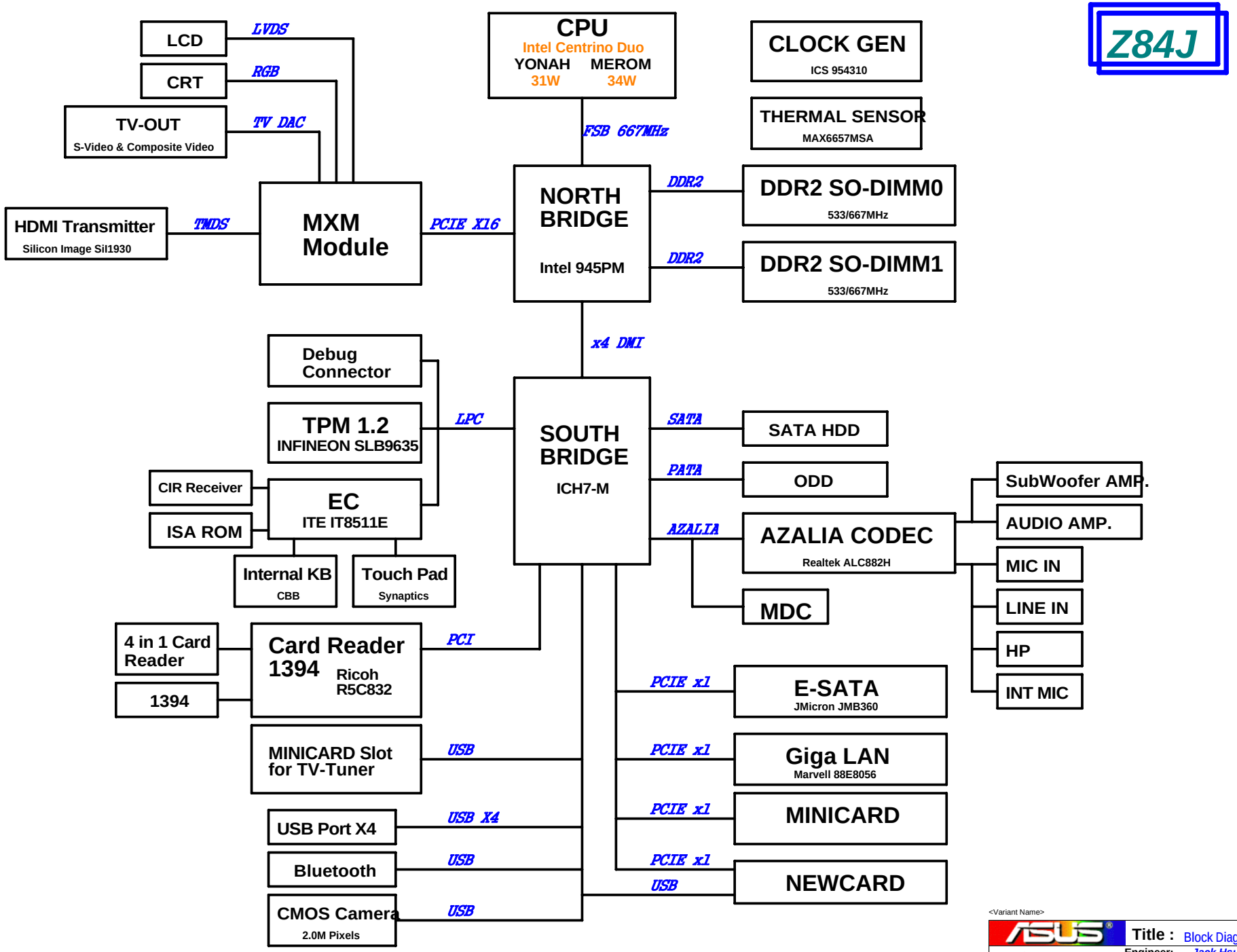


<Variant Name>

ASUSTek Computer INC.

Title : Block Diagram

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 1 of 68

EC GPIO SETTING

Pin	Pin Name	Signal Name	Type
32	PWM0/GPA0	BL_PWM_DA	O
33	PWM1/GPA1	FAN_PWM	O
36	PWM2/GPA2	CLK_PWRSAVE#	O
37	PWM3/GPA3	/	
38	PWM4/GPA4	CHG_LED_UP#	O
39	PWM5/GPA5	PWR_LED_UP#	O
40	PWM6/GPA6	/	
43	PWM7/GPA7	LCD_BACKOFF#	O
153	RXD/GPB0	NUM_LED	O
154	TXD/GPB1	CAP_LED	O
162	GPB2	SCRL_LED	O
163	SMCLK0/GPB3	SMB0_CLK	I/0
164	SMDAT0GPB4	SMB0_DAT	I/0
5	GA20/GPB5	A20GATE	O
6	KBRST#/GPB6	RC_IN#	O
165	GPB7	/	
47	CLKOUT/GPC0	/	
169	SMCLK1/GPC1	SMB1_CLK	I/0
170	SMDAT1/GPC2	SMB1_DAT	I/0
171	GPC3	Mail_LED	O
172	TMRI0/WUI2/GPC4	AC_OK#	I
175	GPC5	OP_SD#	O
176	TMRI1/WUI3/GPC6	BAT_IN_OC#	I
1	CK32KOUT/GPC7	/	
26	RI1#/WUI0/GPD0	SUSB#	I
29	RI2#/WUI1/GPD1	SUSC#	I
30	LPCRST#/WUI4//GPD2	PLT_RST#	I
31	ECSCI#/GPD3	EXT_SCI#	O
41	GPD4	/	
42	GINT/GPD5	/	
62	TACH0/GPD6	FAN0_TACH	I
63	TACH1/GPD7	/	
87	ADC4/GPE0	EMAIL_SW#	I
88	ADC5/GPE1	INTERNET#	I
89	ADC6/GPE2	PWR4G_SW#	I
90	ADC7/GPE3	DISTP_SW#	I
2	PWRSW/GPE4	PWR_SW#	I
44	WUI5/GPE5	/	
24	LPCPD#/WUI6/GPE6	LID_EC#	I
25	CLKRUN#/WUI7/GPE7	/	
110	PS2CLK0/GPF0	/	
111	PS2DAT0/GPF1	/	
114	PS2CLK1/GPF2	/	I
115	PS2DAT1/GPF3	/	I
116	PS2CLK2/GPF4	TP_CLK	I/0
117	PS2DAT2/GPF5	TP_DAT	I/0
118	PS2CLK3/GPF6	/	
119	PS2DAT3/GPF7	/	
113	FA16/GPG0	FA16	O
112	FA17/GPG1	FA17	O
104	FA18/GPG2	FA18	O
103	FA19/GPG3	/	
3	FA20/GPG4	THRM_CPU#	I
4	FA21/GPG5	/	
27	LPC80HL/GPG6	PMTHERM#	O
28	LPC80LL/GPG7	AC_APR_UC#	I

Pin	Pin Name	Signal Name	Type
48	GPH0	VSUS_ON	O
54	GPH1	VSUS_GD#	I
55	GPH2	CPUPWR_GD#	I
69	GPH3	PM_PWRBTN#	O
70	GPH4	SUSC_ON	O
75	GPH5	SUSB_ON	O
76	GPH6	CPU_VRON	O
105	GPH7	PM_RSMRST#	O
148	GPI0	ICH7_PWROK	O
149	GPI1	/	
152	GPI2	MCHOK	I
155	GPI3	CHG_EN#	O
156	GPI4	PRECHG	O
168	GPI5	BAT_LL#	O
174	GPI6	BAT_LEARN	O

ICH7-M GPIO SETTING

Pin	Pin Name	Signal Name	Type	Power_Well	Default
AB18	GPIO00/BM_BUSY#	PM_BMBUSY#	I	Core(To:3.3V)	GPI
C8	GPIO01/REQ5#	PCI_REQ#5	I/O	Core(To:5V)	GPI
G8	GPIO02/PIRQE#	PCI_INTE#	I(OD)	Core(To:5V)	GPI
F7	GPIO03/PIRQF#	PCI_INTF#	I(OD)	Core(To:5V)	GPI
F8	GPIO04/PIRQG#	PCI_INTG#	I(OD)	Core(To:5V)	GPI
G7	GPIO05/PIRQH#	PCI_INTH#	I(OD)	Core(To:5V)	GPI
AC21	GPIO06	NC	I/O	Core(To:3.3V)	GPI
AC18	GPIO07	WLAN_BT_LED_EN#	I	Core(To:3.3V)	GPI
E21	GPIO08	EXTSMI#	I	SUS(To:3.3V)	GPI
E20	GPIO09	SATA_DET#0	I/O	SUS(To:3.3V)	GPI
A20	GPIO10	WLAN_ON#	O	SUS(To:3.3V)	GPI
B23	SMBALERT#/GPIO11	SMB_ALERT#	I/O	SUS(To:3.3V)	Native
F19	GPIO12	KBC_SCI#	I	SUS(To:3.3V)	GPI
E19	GPIO13	TP	I/O	SUS(To:3.3V)	GPI
R4	GPIO14	NC	I/O	SUS(To:3.3V)	GPI
E22	GPIO15	CB_SD#	I/O	SUS(To:3.3V)	GPI
AC22	GPIO16	PM_DPRSLPVR	O	Core(To:3.3V)	Native
D8	GPIO17/GNT5#	PCI_GNT#5	I/O	Core(To:3.3V)	GPO
AC20	GPIO18/STP_PCI#	STP_PCI#	O	Core(To:3.3V)	GPO
AH18	GPIO19/SATA1GP	NC	O	Core(To:3.3V)	GPI
AF21	GPIO20/STP_CPU#	STP_CPU#	O	Core(To:3.3V)	GPO
AE19	GPIO21/SATA0GP	NC	I/O	Core(To:3.3V)	GPI
A13	GPIO22/REQ4#	PCI_REQ#4	I/O	Core(To:3.3V)	Native
AA5	LDRQ1#/GPIO23	TP	I/O	Core(To:3.3V)	Native
R3	GPIO24	NC	I/O	SUS(To:3.3V)	GPO
D20	GPIO25	NC	I/O	SUS(To:3.3V)	GPO
A21	GPIO26/EL_RSVD	NC	I/O	SUS(To:3.3V)	GPO
B21	GPIO27/EL_STATE0	PD_DET#	I/O	SUS(To:3.3V)	GPO
E23	GPIO28/EL_STATE1	NC	I/O	SUS(To:3.3V)	GPO
C3	GPIO29/OC#5	USB_OC#5	I/O	SUS(To:3.3V)	Native
A2	GPIO30/OC#6	NEWCARD_OC#	I	SUS(To:3.3V)	Native
B3	GPIO31/OC#7	USB_OC#7	I/O	SUS(To:3.3V)	Native
AG18	GPIO32/CLKRUN#	PM_CLKRUN#	O	Core(To:3.3V)	GPO
AC19	GPIO33/AZ_DOCK_EN#	BT_ON#	O	Core(To:3.3V)	GPO
U2	GPIO34/AZ_DOCK_RST#	NC	I/O	Core(To:3.3V)	GPO
AD21	GPIO35	NC	I/O	Core(To:3.3V)	GPO
AH19	GPIO36/SATA2GP	NC	I/O	Core(To:3.3V)	GPI
AE19	GPIO37/SATA3GP	PCB_ID0	I	Core(To:3.3V)	GPI
AD20	GPIO38	PCB_ID1	I	Core(To:3.3V)	GPI
AE20	GPIO39	PCB_ID2	I	Core(To:3.3V)	GPI
A14	GNT4#/GPIO48	PCI_GNT#4	I/O	Core(To:3.3V)	Native
AG24	GPIO49/CPUPWRGD	H_PWRGD	I	V_CPU_IO	Native

PCI Device	IDSEL#	REQ/GNT#	Interrupts
CARD READER	AD17	0	INTB-->INTB
1394	AD17	0	INTA-->INTA
LAN	AD16	REQ#2/GNT#2	INTA-->INTD

SM-Bus Device	SM-Bus Address
Clock Generator	1101001x (D2)
SO-DIMM 0	1010000x (A0)
SO-DIMM 1	1010001x (A2)
Thermal Sensor	0101110x (5C)

<Variant Name>

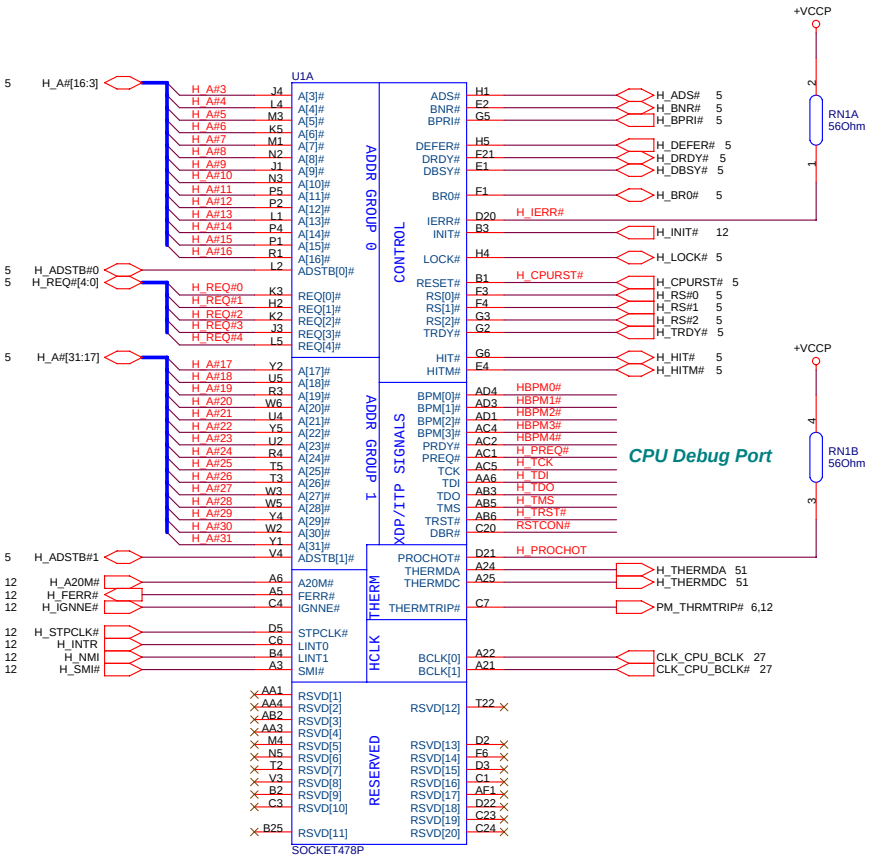
ASUSTek Computer INC.

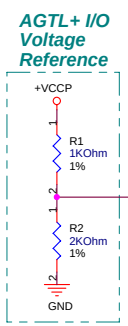
Title : System Setting

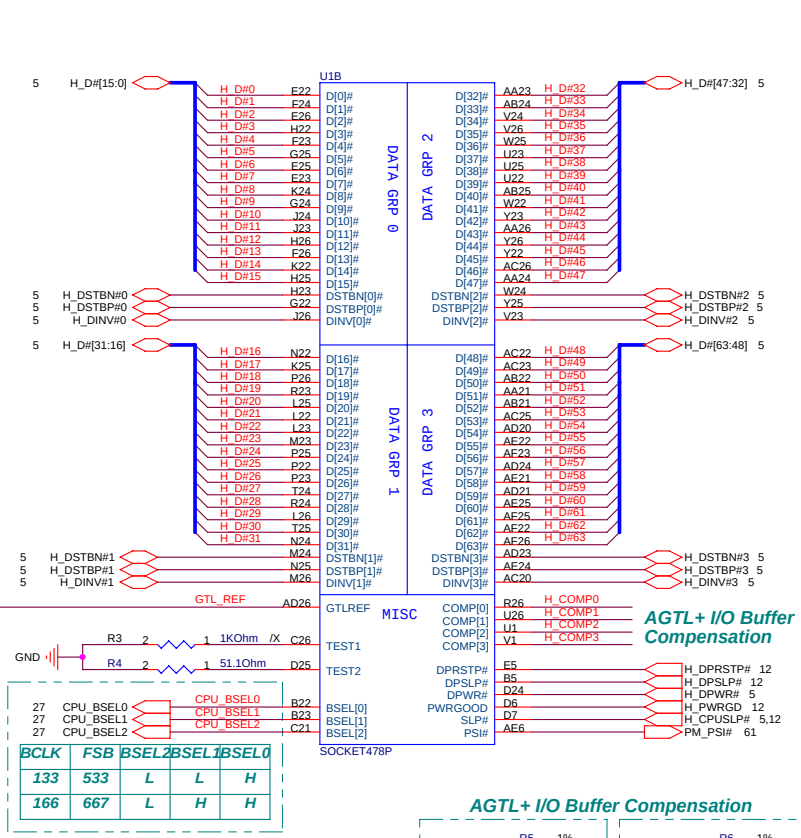
Engineer: Jack Hsu

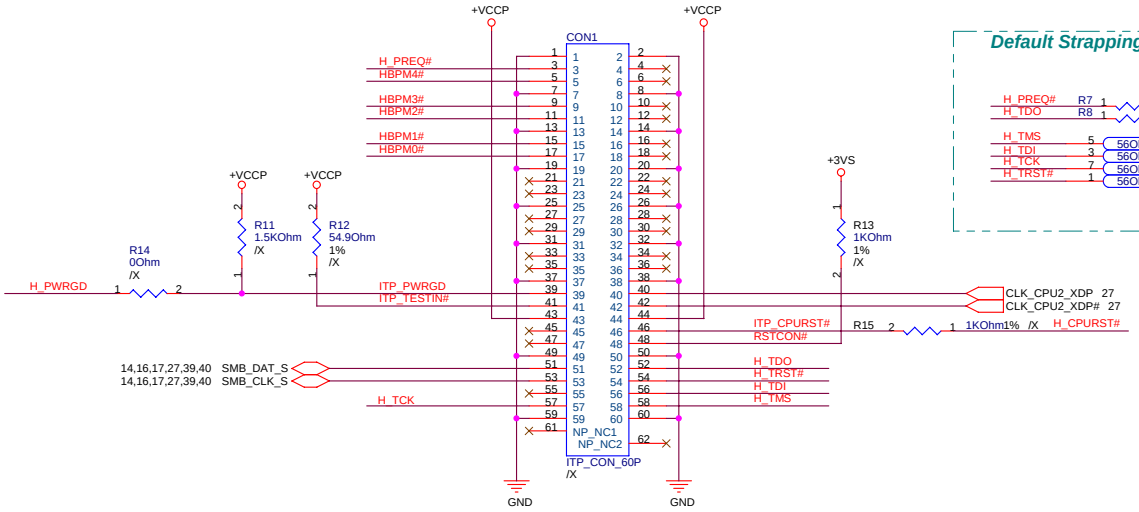
Size	Project Name	Rev
Custom	Z84J	1.1

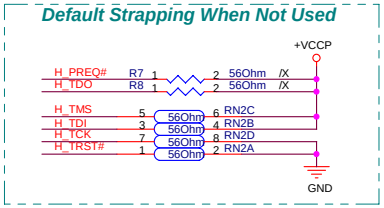
Date: Tuesday, October 10, 2006 Sheet 2 of 68

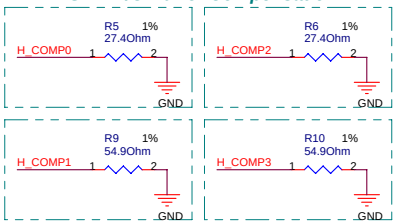












When ITP Port used STUFF : R7, R8, R11, R12, R13, R14, R15, KR8, KR9, KR25, KR28

<Variant Name>

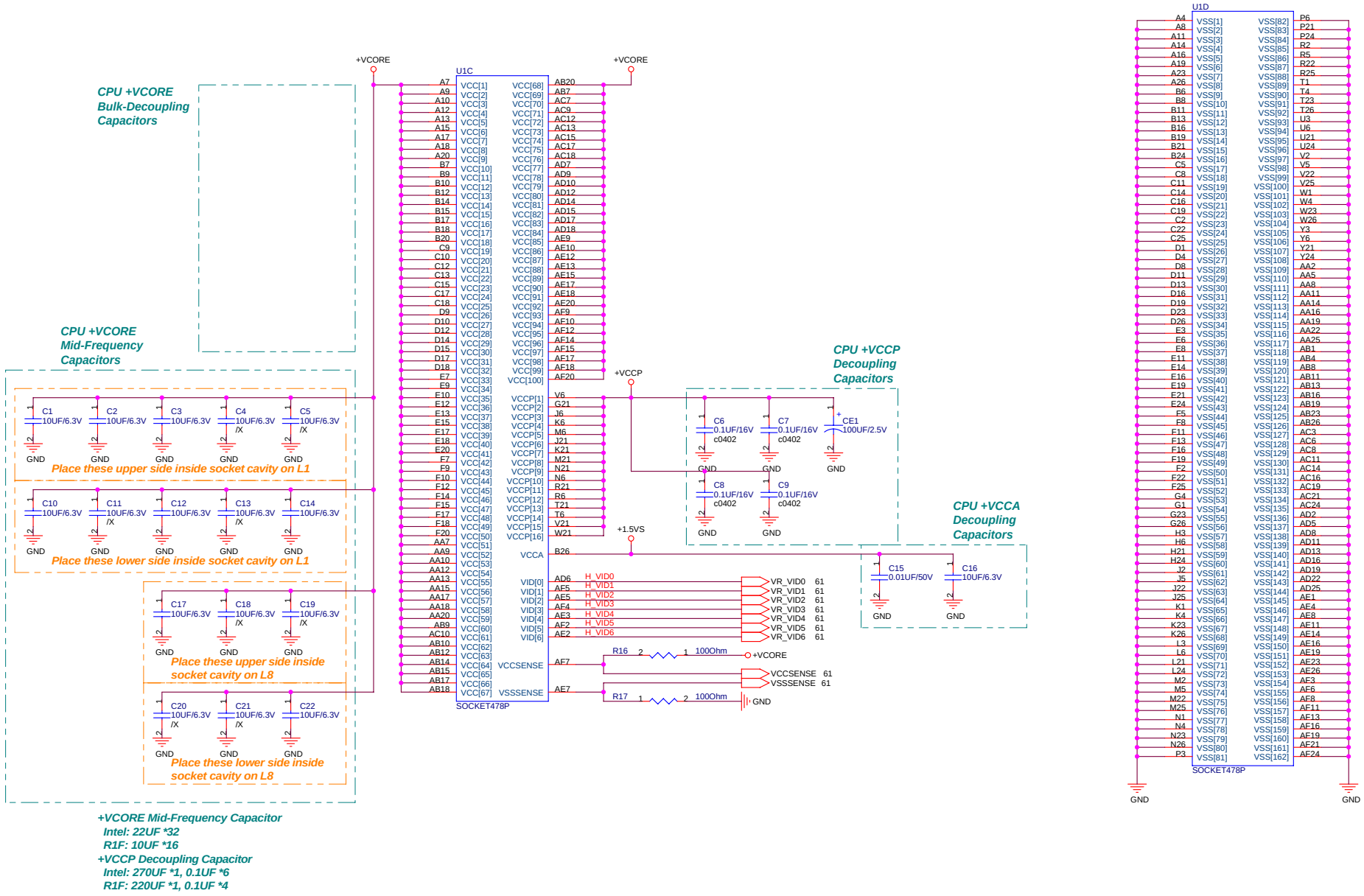
ASUSTek Computer INC.

Title : CPU - HOST

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 3 of 68



<Variant Name>

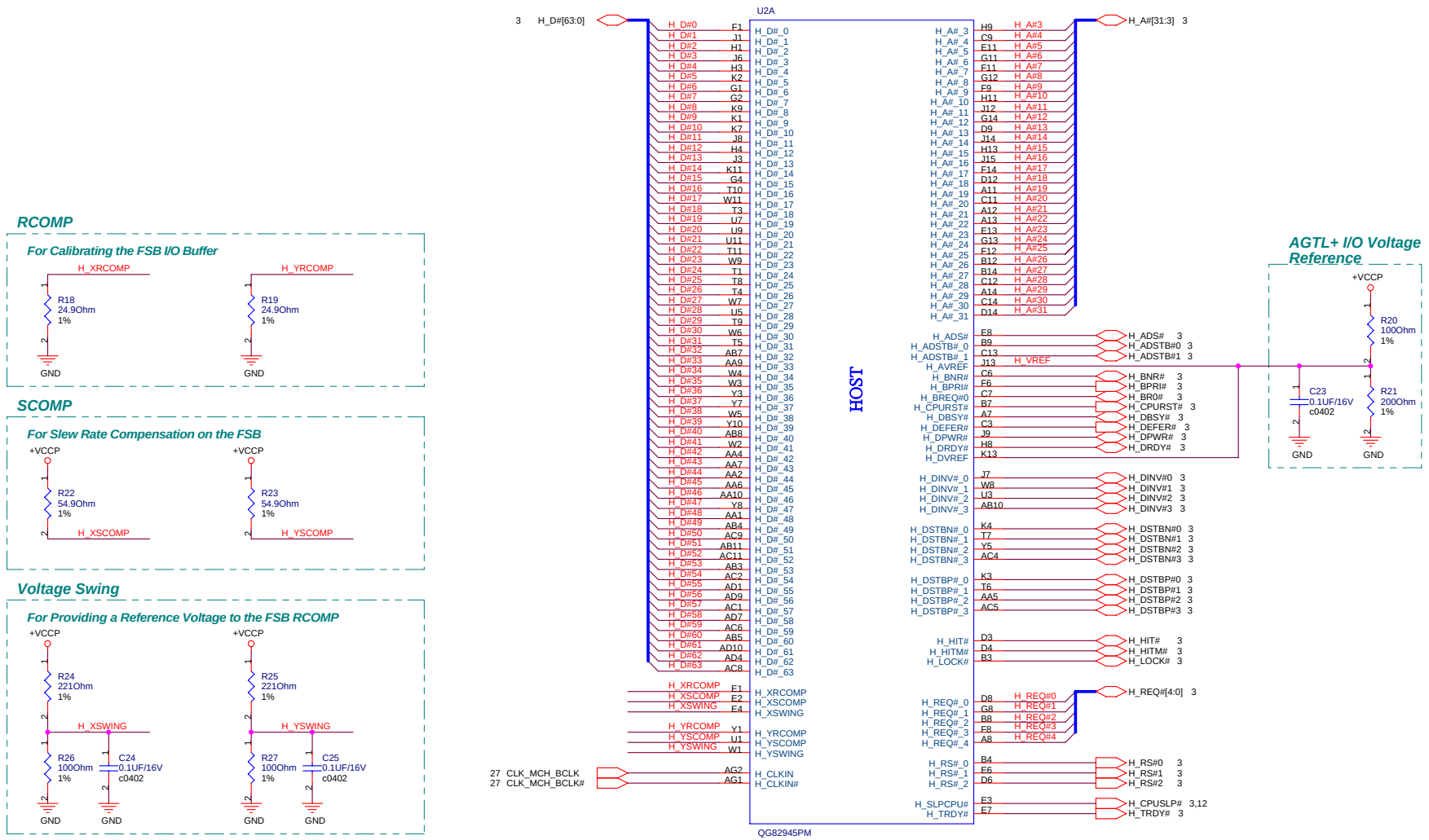
Title : CPU - PWR & GND

ASUSTek Computer INC.

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 4 of 68



<Variant Name>

Title : NB_945PM_HOST

ASUSTek Computer INC. Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 5 of 68

GMCH Strapping

CFG5 : DMI Strap

0 = DMI x2

1 = DMI x4 (D)

MCH_CFG_5 — R28 — /X 1KOhm — GND

CFG[13:12] : GMCH Test Mode

00= Partial CLK Gating Disable

01 = XOR Mode Enable

10 = All Z Mode Enable

11 = Normal Operation (D)

CFG7 : CPU Strap

0 = DT/Transpotable CPU

1 = Mobile CPU (D)

MCH_CFG_7 — R29 — /X 1KOhm — GND

CFG15 : ICH RESET Disable

0 = ICH Reset Disable

1 = Normal Operation (D)

MCH_CFG_15 — R30 — /X 1KOhm — GND

CFG9 : PCIE Graphic Lane

0 = Reverse Lane

1 = Normal Operation (D)

MCH_CFG_9 — R33 — /X 1KOhm — GND

CFG16 : FSB Dynamic ODT

0 = Dynamic ODT Disable

1 = Dynamic ODT Enable (D)

MCH_CFG_16 — R34 — /X 1KOhm — GND

CFG10 : HOST PLL VCO Select

0 = Reserved

1 = Mobility (D)

MCH_CFG_10 — R37 — /X 1KOhm — GND

CFG18 : VCC Select

0 = 1.05V (D)

1 = 1.5V

MCH_CFG_18 — R38 — /X 1KOhm — +2.5VS

CFG11 : PSB 4x CLK Enable

0 = 4x Enable

1 = 8x Enable (D)

MCH_CFG_11 — R40 — /X 1KOhm — GND

CFG19 : DMI Lane Reversal

0 = Normal Operation (D)

1 = Reverse Lane

MCH_CFG_19 — R41 — /X 1KOhm — +2.5VS

Note: CFG[17:3] have internal pull-up while CFG[20:18] have internal pull-down.

BCLK	FSB	BSEL2	BSEL1	BSEL0
133	533	L	L	H
166	667	L	H	H

27 MCH_BSEL0
27 MCH_BSEL1
27 MCH_BSEL2

U2B

RSVD: T32 RSVD_1, R32 RSVD_2, F3 RSVD_3, E7 RSVD_4, AG11 RSVD_5, AF11 RSVD_6, H7 RSVD_7, J19 RSVD_8, K30 TV_DCONSEL_0, J29 TV_DCONSEL_1, A41 RSVD_11, A35 RSVD_12, A34 RSVD_13, D28 RSVD_14, D27 RSVD_15

CFG: K16 CFG_0, K18 CFG_1, J18 CFG_2, F18 CFG_3, E15 CFG_4, F15 CFG_5, E18 CFG_6, D19 CFG_7, D16 CFG_8, G16 CFG_9, E16 CFG_10, D15 CFG_11, G15 CFG_12, K15 CFG_13, C15 CFG_14, H16 CFG_15, G18 CFG_16, H15 CFG_17, J25 CFG_18, K27 CFG_19, J26 CFG_20

MCH_CFG_5, MCH_CFG_7, MCH_CFG_9, MCH_CFG_10, MCH_CFG_11, MCH_CFG_15, MCH_CFG_16, MCH_CFG_18, MCH_CFG_19

1 T30 TPC26T

PM: G28 PM_BMBUSY#, F25 PM_EXTTS#_0, H26 PM_EXTTS#_1, G6 PM_THRMTRIP#, AH33 PWROK, AH34 RSTIN#

14 PM_BMBUSY#
R35 2 1 10KOhm r0402 PM_EXTTS#_0
R36 2 1 10KOhm r0402 PM_EXTTS#_1
3,12 PM_THRMTRIP#
14,28,61,66 VRM_PWRGD
+3VS
13,14,19,25,30,31,39,40 BUF_PLT_RST# — R39 1 2 100Ohm — RST_IN_MCH#

MISC: H28 SDVO_CTRLCLK, H27 SDVO_CTRLDATA, K28 ICH_SYNC#, H32 CLK_REQ#

13 MCH_ICH_SYNC#

NC: D1 NC0, C41 NC1, C1 NC2, BA41 NC3, BA40 NC4, BA39 NC5, BA3 NC6, BA2 NC7, BA1 NC8, B41 NC9, B2 NC10, AY41 NC11, AY1 NC12, AW41 NC13, AW1 NC14, A40 NC15, A4 NC16, A39 NC17, A3 NC18

QG82945PM

DDR MUXING: SM_CK_0 AY35, SM_CK_1 AR1, SM_CK_2 AW7, SM_CK_3 AW40 → M_CLK_DDR0 16, M_CLK_DDR1 16, M_CLK_DDR2 17, M_CLK_DDR3 17

SM_CK#_0 AW35, SM_CK#_1 AT1, SM_CK#_2 AY7, SM_CK#_3 AY40 → M_CLK_DDR#0 16, M_CLK_DDR#1 16, M_CLK_DDR#2 17, M_CLK_DDR#3 17

SM_CKE_0 AU20, SM_CKE_1 AT20, SM_CKE_2 BA29, SM_CKE_3 AY29 → M_CKE0 16,18, M_CKE1 16,18, M_CKE2 17,18, M_CKE3 17,18

SM_CS#_0 AW13, SM_CS#_1 AW12, SM_CS#_2 AY21, SM_CS#_3 AW21 → M_CS#0 16,18, M_CS#1 16,18, M_CS#2 17,18, M_CS#3 17,18

SM_OCDCOMP_0 AL20, SM_OCDCOMP_1 AF10

SM_ODT_0 BA13, SM_ODT_1 BA12, SM_ODT_2 AY20, SM_ODT_3 AU21 → M_ODT0 16,18, M_ODT1 16,18, M_ODT2 17,18, M_ODT3 17,18

SM_RCOMP# AV9 — R31 1 2 80.6Ohm 1% — +1.8V
SM_RCOMP AT9 — R32 1 2 80.6Ohm 1% — GND

SM_VREF_0 AK1, SM_VREF_1 AK41 — M_VREF_MCH → M_VREF_MCH 16,17,18

CLK: G_CLKIN# AE33, G_CLKIN AG33 → CLK_MCH_3GPLL# 27, CLK_MCH_3GPLL 27

D_REFCLKIN# A27, D_REFCLKIN A26 — D_REFCLKIN, C40, D_REFSSCLKIN# AH26, D_REFSSCLKIN D41 — D_REFSSCLKIN — GND

DMI: DMI_RXN_0 AE35, DMI_RXN_1 AE39, DMI_RXN_2 AG35, DMI_RXN_3 AH39 → DMI_TXN0, DMI_TXN1, DMI_TXN2, DMI_TXN3 → DMI_TXN[3:0] 13

DMI_RXP_0 AC35, DMI_RXP_1 AE39, DMI_RXP_2 AF35, DMI_RXP_3 AG39 → DMI_TXP0, DMI_TXP1, DMI_TXP2, DMI_TXP3 → DMI_TXP[0..3] 13

DMI_TXN_0 AE37, DMI_TXN_1 AE41, DMI_TXN_2 AG37, DMI_TXN_3 AH41 → DMI_RXN0, DMI_RXN1, DMI_RXN2, DMI_RXN3 → DMI_RXN[0..3] 13

DMI_TXP_0 AC37, DMI_TXP_1 AE41, DMI_TXP_2 AE37, DMI_TXP_3 AG41 → DMI_RXP0, DMI_RXP1, DMI_RXP2, DMI_RXP3 → DMI_RXP[0..3] 13

+1.5VS
R42 0Ohm — D_REFSSCLKIN
R43 0Ohm — D_REFCLKIN
R44 10KOhm r0402 /X — GND
R45 10KOhm r0402 /X — GND

M_VREF_MCH — C26 0.1UF/16V c0402 — GND; C27 1UF/10V — GND

<Variant Name>

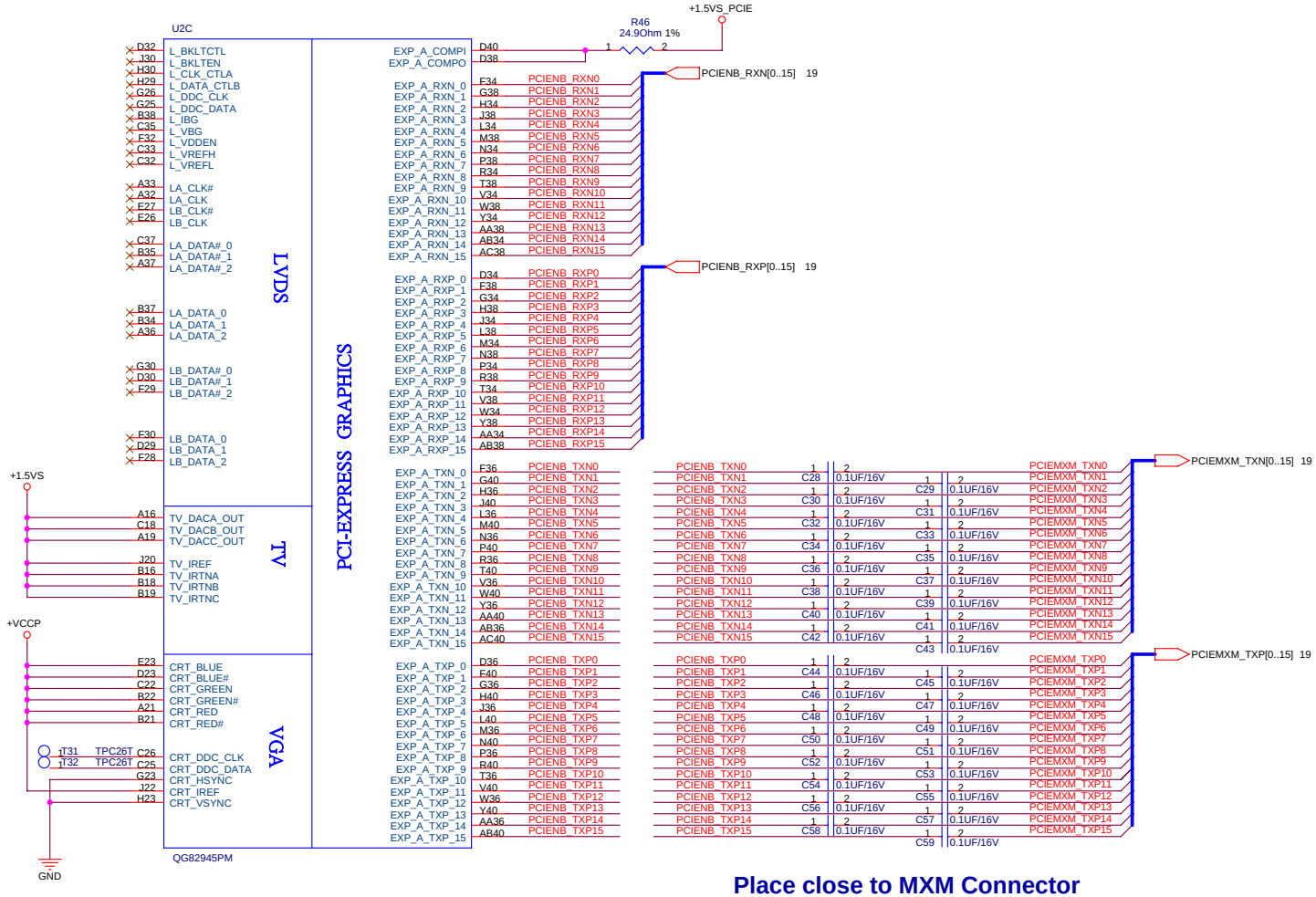
ASUSTek Computer INC.

Title : NB_945PM_DMI & CFG

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z84J	1.1

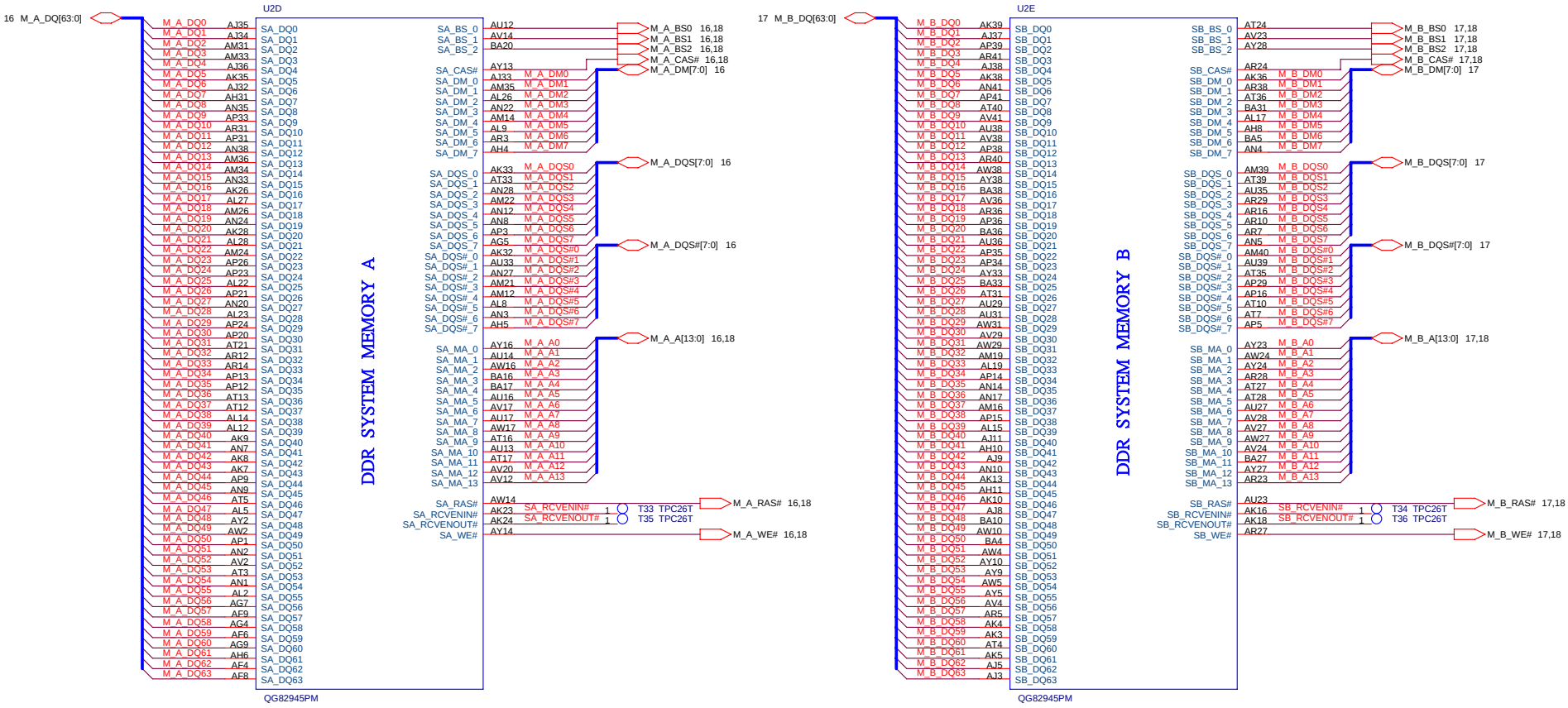
Date: Tuesday, October 10, 2006 Sheet 6 of 68



Place close to MXM Connector

<Variant Name>

ASUSTek Computer INC.	Title : NB_945PM_GRAPHIC	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 7 of 68	



<Variant Name>

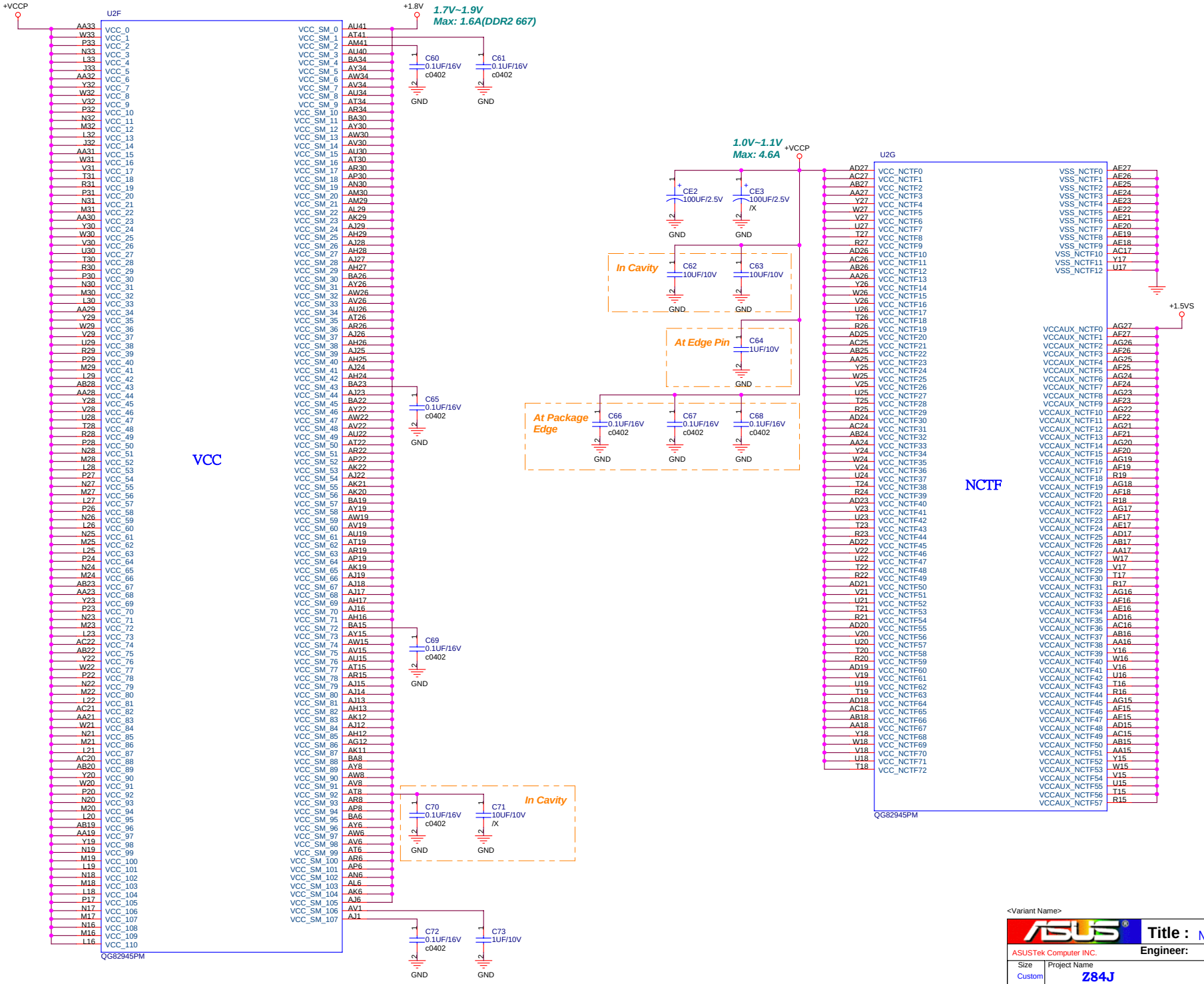
ASUSTek Computer INC.

Title : NB_945PM_DDR2

Engineer: Jack Hsu

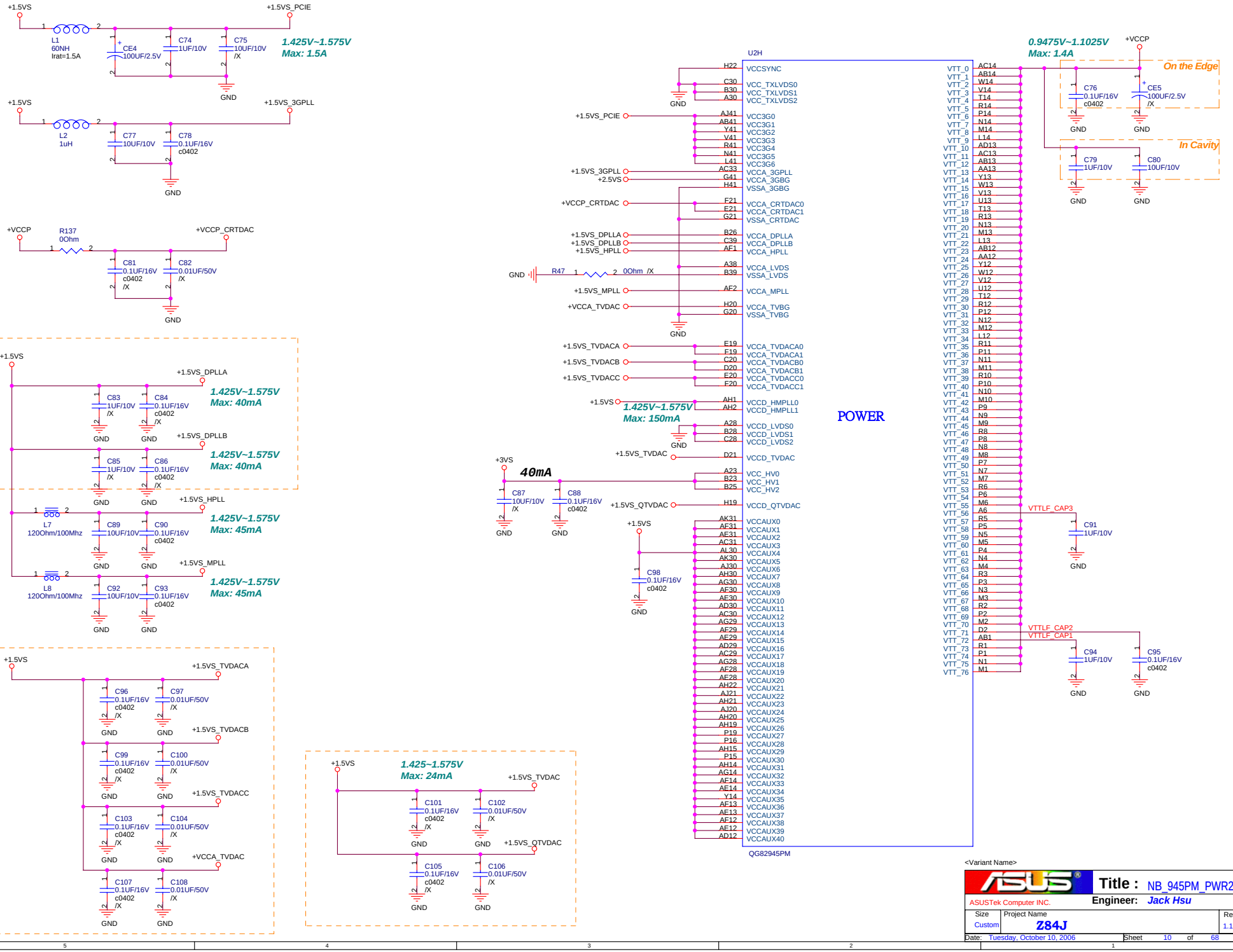
Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 8 of 68



<Variant Name>

ASUSTek Computer INC.	Title : NB_945PM_PWR1	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 9 of 68	



<Variant Name>

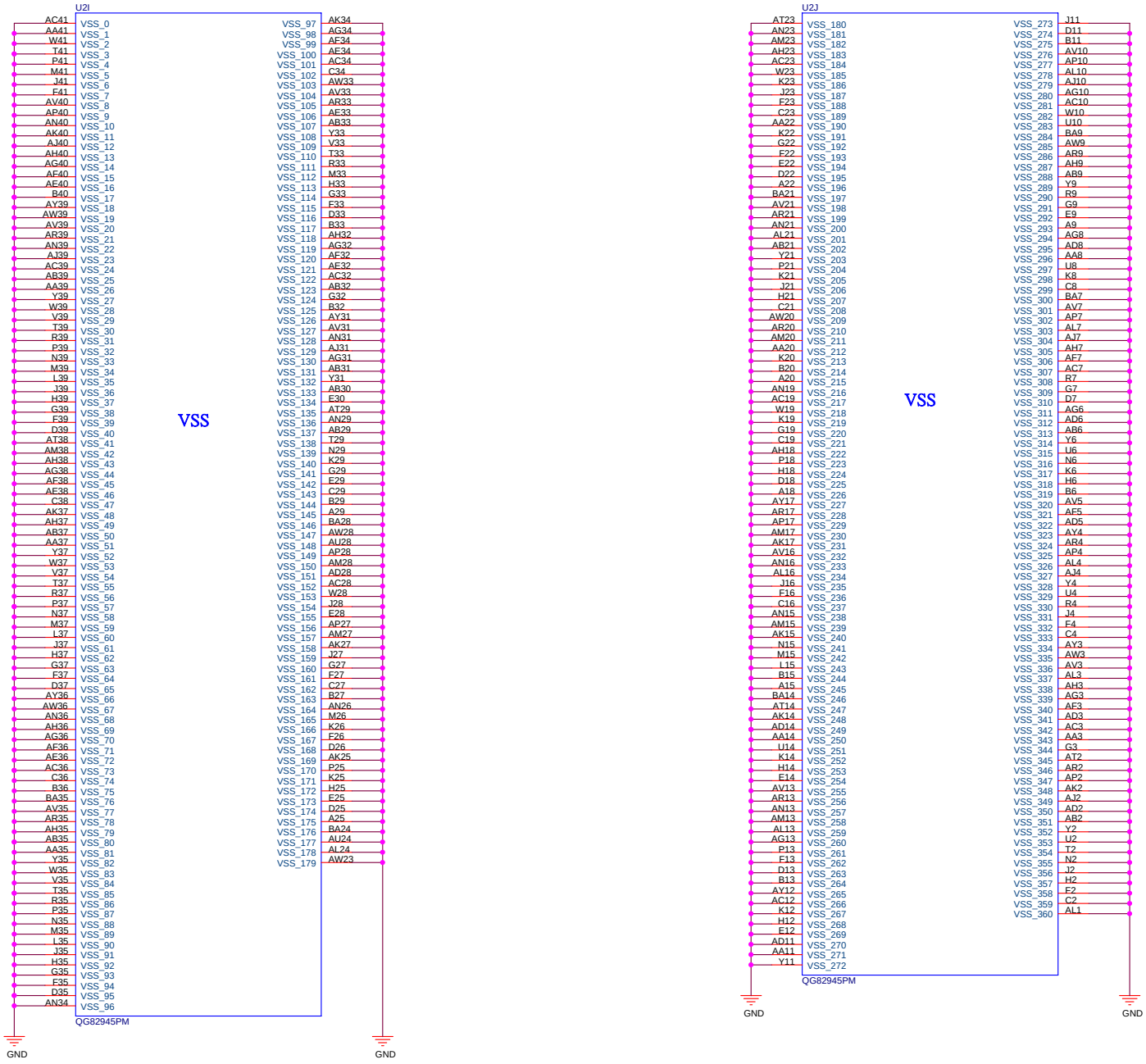
ASUSTek Computer INC.

Title : NB_945PM_PWR2

Engineer: Jack Hsu

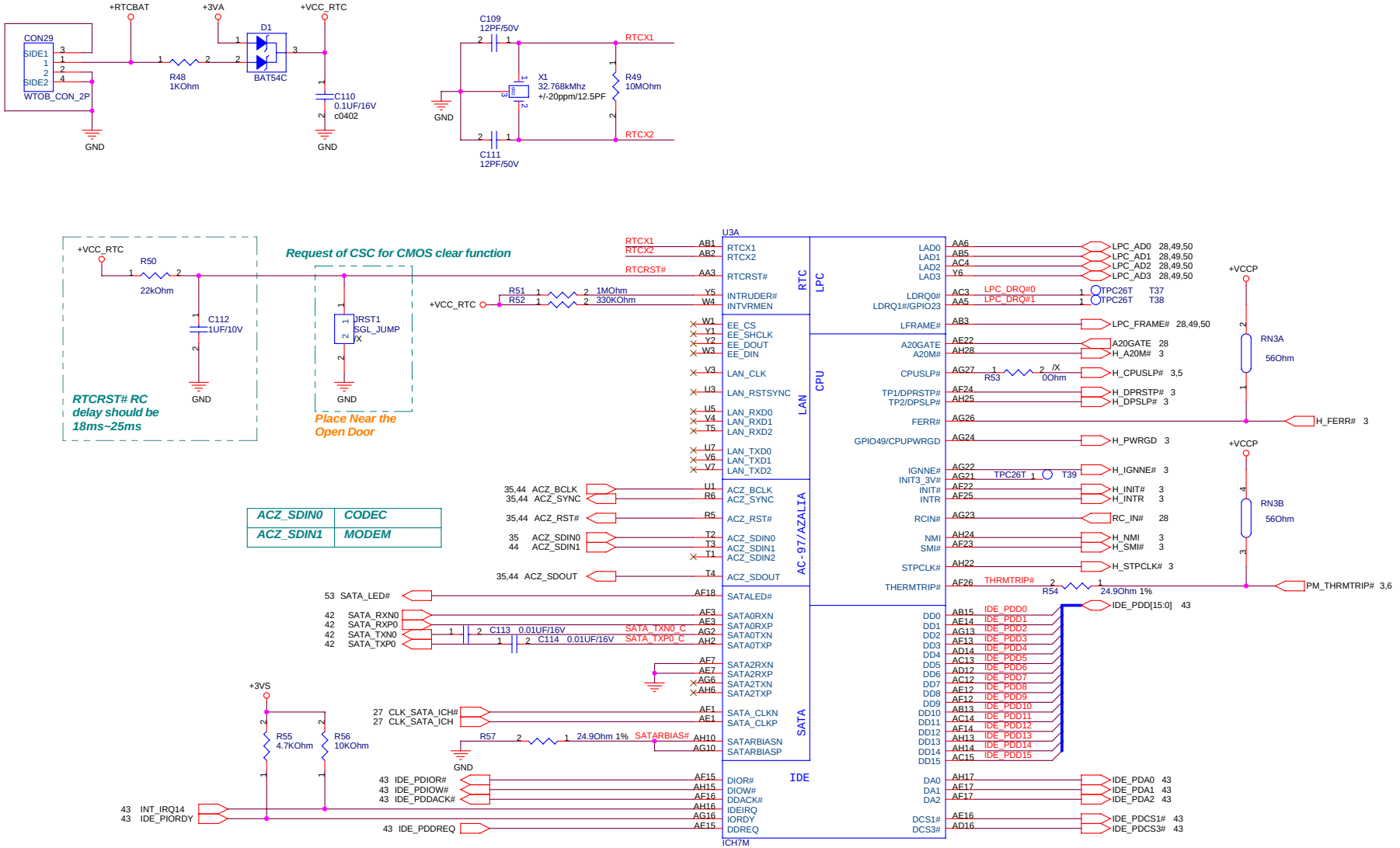
Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 10 of 68



<Variant Name>

ASUSTek Computer INC.	Title : NB_945PM_GND	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 11 of 68	



<Variant Name>

ASUSTek Computer INC.

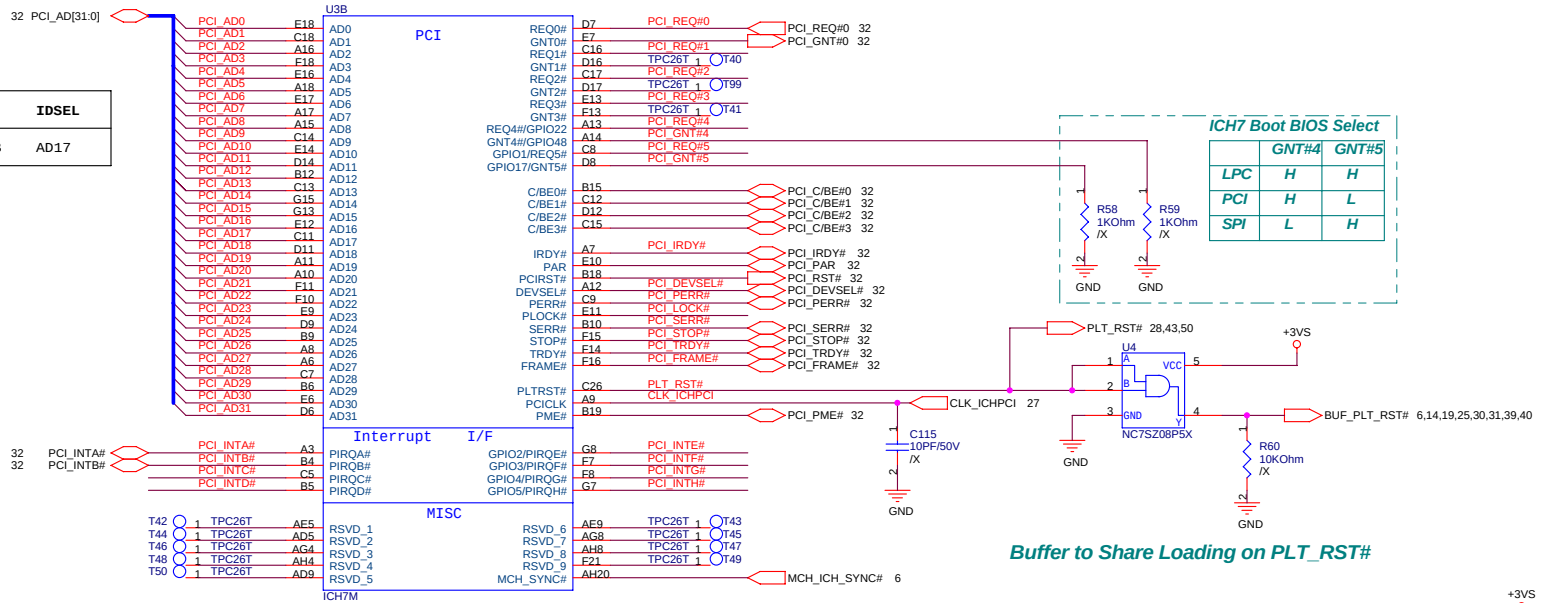
Title : SB_ICH7M_1

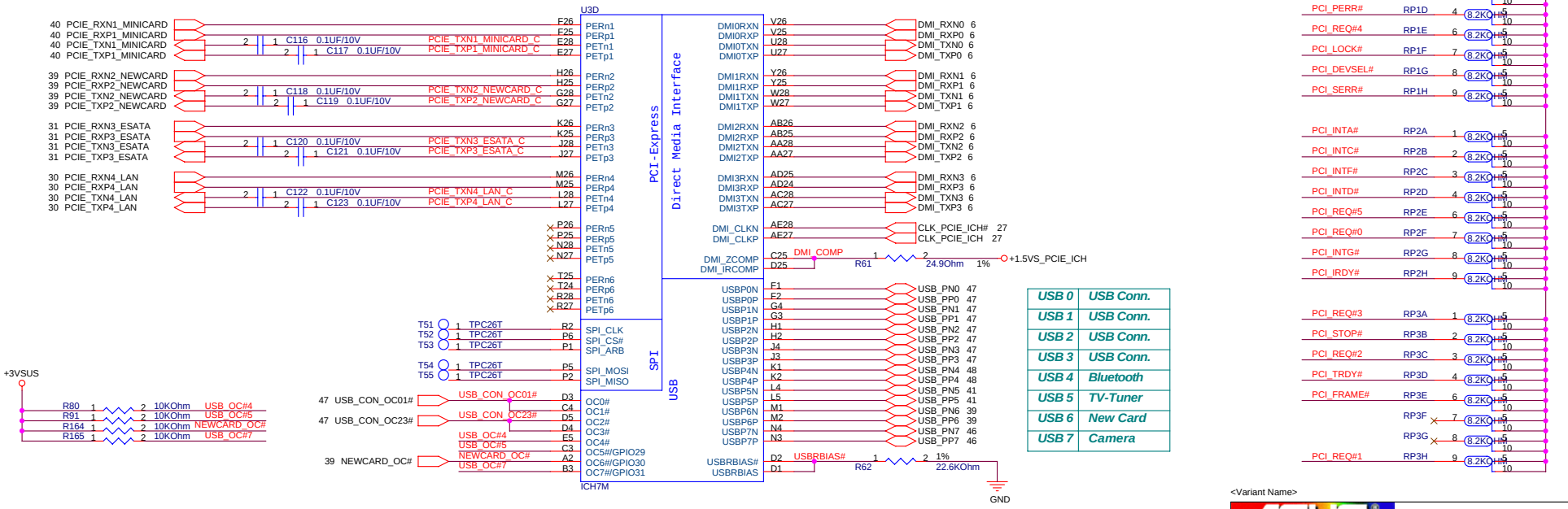
Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 12 of 68

PCI Device	REQ?#	GNT?#	INT?#	IDSEL
R5C832	PCI_REQ#0	PCI_GNT#0	INTA,B	AD17





USB 0	USB Conn.
USB 1	USB Conn.
USB 2	USB Conn.
USB 3	USB Conn.
USB 4	Bluetooth
USB 5	TV-Tuner
USB 6	New Card
USB 7	Camera

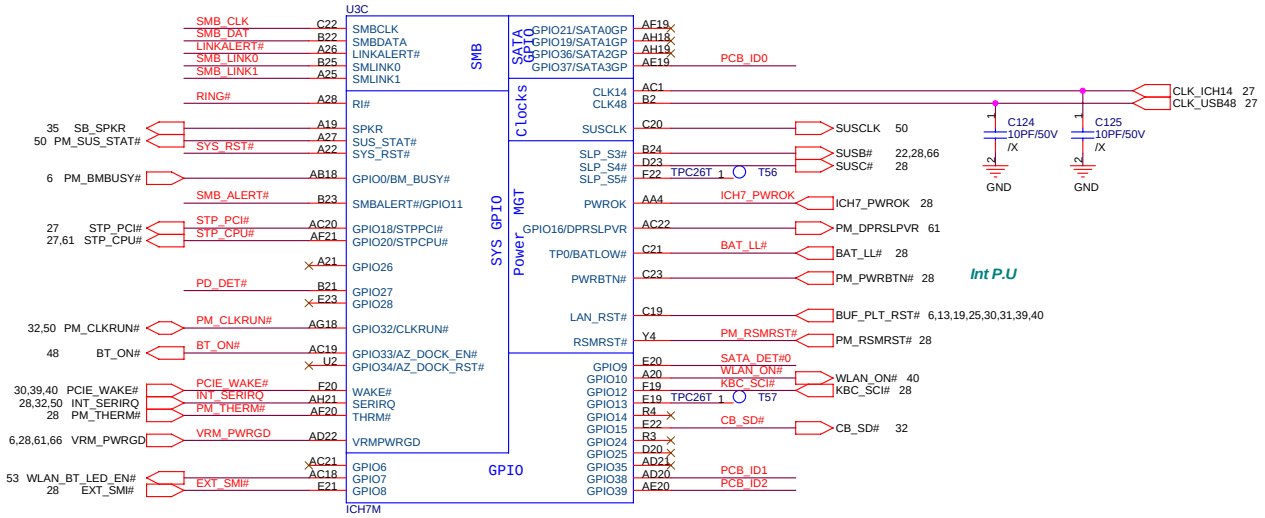
<Variant Name>

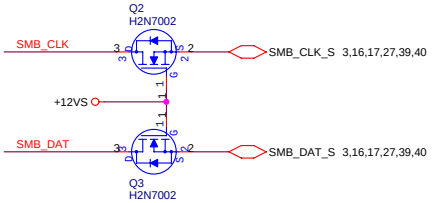
Title : SB_ICH7M_2

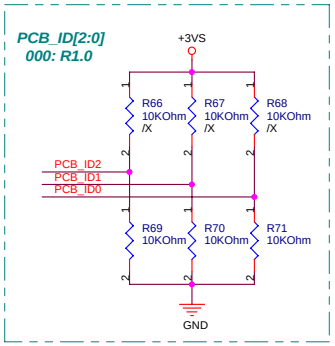
ASUSTek Computer INC. Engineer: Jack Hsu

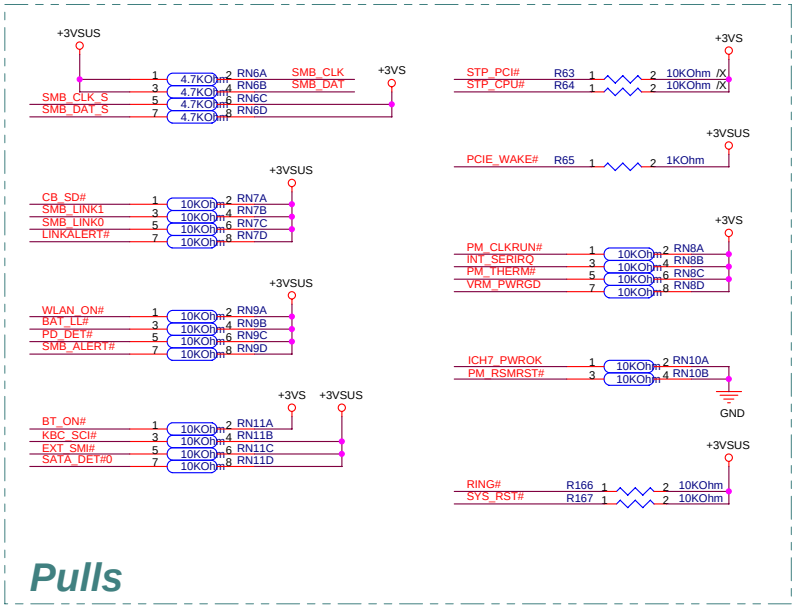
Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 13 of 68



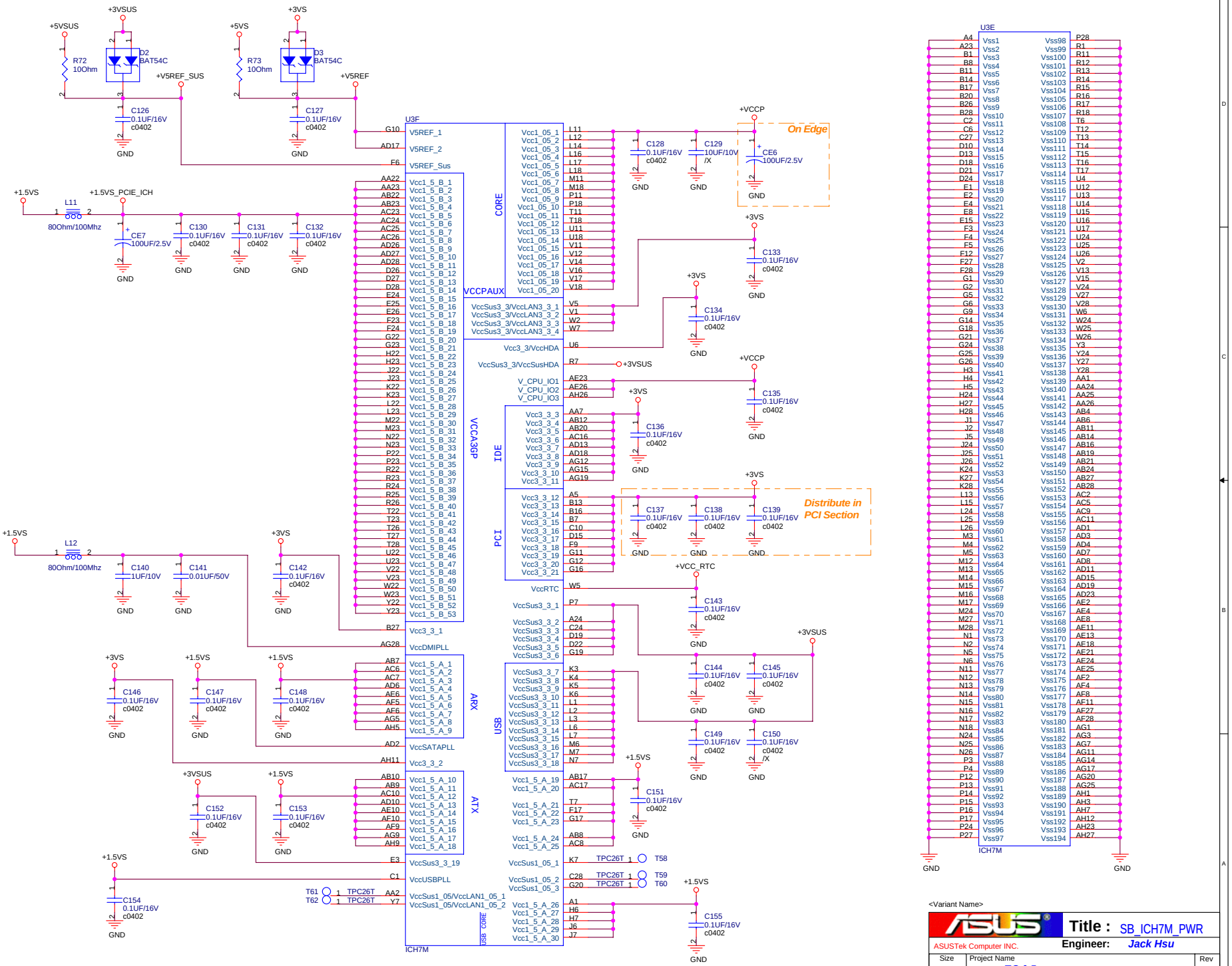






<variant_name>

ASUSTek Computer INC.	Title : SB_ICH7M_3	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 14 of 68	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+5VSUS
R72
10Ohm
D2
BAT54C
+5VREF_SUS
C126
0.1UF/16V
c0402
GND
+3VS
+5VS
R73
10Ohm
D3
BAT54C
+5VREF
C127
0.1UF/16V
c0402
GND
U3F
V5REF_1
V5REF_2
V5REF_Sus
Vcc1_5_B_1
Vcc1_5_B_2
Vcc1_5_B_3
Vcc1_5_B_4
Vcc1_5_B_5
Vcc1_5_B_6
Vcc1_5_B_7
Vcc1_5_B_8
Vcc1_5_B_9
Vcc1_5_B_10
Vcc1_5_B_11
Vcc1_5_B_12
Vcc1_5_B_13
Vcc1_5_B_14
Vcc1_5_B_15
Vcc1_5_B_16
Vcc1_5_B_17
Vcc1_5_B_18
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Vcc1_5_B_20
Vcc1_5_B_21
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Vcc1_5_A_2
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Vcc1_5_A_4
Vcc1_5_A_5
Vcc1_5_A_6
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Vcc1_5_A_9
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Vcc1_5_A_10
Vcc1_5_A_11
Vcc1_5_A_12
Vcc1_5_A_13
Vcc1_5_A_14
Vcc1_5_A_15
Vcc1_5_A_16
Vcc1_5_A_17
Vcc1_5_A_18
VccSus3_3_19
VccUSBPLL
VccSus1_05/VccLAN1_05_1
VccSus1_05/VccLAN1_05_2
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VCCAUXP
IDE
PCI
AUX
USB
ATX
USB CORE
ICH7M
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Vcc1_05_2
Vcc1_05_3
Vcc1_05_4
Vcc1_05_5
Vcc1_05_6
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Vcc1_05_16
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Vcc1_05_18
Vcc1_05_19
Vcc1_05_20
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VccSus3_3/VccLAN3_3_2
VccSus3_3/VccLAN3_3_3
VccSus3_3/VccLAN3_3_4
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VccSus3_3/VccSusHDA
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V_CPU_IO2
V_CPU_IO3
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Vcc1_5_A_21
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Vcc1_5_A_23
Vcc1_5_A_24
Vcc1_5_A_25
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VccSus1_05_3
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Vcc1_5_A_28
Vcc1_5_A_29
Vcc1_5_A_30
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T58
T59
T60
T61
T62
+1.5VS
+1.5VS_PCIE_ICH
L11
80Ohm/100Mhz
CE7
100UF/2.5V
C130
0.1UF/16V
c0402
C131
0.1UF/16V
c0402
C132
0.1UF/16V
c0402
L12
C140
1UF/10V
C141
0.01UF/50V
C142
0.1UF/16V
c0402
C146
0.1UF/16V
c0402
C147
0.1UF/16V
c0402
C148
0.1UF/16V
c0402
C152
0.1UF/16V
c0402
C153
0.1UF/16V
c0402
C154
0.1UF/16V
c0402
C128
0.1UF/16V
c0402
C129
10UF/10V
/X
+VCCP
On Edge
CE6
100UF/2.5V
C133
0.1UF/16V
c0402
C134
0.1UF/16V
c0402
C135
0.1UF/16V
c0402
C136
0.1UF/16V
c0402
C137
0.1UF/16V
c0402
C138
0.1UF/16V
c0402
C139
0.1UF/16V
c0402
Distribute in
PCI Section
+VCC_RTC
C143
0.1UF/16V
c0402
C144
0.1UF/16V
c0402
C145
0.1UF/16V
c0402
C149
0.1UF/16V
c0402
C150
0.1UF/16V
c0402
/X
C151
0.1UF/16V
c0402
C155
0.1UF/16V
c0402
U3E
ICH7M
Vss1
Vss2
Vss3
Vss4
Vss5
Vss6
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Vss8
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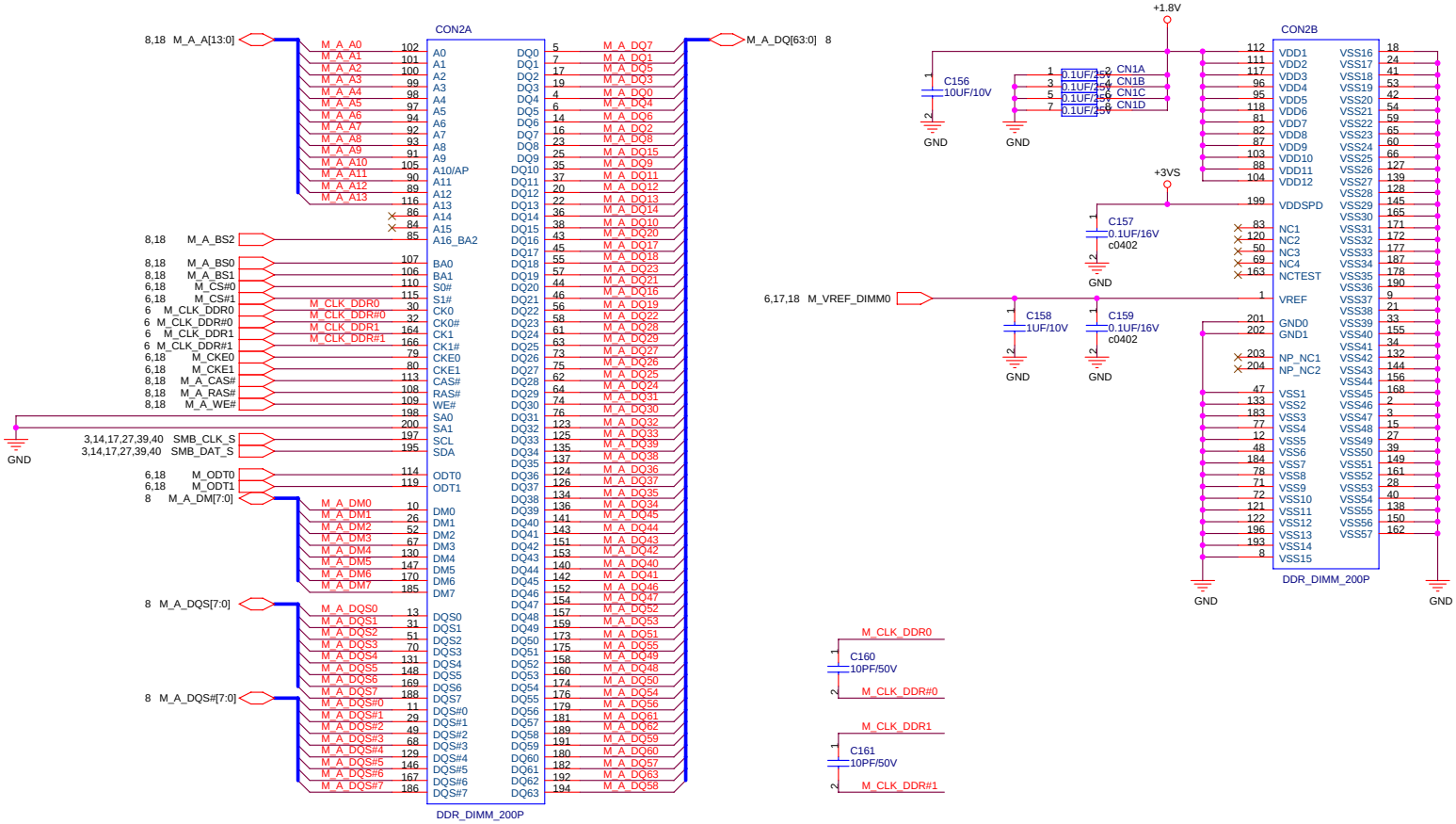
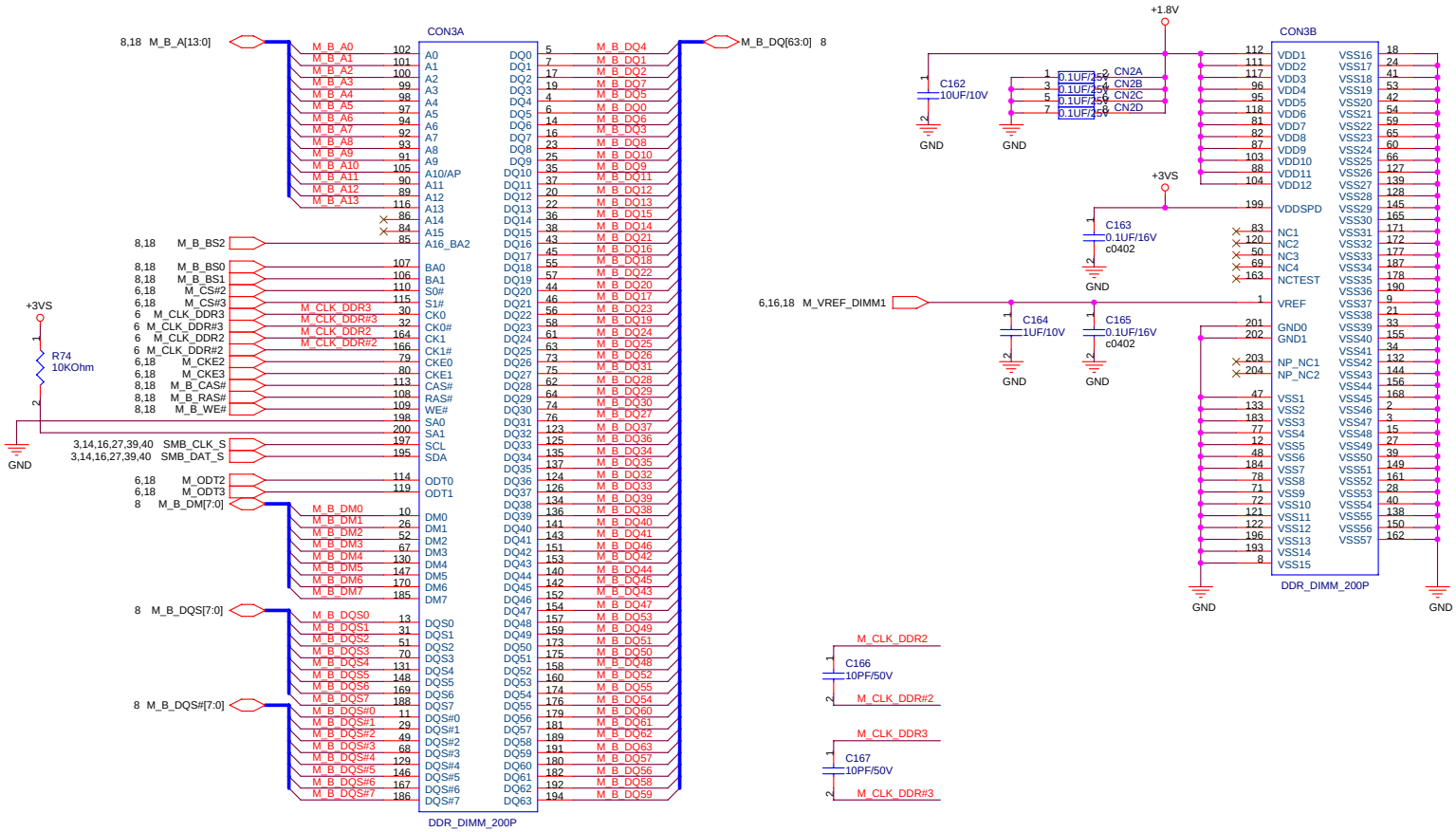
<Variant Name>
Title : SB_ICH7M_PWR
ASUSTek Computer INC.
Engineer: Jack Hsu
Size: Custom
Project Name: Z84J
Rev: 1.1
Date: Tuesday, October 10, 2006
Sheet 15 of 68



Standard Type SODIMM Connector H=9.2mm

<Variant Name>

ASUSTek Computer INC.	Title : DDR2 SO-DIMM0	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 16 of 68	



Standard Type SODIMM Connector H=5.2mm

<Variant Name>

ASUSTek Computer INC.	Title : DDR2 SO-DIMM1	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 17 of 68	

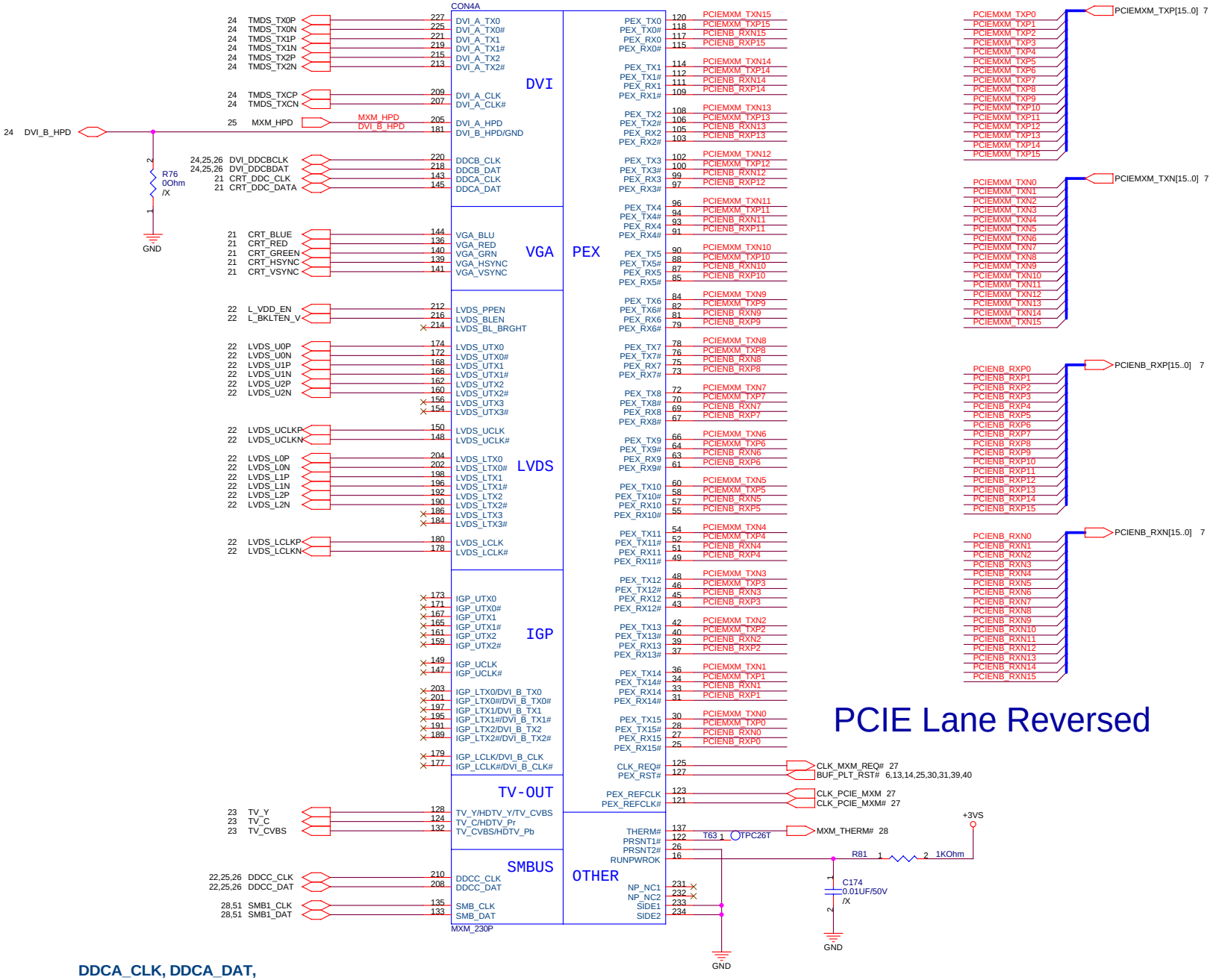
<Variant Name>

Title : DDR2 Termination

ASUSTek Computer INC. **Engineer:** *Jack Hsu*

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 18 of 68



PCIE Lane Reversed

DDCA_CLK, DDCA_DAT,
DDCB_CLK, DDCB_DAT,
DDCC_CLK, DDCC_DAT,
Should have 2.2K PULL-UP to +3.3V on MXM Module

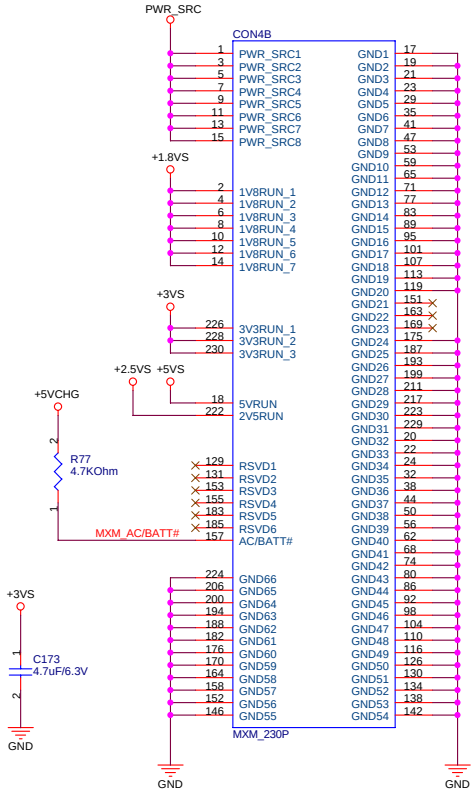
THERM# -- Open Collector Output, Active Low, 5V tolerant
CLK_REQ# -- Output, Open Drain, Active Low

<Variant Name>

ASUSTek Computer INC.	Title : MXM Interface	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 19 of 68	

MXM Connector Pin Definition

Pin #	Signal Name	Pin #	Signal Name	Pin #	Signal Name	Pin #	Signal Name	Pin #	Signal Name	Pin #	Signal Name
1	PWR_SRC	2	1V8RUN	111	PEX_RX1	112	PEX_TX1#	221	DVI_A_TX1	222	2V5RUN
3	PWR_SRC	4	1V8RUN	113	GND	114	PEX_TX1	223	GND	224	GND
5	PWR_SRC	6	1V8RUN	115	PEX_RX0#	116	GND	225	DVI_A_TX0#	226	3V3RUN
7	PWR_SRC	8	1V8RUN	117	PEX_RX0	118	PEX_TX0#	227	DVI_A_TX0	228	3V3RUN
9	PWR_SRC	10	1V8RUN	119	GND	120	PEX_TX0	229	GND	230	3V3RUN
11	PWR_SRC	12	1V8RUN	121	PEX_REFCLK#	122	PRSNT1#				
13	PWR_SRC	14	1V8RUN	123	PEX_REFCLK	124	TV_C/HDTV_Pr				
15	PWR_SRC	16	RUNPWROK	125	CLK_REQ#	126	GND				
17	GND	18	5VRUN	127	PEX_RST#	128	TV_Y/HDTV_Y/TV_CVBS				
19	GND	20	GND	129	RSVD	130	GND				
21	GND	22	GND	131	RSVD	132	TV_CVBS/HDTV_Pb				
23	GND	24	GND	133	SMB_DAT	134	GND				
25	PEX_RX15#	26	PRSNT2#	135	SMB_CLK	136	VGA_RED				
27	PEX_RX15	28	PEX_TX15#	137	THERM#	138	GND				
29	GND	30	PEX_TX15	139	VGA_HSYNC	140	VGA_GRN				
31	PEX_RX14#	32	GND	141	VGA_VSYNC	142	GND				
33	PEX_RX14	34	PEX_TX14#	143	DDCA_CLK	144	VGA_BLU				
35	GND	36	PEX_TX14	145	DDCA_DAT	146	GND				
37	PEX_RX13#	38	GND	147	IGP	148	LVDS_UCLK#				
39	PEX_RX13	40	PEX_TX13#	149	IGP	150	LVDS_UCLK				
41	GND	42	PEX_TX13	151	IGP	152	GND				
43	PEX_RX12#	44	GND	153	RSVD	154	LVDS_UTX3#				
45	PEX_RX12	46	PEX_TX12#	155	RSVD	156	LVDS_UTX3				
47	GND	48	PEX_TX12	157	AC/BATT#	158	GND				
49	PEX_RX11#	50	GND	159	IGP	160	LVDS_UTX2#				
51	PEX_RX11	52	PEX_TX11#	161	IGP	162	LVDS_UTX2				
53	GND	54	PEX_TX11	163	IGP	164	GND				
55	PEX_RX10#	56	GND	165	IGP	166	LVDS_UTX1#				
57	PEX_RX10	58	PEX_TX10#	167	IGP	168	LVDS_UTX1				
59	GND	60	PEX_TX10	169	IGP	170	GND				
61	PEX_RX9#	62	GND	171	IGP	172	LVDS_UTX0#				
63	PEX_RX9	64	PEX_TX9#	173	IGP	174	LVDS_UTX0				
65	GND	66	PEX_TX9	175	GND	176	GND				
67	PEX_RX8#	68	GND	177	IGP/DVI_B_CLK#	178	LVDS_LCLK#				
69	PEX_RX8	70	PEX_TX8#	179	IGP/DVI_B_CLK	180	LVDS_LCLK				
71	GND	72	PEX_TX8	181	DVI_B_HPD/GND	182	GND				
73	PEX_RX7#	74	GND	183	RSVD	184	LVDS_LTX3#				
75	PEX_RX7	76	PEX_TX7#	185	RSVD	186	LVDS_LTX3				
77	GND	78	PEX_TX7	187	GND	188	GND				
79	PEX_RX6#	80	GND	189	IGP/DVI_B_TX2#	190	LVDS_LTX2#				
81	PEX_RX6	82	PEX_TX6#	191	IGP/DVI_B_TX2	192	LVDS_LTX2				
83	GND	84	PEX_TX6	193	GND	194	GND				
85	PEX_RX5#	86	GND	195	IGP/DVI_B_TX1#	196	LVDS_LTX1#				
87	PEX_RX5	88	PEX_TX5#	197	IGP/DVI_B_TX1	198	LVDS_LTX1				
89	GND	90	PEX_TX5	199	GND	200	GND				
91	PEX_RX4#	92	GND	201	IGP/DVI_B_TX0#	202	LVDS_LTX0#				
93	PEX_RX4	94	PEX_TX4#	203	IGP/DVI_B_TX0	204	LVDS_LTX0				
95	GND	96	PEX_TX4	205	DVI_A_HPD	206	GND				
97	PEX_RX3#	98	GND	207	DVI_A_CLK#	208	DDCC_DAT				
99	PEX_RX3	100	PEX_TX3#	209	DVI_A_CLK	210	DDCC_CLK				
101	GND	102	PEX_TX3	211	GND	212	LVDS_PPEN				
103	PEX_RX2#	104	GND	213	DVI_A_TX2#	214	LVDS_BL_BRGHT				
105	PEX_RX2	106	PEX_TX2#	215	DVI_A_TX2	216	LVDS_BLEN				
107	GND	108	PEX_TX2	217	GND	218	DDCB_DAT				
109	PEX_RX1#	110	GND	219	DVI_A_TX1#	220	DDCB_CLK				



AC/BATT# : Input, 10K PULL-DOWN on Module.
0= nominal performance
1=high performance

<Variant Name>

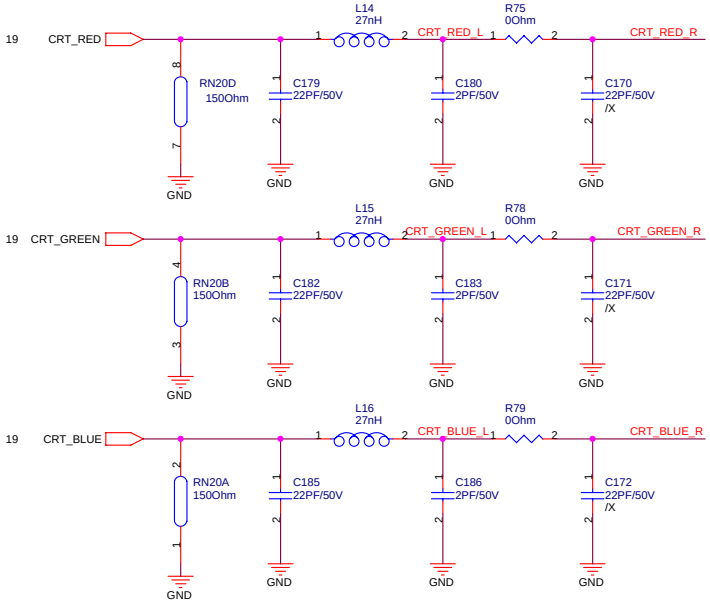
ASUSTek Computer INC.

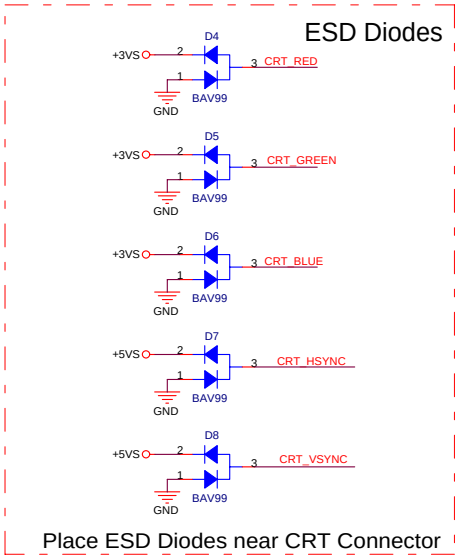
Title : MXM PWR & GND

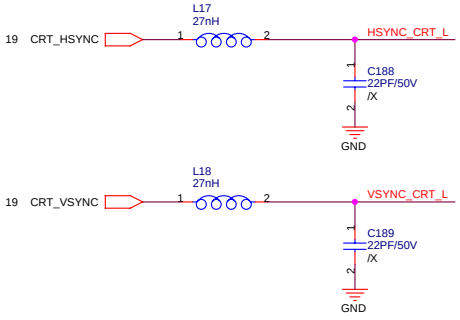
Engineer: Jack Hsu

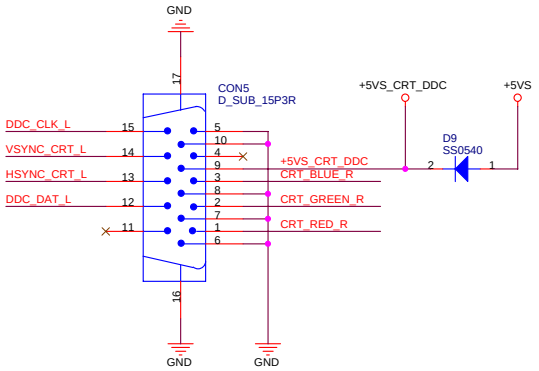
Size	Project Name	Rev
Custom	Z84J	1.1

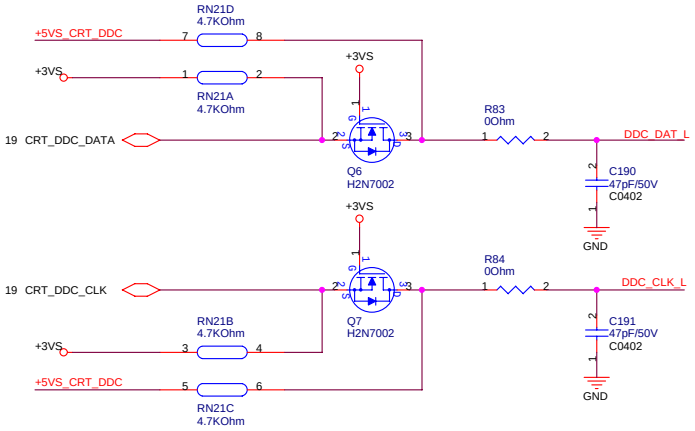
Date: Tuesday, October 10, 2006 Sheet 20 of 68











CRT Connector

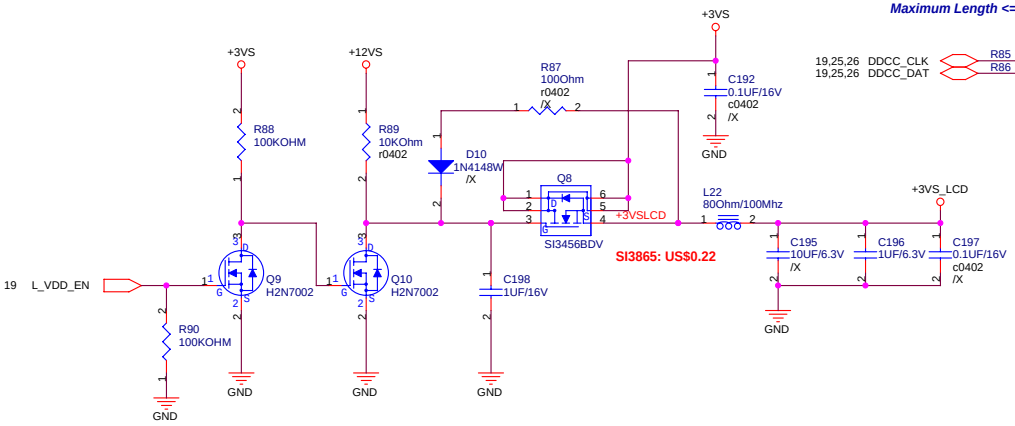
<Variant Name>

ASUSTek Computer INC.	Title : CRT Connector	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 21 of 68	

LCD Power

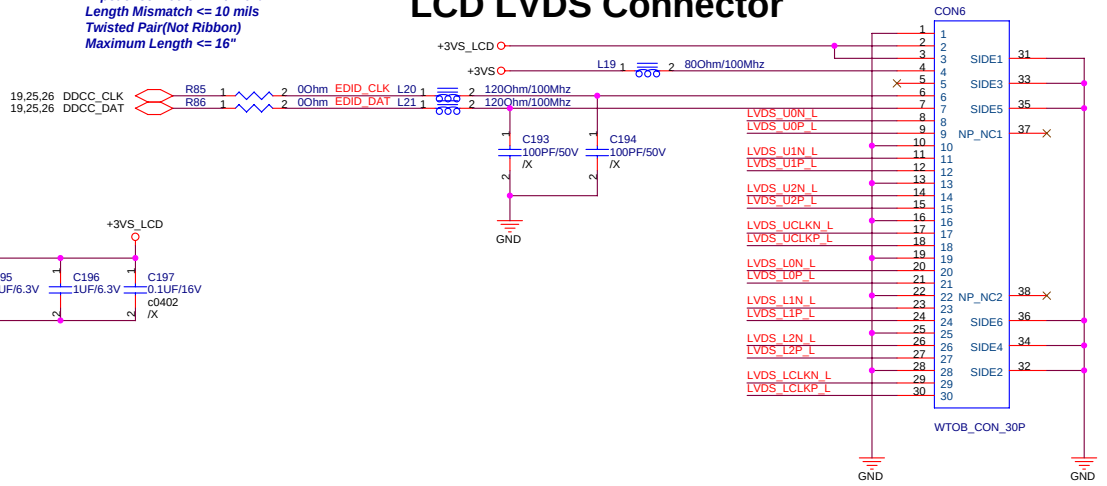
3-3.6V S0-S1M:410 mA(500 mA Max.)

Cable Requirement:
Impedence: 100 ohm +/- 10%
Length Mismatch <= 10 mils
Twisted Pair(Not Ribbon)
Maximum Length <= 16"



SI3865: US$0.22

LCD LVDS Connector



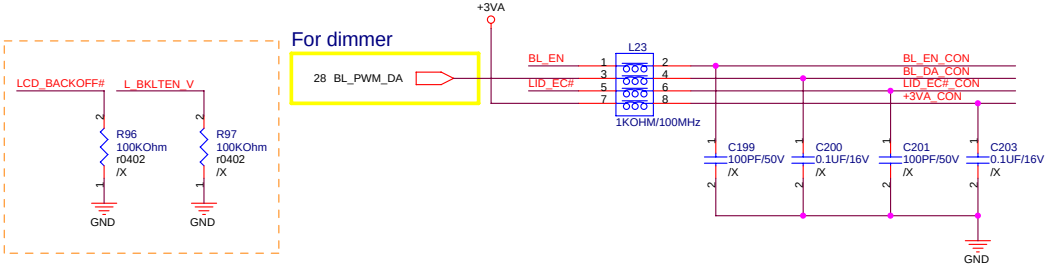
LCD Backlight Control

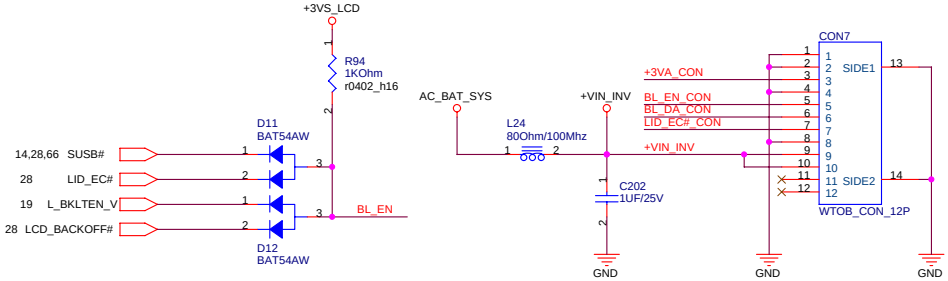
INVERTER Connector

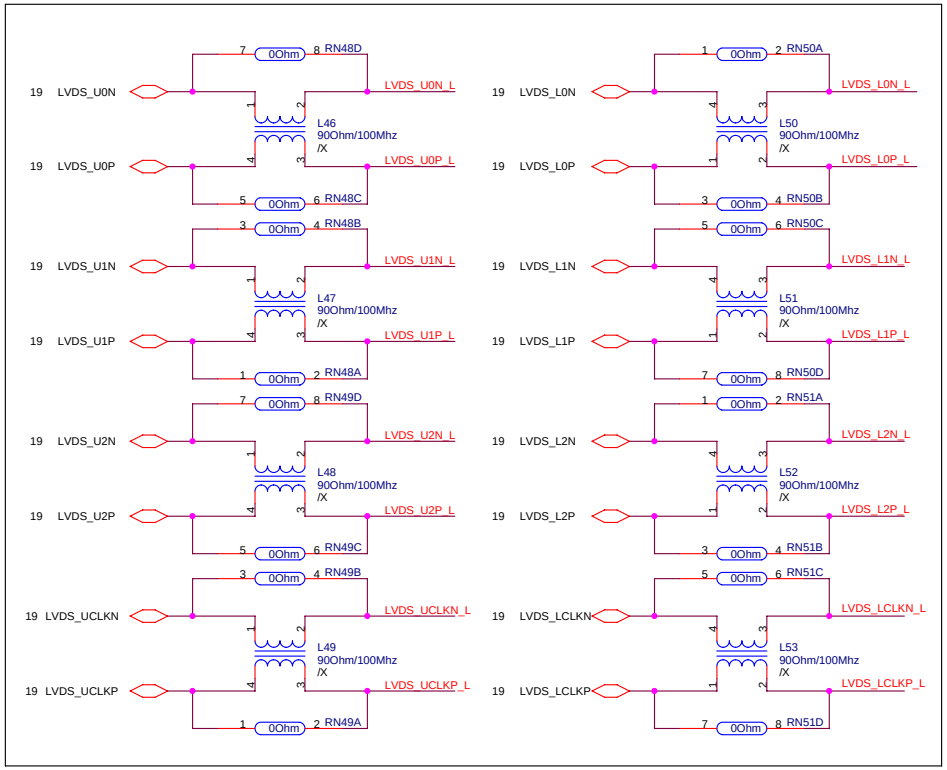
BIOS
LCD_BACKOFF#:
When user push "Fn+F7" button, BIOS active this pin to turn off back light.

PANEL ID1 = 1 : WSXGA+ 1680x1050
PANEL ID1 = 0 : WXGA 1280x800

PANEL ID0 RESERVED FOR VENDOR







<Variant Name>

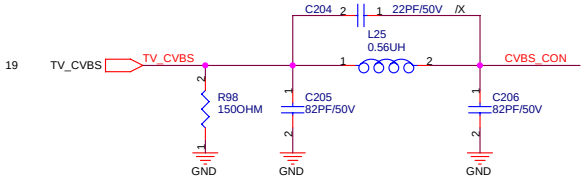
Title : LVDS & Inverter Conn.

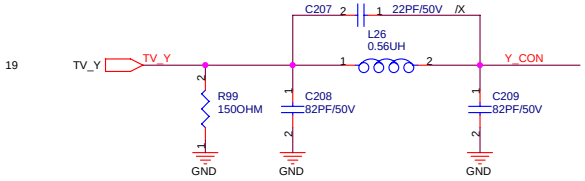
ASUSTek Computer INC. **Engineer:** *Jack Hsu*

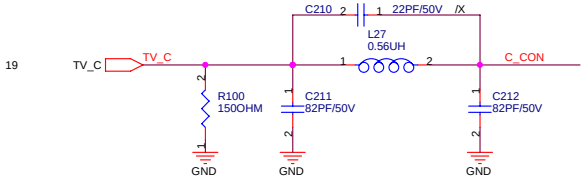
Size	Project Name	Rev
Custom	Z84J	1.1

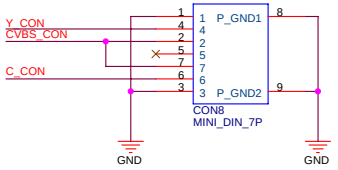
Date: Tuesday, October 10, 2006 Sheet 22 of 68

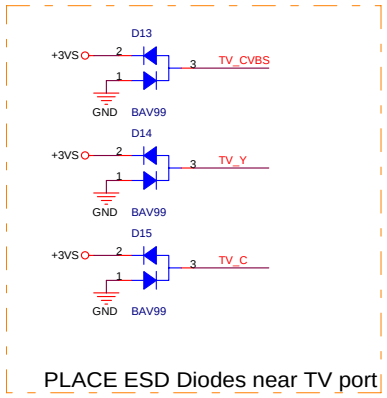
TV OUT Connector







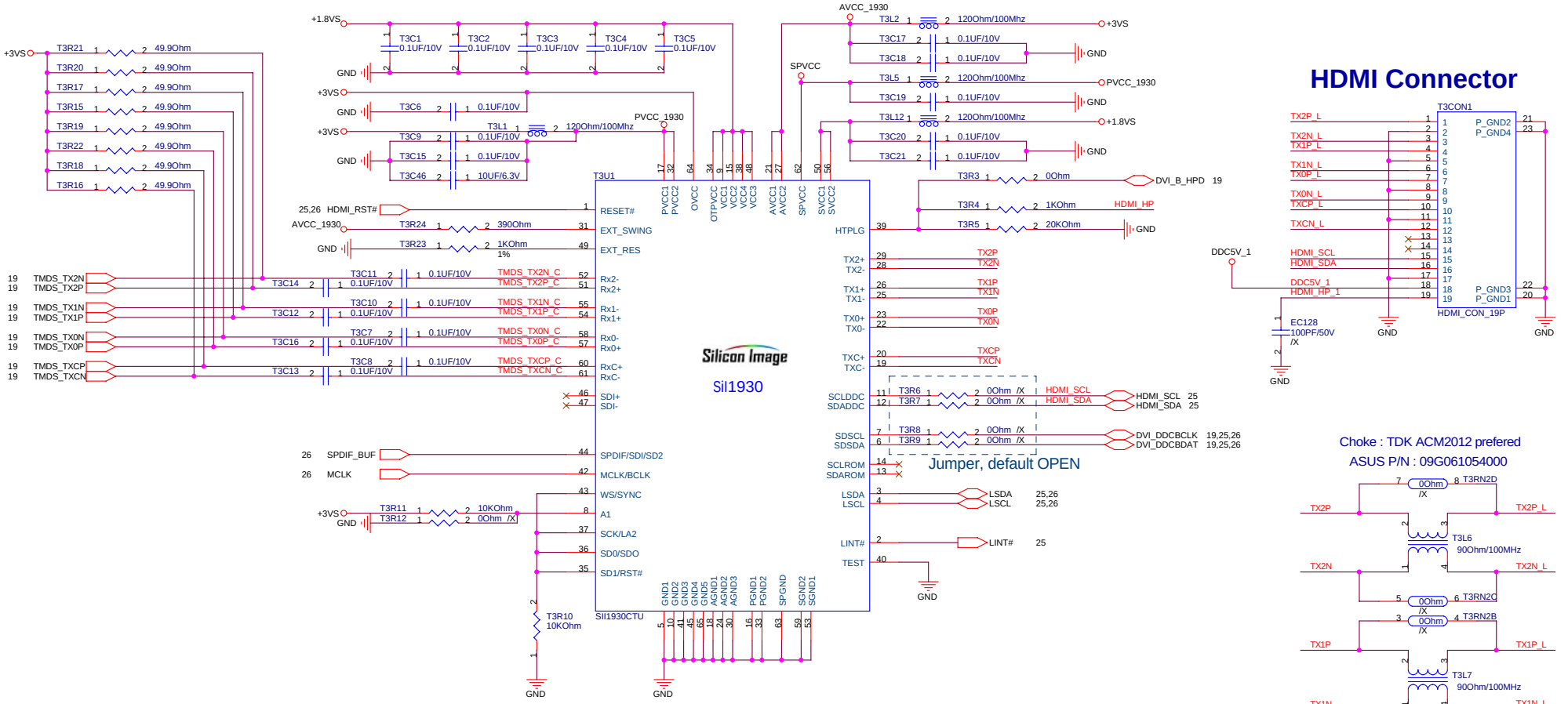




<variant_name>

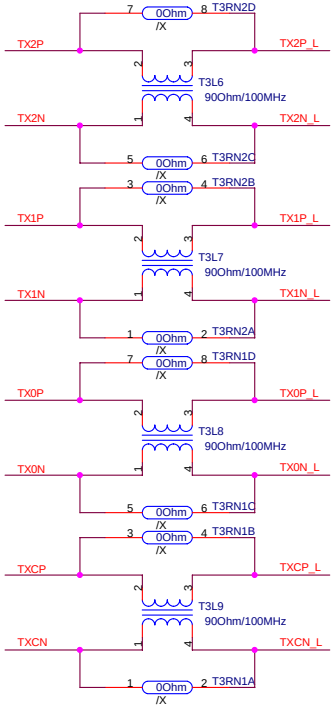
ASUSTek Computer INC.	Title : TV-OUT Connector	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 23 of 68	

HDMI Transmitter



HDMI Connector

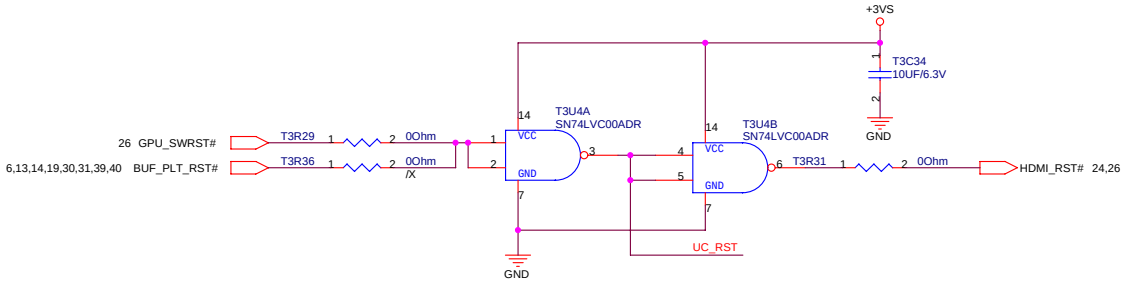
Choke : TDK ACM2012 prefered
ASUS P/N : 09G061054000

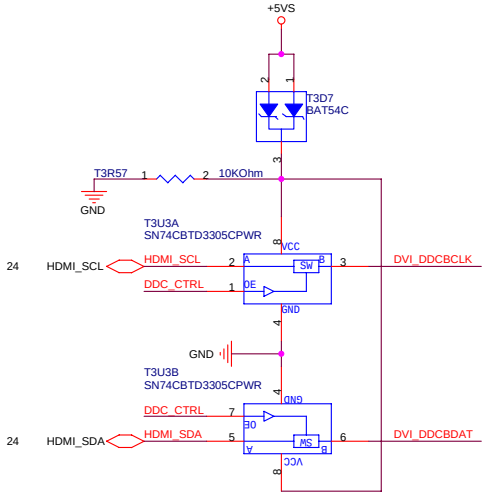


<Variant Name>

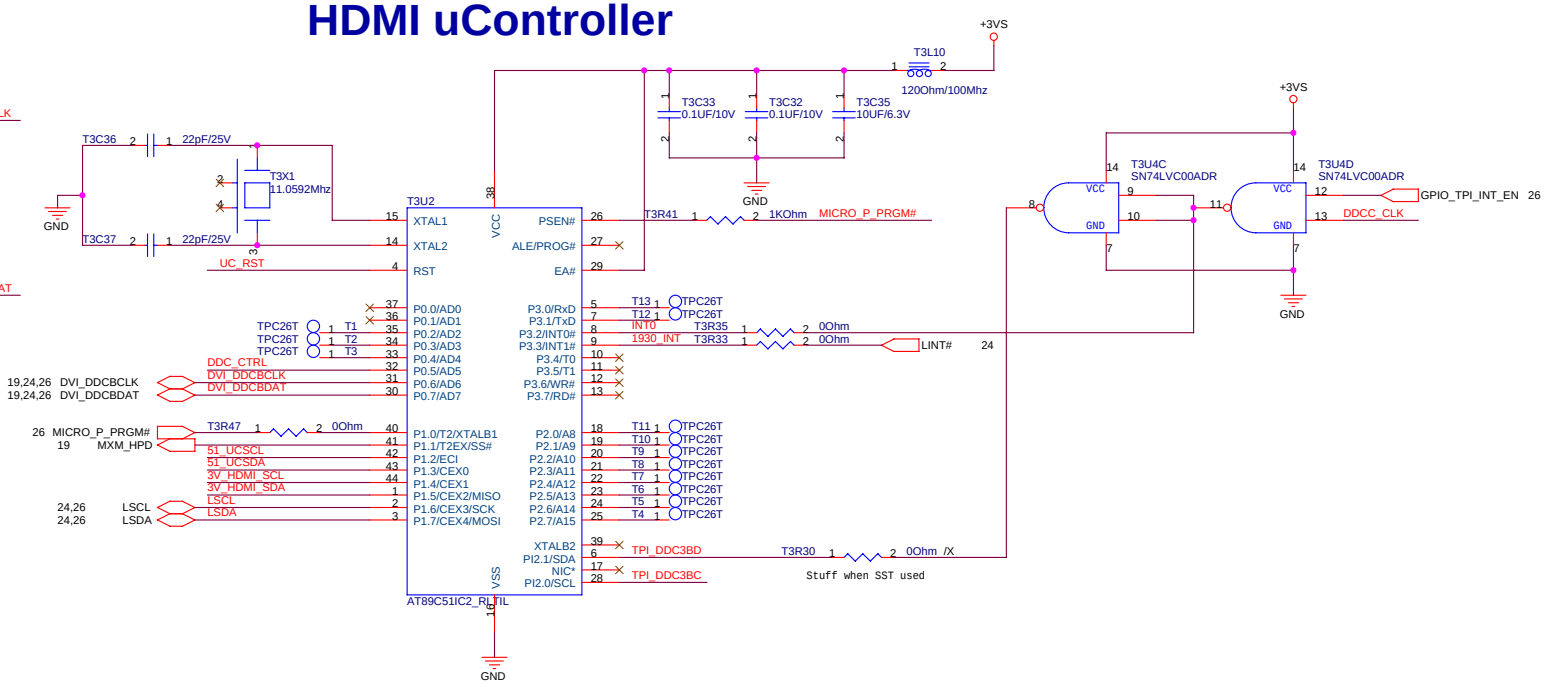
ASUSTek Computer INC.	Title : HDMI Sil1930	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 24 of 68	

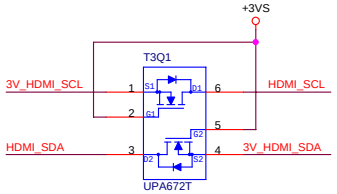
HDMI uController



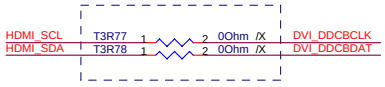


MUX

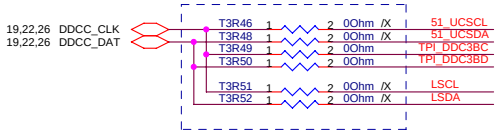




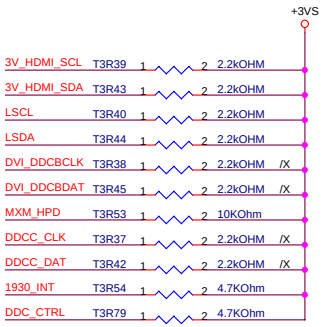
Level Shift



Allows Direct GPU Access to the HDMI Connector



Jumper:
Stuff T3R46, T3R48 Software I2C (SST)
Stuff T3R49, T3R50 Hardware I2C (ATMEL)



<Variant Name>

ASUSTek Computer INC.

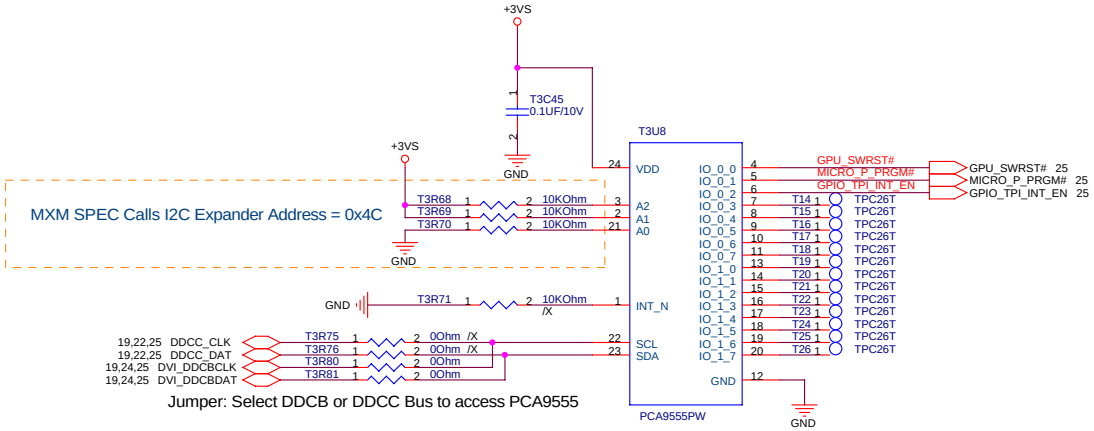
Title : HDMI uController

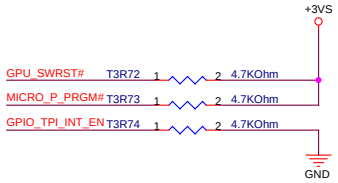
Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 25 of 68

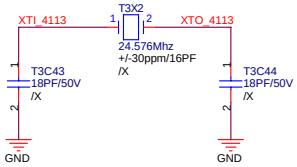
I2C GPIO Controller

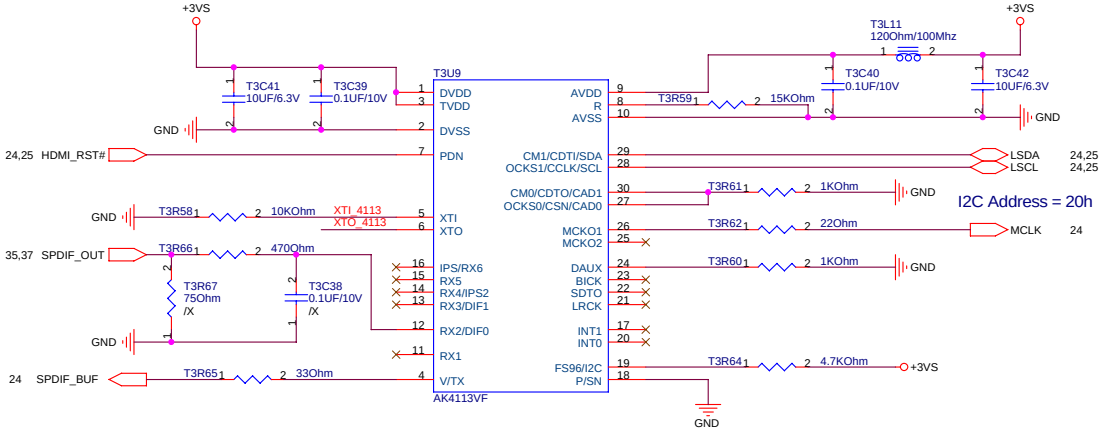




Philips PCA9555 I/O : Internal 100k PULL-UP

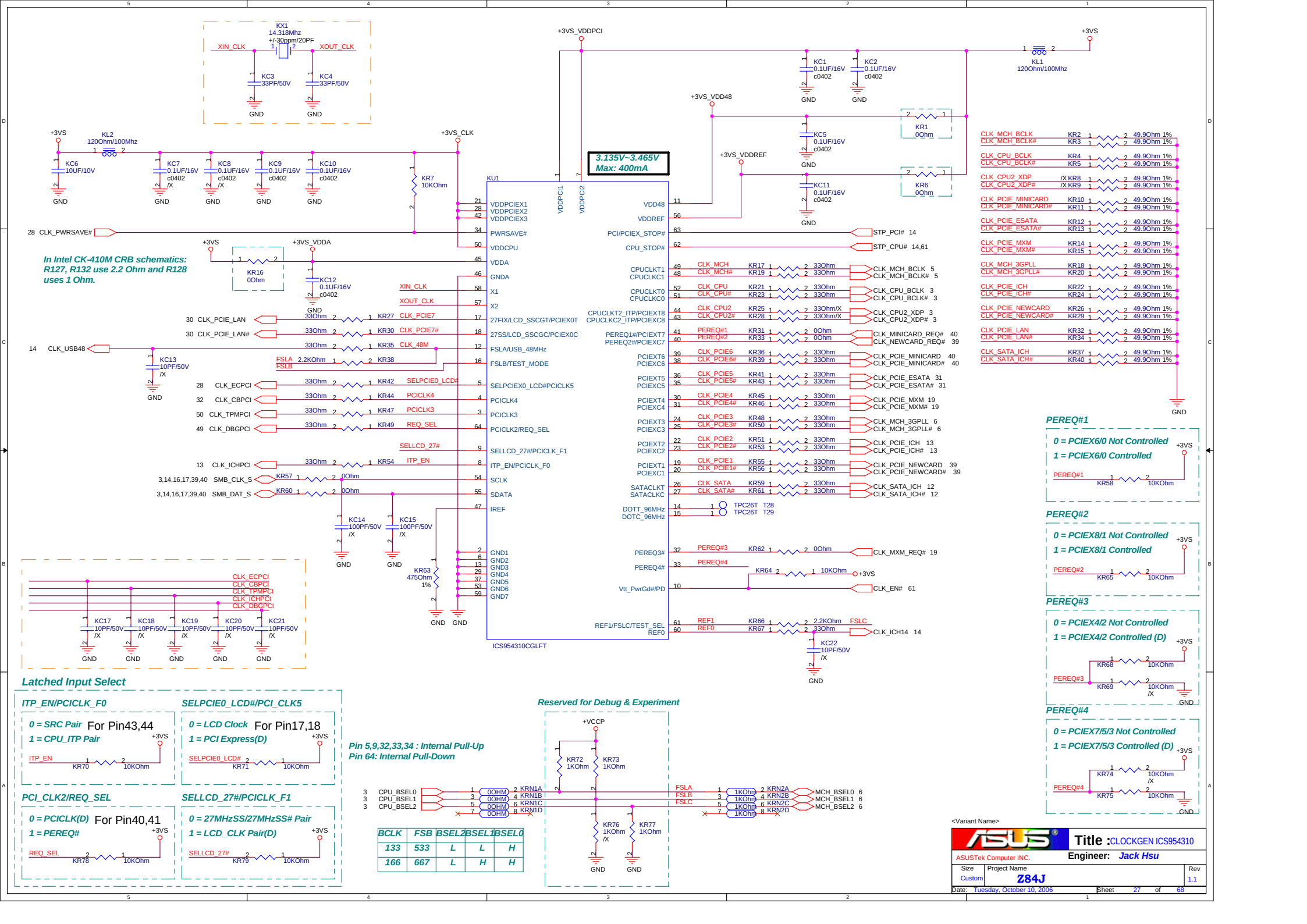
AK4113 Audio Codec

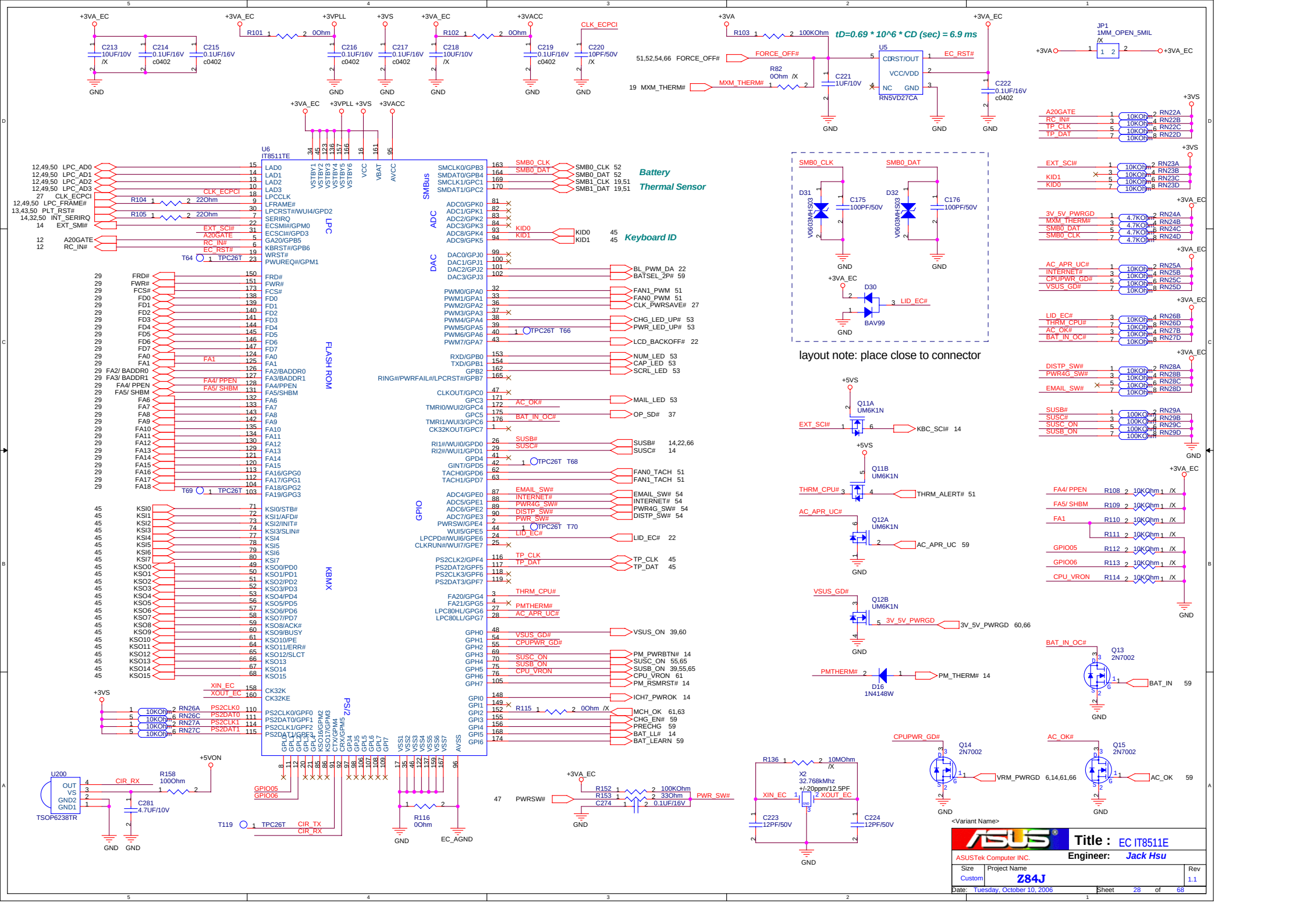




<variant_name>

ASUSTek Computer INC.	Title : I2C EXP. & Codec	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 26 of 68	


KX1
14.318Mhz
+/-30ppm/20PF
XIN_CLK
XOUT_CLK
KC3 33PF/50V
KC4 33PF/50V
GND
+3VS
KL2
120Ohm/100Mhz
KC6 10UF/10V
KC7 0.1UF/16V c0402 /X
KC8 0.1UF/16V c0402 /X
KC9 0.1UF/16V c0402
KC10 0.1UF/16V c0402
+3VS_CLK
KR7 10KOhm
KU1
ICS954310CGLFT
VDDPCIEX1
VDDPCIEX2
VDDPCIEX3
PWRSAVE#
VDDCPU
VDDA
GNDA
X1
X2
27FIX/LCD_SSCGT/PCIEX0T
27SS/LCD_SSCGC/PCIEX0C
FSLA/USB_48MHz
FSLB/TEST_MODE
SELPCIEX0_LCD#PCICLK5
PCICLK4
PCICLK3
PCICLK2/REQ_SEL
SELLCD_27#/PCICLK_F1
ITP_EN/PCICLK_F0
SCLK
SDATA
IREF
GND1
GND2
GND3
GND4
GND5
GND6
GND7
VDDPCI1
VDDPCI2
VDD48
VDDREF
PCI/PCIEX_STOP#
CPU_STOP#
CPUCLKT1
CPUCLKC1
CPUCLKT0
CPUCLKC0
CPUCLKT2_ITP/PCIEXT8
CPUCLKC2_ITP/PCIEXC8
PEREQ1#/PCIEXT7
PEREQ2#/PCIEXC7
PCIEXT6
PCIEXC6
PCIEXT5
PCIEXC5
PCIEXT4
PCIEXC4
PCIEXT3
PCIEXC3
PCIEXT2
PCIEXC2
PCIEXT1
PCIEXC1
SATACLKT
SATACLKC
DOTT_96MHz
DOTC_96MHz
PEREQ3#
PEREQ4#
Vtt_PwrGd#/PD
REF1/FSLC/TEST_SEL
REF0
3.135V~3.465V
Max: 400mA
+3VS_VDDPCI
+3VS_VDD48
+3VS_VDDREF
KC1 0.1UF/16V c0402
KC2 0.1UF/16V c0402
KC5 0.1UF/16V c0402
KC11 0.1UF/16V c0402
KR1 0Ohm
KR6 0Ohm
KL1
120Ohm/100Mhz
In Intel CK-410M CRB schematics:
R127, R132 use 2.2 Ohm and R128 uses 1 Ohm.
KR16 0Ohm
KC12 0.1UF/16V c0402
+3VS_VDDA
XIN_CLK
XOUT_CLK
CLK_PCIE_LAN
CLK_PCIE_LAN#
CLK_USB48
KC13 10PF/50V /X
FSLA 2.2KOhm
FSLB
CLK_ECPCI
CLK_CBPCI
CLK_TPMPCI
CLK_DBGPCI
SELCPIE0_LCD#
PCICLK4
PCICLK3
REQ_SEL
CLK_ICHPCI
ITP_EN
SMB_CLK_S
SMB_DAT_S
KC14 100PF/50V /X
KC15 100PF/50V /X
KR63 475Ohm 1%
KC17 10PF/50V /X
KC18 10PF/50V /X
KC19 10PF/50V /X
KC20 10PF/50V /X
KC21 10PF/50V /X
CLK_MCH_BCLK
CLK_MCH_BCLK#
CLK_CPU_BCLK
CLK_CPU_BCLK#
CLK_CPU2_XDP
CLK_CPU2_XDP#
CLK_PCIE_MINICARD
CLK_PCIE_MINICARD#
CLK_PCIE_ESATA
CLK_PCIE_ESATA#
CLK_PCIE_MXM
CLK_PCIE_MXM#
CLK_MCH_3GPLL
CLK_MCH_3GPLL#
CLK_PCIE_ICH
CLK_PCIE_ICH#
CLK_PCIE_NEWCARD
CLK_PCIE_NEWCARD#
CLK_PCIE_LAN
CLK_PCIE_LAN#
CLK_SATA_ICH
CLK_SATA_ICH#
STP_PCI# 14
STP_CPU# 14,61
CLK_EN# 61
CLK_ICH14 14
TPC26T T28
TPC26T T29
PEREQ#1
0 = PCIEX6/0 Not Controlled
1 = PCIEX6/0 Controlled
PEREQ#2
0 = PCIEX8/1 Not Controlled
1 = PCIEX8/1 Controlled
PEREQ#3
0 = PCIEX4/2 Not Controlled
1 = PCIEX4/2 Controlled (D)
PEREQ#4
0 = PCIEX7/5/3 Not Controlled
1 = PCIEX7/5/3 Controlled (D)
Latched Input Select
ITP_EN/PCICLK_F0
0 = SRC Pair For Pin43,44
1 = CPU_ITP Pair
SELPCIE0_LCD#/PCI_CLK5
0 = LCD Clock For Pin17,18
1 = PCI Express(D)
PCI_CLK2/REQ_SEL
0 = PCICLK(D) For Pin40,41
1 = PEREQ#
SELLCD_27#/PCICLK_F1
0 = 27MHzSS/27MHzSS# Pair
1 = LCD_CLK Pair(D)
Pin 5,9,32,33,34 : Internal Pull-Up
Pin 64: Internal Pull-Down
Reserved for Debug & Experiment
KR72 1KOhm
KR73 1KOhm
KR76 1KOhm /X
KR77 1KOhm
CPU_BSEL0
CPU_BSEL1
CPU_BSEL2
KRN1A
KRN1B
KRN1C
KRN1D
KRN2A
KRN2B
KRN2C
KRN2D
MCH_BSEL0
MCH_BSEL1
MCH_BSEL2
BCLK FSB BSEL2 BSEL1 BSEL0
133 533 L L H
166 667 L H H
<Variant Name>
Title : CLOCKGEN ICS954310
ASUSTek Computer INC.
Engineer: Jack Hsu
Size Custom
Project Name Z84J
Rev 1.1
Date: Tuesday, October 10, 2006
Sheet 27 of 68


U6
IT8511TE
LPC
FLASH ROM
KBMX
PS2
SMBus
ADC
DAC
GPIO
Battery
Thermal Sensor
Keyboard ID
tD=0.69 * 10^6 * CD (sec) = 6.9 ms
layout note: place close to connector
U200
TSOP6238TR
X2
32.768kMhz
+/-20ppm/12.5PF
U5
RN5VD27CA
JP1
1MM_OPEN_5MIL
Title : EC IT8511E
ASUSTek Computer INC.
Engineer: Jack Hsu
Size Custom
Project Name Z84J
Rev 1.1
Date: Tuesday, October 10, 2006
Sheet 28 of 68
<Variant Name>

ISA ROM

EC Hardware Strapping

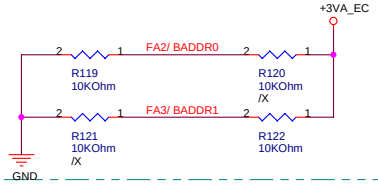
FA2/ BADDR0 & FA3/ BADDR1

00: PNPCNG Access Register Pair Are 002Eh and 002Fh

10: PNPCNG Access Register Pair Are 004Eh and 004Fh

01: PNPCNG Access Register Pair Are Determined by EC Domain Registers SWCBALR and SWCBAHR.

11: Reserved

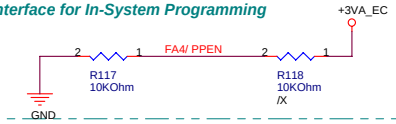


Note: Sampled at VSTBY Power Up Reset

FA4/ PPEN

0: Normal

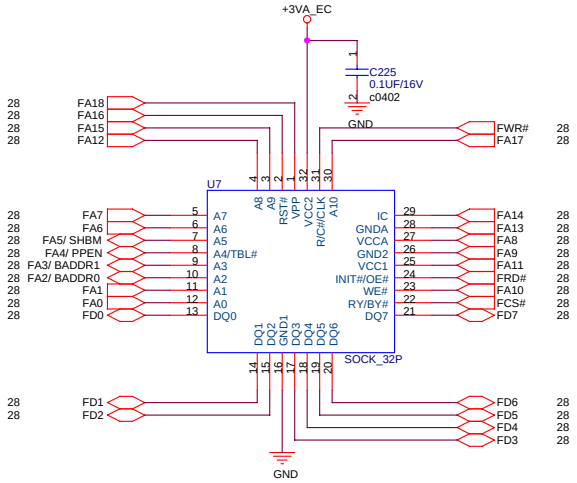
1: KBS Interface Pins Are Switched to Parallel Port Interface for In-System Programming



FA5/ SHBM

0: Disable Shared Memory with Host BIOS

1: Enable Shared Memory with Host BIOS



<Variant Name>

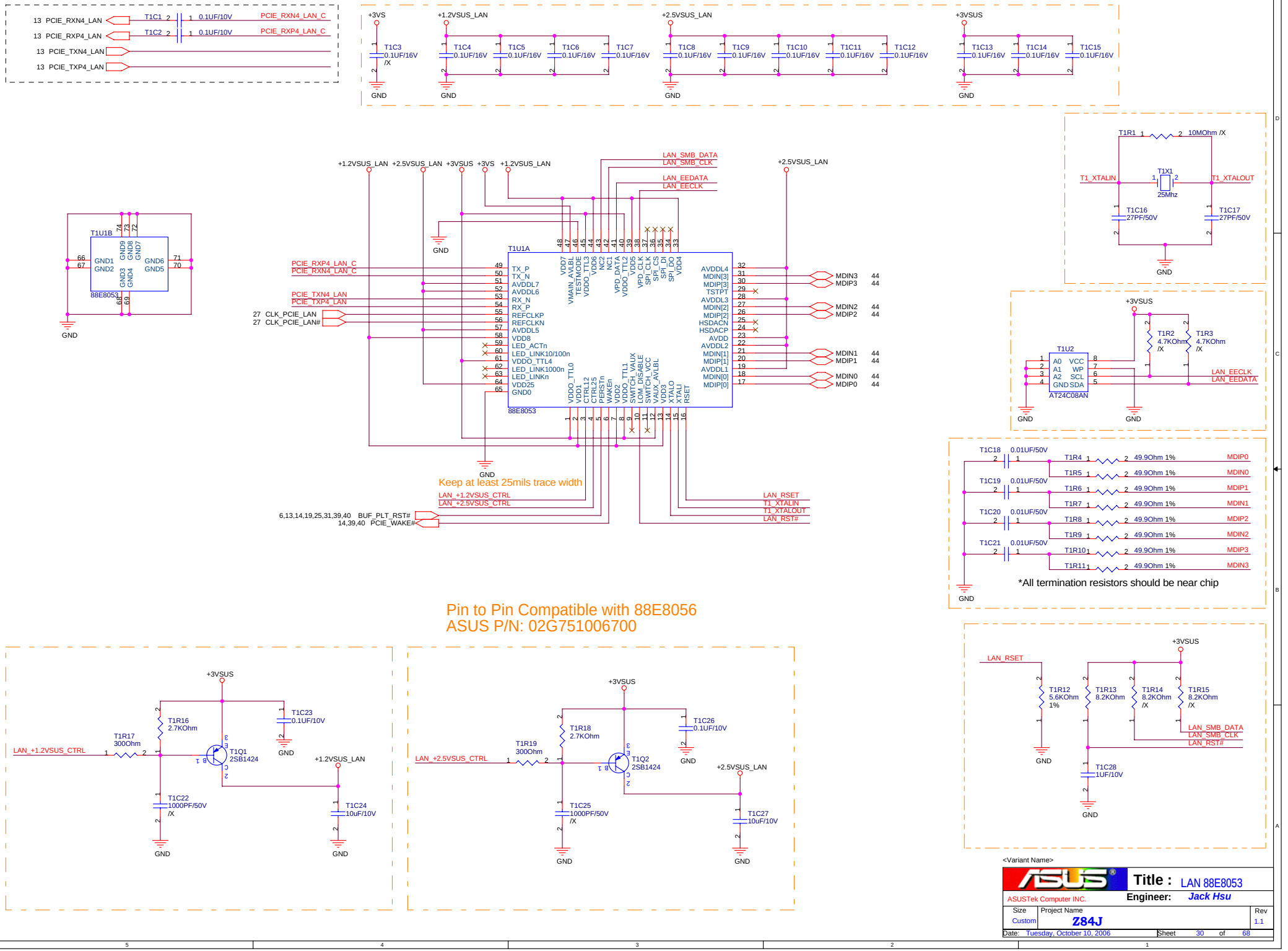
ASUSTek Computer INC.

Title : ISA ROM

Engineer: *Jack Hsu*

Size	Project Name	Rev
Custom	Z84J	1.1

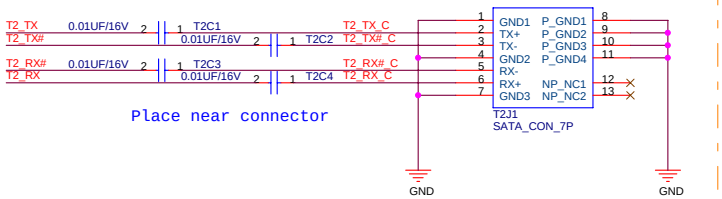
Date: Tuesday, October 10, 2006 Sheet 29 of 68



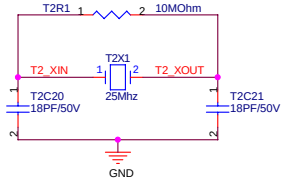
<Variant Name>

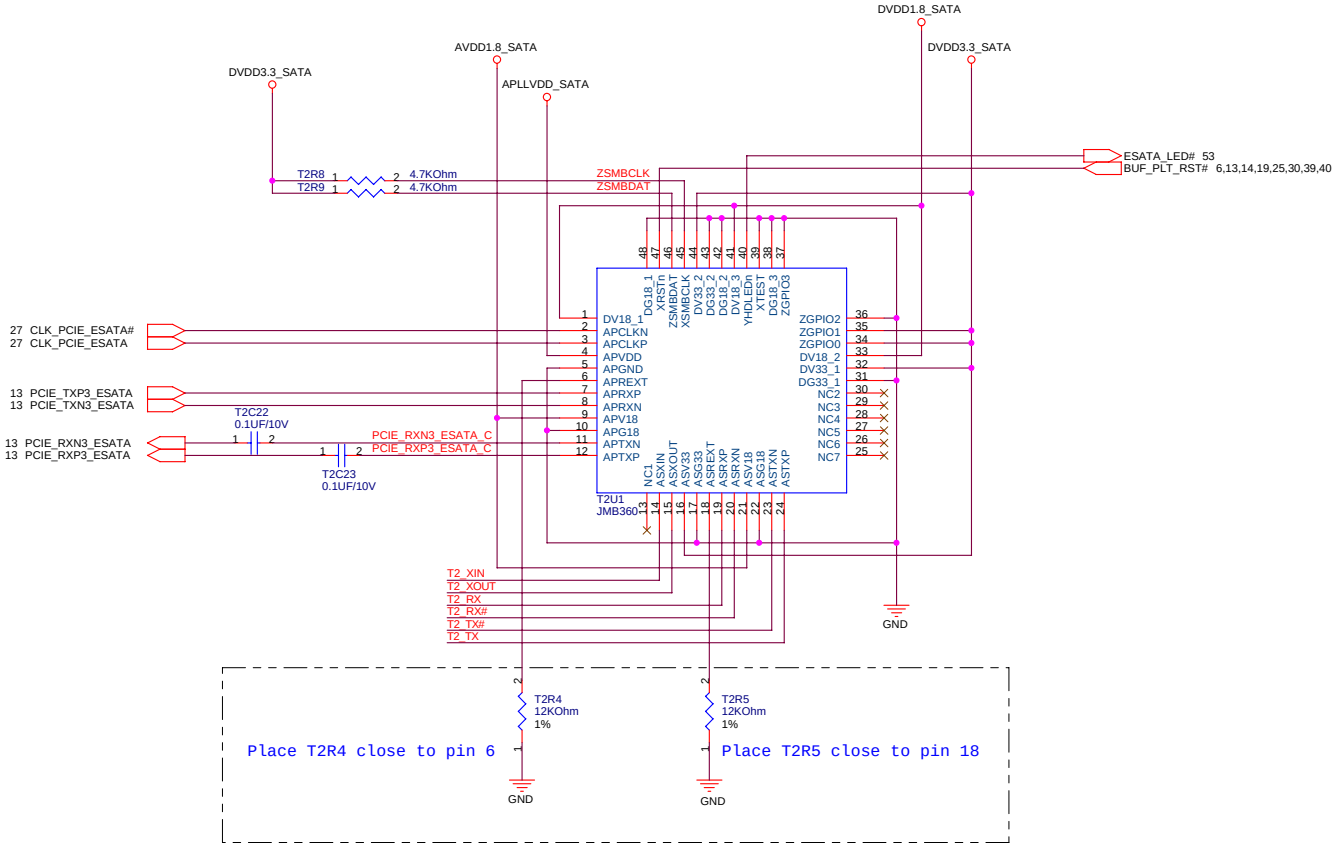
ASUSTek Computer INC.	Title : LAN 88E8053	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 30 of 68	

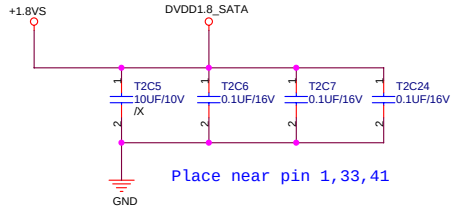
ESATA Connector

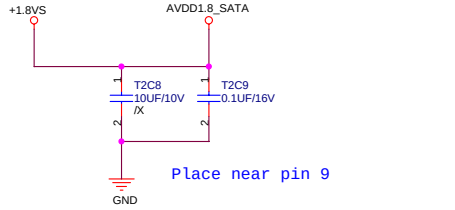


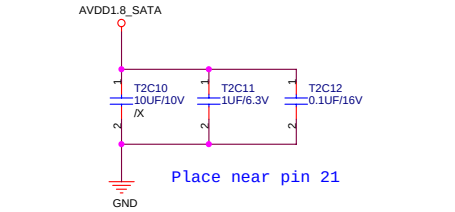
XTAL

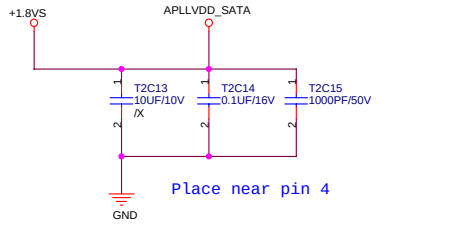


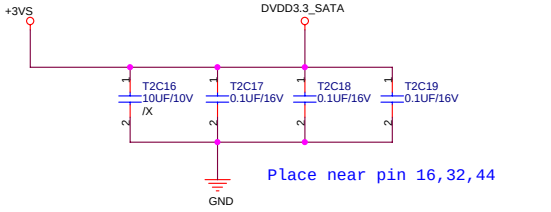






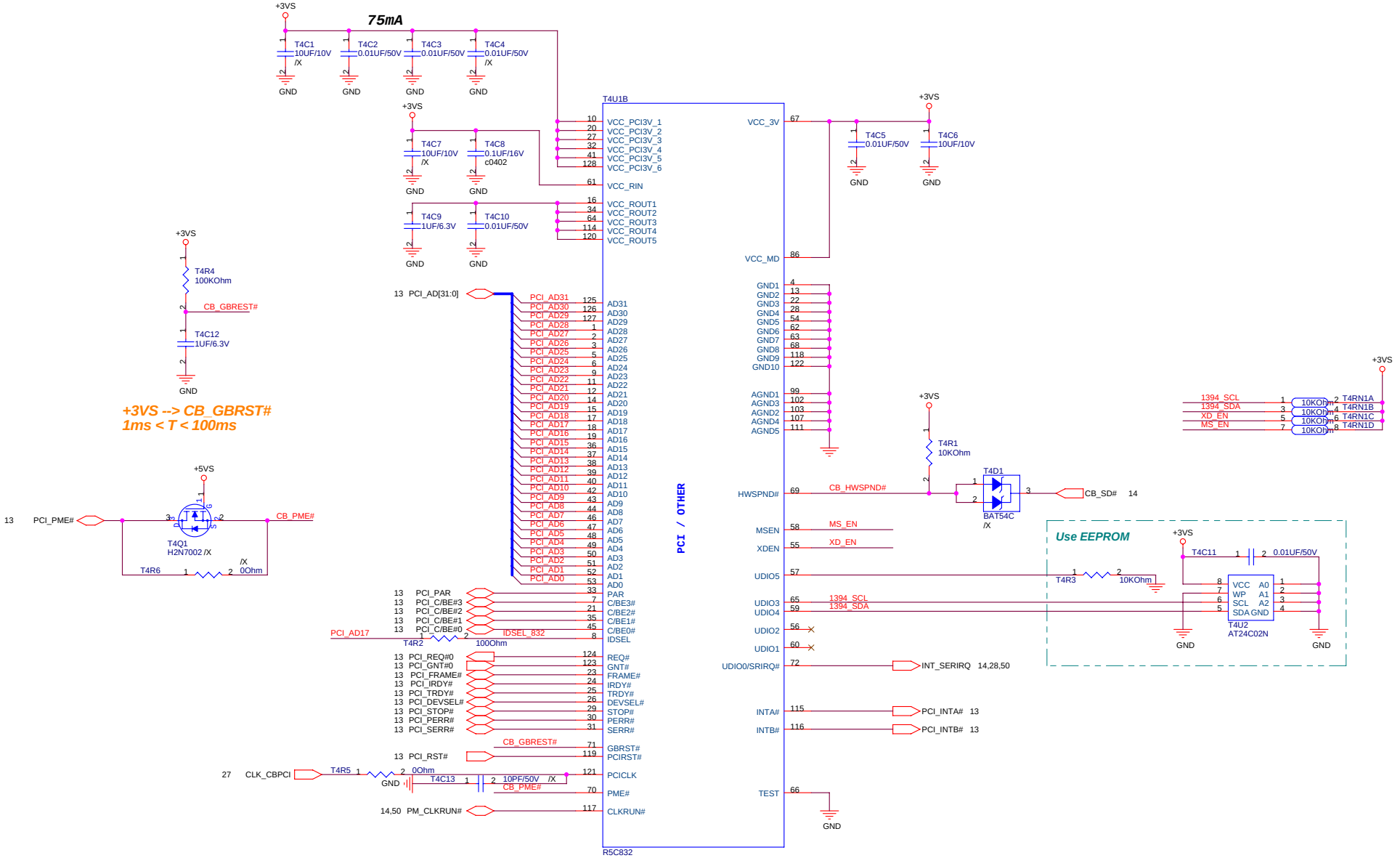






<variant_name>

ASUSTek Computer INC.	Title : ESATA JMB360	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 31 of 68	



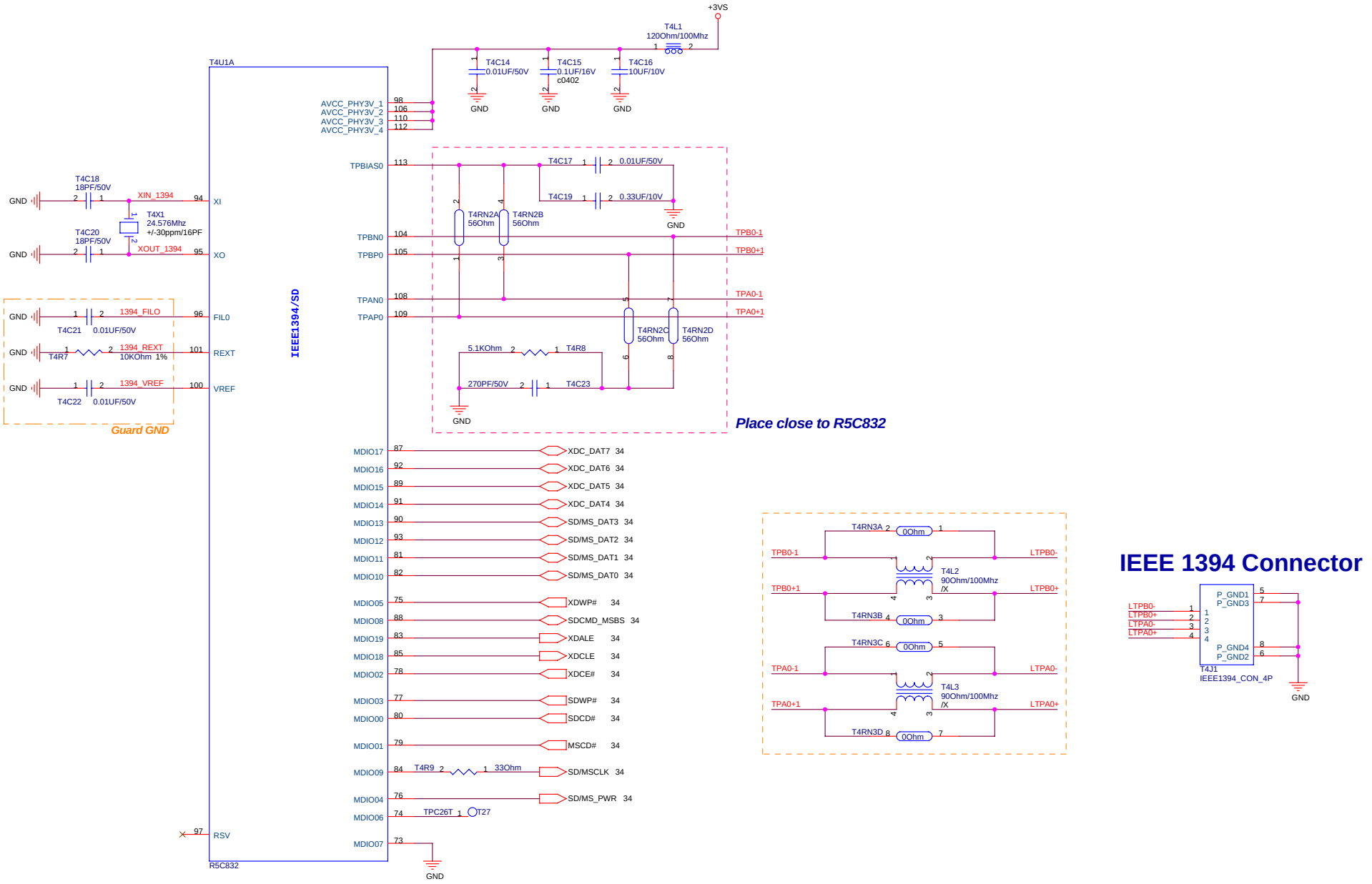
<Variant Name>

Title : R5C832_PCI

ASUSTek Computer INC. Engineer: Jack Hsu

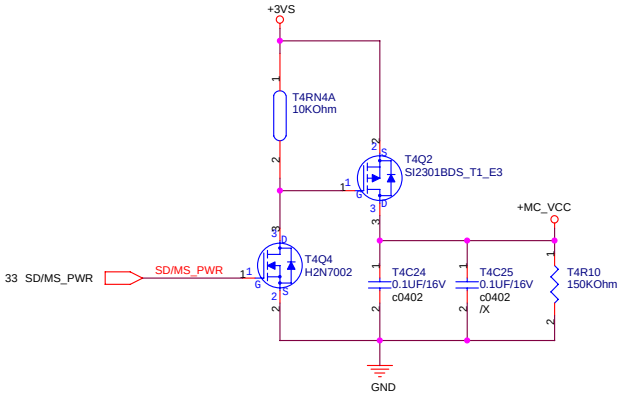
Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 32 of 68

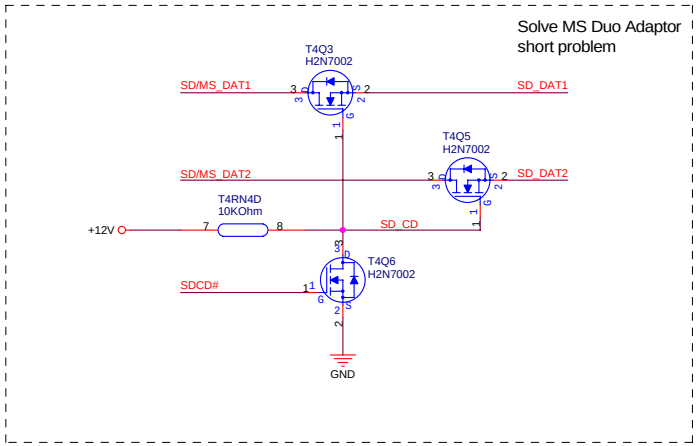


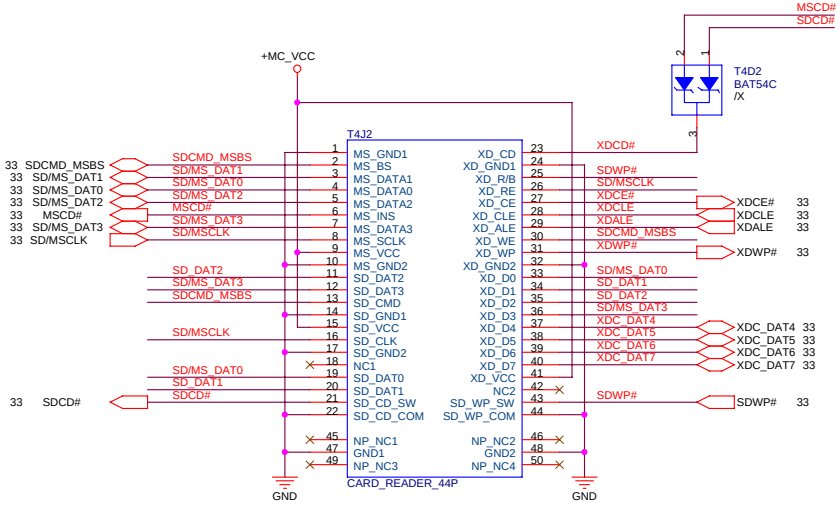
<Variant Name>

Title :	R5C832_1394/SD
ASUSTek Computer INC.	Engineer: Jack Hsu
Size: Custom	Project Name: Z84J
Rev: 1.1	
Date: Tuesday, October 10, 2006	Sheet 33 of 68

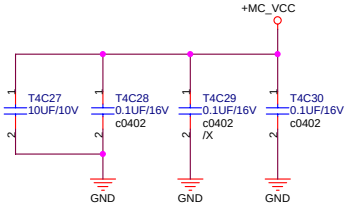


Card Reader Power Switcher

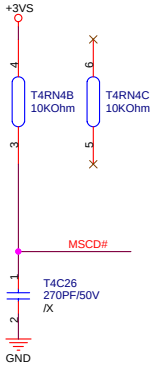




4 in 1 Card Reader

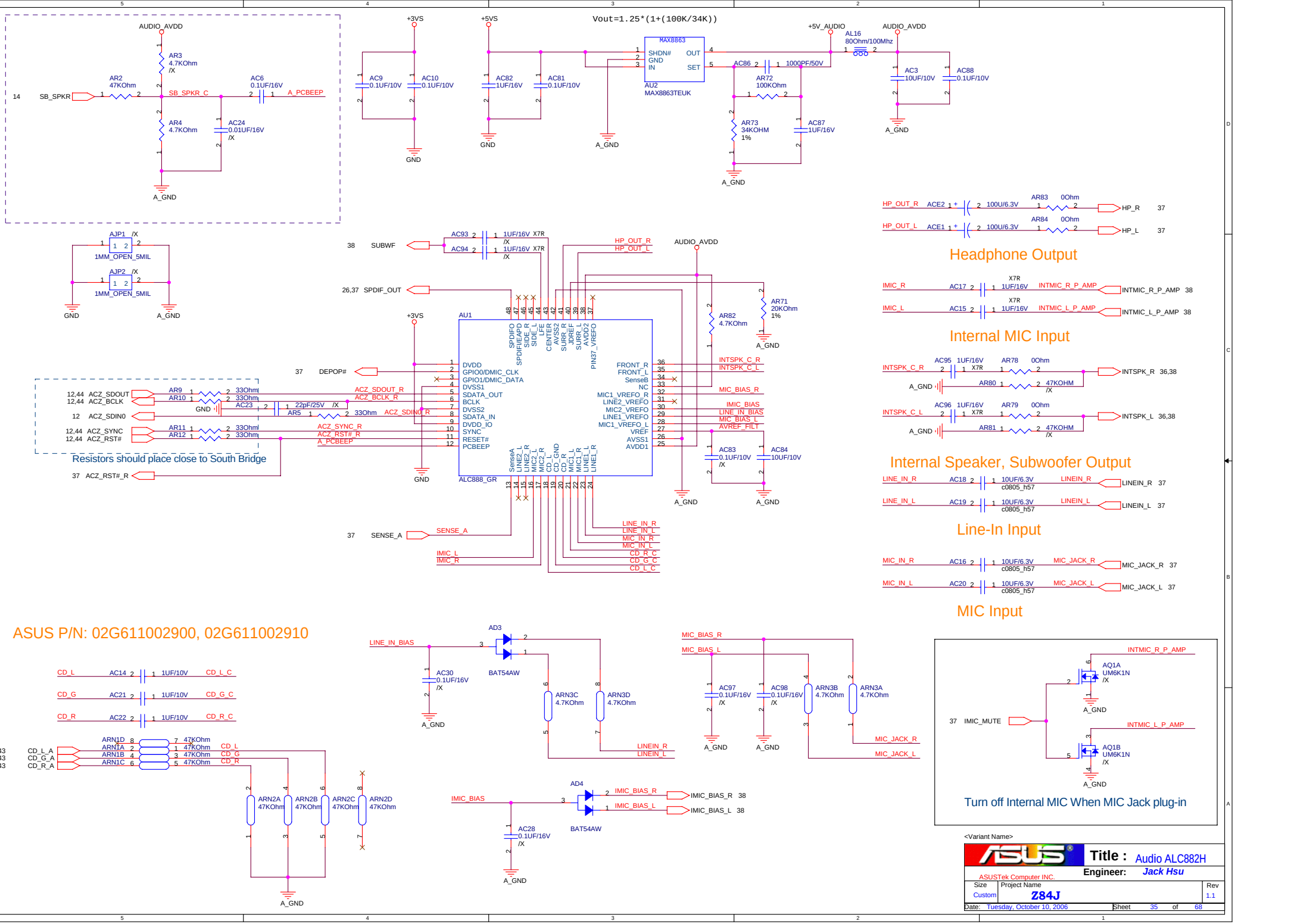


SD_VCC MS_VCC XD_VCC



<Variant Name>

ASUSTek Computer INC.	Title : 4 in 1 Card Reader	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 34 of 68	


AUDIO_AVDD
AR3 4.7KOhm /X
AR2 47KOhm
AC6 0.1UF/16V
14 SB_SPKR
SB_SPKR_C
A_PCBEEP
AR4 4.7KOhm
AC24 0.01UF/16V /X
A_GND
+3VS
+5VS
Vout=1.25*(1+(100K/34K))
AC9 0.1UF/10V
AC10 0.1UF/10V
AC82 1UF/16V
AC81 0.1UF/10V
GND
MAX8863
SHDN#
GND
IN
OUT
SET
AU2
MAX8863TEUK
+5V_AUDIO
AL16 80Ohm/100Mhz
AC86
1000PF/50V
AR72 100KOhm
AR73 34KOHM 1%
AC87 1UF/16V
AC3 10UF/10V
AC88 0.1UF/10V
AJP1 /X
1MM_OPEN_5MIL
AJP2 /X
1MM_OPEN_5MIL
38 SUBWF
AC93 1UF/16V X7R /X
AC94 1UF/16V X7R /X
26,37 SPDIF_OUT
HP_OUT_R
HP_OUT_L
AU1
ALC888_GR
DVDD
GPIO0/DMIC_CLK
GPIO1/DMIC_DATA
DVSS1
SDATA_OUT
BCLK
DVSS2
SDATA_IN
DVDD_IO
SYNC
RESET#
PCBEEP
SPDIFO
SPDIFI/EAPD
SIDE_R
SIDE_L
LFE
CENTER
AVSS2
SURR_R
JDREF
SURR_L
AVDD2
PIN37_VREFO
FRONT_R
FRONT_L
SenseB
NC
MIC1_VREFO_R
LINE2_VREFO
MIC2_VREFO
LINE1_VREFO
MIC1_VREFO_L
VREF
AVSS1
AVDD1
SenseA
LINE2_L
LINE2_R
MIC2_L
MIC2_R
CD_GND
CD_R
MIC1_L
MIC1_R
LINE1_L
LINE1_R
AR82 4.7KOhm
AR71 20KOhm 1%
AC83 0.1UF/10V /X
AC84 10UF/10V
37 DEPOP#
12,44 ACZ_SDOUT
12,44 ACZ_BCLK
12 ACZ_SDIN0
12,44 ACZ_SYNC
12,44 ACZ_RST#
AR9 33Ohm
AR10 33Ohm
AC23 22pF/25V /X
AR5 33Ohm
AR11 33Ohm
AR12 33Ohm
ACZ_SDOUT_R
ACZ_BCLK_R
ACZ_SDIN0_R
ACZ_SYNC_R
ACZ_RST#_R
A_PCBEEP
37 ACZ_RST#_R
Resistors should place close to South Bridge
37 SENSE_A
SENSE_A
IMIC_L
IMIC_R
INTSPK_C_R
INTSPK_C_L
MIC_BIAS_R
IMIC_BIAS
LINE_IN_BIAS
MIC_BIAS_L
AVREF_FILT
LINE_IN_R
LINE_IN_L
MIC_IN_R
MIC_IN_L
CD_R_C
CD_G_C
CD_L_C
HP_OUT_R ACE2 100U/6.3V AR83 0Ohm HP_R 37
HP_OUT_L ACE1 100U/6.3V AR84 0Ohm HP_L 37
Headphone Output
IMIC_R AC17 X7R 1UF/16V INTMIC_R_P_AMP INTMIC_R_P_AMP 38
IMIC_L AC15 X7R 1UF/16V INTMIC_L_P_AMP INTMIC_L_P_AMP 38
Internal MIC Input
INTSPK_C_R AC95 1UF/16V X7R AR78 0Ohm INTSPK_R 36,38
AR80 47KOHM /X
INTSPK_C_L AC96 1UF/16V X7R AR79 0Ohm INTSPK_L 36,38
AR81 47KOHM /X
Internal Speaker, Subwoofer Output
LINE_IN_R AC18 10UF/6.3V c0805_h57 LINEIN_R LINEIN_R 37
LINE_IN_L AC19 10UF/6.3V c0805_h57 LINEIN_L LINEIN_L 37
Line-In Input
MIC_IN_R AC16 10UF/6.3V c0805_h57 MIC_JACK_R MIC_JACK_R 37
MIC_IN_L AC20 10UF/6.3V c0805_h57 MIC_JACK_L MIC_JACK_L 37
MIC Input
ASUS P/N: 02G611002900, 02G611002910
CD_L AC14 1UF/10V CD_L_C
CD_G AC21 1UF/10V CD_G_C
CD_R AC22 1UF/10V CD_R_C
43 CD_L_A
43 CD_G_A
43 CD_R_A
ARN1D ARN1A ARN1B ARN1C 47KOhm
CD_L
CD_G
CD_R
ARN2A 47KOhm
ARN2B 47KOhm
ARN2C 47KOhm
ARN2D 47KOhm
AD3
BAT54AW
AC30 0.1UF/16V /X
ARN3C 4.7KOhm
ARN3D 4.7KOhm
LINEIN_R
LINEIN_L
AC97 0.1UF/16V /X
AC98 0.1UF/16V /X
ARN3B 4.7KOhm
ARN3A 4.7KOhm
MIC_JACK_R
MIC_JACK_L
AD4
IMIC_BIAS_R
IMIC_BIAS_L
IMIC_BIAS_R 38
IMIC_BIAS_L 38
AC28 0.1UF/16V /X
37 IMIC_MUTE
INTMIC_R_P_AMP
INTMIC_L_P_AMP
AQ1A UM6K1N /X
AQ1B UM6K1N /X
Turn off Internal MIC When MIC Jack plug-in
<Variant Name>
Title : Audio ALC882H
Engineer: Jack Hsu
ASUSTek Computer INC.
Size Custom
Project Name Z84J
Rev 1.1
Date: Tuesday, October 10, 2006
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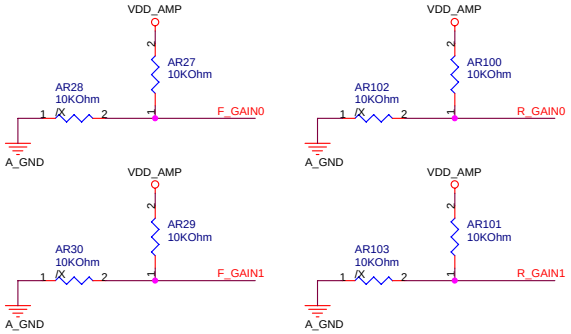
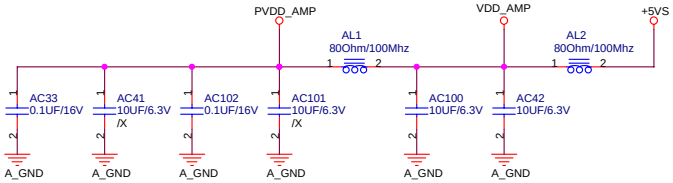
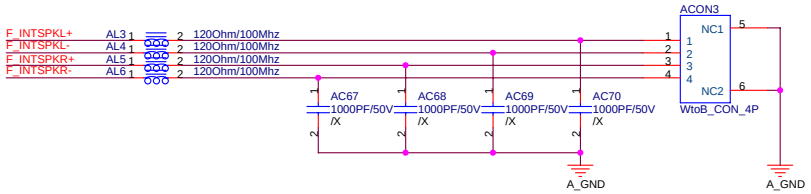
GAIN Control

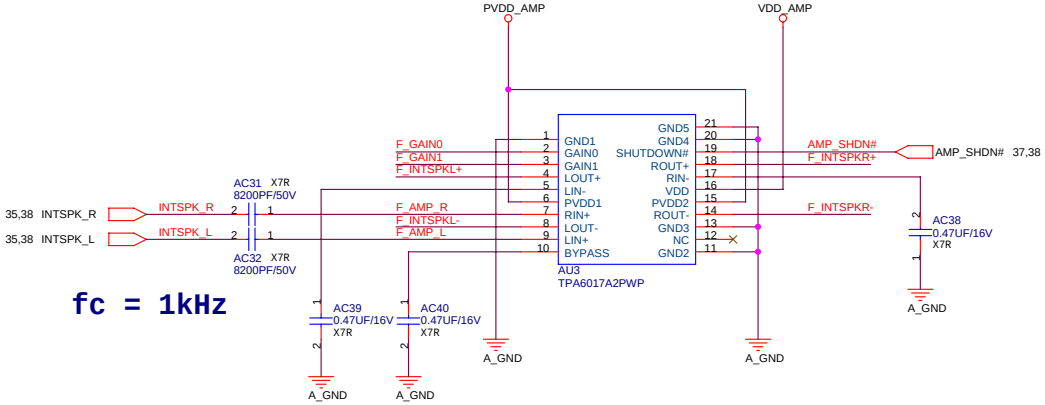
GAIN1	GAIN0	
0	0	6db
0	1	10db
1	0	15.6db
1	1	21.6db





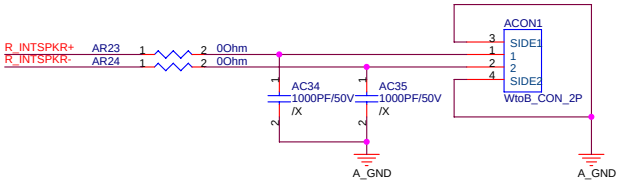


FRONT Speaker Connector

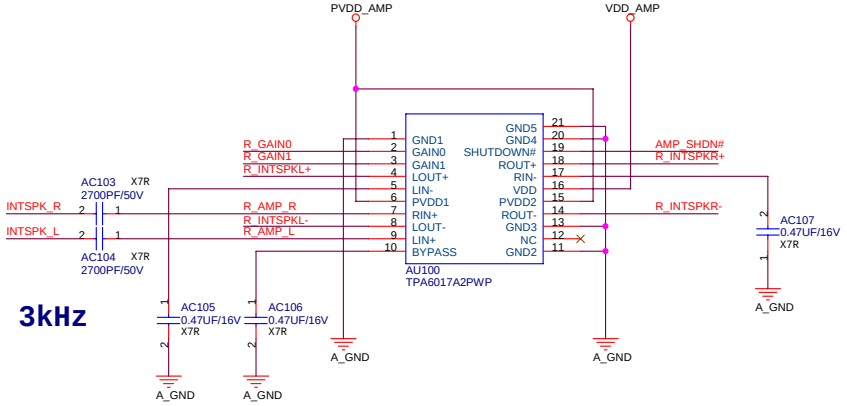


fc = 1kHz

FRONT Audio Amp.



REAR Speaker Connector



fc = 3kHz

REAR Audio Amp.

<Variant Name>

ASUSTek Computer INC.

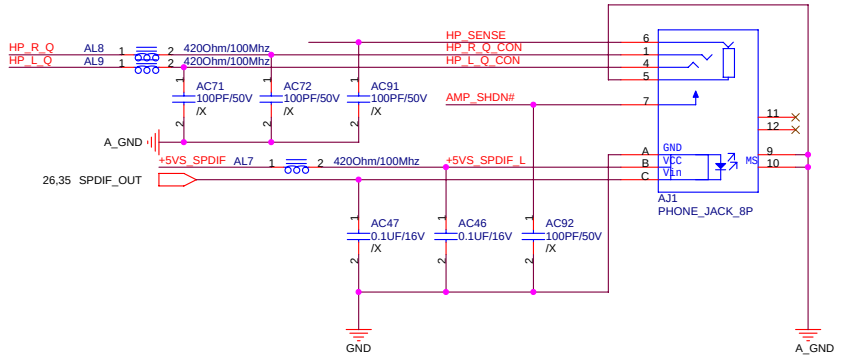
Title : Audio Amp. & Conn.

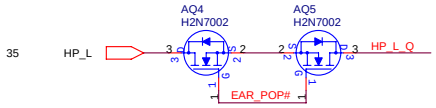
Engineer: Jack Hsu

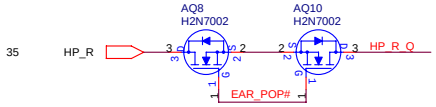
Size	Project Name	Rev
Custom	Z84J	1.1

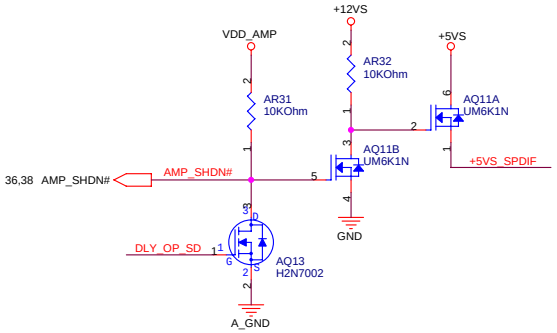
Date: Tuesday, October 10, 2006 Sheet 36 of 68

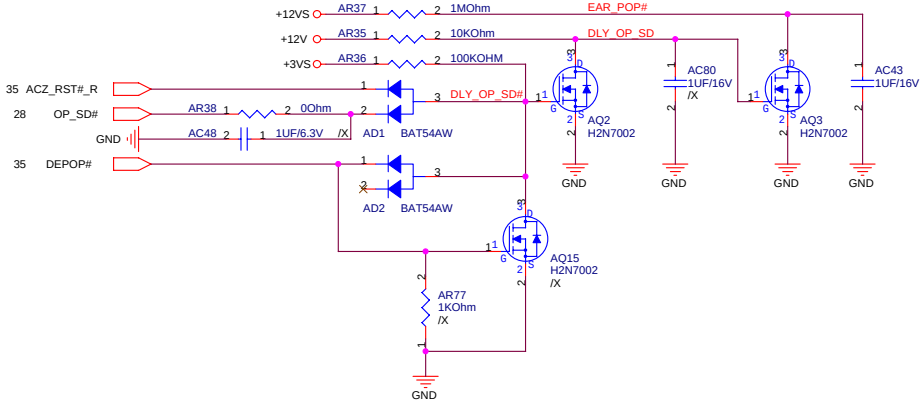
Headphone & S/PDIF Jack



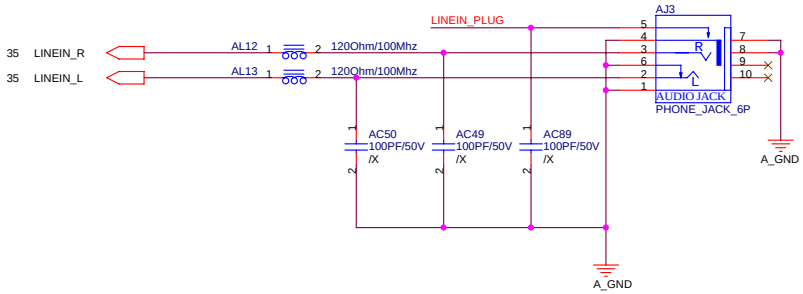




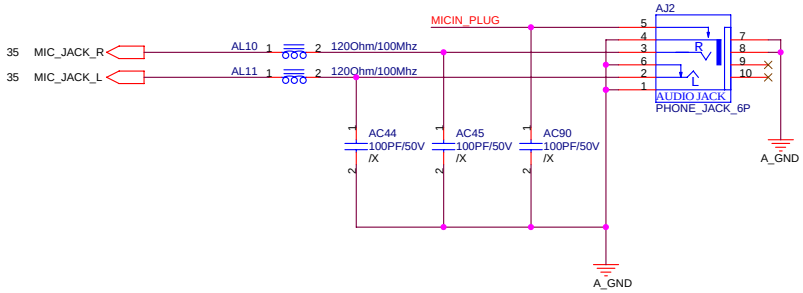


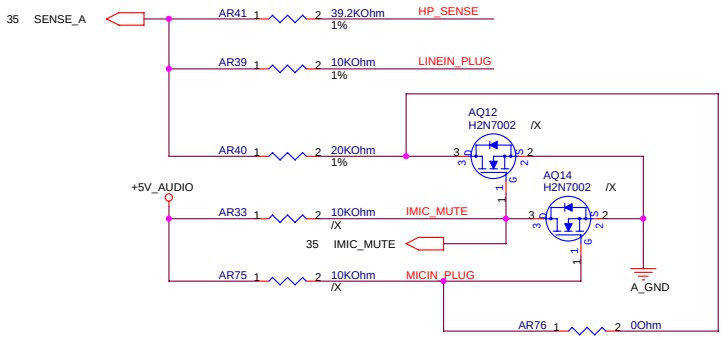


Line-In Jack



Microphone-In Jack

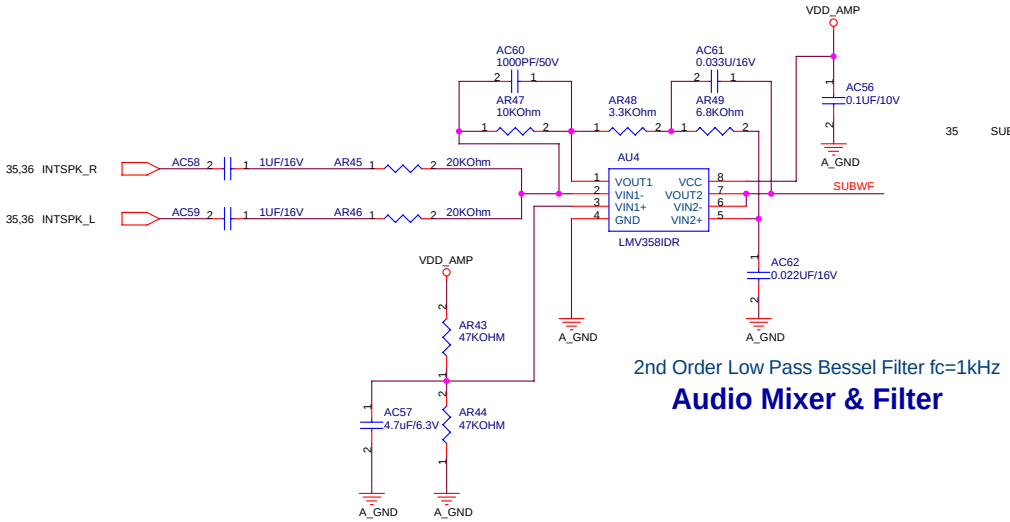




Jack Plug-in Detection

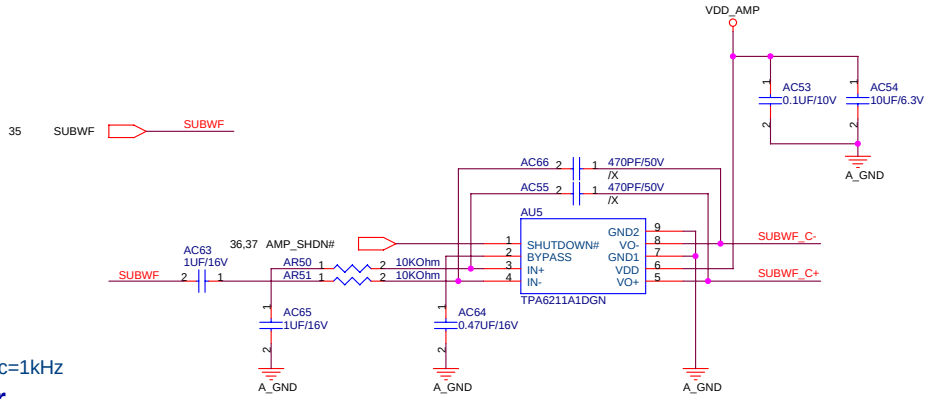
<variant_name>

ASUSTek Computer INC.	Title : Audio JACK	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 37 of 68	



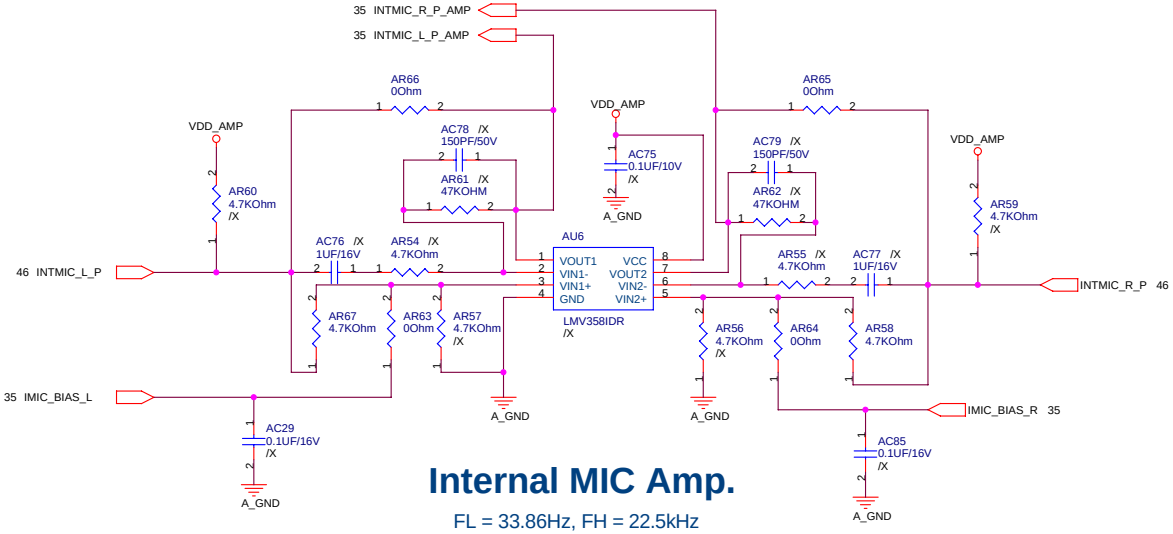
2nd Order Low Pass Bessel Filter fc=1kHz

Audio Mixer & Filter



Subwoofer Amp.

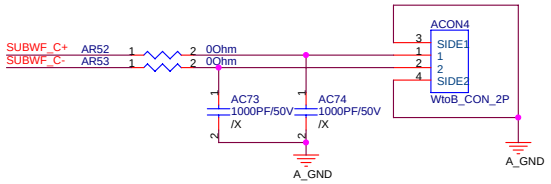
Input Pass Band : 20Hz~1kHz



Internal MIC Amp.

FL = 33.86Hz, FH = 22.5kHz

Place Near INTMIC Connector



<Variant Name>

ASUSTek Computer INC.

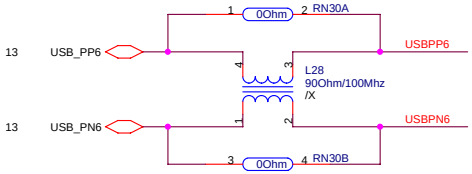
Title : Subwoofer Amp.

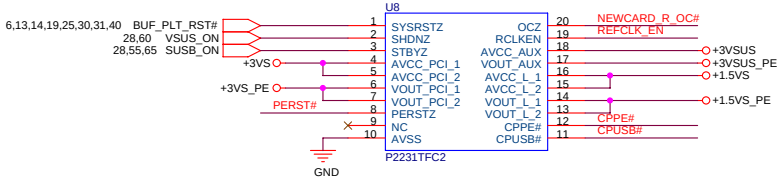
Engineer: Jack Hsu

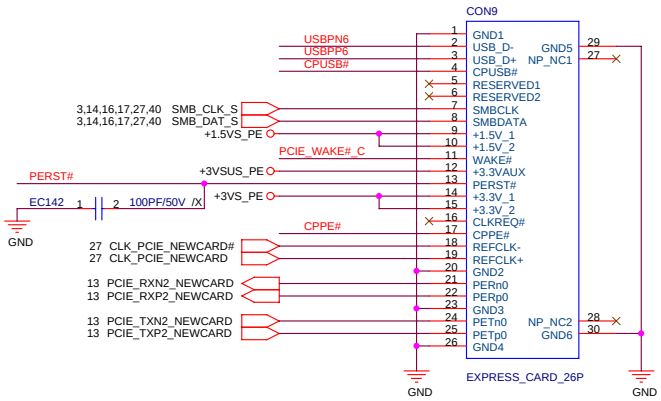
Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 38 of 68

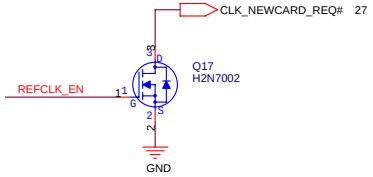
NewCard Header

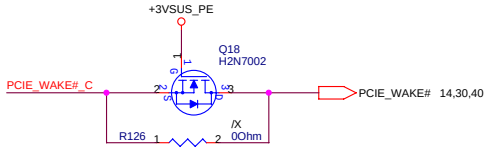


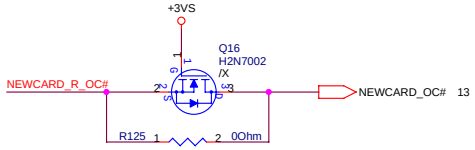




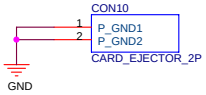
!! ExpressCard Standard 1.0:
Change Pin7 from RESERVED to SMBCLK
Change Pin8 from SMBCLK to SMBDATA
Change Pin9 from SMBDATA to +1.5V

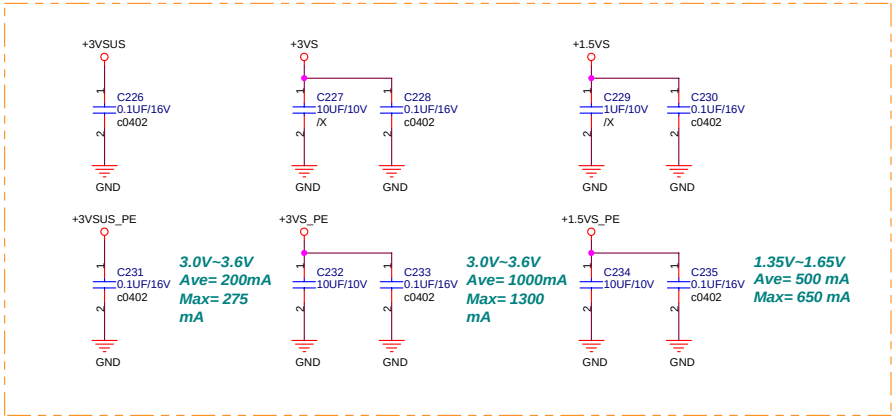






NewCard Ejector





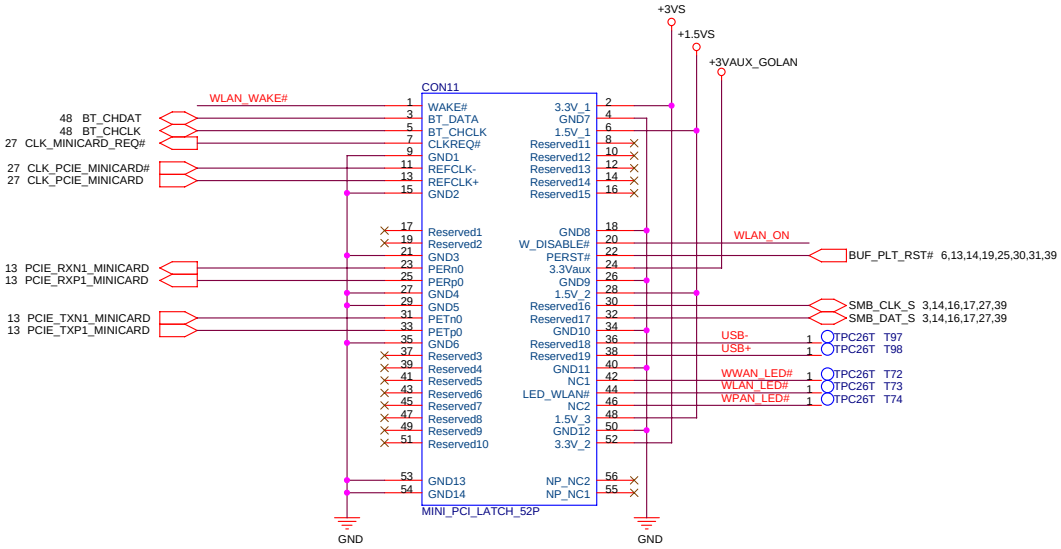
<Variant Name>

Title : NEWCARD

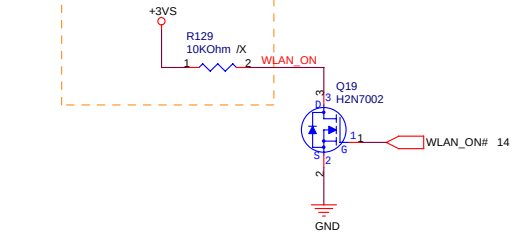
ASUSTek Computer INC. Engineer: Jack Hsu

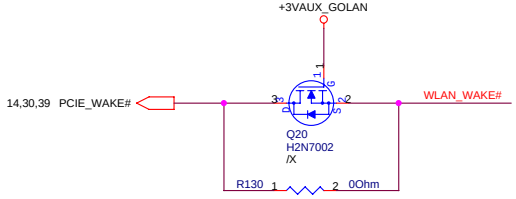
Size	Project Name	Rev
Custom	Z84J	1.1

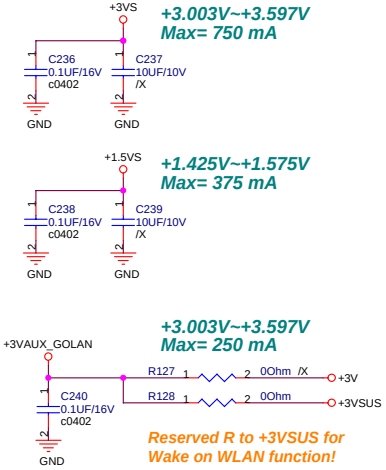
Date: Tuesday, October 10, 2006 Sheet 39 of 68



PCI-E X1 ONLY
H = 8.0mm







<Variant Name>

Title : MINICARD-1

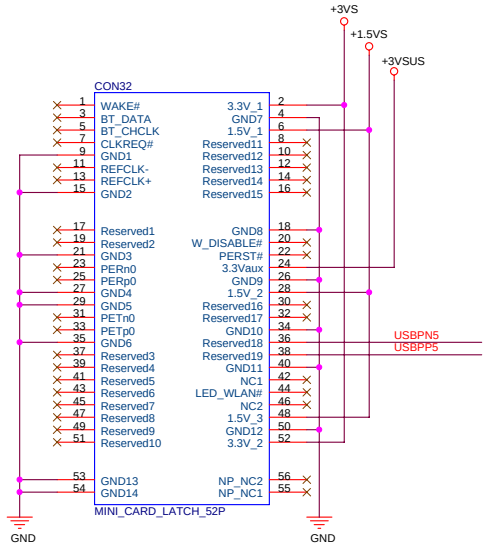
ASUSTek Computer INC.

Engineer: Jack Hsu

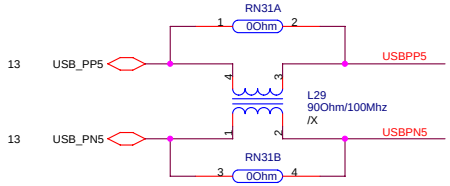
Size	Project Name	Rev
Custom	Z84J	1.1

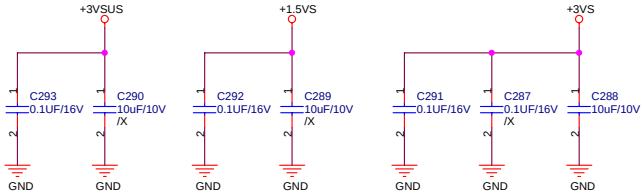
Date: Tuesday, October 10, 2006 Sheet 40 of 68

MINICARD For TV-Tuner



USB ONLY H = 6.75mm

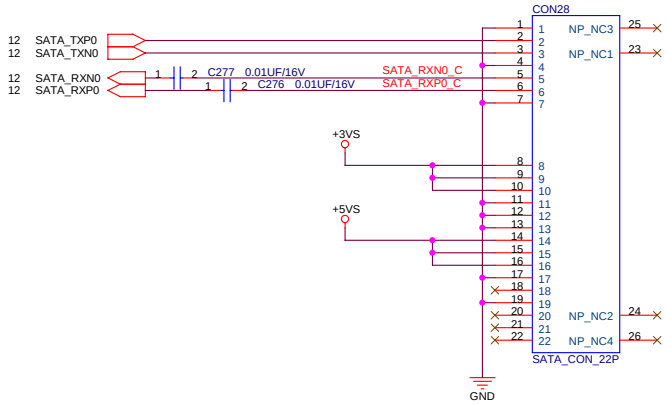


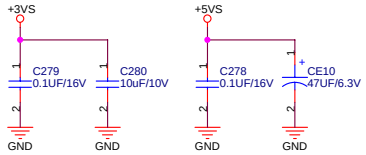


<Variant Name>

ASUSTek Computer INC.	Title : MINICARD-2	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Wednesday, October 11, 2006	Sheet 41 of 68	

SATA HDD Connector

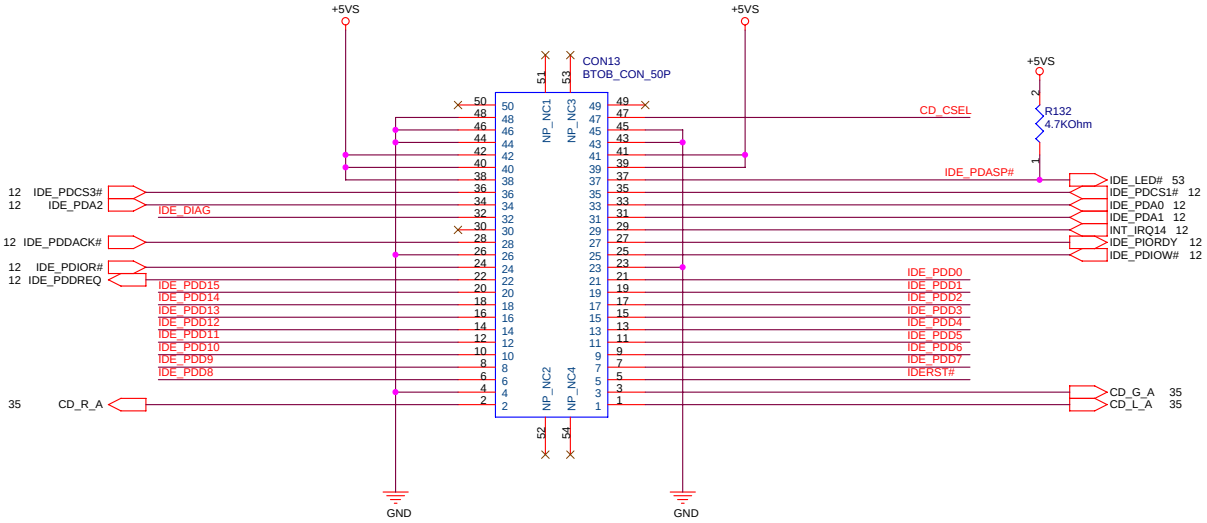


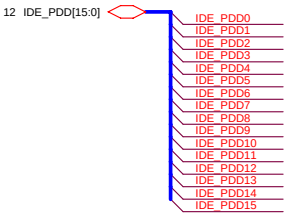


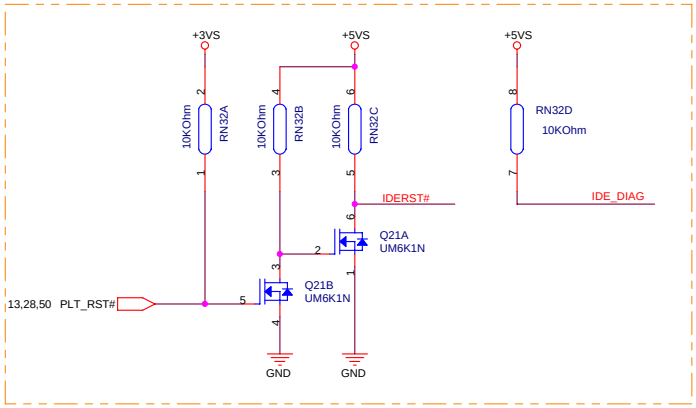
<variant_name>

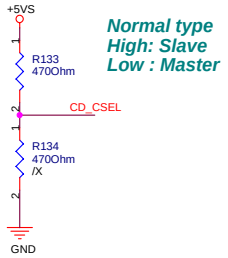
ASUSTek Computer INC.	Title : SATA HDD Conn.	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 42 of 68	

ODD Connector

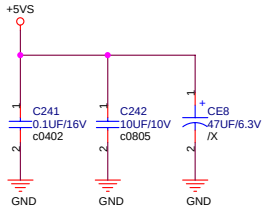








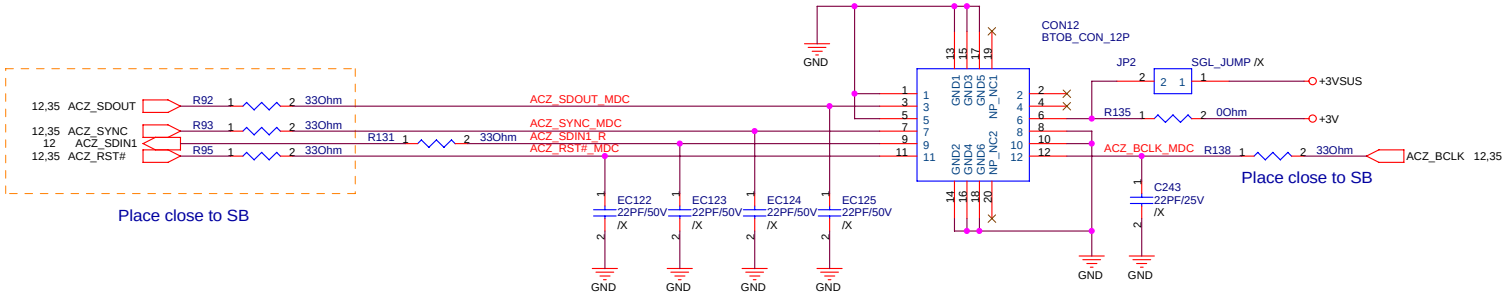
Normal type
High: Slave
Low : Master

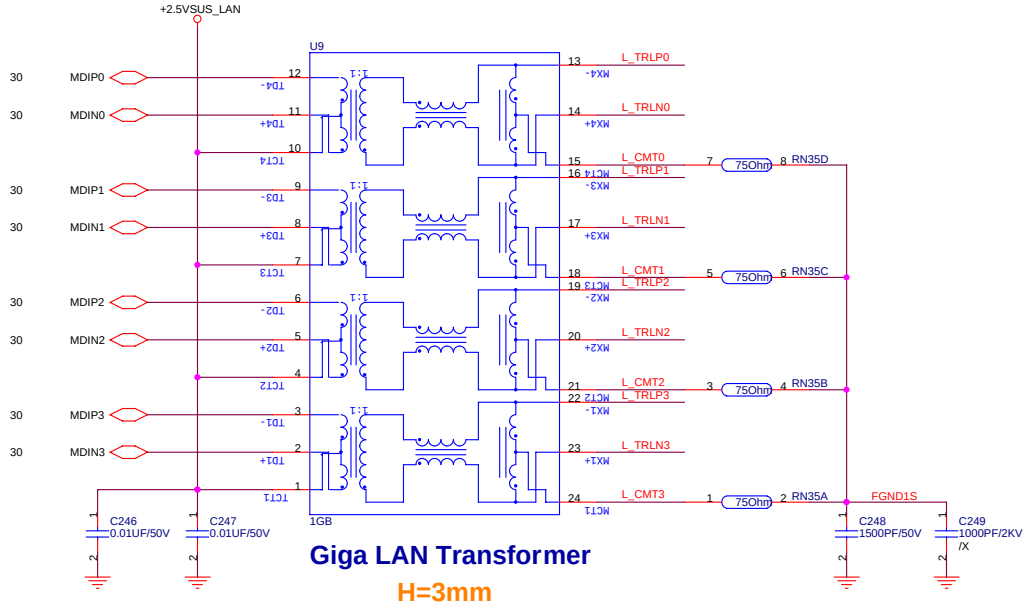


<Variant Name>

ASUSTek Computer INC.	Title : ODD Connector	
	Engineer: *Jack Hsu*	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 43 of 68	

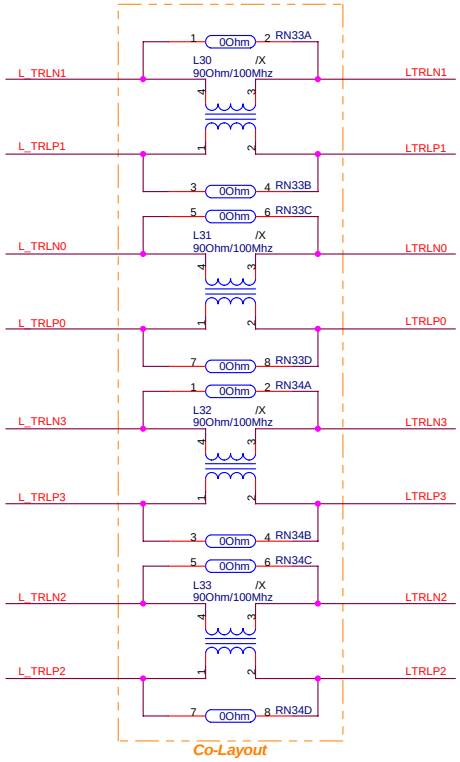
MDC Connector



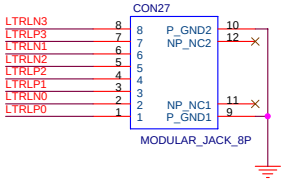


Giga LAN Transformer

H=3mm



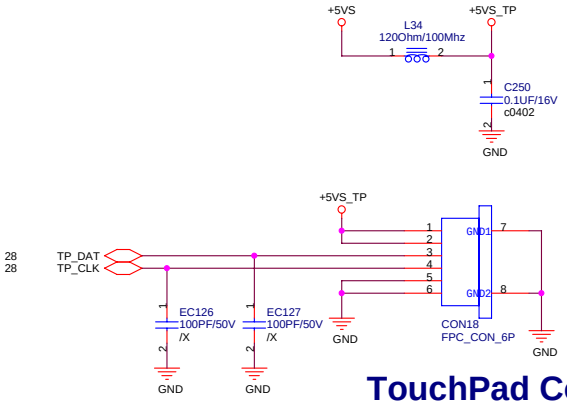
Co-Layout



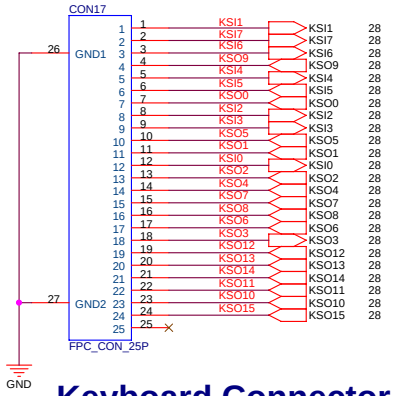
RJ45

<variant_name>

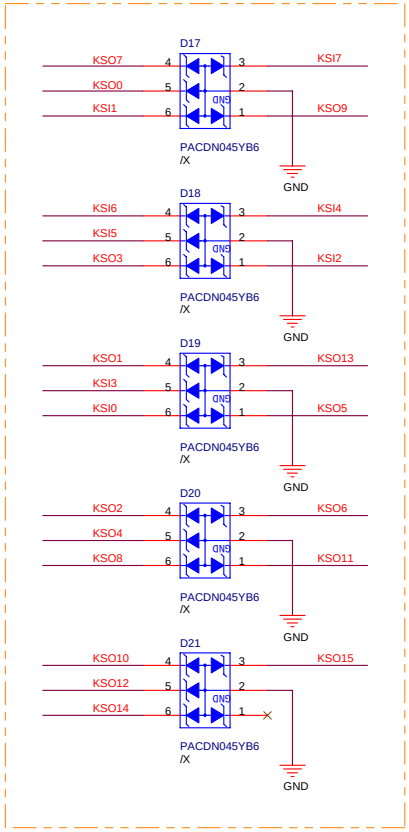
ASUSTek Computer INC.	Title : MDC_RJ45_RJ11	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 44 of 68	

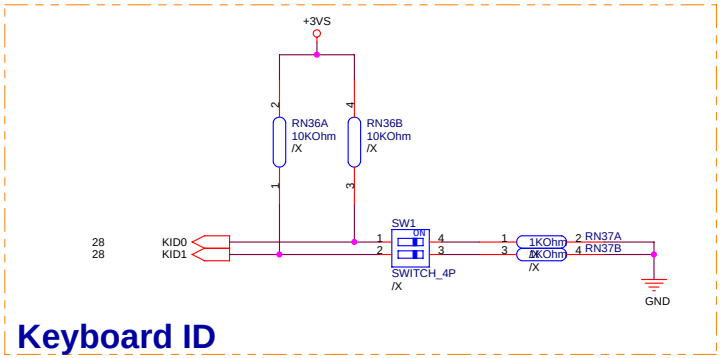


TouchPad Connector



Keyboard Connector



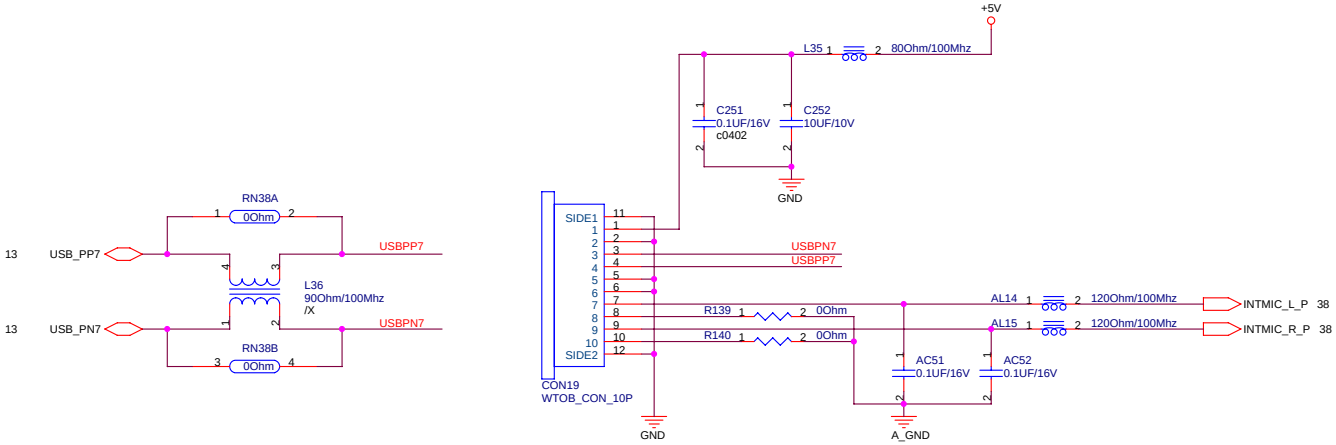


Keyboard ID

<variant_name>

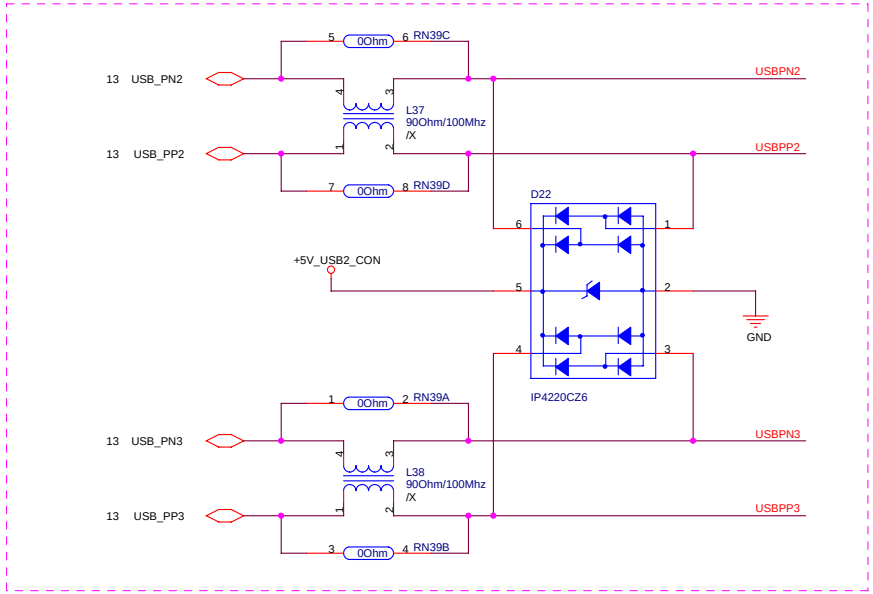
ASUSTek Computer INC.	Title : Touch Pad & KB	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 45 of 68	

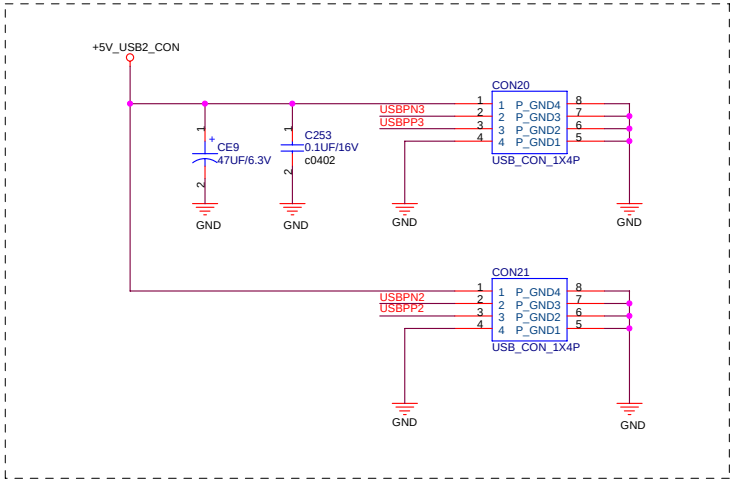
Camera & Internal MIC Connector



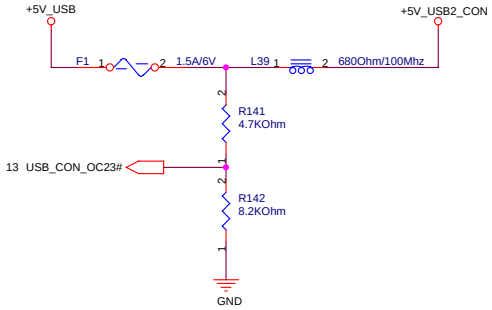
<Variant Name>

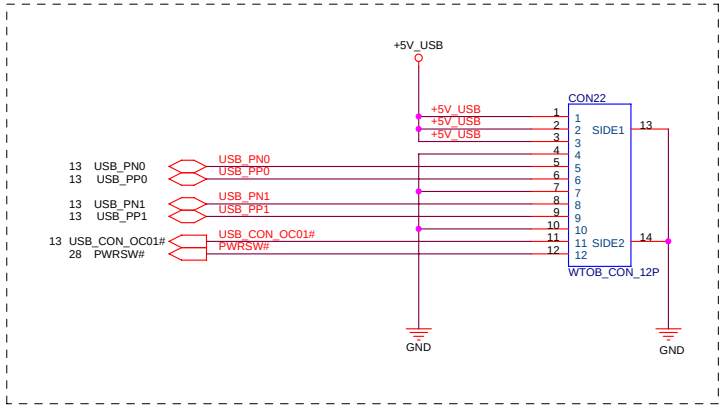
ASUSTek Computer INC.	Title : Camera Conn.	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 46 of 68	



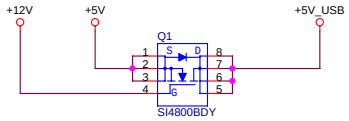


On-board USB Connector





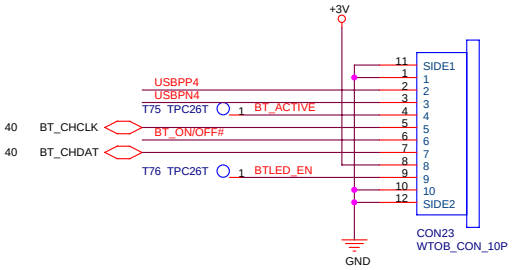
USB Daughter Board Connector

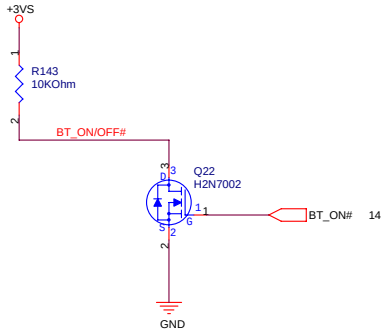


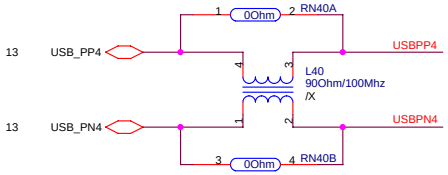
<Variant Name>

ASUSTek Computer INC.	Title : USB Connector	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 47 of 68	

Bluetooth Connector



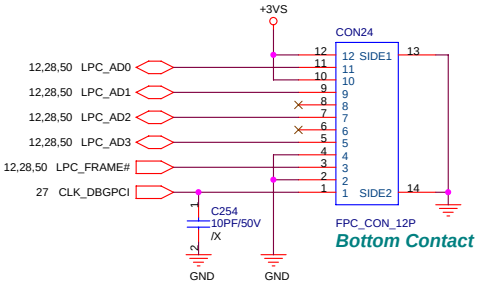




<Variant Name>

ASUSTek Computer INC.	Title : Bluetooth Conn.	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 48 of 68	

Debug Connector



<Variant Name>

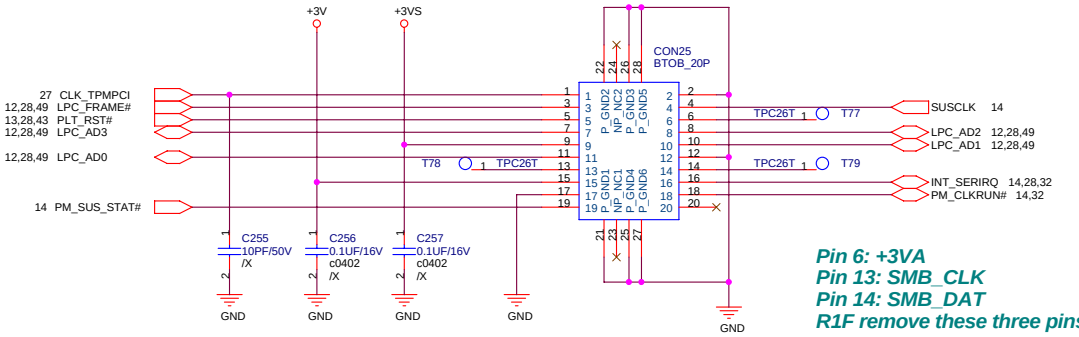
ASUSTek Computer INC.

Title : Debug Connector

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 49 of 68



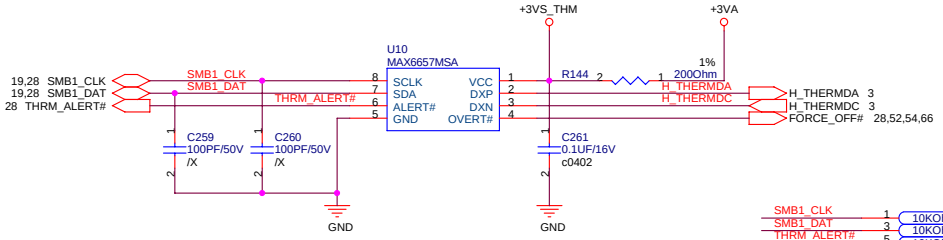
Pin 6: +3VA
Pin 13: SMB_CLK
Pin 14: SMB_DAT
R1F remove these three pins to reduce pin numbers!

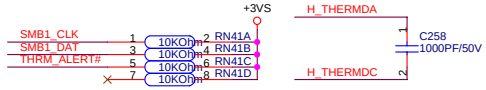
TPM Module Connector

<Variant Name>

ASUSTek Computer INC.	Title : TPM Connector	
	Engineer: *Jack Hsu*	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 50 of 68	

CPU Thermal Sensor





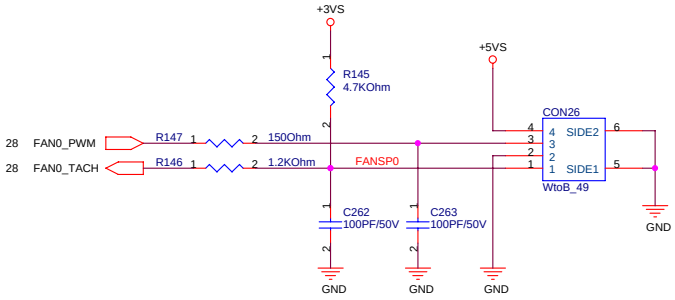
Place close to CPU Pin A24 & A25

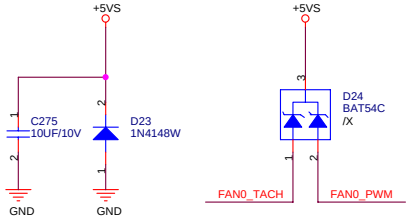
Max: 1mA

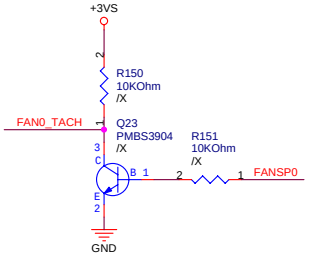
Route H_THERMDA and H_THERMDC in the same layer

----------OTHER SIGNALS
15 mils
==========GND
10 mils
========H_THERMDA(10 mils)
10 mils
========H_THERMDC(10 mils)
10 mils
==========GND
15 mils
----------OTHER SIGNALS

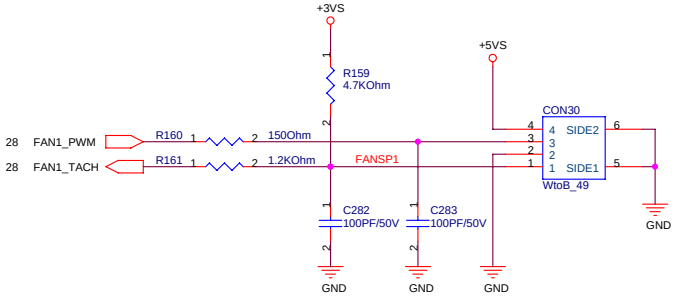
Avoid FSB,Power

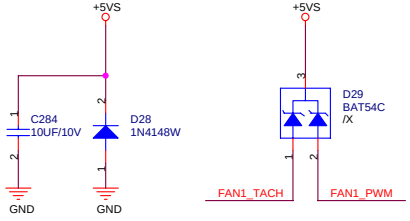


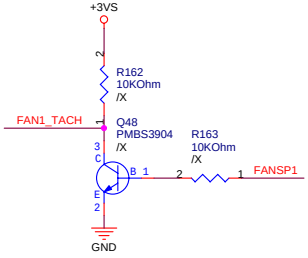




System Fan Connector





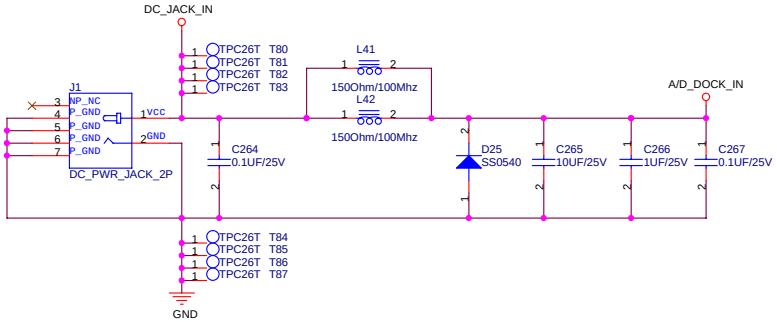


VGA Fan Connector

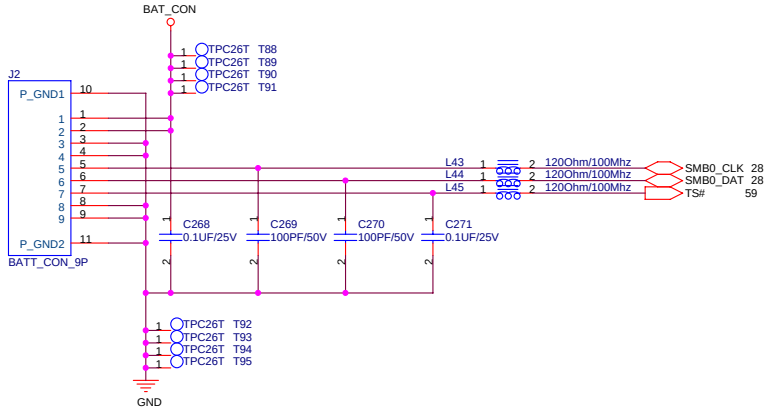
CPU FAN will be forced on:
1) Thermal Sensor Over-temperture
2) WATCHDOG asserted by EC

<Variant Name>

ASUSTek Computer INC.	Title : Thermal Sensor & Fan	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 51 of 68	

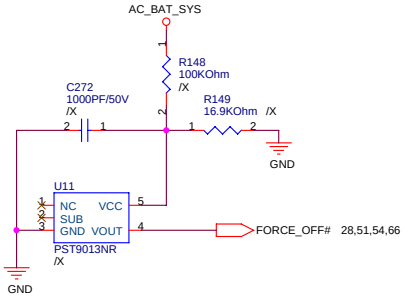


DC-IN Connector



BAT-IN Connector

System Power Loss



<Variant Name>

ASUSTek Computer INC.

Title : DC IN & BAT IN

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z84J	1.1

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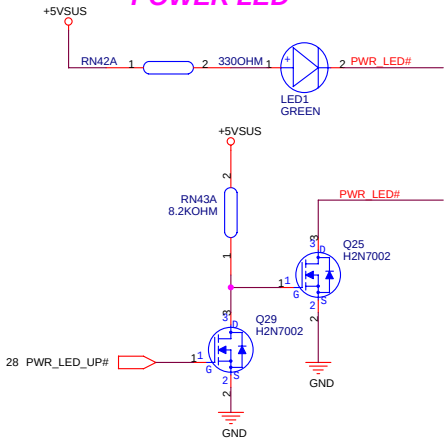
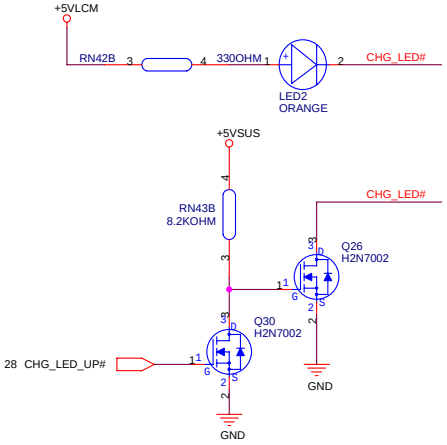
LED

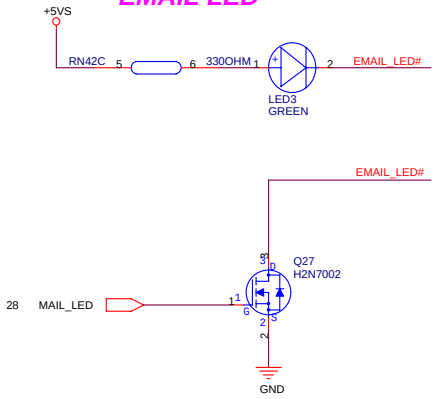
POWER LED



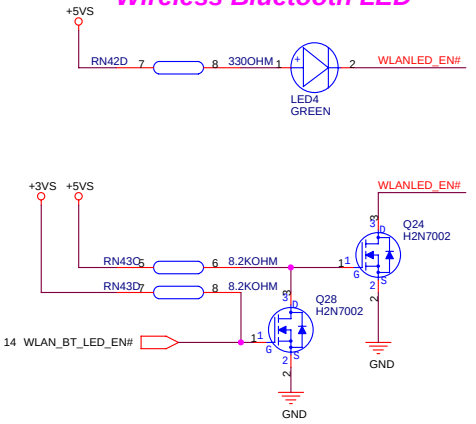
BATTERY CHARGE LED



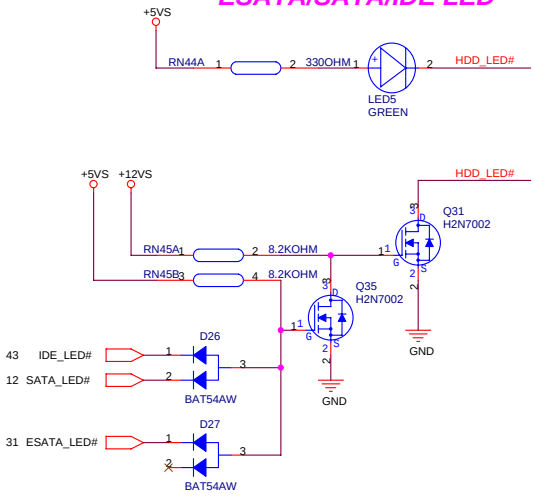
EMAIL LED



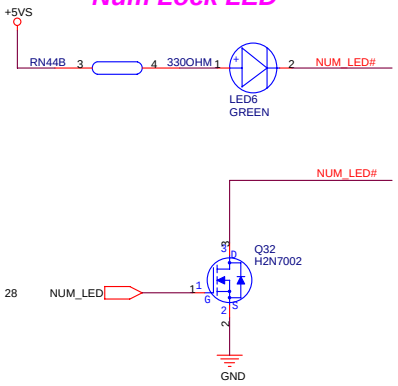
Wireless Bluetooth LED



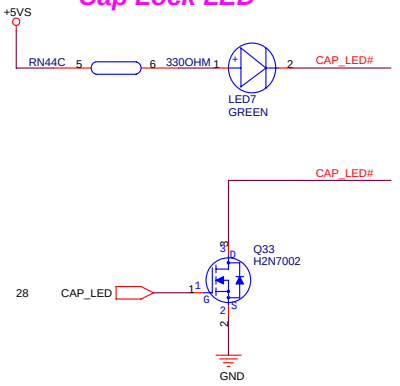
ESATA/SATA/IDE LED



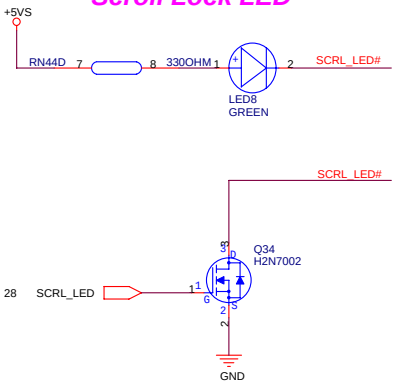
Num Lock LED



Cap Lock LED



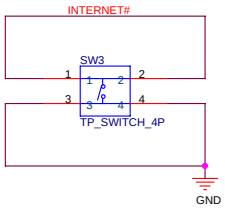
Scroll Lock LED



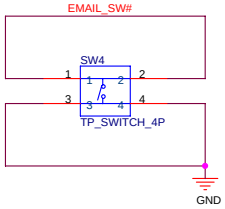
<Variant Name>

ASUSTek Computer INC.	Title : LED	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 53 of 68	

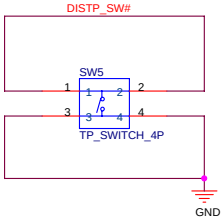
Internet



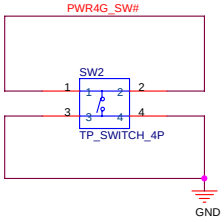
Email



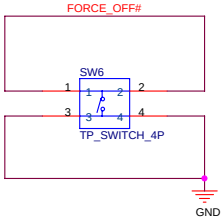
TouchPad Disable

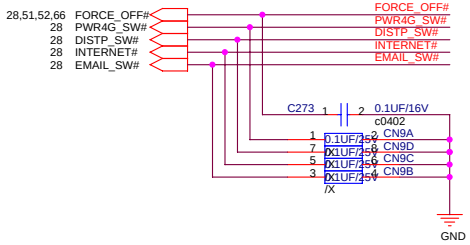


Power4G



System Reset





<Variant Name>

ASUSTek Computer INC.

Title : Switch Button

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z84J	1.1

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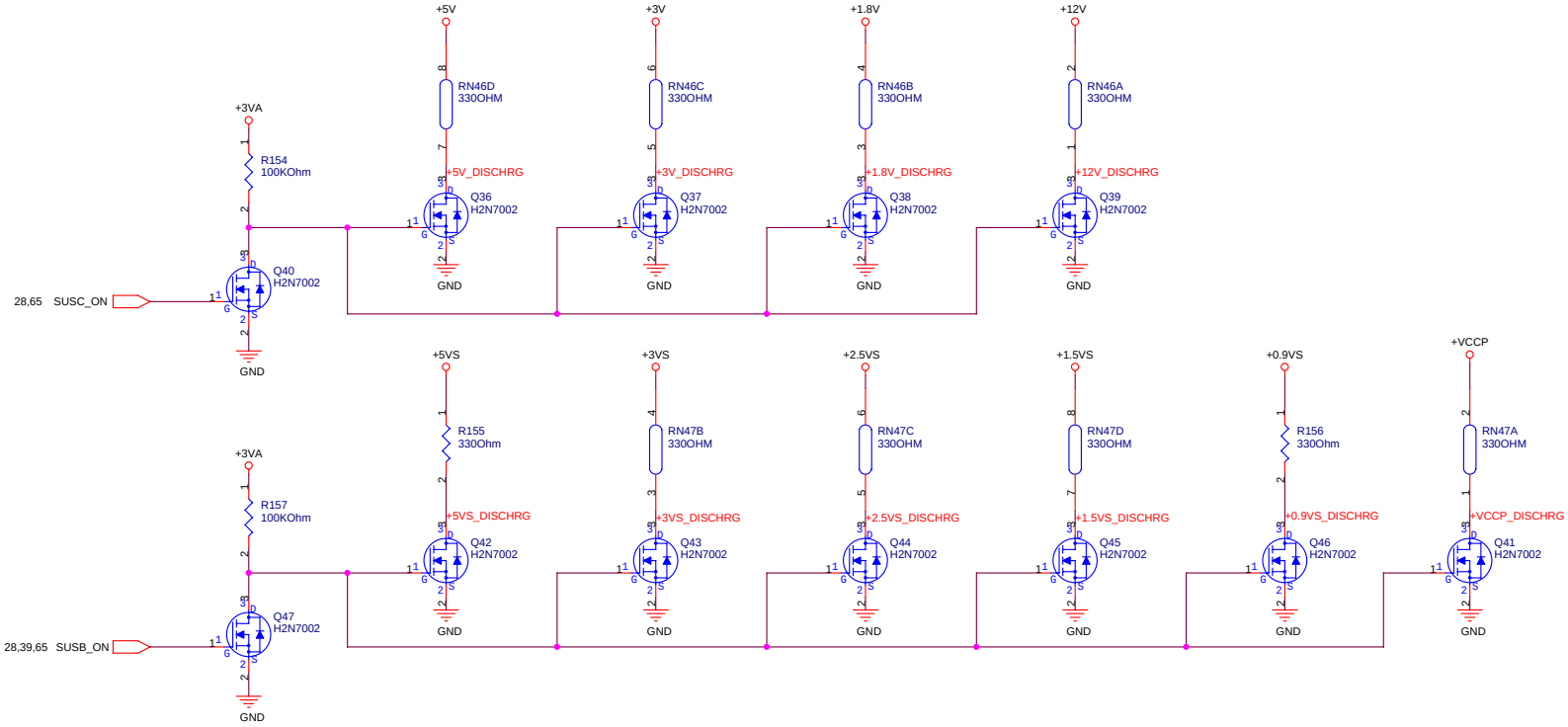

<Variant Name>

ASUSTek Computer INC.

Title : Discharger

Engineer: *Jack Hsu*

Size	Project Name	Rev
Custom	Z84J	1.1

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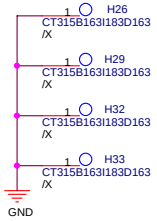
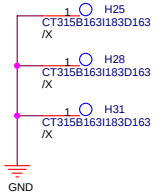
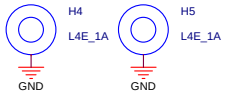
CPU Thermal Housing



North Bridge Thermal Housing

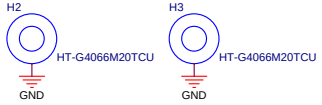


MDC Nut

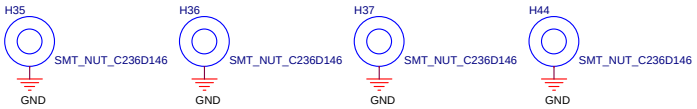


TPM Nut

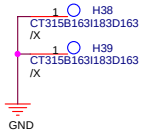
Mini Card Nut



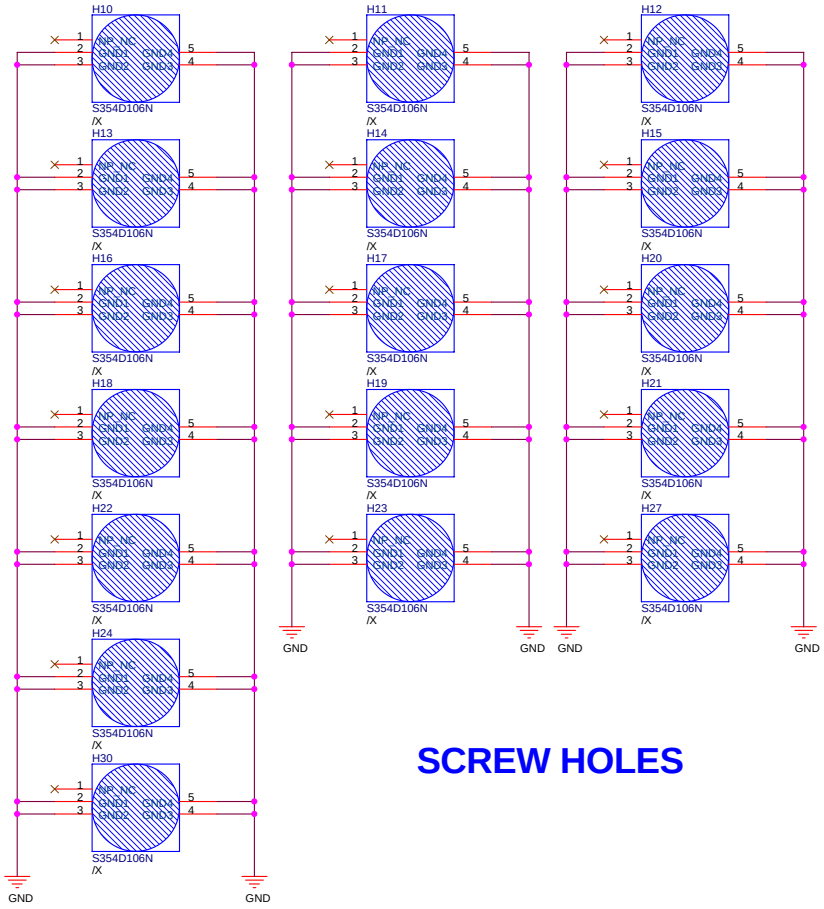
System Fan Nut



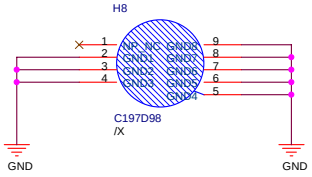
MXM



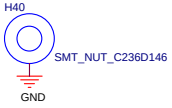
SCREW HOLES



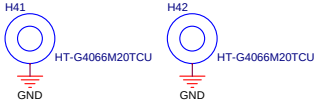
System Fan Screw hole



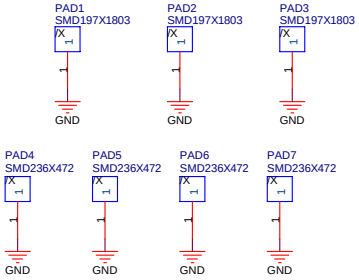
System Nut



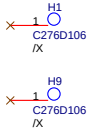
TV-Tuner Nut



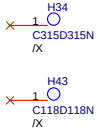
EMI PAD



PTH HOLE

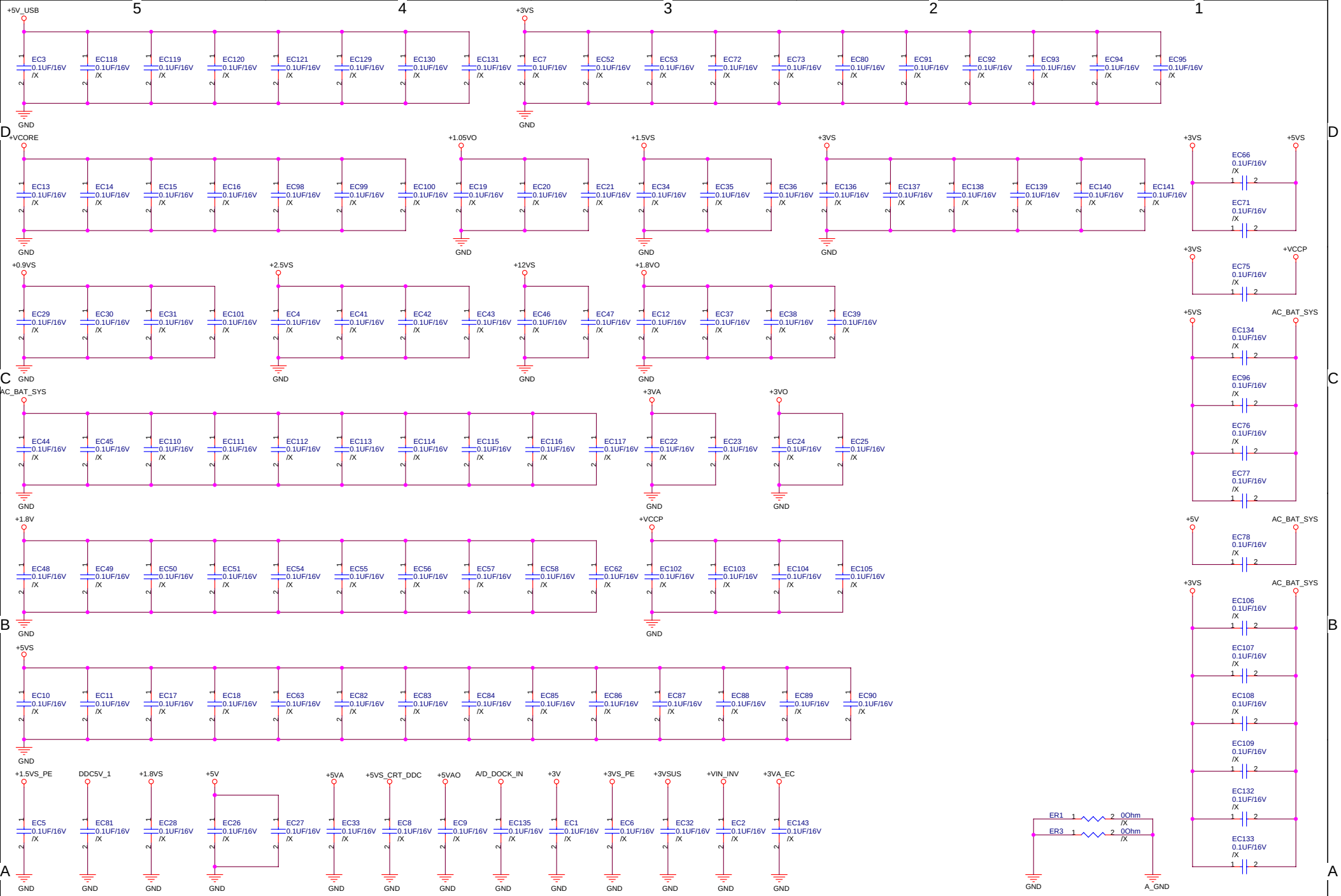


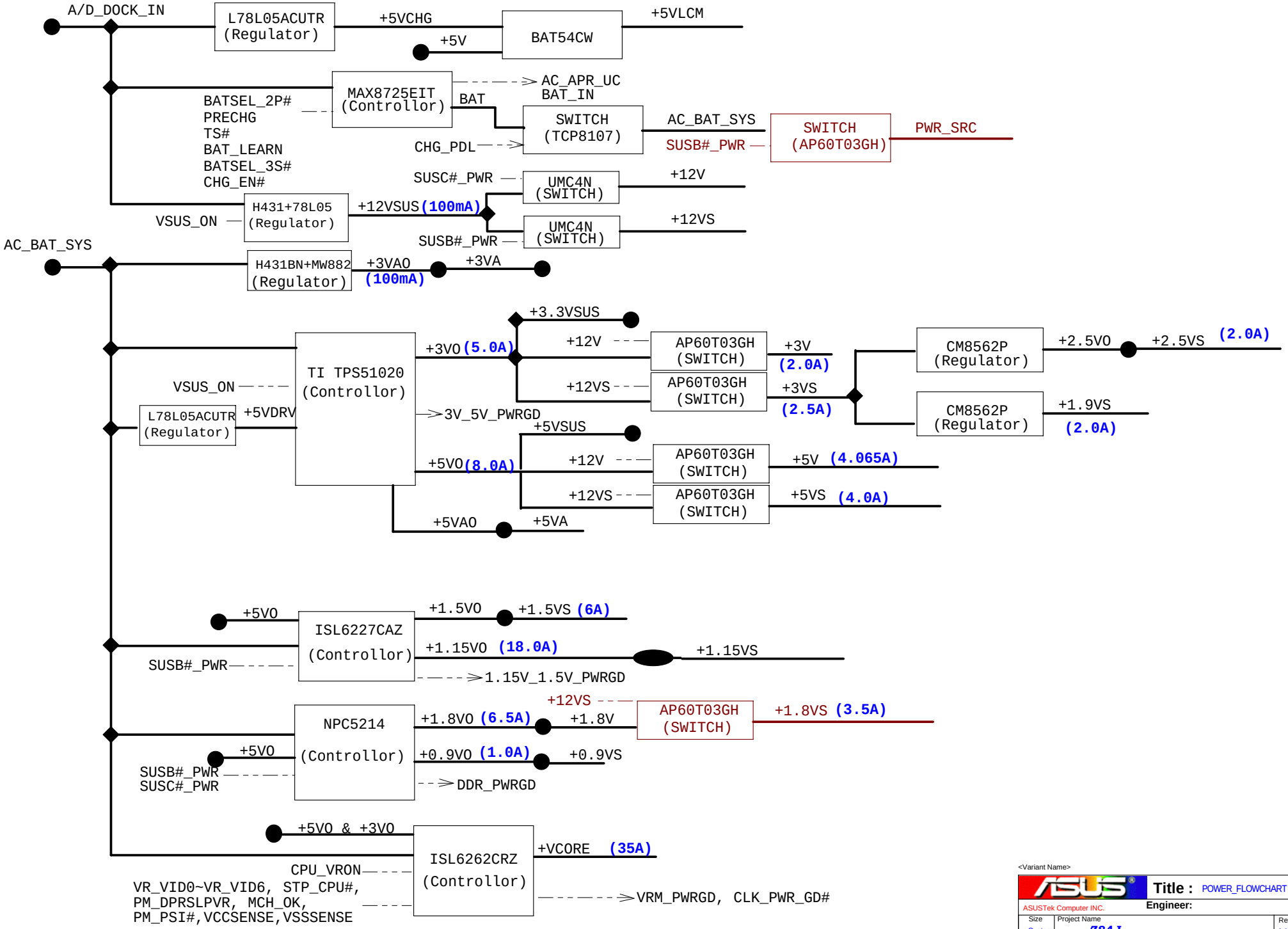
NPTH HOLE



<Variant Name>

ASUSTek Computer INC.	Title : Screw Hole	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z84J	Rev: 1.1
Date: Tuesday, October 10, 2006	Sheet 56 of 68	


+5V_USB
EC3 0.1UF/16V /X
EC118 0.1UF/16V /X
EC119 0.1UF/16V /X
EC120 0.1UF/16V /X
EC121 0.1UF/16V /X
EC129 0.1UF/16V /X
EC130 0.1UF/16V /X
EC131 0.1UF/16V /X
GND
+3VS
EC7 0.1UF/16V /X
EC52 0.1UF/16V /X
EC53 0.1UF/16V /X
EC72 0.1UF/16V /X
EC73 0.1UF/16V /X
EC80 0.1UF/16V /X
EC91 0.1UF/16V /X
EC92 0.1UF/16V /X
EC93 0.1UF/16V /X
EC94 0.1UF/16V /X
EC95 0.1UF/16V /X
GND
+VCORE
EC13 0.1UF/16V /X
EC14 0.1UF/16V /X
EC15 0.1UF/16V /X
EC16 0.1UF/16V /X
EC98 0.1UF/16V /X
EC99 0.1UF/16V /X
EC100 0.1UF/16V /X
GND
+1.05VO
EC19 0.1UF/16V /X
EC20 0.1UF/16V /X
EC21 0.1UF/16V /X
GND
+1.5VS
EC34 0.1UF/16V /X
EC35 0.1UF/16V /X
EC36 0.1UF/16V /X
GND
+3VS
EC136 0.1UF/16V /X
EC137 0.1UF/16V /X
EC138 0.1UF/16V /X
EC139 0.1UF/16V /X
EC140 0.1UF/16V /X
EC141 0.1UF/16V /X
GND
+3VS
+5VS
EC66 0.1UF/16V /X
EC71 0.1UF/16V /X
+3VS
+VCCP
EC75 0.1UF/16V /X
+0.9VS
EC29 0.1UF/16V /X
EC30 0.1UF/16V /X
EC31 0.1UF/16V /X
EC101 0.1UF/16V /X
GND
+2.5VS
EC4 0.1UF/16V /X
EC41 0.1UF/16V /X
EC42 0.1UF/16V /X
EC43 0.1UF/16V /X
GND
+12VS
EC46 0.1UF/16V /X
EC47 0.1UF/16V /X
GND
+1.8VO
EC12 0.1UF/16V /X
EC37 0.1UF/16V /X
EC38 0.1UF/16V /X
EC39 0.1UF/16V /X
GND
+5VS
AC_BAT_SYS
EC134 0.1UF/16V /X
EC96 0.1UF/16V /X
EC76 0.1UF/16V /X
EC77 0.1UF/16V /X
AC_BAT_SYS
EC44 0.1UF/16V /X
EC45 0.1UF/16V /X
EC110 0.1UF/16V /X
EC111 0.1UF/16V /X
EC112 0.1UF/16V /X
EC113 0.1UF/16V /X
EC114 0.1UF/16V /X
EC115 0.1UF/16V /X
EC116 0.1UF/16V /X
EC117 0.1UF/16V /X
GND
+3VA
EC22 0.1UF/16V /X
EC23 0.1UF/16V /X
GND
+3VO
EC24 0.1UF/16V /X
EC25 0.1UF/16V /X
GND
+5V
AC_BAT_SYS
EC78 0.1UF/16V /X
+1.8V
EC48 0.1UF/16V /X
EC49 0.1UF/16V /X
EC50 0.1UF/16V /X
EC51 0.1UF/16V /X
EC54 0.1UF/16V /X
EC55 0.1UF/16V /X
EC56 0.1UF/16V /X
EC57 0.1UF/16V /X
EC58 0.1UF/16V /X
EC62 0.1UF/16V /X
GND
+VCCP
EC102 0.1UF/16V /X
EC103 0.1UF/16V /X
EC104 0.1UF/16V /X
EC105 0.1UF/16V /X
GND
+3VS
AC_BAT_SYS
EC106 0.1UF/16V /X
EC107 0.1UF/16V /X
EC108 0.1UF/16V /X
EC109 0.1UF/16V /X
EC132 0.1UF/16V /X
EC133 0.1UF/16V /X
+5VS
EC10 0.1UF/16V /X
EC11 0.1UF/16V /X
EC17 0.1UF/16V /X
EC18 0.1UF/16V /X
EC63 0.1UF/16V /X
EC82 0.1UF/16V /X
EC83 0.1UF/16V /X
EC84 0.1UF/16V /X
EC85 0.1UF/16V /X
EC86 0.1UF/16V /X
EC87 0.1UF/16V /X
EC88 0.1UF/16V /X
EC89 0.1UF/16V /X
EC90 0.1UF/16V /X
GND
+1.5VS_PE
EC5 0.1UF/16V /X
GND
DDC5V_1
EC81 0.1UF/16V /X
GND
+1.8VS
EC28 0.1UF/16V /X
GND
+5V
EC26 0.1UF/16V /X
EC27 0.1UF/16V /X
GND
+5VA
EC33 0.1UF/16V /X
GND
+5VS_CRT_DDC
EC8 0.1UF/16V /X
GND
+5VAO
EC9 0.1UF/16V /X
GND
A/D_DOCK_IN
EC135 0.1UF/16V /X
GND
+3V
EC1 0.1UF/16V /X
GND
+3VS_PE
EC6 0.1UF/16V /X
GND
+3VSUS
EC32 0.1UF/16V /X
GND
+VIN_INV
EC2 0.1UF/16V /X
GND
+3VA_EC
EC143 0.1UF/16V /X
GND
ER1 0Ohm /X
ER3 0Ohm /X
GND
A_GND
<Variant Name>
Title : EMI CAP
ASUSTek Computer INC.
Engineer: Jack Hsu
Size Custom
Project Name Z84J
Rev 1.1
Date: Tuesday, October 10, 2006
Sheet 57 of 68



<Variant Name>

ASUSTek Computer INC.

Title : POWER_FLOWCHART

Engineer:

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 58 of 68

AC_IN Threshold 2.048Vmax A/D_DOCK_IN > 17.44V active

Setting the Adapter Input Current Limit

Adapter Iin(max) = [0.075V/Rsense(ADin)]*[VCLS/VREF]

VCLS= 2.865V

Adaptor Max. Current :

PR5708=20K PR5714 = 178K; Ilimit = 4.5A; 81W

PR5708=27K PR5714 = 47K; Ilimit = 3.175A; 60W

Setting the Charge Voltage

Vbatt = Cell * { Vref +[(VCTL- 1.8V) / 9.52] }

VCTL= 1.588V => Vbatt = 4.2V

Setting the Charge Current

Charge Current Ichg = [0.075V/Rsense(CHG)]*[VICTL/3.6V]

Rsense(CHG)= 15m Ohm

Pre-Charging Mode :

Precharging current = 148 ~ 152mA

Victl = 0.107V ~ 0.109V

Battery Cell Selection :

BATSEL_2P# = 1, 3 Cells; Victl = 2.084V

=> Icharge = 1.6933A

BATSEL_2P# = 0, 6 or 9 Cells; Victl = 2.111V

=> Icharge = 2.9329A

PR5709=120K PR5715 = 120K; Icharge = 2.9329A

Mode pin : Vmode > 2.8V (trie to LDO pin) ----> 4 Cells

2.0 > Vmode > 1.6V (floating) ----> 3 Cells

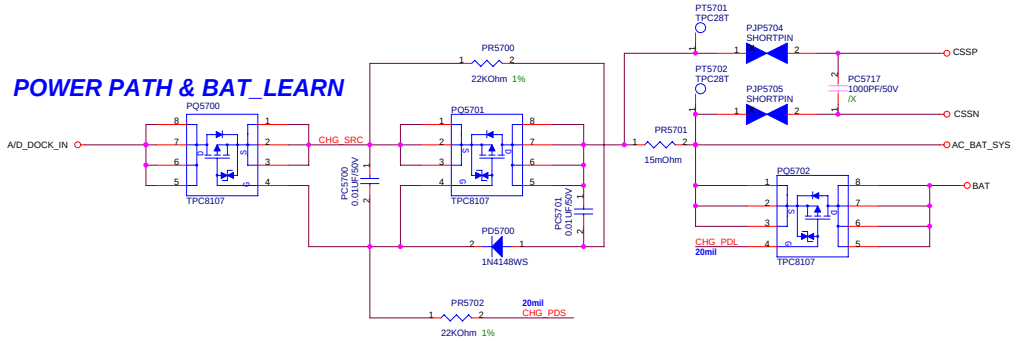
0.8 > Vmode (trie to GND) ----> Learning mode

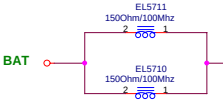
VICTL< 0.8V or DCIN < 7V -->Charger Disable

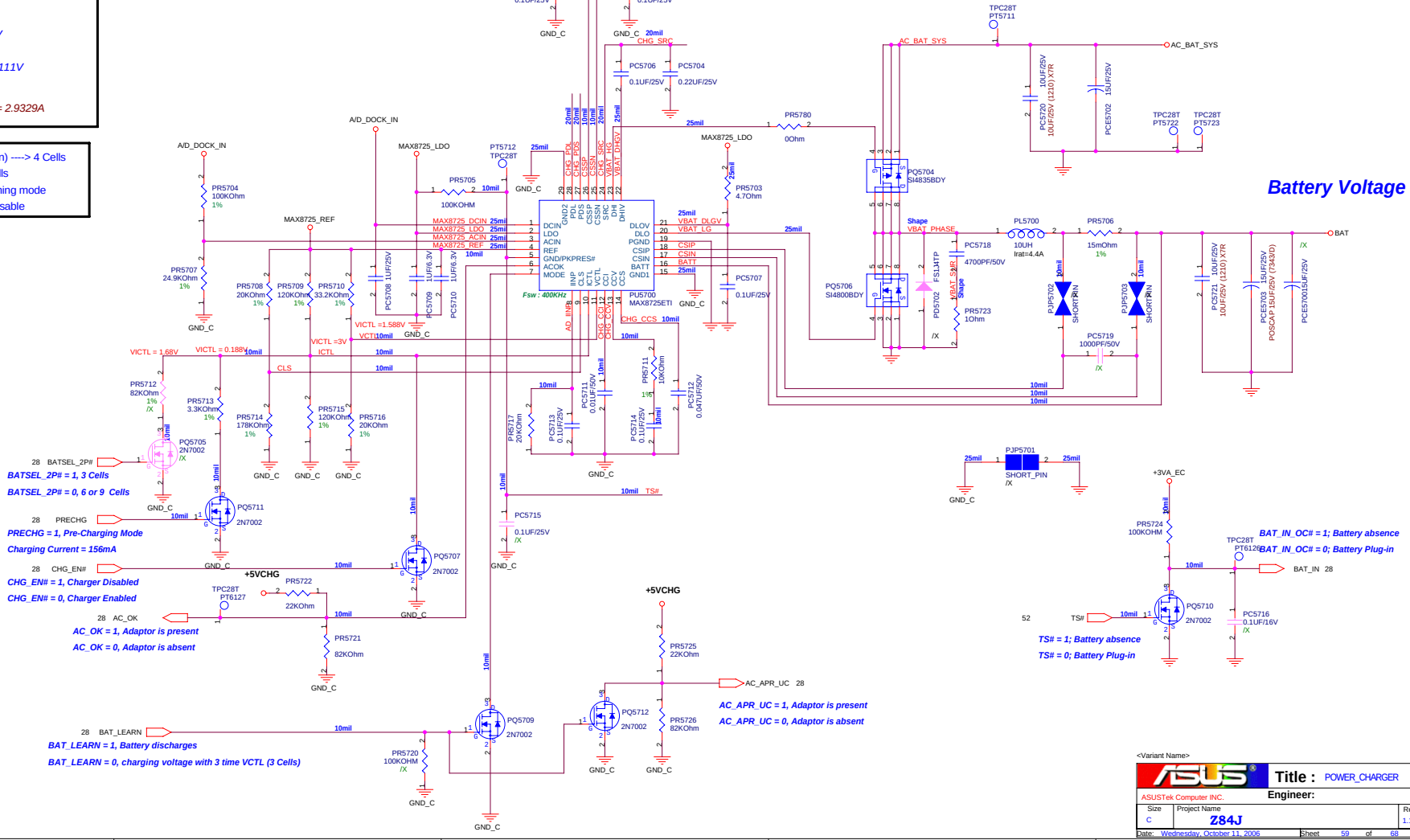
MAX8725_REF : 4.2235V

MAX8725_LDO : 5.4V

POWER PATH & BAT_LEARN



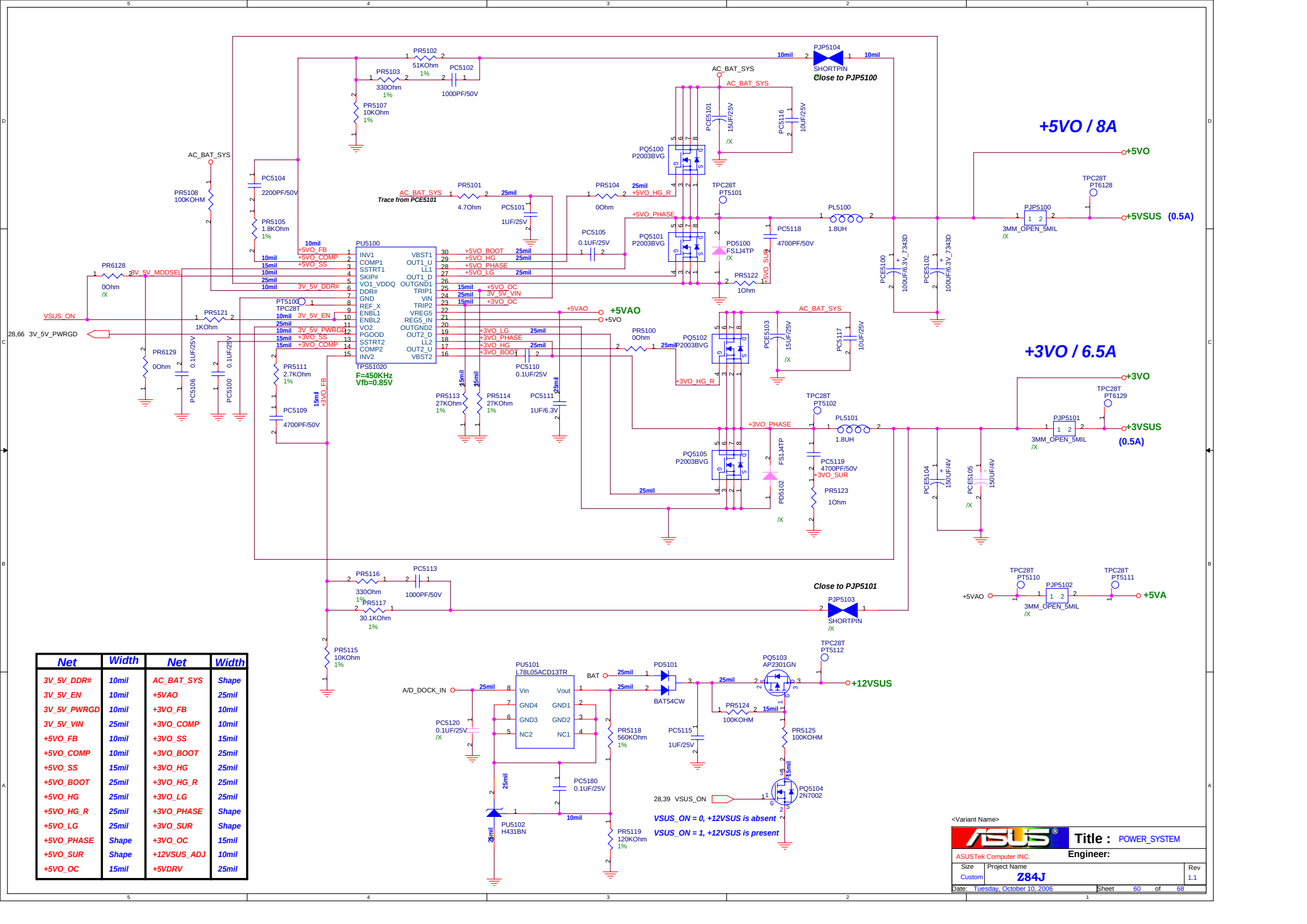




Battery Voltage

<variant_name>

ASUSTek Computer INC.	Title : POWER_CHARGER	
	Engineer:	
Size: C	Project Name: Z84J	Rev: 1.1
Date: Wednesday, October 11, 2006	Sheet 59 of 68	



Net	Width	Net	Width
3V_5V_DDR#	10mil	AC_BAT_SYS	Shape
3V_5V_EN	10mil	+5VAO	25mil
3V_5V_PWRGD	10mil	+3VO_FB	10mil
3V_5V_VIN	25mil	+3VO_COMP	10mil
+5VO_FB	10mil	+3VO_SS	15mil
+5VO_COMP	10mil	+3VO_BOOT	25mil
+5VO_SS	15mil	+3VO_HG	25mil
+5VO_BOOT	25mil	+3VO_HG_R	25mil
+5VO_HG	25mil	+3VO_LG	25mil
+5VO_HG_R	25mil	+3VO_PHASE	Shape
+5VO_LG	25mil	+3VO_SUR	Shape
+5VO_PHASE	Shape	+3VO_OC	15mil
+5VO_SUR	Shape	+12VSUS_ADJ	10mil
+5VO_OC	15mil	+5VDRV	25mil

<Variant Name>

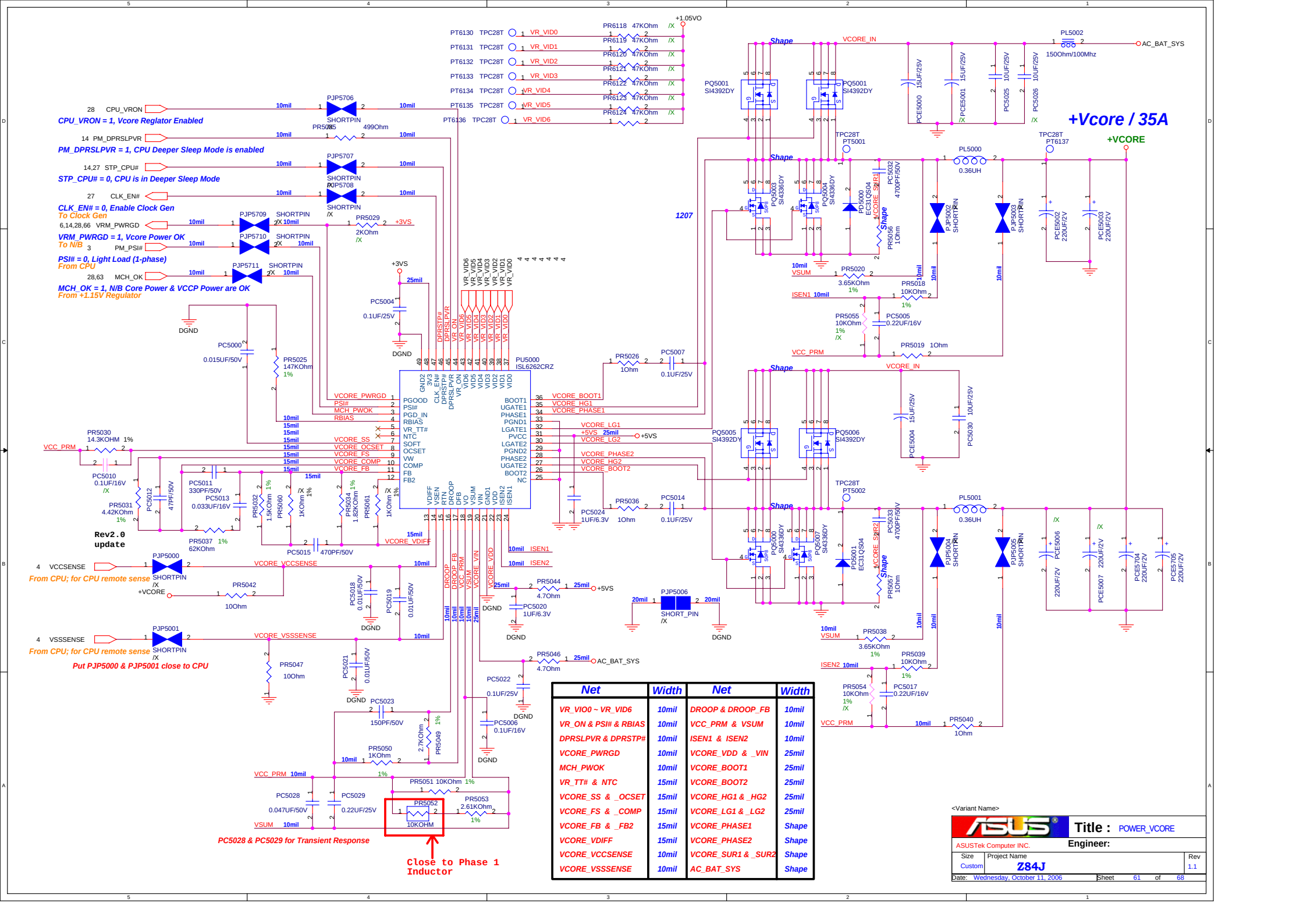
ASUSTek Computer INC.

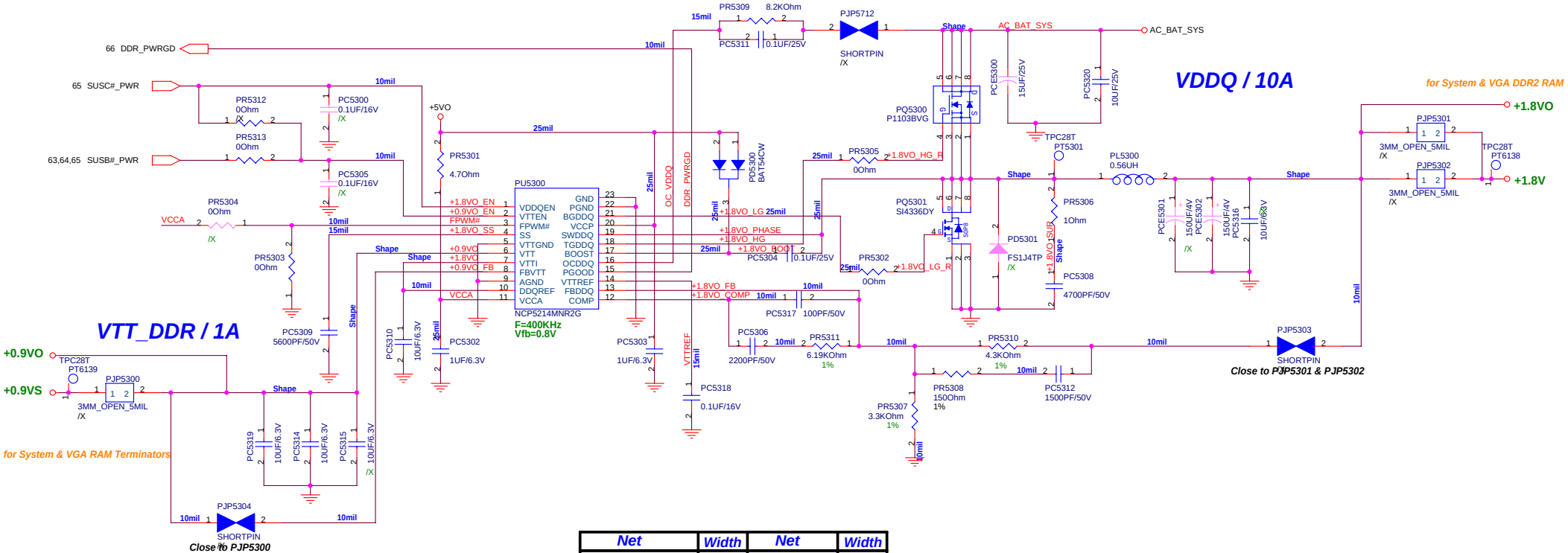
Title : POWER_SYSTEM

Engineer:

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 60 of 68


+Vcore / 35A
+VCORE
CPU_VRON = 1, Vcore Reglator Enabled
PM_DPRSLPVR = 1, CPU Deeper Sleep Mode is enabled
STP_CPU# = 0, CPU is in Deeper Sleep Mode
CLK_EN# = 0, Enable Clock Gen
To Clock Gen
VRM_PWRGD = 1, Vcore Power OK
To N/B
PSI# = 0, Light Load (1-phase)
From CPU
MCH_OK = 1, N/B Core Power & VCCP Power are OK
From +1.15V Regulator
Rev2.0 update
From CPU; for CPU remote sense
Put PJP5000 & PJP5001 close to CPU
PC5028 & PC5029 for Transient Response
Close to Phase 1 Inductor
PU5000 ISL6262CRZ
1207
Shape
Net
Width
VR_VID0 ~ VR_VID6
10mil
VR_ON & PSI# & RBIAS
DPRSLPVR & DPRSTP#
VCORE_PWRGD
MCH_PWOK
VR_TT# & NTC
VCORE_SS & _OCSET
VCORE_FS & _COMP
VCORE_FB & _FB2
VCORE_VDIFF
VCORE_VCCSENSE
VCORE_VSSSENSE
DROOP & DROOP_FB
VCC_PRM & VSUM
ISEN1 & ISEN2
VCORE_VDD & _VIN
VCORE_BOOT1
15mil
VCORE_BOOT2
VCORE_HG1 & _HG2
VCORE_LG1 & _LG2
25mil
VCORE_PHASE1
Shape
VCORE_PHASE2
Shape
AC_BAT_SYS
Shape
Title : POWER_VCORE
ASUSTek Computer INC.
Engineer:
Size
Custom
Project Name
Z84J
Rev
1.1
Date: Wednesday, October 11, 2006
Sheet 61 of 68



Net	Width	Net	Width
+1.8VO_EN	10mil	+1.8VO_BOOT	25mil
+1.8VO	Shape	+1.8VO_COMP	10mil
+0.9VO_EN	10mil	+1.8VO_HG_R	25mil
+0.9VO	Shape	+1.8VO_LG_R	25mil
+0.9VO_FB	10mil	+1.8VO_HG	25mil
+1.8VO --> DDQREF	10mil	+1.8VO_LG	25mil
VTTREF	15mil	+1.8VO_PHASE	Shape
FPWM#	10mil	+1.8VO_SUR	Shape
VCCA	10mil	+1.8VO_FB	10mil
DDR_PWRGD	10mil	+1.8VO_SS	15mil
OC_VDDQ	15mil	AC_BAT_SYS	Shape

<Variant Name>

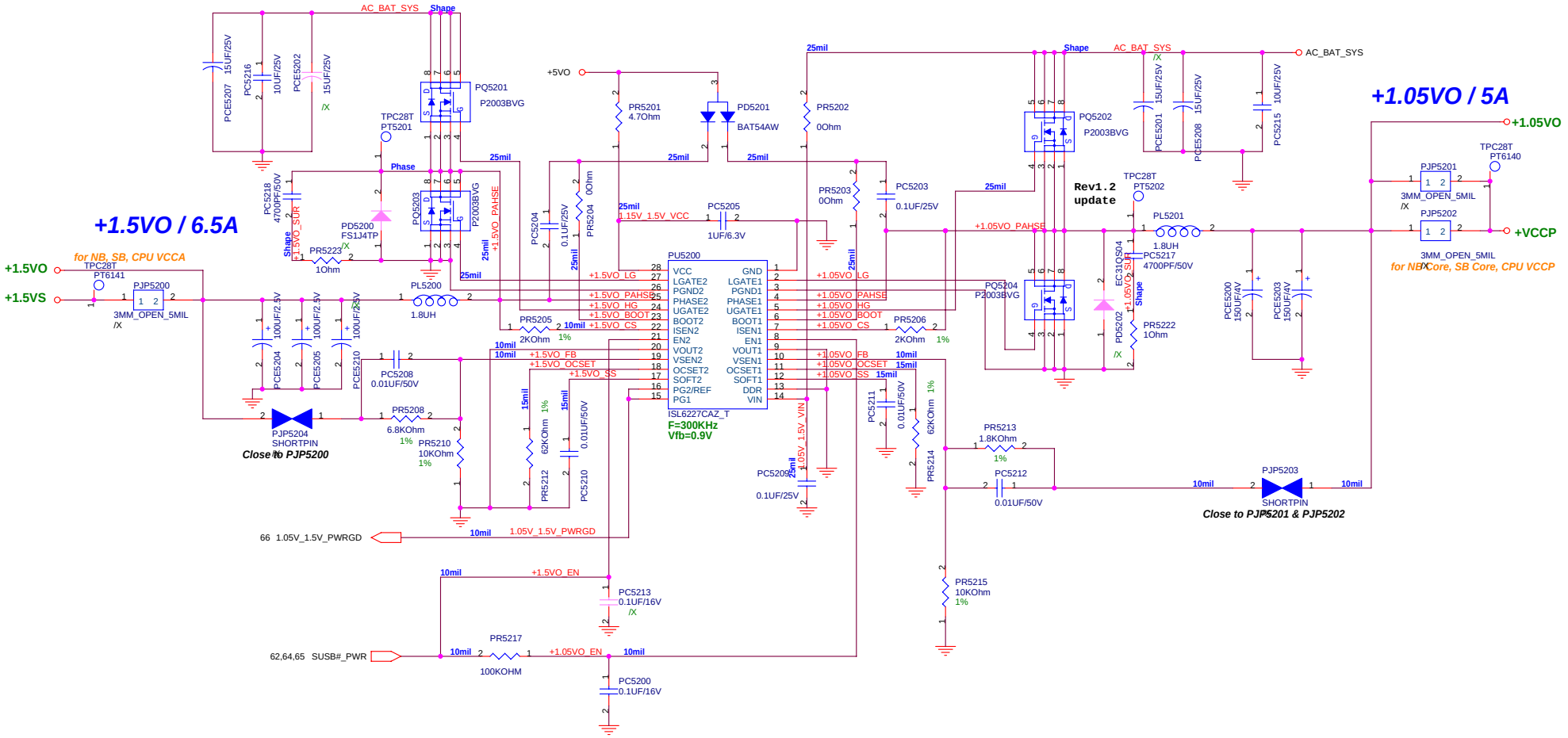
ASUSTek Computer INC.

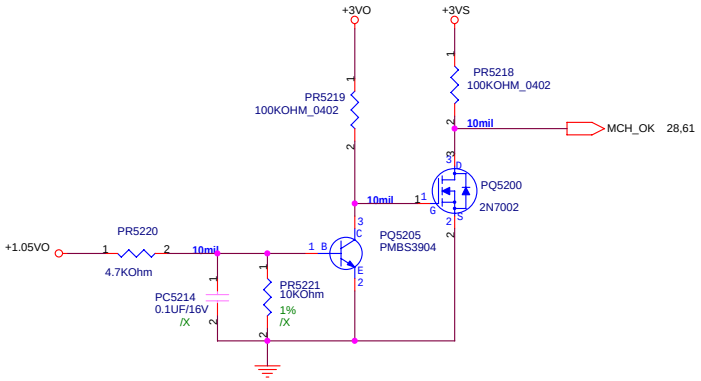
Title : POWER_I/O_DDR & VTT

Engineer:

Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 62 of 68





Net	Width	Net	Width
1.15V_1.5V_VCC	25mil	+1.5VO_SS	15mil
1.15V_1.5V_PWRGD	10mil	AC_BAT_SYS	Shape
1.15V_1.5V_VIN	25mil	+1.15VO_EN	10mil
+1.5VO_EN	10mil	+1.15VO_LG	25mil
+1.5VO_LG	25mil	+1.15VO_HG	25mil
+1.5VO_HG	25mil	+1.15VO_PHASE	Shape
+1.5VO_PHASE	Shape	+1.15VO_BOOT	25mil
+1.5VO_BOOT	25mil	+1.15VO_MODSEL	10mil
+1.5VO_MODSEL	10mil	+1.15VO_CS	10mil
+1.5VO_CS	10mil	+1.15VO_FB	10mil
+1.5VO_FB	10mil	+1.15VO_OCSET	25mil
+1.5VO_OCSET	15mil	+1.15VO_SS	15mil
+1.5VO_SUR	Shape	+1.15VO_SUR	Shape

<Variant Name>

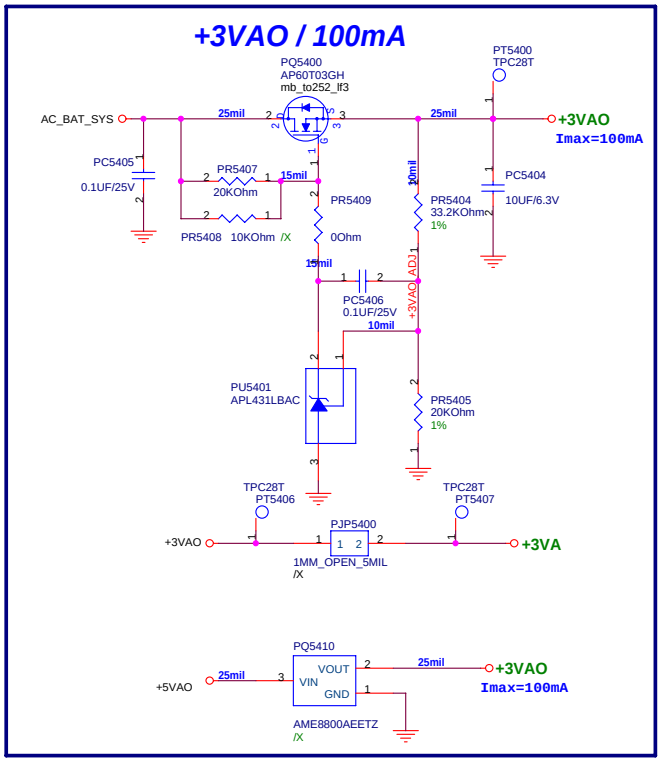
ASUSTek Computer INC.

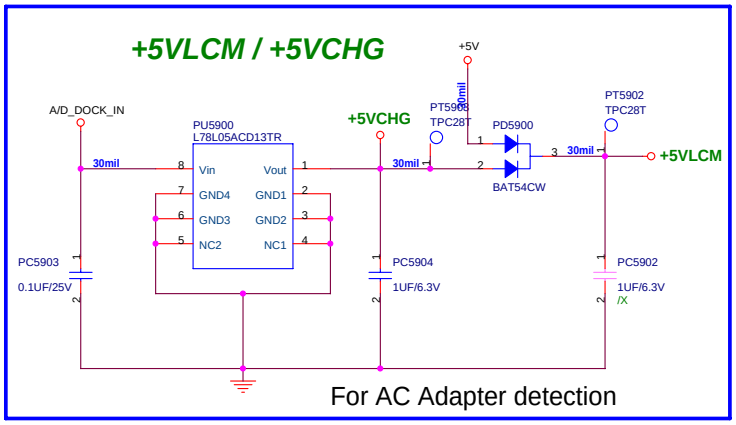
Title : POWER_I/O_1.5VS & 1.05VS

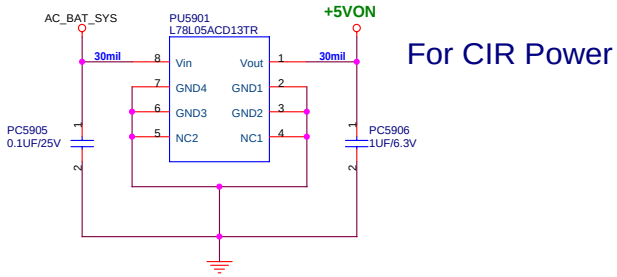
Engineer:

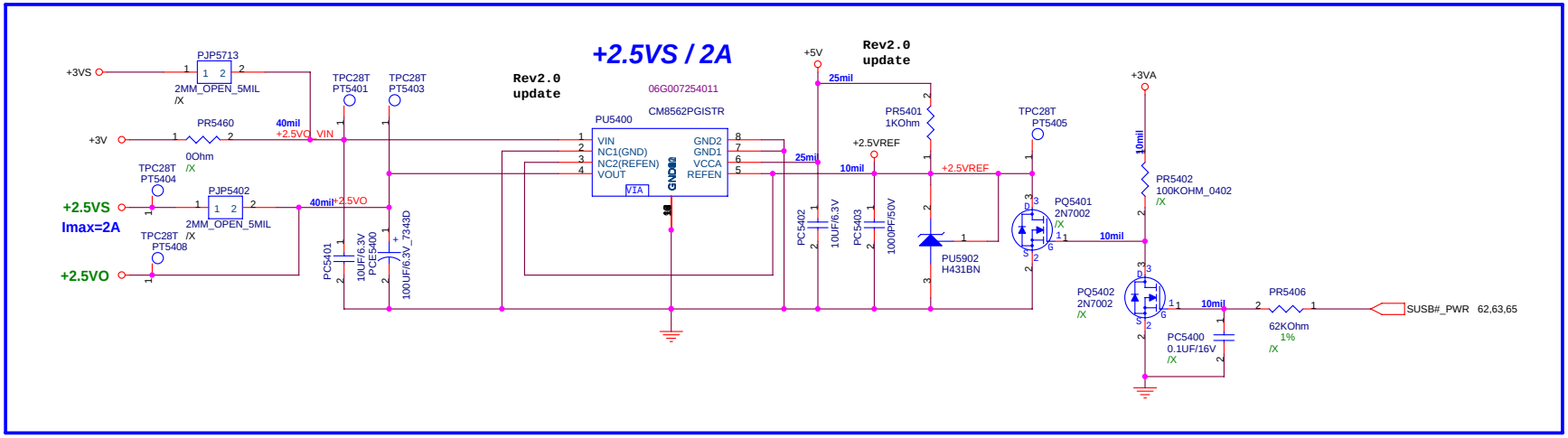
Size	Project Name	Rev
Custom	Z84J	1.1

Date: Tuesday, October 10, 2006 Sheet 63 of 68









<Variant Name>

ASUSTek Computer INC.

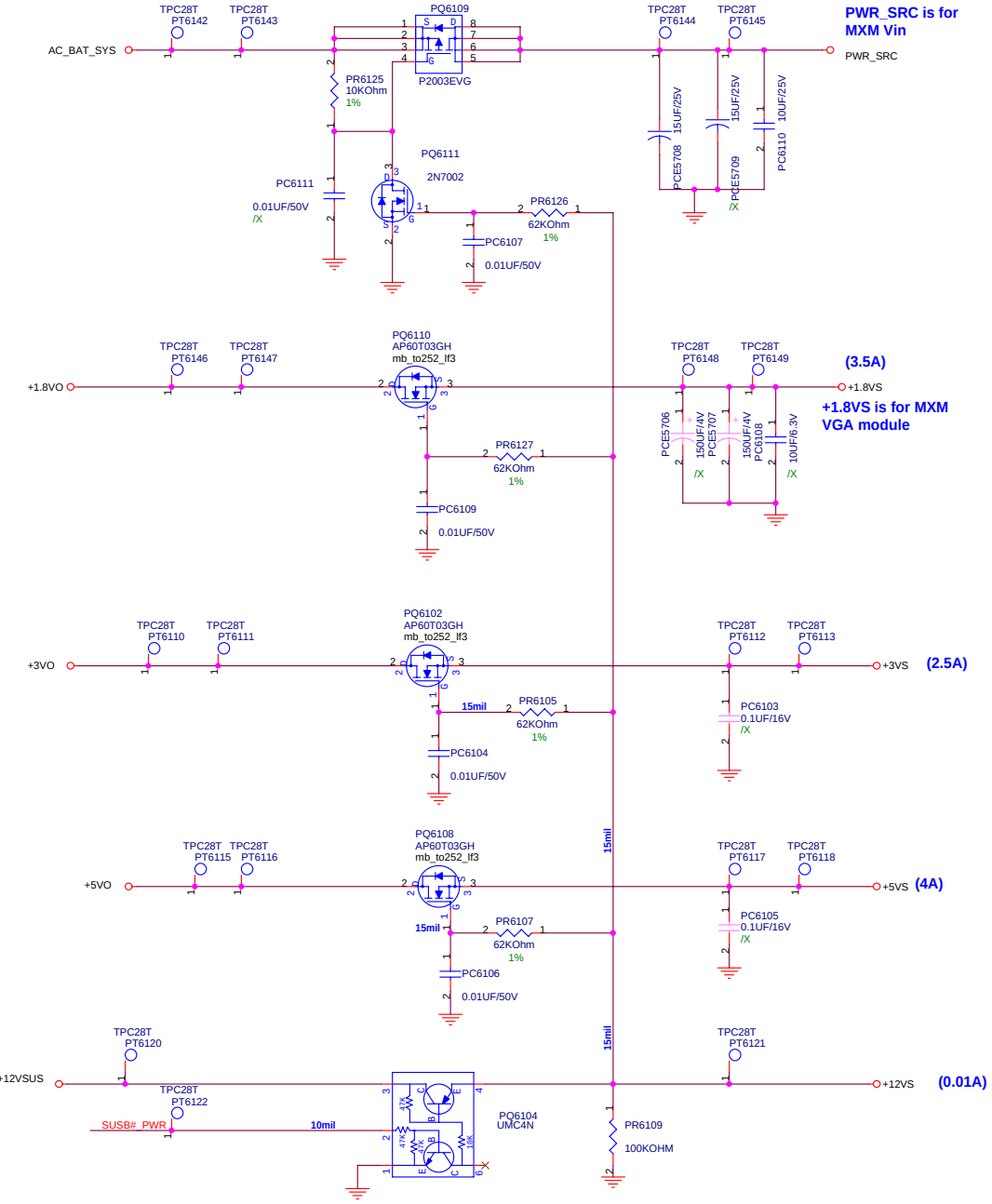
Title : POWER_I/O_+3VA & +2.5V

Engineer:

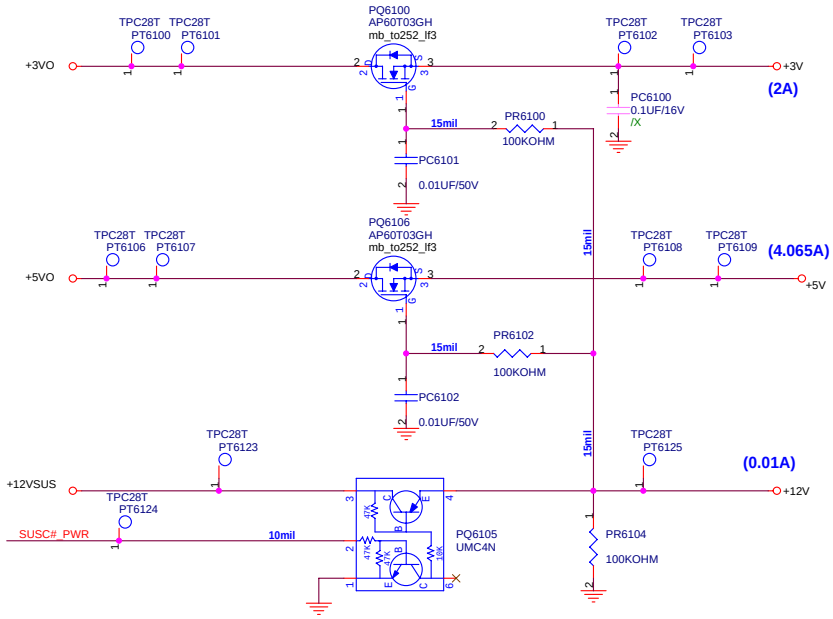
Size	Project Name	Rev
Custom	Z84J	1.1

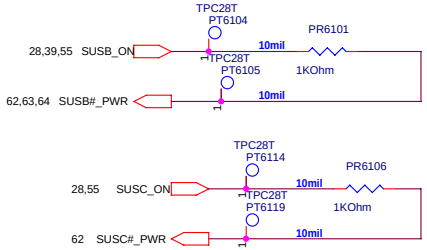
Date: Tuesday, October 10, 2006 Sheet 64 of 68

SUSB#_PWR POWER



SUSC#_PWR POWER





<Variant Name>

ASUSTek Computer INC.

Title : POWER_LOAD SWITCH

Engineer:

Size	Project Name	Rev
Custom	Z84J	1.1

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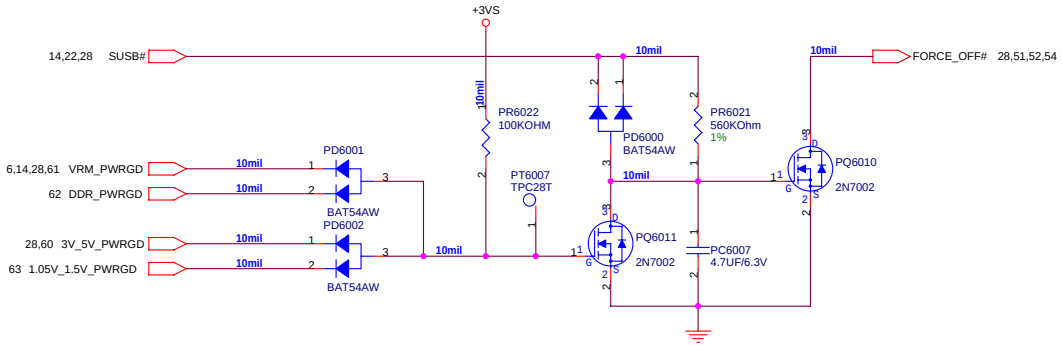
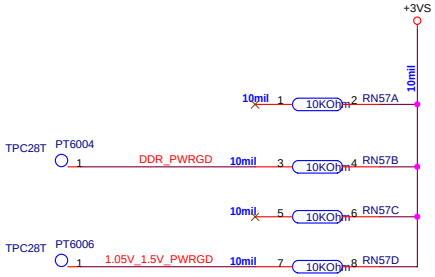
Power Good Detecter





<Variant Name>

ASUSTek Computer INC.

Title : POWER_PROTECT

Engineer:

Size	Project Name	Rev
Custom	Z84J	1.1

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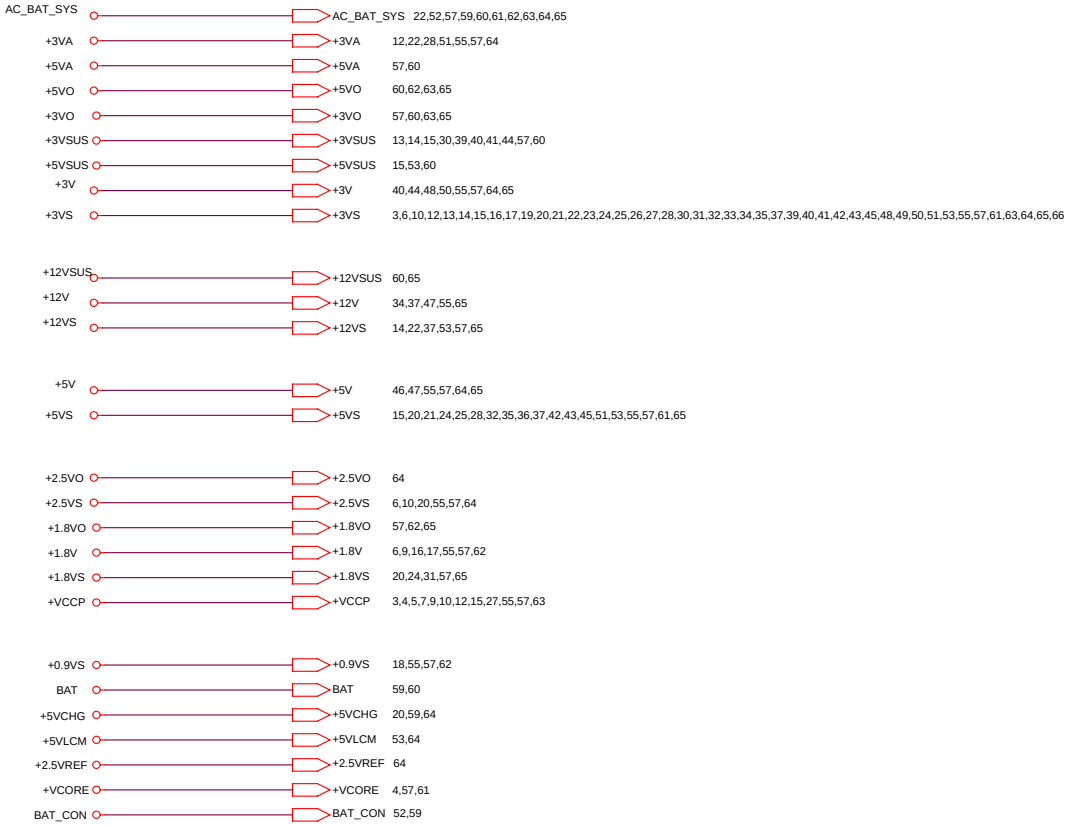

<Variant Name>

ASUSTek Computer INC.

Title : POWER_SIGNAL

Engineer: JEFF

Size	Project Name	Rev
Custom	Z84J	1.1

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Rev	Date	Description
1.0	04/10/06	1. Initial release.(From Z84F)
1.1	08/08/06	1. Change Audio Codec from AD1988B to ALC888(Page 35)
		2. Change AJ2, AJ3 to Azalia type
		3. Correct RN2 Connection
		4. Add PR5312, PR5313 to fix NANYA DIMM S3 fail issue(Page 62)
		5. MXM_PWROK : remove R80(Page 19, Page 28)
		6. PR5308 change to 1.2K 1% 0603(Page 62)
		7. Change Inverter Connector type (12pin) & Pin define CON7(Page 22)
		8. Remove : AR1, AR6, AR7, AR8, AR13, AR14, AR15, AR18, AR19, AR21, AR22, AR34, AC1, AC2, AC4, AC5, AC7, AC8, AC11, AC13, AC23, AC25, AC26, AC27, AU2, AQ6, AQ7, AQ9, AQ12 Add : AC81-AC85, AR71, ARN3, AD3, AD4, AL16
	08/10/06	1. Remove T100-T118(Page 41)
		2. Add PU5901, PC5905, PC5906 for CIR Power(Page 64)
		3. PR5308 change to 150K 1% 0603, PC5312 change to 1500PF 0603(Page 62)
		4. Add PR5060, PR5061(Page 61)
		5. PR5114 change to 27K 1% 0603(Page 60)
		6. PR5722 change to 22K 1% 0603, Stuff PR5721(Page 59)
		7. R77 change to 4.7K, Pull to +5VCHG for AC_OK(Page 20)
		8. Change connection of L23, L24
		9. Change CON18 P/N
		10. Add D30, D31, D32, C175, C176, R136(Page 28)
	08/11/06	1. Add Audio Amp. AU100, AR100-AR103, AC100-AC107, non-stuff AC41(Page 36)
		2. AC82 change to 1uF 0603, Add AU2, AC23, AC86, AC87, AR72, AR73, AJP1, AJP2, Remove AC12
		3. Change MXM SMBus connection to EC, SMB1_CLK, SMB1_DAT(Page 28, Page19)
1.2	08/29/06	1. Change eSATA Controller from Sil3531 to JMB360(Page 31)

Rev	Date	Description

<Variant Name>

ASUSTek Computer INC.

Title : History

Engineer: *Jack Hsu*

Size	Project Name	Rev
Custom	Z84J	1.1

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