

ZL8

CPU CORE
SENTECH
SC451ITSTR
Page: 23

SYSTEM 3V/5V
MAXIM
MAX1999
+3VPCU
+3V_S5/+3VSUS
+3V
+5VPCU
+5VSUS
+5V
+15V
Page: 24

+1.8VSUS
+1.8V
+0.9VSUS
+0.9V ON
NCP5214
+1.5V SENTECH
SC1470
+1.5V_S5
SI9183-AD
+2.5V SENTECH
SC1565
+1.05V SENTECH
SC4215
Page: 25

BATTERY CHARGER
MAXIM
MAX8724
Page: 26

CLOCK GEN
ICS954206
Page: 4

CELERON-M/PENTIUM-M
INTEL Mobile_479 CPU
Page: 2, 3

DDR-II SODIMM1
Page: 10

DDR-II SODIMM2
Page: 10

NB INTEL ALVISO 915GM
Page: 5, 6, 7, 8

PATA HDD
Page: 16

IDE-ODD
Page: 16

SB INTEL ICH6-M
Page: 12, 13, 14

AUDIO CODEC
Realtek
ALC260 (ALC883)
Page: 19

AMP
MAX9755
Page: 20

MODEM
Page: 19

KBC NS PC97551
Page: 21

MIC IN
Page: 19

SPEAKER
Page: 20

LINE OUT
Page: 20

RJ11
Page: 17

Touchpad
Page: 22

Keyboard
Page: 22

FLASH
Page: 21

FAN
Page: 22

SYSTEM USB PORT *3
USB2, 3, 5
Page: 16

Bluetooth USB interface
USB4
Page: 16

CRT
Page: 11

LVDS
Page: 11

MINI-PCIE slot Wireless LAN
Page: 16

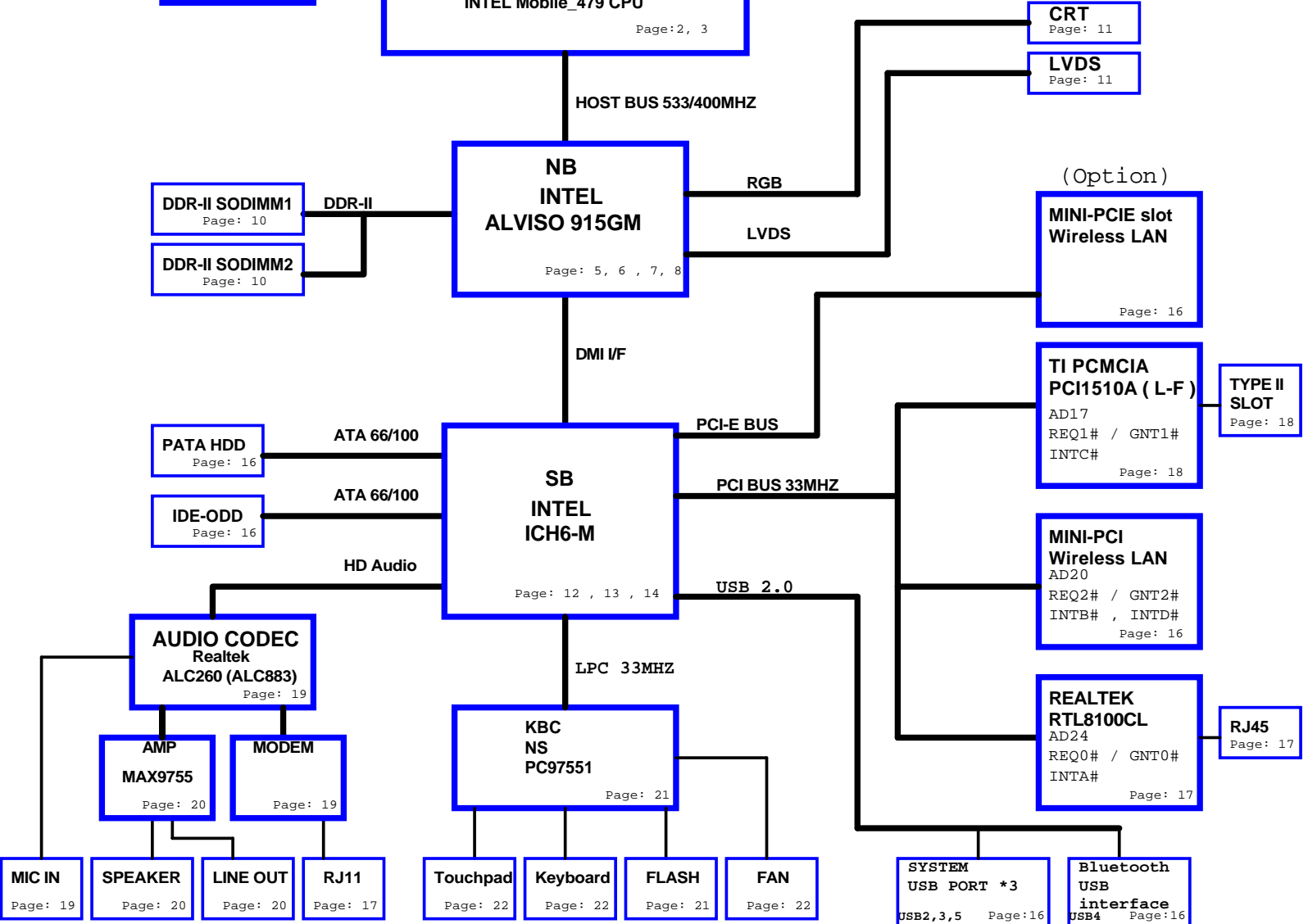
TI PCMCIA PCI1510A (L-F)
AD17
REQ1# / GNT1#
INTC#
Page: 18

TYPE II SLOT
Page: 18

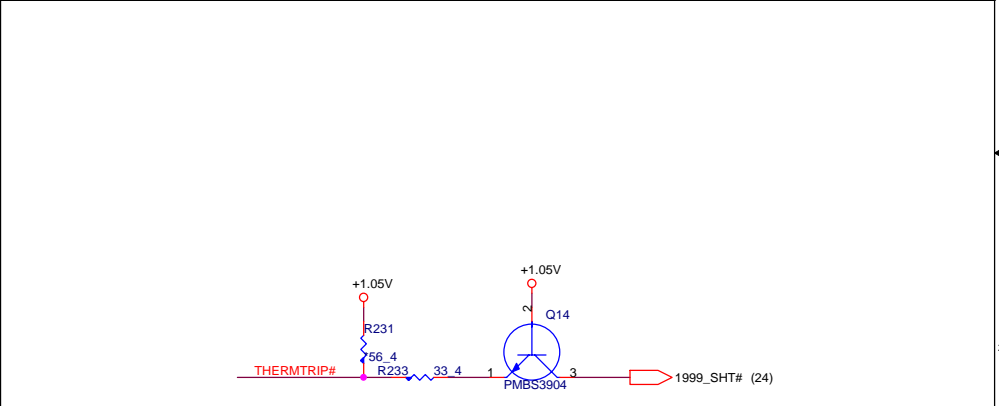
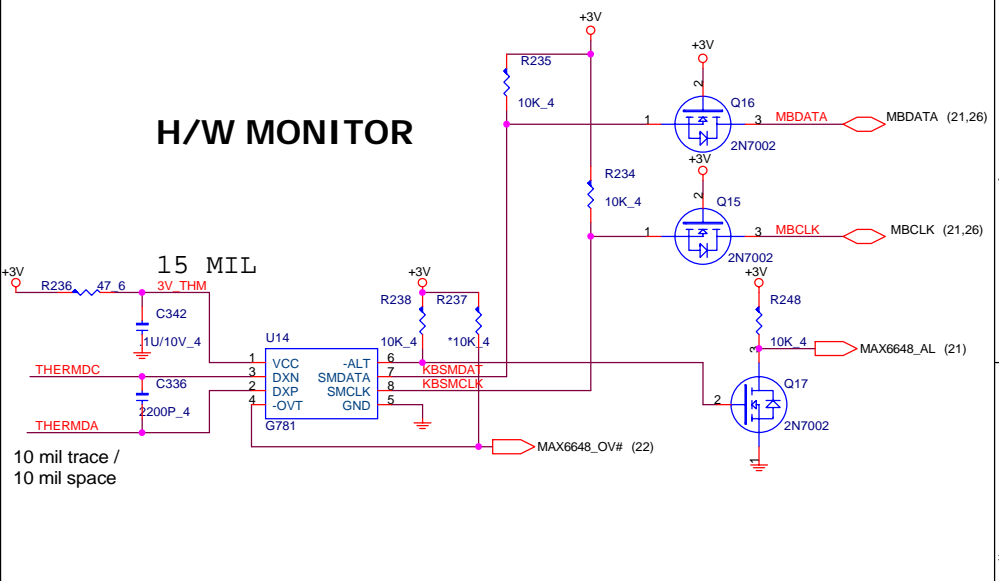
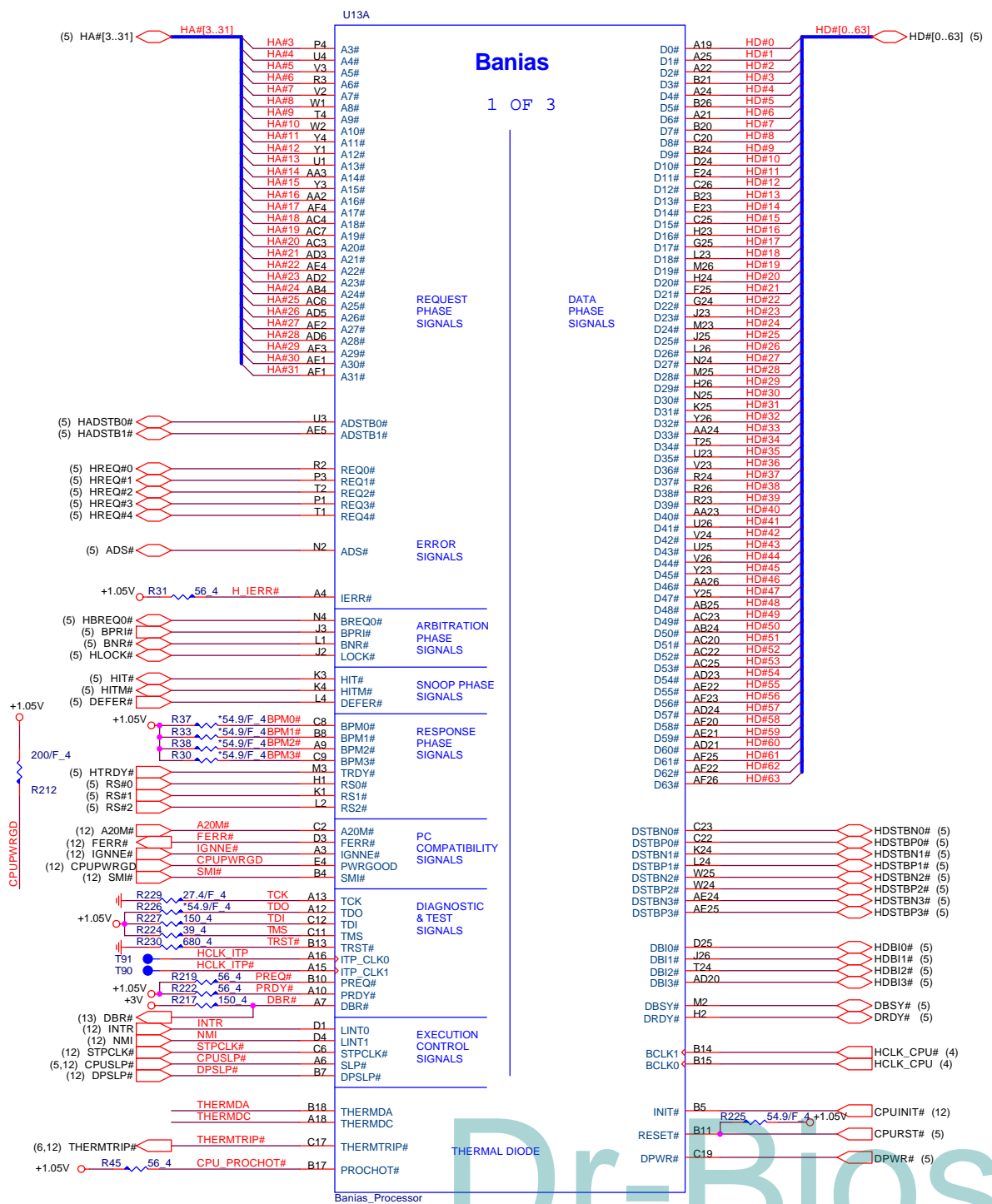
MINI-PCI Wireless LAN
AD20
REQ2# / GNT2#
INTB# , INTD#
Page: 16

REALTEK RTL8100CL
AD24
REQ0# / GNT0#
INTA#
Page: 17

RJ45
Page: 17



Dr-Bios.com

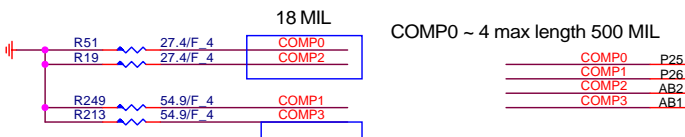


PROJECT : ZL8
Quanta Computer Inc.

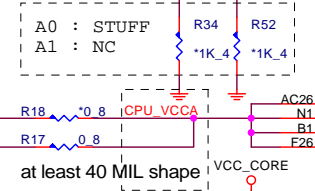
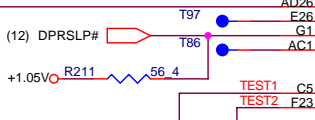
Size: Document Number: CPU (HOST BUS)-1 Rev: 3A

Date: Tuesday, August 09, 2005 Sheet: 2 of 26

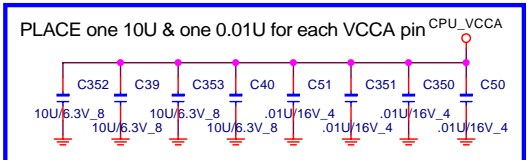
Dr-BIOS.com



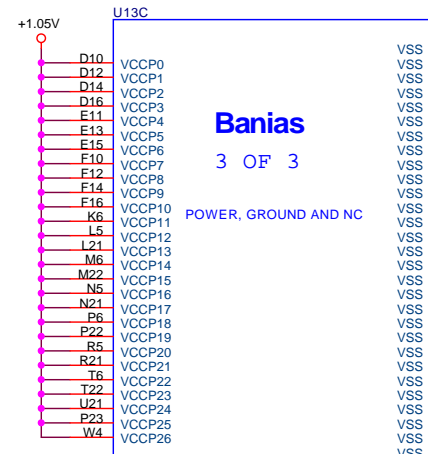
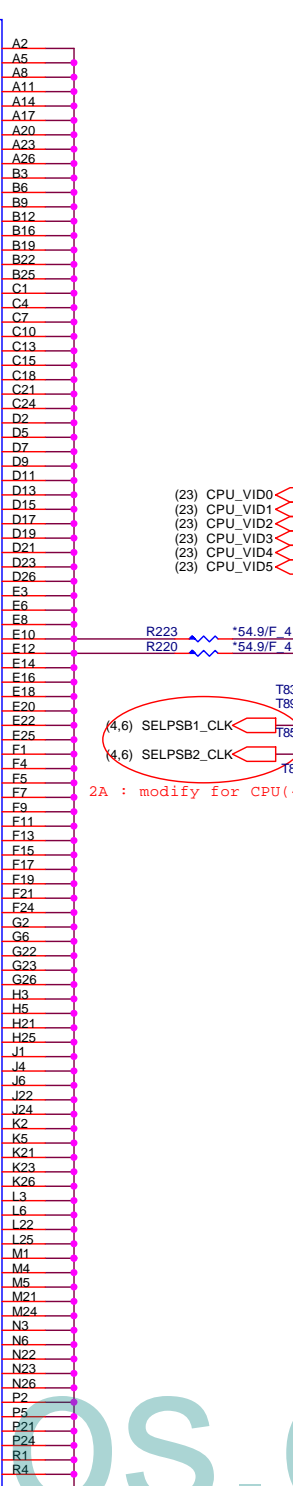
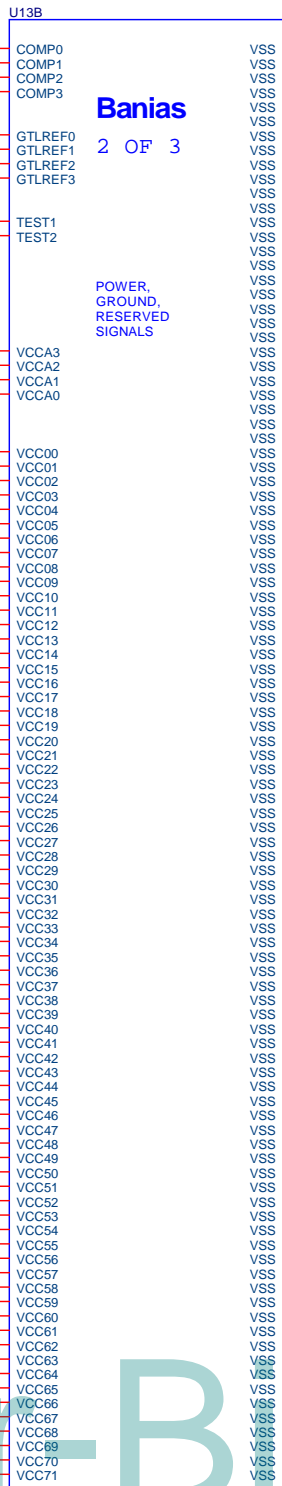
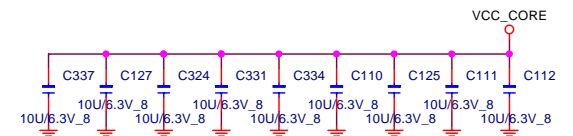
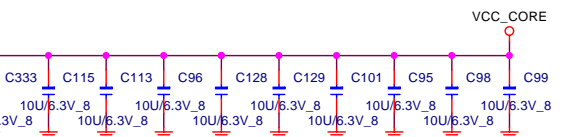
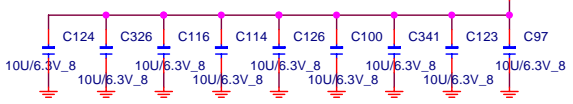
Banias
2 OF 3



POWER, GROUND, RESERVED SIGNALS

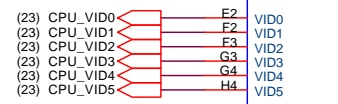


10U/6.3V/X5R(CC0805) *30

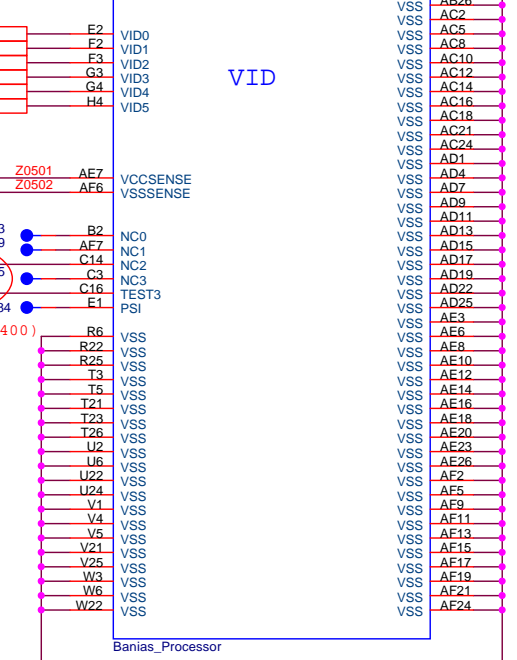
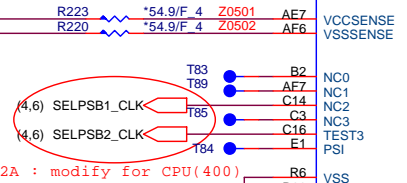


Banias
3 OF 3

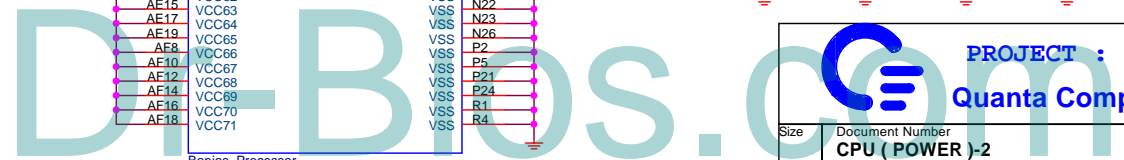
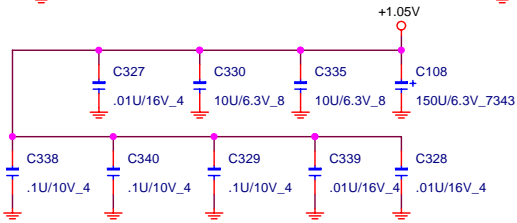
POWER, GROUND AND NC



VID



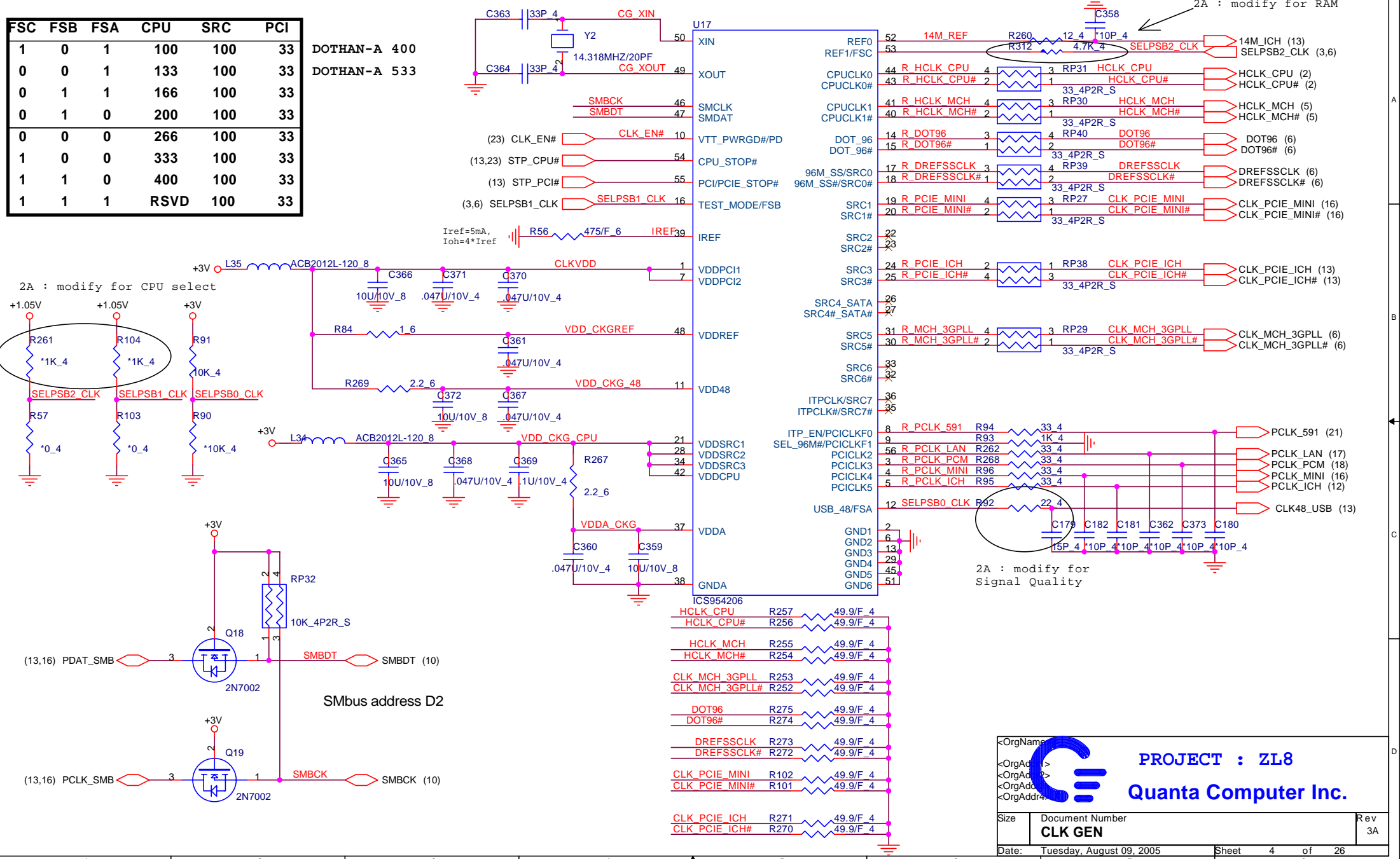
Banias_Processor



PROJECT : ZL8
Quanta Computer Inc.

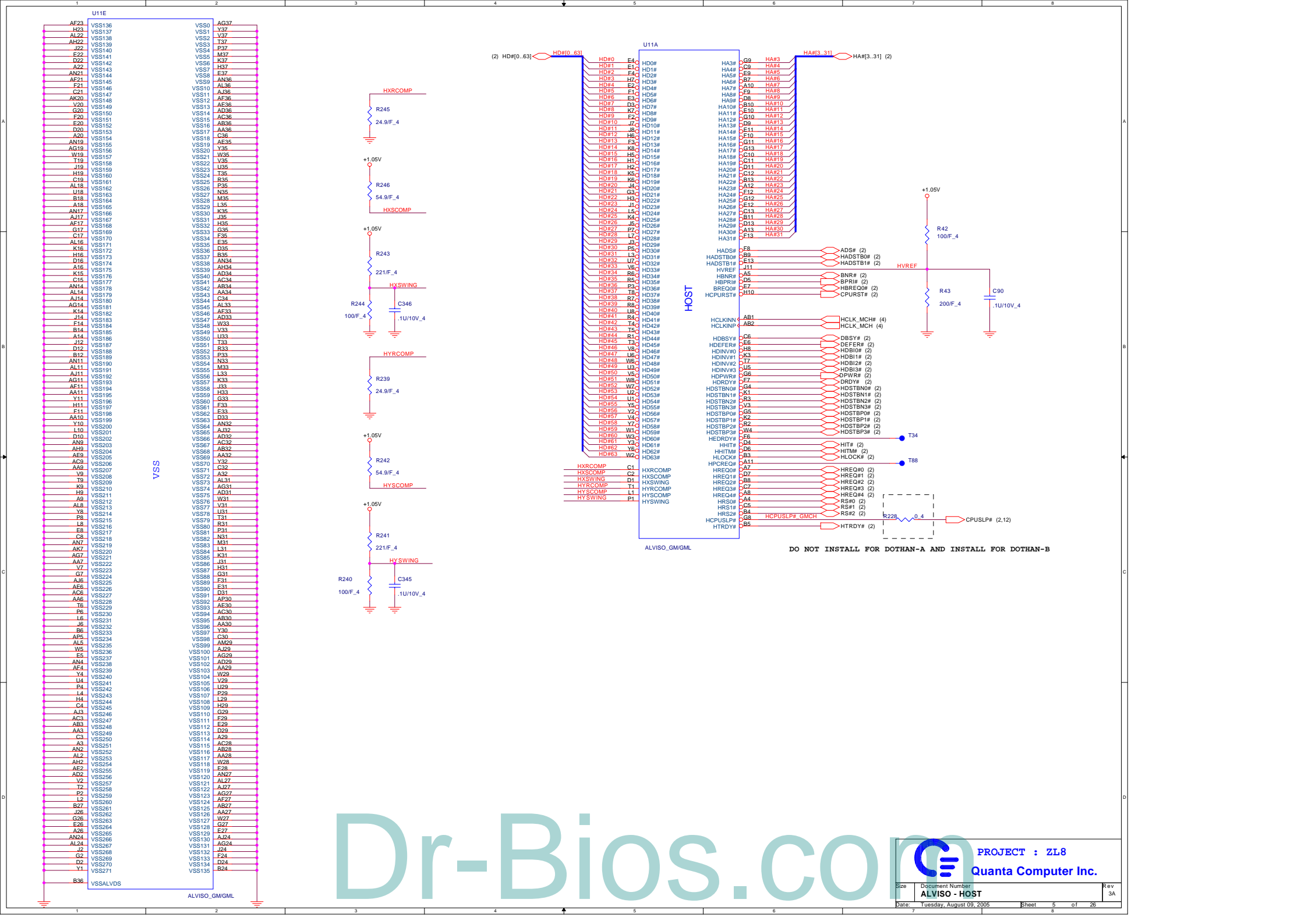
FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

DOTHAN-A 400
DOTHAN-A 533



PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
	CLK GEN	3A
Date:	Tuesday, August 09, 2005	Sheet 4 of 26

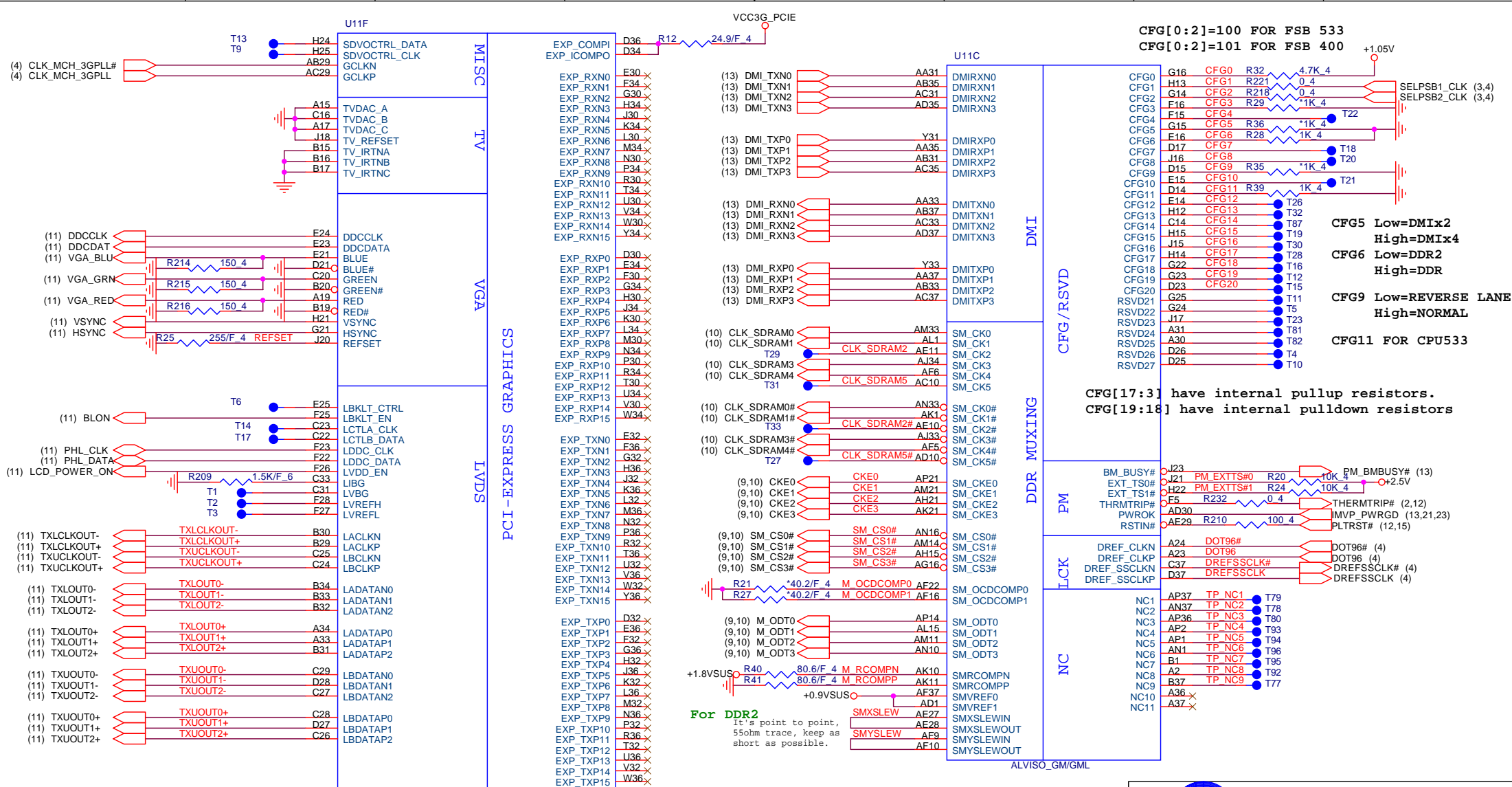


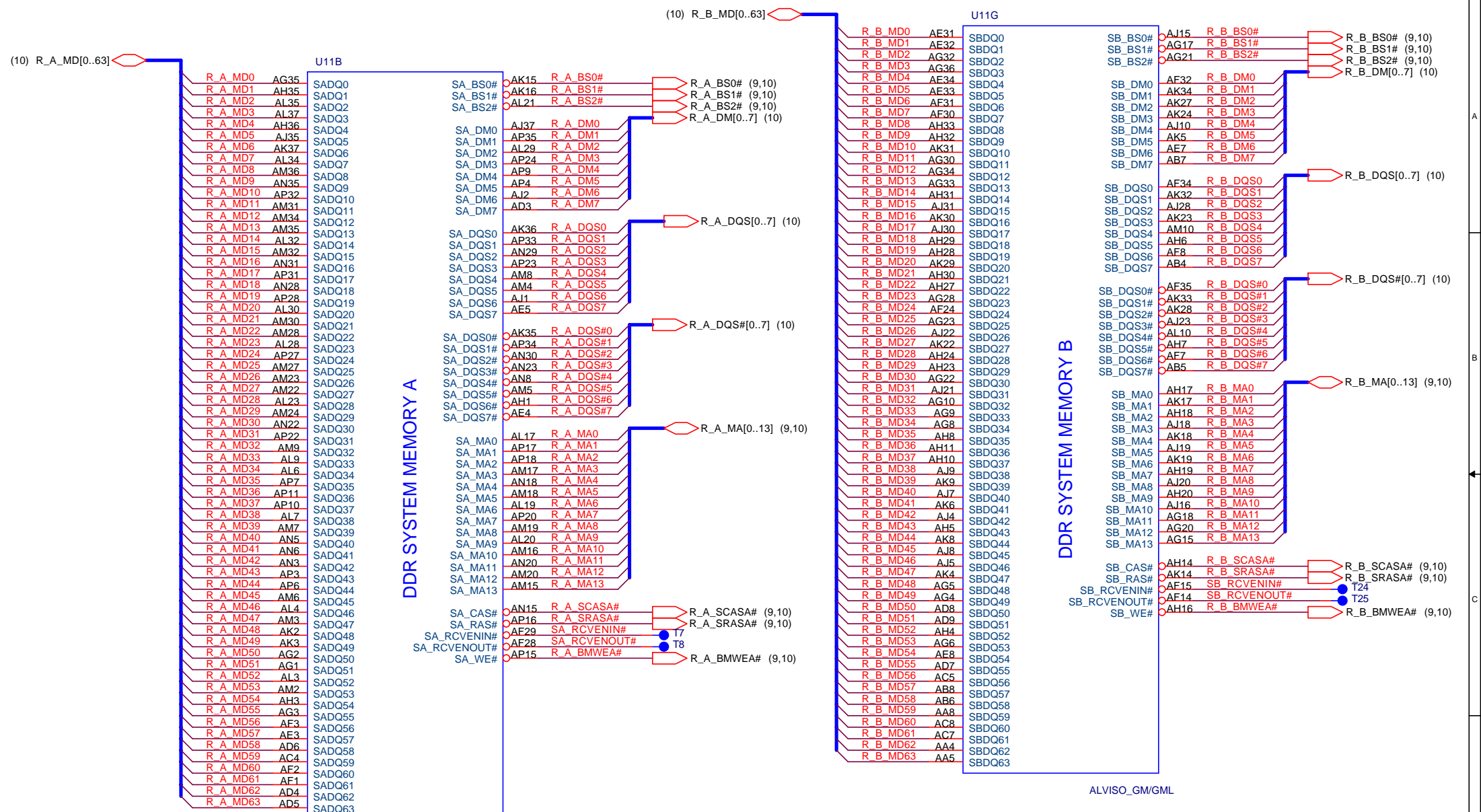
Dr-Bios.com

PROJECT : ZL8

Quanta Computer Inc.

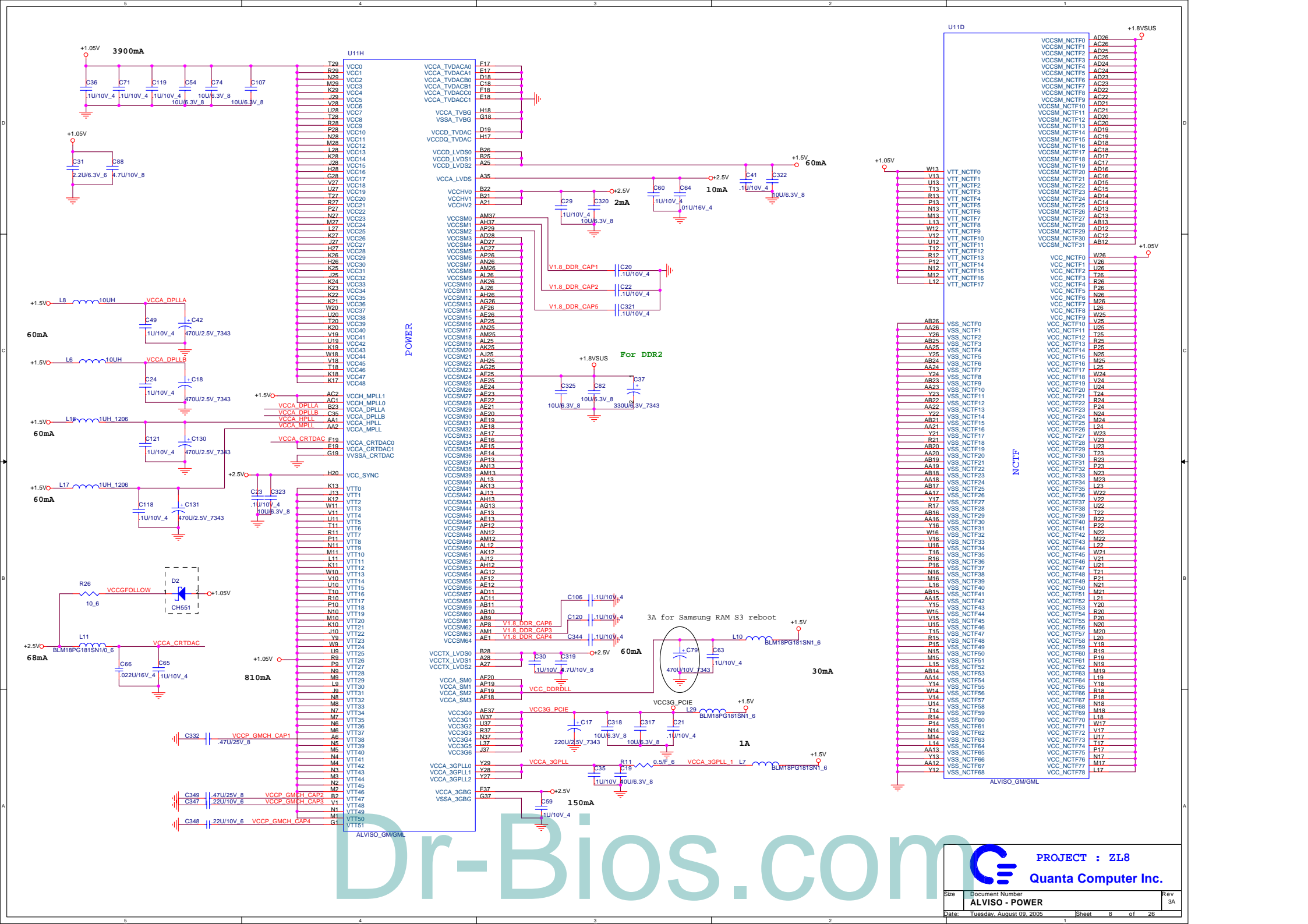
Size	Document Number	Rev
Date	Tuesday, August 09, 2005	Sheet 5 of 26
ALVISO - HOST		3A

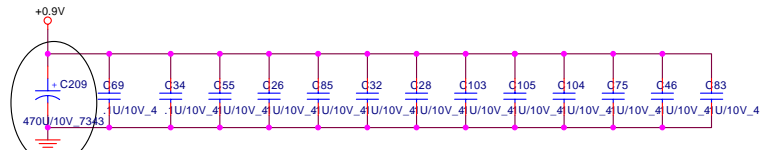




PROJECT : ZL8
Quanta Computer Inc.

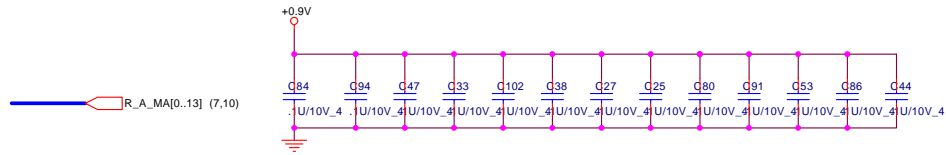
Size	Document Number ALVISO - DDRII	Rev 3A
Date:	Tuesday, August 09, 2005	Sheet 7 of 26



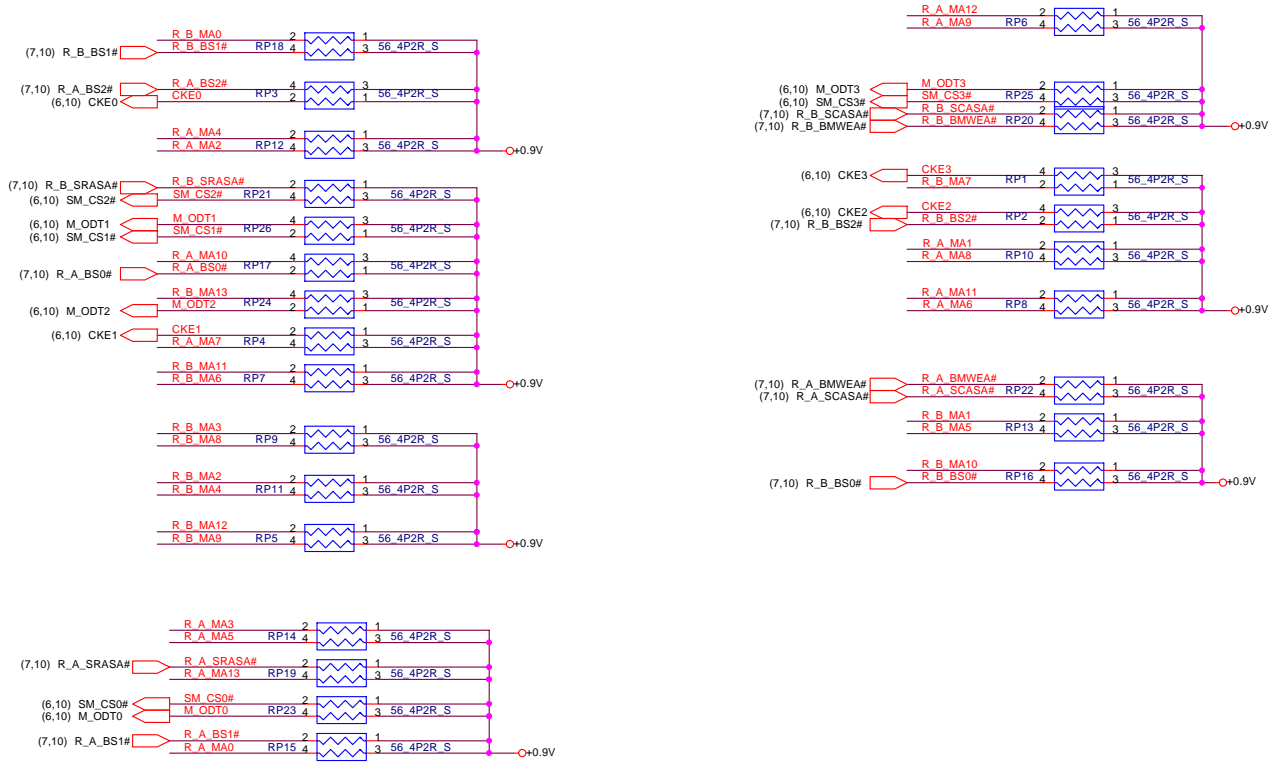


3A for Samsung RAM S3 reboot

Layout note: Place one cap close to every 2 pullup resistors terminated to +0.9V



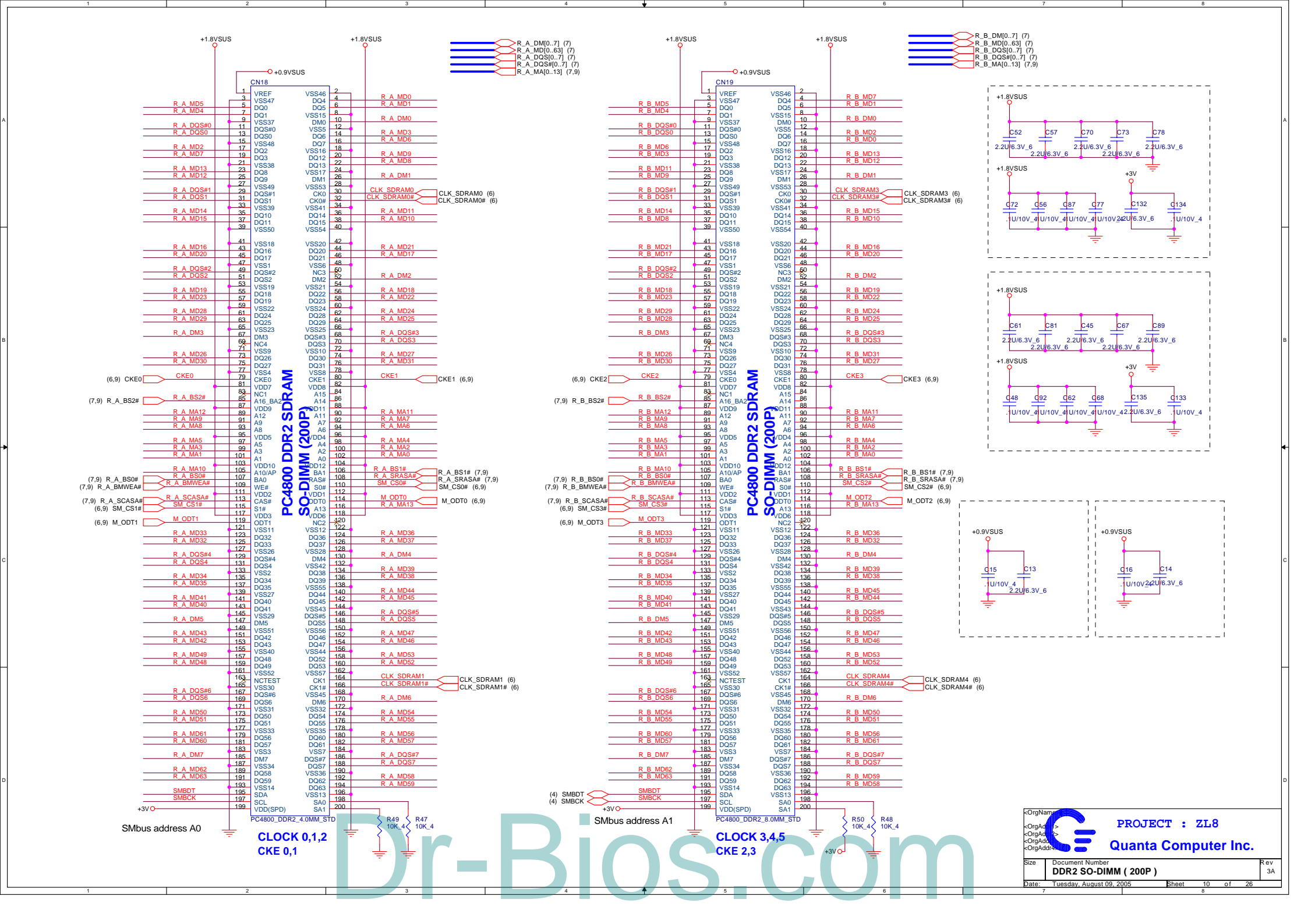
Layout note: Place one cap close to every 2 pullup resistors terminated to +0.9V



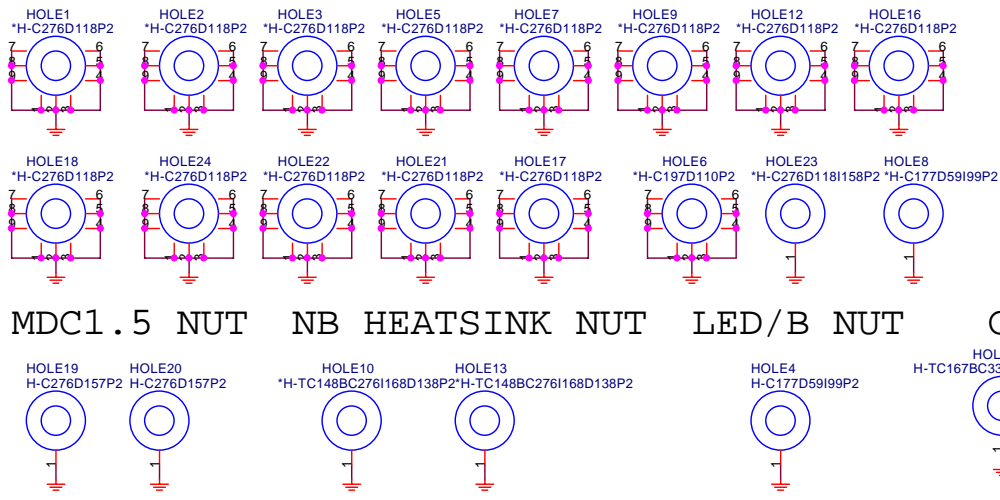
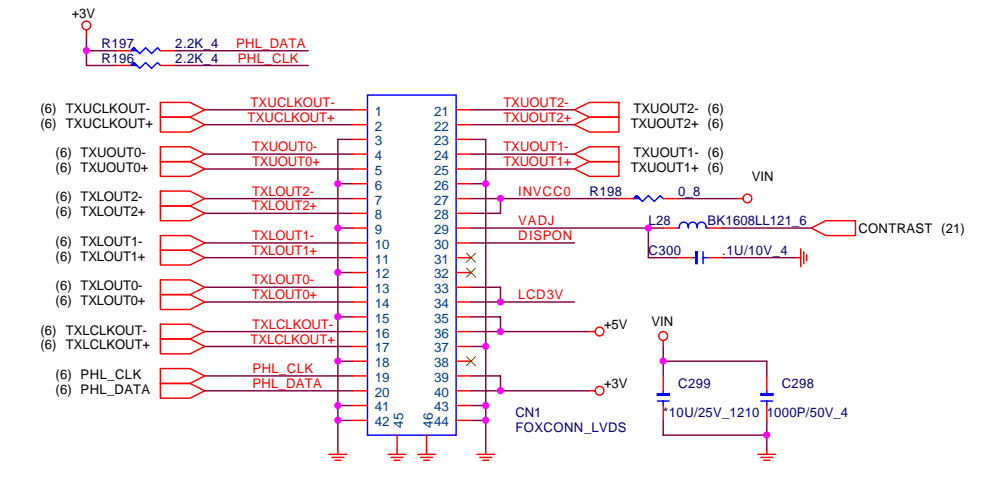
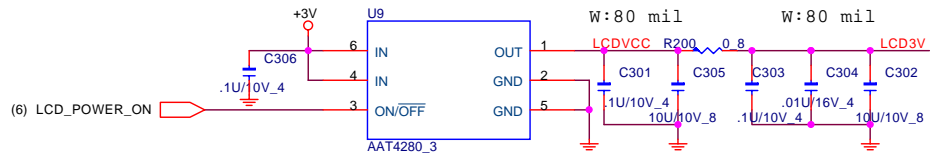
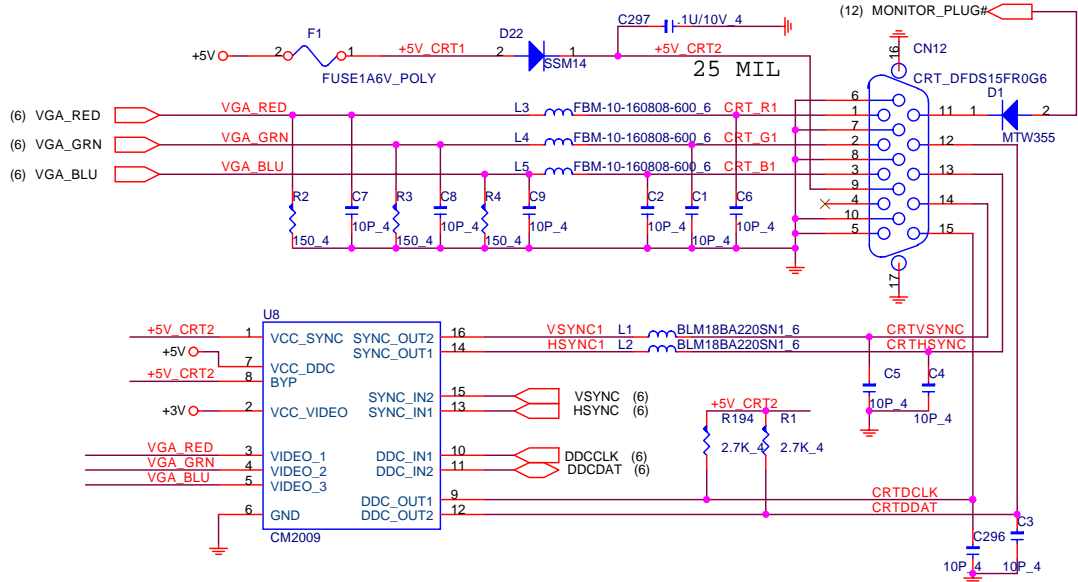
Dr-Bios.com

PROJECT : ZL8
 Quanta Computer Inc.

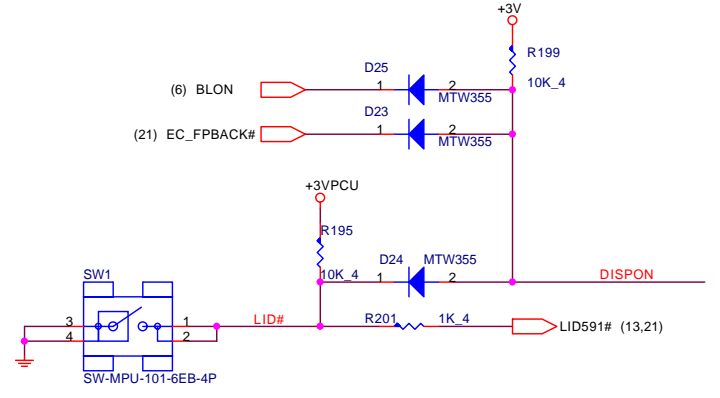
Size	Document Number	Rev
	DDR2 TERMINATION	3A
Date:	Tuesday, August 09, 2005	Sheet 9 of 26




CRT PORT



PCIE-CARD NUT

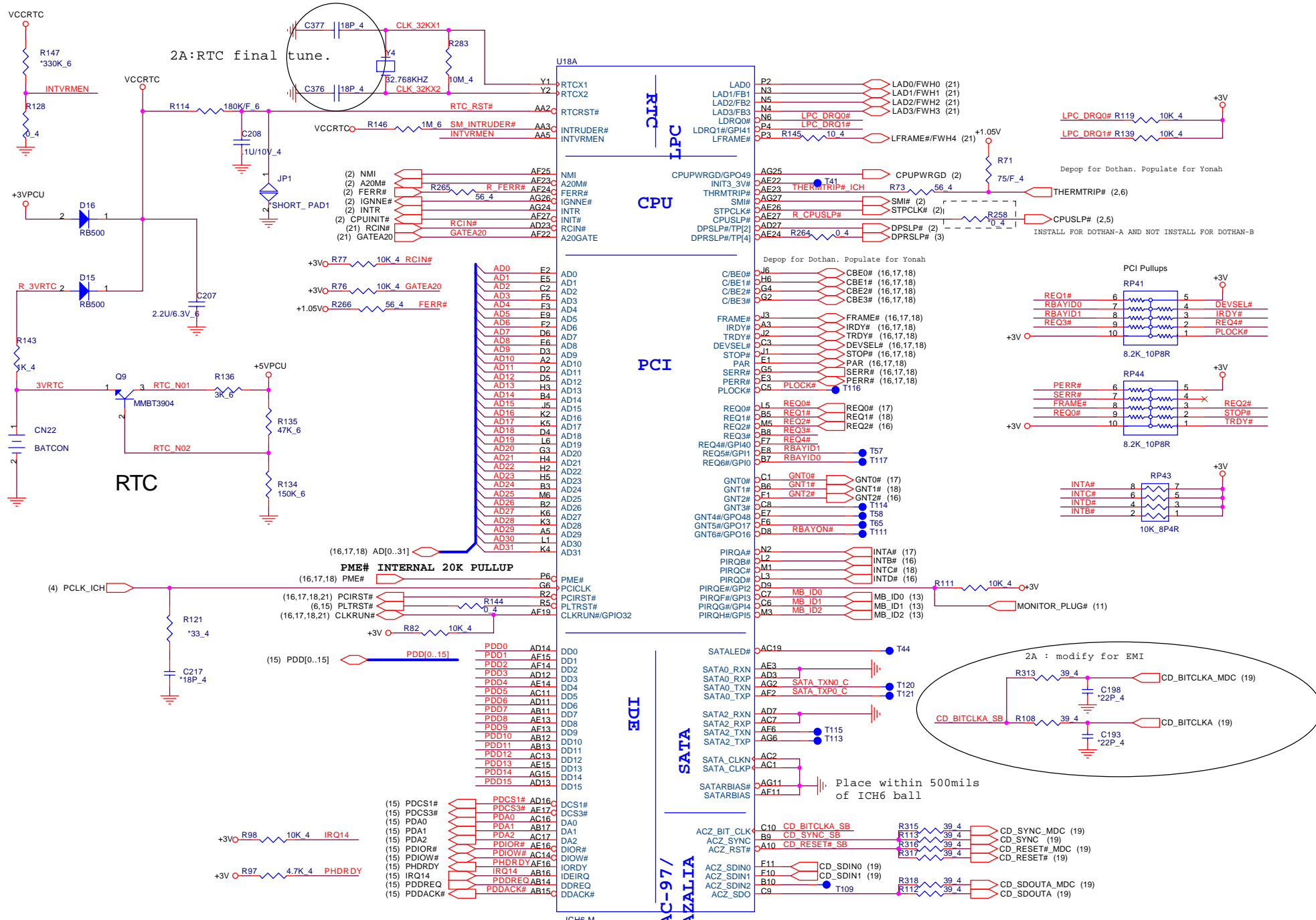


Lid Switch

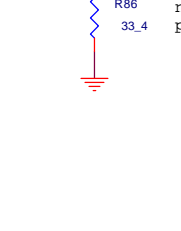
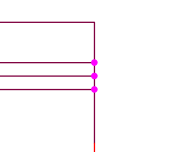
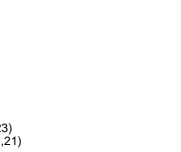
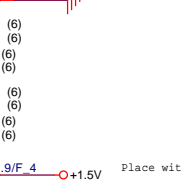
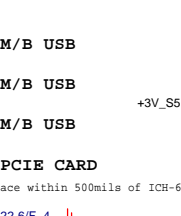
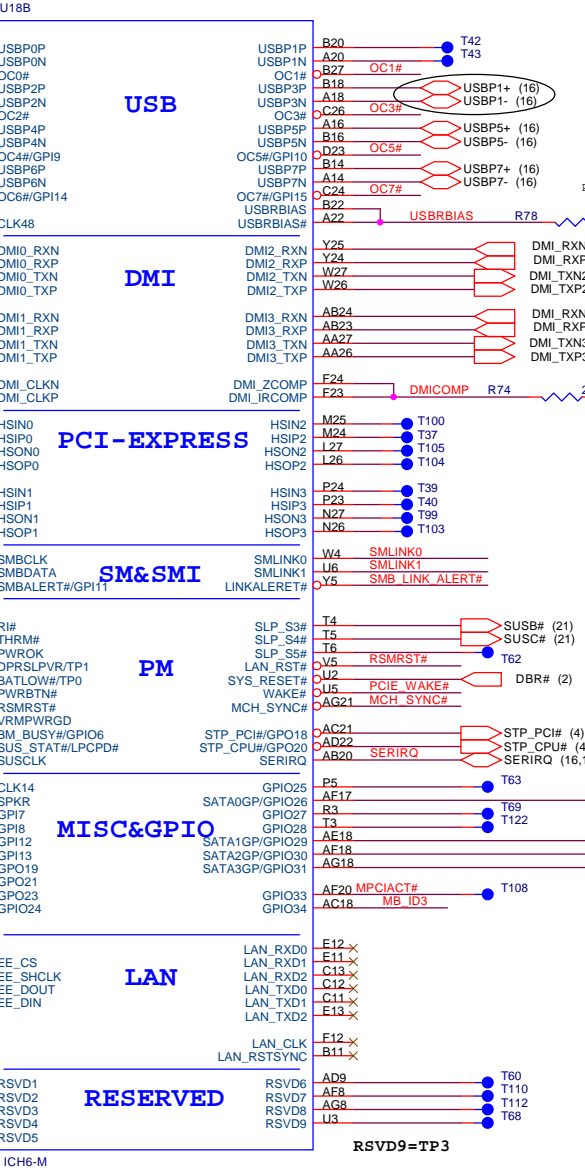
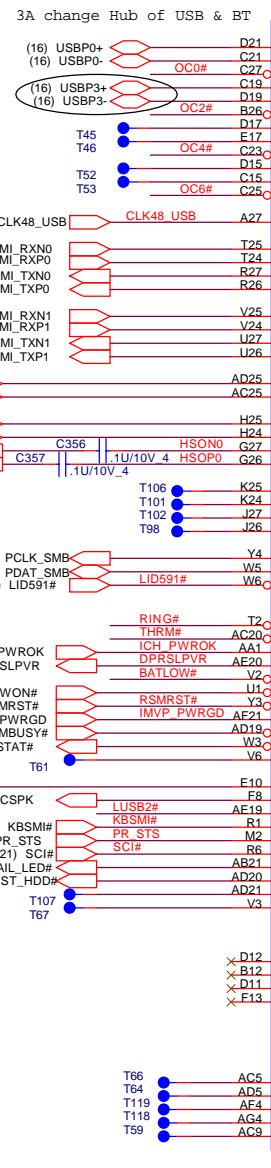
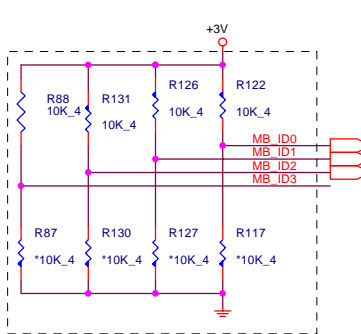
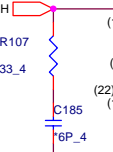
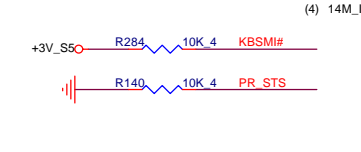
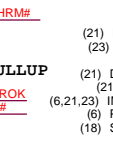
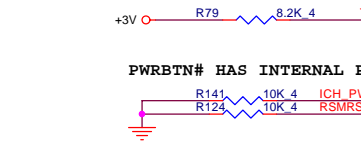
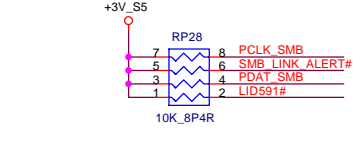
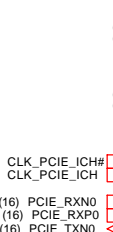
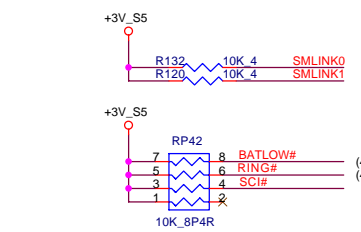
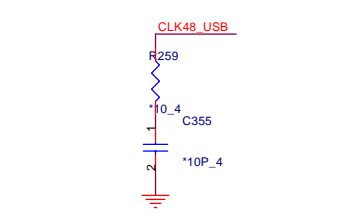


PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
	LVDS,VGA Ports, LID, & HOLES	3A
Date:	Tuesday, August 09, 2005	Sheet 11 of 26

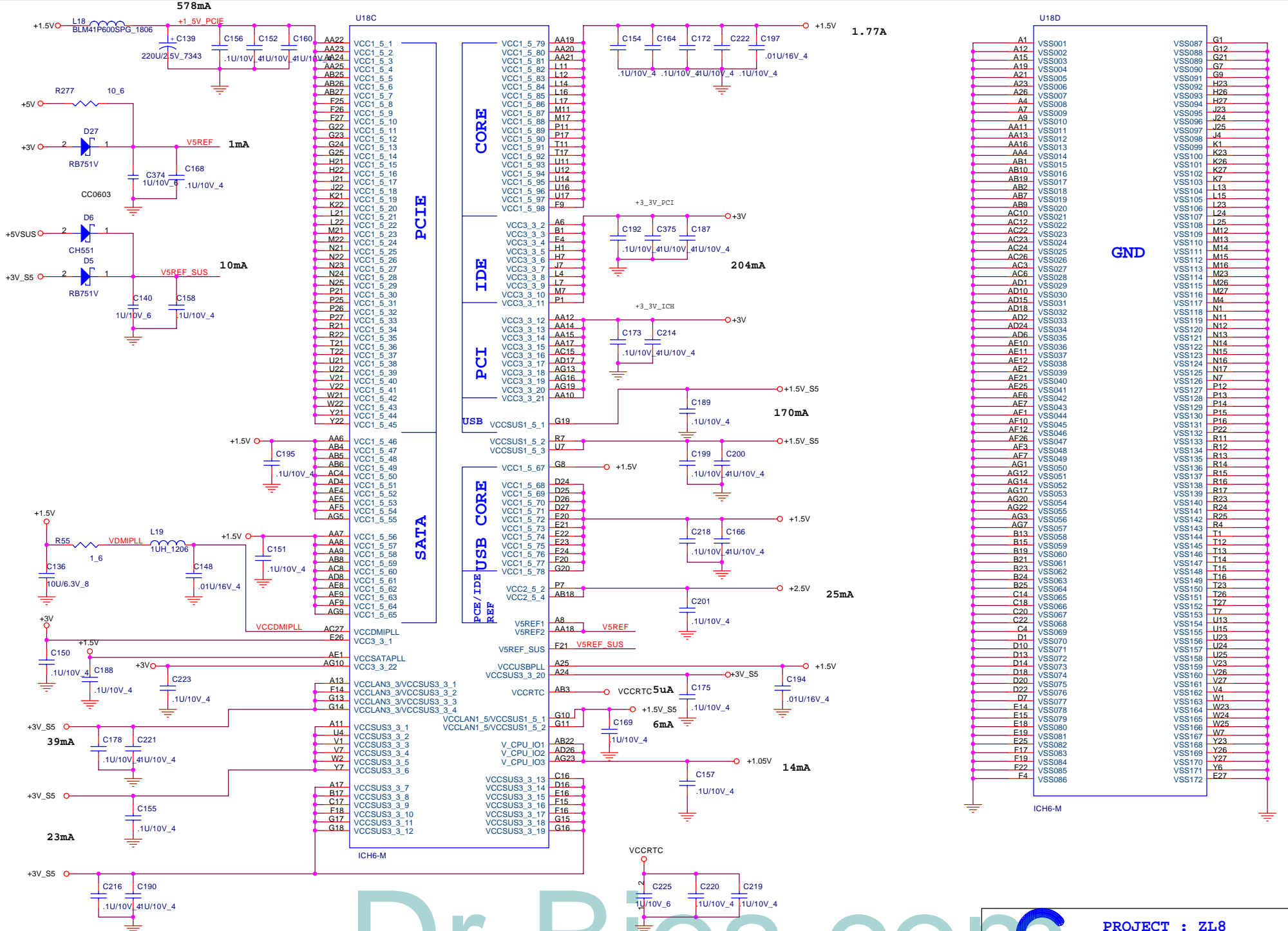


PROJECT : ZL8
Quanta Computer Inc.



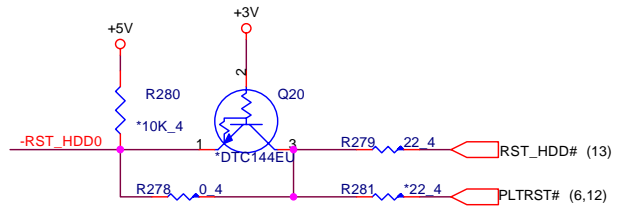
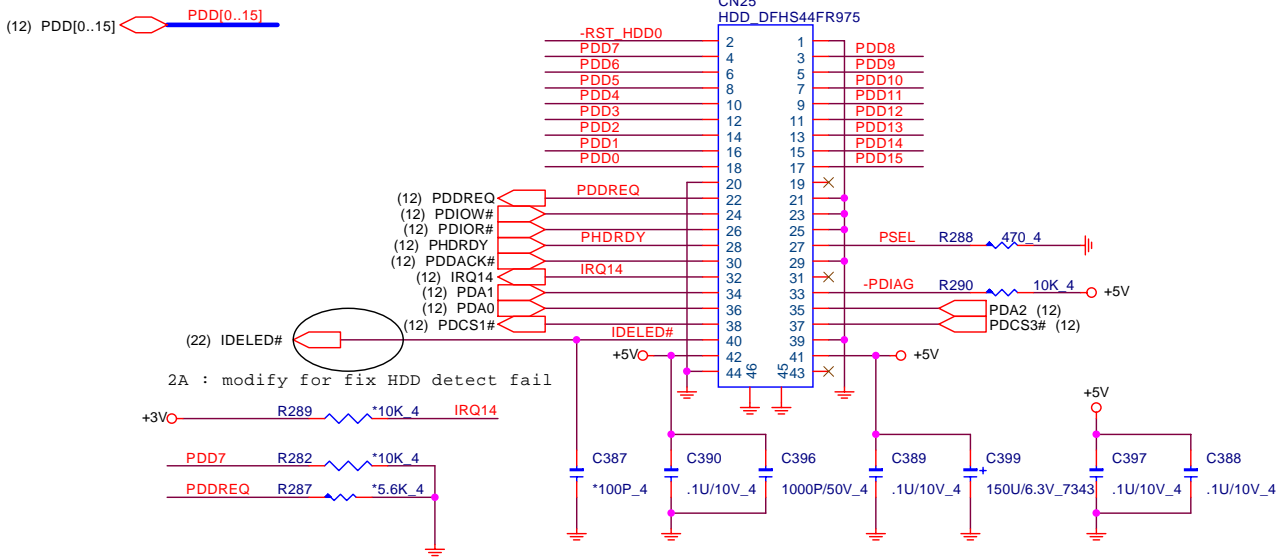
Dr-Bios.com

PROJECT : ZL8
Quanta Computer Inc.

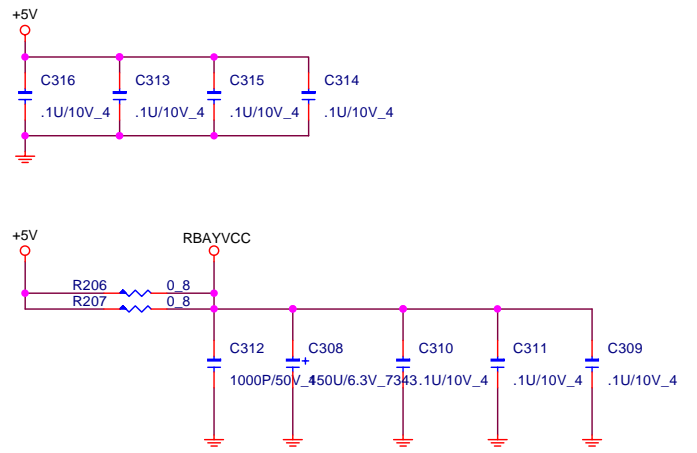
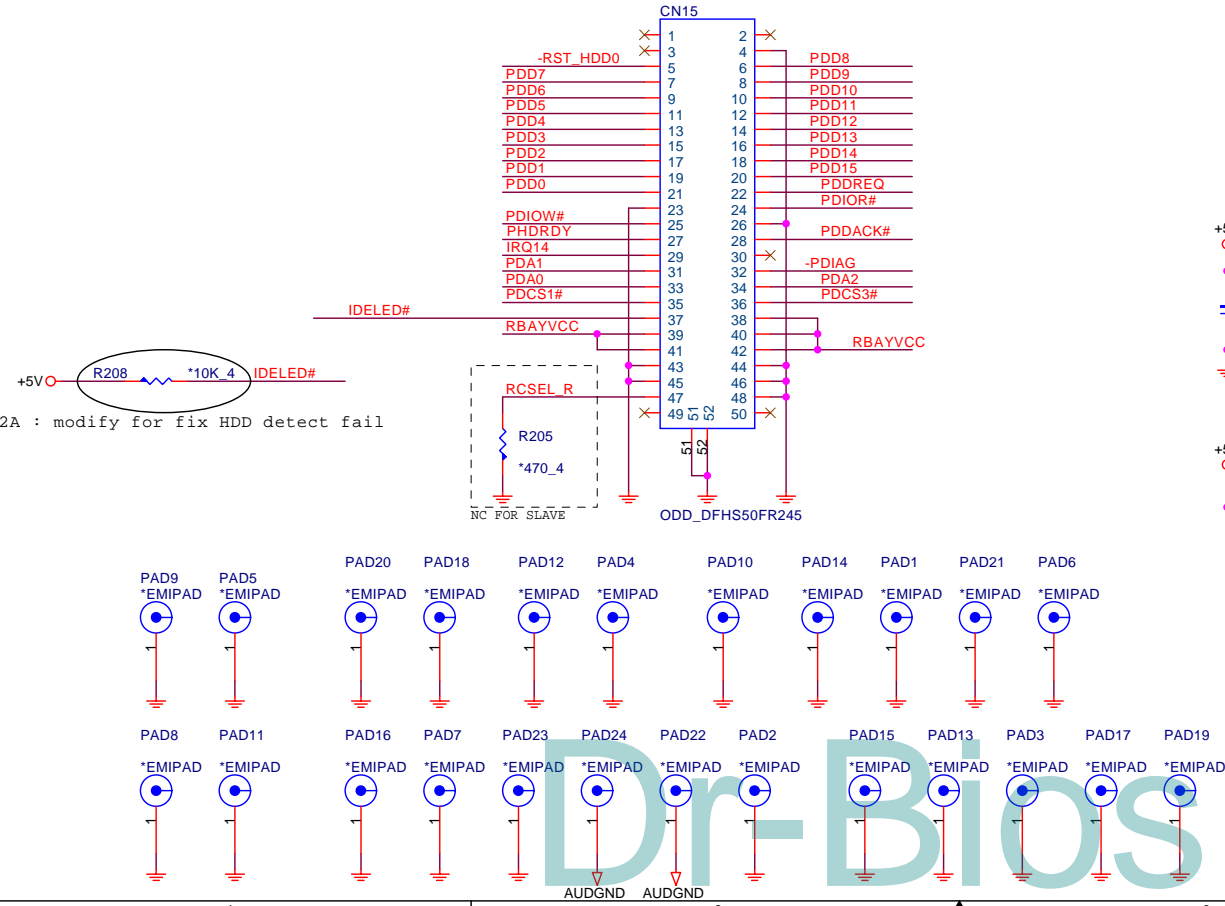


Dr-Bios.com

PROJECT : ZL8
Quanta Computer Inc.



ODD Connector

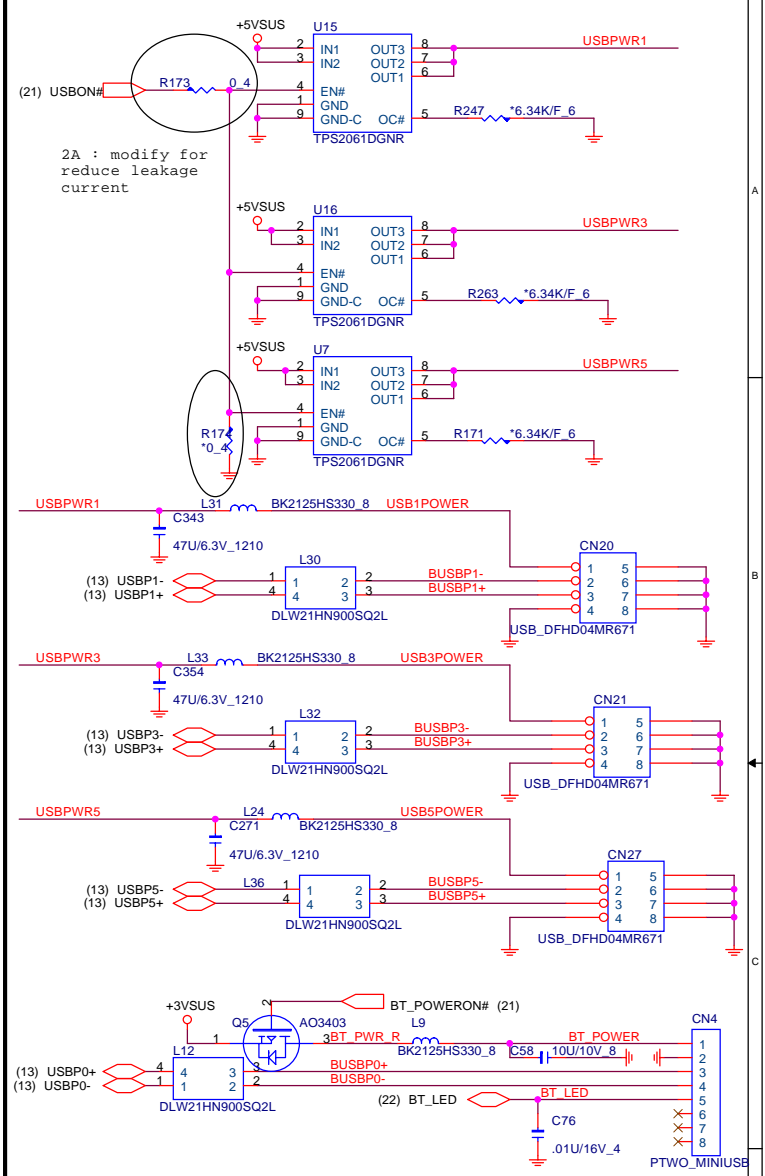
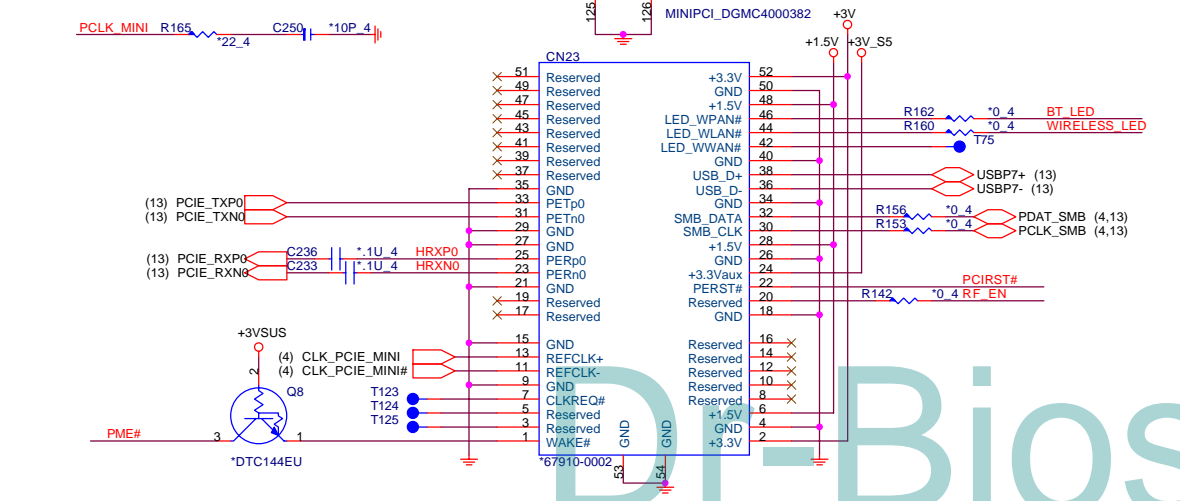
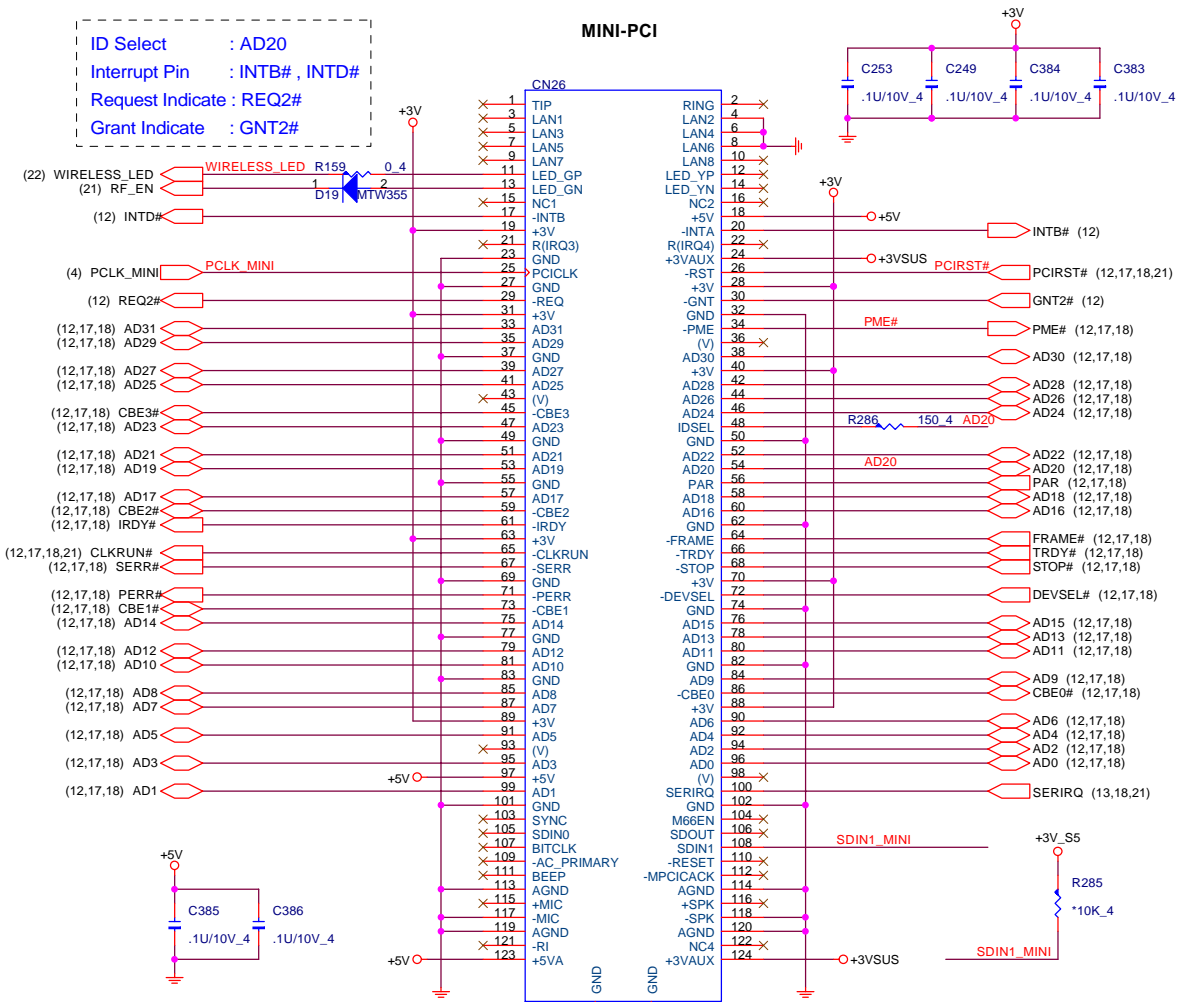


PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
	HDD & CDROM	3A
Date:	Tuesday, August 09, 2005	Sheet 15 of 26

ID Select : AD20
 Interrupt Pin : INTB# , INTD#
 Request Indicate : REQ2#
 Grant Indicate : GNT2#

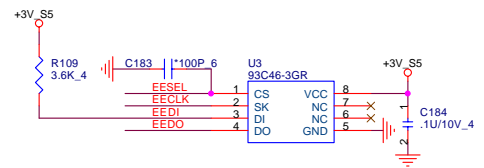
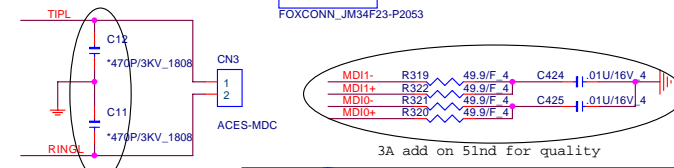
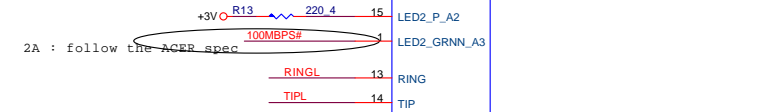
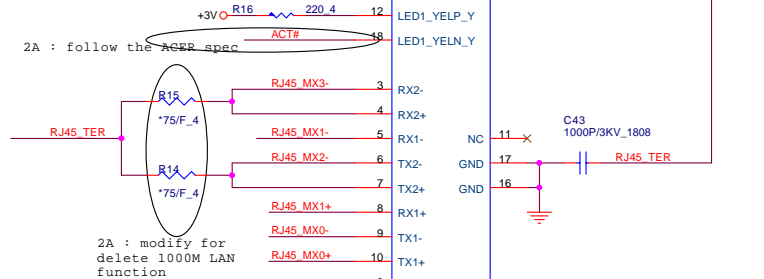
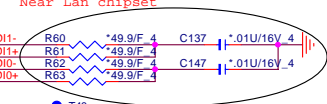
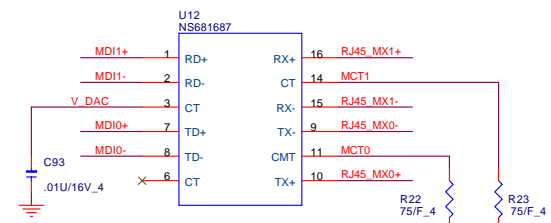
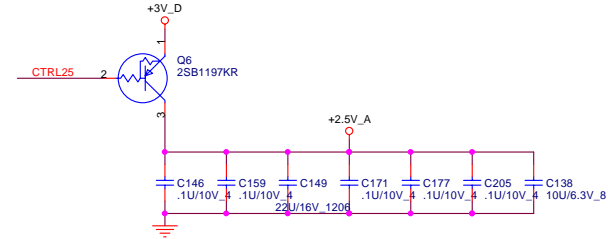
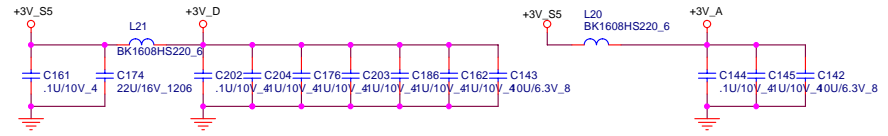
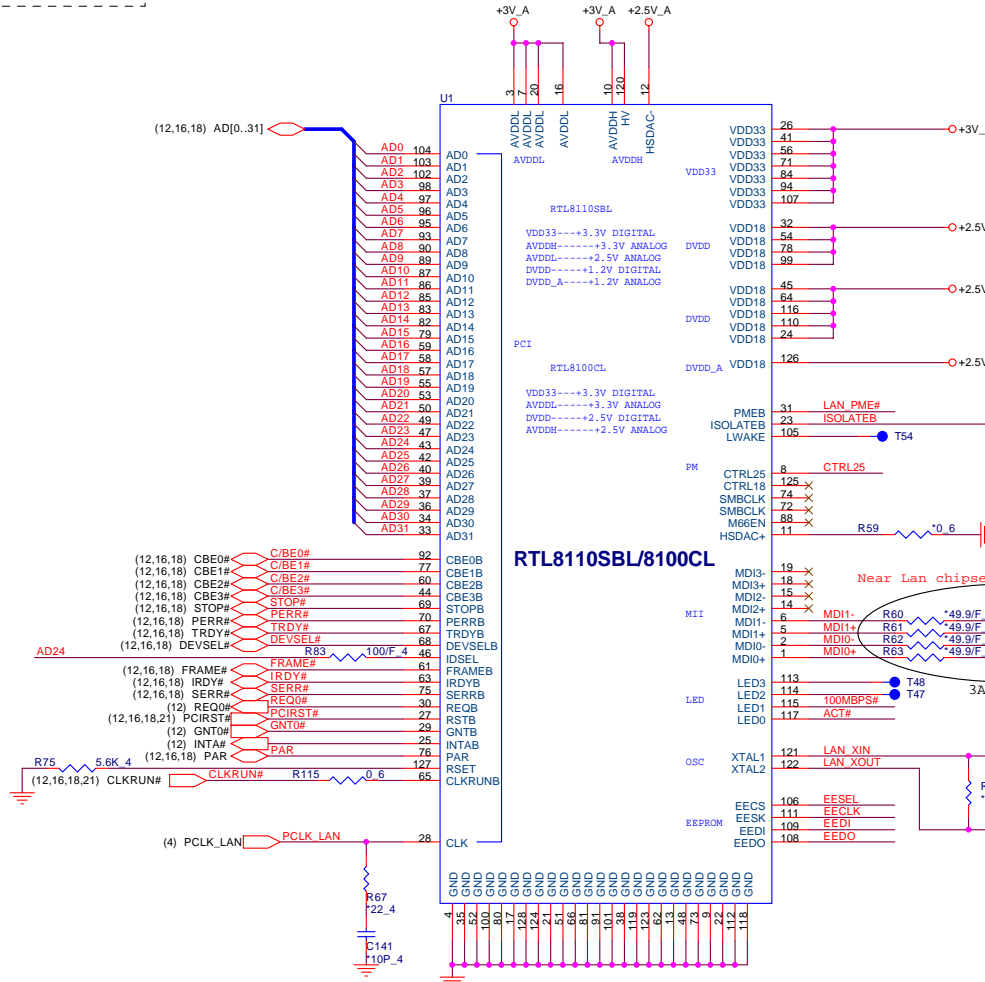
MINI-PCI



PROJECT : ZL8
Quanta Computer Inc.

Size Document Number
MINI PCI,USB
 Date: Tuesday, August 09, 2005 Sheet 16 of 26 Rev 3A

ID Select : AD24
 Interrupt Pin : INTA#
 Request Indicate : REQ#
 Grant Indicate : GNT0#

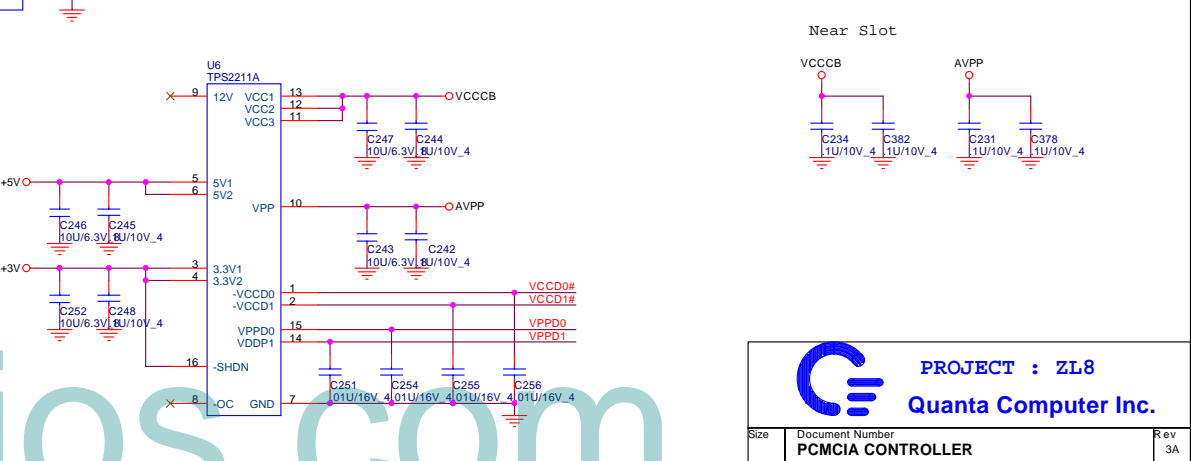
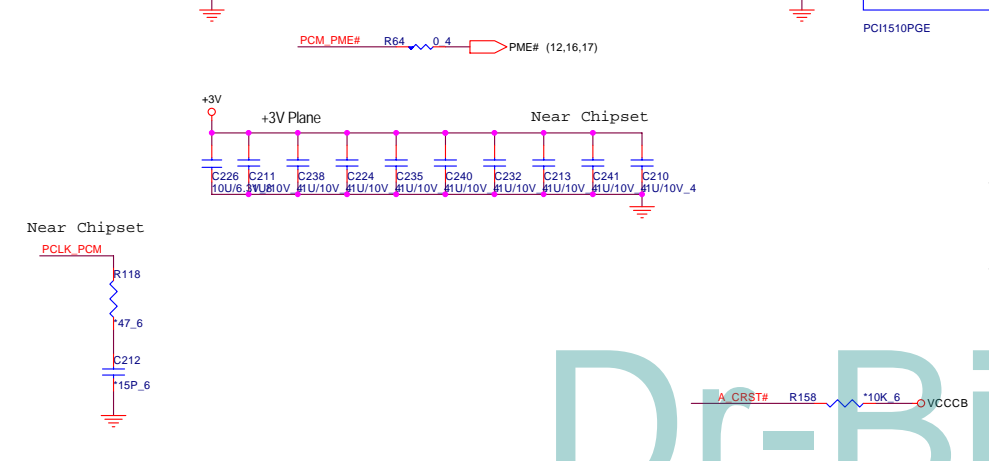
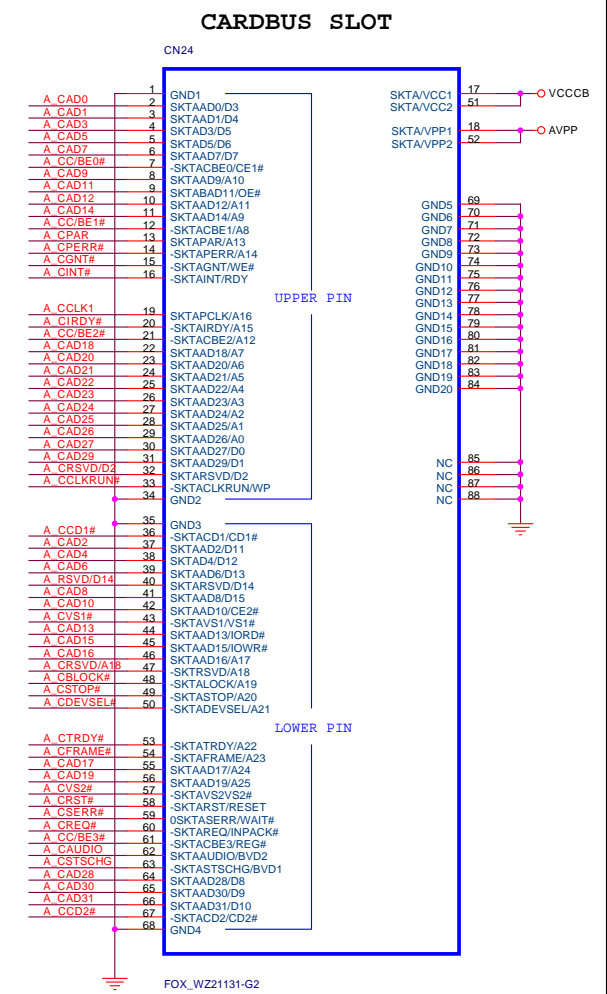
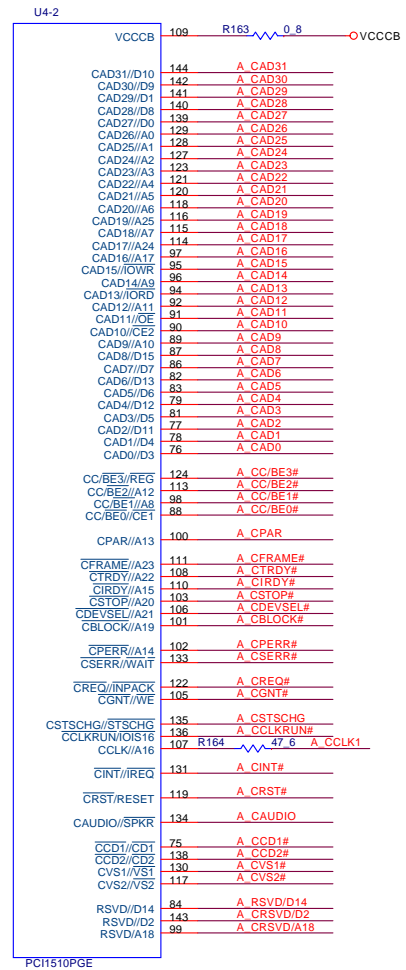
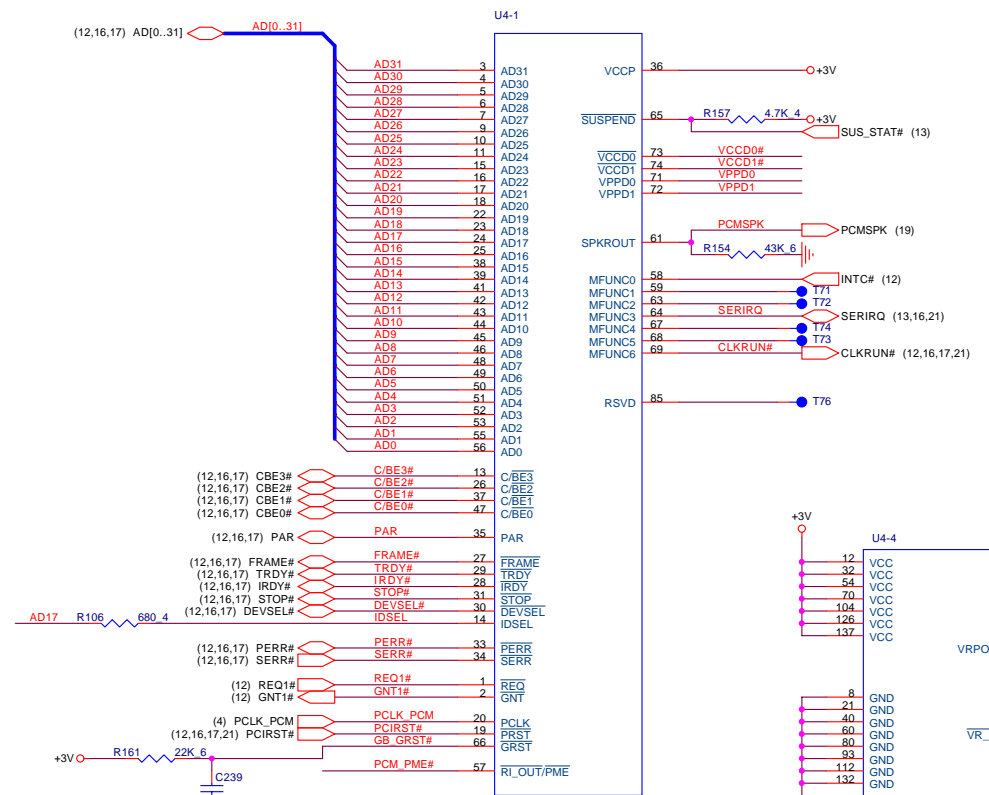


Dr-Bios.com

PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
	LAN RTL8110SBL/8100CL	3A
Date:	Tuesday, August 09, 2005	Sheet 17 of 26

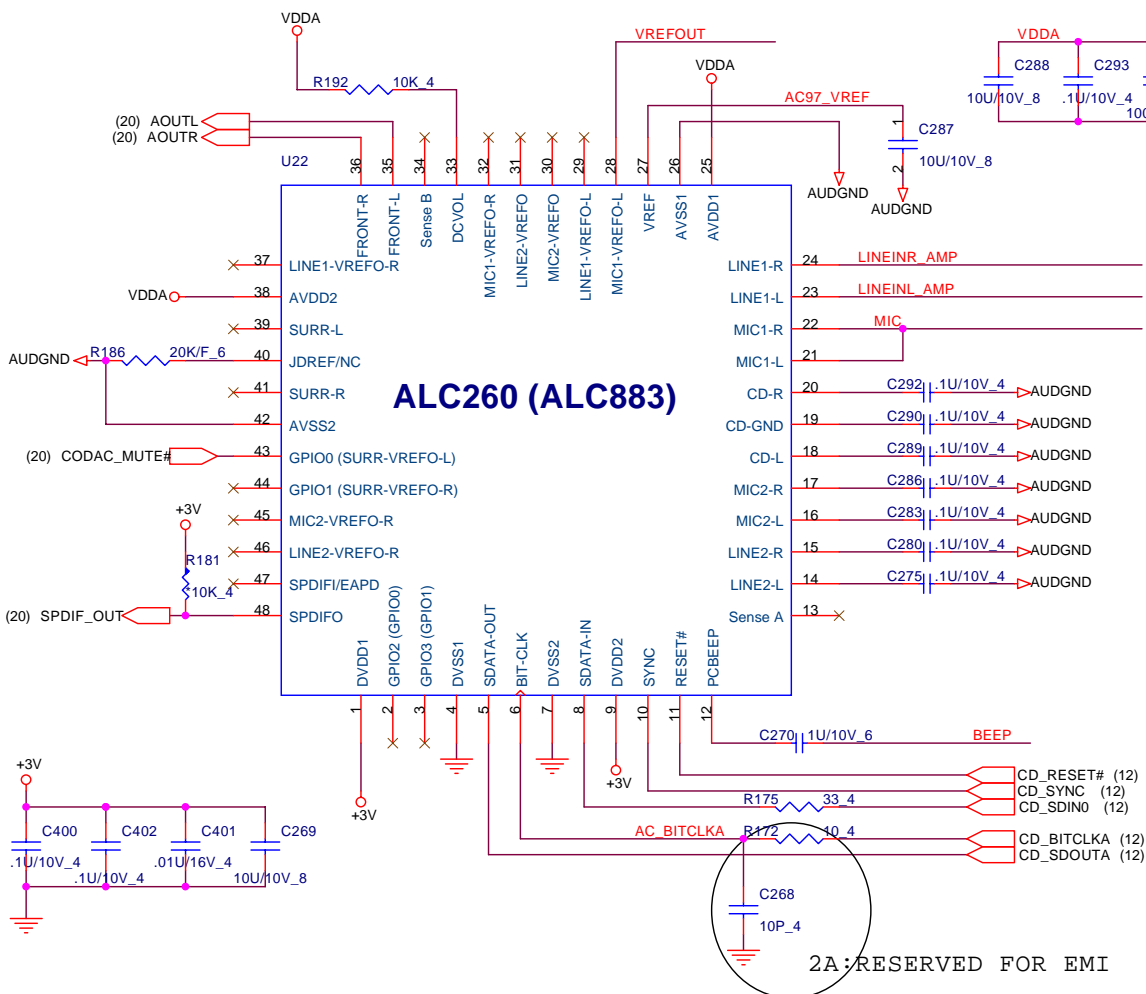
ID Select : AD17
 Interrupt Pin : INTC#
 Request Indicate : REQ1#
 Grant Indicate : GNT1#



Dr-Bios.com

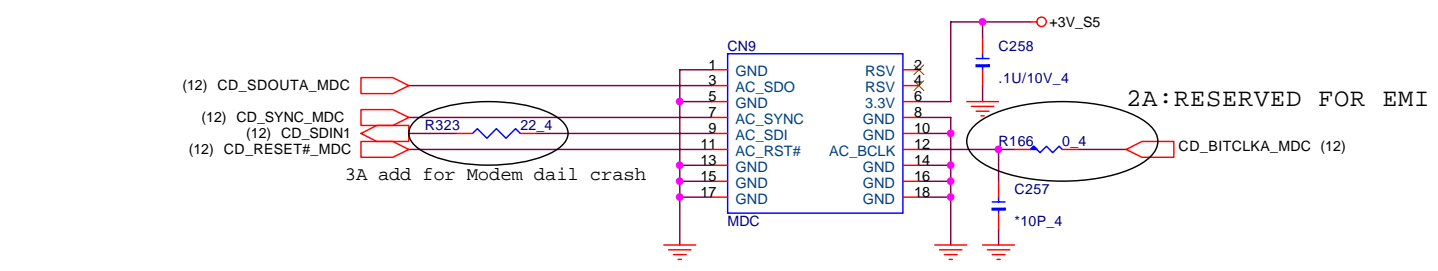
PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
	PCMCIA CONTROLLER	3A
Date:	Tuesday, August 09, 2005	Sheet 18 of 26

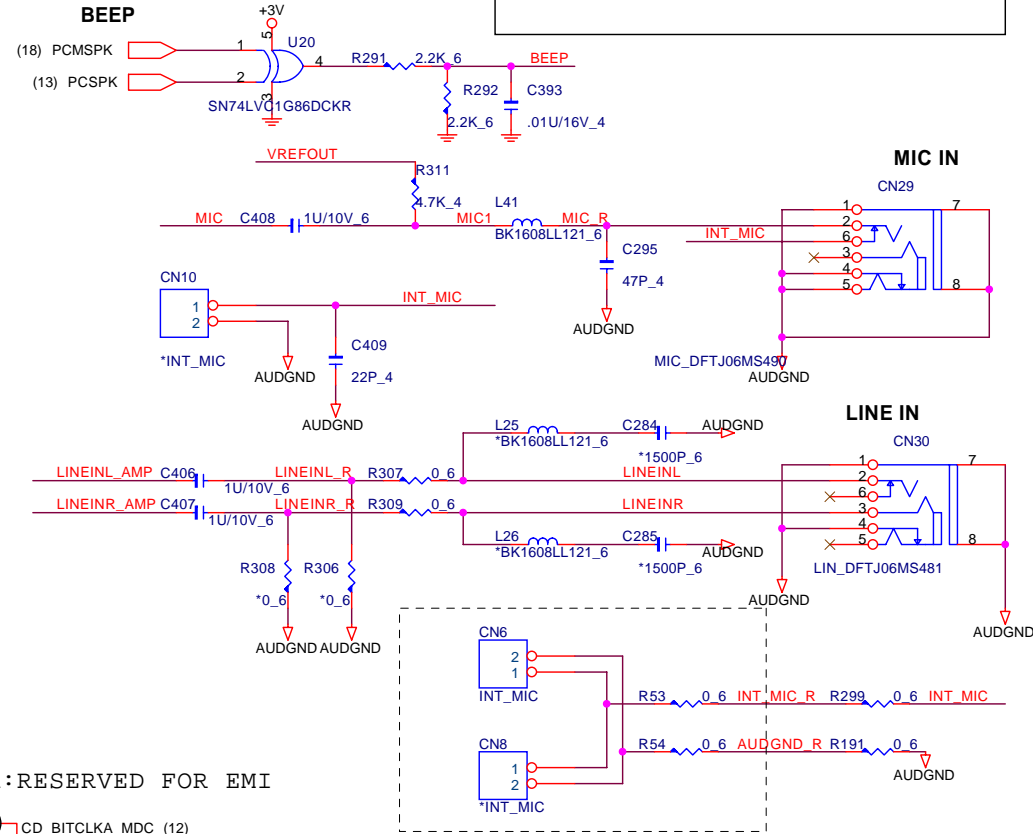
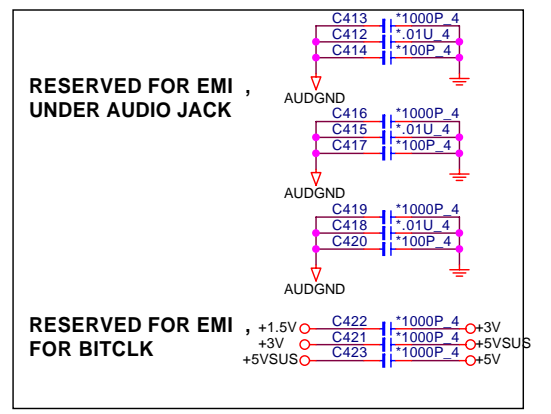



ALC260 (ALC883)

2A: RESERVED FOR EMI



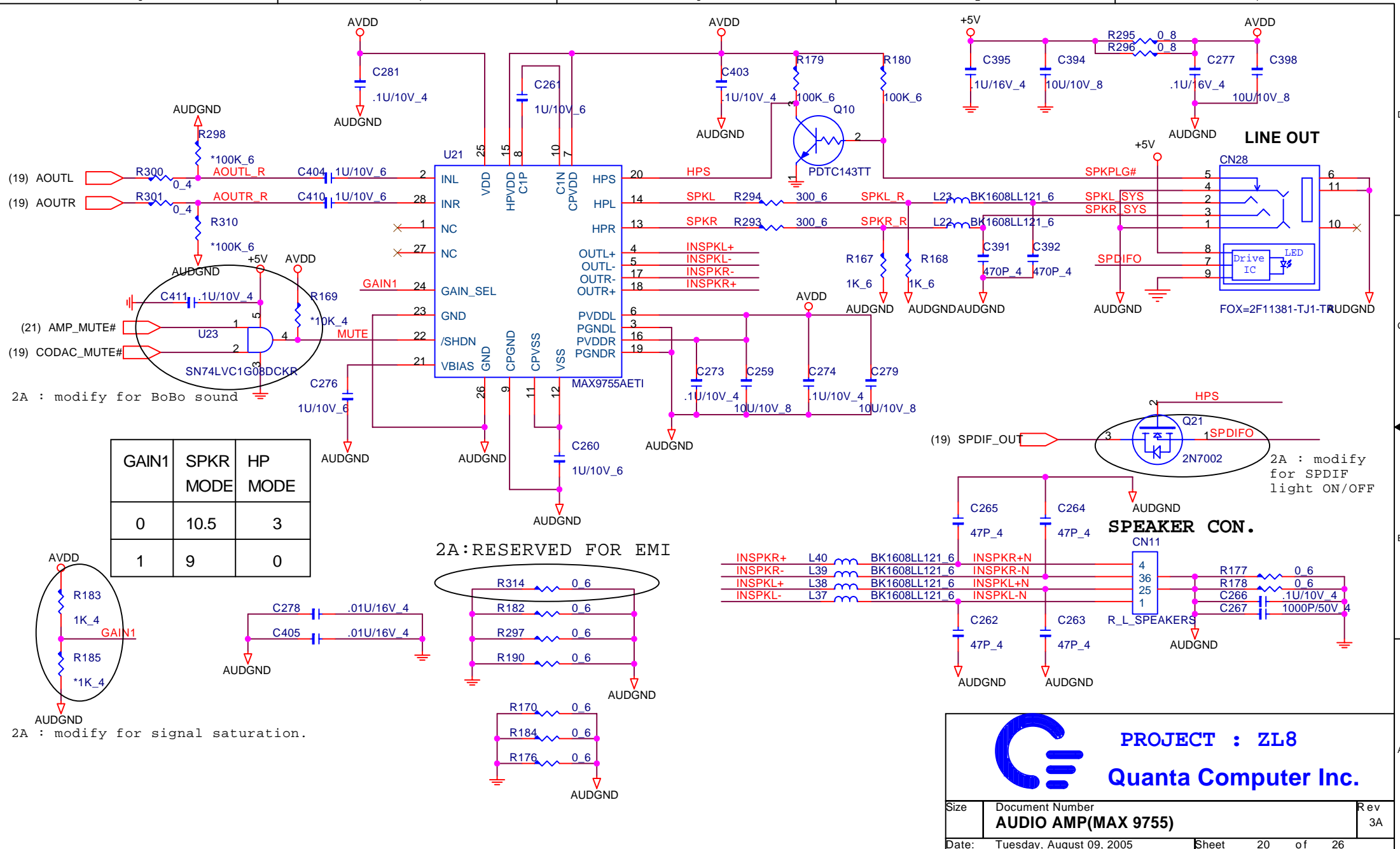
2A: RESERVED FOR EMI





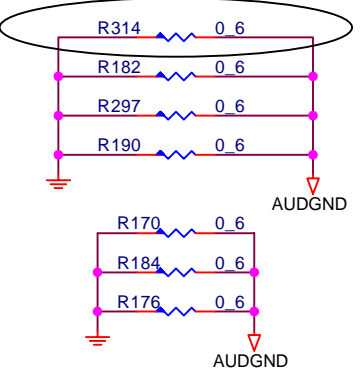
PROJECT : ZL8
Quanta Computer Inc.


Size	Document Number REALTEK ALC883	Rev 3A
Date:	Tuesday, August 09, 2005	Sheet 19 of 26



GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0

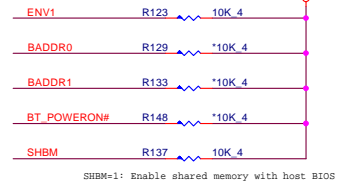
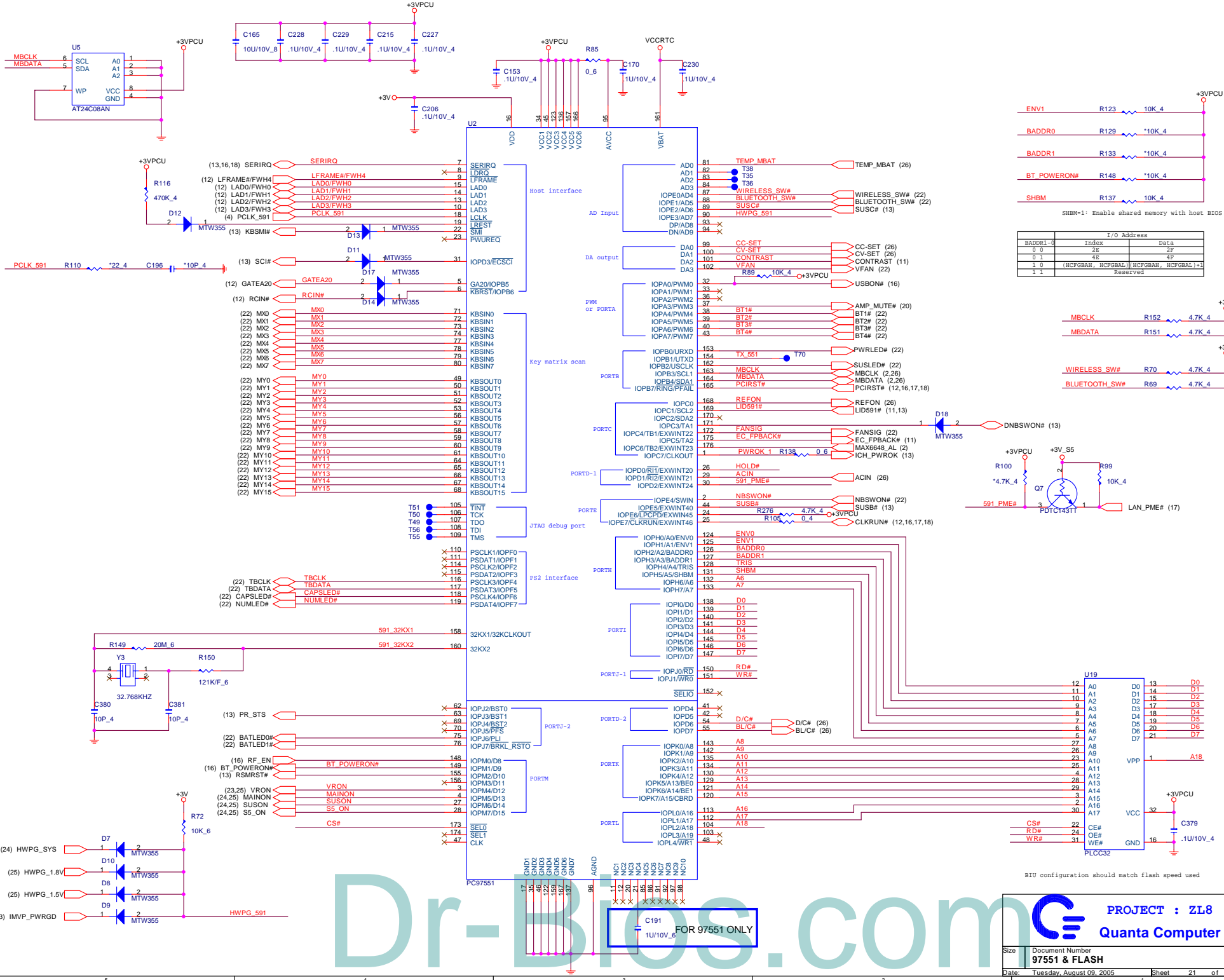
2A: RESERVED FOR EMI



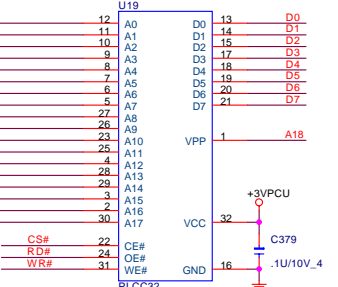
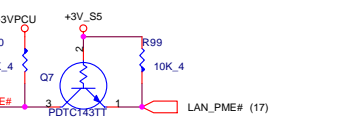
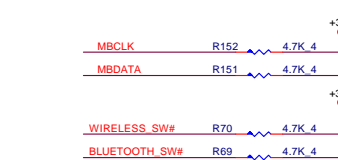


PROJECT : ZL8
Quanta Computer Inc.

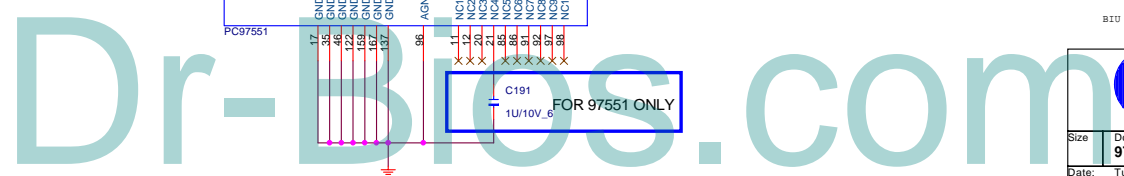
Size	Document Number	Rev
	AUDIO AMP(MAX 9755)	3A
Date:	Tuesday, August 09, 2005	Sheet 20 of 26



BADDR1-0	I/O Address	Index	Data
0 0	2E	2E	2E
0 1	4E	4E	4E
1 0	(HCFGBAH, HCFGBAL) (HCFGBAH, HCFGBAL)+1		
1 1	Reserved		



BIU configuration should match flash speed used

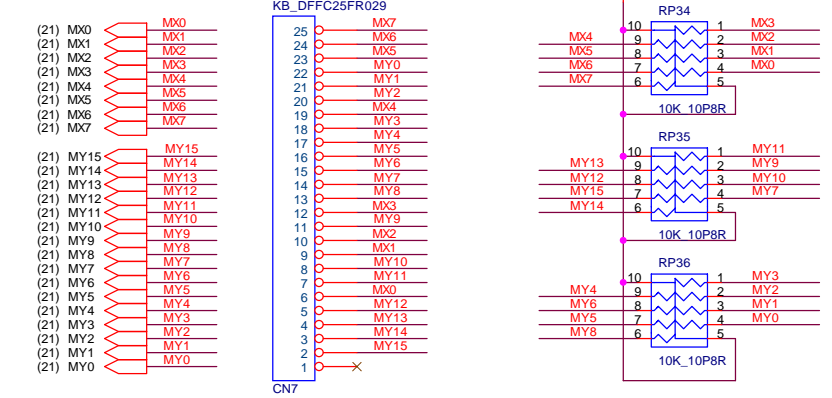


C191 1U/10V_6 FOR 97551 ONLY

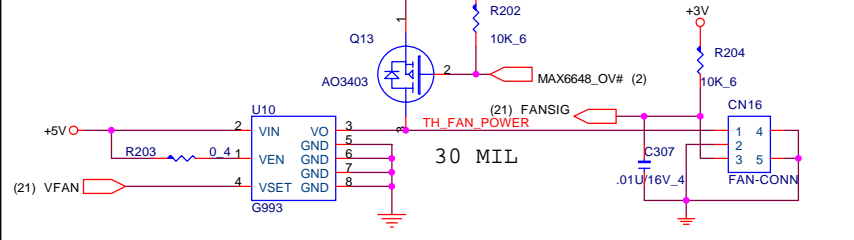
PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
	97551 & FLASH	3A
Date:	Tuesday, August 09, 2005	Sheet 21 of 26

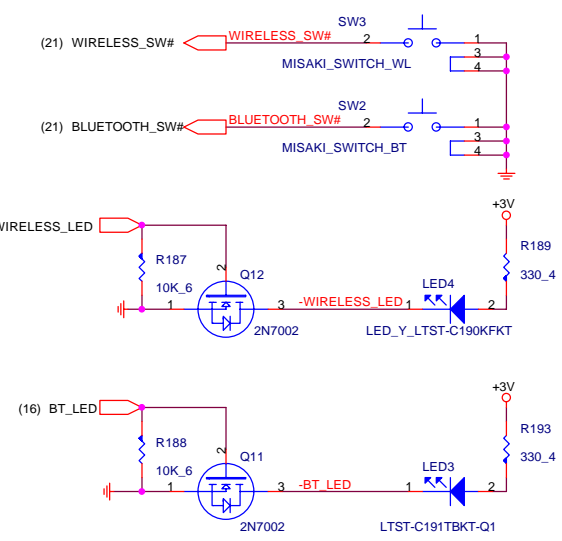
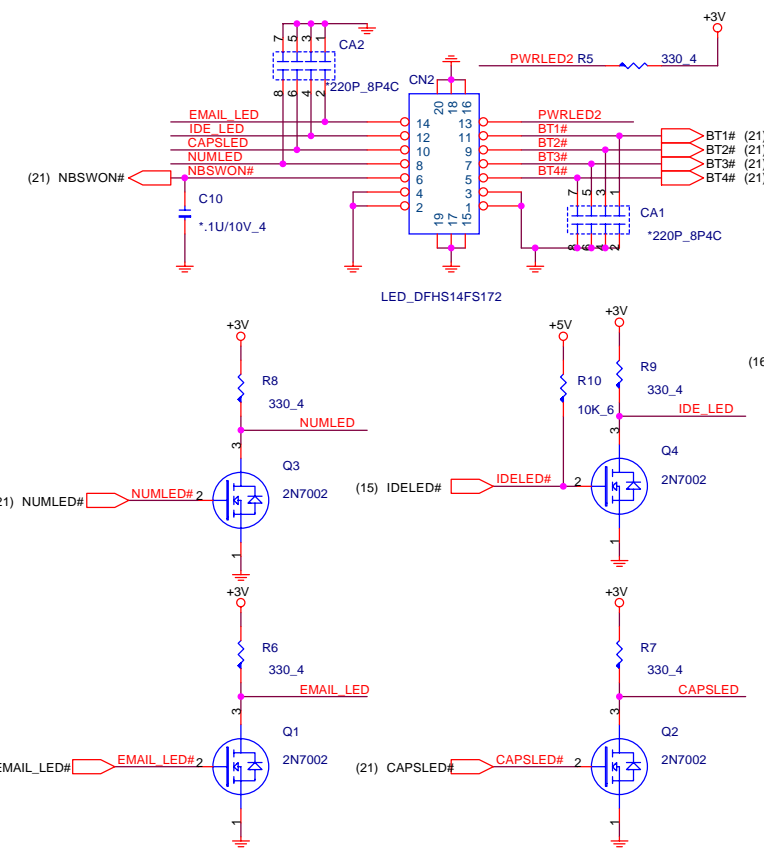
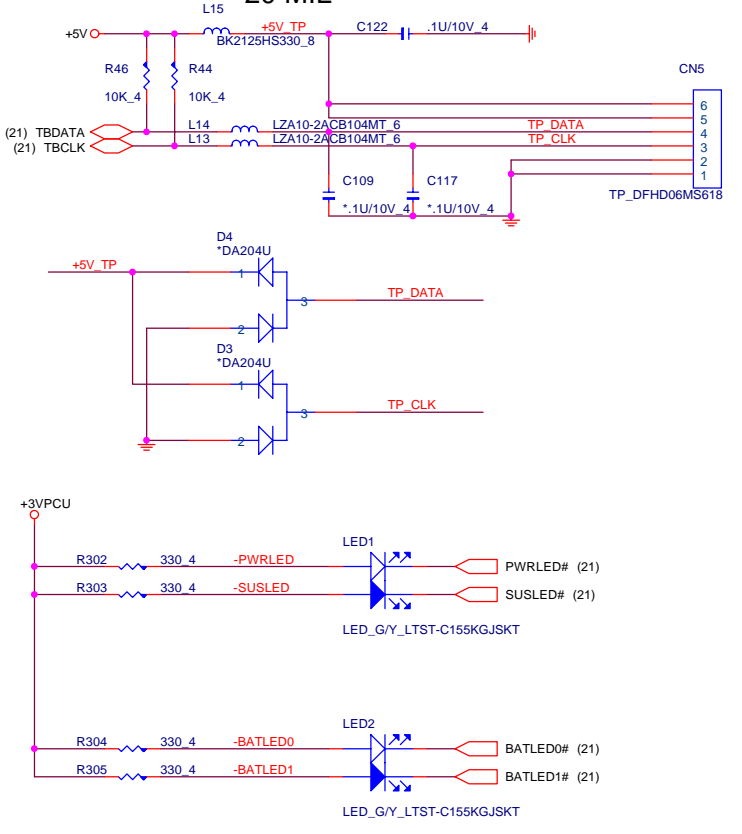
INT K/B



FAN CONTROL



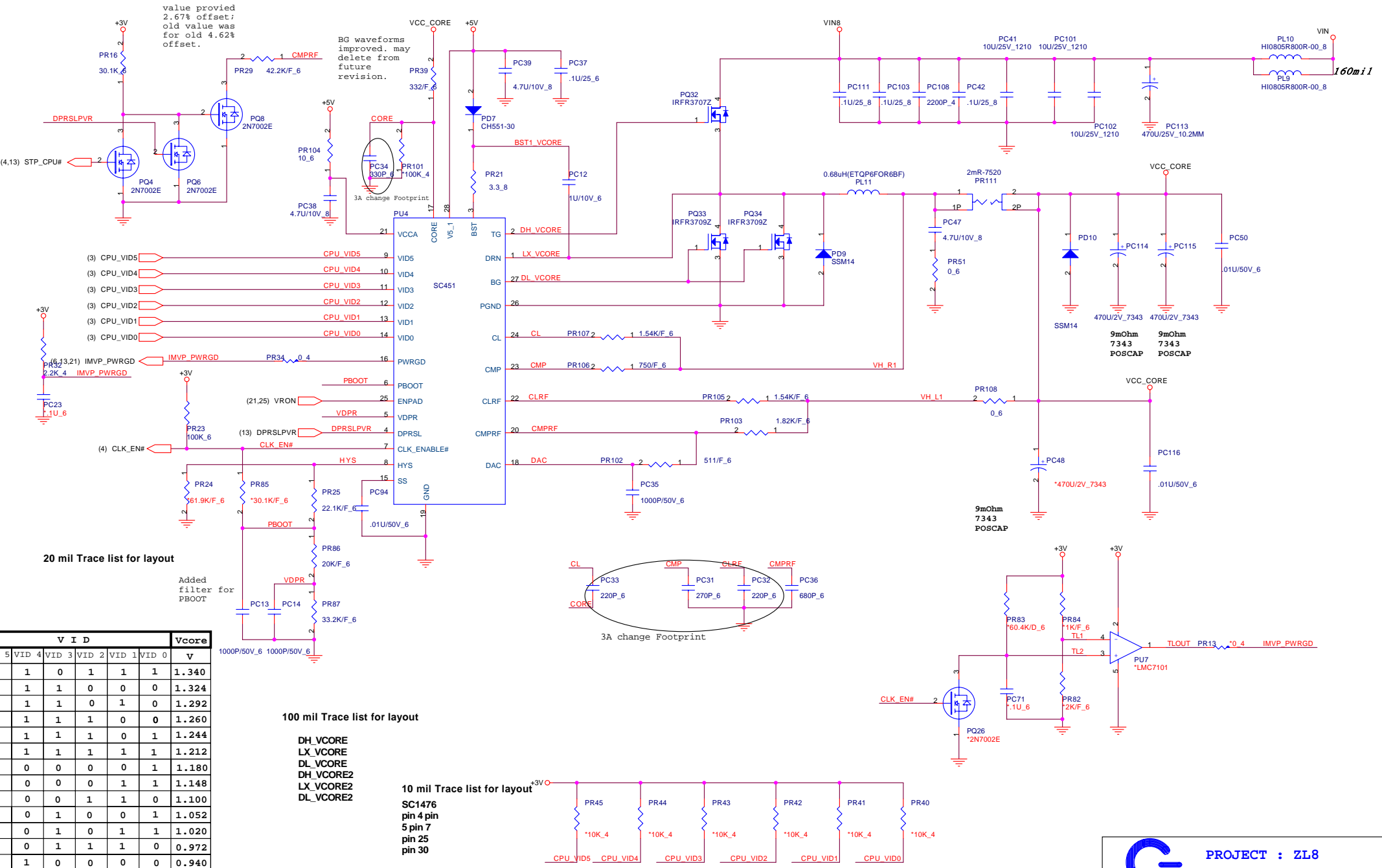
TOUCH PAD



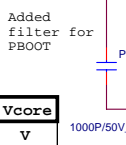
PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
	T/P,FAN,SWITCH,LED,K/B	3A
Date:	Tuesday, August 09, 2005	Sheet 22 of 26

value provided
2.67% offset;
old value was
for old 4.62%
offset.



20 mil Trace list for layout



Added filter for PBOOT

100 mil Trace list for layout

- DH_VCORE
- LX_VCORE
- DL_VCORE
- DH_VCORE2
- LX_VCORE2
- DL_VCORE2

10 mil Trace list for layout

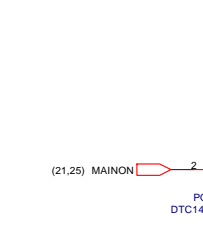
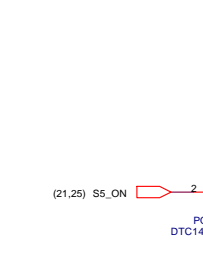
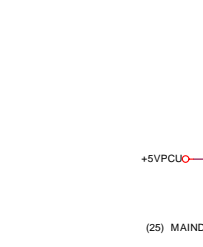
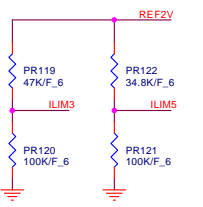
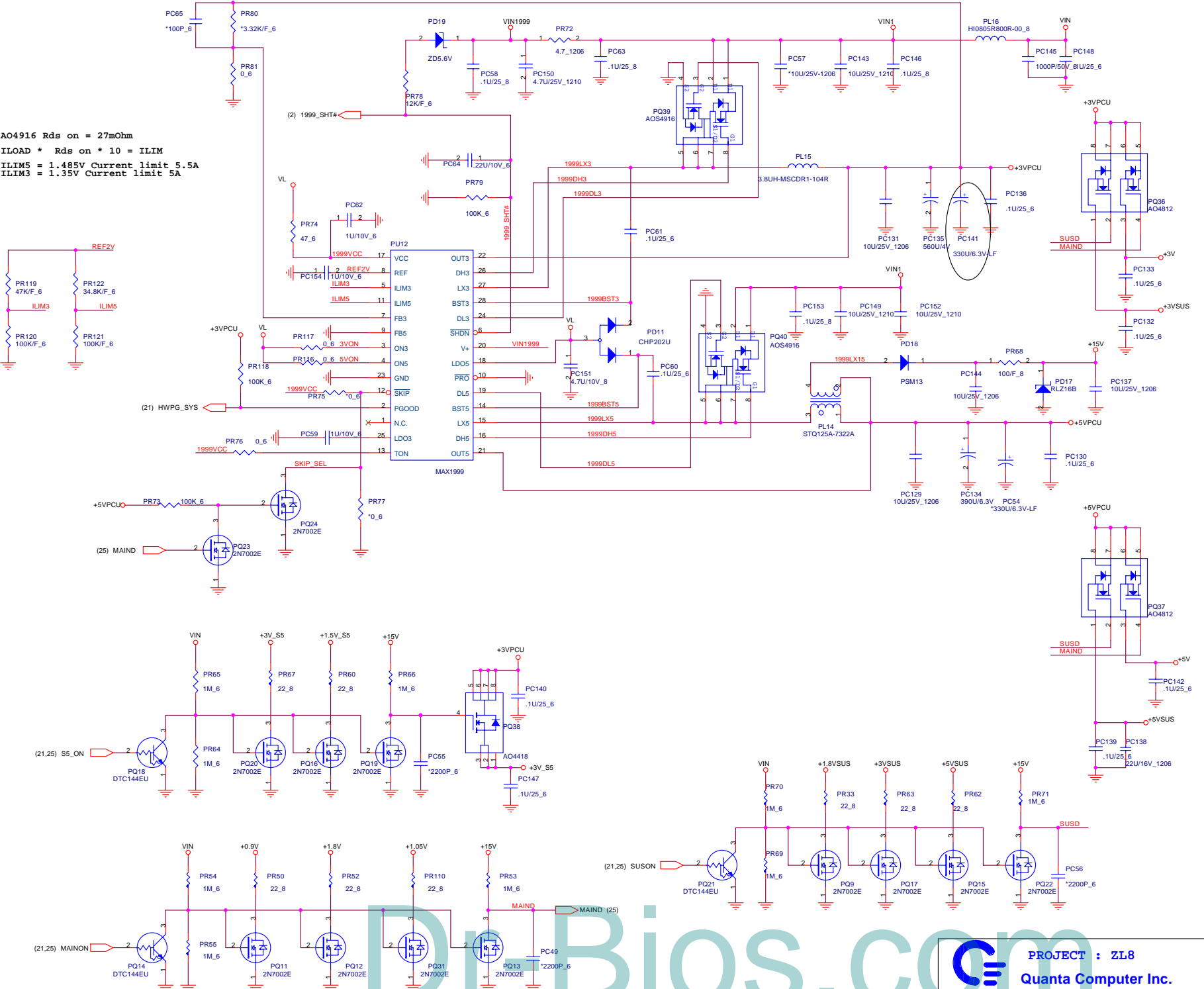
- SC1476
- pin 4 pin
- 5 pin 7
- pin 25
- pin 30

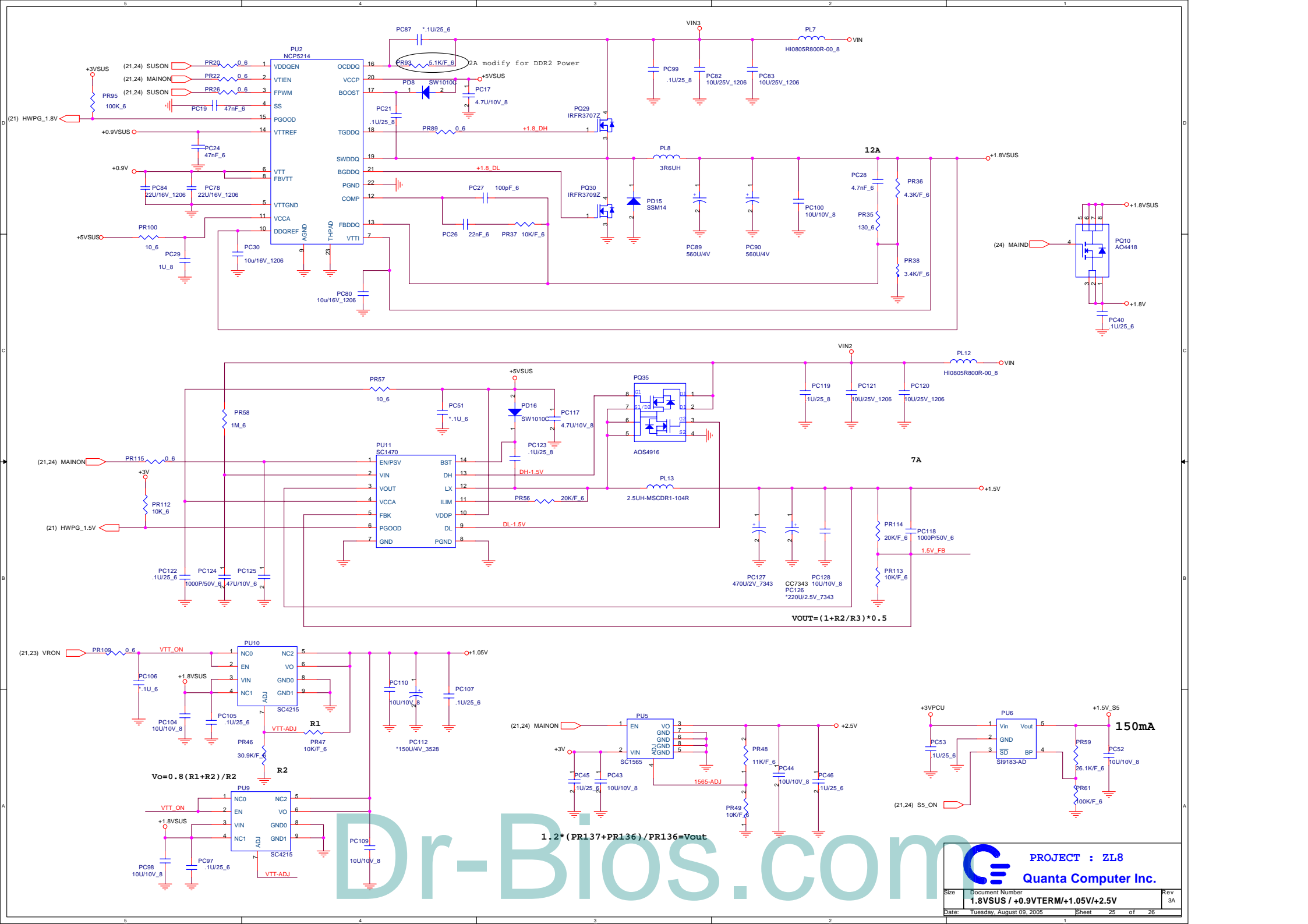
V I D							Vcore
VID 5	VID 4	VID 3	VID 2	VID 1	VID 0	v	
0	1	0	1	1	1	1.340	
0	1	1	0	0	0	1.324	
0	1	1	0	1	0	1.292	
0	1	1	1	0	0	1.260	
0	1	1	1	0	1	1.244	
0	1	1	1	1	1	1.212	
1	0	0	0	0	1	1.180	
1	0	0	0	1	1	1.148	
1	0	0	1	1	0	1.100	
1	0	1	0	0	1	1.052	
1	0	1	0	1	1	1.020	
1	0	1	1	1	0	0.972	
1	1	0	0	0	0	0.940	

PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
	CPU CORE (SC451)	3A
Date:	Tuesday, August 09, 2005	Sheet 23 of 26

AO4916 Rds on = 27mOhm
 ILOAD * Rds on * 10 = ILIM
 ILIM5 = 1.485V Current limit 5.5A
 ILIM3 = 1.35V Current limit 5A





Dr-Bios.com

PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
Date:	1.8VSUS / +0.9VTERM/+1.05V/+2.5V	3A
Date:	Tuesday, August 09, 2005	Sheet 25 of 26

$1.2 * (PR137 + PR136) / PR136 = V_{out}$

$V_o = 0.8 * (R1 + R2) / R2$

150mA

(21,24) S5_ON

(21,24) MAINON

(21,23) VRON

(21) HWPG_1.5V

(21,24) MAINON

(21) HWPG_1.8V

(24) MAIND

PG10 AO4418

1.8VSUS

1.8V

1.8VSUS

1.5V FB

7A

1.5V

1.8VSUS

1.8V

1.8VSUS

12A

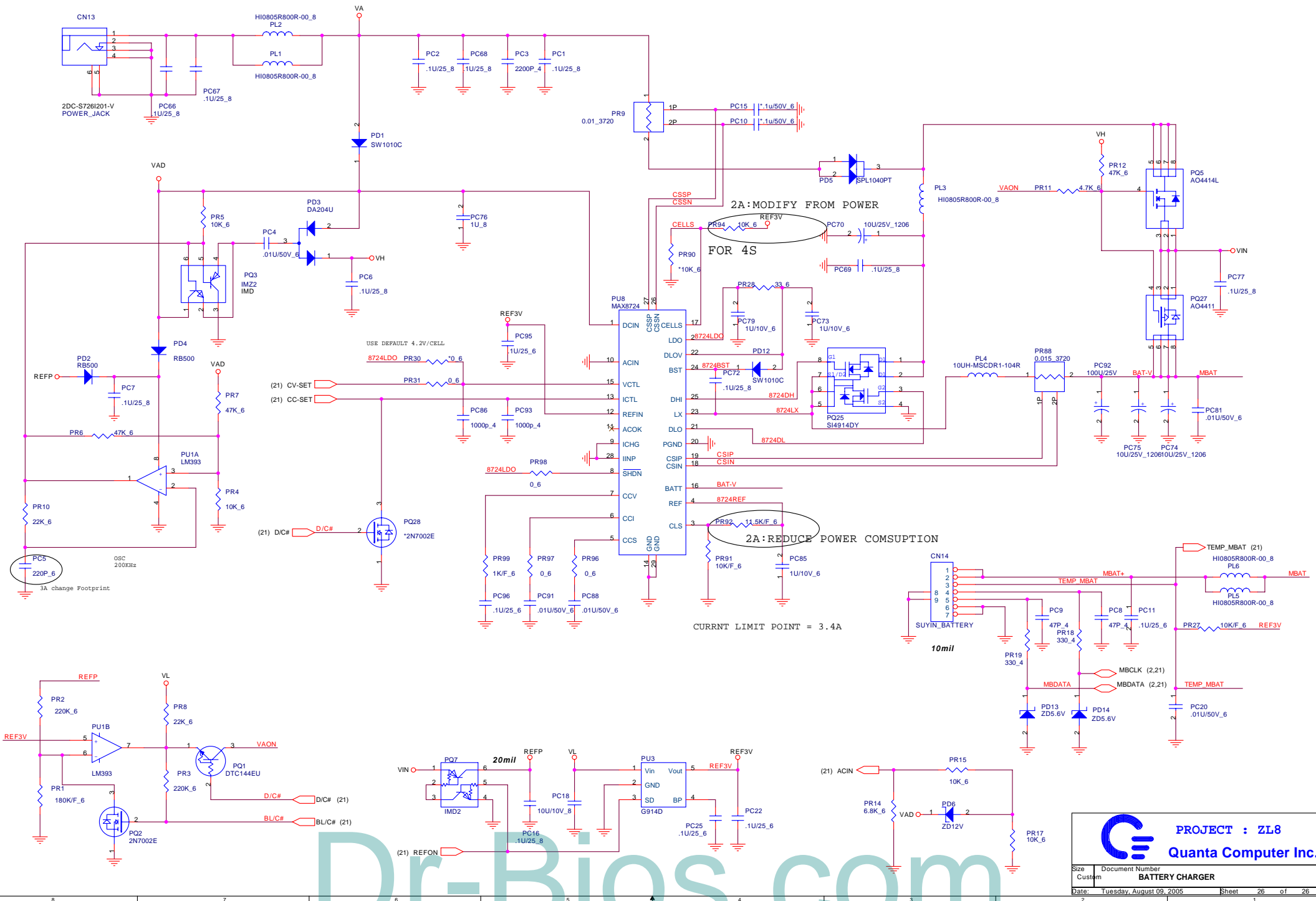
1.8VSUS

1.8V

1.8VSUS

2A modify for DDR2 Power

2A



Dr-Bios.com

PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
Custom	BATTERY CHARGER	3A
Date:	Tuesday, August 09, 2005	Sheet 26 of 26