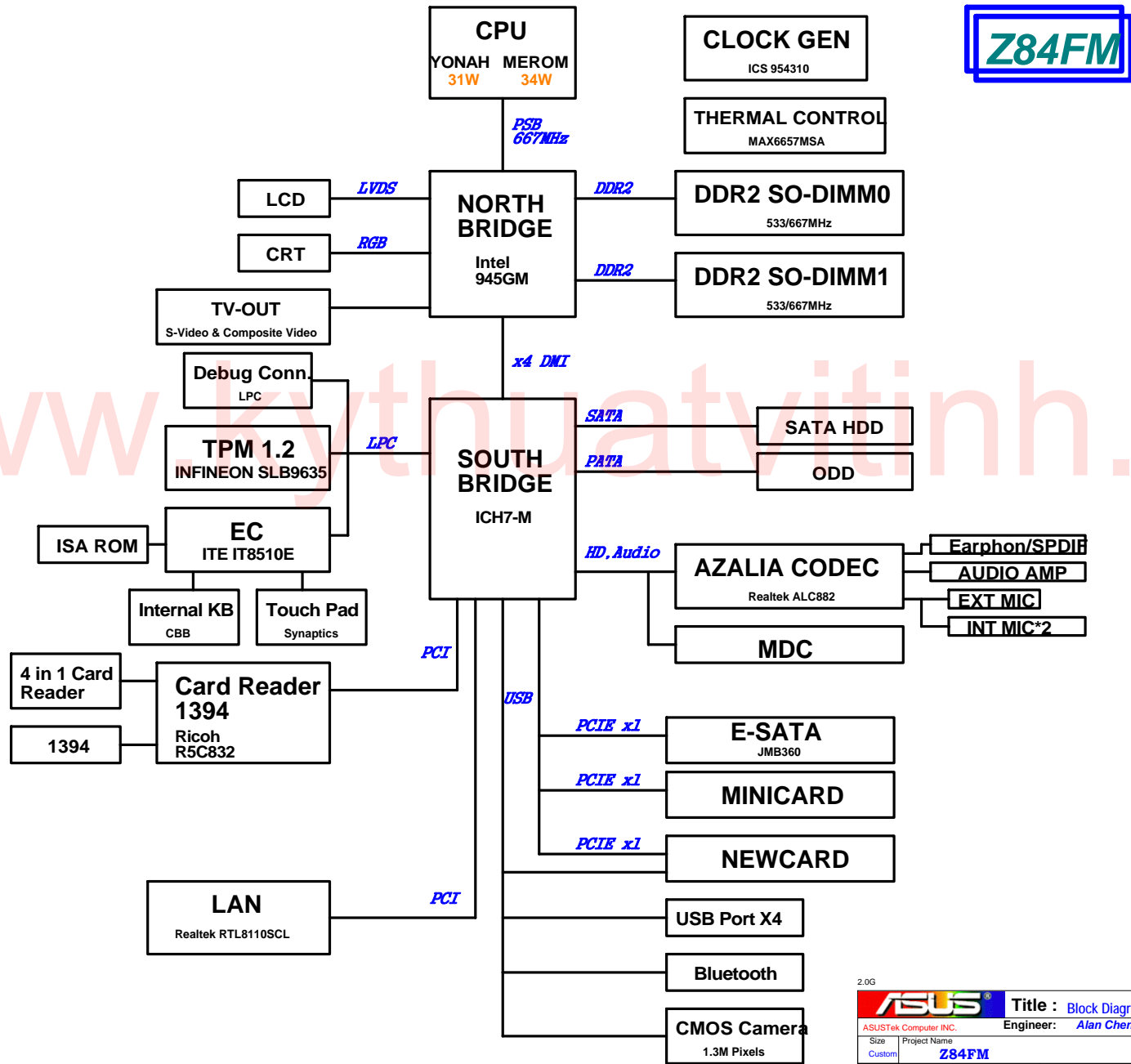


- 01_Block Diagram
- 02_System Setting
- 03_CPU-YONAH(HOST)
- 04_CPU-YONAH(PWR)
- 05_NB-945GM(HOST)
- 06_NB-945GM(DMI & CFG)
- 07_NB-945GM(GRAPHIC)
- 08_NB-945GM(DDR2)
- 09_NB-945GM(PWR)
- 10_NB-945GM(PWR2)
- 11_NB-945GM(GND)
- 12_SB-ICH7M(1)
- 13_SB-ICH7M(2)
- 14_SB-ICH7M(3)
- 15_SB-ICH7M(PWR)
- 16_DDR2 SO-DIMM0
- 17_DDR2 SO-DIMM1
- 18_DDR2 TERMINATION
- 19_CRT
- 20_LVDS & INVERTER CONNECTOR
- 21_TV OUT CONN
- 22_THER SENSOR & FAN
- 23_CLOCK GEN-ICS954310
- 24_SWITCH
- 25_DISCHARGE
- 26_LAN-RTL8110SCL
- 27_MDC&RJ45&RJ11
- 28_MINI CARD
- 29_CARD1394-R5C832(1)
- 30_CARD1394-R5C832(2)
- 31_4 in 1 CARD READER
- 32_NEWCARD
- 33_CODEC-ALC882
- 34_AUDIO AMP & JCAK
- 35_EC-IT8510E
- 36_Touch Pad & KB
- 37_USB CONN
- 38_ISA ROM
- 39_LED
- 40_DC & BAT IN
- 41_Debug CONN.
- 42_SATA-HDD & ODD & E-SATA
- 43_SREW HOLE
- 44_TPM
- 45_BT
- 46_POWER_FLOWCHART
- 47_POWER_CHARGER
- 48_POWER_SYSTEM_+3VO & +5VO
- 49_POWER_VCORE
- 50_POWER_I/O_DDR & VTT
- 51_POWER_I/O_1.5VS & 1.15VS
- 52_POWER_I/O_+3VAO & +2.5VS
- 53_POWER_LOAD SWITCH
- 54_POWER_GOOD_DETECTOR
- 55_POWER_SIGNAL
- 56_History
- 57_Power Sequence



EC GPIO SETTING

Pin	Pin Name	Signal Name	Type
32	PWM0/GPA0	BL_PWM_DA	O
33	PWM1/GPA1	FAN_PWM	O
36	PWM2/GPA2	CLK_PWRSERVE#	O
37	PWM3/GPA3	/	
38	PWM4/GPA4	CHG_LED_UP#	O
39	PWM5/GPA5	PWR_LED_UP#	O
40	PWM6/GPA6	/	
43	PWM7/GPA7	LCD_BACKOFF#	O
153	RXD/GPB0	NUM_LED	O
154	TXD/GPB1	CAP_LED	O
162	GPB2	SCRLED	O
163	SMCLK0/GPB3	SMB0_CLK	I/O
164	SMDAT0/GPB4	SMB0_DAT	I/O
5	GA20/GPB5	A20GATE	O
6	KBRST#/GPB6	RC_IN#	O
165	GPB7	/	
47	CLKOUT/GPC0	/	
169	SMCLK1/GPC1	SMB1_CLK	I/O
170	SMDAT1/GPC2	SMB1_DAT	I/O
171	GPC3	Mail_LED	O
172	TMR10/WUI2/GPC4	AC_OK#	I
175	GPC5	OP_SD#	O
176	TMR11/WUI3/GPC6	BAT_IN_OC#	I
1	CK32KOUT/GPC7	/	
26	R11#/WUI0/GPD0	SUSB#	I
29	R2#/WUI1/GPD1	SUSC#	I
30	LPCRST#/WUI4/GPD2	PLT_RST#	I
31	ECSC#GPD3	EXT_SC#	O
41	GPD4	/	
42	GINT/GPD5	/	
62	TACH0/GPD6	FAN0_TACH	I
63	TACH1/GPD7	/	
87	ADC4/GPE0	EMAIL_SW#	I
88	ADC5/GPE1	INTERNET#	I
89	ADC6/GPE2	PWR4G_SW#	I
90	ADC7/GPE3	DISTP_SW#	I
2	PWRSW/GPE4	PWR_SW#	I
44	WUI5/GPE5	/	
24	LPCPD#/WUI6/GPE6	LID_EC#	I
25	CLKRUN#/WUI7/GPET	/	
110	PS2CLK0/GPF0	/	
111	PS2DAT0/GPF1	/	
114	PS2CLK1/GPF2	/	I
115	PS2DAT1/GPF3	/	I
116	PS2CLK2/GPF4	TP_CLK	I/O
117	PS2DAT2/GPF5	TP_DAT	I/O
118	PS2CLK3/GPF6	/	
119	PS2DAT3/GPF7	/	
113	FA16/GPG0	FA16	O
112	FA17/GPG1	FA17	O
104	FA18/GPG2	FA18	O
103	FA19/GPG3	/	
3	FA20/GPG4	THRM_CPU#	I
4	FA21/GPG5	/	
27	LPC80HL/GPG6	PMTHERM#	O
28	LPC80LL/GPG7	AC_APR_UC#	I

Pin	Pin Name	Signal Name	Type
48	GPH0	VSUS_ON	O
54	GPH1	VSUS_GD#	I
55	GPH2	CPUPWR_GD#	I
69	GPH3	PM_PWRBTN#	O
70	GPH4	SUSC_ON	O
75	GPH5	SUSB_ON	O
76	GPH6	CPU_VRON	O
105	GPH7	PM_RSMRST#	O
148	GPI0	ICHT7_PWROK	O
149	GPI1	/	
152	GPI2	MCHOK	I
155	GPI3	CHG_EN#	O
156	GPI4	PRECHG	O
168	GPI5	BAT_LL#	O
174	GPI6	BAT_LEARN	O

ICHT7-M GPIO SETTING

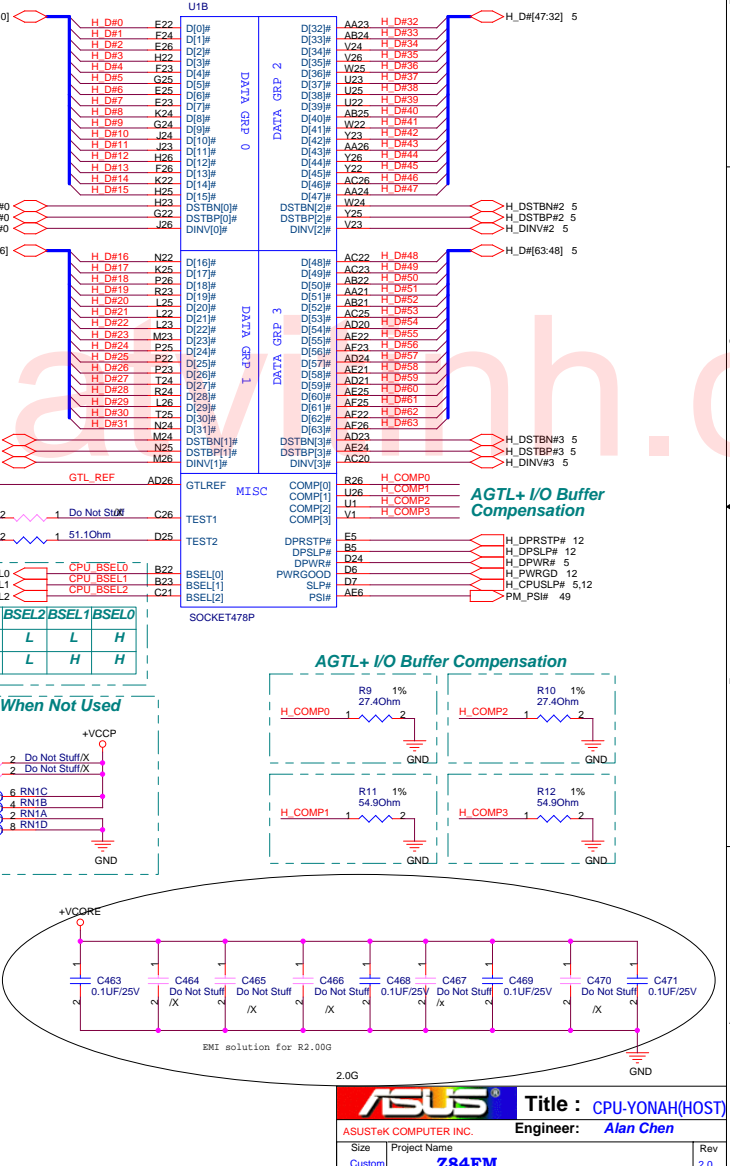
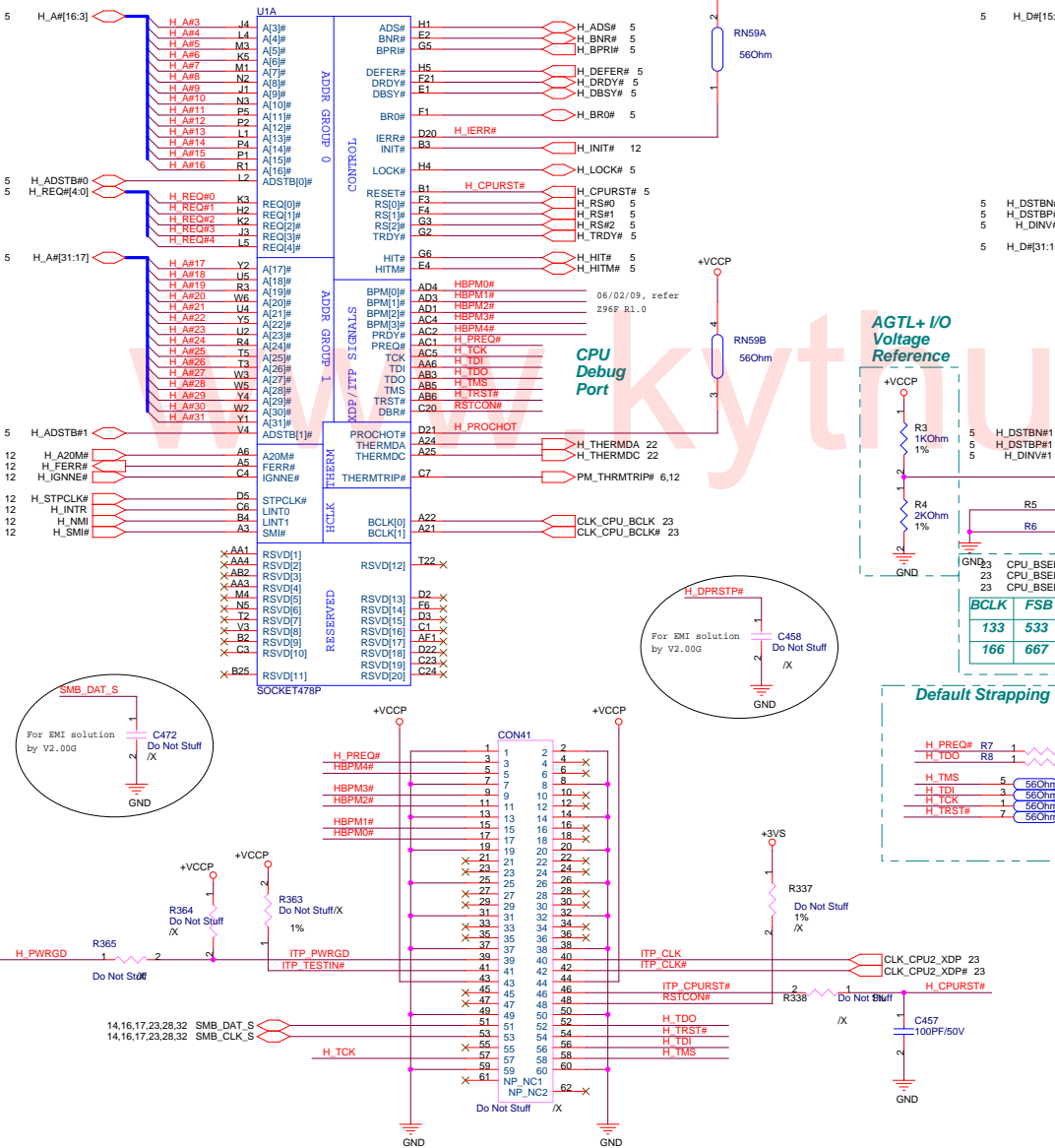
Pin	Pin Name	Signal Name	Type	Power Well	Default
AB18	GPI000/BM_BUSY#	PM_BMBUSY#	I	Core(To:3.3V)	GPI
C8	GPI001/REQ5#	PCI_REQ#5	I/O	Core(To:5V)	GPI
G8	GPI002/PIRQE#	PCI_INTE#	I(OD)	Core(To:5V)	GPI
F7	GPI003/PIRQF#	PCI_INTF#	I(OD)	Core(To:5V)	GPI
F8	GPI004/PIRQG#	PCI_INTG#	I(OD)	Core(To:5V)	GPI
G7	GPI005/PIRQH#	PCI_INTH#	I(OD)	Core(To:5V)	GPI
AC21	GPI006	NC	I/O	Core(To:3.3V)	GPI
AC18	GPI007	WLAN_BT_LED_EN#	I	Core(To:3.3V)	GPI
E21	GPI008	EXTSMI#	I	SUS(To:3.3V)	GPI
E20	GPI009	SATA_DET#0	I/O	SUS(To:3.3V)	GPI
A20	GPI010	WLAN_ON#	O	SUS(To:3.3V)	GPI
B23	SMBALERT#/GPI011	SMB_ALERT#	I/O	SUS(To:3.3V)	Native
F19	GPI012	KBC_SC#	I	SUS(To:3.3V)	GPI
E19	GPI013	TP	I/O	SUS(To:3.3V)	GPI
R4	GPI014	NC	I/O	SUS(To:3.3V)	GPI
E22	GPI015	CB_SD#	I/O	SUS(To:3.3V)	GPI
AC22	GPI016	PM DPRSLPVR	O	Core(To:3.3V)	Native
D8	GPI017/GNT5#	PCI_GNT#5	I/O	Core(To:3.3V)	GPO
AC20	GPI018/STP_PC#	STP_PC#	O	Core(To:3.3V)	GPO
AH18	GPI019/SATA1GP	NC	O	Core(To:3.3V)	GPI
AF21	GPI020/STP_CPU#	STP_CPU#	O	Core(To:3.3V)	GPO
AE19	GPI021/SATA0GP	NC	I/O	Core(To:3.3V)	GPI
A13	GPI022/REQ4#	PCI_REQ#4	I/O	Core(To:3.3V)	Native
AA5	LDRQ1#/GPI023	TP	I/O	Core(To:3.3V)	Native
R3	GPI024	NC	I/O	SUS(To:3.3V)	GPO
D20	GPI025	NC	I/O	SUS(To:3.3V)	GPO
A21	GPI026/EL_RSVD	NC	I/O	SUS(To:3.3V)	GPO
B21	GPI027/EL_STATE0	PD_DET#	I/O	SUS(To:3.3V)	GPO
E23	GPI028/EL_STATE1	NC	I/O	SUS(To:3.3V)	GPO
C3	GPI029/OC#5	USB_OC#5	I/O	SUS(To:3.3V)	Native
A2	GPI030/OC#6	NEWCARD_OC#	I	SUS(To:3.3V)	Native
B3	GPI031/OC#7	USB_OC#7	I/O	SUS(To:3.3V)	Native
AG18	GPI032/CLKRUN#	PM_CLKRUN#	O	Core(To:3.3V)	GPO
AC19	GPI033/AZ_DOCK_EN#	BT_ON#	O	Core(To:3.3V)	GPO
U2	GPI034/AZ_DOCK_RST#	NC	I/O	Core(To:3.3V)	GPO
AD21	GPI035	NC	I/O	Core(To:3.3V)	GPO
AH19	GPI036/SATA2GP	NC	I/O	Core(To:3.3V)	GPI
AE19	GPI037/SATA3GP	PCB_ID0	I	Core(To:3.3V)	GPI
AD20	GPI038	PCB_ID1	I	Core(To:3.3V)	GPI
AE20	GPI039	PCB_ID2	I	Core(To:3.3V)	GPI
A14	GNT4#/GPI048	PCI_GNT#4	I/O	Core(To:3.3V)	Native
AG24	GPI049/CPUPWRGD	H_PWRGD	I	V_CPU_IO	Native

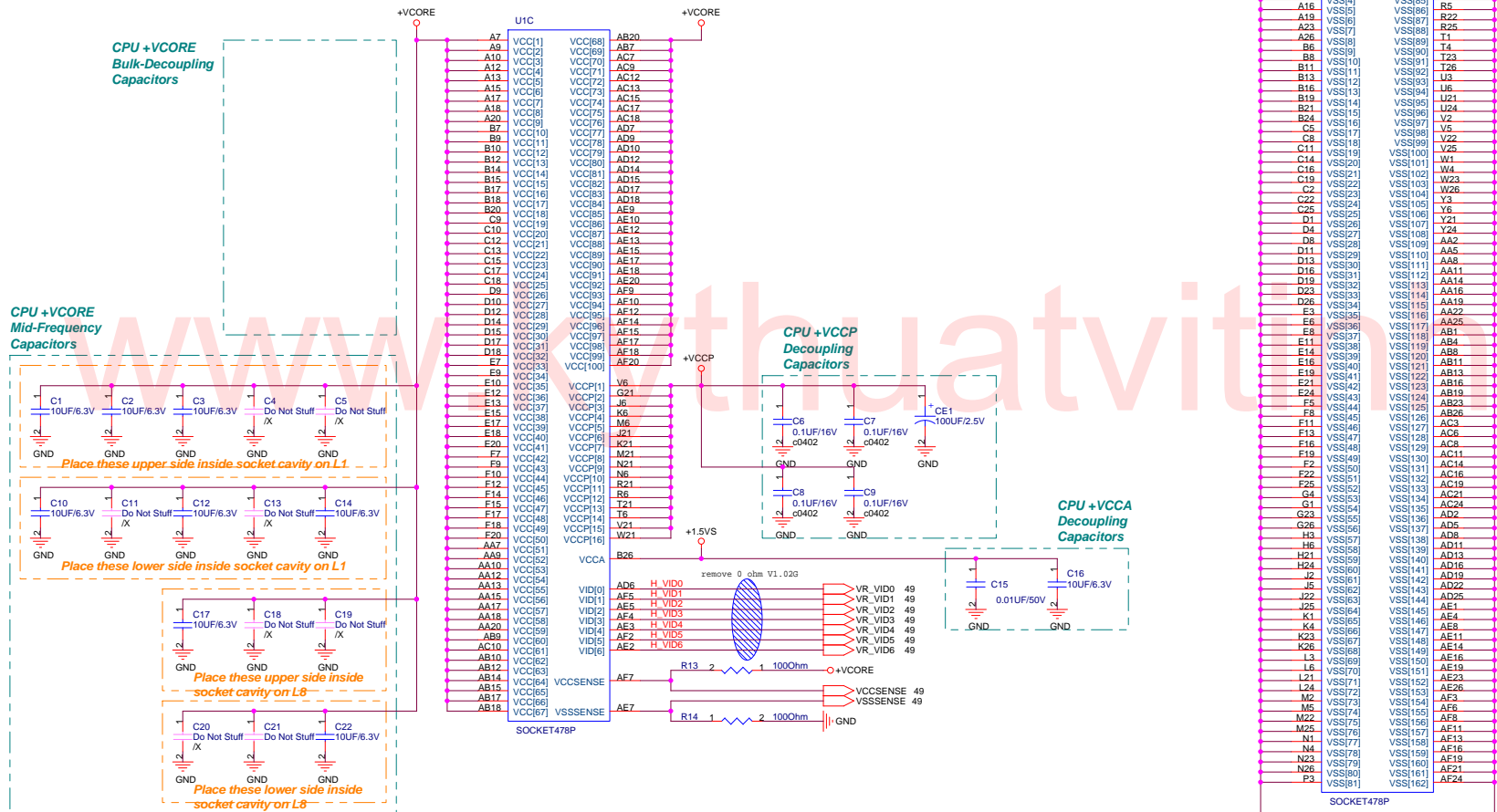
PCI Device	IDSEL#	REQ/GNT#	Interrupts
CARD READER	AD17	0	INTB-->INTB
1394	AD17	0	INTA-->INTA
LAN	AD16	2	INTA-->INTD

SM-Bus Device	SM-Bus Address
Clock Generator	1101001x (D2)
SO-DIMM 0	1010000x (A0)
SO-DIMM 1	1010001x (A2)
Thermal Sensor	0101110x (5C)

2.0G

		Title : <Title>
ASUSTek Computer INC.		Engineer: Alan Chen
Size	Project Name	Rev
Custom	Z84FM	2.0
Date: Thursday, October 05, 2006		Sheet 2 of 57





UID		
A4	VSS[11]	P6
A8	VSS[12]	P21
A11	VSS[13]	P24
A14	VSS[14]	R2
A16	VSS[15]	R5
A19	VSS[16]	R22
A23	VSS[17]	R25
A26	VSS[18]	T1
B6	VSS[19]	T4
B8	VSS[20]	T23
B11	VSS[21]	T26
B13	VSS[22]	U3
B16	VSS[23]	U6
B19	VSS[24]	U21
B21	VSS[25]	U24
B24	VSS[26]	V2
C5	VSS[27]	V5
C8	VSS[28]	V22
V5	VSS[29]	V25
C11	VSS[30]	W1
C16	VSS[31]	W4
C19	VSS[32]	W23
C2	VSS[33]	W26
C22	VSS[34]	Y3
C25	VSS[35]	Y6
D1	VSS[36]	Y21
D4	VSS[37]	Y24
D8	VSS[38]	AA2
D11	VSS[39]	AA5
D13	VSS[40]	AA8
D16	VSS[41]	AA11
D19	VSS[42]	AA14
D23	VSS[43]	AA16
D26	VSS[44]	AA19
E3	VSS[45]	AA22
E8	VSS[46]	AA25
E11	VSS[47]	AB1
E14	VSS[48]	AB4
E17	VSS[49]	AB8
E19	VSS[50]	AB11
E21	VSS[51]	AB16
E24	VSS[52]	AB19
F5	VSS[53]	AB23
F8	VSS[54]	AB26
F11	VSS[55]	AC3
F13	VSS[56]	AC6
F16	VSS[57]	AC8
F19	VSS[58]	AC11
F2	VSS[59]	AC14
F22	VSS[60]	AC16
F25	VSS[61]	AC19
G4	VSS[62]	AC21
G1	VSS[63]	AC24
G23	VSS[64]	AD2
G26	VSS[65]	AD5
H3	VSS[66]	AD8
H6	VSS[67]	AD11
H21	VSS[68]	AD13
H24	VSS[69]	AD16
J2	VSS[70]	AD19
J5	VSS[71]	AD22
J22	VSS[72]	AD25
J25	VSS[73]	AE1
K1	VSS[74]	AE4
K4	VSS[75]	AE8
K23	VSS[76]	AE11
K26	VSS[77]	AE14
L3	VSS[78]	AE16
L6	VSS[79]	AE19
L21	VSS[80]	AE23
L24	VSS[81]	AE26
M2	VSS[82]	AE3
M5	VSS[83]	AE6
M22	VSS[84]	AE8
M25	VSS[85]	AE11
N4	VSS[86]	AE16
N23	VSS[87]	AE19
N26	VSS[88]	AE21
P3	VSS[89]	AE24
	VSS[90]	
	VSS[91]	
	VSS[92]	
	VSS[93]	
	VSS[94]	
	VSS[95]	
	VSS[96]	
	VSS[97]	
	VSS[98]	
	VSS[99]	
	VSS[100]	

+VCCORE Mid-Frequency Capacitor
 Intel: 22UF *32
 R1F: 10UF *16

+VCCP Decoupling Capacitor
 Intel: 270UF *1, 0.1UF *6
 R1F: 220UF *1, 0.1UF *4

2.0G

Title : CPU_YONAH(PWR)
Engineer: Alan Chen

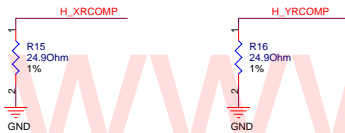
ASUSTeK COMPUTER INC. NB1

Size	Project Name	Rev
Custom	Z84FM	2.0

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RCOMP

For Calibrating the FSB I/O Buffer



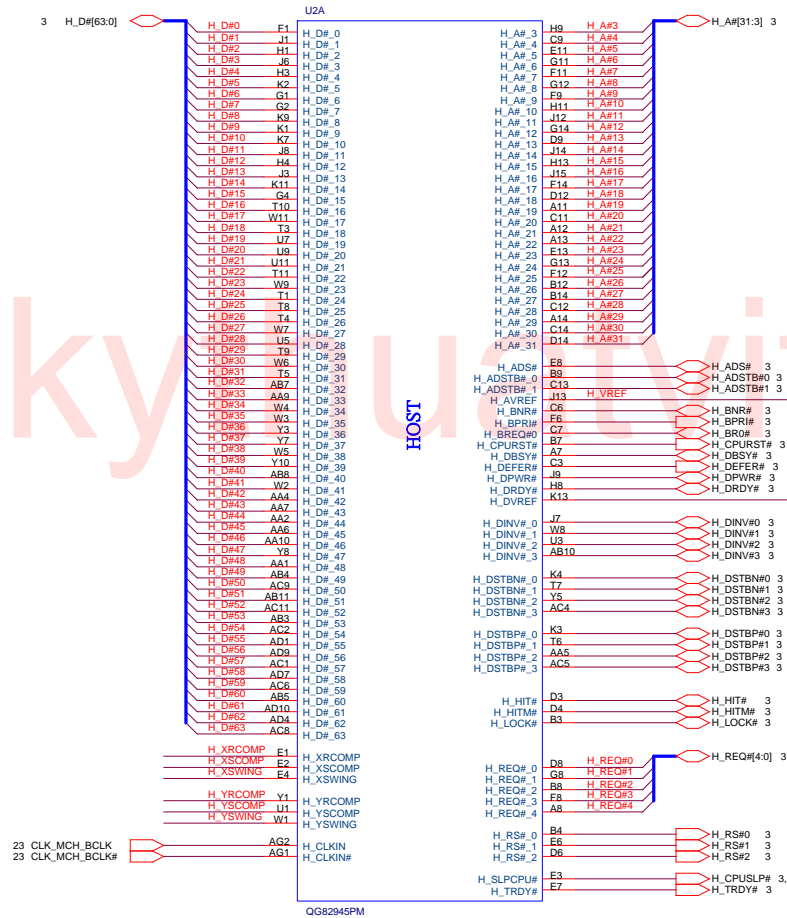
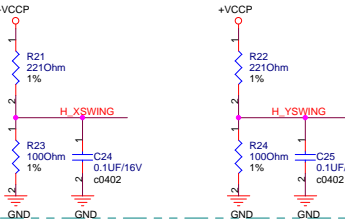
SCOMP

For Slew Rate Compensation on the FSB

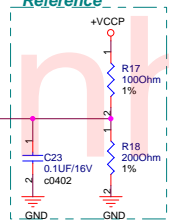


Voltage Swing

For Providing a Reference Voltage to The FSB RCOMP circuits



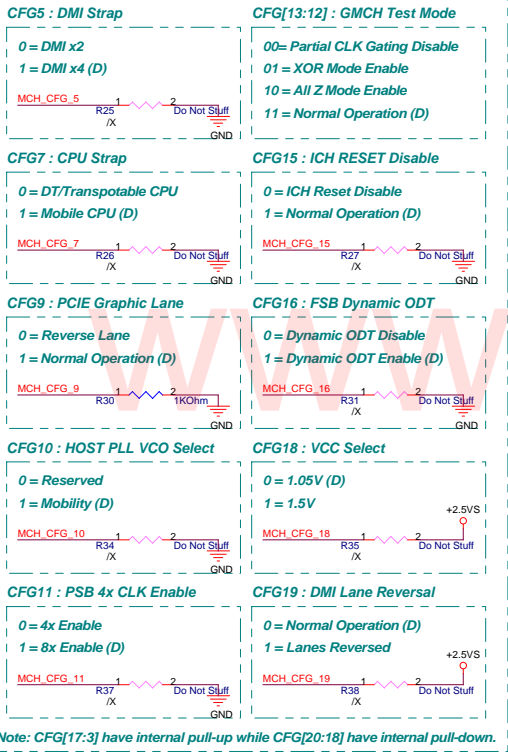
AGTL+ I/O Voltage Reference



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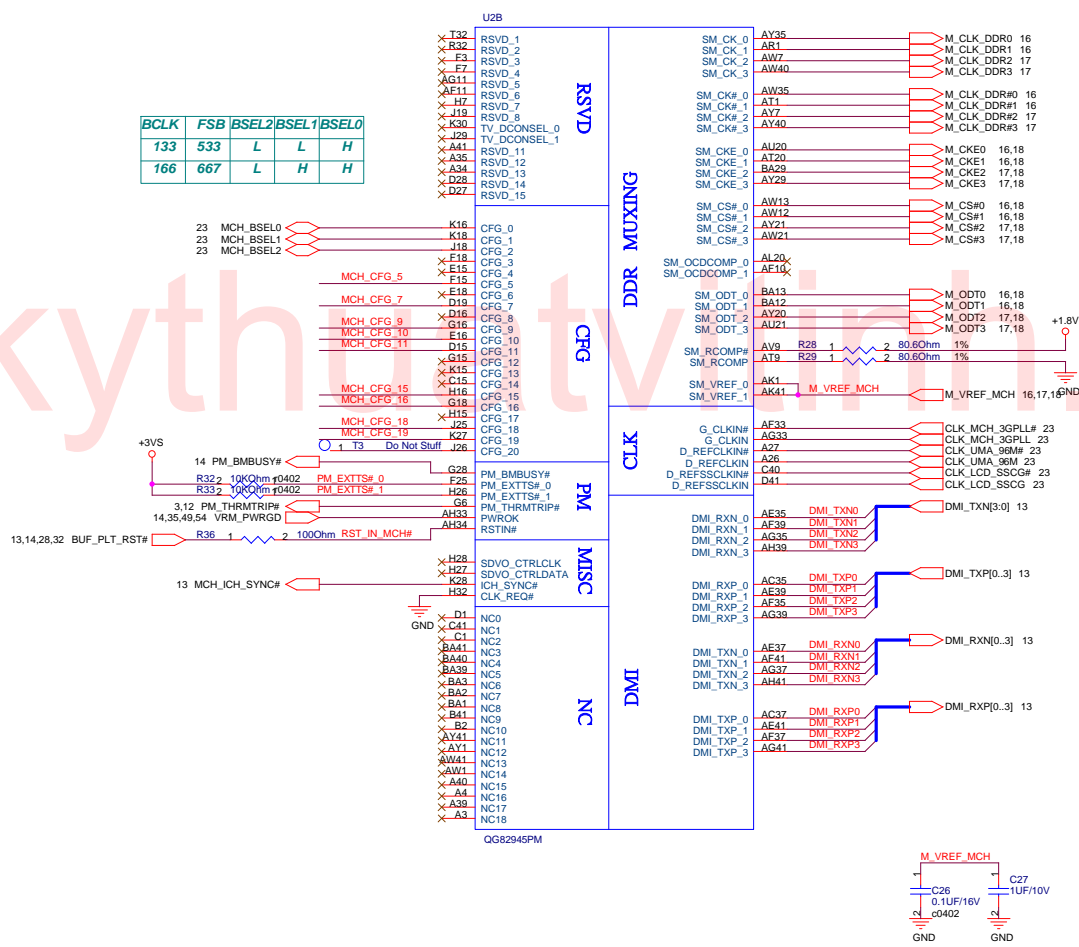
ASUS		Title : NB-945GM(HOST)
ASUSTeK COMPUTER INC.		Engineer: Alan Chen
Size	Project Name	Rev
Custom	Z84FM	2.0
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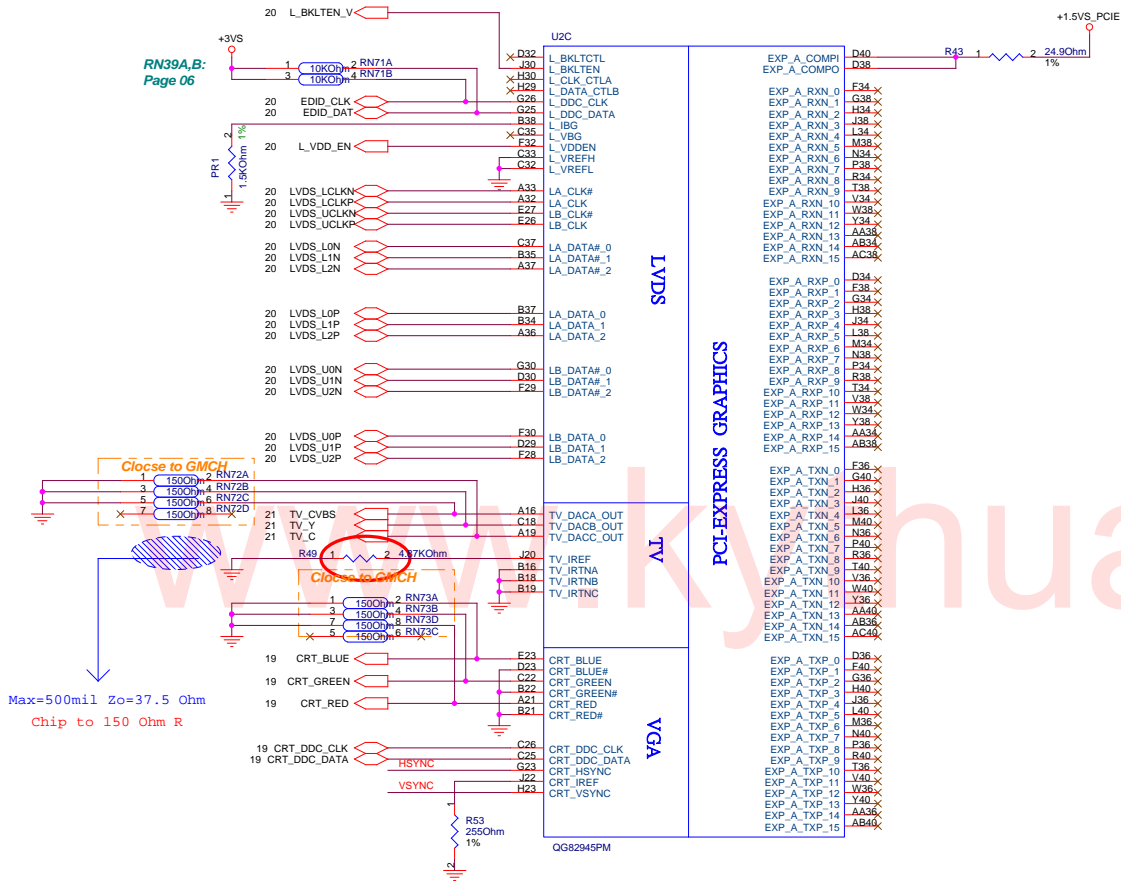
GMCH Strapping



Note: CFG[17:3] have internal pull-up while CFG[20:18] have internal pull-down.

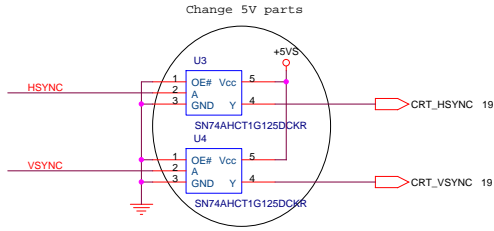
BCLK	FSB	BSEL2	BSEL1	BSEL0
133	533	L	L	H
166	667	L	H	H





Max=500mil Zo=37.5 Ohm
Chip to 150 Ohm R

Z84Fm V2.0 change R49 from 4.99K to 4.87K for Macro Vision issue



2.0G

ASUS		Title : NB_945GM(GRAPHIC)
ASUSTeK COMPUTER INC.		Engineer: Alan Chen
Size	Project Name	Rev
Custom	Z84FM	2.0
Date: Thursday, October 05, 2006		Sheet 7 of 57

16 M_A_DQ[63:0]

M A DQ0 AJ35 SA_DQ0
M A DQ1 AJ34 SA_DQ1
M A DQ2 AM31 SA_DQ2
M A DQ3 AM33 SA_DQ3
M A DQ4 AJ38 SA_DQ4
M A DQ5 AK35 SA_DQ5
M A DQ6 AJ32 SA_DM_0
M A DQ7 AL27 SA_DM_1
M A DQ8 AN35 SA_DM_2
M A DQ9 AP33 SA_DM_3
M A DQ10 AR31 SA_DM_4
M A DQ11 AS1 SA_DM_5
M A DQ12 AN38 SA_DM_6
M A DQ13 AM38 SA_DM_7
M A DQ14 AM34 SA_DQ14
M A DQ15 AN33 SA_DQ15
M A DQ16 AK26 SA_DQ16
M A DQ17 AL22 SA_DQ17
M A DQ18 AM26 SA_DQ18
M A DQ19 AN24 SA_DQ19
M A DQ20 AK28 SA_DQ20
M A DQ21 AL28 SA_DQ21
M A DQ22 AM24 SA_DQ22
M A DQ23 AP23 SA_DOS#_0
M A DQ24 AL22 SA_DOS#_1
M A DQ25 AP21 SA_DOS#_2
M A DQ26 AP22 SA_DOS#_3
M A DQ27 AN20 SA_DOS#_4
M A DQ28 AL23 SA_DOS#_5
M A DQ29 AP24 SA_DOS#_6
M A DQ30 AP20 SA_DOS#_7
M A DQ31 AR12 SA_MA_0
M A DQ32 AR14 SA_MA_1
M A DQ33 AR13 SA_MA_2
M A DQ34 AP12 SA_MA_3
M A DQ35 AP12 SA_MA_4
M A DQ36 AP13 SA_MA_5
M A DQ37 AL12 SA_MA_6
M A DQ38 AL14 SA_MA_7
M A DQ39 AK9 SA_MA_8
M A DQ40 AK9 SA_MA_9
M A DQ41 AK8 SA_MA_10
M A DQ42 AK7 SA_MA_11
M A DQ43 AN9 SA_MA_12
M A DQ44 AN9 SA_MA_13
M A DQ45 AT5 SA_DQ45
M A DQ46 AL5 SA_DQ46
M A DQ47 AY2 SA_DQ47
M A DQ48 AW2 SA_DQ48
M A DQ49 AP1 SA_DQ49
M A DQ50 AN2 SA_DQ50
M A DQ51 AN2 SA_DQ51
M A DQ52 AT3 SA_DQ52
M A DQ53 AN1 SA_DQ53
M A DQ54 AL2 SA_DQ54
M A DQ55 AG7 SA_DQ55
M A DQ56 AF4 SA_DQ56
M A DQ57 AF4 SA_DQ57
M A DQ58 AF4 SA_DQ58
M A DQ59 AG9 SA_DQ59
M A DQ60 AHB SA_DQ60
M A DQ61 AF4 SA_DQ61
M A DQ62 AF4 SA_DQ62
M A DQ63 AF8 SA_DQ63

U2D

DDR SYSTEM MEMORY A

SA_BS_0 AU12 M A BS0 16,18
SA_BS_1 AV14 M A BS1 16,18
SA_BS_2 BA20 M A BS2 16,18
SA_CAS# AY13 M A CAS# 16,18
SA_DM_0 AJ33 M A DM0
SA_DM_1 AL26 M A DM1
SA_DM_2 AN22 M A DM2
SA_DM_3 AM14 M A DM3
SA_DM_4 AL9 M A DM4
SA_DM_5 AR3 M A DM5
SA_DM_6 AH4 M A DM6
SA_DM_7 AH4 M A DM7
M A_DQS[7:0] 16 AK33 M A DQS0
AT33 M A DQS1
AN28 M A DQS2
AM22 M A DQS3
AN12 M A DQS4
AN8 M A DQS5
AP3 M A DQS6
AG6 M A DQS7
AK32 M A DQS80
AN27 M A DQS#1
AM21 M A DQS#2
AM12 M A DQS#3
AL8 M A DQS#4
AN3 M A DQS#6
AH5 M A DQS#7
M A_A[13:0] 16,18 AY16 M A A0
AU14 M A A1
AW18 M A A2
BA16 M A A3
BA17 M A A4
AU16 M A A5
AU17 M A A7
AU17 M A A8
AU13 M A A9
AT16 M A A10
AT17 M A A11
AV20 M A A12
AV12 M A A13
SA_RAS# AW14 M A RAS# 16,18
SA_RCVENIN# AK23 SA RCVENIN# 16
SA_RCVENOUT# AK24 SA RCVENOUT# 17 Do Not Stuff
SA_WE# AY14 M A WE# 16,18

QG82945PM

17 M_B_DQ[63:0]

M B DQ0 AK39 SB_DQ0
M B DQ1 AJ37 SB_DQ1
M B DQ2 AP39 SB_DQ2
M B DQ3 AP38 SB_DQ3
M B DQ4 AJ38 SB_DQ4
M B DQ5 AK38 SB_DQ5
M B DQ6 AP38 SB_DQ6
M B DQ7 AP41 SB_DQ7
M B DQ8 AT40 SB_DQ8
M B DQ9 AW41 SB_DQ9
M B DQ10 AV38 SB_DQ10
M B DQ11 AV38 SB_DQ11
M B DQ12 AP38 SB_DQ12
M B DQ13 AR40 SB_DQ13
M B DQ14 AW38 SB_DQ14
M B DQ15 AY38 SB_DQ15
M B DQ16 BA38 SB_DQ16
M B DQ17 AV36 SB_DQ17
M B DQ18 AR36 SB_DQ18
M B DQ19 AP36 SB_DQ19
M B DQ20 AP36 SB_DQ20
M B DQ21 AU36 SB_DQ21
M B DQ22 AP34 SB_DQ22
M B DQ23 AY33 SB_DQ23
M B DQ24 BA33 SB_DQ24
M B DQ25 BA33 SB_DQ25
M B DQ26 AT31 SB_DQ26
M B DQ27 AU29 SB_DQ27
M B DQ28 AU31 SB_DQ28
M B DQ29 AW31 SB_DQ29
M B DQ30 AV29 SB_DQ30
M B DQ31 AM19 SB_DQ31
M B DQ32 AM19 SB_DQ32
M B DQ33 AP14 SB_DQ33
M B DQ34 AP14 SB_DQ34
M B DQ35 AN14 SB_DQ35
M B DQ36 AN17 SB_DQ36
M B DQ37 AM16 SB_DQ37
M B DQ38 AP15 SB_DQ38
M B DQ39 AL15 SB_DQ39
M B DQ40 AH10 SB_DQ40
M B DQ41 AJ9 SB_DQ41
M B DQ42 AN10 SB_DQ42
M B DQ43 AK13 SB_DQ43
M B DQ44 AH11 SB_DQ44
M B DQ45 AH11 SB_DQ45
M B DQ46 AK10 SB_DQ46
M B DQ47 AJ8 SB_DQ47
M B DQ48 BA10 SB_DQ48
M B DQ49 AW10 SB_DQ49
M B DQ50 BA4 SB_DQ50
M B DQ51 AW4 SB_DQ51
M B DQ52 AY10 SB_DQ52
M B DQ53 AY9 SB_DQ53
M B DQ54 AW5 SB_DQ54
M B DQ55 AY5 SB_DQ55
M B DQ56 AV4 SB_DQ56
M B DQ57 AR5 SB_DQ57
M B DQ58 AK4 SB_DQ58
M B DQ59 AK3 SB_DQ59
M B DQ60 AK5 SB_DQ60
M B DQ61 AK5 SB_DQ61
M B DQ62 AJ5 SB_DQ62
M B DQ63 AJ3 SB_DQ63

U2E

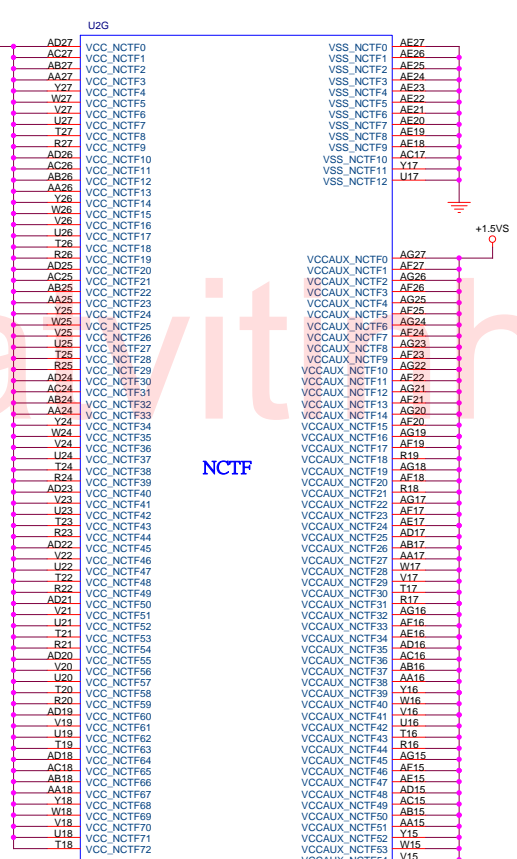
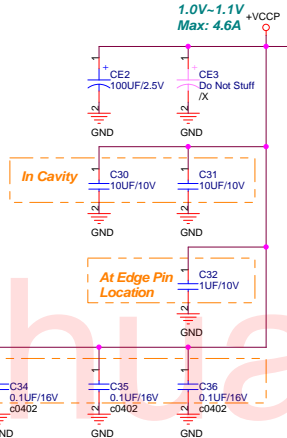
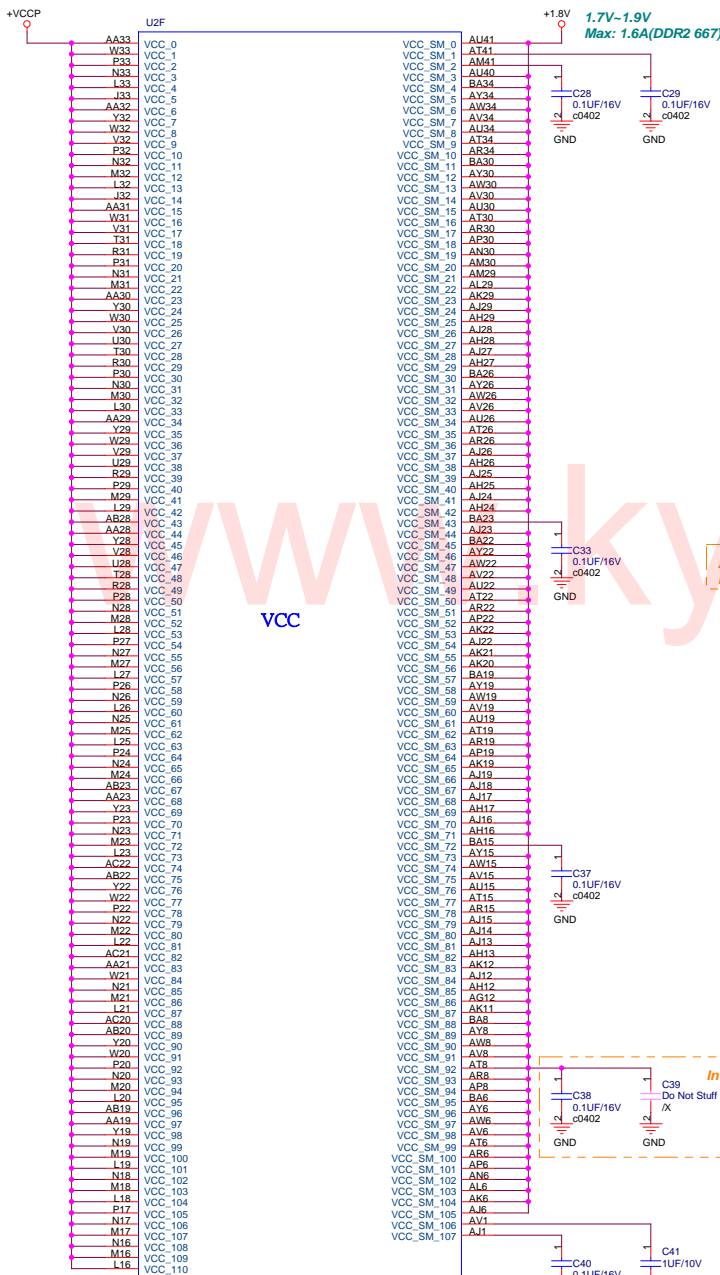
DDR SYSTEM MEMORY B

SB_BS_0 AT24 M B BS0 17,18
SB_BS_1 AV23 M B BS1 17,18
SB_BS_2 AY28 M B BS2 17,18
SB_CAS# AR24 M B CAS# 17,18
SB_DM_0 AK36 M B DM0
AR38 M B DM1
AT36 M B DM2
BA31 M B DM3
AL17 M B DM4
SB_DM_4 AL17 M B DM5
SB_DM_5 AR5 M B DM6
SB_DM_6 BA5 M B DM6
SB_DM_7 AN4 M B DM7
M_B_DQS[7:0] 17 AM39 M B DQS0
AT39 M B DQS1
AU35 M B DQS2
AR29 M B DQS3
AR16 M B DQS4
AR10 M B DQS5
AR7 M B DQS6
AN5 M B DQS7
M_B_DQS# [7:0] 17 AM40 M B DQS#0
AU39 M B DQS#1
AT35 M B DQS#2
AP29 M B DQS#3
AP16 M B DQS#4
AT10 M B DQS#5
AT7 M B DQS#6
AP5 M B DQS#7
M_B_A[13:0] 17,18 AY23 M B A0
AW24 M B A1
AY24 M B A2
AR28 M B A3
AT27 M B A4
AT28 M B A5
AU27 M B A6
AV28 M B A7
AV27 M B A8
M_B_A8 AV27 M B A9
SB_MA_8 AV24 M B A10
SB_MA_10 BA27 M B A11
SB_MA_11 AY27 M B A12
SB_MA_12 AR23 M B A13
AY23 M B A0
AW24 M B A1
AY24 M B A2
AR28 M B A3
AT27 M B A4
AT28 M B A5
AU27 M B A6
AV28 M B A7
AV27 M B A8
M_B_A8 AV27 M B A9
SB_MA_8 AV24 M B A10
SB_MA_10 BA27 M B A11
SB_MA_11 AY27 M B A12
SB_MA_12 AR23 M B A13
SB_RAS# AU23 M B RAS# 17,18
SB_RCVENIN# AK16 SB RCVENIN# 16 Do Not Stuff
SB_RCVENOUT# AK18 SB RCVENOUT# 17 Do Not Stuff
SB_WE# AR27 M B WE# 17,18

QG82945PM

2.0G

ASUS		Title : NB-945GM(DDR2)	
ASUSTeK COMPUTER INC.		Engineer: Alan Chen	
Size	Project Name		Rev
Custom	Z84FM		2.0
Date: Thursday, October 05, 2006		Sheet	8 of 57



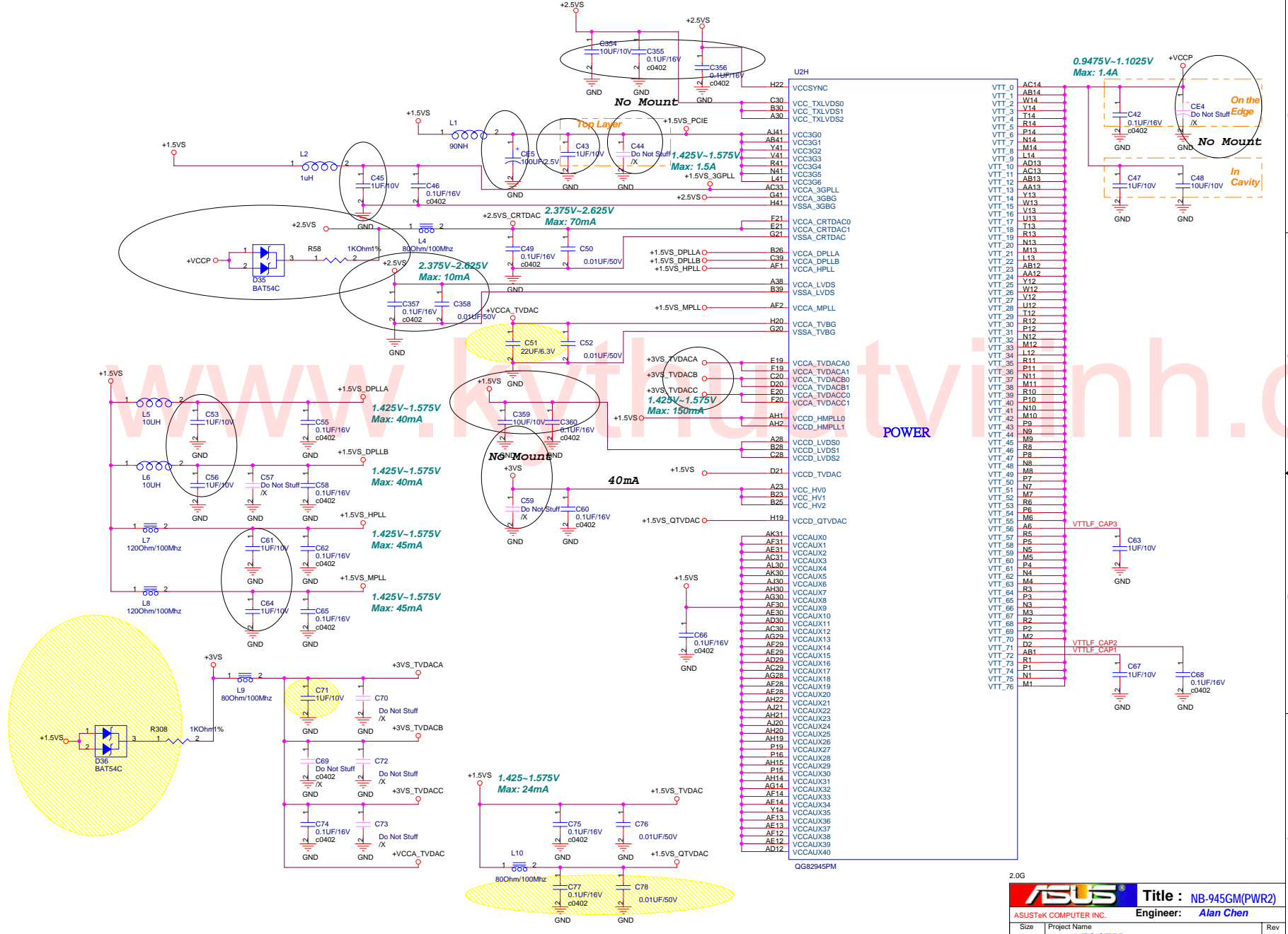
2.0G

ASUS Title : NB-945GM(PWR)

ASUSTeK COMPUTER INC. Engineer: Alan Chen

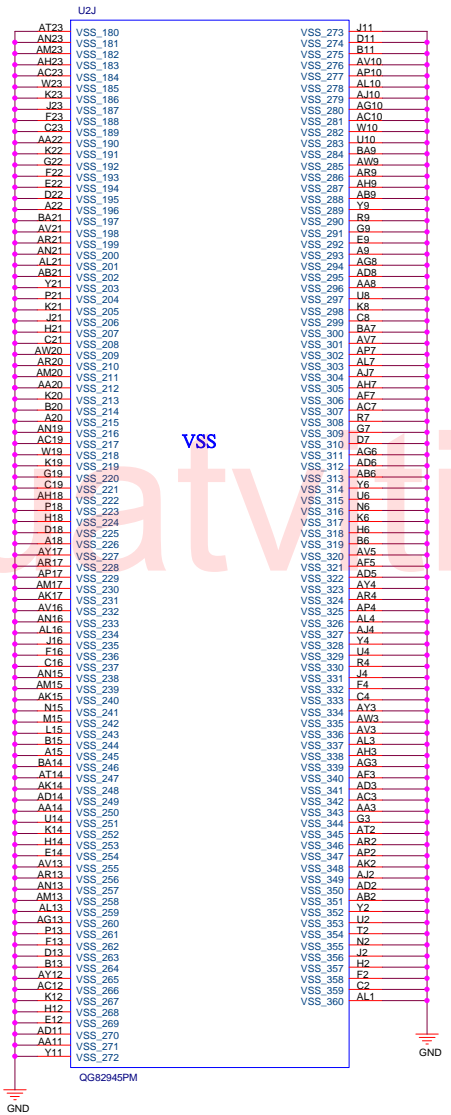
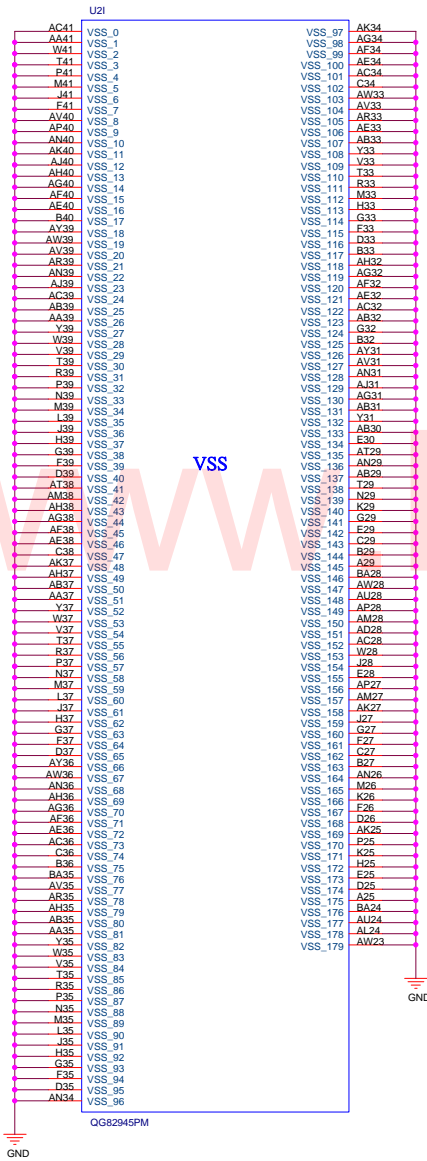
Size	Project Name	Rev
Custom	Z84FM	2.0

Date: Thursday, October 05, 2006 Sheet 9 of 57



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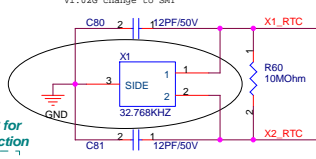
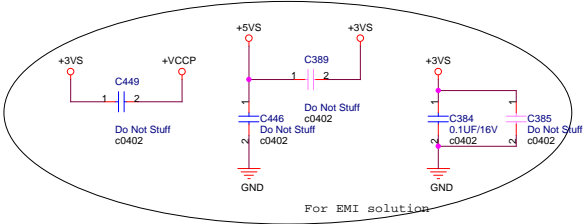
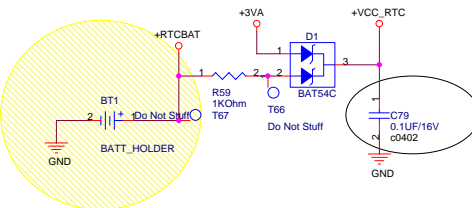
ASUS		Title : NB-945GM(PWR2)	
ASUSTeK COMPUTER INC.		Engineer: Alan Chen	
Size	Project Name	Date	Rev
Custom	Z84FM	Thursday, October 05, 2006	2.0
		Sheet	10 of 57



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2.0G

ASUS		Title : NB-945PM(GND)	
ASUSTeK COMPUTER INC.		Engineer: Alan Chen	
Size	Project Name	Rev	
Custom	Z84FM	2.0	
Date: Thursday, October 05, 2006		Sheet	11 of 57

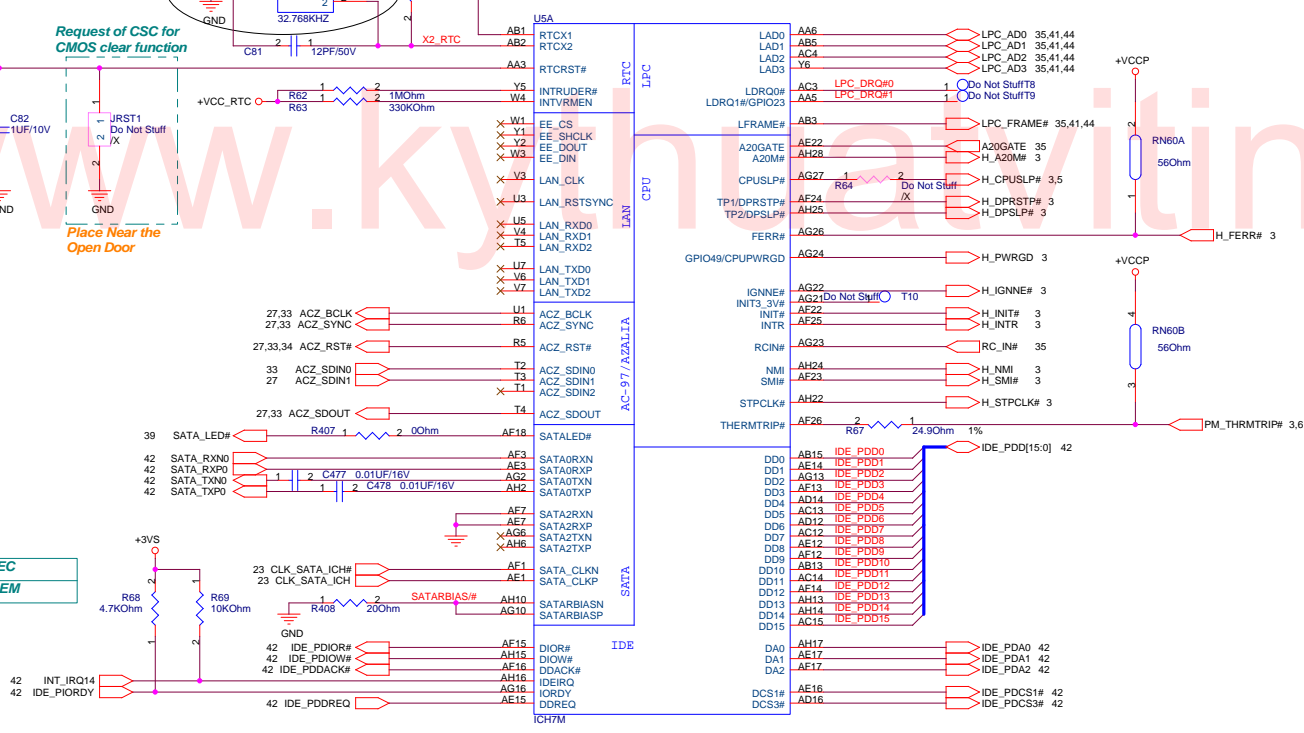


Request of CSC for CMOS clear function

RTCRST# RC delay should be 18ms-25ms

Place Near the Open Door

ACZ_SDINO	CODEC
ACZ_SDIN1	MODEM



- LAD0 AA6 LPC_AD0 35,41,44
- LAD1 AB5 LPC_AD1 35,41,44
- LAD2 AC4 LPC_AD2 35,41,44
- LAD3 Y6 LPC_AD3 35,41,44
- LDRQ0# AC3 LPC_DRQ0# 1 Do Not Stuff#8
- LDRQ1#/GPIO23 AA5 LPC_DRQ1# 1 Do Not Stuff#8
- LFRAME# AB3 LPC_FRAME# 35,41,44
- A20GATE AE22 A20GATE 35
- AH28 H_A20M# 3
- CPUSLP# AG27 H_CPUSLP# 3,5
- TP1/DPRSTP# AE24 H_DPRSTP# 3
- TP2/DPSLP# AH25 H_DPSLP# 3
- FERR# AG26 H_FERR# 3
- GPIO49/CPUPWRGD AG24 H_PWRGD 3
- IGNNE# AG22 H_IGNNE# 3
- INIT3_3V# AG22 Do Not Stuff# T10
- INTR# AE22 H_INTR# 3
- RCIN# AG23 H_RCIN# 35
- NMI# AH24 H_NMI# 3
- SMI# AE23 H_SMI# 3
- STPCLK# AH22 H_STPCLK# 3
- THERMTRIP# AE26 H_THERMTRIP# 3,6
- DD0 AB15 IDE_PDD0
- DD1 AE14 IDE_PDD1
- DD2 AG13 IDE_PDD2
- DD3 AE13 IDE_PDD3
- DD4 AD14 IDE_PDD4
- DD5 AC13 IDE_PDD5
- DD6 AD12 IDE_PDD6
- DD7 AC12 IDE_PDD7
- DD8 AE12 IDE_PDD8
- DD9 AE12 IDE_PDD9
- DD10 AB13 IDE_PDD10
- DD11 AE14 IDE_PDD11
- DD12 AC14 IDE_PDD12
- DD13 AH13 IDE_PDD13
- DD14 AH14 IDE_PDD14
- DD15 AC15 IDE_PDD15
- DA0 AH17 IDE_PDA0 42
- DA1 AE17 IDE_PDA1 42
- DA2 AE17 IDE_PDA2 42
- DCS1# AE16 IDE_PDCS1# 42
- DCS2# AD16 IDE_PDCS2# 42

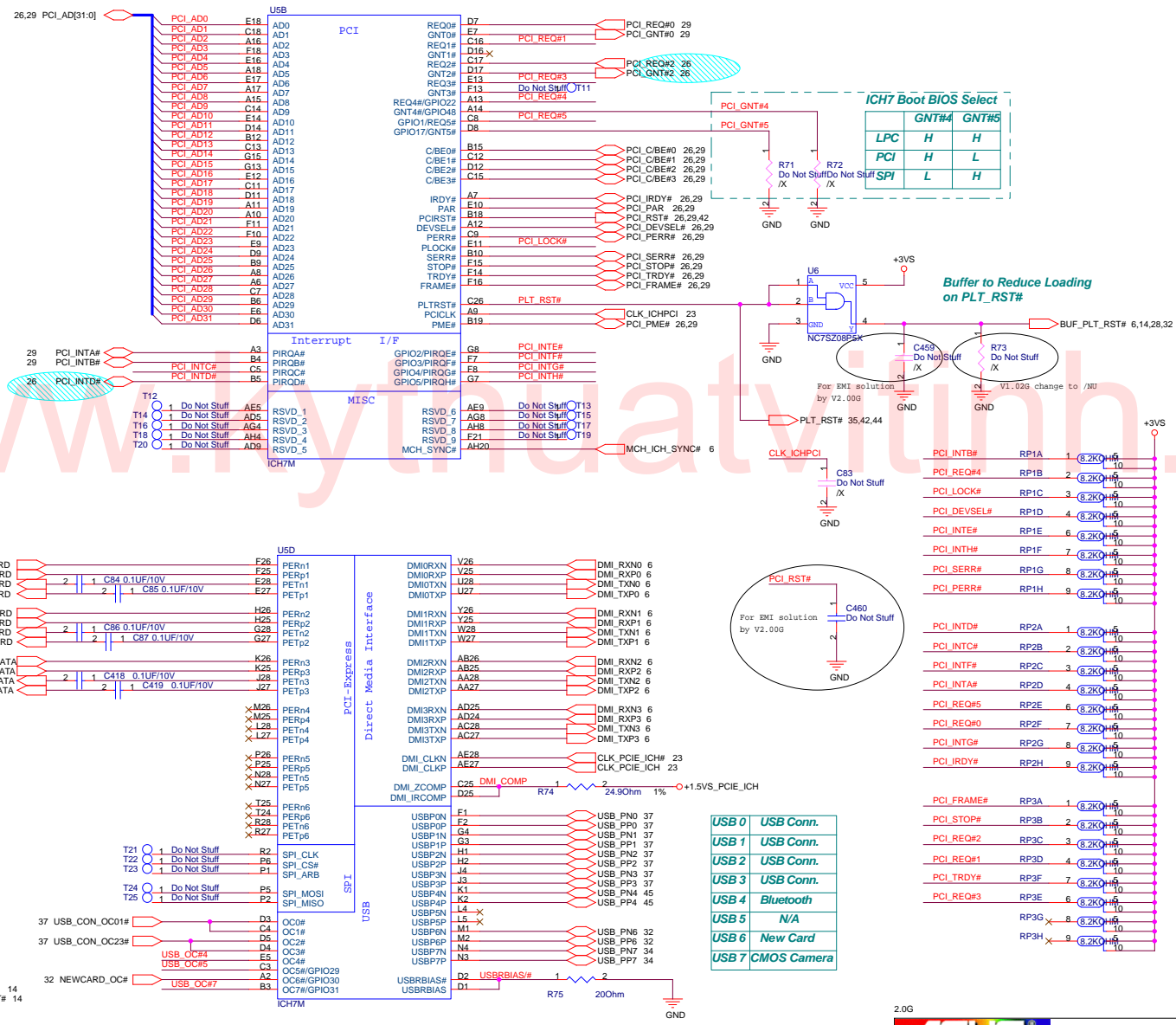
2.0G

ASUS Title : SB-ICH7-M(1)

ASUSTeK COMPUTER INC. Engineer: Alan Chen

Size	Project Name	Rev
Custom	Z84FM	2.0

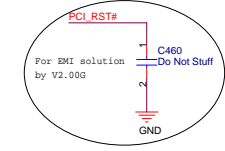
Date: Thursday, October 05, 2006 Sheet 12 of 57



ICH7 Boot BIOS Select

	GNT#4	GNT#5
LPC	H	H
PCI	H	L
SPI	L	H

Buffer to Reduce Loading on PLT_RST#



USB 0	USB Conn.
USB 1	USB Conn.
USB 2	USB Conn.
USB 3	USB Conn.
USB 4	Bluetooth
USB 5	N/A
USB 6	New Card
USB 7	CMOS Camera

2.0G

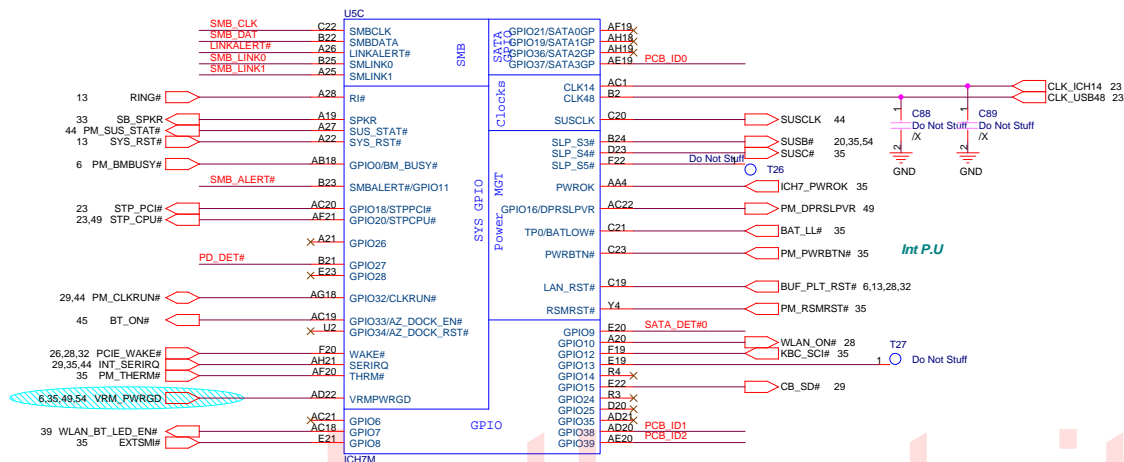
ASUS Title : SB-ICH7M(2)

ASUSTeK COMPUTER INC. Engineer: Alan Chen

Size	Project Name	Rev
Custom	Z84FM	2.0

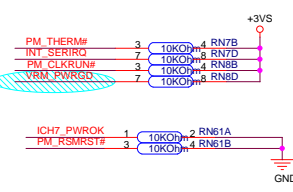
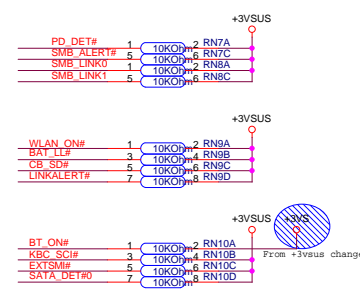
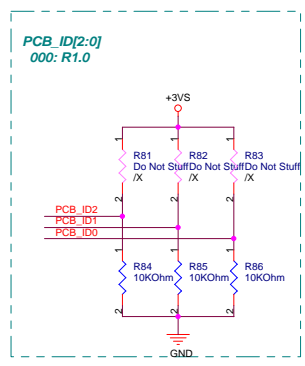
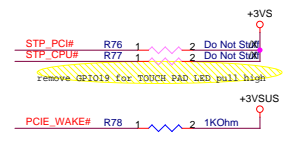
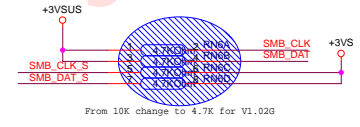
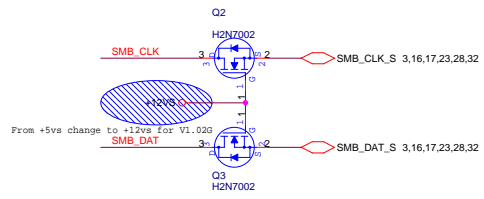
Date: Thursday, October 05, 2006 Sheet 13 of 57

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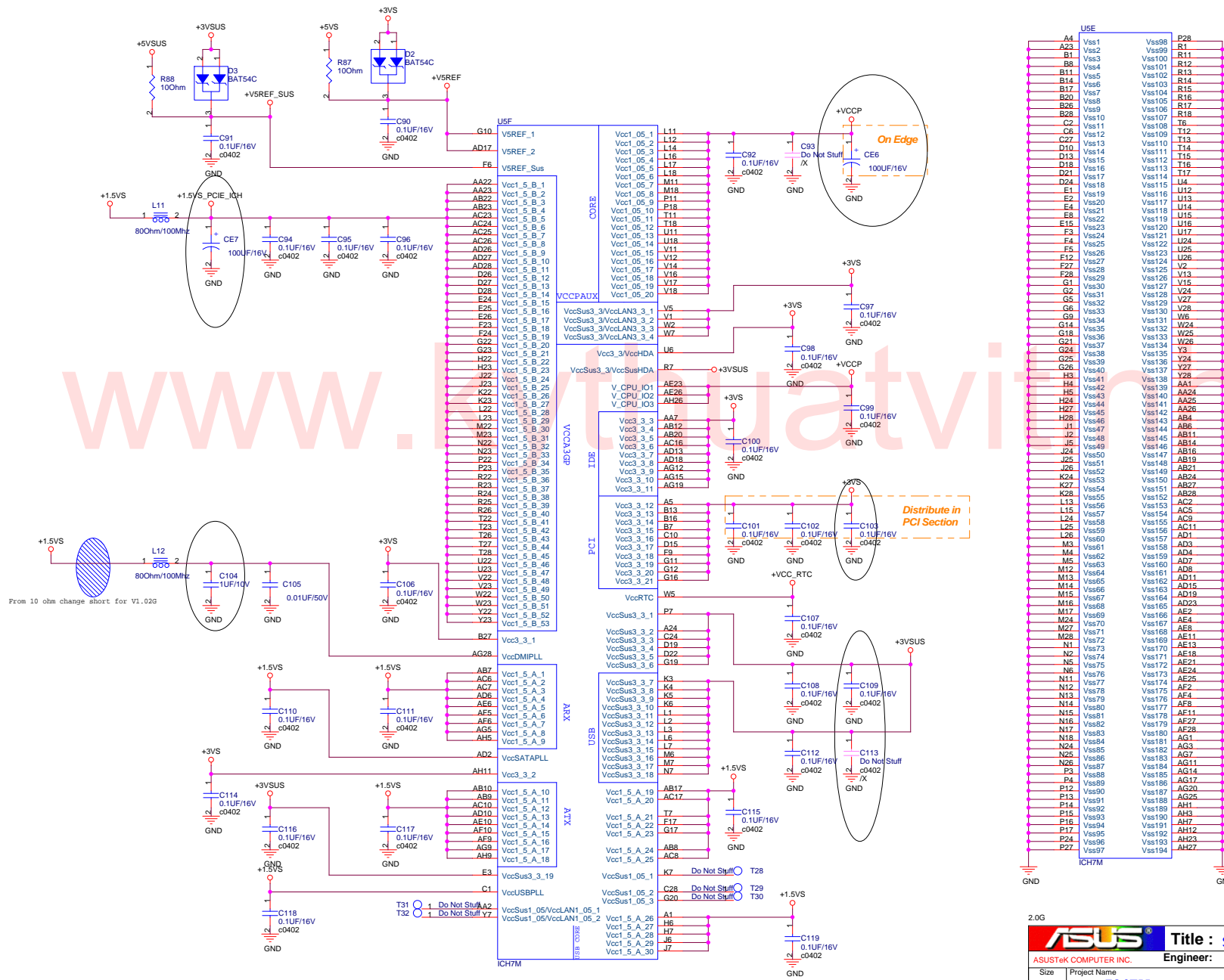
06/03/30, refer# 2963 R1.01 to delete and change net name from VRMPWRGD to VRM_PWRGD.

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2.0G

ASUS		Title : SB-ICH7M(3)
ASUSTeK COMPUTER INC		Engineer: Alan Chen
Size	Project Name	Rev
Custom	Z84FM	2.0
Date: Thursday, October 05, 2006		Sheet 14 of 57



USE	Pin	Signal Name	Pin	Signal Name
A4	Vas1	Vas98	P28	
A23	Vas2	Vas99	R1	
B1	Vas3	Vas100	R11	
B8	Vas4	Vas101	R12	
B11	Vas5	Vas102	R13	
B14	Vas6	Vas103	R14	
B17	Vas7	Vas104	R15	
B20	Vas8	Vas105	R16	
B26	Vas9	Vas106	R17	
B28	Vas10	Vas107	R18	
C2	Vas11	Vas108	T6	
C8	Vas12	Vas109	T12	
C27	Vas13	Vas110	T13	
D10	Vas14	Vas111	T14	
D13	Vas15	Vas112	T16	
D18	Vas16	Vas113	T17	
D21	Vas17	Vas114	T17	
D24	Vas18	Vas115	U12	
E1	Vas19	Vas116	U13	
E2	Vas20	Vas117	U13	
E4	Vas21	Vas118	U14	
E8	Vas22	Vas119	U15	
E15	Vas23	Vas120	U16	
F3	Vas24	Vas121	U17	
F4	Vas25	Vas122	U25	
F5	Vas26	Vas123	U26	
F12	Vas27	Vas124	U26	
F27	Vas28	Vas125	V13	
F28	Vas29	Vas126	V13	
G1	Vas30	Vas127	V15	
G2	Vas31	Vas128	V24	
G5	Vas32	Vas129	V28	
G6	Vas33	Vas130	V28	
G9	Vas34	Vas131	W6	
G14	Vas35	Vas132	W24	
G18	Vas36	Vas133	W25	
G21	Vas37	Vas134	W26	
G24	Vas38	Vas135	Y4	
G25	Vas39	Vas136	Y4	
G26	Vas40	Vas137	Y27	
H3	Vas41	Vas138	Y28	
H4	Vas42	Vas139	Y28	
H5	Vas43	Vas140	AA24	
H24	Vas44	Vas141	AA25	
H27	Vas45	Vas142	AA26	
H28	Vas46	Vas143	AB4	
J1	Vas47	Vas144	AB6	
J2	Vas48	Vas145	AB11	
J4	Vas49	Vas146	AB14	
J24	Vas50	Vas147	AB16	
J25	Vas51	Vas148	AB19	
J26	Vas52	Vas149	AB21	
J28	Vas53	Vas150	AB24	
K24	Vas54	Vas151	AB27	
K27	Vas55	Vas152	AC2	
K28	Vas56	Vas153	AC5	
L13	Vas57	Vas154	AC5	
L15	Vas58	Vas155	AC9	
L24	Vas59	Vas156	AD1	
L26	Vas60	Vas157	AD3	
M3	Vas61	Vas158	AD3	
M4	Vas62	Vas159	AD4	
M5	Vas63	Vas160	AD8	
M12	Vas64	Vas161	AD11	
M13	Vas65	Vas162	AD15	
M14	Vas66	Vas163	AD19	
M15	Vas67	Vas164	AD23	
M16	Vas68	Vas165	AE2	
M17	Vas69	Vas166	AE4	
M24	Vas70	Vas167	AE8	
M27	Vas71	Vas168	AE8	
M28	Vas72	Vas169	AE13	
N1	Vas73	Vas170	AE18	
N2	Vas74	Vas171	AE21	
N5	Vas75	Vas172	AE24	
N6	Vas76	Vas173	AE25	
N11	Vas77	Vas174	AE25	
N12	Vas78	Vas175	AE2	
N13	Vas79	Vas176	AE4	
N14	Vas80	Vas177	AE8	
N15	Vas81	Vas178	AE11	
N16	Vas82	Vas179	AE28	
N17	Vas83	Vas180	AG1	
N18	Vas84	Vas181	AG1	
N24	Vas85	Vas182	AG7	
N25	Vas86	Vas183	AG7	
N26	Vas87	Vas184	AG14	
P3	Vas88	Vas185	AG14	
P4	Vas89	Vas186	AG12	
P12	Vas90	Vas187	AG20	
P13	Vas91	Vas188	AG25	
P14	Vas92	Vas189	AH1	
P15	Vas93	Vas190	AH3	
P16	Vas94	Vas191	AH7	
P17	Vas95	Vas192	AH12	
P24	Vas96	Vas193	AH23	
P27	Vas97	Vas194	AH27	
CH7M				

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2.0G

Title : SB-ICH7M(PWR)

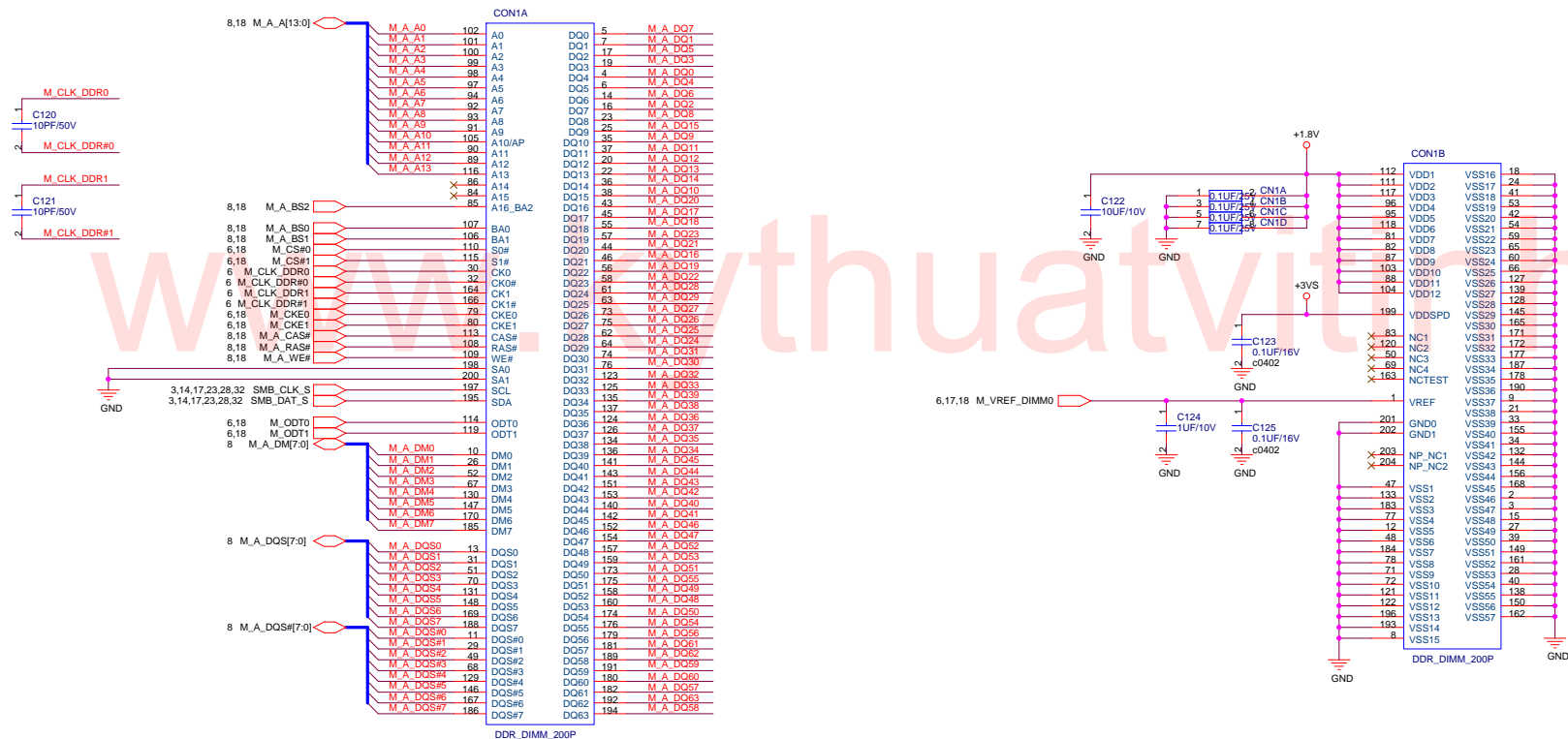
ASUSTeK COMPUTER INC. **Engineer: Alan Chen**

Size	Project Name	Rev
Custom	Z84FM	2.0

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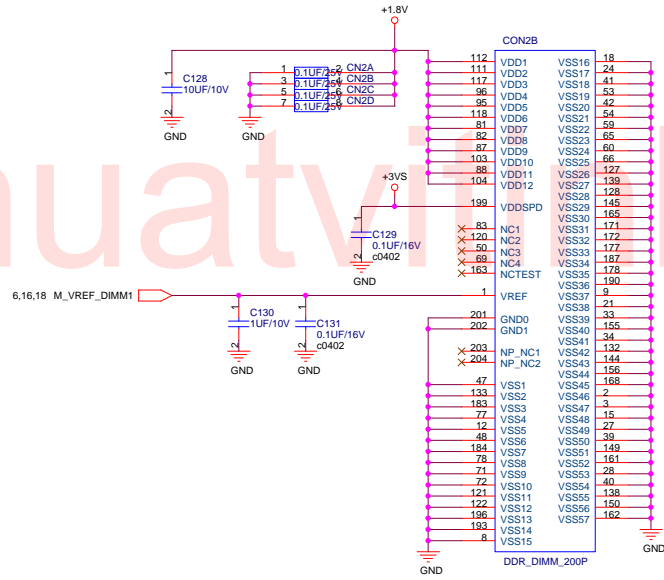
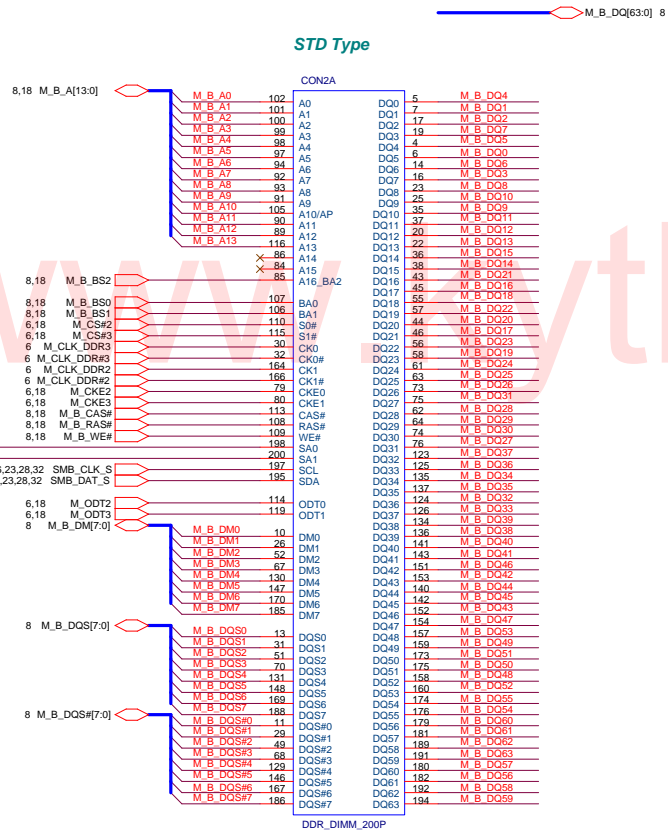
M_A_DQ[63:0] 8

REV Type



2.0G

ASUS		Title : DDR2 SO-DIMMO
ASUSTeK COMPUTER INC.		Engineer: Alan Chen
Size Custom	Project Name Z84FM	Rev 2.0
Date: Thursday, October 05, 2006	Sheet 16	of 57



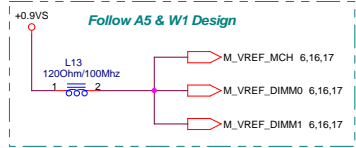
2.0G

ASUS Title : DDR2 SO-DIMM1

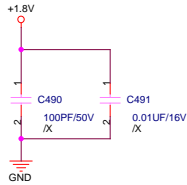
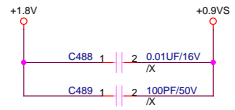
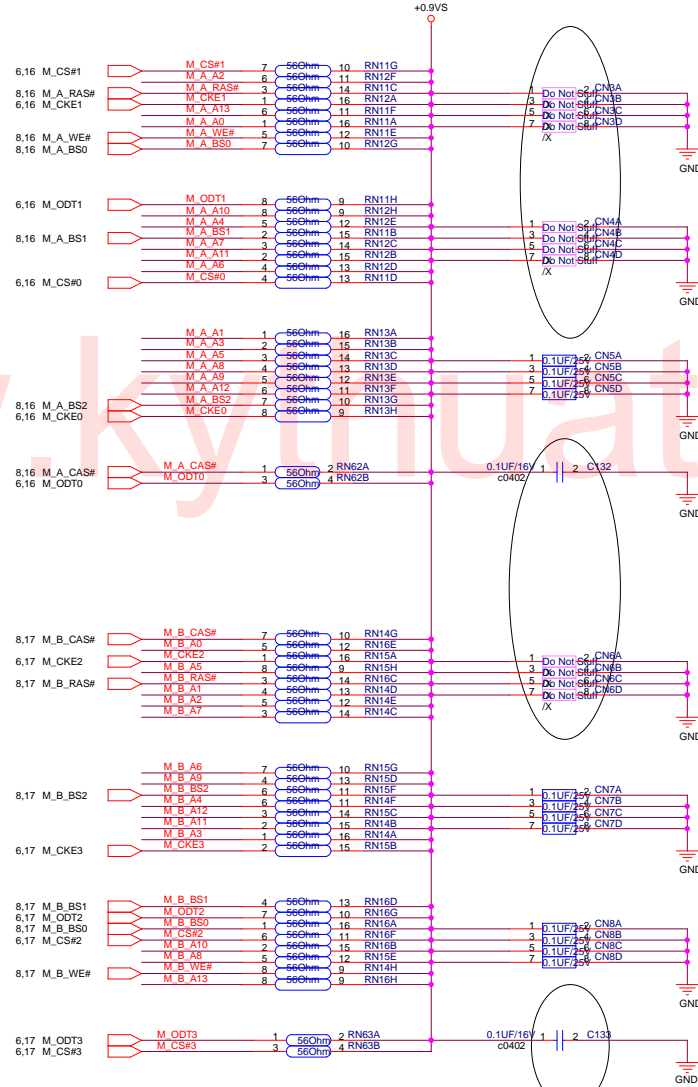
ASUSTeK COMPUTER INC. NB1 Engineer: Alan Chen

Size	Project Name	Rev
Custom	Z84FM	2.0

Date: Thursday, October 05, 2006 Sheet 17 of 57

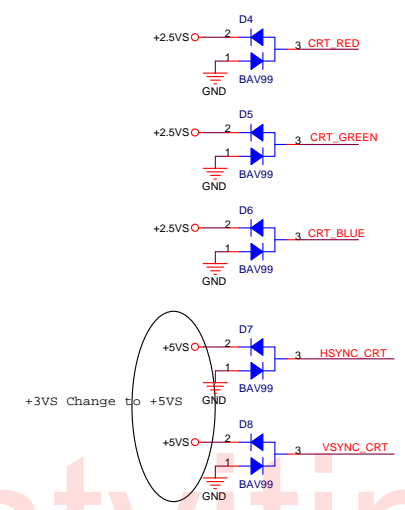
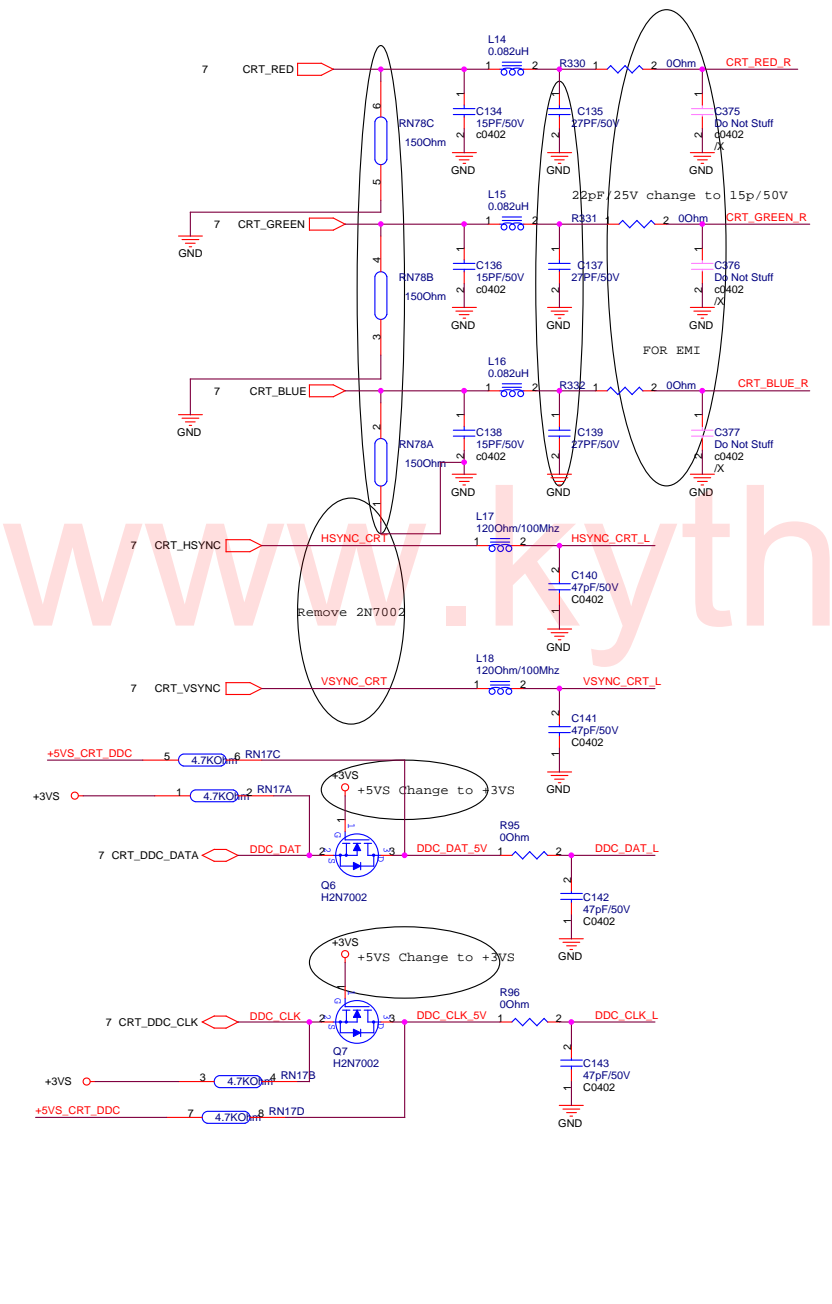


8,16 M_A_A[13:0]
8,17 M_B_A[13:0]

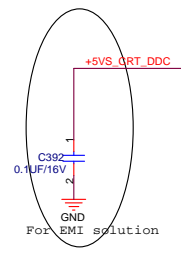
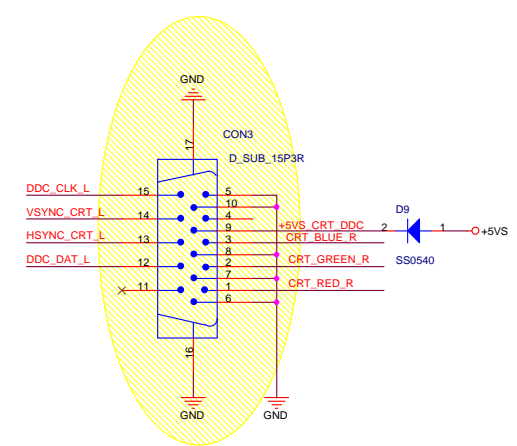


2.0G

ASUS		Title : DDR2 TERMINATION	
ASUSTeK COMPUTER INC. NB1		Engineer: Alan Chen	
Size	Project Name	Rev	
Custom	Z84FM	2.0	
Date: Thursday, October 05, 2006		Sheet	18 of 57



PLACE ESD Diodes near VGA port

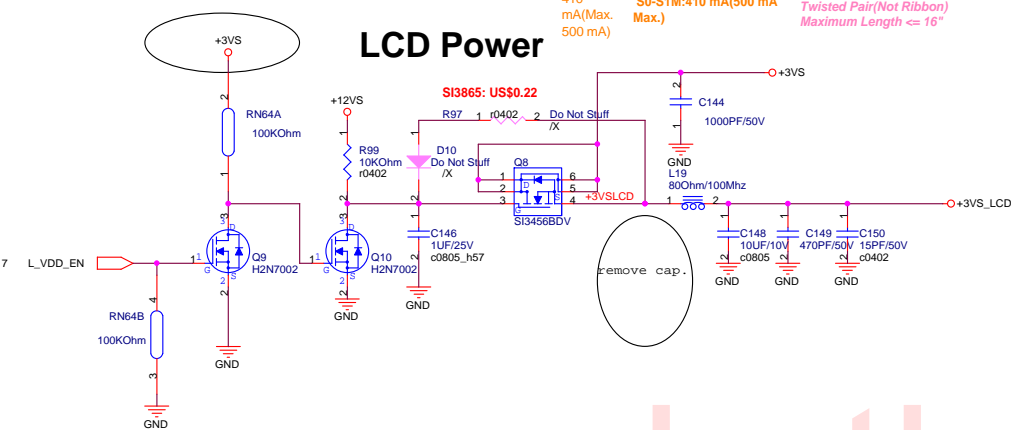


For EMI solution

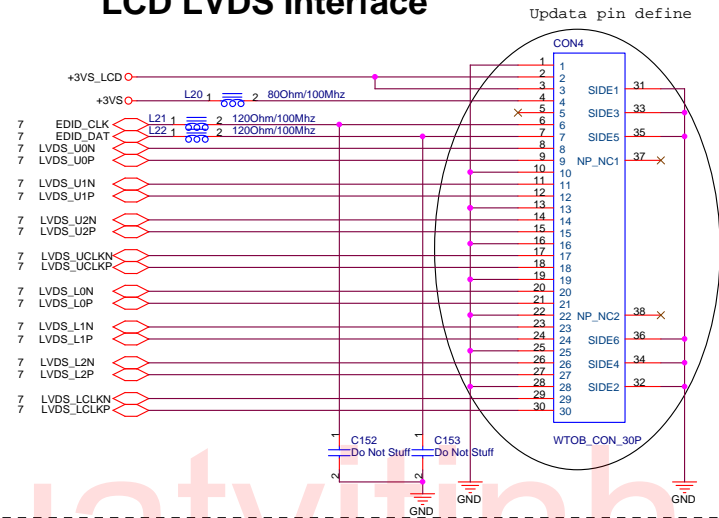
2.0G

ASUS		Title : CRT
ASUSTeK COMPUTER INC		Engineer: Alan Chen
Size	Project Name	Rev
Custom	Z84FM	2.0
Date: Thursday, October 05, 2006	Sheet	19 of 57

LCD Backlight Control



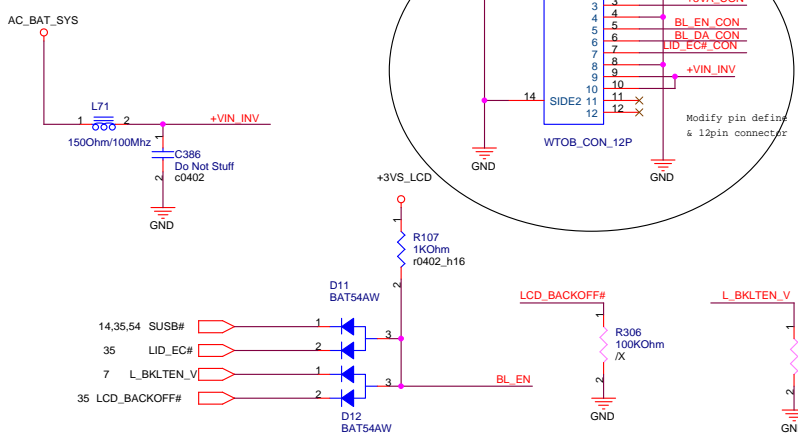
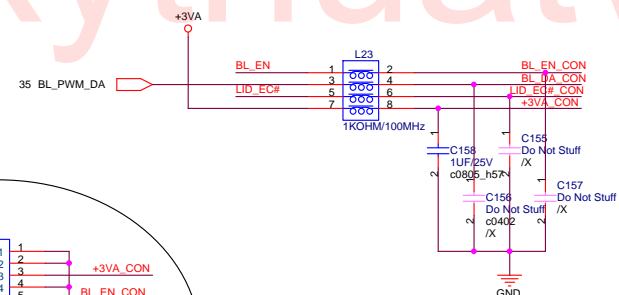
LCD LVDS Interface



INVERTER Interface/Speaker CONN.

BIOS
BACK_OFF#:When user push "Fn+F7" button, BIOS active this pin to turn off back light.

PANEL ID1 = 1 : WSXGA+ 1680x1050
PANEL ID1 = 0 : WXGA 1280x800
PANEL ID0 RESERVE FOR VENDOR



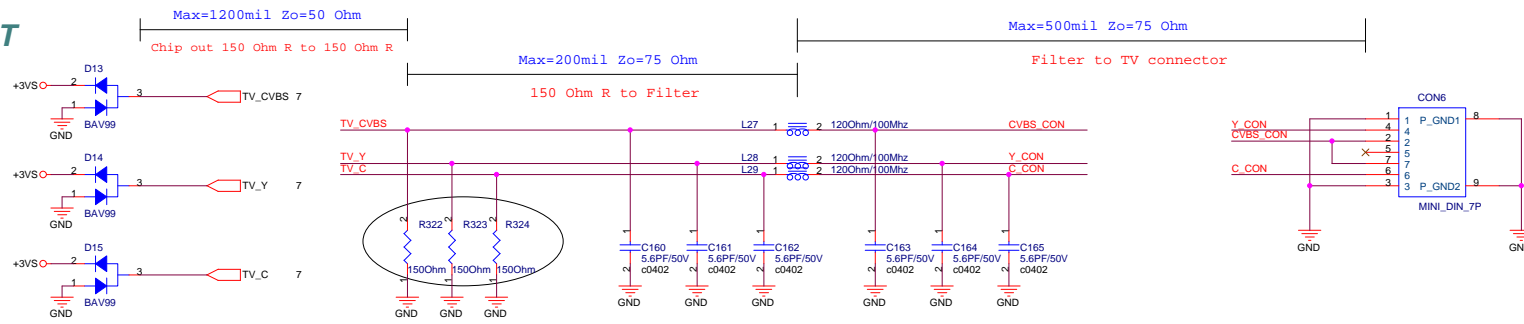
2.0G

ASUS Title :LVDS & INVERTER

ASUSTeK COMPUTER INC Engineer: Alan Chen

Size	Project Name	Rev
Custom	Z84FM	2.0
Date: Thursday, October 05, 2006	Sheet	20 of 57

TV OUT



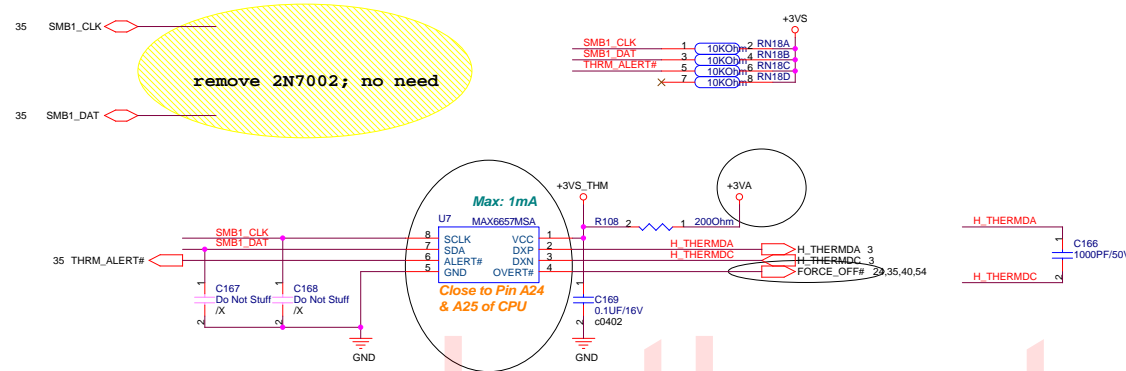
PLACE ESD
Diodes near
TV port

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2.0G

ASUS		Title : TV OUT & DVI CON.	
ASUSTeK COMPUTER INC		Engineer: Alan Chen	
Size	Project Name	Rev	
Custom	Z84FM	2.0	
Date: Thursday, October 05, 2006		Sheet	21 of 57

Thermal Sensor

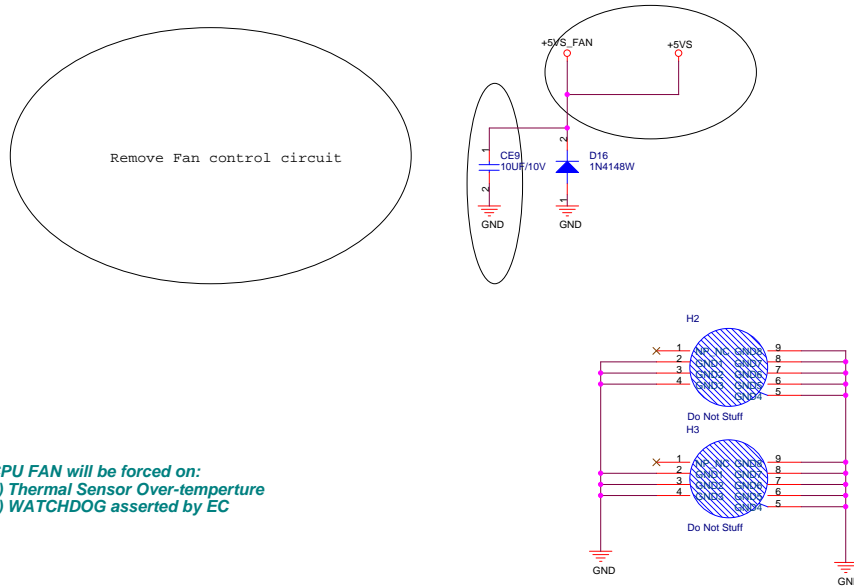


Route H_THERMDA and H_THERMDC on the same layer

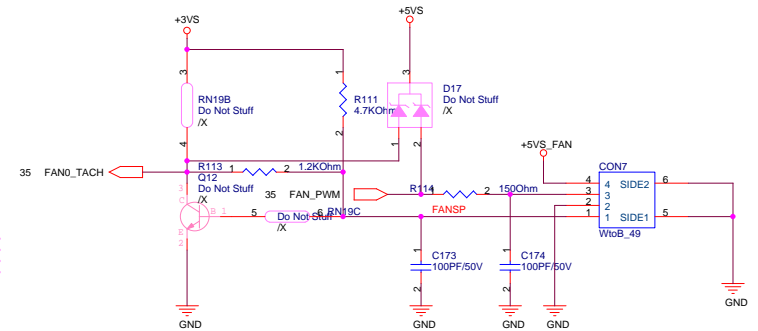
- 15 mils OTHER SIGNALS
- 10 mils GND
- 10 mils H_THERMDA(10 mils)
- 10 mils H_THERMDC(10 mils)
- 15 mils GND
- 15 mils OTHER SIGNALS

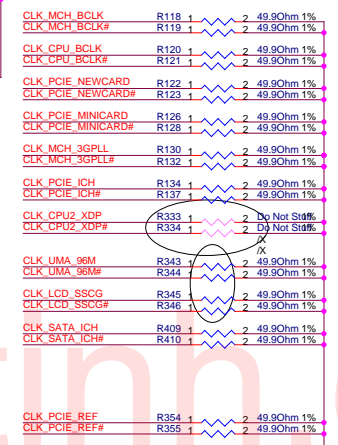
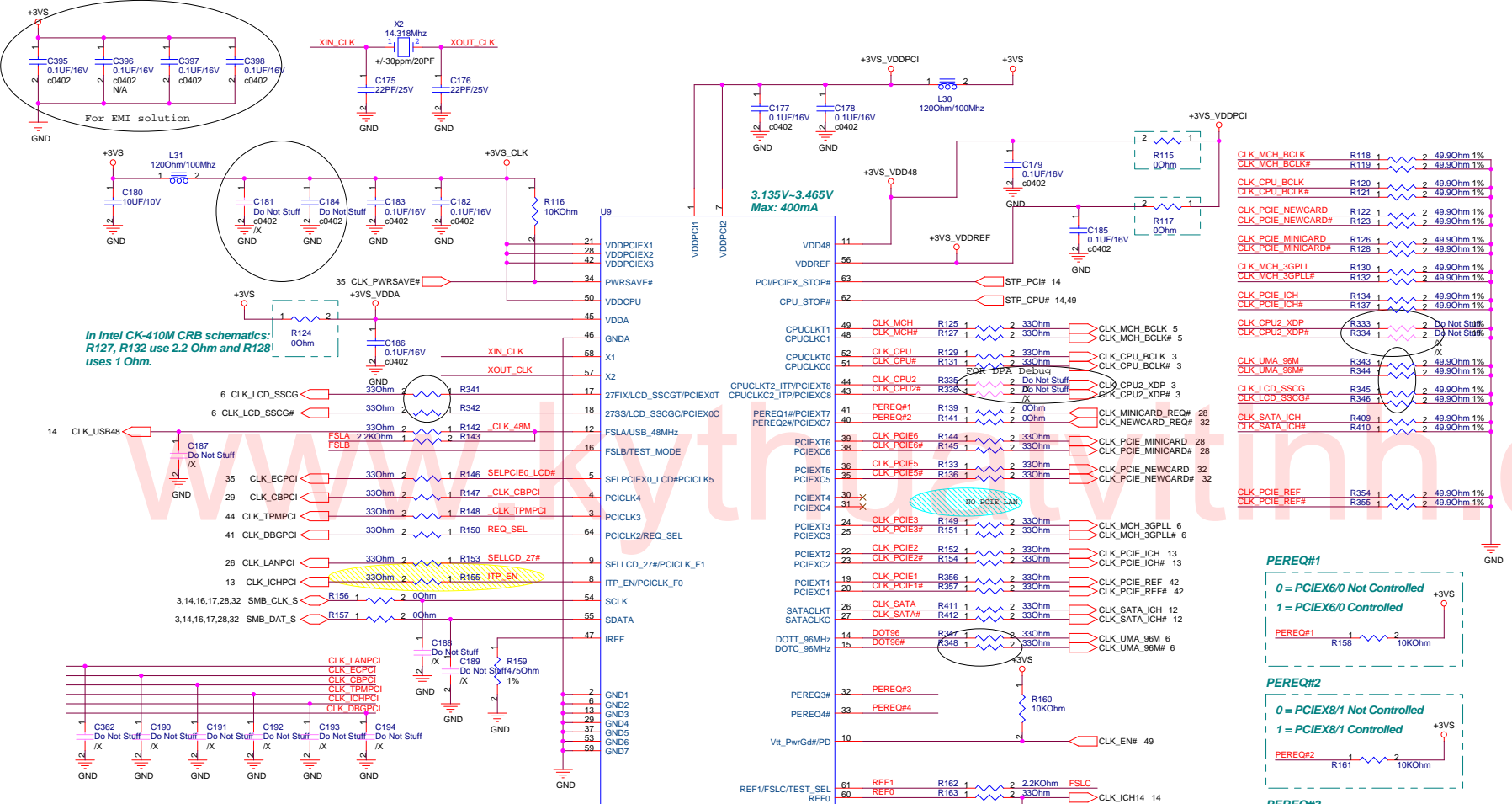
Avoid FSB,Power

DC FAN Control



CPU FAN will be forced on:
 1) Thermal Sensor Over-temperature
 2) WATCHDOG asserted by EC





PEREQ#1



PEREQ#2



PEREQ#3



PEREQ#4

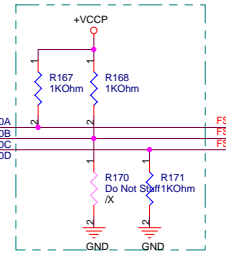


Latched Input Select



IC954310CGLFT
Pin 5,9,32,33,34 : Internal Pull-Up
Pin 64: Internal Pull-Down

Reserved for Debug & Exprimt



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

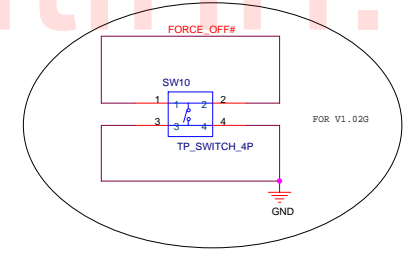
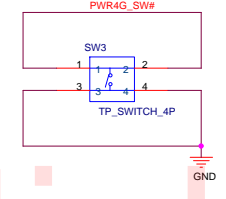
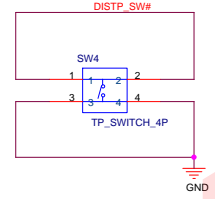
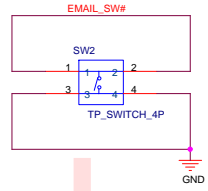
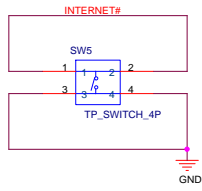
2.0G

ASUS Title : **CLK GEN-IC954310**

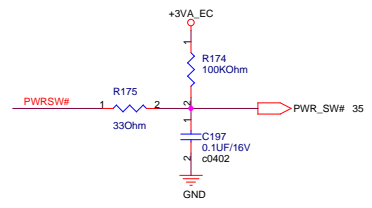
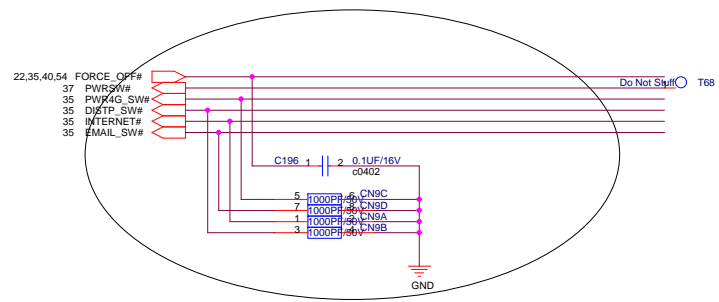
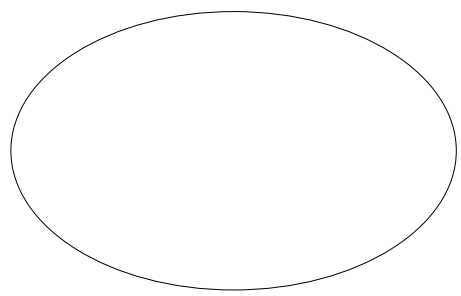
ASUSTek COMPUTER INC. Engineer: **Alan Chen**

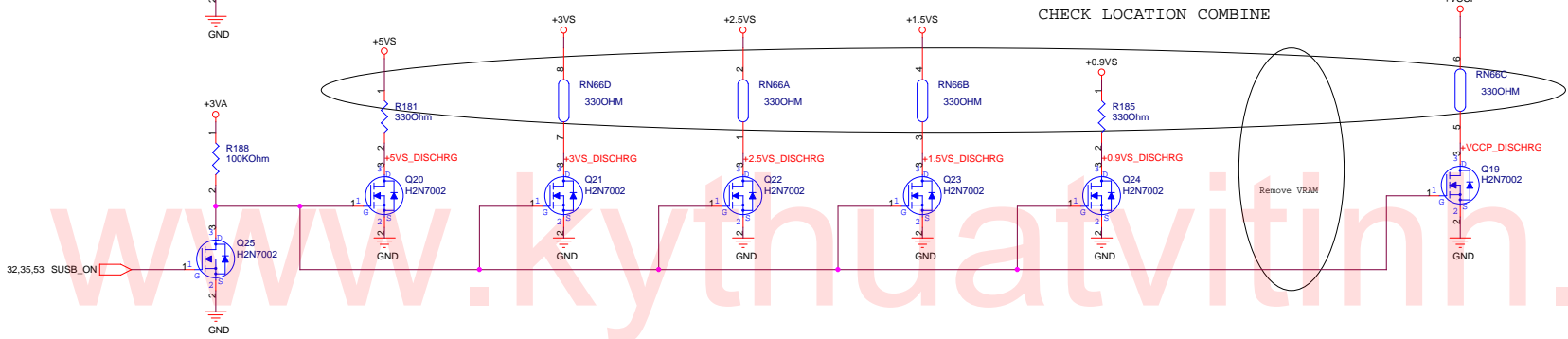
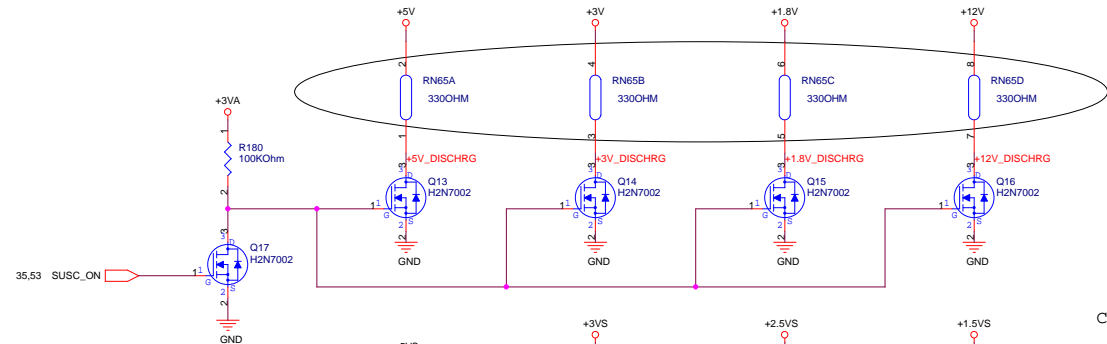
Size	Project Name	Rev
Custom	Z84FM	2.0

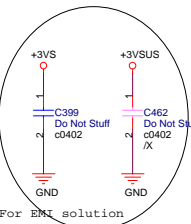
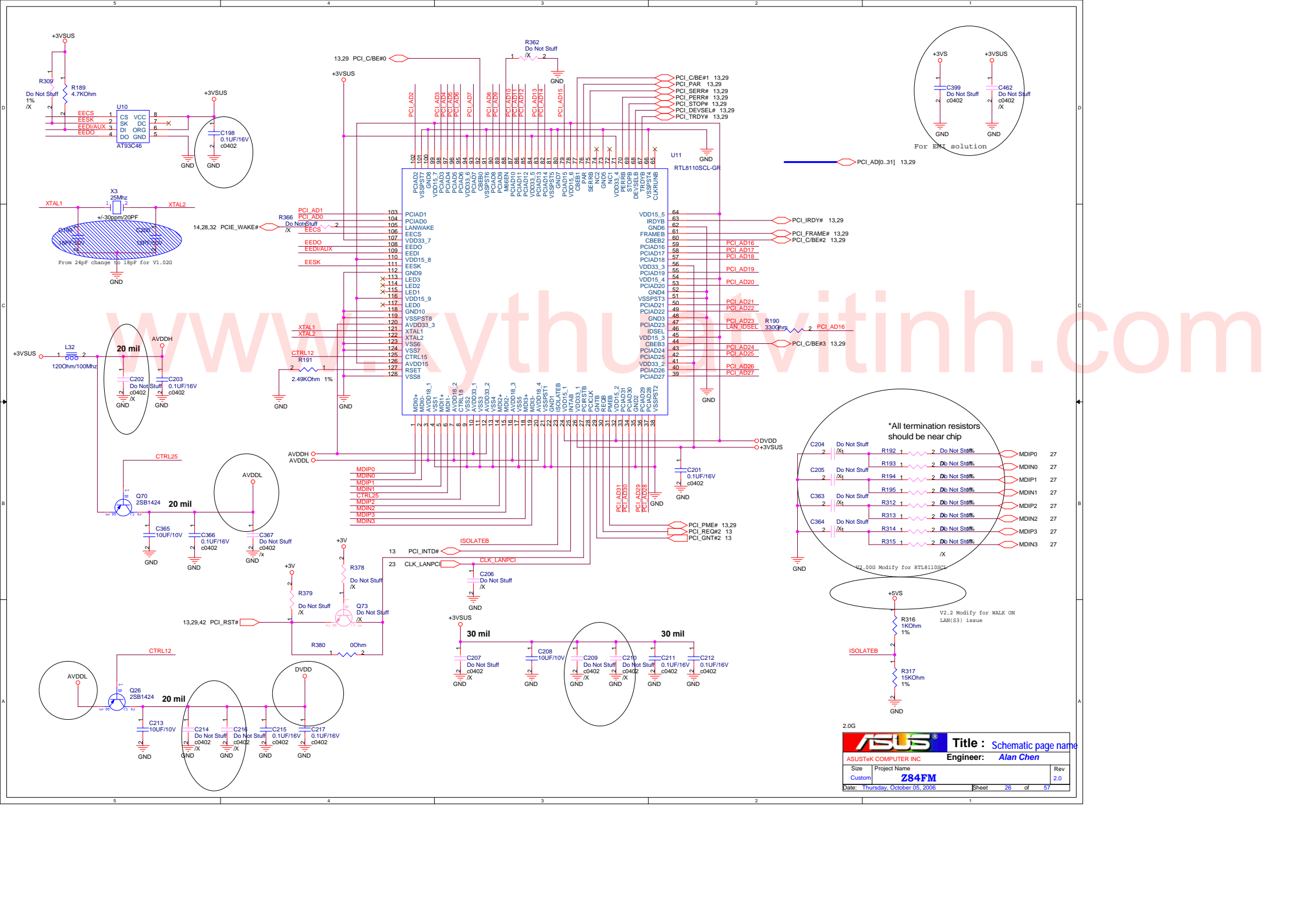
Date: Thursday, October 05, 2006 Sheet 23 of 57



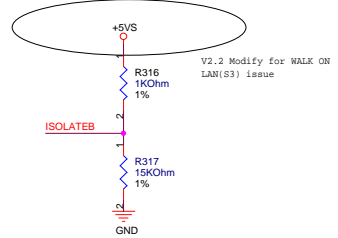
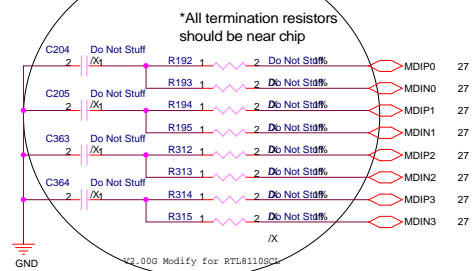
SHUT_DOWN#







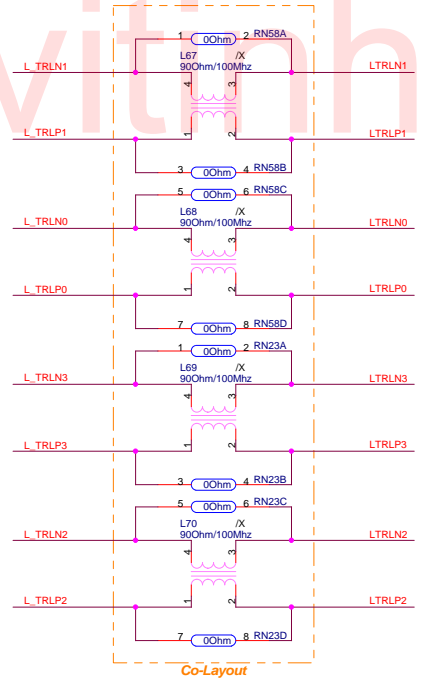
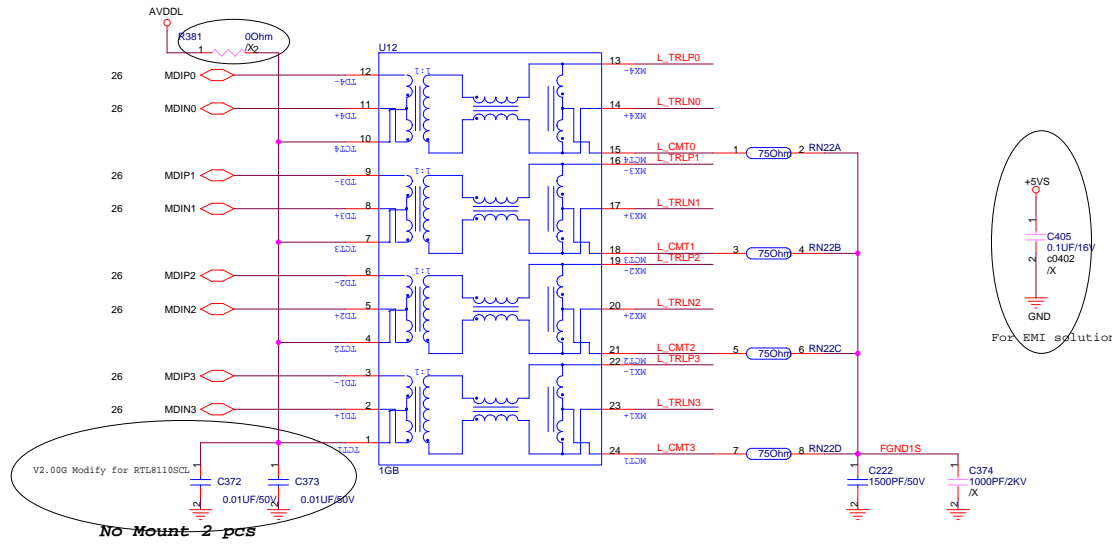
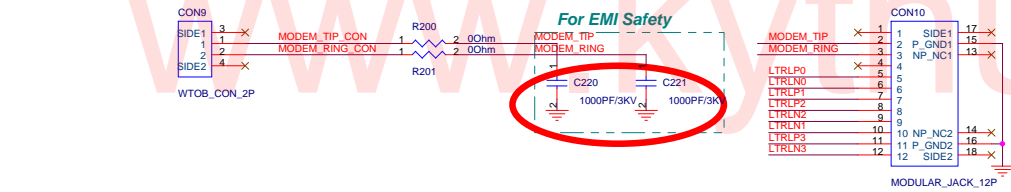
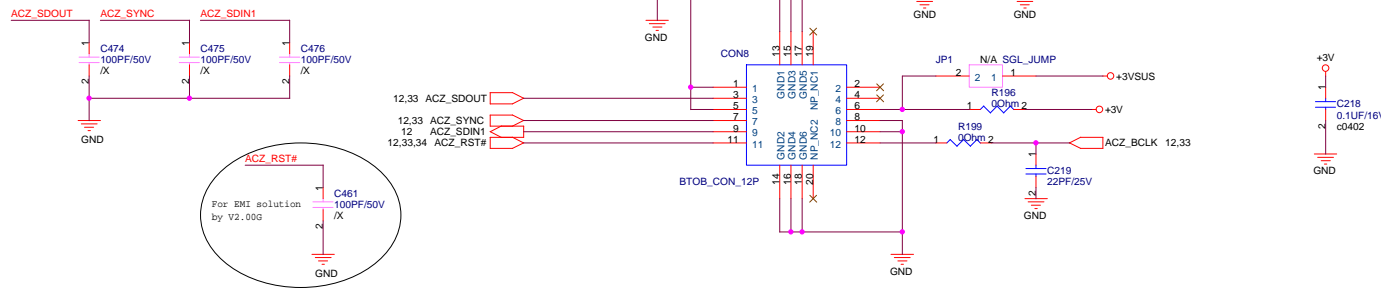
PCI_AD[0..31] 13.29

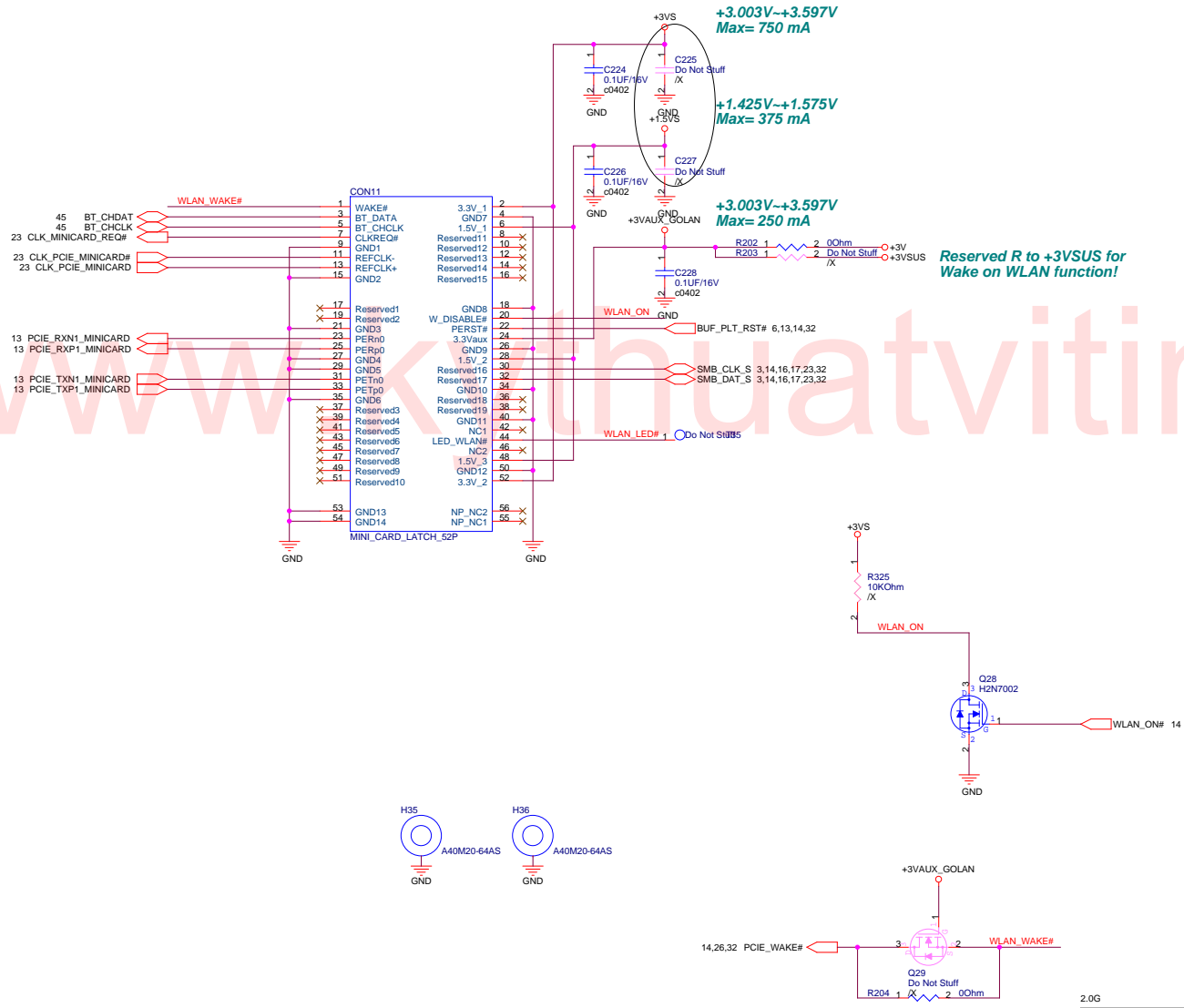


2.0G

ASUS		Title : Schematic page name	
ASUSTeK COMPUTER INC		Engineer: Alan Chen	
Size	Project Name	Rev	
Custom	Z84FM	2.0	
Date: Thursday, October 05, 2006	Sheet	26	of 57

MDC CONN.

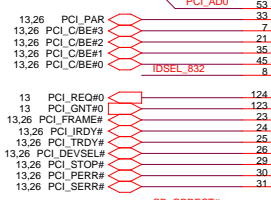
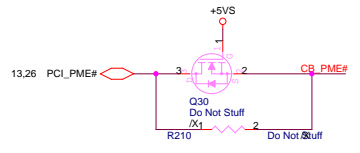
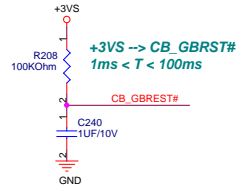
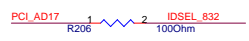
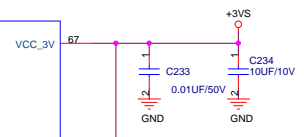
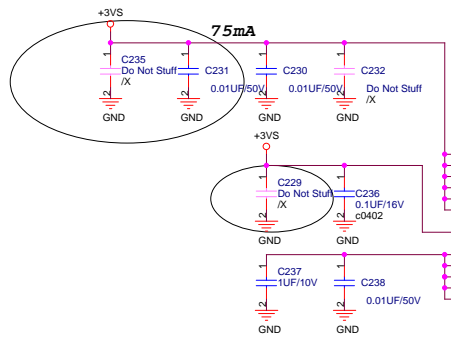




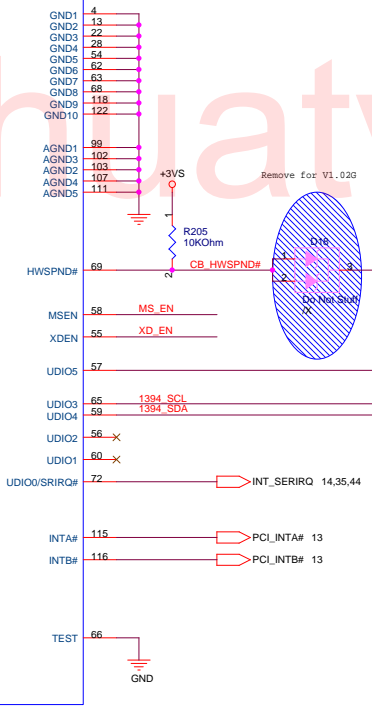
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2.0G

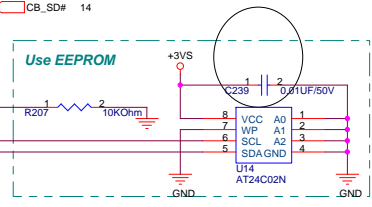
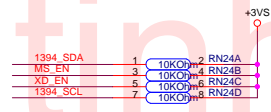
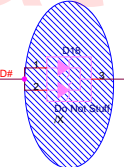
ASUS		Title : MINICARD
ASUSTeK COMPUTER INC.		Engineer: Alan Chen
Size	Project Name	Rev
Custom	Z84FM	2.0
Date: Thursday, October 05, 2006		Sheet 28 of 57



PCI / OTHER

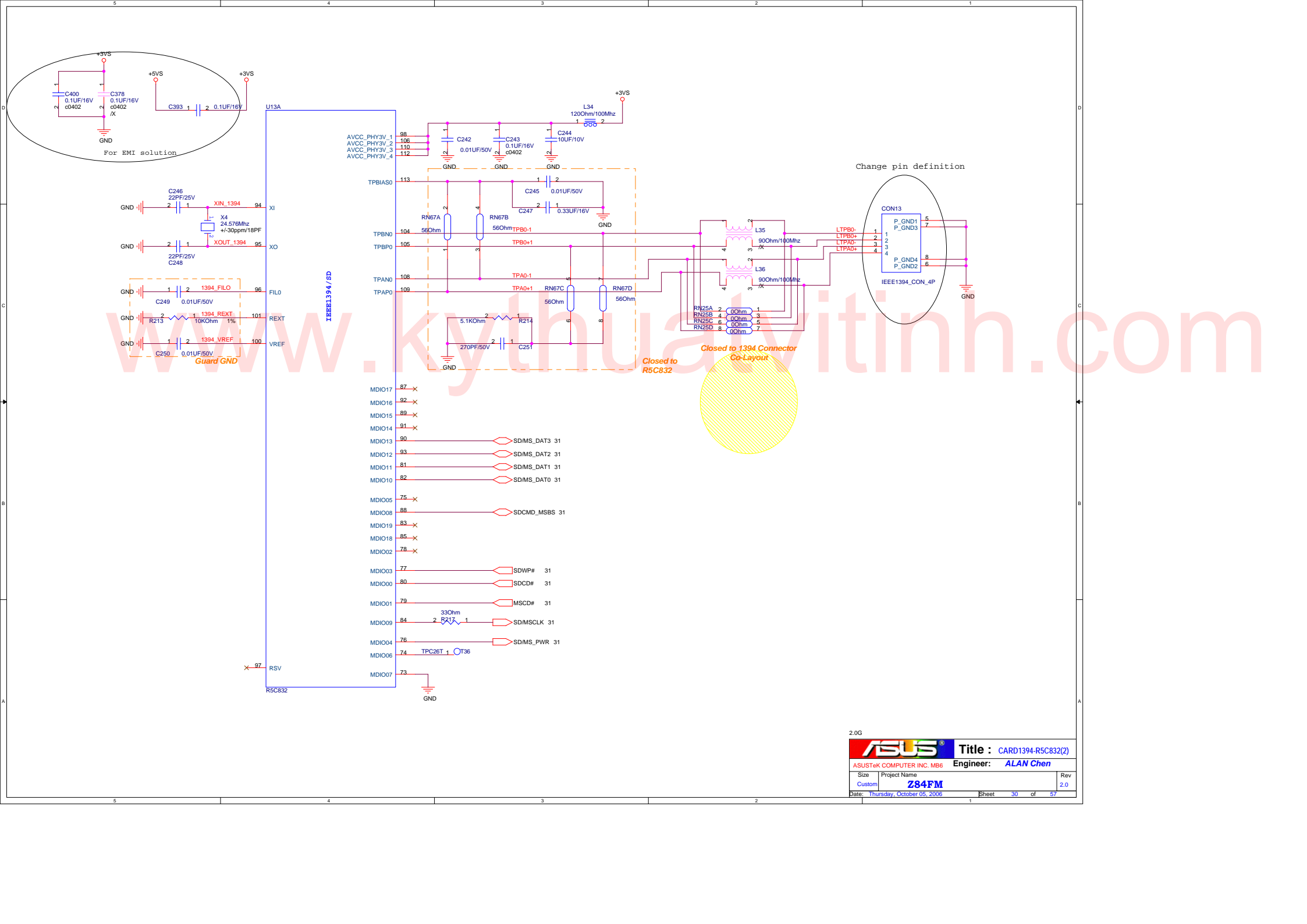


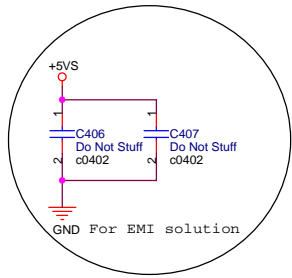
Remove for V1.020



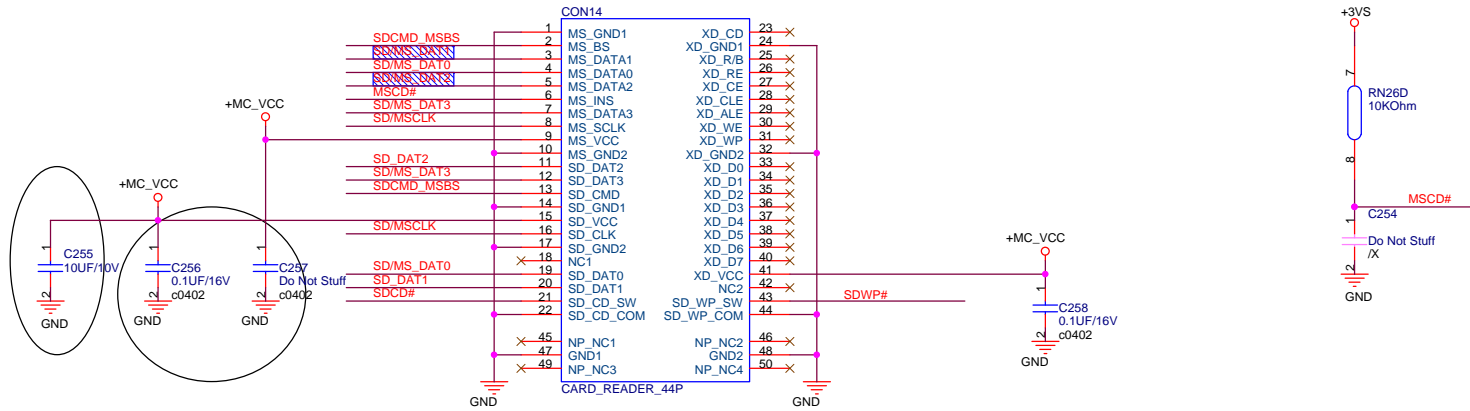
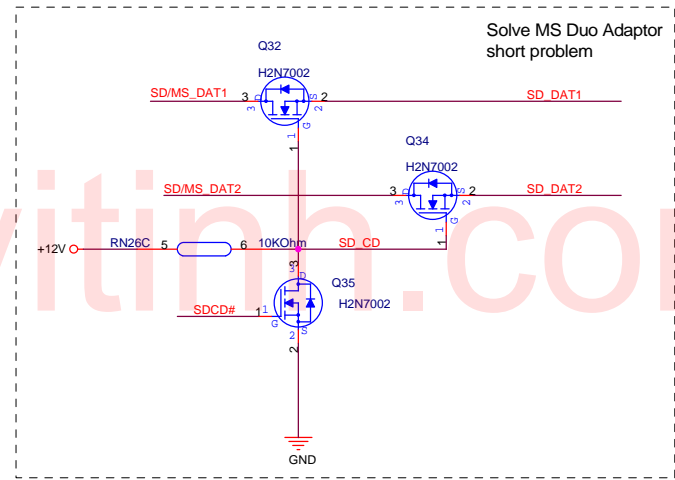
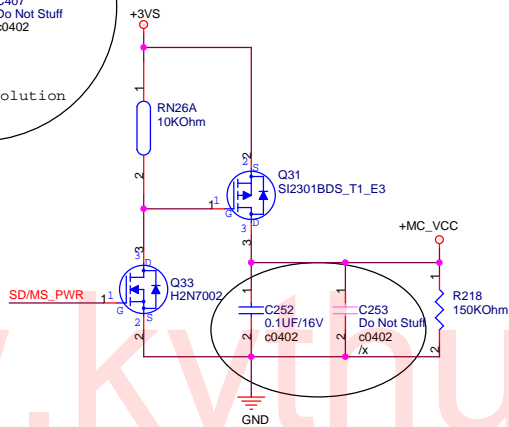
2.0G

ASUS		Title : CARD1394-R5C832(1)	
ASUSTeK COMPUTER INC. M6E		Engineer: ALAN Chen	
Size	Project Name	Rev	
Custom	Z84FM	2.0	
Date: Thursday, October 05, 2006		Sheet	29 of 57



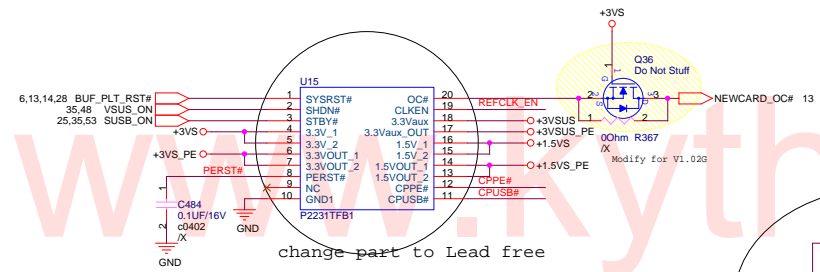
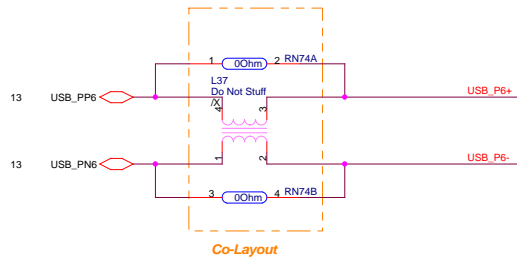


- SD/MS_DAT3 30
- SD/MS_DAT2 30
- SD/MS_DAT1 30
- SD/MS_DAT0 30
- SDCMD_MSBS 30
- SDWP# 30
- SDCD# 30
- MSCD# 30
- SD/MSCLK 30
- SD/MS_PWR 30

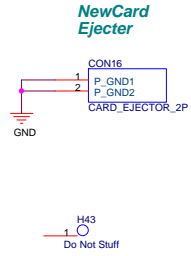
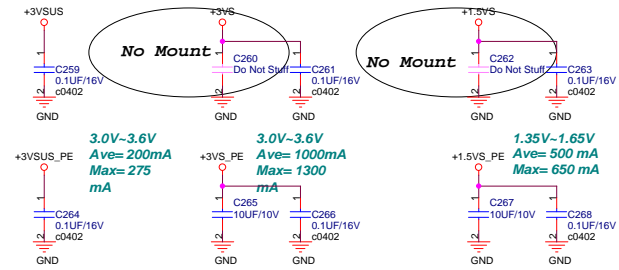
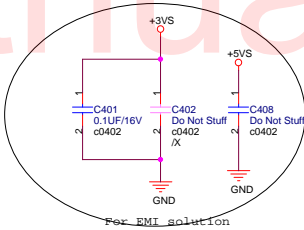
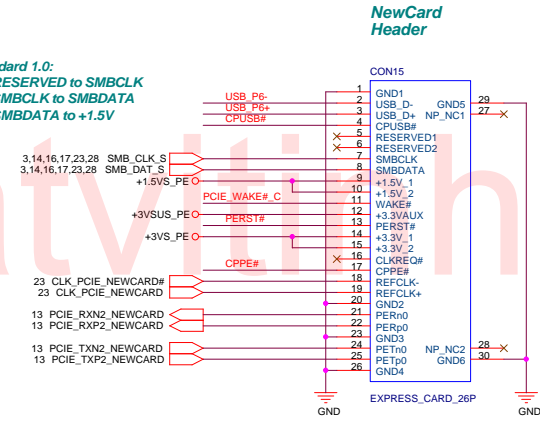


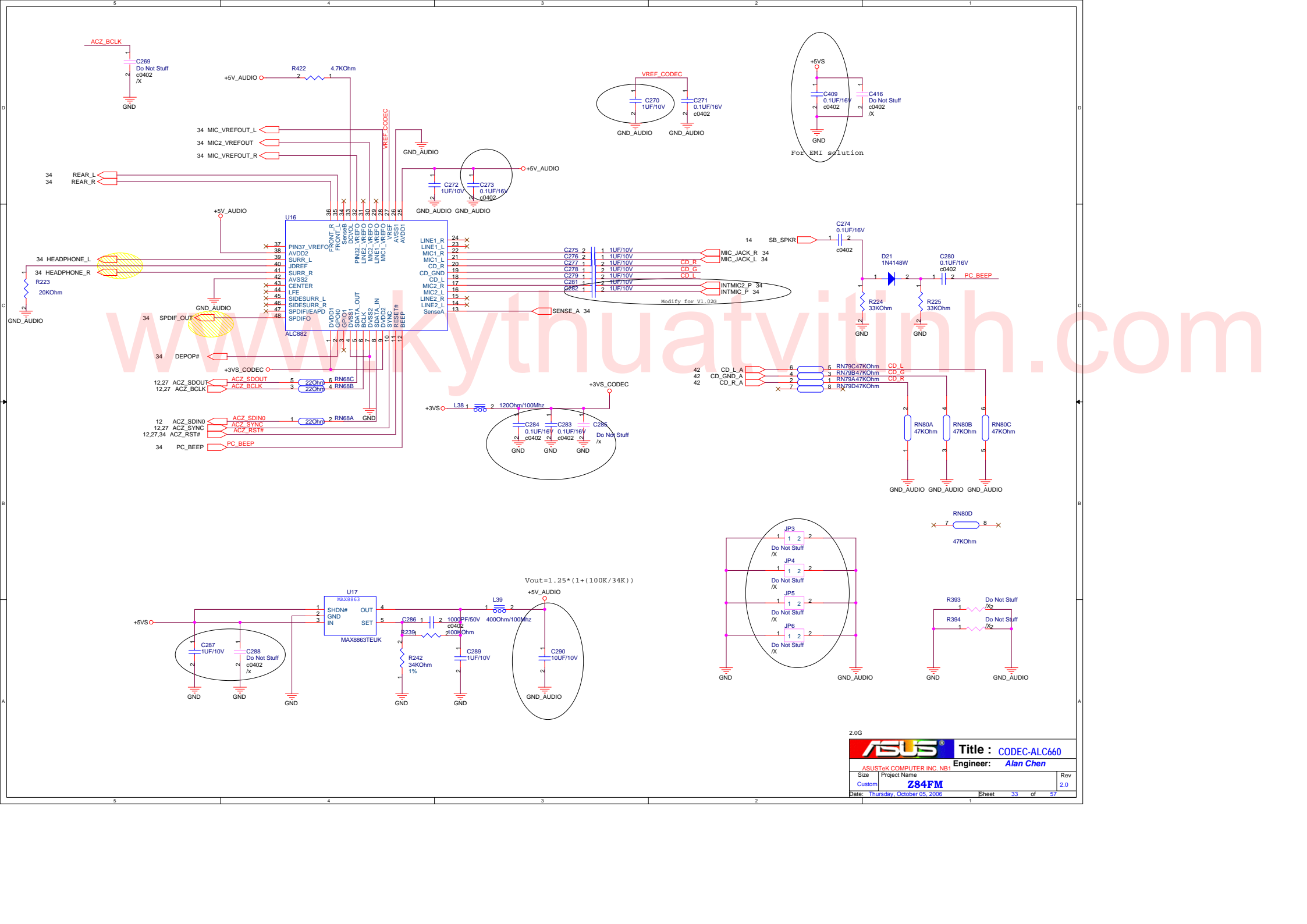
2.0G

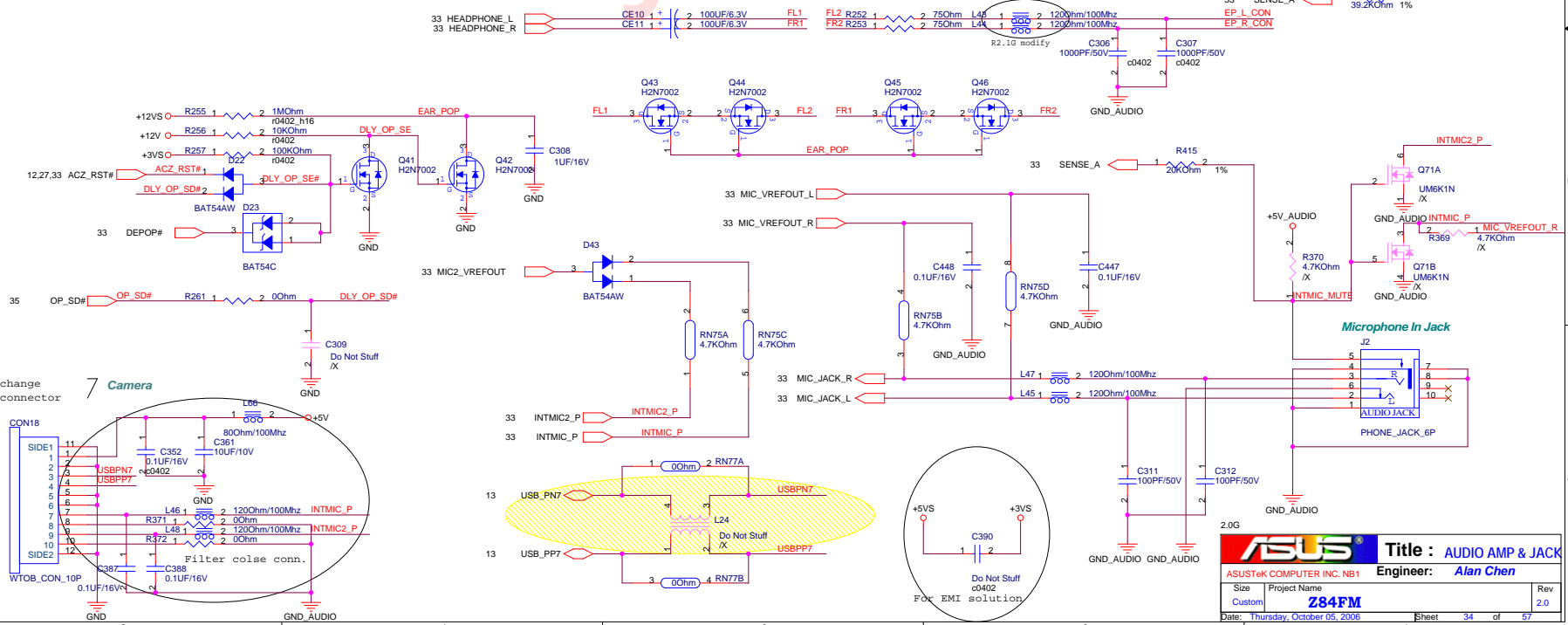
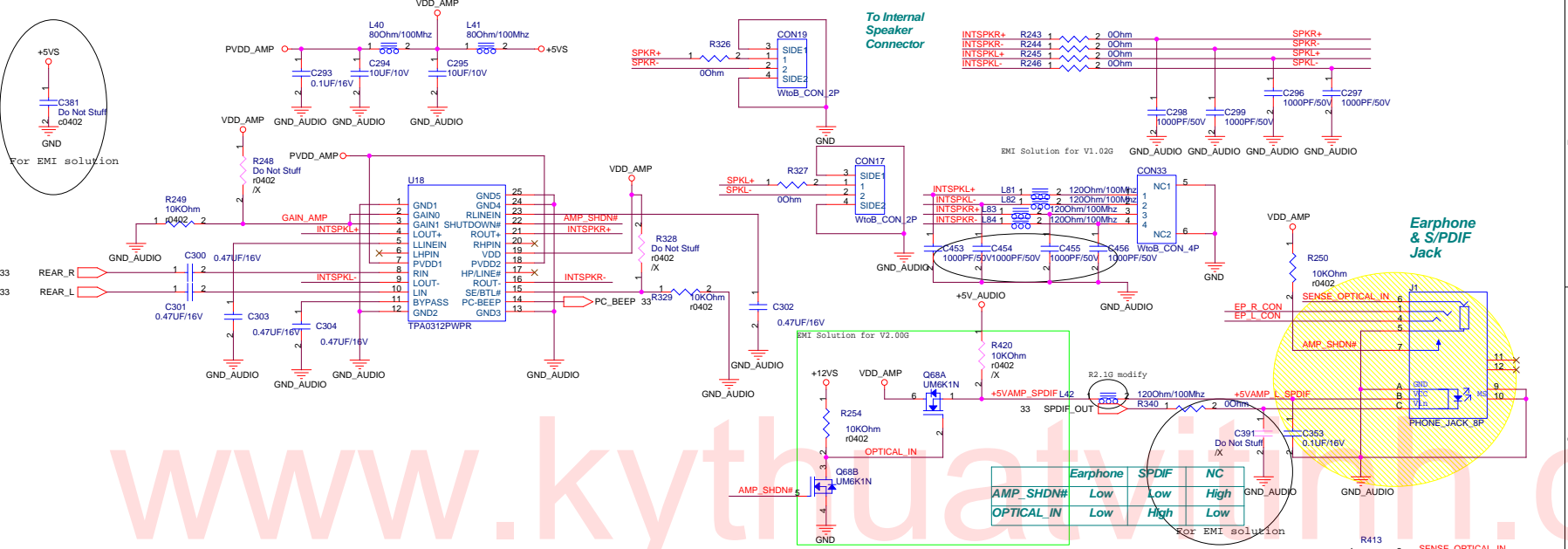
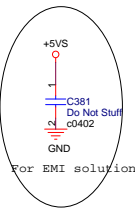
ASUS		Title 4 in 1 CARD READER	
ASUSTeK COMPUTER INC		Engineer: ALAN CHEN	
Size A3	Project Name Z84FM	Rev 2.0	
Date: Thursday, October 05, 2006		Sheet 31 of 57	



!! ExpressCard Standard 1.0:
 Change Pin7 from RESERVED to SMBCLK
 Change Pin8 from SMBCLK to SMBDATA
 Change Pin9 from SMBDATA to +1.5V

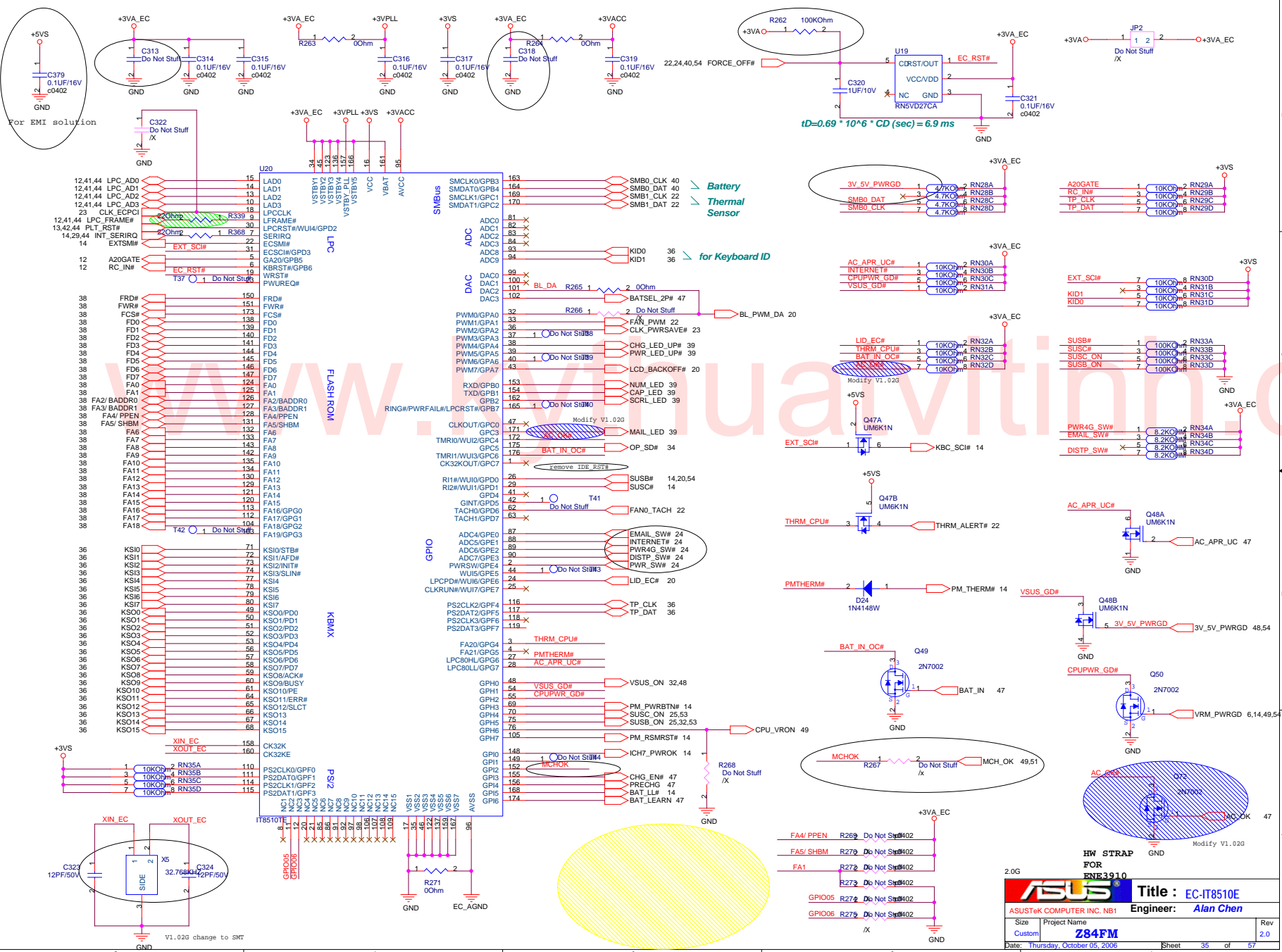






AMP_SHDN#	Low	Low	High
OPTICAL_IN	Low	High	Low

ASUS Title : **AUDIO AMP & JACK**
 ASUSTek COMPUTER INC. NB1 Engineer: **Alan Chen**
 Size Project Name
 Custom **Z84FM**
 Date: Thursday, October 05, 2016 Sheet 34 of 57



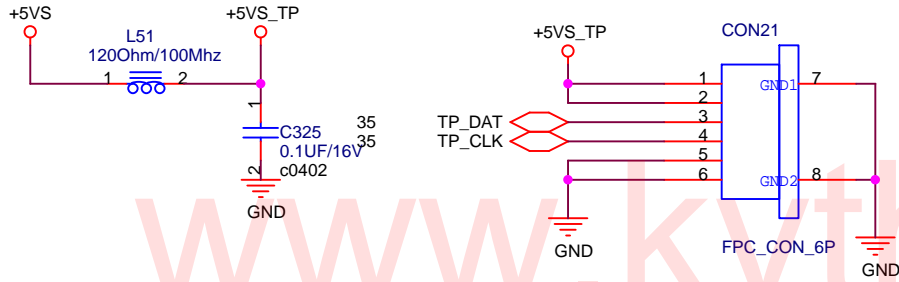
Battery
Thermal Sensor
for Keyboard ID

$tD = 0.69 \cdot 10^{-6} \cdot CD \text{ (sec)} = 6.9 \text{ ms}$

ASUS
Title: EC-IT8510E
ASUSTeK COMPUTER INC. NB1
Engineer: Alan Chen
Size | Project Name
Custom | Z84FM
Date: Thursday, October 05, 2006 | Sheet 35 of 57

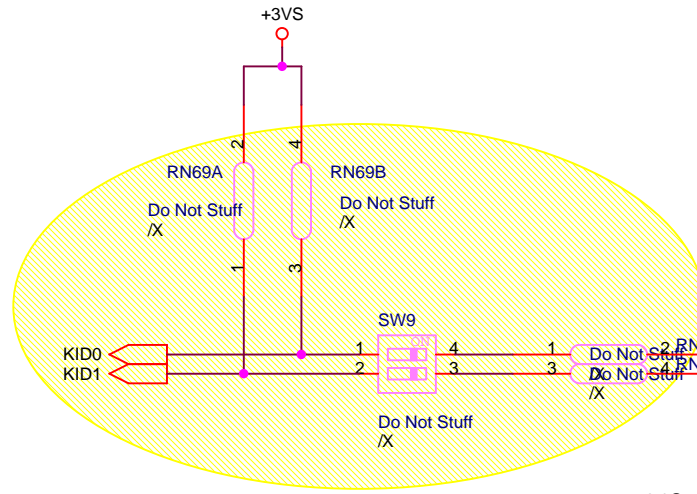
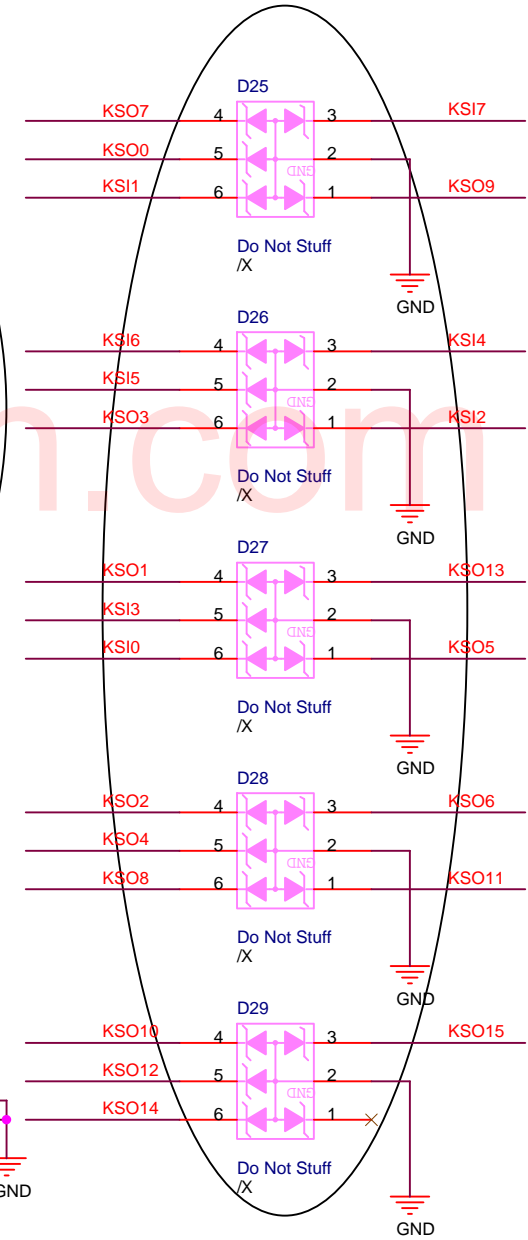
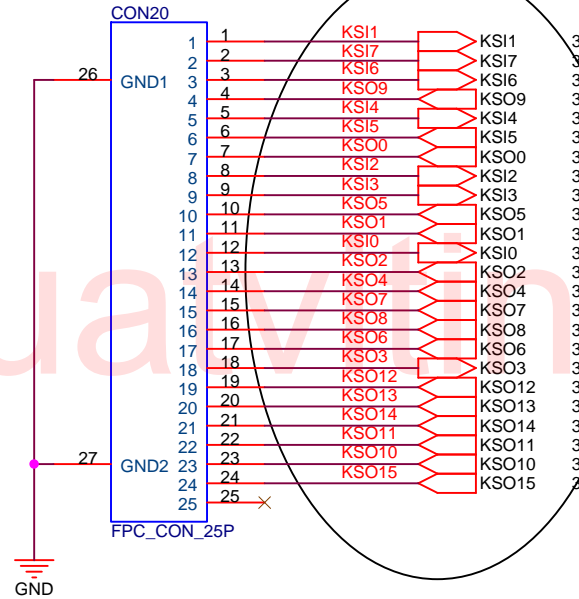
EXT_SCI#

For Touch-Pad



For Keyboard

For CBB -US- MATRIX



2.0G

D

C

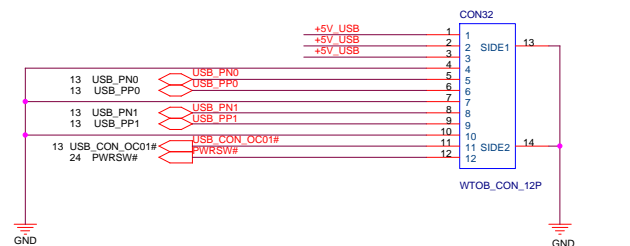
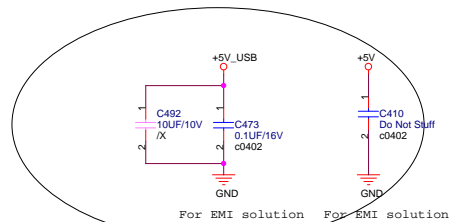
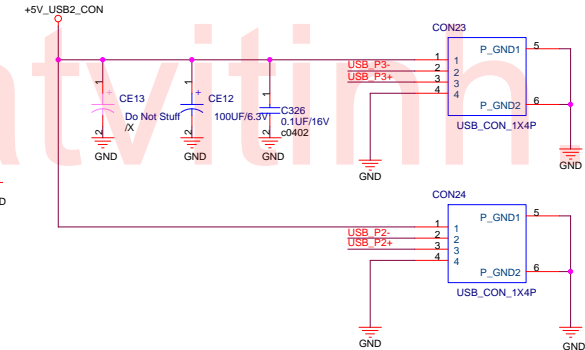
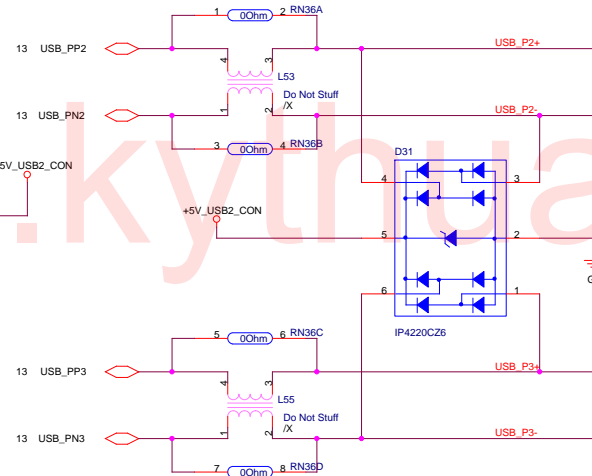
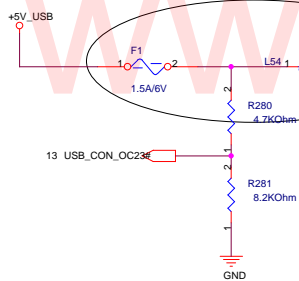
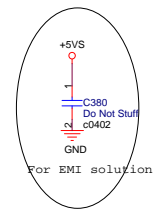
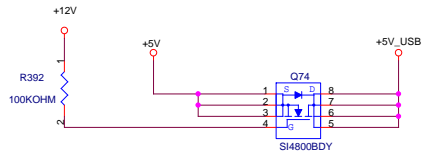
B

A

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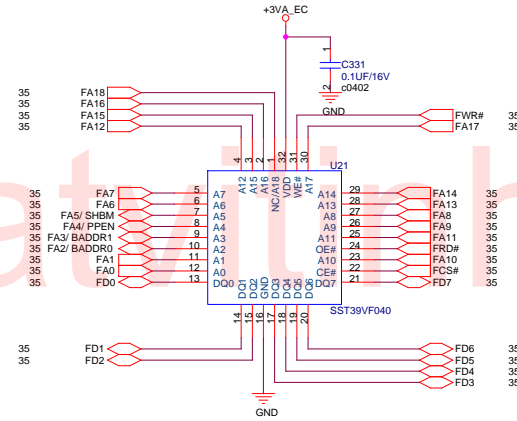
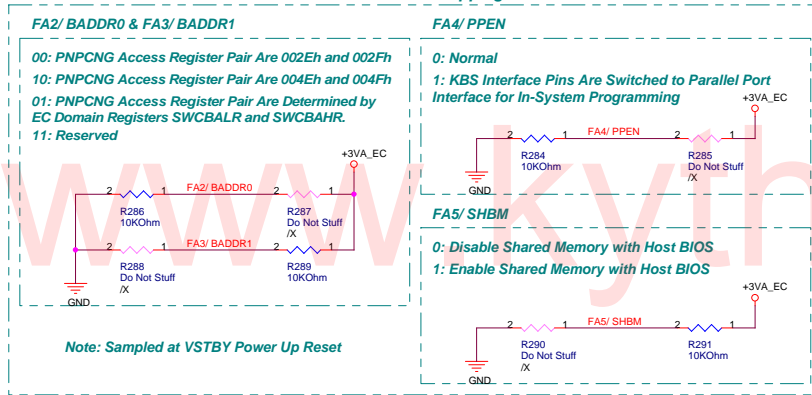
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ISA ROM

EC Hardware Strapping

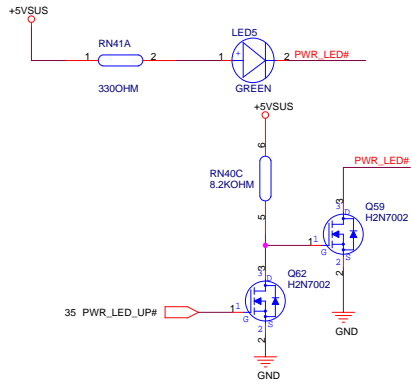


2.0G

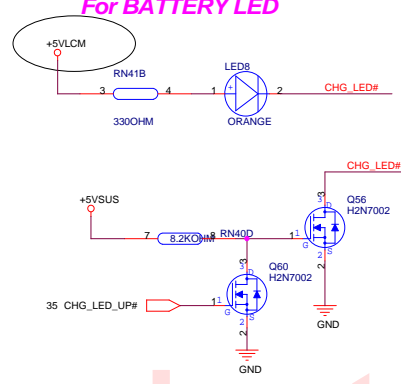
ASUS		Title :ISA ROM	
ASUSTeK COMPUTER INC. NB1		Engineer: Alan Chen	
Size	Project Name	Rev	
Custom	Z84FM	2.0	
Date: Thursday, October 05, 2006		Sheet	38 of 57

For LED

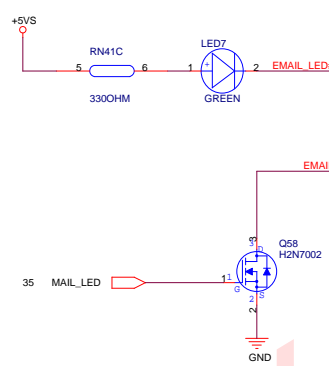
For POWER LED



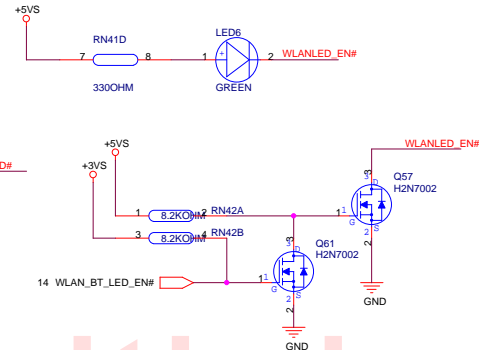
For BATTERY LED



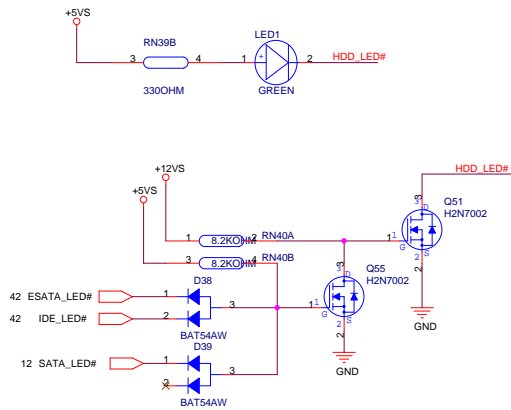
for EMIAL LED



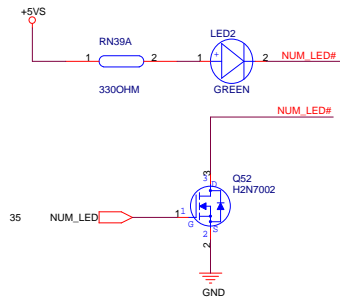
For WireLess LED



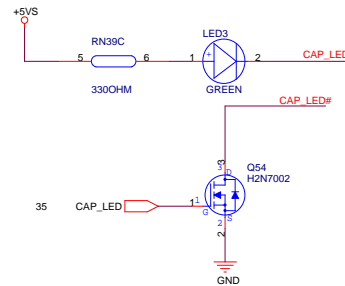
For ESATA/IDE LED



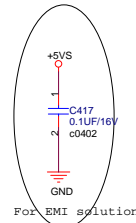
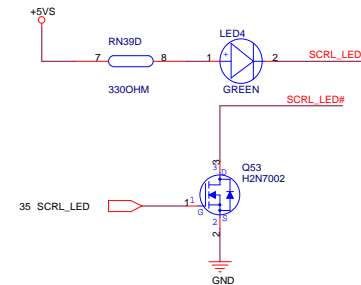
for Num Lock



for Cap. Lock



for Scroll Lock



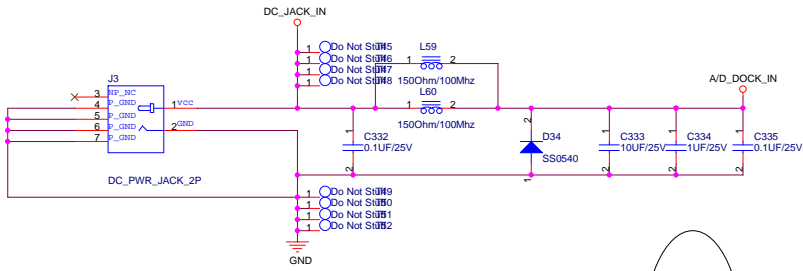
For EMI solution

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2.0G

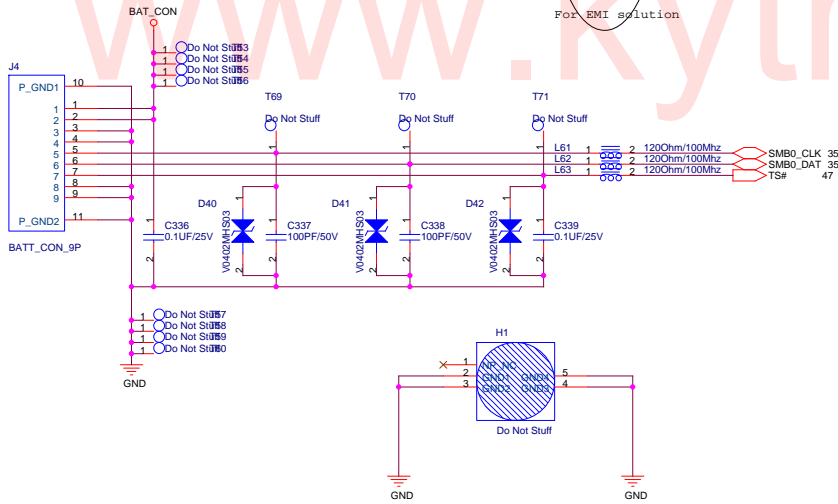
ASUS		Title : LED	
ASUSTeK COMPUTER INC		Engineer: Alan Chen	
Size	Project Name	Rev	
Custom	Z84FM	2.0	
Date: Thursday, October 05, 2006		Sheet	39 of 57

DC IN

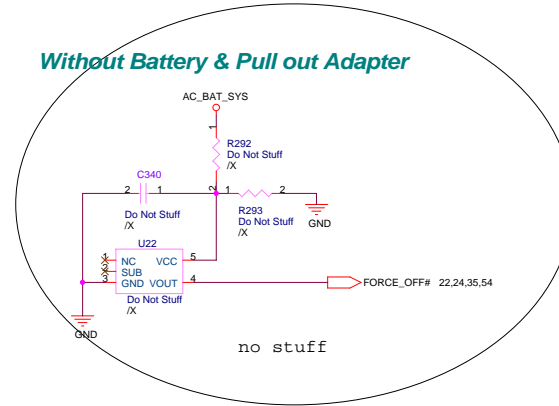


remove AC DC detect; no need

BAT IN



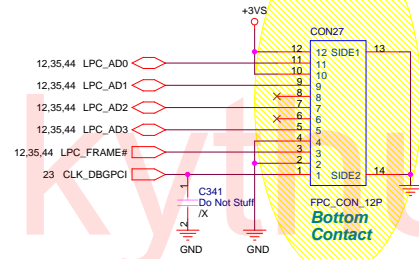
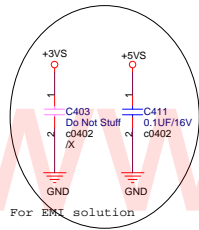
Without Battery & Pull out Adapter



no stuff

2.0G

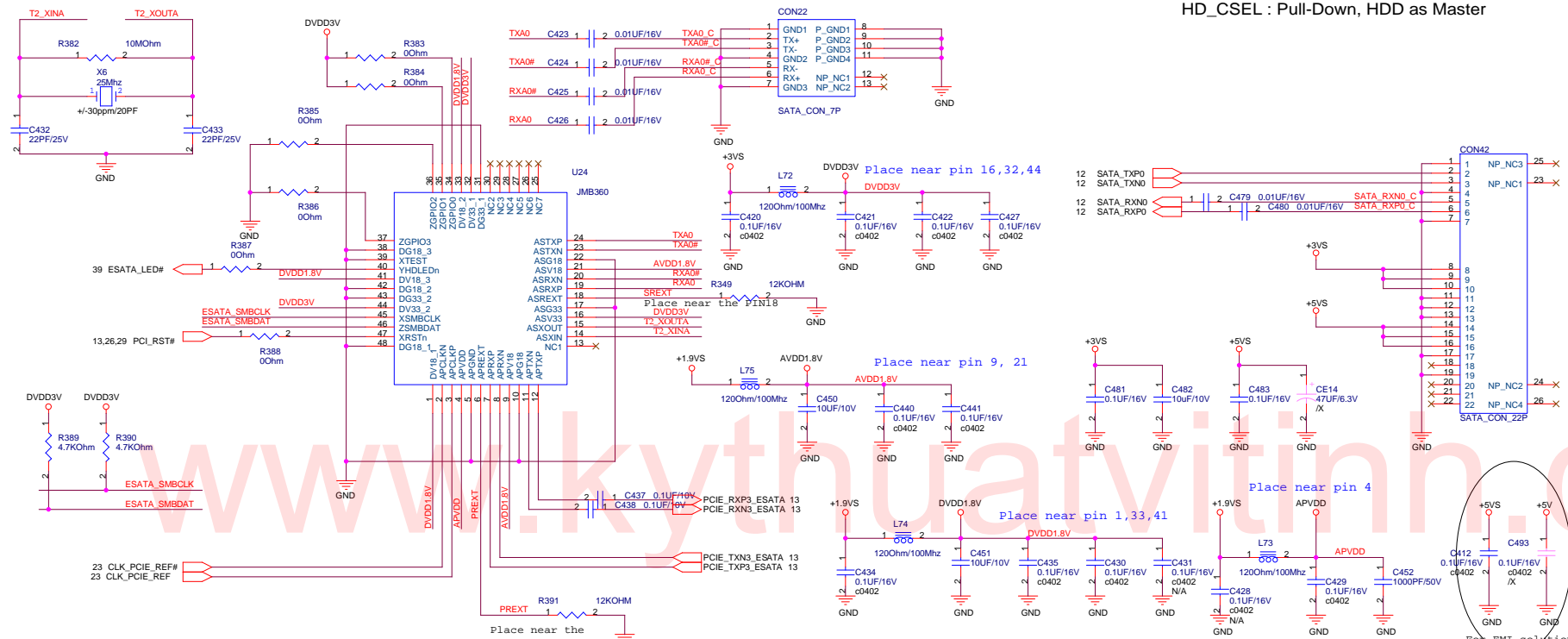
For Debug



pin swap;by F3J

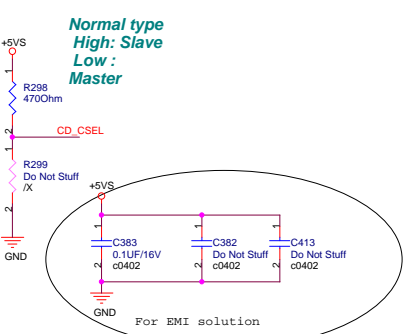
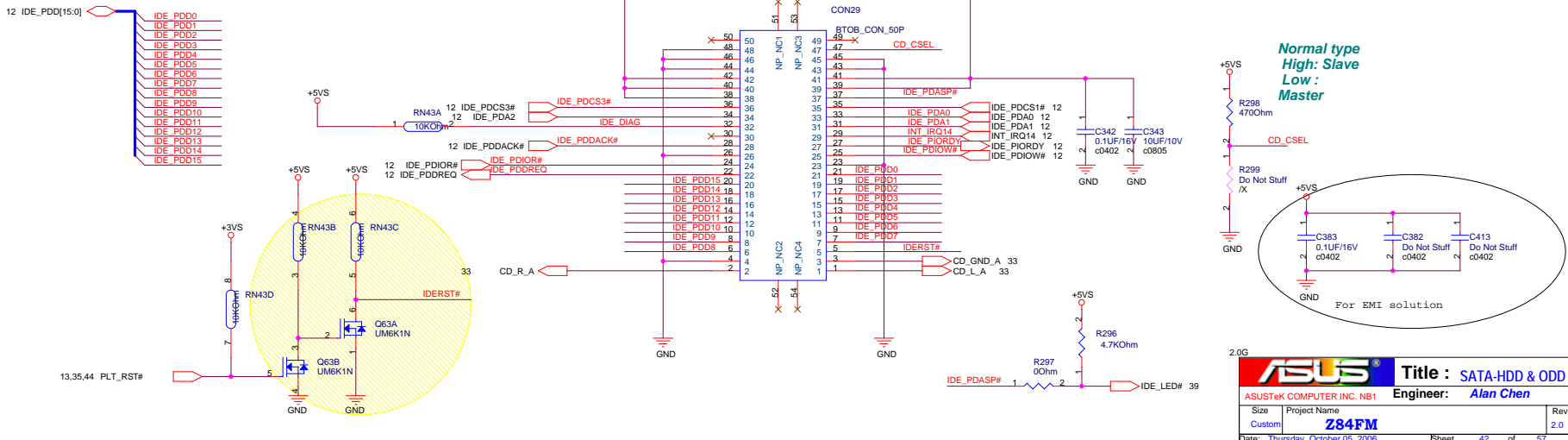
2.0G

		Title : Debug CONN.	
ASUSTeK COMPUTER INC		Engineer: Alan Chen	
Size	Project Name	Rev	
Custom	Z84FM	2.0	
Date: Thursday, October 05, 2006	Sheet	41	of 57



ESATA & PATA HDD

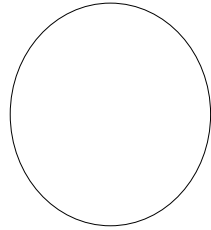
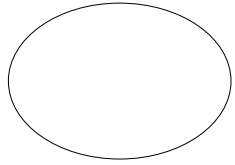
ODD



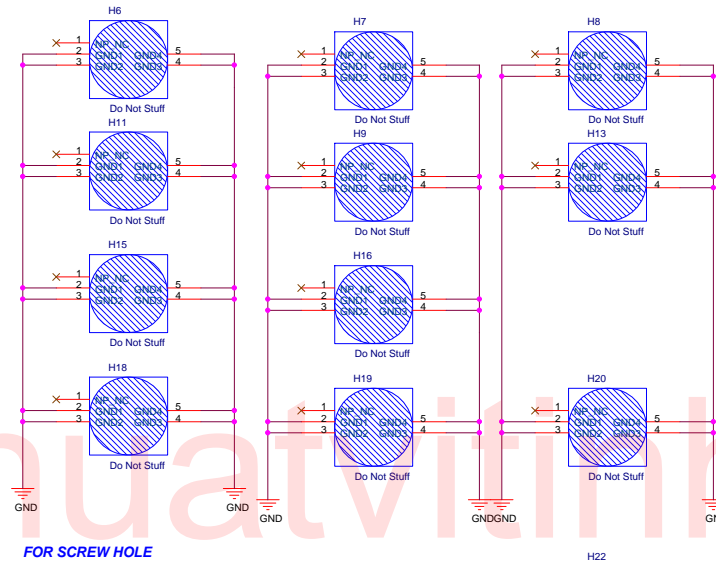
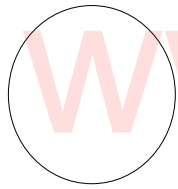
ASUS Title : SATA-HDD & ODD
 ASUSTeK COMPUTER INC. NB1 Engineer: Alan Chen
 Size Project Name
 Custom Z84FM Rev 2.0
 Date: Thursday, October 05, 2006 Sheet 42 of 57

FOR LEFT UNDER

FOR FAN

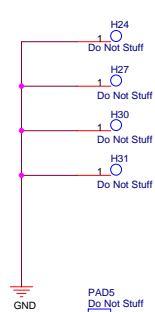


FOR RIGHT UP

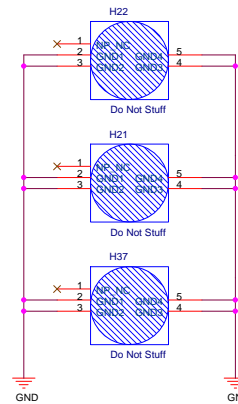
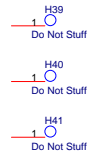


FOR CPU

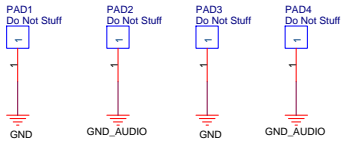
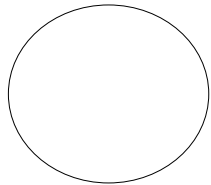
FOR VGA



Non pth hole



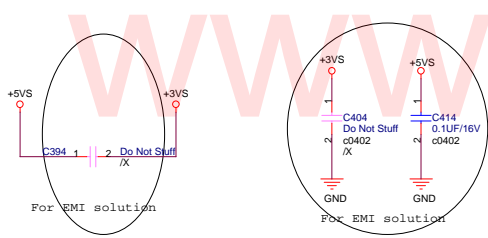
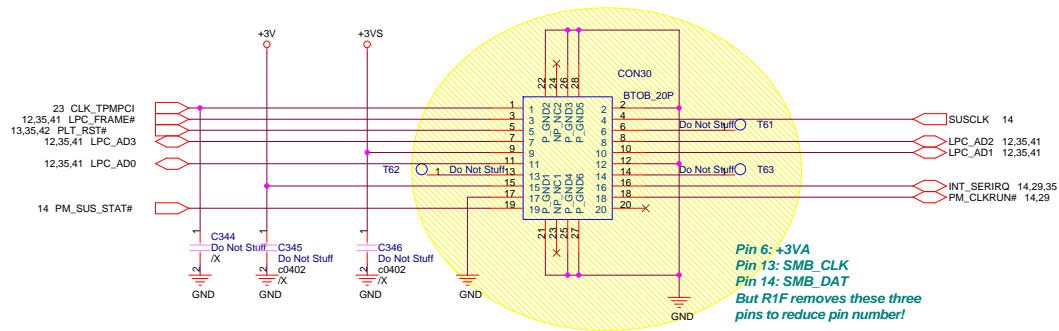
FOR FAN



2.0G

ASUS		Title : SREW HOLE
ASUSTeK COMPUTER INC		Engineer: Alan Chen
Size	Project Name	Rev
Custom	Z84FM	2.0
Date: Thursday, October 05, 2006		Sheet 43 of 57

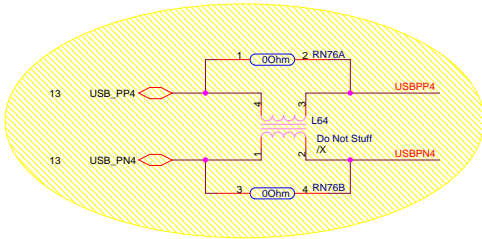
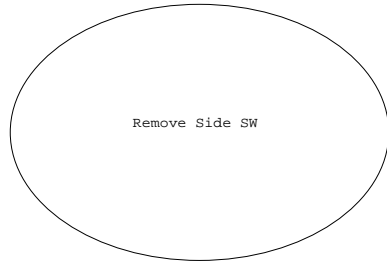
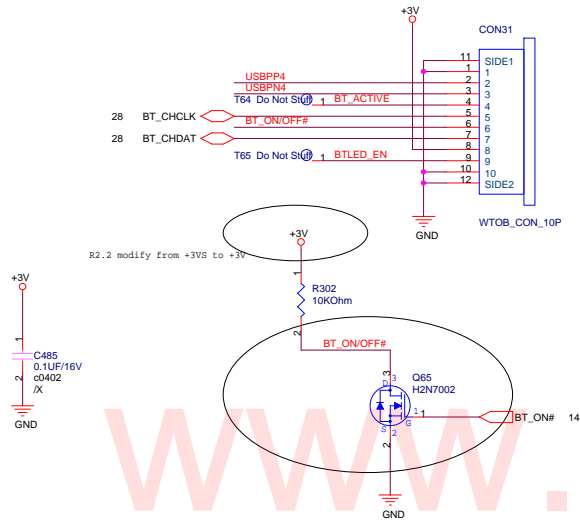
For TPM Module



2.0G

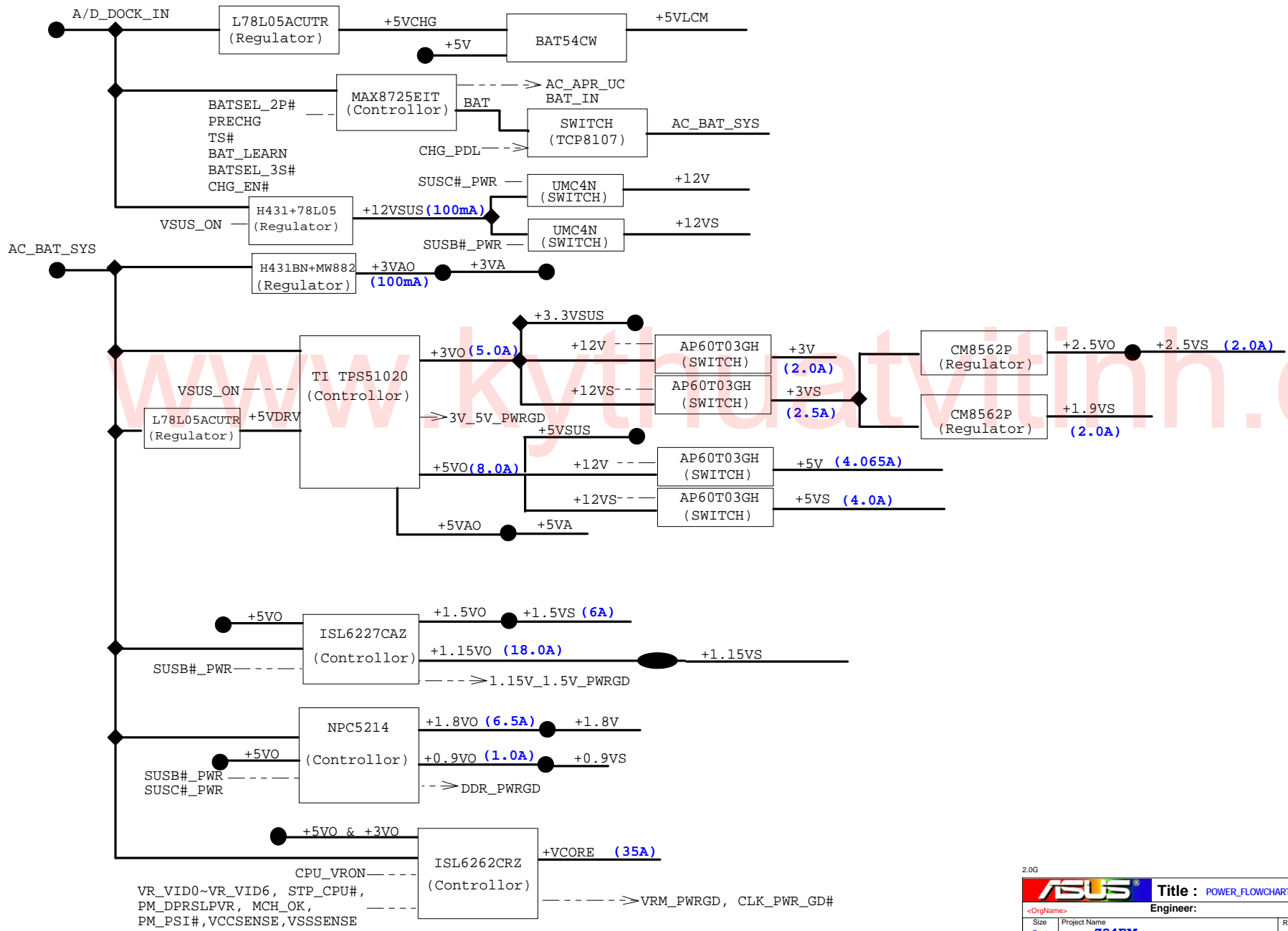
ASUS		Title : TPM	
ASUSTeK COMPUTER INC		Engineer: Alan Chen	
Size	Project Name	Rev	
Custom	Z84FM	2.0	
Date: Thursday, October 05, 2006		Sheet	44 of 57

For Bluetooth



2.0G

ASUS		Title : Blue Tooth
ASUSTeK COMPUTER INC		Engineer: Alan Chen
Size	Project Name	Rev
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Setting the Adapter Input Current Limit

Adapter Iin(max) = [0.075V/Rsense(ADin)]*[VCLS/VREF]
 VCLS = 2.865V

Adaptor Max. Current:
 PR5718=20K PR5714 = 178K; Ilimit = 4.5A; 90W
 PR5718=27K PR5714 = 47K; Ilimit = 3.175A; 60W

Setting the Charge Voltage

Vbatt = Cell * { Vref + (VCTL - 1.8V) / 9.52 }
 VCTL = 1.588V => Vbatt = 4.2V

Setting the Charge Current

Charge Current Ichg = [0.075V/Rsense(CHG)]*[VICTL/3.6V]
 Rsense(CHG) = 15m Ohm

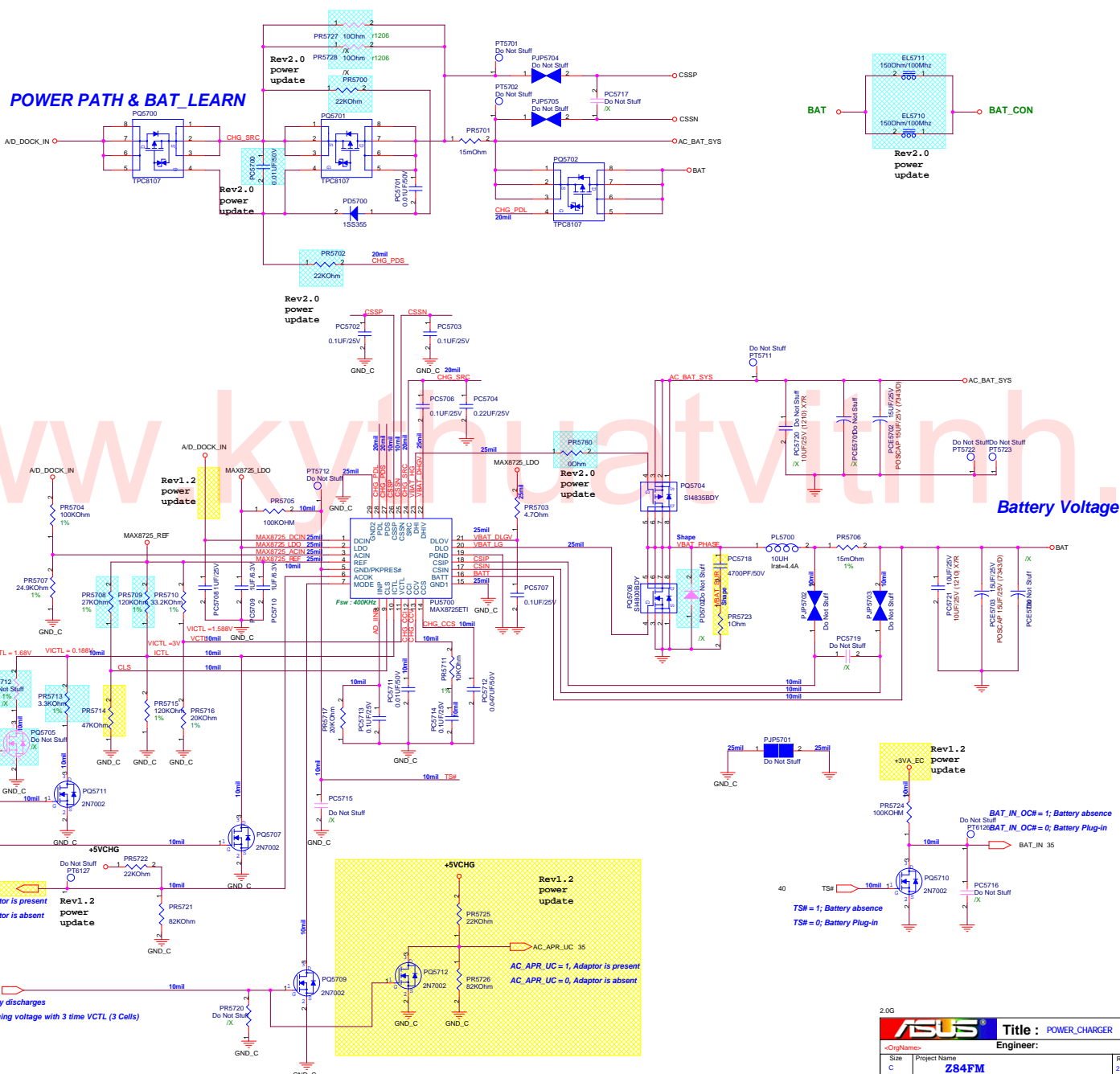
Pre-Charging Mode:
 Precharging current = 148 ~ 152mA
 Vicitl = 0.107V ~ 0.109V

Battery Cell Selection:
 BATSEL_2P# = 1, 3 Cells; Vicitl = 2.084V
 => Icharge = 1.6933A
 BATSEL_2P# = 0, 6 or 9 Cells; Vicitl = 2.111V
 => Icharge = 2.9329A

Mode pin: Vmode > 2.8V (try to LDO pin) -> 4 Cells
 2.0 > Vmode > 1.6V (floating) -> 3 Cells
 0.8 > Vmode (try to GND) -> Learning mode
 VICTL < 0.8V or DCIN < TV -> Charger Disable

MAX8725_REF : 4.2235V
 MAX8725_LDO : 5.4V

POWER PATH & BAT_LEARN



Battery Voltage

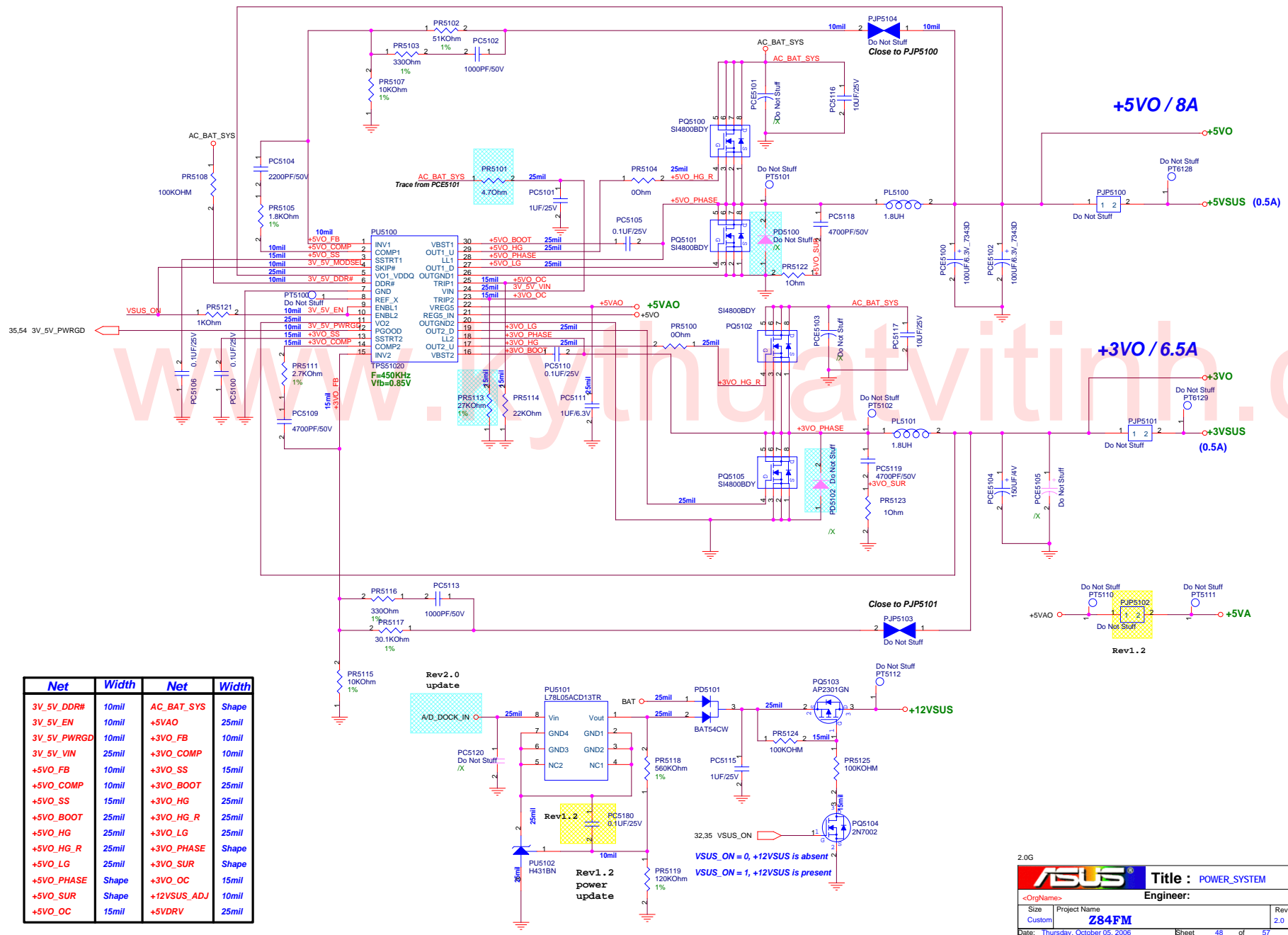
35 BATSEL_2P#
 BATSEL_2P# = 1, 3 Cells
 BATSEL_2P# = 0, 6 or 9 Cells

35 PRECHG
 PRECHG = 1, Pre-Charging Mode
 Charging Current = 156mA

35 CHG_ENH
 CHG_ENH = 1, Charger Disabled
 CHG_ENH = 0, Charger Enabled

35 AC_OK
 AC_OK = 1, Adaptor is present
 AC_OK = 0, Adaptor is absent

35 BAT_LEARN
 BAT_LEARN = 1, Battery discharges
 BAT_LEARN = 0, charging voltage with 3 time VCTL (3 Cells)



Net	Width	Net	Width
3V_5V_DDR#	10mil	AC_BAT_SYS	Shape
3V_5V_EN	10mil	+5VAO	25mil
3V_5V_PWRGD	10mil	+3VO_FB	10mil
3V_5V_VIN	25mil	+3VO_COMP	10mil
+5V0_FB	10mil	+3VO_SS	15mil
+5V0_COMP	10mil	+3VO_BOOT	25mil
+5V0_SS	15mil	+3VO_HG	25mil
+5V0_BOOT	25mil	+3VO_HG_R	25mil
+5V0_HG	25mil	+3VO_LG	25mil
+5V0_HG_R	25mil	+3VO_PHASE	Shape
+5V0_LG	25mil	+3VO_SUR	Shape
+5V0_PHASE	Shape	+3VO_OC	15mil
+5V0_SUR	Shape	+12VSUS_ADJ	10mil
+5V0_OC	15mil	+5VDRV	25mil

Rev2.0 update

Rev1.2 update

Rev1.2 power update

Close to PJP5101

+5V0 / 8A

+3V0 / 6.5A

2.0G

ASUS Title: POWER_SYSTEM

Engineer:

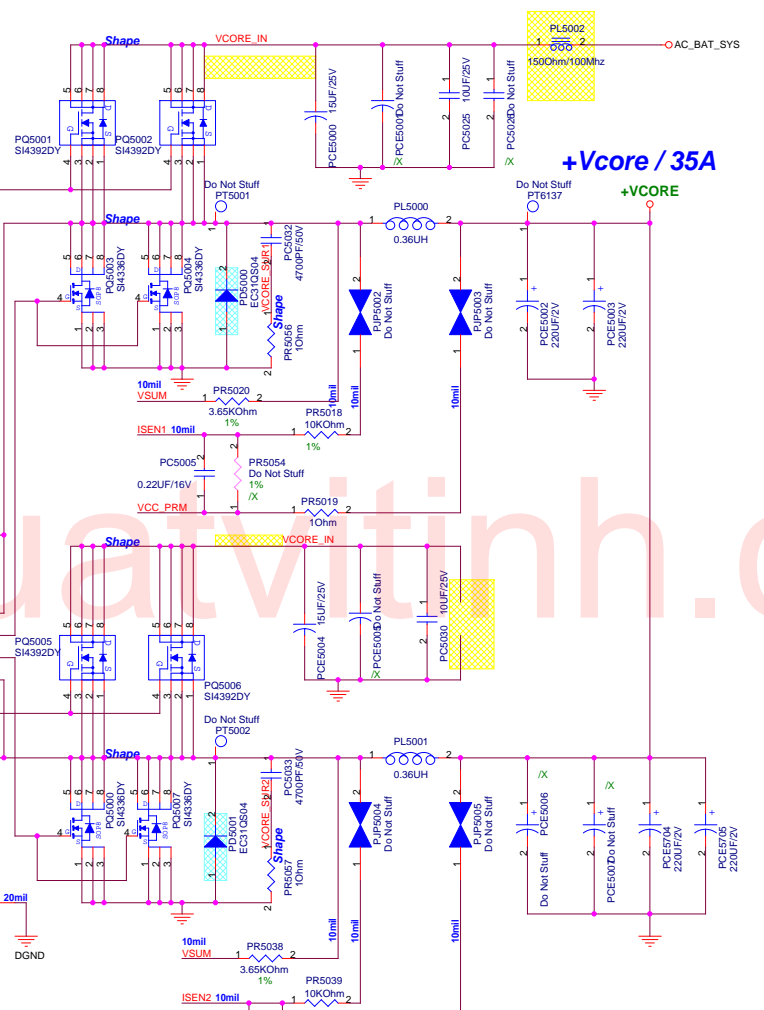
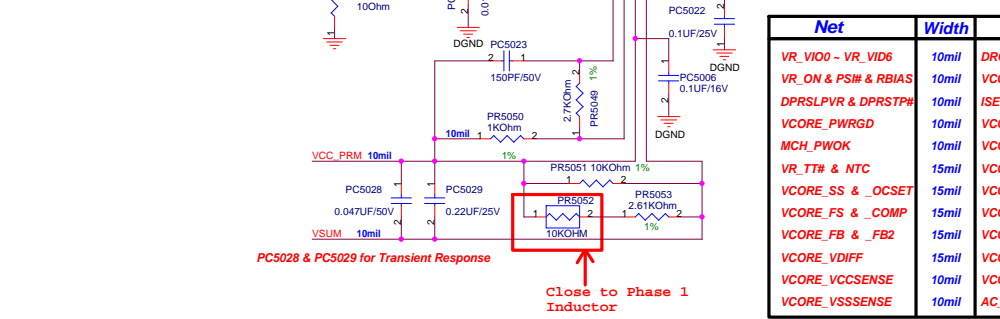
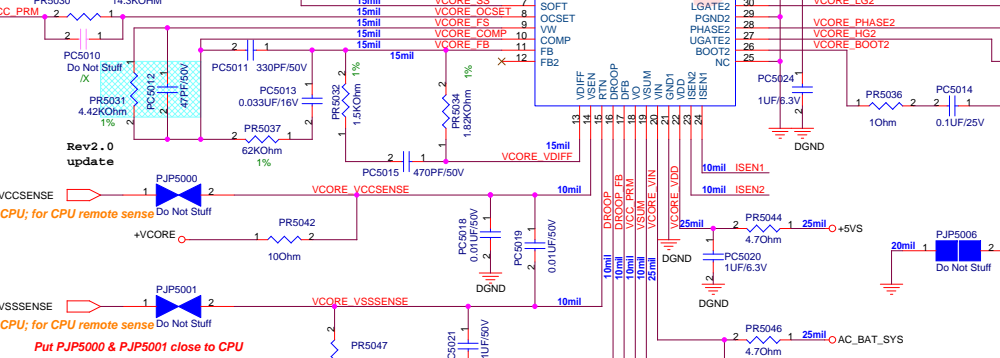
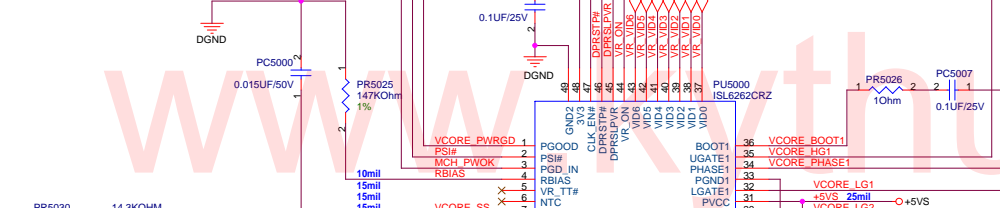
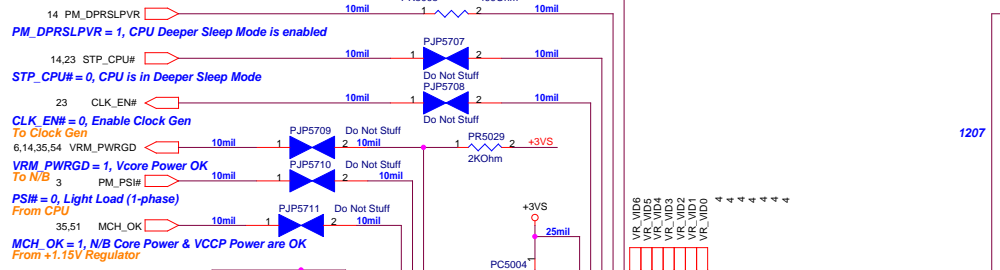
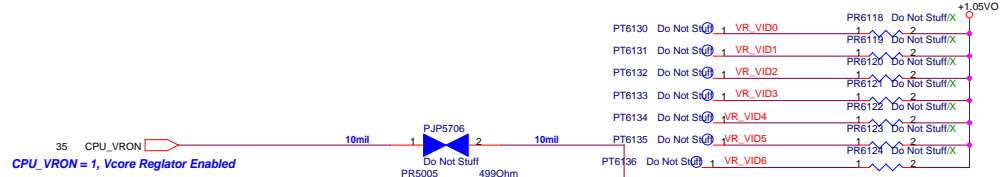
<OrgName>

Size Project Name

Custom **Z84FM**

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Rev 2.0



Net	Width	Net	Width
VR_VIO# - VR_VID#	10mil	DROOP & DROOP_FB	10mil
VR_ON & PS# & RBIAS	10mil	VCC_PRM & VSUM	10mil
DPRSPLPVR & DPRSTPH	10mil	ISEN1 & ISEN2	10mil
VCORE_PWRGD	10mil	VCORE_VDD & _VIN	25mil
MCH_PWOK	10mil	VCORE_BOOT1	25mil
VR_TT# & NTC	15mil	VCORE_BOOT2	25mil
VCORE_SS & _OCSET	15mil	VCORE_HG1 & _HG2	25mil
VCORE_FS & _COMP	15mil	VCORE_LG1 & _LG2	25mil
VCORE_FB & _FB2	15mil	VCORE_PHASE1	Shape
VCORE_VDIFF	15mil	VCORE_PHASE2	Shape
VCORE_VCCSENSE	10mil	VCORE_SUR1 & _SUR2	Shape
VCORE_VSSSENSE	10mil	AC_BAT_SYS	Shape

PC5028 & PC5029 for Transient Response

Close to Phase 1 Inductor

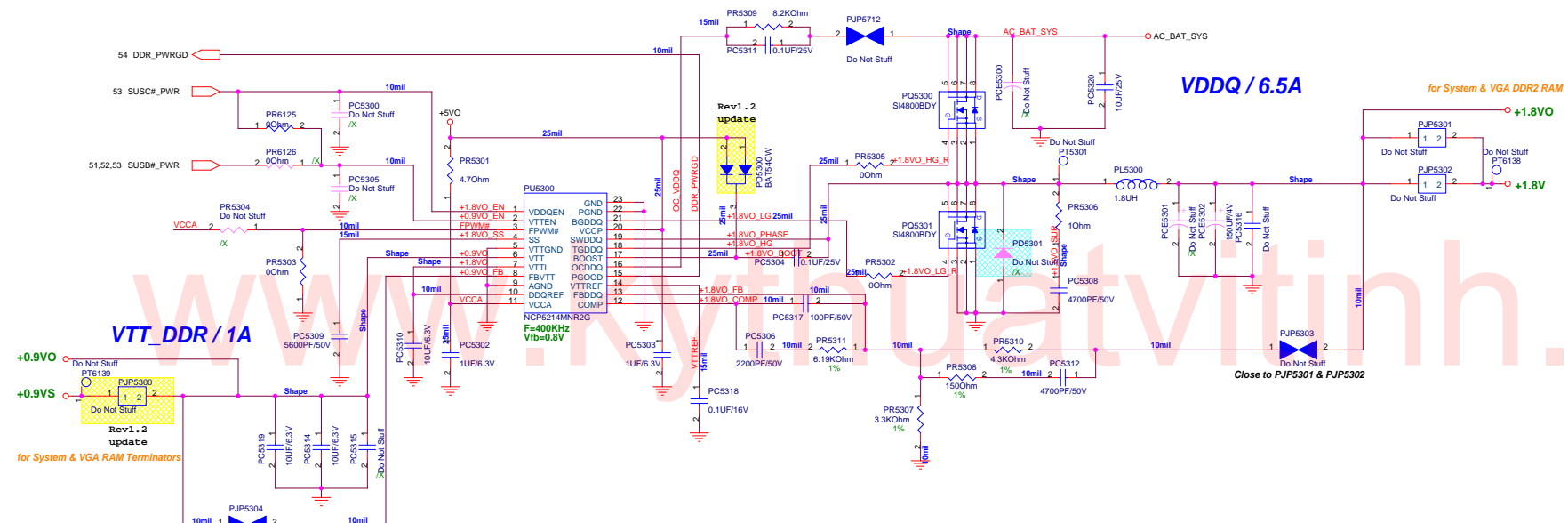
2.0G

ASUS Title : POWER_VCORE

Engineer:

Size Project Name
 Custom Z84FM

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VTT_DDR / 1A
 for System & VGA RAM Terminators

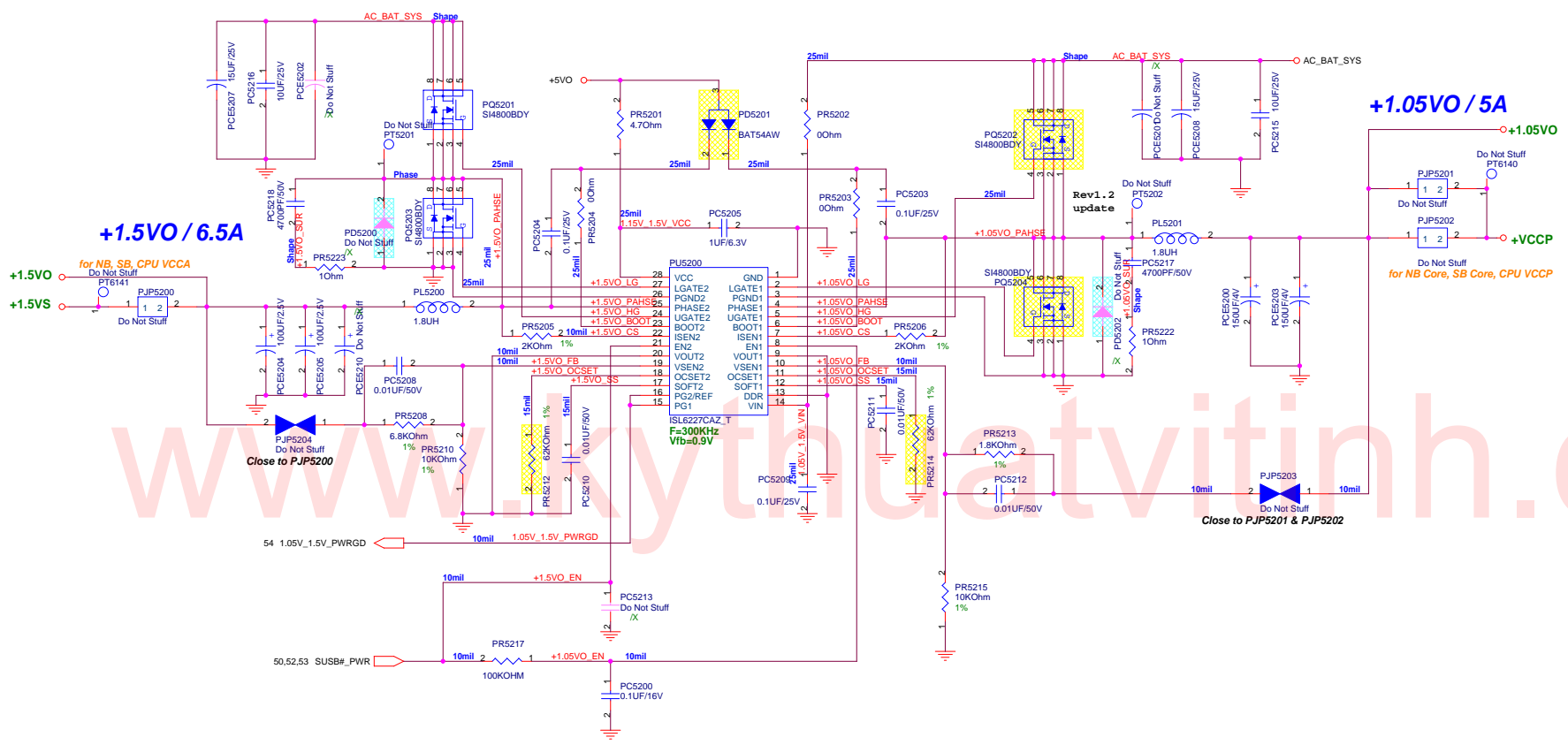
VDDQ / 6.5A
 for System & VGA DDR2 RAM

Net	Width	Net	Width
+1.8V_EN	10mil	+1.8V_BOOT	25mil
+1.8V	Shape	+1.8V_COMP	10mil
+0.9V_EN	10mil	+1.8V_HG_R	25mil
+0.9V	Shape	+1.8V_LG_R	25mil
+0.9V_FB	10mil	+1.8V_HG	25mil
+1.8V -> DDQREF	10mil	+1.8V_LG	25mil
VTTREF	15mil	+1.8V_PHASE	Shape
FPWM#	10mil	+1.8V_SUR	Shape
VCCA	10mil	+1.8V_FB	10mil
DDR_PWRGD	10mil	+1.8V_SS	15mil
OC_VDDQ	15mil	AC_BAT_SYS	Shape

2.0G

ASUS Title : POWER_IO_DDR & VTT
 Engineer:

<OrigName>
 Size Project Name Rev
 Custom Z84FM 2.0
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+1.05V0 / 5A

AC_BAT_SYS

1.05V0_VCC

1.05V0_PAHSE

1.05V0_LG

1.05V0_HG

1.05V0_BOOT

1.05V0_CS

1.05V0_FB

1.05V0_OCSET

1.05V0_SS

1.05V0_SUR

1.05V0_EN

1.05V0_VIN

1.05V0_PWRGD

1.05V0_MODSEL

1.05V0_MODSE

1.05V0_CS

1.05V0_FB

1.05V0_OCSET

1.05V0_SS

1.05V0_SUR

+1.5V0 / 6.5A

for NB, SB, CPU VCCA

1.5V0_VCC

1.5V0_PAHSE

1.5V0_LG

1.5V0_HG

1.5V0_BOOT

1.5V0_CS

1.5V0_FB

1.5V0_OCSET

1.5V0_SS

1.5V0_SUR

1.5V0_EN

1.5V0_VIN

1.5V0_PWRGD

1.5V0_MODSEL

1.5V0_MODSE

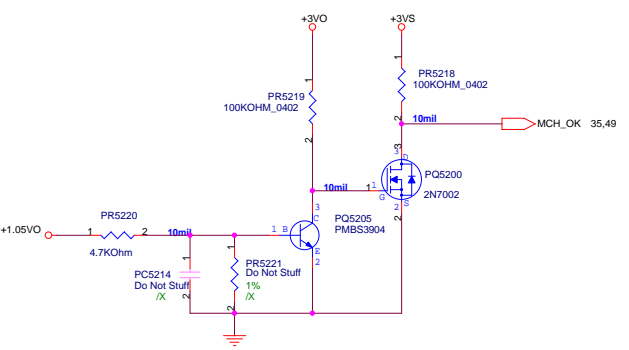
1.5V0_CS

1.5V0_FB

1.5V0_OCSET

1.5V0_SS

1.5V0_SUR



Net	Width	Net	Width
1.15V_1.5V_VCC	25mil	+1.5V0_SS	15mil
1.15V_1.5V_PWRGD	10mil	AC_BAT_SYS	Shape
1.15V_1.5V_VIN	25mil	+1.15V0_EN	10mil
+1.5V0_EN	10mil	+1.15V0_LG	25mil
+1.5V0_LG	25mil	+1.15V0_HG	25mil
+1.5V0_HG	25mil	+1.15V0_PHASE	Shape
+1.5V0_PHASE	Shape	+1.15V0_BOOT	25mil
+1.5V0_BOOT	25mil	+1.15V0_MODSEL	10mil
+1.5V0_MODSEL	10mil	+1.15V0_CS	10mil
+1.5V0_CS	10mil	+1.15V0_FB	10mil
+1.5V0_FB	10mil	+1.15V0_OCSET	25mil
+1.5V0_OCSET	15mil	+1.15V0_SS	15mil
+1.5V0_SUR	Shape	+1.15V0_SUR	Shape

2.0G

ASUS Title :POWER_I0_15VS & 1.05VS

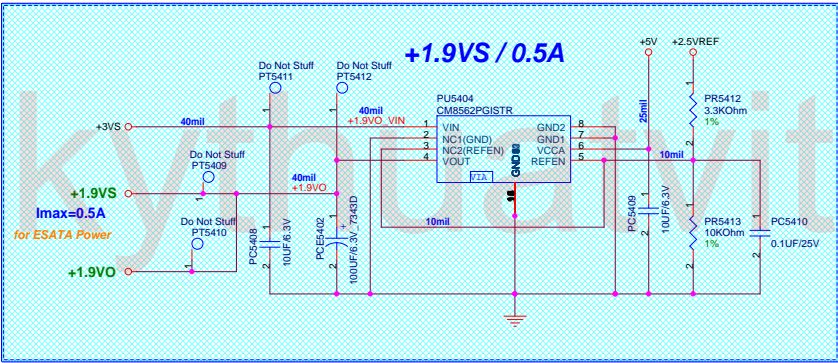
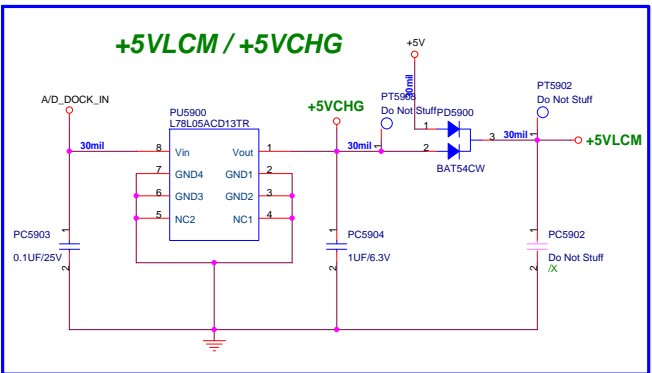
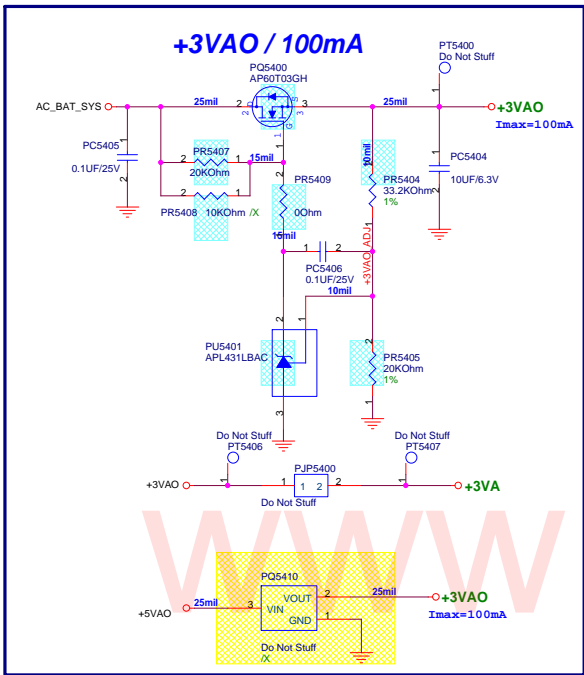
Engineer:

Size Project Name

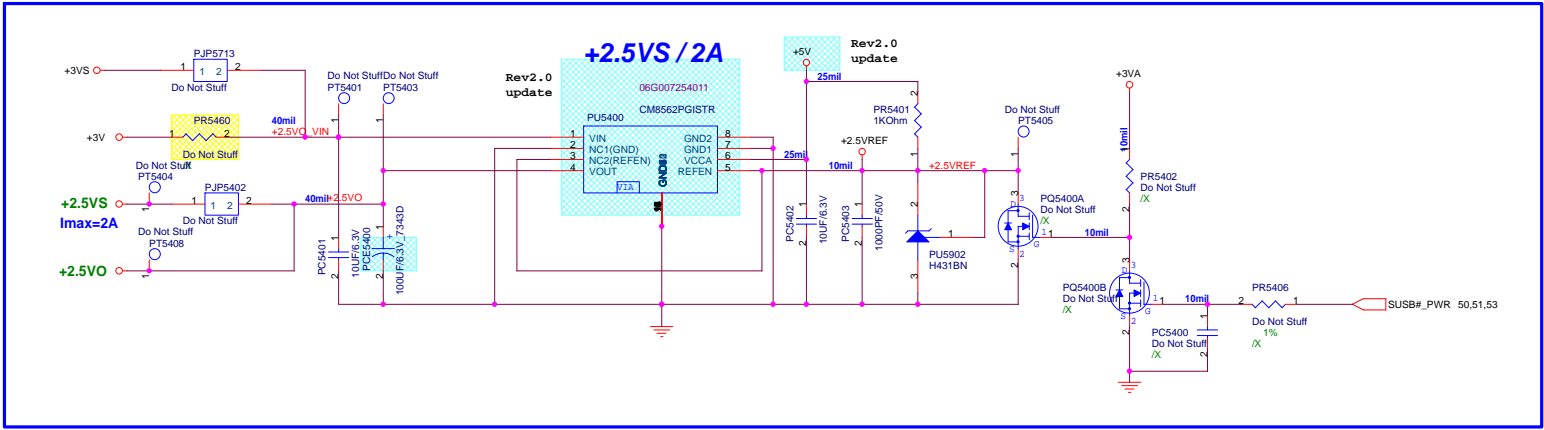
Custom **Z84FM**

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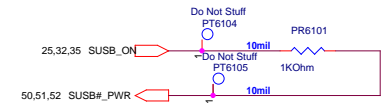
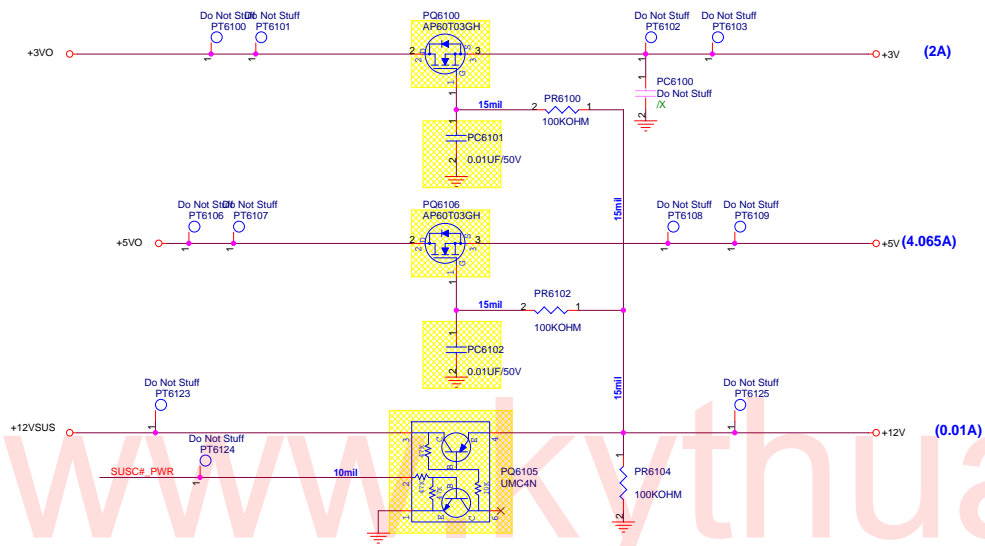
Rev2.0 update



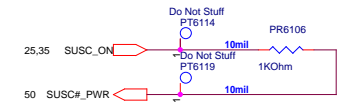
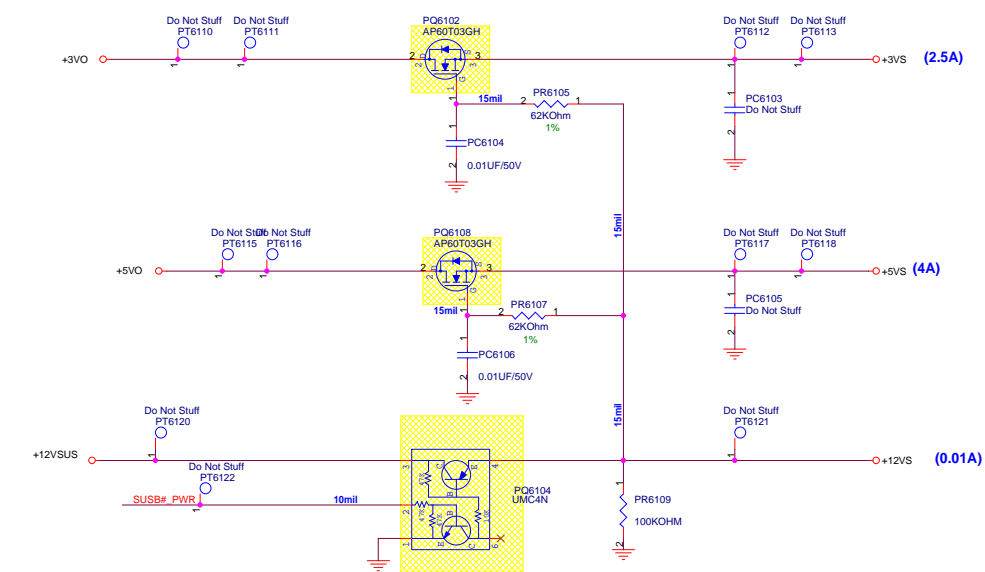
2.0G

ASUS		Title : POWER_IO_+3VA & +2.5V	
-OrgName-		Engineer:	
Size	Project Name		Rev
Custom	Z84FM		2.0
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SUSC#_PWR POWER



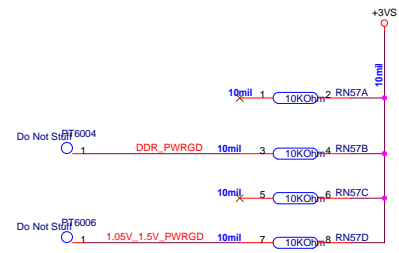
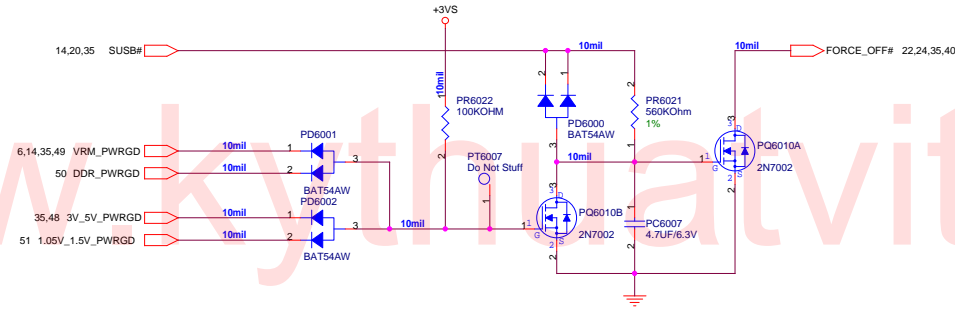
SUSB#_PWR POWER



2.0G

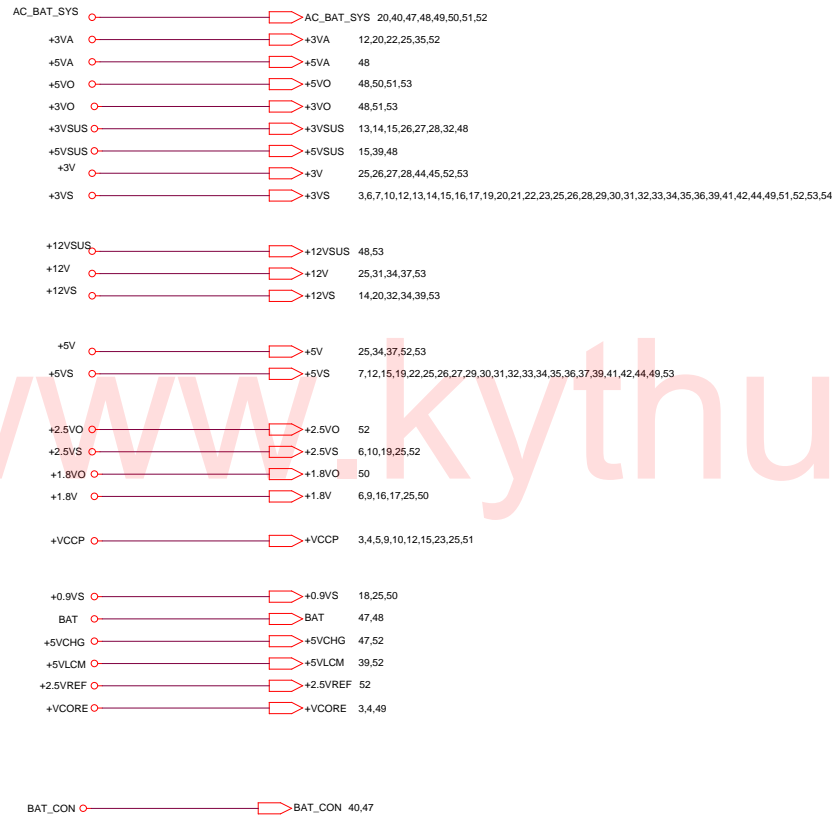
ASUS		Title : POWER_LOAD SWITCH
Engineer:		
<OrgName>	Project Name	Rev
Custom	Z84FM	2.0
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Power Good Detector



2.0G

ASUS		Title : POWER_PROTECT
Engineer:		
<OrgName>	Project Name	Rev
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2.0G

		Title : POWER_SIGNAL	
<OrgName>		Engineer:	
Size	Project Name	Rev	
Custom	Z84FM	2.0	
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2.0G

		Title : <Title>	
ASUSTeK COMPUTER INC		Engineer: Alan Chu	
Size	Project Name	Rev	
A3	Z84FM	2.0	
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