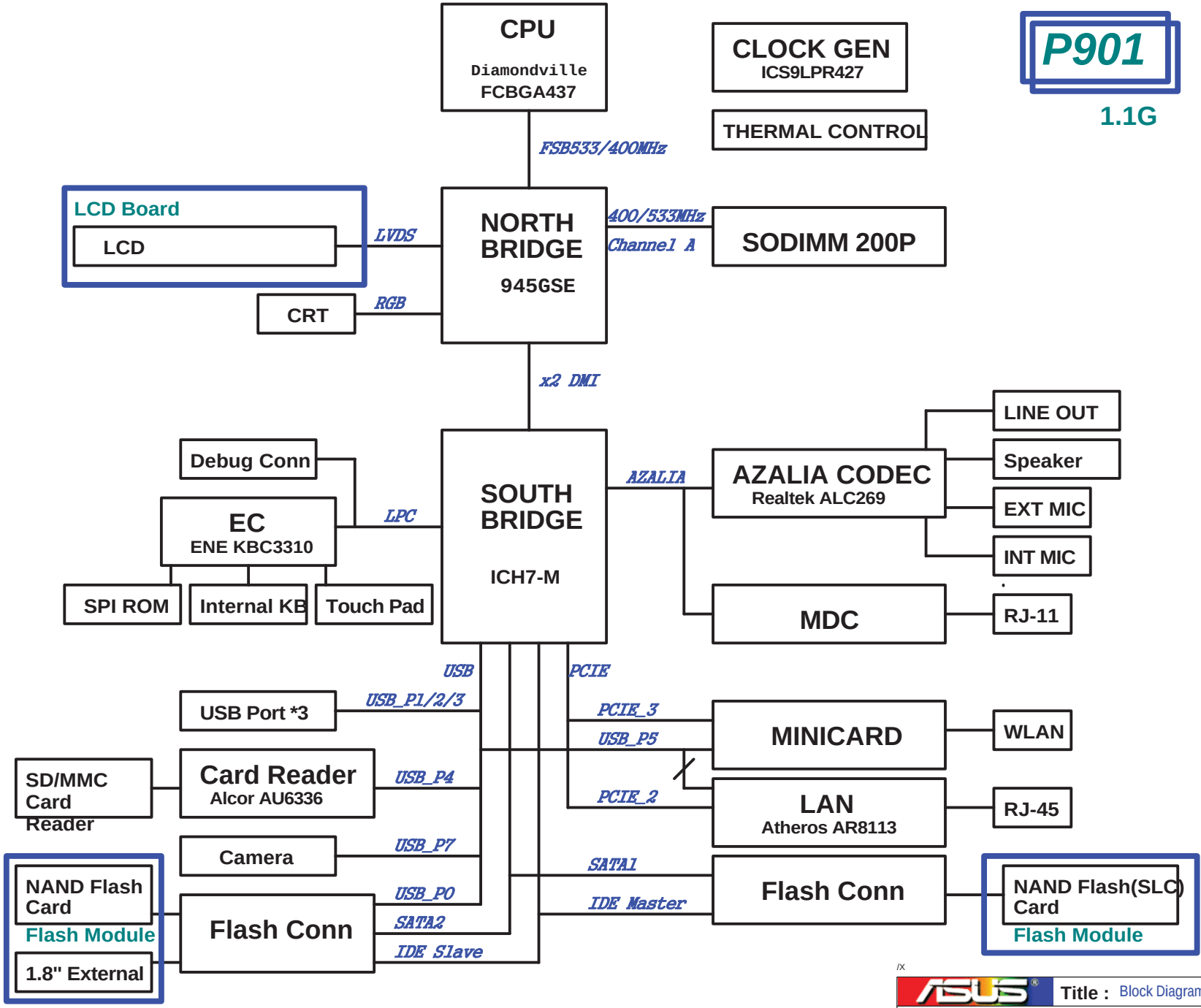


/X

ASUSTek Computer INC.

Title : Block Diagram

Engineer: Regin Chiang

Size	Project Name	Rev
A3	P901	1.1G

Date: Monday, May 19, 2008 Sheet 1 of 50

EEE PC 701 PCB version

GPI37	GPI38	GPI39	PCB version
0	0	0	
0	0	0	
0	0	1	
0	0	1	
0	1	0	
0	1	0	
0	1	1	
0	1	1	
1	0	0	
1	0	0	
1	0	1	
1	0	1	
1	1	0	
1	1	0	
1	1	1	
1	1	1	

USB

USB 0	Flash Conn
USB 1	USB Conn
USB 2	USB Conn
USB 3	USB Conn
USB 4	Card Reader
USB 5	Minicard
USB 6	NC
USB 7	Camera

PCIE

PCIE 1	NC
PCIE 2	LAN
PCIE 3	Minicard
PCIE 4	NC

Azalia

ACZ_SDIN0	CODEC
ACZ_SDIN1	MODEM
ACZ_SDIN2	NC

/X

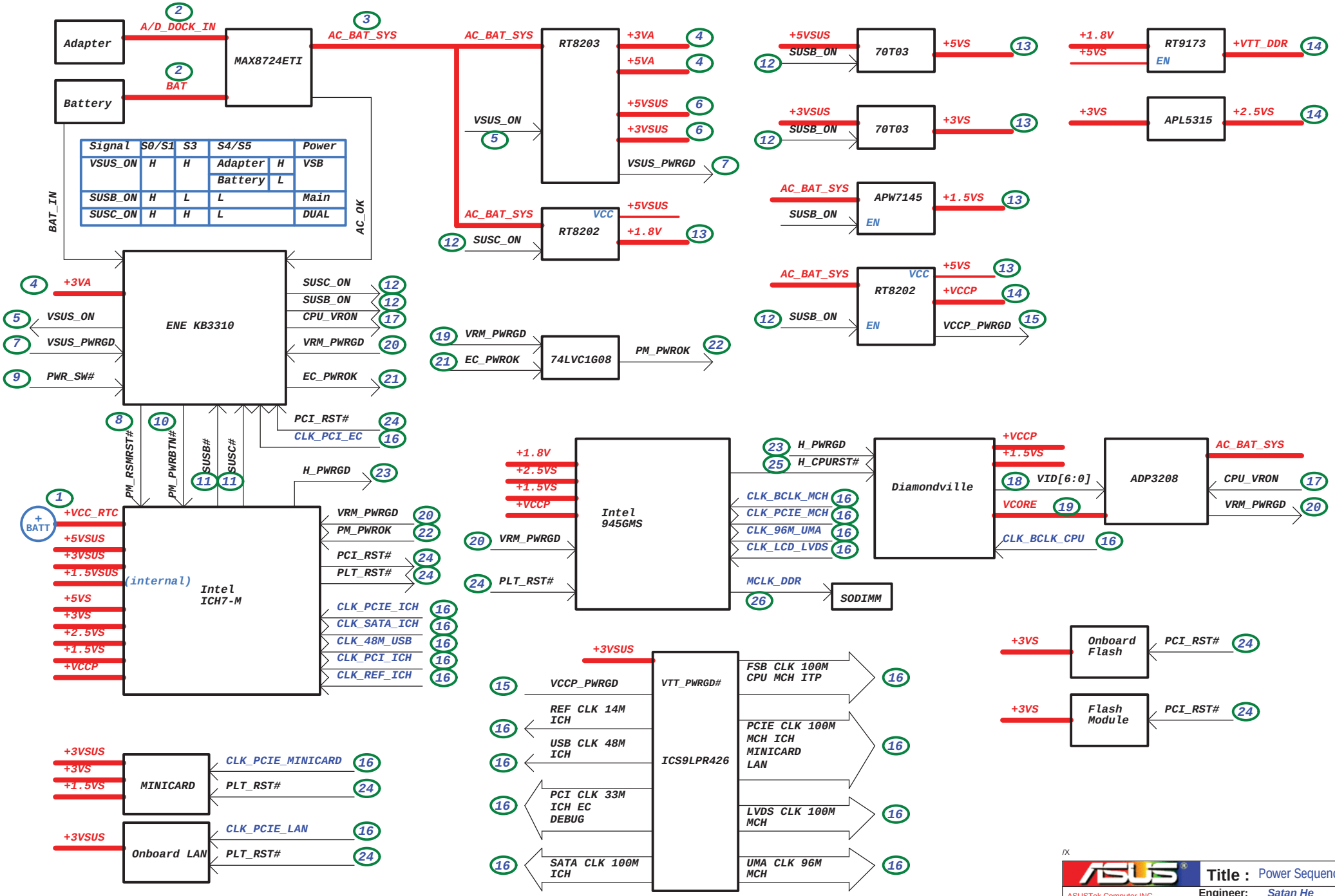
ASUSTek Computer INC.

Title : System Setting

Engineer: Satan_He

Size	Project Name	Rev
A3	P901	1.1G

Date: Monday, May 19, 2008 Sheet 2 of 50



/X

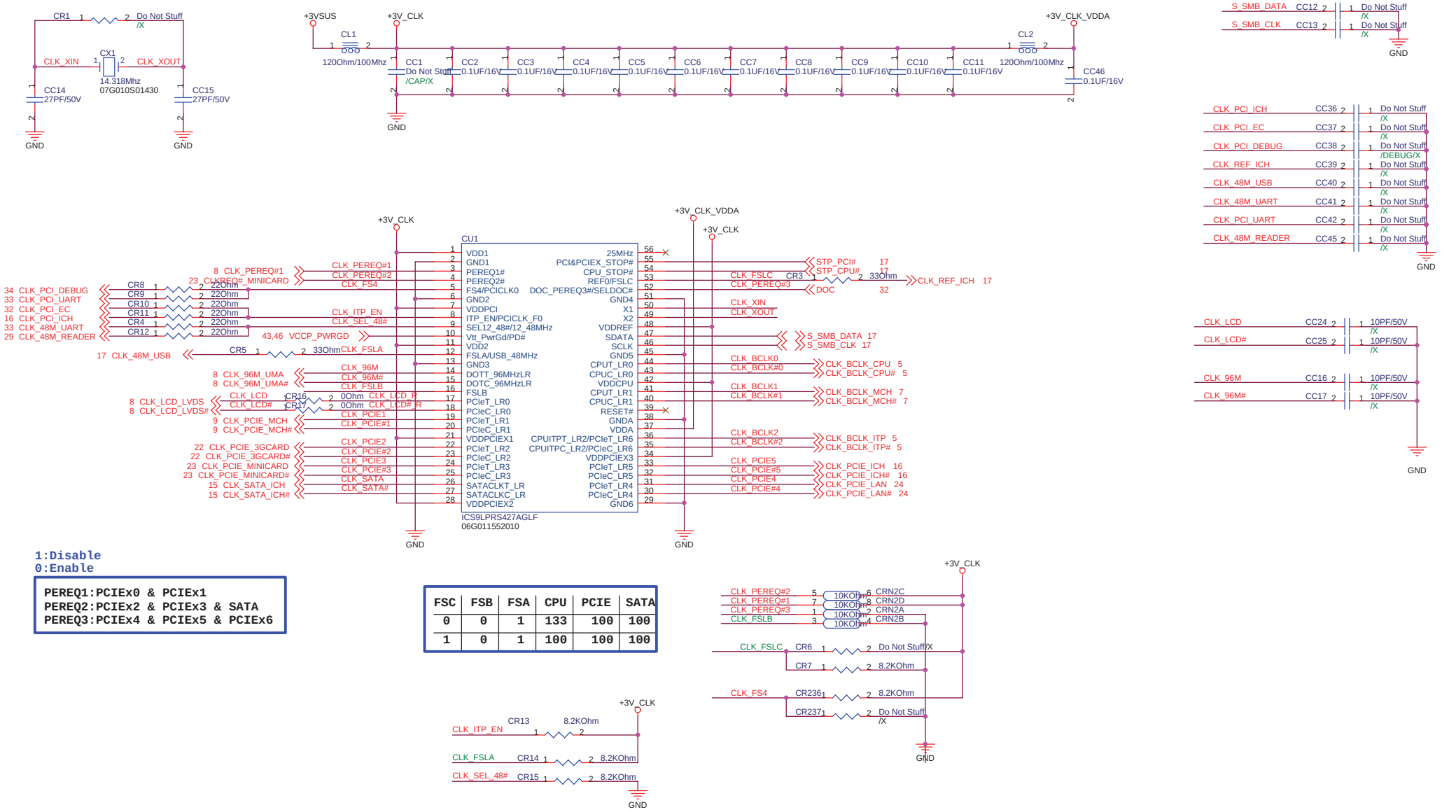
Title : Power Sequence

ASUSTek Computer INC.

Engineer: Satan He

Size	Project Name	Rev
A3	P901	1.1G

Date: Monday, May 19, 2008 Sheet 3 of 50



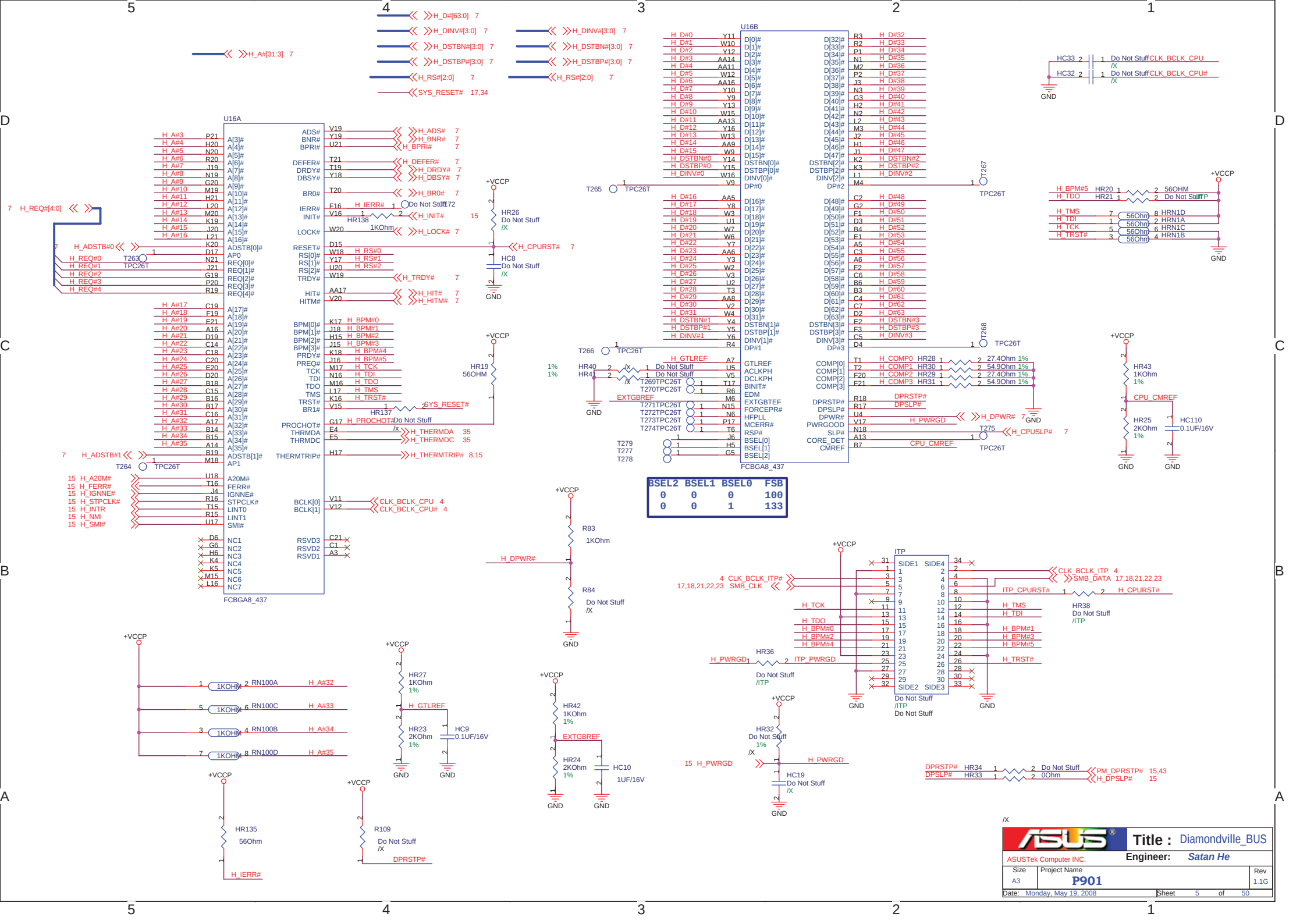
1:Disable
0:Enable

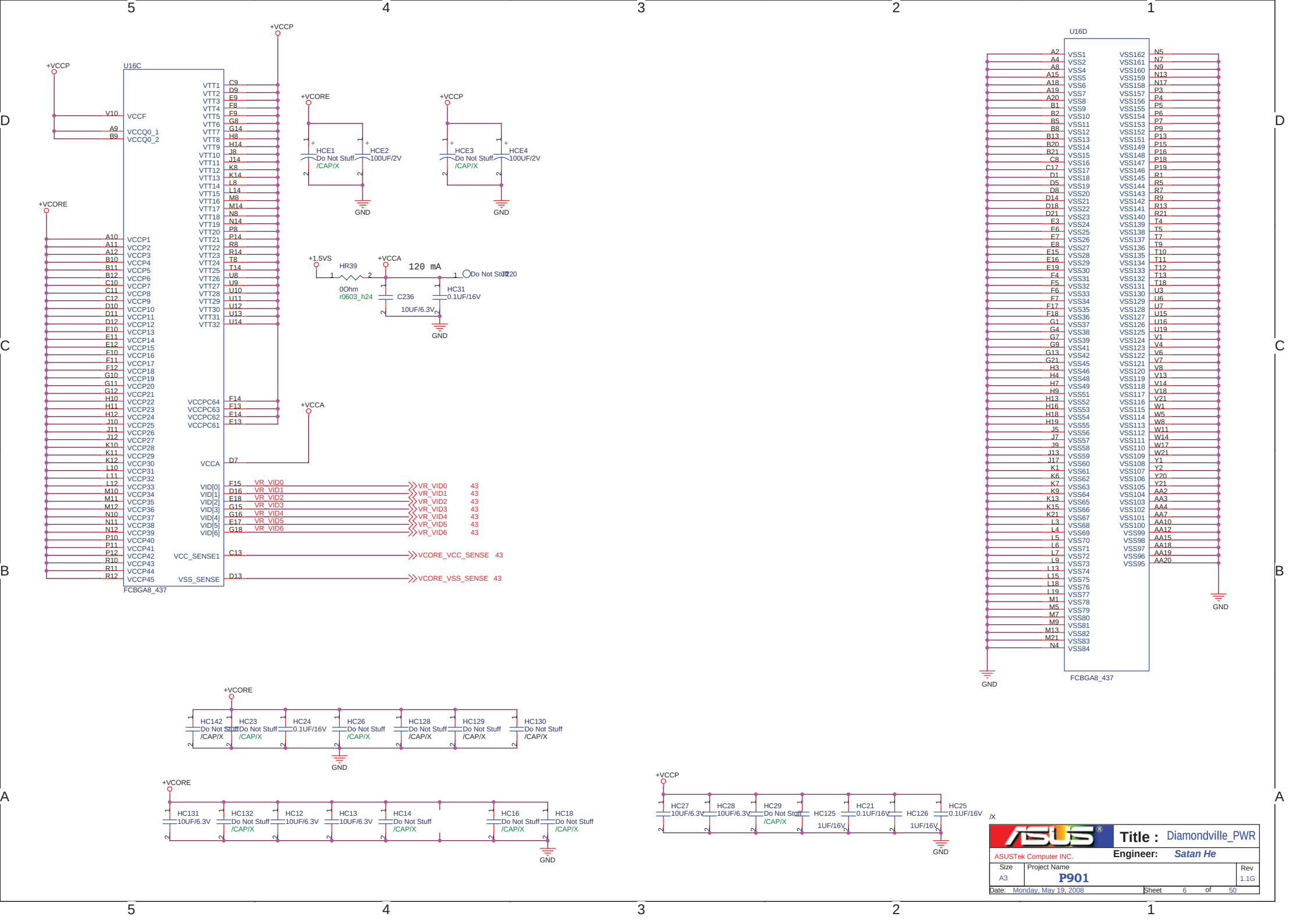
PEREQ1:PCIEx0 & PCIEx1
PEREQ2:PCIEx2 & PCIEx3 & SATA
PEREQ3:PCIEx4 & PCIEx5 & PCIEx6

FSC	FSB	FSA	CPU	PCIE	SATA
0	0	1	133	100	100
1	0	1	100	100	100

/X

ASUSTek Computer INC.	Title : Clock Gen_ICS9LPRS427	
	Engineer: Satan He	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 4 of 50	


H_D#[63:0] 7
H_DINV#[3:0] 7
H_DSTBN#[3:0] 7
H_DSTBP#[3:0] 7
H_RS#[2:0] 7
SYS_RESET# 17,34
H_A#[31:3] 7
U16B
FCBGA8_437
U16A
FCBGA8_437
H_REQ#[4:0] 7
H_ADSTB#0 7
H_ADSTB#1 7
H_A20M# 15
H_FERR# 15
H_IGNNE# 15
H_STPCLK# 15
H_INTR 15
H_NMI 15
H_SMI# 15
CLK_BCLK_CPU 4
CLK_BCLK_CPU# 4
H_CPURST# 7
H_THERMTRIP# 8,15
H_THERMDA 35
H_THERMDC 35
H_PROCHOT# Do Not Stuff
SYS_RESET#
H_DPWR# 7
H_CPUSLP# 7
CPU_CMREF
BSEL2 BSEL1 BSEL0 FSB
0 0 0 100
0 0 1 133
HC33 Do Not Stuff CLK_BCLK_CPU /X
HC32 Do Not Stuff CLK_BCLK_CPU# /X
ITP
SIDE1 SIDE4 SIDE2 SIDE3
CLK_BCLK_ITP 4
SMB_DATA 17,18,21,22,23
ITP_CPURST#
H_CPURST#
ITP_PWRGD
H_PWRGD 15
DPRSTP# HR34 Do Not Stuff
DPSLP# HR33 0Ohm
PM_DPRSTP# 15,43
H_DPSLP# 15
Title : Diamondville_BUS
ASUSTek Computer INC.
Engineer: Satan He
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 5 of 50


U16C
+VCCP
+VCORE
+VCCA
+1.5VS
VCCF
VCCQ0_1
VCCQ0_2
VCCP1
VCCP2
VCCP3
VCCP4
VCCP5
VCCP6
VCCP7
VCCP8
VCCP9
VCCP10
VCCP11
VCCP12
VCCP13
VCCP14
VCCP15
VCCP16
VCCP17
VCCP18
VCCP19
VCCP20
VCCP21
VCCP22
VCCP23
VCCP24
VCCP25
VCCP26
VCCP27
VCCP28
VCCP29
VCCP30
VCCP31
VCCP32
VCCP33
VCCP34
VCCP35
VCCP36
VCCP37
VCCP38
VCCP39
VCCP40
VCCP41
VCCP42
VCCP43
VCCP44
VCCP45
VTT1
VTT2
VTT3
VTT4
VTT5
VTT6
VTT7
VTT8
VTT9
VTT10
VTT11
VTT12
VTT13
VTT14
VTT15
VTT16
VTT17
VTT18
VTT19
VTT20
VTT21
VTT22
VTT23
VTT24
VTT25
VTT26
VTT27
VTT28
VTT29
VTT30
VTT31
VTT32
VCCPC64
VCCPC63
VCCPC62
VCCPC61
VCCA
VID[0]
VID[1]
VID[2]
VID[3]
VID[4]
VID[5]
VID[6]
VCC_SENSE1
VSS_SENSE
VR_VID0
VR_VID1
VR_VID2
VR_VID3
VR_VID4
VR_VID5
VR_VID6
VCORE_VCC_SENSE
VCORE_VSS_SENSE
FCBGA8_437
HCE1
HCE2
HCE3
HCE4
Do Not Stuff
/CAP/X
100UF/2V
HR39
0Ohm
r0603_h24
120 mA
C236
10UF/6.3V
HC31
0.1UF/16V
GND
U16D
VSS1
VSS2
VSS4
VSS5
VSS6
VSS7
VSS8
VSS9
VSS10
VSS11
VSS12
VSS13
VSS14
VSS15
VSS16
VSS17
VSS18
VSS19
VSS20
VSS21
VSS22
VSS23
VSS24
VSS25
VSS26
VSS27
VSS28
VSS29
VSS30
VSS31
VSS32
VSS33
VSS34
VSS35
VSS36
VSS37
VSS38
VSS39
VSS41
VSS42
VSS45
VSS46
VSS48
VSS49
VSS51
VSS52
VSS53
VSS54
VSS55
VSS56
VSS57
VSS58
VSS59
VSS60
VSS61
VSS62
VSS63
VSS64
VSS65
VSS66
VSS67
VSS68
VSS69
VSS70
VSS71
VSS72
VSS73
VSS74
VSS75
VSS76
VSS77
VSS78
VSS79
VSS80
VSS81
VSS82
VSS83
VSS84
VSS162
VSS161
VSS160
VSS159
VSS158
VSS157
VSS156
VSS155
VSS154
VSS153
VSS152
VSS151
VSS149
VSS148
VSS147
VSS146
VSS145
VSS144
VSS143
VSS142
VSS141
VSS140
VSS139
VSS138
VSS137
VSS136
VSS135
VSS134
VSS133
VSS132
VSS131
VSS130
VSS129
VSS128
VSS127
VSS126
VSS125
VSS124
VSS123
VSS122
VSS121
VSS120
VSS119
VSS118
VSS117
VSS116
VSS115
VSS114
VSS113
VSS112
VSS111
VSS110
VSS109
VSS108
VSS107
VSS106
VSS105
VSS104
VSS103
VSS102
VSS101
VSS100
VSS99
VSS98
VSS97
VSS96
VSS95
HC142
HC23
HC24
HC26
HC128
HC129
HC130
HC131
HC132
HC12
HC13
HC14
HC16
HC18
HC27
HC28
HC29
HC125
HC21
HC126
HC25
10UF/6.3V
1UF/16V
Title : Diamondville_PWR
ASUSTek Computer INC.
Engineer: Satan He
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 6 of 50

Power :
+VCCP

RCOMP

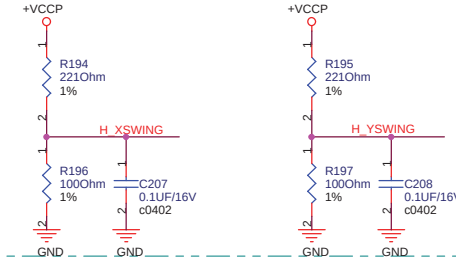
For Calibrating the FSB I/O Buffer

SCOMP

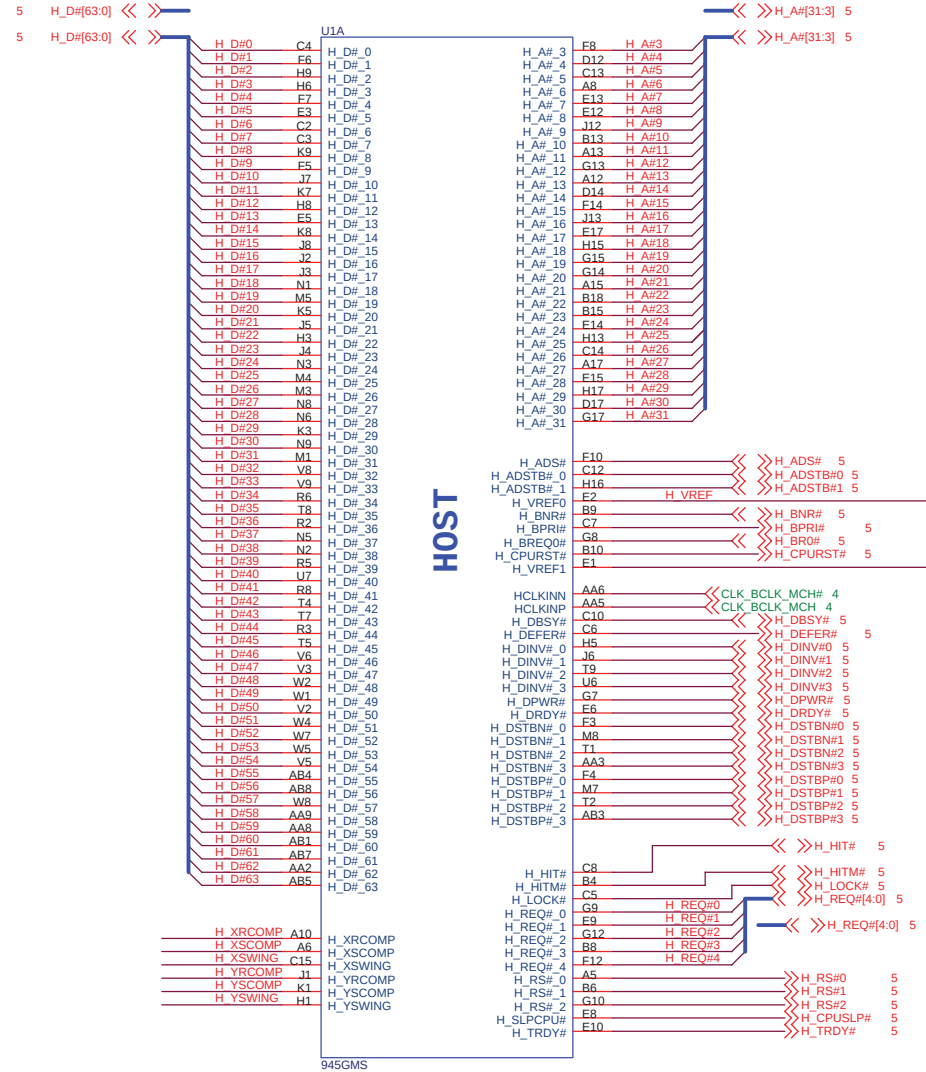
For Slew Rate Compenssation on the FSB

Voltage Swing

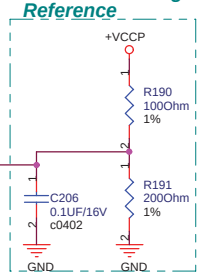
For Providing a Reference Voltage to The FSB RCOMP circuits



Signal voltage level =
0.3125*VCCP
Trace should be 10 mil wide
with 20 mil spacing



AGTL+ I/O Voltage Reference



Layout Note:
0.1uF should be placed 100mils or less from GMCH pin.

/X

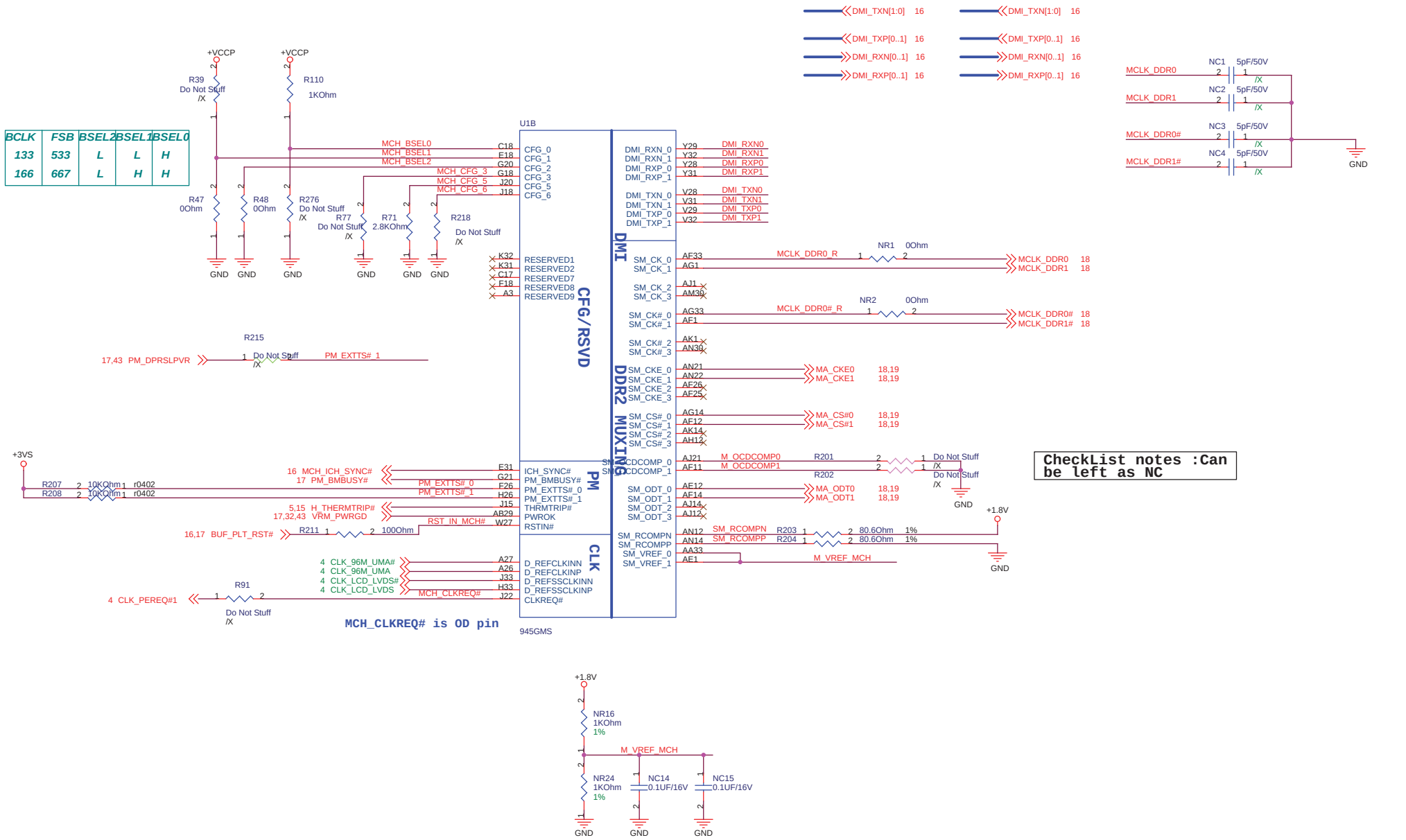
ASUSTeK COMPUTER INC.

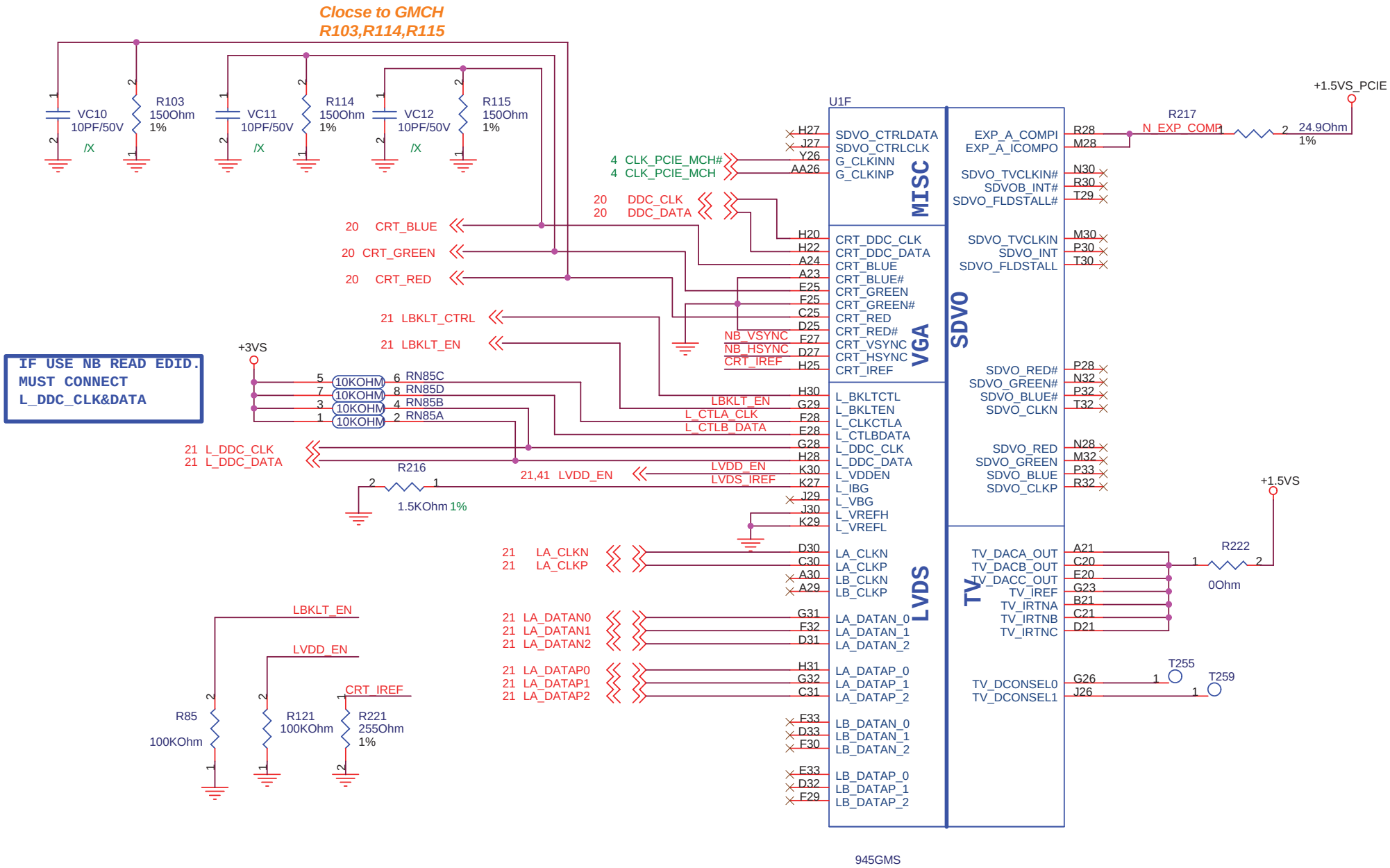
Title : NB-945GMS(HOST)

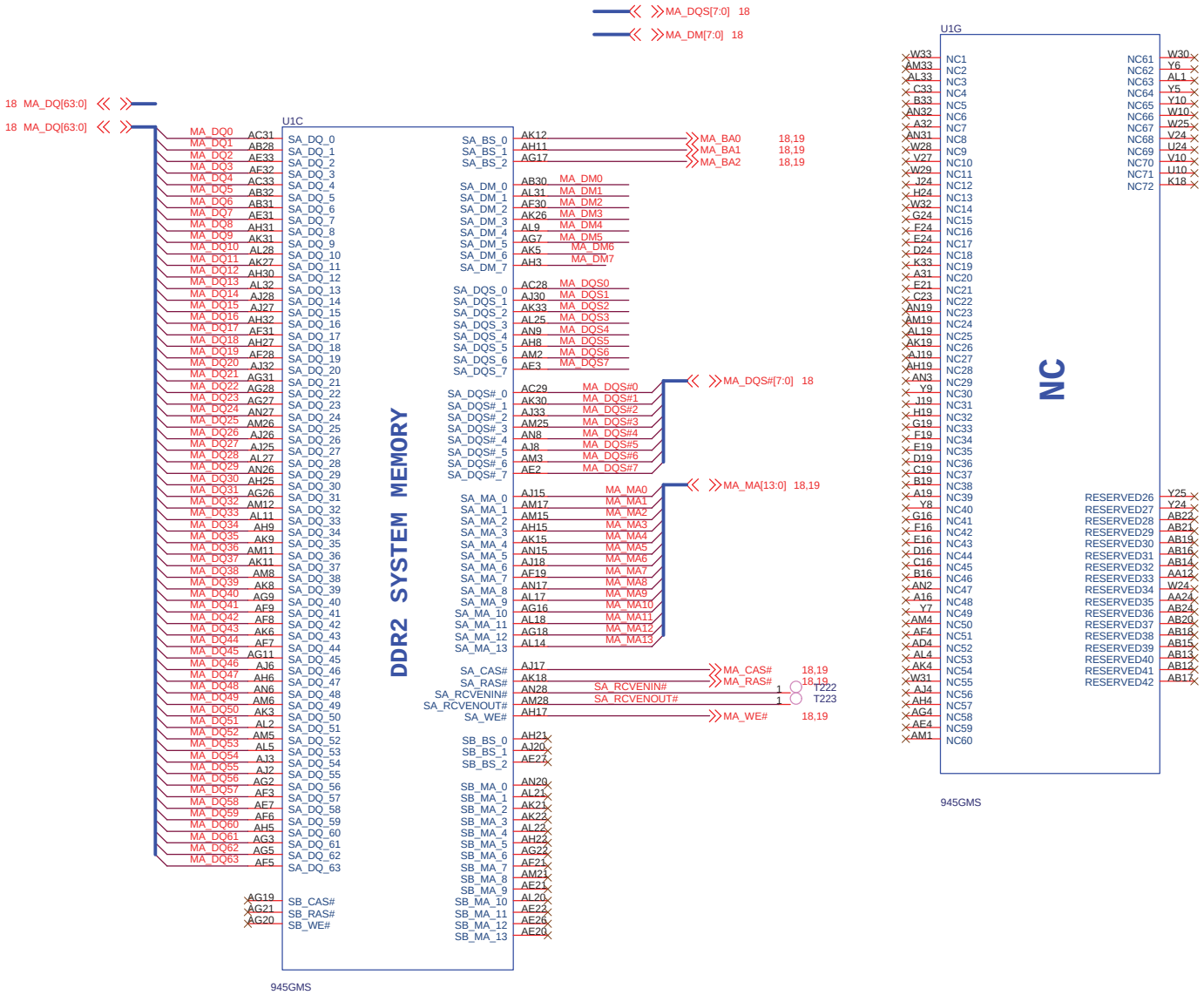
Engineer: *Satan He*

Size	Project Name	Rev
A3	P901	1.1G

Date: Monday, May 19, 2008 Sheet 7 of 50


DMI_TXN[1:0] 16
DMI_TXP[0..1] 16
DMI_RXN[0..1] 16
DMI_RXP[0..1] 16
BCLK FSB BSEL2 BSEL1 BSEL0
133 533 L L H
166 667 L H H
+VCCP
R39 Do Not Stuff /X
R110 1KOhm
R47 0Ohm
R48 0Ohm
R276 Do Not Stuff /X
R77 Do Not Stuff /X
R71 2.8KOhm
R218 Do Not Stuff /X
GND
U1B
MCH_BSEL0
MCH_BSEL1
MCH_BSEL2
MCH_CFG_3
MCH_CFG_5
MCH_CFG_6
CFG_0
CFG_1
CFG_2
CFG_3
CFG_5
CFG_6
RESERVED1
RESERVED2
RESERVED7
RESERVED8
RESERVED9
CFG/RSVD
DMI
DDR2 MUXING
PM
CLK
DMI_RXN_0
DMI_RXN_1
DMI_RXP_0
DMI_RXP_1
DMI_TXN_0
DMI_TXN_1
DMI_TXP_0
DMI_TXP_1
SM_CK_0
SM_CK_1
SM_CK_2
SM_CK_3
SM_CK#_0
SM_CK#_1
SM_CK#_2
SM_CK#_3
SM_CKE_0
SM_CKE_1
SM_CKE_2
SM_CKE_3
SM_CS#_0
SM_CS#_1
SM_CS#_2
SM_CS#_3
SM_RCOMPN
SM_RCOMPP
SM_VREF_0
SM_VREF_1
ICH_SYNC#
PM_BMBUSY#
PM_EXTTS#_0
PM_EXTTS#_1
THRMTRIP#
PWROK
RSTIN#
D_REFCLKINN
D_REFCLKINP
D_REFSSCLKINN
D_REFSSCLKINP
CLKREQ#
945GMS
MCLK_DDR0_R
MCLK_DDR0#_R
NR1 0Ohm
NR2 0Ohm
MCLK_DDR0
MCLK_DDR1
MCLK_DDR0#
MCLK_DDR1#
MA_CKE0
MA_CKE1
MA_CS#0
MA_CS#1
MA_ODT0
MA_ODT1
M_OCDCOMP0
M_OCDCOMP1
R201
R202
R203 80.6Ohm 1%
R204 80.6Ohm 1%
M_VREF_MCH
R215
17,43 PM_DPRSLPVR
PM_EXTTS#_1
+3VS
R207 10KOhm r0402
R208 10KOhm r0402
16 MCH_ICH_SYNC#
17 PM_BMBUSY#
5,15 H_THERMTRIP#
17,32,43 VRM_PWRGD
16,17 BUF_PLT_RST#
RST_IN_MCH#
R211 100Ohm
+1.8V
4 CLK_96M_UMA#
4 CLK_96M_UMA
4 CLK_LCD_LVDS#
4 CLK_LCD_LVDS
MCH_CLKREQ#
4 CLK_PEREQ#1
R91 Do Not Stuff /X
MCH_CLKREQ# is OD pin
NC1 5pF/50V /X
NC2 5pF/50V /X
NC3 5pF/50V /X
NC4 5pF/50V /X
NR16 1KOhm 1%
NR24 1KOhm 1%
NC14 0.1UF/16V
NC15 0.1UF/16V
CheckList notes :Can be left as NC
Title : NB-945GMS(DMI & CFG)
ASUSTeK COMPUTER INC.
Engineer: Satan He
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 8 of 50


Clocse to GMCH
R103,R114,R115
VC10
10PF/50V
/X
R103
150Ohm
1%
VC11
10PF/50V
/X
R114
150Ohm
1%
VC12
10PF/50V
/X
R115
150Ohm
1%
U1F
SDVO_CTRLDATA
SDVO_CTRLCLK
G_CLKINN
G_CLKINP
MISC
4 CLK_PCIE_MCH#
4 CLK_PCIE_MCH
20 DDC_CLK
20 DDC_DATA
20 CRT_BLUE
20 CRT_GREEN
20 CRT_RED
21 LBKLT_CTRL
21 LBKLT_EN
NB_VSYNC
NB_HSYNC
CRT_IREF
CRT_DDC_CLK
CRT_DDC_DATA
CRT_BLUE
CRT_BLUE#
CRT_GREEN
CRT_GREEN#
CRT_RED
CRT_RED#
CRT_VSYNC
CRT_HSYNC
CRT_IREF
VGA
SDVO
EXP_A_COMPI
EXP_A_ICOMPO
R28
M28
R217
N_EXP_COMP
24.9Ohm
1%
+1.5VS_PCIE
SDVO_TVCLKIN#
SDVOB_INT#
SDVO_FLDSTALL#
N30
R30
T29
SDVO_TVCLKIN
SDVO_INT
SDVO_FLDSTALL
M30
P30
T30
SDVO_RED#
SDVO_GREEN#
SDVO_BLUE#
SDVO_CLKN
P28
N32
P32
T32
SDVO_RED
SDVO_GREEN
SDVO_BLUE
SDVO_CLKP
N28
M32
P33
R32
IF USE NB READ EDID.
MUST CONNECT
L_DDC_CLK&DATA
+3VS
10KOHM
RN85C
RN85D
RN85B
RN85A
LBKLT_EN
L_CTLA_CLK
L_CTLB_DATA
21 L_DDC_CLK
21 L_DDC_DATA
R216
1.5KOhm 1%
21,41 LVDD_EN
LVDD_EN
LVDS_IREF
L_BKLTCTL
L_BKLTEN
L_CLKCTLA
L_CTLBDATA
L_DDC_CLK
L_DDC_DATA
L_VDDEN
L_IBG
L_VBG
L_VREFH
L_VREFL
LVDS
21 LA_CLKN
21 LA_CLKP
LA_CLKN
LA_CLKP
LB_CLKN
LB_CLKP
21 LA_DATAN0
21 LA_DATAN1
21 LA_DATAN2
LA_DATAN_0
LA_DATAN_1
LA_DATAN_2
21 LA_DATAP0
21 LA_DATAP1
21 LA_DATAP2
LA_DATAP_0
LA_DATAP_1
LA_DATAP_2
LB_DATAN_0
LB_DATAN_1
LB_DATAN_2
LB_DATAP_0
LB_DATAP_1
LB_DATAP_2
TV
TV_DACA_OUT
TV_DACB_OUT
TV_DACC_OUT
TV_IREF
TV_IRTNA
TV_IRTNB
TV_IRTNC
A21
C20
E20
G23
B21
C21
D21
R222
0Ohm
+1.5VS
TV_DCONSEL0
TV_DCONSEL1
G26
J26
T255
T259
LBKLT_EN
LVDD_EN
CRT_IREF
R85
100KOhm
R121
100KOhm
R221
255Ohm
1%
20 CRT_HSYNC
20 CRT_VSYNC
CRT_HSYNC
CRT_VSYNC
R220
R219
22Ohm
22Ohm
NB_HSYNC
NB_VSYNC
Clocse to GMCH
945GMS
/X
Title : NB-945GMS(GRAPHIC)
ASUSTeK COMPUTER INC.
Engineer: Satan_He
Size A4
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 9 of 50



/X

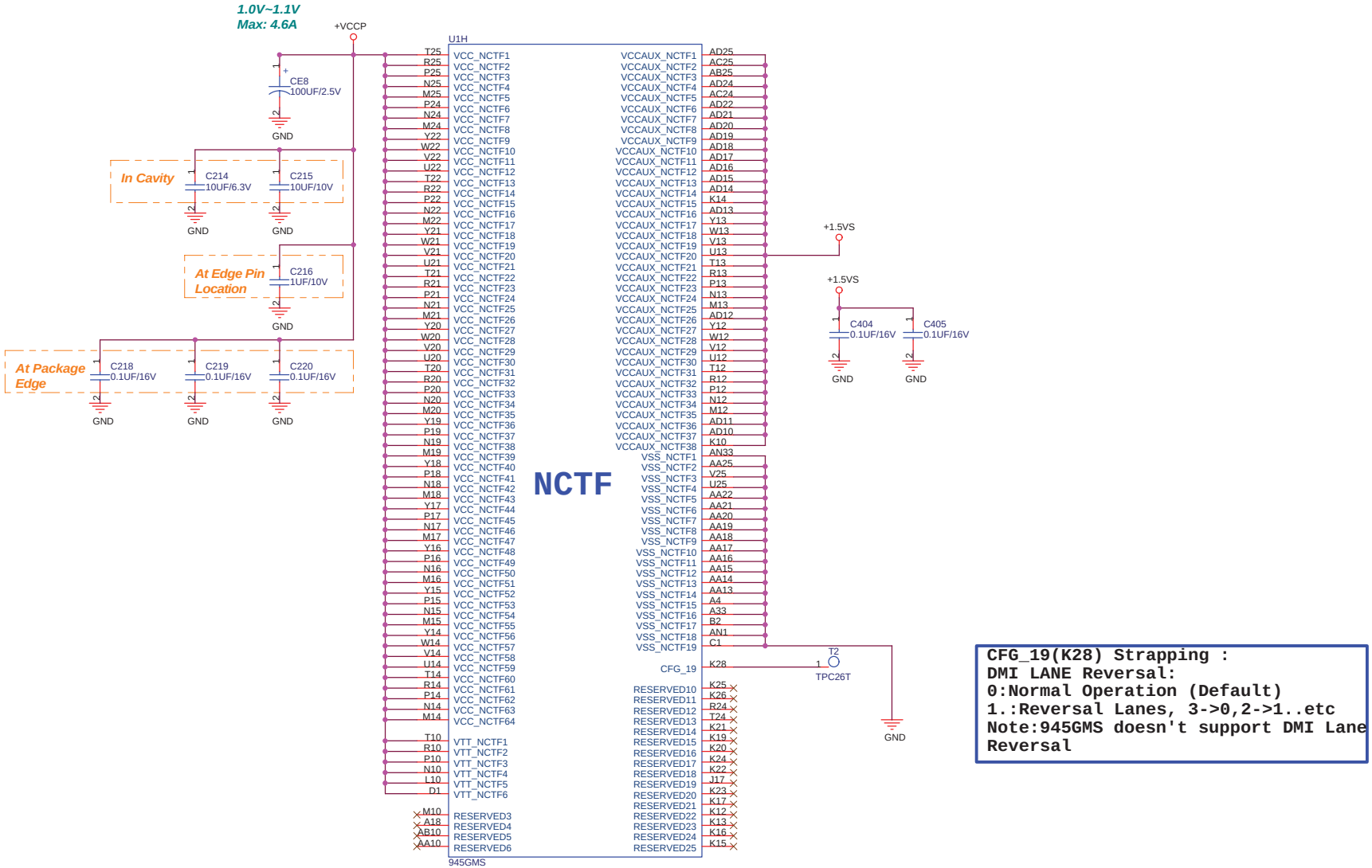
Title : NB-945GMS(DDR2)

ASUSTeK COMPUTER INC.

Engineer: Satan He

Size	Project Name	Rev
A3	P901	1.1G

Date: Monday, May 19, 2008 Sheet 10 of 50



/X

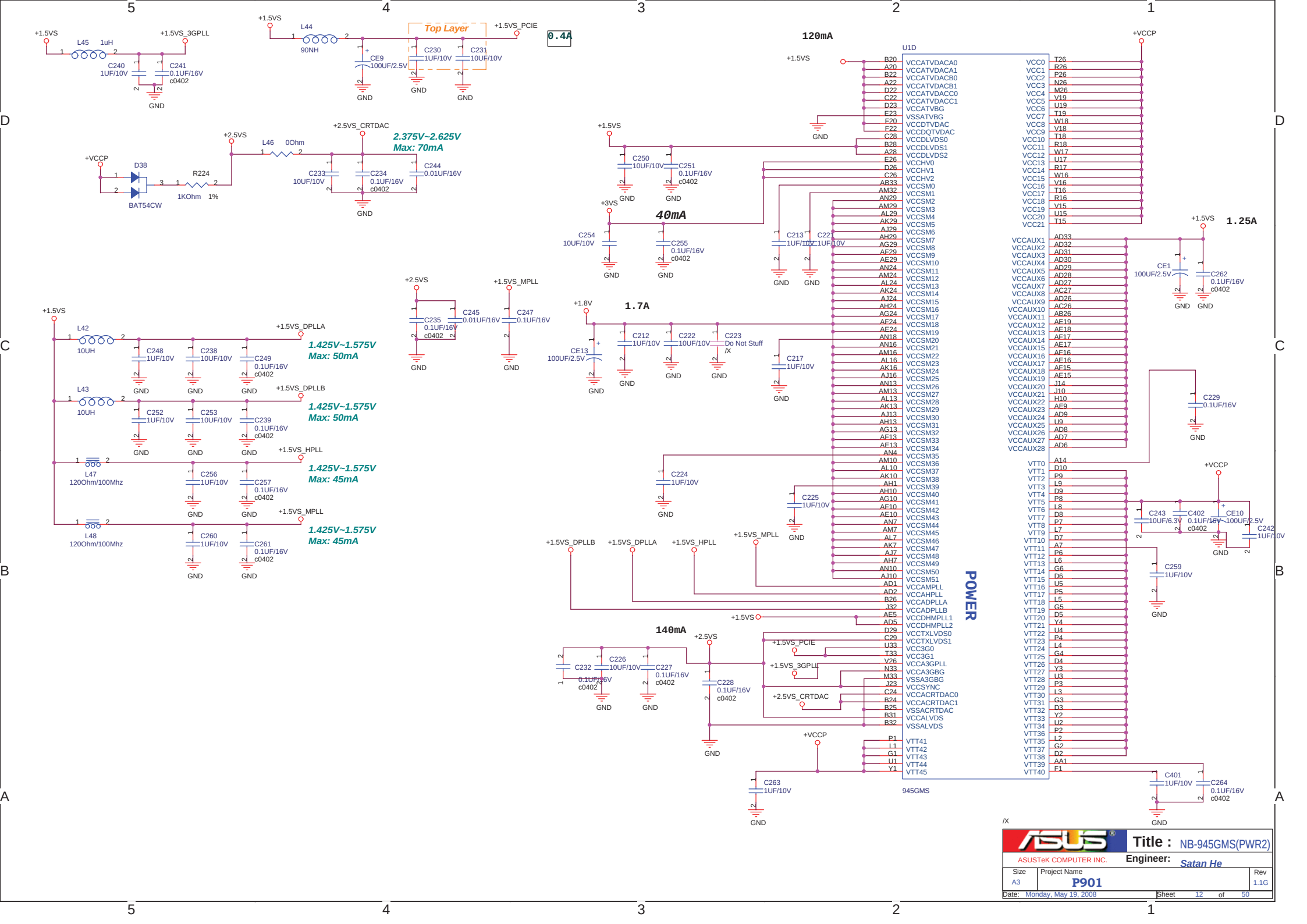
ASUSTeK COMPUTER INC.

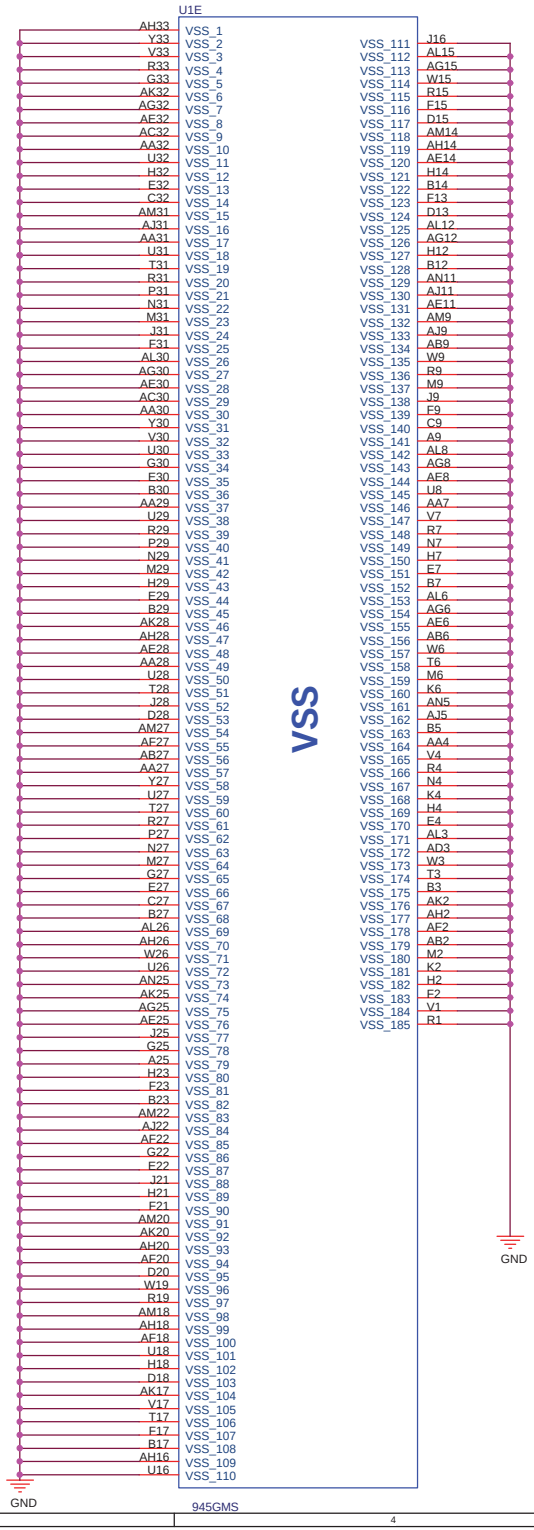
Title : NB-945GMs(PWR)

Engineer: Satan_He

Size	Project Name	Rev
A3	P901	1.1G

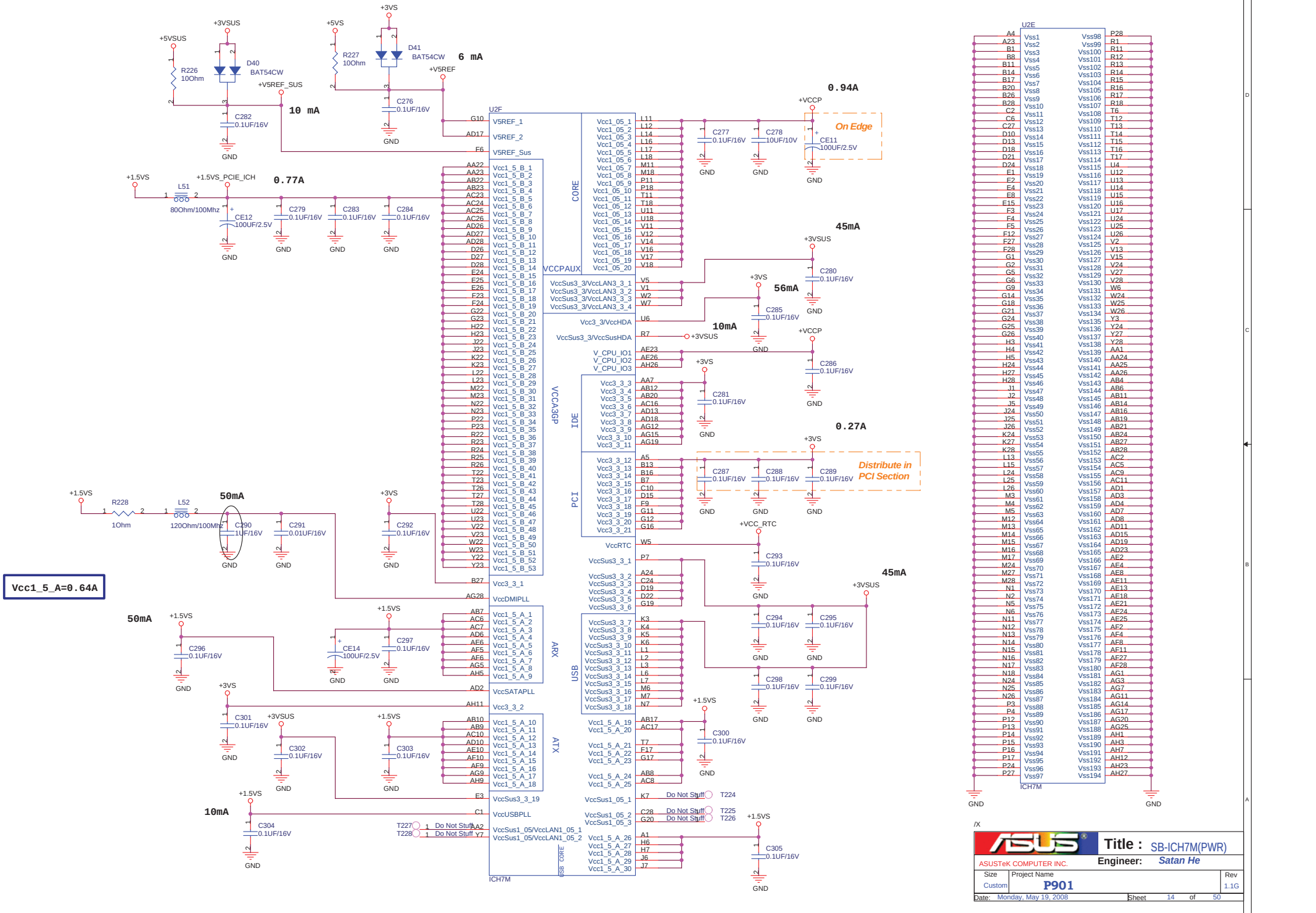
Date: Monday, May 19, 2008 Sheet 11 of 50


+1.5VS
L45 1uH
+1.5VS_3GPLL
C240 1UF/10V
C241 0.1UF/16V c0402
GND
L44
90NH
Top Layer
+1.5VS_PCIE
0.4A
CE9 100UF/2.5V
C230 1UF/10V
C231 10UF/10V
+2.5VS
+2.5VS_CRTDAC
2.375V~2.625V
Max: 70mA
L46 0Ohm
+VCCP
D38
BAT54CW
R224
1KOhm 1%
C233 10UF/10V
C234 0.1UF/16V c0402
C244 0.01UF/16V
+1.5VS_DPLLA
1.425V~1.575V
Max: 50mA
L42 10UH
C248 1UF/10V
C238 10UF/10V
C249 0.1UF/16V c0402
+1.5VS_DPLLB
L43 10UH
C252 1UF/10V
C253 10UF/10V
C239 0.1UF/16V c0402
+1.5VS_HPLL
1.425V~1.575V
Max: 45mA
L47 120Ohm/100Mhz
C256 1UF/10V
C257 0.1UF/16V c0402
+1.5VS_MPLL
L48 120Ohm/100Mhz
C260 1UF/10V
C261 0.1UF/16V c0402
C235 0.1UF/16V c0402
C245 0.01UF/16V
C247 0.1UF/16V
120mA
U1D
C250 10UF/10V
C251 0.1UF/16V c0402
+3VS
40mA
C254 10UF/10V
C255 0.1UF/16V c0402
C213 1UF/10V
C221 1UF/10V
+1.8V
1.7A
CE13 100UF/2.5V
C212 1UF/10V
C222 10UF/10V
C223 Do Not Stuff /X
C217 1UF/10V
C224 1UF/10V
C225 1UF/10V
140mA
C232 0.1UF/16V c0402
C226 10UF/10V
C227 0.1UF/16V c0402
C228 0.1UF/16V c0402
C263 1UF/10V
945GMS
POWER
+VCCP
1.25A
CE1 100UF/2.5V
C262 0.1UF/16V c0402
C229 0.1UF/16V
C243 10UF/6.3V
C402 0.1UF/16V c0402
CE10 100UF/2.5V
C242 1UF/10V
C259 1UF/10V
C401 1UF/10V
C264 0.1UF/16V c0402
/X
Title : NB-945GMS(PWR2)
ASUSTeK COMPUTER INC.
Engineer: Satan He
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 12 of 50



/X

ASUSTeK COMPUTER INC.	Title : NB-945PMS(GND)	
	Engineer: Satan_He	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 13 of 50	



/X

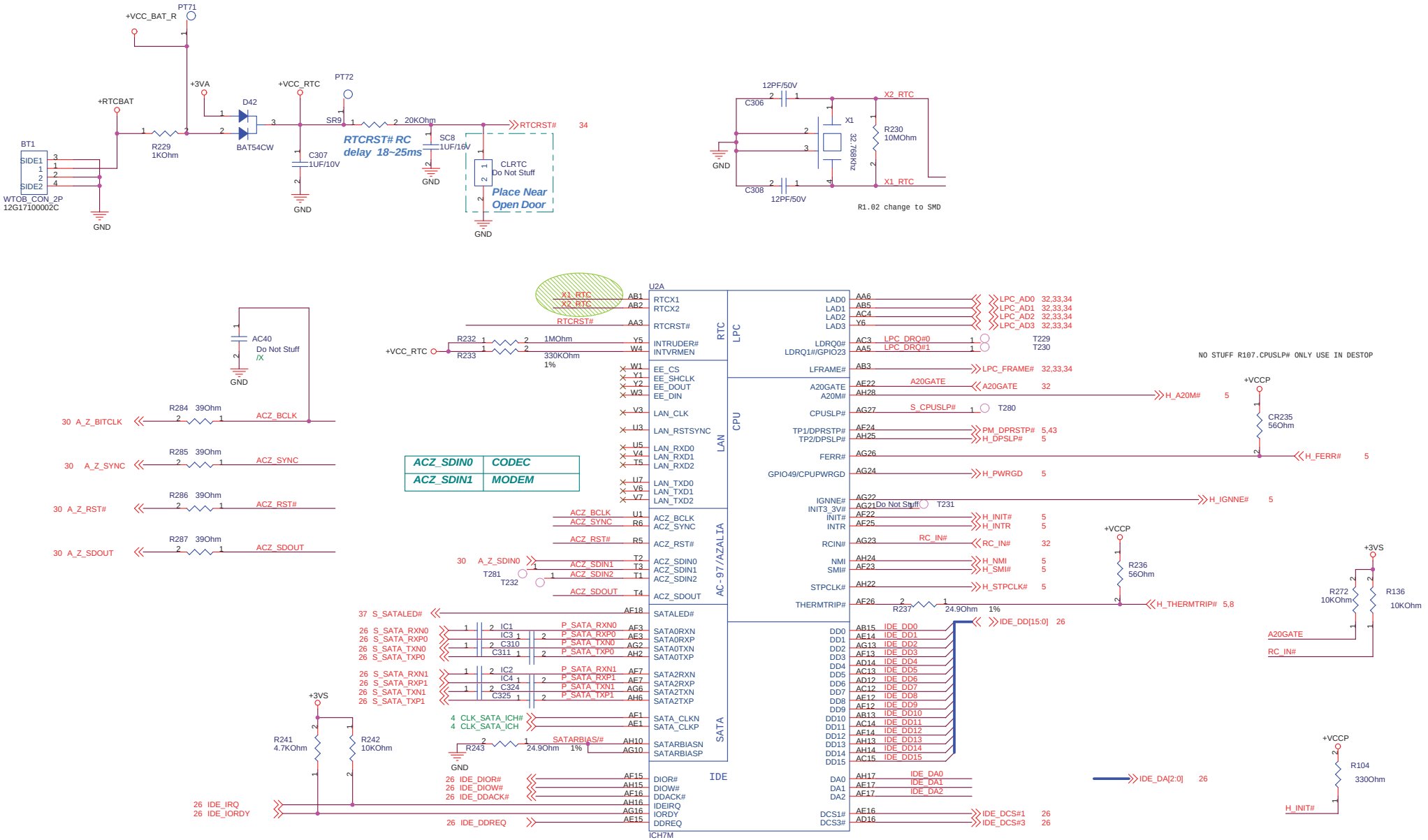
ASUSTeK COMPUTER INC.

Title : SB-ICH7M(PWR)

Engineer: Satan He

Size	Project Name	Rev
Custom	P901	1.1G

Date: Monday, May 19, 2008 Sheet 14 of 50



/X

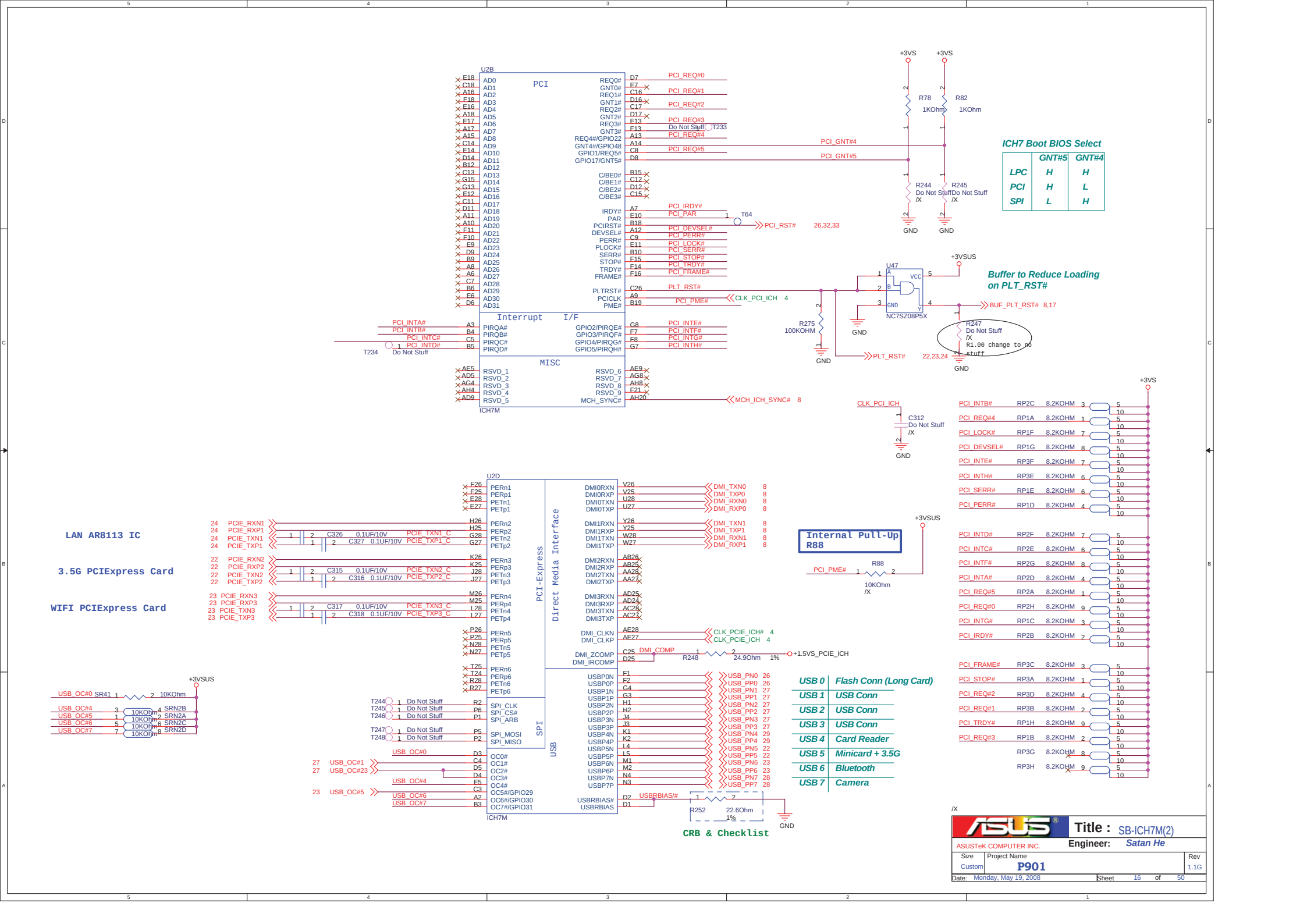
ASUSTeK COMPUTER INC.

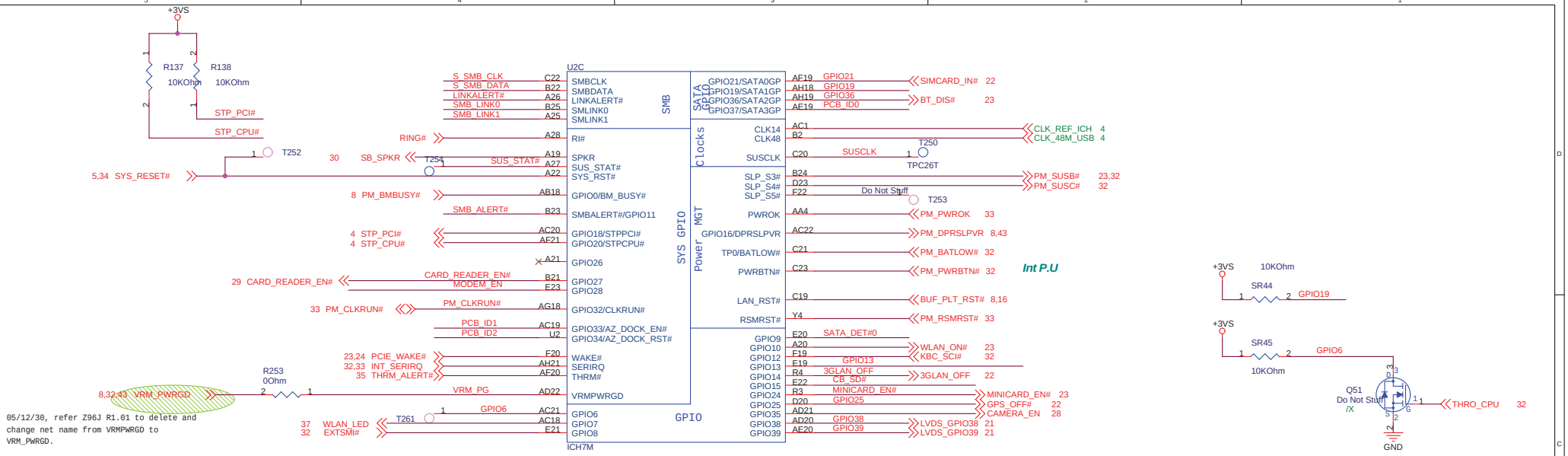
Title : SB-ICH7-M(1)

Engineer: Satan He

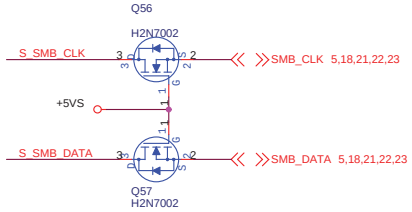
Size	Project Name	Rev
Custom	P901	1.1G

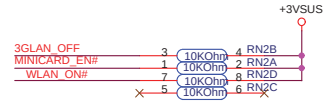
Date: Monday, May 19, 2008 Sheet 15 of 50

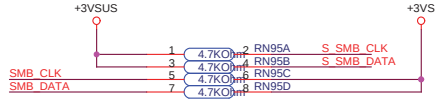

U2B
PCI
Interrupt I/F
MISC
ICH7M
PCI_REQ#0
PCI_REQ#1
PCI_REQ#2
PCI_REQ#3
PCI_REQ#4
PCI_REQ#5
PCI_GNT#4
PCI_GNT#5
PCI_IRDY#
PCI_PAR
PCI_RST#
PCI_DEVSEL#
PCI_PERR#
PCI_LOCK#
PCI_SERR#
PCI_STOP#
PCI_TRDY#
PCI_FRAME#
PLT_RST#
CLK_PCI_ICH
PCI_PME#
PCI_INTE#
PCI_INTF#
PCI_INTG#
PCI_INTH#
MCH_ICH_SYNC#
R78 1KOhm
R82 1KOhm
R244 Do Not Stuff /X
R245 Do Not Stuff /X
R275 100KOHM
R247 Do Not Stuff /X R1.00 change to no stuff
U47 NC7SZ08P5X
BUF_PLT_RST# 8,17
ICH7 Boot BIOS Select
LPC H H
PCI H L
SPI L H
Buffer to Reduce Loading on PLT_RST#
U2D
PCI-Express
Direct Media Interface
USB
SPI
ICH7M
LAN AR8113 IC
3.5G PCIExpress Card
WIFI PCIExpress Card
PCIE_RXN1
PCIE_RXP1
PCIE_TXN1
PCIE_TXP1
PCIE_RXN2
PCIE_RXP2
PCIE_TXN2
PCIE_TXP2
PCIE_RXN3
PCIE_RXP3
PCIE_TXN3
PCIE_TXP3
C326 0.1UF/10V
C327 0.1UF/10V
C315 0.1UF/10V
C316 0.1UF/10V
C317 0.1UF/10V
C318 0.1UF/10V
Internal Pull-Up R88
R88 10KOhm /X
DMI_CLKP
DMI_CLKN
DMI_ZCOMP
DMI_IRCOMP
DMI_COMP
R248 24.9Ohm 1%
+1.5VS_PCIE_ICH
USBRBIAS#
R252 22.6Ohm 1%
CRB & Checklist
USB 0 Flash Conn (Long Card)
USB 1 USB Conn
USB 2 USB Conn
USB 3 USB Conn
USB 4 Card Reader
USB 5 Minicard + 3.5G
USB 6 Bluetooth
USB 7 Camera
USB_OC#0 SR41 10KOhm
SRN2B SRN2A SRN2C SRN2D
C312 Do Not Stuff /X
RP2C RP1A RP1F RP1G RP3F RP3E RP1E RP1D
RP2F RP2E RP2G RP2D RP2A RP2H RP1C RP2B
RP3C RP3A RP3D RP3B RP1H RP1B RP3G RP3H
8.2KOHM
Title : SB-ICH7M(2)
ASUSTeK COMPUTER INC.
Engineer: Satan He
Size Custom
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 16 of 50

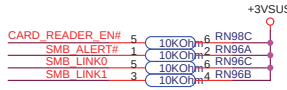


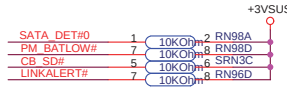
WLAN_LED	WLAN	BT
High	v	v
High	v	x
High	x	v
Low	x	x

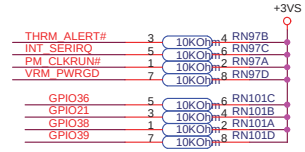


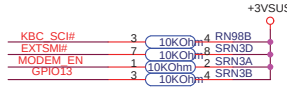


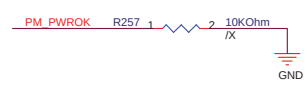


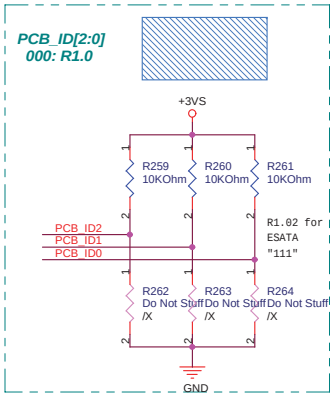












PCB_VID3 : PROJECT CODE

/X

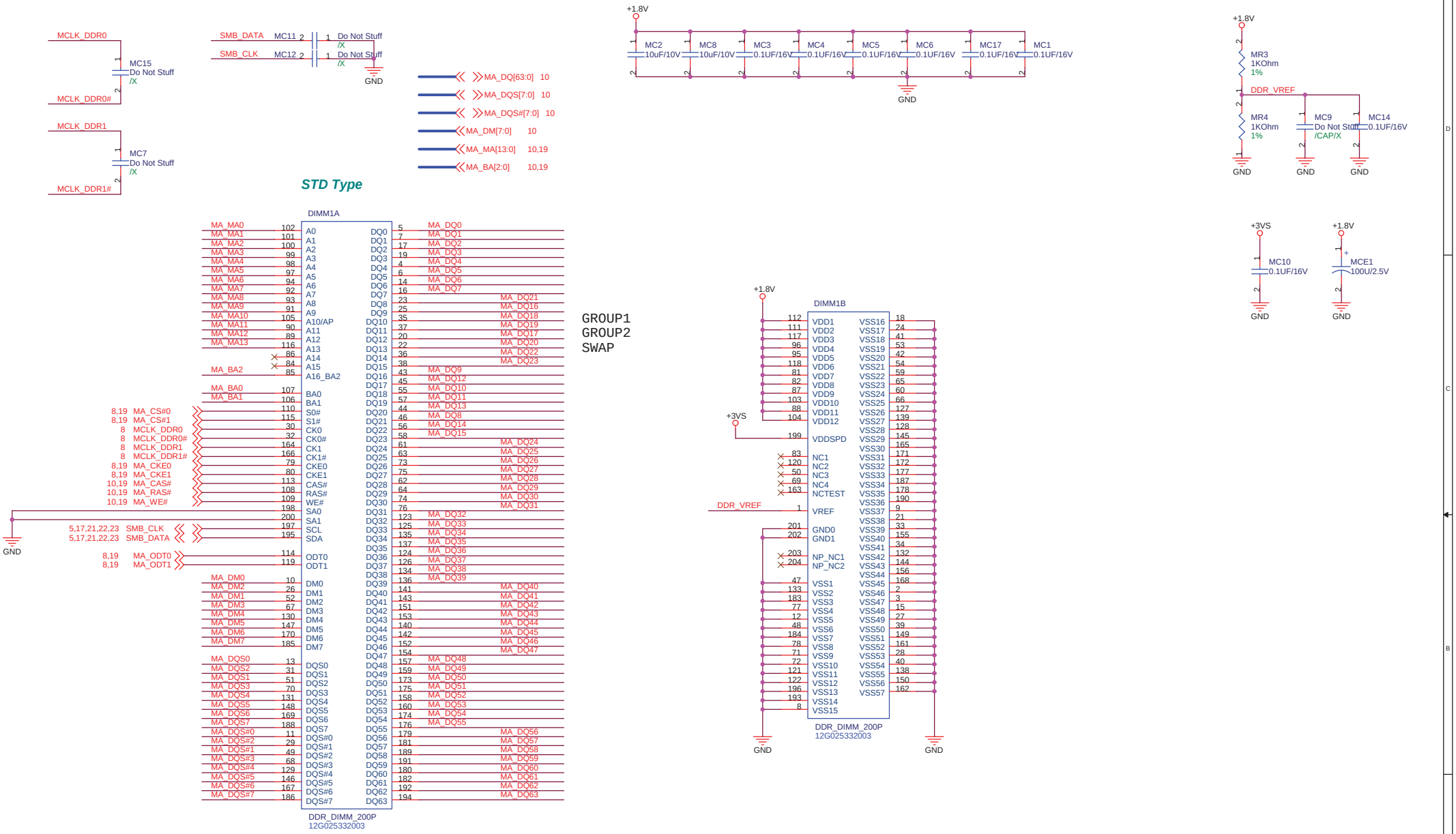
ASUSTeK COMPUTER INC

Title : SB-ICH7M(3)

Engineer: Satan He

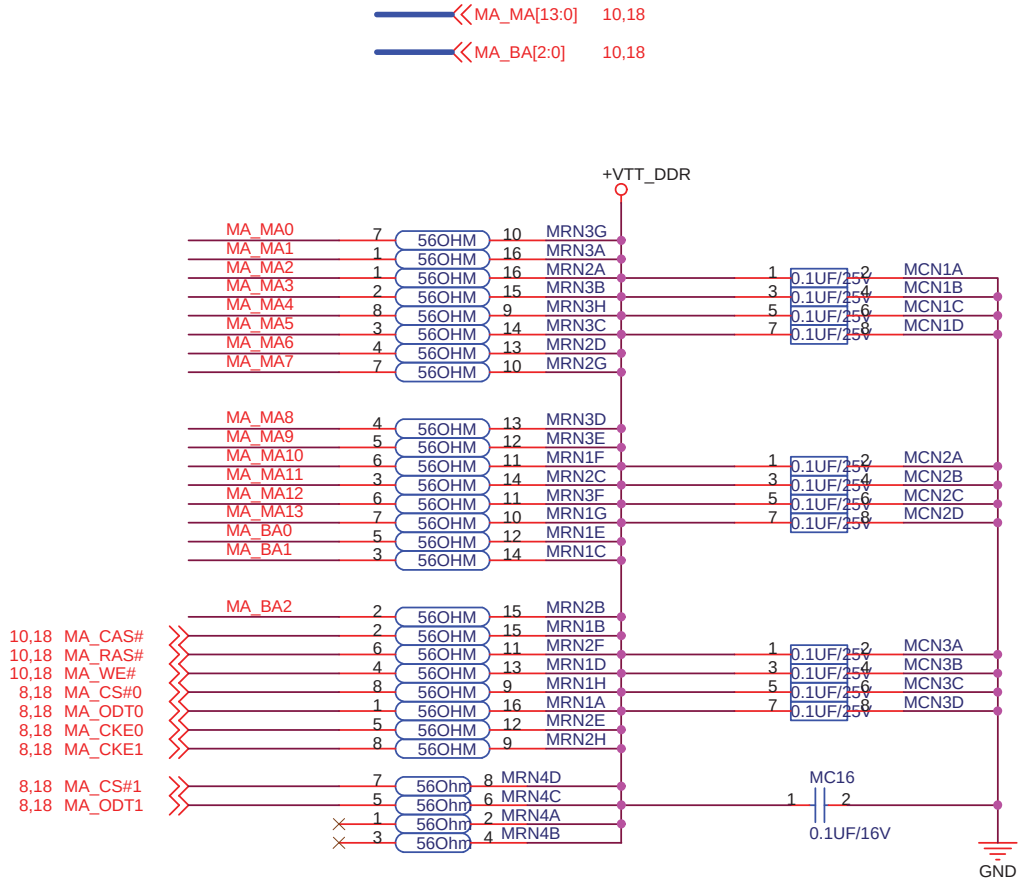
Size	Project Name	Rev
Custom	P901	1.1G

Date: Monday, May 19, 2008 Sheet 17 of 50



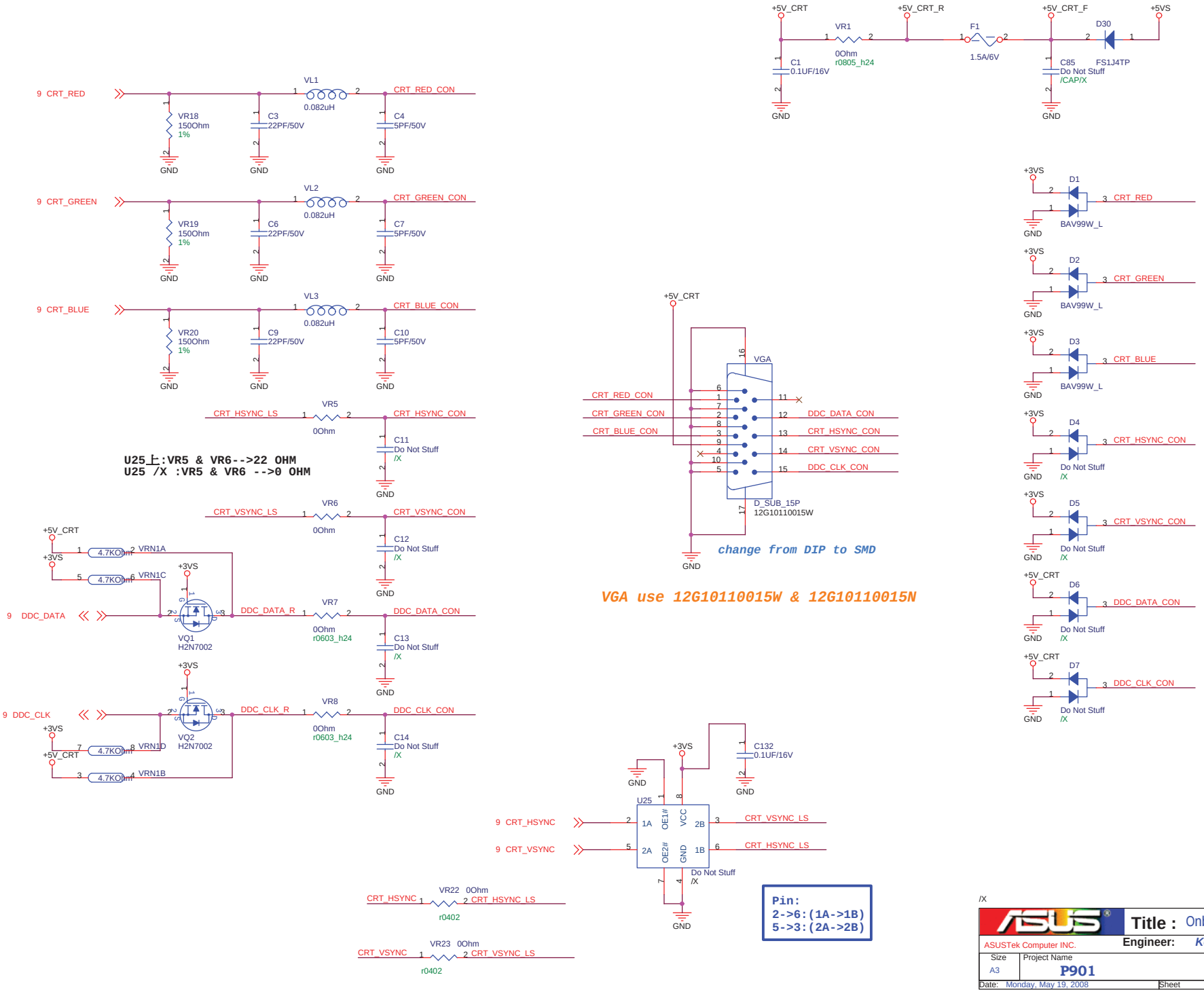
/X

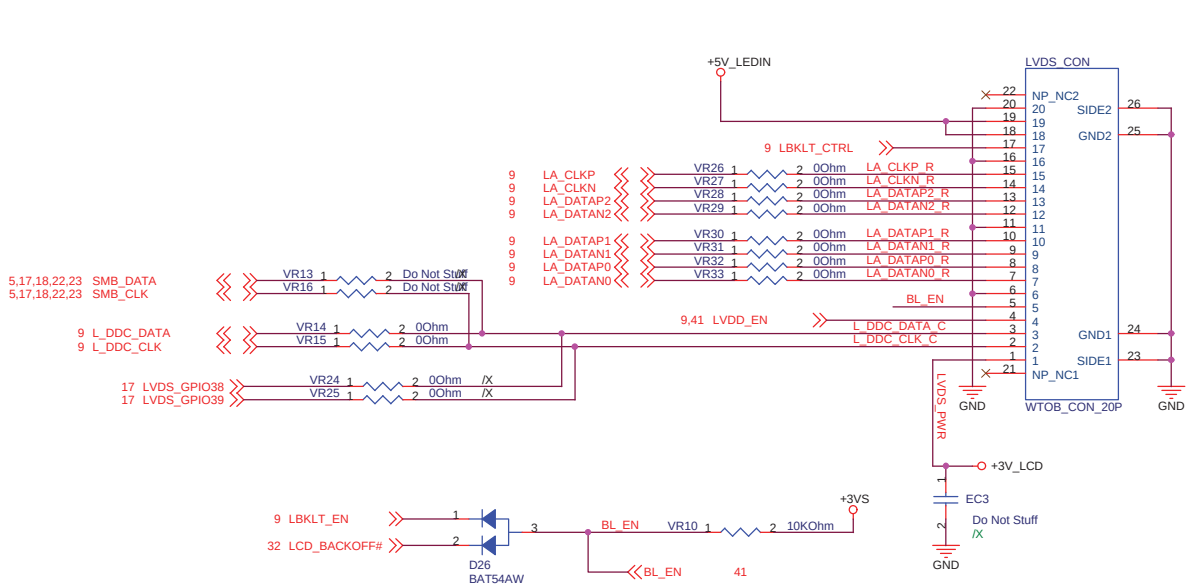
ASUSTek Computer INC.	Title : DDR2 SODIMM	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 18 of 47	

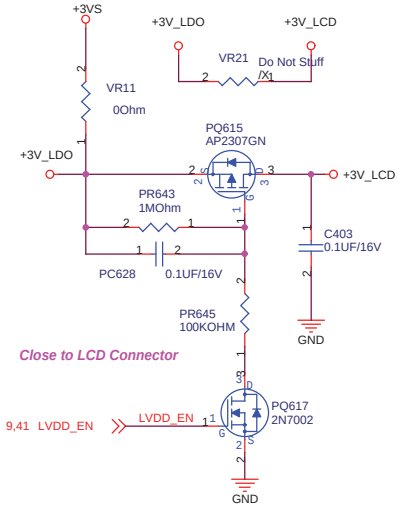


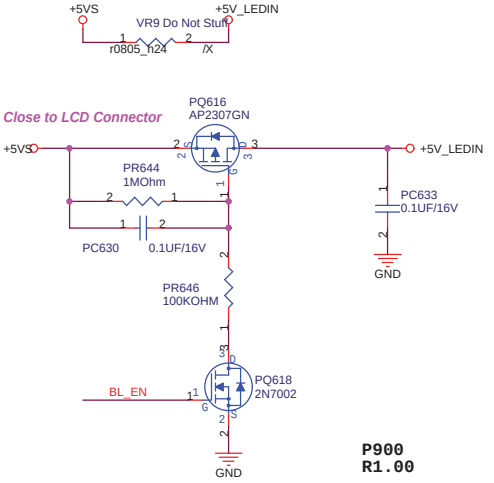
/X

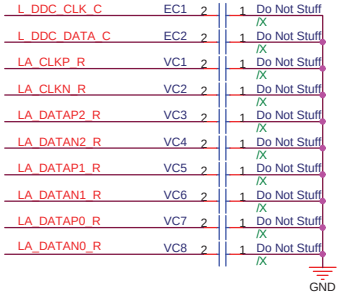
ASUSTek Computer INC.	Title : DDR2_Termination	
	Engineer: *Kell_Huang*	
Size: A4	Project Name: **P901**	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 19 of 47	

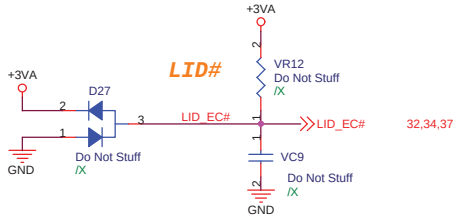

9 CRT_RED
VL1
0.082uH
CRT_RED_CON
VR18
150Ohm
1%
C3
22PF/50V
C4
5PF/50V
GND
9 CRT_GREEN
VL2
0.082uH
CRT_GREEN_CON
VR19
150Ohm
1%
C6
22PF/50V
C7
5PF/50V
9 CRT_BLUE
VL3
0.082uH
CRT_BLUE_CON
VR20
150Ohm
1%
C9
22PF/50V
C10
5PF/50V
CRT_HSYNC_LS
VR5
0Ohm
CRT_HSYNC_CON
C11
Do Not Stuff
/X
U25上:VR5 & VR6-->22 OHM
U25 /X :VR5 & VR6 -->0 OHM
CRT_VSYNC_LS
VR6
0Ohm
CRT_VSYNC_CON
C12
Do Not Stuff
/X
+5V_CRT
+3VS
4.7KOhm
VRN1A
VRN1C
9 DDC_DATA
VQ1
H2N7002
DDC_DATA_R
VR7
0Ohm
r0603_h24
DDC_DATA_CON
C13
Do Not Stuff
/X
9 DDC_CLK
VQ2
H2N7002
DDC_CLK_R
VR8
0Ohm
r0603_h24
DDC_CLK_CON
C14
Do Not Stuff
/X
VRN1D
VRN1B
+5V_CRT
+5V_CRT_R
VR1
0Ohm
r0805_h24
F1
1.5A/6V
+5V_CRT_F
+5VS
D30
FS1J4TP
C1
0.1UF/16V
C85
Do Not Stuff
/CAP/X
VGA
CRT_RED_CON
CRT_GREEN_CON
CRT_BLUE_CON
DDC_DATA_CON
CRT_HSYNC_CON
CRT_VSYNC_CON
DDC_CLK_CON
D_SUB_15P
12G10110015W
change from DIP to SMD
VGA use 12G10110015W & 12G10110015N
D1
BAV99W_L
CRT_RED
D2
CRT_GREEN
D3
CRT_BLUE
D4
CRT_HSYNC_CON
D5
CRT_VSYNC_CON
D6
DDC_DATA_CON
D7
DDC_CLK_CON
U25
C132
0.1UF/16V
9 CRT_HSYNC
9 CRT_VSYNC
1A
2A
OE1#
OE2#
VCC
GND
2B
1B
CRT_VSYNC_LS
CRT_HSYNC_LS
Do Not Stuff
/X
Pin:
2->6:(1A->1B)
5->3:(2A->2B)
VR22 0Ohm
CRT_HSYNC
CRT_HSYNC_LS
r0402
VR23 0Ohm
CRT_VSYNC
CRT_VSYNC_LS
r0402
/X
Title : Onboard VGA
ASUSTek Computer INC.
Engineer: Kell_Huang
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 20 of 47

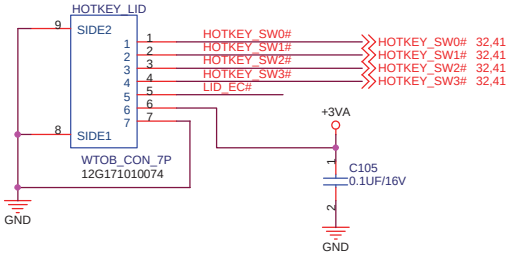


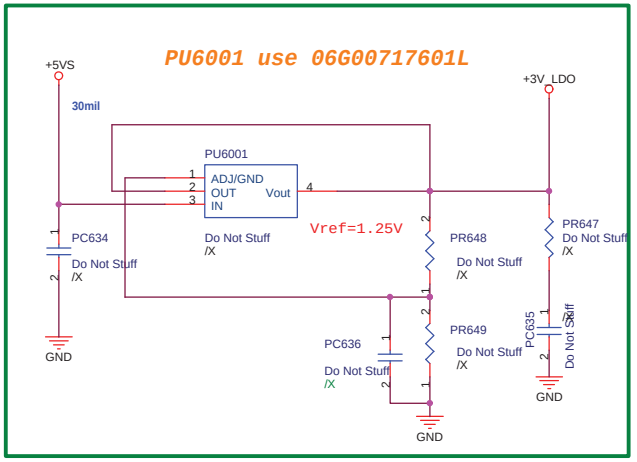






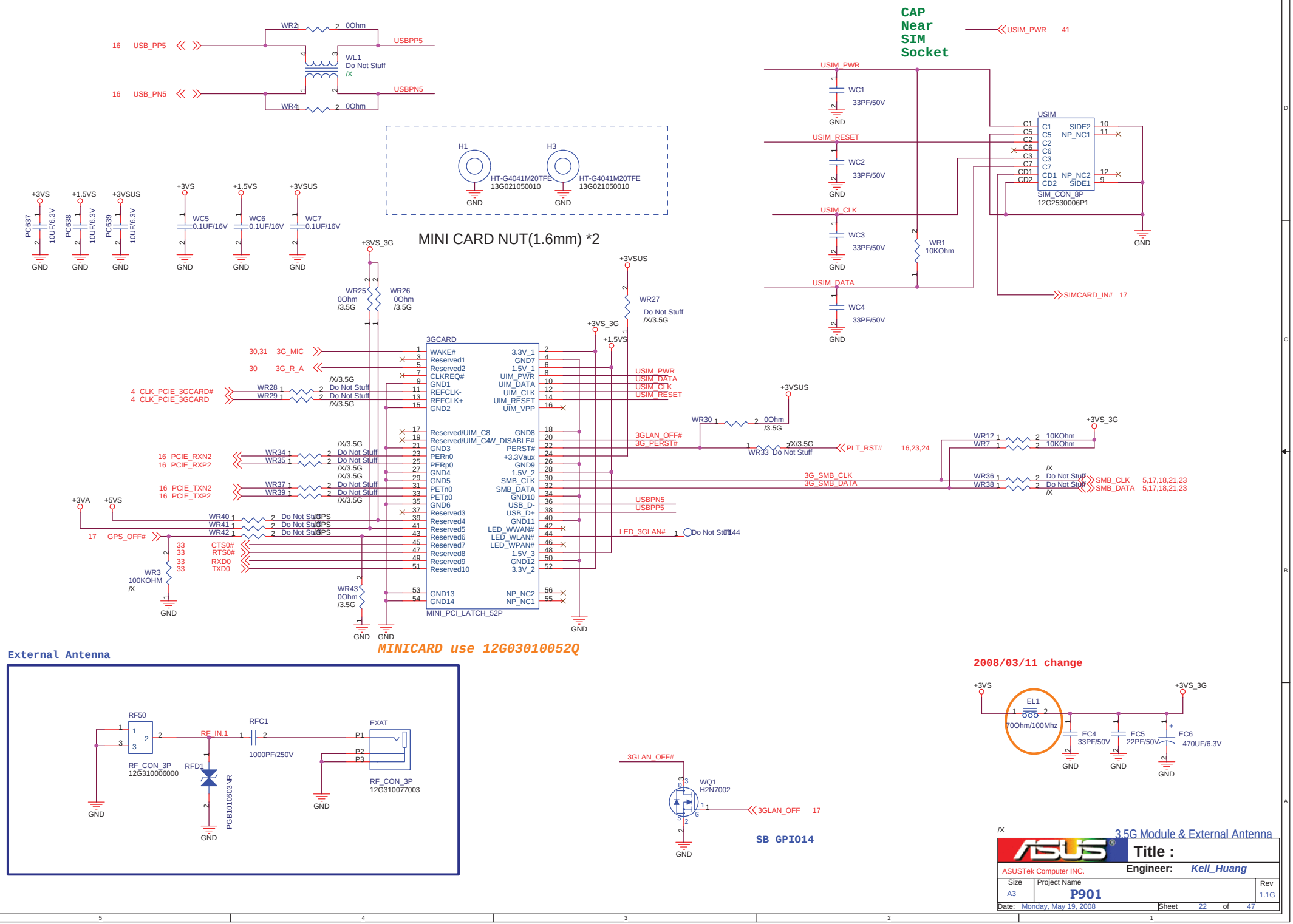






/X

ASUSTek Computer INC.	Title : LVDS Conn_LID	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 21 of 47	


CAP Near SIM Socket
USIM_PWR 41
USIM_PWR
WC1 33PF/50V
USIM_RESET
WC2 33PF/50V
USIM_CLK
WC3 33PF/50V
USIM_DATA
WC4 33PF/50V
WR1 10KOhm
USIM
SIM_CON_8P 12G2530006P1
SIMCARD_IN# 17
WR2 0Ohm
WL1 Do Not Stuff /X
WR4 0Ohm
16 USB_PP5
16 USB_PN5
USBPP5
USBPN5
H1 HT-G4041M20TFE 13G021050010
H3 HT-G4041M20TFE 13G021050010
MINI CARD NUT(1.6mm) *2
PC637 10UF/6.3V
PC638 10UF/6.3V
PC639 10UF/6.3V
WC5 0.1UF/16V
WC6 0.1UF/16V
WC7 0.1UF/16V
+3VS
+1.5VS
+3VSUS
+3VS_3G
3GCARD
MINI_PCI_LATCH_52P
30,31 3G_MIC
30 3G_R_A
4 CLK_PCIE_3GCARD#
4 CLK_PCIE_3GCARD
WR28 Do Not Stuff /X/3.5G
WR29 Do Not Stuff /X/3.5G
16 PCIE_RXN2
16 PCIE_RXP2
WR34 Do Not Stuff /X/3.5G
WR35 Do Not Stuff /X/3.5G
16 PCIE_TXN2
16 PCIE_TXP2
WR37 Do Not Stuff /X/3.5G
WR39 Do Not Stuff /X/3.5G
WR25 0Ohm /3.5G
WR26 0Ohm /3.5G
WR27 Do Not Stuff /X/3.5G
WR30 0Ohm /3.5G
WR33 Do Not Stuff /X/3.5G
PLT_RST# 16,23,24
WR12 10KOhm
WR7 10KOhm
WR36 Do Not Stuff /X
WR38 Do Not Stuff /X
3G_SMB_CLK
3G_SMB_DATA
SMB_CLK 5,17,18,21,23
SMB_DATA 5,17,18,21,23
3GLAN_OFF#
3G_PERST#
USBPN5
USBPP5
LED_3GLAN# 1 Do Not Stuff 0144
+3VA
+5VS
WR40 Do Not Stuff @GPS
WR41 Do Not Stuff @GPS
WR42 Do Not Stuff @GPS
17 GPS_OFF#
CTS0#
RTS0#
RXD0
TXD0
WR3 100KOHM /X
WR43 0Ohm /3.5G
MINICARD use 12G03010052Q
External Antenna
RF50
RF_CON_3P 12G310006000
RF_IN.1
RFC1 1000PF/250V
RFD1
PGB1010603NR
EXAT
RF_CON_3P 12G310077003
WQ1 H2N7002
3GLAN_OFF 17
SB GPIO14
2008/03/11 change
EL1 70Ohm/100Mhz
EC4 33PF/50V
EC5 22PF/50V
EC6 470UF/6.3V
GND
/X
3.5G Module & External Antenna
Title :
ASUSTek Computer INC.
Engineer: Kell_Huang
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
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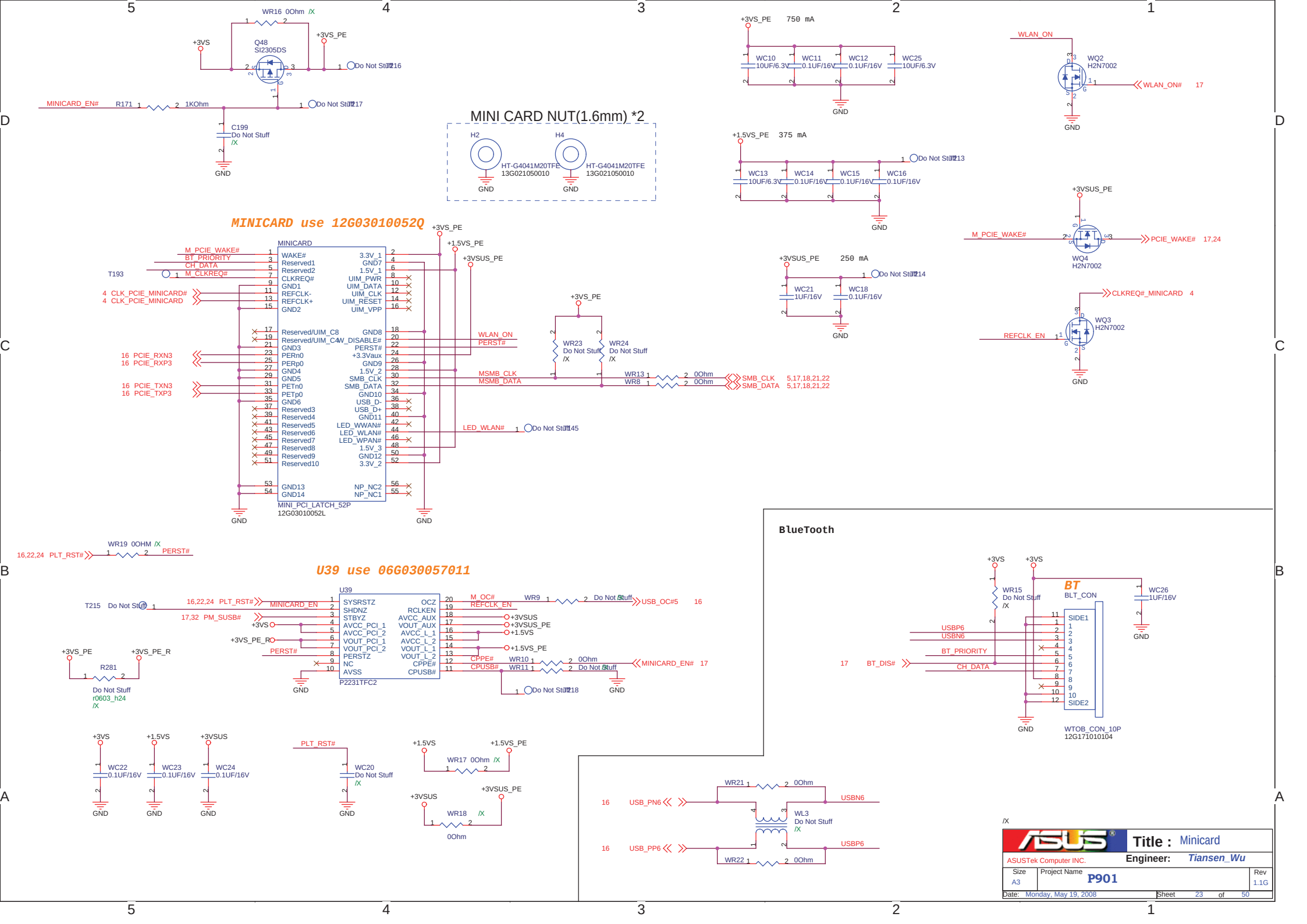
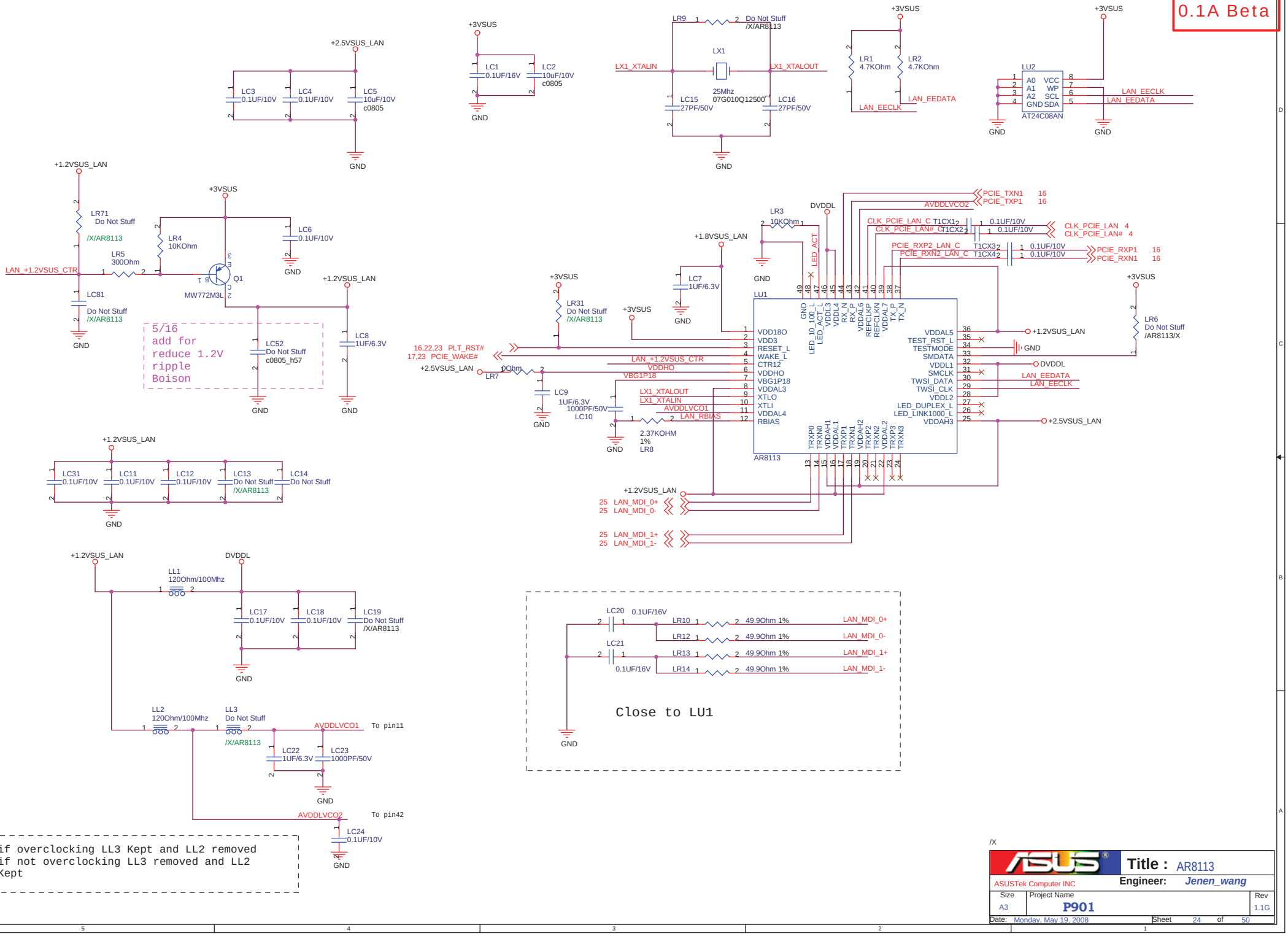

WR16 0Ohm /X
+3VS
Q48
SI2305DS
+3VS_PE
Do Not Stuff
MINICARD_EN#
R171 1KOhm
C199
Do Not Stuff
/X
GND
MINI CARD NUT(1.6mm) *2
H2
H4
HT-G4041M20TFE
13G021050010
+3VS_PE 750 mA
WC10 10UF/6.3V
WC11 0.1UF/16V
WC12 0.1UF/16V
WC25 10UF/6.3V
+1.5VS_PE 375 mA
WC13 10UF/6.3V
WC14 0.1UF/16V
WC15 0.1UF/16V
WC16 0.1UF/16V
WLAN_ON
WQ2
H2N7002
WLAN_ON# 17
MINICARD use 12G030010052Q
MINICARD
M_PCIE_WAKE#
BT_PRIORITY
CH_DATA
M_CLKREQ#
T193
CLK_PCIE_MINICARD#
CLK_PCIE_MINICARD
PCIE_RXN3
PCIE_RXP3
PCIE_TXN3
PCIE_TXP3
WAKE#
Reserved1
Reserved2
CLKREQ#
GND1
REFCLK-
REFCLK+
GND2
3.3V_1
GND7
1.5V_1
UIM_PWR
UIM_DATA
UIM_CLK
UIM_RESET
UIM_VPP
GND8
W_DISABLE#
PERST#
+3.3Vaux
GND9
1.5V_2
SMB_CLK
SMB_DATA
GND10
USB_D-
USB_D+
GND11
LED_WWAN#
LED_WLAN#
LED_WPAN#
1.5V_3
GND12
3.3V_2
NP_NC2
NP_NC1
MINI_PCI_LATCH_52P
12G03010052L
WR23 Do Not Stuff /X
WR24 Do Not Stuff /X
WR13 0Ohm
WR8 0Ohm
MSMB_CLK
MSMB_DATA
SMB_CLK 5,17,18,21,22
SMB_DATA 5,17,18,21,22
LED_WLAN# Do Not Stuff
+3VSUS_PE 250 mA
WC21 1UF/16V
WC18 0.1UF/16V
+3VSUS_PE
WQ4
H2N7002
PCIE_WAKE# 17,24
CLKREQ#_MINICARD 4
REFCLK_EN
WQ3
H2N7002
WR19 0OHM /X
16,22,24 PLT_RST#
PERST#
U39 use 06G030057011
U39
T215 Do Not Stuff
16,22,24 PLT_RST#
17,32 PM_SUSB#
MINICARD_EN
SYSRSTZ
SHDNZ
STBYZ
AVCC_PCI_1
AVCC_PCI_2
VOUT_PCI_1
VOUT_PCI_2
PERSTZ
NC
AVSS
OCZ
RCLKEN
AVCC_AUX
VOUT_AUX
AVCC_L_1
AVCC_L_2
VOUT_L_1
VOUT_L_2
CPPE#
CPUSB#
P2231TFC2
M_OC#
REFCLK_EN
WR9 Do Not Stuff
USB_OC#5 16
+3VSUS
+3VSUS_PE
+1.5VS
+1.5VS_PE
WR10 0Ohm
WR11 Do Not Stuff
MINICARD_EN# 17
+3VS_PE_R
R281
Do Not Stuff
r0603_h24
/X
BlueTooth
BT
BLT_CON
WR15 Do Not Stuff /X
WC26 1UF/16V
USBP6
USBN6
BT_PRIORITY
CH_DATA
17 BT_DIS#
SIDE1
SIDE2
WTOB_CON_10P
12G171010104
WC22 0.1UF/16V
WC23 0.1UF/16V
WC24 0.1UF/16V
PLT_RST#
WC20 Do Not Stuff /X
+1.5VS
+1.5VS_PE
WR17 0Ohm /X
+3VSUS
+3VSUS_PE
WR18 /X
0Ohm
16 USB_PN6
16 USB_PP6
WR21 0Ohm
WR22 0Ohm
WL3 Do Not Stuff /X
USBN6
USBP6
/X
Title : Minicard
ASUSTek Computer INC.
Engineer: Tiansen_Wu
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 23 of 50

0.1A Beta



/X

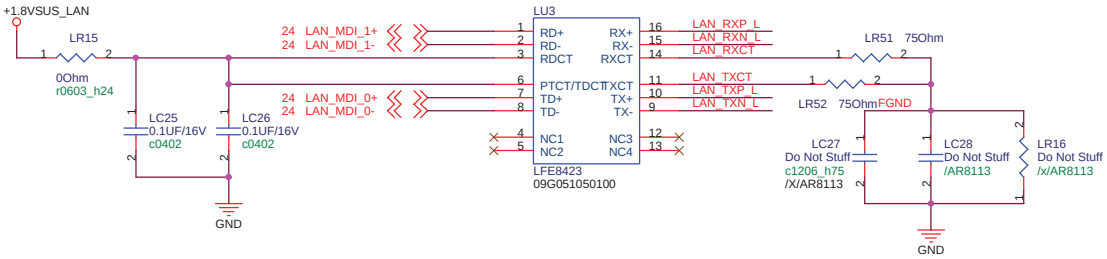
ASUSTek Computer INC

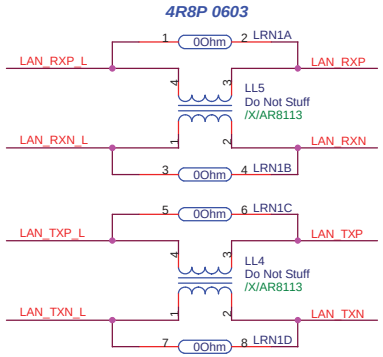
Title : AR8113

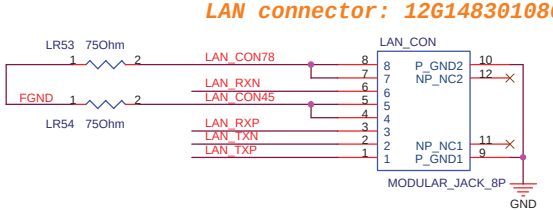
Engineer: Jenen_wang

Size	Project Name	Rev
A3	P901	1.1G

Date: Monday, May 19, 2008 Sheet 24 of 50

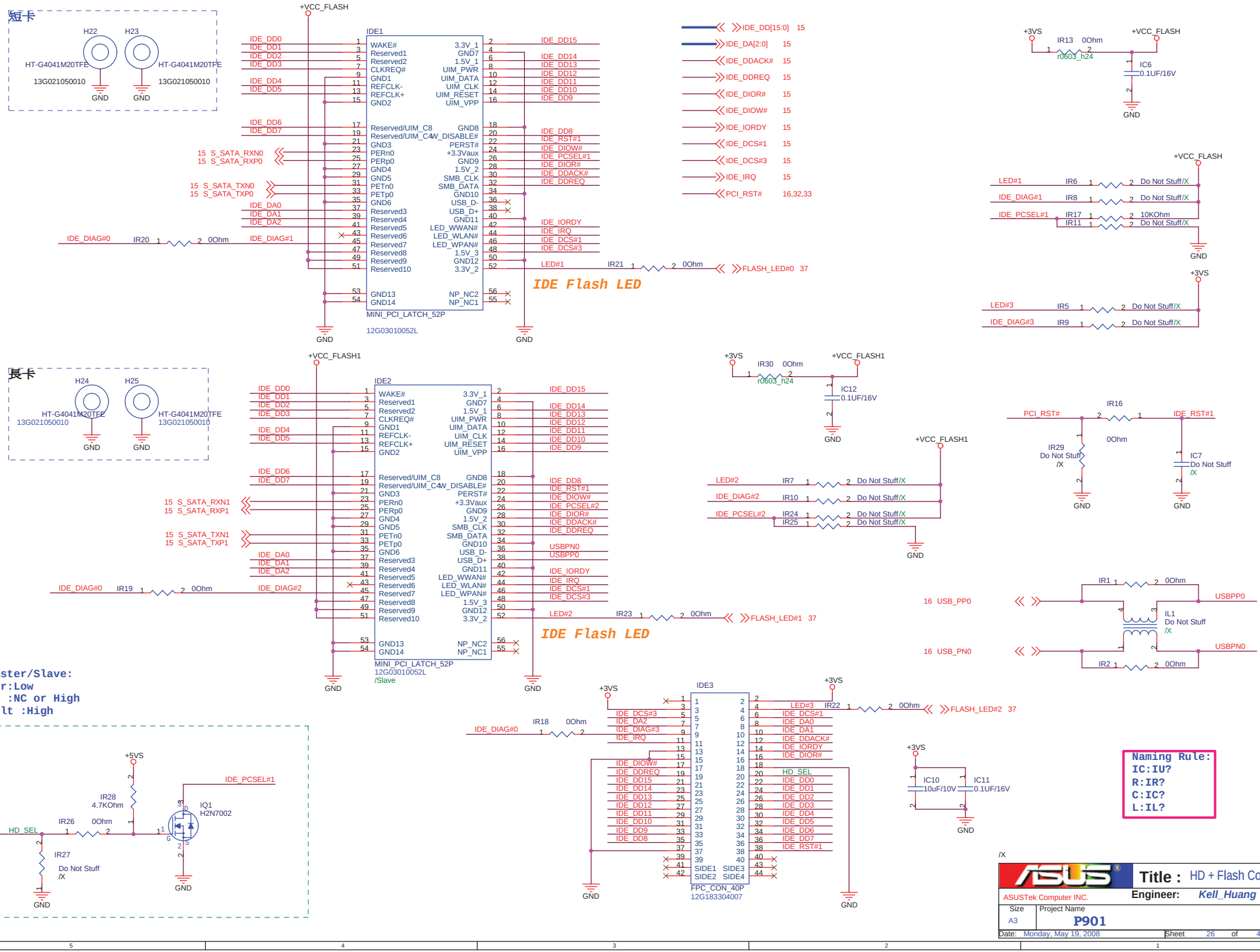






/X

ASUSTek Computer INC.	Title : RJ11_RJ45	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 25 of 47	


短卡
H22
H23
HT-G4041M20TFE
13G021050010
GND
+VCC_FLASH
IDE1
WAKE#
Reserved1
Reserved2
CLKREQ#
GND1
REFCLK-
REFCLK+
GND2
3.3V_1
GND7
1.5V_1
UIM_PWR
UIM_DATA
UIM_CLK
UIM_RESET
UIM_VPP
Reserved/UIM_C8
Reserved/UIM_C4
GND3
PERn0
PERp0
GND4
GND5
PETn0
PETp0
GND6
Reserved3
Reserved4
Reserved5
Reserved6
Reserved7
Reserved8
Reserved9
Reserved10
GND8
W_DISABLE#
PERST#
+3.3Vaux
GND9
1.5V_2
SMB_CLK
SMB_DATA
GND10
USB_D-
USB_D+
GND11
LED_WWAN#
LED_WLAN#
LED_WPAN#
1.5V_3
GND12
3.3V_2
GND13
GND14
NP_NC2
NP_NC1
MINI_PCI_LATCH_52P
12G03010052L
IDE_DD0
IDE_DD1
IDE_DD2
IDE_DD3
IDE_DD4
IDE_DD5
IDE_DD6
IDE_DD7
IDE_DA0
IDE_DA1
IDE_DA2
15 S_SATA_RXN0
15 S_SATA_RXP0
15 S_SATA_TXN0
15 S_SATA_TXP0
IDE_DIAG#0
IR20 0Ohm
IDE_DIAG#1
IDE_DD15
IDE_DD14
IDE_DD13
IDE_DD12
IDE_DD11
IDE_DD10
IDE_DD9
IDE_DD8
IDE_RST#1
IDE_DIOW#
IDE_PCSEL#1
IDE_DIOR#
IDE_DDACK#
IDE_DDREQ
IDE_IORDY
IDE_IRQ
IDE_DCS#1
IDE_DCS#3
LED#1
IR21 0Ohm
FLASH_LED#0 37
IDE_Flash LED
IDE_DD[15:0] 15
IDE_DA[2:0] 15
IDE_DDACK# 15
IDE_DDREQ 15
IDE_DIOR# 15
IDE_DIOW# 15
IDE_IORDY 15
IDE_DCS#1 15
IDE_DCS#3 15
IDE_IRQ 15
PCI_RST# 16,32,33
+3VS
IR13 0Ohm
r0603_h24
IC6
0.1UF/16V
LED#1
IR6 Do Not Stuff/X
IDE_DIAG#1
IR8 Do Not Stuff/X
IDE_PCSEL#1
IR17 10KOhm
IR11 Do Not Stuff/X
LED#3
IR5 Do Not Stuff/X
IDE_DIAG#3
IR9 Do Not Stuff/X
副卡
H24
H25
+VCC_FLASH1
IDE2
/Slave
IR30 0Ohm
IC12
IR16
IR29 Do Not Stuff /X
IC7 Do Not Stuff /X
IR19 0Ohm
IDE_DIAG#2
LED#2
IR7 Do Not Stuff/X
IR10 Do Not Stuff/X
IR24 Do Not Stuff/X
IR25 Do Not Stuff/X
IR23 0Ohm
FLASH_LED#1 37
16 USB_PP0
16 USB_PN0
IR1 0Ohm
IR2 0Ohm
IL1 Do Not Stuff /X
USBPP0
USBPN0
HD Master/Slave:
Master:Low
Slave :NC or High
Default :High
+5VS
IR28 4.7KOhm
IR26 0Ohm
IR27 Do Not Stuff /X
HD_SEL
IQ1 H2N7002
IDE_PCSEL#1
IDE3
FPC_CON_40P
12G183304007
IR18 0Ohm
IDE_DIAG#0
IR22 0Ohm
FLASH_LED#2 37
IC10 10uF/10V
IC11 0.1UF/16V
Naming Rule:
IC:IU?
R:IR?
C:IC?
L:IL?
/X
Title : HD + Flash Conn
ASUSTek Computer INC.
Engineer: Kell_Huang
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
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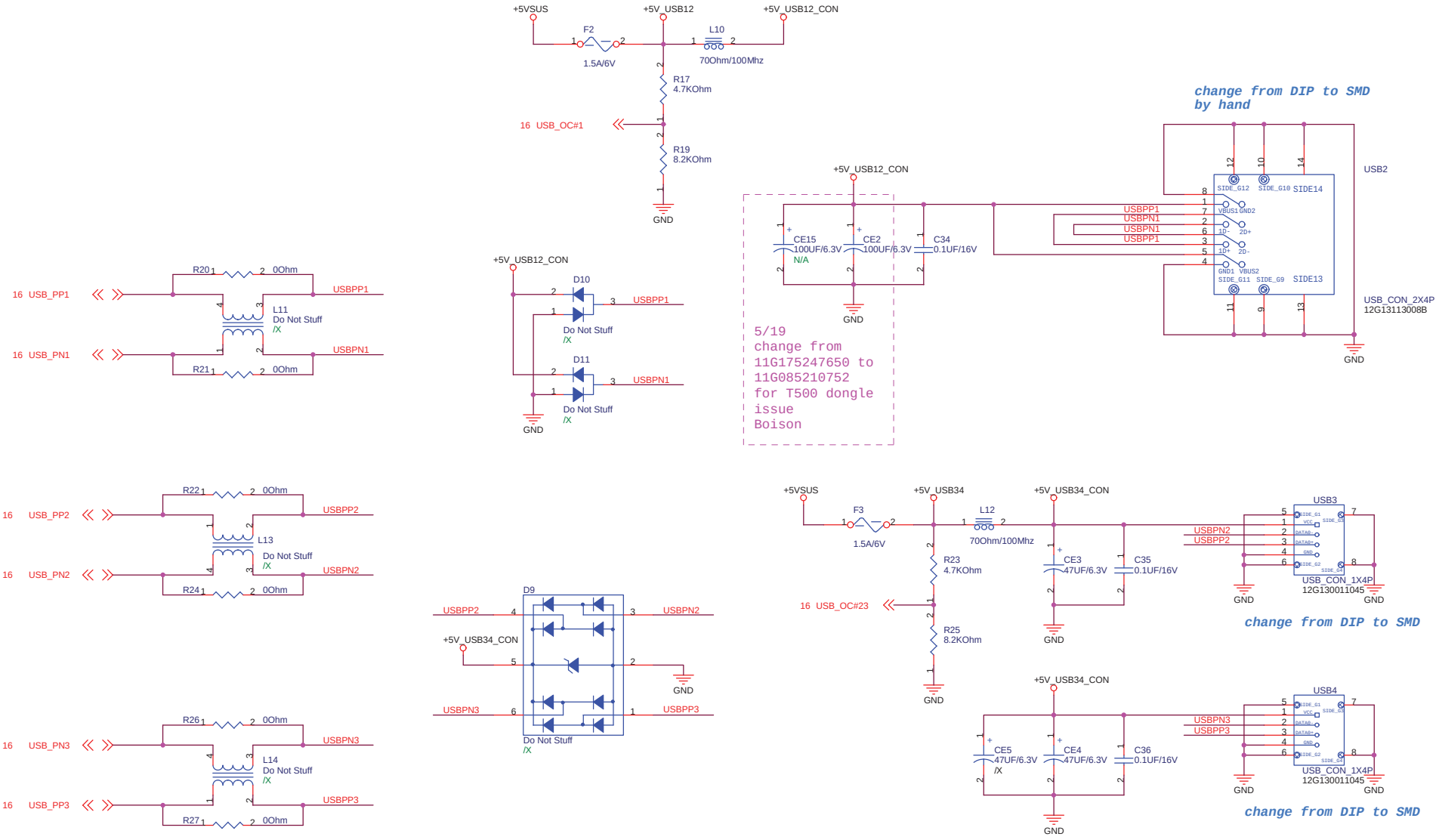
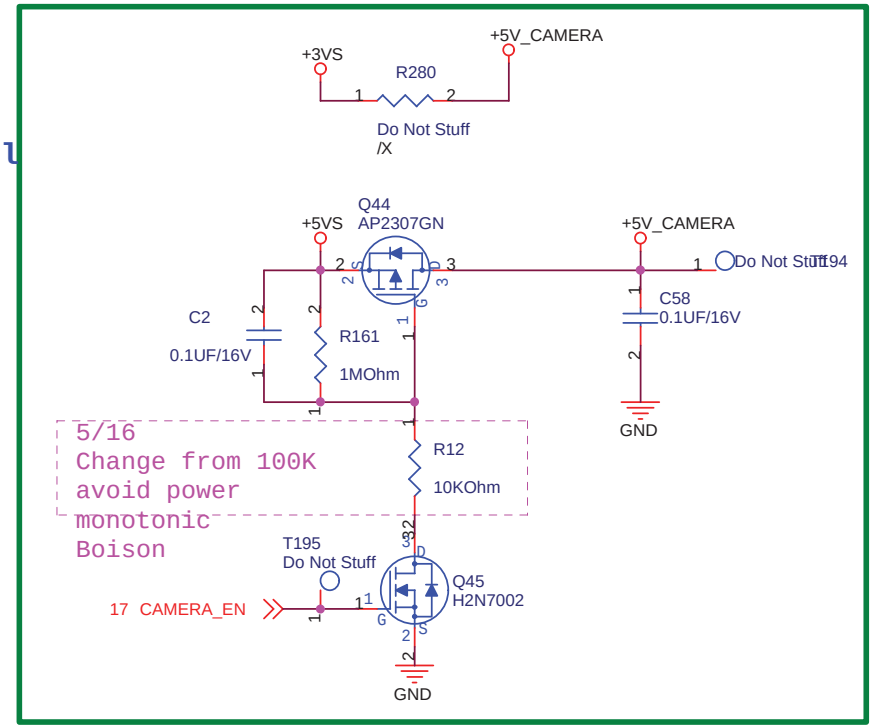
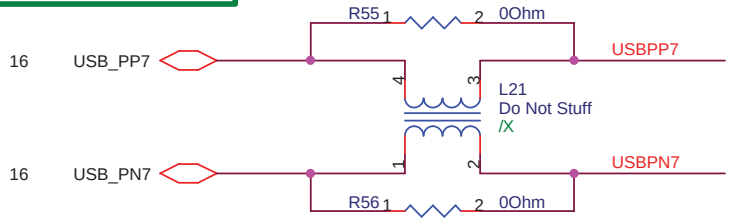


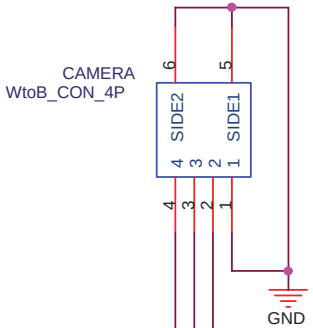
/X

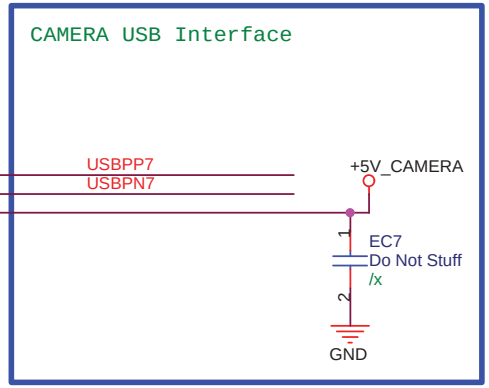
ASUSTek Computer INC.	Title : USB Port	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 27 of 47	

Power Control



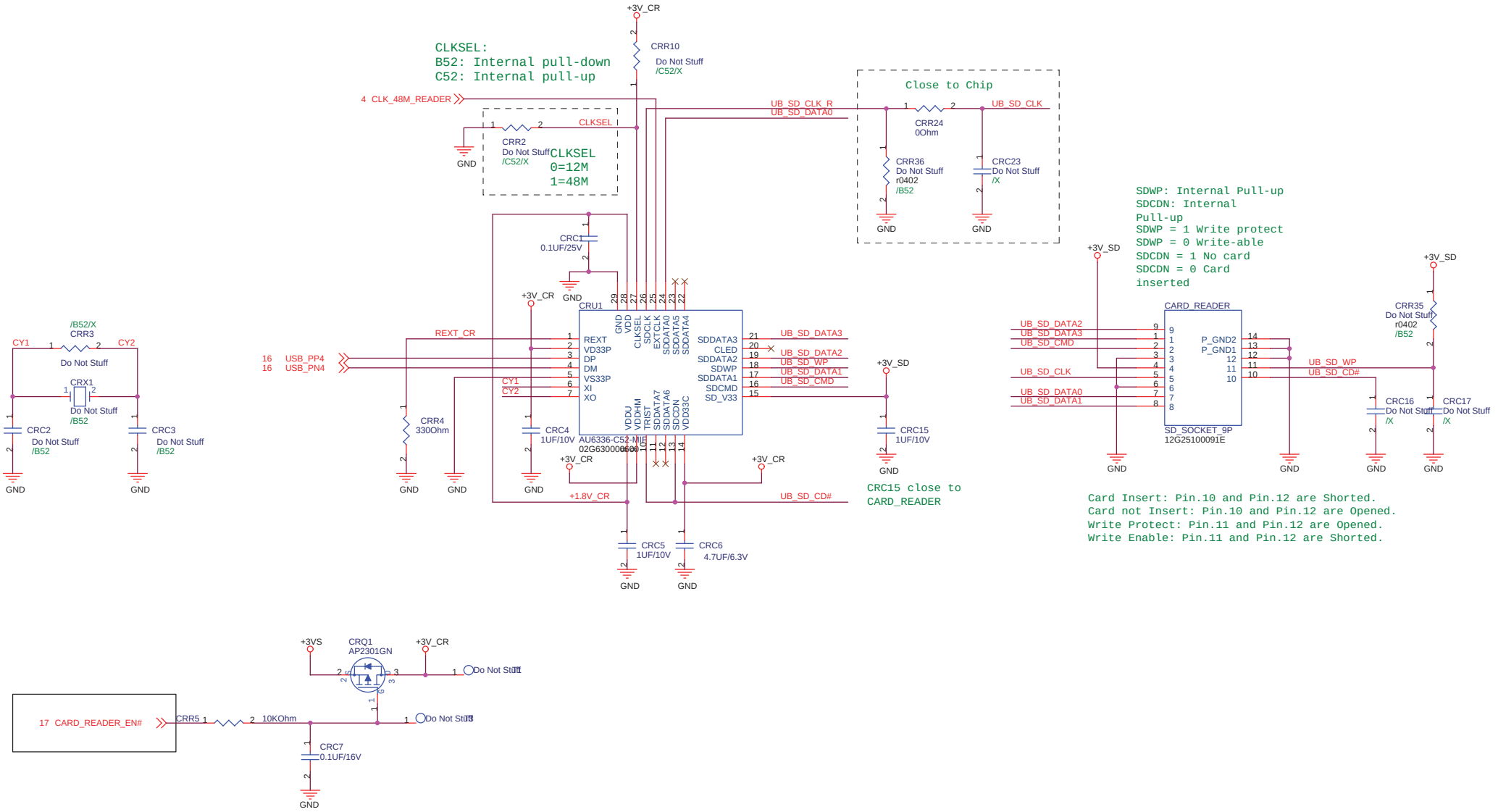






/X

ASUSTek Computer INC.	Title : Camera Power	
	Engineer: Kell_Huang	
Size: A4	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 28 of 47	



/X

ASUSTek Computer Inc.	Title : AU6336-C52	
	Engineer: Boison Hung	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 29 of 50	

Change Note
1. Remove AR34, AR63 for cost down
2. Add +5VS_AUDIO shut_down control
3. Remove net name +3VS_AUDIO
4. Add diagram for power sequence requirement

Return Path

OP_SD#: Controlled by EC to power down Class-D speaker amp.

PD#: Internal Pull-up 50K to +3V

Analog: Pin.13~Pin.38
Digital: Pin.1~Pin.12
and Pin.39~Pin.48

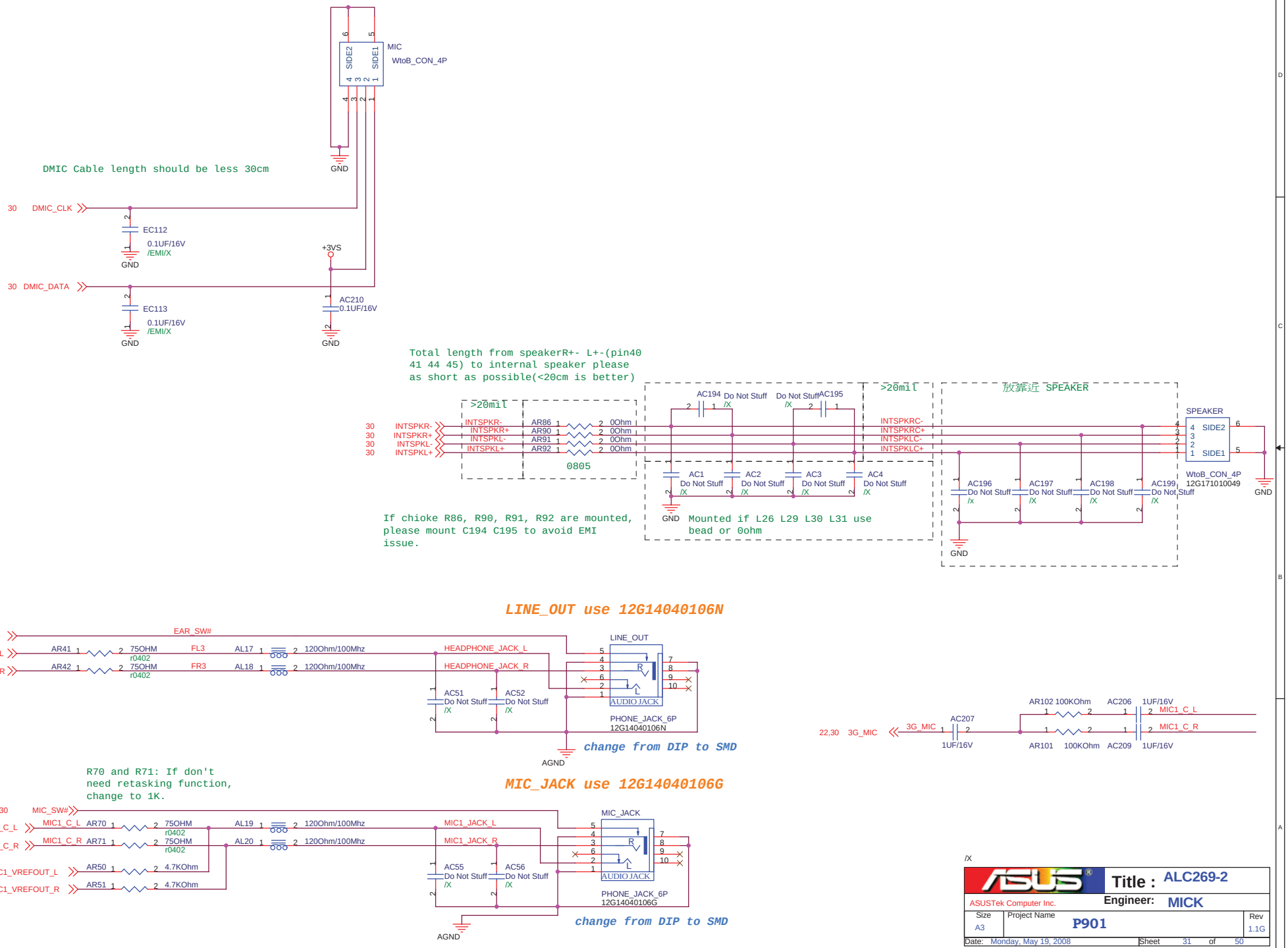
Audio power sequence requirement

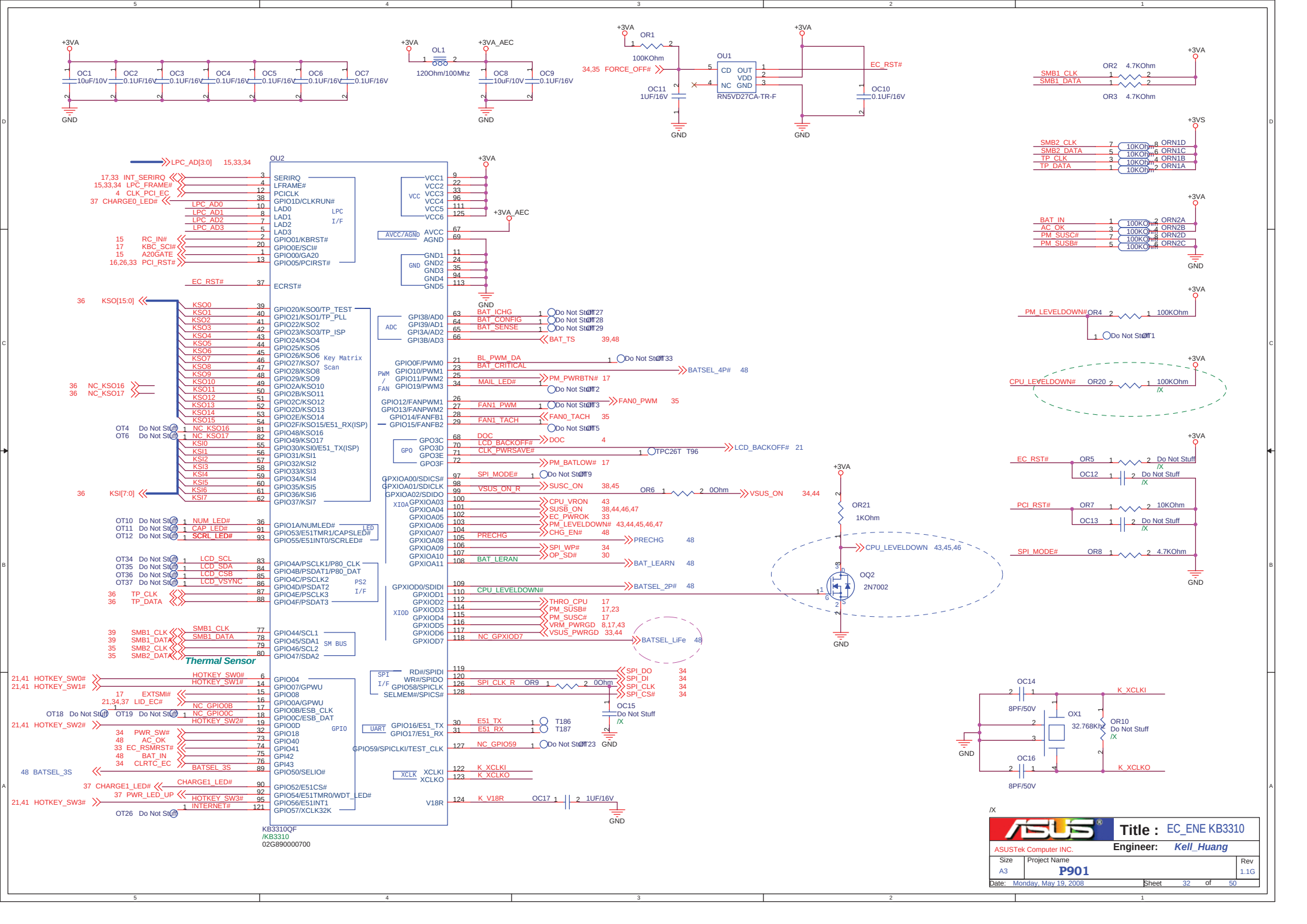
Need 4.7u/10v X5R to prevent poor THD+N

Vout=0.8*(1+(49.9K/10.2K))

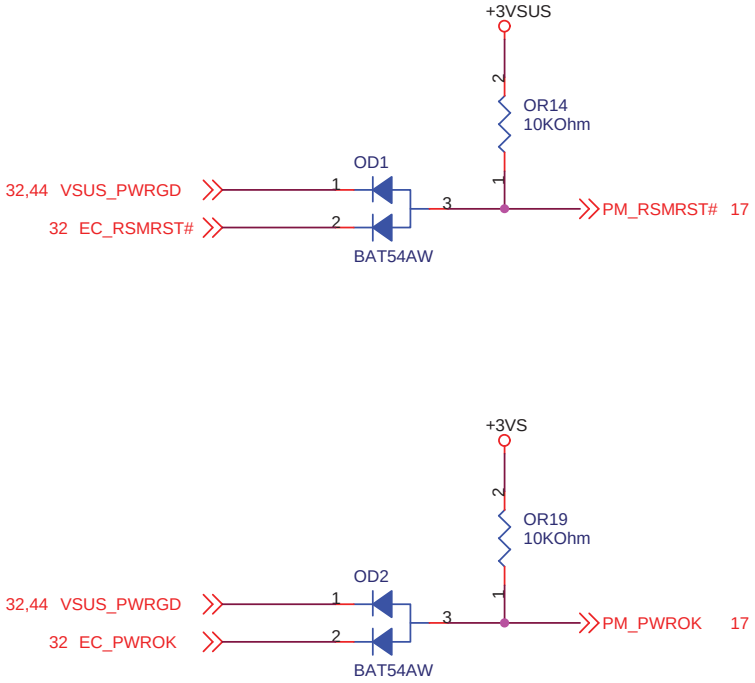
For Audio Noise Issue

Title :	ALC269-1
ASUSTek Computer Inc.	Engineer: Mick
Size: A3	Project Name: P901
Rev: 1.1G	
Date: Monday, May 19, 2008	Sheet 30 of 50

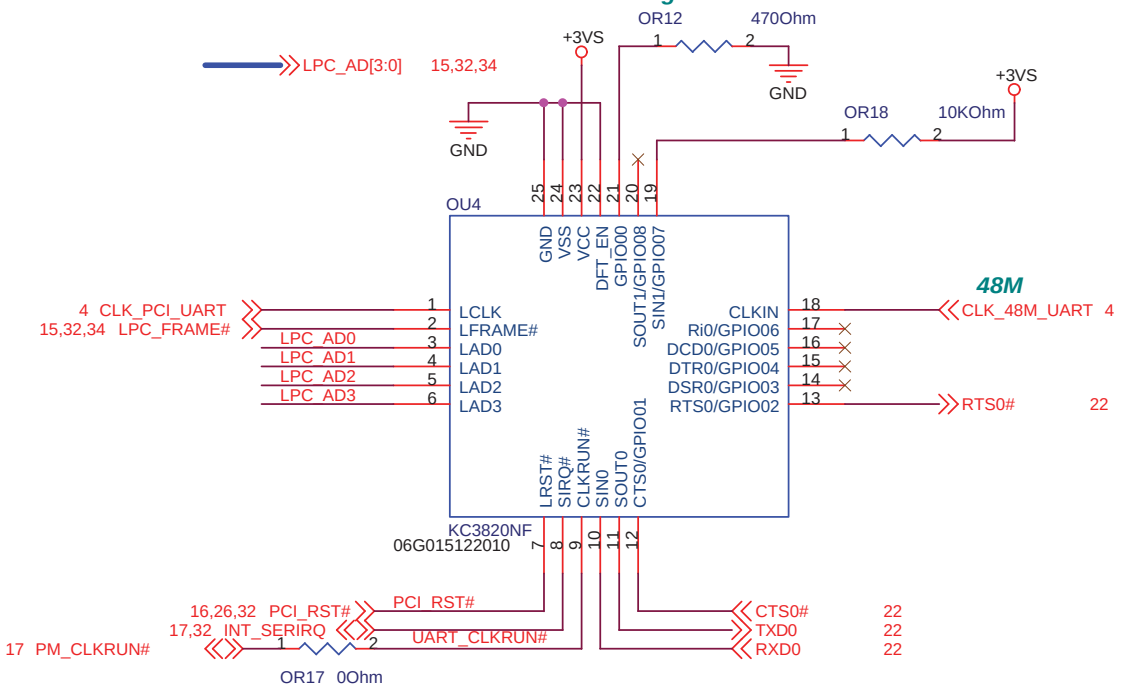

MIC
WtoB_CON_4P
SIDE2
SIDE1
GND
DMIC Cable length should be less 30cm
30 DMIC_CLK
EC112
0.1UF/16V
/EMI/X
+3VS
30 DMIC_DATA
EC113
AC210
0.1UF/16V
Total length from speakerR+- L+-(pin40 41 44 45) to internal speaker please as short as possible(<20cm is better)
>20mil
INTSPKR-
INTSPKR+
INTSPKL-
INTSPKL+
AR86 AR90 AR91 AR92 0Ohm
0805
AC194 Do Not Stuff /X
AC195 Do Not Stuff /X
AC1 AC2 AC3 AC4 Do Not Stuff /X
INTSPKRC-
INTSPKRC+
INTSPKLC-
INTSPKLC+
放靠近 SPEAKER
SPEAKER
AC196 AC197 AC198 AC199 Do Not Stuff /X
WtoB_CON_4P
12G171010049
If chioke R86, R90, R91, R92 are mounted, please mount C194 C195 to avoid EMI issue.
Mounted if L26 L29 L30 L31 use bead or 0ohm
LINE_OUT use 12G14040106N
EAR_SW#
HEADPHONE_L
HEADPHONE_R
AR41 AR42 75OHM r0402
FL3 FR3
AL17 AL18 120Ohm/100Mhz
HEADPHONE_JACK_L
HEADPHONE_JACK_R
LINE_OUT
AC51 AC52 Do Not Stuff /X
AUDIO JACK
PHONE_JACK_6P
12G14040106N
AGND
change from DIP to SMD
22,30 3G_MIC
AC207
1UF/16V
AR102 100KOhm
AR101 100KOhm
AC206 AC209 1UF/16V
MIC1_C_L
MIC1_C_R
R70 and R71: If don't need retasking function, change to 1K.
MIC_SW#
MIC1_C_L
MIC1_C_R
AR70 AR71 75OHM r0402
AL19 AL20 120Ohm/100Mhz
AR50 AR51 4.7KOhm
MIC1_VREFOUT_L
MIC1_VREFOUT_R
MIC_JACK
MIC1_JACK_L
MIC1_JACK_R
AC55 AC56 Do Not Stuff /X
PHONE_JACK_6P
12G14040106G
MIC_JACK use 12G14040106G
change from DIP to SMD
/X
Title : ALC269-2
ASUSTek Computer Inc.
Engineer: MICK
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 31 of 50


OC1 10uF/10V
OC2 0.1UF/16V
OC3 0.1UF/16V
OC4 0.1UF/16V
OC5 0.1UF/16V
OC6 0.1UF/16V
OC7 0.1UF/16V
OL1 120Ohm/100Mhz
OC8 10uF/10V
OC9 0.1UF/16V
OR1 100KOhm
OC11 1UF/16V
OU1 RN5VD27CA-TR-F
OC10 0.1UF/16V
EC_RST#
34,35 FORCE_OFF#
OR2 4.7KOhm
OR3 4.7KOhm
SMB1_CLK
SMB1_DATA
SMB2_CLK
SMB2_DATA
TP_CLK
TP_DATA
10KOhm
ORN1D
ORN1C
ORN1B
ORN1A
BAT_IN
AC_OK
PM_SUSC#
PM_SUSB#
100KOhm
ORN2A
ORN2B
ORN2D
ORN2C
PM_LEVELDOWN#
OR4 100KOhm
CPU_LEVELDOWN#
OR20 100KOhm
/X
EC_RST#
OR5 Do Not Stuff
OC12 Do Not Stuff
PCI_RST#
OR7 10KOhm
OC13 Do Not Stuff
SPI_MODE#
OR8 4.7KOhm
OR21 1KOhm
OQ2 2N7002
CPU_LEVELDOWN 43,45,46
OC14 8PF/50V
OC16 8PF/50V
OX1 32.768KHz
OR10 Do Not Stuff
/X
K_XCLKI
K_XCLKO
LPC_AD[3:0] 15,33,34
OU2
SERIRQ
LFRAME#
PCICLK
GPIO1D/CLKRUN#
LAD0
LAD1
LAD2
LAD3
LPC I/F
GPIO01/KBRST#
GPIO0E/SCI#
GPIO00/GA20
GPIO05/PCIRST#
ECRST#
KSO[15:0]
KSO0
KSO1
KSO2
KSO3
KSO4
KSO5
KSO6
KSO7
KSO8
KSO9
KSO10
KSO11
KSO12
KSO13
KSO14
KSO15
Key Matrix Scan
NC_KSO16
NC_KSO17
KSI[7:0]
KSI0
KSI1
KSI2
KSI3
KSI4
KSI5
KSI6
KSI7
GPIO20/KSO0/TP_TEST
GPIO21/KSO1/TP_PLL
GPIO22/KSO2
GPIO23/KSO3/TP_ISP
GPIO24/KSO4
GPIO25/KSO5
GPIO26/KSO6
GPIO27/KSO7
GPIO28/KSO8
GPIO29/KSO9
GPIO2A/KSO10
GPIO2B/KSO11
GPIO2C/KSO12
GPIO2D/KSO13
GPIO2E/KSO14
GPIO2F/KSO15/E51_RX(ISP)
GPIO48/KSO16
GPIO49/KSO17
GPIO30/KSI0/E51_TX(ISP)
GPIO31/KSI1
GPIO32/KSI2
GPIO33/KSI3
GPIO34/KSI4
GPIO35/KSI5
GPIO36/KSI6
GPIO37/KSI7
NUM_LED#
CAP_LED#
SCRL_LED#
GPIO1A/NUMLED#
GPIO53/E51TMR1/CAPSLED#
GPIO55/E51INT0/SCRLED#
LED
LCD_SCL
LCD_SDA
LCD_CSB
LCD_VSYNC
TP_CLK
TP_DATA
GPIO4A/PSCLK1/P80_CLK
GPIO4B/PSDAT1/P80_DAT
GPIO4C/PSCLK2
GPIO4D/PSDAT2
GPIO4E/PSCLK3
GPIO4F/PSDAT3
PS2 I/F
SMB1_CLK
SMB1_DATA
SMB2_CLK
SMB2_DATA
GPIO44/SCL1
GPIO45/SDA1
GPIO46/SCL2
GPIO47/SDA2
SM BUS
Thermal Sensor
HOTKEY_SW0#
HOTKEY_SW1#
HOTKEY_SW2#
HOTKEY_SW3#
EXTSMI#
LID_EC#
NC_GPIO0B
NC_GPIO0C
PWR_SW#
AC_OK
EC_RSMRST#
BAT_IN
CLRTC_EC
BATSEL_3S
CHARGE1_LED#
PWR_LED_UP
INTERNET#
GPIO04
GPIO07/GPWU
GPIO08
GPIO0A/GPWU
GPIO0B/ESB_CLK
GPIO0C/ESB_DAT
GPIO0D
GPIO18
GPIO40
GPIO41
GPIO42
GPIO43
GPIO50/SELIO#
GPIO52/E51CS#
GPIO54/E51TMR0/WDT_LED#
GPIO56/E51INT1
GPIO57/XCLK32K
GPIO
GPIO59/SPICLKI/TEST_CLK
KB3310QF
/KB3310
02G890000700
VCC1
VCC2
VCC3
VCC4
VCC5
VCC6
VCC
AVCC/AGND
AVCC
AGND
GND1
GND2
GND3
GND4
GND5
GND
+3VA
+3VA_AEC
GPI38/AD0
GPI39/AD1
GPI3A/AD2
GPI3B/AD3
ADC
BAT_ICHG
BAT_CONFIG
BAT_SENSE
BAT_TS 39,48
GPIO0F/PWM0
GPIO10/PWM1
GPIO11/PWM2
GPIO19/PWM3
PWM / FAN
BL_PWM_DA
BAT_CRITICAL
MAIL_LED#
PM_PWRBTN# 17
GPIO12/FANPWM1
GPIO13/FANPWM2
GPIO14/FANFB1
GPIO15/FANFB2
FAN1_PWM
FAN1_TACH
FAN0_PWM 35
FAN0_TACH 35
GPO3C
GPO3D
GPO3E
GPO3F
GPO
DOC
LCD_BACKOFF#
CLK_PWRSAVE#
TPC26T T96
LCD_BACKOFF# 21
PM_BATLOW# 17
GPIXOA00/SDICS#
GPIXOA01/SDICLK
GPIXOA02/SDIDO
XIOA
SPI_MODE#
SUSC_ON 38,45
VSUS_ON_R
OR6 0Ohm
VSUS_ON 34,44
GPIXOA03
GPIXOA04
GPIXOA05
GPIXOA06
GPIXOA07
GPIXOA08
GPIXOA09
GPIXOA10
GPIXOA11
CPU_VRON 43
SUSB_ON 38,44,46,47
EC_PWROK 33
PM_LEVELDOWN# 43,44,45,46,47
CHG_EN# 48
PRECHG 48
SPI_WP# 34
OP_SD# 30
BAT_LERAN
BAT_LEARN 48
GPXIOD0/SDIDI
GPXIOD1
GPXIOD2
GPXIOD3
GPXIOD4
GPXIOD5
GPXIOD6
GPXIOD7
XIOD
CPU_LEVELDOWN#
BATSEL_2P# 48
THRO_CPU 17
PM_SUSB# 17,23
PM_SUSC# 17
VRM_PWRGD 8,17,43
VSUS_PWRGD 33,44
NC_GPXIOD7
BATSEL_LiFe 48
RD#/SPIDI
WR#/SPIDO
GPIO58/SPICLK
SELMEM#/SPICS#
SPI I/F
SPI_CLK_R
OR9 0Ohm
SPI_DO 34
SPI_DI 34
SPI_CLK 34
SPI_CS# 34
OC15 Do Not Stuff /X
E51_TX
E51_RX
T186
T187
UART
GPIO16/E51_TX
GPIO17/E51_RX
NC_GPIO59
XCLKI
XCLKO
V18R
OC17 1UF/16V
Title : EC_ENE KB3310
ASUSTek Computer INC.
Engineer: Kell_Huang
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 32 of 50

R1.2G to resolve auto-boot issue



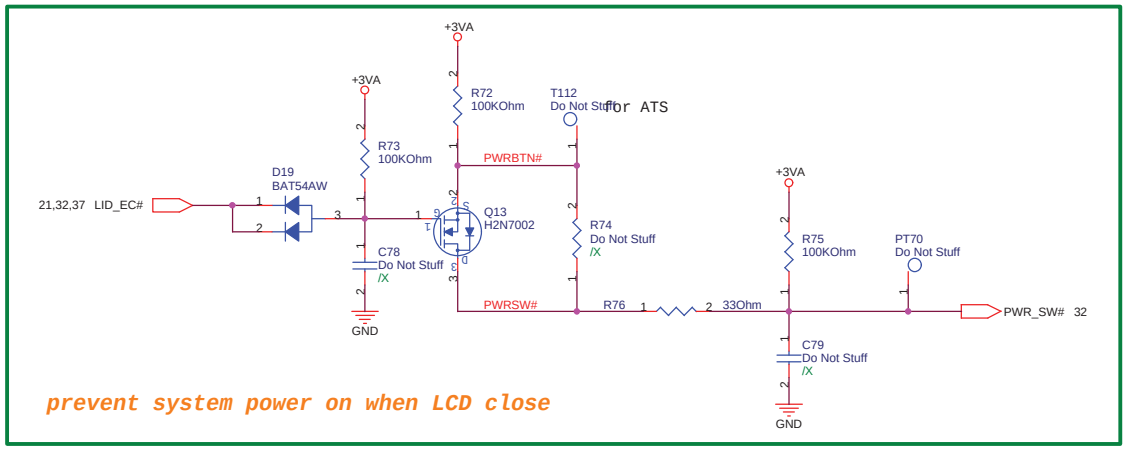
GPIO00
Hardware strap(internal pull-high)
Low:4E 4F
High:2E 2F

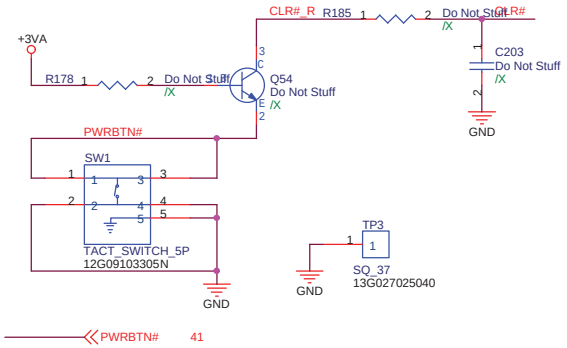


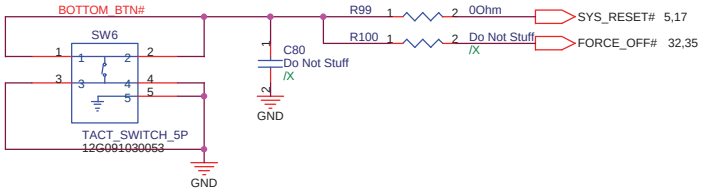
UART Control IC for using GPS module due to no UART on ENE EC

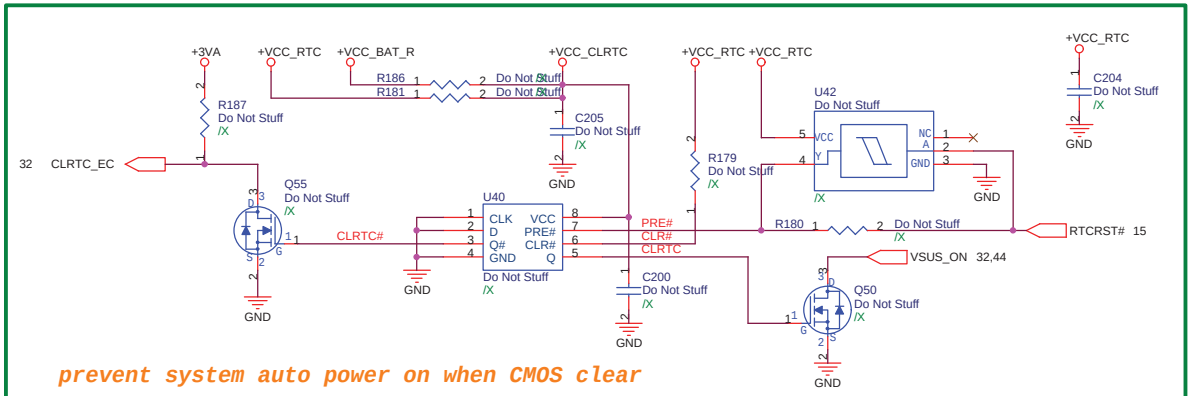
/X

ASUSTek Computer INC.	Title : EC_UART_KC3820	
	Engineer: Kell_Huang	
Size: A4	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 33 of 50	

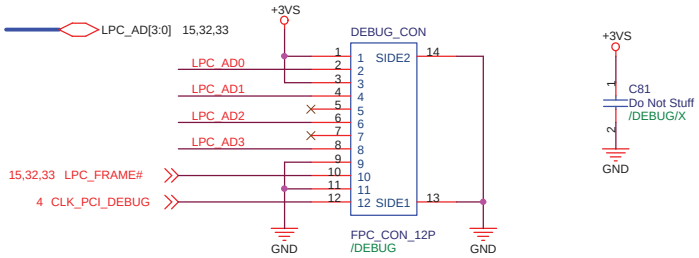




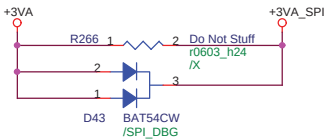


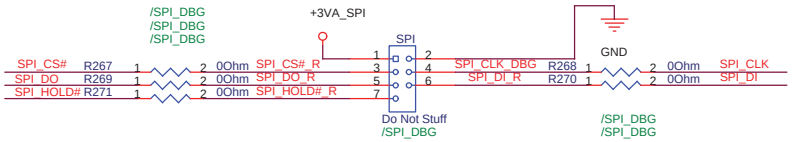


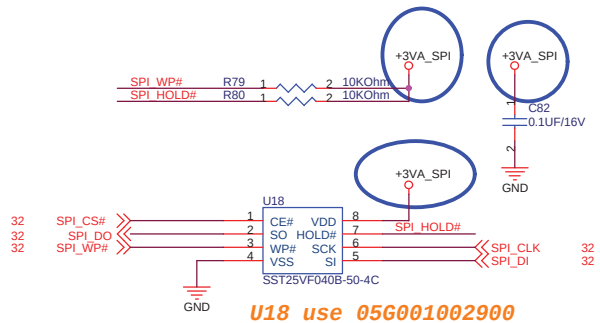
For Debug



Debug Card cable use Z96 Touch Pad cable, P/N: 14G124110126, 14G124110120, 14G124110121 14G124110124, 14G124110125







U18 use 05G001002900 & 05G00100F130

/X

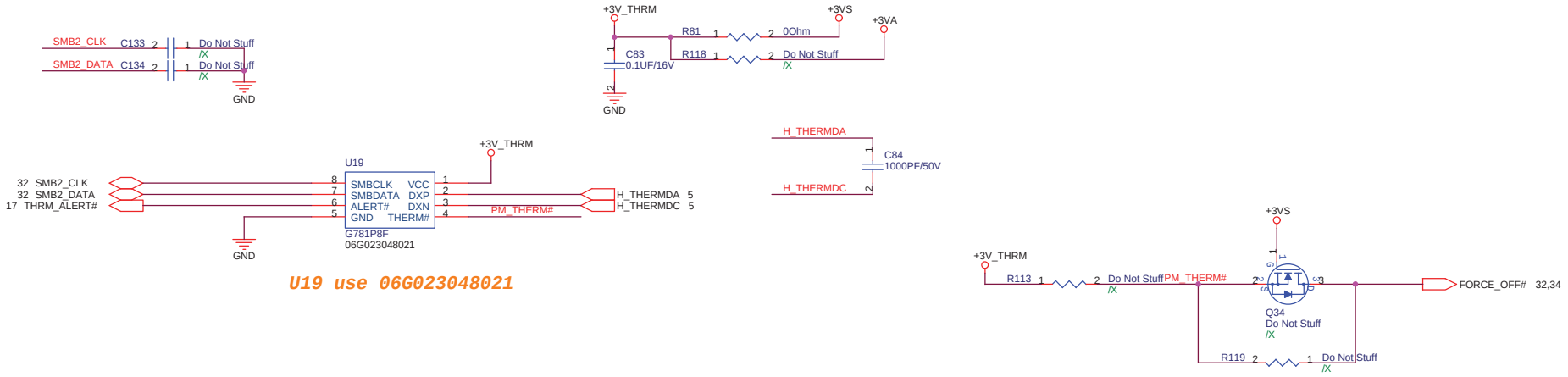
ASUSTek Computer INC.

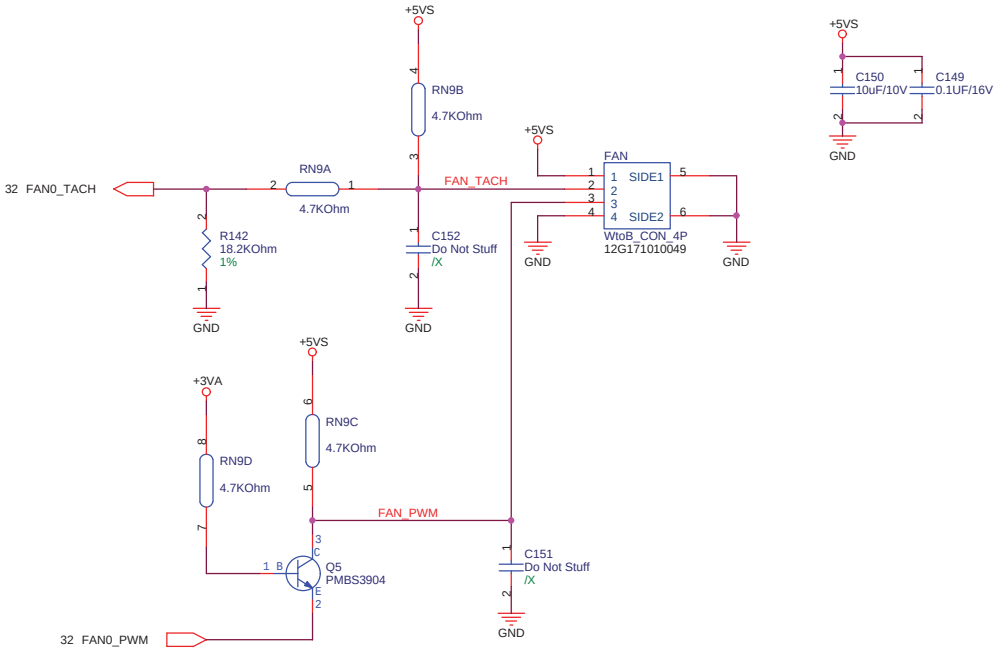
Title : Switch_SPI ROM_Debug

Engineer: Kell_Huang

Size	Project Name	Rev
A3	P901	1.1G

Date: Monday, May 19, 2008 Sheet 34 of 47

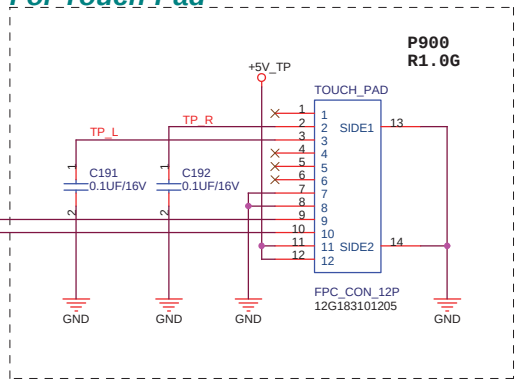


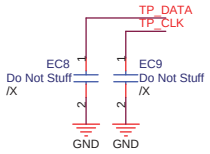


/X

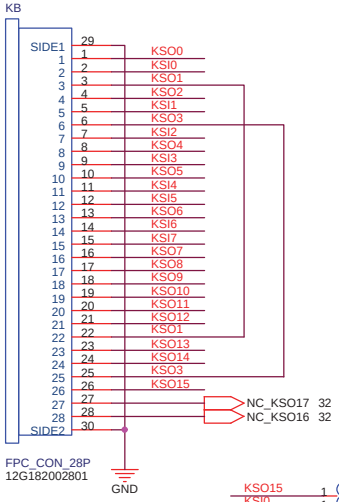
ASUSTek Computer INC.	Title : Thermal Sensor_FAN	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 35 of 47	

For Touch-Pad

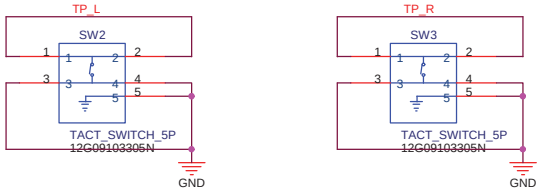


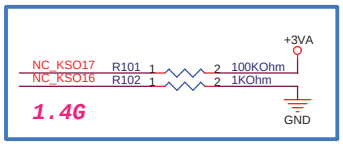


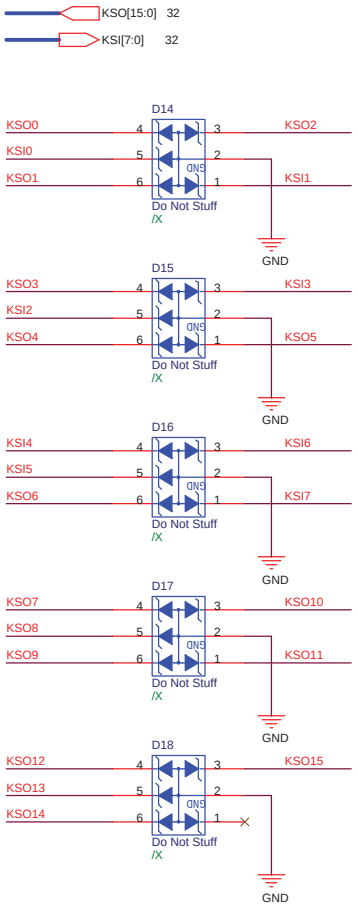
For Keyboard Connector

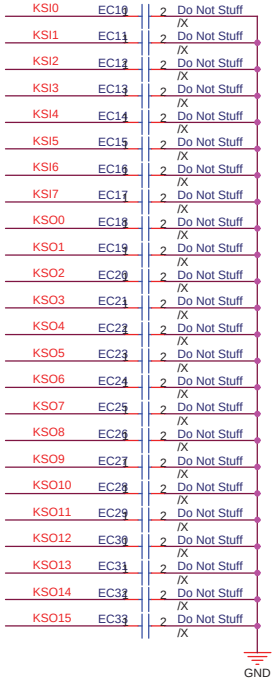


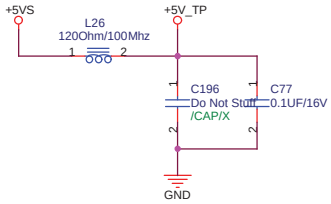
SW2, SW3 use 12G09103305N

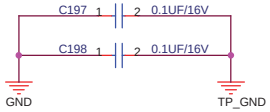


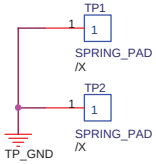








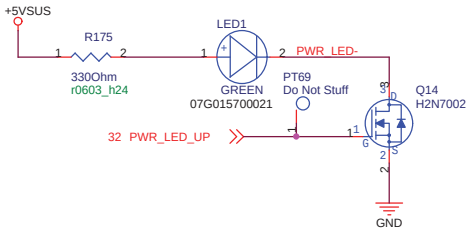




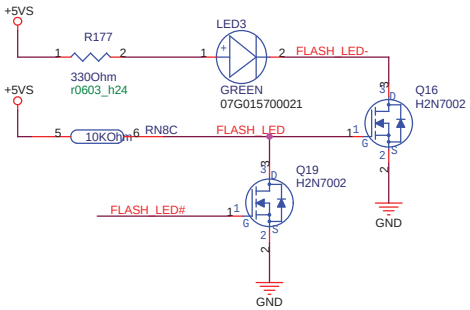
/X

ASUSTek Computer INC.	Title : KB_Touch Pad	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 36 of 47	

for POWER LED

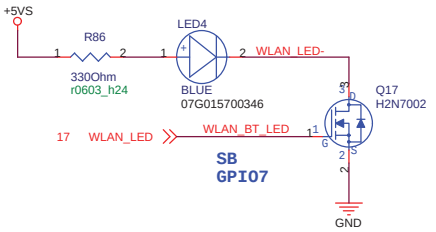


for FLASH LED

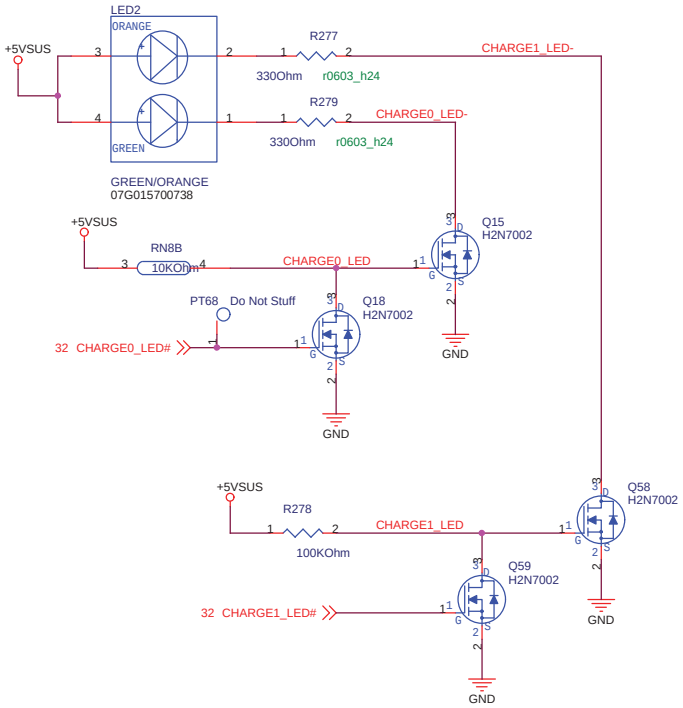


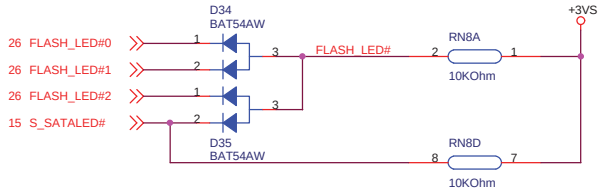
for WLAN/BlueTooth LED

R86 use 4.7K OHm 10G213472003030

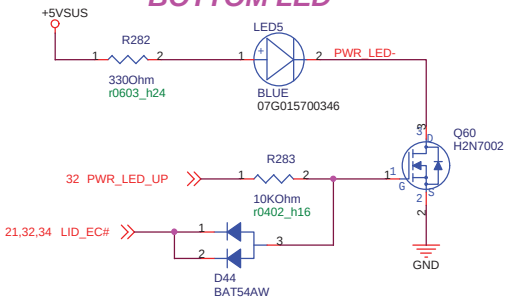


for CHARGE LED



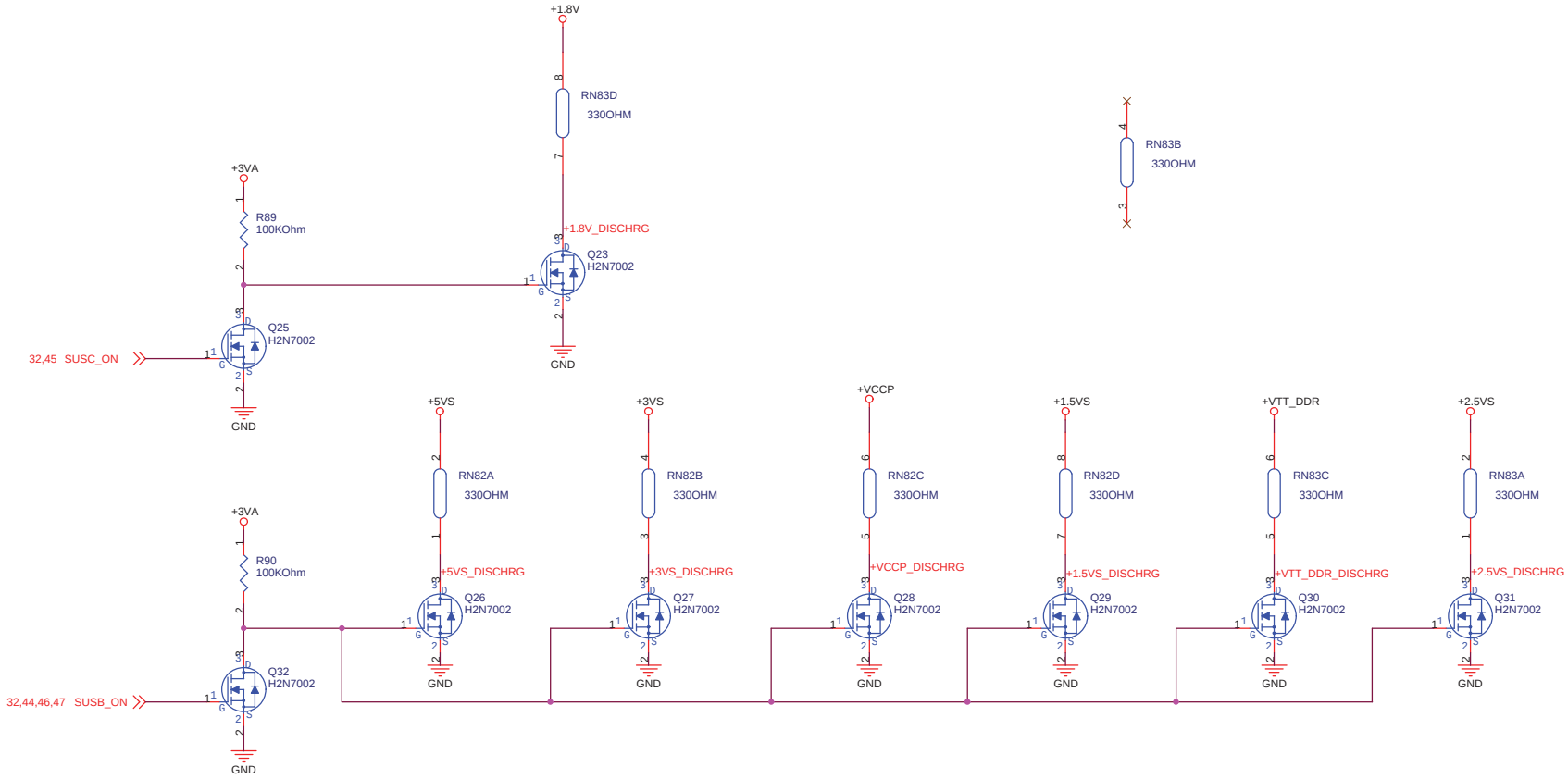


for POWER BOTTOM LED



/X

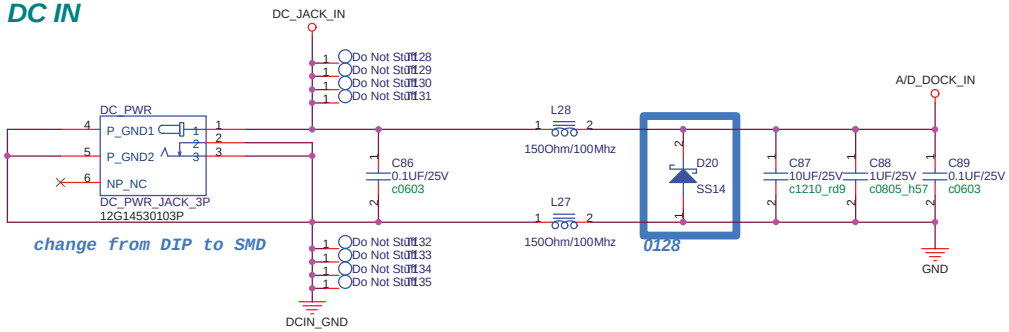
ASUSTek Computer INC.	Title : LED	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 37 of 47	



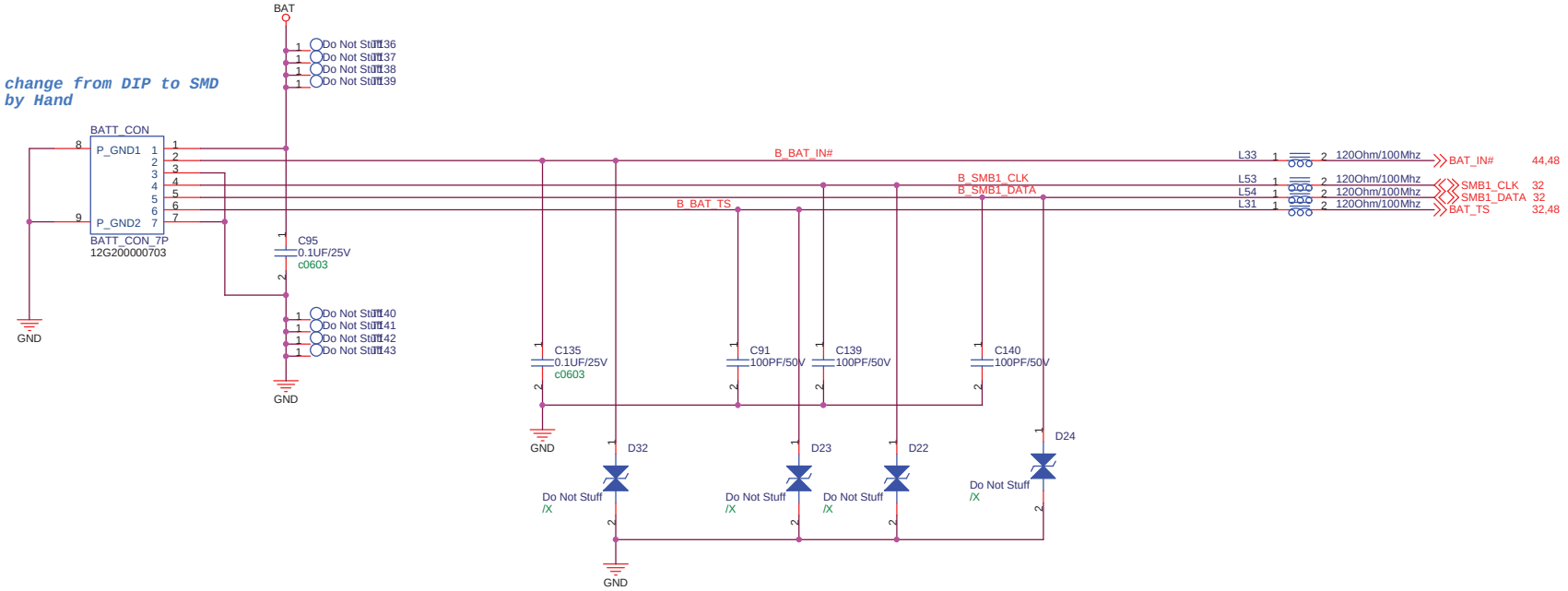
/X

ASUSTek Computer INC.	Title : Discharge	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 38 of 47	

DC IN

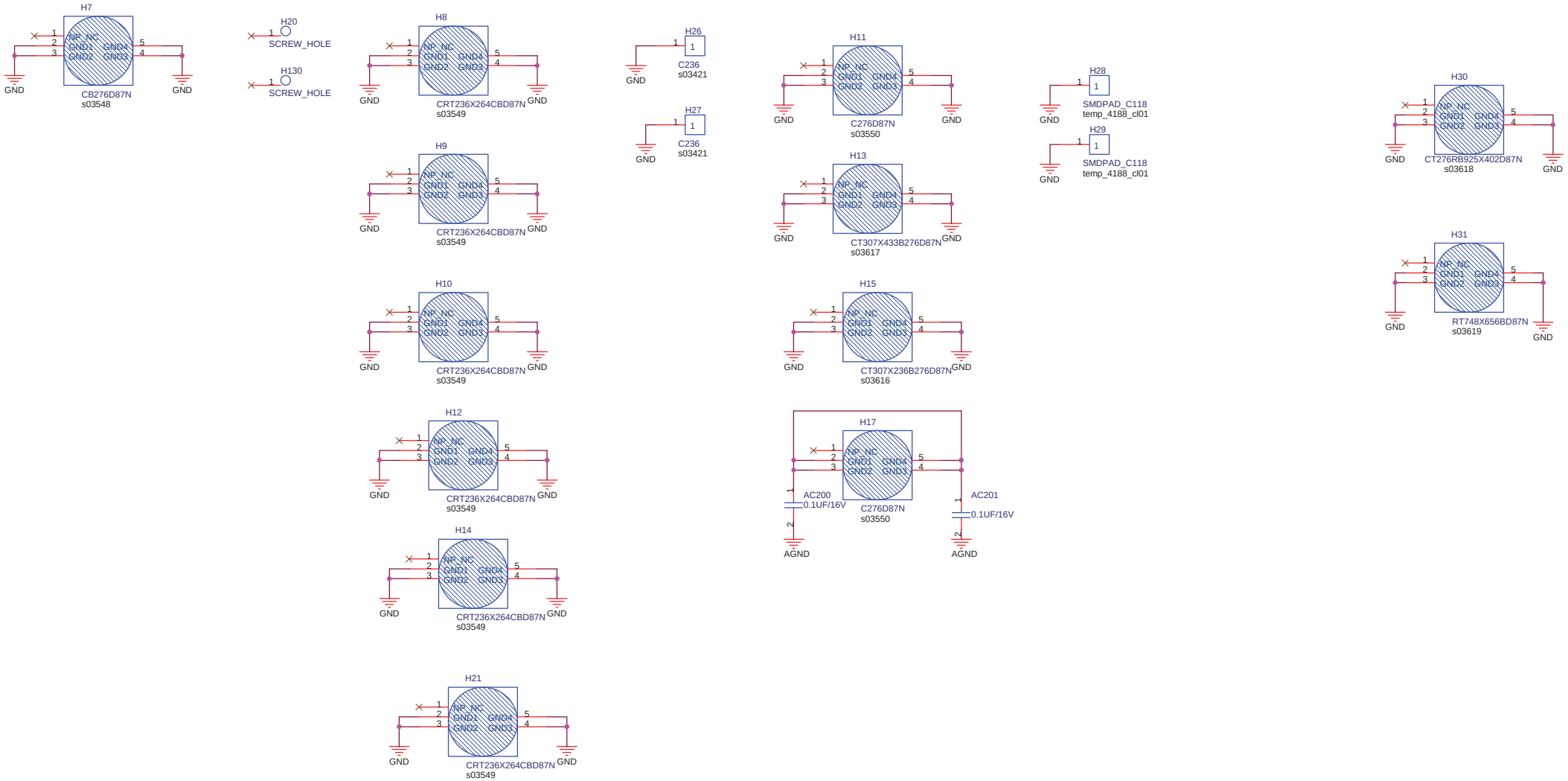


BAT IN



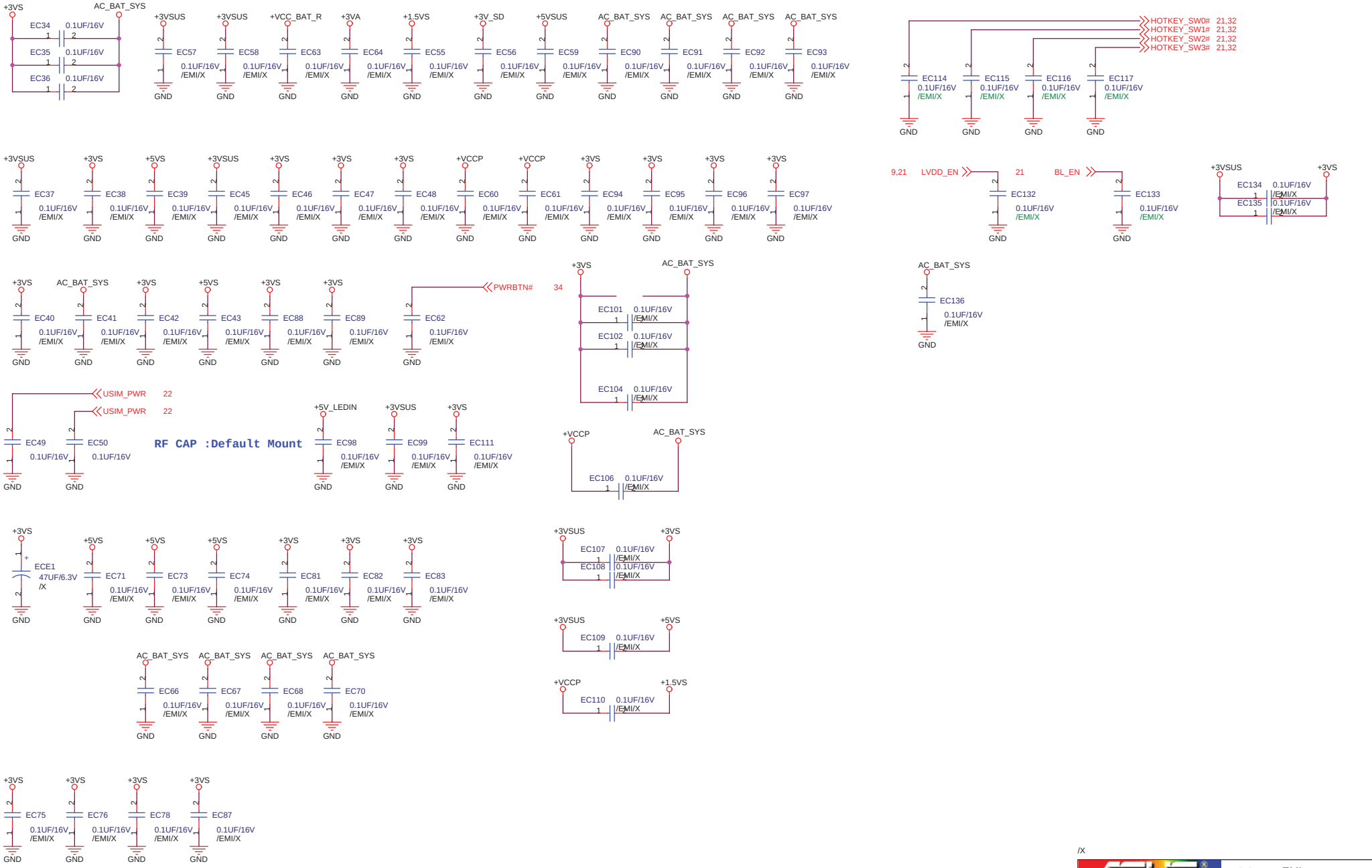
/X

ASUSTek Computer INC.	Title : PWR Jack	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 39 of 47	



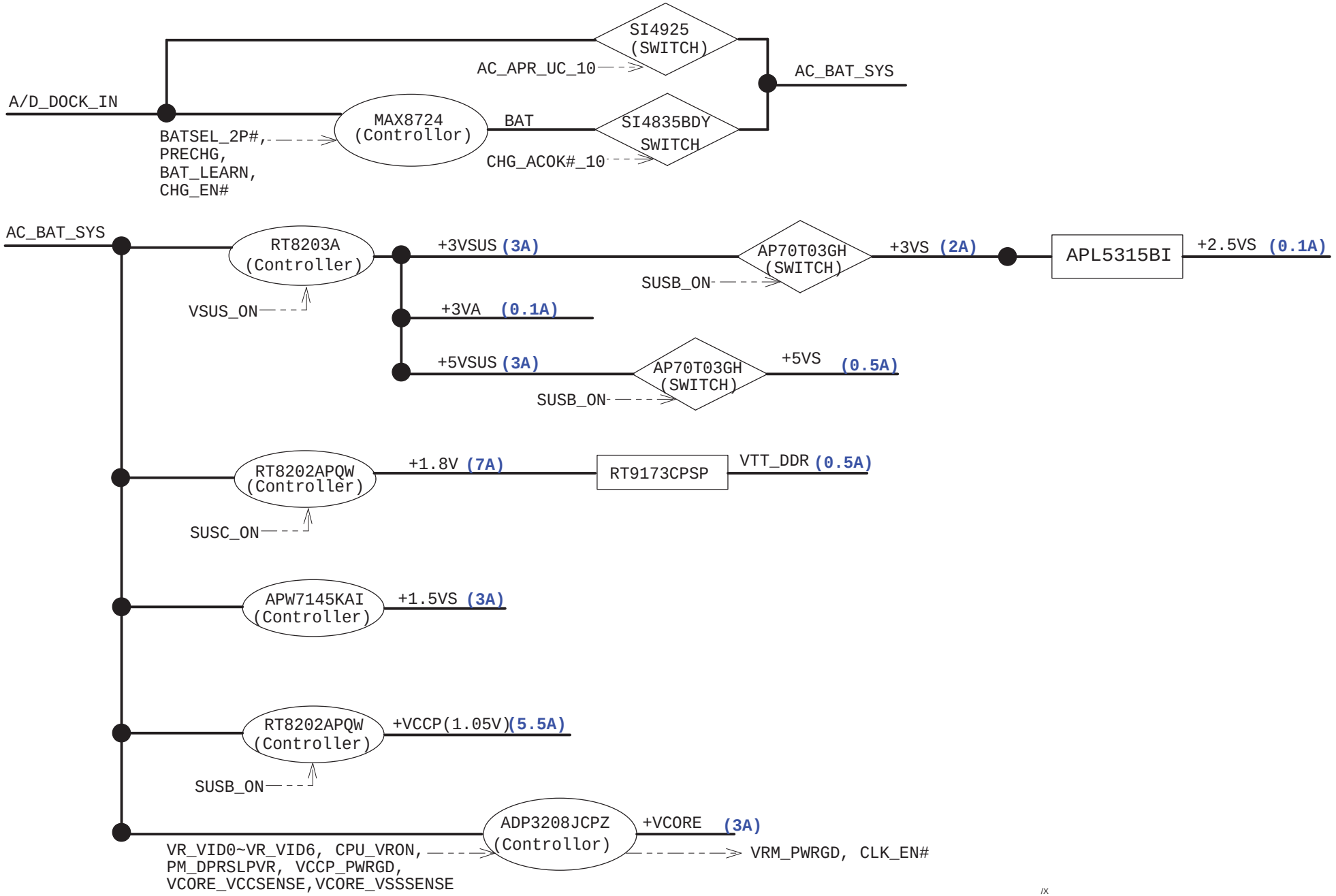
/X

ASUSTek Computer INC.	Title : Srew Hole	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 40 of 47	



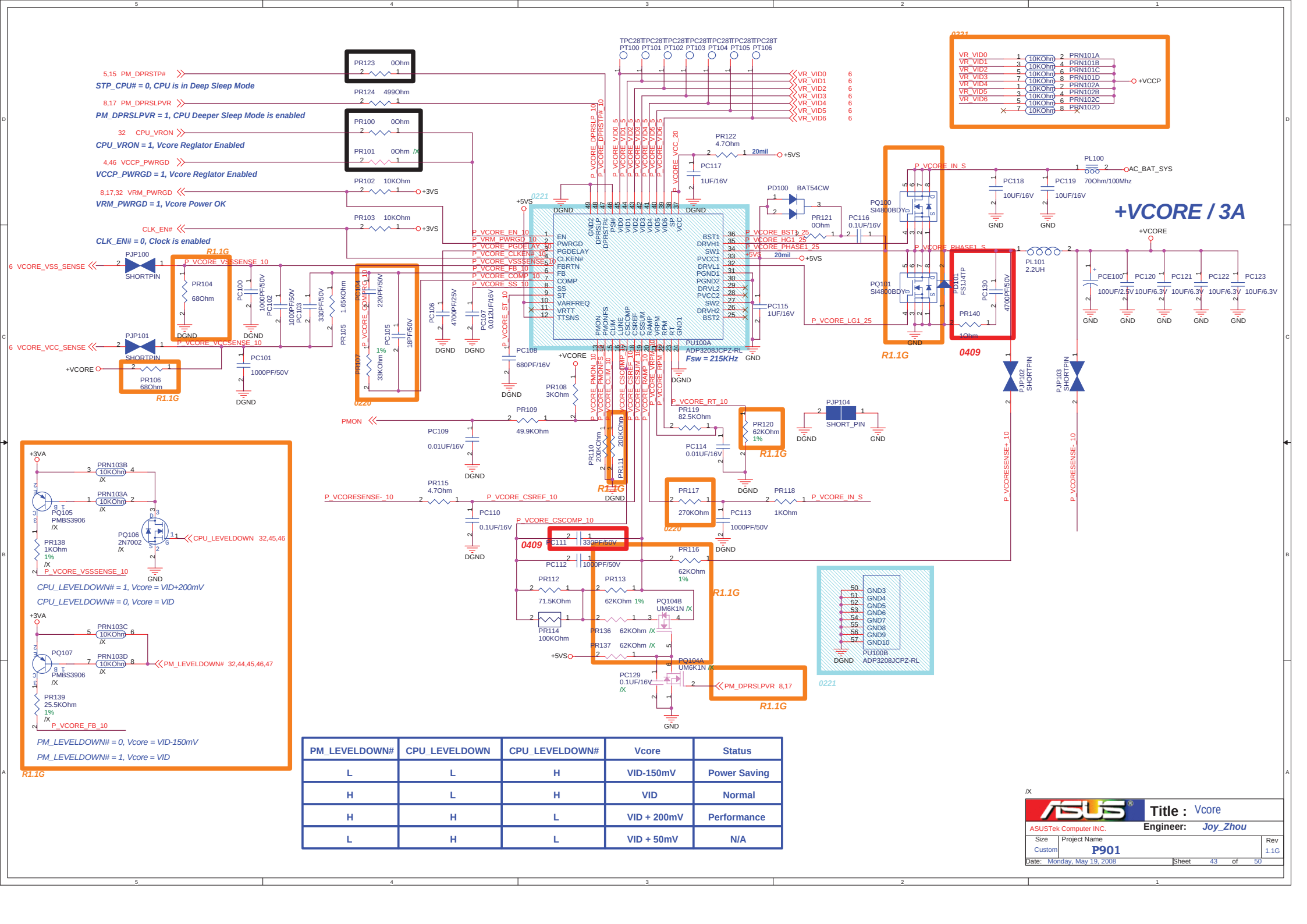
/X

ASUSTek Computer INC.	Title : EMI	
	Engineer: Kell_Huang	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 41 of 47	



/X

ASUSTek Computer INC.	Title : Power Flow	
	Engineer: Joy_Zhou	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 42 of 50	



PM_LEVELDOWN#	CPU_LEVELDOWN	CPU_LEVELDOWN#	Vcore	Status
L	L	H	VID-150mV	Power Saving
H	L	H	VID	Normal
H	H	L	VID + 200mV	Performance
L	H	L	VID + 50mV	N/A

/X

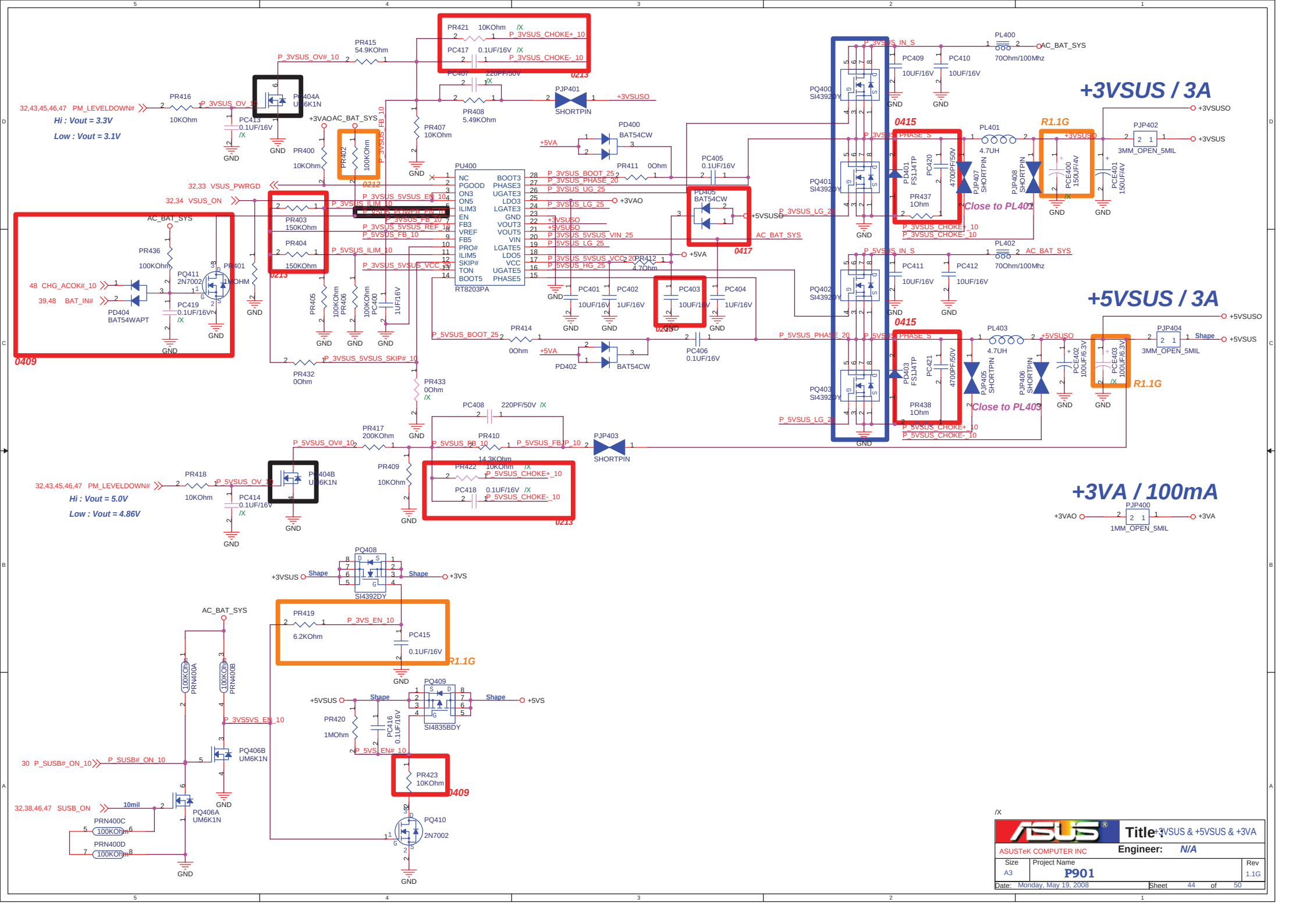
ASUSTek Computer INC.

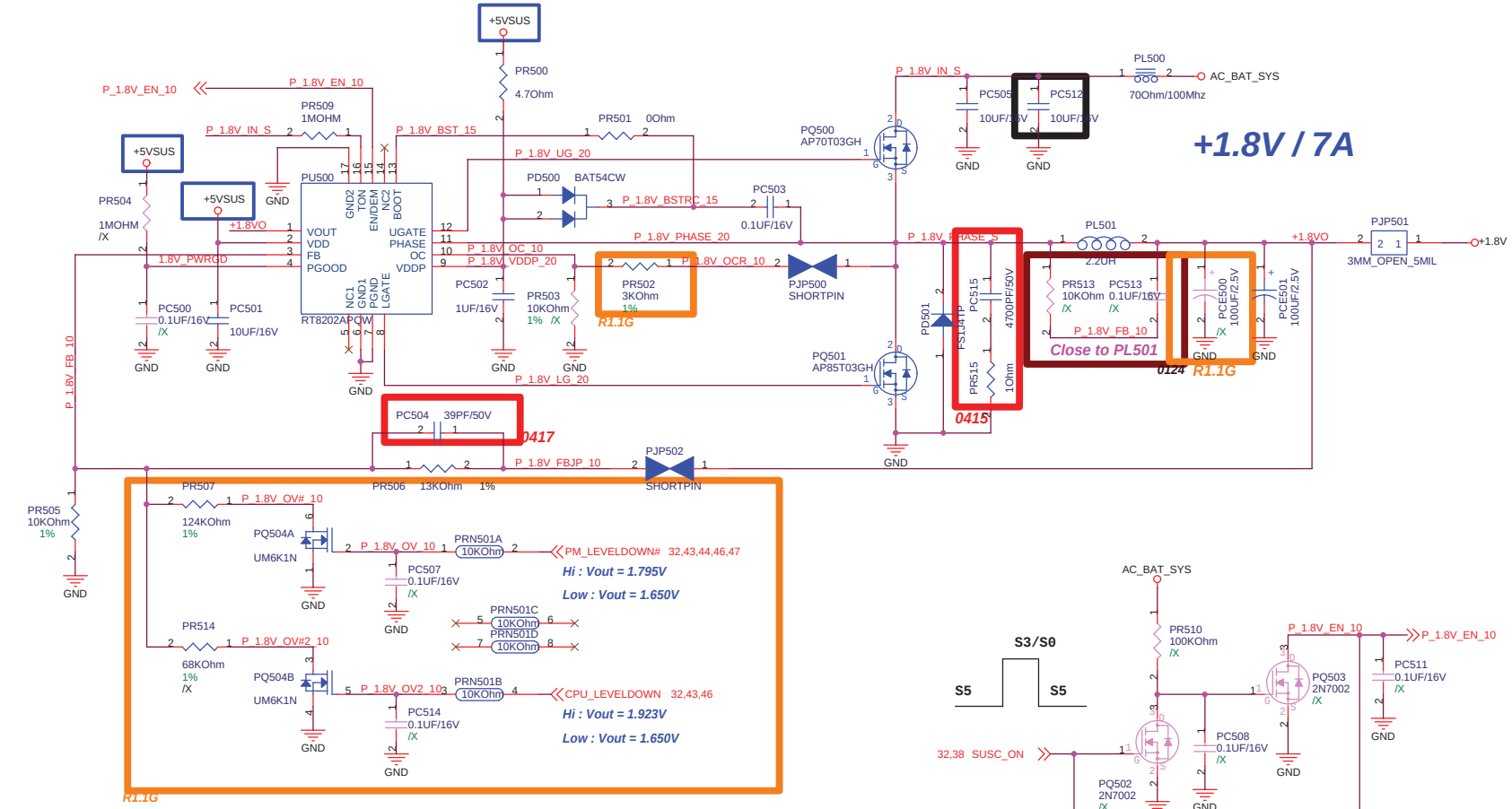
Title : Vcore

Engineer: Joy_Zhou

Size	Project Name	Rev
Custom	P901	1.1G

Date: Monday, May 19, 2008 Sheet 43 of 50

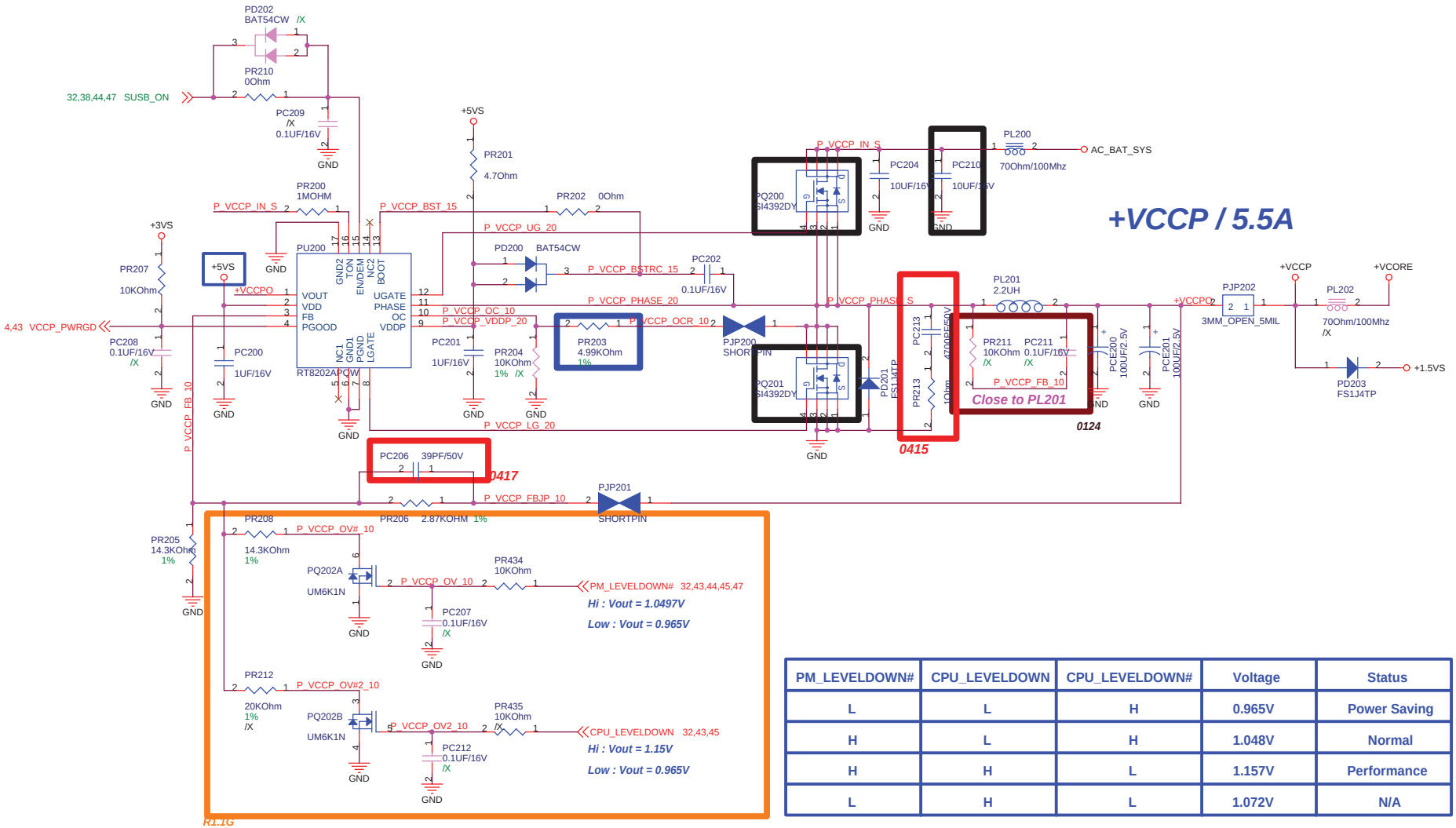

+3VSUS / 3A
+5VSUS / 3A
+3VA / 100mA
Hi : Vout = 3.3V
Low : Vout = 3.1V
Hi : Vout = 5.0V
Low : Vout = 4.86V
Close to PL401
Close to PL403
R1.1G
0409
0212
0213
0415
0417
RT8203PA
PU400
PQ400 SI4392DY
PQ401 SI4392DY
PQ402 SI4392DY
PQ403 SI4392DY
PQ408 SI4392DY
PQ409 SI4835BDY
PQ410 2N7002
PQ411 2N7002
PQ404A UM6K1N
PQ404B UM6K1N
PQ406A UM6K1N
PQ406B UM6K1N
PD400 BAT54CW
PD401 FS1J4TP
PD402 BAT54CW
PD403 FS1J4TP
PD404 BAT54WAPT
PD405 BAT54CW
PJP401 SHORTPIN
PJP402 3MM_OPEN_5MIL
PJP403 SHORTPIN
PJP404 3MM_OPEN_5MIL
PJP400 1MM_OPEN_5MIL
PL400 70Ohm/100Mhz
PL401 4.7UH
PL402 70Ohm/100Mhz
PL403 4.7UH
PRN400A 100KOhm
PRN400B 100KOhm
PRN400C 100KOhm
PRN400D 100KOhm
AC_BAT_SYS
+3VAO
+5VA
+3VSUSO
+3VSUS
+5VSUSO
+5VSUS
+3VS
+5VS
GND
P_3VSUS_OV# 10
P_3VSUS_OV 10
P_3VSUS_ILIM 10
P_3VSUS_EN 10
P_3VSUS_FB 10
P_3VSUS_5VSUS_SKIP# 10
P_3VSUS_BOOT 25
P_3VSUS_PHASE 20
P_3VSUS_UG 25
P_3VSUS_LG 25
P_3VSUS_5VSUS_VIN 25
P_3VSUS_5VSUS_VCC 20
P_3VSUS_HG 25
P_3VSUS_CHOKE+ 10
P_3VSUS_CHOKE- 10
P_5VSUS_OV# 10
P_5VSUS_OV 10
P_5VSUS_ILIM 10
P_5VSUS_FB 10
P_5VSUS_BOOT 25
P_5VSUS_PHASE 20
P_5VSUS_LG 25
P_5VSUS_CHOKE+ 10
P_5VSUS_CHOKE- 10
P_3VS5VS_EN 10
P_5VS_EN# 10
P_SUSB#_ON 10
32,43,45,46,47 PM_LEVELDOWN#
32,33 VSUS_PWRGD
32,34 VSUS_ON
48 CHG_ACOK#_10
39,48 BAT_IN#
30 P_SUSB#_ON_10
32,38,46,47 SUSB_ON
Title: +3VSUS & +5VSUS & +3VA
ASUSTeK COMPUTER INC
Engineer: N/A
Size A3
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 44 of 50



PM_LEVELDOWN#	CPU_LEVELDOWN	CPU_LEVELDOWN#	Voltage	Status
L	L	H	1.650V	Power Saving
H	L	H	1.795V	Normal
H	H	L	1.927V	Performance
L	H	L	1.782V	N/A

/X

ASUSTek Computer INC.	Title : +1.8V & VTTDDR	
	Engineer: Joy_Zhou	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 45 of 50	



PM_LEVELDOWN#	CPU_LEVELDOWN	CPU_LEVELDOWN#	Voltage	Status
L	L	H	0.965V	Power Saving
H	L	H	1.048V	Normal
H	H	L	1.157V	Performance
L	H	L	1.072V	N/A

/X

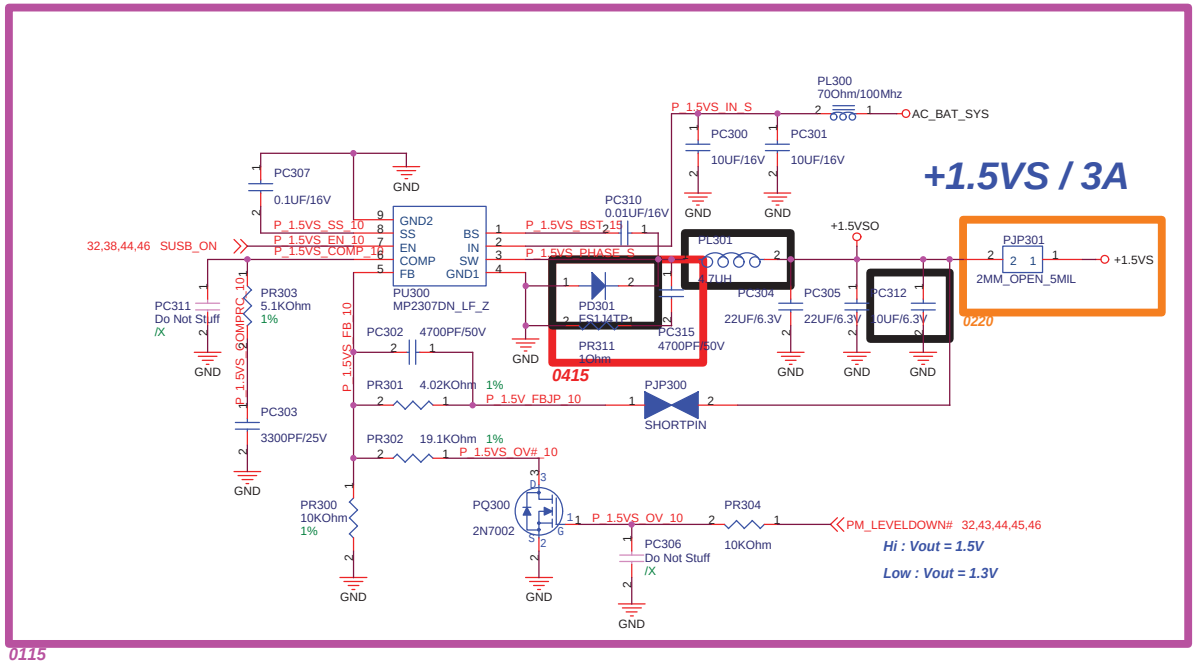
ASUSTek Computer INC.

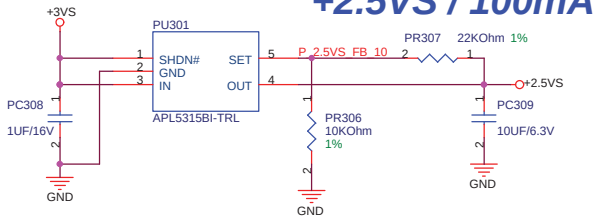
Title : VCCP

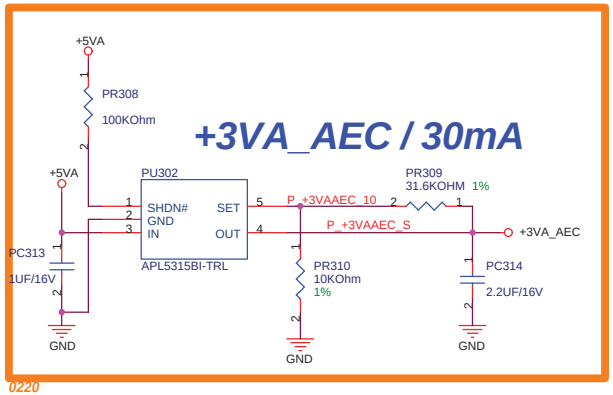
Engineer: Joy_Zhou

Size	Project Name	Rev
A3	P901	1.1G

Date: Monday, May 19, 2008 Sheet 46 of 50

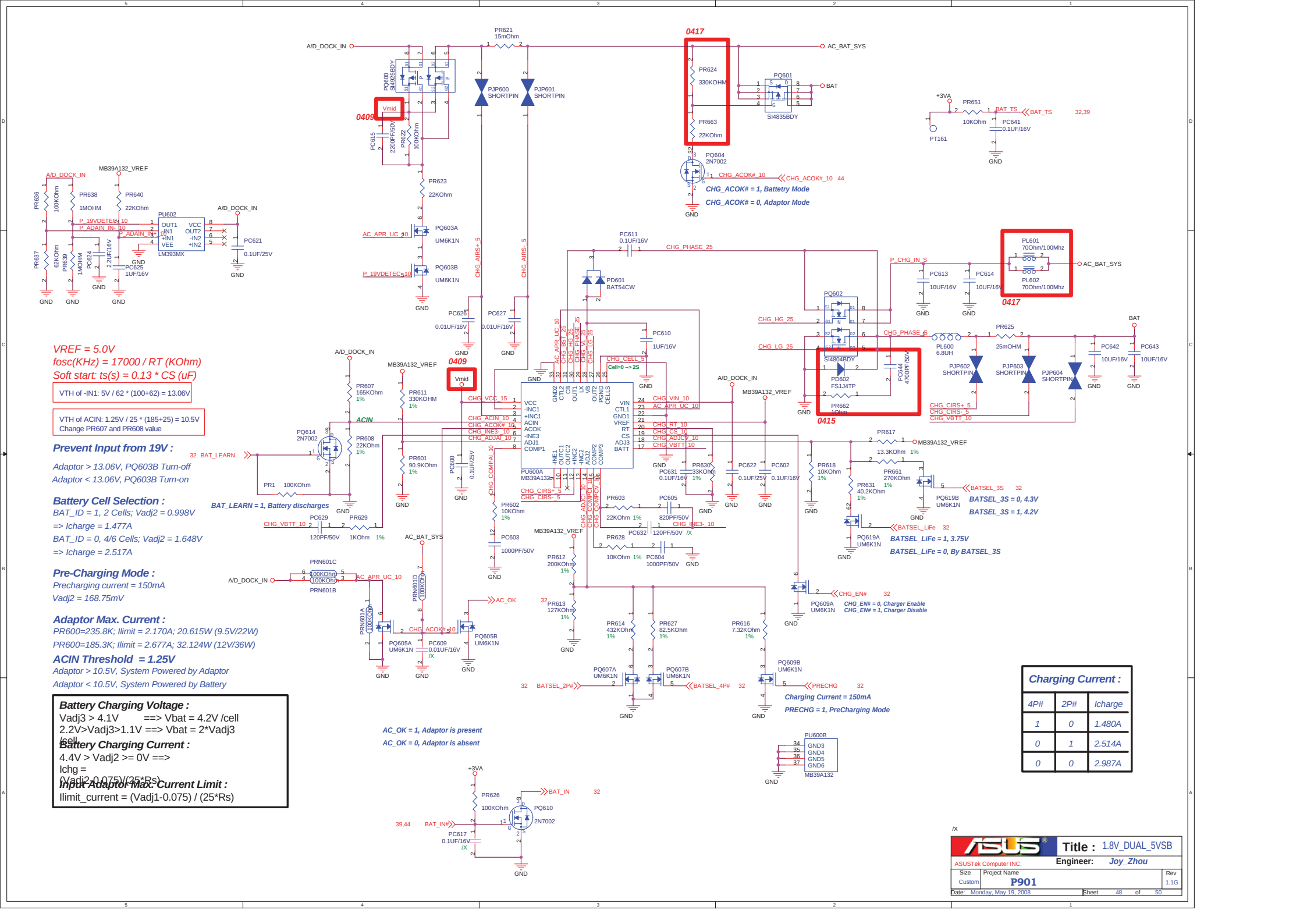






/X

ASUSTek Computer INC.	Title : +1.5VS & +2.5VS	
	Engineer: Joy_Zhou	
Size: A3	Project Name: P901	Rev: 1.1G
Date: Monday, May 19, 2008	Sheet 47 of 50	


VREF = 5.0V
fosc(KHz) = 17000 / RT (KOhm)
Soft start: ts(s) = 0.13 * CS (uF)
VTH of -IN1: 5V / 62 * (100+62) = 13.06V
VTH of ACIN: 1.25V / 25 * (185+25) = 10.5V
Change PR607 and PR608 value
Prevent Input from 19V :
Adaptor > 13.06V, PQ603B Turn-off
Adaptor < 13.06V, PQ603B Turn-on
Battery Cell Selection :
BAT_ID = 1, 2 Cells; Vadj2 = 0.998V
=> Icharge = 1.477A
BAT_ID = 0, 4/6 Cells; Vadj2 = 1.648V
=> Icharge = 2.517A
BAT_LEARN = 1, Battery discharges
Pre-Charging Mode :
Precharging current = 150mA
Vadj2 = 168.75mV
Adaptor Max. Current :
PR600=235.8K; Ilimit = 2.170A; 20.615W (9.5V/22W)
PR600=185.3K; Ilimit = 2.677A; 32.124W (12V/36W)
ACIN Threshold = 1.25V
Adaptor > 10.5V, System Powered by Adaptor
Adaptor < 10.5V, System Powered by Battery
Battery Charging Voltage :
Vadj3 > 4.1V ==> Vbat = 4.2V /cell
2.2V>Vadj3>1.1V ==> Vbat = 2*Vadj3 /cell
Battery Charging Current :
4.4V > Vadj2 >= 0V ==>
Ichg = (Vadj2-0.075)/(25*Rs)
Input Adaptor Max. Current Limit :
Ilimit_current = (Vadj1-0.075) / (25*Rs)
CHG_ACOK# = 1, Battetry Mode
CHG_ACOK# = 0, Adaptor Mode
AC_OK = 1, Adaptor is present
AC_OK = 0, Adaptor is absent
BATSEL_3S = 0, 4.3V
BATSEL_3S = 1, 4.2V
BATSEL_LiFe = 1, 3.75V
BATSEL_LiFe = 0, By BATSEL_3S
CHG_EN# = 0, Charger Enable
CHG_EN# = 1, Charger Disable
Charging Current = 150mA
PRECHG = 1, PreCharging Mode
Charging Current :
4P# 2P# Icharge
1 0 1.480A
0 1 2.514A
0 0 2.987A
Title : 1.8V_DUAL_5VSB
ASUSTek Computer INC.
Engineer: Joy_Zhou
Size Custom
Project Name P901
Rev 1.1G
Date: Monday, May 19, 2008
Sheet 48 of 50

EC KB3310 GPIO SETTING

Pin	Pin Name	Signal Name	Type	Note
1	GPIO00/GA20	A20GATE	O	
2	GPIO01/KBRST#	RC_IN#	O	
6	GPIO04	EMAIL_SW#	I	Internal pull high
13	GPIO05/PCIRST#	PCI_RST#	I	
14	GPIO07	BAT_OTP	I	Battery over temperature
15	GPIO08	EXTSMI#	OD	10K pull high to +3VSB
16	GPIO0A	LID_EC#	I	Internal pull high
17	GPIO0B/ESB_CLK	NC	O	
18	GPIO0C/ESB_DAT	NC	O	
19	GPIO0D	DISTP_SW#	I	Internal pull high
20	GPIO0E/SCI#	EXT_SCI#	O	10K pull high to +3VSB
21	GPIO0F/PWM0	BL_PWM_DA	O	
23	GPIO10/PWM1	BAT_CRITICAL	I	Battery critical capacity
25	GPIO11/PWM2	PM_PWRBTN#	OD	Internal pull high in ICH
26	GPIO12/FANPWM1	FAN0_PWM	O	CPU Fan
27	GPIO13/FANPWM2	FAN1_PWM	O	VGA Fan
28	GPIO14/FANFB1	FAN0_TACH	I	CPU FanTach
29	GPIO15/FANFB2	FAN1_TACH	I	VGA FanTach
30	GPIO16/E51_TX	E51_TX	O	RS232 debug port
31	GPIO17/E51_RX	E51_RX	I	RS232 debug port
32	GPIO18	PWR_SW#	I	Internal pull high
34	GPIO19/PWM3	MAIL_LED#	O	
36	GPIO1A/NUMLED	NUM_LED#	O	
38	GPIO1D/CLKRUN#	NC	O	
39	GPIO20/KSO0/TP_TEST	KSO0	O	
40	GPIO21/KSO1/TP_PLL	KSO1	O	
41	GPIO22/KSO2	KSO2	O	
42	GPIO23/KSO3	KSO3	O	
43	GPIO24/KSO4	KSO4	O	
44	GPIO25/KSO5	KSO5	O	
45	GPIO26/KSO6	KSO6	O	
46	GPIO27/KSO7	KSO7	O	
47	GPIO28/KSO8	KSO8	O	
48	GPIO29/KSO9	KSO9	O	
49	GPIO2A/KSO10	KSO10	O	
50	GPIO2B/KSO11	KSO11	O	
51	GPIO2C/KSO12	KSO12	O	
52	GPIO2D/KSO13	KSO13	O	
53	GPIO2E/KSO14	KSO14	O	
54	GPIO2F/KSO15	KSO15	O	
55	GPIO30/KSI0	KSI0	I	Internal pull high
56	GPIO31/KSI1	KSI1	I	Internal pull high
57	GPIO32/KSI2	KSI2	I	Internal pull high
58	GPIO33/KSI3	KSI3	I	Internal pull high
59	GPIO34/KSI4	KSI4	I	Internal pull high
60	GPIO35/KSI5	KSI5	I	Internal pull high
61	GPIO36/KSI6	KSI6	I	Internal pull high
62	GPIO37/KSI7	KSI7	I	Internal pull high
63	GPI38/AD0	BAT_ICHG	I	
64	GPI39/AD1	BAT_CONFIG	I	Battery configureation
65	GPIO3A/AD2	BAT_SENSE	I	Battery Voltage Sensor
66	GPIO3B/AD3	BAT_TS	I	Battery Thermal Sensor
68	GPO3C/DA0	DOC	O	Trigger Clock Gen

Pin	Pin Name	Signal Name	Type	Note
70	GPO3D/DA1	LCD_BACKOFF#	O	
71	GPO3E/DA2	CLK_PWRSAVE#	O	
72	GPO3F/DA3	BAT_LL#	O	Battery Low Low
73	GPIO40	AC_OK	I	AC Adaptor Plug in
74	GPIO41	PM_RSMRST#	O	10K pull down to GND
75	GPI42	BAT_IN	I	
76	GPI43	CLRTC_EC	I	
77	GPIO44/SCL1	SMB0_CLK	I/OD	4.7K pull high to +3VA_EC
78	GPIO45/SDA1	SMB0_DAT	I/OD	4.7K pull high to +3VA_EC
79	GPIO46/SCL2	SMB1_CLK	I/OD	10K pull high to +3V
80	GPIO47/SDA2	SMB1_DAT	I/OD	10K pull high to +3V
81	GPIO48/KSO16	KB pin 28	I	for KB type detection
82	GPIO49/KSO17	KB pin 27	I	for KB type detection
83	GPIO4A/PSCLK1	AUO_SCL	O	for AUO, default H at S0
84	GPIO4B/PSDAT1	AUO_SDA	O	for AUO, default L at S0
85	GPIO4C/PSCLK2	AUO_CSB	O	for AUO, default H at S0
86	GPIO4D/PSDAT2	LVDD_EN	I	for AUO 7" Panel
87	GPIO4E/PSCLK3	TP_CLK	I/OD	10K pull high to +3V
88	GPIO4F/PSDAT3	TP_DAT	I/OD	10K pull high to +3V
89	GPIO50/SELIO#	BATSEL_3S	O	Battery series, H:3S, L:4S
90	GPIO52/E51_CS#	CHG_LED_UP#	O	
91	GPIO53/CAPLED	CAP_LED#	O	
92	GPIO54	PWR_LED_UP	O	
93	GPIO55/SCRLED	SCRL_LED#	O	
95	GPIO56	PWR4G_SW#	I	Internal pull high
97	GPXOA00/SDICS#	SPI_MODE#	O	4.7K pull down to GND
98	GPXOA01/SDICLK	SUSC_ON	O	
99	GPXOA02/SDIDO	VSUS_ON	O	
100	GPXOA03	CPU_VRON	O	
101	GPXOA04	SUSB_ON	O	
102	GPXOA05	ICH_PWROK	O	
103	GPXOA06	VOLT_CTRL	O	
104	GPXOA07	CHG_EN#	O	Battery charging enabled
105	GPXOA08	PRECHG	O	
106	GPXOA09	SPI_WP#	O	
107	GPX0A10	OP_SD#	O	Audio OP
108	GPXOA11	BAT_LEARN	O	
109	GPXID0/SDIDI	BATSEL_2P#	O	Battery parallel, H:1P, L:2P~3P
110	GPXID1	NC	O	
112	GPXID2	THRO_CPU	O	Active if CPU temperature over spec
114	GPXID3	SUSB#	I	100K pull down to GND
115	GPXID4	SUSC#	I	100K pull down to GND
116	GPXID5	CPUPWR_GD	I	Pull high to +3V
117	GPXID6	VSUS_GD	I	
118	GPXID7	NC	O	
121	GPIO57	INTERNET#	I	Internal pull high
126	GPIO57/SPICLK	SPI_CLK	O	
127	GPIO59/TEST_CLK	NC	O	

EC KB3310 Other Pin SETTING

Pin	Pin Name	Signal Name	Type	Note
3	SERIRQ	INT_SERIRQ	I/OD	10K pull high to +3V
4	LFRAME#	LPC_FRAME#	I	
5	LAD3	LPC_AD3	I/O	
7	LAD2	LPC_AD2	I/O	
8	LAD1	LPC_AD1	I/O	
9	VCC	+3VA_EC	P	
10	LAD0	LPC_AD0	I/O	
11	GND	GND	P	
12	PCICLK	CLK_PCI_EC	I	
22	VCC	+3VA_EC	P	
24	GND	GND	P	
33	VCC	+3VA_EC	P	
35	GND	GND	P	
37	ECRST#	EC_RST#	I	100K pull high to +3VA_EC
67	AVCC	+3VACC	P	
69	AGND	AGND	P	
94	GND	GND	P	
96	VCC	+3VA_EC	P	
111	VCC	+3VA_EC	P	
113	GND	GND	P	
119	RD#/SPIDI	SPI_SO	I	
120	WR#/SPIDO	SPI_SI	O	
112	XCLKI	32KXCLKI	I	
123	XCLKO	32KXCLKO	O	
124	V18R	V18R	P	Reserved 1uF to GND
125	VCC	+3VA_EC	P	
128	SPICS#/SELMEM#	SPI_CE#	O	

/X

ASUSTek Computer INC.

Title : EC Pin Define

Engineer: Satan He

Size	Project Name	Rev
A3	P901	1.1G

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