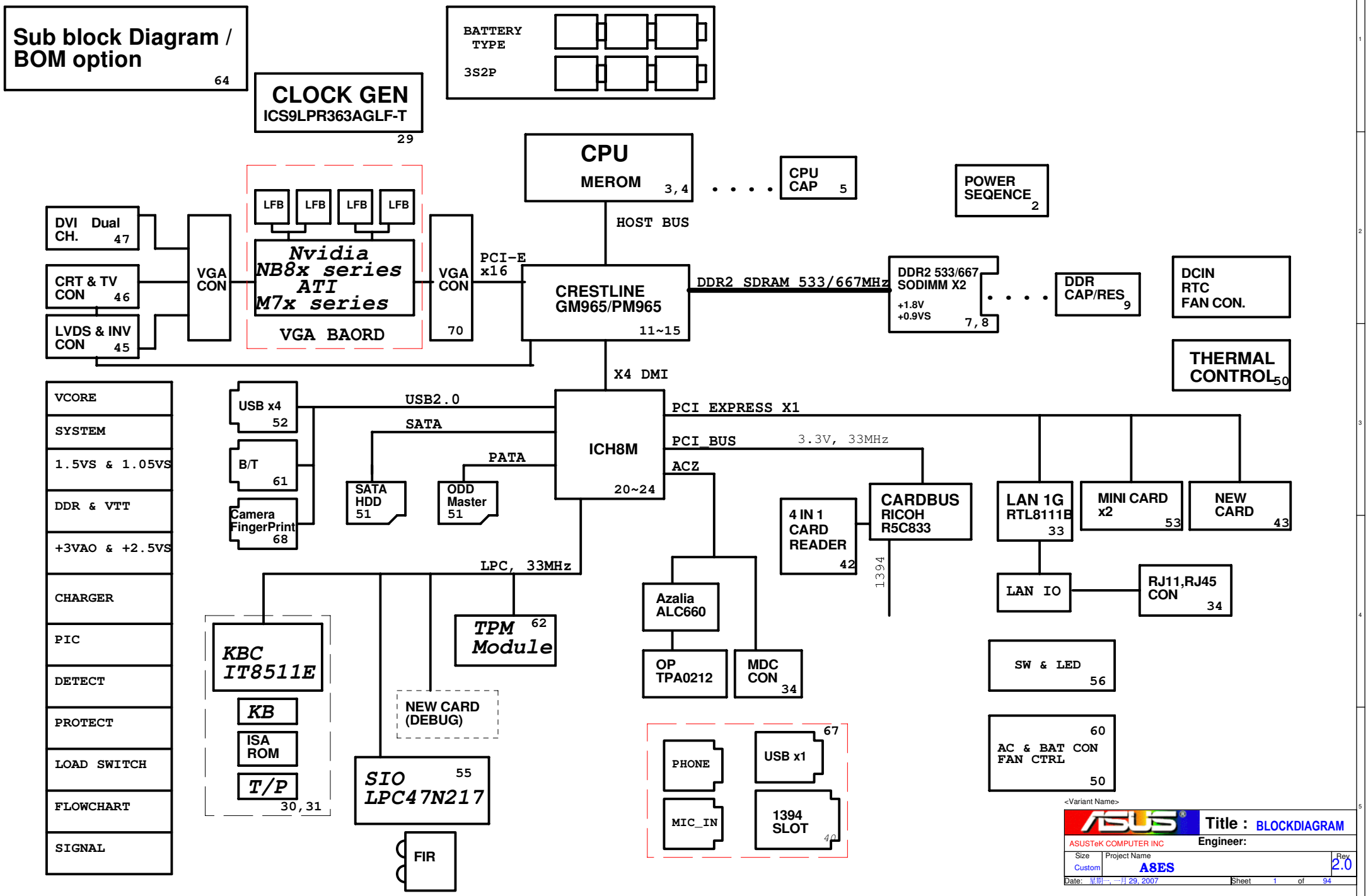
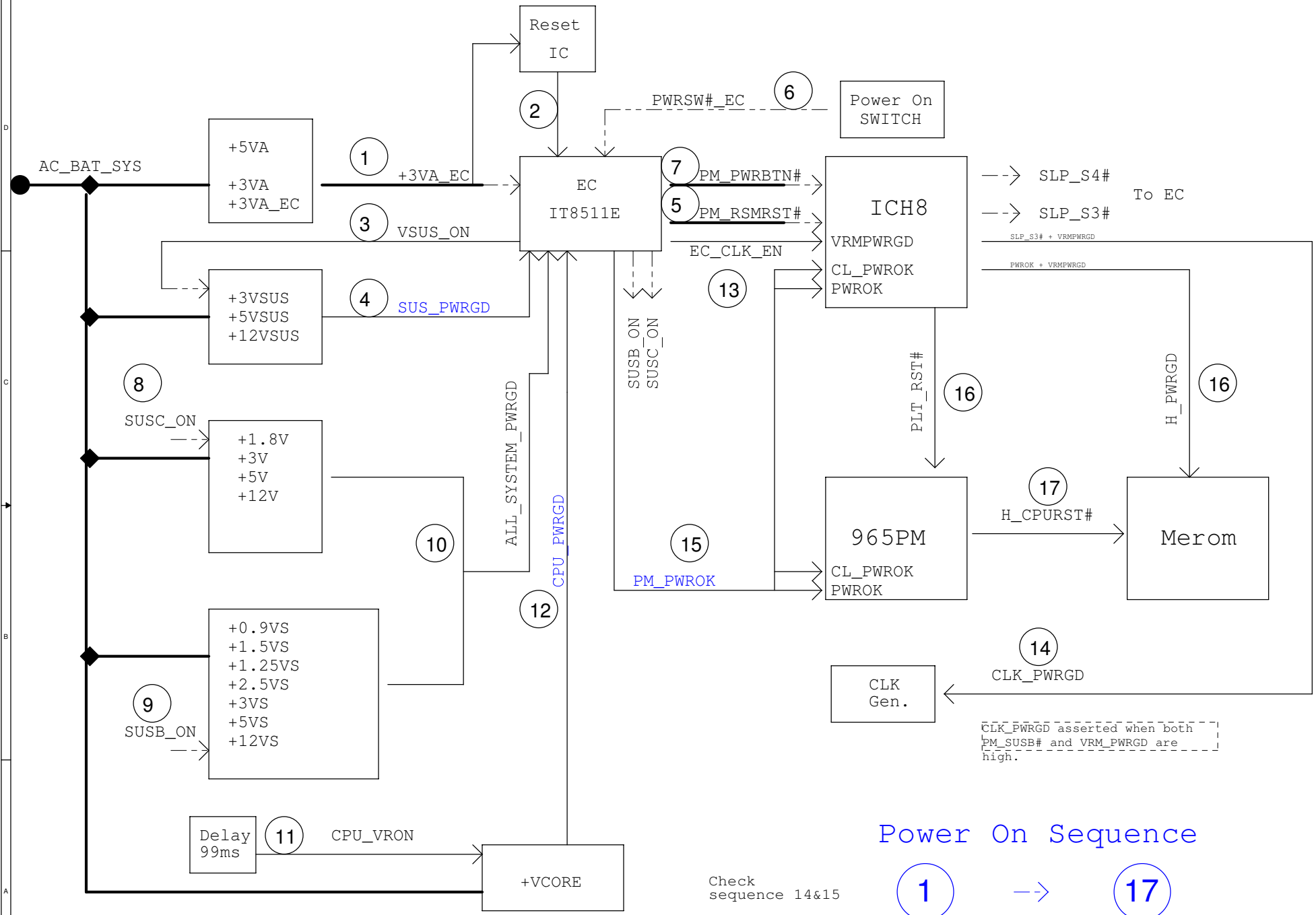
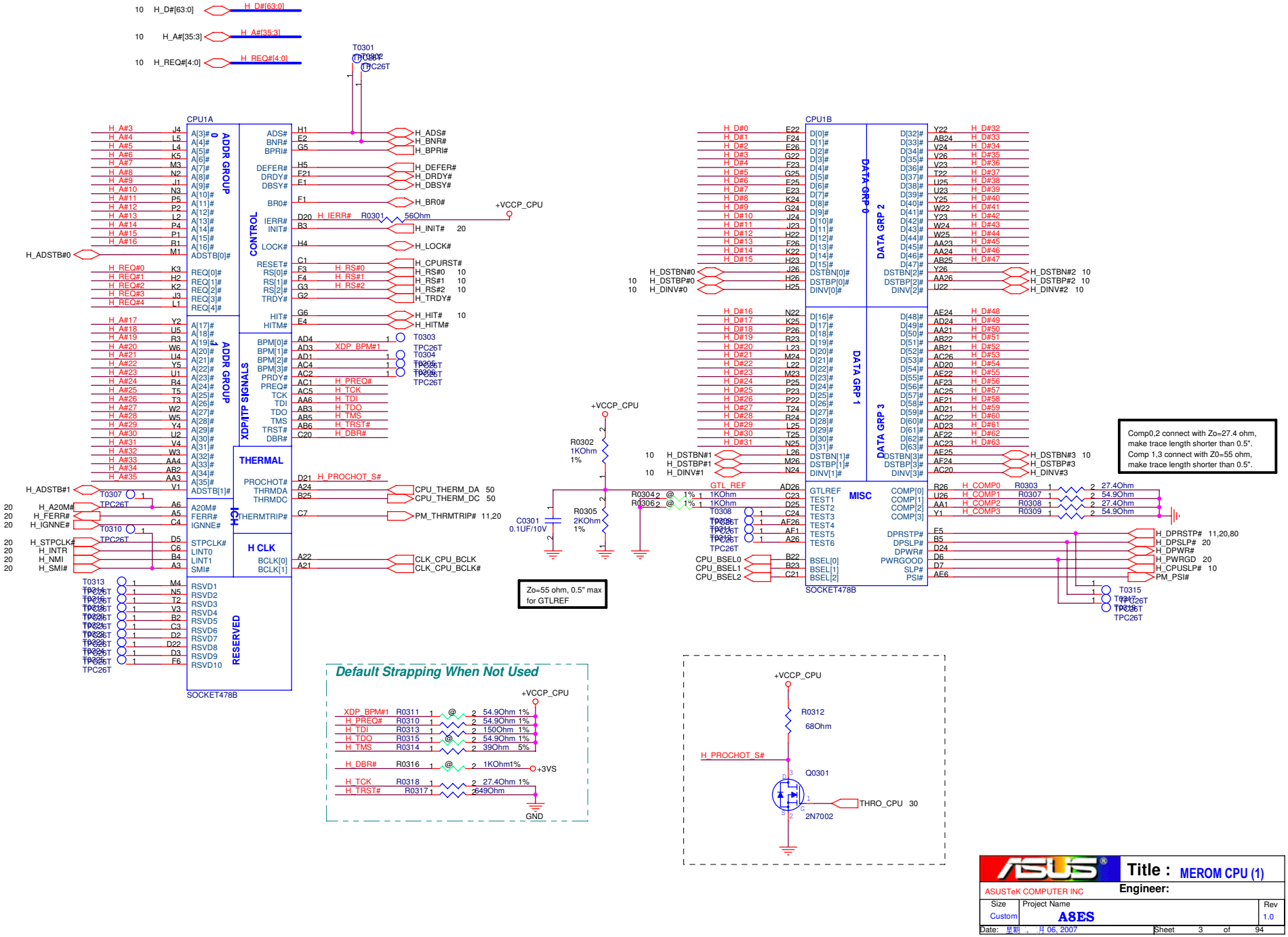
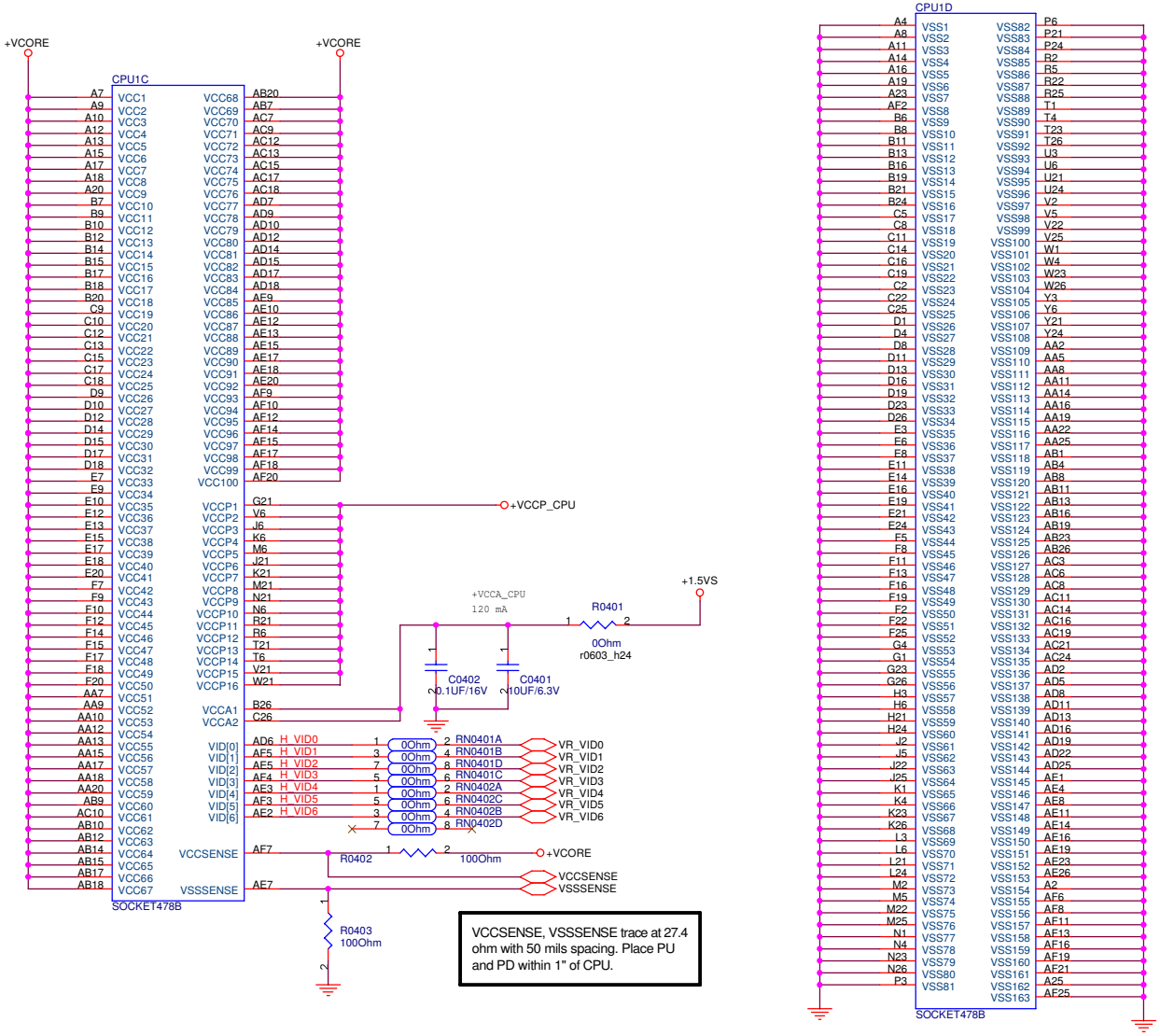
A8E/A8S Merom/GM965/PM965 BLOCK DIAGRAM



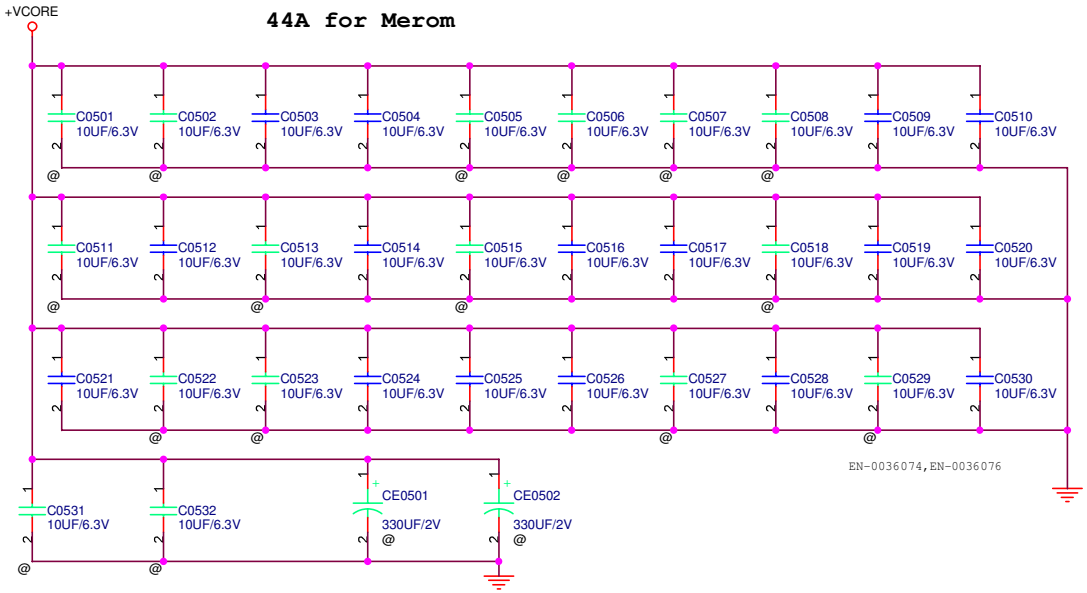


ASUSTeK COMPUTER INC	Title : PowerOn sequence	
	Engineer:	
Size: Custom	Project Name: A8ES	Rev: 1.0
Date: 星期三, 十月 11, 2006	Sheet 2 of 94	


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#
XDP_BPM#1
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#
R0301 56Ohm
+VCCP_CPU
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 10
H_DINV#3
GTL_REF
R0302 1KOhm 1%
R0305 2KOhm 1%
C0301 0.1UF/10V
R0304 1KOhm 1%
R0306 1KOhm 1%
Zo=55 ohm, 0.5" max for GTLREF
CPU_BSEL0
CPU_BSEL1
CPU_BSEL2
H_COMP0
H_COMP1
H_COMP2
H_COMP3
R0303 27.4Ohm
R0307 54.9Ohm
R0308 27.4Ohm
R0309 54.9Ohm
H_DPRSTP# 11,20,80
H_DPSLP# 20
H_DPWR#
H_PWRGD 20
H_CPUSLP# 10
PM_PSI#
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%
+3VS
H_TCK R0318 27.4Ohm 1%
H_TRST# R0317 649Ohm
GND
R0312 68Ohm
H_PROCHOT_S#
Q0301
2N7002
THRO_CPU 30
ASUSTeK COMPUTER INC
Engineer:
Title : MEROM CPU (1)
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

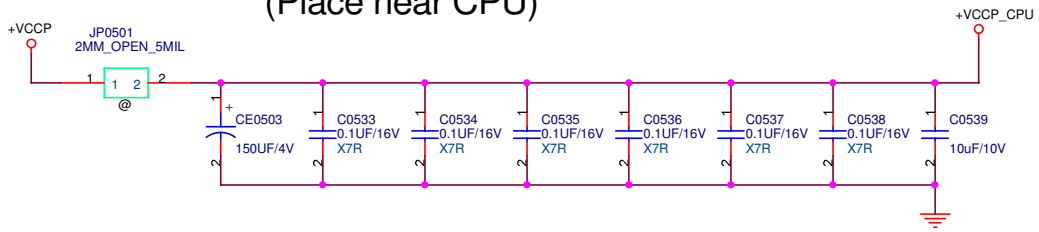


Decoupling guide from INTEL

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

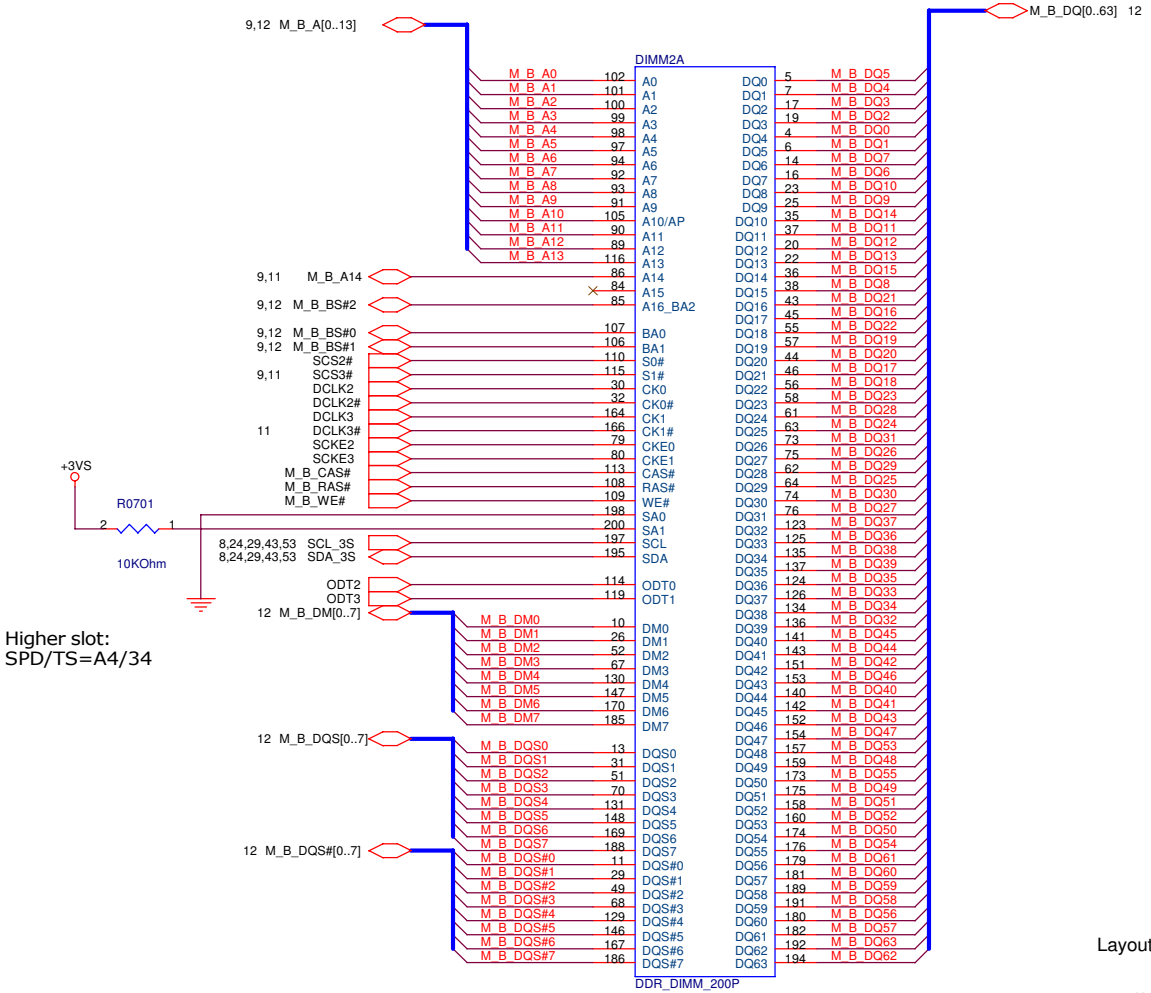
Title : CPU CAP

Engineer:

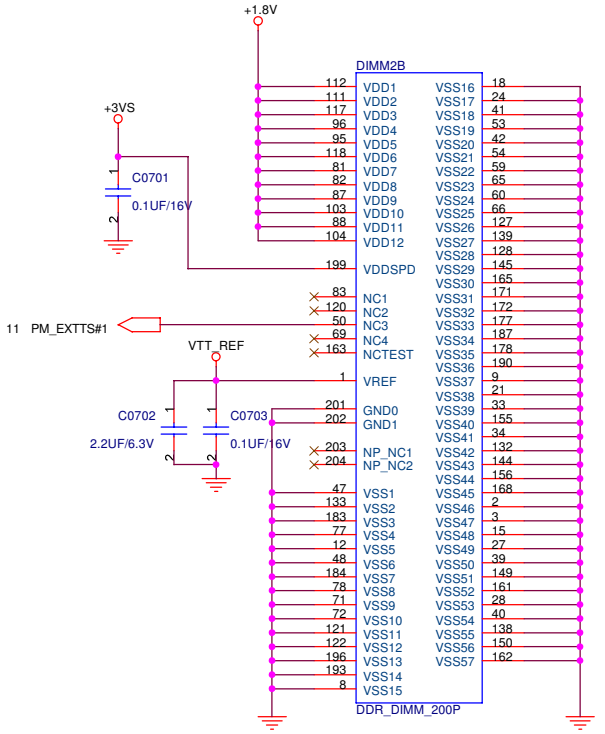
Size	Project Name	Rev
B	A8ES	1.0

Date: 星期六, 六月 23, 2007 Sheet 5 of 94

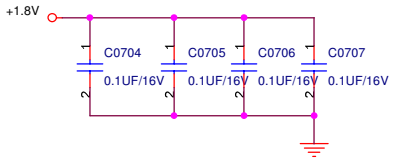
ASUSTeK COMPUTER INC	Title : BLANK	
	Engineer:	
Size: A	Project Name: A8ES	Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 6 of 94	



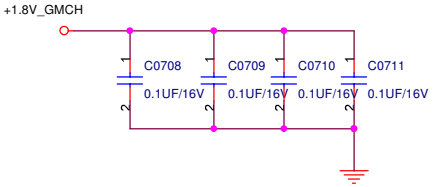
Higher slot:
SPD/TS=A4/34



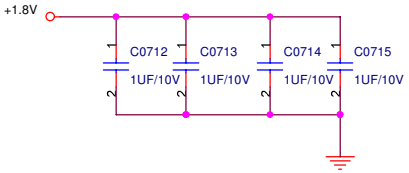
Layout Note: Place these Caps near SO DIMM 0



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



Layout Note: Place these Caps near SO DIMM 0



Upper:Channel B

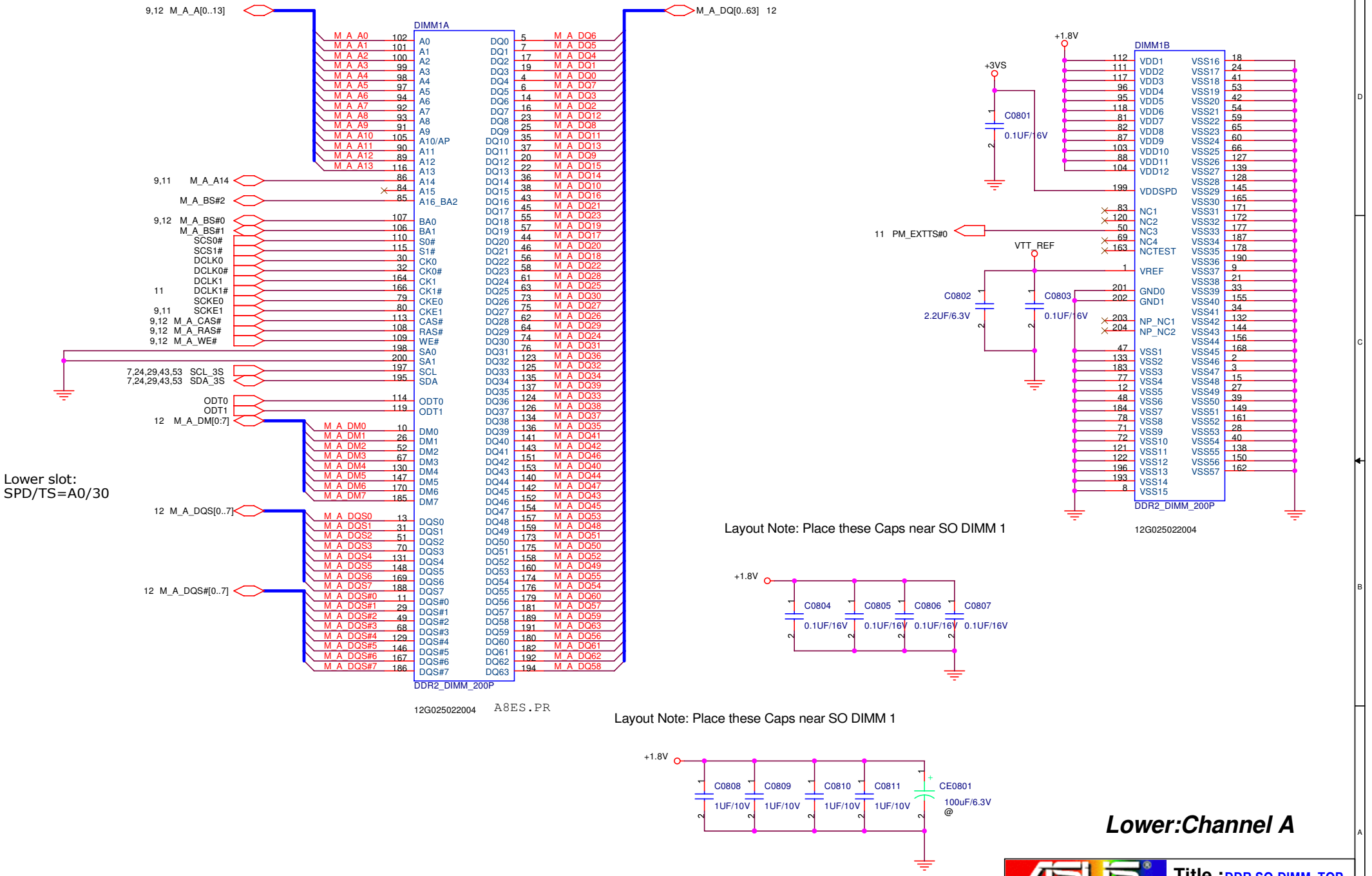
ASUSTeK COMPUTER INC

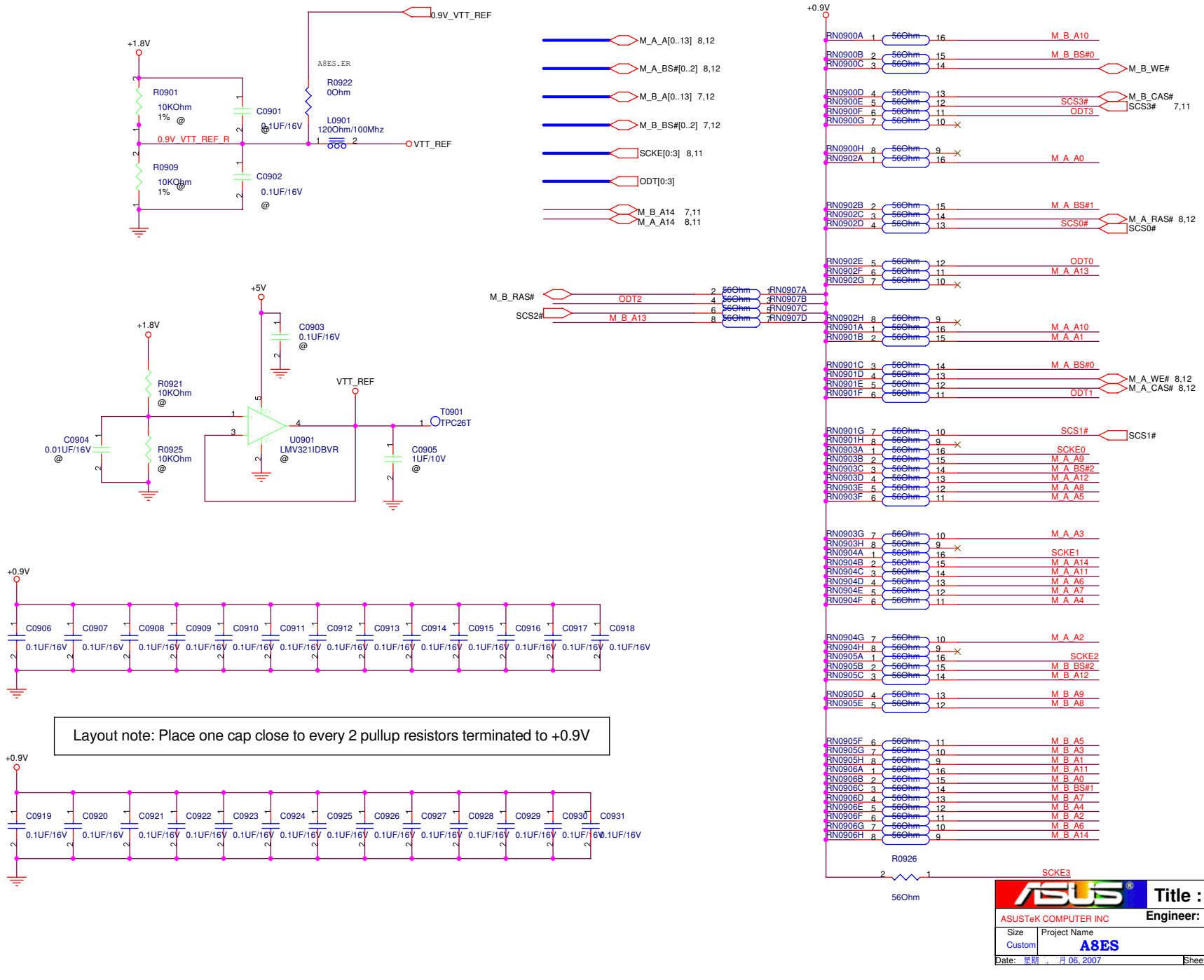
Title : DDR SO-DIMM

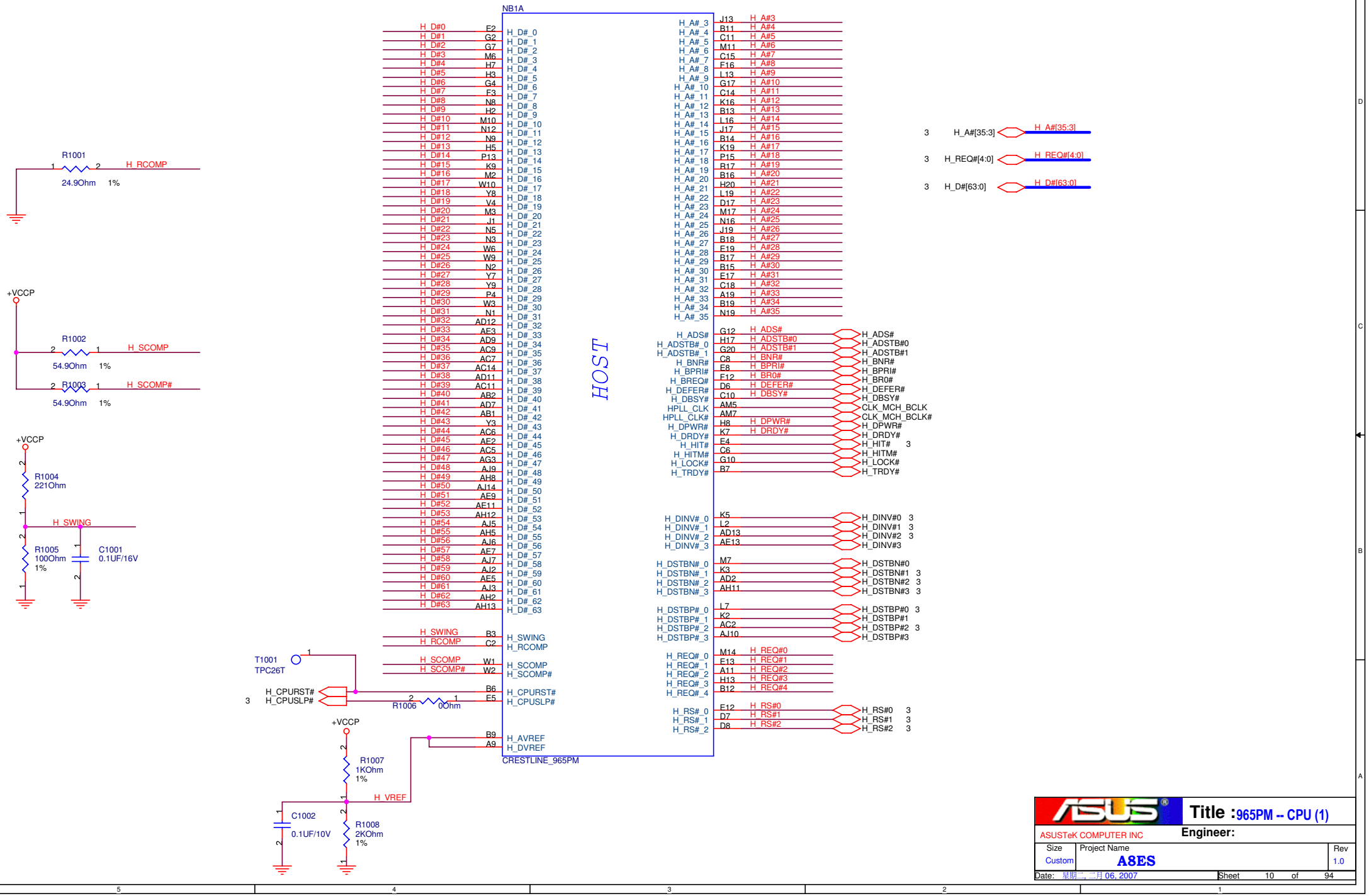
Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

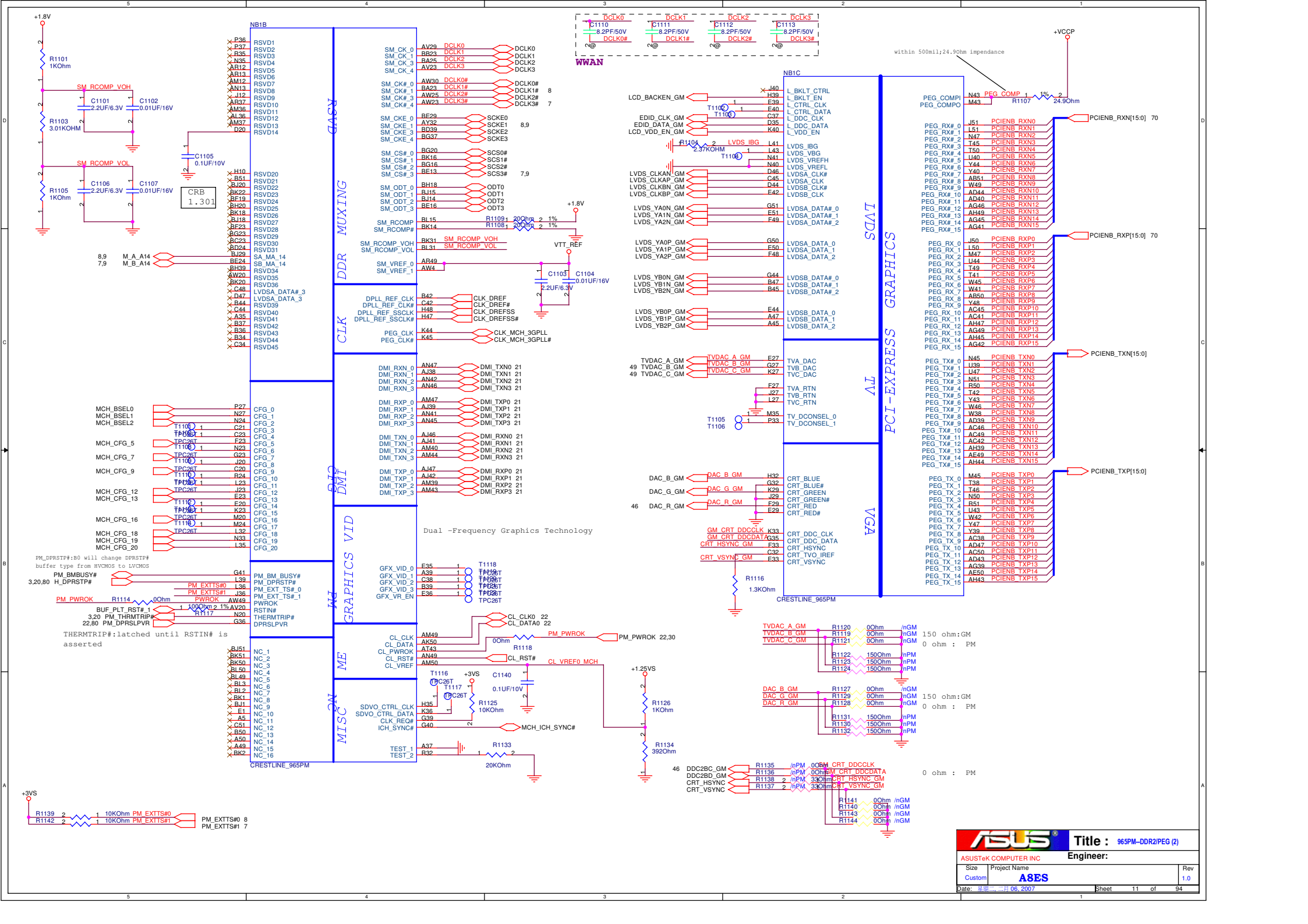
Date: 星期二, 二月 06, 2007 Sheet 7 of 94

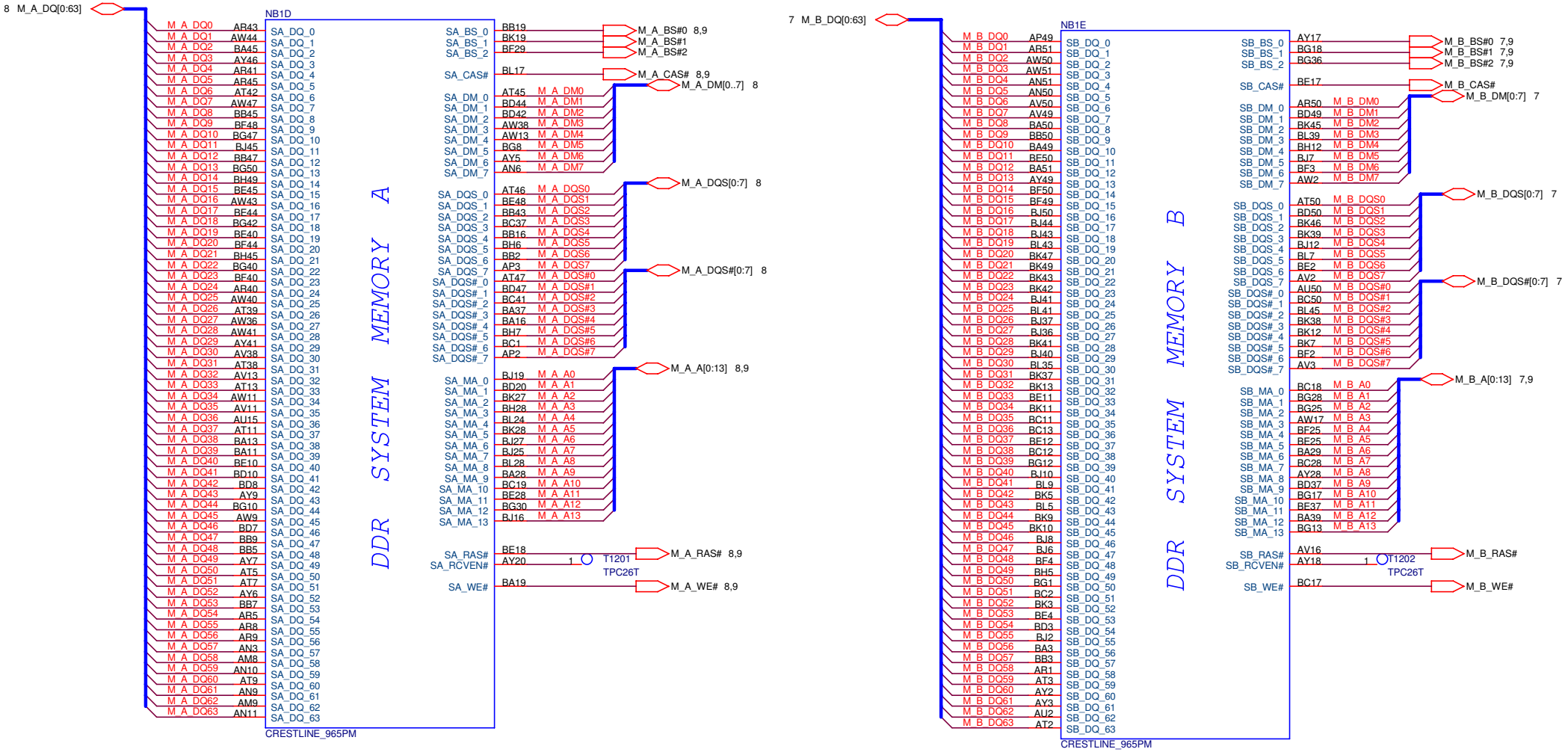

9,12 M_A_A[0..13]
M_A_DQ[0..63] 12
DIMM1A
M_A_A0 M_A_A1 M_A_A2 M_A_A3 M_A_A4 M_A_A5 M_A_A6 M_A_A7 M_A_A8 M_A_A9 M_A_A10 M_A_A11 M_A_A12 M_A_A13
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10/AP A11 A12 A13 A14 A15 A16_BA2
9,11 M_A_A14
M_A_BS#2
9,12 M_A_BS#0
M_A_BS#1
SCS0#
SCS1#
DCLK0
DCLK0#
DCLK1
11 DCLK1#
SCKE0
9,11 SCKE1
9,12 M_A_CAS#
9,12 M_A_RAS#
9,12 M_A_WE#
BA0 BA1 S0# S1# CK0 CK0# CK1 CK1# CKE0 CKE1 CAS# RAS# WE#
SA0 SA1
7,24,29,43,53 SCL_3S
7,24,29,43,53 SDA_3S
SCL SDA
ODT0 ODT1
12 M_A_DM[0:7]
M_A_DM0 M_A_DM1 M_A_DM2 M_A_DM3 M_A_DM4 M_A_DM5 M_A_DM6 M_A_DM7
DM0 DM1 DM2 DM3 DM4 DM5 DM6 DM7
12 M_A_DQS[0..7]
M_A_DQS0 M_A_DQS1 M_A_DQS2 M_A_DQS3 M_A_DQS4 M_A_DQS5 M_A_DQS6 M_A_DQS7
DQS0 DQS1 DQS2 DQS3 DQS4 DQS5 DQS6 DQS7
12 M_A_DQS#[0..7]
M_A_DQS#0 M_A_DQS#1 M_A_DQS#2 M_A_DQS#3 M_A_DQS#4 M_A_DQS#5 M_A_DQS#6 M_A_DQS#7
DQS#0 DQS#1 DQS#2 DQS#3 DQS#4 DQS#5 DQS#6 DQS#7
M_A_DQ0 M_A_DQ1 M_A_DQ2 M_A_DQ3 M_A_DQ4 M_A_DQ5 M_A_DQ6 M_A_DQ7 M_A_DQ8 M_A_DQ9 M_A_DQ10 M_A_DQ11 M_A_DQ12 M_A_DQ13 M_A_DQ14 M_A_DQ15 M_A_DQ16 M_A_DQ17 M_A_DQ18 M_A_DQ19 M_A_DQ20 M_A_DQ21 M_A_DQ22 M_A_DQ23 M_A_DQ24 M_A_DQ25 M_A_DQ26 M_A_DQ27 M_A_DQ28 M_A_DQ29 M_A_DQ30 M_A_DQ31 M_A_DQ32 M_A_DQ33 M_A_DQ34 M_A_DQ35 M_A_DQ36 M_A_DQ37 M_A_DQ38 M_A_DQ39 M_A_DQ40 M_A_DQ41 M_A_DQ42 M_A_DQ43 M_A_DQ44 M_A_DQ45 M_A_DQ46 M_A_DQ47 M_A_DQ48 M_A_DQ49 M_A_DQ50 M_A_DQ51 M_A_DQ52 M_A_DQ53 M_A_DQ54 M_A_DQ55 M_A_DQ56 M_A_DQ57 M_A_DQ58 M_A_DQ59 M_A_DQ60 M_A_DQ61 M_A_DQ62 M_A_DQ63
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 DQ38 DQ39 DQ40 DQ41 DQ42 DQ43 DQ44 DQ45 DQ46 DQ47 DQ48 DQ49 DQ50 DQ51 DQ52 DQ53 DQ54 DQ55 DQ56 DQ57 DQ58 DQ59 DQ60 DQ61 DQ62 DQ63
DDR2_DIMM_200P
12G025022004 A8ES.PR
Lower slot:
SPD/TS=A0/30
+1.8V
+3VS
C0801
0.1UF/16V
DIMM1B
VDD1 VDD2 VDD3 VDD4 VDD5 VDD6 VDD7 VDD8 VDD9 VDD10 VDD11 VDD12
VDDSPD
NC1 NC2 NC3 NC4 NCTEST
VREF
GND0 GND1
NP_NC1 NP_NC2
VSS1 VSS2 VSS3 VSS4 VSS5 VSS6 VSS7 VSS8 VSS9 VSS10 VSS11 VSS12 VSS13 VSS14 VSS15 VSS16 VSS17 VSS18 VSS19 VSS20 VSS21 VSS22 VSS23 VSS24 VSS25 VSS26 VSS27 VSS28 VSS29 VSS30 VSS31 VSS32 VSS33 VSS34 VSS35 VSS36 VSS37 VSS38 VSS39 VSS40 VSS41 VSS42 VSS43 VSS44 VSS45 VSS46 VSS47 VSS48 VSS49 VSS50 VSS51 VSS52 VSS53 VSS54 VSS55 VSS56 VSS57
DDR2_DIMM_200P
11 PM_EXTTS#0
VTT_REF
C0802
2.2UF/6.3V
C0803
0.1UF/16V
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
1UF/10V
CE0801
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 56Ohm 1 RN0907A
4 56Ohm 3 RN0907B
6 56Ohm 5 RN0907C
8 56Ohm 7 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



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
NB1C
DDR MUXING
CLK
DMI
PM
MISC
CRT
LVDS
TV
VGA
PCI-EXPRESS GRAPHICS
CRESTLINE_965PM
WWAN
Dual -Frequency Graphics Technology
THERMTRIP#:latched until RSTIN# is asserted
PM_DPRSTP#:B0 will change DPRSTP# buffer type from HVCMOS to LVCMOS
within 500mil;24.9Ohm impendance
CRB 1.301
Title : 965PM--DDR2/PEG (2)
ASUSTeK COMPUTER INC
Engineer:
Size
Custom
Project Name
A8ES
Rev
1.0
Date: 星期二, 二月 06, 2007
Sheet 11 of 94



ASUSTeK COMPUTER INC	Title : 965PM--DDR2 bus (3)	
	Engineer:	
Size: B	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 12 of 94	

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

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

+VCC_GMCH
+1.8V_GMCH
+VGFX_CORE
+VCCP
+1.8V
+VCC_AXM

NB1G
CRESTLINE_965PM

VCC CORE
VCC SM
VCC GFX NCTF
VCC GFX
VCC SM LF

POWER

Max: 1572mA
Max: 7000mA
Max: 3300mA
Max: 540mA

L1301 80Ohm/100Mhz
L1302 80Ohm/100Mhz
JP1304 2MM_OPEN_5MIL
JP1303 2MM_OPEN_5MIL
JP1302 2MM_OPEN_5MIL
A8ES.PR
A8ES.ER

NB1F
CRESTLINE_965PM

VCC NCTF
VSS NCTF
VCC AXM NCTF
VSS SCB
VCC AXM

POWER

<Variant Name>

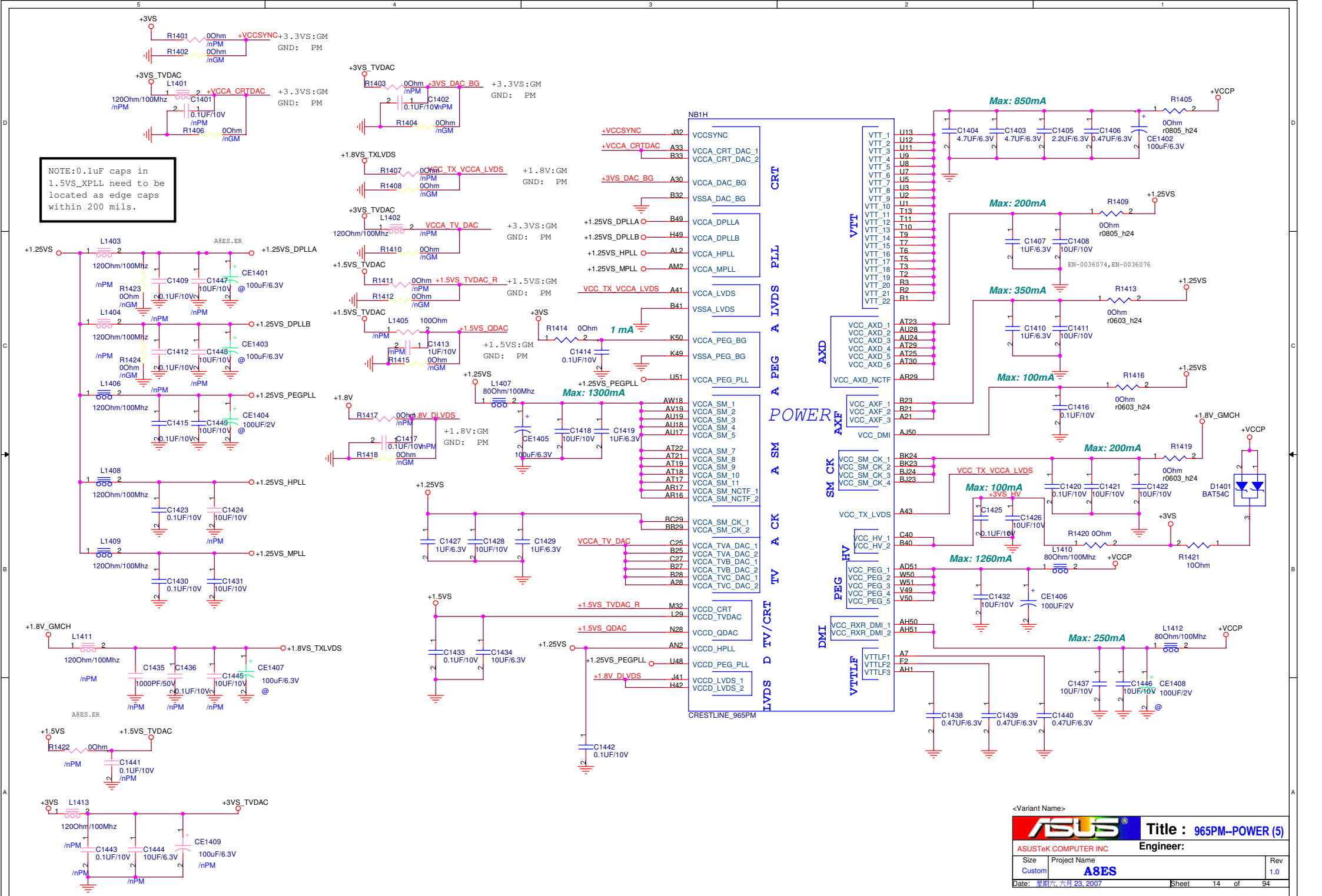
ASUSTeK COMPUTER INC

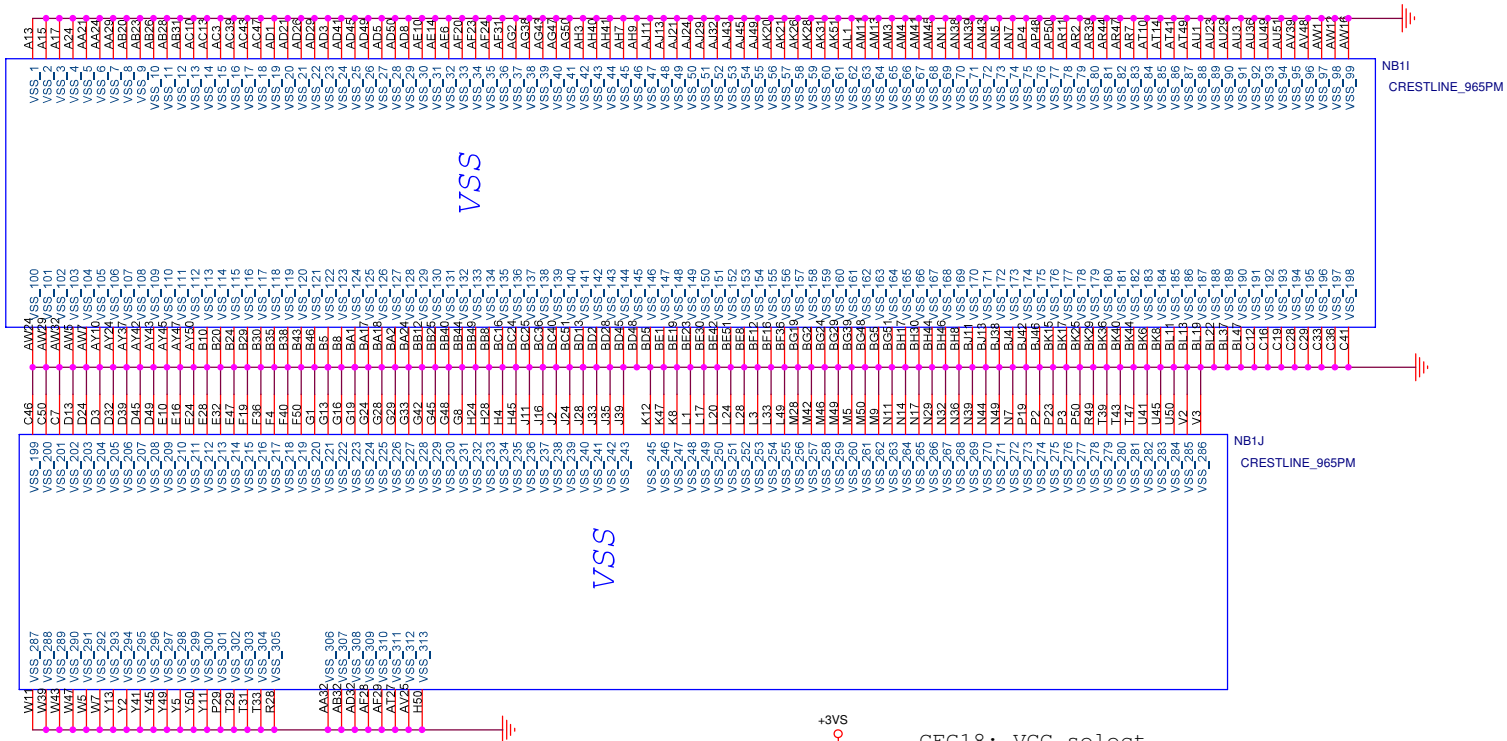
Title :965PM--POWER (4)

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
TV A CK
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
+VCCSYNC
+VCCA_CRTDAC
+3VS_DAC_BG
VCC_TX_VCCA_LVDS
+1.25VS_PEGPLL
+1.8V_DLVDS
+1.5VS_TVDAC_R
+1.5VS_QDAC
VCC_TX_LVDS
VCC_TV_DAC
+1.25VS_DPLLA
+1.25VS_DPLLB
+1.25VS_HPLL
+1.25VS_MPLL
+1.8VS_TXLVDS
+1.5VS_QDAC
+1.5VS_PEGPLL
+1.8V_GMCH
+1.5VS_TVDAC
+3VS_TVDAC
+3.3VS:GM
+1.8V:GM
+1.5VS:GM
GND: PM
A8ES.ER
EN-0036074,EN-0036076
HIGH = LANES REVERSED
<Variant Name>
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



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)

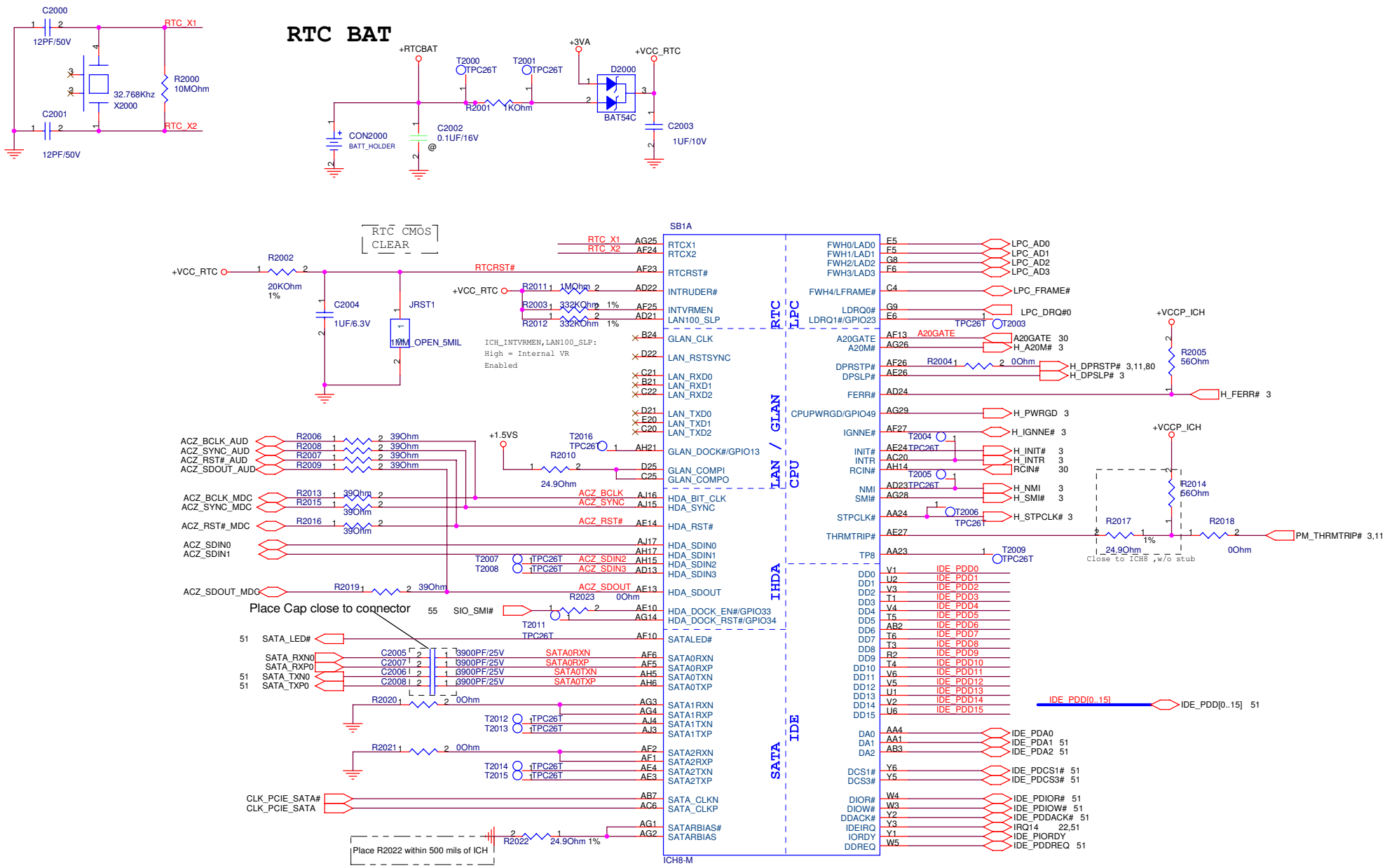
ASUSTeK COMPUTER INC
Title : GND/Strapping (6)
Engineer:
Size: Custom | Project Name: A8ES | Rev: 1.0
Date: 星期二, 二月 06, 2007 | Sheet 15 of 94

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	Project Name			Rev
A	A8ES			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>

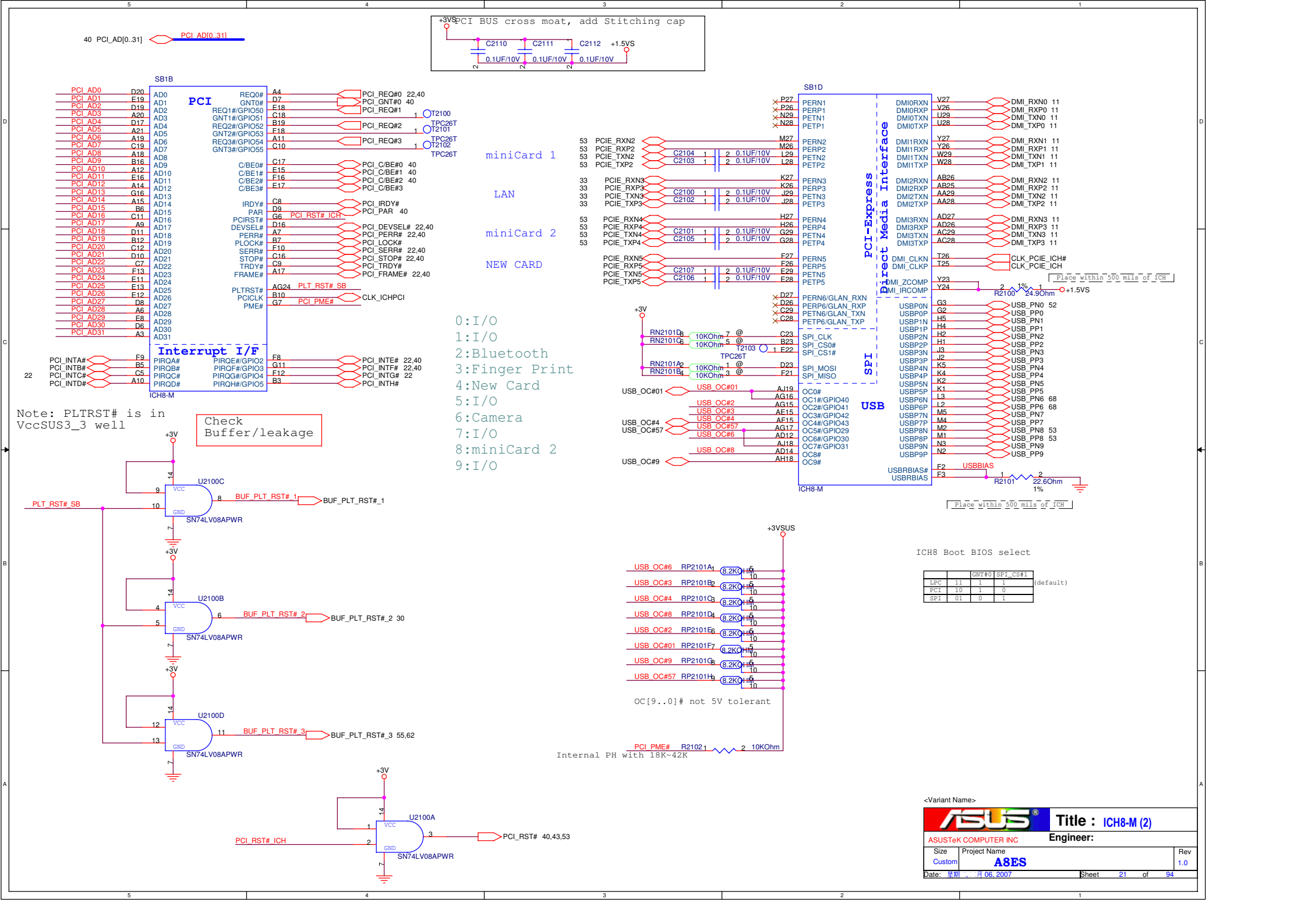
ASUSTeK COMPUTER INC

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


40 PCI_AD[0..31]
PCI_AD[0..31]
+3VS
PCI BUS cross moat, add Stitching cap
C2110
C2111
C2112
+1.5VS
0.1UF/10V
0.1UF/10V
0.1UF/10V
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
R2100
24.9Ohm
+1.5VS
R2101
22.6Ohm
1%
Note: PLTRST# is in VccSUS3_3 well
Check Buffer/leakage
U2100C
U2100B
U2100D
U2100A
SN74LV08APWR
PLT_RST#_SB
BUF_PLT_RST#_1
BUF_PLT_RST#_2
BUF_PLT_RST#_3
PCI_RST# ICH
PCI_RST# 40,43,53
+3VSUS
OC[9..0]# not 5V tolerant
Internal PH with 18K~42K
ICH8 Boot BIOS select
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 一, 一月 06, 2007
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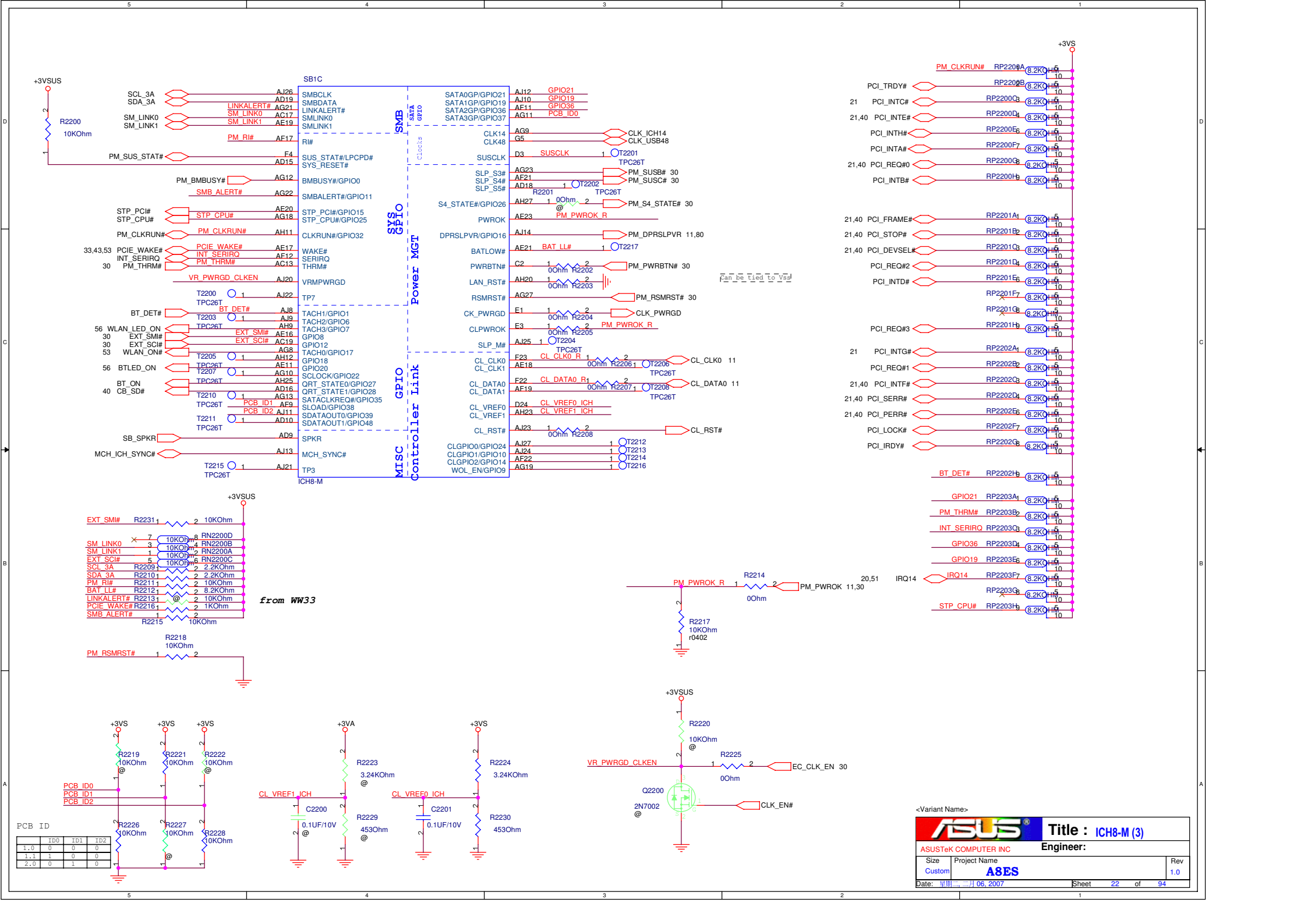
SB1C
ICH8-M
SMB
SATA GPIO
Clocks
SYS GPIO
Power MGT
GPIO
Controller Link
MISC
+3VSUS
+3VS
+3VA
SCL_3A
SDA_3A
SM_LINK0
SM_LINK1
LINKALERT#
PM_RI#
PM_SUS_STAT#
PM_BMBUSY#
SMB_ALERT#
STP_PCI#
STP_CPU#
PM_CLKRUN#
PCIE_WAKE#
INT_SERIRQ
PM_THRM#
VR_PWRGD_CLKEN
BT_DET#
WLAN_LED_ON
EXT_SMI#
EXT_SCI#
WLAN_ON#
BTLED_ON
BT_ON
CB_SD#
PCB_ID1
PCB_ID2
SB_SPKR
MCH_ICH_SYNC#
SMBCLK
SMBDATA
LINKALERT#
SMLINK0
SMLINK1
RI#
SUS_STAT#/LPCPD#
SYS_RESET#
BMBUSY#/GPIO0
SMBALERT#/GPIO11
STP_PCI#/GPIO15
STP_CPU#/GPIO25
CLKRUN#/GPIO32
WAKE#
SERIRQ
THRM#
VRMPWRGD
TP7
TACH1/GPIO1
TACH2/GPIO6
TACH3/GPIO7
GPIO8
GPIO12
TACH0/GPIO17
GPIO18
GPIO20
SCLOCK/GPIO22
QRT_STATE0/GPIO27
QRT_STATE1/GPIO28
SATACLKREQ#/GPIO35
SLOAD/GPIO38
SDATAOUT0/GPIO39
SDATAOUT1/GPIO48
SPKR
MCH_SYNC#
TP3
SATA0GP/GPIO21
SATA1GP/GPIO19
SATA2GP/GPIO36
SATA3GP/GPIO37
CLK14
CLK48
SUSCLK
SLP_S3#
SLP_S4#
SLP_S5#
S4_STATE#/GPIO26
PWROK
DPRSLPVR/GPIO16
BATLOW#
PWRBTN#
LAN_RST#
RSMRST#
CK_PWRGD
CLPWROK
SLP_M#
CL_CLK0
CL_CLK1
CL_DATA0
CL_DATA1
CL_VREF0
CL_VREF1
CL_RST#
CLGPIO0/GPIO24
CLGPIO1/GPIO10
CLGPIO2/GPIO14
WOL_EN/GPIO9
CLK_ICH14
CLK_USB48
PM_SUSB# 30
PM_SUSC# 30
PM_S4_STATE# 30
PM_PWROK_R
PM_DPRSLPVR 11,80
PM_PWRBTN# 30
CLK_PWRGD
PM_RSMRST# 30
PM_PWROK_R
CL_CLK0 11
CL_DATA0 11
CL_RST#
Can be tied to Vss
PM_CLKRUN#
PCI_TRDY#
PCI_INTC#
PCI_INTE#
PCI_INTH#
PCI_INTA#
PCI_REQ#0
PCI_INTB#
PCI_FRAME#
PCI_STOP#
PCI_DEVSEL#
PCI_REQ#2
PCI_INTD#
PCI_REQ#3
PCI_INTG#
PCI_REQ#1
PCI_INTF#
PCI_SERR#
PCI_PERR#
PCI_LOCK#
PCI_IRDY#
GPIO21
PM_THRM#
INT_SERIRQ
GPIO36
GPIO19
IRQ14
STP_CPU#
PM_PWROK
from WW33
VR_PWRGD_CLKEN
EC_CLK_EN 30
Q2200
2N7002
CLK_EN#
PCB ID
<Variant Name>
Title : ICH8-M (3)
ASUSTeK COMPUTER INC
Engineer:
Size Custom
Project Name A8ES
Rev 1.0
Date: 星期二, 二月 06, 2007
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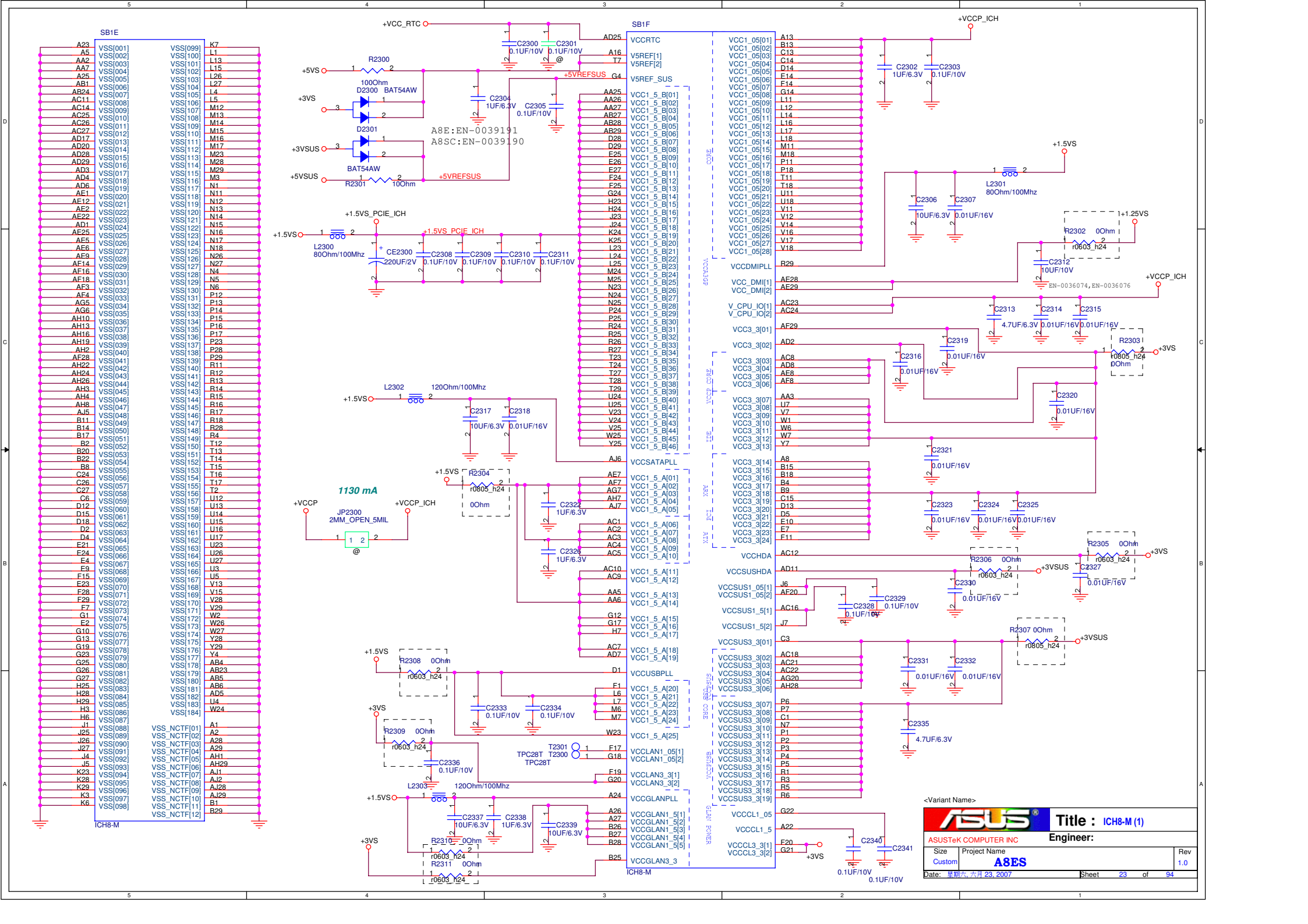
SB1E
ICH8-M
SB1F
ICH8-M
A8E:EN-0039191
A8SC:EN-0039190
1130 mA
+VCC_RTC
+5VS
+3VS
+3VSUS
+5VSUS
+5VREFSUS
+1.5VS
+1.5VS_PCIE_ICH
+VCCP
+VCCP_ICH
+1.25VS
+3VSUS
R2300
D2300 BAT54AW
D2301
BAT54AW
R2301
10Ohm
L2300
80Ohm/100Mhz
L2301
80Ohm/100Mhz
L2302
120Ohm/100Mhz
L2303
120Ohm/100Mhz
JP2300
2MM_OPEN_5MIL
T2301
T2300
TPC28T
TPC28T
<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
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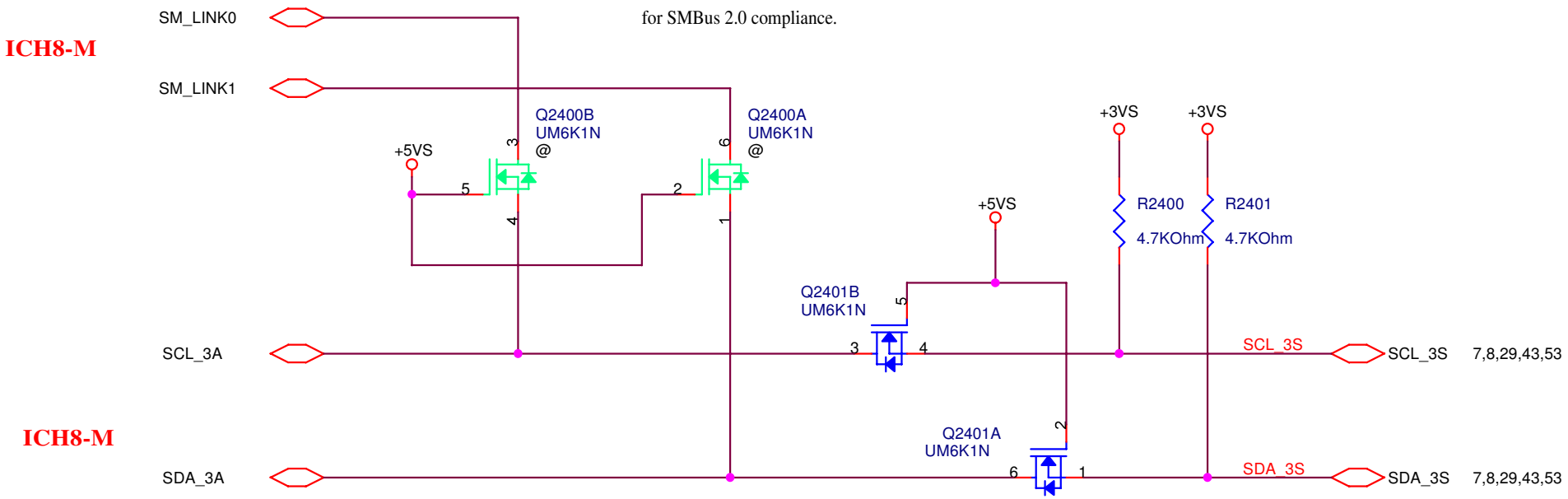
Check

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

Title : BLANK

ASUSTeK COMPUTER INC

Engineer:

Size	Project Name	Rev
A	A8ES	0

Date: 星期三, 十月 11, 2006 Sheet 26 of 94

Title : BLANK

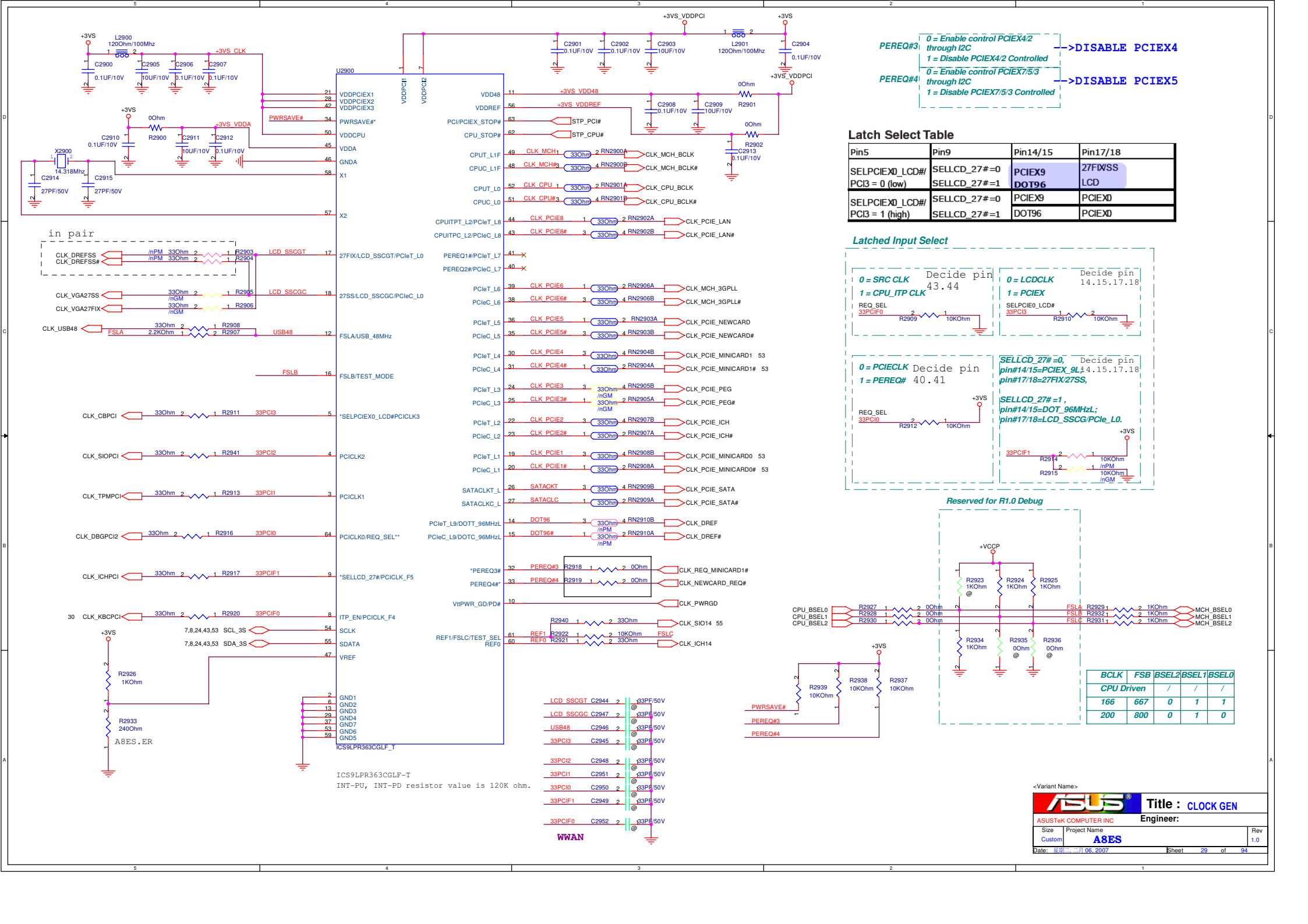
ASUSTeK COMPUTER INC

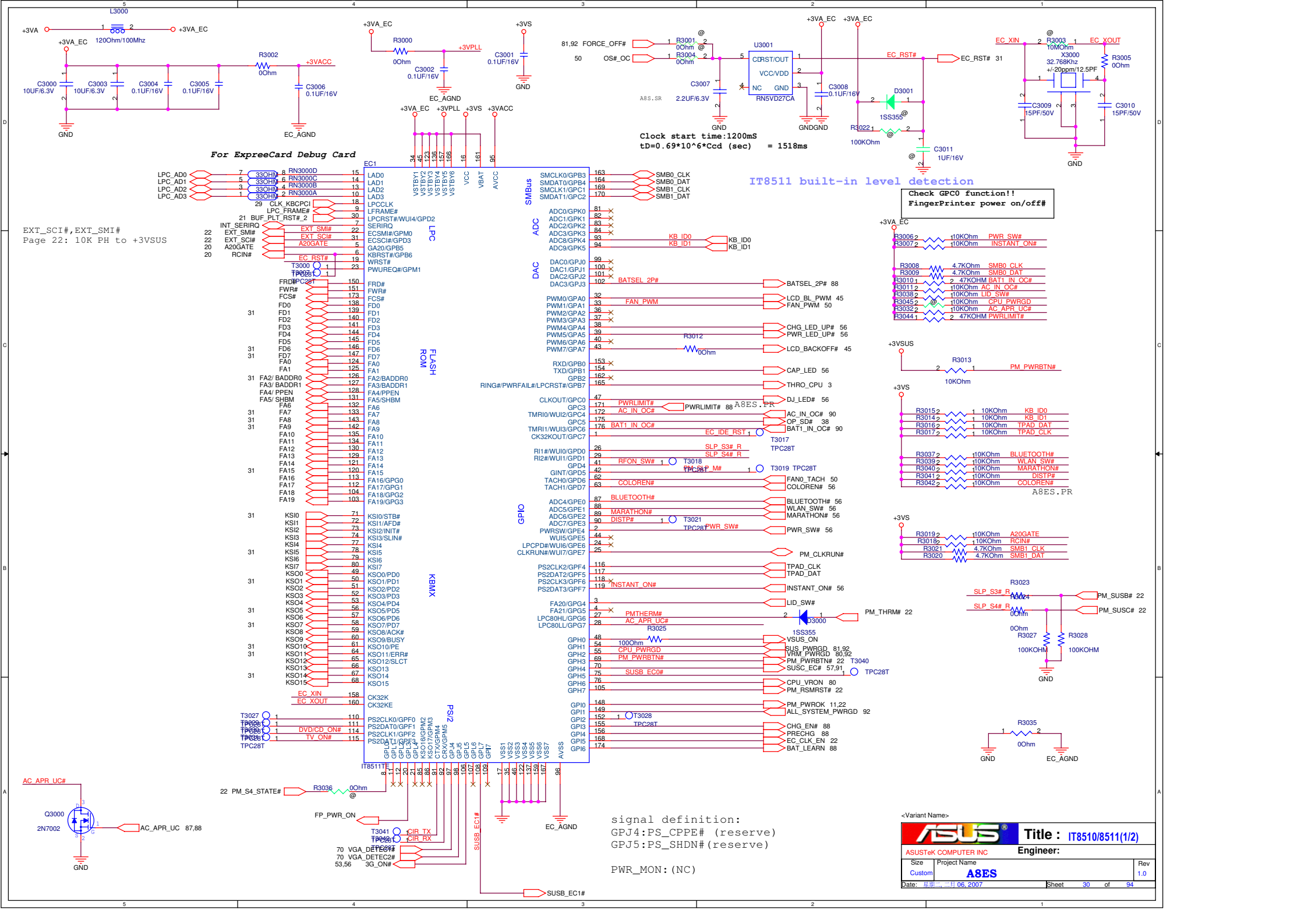
Engineer:

Size	Project Name	Rev
A	A8ES	0

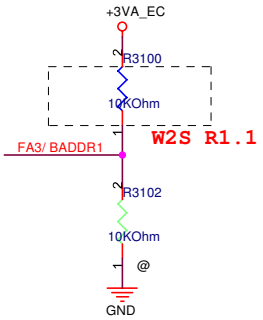
Date: 星期三, 十月 11, 2006 Sheet 27 of 94

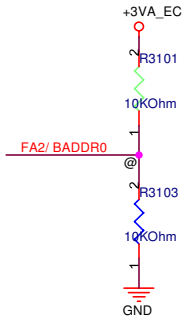
ASUSTeK COMPUTER INC	Title : BLANK			
	Engineer:			
Size: A	Project Name: A8ES			Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 28 of 94			


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
+3VS
SELLCD_27# =0, Decide pin 14.15.17.18
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.
33PCIF1
R2914
R2915
10KOhm
/nPM
/nGM
Reserved for R1.0 Debug
+VCCP
R2923 1KOhm @
R2924 1KOhm
R2925 1KOhm
CPU_BSEL0
CPU_BSEL1
CPU_BSEL2
R2927 0Ohm
R2928 0Ohm
R2930 0Ohm
FSLA R2929 1KOhm
FSLB R2932 1KOhm
FSLC R2931 1KOhm
MCH_BSEL0
MCH_BSEL1
MCH_BSEL2
R2934 1KOhm
R2935 0Ohm @
R2936 0Ohm @
+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
C3001 0.1UF/16V
+3VS
GND
81,92 FORCE_OFF#
50 OS#_OC
R3001 0Ohm
R3004 0Ohm
U3001
CRST/OUT
VCC/VDD
NC GND
RN5VD27CA
C3007 2.2UF/6.3V
A8S.SR
C3008 0.1UF/16V
EC_RST#
EC_RST# 31
D3001
1SS355
R3022 100KOhm
C3011 1UF/16V
EC_XIN
EC_XOUT
R3003 10MOhm
X3000 32.768Khz +/-20ppm/12.5PF
R3005 0Ohm
C3009 15PF/50V
C3010 15PF/50V
Clock start time:1200mS
tD=0.69*10^6*Ccd (sec) = 1518ms
For ExpreeCard Debug Card
EC1
IT8511 built-in level detection
Check GPC0 function!!
FingerPrinter power on/off#
EXT_SCI#,EXT_SMI#
Page 22: 10K PH to +3VSUS
LPC_AD0
LPC_AD1
LPC_AD2
LPC_AD3
33OHM
RN3000D
RN3000C
RN3000B
RN3000A
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
LAD0
LAD1
LAD2
LAD3
LPCCLK
LFRAME#
LPCRST#/WUI4/GPD2
SERIRQ
ECSMI#/GPM0
ECSCI#/GPD3
GA20/GPB5
KBRST#/GPB6
WRST#
PWUREQ#/GPM1
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
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 45
FAN_PWM 50
CHG_LED_UP# 56
PWR_LED_UP# 56
LCD_BACKOFF# 45
RXD/GPB0
TXD/GPB1
GPB2
RING#/PWRFAIL#/LPCRST#/GPB7
CAP_LED 56
THRO_CPU 3
CLKOUT/GPC0
GPC3
TMRI0/WUI2/GPC4
GPC5
TMRI1/WUI3/GPC6
CK32KOUT/GPC7
PWRLIMIT#
AC_IN_OC#
BAT1_IN_OC#
EC_IDE_RST
DJ_LED# 56
PWRLIMIT# 88
A8ES.PR
AC_IN_OC# 90
OP_SD# 38
BAT1_IN_OC# 90
T3017 TPC28T
RI1#/WUI0/GPD0
RI2#/WUI1/GPD1
GPD4
GINT/GPD5
TACH0/GPD6
TACH1/GPD7
SLP_S3#_R
SLP_S4#_R
RFON_SW#
T3018 TPC28T
PWR_SW#_M
T3019 TPC28T
COLOREN#
FAN0_TACH 50
COLOREN# 56
ADC4/GPE0
ADC5/GPE1
ADC6/GPE2
ADC7/GPE3
PWRSW/GPE4
WUI5/GPE5
LPCPD#/WUI6/GPE6
CLKRUN#/WUI7/GPE7
BLUETOOTH#
MARATHON#
DISTP#
T3021 TPC28T
PWR_SW#
BLUETOOTH# 56
WLAN_SW# 56
MARATHON# 56
PWR_SW# 56
PM_CLKRUN#
PS2CLK2/GPF4
PS2DAT2/GPF5
PS2CLK3/GPF6
PS2DAT3/GPF7
TPAD_CLK
TPAD_DAT
INSTANT_ON#
INSTANT_ON# 56
FA20/GPG4
FA21/GPG5
LPC80HL/GPG6
LPC80LL/GPG7
LID_SW#
PMTHERM#
AC_APR_UC#
PM_THRM# 22
D3000 1SS355
R3025 100Ohm
GPH0
GPH1
GPH2
GPH3
GPH4
GPH5
GPH6
GPH7
VSUS_ON
SUS_PWRGD 81,92
VRM_PWRGD 80,92
PM_PWRBTN# 22
SUSC_EC# 57,91
CPU_PWRGD
PM_PWRBTN#
SUSB_EC0#
T3040 TPC28T
CPU_VRON 80
PM_RSMRST# 22
GPI0
GPI1
GPI2
GPI3
GPI4
GPI5
GPI6
PM_PWROK 11,22
ALL_SYSTEM_PWRGD 92
T3028 TPC28T
CHG_EN# 88
PRECHG 88
EC_CLK_EN 22
BAT_LEARN 88
IT8511TE
+3VA_EC
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#
+3VSUS
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
AC_APR_UC#
Q3000 2N7002
AC_APR_UC 87,88
R3036 0Ohm
22 PM_S4_STATE#
FP_PWR_ON
T3041 CIR_TX
T3042 CIR_RX
70 VGA_DETEC1#
70 VGA_DETEC2#
53,56 3G_ON#
SUSB_EC1#
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

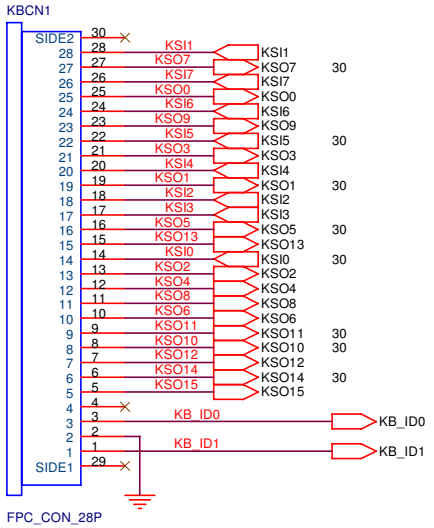
10:Determined by EC

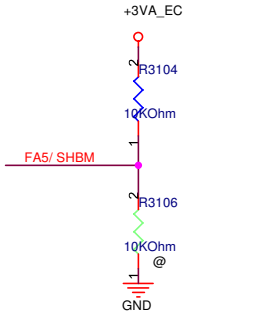


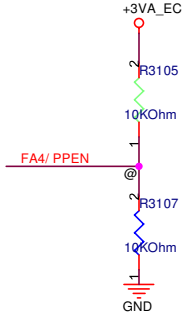


BADDR[1:0]
No pull up:
The register pair to access PNPCFG is 002Eh and 002Fh.
Ext 10K up on BADDR0:
The register pair to access PNPCFG is 004Eh and 004Fh.
Ext 10K up on BADDR1:
The register pair to access PNPCFG is determined by EC domain registers SWCBALR and SWCBAHR.

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

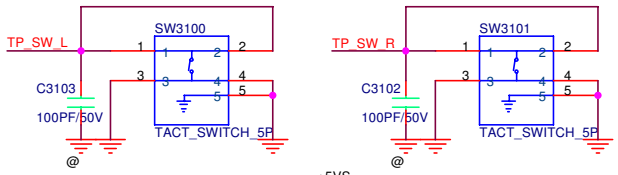




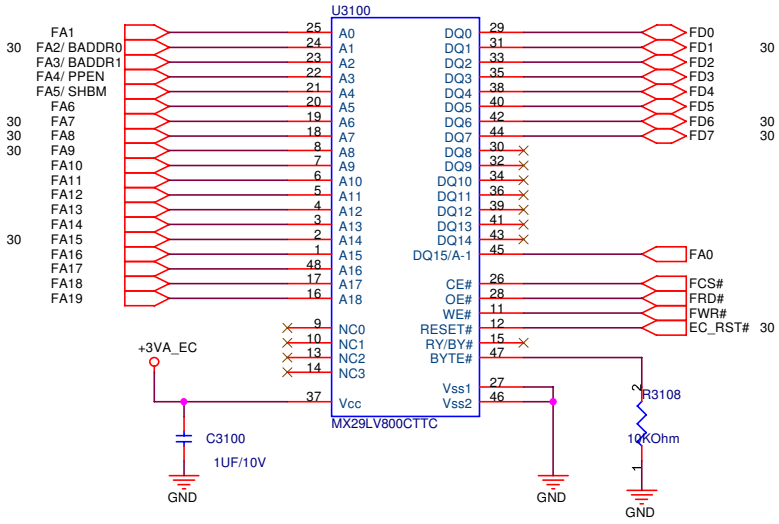


SHBM
No pull up:
disable shared memory with host BIOS
Ext 10K up:
enable shared memory with host BIOS

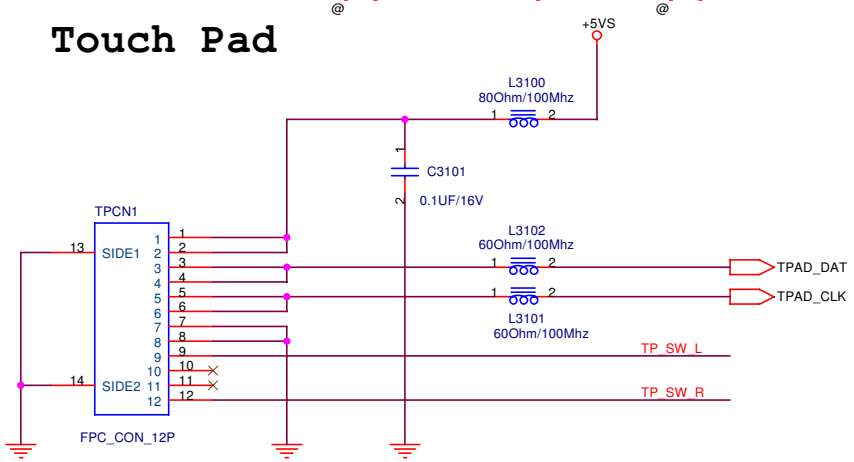
PPEN
No pull up:
Normal
Ext 10K up:
KBS interface pins are switched to parallel port interface for in-system programming.



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	

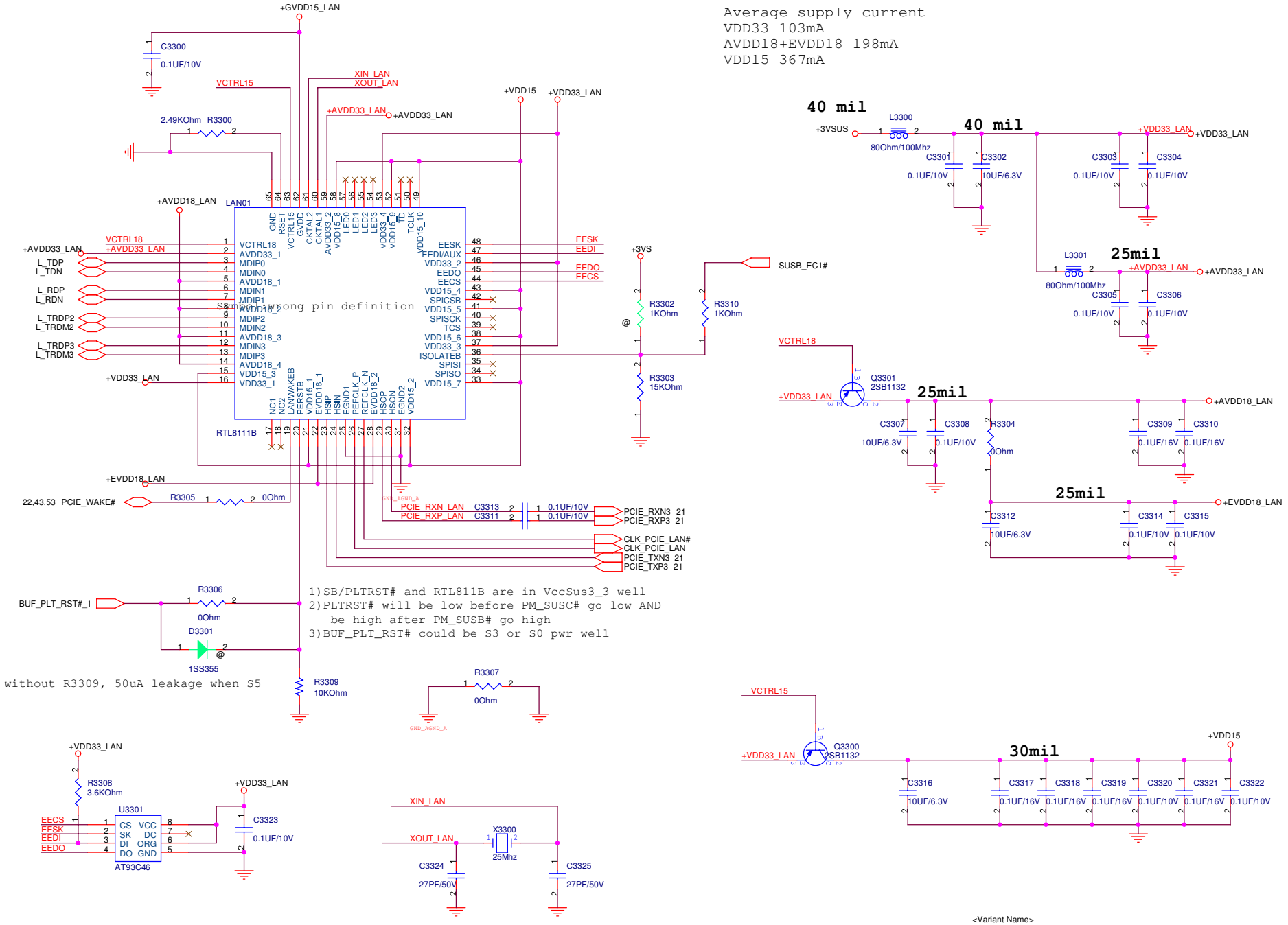
Title : BLANK

ASUSTeK COMPUTER INC

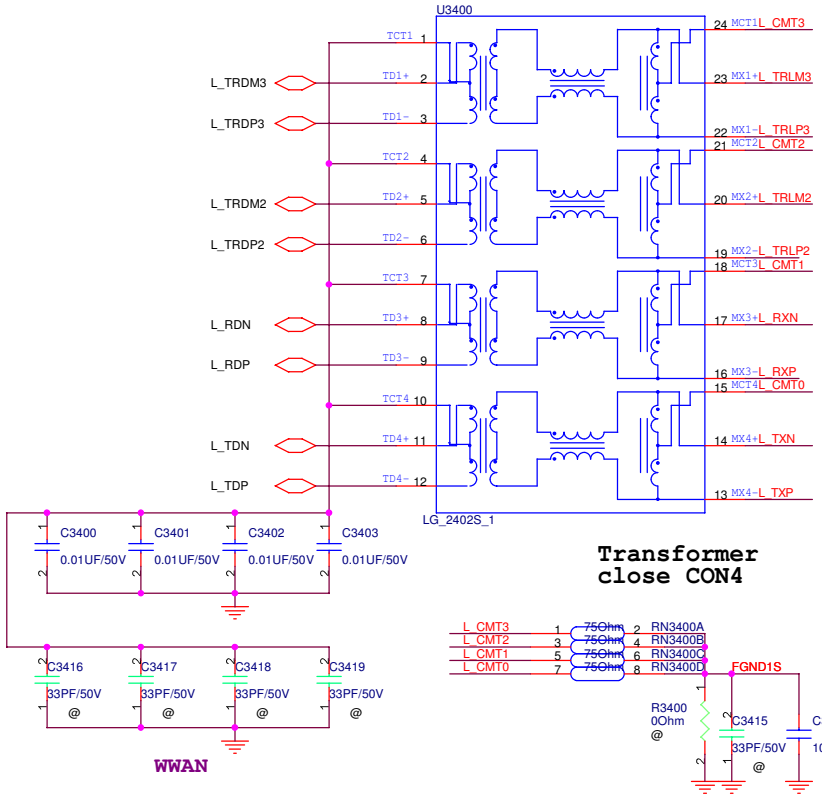
Engineer:

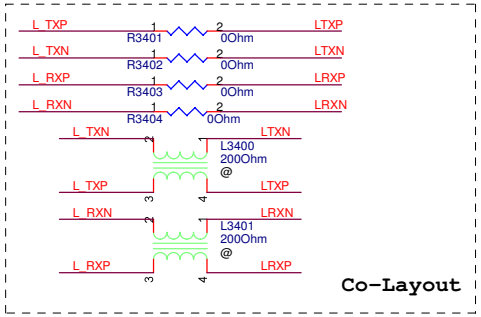
Size	Project Name	Rev
A	A8ES	0

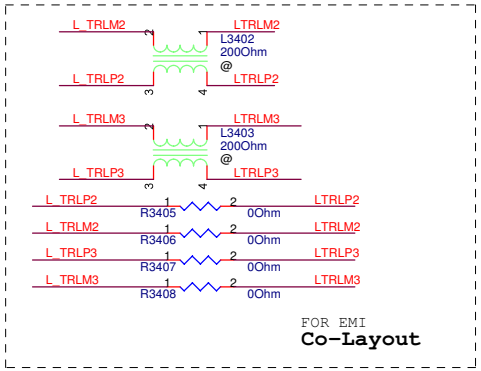
Date: 星期三, 十月 11, 2006 Sheet 32 of 94

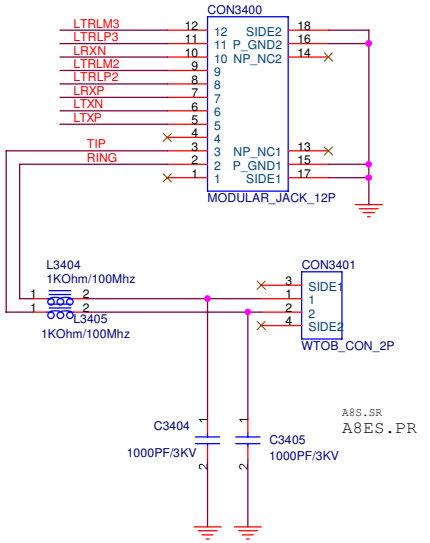

Average supply current
VDD33 103mA
AVDD18+EVDD18 198mA
VDD15 367mA
+GVDD15_LAN
C3300
0.1UF/10V
VCTRL15
XIN_LAN
XOUT_LAN
+VDD15
+VDD33_LAN
+AVDD33_LAN
2.49KOhm R3300
+AVDD18_LAN
LAN01
RTL8111B
VCTRL18
L_TDP
L_TDN
L_RDP
L_RDN
L_TRDP2
L_TRDM2
L_TRDP3
L_TRDM3
EESK
EEDI
EEDO
EECS
SPICSB
SPISCK
SPISI
SPISO
TCS
ISOLATEB
Symbol wrong pin definition
+3VS
SUSB_EC1#
R3302
1KOhm
R3310
1KOhm
R3303
15KOhm
+EVDD18_LAN
22,43,53 PCIE_WAKE#
R3305
0Ohm
PCIE_RXN_LAN
PCIE_RXP_LAN
C3313
C3311
0.1UF/10V
PCIE_RXN3 21
PCIE_RXP3 21
CLK_PCIE_LAN#
CLK_PCIE_LAN
PCIE_TXN3 21
PCIE_TXP3 21
BUF_PLT_RST#_1
R3306
0Ohm
D3301
1SS355
without R3309, 50uA leakage when S5
R3309
10KOhm
R3307
0Ohm
1) SB/PLTRST# and RTL811B are in VccSus3_3 well
2) PLTRST# will be low before PM_SUSC# go low AND
be high after PM_SUSB# go high
3) BUF_PLT_RST# could be S3 or S0 pwr well
R3308
3.6KOhm
U3301
AT93C46
C3323
0.1UF/10V
XIN_LAN
XOUT_LAN
X3300
25Mhz
C3324
27PF/50V
C3325
27PF/50V
40 mil
L3300
80Ohm/100Mhz
C3301
0.1UF/10V
C3302
10UF/6.3V
C3303
0.1UF/10V
C3304
0.1UF/10V
25mil
L3301
80Ohm/100Mhz
C3305
0.1UF/10V
C3306
0.1UF/10V
Q3301
2SB1132
C3307
10UF/6.3V
C3308
0.1UF/10V
R3304
0Ohm
C3309
0.1UF/16V
C3310
0.1UF/16V
C3312
10UF/6.3V
C3314
0.1UF/10V
C3315
0.1UF/10V
Q3300
2SB1132
30mil
C3316
10UF/6.3V
C3317
0.1UF/16V
C3318
0.1UF/16V
C3319
0.1UF/16V
C3320
0.1UF/10V
C3321
0.1UF/16V
C3322
0.1UF/10V
<Variant Name>
Title : GigaLAN
ASUSTeK COMPUTER INC
Engineer:
Size
Custom
Project Name
A8ES
Rev
1.0
Date: 星期 ., .月 06, 2007
Sheet 33 of 94

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

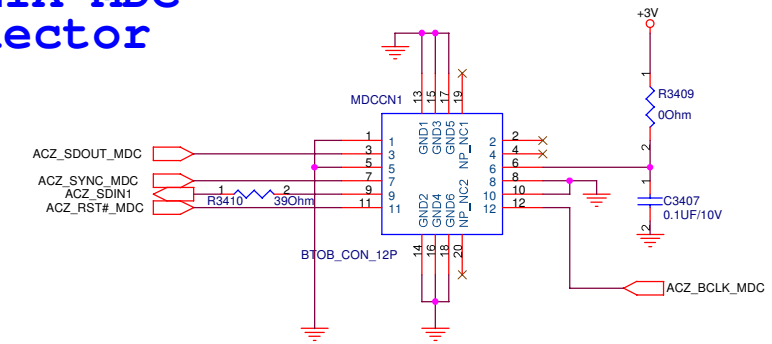








AZALIA MDC Connector



<Variant Name>

ASUSTeK COMPUTER INC

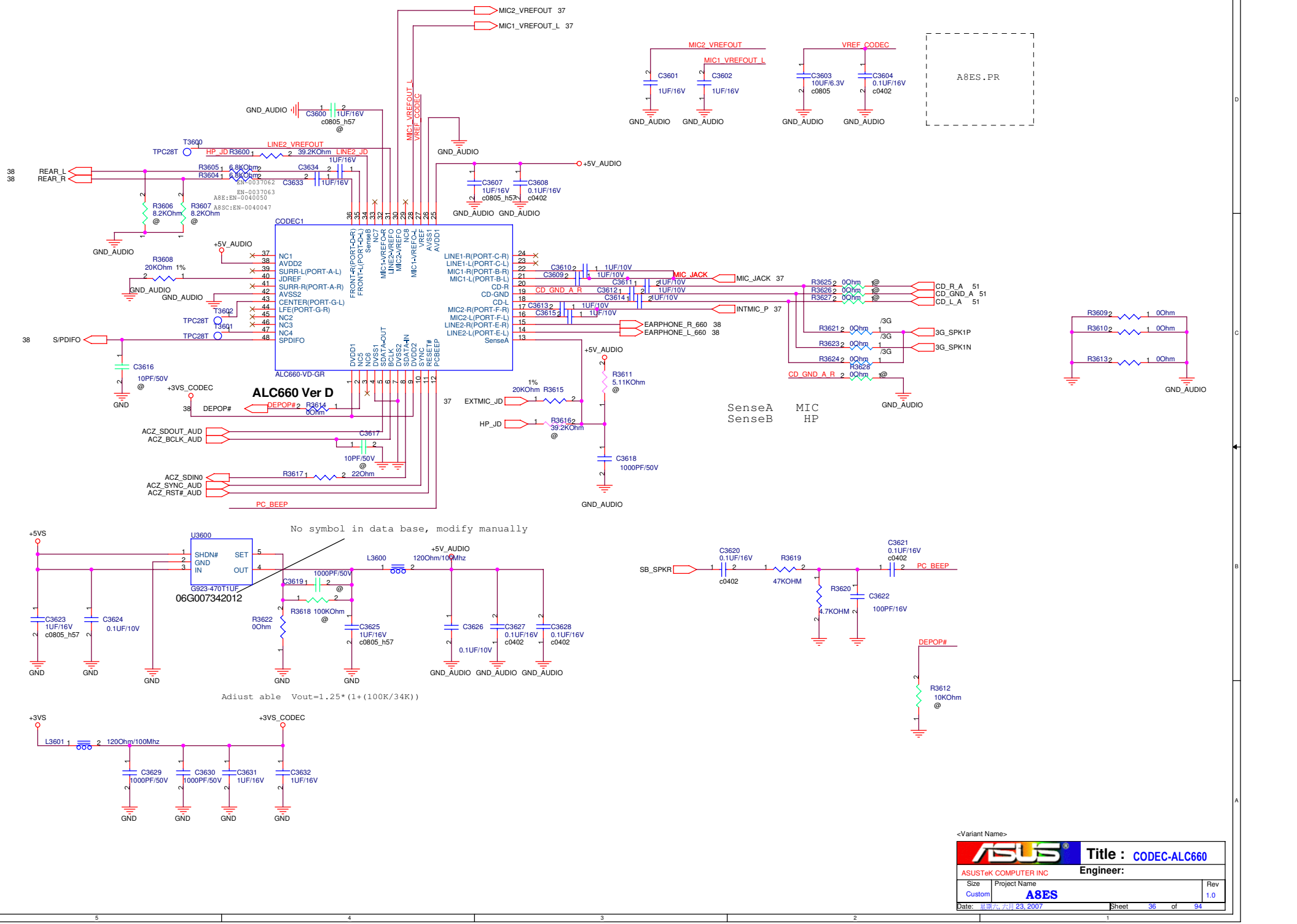
Title : RJ11+45 , MDC

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>

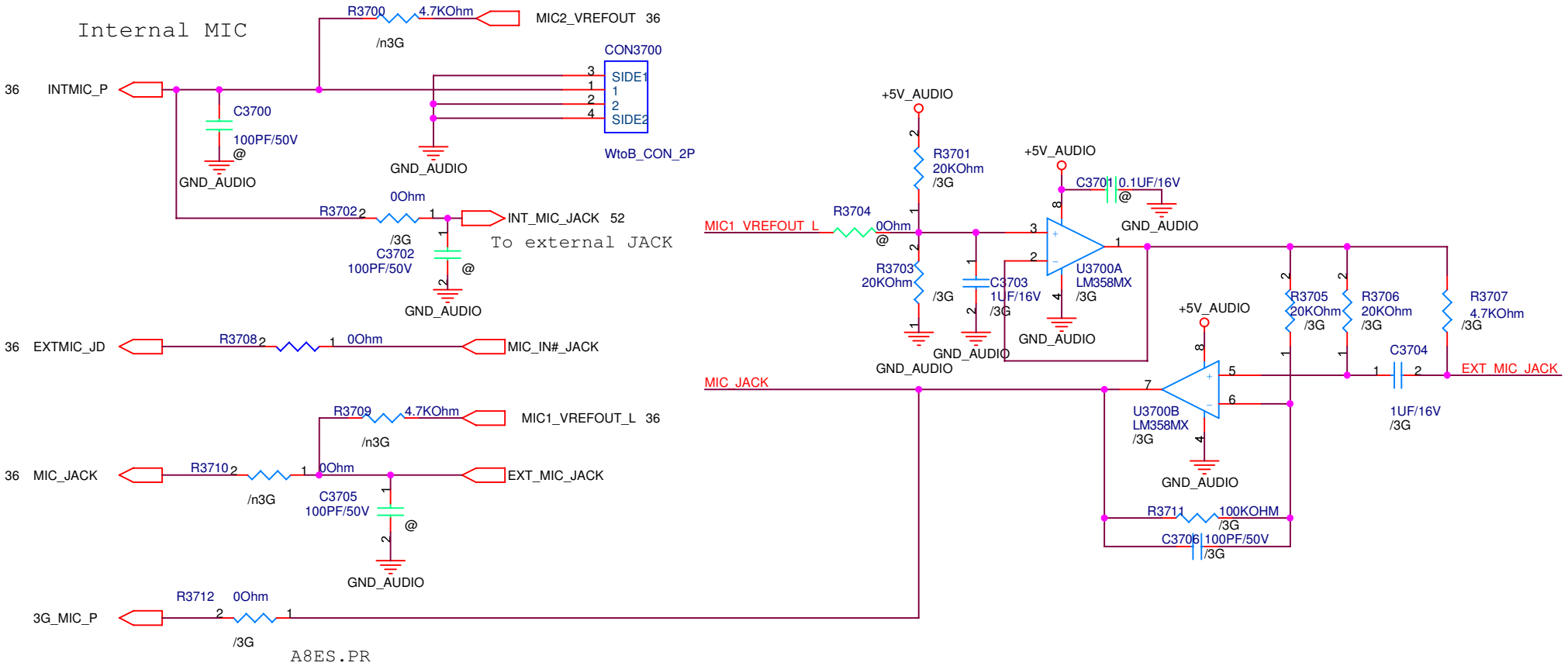
ASUSTeK COMPUTER INC

Title : CODEC-ALC660

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

Date: 星期六, 六月 23, 2007 Sheet 36 of 94



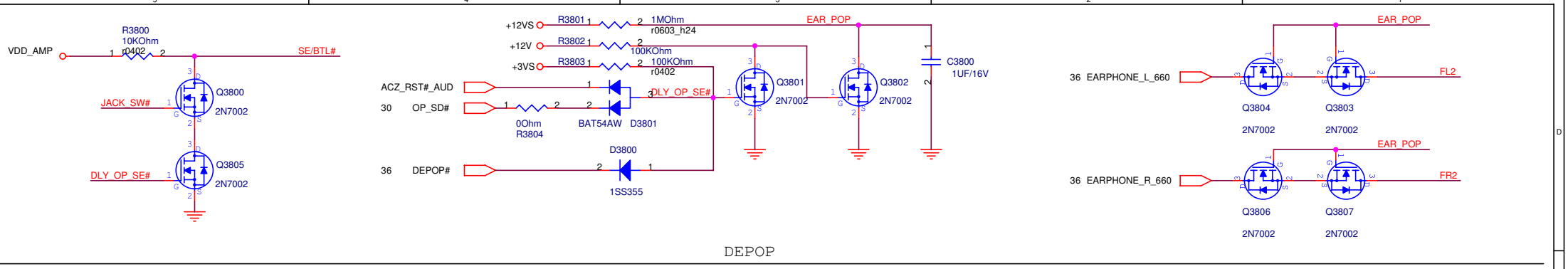
ASUSTeK COMPUTER INC

Title : AUDIO-MIC

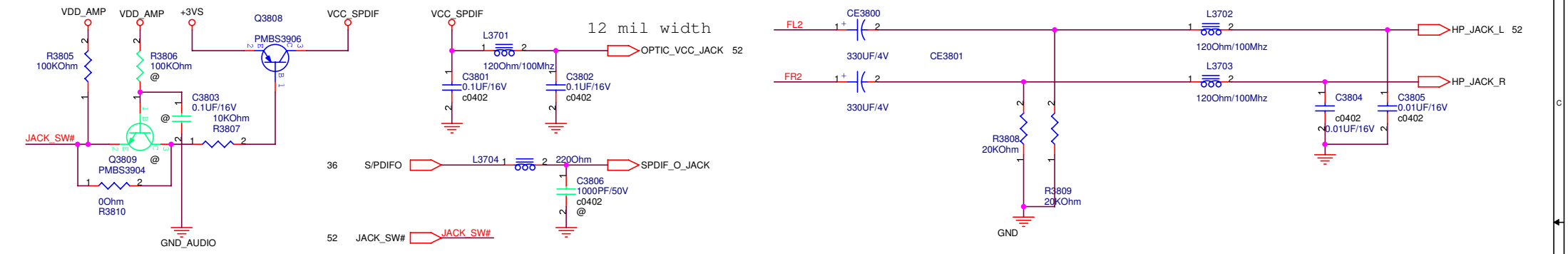
Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

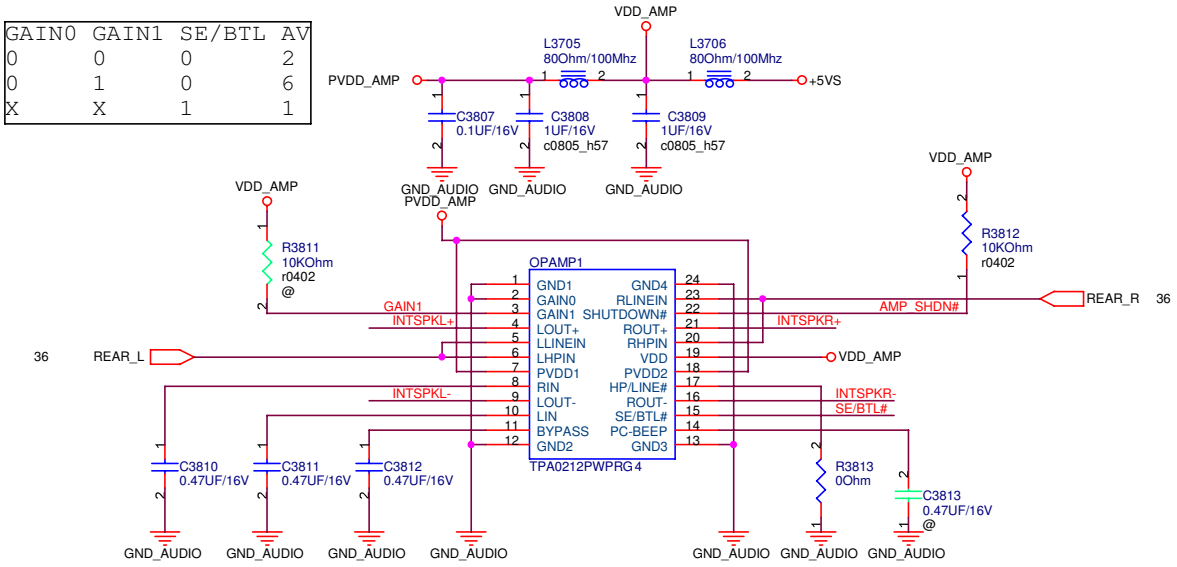
Date: 星期二, 二月 06, 2007 Sheet 37 of 94

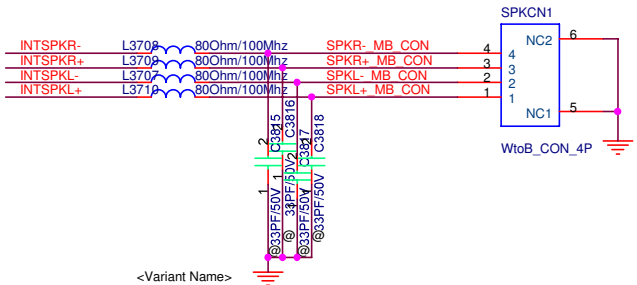


DEPOP



GAIN0	GAIN1	SE/BTL	AV
0	0	0	2
0	1	0	6
X	X	1	1





<Variant Name>

ASUSTeK COMPUTER INC

Title : AUDIO-OP

Engineer:

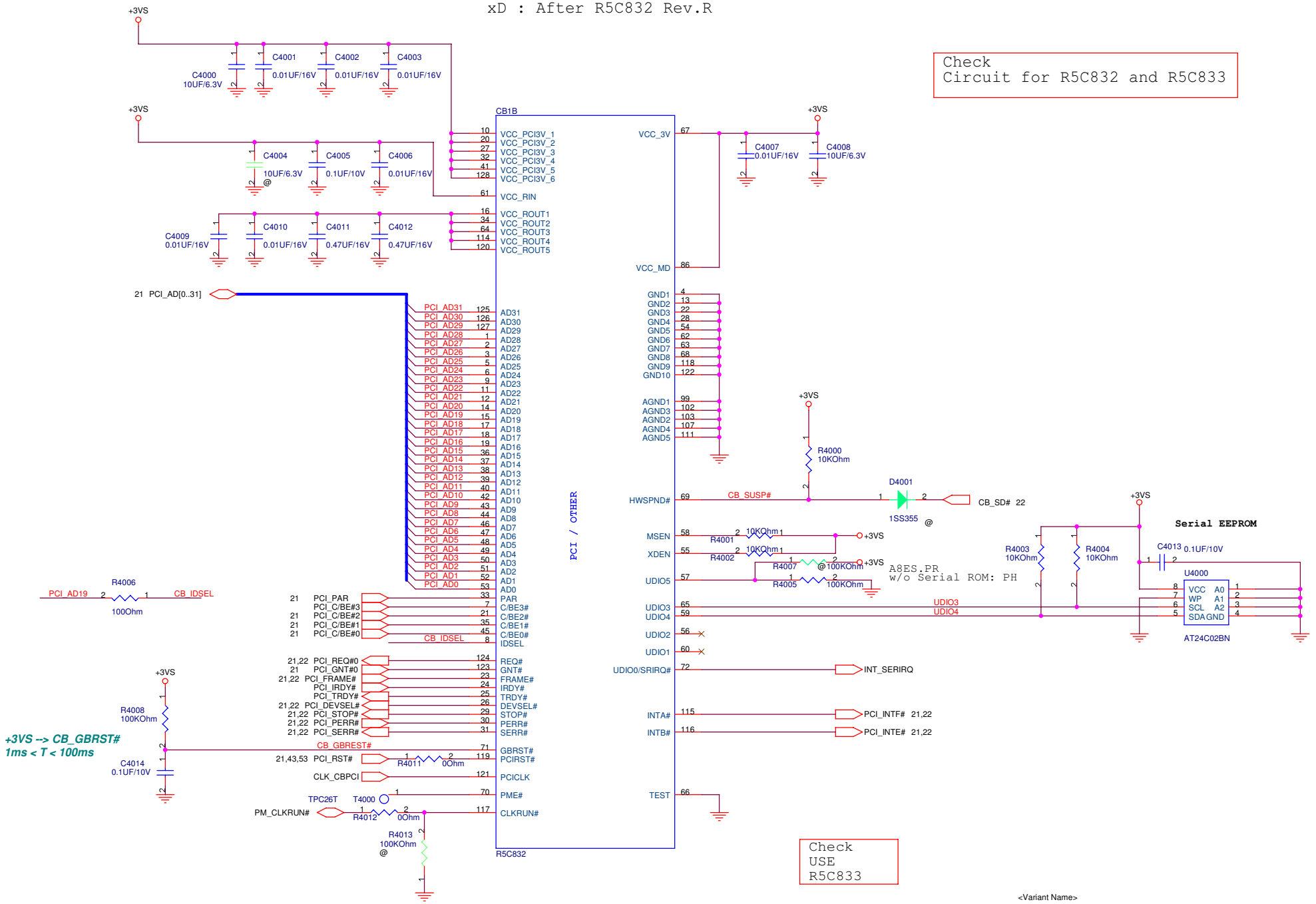
Size	Project Name	Rev
B	A8ES	1.0

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>

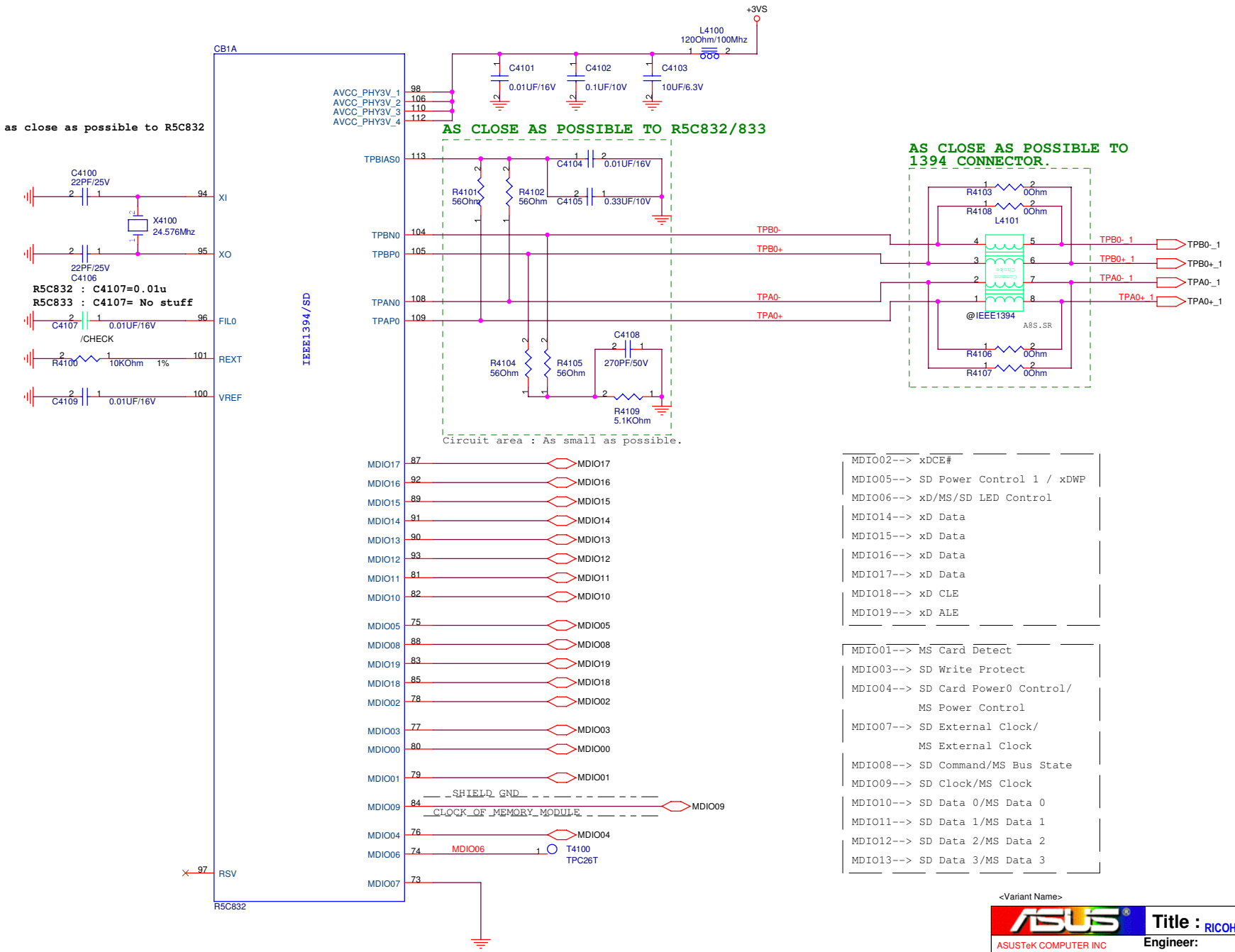
ASUSTeK COMPUTER INC

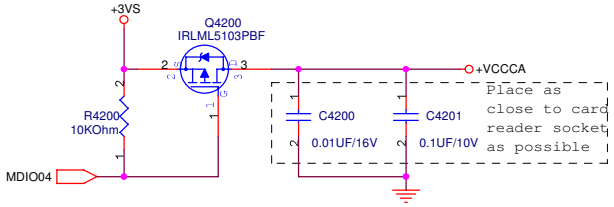
Title : RICOH R5C832/PCI_B

Engineer:

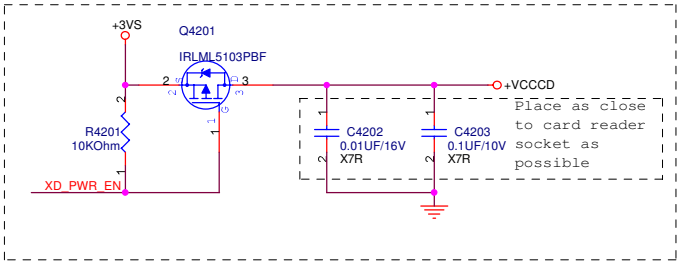
Size	Project Name	Rev
Custom	A8ES	1.0

Date: 星期二, 三月 06, 2007 Sheet 40 of 94

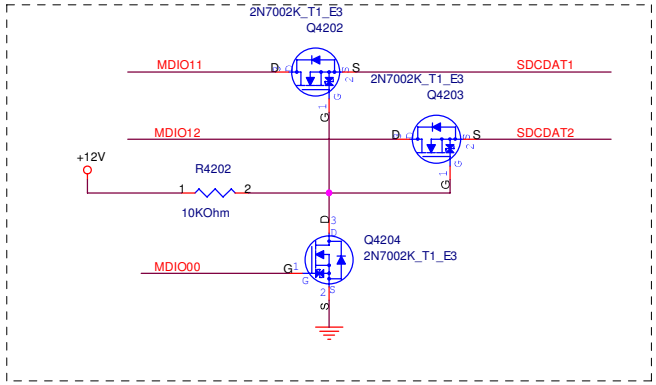

as close as possible to R5C832
CB1A
IEEE1394/SD
R5C832
C4100
22PF/25V
X4100
24.576Mhz
C4106
22PF/25V
R5C832 : C4107=0.01u
R5C833 : C4107= No stuff
C4107
0.01UF/16V
/CHECK
R4100
10KOhm 1%
C4109
0.01UF/16V
XI
XO
FIL0
REXT
VREF
RSV
+3VS
L4100
120Ohm/100Mhz
C4101
0.01UF/16V
C4102
0.1UF/10V
C4103
10UF/6.3V
AVCC_PHY3V_1
AVCC_PHY3V_2
AVCC_PHY3V_3
AVCC_PHY3V_4
AS CLOSE AS POSSIBLE TO R5C832/833
TPBIAS0
R4101
56Ohm
R4102
56Ohm
C4104
0.01UF/16V
C4105
0.33UF/10V
TPBN0
TPBP0
TPAN0
TPAP0
R4104
56Ohm
R4105
56Ohm
C4108
270PF/50V
R4109
5.1KOhm
Circuit area : As small as possible.
TPB0-
TPB0+
TPA0-
TPA0+
AS CLOSE AS POSSIBLE TO
1394 CONNECTOR.
R4103
0Ohm
R4108
0Ohm
L4101
R4106
0Ohm
R4107
0Ohm
@IEEE1394
A8S.SR
TPB0-_1
TPB0+_1
TPA0-_1
TPA0+_1
MDIO17
MDIO16
MDIO15
MDIO14
MDIO13
MDIO12
MDIO11
MDIO10
MDIO05
MDIO08
MDIO19
MDIO18
MDIO02
MDIO03
MDIO00
MDIO01
SHIELD GND
MDIO09
CLOCK OF MEMORY MODULE
MDIO04
MDIO06
MDIO07
T4100
TPC26T
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
MDIO01--> MS Card Detect
MDIO03--> SD Write Protect
MDIO04--> SD Card Power0 Control/
MS Power Control
MDIO07--> SD External Clock/
MS External Clock
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
<Variant Name>
Title : RICOH R5C832/PCI_A
ASUSTeK COMPUTER INC
Engineer:
Size
Custom
Project Name
A8ES
Rev
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.

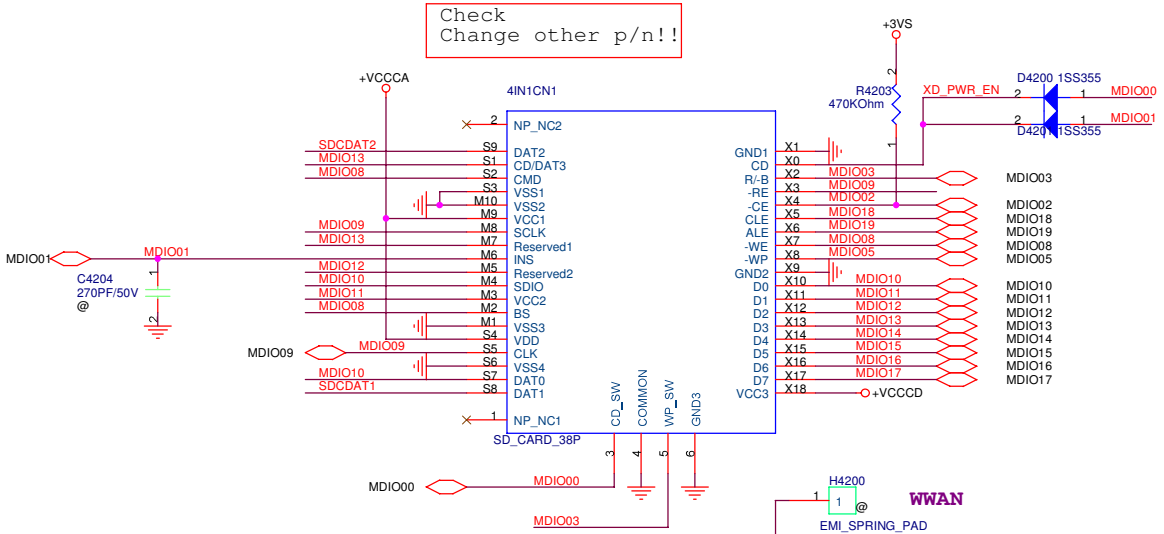


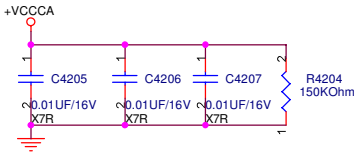
Solve MS Duo Adaptor short issue.

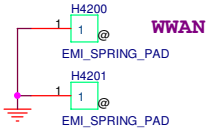


A8ES.PR
Change to 07G005000214, 2KV ESD

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	Project Name	Rev
Custom	A8ES	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
R4302 @ 0Ohm
USB_OC#4
+1.5VS_PE
+3VS
3.3VIN_1 3.3VIN_2
AUXOUT
+3.3VA_PE
+1.5VS
1.5VIN_1 1.5VIN_2
3.3VOUT_1 3.3VOUT_2
+3.3VS_PE
+3VSUS
AUXIN
CPPE# CPUSB# RCLKEN
CPPE# CPUSB#
R4300 1KOhm
21,40,53 PCI_RST#
PCI_RST#
SYSRST# GND1 GND2
NC
R5538D001

USB_PN4
R4301 2 1 0Ohm
USBP4-
A8ES.PR
USB_PP4
R4303 2 1 0Ohm
USBP4+

Block A

R4305 0Ohm
C4300 2200PF/50V
D4300 BAT54C
+3V
R4304 100KOhm
PE_DEBUGEN#
R4306 47KOHM
Q4300 PMBS3904
R4308 10KOhm
C4301 0.1UF/10V
R4309 47KOHM @
GND

U4301
OE# VCC A GND Y
74LVC1G125GV
TPC26T_1 T4300
R4307 0Ohm
LPC_FRAME# DBCARD
R4310 0Ohm
LPC_FRAME#

CON4300
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
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
CON4301
P_GND2 P_GND1
CARD_EJECTOR_2P

Block C

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

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

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

+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

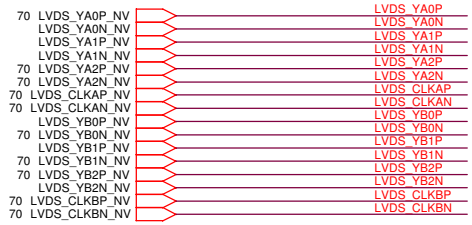
+1.5VS
C4307 2.2UF/6.3V
C4308 0.1UF/10V
1.35V~1.65V
Ave= 500 mA
Max= 650 mA
+1.5VS_PE
C4314 4.7UF/10V
C4315 0.01UF/16V

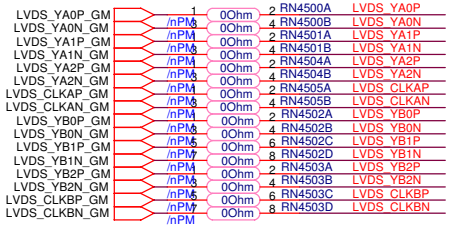
+3VS
CON4302
LPC_AD0
LPC_AD1
LPC_AD2
LPC_AD3
LPC_FRAME#
CLK_DBGPCI2_R
SIDE2 SIDE1
FPC_CON_12P
Bottom Contact

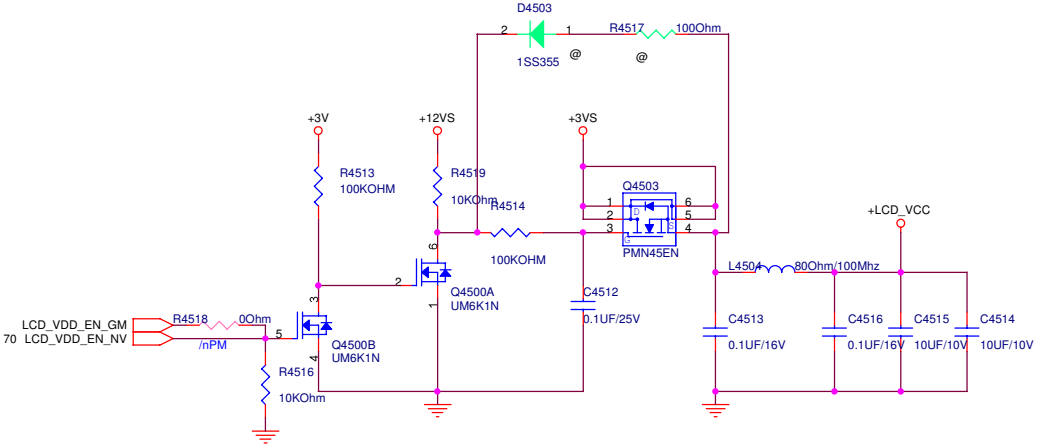
<Variant Name>
Title : Express Card
ASUSTeK COMPUTER INC
Engineer:
Size: Custom
Project Name: A8ES
Rev: 1.0
Date: 星期 ., .月 06, 2007
Sheet 43 of 94

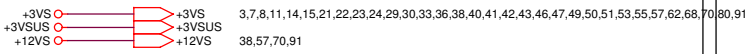
Title :	Blank
ASUSTeK COMPUTER INC	Engineer:
Size: A	Project Name: A8ES
Rev: 1.0	
Date: 星期三, 十月 11, 2006	Sheet 44 of 94

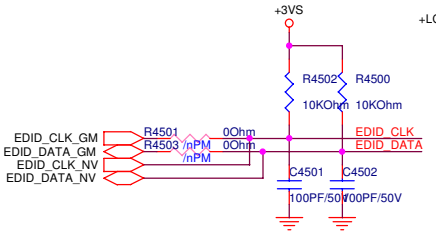
Check stub

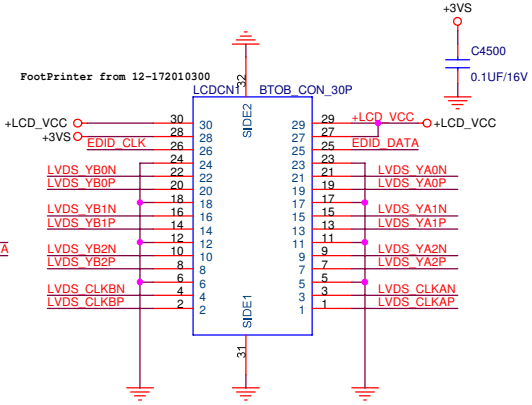


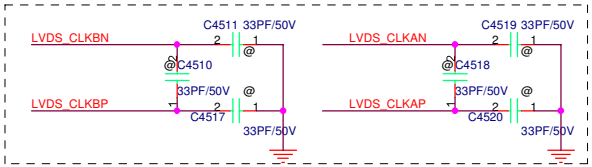






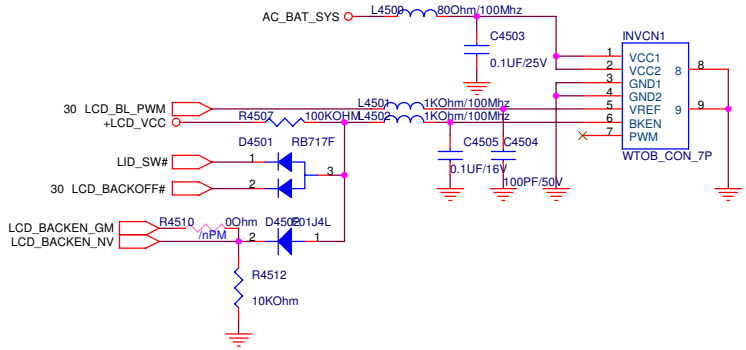






WWAN

INVERTOR CNT



<Variant Name>

ASUSTeK COMPUTER INC

Title : LVDS & Inverter

Engineer:

Size	Project Name	Rev
Custom	A8ES	1.0

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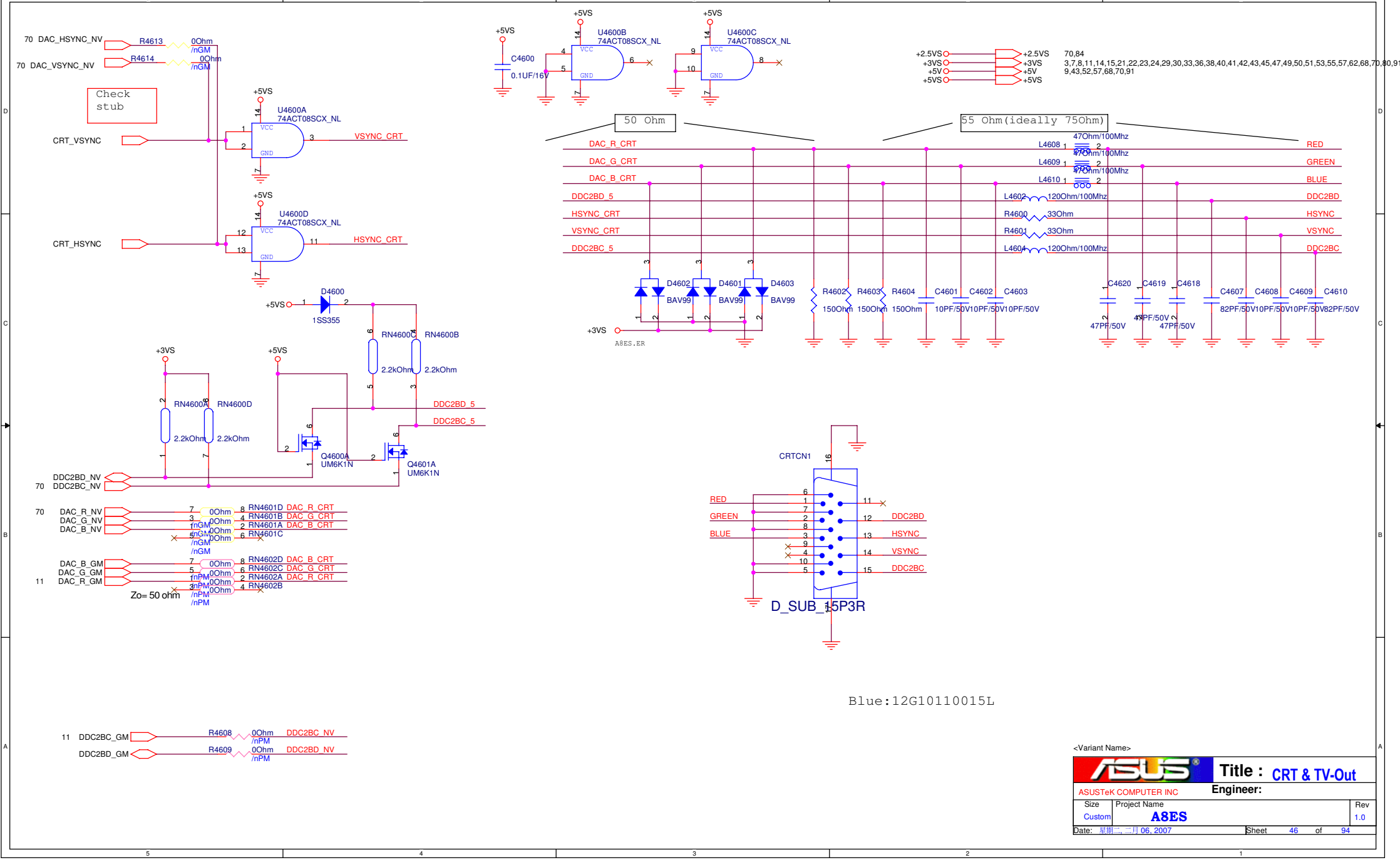


<Variant Name>

ASUSTeK COMPUTER INC

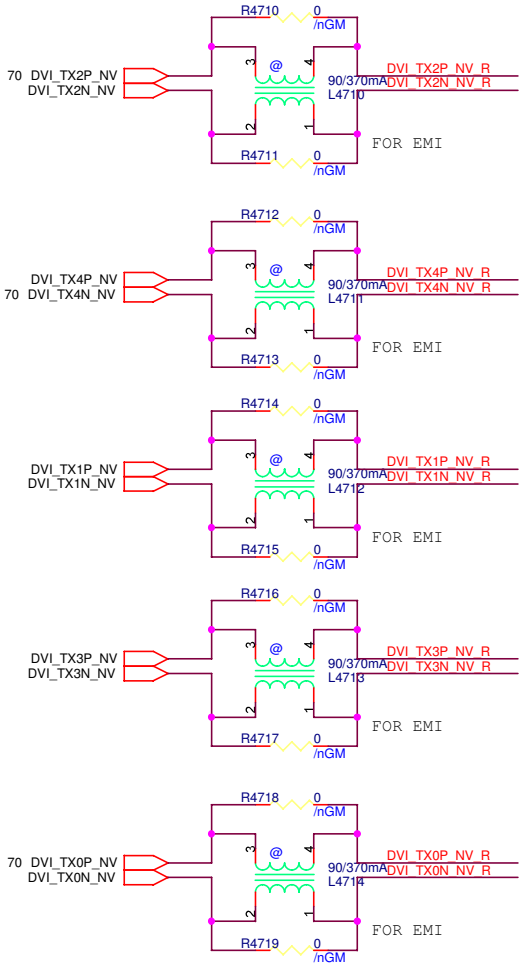
Title : CRT & TV-Out

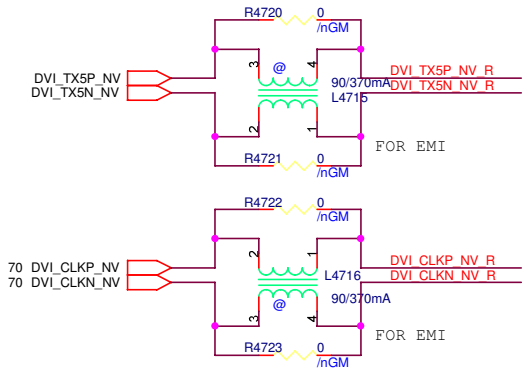
Engineer:

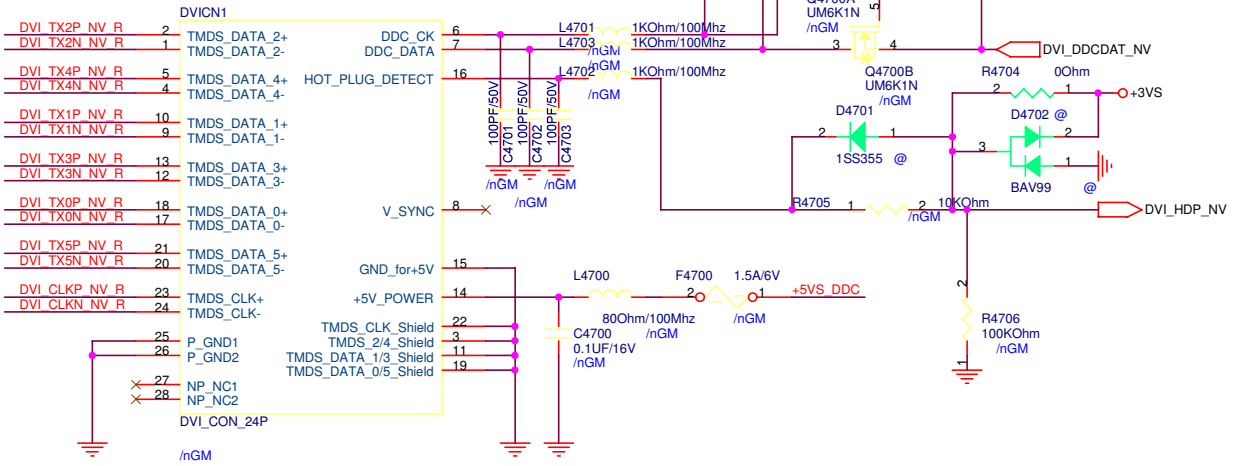
Size	Project Name	Rev
Custom	A8ES	1.0

Date: 星期二, 二月 06, 2007 Sheet 46 of 94

Add DVI Choke 09G092145000 for EMI







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

C4623 5.6PF/50V

C4625 5.6PF/50V

C4621 5.6PF/50V

C4622 5.6PF/50V

C4624 5.6PF/50V

HDTV_EN#

C_CON

Y_CON

CVBS_CON

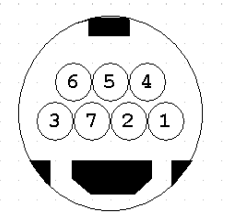
TVSCN1

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

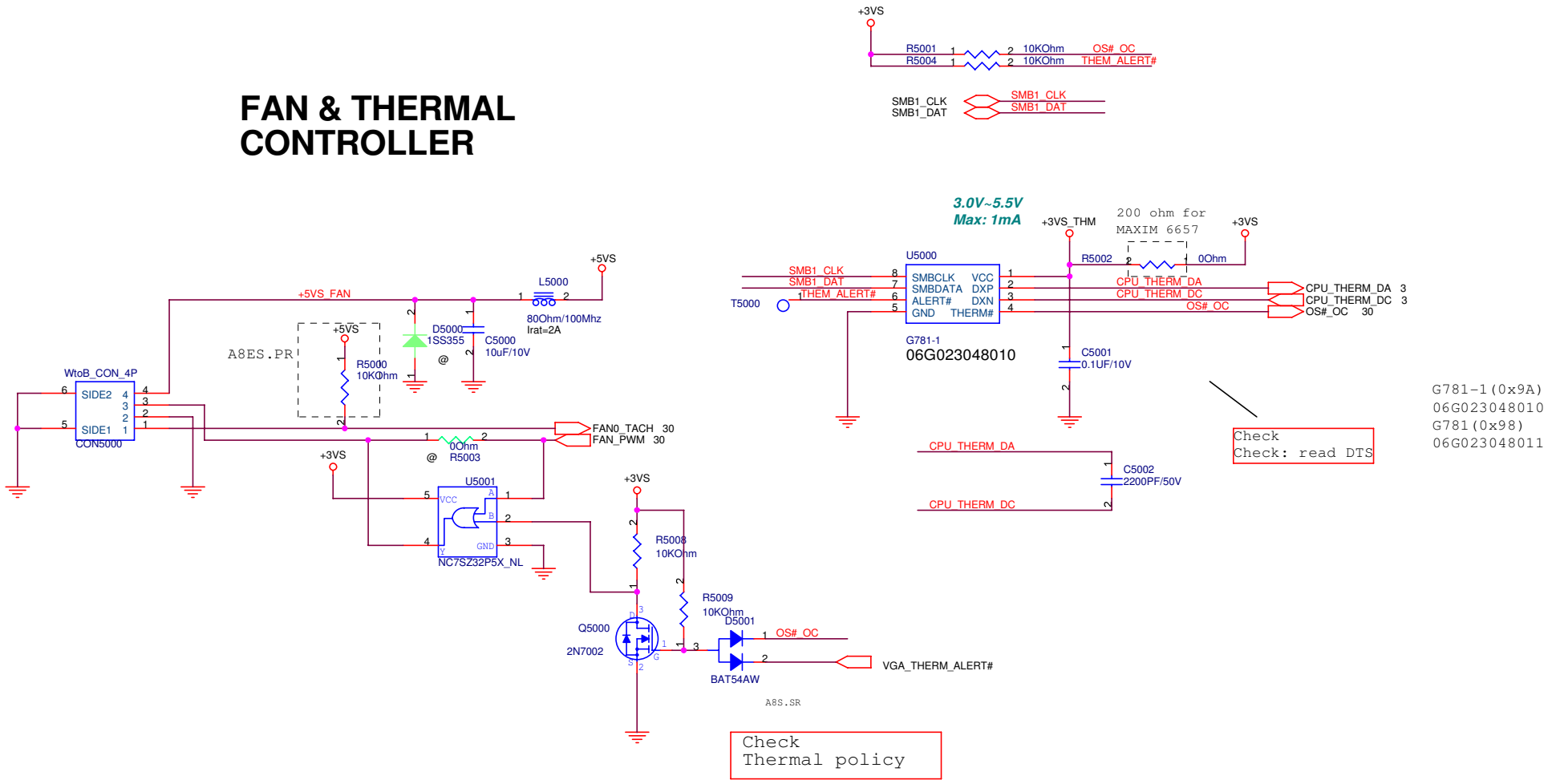
Title : TV

Engineer:

Size	Project Name	Rev
A	A8ES	1.0

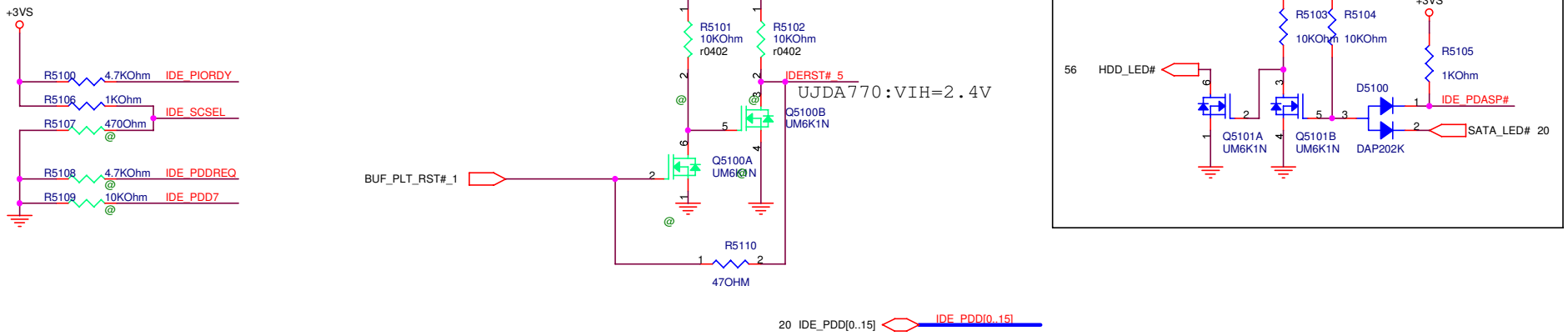
Date: 星期二, 二月 06, 2007 Sheet 49 of 94

FAN & THERMAL CONTROLLER

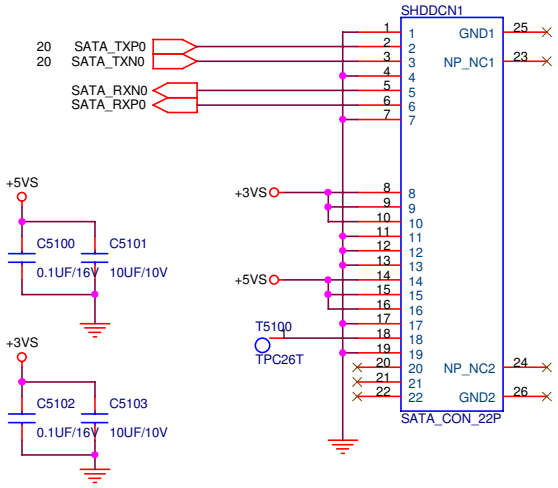


<Variant Name>

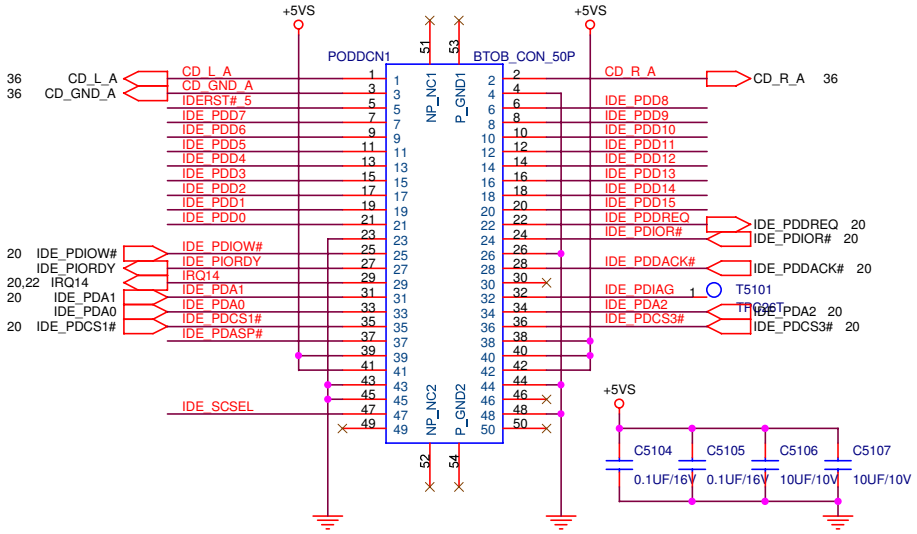
ASUSTeK COMPUTER INC	Title : FAN & THERMAL	
	Engineer:	
Size: B	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 50 of 94	



SATA HDD CON



PATA CD-ROM CON



+3VS
+5VS
+5V

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

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
+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 @

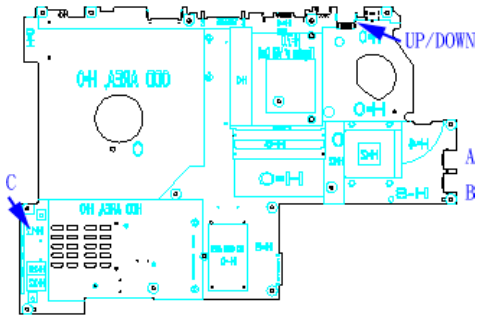
USBCN2 +5VUSB57 USBP5- USBP5+ USB_CON_1X4P
USB-A
R5204 0Ohm @R5205 0Ohm @R5206 0Ohm @R5207 0Ohm @
EMI
USBCN1 +5VUSB57 USBP7- USBP7+ USB_CON_1X4P
USB-B
H5200 EMI_SPRING_PAD @

+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 @

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

+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

+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>

ASUSTeK COMPUTER INC	Title : USB/SUB PCB	
	Engineer:	
Size: Custom	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 52 of 94	

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

mCARD1
MINI_PCI_LATCH_52P

CON5300
BTOB_CON_40P

CON5301
SIM_CON_6P

WWAN

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

ASUSTeK COMPUTER INC

Title : MINI CARD

Engineer:

Size	Project Name	Rev
B	A8ES	1.0

Date: 星期二, 二月 06, 2007 Sheet 53 of 94

Title : BLANK

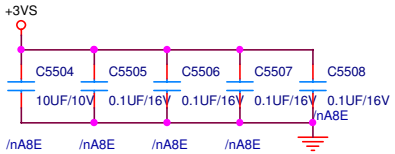
ASUSTeK COMPUTER INC

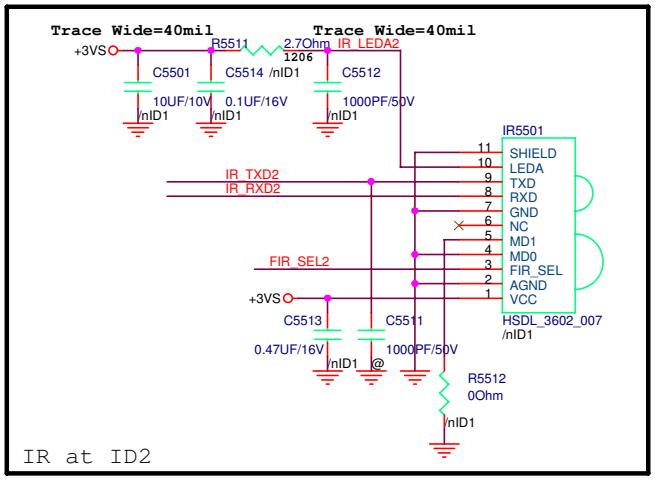
Engineer:

Size	Project Name	Rev
Custom	A8ES	0

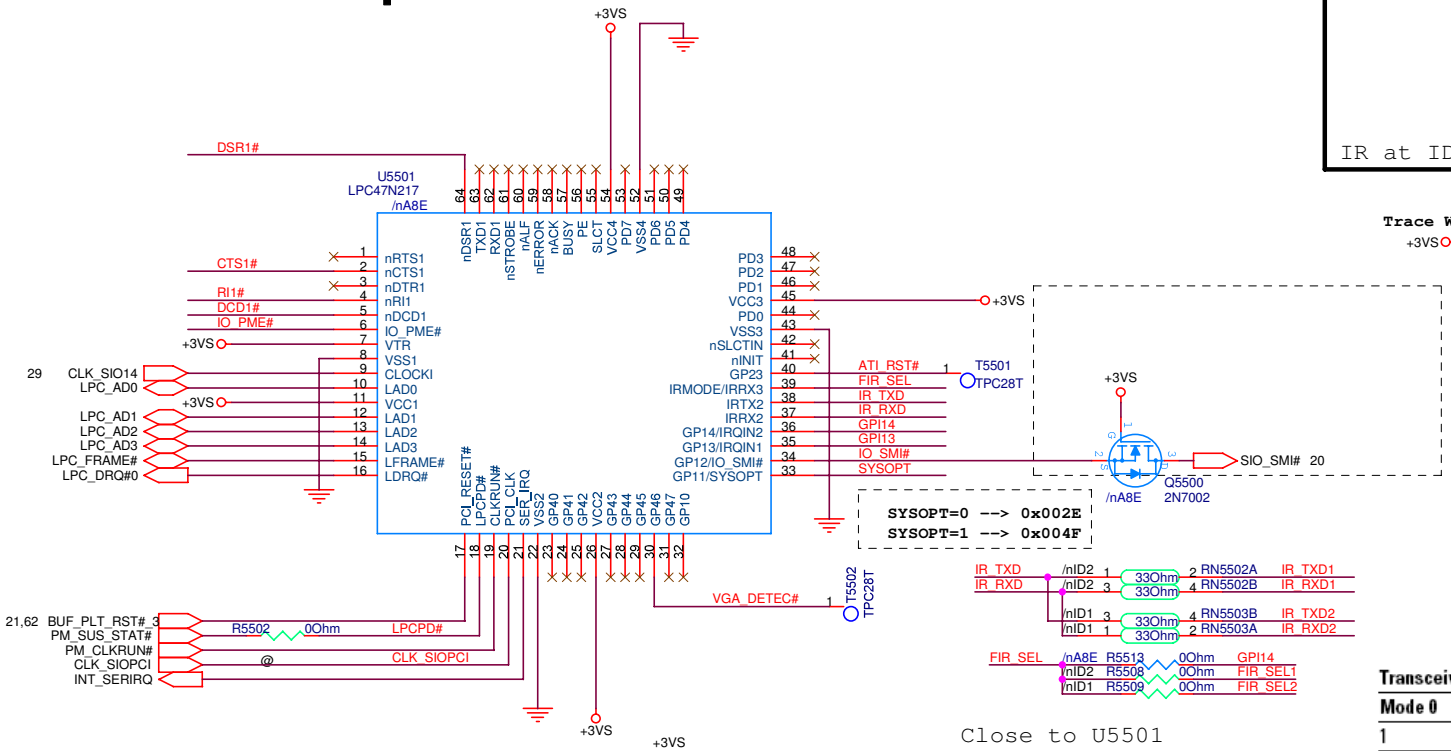
Date: 星期二, 十月 11, 2006 Sheet 54 of 94

CIR
04G231020500
TSOP6238TR

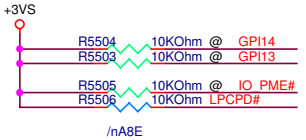


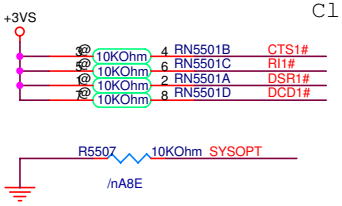


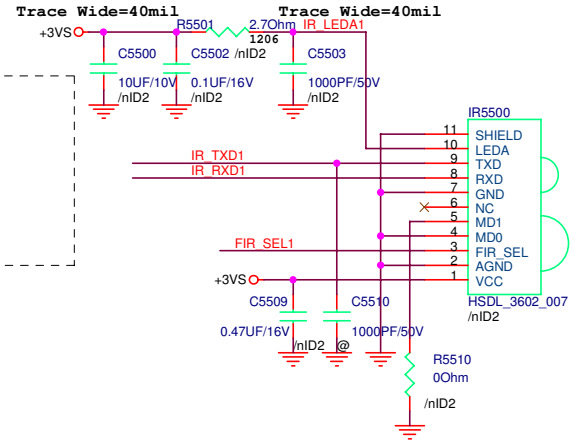
Super I/O



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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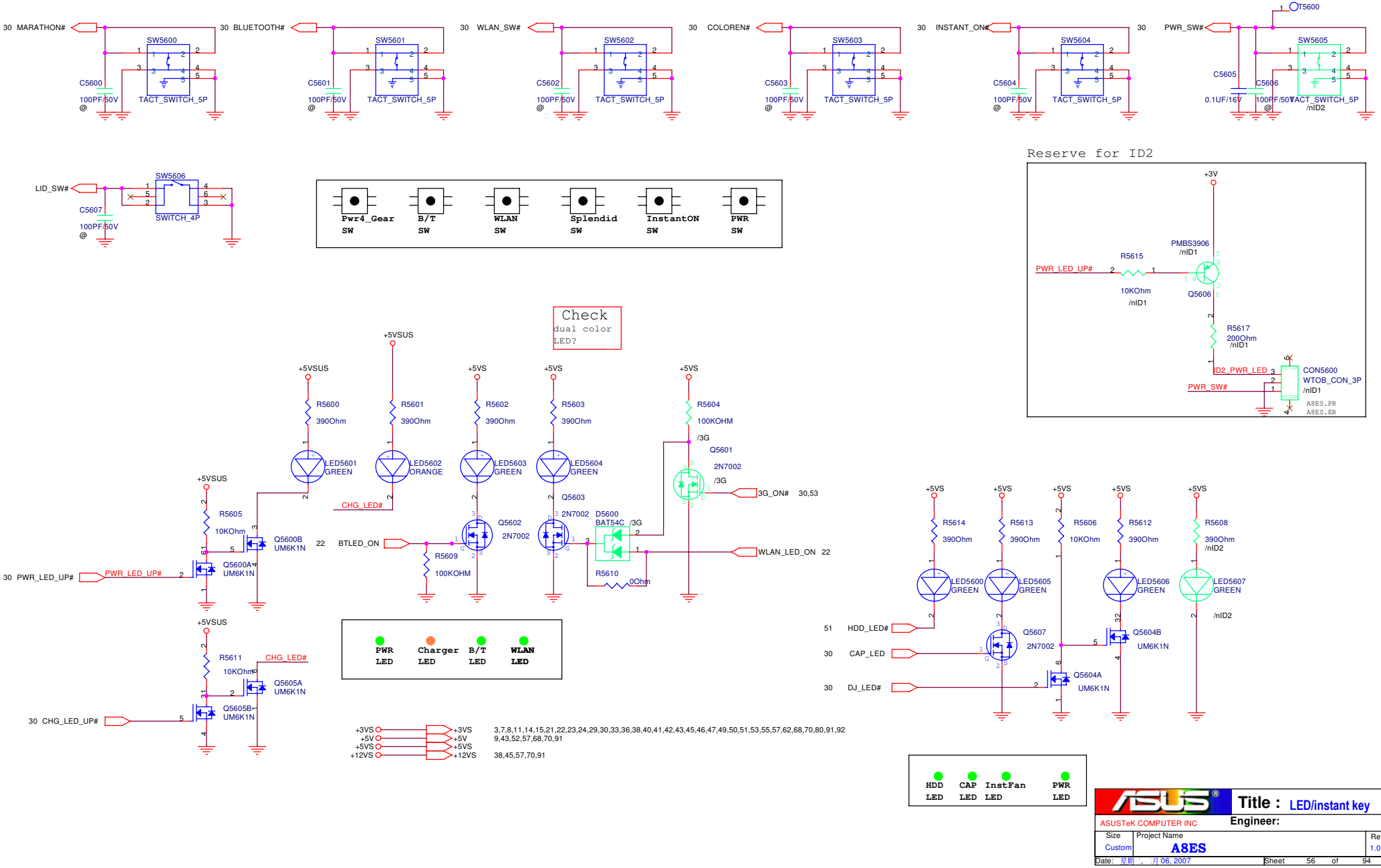
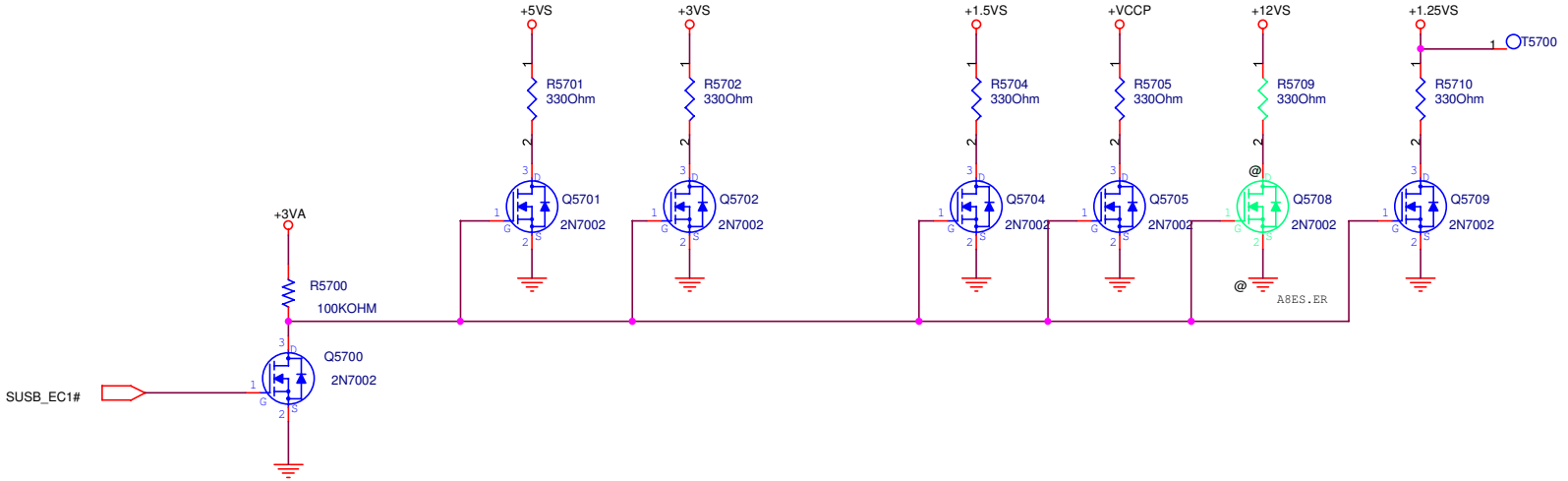
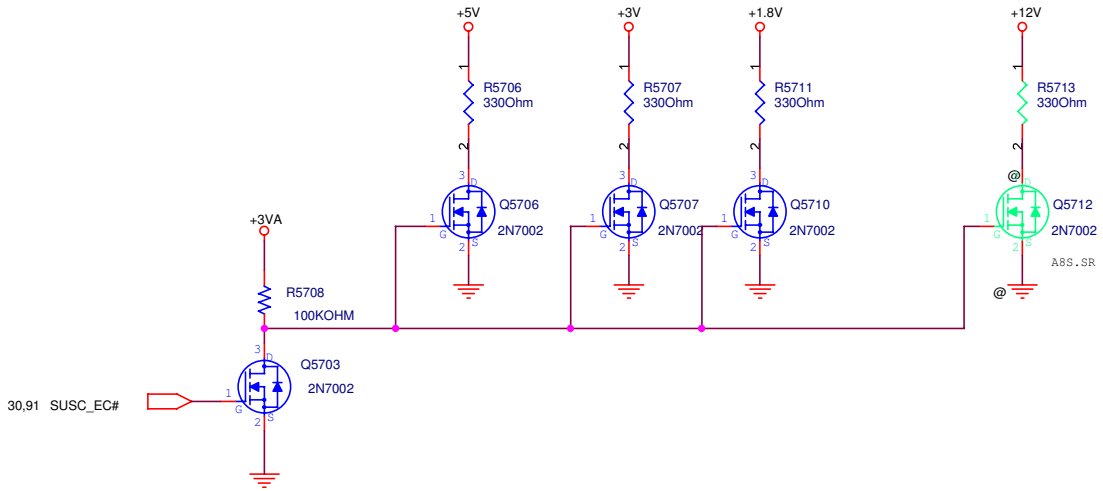


ASUSTeK COMPUTER INC	Title : LED/instant key		
	Engineer:		
Size: Custom	Project Name: A8ES		Rev: 1.0
Date: 星期 ·, ·月 06, 2007	Sheet 56 of 94		

Discharge Circuit





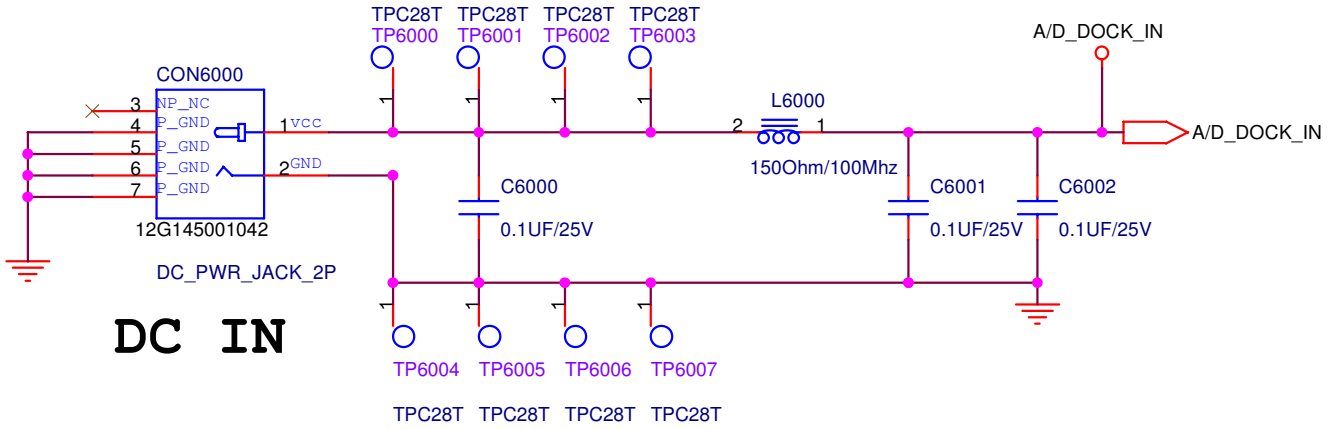
<Variant Name>

ASUSTeK COMPUTER INC	Title : Discharge	
	Engineer:	
Size: B	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 57 of 94	

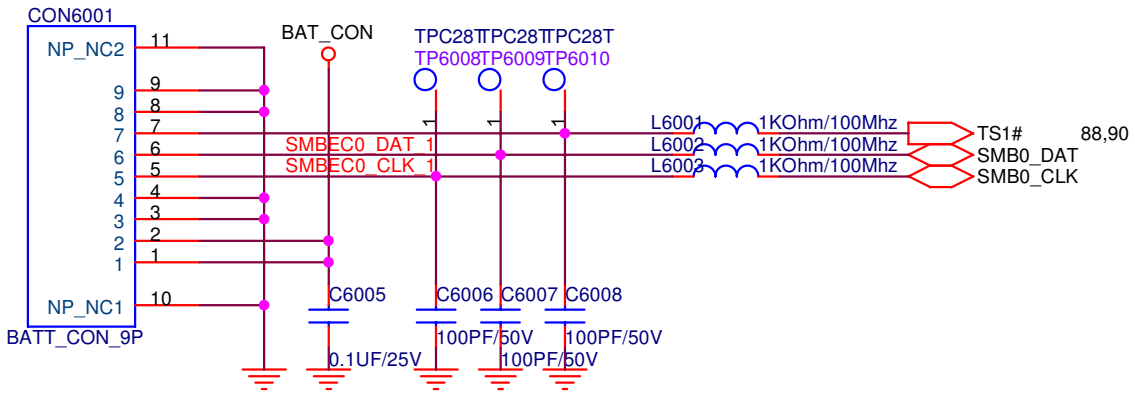
<Variant Name>

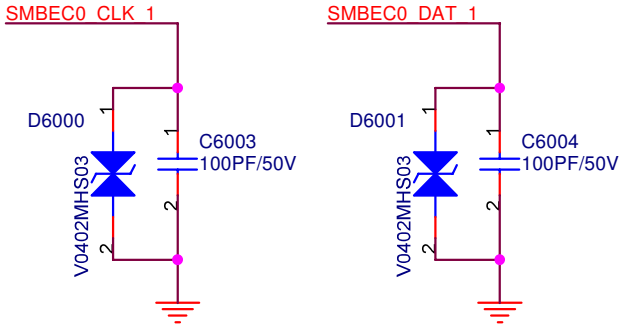
ASUSTeK COMPUTER INC	Title :	
	Engineer:	
Size: A	Project Name: A8ES	Rev: 1.0
Date: 星期三, 十月 11, 2006	Sheet of 94	

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



DC IN

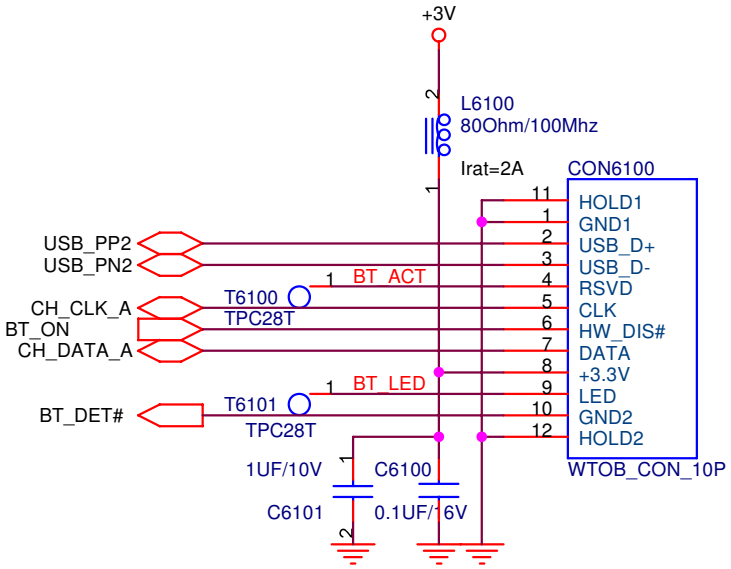




Battery Connector

<Variant Name>

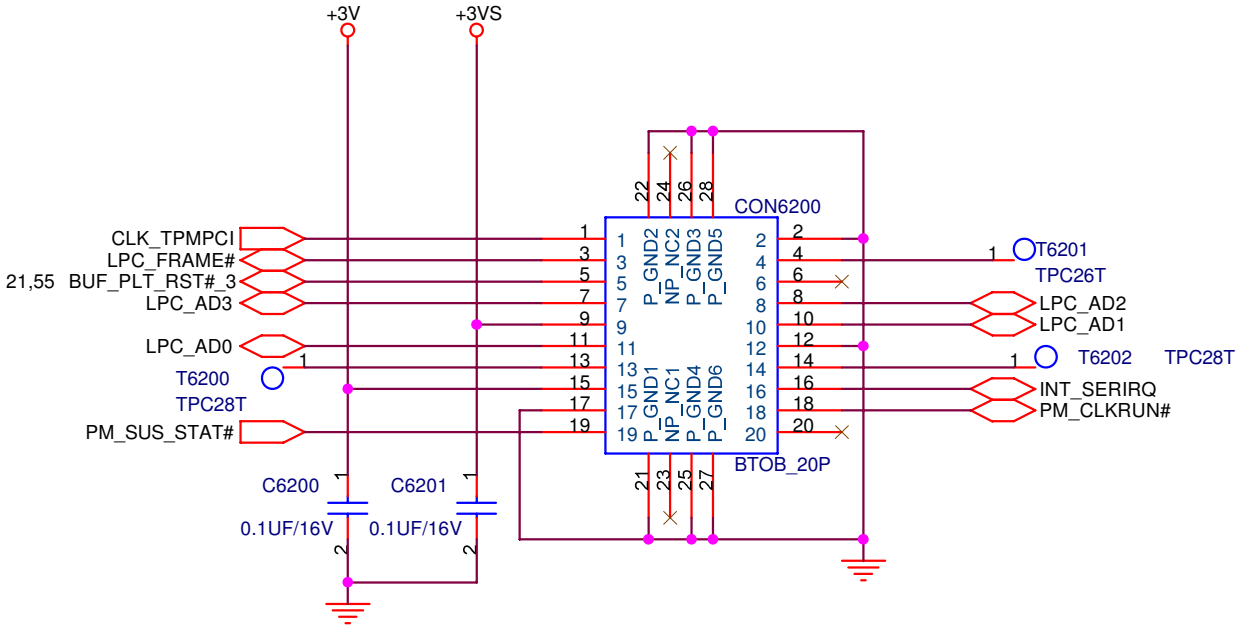
ASUSTeK COMPUTER INC	Title : DC IN / BAT	
	Engineer:	
Size: A	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 60 of 94	



Bluetooth Module CON

ASUSTeK COMPUTER INC	Title : BT/CAMERA	
	Engineer:	
Size: A	Project Name: A8ES	Rev: 1.0
Date: 星期二, 二月 06, 2007	Sheet 61 of 94	

TPM 1.2 Module



<Variant Name>

ASUSTeK COMPUTER INC

Title : TPM

Engineer:

Size	Project Name	Rev
A	A8ES	1.0

Date: 星期二, 二月 06, 2007 Sheet 62 of 94

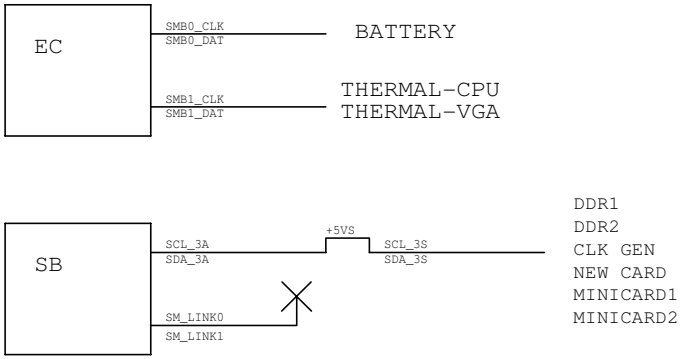
ASUSTeK COMPUTER INC	Title : BLANK Engineer:	
Size: A	Project Name: A8ES	Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 63 of 94	

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



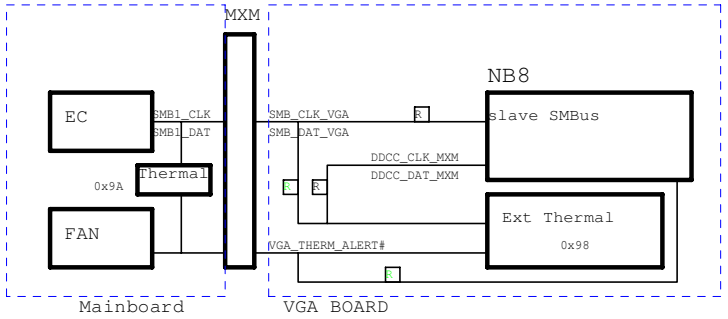
BOM option

```
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>

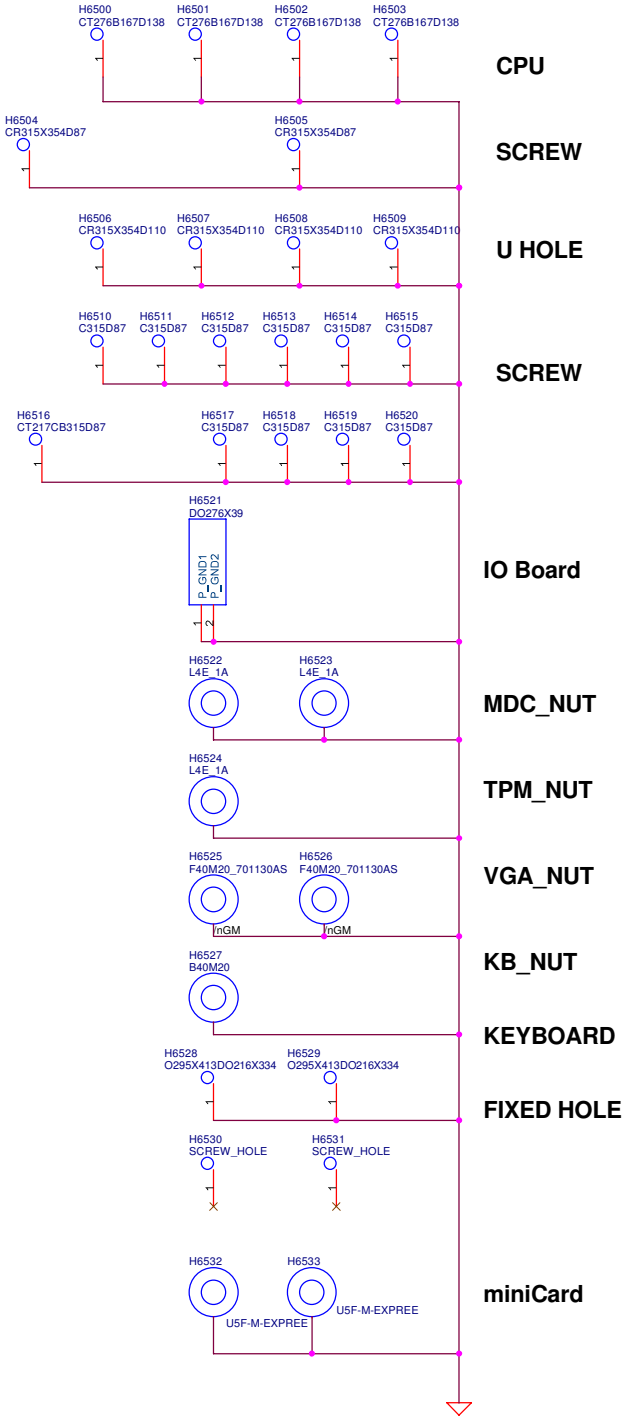
ASUSTeK COMPUTER INC

Title :

Engineer:

Size	Project Name	Rev
B	A8ES	1.0

Date: 星期二, 二月 06, 2007 Sheet 64 of 94



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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	

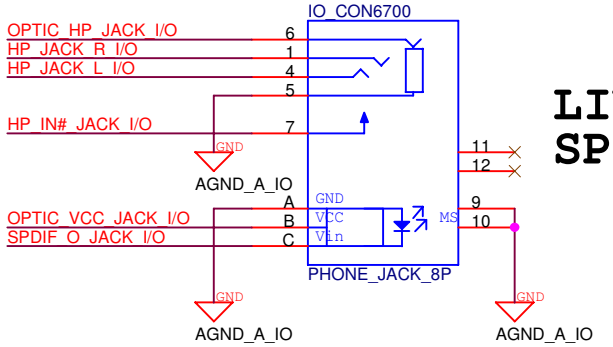
Title : BLANK

ASUSTeK COMPUTER INC

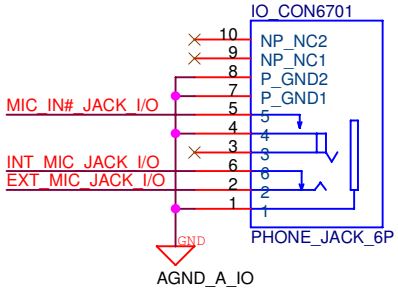
Engineer:

Size	Project Name	Rev
B	A8ES	0

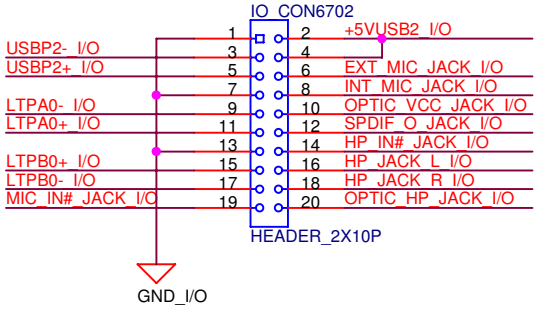
Date: 星期三, 十月 11, 2006 Sheet 66 of 94

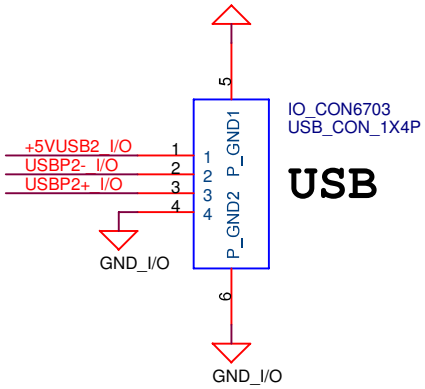


LINE_OUT SPDIF



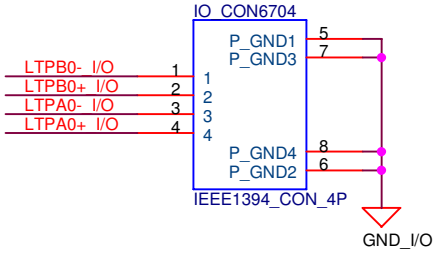
MIC

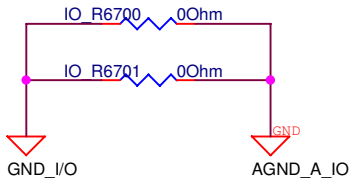


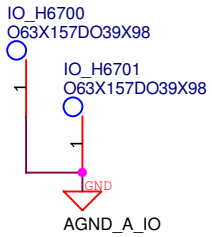


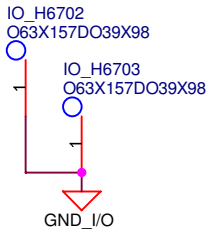
USB

1394A









<Variant Name>

ASUSTeK COMPUTER INC

Title : SUB_PCB

Engineer:

Size	Project Name	Rev
A4	A8ES	1.0

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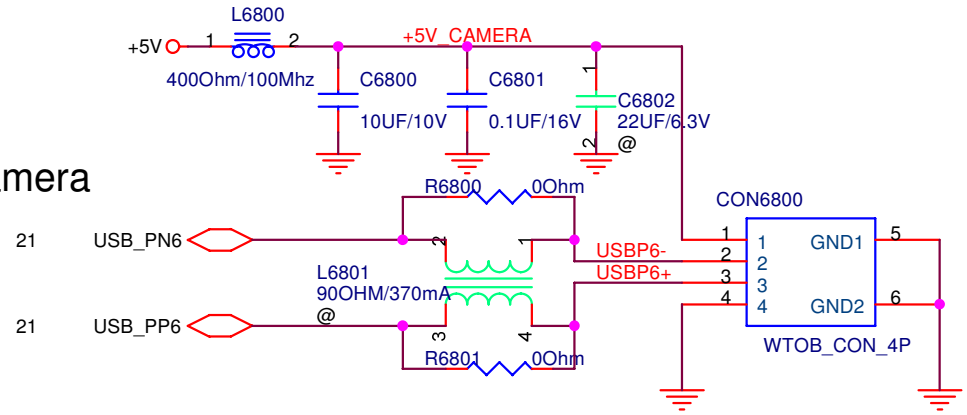
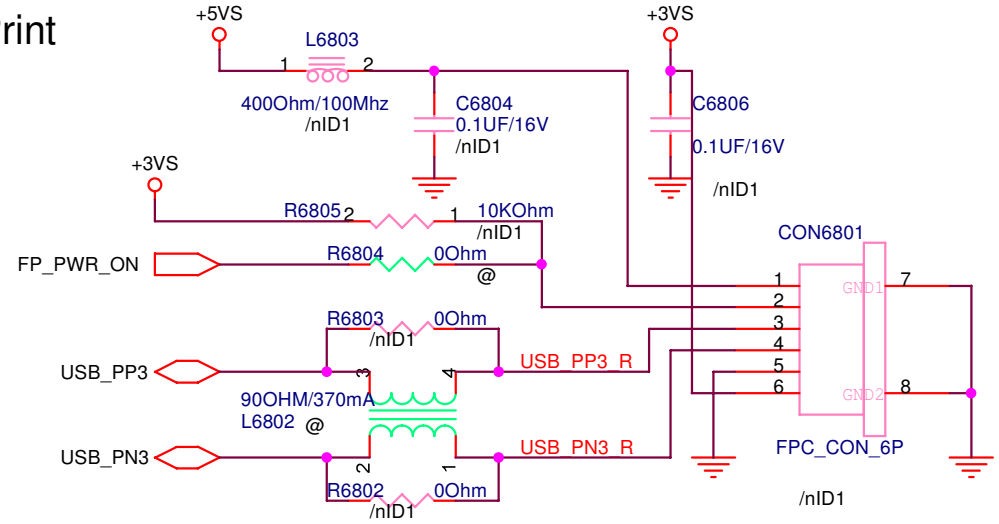
Camera



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

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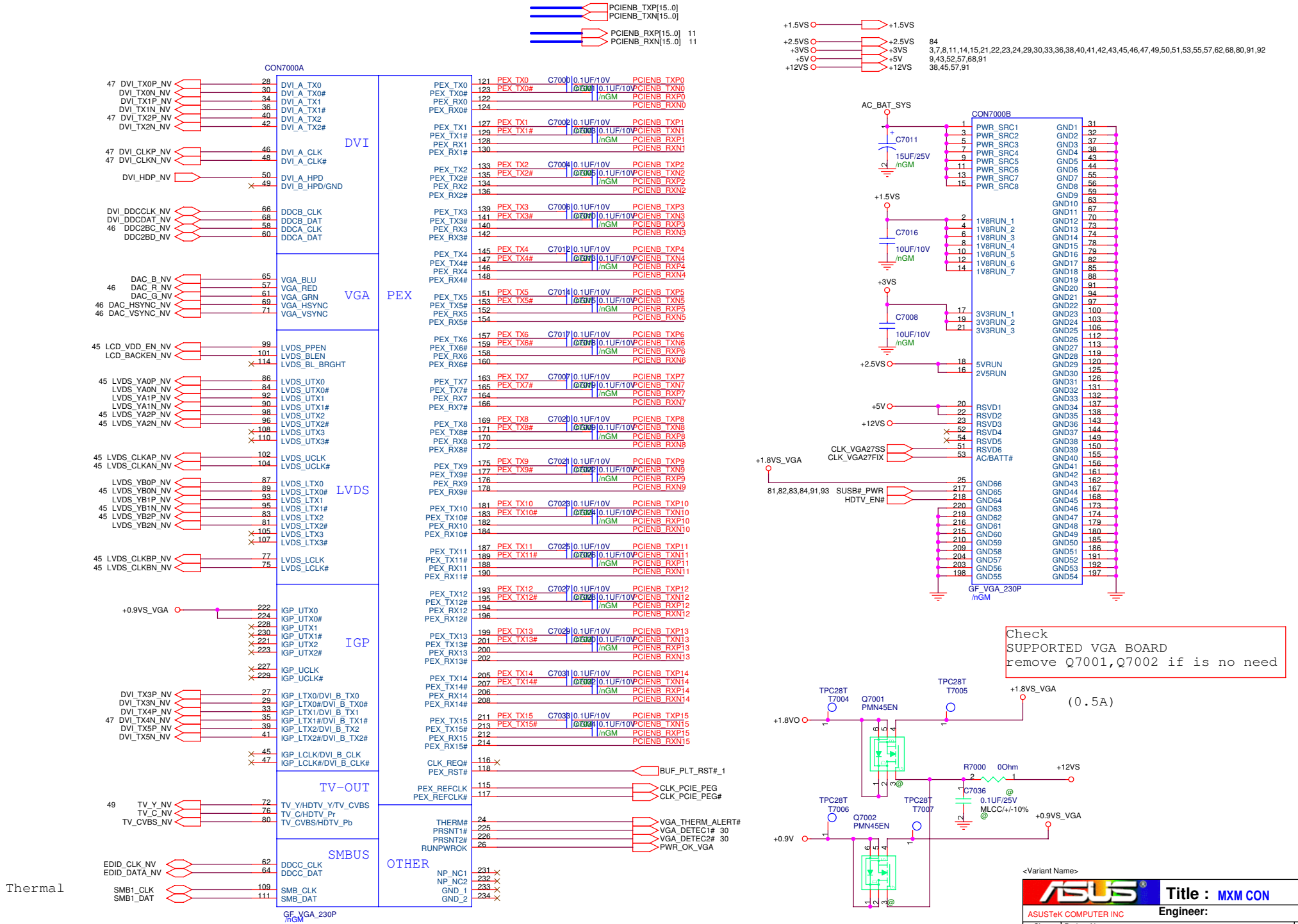
PCIENB_TXP[15..0]
PCIENB_TXN[15..0]
PCIENB_RXP[15..0] 11
PCIENB_RXN[15..0] 11
+1.5VS +1.5VS
+2.5VS +2.5VS 84
+3VS +3VS 3,7,8,11,14,15,21,22,23,24,29,30,33,36,38,40,41,42,43,45,46,47,49,50,51,53,55,57,62,68,80,91,92
+5V +5V 9,43,52,57,68,91
+12VS +12VS 38,45,57,91
CON7000A
DVI
VGA
LVDS
IGP
TV-OUT
SMBUS
PEX
OTHER
DVI_A_TX0
DVI_A_TX0#
DVI_A_TX1
DVI_A_TX1#
DVI_A_TX2
DVI_A_TX2#
DVI_A_CLK
DVI_A_CLK#
DVI_A_HPD
DVI_B_HPD/GND
DDCB_CLK
DDCB_DAT
DDCA_CLK
DDCA_DAT
VGA_BLU
VGA_RED
VGA_GRN
VGA_HSYNC
VGA_VSYNC
LVDS_PPEN
LVDS_BLEN
LVDS_BL_BRGHT
LVDS_UTX0
LVDS_UTX0#
LVDS_UTX1
LVDS_UTX1#
LVDS_UTX2
LVDS_UTX2#
LVDS_UTX3
LVDS_UTX3#
LVDS_UCLK
LVDS_UCLK#
LVDS_LTX0
LVDS_LTX0#
LVDS_LTX1
LVDS_LTX1#
LVDS_LTX2
LVDS_LTX2#
LVDS_LTX3
LVDS_LTX3#
LVDS_LCLK
LVDS_LCLK#
IGP_UTX0
IGP_UTX0#
IGP_UTX1
IGP_UTX1#
IGP_UTX2
IGP_UTX2#
IGP_UCLK
IGP_UCLK#
IGP_LTX0/DVI_B_TX0
IGP_LTX0#/DVI_B_TX0#
IGP_LTX1/DVI_B_TX1
IGP_LTX1#/DVI_B_TX1#
IGP_LTX2/DVI_B_TX2
IGP_LTX2#/DVI_B_TX2#
IGP_LCLK/DVI_B_CLK
IGP_LCLK#/DVI_B_CLK#
TV_Y/HDTV_Y/TV_CVBS
TV_C/HDTV_Pr
TV_CVBS/HDTV_Pb
DDCC_CLK
DDCC_DAT
SMB_CLK
SMB_DAT
PEX_TX0 PEX_TX0# PEX_RX0 PEX_RX0#
PEX_TX1 PEX_TX1# PEX_RX1 PEX_RX1#
PEX_TX2 PEX_TX2# PEX_RX2 PEX_RX2#
PEX_TX3 PEX_TX3# PEX_RX3 PEX_RX3#
PEX_TX4 PEX_TX4# PEX_RX4 PEX_RX4#
PEX_TX5 PEX_TX5# PEX_RX5 PEX_RX5#
PEX_TX6 PEX_TX6# PEX_RX6 PEX_RX6#
PEX_TX7 PEX_TX7# PEX_RX7 PEX_RX7#
PEX_TX8 PEX_TX8# PEX_RX8 PEX_RX8#
PEX_TX9 PEX_TX9# PEX_RX9 PEX_RX9#
PEX_TX10 PEX_TX10# PEX_RX10 PEX_RX10#
PEX_TX11 PEX_TX11# PEX_RX11 PEX_RX11#
PEX_TX12 PEX_TX12# PEX_RX12 PEX_RX12#
PEX_TX13 PEX_TX13# PEX_RX13 PEX_RX13#
PEX_TX14 PEX_TX14# PEX_RX14 PEX_RX14#
PEX_TX15 PEX_TX15# PEX_RX15 PEX_RX15#
C7000 C7001 C7002 C7003 C7004 C7005 C7006 C7007 C7008 C7009 C7010 C7011 C7012 C7013 C7014 C7015 C7016 C7017 C7018 C7019 C7020 C7021 C7022 C7023 C7024 C7025 C7026 C7027 C7028 C7029 C7030 C7031 C7032 C7033 C7034 C7035 0.1UF/10V /nGM
CLK_REQ# PEX_RST#
PEX_REFCLK PEX_REFCLK#
THERM# PRSNT1# PRSNT2# RUNPWROK
NP_NC1 NP_NC2 GND_1 GND_2
BUF_PLT_RST#_1
CLK_PCIE_PEG CLK_PCIE_PEG#
VGA_THERM_ALERT#
VGA_DETEC1# 30
VGA_DETEC2# 30
PWR_OK_VGA
GF_VGA_230P /nGM
AC_BAT_SYS
C7011 15UF/25V /nGM
C7016 10UF/10V /nGM
C7008 10UF/10V /nGM
CON7000B
PWR_SRC1 PWR_SRC2 PWR_SRC3 PWR_SRC4 PWR_SRC5 PWR_SRC6 PWR_SRC7 PWR_SRC8
1V8RUN_1 1V8RUN_2 1V8RUN_3 1V8RUN_4 1V8RUN_5 1V8RUN_6 1V8RUN_7
3V3RUN_1 3V3RUN_2 3V3RUN_3
5VRUN 2V5RUN
RSVD1 RSVD2 RSVD3 RSVD4 RSVD5 RSVD6 AC/BATT#
GND1 GND2 GND3 GND4 GND5 GND6 GND7 GND8 GND9 GND10 GND11 GND12 GND13 GND14 GND15 GND16 GND17 GND18 GND19 GND20 GND21 GND22 GND23 GND24 GND25 GND26 GND27 GND28 GND29 GND30 GND31 GND32 GND33 GND34 GND35 GND36 GND37 GND38 GND39 GND40 GND41 GND42 GND43 GND44 GND45 GND46 GND47 GND48 GND49 GND50 GND51 GND52 GND53 GND54
GND66 GND65 GND64 GND63 GND62 GND61 GND60 GND59 GND58 GND57 GND56 GND55
GF_VGA_230P /nGM
CLK_VGA27SS
CLK_VGA27FIX
+1.8VS_VGA
81,82,83,84,91,93 SUSB#_PWR HDTV_EN#
Check
SUPPORTED VGA BOARD
remove Q7001,Q7002 if is no need
TPC28T T7004
Q7001 PMN45EN
TPC28T T7005
+1.8VS_VGA (0.5A)
+1.8VO
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		

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

Title	TITLE
Size A3	Document Number <Doc>
Rev	1.0
Date:	星期三, 十月 11, 2006
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ASUSTeK COMPUTER INC	Title : BLANK Engineer:	
Size: B	Project Name: A8ES	Rev: 0
Date: 星期三, 十月 11, 2006	Sheet 78 of 94	

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 :

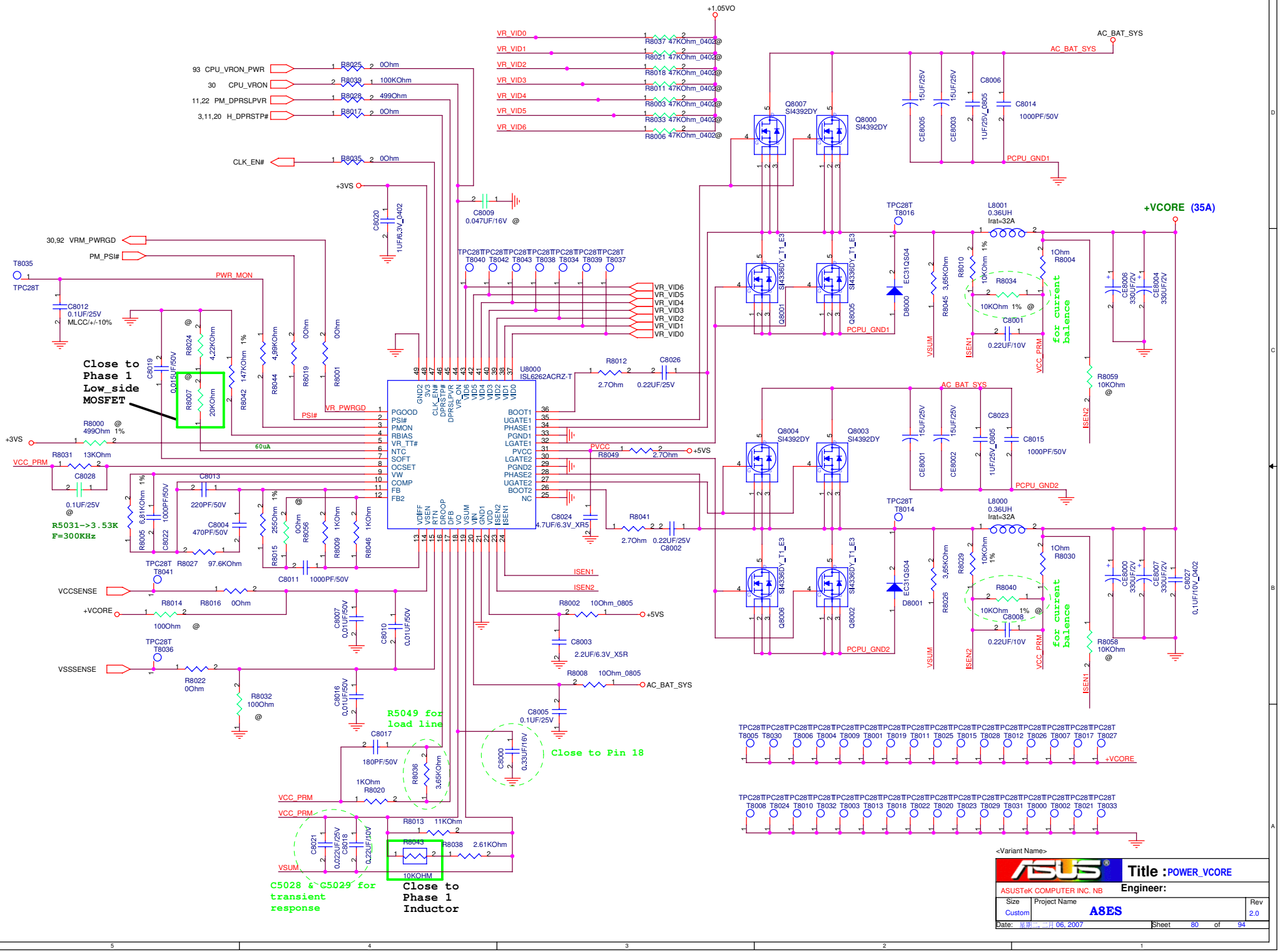
1. CPU side, per GND pin within per Via, don't share vias.
2. 0.9V_VTT_REF trace width.
3. single end trace width more than 3.5mil

SMT :

1. 開鋼板JP1, JP2

<Variant Name>

ASUSTeK COMPUTER INC	Title : History Engineer:	
Size: Custom	Project Name: A8ES	Rev: 1.0
Date: 星期二, 十一月 11, 2006	Sheet 79 of 94	


+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
Q8007 SI4392DY
Q8000 SI4392DY
CE8005 15UF/25V
CE8003 15UF/25V
C8006
1UF/25V_0805
C8014 1000PF/50V
PCPU_GND1
+VCORE (35A)
TPC28T T8016
L8001 0.36UH Irat=32A
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%
TPC28T T8040 T8042 T8043 T8038 T8034 T8039 T8037
VR_VID6
VR_VID5
VR_VID4
VR_VID3
VR_VID2
VR_VID1
VR_VID0
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
R8012 2.7Ohm
C8026 0.22UF/25V
PGOOD
PSI#
PMON
RBIAS
VR_TT#
NTC
SOFT
OCSET
VW
COMP
FB
FB2
BOOT1
UGATE1
PHASE1
PGND1
LGATE1
PVCC
LGATE2
PGND2
PHASE2
UGATE2
BOOT2
NC
R8000 @ 499Ohm 1%
+3VS
60uA
R8031 13KOhm
VCC_PRM
C8028 0.1UF/25V @
R5031->3.53K
F=300KHz
C8013 220PF/50V
C8004 470PF/50V
R8005 6.81KOhm 1%
C8022 1000PF/50V
R8027 97.6KOhm
R8015 255Ohm 1%
R8056 0Ohm @
R8009 1KOhm
R8046 1KOhm
C8011 1000PF/50V
PVCC
R8049 2.7Ohm
+5VS
C8024 4.7UF/6.3V_XR5
R8041 2.7Ohm
C8002 0.22UF/25V
ISEN1
ISEN2
R8002 10Ohm_0805
+5VS
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
R8038 2.61KOhm
10KOHM
VSUM
C8021 0.022UF/25V
C8018 0.22UF/10V
C5028 & C5029 for transient response
Close to Phase 1 Inductor
Q8004 SI4392DY
Q8003 SI4392DY
CE8001 15UF/25V
CE8002 15UF/25V
C8023
1UF/25V_0805
C8015 1000PF/50V
PCPU_GND2
TPC28T T8014
L8000 0.36UH Irat=32A
Q8006 SI4336DY_T1_E3
Q8002 SI4336DY_T1_E3
D8001 EC31QS04
R8029 3.65KOhm
R8026
R8030 1Ohm
R8040 10KOhm 1% @
C8008 0.22UF/10V
R8058 10KOhm @
C8027 0.1UF/10V_0402
CE8007 330UF/2V
CE8000 330UF/2V
Q8001 SI4336DY_T1_E3
Q8005 SI4336DY_T1_E3
D8000 EC31QS04
R8045 3.65KOhm
R8010
R8004 1Ohm
R8034 10KOhm 1% @
C8001 0.22UF/10V
R8059 10KOhm @
CE8006 330UF/2V
CE8004 330UF/2V
for current balence
VSUM
VCC_PRM
ISEN1
ISEN2
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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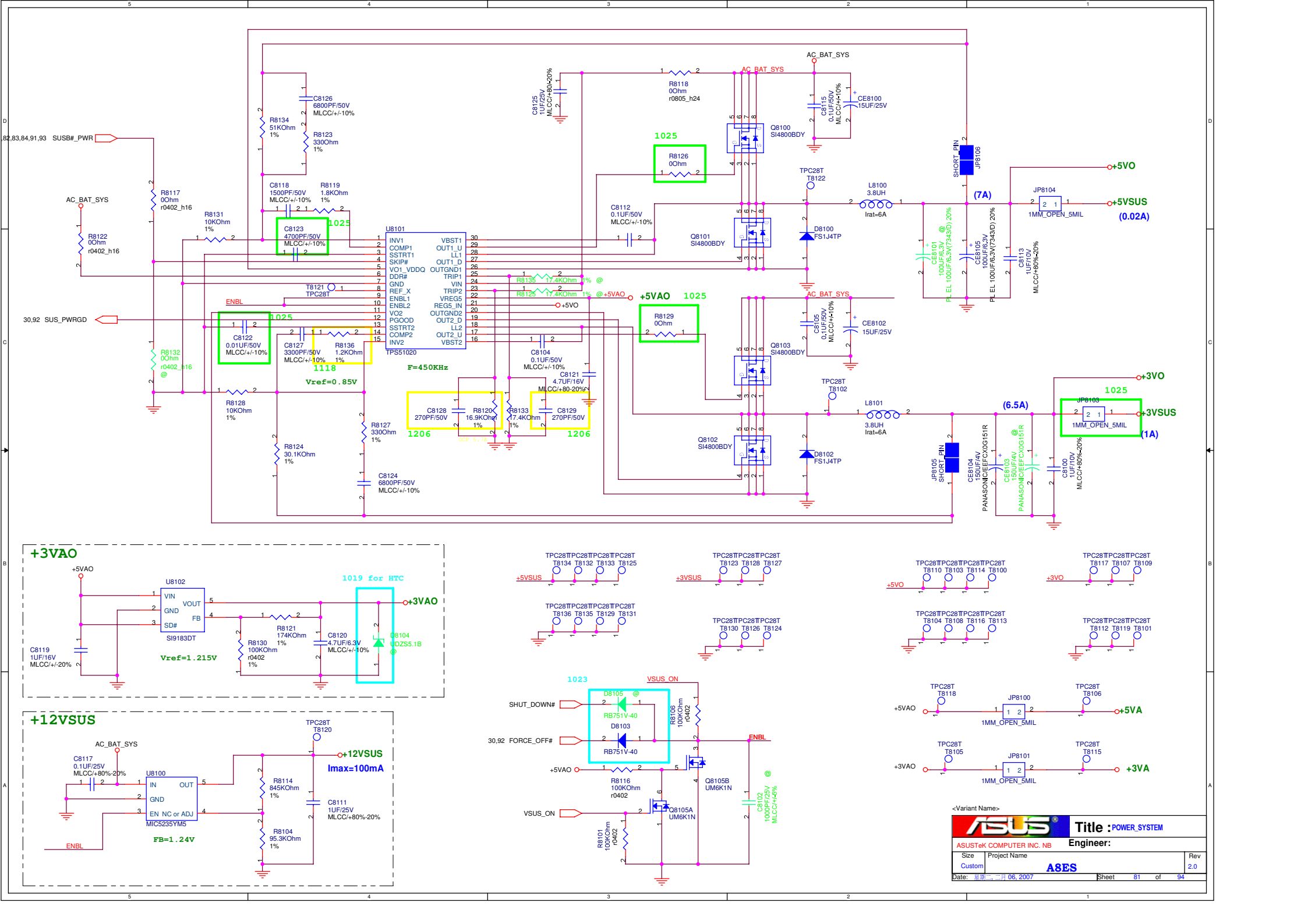
82,83,84,91,93 SUSB#_PWR
AC_BAT_SYS
30,92 SUS_PWRGD
ENBL
U8101
TPS51020
F=450KHz
Vref=0.85V
Q8100 SI4800BDY
Q8101 SI4800BDY
Q8103 SI4800BDY
Q8102 SI4800BDY
D8100 FS1J4TP
D8102 FS1J4TP
L8100 3.8UH Irat=6A
L8101 3.8UH Irat=6A
+5VO
+5VSUS (0.02A)
+3VO
+3VSUS (1A)
(7A)
(6.5A)
+3VAO
U8102
SI9183DT
Vref=1.215V
1019 for HTC
+12VSUS
Imax=100mA
U8100
MIC5235YM5
FB=1.24V
SHUT_DOWN#
30,92 FORCE_OFF#
VSUS_ON
+5VA
<Variant Name>
ASUSTeK COMPUTER INC. NB
Title : POWER_SYSTEM
Engineer:
Size Custom
Project Name A8ES
Rev 2.0
Date: 星期二, 二月 06, 2007
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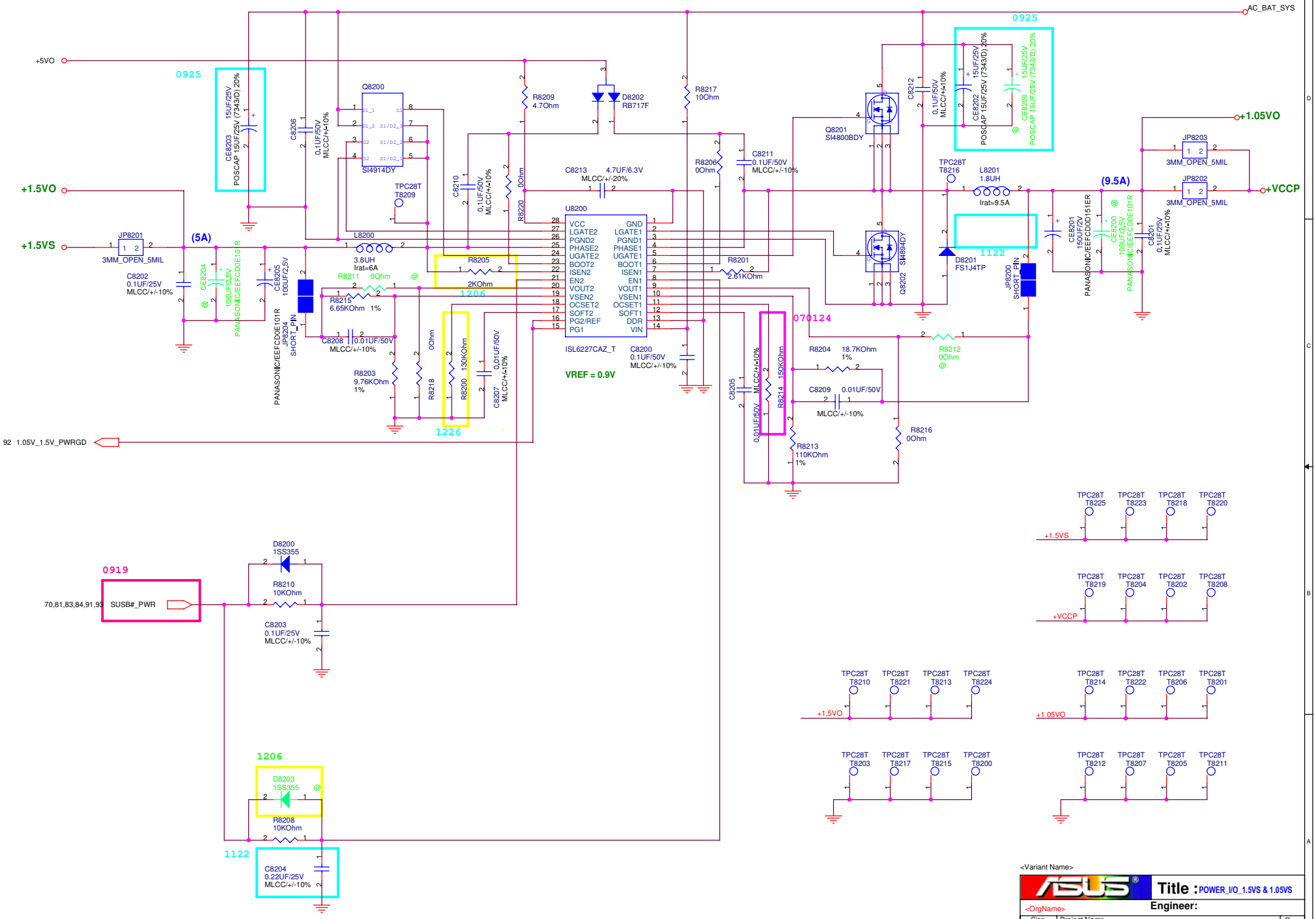
AC_BAT_SYS
+5VO
+1.5VO
+1.5VS
+1.05VO
+VCCP
(5A)
(9.5A)
U8200
ISL6227CAZ_T
VREF = 0.9V
Q8200
SI4914DY
Q8201
SI4800BDY
Q8202
SI4894DY
D8200
1SS355
D8201
FS1J4TP
D8202
RB717F
D8203
1SS355
L8200
3.8UH
Irat=6A
L8201
1.8UH
Irat=9.5A
JP8201
JP8202
JP8203
JP8200
JP8204
3MM_OPEN_5MIL
SHORT_PIN
R8205
2KOhm
1206
R8200
130KOhm
R8214
150KOhm
R8215
6.65KOhm 1%
R8203
9.76KOhm
1%
R8204
18.7KOhm
1%
R8213
110KOhm
1%
R8201
2.61KOhm
R8209
4.7Ohm
R8217
10Ohm
R8206
0Ohm
R8220
0Ohm
R8218
0Ohm
R8210
10KOhm
R8208
10KOhm
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%
C8208
0.01UF/50V
MLCC/+/-10%
C8209
0.01UF/50V
MLCC/+/-10%
C8211
0.1UF/50V
MLCC/+/-10%
C8212
0.1UF/50V
MLCC/+/-10%
C8205
0.01UF/50V
MLCC/+/-10%
C8207
0.01UF/50V
MLCC/+/-10%
C8210
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
0925
0919
1122
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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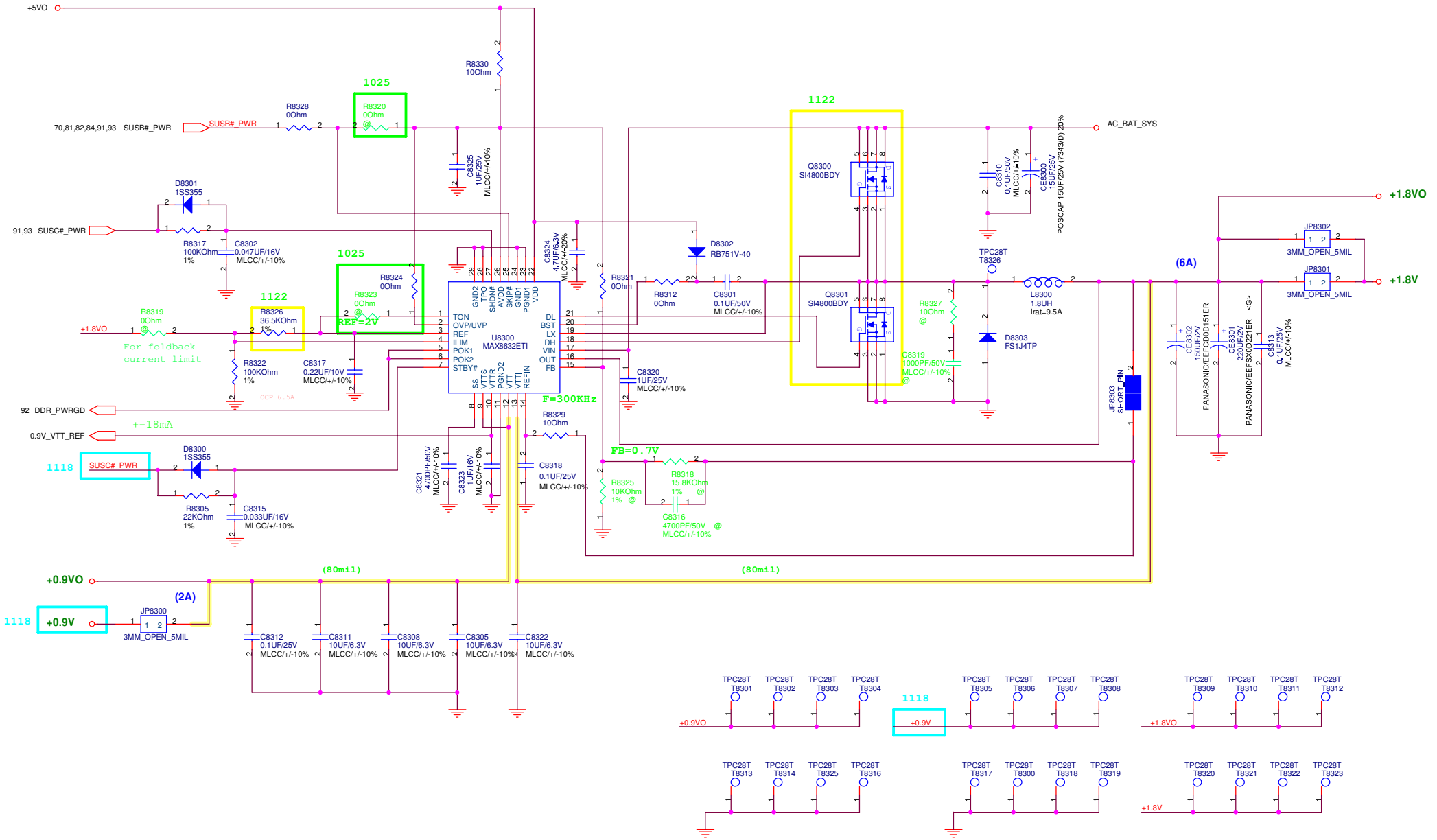

<Variant Name>

ASUSTeK COMPUTER INC. NB

Title : POWER_I/O_DDR & VTT

Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

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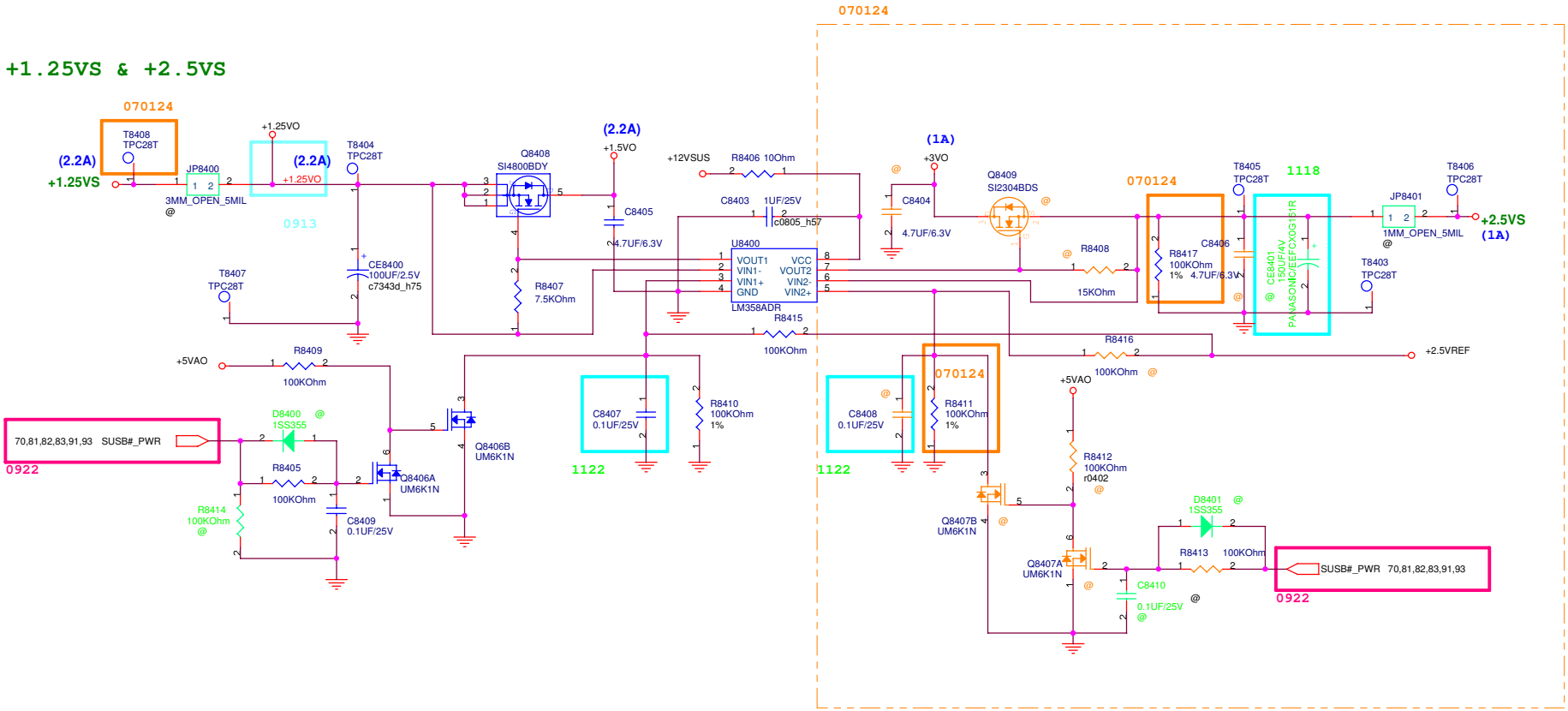
+1.25VS & +2.5VS



<Variant Name>

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

<OrgName>

Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

Date: 星期二, 一月 06, 2007 Sheet 84 of 94

<Variant Name>

Title : POWER_VGA_CORE & RAM

<OrgName>

Engineer:

Size	Project Name	Rev
C	ROSA	1.1

Date: 星期四, 一月 25, 2007 Sheet 85 of 94

<Variant Name>

Title : N/A

<OrgName>

Engineer:

Size	Project Name	Rev
B	ROSA	1.1

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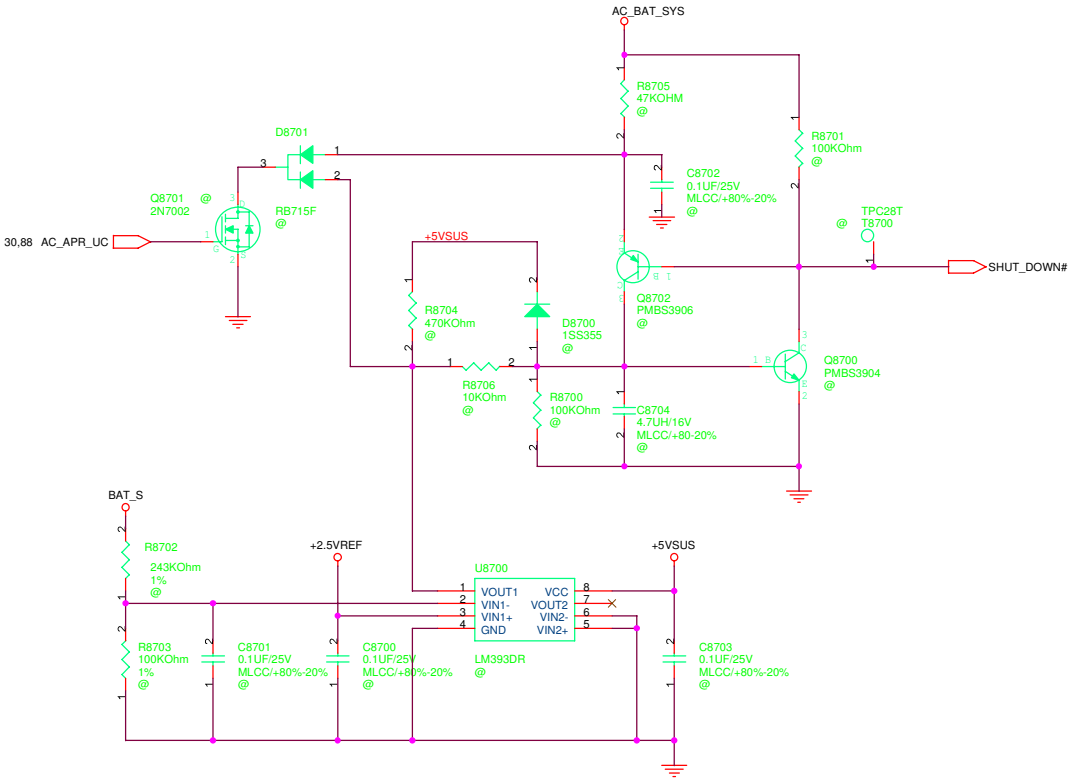
PIC only



<Variant Name>

Title : POWER_SHUTDOWN#

<OrgName>

Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

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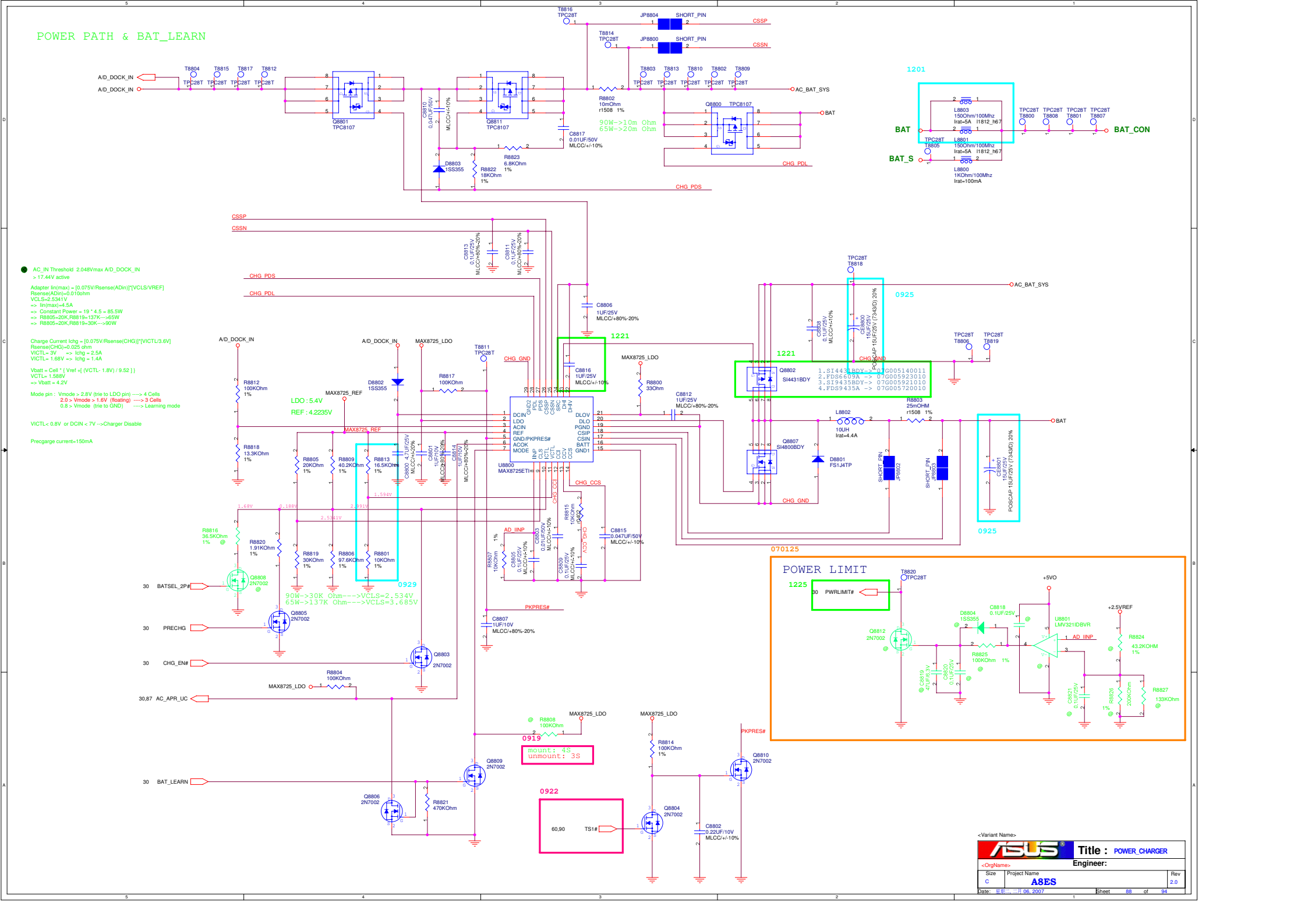
POWER PATH & BAT_LEARN



<Variant Name>

Title : N/A

<OrgName>

Engineer:

Size	Project Name	Rev
Custom	ROSA	1.1

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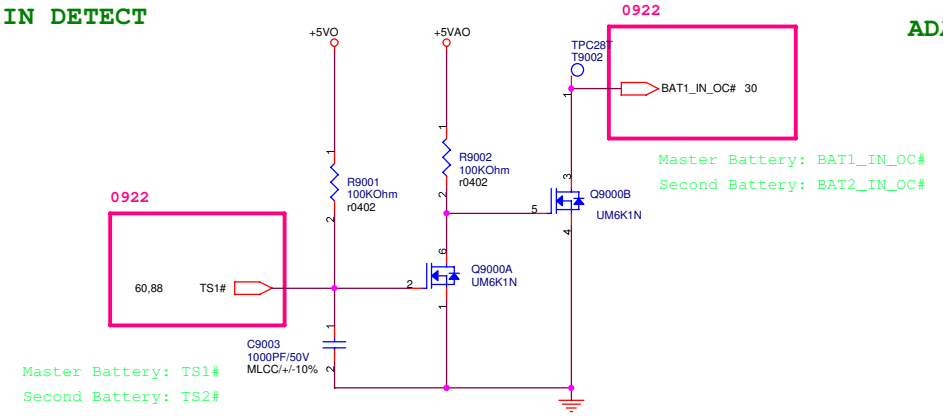
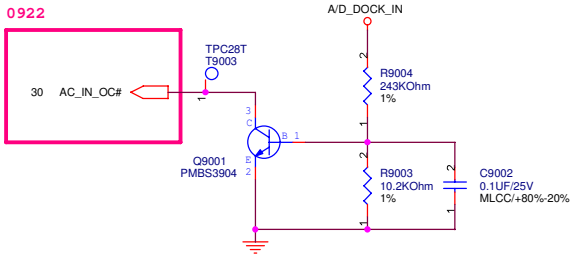
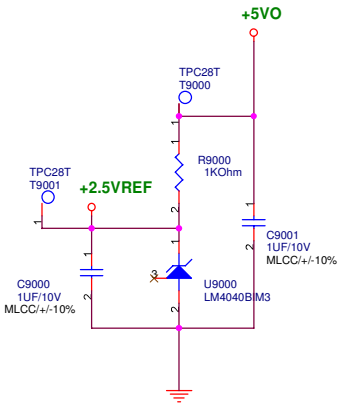
BATTERY IN DETECT



ADAPTER IN DETECT



+2.5VREF



<Variant Name>

Title : POWER_DETECT

<OrgName>

Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

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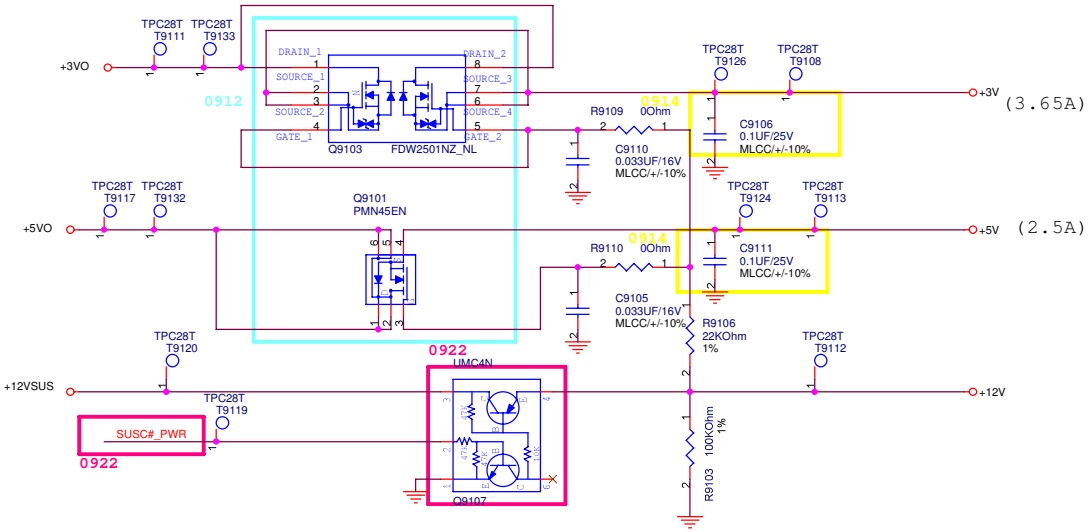
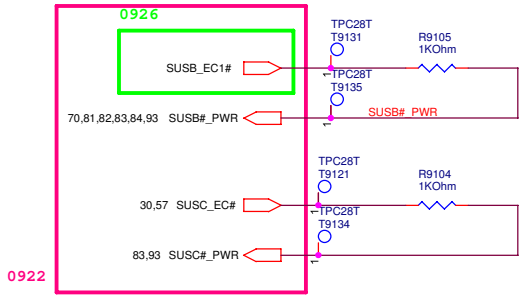
SUSC#_PWR POWER

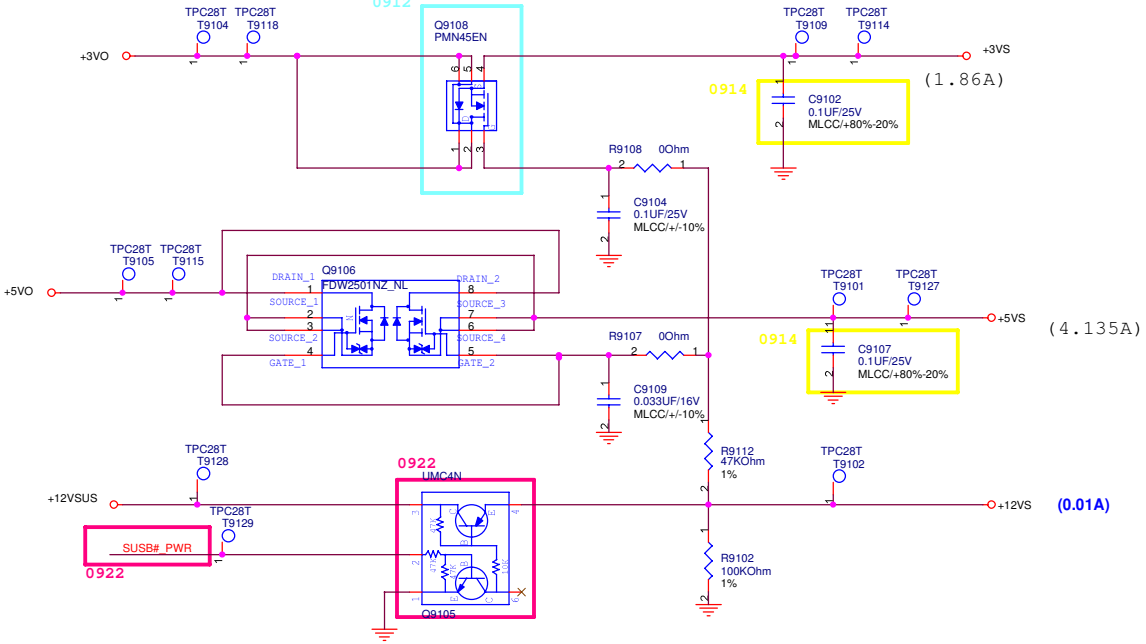
0922





SUSB#_PWR POWER

0922



<Variant Name>

Title : POWER_LOAD SWITCH

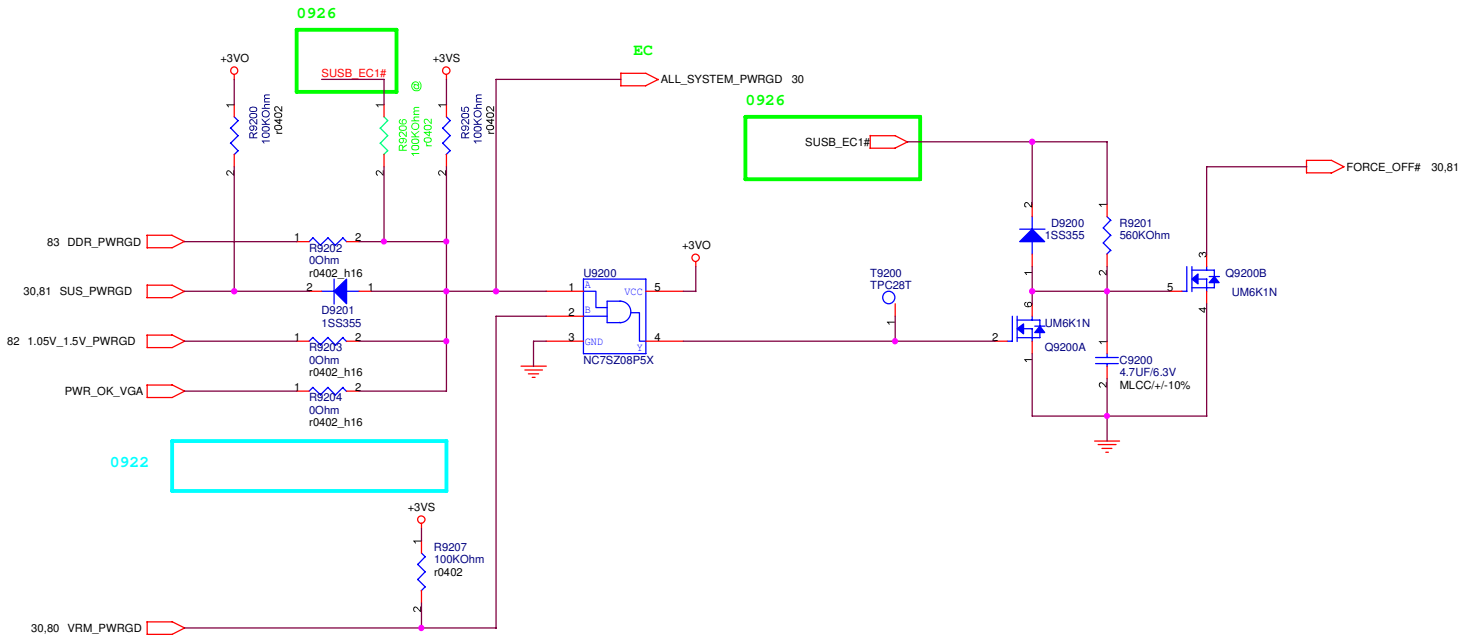
<OrgName>

Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

Date: 星期二, 二月 06, 2007 Sheet 91 of 94

POWER GOOD DETECTER



<Variant Name>

ASUS	Title : POWER_PROTECT	
<OrgName>	Engineer:	
Size: Custom	Project Name: A8ES	Rev: 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

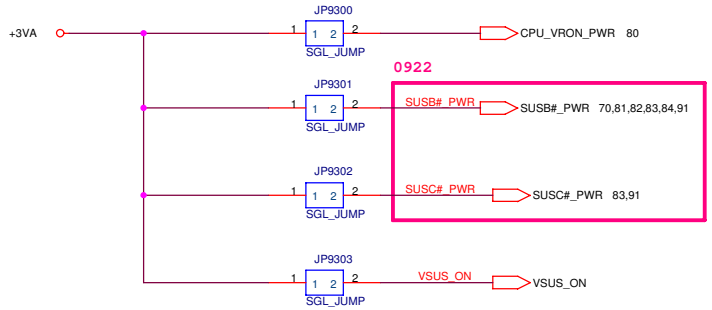
+VCORE → +VCORE

+VRAM → +VRAM

+1.2VSP → +1.2VSP

+1.25VS → +1.25VS

FOR POWER TEST



<Variant Name>

Title : POWER_SIGNAL

<OrgName> Engineer: <OrgAddr1>

Size	Project Name	Rev
Custom	A8ES	2.0

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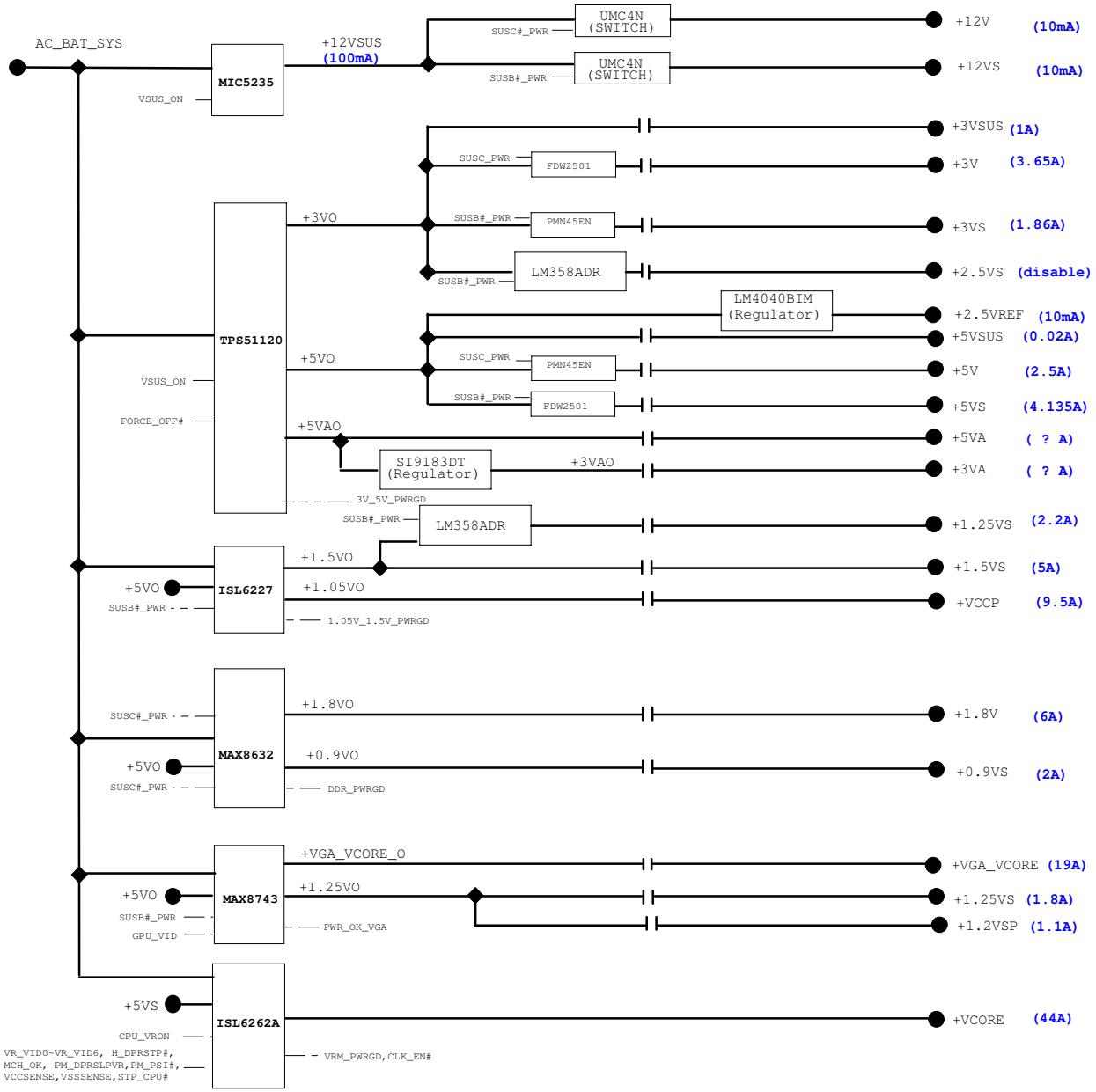

<Variant Name>

Title : POWER_VCORE

<OrgName> Engineer:

Size	Project Name	Rev
Custom	A8ES	2.0

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