A8Jp/Jv/Je/Jn/Fm SCHEMATIC

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19	CRT & TV_OUT
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34	PCI--4 IN1 CON
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37	AUDIO AMP G1420
38	MDC,B/T,TPM & DISCHG,HOLE
39	DVI CONN
40	ACIN, BAT, FAN, I/O PORT
41	SW & LED & TP
42	POWER-ON SEQUENCE
43	HISTORY
44	I/O PORT

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Title: PAGE REF.

Size	Document Number	Rev
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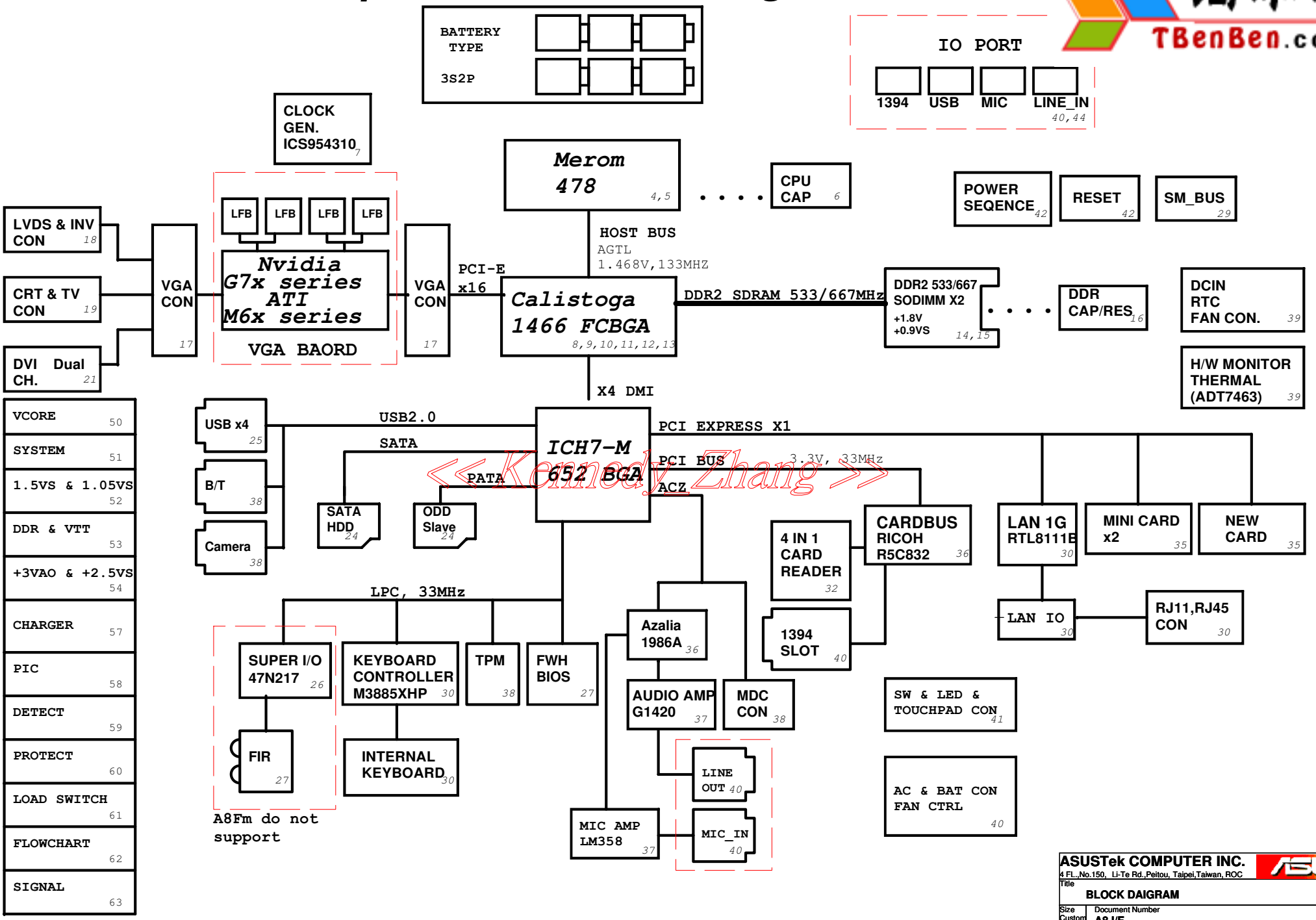
Date: Thursday, September 07, 2006 Sheet 1 of 63

A8Jp/Fm Merom/Calistoga BLOCK DIA



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Title: BLOCK DAIGRAM

Size	Document Number	Rev
Custom	A8J/F	2.0

Date: Thursday, September 07, 2006 Sheet 2 of 63

PCI Device	IDSEL#	REQ/GNT#	Interrupts	PC/PCI
Chipset (Host to PCI)	(AD30 internal)	n/a		
Integrated LAN	AD24(NO USE)			
1394	AD16	0	A	
4 IN 1		0	B	

SM_BUS ADDRESS :

Thermal MAX6657	=	
CLK GEN.	=	
DDR_SODIMM0	=	
DDR_SODIMM1	=	1010010x (A4h)
VGA Thermal IC	=	1001100x (9Ah)

ICH7M_GPIO		Use As	Signal Name	Power
GPIO 00	i	GPI	PM_BMBUSY#	+3VS
GPIO 01	i	GPI	PCI_REQ#5	+3VS
GPIO [5:2]	i	GPI	PCI_INT[E:H]#	+3VS
GPIO 06	i	GPO	BACK_OFF#	+3VS
GPIO 07	i	GPI	RF_SW_OFF#	+3VS
GPIO 08	i	GPI	EXTSMI#_3A	+3VSUS
GPIO 09	i	GPI	PD_DET#	+3VSUS
GPIO 10	i	GPI	CHG_FULL_OC	+3VSUS
GPIO 11	i	Native	SMB_ALERT#	+3VSUS
GPIO 12	i	GPI	KB_SCI#	+3VSUS
GPIO 13	i	GPI	SIO_SMI#	+3VSUS
GPIO 14	i	GPI	PD_UnDock#(PWRLMT#)	+3VSUS
GPIO 15	i	GPO	802_LED_EN#	+3VSUS
GPIO 16	O	0 GPO	PM_DPRSLPVR	+3VS
GPIO 17	O	1 GPO	PCI_GNT#5	+3VS
GPIO 18	O	1 GPO	STP_PCI#	+3VS
GPIO 19	i	1 GPI	PD_RDY#	+3VS
GPIO 20	O	1 GPO	STP_CPU#	+3VS
GPIO 21	i	1 GPO	PD_SIO_RST#	+3VS
GPIO 22	i	1 Native	PCI_REQ#4	+3VS
GPIO 23	i	1 Native	LPC_DRQ#1	+3VS
GPIO 24	O	0 GPO	PD_EN#	+3VSUS
GPIO 25	O	1 GPO	CB_SD#	+3VSUS
GPIO 26	O	0 GPO	OP_SD#	+3VSUS
GPIO 27	O	0 GPO	WLAN_ON#	+3VSUS
GPIO 28	O	0 GPO	1Hz	+3VSUS
GPIO 29	i	0 Native	USB_OC#5	+3VSUS
GPIO 30	i	0 Native	USB_OC#6	+3VSUS
GPIO 31	i	0 Native	USB_OC#7	+3VSUS
GPIO 32	O	1 GPO	PM_CLKRUN#	+3VS
GPIO 33	O	1 GPO	BT_ON/OFF#	+3VS
GPIO 34	O	0 GPO	FWH_WP#	+3VS
GPIO 35	O	0 GPO	SATACLKREQ#	+3VS
GPIO 36	i	0 GPO	BT_LED_EN#	+3VS
GPIO 37	i	0 GPI	PCB_ID0	+3VS
GPIO 38	i	0 GPI	PCB_ID1	+3VS
GPIO 39	i	0 GPI	PCB_ID2	+3VS
GPIO [40:47]		NA	NA	NA
GPIO 48		Native	PCI_GNT#4	+3VS
GPIO 49		Native	H_PWRGD	+VCORE

M38857_GPIO	USE_AS	SIGNAL_NAME	Power
P23	GPO	MSK_INSTKEY#	+3V
P22	GPO	BAT_LEARN	+3V
P21	GPO		+3V
P20	GPO	KBCRSM	+3V
P42	GPO	WATCHDOG	+3V
P43	GPI	SWDJ_EN	+3V
P44	GPO	KBCPURST_3Q	+3V
P45	GPO	KBC_GA20	+3V
P46	GPO	KBSCI_3Q	+3V
P47	GPI	PM_CLKRUN#	+3V
P50	GPI	BAT_LLOW#_OC	+3V
P51	GPI	FAN1_TACH	+3V
P52	GPO	KBDDT0	+3V
P53	GPO	KBDDT1	+3V
P54	GPI	LID_KBC#	+3V
P55	GPI	BAT_IN_OC#	+3V
P56	GPO	FAN1_DC	+3V
P57	GPO	ADJ_BL	+3V
P67	GPI	NEWCARD_OFF#	+3V
P66	GPI	PANLOCK_#	+3V
P65	GPI	MARATHON_#	+3V
P64	GPI	ACIN_OC#	+3V
P63	GPI	NEWCARD_DET#	+3V
P62	GPI	WIRELESS_#	+3V
P61	GPI	INTERNET_#	+3V
P60	GPI	BLUETOOTH_#	+3V
P76	GPIO	SMD_BAT	+3V
P77	GPIO	SMC_BAT	+3V
P27	GPO	SCR_LED#	+3V
P26	GPO	NUM_LED#	+3V
P25	GPO	CAP_LED#	+3V
P24	GPO	SET_PCIRSTNS#	+3V
P40	GPO	KBC_EXTSMI	+3V
P41	GPO	PANLOCK_LED	+3V

47N217_GPIO	USE_AS	SIGNAL_NAME	Power
GPIO10	GPI	NONE	+3VS
GPIO11	GPO	NONE	+3VS
GPIO12	GPO	NONE	+3VS
GPIO13	GPI	NONE	+3VS
GPIO14	GPI	NONE	+3VS
GPIO23	GPO	ATI_RST#	+3VS
GPIO40	GPI		+3VS
GPIO41	GPI		+3VS
GPIO40	GPI		+3VS
GPIO43	GPI		+3VS
GPIO44	GPI		+3VS
GPIO45	GPI		+3VS
GPIO46	GPI	VGA_DETEC#	+3VS
GPIO47	GPI		+3VS

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Title: SCHEMATICS REF.

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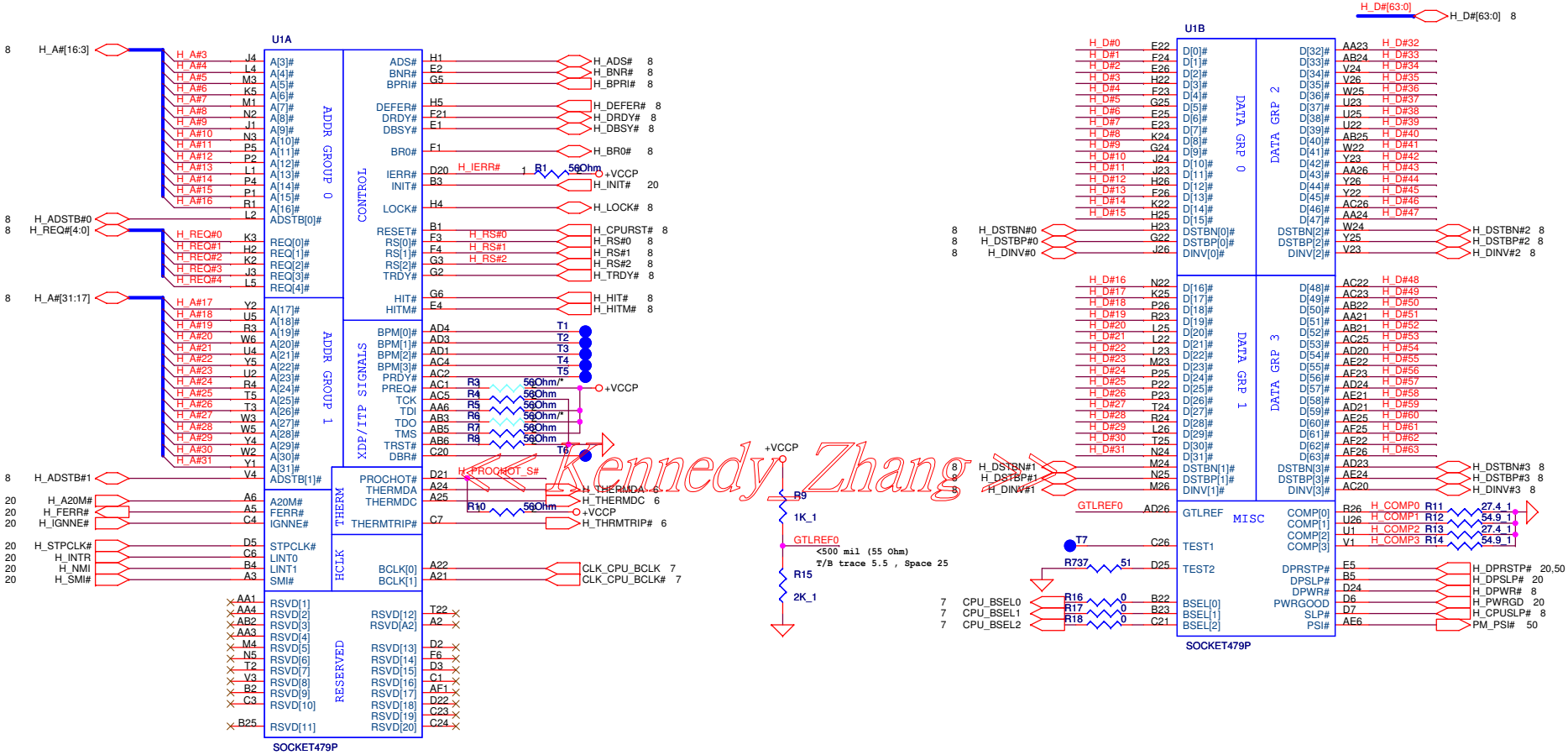

Company	ASUSTek COMPUTER INC.
Address	4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC
Title	YONAH CPU1
Size	Custom
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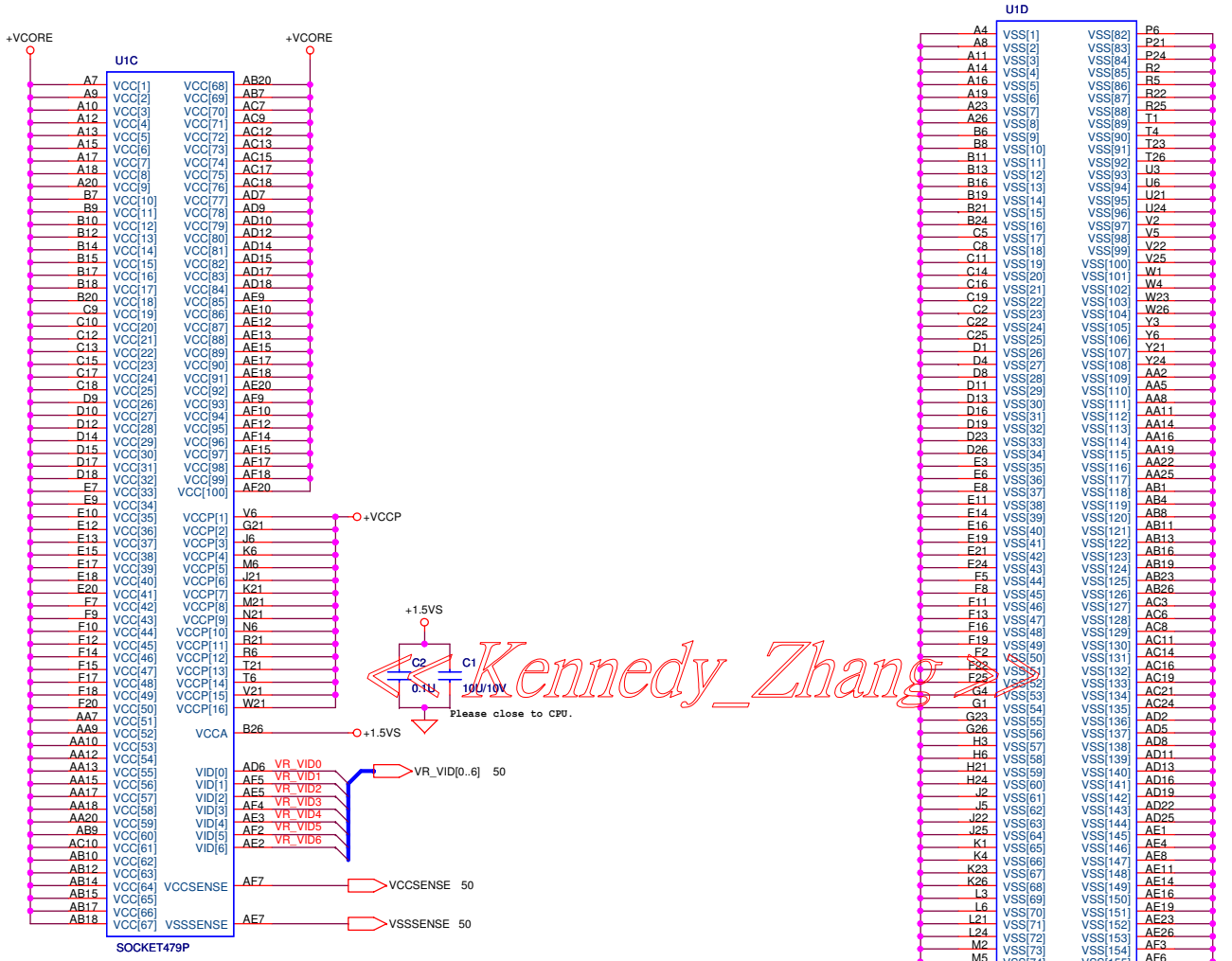
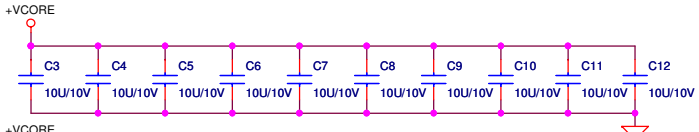
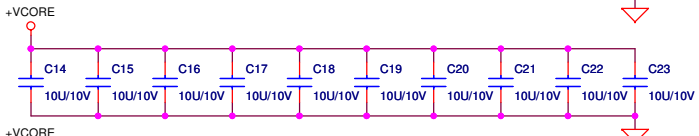
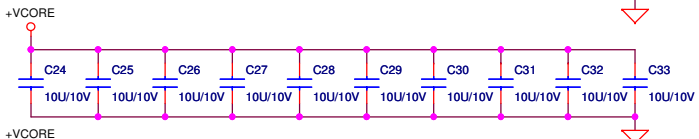
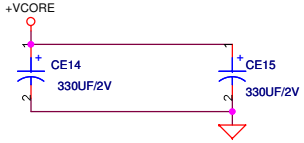


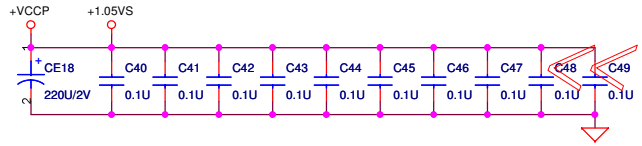
ASUSTek COMPUTER INC.		
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC		
Title: YONAH CPU2		
Size: Custom	Document Number: A8J/F	Rev: 2.0
Date: Thursday, September 07, 2006	Sheet 5 of 63	

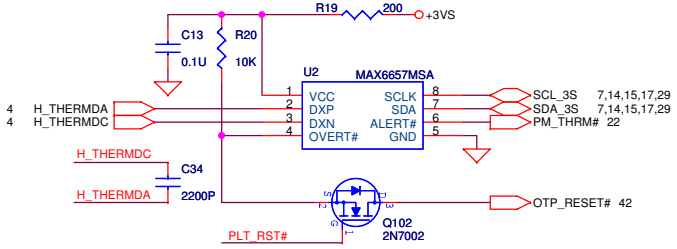


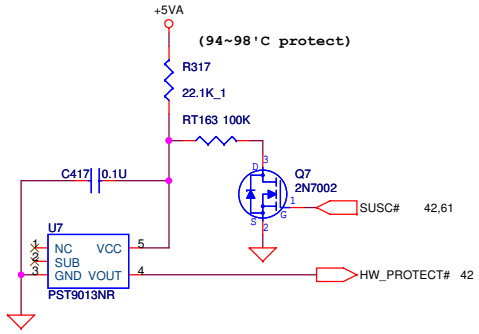


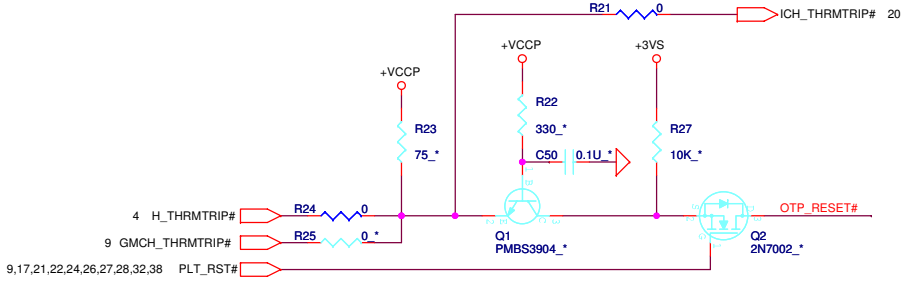












+VCCP	+VCCP	4,5,8,11,12,20,23,52
+VCORE	+VCORE	5,50
+3VS	+3VS	7,9,11,13,14,15,17,18,19,22,23,24,26,27,28,29,30,31,32,33,36,37,38,39,41,50,52,60,61
+5VA	+5VA	51,54

ASUSTek COMPUTER INC.
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Title: **CPU CAP,THERMAL SENSOR**

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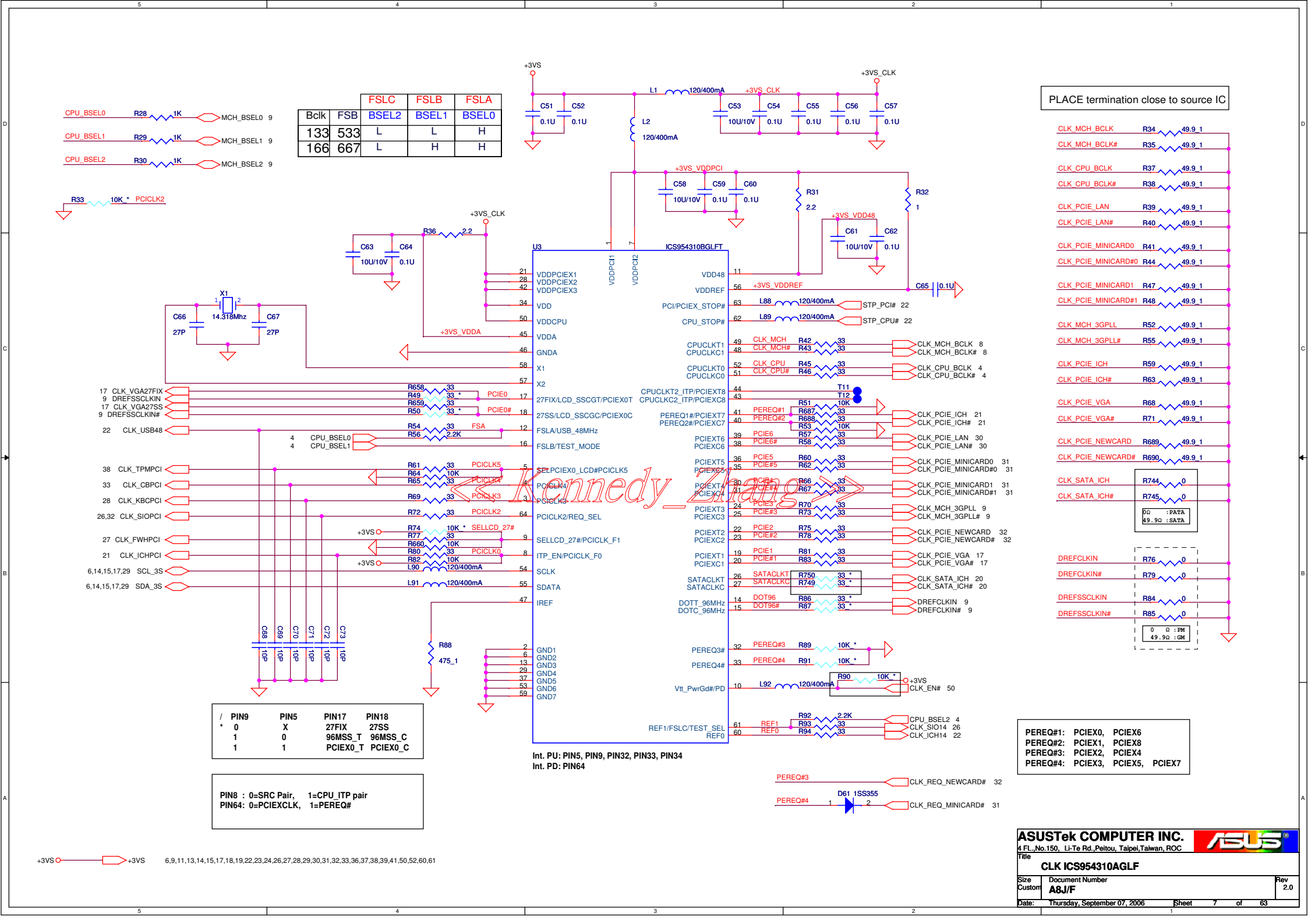
CPU_BSEL0 R28 1K MCH_BSEL0 9
CPU_BSEL1 R29 1K MCH_BSEL1 9
CPU_BSEL2 R30 1K MCH_BSEL2 9
R33 10K * PCICLK2
FSLC FSLB FSLA
Bclk FSB BSEL2 BSEL1 BSEL0
133 533 L L H
166 667 L H H
PLACE termination close to source IC
U3 ICS954310BGLFT
+3VS +3VS_CLK +3VS_VDDPCI +3VS_VDDA +3VS_VDD48 +3VS_VDDREF
L1 120/400mA L2 120/400mA L88 L89 L91 L92
C51 C52 C53 C54 C55 C56 C57 C58 C59 C60 C61 C62 C63 C64 C65 C66 C67 C68 C69 C70 C71 C72 C73
R31 2.2 R32 1 R36 2.2 R88 475_1
X1 14.318Mhz
VDDPCIEX1 VDDPCIEX2 VDDPCIEX3 VDD VDDCPU VDDA GNDA X1 X2
27FIX/LCD_SSCGT/PCIEX0T 27SS/LCD_SSCGC/PCIEX0C FSLA/USB_48MHz FSLB/TEST_MODE
SELPCIEX0_LCD#PCICLK5 PCICLK4 PCICLK3 PCICLK2/REQ_SEL SELLCD_27#/PCICLK_F1 ITP_EN/PCICLK_F0 SCLK SDATA IREF
GND1 GND2 GND3 GND4 GND5 GND6 GND7
VDD48 VDDREF PCI/PCIEX_STOP# CPU_STOP#
CPUCLKT1 CPUCLKC1 CPUCLKT0 CPUCLKC0 CPUCLKT2_ITP/PCIEXT8 CPUCLKC2_ITP/PCIEXC8
PEREQ1#/PCIEXT7 PEREQ2#/PCIEXC7 PCIEXT6 PCIEXC6 PCIEXT5 PCIEXC5 PCIEXT4 PCIEXC4 PCIEXT3 PCIEXC3 PCIEXT2 PCIEXC2 PCIEXT1 PCIEXC1
SATACLKT SATACLKC DOTT_96MHz DOTC_96MHz
PEREQ3# PEREQ4# Vtt_PwrGd#/PD REF1/FSLC/TEST_SEL REF0
STP_PCI# 22
STP_CPU# 22
CLK_MCH_BCLK 8
CLK_MCH_BCLK# 8
CLK_CPU_BCLK 4
CLK_CPU_BCLK# 4
CLK_PCIE_ICH 21
CLK_PCIE_ICH# 21
CLK_PCIE_LAN 30
CLK_PCIE_LAN# 30
CLK_PCIE_MINICARD0 31
CLK_PCIE_MINICARD0# 31
CLK_PCIE_MINICARD1 31
CLK_PCIE_MINICARD1# 31
CLK_MCH_3GPLL 9
CLK_MCH_3GPLL# 9
CLK_PCIE_NEWCARD 32
CLK_PCIE_NEWCARD# 32
CLK_PCIE_VGA 17
CLK_PCIE_VGA# 17
CLK_SATA_ICH 20
CLK_SATA_ICH# 20
DREFCLKIN 9
DREFCLKIN# 9
CLK_EN# 50
CPU_BSEL2 4
CLK_SIO14 26
CLK_ICH14 22
CLK_REQ_NEWCARD# 32
CLK_REQ_MINICARD# 31
D61 1SS355
CLK_MCH_BCLK R34 49.9_1
CLK_MCH_BCLK# R35 49.9_1
CLK_CPU_BCLK R37 49.9_1
CLK_CPU_BCLK# R38 49.9_1
CLK_PCIE_LAN R39 49.9_1
CLK_PCIE_LAN# R40 49.9_1
CLK_PCIE_MINICARD0 R41 49.9_1
CLK_PCIE_MINICARD0# R44 49.9_1
CLK_PCIE_MINICARD1 R47 49.9_1
CLK_PCIE_MINICARD1# R48 49.9_1
CLK_MCH_3GPLL R52 49.9_1
CLK_MCH_3GPLL# R55 49.9_1
CLK_PCIE_ICH R59 49.9_1
CLK_PCIE_ICH# R63 49.9_1
CLK_PCIE_VGA R68 49.9_1
CLK_PCIE_VGA# R71 49.9_1
CLK_PCIE_NEWCARD R689 49.9_1
CLK_PCIE_NEWCARD# R690 49.9_1
CLK_SATA_ICH R744 0
CLK_SATA_ICH# R745 0
0Ω :PATA
49.9Ω :SATA
DREFCLKIN R76 0
DREFCLKIN# R79 0
DREFSSCLKIN R84 0
DREFSSCLKIN# R85 0
0 Ω :PM
49.9Ω :GM
17 CLK_VGA27FIX
9 DREFSSCLKIN
17 CLK_VGA27SS
9 DREFSSCLKIN#
22 CLK_USB48
38 CLK_TPMPCI
33 CLK_CBPCI
28 CLK_KBCPCI
26,32 CLK_SIOPCI
27 CLK_FWHPCI
21 CLK_ICHPCI
6,14,15,17,29 SCL_3S
6,14,15,17,29 SDA_3S
4 CPU_BSEL0
4 CPU_BSEL1
PCIE0 PCIE0# FSA SELLCD_27# PCICLK5 PCICLK4 PCICLK3 PCICLK2 PCICLK0
Int. PU: PIN5, PIN9, PIN32, PIN33, PIN34
Int. PD: PIN64
/ 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#
PEREQ#1: PCIEX0, PCIEX6
PEREQ#2: PCIEX1, PCIEX8
PEREQ#3: PCIEX2, PCIEX4
PEREQ#4: PCIEX3, PCIEX5, PCIEX7
+3VS +3VS 6,9,11,13,14,15,17,18,19,22,23,24,26,27,28,29,30,31,32,33,36,37,38,39,41,50,52,60,61
Kennedy_Zhang
ASUSTek COMPUTER INC.
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC
Title
CLK ICS954310AGLF
Size Custom
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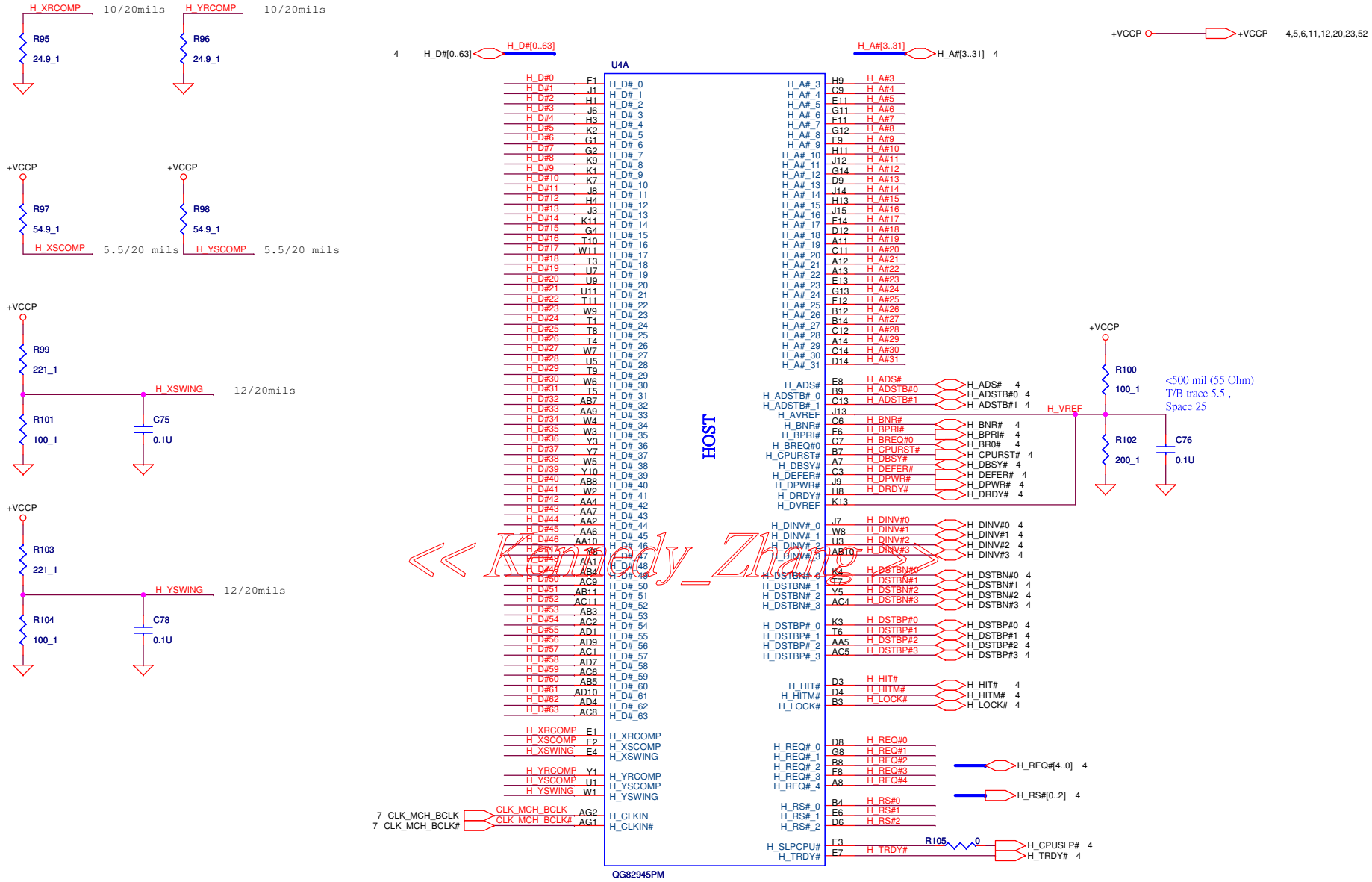

ASUSTek COMPUTER INC.			
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC			
Title: Galistoga--CPU			
Size: Custom	Document Number: A8J/F		Rev: 2.0
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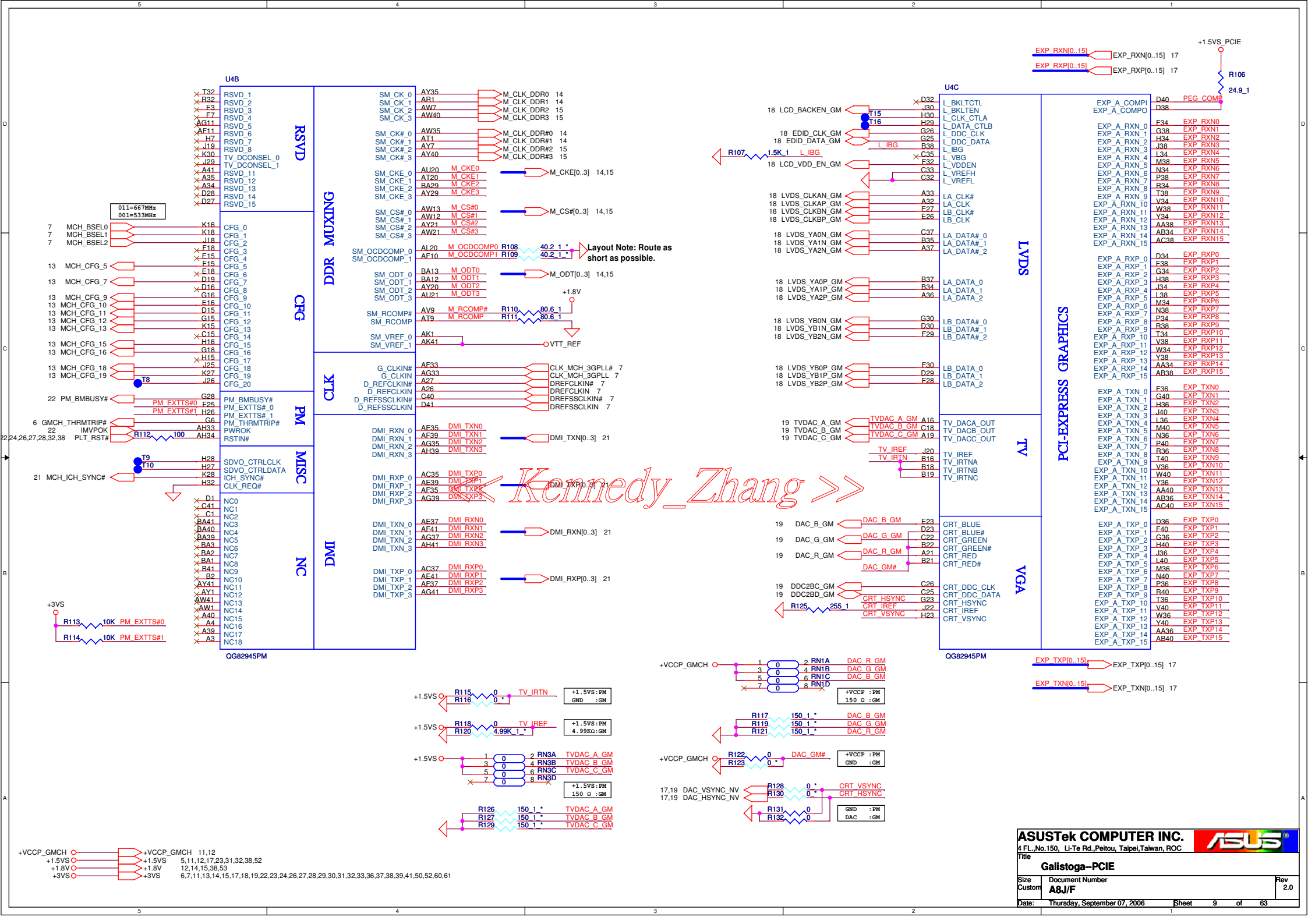
U4B
RSVD
CFG
PM
MISC
NC
DDR MUXING
CLK
DMI
QG82945PM
011=667MHz
001=533MHz
Layout Note: Route as short as possible.
U4C
LVDS
TV
VGA
PCI-EXPRESS GRAPHICS
QG82945PM
< Kennedy_Zhang >>
ASUSTek COMPUTER INC.
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC
Title
Galistoga--PCIE
Size
Custom
Document Number
A8J/F
Rev
2.0
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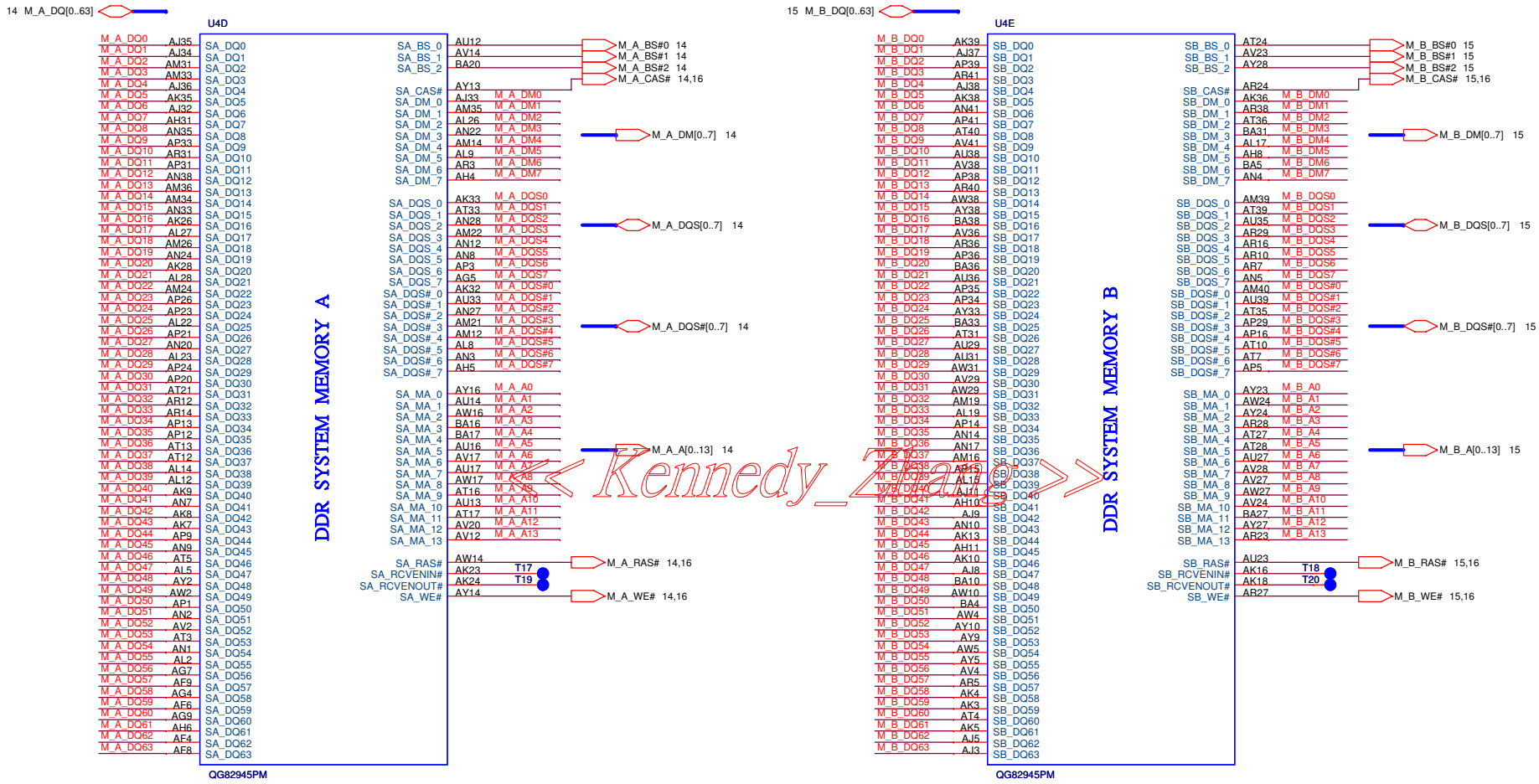

ASUSTek COMPUTER INC.		
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC		
Title: Calistoga--DDR2		
Size: Custom	Document Number: A8J/F	Rev: 2.0
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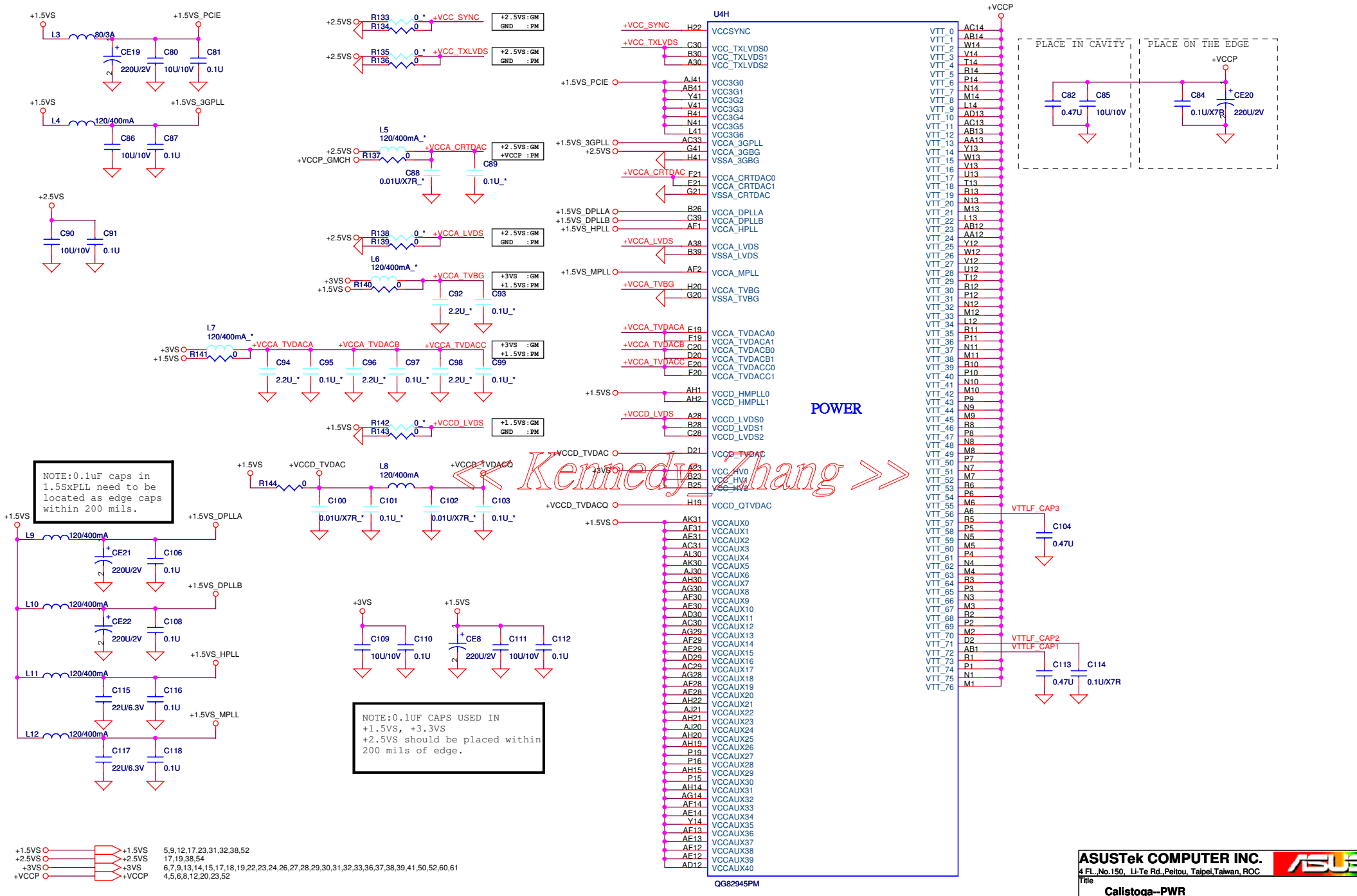

+1.5VS	+1.5VS	5,9,12,17,23,31,32,38,52
+2.5VS	+2.5VS	17,19,38,54
+3VS	+3VS	6,7,9,13,14,15,17,18,19,22,23,24,26,27,28,29,30,31,32,33,36,37,38,39,41,50,52,60,61
+VCCP	+VCCP	4,5,6,8,12,20,23,52

ASUSTek COMPUTER INC.
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC

Title: Calistoga--PWR

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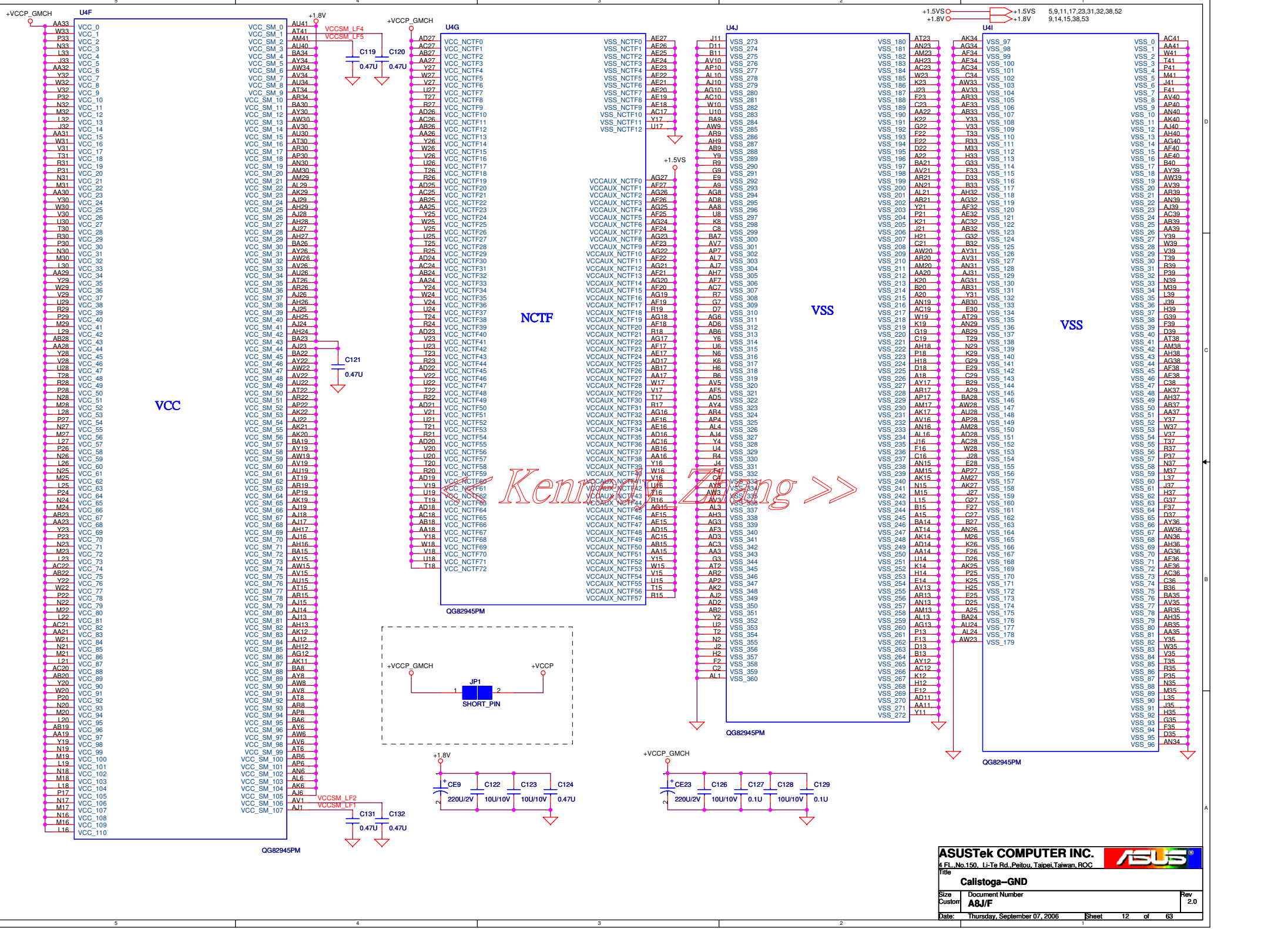

ASUSTek COMPUTER INC.	
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC	
Title: Calistoga--GND	
Size: Custom	Document Number: A8J/F
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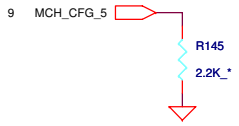
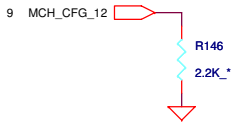
+3VS → +3VS 6,7,9,11,14,15,17,18,19,22,23,24,26,27,28,29,30,31,32,33,36,37,38,39,41,50,52,60,61



CFG5 : DMI STRAP

LOW = DMI X 2
HIGH = DMI X 4 (Default)

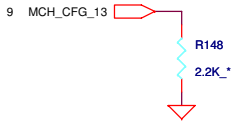


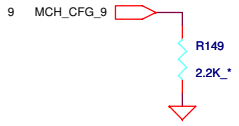
CFG[13:12] : GMCH TEST MODE SELECT

00 = Partial CLK gating disable
01 = XOR Mode Enable
10 = ALL Z Mode Enable
11 = NORMAL OPERATION (Default)

CFG7 : CPU STRAP

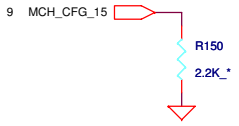
LOW = RESERVED
HIGH = Mobile Yonah CPU (Default)





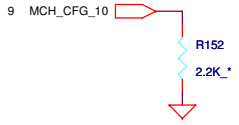
CFG9 : PCIE GRAPHIC LANE

LOW = REVERSE LANE
HIGH = NORMAL OPERATION (Default)



CFG15 : ICH RESET Disable

LOW = ICH RESET Disabled
HIGH = Normal Operation (Default)

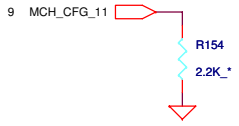


CFG10 : HOST PLL VCO SELECT

LOW = RESERVED
HIGH = MOBILITY (Default)

CFG16 : FSB Dynamic ODT

LOW = Dynamic ODT Disabled
HIGH = Dynamic ODT Enabled (Default)



CFG11 : PSB 4x CLK ENABLE

LOW = 4X ENABLED
HIGH = 8X ENABLED (Default)

CFG18 : GMCH Core Voltage Level

LOW = 1.05V (Default)
HIGH = 1.5V

CFG[17..3] have internal pullup resistors.
CFG[19..18] have internal pulldown resistors.
SDVOCRTL_DATA has internal pulldown resistors.

CFG19 : DMI LANE REVERSAL

LOW = NORMAL (Default)
HIGH = LANES REVERSED

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Title: Galistoga--straps		
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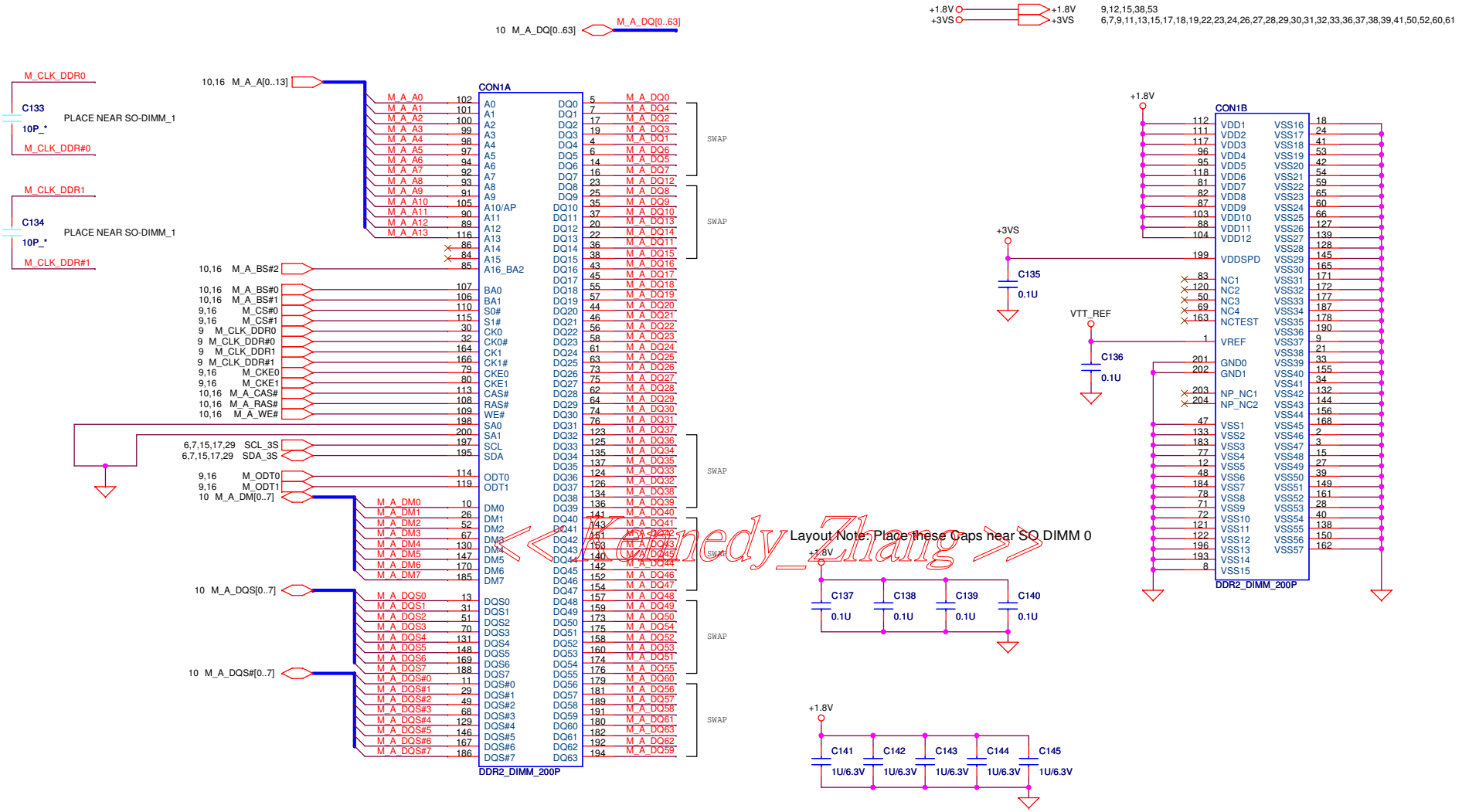

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4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC		
Title: DDR2 SO-DIMM0		
Size: Custom	Document Number: A8J/F	Rev: 2.0
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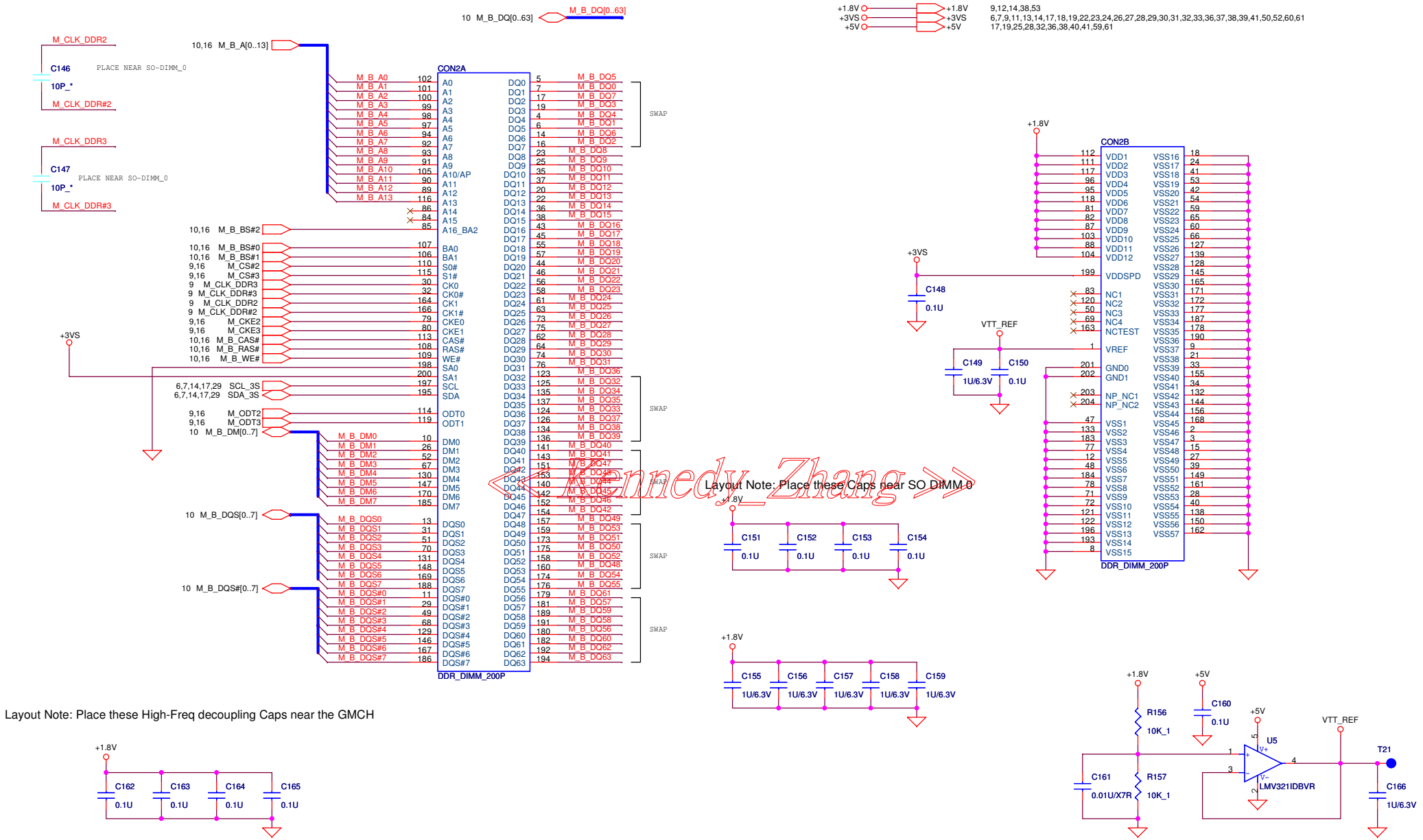

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Title	DDR2 SO-DIMM1
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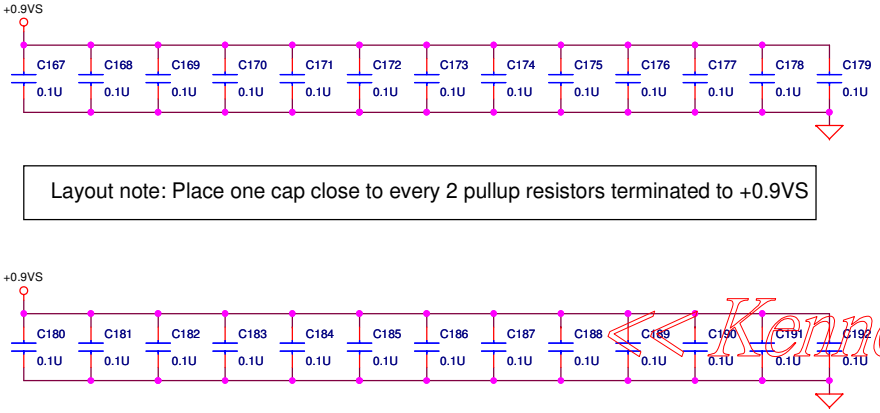

Layout note: Place one cap close to every 2 pullup resistors terminated to +0.9VS

SWAPPED

+0.9VS → +0.9VS 17,53

+0.9VS

R158 R159 R160 R161 56 — M_CKE0 M_CKE1 M_CKE2 M_CKE3
- M_CKE0 14
- M_CKE1 14
- M_CKE2 15
- M_CKE3 15

R162 R163 R164 R165 56 — M_ODT0 M_ODT1 M_ODT2 M_ODT3
- M_ODT0 14
- M_ODT1 14
- M_ODT2 15
- M_ODT3 15

R166 R167 R168 56 — M_A_A10 M_A_BS#1 M_A_BS#2
- M_A_A10 14
- M_A_BS#1 14
- M_A_BS#2 14

R169 R170 R171 56 — M_B_A13
- M_A_CAS# 10,14
- M_A_RAS# 10,14
- M_B_A13 15

R172 R173 R174 56 — M_B_BS#0 M_B_BS#2
- M_B_BS#0 15
- M_B_RAS# 10,15
- M_B_BS#2 15

R175 R176 R177 56 — M_B_A0
- M_B_CAS# 10,15
- M_B_A0 15
- M_B_WE# 10,15

R178 R179 R180 R181 56 — M_CS#0 M_CS#1 M_CS#2 M_CS#3
- M_CS#0 14
- M_CS#1 14
- M_CS#2 15
- M_CS#3 15

RN4A 56 — M_A_A11
- RN4B M_A_A7 M_A_A11 14
- RN4C M_A_A5 M_A_A7 14
- RN4D M_A_A6 M_A_A5 14
- RN4E M_A_A2 M_A_A6 14
- RN4F M_A_A4 M_A_A2 14
- RN4G M_A_A0 M_A_A4 14
- RN4H M_A_A13 M_A_A0 14
- M_A_A13 14

RN5A 56 — M_B_BS#1
- RN5B M_B_A6 M_B_BS#1 15
- RN5C M_B_A2 M_B_A6 15
- RN5D M_B_A4 M_B_A2 15
- RN5E M_B_A7 M_B_A4 15
- RN5F M_B_A7 15
- RN5G
- RN5H

RN6A 56 — M_B_A11
- RN6B M_B_A12 M_B_A11 15
- RN6C M_B_A9 M_B_A12 15
- RN6D M_B_A8 M_B_A9 15
- RN6E M_B_A5 M_B_A8 15
- RN6F M_B_A3 M_B_A5 15
- RN6G M_B_A1 M_B_A3 15
- RN6H M_B_A10 M_B_A1 15
- M_B_A10 15

RN7A 56 — M_A_A12
- RN7B M_A_A9 M_A_A12 14
- RN7C M_A_A8 M_A_A9 14
- RN7D M_A_A5 M_A_A8 14
- RN7E M_A_A3 M_A_A5 14
- RN7F M_A_A1 M_A_A3 14
- RN7G M_A_BS#0 M_A_A1 14
- RN7H M_A_BS#0 14
- M_A_WE# 10,14

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Title: DDR2 ADDRESS TERMINATION		
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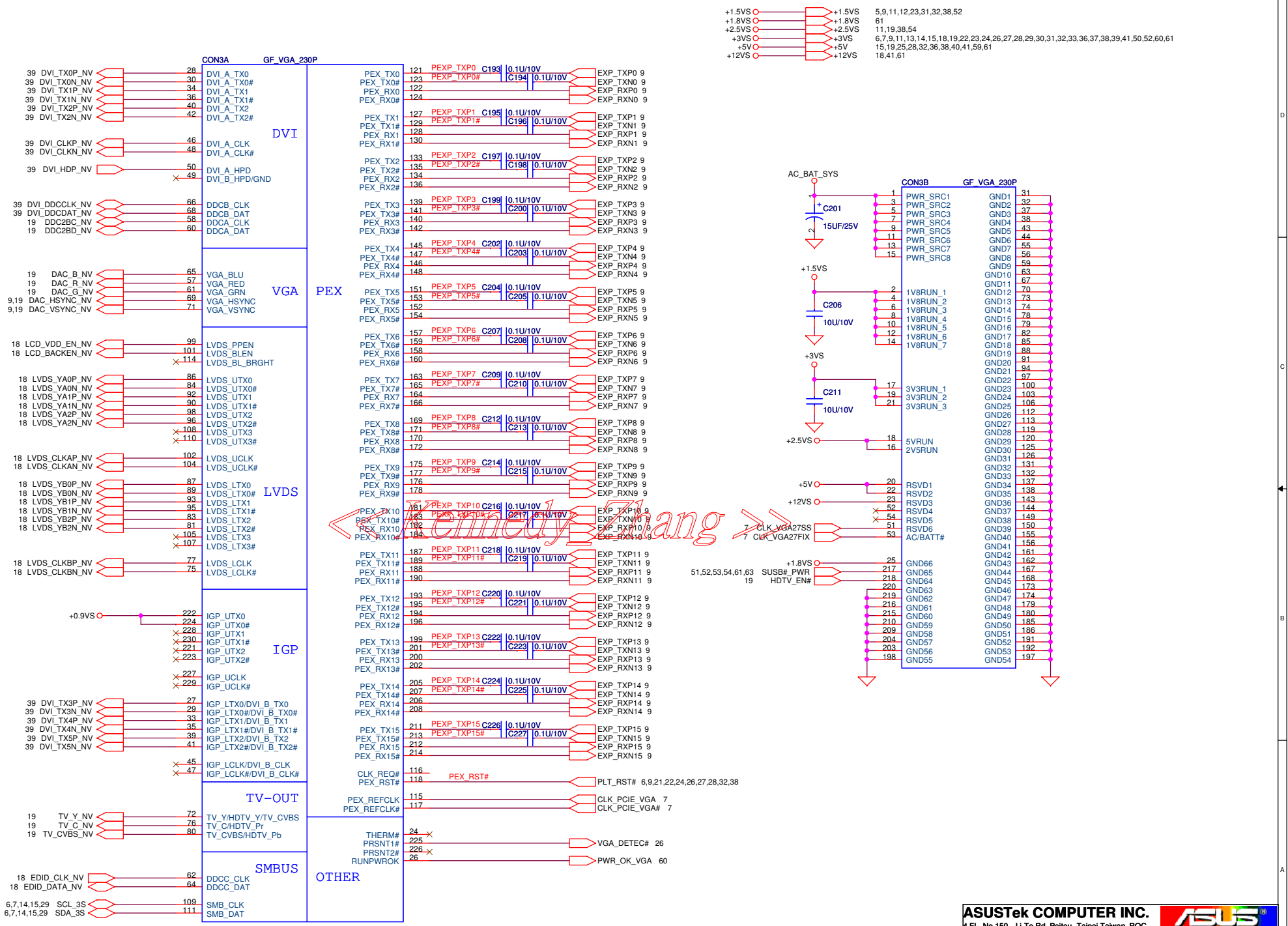
Date: Thursday, September 07, 2006	Sheet 16 of 63	



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4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC	
Title	VGA CONN
Size: Custom	Document Number: A8J/F
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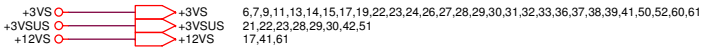
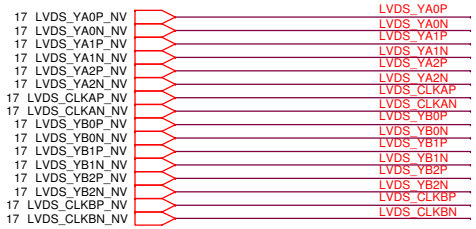
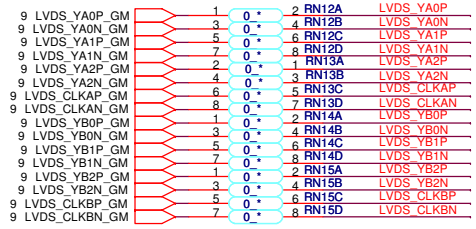
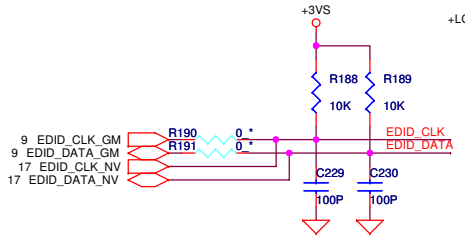
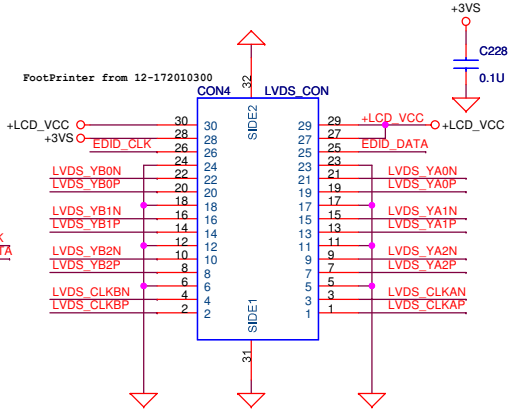
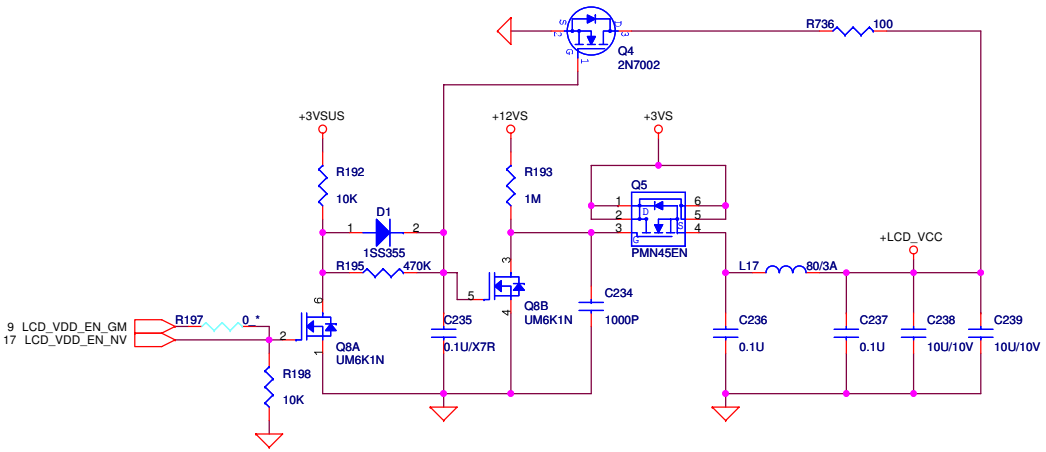




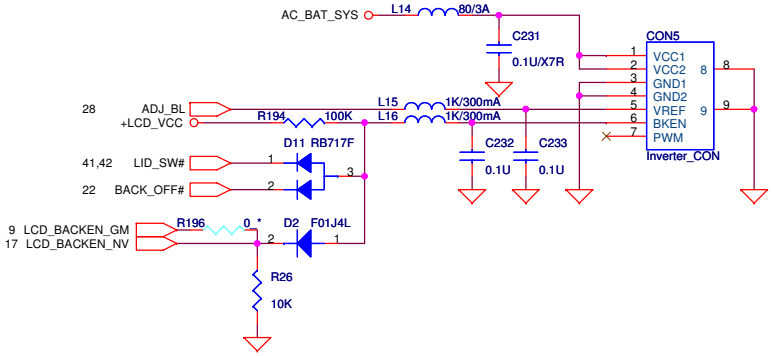








INVERTOR CNT



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Title: **LVDS,INVERTER CONN**		
Size: Custom	Document Number: **A8J/F**	Rev: 2.0
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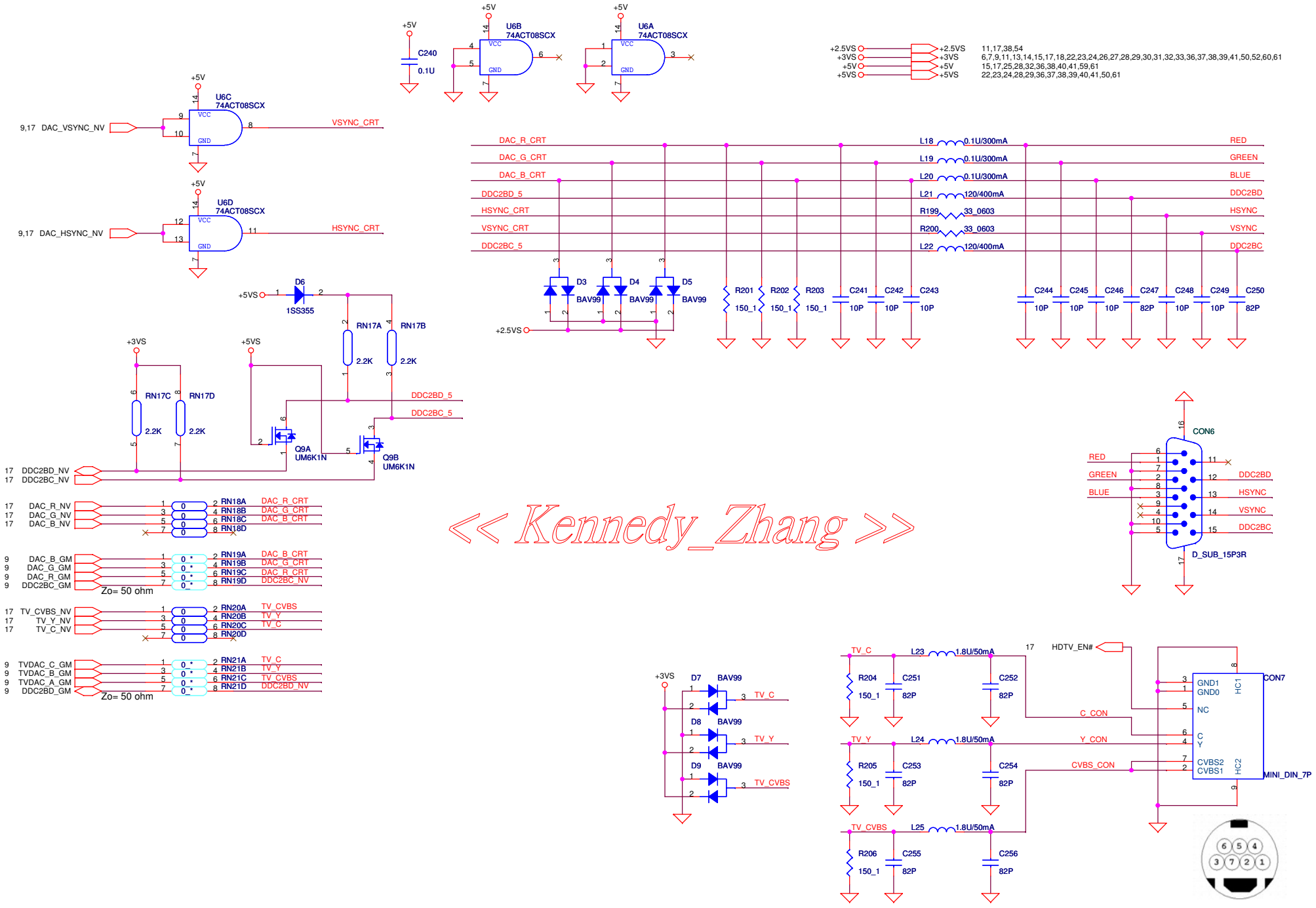

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4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC		
Title: CRT & TV OUT		
Size: Custom	Document Number: A8J/F	Rev: 2.0
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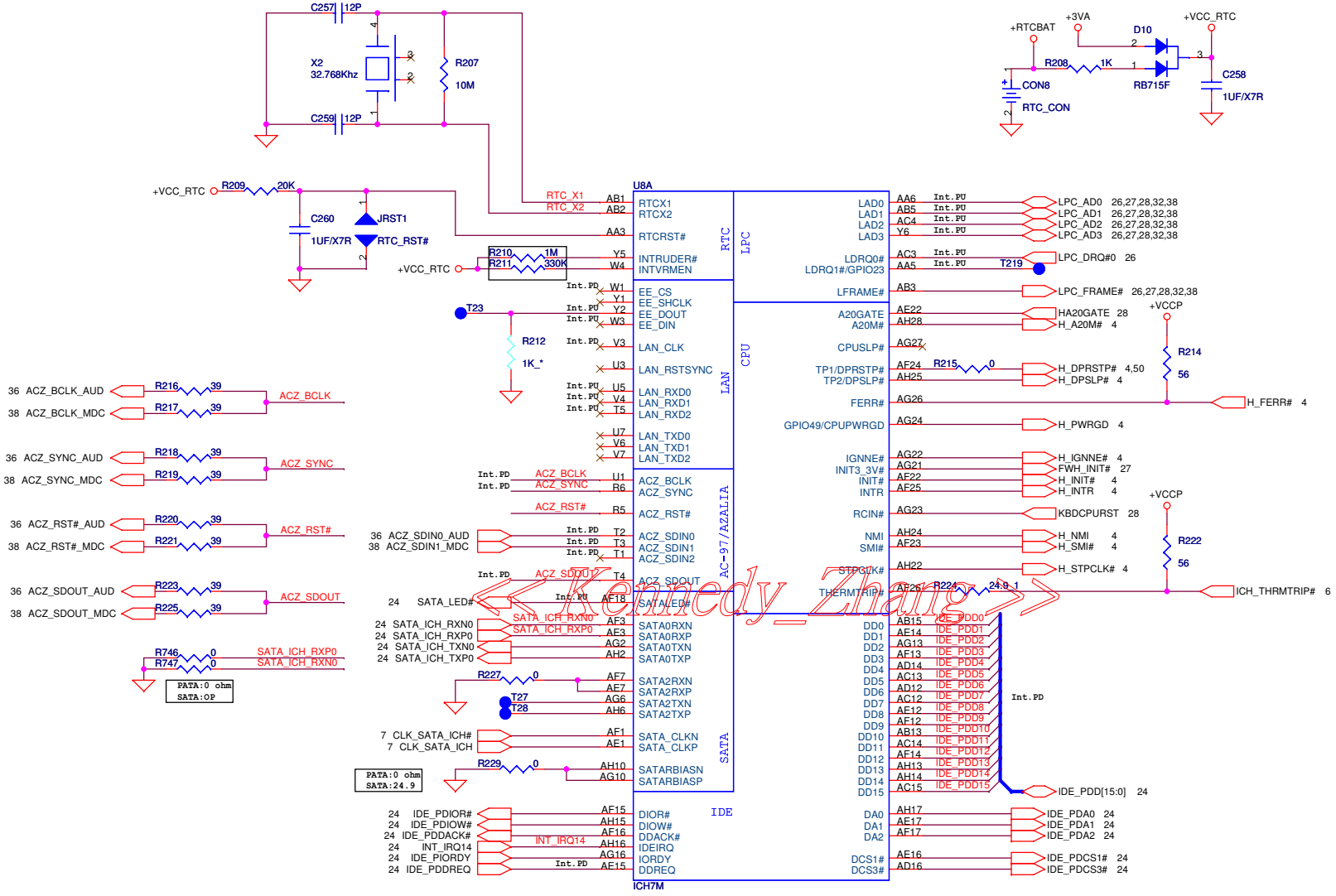

+3VA +3VA 38,41,42,54,59,63
+VCCP +VCCP 4,5,6,8,11,12,23,52

ASUSTek COMPUTER INC.
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Title: **ICH7M--CPU,IDE,AUDIO**

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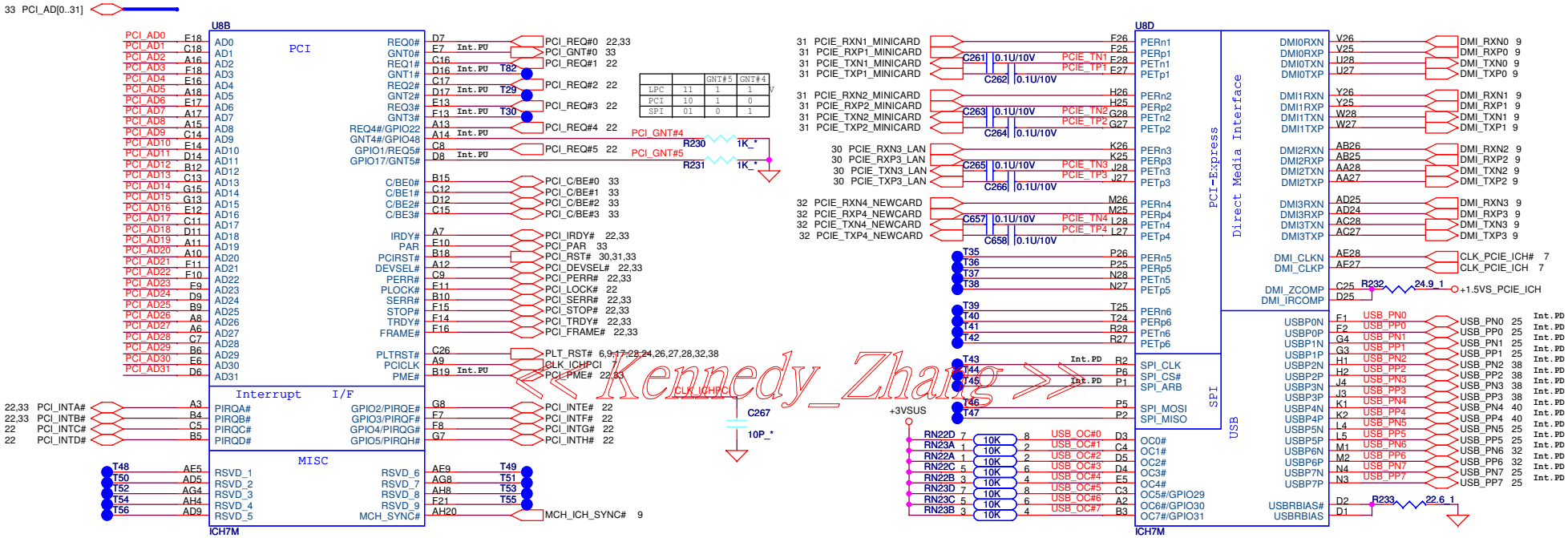

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Title	ICH7M--PCI,PCI-E,USB
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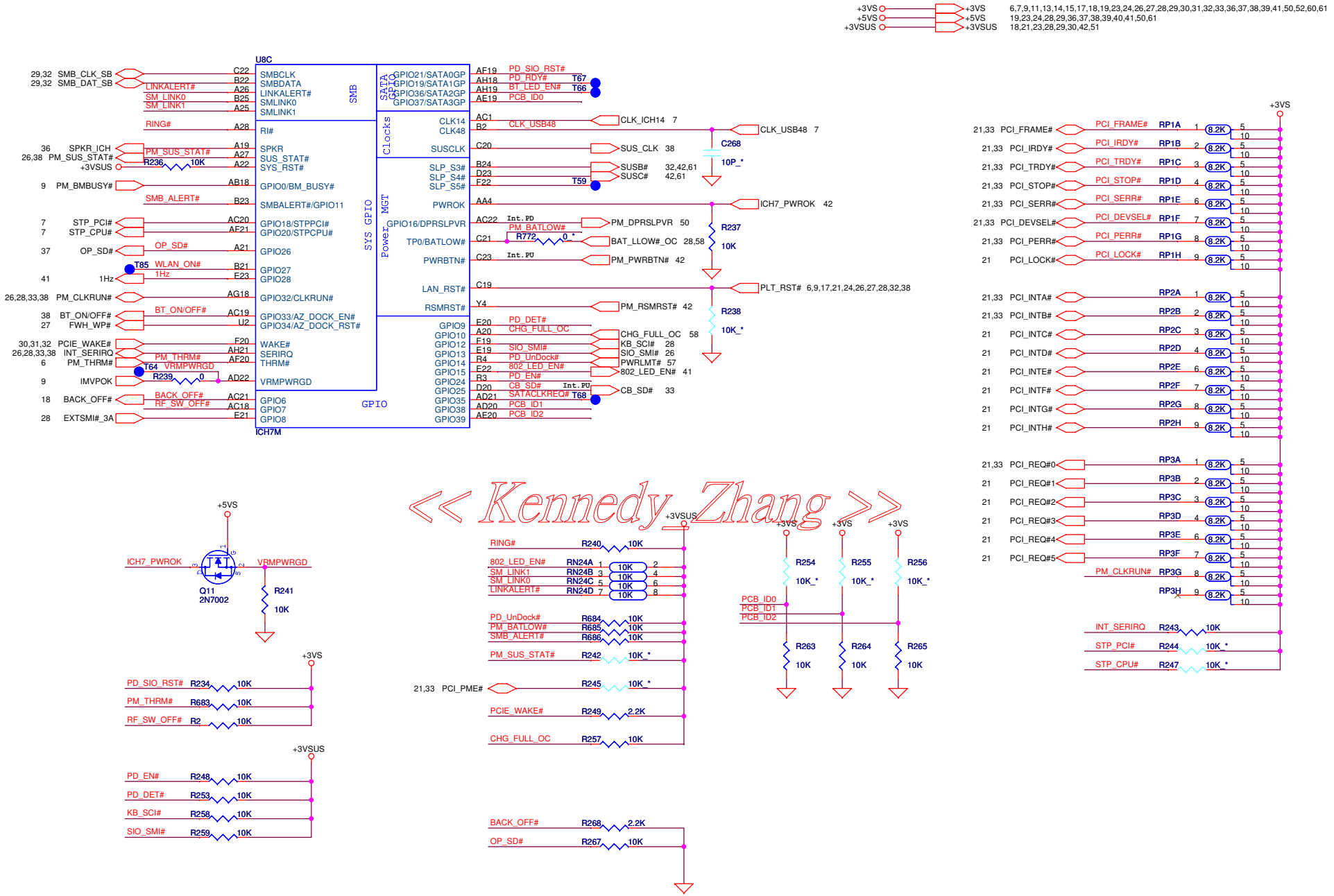
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+5VS 19,23,24,28,29,36,37,38,39,40,41,50,61
+3VSUS 18,21,23,28,29,30,42,51
U8C
SMBCLK
SMBDATA
LINKALERT#
SMLINK0
SMLINK1
RI#
SPKR
SUS_STAT#
SYS_RST#
GPIO0/BM_BUSY#
SMBALERT#/GPIO11
GPIO18/STPPCI#
GPIO20/STPCPU#
GPIO26
GPIO27
GPIO28
GPIO32/CLKRUN#
GPIO33/AZ_DOCK_EN#
GPIO34/AZ_DOCK_RST#
WAKE#
SERIRQ
THRM#
VRMPWRGD
GPIO6
GPIO7
GPIO8
SMB
SYS GPIO
GPIO
ICH7M
GPIO21/SATA0GP
GPIO19/SATA1GP
GPIO36/SATA2GP
GPIO37/SATA3GP
SATA GPIO
CLK14
CLK48
SUSCLK
Clocks
SLP_S3#
SLP_S4#
SLP_S5#
PWROK
GPIO16/DPRSLPVR
TP0/BATLOW#
PWRBTN#
LAN_RST#
RSMRST#
Power MGT
GPIO9
GPIO10
GPIO12
GPIO13
GPIO14
GPIO15
GPIO24
GPIO25
GPIO35
GPIO38
GPIO39
PD_SIO_RST#
PD_RDY#
BT_LED_EN#
PCB_ID0
CLK_USB48
SUS_CLK
SUSB#
SUSC#
ICH7_PWROK
PM_DPRSLPVR
PM_BATLOW#
BAT_LLOW#_OC
PM_PWRBTN#
PLT_RST#
PM_RSMRST#
PD_DET#
CHG_FULL_OC
SIO_SMI#
PD_UnDock#
802_LED_EN#
PD_EN#
CB_SD#
SATACLKREQ#
PCB_ID1
PCB_ID2
PCI_FRAME#
PCI_IRDY#
PCI_TRDY#
PCI_STOP#
PCI_SERR#
PCI_DEVSEL#
PCI_PERR#
PCI_LOCK#
PCI_INTA#
PCI_INTB#
PCI_INTC#
PCI_INTD#
PCI_INTE#
PCI_INTF#
PCI_INTG#
PCI_INTH#
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PCI_REQ#1
PCI_REQ#2
PCI_REQ#3
PCI_REQ#4
PCI_REQ#5
PM_CLKRUN#
INT_SERIRQ
STP_PCI#
STP_CPU#
Q11
2N7002
<< Kennedy_Zhang >>
PD_SIO_RST#
PM_THRM#
RF_SW_OFF#
PD_EN#
PD_DET#
KB_SCI#
SIO_SMI#
RING#
802_LED_EN#
SM_LINK1
SM_LINK0
LINKALERT#
PD_UnDock#
PM_BATLOW#
SMB_ALERT#
PM_SUS_STAT#
PCI_PME#
PCIE_WAKE#
CHG_FULL_OC
BACK_OFF#
OP_SD#
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4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC
Title
ICH7M--GPIO
Size Custom
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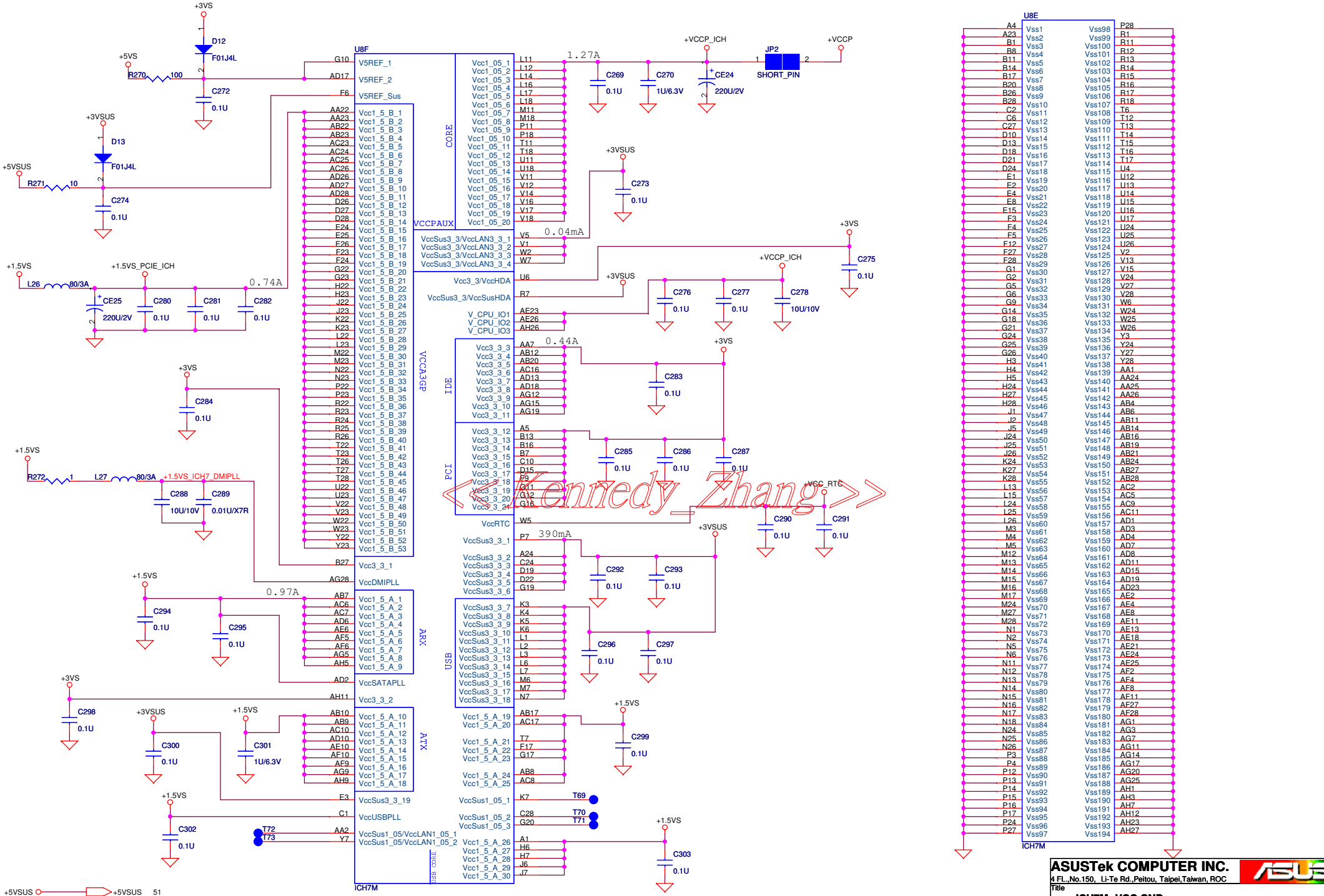
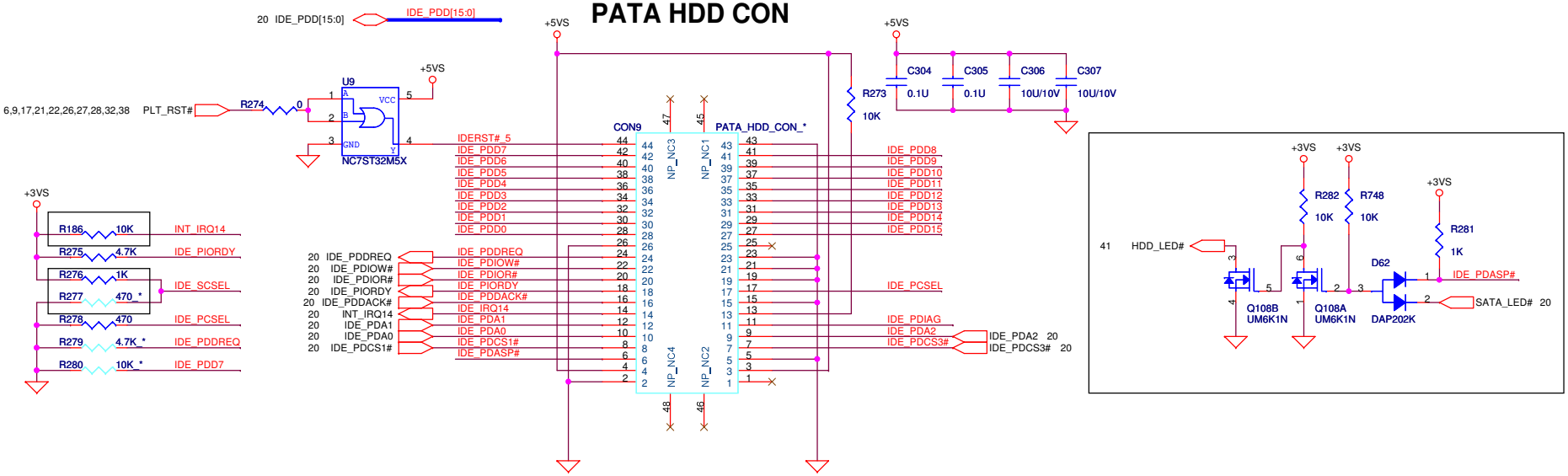
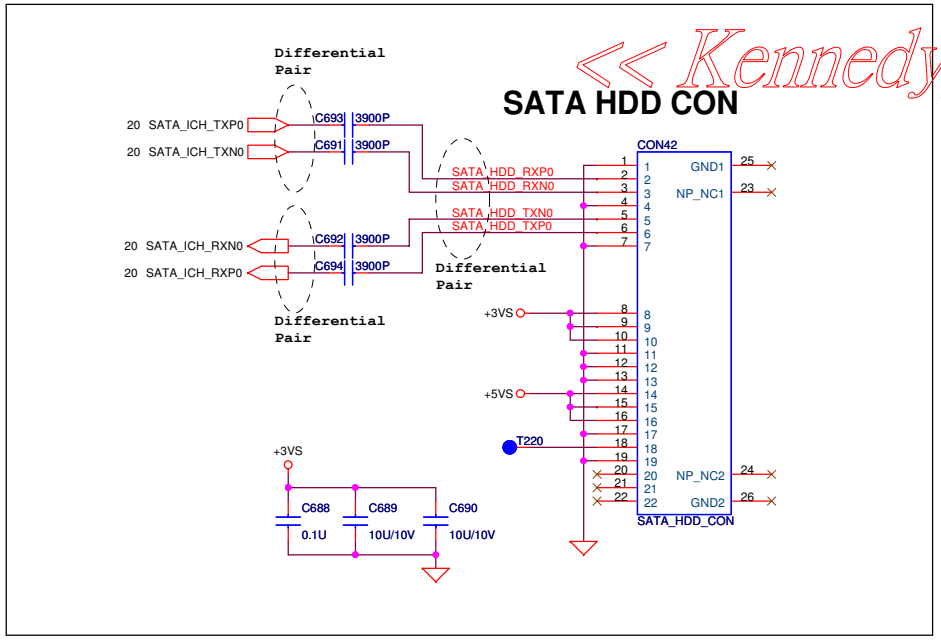


+5VSUS	+5VSUS	51
+3VSUS	+3VSUS	18,21,22,28,29,30,42,51
+5VS	+5VS	19,22,24,28,29,36,37,38,39,40,41,50,61
+3VS	+3VS	6,7,9,11,13,14,15,17,18,19,22,24,26,27,28,29,30,31,32,33,36,37,38,39,41,50,52,60,61
+1.5VS	+1.5VS	5,9,11,12,17,31,32,38,52
+VCCP	+VCCP	4,5,6,8,11,12,20,52

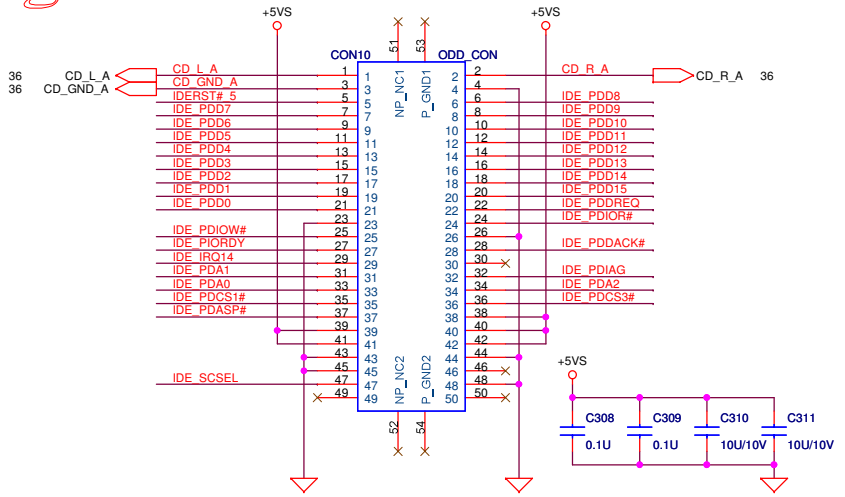
PATA HDD CON



SATA HDD CON



PATA CD-ROM CON



+3VS +3VS 6,7,9,11,13,14,15,17,18,19,22,23,26,27,28,29,30,31,32,33,36,37,38,39,41,50,52,60,61
+5VS +5VS 19,22,23,28,29,36,37,38,39,40,41,50,61
+5V +5V 15,17,19,25,28,32,36,38,40,41,59,61

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Title: HDD & CD-ROM CONN			
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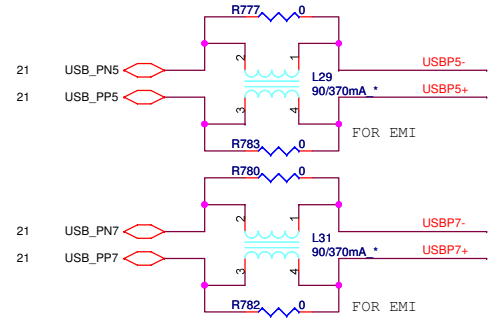

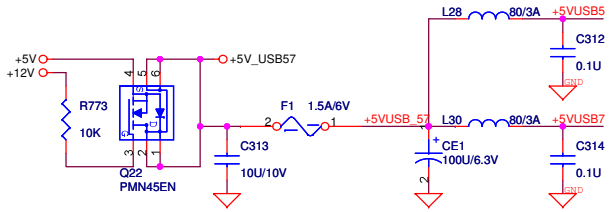

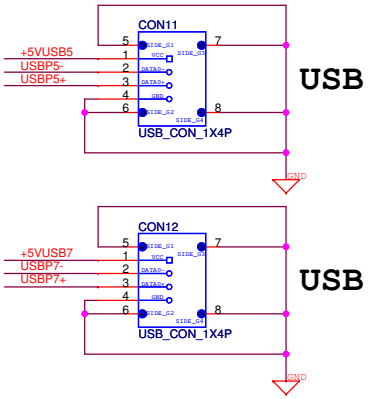

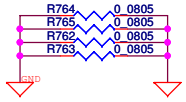

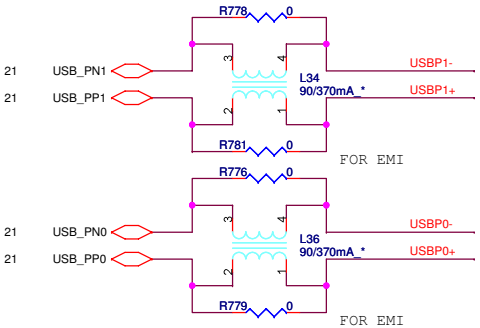

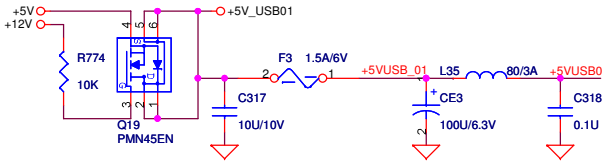

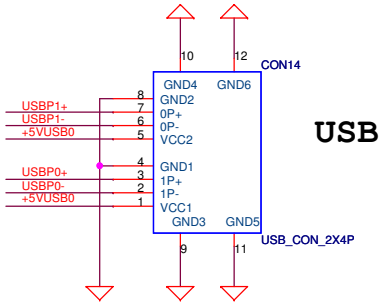

+5V +5V 15,17,19,28,32,36,38,40,41,59,61

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4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC			
Title: USB PORTS			
Size: Custom	Document Number: A8J/F		Rev: 2.0
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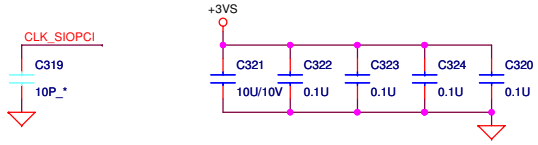
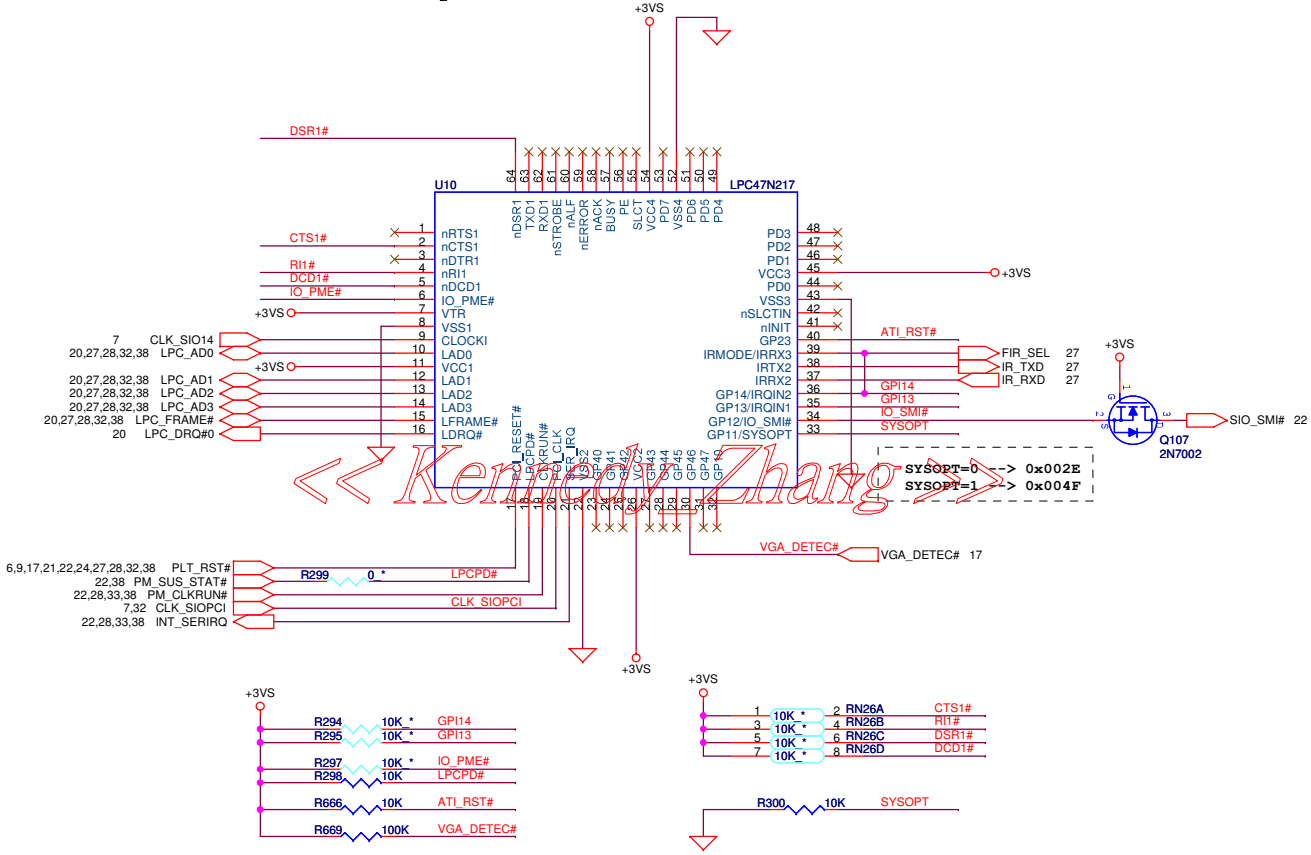


Super I/O



+3VS +3VS 6,7,9,11,13,14,15,17,18,19,22,23,24,27,28,29,30,31,32,33,36,37,38,39,41,50,52,60,61

ASUSTek COMPUTER INC.			
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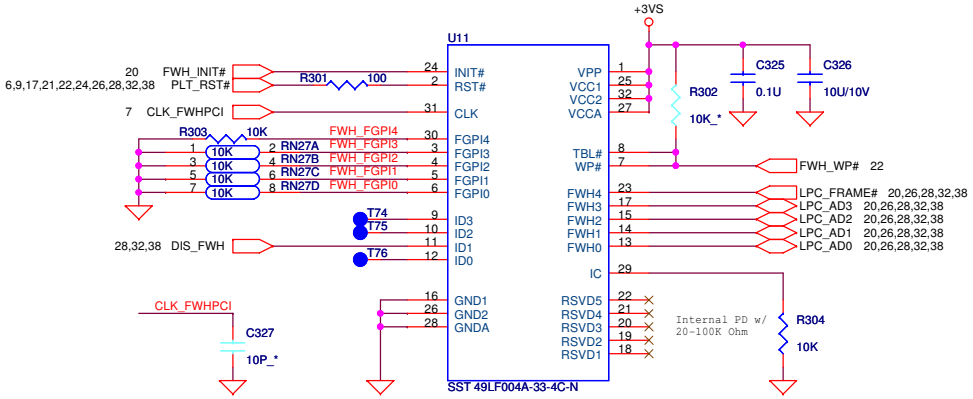
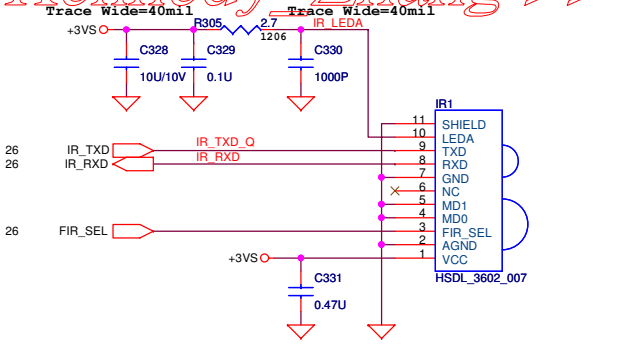
Title: SUPER IO LPC47N217			
Size: Custom	Document Number: A8J/F		Rev: 2.0
Date: Thursday, September 07, 2006	Sheet 26 of 63		



PLCC32 Socket Part Number :
12G043400324

Graphics from:
05-001005111



+3VS +3VS 6,7,9,11,13,14,15,17,18,19,22,23,24,26,28,29,30,31,32,33,36,37,38,39,41,50,52,60,61

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Title: BIOS , IR

Size: Custom | Document Number: A8J/F | Rev: 2.0

Date: Thursday, September 07, 2006 | Sheet 27 of 63

P2.1 Low : Power Button Override disable

Input Event only at P54, P55, P60 - P67

P50, P43, P54, P55 are wake-up event inputs when KBC in standby mode

EC should set OP_SD low in S3, keep from leakage.

CON43 DEBUG_CON

SIDE2 14	12	LPC_AD0
	11	LPC_AD1
	10	LPC_AD2
	9	DIS_FWH
	8	LPC_AD3
	7	
	6	LPC_FRAME#
	5	
SIDE1 13	4	CLK_KBCPCI
	3	
	2	
	1	

DIS_FWH 27,32,38

KSI0 RP4A 10K
KSI1 RP4B 10K
KSI2 RP4C 10K
KSI3 RP4D 10K
KSI4 RP4E 10K
KSI5 RP4F 10K
KSI6 RP4G 10K
KSI7 RP4H 10K

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

CON16 Internal_KB_CON

SIDE2	30	
	28	KSI1
	27	KSO7
	26	KSI7
	25	KSO0
	24	KSI6
	23	KSO9
	22	KSI5
	21	KSO3
	20	KSI4
	19	KSO1
	18	KSI2
	17	KSI3
	16	KSO5
	15	KSO13
	14	KSI0
	13	KSO2
	12	KSO4
	11	KSO8
	10	KSO6
	9	KSO11
	8	KSO10
	7	KSO12
	6	KSO14
	5	KSO15
	4	
	3	KBDDT0
	2	
	1	KBDDT1
SIDE1	29	

R319 10K +3V
R320 10K +3V

U13 M38857

22,26,33,38 INT_SERIRQ	63	P87/SERIRQ
7 CLK_KBCPCI	64	P86/LCLK
6,9,17,21,22,24,26,27,32,38 PLT_RST#	65	P85/LRESET#
20,26,27,32,38 LPC_FRAME#	66	P84/LFRAME#
20,26,27,32,38 LPC_AD3	67	P83/LAD3
20,26,27,32,38 LPC_AD2	68	P82/LAD2
20,26,27,32,38 LPC_AD1	69	P81/LAD1
20,26,27,32,38 LPC_AD0	70	P80/LAD0
	71	VCC
	72	VREF
	31	P27 SCR_LED#
	32	P26
	33	P25
	34	P24 SET_PCIRSTNS#
57 BAT_LEARN	35	P23
	36	P22
	37	P21
42 KBCRSM	38	P20
	23	P42/INT0
	22	P43/INT1*
KBCPURST_3Q	21	P44/RXD
KBC_GA20	20	P45/TXD
KBSCI_3Q	19	P46/SCLK1
22,26,33,38 PM_CLKRUN#	18	P47/SRDY1#/CLKRUN#
BAT_LLOW#	17	P50/INT5*
FAN1_TACH	16	P51/INT20
KBDDT0	15	P52/INT30/1-WIRE1
KBDDT1	14	P53/INT40/1-WIRE2
	13	P54/CNTR0*
	12	P55/CNTR1*
	11	P56/DA1/PWM0/1
	10	P57/DA2/PWM1/1
32 NEWCARD_OFF#	74	P67/AN7
	75	P66/AN6
	76	P65/AN5
	77	P64/AN4
ACIN_OC#	78	P63/AN3
32 NEWCARD_DET#	79	P62/AN2
	80	P61/AN1
	1	P60/AN0
	4	P75/INT41
	5	P74/INT31
	6	P73/INT21
	7	P72
	8	P71
INTCLK_5S	9	P70
INTDATA_5S	2	P77/SCL
	3	P76/SDA
	39	P17/KSO15
	40	P16/KOS14
	41	P15/KSO13
	42	P14/KSO12
	43	P13/KSO11
	44	P12/KSO10
	45	P11/KSO9
	46	P10/KSO8
	47	P07/KSO7
	48	P06/KSO6
	49	P05/KSO5
	50	P04/KSO4
	51	P03/KSO3
	52	P02/KSO2
	53	P01/KSO1
	54	P00/KSO0
	55	P37/KSI8
	56	P36/KSI7
	57	P35/KSI6
	58	P34/KSI5
	59	P33/KSI4
	60	P32/KSI3
	61	P31/PWM10/KSI2
	62	P30/PWM00/KSI0
	28	XIN X1_KBC
	29	XOUT X2_KBC
	27	P40/XCOUT KBC_EXTSMI
	26	P41/XCIN
	25	RESET# PCI_RSTNS#
	24	CNVSS
	30	VSS
	73	AVSS

80mA

P54,P55,P43,P50 are wake-up event inputs when KBC in standby mode

CLK_KBCPCI C337 10P_*

RN29A RN29B RN29C RN29D 10K
RP5A RP5B RP5C RP5D RP5E RP5F RP5G RP5H 10K

41 MSK_INSTKEY#

57 BAT_LEARN BAT_LEARN R321 100K
42 KBCRSM

40 WATCHDOG
41 SWDJ_EN

22,58 BAT_LLOW#_OC
40 FAN1_TACH

42 LID_KBC#
59 BAT_IN_OC#
40 FAN1_DC
18 ADJ_BL

41 PANLOCK_#
41 MARATHON_#
59 ACIN_OC#

41 WIRELESS_#
41 INTERNET_#
41 BLUETOOTH_#

D32 1SS355
D14 1SS355

RN30A RN30B RN30C RN30D 10K

ACIN_OC# C701 0.1U

C338 C339 0.1U

NUM_LED# 41
CAP_LED# 41
PANLOCK_LED 41

Q109 2N7002
Q110 2N7002
Q13 2N7002

R322 10K +3VS
R323 10K +3VS

KBC_GA20 HA20GATE 20
KBCPURST_3Q KBDCPURST 20
KBSCI_3Q KB_SCI# 22

X1_KBC C340 10P
X2_KBC C341 10P
R324 1M
X3 8MHZ

+5VLCM R326 4.7K
+5VLCM R327 4.7K
+5V

40,58 SMC_BAT
40,58 SMD_BAT

Q14A UM6K1N
Q14B UM6K1N

+5VS R331 4.7K
+5VS R332 4.7K

41 INTCLK_5S
41 INTDATA_5S

BAT_LLOW#
FAN1_TACH
RN33A RN33B RN33C RN33D 10K

BAT_LEARN R734 100K_*

+3VSUS R325 10K
EXTSMI#_3A 22
KBC_EXTSMI R333 10K
Q15 2N7002

PLT_RST#
SET_PCIRSTNS# R330 47K
U14 74LVC1G32GV
C342 0.1U
PCI_RSTNS# PCI_RSTNS# 30

+3V	+3V	30,31,32,34,37,38,42,54,61
+3VS	+3VS	6,7,9,11,13,14,15,17,18,19,22,23,24,26,27,29,30,31,32,33,36,37,38,39,41,50,52,60,61
+3VSUS	+3VSUS	18,21,22,23,29,30,42,51
+5V	+5V	15,17,19,25,32,36,38,40,41,59,61
+5VS	+5VS	19,22,23,24,29,36,37,38,39,40,41,50,61
+5VLCM	+5VLCM	57,58,59,60

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Title: KBC 38857

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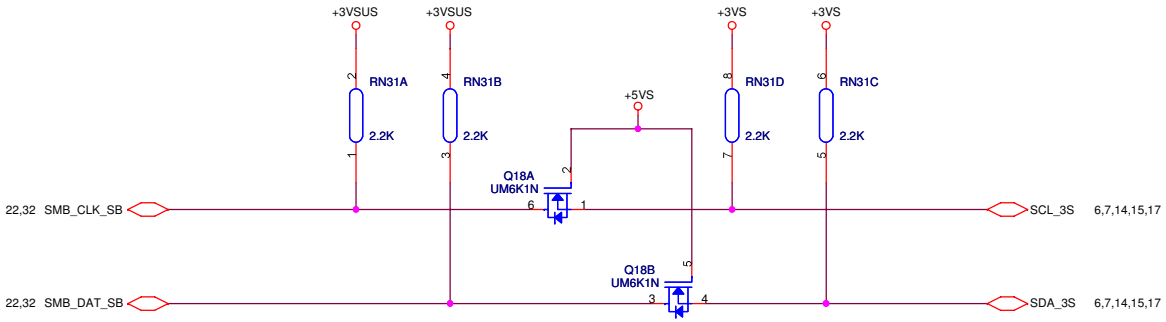
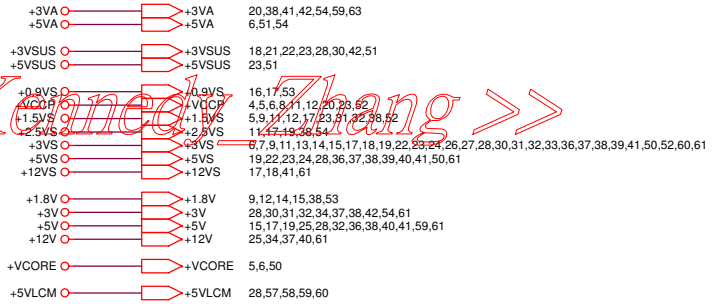
Date: Thursday, September 07, 2006 | Sheet 28 of 63

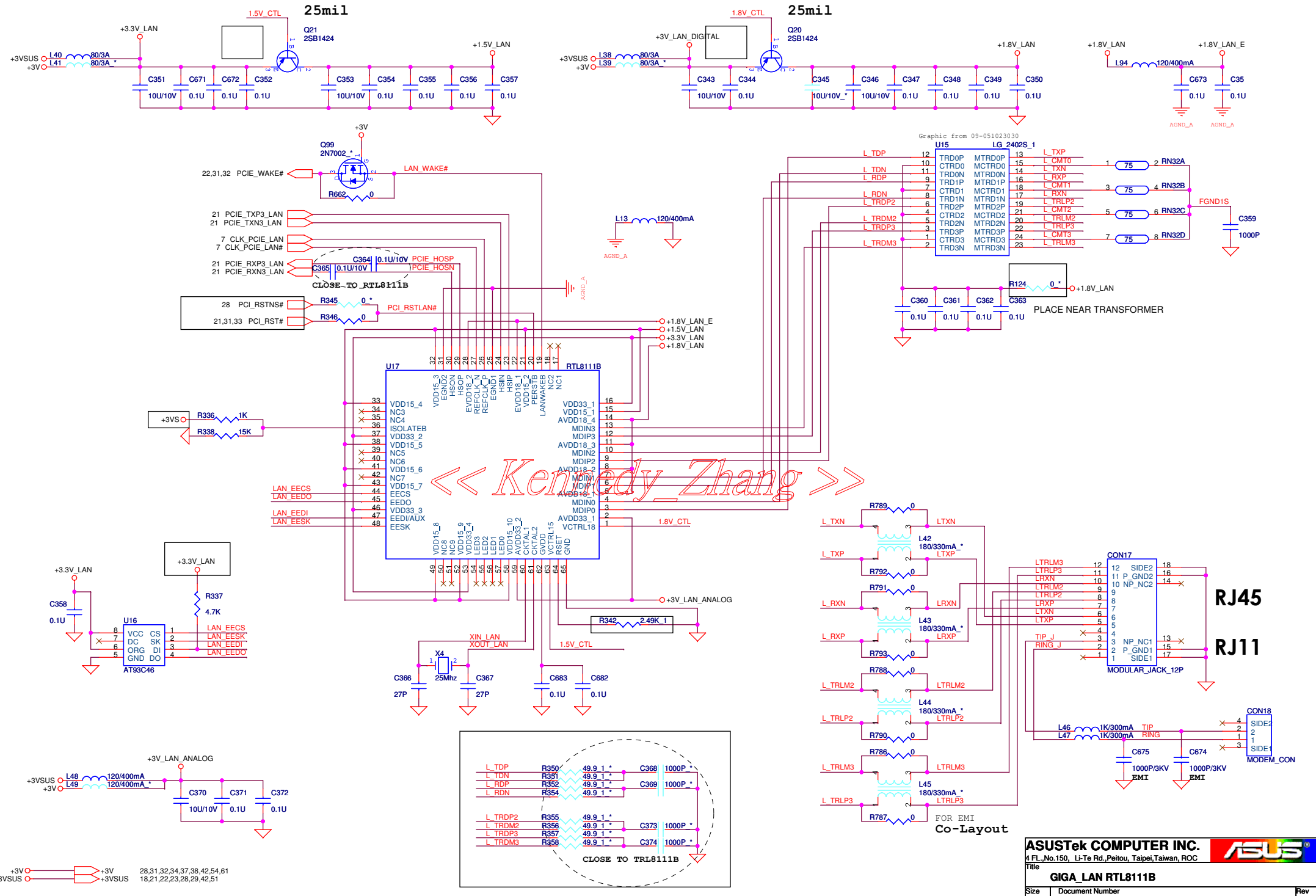
ICH7-M



Termal Sensor,
Clock Generator
DDR2 SO-DIMM
TPM



ASUSTek COMPUTER INC.			
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC			
Title: SM BUS & POWER PORT			
Size: Custom	Document Number: A8J/F		Rev: 2.0
Date: Thursday, September 07, 2006	Sheet 29 of 63		



ASUSTek COMPUTER INC.
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Title: GIGA_LAN RTL8111B

Size	Document Number	Rev
Custom	A8J/F	2.0

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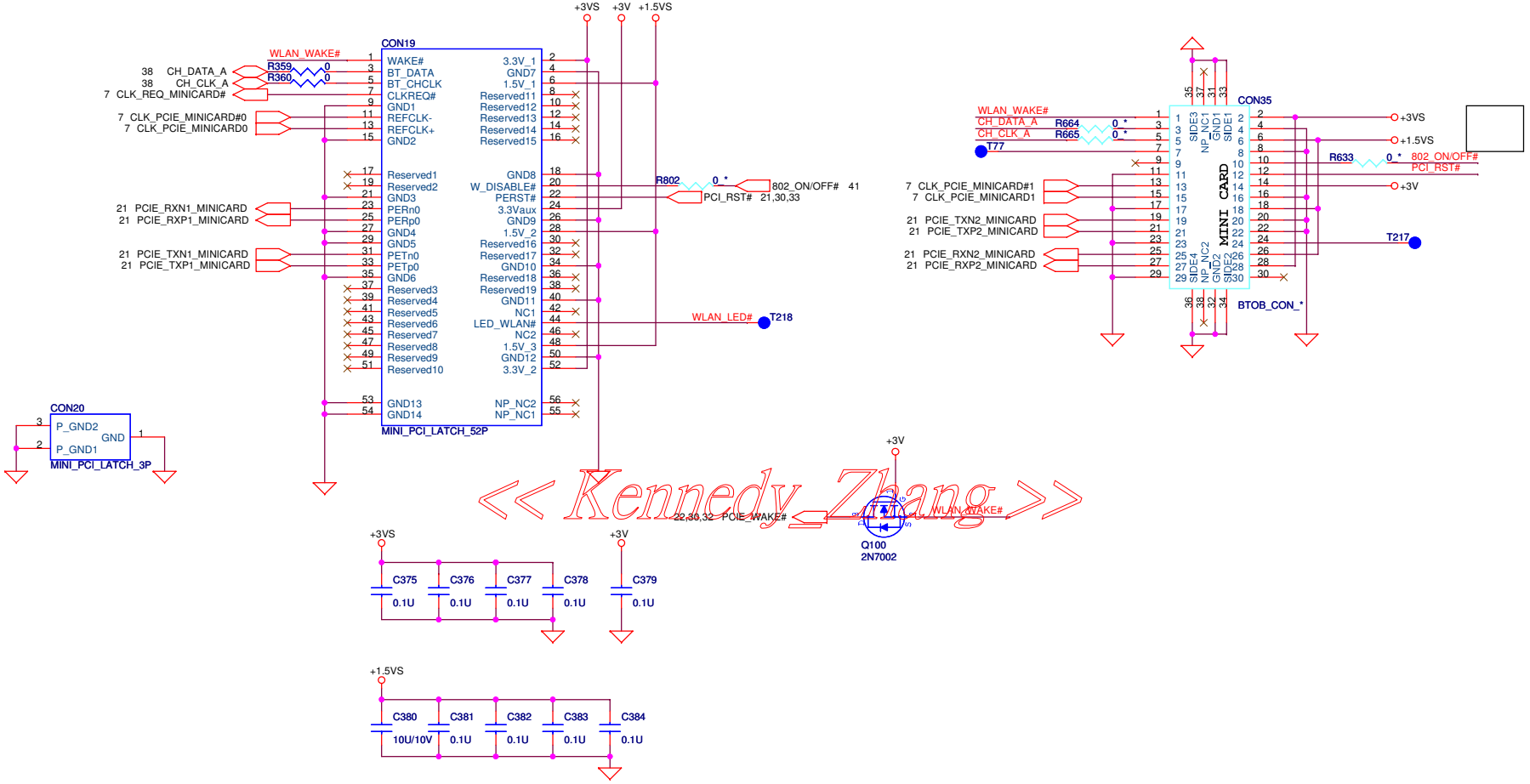
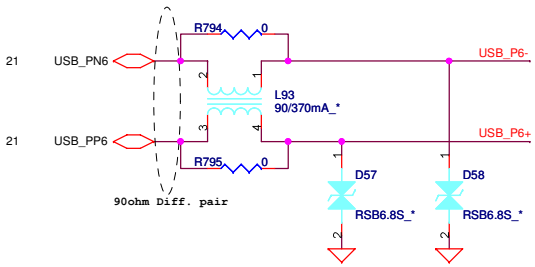
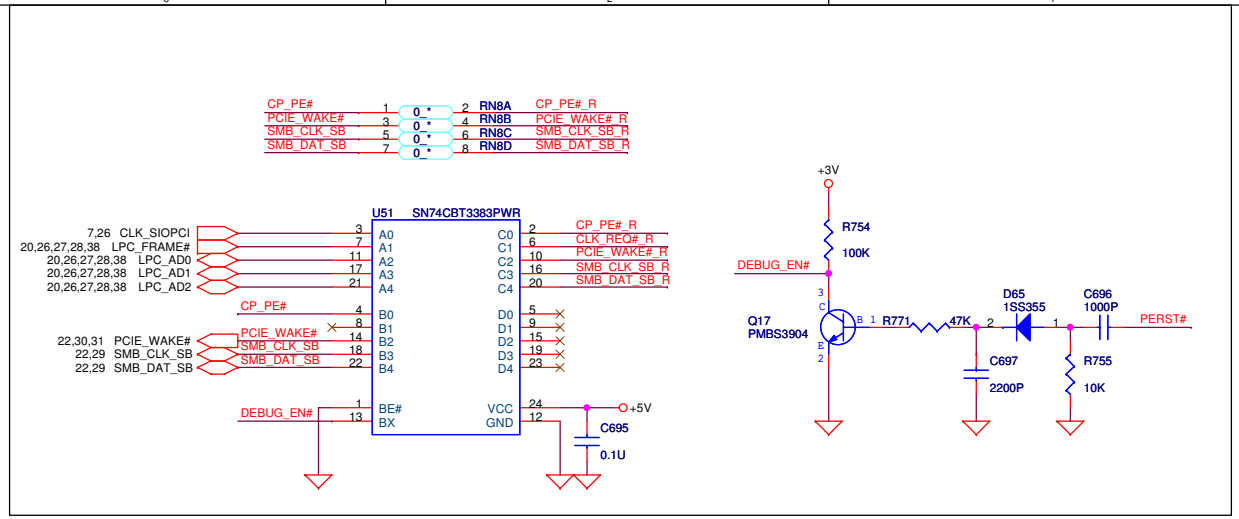
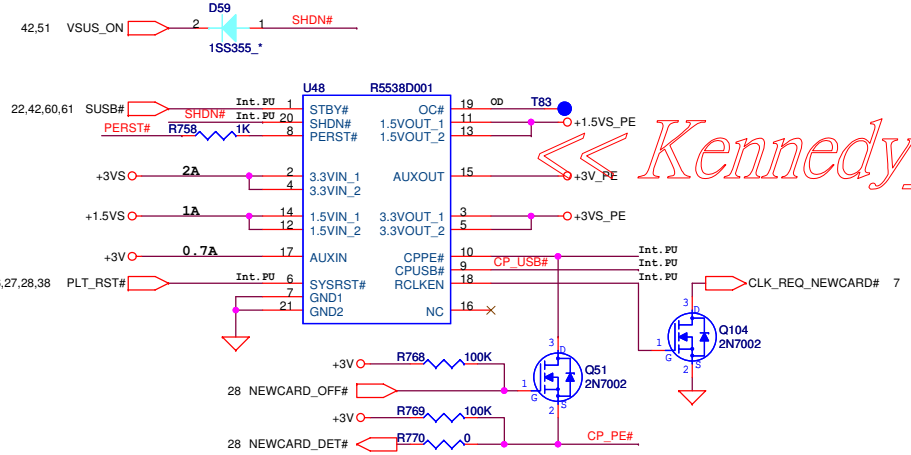


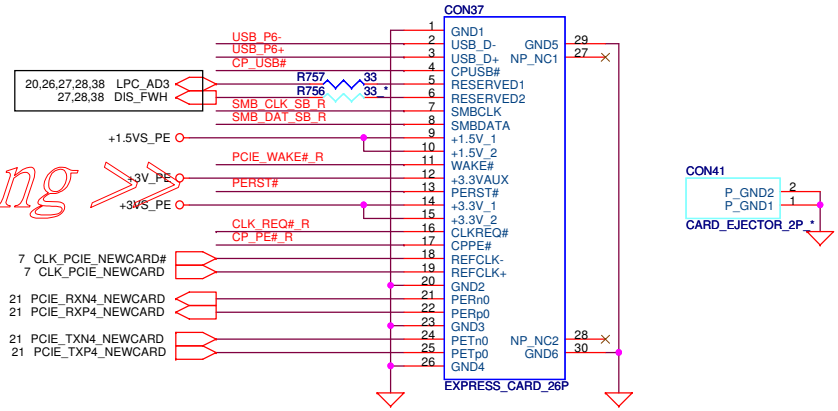
+1.5VS	+1.5VS	5,9,11,12,17,23,32,38,52
+3V	+3V	28,30,32,34,37,38,42,54,61
+3VS	+3VS	6,7,9,11,13,14,15,17,18,19,22,23,24,26,27,28,29,30,32,33,36,37,38,39,41,50,52,60,61

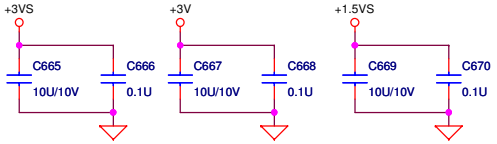
ASUSTek COMPUTER INC.		
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC		
Title: MINI CARD		
Size: Custom	Document Number: A8J/F	Rev: 2.0
Date: Thursday, September 07, 2006	Sheet 31 of 63	

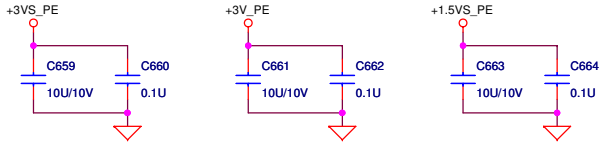


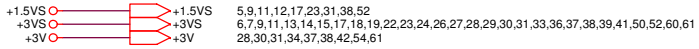




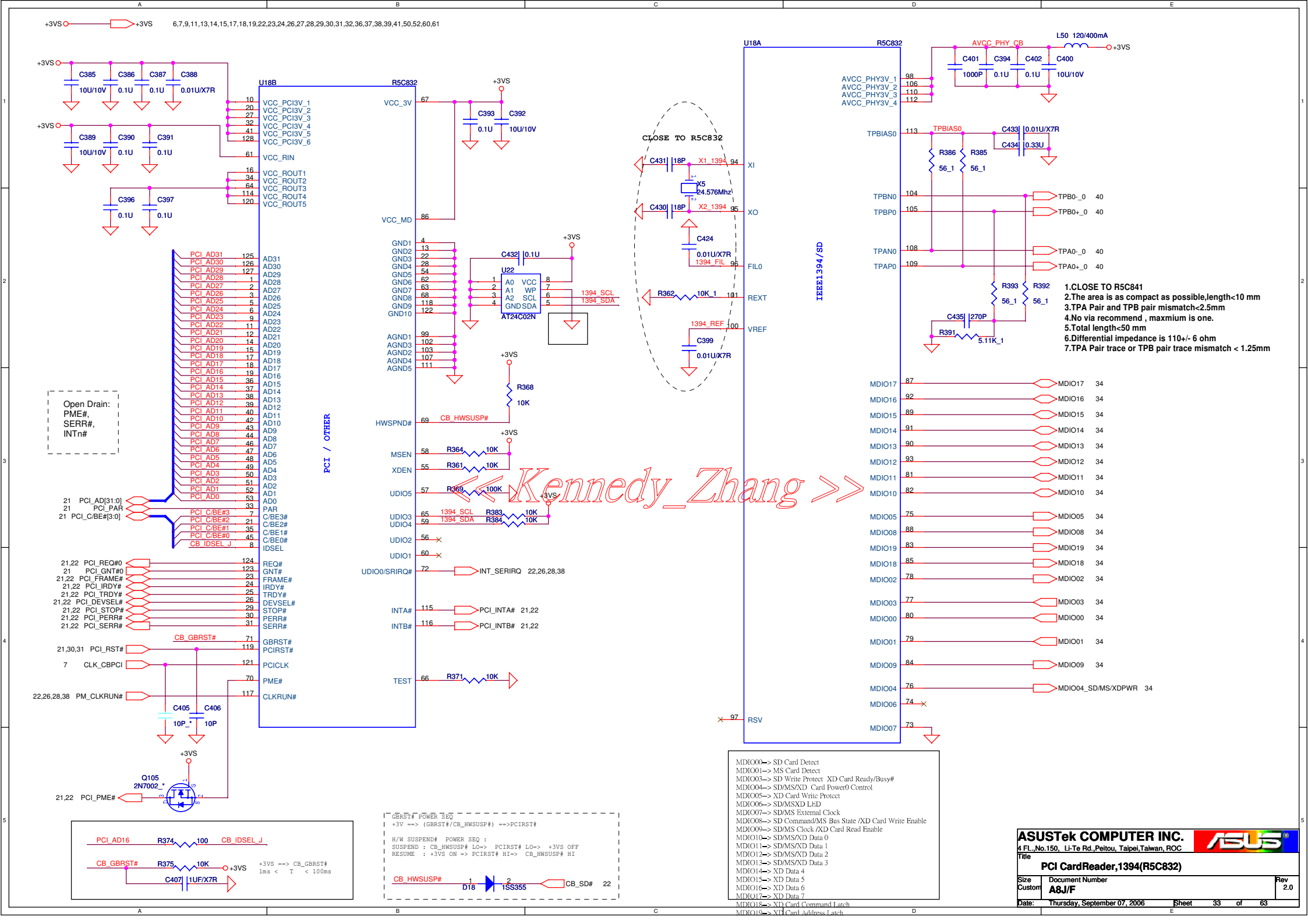


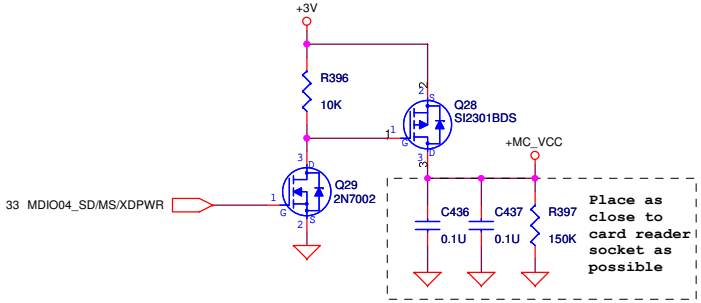


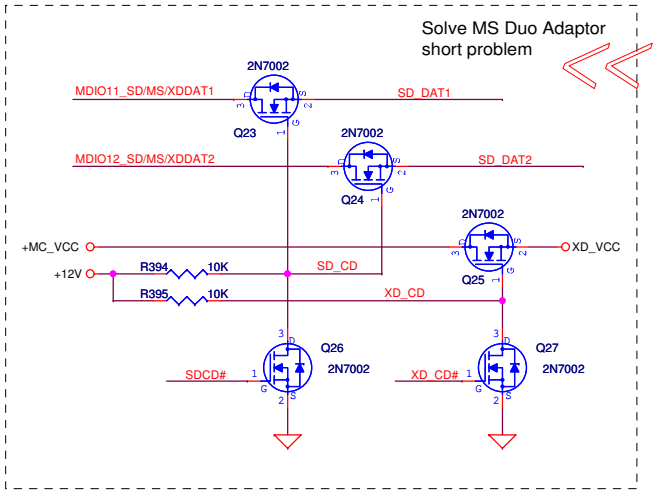


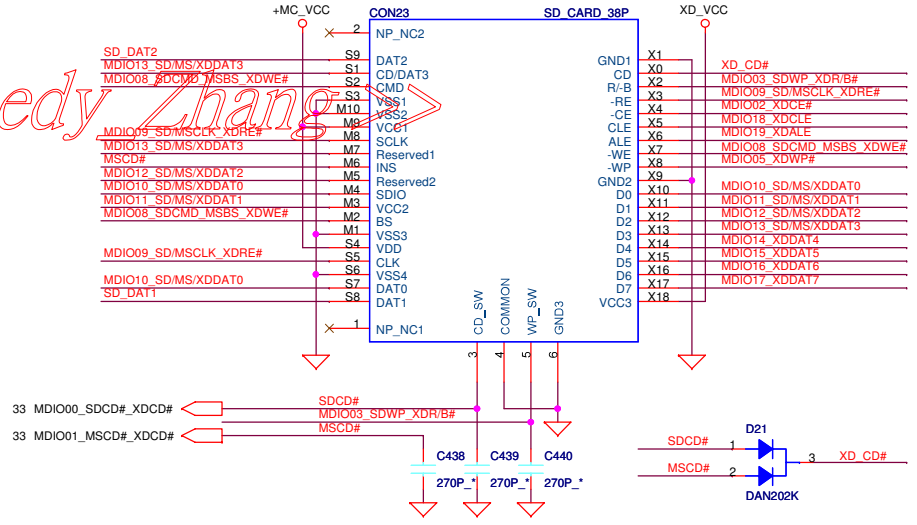


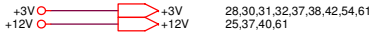
ASUSTek COMPUTER INC.		
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC		
Title: NEW CARD		
Size: Custom	Document Number: A8J/F	Rev: 2.0
Date: Thursday, September 07, 2006	Sheet 32 of 63	


+3VS +3VS 6,7,9,11,13,14,15,17,18,19,22,23,24,26,27,28,29,30,31,32,36,37,38,39,41,50,52,60,61
C385 10U/10V
C386 0.1U
C387 0.1U
C388 0.01U/X7R
C389 10U/10V
C390 0.1U
C391 0.1U
C396 0.1U
C397 0.1U
U18B
VCC_PCI3V_1
VCC_PCI3V_2
VCC_PCI3V_3
VCC_PCI3V_4
VCC_PCI3V_5
VCC_PCI3V_6
VCC_RIN
VCC_ROUT1
VCC_ROUT2
VCC_ROUT3
VCC_ROUT4
VCC_ROUT5
PCI / OTHER
R5C832
VCC_3V
C393 0.1U
C392 10U/10V
VCC_MD
GND1 GND2 GND3 GND4 GND5 GND6 GND7 GND8 GND9 GND10
AGND1 AGND3 AGND2 AGND4 AGND5
C432 0.1U
U22
A0 A1 A2 GND VCC WP SCL SDA
AT24C02N
1394_SCL
1394_SDA
R368 10K
HWSPND# CB_HWSUSP#
MSEN R364 10K
XDEN R361 10K
UDIO5 R369 100K
UDIO3 UDIO4 R383 10K R384 10K
UDIO2
UDIO1
UDIO0/SRIRQ# INT_SERIRQ 22,26,28,38
INTA# PCI_INTA# 21,22
INTB# PCI_INTB# 21,22
TEST R371 10K
PCI_AD31 PCI_AD30 PCI_AD29 PCI_AD28 PCI_AD27 PCI_AD26 PCI_AD25 PCI_AD24 PCI_AD23 PCI_AD22 PCI_AD21 PCI_AD20 PCI_AD19 PCI_AD18 PCI_AD17 PCI_AD16 PCI_AD15 PCI_AD14 PCI_AD13 PCI_AD12 PCI_AD11 PCI_AD10 PCI_AD9 PCI_AD8 PCI_AD7 PCI_AD6 PCI_AD5 PCI_AD4 PCI_AD3 PCI_AD2 PCI_AD1 PCI_AD0
AD31 AD30 AD29 AD28 AD27 AD26 AD25 AD24 AD23 AD22 AD21 AD20 AD19 AD18 AD17 AD16 AD15 AD14 AD13 AD12 AD11 AD10 AD9 AD8 AD7 AD6 AD5 AD4 AD3 AD2 AD1 AD0
21 PCI_AD[31:0]
21 PCI_PAR
21 PCI_C/BE#[3:0]
PCI_C/BE#3 PCI_C/BE#2 PCI_C/BE#1 PCI_C/BE#0
C/BE3# C/BE2# C/BE1# C/BE0#
CB_IDSEL_J IDSEL
PAR
Open Drain:
PME#,
SERR#,
INTn#
21,22 PCI_REQ#0
21 PCI_GNT#0
21,22 PCI_FRAME#
21,22 PCI_IRDY#
21,22 PCI_TRDY#
21,22 PCI_DEVSEL#
21,22 PCI_STOP#
21,22 PCI_PERR#
21,22 PCI_SERR#
REQ# GNT# FRAME# IRDY# TRDY# DEVSEL# STOP# PERR# SERR#
CB_GBRST#
21,30,31 PCI_RST#
GBRST# PCIRST#
7 CLK_CBPCI
PCICLK
PME#
22,26,28,38 PM_CLKRUN#
CLKRUN#
C405 10P_*
C406 10P
Q105 2N7002_*
21,22 PCI_PME#
PCI_AD16 R374 100 CB_IDSEL_J
CB_GBRST# R375 10K +3VS
C407 1UF/X7R
+3VS ==> CB_GBRST#
1ms < T < 100ms
GBRST# POWER SEQ
+3V ==> (GBRST#/CB_HWSUSP#) ==>PCIRST#
H/W SUSPEND# POWER SEQ :
SUSPEND : CB_HWSUSP# LO=> PCIRST# LO=> +3VS OFF
RESUME : +3VS ON => PCIRST# HI=> CB_HWSUSP# HI
CB_HWSUSP# D18 1SS355 CB_SD# 22
CLOSE TO R5C832
C431 18P X1_1394
X5 24.576Mhz
C430 18P X2_1394
C424 0.01U/X7R
1394_FIL
R362 10K_1
1394_REF
C399 0.01U/X7R
XI XO FIL0 REXT VREF
U18A
R5C832
IEEE1394/SD
RSV
AVCC_PHY_CB
L50 120/400mA
C401 1000P
C394 0.1U
C402 0.1U
C400 10U/10V
AVCC_PHY3V_1
AVCC_PHY3V_2
AVCC_PHY3V_3
AVCC_PHY3V_4
TPBIAS0
R386 56_1
R385 56_1
C433 0.01U/X7R
C434 0.33U
TPBN0 TPBP0 TPAN0 TPAP0
TPB0-_0 TPB0+_0 TPA0-_0 TPA0+_0
R393 56_1
R392 56_1
C435 270P
R391 5.11K_1
1.CLOSE TO R5C841
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
MDIO17 MDIO16 MDIO15 MDIO14 MDIO13 MDIO12 MDIO11 MDIO10
MDIO05 MDIO08 MDIO19 MDIO18 MDIO02
MDIO03 MDIO00
MDIO01
MDIO09
MDIO04 MDIO06 MDIO07
MDIO04_SD/MS/XDPWR 34
MDIO00—> SD Card Detect
MDIO01—> MS Card Detect
MDIO03—> SD Write Protect XD Card Ready/Busy#
MDIO04—> SD/MS/XD Card Power0 Control
MDIO05—> XD Card Write Protcct
MDIO06—> SD/MSXD LED
MDIO07—> SD/MS External Clock
MDIO08—> SD Command/MS Bus State /XD Card Write Enable
MDIO09—> SD/MS Clock /XD Card Read Enable
MDIO10—> SD/MS/XD Data 0
MDIO11—> SD/MS/XD Data 1
MDIO12—> SD/MS/XD Data 2
MDIO13—> SD/MS/XD Data 3
MDIO14—> XD Data 4
MDIO15—> XD Data 5
MDIO16—> XD Data 6
MDIO17—> XD Data 7
MDIO18—> XD Card Command Latch
MDIO19—> XD Card Address Latch
<< Kennedy_Zhang >>
ASUSTek COMPUTER INC.
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC
Title
PCI CardReader,1394(R5C832)
Size Custom
Document Number A8J/F
Rev 2.0
Date: Thursday, September 07, 2006
Sheet 33 of 63









ASUSTek COMPUTER INC.		
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC		
Title: 4 IN 1 CONN		
Size: Custom	Document Number: A8J/F	Rev: 2.0
Date: Thursday, September 07, 2006	Sheet 34 of 63	

ASUSTek COMPUTER INC.		
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC		
Title: Empty		
Size: Custom	Document Number: A8J/F	Rev: 2.0
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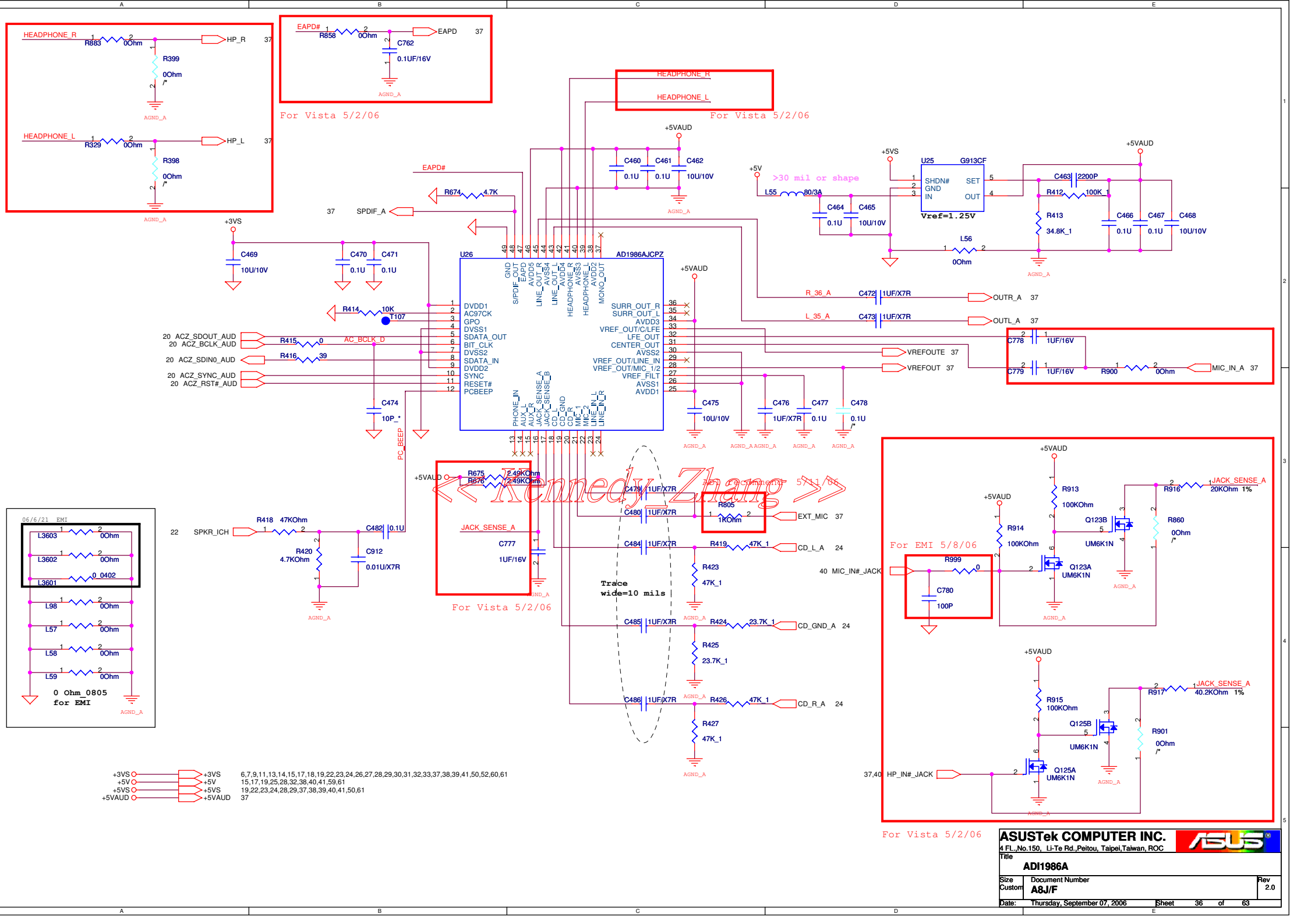
HEADPHONE_R
R883 0Ohm
HP_R 37
R399 0Ohm /*
HEADPHONE_L
R329 0Ohm
HP_L 37
R398 0Ohm /*
AGND_A
EAPD#
R858 0Ohm
EAPD 37
C762 0.1UF/16V
For Vista 5/2/06
HEADPHONE_R
HEADPHONE_L
For Vista 5/2/06
+5VAUD
C460 0.1U
C461 0.1U
C462 10U/10V
EAPD#
R674 4.7K
37 SPDIF_A
+3VS
C469 10U/10V
C470 0.1U
C471 0.1U
U26
AD1986AJCPZ
GND
S/PDIF_OUT
EAPD
AVDD5
LINE_OUT_R
AVSS4
LINE_OUT_L
AVDD4
HEADPHONE_R
AVSS3
HEADPHONE_L
AVDD2
MONO_OUT
DVDD1
AC97CK
GPO
DVSS1
SDATA_OUT
BIT_CLK
DVSS2
SDATA_IN
DVDD2
SYNC
RESET#
PCBEEP
SURR_OUT_R
SURR_OUT_L
AVDD3
VREF_OUT/C/LFE
LFE_OUT
CENTER_OUT
AVSS2
VREF_OUT/LINE_IN
VREF_OUT/MIC_1/2
VREF_FILT
AVSS1
AVDD1
PHONE_IN
AUX_L
AUX_R
JACK_SENSE_A
JACK_SENSE_B
CD_L
CD_GND
CD_R
MIC_1
LINE_IN_L
LINE_IN_R
R414 10K T107
20 ACZ_SDOUT_AUD
20 ACZ_BCLK_AUD
R415 0
AC_BCLK_D
20 ACZ_SDIN0_AUD
R416 39
20 ACZ_SYNC_AUD
20 ACZ_RST#_AUD
PC_BEEP
C474 10P_*
C475 10U/10V
C476 1UF/X7R
C477 0.1U
C478 0.1U /*
+5VS
+5V
>30 mil or shape
L55 80/3A
C464 0.1U
C465 10U/10V
U25 G913CF
SHDN#
GND
IN
SET
OUT
Vref=1.25V
C463 2200P
R412 100K_1
R413 34.8K_1
C466 0.1U
C467 0.1U
C468 10U/10V
L56 0Ohm
R_36_A
C472 1UF/X7R
OUTR_A 37
L_35_A
C473 1UF/X7R
OUTL_A 37
VREFOUTE 37
VREFOUT 37
C778 1UF/16V
C779 1UF/16V
R900 0Ohm
MIC_IN_A 37
+5VAUD
R675 2.49KOhm
R676 2.49KOhm
C479 1UF/X7R
C480 1UF/X7R
R805 1KOhm
EXT_MIC 37
C484 1UF/X7R
R419 47K_1
CD_L_A 24
R423 47K_1
40 MIC_IN#_JACK
C485 1UF/X7R
R424 23.7K_1
CD_GND_A 24
R425 23.7K_1
C486 1UF/X7R
R426 47K_1
CD_R_A 24
R427 47K_1
Trace wide=10 mils
JACK_SENSE_A
C777 1UF/16V
For Vista 5/2/06
22 SPKR_ICH
R418 47KOhm
R420 4.7KOhm
C482 0.1U
C912 0.01U/X7R
06/6/21 EMI
L3603 0Ohm
L3602 0Ohm
L3601 0_0402
L98 0Ohm
L57 0Ohm
L58 0Ohm
L59 0Ohm
0 Ohm_0805
for EMI
For EMI 5/8/06
R999 0
C780 100P
R913 100KOhm
R914 100KOhm
Q123B
Q123A
UM6K1N
R916 20KOhm 1%
R860 0Ohm /*
R915 100KOhm
R917 40.2KOhm 1%
Q125B
Q125A
UM6K1N
R901 0Ohm /*
37,40 HP_IN#_JACK
For Vista 5/2/06
+3VS 6,7,9,11,13,14,15,17,18,19,22,23,24,26,27,28,29,30,31,32,33,37,38,39,41,50,52,60,61
+5V 15,17,19,25,28,32,38,40,41,59,61
+5VS 19,22,23,24,28,29,37,38,39,40,41,50,61
+5VAUD 37
ASUSTek COMPUTER INC.
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC
Title
ADI1986A
Size Custom
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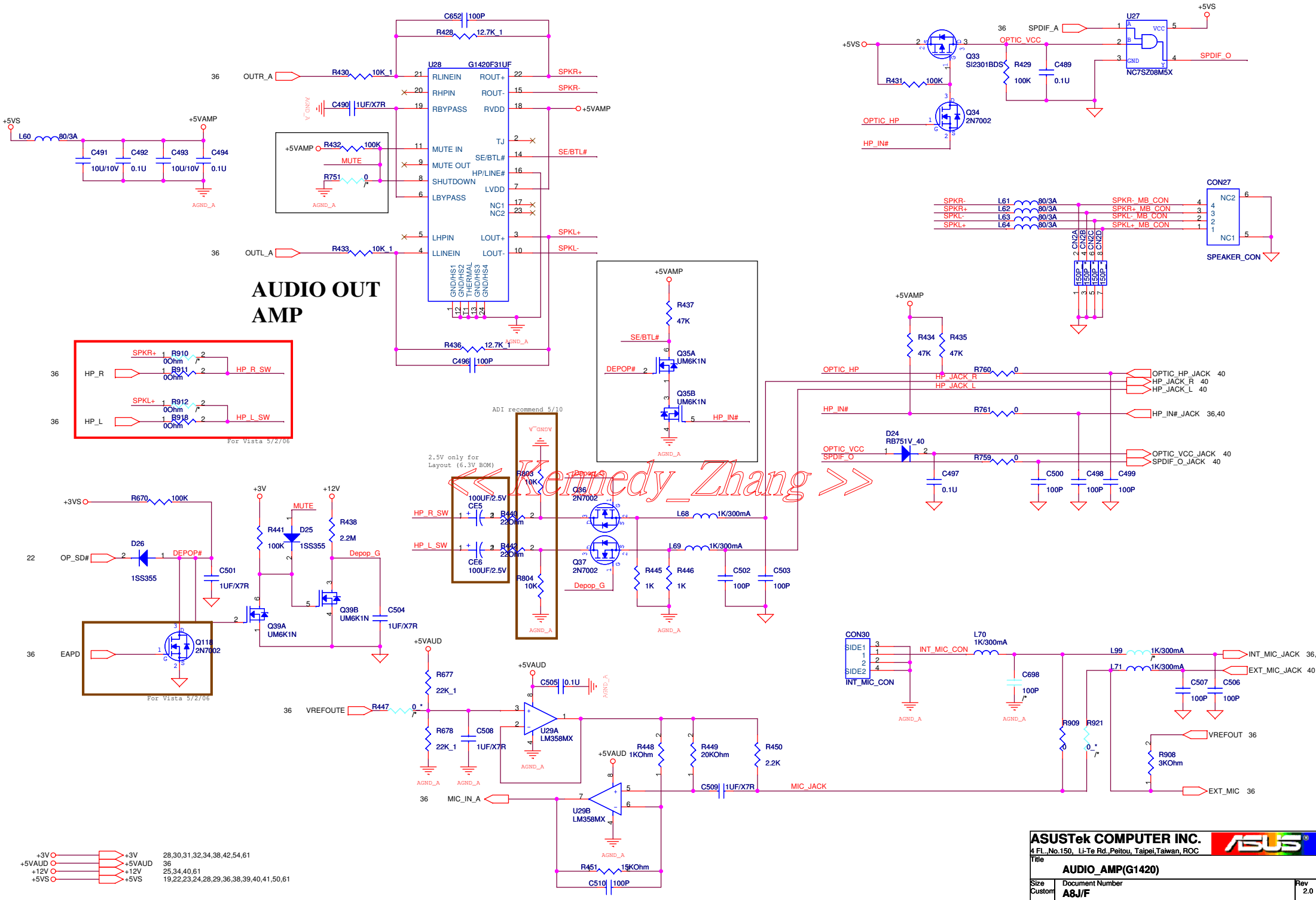
AUDIO OUT AMP



+3V	+3V	28,30,31,32,34,38,42,54,61
+5VAUD	+5VAUD	36
+12V	+12V	25,34,40,61
+5VS	+5VS	19,22,23,24,28,29,36,38,39,40,41,50,61

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4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC

Title: **AUDIO_AMP(G1420)**

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Custom	A8J/F	2.0

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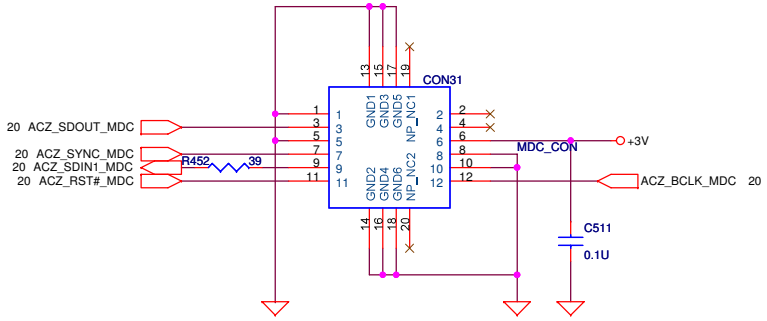
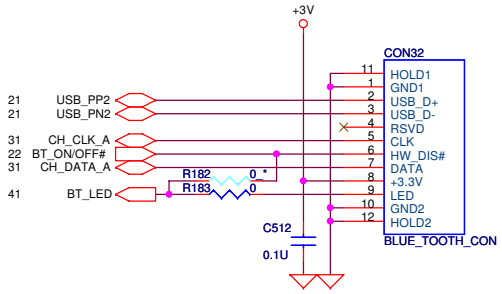
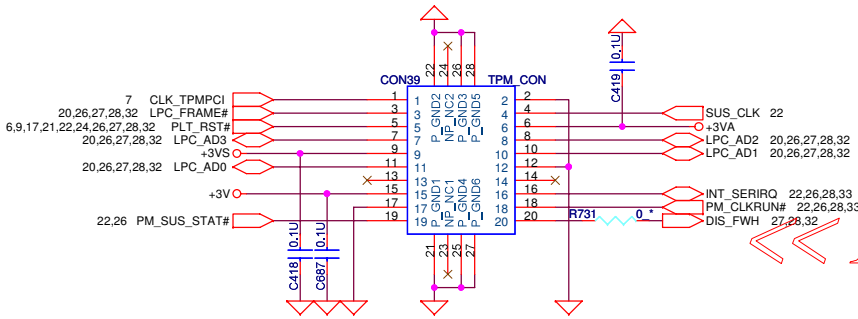


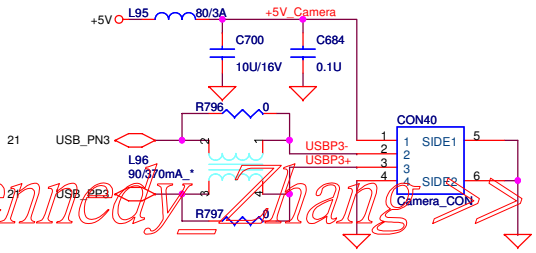
Azalia MDC MODEM CON



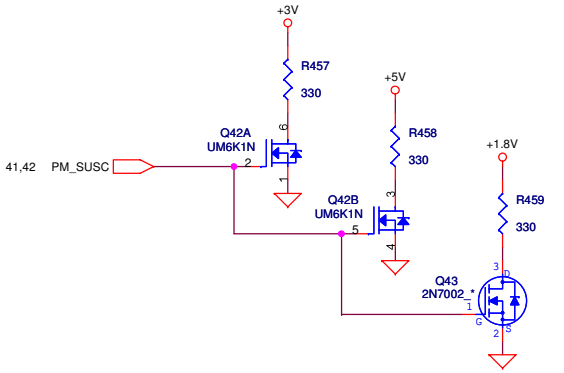
Bluetooth Module CON

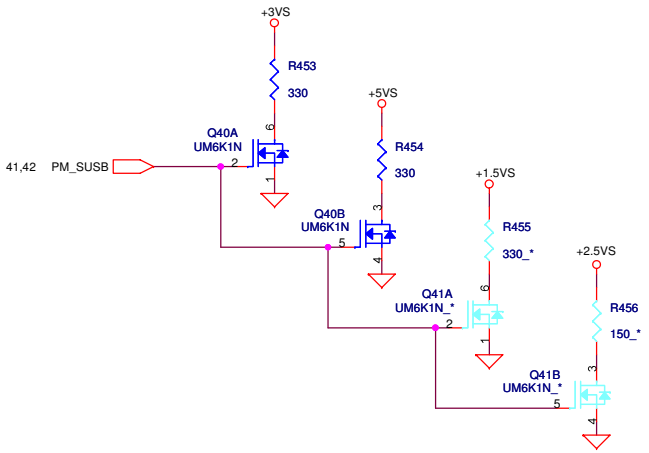


TPM Module CON

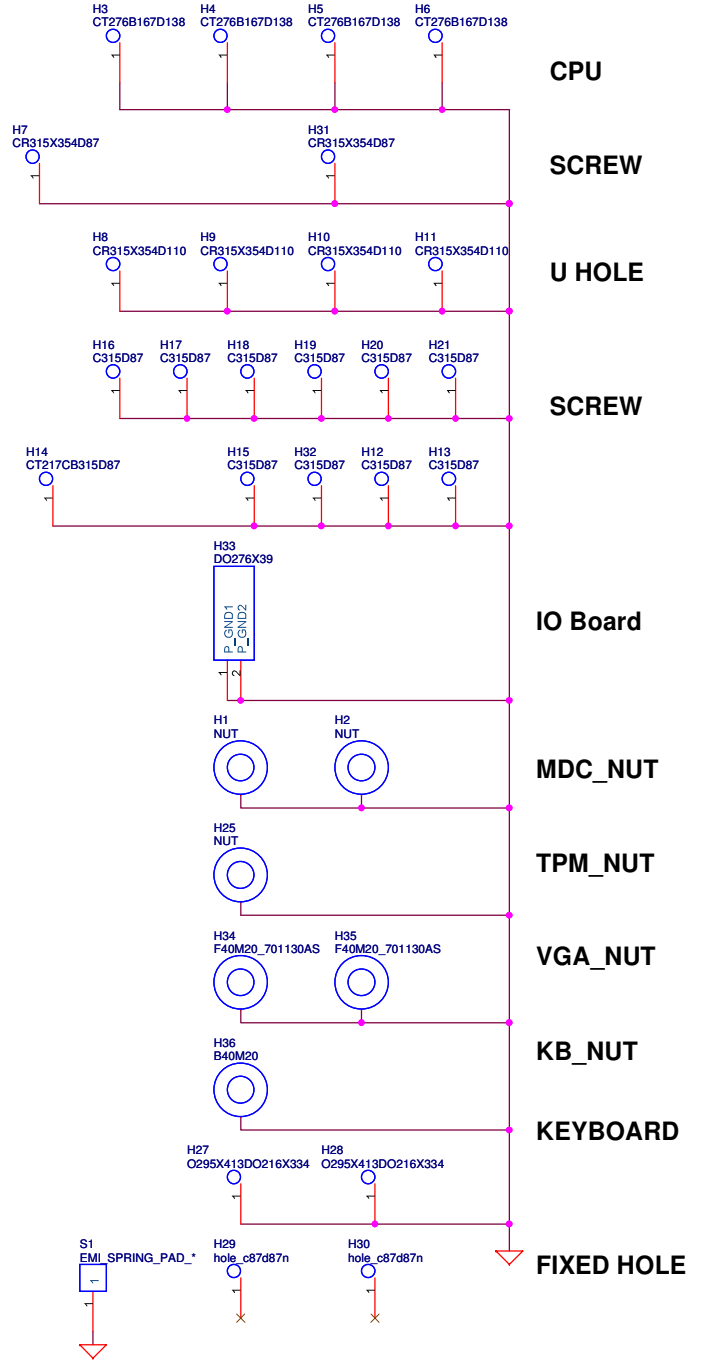


Camera Module CON





+1.5VS	+1.5VS	5,9,11,12,17,23,31,32,52
+1.8V	+1.8V	9,12,14,15,53
+2.5VS	+2.5VS	11,17,19,54
+3V	+3V	28,30,31,32,34,37,42,54,61
+3VS	+3VS	6,7,9,11,13,14,15,17,18,19,22,23,24,26,27,28,29,30,31,32,33,36,37,39,41,50,52,60,61
+5V	+5V	15,17,19,25,28,32,36,40,41,59,61
+5VS	+5VS	19,22,23,24,28,29,36,37,39,40,41,50,61



ASUSTek COMPUTER INC.				
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC				
Title: MDC,B/T,TPM,Camera & DISCHG,HOLE				
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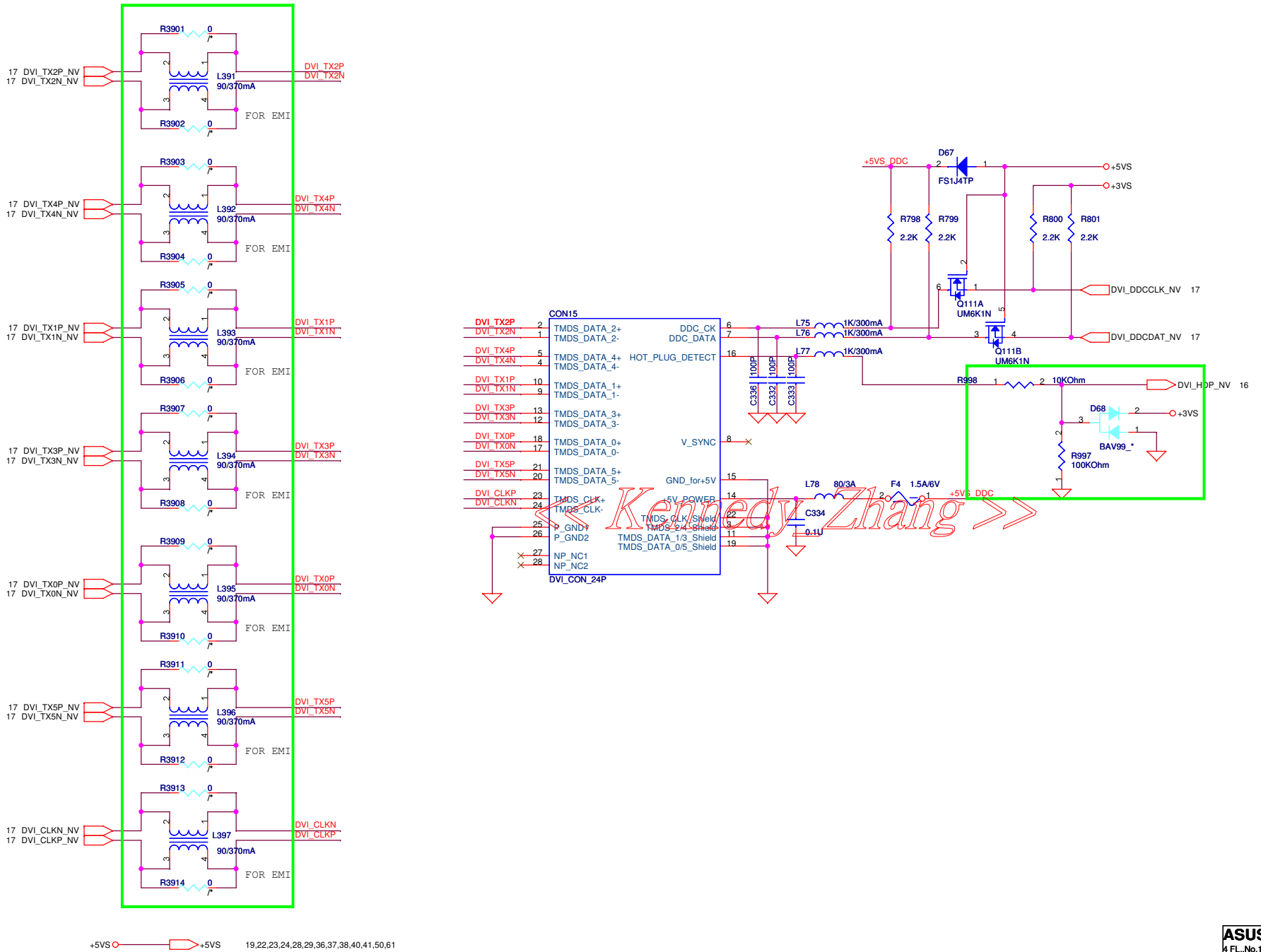
Add DVI Choke 09G092145000
for EMI issue 2006.08.04



ASUSTek COMPUTER INC.		
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC		
Title: DVI CONN		
Size: Custom	Document Number: A8J/F	Rev: 2.0
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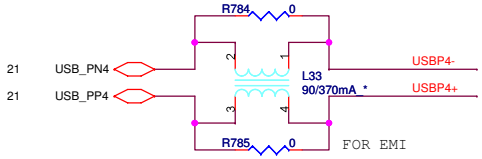
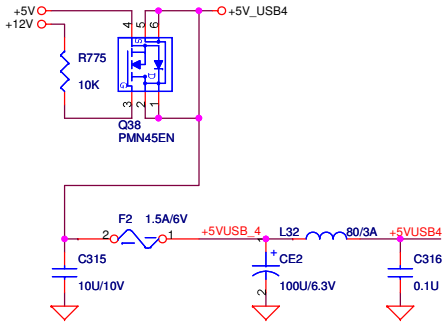
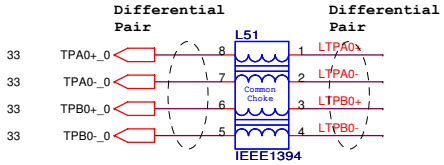
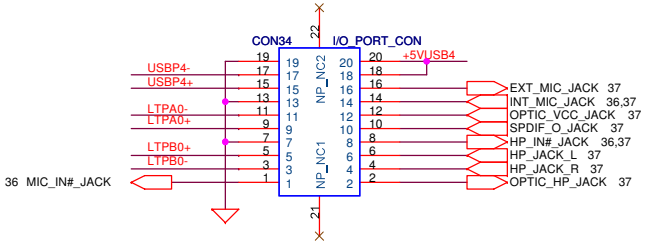
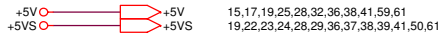


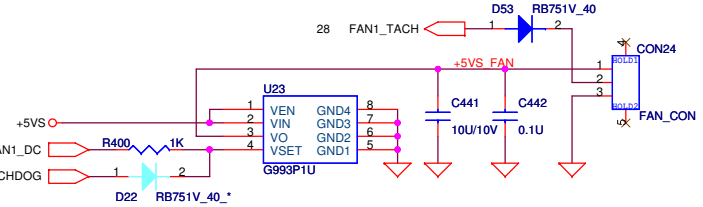




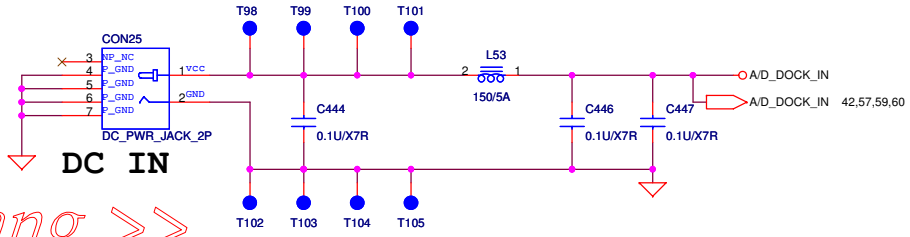


I/O PORT



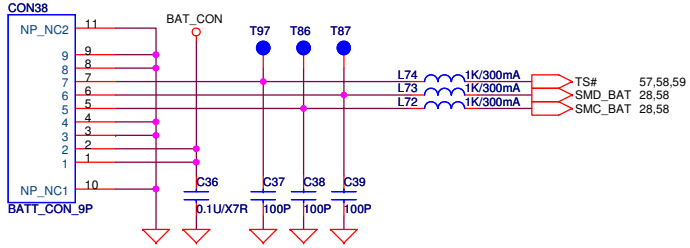


FAN CONTROL



DC IN

ACIN_CONN



BAT_CONN

ASUSTek COMPUTER INC.
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC

Title: FAN_CTRL & ACIN & BAT & I/O PORT

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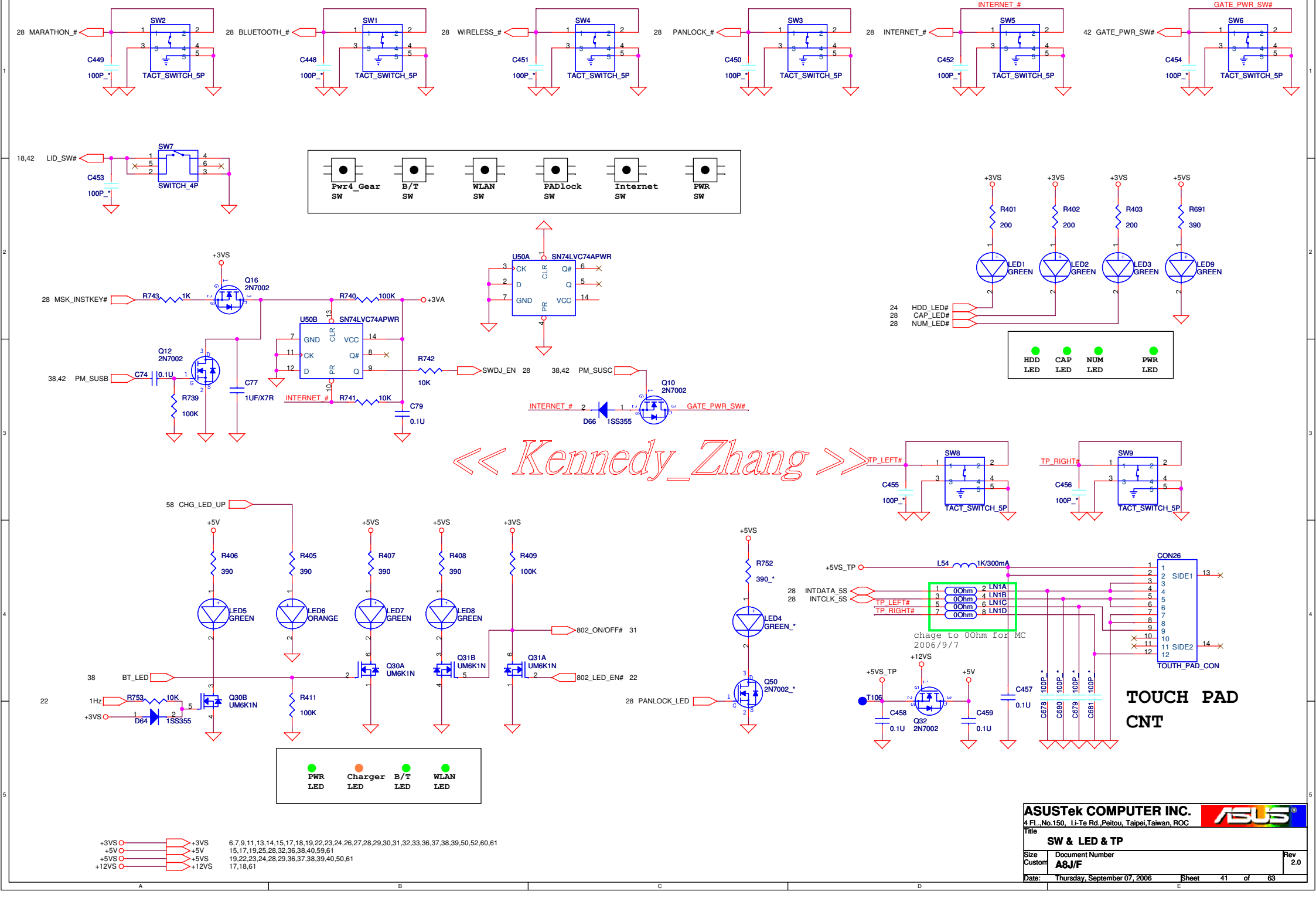
28 MARATHON_#
SW2
C449
100P_*
TACT_SWITCH_5P
28 BLUETOOTH_#
SW1
C448
28 WIRELESS_#
SW4
C451
28 PANLOCK_#
SW3
C450
28 INTERNET_#
INTERNET_#
SW5
C452
42 GATE_PWR_SW#
GATE_PWR_SW#
SW6
C454
18,42 LID_SW#
SW7
C453
SWITCH_4P
Pwr4_Gear SW
B/T SW
WLAN SW
PADlock SW
Internet SW
PWR SW
+3VS
Q16 2N7002
28 MSK_INSTKEY#
R743 1K
R740 100K
+3VA
U50A SN74LVC74APWR
U50B SN74LVC74APWR
Q12 2N7002
38,42 PM_SUSB
C74 0.1U
R739 100K
C77 1UF/X7R
INTERNET_#
R741 10K
R742 10K
C79 0.1U
SWDJ_EN 28
38,42 PM_SUSC
Q10 2N7002
D66 1SS355
GATE_PWR_SW#
+3VS
+3VS
+5VS
R401 200
R402 200
R403 200
R691 390
LED1 GREEN
LED2 GREEN
LED3 GREEN
LED9 GREEN
24 HDD_LED#
28 CAP_LED#
28 NUM_LED#
HDD LED
CAP LED
NUM LED
PWR LED
<< Kennedy_Zhang >>
TP_LEFT#
SW8
C455
100P_*
TACT_SWITCH_5P
TP_RIGHT#
SW9
C456
58 CHG_LED_UP
+5V
R406 390
R405 390
R407 390
R408 390
R409 100K
LED5 GREEN
LED6 ORANGE
LED7 GREEN
LED8 GREEN
802_ON/OFF# 31
802_LED_EN# 22
38 BT_LED
Q30A UM6K1N
Q31B UM6K1N
Q31A UM6K1N
22 1Hz
R753 10K
Q30B UM6K1N
R411 100K
+3VS
D64 1SS355
PWR LED
Charger LED
B/T LED
WLAN LED
R752 390_*
LED4 GREEN_*
28 PANLOCK_LED
Q50 2N7002_*
+5VS_TP
L54 1K/300mA
28 INTDATA_5S
28 INTCLK_5S
TP_LEFT#
TP_RIGHT#
0Ohm
LN1A
LN1B
LN1C
LN1D
chage to 0Ohm for MC
2006/9/7
CON26
SIDE1
SIDE2
TOUTH_PAD_CON
+12VS
T106
C458 0.1U
Q32 2N7002
C459 0.1U
C457 0.1U
C678 100P_*
C680 100P_*
C679 100P_*
C681 100P_*
TOUCH PAD CNT
+3VS +3VS 6,7,9,11,13,14,15,17,18,19,22,23,24,26,27,28,29,30,31,32,33,36,37,38,39,50,52,60,61
+5V +5V 15,17,19,25,28,32,36,38,40,59,61
+5VS +5VS 19,22,23,24,28,29,36,37,38,39,40,50,61
+12VS +12VS 17,18,61
ASUSTek COMPUTER INC.
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC
Title
SW & LED & TP
Size Custom
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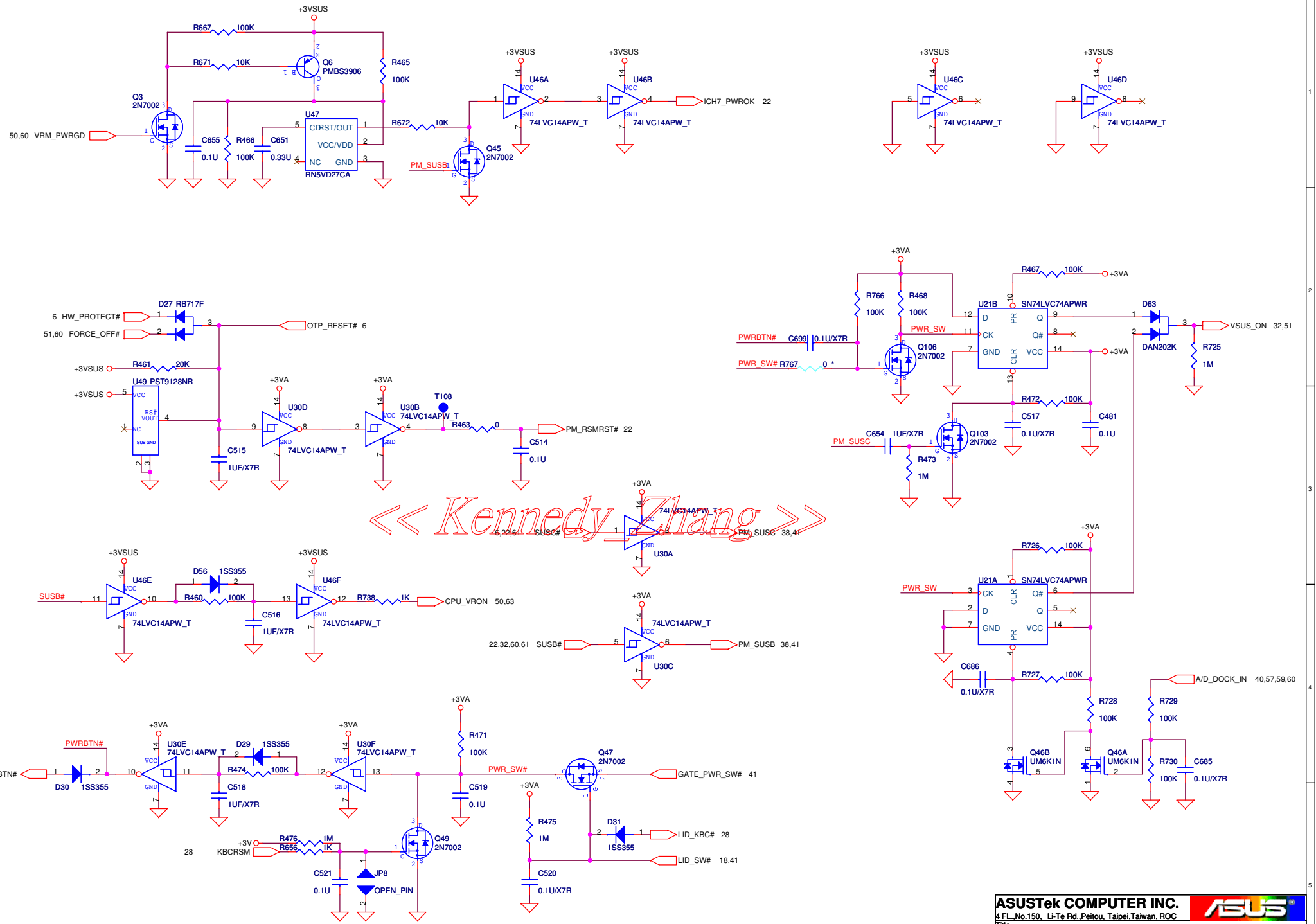

ASUSTek COMPUTER INC.	
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC	
Title	**POWER-ON SEQUENCE**
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Revision History

Power:

System:

<< Kennedy_Zhang >>

ASUSTek COMPUTER INC.
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC

Title: HISTORY		
Size: Custom	Document Number: A8J/F	Rev: 2.0
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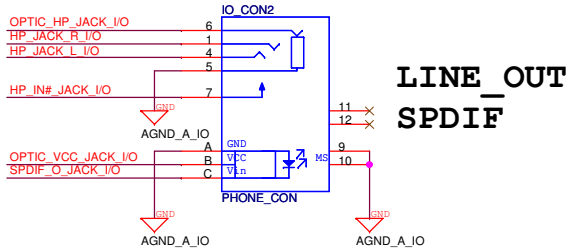
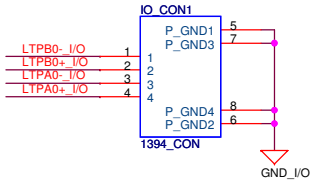
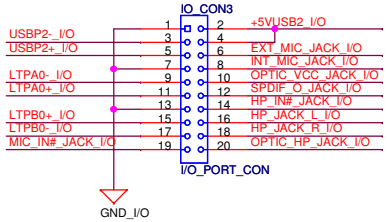
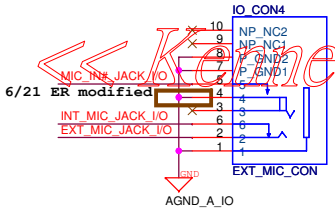


LINE_OUT
SPDIF

1394A

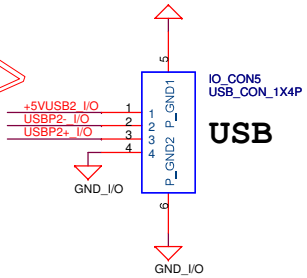




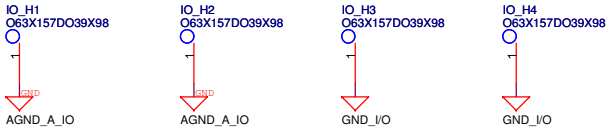


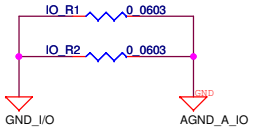
6/21 ER modified

MIC



USB





ASUSTek COMPUTER INC.		
4 FL.,No.150, Li-Te Rd.,Peitou, Taipei,Taiwan, ROC		
Title: I/O PORT		
Size: Custom	Document Number: A8J/F	Rev: 2.0
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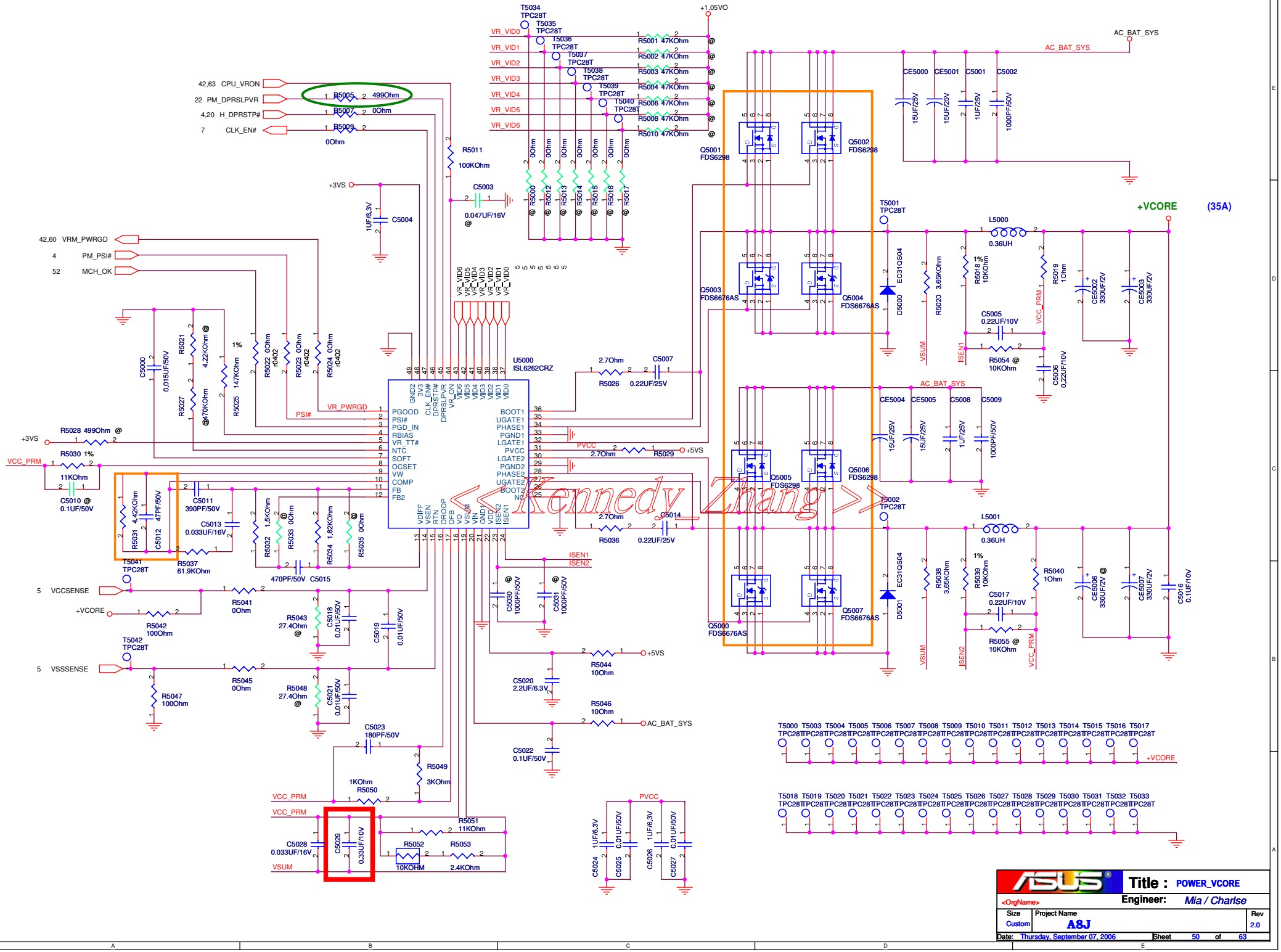
+VCORE (35A)
U5000 ISL6262CRZ
Q5001 FDS6298
Q5002 FDS6298
Q5003 FDS6676AS
Q5004 FDS6676AS
Q5005 FDS6298
Q5006 FDS6298
Q5007 FDS6676AS
Q5000 FDS6676AS
D5000 EC31QS04
D5001 EC31QS04
L5000 0.36UH
L5001 0.36UH
AC_BAT_SYS
+3VS
+5VS
+1.05VO
VCC_PRM
VSUM
ISEN1
ISEN2
PVCC
PSI#
VR_PWRGD
42,63 CPU_VRON
22 PM_DPRSLPVR
4,20 H_DPRSTP#
7 CLK_EN#
42,60 VRM_PWRGD
4 PM_PSI#
52 MCH_OK
5 VCCSENSE
5 VSSSENSE
+VCORE
PGOOD
PSI#
PGD_IN
RBIAS
VR_TT#
NTC
SOFT
OCSET
VW
COMP
FB
FB2
BOOT1
UGATE1
PHASE1
PGND1
LGATE1
PVCC
LGATE2
PGND2
PHASE2
UGATE2
BOOT2
NC
VDIFF
VSEN
RTN
DROOP
DFB
VO
VSUM
VIN
VDD
ISEN2
ISEN1
GND2
3V3
CLK_EN#
DPRSTP#
DPRSLPVR
VR_ON
VID6
VID5
VID4
VID3
VID2
VID1
VID0
R5001 47KOhm
R5002 47KOhm
R5003 47KOhm
R5004 47KOhm
R5006 47KOhm
R5008 47KOhm
R5010 47KOhm
R5011 100KOhm
C5003 0.047UF/16V
C5004 1UF/6.3V
C5000 0.015UF/50V
R5021 4.22KOhm
R5027 470KOhm
R5025 147KOhm
R5022 0Ohm r402
R5023 0Ohm r402
R5024 0Ohm r402
R5026 2.7Ohm
C5007 0.22UF/25V
R5029 2.7Ohm
R5036 2.7Ohm
C5014 0.22UF/25V
R5028 499Ohm
R5030 11KOhm
C5010 0.1UF/50V
R5031 4.42KOhm
C5012 47PF/50V
C5011 390PF/50V
C5013 0.033UF/16V
R5037 61.9KOhm
R5032 1.5KOhm
R5033 0Ohm
R5034 1.82KOhm
R5035 0Ohm
C5015 470PF/50V
R5041 0Ohm
R5042 100Ohm
R5043 27.4Ohm
C5018 0.01UF/50V
C5019 0.01UF/50V
R5044 10Ohm
C5020 2.2UF/6.3V
R5046 10Ohm
C5022 0.1UF/50V
R5045 0Ohm
R5047 100Ohm
R5048 27.4Ohm
C5021 0.01UF/50V
C5023 180PF/50V
R5049 3KOhm
R5050 1KOhm
C5028 0.033UF/16V
C5029 0.33UF/10V
R5051 11KOhm
R5052 10KOHM
R5053 2.4KOhm
C5030 1000PF/50V
C5031 1000PF/50V
C5024 1UF/6.3V
C5025 0.01UF/50V
C5026 1UF/6.3V
C5027 0.01UF/50V
R5000 0Ohm
R5012 0Ohm
R5013 0Ohm
R5014 0Ohm
R5015 0Ohm
R5016 0Ohm
R5017 0Ohm
R5020 3.65KOhm
R5018 10KOhm
R5019 1Ohm
C5005 0.22UF/10V
R5054 10KOhm
C5006 0.22UF/10V
R5038 3.65KOhm
R5039 10KOhm
R5040 1Ohm
C5017 0.22UF/10V
R5055 10KOhm
CE5000 15UF/25V
CE5001 15UF/25V
C5001 1UF/25V
C5002 1000PF/50V
CE5004 15UF/25V
CE5005 15UF/25V
C5008 1UF/25V
C5009 1000PF/50V
CE5002 330UF/2V
CE5003 330UF/2V
CE5006 330UF/2V
CE5007 330UF/2V
C5016 0.1UF/10V
T5000 T5003 T5004 T5005 T5006 T5007 T5008 T5009 T5010 T5011 T5012 T5013 T5014 T5015 T5016 T5017 TPC28T
T5018 T5019 T5020 T5021 T5022 T5023 T5024 T5025 T5026 T5027 T5028 T5029 T5030 T5031 T5032 T5033 TPC28T
<Kennedy Zhang>
Title : POWER_VCORE
Engineer: Mia / Charlse
<OrgName>
Size Custom
Project Name A&J
Rev 2.0
Date: Thursday, September 07, 2006
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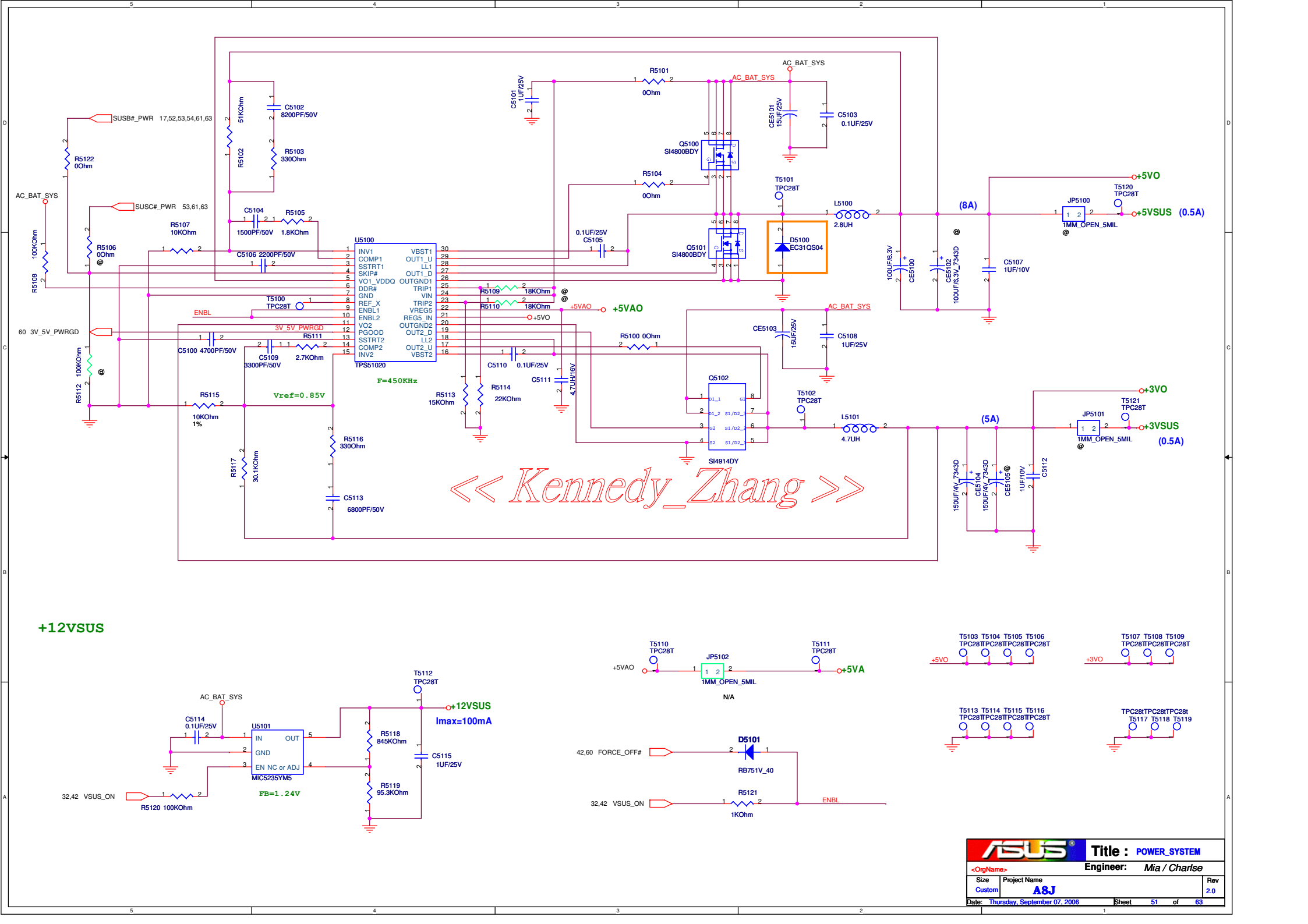
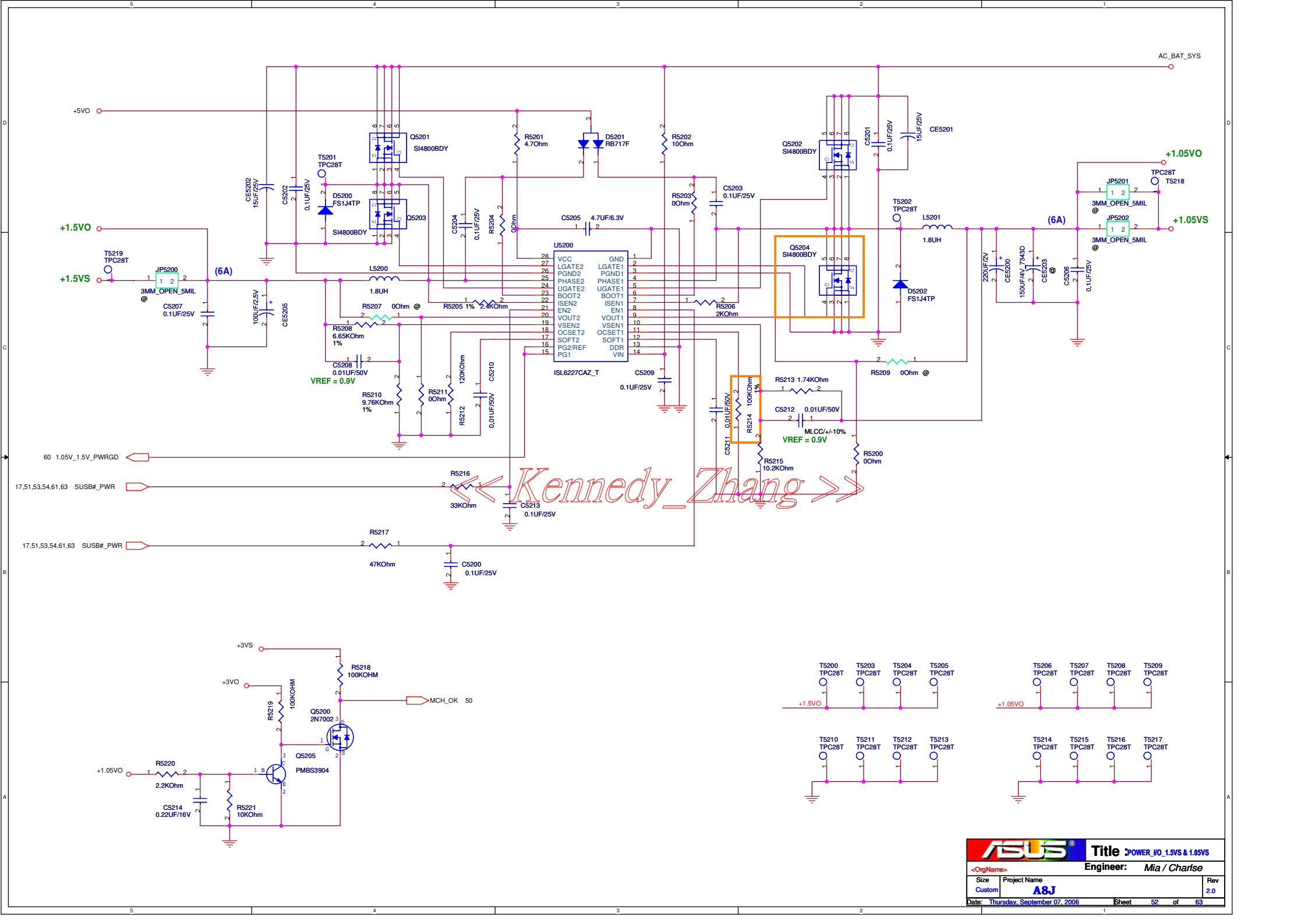


+12VSUS

ASUS	Title : POWER_SYSTEM	
<OrgName>	Engineer: Mia / Charlse	
Size: Custom	Project Name: A8J	Rev: 2.0
Date: Thursday, September 07, 2006	Sheet 51 of 63	


AC_BAT_SYS
+5VO
+1.5VO
+1.5VS
+1.05VO
+1.05VS
+3VS
+3VO
U5200
ISL6227CAZ_T
VCC
LGATE2
PGND2
PHASE2
UGATE2
BOOT2
ISEN2
EN2
VOUT2
VSEN2
OCSET2
SOFT2
PG2/REF
PG1
GND
LGATE1
PGND1
PHASE1
UGATE1
BOOT1
ISEN1
EN1
VOUT1
VSEN1
OCSET1
SOFT1
DDR
VIN
Q5201 SI4800BDY
Q5202 SI4800BDY
Q5203 SI4800BDY
Q5204 SI4800BDY
D5200 FS1J4TP
D5201 RB717F
D5202 FS1J4TP
Q5200 2N7002
Q5205 PMBS3904
L5200 1.8UH
L5201 1.8UH
JP5200 3MM_OPEN_5MIL @
JP5201 3MM_OPEN_5MIL @
JP5202 3MM_OPEN_5MIL @
(6A)
VREF = 0.9V
MLCC/+/-10%
60 1.05V_1.5V_PWRGD
17,51,53,54,61,63 SUSB#_PWR
MCH_OK 50
<Kennedy_Zhang>>
Title : POWER_I/O_1.5VS & 1.05VS
Engineer: Mia / Charlse
<OrgName>
Size Custom
Project Name A&J
Rev 2.0
Date: Thursday, September 07, 2006
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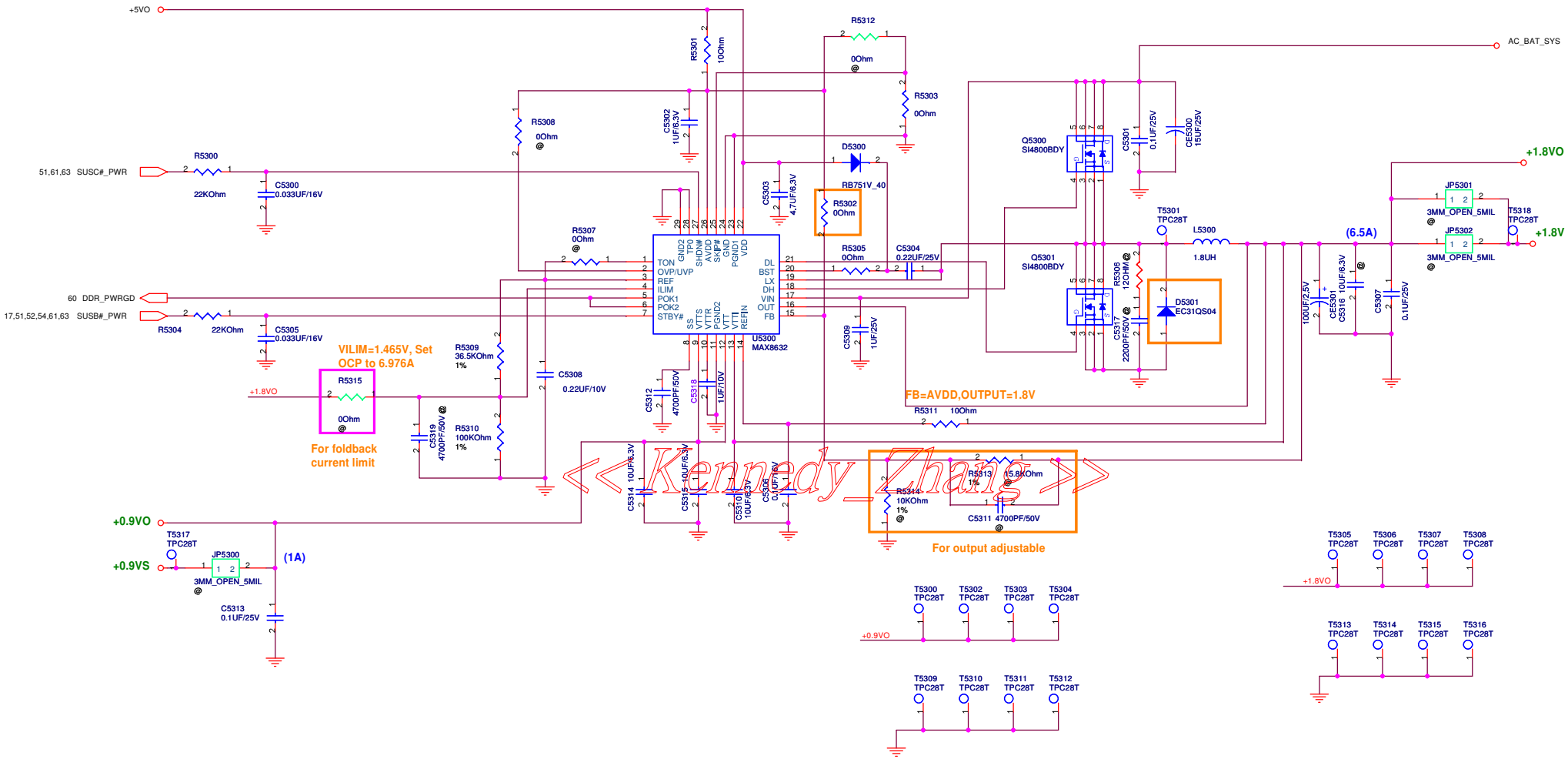
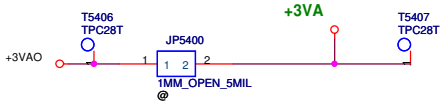
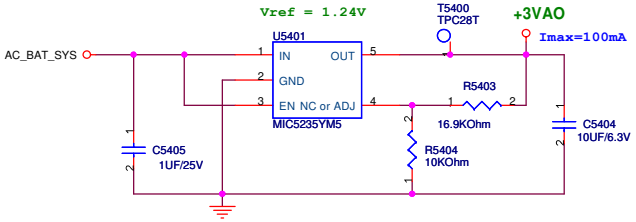


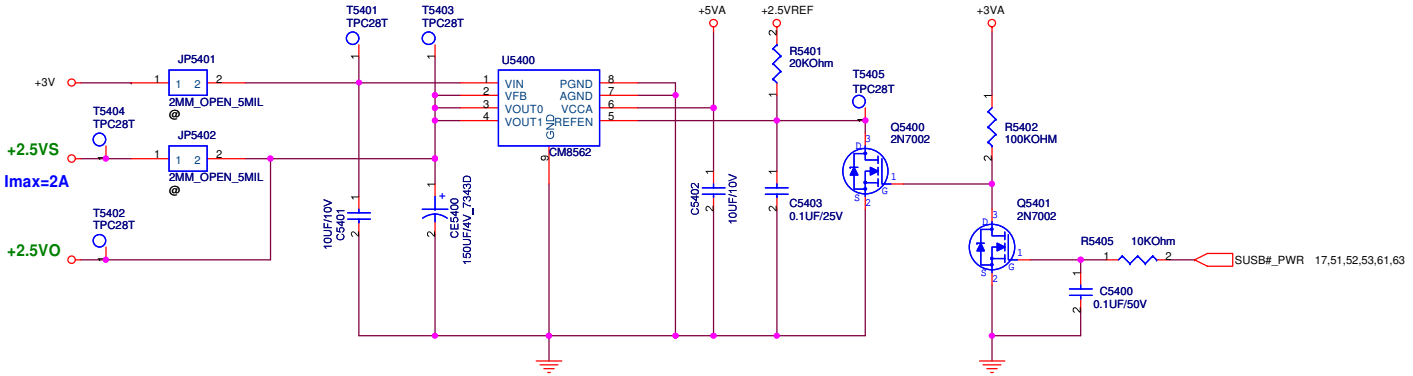
ASUS	Title : POWER_I/O_DDR & VTT		
<OrgName>	Engineer: Mia / Charlse		
Size: Custom	Project Name: A8J	Rev: 2.0	
Date: Thursday, September 07, 2006	Sheet 53 of 63		

+3VAO



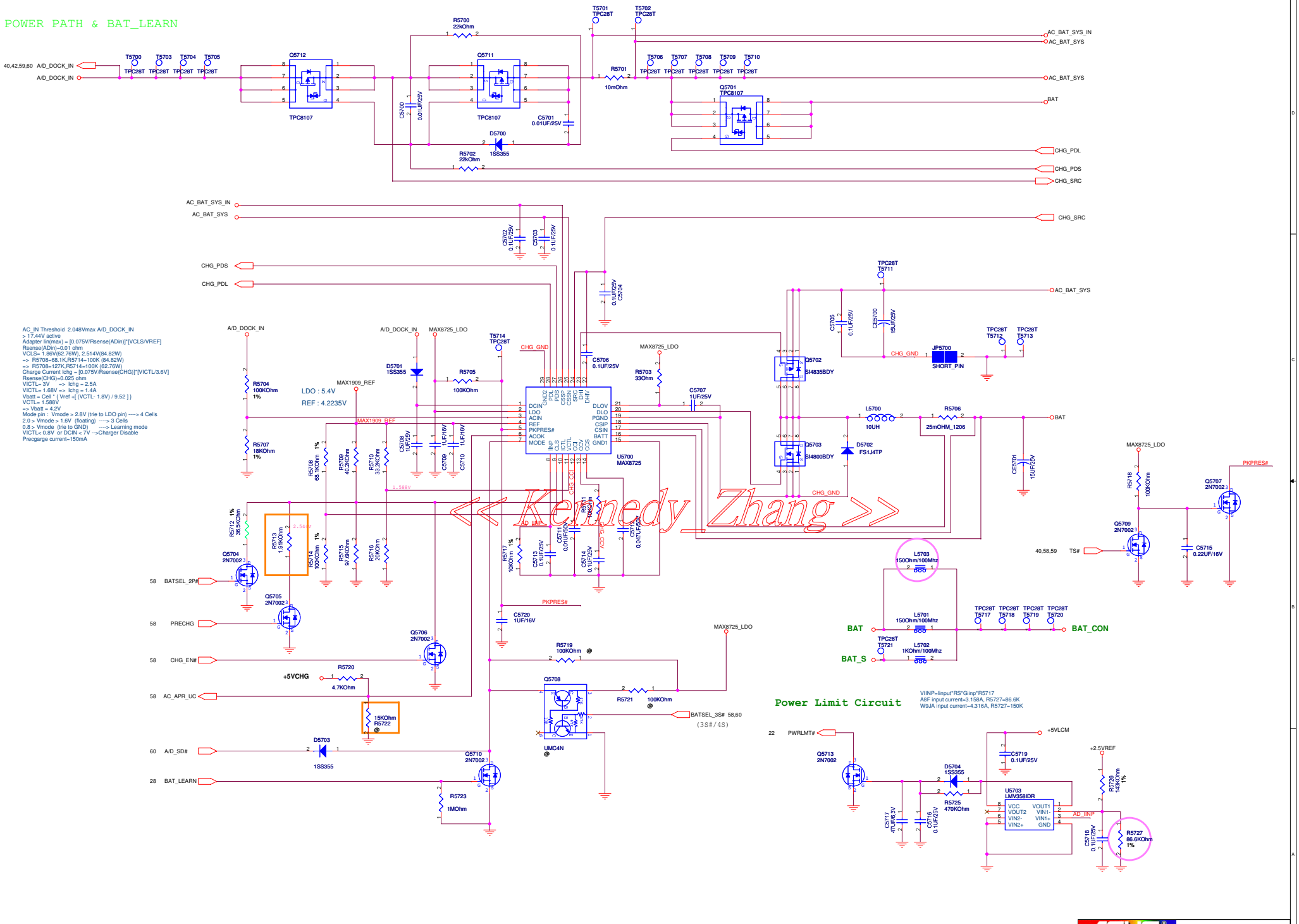


+2.5VS



ASUS	Title : POWER_I/O_+3VA & +2.5V	
<OrgName>	Engineer: Mia / Charlse	
Size: Custom	Project Name: A&J	Rev: 2.0
Date: Thursday, September 07, 2006	Sheet 54 of 63	

POWER PATH & BAT_LEARN



ASUS	Title : POWER_VGA_RAM			
<OrgName>	Engineer: Mia / Charlse			
Size: Custom	Project Name: A8J		Rev: 2.0	
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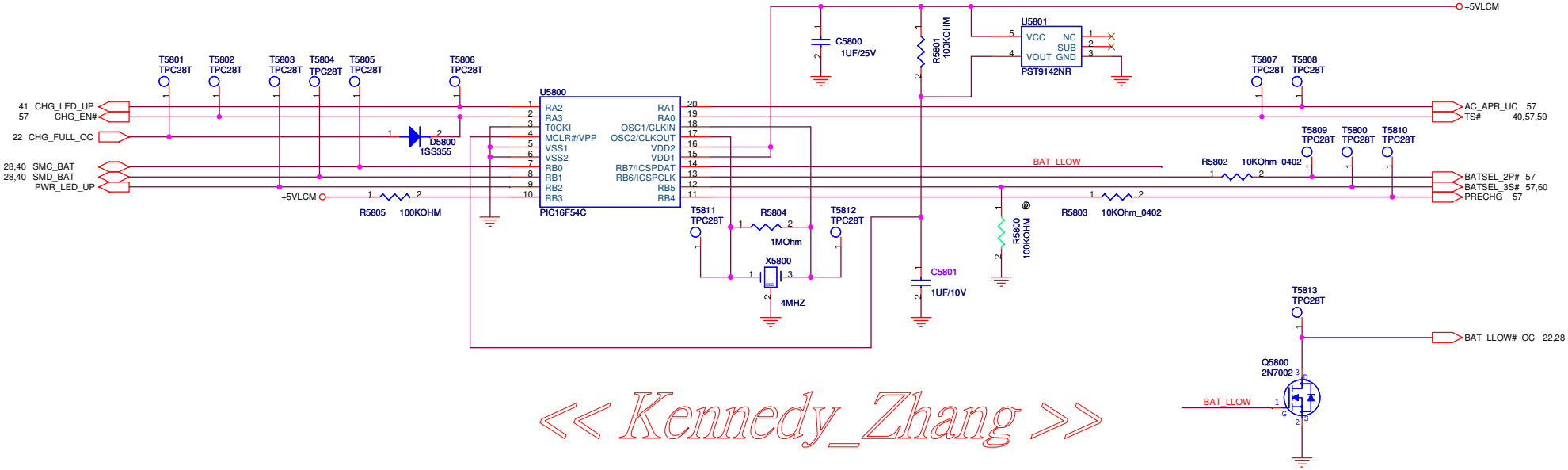
PIC16F54C



<< Kennedy_Zhang >>

ASUS	Title : POWER_PIC	
<OrgName>	Engineer: Mia / Charlse	
Size: Custom	Project Name: A&J	Rev: 2.0
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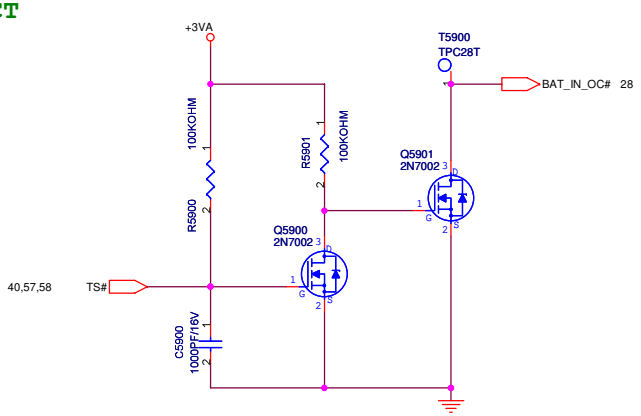
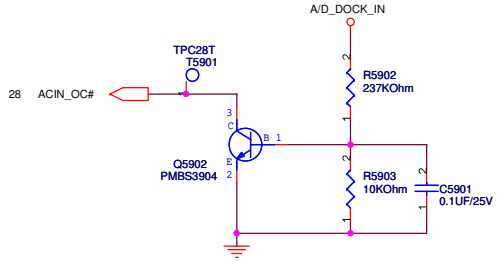
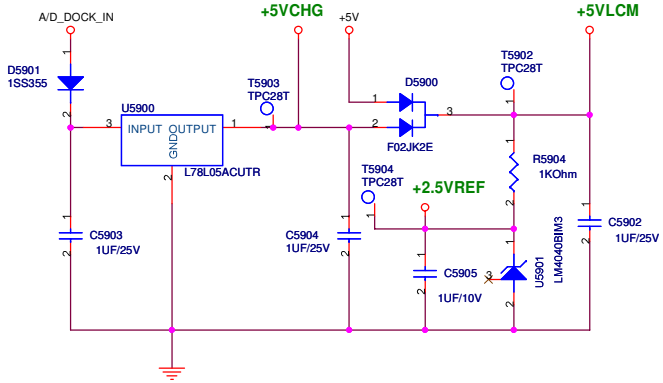
BATTERY IN DETECT



ADAPTER IN DETECT



+5VLCM, +5VCHG & +2.5VREF



ASUS	Title : POWER_DETECT	
<OrgName>	Engineer: Mia / Charlse	
Size: Custom	Project Name: A8J	Rev: 2.0
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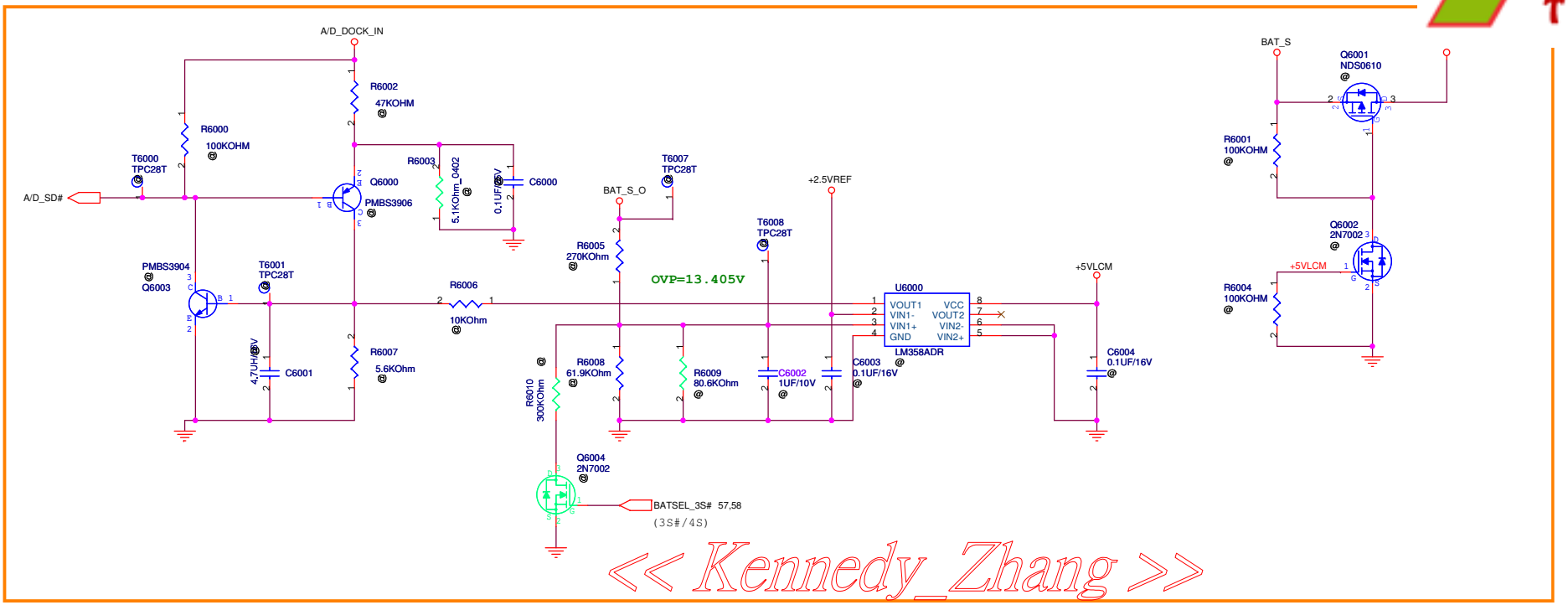
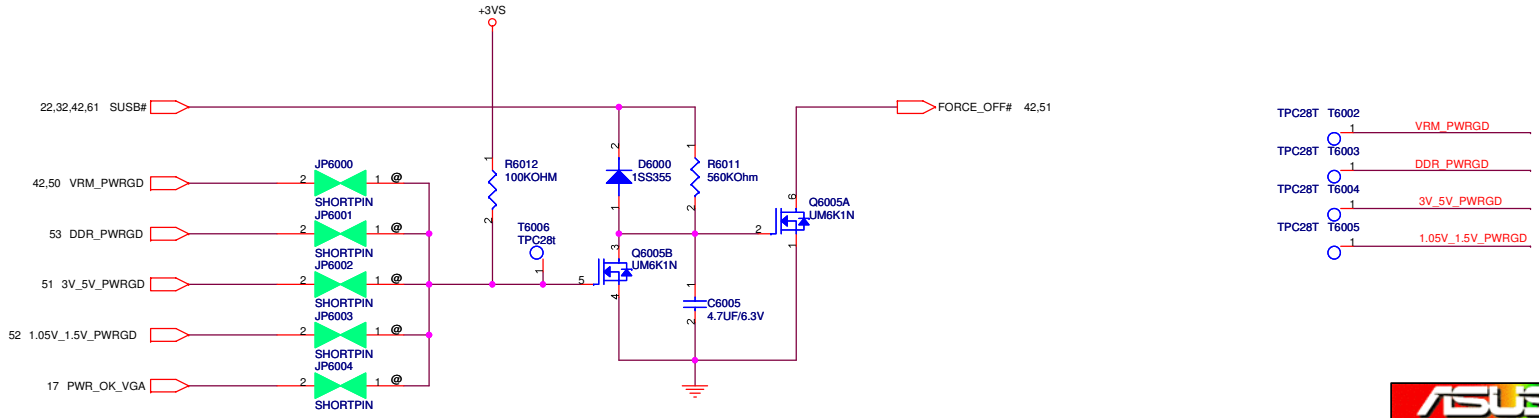
BATTERY A/D_SD# (OVP)



POWER GOOD DETECTER



ASUS	Title : POWER_PROTECT	
<OrgName>	Engineer: Mia / Charlse	
Size: Custom	Project Name: A&J	Rev: 2.0
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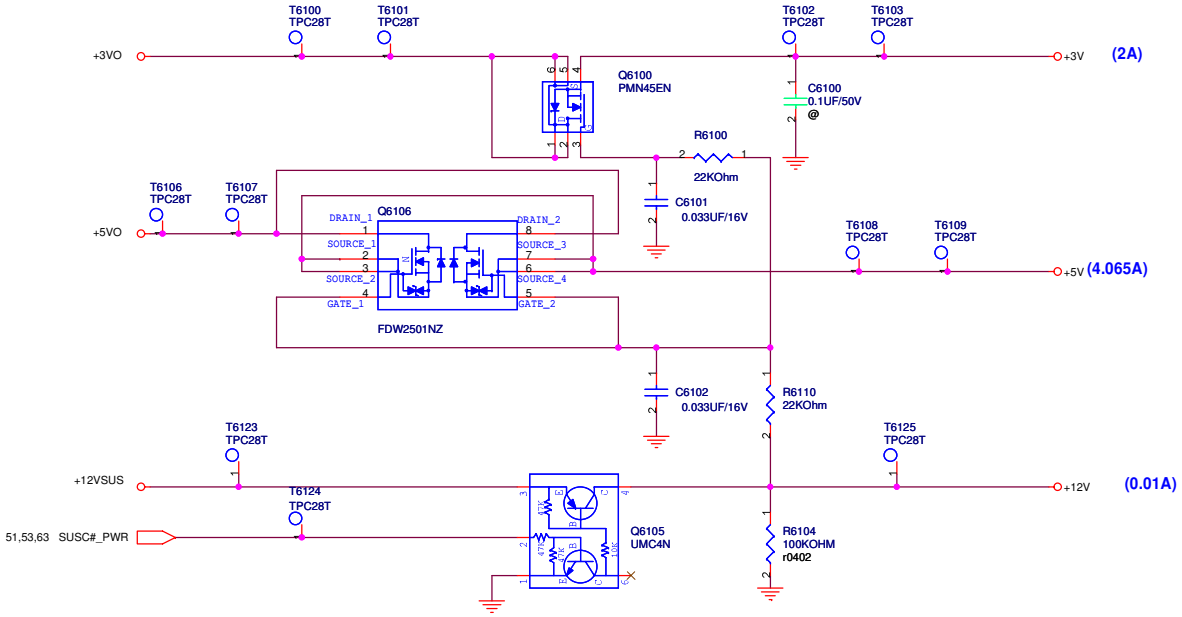
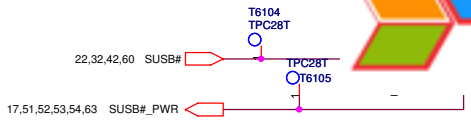
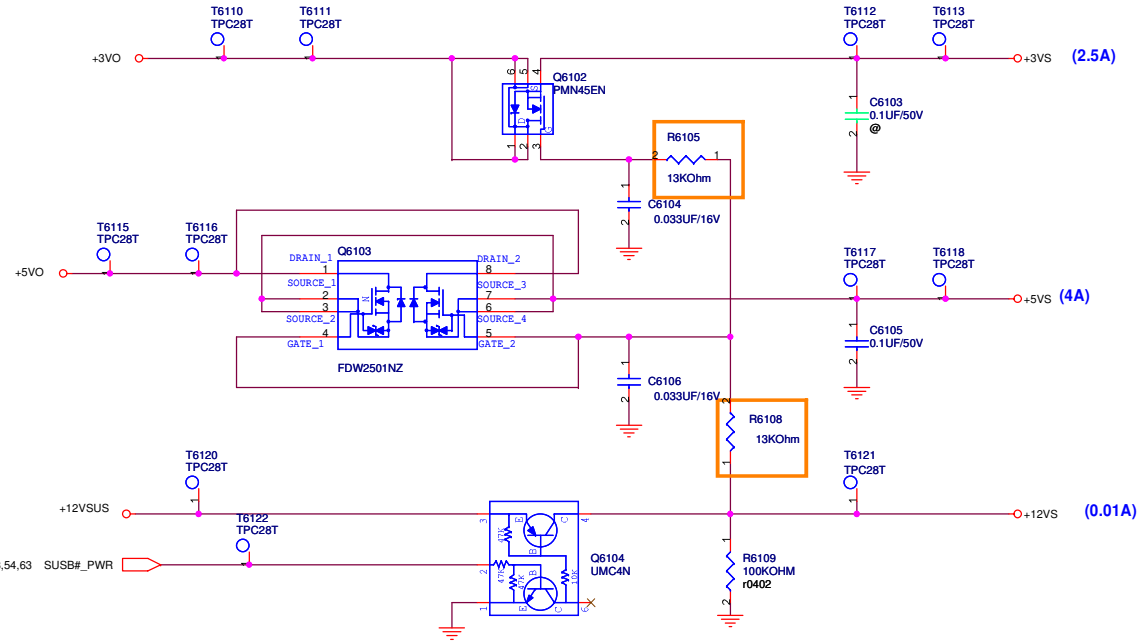
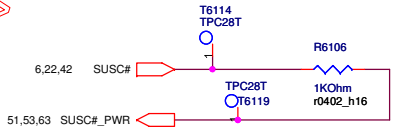
SUSC#_PWR POWER

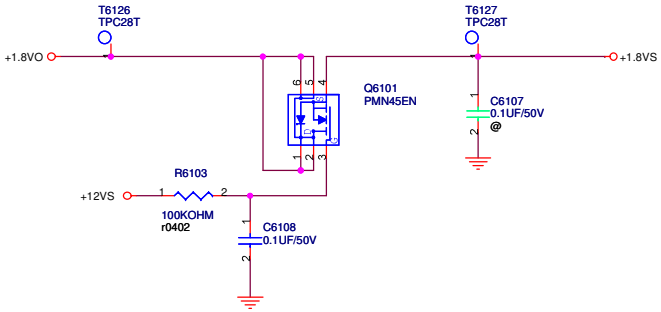




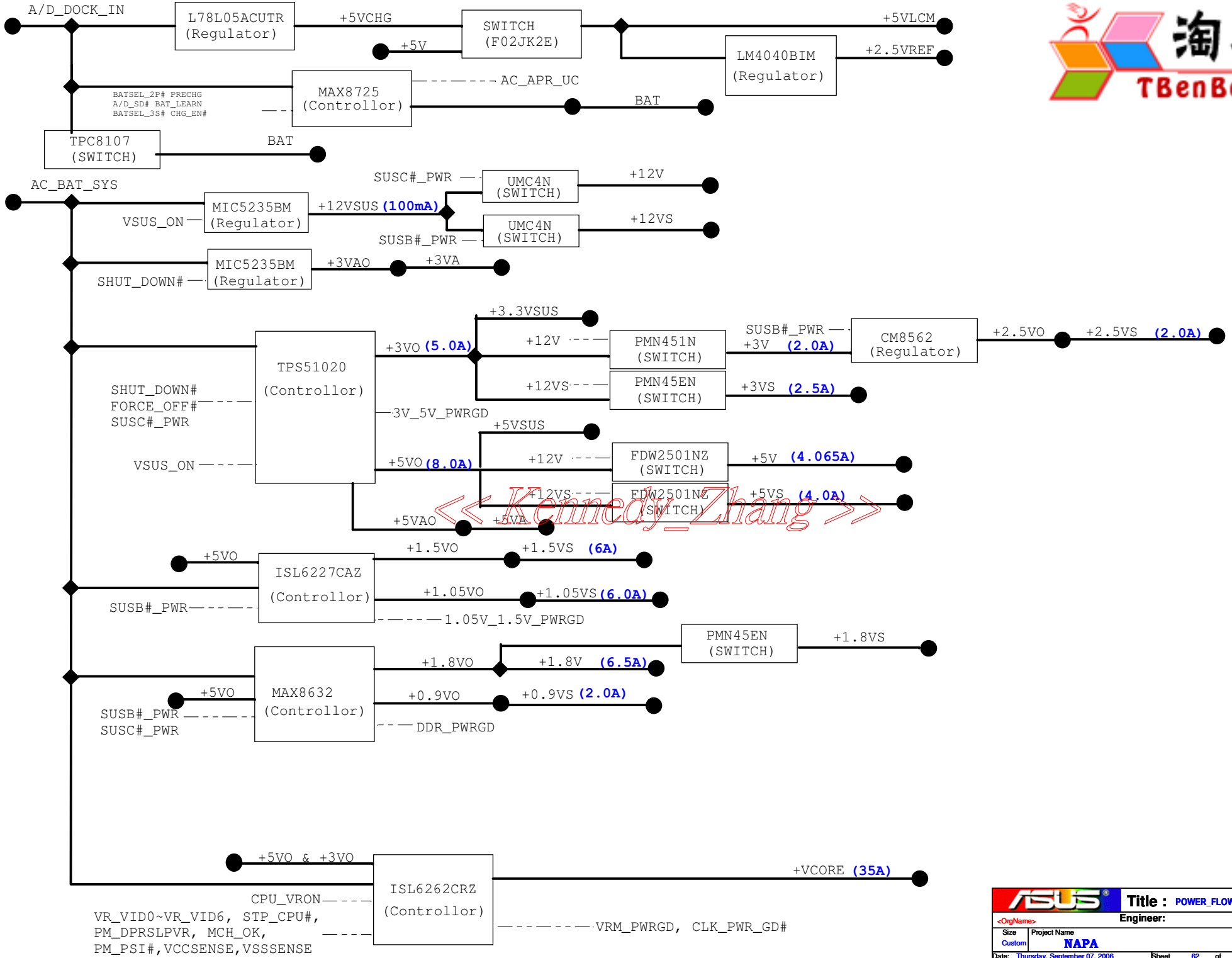
SUSB#_PWR POWER







ASUS	Title : POWER_LOAD SWITCH	
<OrgName>	Engineer: Mia / Charlse	
Size: Custom	Project Name: A8J	Rev: 2.0
Date: Thursday, September 07, 2006	Sheet 61 of 63	



Title : POWER_FLOWCHART
<OrgName>
Engineer:
Size: Custom
Project Name: NAPA
Rev: 2.0
Date: Thursday, September 07, 2006
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AC_BAT_SYS → AC_BAT_SYS 17,18,50,51,52,53,54,57

+3VA → +3VA 20,38,41,42,54,59

+5VA → +5VA 6,51,54

+5VO → +5VO 51,52,53,61

+3VO → +3VO 51,52,61

+3V → +3V 28,30,31,32,34,37,38,42,54,61

+3VS → +3VS 6,7,9,11,13,14,15,17,18,19,22,23,24,26,27,28,29,30,31,32,33,36,37,38,39,41,50,52,60,61

+12VSUS → +12VSUS 51,61

+12V → +12V 25,34,37,40,61

+12VS → +12VS 17,18,41,61

+5V → +5V 15,17,19,25,28,32,36,38,40,41,59,61

+5VS → +5VS 19,22,23,24,28,29,36,37,38,39,40,41,50,61

+2.5VO → +2.5VO 54

+2.5VS → +2.5VS 11,17,19,38,54

+1.8VO → +1.8VO 53,61

+1.8V → +1.8V 9,12,14,15,38,53

+1.8VS → +1.8VS 17,61

+0.9VS → +0.9VS 16,17,53

BAT → BAT 57

+5VCHG → +5VCHG 57,59

+5VLCM → +5VLCM 28,57,58,59,60

+2.5VREF → +2.5VREF 54,57,59,60

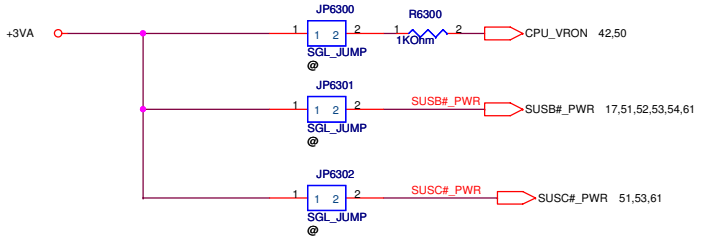
+VCORE → +VCORE 5,6,50

+VGA_VCORE → +VGA_VCORE

+VRAM → +VRAM

+1.2VSP → +1.2VSP

FOR POWER TEST



ASUS	Title : POWER_SIGNAL	
<OrgName>	Engineer:	
Size: Custom	Project Name: NAPA	Rev: 2.0
Date: Thursday, September 07, 2006	Sheet 63 of 63	