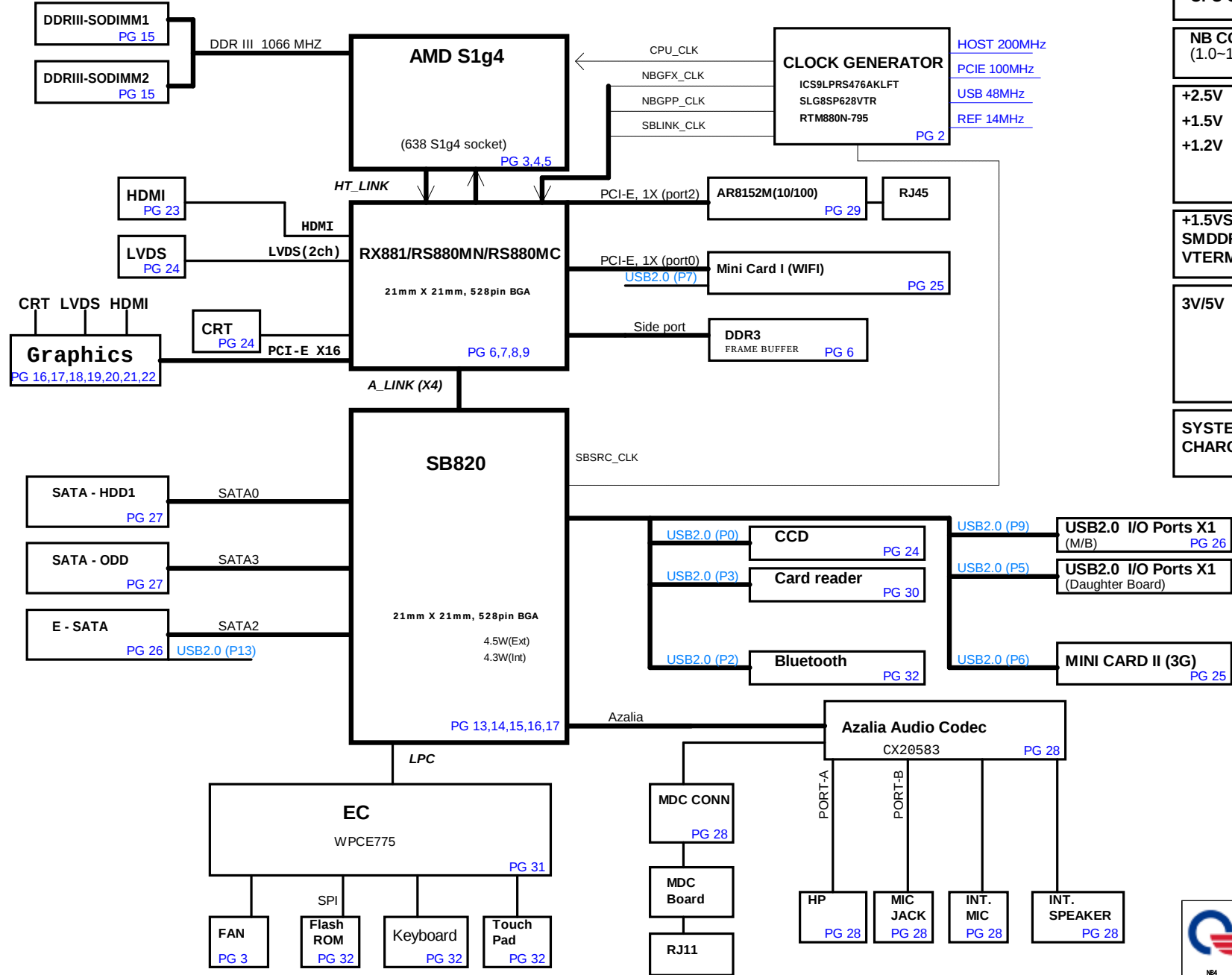


TE3 BLOCK DIAGRAM



PCB STACK UP

LAYER 1 : TOP
LAYER 2 : GND1
LAYER 3 : IN1
LAYER 4 : IN2
LAYER 5 : VCC
LAYER 6 : BOT

CPU CORE

NB CORE (1.0~1.2V)

+2.5V
+1.5V
+1.2V

+1.5VSUS
SMDDR
VTERM

3V/5V

SYSTEM
CHARGER

Daughter Board

MMB Board

Audio & USB Board

Touch Pad Board
(with FP & w/o FP)

LED Board

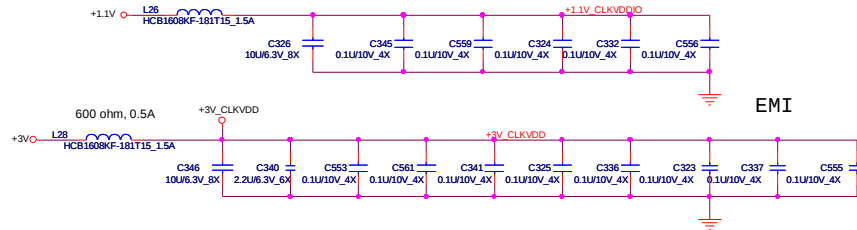
MDC Board



Quanta Computer Inc.
PROJECT : TE3

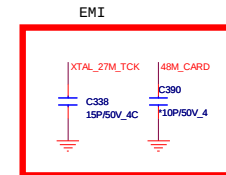
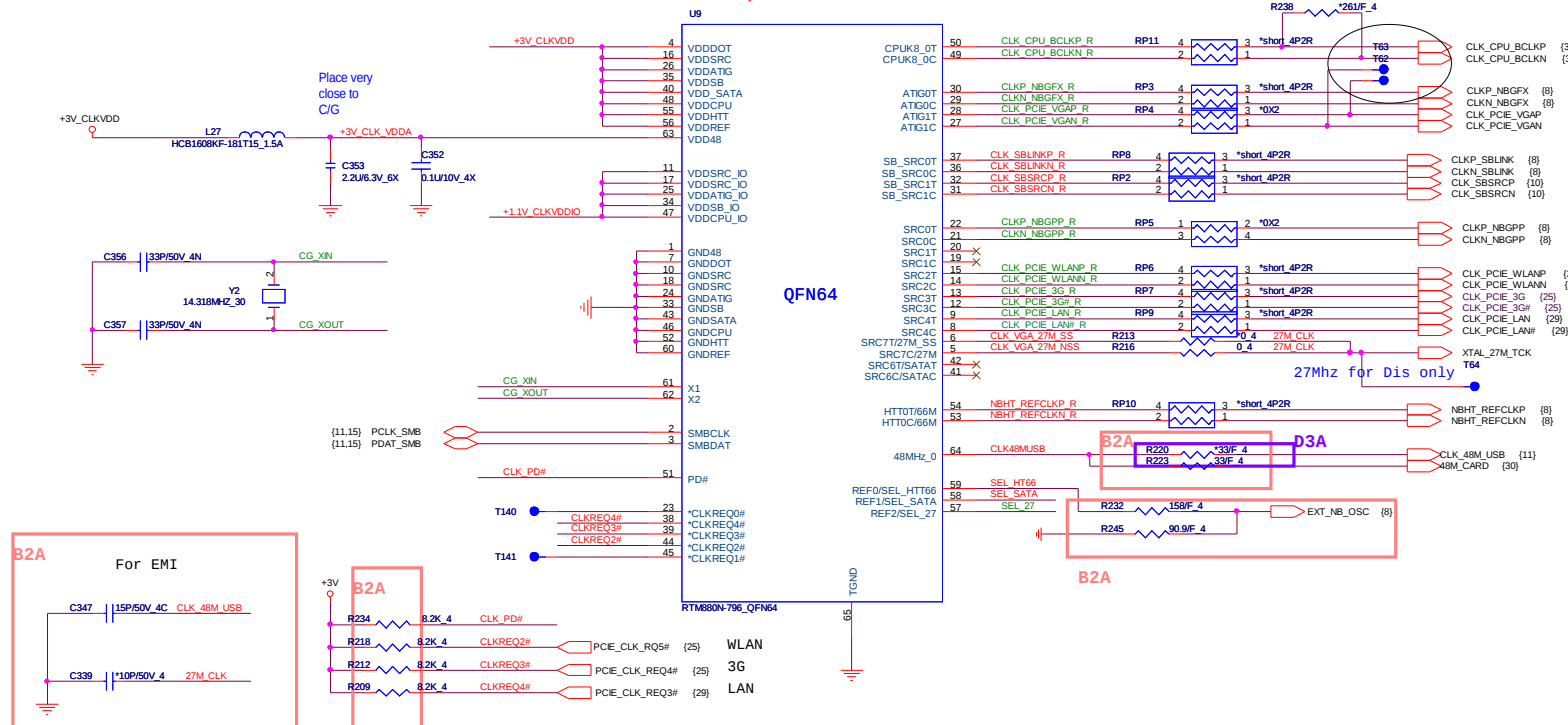
Size	Document Number	Rev
	BLOCK DIAGRAM	1A
Date:	Tuesday, March 02, 2010	Sheet 1 of 43

CLOCK GENERATOR

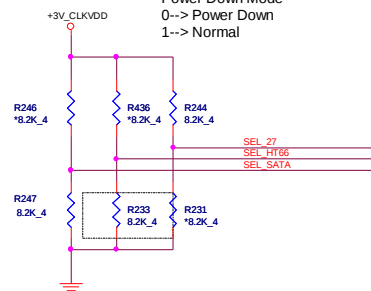


CLOCKS name	Discrete	Clock pin function
NBGF_X_CLKP NBGF_X_CLKN	RP48 STUFF	to NB for VGA reference clock
EXT_GFX_CLKP EXT_GFX_CLKN	RP47 STUFF	to Park-S3 external reference clock -Discrete only
SBLINK_CLKP SBLINK_CLKN	RP43 STUFF	to NB for AC-LINK reference clock
CLK_VGA_27M_SS CLK_VGA_27M_NSS	R213, R215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

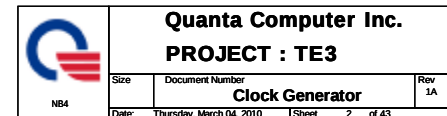
Need check the net name for the short pad

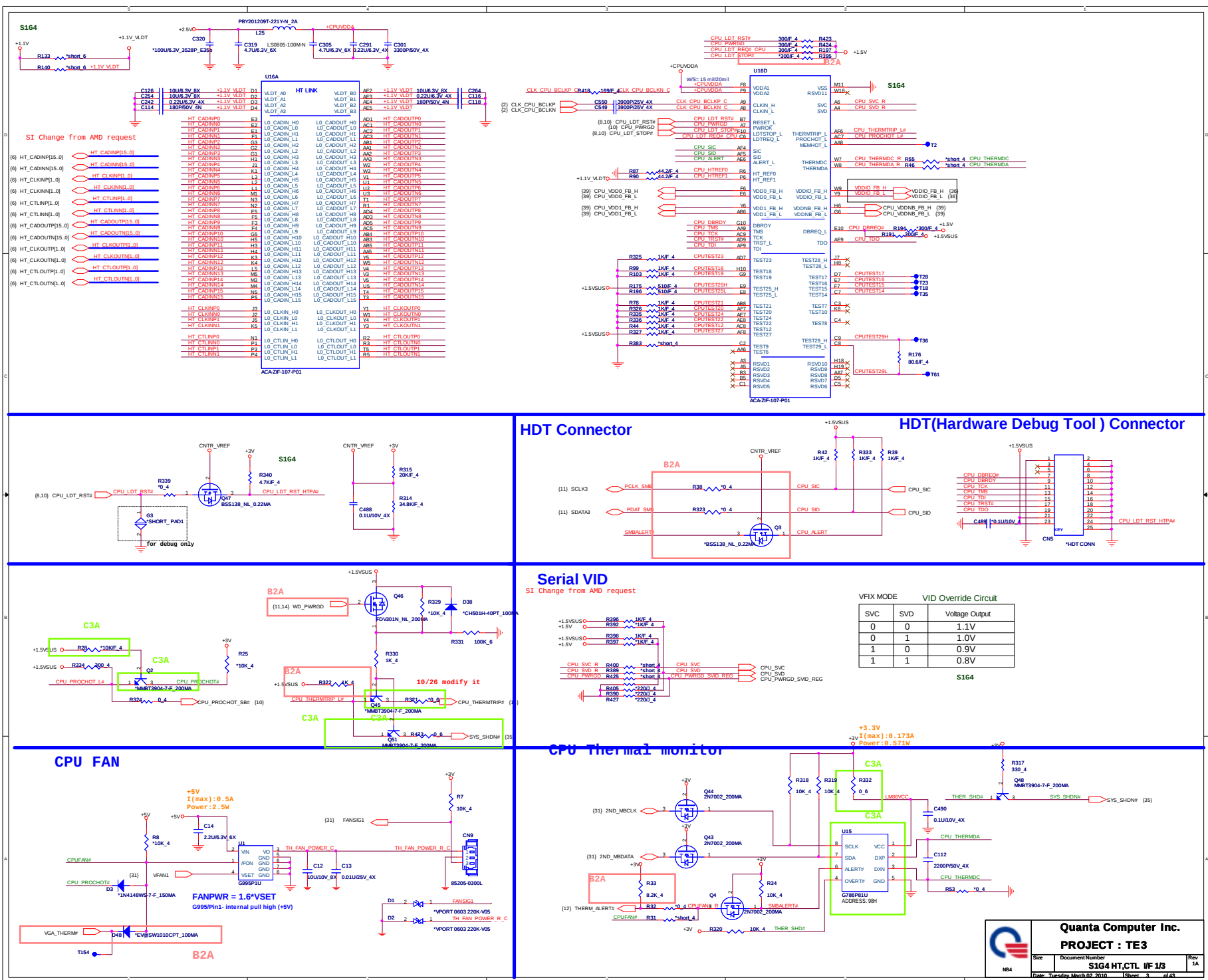


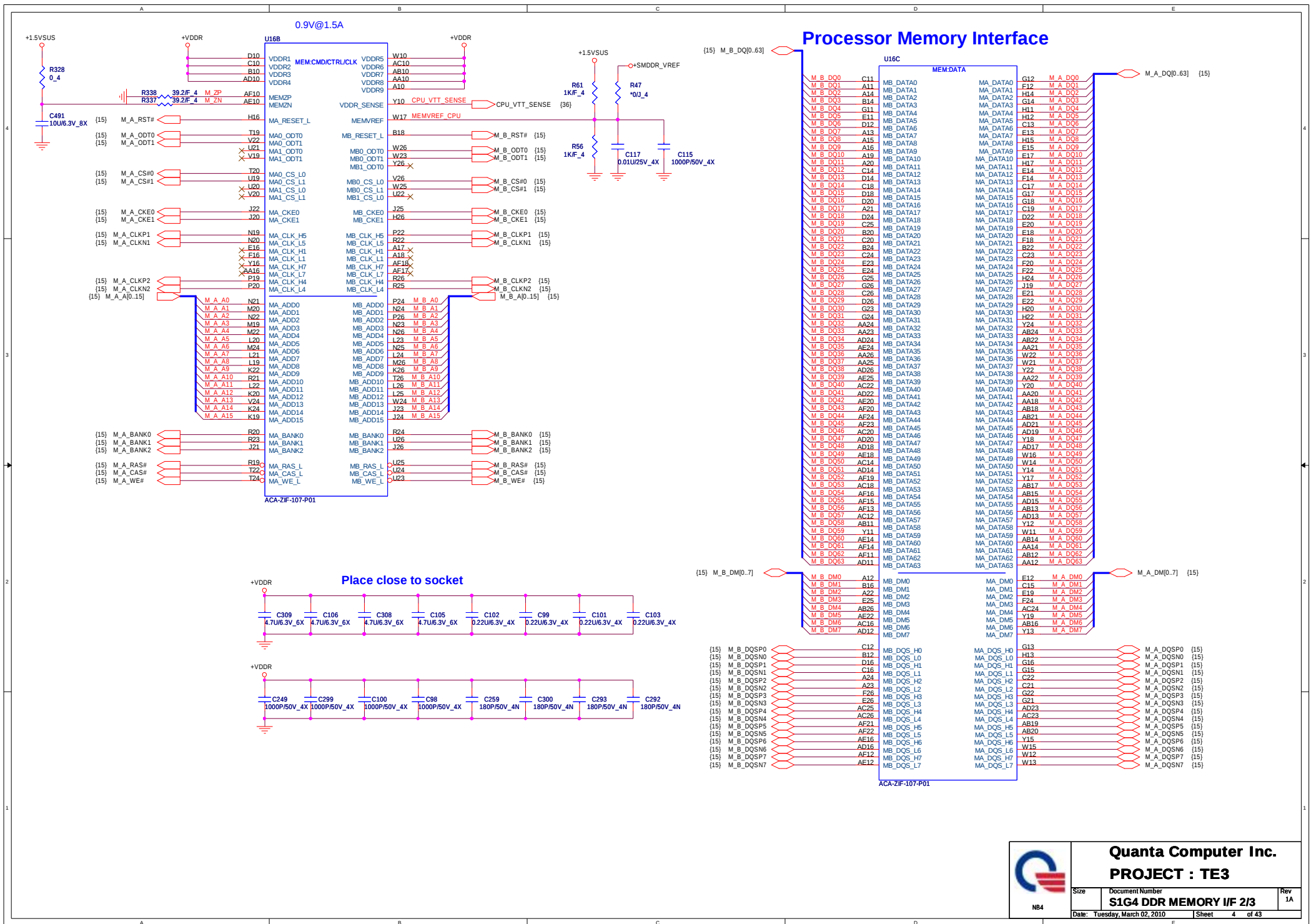
Power Down Mode
0--> Power Down
1--> Normal

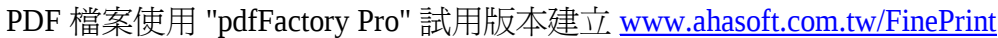


* default		
SEL_HTT66	1	66 MHz 3.3V single ended HTT clock
	0*	100 MHz differential HTT clock
SEL_SATA	1	100 MHz non-spreading differential SRC clock
	0*	100 MHz spreading differential SRC clock
SEL_27	1*	27MHz non-spreading singlet clock
	0	100 MHz spreading differential SRC clock

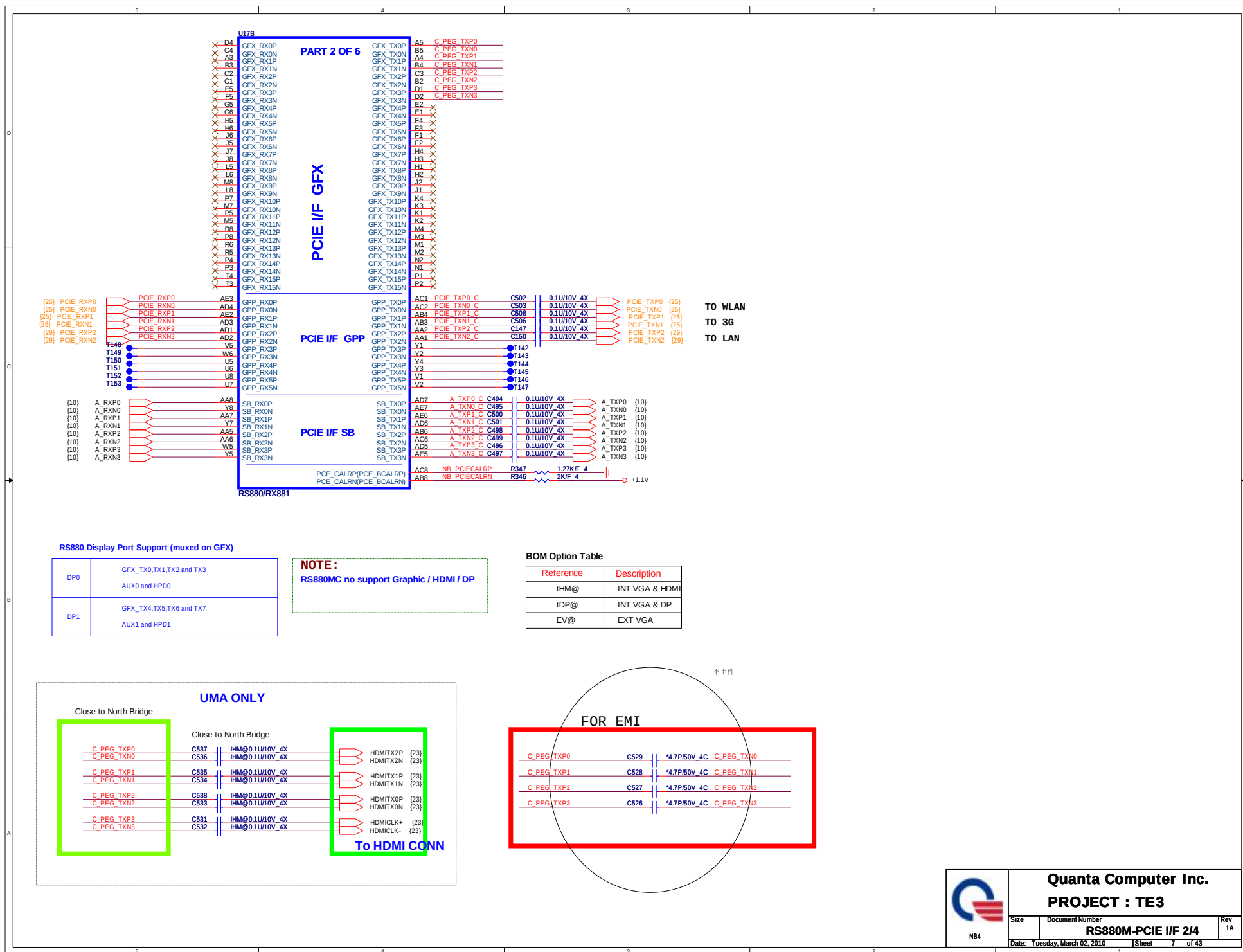










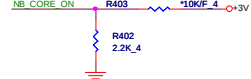


Reference	Description
IV@	INT VGA
EV@	EXT VGA
IHM@	INT VGA & HDM
IDP@	INT VGA & DP
ICRT@	INT VGA & CRT

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



RX881



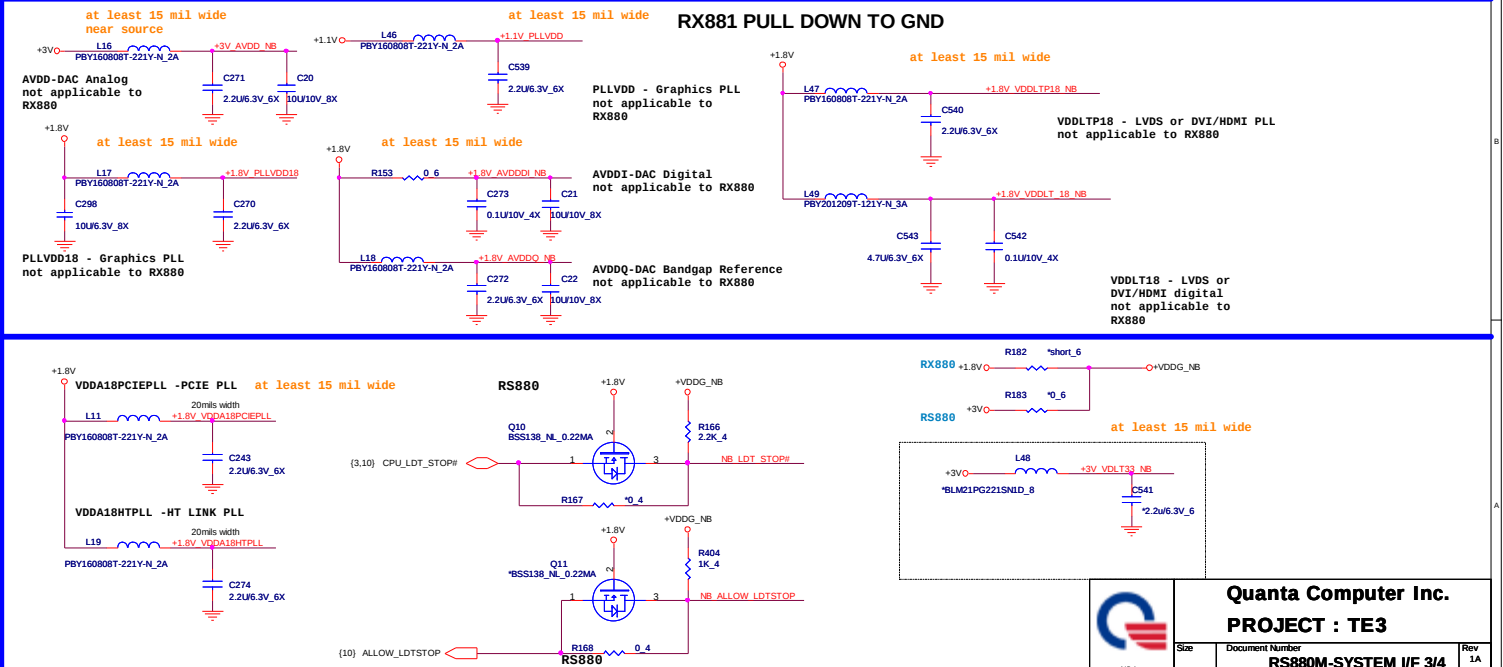
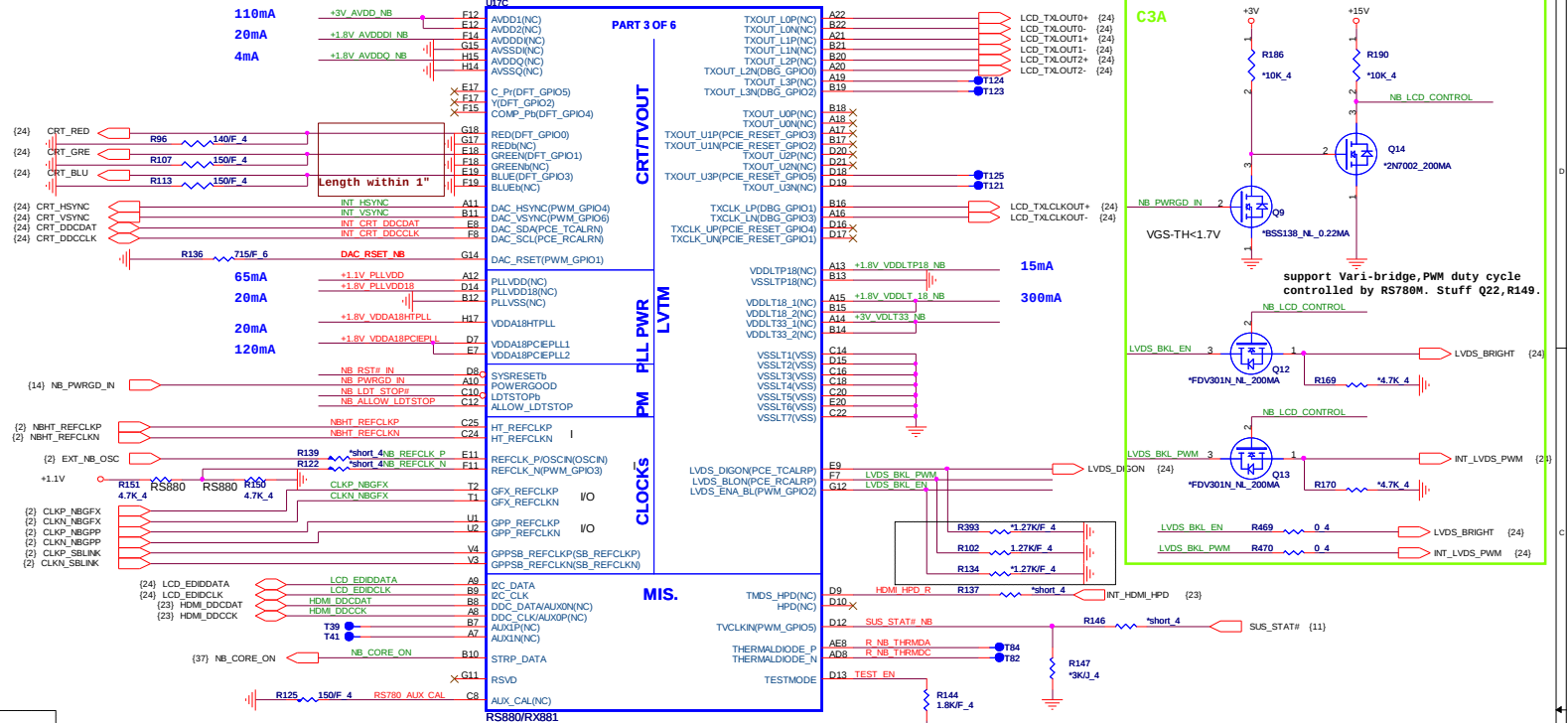
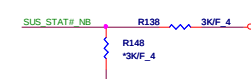
0-->Enable
1-->Disable



```
0-->Enable
1-->Disable
```

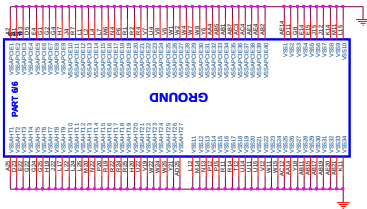


```
0-->Enable
1-->Disable
```



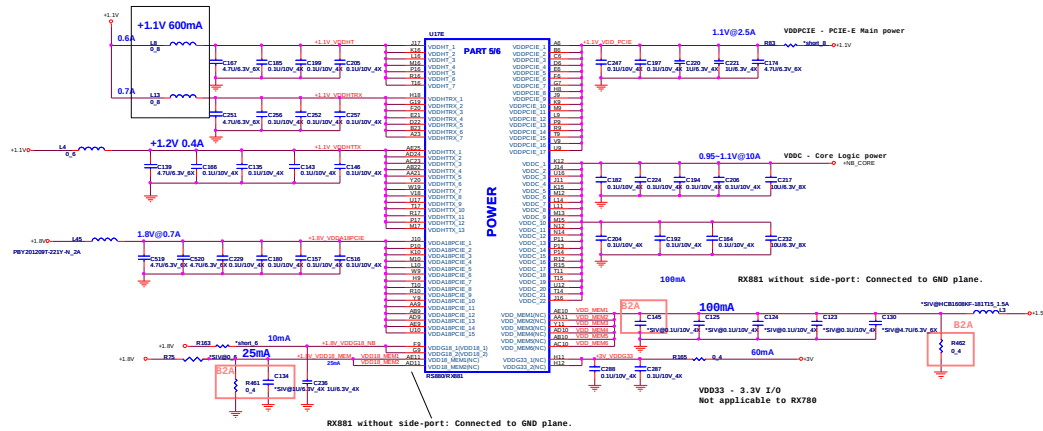
Quanta Computer Inc.
PROJECT : TE3

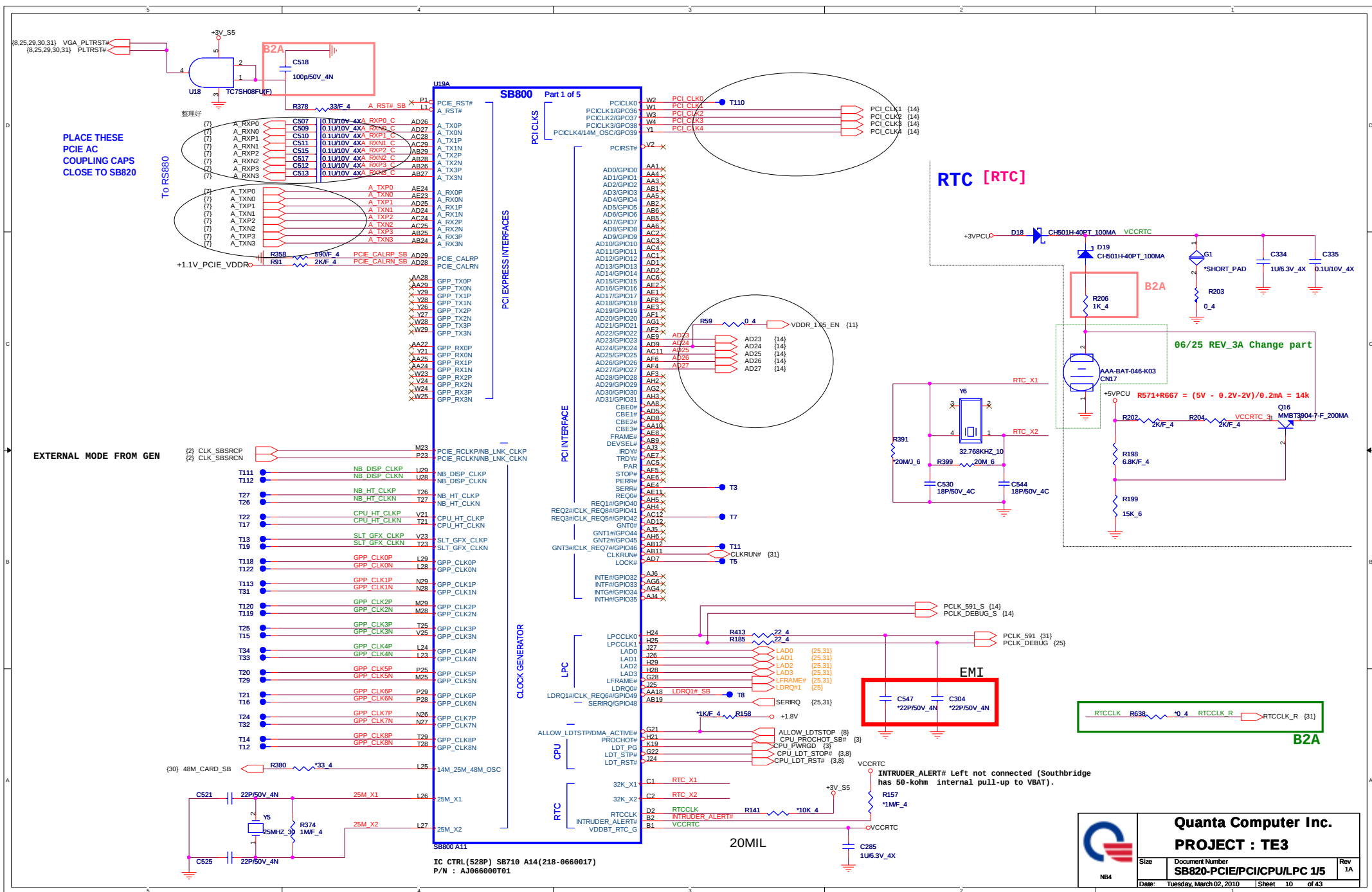
Size	Document Number	Rev
	RS880M-SYSTEM I/F 3/4	1A
Date: Tuesday, March 02, 2010	Sheet	8 of 43

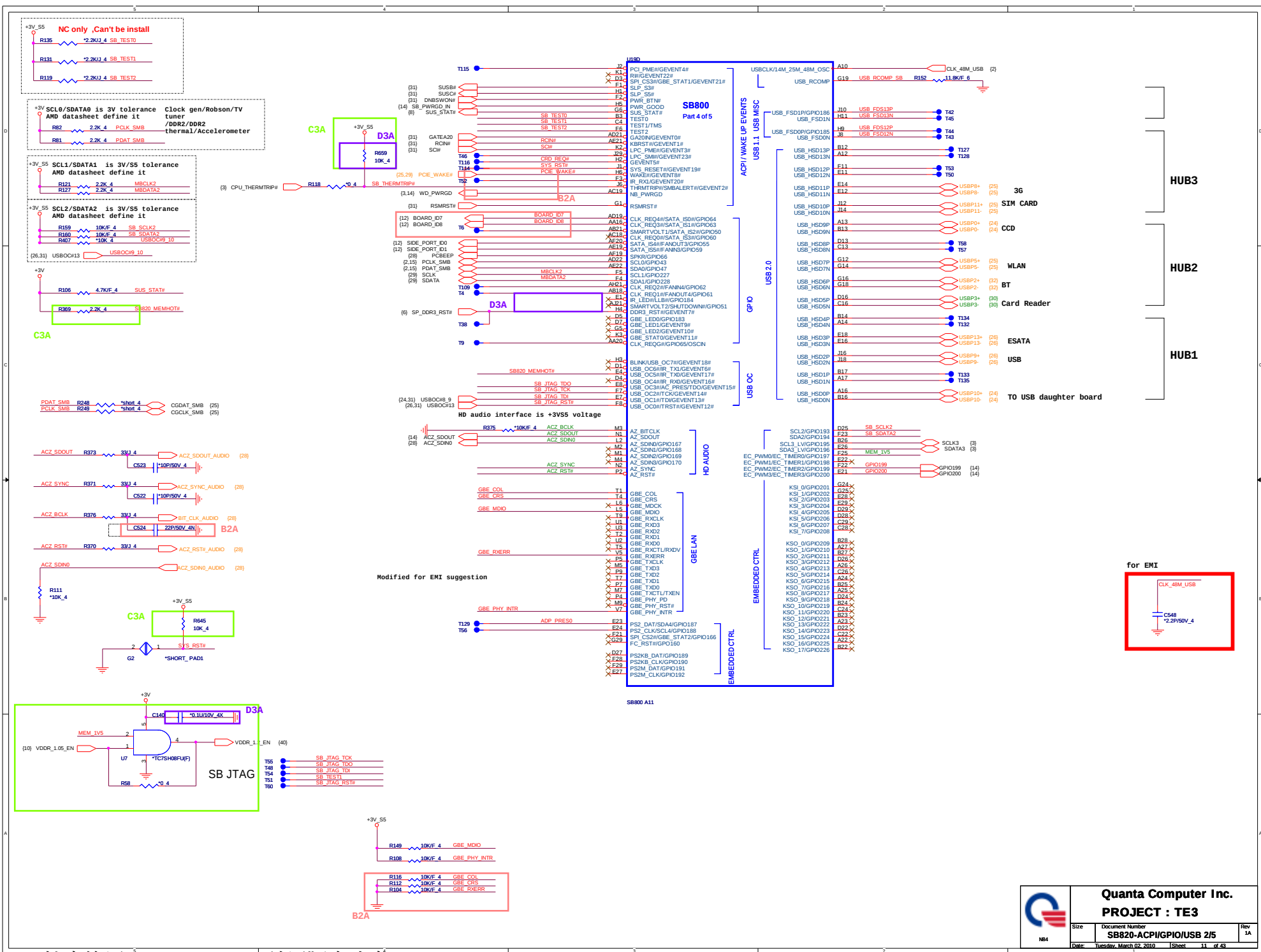


RX881/RS880 POWER DIFFERENCE TABLE

PIN NAME	RS880	PIN NAME	RS880
VDDHT	+1.1V	IOPLVDD	+1.1V
VDDHTTX	+1.1V	AVDD	+1.2V
VDDHTTX	+1.2V	AVDDQ	+1.8V
VDDA38PCIE	+1.8V	AVDDQ	+1.8V
VDDG18	+1.8V	PLVDD	+1.5V
VDDG18_NEW	+1.8V	PLVDD33	+1.5V
VDDPCIE	+1.1V	VDDA38PCIE	+1.8V
VDDC	+1.1V	VDDA38TTL	+1.8V
VDD_MEM	1.5V	VDD18P18	+1.8V
VDDG33	+1.3V	VDD18	+1.8V
IOPLVDD18	+1.8V	VD01TX	NC







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

SATA HDD



E-SATA

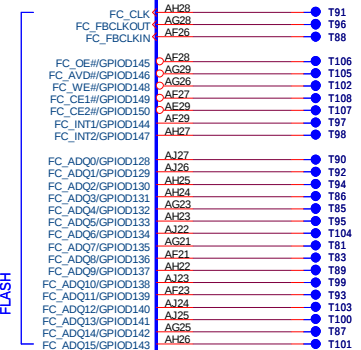


SATA ODD



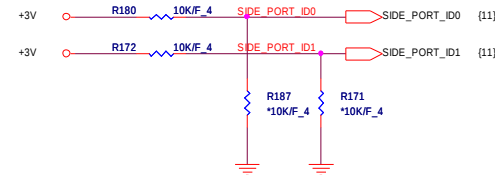
U19B

SB800
Part 2 of 5



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

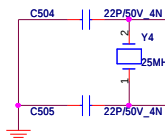
ID1	ID0	Function
0	0	Samsung
0	1	Hynix
1	0	Reserve
1	1	No sideport support



PLACE SATA_CAL
RES VERY CLOSE
TO BALL OF SB820

+1.1V_AVDD_SATA

{33} SATA_LED#



TEMPINO
TEMPINI
MB_THRMDA_SB
VIN0
VIN1
VIN2
VIN3
VIN4
VIN5



SB800 A11

SERIAL ATA

FLASH

HW MONITOR

SPI ROM

FANOUT0/GPIO52
FANOUT1/GPIO53
FANOUT2/GPIO54

FANIN0/GPIO56
FANIN1/GPIO57
FANIN2/GPIO58

TEMPIN0/GPIO171
TEMPIN1/GPIO172
TEMPIN2/GPIO173
TEMPIN3/TALERT#/GPIO174
TEMP_COMM

VIN0/GPIO175
VIN1/GPIO176
VIN2/GPIO177
VIN3/GPIO178
VIN4/GPIO179
VIN5/GPIO180
VIN6/GBE_STAT3/GPIO181
VIN7/GBE_LED3/GPIO182

A3 VIN0
A4 VIN1
A5 VIN2
A6 VIN3
A7 VIN4
A8 VIN5
A9 GBE_STAT3
A10 GBE_LED3

TEMPINO
TEMPINI
MB_THRMDA_SB
VIN0
VIN1
VIN2
VIN3
VIN4
VIN5

TEMPINO
TEMPINI
MB_THRMDA_SB
VIN0
VIN1
VIN2
VIN3
VIN4
VIN5

TEMPINO
TEMPINI
MB_THRMDA_SB
VIN0
VIN1
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VIN5

TEMPINO
TEMPINI
MB_THRMDA_SB
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TEMPINO
TEMPINI
MB_THRMDA_SB
VIN0
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MB_THRMDA_SB
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MB_THRMDA_SB
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VIN0
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VIN4
VIN5

TEMPINO
TEMPINI
MB_THRMDA_SB
VIN0
VIN1
VIN2
VIN3
VIN4
VIN5

TEMPINO
TEMPINI
MB_THRMDA_SB
VIN0
VIN1
VIN2
VIN3
VIN4
VIN5

BOARD ID SETTING

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



Quanta Computer Inc.
PROJECT : TE3

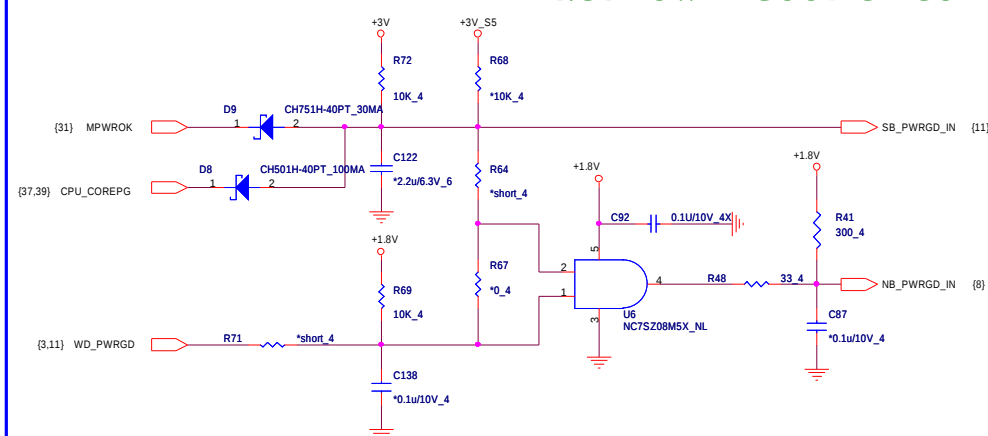
Size	Document Number	Rev
	SB820-SATA/IDE/HWM/SPI 3/5	1A

Date: Tuesday, March 02, 2010 Sheet 12 of 43

[illegible]

DEBUG STRAPS

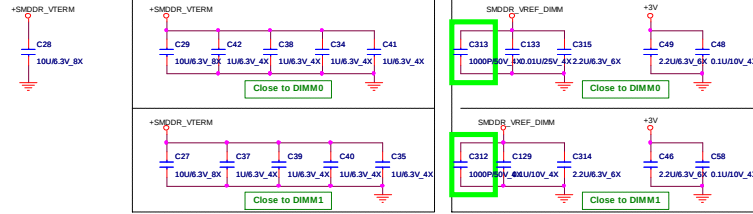
NB/SB POWER GOOD CIRCUIT



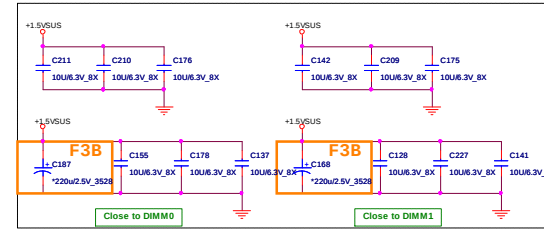
Size	Document Number	Rev
	SB820-STRAPS 5/5	1A
Date:	Tuesday, March 02, 2010	Sheet 14 of 43

DDRIII

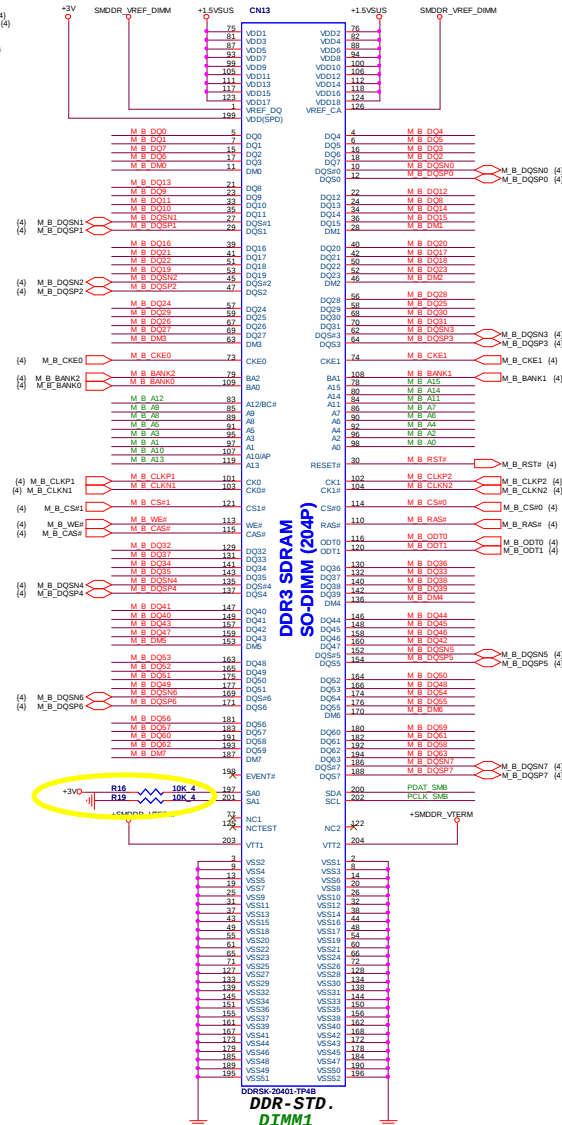
TERMINATOR DECOUPLING CAPACITOR



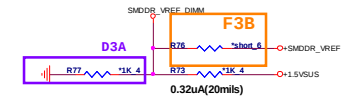
9.12A(VCC plane from source)



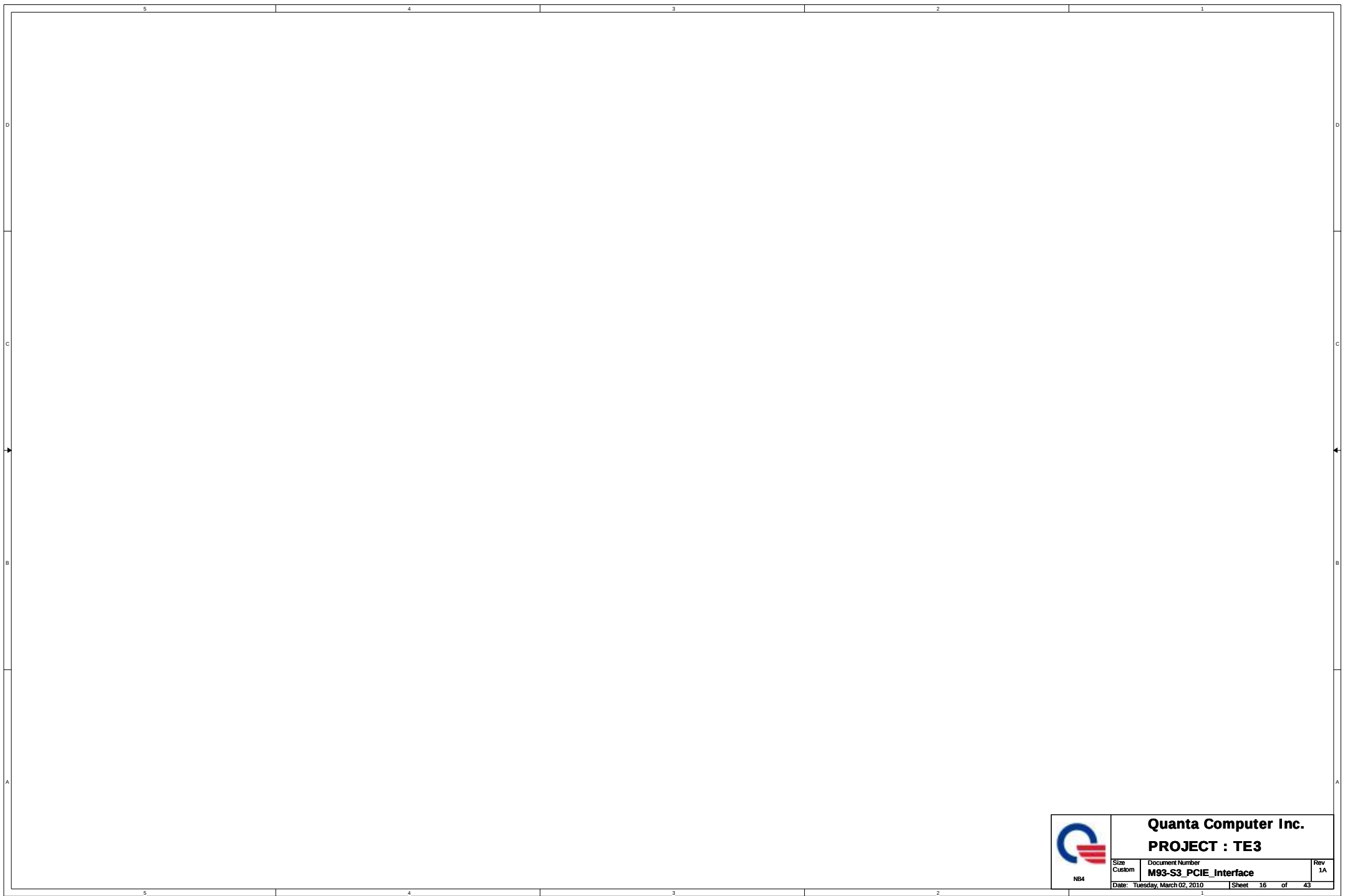
M_B_DM0[7:1] (4)
M_B_DM0[6:4] (4)
M_B_DM0[15:0] (4)



+3V0
R16 10K 4
R17 10K 4
SMDR_VREF_DIMM

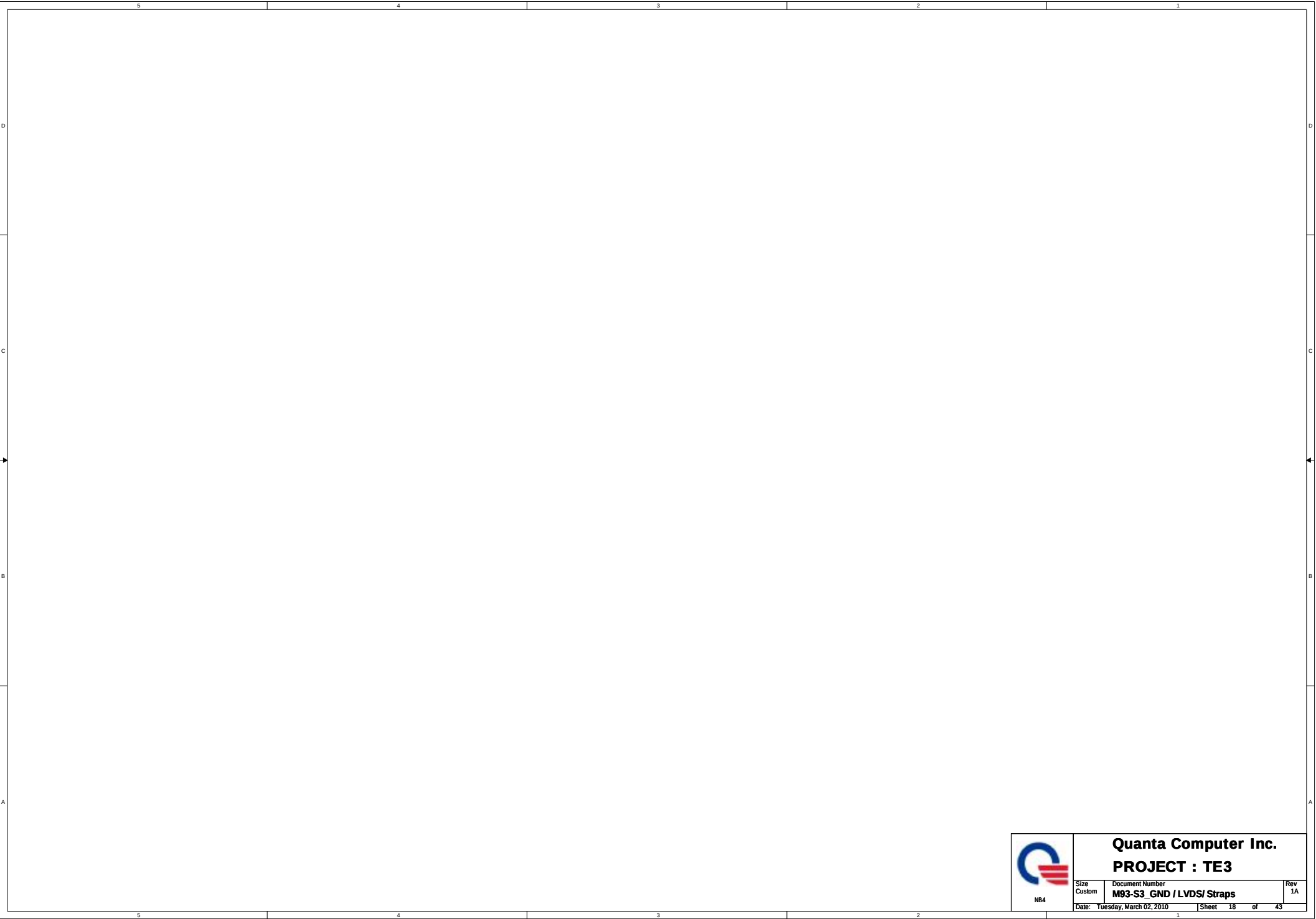


CHECK BY CRB S1G4 DONT
SUPPORT MEM HOT?



 NB4	Quanta Computer Inc. PROJECT : TE3				
	Size	Document Number			Rev
	Custom	M93-S3_PCIE_Interface			1A
Date: Tuesday, March 02, 2010		Sheet	16	of	43

D <
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N84

Quanta Computer Inc.
PROJECT : TE3

Size Custom	Document Number M93-S3_GND / LVDS/ Straps	Rev 1A
Date: Tuesday, March 02, 2010	Sheet 18 of 43	

	5	4	3	2	1
D					
C					
B					
A					
	5	4	3	2	1



Size

Custom

Document Number

M93-S3_Power_and_NC

Date: Tuesday, March 02, 2010

Sheet 19 of 43

Rev

1A

N84

Quanta Computer Inc.

PROJECT : TE3



 NB4			Quanta Computer Inc. PROJECT : TE3		
Size	Document Number			Rev	
	M93-S3_HDMI_Thermal			1A	
Date:	Tuesday, March 02, 2010	Sheet	20	of	43

 NB4	Quanta Computer Inc. PROJECT : TE3		
	Size Custom	Document Number	Rev 1A
	M93-S3_Interface		
Date: Tuesday, March 02, 2010		Sheet 21 of 43	

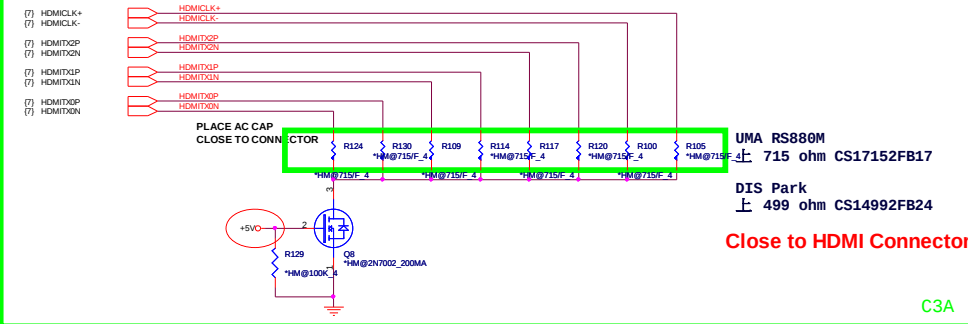
 NB4	Quanta Computer Inc. PROJECT : TE3		
	Size Custom	Document Number M93-S3 VRAM_A0,A1	Rev 1A
	Date: Tuesday, March 02, 2010 Sheet 22 of 43		

HDMI Conn [HDM]

D3A

FOR HDMI PAGE 23

Close to HDMI CONN

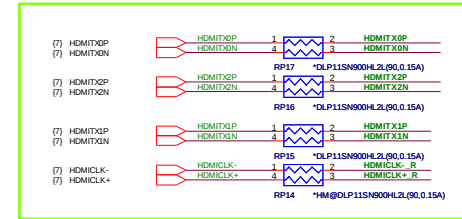


UMA RS880M

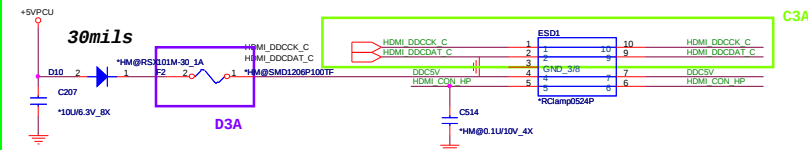
DIS Park
上 499 ohm CS14992FB24

Close to HDMI Connector

C3A



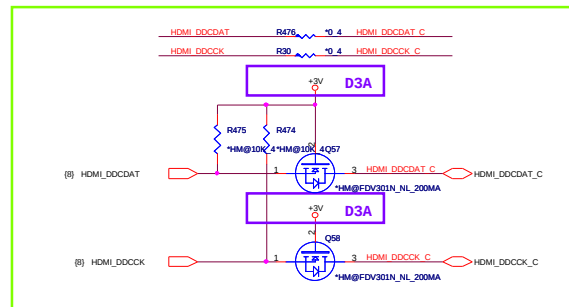
C3A



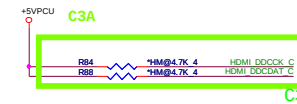
C3A

HDMI INTERFACE

C3A

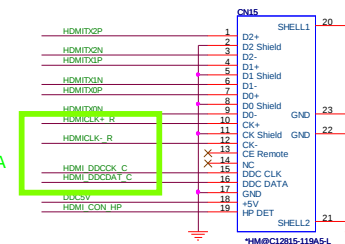
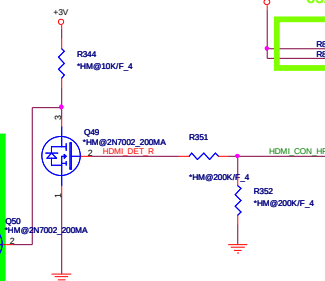
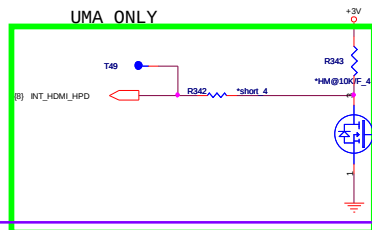


HDMI HPD SENSE

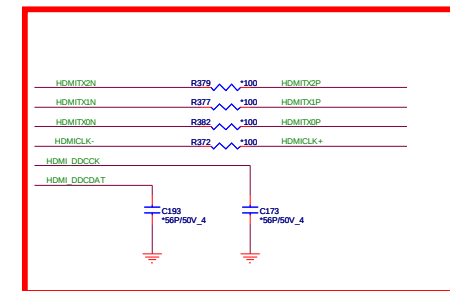


C3A

UMA ONLY

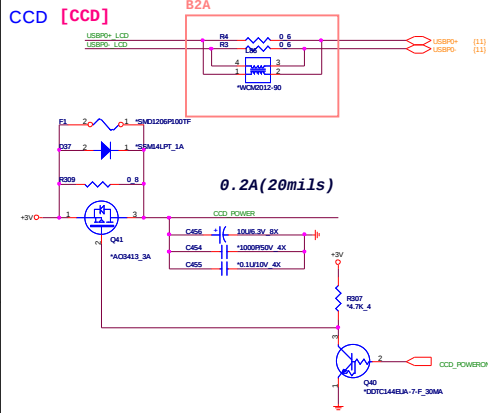


FOR EMI

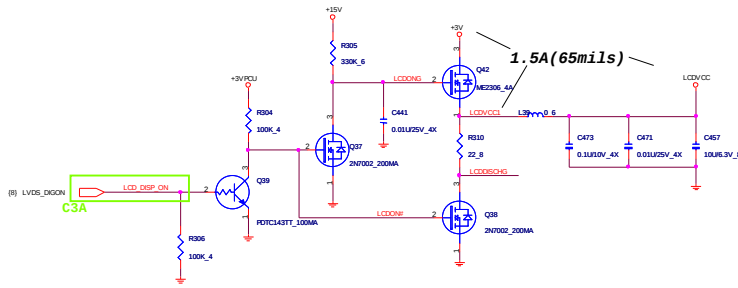


Close to connector

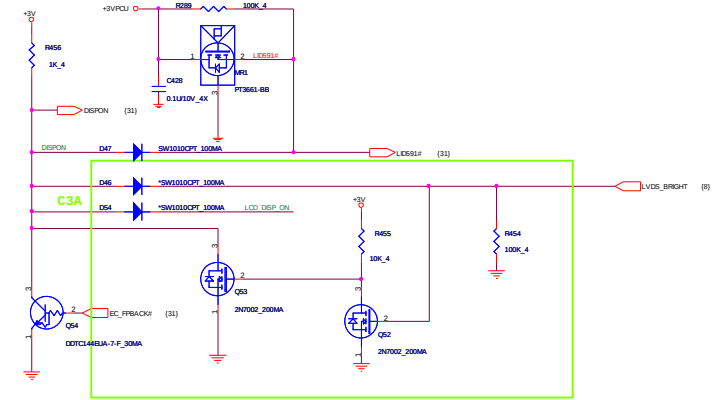
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Size	Document Number	HDMI CONN	
Date: Tuesday, March 02, 2010	Sheet	23	of 43



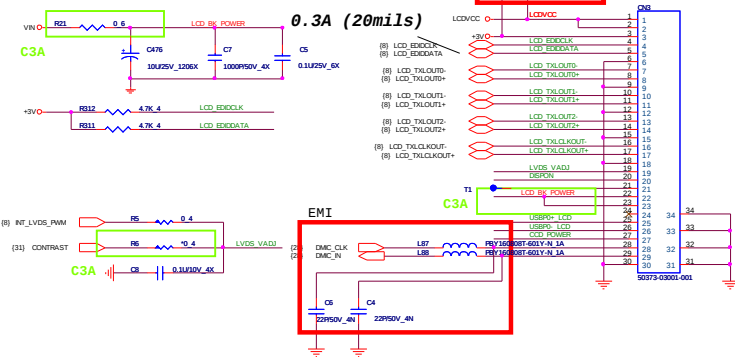
LCD POWER SWITCH [LDS]



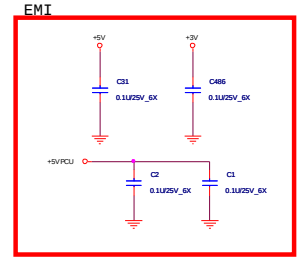
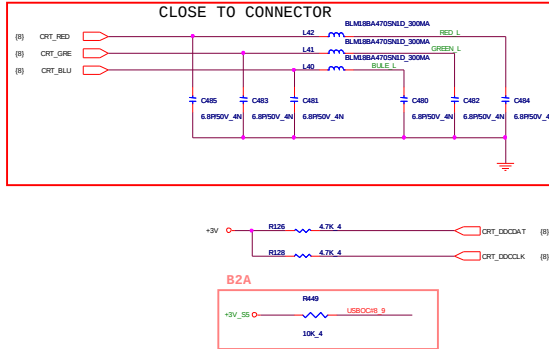
HALL SENSOR&BACK LIGHT SWITCH [HSR]



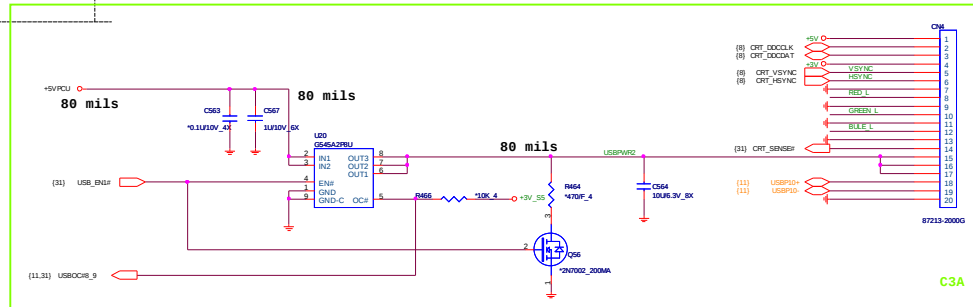
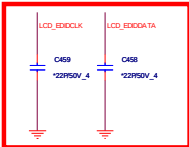
LCD Panel Module [LDS]



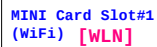
CRT [CRT]



FOR EMI



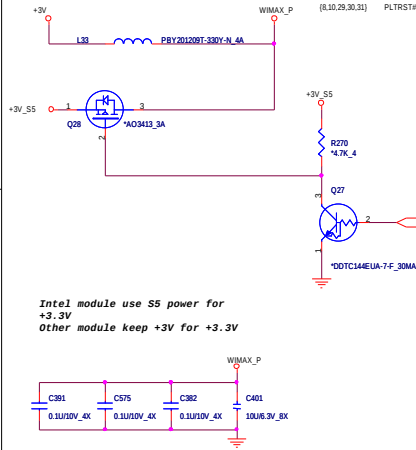
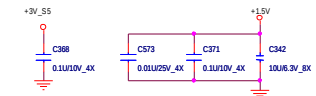
	Quanta Computer Inc.		
	PROJECT : TE3		
	Size	Document Number	Rev
	184	LCD/LED Panel/CCD	1A



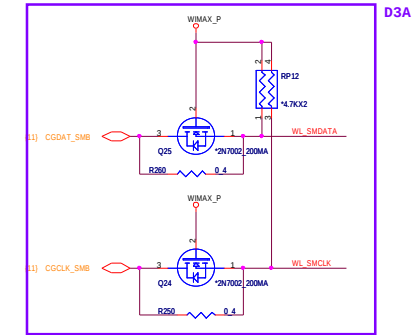
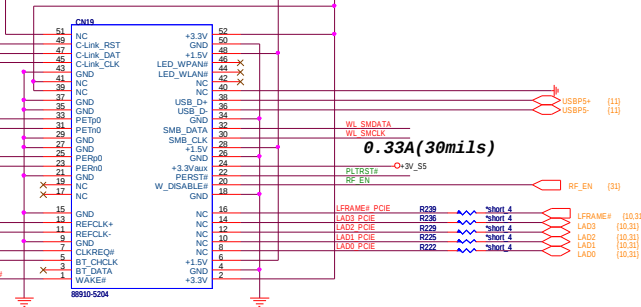
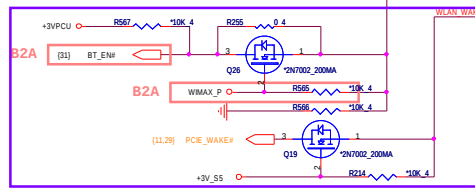
Before RAMP must to remove
debug card component

0.5A(30mils)

2.75A(120mils)



D3A

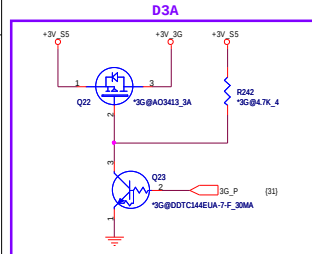
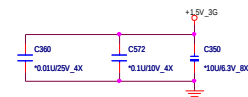
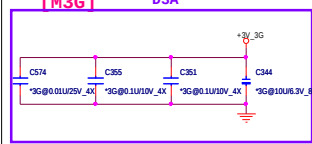


D3A

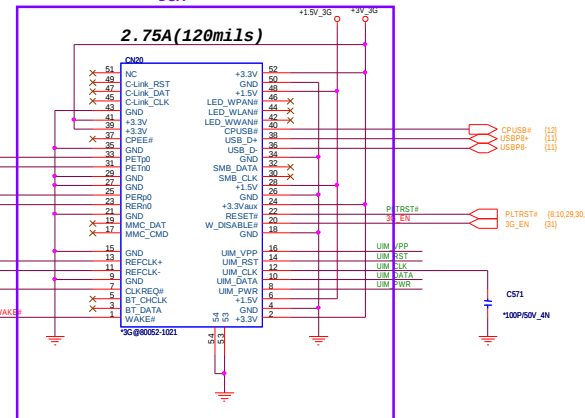
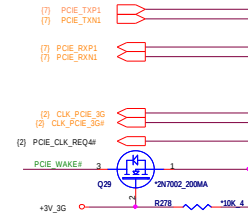


D3A

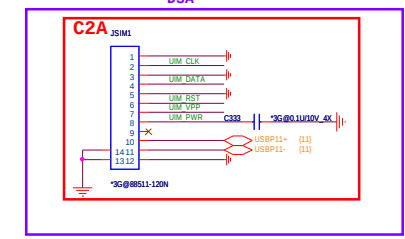
2.75A(120mils)



0.5A(30mils)

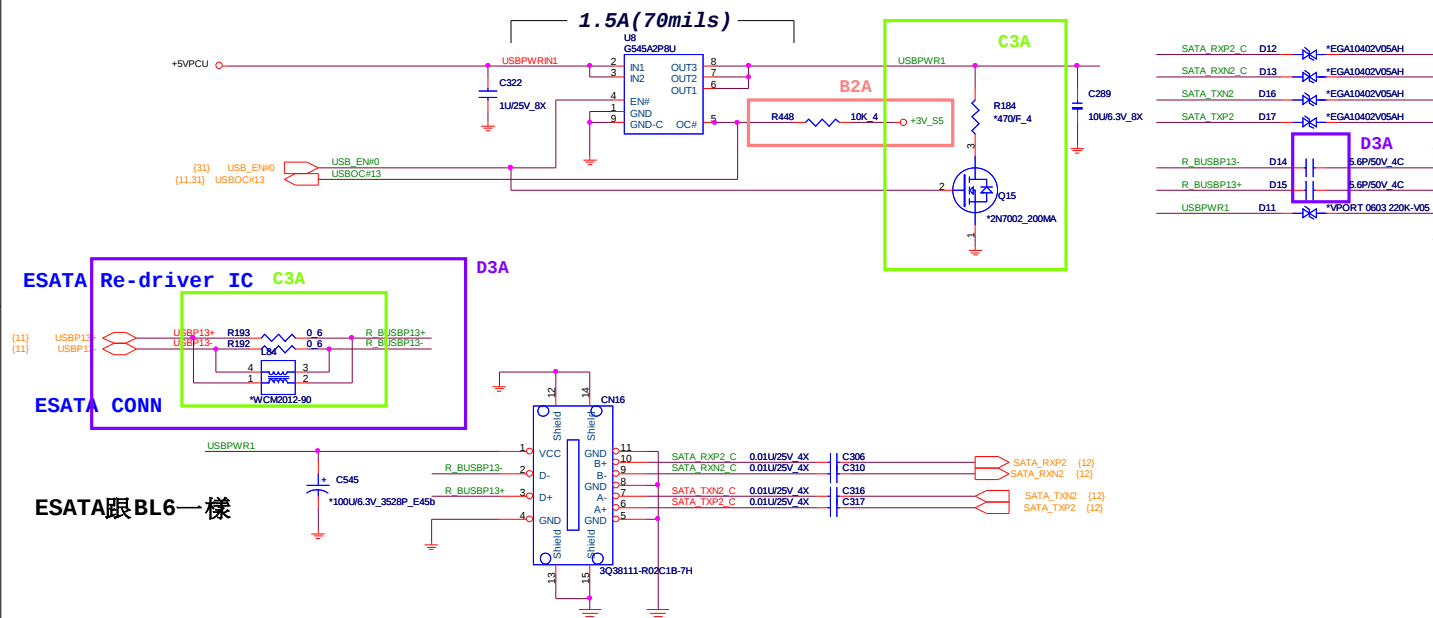


SIM CARD [M3G]

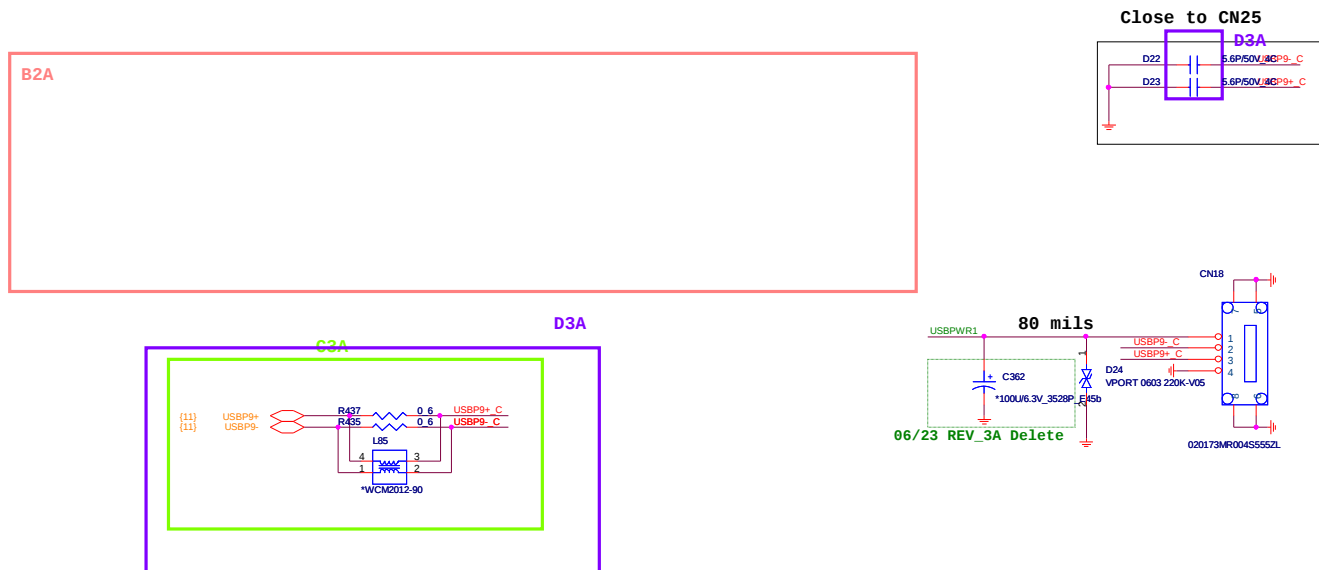


 NB4	Quanta Computer Inc. PROJECT : TE3		
	Size	Document Number	Rev
		MINI CARD(WLAN/3G/SIM Card)	1A
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E-SATA [ESA]

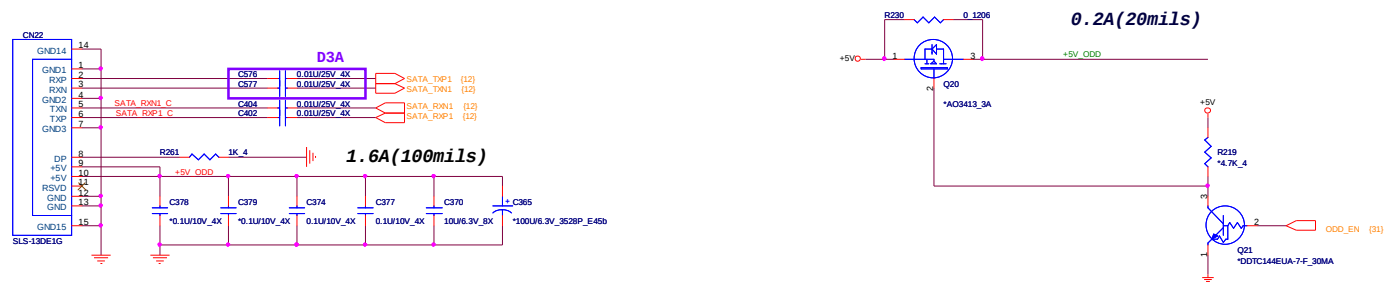


USB MB SIDE



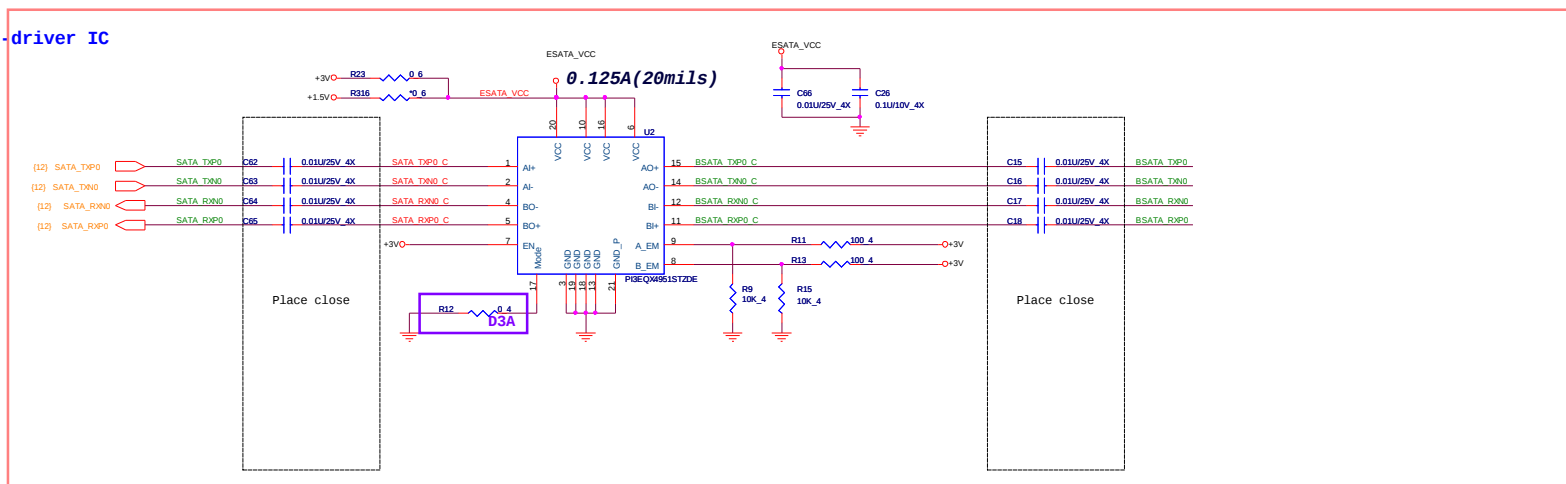
SATA ODD

[ODD]



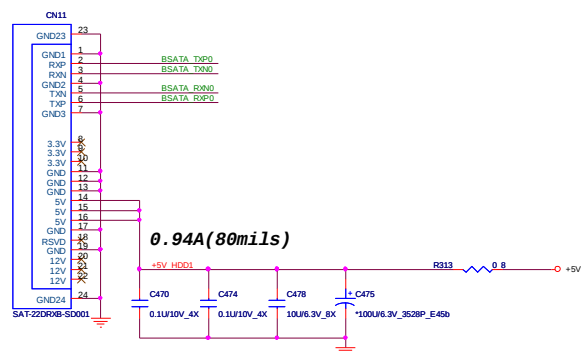
SATA HDD Re-driver IC

B2A

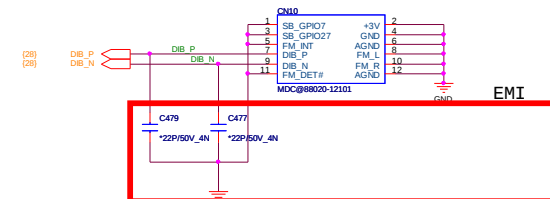


SATA HDD

[HDD]

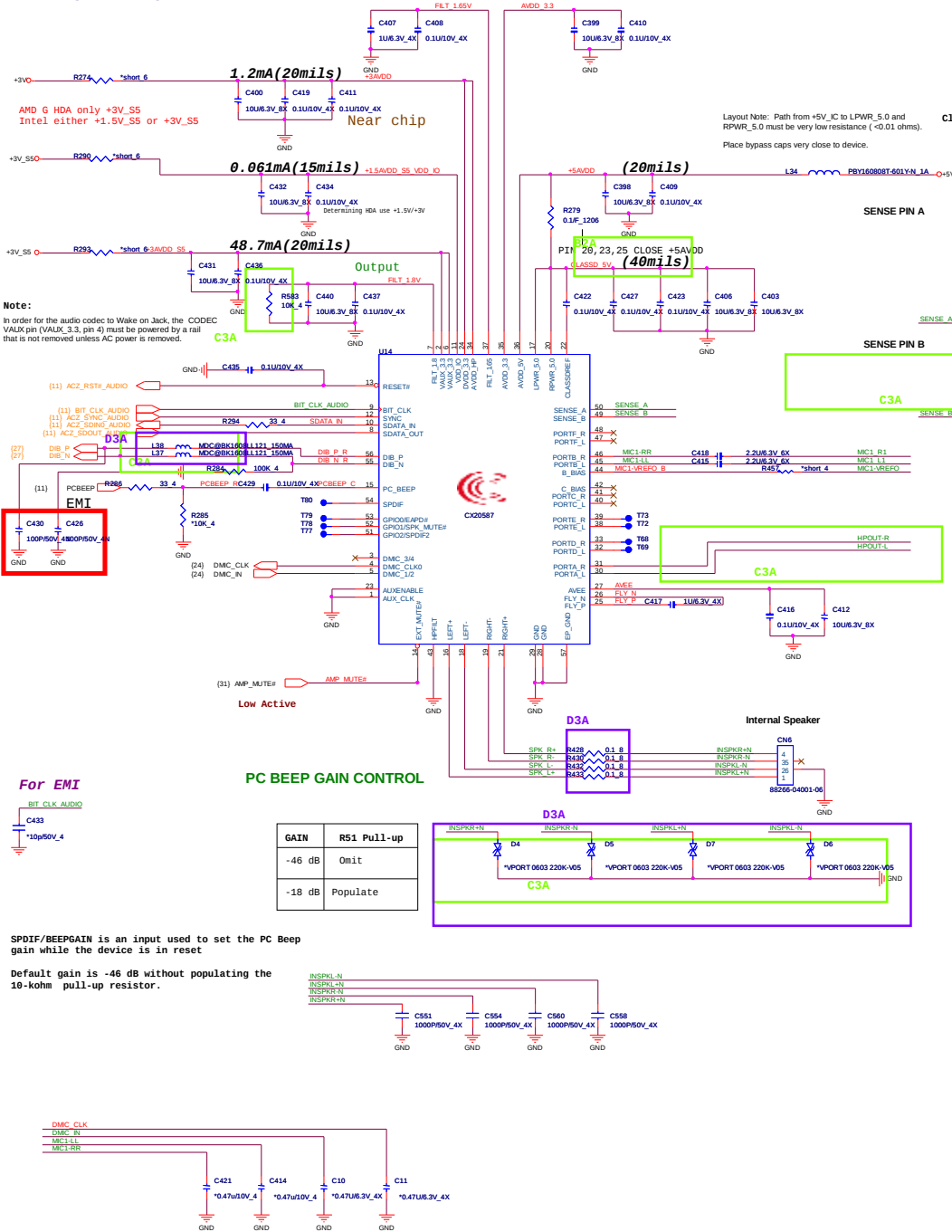


MDC

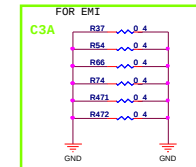
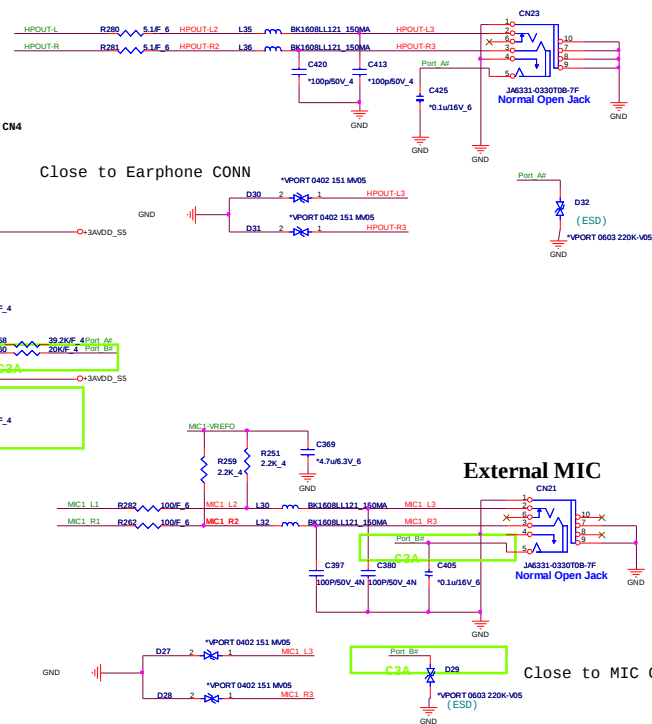


NB4	Quanta Computer Inc.		
	PROJECT : TE3		
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		HDD/ODD	1A
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Codec (CX20583) [A0]



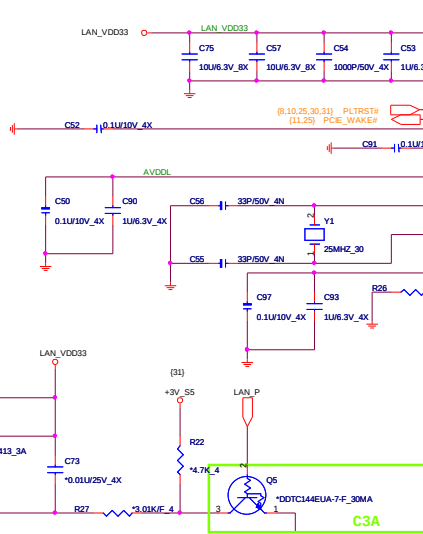
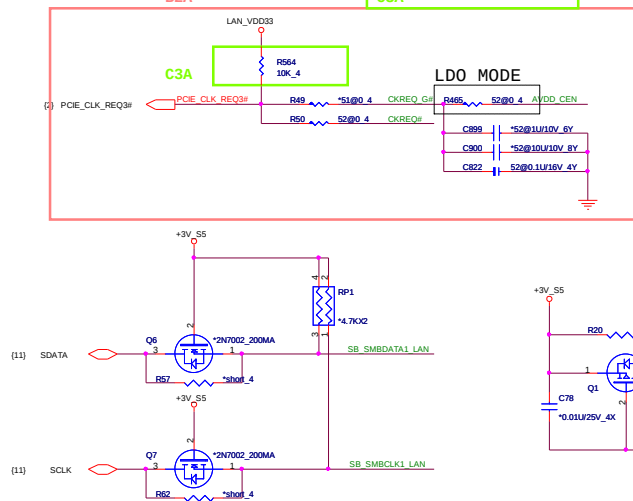
Earphone



200910251600 remove MIC_INT_L

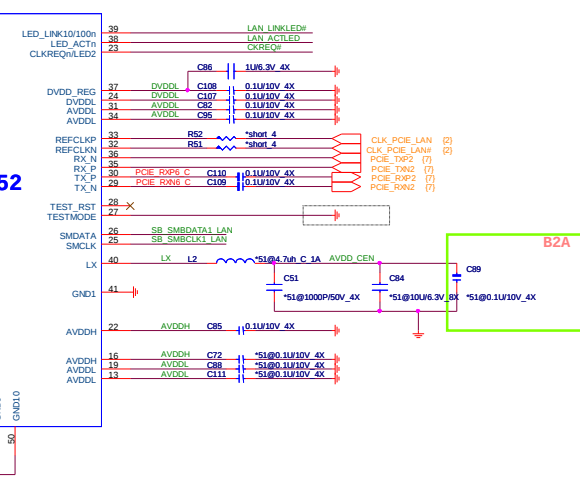
Atheros Lan

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

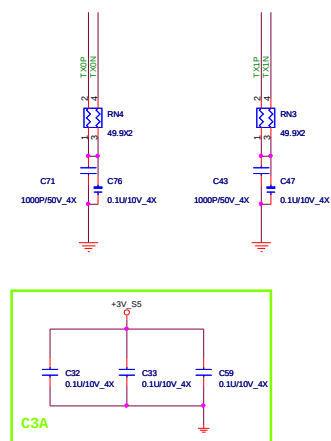


GIGA:AR8151-AL1A-R = AL008151001
10/100:AR8152-AL1A-R = AL008152004

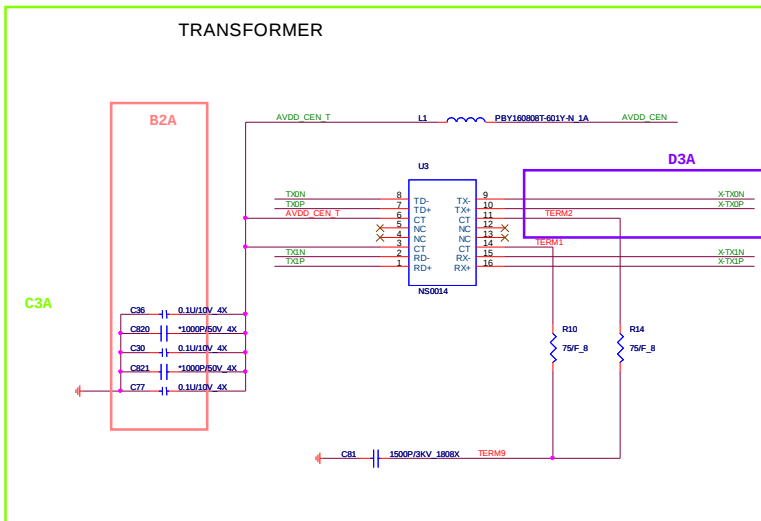
Atheros AR8151/AR8152



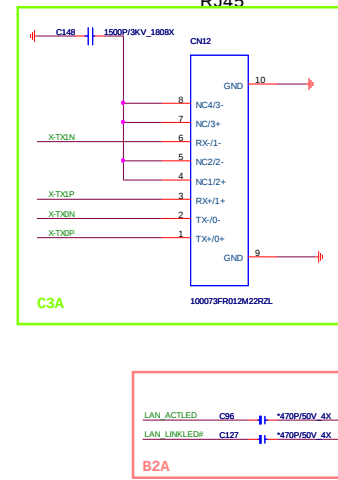
PLACE NEAR LAN IC SIDE



TRANSFORMER

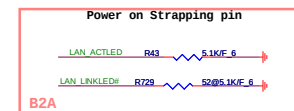


RJ45



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

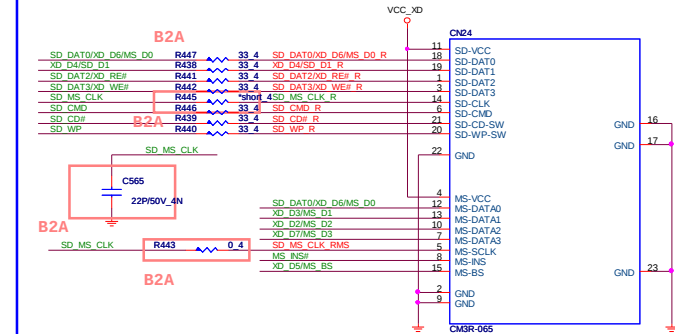
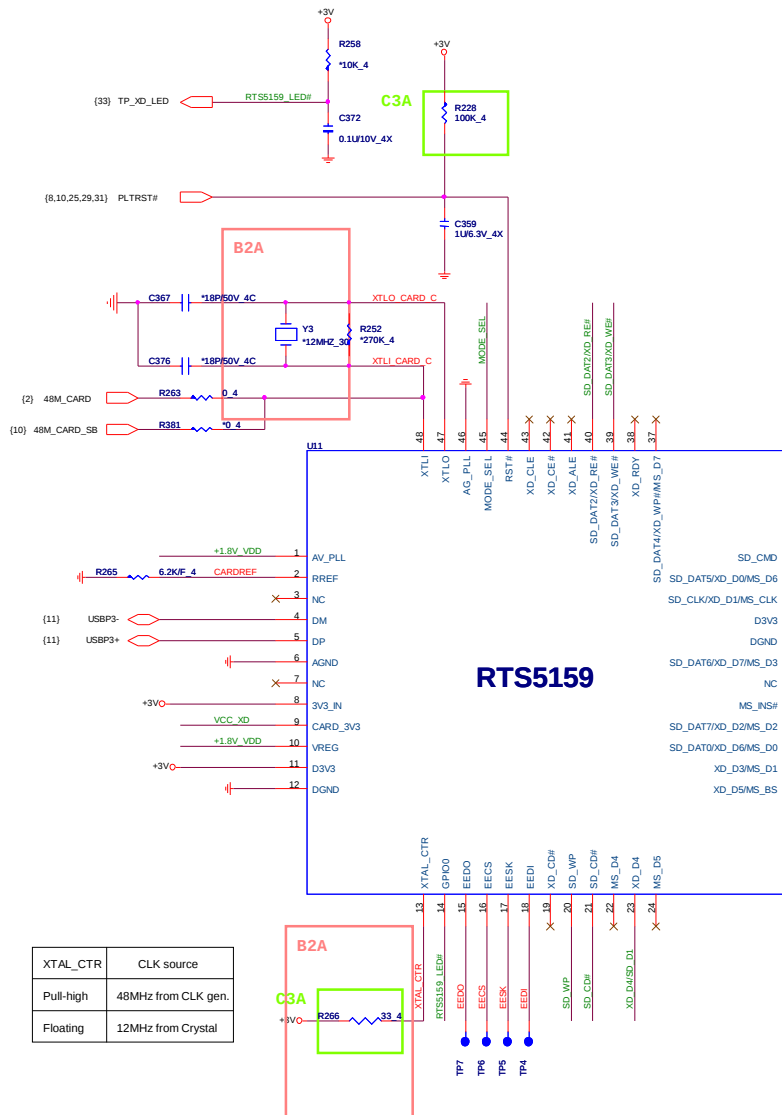
Power on Strapping pin



 NB4	Quanta Computer Inc. PROJECT : TE3		
	Size	Document Number Atheros Lan	Rev 1A

3 IN 1 CARD READER

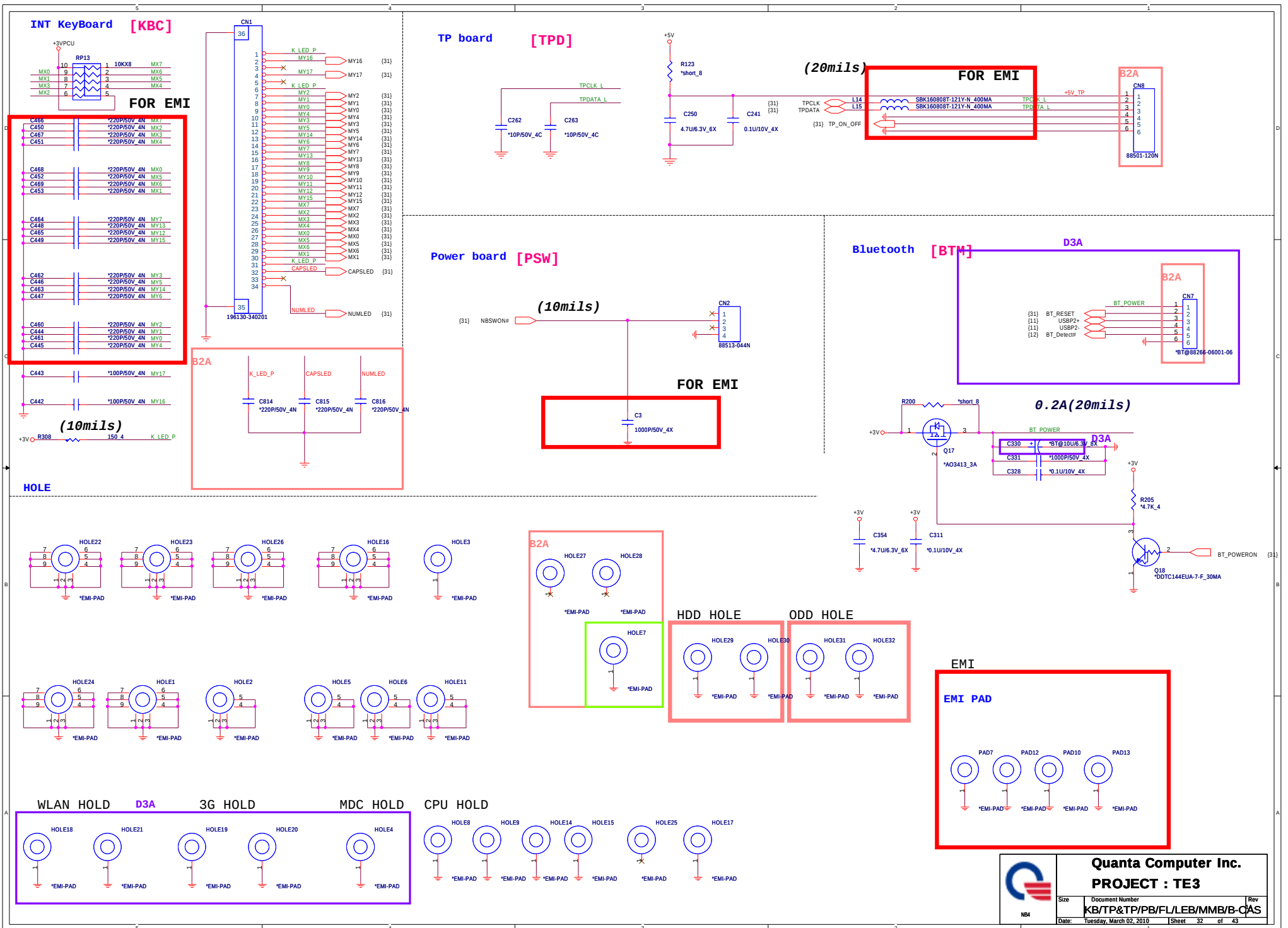
29



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:

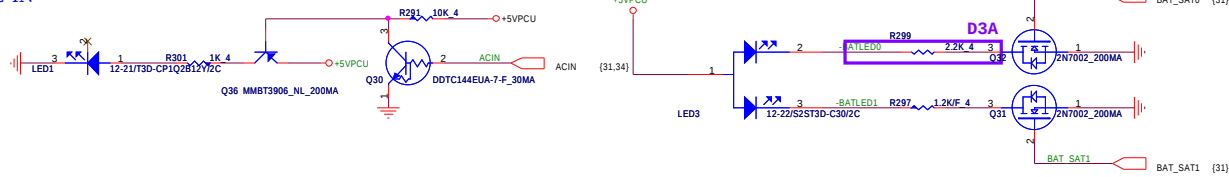
Quanta Computer Inc.
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Size	Document Number	Rev
NB4	RTS5159 (Card Reader)	1A
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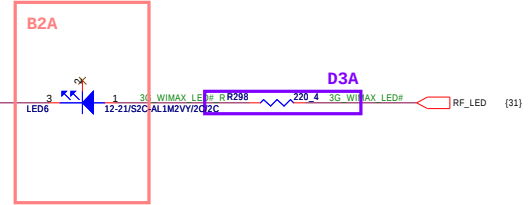
LED [LED]

AC-IN

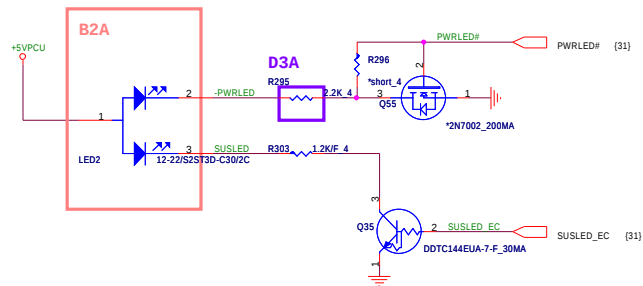


BATTERY

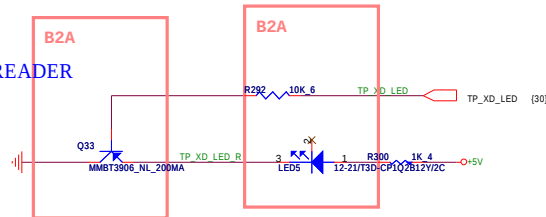
RF LED



POWER

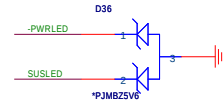


CARDREADER

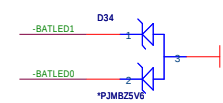


ESD Protect

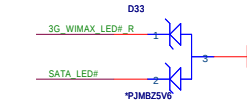
FOR POWER LED



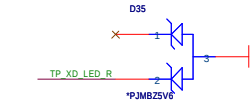
FOR BATTERY LED



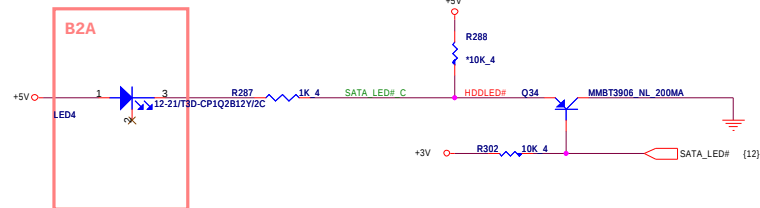
FOR HDD/W-LAN LED

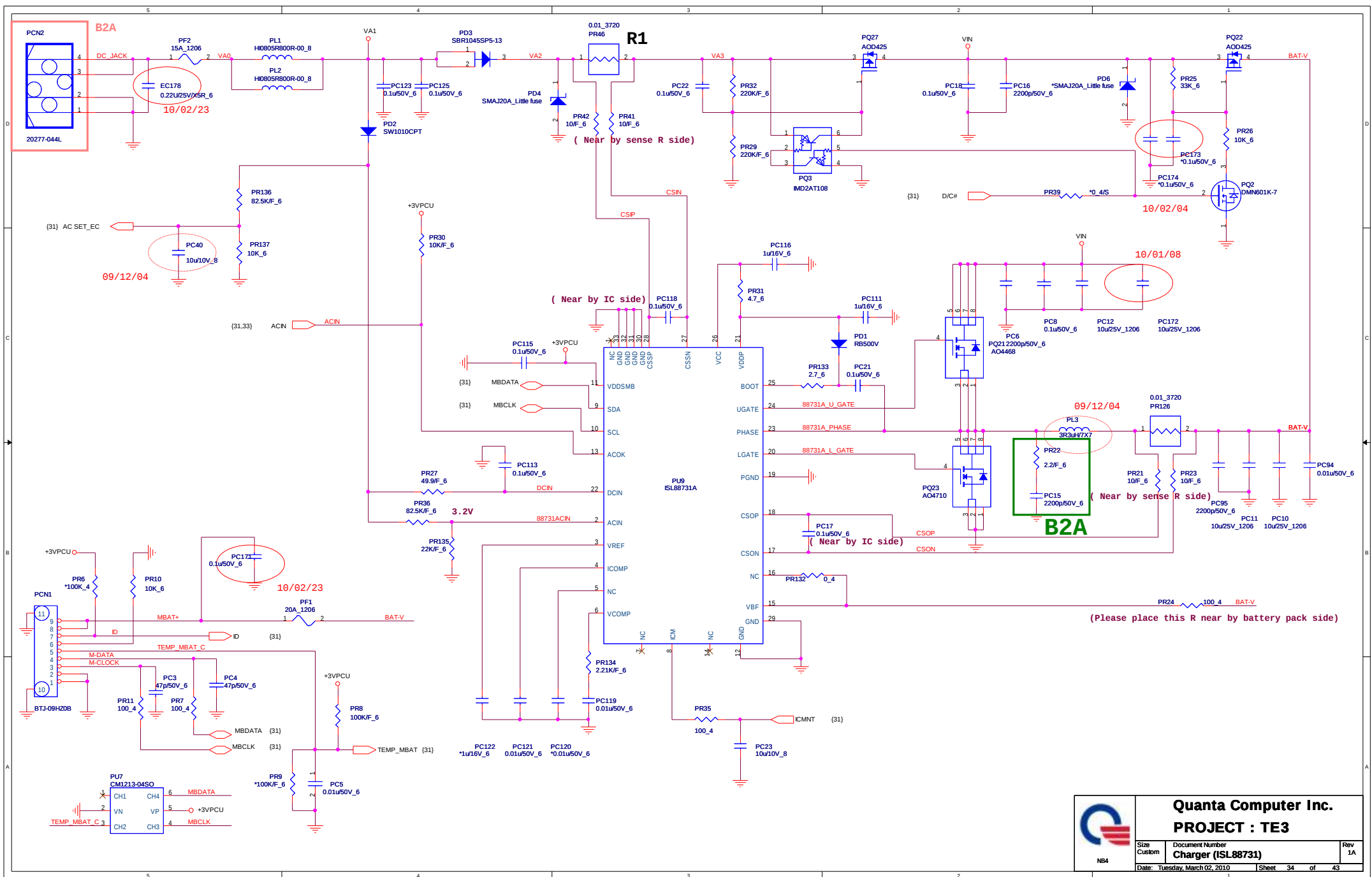


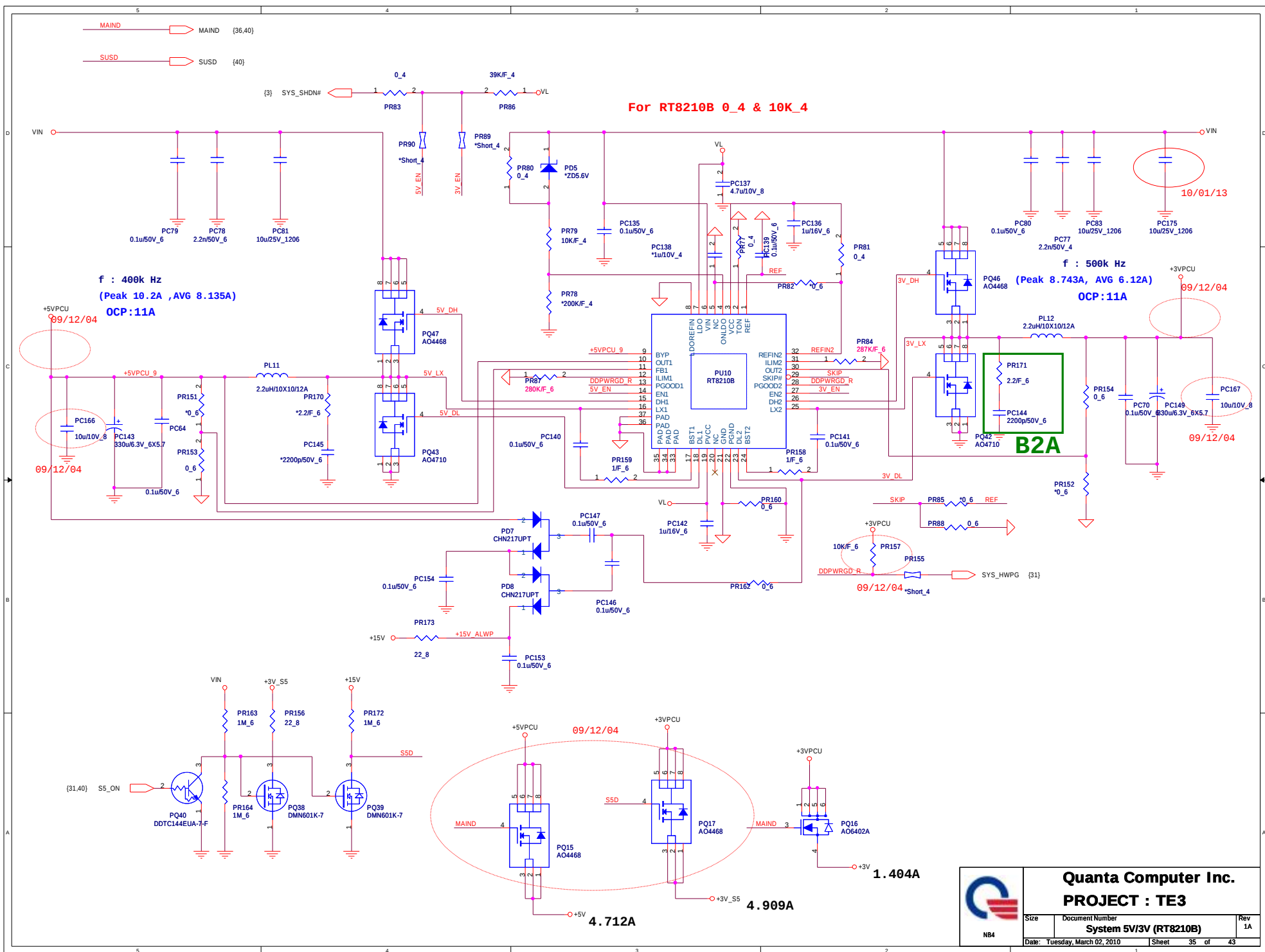
FOR 3G/CARDREADER LED

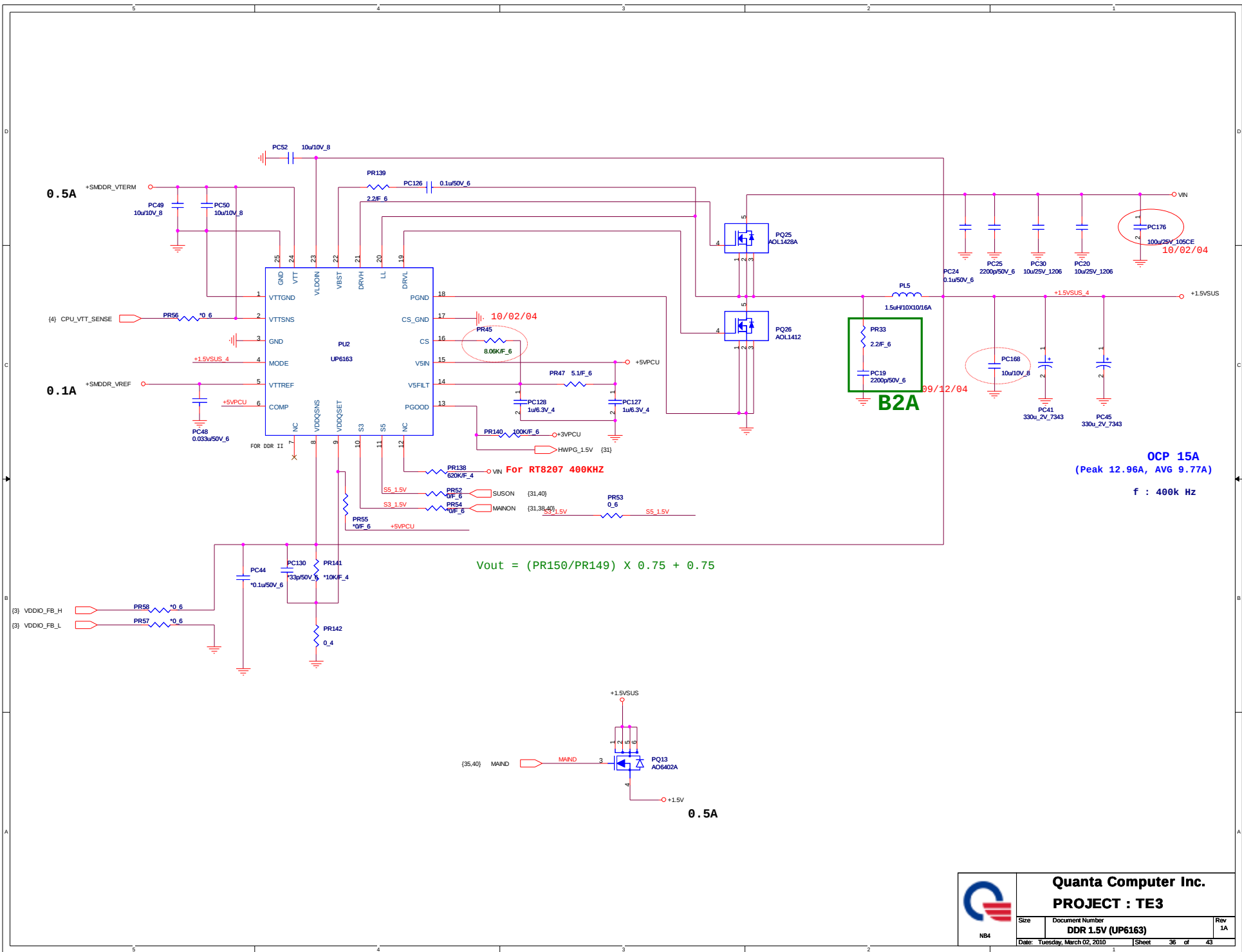


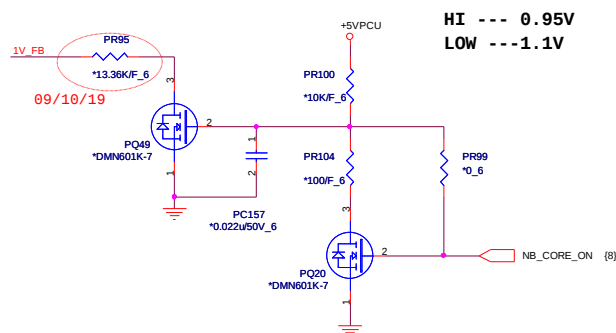
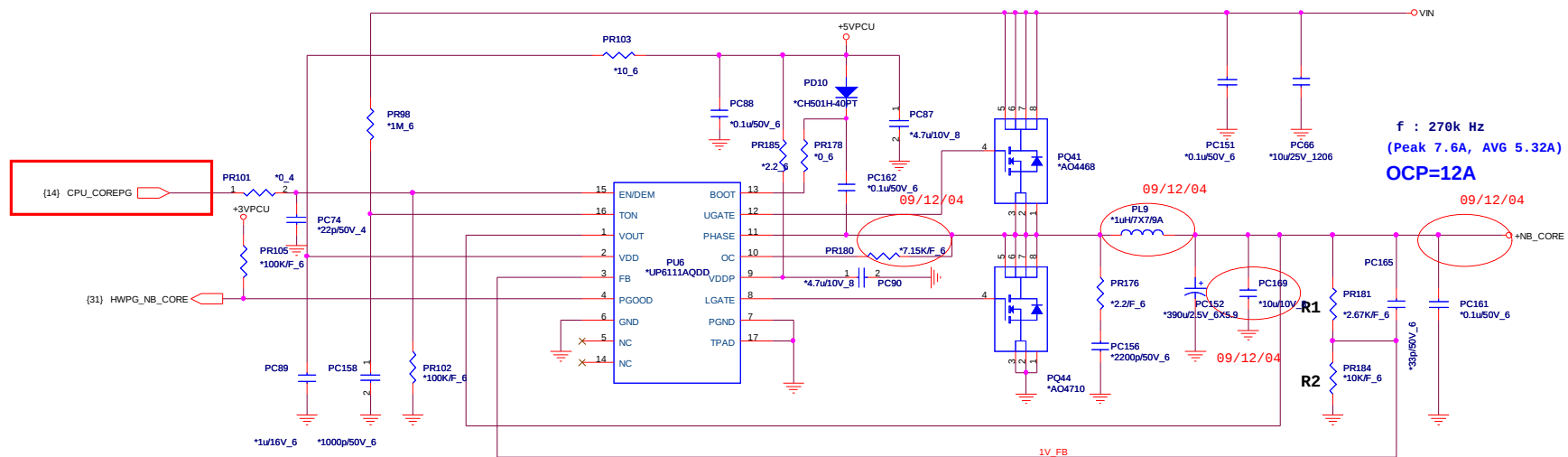
HDD/ODD



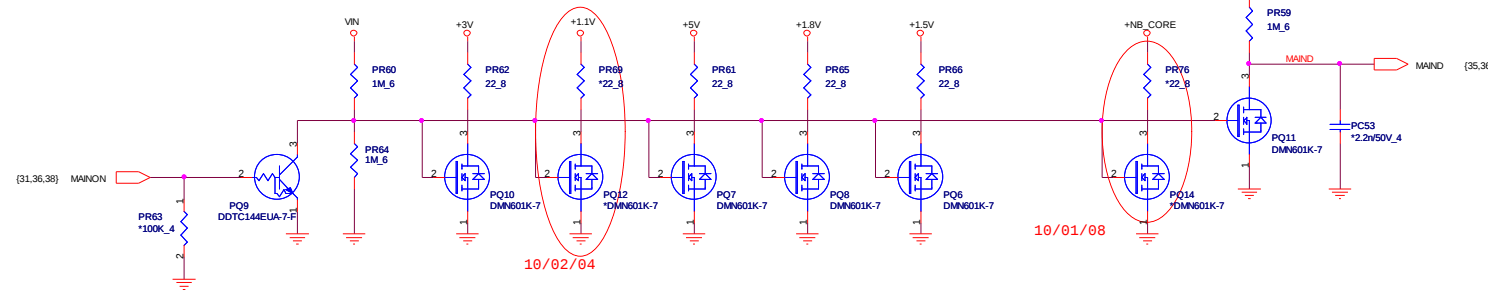
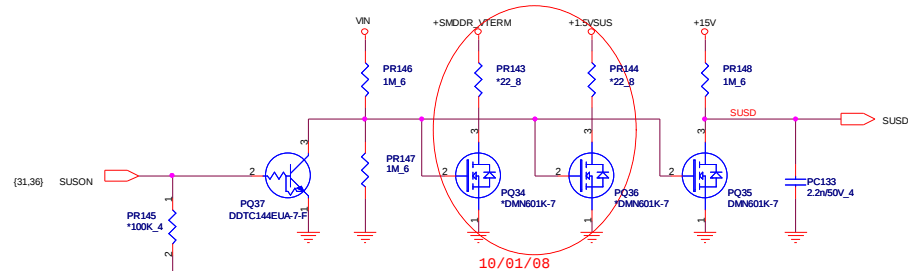
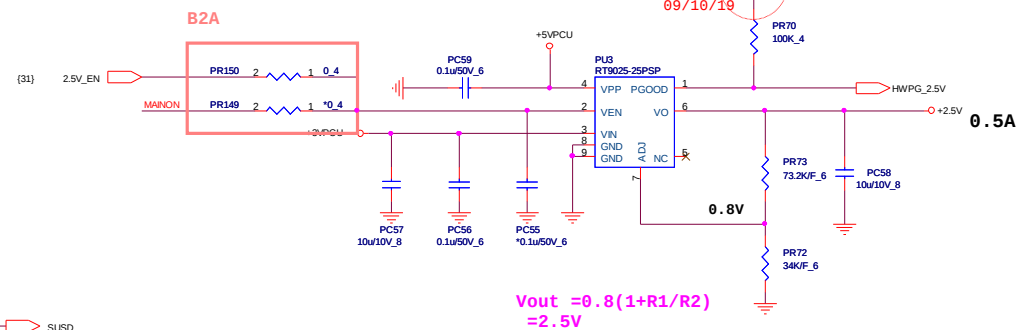
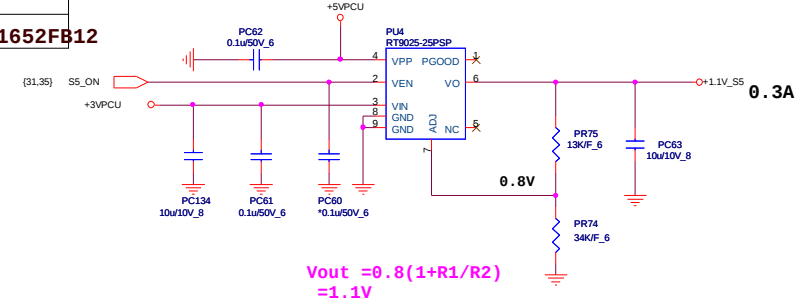
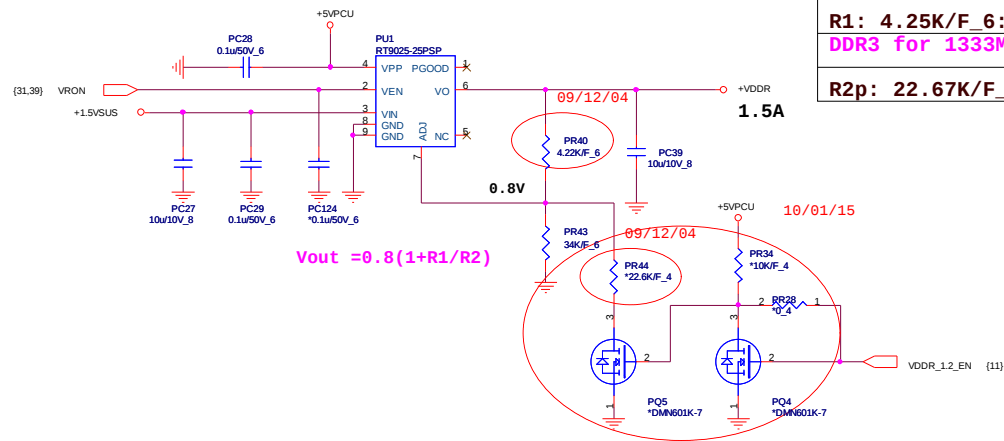






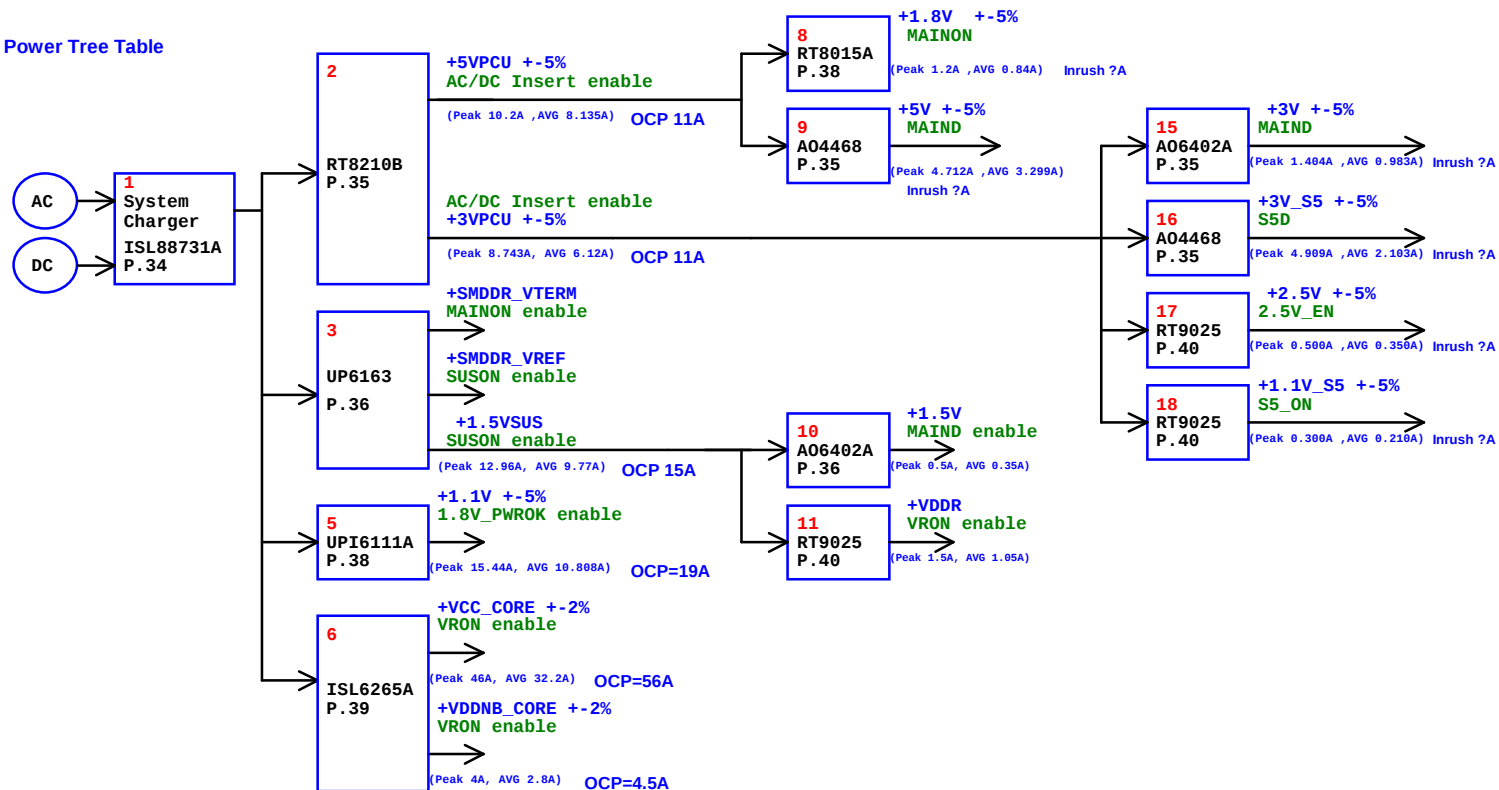


DDR3 for 1066MHZ----0.9V
R1: 4.25K/F_6: CS31073F908
DDR3 for 1333MHZ----1.05V
R2p: 22.67K/F_4: CS31652FB12



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	Discharge/2.5/1.1/VDDR	1A
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Power Tree Table



Power Distribution List

Power	Distribution

