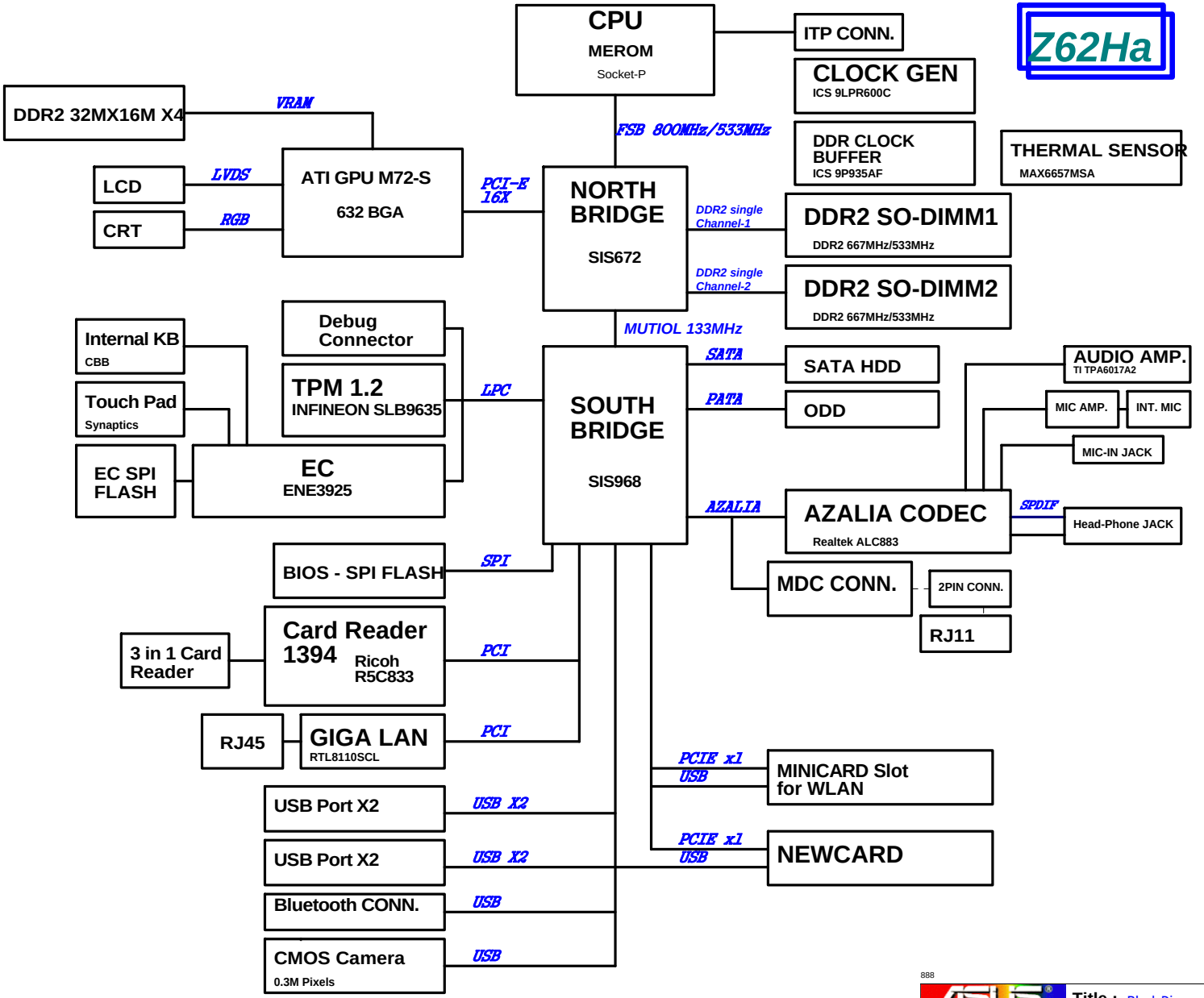

888

ASUSTek Computer INC.

Title : Block Diagram

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 1 of 70

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	AD22	0	INTB-->INTB
1394	AD22	0	INTA-->INTA
LAN	AD24	REQ#2/GNT#2	INTA-->INTC

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

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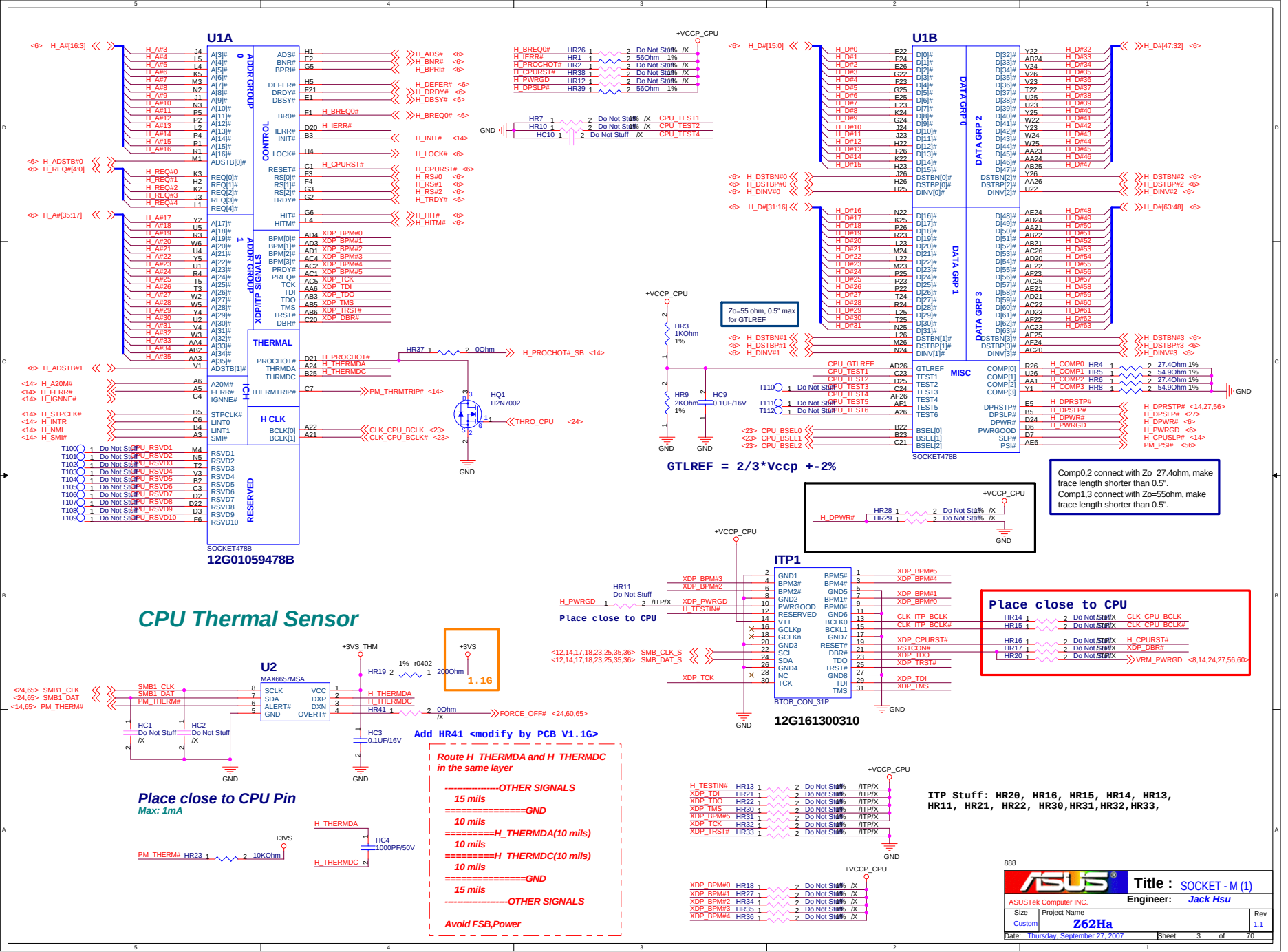
ASUSTek Computer INC.

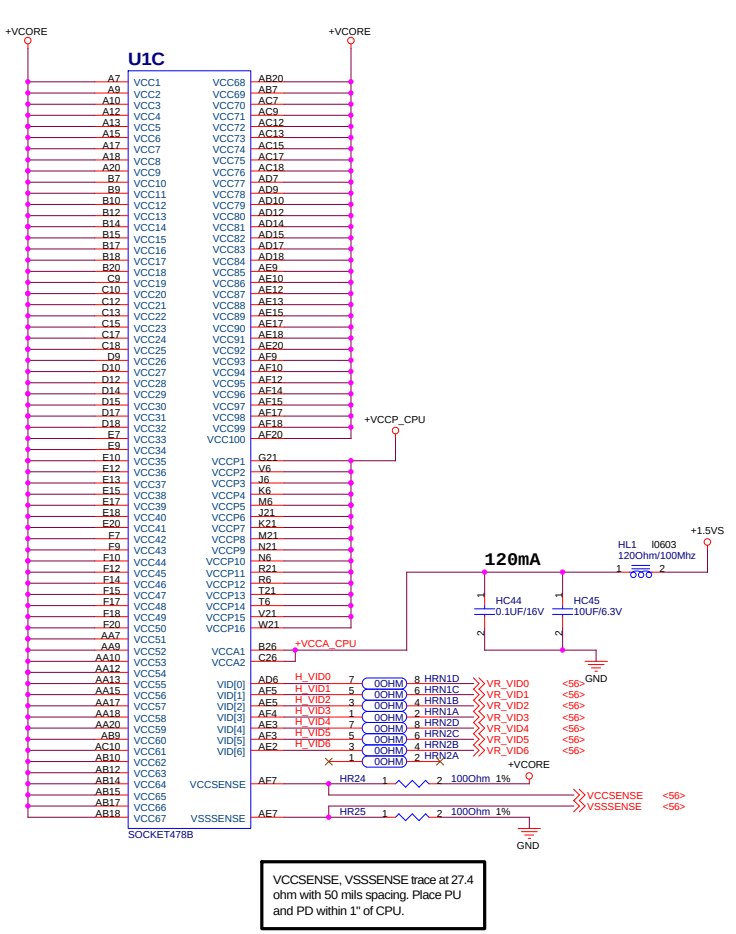
Title : System Setting

Engineer: Jack Hsu

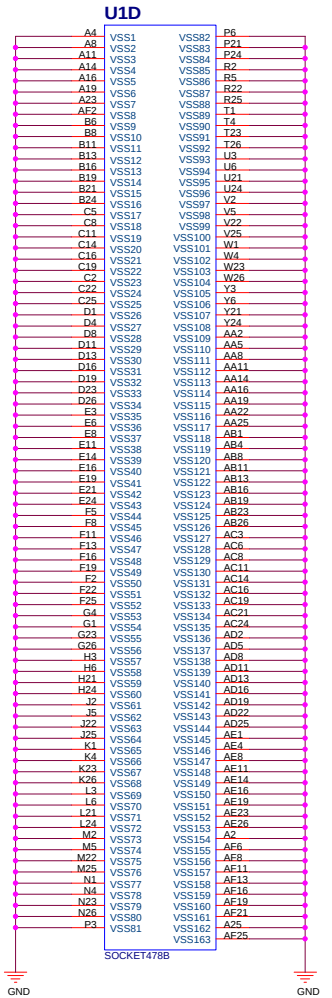
Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 2 of 70


U1A
U1B
SOCKET478B
12G01059478B
GTLREF = 2/3*Vccp +-2%
Zo=55 ohm, 0.5" max for GTLREF
Comp0,2 connect with Zo=27.4ohm, make trace length shorter than 0.5".
Comp1,3 connect with Zo=55ohm, make trace length shorter than 0.5".
CPU Thermal Sensor
U2
MAX6657MSA
Place close to CPU Pin
Max: 1mA
Route H_THERMDA and H_THERMDC in the same layer
Avoid FSB,Power
Add HR41 <modify by PCB V1.1G>
ITP1
BTOB_CON_31P
12G161300310
Place close to CPU
ITP Stuff: HR20, HR16, HR15, HR14, HR13, HR11, HR21, HR22, HR30,HR31,HR32,HR33,
Title : SOCKET - M (1)
ASUSTek Computer INC.
Engineer: Jack Hsu
Project Name Z62Ha
Rev 1.1
Date: Thursday, September 27, 2007
Sheet 3 of 70



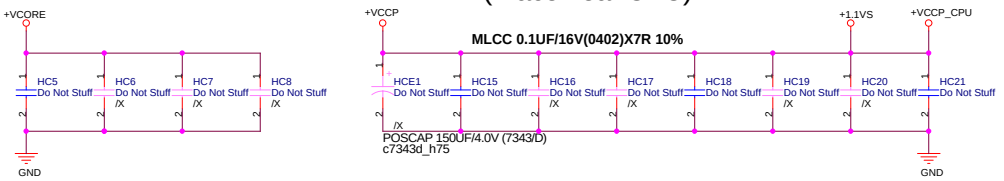
VCCSENSE, VSSSENSE trace at 27.4 ohm with 50 mils spacing. Place PU and PD within 1" of CPU.



888

ASUSTek Computer INC.	Title : SOCKET - M (2)	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 4 of 70	

+VCCP Decoupling Capacitor (Place near CPU)

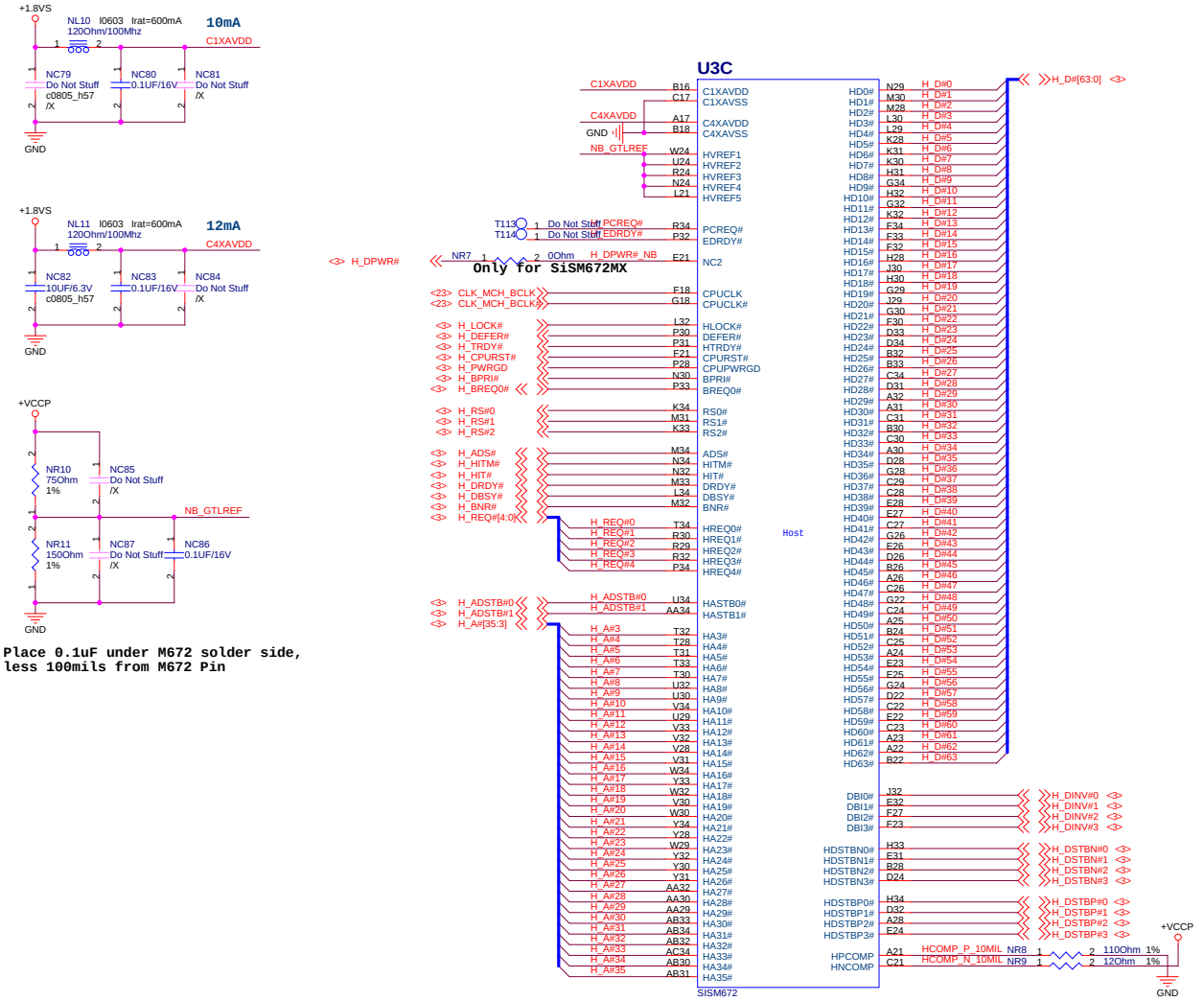


Decoupling guide from INTEL
44A for Merom

VCORE 22uF/10V * 32pcs, 330uF/2V * 6pcs
VCCP 0.1uF * 6pcs, 150uF * 1pcs

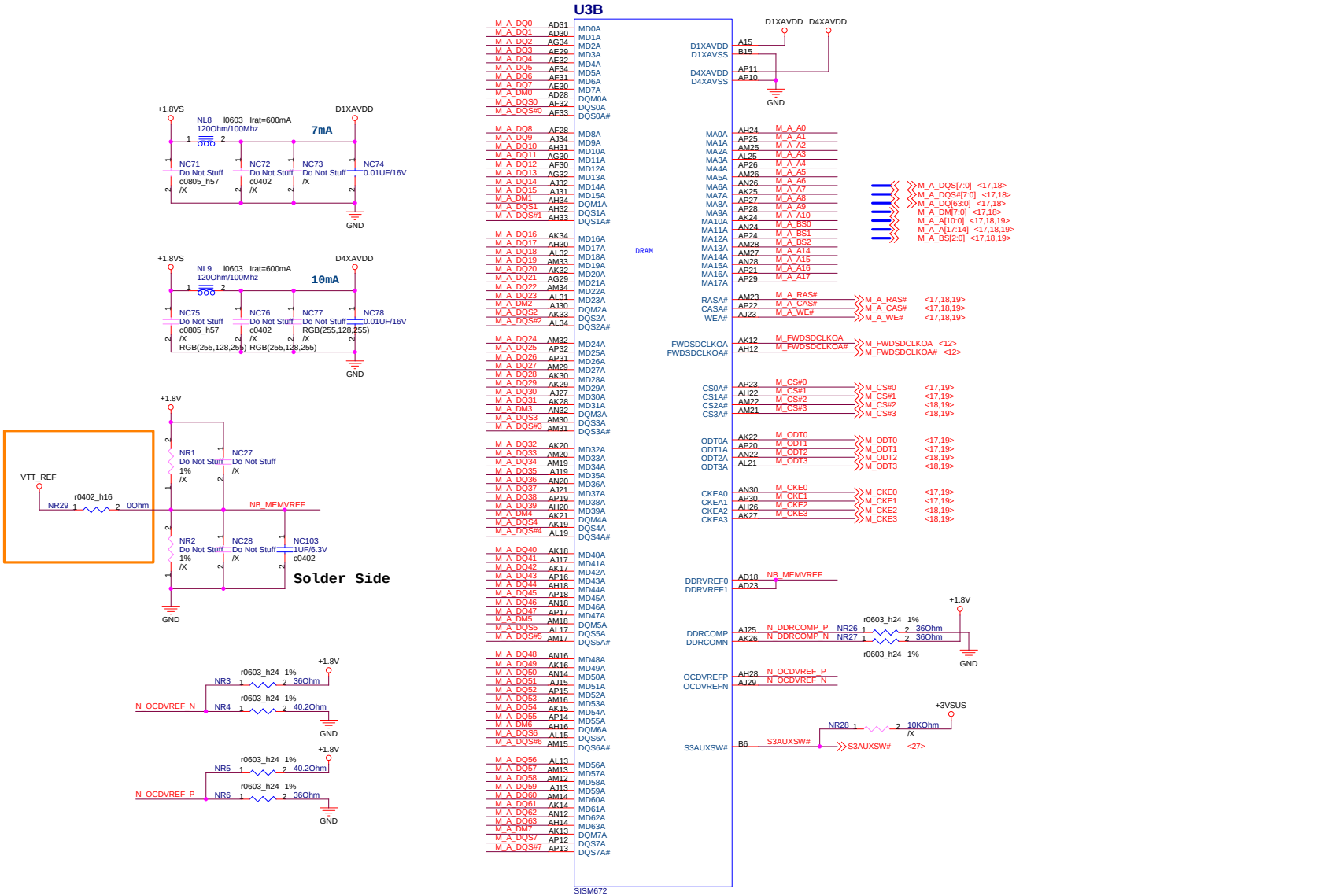
888

ASUSTek Computer INC.	Title : CPU CAP	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 5 of 70	



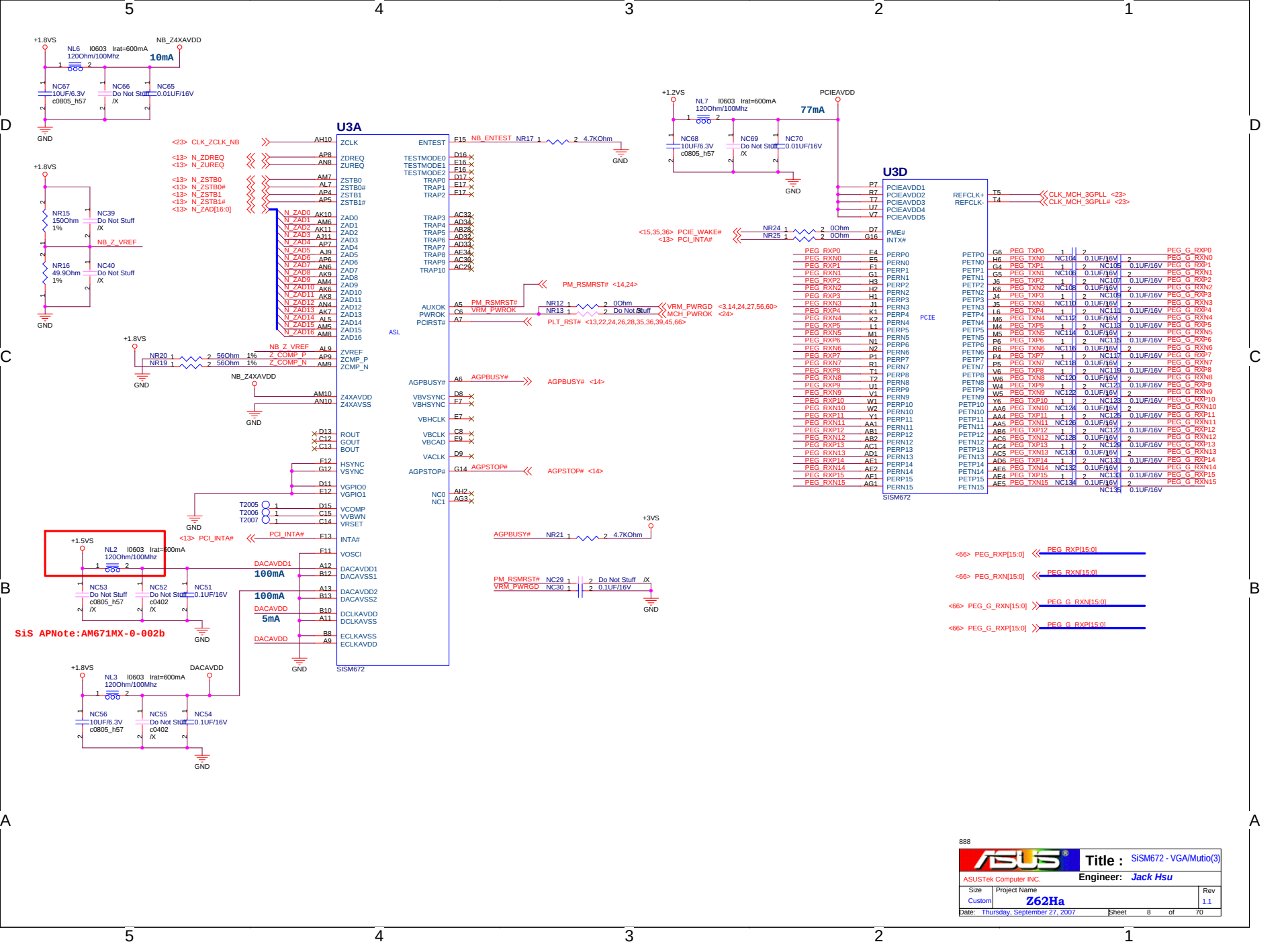
888

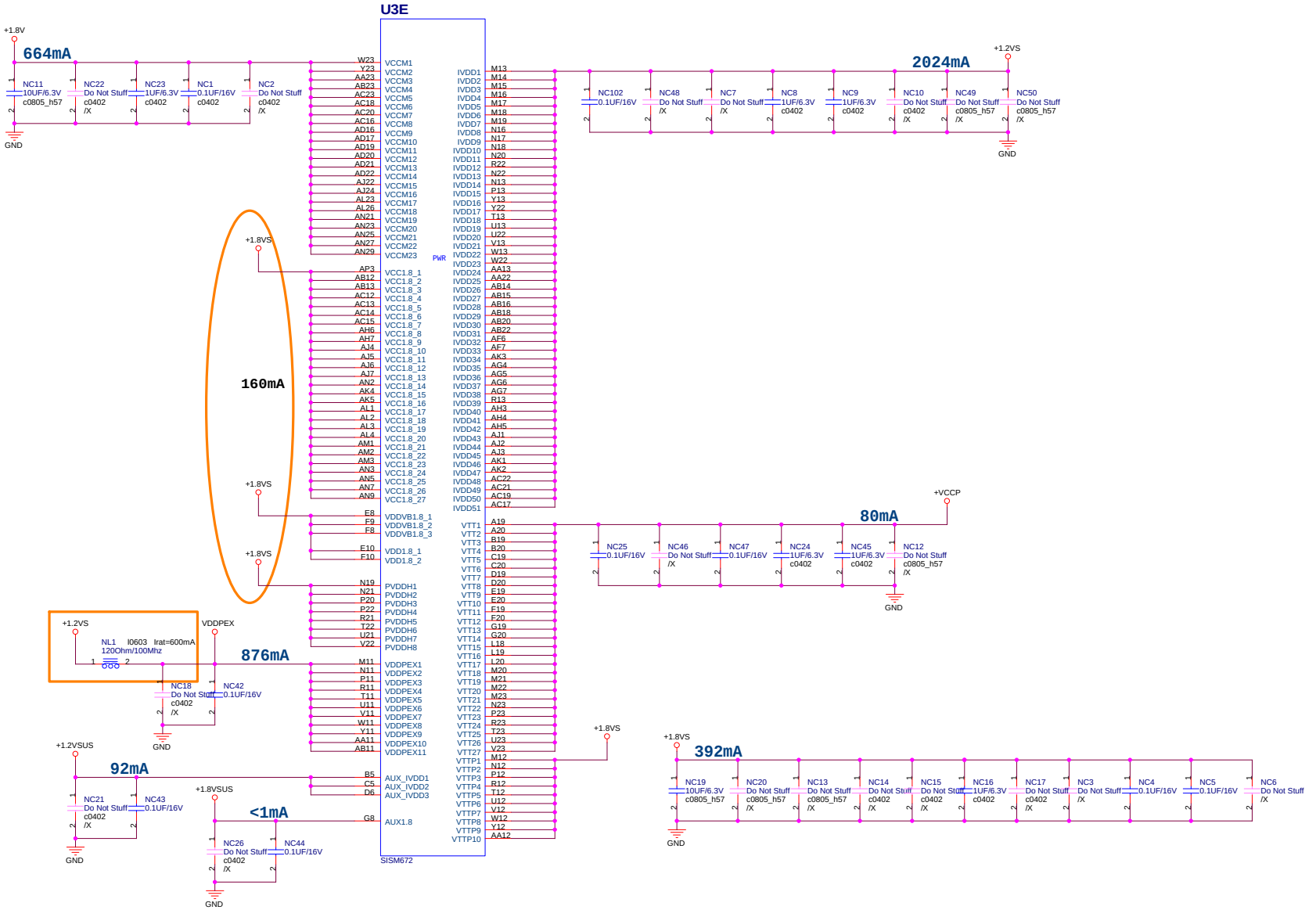
ASUSTek Computer INC.	Title : SiSM672 - HOST(1)	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 6 of 70	



888

ASUSTek Computer INC.	Title : SiSM672 - DDR2(2)	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 7 of 70	


U3A
SISM672
U3D
SISM672
PCIE
+1.8VS
NB_Z4XAVDD
10mA
NL6 l0603 Irat=600mA
120Ohm/100Mhz
NC67 10UF/6.3V c0805_h57
NC66 Do Not Stuff /X
NC65 0.01UF/16V
GND
+1.2VS
PCIEAVDD
77mA
NL7 l0603 Irat=600mA
120Ohm/100Mhz
NC68 10UF/6.3V c0805_h57
NC69 Do Not Stuff /X
NC70 0.01UF/16V
+1.5VS
NL2 l0603 Irat=600mA
120Ohm/100Mhz
DACAVDD1
100mA
DACAVDD2
100mA
DACAVDD
5mA
NC53 Do Not Stuff c0805_h57 /X
NC52 Do Not Stuff c0402 /X
NC51 0.1UF/16V
+1.8VS
NL3 l0603 Irat=600mA
120Ohm/100Mhz
DACAVDD
NC56 10UF/6.3V c0805_h57
NC55 Do Not Stuff c0402 /X
NC54 0.1UF/16V
+3VS
NR15 150Ohm 1%
NC39 Do Not Stuff /X
NB_Z_VREF
NR16 49.9Ohm 1%
NC40 Do Not Stuff /X
NR20 56Ohm 1%
NR19 56Ohm 1%
Z_COMP_P
Z_COMP_N
T2005
T2006
T2007
NR17 4.7KOhm
NR21 4.7KOhm
NR24 0Ohm
NR25 0Ohm
NR12 0Ohm
NR13 Do Not Stuff
NC29 Do Not Stuff /X
NC30 0.1UF/16V
<23> CLK_ZCLK_NB
<13> N_ZDREQ
<13> N_ZUREQ
<13> N_ZSTB0
<13> N_ZSTB0#
<13> N_ZSTB1
<13> N_ZSTB1#
<13> N_ZAD[16:0]
<13> PCI_INTA#
<15,35,36> PCIE_WAKE#
<13> PCI_INTA#
PM_RSMRST# <14,24>
PLT_RST# <13,22,24,26,28,35,36,39,45,66>
VRM_PWRGD <3,14,24,27,56,60>
MCH_PWROK <24>
AGPBUSY# <14>
AGPSTOP# <14>
<66> PEG_RXP[15:0]
<66> PEG_RXN[15:0]
<66> PEG_G_RXN[15:0]
<66> PEG_G_RXP[15:0]
CLK_MCH_3GPLL <23>
CLK_MCH_3GPLL# <23>
SiS APNote:AM671MX-0-002b
888
ASUSTek Computer INC.
Title : SiSM672 - VGA/Mutio(3)
Engineer: Jack Hsu
Size Custom
Project Name Z62Ha
Rev 1.1
Date: Thursday, September 27, 2007
Sheet 8 of 70



888

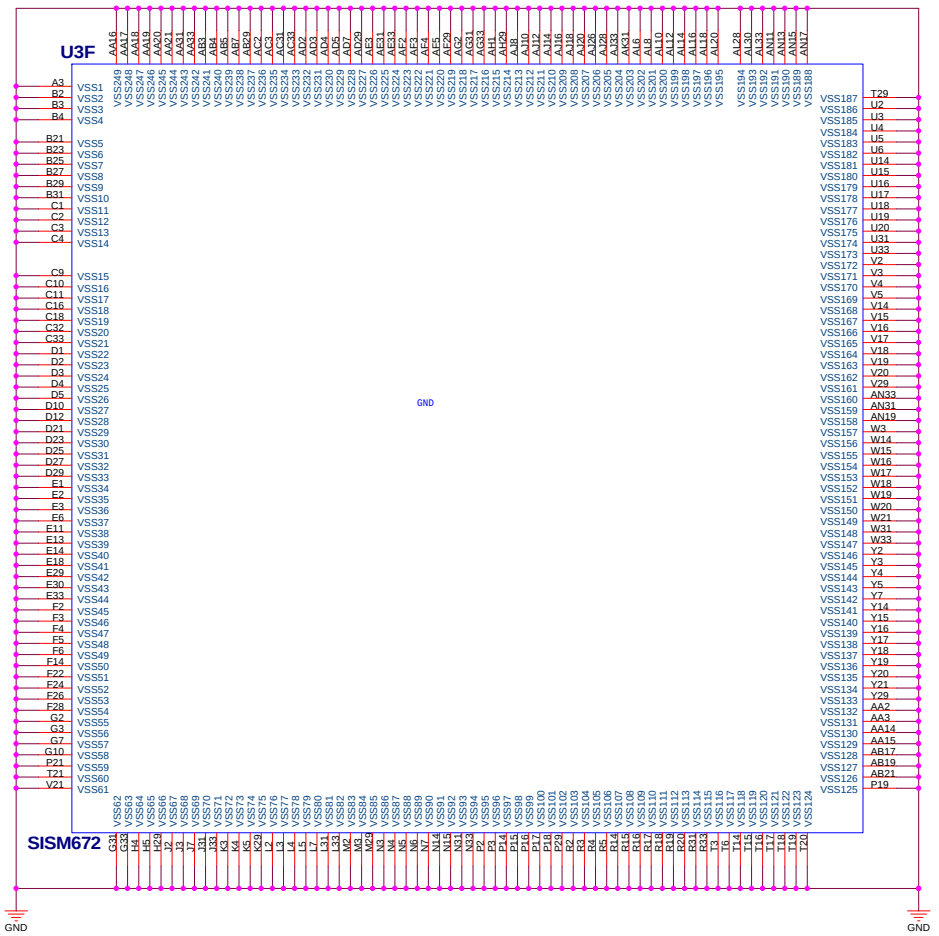
ASUSTek Computer INC.

Title : SiSM672 - POWER(4)

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 9 of 70



888

ASUSTek Computer INC.	Title : SiSM672 - GND(5)		
	Engineer: Jack Hsu		
Size: Custom	Project Name: Z62Ha		Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 10 of 70		

888

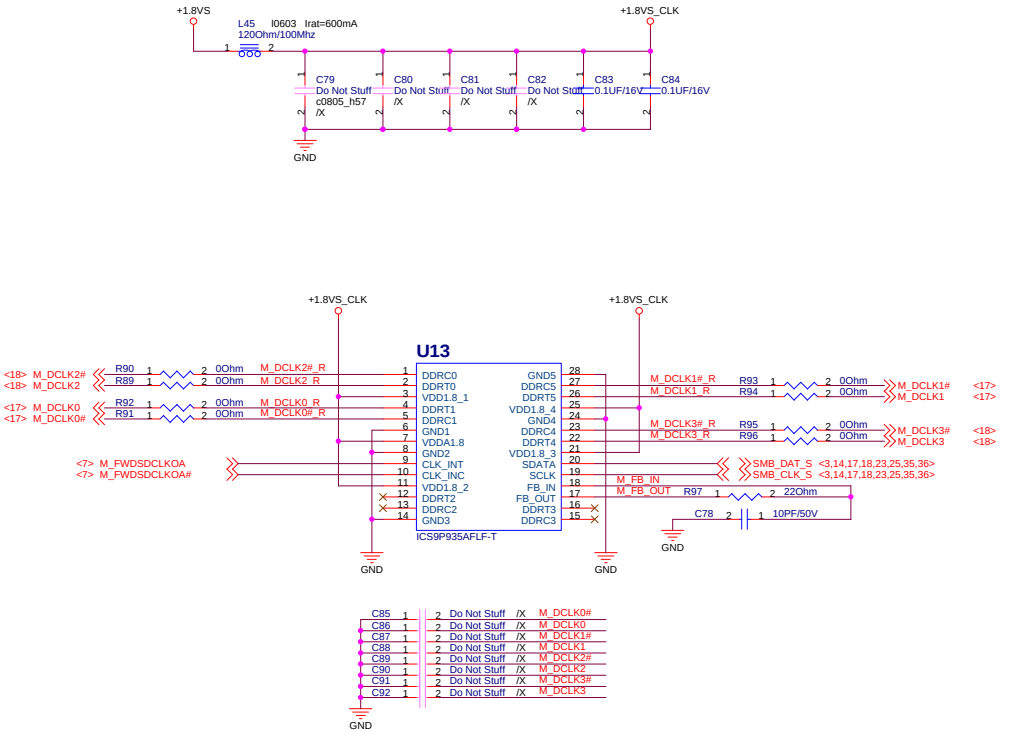
Title : BLANK

ASUSTek Computer INC.

Engineer: Jack Hsu

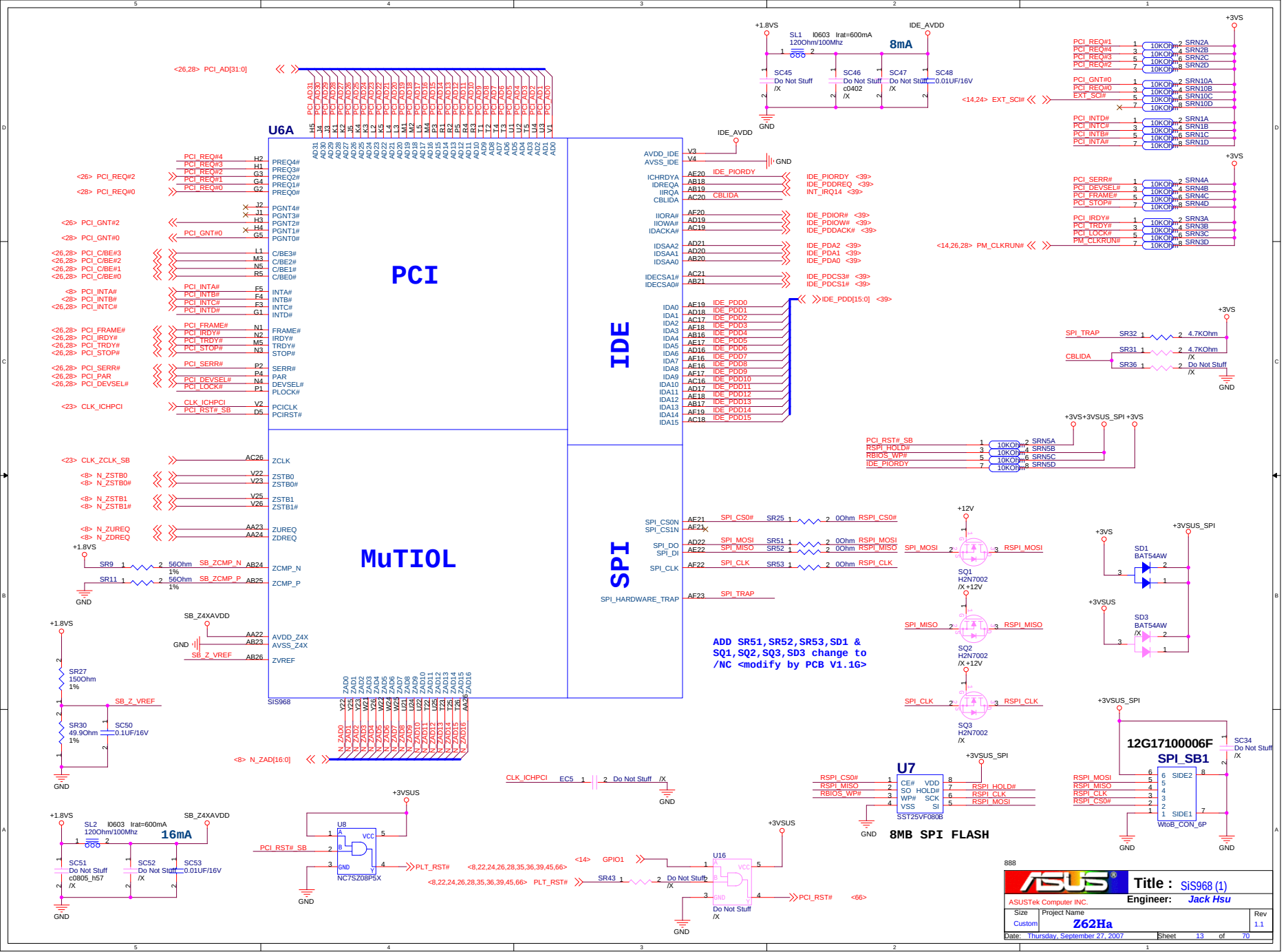
Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 11 of 70



888

ASUSTek Computer INC.	Title : DDR2 CLOCK BUFFER	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 12 of 70	


U6A
PCI
IDE
MuTIOL
SPI
SIS968
PCI_AD[31:0]
PCI_REQ#4
PCI_REQ#3
PCI_REQ#2
PCI_REQ#1
PCI_REQ#0
PCI_GNT#2
PCI_GNT#0
PCI_C/BE#3
PCI_C/BE#2
PCI_C/BE#1
PCI_C/BE#0
PCI_INTA#
PCI_INTB#
PCI_INTC#
PCI_INTD#
PCI_FRAME#
PCI_IRDY#
PCI_TRDY#
PCI_STOP#
PCI_SERR#
PCI_PAR
PCI_DEVSEL#
PCI_LOCK#
CLK_ICHPCI
PCI_RST#_SB
CLK_ZCLK_SB
N_ZSTB0
N_ZSTB0#
N_ZSTB1
N_ZSTB1#
N_ZUREQ
N_ZDREQ
SB_ZCMP_N
SB_ZCMP_P
SB_Z4XAVDD
SB_Z_VREF
N_ZAD[16:0]
IDE_PIORDY
IDE_PIOIR#
IDE_PIOIW#
IDE_PDDACK#
IDE_PDA2
IDE_PDA1
IDE_PDA0
IDE_PDCS3#
IDE_PDCS1#
IDE_PDD[15:0]
SPI_CS0#
SPI_MOSI
SPI_MISO
SPI_CLK
SPI_TRAP
SPI_HARDWARE_TRAP
ADD SR51,SR52,SR53,SD1 &
SQ1,SQ2,SQ3,SD3 change to
/NC <modify by PCB V1.16>
U7
SST25VF080B
8MB SPI FLASH
12G17100006F
SPI_SB1
U8
NC7SZ08P5X
U16
PLT_RST#
GPIO1
EXT_SCI#
PM_CLKRUN#
SRN1A
SRN1B
SRN1C
SRN1D
SRN2A
SRN2B
SRN2C
SRN2D
SRN3A
SRN3B
SRN3C
SRN3D
SRN4A
SRN4B
SRN4C
SRN4D
SRN5A
SRN5B
SRN5C
SRN5D
SD1
SD3
SQ1
SQ2
SQ3
H2N7002
BAT54AW
8mA
16mA
888
ASUSTeK Computer INC.
Title : SiS968 (1)
Engineer: Jack Hsu
Size: Custom
Project Name: Z62Ha
Rev: 1.1
Date: Thursday, September 27, 2007
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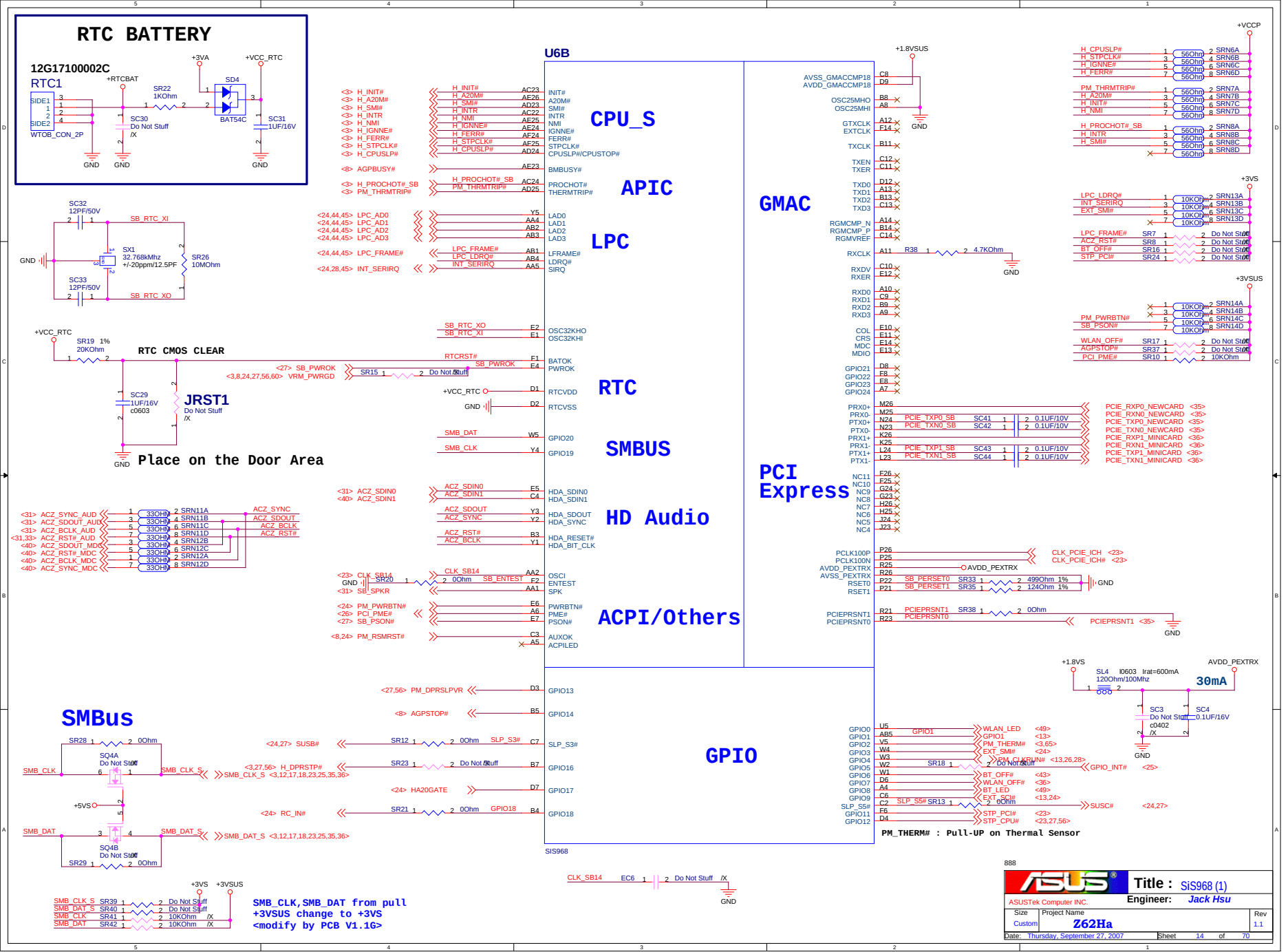
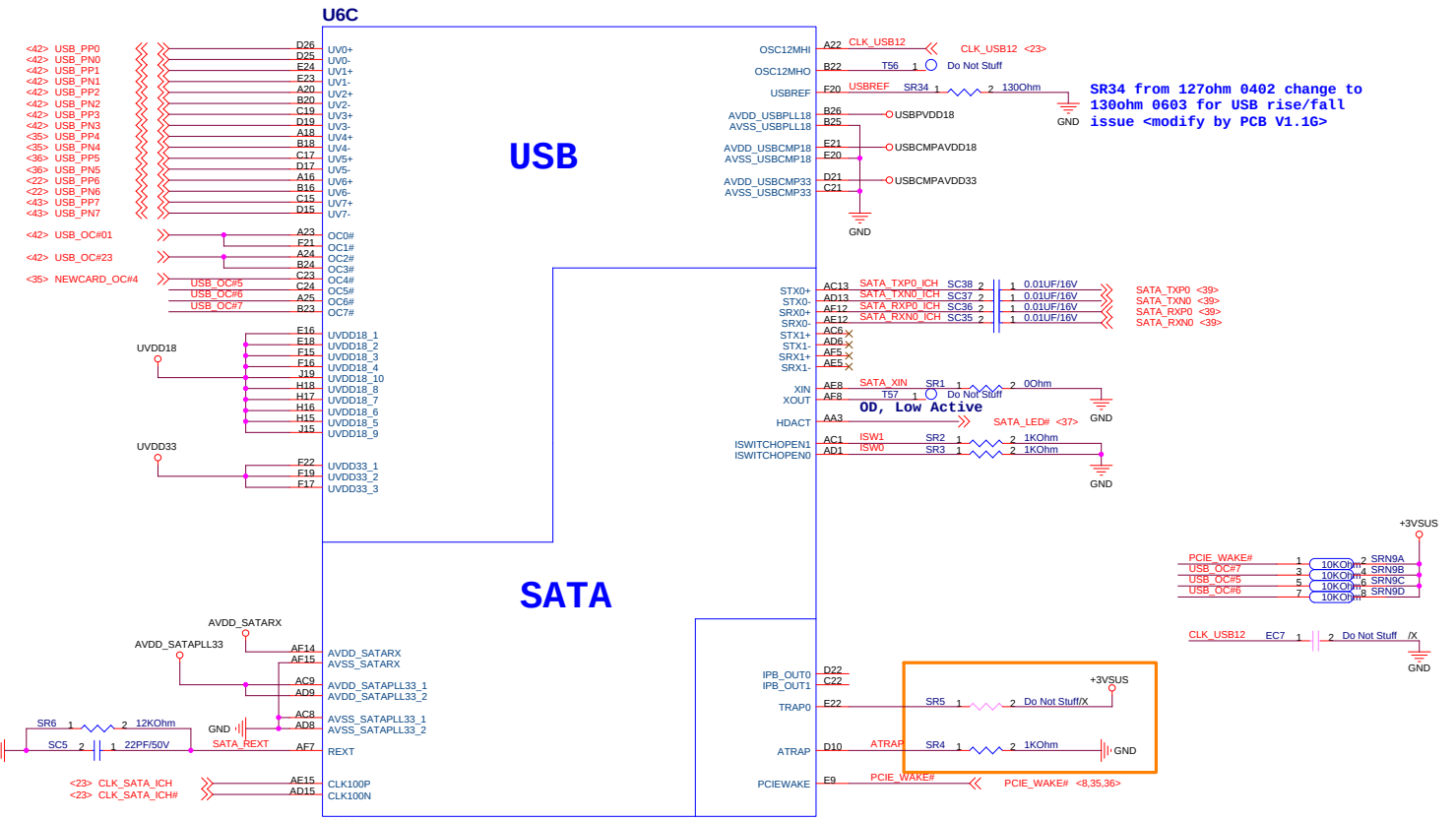
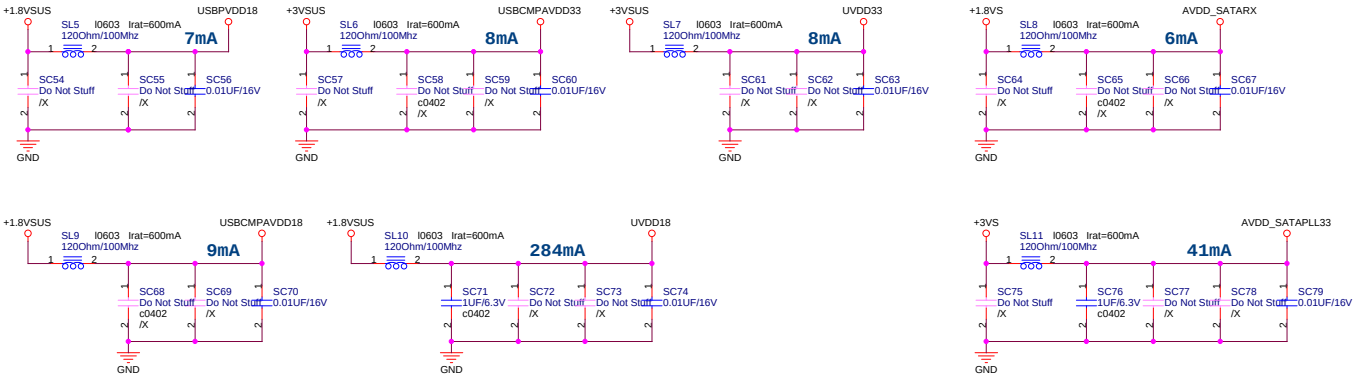

RTC BATTERY
12G17100002C
RTC1
WTOB_CON_2P
+RTCBAT
+3VA
+VCC_RTC
SD4
BAT54C
SR22 1KOhm
SC30 Do Not Stuff /X
SC31 1UF/16V
GND
U6B
CPU_S
APIC
LPC
RTC
SMBUS
HD Audio
ACPI/Others
GPIO
GMAC
PCI Express
SIS968
SC32 12PF/50V
SC33 12PF/50V
SB_RTC_XI
SB_RTC_XO
SX1 32.768kMhz +/-20ppm/12.5PF
SR26 10MOhm
RTC CMOS CLEAR
SR19 1% 20KOhm
SC29 1UF/16V c0603
JRST1 Do Not Stuff /X
Place on the Door Area
SR15 Do Not Stuff
SMBus
SQ4A Do Not Stuff
SQ4B Do Not Stuff
SR28 0Ohm
SR29 0Ohm
SMB_CLK
SMB_DAT
SMB_CLK_S
SMB_DAT_S
+5VS
SR12 0Ohm SLP_S3#
SR23 Do Not Stuff
SR21 0Ohm GPIO18
SR20 0Ohm SB_ENTEST
SR33 499Ohm 1%
SR35 124Ohm 1%
SR38 0Ohm
SR18 Do Not Stuff
SC41 0.1UF/10V
SC42 0.1UF/10V
SC43 0.1UF/10V
SC44 0.1UF/10V
SL4 l0603 Irat=600mA 120Ohm/100Mhz
30mA
SC3 Do Not Stuff c0402 /X
SC4 0.1UF/16V
SR7 Do Not Stuff
SR8 Do Not Stuff
SR16 Do Not Stuff
SR24 Do Not Stuff
SR17 Do Not Stuff
SR37 Do Not Stuff
SR10 10KOhm
SR13 0Ohm
SUSC#
SMB_CLK_S SR39 Do Not Stuff
SMB_DAT_S SR40 Do Not Stuff
SMB_CLK SR41 10KOhm /X
SMB_DAT SR42 10KOhm /X
SMB_CLK,SMB_DAT from pull +3VSUS change to +3VS <modify by PCB V1.1G>
PM_THERM# : Pull-UP on Thermal Sensor
ASUSTeK Computer INC.
Title : SiS968 (1)
Engineer: Jack Hsu
Size Custom
Project Name Z62Ha
Rev 1.1
Date: Thursday, September 27, 2007
Sheet 14 of 70

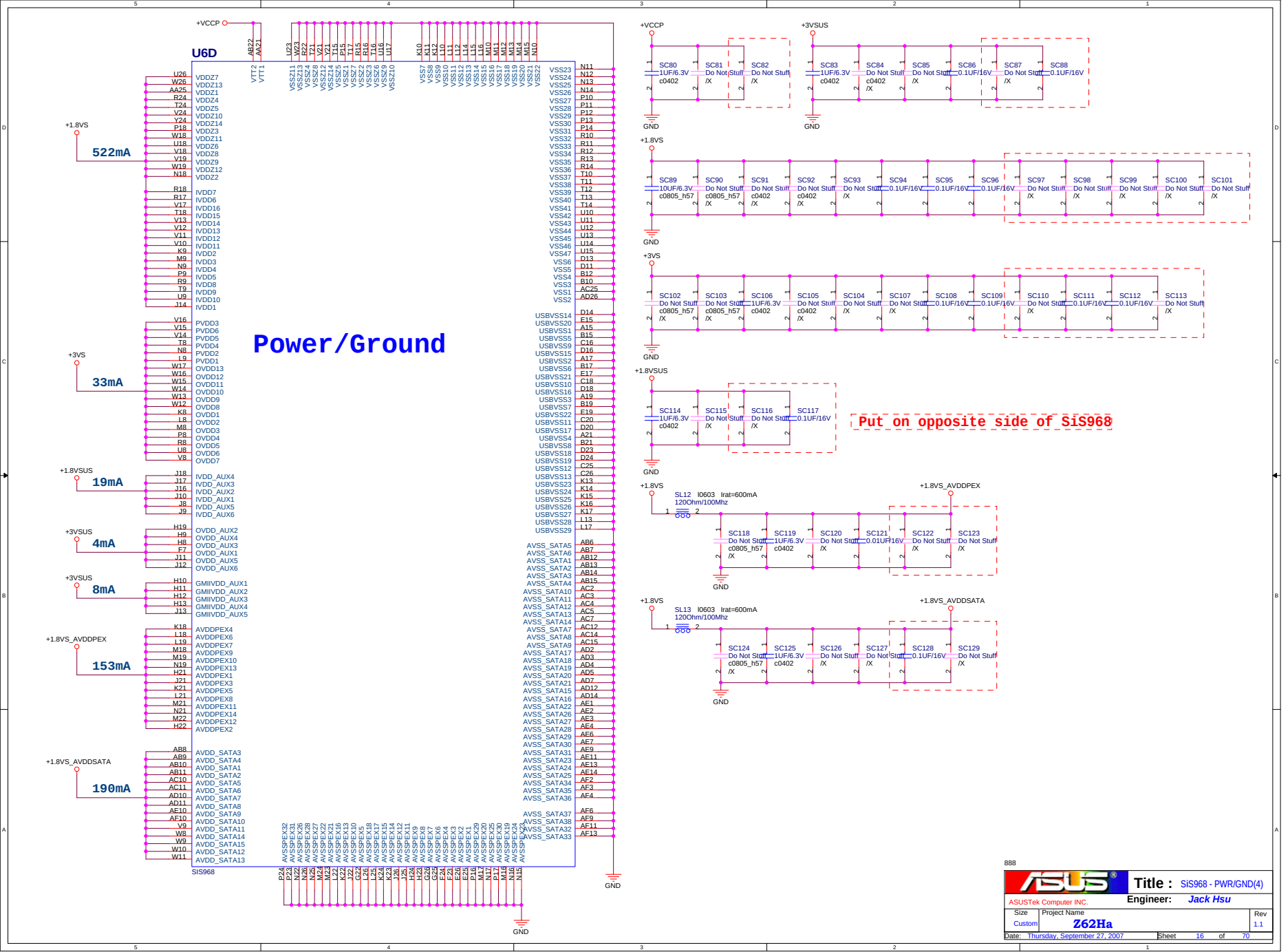
USB 0	USB Conn.
USB 1	USB Conn.
USB 2	USB Conn.
USB 3	USB Conn.
USB 4	USB NEWCARD
USB 5	USB MINICARD
USB 6	CMOS Camera
USB 7	Bluetooth

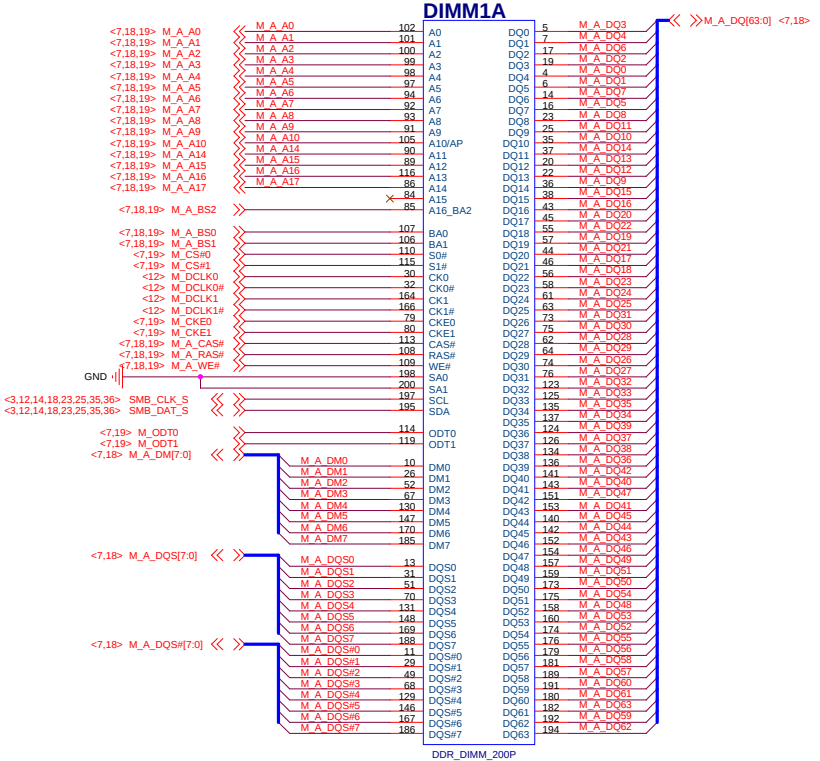


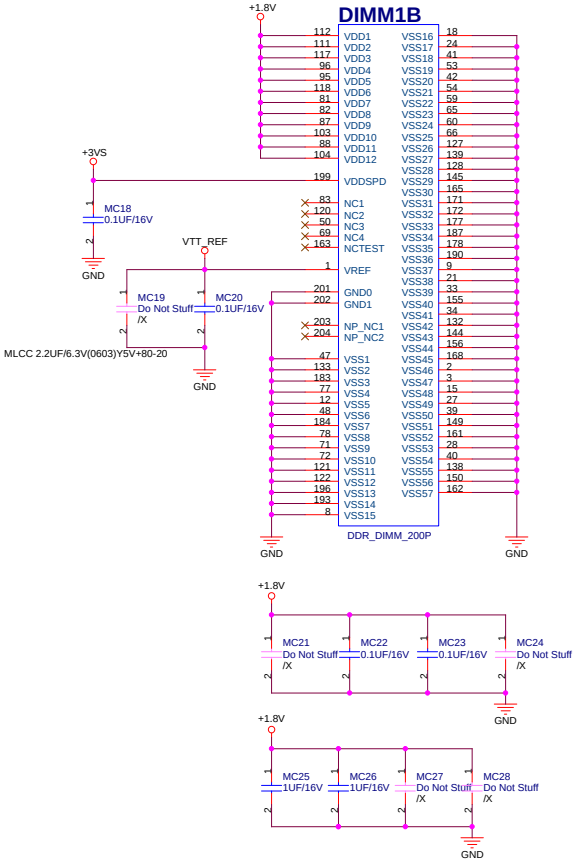


888

ASUSTek Computer INC.	Title : SiS968 (3)	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 15 of 70	


U6D
SIS968
Power/Ground
+VCCP
+1.8VS
522mA
+3VS
33mA
+1.8VSUS
19mA
+3VSUS
4mA
+3VSUS
8mA
+1.8VS_AVDDPEX
153mA
+1.8VS_AVDDSATA
190mA
GND
+3VSUS
SC80 1UF/6.3V c0402
SC81 Do Not Stuff /X
SC82 Do Not Stuff /X
SC83 1UF/6.3V c0402
SC84 Do Not Stuff c0402 /X
SC85 Do Not Stuff /X
SC86 0.1UF/16V
SC87 Do Not Stuff /X
SC88 0.1UF/16V
SC89 10UF/6.3V c0805_h57
SC90 Do Not Stuff c0805_h57 /X
SC91 Do Not Stuff c0402 /X
SC92 Do Not Stuff c0402 /X
SC93 Do Not Stuff /X
SC94 0.1UF/16V
SC95 0.1UF/16V
SC96 0.1UF/16V
SC97 Do Not Stuff /X
SC98 Do Not Stuff /X
SC99 Do Not Stuff /X
SC100 Do Not Stuff /X
SC101 Do Not Stuff /X
SC102 Do Not Stuff c0805_h57 /X
SC103 Do Not Stuff c0805_h57 /X
SC106 1UF/6.3V c0402
SC105 Do Not Stuff c0402 /X
SC104 Do Not Stuff /X
SC107 Do Not Stuff /X
SC108 0.1UF/16V
SC109 0.1UF/16V
SC110 Do Not Stuff /X
SC111 0.1UF/16V
SC112 0.1UF/16V
SC113 Do Not Stuff /X
SC114 1UF/6.3V c0402
SC115 Do Not Stuff /X
SC116 Do Not Stuff /X
SC117 0.1UF/16V
Put on opposite side of SiS968
SL12 l0603 Irat=600mA 120Ohm/100Mhz
+1.8VS_AVDDPEX
SC118 Do Not Stuff c0805_h57 /X
SC119 1UF/6.3V c0402
SC120 Do Not Stuff /X
SC121 0.01UF/16V
SC122 Do Not Stuff /X
SC123 Do Not Stuff /X
SL13 l0603 Irat=600mA 120Ohm/100Mhz
+1.8VS_AVDDSATA
SC124 Do Not Stuff c0805_h57 /X
SC125 1UF/6.3V c0402
SC126 Do Not Stuff /X
SC127 Do Not Stuff /X
SC128 0.1UF/16V
SC129 Do Not Stuff /X
888
Title : SiS968 - PWR/GND(4)
ASUSTek Computer INC.
Engineer: Jack Hsu
Size Custom
Project Name Z62Ha
Rev 1.1
Date: Thursday, September 27, 2007
Sheet 16 of 70





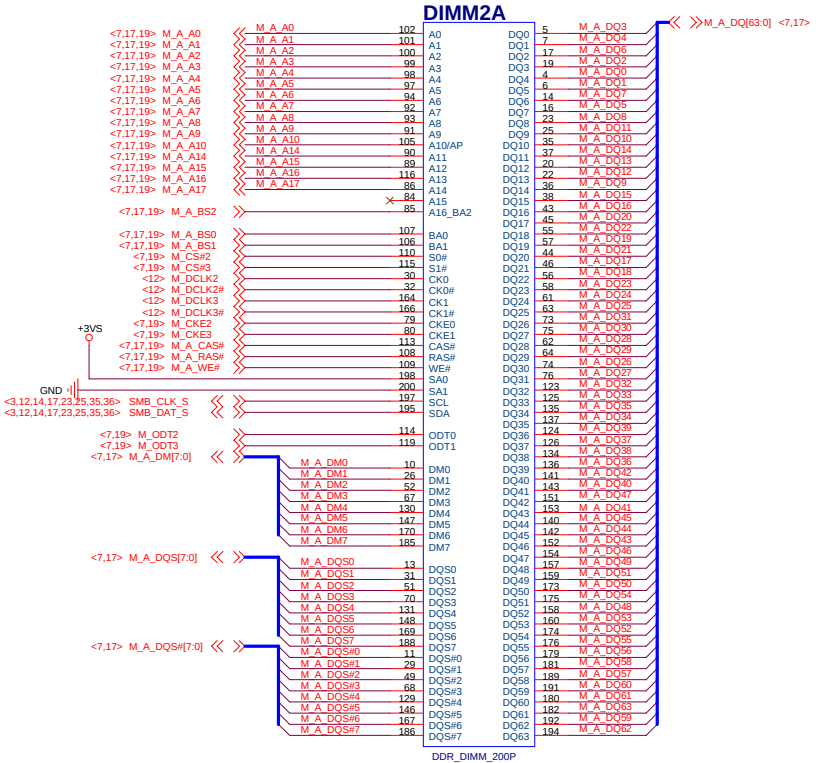
Layout Note: Place these Caps near SO-DIMM0

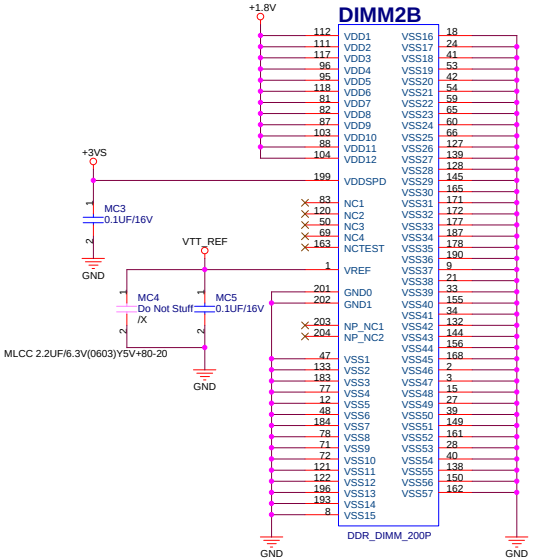
H=9.2mm Standard Type, 12G025C22000

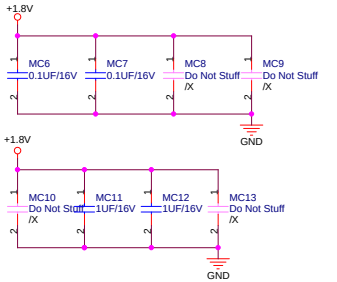
Channel A, DIMM 0

888

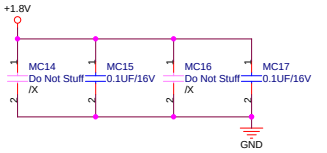
ASUSTek Computer INC.	Title : DDR SO-DIMM0	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 17 of 70	







Layout Note: Place these Caps near SO-DIMM1



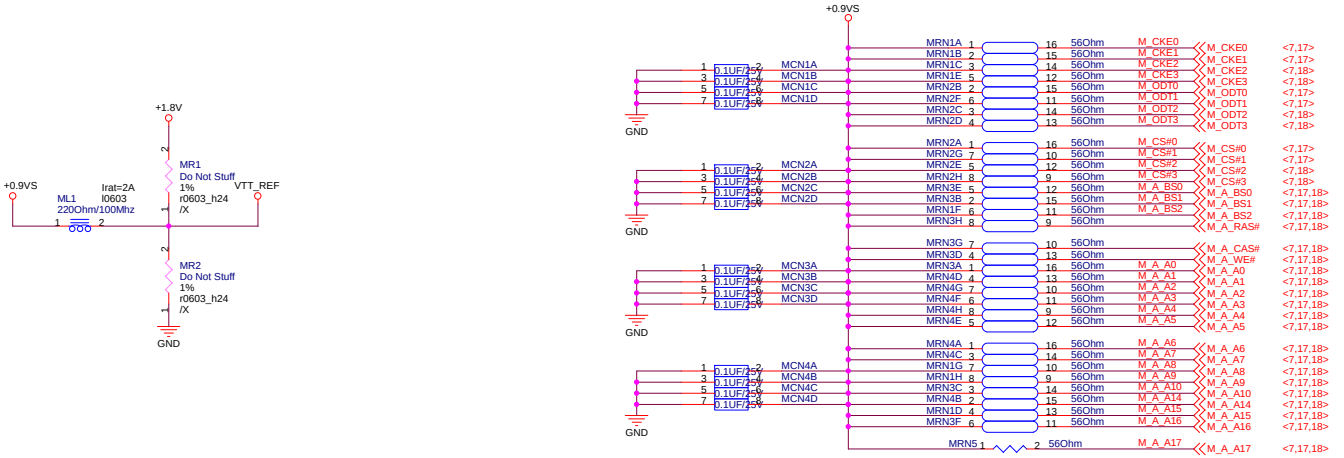
Layout Note: Place these High-Freq decoupling Caps near the GMCH

H=5.2mm Standard Type, 12G025122007

Channel A, DIMM 1

888

ASUSTek Computer INC.	Title : DDR SO-DIMM1	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 18 of 70	



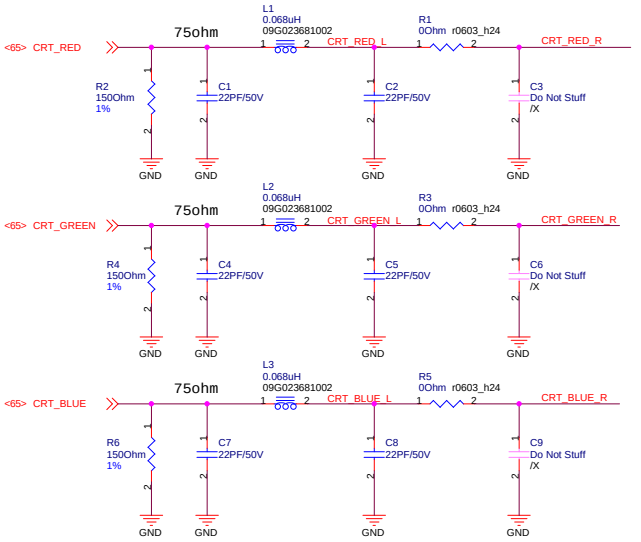
DDR2: Command, Control Signal need termination

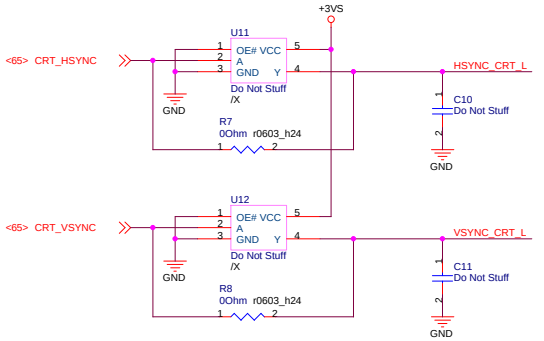
Layout note: Place one cap close to every 2 pull-up resistors terminated to +0.9V

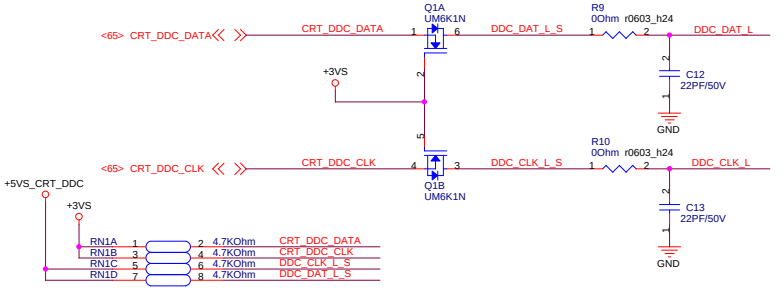
888

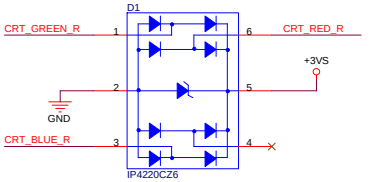
ASUSTek Computer INC.	Title : DDR2 Termination	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 19 of 70	

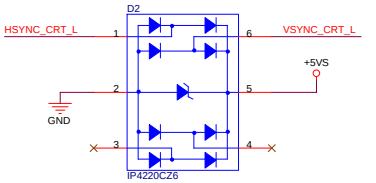
L1,L2,L3 from 27nH change to 0.068uH for VGA
measure <modify by PCB V1.1G>





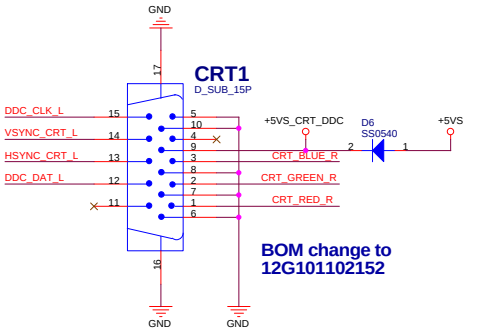






ESD Diodes

Place ESD Diodes near CRT Connector



BOM change to
12G101102152

CRT Connector

888

ASUSTek Computer INC.

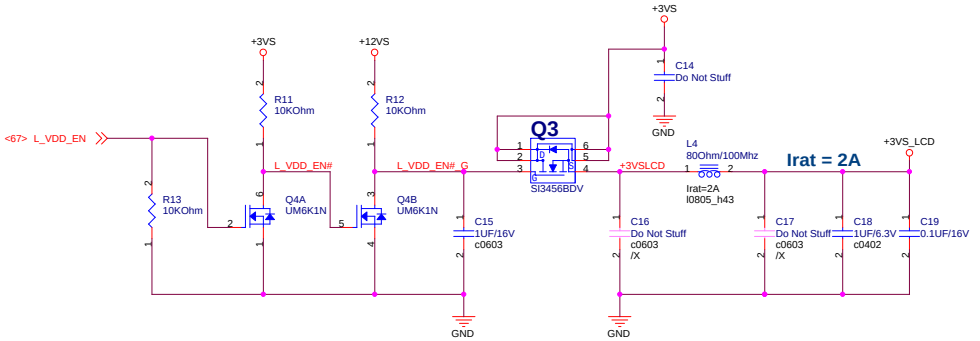
Title : CRT Connector

Engineer: Jack Hsu

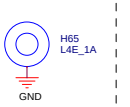
Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 20 of 70

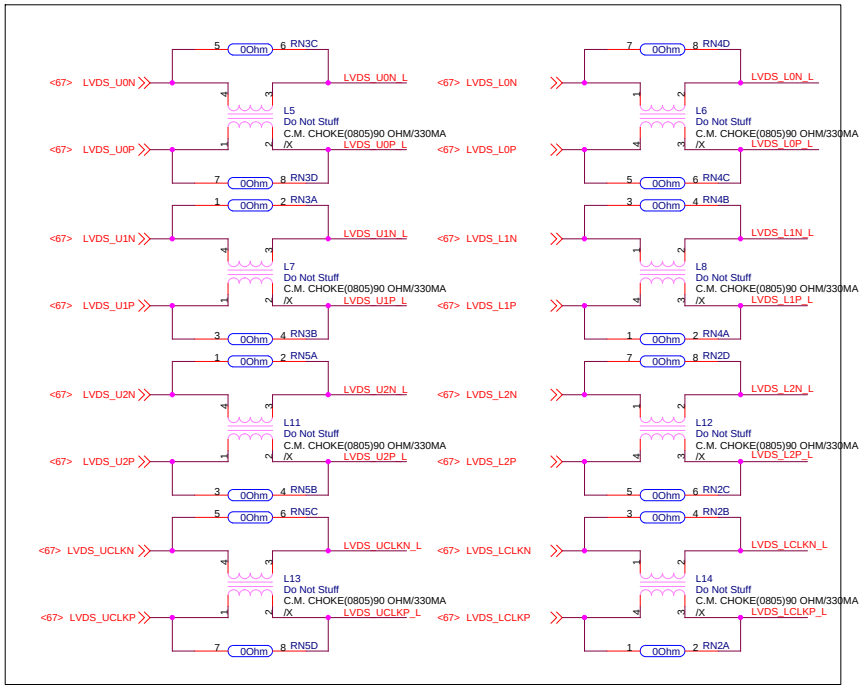
LCD Power Switch



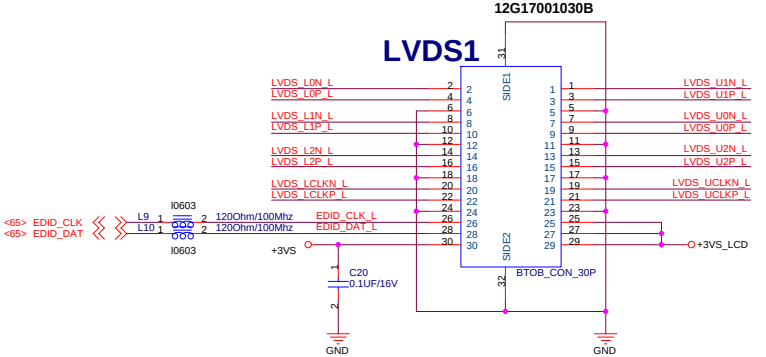
LVDS NUT

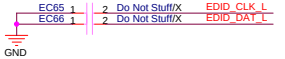


C14,C20 for EMI solution
<modify by PCB V1.1G>



LVDS Connector





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

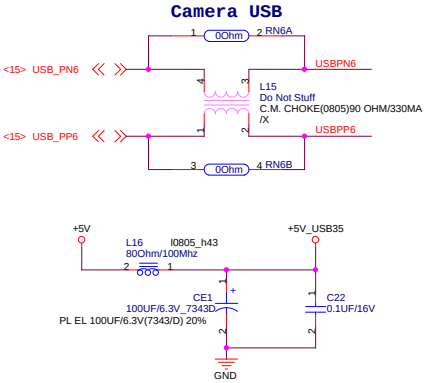
888

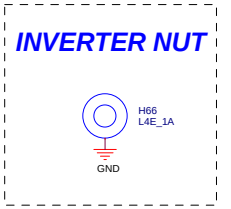
ASUSTek Computer INC.	Title : LVDS Connector	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 21 of 70	

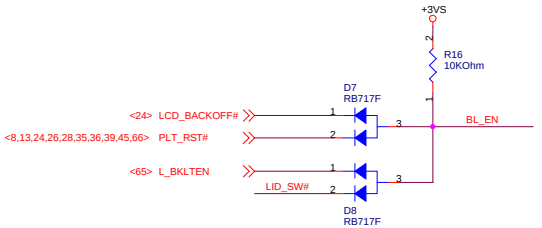
INVERTER Interface

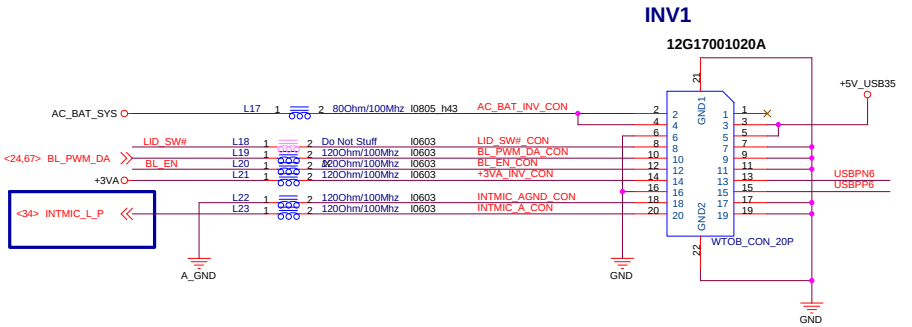
BIOS
LCD_BACKOFF#:When user push "Fn+F7" button, BIOS active this pin to turn off back light.

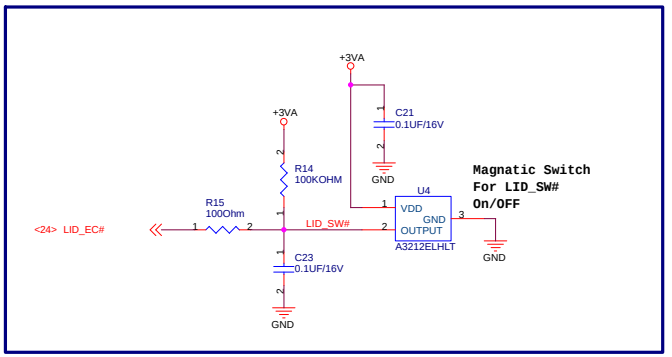
BIOS
BACK_ADJ: KBC output PWM signal (adjust pulse width) to adjust Back light.
Inverter Board built in 14.1W LCD Panel

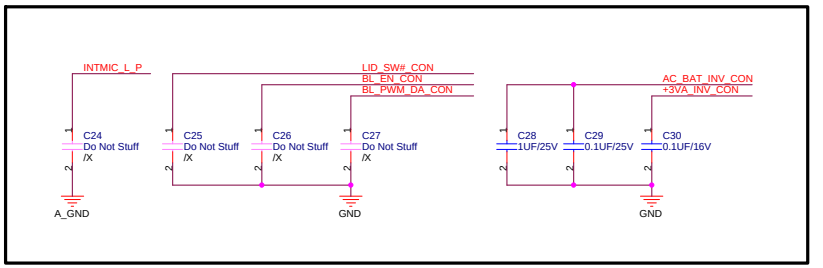












888

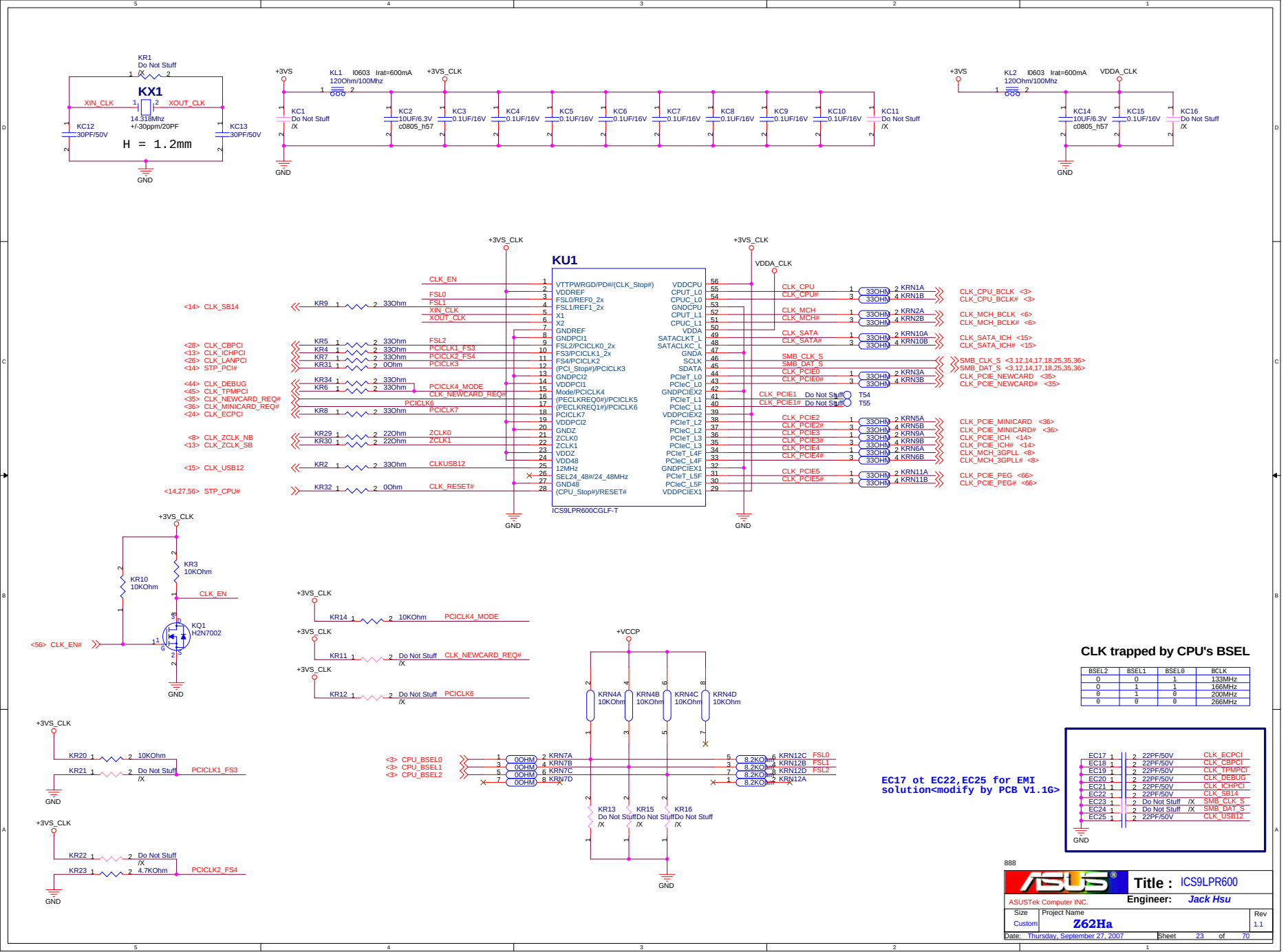
ASUSTek Computer INC.

Title : Inverter

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 22 of 70


KR1
Do Not Stuff
/X
KX1
XIN_CLK
XOUT_CLK
14.318Mhz
+/-30ppm/20PF
KC12
30PF/50V
KC13
30PF/50V
H = 1.2mm
GND
+3VS
KL1 l0603 Irat=600mA
120Ohm/100Mhz
+3VS_CLK
KC1
Do Not Stuff
/X
KC2
10UF/6.3V
c0805_h57
KC3
0.1UF/16V
KC4
0.1UF/16V
KC5
0.1UF/16V
KC6
0.1UF/16V
KC7
0.1UF/16V
KC8
0.1UF/16V
KC9
0.1UF/16V
KC10
0.1UF/16V
KC11
Do Not Stuff
/X
KL2 l0603 Irat=600mA
120Ohm/100Mhz
VDDA_CLK
KC14
10UF/6.3V
c0805_h57
KC15
0.1UF/16V
KC16
Do Not Stuff
/X
KU1
ICS9LPR600CGLF-T
VTTPWRGD/PD#/(CLK_Stop#)
VDDREF
FSL0/REF0_2x
FSL1/REF1_2x
X1
X2
GNDREF
GNDPCI1
FSL2/PCICLK0_2x
FS3/PCICLK1_2x
FS4/PCICLK2
(PCI_Stop#)/PCICLK3
GNDPCI2
VDDPCI1
Mode/PCICLK4
(PECLKREQ0#)/PCICLK5
(PECLKREQ1#)/PCICLK6
PCICLK7
VDDPCI2
GNDZ
ZCLK0
ZCLK1
VDDZ
VDD48
12MHz
SEL24_48#/24_48MHz
GND48
(CPU_Stop#)/RESET#
VDDCPU
CPUT_L0
CPUC_L0
GNDCPU
CPUT_L1
CPUC_L1
VDDA
SATACLKT_L
SATACLKC_L
GNDA
SCLK
SDATA
PCIeT_L0
PCIeC_L0
GNDPCIEX2
PCIeT_L1
PCIeC_L1
VDDPCIEX2
PCIeT_L2
PCIeC_L2
PCIeT_L3
PCIeC_L3
PCIeT_L4F
PCIeC_L4F
GNDPCIEX1
PCIeT_L5F
PCIeC_L5F
VDDPCIEX1
CLK_EN
FSL0
FSL1
XIN_CLK
XOUT_CLK
FSL2
PCICLK1_FS3
PCICLK2_FS4
PCICLK3
PCICLK4_MODE
CLK_NEWCARD_REQ#
PCICLK6
PCICLK7
ZCLK0
ZCLK1
CLKUSB12
CLK_RESET#
CLK_CPU
CLK_CPU#
CLK_MCH
CLK_MCH#
CLK_SATA
CLK_SATA#
SMB_CLK_S
SMB_DAT_S
CLK_PCIE0
CLK_PCIE0#
CLK_PCIE1
CLK_PCIE1#
CLK_PCIE2
CLK_PCIE2#
CLK_PCIE3
CLK_PCIE3#
CLK_PCIE4
CLK_PCIE4#
CLK_PCIE5
CLK_PCIE5#
T54
T55
KR9 33Ohm
KR5 33Ohm
KR4 33Ohm
KR7 33Ohm
KR31 0Ohm
KR34 33Ohm
KR6 33Ohm
KR8 33Ohm
KR29 22Ohm
KR30 22Ohm
KR2 33Ohm
KR32 0Ohm
KRN1A KRN1B
KRN2A KRN2B
KRN10A KRN10B
KRN3A KRN3B
KRN5A KRN5B
KRN9A KRN9B
KRN6A KRN6B
KRN11A KRN11B
<14> CLK_SB14
<28> CLK_CBPCI
<13> CLK_ICHPCI
<26> CLK_LANPCI
<14> STP_PCI#
<44> CLK_DEBUG
<45> CLK_TPMPCI
<35> CLK_NEWCARD_REQ#
<36> CLK_MINICARD_REQ#
<24> CLK_ECPCI
<8> CLK_ZCLK_NB
<13> CLK_ZCLK_SB
<15> CLK_USB12
<14,27,56> STP_CPU#
CLK_CPU_BCLK <3>
CLK_CPU_BCLK# <3>
CLK_MCH_BCLK <6>
CLK_MCH_BCLK# <6>
CLK_SATA_ICH <15>
CLK_SATA_ICH# <15>
SMB_CLK_S <3,12,14,17,18,25,35,36>
SMB_DAT_S <3,12,14,17,18,25,35,36>
CLK_PCIE_NEWCARD <35>
CLK_PCIE_NEWCARD# <35>
CLK_PCIE_MINICARD <36>
CLK_PCIE_MINICARD# <36>
CLK_PCIE_ICH <14>
CLK_PCIE_ICH# <14>
CLK_MCH_3GPLL <8>
CLK_MCH_3GPLL# <8>
CLK_PCIE_PEG <66>
CLK_PCIE_PEG# <66>
KR3
10KOhm
KR10
10KOhm
CLK_EN
KQ1
H2N7002
<56> CLK_EN#
KR14 10KOhm PCICLK4_MODE
KR11 Do Not Stuff CLK_NEWCARD_REQ#
KR12 Do Not Stuff PCICLK6
+VCCP
KRN4A 10KOhm
KRN4B 10KOhm
KRN4C 10KOhm
KRN4D 10KOhm
<3> CPU_BSEL0
<3> CPU_BSEL1
<3> CPU_BSEL2
0OHM
KRN7A
KRN7B
KRN7C
KRN7D
8.2KOhm
KRN12C FSL0
KRN12B FSL1
KRN12D FSL2
KRN12A
KR13 Do Not Stuff /X
KR15 Do Not Stuff /X
KR16 Do Not Stuff /X
KR20 10KOhm
KR21 Do Not Stuff /X PCICLK1_FS3
KR22 Do Not Stuff /X
KR23 4.7KOhm PCICLK2_FS4
CLK trapped by CPU's BSEL
BSEL2 BSEL1 BSEL0 BCLK
0 0 1 133MHz
0 1 1 166MHz
0 1 0 200MHz
0 0 0 266MHz
EC17 ot EC22,EC25 for EMI solution<modify by PCB V1.16>
EC17 22PF/50V CLK_ECPCI
EC18 22PF/50V CLK_CBPCI
EC19 22PF/50V CLK_TPMPCI
EC20 22PF/50V CLK_DEBUG
EC21 22PF/50V CLK_ICHPCI
EC22 22PF/50V CLK_SB14
EC23 Do Not Stuff /X SMB_CLK_S
EC24 Do Not Stuff /X SMB_DAT_S
EC25 22PF/50V CLK_USB12
888
Title : ICS9LPR600
ASUSTek Computer INC.
Engineer: Jack Hsu
Size Custom
Project Name Z62Ha
Rev 1.1
Date: Thursday, September 27, 2007
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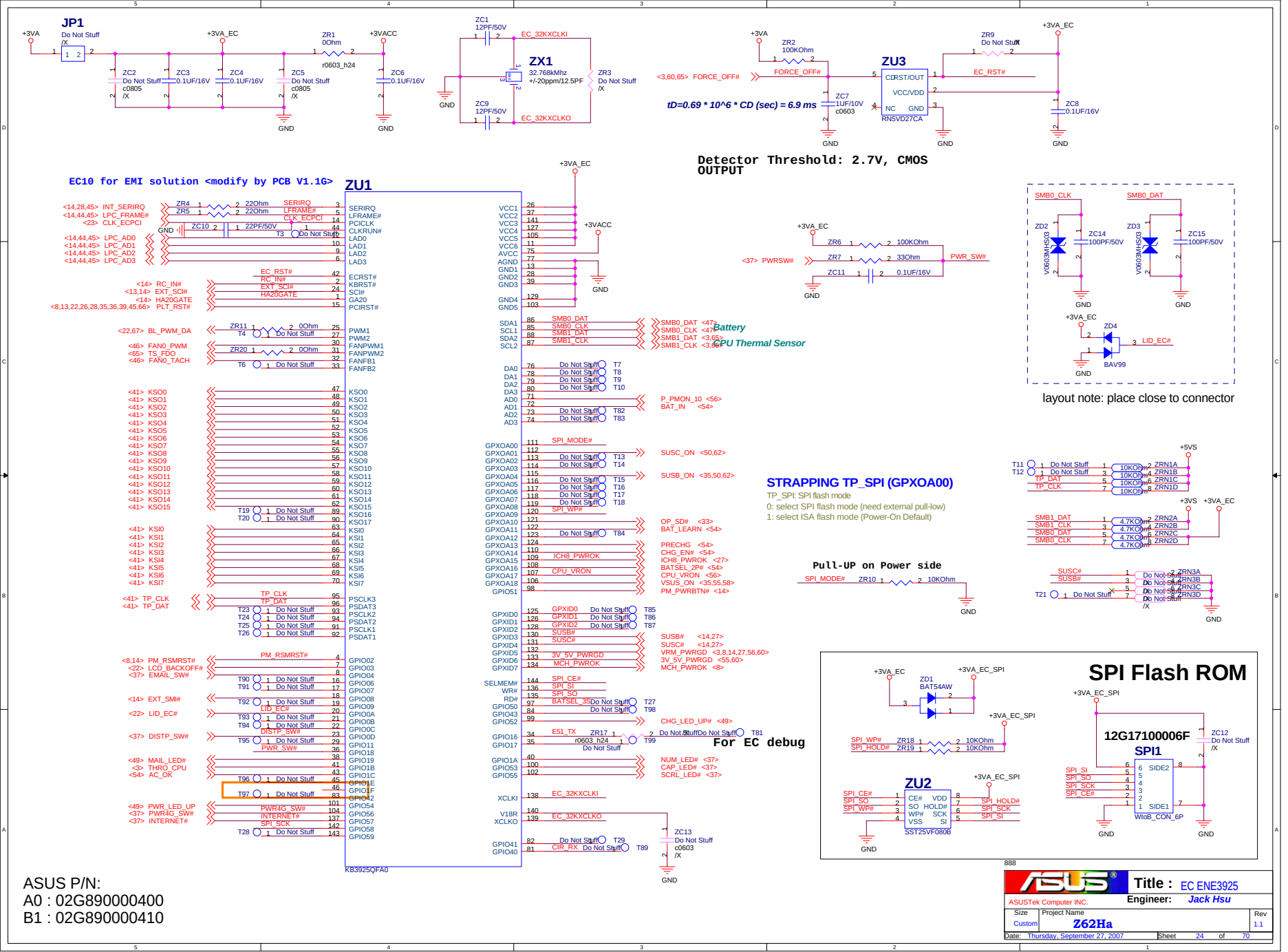
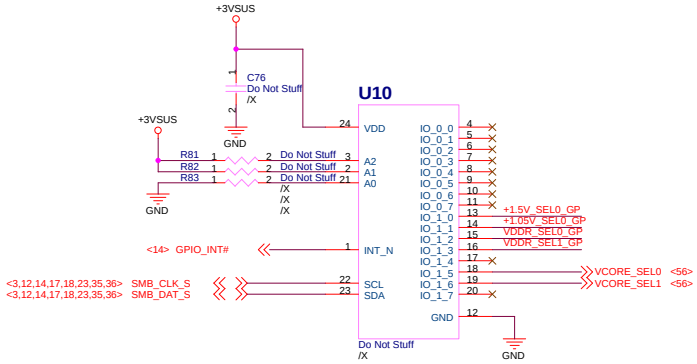
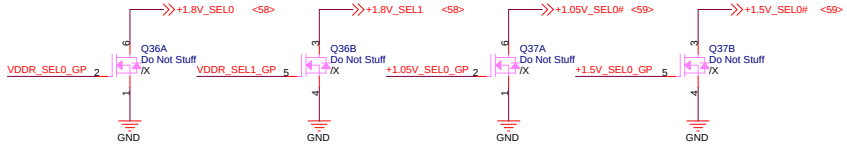
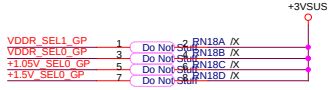

JP1
Do Not Stuff
/X
+3VA
+3VA_EC
+3VACC
ZR1
0Ohm
r0603_h24
ZC2
Do Not Stuff
c0805
/X
ZC3
0.1UF/16V
ZC4
0.1UF/16V
ZC5
Do Not Stuff
c0805
/X
ZC6
0.1UF/16V
GND
ZC1
12PF/50V
EC_32KXCLKI
ZX1
32.768kMhz
+/-20ppm/12.5PF
ZR3
Do Not Stuff
/X
ZC9
12PF/50V
EC_32KXCLKO
ZR2
100KOhm
<3,60,65> FORCE_OFF#
FORCE_OFF#
ZU3
CRST/OUT
VCC/VDD
NC
GND
RN5VD27CA
ZR9
Do Not Stuff
EC_RST#
ZC7
1UF/10V
c0603
ZC8
0.1UF/16V
tD=0.69 * 10^6 * CD (sec) = 6.9 ms
Detector Threshold: 2.7V, CMOS OUTPUT
EC10 for EMI solution <modify by PCB V1.1G>
ZU1
KB3925QFA0
ZR4
ZR5
22Ohm
SERIRQ
LFRAME#
CLK_ECPCI
ZC10
22PF/50V
T3
Do Not Stuff
<14,28,45> INT_SERIRQ
<14,44,45> LPC_FRAME#
<23> CLK_ECPCI
<14,44,45> LPC_AD0
<14,44,45> LPC_AD1
<14,44,45> LPC_AD2
<14,44,45> LPC_AD3
EC_RST#
RC_IN#
EXT_SCI#
HA20GATE
<14> RC_IN#
<13,14> EXT_SCI#
<14> HA20GATE
<8,13,22,26,28,35,36,39,45,66> PLT_RST#
<22,67> BL_PWM_DA
ZR11
0Ohm
T4
<46> FAN0_PWM
<65> TS_FDO
<46> FAN0_TACH
ZR20
0Ohm
T6
<41> KSO0
<41> KSO1
<41> KSO2
<41> KSO3
<41> KSO4
<41> KSO5
<41> KSO6
<41> KSO7
<41> KSO8
<41> KSO9
<41> KSO10
<41> KSO11
<41> KSO12
<41> KSO13
<41> KSO14
<41> KSO15
T19
T20
Do Not Stuff
<41> KSI0
<41> KSI1
<41> KSI2
<41> KSI3
<41> KSI4
<41> KSI5
<41> KSI6
<41> KSI7
<41> TP_CLK
<41> TP_DAT
TP_CLK
TP_DAT
T23
T24
T25
T26
PM_RSMRST#
<8,14> PM_RSMRST#
<22> LCD_BACKOFF#
<37> EMAIL_SW#
T90
T91
<14> EXT_SMI#
T92
<22> LID_EC#
T93
T94
DISTP_SW#
<37> DISTP_SW#
T95
PWR_SW#
<49> MAIL_LED#
<3> THRO_CPU
<54> AC_OK
T96
T97
<49> PWR_LED_UP
<37> PWR4G_SW#
<37> INTERNET#
PWR4G_SW#
INTERNET#
SPI_SCK
T28
SERIRQ
LFRAME#
PCICLK
CLKRUN#
LAD0
LAD1
LAD2
LAD3
ECRST#
KBRST#
SCI#
GA20
PCIRST#
PWM1
PWM2
FANPWM1
FANPWM2
FANFB1
FANFB2
KSO0
KSO1
KSO2
KSO3
KSO4
KSO5
KSO6
KSO7
KSO8
KSO9
KSO10
KSO11
KSO12
KSO13
KSO14
KSO15
KSO16
KSO17
KSI0
KSI1
KSI2
KSI3
KSI4
KSI5
KSI6
KSI7
PSCLK3
PSDAT3
PSCLK2
PSDAT2
PSCLK1
PSDAT1
GPIO02
GPIO03
GPIO04
GPIO06
GPIO07
GPIO08
GPIO09
GPIO0A
GPIO0B
GPIO0C
GPIO0D
GPIO11
GPIO18
GPIO19
GPIO1B
GPIO1C
GPIO1E
GPIO1F
GPIO42
GPIO54
GPIO56
GPIO57
GPIO58
GPIO59
VCC1
VCC2
VCC3
VCC4
VCC5
VCC6
AVCC
AGND
GND1
GND2
GND3
GND4
GND5
+3VACC
SDA1
SCL1
SDA2
SCL2
SMB0_DAT
SMB0_CLK
SMB1_DAT
SMB1_CLK
<SMB0_DAT <47>
<SMB0_CLK <47>
<SMB1_DAT <3,65>
<SMB1_CLK <3,65>
Battery
CPU Thermal Sensor
DA0
DA1
DA2
DA3
AD0
AD1
AD2
AD3
P_PMON_10 <56>
BAT_IN <54>
GPXOA00
GPXOA01
GPXOA02
GPXOA03
GPXOA04
GPXOA05
GPXOA06
GPXOA07
GPXOA08
GPXOA09
GPXOA10
GPXOA11
GPXOA12
GPXOA13
GPXOA14
GPXOA15
GPXOA16
GPXOA17
GPXOA18
GPIO51
SPI_MODE#
SPI_WP#
SUSC_ON <50,62>
SUSB_ON <35,50,62>
OP_SD# <33>
BAT_LEARN <54>
PRECHG <54>
CHG_EN# <54>
ICH8_PWROK <27>
BATSEL_2P# <54>
CPU_VRON <56>
VSUS_ON <35,55,58>
PM_PWRBTN# <14>
ICH8_PWROK
CPU_VRON
GPXID0
GPXID1
GPXID2
GPXID3
GPXID4
GPXID5
GPXID6
GPXID7
SUSB#
SUSC#
3V_5V_PWRGD
MCH_PWROK
SUSB# <14,27>
SUSC# <14,27>
VRM_PWRGD <3,8,14,27,56,60>
3V_5V_PWRGD <55,60>
MCH_PWROK <8>
SELMEM#
WR#
RD#
GPIO50
GPIO43
GPIO52
SPI_CE#
SPI_SI
SPI_SO
BATSEL_3S
CHG_LED_UP# <49>
E51_TX
ZR17
r0603_h24
GPIO16
GPIO17
GPIO1A
GPIO53
GPIO55
NUM_LED# <37>
CAP_LED# <37>
SCRL_LED# <37>
XCLKI
EC_32KXCLKI
V18R
XCLKO
EC_32KXCLKO
GPIO41
GPIO40
CIR_RX
ZC13
Do Not Stuff
c0603
/X
T5
T7
T8
T9
T10
T82
T83
T13
T14
T15
T16
T17
T18
T84
T85
T86
T87
T27
T98
T99
T81
T29
T89
For EC debug
+3VA_EC
ZR6
100KOhm
ZR7
33Ohm
ZC11
0.1UF/16V
<37> PWRSW#
PWR_SW#
SMB0_CLK
SMB0_DAT
ZD2
ZD3
VO603HS03
ZC14
100PF/50V
ZC15
100PF/50V
ZD4
BAV99
LID_EC#
layout note: place close to connector
STRAPPING TP_SPI (GPXOA00)
TP_SPI: SPI flash mode
0: select SPI flash mode (need external pull-low)
1: select ISA flash mode (Power-On Default)
Pull-UP on Power side
SPI_MODE#
ZR10
10KOhm
+5VS
+3VS
T11
T12
TP_DAT
TP_CLK
ZRN1A
ZRN1B
ZRN1C
ZRN1D
SMB1_DAT
SMB1_CLK
SMB0_DAT
SMB0_CLK
4.7KOhm
ZRN2A
ZRN2B
ZRN2C
ZRN2D
SUSC#
SUSB#
T21
ZRN3A
ZRN3B
ZRN3C
ZRN3D
SPI Flash ROM
+3VA_EC_SPI
ZD1
BAT54AW
SPI_WP#
SPI_HOLD#
ZR18
ZR19
ZU2
SST25VF080B
12G17100006F
SPI1
WtoB_CON_6P
ZC12
Do Not Stuff
/X
SIDE2
SIDE1
SPI_SI
SPI_SO
SPI_SCK
SPI_CE#
ASUS P/N:
A0 : 02G890000400
B1 : 02G890000410
888
Title : EC ENE3925
ASUSTek Computer INC.
Engineer: Jack Hsu
Size
Custom
Project Name
Z62Ha
Rev
1.1
Date: Thursday, September 27, 2007
Sheet 24 of 70

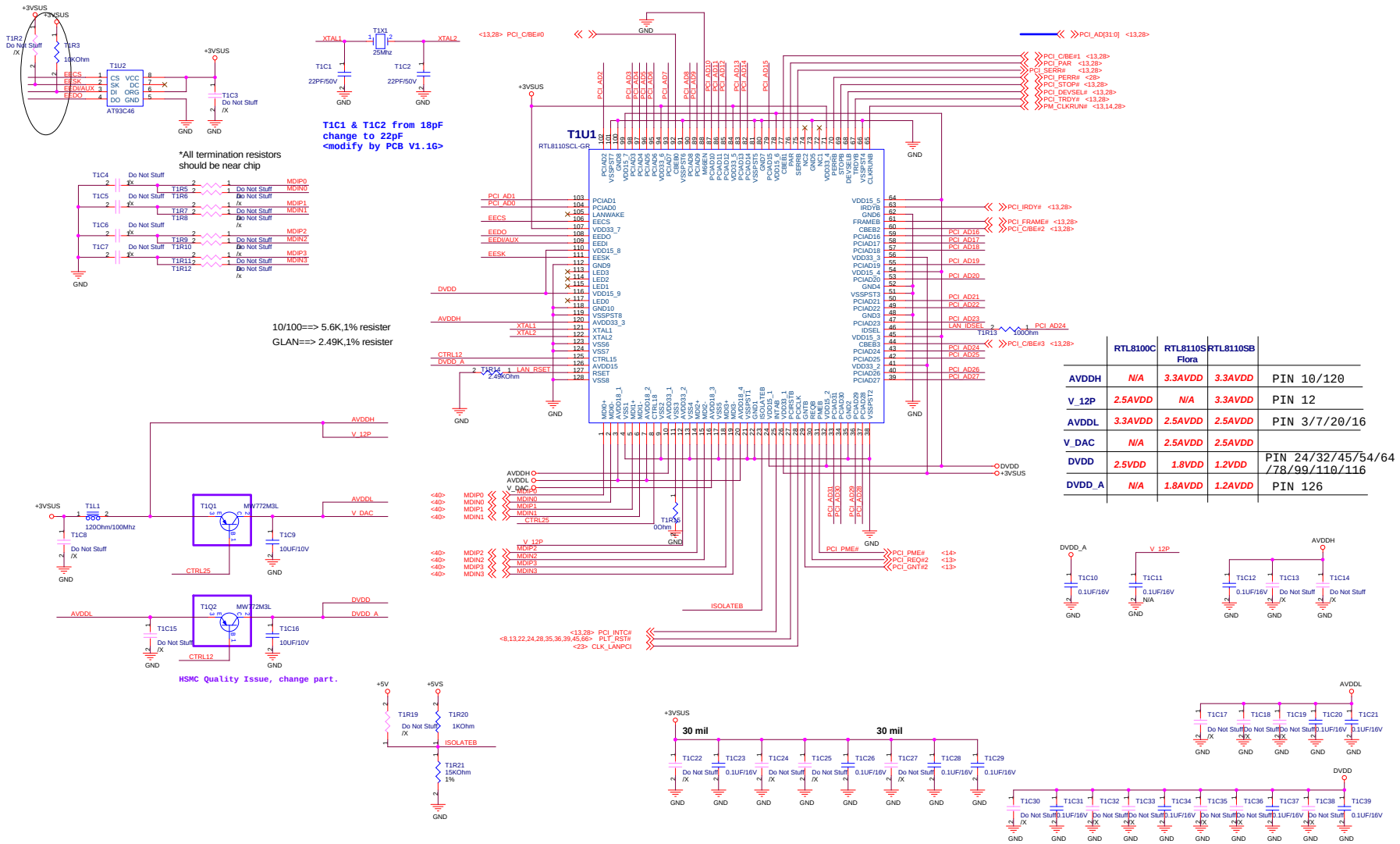






888

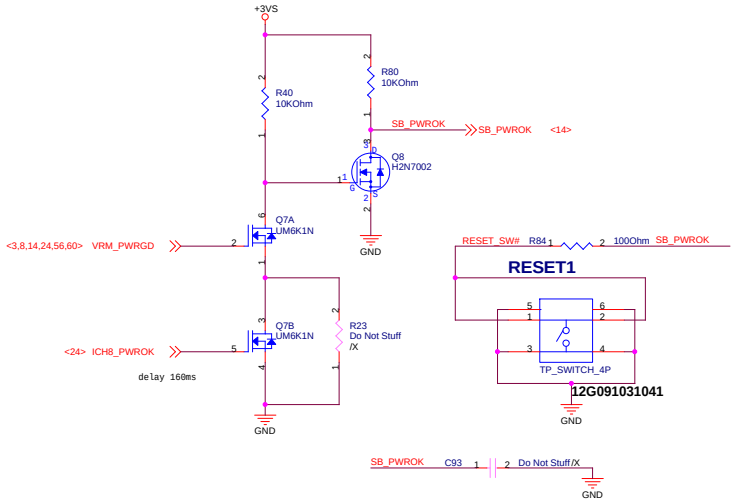
ASUSTek Computer INC.	Title : GPIO EXP.	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 25 of 70	

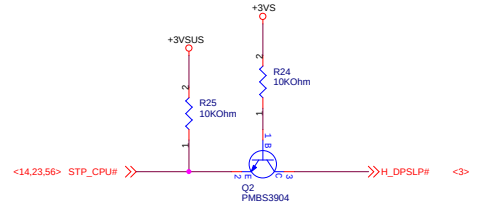


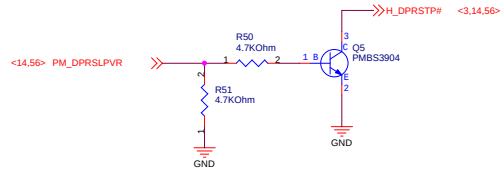
	RTL8100C	RTL8110S Flora	RTL8110SB	
AVDDH	N/A	3.3AVDD	3.3AVDD	PIN 10/120
V_12P	2.5AVDD	N/A	3.3AVDD	PIN 12
AVDDL	3.3AVDD	2.5AVDD	2.5AVDD	PIN 3/7/20/16
V_DAC	N/A	2.5AVDD	2.5AVDD	
DVDD	2.5VDD	1.8VDD	1.2VDD	PIN 24/32/45/54/64 /78/99/110/116
DVDD_A	N/A	1.8AVDD	1.2AVDD	PIN 126

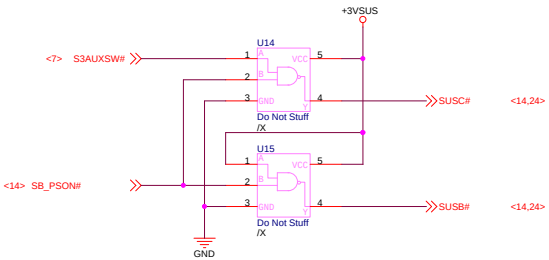
888

ASUSTek Computer INC.	Title : LAN Marvell 88E8056	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 26 of 70	









Sleep & Wake up

	S0		S3		S0
S3AUXSW#	1	0	0	0	1
SB_PSON#	0	0	1	0	0
SUSC#(S4)	1	1	1	1	1
SUSB#(S3)	1	1	0	1	1
Power Status	Main	Main	System, S4	Main	Main

Power ON & OFF:

	S5 → S0 → S5		
S3AUXSW#	1	1	1
SB_PSON#	1	0	1
SUSC#(S4)	0	1	0
SUSB#(S3)	0	1	0
Power Status	System	Main	System

888

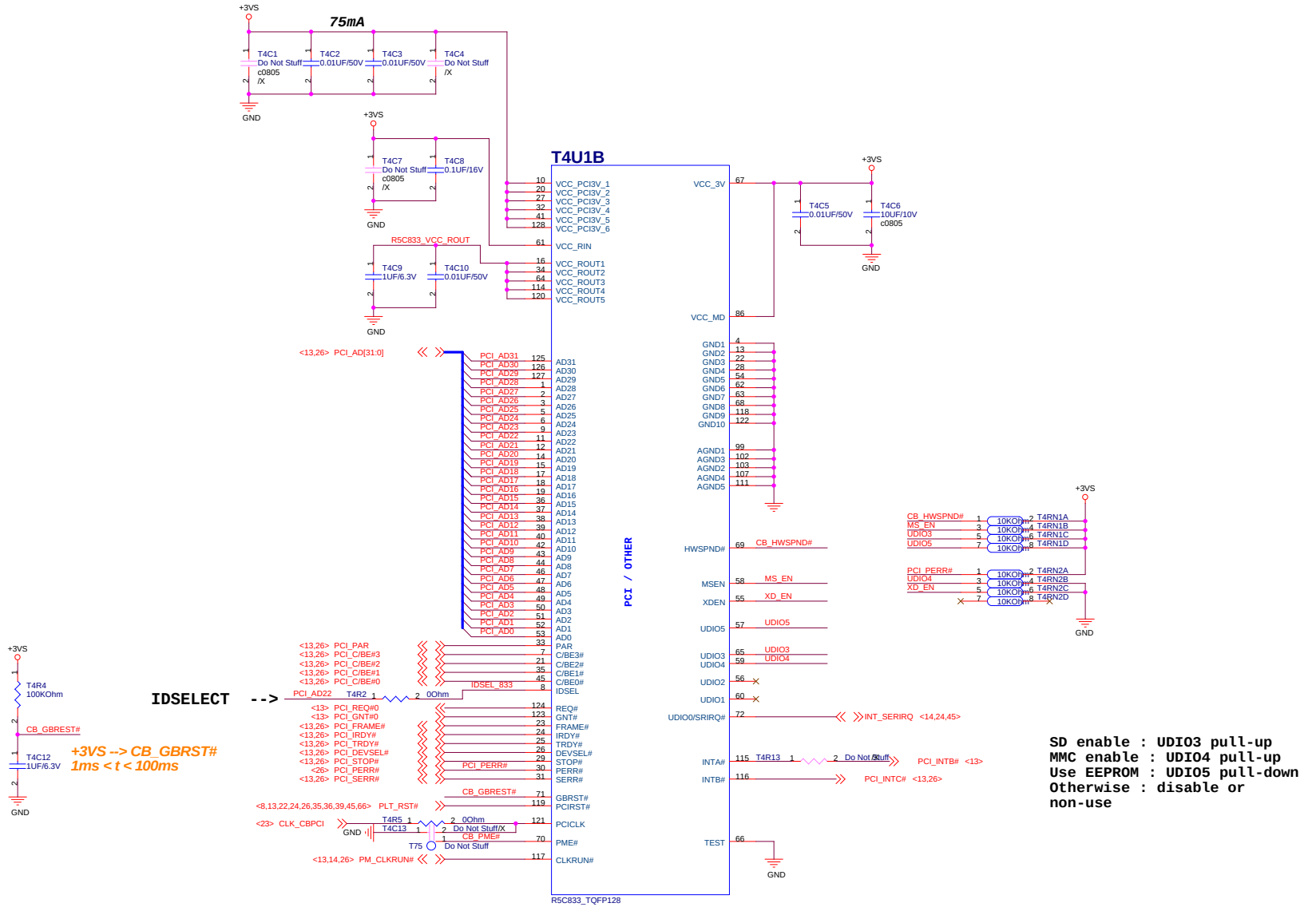
ASUSTek Computer INC.

Title : Other

Engineer: Jack Hsu

Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 27 of 70



888

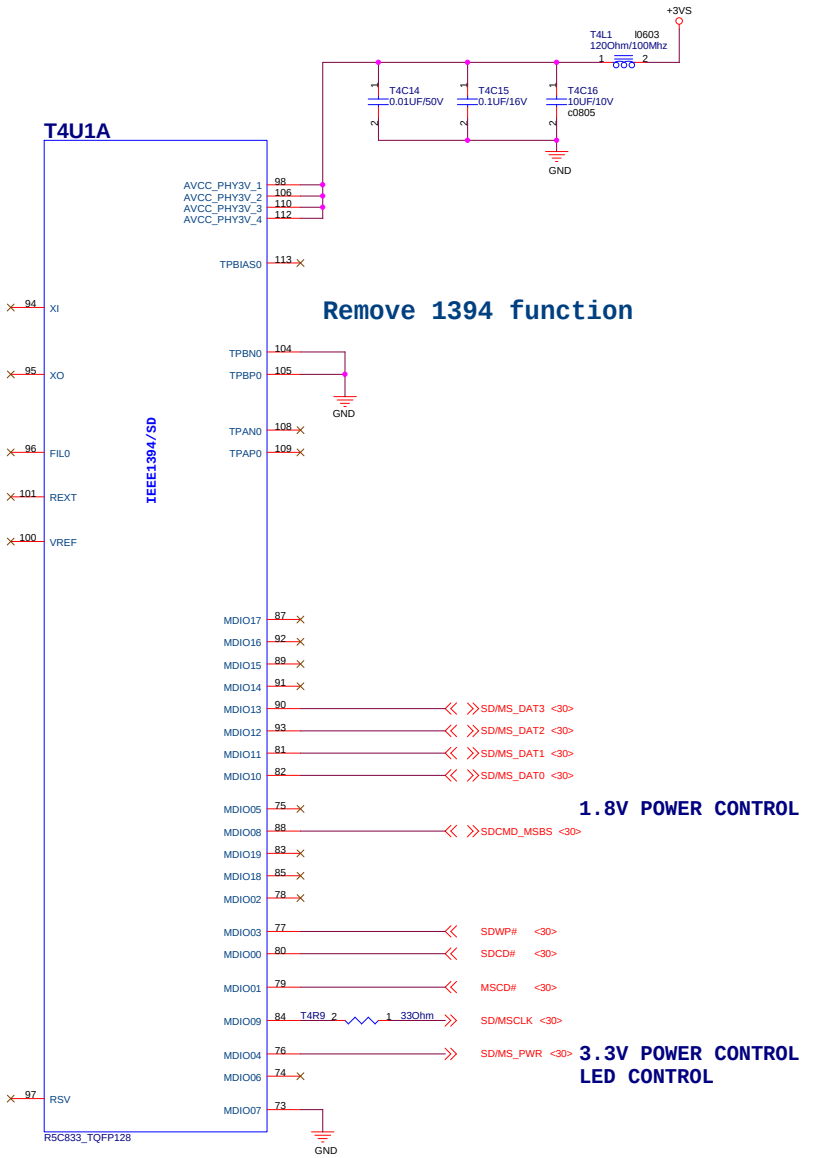
ASUSTek Computer INC.

Title : R5C833_PCI

Engineer: Jack Hsu

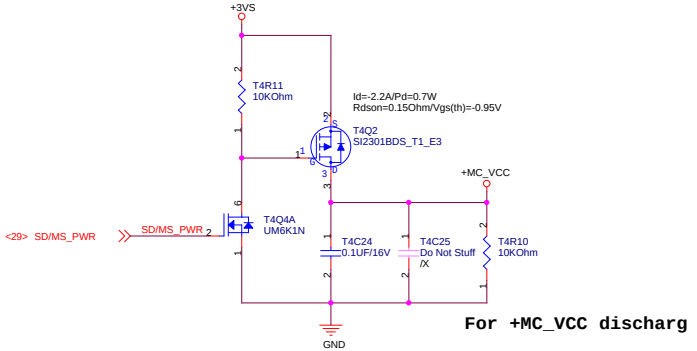
Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 28 of 70



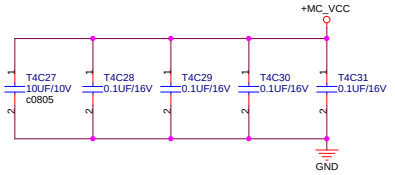
888

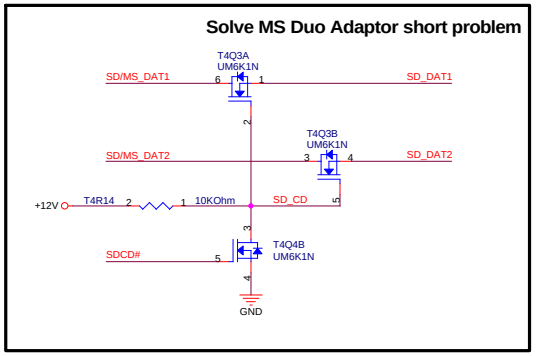
ASUSTek Computer INC.	Title : R5C833_1394/SD	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 29 of 70	

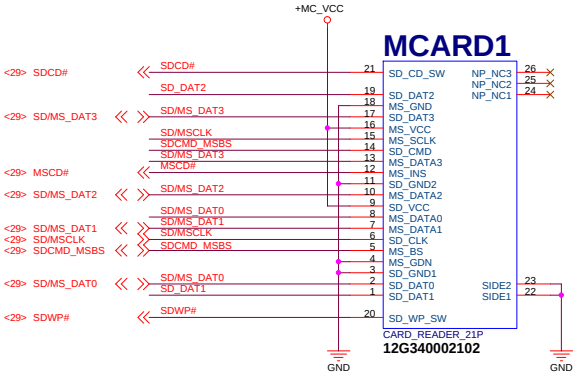


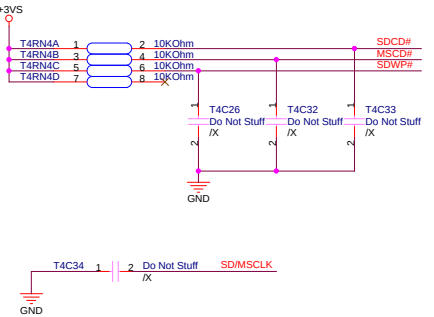
For +MC_VCC discharg

Card Reader Power Switcher





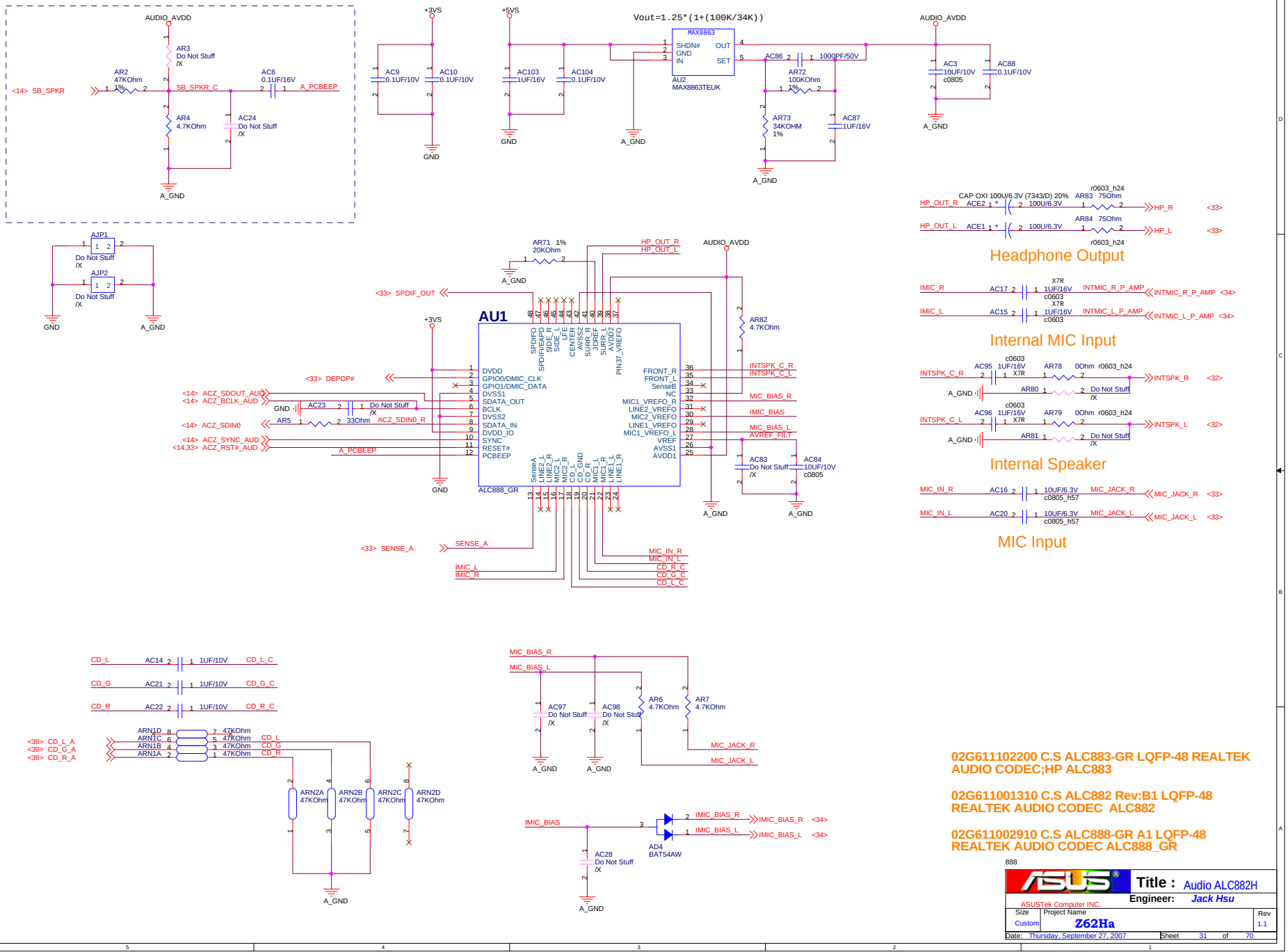




3 in 1 Card Reader

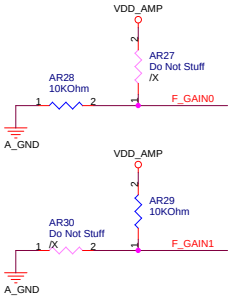
888

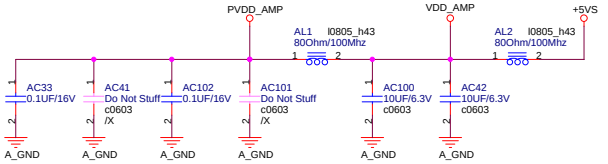
ASUSTek Computer INC.	Title: 3 in 1 Card Reader	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 30 of 70	

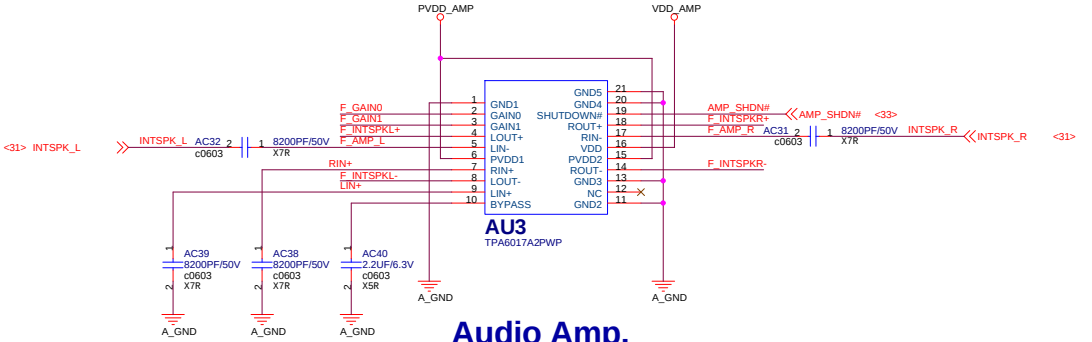

AUDIO_AVDD
AR3
Do Not Stuff
/X
AR2
47KOhm
1%
AC6
0.1UF/16V
<14> SB_SPKR
SB_SPKR_C
A_PCBEEP
AR4
4.7KOhm
AC24
Do Not Stuff
/X
A_GND
+3VS
+5VS
AC9
0.1UF/10V
AC10
0.1UF/10V
GND
AC103
1UF/16V
AC104
0.1UF/10V
Vout=1.25*(1+(100K/34K))
MAX8863
SHDN#
GND
IN
OUT
SET
AU2
MAX8863TEUK
AC86
1000PF/50V
AR72
100KOhm
1%
AR73
34KOHM
1%
AC87
1UF/16V
AC3
10UF/10V
c0805
AC88
0.1UF/10V
AJP1
Do Not Stuff
/X
AJP2
Do Not Stuff
/X
AR71 1%
20KOhm
<33> SPDIF_OUT
HP_OUT_R
HP_OUT_L
AU1
SPDIFO
SPDIFI/EAPD
SIDE_R
SIDE_L
CENTER
AVSS2
SURR_R
JDREF
SURR_L
AVDD2
PIN37_VREFO
DVDD
GPIO0/DMIC_CLK
GPIO1/DMIC_DATA
DVSS1
SDATA_OUT
BCLK
DVSS2
SDATA_IN
DVDD_IO
SYNC
RESET#
PCBEEP
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_R
MIC2_L
CD_GND
CD_R
MIC1_L
MIC1_R
LINE1_L
LINE1_R
ALC888_GR
AR82
4.7KOhm
<33> DEPOP#
<14> ACZ_SDOUT_AUD
<14> ACZ_BCLK_AUD
AC23
Do Not Stuff
/X
<14> ACZ_SDIN0
AR5
33Ohm
ACZ_SDIN0_R
<14> ACZ_SYNC_AUD
<14,33> ACZ_RST#_AUD
A_PCBEEP
INTSPK_C_R
INTSPK_C_L
MIC_BIAS_R
IMIC_BIAS
MIC_BIAS_L
AVREF_FILT
AC83
Do Not Stuff
/X
AC84
10UF/10V
c0805
<33> SENSE_A
SENSE_A
MIC_IN_R
MIC_IN_L
CD_R_C
CD_G_C
CD_L_C
IMIC_L
IMIC_R
CD_L
CD_G
CD_R
AC14
AC21
AC22
1UF/10V
CD_L_C
CD_G_C
CD_R_C
<39> CD_L_A
<39> CD_G_A
<39> CD_R_A
ARN1D
ARN1C
ARN1B
ARN1A
47KOhm
ARN2A
ARN2B
ARN2C
ARN2D
MIC_BIAS_R
MIC_BIAS_L
AC97
Do Not Stuff
/X
AC98
Do Not Stuff
/X
AR6
4.7KOhm
AR7
4.7KOhm
MIC_JACK_R
MIC_JACK_L
IMIC_BIAS
AC28
Do Not Stuff
/X
AD4
BAT54AW
IMIC_BIAS_R
IMIC_BIAS_L
<34>
CAP OXI 100U/6.3V (7343/D) 20%
HP_OUT_R
ACE2
ACE1
100U/6.3V
AR83
75Ohm
AR84
75Ohm
r0603_h24
HP_R
HP_L
<33>
Headphone Output
IMIC_R
IMIC_L
AC17
AC15
1UF/16V
X7R
c0603
INTMIC_R_P_AMP
INTMIC_L_P_AMP
<34>
Internal MIC Input
INTSPK_C_R
INTSPK_C_L
AC95
AC96
AR78
AR79
0Ohm
AR80
AR81
Do Not Stuff
/X
INTSPK_R
INTSPK_L
<32>
Internal Speaker
MIC_IN_R
MIC_IN_L
AC16
AC20
10UF/6.3V
c0805_h57
MIC_JACK_R
MIC_JACK_L
<33>
MIC Input
02G611102200 C.S ALC883-GR LQFP-48 REALTEK AUDIO CODEC;HP ALC883
02G611001310 C.S ALC882 Rev:B1 LQFP-48 REALTEK AUDIO CODEC ALC882
02G611002910 C.S ALC888-GR A1 LQFP-48 REALTEK AUDIO CODEC ALC888_GR
888
Title : Audio ALC882H
Engineer: Jack Hsu
ASUSTek Computer INC.
Size
Custom
Project Name
Z62Ha
Rev
1.1
Date: Thursday, September 27, 2007
Sheet 31 of 70

GAIN Control

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

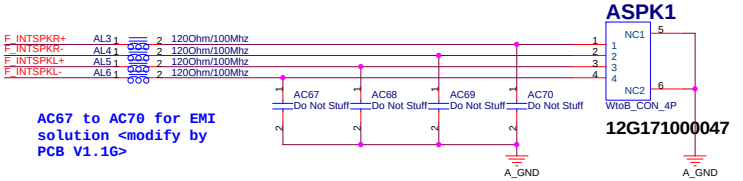






Audio Amp.
fc = 1kHz

12G171000047
Internal Speaker Connector

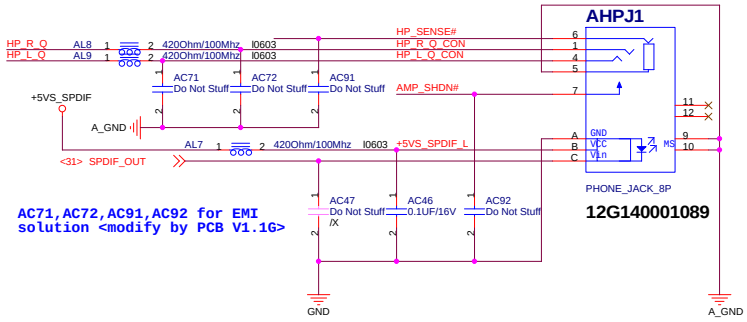


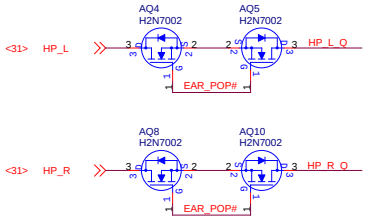
AC67 to AC70 for EMI solution <modify by PCB V1.1G>

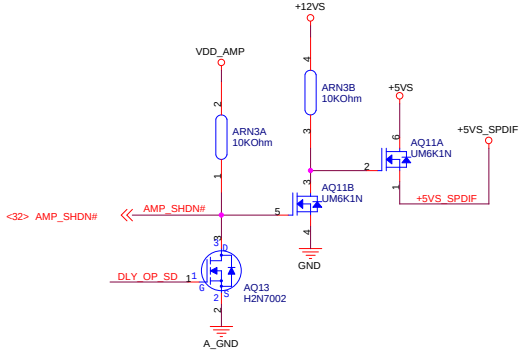
888

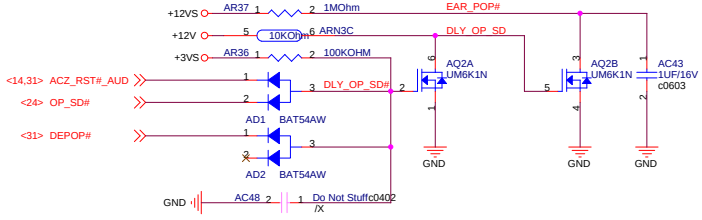
ASUSTek Computer INC.	Title : Audio Amp. & Conn	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 32 of 70	

Headphone & S/PDIF Jack

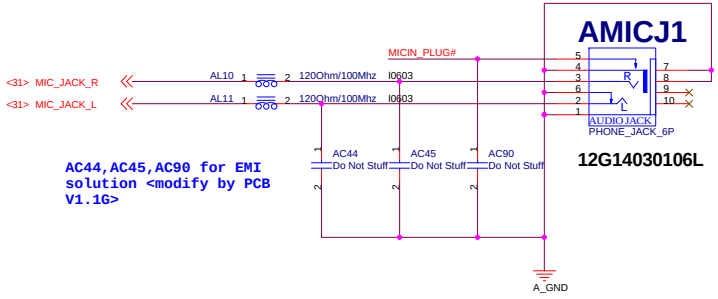








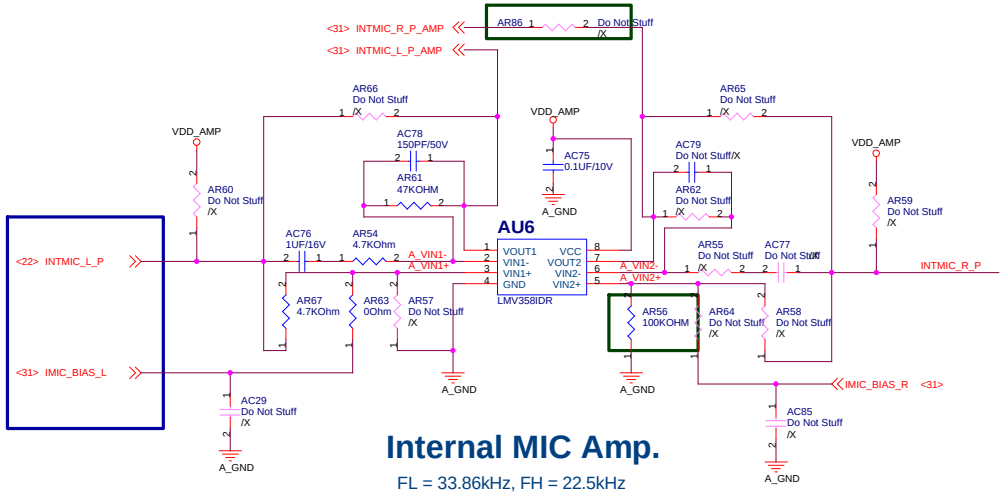
Microphone-In Jack



Jack Plug-in Detection

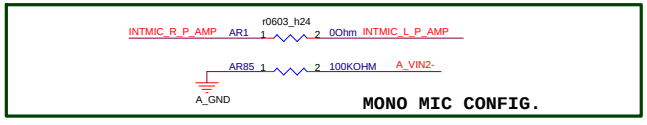
888

ASUSTek Computer INC.	Title : Audio JACK	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 33 of 70	



Internal MIC Amp.

FL = 33.86kHz, FH = 22.5kHz



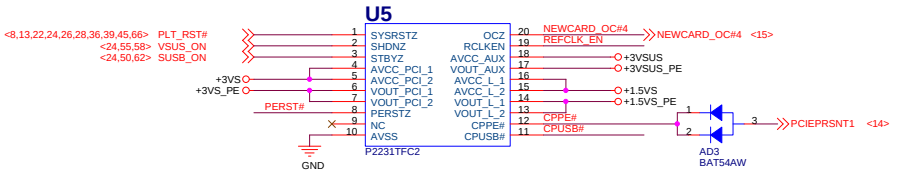
888

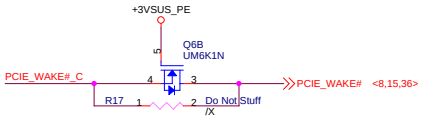
ASUSTek Computer INC.	Title : MIC PreAmp.	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 34 of 70	

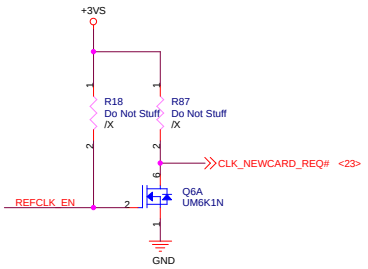
06G030057011 POWER SW. P2231TFC1 TSSOP-20 ENE P2231TFC1

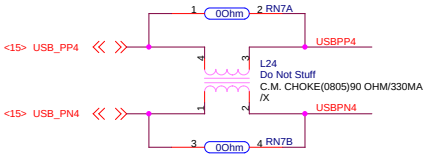
06G030057012 POWER SW. P2231TFC2 TSSOP-20 ENE P2231TFC2

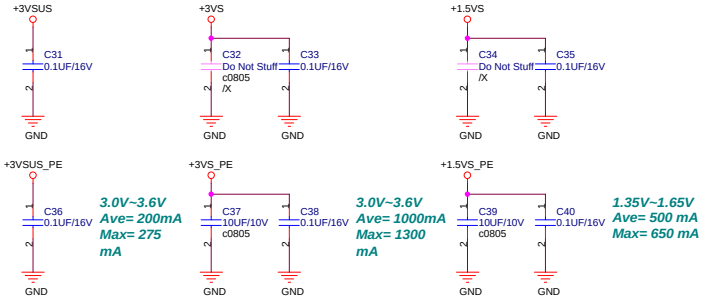
NewCard Header

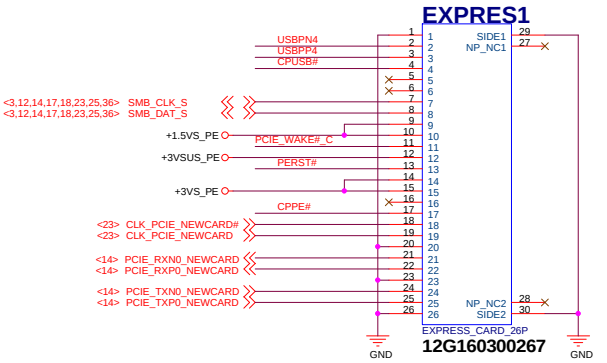






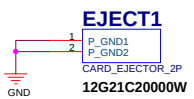






ExpressCard Standard 1.0:
Change Pin7 from RESERVED to SMBCLK
Change Pin8 from SMBCLK to SMBDATA
Change Pin9 from SMBDATA to +1.5V

NewCard Ejector



888

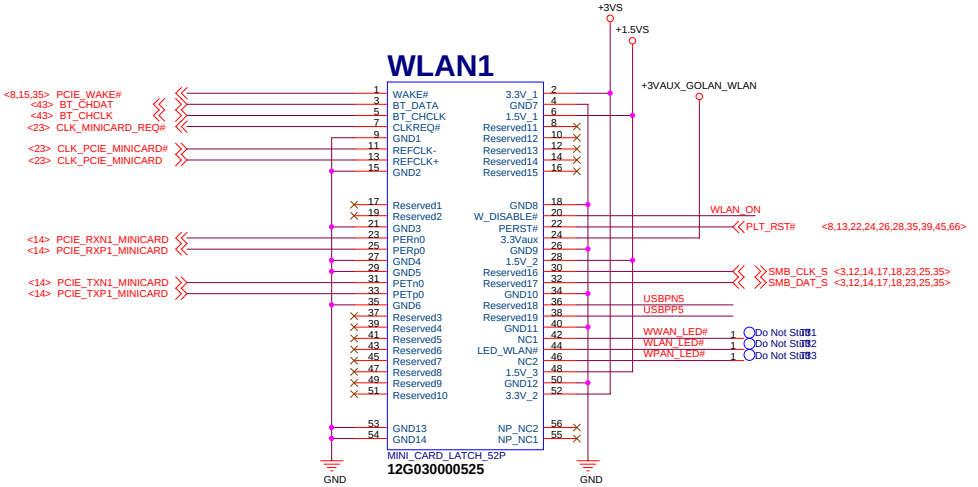
ASUSTek Computer INC.

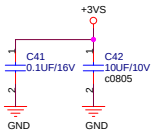
Title : NEWCARD

Engineer: Jack Hsu

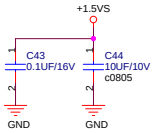
Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 35 of 70





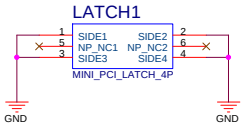
+3.003V~+3.597V
Max= 750 mA

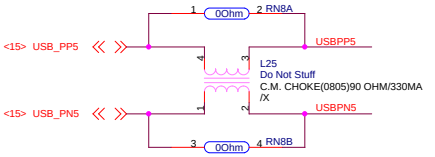


+1.425V~+1.575V
Max= 375 mA

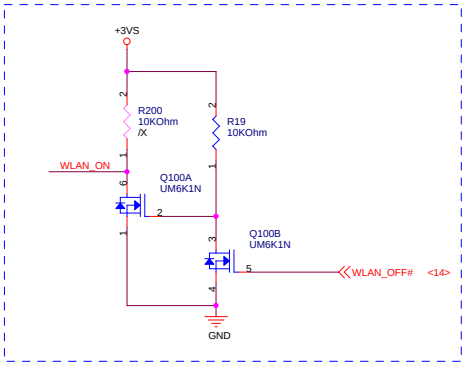
+3.003V~+3.597V
Max= 250 mA

Reserved for Wake on WLAN function





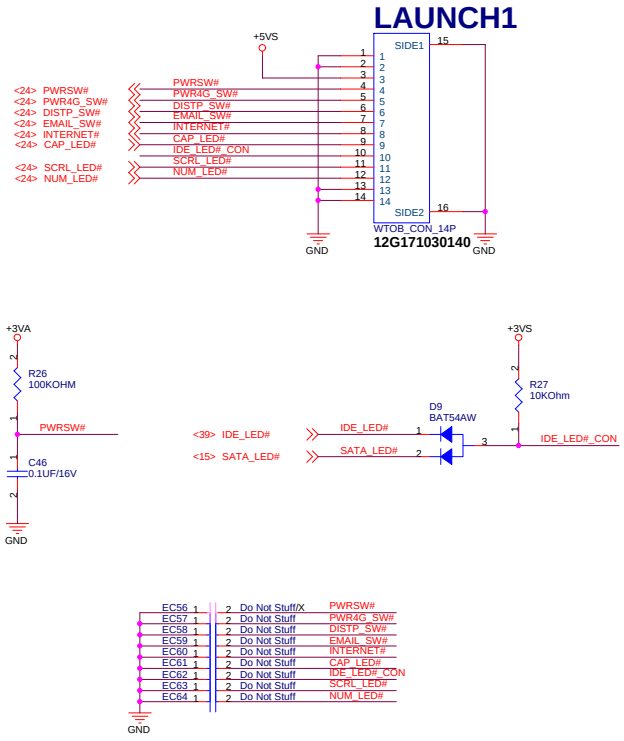
Add WLAN switch circuit <modify by PCB V1.1G>



888

ASUSTek Computer INC.	Title : MINICARD - WLAN	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 36 of 70	

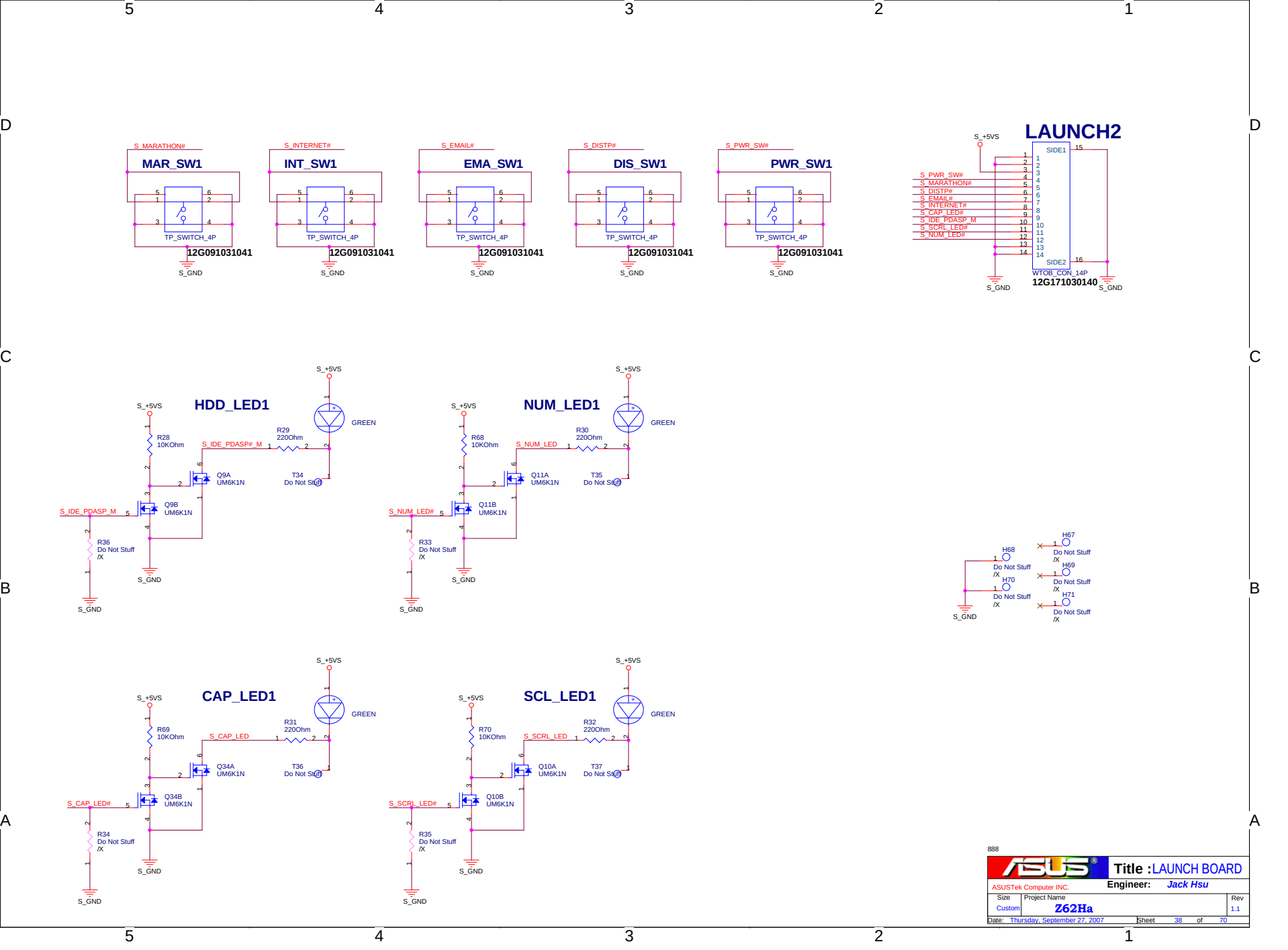
LAUNCH BOARD Connector



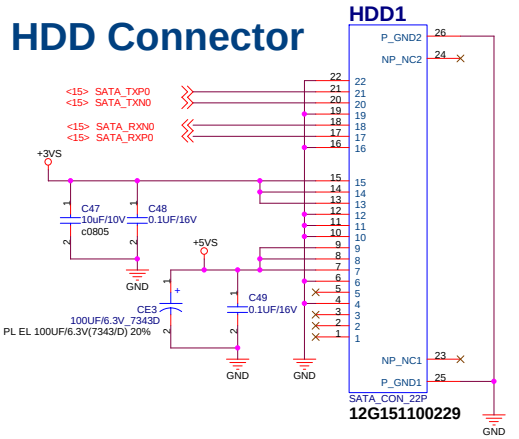
EC57 to EC64 for EMI solution
<modify by PCB V1.1G>

888

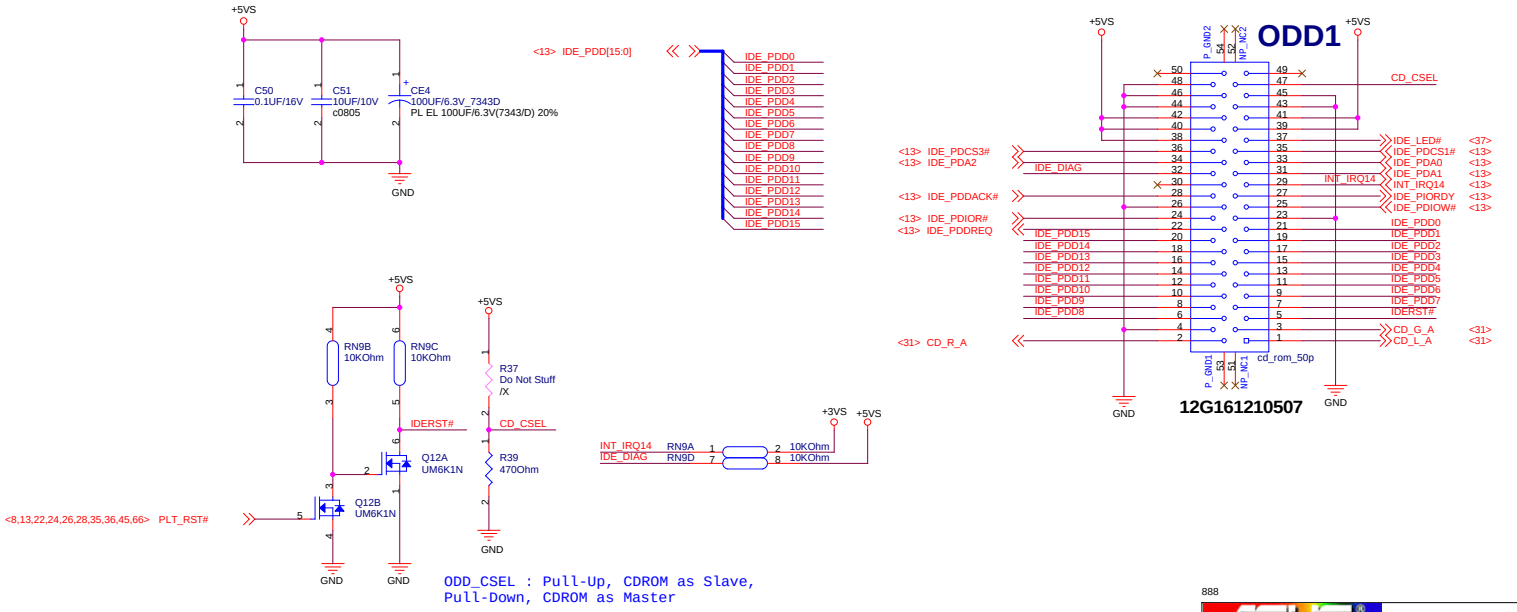
ASUSTek Computer INC.	Title : LAUNCH_B Conn.	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 37 of 70	


S_MARATHON#
MAR_SW1
TP_SWITCH_4P
12G091031041
S_GND
S_INTERNET#
INT_SW1
TP_SWITCH_4P
12G091031041
S_GND
S_EMAIL#
EMA_SW1
TP_SWITCH_4P
12G091031041
S_GND
S_DISTP#
DIS_SW1
TP_SWITCH_4P
12G091031041
S_GND
S_PWR_SW#
PWR_SW1
TP_SWITCH_4P
12G091031041
S_GND
LAUNCH2
S_+5VS
SIDE1
SIDE2
S_PWR_SW#
S_MARATHON#
S_DISTP#
S_EMAIL#
S_INTERNET#
S_CAP_LED#
S_IDE_PDASP_M
S_SCRL_LED#
S_NUM_LED#
WTOB_CON_14P
12G171030140
S_GND
S_GND
HDD_LED1
S_+5VS
R28
10KOhm
R29
220Ohm
S_IDE_PDASP#_M
GREEN
Q9A
UM6K1N
T34
Do Not Stuff
Q9B
UM6K1N
S_IDE_PDASP_M
R36
Do Not Stuff
/X
S_GND
S_GND
NUM_LED1
S_+5VS
R68
10KOhm
R30
220Ohm
S_NUM_LED
GREEN
Q11A
UM6K1N
T35
Do Not Stuff
Q11B
UM6K1N
S_NUM_LED#
R33
Do Not Stuff
/X
S_GND
S_GND
H67
Do Not Stuff
/X
H68
Do Not Stuff
/X
H69
Do Not Stuff
/X
H70
Do Not Stuff
/X
H71
Do Not Stuff
/X
S_GND
CAP_LED1
S_+5VS
R69
10KOhm
R31
220Ohm
S_CAP_LED
GREEN
Q34A
UM6K1N
T36
Do Not Stuff
Q34B
UM6K1N
S_CAP_LED#
R34
Do Not Stuff
/X
S_GND
S_GND
SCL_LED1
S_+5VS
R70
10KOhm
R32
220Ohm
S_SCRL_LED
GREEN
Q10A
UM6K1N
T37
Do Not Stuff
Q10B
UM6K1N
S_SCRL_LED#
R35
Do Not Stuff
/X
S_GND
S_GND
888
Title :LAUNCH BOARD
ASUSTek Computer INC.
Engineer: Jack Hsu
Size
Custom
Project Name
Z62Ha
Rev
1.1
Date: Thursday, September 27, 2007
Sheet 38 of 70

SATA HDD Connector



ODD Connector

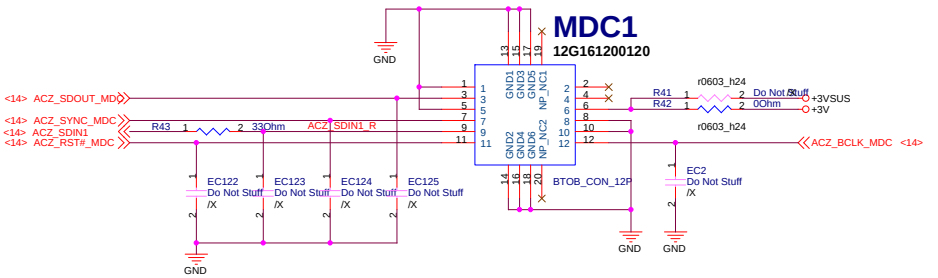


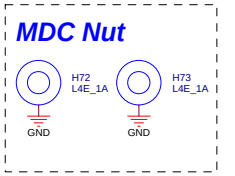
ODD_CSEL : Pull-Up, CDROM as Slave,
Pull-Down, CDROM as Master

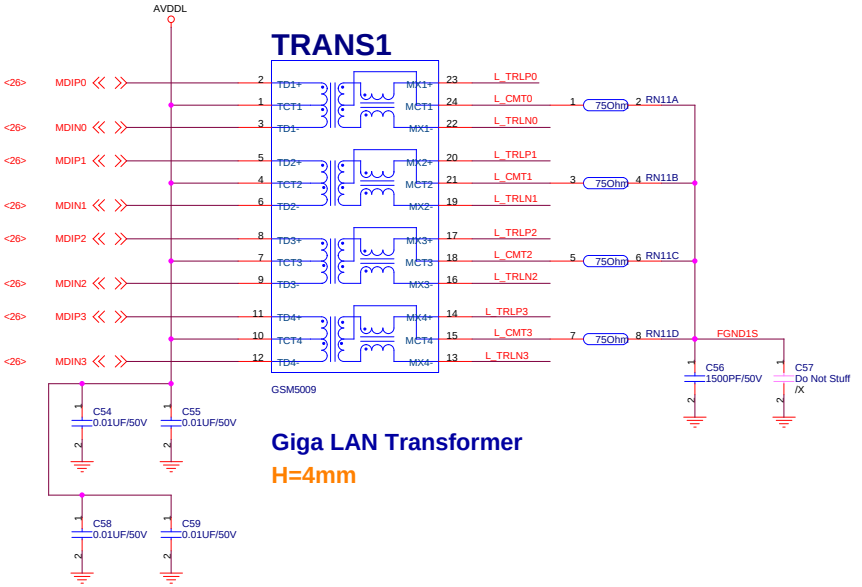
888

ASUSTek Computer INC.	Title : HDD & ODD	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 39 of 70	

MDC Connector

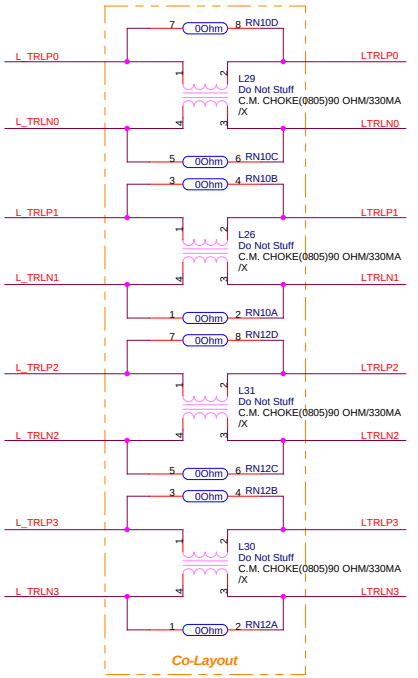


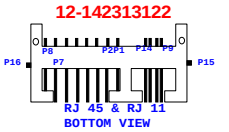


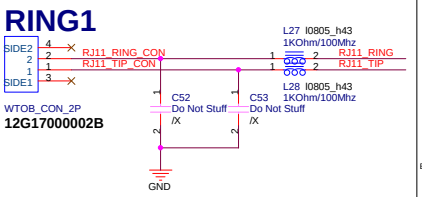


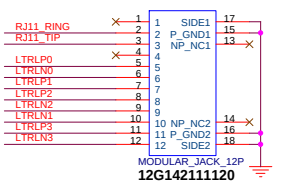
Giga LAN Transformer

H=4mm





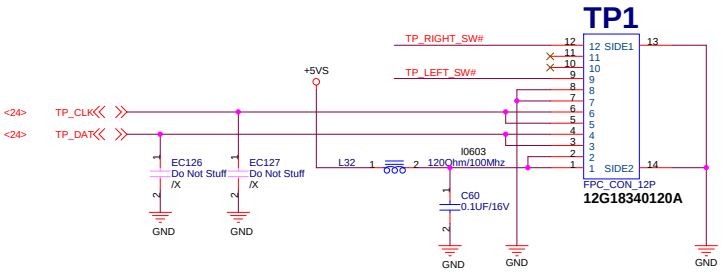




888

ASUSTeK Computer INC.	Title : MDC_RJ45_RJ11	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 40 of 70	

TouchPad Connector

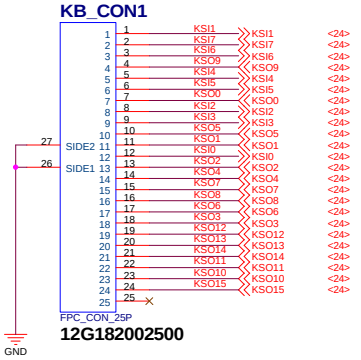


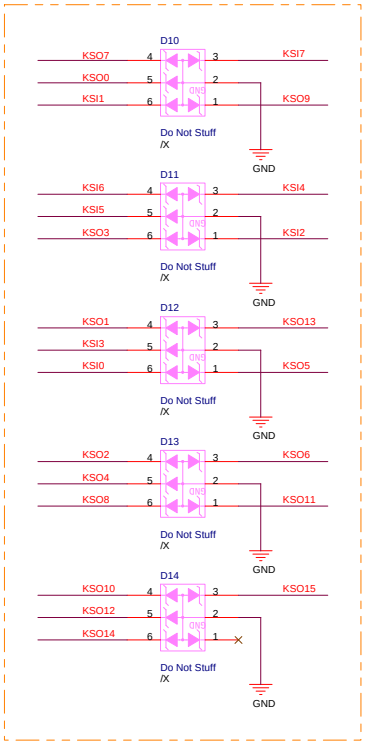
Touch pad Definition

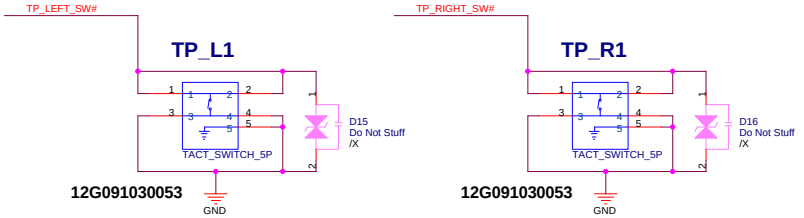
1	2	3	4	5	6	7	8	9	10	11	12
R	x	x	L	GND	GND	CLK	CLK	DAT	DAT	VDD	VDD

Z62F: pin1 reversal

Keyboard Connector





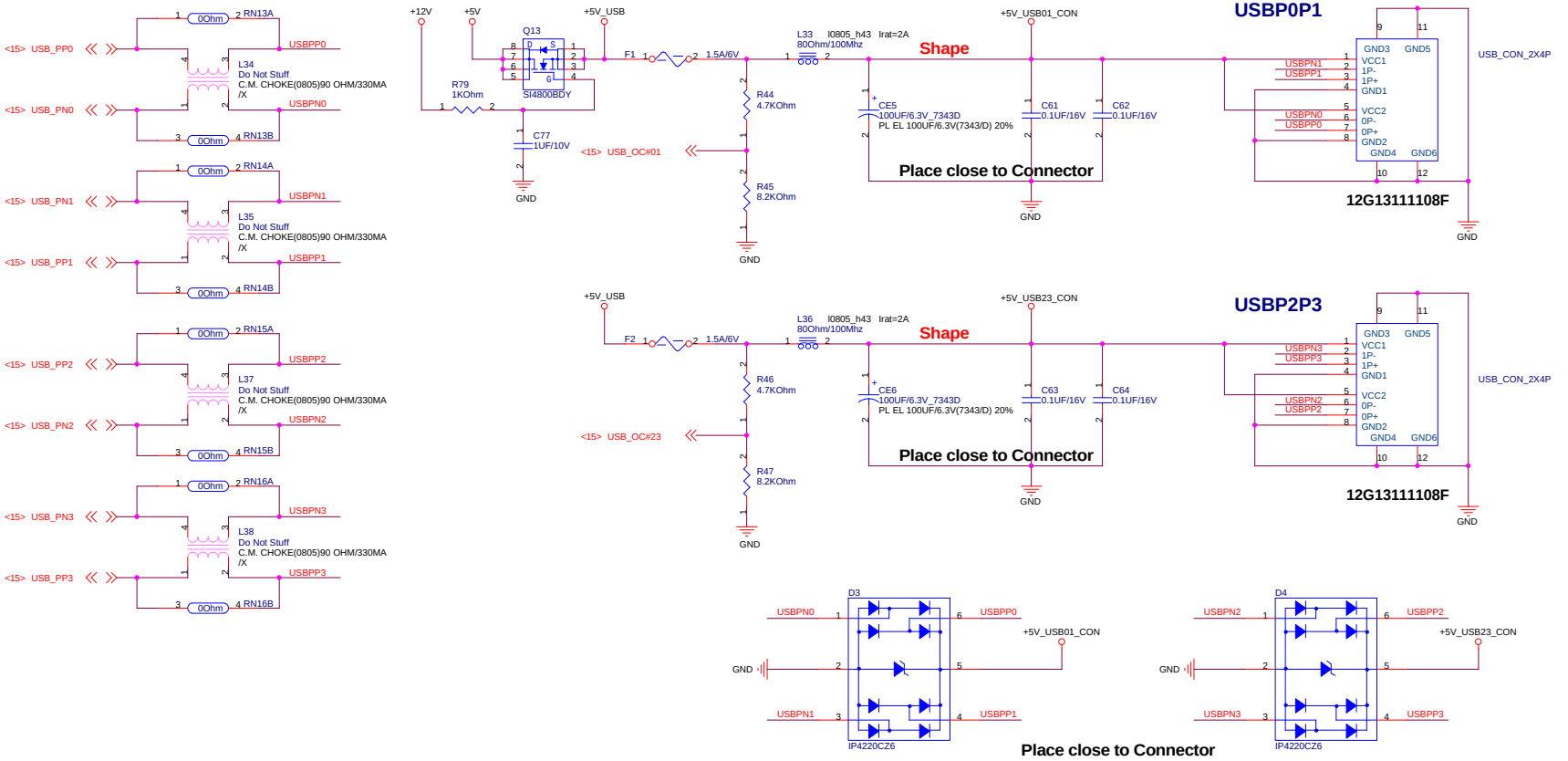


TOUCH PAD SWITCH

888

ASUSTek Computer INC.	Title : TP / KB Conn.	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 41 of 70	

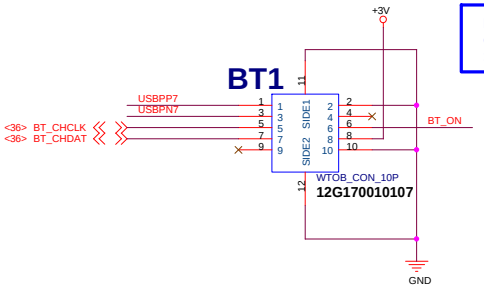
USB Power & OC Alert



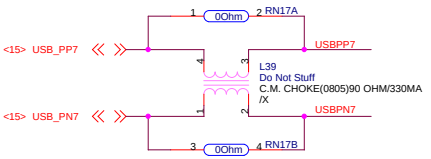
888

ASUSTek Computer INC.	Title : USB Connector	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 42 of 70	

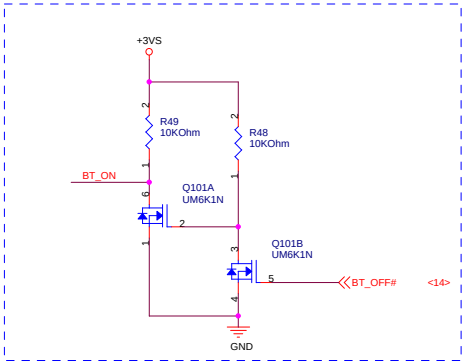
Bluetooth Connector



BT_OFF# : (connect to GPO, push-pull, default High)
0 => BT Disabled
1 => BT Enabled



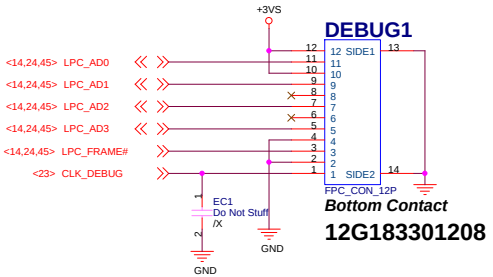
Add BT switch circuit <modify by PCB V1.1G>



888

ASUSTek Computer INC.	Title : Bluetooth Conn.	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 43 of 70	

Debug Connector



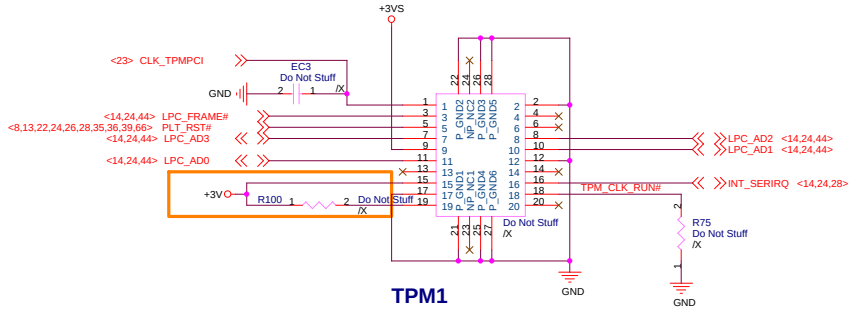
Bottom Contact

12G183301208

888

ASUSTek Computer INC.	Title : Debug Port	
	Engineer: *Jack Hsu*	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 44 of 70	

TPM Connector



TPM1

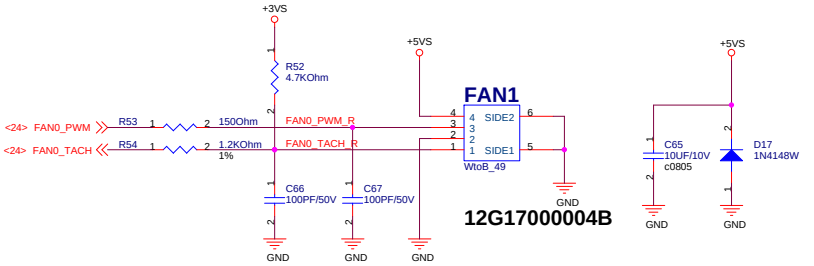
12G16080020J

Pin 6: +3VA
Pin 13: SMB_CLK
Pin 14: SMB_DAT
Removed!!

TPM Nut

888

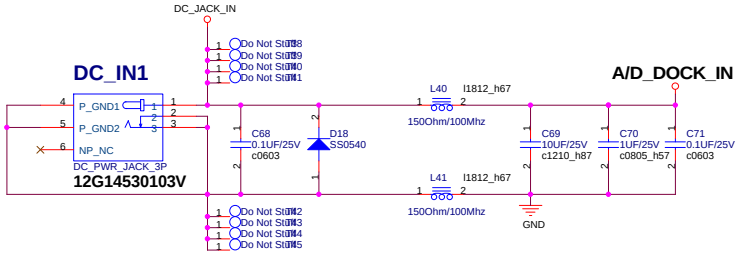
ASUSTek Computer INC.	Title : TPM Connector	
	Engineer: *Jack Hsu*	
Size: Custom	Project Name: **Z62Ha**	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 45 of 70	

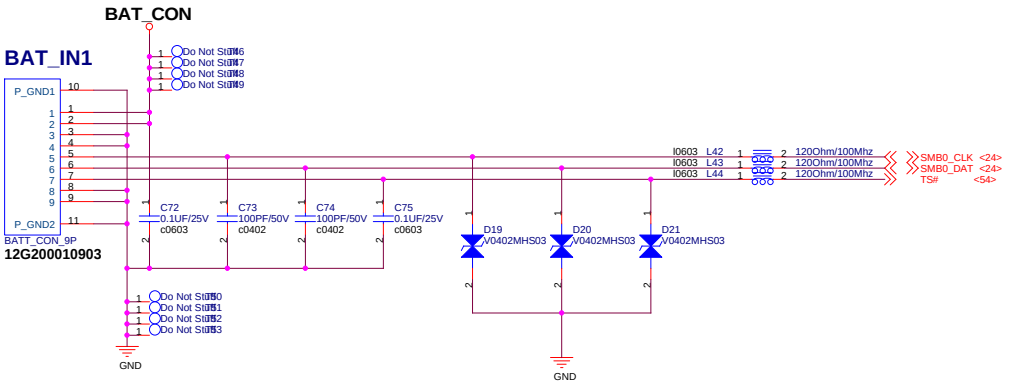


SYSTEM Fan Connector

888

ASUSTek Computer INC.	Title : Fan Connector	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 46 of 70	





888

ASUSTek Computer INC.	Title : DC-IN & BAT-IN	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 47 of 70	

888

Title : BLANK

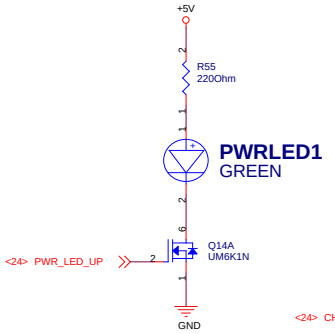
ASUSTek Computer INC.

Engineer: Jack Hsu

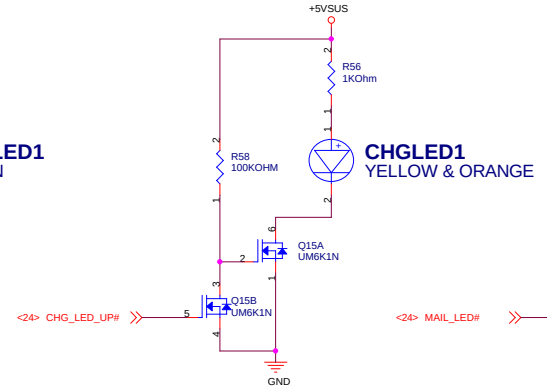
Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 48 of 70

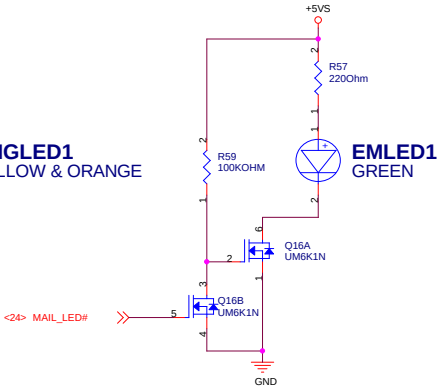
POWER LED



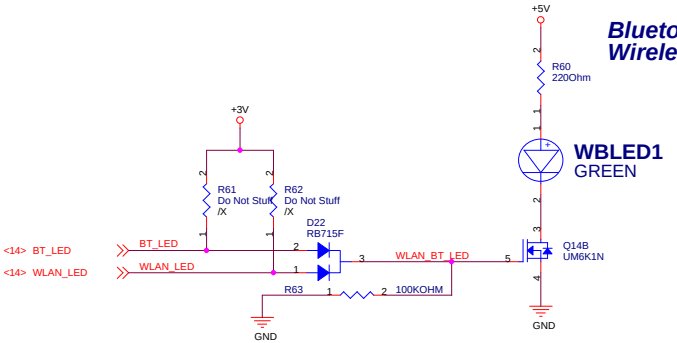
Battery Charge LED



Email LED

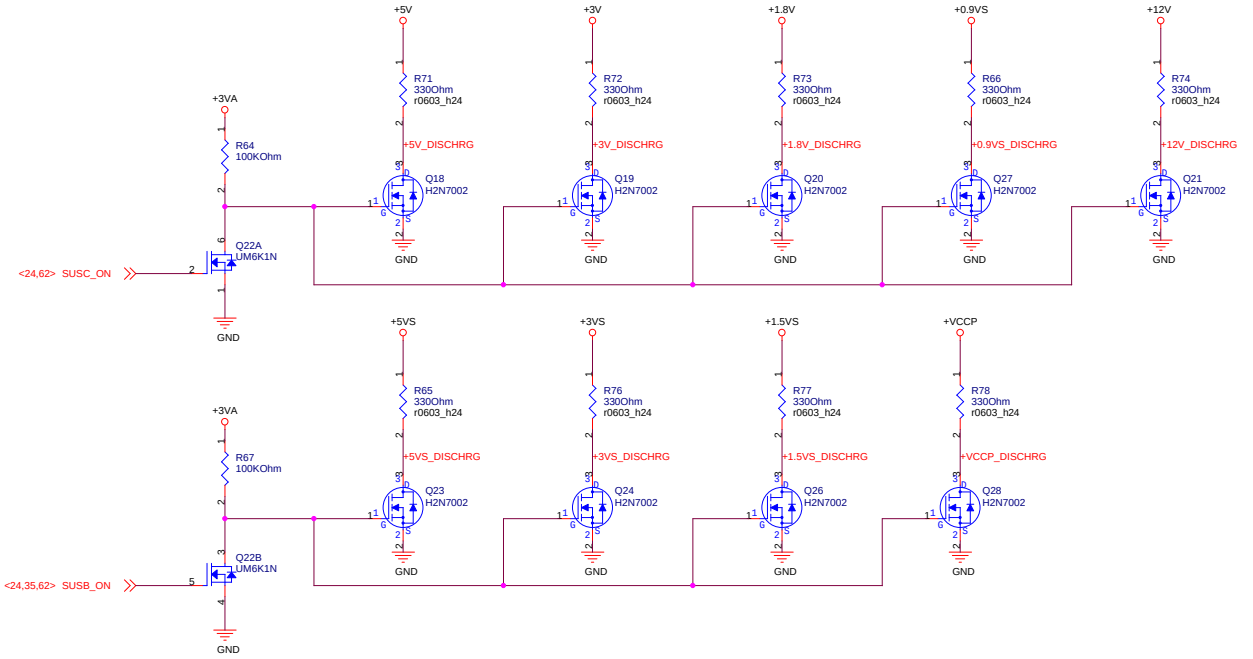


Bluetooth LED
Wireless LED



888

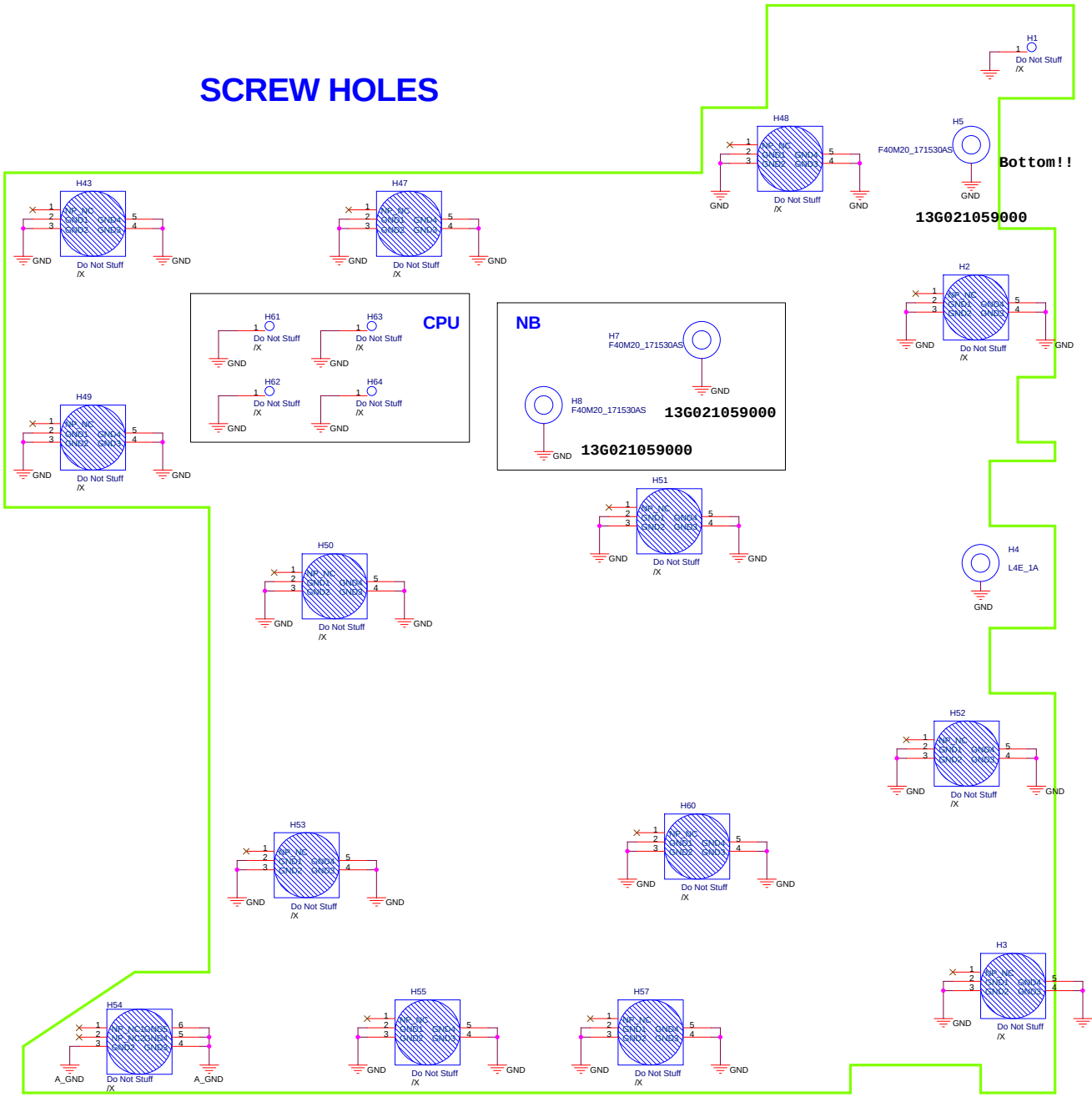
ASUSTek Computer INC.	Title : LED	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 49 of 70	



888

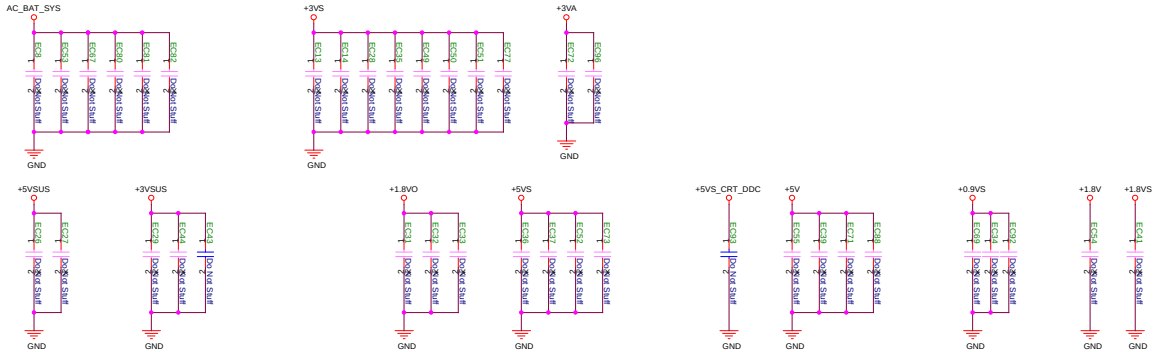
ASUSTek Computer INC.	Title : Discharger	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 50 of 70	

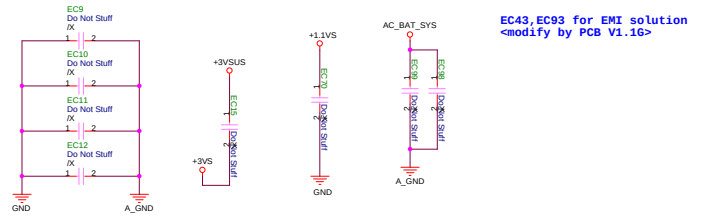
SCREW HOLES



888

ASUSTek Computer INC.	Title : Screw Hole	
	Engineer: Jack Hsu	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 51 of 70	





EC43,EC93 for EMI solution
<modify by PCB V1.1G>

Spring For EMI

13G021034020

EPAD1 Do Not Stuff /X
EPAD2 Do Not Stuff /X
EPAD3 Do Not Stuff /X
EPAD4 Do Not Stuff /X
EPAD10 Do Not Stuff /X

13G021034030

EPAD5 EMI_SPRING_PAD
EPAD6 EMI_SPRING_PAD
EPAD7 EMI_SPRING_PAD
EPAD8 EMI_SPRING_PAD
EPAD9 EMI_SPRING_PAD

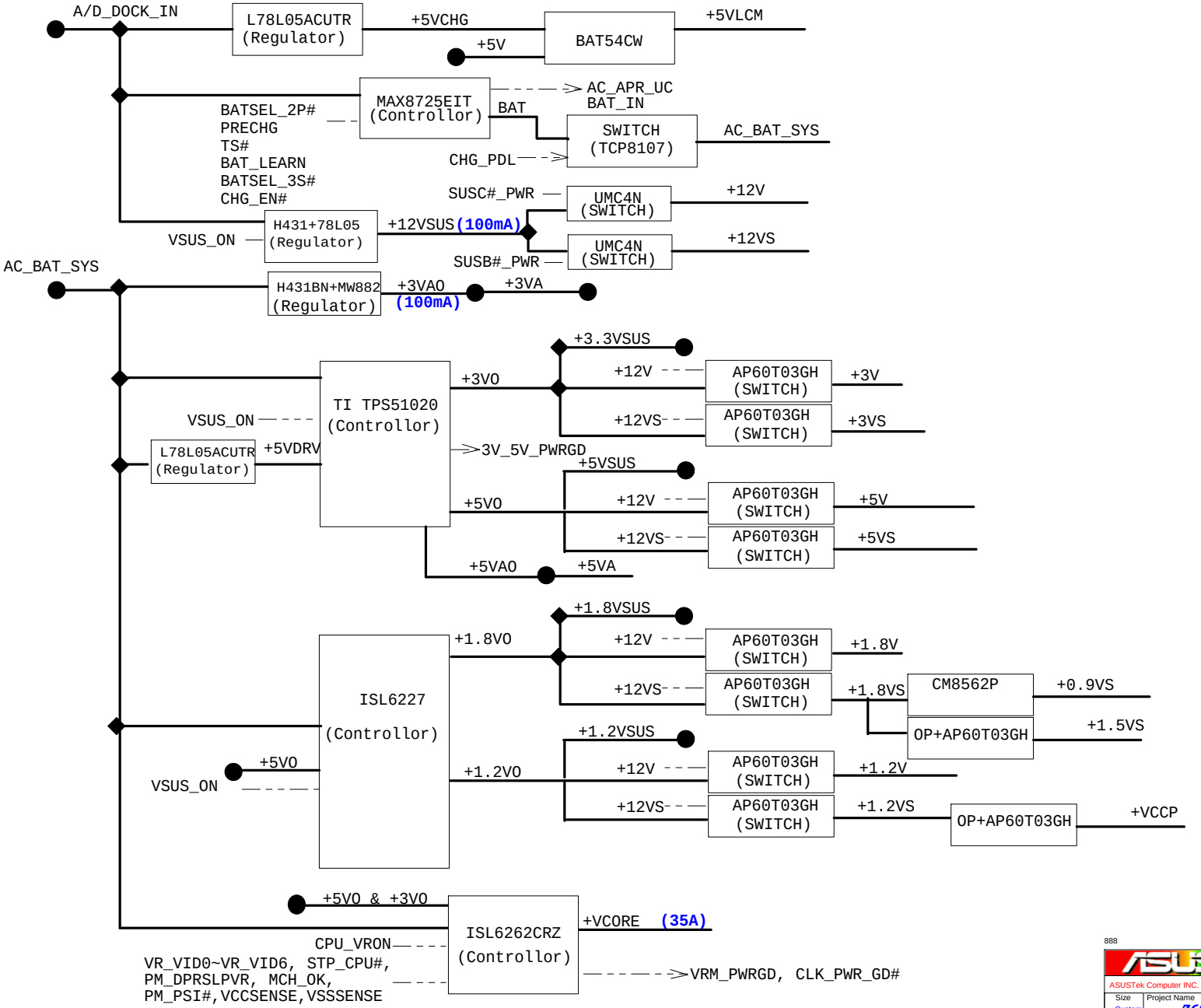
888

Title : EMI CAP

ASUSTek Computer INC. Engineer: Jack Hsu

Size	Project Name	Rev
C	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 52 of 70



888

ASUSTek Computer INC.

Title : POWER_FLOWCHART

Engineer:

Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 53 of 70

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

PR815 from 3.3K change to 7.5K for Precharge mode issue <modify by PCB V1.1G>

POWER PATH & BAT_LEARN

Battery Voltage

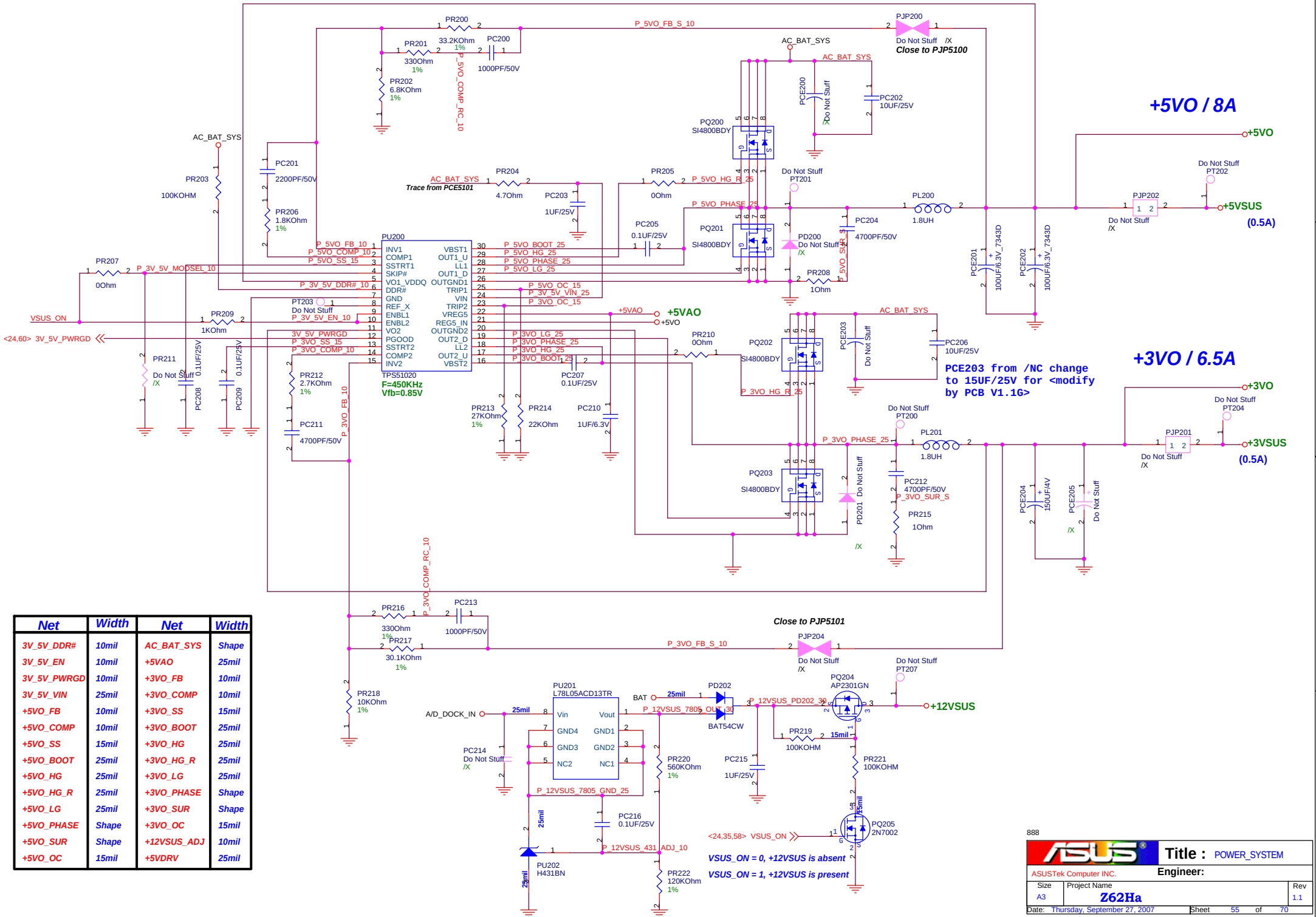
ASUSTek Computer INC.

Title : POWER_CHARGER

Engineer:

Size: C | Project Name: Z62Ha | Rev: 1.1

Date: Thursday, September 27, 2007 | Sheet 54 of 70



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

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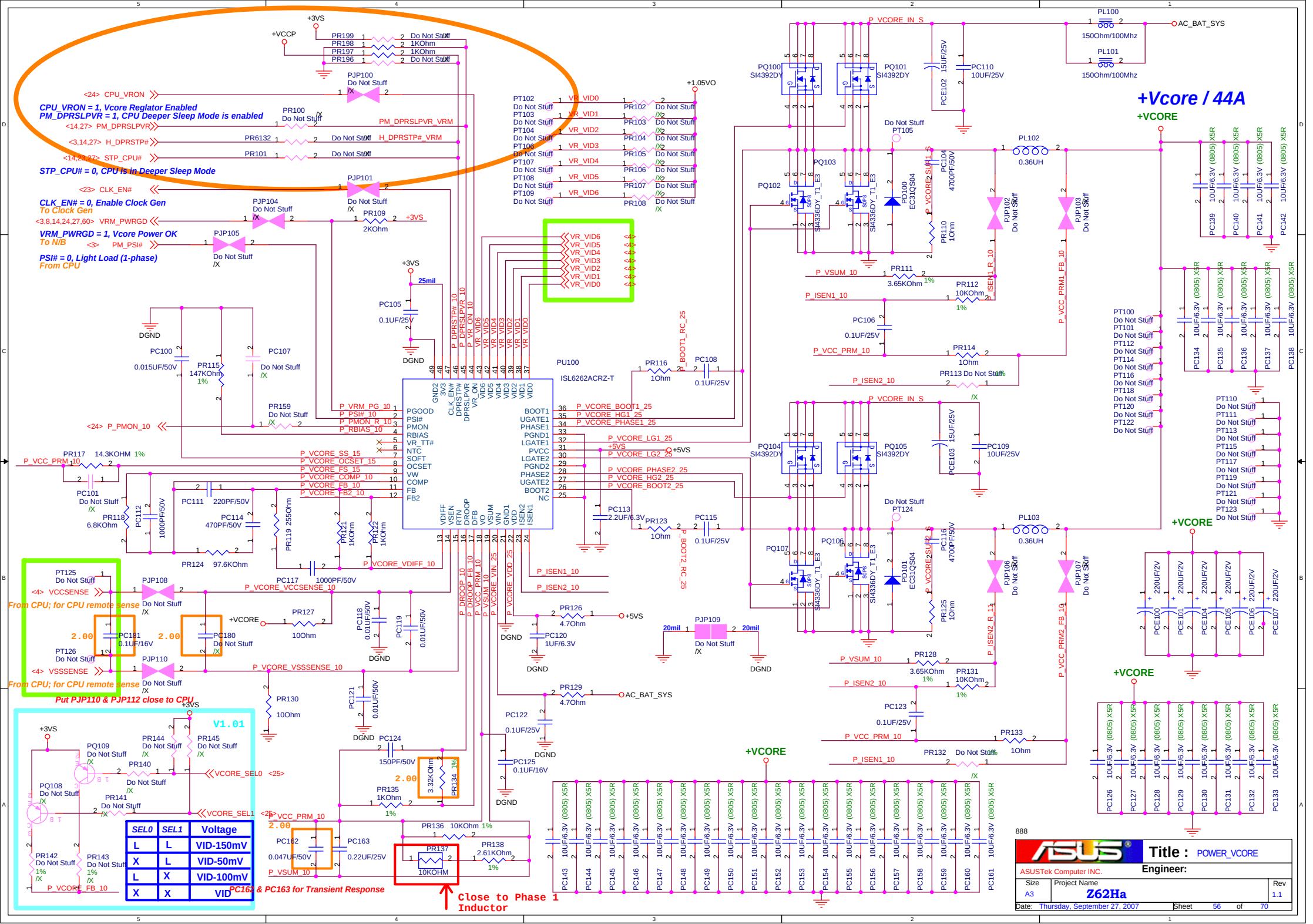
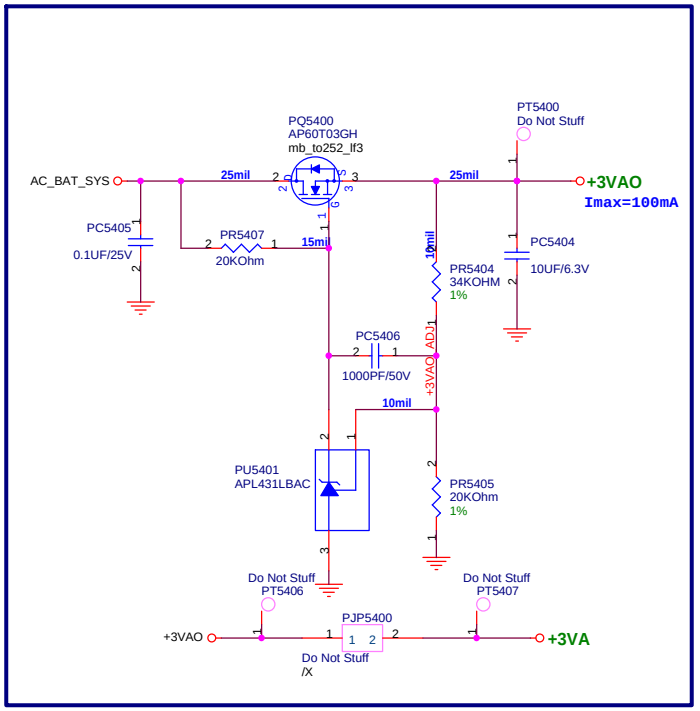
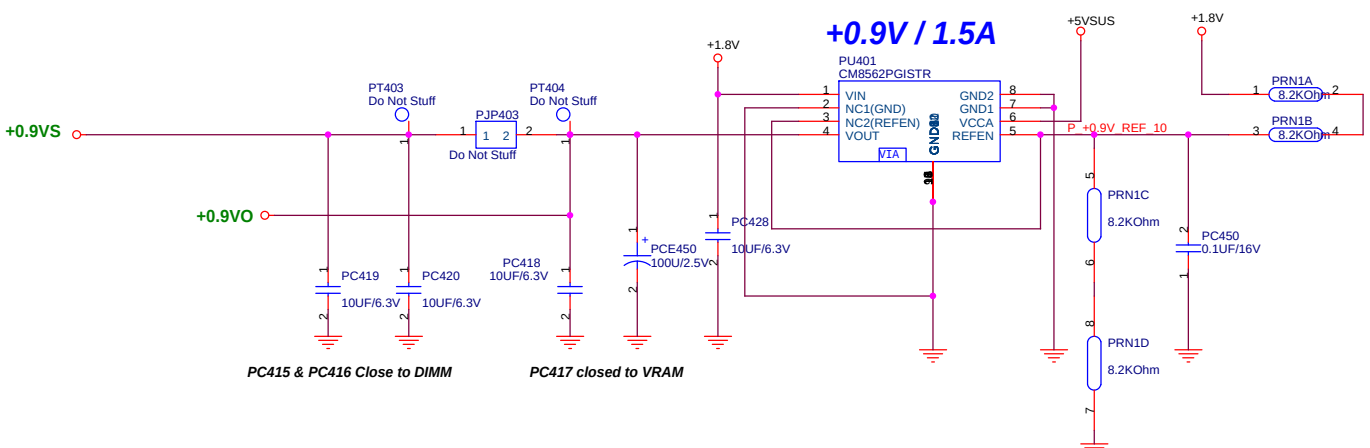
ASUSTek Computer INC.	Title : POWER_SYSTEM	
	Engineer:	
Size: A3	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 55 of 70	


+Vcore / 44A
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
From CPU; for CPU remote sense
From CPU; for CPU remote sense
Put PJP110 & PJP112 close to CPU
V1.01
PC162 & PC163 for Transient Response
Close to Phase 1 Inductor
PU100
ISL6262ACRZ-T
PQ100 SI4392DY
PQ101 SI4392DY
PQ102 SI4336DY_T1_E3
PQ103 SI4336DY_T1_E3
PQ104 SI4392DY
PQ105 SI4392DY
PQ106 SI4336DY_T1_E3
PQ107 SI4336DY_T1_E3
PD100 EC31QS04
PD101 EC31QS04
PL100 150Ohm/100Mhz
PL101 150Ohm/100Mhz
PL102 0.36UH
PL103 0.36UH
AC_BAT_SYS
+VCORE
+3VS
+1.05VO
+5VS
DGND
Do Not Stuff
Title : POWER_VCORE
ASUSTek Computer INC.
Engineer:
Size A3
Project Name Z62Ha
Rev 1.1
Date: Thursday, September 27, 2007
Sheet 56 of 70





DDR Power Rev:1.00

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ASUSTek Computer INC.

Title :

Engineer:

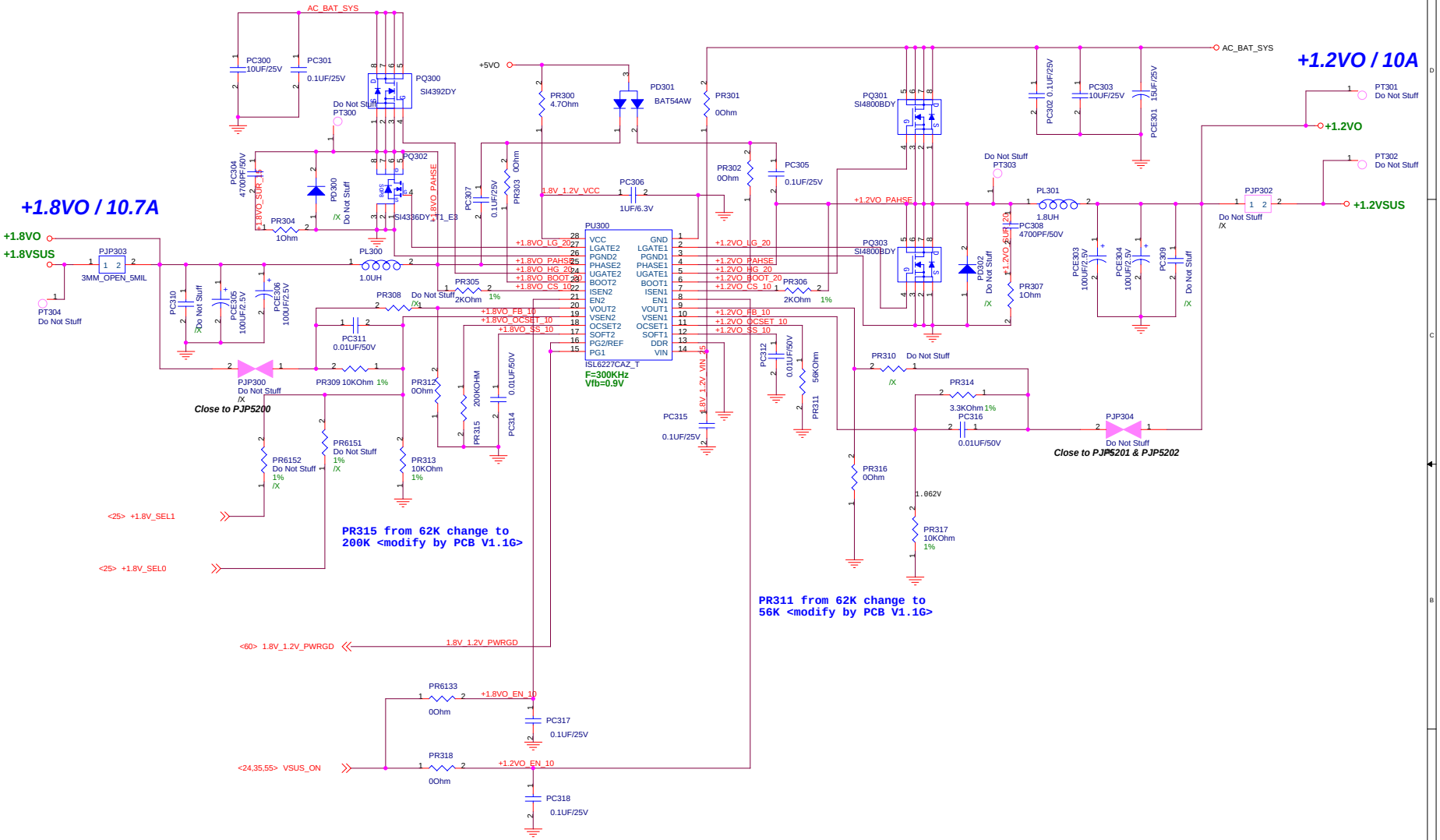
Size	Project Name	Rev
A3		1.1

Date: Thursday, September 27, 2007 Sheet 57 of 70

PR311 from 62K change to
200K <modify by PCB
V1.1G>

+1.8VO / 10.7A

+1.2VO / 10A



888

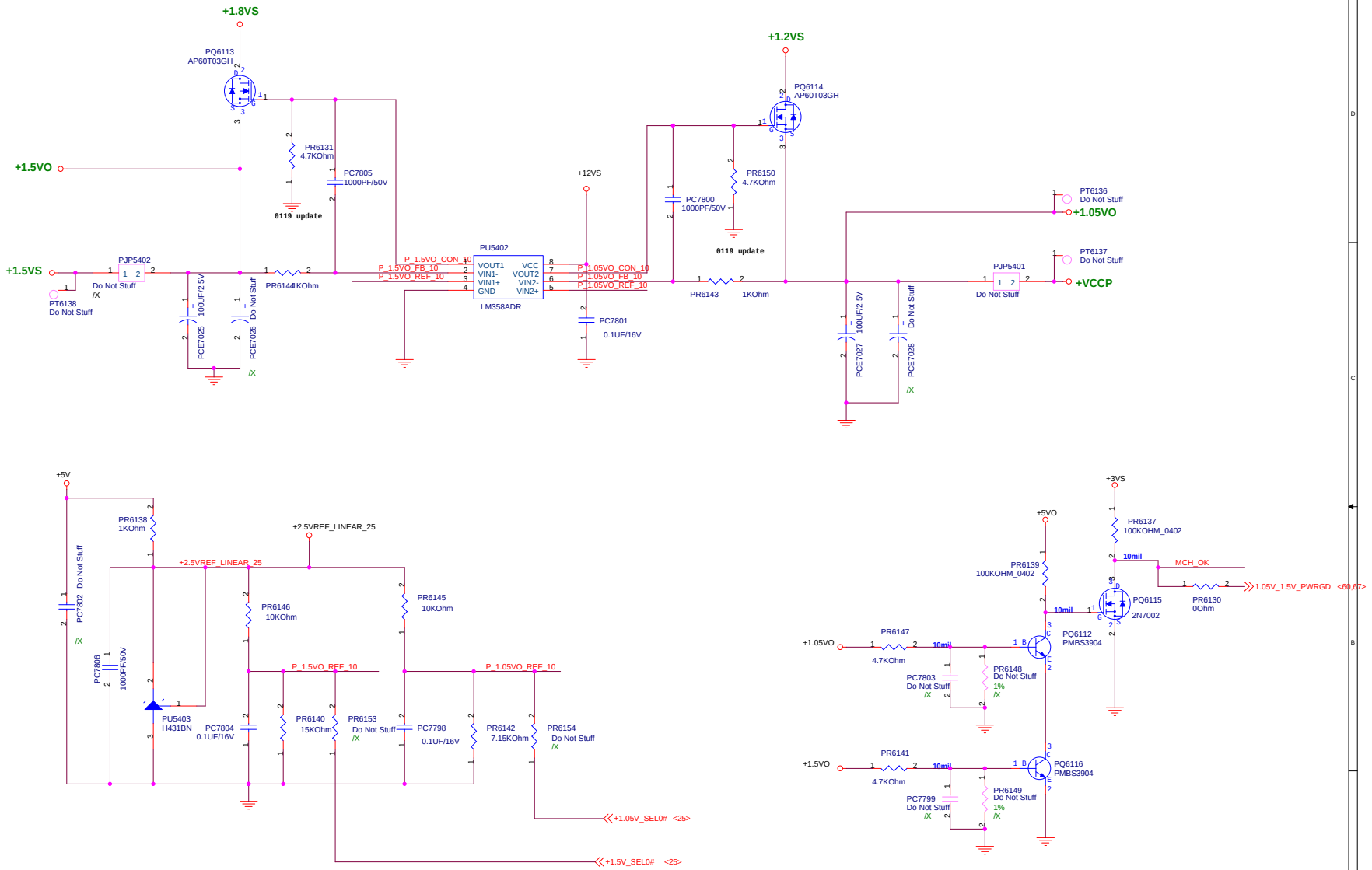
ASUSTek Computer INC.

Title : POWER_I/O_1.5VS & 1.05VS

Engineer:

Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 58 of 70



888

ASUSTek Computer INC.

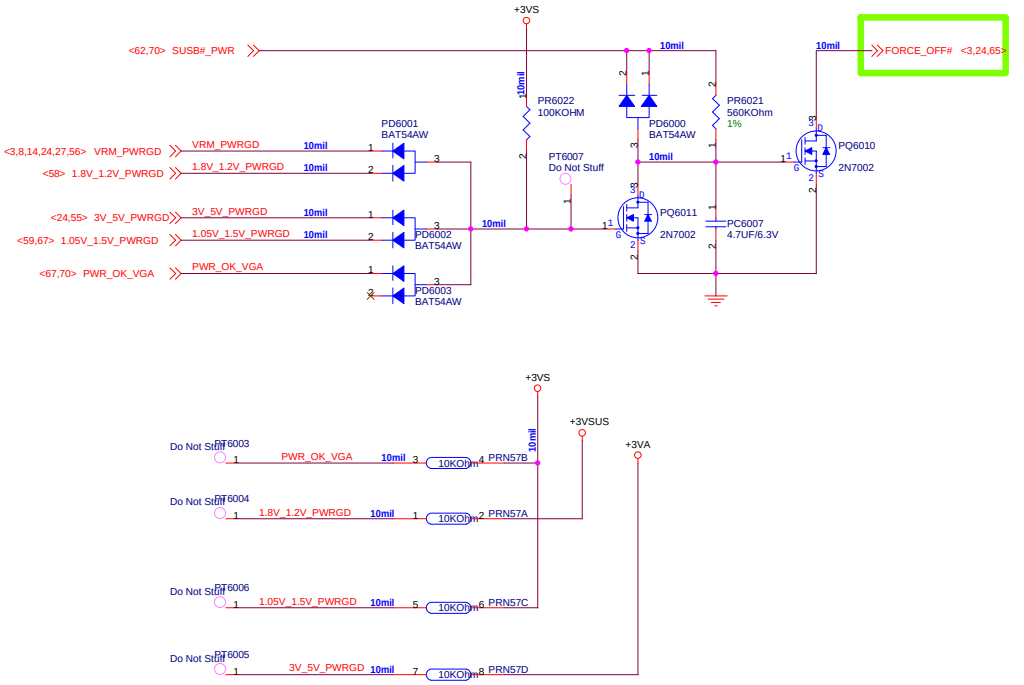
Title : POWER_I/O_+3VA & +2.5V

Engineer:

Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 59 of 70

Power Good Detecter



888

ASUSTek Computer INC.	Title : POWER_PROTECT	
	Engineer:	
Size: Custom	Project Name: Z62Ha	Rev: 1.1
Date: Thursday, September 27, 2007	Sheet 60 of 70	

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Title : POWER_BLANK

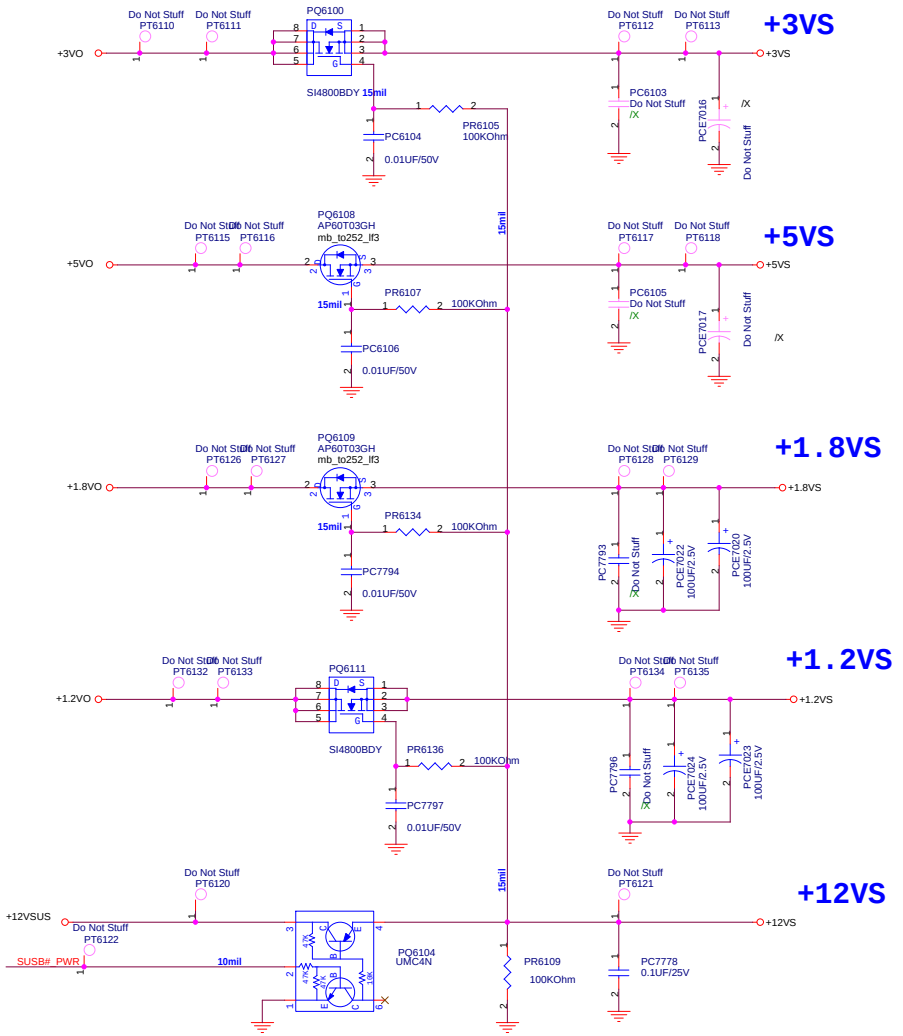
ASUSTek Computer INC.

Engineer:

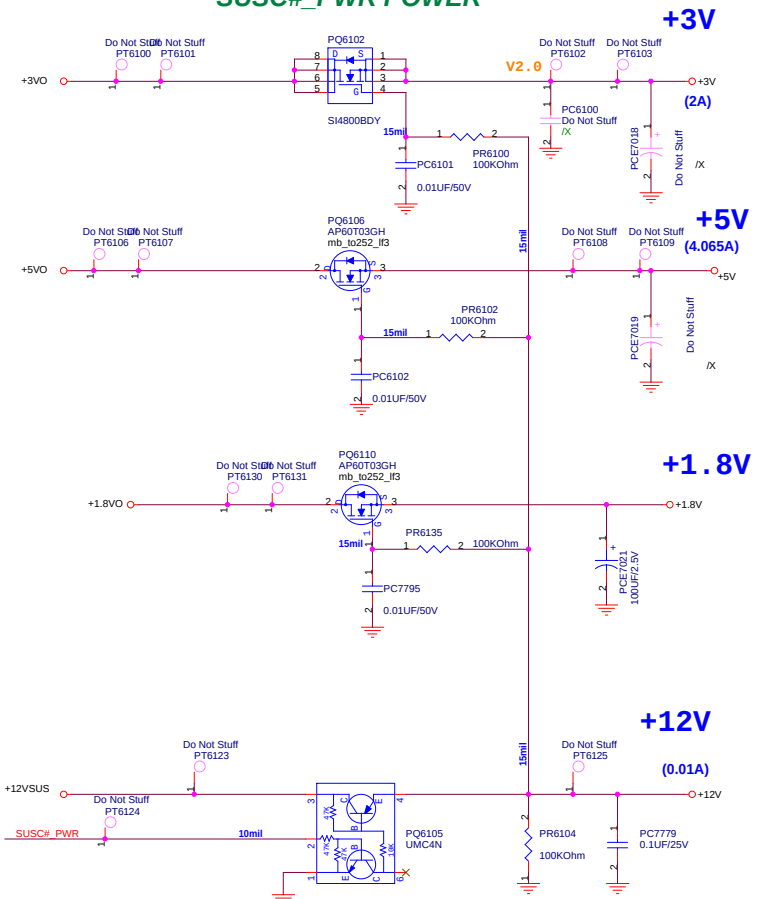
Size	Project Name	Rev
Custom	Z62Ha	1.1

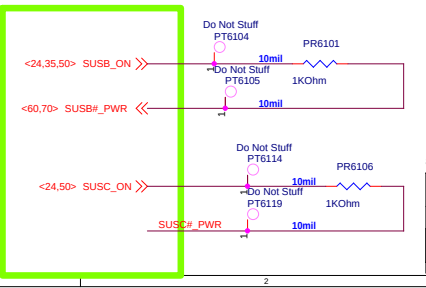
Date: Thursday, September 27, 2007 Sheet 61 of 70

SUSB#_PWR POWER



SUSC#_PWR POWER





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ASUSTek Computer INC.

Title : POWER_LOAD SWITCH

Engineer:

Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 62 of 70

Rev	Date	Description
1.0	2007/02/14	1. Initial release.
1.1	2007/05/29	1. Change to SiSM672, SiS968, SiS307

Rev	Date	Description

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ASUSTek Computer INC.

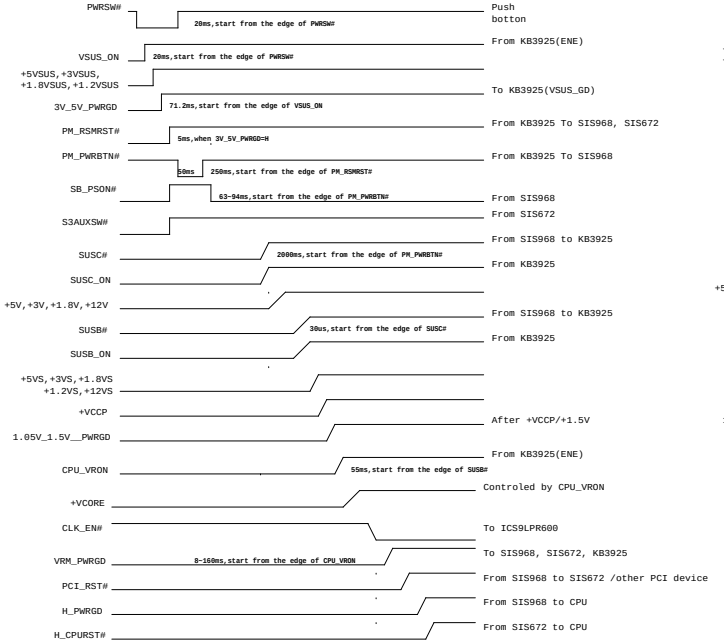
Title : History

Engineer: *Chihwan*

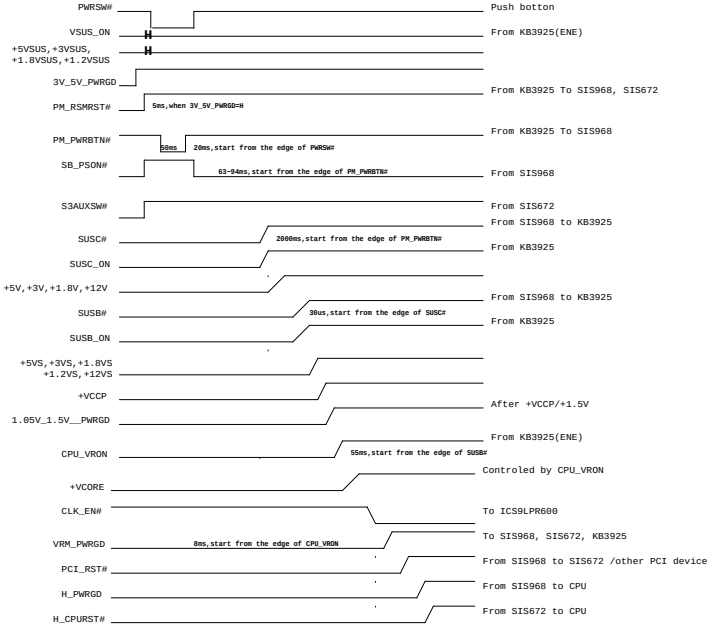
Size	Project Name	Rev
Custom	**Z62Ha**	1.1

Date: Thursday, September 27, 2007 Sheet 63 of 70

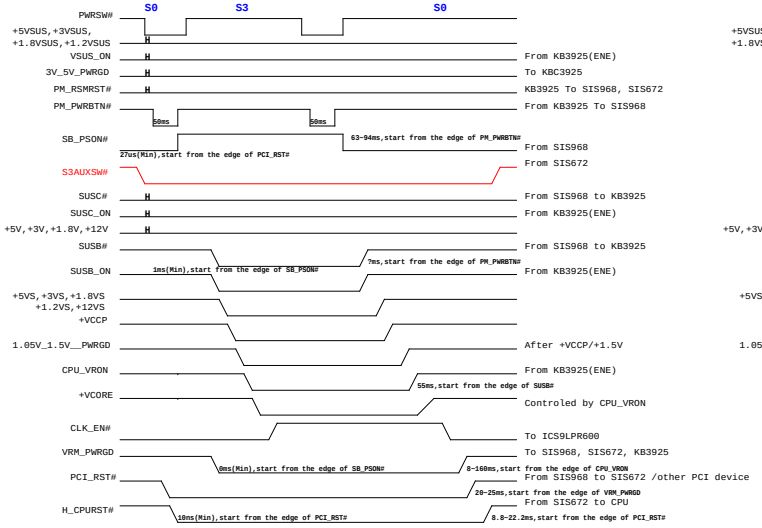
BATTERY ONLY POWER ON TIMING



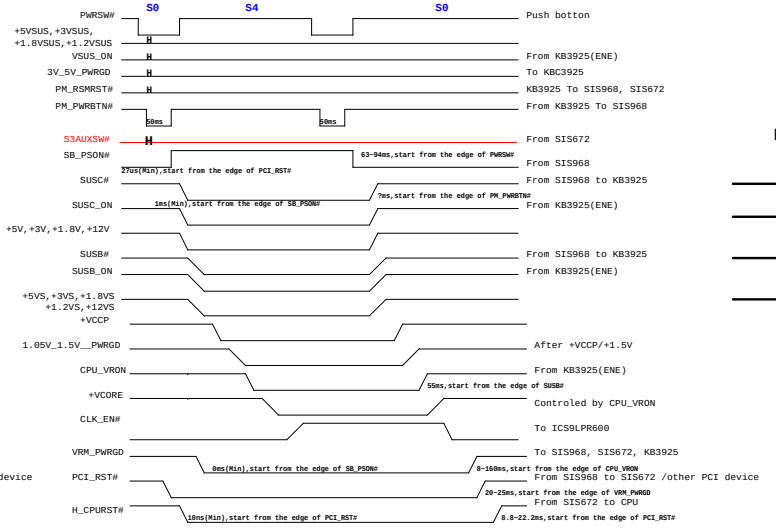
First time DCIN power on sequence(Adaptor)

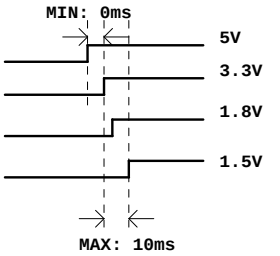


Z62H S3 SUSPEND AND RESUME TIMING



Z62H S4 SUSPEND AND RESUME TIMING





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Title	<Title>		
Size	Document Number		Rev
	CustomZ62Ha		1.1
Date:	Thursday, September 27, 2007	Sheet 64 of 70	

ADD GR26 10Mohm for 27HHz Un-Oscillate <modify by PCB V1.1G>

-----SRS : 0 / 1 / NC.
P1819B : -1.25 -1.75 x.
MK1726 : -1.8 -2.5 -0.6.

GC120 & GC121 from 22pF change to 18pF <modify by PCB V1.1G>

OPTIONAL SPREAD SPECTRUM

P/N: 06G011267071

VRAM setting
MEM_ID1, MEM_ID0
0 0 --> INFINION(Qimonda)
0 1 --> Hynix

Slave Address:9A
Max: 1mA

Add GR56 <modify by PCB V1.1G>

GPIO[0]: Tx Power Savings Enable
0: 50% Tx output swing
1: full Tx output swing (recommended)
(default 0, internal pull-down)

GPIO[1]: Tx De-emphasis Enable
0: Tx de-emphasis disbale
1: Tx de-emphasis enable
(default 0, internal pull-down)

Pin	Description	M66M, M71M	M72M, M76M
VID1	MESSAGE SIGNAL INTERRUPT ENABLED	NA	0
VID3	ENABLE HD AUDIO	X	X
VID5	64 BIT BARS DISABLED	NA	0
GPIO0	PCIE PWR Saving Mode	1	1
GPIO1	PCIE TRANSMITTER DE-EMPHASIS ENABLED	1	1
GPIO4	DEBUG SIGNALS NOT MUXED OUT	0	0
GPIO6	(M66/71)BIAS CURRENT FOR PCIE PHY PLL MSBIT (M72/76)RSVD	0	0
GPIO5	(M66/71)BIAS CURRENT FOR PCIE PHY PLL LSBIT (M72/76)RSVD	1	1
GPIO0_22	ENABLE EXTERNAL BIOS ROM	1	1
GPIO[13:11,9]	SERIAL ROM TYPE OR MEMORY APERATURE SIZE SELECT	X	X
VSYNC	IGNORE VIP DEVICE STRAPS	X	X
PSYNC	VGA ENABLED	NA	0

R1.1 Item 35

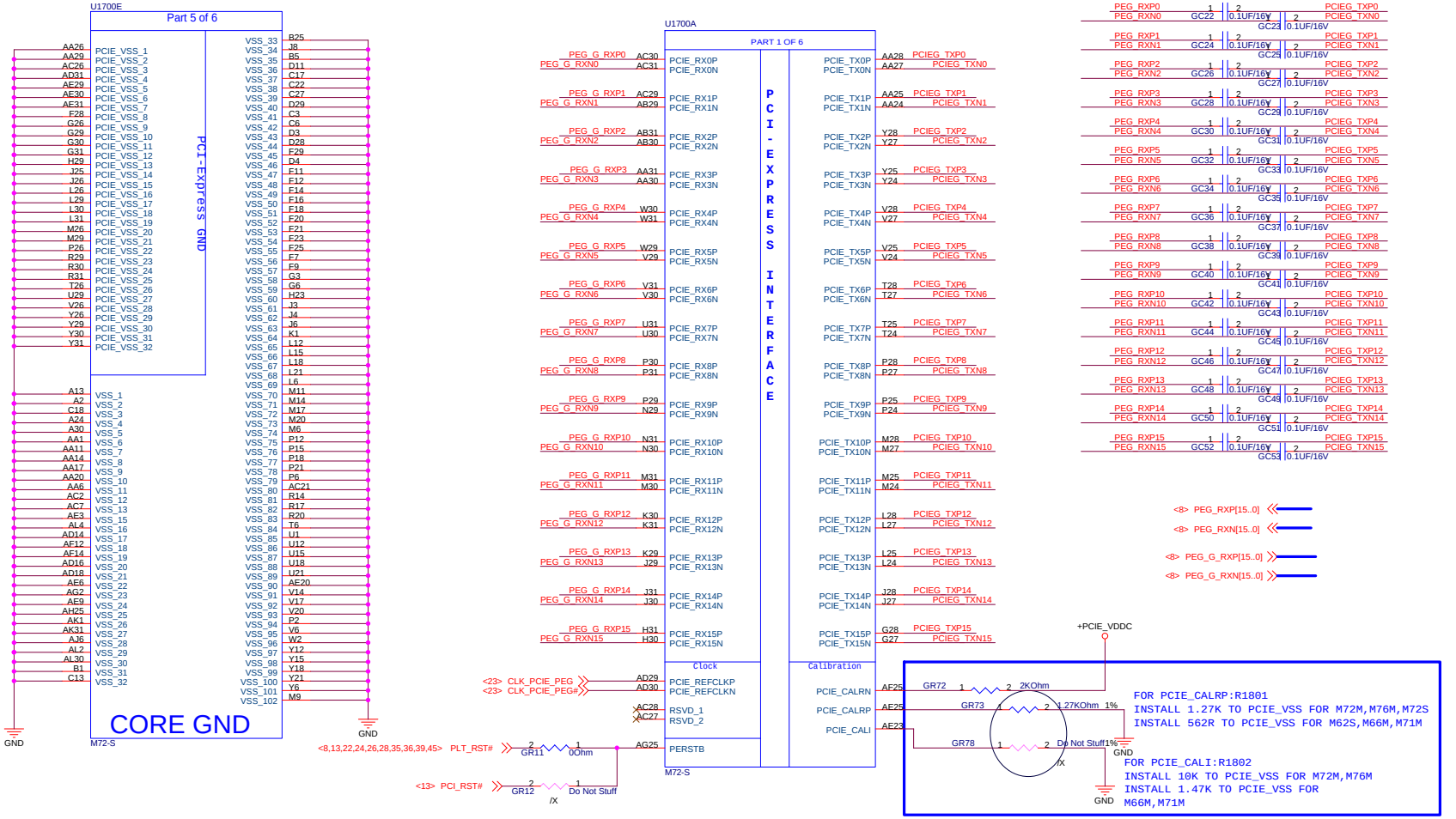
RECOMMENDED SETTINGS
0= DO NOT INSTALL RESISTOR
1 = INSTALL 10K RESISTOR
X = DESIGN DEPENDANT
NA = NOT APPLICABLE

GR27 from 499 change to 390 for RGB measure <modify by V1.1G> close chipset

GR47 close chipset

Close to GPU

Title :	M7x-M--main(1)
Engineer:	Alan Chen
Project Name	Z62Ha
Size	Custom
Rev	1.1
Date:	Thursday, September 27, 2007
Sheet	65 of 70



888

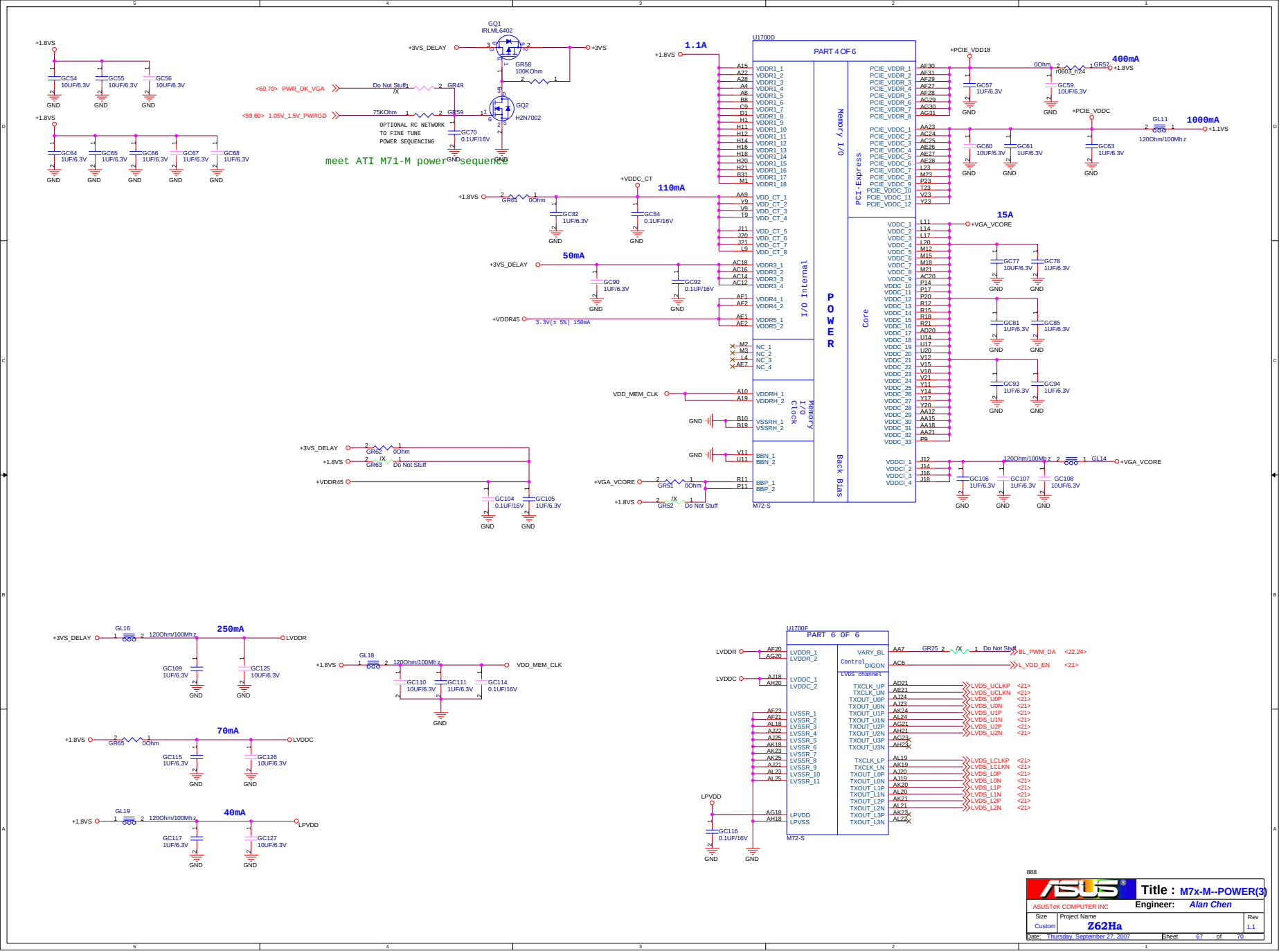
ASUSTeK COMPUTER INC

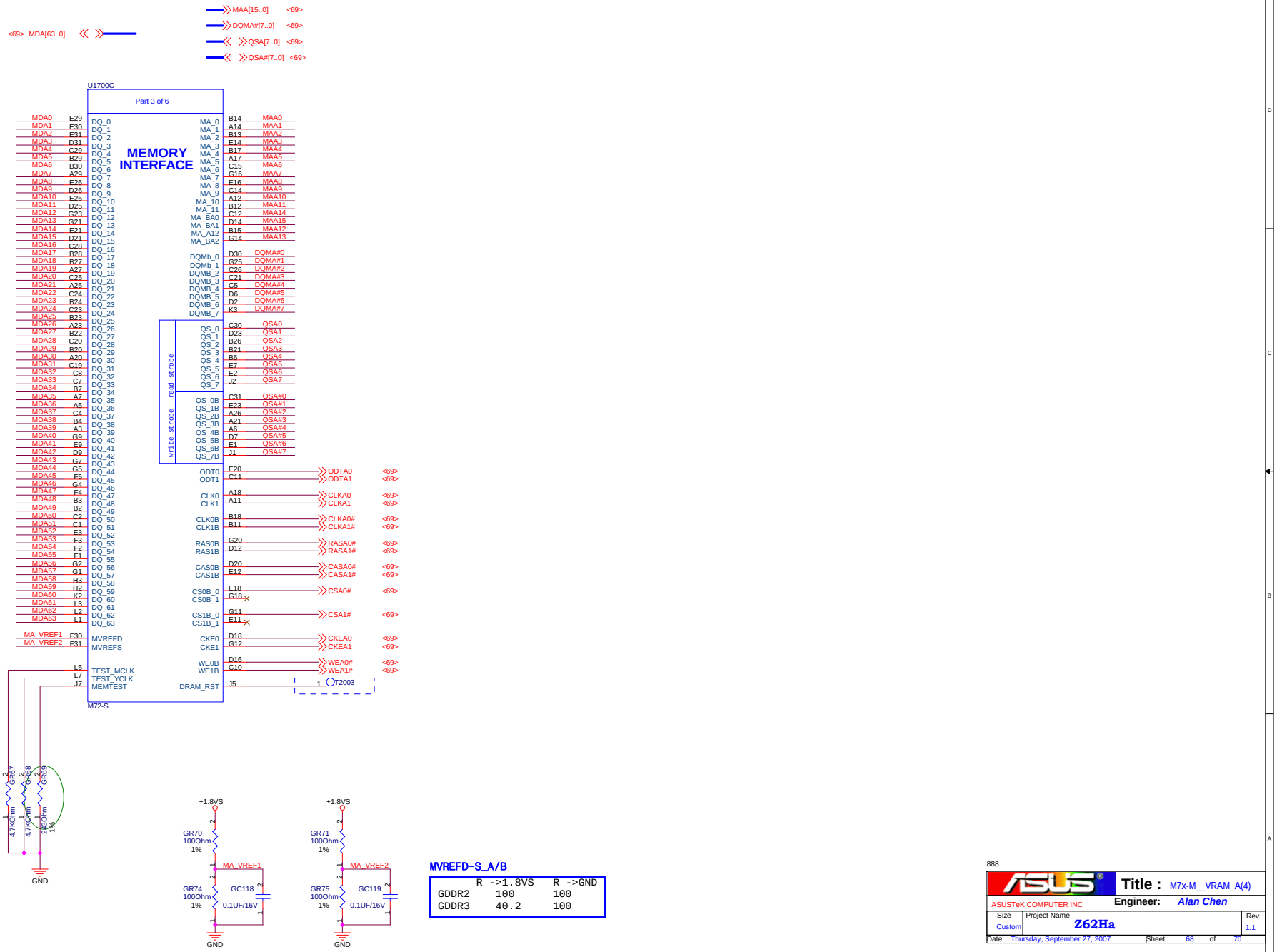
Title : M7x-M--PCIE(2)

Engineer: Alan Chen

Size	Project Name	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 66 of 70


meet ATI M71-M power sequence
1.1A
110mA
50mA
400mA
1000mA
15A
250mA
70mA
40mA
PART 4 OF 6
PART 6 OF 6
POWER
Memory I/O
I/O Internal
Memory I/O Clock
Core
Back Bias
PCI-Express
M72-S
OPTIONAL RC NETWORK TO FINE TUNE POWER SEQUENCING
Do Not Stuff
Title : M7x-M--POWER(3)
ASUSTeK COMPUTER INC
Engineer: Alan Chen
Project Name Z62Ha
Date: Thursday, September 27, 2007
Sheet 67 of 70



MVREFD-S_A/B

	R ->1.8VS	R ->GND
GDDR2	100	100
GDDR3	40.2	100

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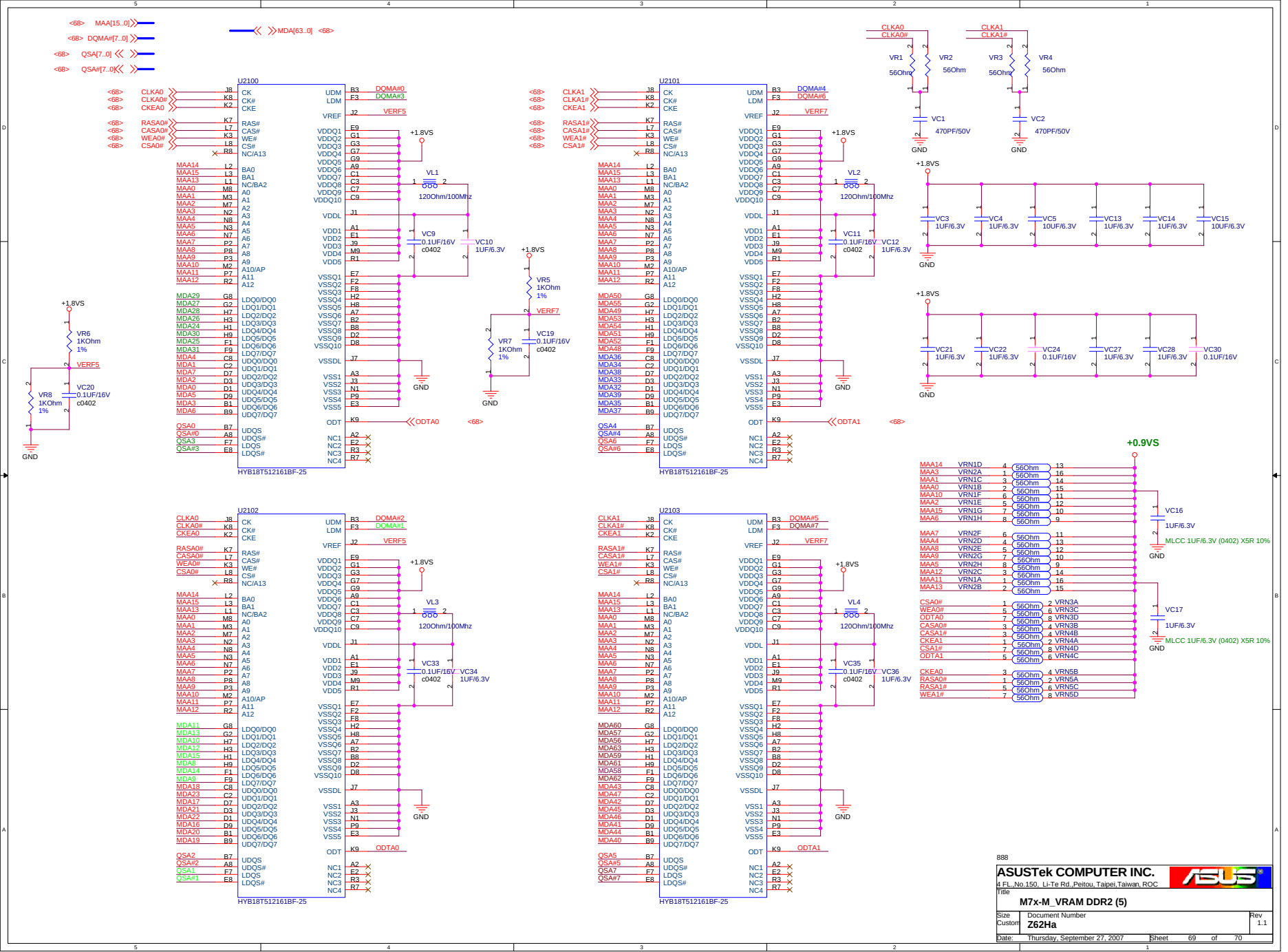
ASUSTeK COMPUTER INC

Title : M7x-M__VRAM_A(4)

Engineer: Alan Chen

Size	Project Name	Rev
Custom	Z62Ha	1.1

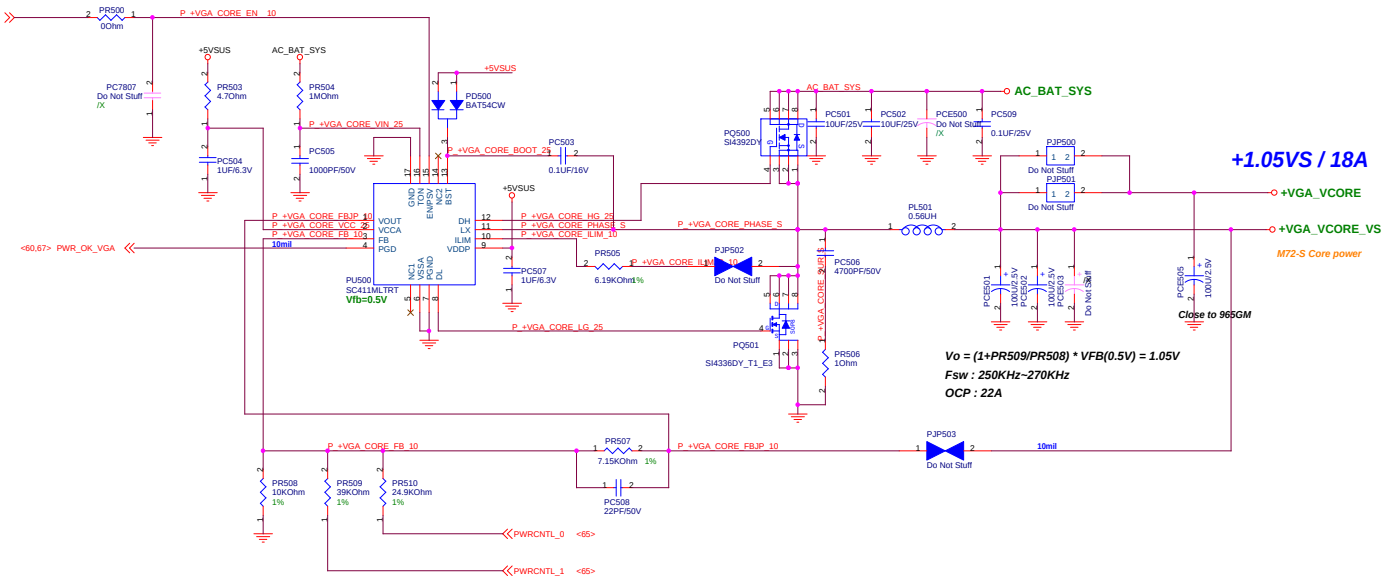
Date: Thursday, September 27, 2007 Sheet 68 of 70


MAA[15..0]
DQMA#[7..0]
QSA[7..0]
QSA#[7..0]
MDA[63..0]
U2100
U2101
U2102
U2103
HYB18T512161BF-25
+1.8VS
+0.9VS
GND
VR1
VR2
VR3
VR4
56Ohm
VC1
VC2
470PF/50V
VL1
VL2
VL3
VL4
120Ohm/100Mhz
VC3
VC4
VC5
VC13
VC14
VC15
1UF/6.3V
10UF/6.3V
VC9
VC10
VC11
VC12
VC33
VC34
VC35
VC36
0.1UF/16V
c0402
VR5
VR6
VR7
VR8
1KOhm
1%
VERF5
VERF7
VC19
VC20
VC16
VC17
MLCC 1UF/6.3V (0402) X5R 10%
VC21
VC22
VC24
VC27
VC28
VC30
0.1UF/16V
ODTA0
ODTA1
888
ASUSTek COMPUTER INC.
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC
Title
M7x-M_VRAM DDR2 (5)
Size
Custom
Document Number
Z62Ha
Rev
1.1
Date:
Thursday, September 27, 2007
Sheet
69
of
70

Enable Signal :

Implemet Intel 965GM --> PR502

Implemet M72-S Chipset --> PR500



+1.05VS

VGMCH_SEL0	VGMCH_SEL1	Voltage
L	L	1.093V
X	L	1.001V
L	X	0.949V
X	X	0.857V

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ASUSTek COMPUTER INC.

4 FL, No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC

Title: **VGA_VCORD**

Size	Document Number	Rev
Custom	Z62Ha	1.1

Date: Thursday, September 27, 2007 Sheet 70 of 70