

ZL8

CPU CORE
SENTECH
SC4511TSTR
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
S19183-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
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KBC NS PC97551
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MIC IN
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SPEAKER
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LINE OUT
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RJ11
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Touchpad
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Keyboard
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FLASH
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FAN
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SYSTEM USB PORT *3
USB2, 3, 5
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Bluetooth USB interface
USB4
Page: 16

CRT
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LVDS
Page: 11

(Option)
MINI-PCIE slot Wireless LAN
Page: 16

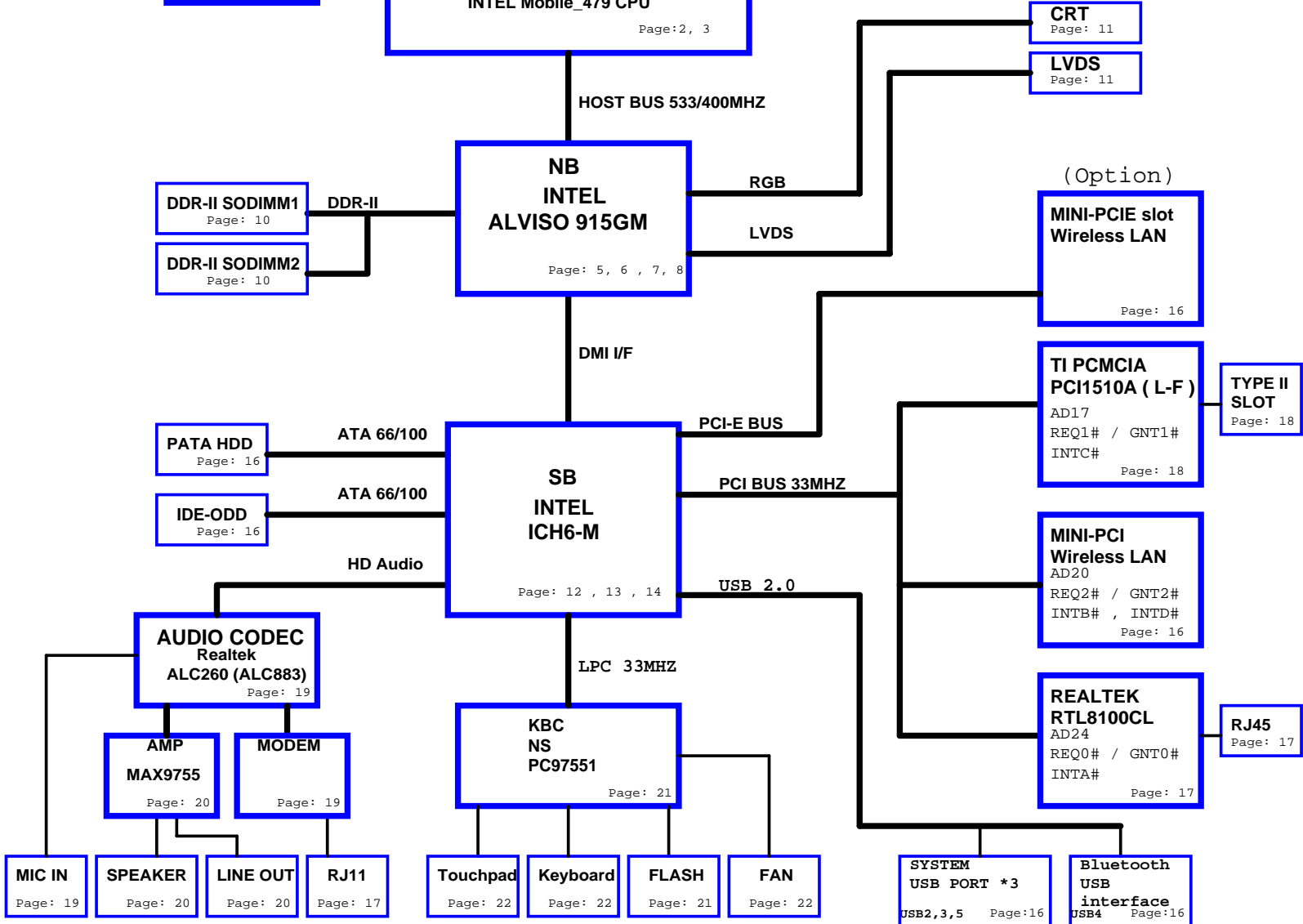
TI PCMCIA PCI1510A (L-F)
AD17
REQ1# / GNT1#
INTC#
Page: 18

TYPE II SLOT
Page: 18

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

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

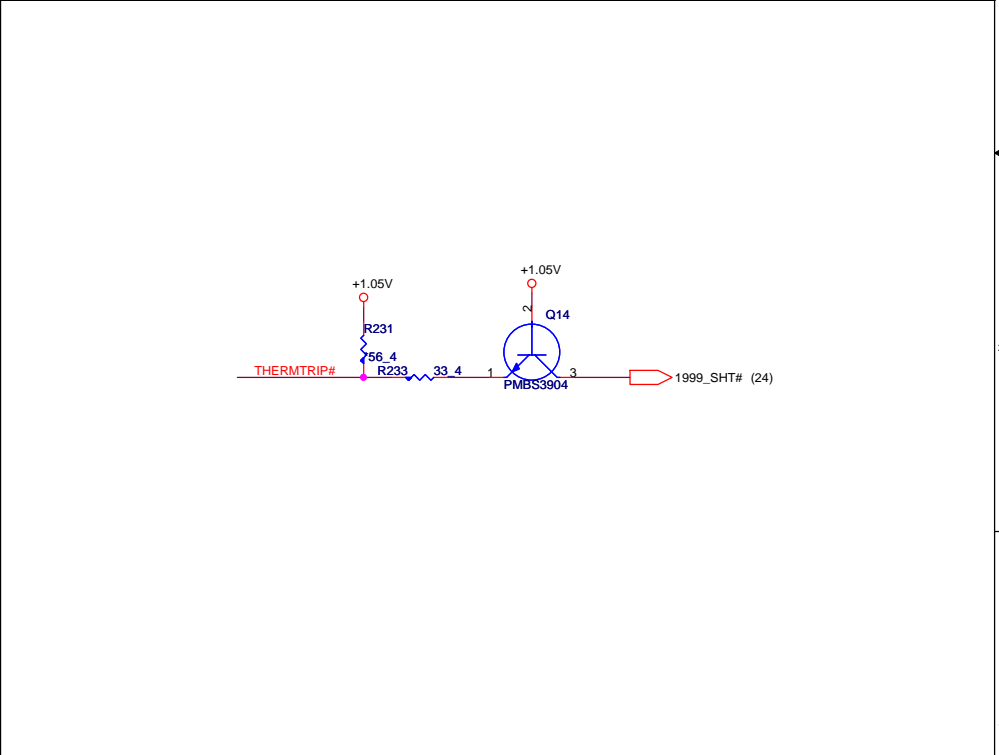
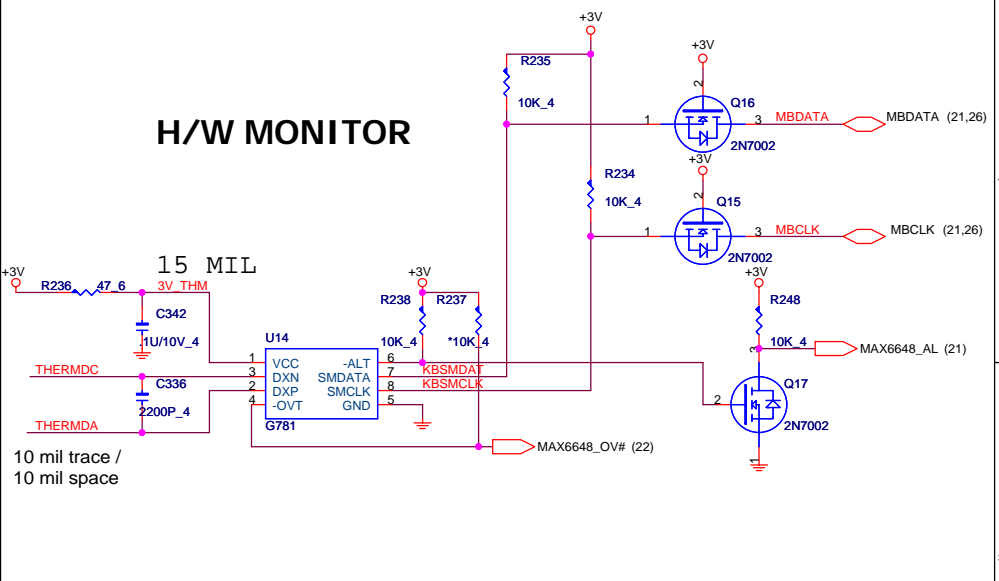
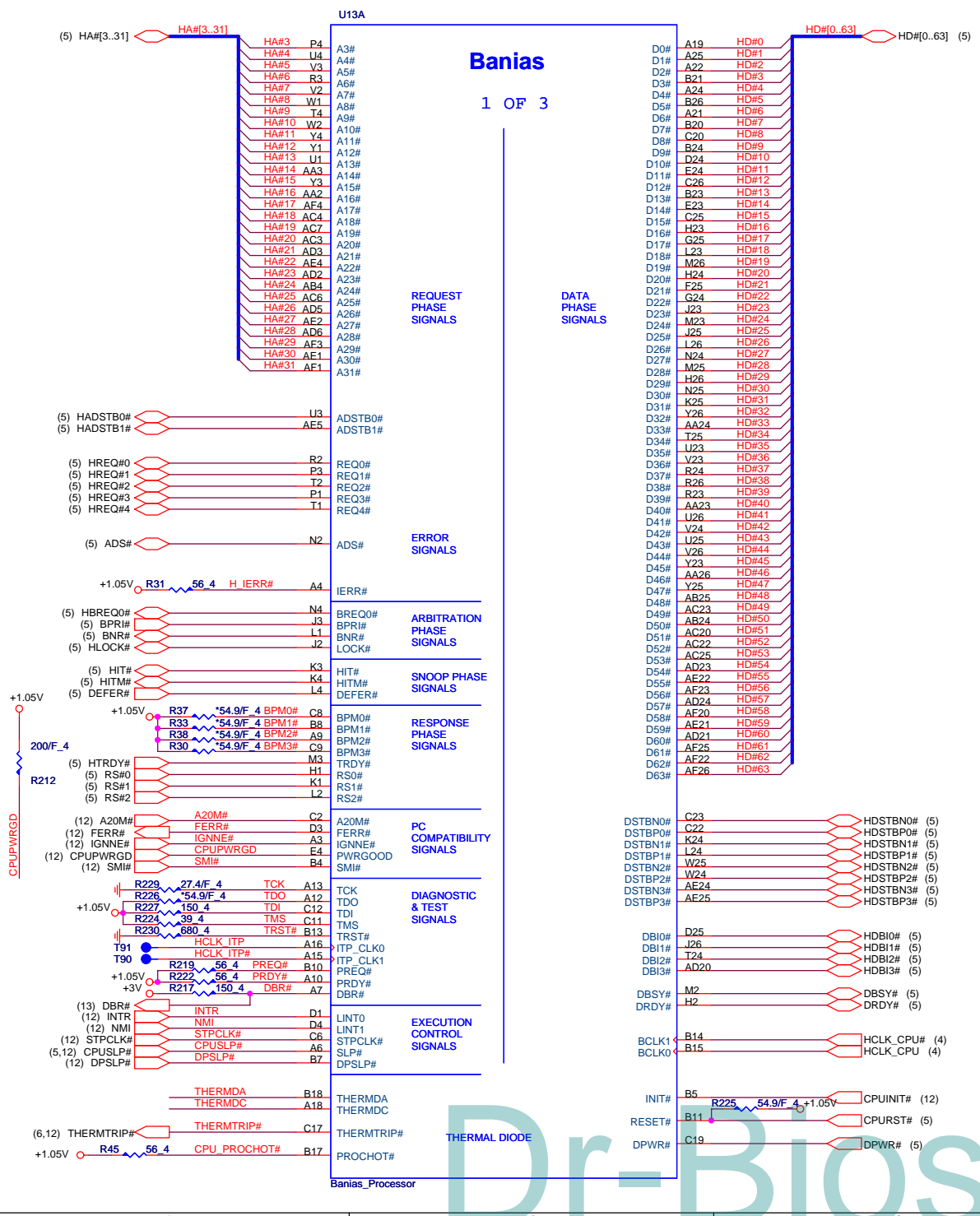
RJ45
Page: 17



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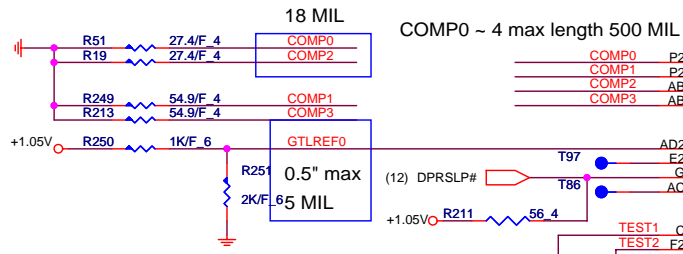
Size	Document Number	Rev
	BLOCK DIAGRAM	2A
Date:	Tuesday, July 12, 2005	Sheet 1 of 26



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Size	Document Number	Rev
	CPU (HOST BUS)-1	2A
Date:	Tuesday, July 12, 2005	Sheet 2 of 26

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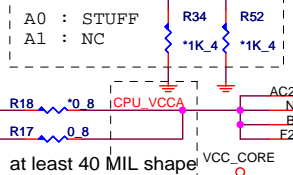


COMP0 ~ 4 max length 500 MIL

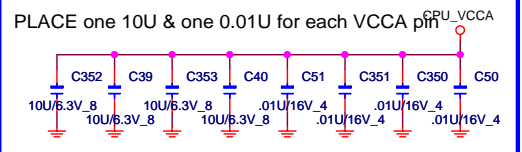


Banias
2 OF 3

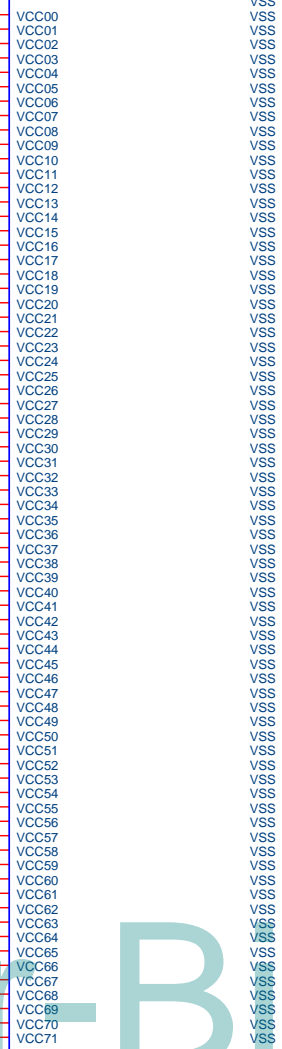
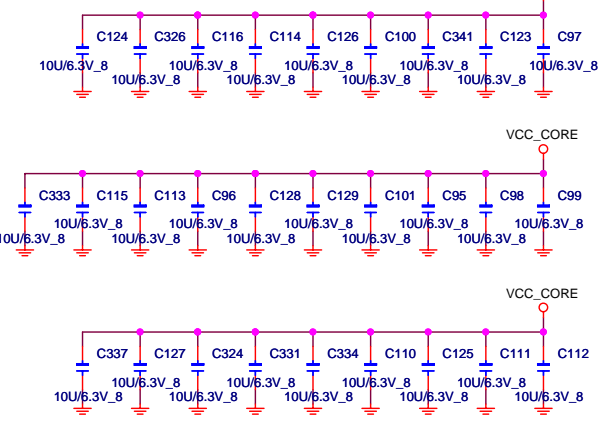
POWER, GROUND, RESERVED SIGNALS



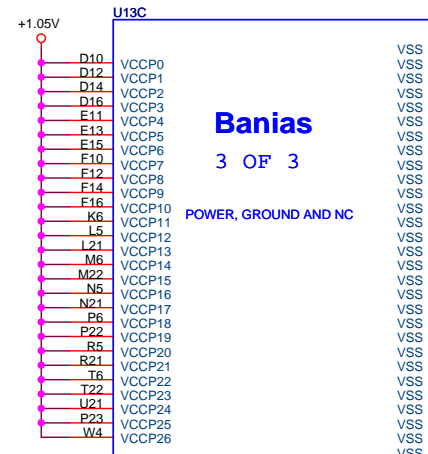
at least 40 MIL shape



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



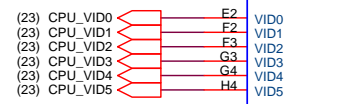
Banias_Processor



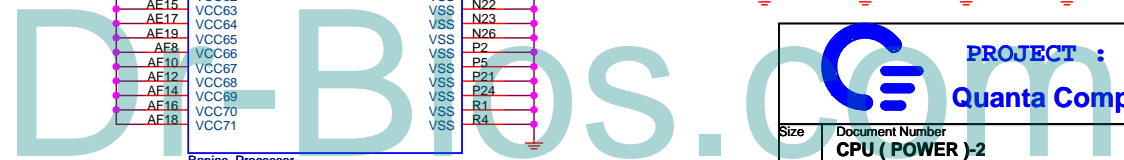
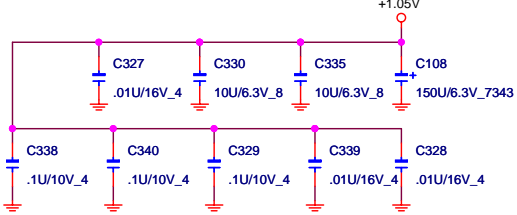
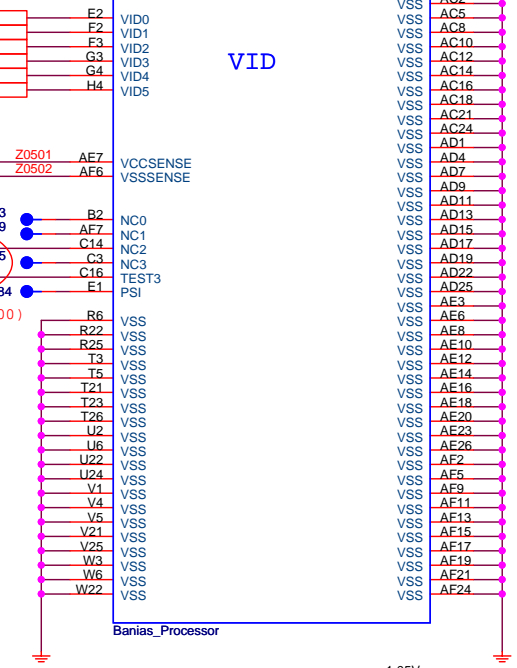
Banias
3 OF 3

POWER, GROUND AND NC

VID



2A : modify for CPU(400)

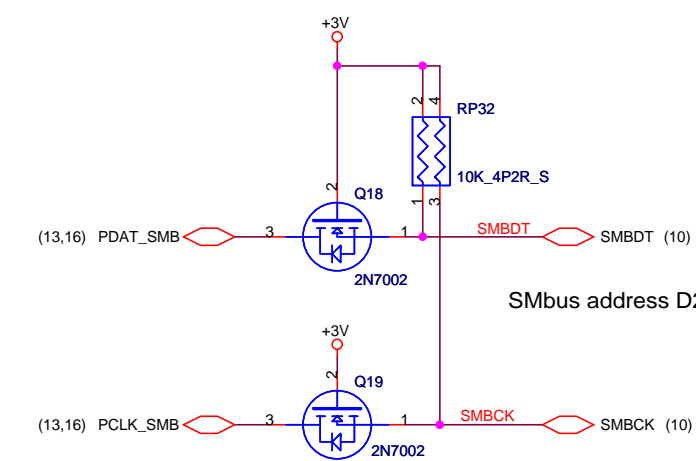
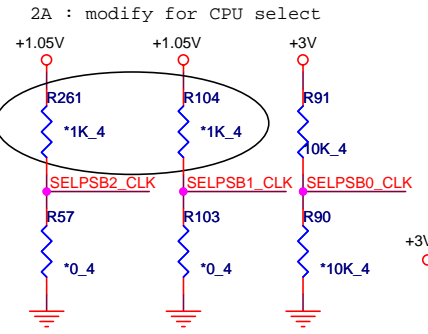
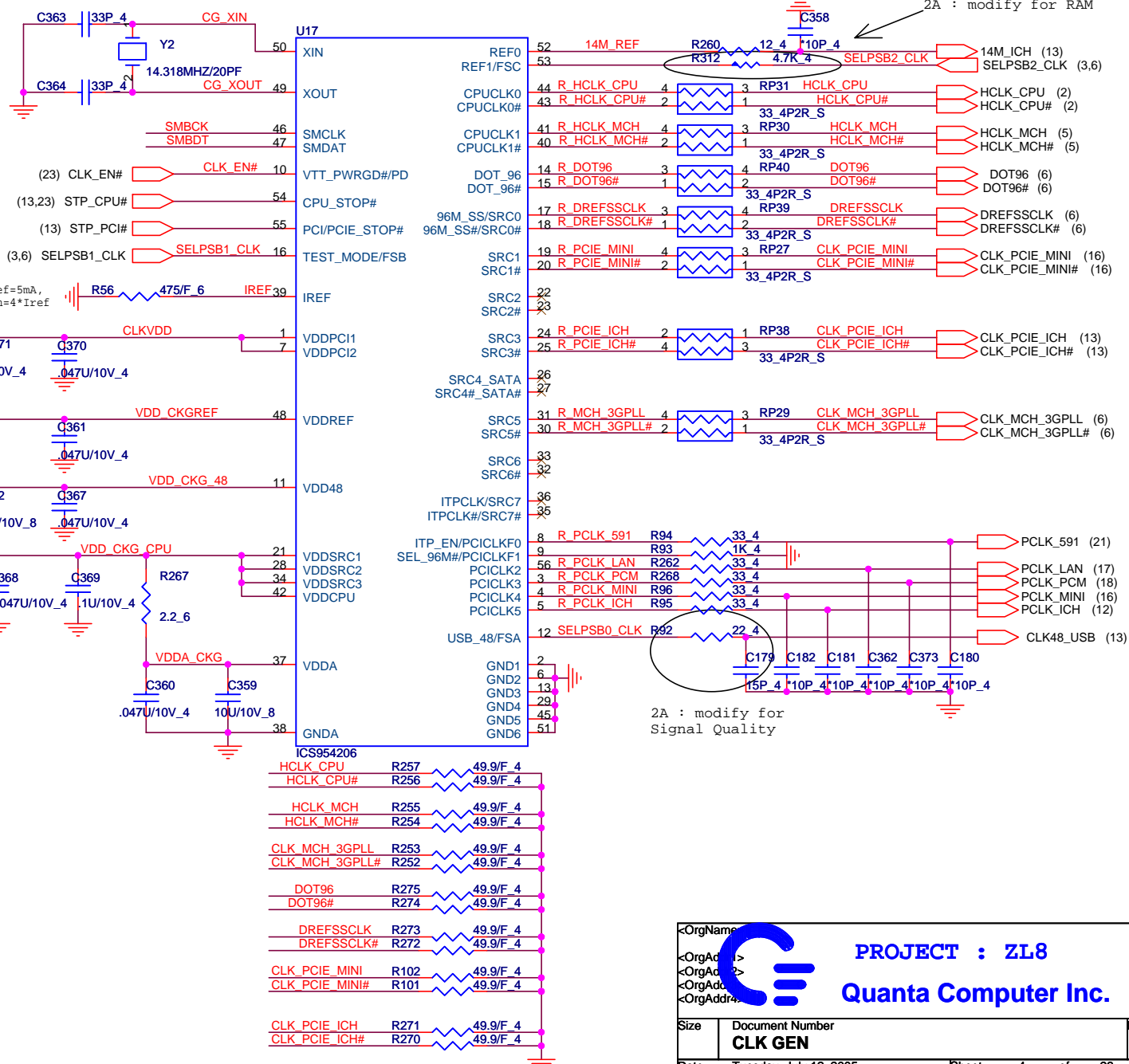


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Size	Document Number	Rev
	CPU (POWER)-2	2A
Date:	Tuesday, July 12, 2005	Sheet 3 of 26

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

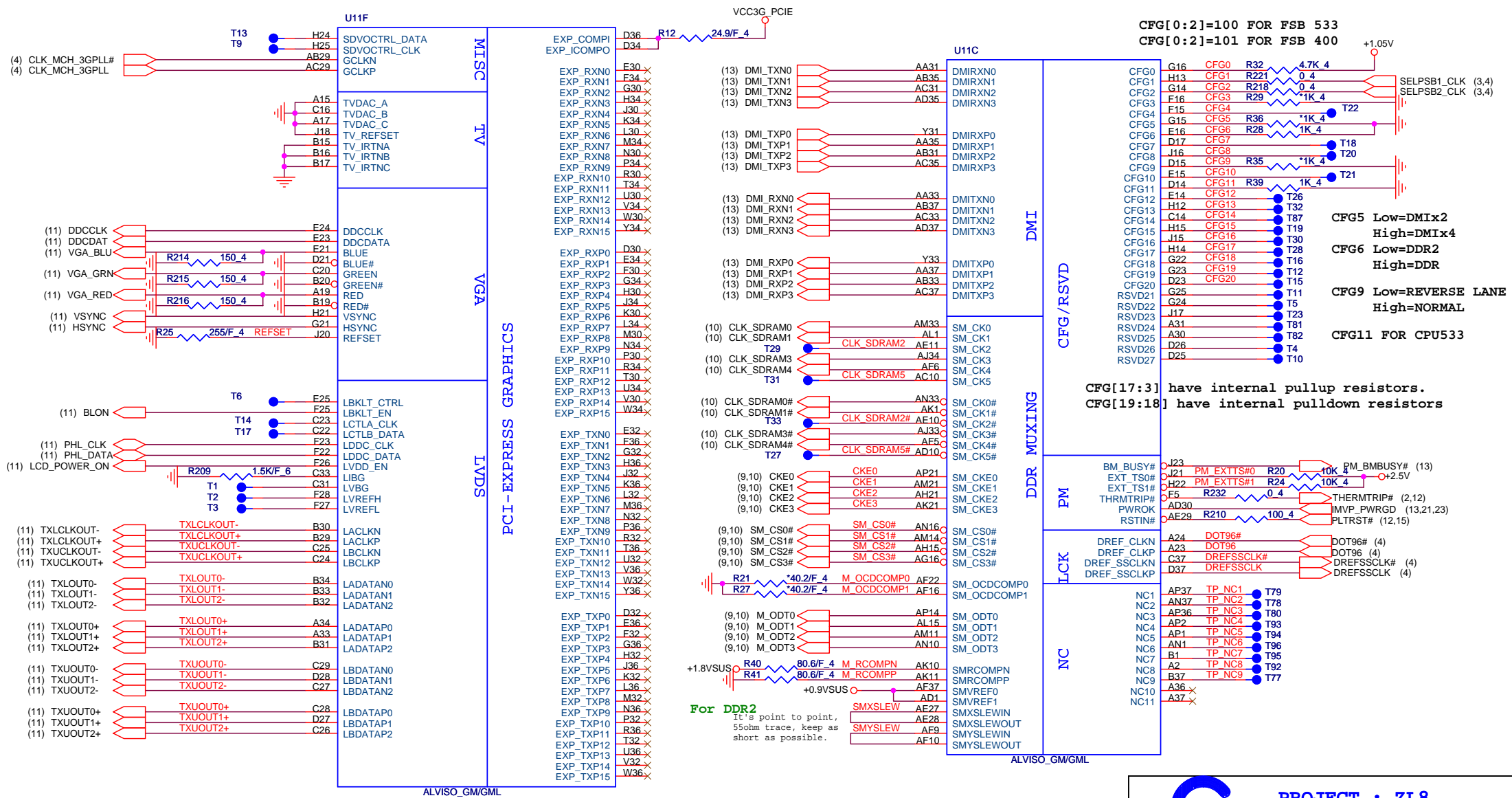
DOTHAN-A 400
DOTHAN-A 533



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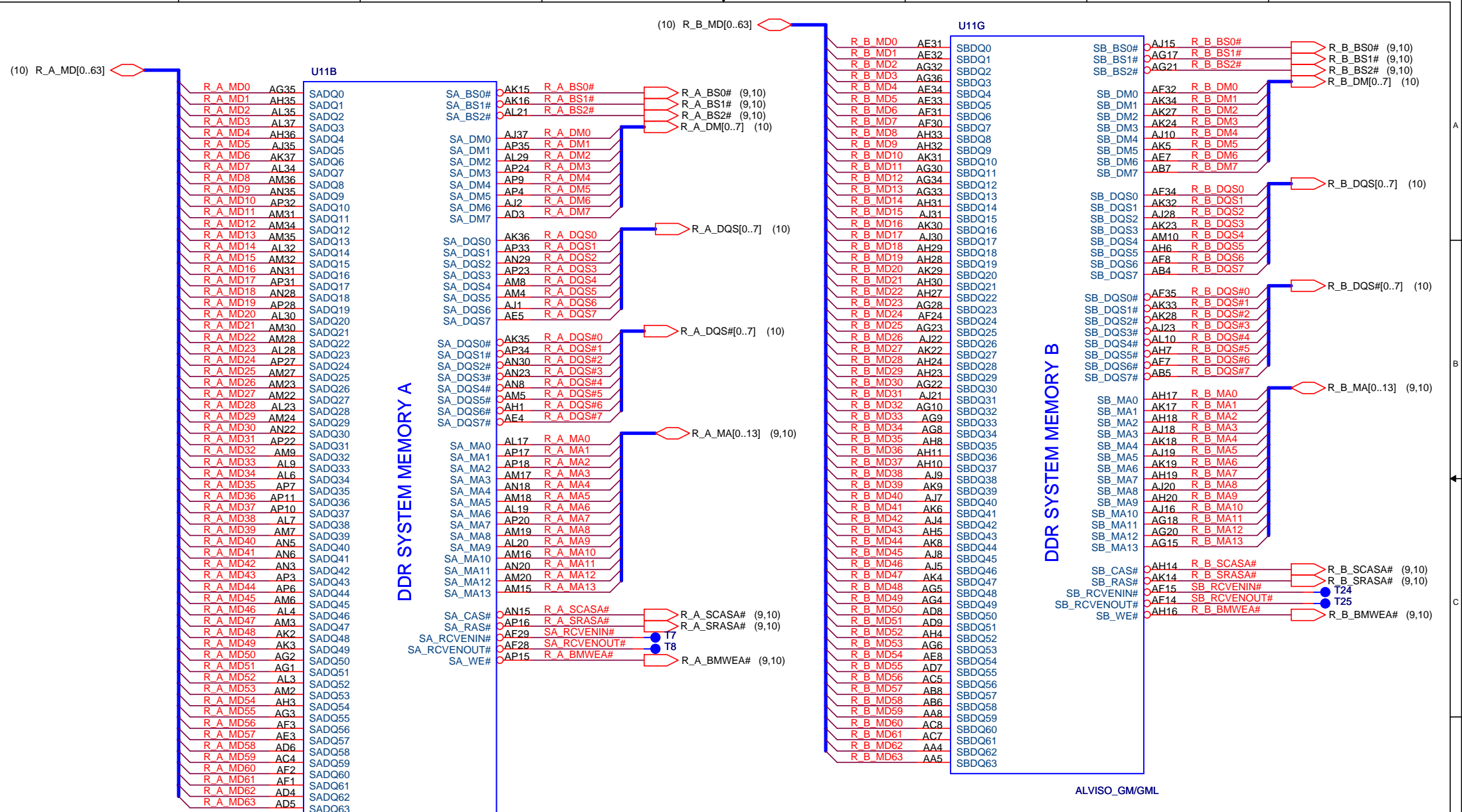
Size: Document Number
CLK GEN

Date: Tuesday, July 12, 2005 Sheet 4 of 26 Rev 2A



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Size	Document Number	Rev
	ALVISO - DMI / VGA	2A
Date:	Tuesday, July 12, 2005	Sheet 6 of 26

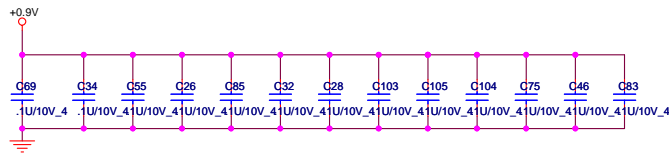


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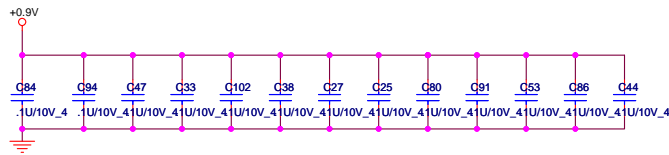
PROJECT : ZL8

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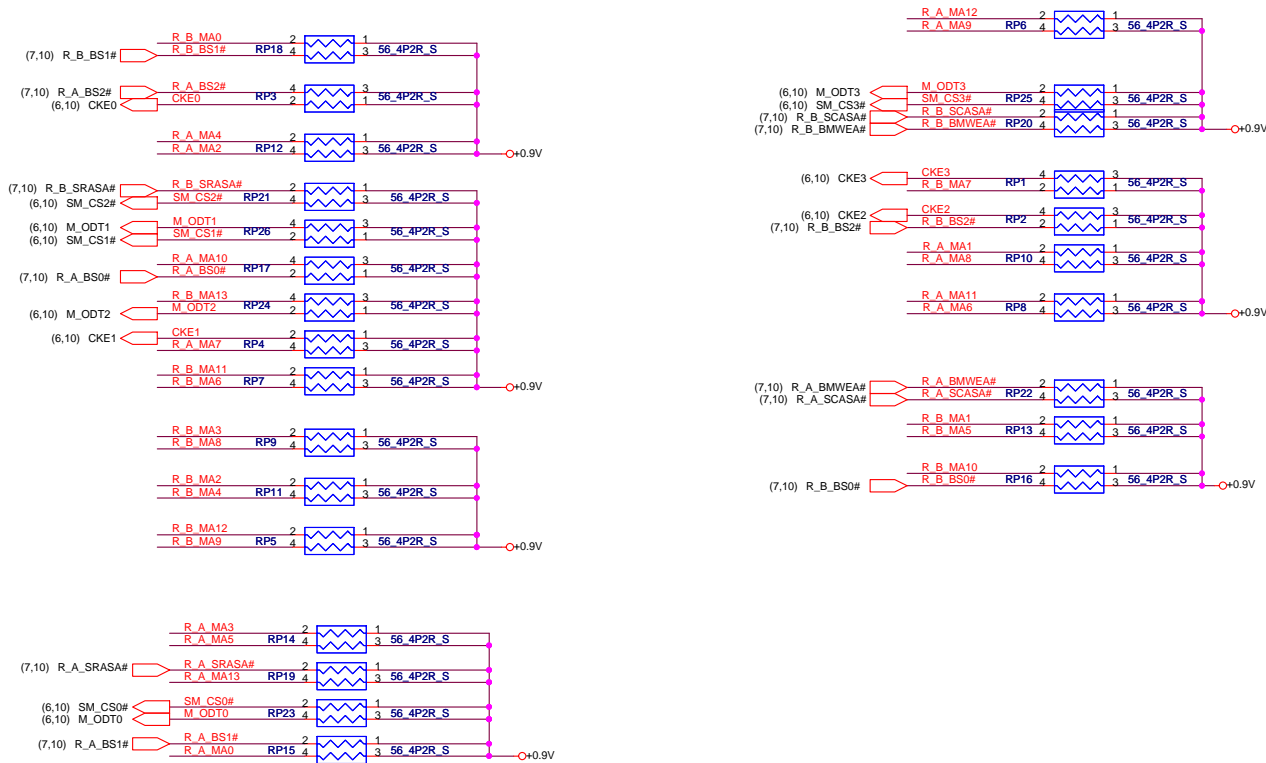
Size	Document Number	Rev
	ALVISO - DDRII	2A
Date:	Tuesday, July 12, 2005	Sheet 7 of 26



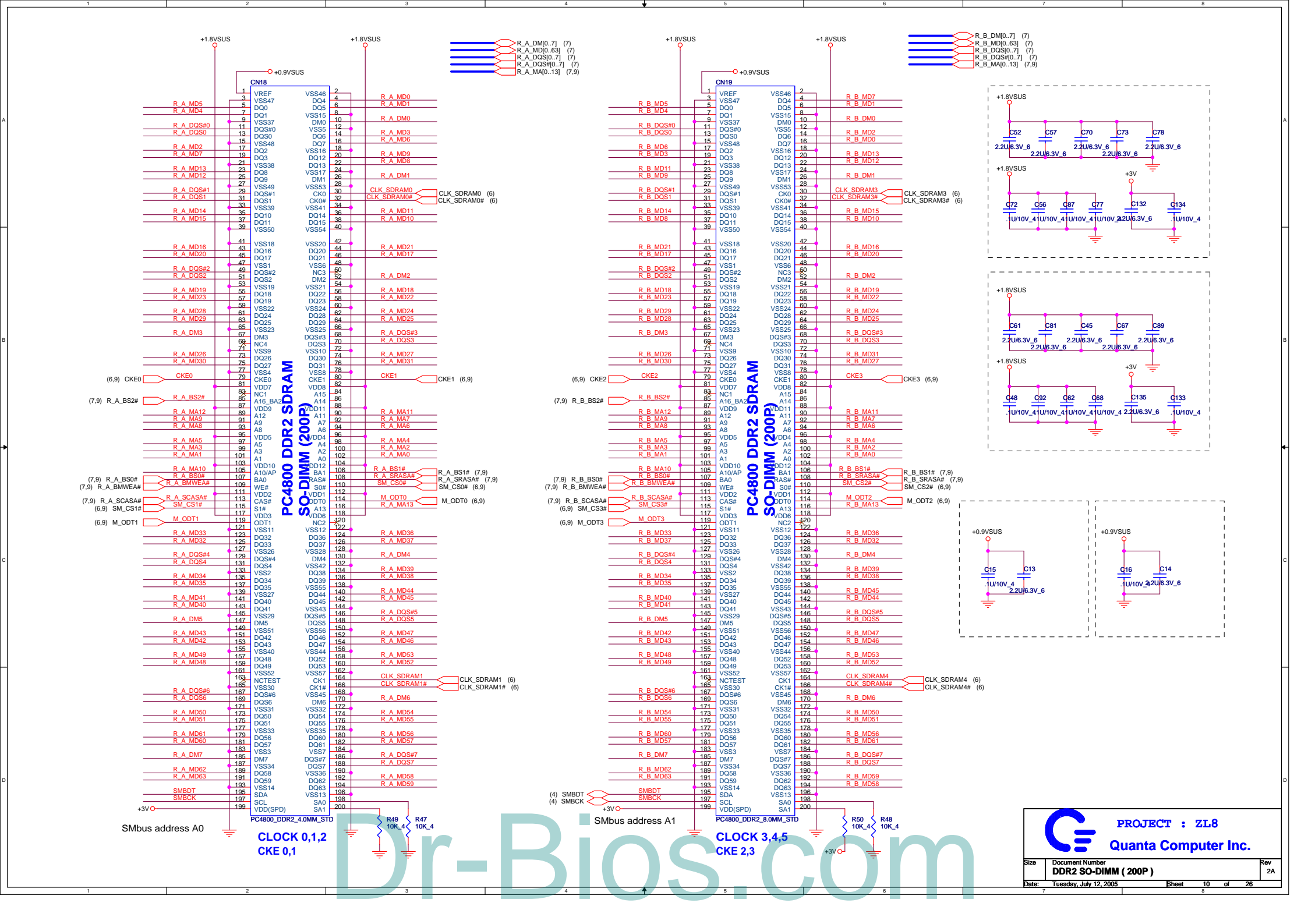
Layout note: Place one cap close to every 2 pullup resistors terminated to +0.9V



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



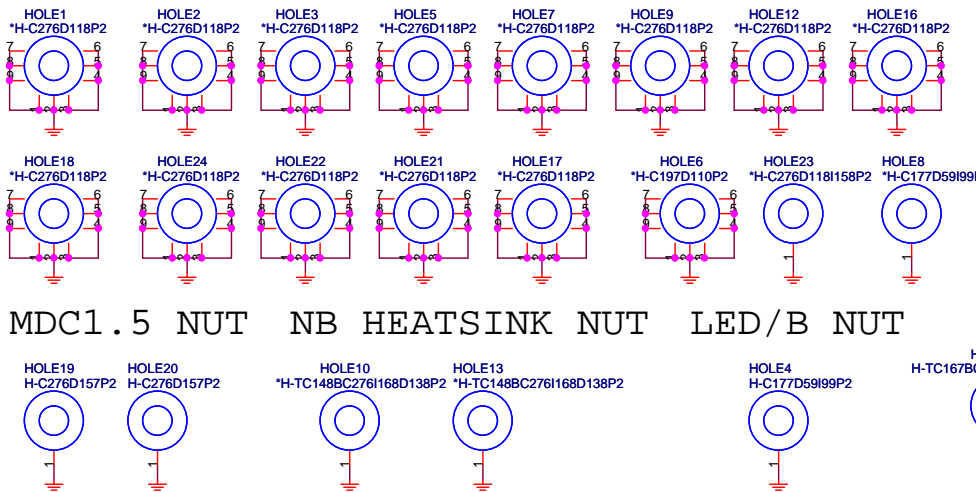
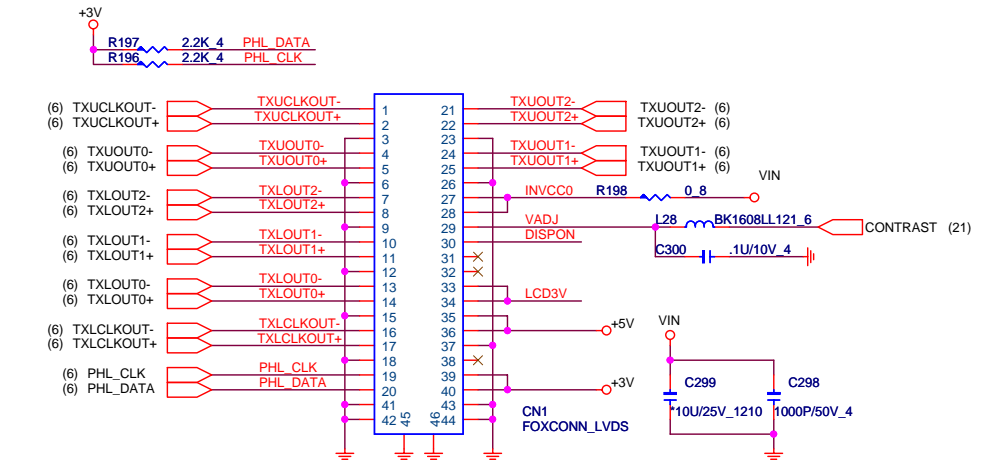
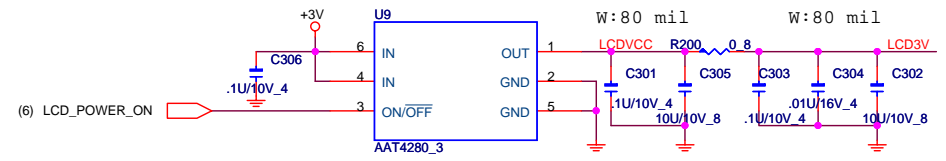
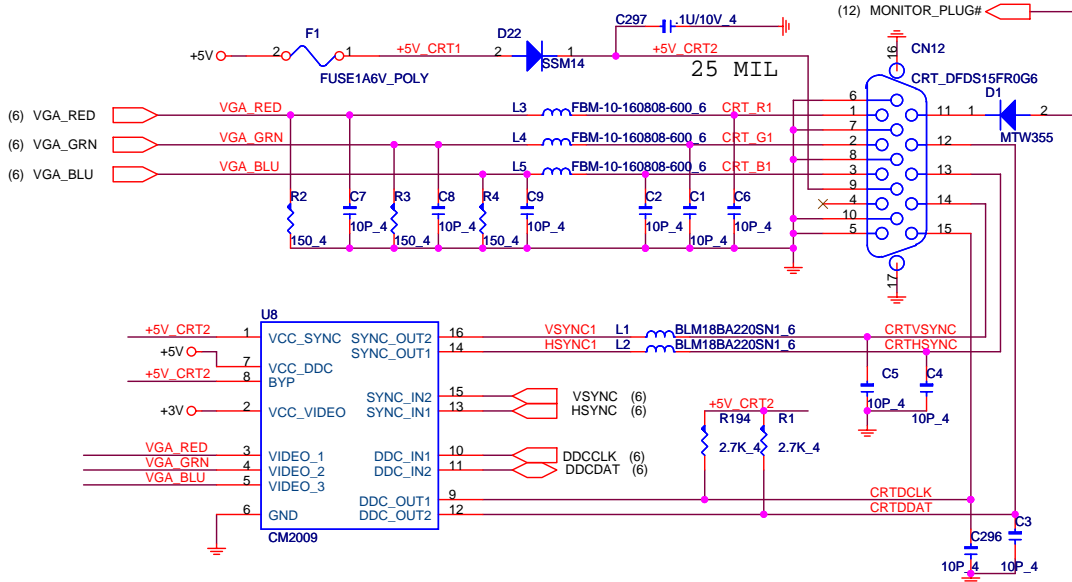
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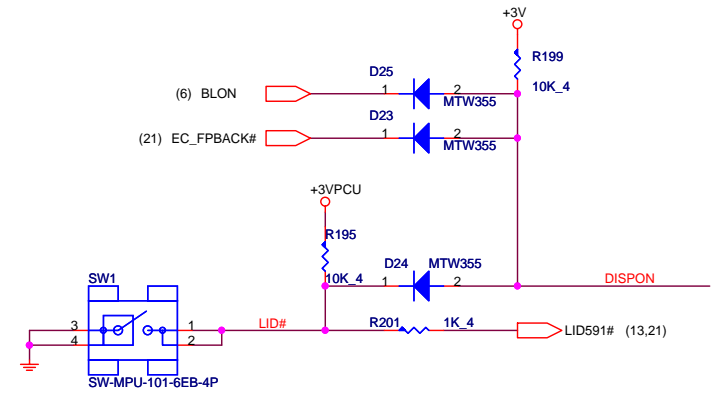
PROJECT : ZL8
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Size	Document Number	Rev
	DDR2 SO-DIMM (200P)	2A
Date:	Tuesday, July 12, 2005	Sheet 10 of 26

CRT PORT



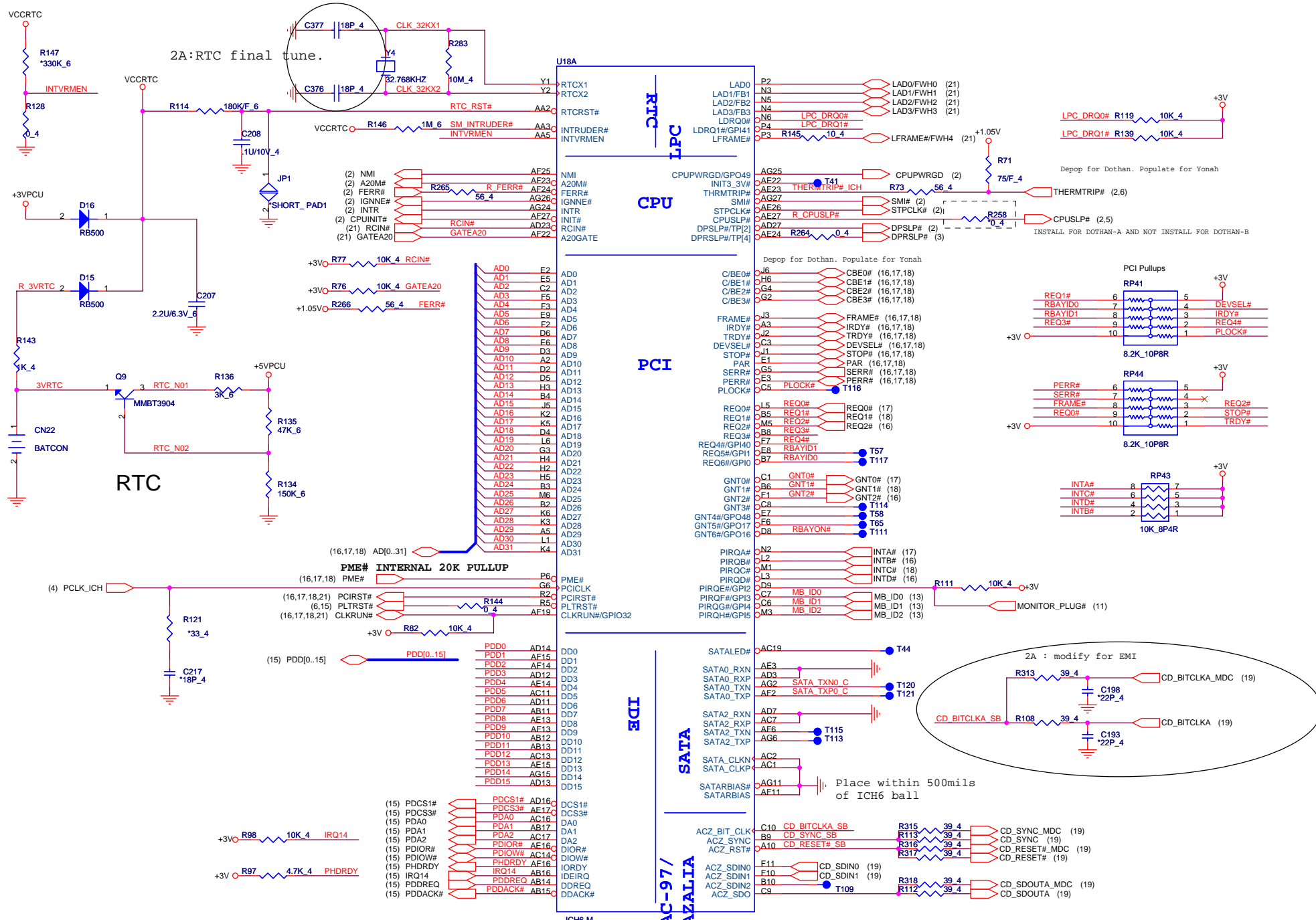
PCIE-CARD NUT

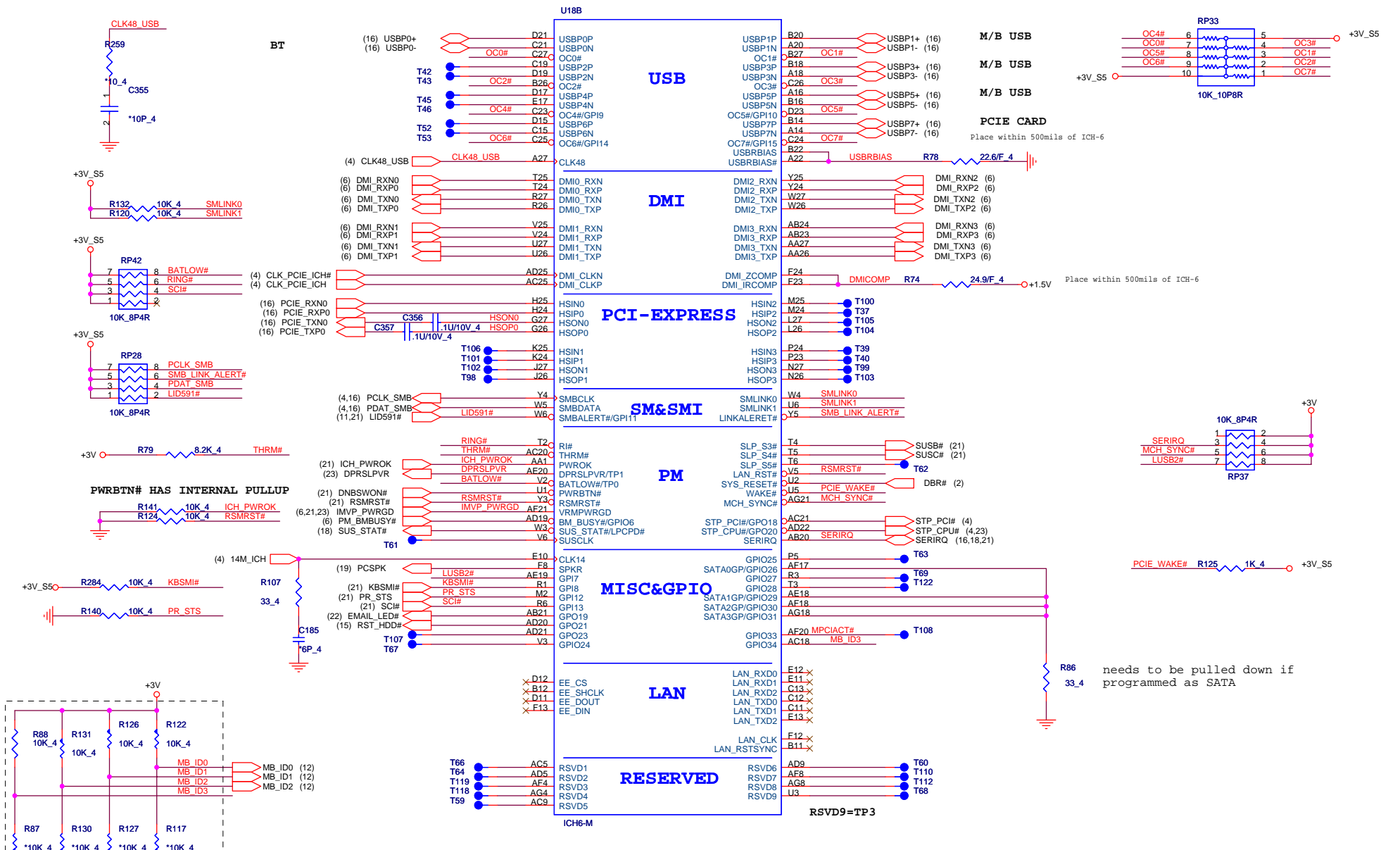


Lid Switch

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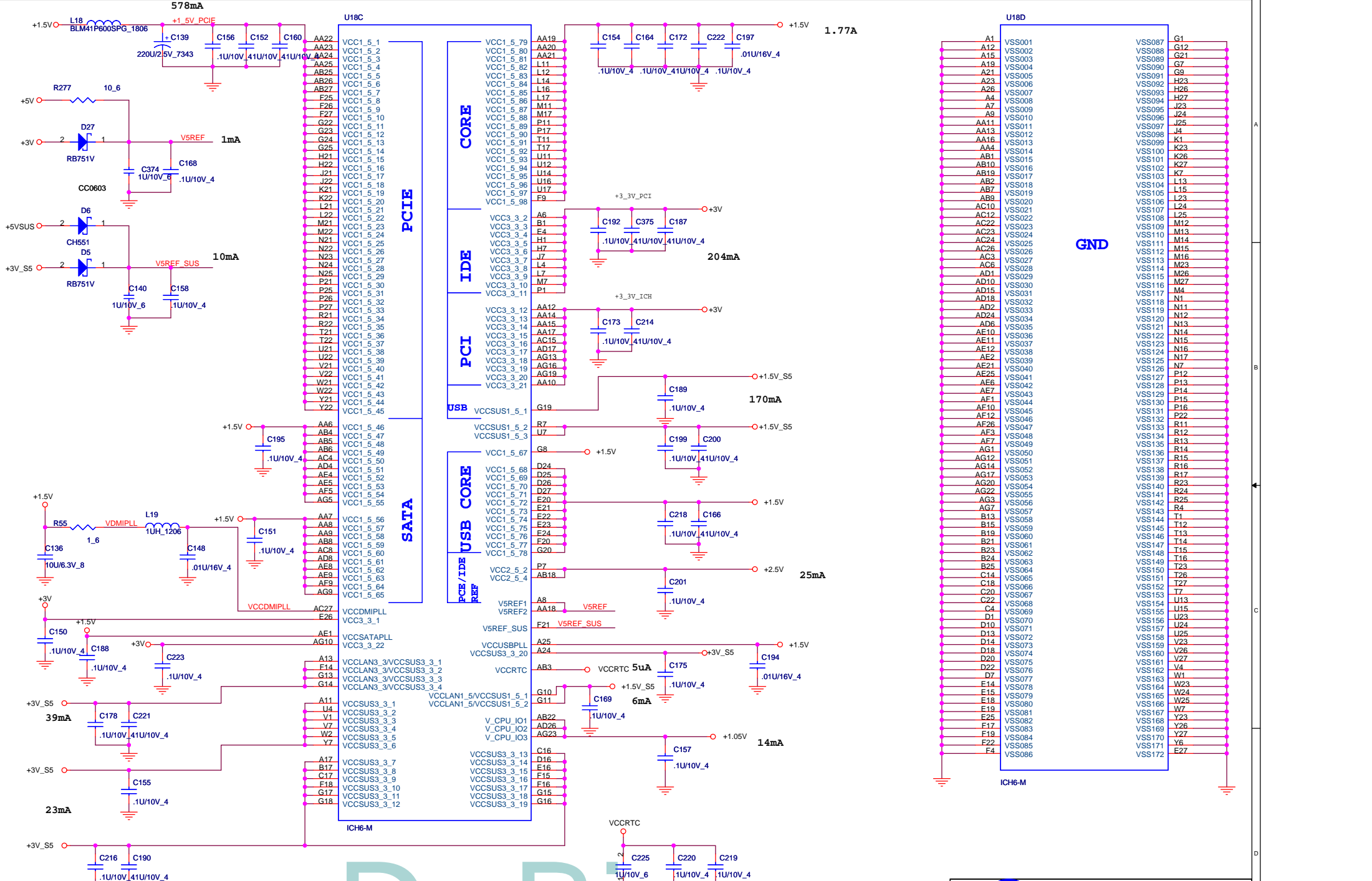
Size	Document Number	Rev
	LVDS,VGA Ports, LID, & HOLES	2A
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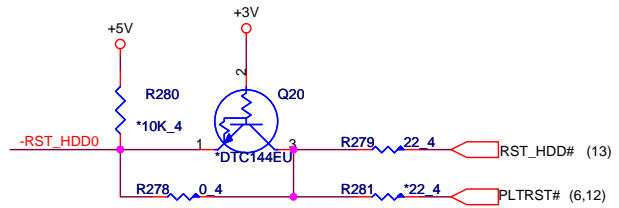
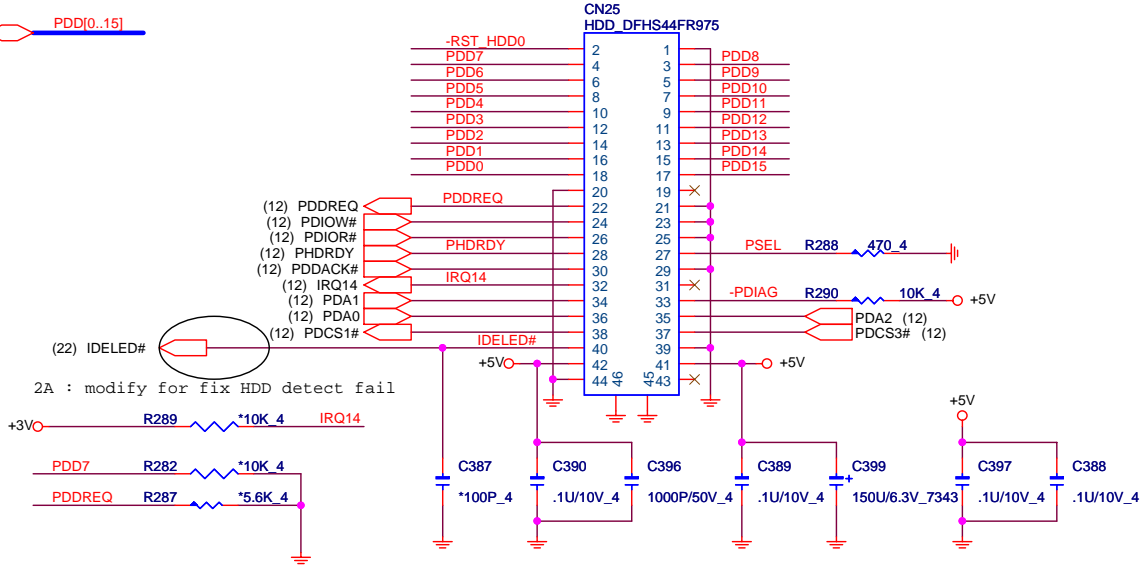
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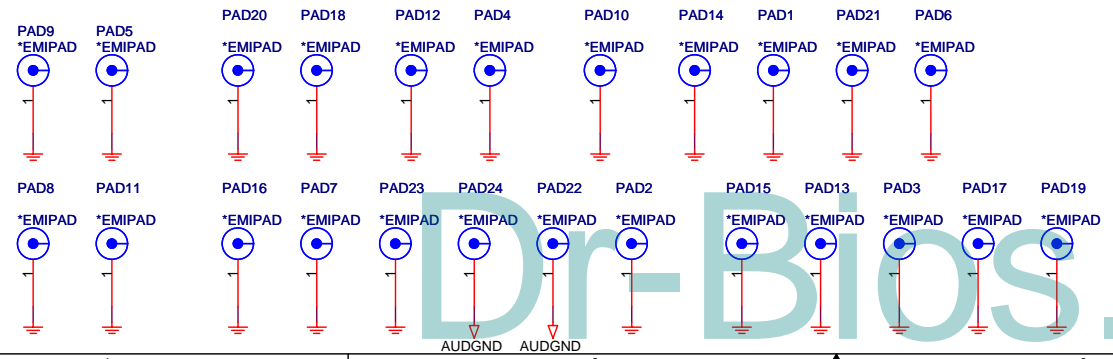
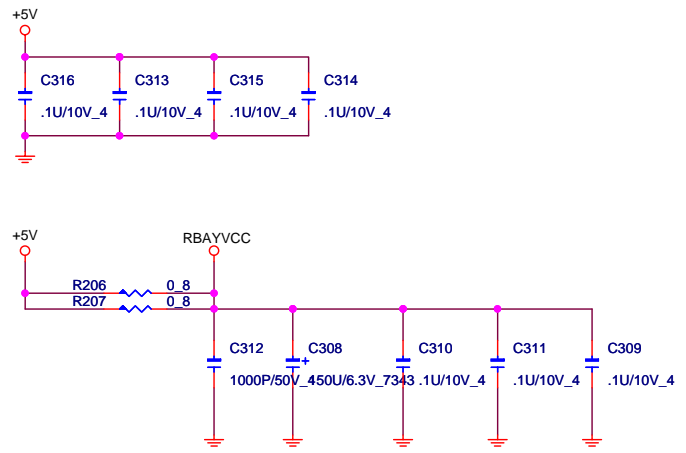
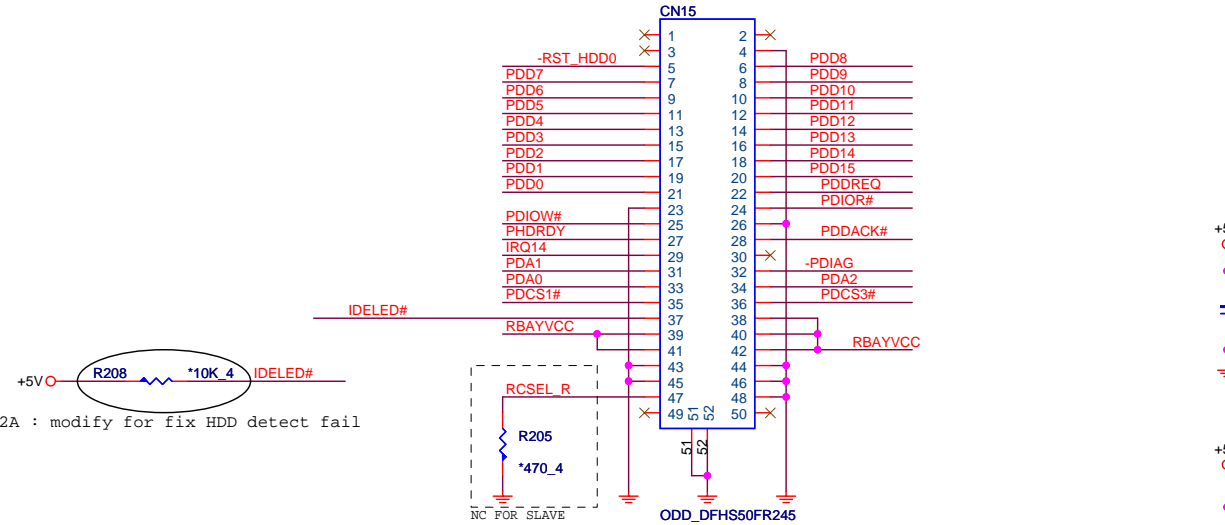
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(12) PDD[0..15]



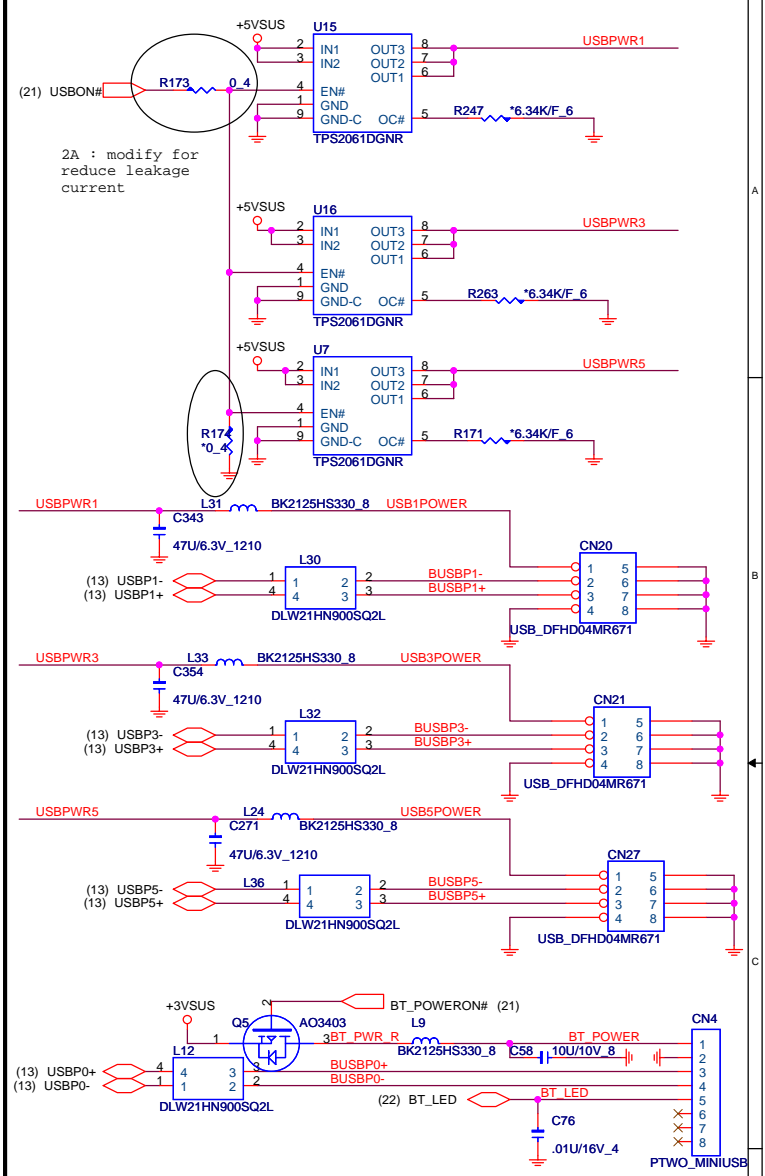
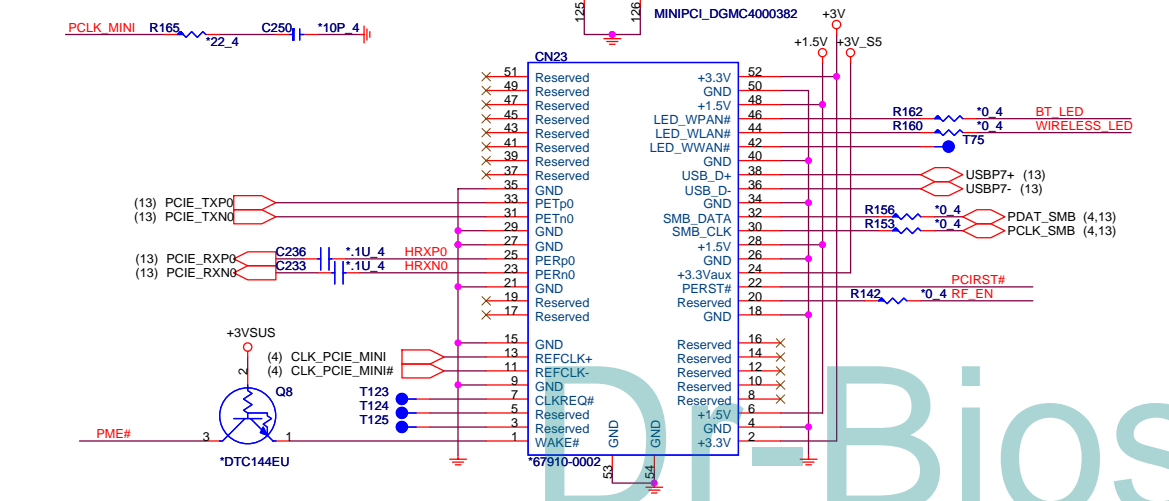
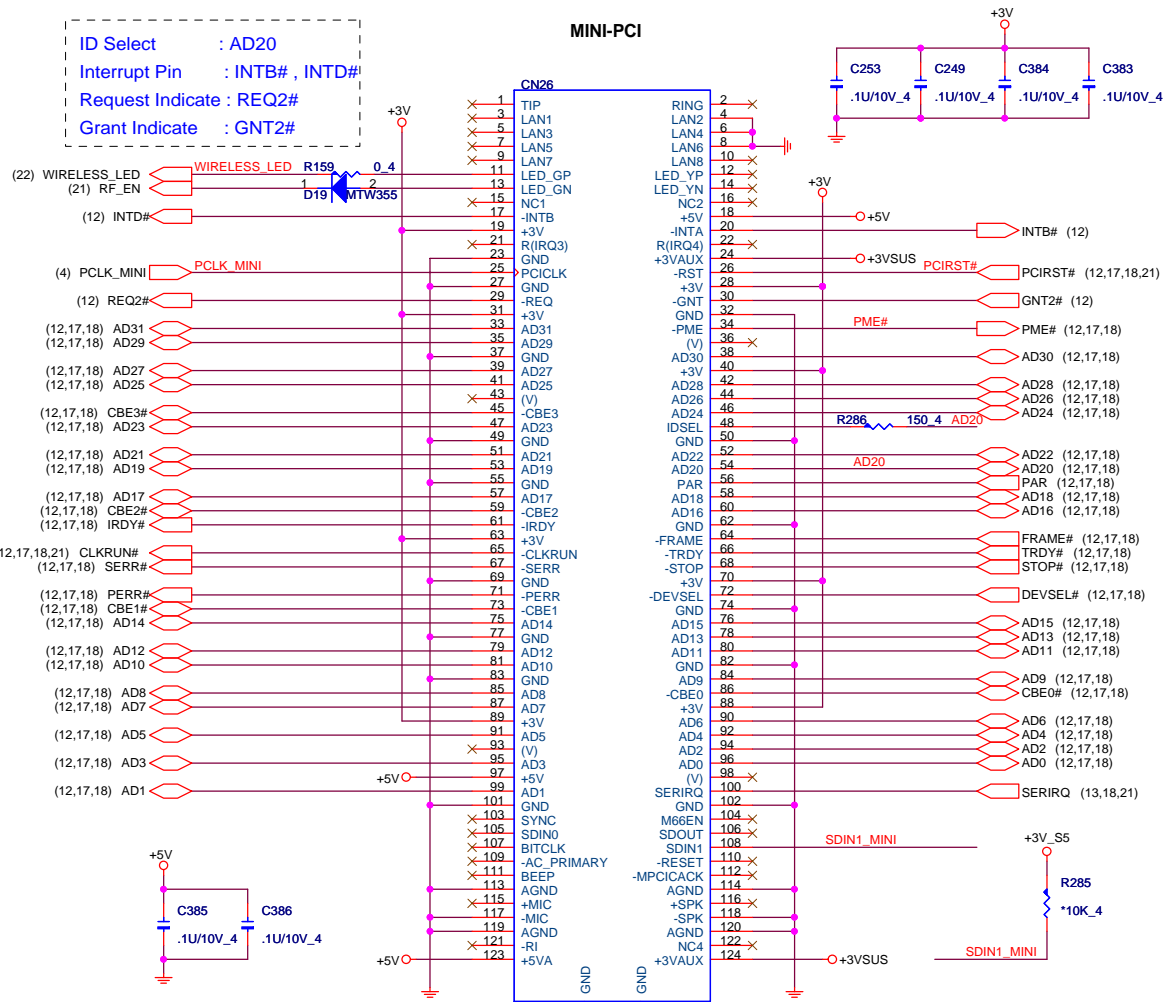
ODD Connector



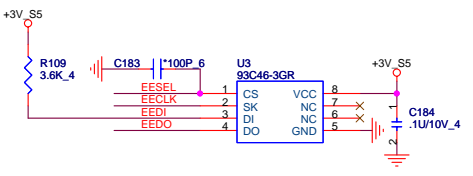
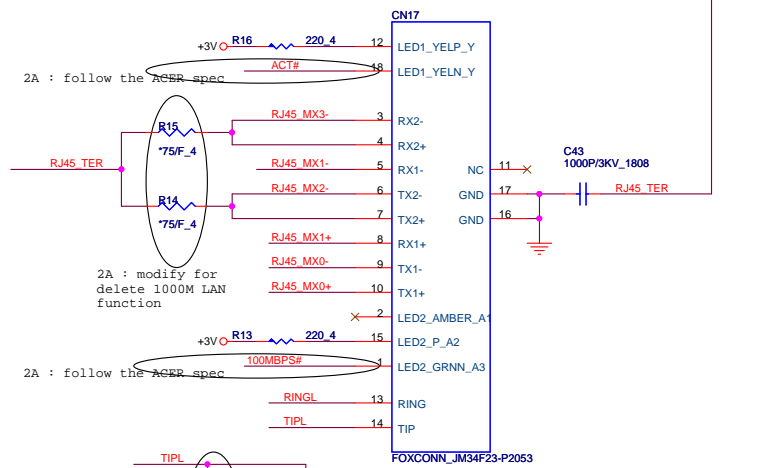
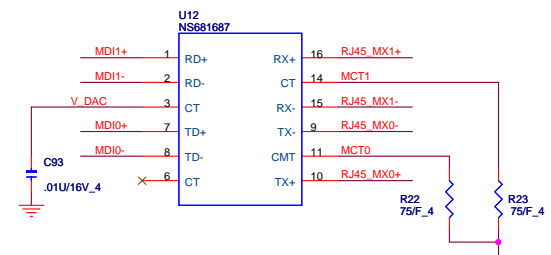
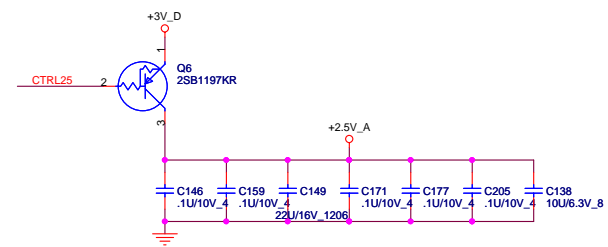
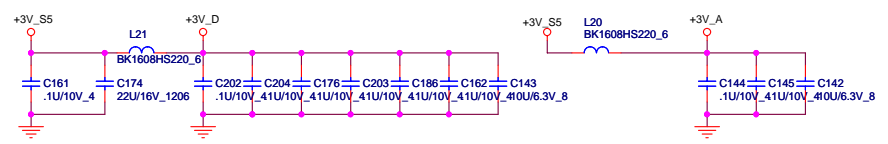
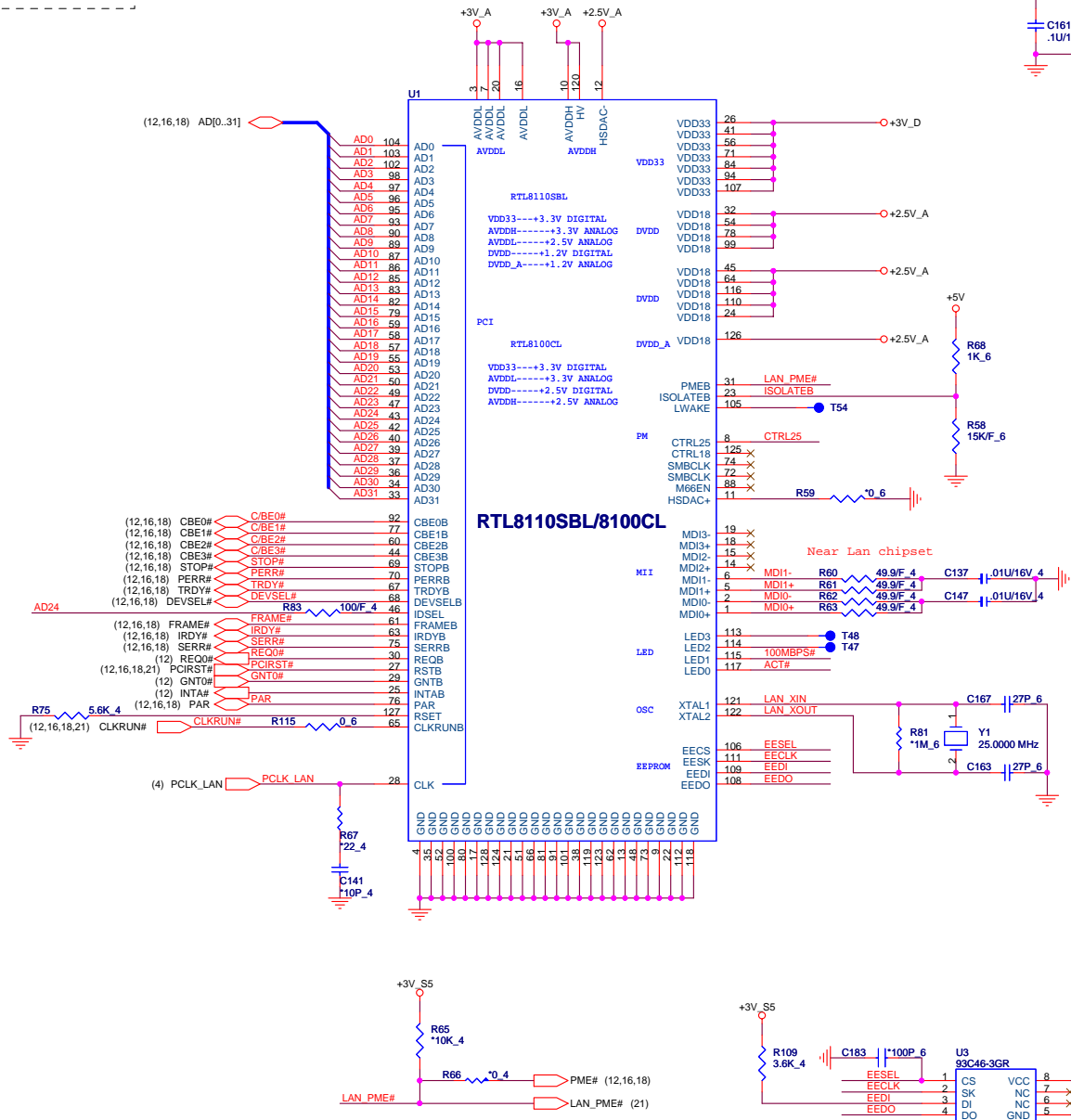
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ID Select : AD20
 Interrupt Pin : INTB# , INTD#
 Request Indicate : REQ2#
 Grant Indicate : GNT2#

MINI-PCI



ID Select : AD24
 Interrupt Pin : INTA#
 Request Indicate : REQ0#
 Grant Indicate : GNT0#



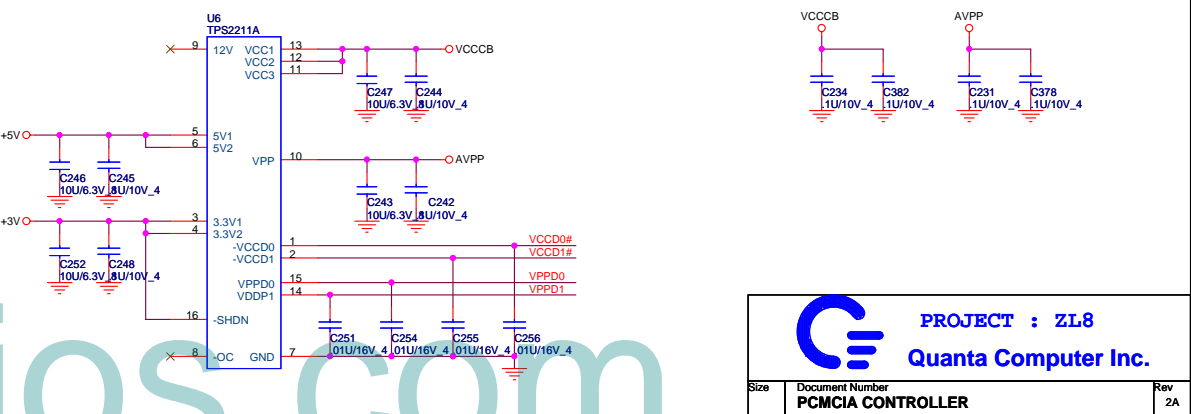
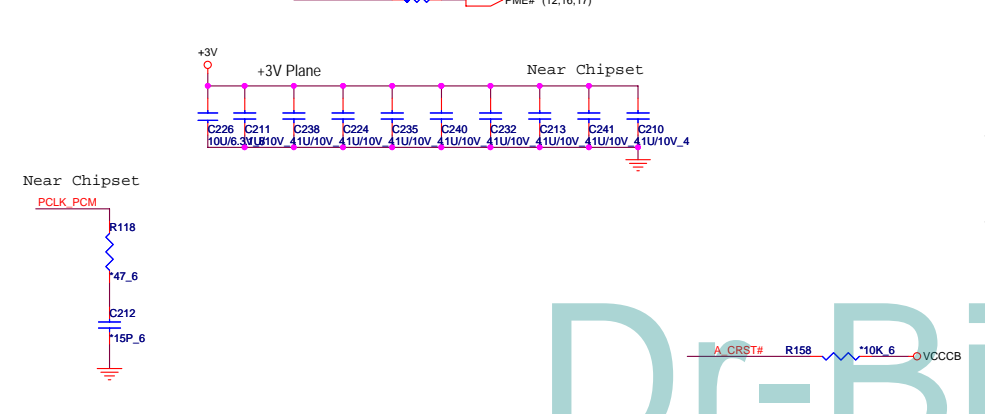
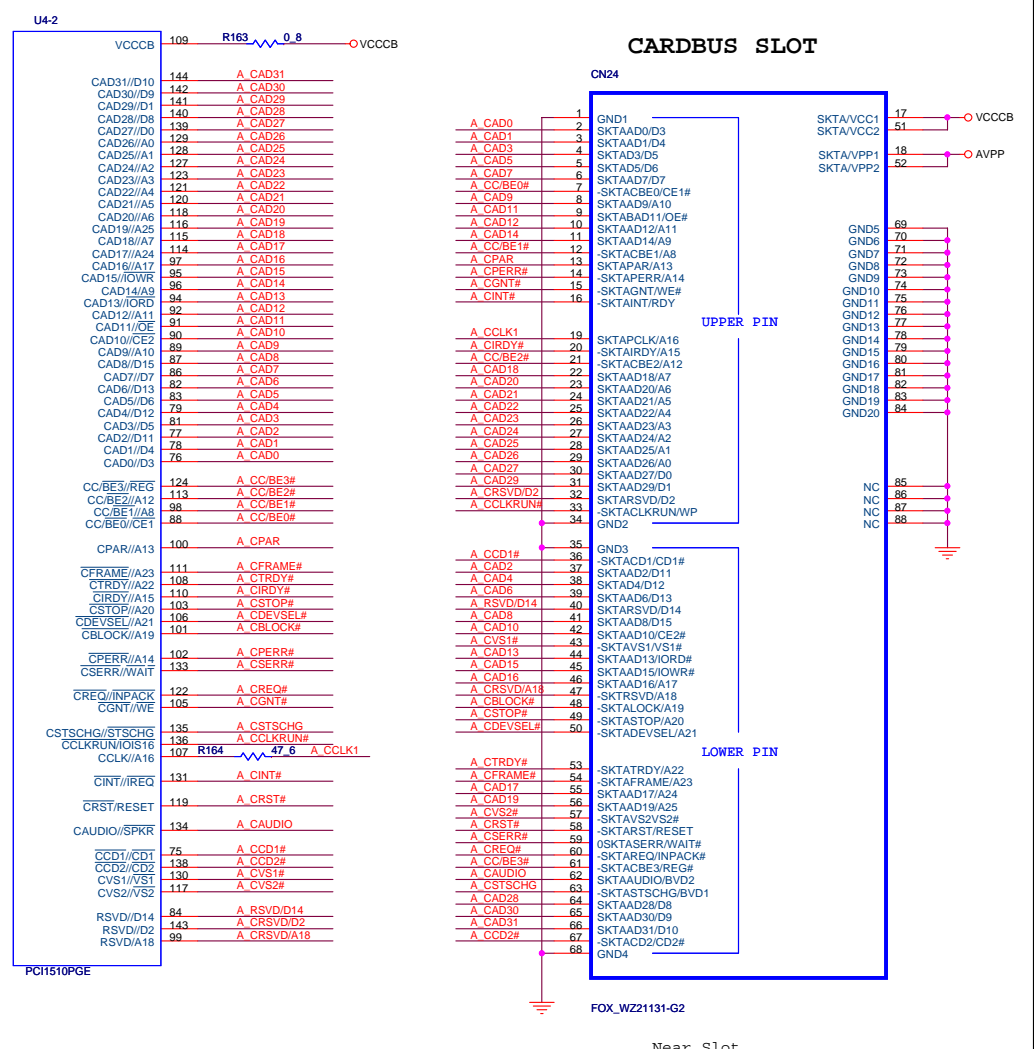
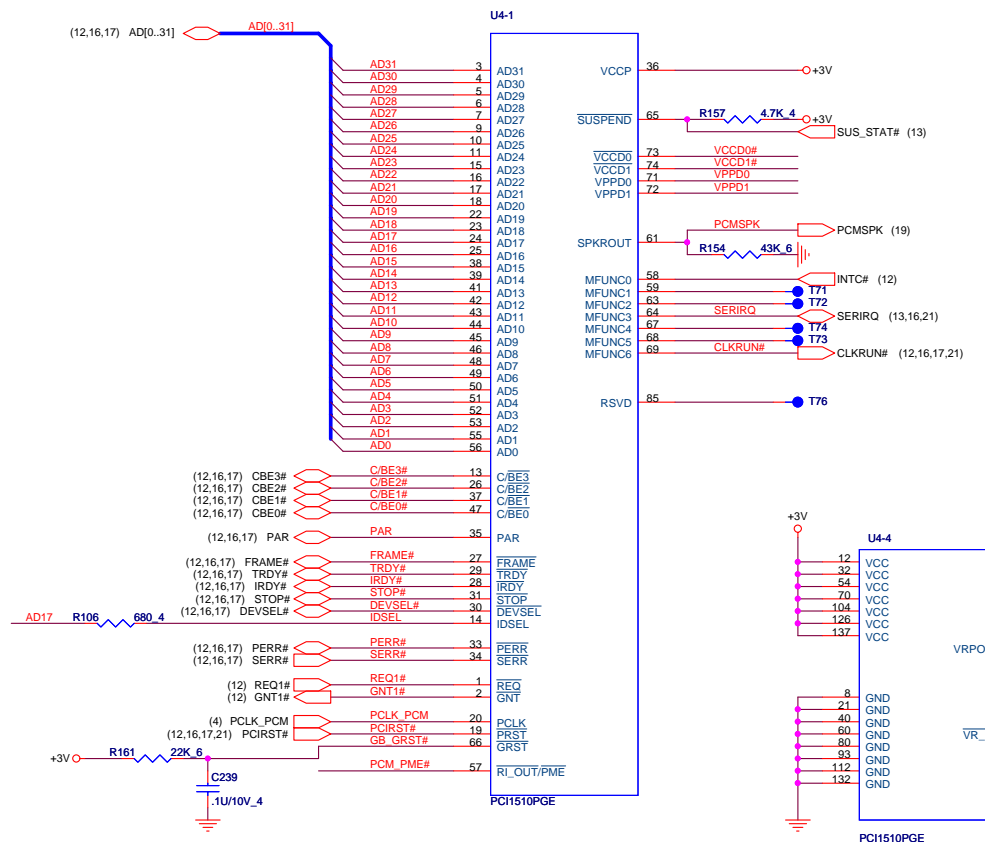
2A : modify for ESD issue

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PROJECT : ZL8
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Size	Document Number	Rev
	LAN RTL810SBL/8100CL	2A
Date:	Tuesday, July 12, 2005	Sheet 17 of 26

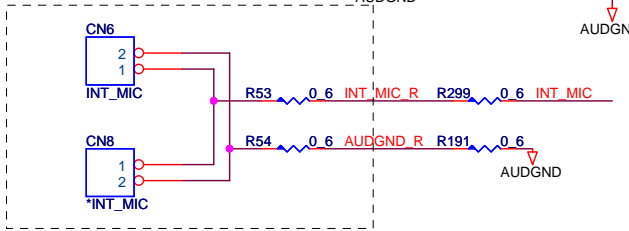
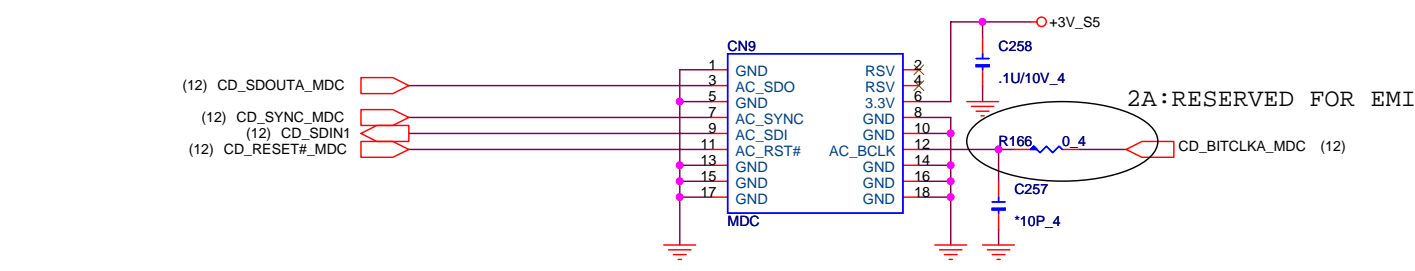
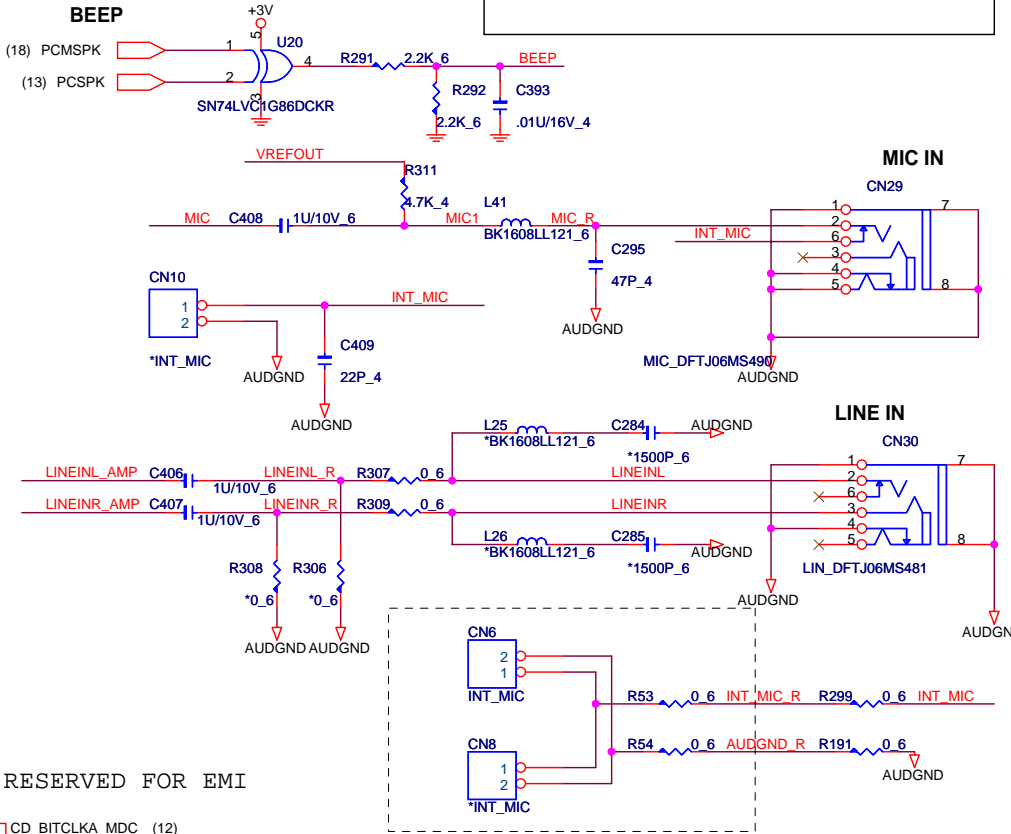
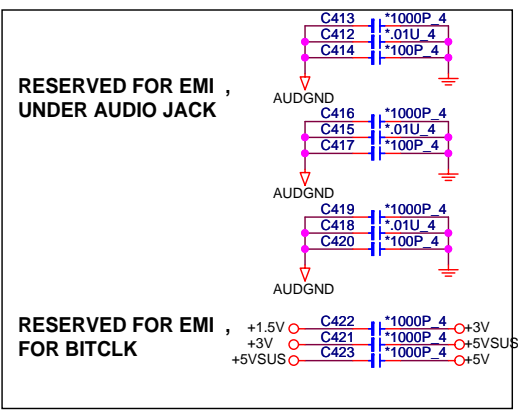
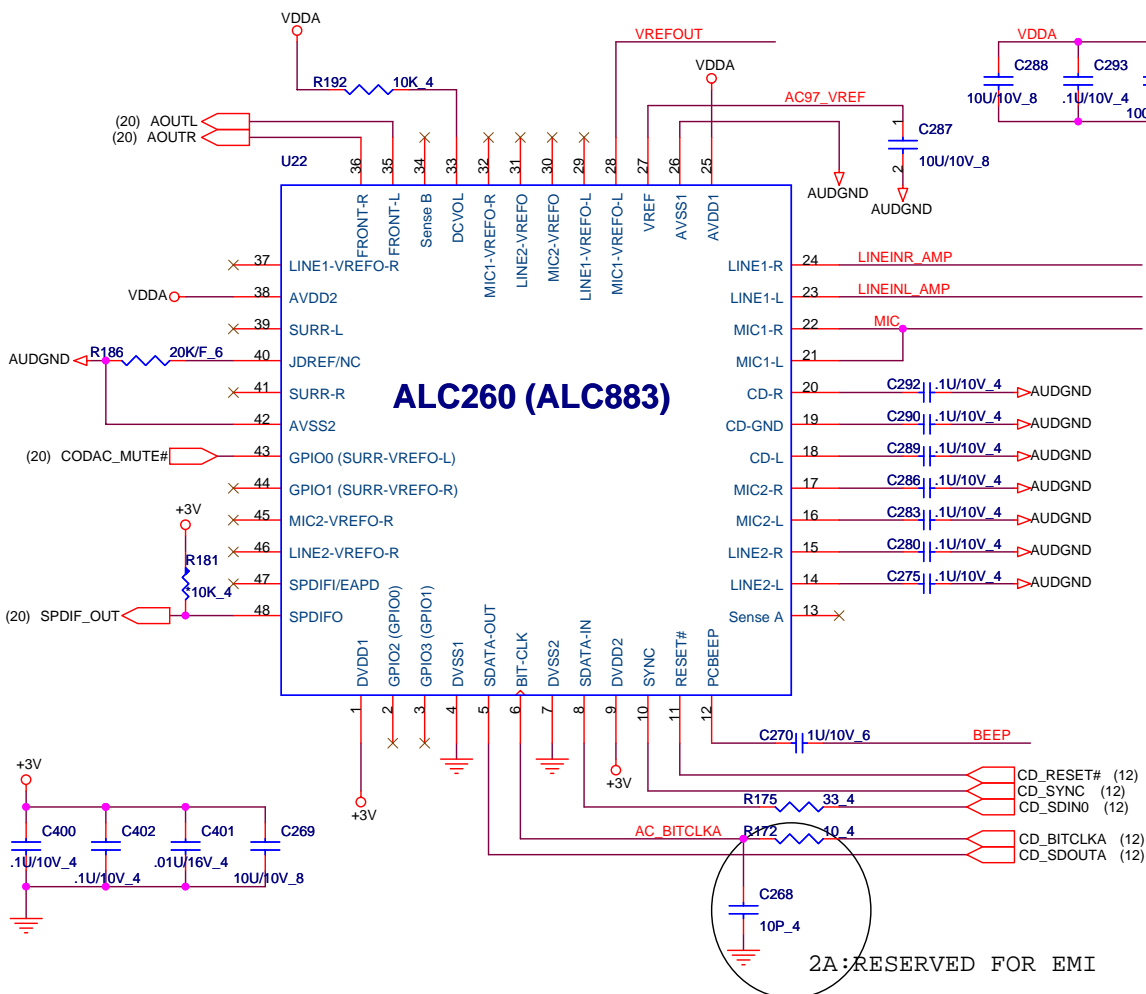
ID Select : AD17
 Interrupt Pin : INTC#
 Request Indicate : REQ1#
 Grant Indicate : GNT1#



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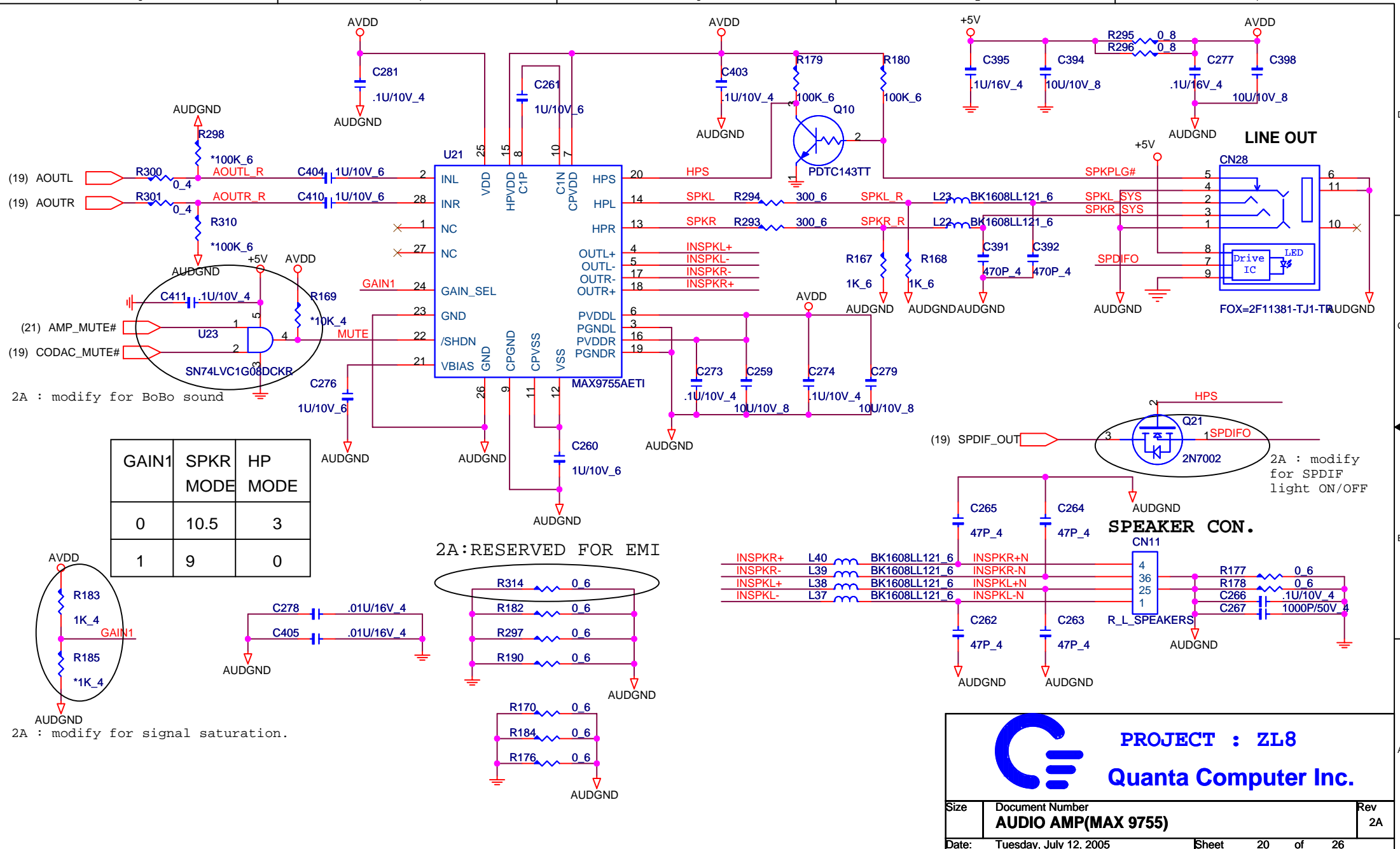
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Size: Document Number: **PCMCIA CONTROLLER** Rev: 2A
 Date: Tuesday, July 12, 2005 Sheet: 18 of 26



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Size	Document Number	Rev
	REALTEK ALC883	2A
Date:	Tuesday, July 12, 2005	Sheet 19 of 26




GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0

2A: RESERVED FOR EMI

GAIN1

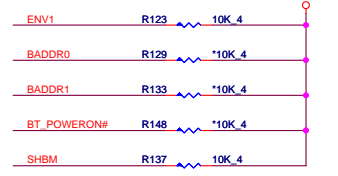
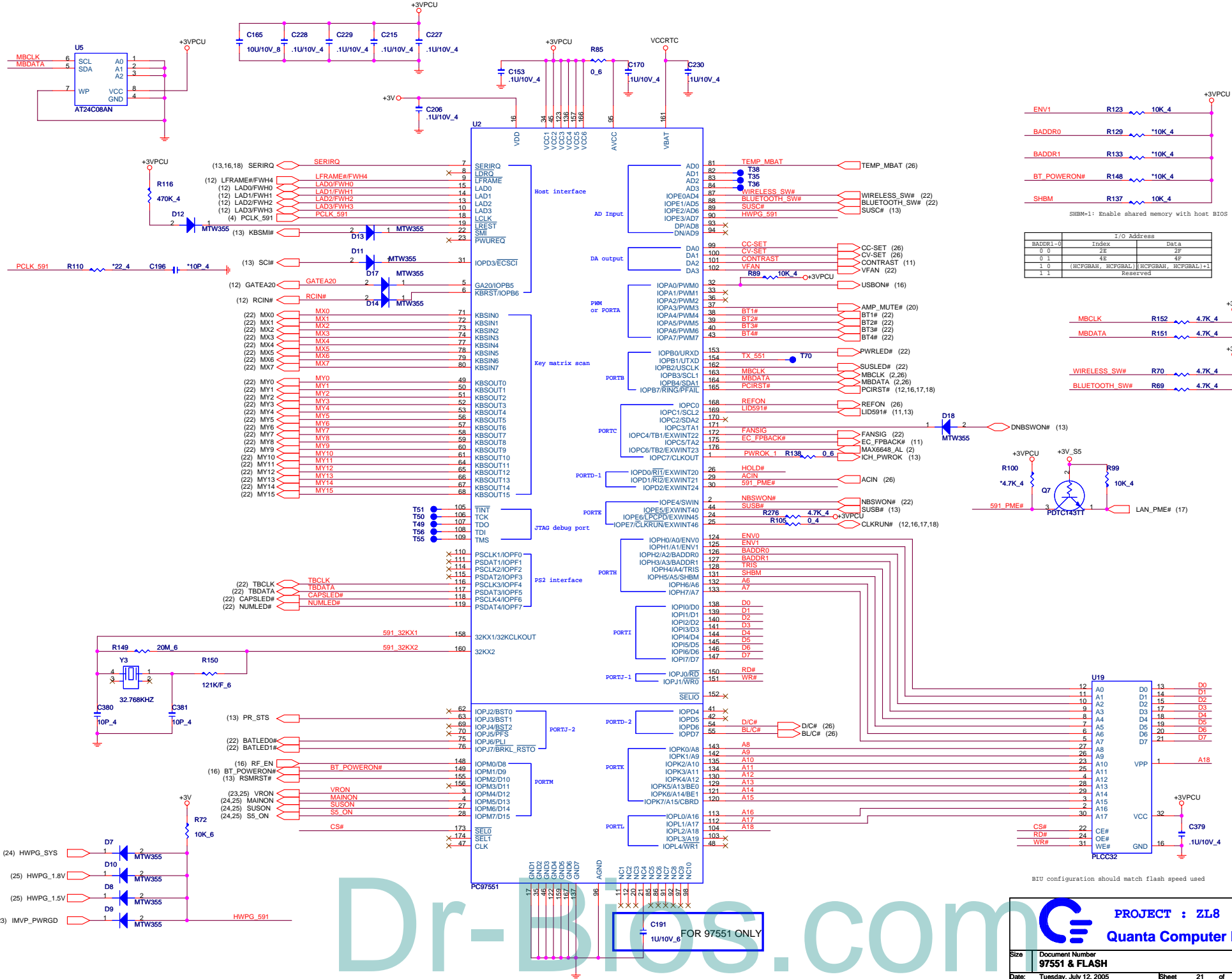
2A : modify for signal saturation.

2A : modify for SPDIF light ON/OFF

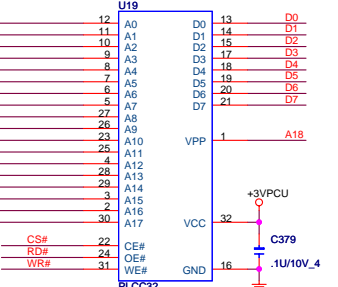
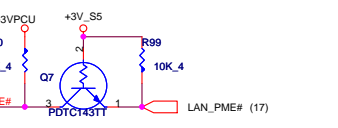
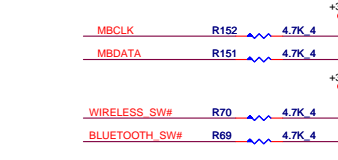


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Size	Document Number AUDIO AMP(MAX 9755)	Rev 2A
Date:	Tuesday, July 12, 2005	Sheet 20 of 26



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



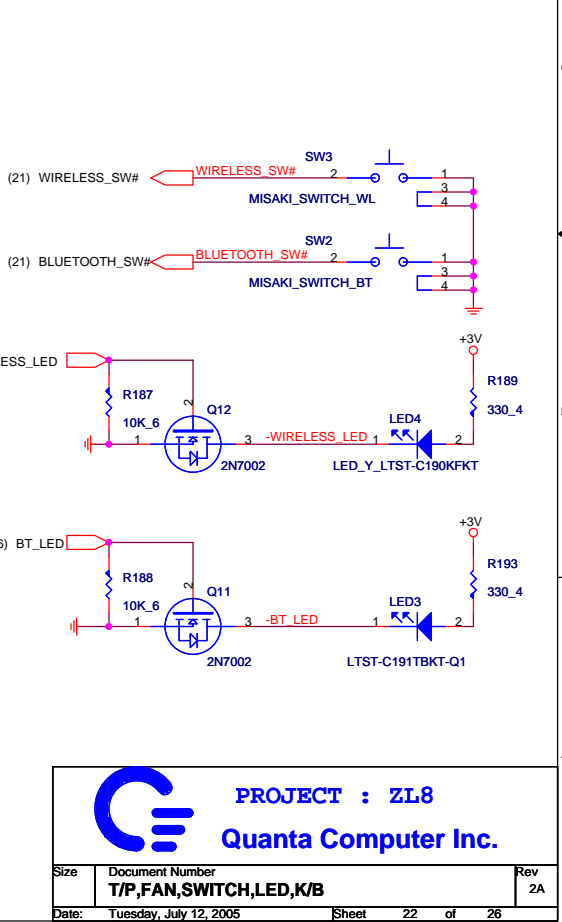
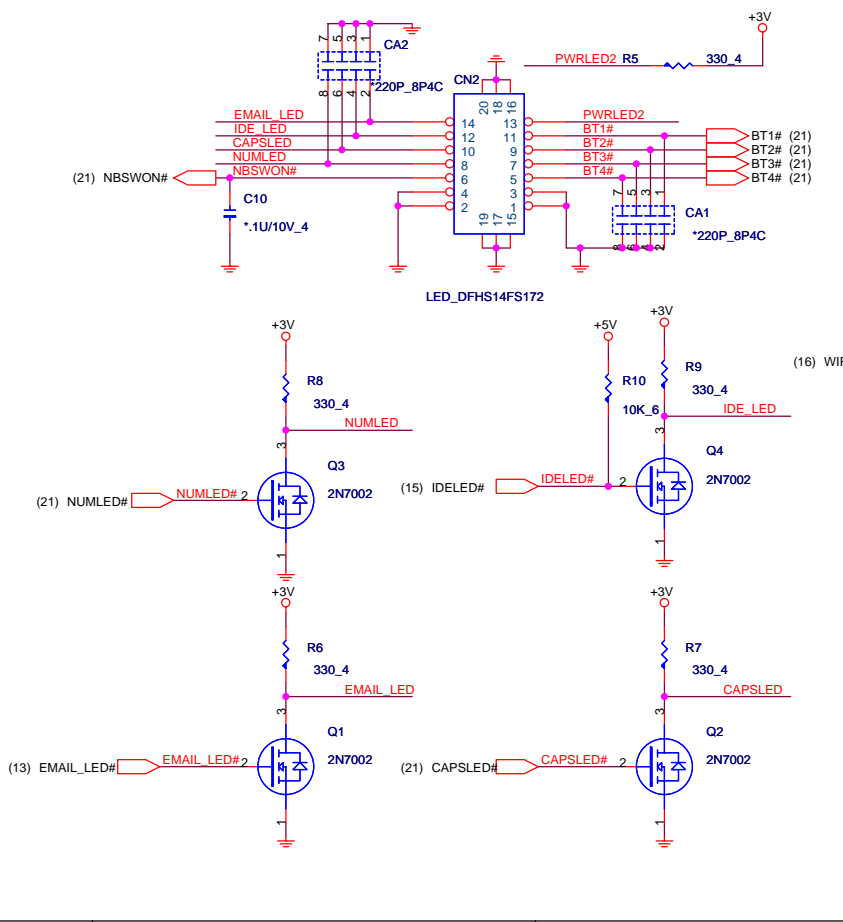
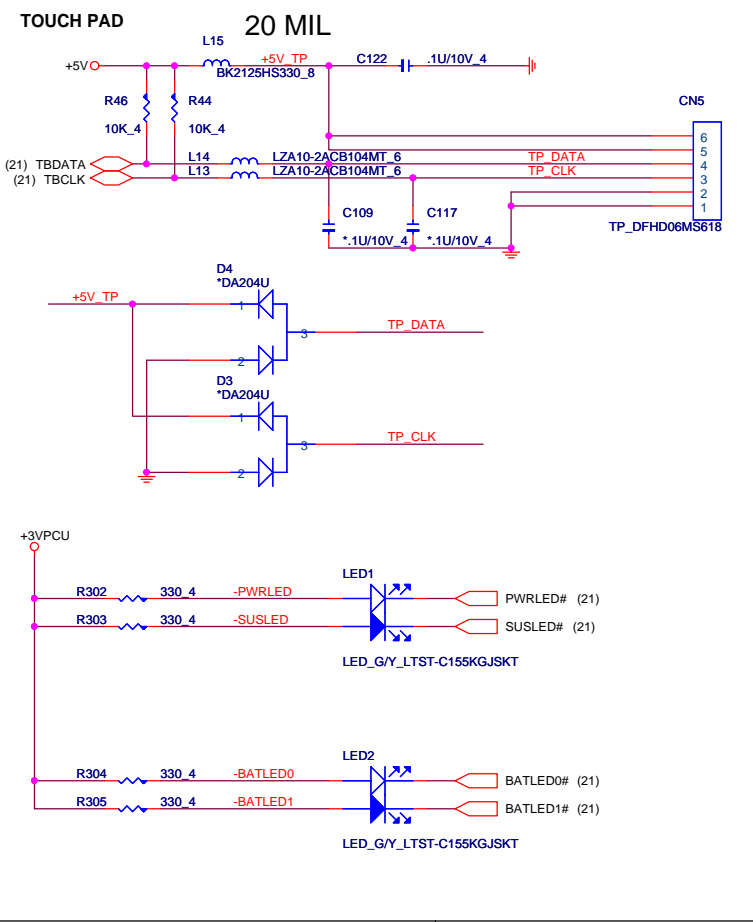
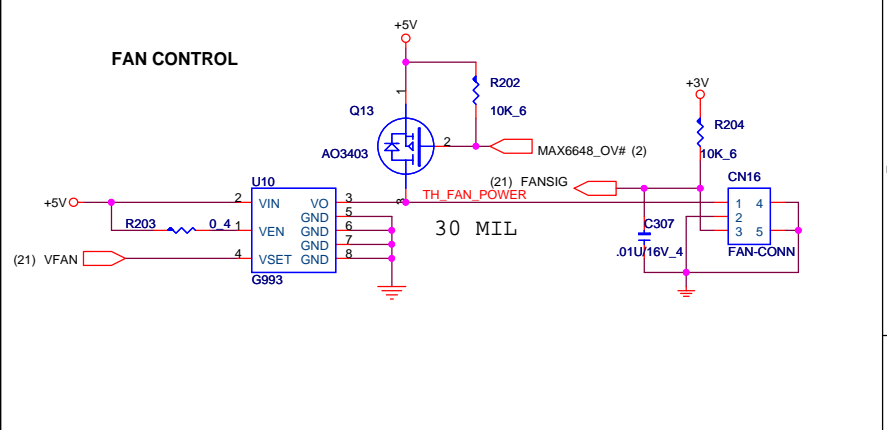
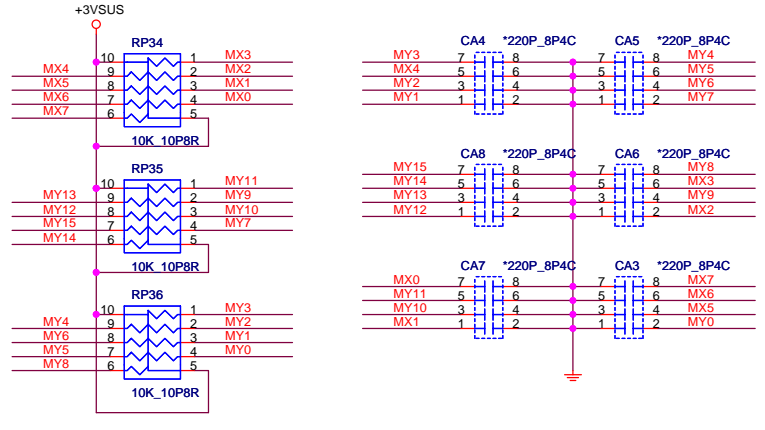
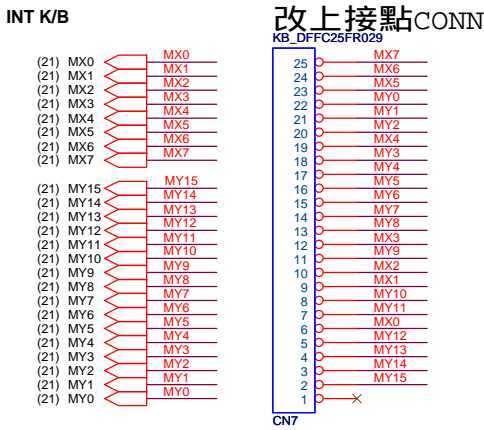
BIU configuration should match flash speed used

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C191 1U/10V_6 FOR 97551 ONLY

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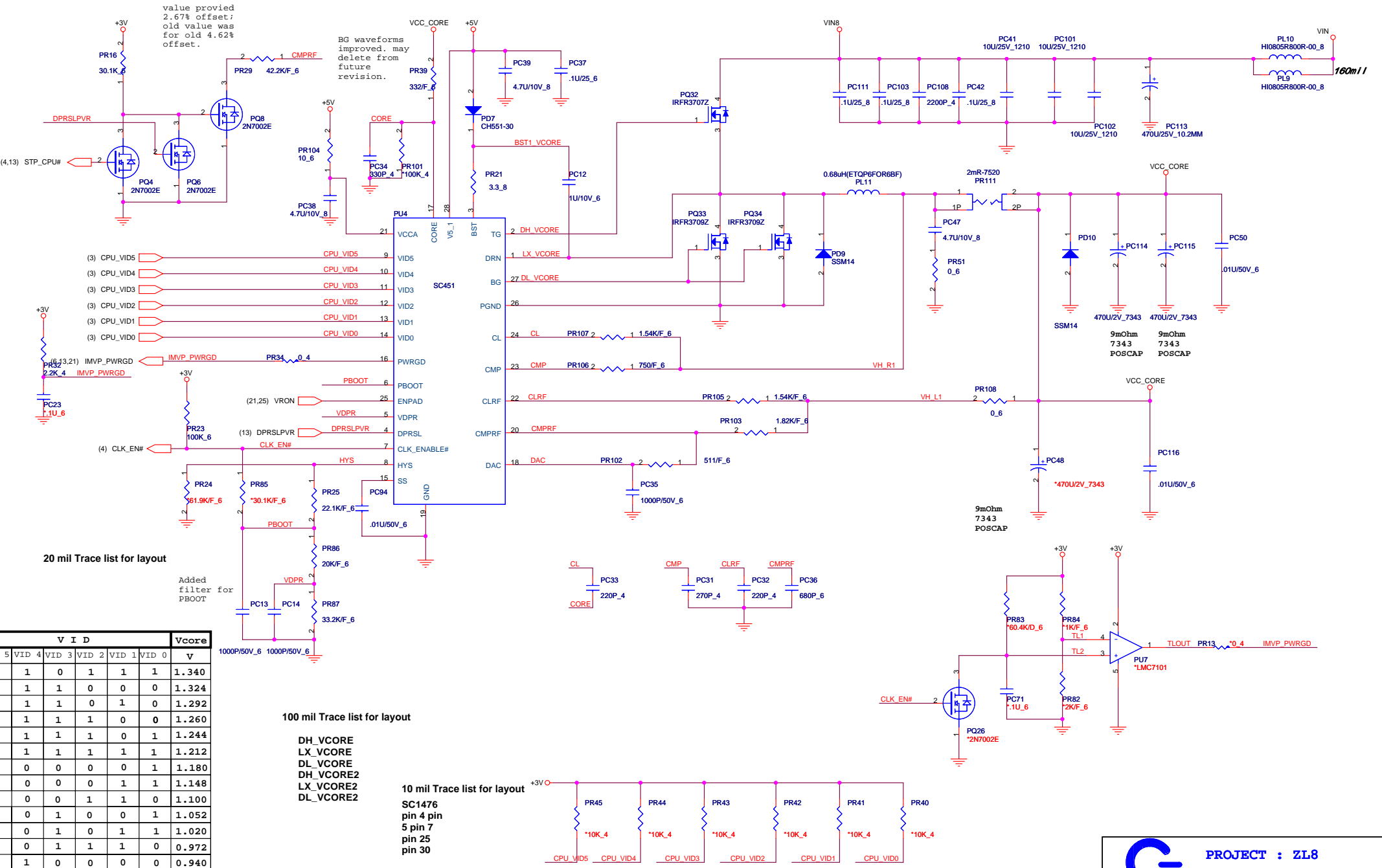
Size	Document Number	Rev
	97551 & FLASH	2A
Date	Tuesday, July 12, 2005	Sheet 21 of 26



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Size	Document Number	Rev
Date: Tuesday, July 12, 2005	T/P,FAN,SWITCH,LED,K/B	2A
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value provided
2.67% offset;
old value was
for old 4.62%
offset.



20 mil Trace list for layout

Added filter for PBOOT

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

100 mil Trace list for layout

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

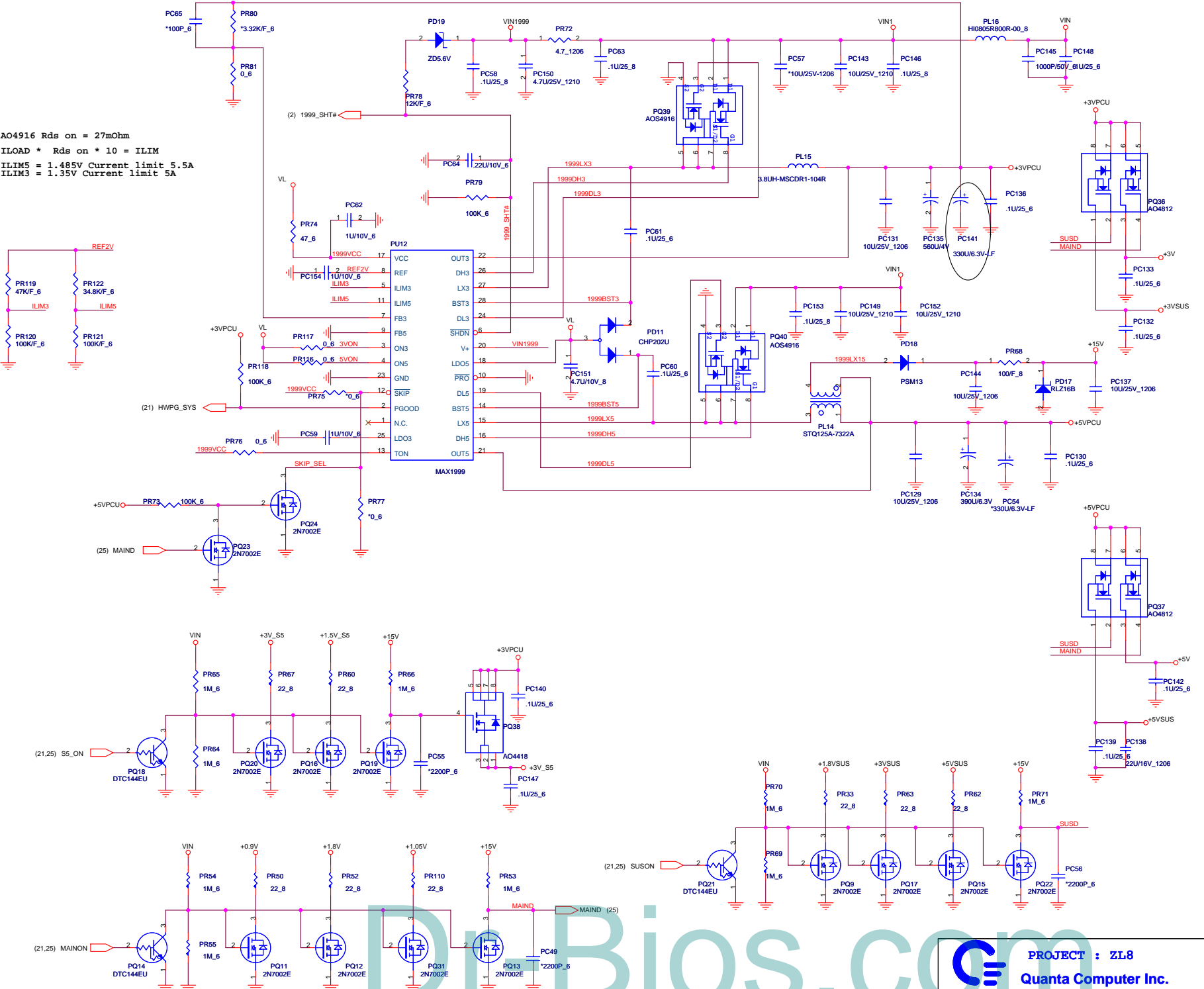
10 mil Trace list for layout

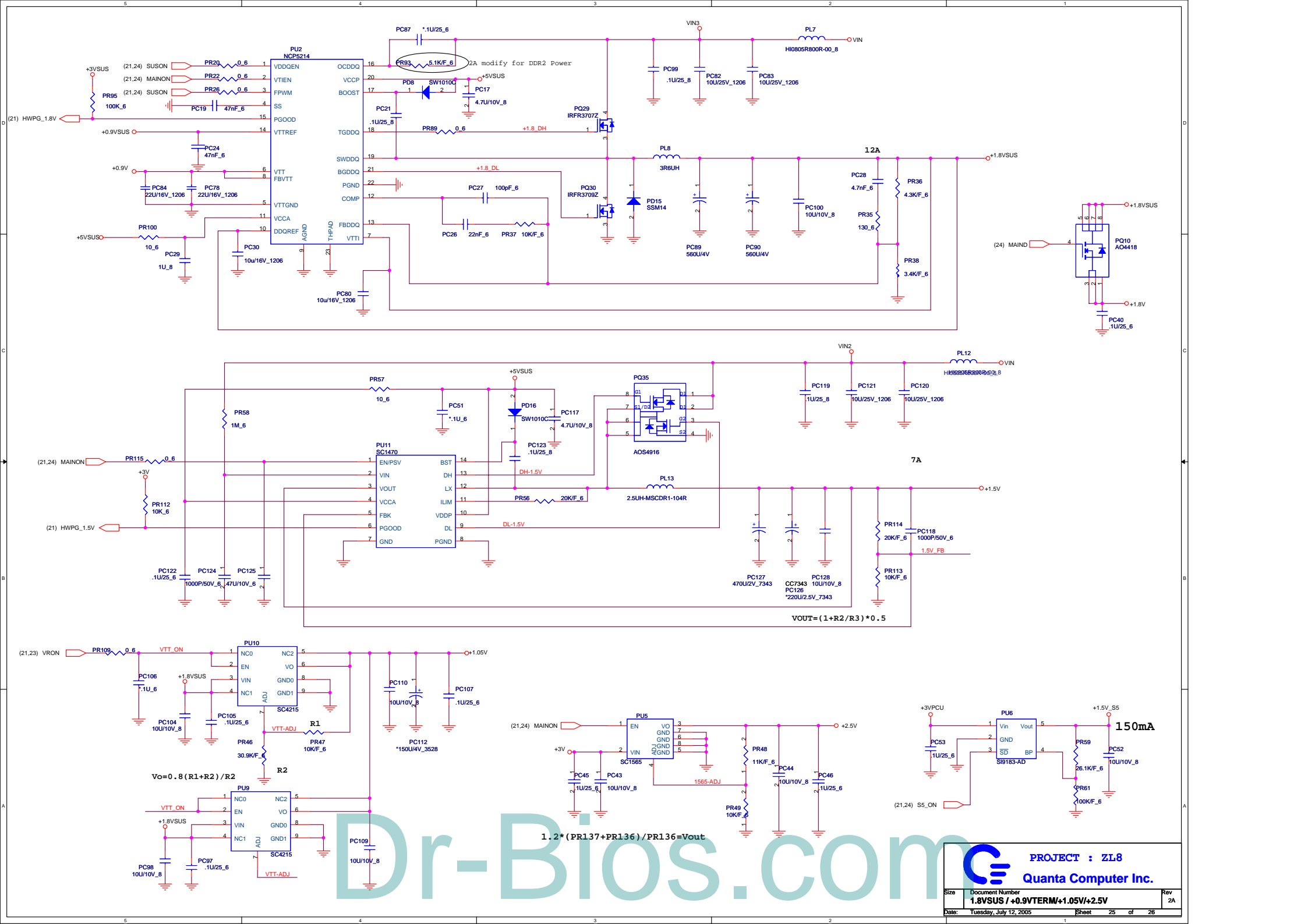
- SC1476
- pin 4 pin
- 5 pin 7
- pin 25
- pin 30

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	CPU CORE (SC451)	2A
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AO4916 Rds on = 27mOhm
 ILOAD * Rds on * 10 = ILIM
 ILIM5 = 1.485V Current limit 5.5A
 ILIM3 = 1.35V Current limit 5A





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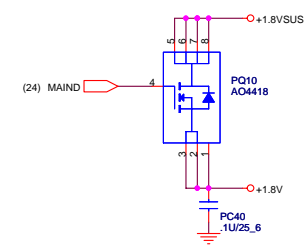
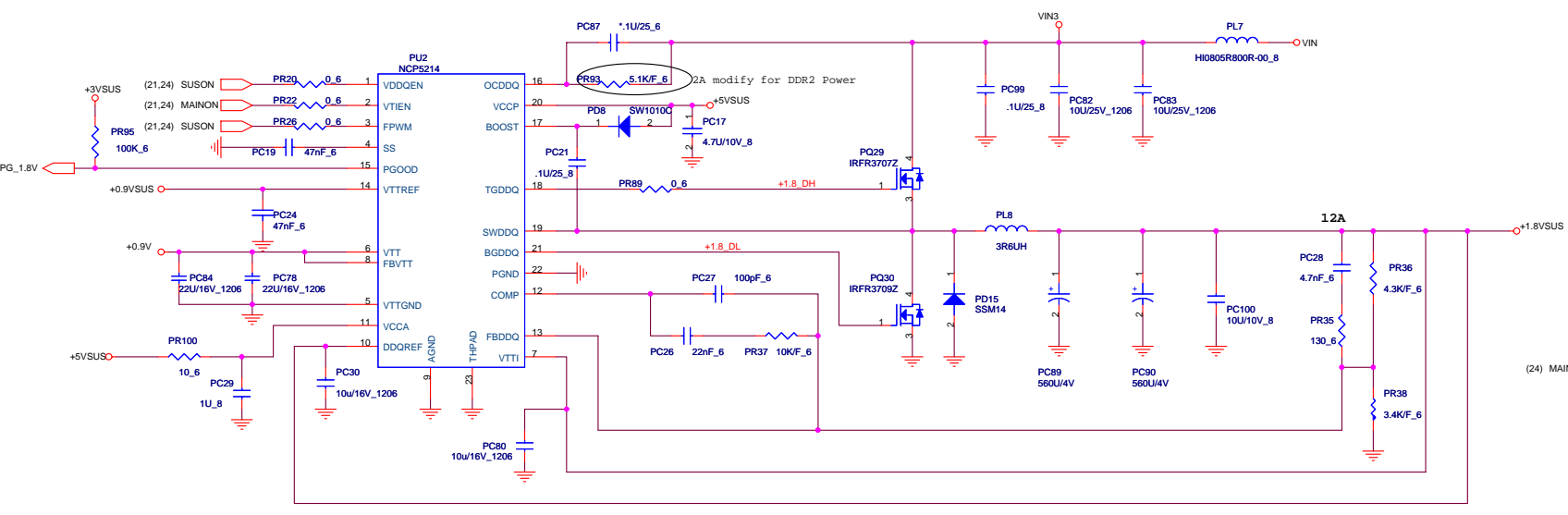
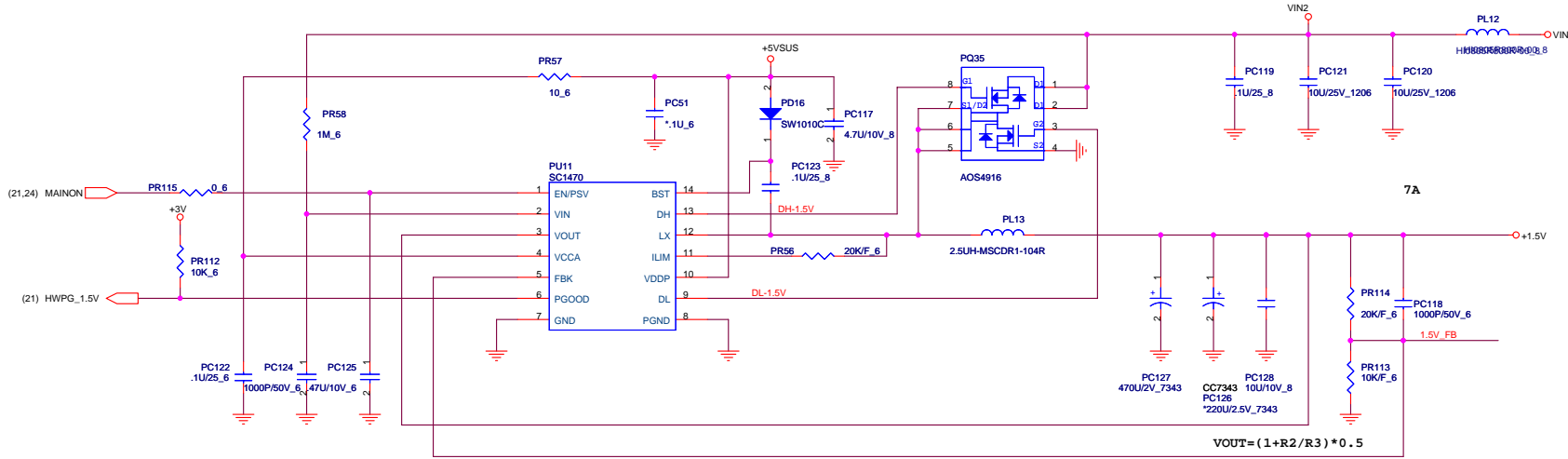
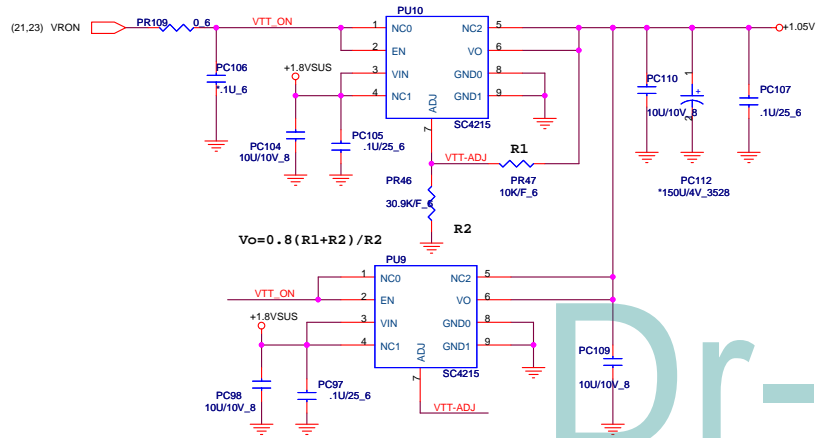
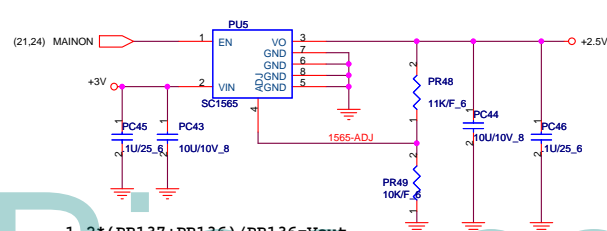
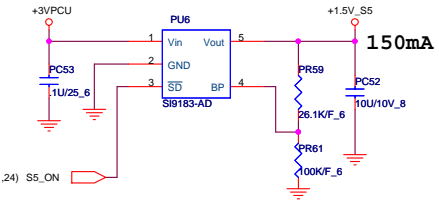
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	1.8VSUS / +0.9VTERM/+1.05V/+2.5V	2A
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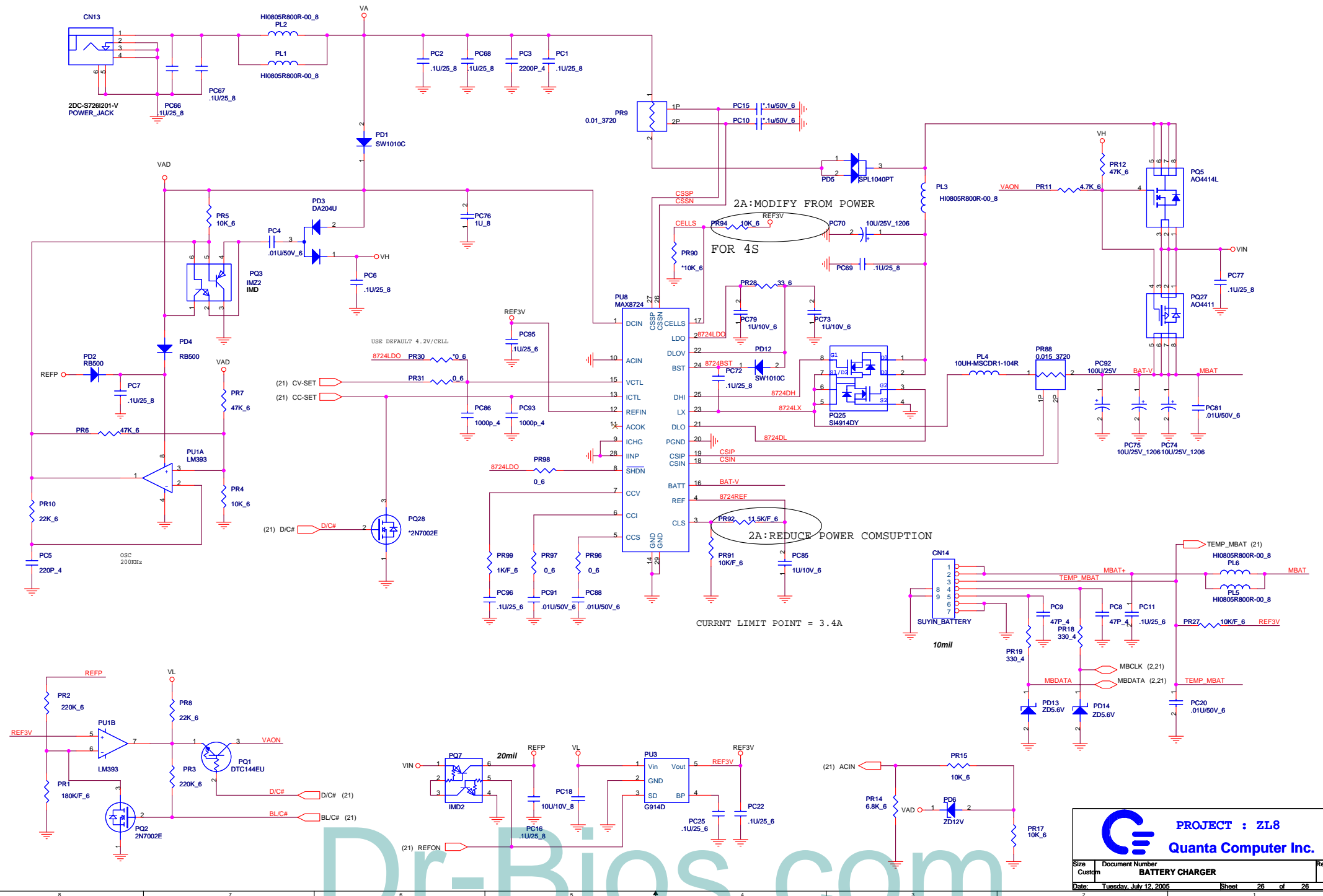
$$1.2 * (PR137 + PR136) / PR136 = V_{out}$$

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

$$V_{OUT} = (1 + R2 / R3) * 0.5$$

150mA





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Custom	BATTERY CHARGER	2A
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