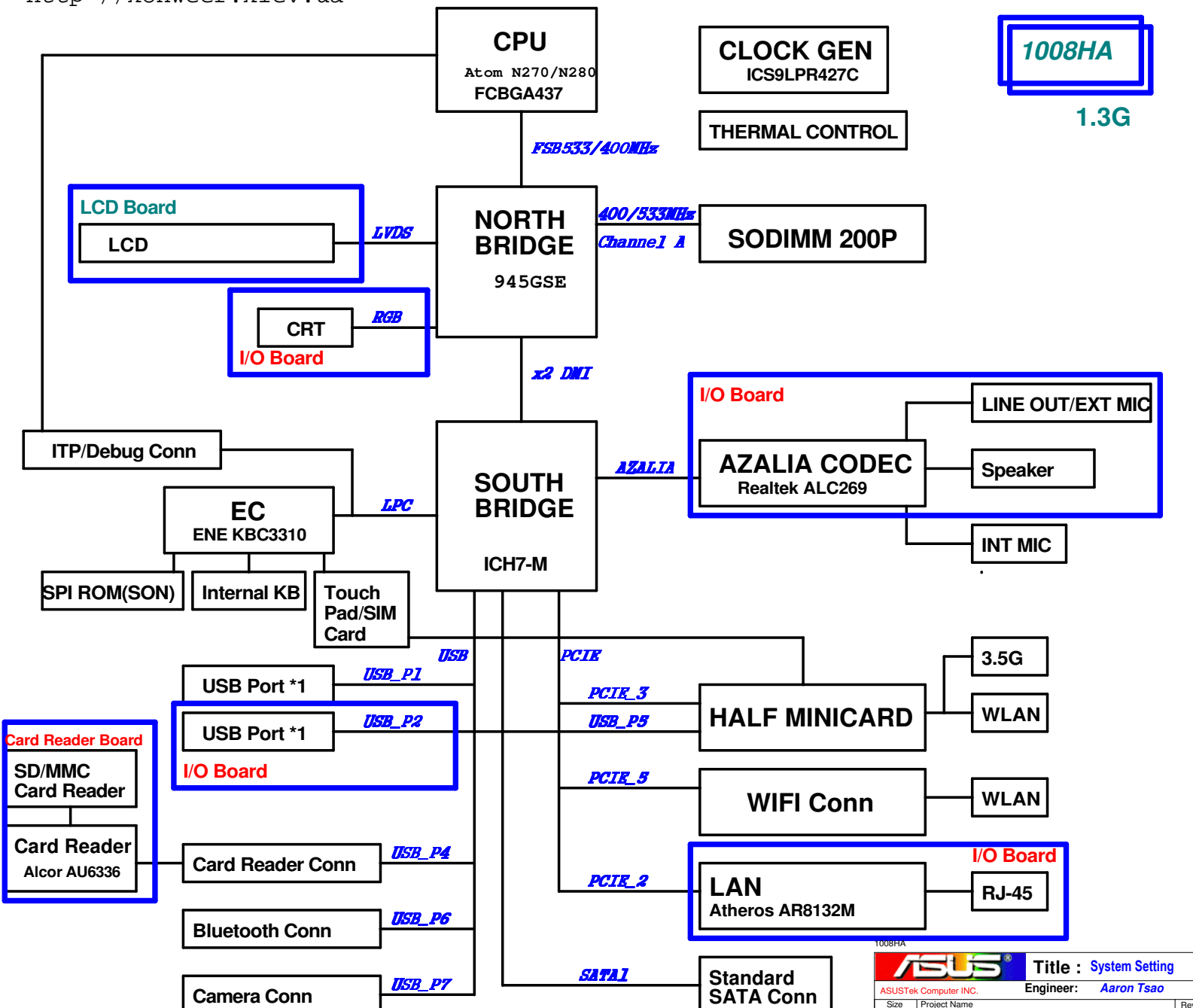


- 01_Block Diagram
- 02_System Setting
- 03_Power Sequence
- 04_Clock Gen_ICS9LPR427
- 05_Diamondville_BUS
- 06_Diamondville_PWR
- 07_NB-945GMS(HOST)
- 08_NB-945GMS(DMI)
- 09_NB-945GMS(GRAPHIC)
- 10_NB-945GMS(DDR2)
- 11_NB-945GMS(PWR)
- 12_NB-945GMS(PWR2)
- 13_NB-945GMS(GND)
- 14_SB-ICH7M(PWR)
- 15_SB-ICH7M(1)
- 16_SB-ICH7M(2)
- 17_SB-ICH7M(3)
- 18_DDR2 SODIMM
- 19_DDR2 Termination
- 20_Onboard VGA
- 21_LCD Conn_LID
- 22_3G
- 23_Mini WIFI+ BT
- 24_LAN_Atheros AR8132
- 25_RJ45
- 26_G-Sensor
- 27_USB Port
- 28_Camera Conn
- 29_Card Reader_AU6372A51
- 30_Codec_ALC269
- 31_Audio_AMP_Jack
- 32_EC_ENE KB3310
- 33_EC
- 34_Switch_SPI ROM_Debug Conn
- 35_Thermal Sensor_FAN
- 36_KB_Touch Pad
- 37_LED_THERMTRIP
- 38_Discharge
- 39_PWR Jack/SATA/USB Connector
- 40_Srew Hole
- 41_EMI
- 42_POWER FLOW
- 43_Vcore
- 44_Power System
- 45_Power_+1.8V & VTDDR
- 46_Power_VCCP
- 47_Power_+1.5VS & +2.5VS
- 48_Power_Charger
- 49_EC Pin Define
- 50_3G Power
- 51_History



1008HA

1.3G

EEE PC 701 PCB version

GPI37	GPI38	GPI39	PCB version
0	0	0	
0	0	0	
0	0	1	
0	0	1	
0	1	0	
0	1	0	
0	1	1	
0	1	1	
1	0	0	
1	0	0	
1	0	1	
1	0	1	
1	1	0	
1	1	0	
1	1	1	
1	1	1	

USB

USB 0	USB Conn
USB 1	USB Conn
USB 2	NA
USB 3	NA
USB 4	Card Reader
USB 5	Minicard
USB 6	Bluetooth
USB 7	Camera


PCIE

PCIE 1	NC
PCIE 2	LAN
PCIE 3	Minicard
PCIE 4	SSD

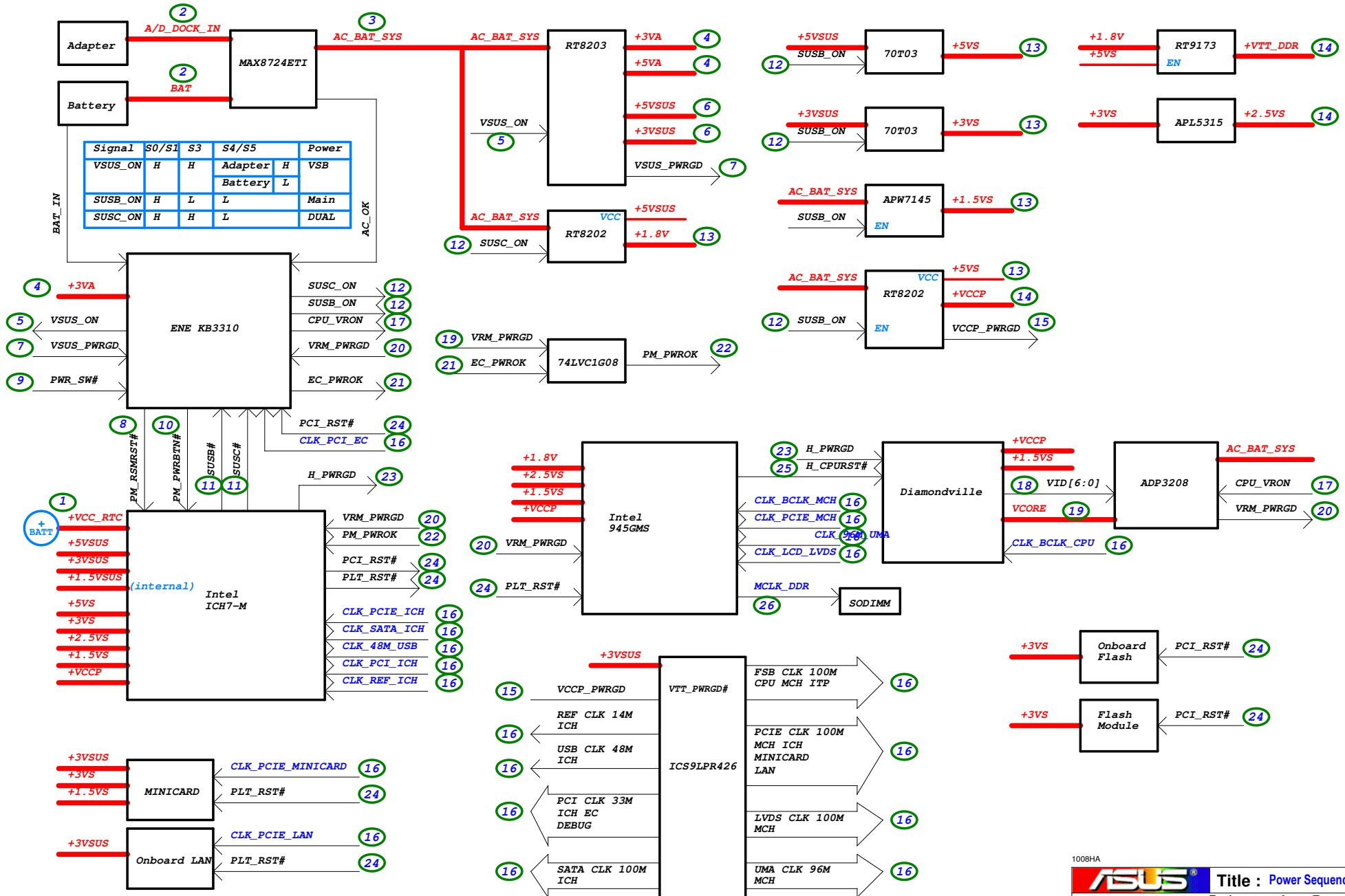
Azalia

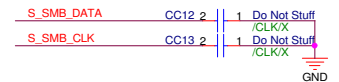
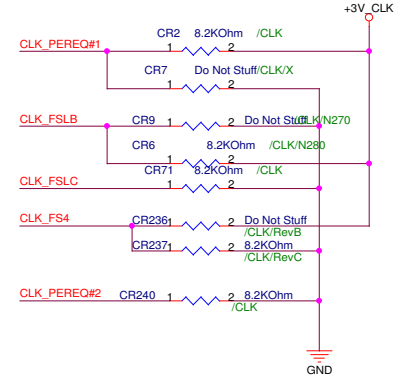
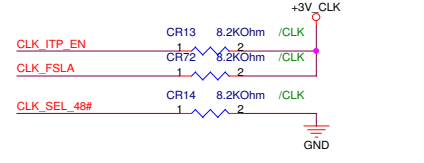
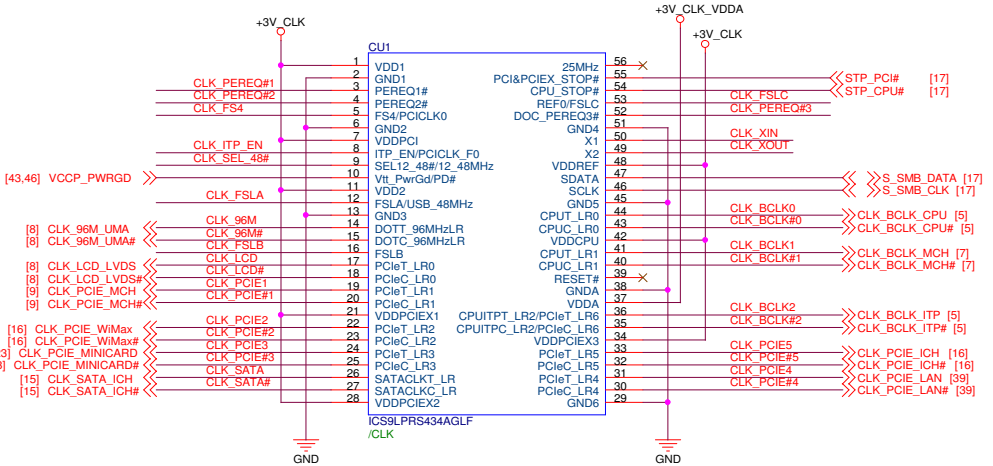
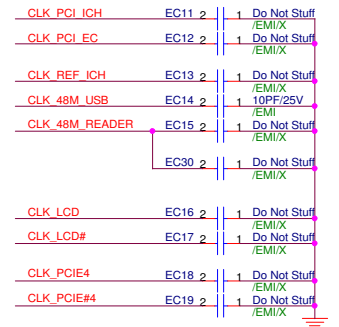
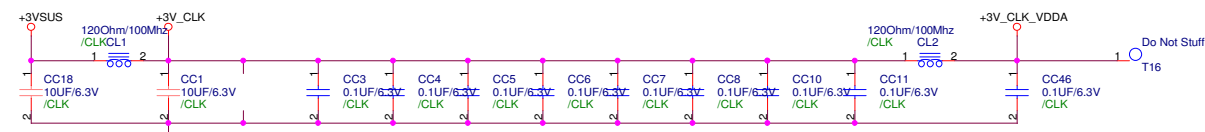
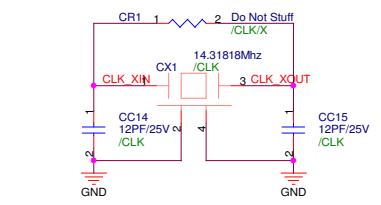
ACZ_SDIN0	CODEC
ACZ_SDIN1	NC
ACZ_SDIN2	NC

1008HA

		Title : System Setting	
ASUSTek Computer INC.		Engineer: Aaron Tsao	
Size A3	Project Name 1008HA	Rev 1.3G	
Date: Friday, March 27, 2009		Sheet 2 of 49	

<http://konweer.kiev.ua>

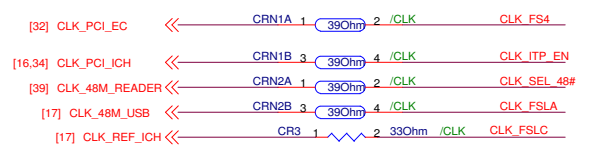
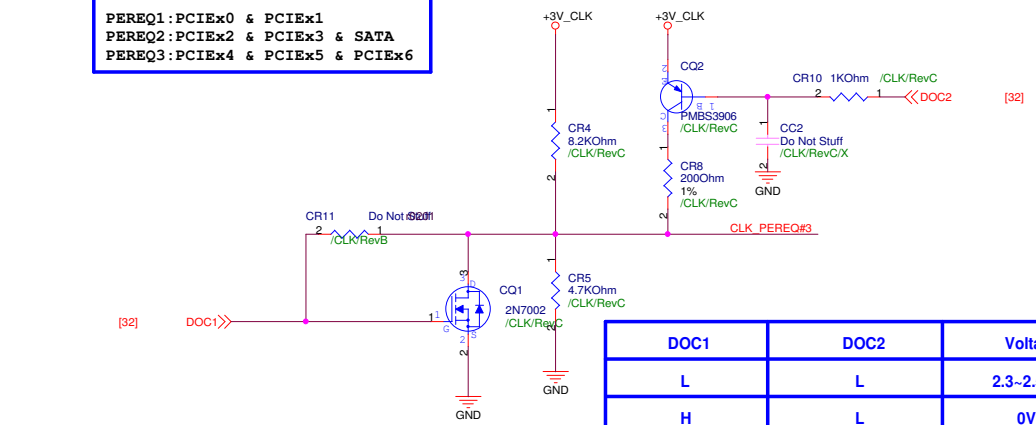




FSC	FSB	FSA	CPU	PCIE	SATA
0	0	1	133	100	100
1	0	1	100	100	100

Selected through the I2c
 1:Disable
 0:Enable

PEREQ1:PCIEx0 & PCIEx1
 PEREQ2:PCIEx2 & PCIEx3 & SATA
 PEREQ3:PCIEx4 & PCIEx5 & PCIEx6



DOC1	DOC2	Voltage	Status
L	L	2.3~2.52V	Performance
H	L	0V	Power Saving
H	H	0V	Power Saving
L	H	1.1~1.2V	Normal

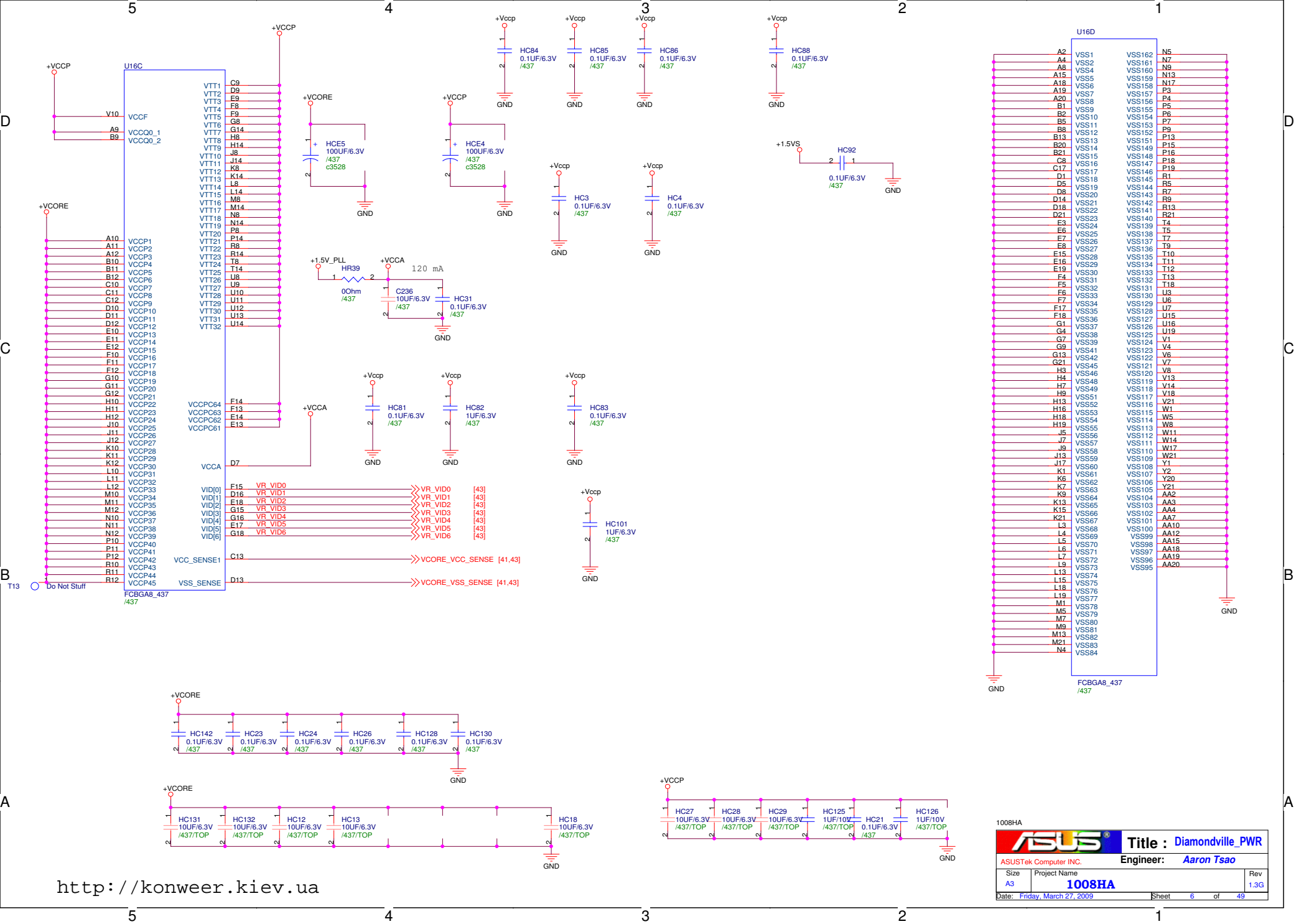
1008HA

Title :Clock ICS9LPRS427

ASUSTek Computer INC. Engineer: **Aaron Tsao**

Size	Project Name	Rev
A3	1008HA	1.3G

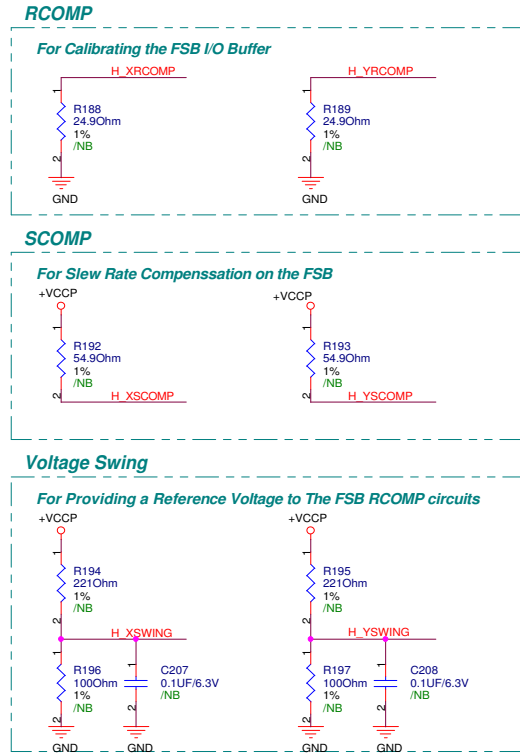
Date: Friday, March 27, 2009 Sheet 4 of 49



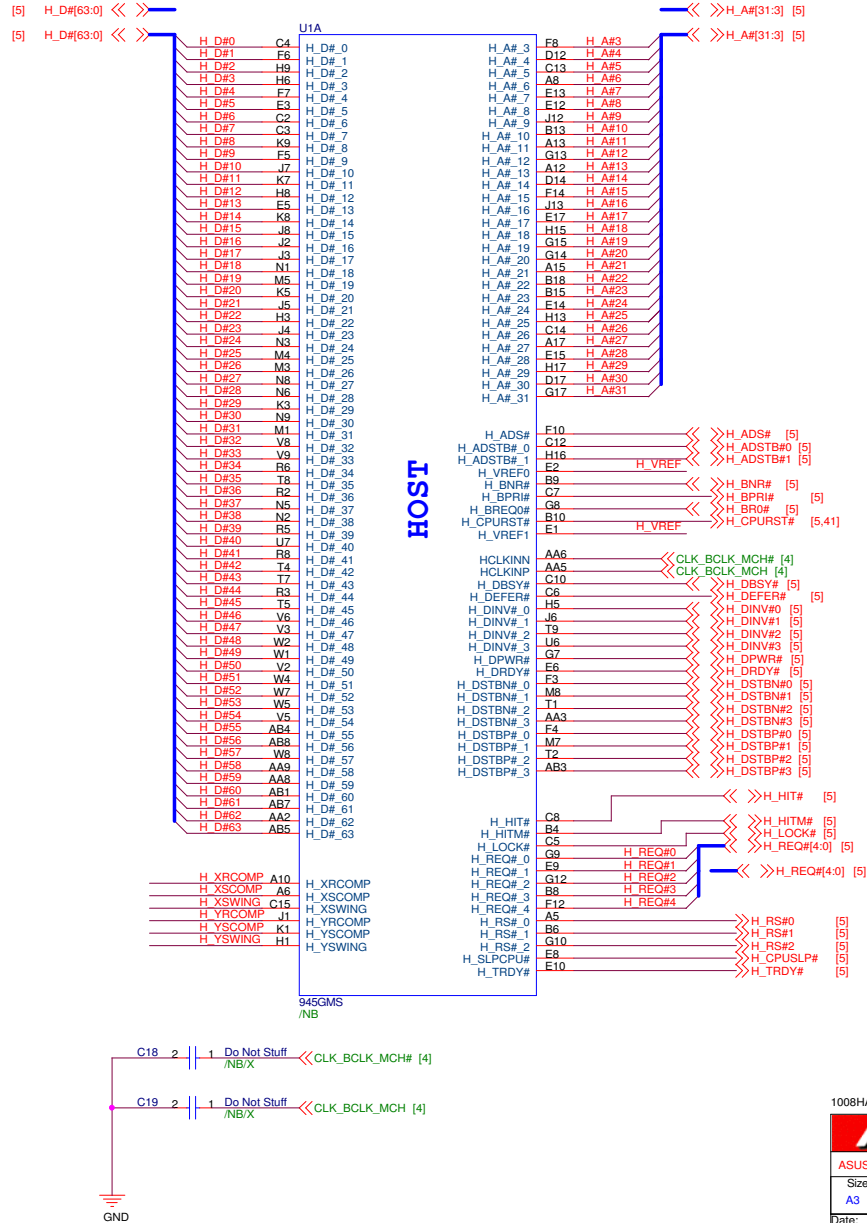
<http://konweer.kiev.ua>

1008HA		ASUS		Title : Diamondville_PWR	
ASUSTek Computer INC.		Engineer: Aaron Tsao			
Size A3	Project Name 1008HA	Rev 1.3G			
Date: Friday, March 27, 2009		Sheet 6 of 49			

Power:
+VCCP



Signal voltage level =
0.3125*VCCP
Trace should be 10 mil wide
with 20 mil spacing



1008HA

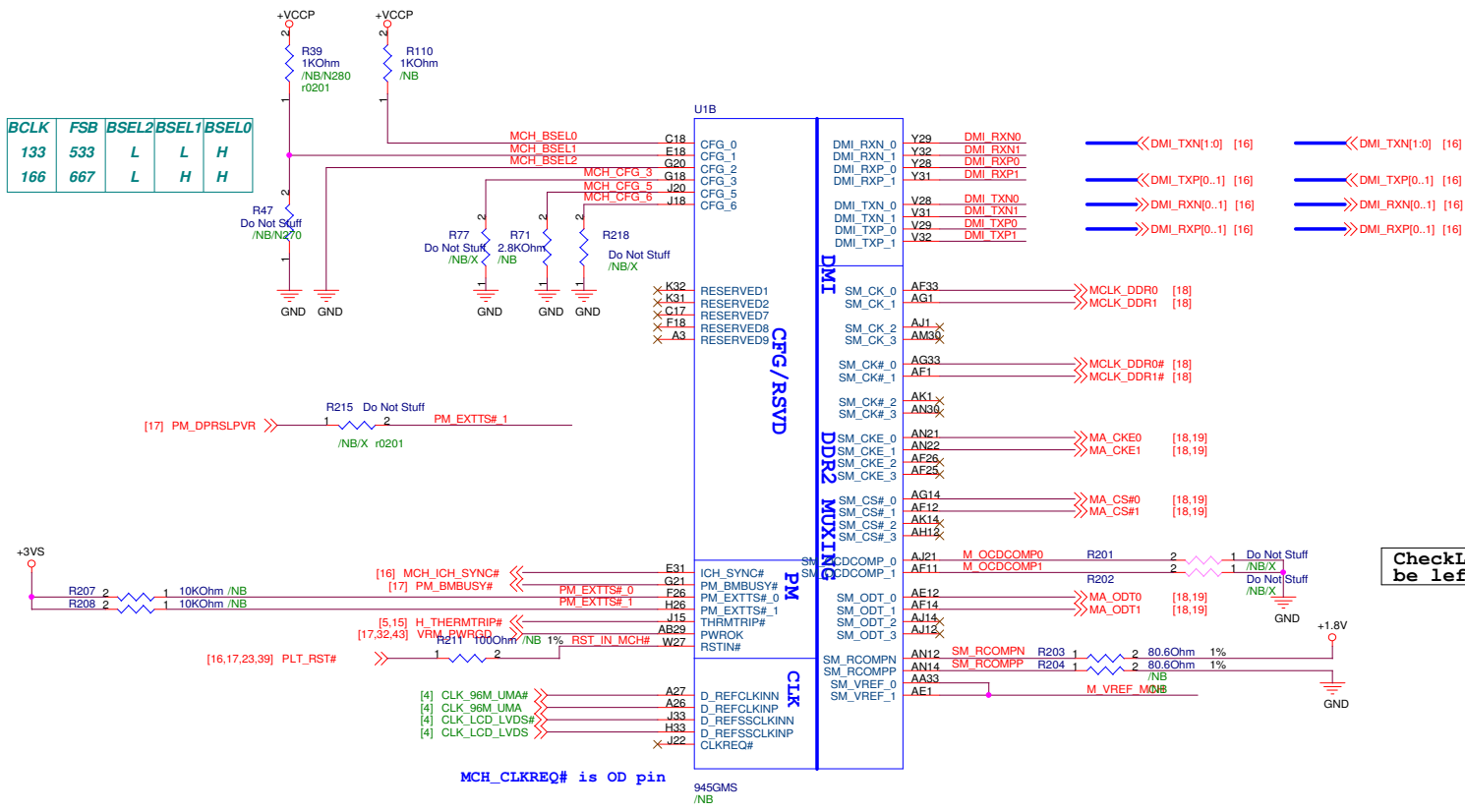
ASUS Title : NB-945GMS(HOST)

ASUSTek COMPUTER INC. Engineer: Aaron Tsao

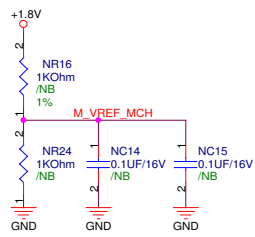
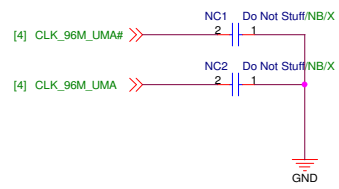
Size: A3 Project Name: 1008HA Rev: 1.3G

Date: Friday, March 27, 2009 Sheet 7 of 49

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



CheckList notes :Can be left as NC



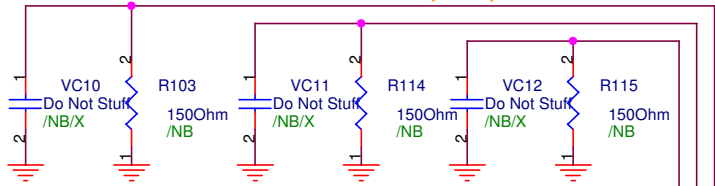
MCH_CLKREQ# is OD pin

945GMS /NB

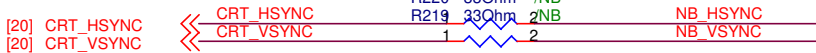
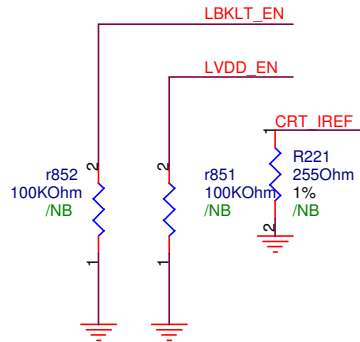
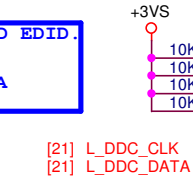
1008HA

ASUS		Title : NB-945GMS(DMI & CFG)	
ASUSTeK COMPUTER INC.		Engineer: Aaron Tsao	
Size A3	Project Name 1008HA	Rev 1.3G	
Date: Friday, March 27, 2009		Sheet 8 of 49	

**Close to GMCH
R103,R114,R115**

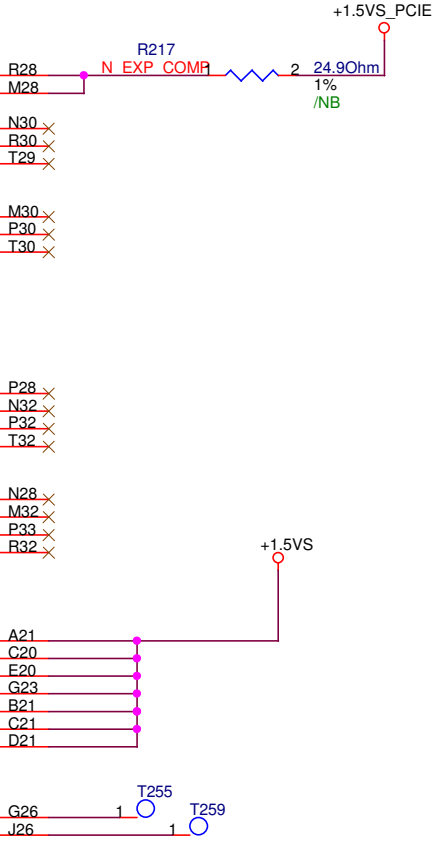
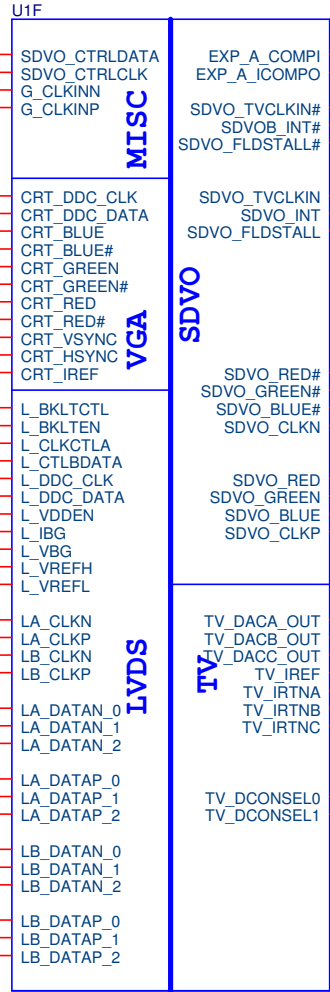


**IF USE NB READ EDID,
MUST CONNECT
L_DDC_CLK&DATA**



Close to GMCH

- [4] CLK_PCIE_MCH#
- [4] CLK_PCIE_MCH
- [20] DDC_CLK
- [20] DDC_DATA
- [20] CRT_BLUE
- [20] CRT_GREEN
- [20] CRT_RED
- [21] LBKLT_CTRL
- [21] LBKLT_EN
- [21] L_DDC_CLK
- [21] L_DDC_DATA
- [21] LVDD_EN
- [21] LA_CLKN
- [21] LA_CLKP
- [21] LA_DATAN0
- [21] LA_DATAN1
- [21] LA_DATAN2
- [21] LA_DATAP0
- [21] LA_DATAP1
- [21] LA_DATAP2
- [20] CRT_HSYNC
- [20] CRT_VSYNC



945GMS
/NB

1008HA

		Title : NB-945GMS(GRAPHIC)
ASUSTeK COMPUTER INC.		Engineer: Aaron Tsao
Size A4	Project Name 1008HA	Rev 1.3G
Date: Friday, March 27, 2009		Sheet 9 of 49

<< >> MA_DQS[7:0] [18]
 << >> MA_DM[7:0] [18]

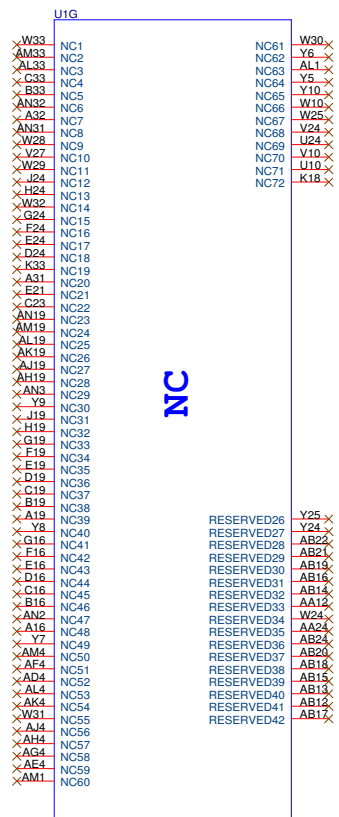
[18] MA_DQ[63:0] << >>
 [18] MA_DQ[63:0] << >>

- U1C
- MA_DQ0 AC31 SA_DO_0
 - MA_DQ1 AB28 SA_DO_1
 - MA_DQ2 AE32 SA_DO_2
 - MA_DQ3 AC33 SA_DO_3
 - MA_DQ4 AC33 SA_DO_4
 - MA_DQ5 AB32 SA_DO_5
 - MA_DQ6 AB31 SA_DO_6
 - MA_DQ7 AE31 SA_DO_7
 - MA_DQ8 AH31 SA_DO_8
 - MA_DQ9 AK31 SA_DO_9
 - MA_DQ10 AL28 SA_DO_10
 - MA_DQ11 AK27 SA_DO_11
 - MA_DQ12 AK27 SA_DO_12
 - MA_DQ13 AH30 SA_DO_13
 - MA_DQ14 AL28 SA_DO_14
 - MA_DQ15 AJ27 SA_DO_15
 - MA_DQ16 AH32 SA_DO_16
 - MA_DQ17 AE31 SA_DO_17
 - MA_DQ18 AH27 SA_DO_18
 - MA_DQ19 AF28 SA_DO_19
 - MA_DQ20 AJ32 SA_DO_20
 - MA_DQ21 AG31 SA_DO_21
 - MA_DQ22 AG28 SA_DO_22
 - MA_DQ23 AG27 SA_DO_23
 - MA_DQ24 AN27 SA_DO_24
 - MA_DQ25 AM26 SA_DO_25
 - MA_DQ26 AJ26 SA_DO_26
 - MA_DQ27 AJ25 SA_DO_27
 - MA_DQ28 AL27 SA_DO_28
 - MA_DQ29 AN26 SA_DO_29
 - MA_DQ30 AJ25 SA_DO_30
 - MA_DQ31 AG26 SA_DO_31
 - MA_DQ32 AM12 SA_DO_32
 - MA_DQ33 AL11 SA_DO_33
 - MA_DQ34 AH9 SA_DO_34
 - MA_DQ35 AK9 SA_DO_35
 - MA_DQ36 AM11 SA_DO_36
 - MA_DQ37 AK11 SA_DO_37
 - MA_DQ38 AM8 SA_DO_38
 - MA_DQ39 AK8 SA_DO_39
 - MA_DQ40 AG9 SA_DO_40
 - MA_DQ41 AF9 SA_DO_41
 - MA_DQ42 AF8 SA_DO_42
 - MA_DQ43 AK3 SA_DO_43
 - MA_DQ44 AF7 SA_DO_44
 - MA_DQ45 AG11 SA_DO_45
 - MA_DQ46 AJ6 SA_DO_46
 - MA_DQ47 AH6 SA_DO_47
 - MA_DQ48 AN6 SA_DO_48
 - MA_DQ49 AM6 SA_DO_49
 - MA_DQ50 AK3 SA_DO_50
 - MA_DQ51 AL2 SA_DO_51
 - MA_DQ52 AM5 SA_DO_52
 - MA_DQ53 AL5 SA_DO_53
 - MA_DQ54 AJ3 SA_DO_54
 - MA_DQ55 AJ2 SA_DO_55
 - MA_DQ56 AG2 SA_DO_56
 - MA_DQ57 AF3 SA_DO_57
 - MA_DQ58 AE7 SA_DO_58
 - MA_DQ59 AF6 SA_DO_59
 - MA_DQ60 AH5 SA_DO_60
 - MA_DQ61 AG3 SA_DO_61
 - MA_DQ62 AG5 SA_DO_62
 - MA_DQ63 AF5 SA_DO_63

DDR2 SYSTEM MEMORY

- SA_BS_0 AK12 >> MA_BA0 [18,19]
- SA_BS_1 AH11 >> MA_BA1 [18,19]
- SA_BS_2 AG17 >> MA_BA2 [18,19]
- SA_DM_0 AB30 MA_DM0
- SA_DM_1 AL31 MA_DM1
- SA_DM_2 AF30 MA_DM2
- SA_DM_3 AK26 MA_DM3
- SA_DM_4 AL9 MA_DM4
- SA_DM_5 AG7 MA_DM5
- SA_DM_6 AK5 MA_DM6
- SA_DM_7 AH3 MA_DM7
- SA_DQS_0 AC28 MA_DQS0
- SA_DQS_1 AJ30 MA_DQS1
- SA_DQS_2 AK33 MA_DQS2
- SA_DQS_3 AL25 MA_DQS3
- SA_DQS_4 AN9 MA_DQS4
- SA_DQS_5 AH8 MA_DQS5
- SA_DQS_6 AM2 MA_DQS6
- SA_DQS_7 AE3 MA_DQS7
- SA_DQS#_0 AC29 MA_DQS#0 << >> MA_DQS# [7:0] [18]
- SA_DQS#_1 AK30 MA_DQS#1
- SA_DQS#_2 AJ33 MA_DQS#2
- SA_DQS#_3 AM25 MA_DQS#3
- SA_DQS#_4 AN8 MA_DQS#4
- SA_DQS#_5 AJ8 MA_DQS#5
- SA_DQS#_6 AM3 MA_DQS#6
- SA_DQS#_7 AE2 MA_DQS#7
- SA_MA_0 AJ15 MA_MA0 << >> MA_MA [13:0] [18,19]
- SA_MA_1 AM17 MA_MA1
- SA_MA_2 AM15 MA_MA2
- SA_MA_3 AH15 MA_MA3
- SA_MA_4 AK15 MA_MA4
- SA_MA_5 AN15 MA_MA5
- SA_MA_6 AJ18 MA_MA6
- SA_MA_7 AF19 MA_MA7
- SA_MA_8 AN17 MA_MA8
- SA_MA_9 AL17 MA_MA9
- SA_MA_10 AG16 MA_MA10
- SA_MA_11 AL18 MA_MA11
- SA_MA_12 AG18 MA_MA12
- SA_MA_13 AL14 MA_MA13
- SA_CAS# AJ17 >> MA_CAS# [18,19]
- SA_RAS# AK18 >> MA_RAS# [18,19]
- SA_RCVENIN# AN28 >> SA_RCVENIN# [18,19]
- SA_RCVENOUT# AM28 >> SA_RCVENOUT# [18,19]
- SA_WE# AH17 >> MA_WE# [18,19]
- SB_BS_0 AH21
- SB_BS_1 AJ20
- SB_BS_2 AE22
- SB_MA_0 AN20
- SB_MA_1 AL21
- SB_MA_2 AK21
- SB_MA_3 AK22
- SB_MA_4 AL23
- SB_MA_5 AH22
- SB_MA_6 AC22
- SB_MA_7 AF21
- SB_MA_8 AM21
- SB_MA_9 AE21
- SB_MA_10 AL20
- SB_MA_11 AE22
- SB_MA_12 AE26
- SB_MA_13 AE20

945GMS /NB



NC

945GMS /NB

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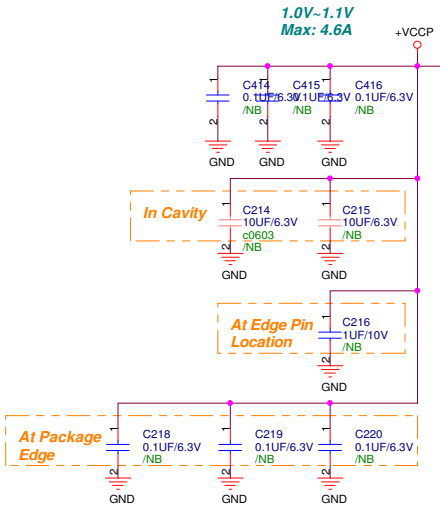
1008HA

ASUS Title : NB-945GMS(DDR2)

ASUSTeK COMPUTER INC. Engineer: Aaron Tsao

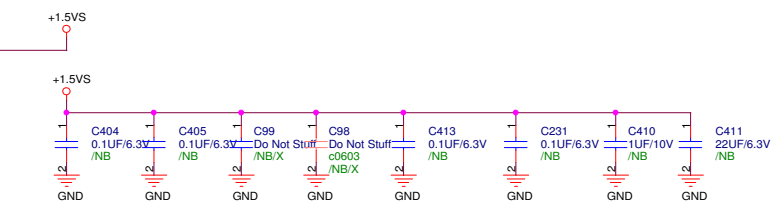
Size	Project Name	Rev
A3	1008HA	1.3G

Date: Friday, March 27, 2009 Sheet 10 of 49

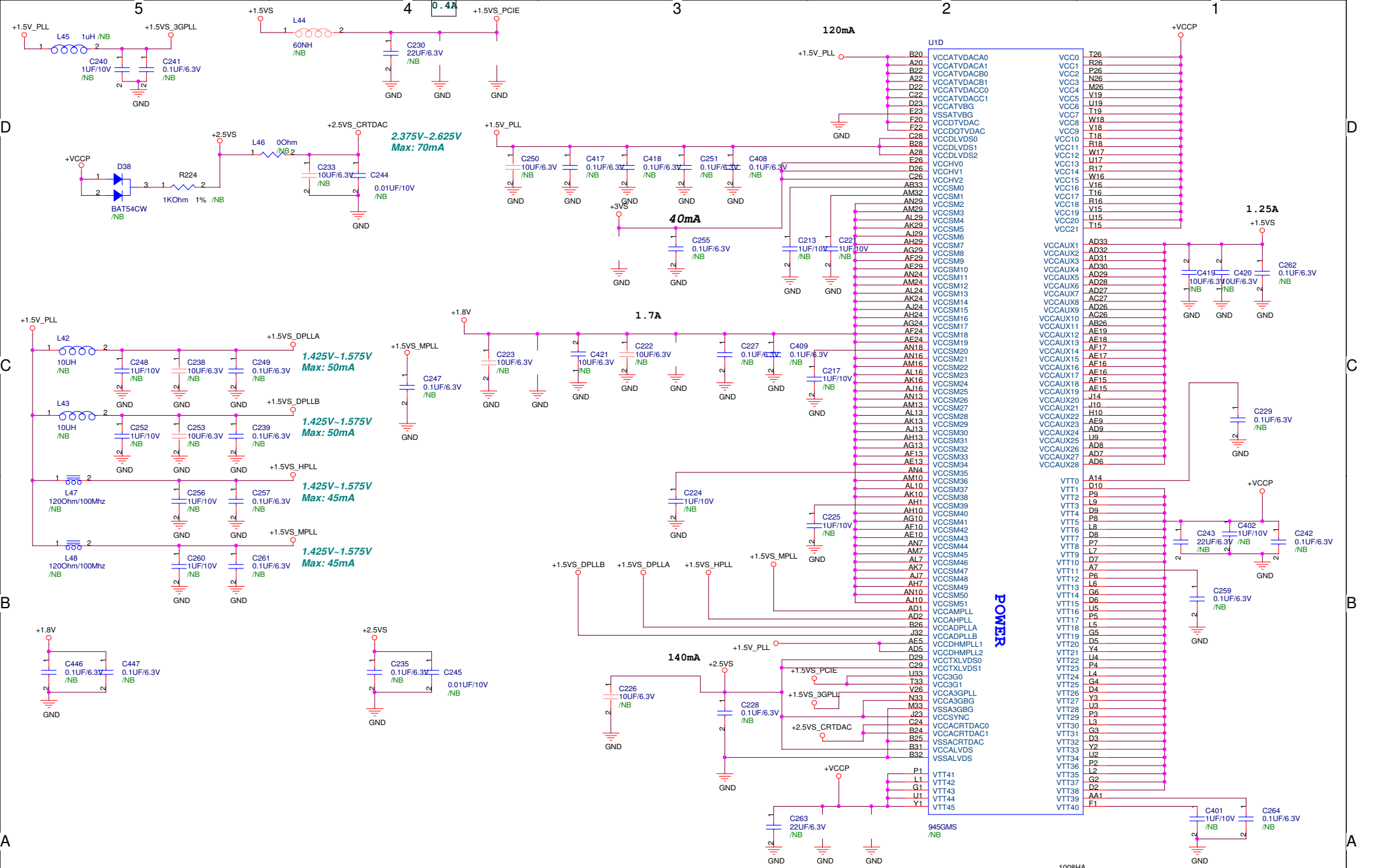


NCTF

Pin	Signal	Signal	Signal
T25	VCC_NCTF1	VCCAUX_NCTF1	AD25
R25	VCC_NCTF2	VCCAUX_NCTF2	AC25
P25	VCC_NCTF3	VCCAUX_NCTF3	AD25
N25	VCC_NCTF4	VCCAUX_NCTF4	AD24
M25	VCC_NCTF5	VCCAUX_NCTF5	AC24
P24	VCC_NCTF6	VCCAUX_NCTF6	AD22
N24	VCC_NCTF7	VCCAUX_NCTF7	AD21
M24	VCC_NCTF8	VCCAUX_NCTF8	AD20
Y22	VCC_NCTF9	VCCAUX_NCTF9	AD19
W22	VCC_NCTF10	VCCAUX_NCTF10	AD18
V22	VCC_NCTF11	VCCAUX_NCTF11	AD17
U22	VCC_NCTF12	VCCAUX_NCTF12	AD16
T22	VCC_NCTF13	VCCAUX_NCTF13	AD15
R22	VCC_NCTF14	VCCAUX_NCTF14	AD14
P22	VCC_NCTF15	VCCAUX_NCTF15	K14
N22	VCC_NCTF16	VCCAUX_NCTF16	AD13
M22	VCC_NCTF17	VCCAUX_NCTF17	Y13
W21	VCC_NCTF18	VCCAUX_NCTF18	W13
V21	VCC_NCTF19	VCCAUX_NCTF19	V13
U21	VCC_NCTF20	VCCAUX_NCTF20	U13
T21	VCC_NCTF21	VCCAUX_NCTF21	T13
R21	VCC_NCTF22	VCCAUX_NCTF22	R13
P21	VCC_NCTF24	VCCAUX_NCTF24	P13
N21	VCC_NCTF25	VCCAUX_NCTF25	N13
M21	VCC_NCTF26	VCCAUX_NCTF26	M13
W20	VCC_NCTF27	VCCAUX_NCTF27	AD12
V20	VCC_NCTF28	VCCAUX_NCTF28	Y12
U20	VCC_NCTF29	VCCAUX_NCTF29	W12
T20	VCC_NCTF30	VCCAUX_NCTF30	V12
R20	VCC_NCTF31	VCCAUX_NCTF31	U12
P20	VCC_NCTF32	VCCAUX_NCTF32	T12
N20	VCC_NCTF33	VCCAUX_NCTF33	P12
M20	VCC_NCTF34	VCCAUX_NCTF34	N12
Y19	VCC_NCTF35	VCCAUX_NCTF35	M12
P19	VCC_NCTF36	VCCAUX_NCTF36	AD11
N19	VCC_NCTF37	VCCAUX_NCTF37	AD10
M19	VCC_NCTF38	VCCAUX_NCTF38	K10
Y18	VCC_NCTF39	VSS_NCTF1	AA23
P18	VCC_NCTF40	VSS_NCTF2	AA25
N18	VCC_NCTF42	VSS_NCTF3	V25
M18	VCC_NCTF43	VSS_NCTF4	U25
Y17	VCC_NCTF44	VSS_NCTF5	AA22
P17	VCC_NCTF45	VSS_NCTF6	AA21
N17	VCC_NCTF46	VSS_NCTF7	AA20
M17	VCC_NCTF47	VSS_NCTF8	AA19
Y16	VCC_NCTF48	VSS_NCTF9	AA18
P16	VCC_NCTF49	VSS_NCTF10	AA17
N16	VCC_NCTF50	VSS_NCTF11	AA16
M16	VCC_NCTF51	VSS_NCTF12	AA15
Y15	VCC_NCTF52	VSS_NCTF13	AA14
P15	VCC_NCTF53	VSS_NCTF14	AA13
N15	VCC_NCTF54	VSS_NCTF15	A4
M15	VCC_NCTF55	VSS_NCTF16	A33
Y14	VCC_NCTF56	VSS_NCTF17	B2
W14	VCC_NCTF57	VSS_NCTF18	AN1
V14	VCC_NCTF58	VSS_NCTF19	C1
U14	VCC_NCTF59		
T14	VCC_NCTF60		
R14	VCC_NCTF61		
P14	VCC_NCTF62		
N14	VCC_NCTF63		
M14	VCC_NCTF64		
T10	VTT_NCTF1		
R10	VTT_NCTF2		
P10	VTT_NCTF3		
N10	VTT_NCTF4		
L10	VTT_NCTF5		
D1	VTT_NCTF6		
M10	RESERVED3		
A18	RESERVED4		
AB10	RESERVED5		
AA10	RESERVED6		

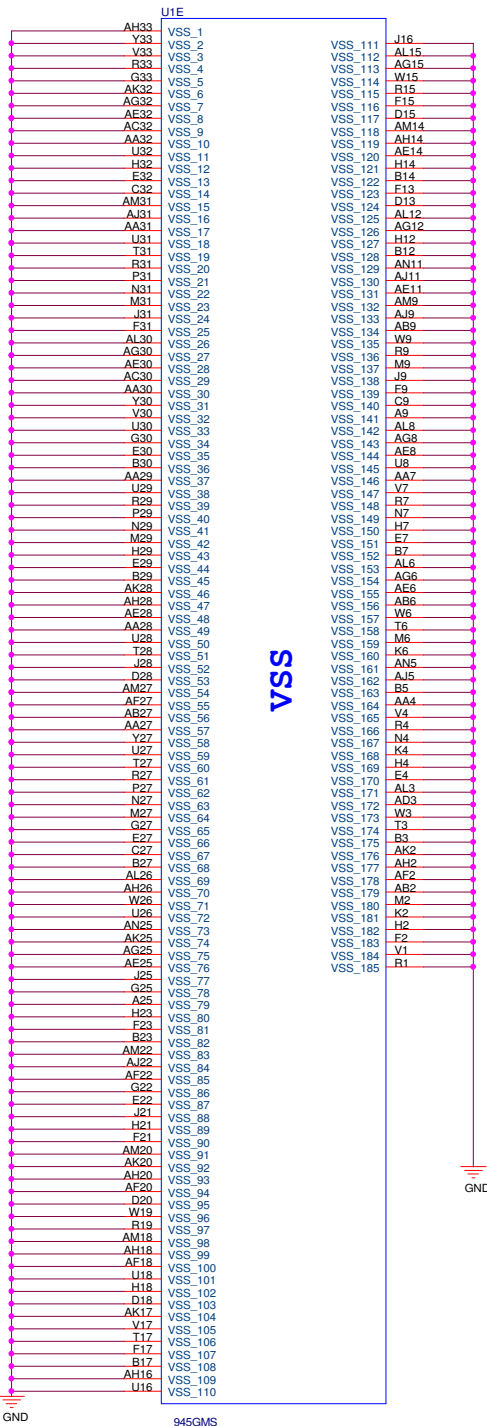


CFG_19(K28) Strapping :
DMI LANE Reversal:
 0:Normal Operation (Default)
 1.:Reversal Lanes, 3->0,2->1..etc
 Note:945GMS doesn't support DMI Lane Reversal



ASUS		Title : NB-945GMS(PWR2)	
ASUSTeK COMPUTER INC.		Engineer: Aaron Tsao	
Size	Project Name	Rev	
A3	1008HA	1.3G	
Date: Friday, March 27, 2009		Sheet 12 of 49	

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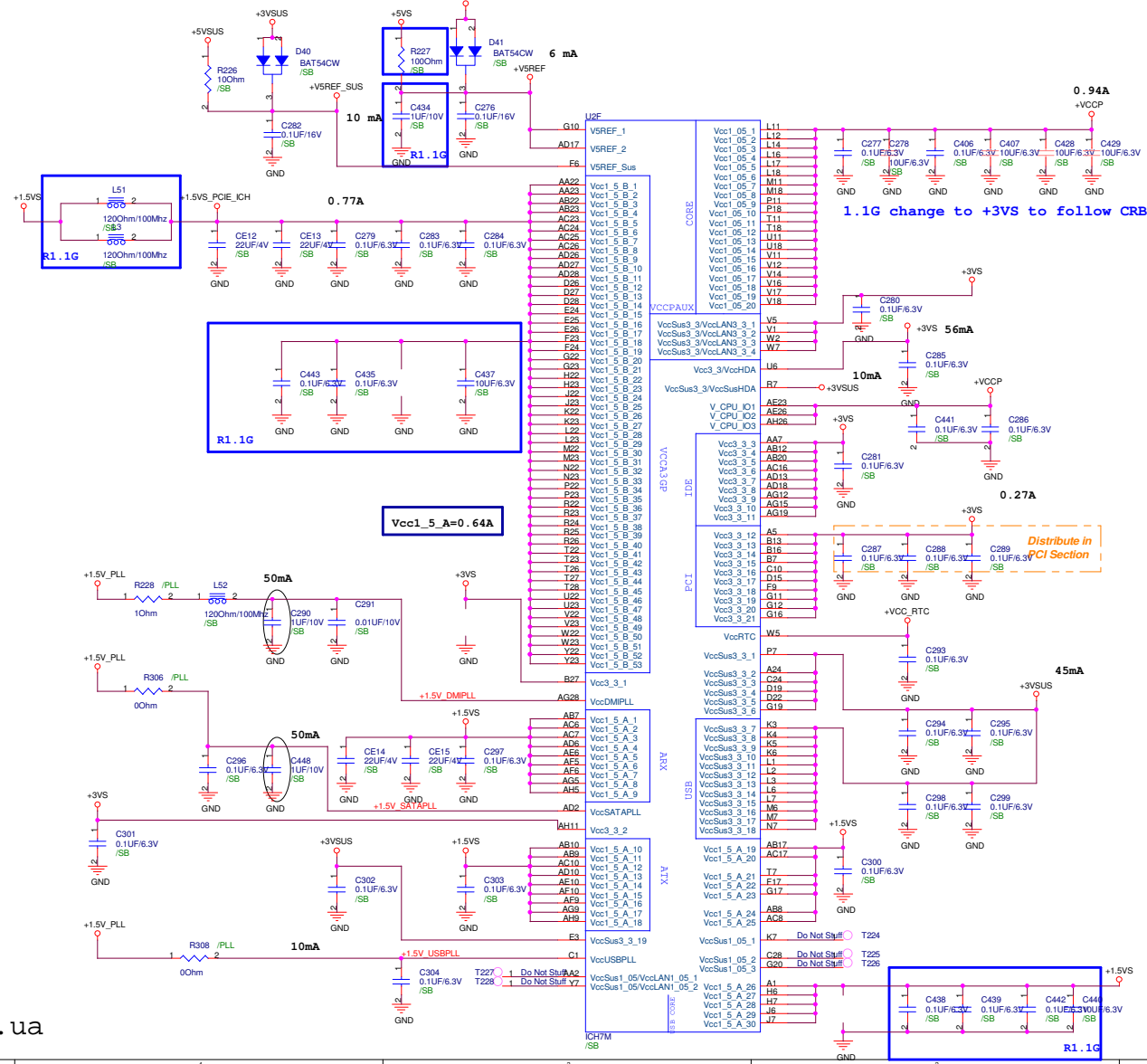


VSS

<http://konweer.kiev.ua>

1008HA

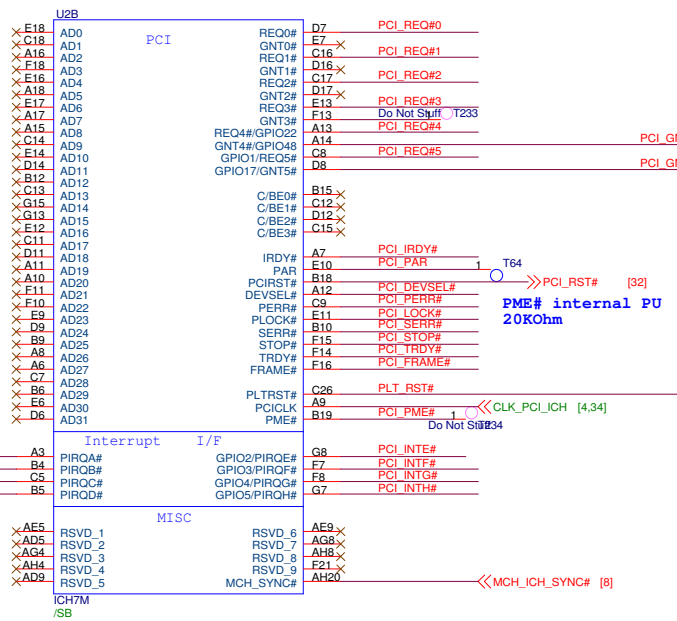
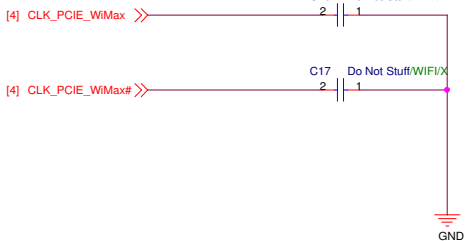
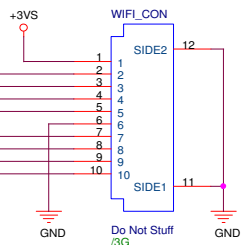
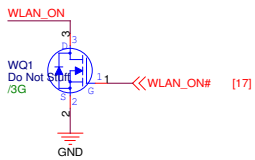
		Title : NB-945PMS(GND)	
ASUSTeK COMPUTER INC.		Engineer: Aaron Tsao	
Size	Project Name	Rev	
A3	1008HA	1.3G	
Date: Friday, March 27, 2009	Sheet	13	of 49



U2E		P28	
A4	Vss1	Vss98	R11
A23	Vss2	Vss99	R12
B1	Vss3	Vss100	R13
B8	Vss4	Vss101	R14
B11	Vss5	Vss102	R15
B14	Vss6	Vss103	R16
B17	Vss7	Vss104	R17
B20	Vss8	Vss105	R18
B26	Vss9	Vss106	R19
B28	Vss10	Vss107	R20
C2	Vss11	Vss108	R21
C6	Vss12	Vss109	R22
C27	Vss13	Vss110	R23
D10	Vss14	Vss111	R24
D15	Vss15	Vss112	R25
D18	Vss16	Vss113	R26
D24	Vss17	Vss114	R27
D27	Vss18	Vss115	R28
E1	Vss19	Vss116	R29
E2	Vss20	Vss117	R30
E8	Vss21	Vss118	R31
F4	Vss22	Vss119	R32
F3	Vss23	Vss120	R33
F4	Vss24	Vss121	R34
F5	Vss25	Vss122	R35
F6	Vss26	Vss123	R36
F12	Vss27	Vss124	R37
F28	Vss28	Vss125	R38
F29	Vss29	Vss126	R39
G1	Vss30	Vss127	R40
G2	Vss31	Vss128	R41
G5	Vss32	Vss129	R42
G6	Vss33	Vss130	R43
G9	Vss34	Vss131	R44
G14	Vss35	Vss132	R45
G18	Vss36	Vss133	R46
G21	Vss37	Vss134	R47
G24	Vss38	Vss135	R48
G26	Vss39	Vss136	R49
G28	Vss40	Vss137	R50
H3	Vss41	Vss138	R51
H4	Vss42	Vss139	R52
H5	Vss43	Vss140	R53
H24	Vss44	Vss141	R54
H27	Vss45	Vss142	R55
H28	Vss46	Vss143	R56
J1	Vss47	Vss144	R57
J2	Vss48	Vss145	R58
J5	Vss49	Vss146	R59
J24	Vss50	Vss147	R60
J25	Vss51	Vss148	R61
J26	Vss52	Vss149	R62
K24	Vss53	Vss150	R63
K27	Vss54	Vss151	R64
K28	Vss55	Vss152	R65
L13	Vss56	Vss153	R66
L15	Vss57	Vss154	R67
L24	Vss58	Vss155	R68
L25	Vss59	Vss156	R69
L26	Vss60	Vss157	R70
M3	Vss61	Vss158	R71
M4	Vss62	Vss159	R72
M5	Vss63	Vss160	R73
M12	Vss64	Vss161	R74
M13	Vss65	Vss162	R75
M14	Vss66	Vss163	R76
M15	Vss67	Vss164	R77
M16	Vss68	Vss165	R78
M17	Vss69	Vss166	R79
M24	Vss70	Vss167	R80
M27	Vss71	Vss168	R81
M28	Vss72	Vss169	R82
N1	Vss73	Vss170	R83
N2	Vss74	Vss171	R84
N6	Vss75	Vss172	R85
N7	Vss76	Vss173	R86
N11	Vss77	Vss174	R87
N12	Vss78	Vss175	R88
N13	Vss79	Vss176	R89
N14	Vss80	Vss177	R90
N15	Vss81	Vss178	R91
N16	Vss82	Vss179	R92
N17	Vss83	Vss180	R93
N18	Vss84	Vss181	R94
N24	Vss85	Vss182	R95
N25	Vss86	Vss183	R96
N26	Vss87	Vss184	R97
P4	Vss88	Vss185	R98
P12	Vss89	Vss186	R99
P13	Vss90	Vss187	R100
P14	Vss91	Vss188	R101
P15	Vss92	Vss189	R102
P16	Vss93	Vss190	R103
P17	Vss94	Vss191	R104
P18	Vss95	Vss192	R105
P24	Vss96	Vss193	R106
P27	Vss97	Vss194	R107

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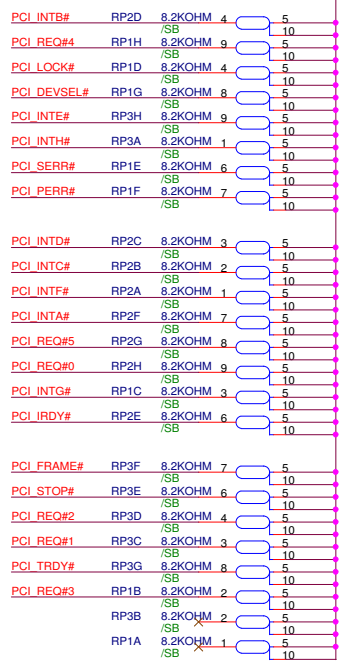
ASUS Title : SB-ICH7M(PWR)
 ASUSTeK COMPUTER INC. Engineer: Aaron Tsao
 Size Project Name
 Custom 1008HA
 Date: Friday, March 27, 2009 Sheet 14 of 49



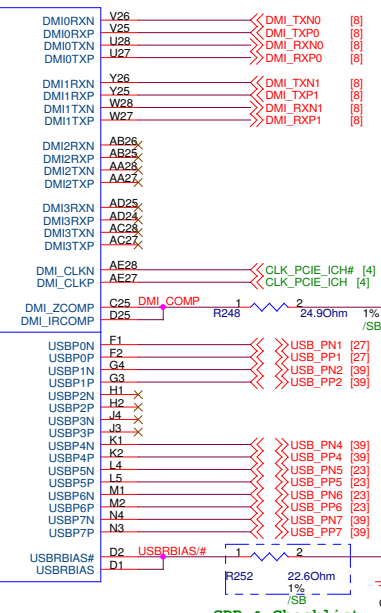
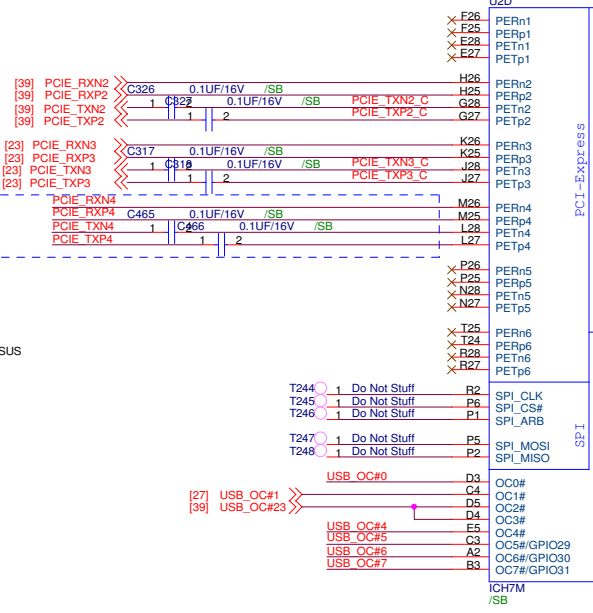
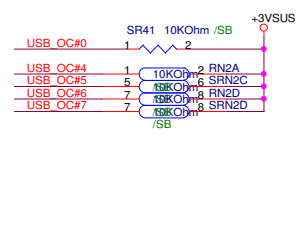
ICH7 Boot BIOS Select

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

Buffer to Reduce Loading on PLT_RST#



LAN AR8113 IC
WIFI PCIExpress Card
PCIe Interface for Wimax
2008-09-21



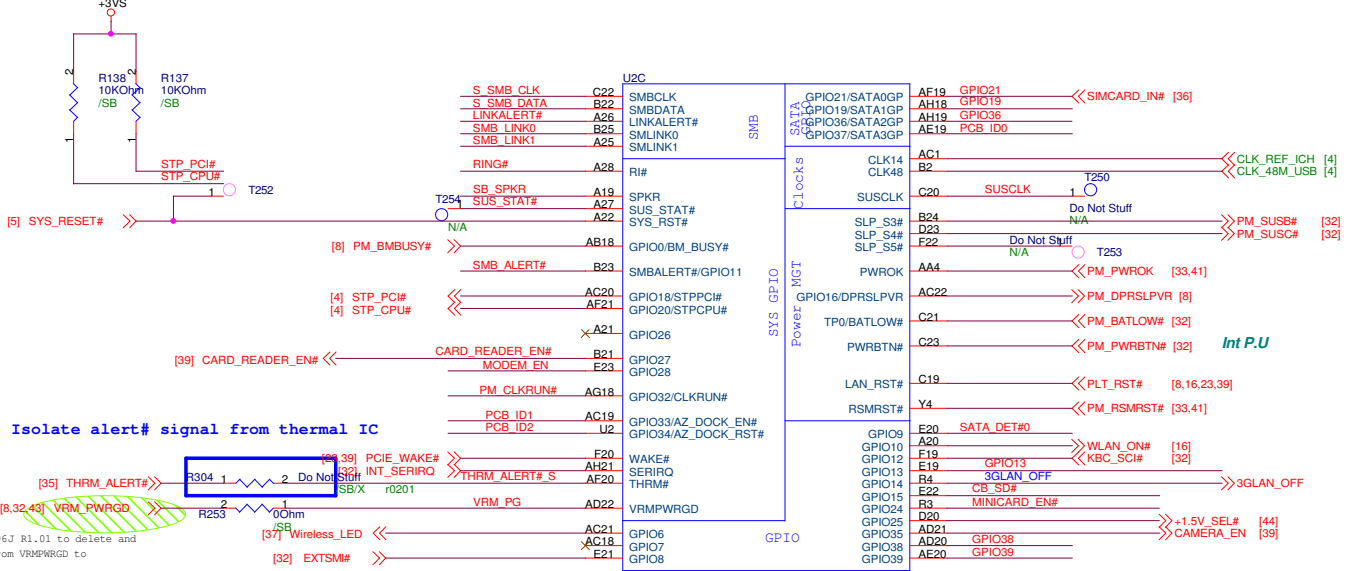
- USB 0 USB Conn
- USB 1 USB Conn
- USB 2 NA
- USB 3 NA
- USB 4 Card Reader
- USB 5 WIFI
- USB 6 Bluetooth
- USB 7 Camera

CRB & Checklist

1008HA

Title : SB-ICH7M(2)
ASUSTek COMPUTER INC. Engineer: **Aaron Tsao**

Size	Project Name	Rev
Custom	1008HA	1.3G
Date: Friday, March 27, 2009	Sheet	16 of 49



Isolate alert# signal from thermal IC

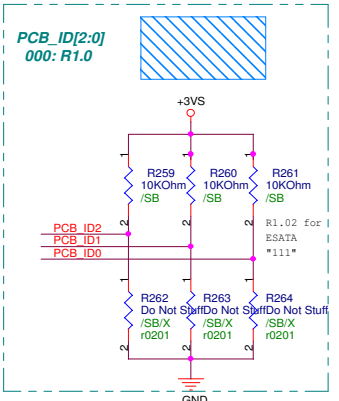
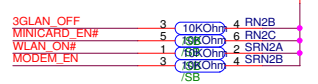
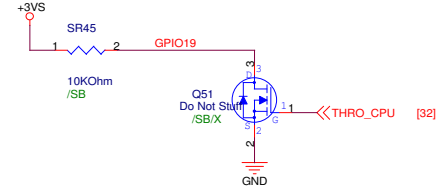
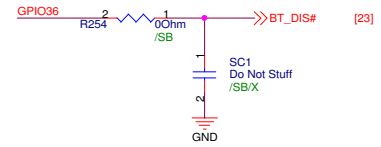
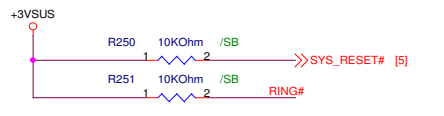


05/12/30, refer 296J R1.01 to delete and change net name from VRMPWRGD to VRM_PWRGD.

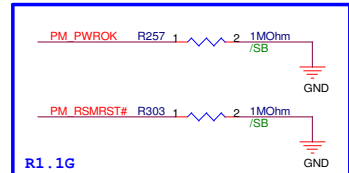
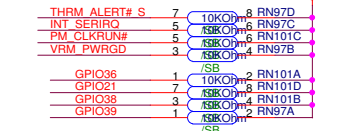
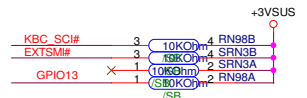
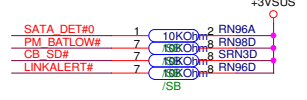
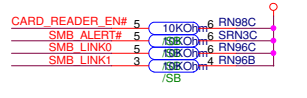
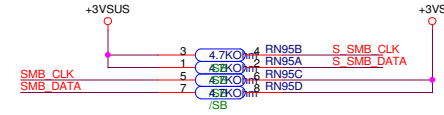
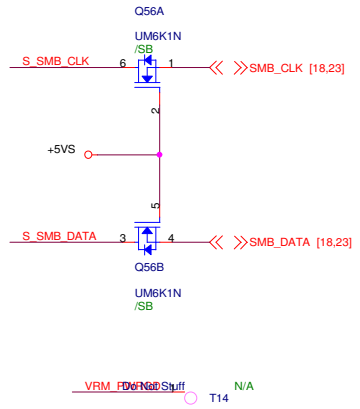
S SMB_CLK <<> S SMB_CLK [4]
S SMB_DATA <<> S SMB_DATA [4]

WLAN_LED	WLAN	BT
High	v	v
High	v	x
High	x	v
Low	x	x

GPIO25 Internal PU 20K For +1.5V DIMM Power



PCB_VID3 : PROJECT CODE

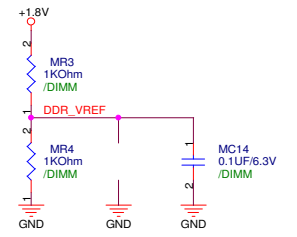
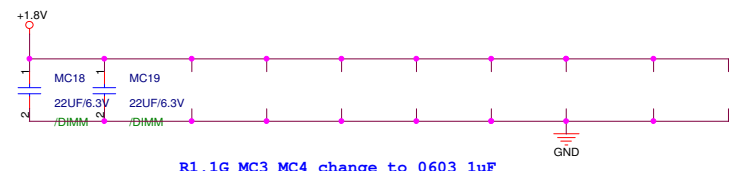
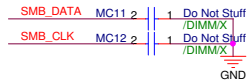


R1.1G



ASUS Title : SB-ICH7M(3)
 ASUSTek COMPUTER INC Engineer: Aaron Tsao
 Size Project Name
 Custom 1008HA Rev 1.3G
 Date: Friday, March 27, 2009 Sheet 17 of 49

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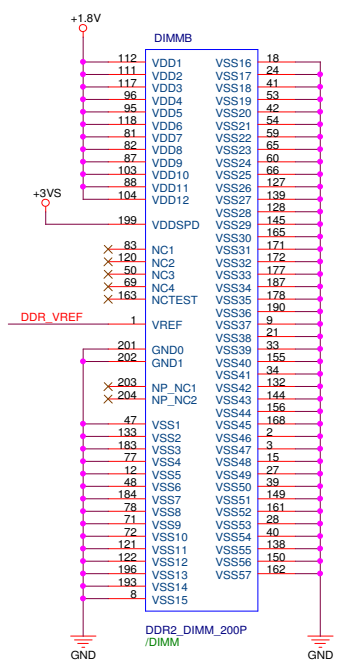
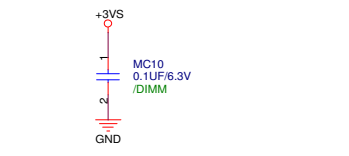
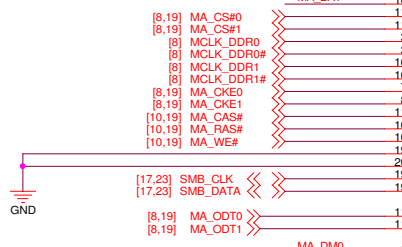


STD Type

DDR2 Conn. Height=4.0mm

DIMMA		DIMMB	
MA_MA0	102	A0	DO0
MA_MA1	101	A1	DO1
MA_MA2	100	A2	DO2
MA_MA3	99	A3	DO3
MA_MA4	98	A4	DO4
MA_MA5	97	A5	DO5
MA_MA6	94	A6	DO6
MA_MA7	93	A7	DO7
MA_MA8	92	A8	DO8
MA_MA9	91	A9	DO9
MA_MA10	105	A10/AP	DO10
MA_MA11	90	A11	DO11
MA_MA12	89	A12	DO12
MA_MA13	116	A13	DO13
	86	A14	DO14
	84	A15	DO15
MA_BA2	85	A16_BA2	DO16
			DO17
MA_BA0	107	BA0	DO18
MA_BA1	106	BA1	DO19
	110	SA0	DO20
	115	S1#	DO21
	30	CK0	DO22
	32	CK0#	DO23
	164	CK1	DO24
	166	CK1#	DO25
	79	CKE0	DO26
	80	CKE1	DO27
	113	CAS#	DO28
	108	RAS#	DO29
	109	WE#	DO30
	198	SA0	DO31
	200	SA1	DO32
	197	SCL	DO33
	195	SDA	DO34
			DO35
	114	ODT0	DO36
	119	ODT1	DO37
			DO38
			DO39
			DO40
			DO41
			DO42
			DO43
			DO44
			DO45
			DO46
			DO47
			DO48
			DO49
			DO50
			DO51
			DO52
			DO53
			DO54
			DO55
			DO56
			DO57
			DO58
			DO59
			DO60
			DO61
			DO62
			DO63

GROUP1
GROUP2
SWAP



DDR2_DIMM_200P /DIMM

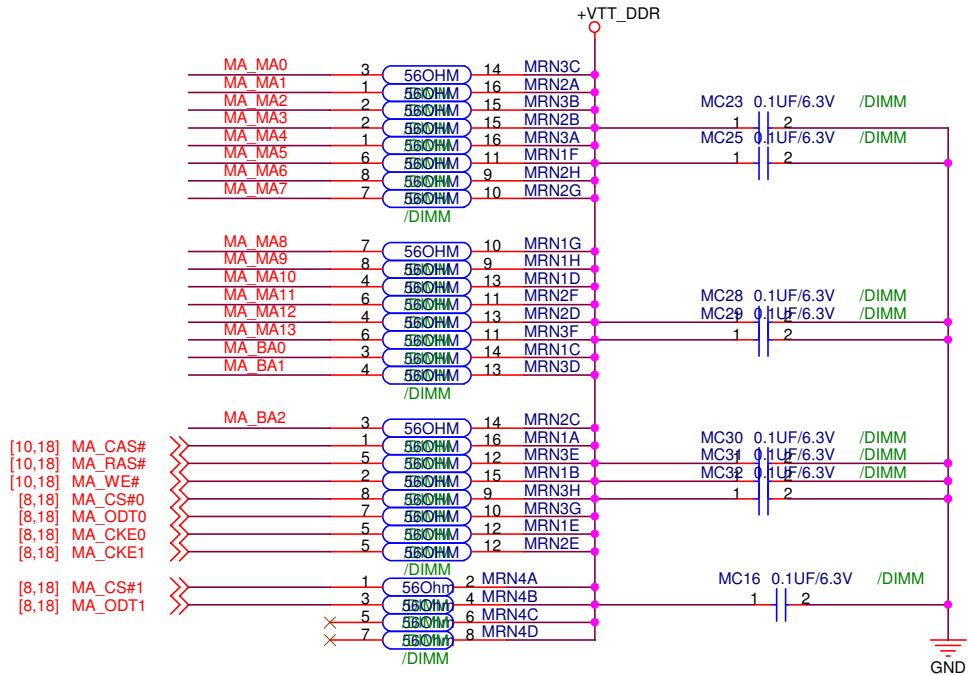
1008HA

ASUS		Title : DDR2 SODIMM	
ASUSTek Computer INC.		Engineer: Aaron Tsao	
Size A3	Project Name 1008HA	Rev 1.3G	
Date: Friday, March 27, 2009	Sheet 18	of 49	

5 4 3 2 1

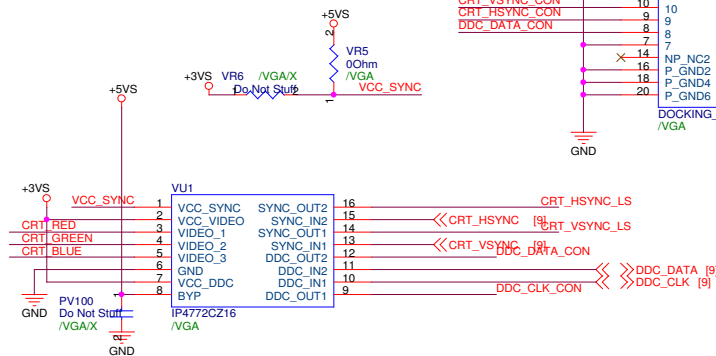
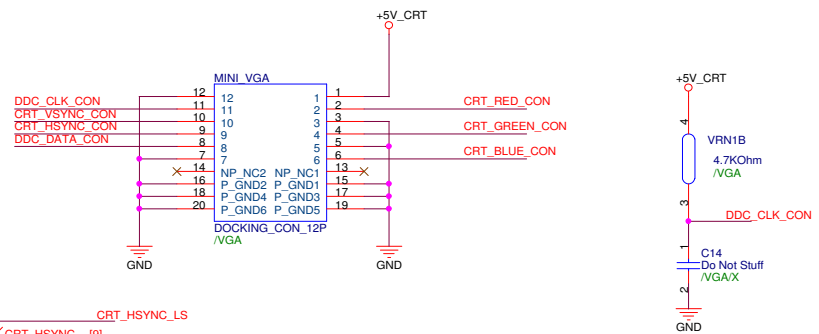
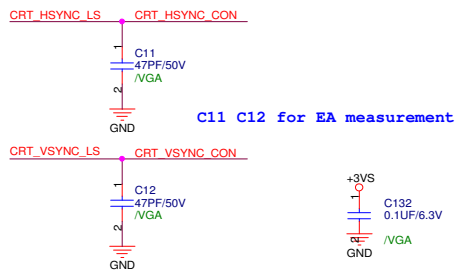
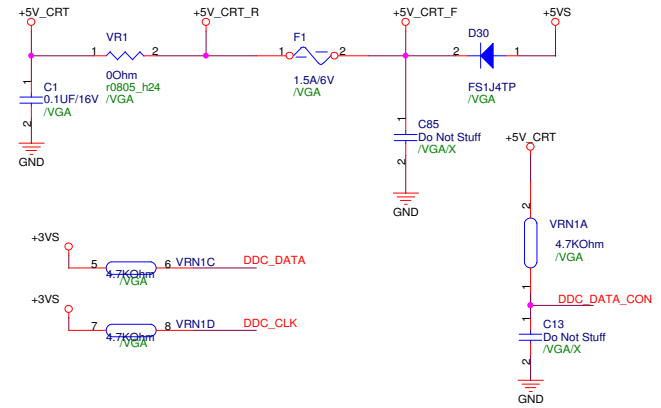
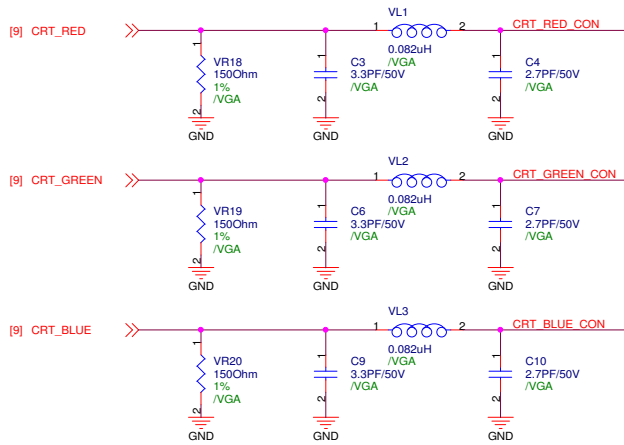
←←MA_MA[13:0] [10,18]

←←MA_BA[2:0] [10,18]



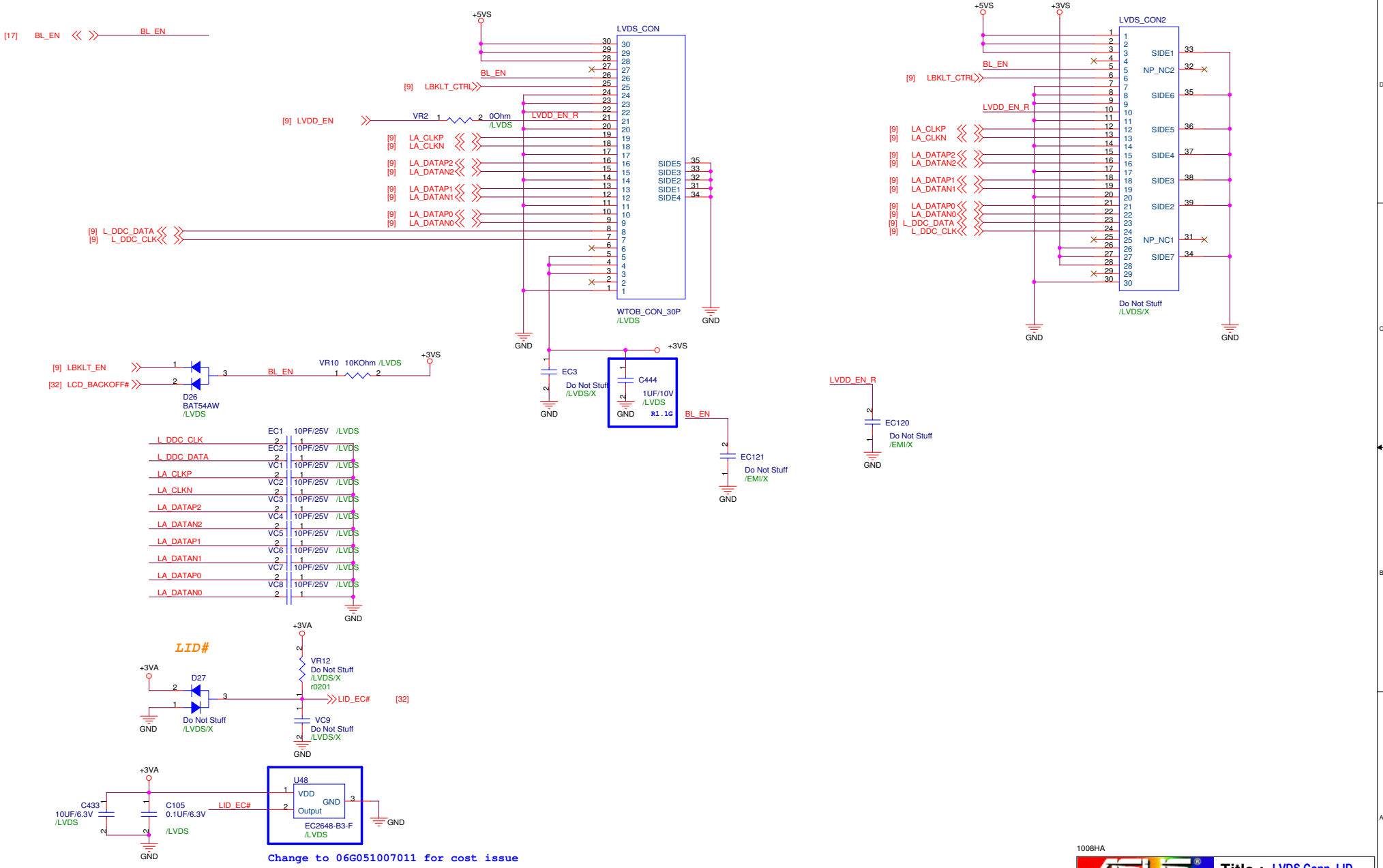
1008HA

		Title : DDR2_Termination
ASUSTek Computer INC.		Engineer: Aaron Tsao
Size A4	Project Name 1008HA	Rev 1.3G
Date: Friday, March 27, 2009		Sheet 19 of 49



1008HA

ASUS		Title : Onboard VGA	
ASUSTek Computer INC.		Engineer: Aaron Tsao	
Size A3	Project Name 1008HA	Date: Friday, March 27, 2009	Rev 1.3G
Sheet 20 of 49			



Change to 06G051007011 for cost issue

1008HA


ASUS		Title : LVDS Conn_LID	
ASUSTek Computer INC.		Engineer: Aaron Tsao	
Size	Project Name	Rev	
A3	1008HA	1.3G	
Date: Friday, March 27, 2009	Sheet 21	of 49	

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LID_EC#

<http://konweer.kiev.ua>

1008HA 3.5G Module & External Antenna

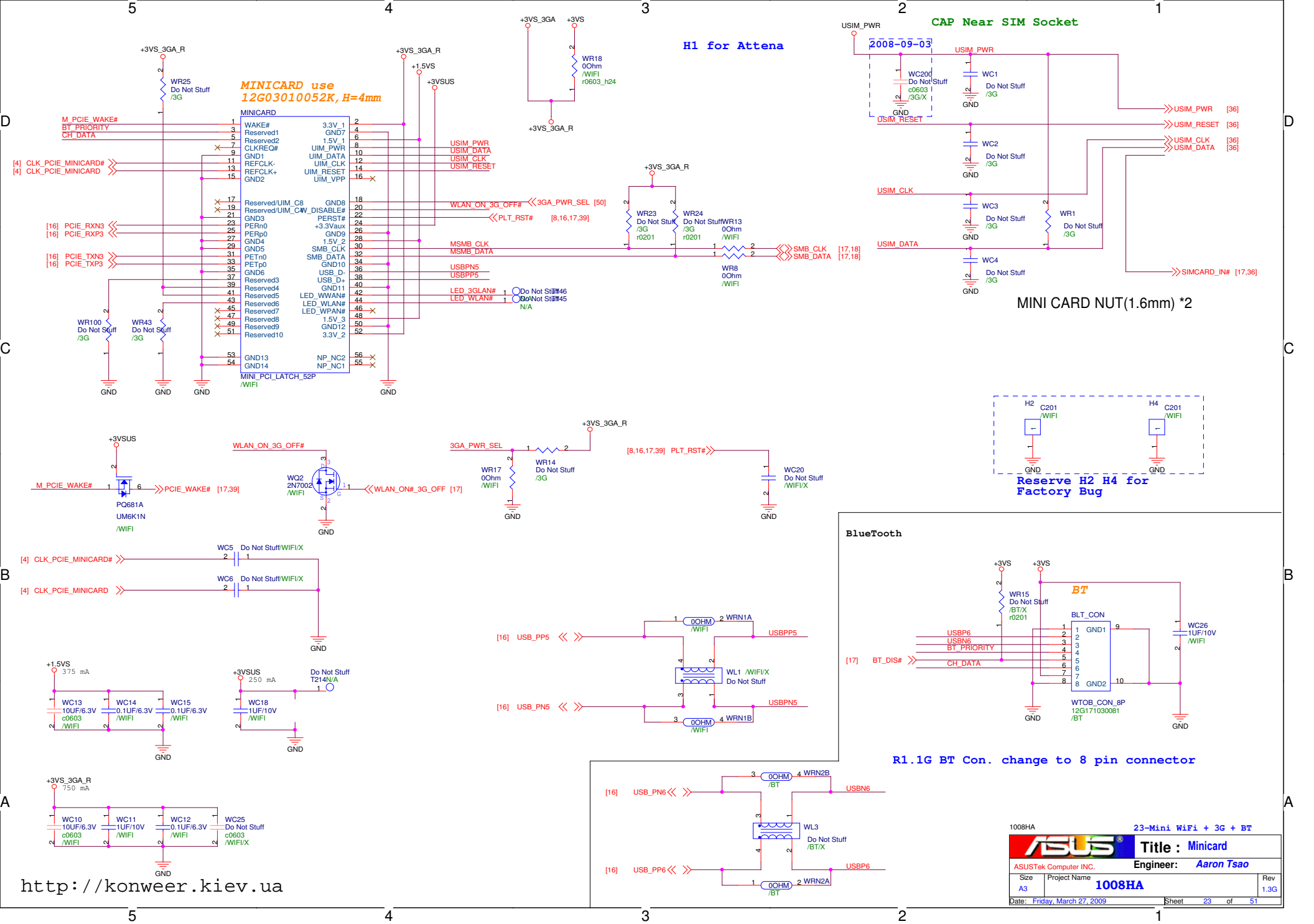


Title :

ASUSTek Computer INC. **Engineer: Aaron Tsao**

Size	Project Name	Rev
A3	1008HA	1.3G


Date: Friday, March 27, 2009 Sheet 22 of 49



<http://konweer.kiev.ua>


<http://konweer.kiev.ua>

1008HA

		Title : AR8132	
ASUSTek Computer INC		Engineer: Aaron Tsao	
Size	Project Name		Rev
A3	1008HA		1.3G
Date: Friday, March 27, 2009		Sheet	24 of 49


<http://konweer.kiev.ua>

1008HA

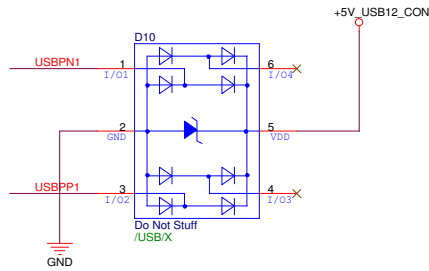
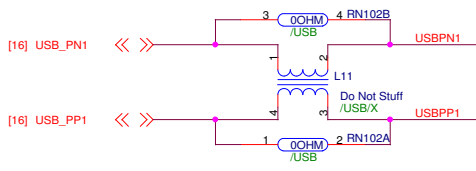
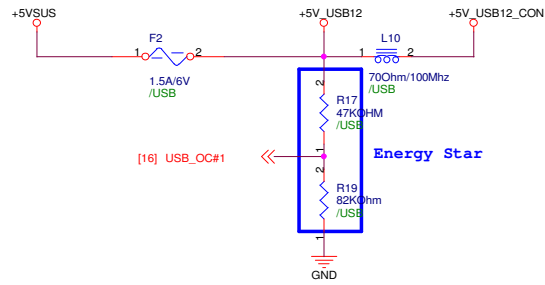
		Title : RJ45
ASUSTek Computer INC.		Engineer: Aaron Tsao
Size	Project Name	Rev
A3	1008HA	1.3G
Date: Friday, March 27, 2009		Sheet 25 of 49

Naming Rule:
 IC: IU?
 R: IR?
 C: IC?
 L: IL?

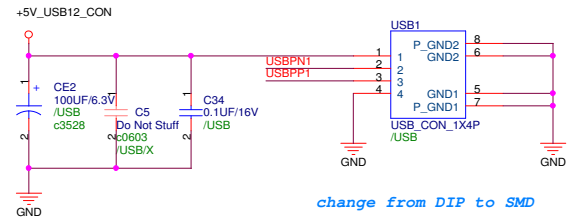
1008HA

		Title : G-Sensor	
ASUSTek Computer INC.		Engineer: <i>Aaron Tsao</i>	
Size	Project Name	Rev	
A3	1008HA	1.3G	
Date: <i>Friday, March 27, 2009</i>		Sheet <i>26</i> of <i>49</i>	

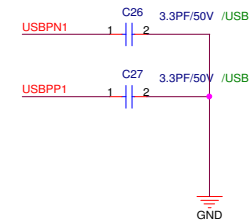
<http://konweer.kiev.ua>



1.1G change USB con. to 12G131030042



1.1G change CE2 CE3 CE4 to POSCAP, 100uF/6.3V



5

4

3

2

1

D

D

C

C

B


B

A

A

<http://konweer.kiev.ua>

1008HA

		Title : Camera Power	
ASUSTek Computer INC.		Engineer: Aaron Tsao	
Size	Project Name		Rev
A4	1008HA		1.3G
Date: Friday, March 27, 2009		Sheet	28 of 49

5

4

3

2

1

5

4

3

2

1

D

D

C

C

B


B

A

A

<http://konweer.kiev.ua>

1008HA

		Title : AU6336-C52	
ASUSTek Computer Inc.		Engineer: Aaron Tsao	
Size	Project Name	Rev	
A3	1008HA	1.3G	
Date:	Friday, March 27, 2009	Sheet	29 of 49

5

4

3

2

1

5

4

3

2

1

D

D

C

C

B


B

A

A

<http://konweer.kiev.ua>

1008HA

		Title : ALC269-1	
ASUSTek Computer Inc.		Engineer: Aaron Tsao	
Size A3	Project Name 1008HA	Rev 1.3G	
Date: <u>Friday, March 27, 2009</u>		Sheet	30 of 49

5

4

3

2

1


1.1G add PWR LED and Charge LED

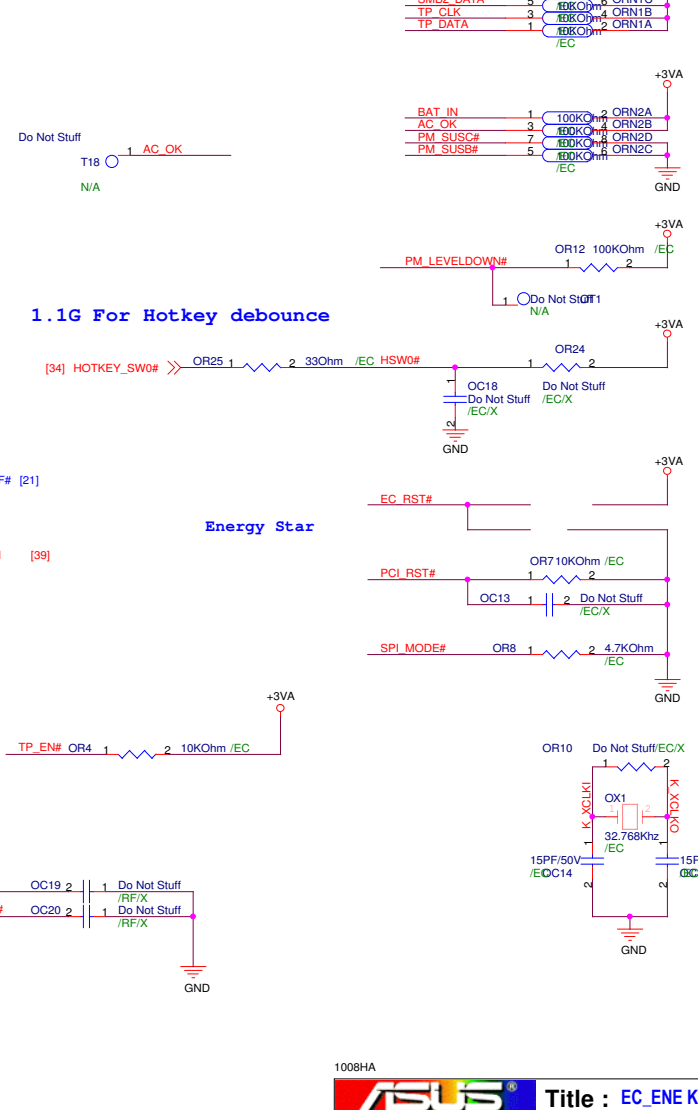
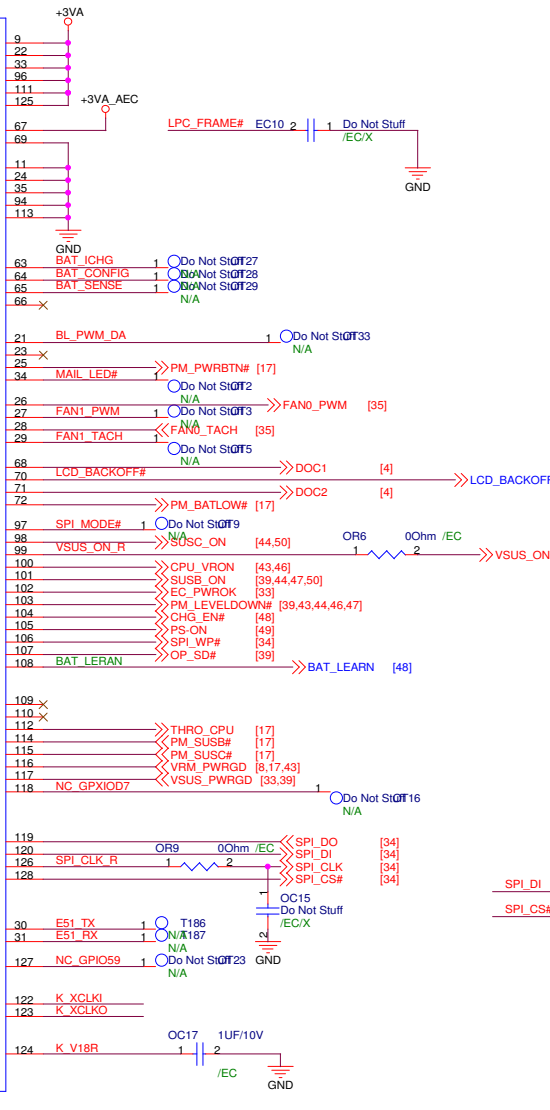
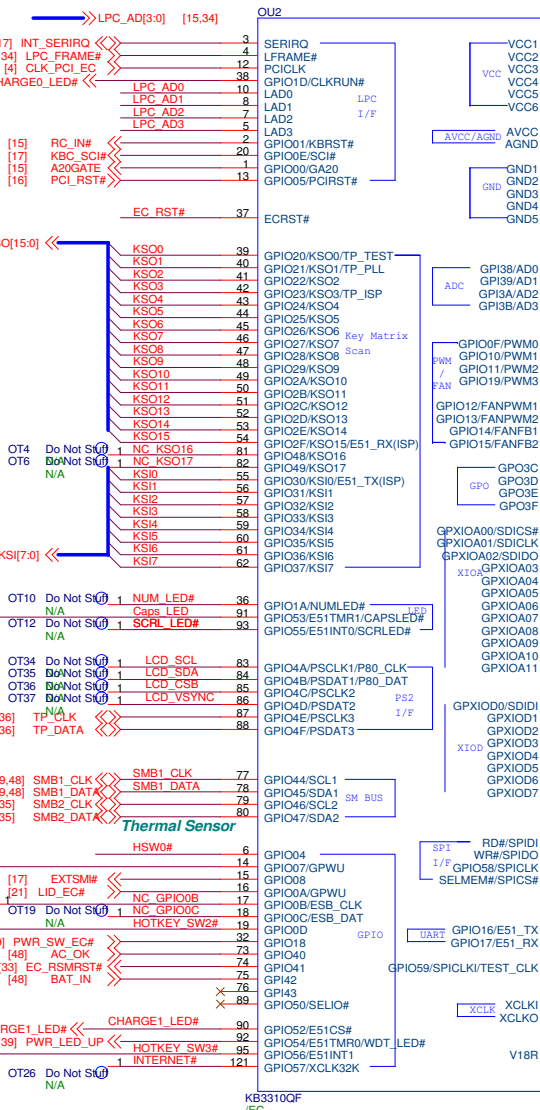
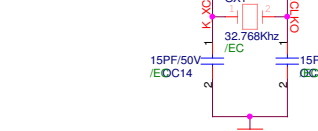
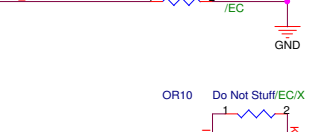
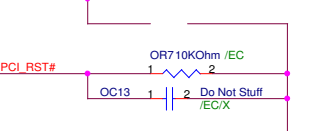
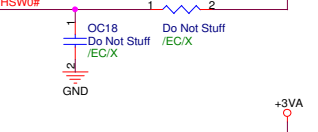
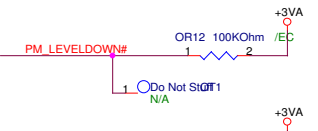
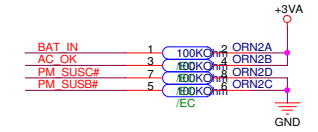
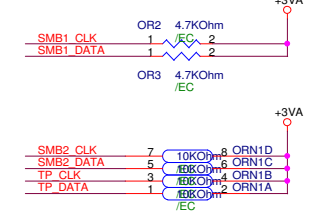
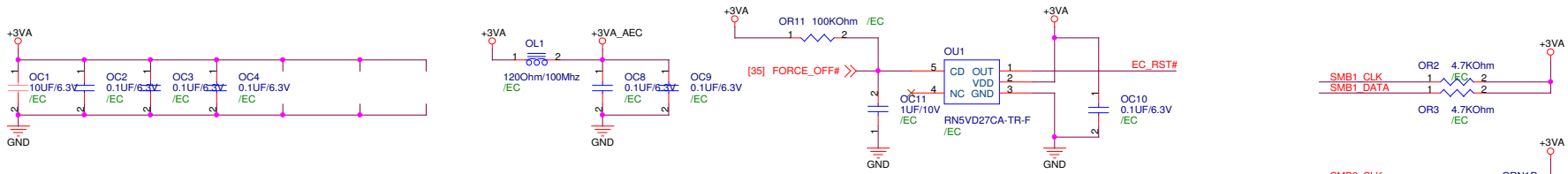
DMIC Cable length should be less 30cm

Change R291 R292 R293 to 510 Ohm

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1008HA

		Title : ALC269-2	
ASUSTek Computer Inc.		Engineer: Aaron Tsao	
Size A3	Project Name 1008HA	Rev 1.3G	
Date: Friday, March 27, 2009	Sheet	31	of 49



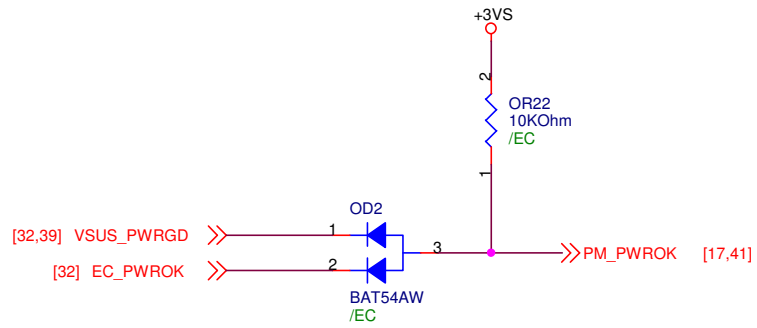
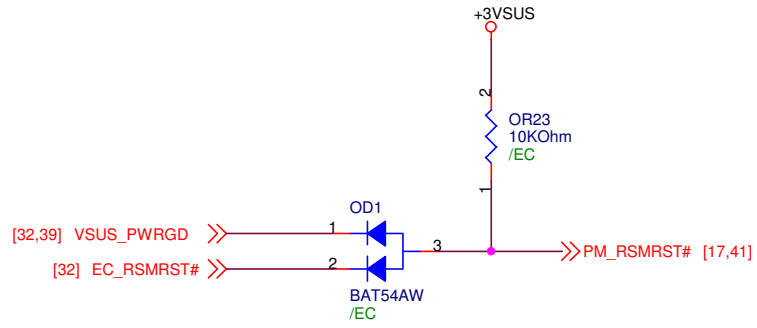
OR25 1.1G For Hotkey debounce
HOTKEY_SW0# - HOTKEY_SW3# internal PU

1.1G For Hotkey debounce

Energy Star

1008HA		ASUS Title : EC_ENE KB3310	
ASUSTek Computer INC.		Engineer: Aaron Tsao	
Size	Project Name	Rev	
A3	1008HA	1.3G	
Date: Friday, March 27, 2009	Sheet	32	of 49

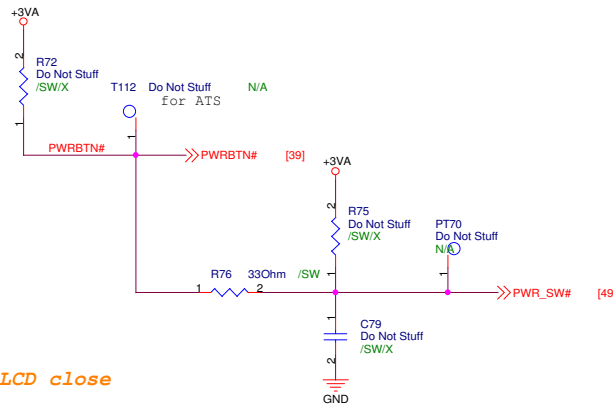
<http://konweer.kiev.ua>



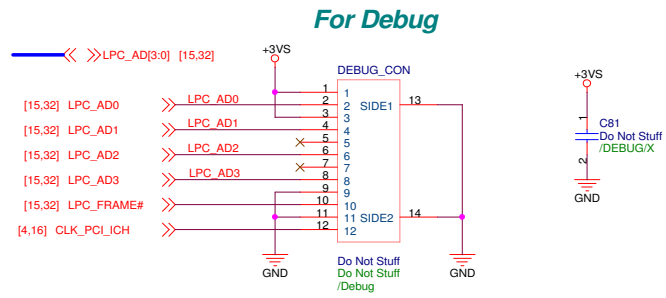
<http://konweer.kiev.ua>

1008HA

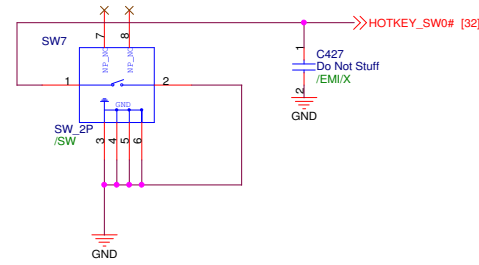
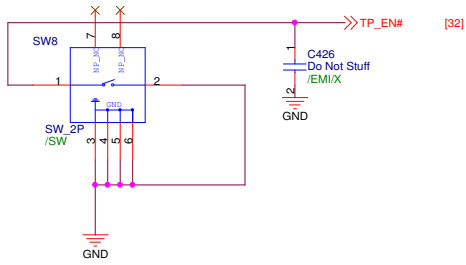
		Title : EC
ASUSTek Computer INC.		Engineer: Aaron Tsao
Size A4	Project Name 1008HA	Rev 1.3G
Date: Friday, March 27, 2009		Sheet 33 of 49



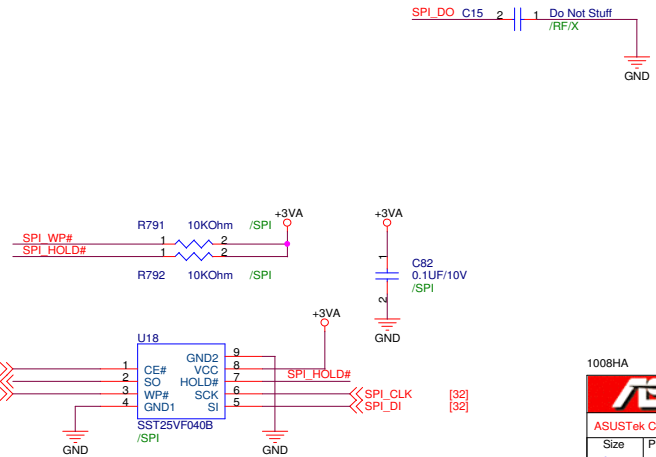
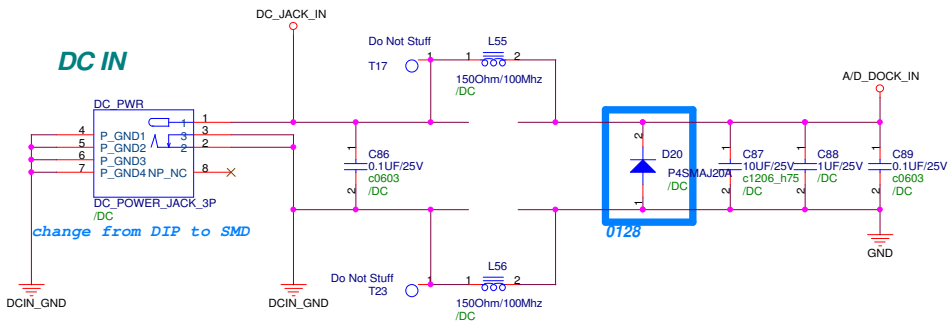
prevent system power on when LCD close



Debug Card cable use Z96 Touch Pad cable, P/N:
 14G124110126, 14G124110120, 14G124110121
 14G124110124, 14G124110125

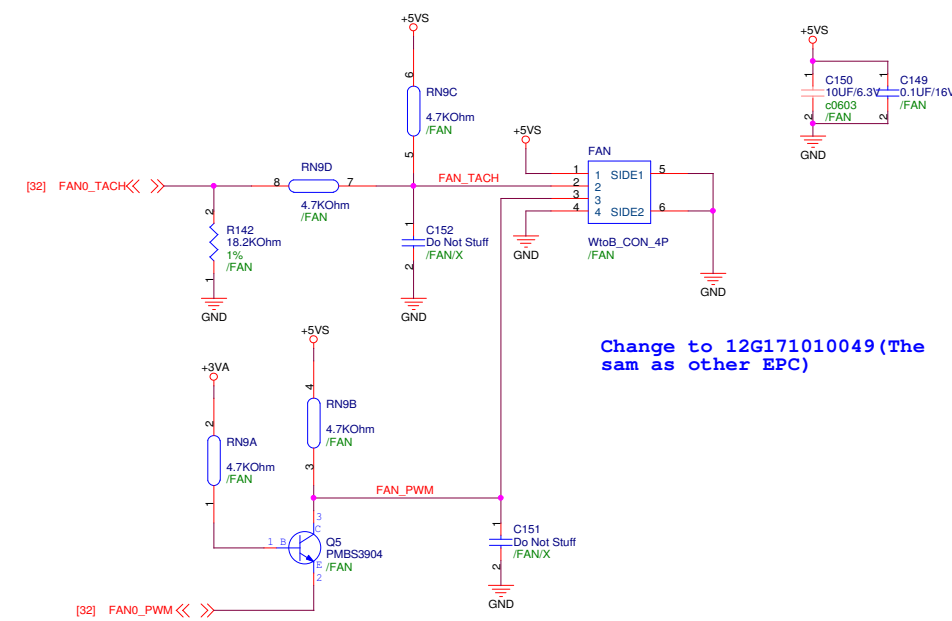
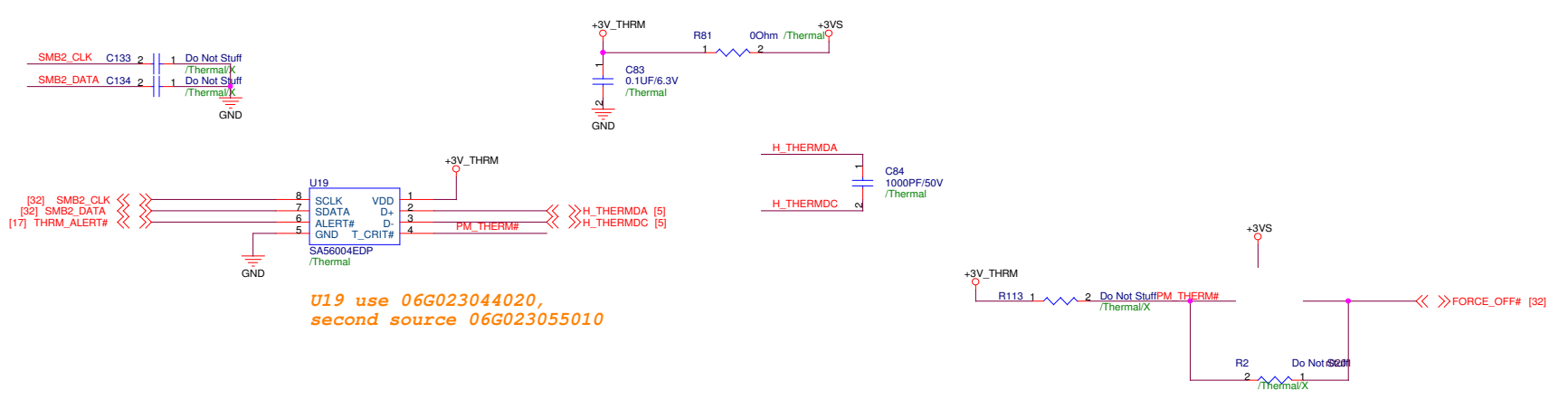


DC IN



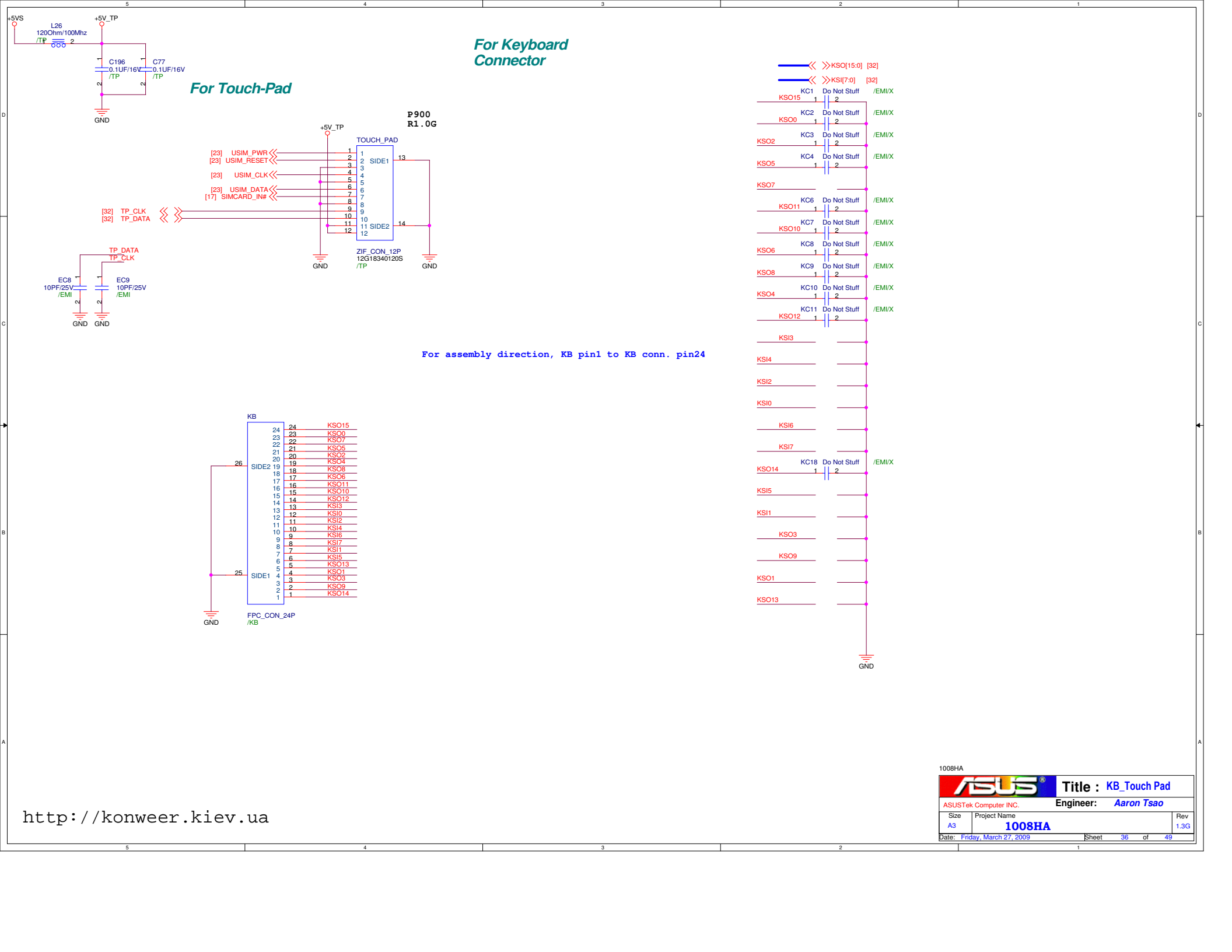
<http://konweer.kiev.ua>

1008HA		ASUS		Title : :34_Switch_SPI_ITP_Debug	
ASUSTek Computer INC.		Project Name		Engineer: Aaron Tsao	
Size	A3	1008HA		Rev	1.3G
Date:	Friday, March 27, 2009	Sheet	34	of	49



<http://konweer.kiev.ua>

1008HA		ASUS		Title :Thermal Sensor_FAN	
ASUSTek Computer INC.		Engineer: Aaron Tsao			
Size	Project Name			Rev	
A3	1008HA			1.3G	
Date: Friday, March 27, 2009		Sheet 35 of 49		1	



<http://konweer.kiev.ua>

1008HA

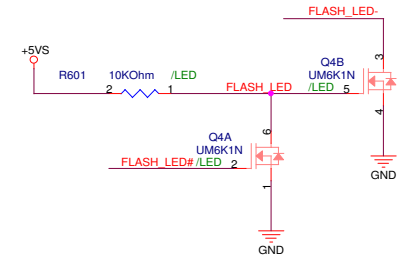
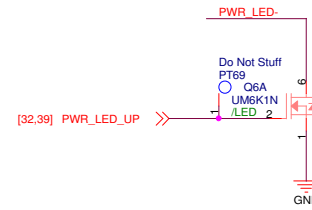
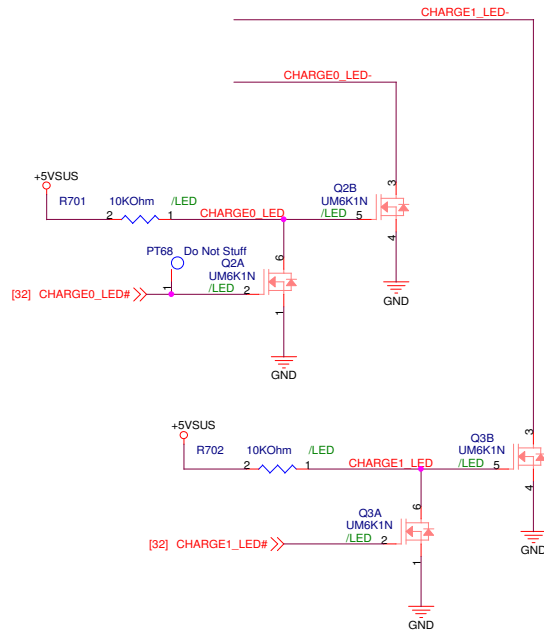
ASUS		Title : KB_Touch Pad	
ASUSTek Computer INC.		Engineer: Aaron Tsao	
Size	Project Name	Rev	
A3	1008HA	1.3G	
Date: Friday, March 27, 2009	Sheet 36 of 49		

1.1G change to EVERLIGHT

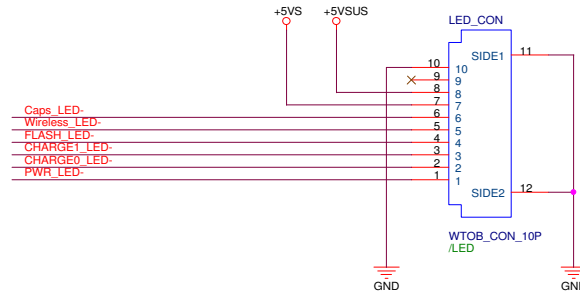
for CHARGE LED
Height : 0.55mm

for POWER LED
White

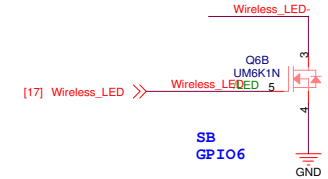
for FLASH LED
White



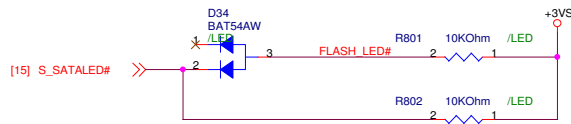
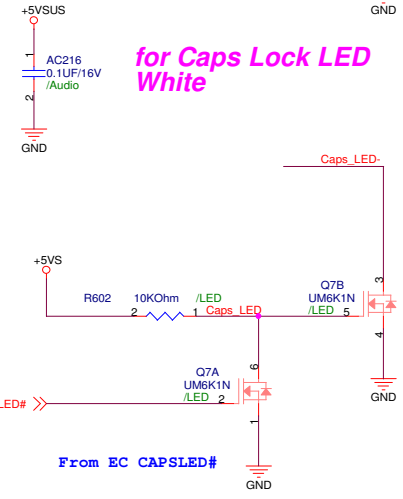
Change LED resistor to 510 Ohm, about 4mA



for WIFI/BlueTooth LED
White



for Caps Lock LED
White




<http://konweer.kiev.ua>

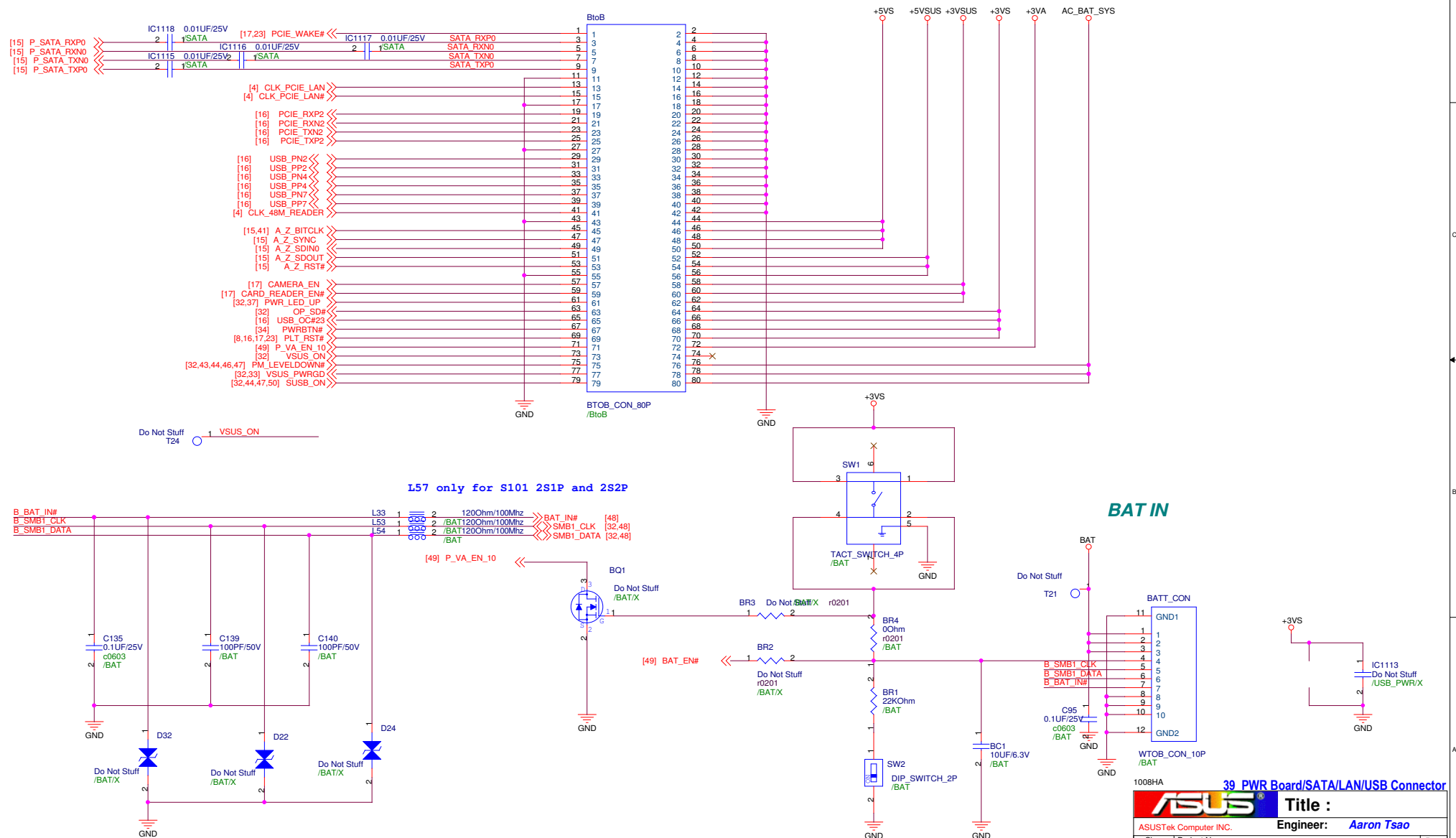
1008HA		ASUS		Title : LED	
ASUSTek Computer INC.		Engineer: Kenneth Hung			
Size	Project Name			Rev	
A3	1008HA			1.3G	
Date: Friday, March 27, 2009	Sheet		37	of 50	

<http://konweer.kiev.ua>

1008HA

		Title : Discharge
ASUSTek Computer INC.		Engineer: <i>Aaron Tsao</i>
Size	Project Name	Rev
A3	1008HA	1.3G
Date: <i>Friday, March 27, 2009</i>		Sheet 38 of 49

PWR Board/SATA/LAN/USB Connector



<http://konweer.kiev.ua>

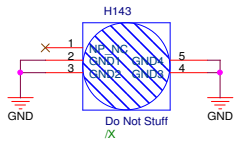
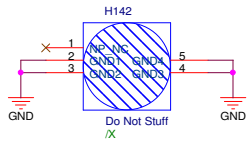
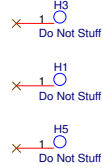
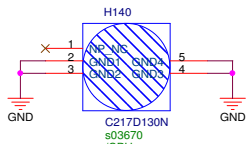
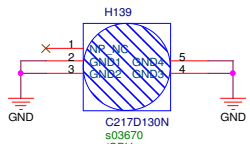
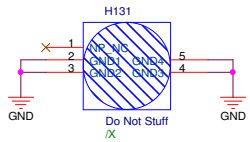
39 PWR Board/SATA/LAN/USB Connector

ASUS Title : **ASUS**

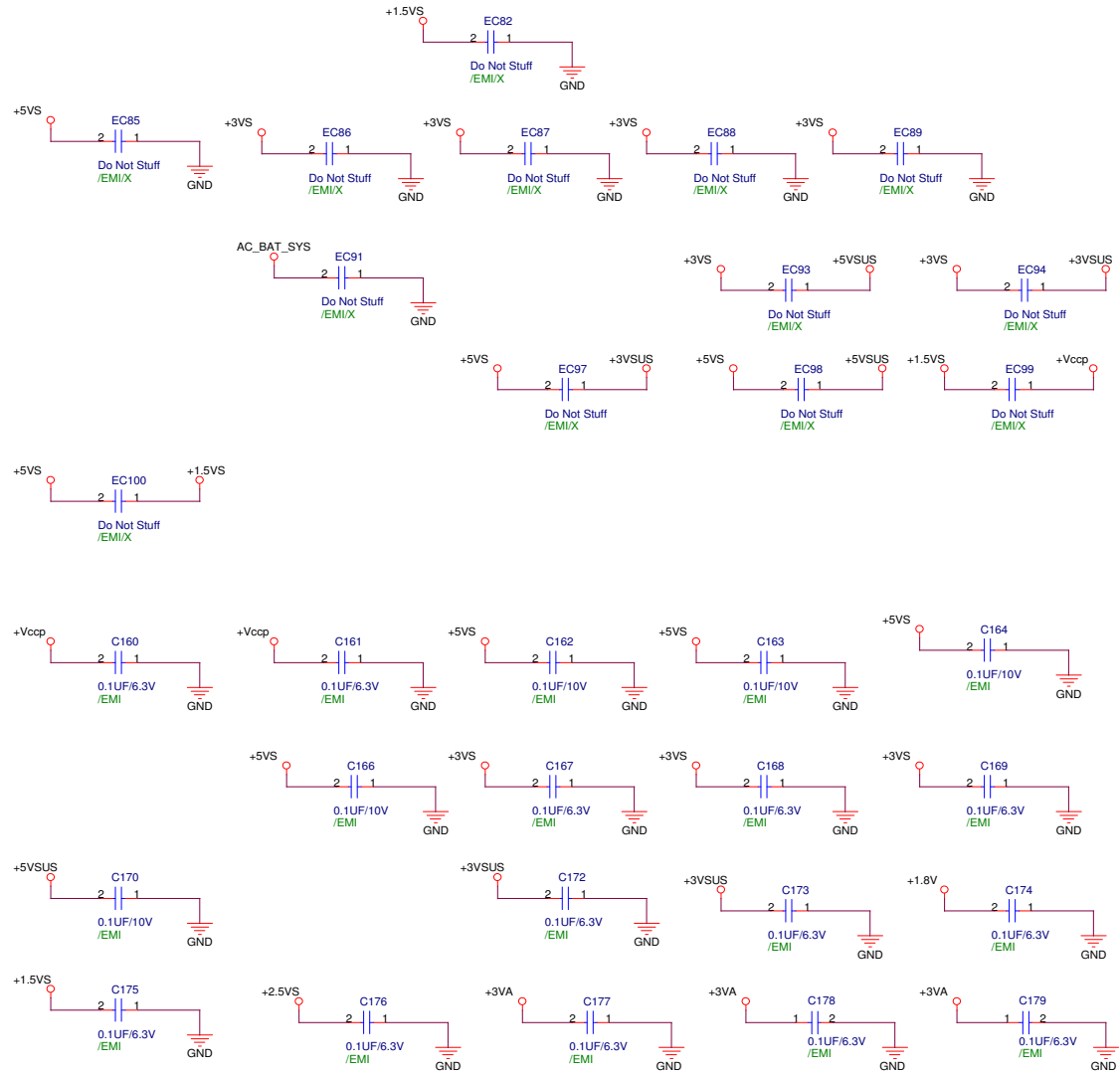
ASUSTek Computer INC. Engineer: **Aaron Tsao**

Size Project Name **1008HA**

Date: Friday, March 27, 2009 Sheet 39 of 49 Rev 1.3G



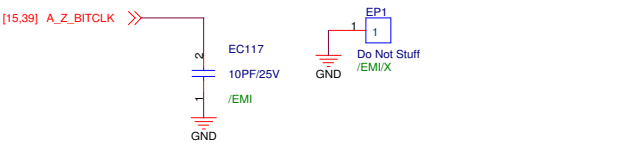
R1.1G Change



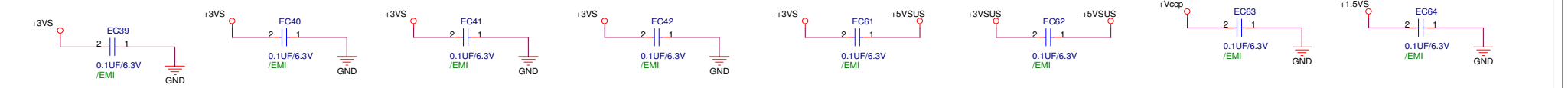
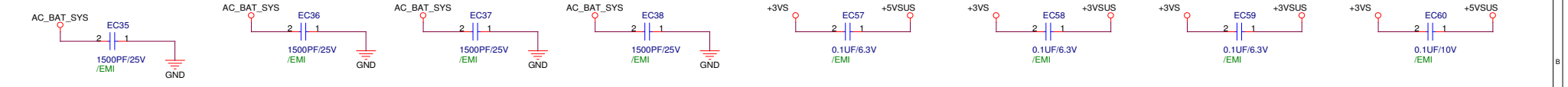
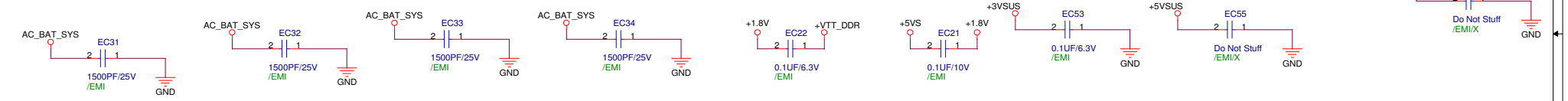
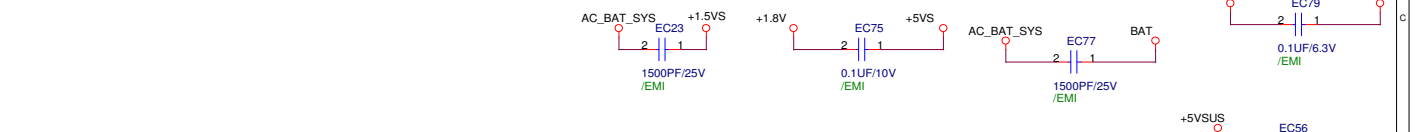
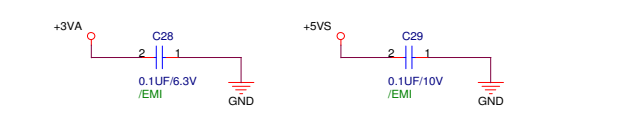
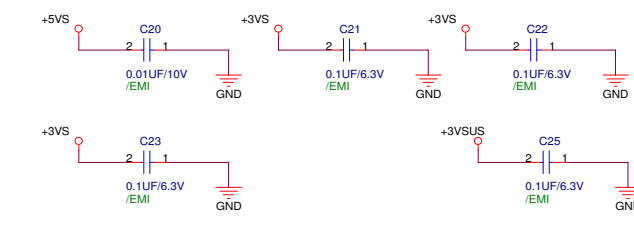
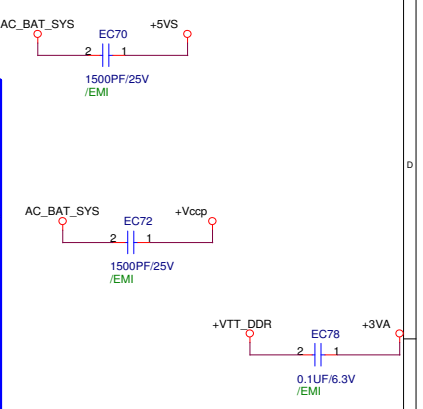
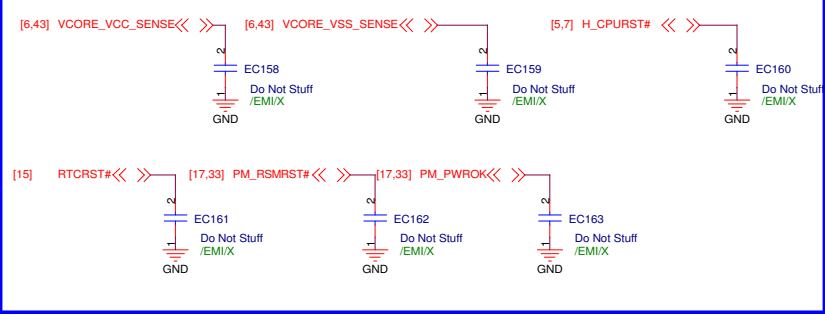
<http://konweer.kiev.ua>

1008HA

		Title : Srew Hole	
ASUSTek Computer INC.		Engineer: Aaron Tsao	
Size A3	Project Name 1008HA	Date: Friday, March 27, 2009	Rev 1.3G
		Sheet 40 of 49	



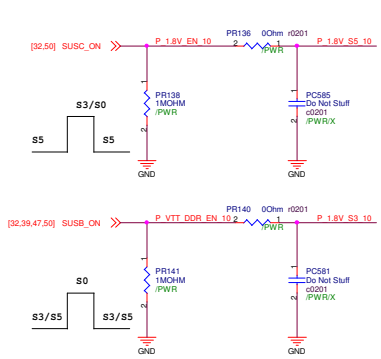
1.3G For ESD



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1008HA

		Title : EMI	
ASUSTek Computer INC.		Engineer: Aaron Tsao	
Size A3	Project Name 1008HA	Date: Friday, March 27, 2009	Rev 1.3G
		Sheet 41 of 49	

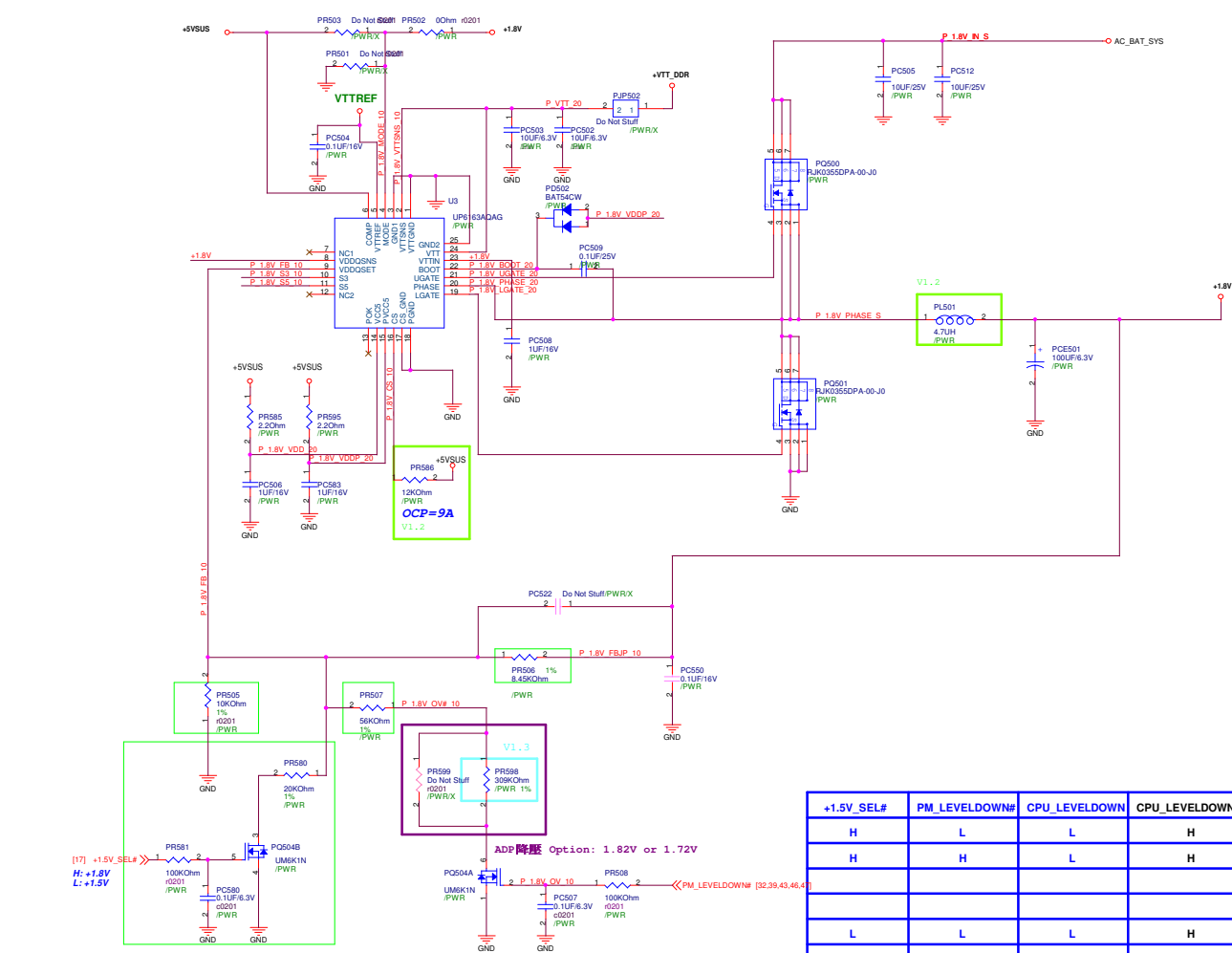


S3 And S5 Truth Table

State	S3	S5	VDDQ
S0	Hi	Hi	On
S3	Low	Hi	On
S4/S5	Low	Low	(Off (Discharge))

State	VTTREF	VTT
S0	On	On
S3	On	Off (Hi-Z)
S4/S5	Off (Discharge)	Off (Discharge)

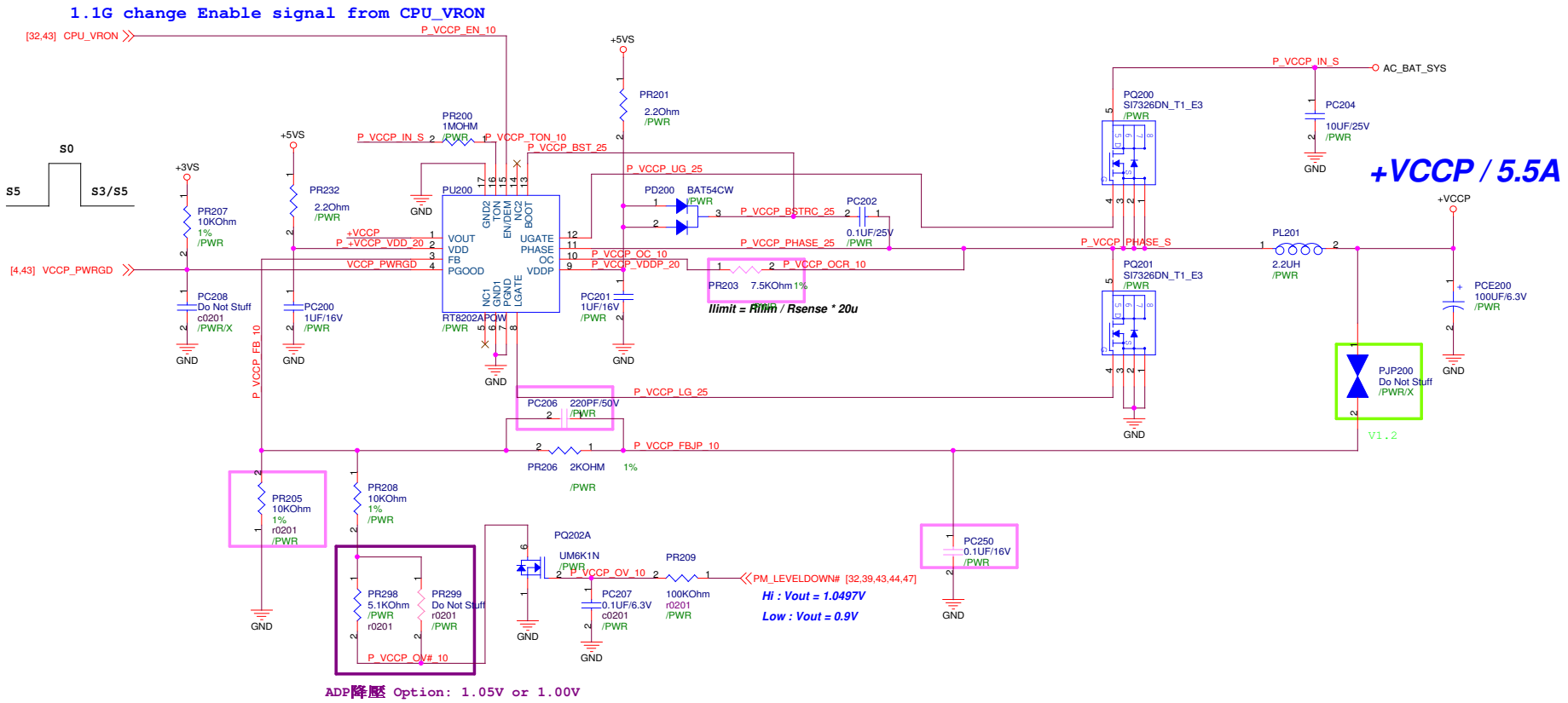
- Controller**
- Voltage & Current:**
+1.8V@3A
 - Frequency:**
PR127=1Mohm Fosc=250KHz
 - OCP:**
PR181=22Kohm ->10A
 - POR:**
POR Hysteresis =20mV
V on =3.9-4.5V
 - UVP:**
Vout*70%
 - OVP:**
Vout*115%
 - Enable Voltage:**
V rising = 2V
V falling = 0.8V
 - Soft start time:**
Tss=512us
 - Phase selection:**
/X
 - Inrush Current:**
C total = 110 uF
I inrush= 0.39 A



- Power stage**
- IP Current:**
 $I_{in} = V_o \cdot I_o / (0.8 \cdot V_{in}) = 0.94A$
 - Ripple Current:**
 $I_{rip} = 1.78A$
 $I_{spec} = 2A \times 1 \text{ pcs}$
 - Dynamic:**
 $I_{peak} = 5A$
 $ESR = 18 \text{ mohm}$
 $\Delta V = 90mV$
 - Inductor Spec:**
 $I_{sat} = 10A$
 $I_{dc} = 5.5A$
 $DCR = 37 \text{ mohm}$
 - MOSFET Spec:**
H-side MOSFET: AP4800AGM
Rds(ON)= 21 mohm (Vgs=4.5 V)
I cont = 9.6 A (T=25 °C)
I peak = 40 A
L-side MOSFET: RAP4800AGM
Rds(ON)= 21 mohm (Vgs=4.5 V)
I cont = 9.6 A (T=25 °C)
I peak = 40 A

+1.5V_SEL#	PM_LEVELDOWN#	CPU_LEVELDOWN	CPU_LEVELDOWN#	Voltage	Status
H	L	L	H	1.72V	Power Saving
H	H	L	H	1.82V	Normal
L	L	L	H	1.4V	Power Saving
L	H	L	H	1.5V	Normal

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PM_LEVELDOWN#	CPU_LEVELDOWN	CPU_LEVELDOWN#	Voltage	Status
L	L	H	0.9V	Power Saving
H	L	H	1.05V	Normal

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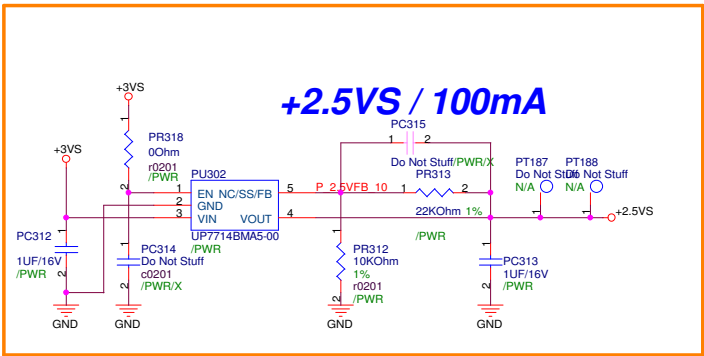
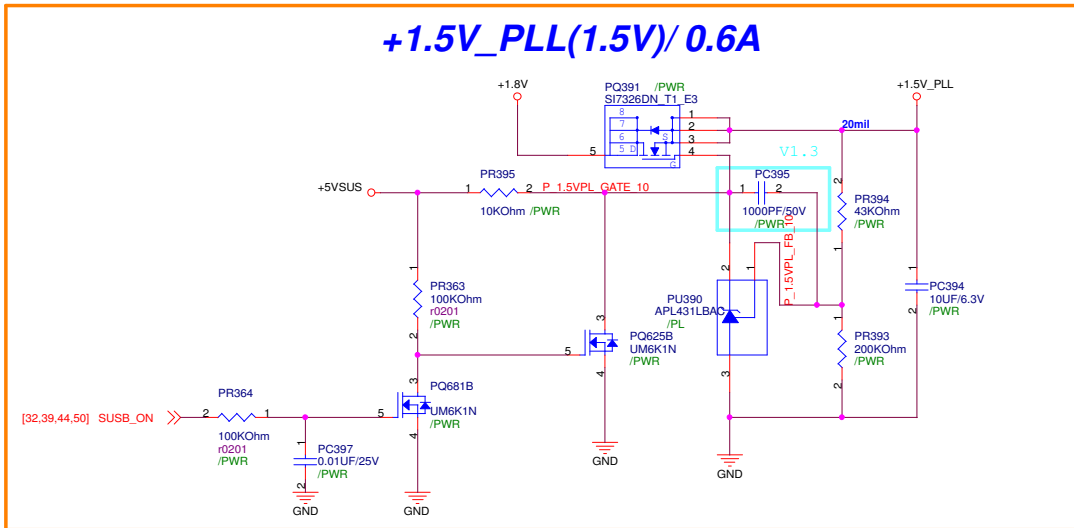
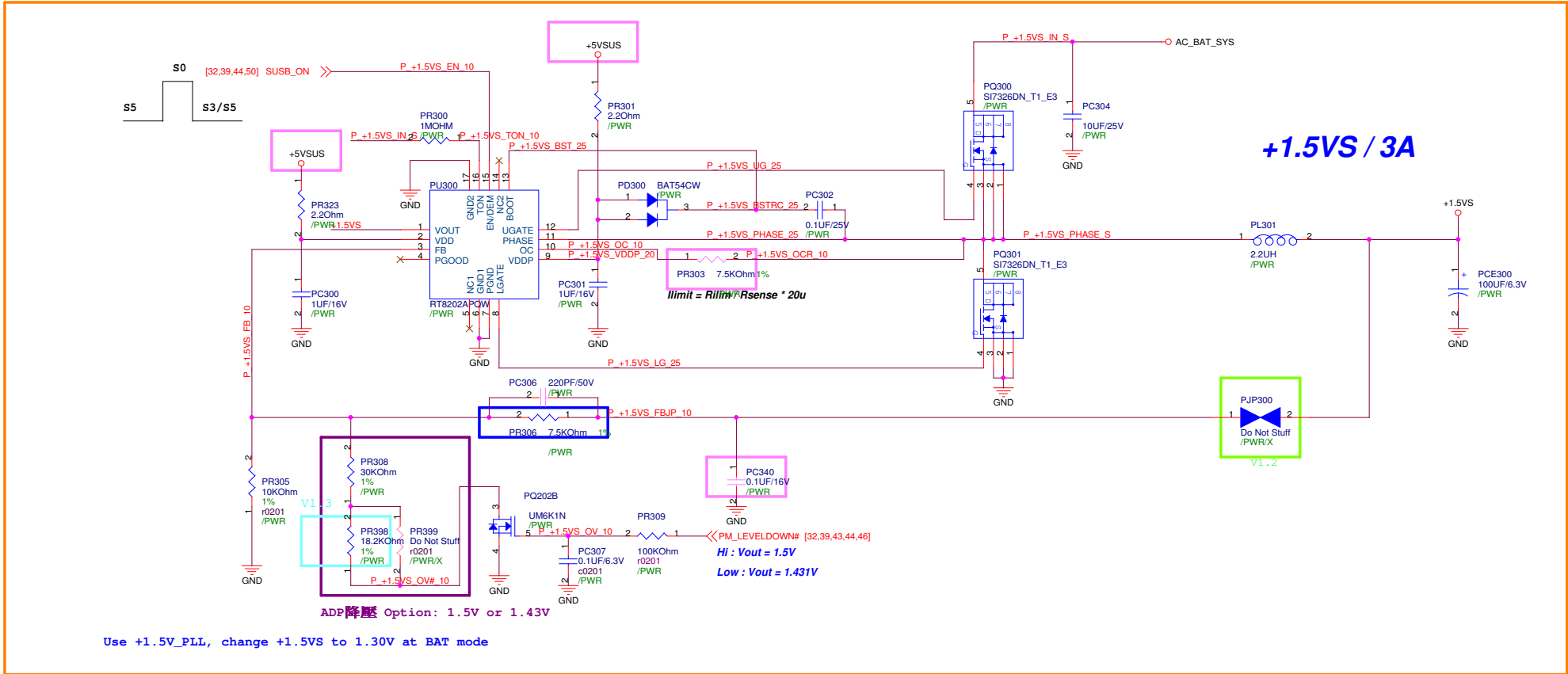
1008HA

ASUS Title : VCCP

ASUSTek Computer INC. Engineer: Aaron Tsao

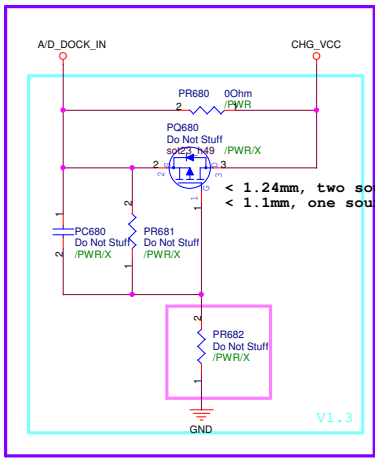
Size	Project Name	Rev
A3	1008HA	1.3G

Date: Friday, March 27, 2009 Sheet 46 of 51



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1008HA		ASUS		Title : +1.5VS & +2.5VS	
ASUSTek Computer INC.		Project Name		Engineer: Aaron Tsao	
Size	A3	Project Name		Rev 1.3G	
Date:	Friday, March 27, 2009	Sheet 47 of 51			



VREF = 5.0V
 fosc(KHz) = 17000 / RT (KOhm)
 Soft start: ts(s) = 0.13 * CS (uF)

VTH of -IN1: $5V / 62 * (100+62) = 13.06V$
 VTH of ACIN: $1.25V / 25 * (185+25) = 10.5V$
 Change PR607 and PR608 value

Battery Cell Selection :

BAT_LEARN = 1, Battery discharges
 BAT_ID = 1, 2 Cells; Vadj2 = 0.998V
 => Icharge = 1.477A
 BAT_ID = 0, 4/6 Cells; Vadj2 = 1.648V
 => Icharge = 2.517A

Pre-Charging Mode :

Precharging current = 150mA
 Vadj2 = 168.75mV

Adaptor Max. Current :

Ilimit = 1.9A; 36.1W (19V/40W)

ACIN Threshold = 1.25V

Adaptor > 16V, System Powered by Adaptor
 Adaptor < 16V, System Powered by Battery

Battery Charging Voltage :

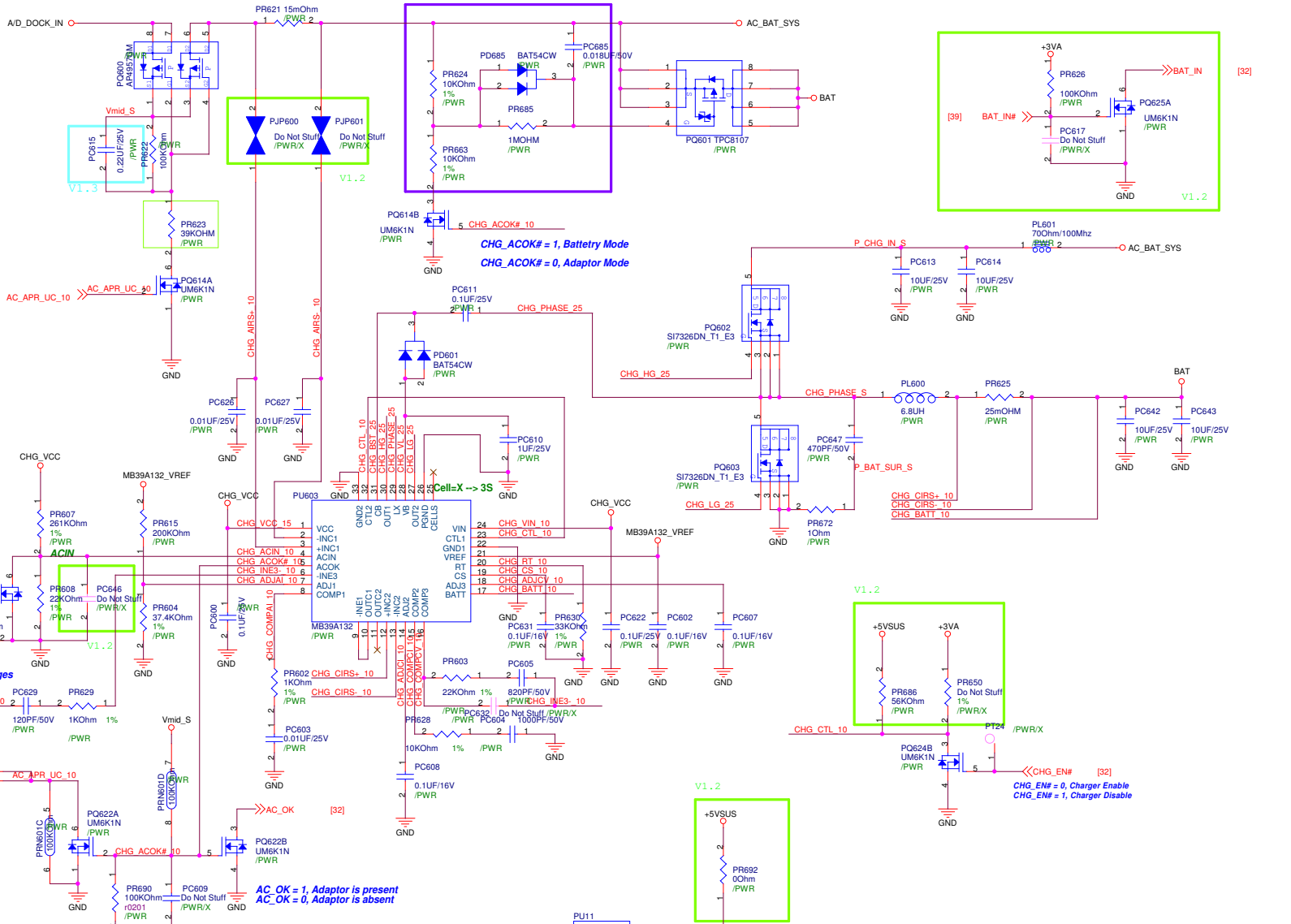
Vadj3 > 4.1V ==> Vbat = 4.2V /cell
 2.2V > Vadj3 > 1.1V ==> Vbat = 2 * Vadj3 /cell

Battery Charging Current :

4.4V > Vadj2 >= 0V ==>
 Ichg =
 (Vadj2 - 0.075) / (25 * Rs)

Input Adaptor Max. Current Limit :

Ilimit_current = (Vadj1 - 0.075) / (25 * Rs)

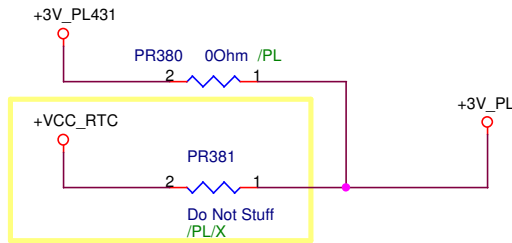
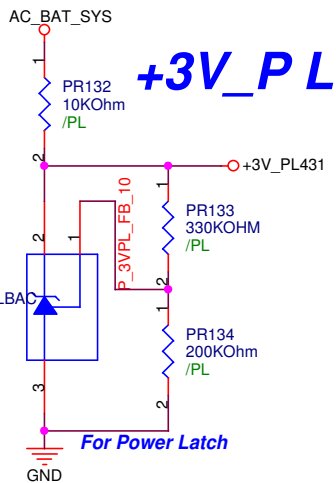


1004HN Charging Current :

	2P#	Icharge
	1	1.49A
	0	2.5A

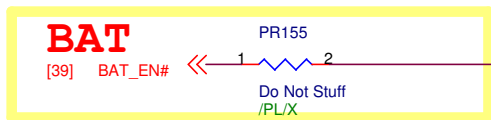
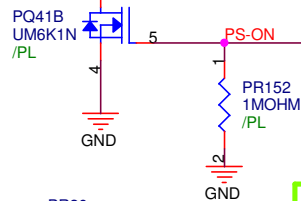
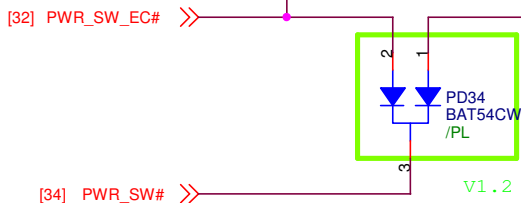
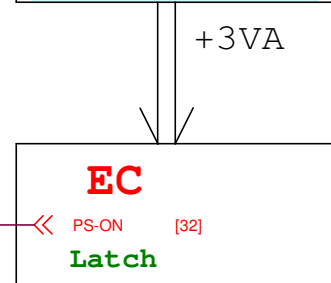
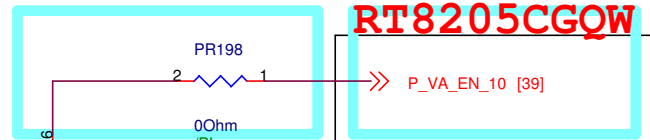
Standard Charging Current :

	4P#	2P#	Icharge
	1	0	0.557A
	0	1	1.598A
	0	0	2.768A

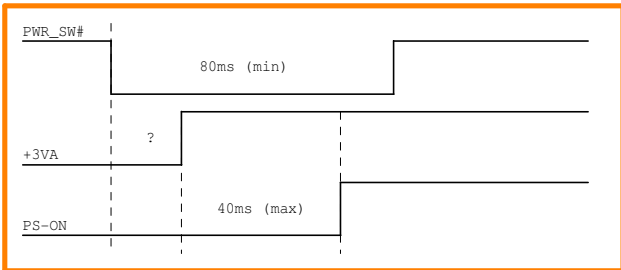
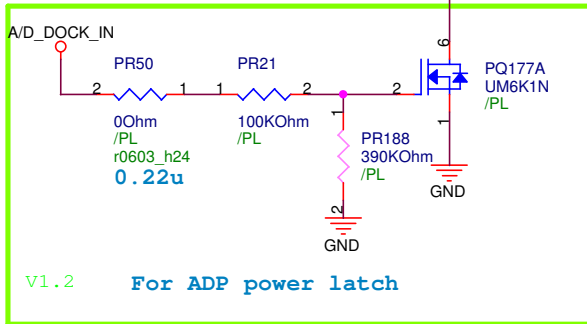
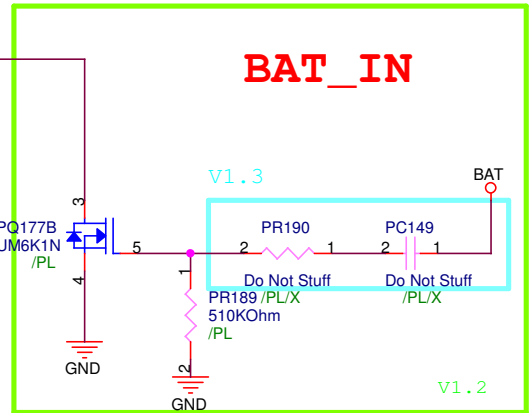


Power Latch table :

BAT	A/D_DOCK_IN		Mode
1	X	BAT /X	Latch
0	1	ADP, BAT	Out
0	0	ADP /X	Latch



ADP_IN

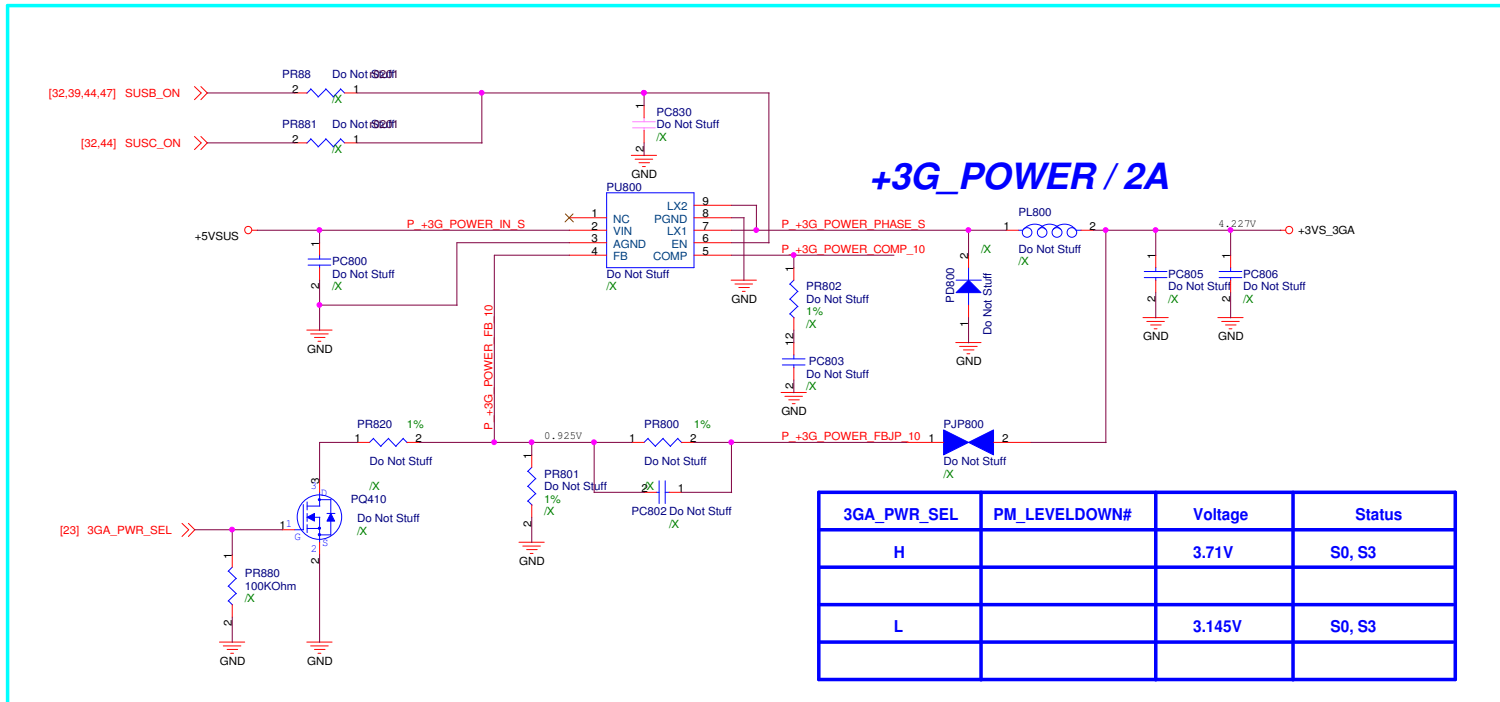


1008HA

ASUS Title : Power Latch
 ASUSTek Computer INC. Engineer: Aaron Tsao

Size	Project Name	Rev
A4	1008HA	1.3G

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1008HA

		Title : History
ASUSTek Computer INC.		Engineer: Aaron Tsao
Size A3	Project Name 1008HA	Rev 1.3G
Date: Friday, March 27, 2009		Sheet 50 of 51

Rev0.7	Initial release	2008/10/22
Rev0.71	Remove hotkey switch(R2, C427, SW6, OR25) Remove White LED (LED4, R86, Q17, SB_GPIO7) Add 40 pin FPC connector Change netname from BT_LED to Wireless_LED Change NMOS from 2N7002 to UM6K1N(Q25, 23, Q18, Q15, Q58, Q19, Q16, Q19) Change 3G power name to +3VS_3GA Add dual-core support (not ready)	2008/10/22
Rev0.72	Change the part for LAN connector Change the SPEAKER connector (same as FAN)	2008/10/23
Rev0.73	Remove CC36-40, CC45, CC24-25, CC16-17 for layout space Remove HC32, 33 for Layout space Remove HC14-16, HC125 (stuff HC126) for Layout space Remove C422, 212, 232 (stuff C223) for Layout space Remove C436, 292, 305 for Layout space Change U47 to /X and stuff R265 Remove MC5, 6, 7, 9, 15, 17, 22, 24, 26, 27, 33 for Layout space Remove WIFI & 3G RSV component	2008/10/27

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1008HA

		Title : History
ASUSTek Computer INC.		Engineer: Aaron Tsao
Size A3	Project Name 1008HA	Rev 1.3G
Date: Friday, March 27, 2009		Sheet 51 of 49