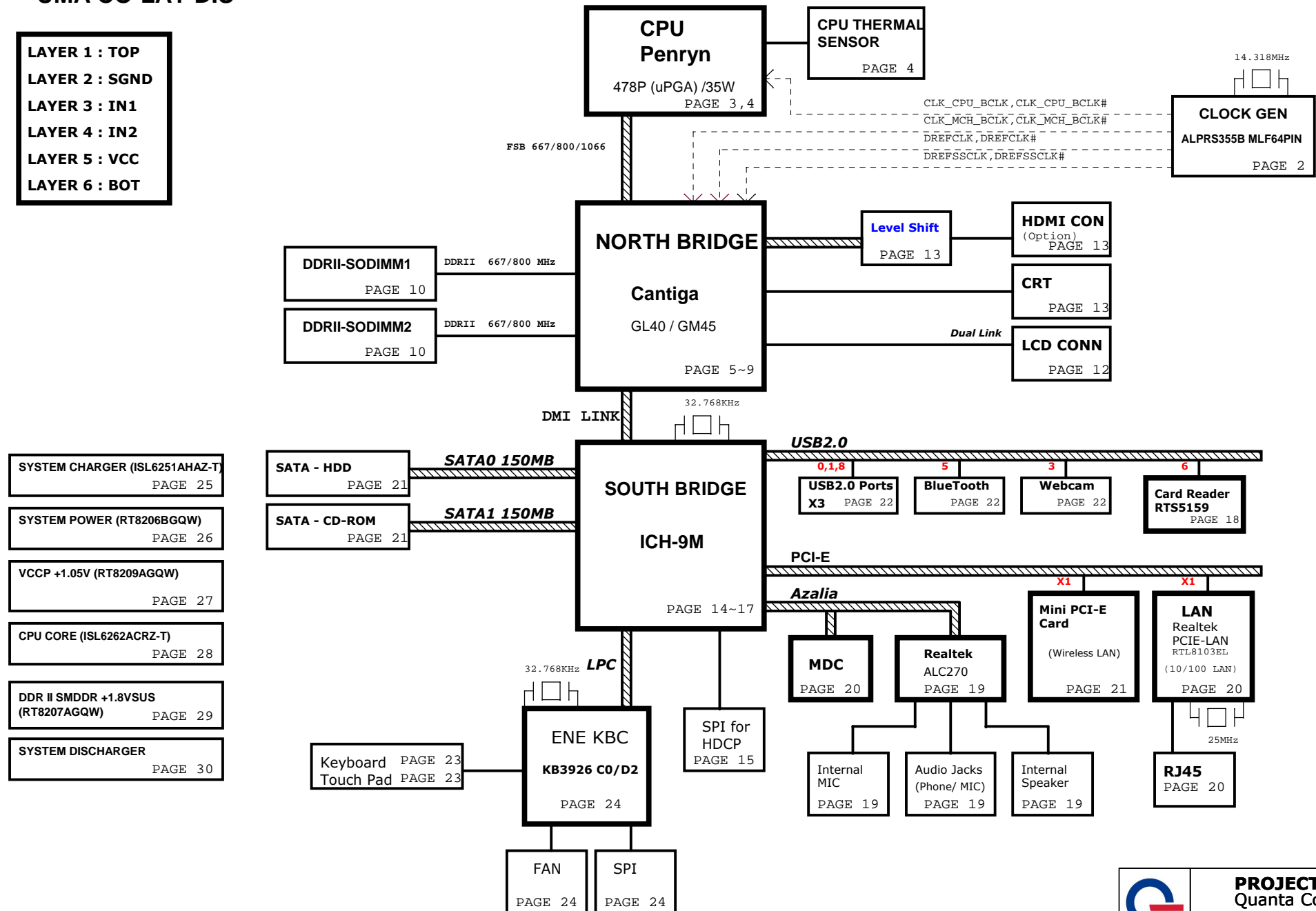
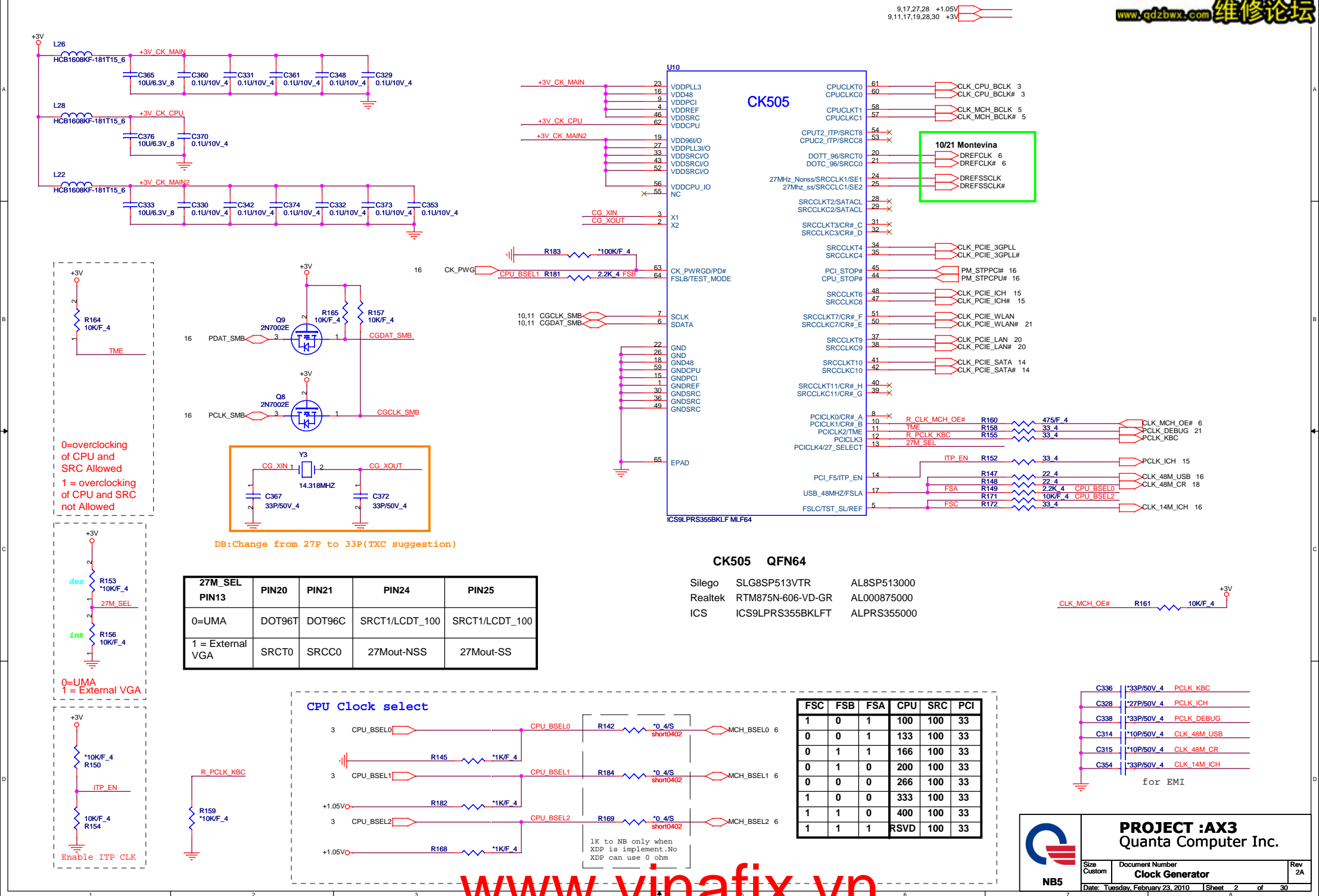


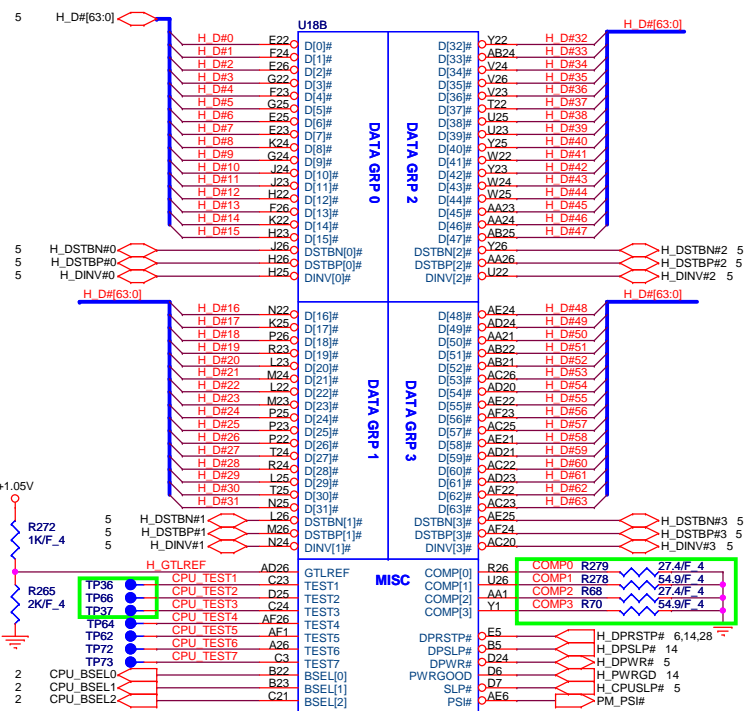
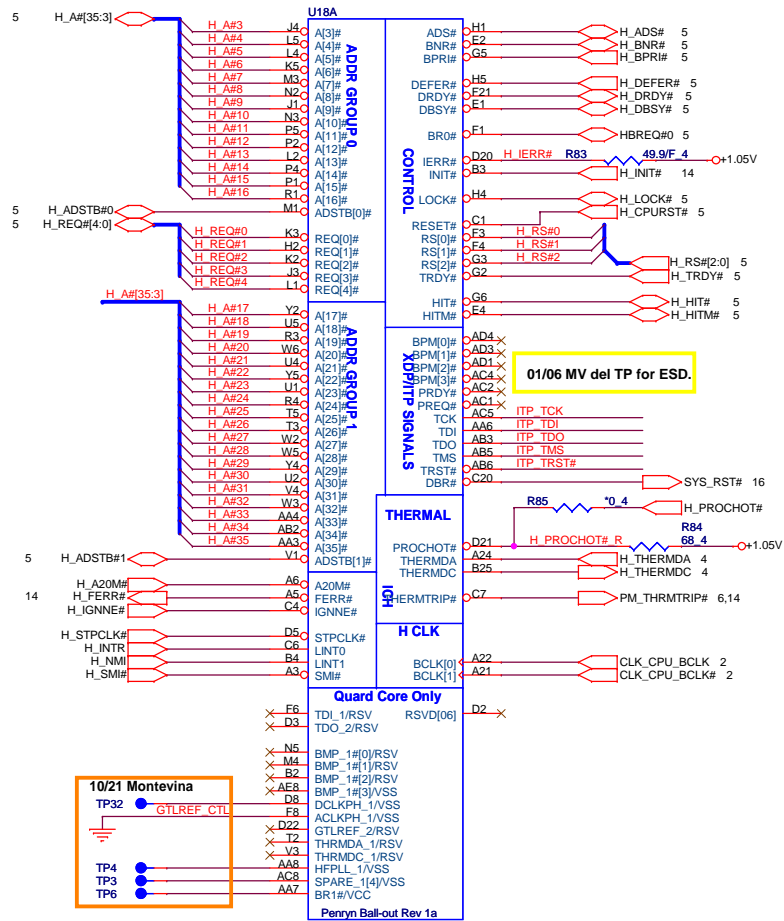
PCB STACK UP  
6L UMA CO-LAY DIS

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

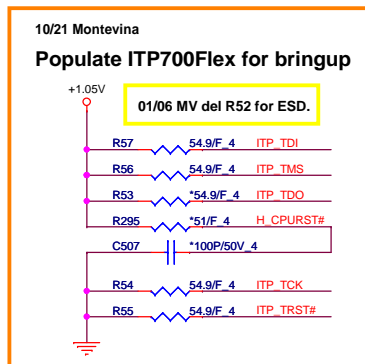
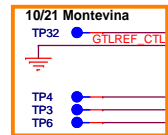
# Wimbledon AX3/5 BLOCK DIAGRAM

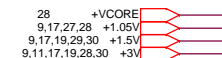


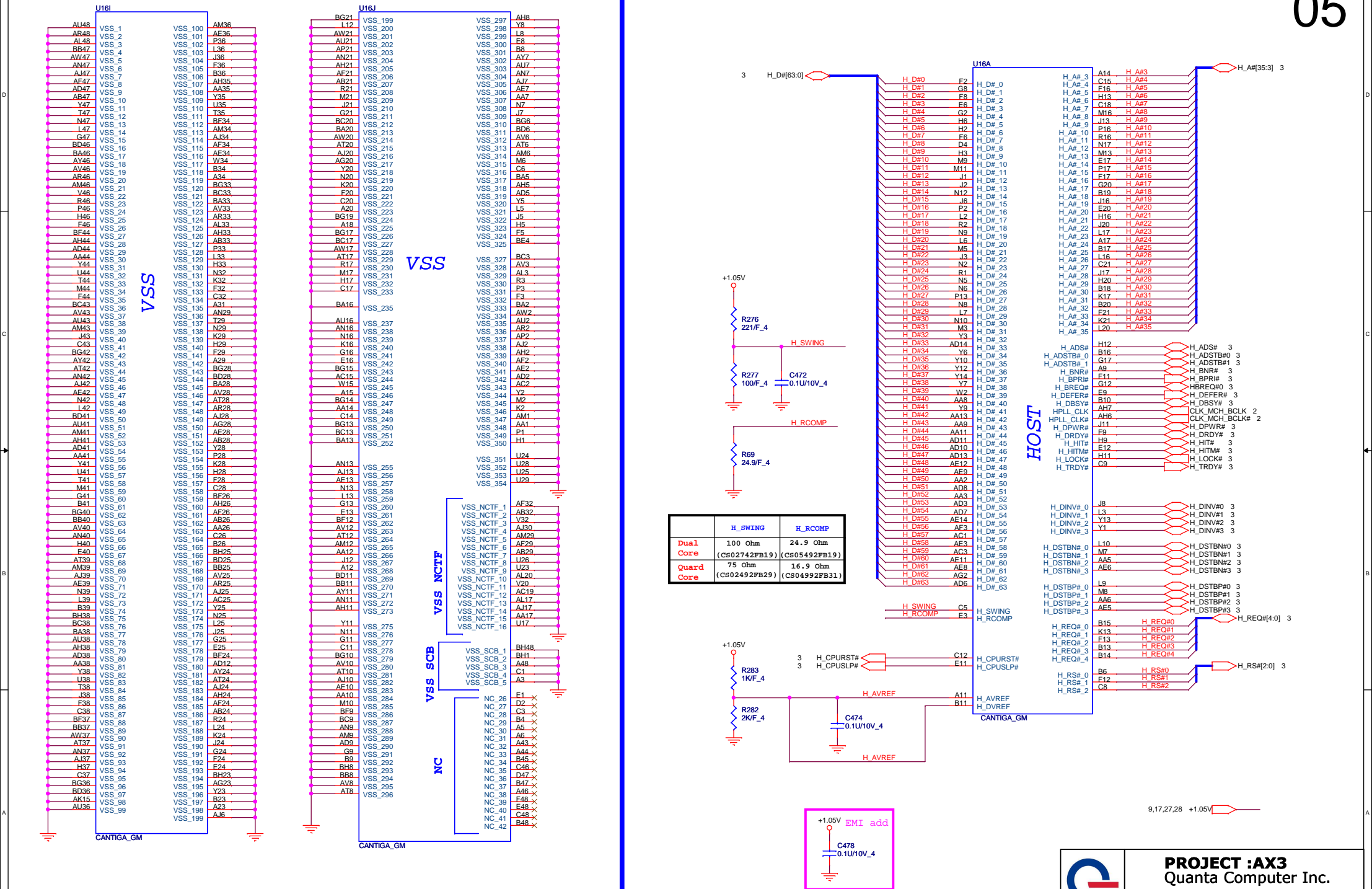




	COMP0/2	COMP1/3
Dual Core	27.4 Ohm (CS02742FB19)	54.9 Ohm (CS05492FB19)
Quad Core	24.9 Ohm (CS02492FB29)	49.9 Ohm (CS04992FB31)

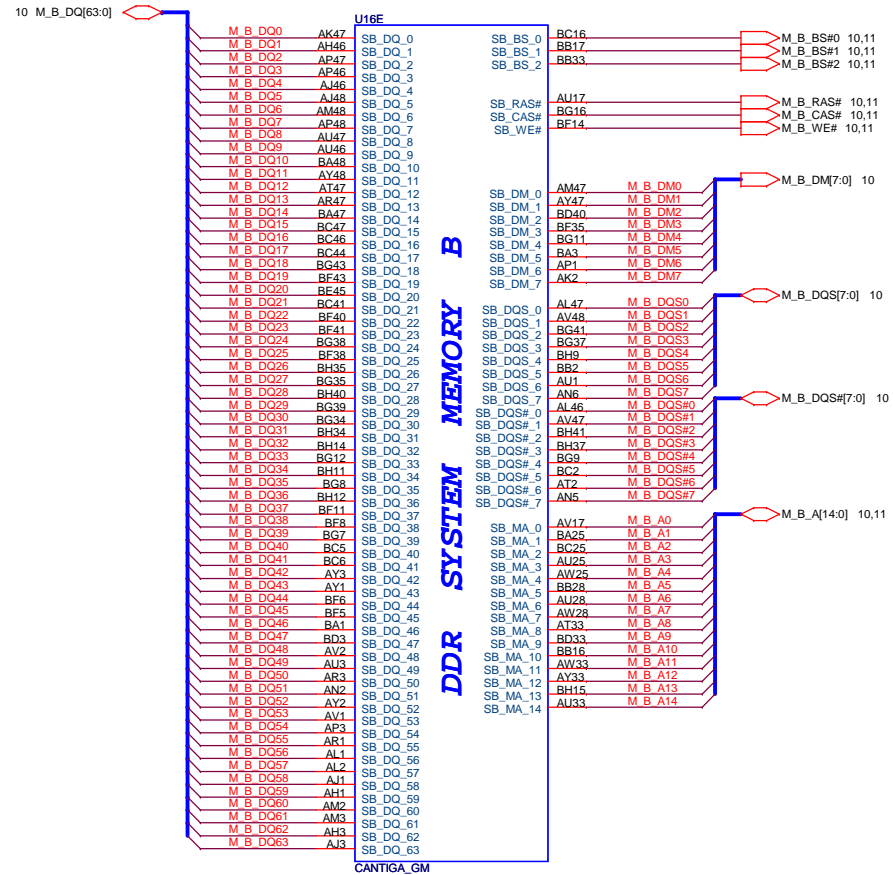
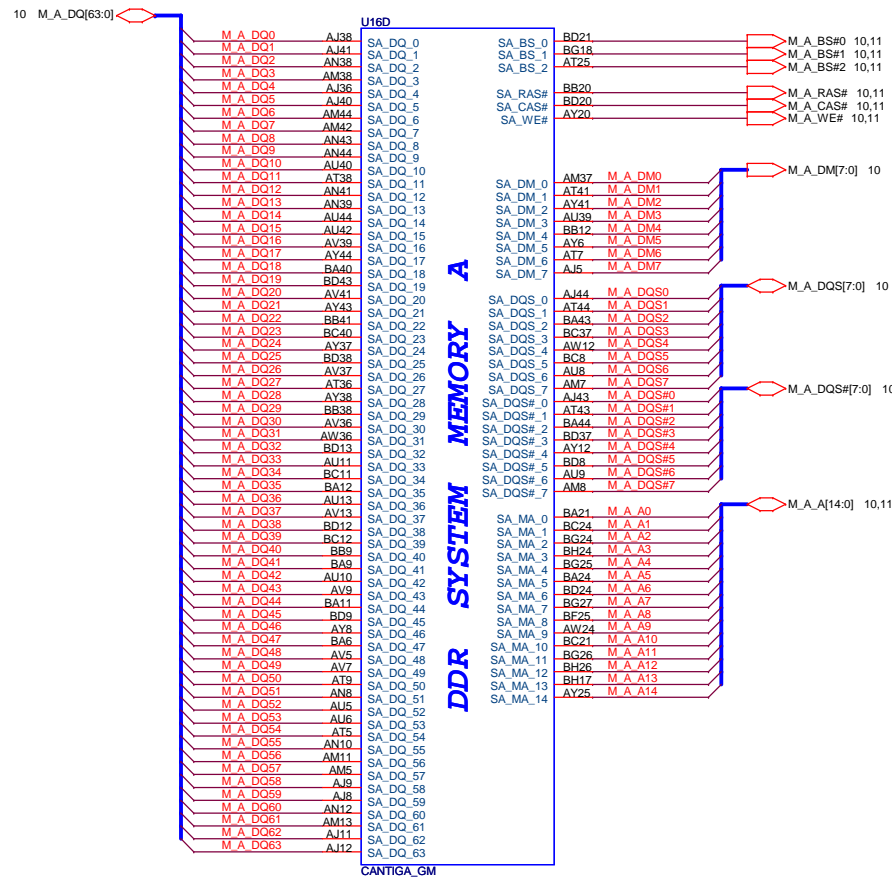






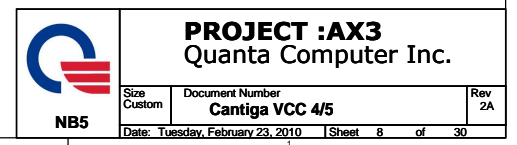




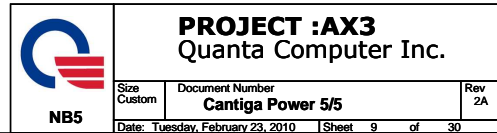


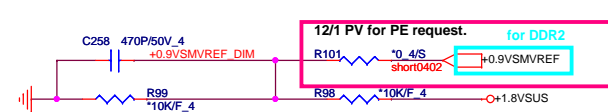
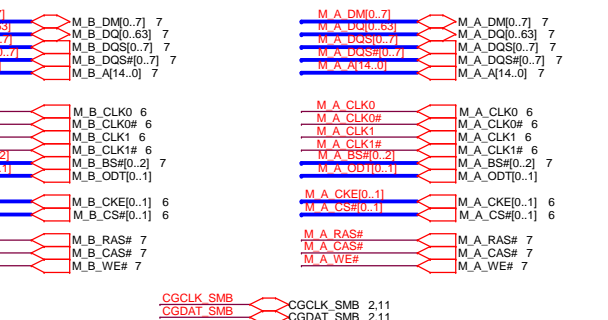
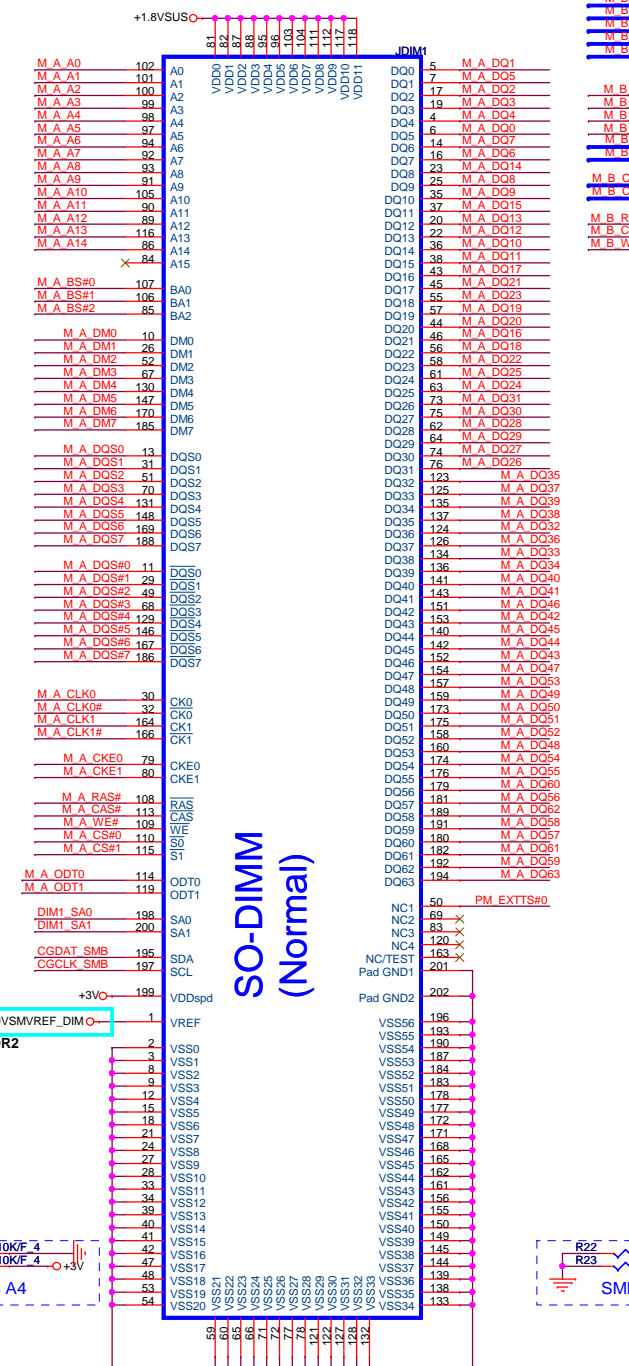
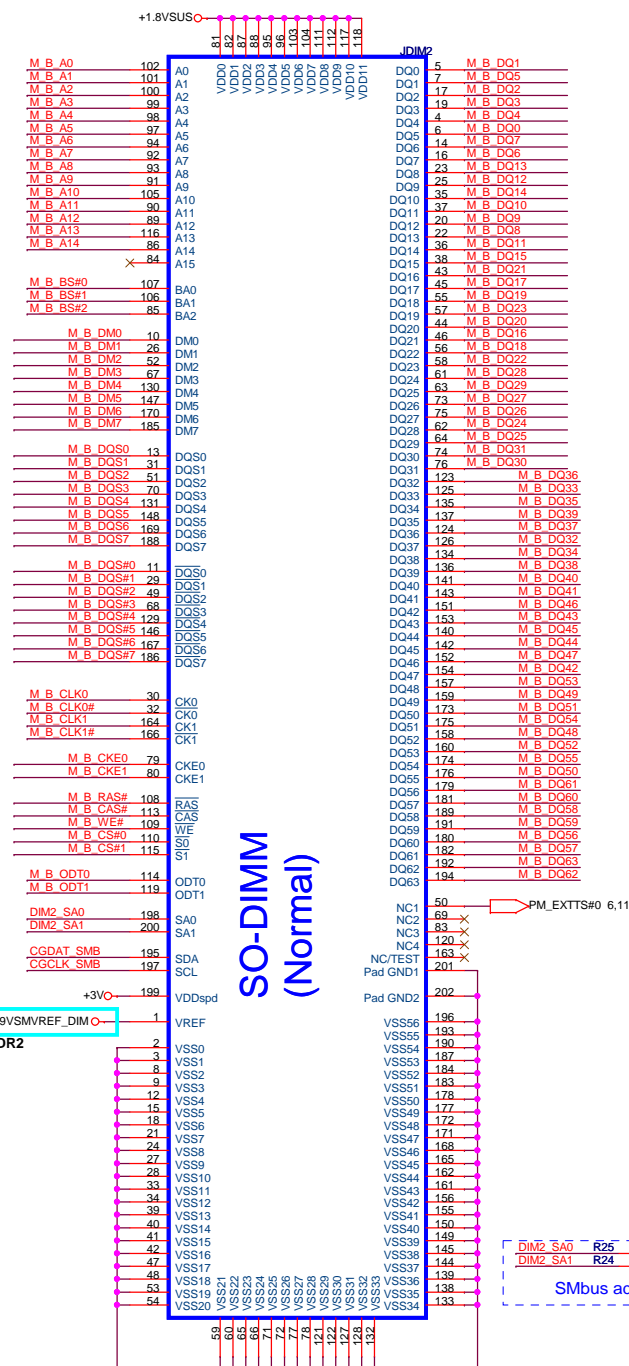
**PROJECT :AX3**  
Quantia Computer Inc.

Size Custom	Document Number Cantiga DDR3 3/5	Rev 2A
Date: Tuesday, February 23, 2010	Sheet 7 of 30	

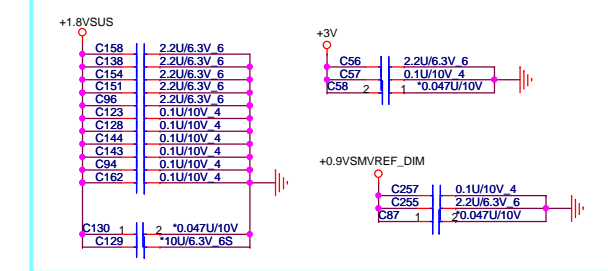




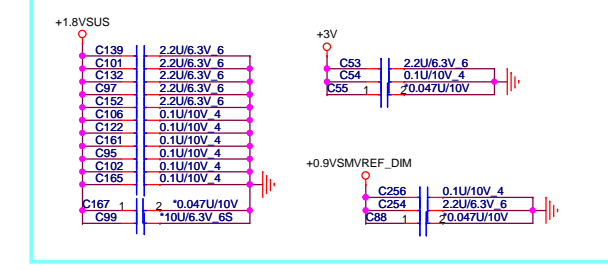




**Place these Caps near So-Dimm1.**  
Some Projects replace 10UF 0805 by 4.7UF 0603  
It can cost down 30%

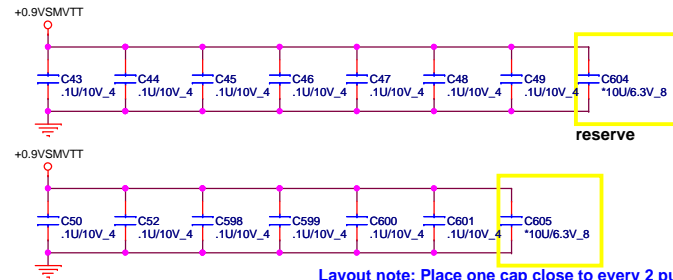


**Place these Caps near So-Dimm2.**  
Some Projects replace 10UF 0805 by 4.7UF 0603  
It can cost down 30%



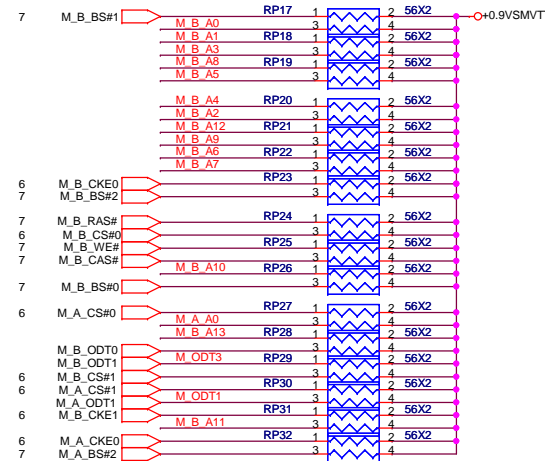
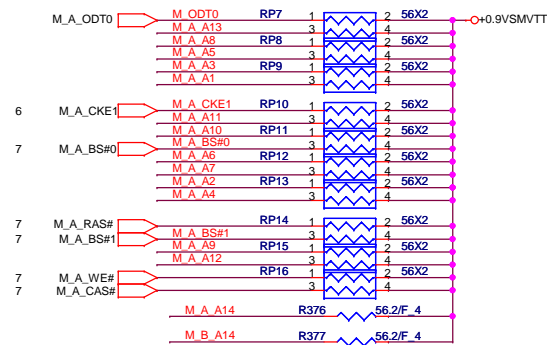
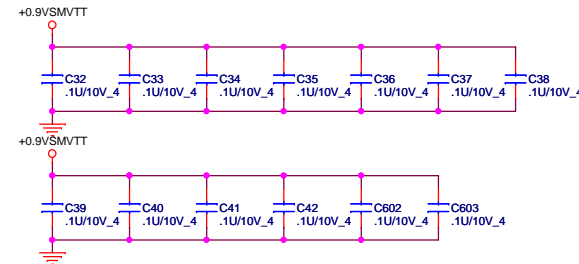
# DDRII DUAL CHANNEL A,B.

## DDRII A CHANNEL

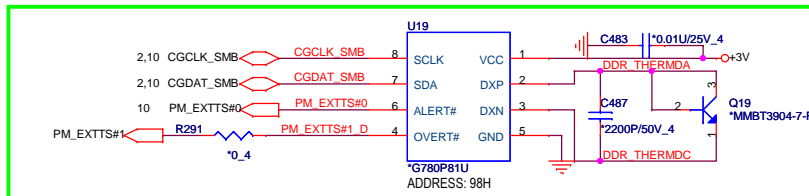


Layout note: Place one cap close to every 2 pullup resistors terminated to SMDR\_VTERM

## DDRII B CHANNEL

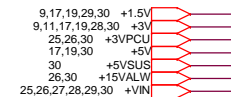
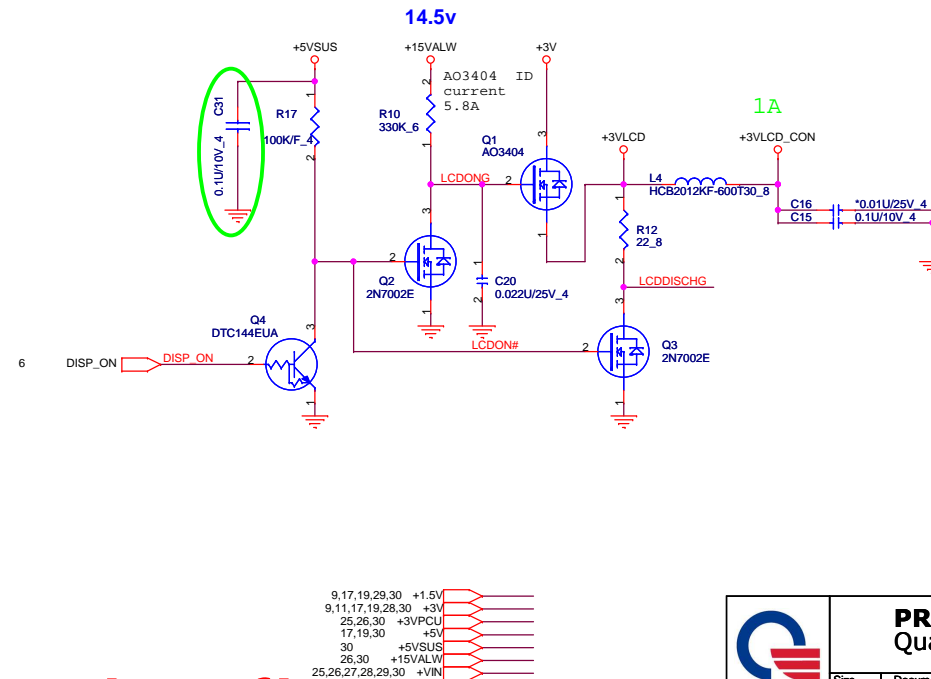
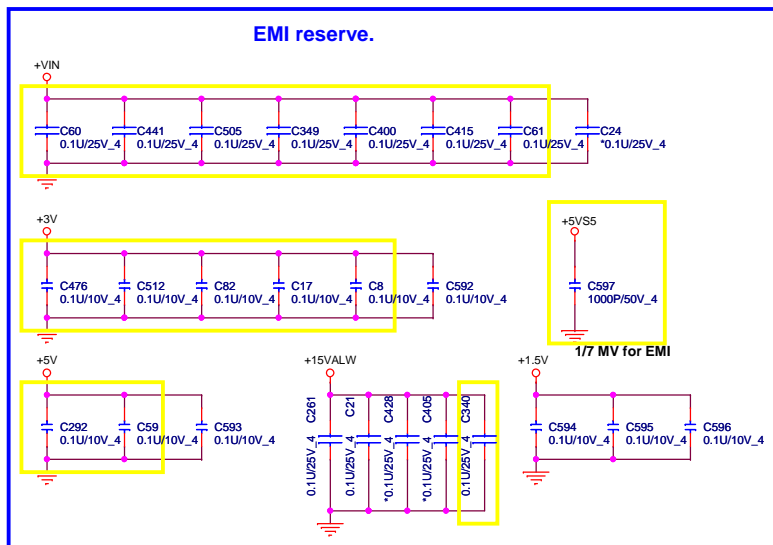
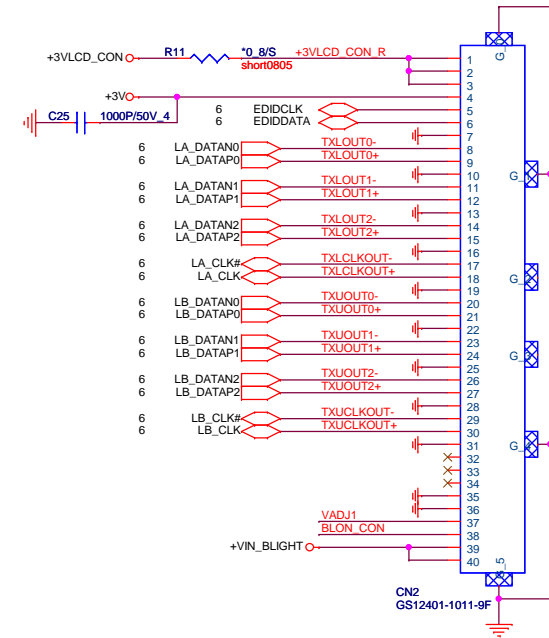
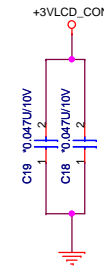
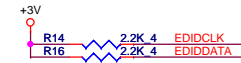
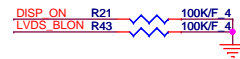
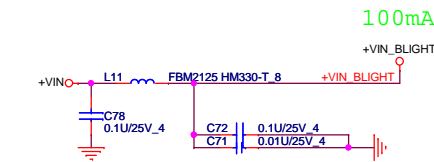
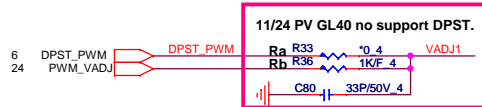
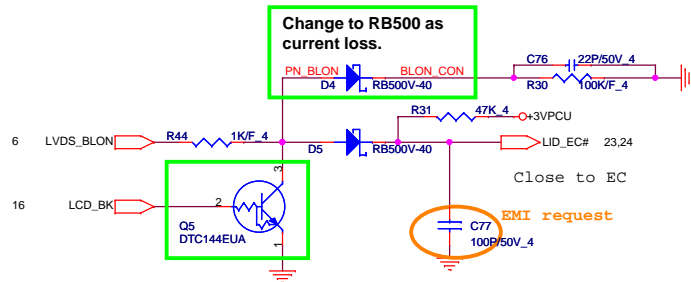


M\_B\_A[14..0] M\_B\_A[14..0] 7  
M\_A\_A[14..0] M\_A\_A[14..0] 7

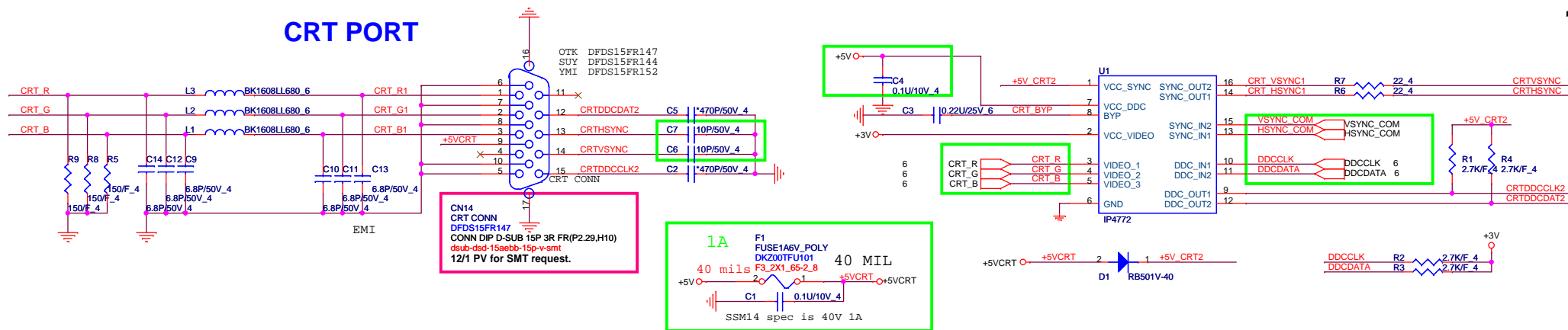


+0.9VSMVTT 29  
+3V 2,4,6,10,12,13,14,15,16,17,18,19,20,21,22,23,24,28,30

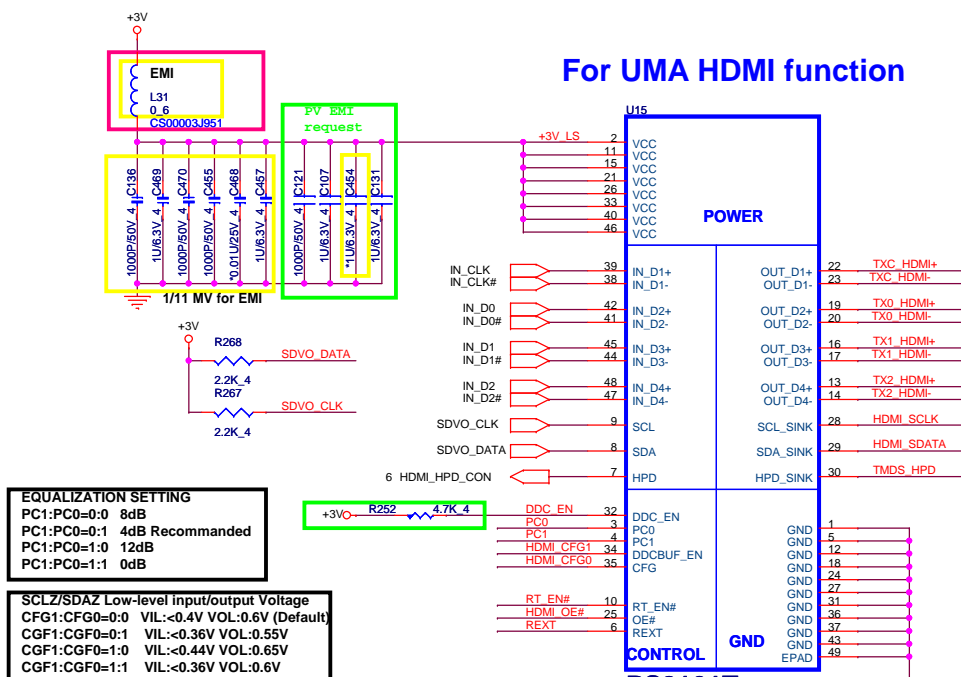
# LID Switch



## CRT PORT



### For UMA HDMI function

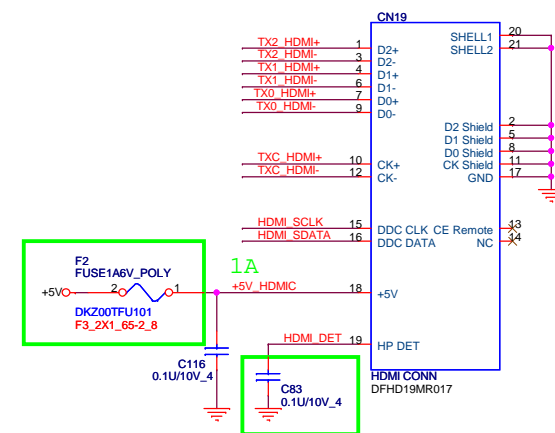
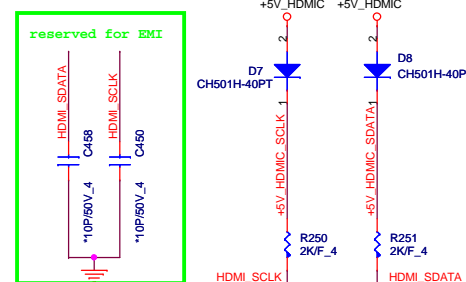


9/16 : PIM: need use ALP411LS000 or ALP411LS004 for capella  
CHR : need Na R1182, add R1027 for capella

Vendor:PDT P/N:AL008101001

Vendor:CHR P/N:AL007318002

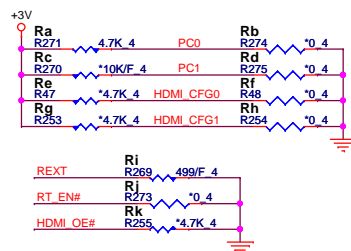
Vendor:PIM P/N:ALP411LS002



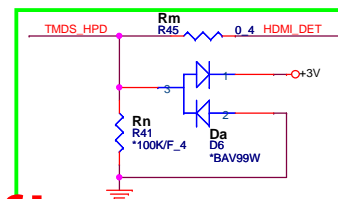
EQUALIZATION SETTING	
PC1:PC0=0:0	8dB
PC1:PC0=0:1	4dB Recommended
PC1:PC0=1:0	12dB
PC1:PC0=1:1	0dB

<b>SCLZ/SDAZ Low-level input/output Voltage</b>	
CFG1:CFG0=0:0	VIL:<0.4V VOL:0.6V (Default)
CGF1:CGF0=0:1	VIL:<0.36V VOL:0.55V
CGF1:CGF0=1:0	VIL:<0.44V VOL:0.65V
CGF1:CGF0=1:1	VIL:<0.36V VOL:0.6V

<i>Signals</i>	<i>R</i>	<i>PDT</i>	<i>CHR</i>	<i>PIM</i>
PC0	Ra	4.7K	NC	NC
	Rb	NC	NC	0
PC1	Rc	NC	10K	NC
	Rd	NC	NC	0
HDMI_CFG0	Re	NC	10K	NC
	Rf	NC	NC	0
HDMI_CFG1	Rg	NC	10K	NC
	Rh	NC	NC	0
REXT	Ri	499	1.2K	0
RT_EN#	Rj	NC	NC	0
HDMI_OE#	Rk	NC	0	0



<i>Detect</i>	<i>R</i>	<i>PDT</i>	<i>CHR</i>	<i>PIM</i>
IC	Rm	0	20K	0
	Rn	NC	47K	NC
	Da	NC	Stuff	NC
NB (Page6)	Ro	NC	20K	20K
	Rp	NC	7.5K	7.5K
	Rq	0	0	0



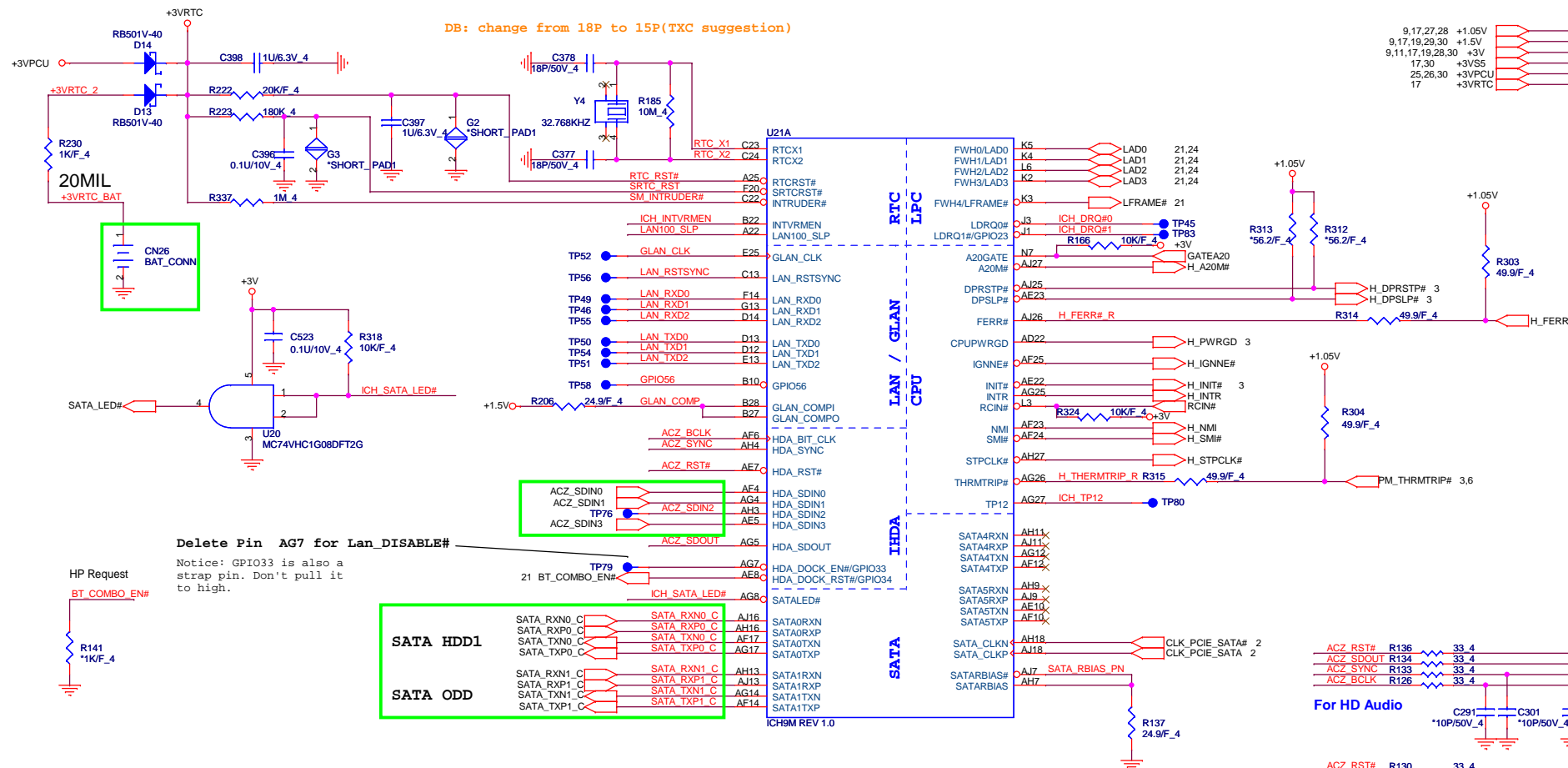
9,11,17,19,28,30 +3V  
17,19,30 +5V



**PROJECT :AX3**  
Quanta Computer Inc.

Size Custom	Document Number <b>CRT/HDMI Conn</b>	Rev 2A
Date: Tuesday, February 23, 2010		Sheet 13 of 30





## SB Strap

ICH9-M Internal VR  
Enable strap  
(Internal VR for  
VccSus1\_05, VccSus1\_5  
and VccCL1\_5)

ICH9-M LAN100\_SLP Strap  
(Internal VR for  
VccLAN1\_05 and  
VccCL1\_05)

INTVRMEN	Low = Internal VR disable High = Internal VR enable(Default)
----------	---

LAN100_SLP	Low = Internal VR disable High = Internal VR enable(Default)
------------	---

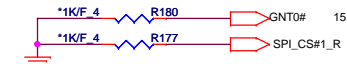
## XOR Chain Entrance Strap

ICH_TP3	HDA_SDOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal operation(Default)
1	1	Set PCIe port config bit 1

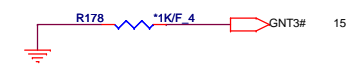
## ICH9 Boot BIOS select

STRAP	PCI_GNT0#	SPI_CS#1
SPI	0	1
PCI	1	0
LPC	1	1

(default)

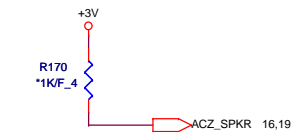


A16 swap override	
strap	Low = A16 swap override enabled Hi = Default
PCI_GNT#3	



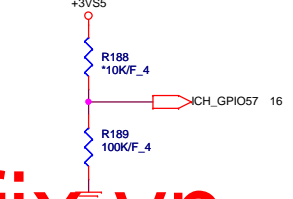
## No Reboot Strap

ACZ_SPKR	Low: Default Hi: No reboot
----------	-------------------------------



## TPM physical presence

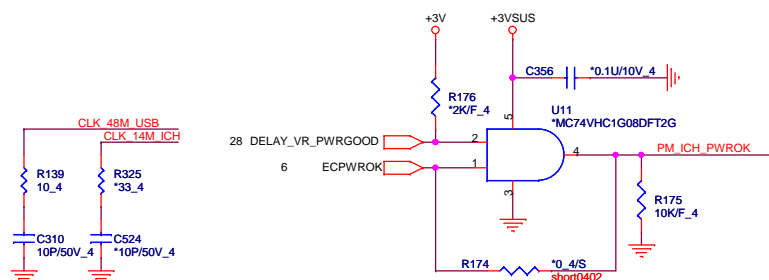
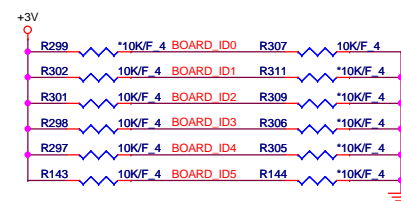
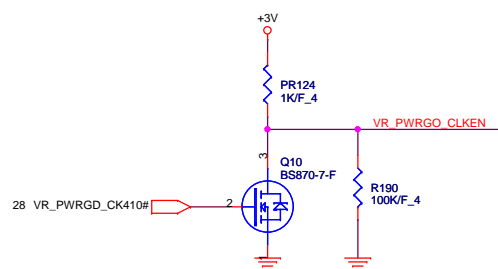
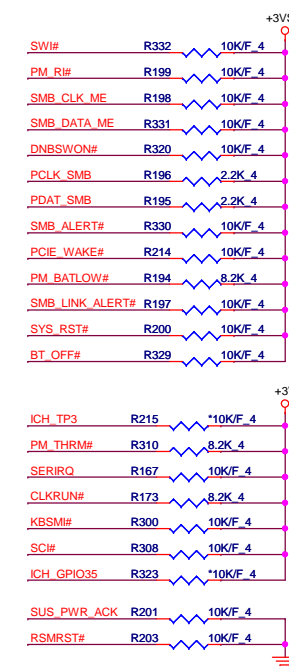
ICH_GPIO57	Low: Default
------------	--------------



**PROJECT :AX3**  
Quanta Computer Inc.

Size	Document Number	Rev
Custom	ICH9-M SATA/HDA/RTC 1/4	2A
Date: Tuesday, February 23, 2010	Sheet 14 of 30	



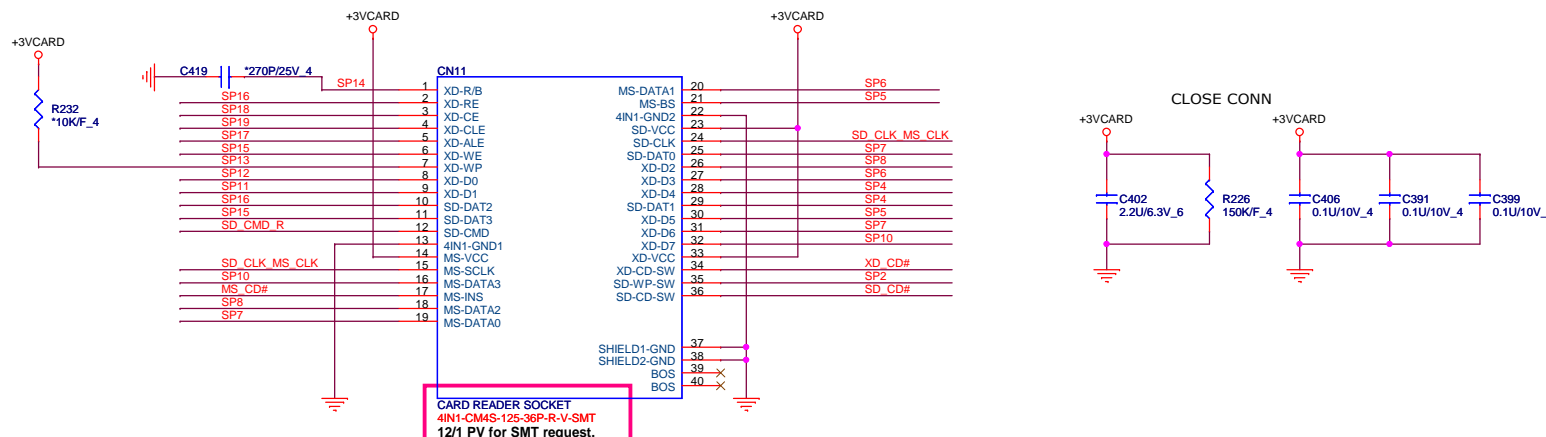
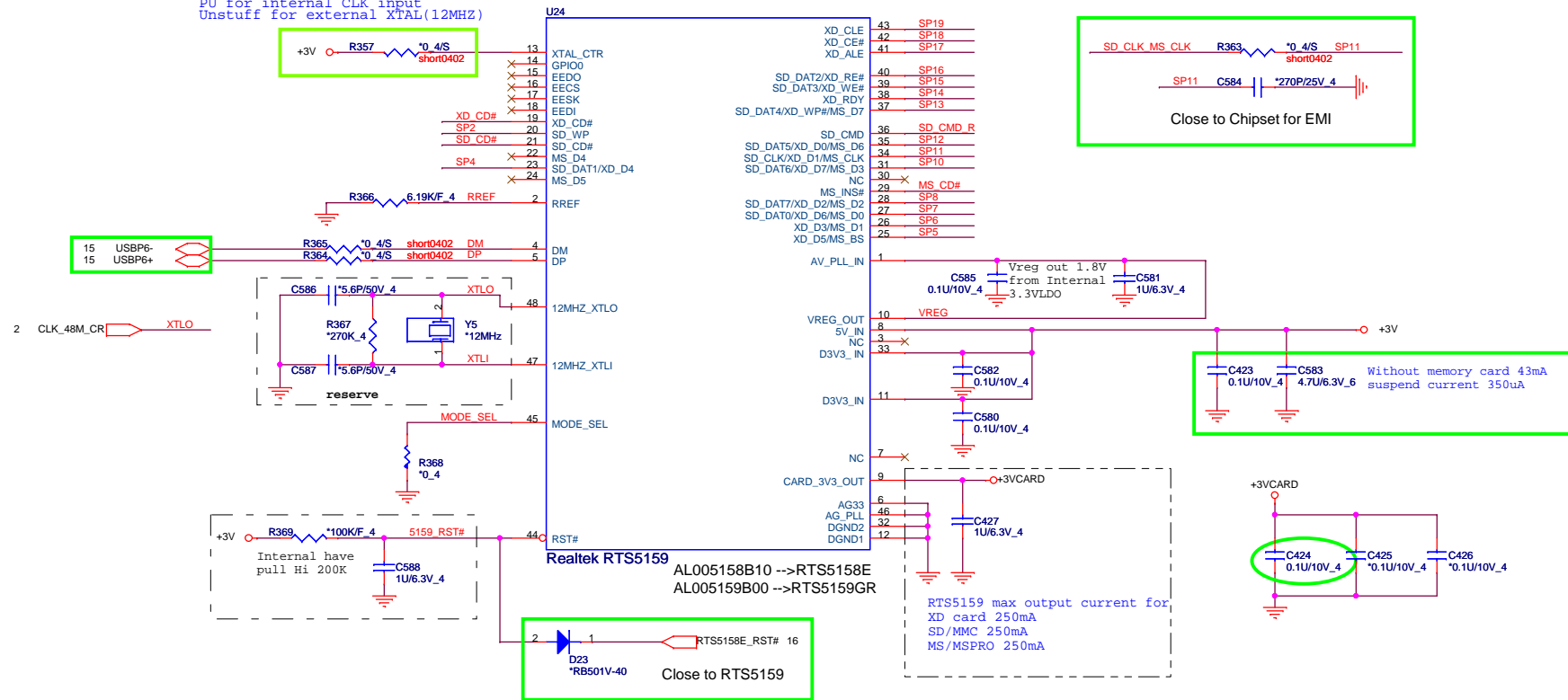


Board ID	ID0 GPIO19	ID1 GPIO21	ID2 GPIO22	ID3 GPIO36	ID4 GPIO37	ID5 GPIO1
UMA/DIS	0=UMA 1=Dis.					
CR/HDMI		0=No 1=Yes				
Reserve			0=No 1=Yes			
Reserve				0=No 1=Yes		
Reserve					0=No 1=Yes	
Reserve						0=No 1=Yes

AX3 MB P/N	ID0	ID1	ID2	ID3	ID4	ID5
31AX6MB0000 (CHR)	0	1	1	1	1	1
31AX6MB0010 (PDT)	0	1	1	1	1	1
31AX6MB0020 (PIM)	0	1	1	1	1	1
31AX6MB0030	0	0	1	1	1	1



PU for internal CLK input  
Unstuff for external XTAL(12MHZ)



## 5 IN1 CARD-READER (PUSH-PUSH)

Support SD/SD PRO/MMC/MS/MS PRO/xD Cards

## Note:

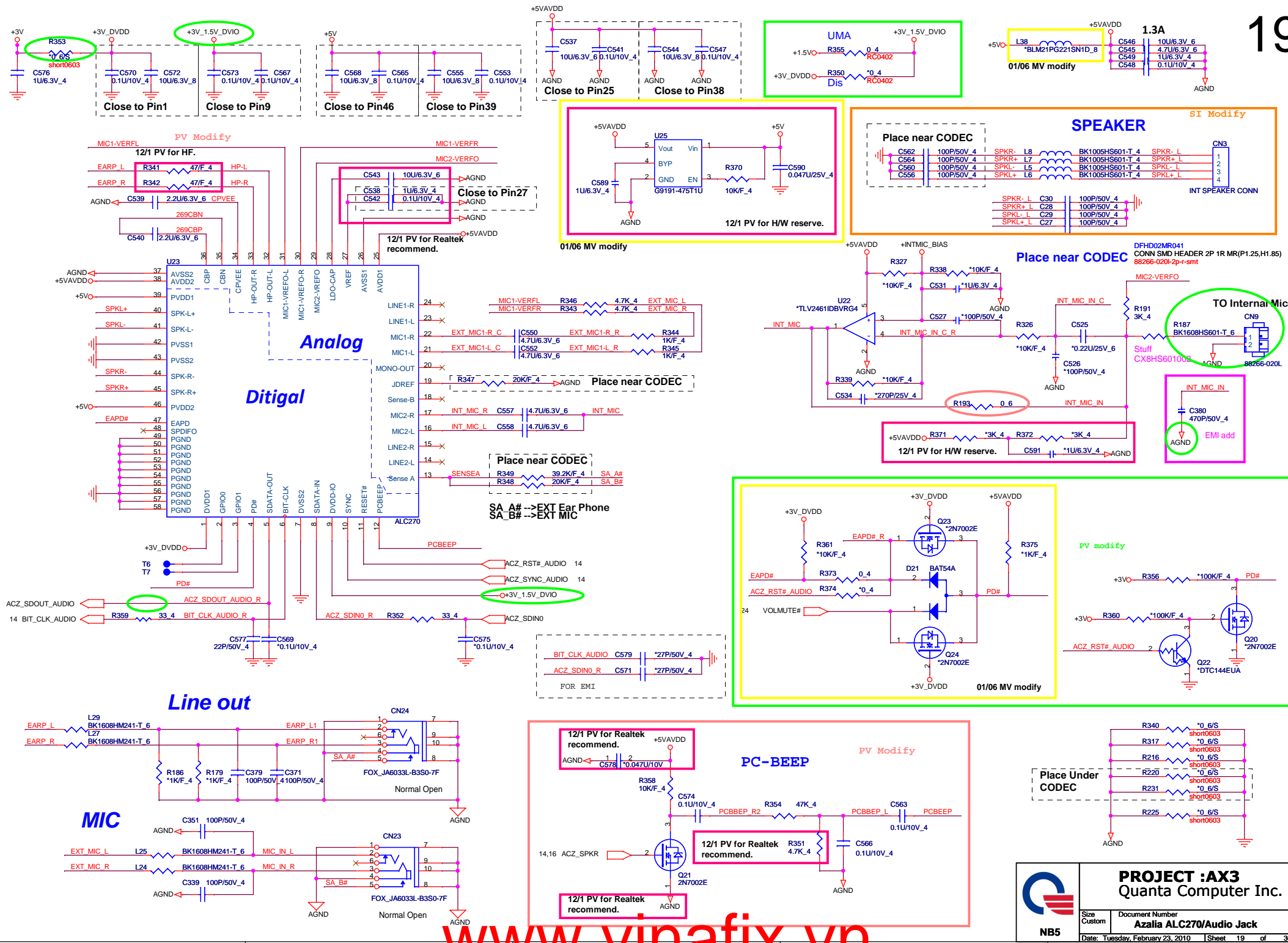
SP0	SD/MMC	MS	XD
SP1	SD WP		XD CD#
SP2	SD CD#		
SP3	SD DAT1		XD D4
SP4	SD DAT1		XD D5
SP5		MS BS	XD D3
SP6		MS D1	XD D6
SP7	SD DAT0	MS D0	XD D2
SP8	SD DAT7	MS D2	XD D2
SP9		MS INS#	
SP10	SD DAT6	MS D3	XD D7
SP11	SD CLK	MS SCLK	XD D1
SP12	SD DAT5		XD D0
SP13	SD DAT4	XD WP#	
SP14		XD R/B#	
SP15	SD DAT3		XD WE#
SP16	SD DAT2		XD RE#
SP17			XD ALE
SP18			XD CE#
SP19			XD CLE

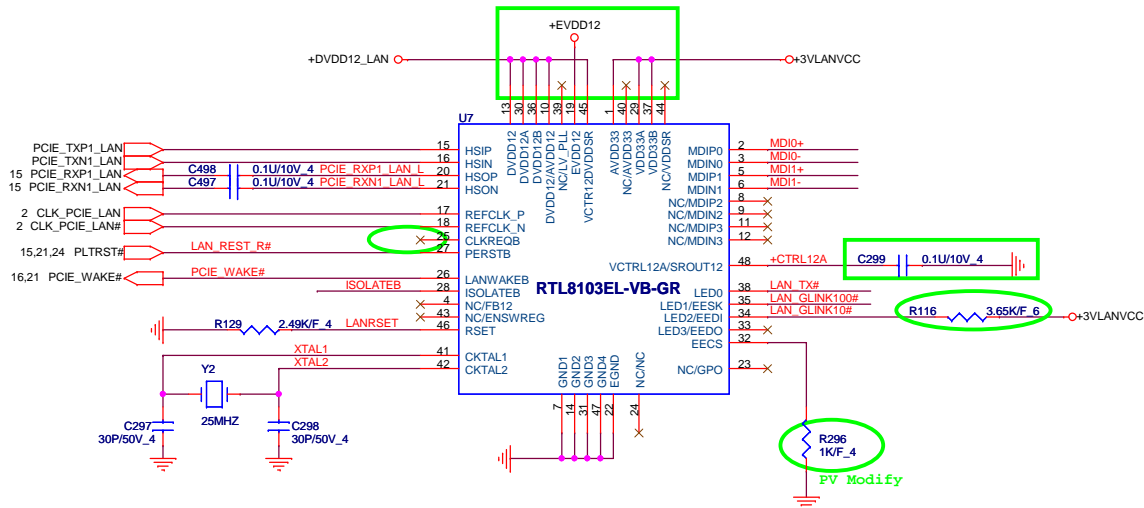


**PROJECT :AX3**  
Quanta Computer Inc.

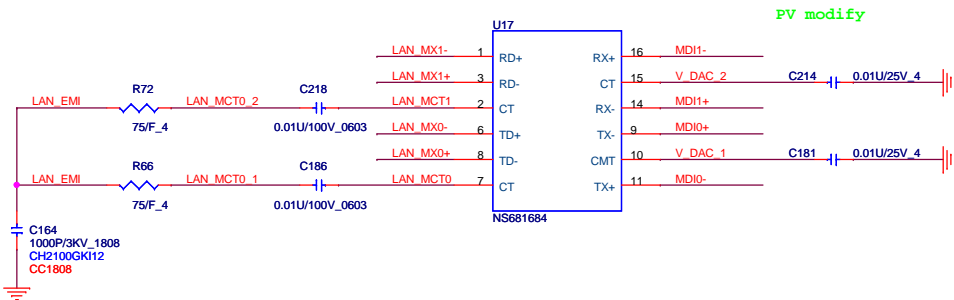
Size	Document Number	Rev
Custom	RTS5159/CR Socket	2A
Date: Tuesday, February 23, 2010	Sheet 18 of 30	



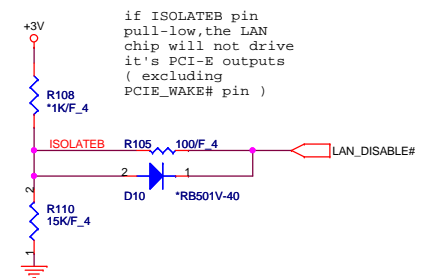
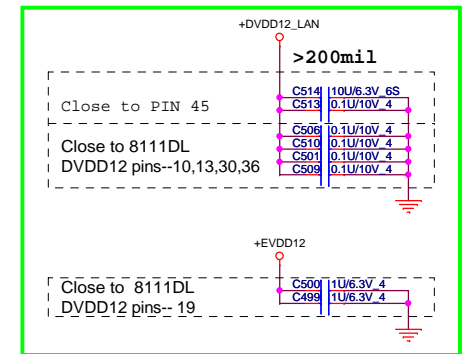
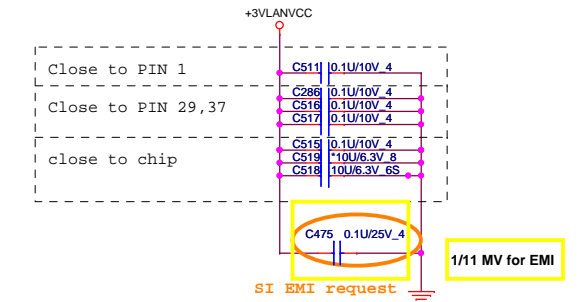
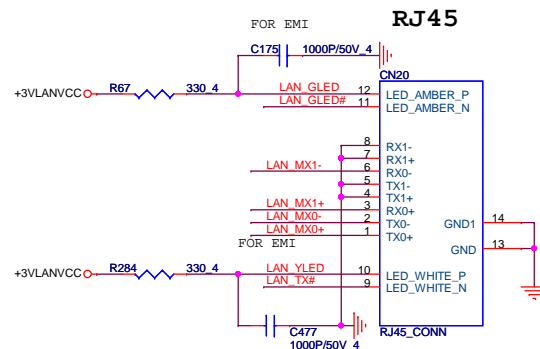
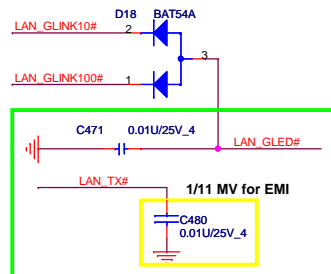




### Transformer for 10/100



### Lan Con.



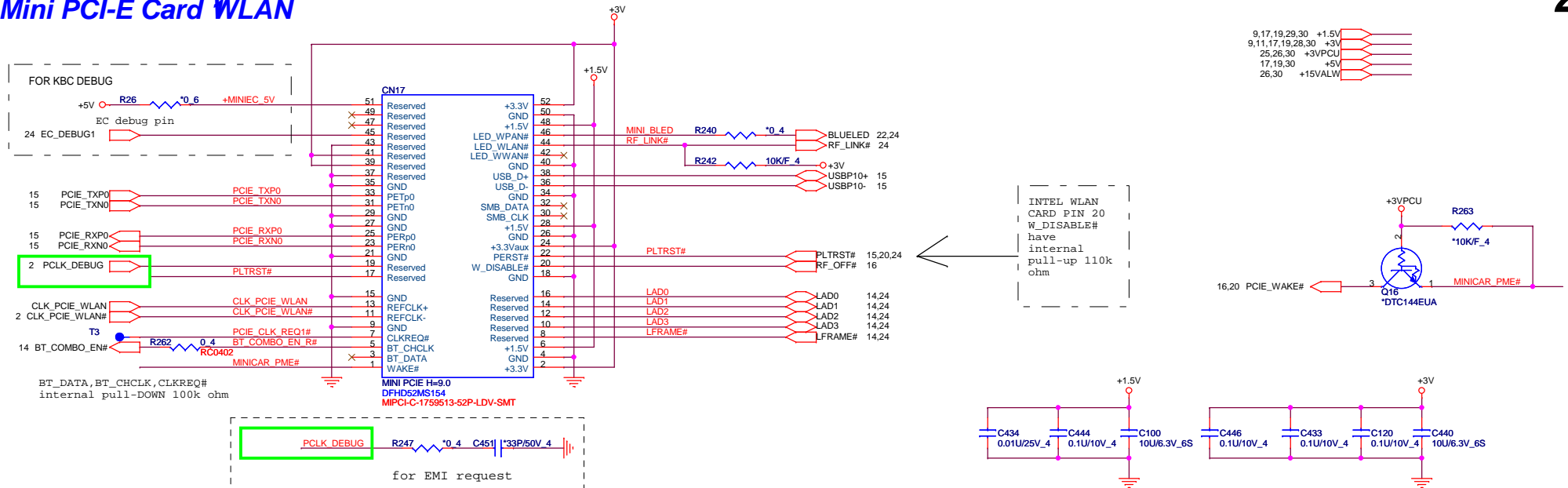
9,11,17,19,28,30 +3V  
30 +3VLAVCC



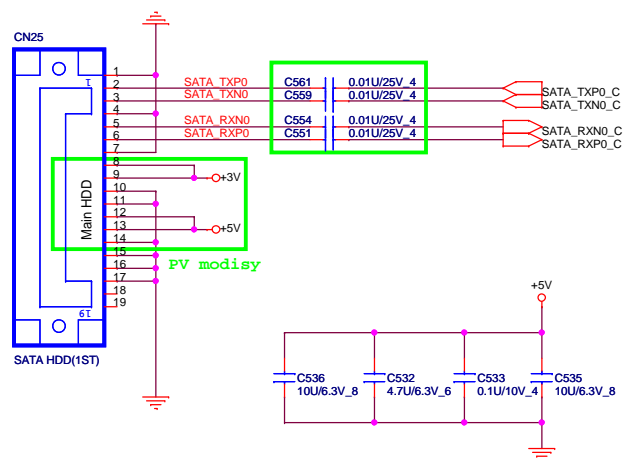
**PROJECT :AX3**  
Quanta Computer Inc.

Size Custom	Document Number	Rev 2A
	RTL8103EL/RJ45	
Date: Tuesday, February 23, 2010	Sheet 20 of 30	

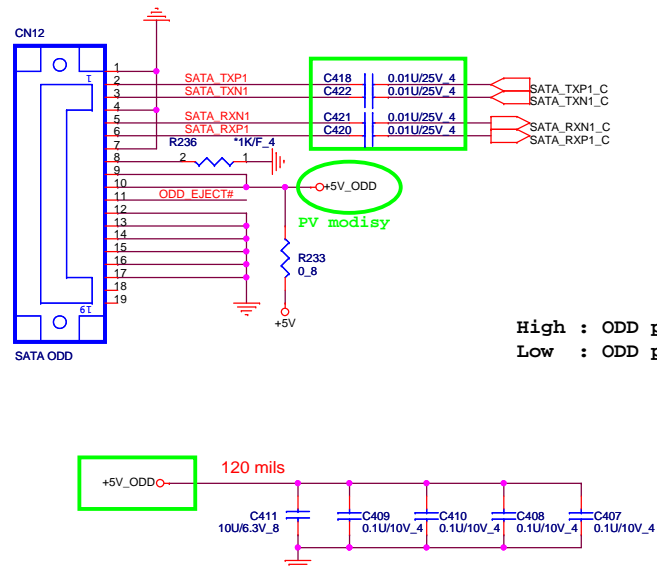
## Mini PCI-E Card WLAN



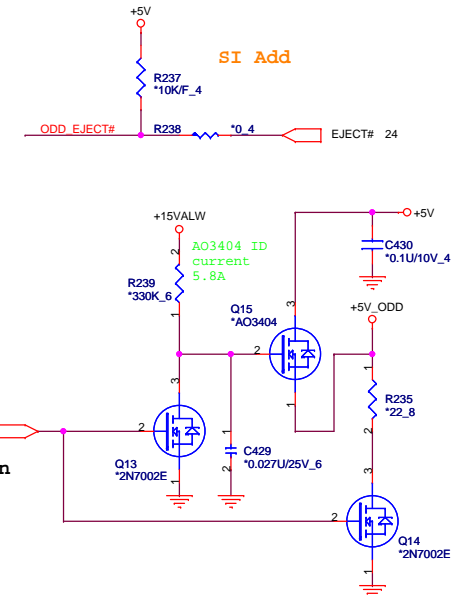
## SATA HDD CONNECTOR



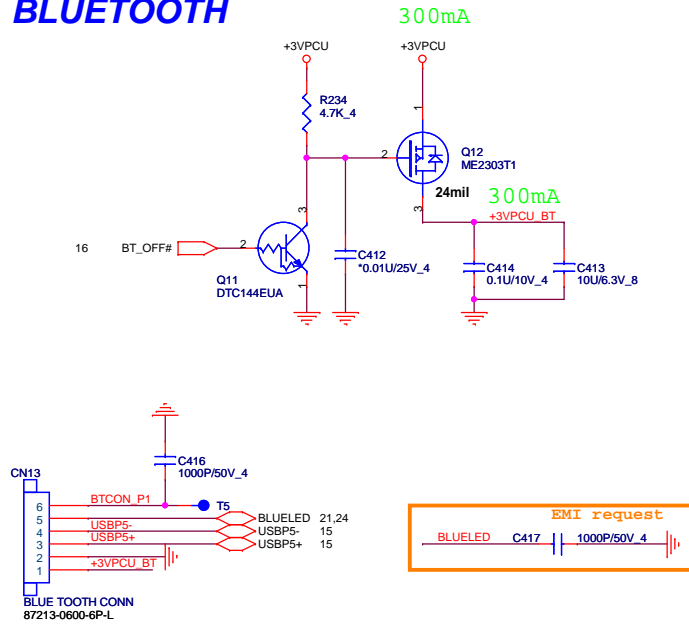
## SATA ODD CONNECTOR



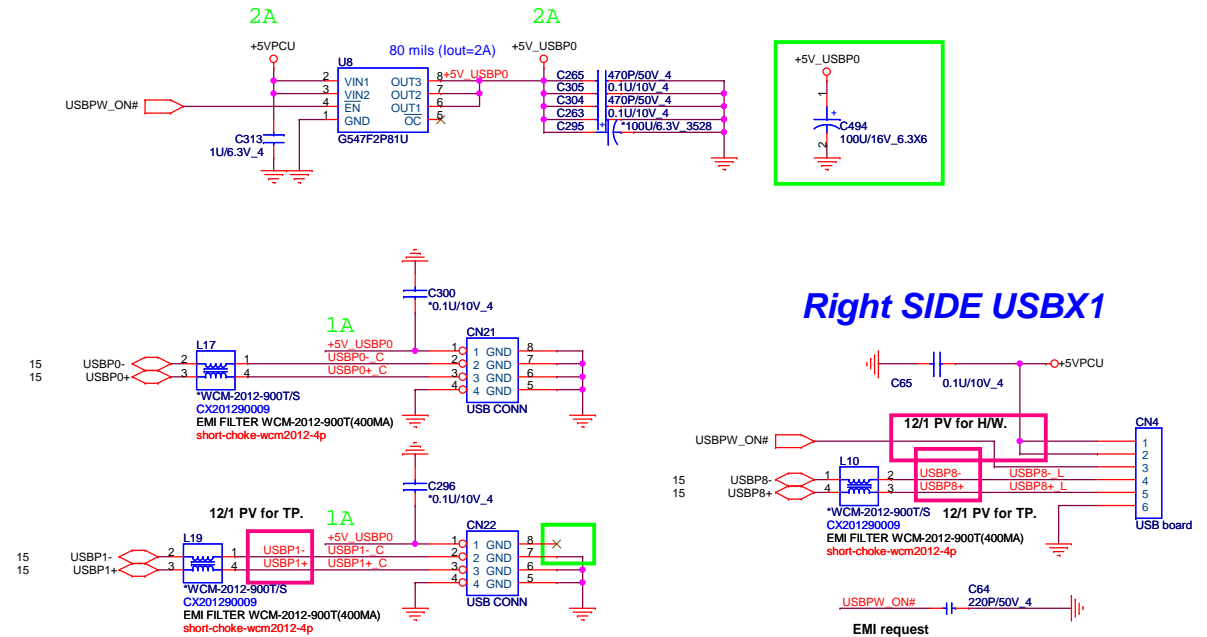
High : ODD power down  
Low : ODD power on



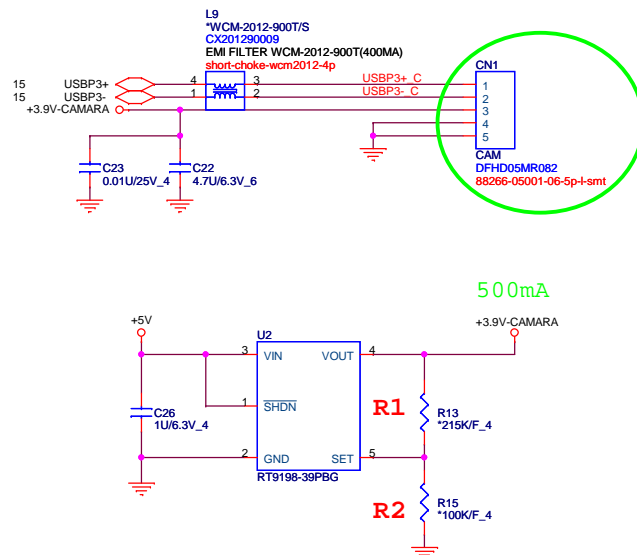
## BLUETOOTH



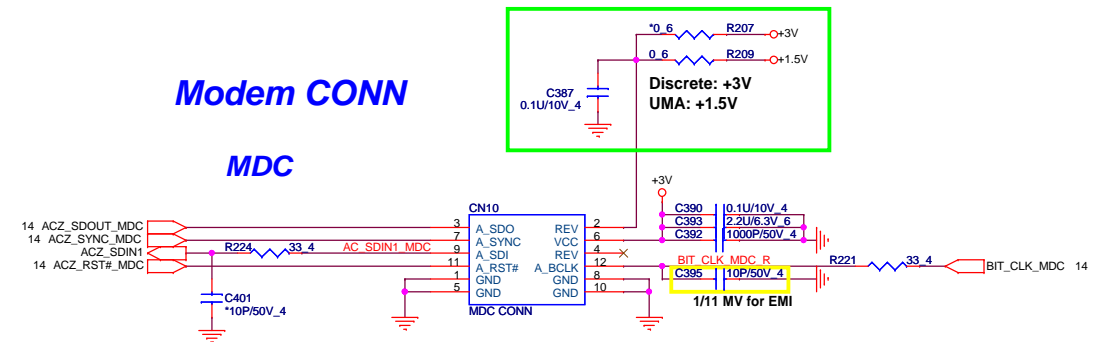
## LEFT SIDE USBX1



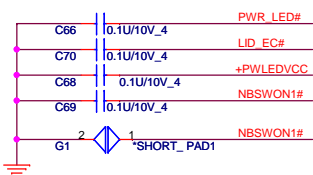
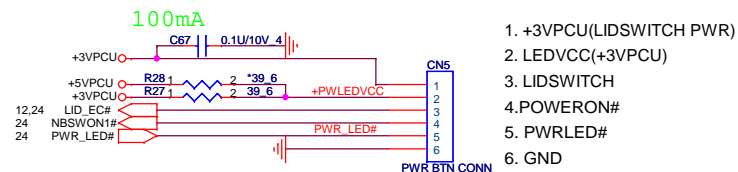
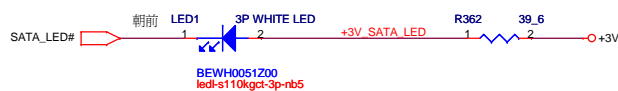
# CAMERA



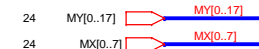
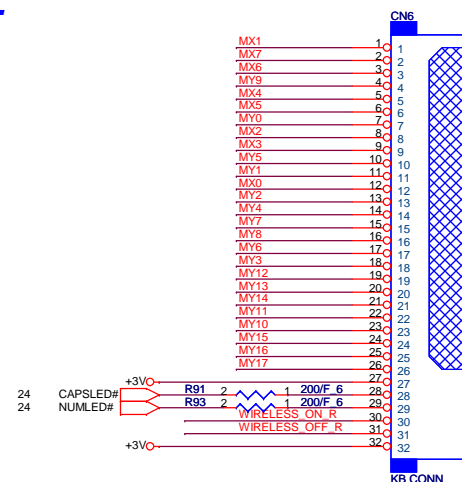
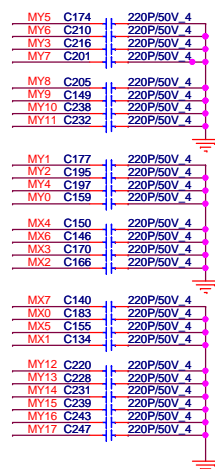
## Modem CONN



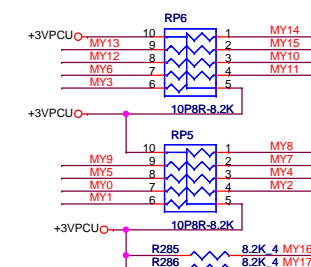
## POWER BOTTON CONNECT

**SATA LED**

## KEYBOARD Con.

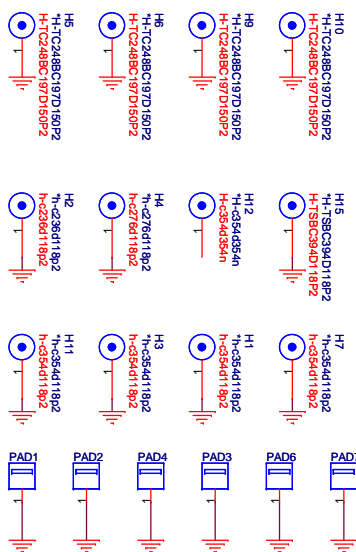


## KEYBOARD PULL-UP



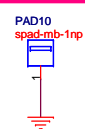
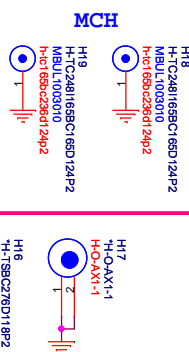
## HOLE & PAD

## CPU

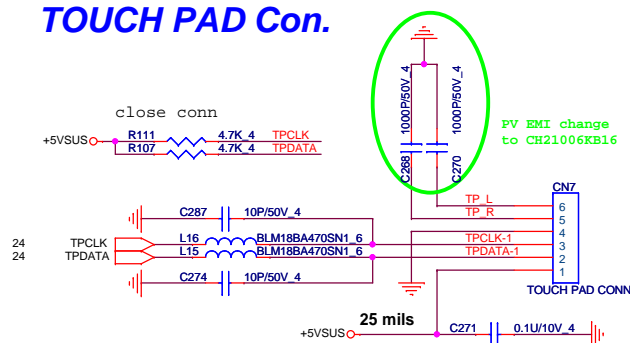


## MCH

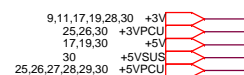
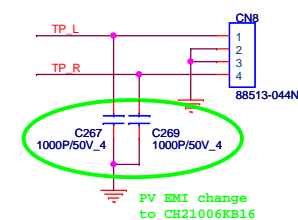
12/10 PV for DXF update.



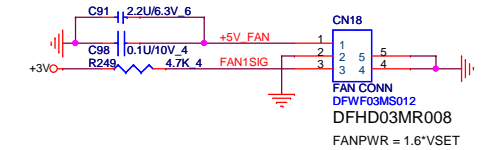
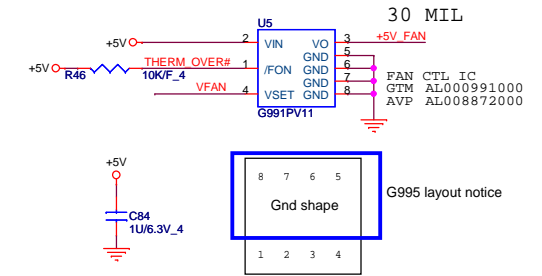
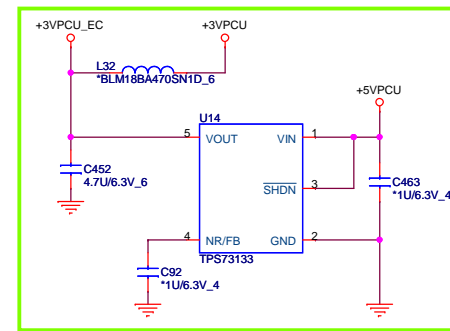
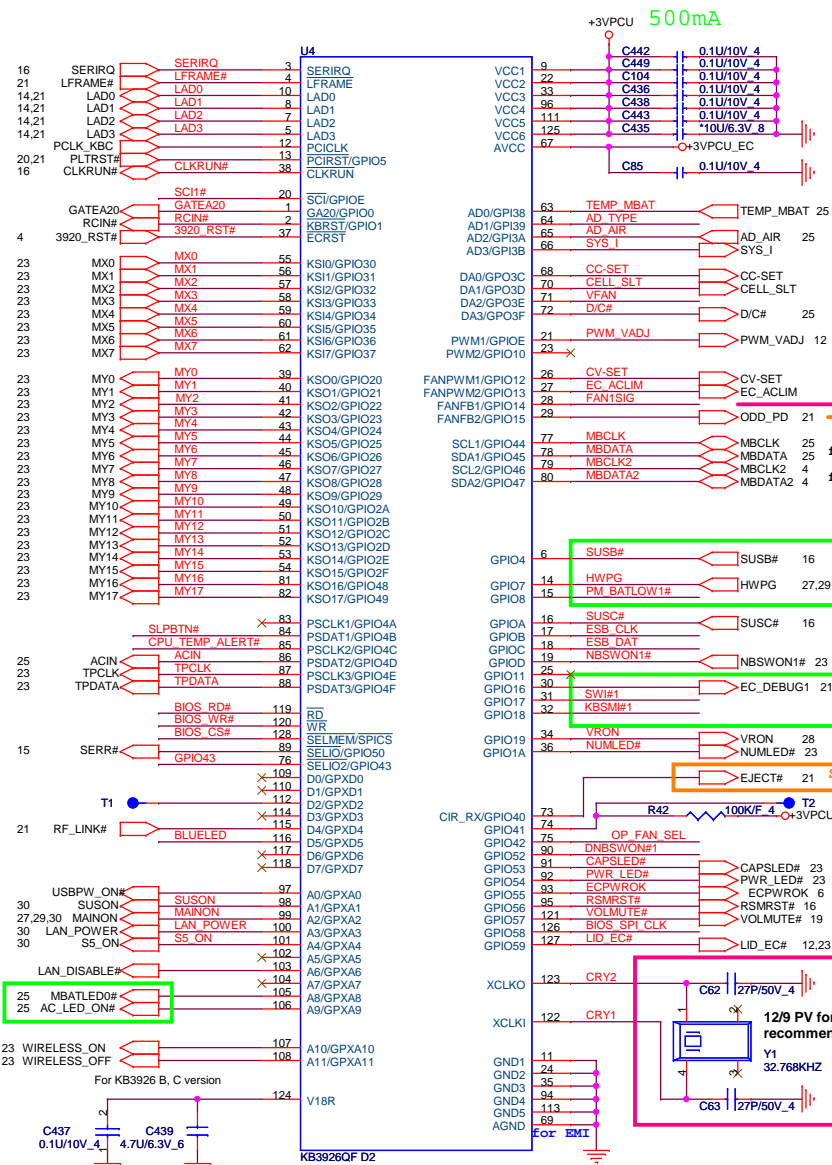
## ***TOUCH PAD Con.***



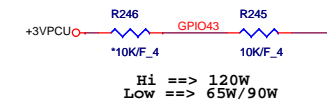
**To TOUCH PAD SW board**



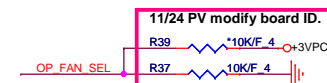




### Adapter select for EC

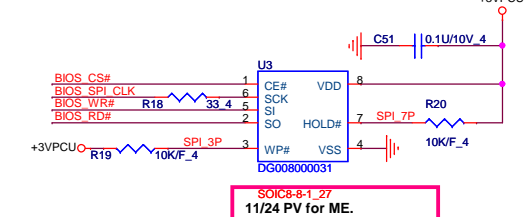


### GPIO42 control fan table

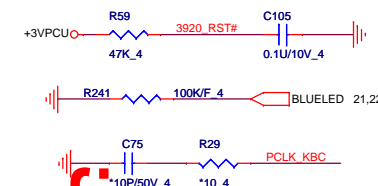
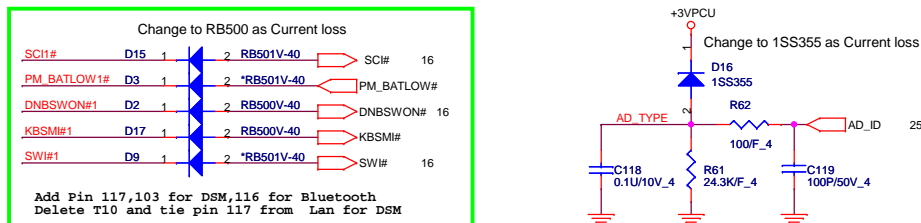


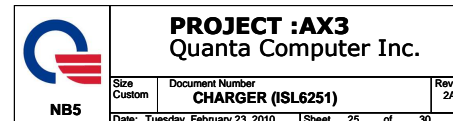
Project Model	GPIO42
AX 14"	High
AX 15.6"	Low
AX 17.3"	Middle (1.5V)

### 1M byte SPI EC ROM



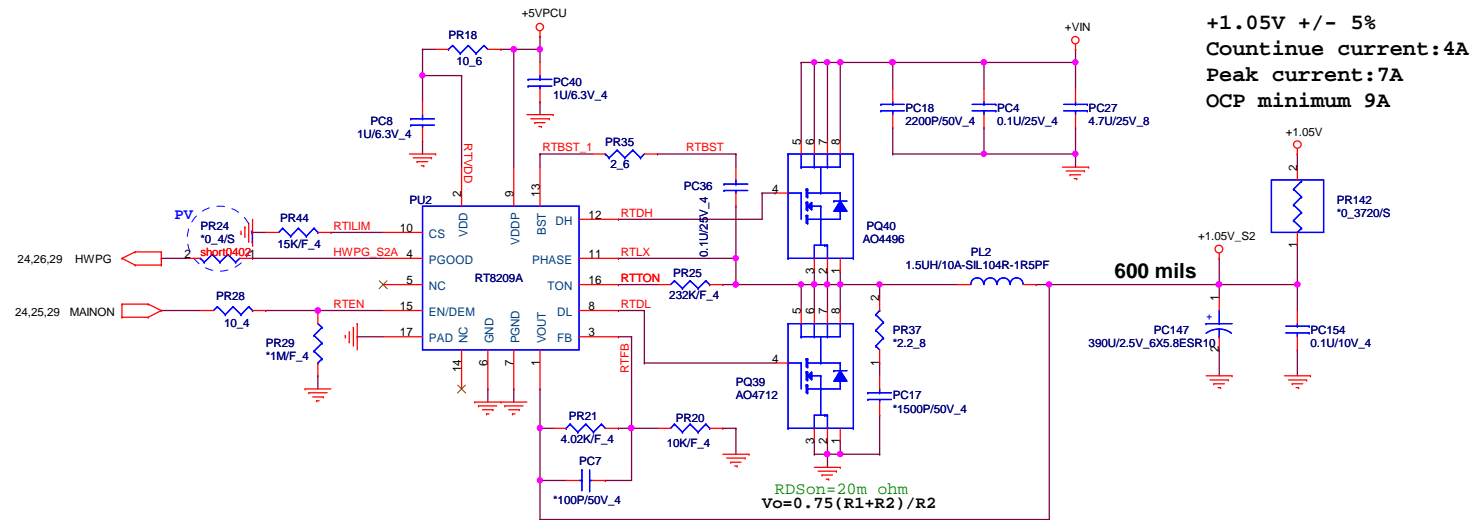
### adapter Type check





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





**PROJECT :AX3**  
Quanta Computer Inc.

Size Custom	Document Number <b>+1.05V</b>	Rev 2A
Date: Tuesday, February 23, 2010	Sheet 27 of 30	

Merom: VCC\_CORE/ 44A  
Yonah: VCC\_CORE/ 36A

