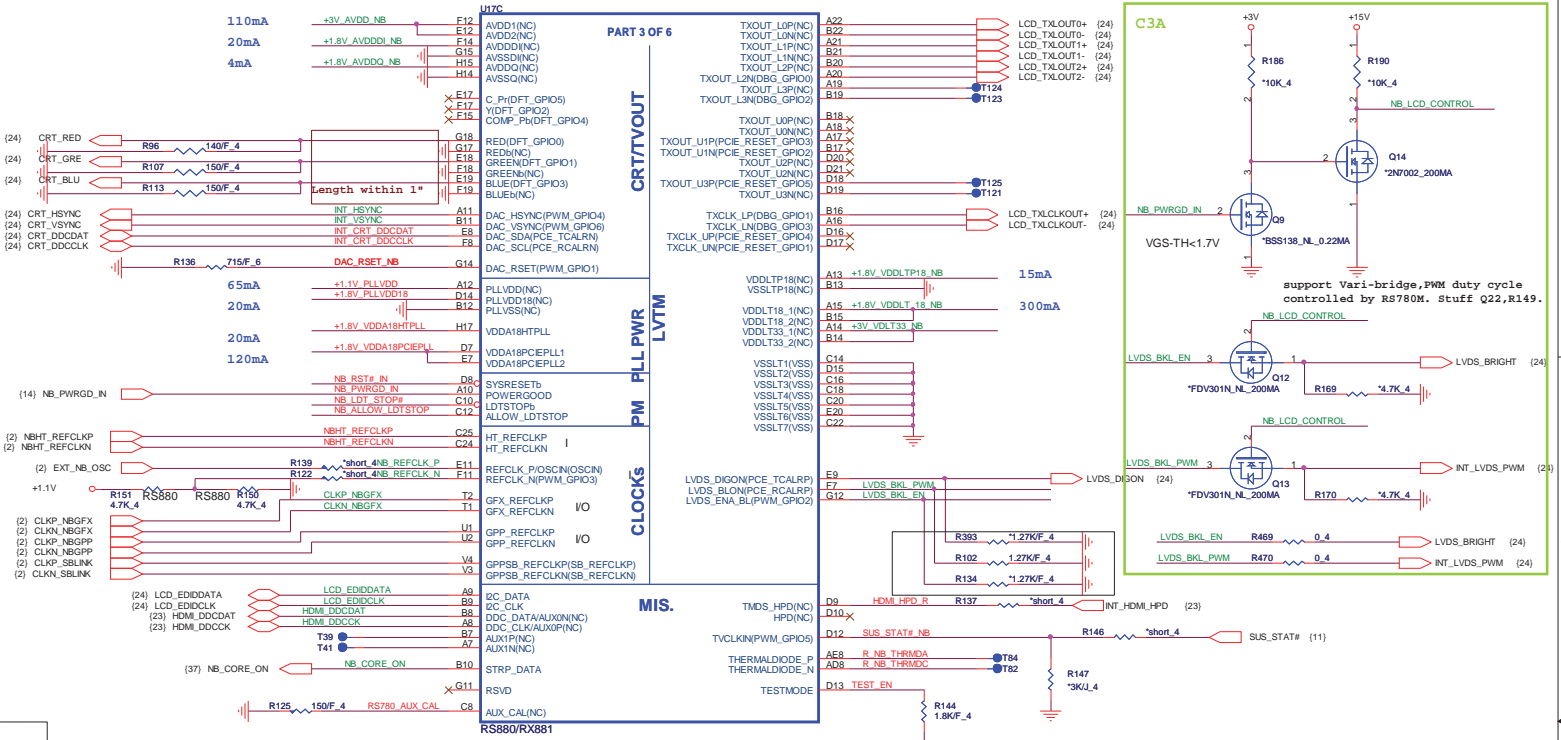
0-->Enable
1-->Disable

Sideport Enable

0-->Enable
1-->Disable

EEPROM Strap

0-->Enable
1-->Disable

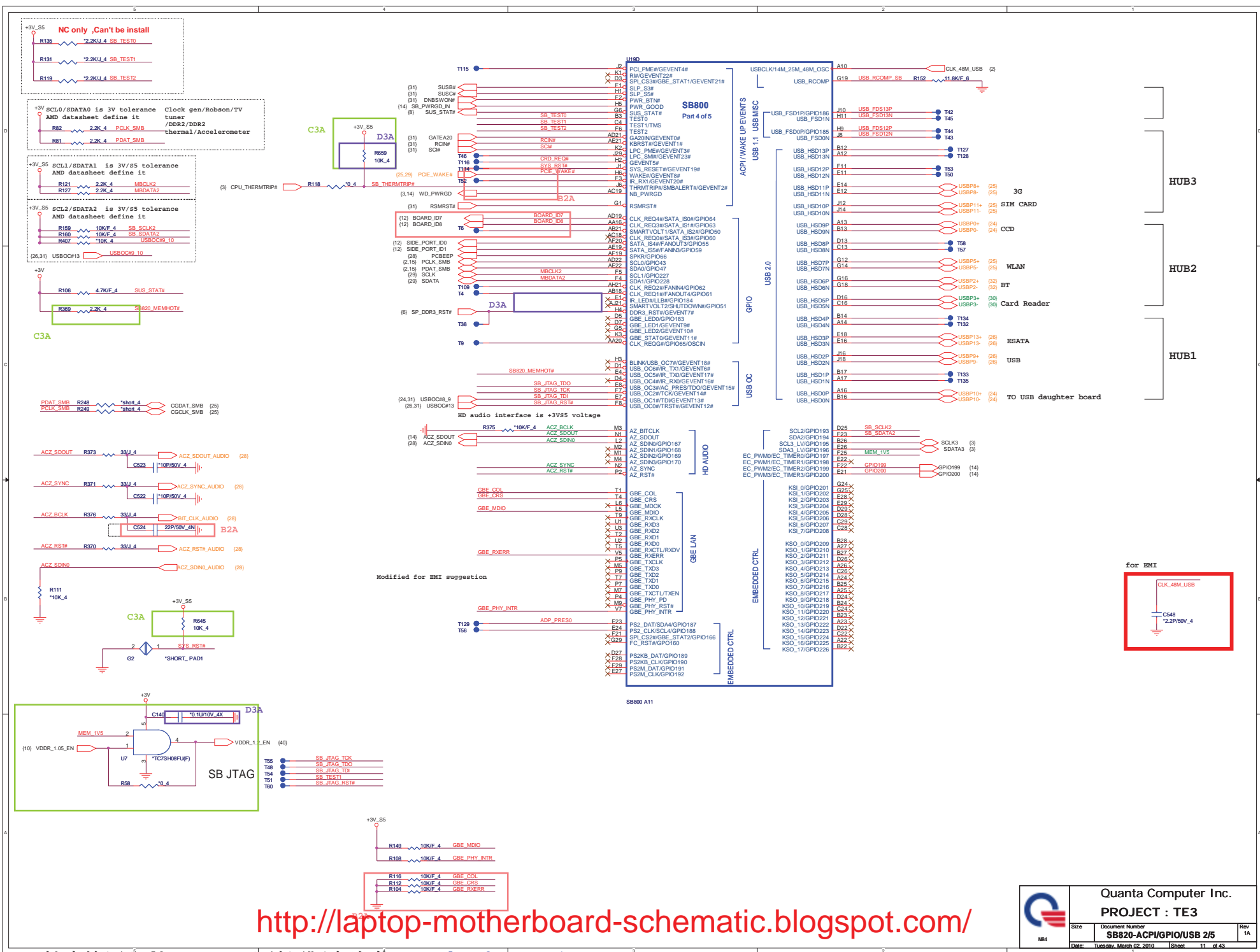


<http://laptop-motherboard-schematic.blogspot.com/>

Quanta Computer Inc.
PROJECT : TE3

Rev	Document Number	Date
1A	RS880M-SYSTEM I/F 3/4	Tuesday, March 02, 2010

Sheet 8 of 43



SATA PORT 0,1,2,3
can support AHCI
mode

SATA HDD

(27) SATA_TXP0
(27) SATA_TXN0
(27) SATA_RXN0
(27) SATA_RXP0

E-SATA

(26) SATA_TXP2
(26) SATA_TXN2
(26) SATA_RXN2
(26) SATA_RXP2

SATA ODD

(27) SATA_TXP1
(27) SATA_TXN1
(27) SATA_RXN1
(27) SATA_RXP1

U198

SB800 Part 2 of 5

FC_CLK AH28
FC_FBCLKOUT AG28
FC_FBCLKIN AF26
FC_OE#/GPIOD145 AF28
FC_AVD#/GPIOD146 AG29
FC_WE#/GPIOD148 AG26
FC_CE1#/GPIOD149 AE27
FC_CE2#/GPIOD150 AE29
FC_INT1/GPIOD144 AF29
FC_INT2/GPIOD147 AH27
FC_AD00/GPIOD128 AJ27
FC_AD01/GPIOD129 AJ26
FC_AD02/GPIOD130 AH25
FC_AD03/GPIOD131 AG23
FC_AD04/GPIOD132 AH23
FC_AD05/GPIOD133 AJ22
FC_AD06/GPIOD134 AJ21
FC_AD07/GPIOD135 AP21
FC_AD08/GPIOD136 AH22
FC_AD09/GPIOD137 AJ24
FC_AD010/GPIOD138 AJ23
FC_AD011/GPIOD139 AF23
FC_AD012/GPIOD140 AJ24
FC_AD013/GPIOD141 AJ25
FC_AD014/GPIOD142 AG25
FC_AD015/GPIOD143 AH26
FANOUT0/GPIOC52 W5
FANOUT1/GPIOC53 W6
FANOUT2/GPIOC54 Y9
FANIN0/GPIOC56 W7
FANIN1/GPIOC57 V9
FANIN2/GPIOC58 W8
TEMPIN0/GPIOD171 B6
TEMPIN1/GPIOD172 A6
TEMPIN2/GPIOD173 A5
TEMPIN3/TALETRW/GPIOD174 B6
TEMP_COMM C7
VIN0/GPIOD175 A3
VIN1/GPIOD176 B4
VIN2/GPIOD177 A4
VIN3/GPIOD178 C5
VIN4/GPIOD179 A7
VIN5/GPIOD180 B7
VIN6/GBE_STAT3/GPIOD181 B8
VIN7/GBE_LED3/GPIOD182 A8
NC1 G27
NC2 Y2

IF THERE IS NO IDE, TEST
POINTS FOR DEBUG BUS
IS MANDATORY

ID1	ID0	Function
0	0	Samsung
0	1	Hynix
1	0	Reserve
1	1	No sideport support



PLACE SATA_CAL
RES VERY CLOSE
TO BALL OF SB820

+1.1V_AVDD_SATA

(33) SATA_LED#

C504

22P/50V_4N

SATA_X1

AD16

SATA_X1

AD16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

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SATA_X2

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SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

SATA_X2

AC16

TEMPIN0

TEMPIN1

MB_THRMDA_SB

VIN0

VIN1

VIN2

VIN3

VIN4

VIN5

R421

10K_4

R422

10K_4

R415

10K_4

R416

10K_4

R154

10K_4

R408

10K_4

R414

10K_4

R420

10K_4

R419

10K_4

R419

10K_4

R419

10K_4

R419

10K_4

R419

10K_4

R419

10K_4

R419

10K_4

R419

10K_4

R419

10K_4

R419

10K_4

R419

10K_4

R419

10K_4

BOARD ID SETTING

Board ID	ID1	ID2	ID3	ID4	ID5	ID6	ID7	ID8
UMA SKU	H							
VGA SKU	L							
W/ MDC		H						
W/O MDC		L						
W/ HDMI			H					
W/O HDMI			L					
W/O 3G				H				
W/ 3G				L				
15"					H			
14"					L			
W/O BT						H		
W/ BT						L		
13W							H	
17W							L	
W/ CF								H
W/O CF								L

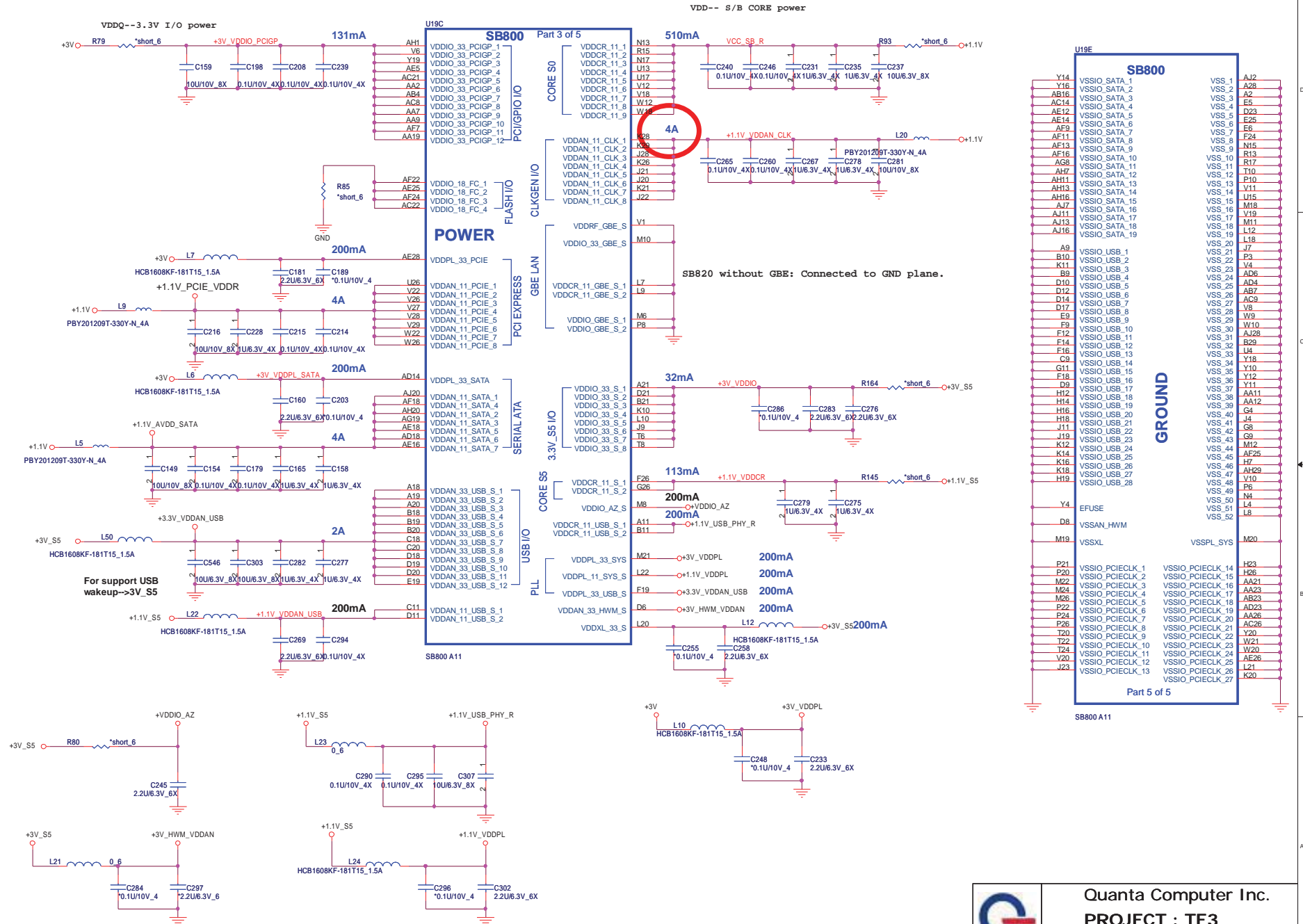


Quanta Computer Inc.
PROJECT : TE3

Size	Document Number	Rev
	SB820-SATA/IDE/HWM/SPI 3/5	1A
Date: Tuesday, March 02, 2010	Sheet 12 of 43	

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PLACE ALL THE DECOUPLING CAPS ON
THIS SHEET CLOSE TO SB AS POSSIBLE.



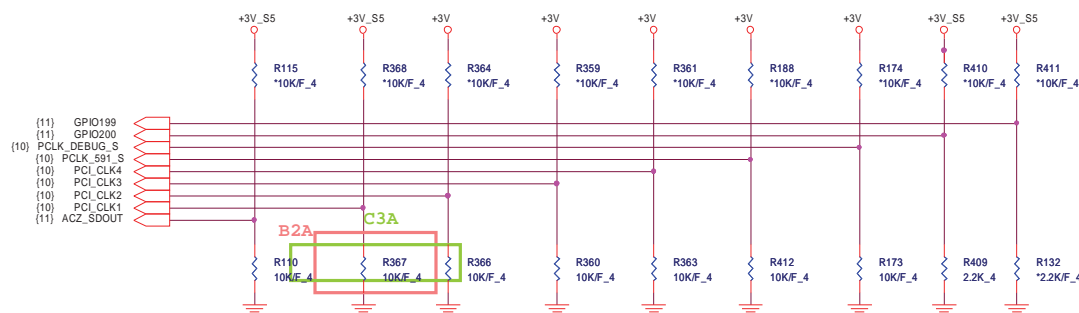
<http://laptop-motherboard-schematic.blogspot.com/>



Quanta Computer Inc.
PROJECT : TE3

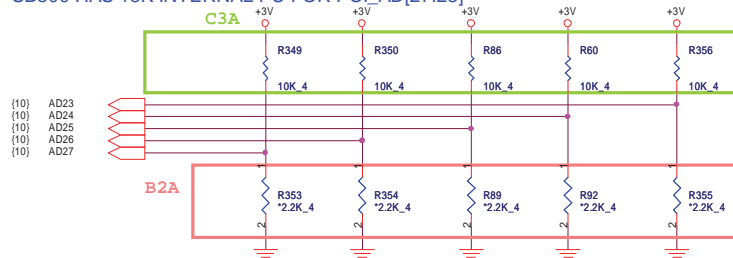
Size	Document Number	Rev
	SB820-PWR/DECOUPLING 4/5	1A
Date:	Tuesday, March 02, 2010	Sheet 13 of 43

OVERLAP COMMON PADS WHERE POSSIBLE FOR DUAL-OP RESISTORS.



	AZ_SDOUT	PCI_CLK1	PCI_CLK2	PCI_CLK3	PCI_CLK4	LPC_CLK0	LPC_CLK1	GPIO200 (PWM3) GPIO199 (PWM2)
PULL HIGH	LOW POWER MODE	ALLOW PCIE Gen2 DEFAULT	Watchdog Timer Enable	USE DEBUG STRAPS	non_Fusion CLOCK MODE DEFAULT	EC ENABLED	CLKGEN ENABLED DEFAULT	GPIO199 (PWM2) GPIO200 (PWM3) H, H=Reserved H, L=SPI ROM
	PERFORMANCE MODE DEFAULT	FORCE PCIE Gen1	Watchdog Timer Disable DEFAULT	IGNORE DEBUG STRAPS DEFAULT	Fusion CLOCK MODE	EC DISABLED DEFAULT	CLKGEN DISABLED	L, H=LPC ROM DEFAULT L, L=FWH ROM

SB800 HAS 15K INTERNAL PU FOR PCI_AD[27:23]

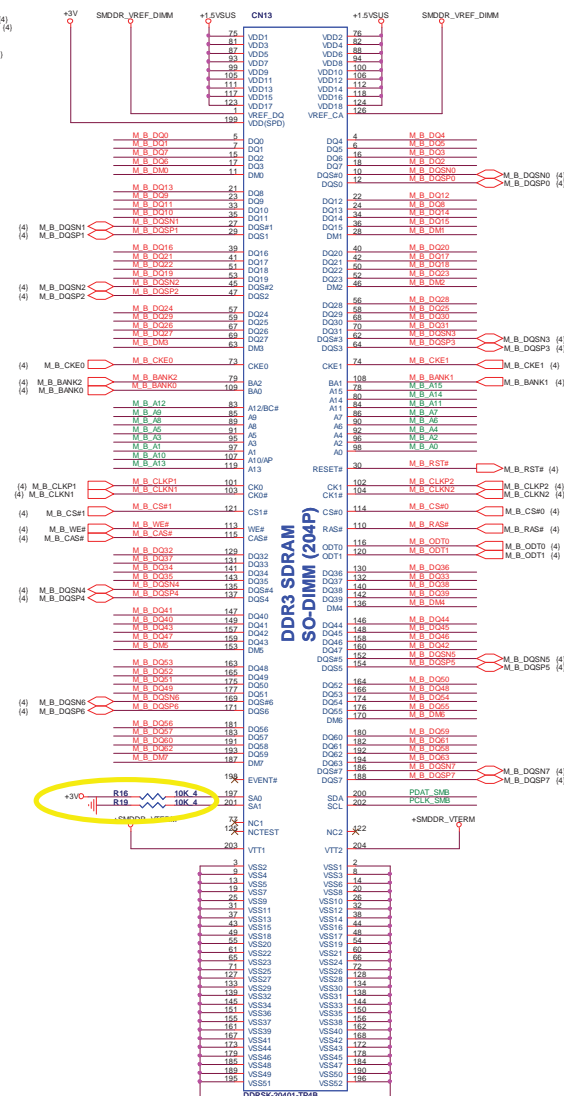
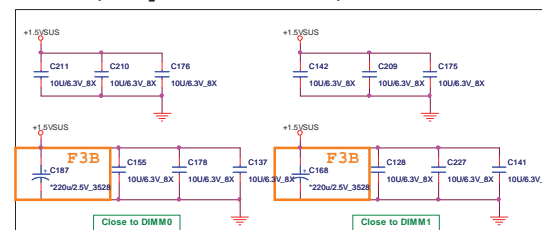
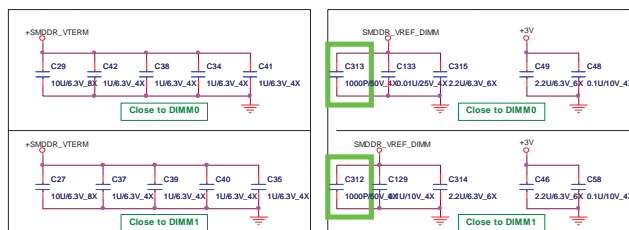


	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE PCI PLL DEFAULT	DISABLE ILA AUTORUN DEFAULT	USE FC PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	DISABLE PCI MEM BOOT DEFAULT
PULL LOW	BYPASS PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PLL	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT

NB/SB POWER GOOD CIRCUIT

The schematic diagram illustrates the NB/SB POWER GOOD CIRCUIT. It features three input signals: MPWROK (31), CPU_COREPG (37.39), and WD_PWRGD (3.11). These inputs are connected to comparators D9 (CH751H-40PT_30MA) and D8 (CH501H-40PT_100MA). The outputs of these comparators are connected to a network of resistors (R72, R68, R64, R67, R71, R41) and capacitors (C122, C138, C87, C92). The circuit includes two +3V power sources (S5 and S6) and two +1.8V power sources. The final output is NB_PWRGD_IN (8), which is also connected to SB_PWRGD_IN (11).

TERMINATOR DECOUPLING CAPACITOR




CHECK BY CRB S1G4 DON
SUPPORT MEM HOT?

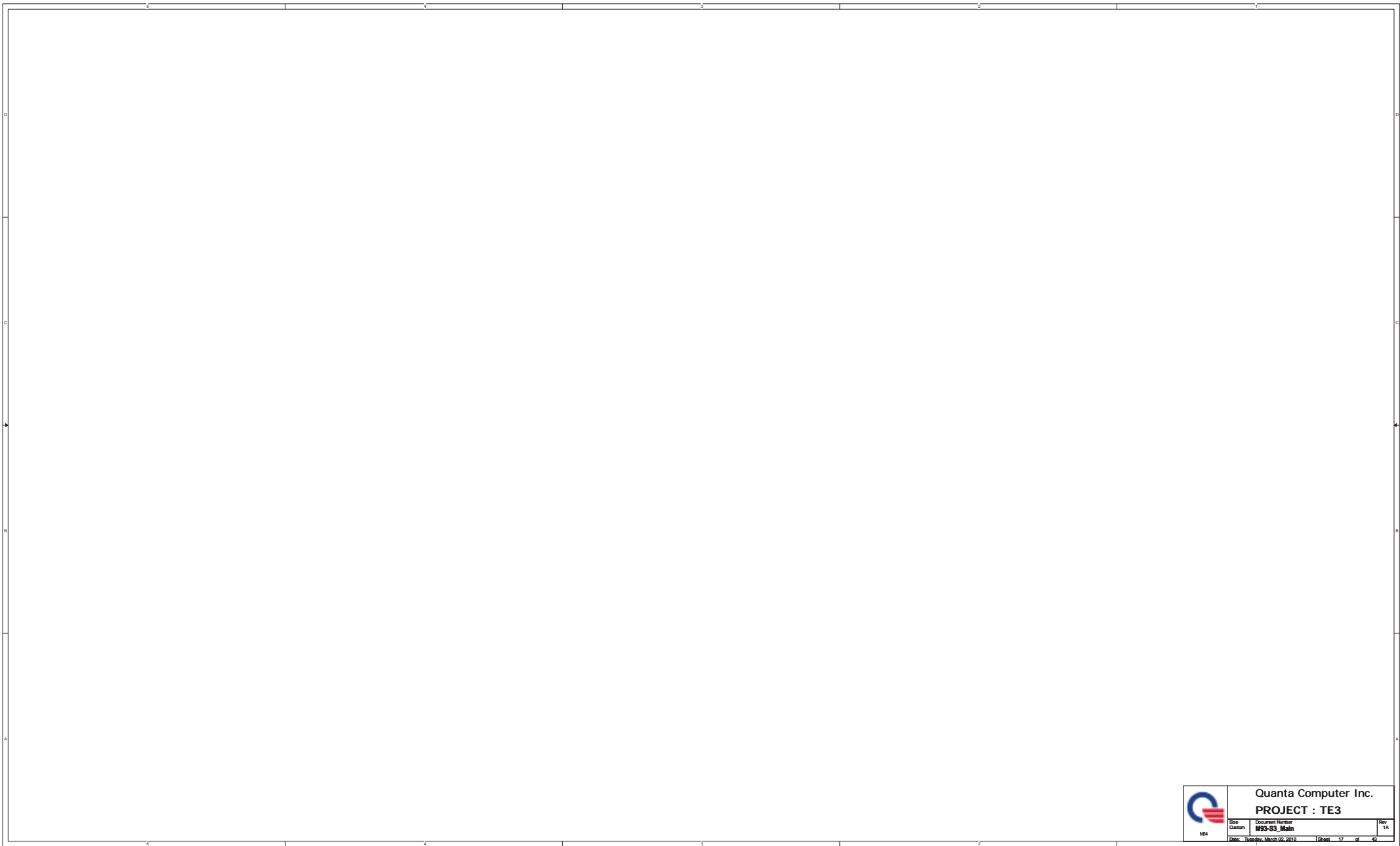
DDR-STD


DDR-STD

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 NB4	Quanta Computer Inc. PROJECT : TE3		
	Size Custom	Document Number M93-S3_PCIE_Interface	Rev 1A
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 NB4	Quanta Computer Inc. PROJECT : TE3		
	Site Custom	Document Number M93-S3_Main	Rev 1A
	Date: Tuesday, March 02, 2010 10:58:17 of 43		

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 NB4	Quanta Computer Inc.		
	PROJECT : TE3		
Size Custom	Document Number M93-S3_GND / LVDS/ Straps		Rev 1A
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 NB4	Quanta Computer Inc.		
	PROJECT : TE3		
	Size Custom	Document Number M93-S3_Power_and_NC	Rev 1A
Date: Tuesday, March 02, 2010		Sheet 19 of 43	



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		Quanta Computer Inc.	
		PROJECT : TE3	
Size Custom	Document Number M93-S3_Interface		Rev 1A
Date: Tuesday, March 02, 2010		Sheet 21	of 43

	5	4	3	2	1						
D											
C											
B											
A											
<div><div><div><div>Quanta Computer Inc.</div><div>PROJECT : TE3</div></div></div><div><table><tr><td>Size Custom</td><td>Document Number M93-S3 VRAM_A0,A1</td><td>Rev 1A</td></tr><tr><td>Date: Tuesday, March 02, 2010</td><td>Sheet 22</td><td>of 43</td></tr></table></div></div>						Size Custom	Document Number M93-S3 VRAM_A0,A1	Rev 1A	Date: Tuesday, March 02, 2010	Sheet 22	of 43
Size Custom	Document Number M93-S3 VRAM_A0,A1	Rev 1A									
Date: Tuesday, March 02, 2010	Sheet 22	of 43									

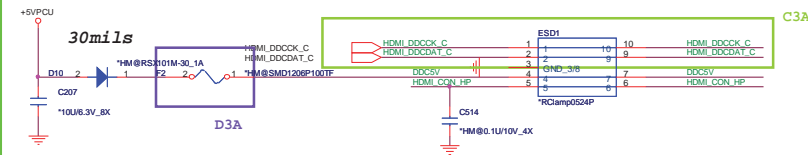
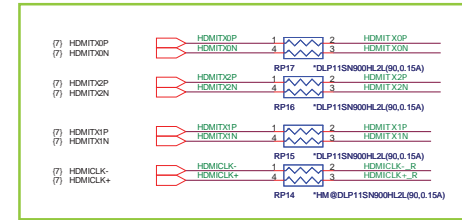
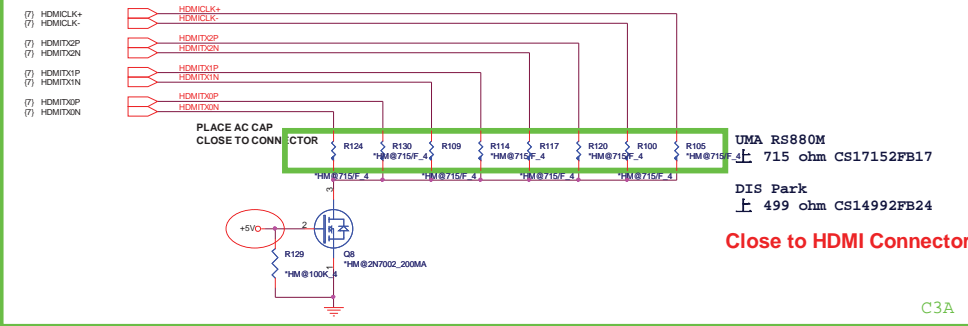
<http://laptop-motherboard-schematic.blogspot.com/>

HDMI Conn [HDM]

D3A

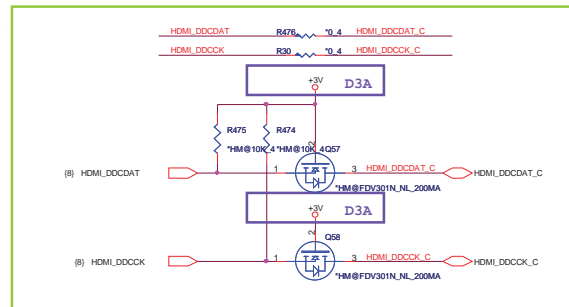
FOR HDMI PAGE 23

Close to HDMI CONN

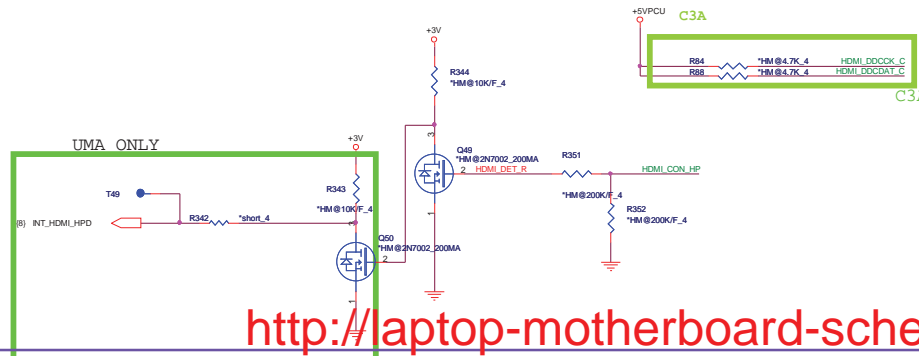


HDMI INTERFACE

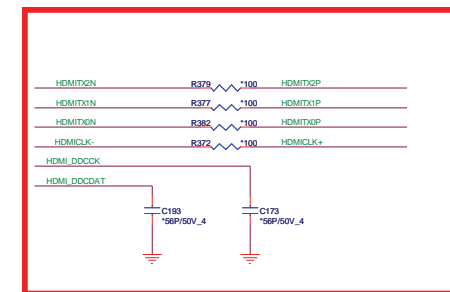
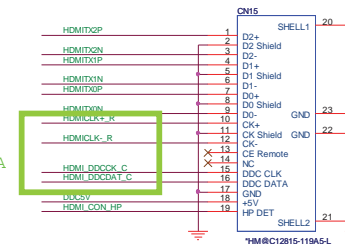
C3A



HDMI HPD SENSE



FOR EMI

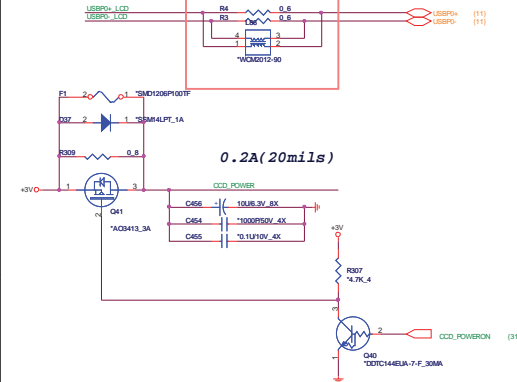


Close to connector

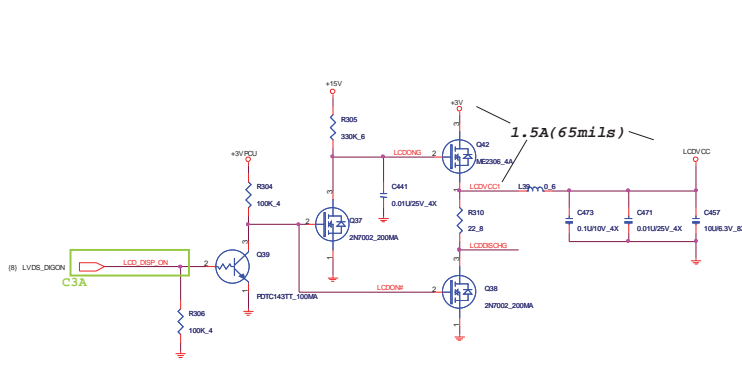
<http://laptop-motherboard-schematic.blogspot.com/>

Quanta Computer Inc.	
PROJECT : TE3	
Size	Document Number
HDMI CONN	
Date: Tuesday, March 02, 2010	Sheet 23 of 43

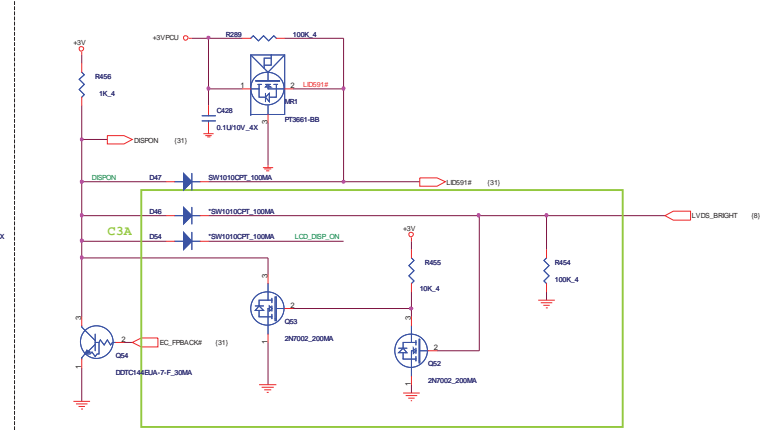
CCD [CCD]



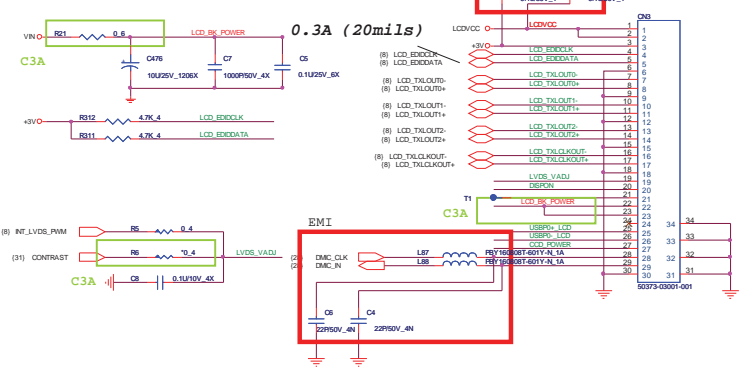
LCD POWER SWITCH [LDS]



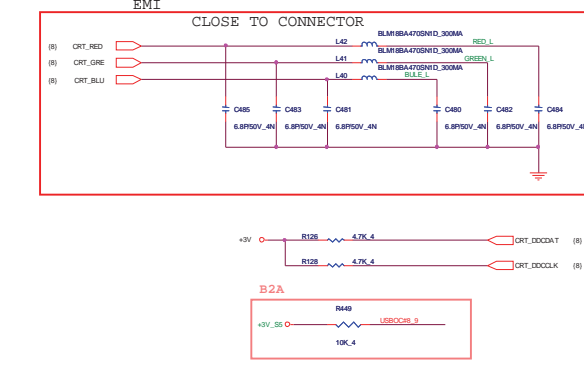
HALL SENSOR&BACK LIGHT SWITCH [HSR]



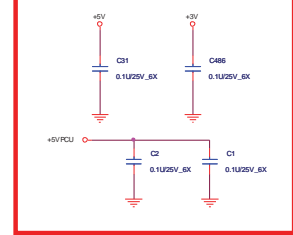
LCD Panel Module [LDS]



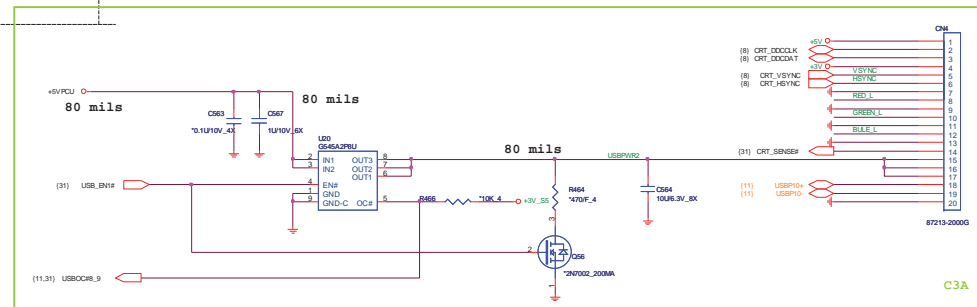
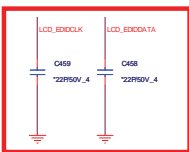
CRT [CRT]



EMI



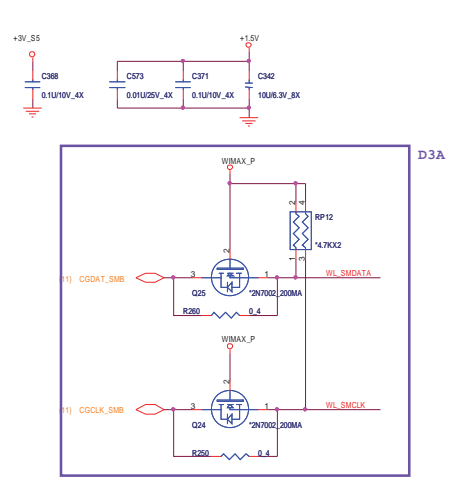
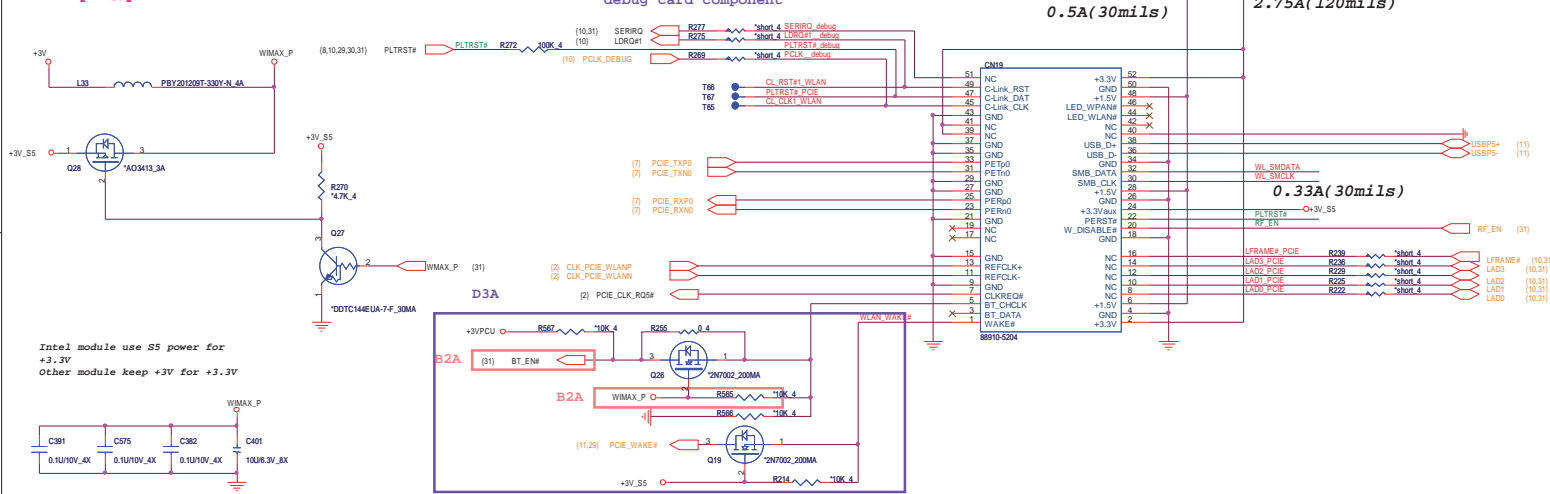
FOR EMI



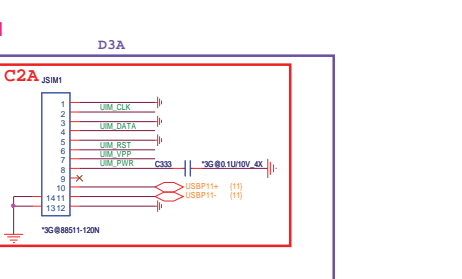
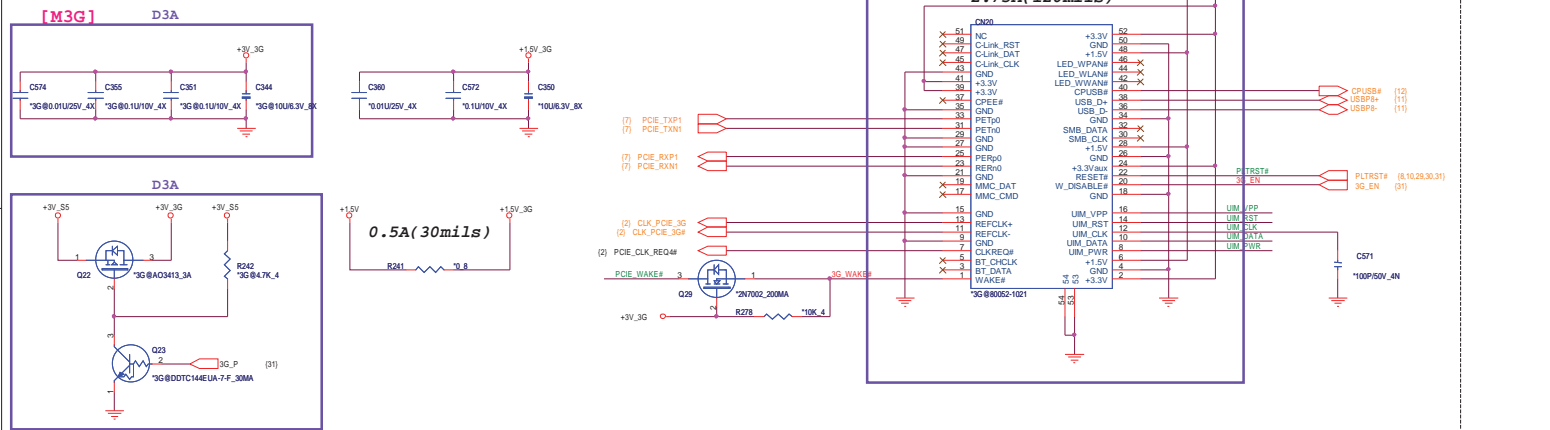
Quanta Computer Inc.		
PROJECT : TE3		
Doc	Document Number	Rev
NB1	LCD/LED Panel/CCD	1A
Date	Tuesday, March 10, 2010	Sheet 25 of 43

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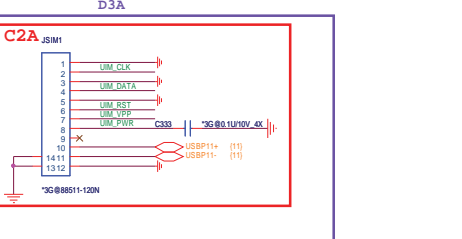
MINI Card Slot#1 (WiFi) [WLN]



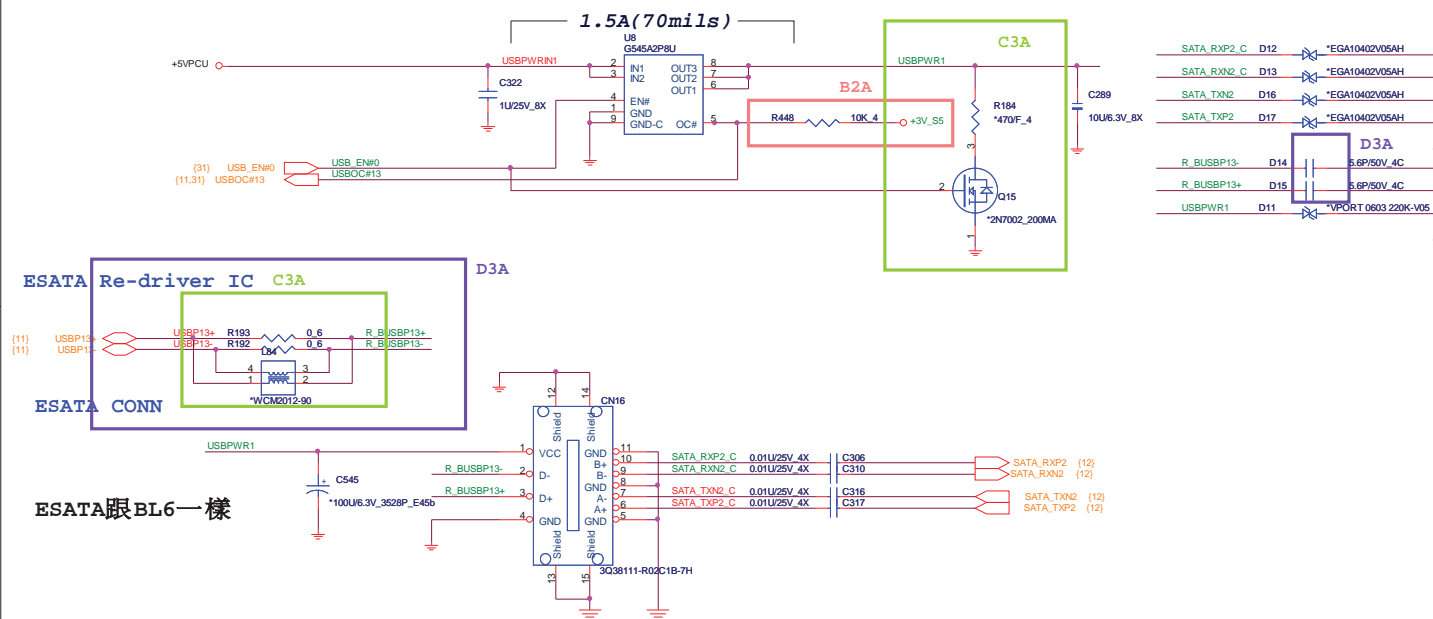
MINI Card Slot#2 3G



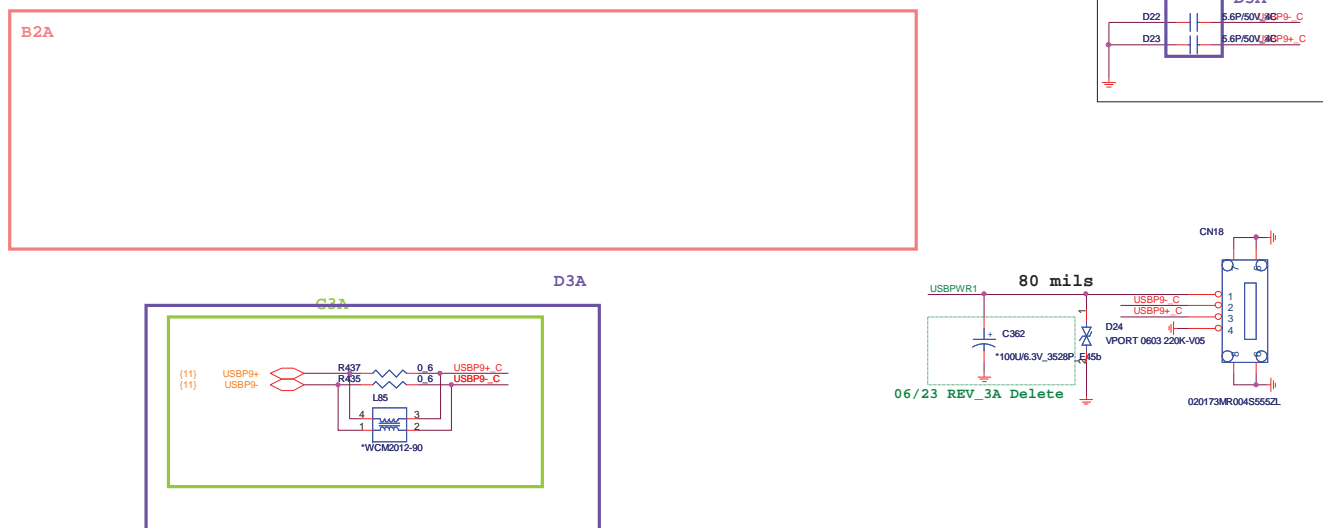
SIM CARD [M3G]



E-SATA [ESA]



USB MB SIDE



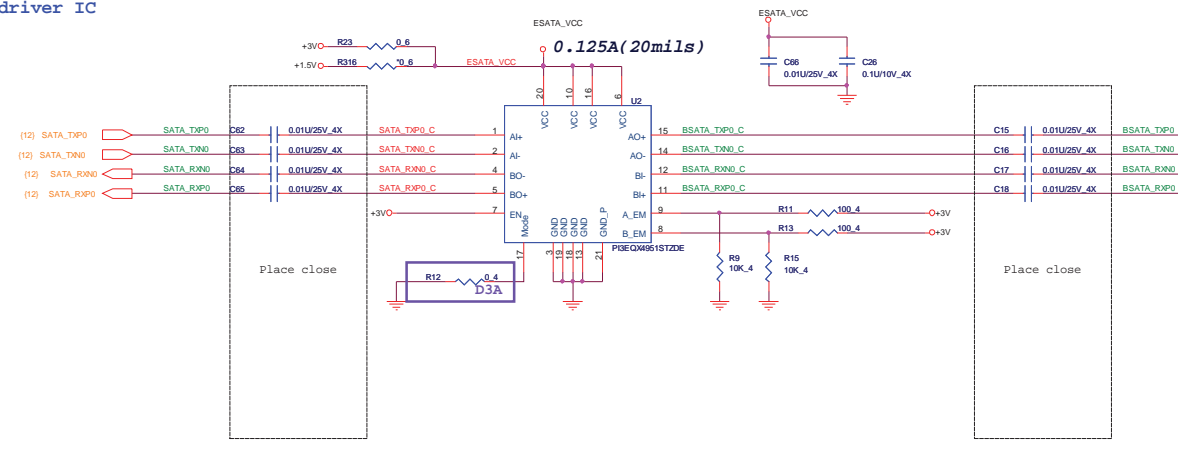
SATA ODD

[ODD]



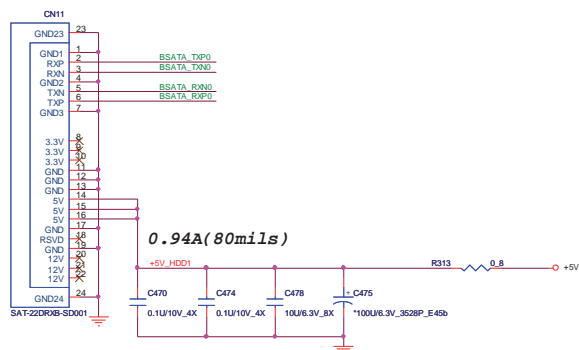
SATA HDD Re-driver IC

B2A

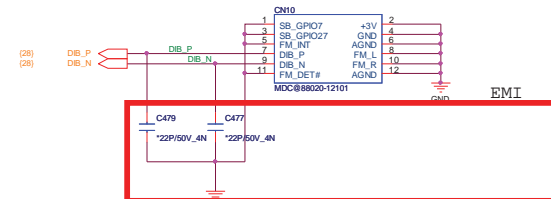


SATA HDD

[HDD]



MDC

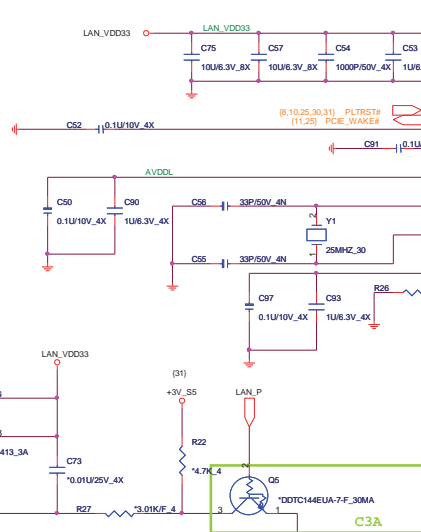
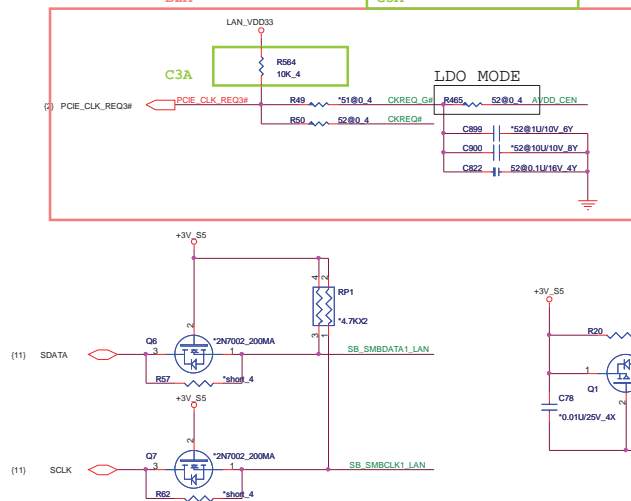


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NB4	Quanta Computer Inc.	
	PROJECT : TE3	
Size	Document Number	Rev
	HDD/ODD	1A
Date: Tuesday, March 02, 2010	Sheet	27 of 43

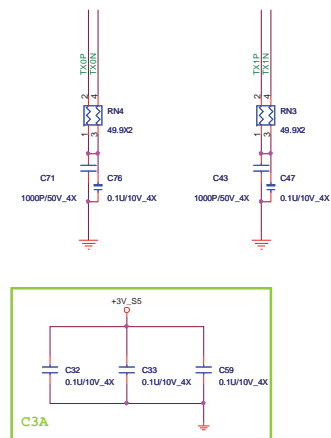
Atheros Lan

51_52@:
GIGA = NC
10/100 = 0 ohm CS00002JB38

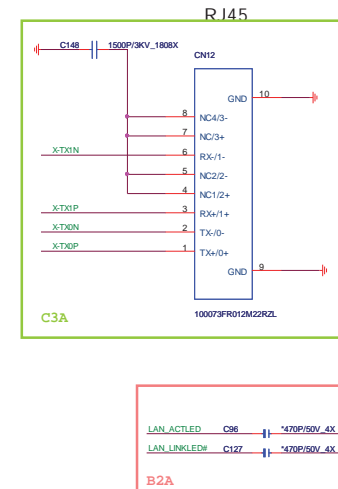
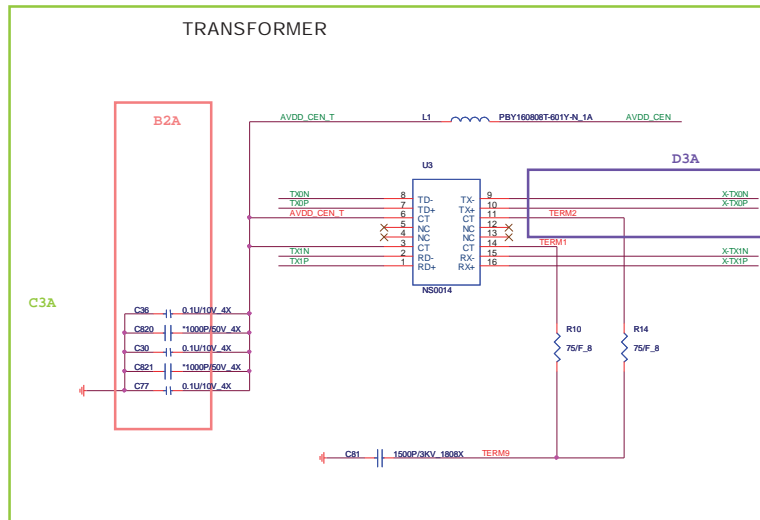


GIGA:AR8151-AL1A-R = AL008151001
10/100:AR8152-AL1A-R = AL008152004

PLACE NEAR LAN IC SIDE



TRANSFORMER



LED0 = LAN_ACTLED	1	Over-clocking enable (default = 1)
	0	Over-clocking disable
LED1 = LAN_LINKLED#	1	SWR switch-mode regulator select
	0	Giga LAN pull High (default = 1)
	0	LDO linear regulator select
	0	10/100M LAN pull Low
CKREQ# or CKREQ_G#	1	Normal function
	0	ATE test mode

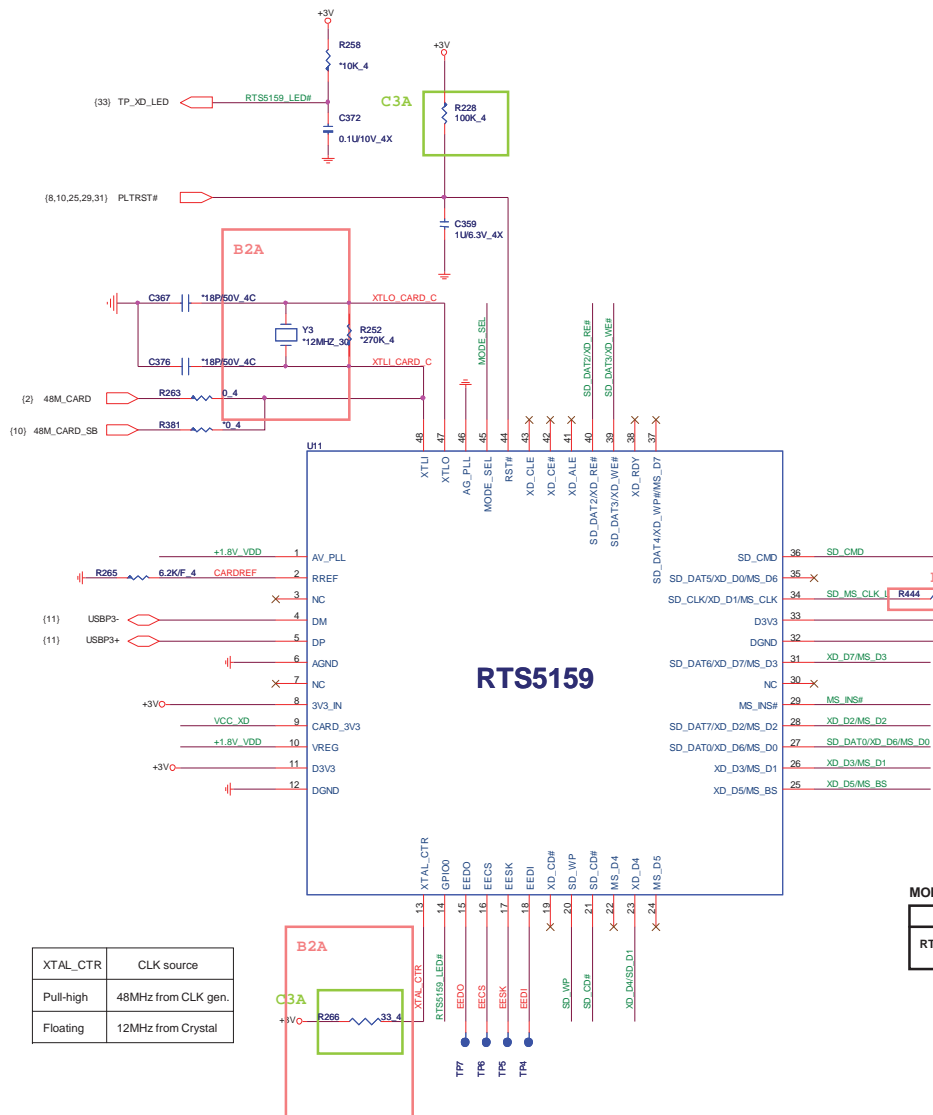
Power on Strapping pin



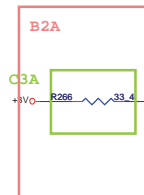
Quanta Computer Inc.	
PROJECT : TE3	
Size	Document Number
	Atheros Lan
Date	Tuesday, March 02, 2010
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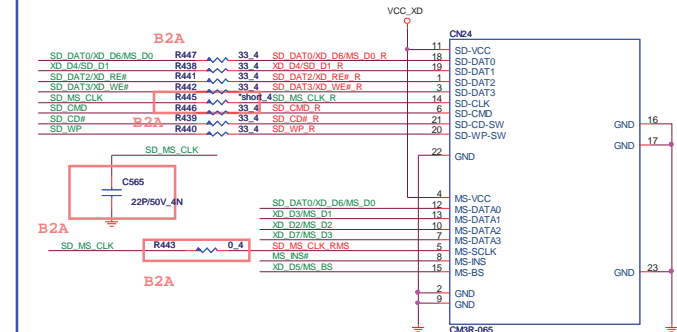
3 IN 1 CARD READER



XTAL_CTR	CLK source
Pull-high	48MHz from CLK gen.
Floating	12MHz from Crystal



3 IN 1 CARD READER



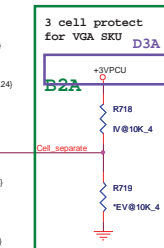
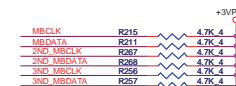
MODE_SEL (Please refer to Realtek Application Notes for more detail description)

	R49	C73	Power mode
RTS 5159	0-ohm	NC	USB Auto De-link mode:

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PROJECT : TE3

Size	Document Number	Rev
NB4	RTS5159 (Card Reader)	1A
Date: Tuesday, March 02, 2010	Sheet 30 of 43	

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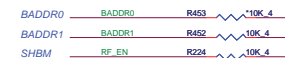


For Intel

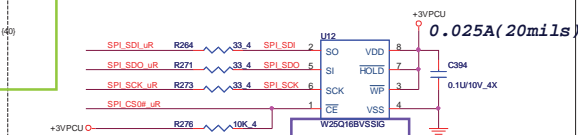


BADDR1-0	IO Address	
	Index	Data
0 0	XOR TREE TEST MODE	
0 1	CORE DEFINED	
1 0	2Eh	2Fh
1 1	164Eh	164Fh

SHBM=0: Enable shared memory with host BIOS



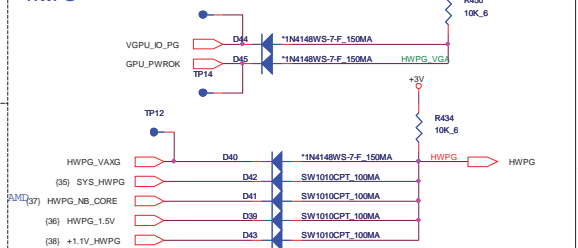
Disabled ('1') if using FWH device on LPC.
Enabled ('0') if using SPI flash for both system BIOS and EC firmware



INTERNAL KEYBOARD STRIP SET



HWPG



SMBUS Table

SMBUS	Devices	Address
1	Battery	12H
2	CPU Thermal Sensor	98H
	EC EEPROM	A0H
3	VGA Board Thermal Sensor	98H

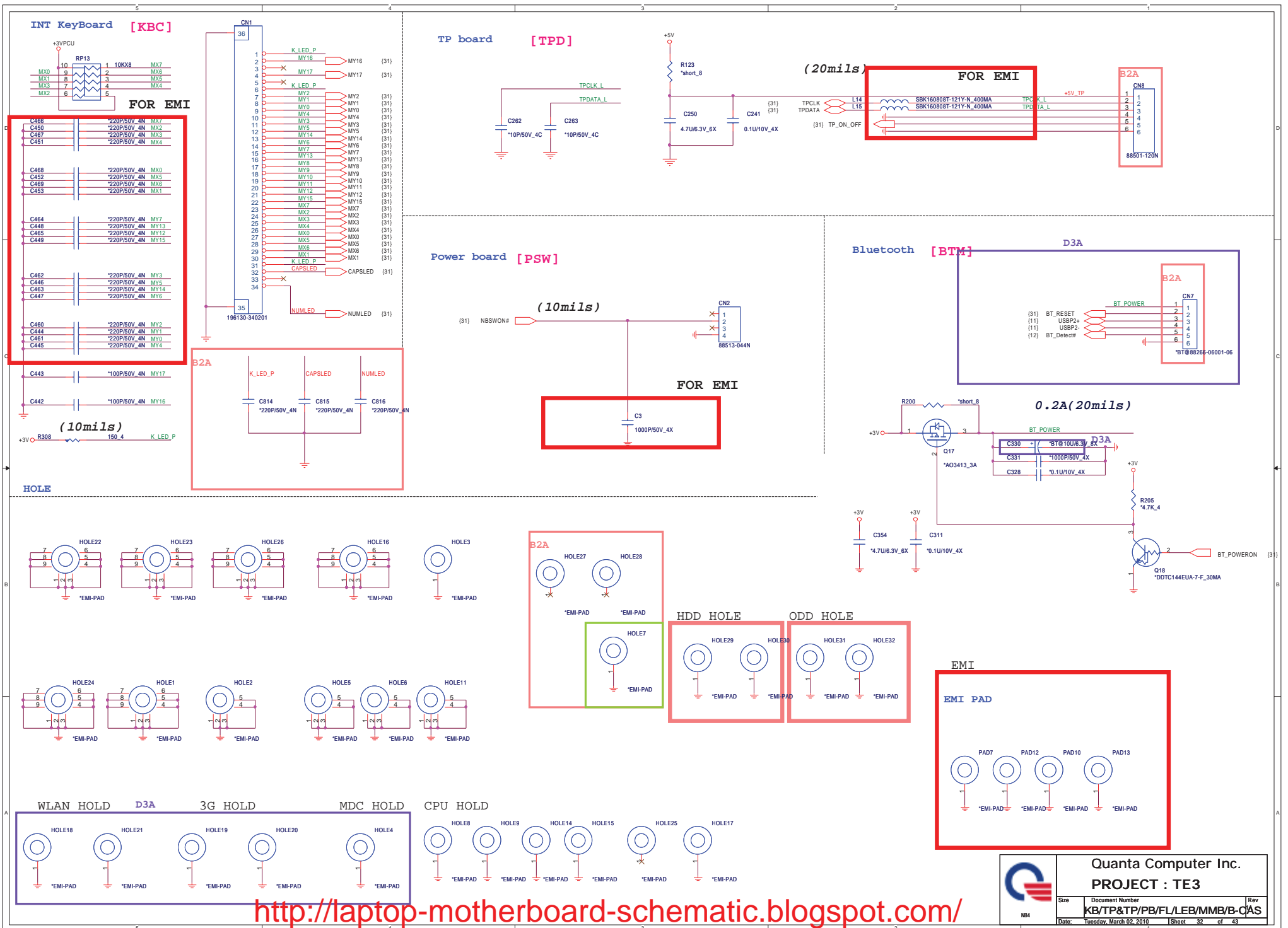
<http://laptop-motherboard-schematic.blogspot.com/>



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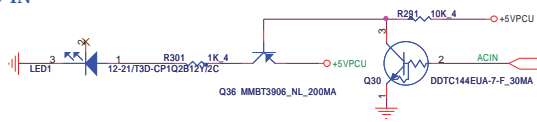
PROJECT : TE3

Size	Document Number EC-WPC8763LDG/WPC8769L(O)		
Date	Tuesday, March 02, 2010	Sheet	31 of 43

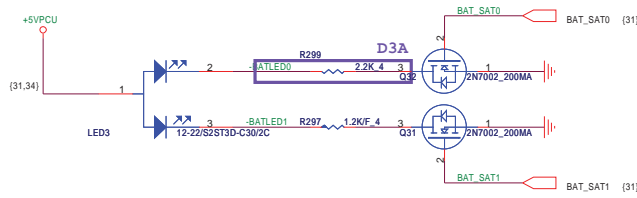


LED [LED]

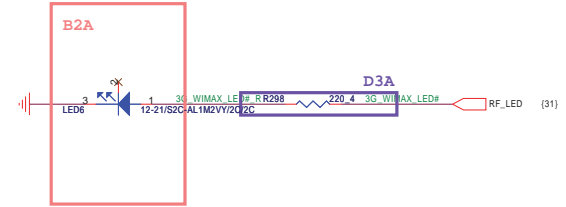
AC-IN



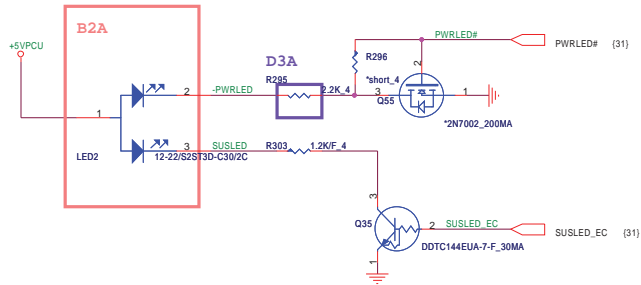
BATTERY



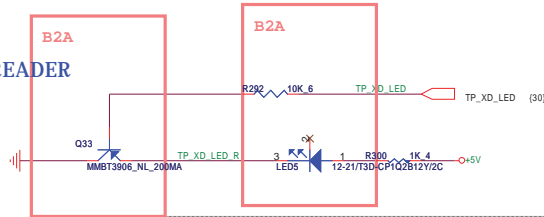
RF LED



POWER

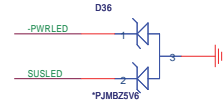


CARDREADER

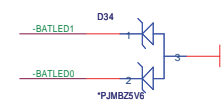


ESD Protect

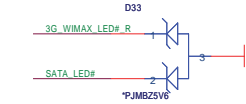
FOR POWER LED



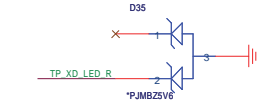
FOR BATTERY LED



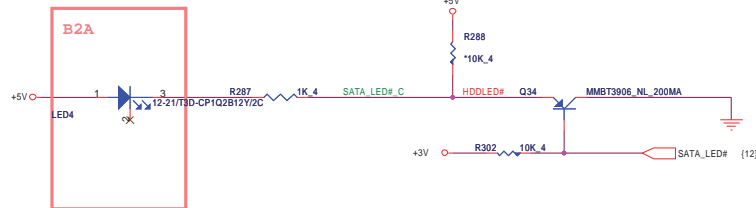
FOR HDD/W-LAN LED



FOR 3G/CARDREADER LED



HDD/ODD



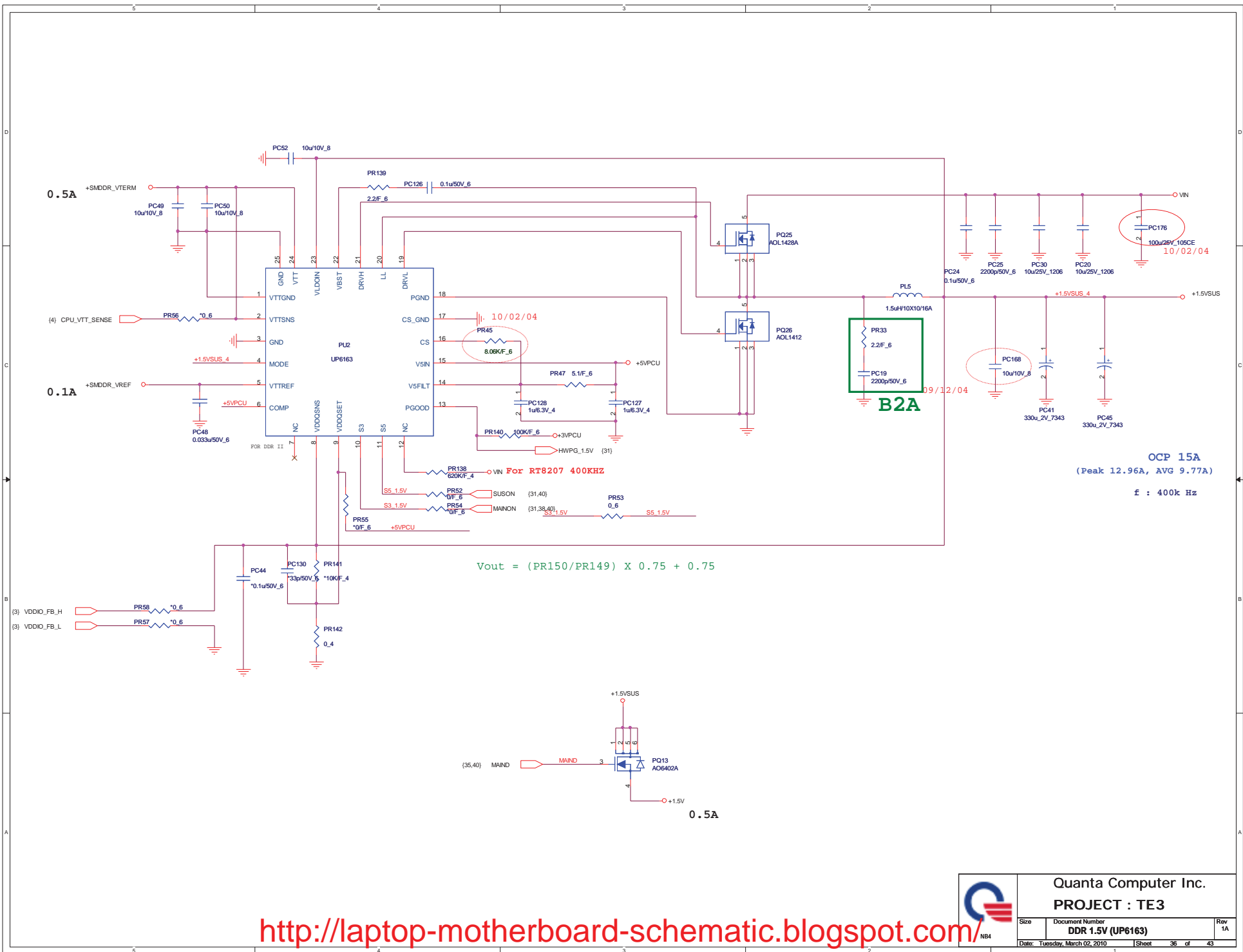
<http://laptop-motherboard-schematic.blogspot.com/>

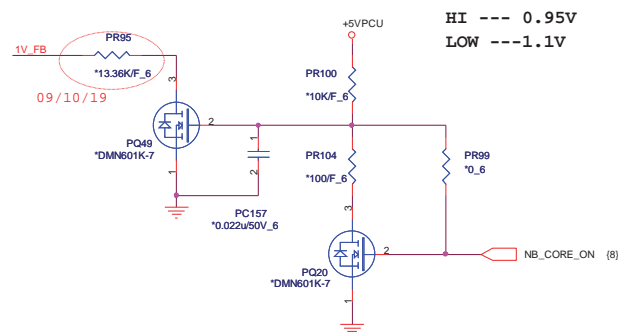


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PROJECT : TE3

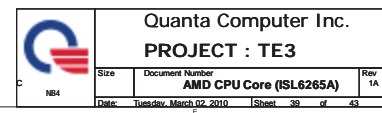
Size	Document Number	Rev
NB4	LED/HOLE	1A

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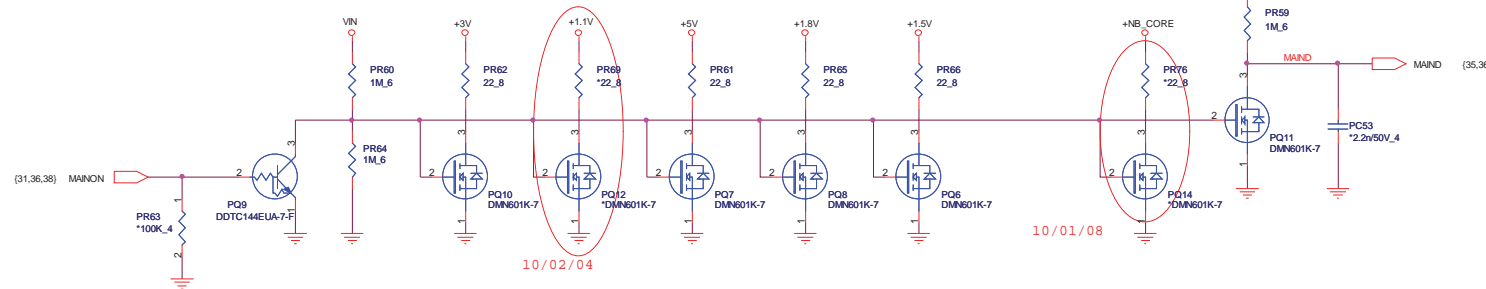
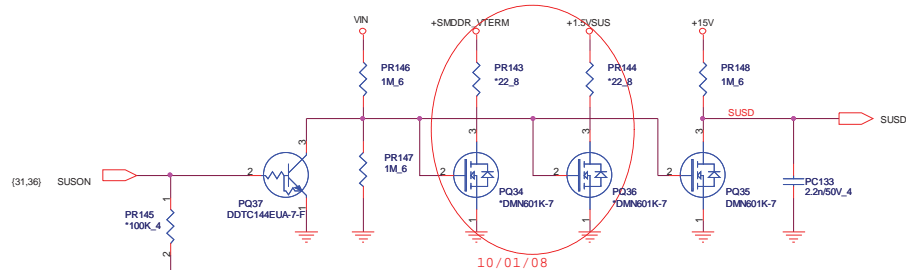
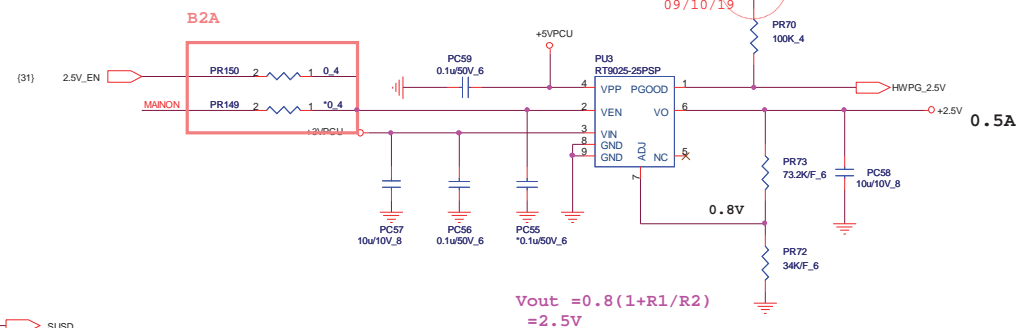
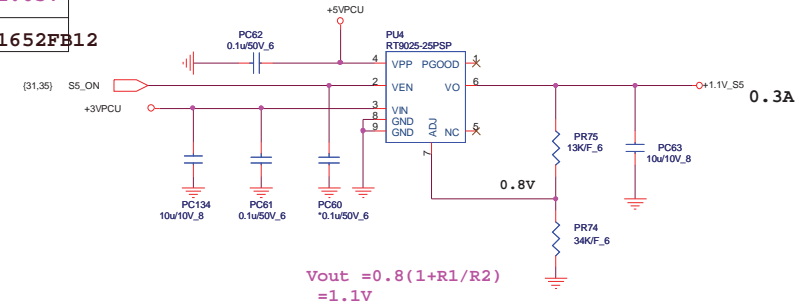
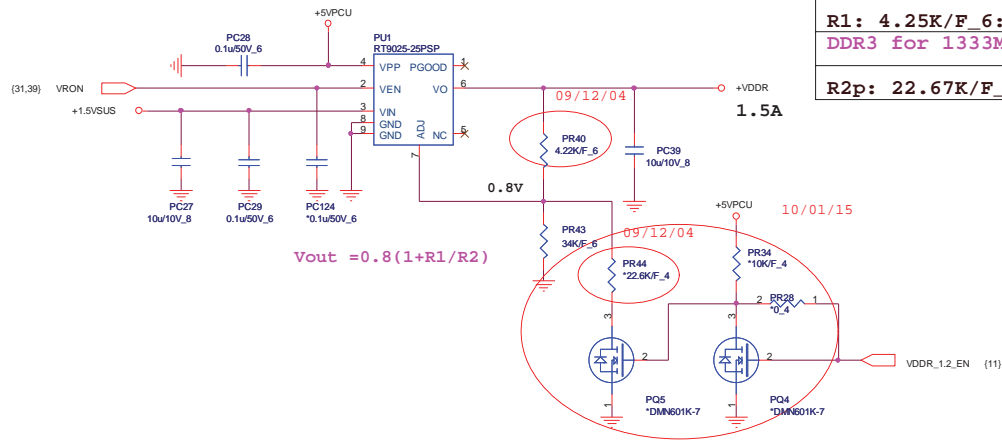




SVC	SVD	Output
0	0	1.4
0	1	1.2
1	0	1.0
1	1	0.8

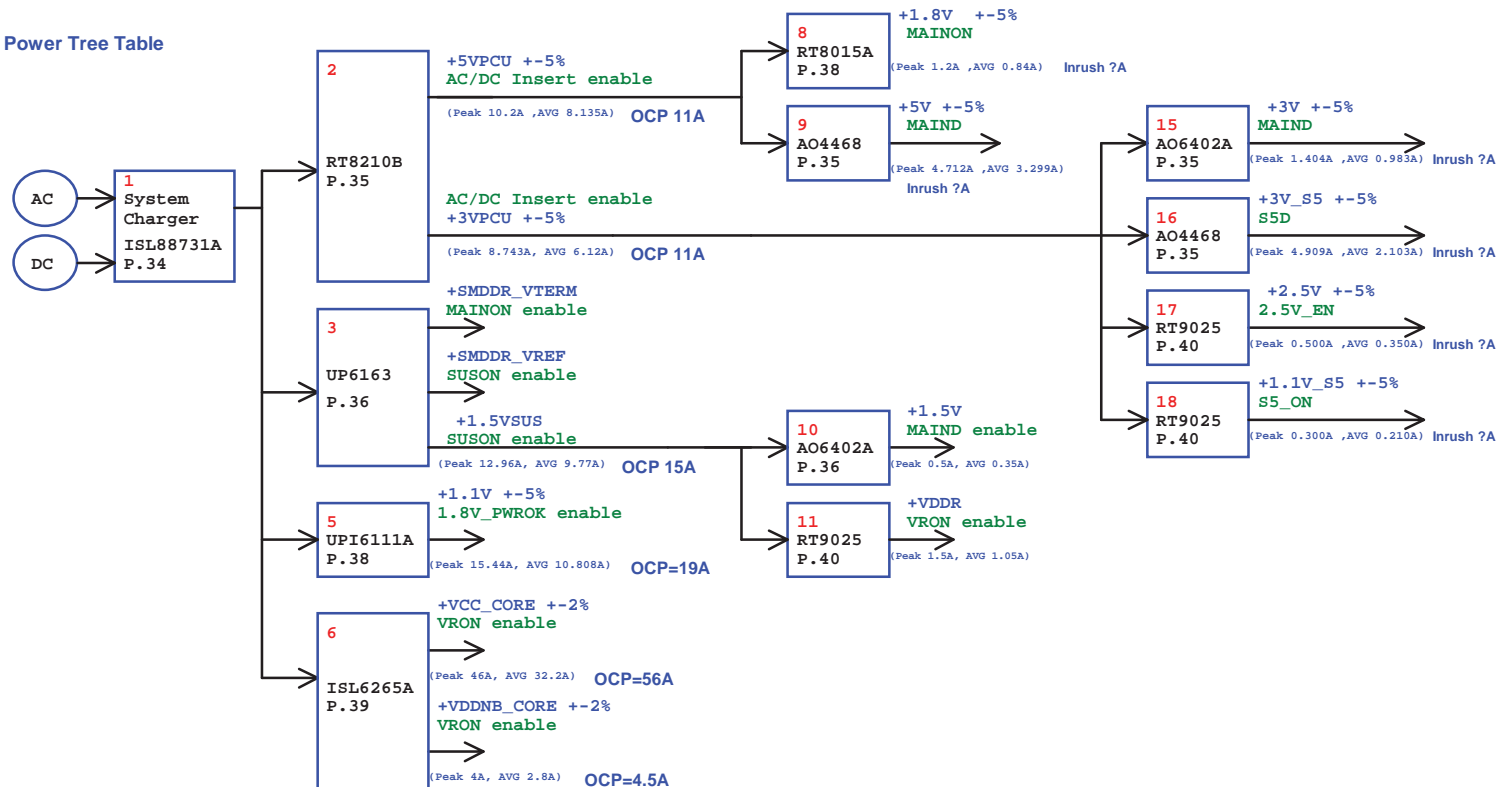


DDR3 for 1066MHZ----0.9V
R1: 4.25K/F_6: CS31073F908
DDR3 for 1333MHZ----1.05V
R2p: 22.67K/F_4: CS31652FB12



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Power Tree Table



Power Distribution List

Power	Distribution

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