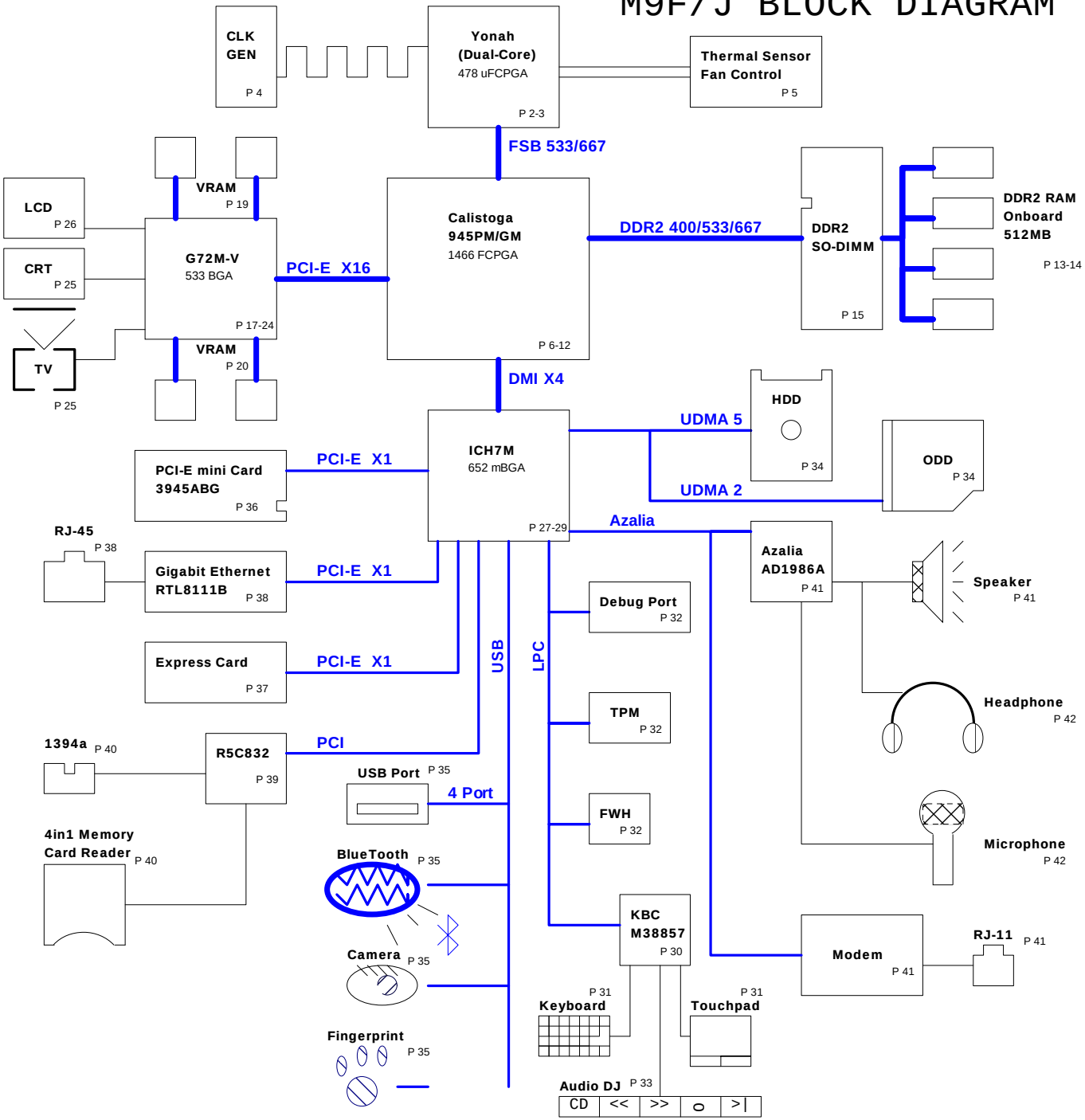
# M9F/J BLOCK DIAGRAM

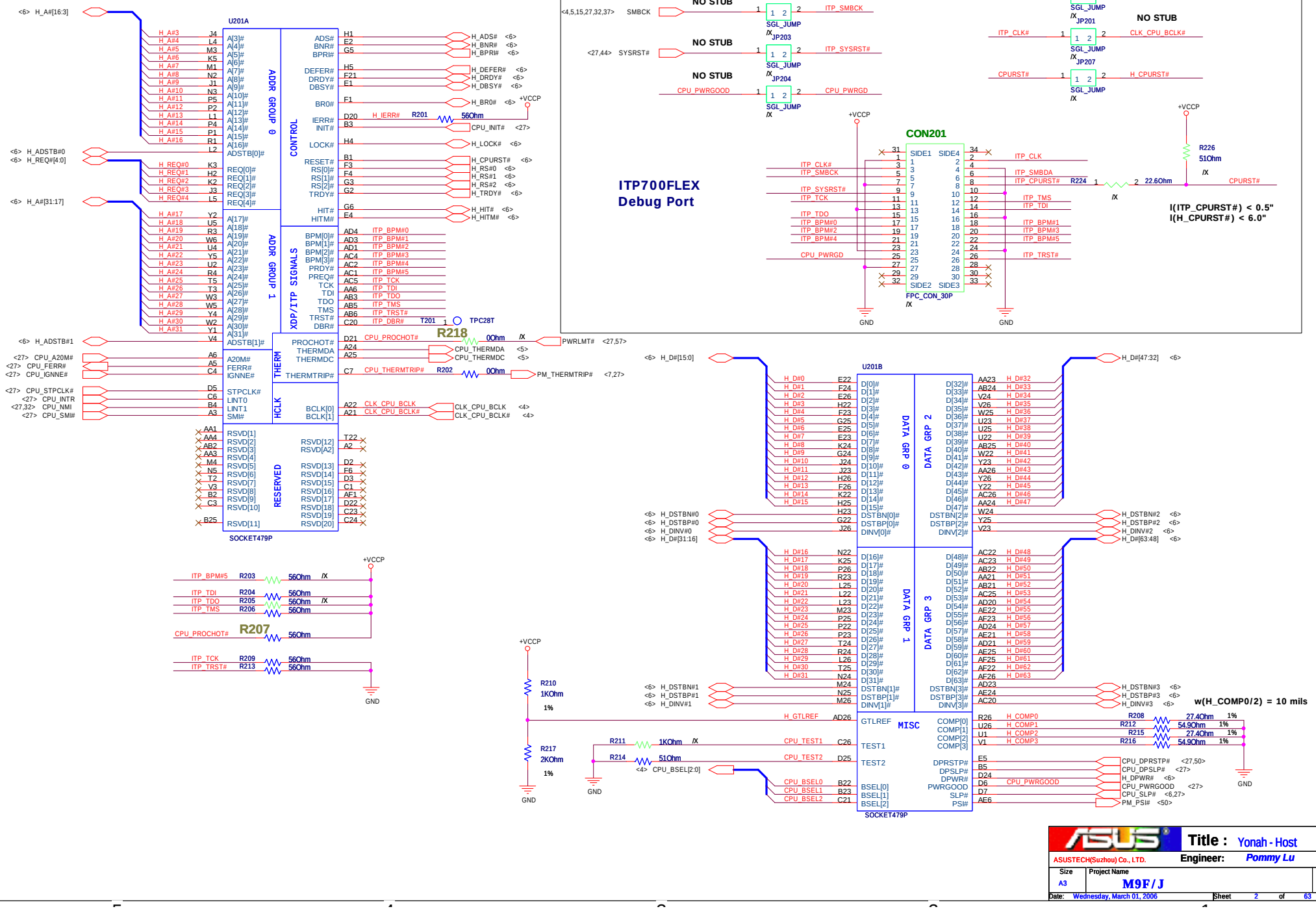



## Content

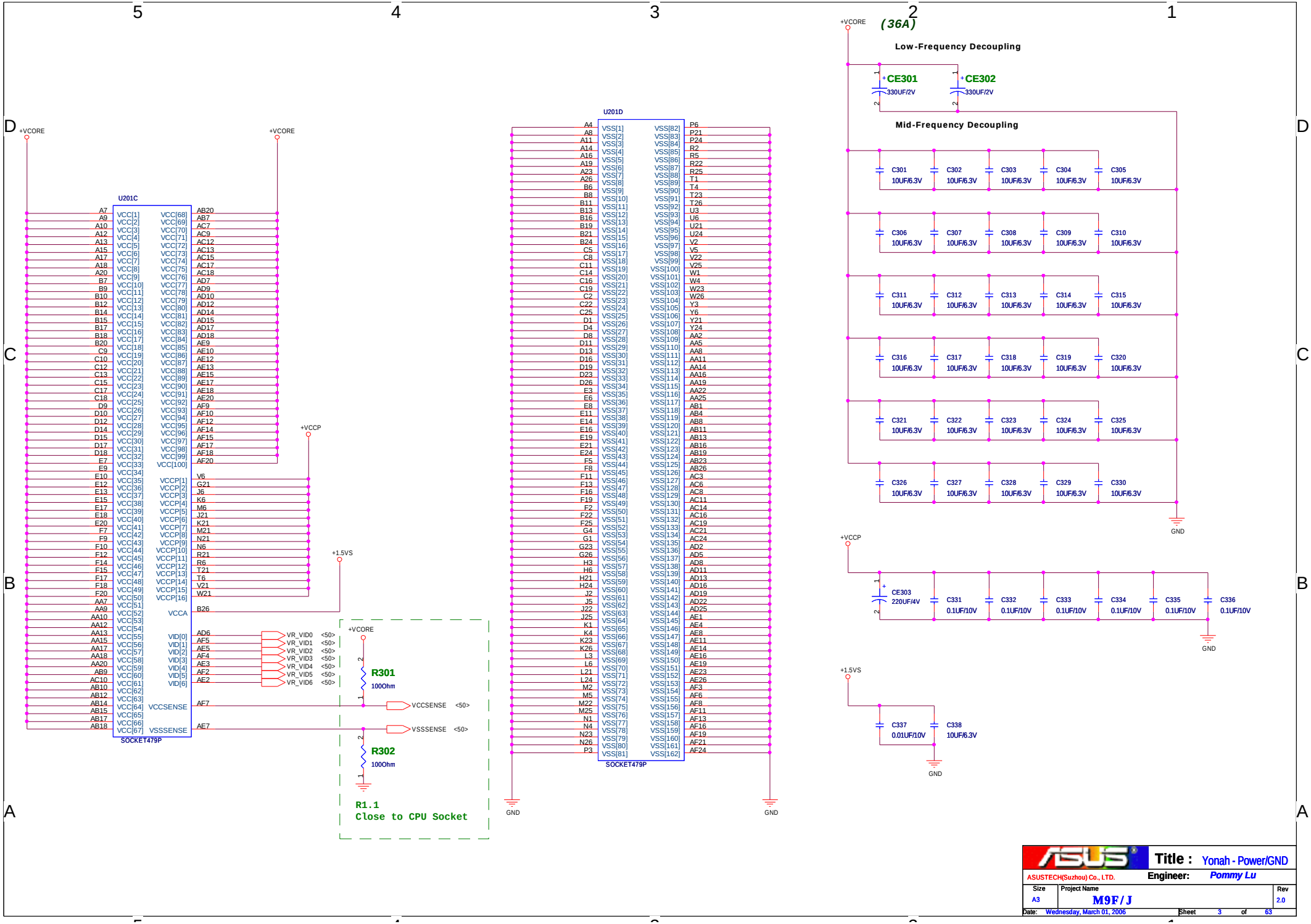


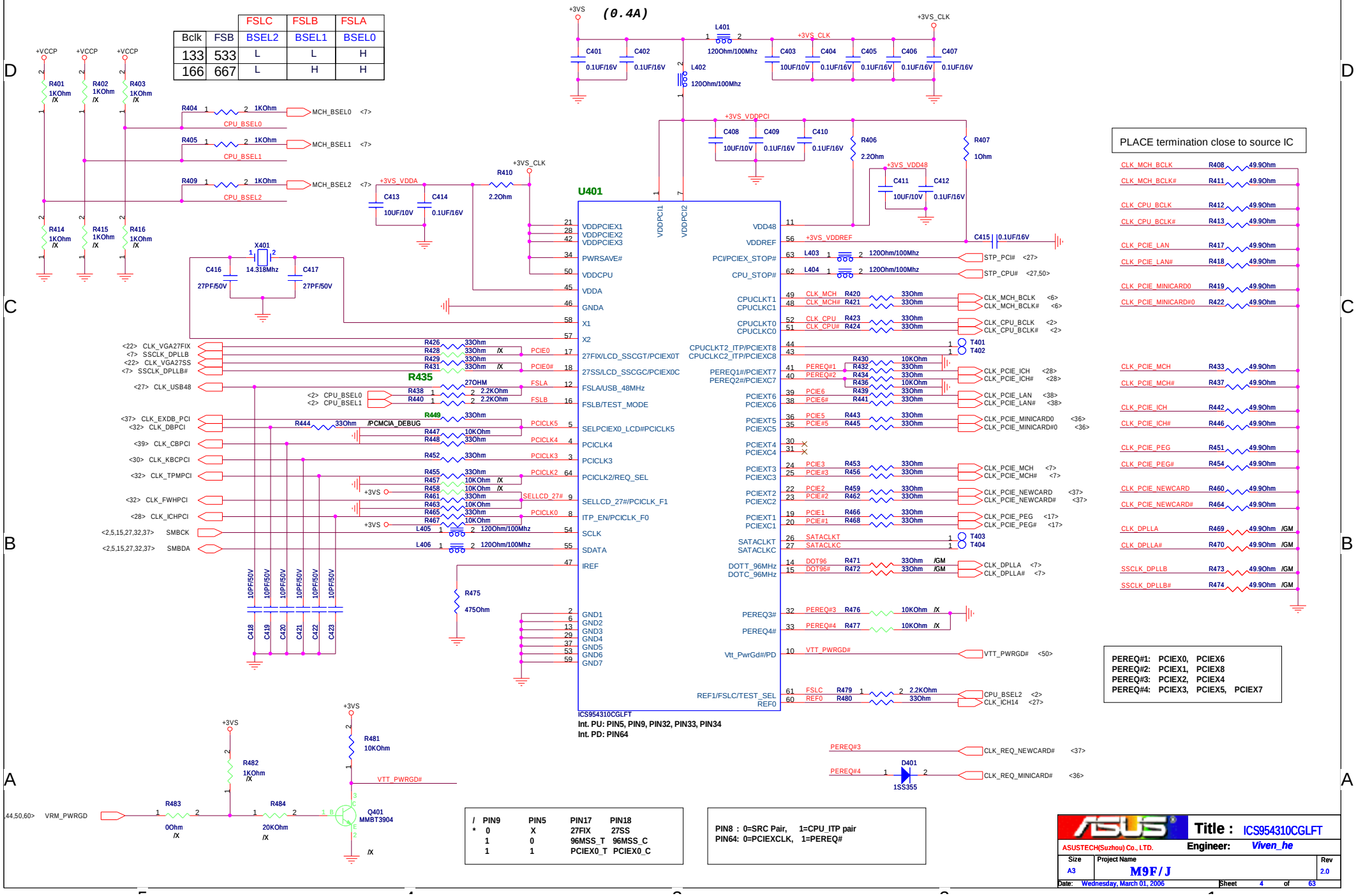
| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : Block Diagram | |
| | Engineer: Pommy Lu | |
| Size: A3 | Project Name: M9F/J | Rev: 2.0 |
| Date: Wednesday, January 11, 2006 | Sheet 1 of 63 | |

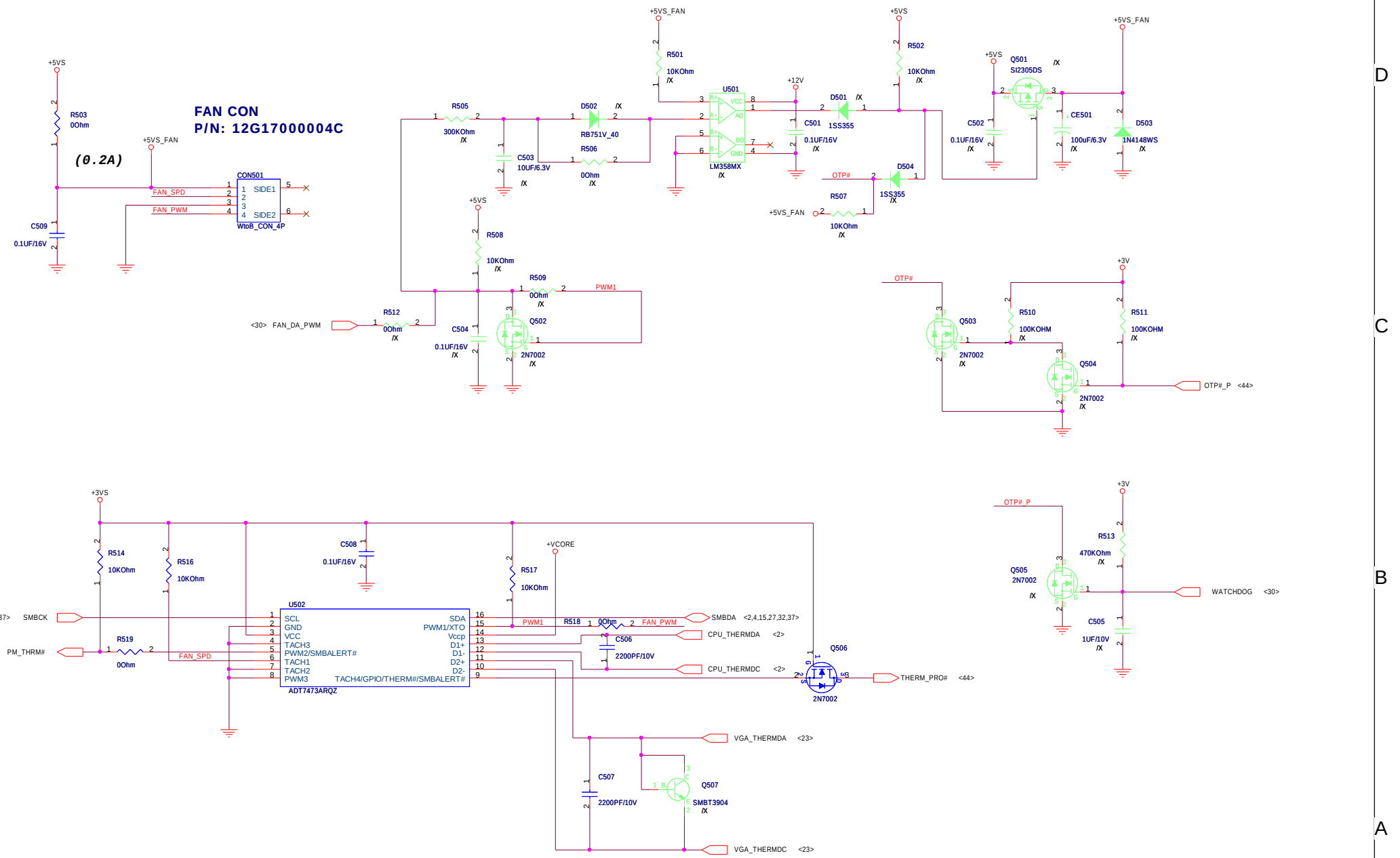
P/N: 12G04600479A




| | | | |
|---|---|---|---|
| Title : | Yonah - Host | | |
| ASUSTECH(Suzhou) Co., LTD. | Engineer: | Pommy Lu | |
| Size: A3 | Project Name: M9F/J | | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 2 of 63 | | |

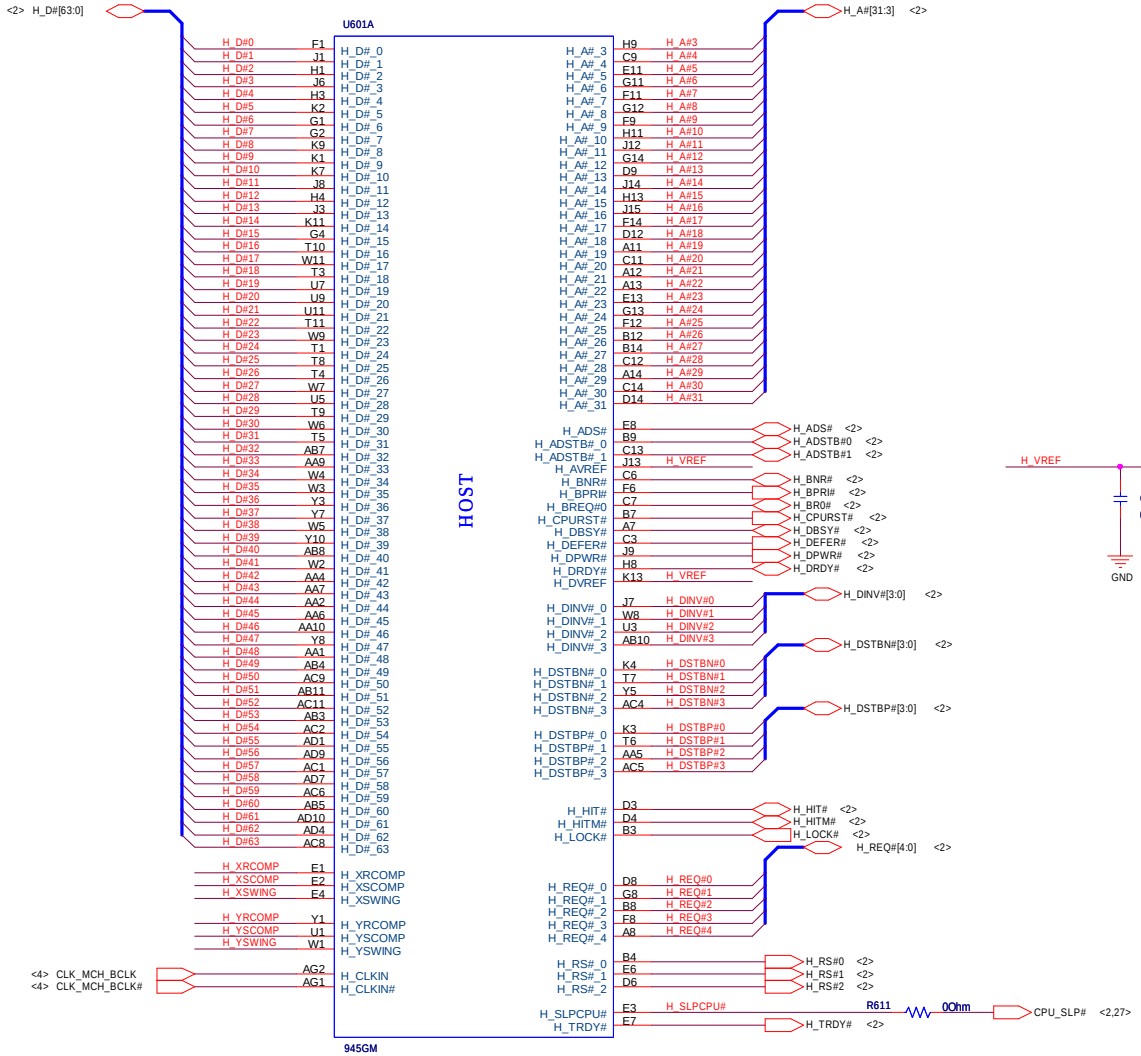

U201C
SOCKET479P
U201D
SOCKET479P
+VCORE
+VCCP
+1.5VS
GND
R301
100Ohm
R302
100Ohm
VCCSENSE
VSSSENSE
R1.1
Close to CPU Socket
(36A)
Low-Frequency Decoupling
CE301
330UF/2V
CE302
330UF/2V
Mid-Frequency Decoupling
C301 10UF/6.3V
C302 10UF/6.3V
C303 10UF/6.3V
C304 10UF/6.3V
C305 10UF/6.3V
C306 10UF/6.3V
C307 10UF/6.3V
C308 10UF/6.3V
C309 10UF/6.3V
C310 10UF/6.3V
C311 10UF/6.3V
C312 10UF/6.3V
C313 10UF/6.3V
C314 10UF/6.3V
C315 10UF/6.3V
C316 10UF/6.3V
C317 10UF/6.3V
C318 10UF/6.3V
C319 10UF/6.3V
C320 10UF/6.3V
C321 10UF/6.3V
C322 10UF/6.3V
C323 10UF/6.3V
C324 10UF/6.3V
C325 10UF/6.3V
C326 10UF/6.3V
C327 10UF/6.3V
C328 10UF/6.3V
C329 10UF/6.3V
C330 10UF/6.3V
CE303 220UF/4V
C331 0.1UF/10V
C332 0.1UF/10V
C333 0.1UF/10V
C334 0.1UF/10V
C335 0.1UF/10V
C336 0.1UF/10V
C337 0.01UF/10V
C338 10UF/6.3V
Title : Yonah - Power/GND
ASUSTECH(Suzhou) Co., LTD.
Engineer: Pommy Lu
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 3 of 63

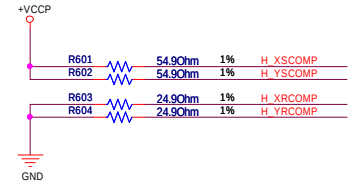

FSLC FSLB FSLA
Bclk FSB BSEL2 BSEL1 BSEL0
133 533 L L H
166 667 L H H
U401
ICS954310CGLFT
Int. PU: PIN5, PIN9, PIN32, PIN33, PIN34
Int. PD: PIN64
R435
PLACE termination close to source IC
PEREQ#1: PCIEX0, PCIEX6
PEREQ#2: PCIEX1, PCIEX8
PEREQ#3: PCIEX2, PCIEX4
PEREQ#4: PCIEX3, PCIEX5, PCIEX7
/ PIN9 PIN5 PIN17 PIN18
* 0 X 27FIX 27SS
1 0 96MSS_T 96MSS_C
1 1 PCIEX0_T PCIEX0_C
PIN8 : 0=SRC Pair, 1=CPU_ITP pair
PIN64: 0=PCIEXCLK, 1=PEREQ#
Title : ICS954310CGLFT
ASUSTECH(Suzhou) Co., LTD.
Engineer: Viven_he
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 4 of 63

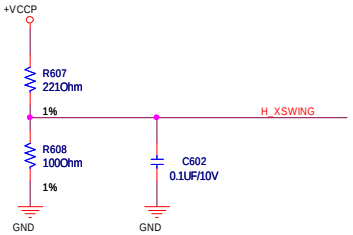


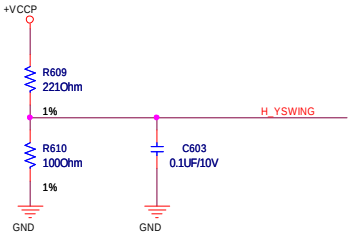

| | | | |
|---|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : FAN & THERMAL SENSOR | | |
| | Engineer: Viven_he | | |
| Size: A3 | Project Name: M9F / J | | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 5 of 63 | | |

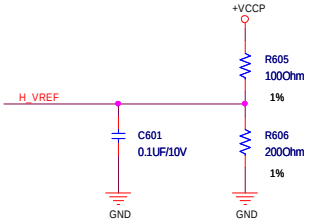
**945PM P/N: 02G010009205**
**945GM P/N: 02G010009210**




| | | | |
|---|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : Calistoga - Host | | |
| | Engineer: Pommy Lu | | |
| Size: A3 | Project Name: M9F / J | | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 6 of 63 | | |

**STRAPPING CONFIGURATION**
**CFG[17:3] - Internal pull-up**
**CFG[20:18] - Internal pull-down**

R705 2.2KOhm /X DMI_SEL

**CFG5 - DMI x2 Select**
**0 = DMI x2**
**1 = DMI x4 (default)**

R710 2.2KOhm /X CPU_STRAP

**CFG7 - CPU Strap**
**0 = Reserved**
**1 = Mobile CPU (default)**

R711 2.2KOhm PCIE_RVS

**CFG9 - PCI-E Lane Reversal**
**0 = Reverse Lanes**
**1 = Normal (default)**

R714 2.2KOhm /X TEST_MD0
R715 2.2KOhm /X TEST_MD1

**CFG[13:12] - XOR/ALLZ**
**00 = Partial CLock Gating Disable**
**01 = XOR Mode Enabled**
**10 = All-Z Mode Enabled**
**11 = Normal (default)**

R718 2.2KOhm /X DYN_ODT

**CFG16 - FSB Dynamic ODT**
**0 = Disabled**
**1 = Enabled (default)**

GND

+3VS

R723 1KOhm /X VCC_SEL

**CFG18 - GMCH VCC Select**
**0 = 1.05V (default)**
**1 = 1.5V**

R725 1KOhm /X DMI_RVS

**CFG19 - DMI Lane Reversal**
**0 = Normal (default)**
**1 = Reverse Lanes**

T701 1 TPC28T SDVO_PCIE

**CFG20 - SDVO/PCIE Concurrent**
**0 = Only SDVO or PCIE x1 is ioperational (default)**
**1 = SDVO and PCIE x1 are operating simultaneously via PEG port**

T702 1 TPC28T SDVO_PST

**SDVO_CTRLDATA - SDVO Present**
**0 = No SDVO Card Present (default)**
**1 = SDVO Card Present**

U601B

RSVD: RSVD_1 T32, RSVD_2 R32, RSVD_3 F3, RSVD_4 F7, RSVD_5 AG11, RSVD_6 AF11, RSVD_7 H7, RSVD_8 J19, TV_DCONSEL_0 K30, TV_DCONSEL_1 J29, RSVD_11 A41, RSVD_12 A35, RSVD_13 A34, RSVD_14 D28, RSVD_15 D27

CFG: <4> MCH_BSEL[2:0] → MCH_BSEL0 K16, MCH_BSEL1 K18, MCH_BSEL2 J18; DMI_SEL F18; CPU_STRAP E15; PCIE_RVS F15; TEST_MD0 E18; TEST_MD1 D19; DYN_ODT D16; VCC_SEL G16; DMI_RVS E16; SDVO_PCIE D15; CFG_0 G15 … CFG_20 K15

PM: PM_BMBUSY# G28, PM_EXTTS#_0 F25, PM_EXTTS#_1 H26, PM_THRMTRIP# G6, PWROK AH33, RSTIN# AH34

MISC: SDVO_CTRLCLK H28, SDVO_CTRLDATA H27, ICH_SYNC# K28, CLK_REQ# H32

NC: NC0 D1, NC1 C41, NC2 C1, NC3 BA41, NC4 BA40, NC5 BA39, NC6 BA3, NC7 BA2, NC8 BA1, NC9 B41, NC10 B2, NC11 AY41, NC12 AY1, NC13 AW41, NC14 AW1, NC15 A40, NC16 A4, NC17 A39, NC18 A3

945GM

<27> PM_BMBUSY# — R719 10KOhm PM_EXTTS#0; R720 10KOhm PM_EXTTS#1
<2,27> PM_THERMTRIP# — R721 0Ohm GMCH_THRMTRIP#
<44> MCHOK_GMCH
<17,28,30,32,34,37> PLT_RST# — R722 0Ohm GMCH_RST#
<28> GMCH_ICH_SYNC# — R724 0Ohm GMCH_CLK_REQ#
<27,50> PM_DPRSLPVR — R730 0Ohm PM_EXTTS#1

DDR MUXING:
SM_CK_0 AY35, SM_CK_1 AR1, SM_CK_2 AW7, SM_CK_3 AW40 — SM_CK0 R701, SM_CK1 R702, SM_CK2 R703, SM_CK3 R704 (0Ohm) → SA_CK0 <13,14>, SA_CK1 <13,14>, SB_CK1 <15>, SB_CK0 <15>
SM_CK#_0 AW35, SM_CK#_1 AT1, SM_CK#_2 AY7, SM_CK#_3 AY40 — SM_CK#0 R706, SM_CK#1 R707, SM_CK#2 R708, SM_CK#3 R709 (0Ohm) → SA_CK#0 <13,14>, SA_CK#1 <13,14>, SB_CK#1 <15>, SB_CK#0 <15>
SM_CKE_0 AU20, SM_CKE_1 AT20, SM_CKE_2 BA29, SM_CKE_3 AY29 → SA_CKE0 <13,16>, SA_CKE1 <14,16>, SB_CKE0 <15,16>, SB_CKE1 <15,16>
SM_CS#_0 AW13, SM_CS#_1 AW12, SM_CS#_2 AY21, SM_CS#_3 AW21 → SA_CS#0 <13,16>, SA_CS#1 <14,16>, SB_CS#0 <15,16>, SB_CS#1 <15,16>
SM_OCDCOMP_0 AL20 SM_OCDCOMP0 R712 40.2Ohm /X; SM_OCDCOMP_1 AF10 SM_OCDCOMP1 R713 40.2Ohm /X → GND
SM_ODT_0 BA13, SM_ODT_1 BA12, SM_ODT_2 AY20, SM_ODT_3 AU21 → SA_ODT0 <13,16>, SA_ODT1 <14,16>, SB_ODT0 <15,16>, SB_ODT1 <15,16>
SM_RCOMP# AV9 SM_RCOMP# R716 80.6Ohm 1%; SM_RCOMP AT9 SM_RCOMP R717 80.6Ohm 1% → GND
SM_VREF_0 AK1, SM_VREF_1 AK41 → SM_VREF; C701 0.1UF/10V → GND
+1.8V

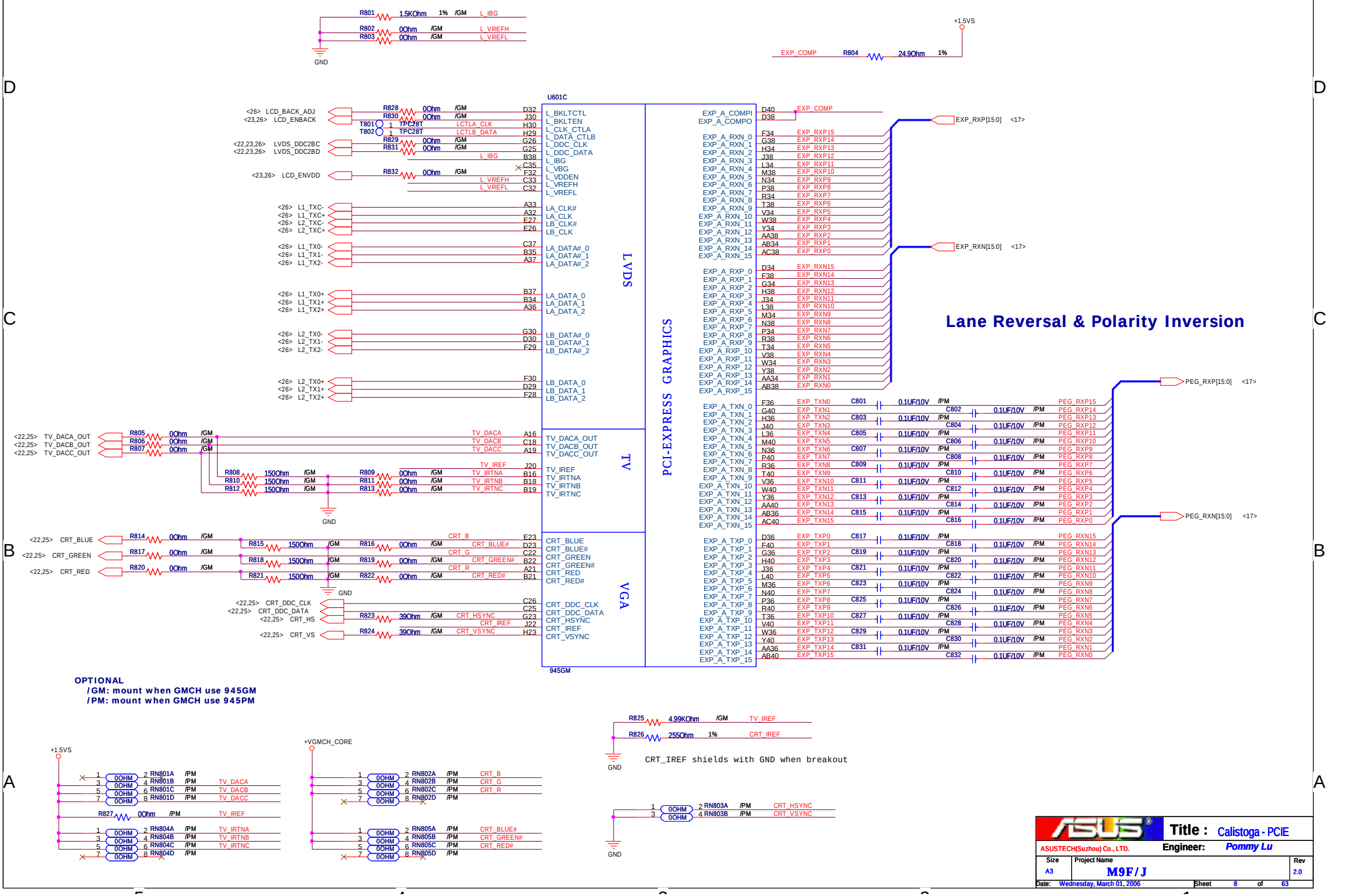
CLK:
G_CLKIN# AF33 → CLK_PCIE_MCH# <4>
G_CLKIN AG33 → CLK_PCIE_MCH <4>
D_REFCLKIN# A27 → CLK_DPLLA# <4>
D_REFCLKIN A26 → CLK_DPLLA <4>
D_REFSSCLKIN# C40 → SSCLK_DPLLB# <4>
D_REFSSCLKIN D41 → SSCLK_DPLLB <4>

DMI:
DMI_RXN_0 AE35 DMI_RXN0, DMI_RXN_1 AF39 DMI_RXN1, DMI_RXN_2 AG35 DMI_RXN2, DMI_RXN_3 AH39 DMI_RXN3 → DMI_RXN[3:0] <28>
DMI_RXP_0 AC35 DMI_RXP0, DMI_RXP_1 AE39 DMI_RXP1, DMI_RXP_2 AF35 DMI_RXP2, DMI_RXP_3 AG39 DMI_RXP3 → DMI_RXP[3:0] <28>
DMI_TXN_0 AE37 DMI_TXN0, DMI_TXN_1 AF41 DMI_TXN1, DMI_TXN_2 AG37 DMI_TXN2, DMI_TXN_3 AH41 DMI_TXN3 → DMI_TXN[3:0] <28>
DMI_TXP_0 AC37 DMI_TXP0, DMI_TXP_1 AE41 DMI_TXP1, DMI_TXP_2 AF37 DMI_TXP2, DMI_TXP_3 AG41 DMI_TXP3 → DMI_TXP[3:0] <28>

+5V, +5VS
R726 0Ohm /X; R727 0Ohm
C702 0.1UF/10V → GND
SM_VREF
U701 LMV321IDBVR (V+ pin 5, V- pin 2, pin 4, pin 1, pin 3) → GND
R728 10KOhm 1% → +1.8V
R729 10KOhm 1% → GND
C703 0.01UF/10V → GND

ASUSTECH(Suzhou) Co., LTD.

| Title : | Calistoga - Host/DMI | | |
|---|---|---|---|
| Engineer: | Pommy Lu | | |
| Size | Project Name | | Rev |
| A3 | M9F/J | | 2.0 |
| Date: Wednesday, March 01, 2006 | | Sheet 7 of 63 | |


R801 1.5KOhm 1% /GM L_IBG
R802 0Ohm /GM L_VREFH
R803 0Ohm /GM L_VREFL
GND
+1.5VS
EXP_COMP R804 24.9Ohm 1%
U601C
LVDS
TV
VGA
PCI-EXPRESS GRAPHICS
945GM
L_BKLTCTL
L_BKLTEN
L_CLK_CTLA
L_DATA_CTLB
L_DDC_CLK
L_DDC_DATA
L_IBG
L_VBG
L_VDDEN
L_VREFH
L_VREFL
LA_CLK#
LA_CLK
LB_CLK#
LB_CLK
LA_DATA#_0
LA_DATA#_1
LA_DATA#_2
LA_DATA_0
LA_DATA_1
LA_DATA_2
LB_DATA#_0
LB_DATA#_1
LB_DATA#_2
LB_DATA_0
LB_DATA_1
LB_DATA_2
TV_DACA_OUT
TV_DACB_OUT
TV_DACC_OUT
TV_IREF
TV_IRTNA
TV_IRTNB
TV_IRTNC
CRT_BLUE
CRT_BLUE#
CRT_GREEN
CRT_GREEN#
CRT_RED
CRT_RED#
CRT_DDC_CLK
CRT_DDC_DATA
CRT_HSYNC
CRT_IREF
CRT_VSYNC
EXP_A_COMPI
EXP_A_COMPO
EXP_A_RXN_0
EXP_A_RXN_1
EXP_A_RXN_2
EXP_A_RXN_3
EXP_A_RXN_4
EXP_A_RXN_5
EXP_A_RXN_6
EXP_A_RXN_7
EXP_A_RXN_8
EXP_A_RXN_9
EXP_A_RXN_10
EXP_A_RXN_11
EXP_A_RXN_12
EXP_A_RXN_13
EXP_A_RXN_14
EXP_A_RXN_15
EXP_A_RXP_0
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EXP_A_RXP_2
EXP_A_RXP_3
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EXP_A_RXP_5
EXP_A_RXP_6
EXP_A_RXP_7
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EXP_A_TXP_0
EXP_A_TXP_1
EXP_A_TXP_2
EXP_A_TXP_3
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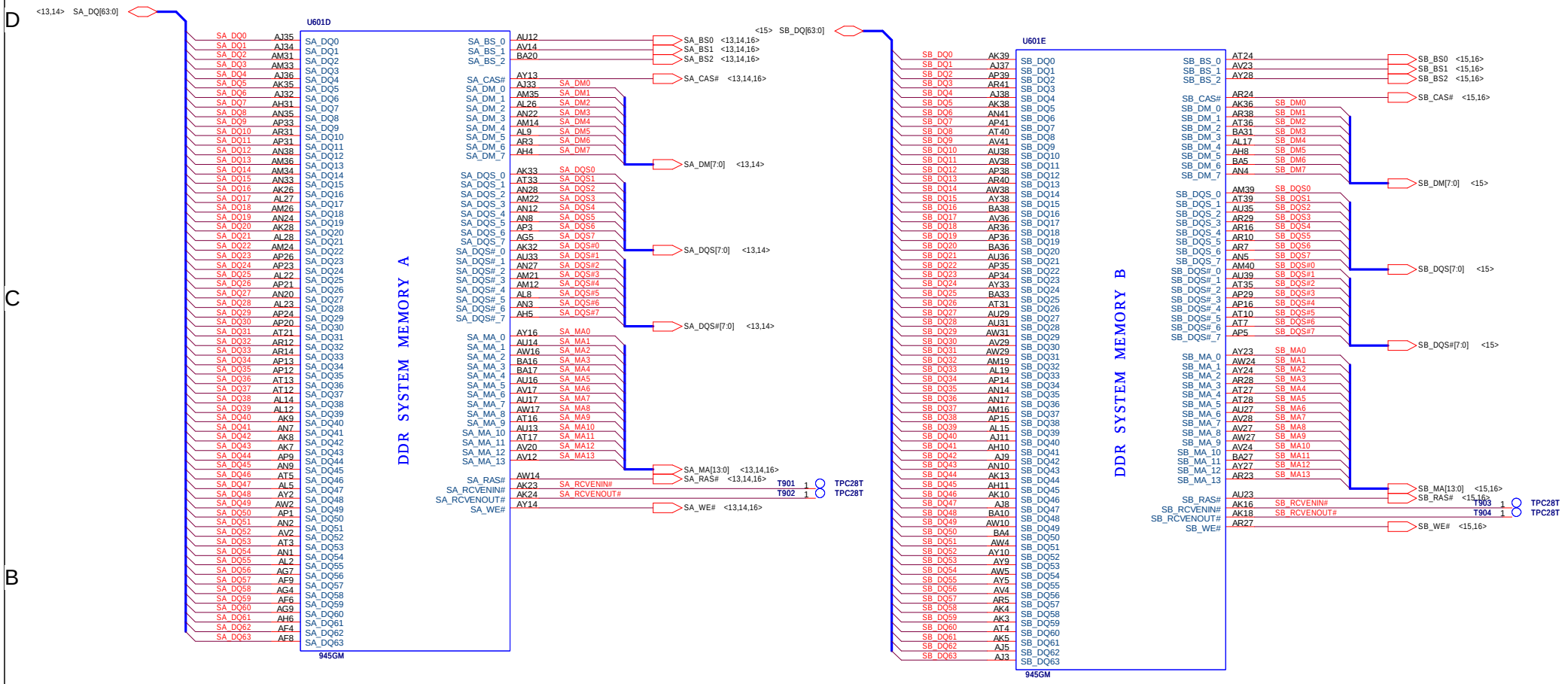
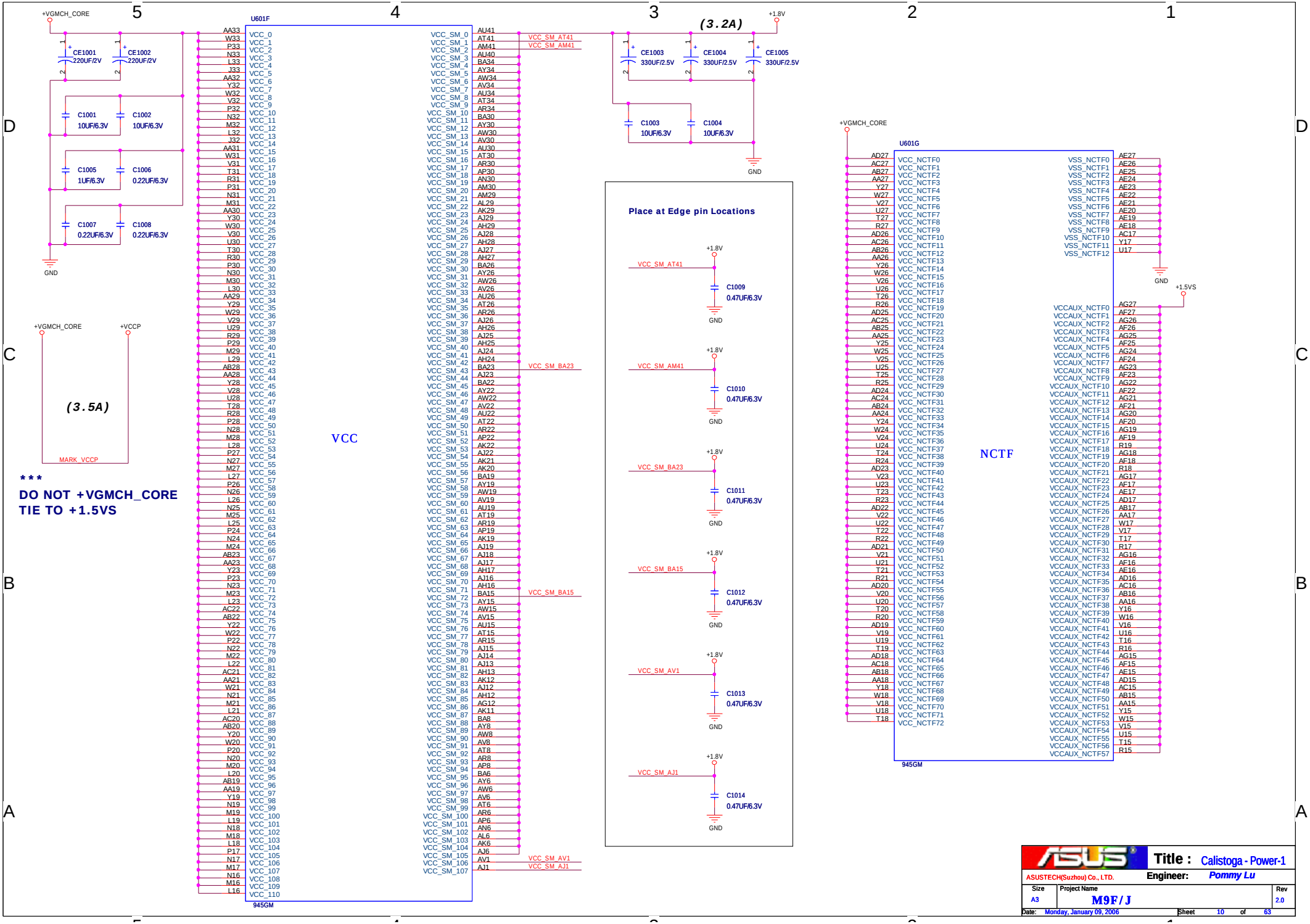
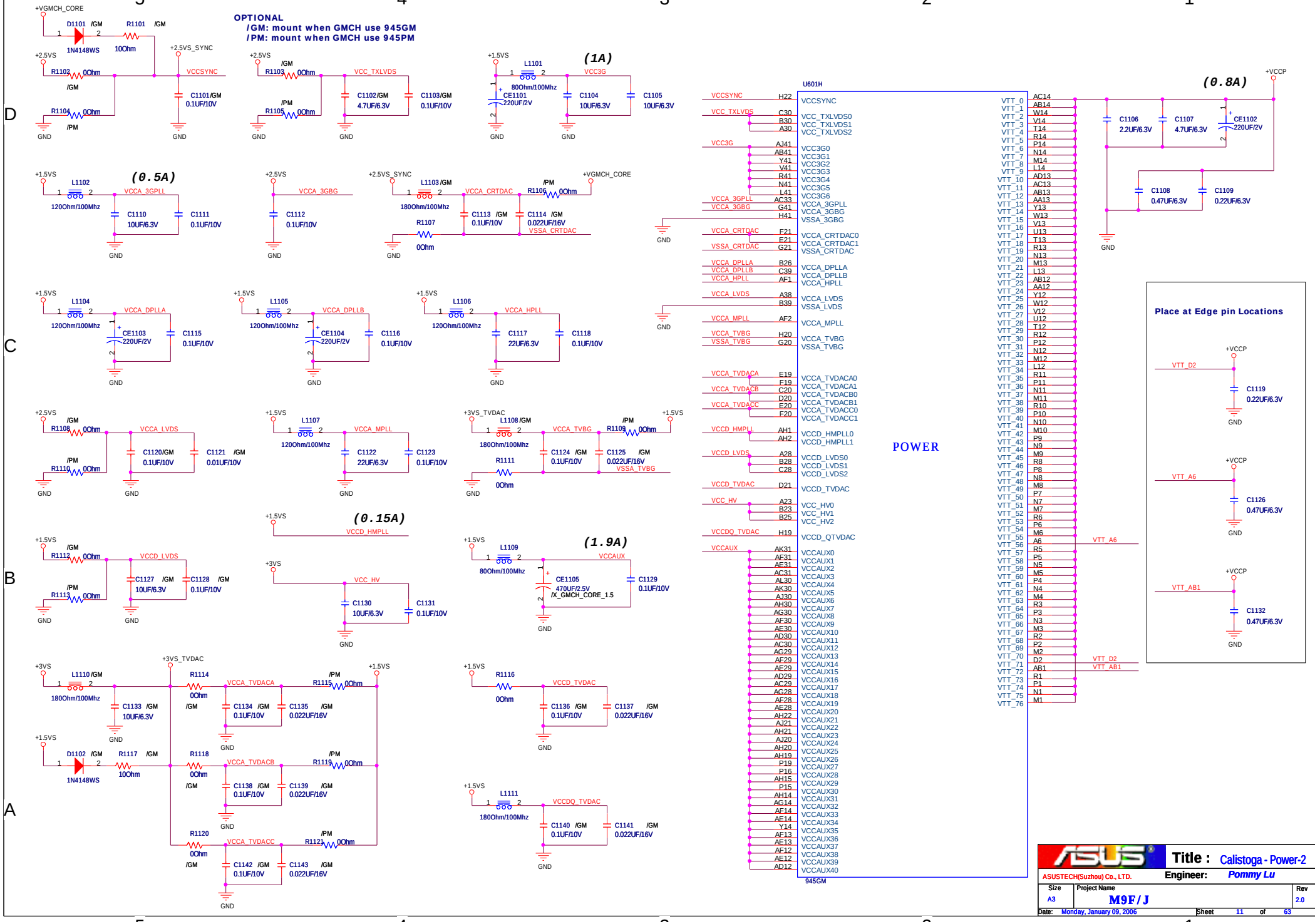
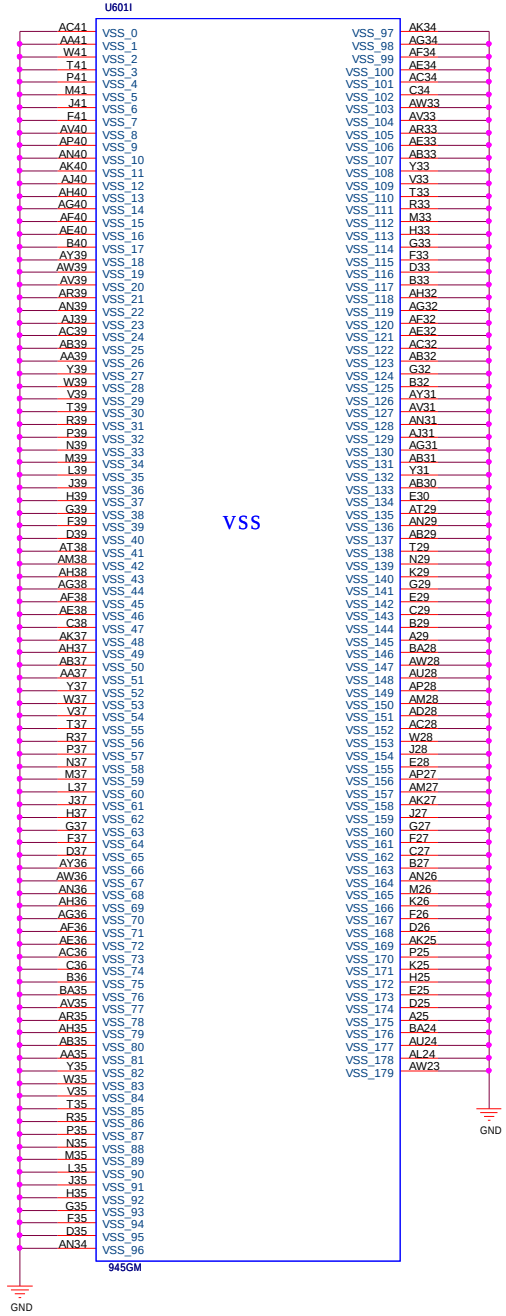
EXP_A_TXP_5
EXP_A_TXP_6
EXP_A_TXP_7
EXP_A_TXP_8
EXP_A_TXP_9
EXP_A_TXP_10
EXP_A_TXP_11
EXP_A_TXP_12
EXP_A_TXP_13
EXP_A_TXP_14
EXP_A_TXP_15
EXP_RXP[15:0] <17>
EXP_RXN[15:0] <17>
PEG_RXP[15:0] <17>
PEG_RXN[15:0] <17>
Lane Reversal & Polarity Inversion
0.1UF/10V /PM
OPTIONAL
/GM: mount when GMCH use 945GM
/PM: mount when GMCH use 945PM
+1.5VS
+VGMCH_CORE
R827 0Ohm /PM TV_IREF
R825 4.99KOhm /GM TV_IREF
R826 255Ohm 1% CRT_IREF
CRT_IREF shields with GND when breakout
Title : Calistoga - PCIE
ASUSTECH(Suzhou) Co., LTD.
Engineer: Pommy Lu
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 8 of 63

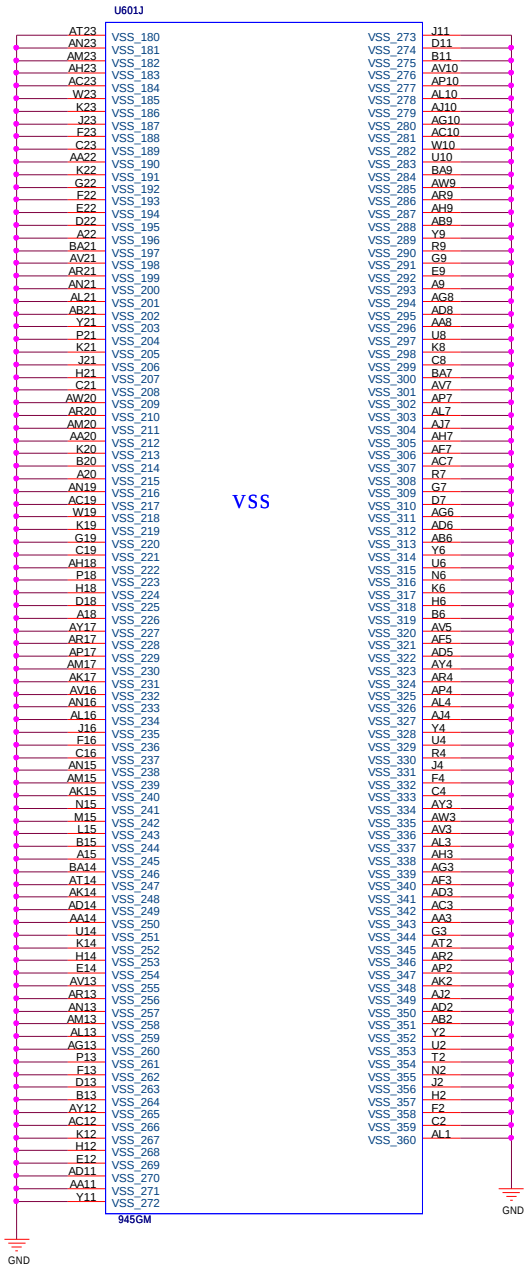



| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : Calistoga - SysMEM | |
| | Engineer: Pommy Lu | |
| Size: A3 | Project Name: M9F / J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 9 of 63 | |


+VGMCH_CORE
CE1001 220UF/2V
CE1002 220UF/2V
C1001 10UF/6.3V
C1002 10UF/6.3V
C1005 1UF/6.3V
C1006 0.22UF/6.3V
C1007 0.22UF/6.3V
C1008 0.22UF/6.3V
GND
+VGMCH_CORE
+VCCP
(3.5A)
MARK_VCCP
***
DO NOT +VGMCH_CORE
TIE TO +1.5VS
U601F
VCC
945GM
(3.2A)
+1.8V
CE1003 330UF/2.5V
CE1004 330UF/2.5V
CE1005 330UF/2.5V
C1003 10UF/6.3V
C1004 10UF/6.3V
VCC_SM_AT41
VCC_SM_AM41
VCC_SM_BA23
VCC_SM_BA15
VCC_SM_AV1
VCC_SM_AJ1
Place at Edge pin Locations
C1009 0.47UF/6.3V
C1010 0.47UF/6.3V
C1011 0.47UF/6.3V
C1012 0.47UF/6.3V
C1013 0.47UF/6.3V
C1014 0.47UF/6.3V
U601G
NCTF
945GM
+1.5VS
Title : Calistoga - Power-1
ASUSTECH(Suzhou) Co., LTD.
Engineer: Pommy Lu
Size A3
Project Name M9F/J
Rev 2.0
Date: Monday, January 09, 2006
Sheet 10 of 63


OPTIONAL
/GM: mount when GMCH use 945GM
/PM: mount when GMCH use 945PM
(1A)
(0.5A)
(0.15A)
(1.9A)
(0.8A)
POWER
U601H
945GM
Place at Edge pin Locations
Title : Calistoga - Power-2
ASUSTECH(Suzhou) Co., LTD.
Engineer: Pommy Lu
Size A3
Project Name M9F/J
Rev 2.0
Date: Monday, January 09, 2006
Sheet 11 of 63



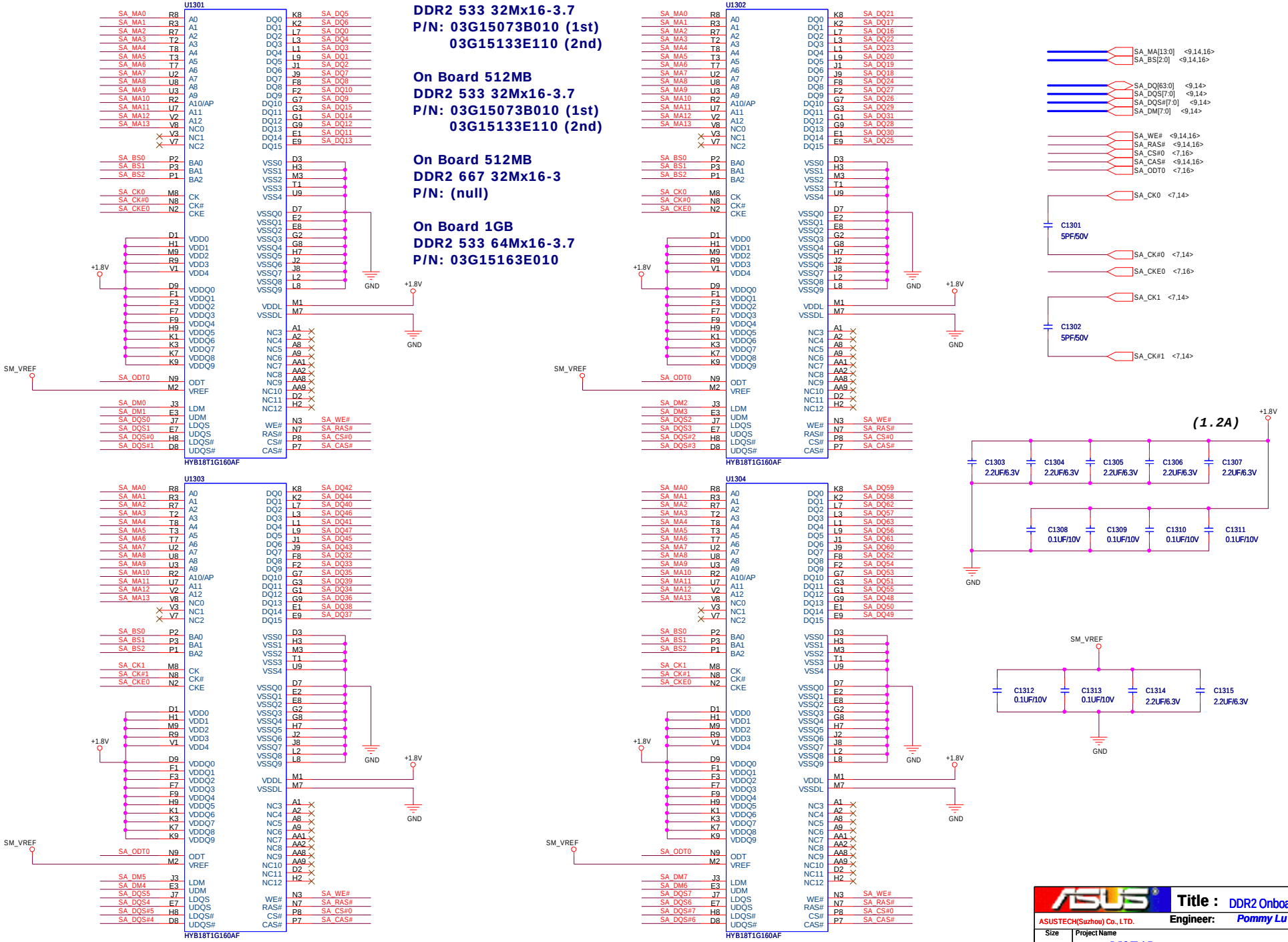

| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : Calistoga - GND | |
| | Engineer: Pommy Lu | |
| Size: A3 | Project Name: M9F / J | Rev: 2.0 |
| Date: Monday, January 09, 2006 | Sheet 12 of 63 | |

On Board 256MB
DDR2 533 32Mx16-3.7
P/N: 03G15073B010 (1st)
03G15133E110 (2nd)

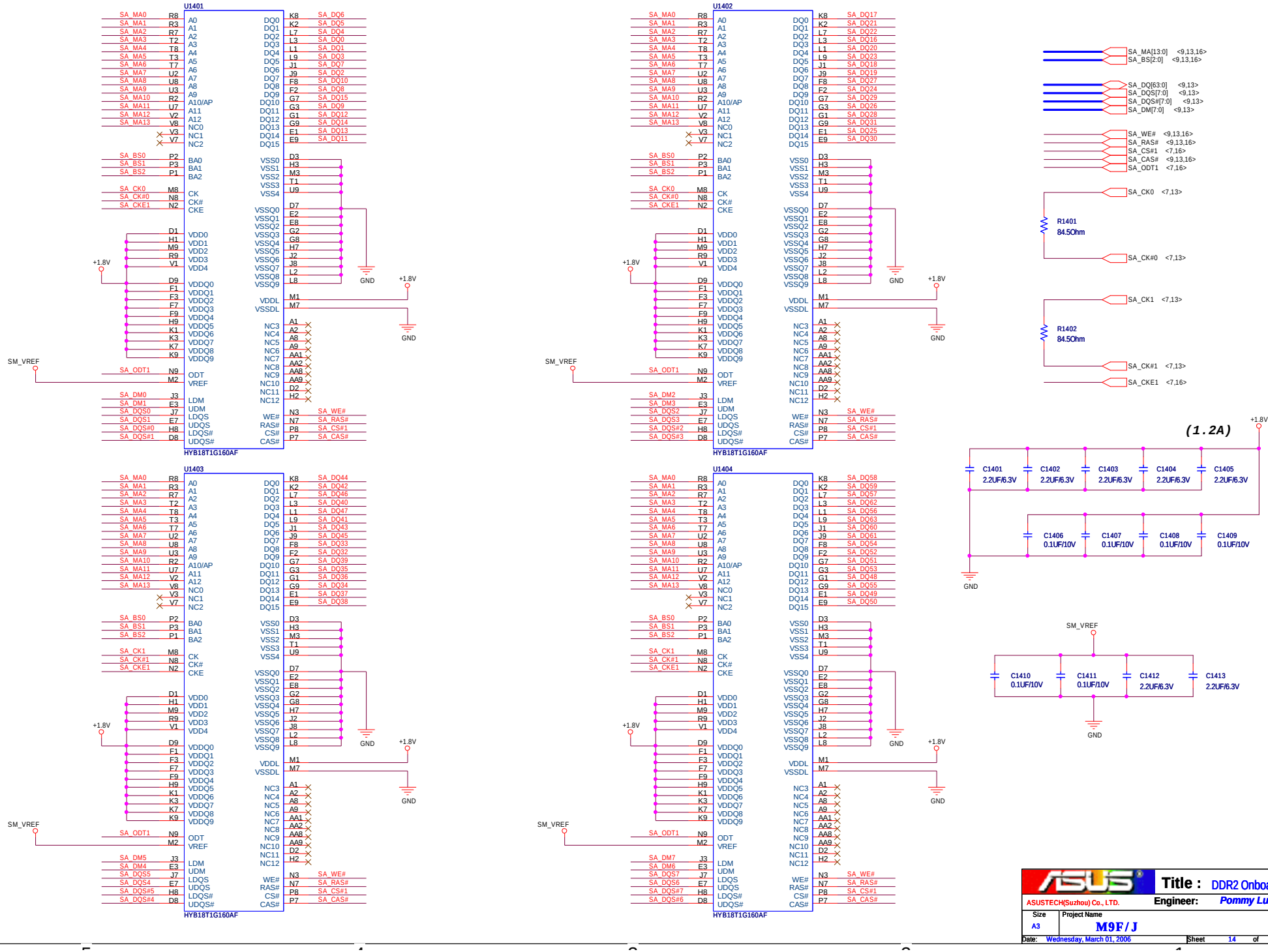
On Board 512MB
DDR2 533 32Mx16-3.7
P/N: 03G15073B010 (1st)
03G15133E110 (2nd)

On Board 512MB
DDR2 667 32Mx16-3
P/N: (null)

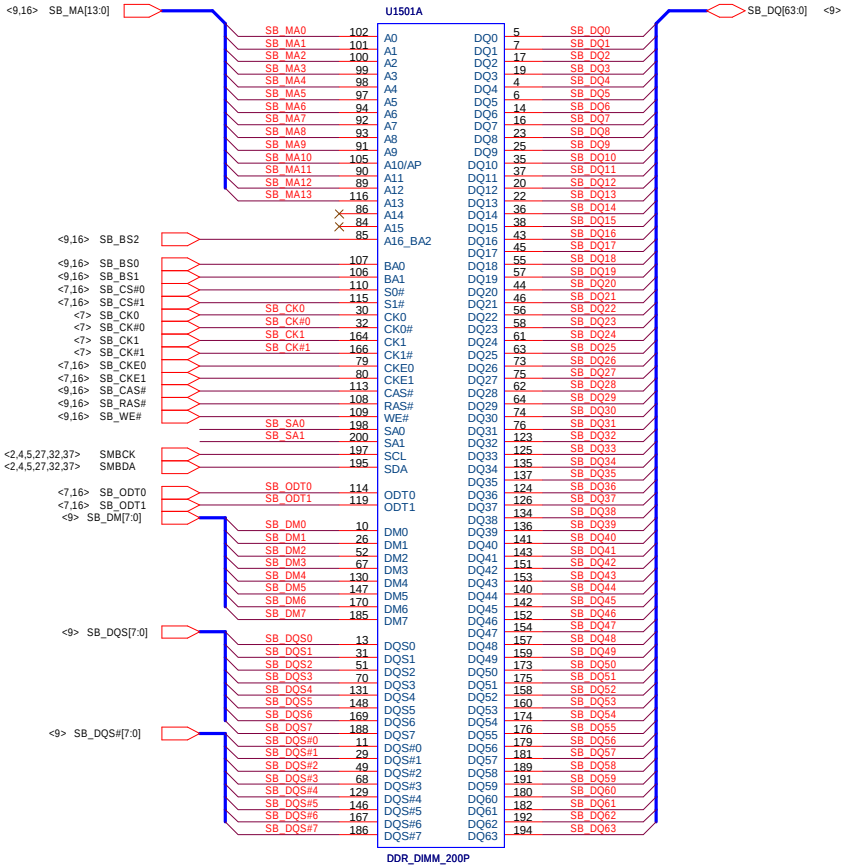
On Board 1GB
DDR2 533 64Mx16-3.7
P/N: 03G15163E010

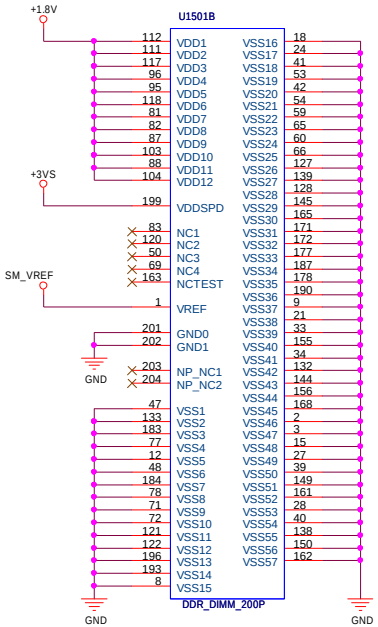


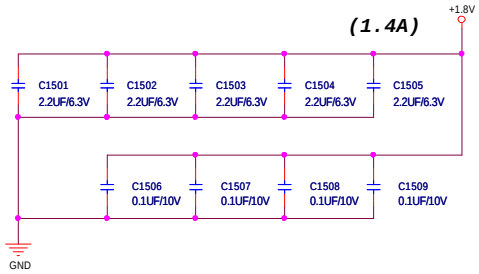

| | | | |
|---|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : DDR2 Onboad CHA-1 | | |
| | Engineer: Pommy Lu | | |
| Size: A3 | Project Name: M9F / J | | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 13 of 63 | | |

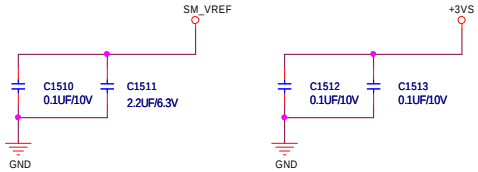

U1401
U1402
U1403
U1404
HYB18T1G160AF
SA_MA0
SA_MA1
SA_MA2
SA_MA3
SA_MA4
SA_MA5
SA_MA6
SA_MA7
SA_MA8
SA_MA9
SA_MA10
SA_MA11
SA_MA12
SA_MA13
SA_BS0
SA_BS1
SA_BS2
SA_CK0
SA_CK#0
SA_CKE1
SA_ODT1
SA_DM0
SA_DM1
SA_DQS0
SA_DQS1
SA_DQS#0
SA_DQS#1
SA_DM2
SA_DM3
SA_DQS2
SA_DQS3
SA_DQS#2
SA_DQS#3
SA_DM5
SA_DM4
SA_DQS5
SA_DQS4
SA_DQS#5
SA_DQS#4
SA_DM7
SA_DM6
SA_DQS7
SA_DQS6
SA_DQS#7
SA_DQS#6
SA_CK1
SA_CK#1
SA_CKE1
SA_WE#
SA_RAS#
SA_CS#1
SA_CAS#
SM_VREF
+1.8V
GND
SA_MA[13:0] <9,13,16>
SA_BS[2:0] <9,13,16>
SA_DQ[63:0] <9,13>
SA_DQS[7:0] <9,13>
SA_DQS#[7:0] <9,13>
SA_DM[7:0] <9,13>
SA_WE# <9,13,16>
SA_RAS# <9,13,16>
SA_CS#1 <7,16>
SA_CAS# <9,13,16>
SA_ODT1 <7,16>
SA_CK0 <7,13>
SA_CK#0 <7,13>
SA_CK1 <7,13>
SA_CK#1 <7,13>
SA_CKE1 <7,16>
R1401
84.5Ohm
R1402
84.5Ohm
(1.2A)
C1401 2.2UF/6.3V
C1402 2.2UF/6.3V
C1403 2.2UF/6.3V
C1404 2.2UF/6.3V
C1405 2.2UF/6.3V
C1406 0.1UF/10V
C1407 0.1UF/10V
C1408 0.1UF/10V
C1409 0.1UF/10V
C1410 0.1UF/10V
C1411 0.1UF/10V
C1412 2.2UF/6.3V
C1413 2.2UF/6.3V
Title : DDR2 Onboad CHA-2
ASUSTECH(Suzhou) Co., LTD.
Engineer: Pommy Lu
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 14 of 63

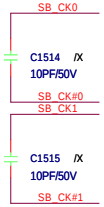
P/N: 12G025122007

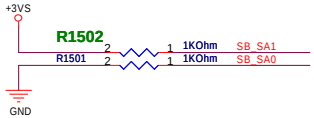


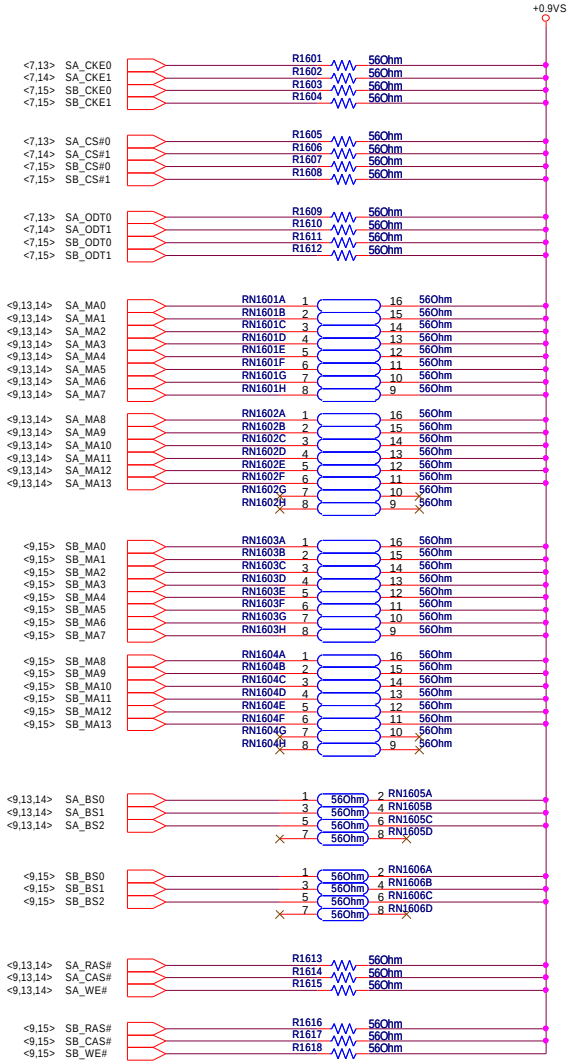

ASUSTECH(Suzhou) Co., LTD.

Title : DDR2 Slot CHB

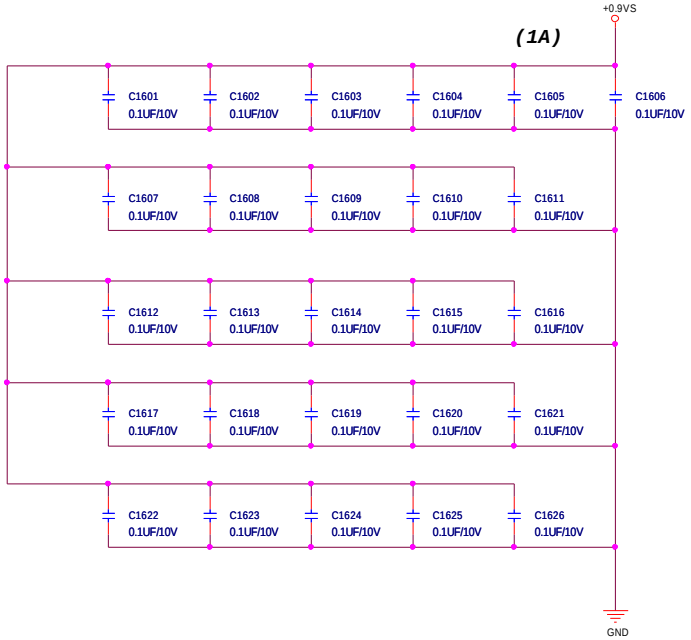
Engineer: Pommy Lu

| Size | Project Name | Rev |
|---|---|---|
| A3 | M9F/J | 2.0 |

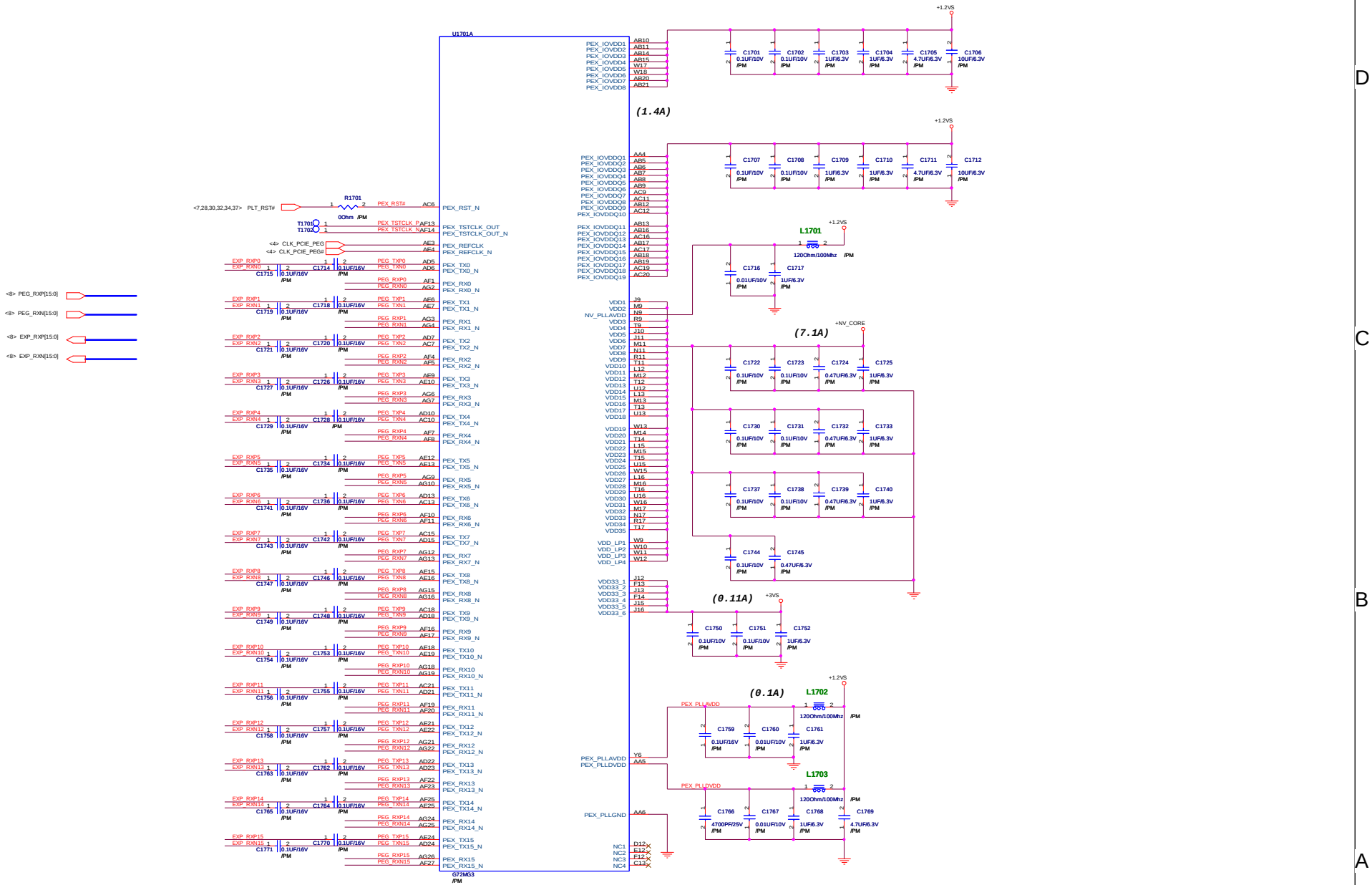
Date: Wednesday, March 01, 2006 Sheet 15 of 63



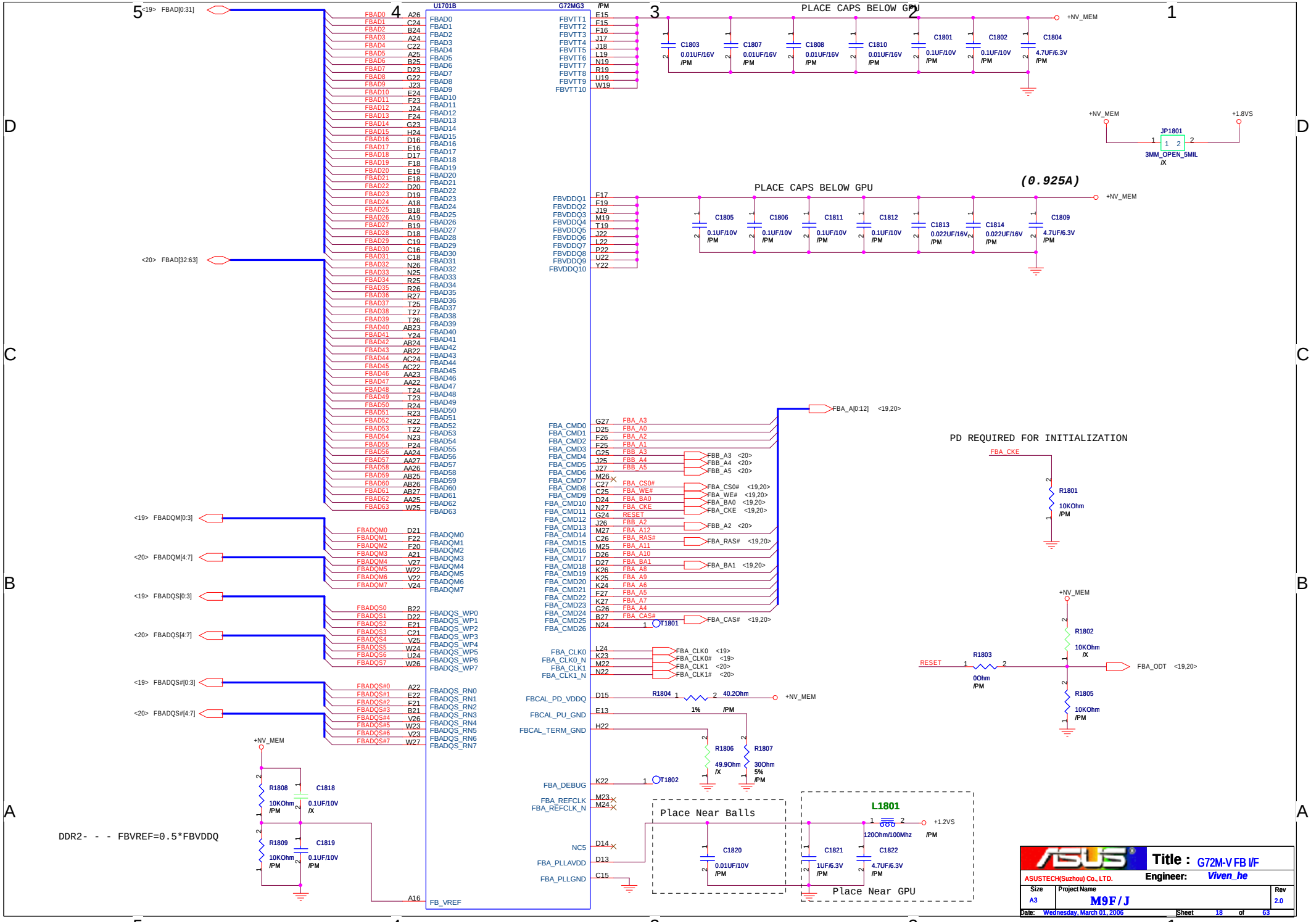

**Place one cap close to every 2 pull-up resistors teminated to +0.9VS**

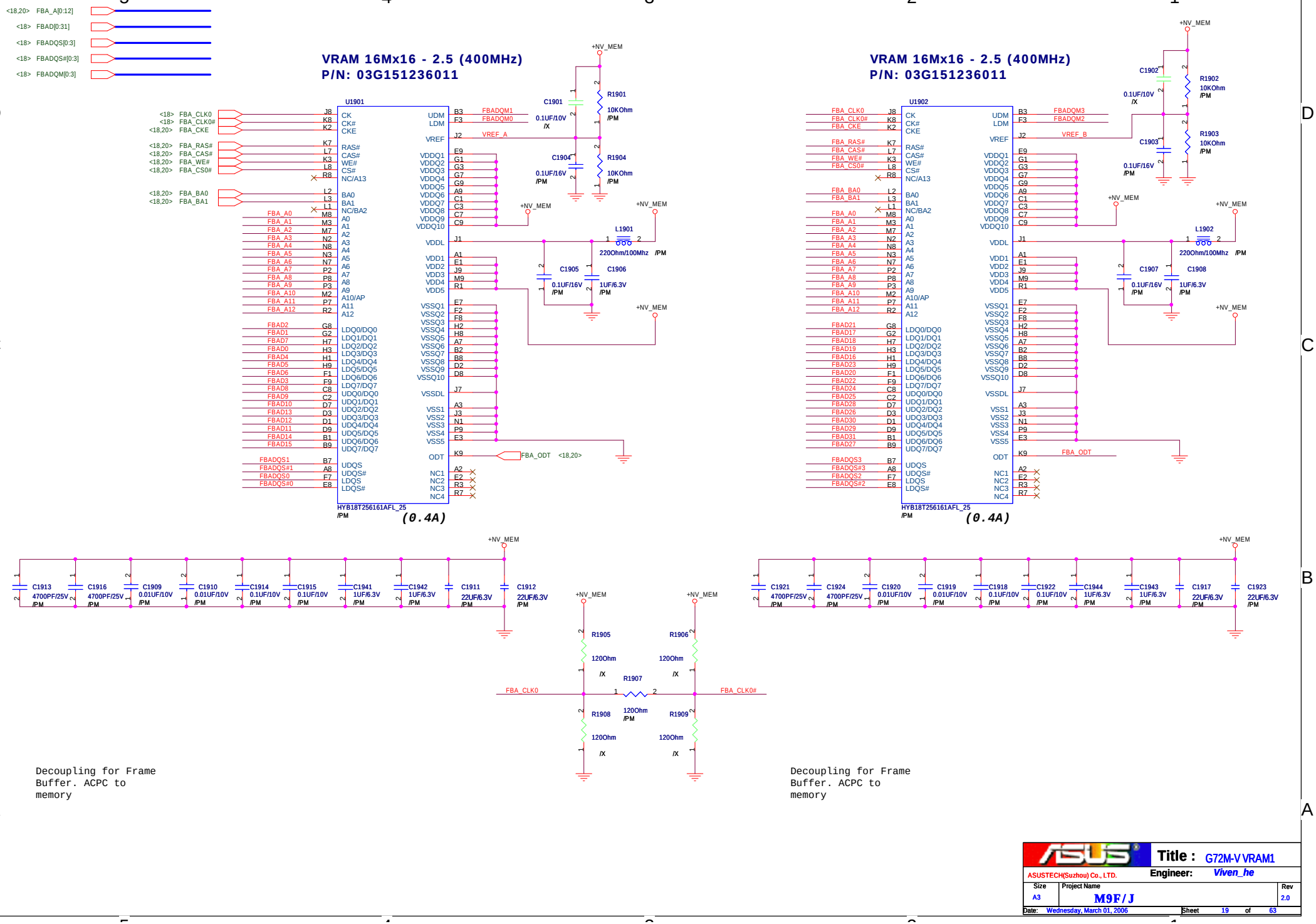


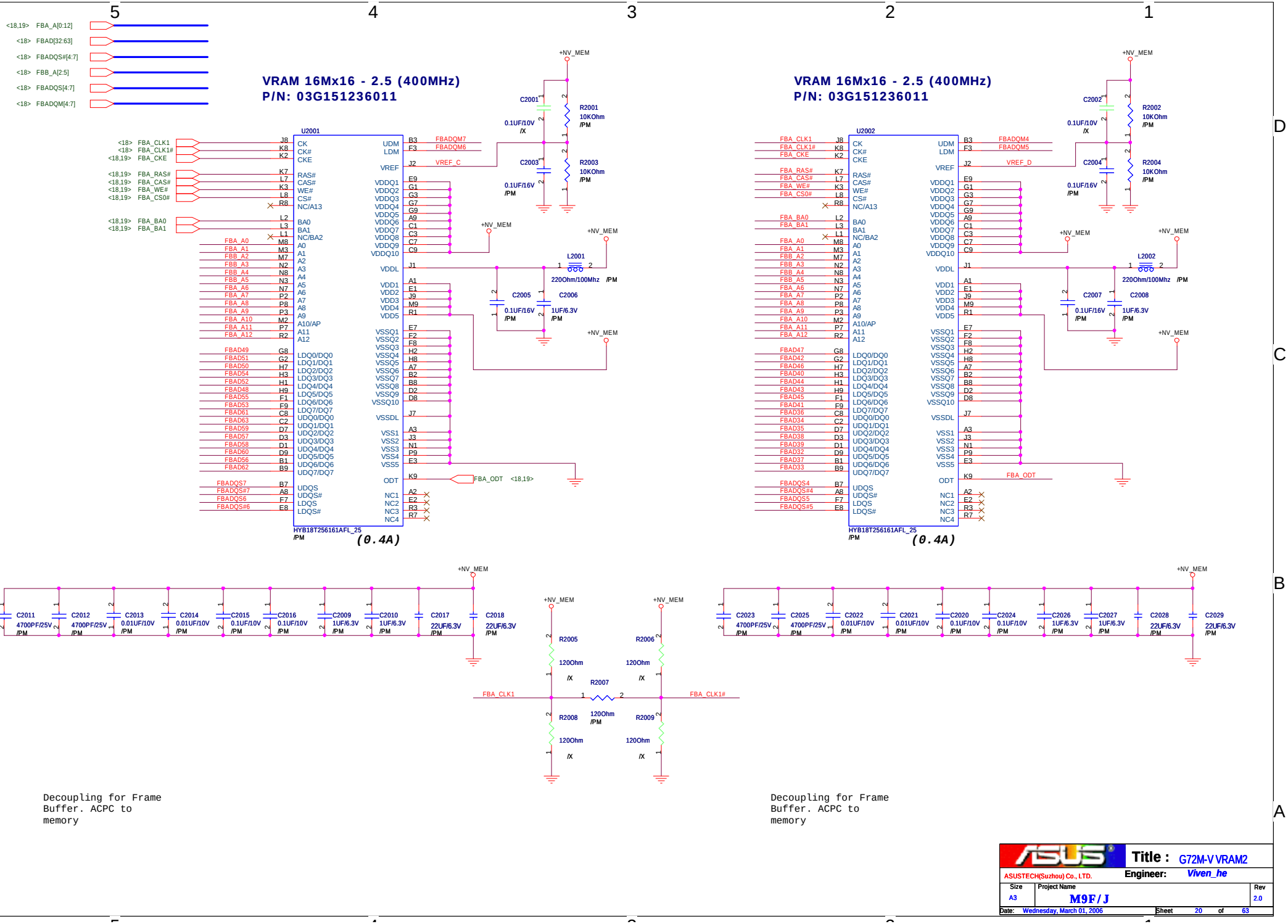

| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : DDR2 Termination | |
| | Engineer: Pommy Lu | |
| Size: A3 | Project Name: M9F/J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 16 of 63 | |

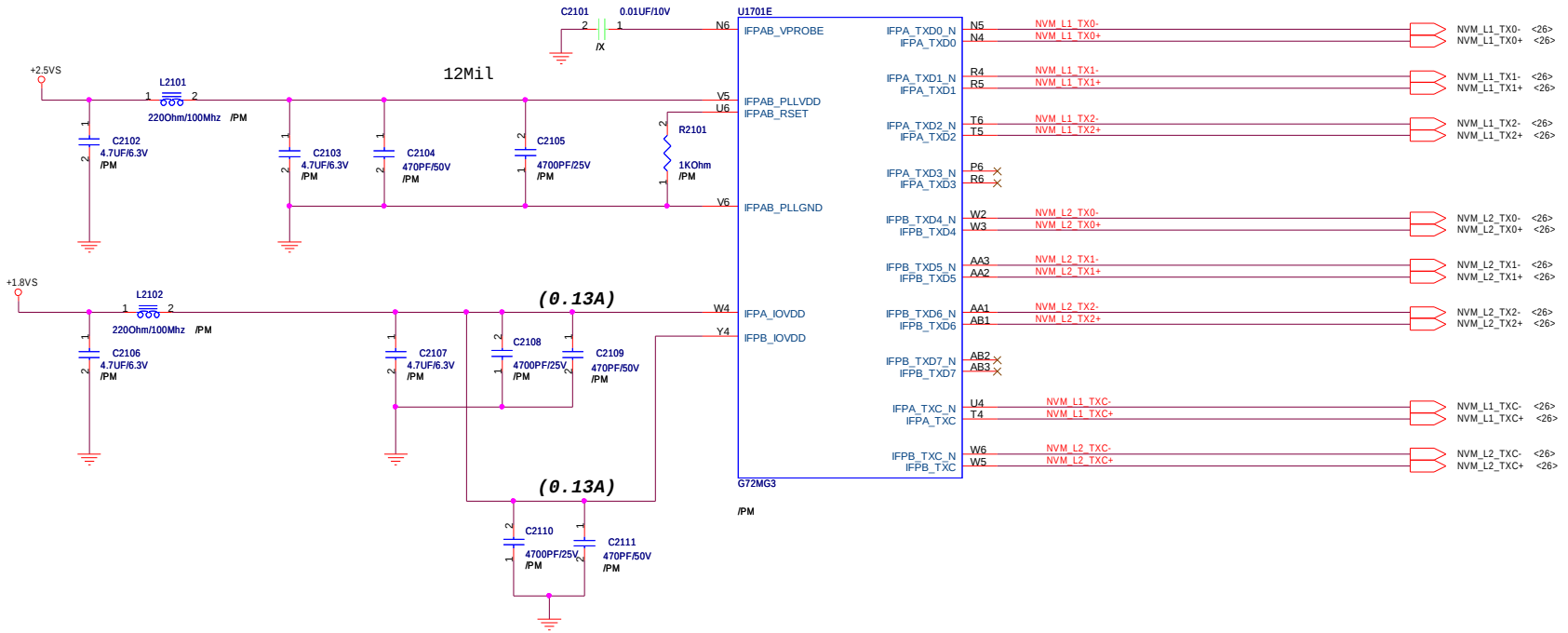


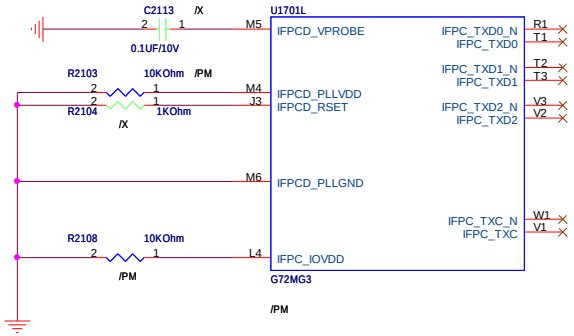

| | |
|---|---|
| Title : | G72M-V PCIE |
| ASUSTECH(Suzhou) Co., LTD. | Engineer: Viven_he |
| Size: A2 | Project Name: M9F/J |
| Rev: 2.0 | |
| Date: Wednesday, March 01, 2006 | Sheet 17 of 63 |

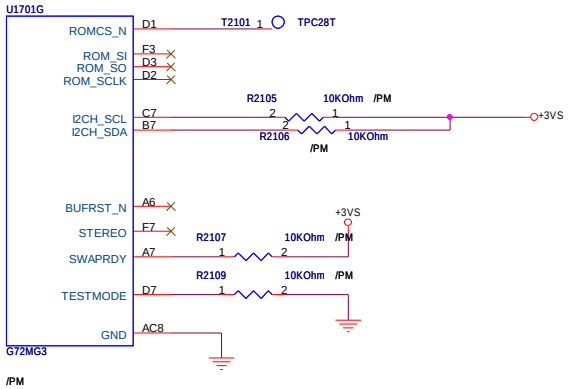

U1701B
G72MG3
PLACE CAPS BELOW GPU
PLACE CAPS BELOW GPU
(0.925A)
PD REQUIRED FOR INITIALIZATION
Place Near Balls
Place Near GPU
L1801
JP1801
3MM_OPEN_5MIL
/X
DDR2- - - FBVREF=0.5*FBVDDQ
Title : G72M-V FB I/F
ASUSTECH(Suzhou) Co., LTD.
Engineer: Viven_he
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 18 of 63


VRAM 16Mx16 - 2.5 (400MHz)
P/N: 03G151236011
U1901
HYB18T256161AFL_25
/PM
(0.4A)
VRAM 16Mx16 - 2.5 (400MHz)
P/N: 03G151236011
U1902
HYB18T256161AFL_25
/PM
(0.4A)
+NV_MEM
FBA_CLK0
FBA_CLK0#
FBA_ODT
Decoupling for Frame Buffer. ACPC to memory
Decoupling for Frame Buffer. ACPC to memory
Title : G72M-V VRAM1
ASUSTECH(Suzhou) Co., LTD.
Engineer: Viven_he
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 19 of 63

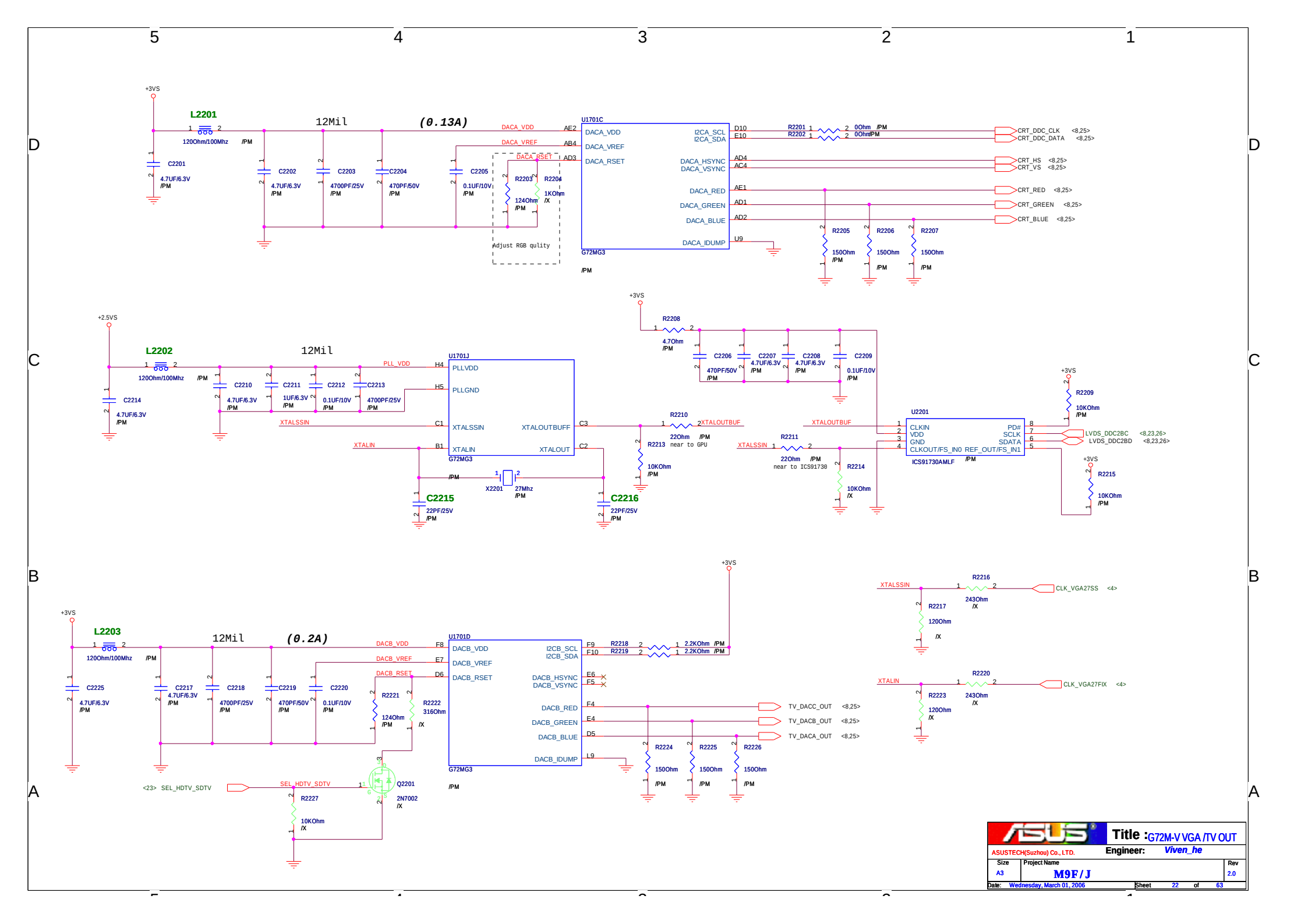

5
4
3
2
1
D
C
B
A
<18,19> FBA_A[0:12]
<18> FBAD[32:63]
<18> FBADQS#[4:7]
<18> FBB_A[2:5]
<18> FBADQS[4:7]
<18> FBADQM[4:7]
VRAM 16Mx16 - 2.5 (400MHz)
P/N: 03G151236011
U2001
HYB18T256161AFL_25
/PM
(0.4A)
+NV_MEM
C2001
0.1UF/10V
/X
R2001
10KOhm
/PM
C2003
0.1UF/16V
/PM
R2003
10KOhm
/PM
L2001
220Ohm/100Mhz /PM
C2005
0.1UF/16V
/PM
C2006
1UF/6.3V
/PM
VREF_C
FBADQM7
FBADQM6
FBA_ODT <18,19>
VRAM 16Mx16 - 2.5 (400MHz)
P/N: 03G151236011
U2002
HYB18T256161AFL_25
/PM
(0.4A)
C2002
0.1UF/10V
/X
R2002
10KOhm
/PM
C2004
0.1UF/16V
/PM
R2004
10KOhm
/PM
L2002
220Ohm/100Mhz /PM
C2007
0.1UF/16V
/PM
C2008
1UF/6.3V
/PM
VREF_D
FBADQM4
FBADQM5
FBA_ODT
C2011 4700PF/25V /PM
C2012 4700PF/25V /PM
C2013 0.01UF/10V /PM
C2014 0.01UF/10V /PM
C2015 0.1UF/10V /PM
C2016 0.1UF/10V /PM
C2009 1UF/6.3V /PM
C2010 1UF/6.3V /PM
C2017 22UF/6.3V /PM
C2018 22UF/6.3V /PM
R2005 120Ohm /X
R2006 120Ohm /X
R2007
R2008 120Ohm /PM
R2009 120Ohm /X
FBA_CLK1
FBA_CLK1#
C2023 4700PF/25V /PM
C2025 4700PF/25V /PM
C2022 0.01UF/10V /PM
C2021 0.01UF/10V /PM
C2020 0.1UF/10V /PM
C2024 0.1UF/10V /PM
C2026 1UF/6.3V /PM
C2027 1UF/6.3V /PM
C2028 22UF/6.3V /PM
C2029 22UF/6.3V /PM
Decoupling for Frame Buffer. ACPC to memory
Decoupling for Frame Buffer. ACPC to memory
Title : G72M-V VRAM2
ASUSTECH(Suzhou) Co., LTD.
Engineer: Viven_he
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 20 of 63

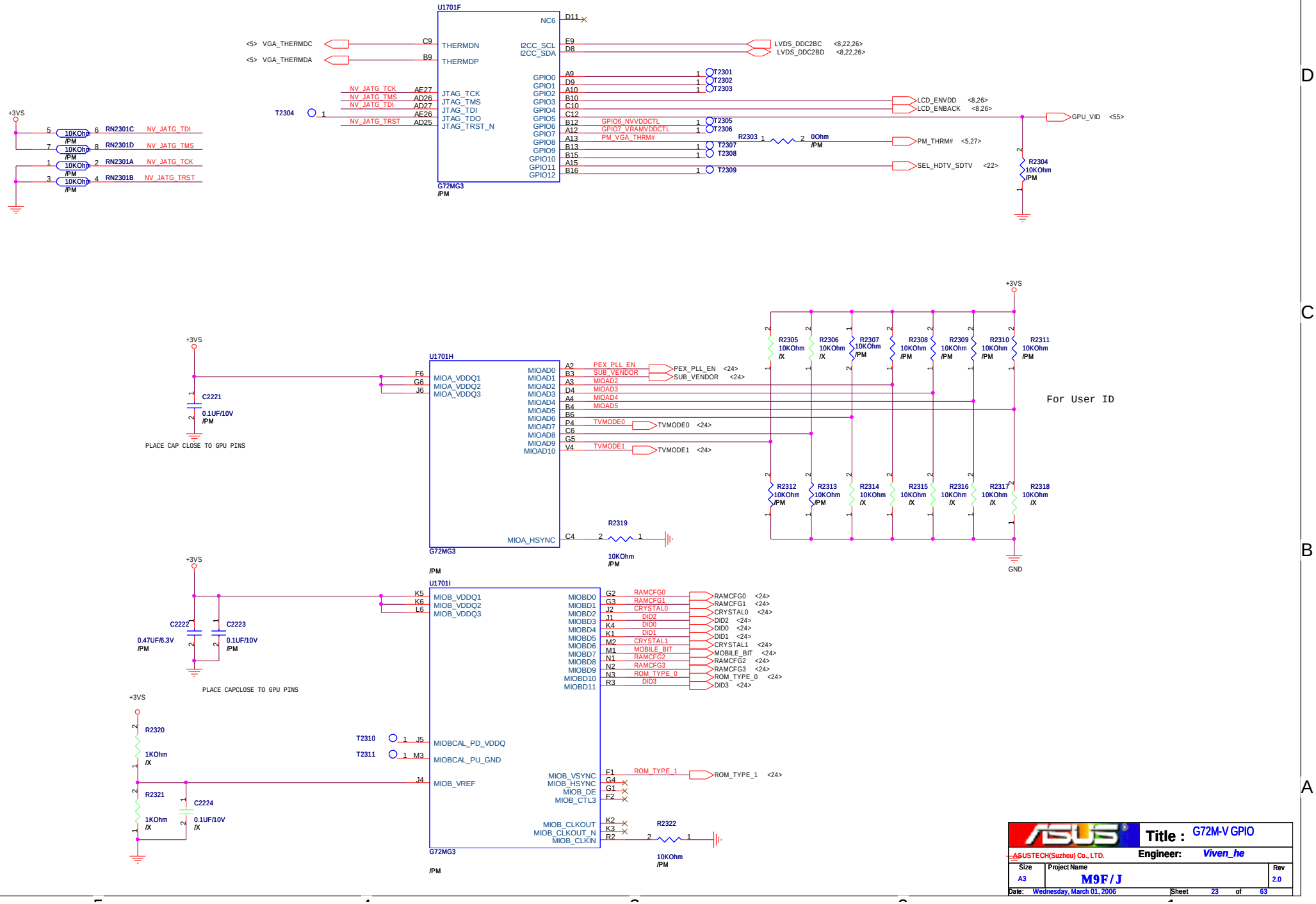


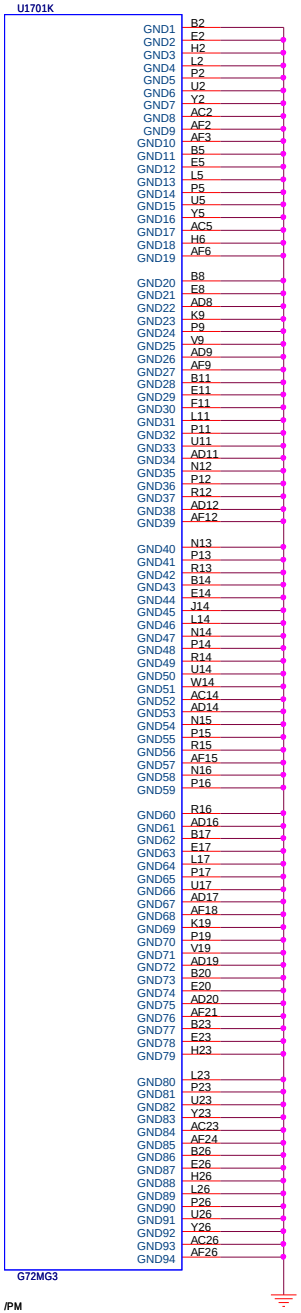



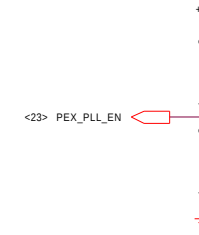

| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : G72M-V LVDS | |
| | Engineer: Viven_he | |
| Size: A3 | Project Name: M9F/J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 21 of 63 | |


L2201
12Mil
(0.13A)
U1701C
G72MG3
Adjust RGB qulity
L2202
12Mil
U1701J
G72MG3
U2201
ICS91730AMLF
L2203
12Mil
(0.2A)
U1701D
G72MG3
Q2201
2N7002
Title :G72M-V VGA /TV OUT
ASUSTECH(Suzhou) Co., LTD.
Engineer: Viven_he
Project Name M9F/J
Size A3
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 22 of 63

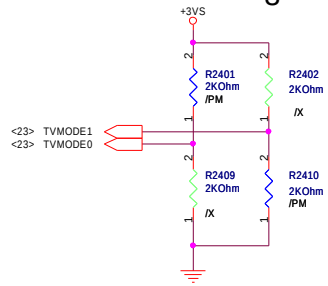



| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : G72M-V GPIO | |
| | Engineer: Viven_he | |
| Size: A3 | Project Name: M9F / J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 23 of 63 | |

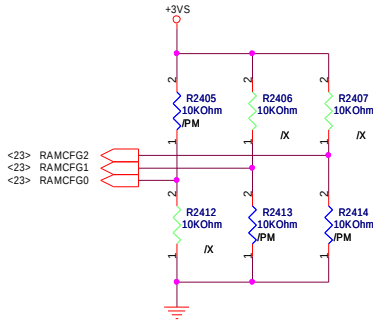


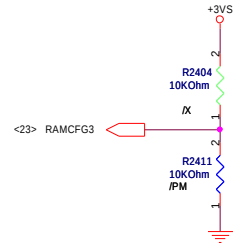

| Express PLL internal termination | PEX_PLL_EN |
|---|---|
| Enable | 0 |
| Disable | 1 |



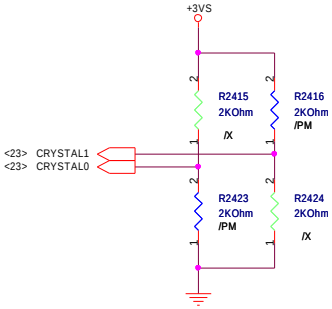

| TV Mode | TVMODE1 | TVMODE0 |
|---|---|---|
| SECAN | 0 | 0 |
| PAL | 1 | 0 |
| NTSC(Default) | 0 | 1 |
| CRT | 1 | 1 |



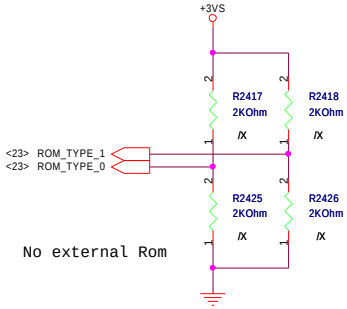

| GPU | RAMCFG2 | RAMCFG1 | RAMCFG0 |
|---|---|---|---|
| DDR2 16Mx16x4 128MB,SAMSUNG | 0 | o | 1 |
| DDR2 16Mx16x4 128MB,Infineon | 0 | 1 | 0 |
| DDR2 16Mx16x4 128MB,Hynix | 0 | 1 | 1 |




| | RAMCFG3 |
|---|---|
| Full width of frame buffer | 0 |
| Half width of frame buffer | 1 |

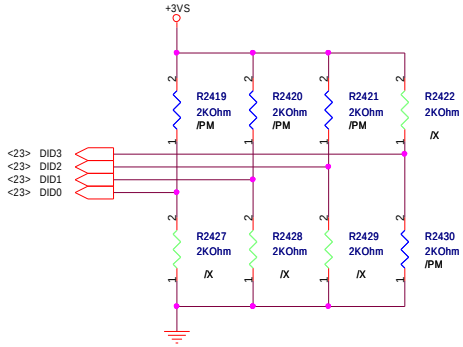



| CRYSTAL | CRYSTAL1 | CRYSTAL0 |
|---|---|---|
| 13.5MHZ | 0 | 0 |
| 27MHZ(Default) | 1 | 0 |
| 14.318MHZ | 0 | 1 |
| Reserved | 1 | 1 |

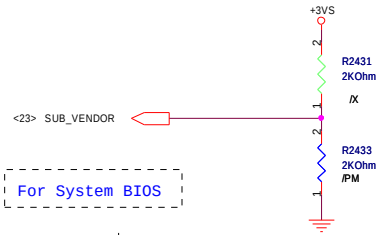



No external Rom

| ROM_TYPE | ROM_TYPE_1 | ROM_TYPE_0 |
|---|---|---|
| Parallel | 0 | 0 |
| Reseved | 1 | 0 |
| Serial AT25F(Default) | 0 | 1 |
| LPC | 1 | 1 |

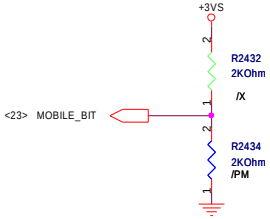



| GPU | DID3 | DID2 | DID1 | DID0 |
|---|---|---|---|---|
| G72M | 1 | 0 | 0 | 0 |
| G72M-V | 0 | 1 | 1 | 1 |




For System BIOS

| | SUB_VENDOR |
|---|---|
| System BIOS | 0 |
| Adapter BIOS | 1 |




MOBILE_BIT= 0: MOBILE

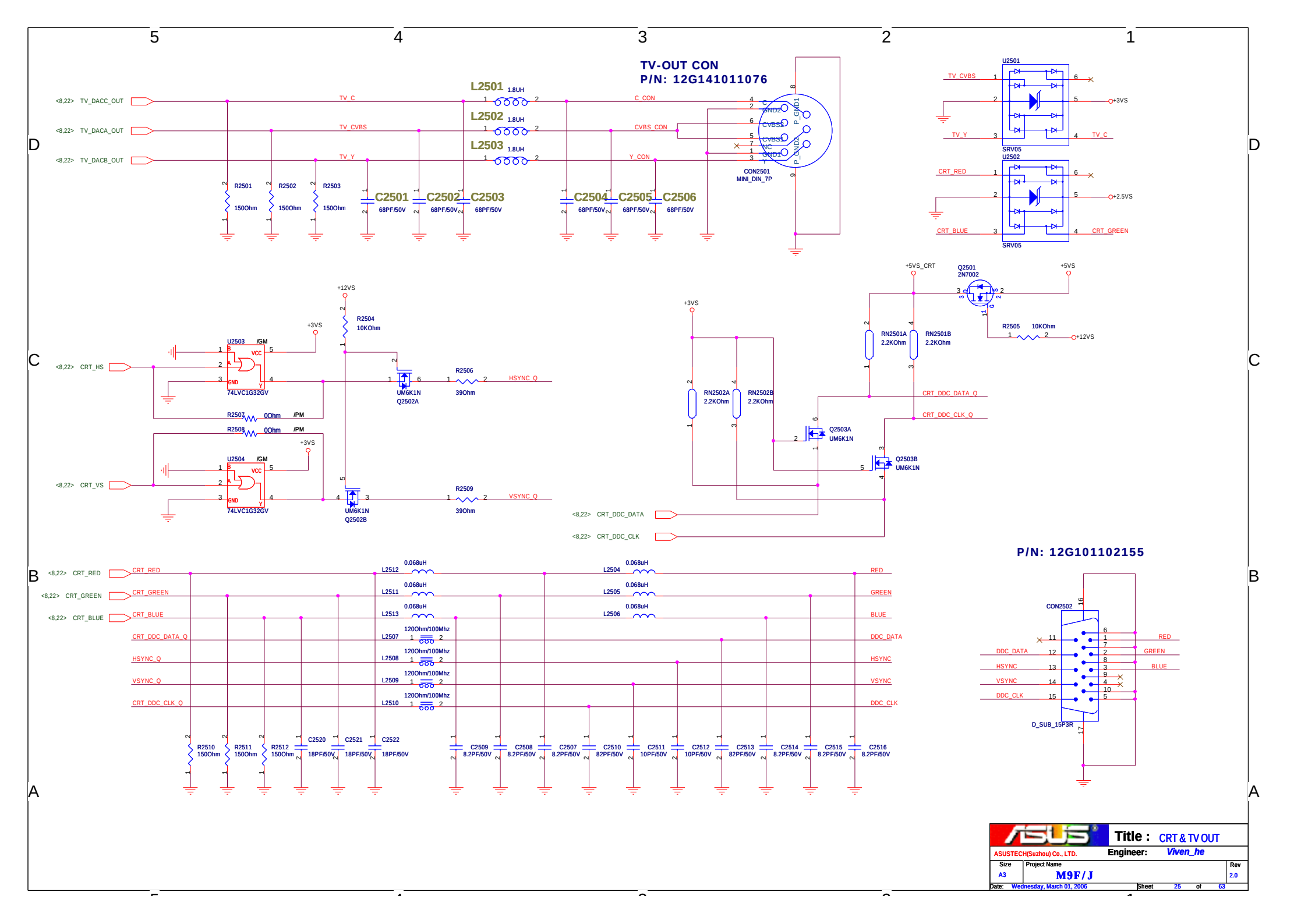
ASUSTECH(Suzhou) Co., LTD.

Title : G72M-V STRAPING&GND

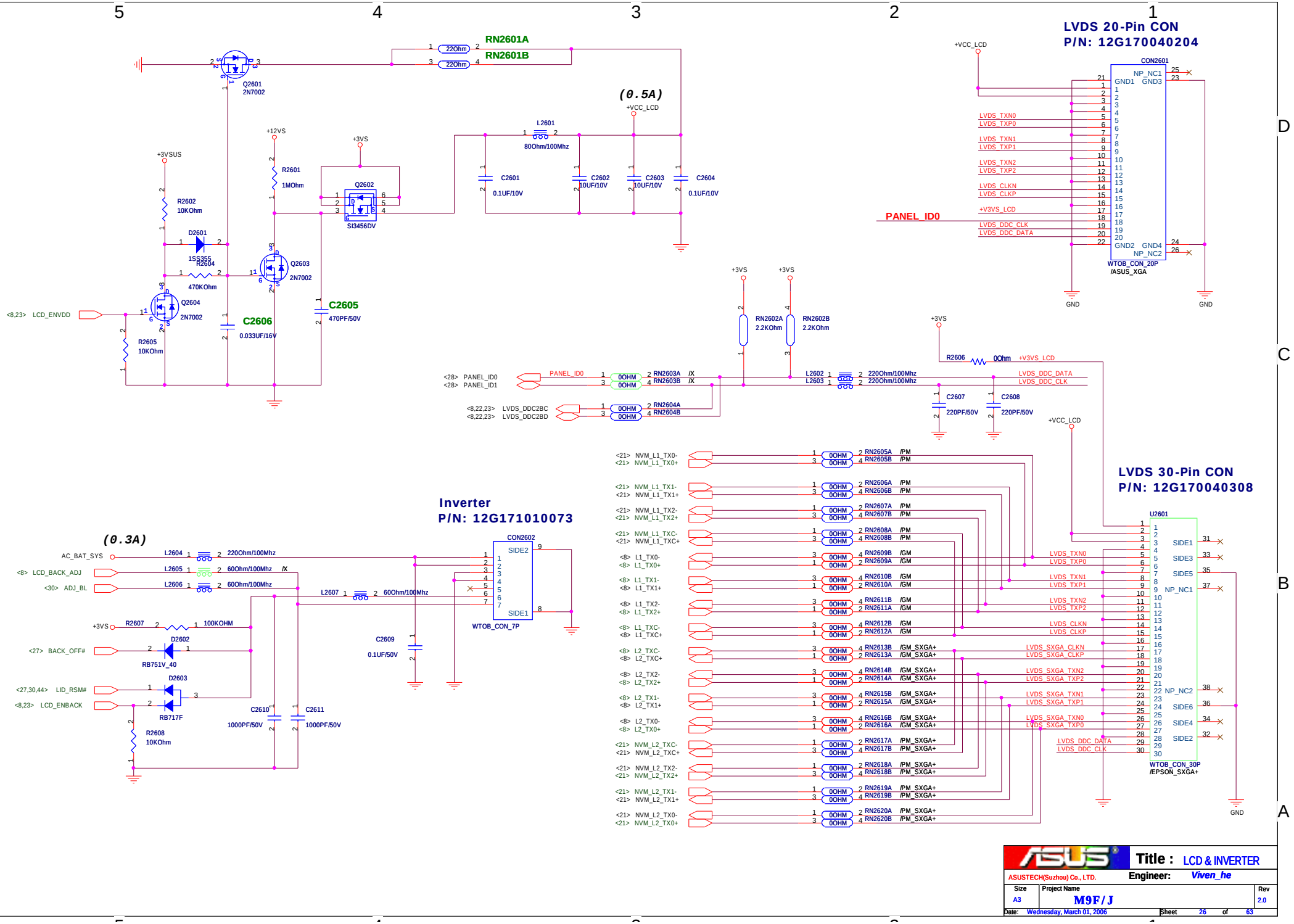
Engineer: Viven_he

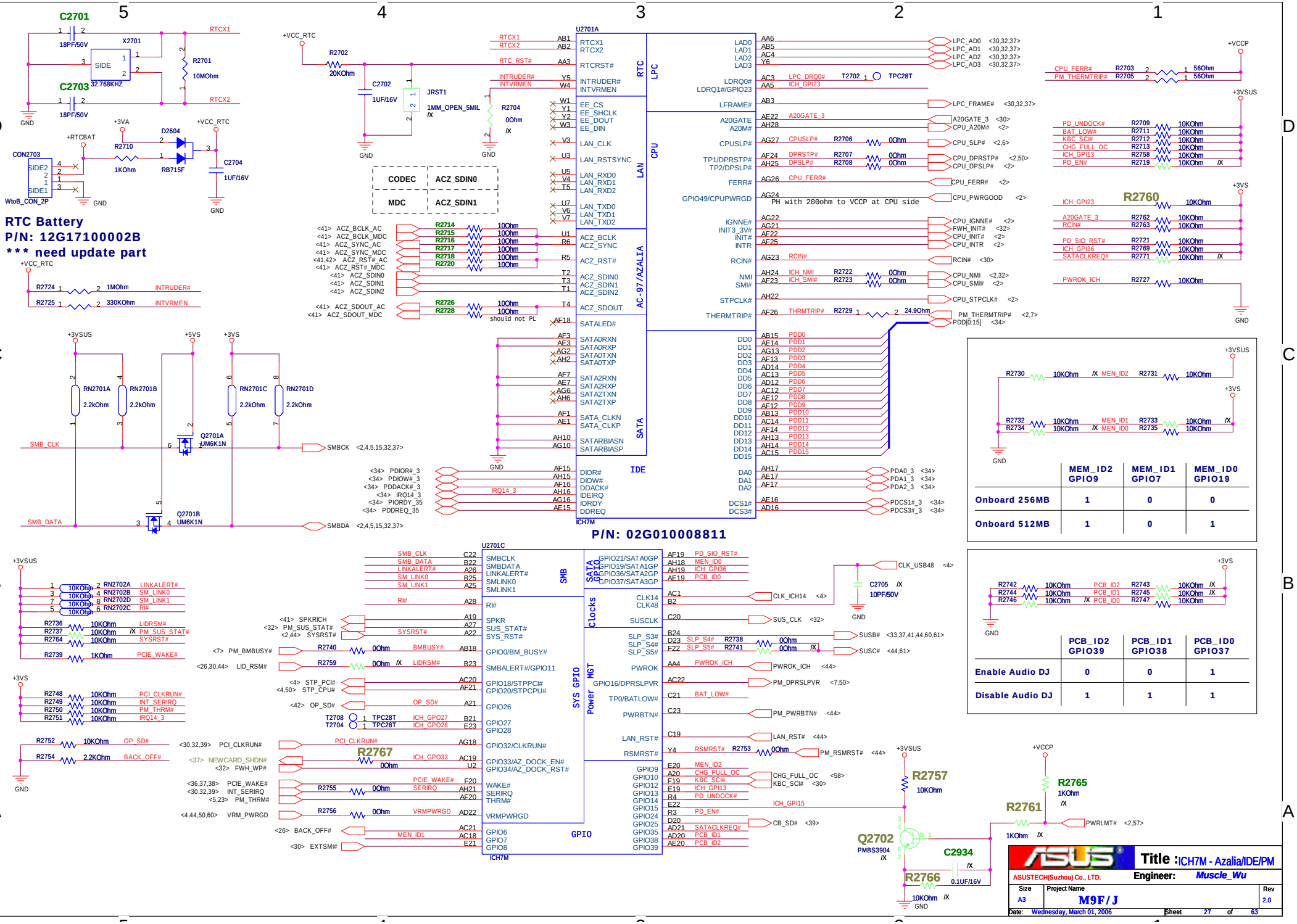
| Size | Project Name | Rev |
|---|---|---|
| A3 | M9F/J | 2.0 |

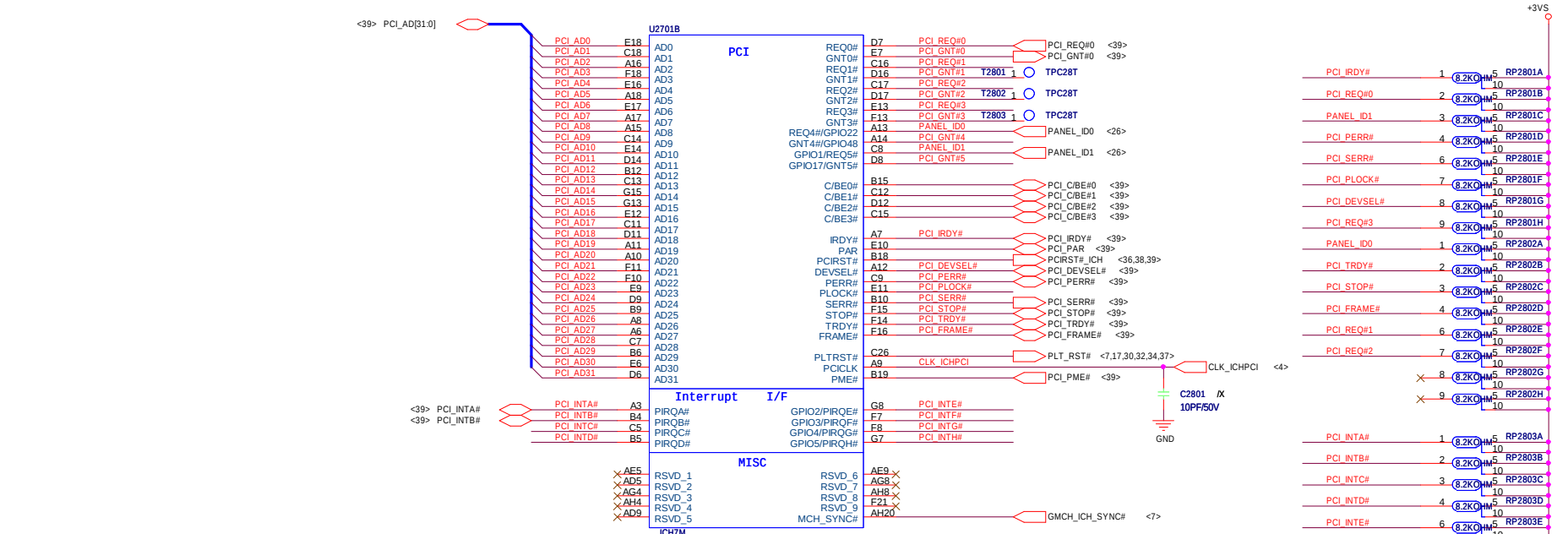
Date: Wednesday, March 01, 2006 Sheet 24 of 63



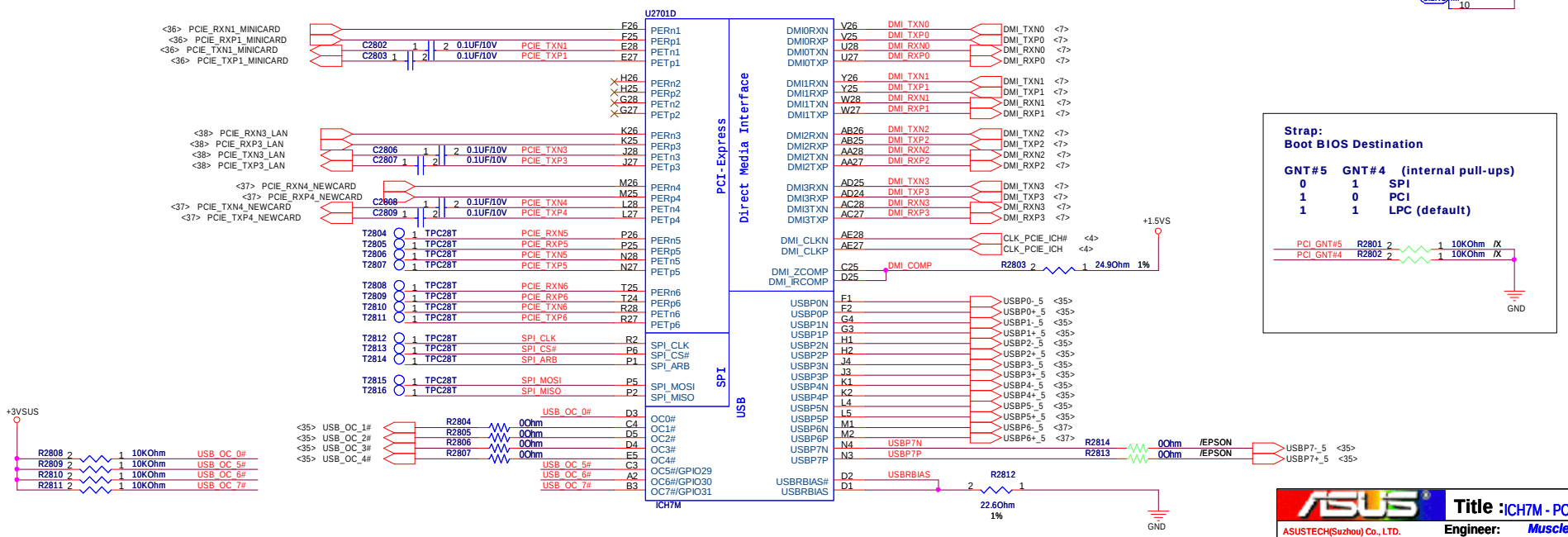

| | |
|---|---|
| Title : | CRT & TV OUT |
| ASUSTECH(Suzhou) Co., LTD. | Engineer: Viven_he |
| Size: A3 | Project Name: M9F / J |
| Rev: 2.0 | |
| Date: Wednesday, March 01, 2006 | Sheet 25 of 63 |


LVDS 20-Pin CON
P/N: 12G170040204
CON2601
WTOB_CON_20P
/ASUS_XGA
PANEL_ID0
RN2601A
RN2601B
22Ohm
Q2601
2N7002
(0.5A)
L2601
80Ohm/100Mhz
C2601
0.1UF/10V
C2602
10UF/10V
C2603
10UF/10V
C2604
0.1UF/10V
Q2602
SI3456DV
R2601
1MOhm
R2602
10KOhm
D2601
1SS355
R2604
470KOhm
Q2603
2N7002
Q2604
2N7002
R2605
10KOhm
C2605
470PF/50V
C2606
0.033UF/16V
RN2602A
2.2KOhm
RN2602B
2.2KOhm
R2606
0Ohm
C2607
220PF/50V
C2608
220PF/50V
LVDS_TXN0
LVDS_TXP0
LVDS_TXN1
LVDS_TXP1
LVDS_TXN2
LVDS_TXP2
LVDS_CLKN
LVDS_CLKP
LVDS_DDC_CLK
LVDS_DDC_DATA
Inverter
P/N: 12G171010073
CON2602
WTOB_CON_7P
(0.3A)
L2604
220Ohm/100Mhz
L2605
60Ohm/100Mhz
L2606
60Ohm/100Mhz
L2607
60Ohm/100Mhz
R2607
100KOHM
D2602
RB751V_40
D2603
RB717F
R2608
10KOhm
C2609
0.1UF/50V
C2610
1000PF/50V
C2611
1000PF/50V
LVDS 30-Pin CON
P/N: 12G170040308
U2601
WTOB_CON_30P
/EPSON_SXGA+
Title : LCD & INVERTER
ASUSTECH(Suzhou) Co., LTD.
Engineer: Viven_he
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 26 of 63

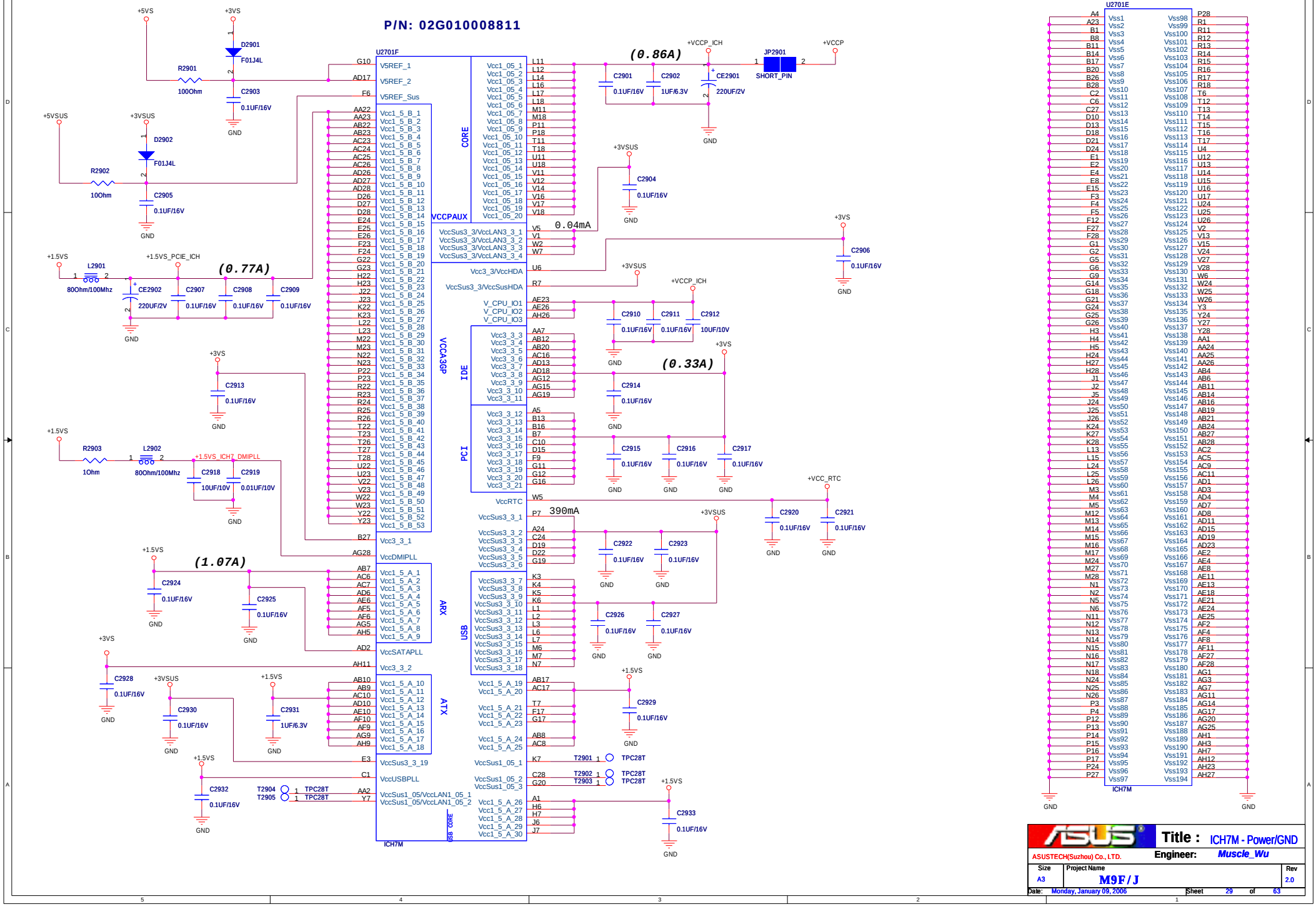

C2701
X2701
18PF/50V
SIDE
32.768KHZ
C2703
18PF/50V
RTCX1
RTCX2
R2701
10MOhm
GND
+3VA
+RTCBAT
+VCC_RTC
D2604
R2710
1KOhm
RB715F
C2704
1UF/16V
CON2703
WtoB_CON_2P
RTC Battery
P/N: 12G17100002B
*** need update part
R2724 1MOhm INTRUDER#
R2725 330KOhm INTVRMEN
+VCC_RTC
R2702
20KOhm
C2702
1UF/16V
JRST1
1MM_OPEN_5MIL
/X
R2704
0Ohm
/X
RTC_RST#
INTRUDER#
INTVRMEN
U2701A
RTC
LPC
CPU
LAN
AC-97/AZALIA
SATA
IDE
CODEC
ACZ_SDIN0
MDC
ACZ_SDIN1
R2714 10Ohm
R2715 10Ohm
R2716 10Ohm
R2717 10Ohm
R2718 10Ohm
R2720 10Ohm
R2726 10Ohm
R2728 10Ohm
should not PL
ACZ_BCLK_AC
ACZ_BCLK_MDC
ACZ_SYNC_AC
ACZ_SYNC_MDC
ACZ_RST#_AC
ACZ_RST#_MDC
ACZ_SDIN0
ACZ_SDIN1
ACZ_SDIN2
ACZ_SDOUT_AC
ACZ_SDOUT_MDC
SATALED#
SATA0RXN
SATA0RXP
SATA0TXN
SATA0TXP
SATA2RXN
SATA2RXP
SATA2TXN
SATA2TXP
SATA_CLKN
SATA_CLKP
SATARBIASN
SATARBIASP
DIOR#
DIOW#
DDACK#
IDEIRQ
IORDY
DDREQ
IRQ14_3
PDIOR#_3
PDIOW#_3
PDDACK#_3
IRQ14_3
PIORDY_35
PDDREQ_35
ICH7M
LAD0
LAD1
LAD2
LAD3
LDRQ0#
LDRQ1#/GPIO23
LFRAME#
A20GATE
A20M#
CPUSLP#
TP1/DPRSTP#
TP2/DPSLP#
FERR#
GPIO49/CPUPWRGD
IGNNE#
INIT3_3V#
INIT#
INTR
RCIN#
NMI
SMI#
STPCLK#
THERMTRIP#
LPC_AD0
LPC_AD1
LPC_AD2
LPC_AD3
LPC_DRQ0#
ICH_GPI23
LPC_FRAME#
A20GATE_3
CPU_A20M#
CPUSLP#
DPRSTP#
DPSLP#
CPU_FERR#
CPU_PWRGOOD
PH with 200ohm to VCCP at CPU side
CPU_IGNNE#
FWH_INIT#
CPU_INIT#
CPU_INTR
RCIN#
ICH_NMI
ICH_SMI#
CPU_NMI
CPU_SMI#
CPU_STPCLK#
THERMTRIP#
24.9Ohm
PM_THERMTRIP#
PDD[0:15]
T2702
TPC28T
DD0
DD1
DD2
DD3
DD4
DD5
DD6
DD7
DD8
DD9
DD10
DD11
DD12
DD13
DD14
DD15
PDD0
PDD1
PDD2
PDD3
PDD4
PDD5
PDD6
PDD7
PDD8
PDD9
PDD10
PDD11
PDD12
PDD13
PDD14
PDD15
DA0
DA1
DA2
DCS1#
DCS3#
PDA0_3
PDA1_3
PDA2_3
PDCS1#_3
PDCS3#_3
+VCCP
CPU_FERR#
PM_THERMTRIP#
R2703 56Ohm
R2705 56Ohm
+3VSUS
PD_UNDOCK# R2709 10KOhm
BAT_LOW# R2711 10KOhm
KBC_SCI# R2712 10KOhm
CHG_FULL_OC R2713 10KOhm
ICH_GPI13 R2758 10KOhm
PD_EN# R2719 10KOhm /X
+3VS
R2760
ICH_GPI23 10KOhm
A20GATE_3 R2762 10KOhm
RCIN# R2763 10KOhm
PD_SIO_RST# R2721 10KOhm
ICH_GPI36 R2769 10KOhm
SATACLKREQ# R2771 10KOhm /X
PWROK_ICH R2727 10KOhm
GND
RN2701A 2.2kOhm
RN2701B 2.2kOhm
RN2701C 2.2kOhm
RN2701D 2.2kOhm
Q2701A UM6K1N
Q2701B UM6K1N
SMB_CLK
SMB_DATA
SMBCK <2,4,5,15,32,37>
SMBDA <2,4,5,15,32,37>
P/N: 02G010008811
R2730 10KOhm /X MEM_ID2 R2731 10KOhm
R2732 10KOhm MEM_ID1 R2733 10KOhm /X
R2734 10KOhm /X MEM_ID0 R2735 10KOhm
MEM_ID2 GPIO9
MEM_ID1 GPIO7
MEM_ID0 GPIO19
Onboard 256MB 1 0 0
Onboard 512MB 1 0 1
U2701C
SMB
SATA GPIO
Clocks
SYS GPIO
Power MGT
GPIO
ICH7M
SMBCLK
SMBDATA
LINKALERT#
SMLINK0
SMLINK1
SM_CLK
SM_DATA
LINKALERT#
SM_LINK0
SM_LINK1
RI#
SPKR
SUS_STAT#
SYS_RST#
GPIO0/BM_BUSY#
SMBALERT#/GPIO11
GPIO18/STPPCI#
GPIO20/STPCPU#
GPIO26
GPIO27
GPIO28
GPIO32/CLKRUN#
GPIO33/AZ_DOCK_EN#
GPIO34/AZ_DOCK_RST#
WAKE#
SERIRQ
THRM#
VRMPWRGD
GPIO6
GPIO7
GPIO8
GPIO21/SATA0GP
GPIO19/SATA1GP
GPIO36/SATA2GP
GPIO37/SATA3GP
CLK14
CLK48
SUSCLK
SLP_S3#
SLP_S4#
SLP_S5#
PWROK
GPIO16/DPRSLPVR
TP0/BATLOW#
PWRBTN#
LAN_RST#
RSMRST#
GPIO9
GPIO10
GPIO12
GPIO13
GPIO14
GPIO15
GPIO24
GPIO25
GPIO35
GPIO38
GPIO39
PCB_ID2 GPIO39
PCB_ID1 GPIO38
PCB_ID0 GPIO37
Enable Audio DJ 0 0 1
Disable Audio DJ 1 1 1
R2742 10KOhm PCB_ID2 R2743 10KOhm /X
R2744 10KOhm PCB_ID1 R2745 10KOhm /X
R2746 10KOhm /X PCB_ID0 R2747 10KOhm
CLK_USB48 <4>
CLK_ICH14 <4>
C2705 /X 10PF/50V
SUS_CLK <32>
SUSB# <33,37,41,44,60,61>
SUSC# <44,61>
PWROK_ICH <44>
PM_DPRSLPVR <7,50>
BAT_LOW#
PM_PWRBTN# <44>
LAN_RST# <44>
PM_RSMRST# <44>
CHG_FULL_OC <58>
KBC_SCI# <30>
ICH_GPI13
PD_UNDOCK#
ICH_GPI15
PD_EN#
CB_SD# <39>
R2757 10KOhm
Q2702 PMBS3904 /X
C2934 /X
0.1UF/16V
R2766 10KOhm /X
R2765 1KOhm /X
R2761 1KOhm /X
PWRLMT# <2,57>
R2748 10KOhm PCI_CLKRUN#
R2749 10KOhm INT_SERIRQ
R2750 10KOhm PM_THRM#
R2751 10KOhm IRQ14_3
R2736 10KOhm LIDRSM#
R2737 10KOhm /X PM_SUS_STAT#
R2764 10KOhm SYSRST#
R2739 1KOhm PCIE_WAKE#
R2752 10KOhm OP_SD#
R2754 2.2KOhm BACK_OFF#
R2740 0Ohm BMBUSY#
R2759 0Ohm /X LIDRSM#
R2767
ICH_GPO33
R2755 0Ohm SERIRQ
R2756 0Ohm VRMPWRGD
MEN_ID1
T2708 TPC28T ICH_GPO27
T2704 TPC28T ICH_GPO28
OP_SD#
PCI_CLKRUN#
NEWCARD_SHDN#
FWH_WP#
PCIE_WAKE#
INT_SERIRQ
PM_THRM#
VRM_PWRGD
BACK_OFF#
EXTSM#
LID_RSM#
PM_BMBUSY#
STP_PCI#
STP_CPU#
R2738 0Ohm
R2741 0Ohm /X
R2753 0Ohm
Title : ICH7M - Azalia/IDE/PM
ASUSTECH(Suzhou) Co., LTD.
Engineer: Muscle_Wu
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 27 of 63

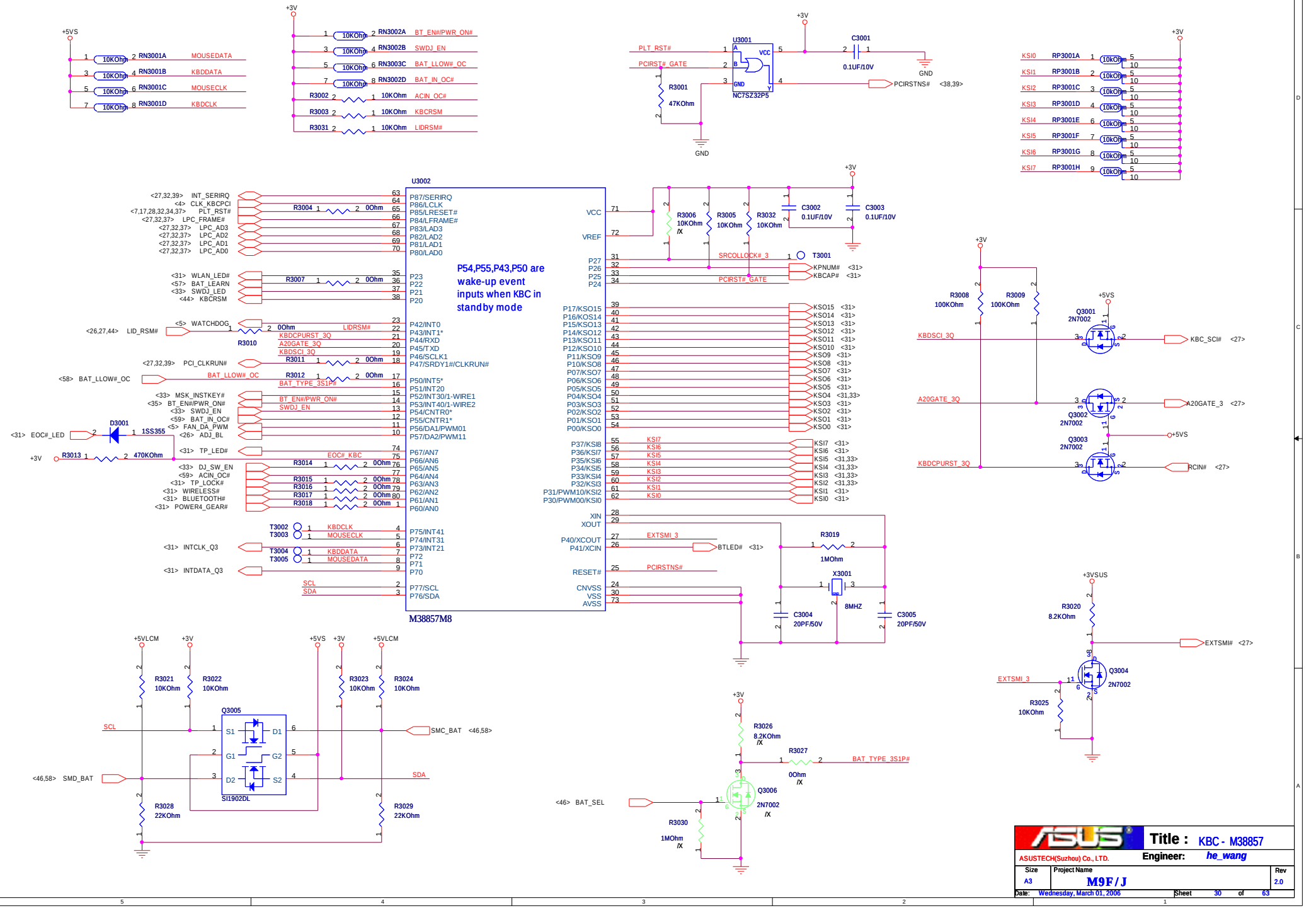



**P/N: 02G010008811**

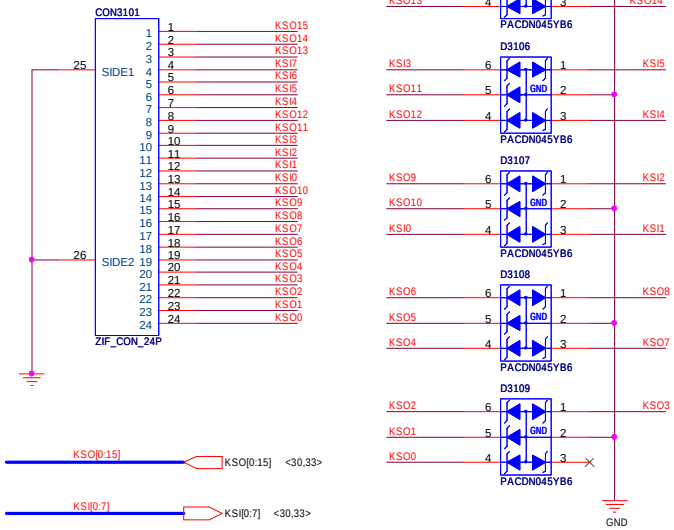



| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : ICH7M - PCI/PCI-E/USB | |
| | Engineer: Muscle_Wu | |
| Size: A3 | Project Name: M9F/J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 28 of 63 | |

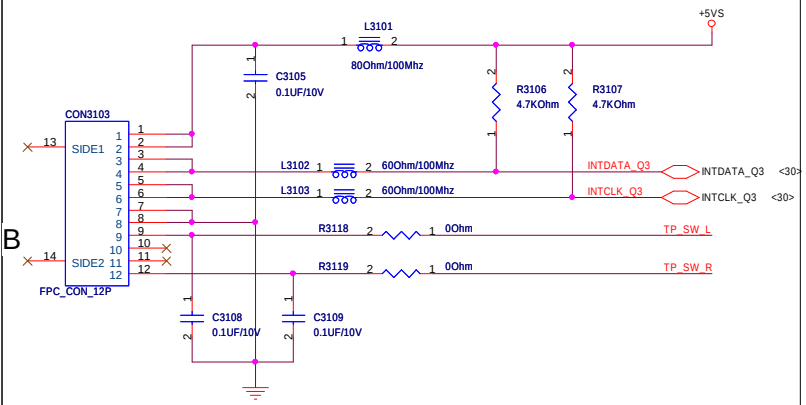

P/N: 02G010008811
U2701F
ICH7M
CORE
VCCPAUX
VCCA3GP
IDE
PCI
ARX
USB
ATX
(0.86A)
(0.77A)
(0.33A)
(1.07A)
0.04mA
390mA
+5VS
+3VS
+5VSUS
+3VSUS
+1.5VS
+1.5VS_PCIE_ICH
+1.5VS_ICH7_DMIPLL
+VCCP_ICH
+VCCP
+VCC_RTC
GND
R2901 100Ohm
R2902 10Ohm
R2903 1Ohm
D2901 F01J4L
D2902 F01J4L
L2901 80Ohm/100Mhz
L2902 80Ohm/100Mhz
JP2901 SHORT_PIN
C2903 0.1UF/16V
C2905 0.1UF/16V
C2913 0.1UF/16V
C2924 0.1UF/16V
C2925 0.1UF/16V
C2928 0.1UF/16V
C2930 0.1UF/16V
C2931 1UF/6.3V
C2932 0.1UF/16V
C2933 0.1UF/16V
C2901 0.1UF/16V
C2902 1UF/6.3V
CE2901 220UF/2V
C2904 0.1UF/16V
C2906 0.1UF/16V
C2910 0.1UF/16V
C2911 0.1UF/16V
C2912 10UF/10V
C2914 0.1UF/16V
C2915 0.1UF/16V
C2916 0.1UF/16V
C2917 0.1UF/16V
C2920 0.1UF/16V
C2921 0.1UF/16V
C2922 0.1UF/16V
C2923 0.1UF/16V
C2926 0.1UF/16V
C2927 0.1UF/16V
C2929 0.1UF/16V
CE2902 220UF/2V
C2907 0.1UF/16V
C2908 0.1UF/16V
C2909 0.1UF/16V
C2918 10UF/10V
C2919 0.01UF/10V
T2901 TPC28T
T2902 TPC28T
T2903 TPC28T
T2904 TPC28T
T2905 TPC28T
U2701E
ICH7M
Title : ICH7M - Power/GND
ASUSTECH(Suzhou) Co., LTD.
Engineer: Muscle_Wu
Size A3
Project Name M9F/J
Rev 2.0
Date: Monday, January 09, 2006
Sheet 29 of 63


+5VS
RN3001A MOUSEDATA
RN3001B KBDDATA
RN3001C MOUSECLK
RN3001D KBDCLK
10KOhm
+3V
RN3002A BT_EN#/PWR_ON#
RN3002B SWDJ_EN
RN3003C BAT_LLOW#_OC
RN3002D BAT_IN_OC#
R3002 10KOhm ACIN_OC#
R3003 10KOhm KBCRSM
R3031 10KOhm LIDRSM#
PLT_RST#
PCIRST#_GATE
U3001
VCC
GND
NC7SZ32P5
R3001 47KOhm
C3001 0.1UF/10V
PCIRSTNS# <38,39>
KSI0 RP3001A
KSI1 RP3001B
KSI2 RP3001C
KSI3 RP3001D
KSI4 RP3001E
KSI5 RP3001F
KSI6 RP3001G
KSI7 RP3001H
U3002
M38857M8
P54,P55,P43,P50 are wake-up event inputs when KBC in standby mode
INT_SERIRQ
CLK_KBCPCI
PLT_RST#
LPC_FRAME#
LPC_AD3
LPC_AD2
LPC_AD1
LPC_AD0
WLAN_LED#
BAT_LEARN
SWDJ_LED
KBCRSM
WATCHDOG
LID_RSM#
PCI_CLKRUN#
BAT_LLOW#_OC
MSK_INSTKEY#
BT_EN#/PWR_ON#
SWDJ_EN
BAT_IN_OC#
FAN_DA_PWM
ADJ_BL
EOC#_LED
D3001 1SS355
TP_LED#
DJ_SW_EN
ACIN_OC#
TP_LOCK#
WIRELESS#
BLUETOOTH#
POWER4_GEAR#
INTCLK_Q3
INTDATA_Q3
SCL
SDA
KBDCLK
MOUSECLK
KBDDATA
MOUSEDATA
VCC
VREF
SRCOLLOCK#_3
T3001
KPNUM# <31>
KBCAP# <31>
PCIRST#_GATE
KSO15 <31>
KSO14 <31>
KSO13 <31>
KSO12 <31>
KSO11 <31>
KSO10 <31>
KSO9 <31>
KSO8 <31>
KSO7 <31>
KSO6 <31>
KSO5 <31>
KSO4 <31,33>
KSO3 <31>
KSO2 <31>
KSO1 <31>
KSO0 <31>
KSI7 <31>
KSI6 <31>
KSI5 <31,33>
KSI4 <31,33>
KSI3 <31,33>
KSI2 <31,33>
KSI1 <31>
KSI0 <31>
XIN
XOUT
EXTSMI_3
BTLED# <31>
RESET#
PCIRSTNS#
CNVSS
VSS
AVSS
R3006 10KOhm /X
R3005 10KOhm
R3032 10KOhm
C3002 0.1UF/10V
C3003 0.1UF/10V
R3019 1MOhm
X3001 8MHZ
C3004 20PF/50V
C3005 20PF/50V
R3008 100KOhm
R3009 100KOhm
Q3001 2N7002
Q3002 2N7002
Q3003 2N7002
KBDSCI_3Q
A20GATE_3Q
KBDCPURST_3Q
KBC_SCI# <27>
A20GATE_3 <27>
RCIN# <27>
+5VLCM
R3021 10KOhm
R3022 10KOhm
R3023 10KOhm
R3024 10KOhm
Q3005 SI1902DL
SMC_BAT <46,58>
SMD_BAT <46,58>
R3028 22KOhm
R3029 22KOhm
R3026 8.2KOhm /X
R3027 0Ohm /X
BAT_TYPE_3S1P#
Q3006 2N7002 /X
BAT_SEL <46>
R3030 1MOhm /X
+3VSUS
R3020 8.2KOhm
R3025 10KOhm
Q3004 2N7002
EXTSMI# <27>
Title : KBC - M38857
ASUSTECH(Suzhou) Co., LTD.
Engineer: he_wang
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 30 of 63

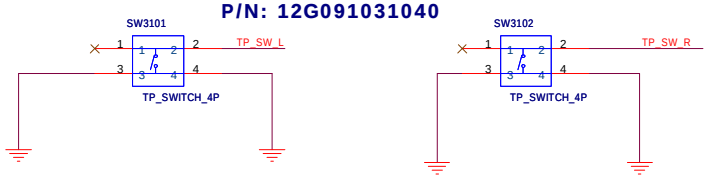
## Keyboard
## P/N: 12G182402404

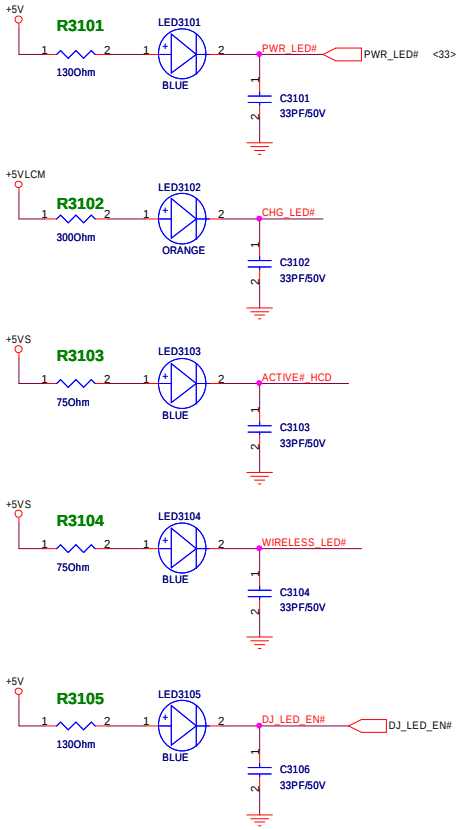



## Touch Pad
## P/N: 12G183101206

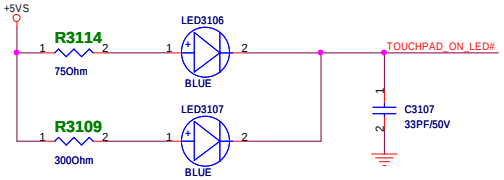



## Touch Pad Button
## P/N: 12G091031040

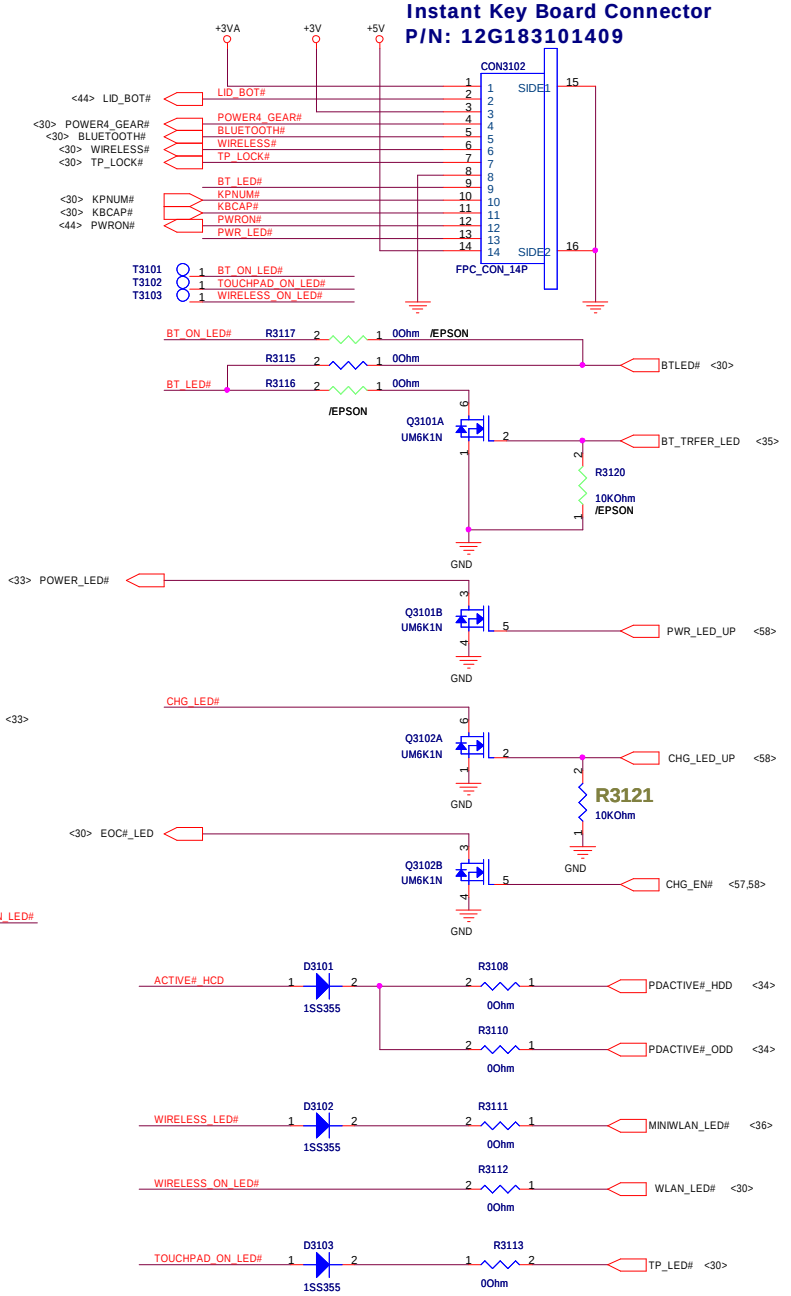



## TOUCHPAD LED



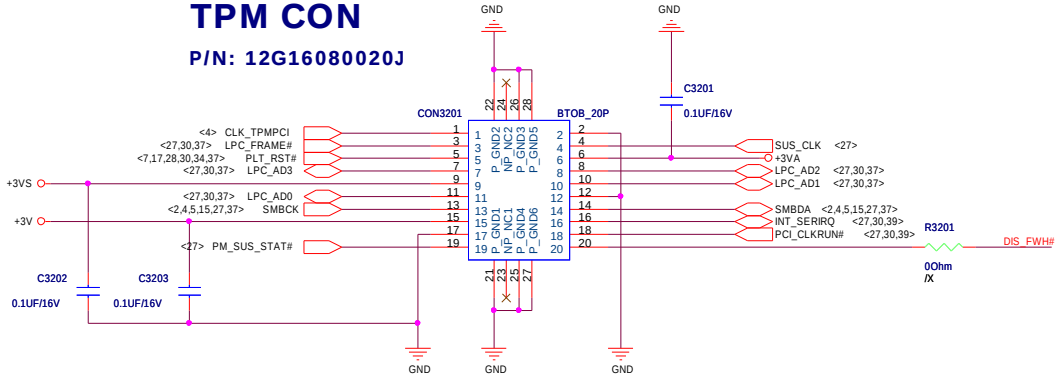

## Instant Key Board Connector
## P/N: 12G183101409



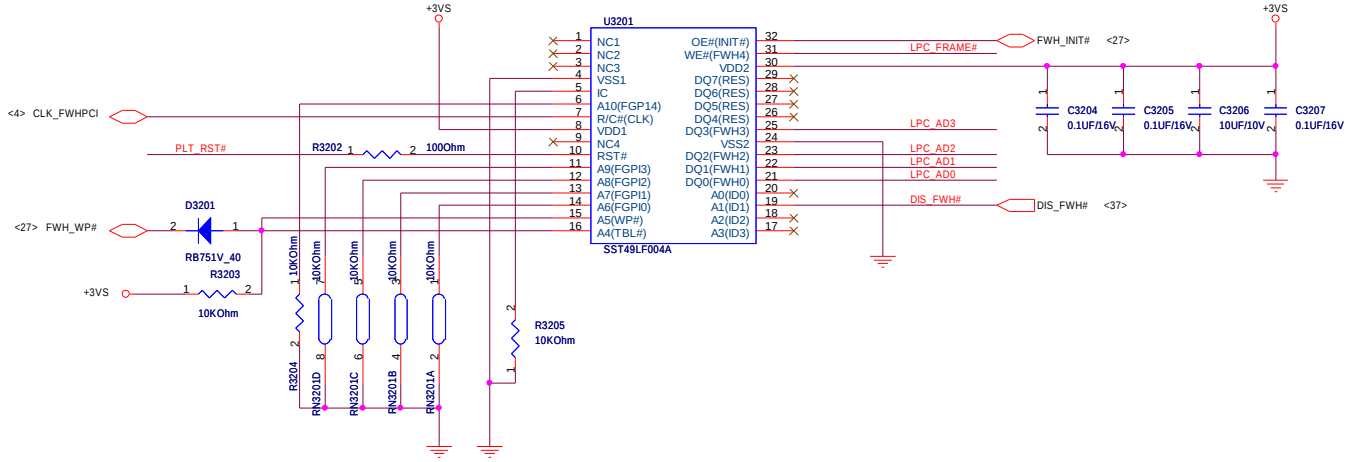

| | | |
|---|---|---|
| Title : | KBC PORTS&LEDS | |
| ASUSTECH(Suzhou) Co., LTD. | Engineer: | he_wang |
| Size: A3 | Project Name: M9F/J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 31 of 63 | |

# TPM CON

**P/N: 12G16080020J**

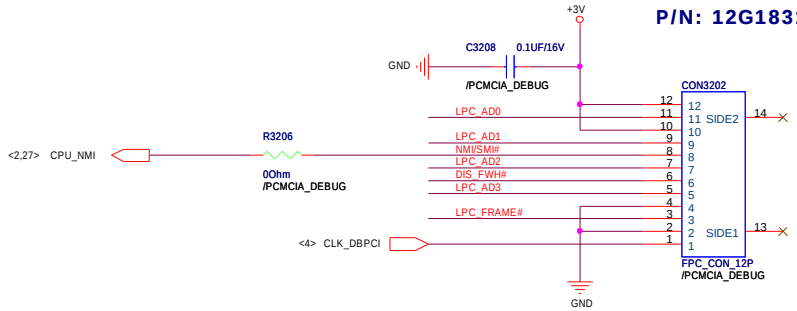



# FWH

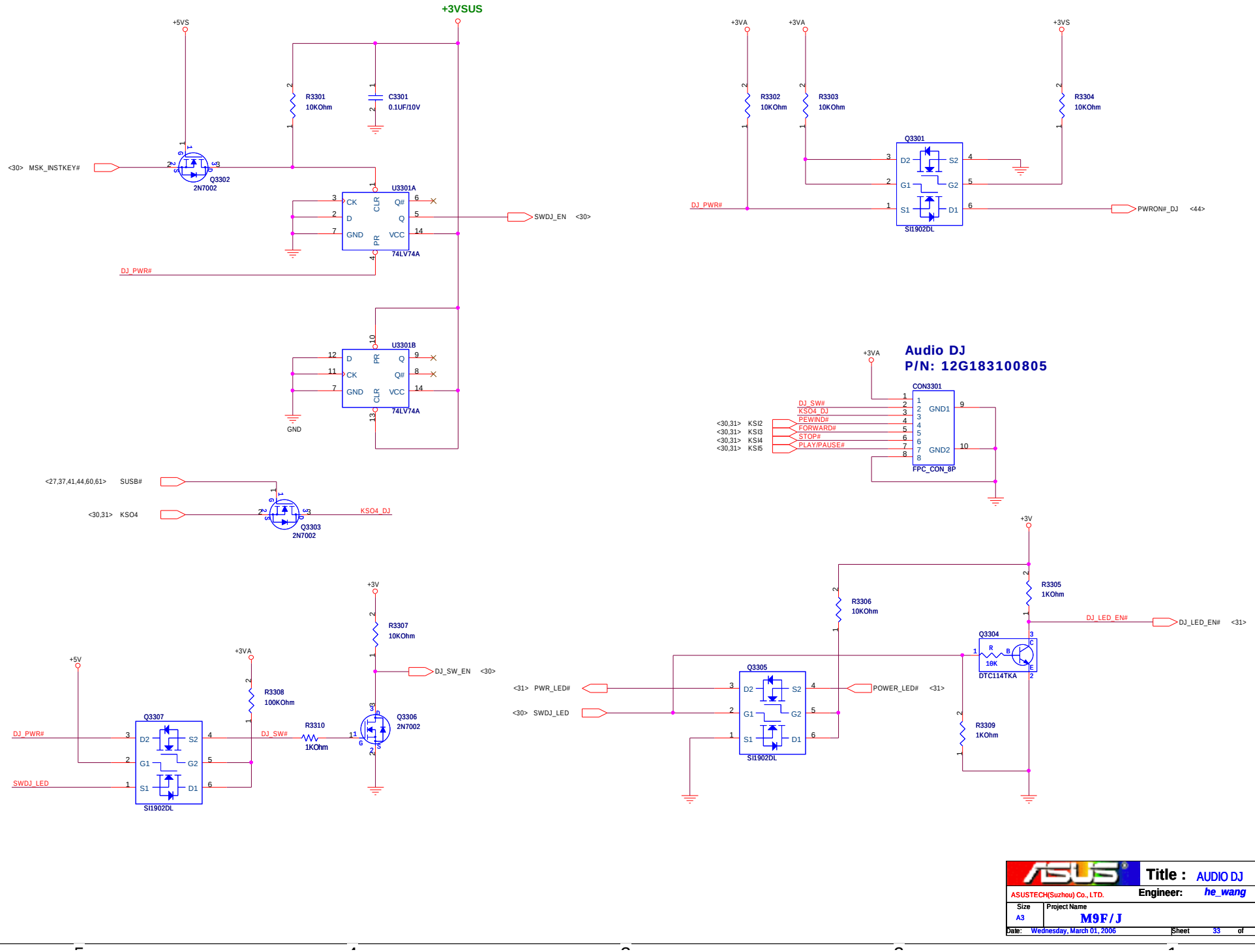



# DEBUG PORT (CONNECT WITH FFC)

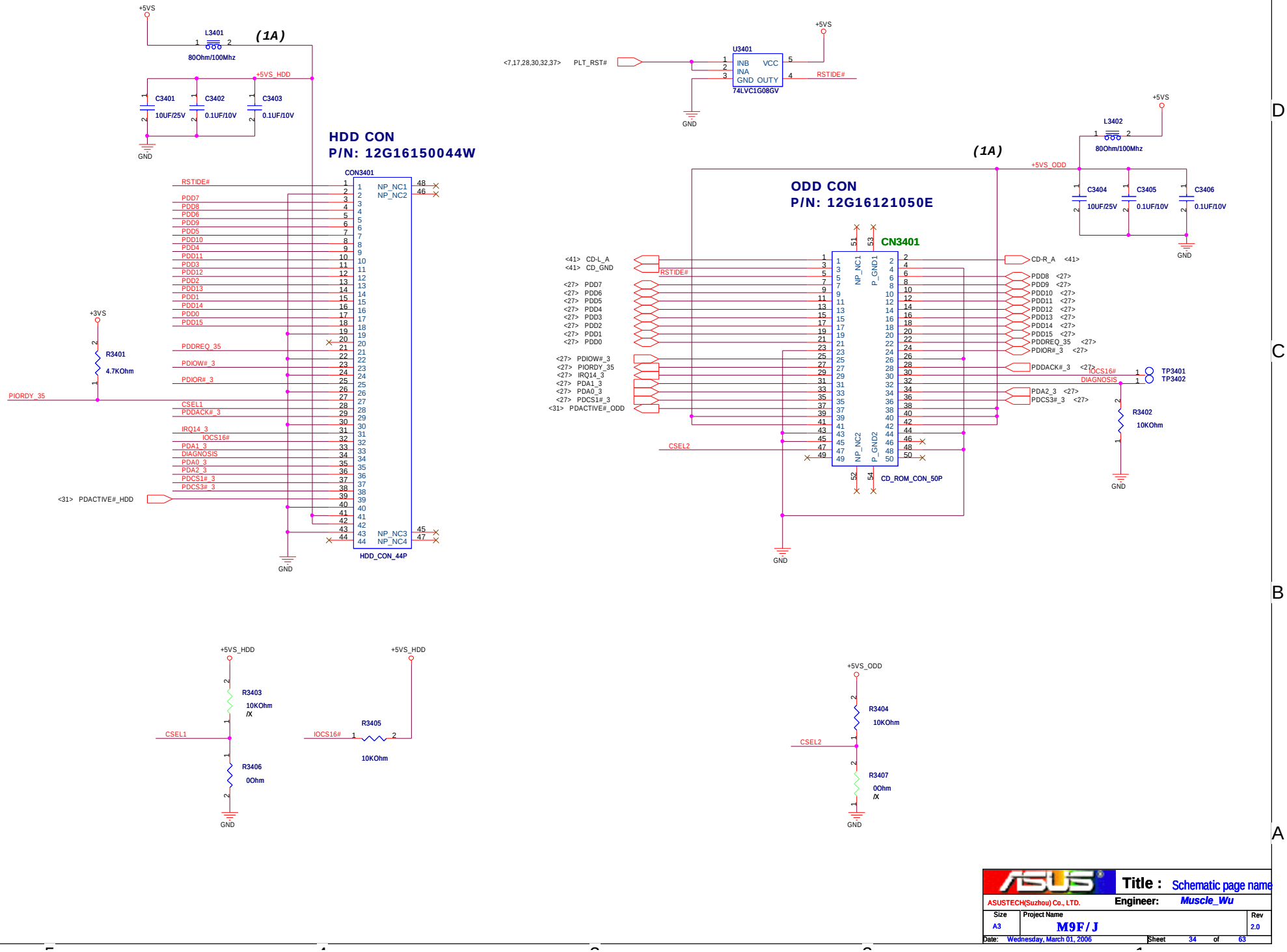
**P/N: 12G183101206**



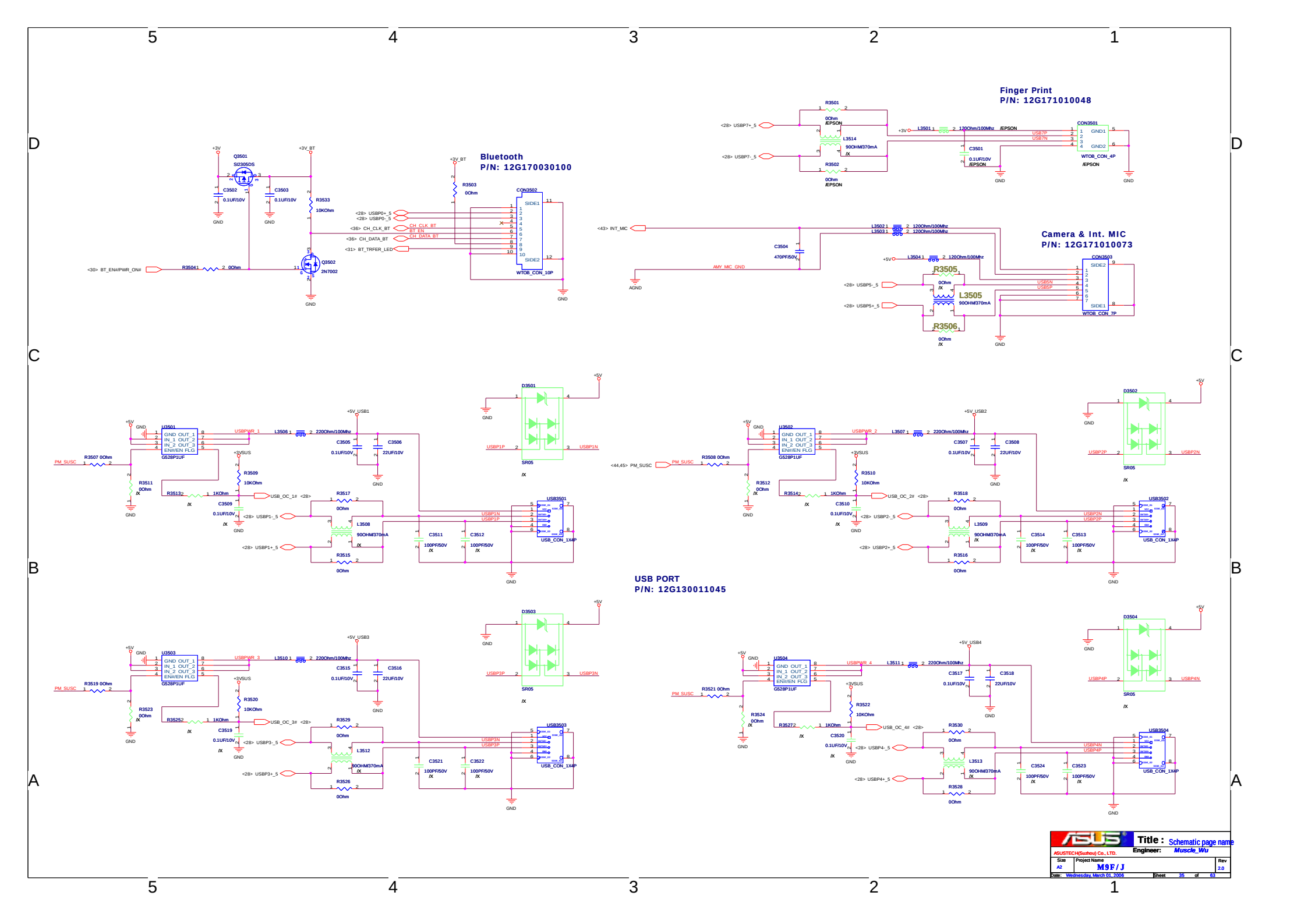

| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : DCIN&FWH&TPM | |
| | Engineer: he_wang | |
| Size: A3 | Project Name: M9F/J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 32 of 63 | |

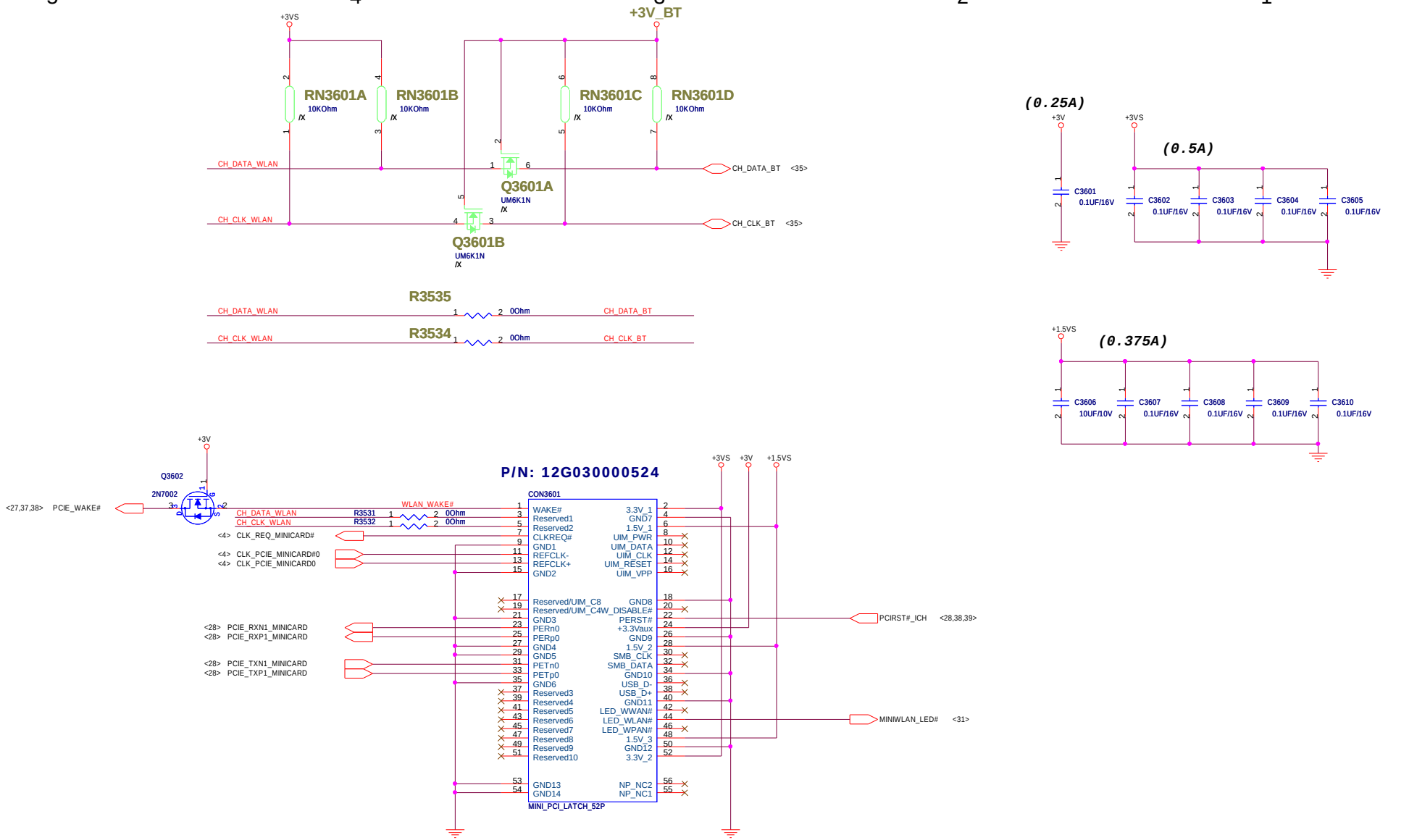



| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : AUDIO DJ | |
| | Engineer: he_wang | |
| Size: A3 | Project Name: M9F/J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 33 of 63 | |

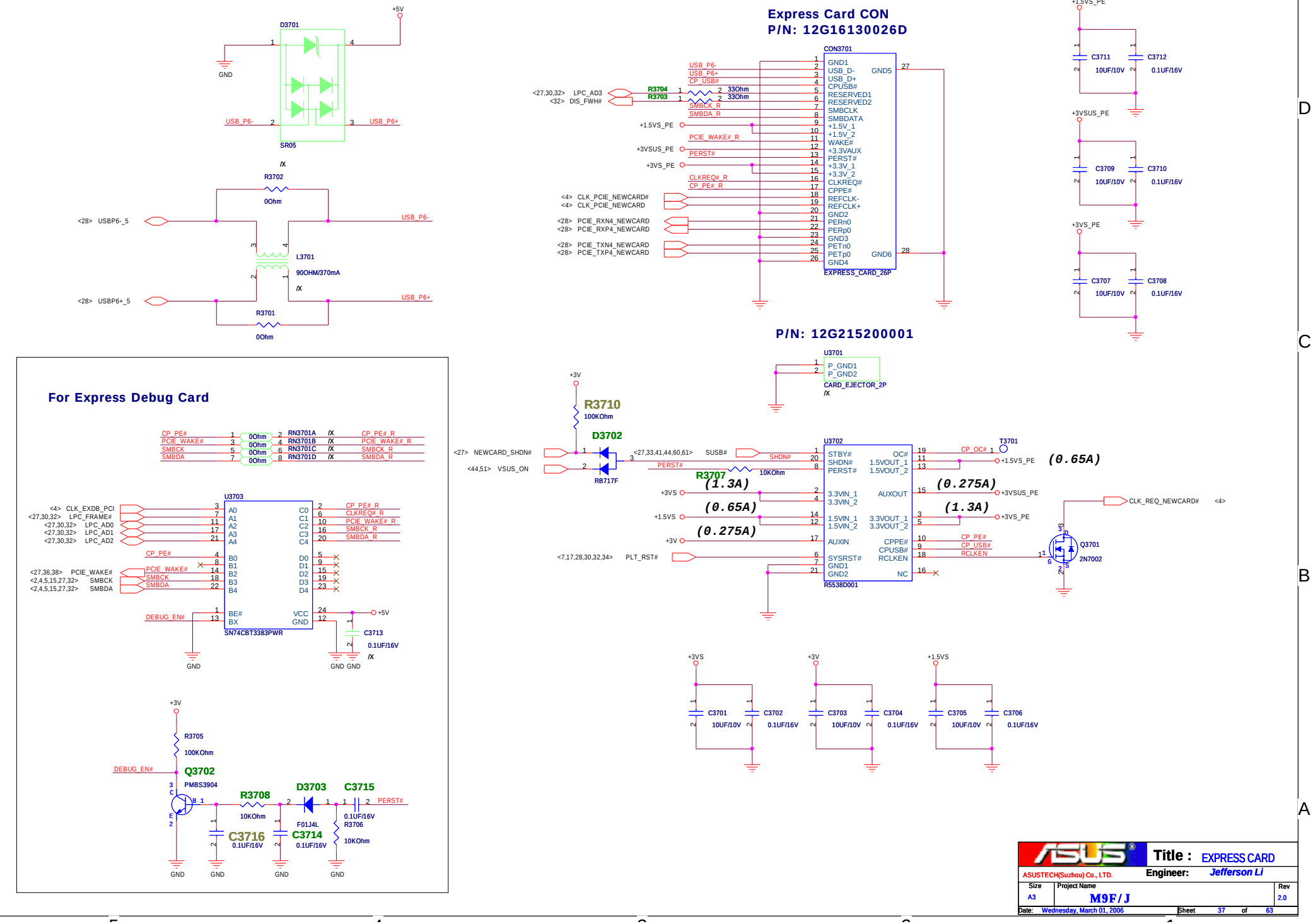


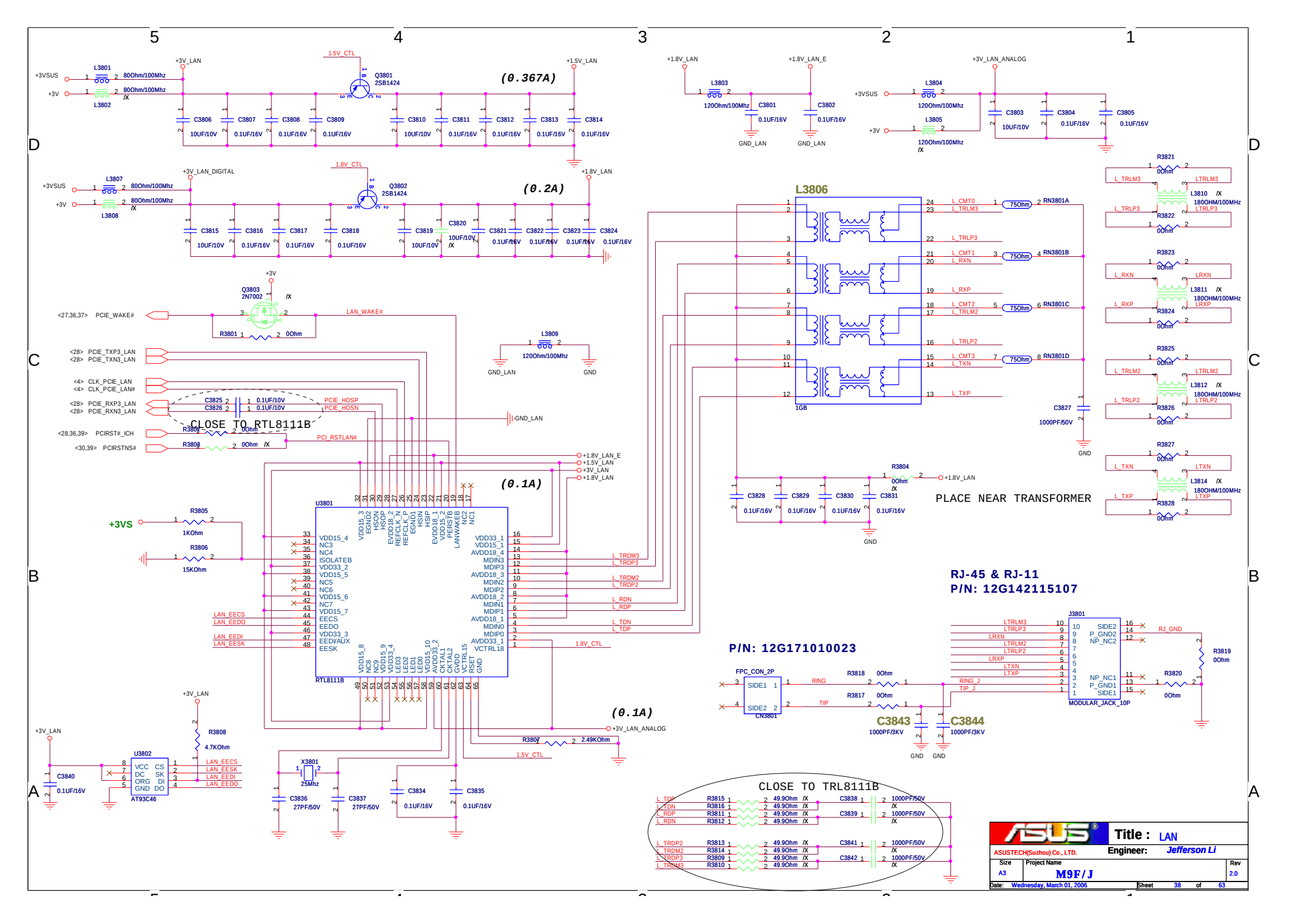

| | |
|---|---|
| Title : | Schematic page name |
| ASUSTECH(Suzhou) Co., LTD. | Engineer: Muscle_Wu |
| Size: A3 | Project Name: M9F/J |
| Rev: 2.0 | |
| Date: Wednesday, March 01, 2006 | Sheet 34 of 63 |

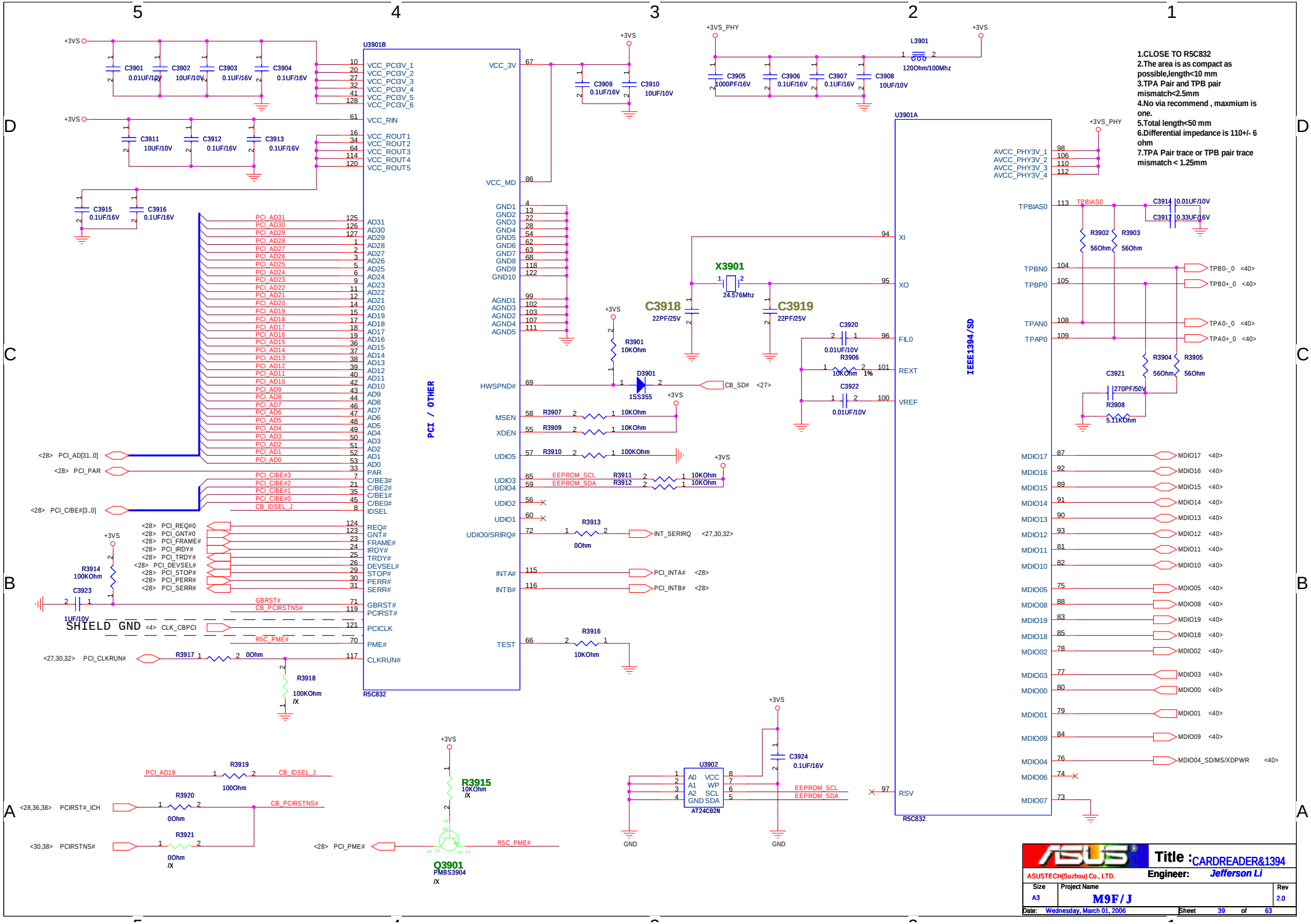

Bluetooth
P/N: 12G170030100
Finger Print
P/N: 12G171010048
Camera & Int. MIC
P/N: 12G171010073
USB PORT
P/N: 12G130011045
Q3501
SI2305DS
Q3502
2N7002
R3533
10KOhm
R3503
0Ohm
CON3502
WTOB_CON_10P
R3501
0Ohm
/EPSON
L3514
90OHM/370mA
R3502
CON3501
WTOB_CON_4P
C3501
0.1UF/10V
L3502
L3503
120Ohm/100Mhz
C3504
470PF/50V
R3505
R3506
L3505
L3504
CON3503
WTOB_CON_7P
U3501
U3502
U3503
U3504
G528P1UF
R3507 0Ohm
R3508 0Ohm
R3519 0Ohm
R3521 0Ohm
R3509
R3510
R3520
R3522
R3511
R3512
R3523
R3524
R3513
R3514
R3525
R3527
C3509
C3510
C3519
C3520
C3505
C3506
C3507
C3508
C3515
C3516
C3517
C3518
22UF/10V
L3506
L3507
L3510
L3511
220Ohm/100Mhz
R3517
R3518
R3529
R3530
L3508
L3509
L3512
L3513
C3511
C3512
C3521
C3522
C3514
C3513
C3524
C3523
100PF/50V
R3515
R3516
R3526
R3528
D3501
D3502
D3503
D3504
SR05
USB3501
USB3502
USB3503
USB3504
USB_CON_1X4P
USB_OC_1#
USB_OC_2#
USB_OC_3#
USB_OC_4#
PM_SUSC
+3V
+3V_BT
+5V
+5V_USB1
+5V_USB2
+5V_USB3
+5V_USB4
+3VSUS
GND
AGND
AMY_MIC_GND
USBPWR_1
USBPWR_2
USBPWR_3
USBPWR_4
USBP1P
USBP1N
USBP2P
USBP2N
USBP3P
USBP3N
USBP4P
USBP4N
USB7P
USB7N
USB5N
USB5P
CH_CLK_BT
BT_EN
CH_DATA_BT
BT_TRFER_LED
INT_MIC
BT_EN#/PWR_ON#
Title : Schematic page name
Engineer: Muscle_Wu
ASUSTECH(Suzhou) Co., LTD.
Size A2
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 35 of 63




| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : MINI CARD | |
| | Engineer: Jefferson Li | |
| Size: A3 | Project Name: M9F/J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 36 of 63 | |


Express Card CON
P/N: 12G16130026D
P/N: 12G215200001
For Express Debug Card
D3701
SR05
R3702
0Ohm
L3701
90OHM/370mA
R3701
0Ohm
CON3701
EXPRESS_CARD_26P
U3701
CARD_EJECTOR_2P
U3702
R5538D001
R3710
100KOhm
D3702
RB717F
R3707
10KOhm
(1.3A)
(0.65A)
(0.275A)
T3701
Q3701
2N7002
U3703
SN74CBT3383PWR
R3705
100KOhm
Q3702
PMBS3904
R3708
10KOhm
D3703
F01J4L
C3715
0.1UF/16V
R3706
10KOhm
C3716
0.1UF/16V
C3714
0.1UF/16V
C3713
0.1UF/16V
C3701
C3702
C3703
C3704
C3705
C3706
C3707
C3708
C3709
C3710
C3711
C3712
10UF/10V
0.1UF/16V
ASUSTECH(Suzhou) Co., LTD.
Title : EXPRESS CARD
Engineer: Jefferson Li
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 37 of 63


5
4
3
2
1
D
C
B
A
(0.367A)
(0.2A)
(0.1A)
(0.1A)
L3806
1GB
RN3801A
RN3801B
RN3801C
RN3801D
75Ohm
PLACE NEAR TRANSFORMER
CLOSE TO RTL8111B
CLOSE TO TRL8111B
RJ-45 & RJ-11
P/N: 12G142115107
P/N: 12G171010023
RTL8111B
U3801
U3802
AT93C46
X3801
25Mhz
FPC_CON_2P
CN3801
MODULAR_JACK_10P
Title : LAN
ASUSTECH(Suzhou) Co., LTD.
Engineer: Jefferson Li
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 38 of 63


1.CLOSE TO R5C832
2.The area is as compact as possible,length<10 mm
3.TPA Pair and TPB pair mismatch<2.5mm
4.No via recommend , maxmium is one.
5.Total length<50 mm
6.Differential impedance is 110+/- 6 ohm
7.TPA Pair trace or TPB pair trace mismatch < 1.25mm
U3901B
R5C832
PCI / OTHER
U3901A
IEEE1394/SD
SHIELD GND
X3901
24.576Mhz
C3918
22PF/25V
C3919
22PF/25V
U3902
AT24C02N
Q3901
PMBS3904
Title : CARDREADER&1394
ASUSTECH(Suzhou) Co., LTD.
Engineer: Jefferson Li
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 39 of 63

# 4-IN-1 Card Reader

P/N: 12G340004420

# 1394a CON

P/N: 12G130012043

U4001 SN74CBT1G125DBV — SDCD# → SD_D1/MS_D1/XDDA1 (+5VS)

U4002 SN74CBT1G125DBV — SDCDAT2 → SD_D2/MS_D2/XDDA2 (+5VS)

U4003 SN74LVC1G66DCKR — SDCD# / SD_CD → MS_CD (+5VS)

+5VS: C4003 1UF/10V, C4004 0.01UF/10V, C4005 0.01UF/10V

Q4001 SI2301BDS_T1_E3 — +3VS → +VCCD_MC; R4001 10KOhm; XD_PWR_EN; C4001 0.1UF/10V, C4002 0.1UF/10V

CON4001 CARD_READER_44P

| | | | |
|---|---|---|---|
| 1 | MS_GND1 | XD_CD | 23 |
| 2 | MS_BS | XD_GND1 | 24 |
| 3 | MS_DATA1 | XD_R/B | 25 |
| 4 | MS_DATA0 | XD_RE | 26 |
| 5 | MS_DATA2 | XD_CE | 27 |
| 6 | MS_INS | XD_CLE | 28 |
| 7 | MS_DATA3 | XD_ALE | 29 |
| 8 | MS_SCLK | XD_WE | 30 |
| 9 | MS_VCC | XD_WP | 31 |
| 10 | MS_GND2 | XD_GND2 | 32 |
| 11 | SD_DAT2 | XD_D0 | 33 |
| 12 | SD_DAT3 | XD_D1 | 34 |
| 13 | SD_CMD | XD_D2 | 35 |
| 14 | SD_GND1 | XD_D3 | 36 |
| 15 | SD_VCC | XD_D4 | 37 |
| 16 | SD_CLK | XD_D5 | 38 |
| 17 | SD_GND2 | XD_D6 | 39 |
| 18 | NC1 | XD_D7 | 40 |
| 19 | SD_DAT0 | XD_VCC | 41 |
| 20 | SD_DAT1 | NC2 | 42 |
| 21 | SD_CD_SW | SD_WP_SW | 43 |
| 22 | SD_CD_COM | SD_WP_COM | 44 |
| 45 | NP_NC1 | NP_NC2 | 46 |
| 47 | GND1 | GND2 | 48 |

R4003 10KOhm; R4002 470KOhm; D4001 1SS355, D4002 1SS355, D4003 1SS355; R4014 150KOhm; R4015 33Ohm; R4004 150KOhm; R4005 0Ohm; R4006 0Ohm; R4007 0Ohm; R4008 0Ohm; C4007 270PF/50V /X; C4008 270PF/50V; C4006 10PF/50V /X

Q4003 SI2301BDS_T1_E3 — +3VS → +VCCA_MC; R4009 10KOhm; C4009 0.1UF/10V, C4010 0.1UF/10V; Q4004 2N7002

L4001 IEEE1394 (Common Choke); R4010 0Ohm /X R4011; R4012 0Ohm /X R4013

CON4002 IEEE_1394_4P

Title : 4-IN-1 & 1394a

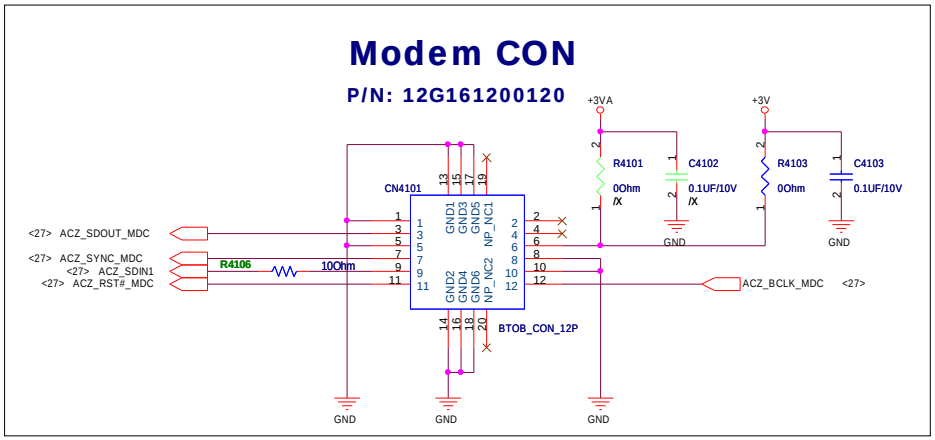
ASUSTECH(Suzhou) Co., LTD. Engineer: Jefferson Li

Size A3 | Project Name M9F/J | Rev 2.0

Date: Wednesday, March 01, 2006 | Sheet 40 of 63

# Modem CON

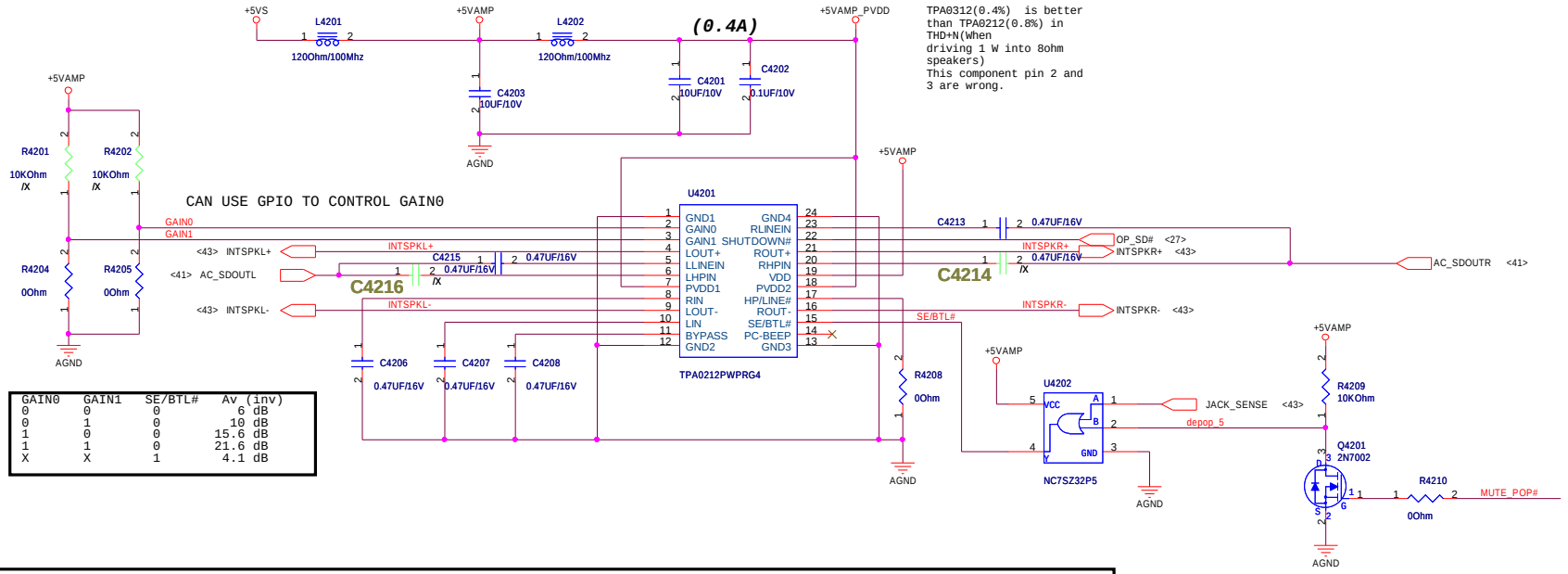
**P/N: 12G161200120**



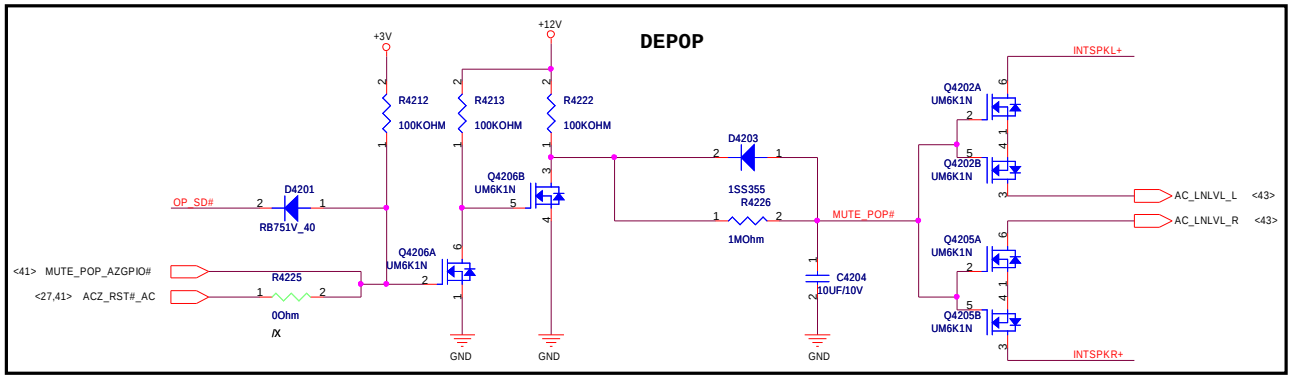

Vout=1.25*(1+R1/R2)=4.842V

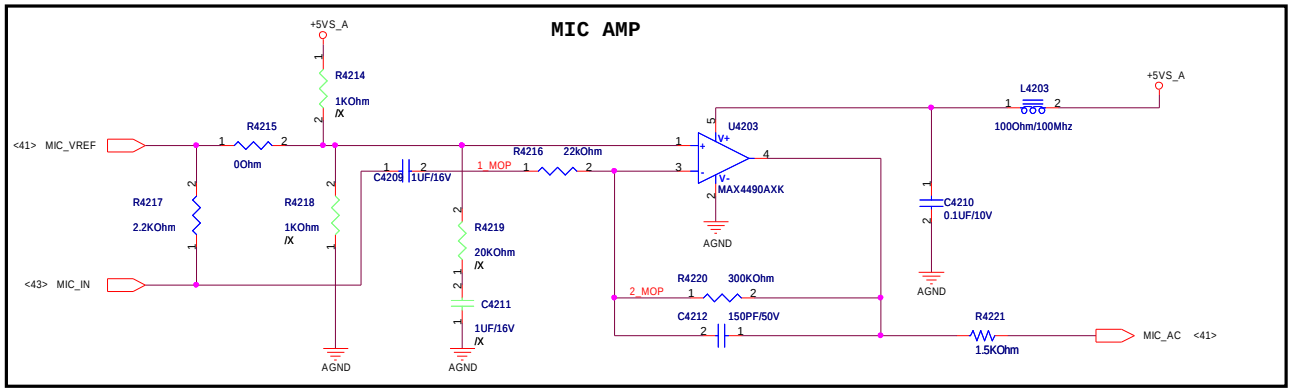



| | | |
|---|---|---|
| ASUSTeK(Suzhou) Co., LTD. | Title : Audio - AD1986A | |
| | Engineer: Muscle_Wu | |
| Size: A3 | Project Name: M9F / J | Rev: 2.0 |
| Date: Thursday, March 02, 2006 | Sheet 41 of 63 | |




| GAIN0 | GAIN1 | SE/BTL# | Av (inv) |
|---|---|---|---|
| 0 | 0 | 0 | 6 dB |
| 0 | 1 | 0 | 10 dB |
| 1 | 0 | 0 | 15.6 dB |
| 1 | 1 | 0 | 21.6 dB |
| X | X | 1 | 4.1 dB |



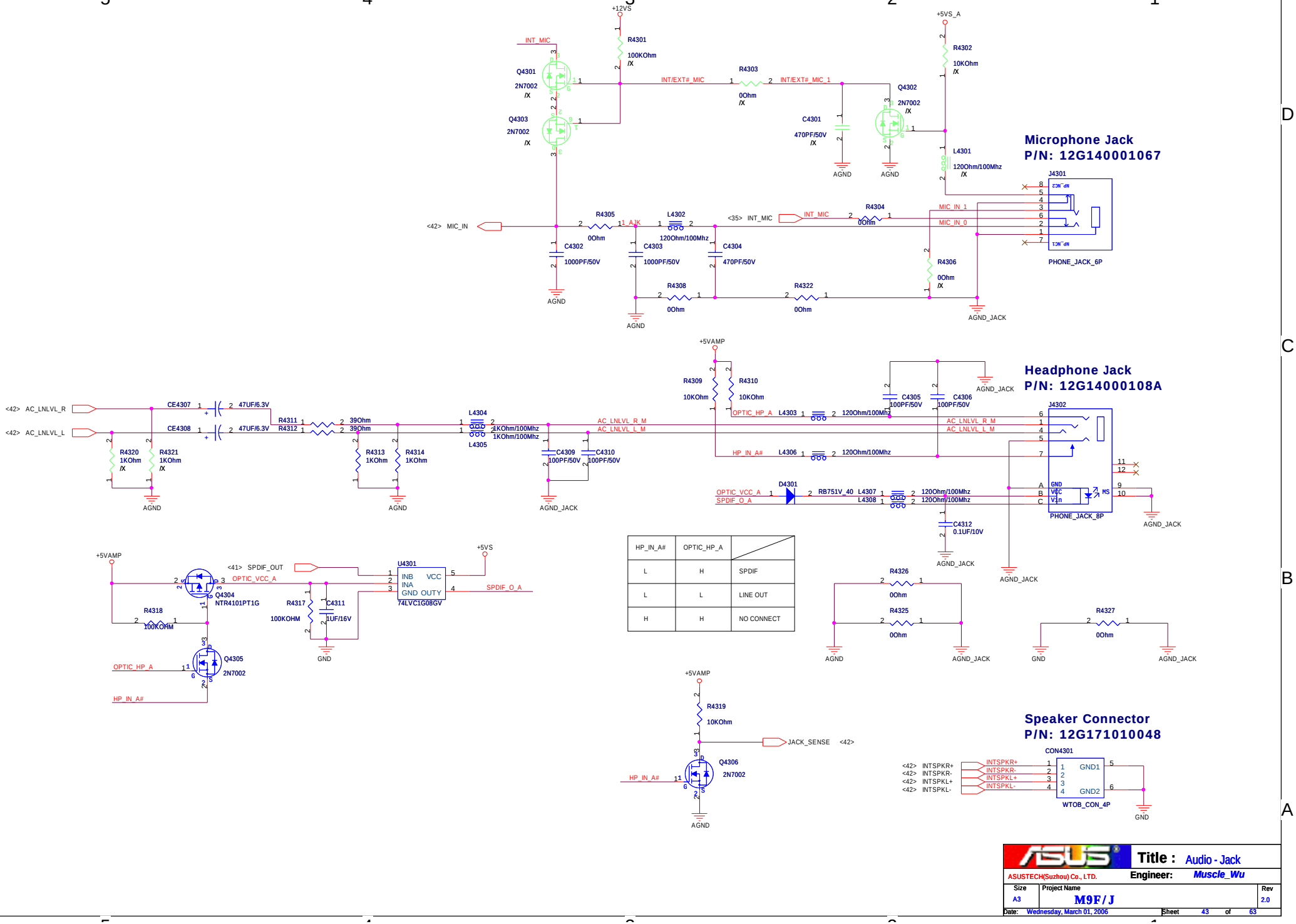

ASUSTECH(Suzhou) Co., LTD.

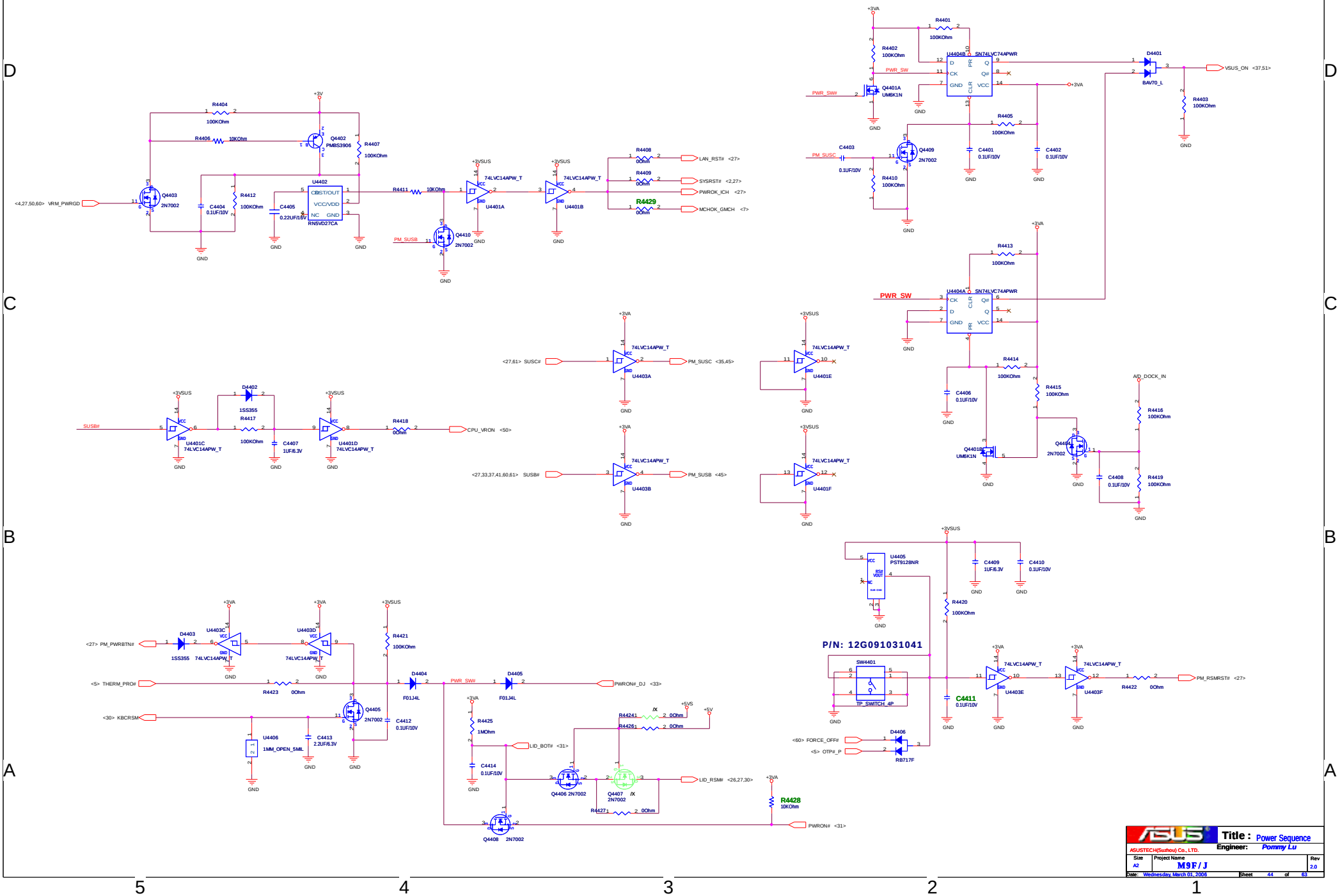
Title : Audio - AMP & Depop

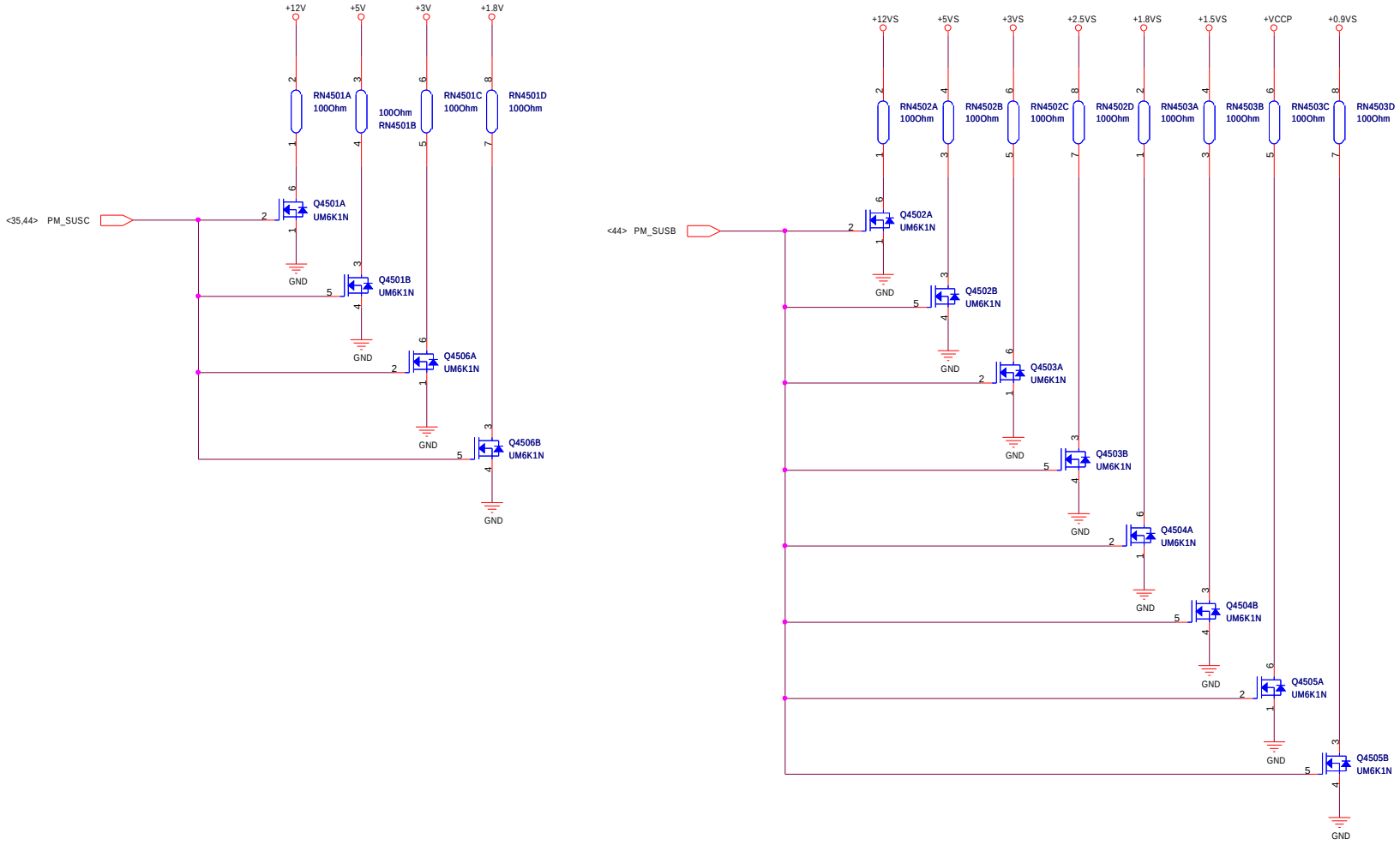
Engineer: Muscle_Wu

| Size | Project Name | Rev |
|---|---|---|
| A3 | M9F/J | 2.0 |

Date: Thursday, March 02, 2006 Sheet 42 of 63


Microphone Jack
P/N: 12G140001067
Headphone Jack
P/N: 12G14000108A
Speaker Connector
P/N: 12G171010048
PHONE_JACK_6P
PHONE_JACK_8P
WTOB_CON_4P
74LVC1G08GV
NTR4101PT1G
2N7002
RB751V_40
HP_IN_A# | OPTIC_HP_A
L | H | SPDIF
L | L | LINE OUT
H | H | NO CONNECT
ASUSTECH(Suzhou) Co., LTD.
Title : Audio - Jack
Engineer: Muscle_Wu
Size A3
Project Name M9F/J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 43 of 63


Q4403 2N7002
R4404 100KOhm
R4406 10KOhm
Q4402 PMBS3906
R4407 100KOhm
C4404 0.1UF/10V
R4412 100KOhm
C4405 0.22UF/16V
U4402 RN5VD27CA
R4411 10KOhm
Q4410 2N7002
U4401A 74LVC14APW_T
U4401B 74LVC14APW_T
R4408 0Ohm
R4409 0Ohm
R4429 0Ohm
LAN_RST# <27>
SYSRST# <2,27>
PWROK_ICH <27>
MCHOK_GMCH <7>
<4,27,50,60> VRM_PWRGD
PM_SUSB
U4403A 74LVC14APW_T
U4401E 74LVC14APW_T
U4403B 74LVC14APW_T
U4401F 74LVC14APW_T
U4401C 74LVC14APW_T
U4401D 74LVC14APW_T
D4402 1SS355
R4417 100KOhm
C4407 1UF/6.3V
R4418 0Ohm
CPU_VRON <50>
SUSB#
<27,61> SUSC#
PM_SUSC <35,45>
<27,33,37,41,60,61> SUSB#
PM_SUSB <45>
R4401 100KOhm
R4402 100KOhm
U4404B SN74LVC74APWR
D4401 BAV70_L
VSUS_ON <37,51>
PWR_SW
PWR_SW#
Q4401A UM6K1N
R4403 100KOhm
R4405 100KOhm
C4401 0.1UF/10V
C4402 0.1UF/10V
C4403 0.1UF/10V
Q4409 2N7002
R4410 100KOhm
R4413 100KOhm
U4404A SN74LVC74APWR
R4414 100KOhm
R4415 100KOhm
C4406 0.1UF/10V
Q4401B UM6K1N
Q4404 2N7002
A/D_DOCK_IN
R4416 100KOhm
C4408 0.1UF/10V
R4419 100KOhm
D4403 1SS355
U4403C 74LVC14APW_T
U4403D 74LVC14APW_T
R4421 100KOhm
<27> PM_PWRBTN#
<5> THERM_PRO#
R4423 0Ohm
D4404 F01J4L
D4405 F01J4L
PWR_SW#
PWRON#_DJ <33>
<30> KBCRSM
Q4405 2N7002
C4412 0.1UF/10V
U4406 1MM_OPEN_5MIL
C4413 2.2UF/6.3V
R4425 1MOhm
LID_BOT# <31>
C4414 0.1UF/10V
Q4406 2N7002
R44241 0Ohm
R44261 0Ohm
Q4407 2N7002
R4427 0Ohm
LID_RSM# <26,27,30>
R4428 10KOhm
PWRON# <31>
Q4408 2N7002
U4405 PST9128NR
C4409 1UF/6.3V
C4410 0.1UF/10V
R4420 100KOhm
P/N: 12G091031041
SW4401 TP_SWITCH_4P
C4411 0.1UF/10V
U4403E 74LVC14APW_T
U4403F 74LVC14APW_T
R4422 0Ohm
PM_RSMRST# <27>
<60> FORCE_OFF#
<5> OTP#_P
D4406 RB717F
Title : Power Sequence
Engineer: Pommy Lu
ASUSTECH(Suzhou) Co., LTD.
Size A2
Project Name M9F / J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 44 of 63




ASUSTECH(Suzhou) Co., LTD.

Title : Power Discharge

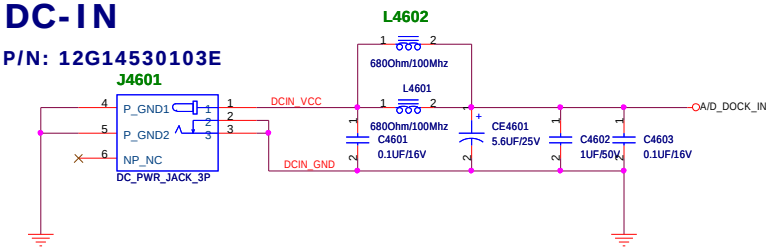
Engineer: Pommy Lu

| Size | Project Name | Rev |
|---|---|---|
| A3 | M9F / J | 2.0 |

Date: Wednesday, March 01, 2006 Sheet 45 of 63

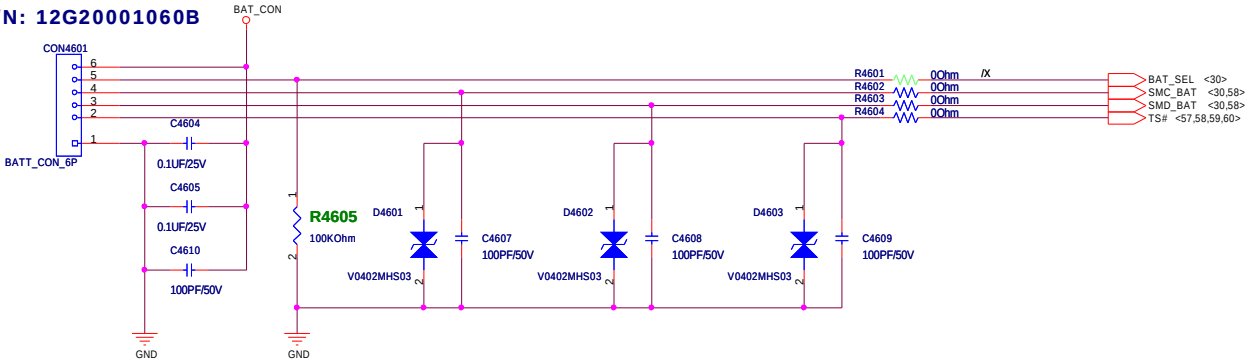
# DC-IN

**P/N: 12G14530103E**

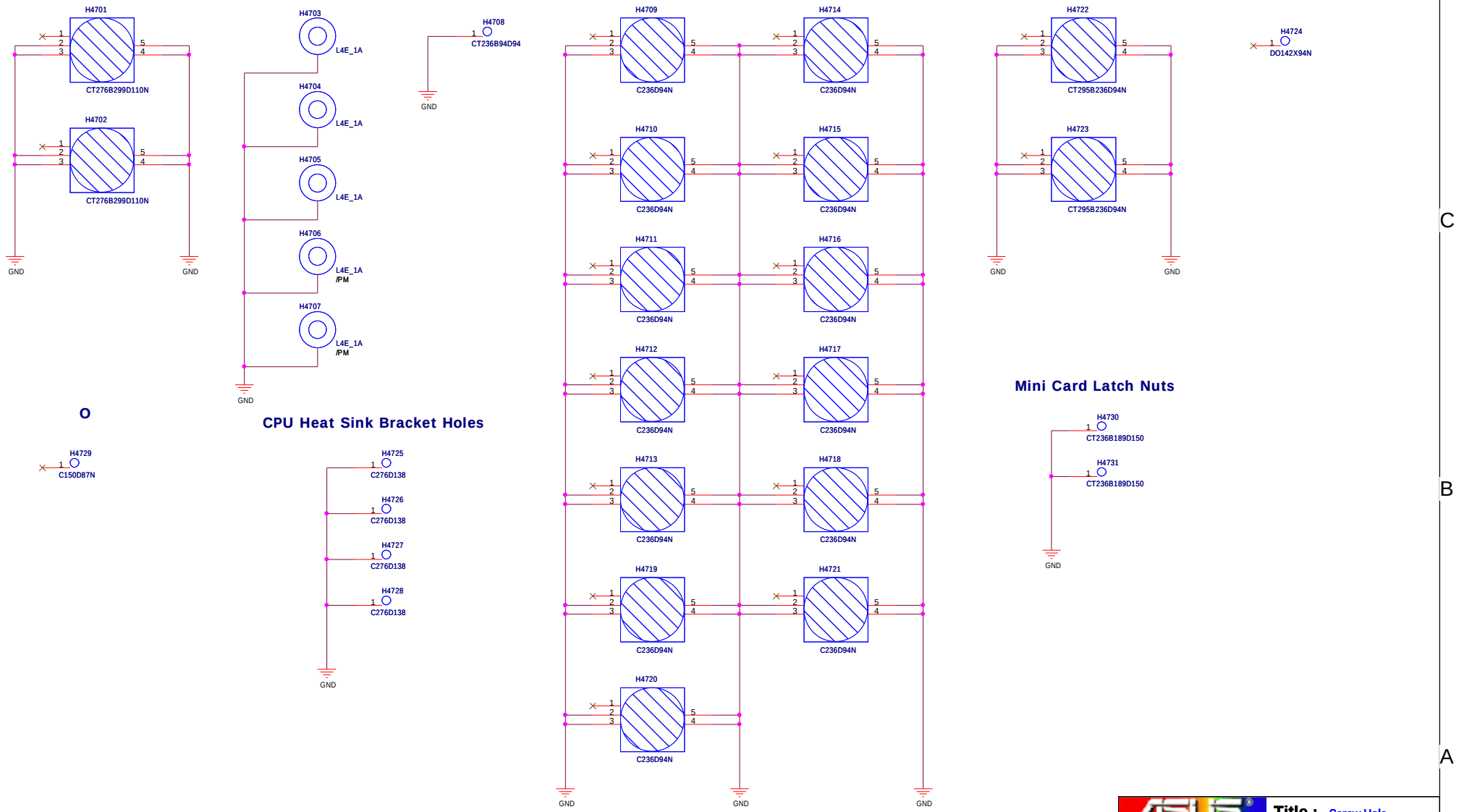



# Battery-IN

**P/N: 12G20001060B**




| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : DC-IN & BAT-IN | |
| | Engineer: Pommy Lu | |
| Size: A3 | Project Name: M9F/J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 46 of 63 | |




| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : Screw Hole | |
| | Engineer: Pommy Lu | |
| Size: A3 | Project Name: M9F / J | Rev: 2.0 |
| Date: Thursday, February 23, 2006 | Sheet 47 of 63 | |

5 4 3 2 1

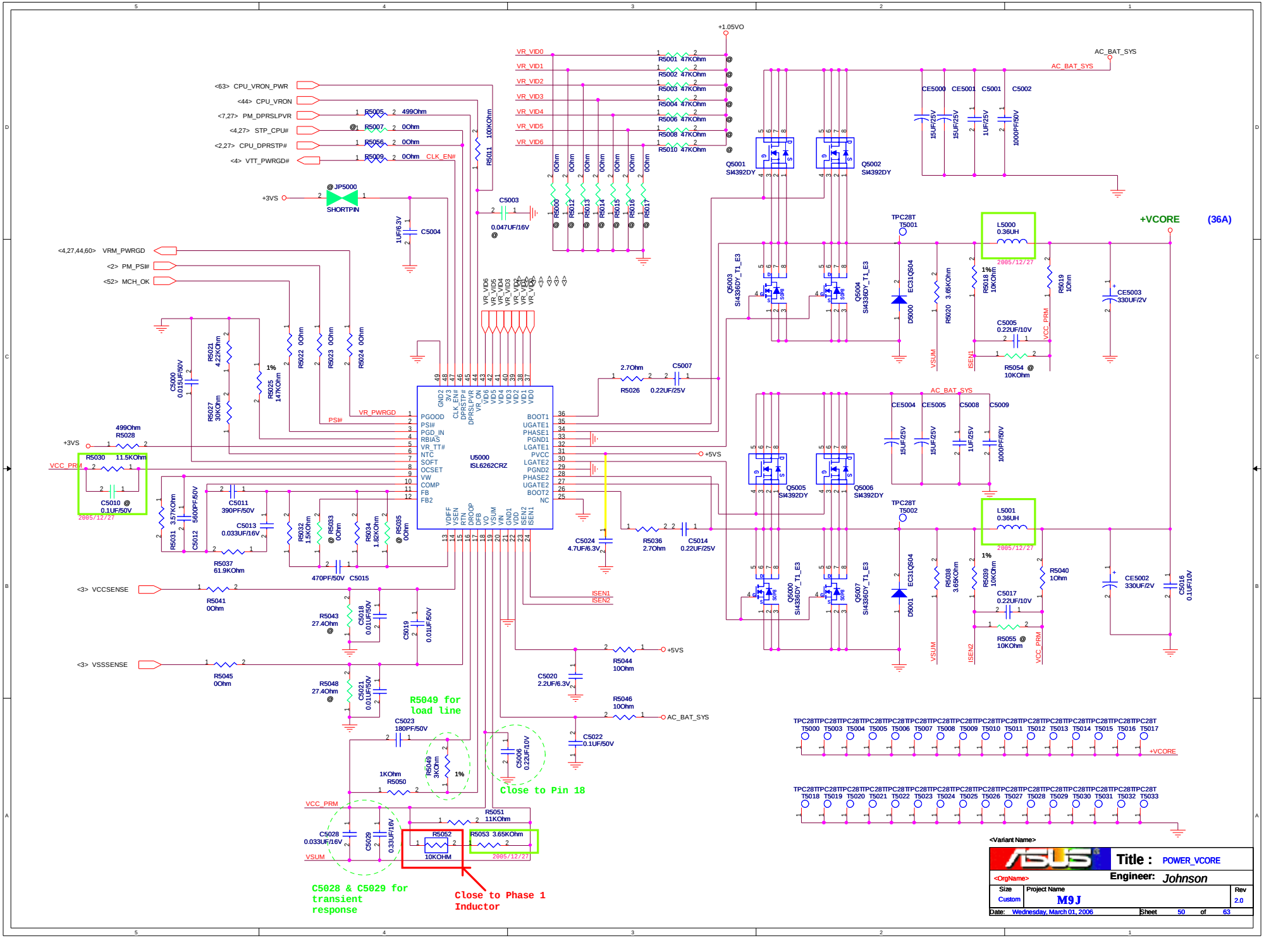
D C B A

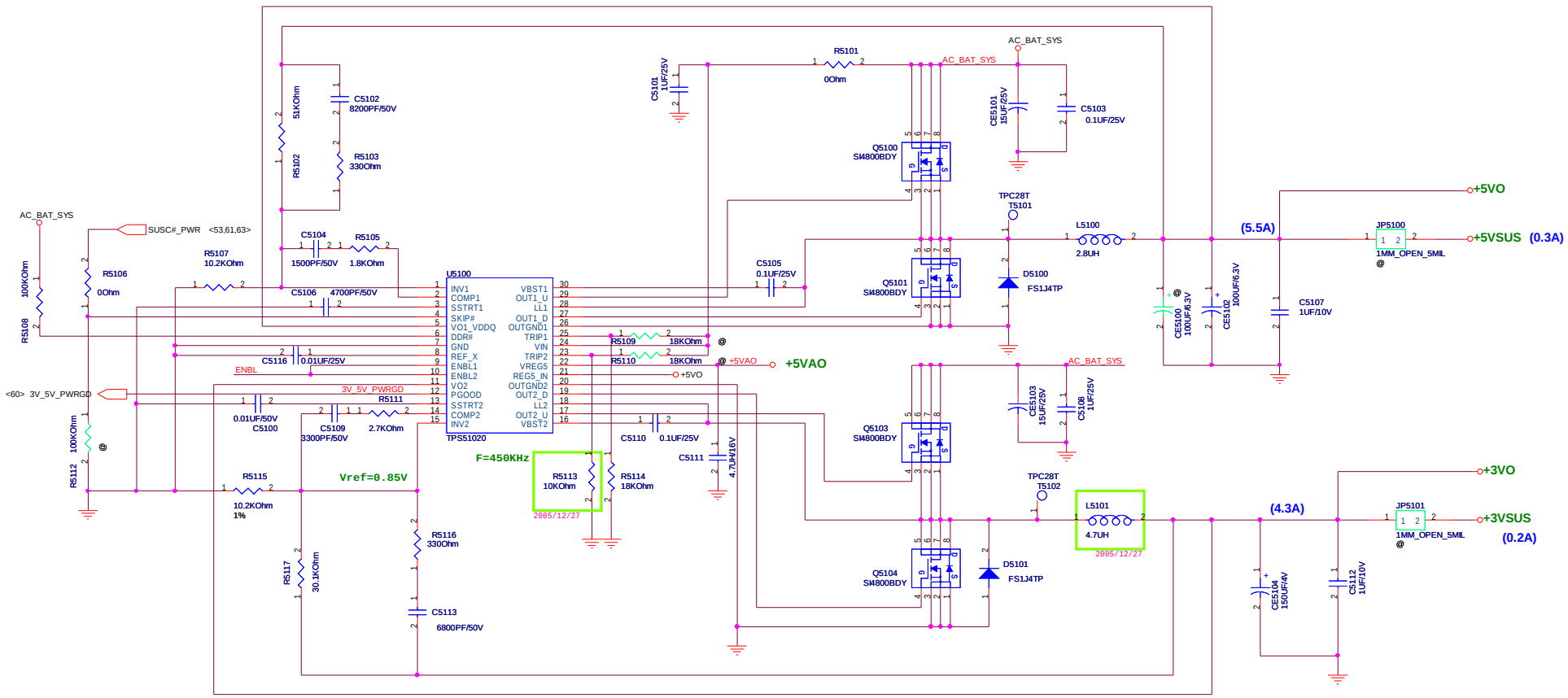
| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : Dummy | |
| | Engineer: Dummy | |
| Size: A3 | Project Name: M9F / J | Rev: 2.0 |
| Date: Monday, January 09, 2006 | Sheet 48 of 63 | |

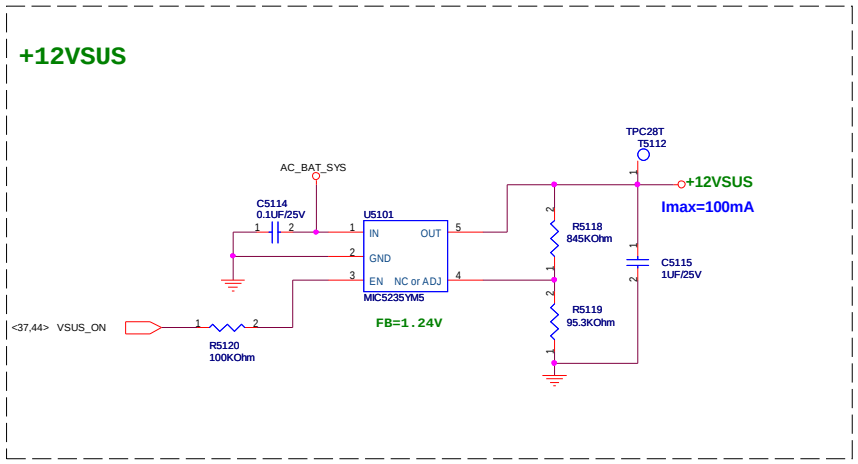
5 4 3 2 1

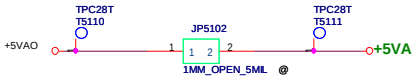
D C B A

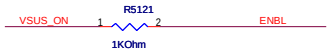
| | | |
|---|---|---|
| ASUSTECH(Suzhou) Co., LTD. | Title : Dummy | |
| | Engineer: *Dummy* | |
| Size: A3 | Project Name: M9F / J | Rev: 2.0 |
| Date: Monday, January 09, 2006 | Sheet 49 of 63 | |

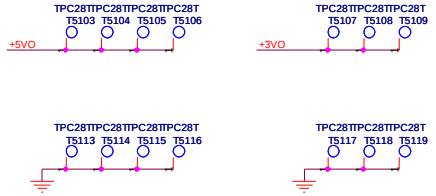

+VCORE (36A)
U5000 ISL6262CRZ
Q5001 SI4392DY
Q5002 SI4392DY
Q5005 SI4392DY
Q5006 SI4392DY
Q5003 SI4336DY_T1_E3
Q5004 SI4336DY_T1_E3
Q5000 SI4336DY_T1_E3
Q5007 SI4336DY_T1_E3
D5000 EC31QS04
D5001 EC31QS04
L5000 0.36UH
L5001 0.36UH
TPC28T T5001
TPC28T T5002
AC_BAT_SYS
+1.05VO
+5VS
+3VS
VCC_PRM
VSUM
ISEN1
ISEN2
R5049 for load line
Close to Pin 18
C5028 & C5029 for transient response
Close to Phase 1 Inductor
Title : POWER_VCORE
Engineer: Johnson
Project Name M9J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 50 of 63



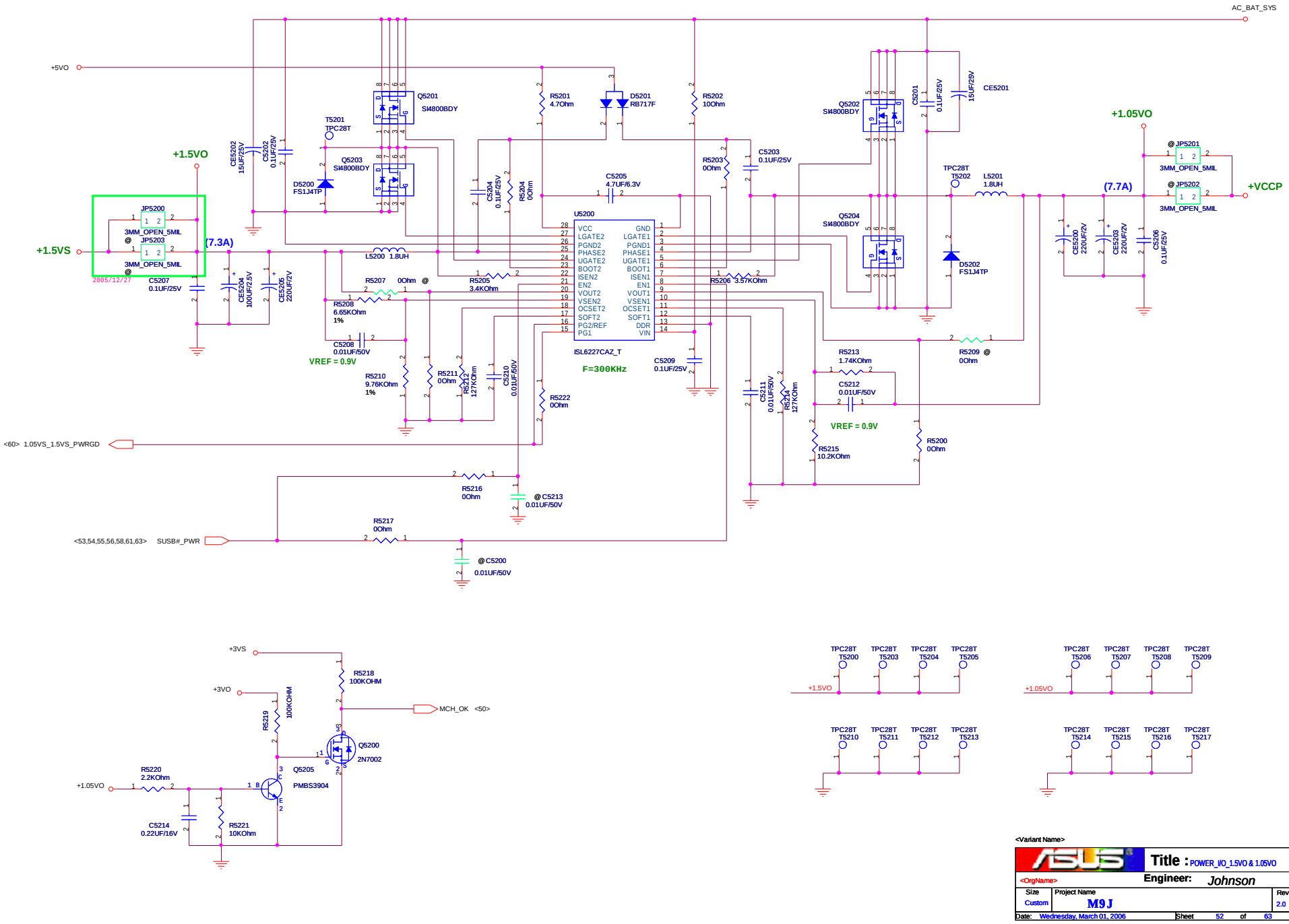



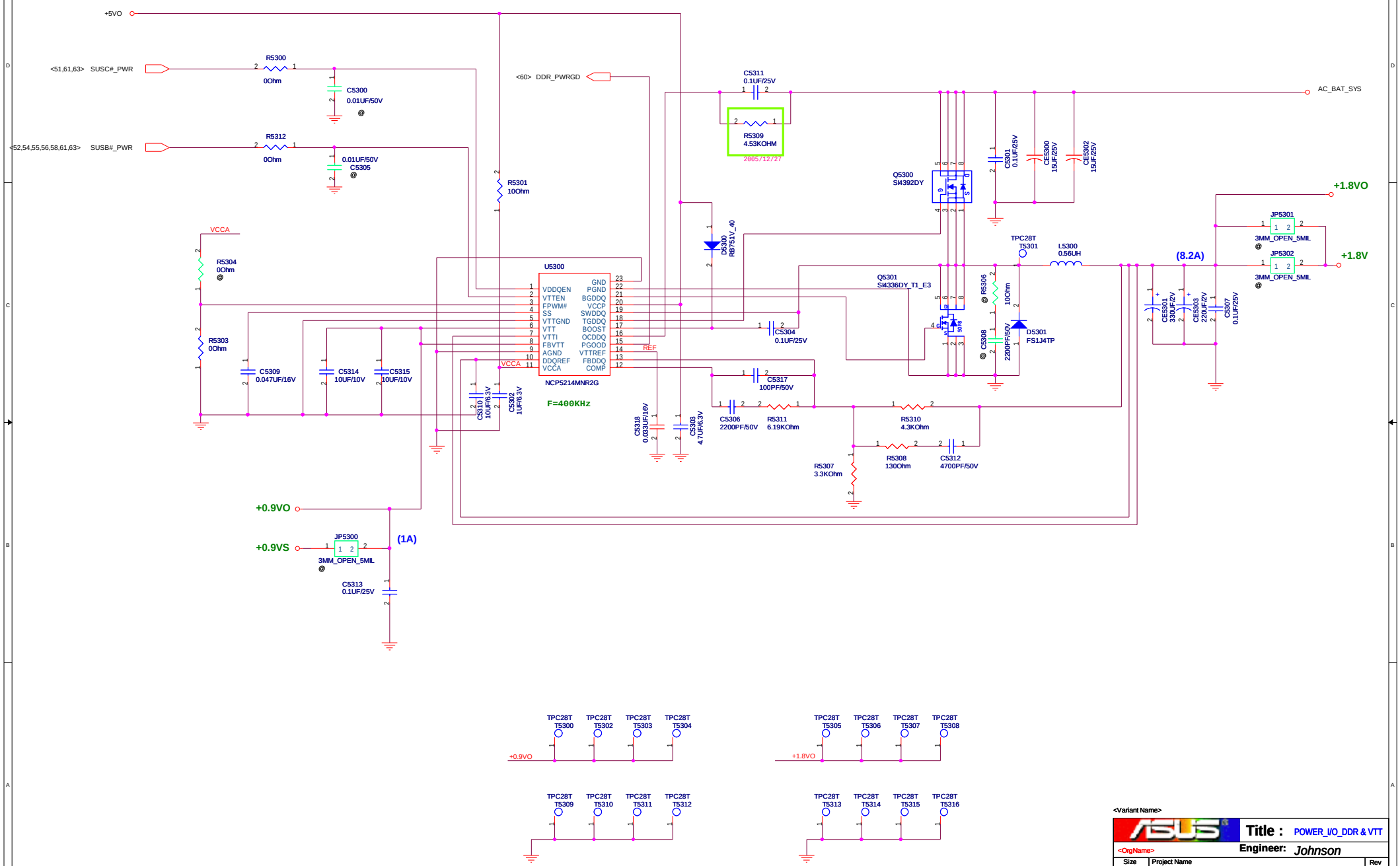




<Variant Name>

| | | |
|---|---|---|
| <OrgName> | Title : POWER_SYSTEM | |
| | Engineer: Johnson | |
| Size: Custom | Project Name: M9J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 51 of 63 | |


AC_BAT_SYS
+5VO
+1.5VO
+1.5VS
(7.3A)
+1.05VO
(7.7A)
+VCCP
U5200
ISL6227CAZ_T
F=300KHz
VREF = 0.9V
VREF = 0.9V
<60> 1.05VS_1.5VS_PWRGD
<53,54,55,56,58,61,63> SUSB#_PWR
+3VS
+3VO
MCH_OK <50>
+1.05VO
+1.5VO
+1.05VO
<Variant Name>
Title : POWER_I/O_1.5VO & 1.05VO
<OrgName>
Engineer: Johnson
Size Custom
Project Name M9J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 52 of 63




<Variant Name>

Title : POWER_I/O_DDR & VTT

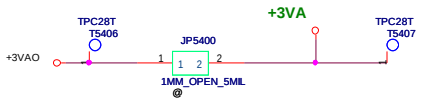
<OrgName>

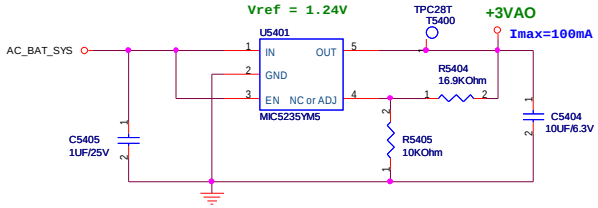
Engineer: Johnson

| Size | Project Name | Rev |
|---|---|---|
| Custom | M9 J | 2.0 |

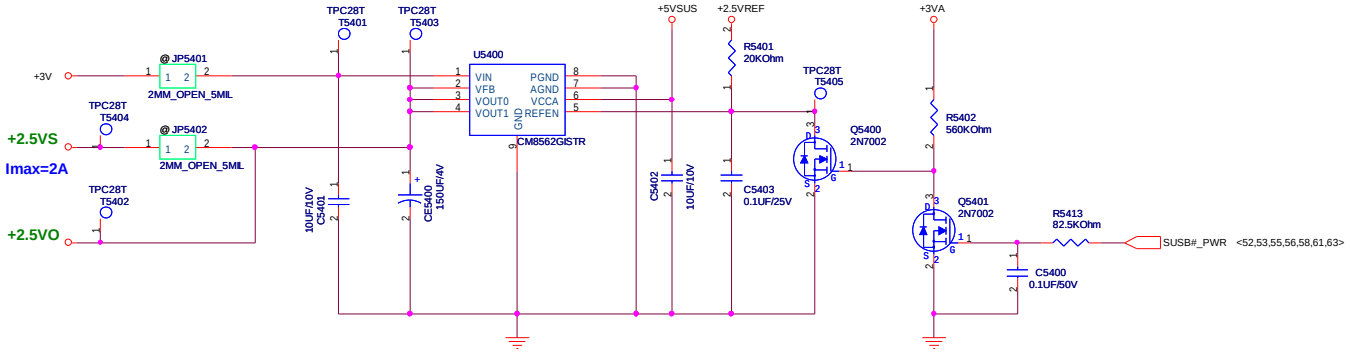
Date: Wednesday, March 01, 2006 Sheet 53 of 63

## +3VA0



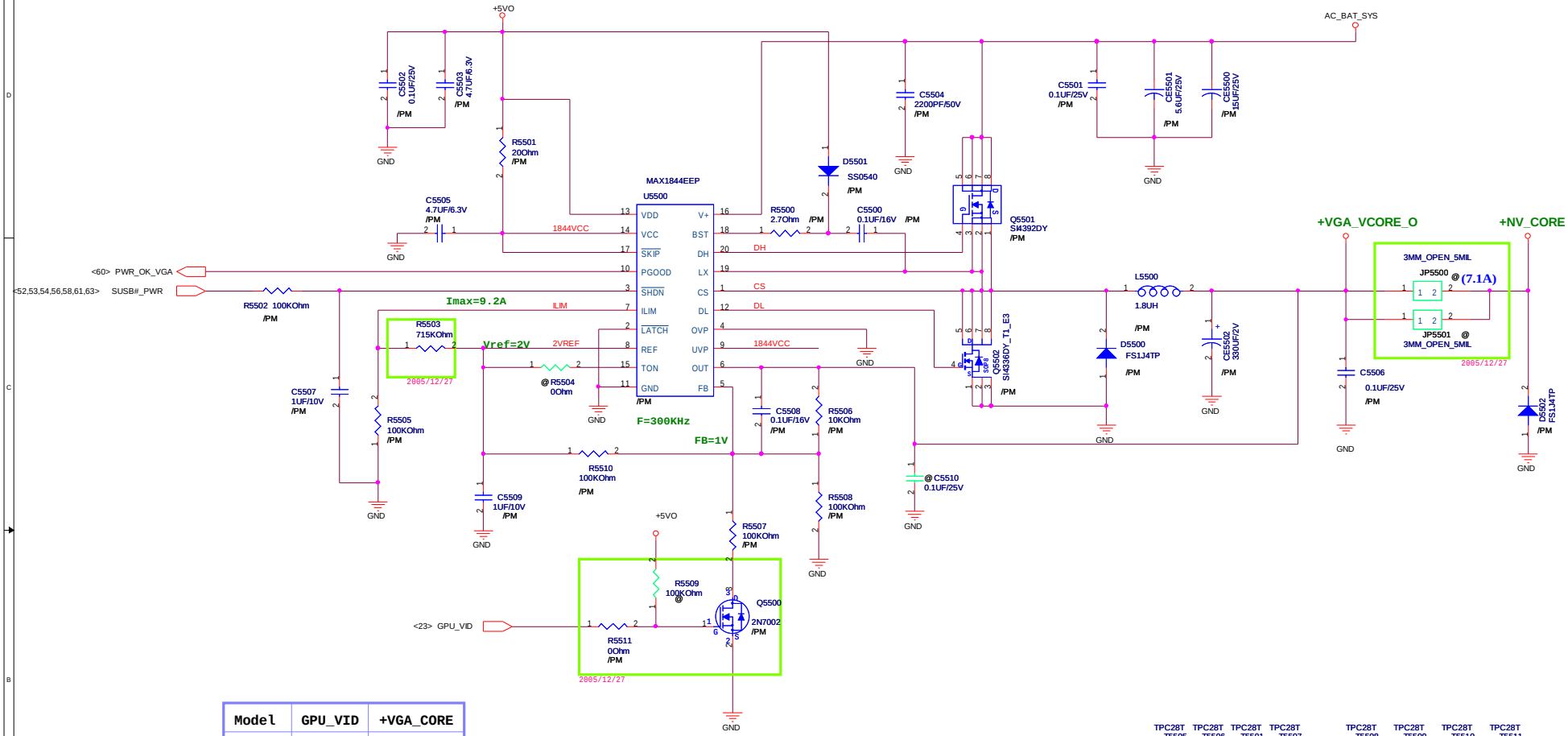




## +2.5VS




<Variant Name>

| | | |
|---|---|---|
| ASUS | Title : POWER_I/O_+3VA & +2.5V | |
| <OrgName> | Engineer: Johnson | |
| Size: Custom | Project Name: M9 J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 54 of 63 | |




| Model | GPU_VID | +VGA_CORE |
|---|---|---|
| M9J | H | 1.1V |
| | L | 1.0V |

<Variant Name>

Title : + VGA_CORE

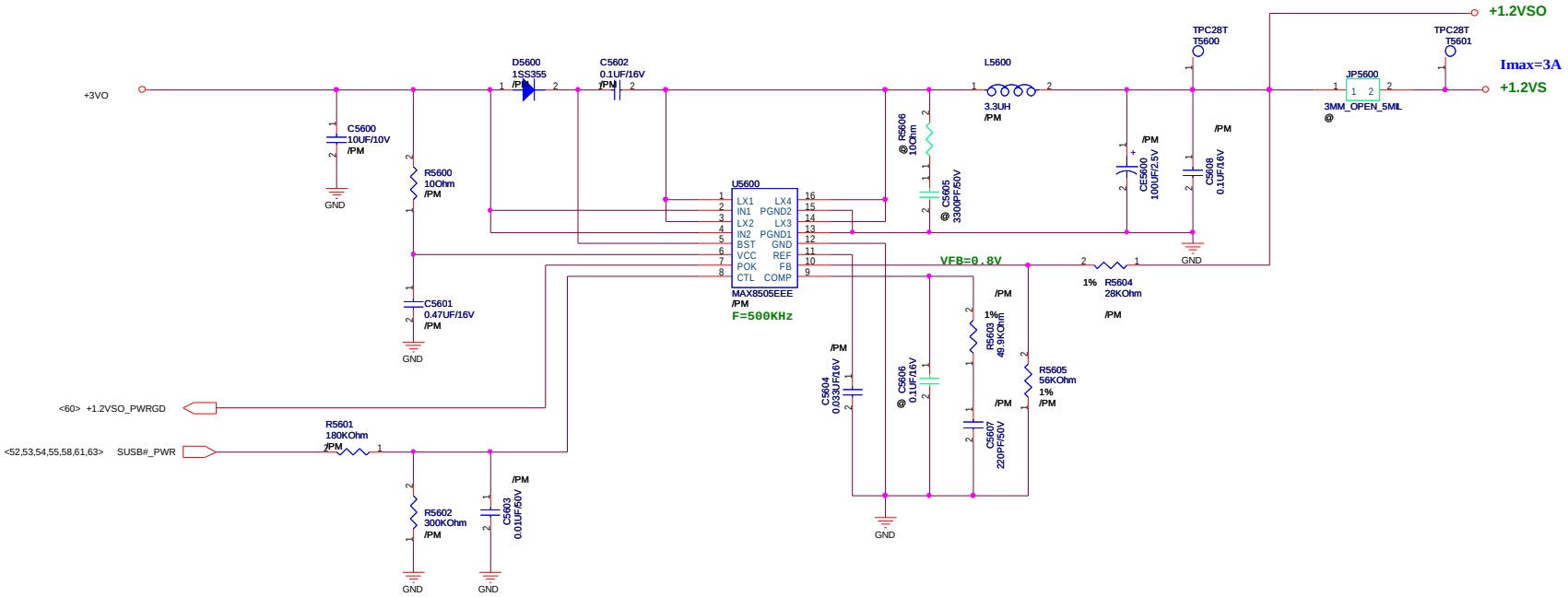
<OrgName>

Engineer: Johnson

| Size | Project Name | Rev |
|---|---|---|
| Custom | M9J | 2.0 |

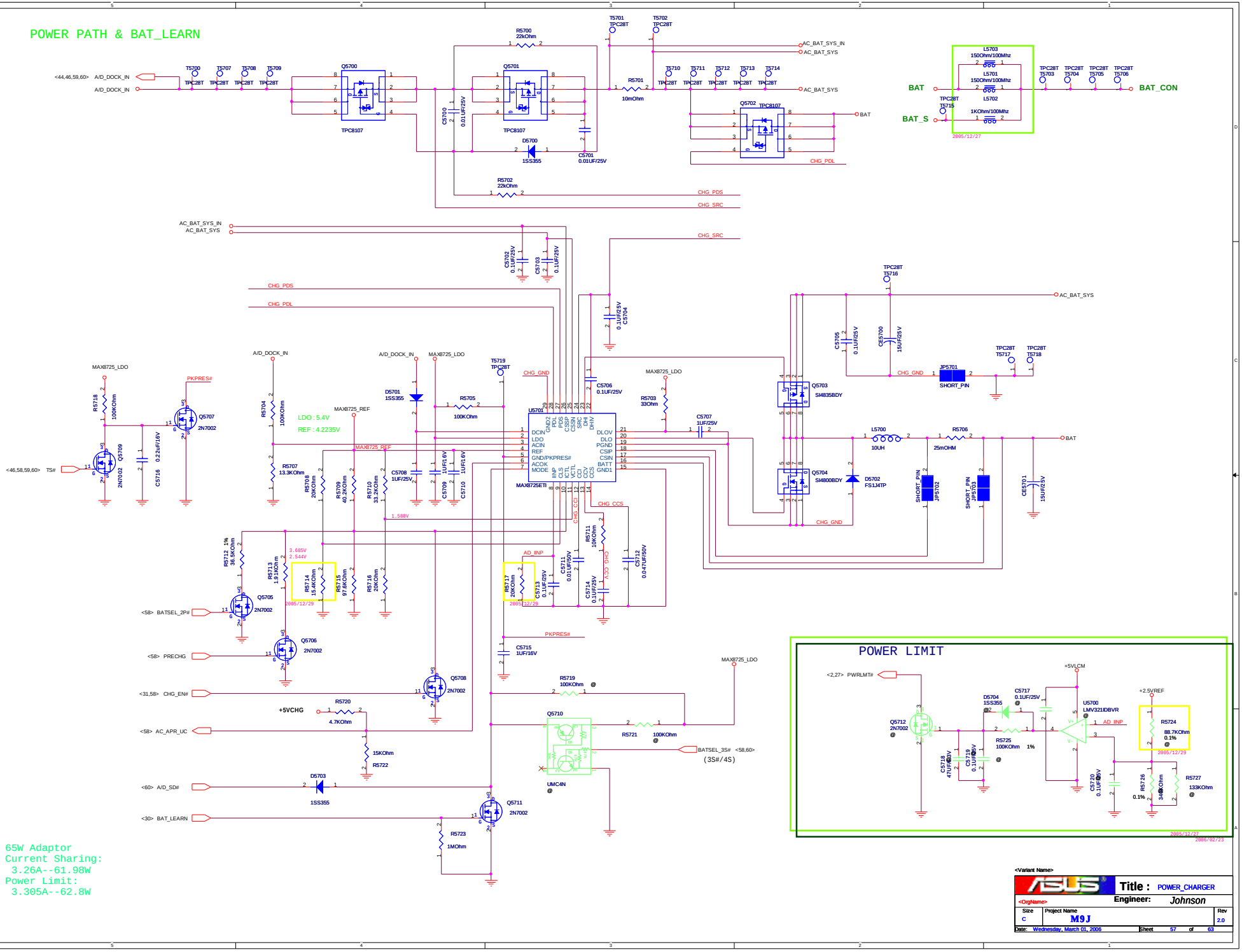
Date: Wednesday, March 01, 2006 Sheet 55 of 63

# +1.2VSP

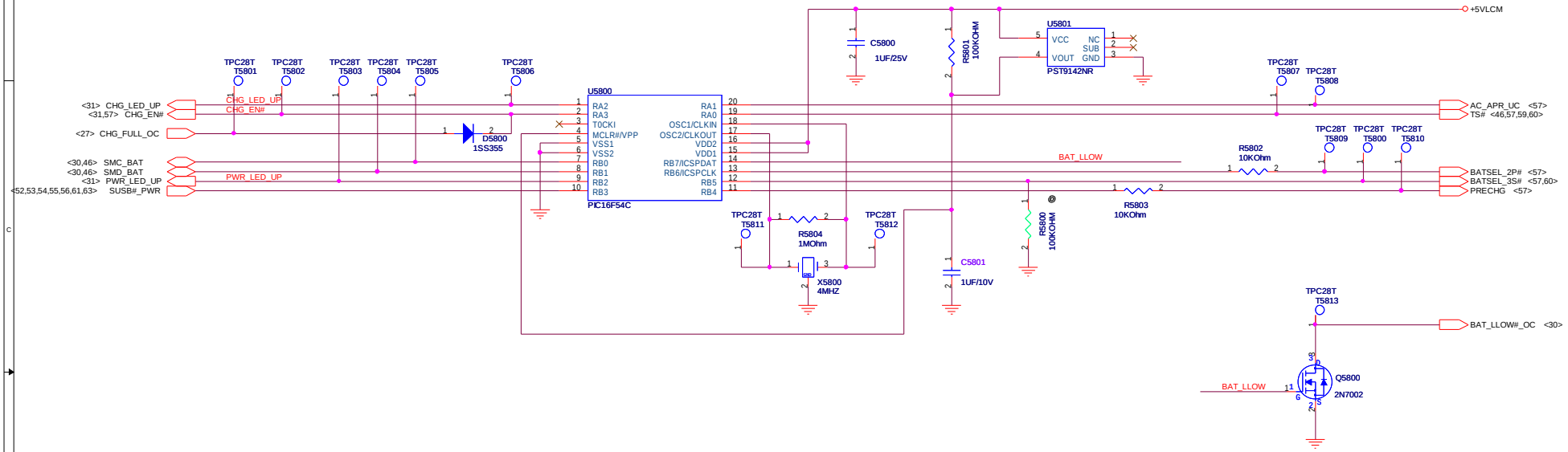



<Variant Name>

| | | |
|---|---|---|
| <OrgName> | Title : POWER_VGA_+1.2VSP | |
| | Engineer: Johnson | |
| Size: Custom | Project Name: M9J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 56 of 63 | |


POWER PATH & BAT_LEARN
A/D_DOCK_IN
AC_BAT_SYS_IN
AC_BAT_SYS
BAT
BAT_S
BAT_CON
CHG_PDS
CHG_PDL
CHG_SRC
CHG_GND
CHG_CCS
MAX8725_LDO
MAX8725_REF
PKPRES#
LDO : 5.4V
REF : 4.2235V
TS#
BATSEL_2P#
PRECHG
CHG_EN#
AC_APR_UC
A/D_SD#
BAT_LEARN
+5VCHG
AD_IINP
BATSEL_3S# <58,60>
(3S#/4S)
POWER LIMIT
PWRLMT#
+5VLCM
+2.5VREF
65W Adaptor
Current Sharing:
3.26A--61.98W
Power Limit:
3.305A--62.8W
Title : POWER_CHARGER
Engineer: Johnson
Project Name M9J
Rev 2.0
Wednesday, March 01, 2006
Sheet 57 of 63

# PIC16F54C

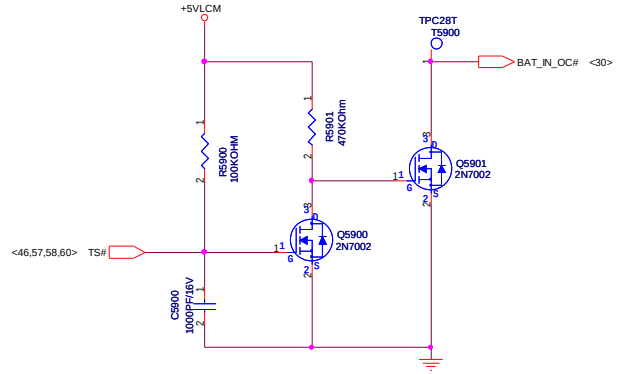



When BAT_LLOW#_OC is active, system entry S4

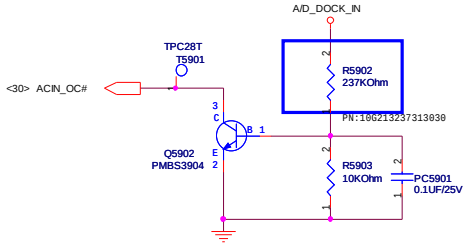
<Variant Name>

| | | |
|---|---|---|
| <OrgName> | Title : POWER_PIC | |
| | Engineer: Johnson | |
| Size: Custom | Project Name: M9J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 58 of 63 | |

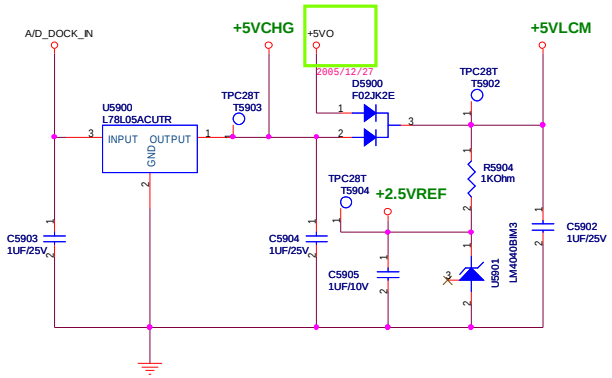
## BATTERY IN DETECT




## ADAPTER IN DETECT



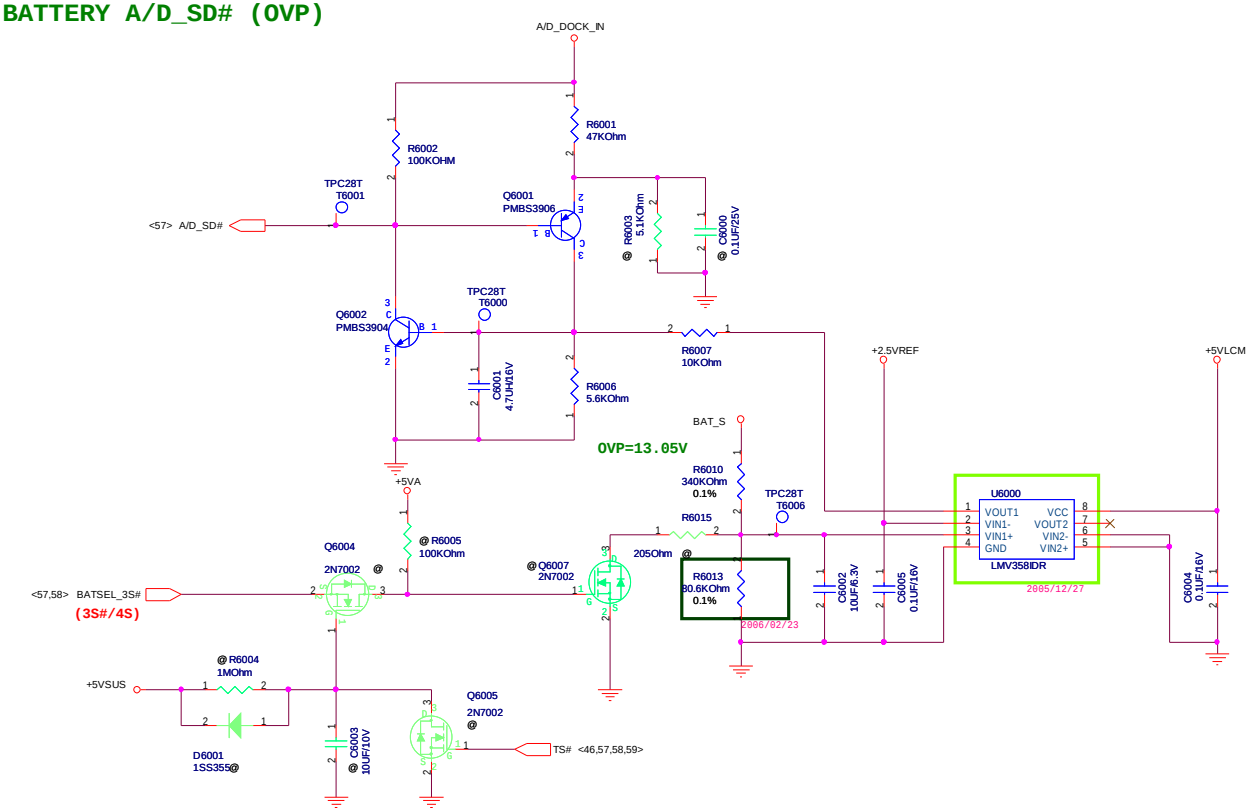

## +5VLCM, +5VCHG & +2.5VREF



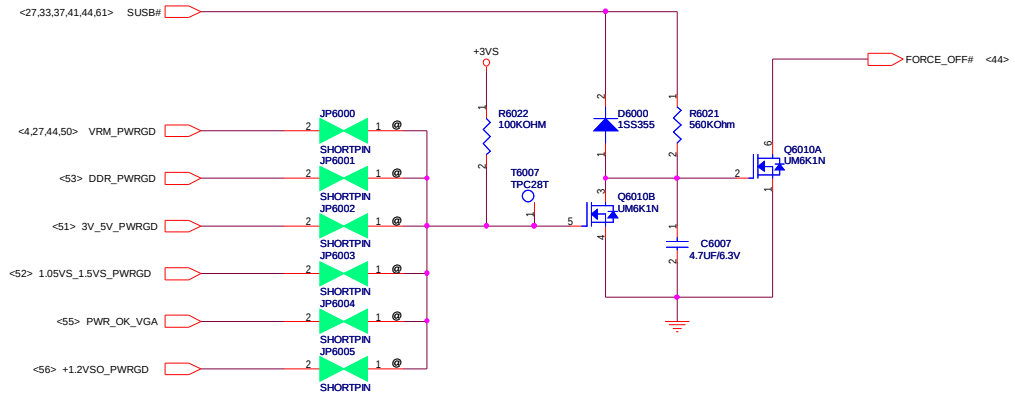

<Variant Name>

| | | |
|---|---|---|
| Title : POWER_DETECT | | |
| <OrgName> | Engineer: Johnson | |
| Size: Custom | Project Name: M9J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 59 of 63 | |

## BATTERY A/D_SD# (OVP)




## POWER GOOD DETECTER




TPC28T T6002 1 VRM_PWRGD

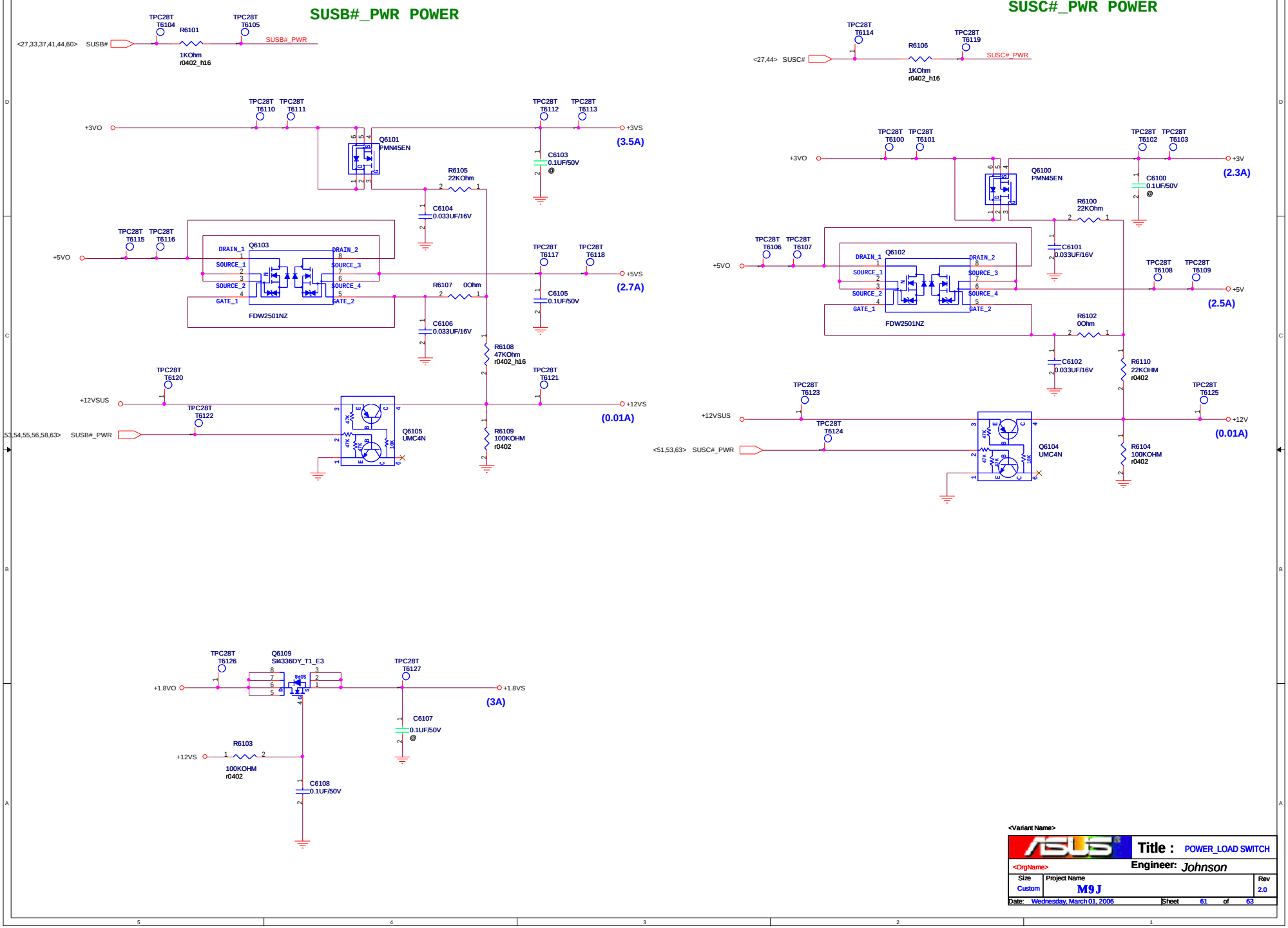
TPC28T T6003 1 DDR_PWRGD

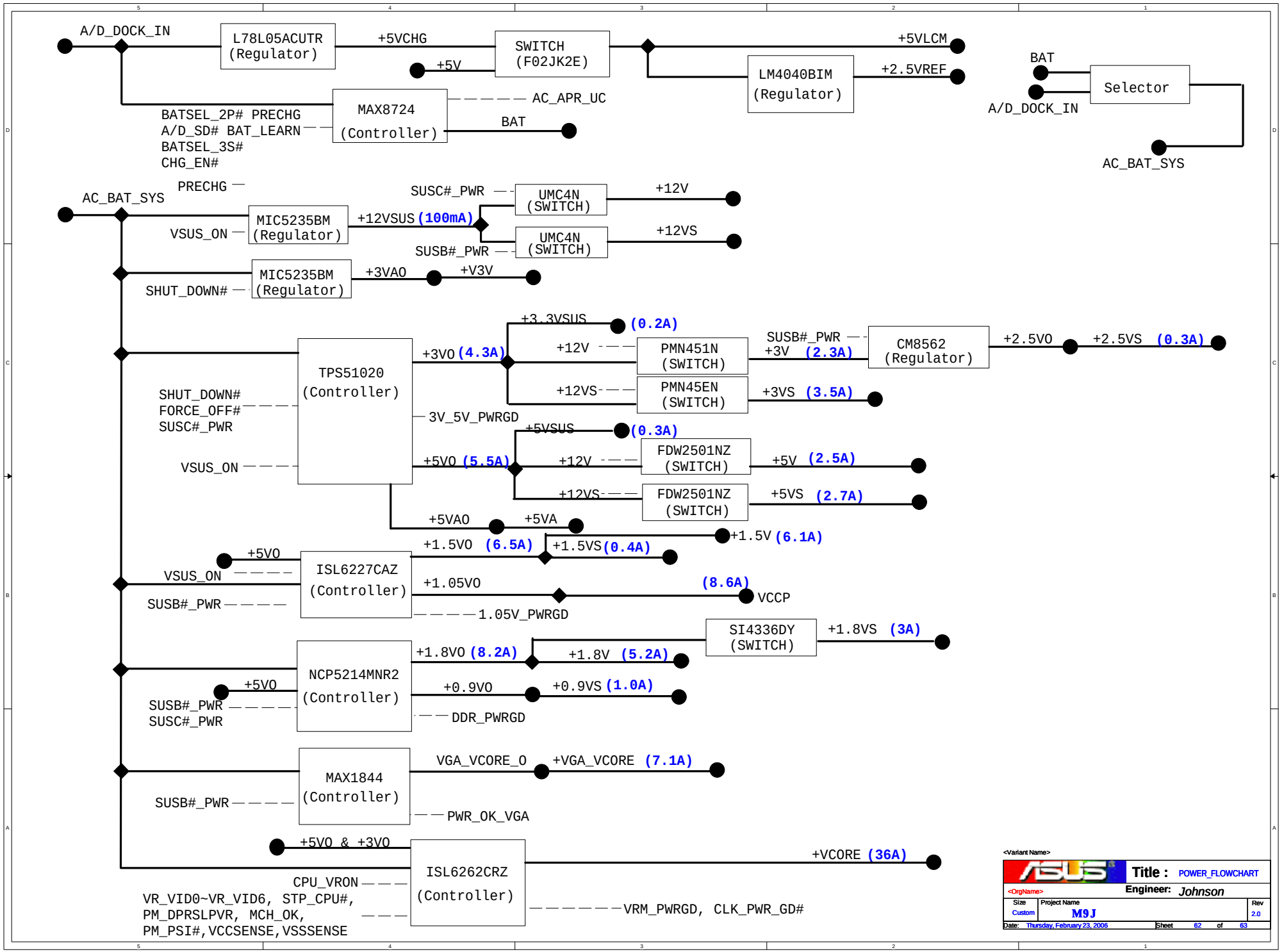
TPC28T T6004 1 3V_5V_PWRGD

TPC28T T6005 1 1.05VS_1.5VS_PWRGD

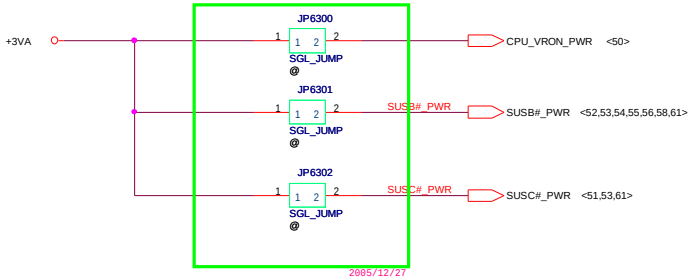
<Variant Name>

| | | |
|---|---|---|
| <OrgName> | Title : POWER_PROTECT | |
| | Engineer: Johnson | |
| Size: Custom | Project Name: M9J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 60 of 63 | |


SUSB#_PWR POWER
SUSC#_PWR POWER
<27,33,37,41,44,60> SUSB#
SUSB#_PWR
R6101
1KOhm
r0402_h16
<27,44> SUSC#
SUSC#_PWR
R6106
1KOhm
r0402_h16
+3VO
+3VS
(3.5A)
Q6101
PMN45EN
R6105
22KOhm
C6103
0.1UF/50V
C6104
0.033UF/16V
+5VO
+5VS
(2.7A)
Q6103
FDW2501NZ
R6107 0Ohm
C6105
0.1UF/50V
C6106
0.033UF/16V
R6108
47KOhm
r0402_h16
+12VSUS
+12VS
(0.01A)
Q6105
UMC4N
R6109
100KOHM
r0402
<53,54,55,56,58,63> SUSB#_PWR
+3VO
+3V
(2.3A)
Q6100
PMN45EN
R6100
22KOhm
C6100
0.1UF/50V
C6101
0.033UF/16V
+5VO
+5V
(2.5A)
Q6102
FDW2501NZ
R6102
0Ohm
C6102
0.033UF/16V
R6110
22KOHM
r0402
+12VSUS
+12V
(0.01A)
Q6104
UMC4N
R6104
100KOHM
r0402
<51,53,63> SUSC#_PWR
+1.8VO
+1.8VS
(3A)
Q6109
SI4336DY_T1_E3
C6107
0.1UF/50V
R6103
100KOHM
r0402
+12VS
C6108
0.1UF/50V
<Variant Name>
Title : POWER_LOAD SWITCH
<OrgName>
Engineer: Johnson
Size Custom
Project Name M9J
Rev 2.0
Date: Wednesday, March 01, 2006
Sheet 61 of 63


A/D_DOCK_IN
L78L05ACUTR (Regulator)
+5VCHG
+5V
SWITCH (F02JK2E)
+5VLCM
LM4040BIM (Regulator)
+2.5VREF
BAT
A/D_DOCK_IN
Selector
AC_BAT_SYS
BATSEL_2P# PRECHG
A/D_SD# BAT_LEARN
BATSEL_3S#
CHG_EN#
MAX8724 (Controller)
AC_APR_UC
BAT
PRECHG
AC_BAT_SYS
SUSC#_PWR
UMC4N (SWITCH)
+12V
MIC5235BM (Regulator)
VSUS_ON
+12VSUS (100mA)
+12VS
SUSB#_PWR
UMC4N (SWITCH)
MIC5235BM (Regulator)
SHUT_DOWN#
+3VAO
+V3V
+3.3VSUS
(0.2A)
TPS51020 (Controller)
+3VO (4.3A)
+12V
PMN451N (SWITCH)
SUSB#_PWR
+3V (2.3A)
CM8562 (Regulator)
+2.5VO
+2.5VS (0.3A)
SHUT_DOWN#
FORCE_OFF#
SUSC#_PWR
+12VS
PMN45EN (SWITCH)
+3VS (3.5A)
3V_5V_PWRGD
+5VSUS
(0.3A)
VSUS_ON
+5VO (5.5A)
+12V
FDW2501NZ (SWITCH)
+5V (2.5A)
+12VS
FDW2501NZ (SWITCH)
+5VS (2.7A)
+5VAO
+5VA
+1.5V (6.1A)
+5VO
+1.5VO (6.5A)
+1.5VS (0.4A)
VSUS_ON
ISL6227CAZ (Controller)
+1.05VO
(8.6A)
VCCP
SUSB#_PWR
1.05V_PWRGD
SI4336DY (SWITCH)
+1.8VS (3A)
+1.8VO (8.2A)
+1.8V (5.2A)
NCP5214MNR2 (Controller)
+5VO
+0.9VO
+0.9VS (1.0A)
SUSB#_PWR
SUSC#_PWR
DDR_PWRGD
MAX1844 (Controller)
VGA_VCORE_O
+VGA_VCORE (7.1A)
SUSB#_PWR
PWR_OK_VGA
+5VO & +3VO
ISL6262CRZ (Controller)
+VCORE (36A)
CPU_VRON
VR_VID0~VR_VID6, STP_CPU#,
PM_DPRSLPVR, MCH_OK,
PM_PSI#,VCCSENSE,VSSSENSE
VRM_PWRGD, CLK_PWR_GD#
<Variant Name>
Title : POWER_FLOWCHART
<OrgName>
Engineer: Johnson
Size Custom
Project Name M9J
Rev 2.0
Date: Thursday, February 23, 2006
Sheet 62 of 63

# FOR POWER TEST




AC_BAT_SYS — AC_BAT_SYS <26,50,51,52,53,54,55,57>
+3VA — +3VA <27,31,32,33,41,44,54>
+5VA — +5VA <51,60>
+5VO — +5VO <51,52,53,55,59,61>
+3VO — +3VO <51,52,56,61>

+3V — +3V <5,30,31,32,33,35,36,37,38,41,42,44,45,54,61>
+3VS — +3VS <4,5,7,11,15,17,21,22,23,24,25,26,27,28,29,32,33,34,36,37,38,39,40,41,45,50,52,60,61>

+12VSUS — +12VSUS <51,61>
+12V — +12V <5,42,45,61>
+12VS — +12VS <25,26,43,45,61>

+5V — +5V <7,31,33,35,37,41,44,45,61>
+5VS — +5VS <5,7,25,27,29,30,31,33,34,40,42,43,44,45,50,61>

+2.5VO — +2.5VO <54>
+2.5VS — +2.5VS <11,21,22,25,45,54>
+1.8VO — +1.8VO <53,61>
+1.8V — +1.8V <7,10,13,14,15,45,53>
+1.8VS — +1.8VS <18,21,45,61>

+1.5VO — +1.5VO <52>
+1.5VS — +1.5VS <3,8,10,11,28,29,36,37,45,52>

+1.2VS — +1.2VS <17,18,56>
+1.05VO — +1.05VO <50,52>
+VCCP — +VCCP <2,3,4,6,8,10,11,27,29,45,52>

+0.9VS — +0.9VS <16,45,53>
BAT — BAT <57>
+5VCHG — +5VCHG <57,59>
+5VLCM — +5VLCM <30,31,57,58,59,60>
+2.5VREF — +2.5VREF <54,57,59,60>
+VCORE — +VCORE <3,5,50>

+NV_CORE — +NV_CORE <17,55>

BAT_CON — BAT_CON <46,57>

## MODIFY LIST

2000/02/23
1.Unmount Power Limit Circuit
2.Modify OVP Circuit
3.Change R6013 to 0.1% resistor

<Variant Name>

| | | |
|---|---|---|
| <OrgName> | Title : POWER_SIGNAL | |
| | Engineer: Johnson | |
| Size: Custom | Project Name: M9J | Rev: 2.0 |
| Date: Wednesday, March 01, 2006 | Sheet 63 of 63 | |