A8E/A8S Merom/GM965/PM965 BLOCK DIAGRAM

Sub block Diagram / BOM option 64

BATTERY TYPE 3S2P

CLOCK GEN ICS9LPR363AGLF-T 29

CPU MEROM 3,4 . . . . CPU CAP 5

POWER SEQENCE 2

HOST BUS

DVI Dual CH. 47

CRT & TV CON 46

LVDS & INV CON 45

VGA CON

LFB LFB LFB LFB

Nvidia NB8x series ATI M7x series

VGA BAORD

VGA CON 70

PCI-E x16

CRESTLINE GM965/PM965 11~15

DDR2 SDRAM 533/667MHz

DDR2 533/667 SODIMM X2 +1.8V +0.9VS 7,8

DDR CAP/RES 9

DCIN RTC FAN CON.

THERMAL CONTROL 50

X4 DMI

VCORE
SYSTEM
1.5VS & 1.05VS
DDR & VTT
+3VAO & +2.5VS
CHARGER
PIC
DETECT
PROTECT
LOAD SWITCH
FLOWCHART
SIGNAL

USB x4 52

B/T 61

Camera FingerPrint 68

USB2.0

SATA

PATA

ICH8M 20~24

SATA HDD 51

ODD Master 51

PCI EXPRESS X1

PCI_BUS 3.3V, 33MHz

ACZ

LPC, 33MHz

4 IN 1 CARD READER 42

CARDBUS RICOH R5C833

1394

LAN 1G RTL8111B 33

MINI CARD x2 53

NEW CARD 43

LAN IO

RJ11,RJ45 CON 34

KBC IT8511E

KB

ISA ROM

T/P 30,31

TPM 62 Module

NEW CARD (DEBUG)

SIO LPC47N217 55

FIR

Azalia ALC660

OP TPA0212

MDC CON 34

PHONE

MIC_IN

USB x1 67

1394 SLOT 40

SW & LED 56

AC & BAT CON FAN CTRL 60 50

<Variant Name>

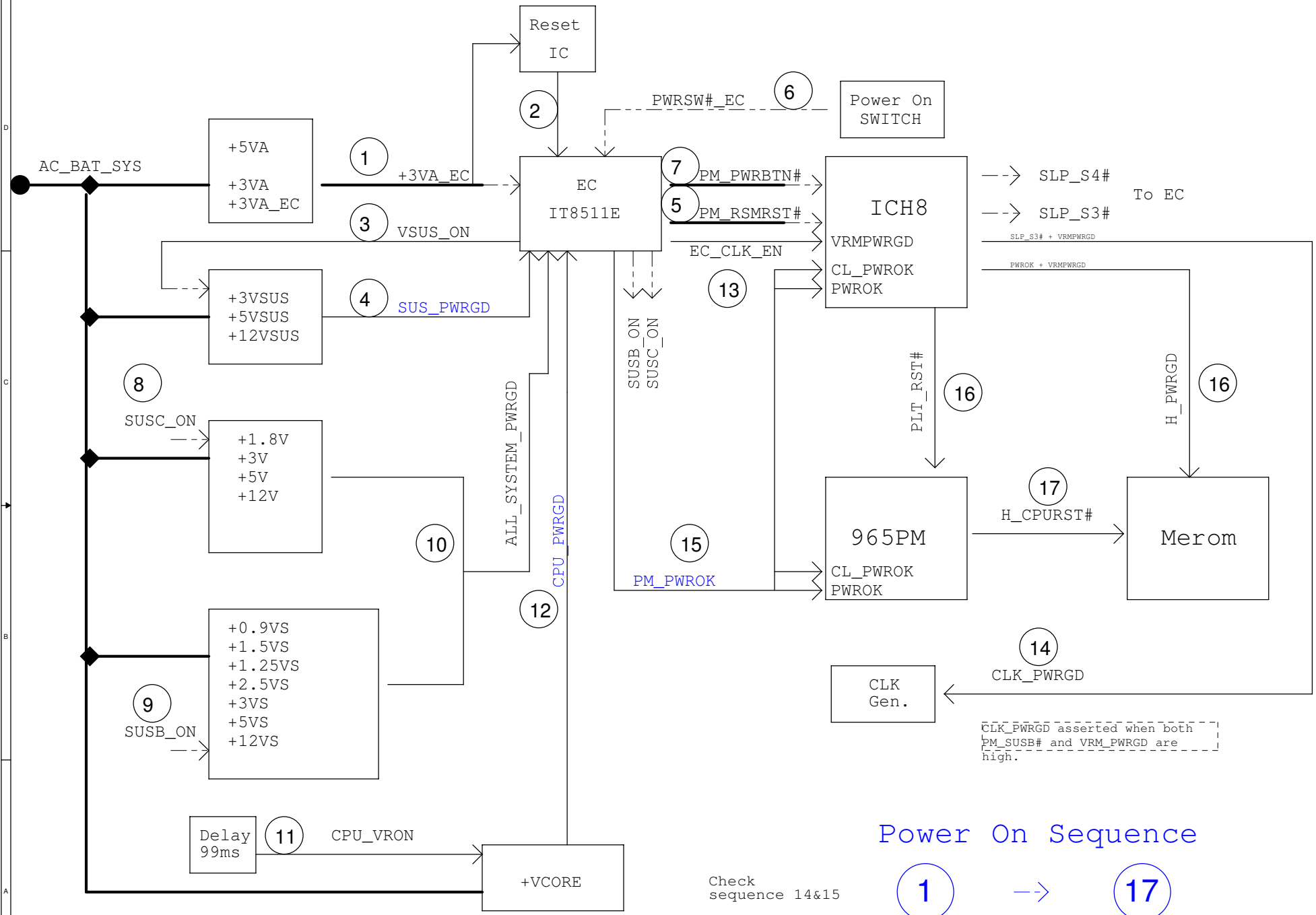
ASUSTeK COMPUTER INC

Title : BLOCKDIAGRAM

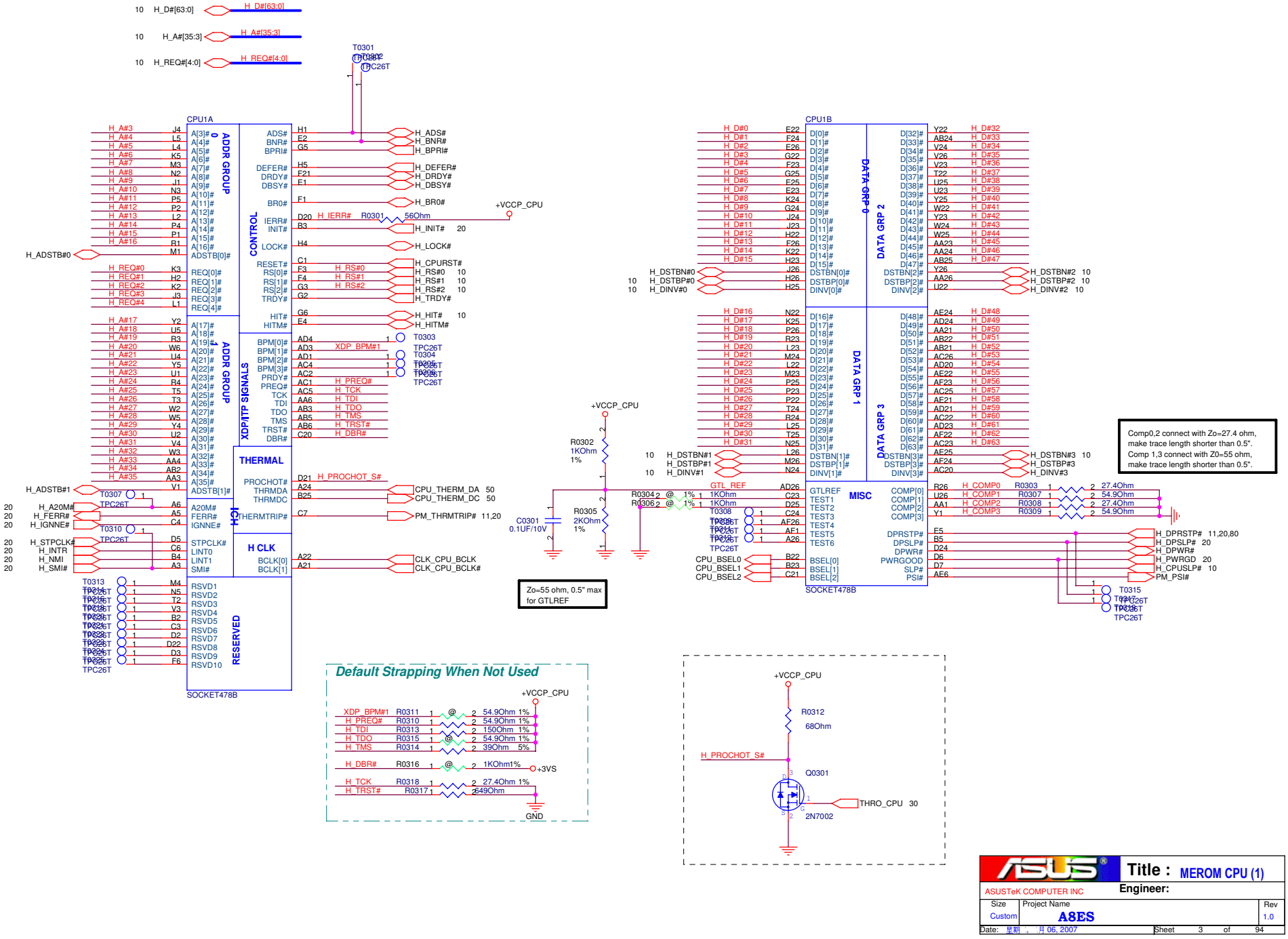
Engineer:

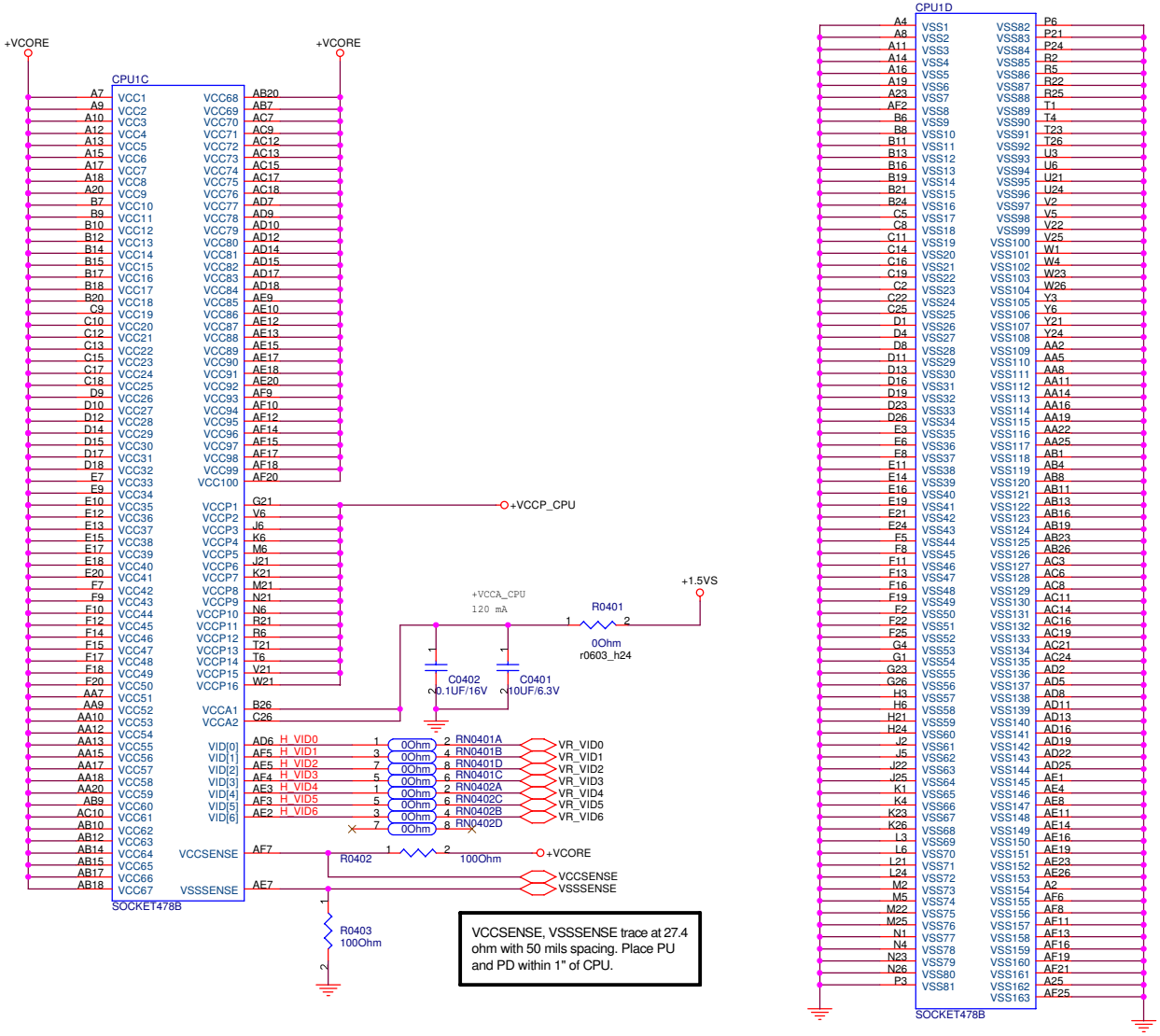
Size: Custom | Project Name: A8ES | Rev: 2.0

Date: 星期一, 一月 29, 2007 | Sheet 1 of 94

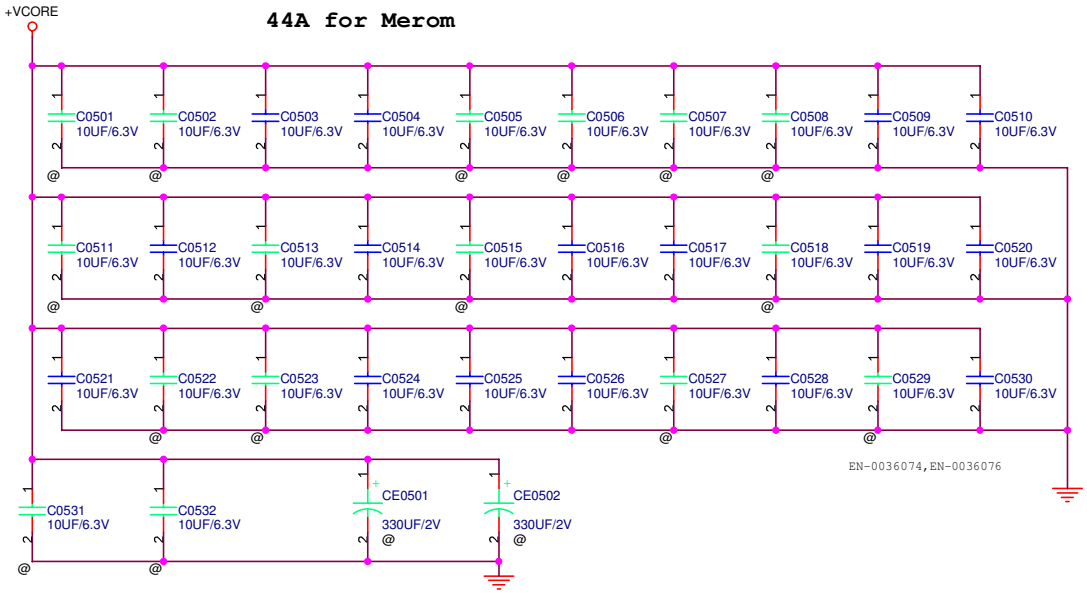


ASUSTeK COMPUTER INC		Title : PowerOn sequence	
		Engineer:	
Size: Custom	Project Name: A8ES		Rev: 1.0
Date: 星期三, 十月 11, 2006		Sheet 2 of 94	


10 H_D#[63:0]
H_D#[63:0]
10 H_A#[35:3]
H_A#[35:3]
10 H_REQ#[4:0]
H_REQ#[4:0]
CPU1A
ADDR GROUP 0
ADDR GROUP 1
CONTROL
XDP/ITP SIGNALS
THERMAL
H CLK
RESERVED
SOCKET478B
H_ADSTB#0
H_ADSTB#1
H_A20M#
H_FERR#
H_IGNNE#
H_STPCLK#
H_INTR
H_NMI
H_SMI#
H_ADS#
H_BNR#
H_BPRI#
H_DEFER#
H_DRDY#
H_DBSY#
H_BR0#
H_IERR#
H_INIT#
H_LOCK#
H_CPURST#
H_RS#0
H_RS#1
H_RS#2
H_TRDY#
H_HIT#
H_HITM#
H_PREQ#
H_TCK
H_TDI
H_TDO
H_TMS
H_TRST#
H_DBR#
H_PROCHOT_S#
CPU_THERM_DA 50
CPU_THERM_DC 50
PM_THRMTRIP# 11,20
CLK_CPU_BCLK
CLK_CPU_BCLK#
+VCCP_CPU
R0301 56Ohm
CPU1B
DATA GRP 0
DATA GRP 1
DATA GRP 2
DATA GRP 3
MISC
SOCKET478B
H_DSTBN#0
H_DSTBP#0
H_DINV#0
H_DSTBN#1
H_DSTBP#1
H_DINV#1
H_DSTBN#2 10
H_DSTBP#2 10
H_DINV#2 10
H_DSTBN#3 10
H_DSTBP#3
H_DINV#3
GTL_REF
CPU_BSEL0
CPU_BSEL1
CPU_BSEL2
H_COMP0
H_COMP1
H_COMP2
H_COMP3
H_DPRSTP# 11,20,80
H_DPSLP# 20
H_DPWR#
H_PWRGD 20
H_CPUSLP# 10
PM_PSI#
Zo=55 ohm, 0.5" max for GTLREF
Comp0,2 connect with Zo=27.4 ohm, make trace length shorter than 0.5".
Comp 1,3 connect with Z0=55 ohm, make trace length shorter than 0.5".
Default Strapping When Not Used
XDP_BPM#1 R0311 54.9Ohm 1%
H_PREQ# R0310 54.9Ohm 1%
H_TDI R0313 150Ohm 1%
H_TDO R0315 54.9Ohm 1%
H_TMS R0314 39Ohm 5%
H_DBR# R0316 1KOhm1%
H_TCK R0318 27.4Ohm 1%
H_TRST# R0317 649Ohm
+3VS
GND
R0312 68Ohm
Q0301
2N7002
THRO_CPU 30
Title : MEROM CPU (1)
ASUSTeK COMPUTER INC
Engineer:
Size Custom
Project Name A8ES
Rev 1.0
Date: 星期 , 月 06, 2007
Sheet 3 of 94



ASUSTeK COMPUTER INC	Title : MEROM CPU (2)		
	Engineer:		
Size: Custom	Project Name: A8ES		Rev: 1.0
Date: 星期 , 月 06, 2007	Sheet 4 of 94		

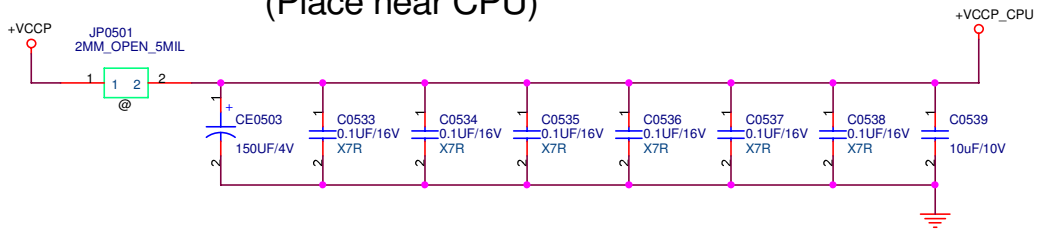


Decoupling guide from INTEL

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

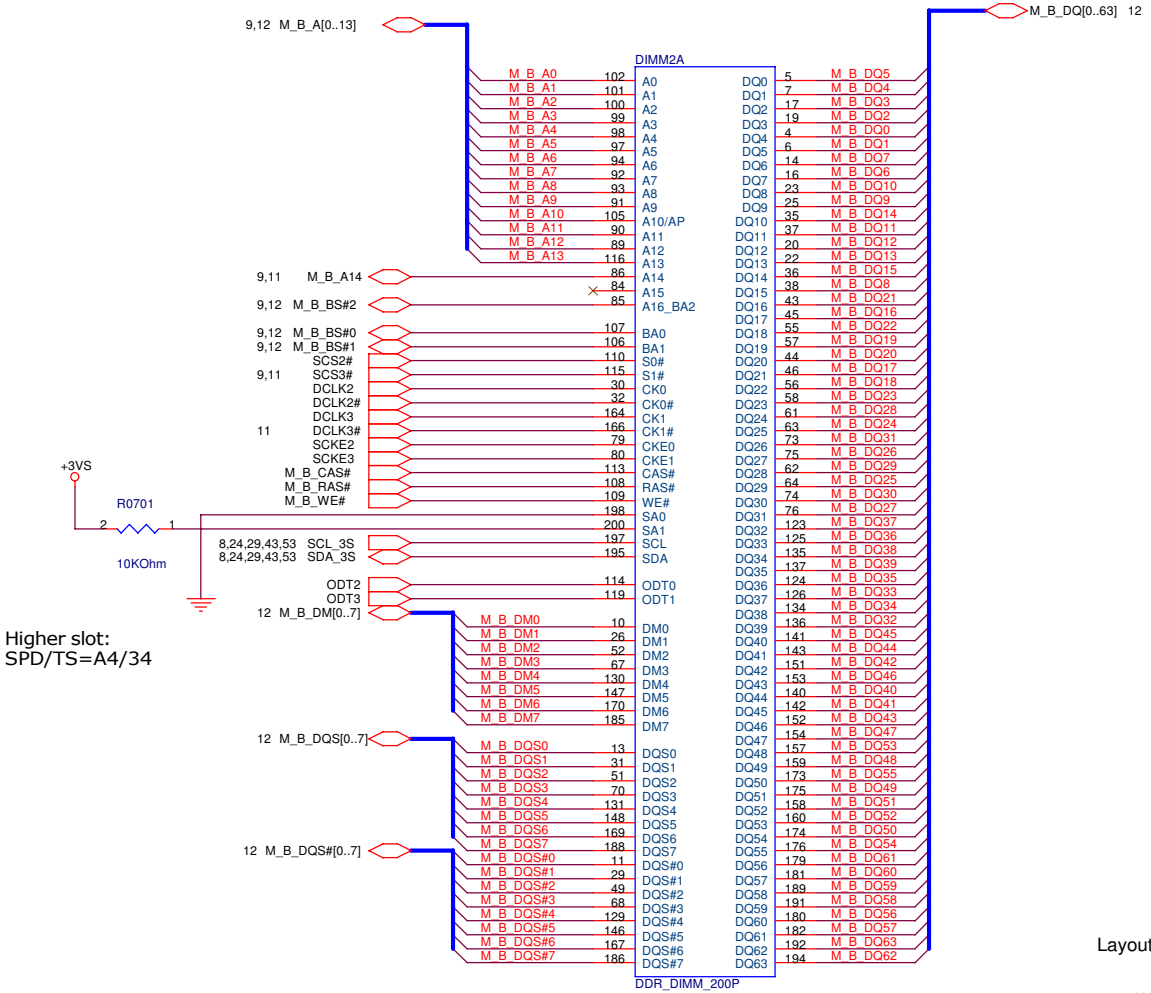
VCORE	10uF/10V	* 32pcs
	330uF/2V	* 0pcs
VCCP	0.1uF	* 6pcs for CPU
	150uF	* 1pcs for CPU
	10uF/10V	* 1pcs

+VCCP Decoupling Capacitor (Place near CPU)

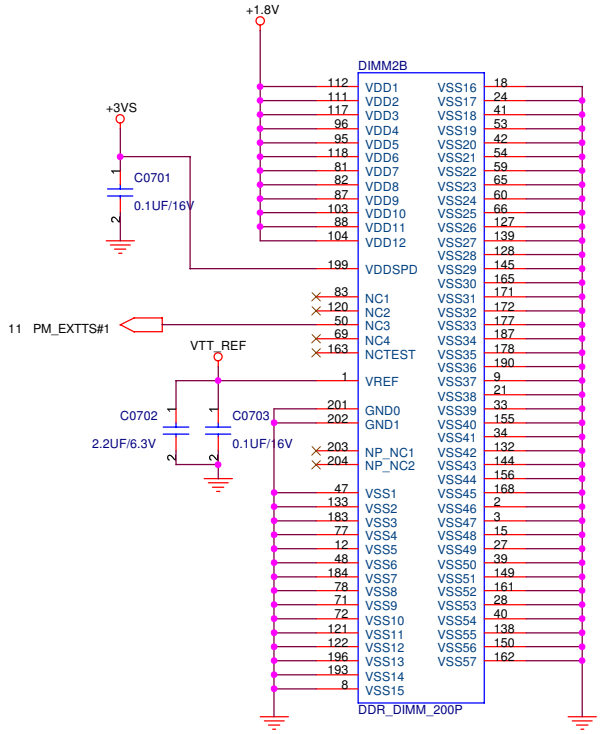


ASUSTeK COMPUTER INC	Title : CPU CAP	
	Engineer:	
Size: B	Project Name: A8ES	Rev: 1.0
Date: 星期六, 六月 23, 2007	Sheet 5 of 94	

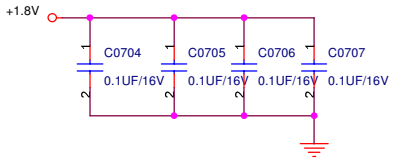
ASUSTeK COMPUTER INC	Title : BLANK	
	Engineer:	
Size: A	Project Name: A8ES	Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 6 of 94	



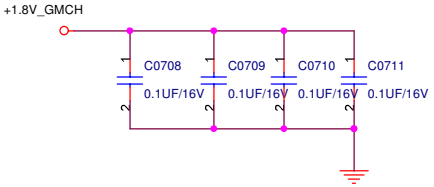
Higher slot:
SPD/TS=A4/34



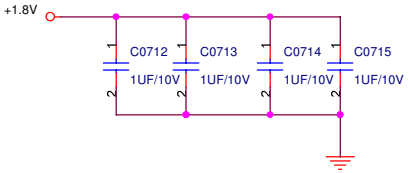
Layout Note: Place these Caps near SO DIMM 0



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



Layout Note: Place these Caps near SO DIMM 0



Upper:Channel B

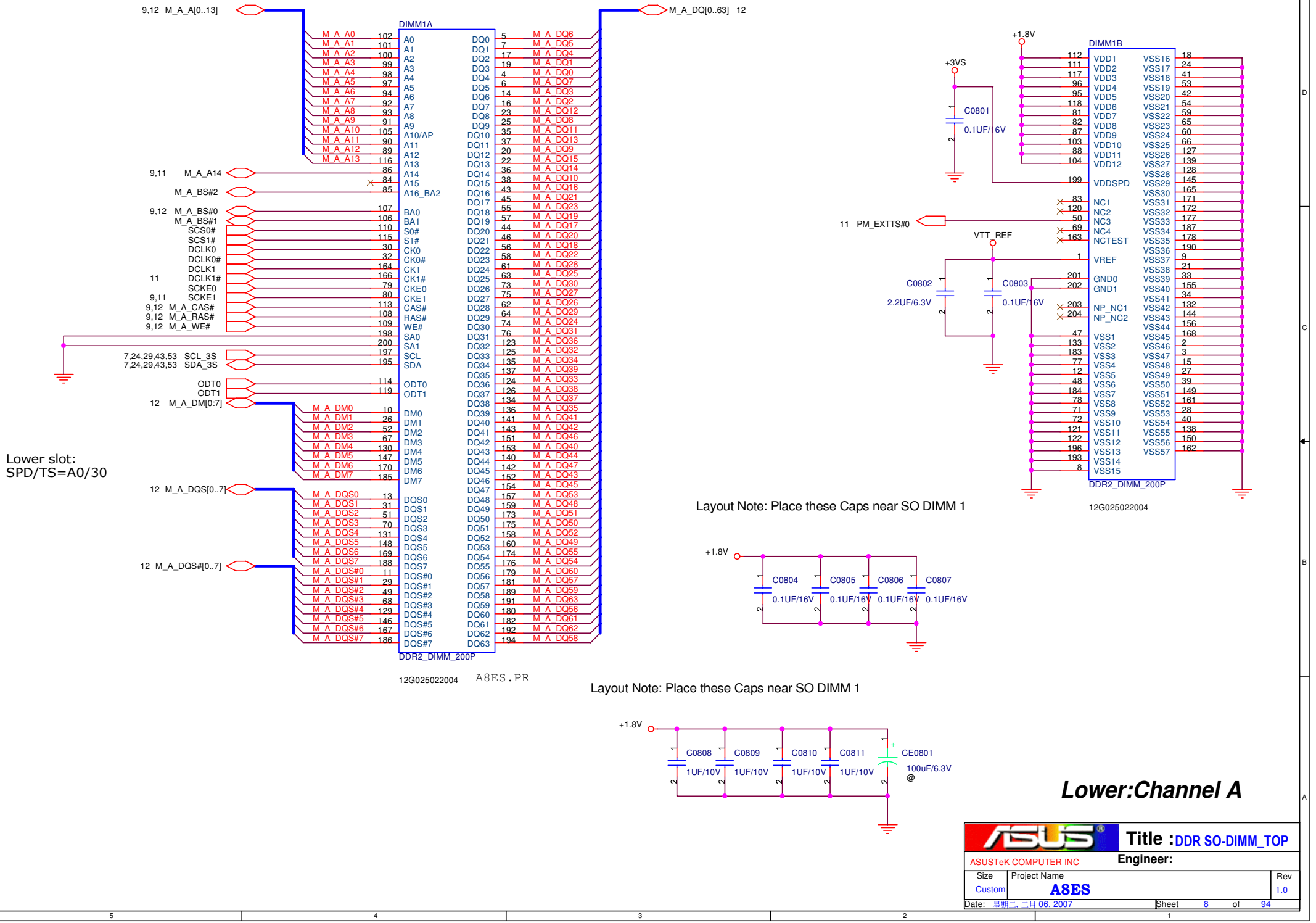
ASUSTeK COMPUTER INC

Title : DDR SO-DIMM

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

Date: 星期二, 二月 06, 2007 Sheet 7 of 94


9,12 M_A_A[0..13]
M_A_DQ[0..63] 12
DIMM1A
M_A_A0 102
M_A_A1 101
M_A_A2 100
M_A_A3 99
M_A_A4 98
M_A_A5 97
M_A_A6 94
M_A_A7 92
M_A_A8 93
M_A_A9 91
M_A_A10 105
M_A_A11 90
M_A_A12 89
M_A_A13 116
9,11 M_A_A14
M_A_BS#2
9,12 M_A_BS#0
M_A_BS#1
SCS0#
SCS1#
DCLK0
DCLK0#
DCLK1
11 DCLK1#
SCKE0
9,11 SCKE1
9,12 M_A_CAS#
9,12 M_A_RAS#
9,12 M_A_WE#
7,24,29,43,53 SCL_3S
7,24,29,43,53 SDA_3S
ODT0
ODT1
12 M_A_DM[0:7]
12 M_A_DQS[0..7]
12 M_A_DQS#[0..7]
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10/AP
A11
A12
A13
A14
A15
A16_BA2
BA0
BA1
S0#
S1#
CK0
CK0#
CK1
CK1#
CKE0
CKE1
CAS#
RAS#
WE#
SA0
SA1
SCL
SDA
ODT0
ODT1
DM0
DM1
DM2
DM3
DM4
DM5
DM6
DM7
DQS0
DQS1
DQS2
DQS3
DQS4
DQS5
DQS6
DQS7
DQS#0
DQS#1
DQS#2
DQS#3
DQS#4
DQS#5
DQS#6
DQS#7
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
DQ8
DQ9
DQ10
DQ11
DQ12
DQ13
DQ14
DQ15
DQ16
DQ17
DQ18
DQ19
DQ20
DQ21
DQ22
DQ23
DQ24
DQ25
DQ26
DQ27
DQ28
DQ29
DQ30
DQ31
DQ32
DQ33
DQ34
DQ35
DQ36
DQ37
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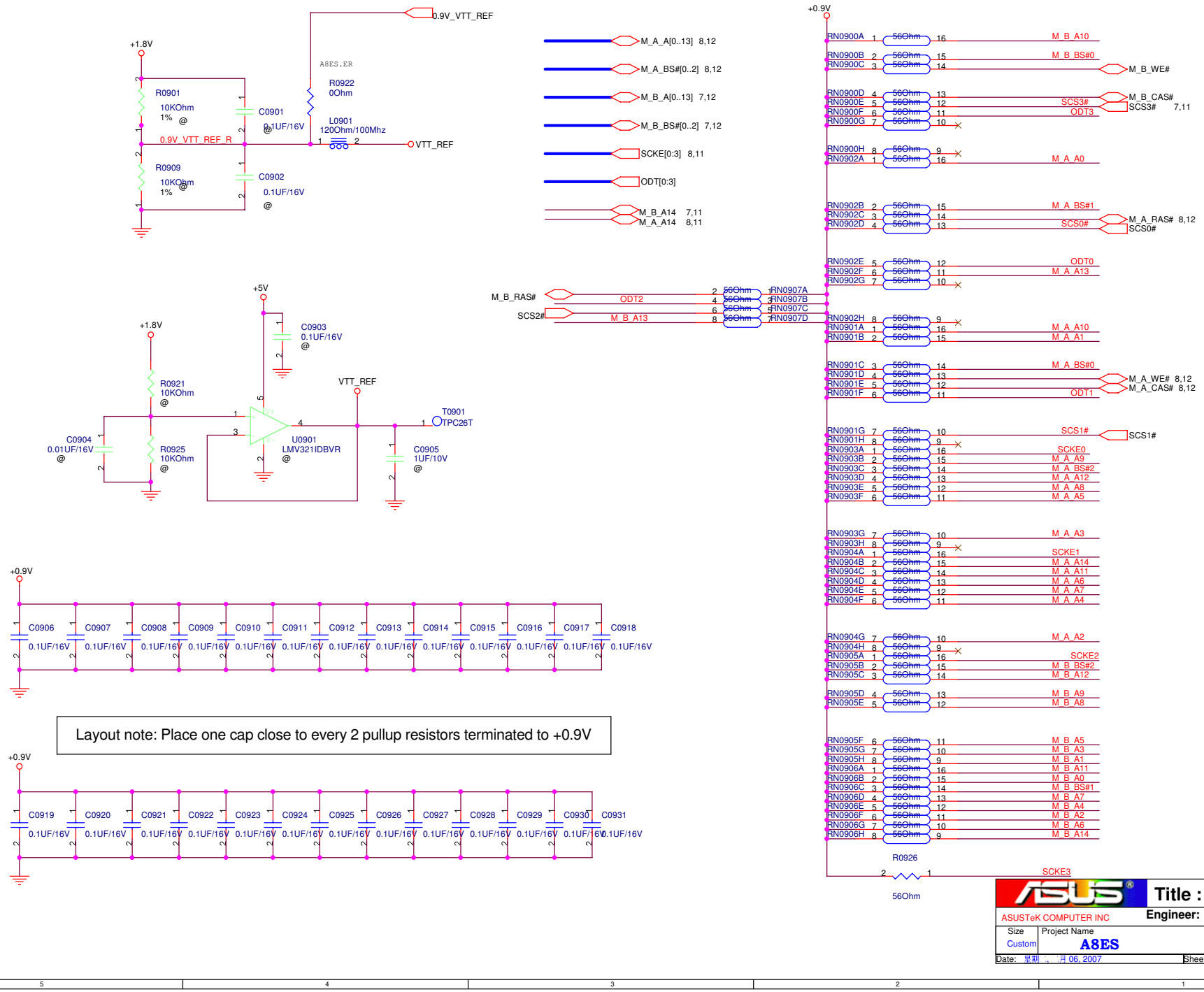
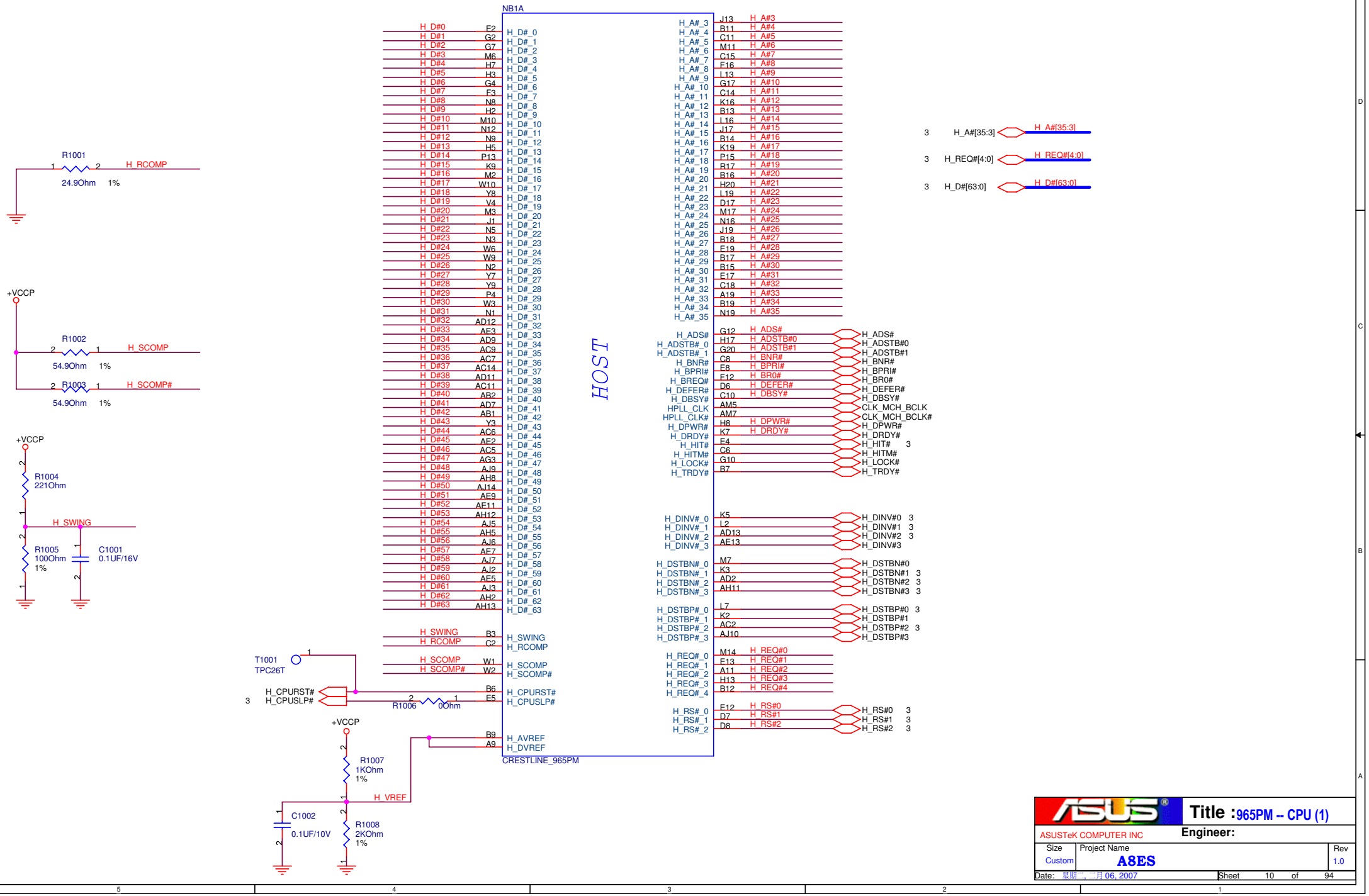
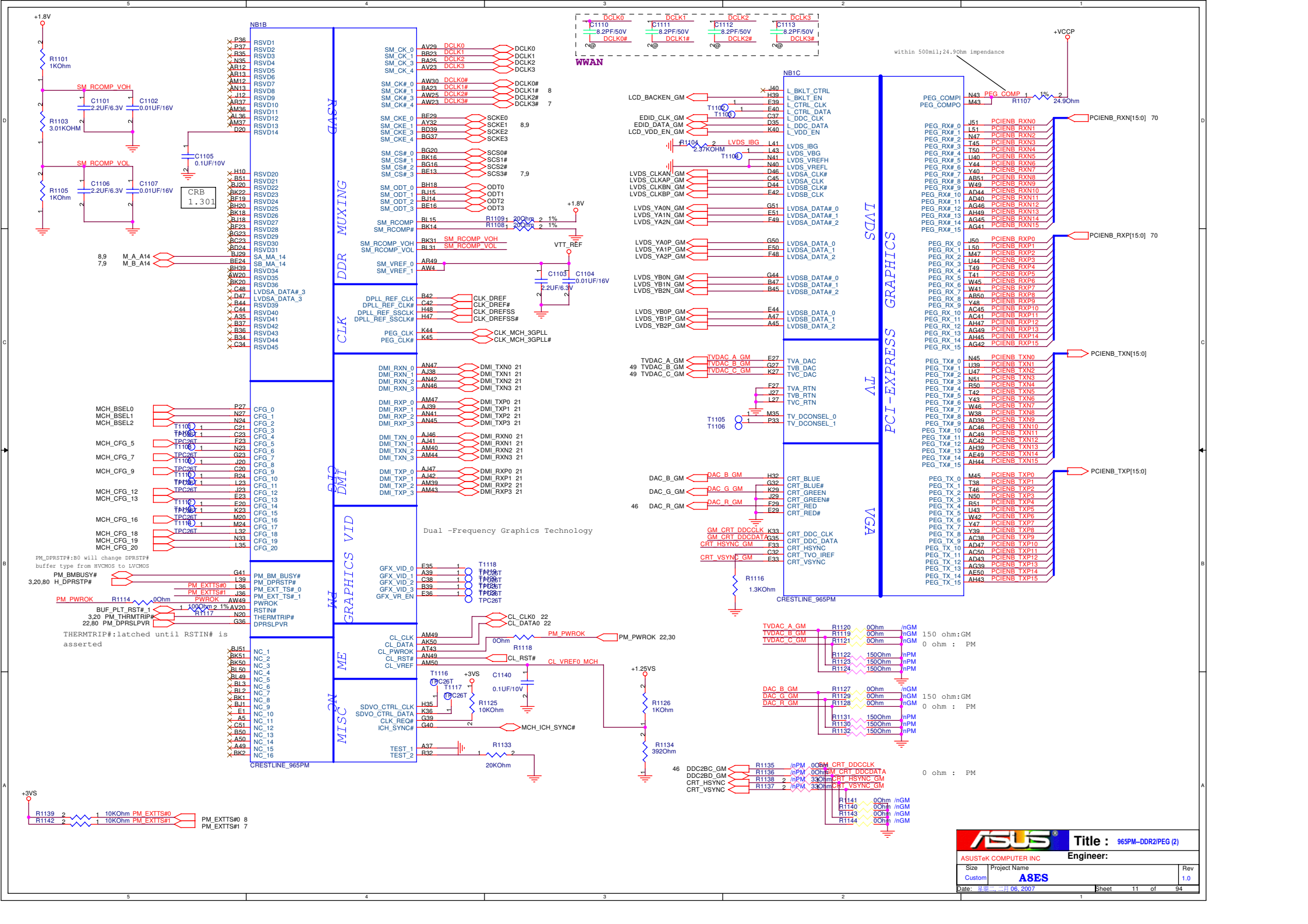
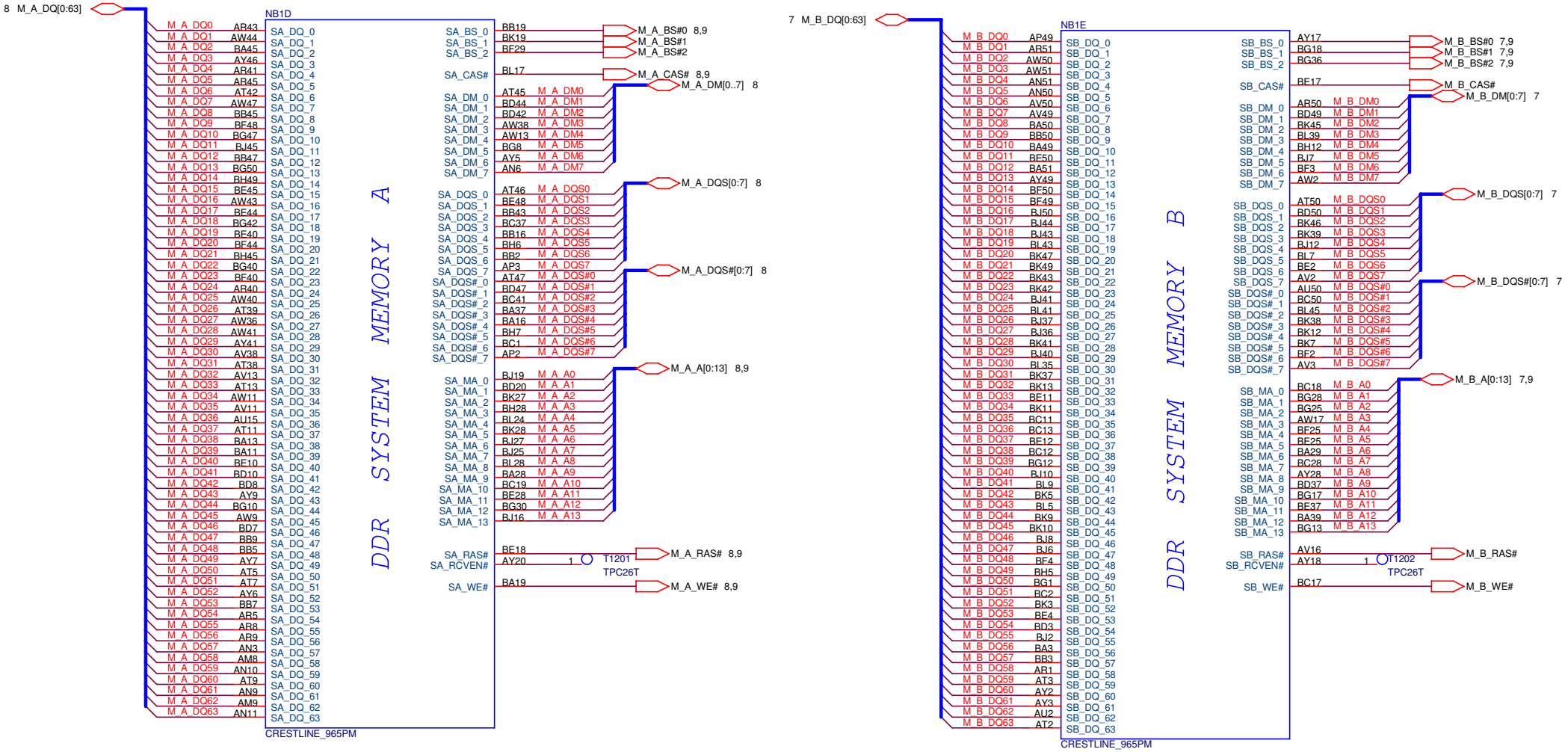
DQ41
DQ42
DQ43
DQ44
DQ45
DQ46
DQ47
DQ48
DQ49
DQ50
DQ51
DQ52
DQ53
DQ54
DQ55
DQ56
DQ57
DQ58
DQ59
DQ60
DQ61
DQ62
DQ63
M_A_DQ6 5
M_A_DQ5 7
M_A_DQ4 17
M_A_DQ1 19
M_A_DQ0 4
M_A_DQ7 6
M_A_DQ3 14
M_A_DQ2 16
M_A_DQ12 23
M_A_DQ8 25
M_A_DQ11 35
M_A_DQ13 37
M_A_DQ9 20
M_A_DQ15 22
M_A_DQ14 36
M_A_DQ10 38
M_A_DQ16 43
M_A_DQ21 45
M_A_DQ23 55
M_A_DQ19 57
M_A_DQ17 44
M_A_DQ20 46
M_A_DQ18 56
M_A_DQ22 58
M_A_DQ28 61
M_A_DQ25 63
M_A_DQ30 73
M_A_DQ27 75
M_A_DQ26 62
M_A_DQ29 64
M_A_DQ24 74
M_A_DQ31 76
M_A_DQ36 123
M_A_DQ32 125
M_A_DQ34 135
M_A_DQ39 137
M_A_DQ33 124
M_A_DQ38 126
M_A_DQ37 134
M_A_DQ35 136
M_A_DQ41 141
M_A_DQ42 143
M_A_DQ46 151
M_A_DQ40 153
M_A_DQ44 140
M_A_DQ47 142
M_A_DQ43 152
M_A_DQ45 154
M_A_DQ53 157
M_A_DQ48 159
M_A_DQ51 173
M_A_DQ50 175
M_A_DQ52 158
M_A_DQ49 160
M_A_DQ55 174
M_A_DQ54 176
M_A_DQ60 179
M_A_DQ57 181
M_A_DQ59 189
M_A_DQ63 191
M_A_DQ56 180
M_A_DQ61 182
M_A_DQ62 192
M_A_DQ58 194
DDR2_DIMM_200P
12G025022004 A8ES.PR
Lower slot:
SPD/TS=A0/30
+1.8V
+3VS
C0801
0.1UF/16V
11 PM_EXTTS#0
VTT_REF
C0802
2.2UF/6.3V
C0803
0.1UF/16V
DIMM1B
VDD1 112
VDD2 111
VDD3 117
VDD4 96
VDD5 95
VDD6 118
VDD7 81
VDD8 82
VDD9 87
VDD10 103
VDD11 88
VDD12 104
VDDSPD 199
NC1 83
NC2 120
NC3 50
NC4 69
NCTEST 163
VREF 1
GND0 201
GND1 202
NP_NC1 203
NP_NC2 204
VSS1 47
VSS2 133
VSS3 183
VSS4 77
VSS5 12
VSS6 48
VSS7 184
VSS8 78
VSS9 71
VSS10 72
VSS11 121
VSS12 122
VSS13 196
VSS14 193
VSS15 8
VSS16 18
VSS17 24
VSS18 41
VSS19 53
VSS20 42
VSS21 54
VSS22 59
VSS23 65
VSS24 60
VSS25 66
VSS26 127
VSS27 139
VSS28 128
VSS29 145
VSS30 165
VSS31 171
VSS32 172
VSS33 177
VSS34 187
VSS35 178
VSS36 190
VSS37 9
VSS38 21
VSS39 33
VSS40 155
VSS41 34
VSS42 132
VSS43 144
VSS44 156
VSS45 168
VSS46 2
VSS47 3
VSS48 15
VSS49 27
VSS50 39
VSS51 149
VSS52 161
VSS53 28
VSS54 40
VSS55 138
VSS56 150
VSS57 162
DDR2_DIMM_200P
12G025022004
Layout Note: Place these Caps near SO DIMM 1
+1.8V
C0804
C0805
C0806
C0807
0.1UF/16V
Layout Note: Place these Caps near SO DIMM 1
+1.8V
C0808
C0809
C0810
C0811
CE0801
1UF/10V
100uF/6.3V
@
Lower:Channel A
Title :DDR SO-DIMM_TOP
ASUSTeK COMPUTER INC
Engineer:
Size
Custom
Project Name
A8ES
Rev
1.0
Date: 星期二, 二月 06, 2007
Sheet 8 of 94


0.9V_VTT_REF
+1.8V
A8ES.ER
R0901
10KOhm
1% @
C0901
0.1UF/16V
@
R0922
0Ohm
L0901
120Ohm/100Mhz
0.9V_VTT_REF_R
VTT_REF
R0909
10KOhm
1% @
C0902
0.1UF/16V
@
M_A_A[0..13] 8,12
M_A_BS#[0..2] 8,12
M_B_A[0..13] 7,12
M_B_BS#[0..2] 7,12
SCKE[0:3] 8,11
ODT[0:3]
M_B_A14 7,11
M_A_A14 8,11
+0.9V
RN0900A 1 56Ohm 16 M_B_A10
RN0900B 2 56Ohm 15 M_B_BS#0
RN0900C 3 56Ohm 14 M_B_WE#
RN0900D 4 56Ohm 13 M_B_CAS#
RN0900E 5 56Ohm 12 SCS3# SCS3# 7,11
RN0900F 6 56Ohm 11 ODT3
RN0900G 7 56Ohm 10
RN0900H 8 56Ohm 9
RN0902A 1 56Ohm 16 M_A_A0
RN0902B 2 56Ohm 15 M_A_BS#1
RN0902C 3 56Ohm 14 M_A_RAS# 8,12
RN0902D 4 56Ohm 13 SCS0# SCS0#
RN0902E 5 56Ohm 12 ODT0
RN0902F 6 56Ohm 11 M_A_A13
RN0902G 7 56Ohm 10
M_B_RAS# ODT2 SCS2# M_B_A13
2 4 6 8 56Ohm RN0907A RN0907B RN0907C RN0907D
RN0902H 8 56Ohm 9
RN0901A 1 56Ohm 16 M_A_A10
RN0901B 2 56Ohm 15 M_A_A1
RN0901C 3 56Ohm 14 M_A_BS#0
RN0901D 4 56Ohm 13 M_A_WE# 8,12
RN0901E 5 56Ohm 12 M_A_CAS# 8,12
RN0901F 6 56Ohm 11 ODT1
RN0901G 7 56Ohm 10 SCS1# SCS1#
RN0901H 8 56Ohm 9
RN0903A 1 56Ohm 16 SCKE0
RN0903B 2 56Ohm 15 M_A_A9
RN0903C 3 56Ohm 14 M_A_BS#2
RN0903D 4 56Ohm 13 M_A_A12
RN0903E 5 56Ohm 12 M_A_A8
RN0903F 6 56Ohm 11 M_A_A5
RN0903G 7 56Ohm 10 M_A_A3
RN0903H 8 56Ohm 9
RN0904A 1 56Ohm 16 SCKE1
RN0904B 2 56Ohm 15 M_A_A14
RN0904C 3 56Ohm 14 M_A_A11
RN0904D 4 56Ohm 13 M_A_A6
RN0904E 5 56Ohm 12 M_A_A7
RN0904F 6 56Ohm 11 M_A_A4
RN0904G 7 56Ohm 10 M_A_A2
RN0904H 8 56Ohm 9
RN0905A 1 56Ohm 16 SCKE2
RN0905B 2 56Ohm 15 M_B_BS#2
RN0905C 3 56Ohm 14 M_B_A12
RN0905D 4 56Ohm 13 M_B_A9
RN0905E 5 56Ohm 12 M_B_A8
RN0905F 6 56Ohm 11 M_B_A5
RN0905G 7 56Ohm 10 M_B_A3
RN0905H 8 56Ohm 9 M_B_A1
RN0906A 1 56Ohm 16 M_B_A11
RN0906B 2 56Ohm 15 M_B_A0
RN0906C 3 56Ohm 14 M_B_BS#1
RN0906D 4 56Ohm 13 M_B_A7
RN0906E 5 56Ohm 12 M_B_A4
RN0906F 6 56Ohm 11 M_B_A2
RN0906G 7 56Ohm 10 M_B_A6
RN0906H 8 56Ohm 9 M_B_A14
R0926
2 1 SCKE3
56Ohm
+5V
C0903
0.1UF/16V
@
+1.8V
R0921
10KOhm
@
VTT_REF
T0901
TPC26T
C0904
0.01UF/16V
@
R0925
10KOhm
@
U0901
LMV321IDBVR
@
C0905
1UF/10V
@
+0.9V
C0906 C0907 C0908 C0909 C0910 C0911 C0912 C0913 C0914 C0915 C0916 C0917 C0918
0.1UF/16V
Layout note: Place one cap close to every 2 pullup resistors terminated to +0.9V
+0.9V
C0919 C0920 C0921 C0922 C0923 C0924 C0925 C0926 C0927 C0928 C0929 C0930 C0931
0.1UF/16V
Title : DDR2 ADDR TERM
ASUSTeK COMPUTER INC
Engineer:
Size
Custom
Project Name
A8ES
Rev
1.0
Date: 星期 ., .月 06, 2007
Sheet 9 of 94


NB1A
HOST
CRESTLINE_965PM
R1001
H_RCOMP
24.9Ohm 1%
+VCCP
R1002
H_SCOMP
54.9Ohm 1%
R1003
H_SCOMP#
54.9Ohm 1%
R1004
221Ohm
H_SWING
R1005
100Ohm
1%
C1001
0.1UF/16V
T1001
TPC26T
H_CPURST#
H_CPUSLP#
R1006
0Ohm
R1007
1KOhm
1%
H_VREF
C1002
0.1UF/10V
R1008
2KOhm
1%
H_AVREF
H_DVREF
H_A#[35:3]
H_REQ#[4:0]
H_D#[63:0]
Title :965PM -- CPU (1)
ASUSTeK COMPUTER INC
Engineer:
Size
Custom
Project Name
A8ES
Rev
1.0
Date: 星期二, 二月 06, 2007
Sheet 10 of 94


NB1B
RSVD1
RSVD2
RSVD3
RSVD4
RSVD5
RSVD6
RSVD7
RSVD8
RSVD9
RSVD10
RSVD11
RSVD12
RSVD13
RSVD14
RSVD20
RSVD21
RSVD22
RSVD23
RSVD24
RSVD25
RSVD26
RSVD27
RSVD28
RSVD29
RSVD30
RSVD31
SA_MA_14
SB_MA_14
RSVD34
RSVD35
RSVD36
LVDSA_DATA#_3
LVDSA_DATA_3
RSVD39
RSVD40
RSVD41
RSVD42
RSVD43
RSVD44
RSVD45
SM_CK_0
SM_CK_1
SM_CK_3
SM_CK_4
SM_CK#_0
SM_CK#_1
SM_CK#_3
SM_CK#_4
SM_CKE_0
SM_CKE_1
SM_CKE_3
SM_CKE_4
SM_CS#_0
SM_CS#_1
SM_CS#_2
SM_CS#_3
SM_ODT_0
SM_ODT_1
SM_ODT_2
SM_ODT_3
SM_RCOMP
SM_RCOMP#
SM_RCOMP_VOH
SM_RCOMP_VOL
SM_VREF_0
SM_VREF_1
DDR MUXING
DPLL_REF_CLK
DPLL_REF_CLK#
DPLL_REF_SSCLK
DPLL_REF_SSCLK#
PEG_CLK
PEG_CLK#
CLK
DMI_RXN_0
DMI_RXN_1
DMI_RXN_2
DMI_RXN_3
DMI_RXP_0
DMI_RXP_1
DMI_RXP_2
DMI_RXP_3
DMI_TXN_0
DMI_TXN_1
DMI_TXN_2
DMI_TXN_3
DMI_TXP_0
DMI_TXP_1
DMI_TXP_2
DMI_TXP_3
DMI
CFG_0
CFG_1
CFG_2
CFG_3
CFG_4
CFG_5
CFG_6
CFG_7
CFG_8
CFG_9
CFG_10
CFG_11
CFG_12
CFG_13
CFG_14
CFG_15
CFG_16
CFG_17
CFG_18
CFG_19
CFG_20
CFG
PM_BM_BUSY#
PM_DPRSTP#
PM_EXT_TS#_0
PM_EXT_TS#_1
PWROK
RSTIN#
THERMTRIP#
DPRSLPVR
PM
GFX_VID_0
GFX_VID_1
GFX_VID_2
GFX_VID_3
GFX_VR_EN
GRAPHICS VID
CL_CLK
CL_DATA
CL_PWROK
CL_RST#
CL_VREF
ME
SDVO_CTRL_CLK
SDVO_CTRL_DATA
CLK_REQ#
ICH_SYNC#
TEST_1
TEST_2
MISC
NC_1
NC_2
NC_3
NC_4
NC_5
NC_6
NC_7
NC_8
NC_9
NC_10
NC_11
NC_12
NC_13
NC_14
NC_15
NC_16
CRESTLINE_965PM
NB1C
L_BKLT_CTRL
L_BKLT_EN
L_CTRL_CLK
L_CTRL_DATA
L_DDC_CLK
L_DDC_DATA
L_VDD_EN
LVDS_IBG
LVDS_VBG
LVDS_VREFH
LVDS_VREFL
LVDSA_CLK#
LVDSA_CLK
LVDSB_CLK#
LVDSB_CLK
LVDSA_DATA#_0
LVDSA_DATA#_1
LVDSA_DATA#_2
LVDSA_DATA_0
LVDSA_DATA_1
LVDSA_DATA_2
LVDSB_DATA#_0
LVDSB_DATA#_1
LVDSB_DATA#_2
LVDSB_DATA_0
LVDSB_DATA_1
LVDSB_DATA_2
LVDS
TVA_DAC
TVB_DAC
TVC_DAC
TVA_RTN
TVB_RTN
TVC_RTN
TV_DCONSEL_0
TV_DCONSEL_1
TV
CRT_BLUE
CRT_BLUE#
CRT_GREEN
CRT_GREEN#
CRT_RED
CRT_RED#
CRT_DDC_CLK
CRT_DDC_DATA
CRT_HSYNC
CRT_TVO_IREF
CRT_VSYNC
VGA
PEG_COMPI
PEG_COMPO
PEG_RX#_0
PEG_RX#_1
PEG_RX#_2
PEG_RX#_3
PEG_RX#_4
PEG_RX#_5
PEG_RX#_6
PEG_RX#_7
PEG_RX#_8
PEG_RX#_9
PEG_RX#_10
PEG_RX#_11
PEG_RX#_12
PEG_RX#_13
PEG_RX#_14
PEG_RX#_15
PEG_RX_0
PEG_RX_1
PEG_RX_2
PEG_RX_3
PEG_RX_4
PEG_RX_5
PEG_RX_6
PEG_RX_7
PEG_RX_8
PEG_RX_9
PEG_RX_10
PEG_RX_11
PEG_RX_12
PEG_RX_13
PEG_RX_14
PEG_RX_15
PEG_TX#_0
PEG_TX#_1
PEG_TX#_2
PEG_TX#_3
PEG_TX#_4
PEG_TX#_5
PEG_TX#_6
PEG_TX#_7
PEG_TX#_8
PEG_TX#_9
PEG_TX#_10
PEG_TX#_11
PEG_TX#_12
PEG_TX#_13
PEG_TX#_14
PEG_TX#_15
PEG_TX_0
PEG_TX_1
PEG_TX_2
PEG_TX_3
PEG_TX_4
PEG_TX_5
PEG_TX_6
PEG_TX_7
PEG_TX_8
PEG_TX_9
PEG_TX_10
PEG_TX_11
PEG_TX_12
PEG_TX_13
PEG_TX_14
PEG_TX_15
PCI-EXPRESS GRAPHICS
CRESTLINE_965PM
PCIENB_RXN[15:0]
PCIENB_RXP[15:0]
PCIENB_TXN[15:0]
PCIENB_TXP[15:0]
WWAN
DCLK0
DCLK1
DCLK2
DCLK3
Dual -Frequency Graphics Technology
within 500mil;24.9Ohm impendance
THERMTRIP#:latched until RSTIN# is asserted
PM_DPRSTP#:B0 will change DPRSTP# buffer type from HVCMOS to LVCMOS
150 ohm:GM
0 ohm : PM
CRB 1.301



ASUSTeK COMPUTER INC

Title : 965PM--DDR2 bus (3)

Engineer:

Size	Project Name	Rev
B	A8ES	1.0

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TDP
GM965 1.05V/14W
PM965 1.05V/8W

VCC(GM) 1572mA
VCC(PM) 1310mA
VCC_AXG 7700mA

NB1G

+VCC_GMCH
+1.8V_GMCH
+VGFX_CORE

VCC CORE: AT35 AT34 AH28 AC32 AC31 AK32 AJ31 AJ28 AH32 AH31 AH29 AF32 R30
VCC SM: AU32 AU33 AU35 AV33 AW33 AW35 AY35 BA32 BA33 BA35 BB33 BC32 BC33 BC35 BD32 BD35 BE32 BE33 BE35 BF33 BF34 BG32 BG33 BG35 BH32 BH34 BH35 BJ32 BJ33 BJ34 BK32 BK33 BK34 BK35 BL33 AU30
VCC GFX: R20 T14 W13 W14 Y12 AA20 AA23 AA26 AA28 AB21 AB24 AB29 AC20 AC21 AC23 AC24 AC26 AC28 AC29 AD20 AD23 AD24 AD28 AF21 AF26 AA31 AH20 AH21 AH23 AH24 AH26 AD31 AJ20 AN14
VCC GFX NCTF: T17 T18 T19 T21 T22 T23 T25 U15 U16 U17 U19 U20 U21 U23 U26 V16 V17 V19 V20 V21 V23 V24 Y15 Y16 Y17 Y19 Y20 Y21 Y23 Y24 Y26 Y28 Y29 AA16 AA17 AB16 AB19 AC16 AC17 AC19 AD15 AD16 AD17 AE16 AE19 AH15 AH16 AH17 AH19 AJ16 AJ17 AJ19 AK16 AK19 AL16 AL17 AL19 AL20 AL21 AL23 AM15 AM16 AM19 AM20 AM21 AM23 AP15 AP16 AP17 AP19 AP20 AP21 AP23 AP24 AR20 AR21 AR23 AR24 AR26 V26 V28 V29 Y31
VCC SM LF: AW45 BC39 BE39 BD17 BD4 AW8 AT6

POWER

CRESTLINE_965PM

L1301 80Ohm/100Mhz
CE1301 100UF/2V
C1301 10UF/10V
C1302 0.22UF/6.3V
C1303 0.22UF/6.3V
C1304 0.1UF/10V
EN-0036074,EN-0036076

Max: 1572mA

JP1304 2MM_OPEN_5MIL
JP1303 2MM_OPEN_5MIL
A8ES.PR
A8ES.ER

R1300 0Ohm
R1301 0Ohm
R1302 0Ohm
R1303 0Ohm
R1304 0Ohm /nGM r0402_h16
CE1302 100uF/6.3V
C1305 1UF/6.3V
C1306 0.47UF/10V
C1307 10UF/10V
C1308 10UF/10V
C1309 0.1UF/10V
C1310 0.1UF/10V

Max: 7000mA

JP1302 2MM_OPEN_5MIL
CE1303 100uF/6.3V
C1311 10UF/10V
C1312 10UF/10V
C1313 0.1UF/10V

Max: 3300mA

L1302 80Ohm/100Mhz
C1314 10UF/10V
C1315 0.22UF/6.3V
C1316 0.22UF/6.3V
C1317 0.1UF/10V
C1318 0.1UF/10V
C1319 0.1UF/10V

Max: 540mA

C1320 0.1UF/10V
C1321 0.1UF/10V
C1322 0.22UF/6.3V
C1323 0.22UF/6.3V
C1324 0.47UF/10V
C1325 1UF/6.3V
C1326 1UF/6.3V

NB1F

VCC NCTF: AB33 AB36 AB37 AC33 AC35 AC36 AD35 AD36 AF33 AF36 AH33 AH35 AH36 AH37 AJ33 AJ35 AK33 AK35 AK36 AK37 AD33 AJ36 AM35 AL33 AL35 AA33 AA35 AA36 AP35 AP36 AR35 AR36 Y32 Y33 Y35 Y36 Y37 T30 T34 T35 U29 U31 U32 U33 U35 U36 V32 V33 V36 V37
VSS NCTF: T27 T37 U24 U28 V31 V35 AA19 AB17 AB35 AD19 AD37 AF17 AF35 AK17 AM17 AM24 AP26 AP28 AR15 AR19 AR28
VSS SCB: A3 B2 C1 BL1 BL51 A51
VCC AXM: AT33 AT31 AK29 AK24 AK23 AJ26 AJ23 → +VCC_AXM
VCC AXM NCTF: AL24 AL26 AL28 AM26 AM28 AM29 AM31 AM32 AM33 AP29 AP31 AP32 AP33 AL29 AL31 AL32 AR31 AR32 AR33

POWER

CRESTLINE_965PM

<Variant Name>

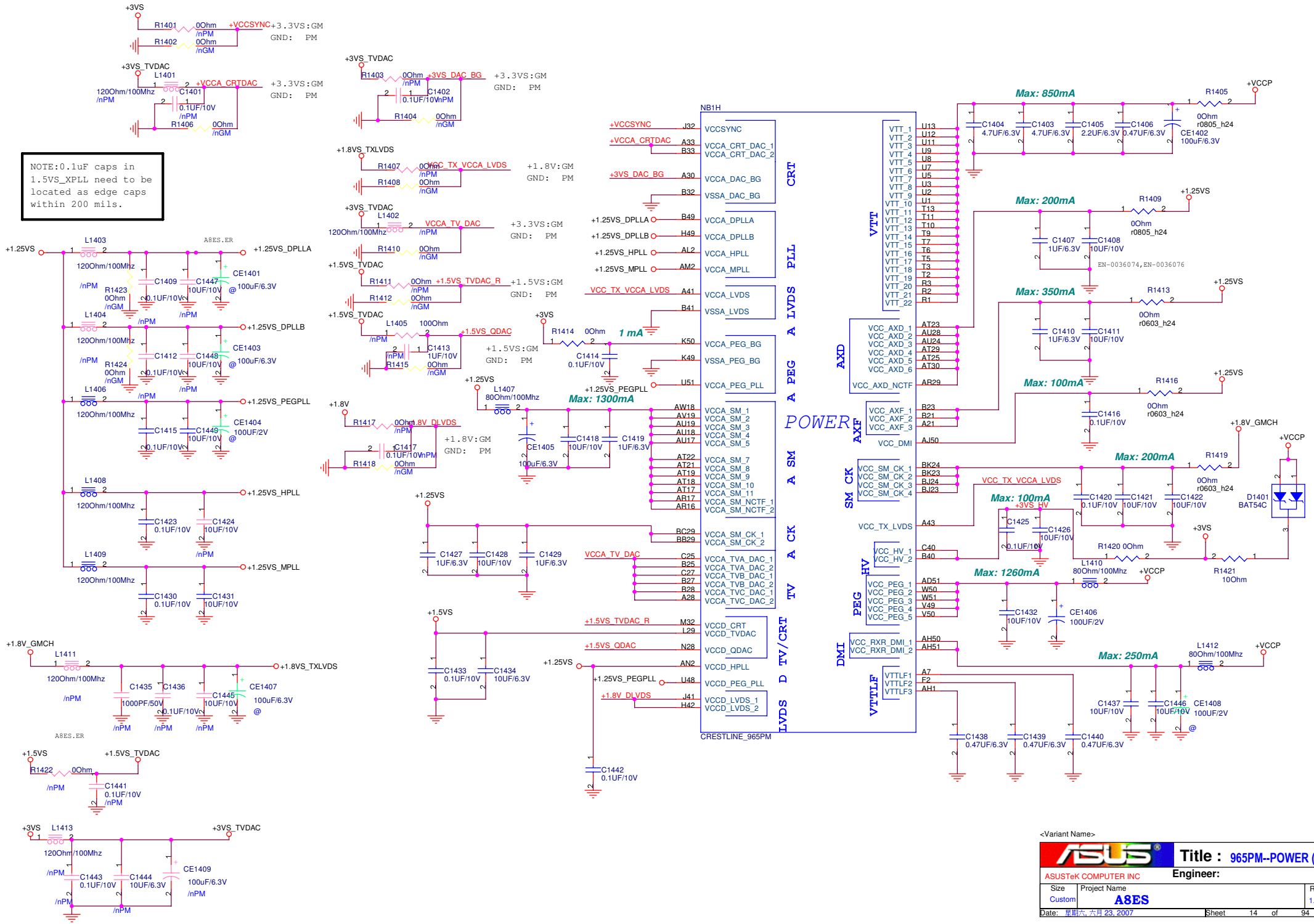
ASUSTeK COMPUTER INC

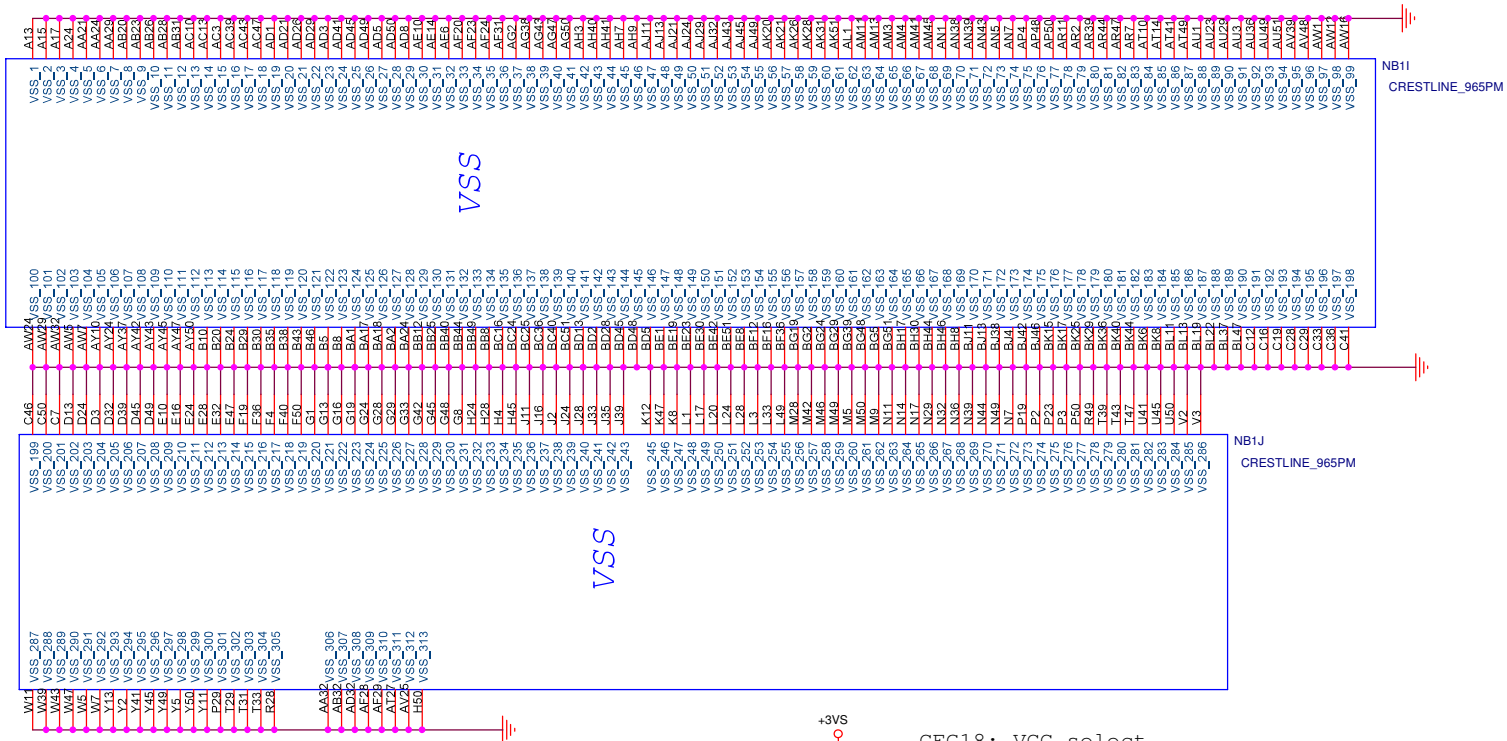
Title :965PM--POWER (4)

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

Date: 星期六, 六月 23, 2007 Sheet 13 of 94


NOTE:0.1uF caps in 1.5VS_XPLL need to be located as edge caps within 200 mils.
NB1H
CRESTLINE_965PM
POWER
CRT
A LVDS PLL
A PEG
A SM
A CK
TV
TV/CRT
D
LVDS
VTT
AXD
AXF
SM CK
HV
PEG
DMI
VTTLF
Max: 850mA
Max: 200mA
Max: 350mA
Max: 100mA
Max: 1300mA
Max: 1260mA
Max: 250mA
1 mA
Title : 965PM--POWER (5)
ASUSTeK COMPUTER INC
Engineer:
Size Custom
Project Name A8ES
Rev 1.0
Date: 星期六, 六月 23, 2007
Sheet 14 of 94
HIGH = LANES REVERSED



CFG18: VCC select
LOW=1.05V (default)
HIGH= 1.5V

+3VS
R1509 1KOhm @
MCH_CFG_18

MCH_CFG_13
MCH_CFG_12
R1502 2.2KOhm @
R1503 2.2KOhm @

CFG [13:12] : XOR/ALL-Z
00 = Reserved
01= XOR Mode Enabled
10= All-Z Mode Enabled
11= Normal Operation (Default)

MCH_CFG_5
R1501 2.2KOhm @

CFG5 : DMI STRAP
HIGH = DMI X 4 (Default)
LOW = DMI X 2

+3VS
R1504 1KOhm @
MCH_CFG_19

CFG19 : DMI LANE REVERSAL
LOW = NORMAL (default)
HIGH = LANES REVERSED

MCH_CFG_7
R1505 2.2KOhm @

CFG7 : CPU STRAP
HIGH = Mobile CPU (Default)
LOW = Reserved

+3VS
R1506 1KOhm @
MCH_CFG_20

CFG20 : SDVO/PCIE CONCURRENT MODE
LOW = ONLY SDVO or PCIE is Operational
HIGH = SDVO and PCIE are operating simultaneously via the PEG port

MCH_CFG_9
R1507 2.2KOhm @

CFG9 : PCIE GRAPHIC LANE
LOW = REVERSE LANE
HIGH = Normal Operation (Default)

MCH_CFG_16
R1508 2.2KOhm @

CFG16 : Dynamic ODT STRAP
Low = Dynamic ODT Disabled
HIGH = Dyanamic ODT Enabled (default)

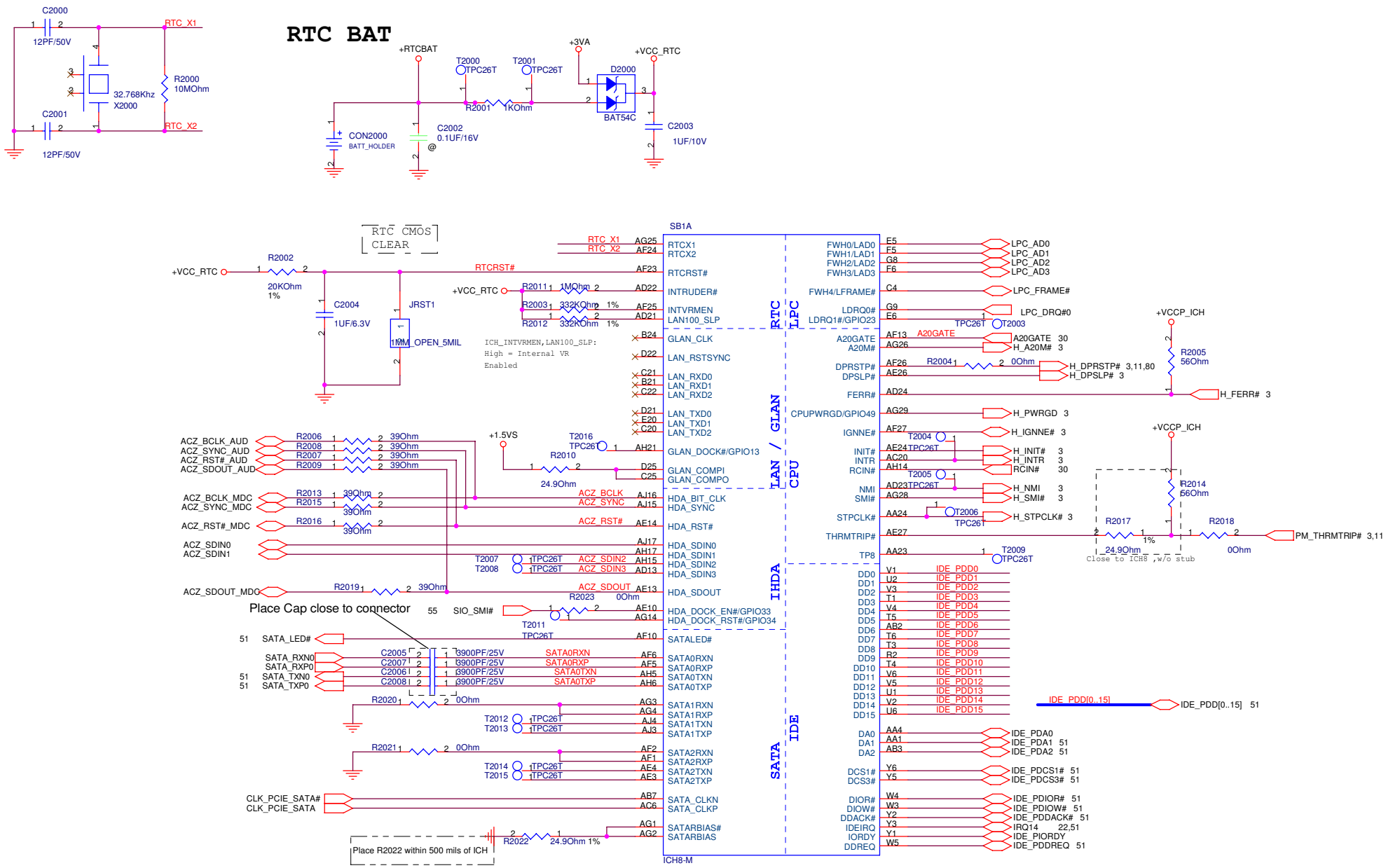
ASUSTeK COMPUTER INC
Title : GND/Strapping (6)
Engineer:
Size: Custom | Project Name: A8ES | Rev: 1.0
Date: 星期二, 二月 06, 2007 | Sheet 15 of 94

ASUSTeK COMPUTER INC	Title : BLANK Engineer:	
Size A	Project Name A8ES	Rev 0
Date: 星期三, 十月 11, 2006	Sheet 16 of 94	

ASUSTeK COMPUTER INC	Title : BLANK	
	Engineer:	
Size: A	Project Name: A8ES	Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 17 of 94	

ASUSTeK COMPUTER INC	Title : BLANK		
	Engineer:		
Size: A	Project Name: A8ES		Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 18 of 94		

ASUSTeK COMPUTER INC	Title : BLANK Engineer:	
Size: A	Project Name: A8ES	Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 19 of 94	



SATA if it non-used,
1)SATA[0:3]RXpn SATABIAS,SATABIAS# and SATA_CLKpn should be PD.
2)SATA[0:3]TXpn and SATALED# NO connect.

<Variant Name>

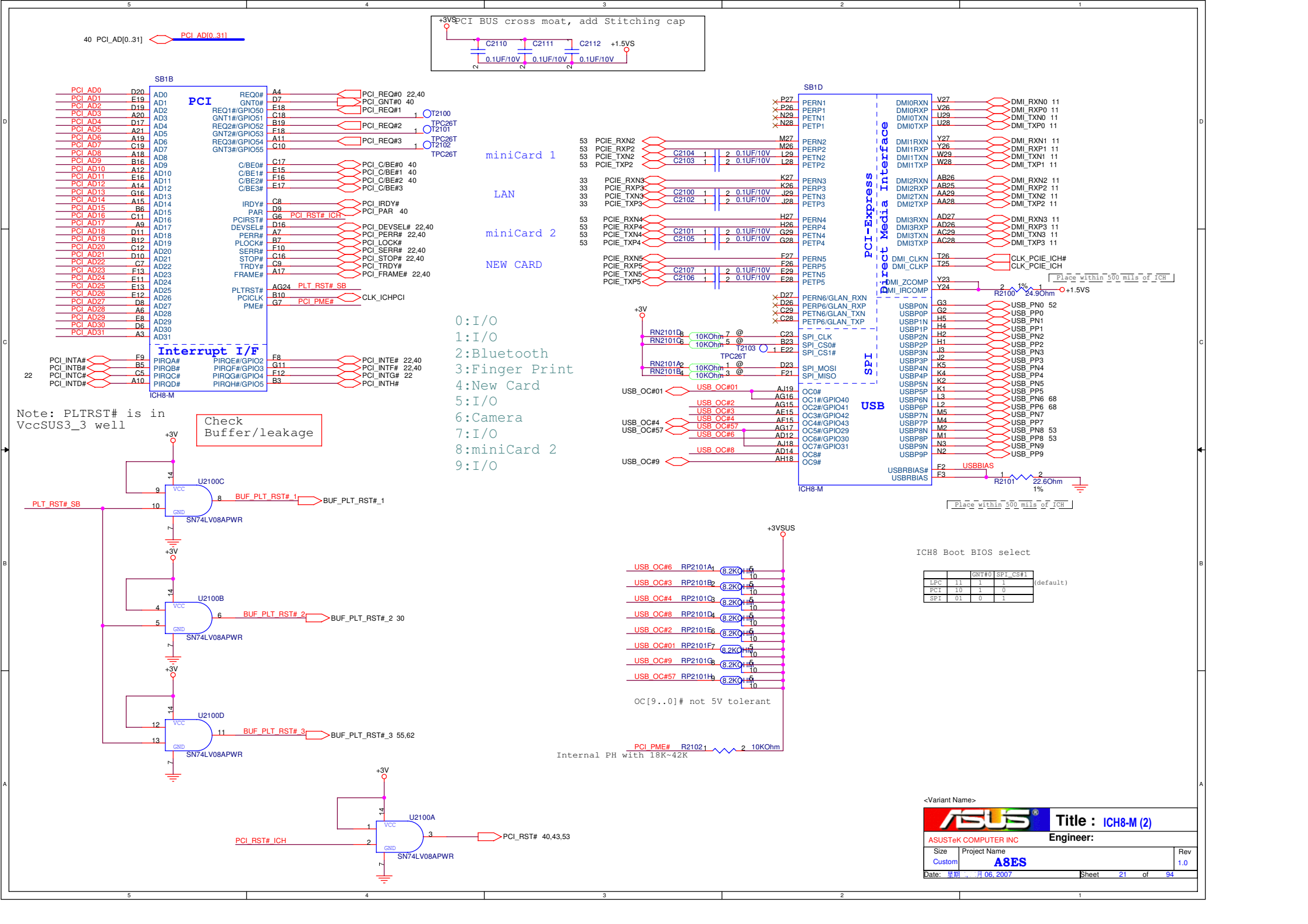
ASUSTeK COMPUTER INC

Title : ICH8-M (1)

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

Date: 星期 一, 一月 06, 2007 Sheet 20 of 94


PCI BUS cross moat, add Stitching cap
+3VS
C2110
C2111
C2112
+1.5VS
0.1UF/10V
0.1UF/10V
0.1UF/10V
40 PCI_AD[0..31]
PCI_AD[0..31]
SB1B
PCI
Interrupt I/F
ICH8-M
miniCard 1
LAN
miniCard 2
NEW CARD
0:I/O
1:I/O
2:Bluetooth
3:Finger Print
4:New Card
5:I/O
6:Camera
7:I/O
8:miniCard 2
9:I/O
SB1D
PCI-Express
Direct Media Interface
SPI
USB
ICH8-M
Place within 500 mils of ICH
Note: PLTRST# is in VccSUS3_3 well
Check Buffer/leakage
U2100C
U2100B
U2100D
U2100A
SN74LV08APWR
BUF_PLT_RST#_1
BUF_PLT_RST#_2
BUF_PLT_RST#_3
PCI_RST# 40,43,53
OC[9..0]# not 5V tolerant
Internal PH with 18K~42K
ICH8 Boot BIOS select
GNT#0
SPI_CS#1
LPC 11 1 1 (default)
PCI 10 1 0
SPI 01 0 1
<Variant Name>
Title : ICH8-M (2)
ASUSTeK COMPUTER INC
Engineer:
Size Custom
Project Name A8ES
Rev 1.0
Date: 星期 ., .月 06, 2007
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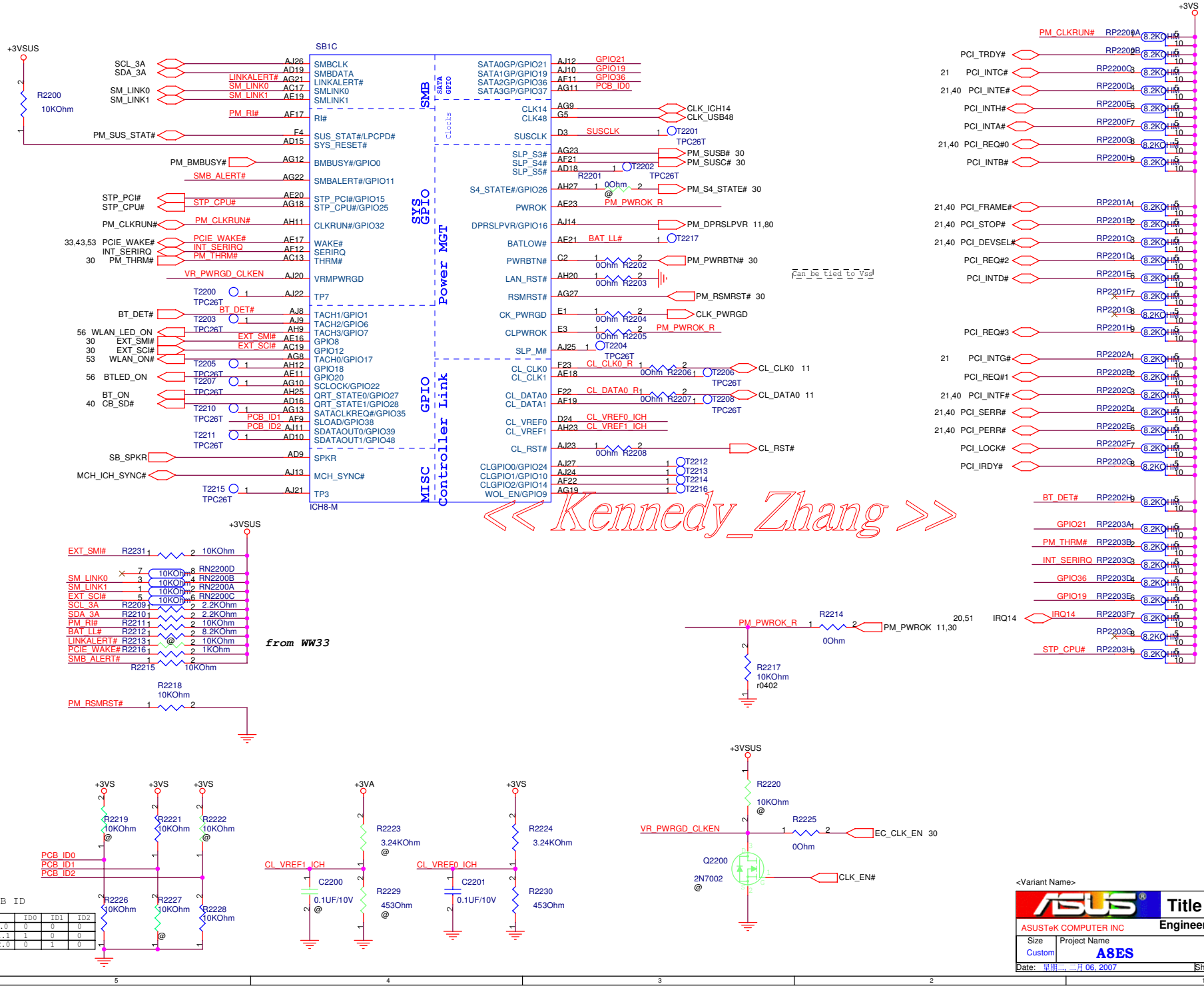


<Variant Name>

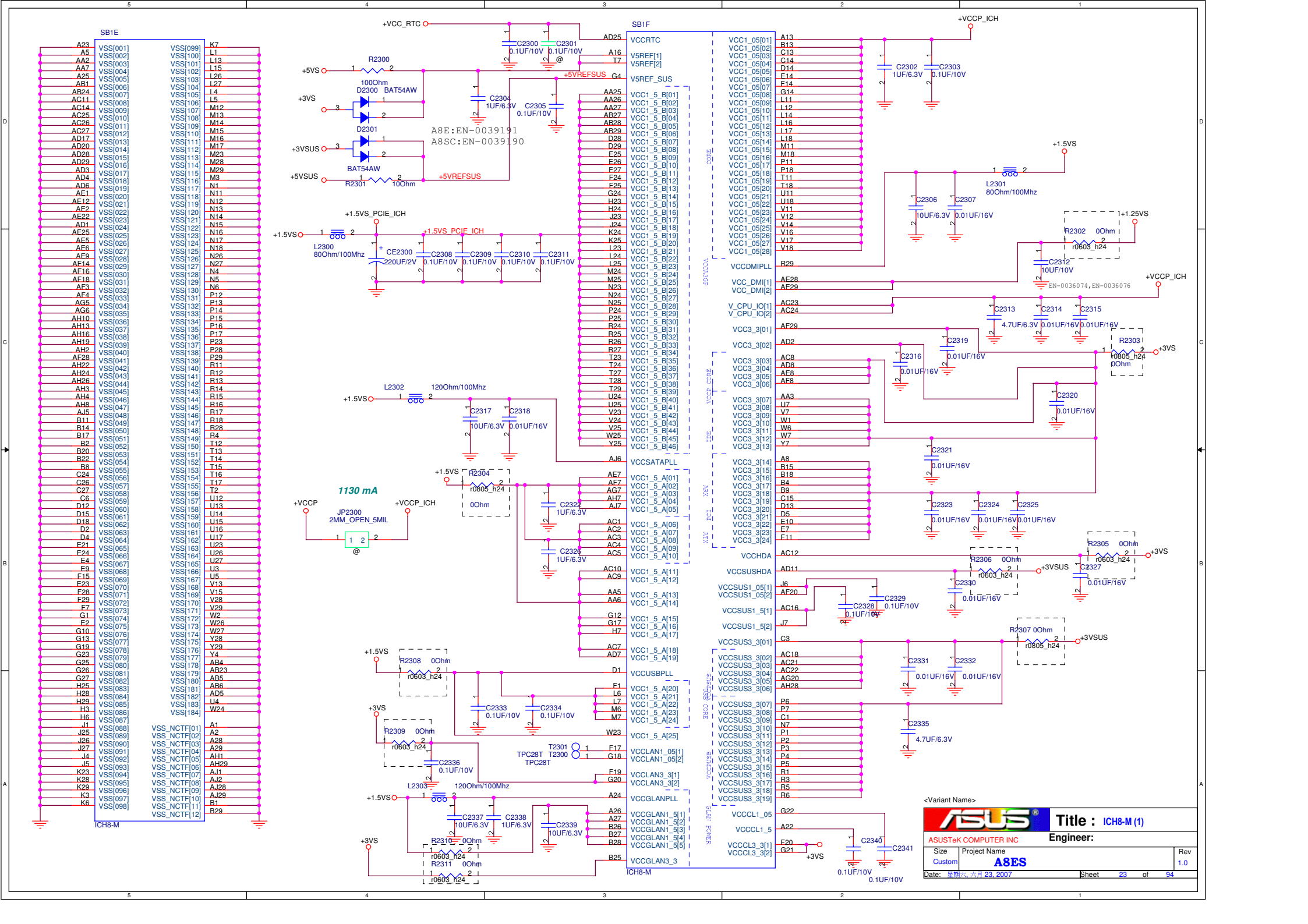
ASUSTeK COMPUTER INC

Title : ICH8-M (3)

Engineer:

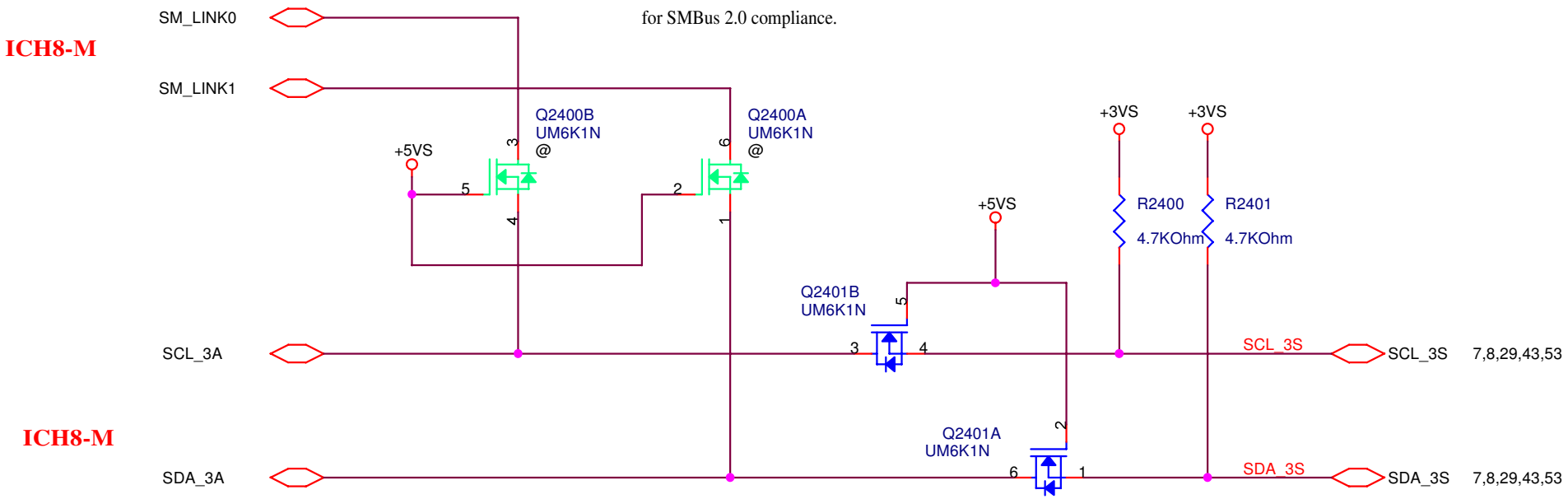
Size	Project Name	Rev
Custom	A8ES	1.0

Date: 星期二, 二月 06, 2007 Sheet 22 of 94


SB1E
ICH8-M
SB1F
ICH8-M
+VCC_RTC
+5VS
+3VS
+3VSUS
+5VSUS
+5VREFSUS
R2300
100Ohm
D2300 BAT54AW
D2301
BAT54AW
R2301 10Ohm
A8E:EN-0039191
A8SC:EN-0039190
+1.5VS_PCIE_ICH
L2300
80Ohm/100Mhz
CE2300
220UF/2V
L2302
120Ohm/100Mhz
1130 mA
JP2300
2MM_OPEN_5MIL
+VCCP
+VCCP_ICH
R2304
0Ohm
L2303
120Ohm/100Mhz
T2301 T2300
TPC28T
+1.5VS
L2301
80Ohm/100Mhz
+1.25VS
R2302 0Ohm
R2303 0Ohm
R2305 0Ohm
R2306 0Ohm
R2307 0Ohm
+3VSUS
R2308 0Ohm
R2309 0Ohm
R2310 0Ohm
R2311 0Ohm
EN-0036074,EN-0036076
<Variant Name>
Title : ICH8-M (1)
ASUSTeK COMPUTER INC
Engineer:
Size Custom
Project Name A8ES
Rev 1.0
Date: 星期六, 六月 23, 2007
Sheet 23 of 94

Check

Connect SMLINK and SMBUS
for SMBus 2.0 compliance.



<Variant Name>

ASUSTeK COMPUTER INC

Title : BLOCK DIAGRAM

Engineer:

Size	Project Name	Rev
A	A8ES	1.0

Date: 星期二, 二月 06, 2007 Sheet 24 of 94

ICH8-M GPIO Assignment

Name	H/W Pin Definition	Type	Tolerance	Power Wel	Default	Mux	Native Name	Real Name	Note
GPIO0	PM_BMBUSY#	I/O	3.3V	Core	GPI	Yes	BMBUSY	PM_BMBUSY#	
GPIO1	BT_DET#	I/O	3.3V	Core	GPI	No			
GPIO2	PCI_INTE#	I/OD	5V	Core	GPI	Yes	PIRQE#	PCI_INTE#	
GPIO3	PCI_INTF#	I/OD	5V	Core	GPI	Yes	PIRQF#	PCI_INTF#	
GPIO4	PCI_INTG#	I/OD	5V	Core	GPI	Yes	PIRQG#	PCI_INTG#	
GPIO5	PCI_INTH#	I/OD	5V	Core	GPI	Yes	PIRQH#	PCI_INTH#	
GPIO6	BIOS_REC	I/O	3.3V	Core	GPI	No			
GPIO7	WLAN_LED_ON	I/O	3.3V	Core	GPI	No			
GPIO8	EXT_SMI#	I/O	3.3V	Resume	GPI	No			
GPIO9	LAN_WOL_EN	I/O	3.3V	Resume	GPI	Yes	WOL_EN		
GPIO10	ME_ALERT#	I/O	3.3V	Resume	GPI	Yes	CLGPIO1		
GPIO11		I/O	3.3V	Resume	Native	Yes	SMBALERT#	pull high +3VSUS	
GPIO12	EXT_SCI#	I/O	3.3V	Resume	GPI	No			
GPIO13	ODD_DET	I/O	3.3V	Resume	Native	Yes	GLAN_DOCK#		removing from EC
GPIO14	NETDETECT	I/O	3.3V	Resume	GPI	Yes	CLGPIO2		
GPIO15	STP_PCI#	I/O	3.3V	Resume	Native	No	STP_PCI#	STP_PCI#	
GPIO16	PM_DPRSLPVR	I/O	3.3V	Core	Native	Yes	DPRSLPVR	PM_DPRSLPVR	
GPIO17	WLAN_ON#	I/O	3.3V	Core	GPI	No			
GPIO18		I/O	3.3V	Core	GPO	No			
GPIO19		I/O	3.3V	Core	GPI	Yes	SATA1GP		
GPIO20	BTLED_ON	I/O	3.3V	Core	GPO	No			
GPIO21		I/O	3.3V	Core	GPI	Yes	SATA0GP		
GPIO22		I/O	3.3V	Core	GPI	Yes	SCLOCK		
GPIO23		I/O	3.3V	Core	Native	Yes	LDRQ1#		
GPIO24	PS_CPPE#	I/O	3.3V	Resume	GPO	Yes	CLGPIO0		removing from EC; note by Alan
GPIO25	STP_CPU#	I/O	3.3V	Resume	Native	No	STP_CPU#	STP_CPU#	
GPIO26	PM_S4_STATE#	I/O	3.3V	Resume	Native	Yes	S4_STATE#		
GPIO27	BT_ON#/BT_ON	I/O	3.3V	Resume	GPO	Yes	QRT_STATE0		
GPIO28	CB_SD#	I/O	3.3V	Resume	GPO	Yes	QRT_STATE1		Cardbus_Shutdown#
GPIO29	OC5#	I/O	3.3V	Resume	Native	Yes	OC5#		OC#
GPIO30	OC6#	I/O	3.3V	Resume	Native	Yes	OC6#		OC#
GPIO31	OC7#	I/O	3.3V	Resume	Native	Yes	OC7#		OC#
GPIO32	PM_CLKRUN#	I/O	3.3V	Core	Native	No	CLKRUN#	PM_CLKRUN#	
GPIO33		I/O	3.3V	Core	GPO	Yes	HDA_DOCK_EN#		
GPIO34		I/O	3.3V	Core	GPO	Yes	HDA_DOCK_RST#		
GPIO35	SATACLKREQ#	I/O	3.3V	Core	GPO	Yes	SATACLKREQ#		
GPIO36	EMAIL_LED#	I/O	3.3V	Core	GPI	Yes	SATA2GP		
GPIO37	PCB_ID0	I/O	3.3V	Core	GPI	Yes	SATA3GP		
GPIO38	PCB_ID1	I/O	3.3V	Core	GPI	Yes	SLOAD		
GPIO39	PCB_ID2	I/O	3.3V	Core	GPI	Yes	SDATAOUT0		
GPIO40	OC4#	I/O	3.3V	Resume	Native	Yes	OC4#		OC#
GPIO41	OC3#	I/O	3.3V	Resume	Native	Yes	OC3#		OC#
GPIO42	OC2#	I/O	3.3V	Resume	Native	Yes	OC2#		OC#
GPIO43	OC1#	I/O	3.3V	Resume	Native	Yes	OC1#		OC#
GPIO44		I/O	N/A	N/A	N/A	N/A	N/A	N/A	
GPIO45		I/O	N/A	N/A	N/A	N/A	N/A	N/A	
GPIO46		I/O	N/A	N/A	N/A	N/A	N/A	N/A	
GPIO47		I/O	N/A	N/A	N/A	N/A	N/A	N/A	
GPIO48		I/O	3.3V	Core	GPI	Yes	SDATAOUT1		
GPIO49	H_PWRGD	I/O	V_CPU_IO	V_CPU_IO	Native	Yes	CPUPWRGD	H_PWRGD	
GPIO50	PCI_REQ1#	I/O	5.5V	Core	Native	Yes	REQ1#		
GPIO51	PCI_GNT1#	I/O	3.3V	Core	Native	Yes	GNT1#		
GPIO52	PCI_REQ2#	I/O	5.5V	Core	Native	Yes	REQ2#		
GPIO53	PCI_GNT2#	I/O	3.3V	Core	Native	Yes	GNT2#		
GPIO54		I/O	5.5V	Core	Native	Yes	REQ3#		reserved for GPIO
GPIO55		I/O	3.3V	Core	Native	Yes	GNT3#		reserved for GPIO

Title : BLANK

Engineer:

ASUSTeK COMPUTER INC

Size: A | Project Name: A8ES | Rev: 0

Date: 星期三, 十月 11, 2006 | Sheet 25 of 94

ASUSTeK COMPUTER INC	Title : BLANK Engineer:	
Size: A	Project Name: A8ES	Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 26 of 94	

Title : BLANK

ASUSTeK COMPUTER INC

Engineer:

Size	Project Name	Rev
A	A8ES	0

Date: 星期三, 十月 11, 2006 Sheet 27 of 94

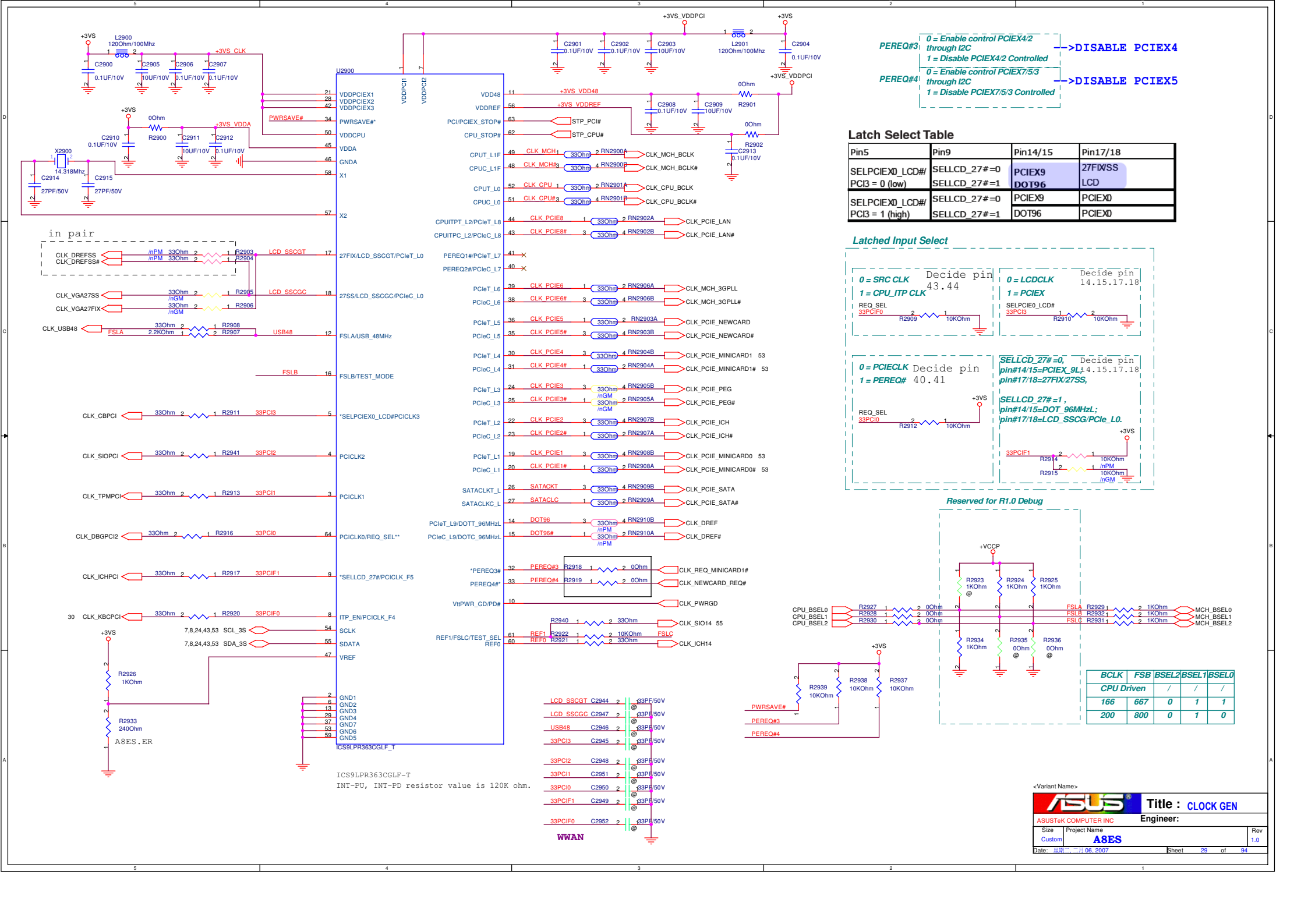
Title : BLANK

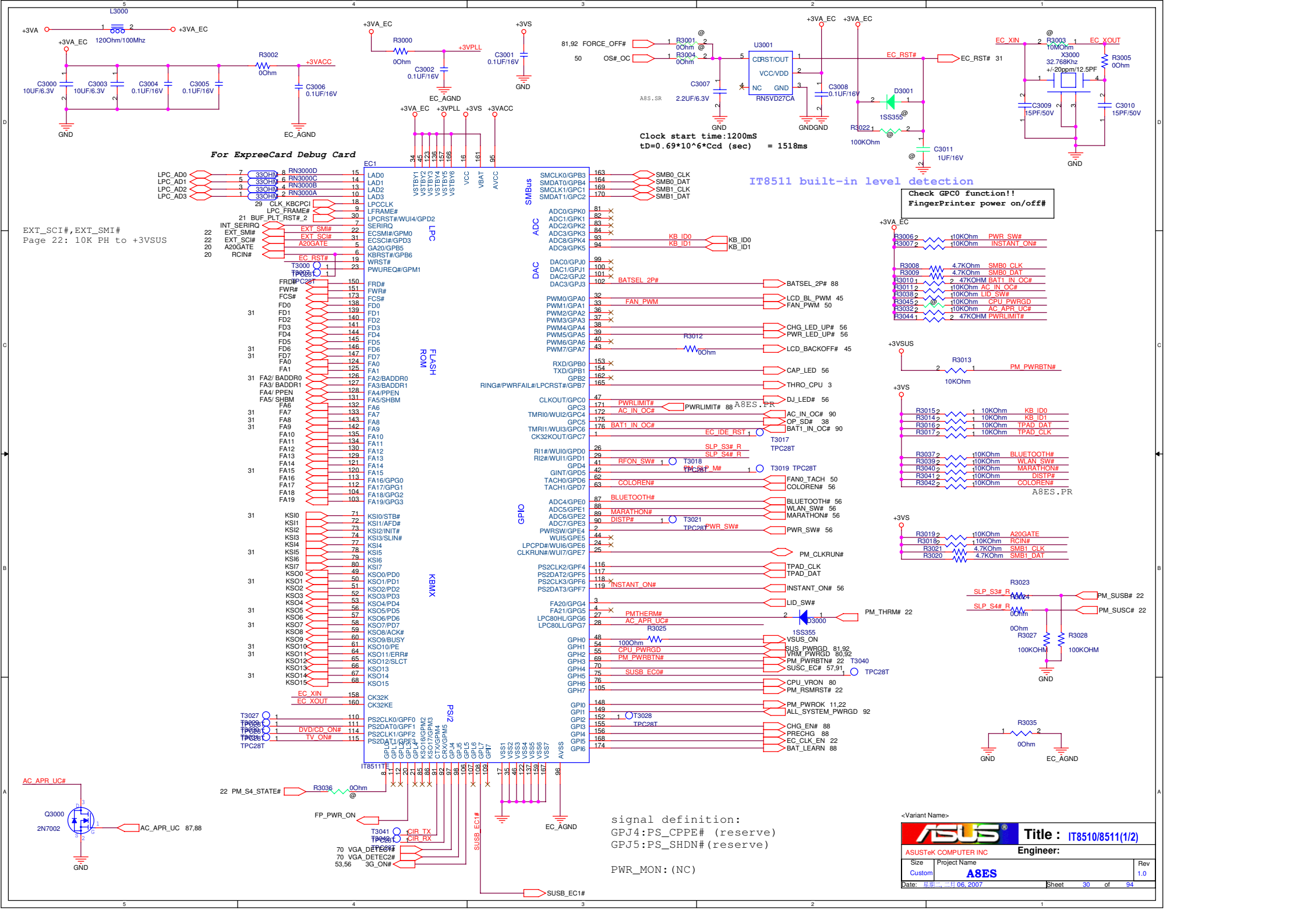
ASUSTeK COMPUTER INC

Engineer:

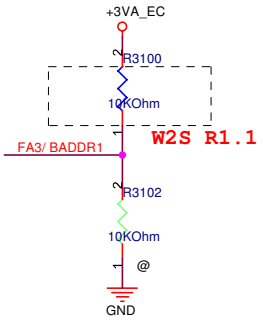
Size	Project Name	Rev
A	A8ES	0

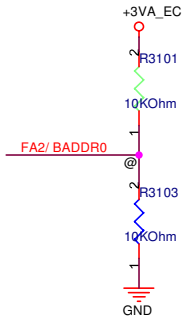
Date: 星期三, 十月 11, 2006 Sheet 28 of 94


PEREQ#3
0 = Enable control PCIEX4/2 through I2C
1 = Disable PCIEX4/2 Controlled
-->DISABLE PCIEX4
PEREQ#4
0 = Enable control PCIEX7/5/3 through I2C
1 = Disable PCIEX7/5/3 Controlled
-->DISABLE PCIEX5
Latch Select Table
Pin5
Pin9
Pin14/15
Pin17/18
SELPCIEX0_LCD#/ PCI3 = 0 (low)
SELLCD_27#=0
SELLCD_27#=1
PCIEX9
DOT96
27FIX/SS
LCD
SELPCIEX0_LCD#/ PCI3 = 1 (high)
SELLCD_27#=0
SELLCD_27#=1
PCIEX9
DOT96
PCIEX0
PCIEX0
Latched Input Select
0 = SRC CLK
1 = CPU_ITP CLK
Decide pin 43.44
REQ_SEL
33PCIF0
R2909
10KOhm
0 = LCDCLK
1 = PCIEX
Decide pin 14.15.17.18
SELPCIE0_LCD#
33PCI3
R2910
10KOhm
0 = PCIECLK
1 = PEREQ#
Decide pin 40.41
REQ_SEL
33PCI0
R2912
10KOhm
SELLCD_27# =0, pin#14/15=PCIEX_9L; pin#17/18=27FIX/27SS,
SELLCD_27# =1 , pin#14/15=DOT_96MHzL; pin#17/18=LCD_SSCG/PCIe_L0.
Decide pin 14.15.17.18
33PCIF1
R2914
R2915
10KOhm
/nPM
/nGM
Reserved for R1.0 Debug
+VCCP
R2923 1KOhm @
R2924 1KOhm
R2925 1KOhm
R2934 1KOhm
R2935 0Ohm @
R2936 0Ohm @
CPU_BSEL0
CPU_BSEL1
CPU_BSEL2
R2927 0Ohm
R2928 0Ohm
R2930 0Ohm
FSLA
FSLB
FSLC
R2929 1KOhm
R2932 1KOhm
R2931 1KOhm
MCH_BSEL0
MCH_BSEL1
MCH_BSEL2
+3VS
R2939 10KOhm
R2938 10KOhm
R2937 10KOhm
PWRSAVE#
PEREQ#3
PEREQ#4
BCLK
FSB
BSEL2
BSEL1
BSEL0
CPU Driven
/
/
/
166
667
0
1
1
200
800
0
1
0
U2900
ICS9LPR363CGLF_T
ICS9LPR363CGLF-T
INT-PU, INT-PD resistor value is 120K ohm.
in pair
WWAN
<Variant Name>
Title : CLOCK GEN
ASUSTeK COMPUTER INC
Engineer:
Size Custom
Project Name A8ES
Rev 1.0
Date: 星期二, 三月 06, 2007
Sheet 29 of 94


L3000
+3VA
+3VA_EC
120Ohm/100Mhz
C3000 10UF/6.3V
C3003 10UF/6.3V
C3004 0.1UF/16V
C3005 0.1UF/16V
R3002 0Ohm
+3VACC
C3006 0.1UF/16V
GND
EC_AGND
R3000 0Ohm
+3VPLL
C3002 0.1UF/16V
+3VS
C3001 0.1UF/16V
For ExpreeCard Debug Card
EXT_SCI#,EXT_SMI#
Page 22: 10K PH to +3VSUS
EC1
LPC_AD0
LPC_AD1
LPC_AD2
LPC_AD3
RN3000D
RN3000C
RN3000B
RN3000A
33OHM
CLK_KBCPCI
LPC_FRAME#
BUF_PLT_RST#_2
INT_SERIRQ
EXT_SMI#
EXT_SCI#
A20GATE
RCIN#
EC_RST#
T3000
T3001
TPC28T
LPC
FLASH ROM
KBMX
PS2
GPIO
ADC
DAC
SMBus
FRD#
FWR#
FCS#
FD0
FD1
FD2
FD3
FD4
FD5
FD6
FD7
FA0
FA1
FA2/ BADDR0
FA3/ BADDR1
FA4/ PPEN
FA5/ SHBM
FA6
FA7
FA8
FA9
FA10
FA11
FA12
FA13
FA14
FA15
FA16/GPG0
FA17/GPG1
FA18/GPG2
FA19/GPG3
KSI0/STB#
KSI1/AFD#
KSI2/INIT#
KSI3/SLIN#
KSI4
KSI5
KSI6
KSI7
KSO0/PD0
KSO1/PD1
KSO2/PD2
KSO3/PD3
KSO4/PD4
KSO5/PD5
KSO6/PD6
KSO7/PD7
KSO8/ACK#
KSO9/BUSY
KSO10/PE
KSO11/ERR#
KSO12/SLCT
KSO13
KSO14
KSO15
EC_XIN
EC_XOUT
CK32K
CK32KE
PS2CLK0/GPF0
PS2DAT0/GPF1
PS2CLK1/GPF2
PS2DAT1/GPF3
DVD/CD_ON#
TV_ON#
SMCLK0/GPB3
SMDAT0/GPB4
SMCLK1/GPC1
SMDAT1/GPC2
SMB0_CLK
SMB0_DAT
SMB1_CLK
SMB1_DAT
ADC0/GPK0
ADC1/GPK1
ADC2/GPK2
ADC3/GPK3
ADC8/GPK4
ADC9/GPK5
KB_ID0
KB_ID1
DAC0/GPJ0
DAC1/GPJ1
DAC2/GPJ2
DAC3/GPJ3
BATSEL_2P#
PWM0/GPA0
PWM1/GPA1
PWM2/GPA2
PWM3/GPA3
PWM4/GPA4
PWM5/GPA5
PWM6/GPA6
PWM7/GPA7
FAN_PWM
R3012 0Ohm
LCD_BL_PWM
FAN_PWM
CHG_LED_UP#
PWR_LED_UP#
LCD_BACKOFF#
RXD/GPB0
TXD/GPB1
GPB2
RING#/PWRFAIL#/LPCRST#/GPB7
CAP_LED
THRO_CPU
DJ_LED#
CLKOUT/GPC0
GPC3
TMRI0/WUI2/GPC4
GPC5
TMRI1/WUI3/GPC6
CK32KOUT/GPC7
PWRLIMIT#
AC_IN_OC#
BAT1_IN_OC#
EC_IDE_RST#
T3017
RI1#/WUI0/GPD0
RI2#/WUI1/GPD1
GPD4
GINT/GPD5
TACH0/GPD6
TACH1/GPD7
RFON_SW#
T3018
SLP_S4#_M#
T3019
COLOREN#
FAN0_TACH
ADC4/GPE0
ADC5/GPE1
ADC6/GPE2
ADC7/GPE3
PWRSW/GPE4
WUI5/GPE5
LPCPD#/WUI6/GPE6
CLKRUN#/WUI7/GPE7
BLUETOOTH#
MARATHON#
DISTP#
T3021
PWR_SW#
PM_CLKRUN#
PS2CLK2/GPF4
PS2DAT2/GPF5
PS2CLK3/GPF6
PS2DAT3/GPF7
TPAD_CLK
TPAD_DAT
INSTANT_ON#
FA20/GPG4
FA21/GPG5
LPC80HL/GPG6
LPC80LL/GPG7
LID_SW#
PMTHERM#
AC_APR_UC#
R3025 100Ohm
PM_THRM#
D3000
1SS355
GPH0
GPH1
GPH2
GPH3
GPH4
GPH5
GPH6
GPH7
VSUS_ON
SUS_PWRGD
VRM_PWRGD
PM_PWRBTN#
SUSC_EC#
SUSB_EC0#
CPU_VRON
PM_RSMRST#
GPI0
GPI1
GPI2
GPI3
GPI4
GPI5
GPI6
PM_PWROK
ALL_SYSTEM_PWRGD
T3028
CHG_EN#
PRECHG
EC_CLK_EN
BAT_LEARN
IT8511TE
VSTBY1
VSTBY2
VSTBY3
VSTBY4
VSTBY5
VSTBY6
VCC
VBAT
AVCC
VSS1
VSS2
VSS3
VSS4
VSS5
VSS6
VSS7
AVSS
GPL1
GPL2
GPL3
GPL4
KSO16/GPM2
KSO17/GPM3
CTX/GPM4
CRX/GPM5
GPJ4
GPJ5
GPL5
GPL6
GPL7
GPI7
81,92 FORCE_OFF#
50 OS#_OC
U3001
RST/OUT
VCC/VDD
NC
GND
RN5VD27CA
R3001 0Ohm
R3004 0Ohm
C3007 2.2UF/6.3V
C3008 0.1UF/16V
D3001 1SS355
R3022 100KOhm
C3011 1UF/16V
EC_RST#
EC_RST# 31
Clock start time:1200mS
tD=0.69*10^6*Ccd (sec) = 1518ms
EC_XIN
EC_XOUT
X3000 32.768Khz +/-20ppm/12.5PF
R3003 10MOhm
R3005 0Ohm
C3009 15PF/50V
C3010 15PF/50V
IT8511 built-in level detection
Check GPC0 function!!
FingerPrinter power on/off#
R3006 10KOhm PWR_SW#
R3007 10KOhm INSTANT_ON#
R3008 4.7KOhm SMB0_CLK
R3009 4.7KOhm SMB0_DAT
R3010 47KOHM BAT1_IN_OC#
R3011 10KOhm AC_IN_OC#
R3038 10KOhm LID_SW#
R3045 10KOhm CPU_PWRGD
R3032 10KOhm AC_APR_UC#
R3044 47KOHM PWRLIMIT#
R3013 10KOhm PM_PWRBTN#
R3015 10KOhm KB_ID0
R3014 10KOhm KB_ID1
R3016 10KOhm TPAD_DAT
R3017 10KOhm TPAD_CLK
R3037 10KOhm BLUETOOTH#
R3039 10KOhm WLAN_SW#
R3040 10KOhm MARATHON#
R3041 10KOhm DISTP#
R3042 10KOhm COLOREN#
A8ES.PR
R3019 10KOhm A20GATE
R3018 10KOhm RCIN#
R3021 4.7KOhm SMB1_CLK
R3020 4.7KOhm SMB1_DAT
R3023 0Ohm
R3024 0Ohm
R3027 100KOHM
R3028 100KOHM
PM_SUSB# 22
PM_SUSC# 22
R3035 0Ohm
22 PM_S4_STATE#
R3036 0Ohm
FP_PWR_ON
T3041 CIR_TX
T3042 CIR_RX
70 VGA_DETEC1#
70 VGA_DETEC2#
53,56 3G_ON#
SUSB_EC1#
AC_APR_UC#
Q3000 2N7002
AC_APR_UC 87,88
signal definition:
GPJ4:PS_CPPE# (reserve)
GPJ5:PS_SHDN#(reserve)
PWR_MON:(NC)
<Variant Name>
Title : IT8510/8511(1/2)
ASUSTeK COMPUTER INC
Engineer:
Size Custom
Project Name A8ES
Rev 1.0
Date: 星期二, 三月 06, 2007
Sheet 30 of 94

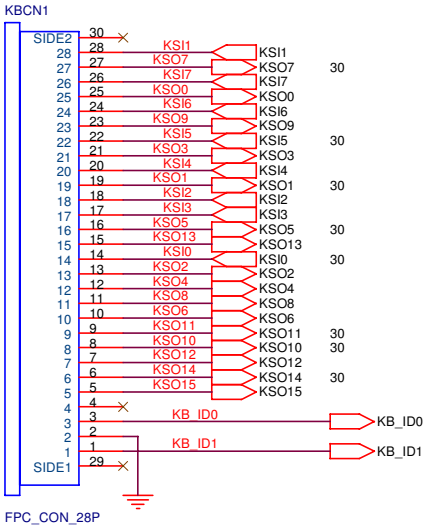
10:Determined by EC

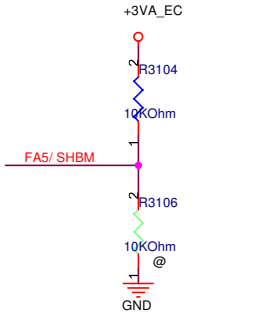


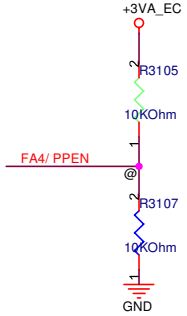


BADDR[1:0]
No pull up:
The register pair to access PNPCFG is 002Eh and 002Fh.
Ext 10K up on BADDR0:
The register pair to access PNPCFG is 004Eh and 004Fh.
Ext 10K up on BADDR1:
The register pair to access PNPCFG is determined by EC domain registers SWCBALR and SWCBAHR.

KBDDT1	KBDDT0	Matrix
1	1	US
1	0	UK
0	1	JP

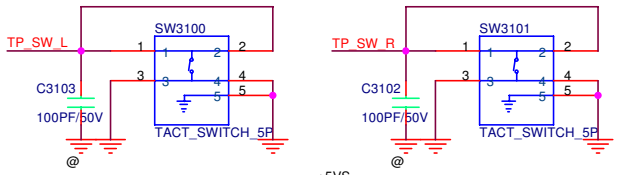




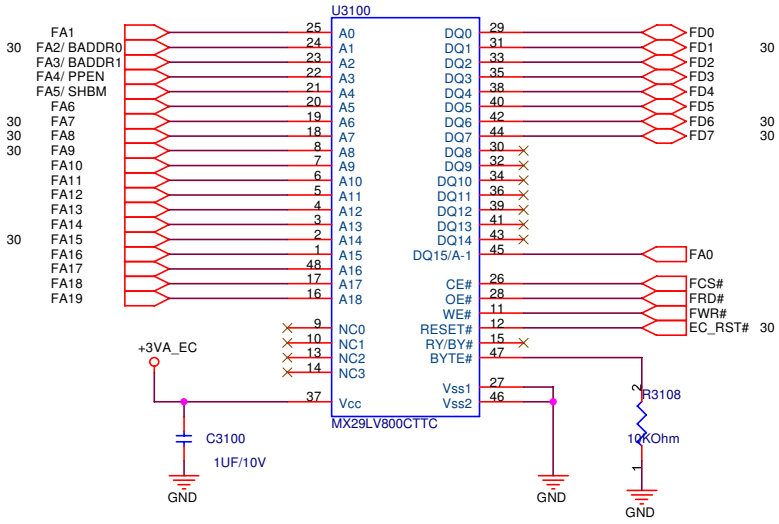


SHBM
No pull up:
disable shared memory with host BIOS
Ext 10K up:
enable shared memory with host BIOS

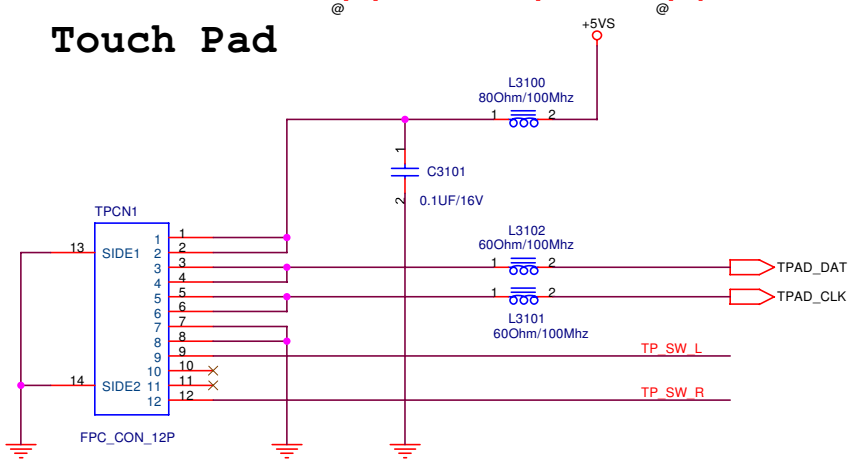
PPEN
No pull up:
Normal
Ext 10K up:
KBS interface pins are switched to parallel port interface for in-system programming.



8M TSOP



Touch Pad

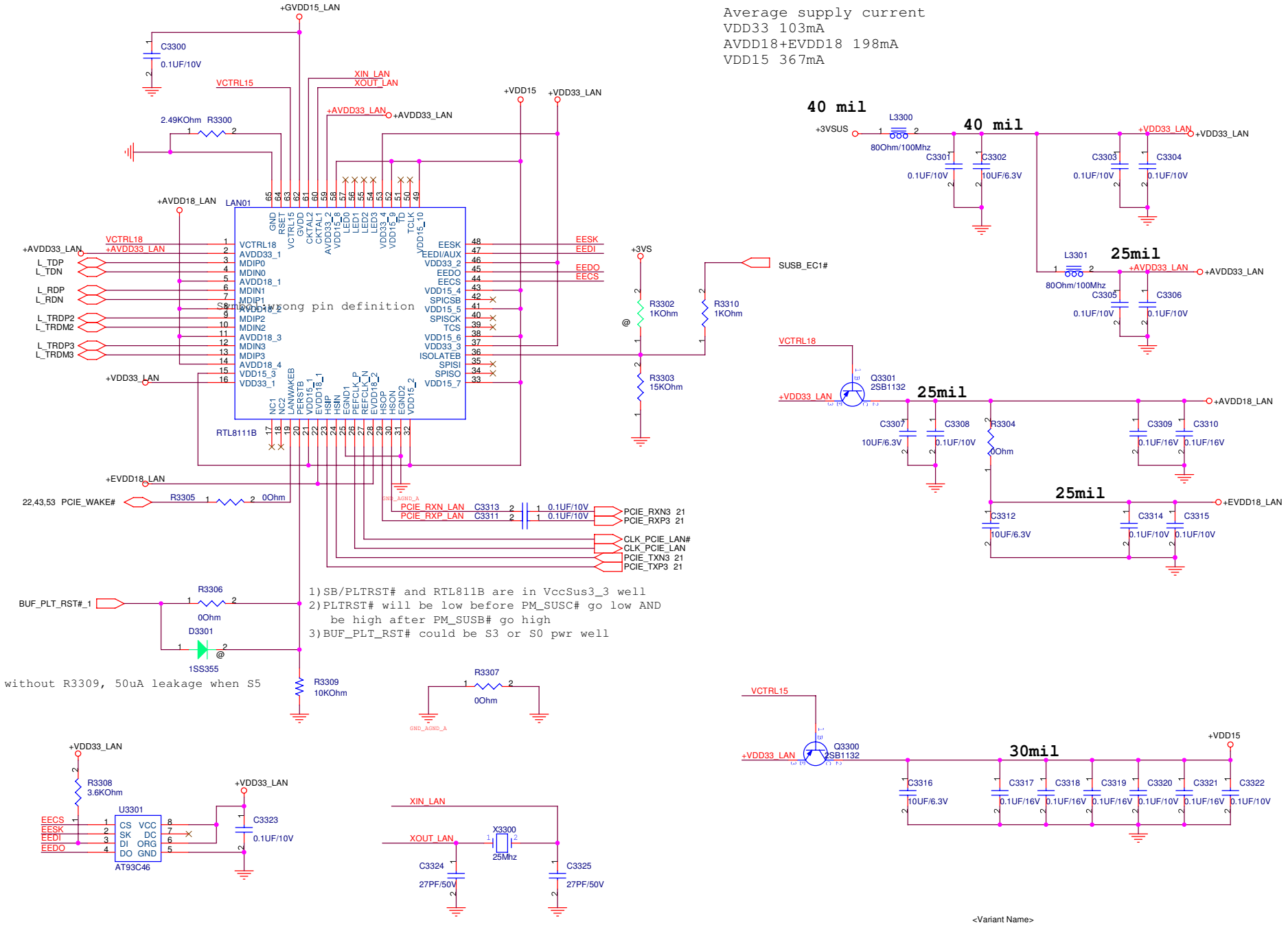


12G183101205

<Variant Name>

ASUSTeK COMPUTER INC	Title : IT8510/8511(2/2)	
	Engineer:	
Size: Custom	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 31 of 94	

ASUSTeK COMPUTER INC	Title : BLANK Engineer:	
Size: A	Project Name: A8ES	Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 32 of 94	



<Variant Name>

Title : GigaLAN

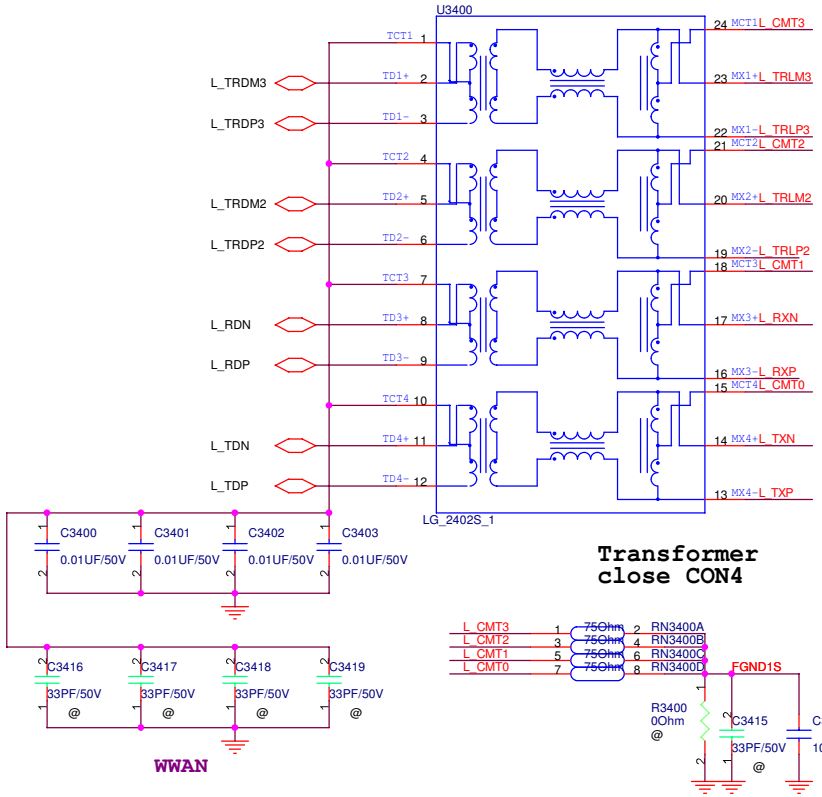
ASUSTeK COMPUTER INC

Engineer:

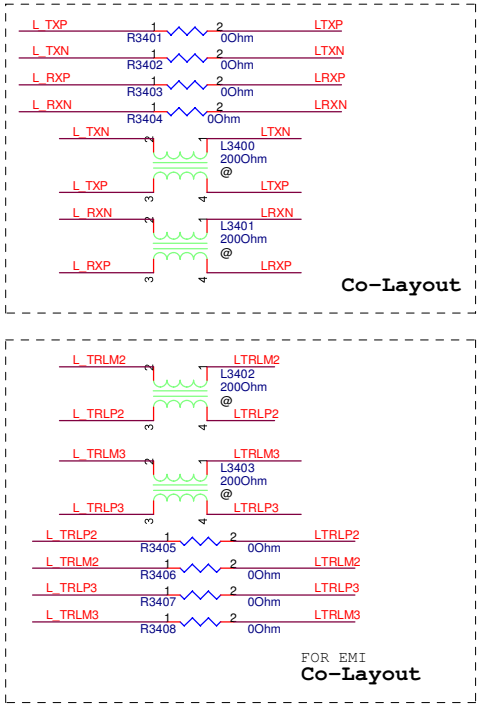
Size	Project Name	Rev
Custom	A8ES	1.0

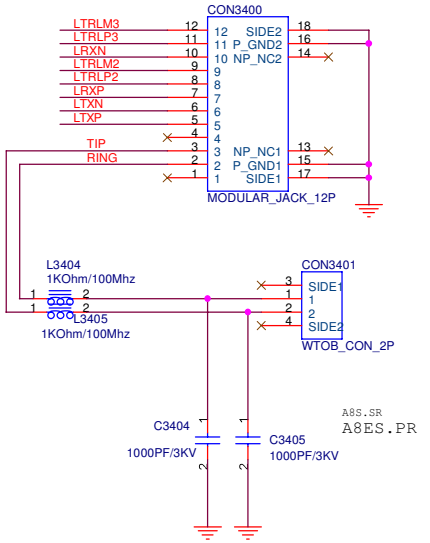
Date: 星期 一, 一月 06, 2007 Sheet 33 of 94

2402S have issue after IR reflow,
alternative part:LG-2410S-1

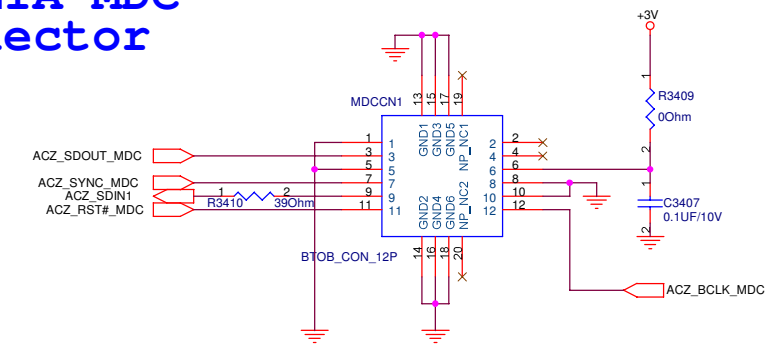


Transformer close CON4





AZALIA MDC Connector



<Variant Name>

ASUSTeK COMPUTER INC

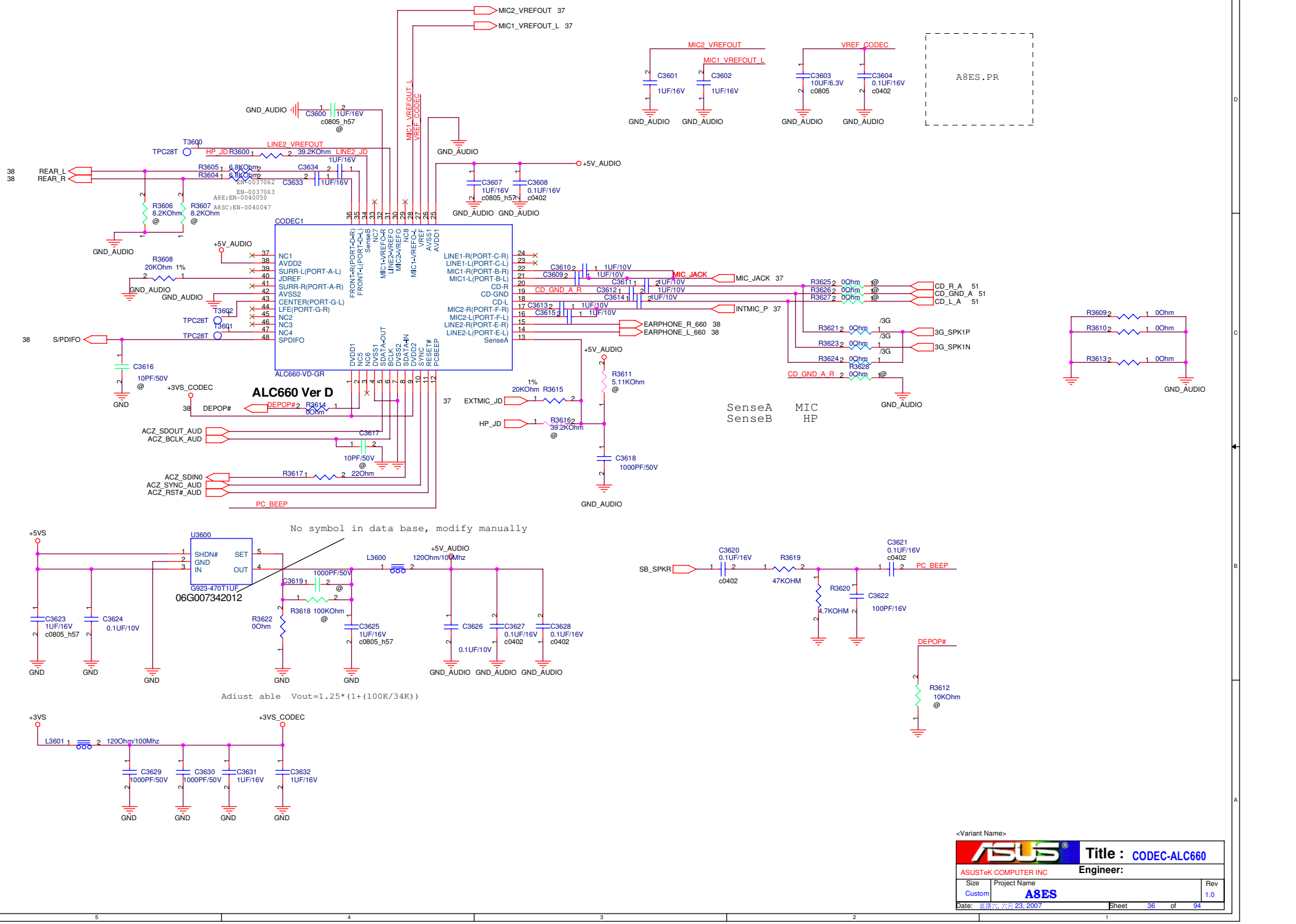
Title : RJ11+45 , MDC

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

Date: 星期 ., .月 06, 2007 Sheet 34 of 94

ASUSTeK COMPUTER INC	Title : BLANK Engineer:	
Size A	Project Name A8ES	Rev 0
Date: 星期三, 十月 11, 2006	Sheet 35 of 94	



<Variant Name>

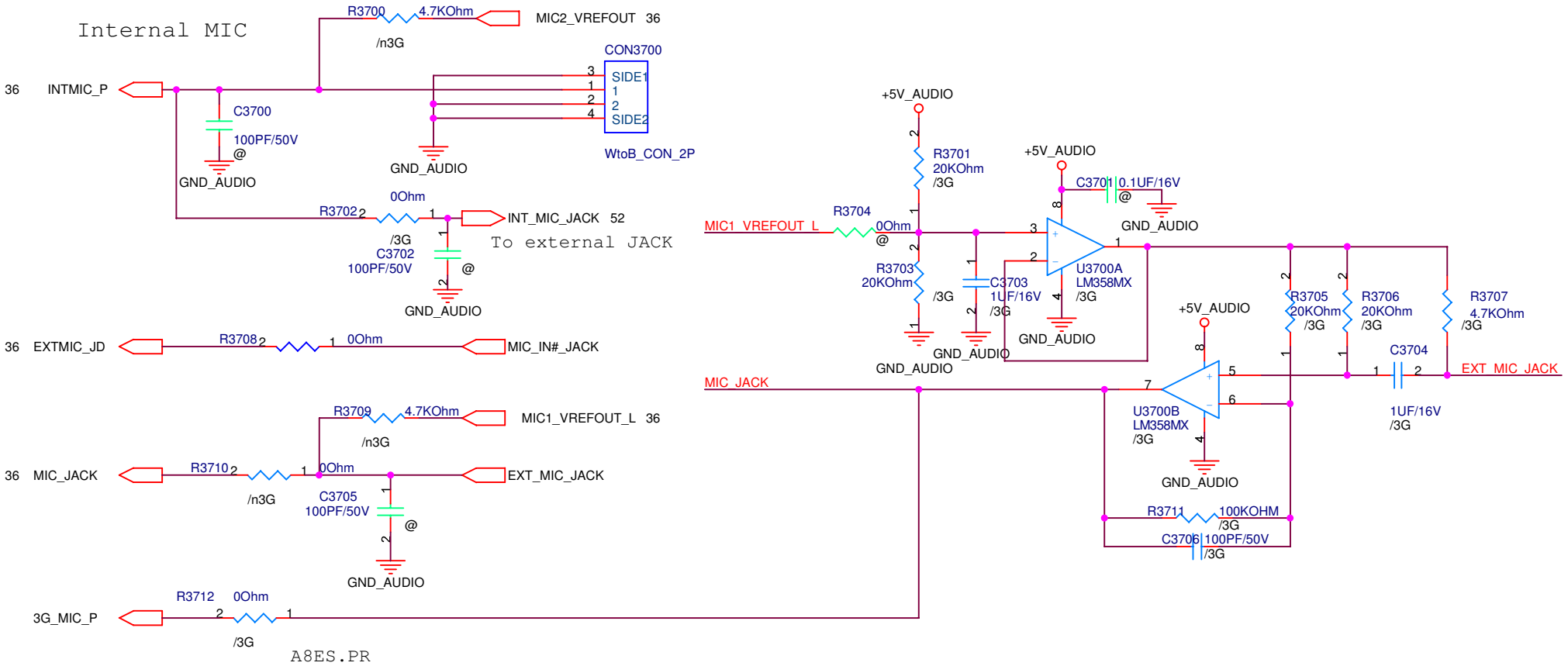
ASUSTeK COMPUTER INC

Title : CODEC-ALC660

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

Date: 星期六, 六月 23, 2007 Sheet 36 of 94



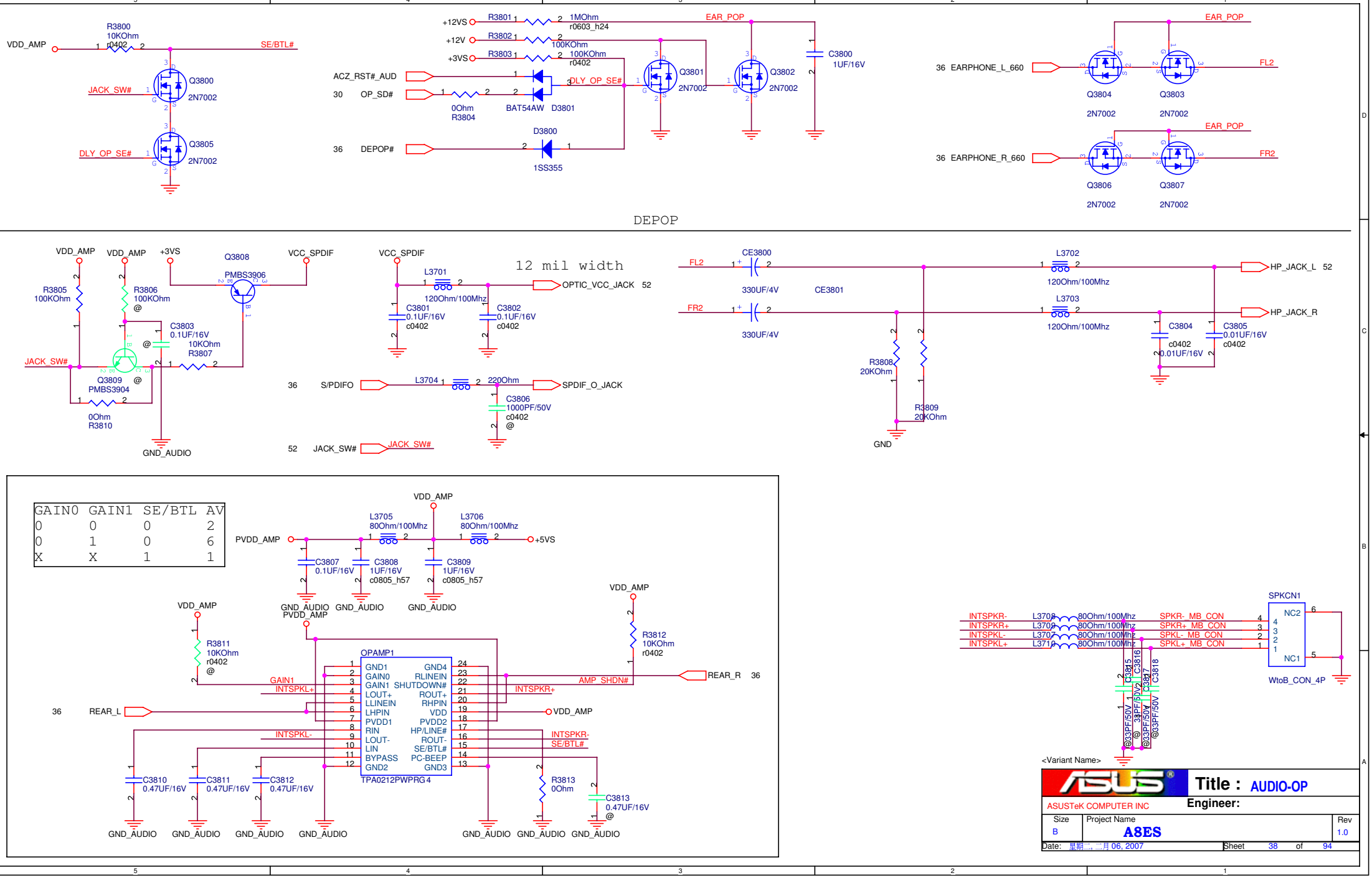
ASUSTeK COMPUTER INC

Title : AUDIO-MIC

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

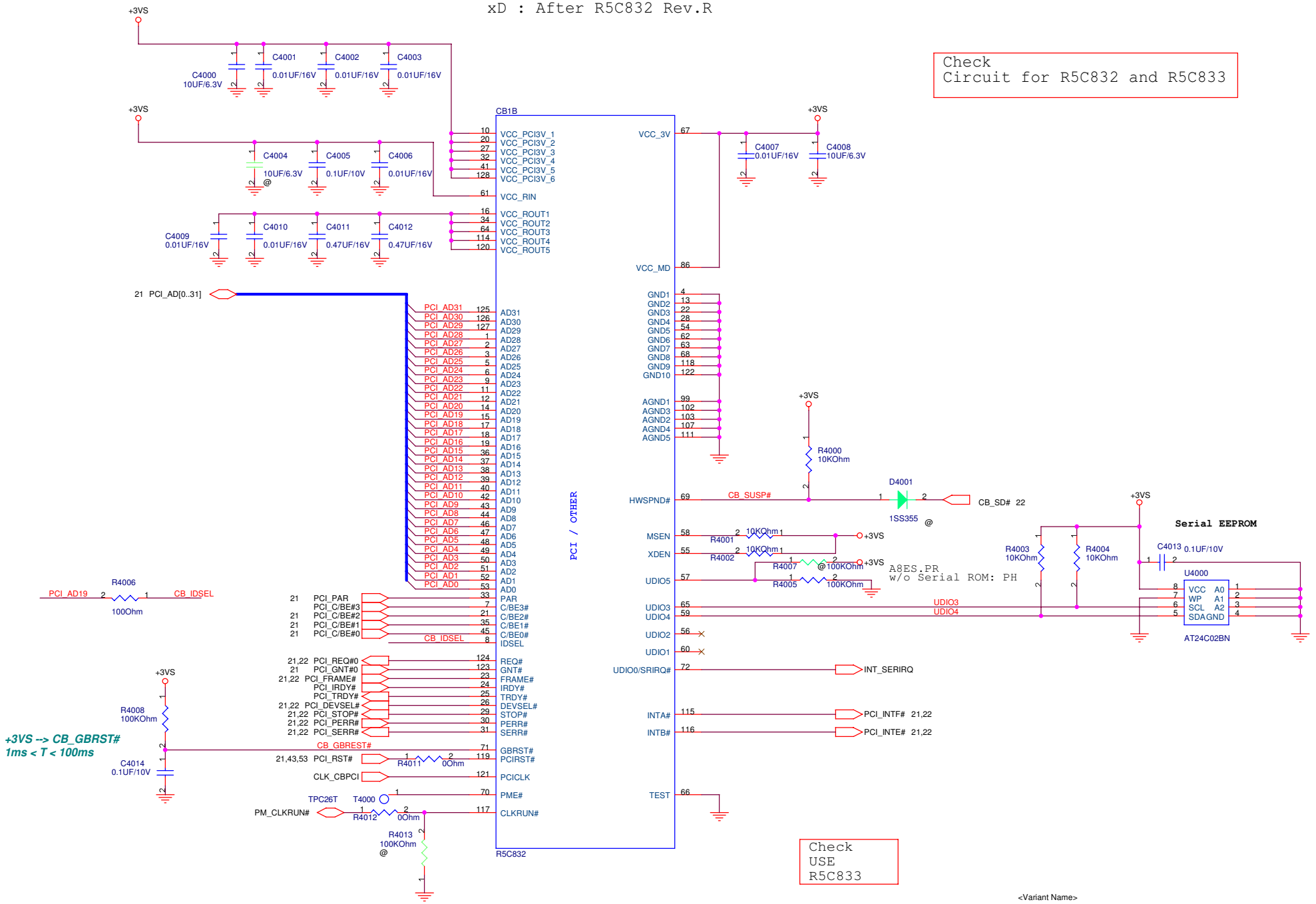
Date: 星期二, 二月 06, 2007 Sheet 37 of 94


R3800
10KOhm
r0402
VDD_AMP
SE/BTL#
JACK_SW#
Q3800
2N7002
DLY_OP_SE#
Q3805
2N7002
+12VS
+12V
+3VS
R3801
1MOhm
r0603_h24
R3802
100KOhm
R3803
100KOhm
r0402
EAR_POP
C3800
1UF/16V
ACZ_RST#_AUD
30 OP_SD#
DLY_OP_SE#
0Ohm
R3804
BAT54AW D3801
Q3801
2N7002
Q3802
2N7002
D3800
36 DEPOP#
1SS355
36 EARPHONE_L_660
Q3804
2N7002
Q3803
2N7002
FL2
36 EARPHONE_R_660
Q3806
2N7002
Q3807
2N7002
FR2
DEPOP
VDD_AMP
VDD_AMP
+3VS
Q3808
PMBS3906
VCC_SPDIF
R3805
100KOhm
R3806
100KOhm
@
C3803
0.1UF/16V
10KOhm
R3807
JACK_SW#
Q3809
PMBS3904
@
0Ohm
R3810
GND_AUDIO
VCC_SPDIF
L3701
120Ohm/100Mhz
12 mil width
OPTIC_VCC_JACK 52
C3801
0.1UF/16V
c0402
C3802
0.1UF/16V
c0402
36 S/PDIFO
L3704
220Ohm
SPDIF_O_JACK
C3806
1000PF/50V
c0402
@
52 JACK_SW#
JACK_SW#
FL2
CE3800
330UF/4V
CE3801
FR2
330UF/4V
R3808
20KOhm
R3809
20KOhm
GND
L3702
120Ohm/100Mhz
HP_JACK_L 52
L3703
120Ohm/100Mhz
HP_JACK_R
C3804
c0402
0.01UF/16V
C3805
0.01UF/16V
c0402
GAIN0 GAIN1 SE/BTL AV
0 0 0 2
0 1 0 6
X X 1 1
VDD_AMP
PVDD_AMP
L3705
80Ohm/100Mhz
L3706
80Ohm/100Mhz
+5VS
C3807
0.1UF/16V
C3808
1UF/16V
c0805_h57
C3809
1UF/16V
c0805_h57
GND_AUDIO
PVDD_AMP
GND_AUDIO
GND_AUDIO
VDD_AMP
R3811
10KOhm
r0402
@
GAIN1
INTSPKL+
OPAMP1
GND1 GND4
GAIN0 RLINEIN
GAIN1 SHUTDOWN#
LOUT+ ROUT+
LLINEIN RHPIN
LHPIN VDD
PVDD1 PVDD2
RIN HP/LINE#
LOUT- ROUT-
LIN SE/BTL#
BYPASS PC-BEEP
GND2 GND3
TPA0212PWPRG4
INTSPKL-
36 REAR_L
VDD_AMP
R3812
10KOhm
r0402
AMP_SHDN#
REAR_R 36
INTSPKR+
VDD_AMP
INTSPKR-
SE/BTL#
R3813
0Ohm
C3813
0.47UF/16V
@
C3810
0.47UF/16V
C3811
0.47UF/16V
C3812
0.47UF/16V
GND_AUDIO
GND_AUDIO
GND_AUDIO
GND_AUDIO
GND_AUDIO
GND_AUDIO
GND_AUDIO
INTSPKR- L3708 80Ohm/100Mhz SPKR- MB_CON
INTSPKR+ L3709 80Ohm/100Mhz SPKR+ MB_CON
INTSPKL- L3707 80Ohm/100Mhz SPKL- MB_CON
INTSPKL+ L3710 80Ohm/100Mhz SPKL+ MB_CON
SPKCN1
NC2
NC1
WtoB_CON_4P
C3815
C3816
C3817
C3818
@33PF/50V
@ 33PF/50V
@33PF/50V
@33PF/50V
<Variant Name>
Title : AUDIO-OP
ASUSTeK COMPUTER INC
Engineer:
Size B
Project Name A8ES
Rev 1.0
Date: 星期二, 二月 06, 2007
Sheet 38 of 94

ASUSTeK COMPUTER INC	Title : BLANK Engineer:	
Size: A	Project Name: A8ES	Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 39 of 94	

xD : After R5C832 Rev.R

Check
Circuit for R5C832 and R5C833



Check
USE
R5C833

<Variant Name>

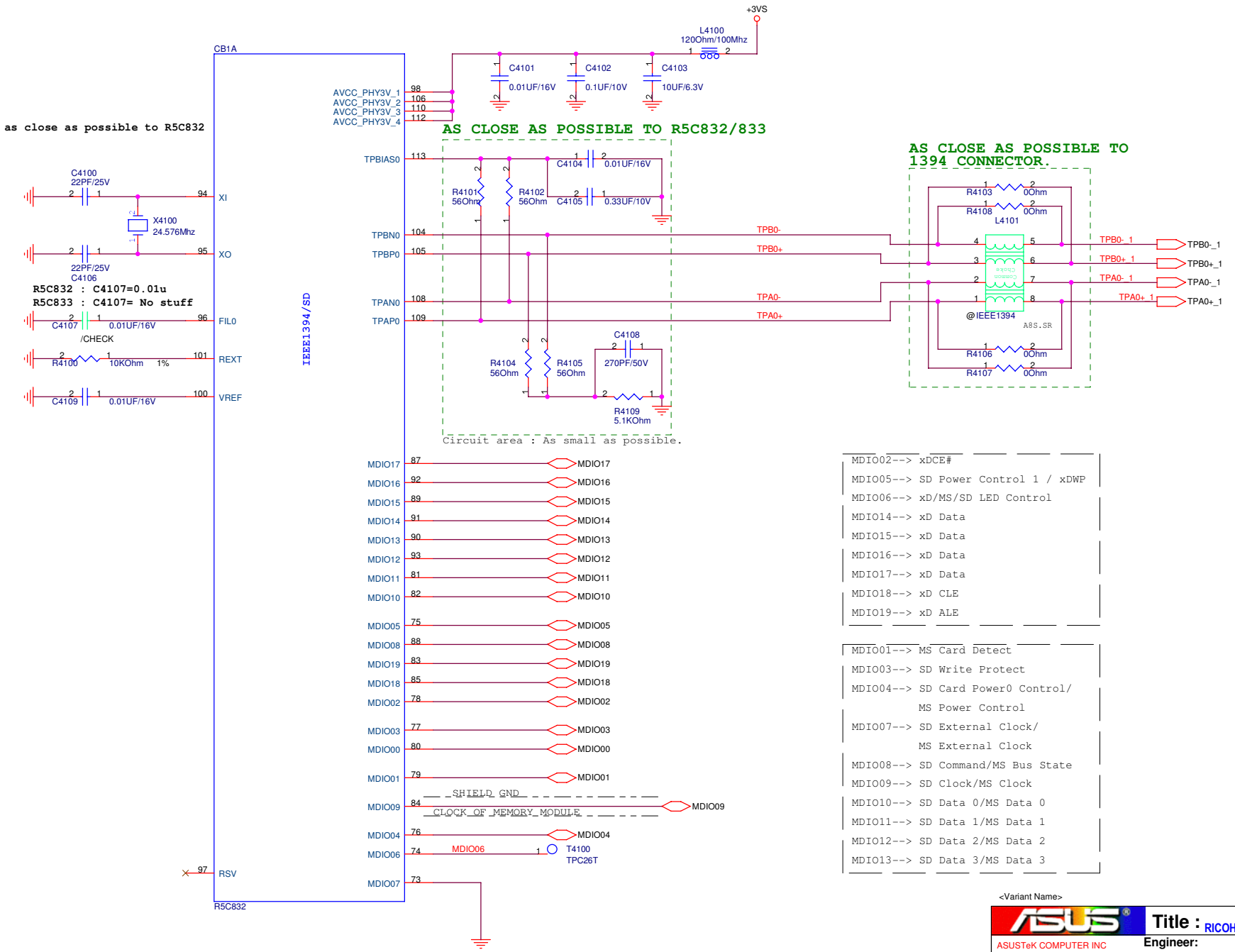
ASUSTeK COMPUTER INC

Title : RICOH R5C832/PCI_B

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

Date: 星期二, 三月 06, 2007 Sheet 40 of 94



<Variant Name>

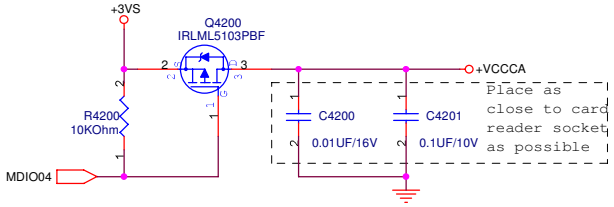
Title : RICOH R5C832/PCI_A

ASUSTeK COMPUTER INC

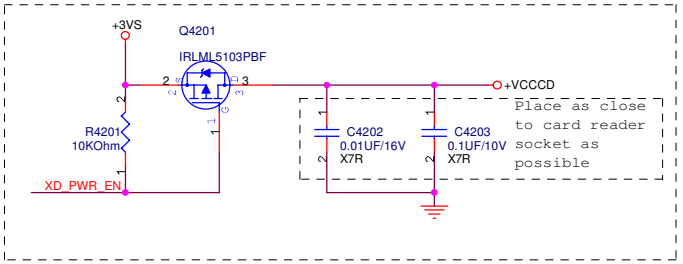
Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

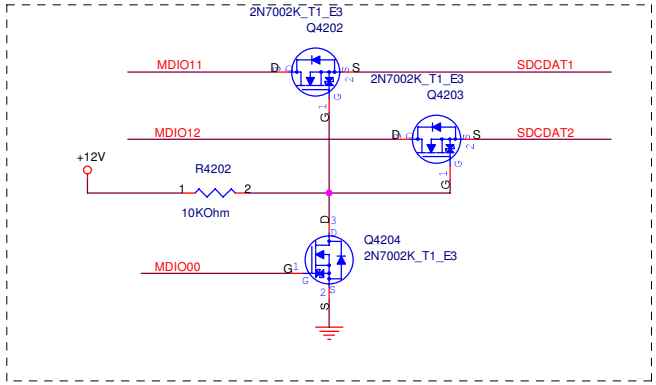
Date: 星期二, 三月 06, 2007 Sheet 41 of 94



To correct the problem when MS Duo adaptor is in use.

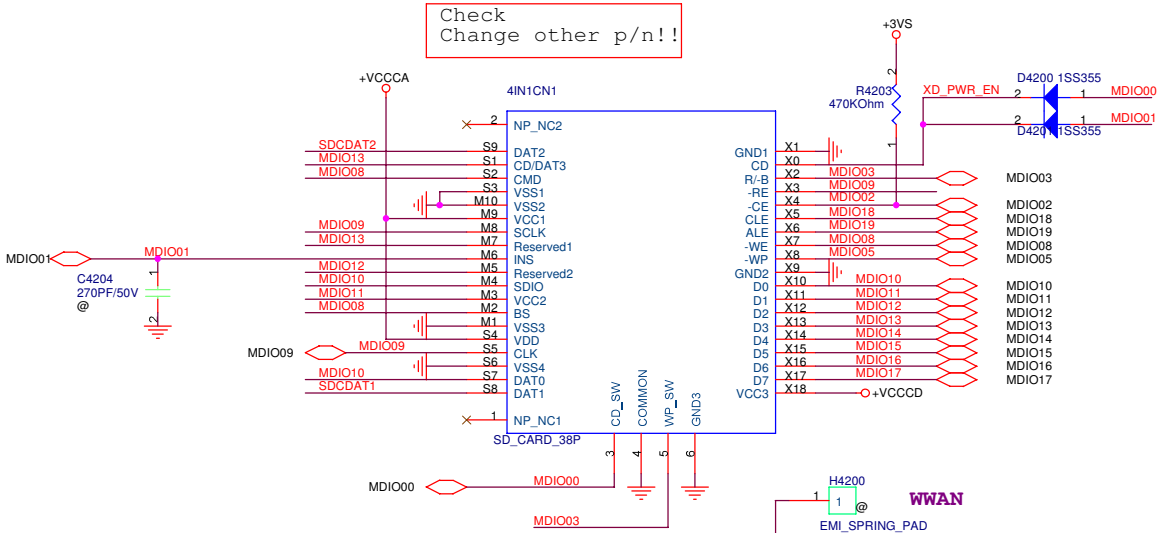


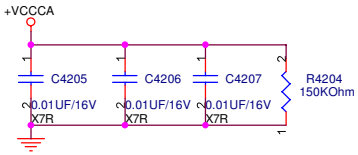
Solve MS Duo Adaptor short issue.

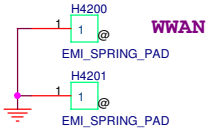


A8ES.PR
Change to 07G005000214, 2KV ESD

Check
Change other p/n!!







WWAN

MDIO00--> SD Card Detect
MDIO01--> MS Card Detect
MDIO03--> SD Write Protect
MDIO04--> SD Card Power0 Control/
MS Power Control
MDIO08--> SD Command/MS Bus State
MDIO09--> SD Clock/MS Clock
MDIO10--> SD Data 0/MS Data 0
MDIO11--> SD Data 1/MS Data 1
MDIO12--> SD Data 2/MS Data 2
MDIO13--> SD Data 3/MS Data 3

MDIO02--> xDCE#
MDIO05--> SD Power Control 1 / xDWP
MDIO06--> xD/MS/SD LED Control
MDIO14--> xD Data
MDIO15--> xD Data
MDIO16--> xD Data
MDIO17--> xD Data
MDIO18--> xD CLE
MDIO19--> xD ALE

<Variant Name>

ASUSTeK COMPUTER INC	Title : CardReader	
	Engineer:	
Size: Custom	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 42 of 94	

Check
+3V

U4300
SUSB_EC1#
VSUS_ON
STBY# SHDN# PERST#
OC# 1.5VOUT_1 1.5VOUT_2
AUXOUT
3.3VIN_1 3.3VIN_2
1.5VIN_1 1.5VIN_2
AUXIN
SYSRST# GND1 GND2
3.3VOUT_1 3.3VOUT_2
CPPE# CPUSB# RCLKEN
NC
R5538D001
R4300 1KOhm
R4302 @ 0Ohm
USB_OC#4
+1.5VS_PE
+3.3VA_PE
+3.3VS_PE
+3VS
+1.5VS
+3VSUS
21,40,53 PCI_RST#
PCI_RST#
CPPE#
CPUSB#

USB_PN4
R4301 0Ohm
USBP4-
A8ES.PR
USB_PP4
R4303 0Ohm
USBP4+

Block A

R4305 0Ohm
C4300 2200PF/50V
D4300 BAT54C
R4308 10KOhm
R4306 47KOHM
C4301 0.1UF/10V
R4309 47KOHM @
Q4300 PMBS3904
R4304 100KOhm
+3V
PE_DEBUGEN#
U4301 74LVC1G125GV
OE# VCC A GND Y
TPC26T T4300
R4307 0Ohm
R4310 0Ohm
LPC_FRAME#
LPC_FRAME# _DBCARD
GND

CON4300
GND1 USB_D- USB_D+ CPUSB# RESERVED1 RESERVED2 SMBCLK SMBDATA +1.5V_1 +1.5V_2 WAKE# +3.3VAUX PERST# +3.3V_1 +3.3V_2 CLKREQ# CPPE# REFCLK- REFCLK+ GND2 PERn0 PERp0 GND3 PETn0 PETp0 GND4
GND5 NP_NC1 NP_NC2 GND6
EXPRESS_CARD_26P
USBP4- USBP4+ CPUSB# SMB_CLK_C SMB_DAT_C +1.5VS_PE PCIE_WAKE#_C +3.3VA_PE +3.3VS_PE CLKREQ#_C CPPE#_C CLK_PCIE_NEWCARD# CLK_PCIE_NEWCARD PCIE_RXN5 PCIE_RXP5 PCIE_TXN5 PCIE_TXP5
CON4301
P_GND2 P_GND1
CARD_EJECTOR_2P

Block C

Put R4312 close to U4302
CLK_DBGPCI2_R R4312 0Ohm
CPPE#
R4311 @ 0Ohm
RN4300A RN4300B RN4300C RN4300D
U4302
A0 A1 A2 A3 A4
B0 B1 B2 B3 B4
BE# BX
C0 C1 C2 C3 C4
D0 D1 D2 D3 D4
VCC GND
SN74CBT3383PWR
CLK_DBGPCI2
LPC_AD3
LPC_AD0
LPC_AD1
LPC_AD2
CLK_NEWCARD_REQ#
22,33,53 PCIE_WAKE#
7,8,24,29,53 SCL_3S
7,8,24,29,53 SDA_3S
CPPE#_C CLKREQ#_C PCIE_WAKE#_C SMB_CLK_C SMB_DAT_C
PE_DEBUGEN#
+5V
C4302 0.1UF/10V

If don't support NewCard Debug Card,Pls do
(a) DNI all components of block A
(b) Mount Block C (RN5401,R6975)

D4301 BAV99W_L @
D4302 BAV99W_L @
+3.3VA_PE
USBP4-
USBP4+

+3VS
C4303 4.7UF/10V
C4304 0.1UF/10V
3.0V~3.6V
Ave= 1000mA
Max= 1300 mA
+3.3VS_PE
C4309 4.7UF/10V
C4310 10UF/10V @
C4311 0.01UF/16V

+3V
C4305 2.2UF/6.3V
C4306 0.1UF/10V
3.0V~3.6V
Ave= 200mA
Max= 275 mA
+3.3VA_PE
C4312 4.7UF/10V
C4313 0.01UF/16V

+1.5VS
C4307 2.2UF/6.3V
C4308 0.1UF/10V
1.35V~1.65V
Ave= 500 mA
Max= 650 mA
+1.5VS_PE
C4314 4.7UF/10V
C4315 0.01UF/16V

+3VS
CON4302
LPC_AD0 LPC_AD1 LPC_AD2 LPC_AD3 LPC_FRAME# CLK_DBGPCI2_R
SIDE2 SIDE1
FPC_CON_12P
Bottom Contact

<Variant Name>
Title : Express Card
ASUSTeK COMPUTER INC
Engineer:
Size: Custom
Project Name: A8ES
Rev: 1.0
Date: 星期 ., .月 06, 2007
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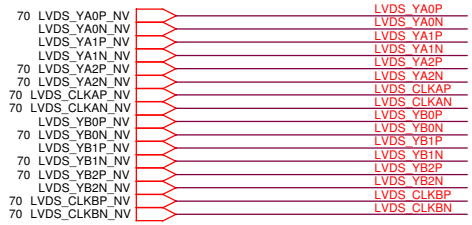
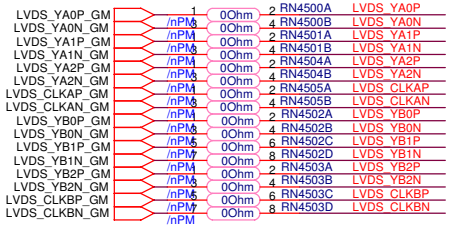
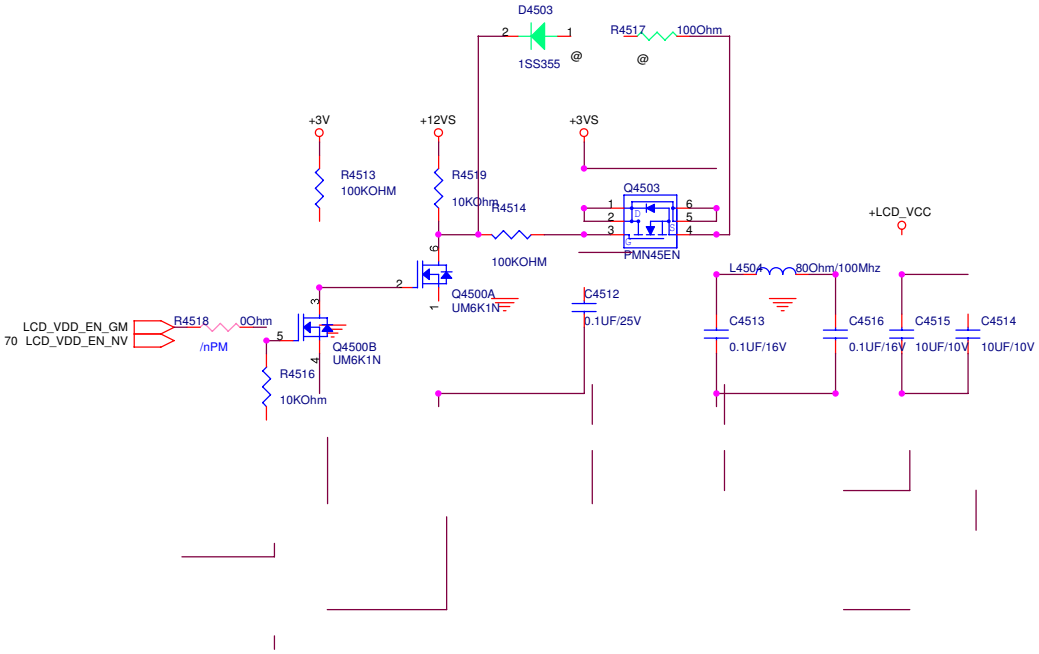
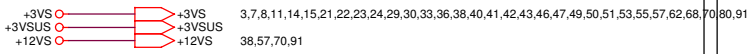
Title :	Blank
ASUSTeK COMPUTER INC	Engineer:
Size: A	Project Name: A8ES
Rev: 1.0	
Date: 星期三, 十月 11, 2006	Sheet 44 of 94

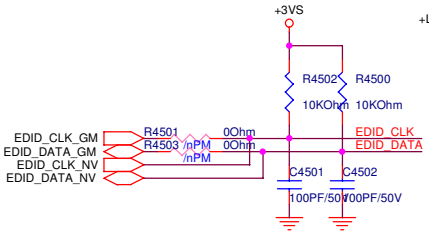
Check stub

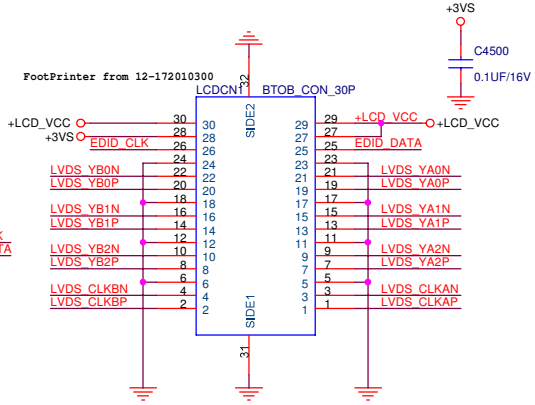


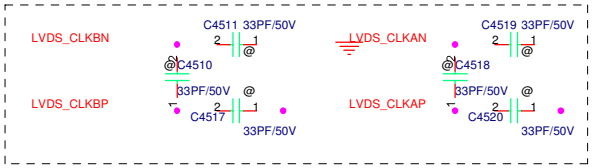




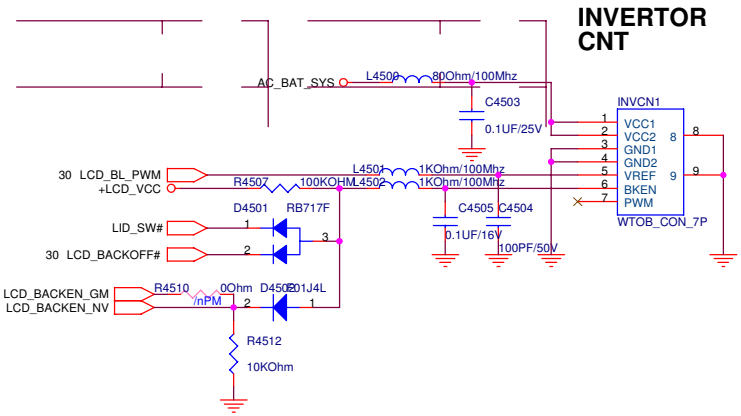








WWAN



<Variant Name>

ASUSTeK COMPUTER INC

Title : LVDS & Inverter

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

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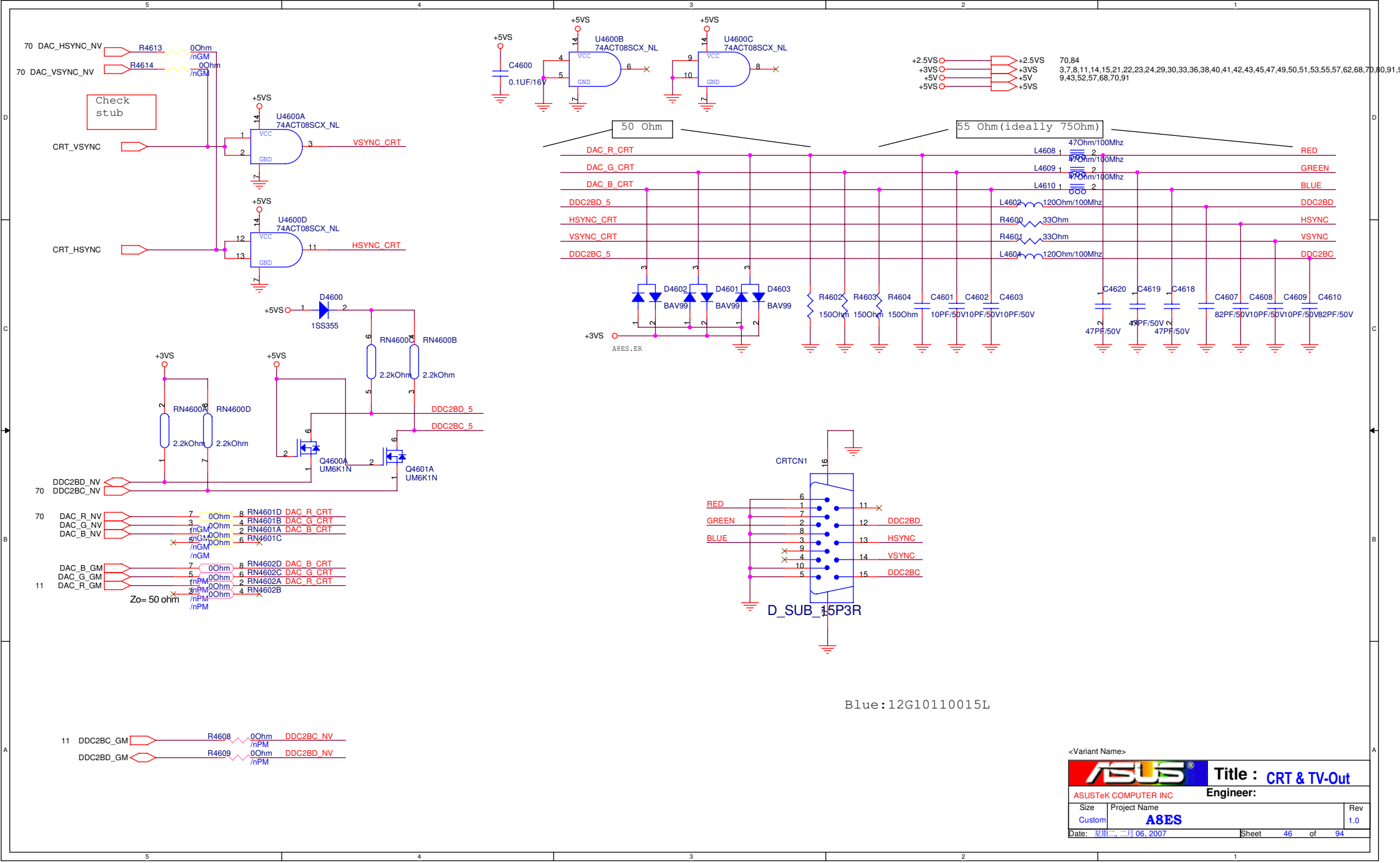

<Variant Name>

ASUSTeK COMPUTER INC

Title : CRT & TV-Out

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

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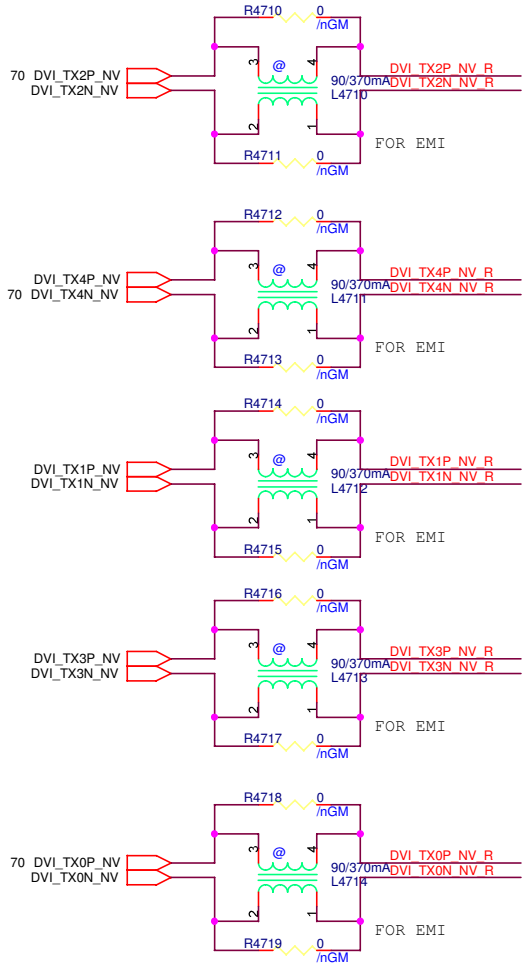
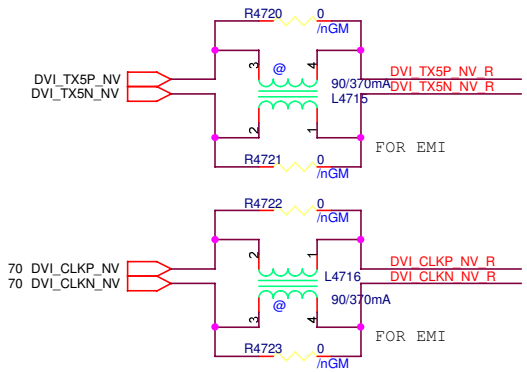
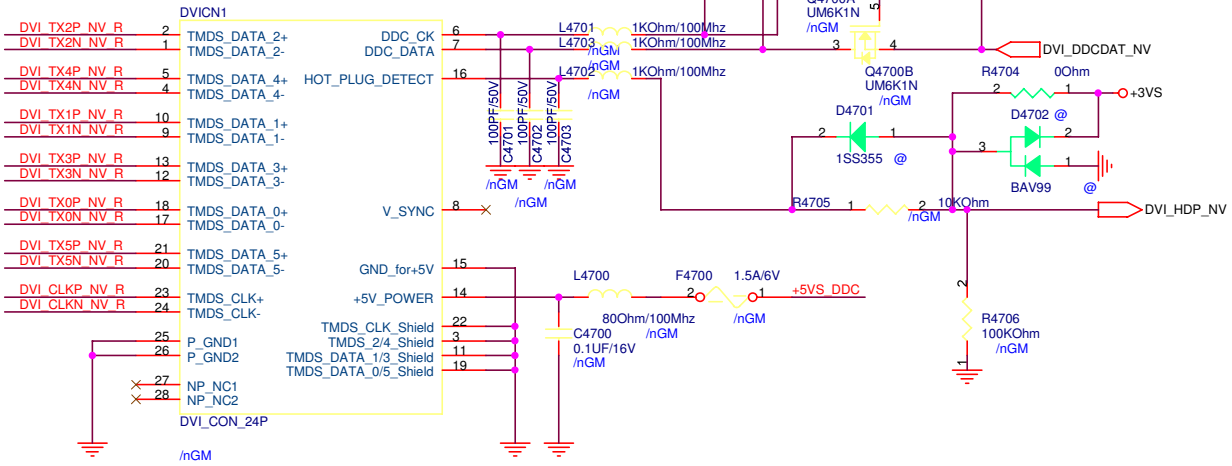
Add DVI Choke 09G092145000 for EMI







A8ES.ER

ASUSTeK COMPUTER INC	Title : DVI	
	Engineer:	
Size: B	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 47 of 94	

ASUSTeK COMPUTER INC	Title : BLANK Engineer:	
Size A	Project Name A8ES	Rev 0
Date: 星期三, 十月 11, 2006	Sheet 48 of 94	

50 Ohm

55 Ohm(ideally 75Ohm)

+3VS

D4609 BAV99

D4608 BAV99

D4607 BAV99

TV_C

TV_Y

TV_CVBS

120Ohm/100Mhz

L4611

L4612

L4613

R4611 150Ohm

R4612 150Ohm

R4610 150Ohm

C4617 5.6PF/50V

C4621 5.6PF/50V

C4623 5.6PF/50V

C4622 5.6PF/50V

C4625 5.6PF/50V

C4624 5.6PF/50V

HDTV_EN#

C_CON

Y_CON

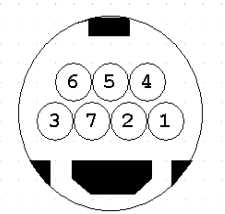
CVBS_CON

TVSCN1

MINI_DIN_7P

12G141011077

GND1 GND0 NC C Y CVBS2 CVBS1 HC1 HC2



TV_CVBS_NV

TV_Y_NV

TV_C_NV

70

0Ohm

/nGM

RN4900A TV_CVBS

RN4900B TV_Y

RN4900C TV_C

RN4900D

11 TVDAC_C_GM

11 TVDAC_B_GM

TVDAC_A_GM

/nPM

RN4901A TV_C

RN4901B TV_Y

RN4901C TV_CVBS

RN4901D

Zo= 50 ohm

ASUSTeK COMPUTER INC

Title : TV

Engineer:

Size	Project Name	Rev
A	A8ES	1.0

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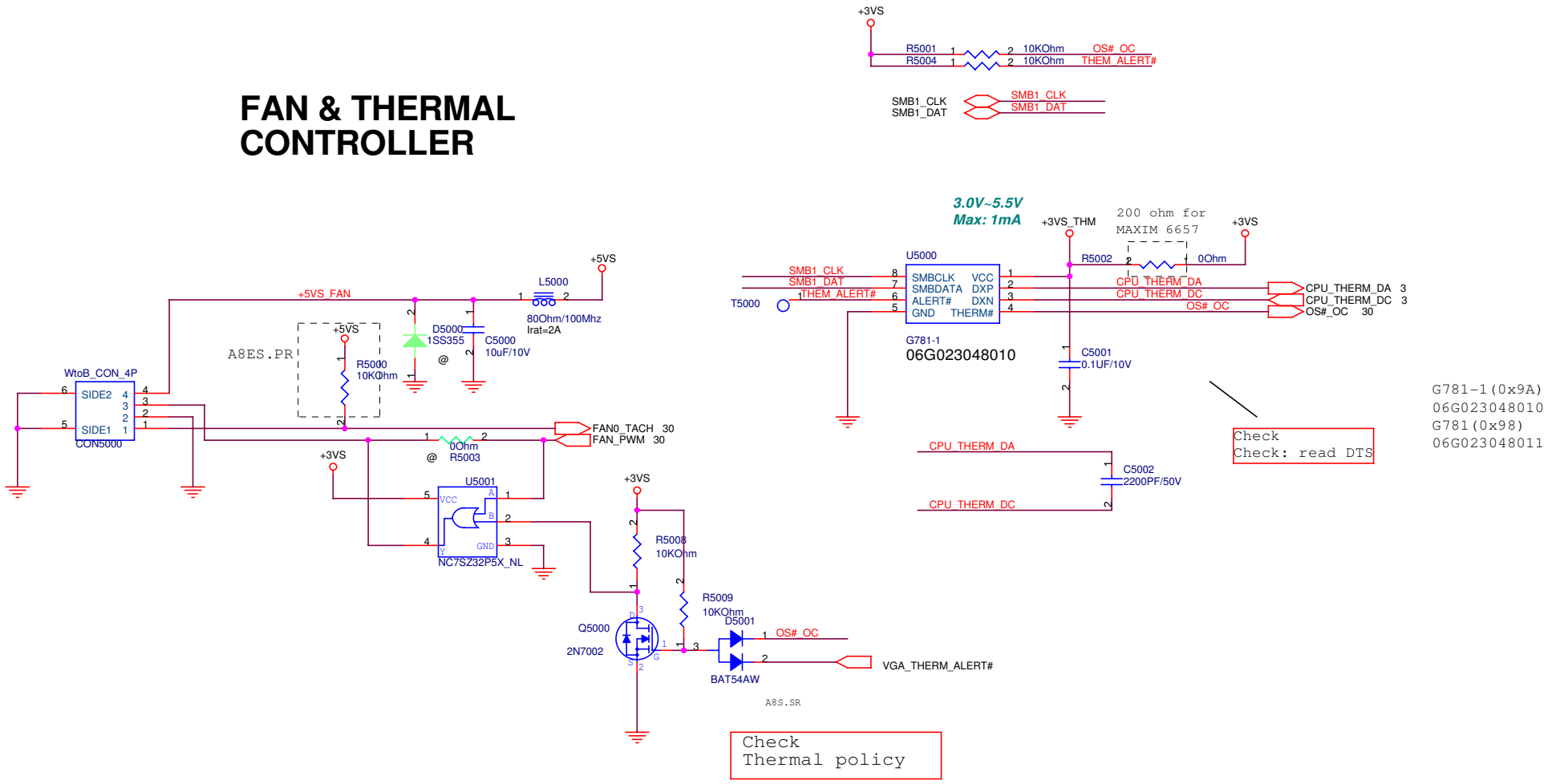
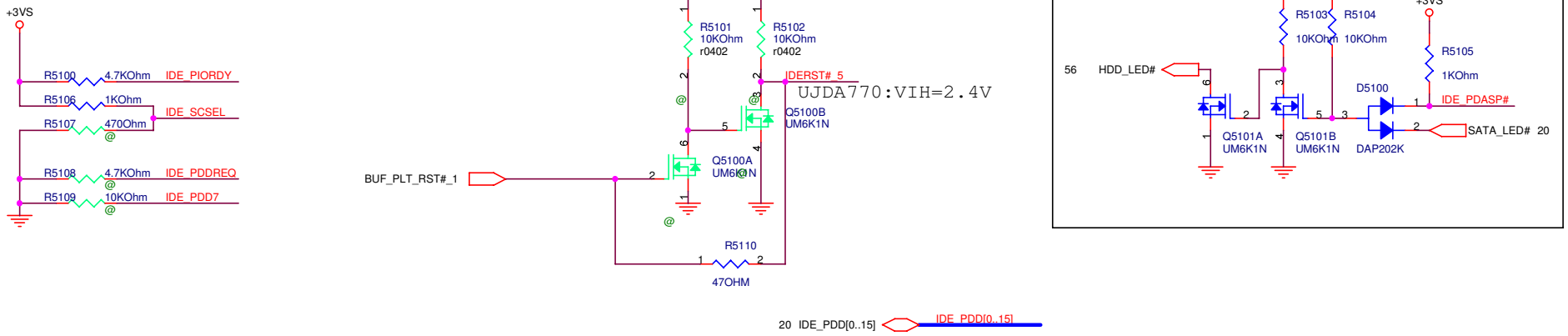
FAN & THERMAL CONTROLLER



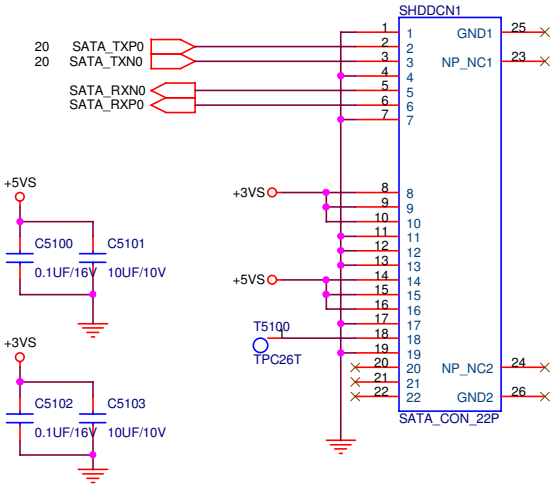
<Variant Name>

ASUSTeK COMPUTER INC	Title : FAN & THERMAL	
	Engineer:	
Size: B	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 50 of 94	

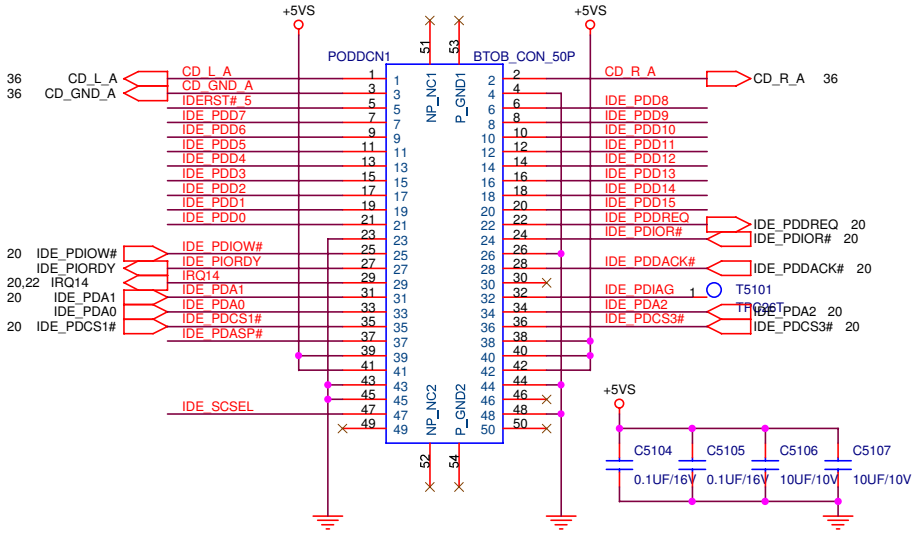


20 IDE_PDD[0..15] IDE_PDD[0..15]

SATA HDD CON



PATA CD-ROM CON



+3VS +3VS 3,7,8,11,14,15,21,22,23,24,29,30,33,36,38,40,41,42,43,45,46,47,49,50,53,55,57,62,68,70,80,91,92
+5VS +5VS
+5V +5V 9,43,52,57,68,70,91

ASUSTeK COMPUTER INC

Title : HDD & ODD

Engineer:

Size	Project Name	Rev
B	A8ES	1.0

Date: 星期二, 二月 06, 2007 Sheet 51 of 94

A8ES.PR
Remove USB
commom
choke
co-lay

A8ES.PR EMI

H5201
EMI_SPRING_PAD

R5201 0Ohm USB_PN5 USBP5-
USB_PP5 USBP5+
R5202 0Ohm
R5203 0Ohm USB_PN7 USBP7-
USB_PP7 USBP7+
R5209 0Ohm

R5211 0Ohm USB_PN1 USBP1-
USB_PP1 USBP1+
R5212 0Ohm
R5213 0Ohm USB_PN0 USBP0-
USB_PP0 USBP0+
R5218 0Ohm

R5216 0Ohm USB_PN9 USBP9-
USB_PP9 USBP9+
R5220 0Ohm
D5200 D5201 A8ES.PR
EGA10603V05A1 EGA10603V05A1

+5V +12V R5200 100KOHM Q5200 PMN45EN C5209 0.1UF/25V A8ES.ER
+5V_USB57
F5200 1.5A/6V C5200 10UF/10V
+5VUSB_57 L5200 80Ohm/100Mhz +5VUSB57
CE5200 100U/6.3V C5201 0.1UF/16V C5202 0.1UF/16V
R5208 4.7KOhm @
USB_OC#57
R5210 8.2KOhm @

+5V +12V R5214 100KOHM Q5201 PMN45EN C5208 0.1UF/25V
+5V_USB01
F5201 1.5A/6V C5203 10UF/10V
+5VUSB_01 L5204 80Ohm/100Mhz +5VUSB01
CE5201 100U/6.3V C5204 0.1UF/16V
R5215 4.7KOhm @
USB_OC#01
R5217 8.2KOhm @

+5V +12V R5219 100KOHM Q5202 PMN45EN C5207 0.1UF/25V
+5V_USB9
F5202 2.5A/6V C5205 10UF/10V
+5VUSB_9 L5207 80Ohm/100Mhz +5VUSB9
CE5202 100U/6.3V C5206 0.1UF/16V
R5221 @ 4.7KOhm
R5222 @ 8.2KOhm
USB_OC#9

USBCN2 USB_CON_1X4P
+5VUSB57 USBP5- USBP5+
USB-A

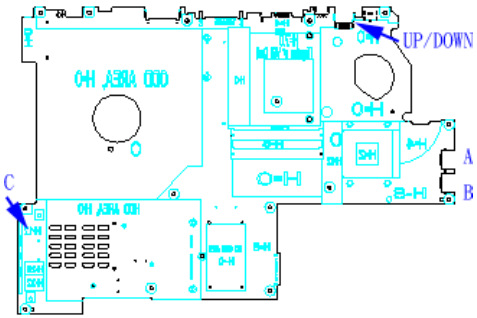
R5204 0Ohm
@R5205 0Ohm
@R5206 0Ohm
@R5207 0Ohm
@
EMI

H5200
EMI_SPRING_PAD
@

USBCN1 USB_CON_1X4P
+5VUSB57 USBP7- USBP7+
USB-B

USBDUCN1 USB_CON_2X4P
GND4 GND6 GND2 0P+ 0P- VCC2 GND1 1P+ 1P- VCC1 GND3 GND5
USBP1+ USBP1- +5VUSB01 USBP0+ USBP0-
USB-UP
USB-DOWN

+5V +5V 9,43,57,68,70,91



SUB-PCB: USB/1394/MIC/EARPHONE

USB-C
CON5200 HEADER_2X10P
USBP9- USBP9+ +5VUSB9
TPA0-_1 TPA0+_1 TPB0+_1 TPB0-_1 MIC_IN#_JACK
NP_NC2 NP_NC1
EXT_MIC_JACK
INT_MIC_JACK 37
OPTIC_VCC_JACK 38
SPDIF_O_JACK
JACK_SW# 38
HP_JACK_L 38
HP_JACK_R
HP_JD
L5209 80Ohm/100Mhz

<Variant Name>

Title : USB/SUB PCB
ASUSTeK COMPUTER INC
Engineer:
Size: Custom
Project Name: A8ES
Rev: 1.0
Date: 星期二, 二月 06, 2007
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Kedron Rev 0.5
1)Pin 20: Kedron internal pull high~110K
2)Pin 37,43: GND at Kedron
3)pin 40: NC at Kedron

Windigo spec Rev 1.1
1)utilize USB 2.0 interface (12Mb/S) only
2)pin 39,41 :+3.3V at Windigo
3)pin 1,7,11,13,22,23,25,30,31,32,33,: NC at Windigo
4)Windigo dont use +1.5V
5)pin 24: +3.3V at Windigo

ROBSON Rev 0.9
1)Pin 1,24,30,32,36,38: NC at Robson

Support voice phone card MC8775V
Signalpin#
MIC1P 1
MIC1N 3
SPK1P 5
SPK1N 7
A8ES.ER

A8ES.PR

11G08D233752DE: H=2.8mm

WWAN

WWAN

Title :	MINI CARD
ASUSTeK COMPUTER INC	Engineer:
Size: B	Project Name: A8ES
Rev: 1.0	
Date: 星期二, 二月 06, 2007	Sheet 53 of 94

Title : BLANK

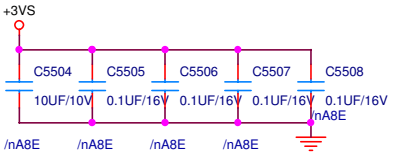
ASUSTeK COMPUTER INC

Engineer:

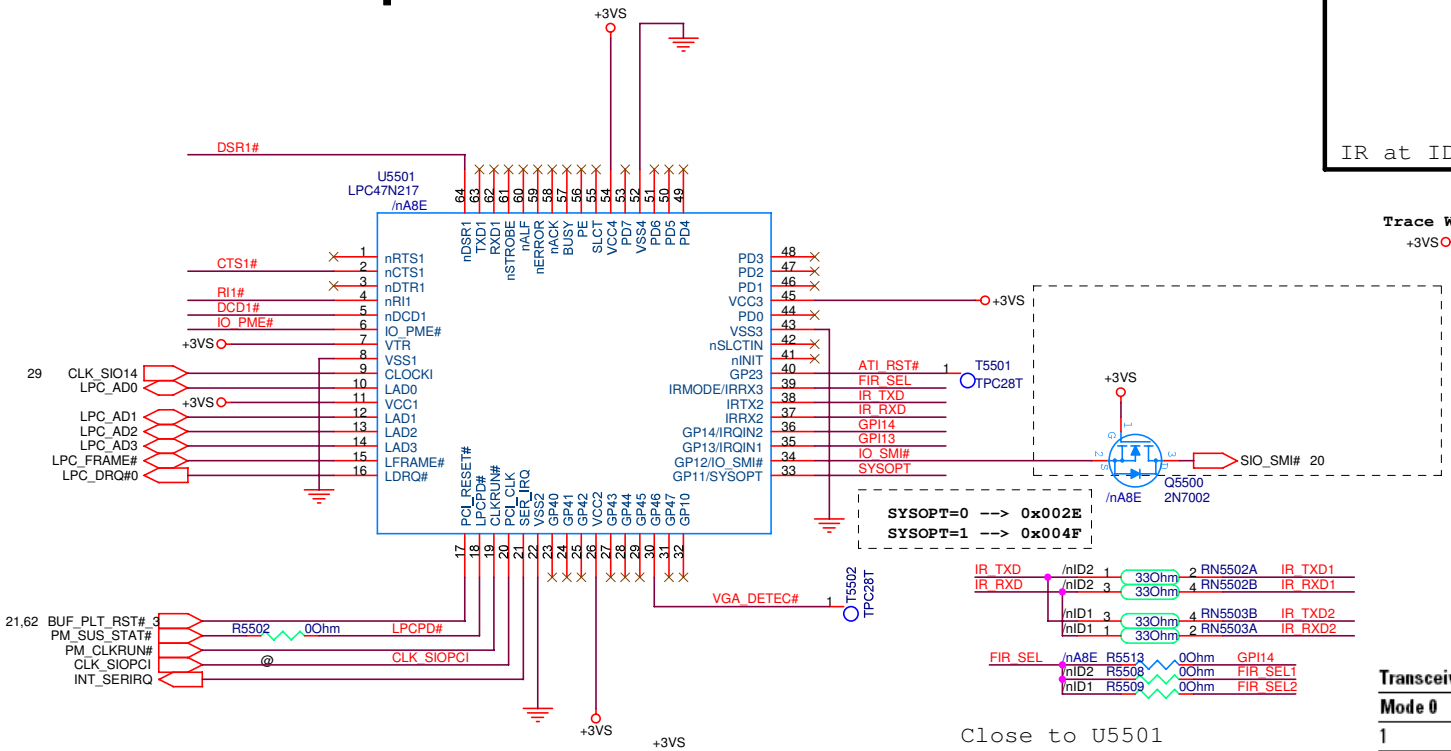
Size	Project Name	Rev
Custom	A8ES	0

Date: 星期二, 十月 11, 2006 Sheet 54 of 94

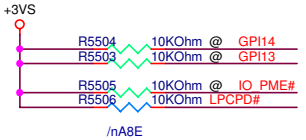
CIR
04G231020500
TSOP6238TR

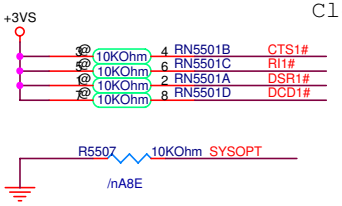


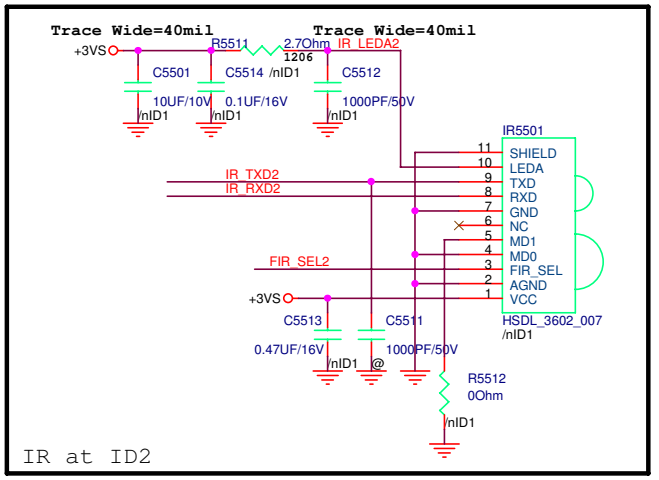
Super I/O

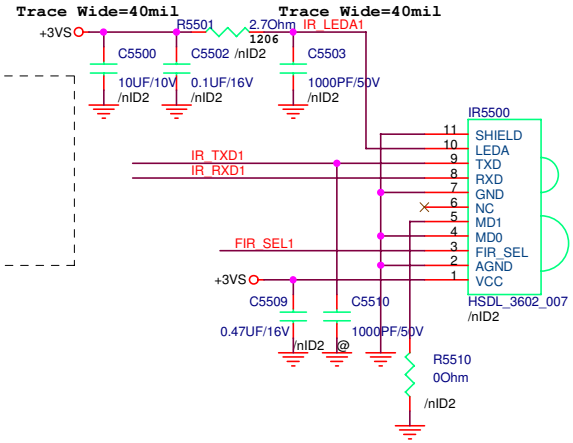


Close to U5501









Transceiver Control Truth Table

Mode 0	Mode 1	FIR_SEL	RX Function	TX Function
1	0	X	Shutdown	Shutdown
0	0	0	SIR	Full Distance Power
0	1	0	SIR	2/3 Distance Power
1	1	0	SIR	1/3 Distance Power
0	0	1	MIR/FIR	Full Distance Power
0	1	1	MIR/FIR	2/3 Distance Power
1	1	1	MIR/FIR	1/3 Distance Power

ASUSTeK COMPUTER INC

Title : IrDA

Engineer:

Size	Project Name	Rev
B	A8ES	2.0

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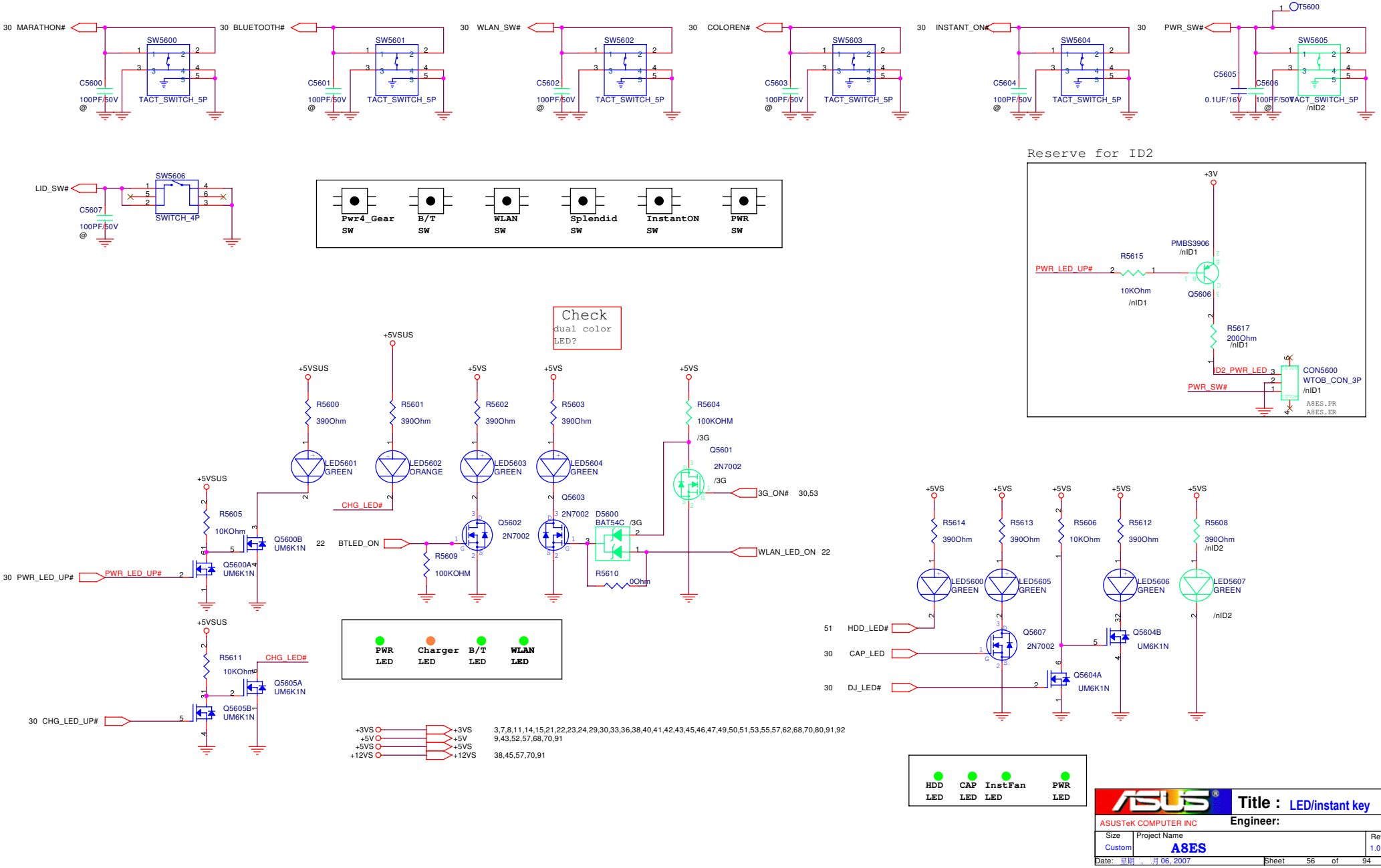
30 MARATHON#
SW5600
C5600
100PF/50V
@
TACT_SWITCH_5P
30 BLUETOOTH#
SW5601
C5601
100PF/50V
@
TACT_SWITCH_5P
30 WLAN_SW#
SW5602
C5602
100PF/50V
@
TACT_SWITCH_5P
30 COLOREN#
SW5603
C5603
100PF/50V
@
TACT_SWITCH_5P
30 INSTANT_ON#
SW5604
C5604
100PF/50V
@
TACT_SWITCH_5P
30 PWR_SW#
T5600
SW5605
C5605
0.1UF/16V
C5606
100PF/50V
@
TACT_SWITCH_5P
/nID2
LID_SW#
SW5606
C5607
100PF/50V
@
SWITCH_4P
Pwr4_Gear SW
B/T SW
WLAN SW
Splendid SW
InstantON SW
PWR SW
Reserve for ID2
+3V
PMBS3906
/nID1
R5615
PWR_LED_UP#
10KOhm
/nID1
Q5606
R5617
200Ohm
/nID1
ID2_PWR_LED
PWR_SW#
CON5600
WTOB_CON_3P
/nID1
A8ES.PR
A8ES.ER
Check
dual color
LED?
+5VSUS
R5600
390Ohm
LED5601
GREEN
R5601
390Ohm
LED5602
ORANGE
CHG_LED#
R5602
390Ohm
LED5603
GREEN
R5603
390Ohm
LED5604
GREEN
R5604
100KOHM
/3G
Q5601
2N7002
/3G
3G_ON# 30,53
Q5603
2N7002
D5600
BAT54C
/3G
WLAN_LED_ON 22
R5610
0Ohm
R5605
10KOhm
Q5600B
UM6K1N
22 BTLED_ON
Q5602
2N7002
R5609
100KOHM
30 PWR_LED_UP#
PWR_LED_UP#
Q5600A
UM6K1N
R5611
10KOhm
CHG_LED#
Q5605A
UM6K1N
30 CHG_LED_UP#
Q5605B
UM6K1N
PWR LED
Charger LED
B/T LED
WLAN LED
+5VS
R5614
390Ohm
LED5600
GREEN
R5613
390Ohm
LED5605
GREEN
R5606
10KOhm
R5612
390Ohm
LED5606
GREEN
R5608
390Ohm
/nID2
LED5607
GREEN
/nID2
51 HDD_LED#
30 CAP_LED
30 DJ_LED#
Q5607
2N7002
Q5604B
UM6K1N
Q5604A
UM6K1N
+3VS 3,7,8,11,14,15,21,22,23,24,29,30,33,36,38,40,41,42,43,45,46,47,49,50,51,53,55,57,62,68,70,80,91,92
+5V 9,43,52,57,68,70,91
+5VS
+12VS 38,45,57,70,91
HDD LED
CAP LED
InstFan LED
PWR LED
Title : LED/instant key
ASUSTeK COMPUTER INC
Engineer:
Size Custom
Project Name A8ES
Rev 1.0
Date: 星期 , 月 06, 2007
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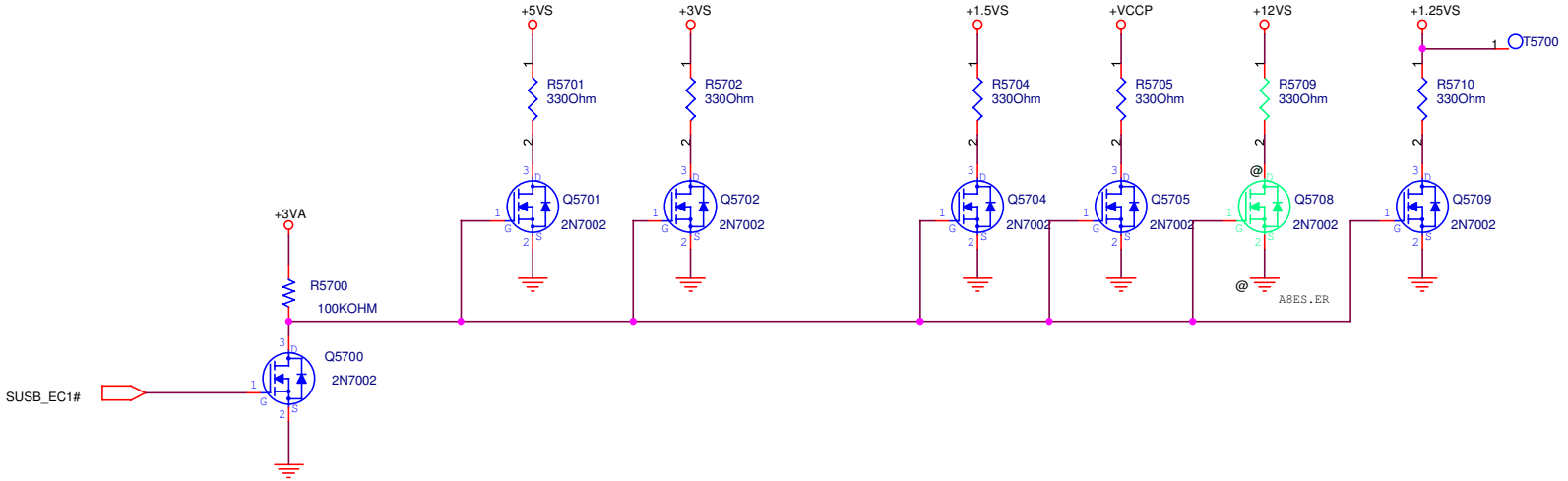
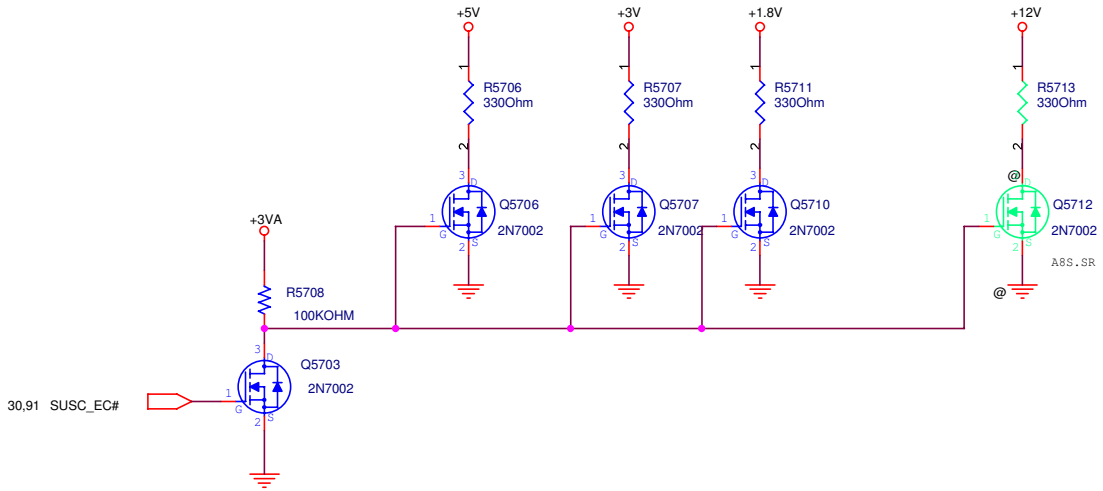
Discharge Circuit





<Variant Name>

ASUSTeK COMPUTER INC

Title : Discharge

Engineer:

Size	Project Name	Rev
B	A8ES	1.0

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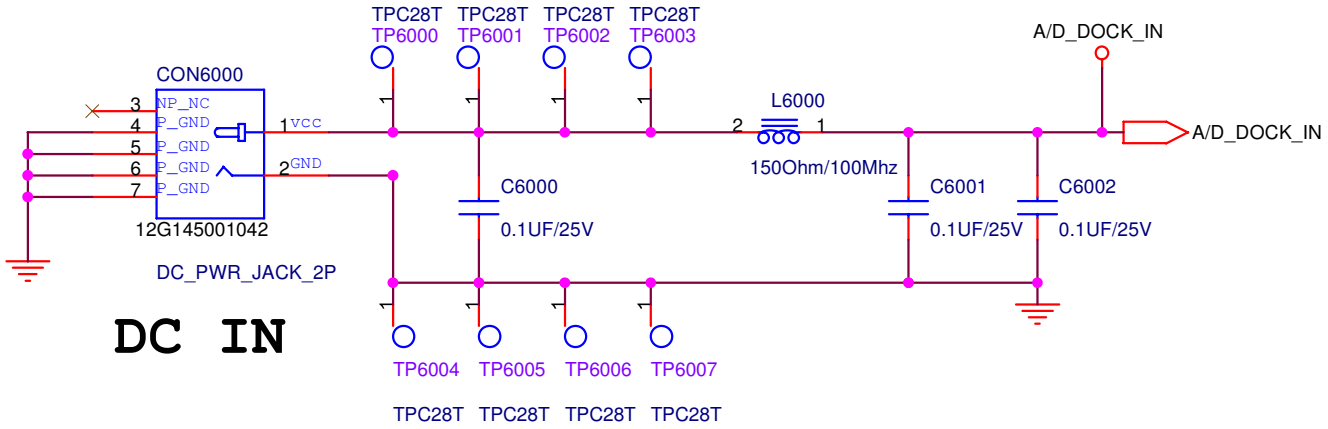
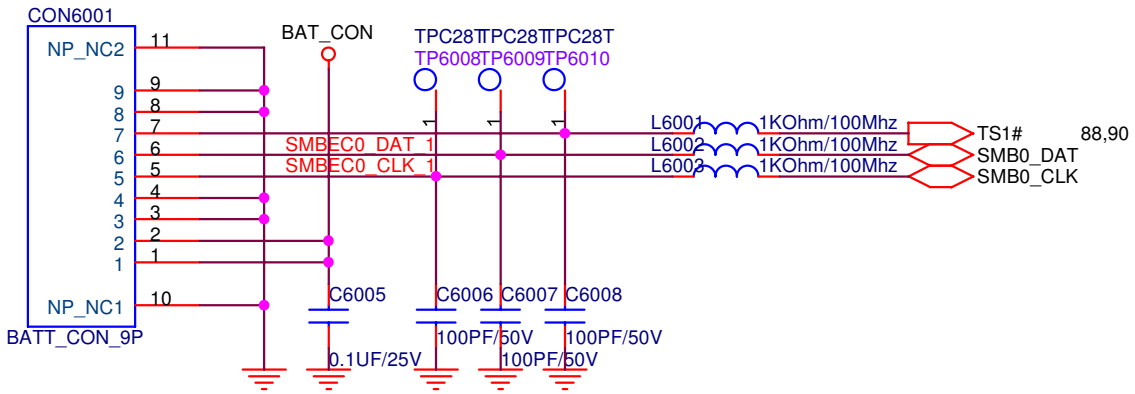
<Variant Name>

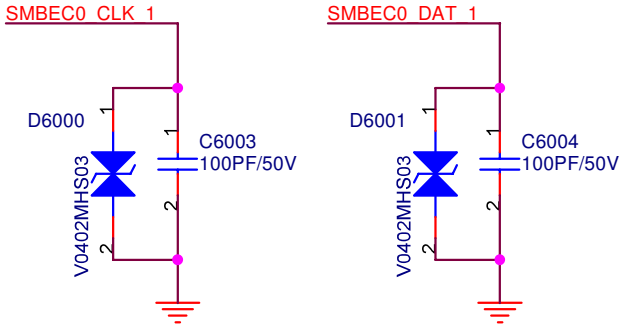
ASUSTeK COMPUTER INC	Title :	
	Engineer:	
Size: A	Project Name: A8ES	Rev: 1.0
Date: 星期三, 十月 11, 2006	Sheet of 94	

Title	<Title>
Size: A	Document Number: W2S
Rev: 1.1	
Date: 星期三, 十月 11, 2006	Sheet 59 of 94



DC IN

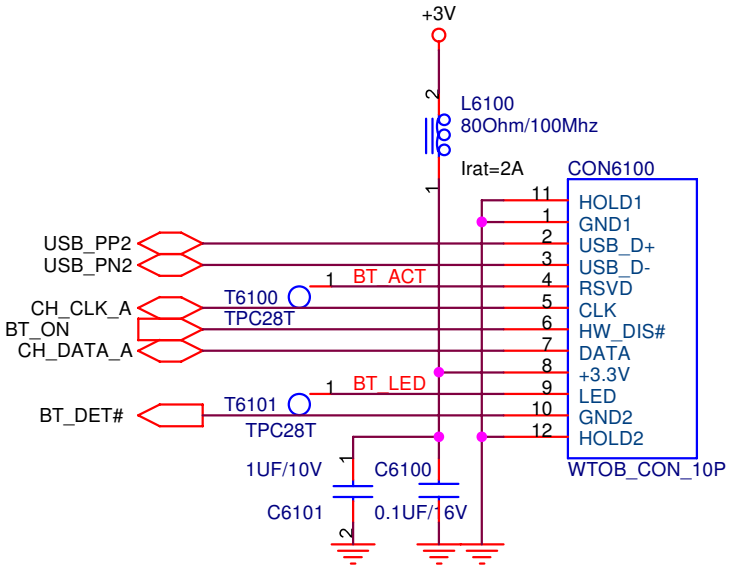




Battery Connector

<Variant Name>

ASUSTeK COMPUTER INC	Title : DC IN / BAT	
	Engineer:	
Size: A	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 60 of 94	



Bluetooth Module CON

ASUSTeK COMPUTER INC	Title : BT/CAMERA	
	Engineer:	
Size: A	Project Name: A8ES	Rev: 1.0
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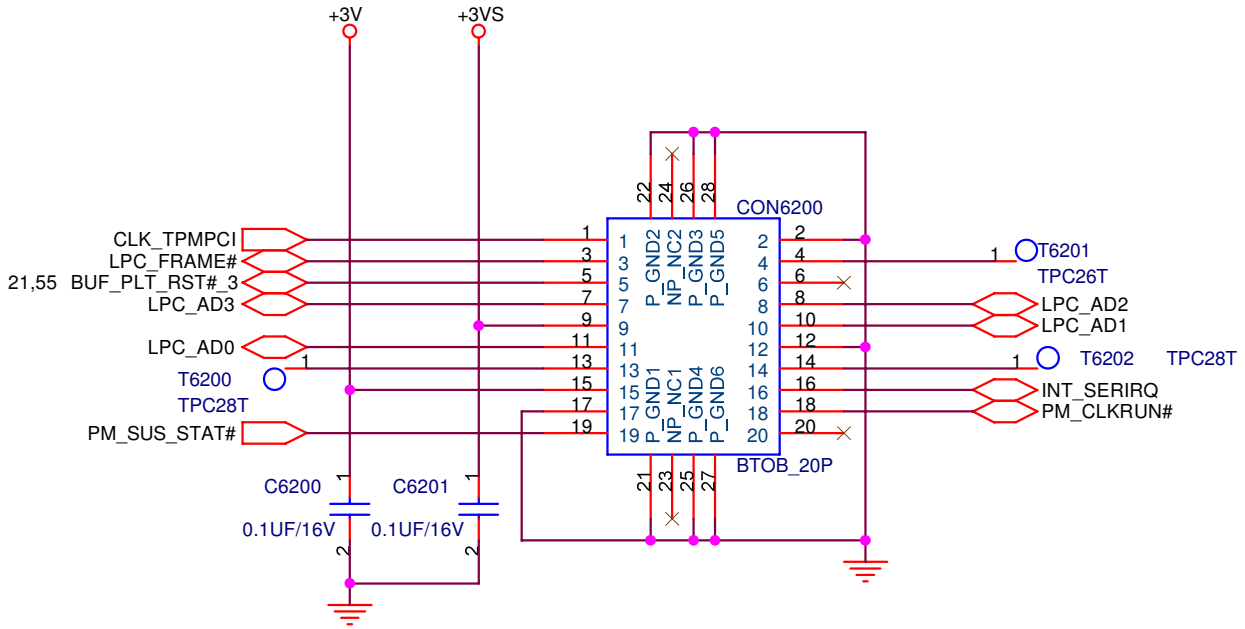
TPM 1.2 Module



<Variant Name>

ASUSTeK COMPUTER INC

Title : TPM

Engineer:

Size	Project Name	Rev
A	A8ES	1.0

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ASUSTeK COMPUTER INC	Title : BLANK
	Engineer:

Size	Project Name	Rev
A	A8ES	0

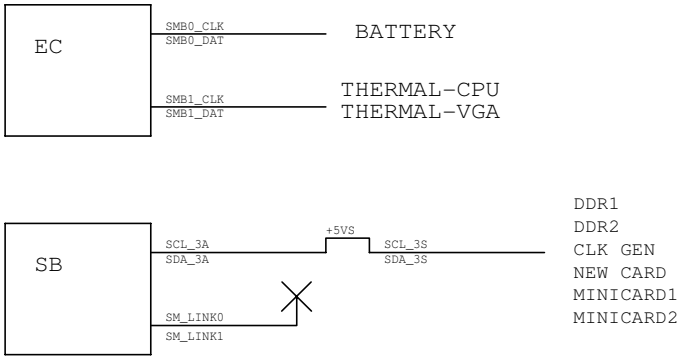
Date: 星期三, 十月 11, 2006 Sheet 63 of 94

PCI Device	IDSEL#	REQ/GNT#	Interrupts
Chipset (Host to PCI)	AD30 (Internal)		
CARDBUS	AD19	0	F,E

SM-Bus Device	SM-Bus Address
Clock Generator	1101001x (D2)
SO-DIMM 0 (low)	
SPD/TS	A0/30
SO-DIMM 1(high)	
SPD/TS	A4/34
G781-1	9A
G781(VGA board)	98

Thermal Sensor (CPU)

SM-Bus Mapping 1001100



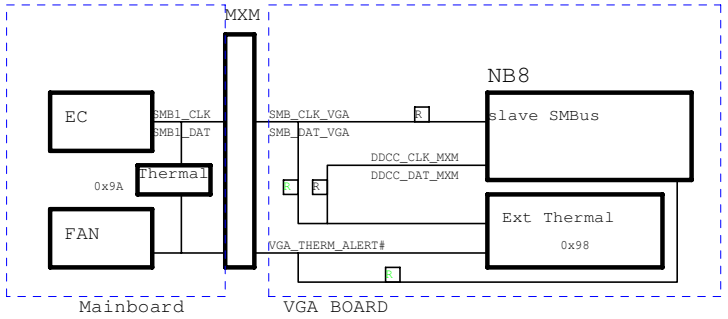
BOM option

```
nGM:yellow
nPM:light red
=========================
@ : no stuff for all
nGM :no stuff for A8E
nPM :no stuff for A8S
nGM1:no stuff for A8E, A8E/SR mount for debuging A8S in advance
3G :for Windigo,SIERRA MC8775V
nA8E  :no stuff Irda for A8E
```

Support ID2:

```
Support ID2:
page 68,Finger print
page 55,IR
Page 56,pwr switch and LED
```

Thermal block diagram



<Variant Name>

ASUSTeK COMPUTER INC

Title :

Engineer:

Size	Project Name	Rev
B	A8ES	1.0

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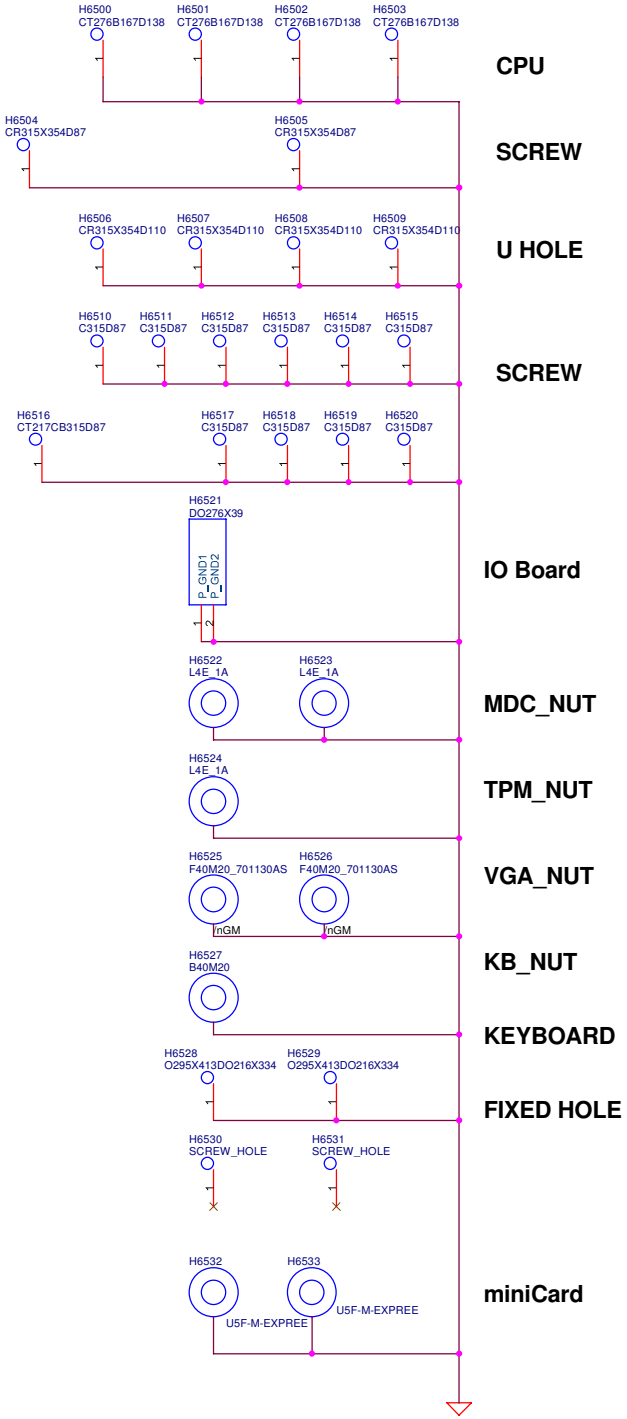

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Size: Custom	Document Number: W2S	Rev: 1.1
Date: 星期二, 十二月 26, 2006	Sheet 65 of 94	

Title : BLANK

ASUSTeK COMPUTER INC

Engineer:

Size	Project Name	Rev
B	A8ES	0

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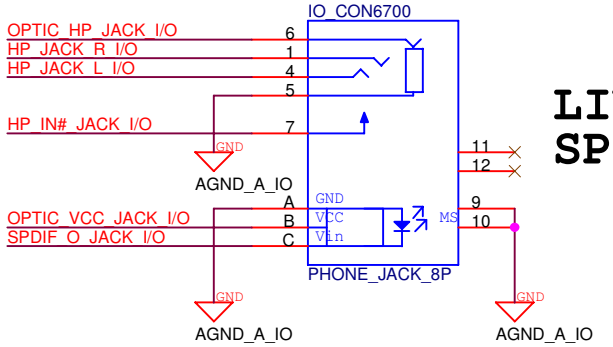
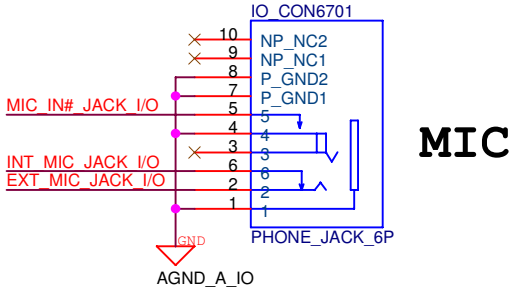
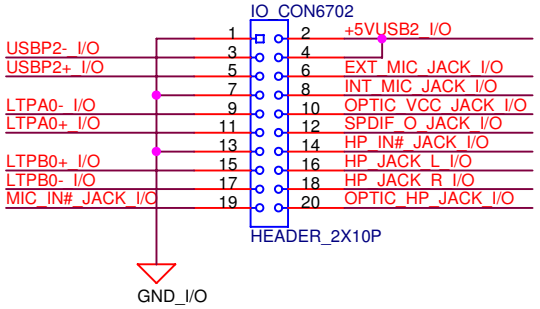
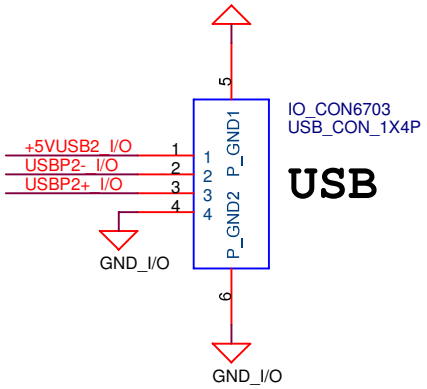


LINE_OUT SPDIF



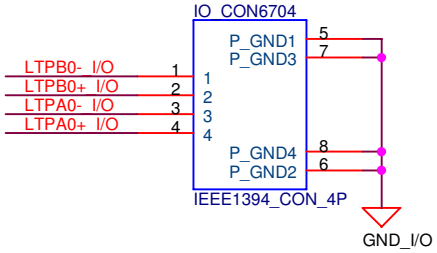
MIC

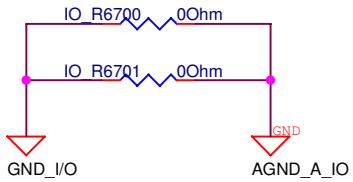


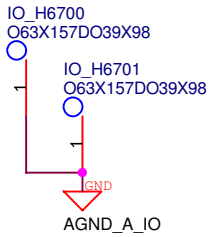


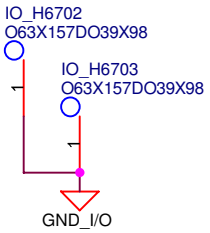
USB

1394A









<Variant Name>

ASUSTeK COMPUTER INC

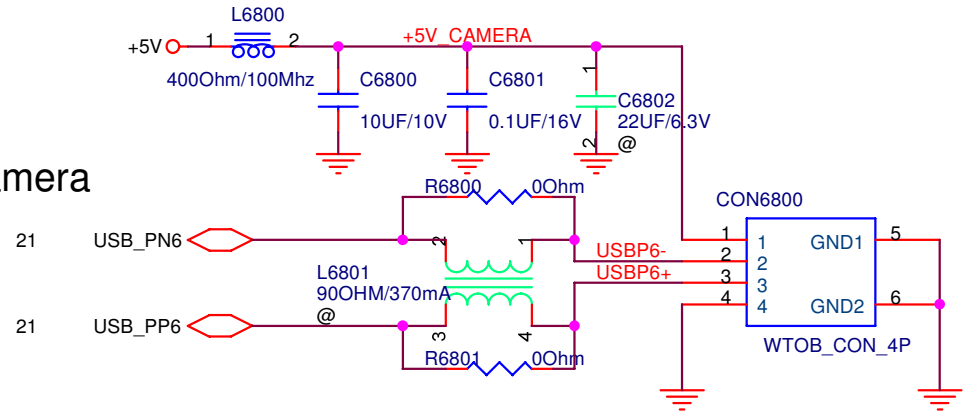
Title : SUB_PCB

Engineer:

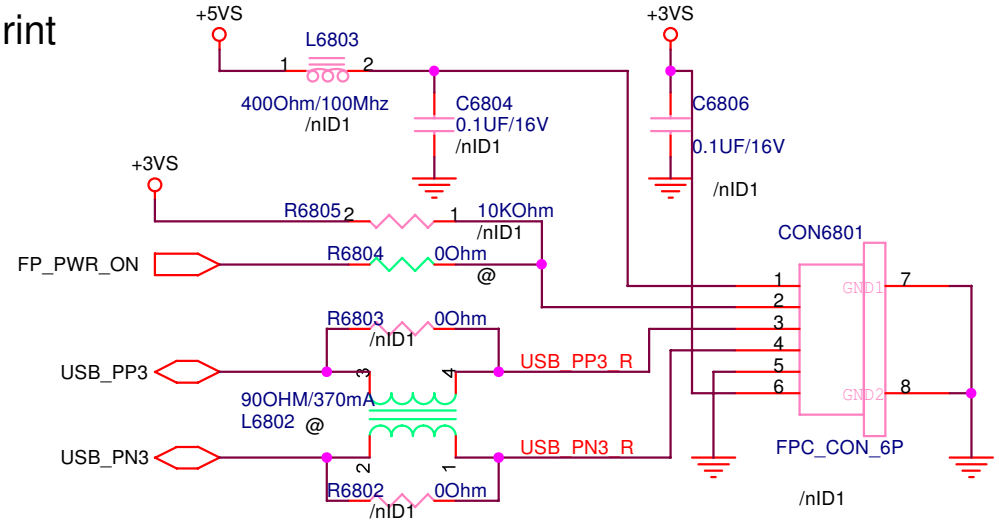
Size	Project Name	Rev
A4	A8ES	1.0

Date: 星期二, 一月 30, 2007 Sheet 67 of 94

Camera



Finger Print



<Variant Name>

ASUSTeK COMPUTER INC	Title : CAMERA/FingerPrinter	
	Engineer:	
Size: A	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 68 of 94	

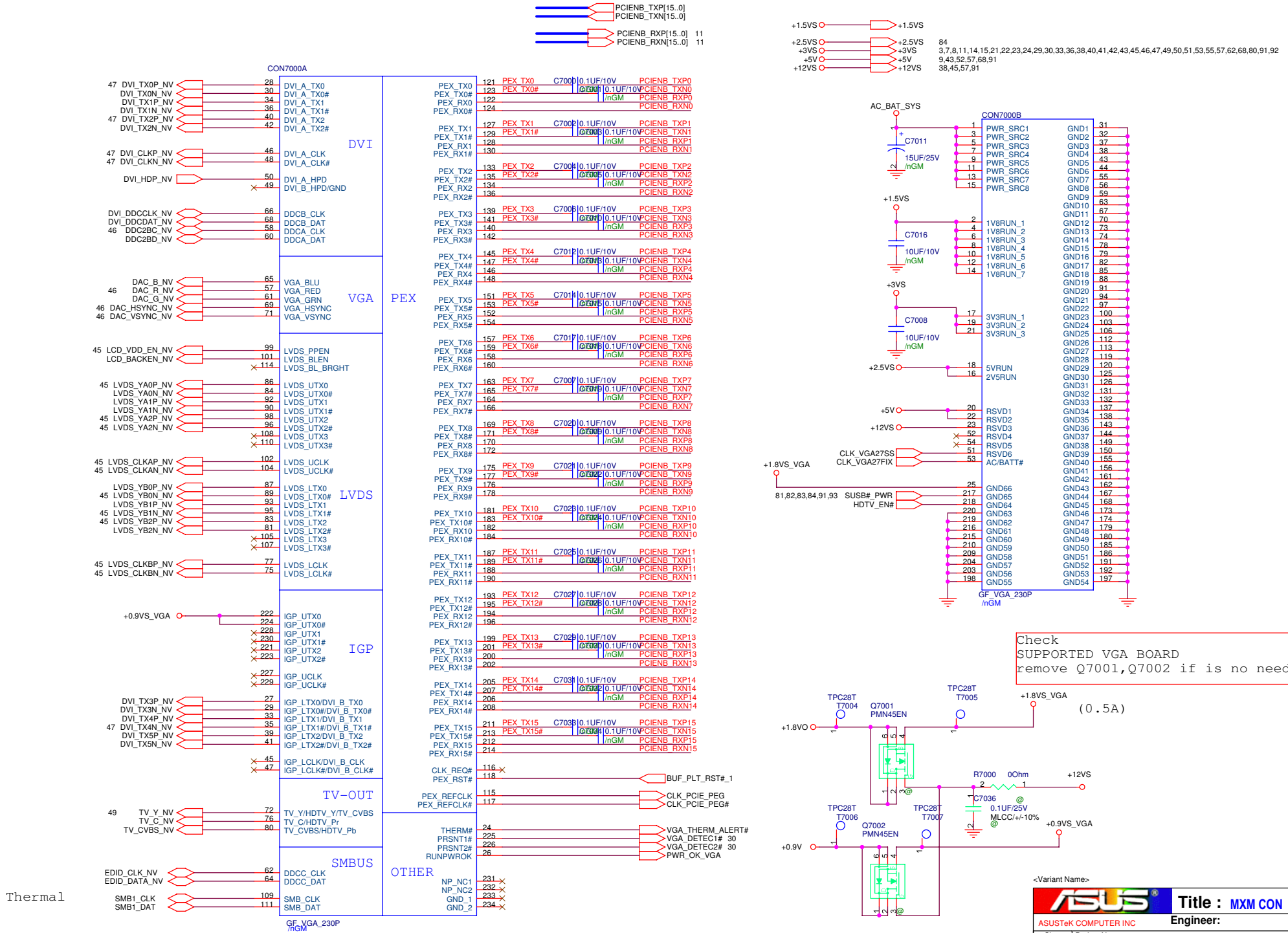
Title : BLANK

ASUSTeK COMPUTER INC

Engineer:

Size	Project Name	Rev
A	A8ES	0

Date: 星期三, 十月 11, 2006 Sheet 69 of 94


PCIENB_TXP[15..0]
PCIENB_TXN[15..0]
PCIENB_RXP[15..0] 11
PCIENB_RXN[15..0] 11
+1.5VS
+2.5VS 84
+3VS 3,7,8,11,14,15,21,22,23,24,29,30,33,36,38,40,41,42,43,45,46,47,49,50,51,53,55,57,62,68,80,91,92
+5V 9,43,52,57,68,91
+12VS 38,45,57,91
CON7000A
DVI
VGA
LVDS
IGP
TV-OUT
SMBUS
PEX
OTHER
CON7000B
AC_BAT_SYS
C7011 15UF/25V /nGM
C7016 10UF/10V /nGM
C7008 10UF/10V /nGM
+1.8VS_VGA
81,82,83,84,91,93
CLK_VGA27SS
CLK_VGA27FIX
SUSB#_PWR
HDTV_EN#
GF_VGA_230P /nGM
Check
SUPPORTED VGA BOARD
remove Q7001,Q7002 if is no need
TPC28T T7004
Q7001 PMN45EN
TPC28T T7005
+1.8VO
(0.5A)
R7000 0Ohm
+12VS
C7036 0.1UF/25V MLCC/+/-10%
TPC28T T7006
Q7002 PMN45EN
TPC28T T7007
+0.9V
+0.9VS_VGA
Thermal
<Variant Name>
Title : MXM CON
ASUSTeK COMPUTER INC
Engineer:
Size Custom
Project Name A8ES
Rev 1.0
Date: 星期 ， 月 06, 2007
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Title	TITLE			
Size A3	Document Number <Doc>			Rev 1.0
Date: 星期三, 十月 11, 2006		Sheet 71 of 94		

Title	TITLE			
Size A3	Document Number <Doc>			Rev 1.0
Date: 星期三, 十月 11, 2006		Sheet 72 of 94		

Title	TITLE			
Size A3	Document Number <Doc>			Rev 1.0
Date: 星期三, 十月 11, 2006		Sheet 73 of 94		

Title	TITLE			
Size A3	Document Number <Doc>			Rev 1.0
Date: 星期三, 十月 11, 2006		Sheet 74 of 94		

Title	TITLE			
Size A3	Document Number <Doc>			Rev 1.0
Date: 星期三, 十月 11, 2006		Sheet 75 of 94		

5 4 3 2 1

D C B A

Title	TITLE	
Size A3	Document Number <Doc>	Rev 1.0
Date: 星期三, 十月 11, 2006	Sheet 76 of 94	

5 4 3 2 1

Title	TITLE
Size A3	Document Number <Doc>
Rev	1.0
Date:	星期三, 十月 11, 2006
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Title : BLANK

ASUSTeK COMPUTER INC

Engineer:

Size	Project Name	Rev
B	A8ES	0

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W2S

Change Note:

EE :

1. 965PM pin defined modification, C48/D47/BJ29/BE24 from RSVD pin to LVDSA_DATA#_3 / LVDSA_DATA_3 / SA_MA_14 / SB_MA_14
2. CE46 / CE25 --> 11G08D210791
3. Rst button circuit
4. BT_SW pull-high to different plane issue.
5. Remove RN3104
6. VTT_REF reserve in S3.
7. VTT stop in S3.
8. CIR PME# function.

Layout :

1. CPU side, per GND pin within per Via, don't share vias.
2. 0.9V_VTT_REF trace width.
3. single end trace width more than 3.5mil

SMT :

1. 開鋼板JP1, JP2

<Variant Name>

ASUSTeK COMPUTER INC

Title : History

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

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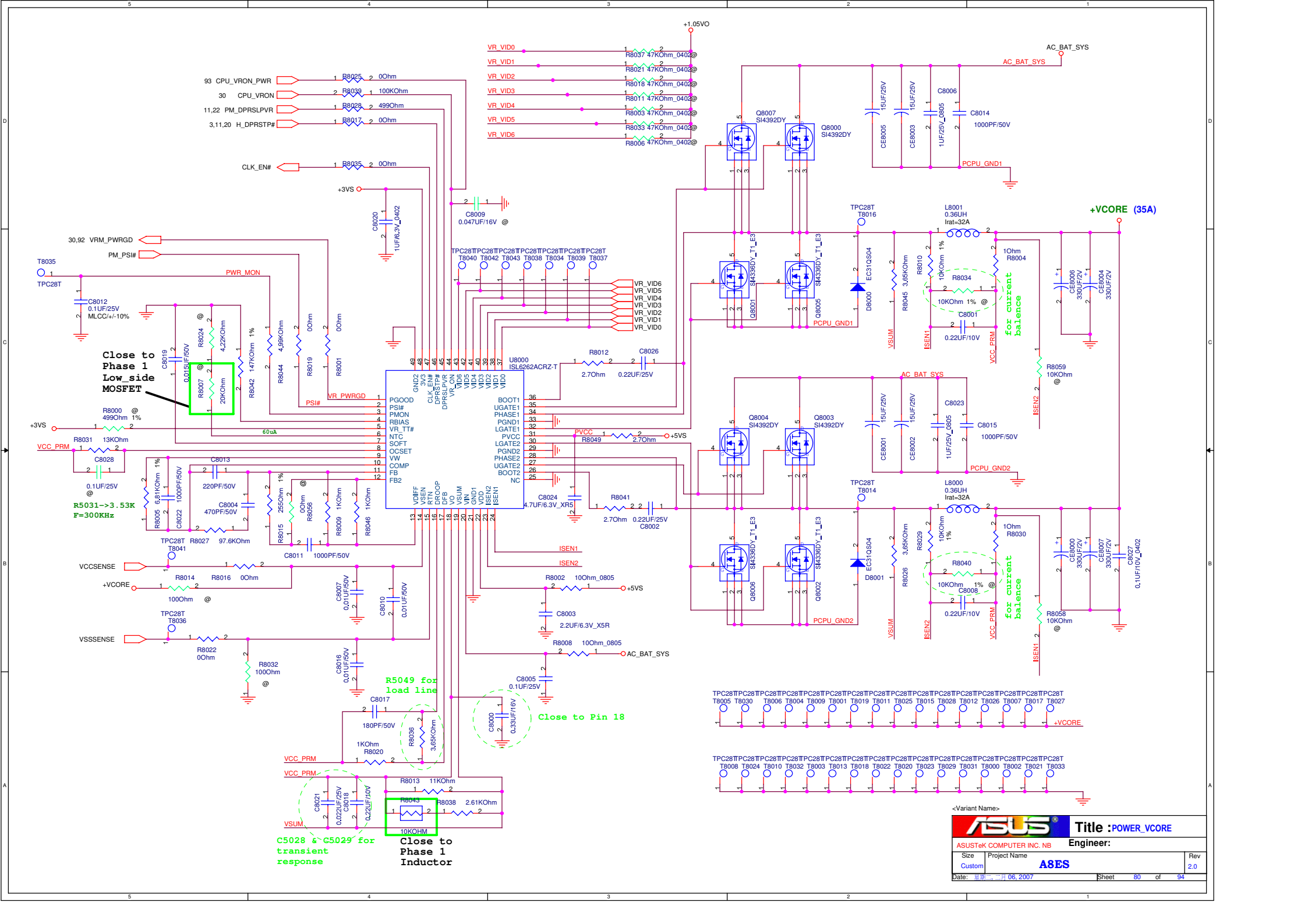
+1.05VO
VR_VID0
VR_VID1
VR_VID2
VR_VID3
VR_VID4
VR_VID5
VR_VID6
R8037 47KOhm_0402@
R8021 47KOhm_0402@
R8018 47KOhm_0402@
R8011 47KOhm_0402@
R8003 47KOhm_0402@
R8033 47KOhm_0402@
R8006 47KOhm_0402@
AC_BAT_SYS
93 CPU_VRON_PWR
30 CPU_VRON
11,22 PM_DPRSLPVR
3,11,20 H_DPRSTP#
CLK_EN#
R8025 0Ohm
R8039 100KOhm
R8028 499Ohm
R8017 0Ohm
R8035 0Ohm
+3VS
C8020 1UF/6.3V_0402
C8009 0.047UF/16V @
30,92 VRM_PWRGD
PM_PSI#
PWR_MON
T8035 TPC28T
C8012 0.1UF/25V MLCC/+/-10%
Close to Phase 1 Low_side MOSFET
C8019 0.015UF/50V
R8024 4.22KOhm
R8007 20KOhm
R8042 147KOhm 1%
R8044 4.99KOhm
R8019 0Ohm
R8001 0Ohm
VR_PWRGD
PSI#
U8000 ISL6262ACRZ-T
PGOOD
PSI#
PMON
RBIAS
VR_TT#
NTC
SOFT
OCSET
VW
COMP
FB
FB2
GND2
3V3
CLK_EN#
DPRSTP#
DPRSLPVR
VR_ON
VID6
VID5
VID4
VID3
VID2
VID1
VID0
BOOT1
UGATE1
PHASE1
PGND1
LGATE1
PVCC
LGATE2
PGND2
PHASE2
UGATE2
BOOT2
NC
VDIFF
VSEN
RTN
DROOP
DFB
VO
VSUM
VIN
GND1
VDD
ISEN2
ISEN1
R8000 499Ohm 1%
60uA
R8031 13KOhm
C8028 0.1UF/25V
R5031->3.53K
F=300KHz
R8005 6.81KOhm 1%
C8022 1000PF/50V
C8013 220PF/50V
C8004 470PF/50V
R8027 97.6KOhm
R8015 255Ohm 1%
R8056 0Ohm
R8009 1KOhm
R8046 1KOhm
C8011 1000PF/50V
R8012 2.7Ohm
C8026 0.22UF/25V
PVCC
R8049 2.7Ohm
+5VS
C8024 4.7UF/6.3V_XR5
R8041 2.7Ohm
C8002 0.22UF/25V
ISEN1
ISEN2
R8002 10Ohm_0805
C8003 2.2UF/6.3V_X5R
R8008 10Ohm_0805
AC_BAT_SYS
C8005 0.1UF/25V
TPC28T T8041
VCCSENSE
R8014
R8016 0Ohm
+VCORE
100Ohm @
C8007 0.01UF/50V
C8010 0.01UF/50V
TPC28T T8036
VSSSENSE
R8022 0Ohm
R8032 100Ohm @
C8016 0.01UF/50V
R5049 for load line
C8017 180PF/50V
R8036 3.65KOhm
1KOhm R8020
C8000 0.33UF/16V
Close to Pin 18
VCC_PRM
R8013 11KOhm
R8043 10KOHM
R8038 2.61KOhm
C8021 0.022UF/25V
C8018 0.22UF/10V
VSUM
C5028 & C5029 for transient response
Close to Phase 1 Inductor
TPC28T T8040 T8042 T8043 T8038 T8034 T8039 T8037
Q8007 SI4392DY
Q8000 SI4392DY
CE8005 15UF/25V
CE8003 15UF/25V
C8006
1UF/25V_0805
C8014 1000PF/50V
PCPU_GND1
TPC28T T8016
Q8001 SI4336DY_T1_E3
Q8005 SI4336DY_T1_E3
D8000 EC31QS04
R8045 3.65KOhm
R8010 10KOhm 1%
L8001 0.36UH Irat=32A
R8004 1Ohm
R8034 10KOhm 1% @
C8001 0.22UF/10V
for current balence
+VCORE (35A)
CE8006 330UF/2V
CE8004 330UF/2V
R8059 10KOhm @
ISEN2
Q8004 SI4392DY
Q8003 SI4392DY
CE8001 15UF/25V
CE8002 15UF/25V
C8023
1UF/25V_0805
C8015 1000PF/50V
PCPU_GND2
TPC28T T8014
Q8006 SI4336DY_T1_E3
Q8002 SI4336DY_T1_E3
D8001 EC31QS04
R8026 3.65KOhm
R8029 10KOhm 1%
L8000 0.36UH Irat=32A
R8030 1Ohm
R8040 10KOhm 1% @
C8008 0.22UF/10V
CE8000 330UF/2V
CE8007 330UF/2V
C8027 0.1UF/10V_0402
R8058 10KOhm @
ISEN1
TPC28T T8005 T8030 T8006 T8004 T8009 T8001 T8019 T8011 T8025 T8015 T8028 T8012 T8026 T8007 T8017 T8027
+VCORE
TPC28T T8008 T8024 T8010 T8032 T8003 T8013 T8018 T8022 T8020 T8023 T8029 T8031 T8000 T8002 T8021 T8033
<Variant Name>
Title :POWER_VCORE
ASUSTeK COMPUTER INC. NB
Engineer:
Size Custom
Project Name A8ES
Rev 2.0
Date: 星期二, 二月 06, 2007
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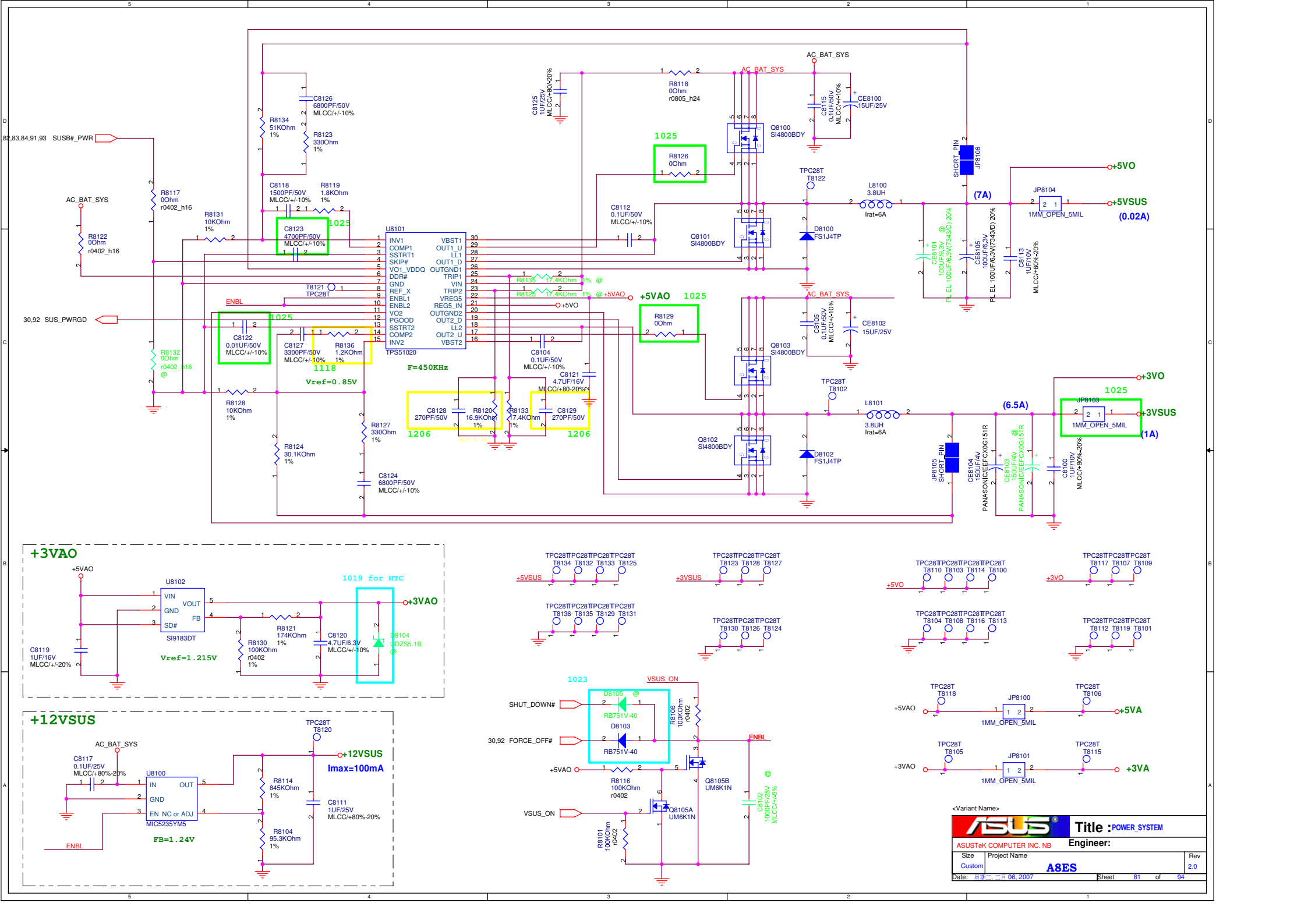

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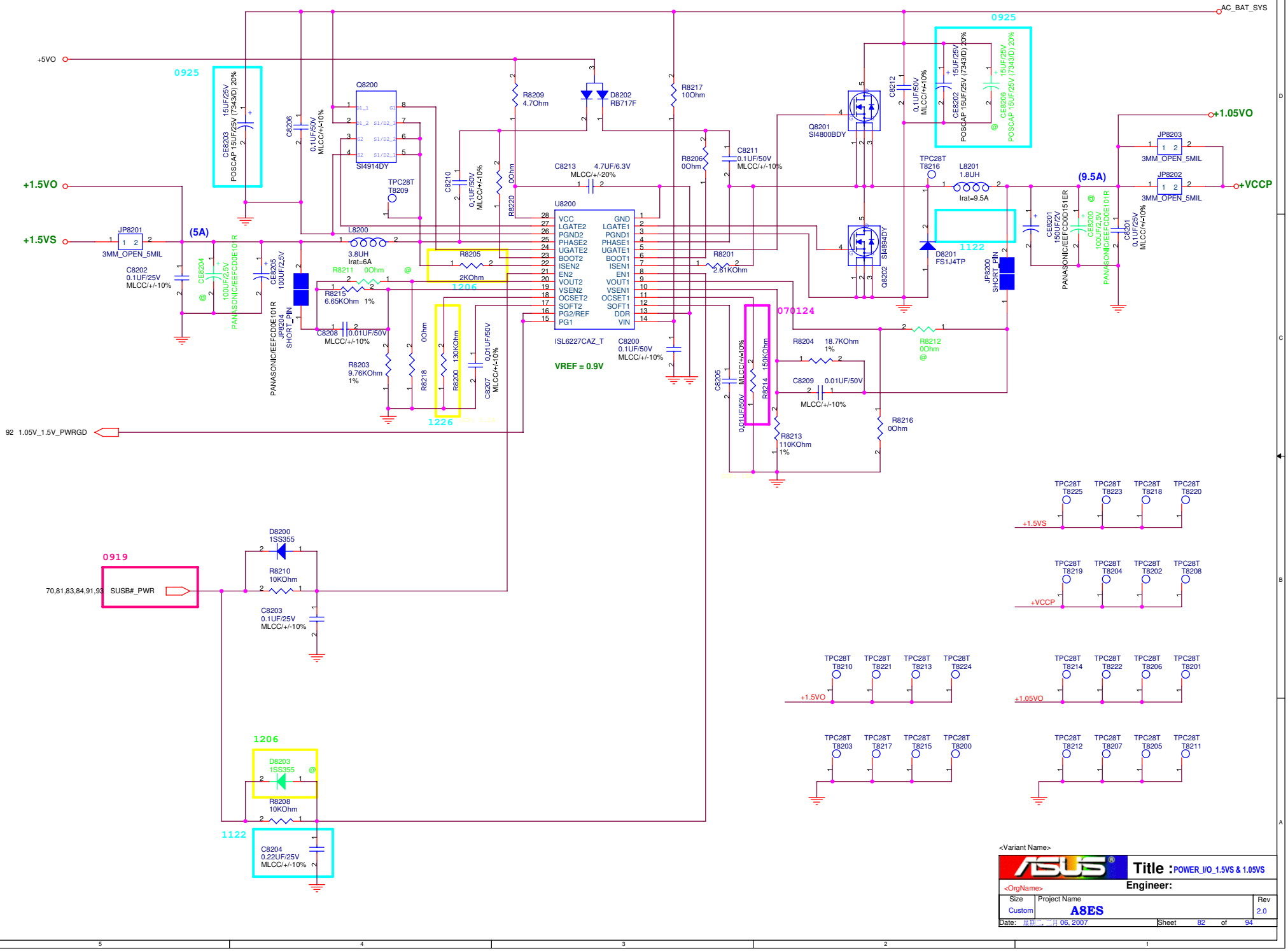
ASUSTeK COMPUTER INC. NB	Title : POWER_SYSTEM	
	Engineer:	
Size: Custom	Project Name: A8ES	Rev: 2.0
Date: 星期二, 二月 06, 2007	Sheet 81 of 94	


AC_BAT_SYS
+5VO
+1.5VO
+1.5VS
+1.05VO
+VCCP
0925
0919
1206
1122
1226
(5A)
(9.5A)
U8200
ISL6227CAZ_T
VREF = 0.9V
Q8200
SI4914DY
Q8201
SI4800BDY
Q8202
SI4894DY
D8200
1SS355
D8201
FS1J4TP
D8202
RB717F
D8203
1SS355
L8200
3.8UH
Irat=6A
L8201
1.8UH
Irat=9.5A
JP8201
JP8202
JP8203
JP8200
3MM_OPEN_5MIL
SHORT_PIN
R8205
2KOhm
R8200
130KOhm
R8214
150KOhm
R8215
6.65KOhm 1%
R8203
9.76KOhm
1%
R8204
18.7KOhm
1%
R8213
110KOhm
1%
R8210
10KOhm
R8208
10KOhm
R8209
4.7Ohm
R8217
10Ohm
R8206
0Ohm
R8220
0Ohm
R8218
0Ohm
R8201
2.61KOhm
R8212
0Ohm
@
R8216
0Ohm
C8213
4.7UF/6.3V
MLCC/+/-20%
C8200
0.1UF/50V
MLCC/+/-10%
C8202
0.1UF/25V
MLCC/+/-10%
C8203
0.1UF/25V
MLCC/+/-10%
C8204
0.22UF/25V
MLCC/+/-10%
C8205
0.01UF/50V
MLCC/+/-10%
C8207
0.01UF/50V
MLCC/+/-10%
C8208
0.01UF/50V
MLCC/+/-10%
C8209
0.01UF/50V
MLCC/+/-10%
C8210
0.1UF/50V
MLCC/+/-10%
C8211
0.1UF/50V
MLCC/+/-10%
C8212
0.1UF/50V
MLCC/+/-10%
C8206
0.1UF/50V
MLCC/+/-10%
CE8203
15UF/25V
POSCAP 15UF/25V (7343D) 20%
CE8202
15UF/25V
POSCAP 15UF/25V (7343D) 20%
CE8206
15UF/25V
POSCAP 15UF/25V (7343D) 20%
CE8204
100UF/2.5V
PANASONIC/EEFCD0E101R
CE8205
100UF/2.5V
PANASONIC/EEFCD0E101R
CE8201
150UF/2V
PANASONIC/EEFCD0D151ER
CE8200
100UF/2.5V
PANASONIC/EEFCD0E101R
C8201
0.1UF/25V
MLCC/+/-10%
TPC28T
T8209
T8216
T8225
T8223
T8218
T8220
T8219
T8204
T8202
T8208
T8210
T8221
T8213
T8224
T8214
T8222
T8206
T8201
T8203
T8217
T8215
T8200
T8212
T8207
T8205
T8211
070124
92 1.05V_1.5V_PWRGD
70,81,83,84,91,93 SUSB#_PWR
<Variant Name>
Title : POWER_I/O_1.5VS & 1.05VS
<OrgName>
Engineer:
Size
Custom
Project Name
A8ES
Rev
2.0
Date: 星期二, 二月 06, 2007
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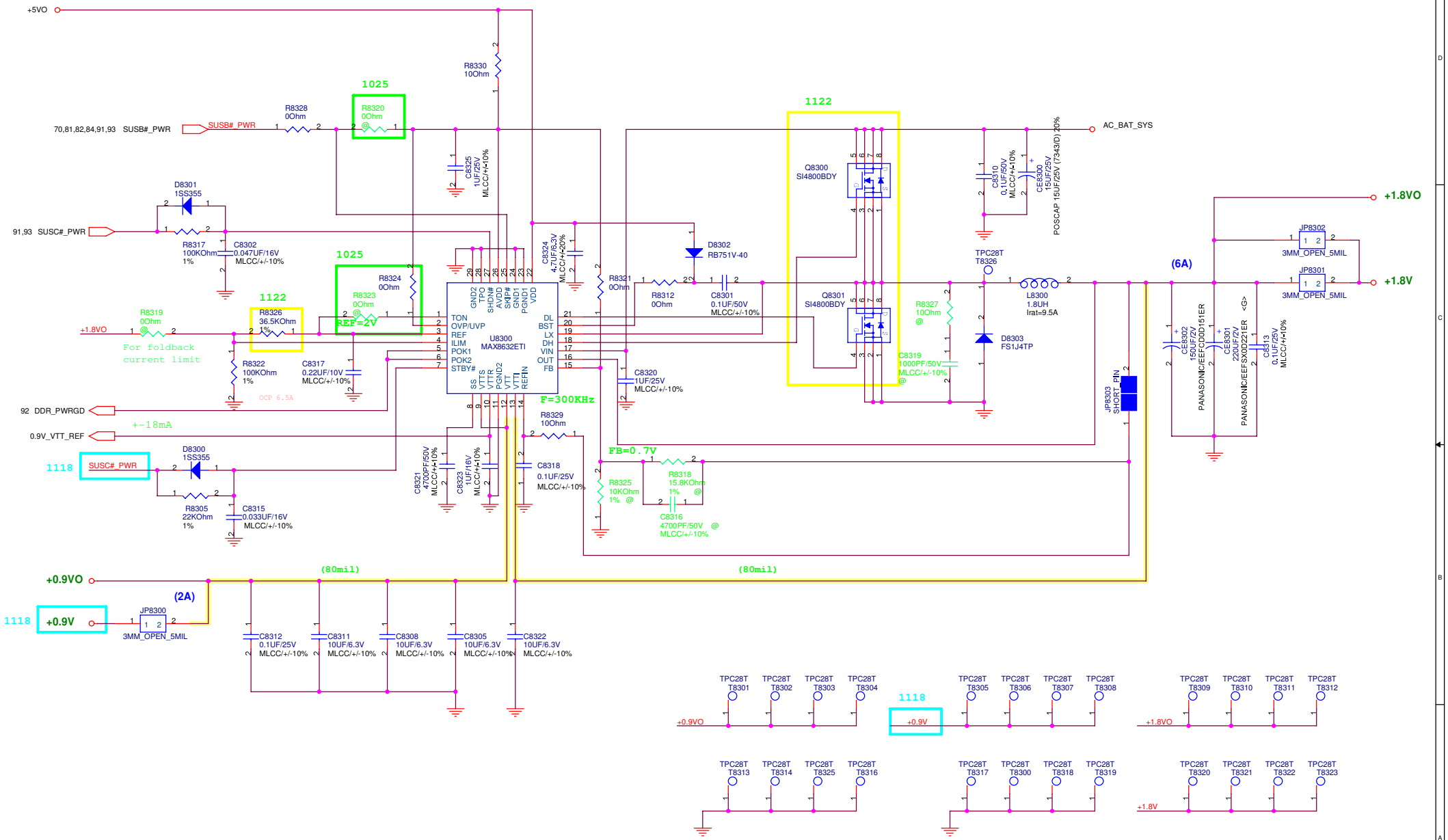

<Variant Name>

ASUSTeK COMPUTER INC. NB

Title : POWER_I/O_DDR & VTT

Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

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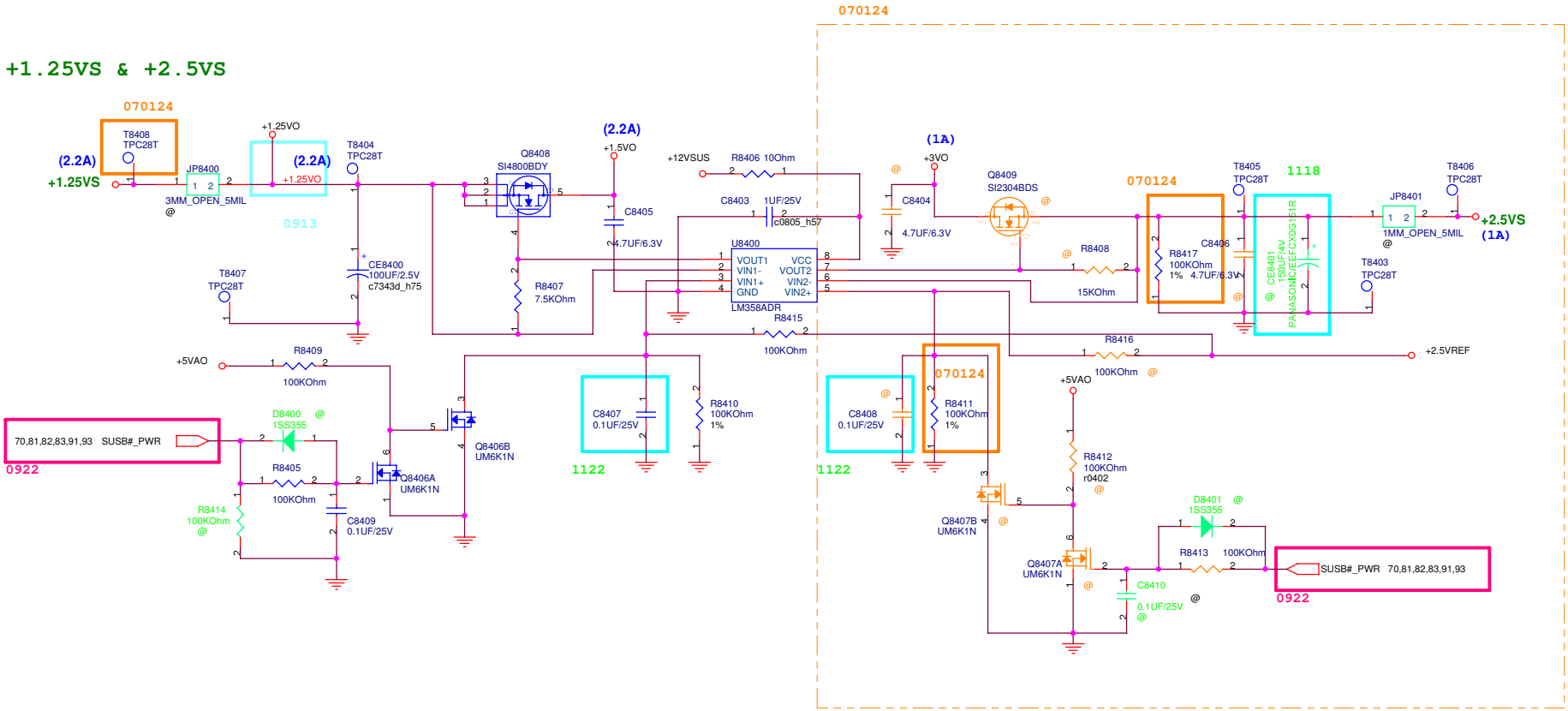
+1.25VS & +2.5VS



<Variant Name>

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

<OrgName>

Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

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<Variant Name>

Title : POWER_VGA_CORE & RAM

<OrgName>

Engineer:

Size	Project Name	Rev
C	ROSA	1.1

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<Variant Name>

Title : N/A

<OrgName>

Engineer:

Size	Project Name	Rev
B	ROSA	1.1

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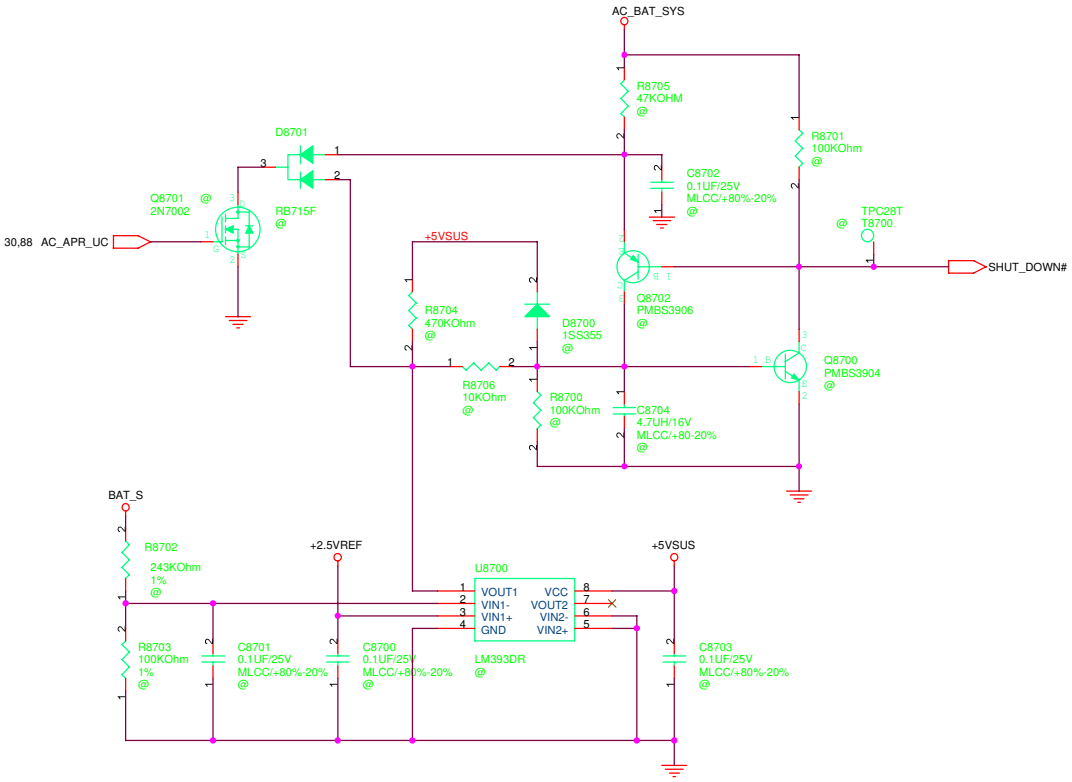
PIC only



<Variant Name>

Title : POWER_SHUTDOWN#

<OrgName>

Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

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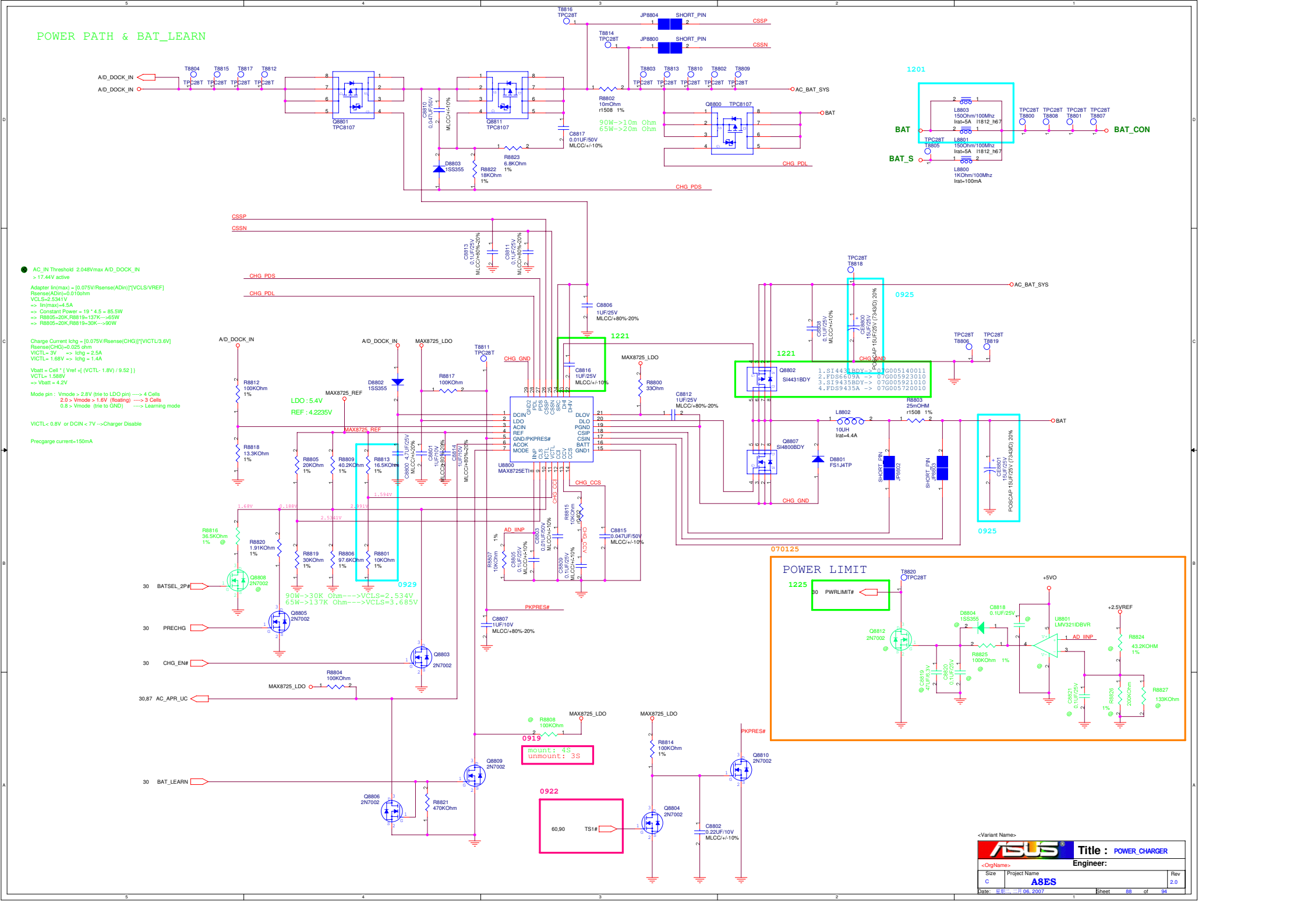
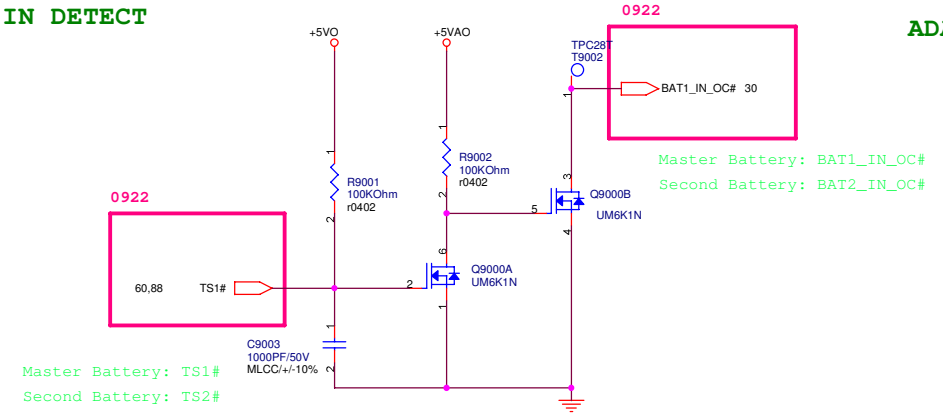
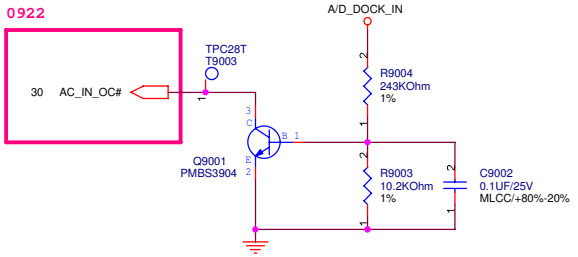
POWER PATH & BAT_LEARN



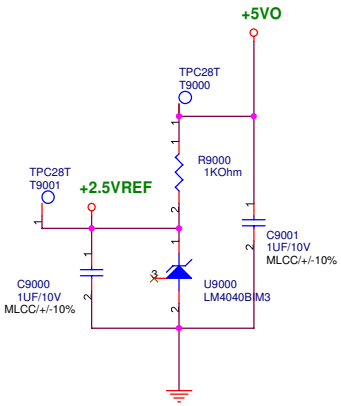
BATTERY IN DETECT



ADAPTER IN DETECT



+2.5VREF



<Variant Name>

Title : POWER_DETECT

<OrgName>

Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

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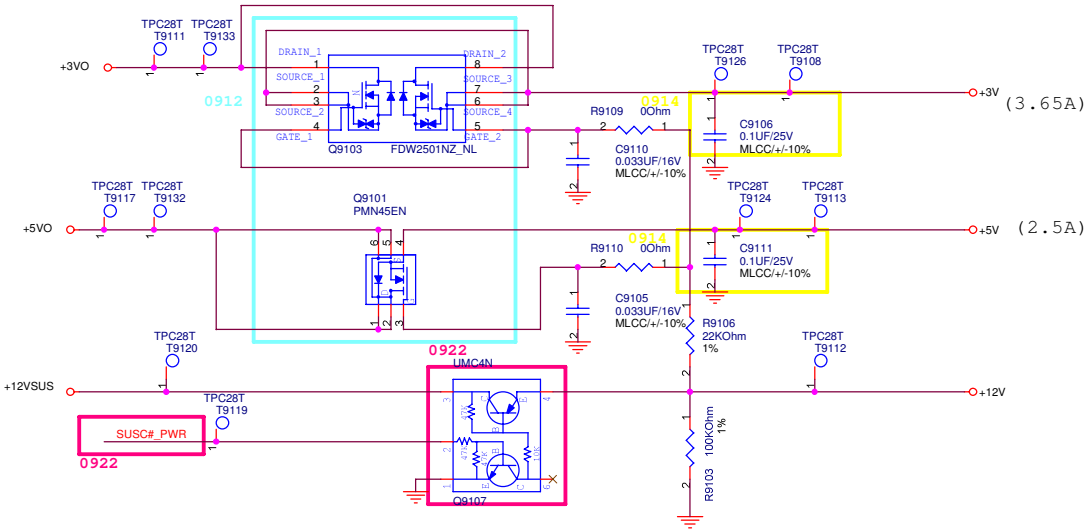
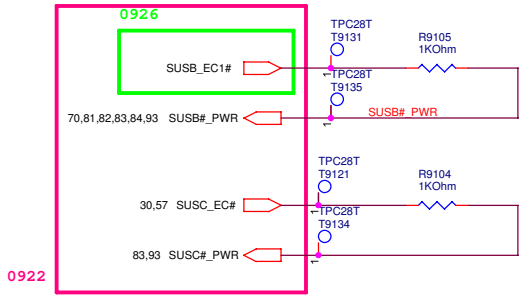
SUSC#_PWR POWER

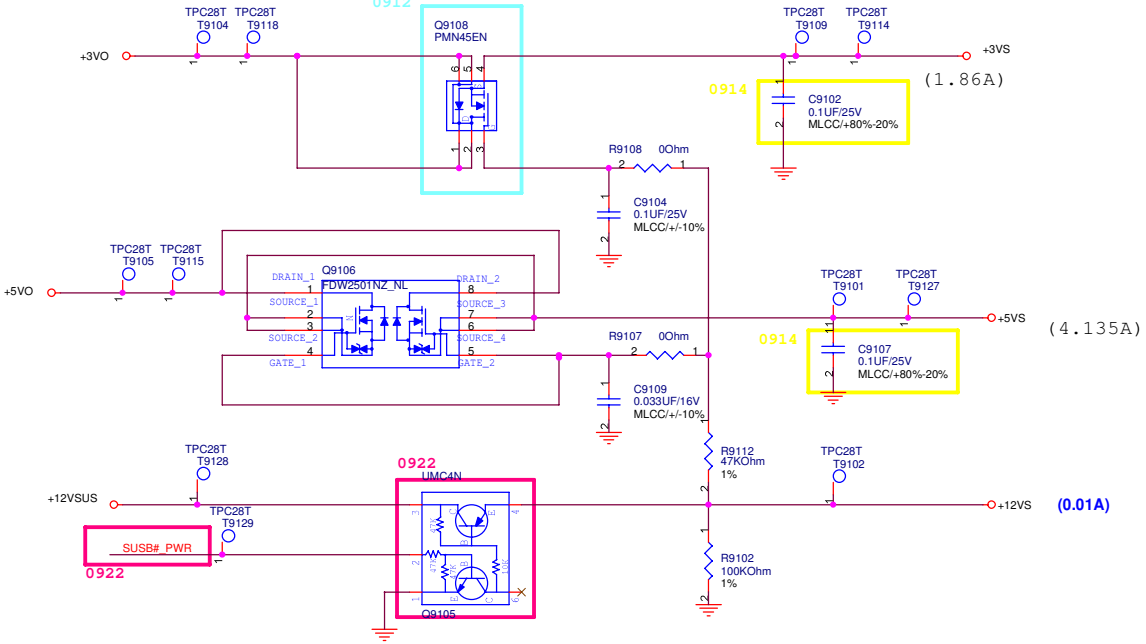
0922





SUSB#_PWR POWER

0922



<Variant Name>

ASUS	Title : POWER_LOAD SWITCH	
<OrgName>	Engineer:	
Size: Custom	Project Name: A8ES	Rev: 2.0
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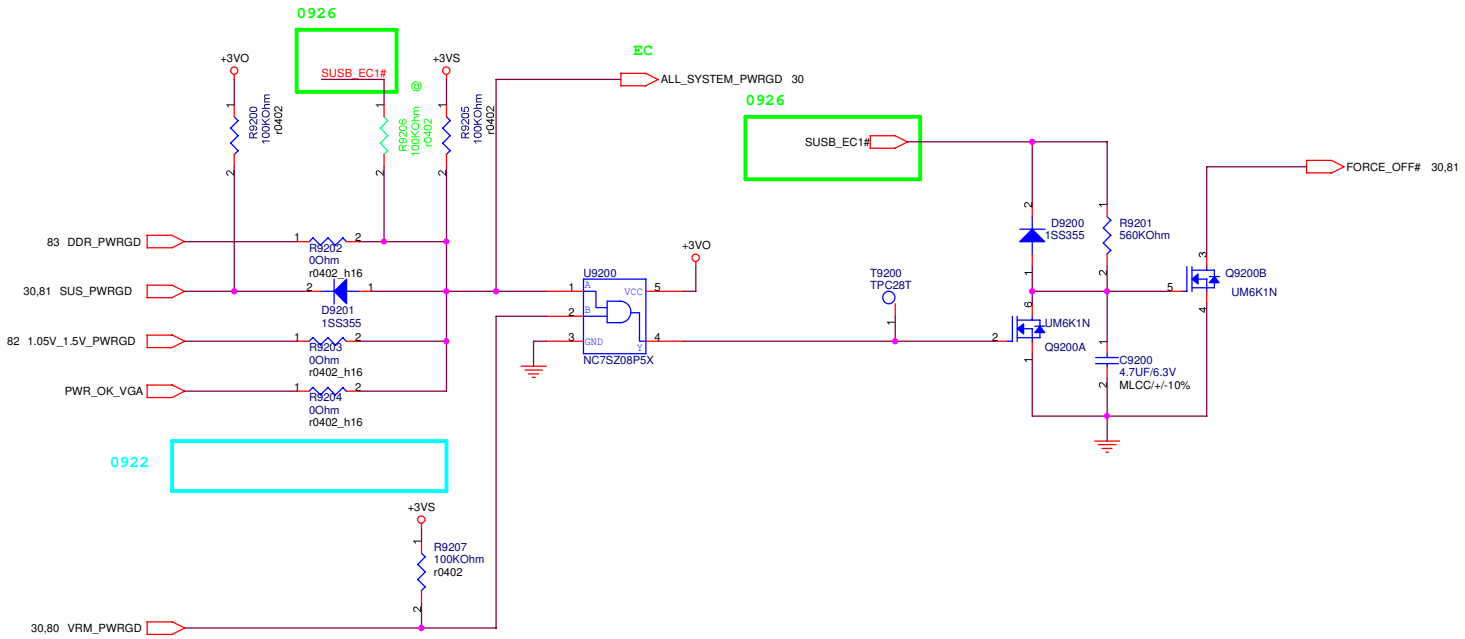
POWER GOOD DETECTER



<Variant Name>

Title : POWER_PROTECT

<OrgName>

Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

Date: 星期二, 二月 06, 2007 Sheet 92 of 94

AC_BAT_SYS → AC_BAT_SYS 45,70,80,81,82,83,87,88

BAT → BAT 88

BAT_CON → BAT_CON

+2.5VREF → +2.5VREF 84,87,88,90

+3VA → +3VA

0922 +5VAO → +5VAO 81,84,90

+5VO → +5VO 81,82,83,88,90,91

+5VSUS → +5VSUS 23,56,81,87

+5V → +5V 9,43,52,57,68,70,91

+5VS → +5VS

+3VO → +3VO 81,84,91,92

+3VSUS → +3VSUS

+3V → +3V

+3VS → +3VS 3,7,8,11,14,15,21,22,23,24,29,30,33,36,38,40,41,42,43,45,46,47,49,50,51,53,55,57,62,68,70,80,91,92

+12VSUS → +12VSUS 81,84,91

+12V → +12V

+12VS → +12VS 38,45,57,70,91

+1.8VO → +1.8VO

+1.8V → +1.8V

+1.8VS → +1.8VS

+0.9VS → +0.9VS

0922 +0.9VO → +0.9VO 83

0922 +1.05VO → +1.05VO 80,82

+VCCP → +VCCP

0922 +1.5VO → +1.5VO 82,84

+1.5VS → +1.5VS

+2.5VO → +2.5VO

+2.5VS → +2.5VS 70,84

+VCORE → +VCORE

+VRAM → +VRAM

+1.2VSP → +1.2VSP

+1.25VS → +1.25VS

FOR POWER TEST

+3VA

JP9300 (SGL_JUMP): 1 — 1 2 — 2 → CPU_VRON_PWR 80

0922

JP9301 (SGL_JUMP): 1 — 1 2 — 2 → SUSB#_PWR → SUSB#_PWR 70,81,82,83,84,91

JP9302 (SGL_JUMP): 1 — 1 2 — 2 → SUSC#_PWR → SUSC#_PWR 83,91

JP9303 (SGL_JUMP): 1 — 1 2 — 2 → VSUS_ON → VSUS_ON

<Variant Name>

Title : POWER_SIGNAL

<OrgName> Engineer: <OrgAddr1>

Size	Project Name	Rev
Custom	A8ES	2.0

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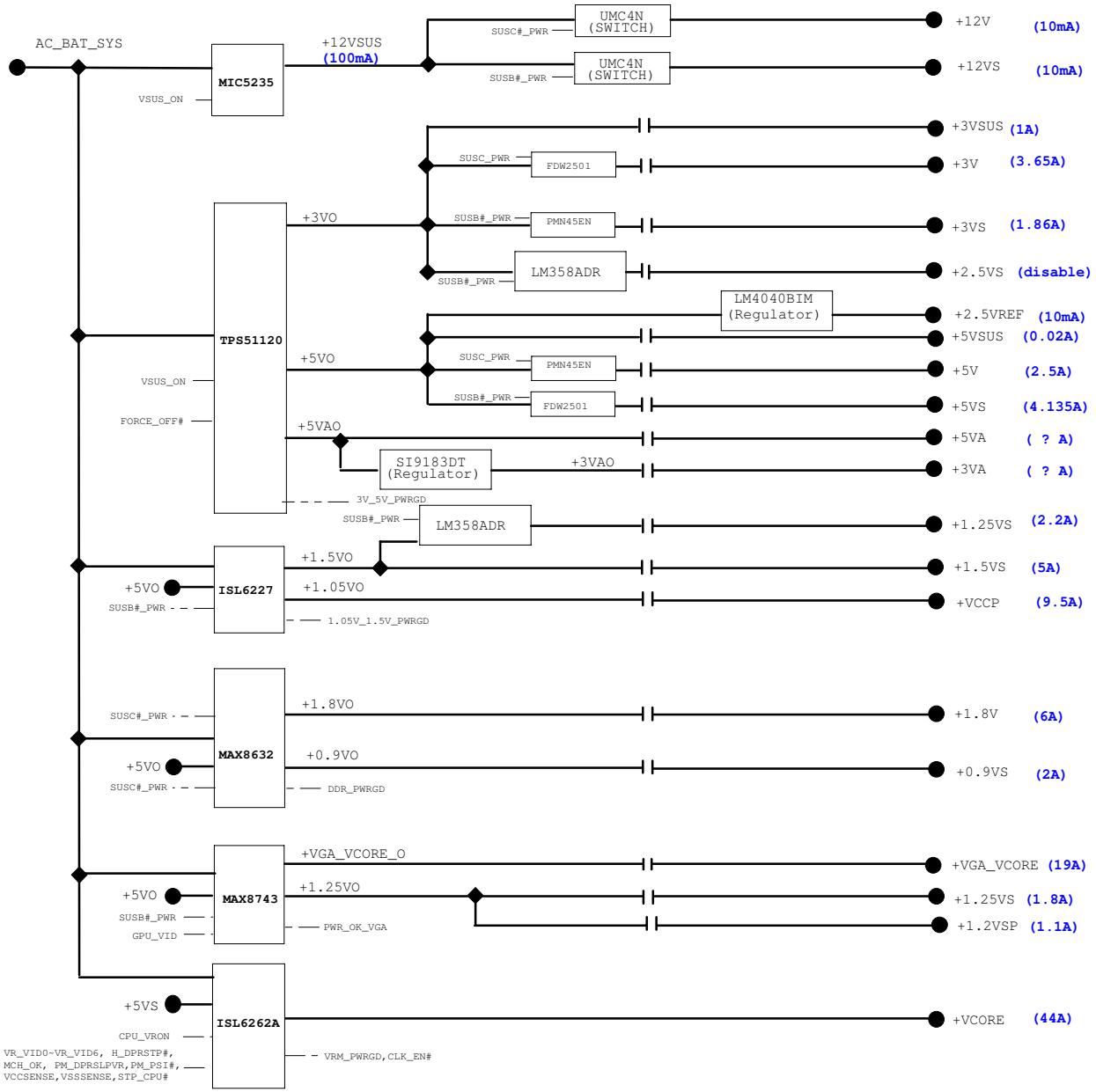

<Variant Name>

Title : POWER_VCORE

<OrgName> Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

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