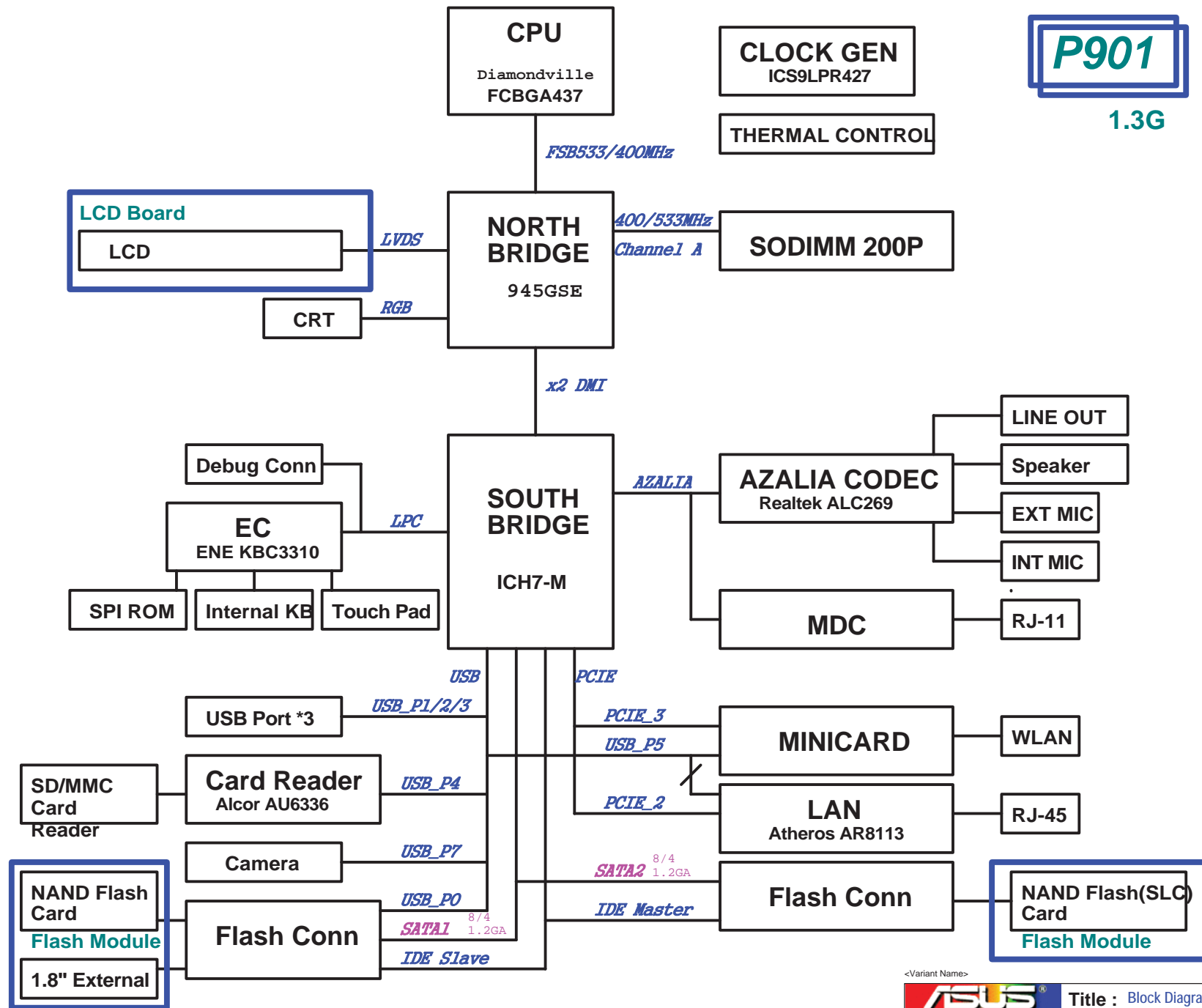


- 01_Block Diagram
- 02_System Setting
- 03_Power Sequence
- 04_Clock Gen_ICS9LPR426
- 05_Diamondville_BUS
- 06_Diamondville_PWR
- 07_NB-945GMS(HOST)
- 08_NB-945GMS(DMI)
- 09_NB-945GMS(GRAPHIC)
- 10_NB-945GMS(DDR2)
- 11_NB-945GMS(PWR)
- 12_NB-945GMS(PWR2)
- 13_NB-945GMS(GND)
- 14_SB-ICH7M(PWR)
- 15_SB-ICH7M(1)
- 16_SB-ICH7M(2)
- 17_SB-ICH7M(3)
- 18_DDR2 SODIMM
- 19_DDR2_Termination
- 20_Onboard VGA
- 21_LCD Conn_LID
- 22_PCIEx 3.5G & Ext. Antenna
- 23_Mini WIFI+ BT
- 24_LAN_Atheros AR8113
- 25_MDC_RJ11_RJ45
- 26_HD + Flash Conn
- 27_USB Port
- 28_Camera Conn
- 29_Card Reader_AU6336C52
- 30_Codec_ALC269
- 31_Audio_AMP_Jack
- 32_EC_ENE KB3310
- 33_EC_UART controller
- 34_Switch_SPI ROM_Debug Conn
- 35_Thermal Sensor_FAN
- 36_KB_Touch Pad
- 37_LED_THERMTRIP
- 38_Discharge
- 39_PWR Jack
- 40_Srew Hole
- 41_EMI
- 42_POWER FLOW
- 43_Vcore
- 44_Power System
- 45_Power_+1.8V & VTTDDR
- 46_Power_VCCP
- 47_Power_+1.5VS & +2.5VS
- 48_Power_Charger
- 49_EC Pin Define
- 49_History



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

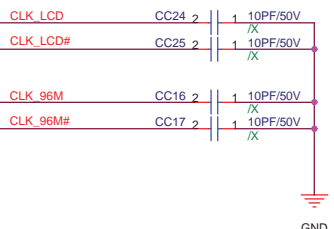
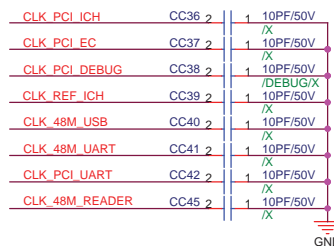
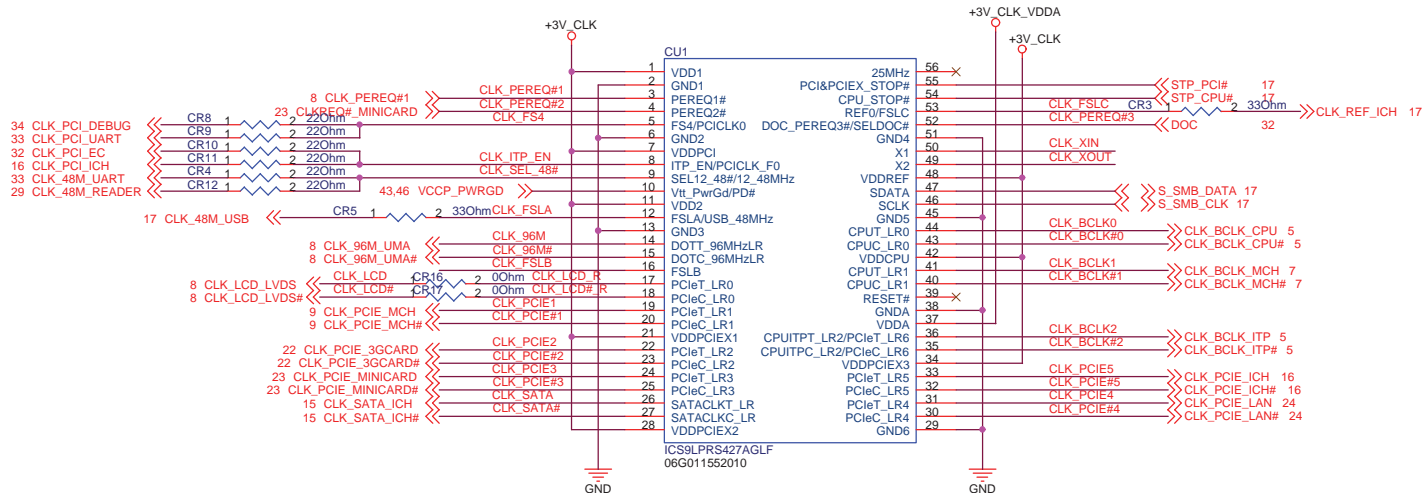
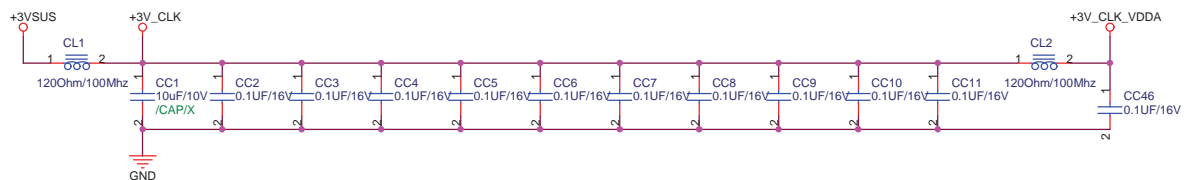
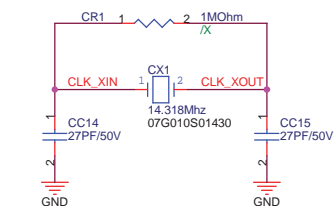
| | |
|--------|----------|
| PCIE 1 | NC |
| PCIE 2 | LAN |
| PCIE 3 | Minicard |
| PCIE 4 | NC |

Azalia

| | |
|-----------|-------|
| ACZ_SDIN0 | CODEC |
| ACZ_SDIN1 | MODEM |
| ACZ_SDIN2 | NC |

<Variant Name>

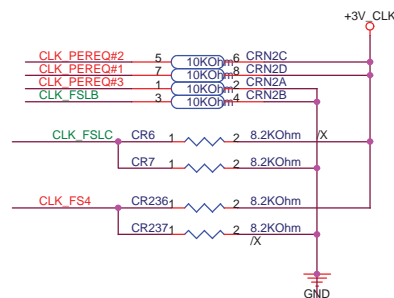
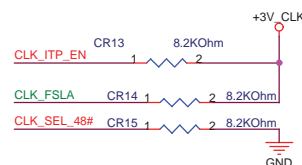
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|---|-----------------------------|-------------------------------|--|
|  | | Title : System Setting | |
| ASUSTek Computer INC. | | Engineer: Satan_He | |
| Size A3 | Project Name P901 | Rev 1.1G | |
| Date: Monday, August 11, 2008 | | Sheet 2 of 50 | |



1:Disable
0:Enable

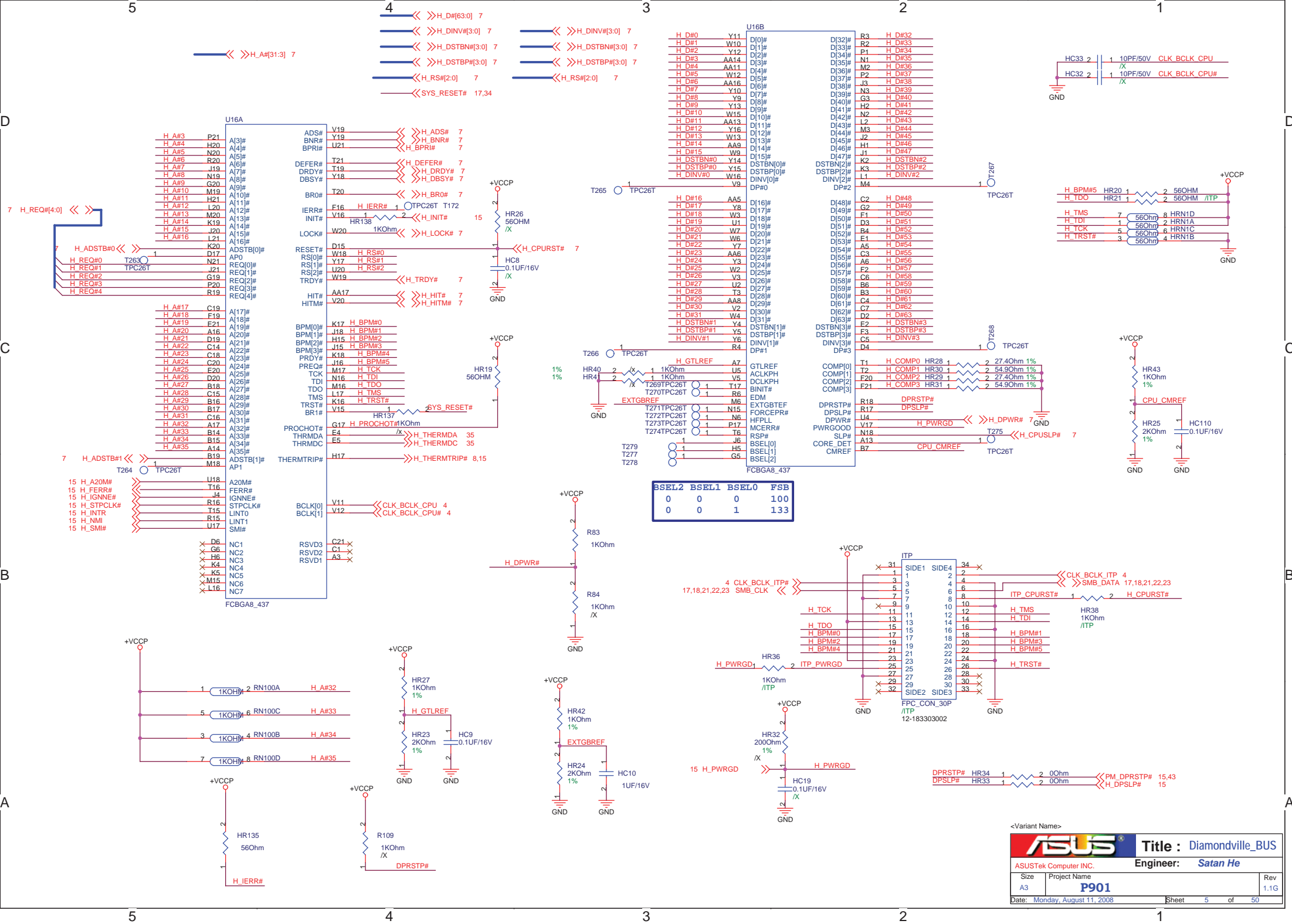
PEREQ1:PCIEx0 & PCIEx1
PEREQ2:PCIEx2 & PCIEx3 & SATA
PEREQ3:PCIEx4 & PCIEx5 & PCIEx6

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



<Variant Name>

| | | | |
|-------------------------------|--------------|-------------------------------|---------|
| ASUS | | Title : Clock Gen_ICS9LPRS427 | |
| ASUS Computer INC. | | Engineer: Satan He | |
| Size | Project Name | Rev | |
| A3 | P901 | 1.1G | |
| Date: Monday, August 11, 2008 | | Sheet | 4 of 50 |

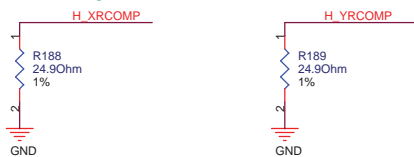




Power :
+VCCP

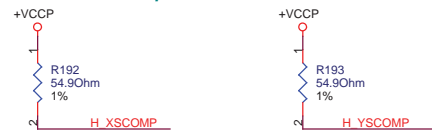
RCOMP

For Calibrating the FSB I/O Buffer



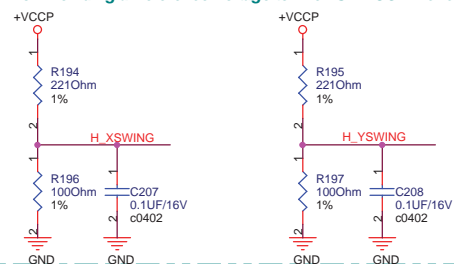
SCOMP

For Slew Rate Compensation on the FSB

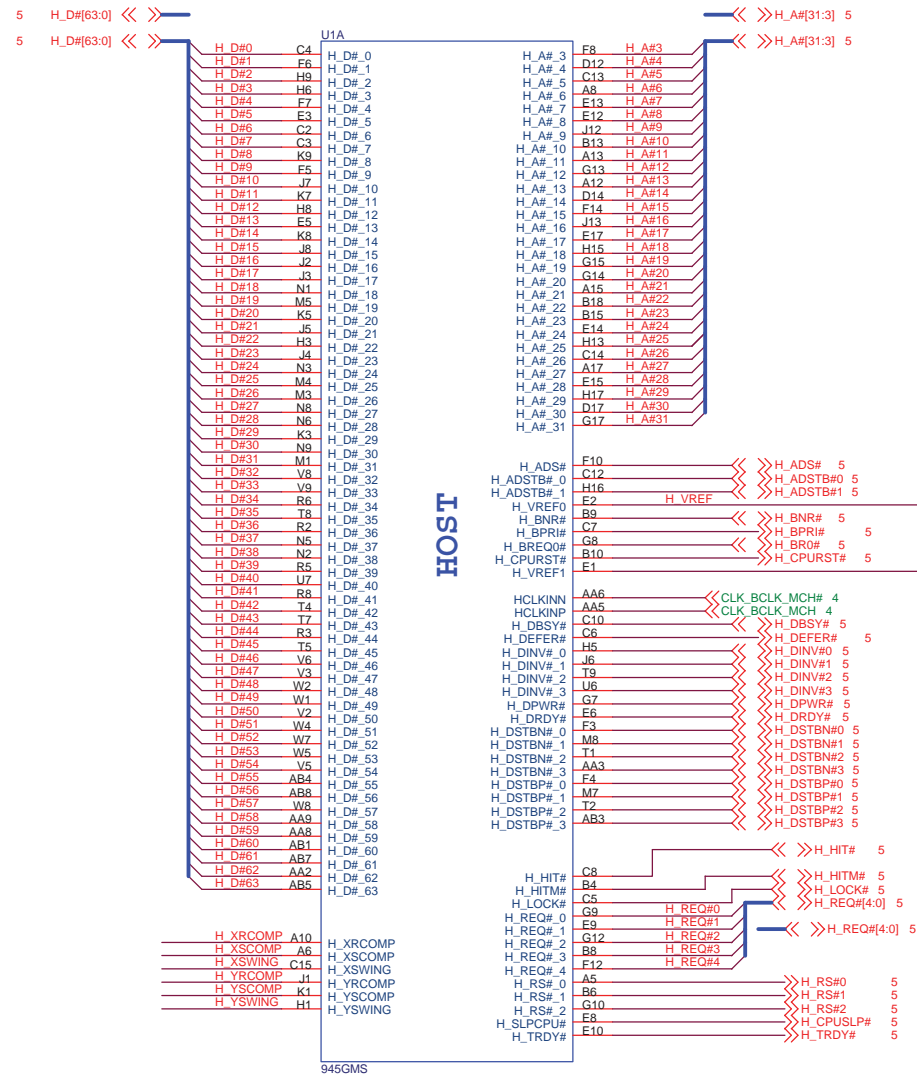


Voltage Swing

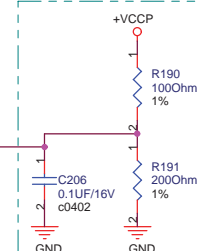
For Providing a Reference Voltage to The FSB RCOMP circuits



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

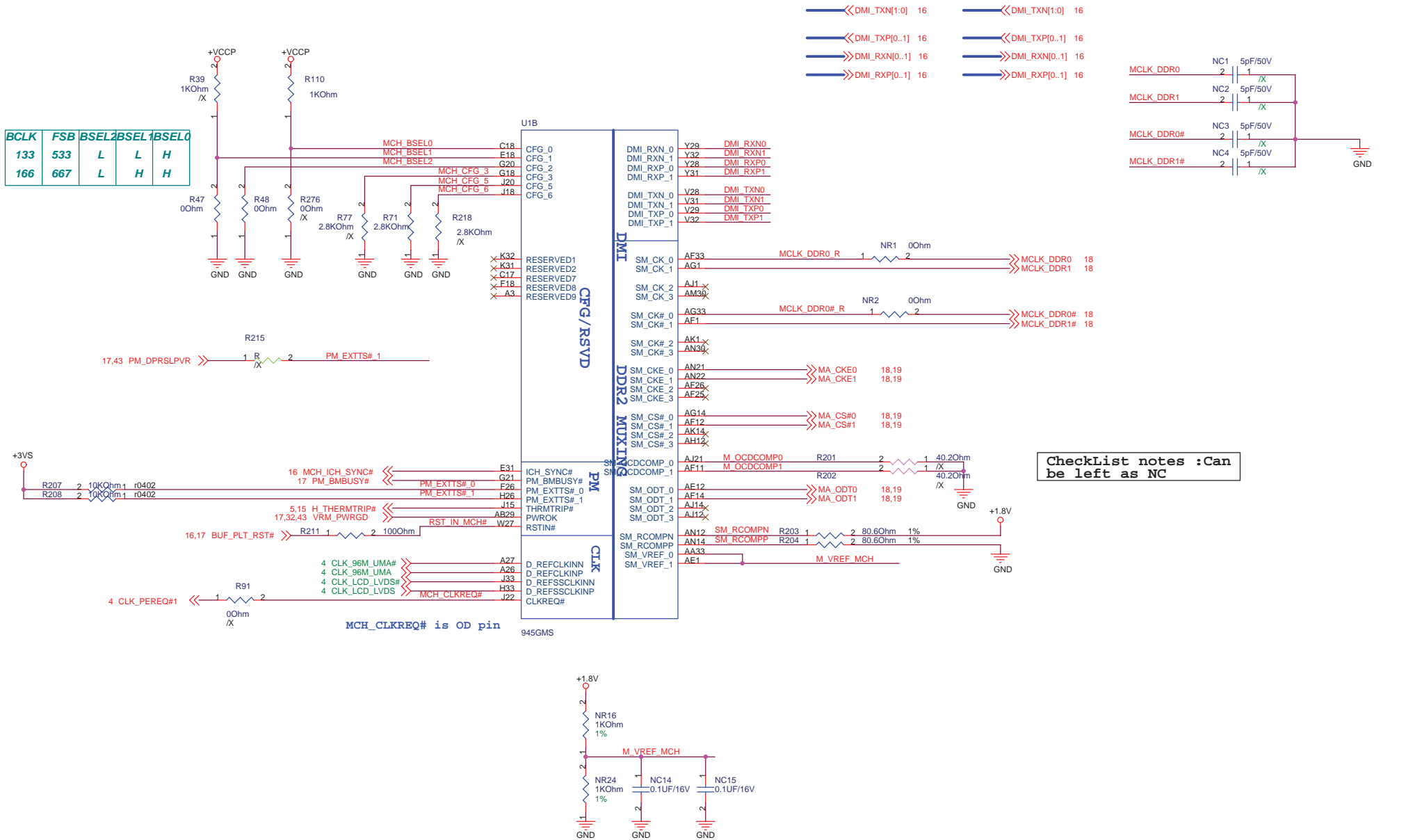


AGTL+ I/O Voltage Reference

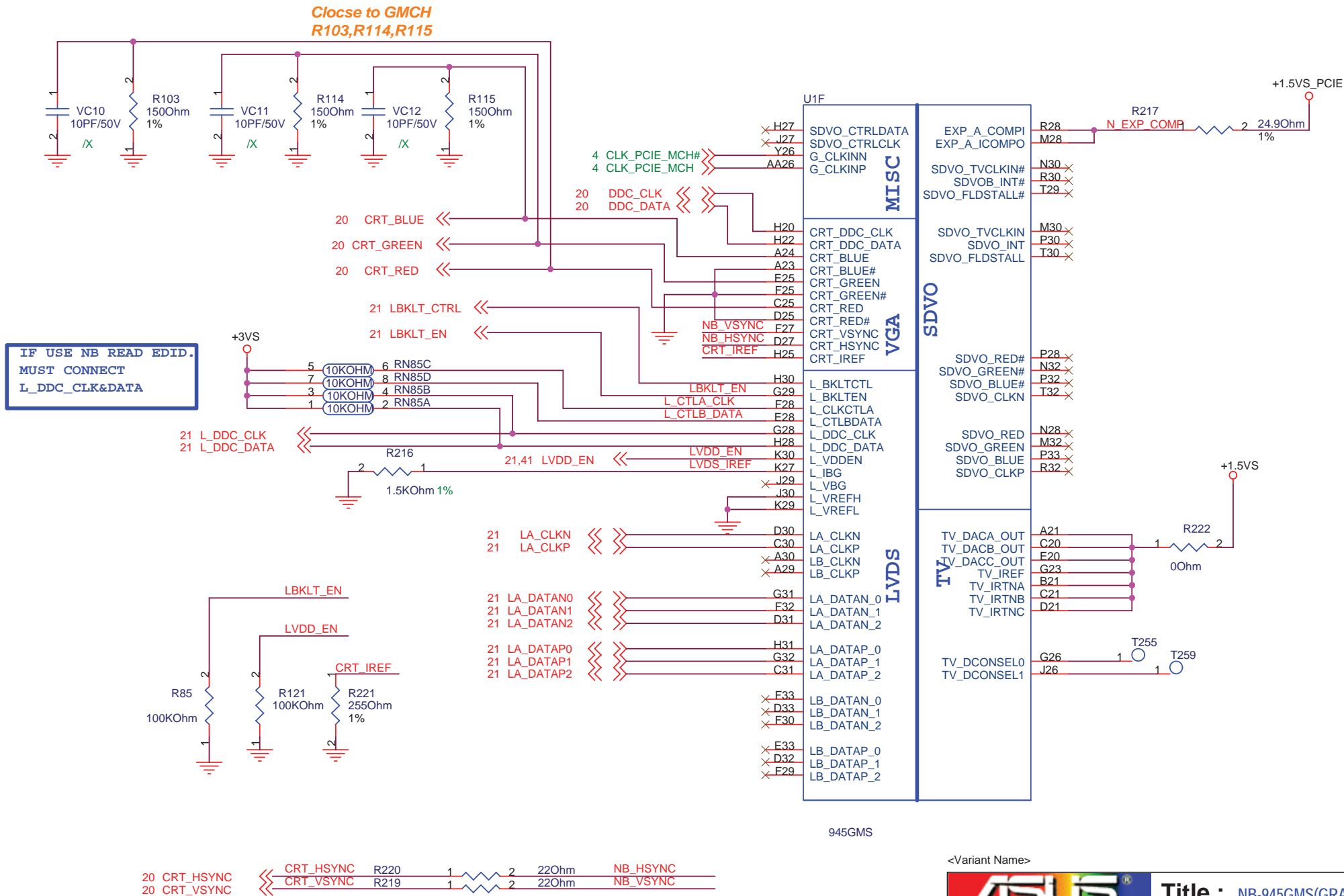


Layout Note:
0.1uF should be placed 100mils or less from GMCH pin.

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



| | | | |
|-------------------------------|--------------|------------------------------|-------|
| <Variant Name> | | Title : NB-945GMS(DMI & CFG) | |
| ASUS | | Engineer: Satan He | |
| Size | Project Name | Rev | |
| A3 | P901 | 1.1G | |
| Date: Monday, August 11, 2008 | Sheet | 8 | of 50 |

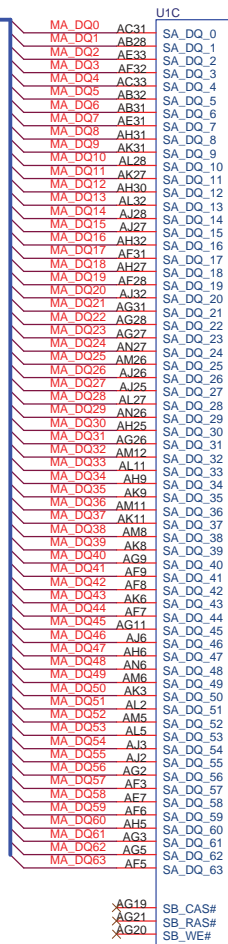


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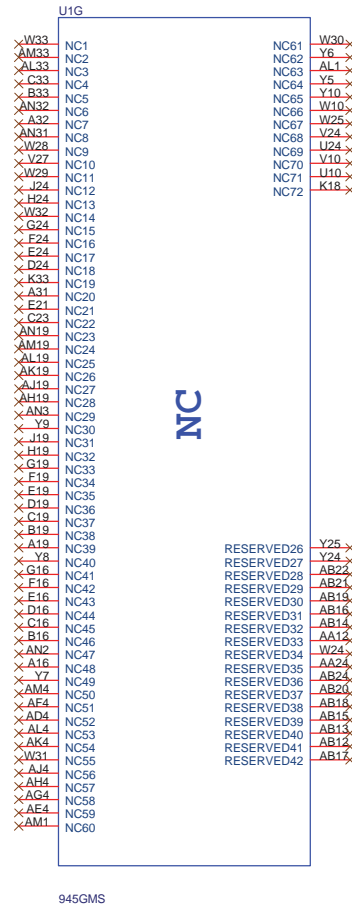
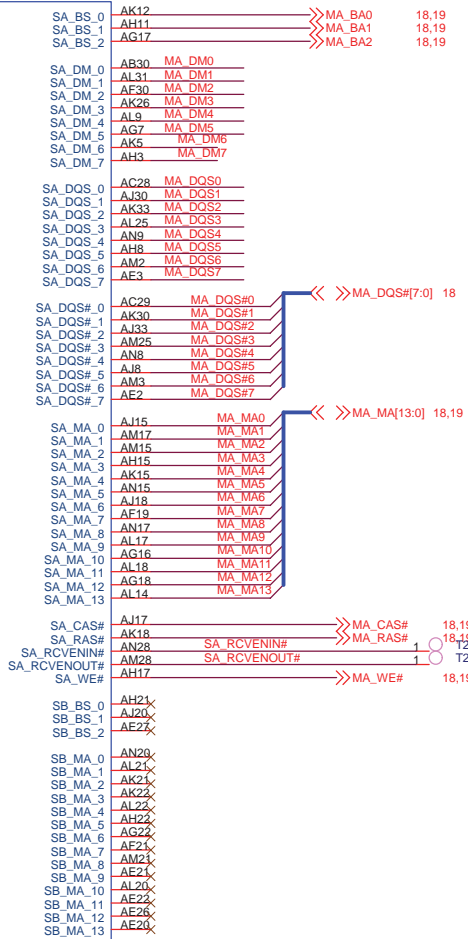
| | | | |
|-------------------------------|-----------------------------|-----------------------------------|-------------|
| ASUS | | Title : NB-945GMS(GRAPHIC) | |
| ASUSTeK COMPUTER INC. | | Engineer: Satan_He | |
| Size A4 | Project Name P901 | | Rev 1.1G |
| Date: Monday, August 11, 2008 | | Sheet 9 of 50 | |

18 MA_DQS[7:0] << >> 18
18 MA_DM[7:0] << >> 18

18 MA_DQ[63:0] << >>
18 MA_DQ[63:0] << >>

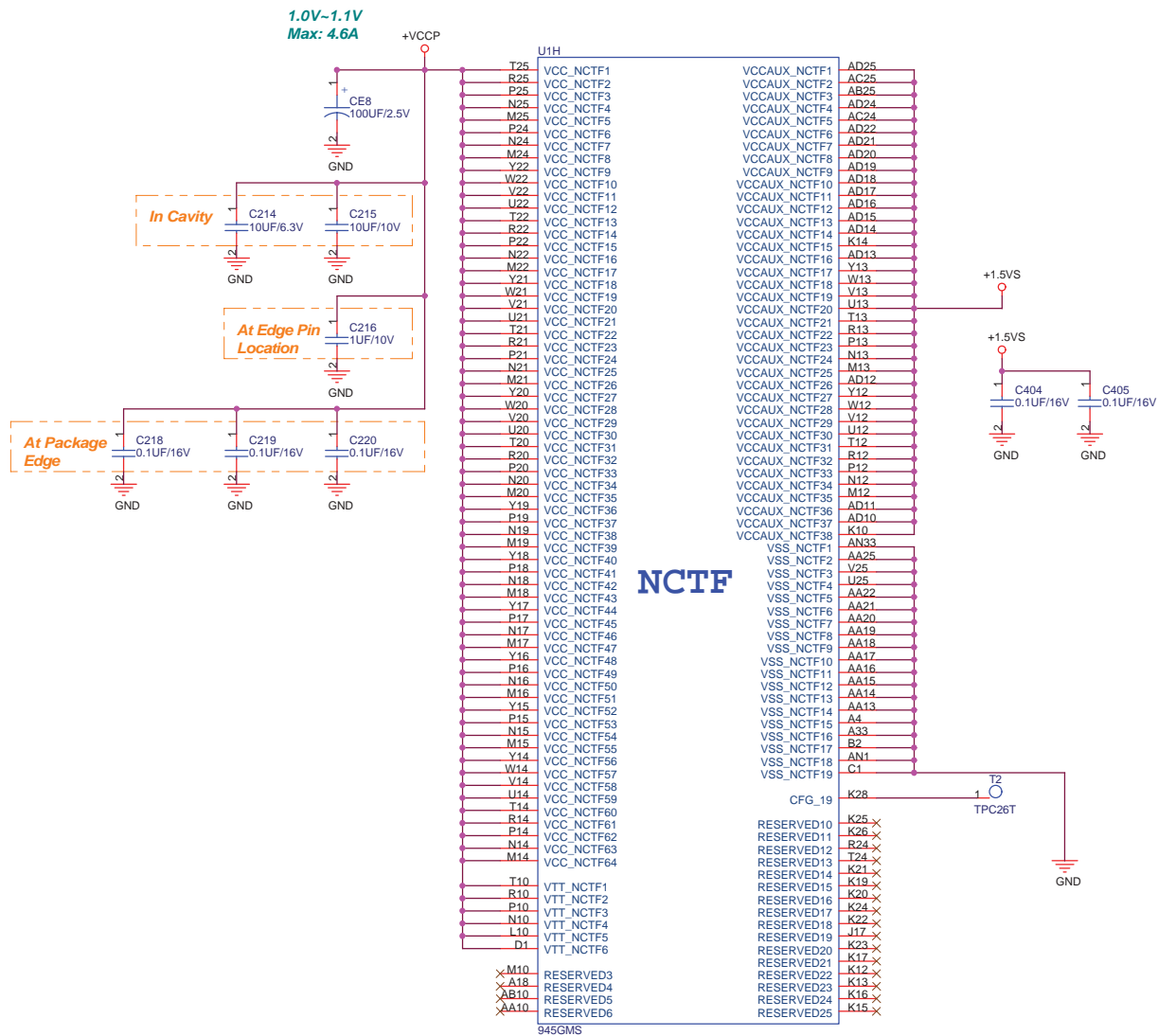


DDR2 SYSTEM MEMORY



<Variant Name>

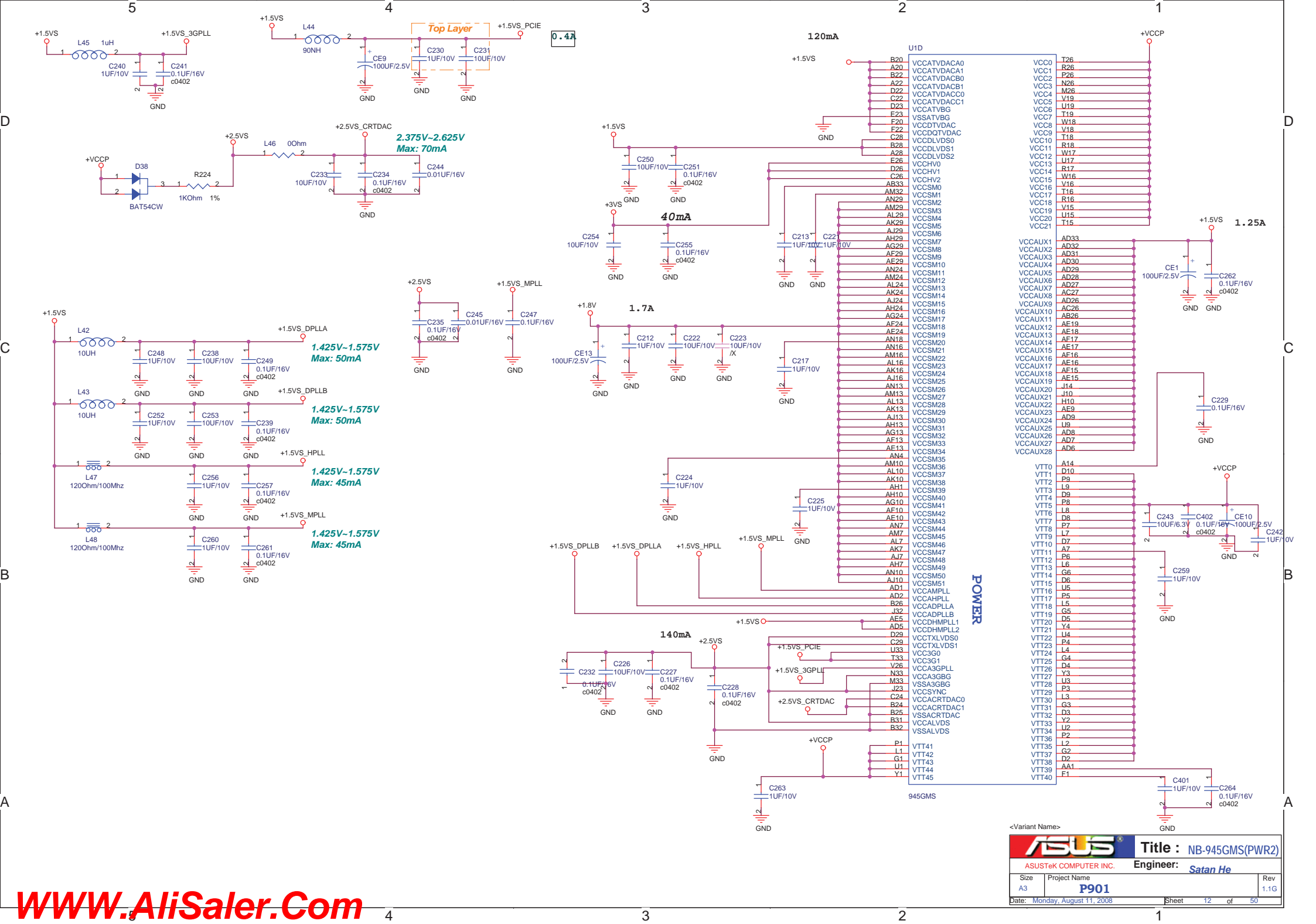
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|-------------------------------|-----------------------------|-------------------------|-------------|
| ASUS | | Title : NB-945GMS(DDR2) | |
| ASUSTek COMPUTER INC. | | Engineer: Satan He | |
| Size A3 | Project Name P901 | | Rev 1.1G |
| Date: Monday, August 11, 2008 | | Sheet | 10 of 50 |

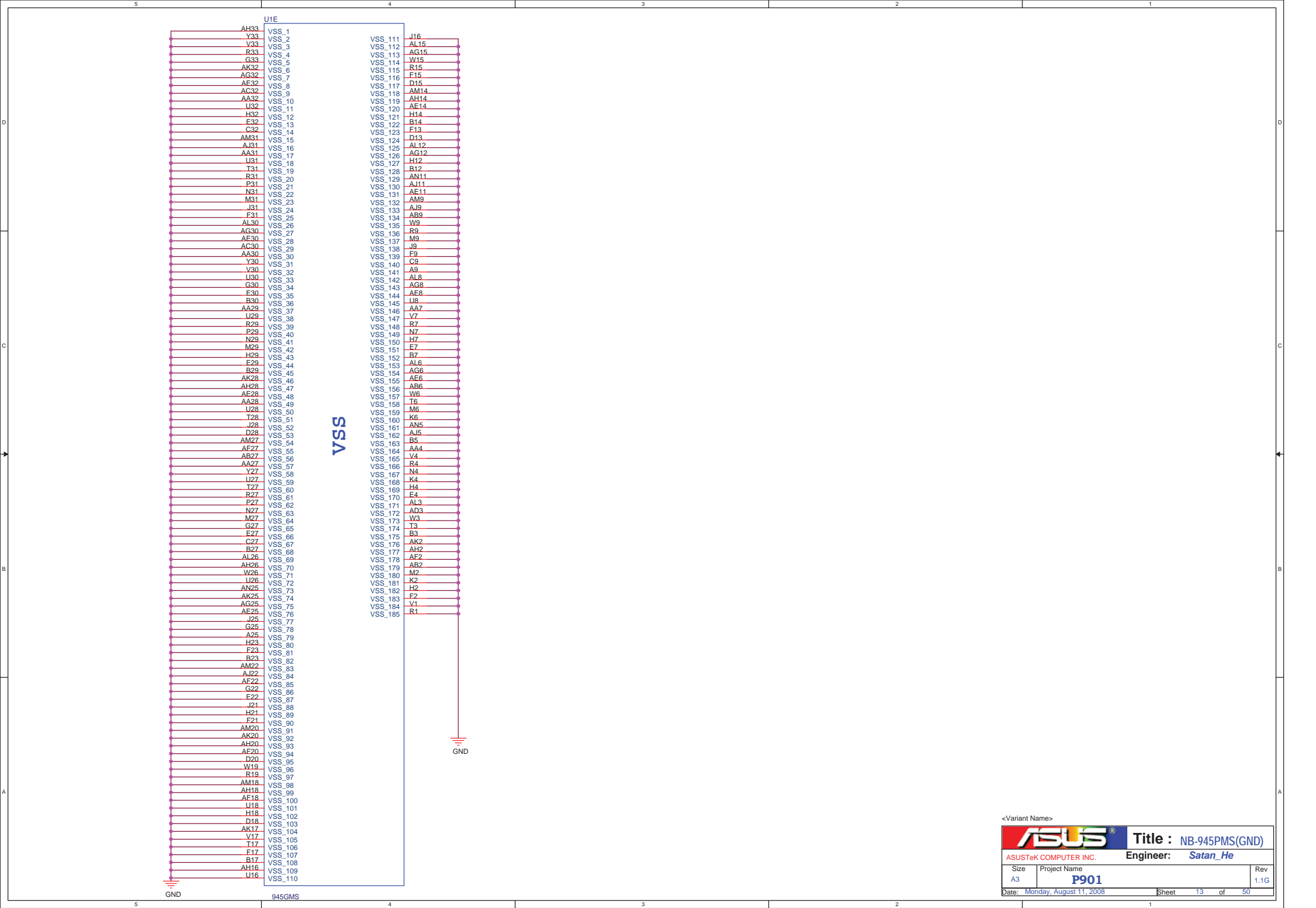


NCTF

CFG_19(K28) Strapping :
DMI LANE Reversal:
0:Normal Operation (Default)
1.:Reversal Lanes, 3->0,2->1..etc
Note:945GMS doesn't support DMI Lane Reversal

<Variant Name>





Vcc1_5_A=0.64A

| U2E | | P28 | |
|-----|-------|--------|-----|
| A4 | Vss1 | Vss98 | R1 |
| A23 | Vss2 | Vss100 | R11 |
| B1 | Vss3 | Vss101 | R12 |
| B8 | Vss4 | Vss102 | R13 |
| B11 | Vss5 | Vss103 | R14 |
| B14 | Vss6 | Vss104 | R15 |
| B17 | Vss7 | Vss105 | R16 |
| B20 | Vss8 | Vss106 | R17 |
| B26 | Vss9 | Vss107 | R18 |
| B28 | Vss10 | Vss108 | T6 |
| C2 | Vss11 | Vss109 | T12 |
| C6 | Vss12 | Vss110 | T13 |
| C27 | Vss13 | Vss111 | T14 |
| D10 | Vss14 | Vss112 | T15 |
| D13 | Vss15 | Vss113 | T16 |
| D18 | Vss16 | Vss114 | T17 |
| D21 | Vss17 | Vss115 | U4 |
| D24 | Vss18 | Vss116 | U12 |
| E1 | Vss19 | Vss117 | U24 |
| E2 | Vss20 | Vss118 | U14 |
| E4 | Vss21 | Vss119 | U15 |
| E8 | Vss22 | Vss120 | U16 |
| F15 | Vss23 | Vss121 | U17 |
| F4 | Vss24 | Vss122 | U25 |
| F5 | Vss25 | Vss123 | U26 |
| F12 | Vss26 | Vss124 | V13 |
| F27 | Vss27 | Vss125 | V15 |
| F28 | Vss28 | Vss126 | V24 |
| G1 | Vss29 | Vss127 | V27 |
| G2 | Vss30 | Vss128 | V28 |
| G5 | Vss31 | Vss129 | V30 |
| G6 | Vss32 | Vss130 | V31 |
| G9 | Vss33 | Vss131 | V32 |
| G14 | Vss34 | Vss132 | V33 |
| G18 | Vss35 | Vss133 | V34 |
| G21 | Vss36 | Vss134 | V35 |
| G24 | Vss37 | Vss135 | V36 |
| G25 | Vss38 | Vss136 | V37 |
| G26 | Vss39 | Vss137 | V38 |
| H3 | Vss40 | Vss138 | V39 |
| H4 | Vss41 | Vss139 | V40 |
| H5 | Vss42 | Vss140 | V41 |
| H24 | Vss43 | Vss141 | V42 |
| H27 | Vss44 | Vss142 | V43 |
| H28 | Vss45 | Vss143 | V44 |
| J2 | Vss46 | Vss144 | V45 |
| J5 | Vss47 | Vss145 | V46 |
| J24 | Vss48 | Vss146 | V47 |
| J25 | Vss49 | Vss147 | V48 |
| K24 | Vss50 | Vss148 | V49 |
| K27 | Vss51 | Vss149 | V50 |
| K28 | Vss52 | Vss150 | V51 |
| L13 | Vss53 | Vss151 | V52 |
| L15 | Vss54 | Vss152 | V53 |
| L24 | Vss55 | Vss153 | V54 |
| L25 | Vss56 | Vss154 | V55 |
| L26 | Vss57 | Vss155 | V56 |
| M3 | Vss58 | Vss156 | V57 |
| M4 | Vss59 | Vss157 | V58 |
| M5 | Vss60 | Vss158 | V59 |
| M12 | Vss61 | Vss159 | V60 |
| M13 | Vss62 | Vss160 | V61 |
| M14 | Vss63 | Vss161 | V62 |
| M15 | Vss64 | Vss162 | V63 |
| M16 | Vss65 | Vss163 | V64 |
| M17 | Vss66 | Vss164 | V65 |
| M24 | Vss67 | Vss165 | V66 |
| M28 | Vss68 | Vss166 | V67 |
| N1 | Vss69 | Vss167 | V68 |
| N2 | Vss70 | Vss168 | V69 |
| N5 | Vss71 | Vss169 | V70 |
| N6 | Vss72 | Vss170 | V71 |
| N11 | Vss73 | Vss171 | V72 |
| N12 | Vss74 | Vss172 | V73 |
| N13 | Vss75 | Vss173 | V74 |
| N14 | Vss76 | Vss174 | V75 |
| N15 | Vss77 | Vss175 | V76 |
| N16 | Vss78 | Vss176 | V77 |
| N17 | Vss79 | Vss177 | V78 |
| N18 | Vss80 | Vss178 | V79 |
| N24 | Vss81 | Vss179 | V80 |
| N25 | Vss82 | Vss180 | V81 |
| N26 | Vss83 | Vss181 | V82 |
| P3 | Vss84 | Vss182 | V83 |
| P4 | Vss85 | Vss183 | V84 |
| P12 | Vss86 | Vss184 | V85 |
| P13 | Vss87 | Vss185 | V86 |
| P14 | Vss88 | Vss186 | V87 |
| P15 | Vss89 | Vss187 | V88 |
| P16 | Vss90 | Vss188 | V89 |
| P17 | Vss91 | Vss189 | V90 |
| P24 | Vss92 | Vss190 | V91 |
| P27 | Vss93 | Vss191 | V92 |
| | Vss94 | Vss192 | V93 |
| | Vss95 | Vss193 | V94 |
| | Vss96 | Vss194 | V95 |
| | Vss97 | | |



ASUSTek COMPUTER INC.

Title : SB-ICH7M(PWR)

Engineer: Satan He

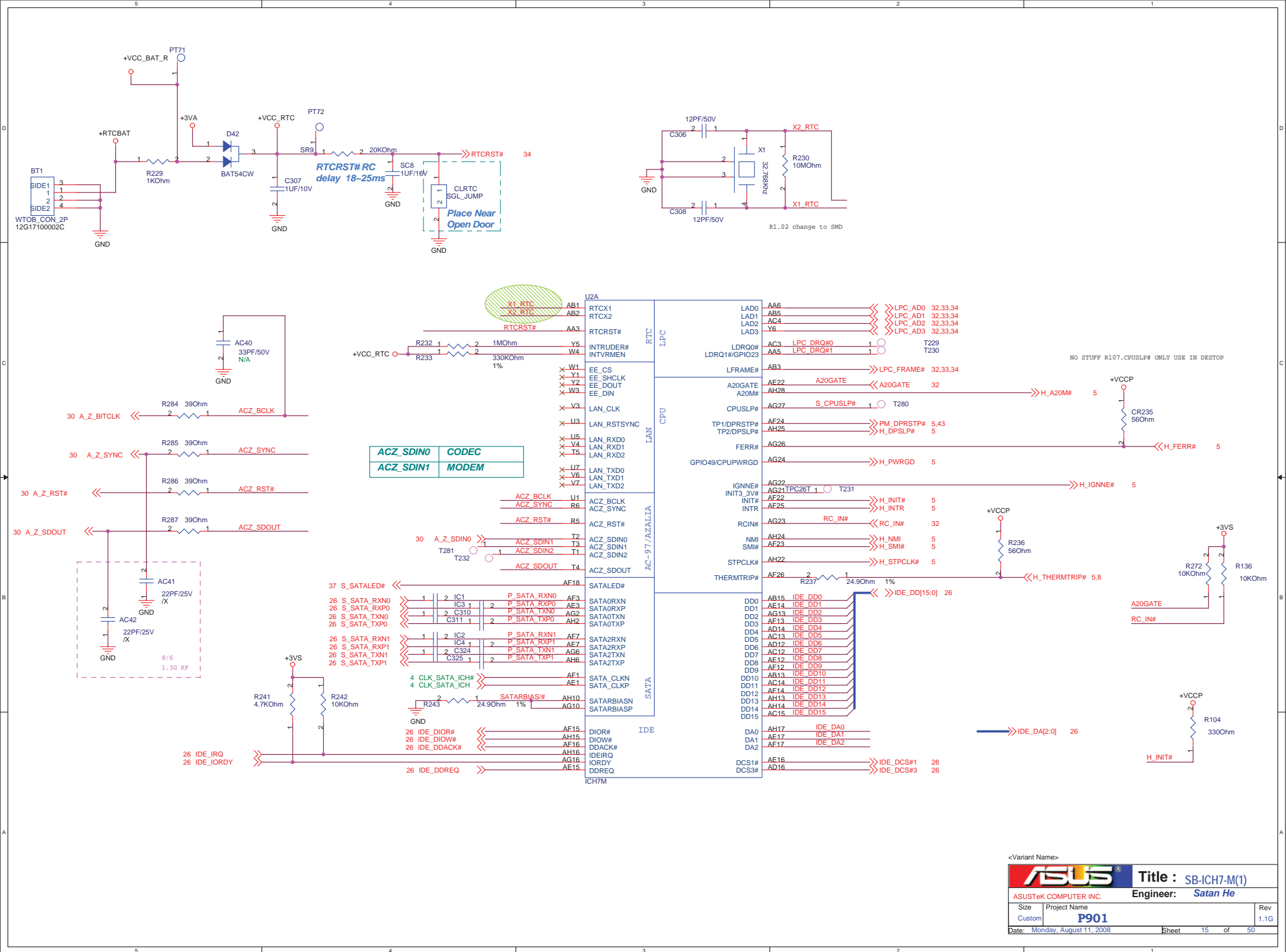
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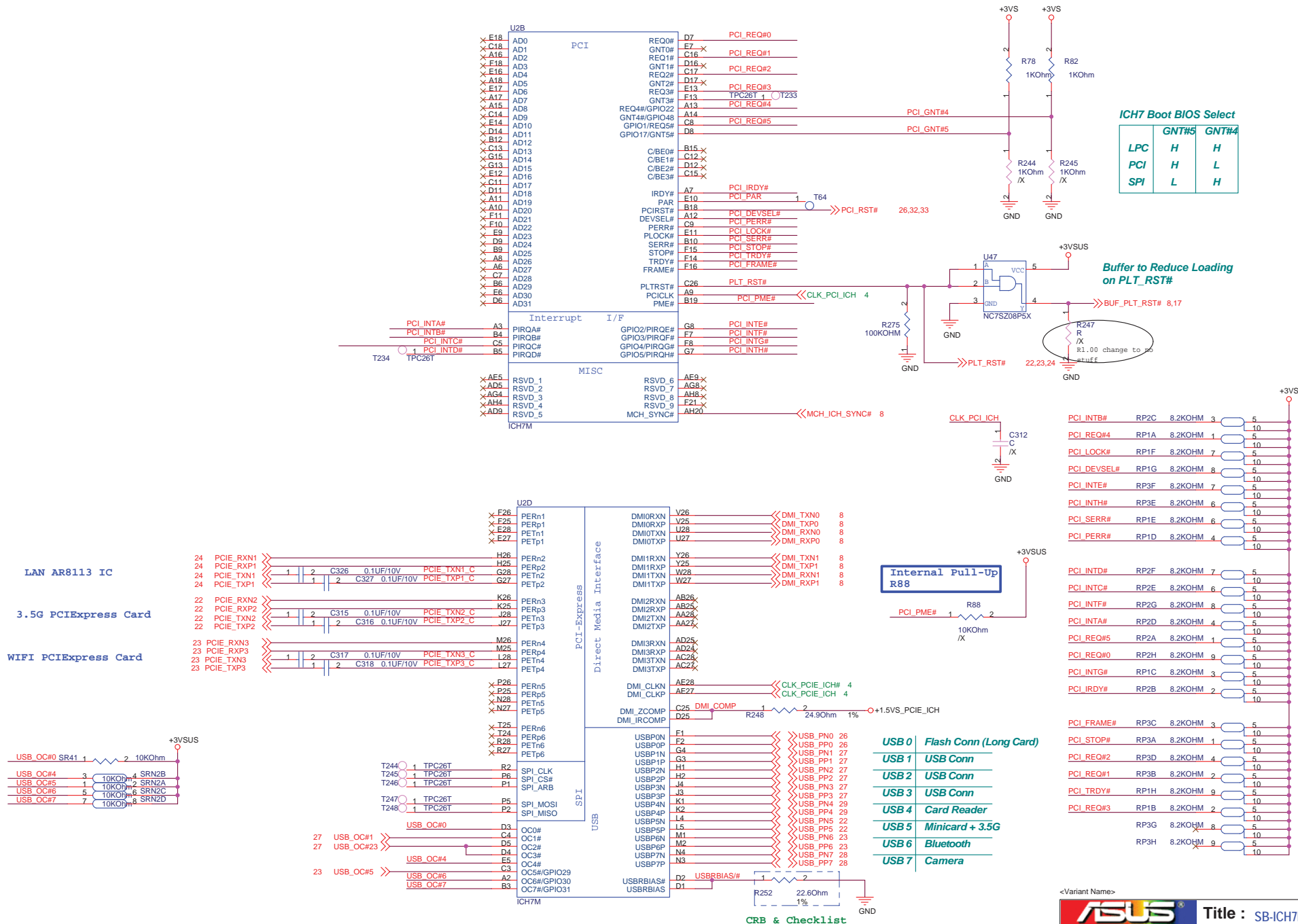
Project Name
P901

Date: Monday, August 11, 2008

Rev
1.1G

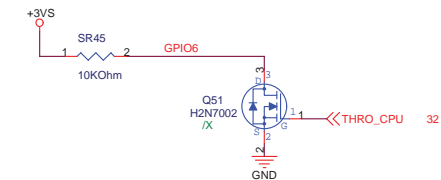
Sheet 14 of 50





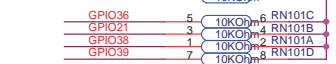
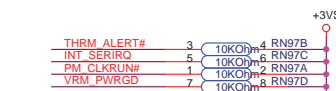
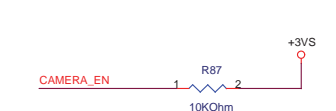
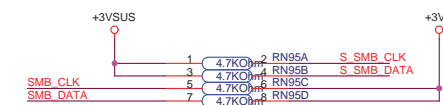
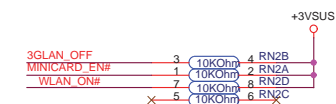
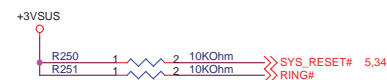
<Variant Name>

| | | | |
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| ASUS | | Title : SB-ICH7M(2) | |
| ASUSTek COMPUTER INC. | | Engineer: Satan He | |
| Size | Project Name | Rev | |
| Custom | P901 | 1.1G | |
| Date: Monday, August 11, 2008 | Sheet | 16 | of 50 |

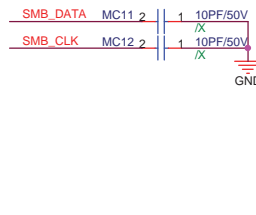
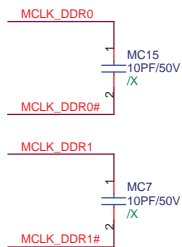


SMB_CLK **SMB_DATA** **SMB_CLK** 4 **SMB_DATA** 4

| WLAN_LED | WLAN | BT |
|----------|------|----|
| High | v | v |
| High | v | x |
| High | x | v |
| Low | x | x |



| | | | |
|---|-----------------------------|----------------------------------|-------------|
|  | | Title : SB-ICH7M(3) | |
| ASUSTeK COMPUTER INC | | Engineer: <i>Satan He</i> | |
| Size Custom | Project Name P901 | | Rev 1.1G |
| Date: Monday, August 11, 2008 | | Sheet 17 of 50 | |

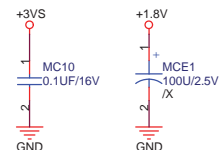
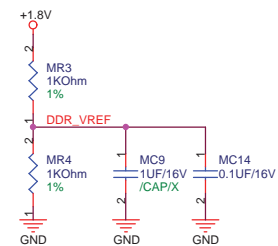
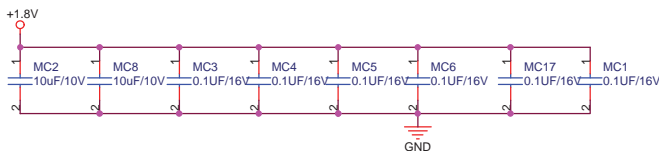


STD Type

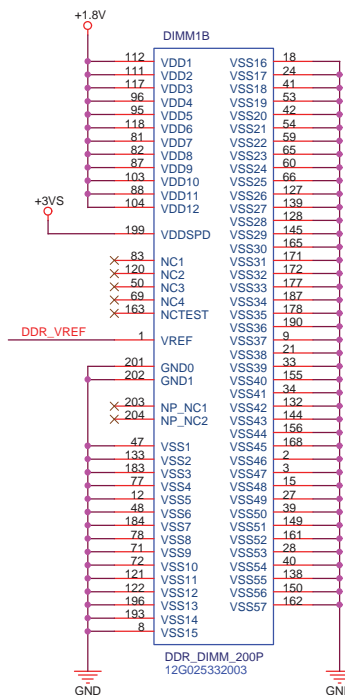
DIMM1A

| | | | | | |
|---------|-----|--------|------|-----|---------|
| MA_MA0 | 102 | A0 | DQ0 | 5 | MA_DQ0 |
| MA_MA1 | 101 | A1 | DQ1 | 7 | MA_DQ1 |
| MA_MA2 | 100 | A2 | DQ2 | 17 | MA_DQ2 |
| MA_MA3 | 99 | A3 | DQ3 | 19 | MA_DQ3 |
| MA_MA4 | 98 | A4 | DQ4 | 4 | MA_DQ4 |
| MA_MA5 | 97 | A5 | DQ5 | 6 | MA_DQ5 |
| MA_MA6 | 94 | A6 | DQ6 | 14 | MA_DQ6 |
| MA_MA7 | 92 | A7 | DQ7 | 16 | MA_DQ7 |
| MA_MA8 | 91 | A8 | DQ8 | 25 | MA_DQ8 |
| MA_MA9 | 90 | A9 | DQ9 | 35 | MA_DQ9 |
| MA_MA10 | 89 | A10/AP | DQ10 | 37 | MA_DQ10 |
| MA_MA11 | 88 | A11 | DQ11 | 20 | MA_DQ11 |
| MA_MA12 | 87 | A12 | DQ12 | 22 | MA_DQ12 |
| MA_MA13 | 86 | A13 | DQ13 | 36 | MA_DQ13 |
| MA_MA14 | 85 | A14 | DQ14 | 38 | MA_DQ14 |
| MA_MA15 | 84 | A15 | DQ15 | 43 | MA_DQ15 |
| MA_MA16 | 83 | A16 | DQ16 | 45 | MA_DQ16 |
| MA_MA17 | 82 | A17 | DQ17 | 55 | MA_DQ17 |
| MA_MA18 | 81 | A18 | DQ18 | 57 | MA_DQ18 |
| MA_MA19 | 80 | A19 | DQ19 | 58 | MA_DQ19 |
| MA_MA20 | 79 | A20 | DQ20 | 46 | MA_DQ20 |
| MA_MA21 | 78 | A21 | DQ21 | 56 | MA_DQ21 |
| MA_MA22 | 77 | A22 | DQ22 | 58 | MA_DQ22 |
| MA_MA23 | 76 | A23 | DQ23 | 61 | MA_DQ23 |
| MA_MA24 | 75 | A24 | DQ24 | 63 | MA_DQ24 |
| MA_MA25 | 74 | A25 | DQ25 | 73 | MA_DQ25 |
| MA_MA26 | 73 | A26 | DQ26 | 75 | MA_DQ26 |
| MA_MA27 | 72 | A27 | DQ27 | 62 | MA_DQ27 |
| MA_MA28 | 71 | A28 | DQ28 | 64 | MA_DQ28 |
| MA_MA29 | 70 | A29 | DQ29 | 64 | MA_DQ29 |
| MA_MA30 | 69 | A30 | DQ30 | 74 | MA_DQ30 |
| MA_MA31 | 68 | A31 | DQ31 | 76 | MA_DQ31 |
| MA_MA32 | 67 | A32 | DQ32 | 123 | MA_DQ32 |
| MA_MA33 | 66 | A33 | DQ33 | 125 | MA_DQ33 |
| MA_MA34 | 65 | A34 | DQ34 | 135 | MA_DQ34 |
| MA_MA35 | 64 | A35 | DQ35 | 137 | MA_DQ35 |
| MA_MA36 | 63 | A36 | DQ36 | 124 | MA_DQ36 |
| MA_MA37 | 62 | A37 | DQ37 | 134 | MA_DQ37 |
| MA_MA38 | 61 | A38 | DQ38 | 136 | MA_DQ38 |
| MA_MA39 | 60 | A39 | DQ39 | 141 | MA_DQ39 |
| MA_MA40 | 59 | A40 | DQ40 | 143 | MA_DQ40 |
| MA_MA41 | 58 | A41 | DQ41 | 151 | MA_DQ41 |
| MA_MA42 | 57 | A42 | DQ42 | 151 | MA_DQ42 |
| MA_MA43 | 56 | A43 | DQ43 | 153 | MA_DQ43 |
| MA_MA44 | 55 | A44 | DQ44 | 140 | MA_DQ44 |
| MA_MA45 | 54 | A45 | DQ45 | 142 | MA_DQ45 |
| MA_MA46 | 53 | A46 | DQ46 | 152 | MA_DQ46 |
| MA_MA47 | 52 | A47 | DQ47 | 154 | MA_DQ47 |
| MA_MA48 | 51 | A48 | DQ48 | 157 | MA_DQ48 |
| MA_MA49 | 50 | A49 | DQ49 | 159 | MA_DQ49 |
| MA_MA50 | 49 | A50 | DQ50 | 173 | MA_DQ50 |
| MA_MA51 | 48 | A51 | DQ51 | 175 | MA_DQ51 |
| MA_MA52 | 47 | A52 | DQ52 | 158 | MA_DQ52 |
| MA_MA53 | 46 | A53 | DQ53 | 160 | MA_DQ53 |
| MA_MA54 | 45 | A54 | DQ54 | 174 | MA_DQ54 |
| MA_MA55 | 44 | A55 | DQ55 | 176 | MA_DQ55 |
| MA_MA56 | 43 | A56 | DQ56 | 179 | MA_DQ56 |
| MA_MA57 | 42 | A57 | DQ57 | 181 | MA_DQ57 |
| MA_MA58 | 41 | A58 | DQ58 | 189 | MA_DQ58 |
| MA_MA59 | 40 | A59 | DQ59 | 191 | MA_DQ59 |
| MA_MA60 | 39 | A60 | DQ60 | 180 | MA_DQ60 |
| MA_MA61 | 38 | A61 | DQ61 | 182 | MA_DQ61 |
| MA_MA62 | 37 | A62 | DQ62 | 192 | MA_DQ62 |
| MA_MA63 | 36 | A63 | DQ63 | 194 | MA_DQ63 |

DDR_DIMM_200P
12G025332003



GROUP1
GROUP2
SWAP

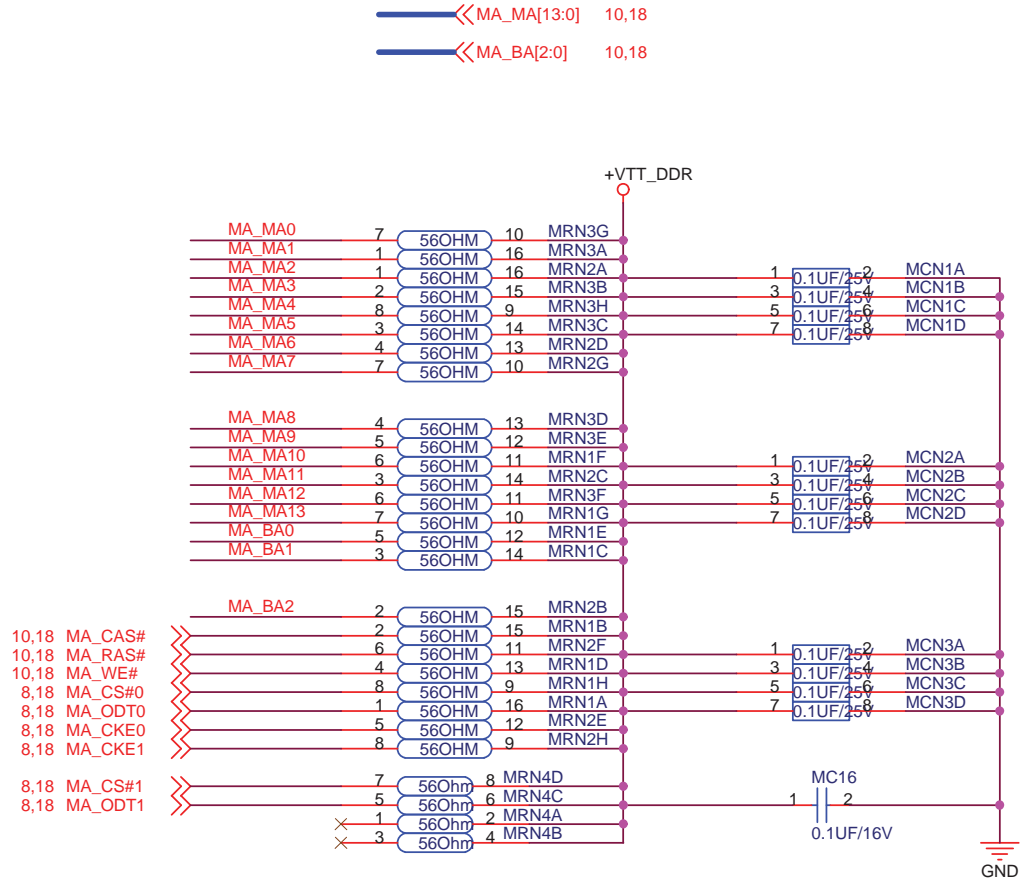


DIMM1B


DDR_DIMM_200P
12G025332003

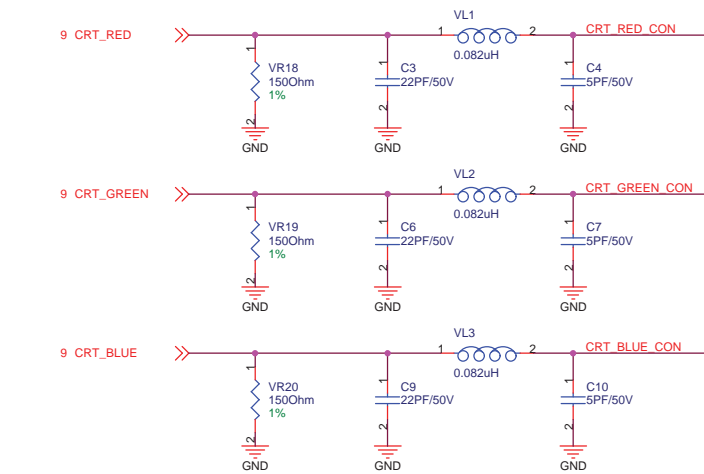
<Variant Name>

| | | | |
|-------------------------------|--------------|-----------------------------|-------|
| ASUS | | Title : DDR2 SODIMM | |
| ASUSTek Computer INC. | | Engineer: Kell Huang | |
| Size | Project Name | Rev | |
| A3 | P901 | 1.1G | |
| Date: Monday, August 11, 2008 | Sheet | 18 | of 47 |

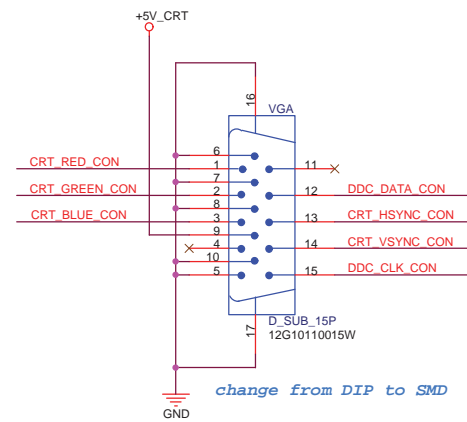
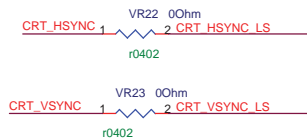
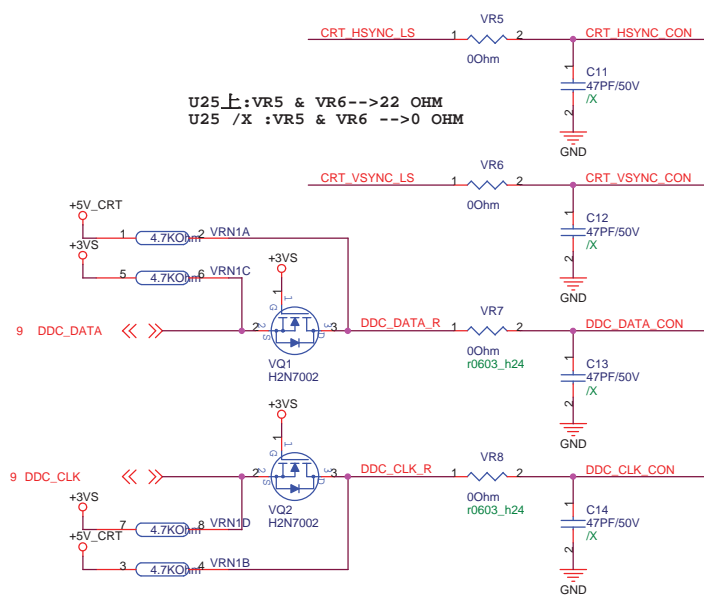


<Variant Name>

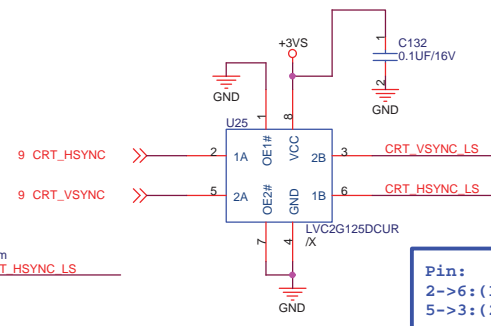
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|---|----------------------|--------------------------|-------------|
|  | | Title : DDR2_Termination | |
| ASUSTek Computer INC. | | Engineer: Kell_Huang | |
| Size A4 | Project Name P901 | | Rev 1.1G |
| Date: Monday, August 11, 2008 | | Sheet | 19 of 47 |



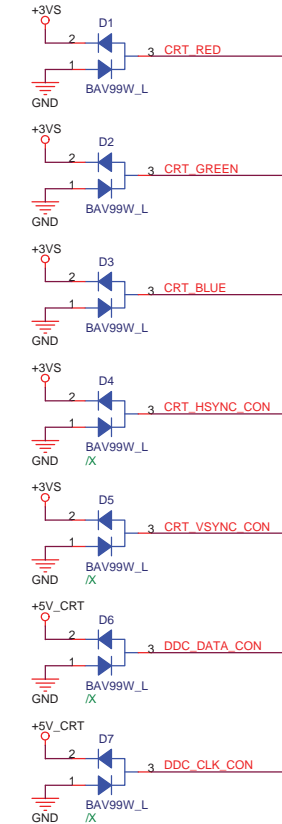
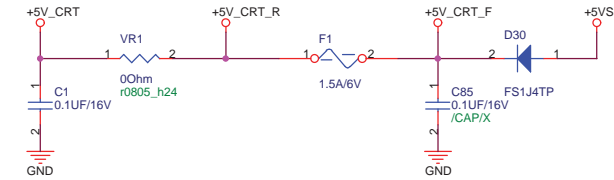
U25上:VR5 & VR6-->22 OHM
U25 /X :VR5 & VR6 -->0 OHM



VGA use 12G10110015W & 12G10110015N

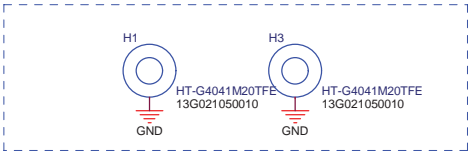
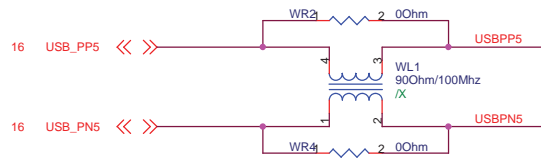


Pin:
2->6: (1A->1B)
5->3: (2A->2B)

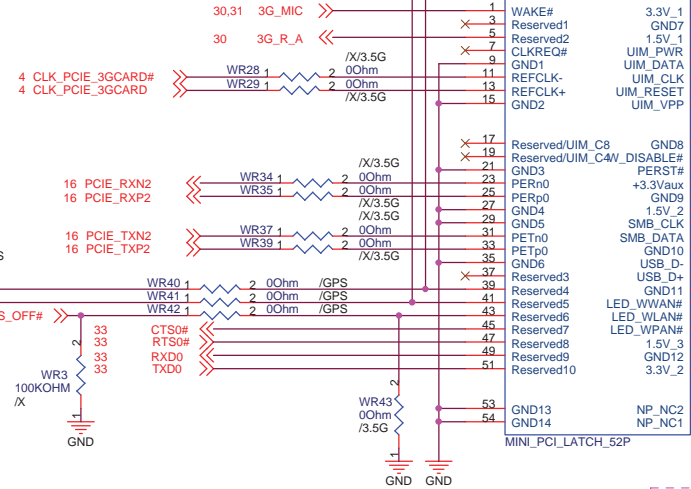
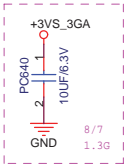
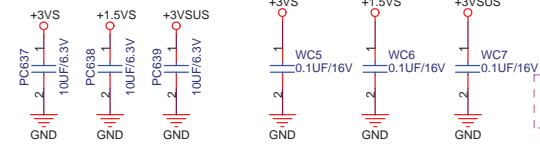


| | | | |
|-------------------------------|--------------|----------------------|----------|
| <Variant Name> | | Title : Onboard VGA | |
| ASUSTek Computer INC. | | Engineer: Kell_Huang | |
| Size | Project Name | Rev | |
| A3 | P901 | 1.1G | |
| Date: Monday, August 11, 2008 | | Sheet | 20 of 47 |

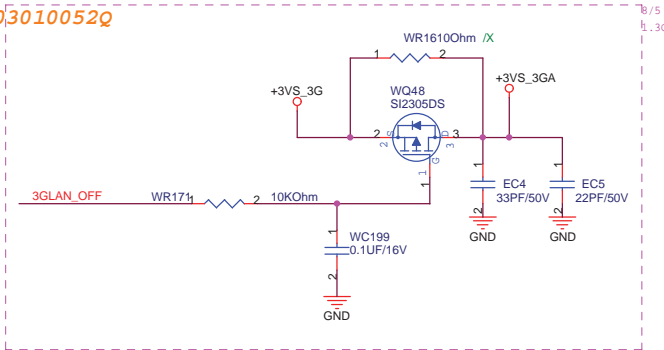
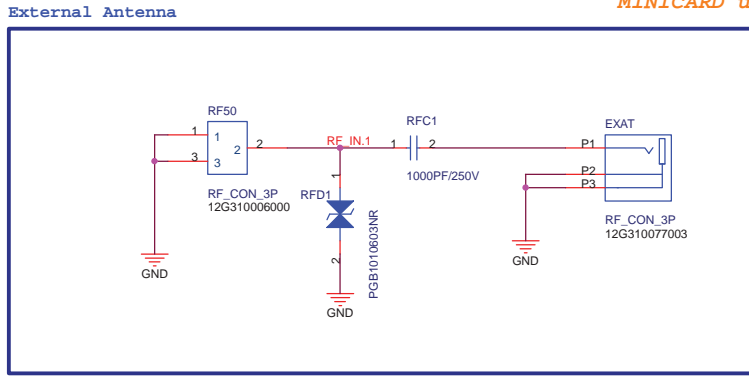




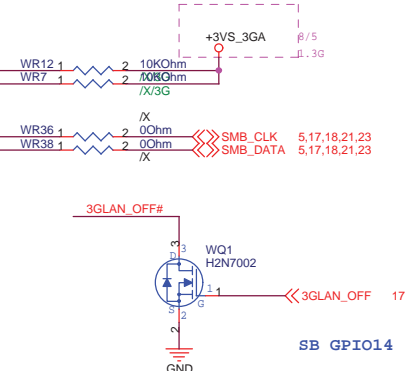
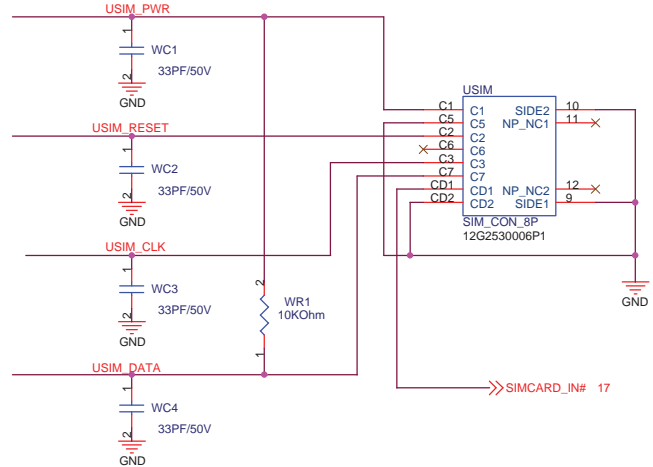
MINI CARD NUT(1.6mm) *2



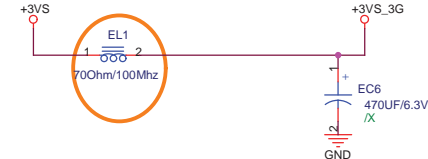
MINICARD use 12G03010052Q



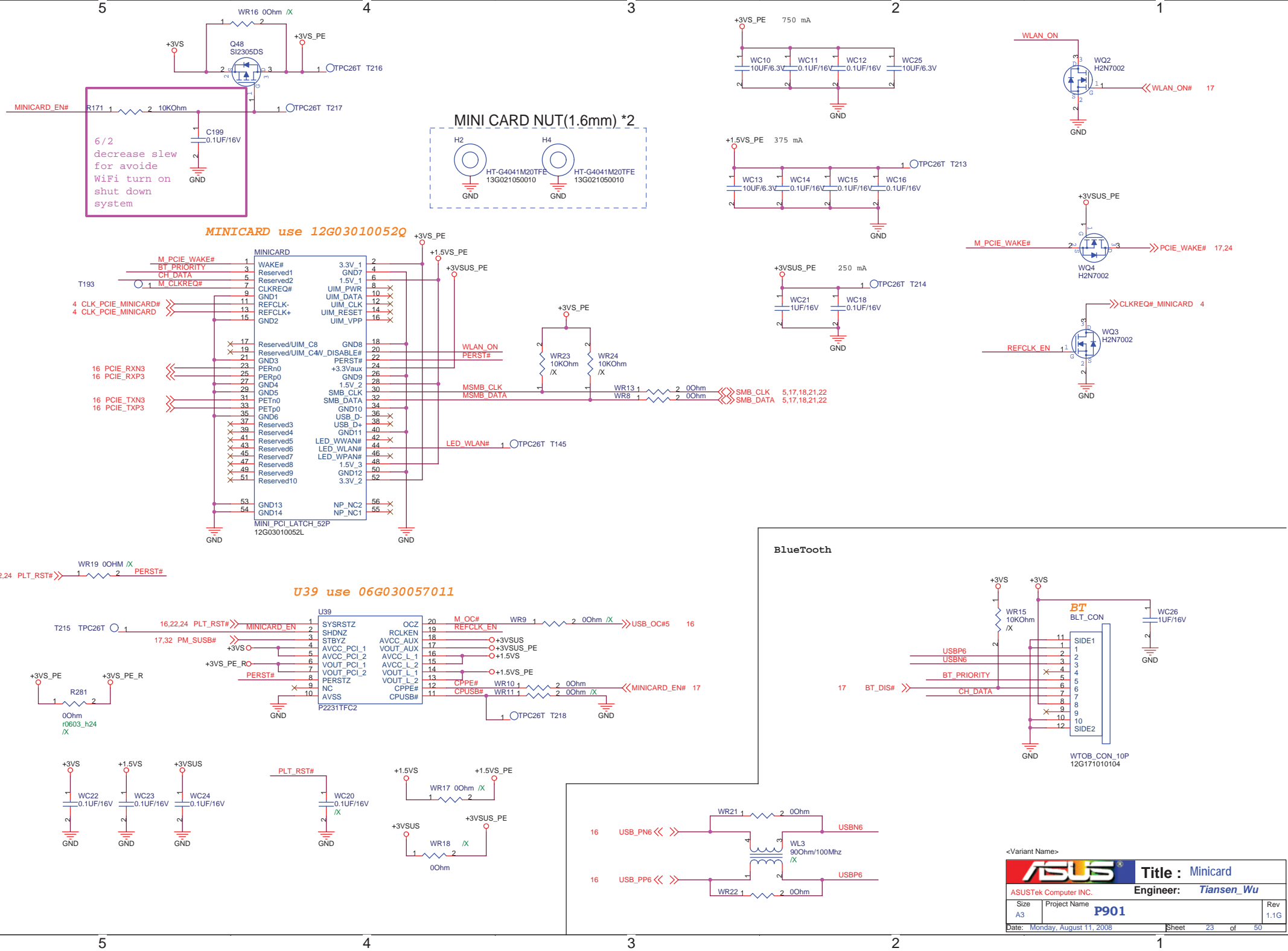
CAP Near SIM Socket

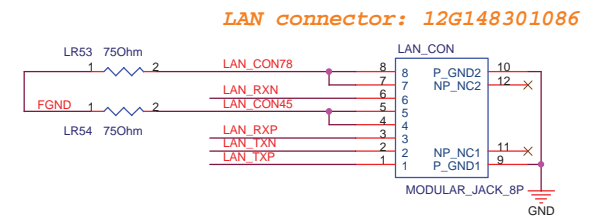
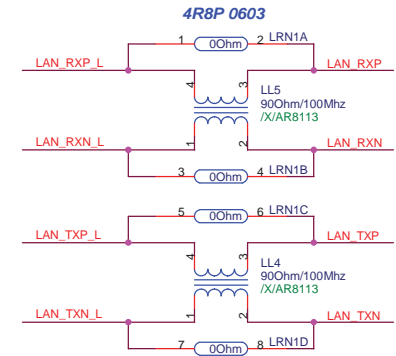
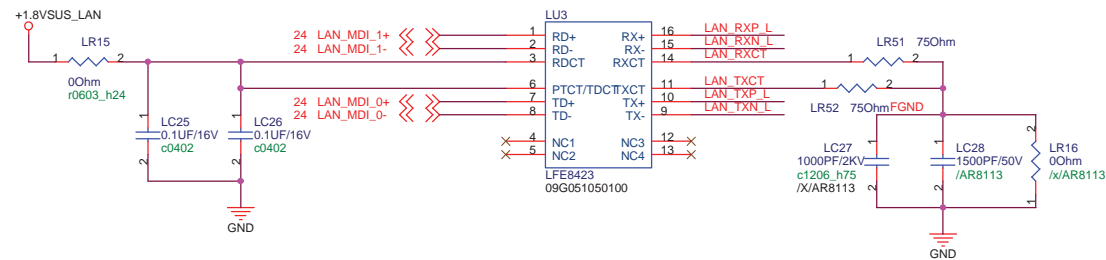


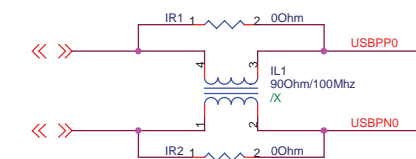
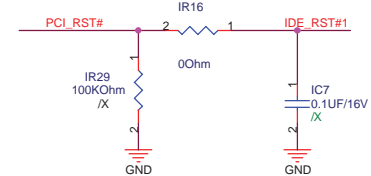
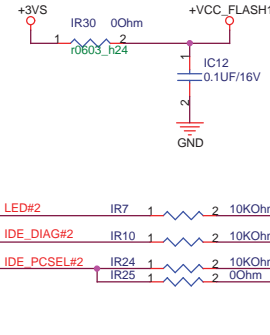
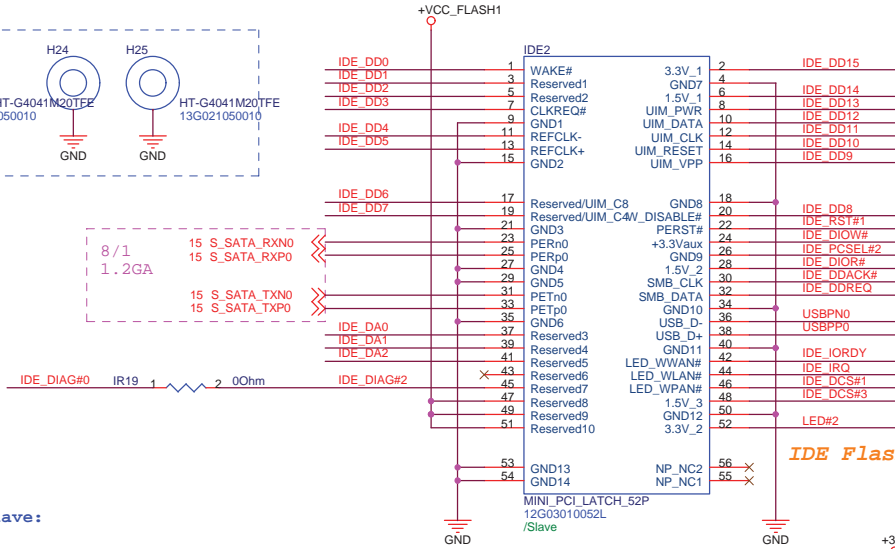
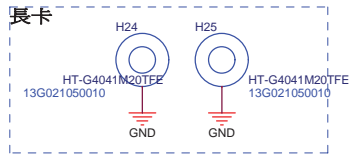
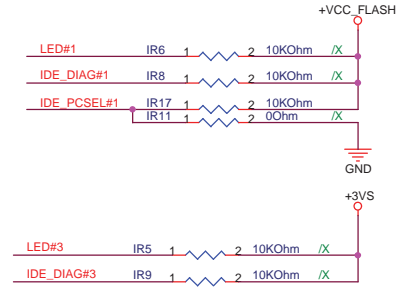
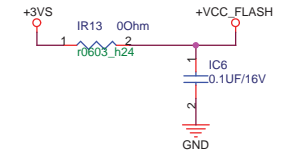
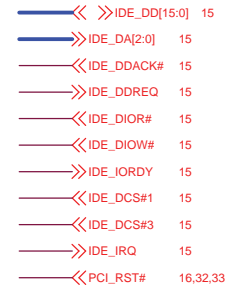
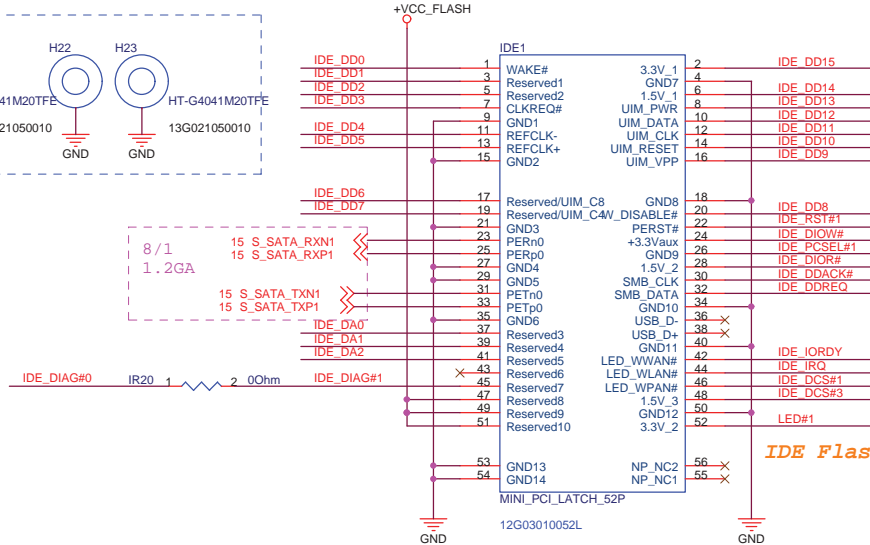
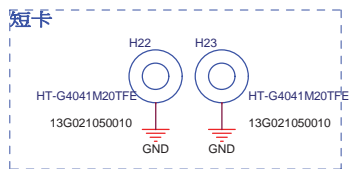
2008/03/11 change



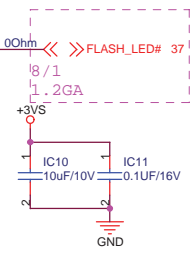
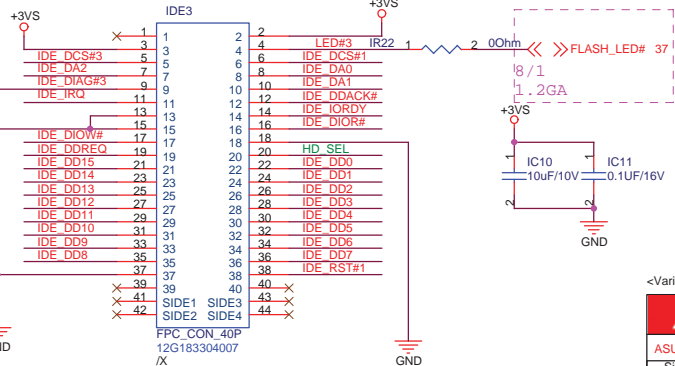
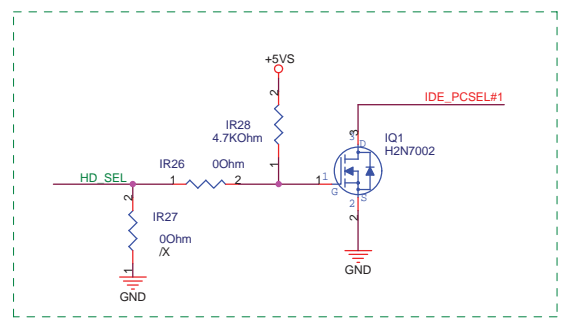
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|-------------------------------|--------------|----------------------|----------|
| ASUS | | Title : | |
| ASUSTek Computer INC. | | Engineer: Kell Huang | |
| Size | Project Name | Rev | |
| A3 | P901 | 1.1G | |
| Date: Monday, August 11, 2008 | | Sheet | 22 of 47 |







HD Master/Slave:
Master:Low
Slave :NC or High
Default :High



Naming Rule:
IC:IU?
R:IR?
C:IC?
L:IL?

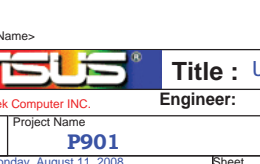
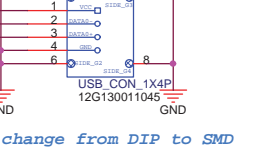
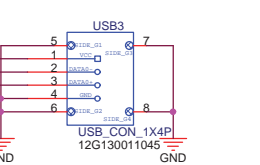
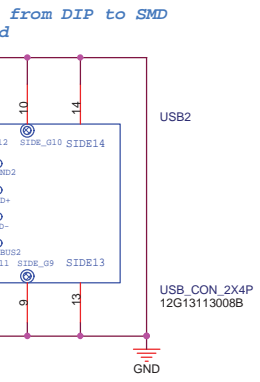
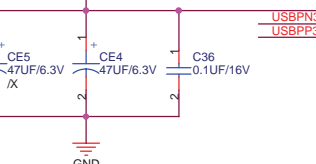
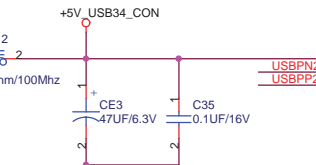
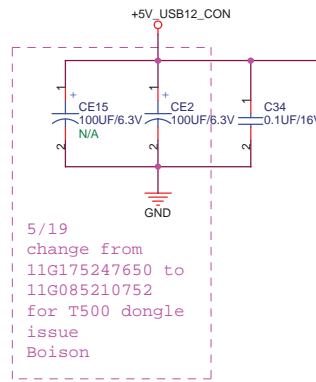
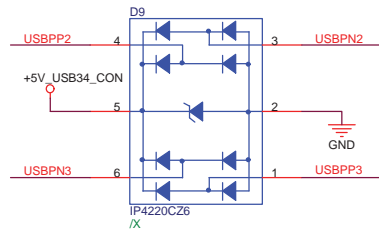
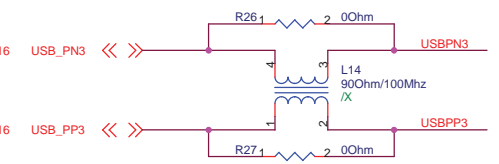
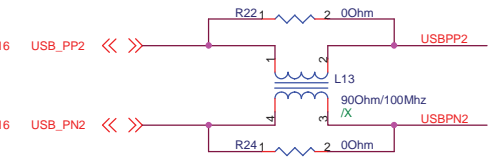
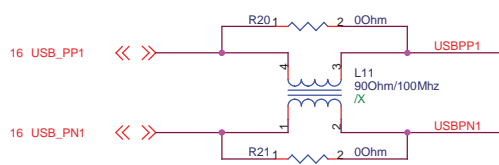
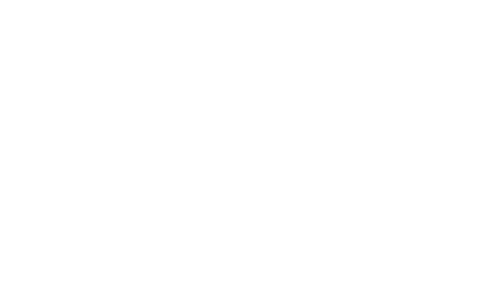
<Variant Name>

ASUS Title : HD + Flash Conn

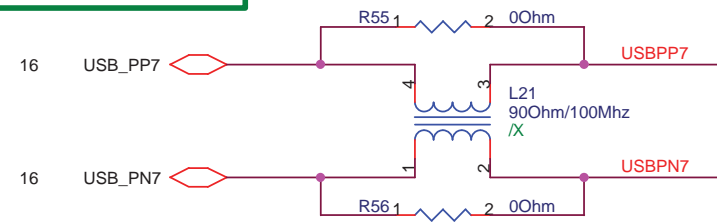
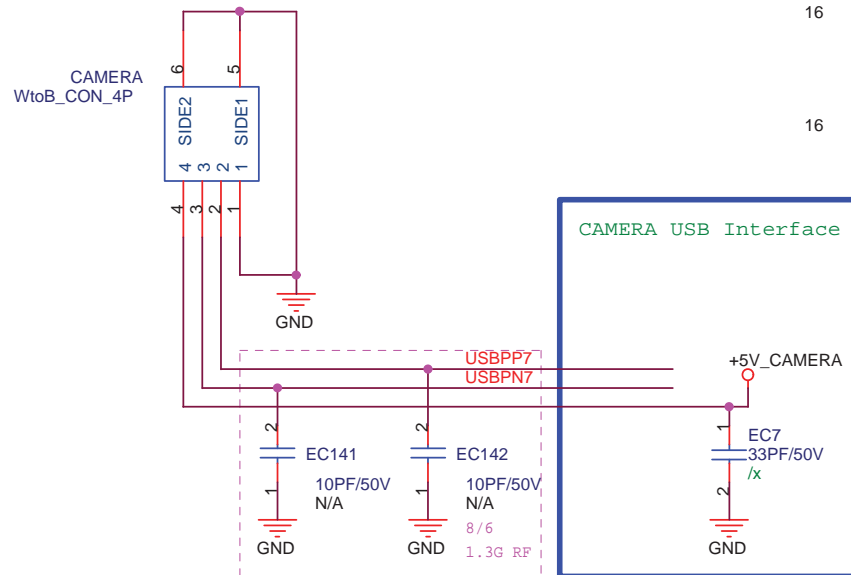
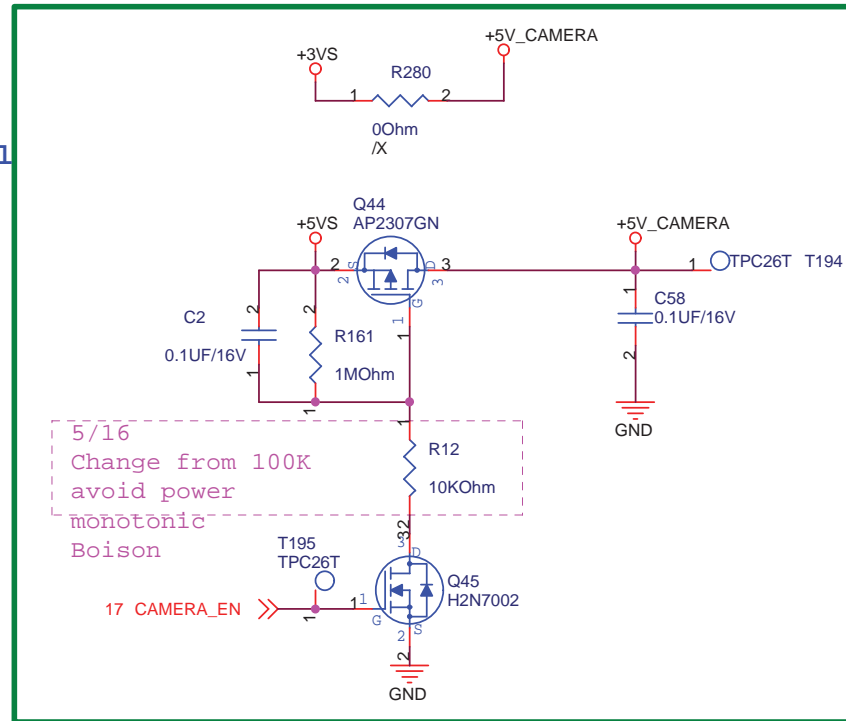
ASUSTek Computer INC. Engineer: Kell Huang

Size A3 Project Name P901

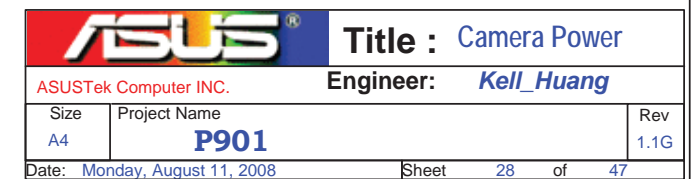
Date: Monday, August 11, 2008 Sheet 26 of 47

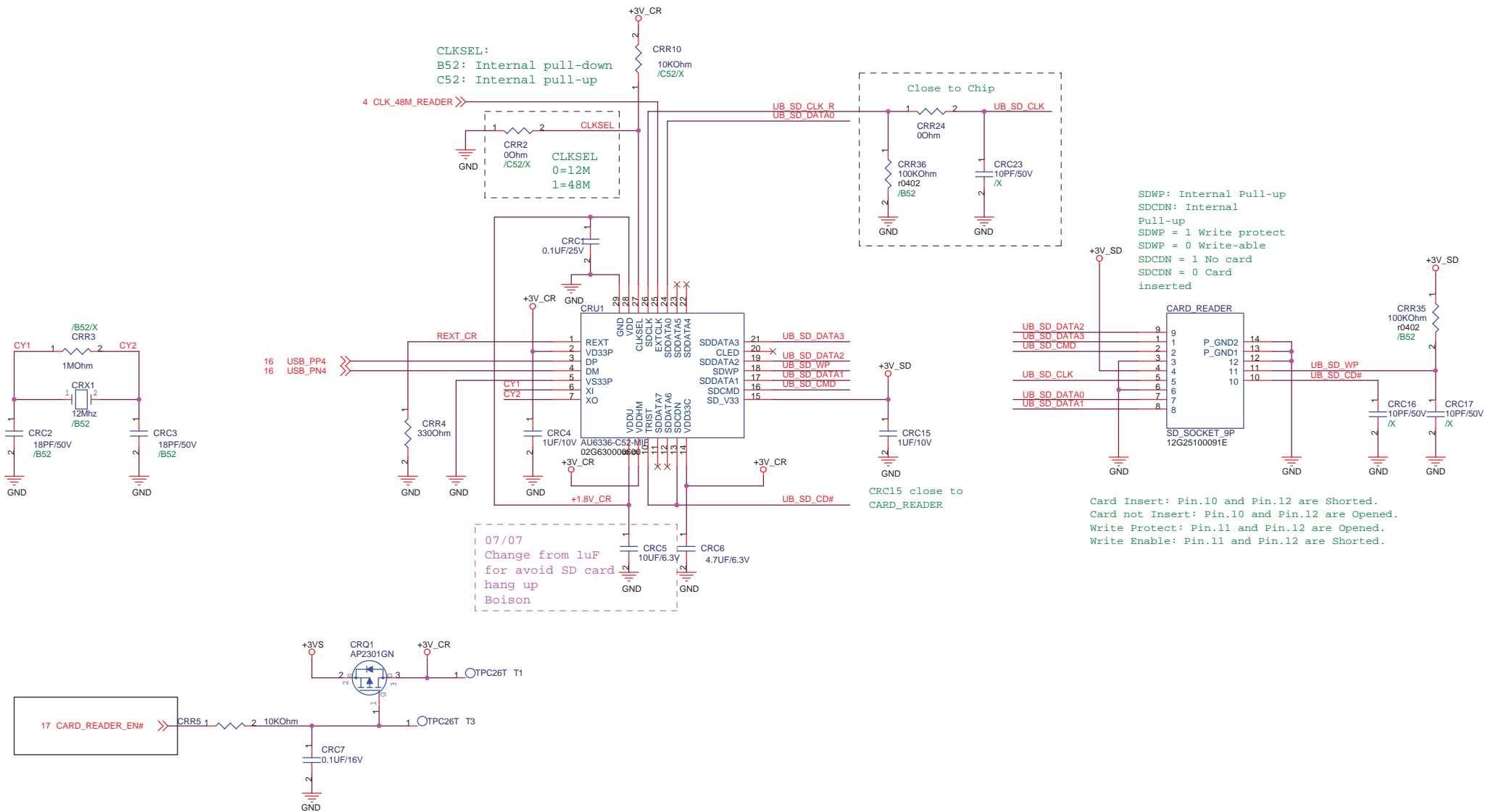


Power Control



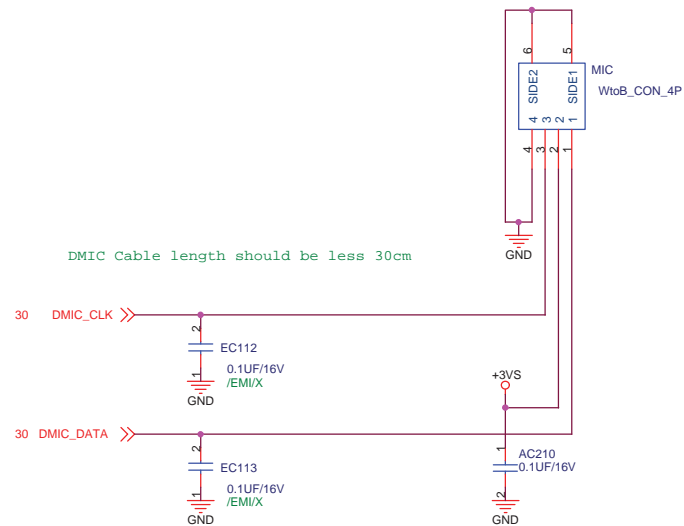
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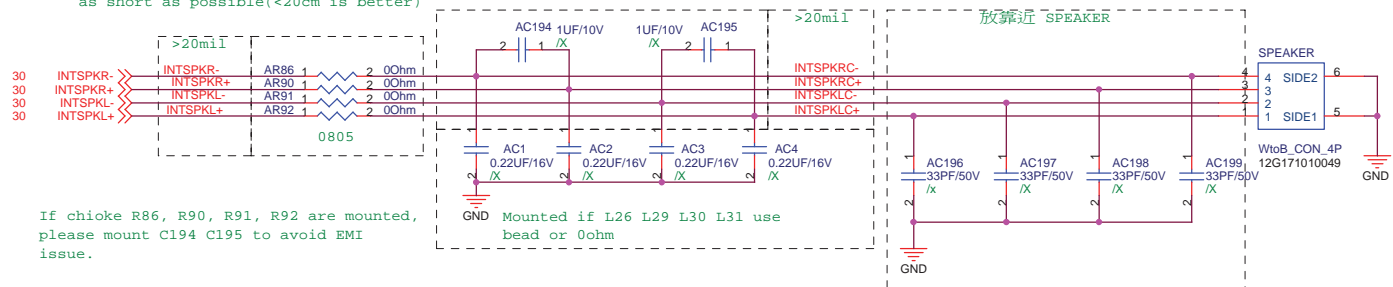


<Variant Name>

| | | | |
|-------------------------------|----------------------|-----------------------|----------|
| ASUS | | Title : AU6336-C52 | |
| ASUSTek Computer Inc. | | Engineer: Boison Hung | |
| Size A3 | Project Name P901 | Rev 1.1G | |
| Date: Monday, August 11, 2008 | | Sheet | 29 of 50 |

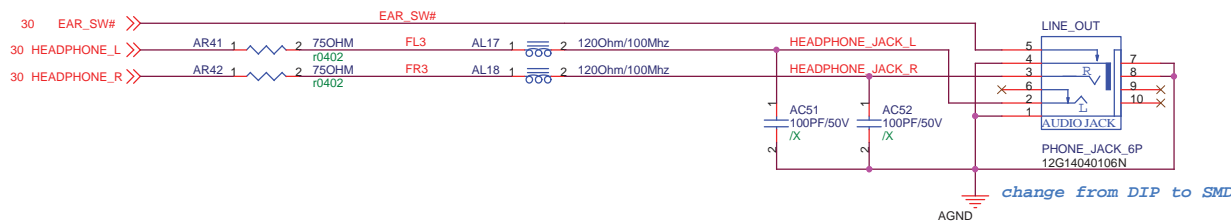


Total length from speakerR+- L+- (pin40 41 44 45) to internal speaker please as short as possible(<20cm is better)

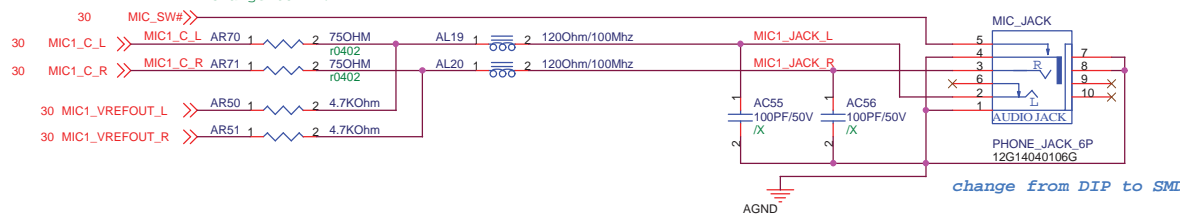


If chioke R86, R90, R91, R92 are mounted, please mount C194 C195 to avoid EMI issue.

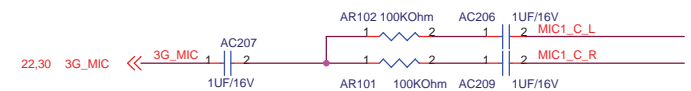
LINE_OUT use 12G14040106N



MIC_JACK use 12G14040106G



R70 and R71: If don't need retasking function, change to 1K.



| | | | |
|-------------------------------|--------------|------------------|-------|
| <Variant Name> | | Title : ALC269-2 | |
| ASUS® | | Engineer: MICK | |
| Size | Project Name | Rev | |
| A3 | P901 | 1.1G | |
| Date: Monday, August 11, 2008 | Sheet | 31 | of 50 |

R1.2G to resolve auto-boot issue

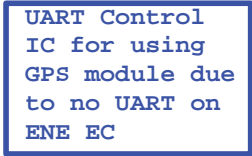
The diagrams illustrate the hardware modification for the R1.2G version to resolve the auto-boot issue. Both diagrams use a BAT54AW diode to combine the VSUS_PWRGD and EC signals.

Top Diagram (PM_RSMRST#):

- Inputs:**
 - 32,44 VSUS_PWRGD (Pin 1 of BAT54AW)
 - 32 EC_RSMRST# (Pin 2 of BAT54AW)
- Output:** The output of the BAT54AW diode (Pin 3) is connected to the PM_RSMRST# signal (Pin 17).
- Pull-up:** The PM_RSMRST# signal is pulled up to +3VSUS via a 10kOhm resistor (OR14).

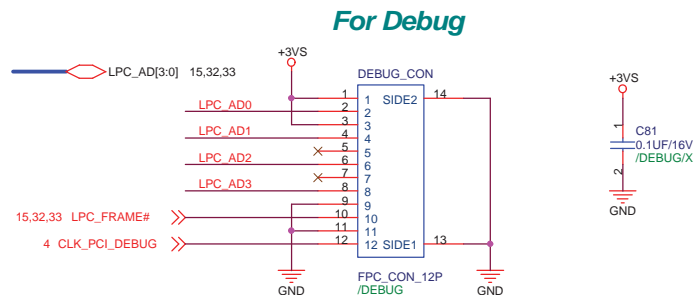
Bottom Diagram (PM_PWROK):

- Inputs:**
 - 32,44 VSUS_PWRGD (Pin 1 of BAT54AW)
 - 32 EC_PWROK (Pin 2 of BAT54AW)
- Output:** The output of the BAT54AW diode (Pin 3) is connected to the PM_PWROK signal (Pin 17).
- Pull-up:** The PM_PWROK signal is pulled up to +3VS via a 10kOhm resistor (OR19).

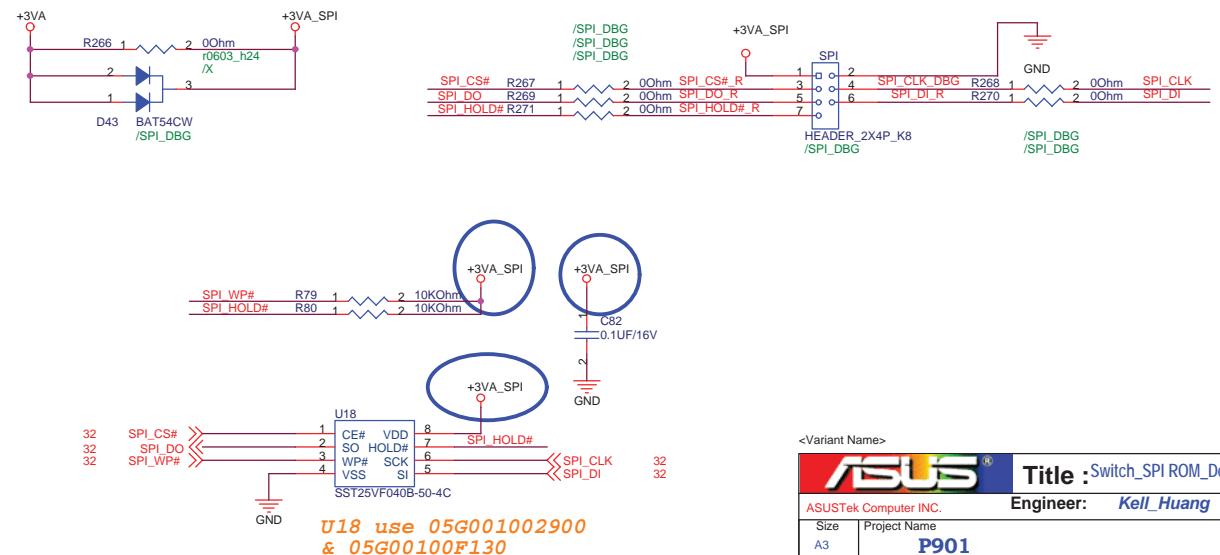


prevent system power on when LCD close

prevent system auto power on when CMOS clear

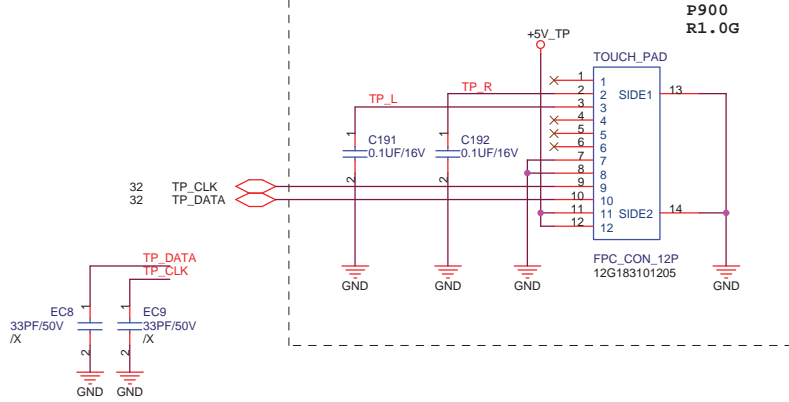


Debug Card cable use Z96 Touch Pad cable, P/N:
14G124110126, 14G124110120, 14G124110121
14G124110124, 14G124110125

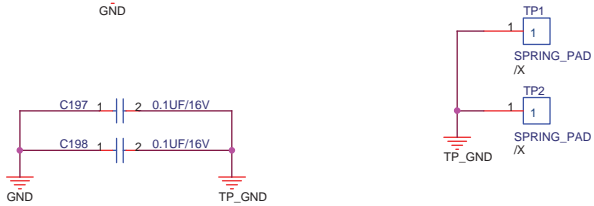
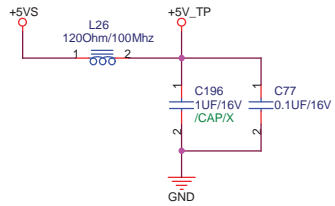
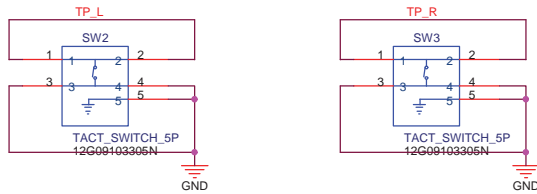


| | | | |
|-------------------------------|--------------|------------------------------|----------|
| ASUS | | Title : Switch_SPI ROM_Debug | |
| ASUSTek Computer INC. | | Engineer: Keli_Huang | |
| Size | Project Name | | Rev |
| A3 | P901 | | 1.1G |
| Date: Monday, August 11, 2008 | | Sheet | 34 of 47 |

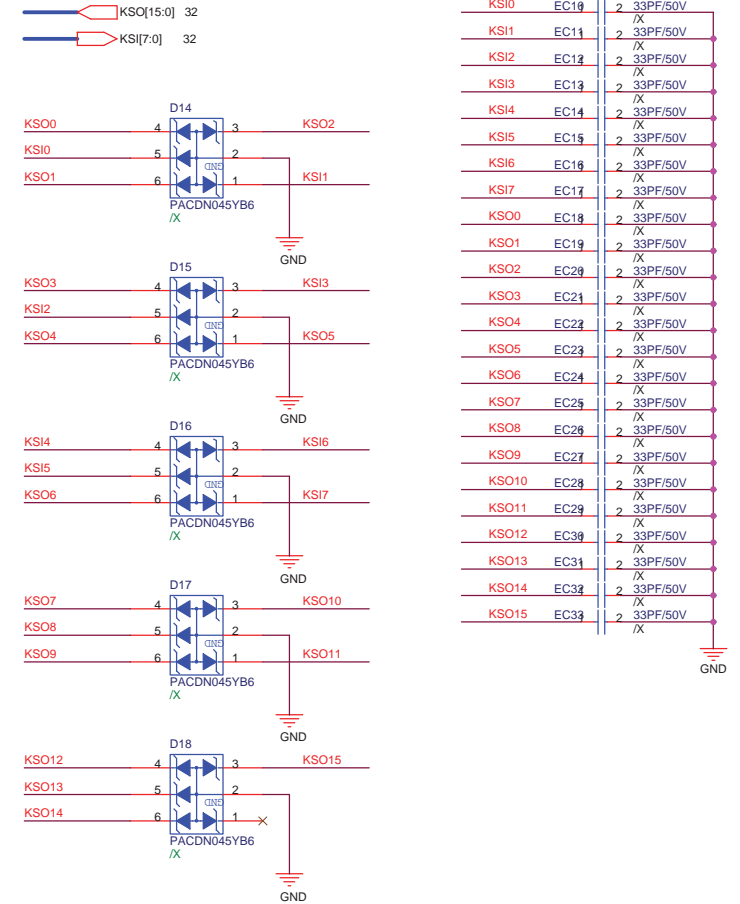
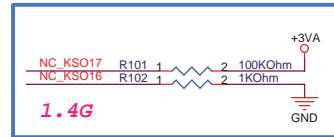
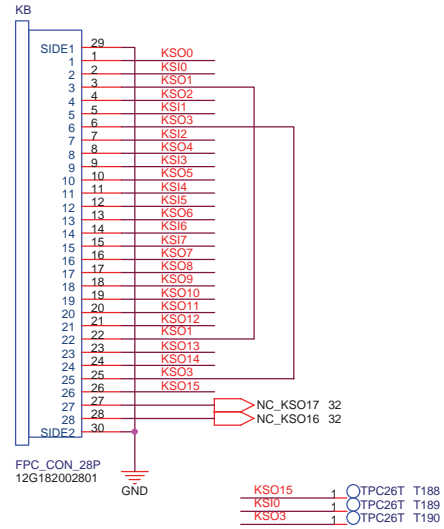
For Touch-Pad



SW2, SW3 use 12G09103305N

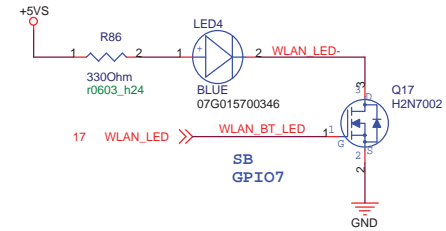


For Keyboard Connector

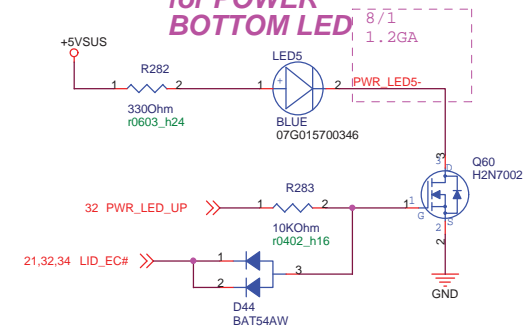


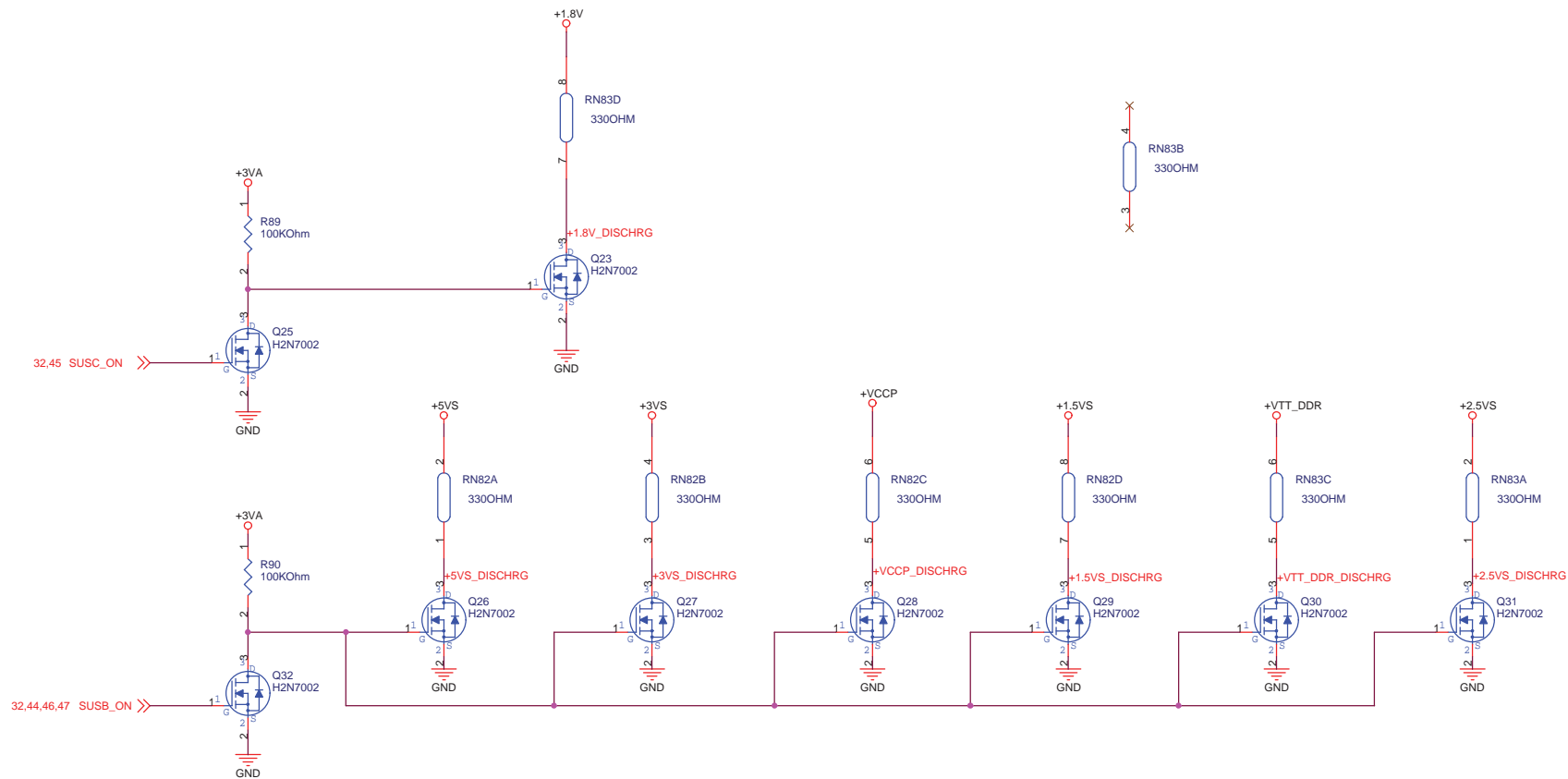
for WLAN/BlueTooth LED

for FLASH LED



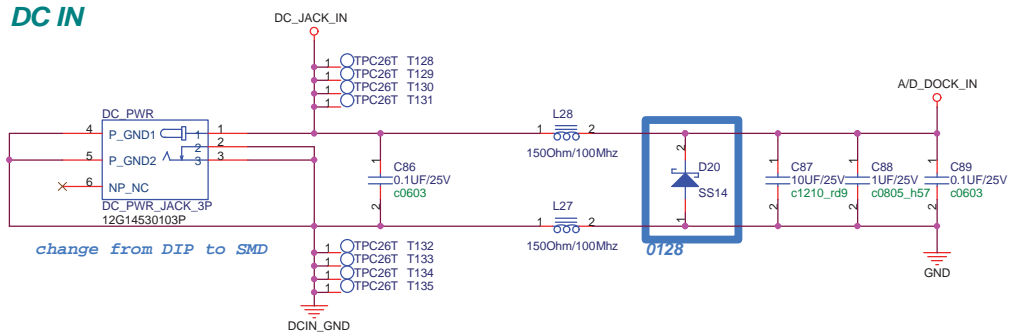
**for POWER
BOTTOM LED**



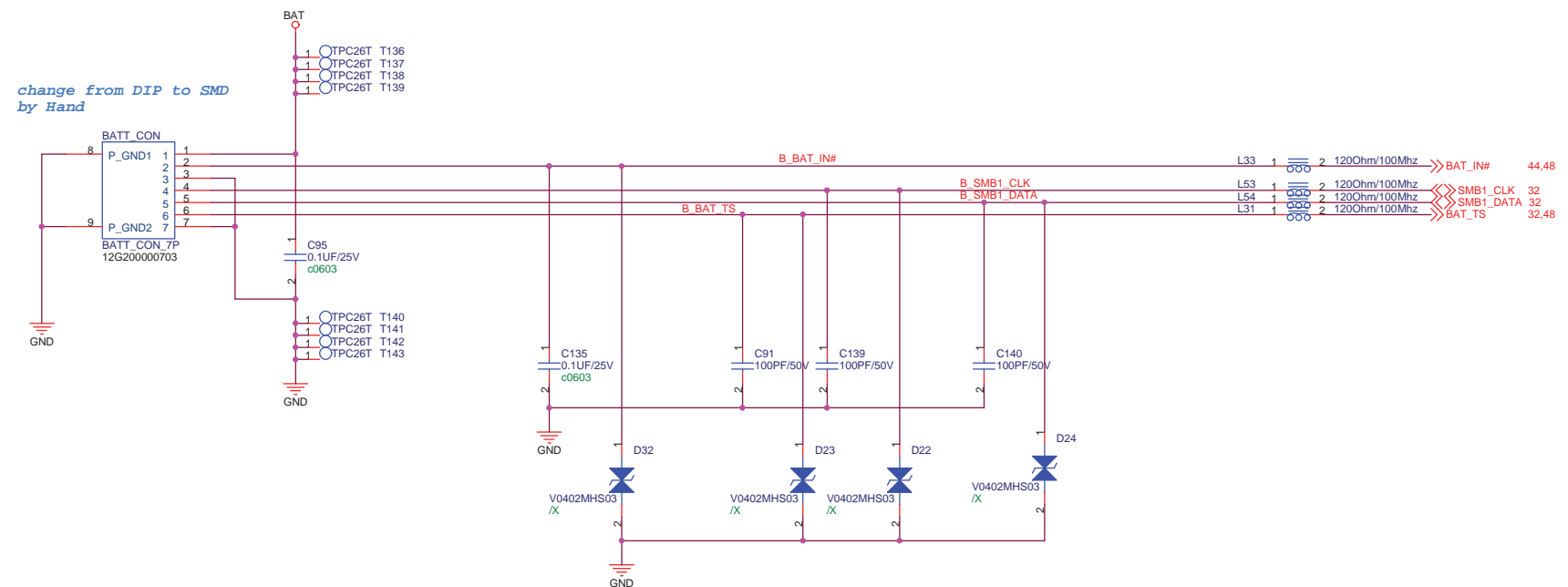


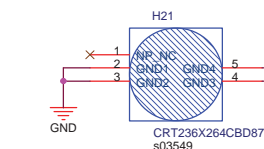
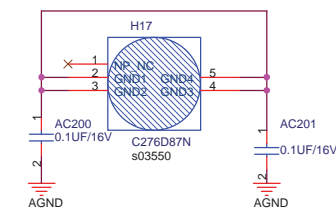
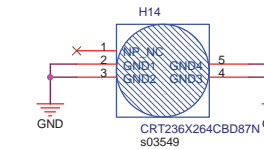
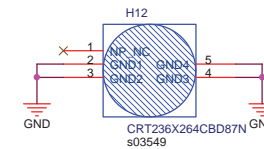
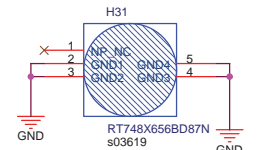
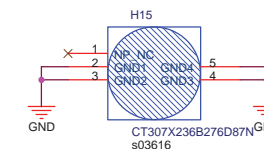
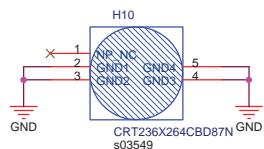
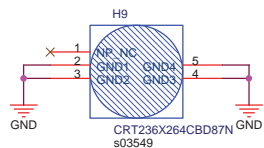
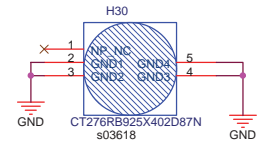
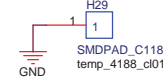
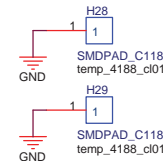
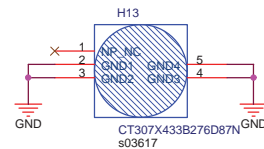
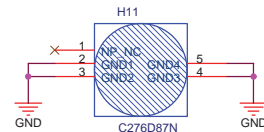
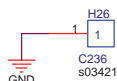
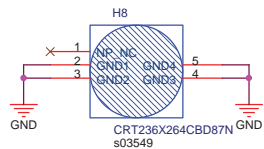
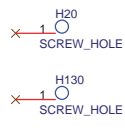
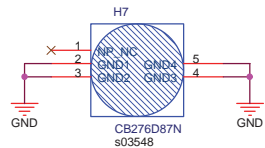
| | | |
|---|--------------|----------------|
| <div><Variant Name></div> <div>  Title : Discharge </div> | | |
| <div>ASUSTek Computer INC.</div> <div> Engineer: Kell_Huang </div> | | |
| Size | Project Name | Rev |
| A3 | P901 | 1.1G |
| Date: Monday, August 11, 2008 | | Sheet 38 of 47 |

DC IN




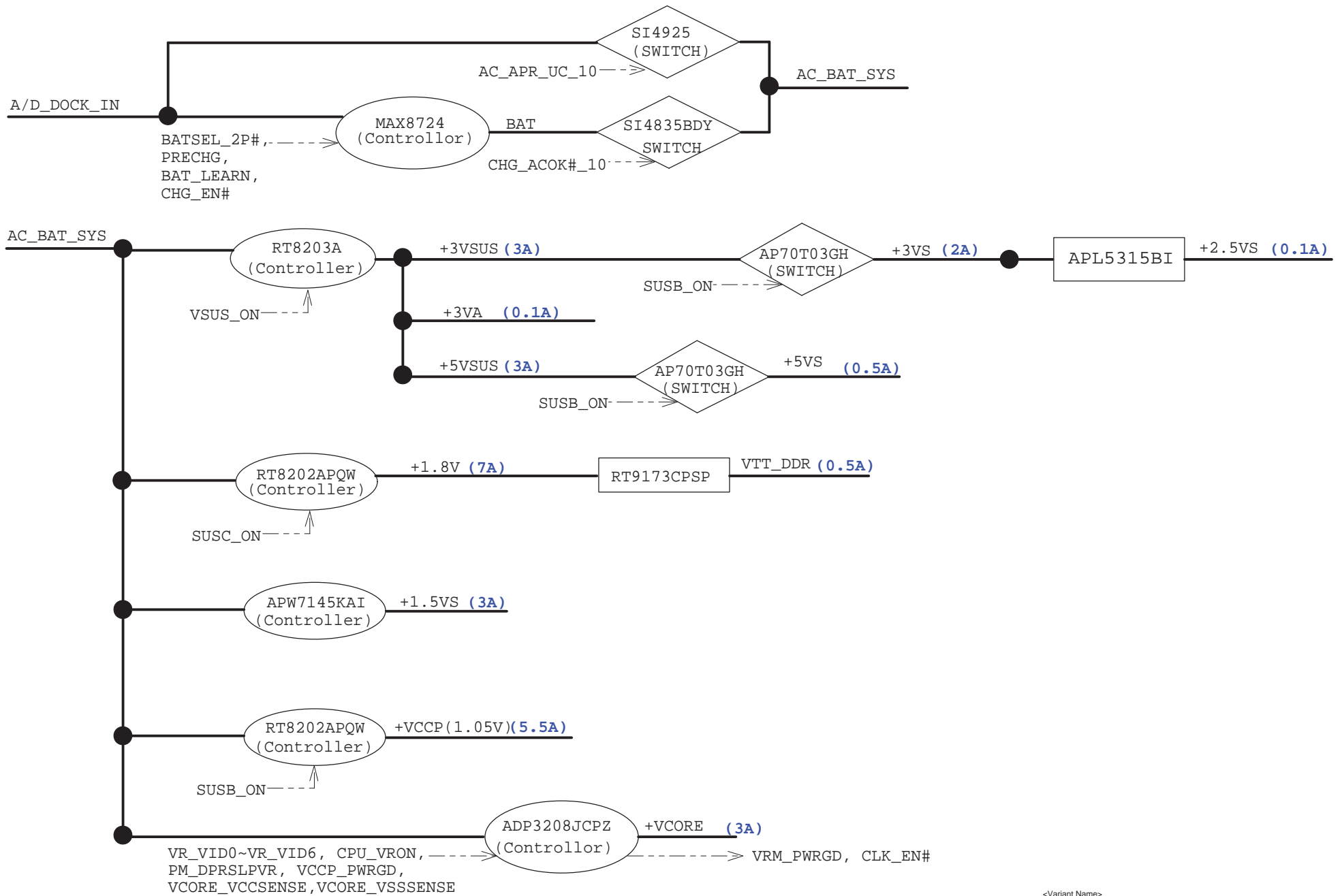
BAT IN

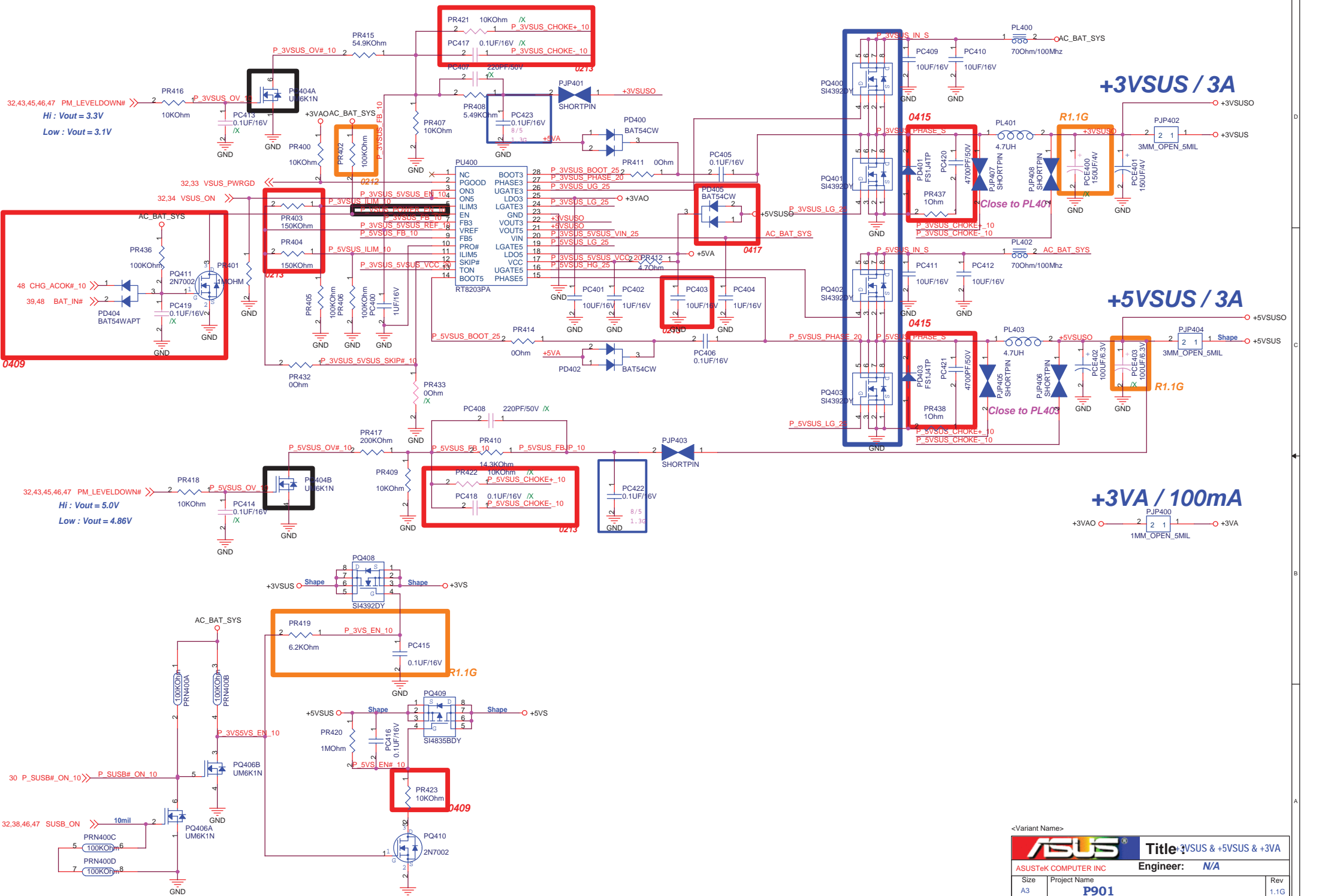


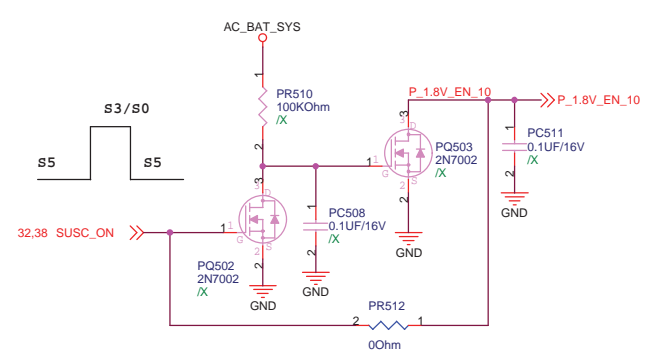


<Variant Name>


| | | | |
|---|-----------------------------|----------------------|-------------|
|  | | Title : Srew Hole | |
| ASUSTek Computer INC. | | Engineer: Kell_Huang | |
| Size A3 | Project Name P901 | | Rev 1.1G |
| Date: Monday, August 11, 2008 | Sheet | 40 of 47 | |







<Variant Name>

| | | |
|---|-----------------------------|----------------------------------|
|  | | Title : +1.8V & VTTDDR |
| ASUSTek Computer INC. | | Engineer: <i>Joy_Zhou</i> |
| Size A3 | Project Name P901 | Rev 1.1G |
| Date: Monday, August 11, 2008 | | Sheet 45 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 | EXTSMH# | 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/SC# | EXT_SC# | 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 configuration |
| 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 |

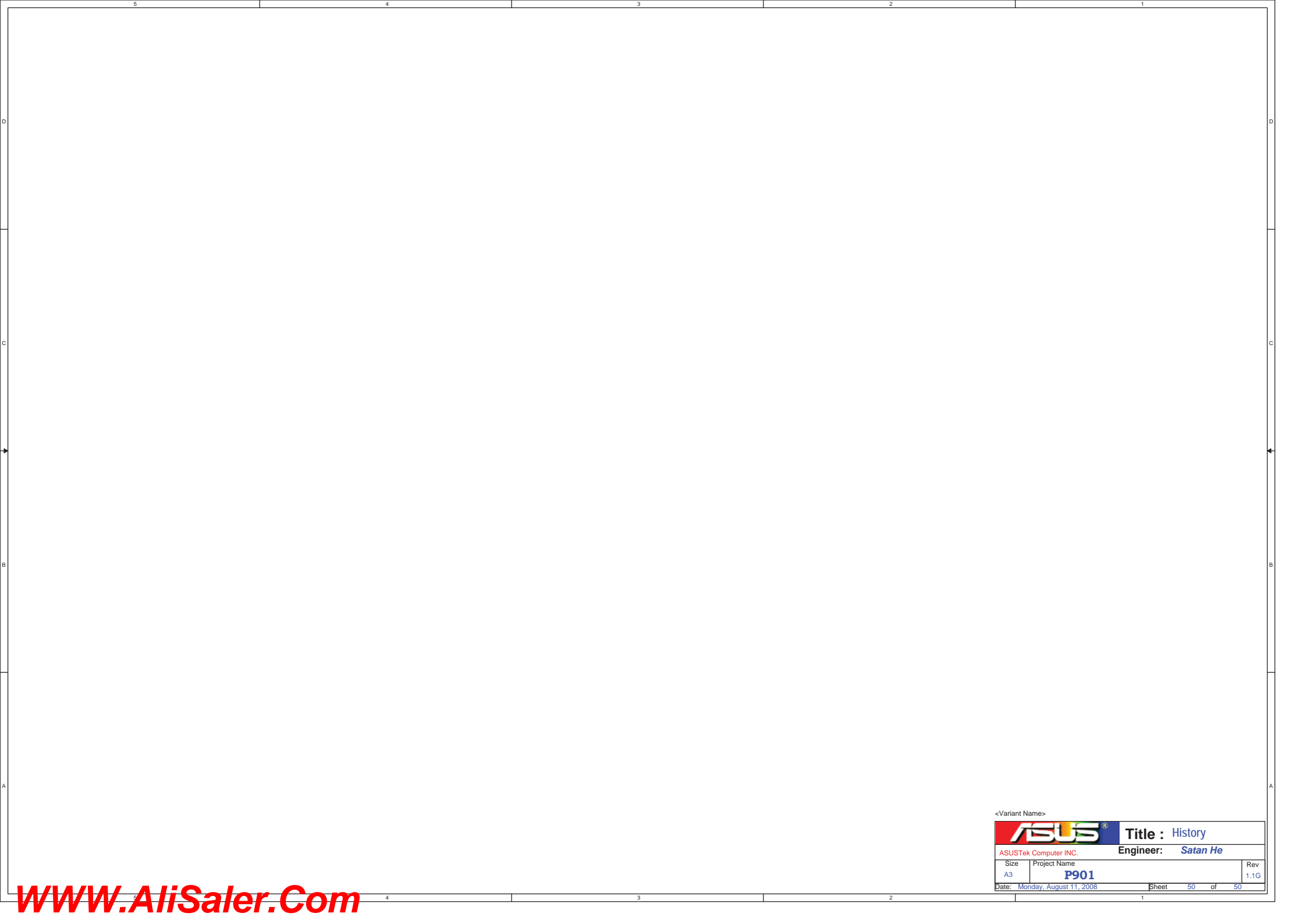
EC KB3310 Other Pin SETTING

| Pin | Pin Name | Signal Name | Type | Note |
|-----|----------------|-------------|------|---------------------------|
| 3 | SERIRQ | INT_SERIRQ | I/O | 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_PCL_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 | |

| Pin | Pin Name | Signal Name | Type | Note |
|-----|-----------------|---------------|------|-------------------------------------|
| 70 | GPO3D/DA1 | LCD_BACKOFF# | O | |
| 71 | GPO3E/DA2 | CLK_PWRSERVE# | 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/O | 4.7K pull high to +3VA_EC |
| 78 | GPIO45/SDA1 | SMB0_DAT | I/O | 4.7K pull high to +3VA_EC |
| 79 | GPIO46/SCL2 | SMB1_CLK | I/O | 10K pull high to +3V |
| 80 | GPIO47/SDA2 | SMB1_DAT | I/O | 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/O | 10K pull high to +3V |
| 88 | GPIO4F/PSDAT3 | TP_DAT | I/O | 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 | SCRLED | 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 | GPXOA10 | 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 | |

<Variant Name>

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|---|-----------------------------|------------------------------|----------|
|  | | Title : EC Pin Define | |
| ASUSTek Computer INC. | | Engineer: Satan He | |
| Size A3 | Project Name P901 | Rev 1.1G | |
| Date: Monday, August 11, 2008 | | Sheet | 49 of 50 |



| | | | |
|---|--------------|--------------------|----------|
| <Variant Name> | | | |
|  | | Title : History | |
| ASUSTek Computer INC. | | Engineer: Satan He | |
| Size | Project Name | | Rev |
| A3 | P901 | | 1.1G |
| Date: Monday, August 11, 2008 | | Sheet | 50 of 50 |