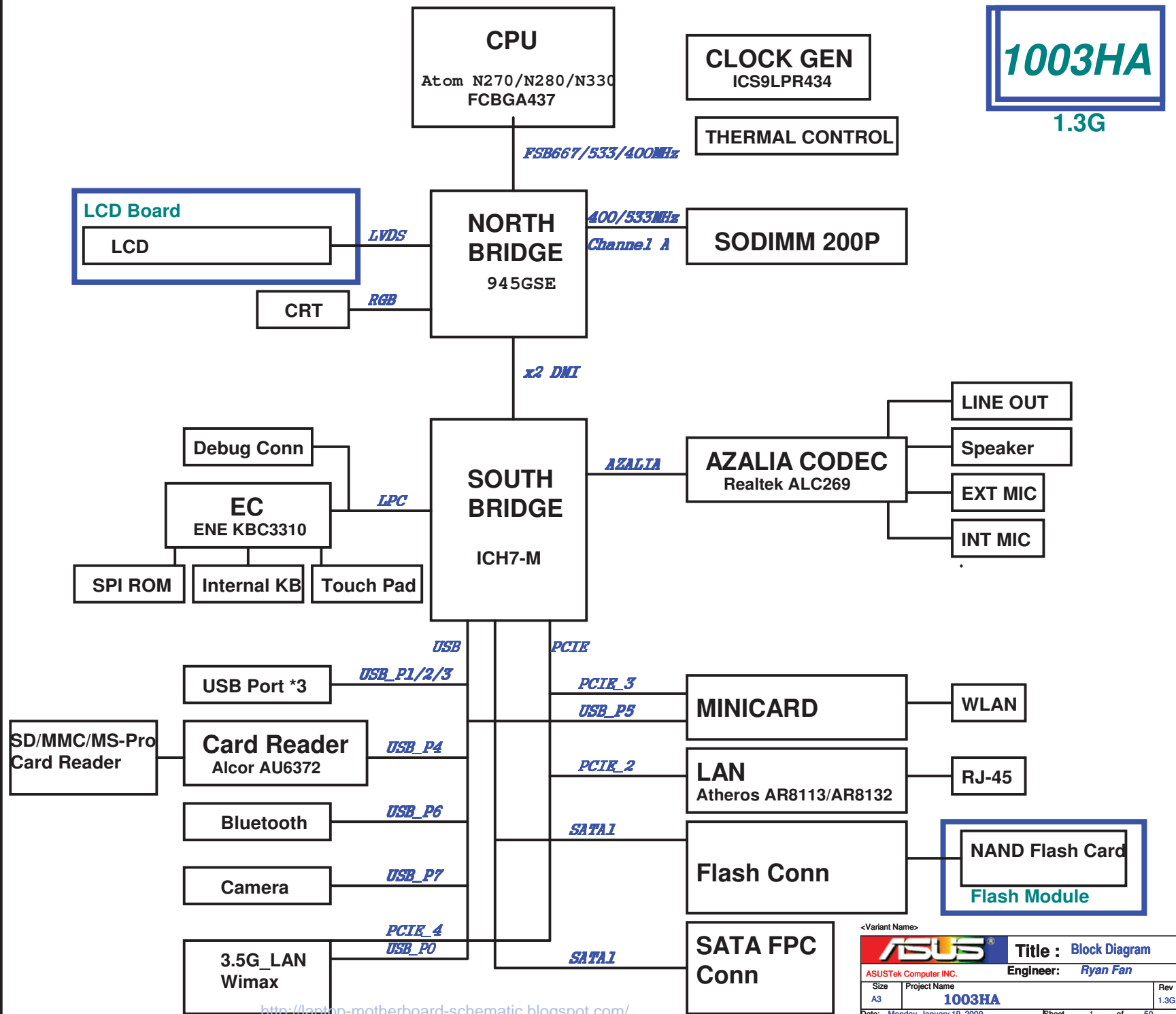


01_Block Diagram
 02_System Setting
 03_Power Sequence
 04_Clock Gen_ICS9LPR434
 05_Diamondville_BUS
 06_Diamondville_PWR
 07_NB-945GMS(HOST)
 08_NB-945GMS(DMI)
 09_NB-945GMS(GRAPHIC)
 10_NB-945GMS(DDR2)
 11_NB-945GMS(PWR)
 12_NB-945GMS(PWR2)
 13_NB-945GMS(GND)
 14_SB-ICH7M(PWR)
 15_SB-ICH7M(1)
 16_SB-ICH7M(2)
 17_SB-ICH7M(3)
 18_DDR2 SODIMM
 19_DDR2 Termination
 20_Onboard VGA
 21_LCD Conn_LID
 22_USB 3.5G LAN
 23_Mini WIFI+ BT
 24_LAN_Atheros AR8113
 25_RJ45
 26_Flash Conn
 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
 40_Srew Hole
 41_EMI
 42_POWER FLOW
 43_Vcore
 44_Power System
 45_Power_+1.8V & VTTDDR
 46_Power_VCCP
 47_Power_+1.5VS & +2.5VS
 48_Power_Charger
 49_EC Pin Define
 49_History



1003HA

1.3G

EEE PC 1003HA PCB version

GPI37	GPI34	GPI33	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	3GLAN
USB 1	USB Conn
USB 2	USB Conn
USB 3	USB Conn
USB 4	Card Reader
USB 5	Minicard
USB 6	Bluetooth
USB 7	Camera

PCIE

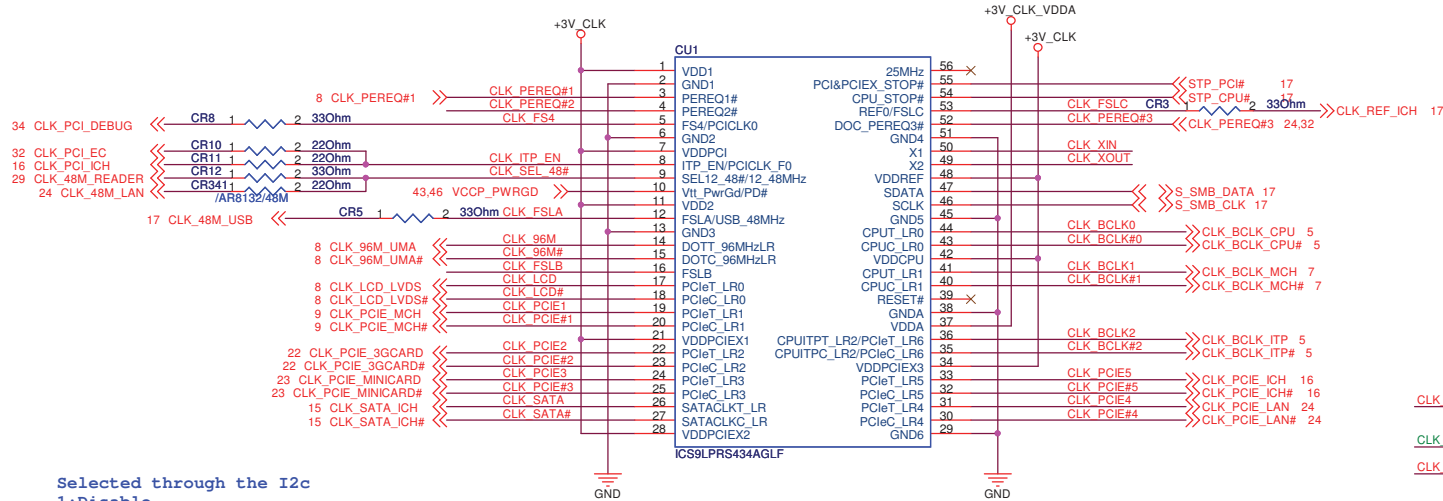
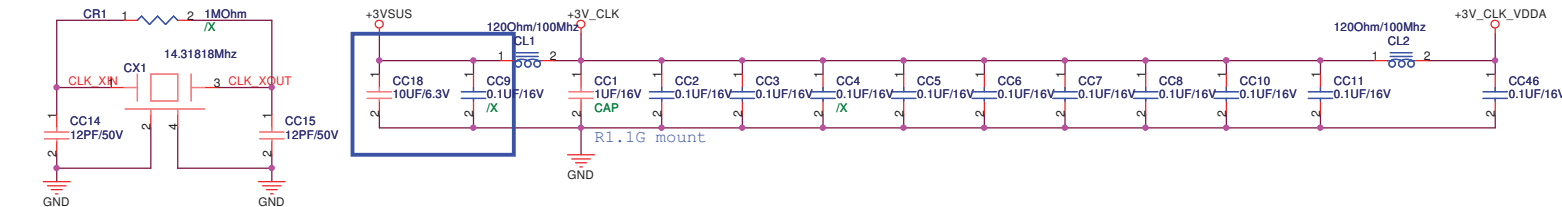
PCIE 1	NC
PCIE 2	LAN
PCIE 3	Minicard
PCIE 4	3GLAN

Azalia

ACZ_SDIN0	CODEC
ACZ_SDIN1	NC
ACZ_SDIN2	NC

<Variant Name>

		Title : System Setting	
ASUSTek Computer INC.		Engineer: Ryan Fan	
Size A3	Project Name 1003	Rev 1.3G	
Date: Monday, January 19, 2009		Sheet	2 of 50

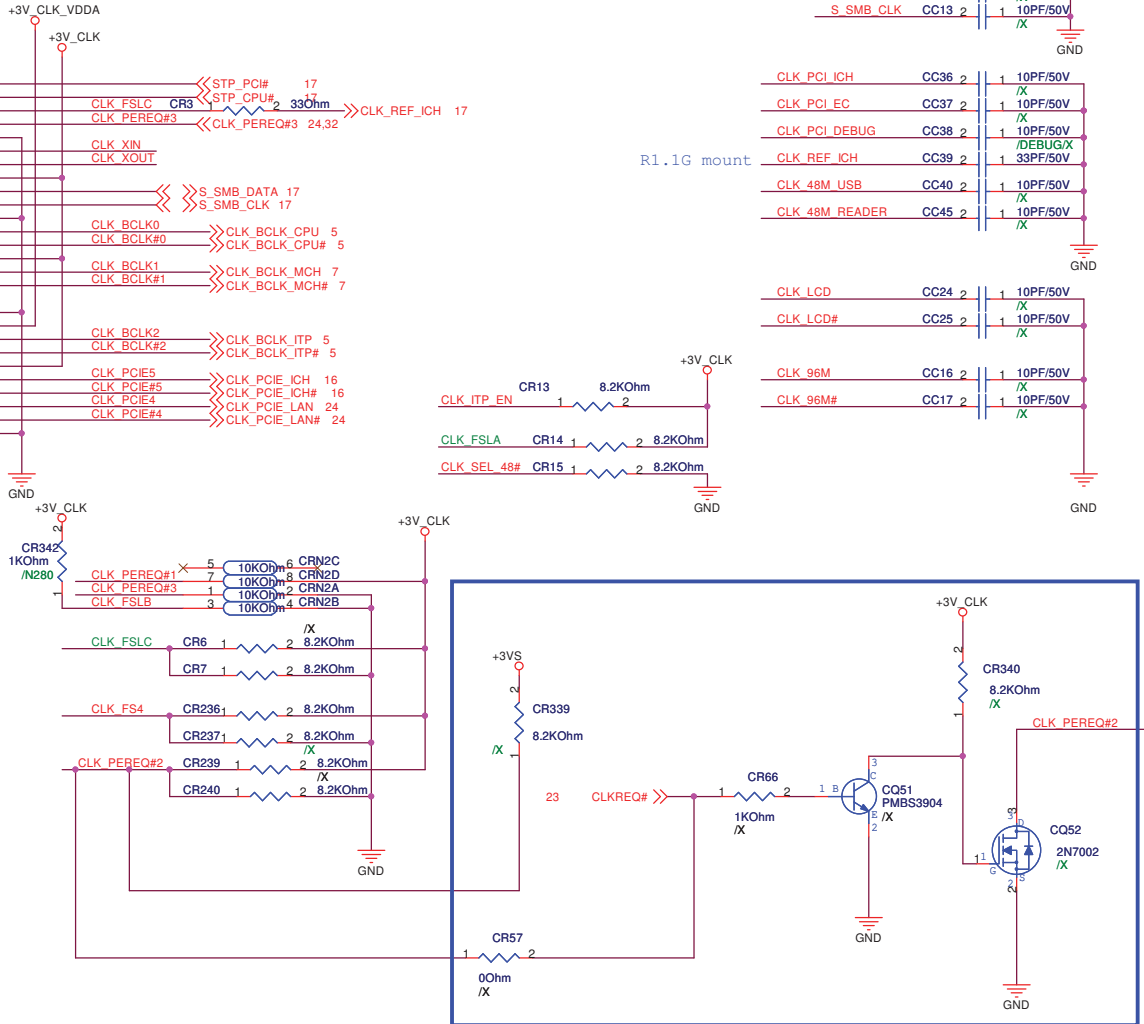
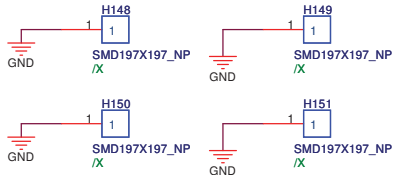


Selected through the I2c
1:Disable
0:Enable

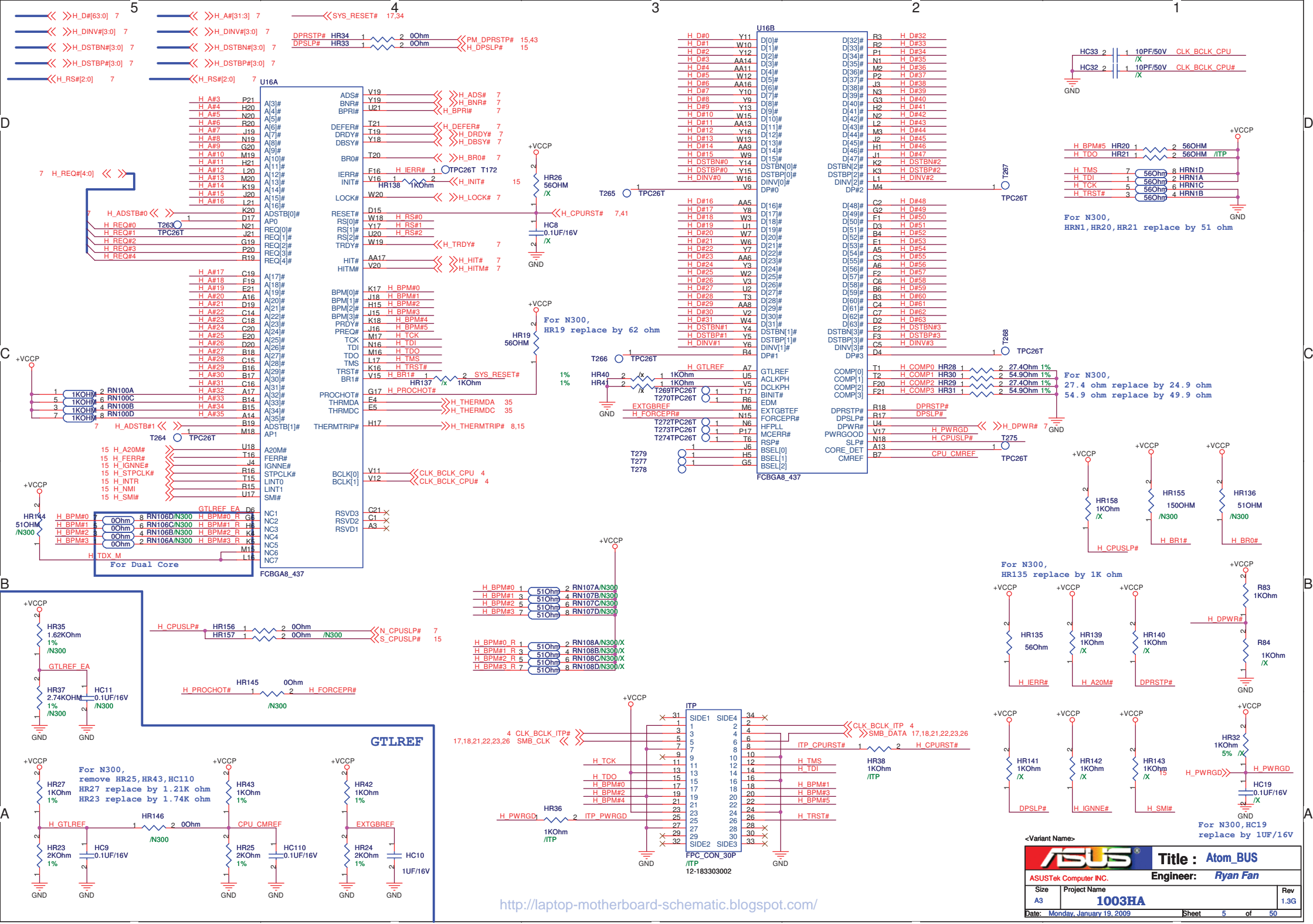
PEREQ1:PCIEx0 & PCIEx1
PEREQ2:PCIEx2 & PCIEx3 & SATA
PEREQ3:PCIEx4 & PCIEx5 & PCIEx6

FSC	FSB	FSA	CPU	PCIE	SATA
0	0	1	133	100	100
1	0	1	100	100	100
0	1	1	166	100	100

H148-H151 reserve to place GASKET for EMI



<Variant Name>





Power :
+VCCP

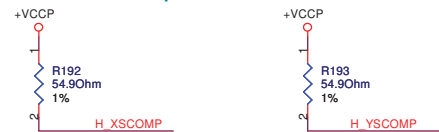
RCOMP For N300
R188 and R189 replaced by 16.9 ohm

For Calibrating the FSB I/O Buffer



SCOMP For N300
R192 and R193 replaced by 60.4 ohm

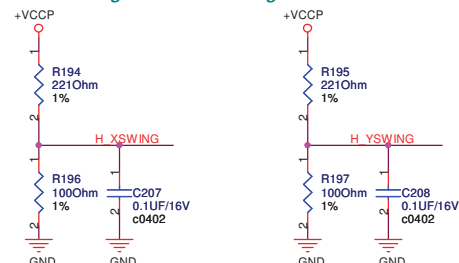
For Slew Rate Compensation on the FSB



For N300
R194 and R195 replaced by 301 ohm
R196 and R197 replaced by 84.5 ohm

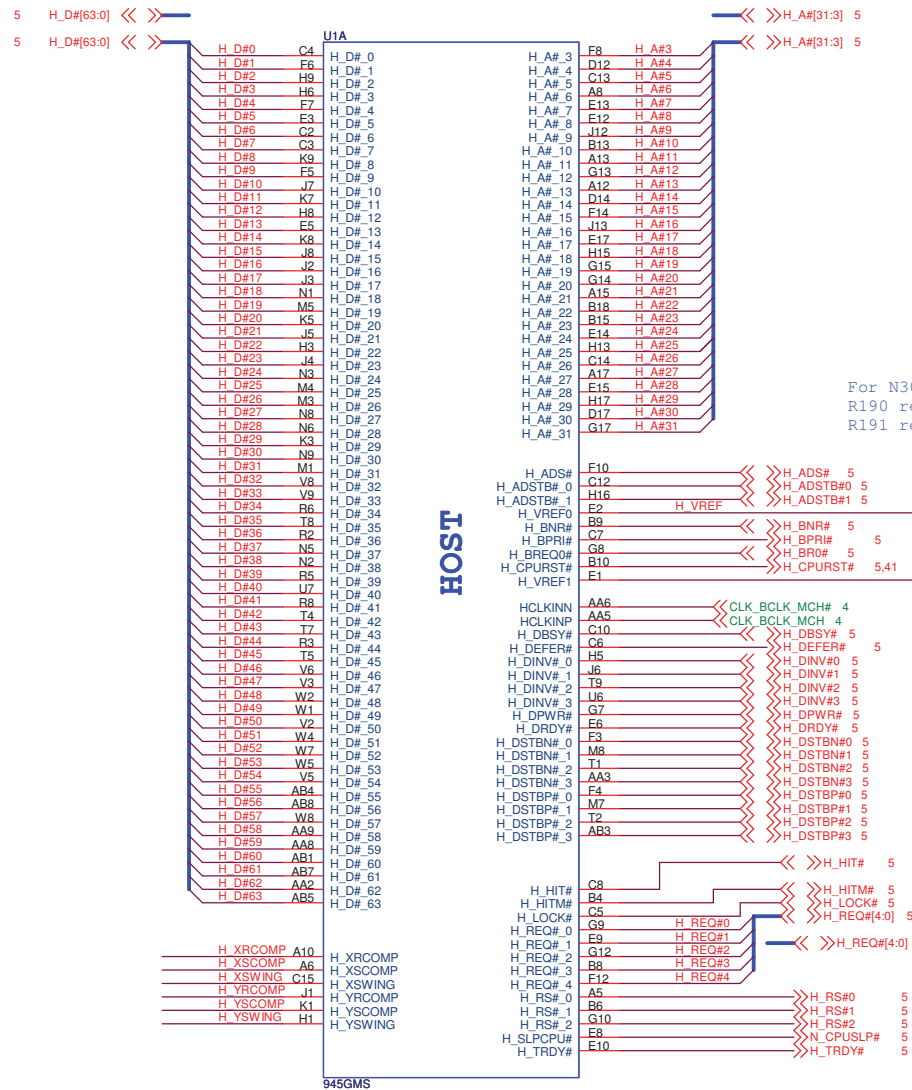
Voltage Swing

For Providing a Reference Voltage to The FSB RCOMP circuits



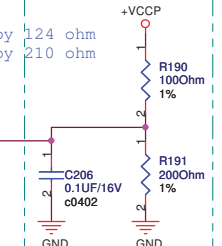
For N270
Signal voltage level = $0.3125 \cdot VCCP$
Trace should be 10 mil wide with 20 mil spacing

For N300
Signal voltage level = $0.22 \cdot VCCP$



AGTL+ I/O Voltage Reference

For N300
R190 replaced by 124 ohm
R191 replaced by 210 ohm



Layout Note:
0.1uF should be placed 100mils or less from GMCH pin.

<Variant Name>

ASUS Title : **NB-945GMS(HOST)**

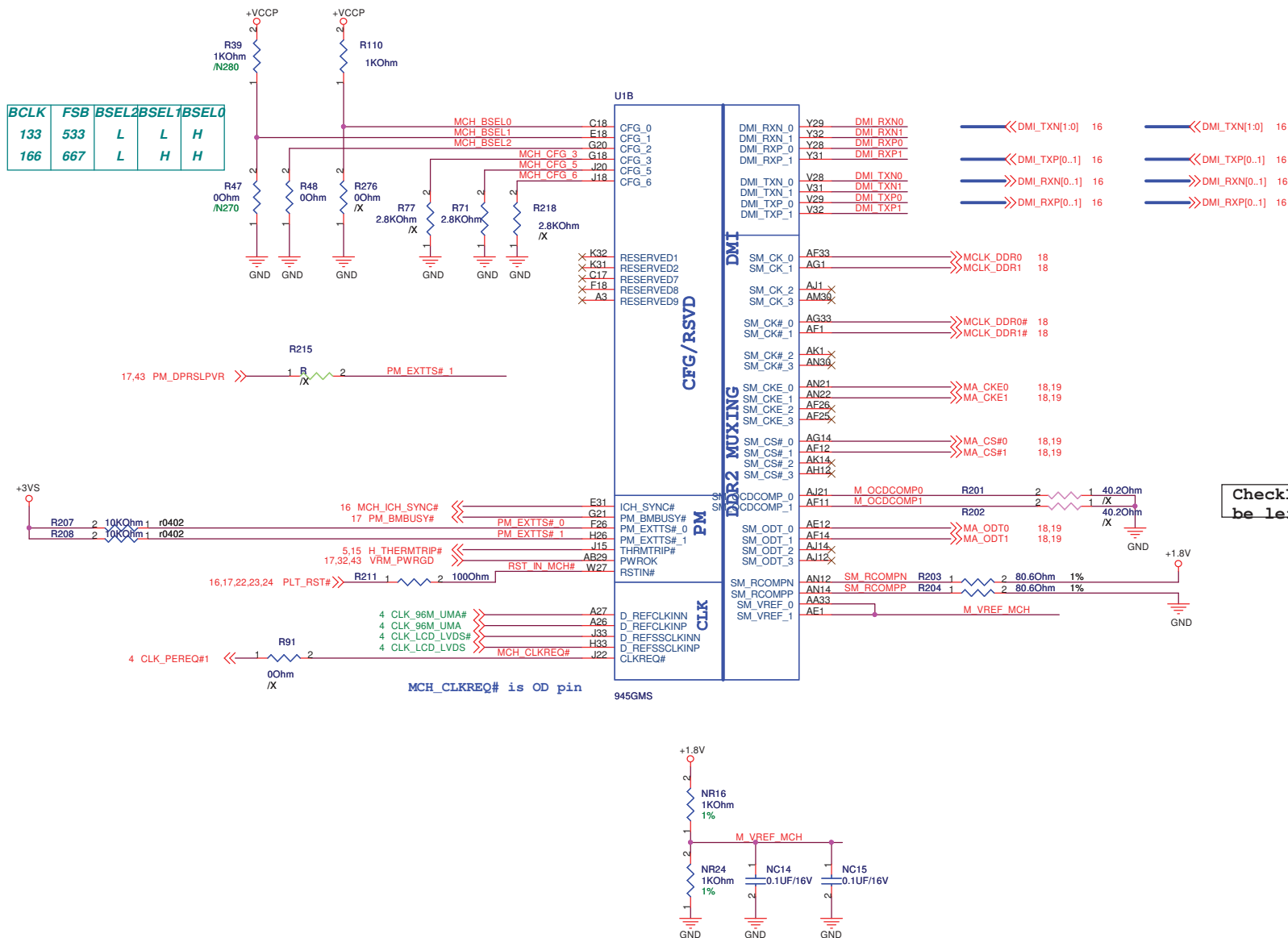
ASUSTek COMPUTER INC.

Engineer: **Ryan Fan**

Size	Project Name	Rev
A3	1003HA	1.3G

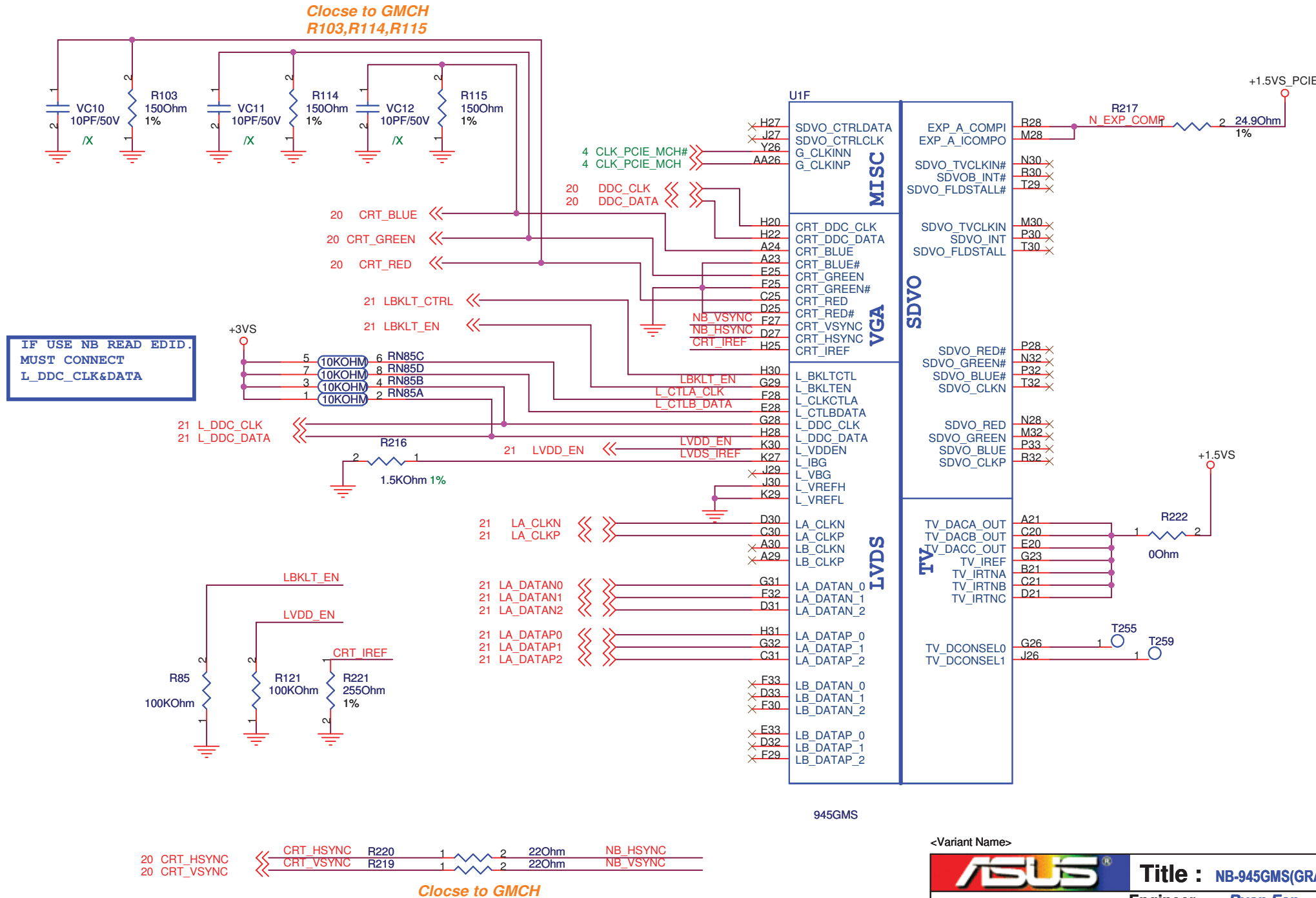
Date: Monday, January 19, 2009 Sheet 7 of 50

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



<Variant Name>

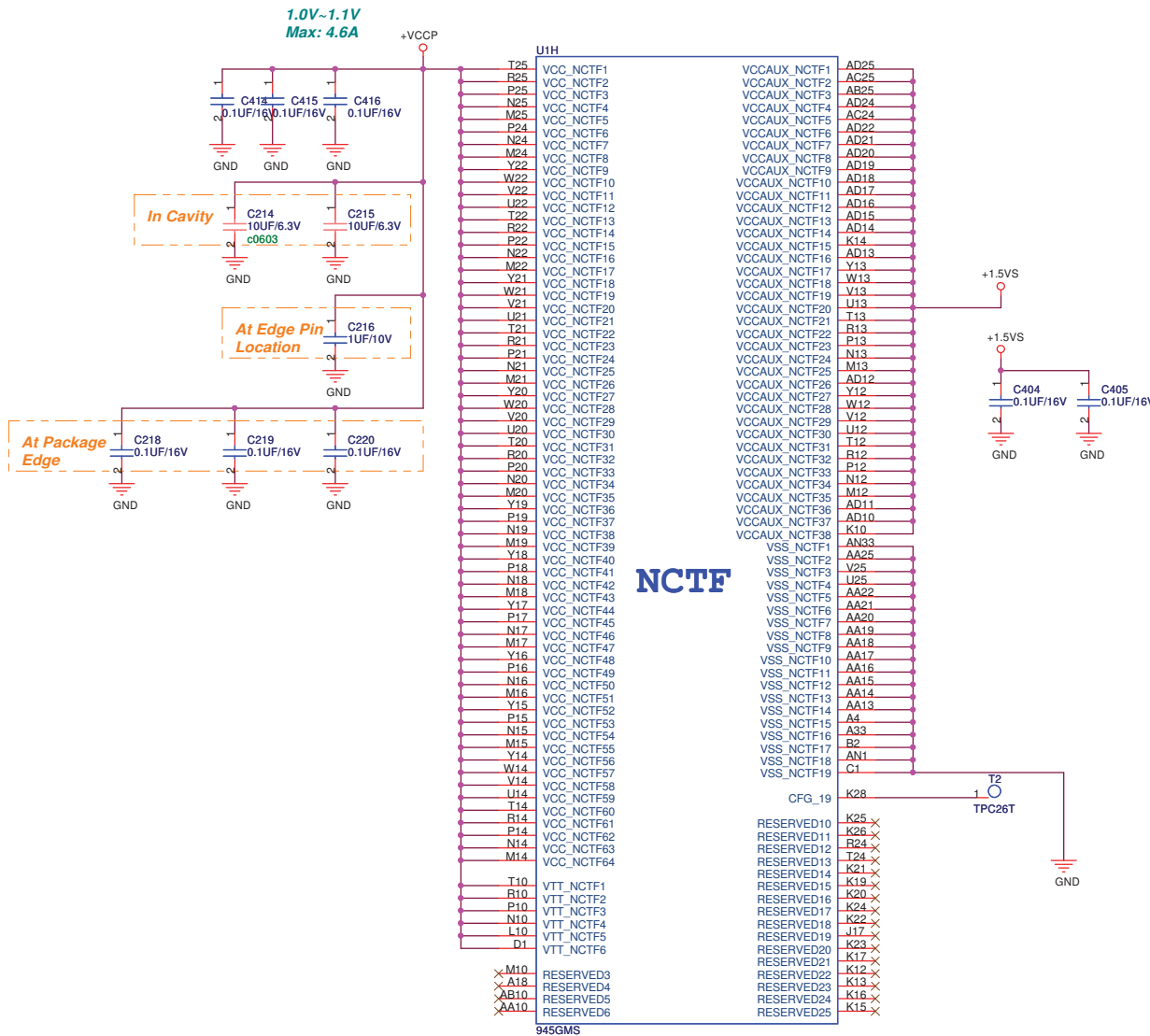
ASUS		Title : NB-945GMS(DMI & CFG)	
ASUSTeK COMPUTER INC.		Engineer: Ryan Fan	
Size A3	Project Name 1003HA	Rev 1.3G	
Date: Monday, January 19, 2009	Sheet	8	of 50



<Variant Name>

ASUS		Title : NB-945GMS(GRAPHIC)	
ASUSTeK COMPUTER INC.		Engineer: Ryan Fan	
Size A4	Project Name 1003HA		Rev 1.3G
Date: Monday, January 19, 2009	Sheet	9 of 50	





CFG_19(K28) Strapping :

DMI LANE Reversal:

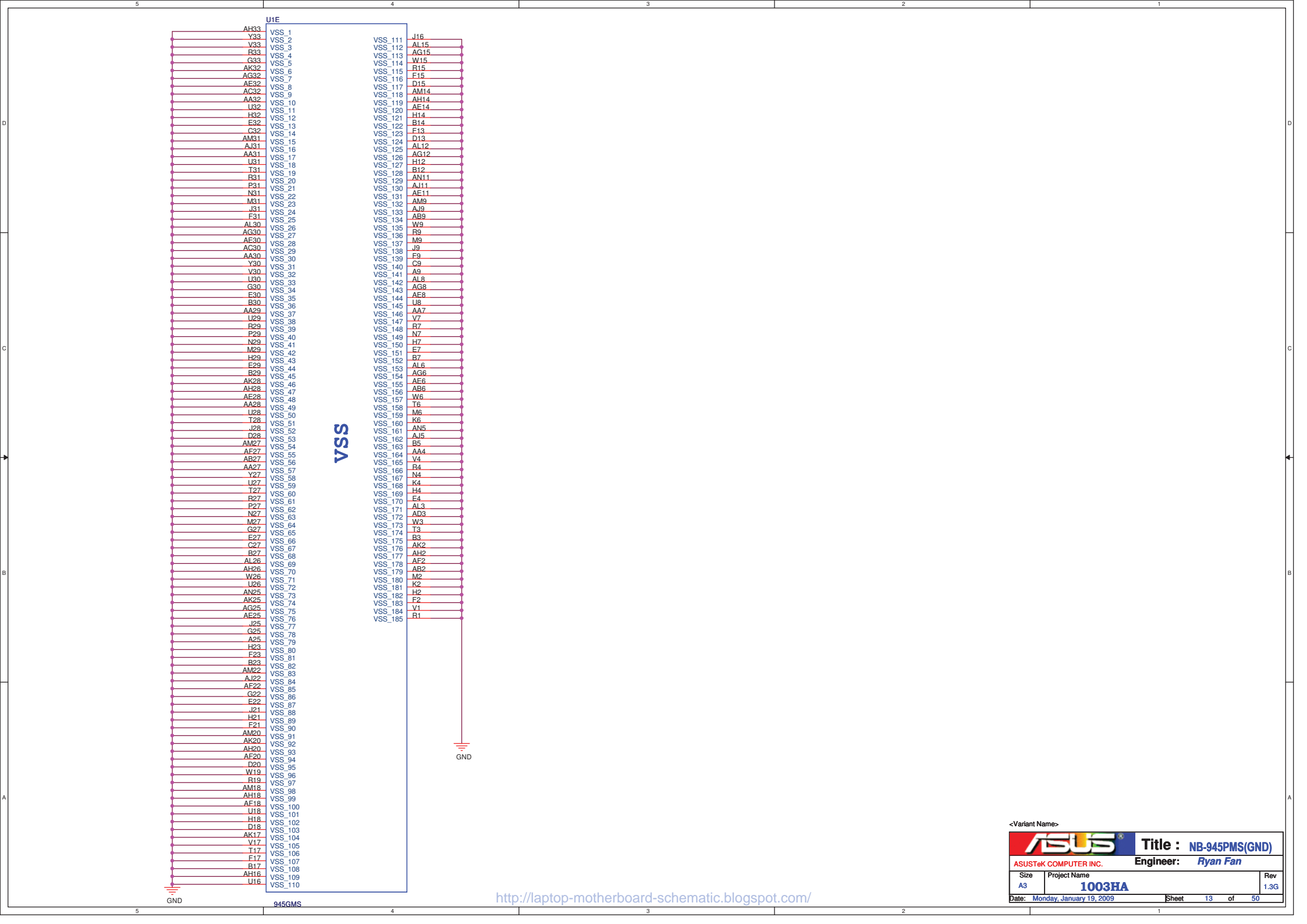
0:Normal Operation (Default)

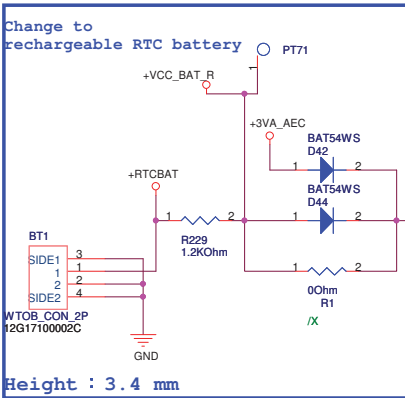
1.:Reversal Lanes, 3->0,2->1..etc

Note:945GMS doesn't support DMI Lane Reversal

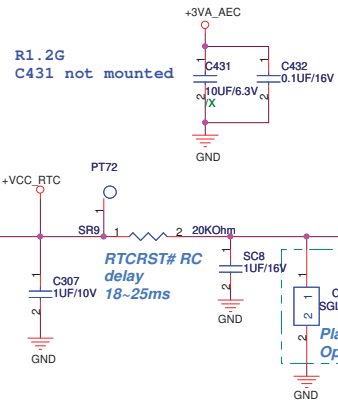
<Variant Name>

ASUS		Title : NB-945GMS(PWR)	
ASUSTeK COMPUTER INC.		Engineer: Ryan Fan	
Size	Project Name		Rev
A3	1003HA		1.3G
Date: Monday, January 19, 2009		Sheet	11 of 50

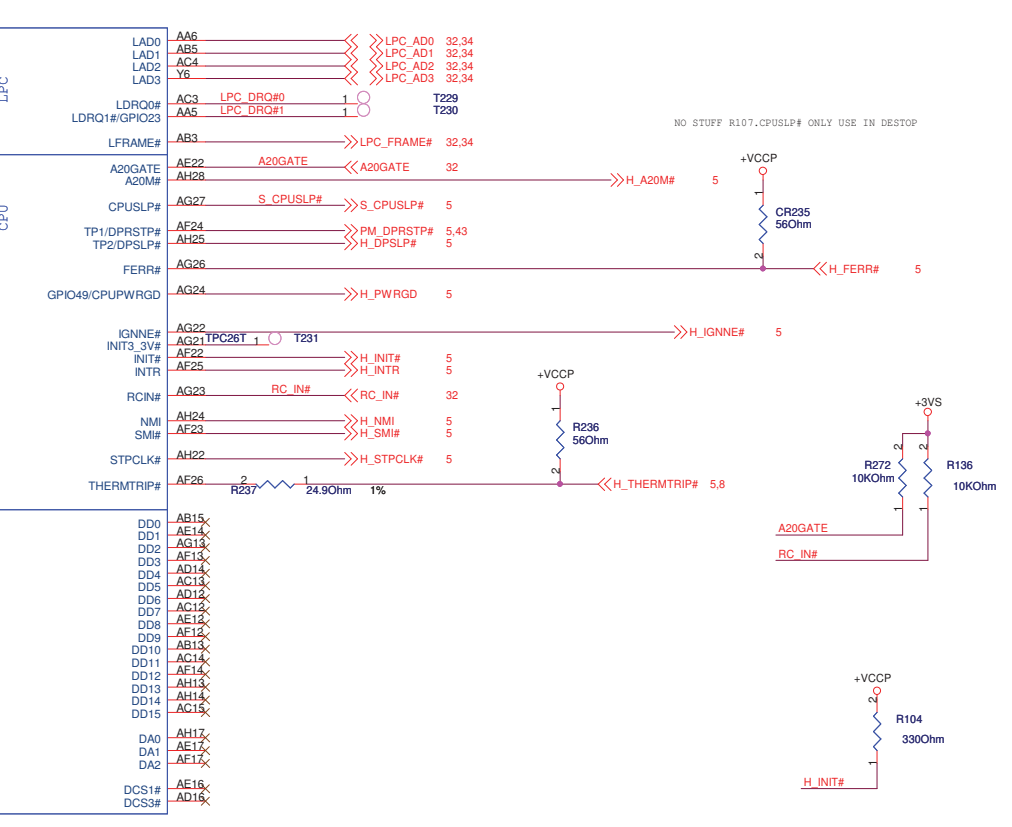
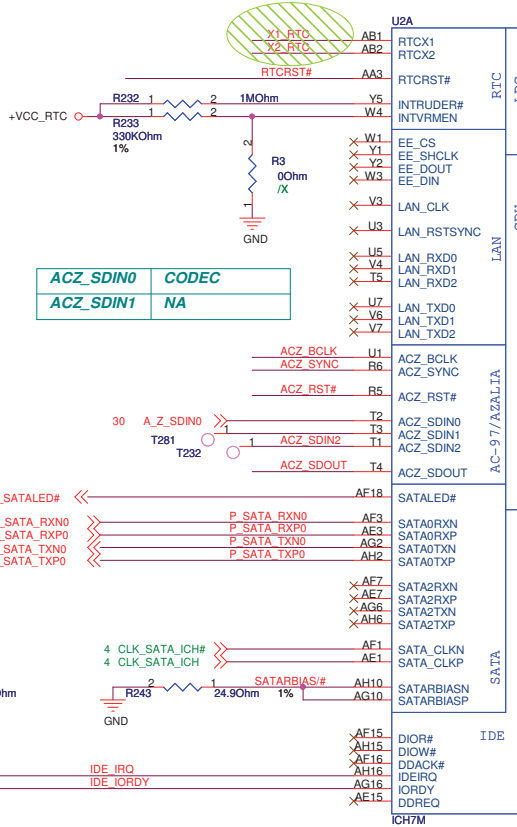
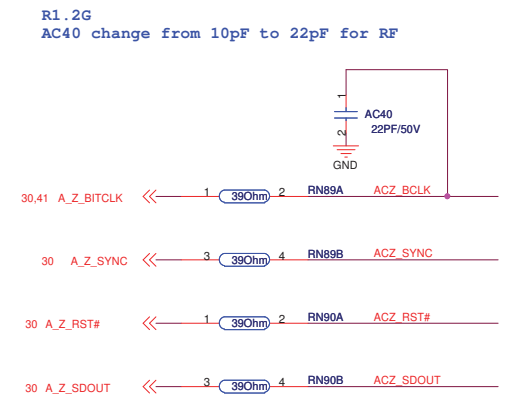
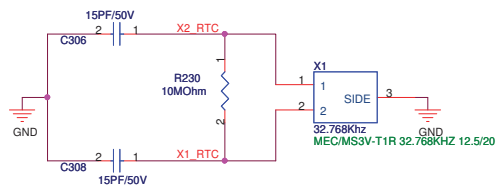


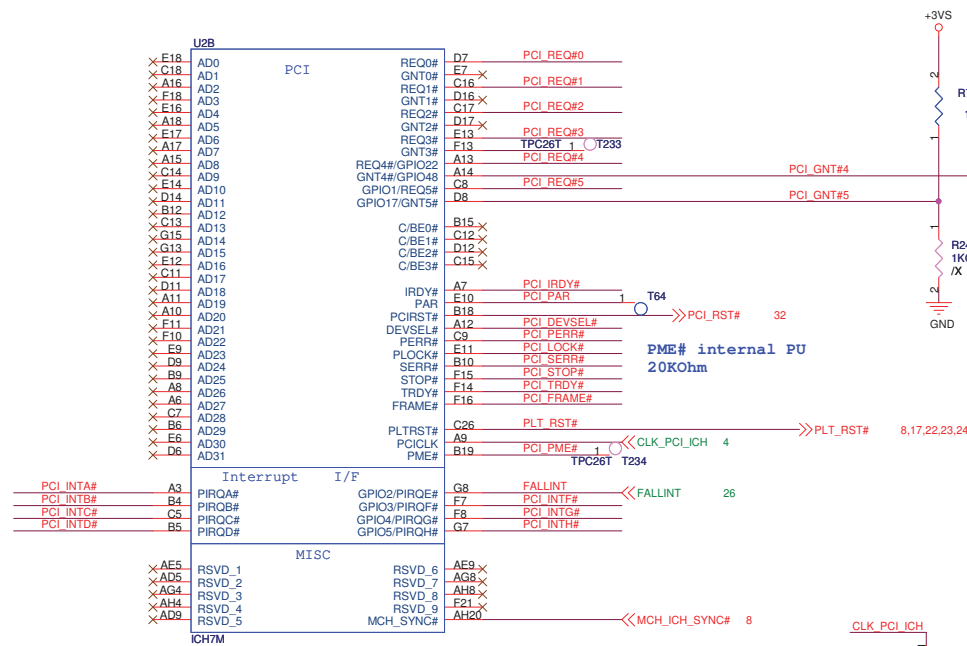


R1.1G
using SSD, mount R1(with rechargeable RTC battery)
using HDD, mount D44(with non-rechargeable RTC battery)



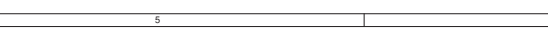
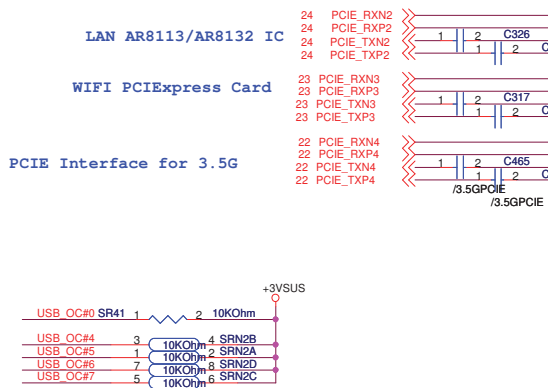
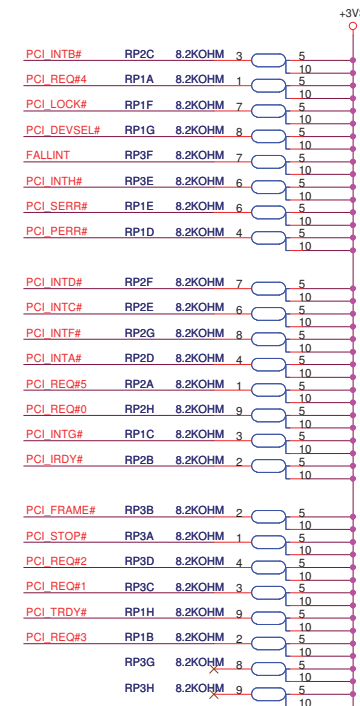
R1.1G change +3VA net to +3VA_AEC

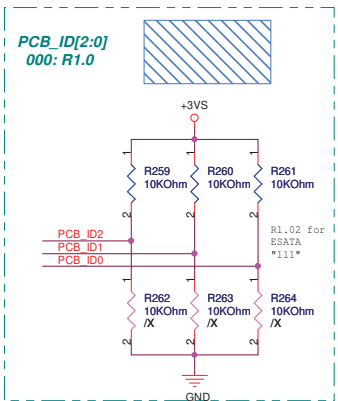
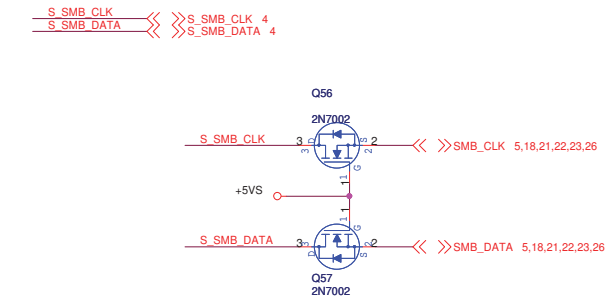
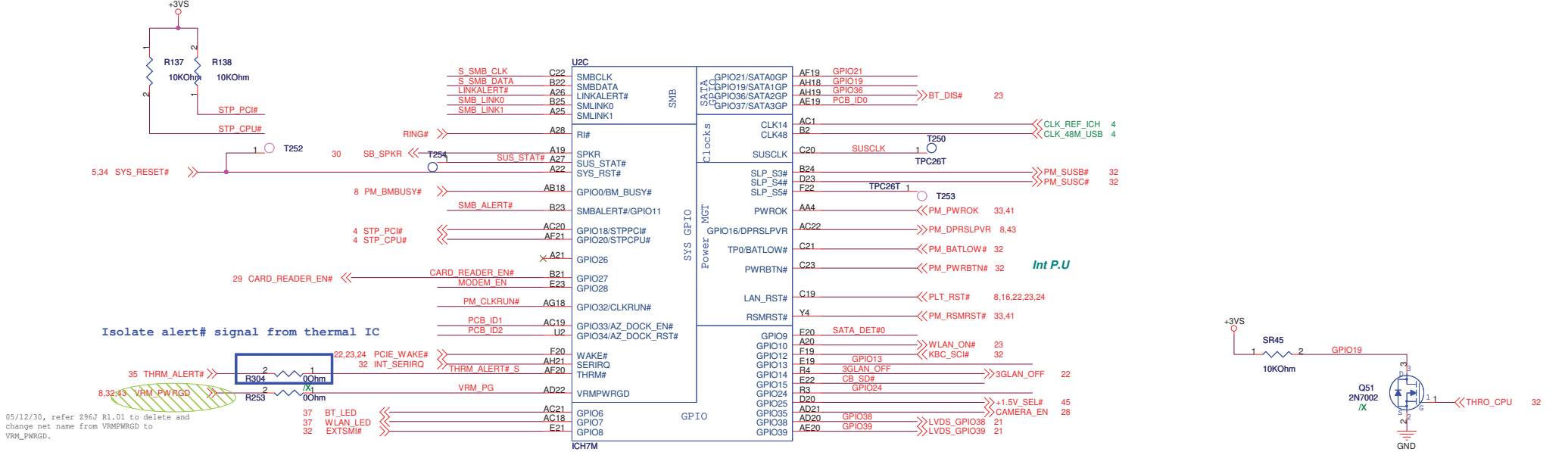




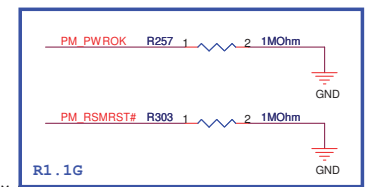
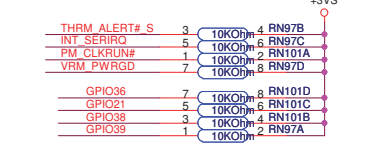
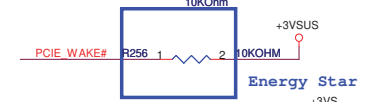
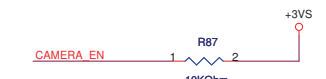
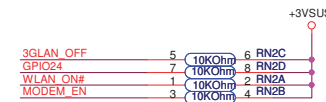
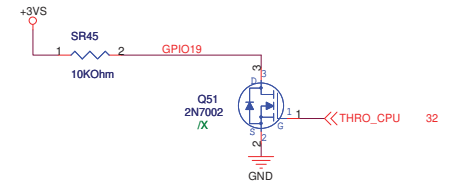
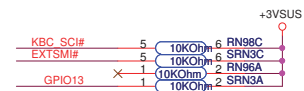
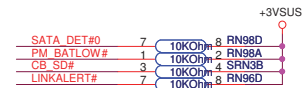
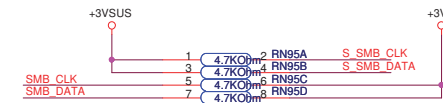
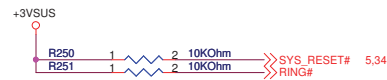
ICH7 Boot BIOS Select

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



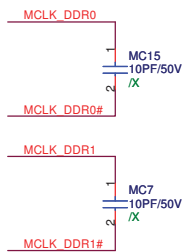


PCB_VID3 : PROJECT CODE



<Variant Name>

ASUS		Title : SB-ICH7M(3)	
ASUSTek COMPUTER INC		Engineer: Ryan Fan	
Size Custom	Project Name 1003HA	Rev 1.3G	
Date: Monday, January 19, 2009	Sheet	17	of 50



STD Type

DIMM1A

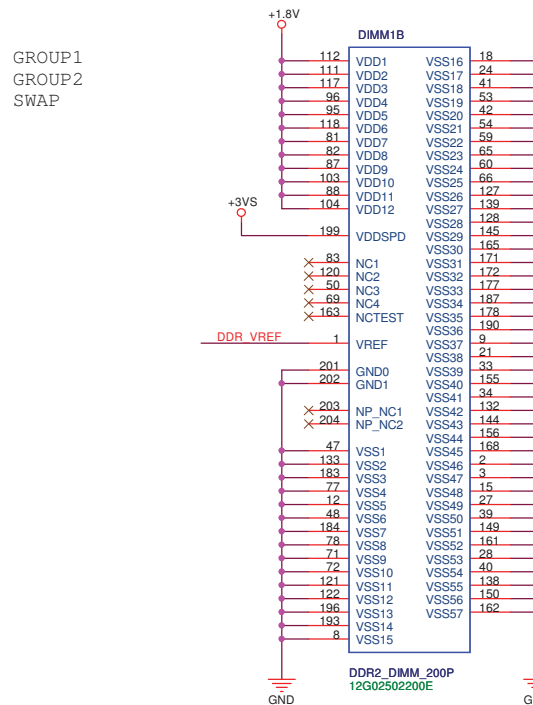
MA MA0	102	A0	DO0	5	MA_DQ0
MA MA1	101	A1	DO1	7	MA_DQ1
MA MA2	100	A2	DO2	17	MA_DQ2
MA MA3	99	A3	DO3	19	MA_DQ3
MA MA4	98	A4	DO4	6	MA_DQ5
MA MA5	97	A5	DO5	14	MA_DQ6
MA MA6	94	A6	DO6	16	MA_DQ7
MA MA7	92	A7	DO7		
MA MA8	93	A8	DO8	23	MA_DQ18
MA MA9	91	A9	DO9	25	MA_DQ19
MA MA10	105	A10/AP	DO10	37	MA_DQ17
MA MA11	90	A11	DO11	20	MA_DQ20
MA MA12	89	A12	DO12	22	MA_DQ22
MA MA13	116	A13	DO13	36	MA_DQ23
	86	A14	DO14	38	MA_DQ9
	84	A15	DO15	45	MA_DQ12
MA BA2	85	A16_BA2	DO16	55	MA_DQ10
MA BA0	107	BA0	DO17	57	MA_DQ11
MA BA1	106	BA1	DO18	44	MA_DQ13
	110	S0#	DO19	46	MA_DQ8
8,19 MA_CS#0	115	S1#	DO20	56	MA_DQ14
8,19 MA_CS#1	30	CK0	DO21	58	MA_DQ15
8 MCLK_DDR0	32	CK0#	DO22		
8 MCLK_DDR0#	164	CK1	DO23	63	MA_DQ24
8 MCLK_DDR1	166	CK1#	DO24	73	MA_DQ25
8 MCLK_DDR1#	79	CKE0	DO25	75	MA_DQ26
8,19 MA_CKE0	80	CKE1	DO26	62	MA_DQ27
8,19 MA_CKE1	113	CAS#	DO27	64	MA_DQ28
10,19 MA_CAS#	108	RAS#	DO28	74	MA_DQ29
10,19 MA_RAS#	109	WE#	DO29	76	MA_DQ30
10,19 MA_WE#	198	SA0	DO30	123	MA_DQ31
	200	SA1	DO31	125	MA_DQ32
5,17,21,22,23,26 SMB_CLK	197	SCL	DO32	135	MA_DQ33
5,17,21,22,23,26 SMB_DATA	195	SDA	DO33	137	MA_DQ34
			DO34	124	MA_DQ35
8,19 MA_ODT0	114	ODT0	DO35	126	MA_DQ36
8,19 MA_ODT1	119	ODT1	DO36	134	MA_DQ37
			DO37	136	MA_DQ38
MA_DM0	10	DM0	DO38	141	MA_DQ39
MA_DM2	26	DM1	DO39	143	MA_DQ40
MA_DM1	52	DM2	DO40	151	MA_DQ41
MA_DM3	67	DM3	DO41	153	MA_DQ42
MA_DM4	130	DM4	DO42	140	MA_DQ43
MA_DM5	147	DM5	DO43	142	MA_DQ44
MA_DM6	170	DM6	DO44	152	MA_DQ45
MA_DM7	185	DM7	DO45	154	MA_DQ46
			DO46	157	MA_DQ47
MA_DQS0	13	DQS0	DO47	159	MA_DQ48
MA_DQS2	31	DQS1	DO48	173	MA_DQ49
MA_DQS1	51	DQS2	DO49	175	MA_DQ50
MA_DQS3	70	DQS3	DO50	158	MA_DQ51
MA_DQS4	131	DQS4	DO51	160	MA_DQ52
MA_DQS5	148	DQS5	DO52	174	MA_DQ53
MA_DQS6	169	DQS6	DO53	176	MA_DQ54
MA_DQS7	188	DQS7	DO54	179	MA_DQ55
MA_DQS#0	11	DQS#0	DO55	181	MA_DQ56
MA_DQS#2	29	DQS#1	DO56	189	MA_DQ57
MA_DQS#1	49	DQS#2	DO57	191	MA_DQ58
MA_DQS#3	68	DQS#3	DO58	180	MA_DQ59
MA_DQS#4	129	DQS#4	DO59	182	MA_DQ60
MA_DQS#5	146	DQS#5	DO60	192	MA_DQ61
MA_DQS#6	167	DQS#6	DO61	194	MA_DQ62
MA_DQS#7	186	DQS#7	DO62		
			DO63		

DDR2_DIMM_200P
12G02502200E

R1.1G MC3 MC4 change to 0603 1uF

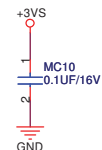
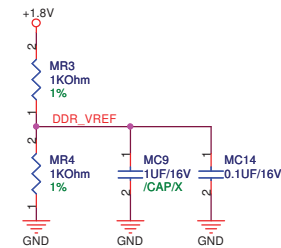
DDR2 Conn. Height=4.0mm

GROUP1
GROUP2
SWAP



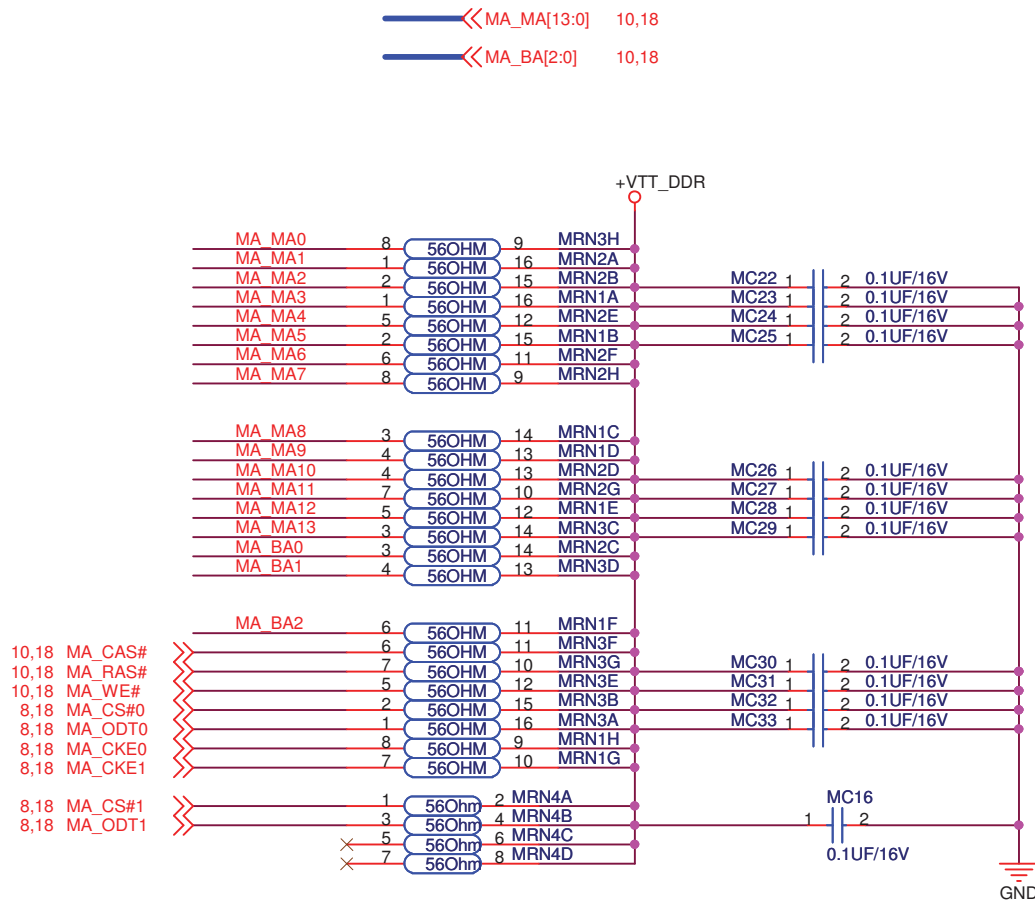
VDD1	VSS16	18
VDD2	VSS17	24
VDD3	VSS18	41
VDD4	VSS19	53
VDD5	VSS20	42
VDD6	VSS21	54
VDD7	VSS22	59
VDD8	VSS23	65
VDD9	VSS24	66
VDD10	VSS25	127
VDD11	VSS26	139
VDD12	VSS27	128
VDDSPD	VSS28	145
	VSS29	165
	VSS30	171
	VSS31	172
	VSS32	177
	VSS33	187
	VSS34	178
	VSS35	190
	VSS36	9
	VSS37	21
	VSS38	33
	VSS39	155
	VSS40	34
	VSS41	144
	VSS42	156
	VSS43	168
	VSS44	2
	VSS45	3
	VSS46	15
	VSS47	27
	VSS48	39
	VSS49	149
	VSS50	161
	VSS51	28
	VSS52	40
	VSS53	138
	VSS54	150
	VSS55	162
	VSS56	
	VSS57	
	VSS14	
	VSS15	

DDR2_DIMM_200P
12G02502200E



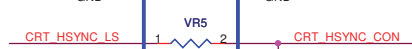
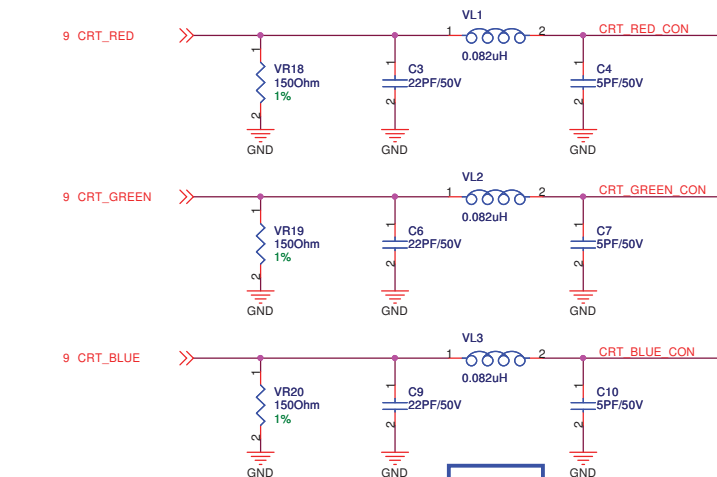
<Variant Name>

ASUS		Title : DDR2 SODIMM	
ASUSTek Computer INC.		Engineer: Ryan Fan	
Size A3	Project Name 1003HA	Rev 1.3G	
Date: Monday, January 19, 2009	Sheet	18	of 50



<Variant Name>

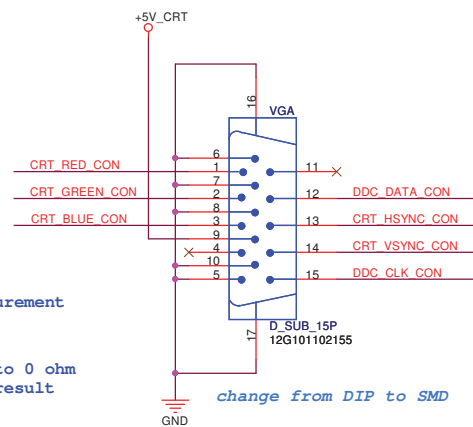
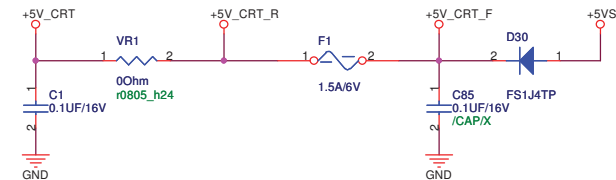
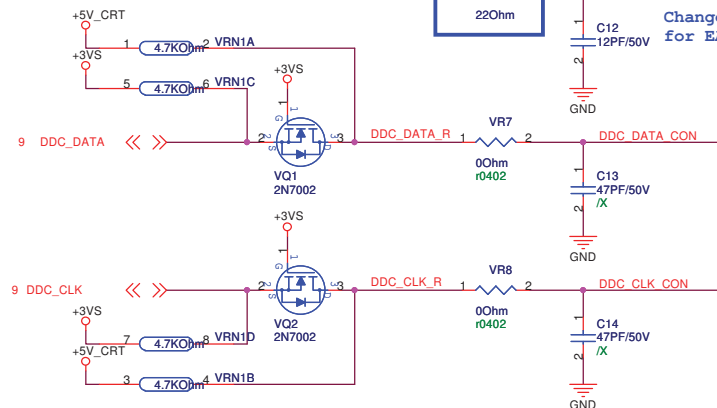
ASUS		Title : DDR2_Termination	
ASUSTek Computer INC.		Engineer: Ryan Fan	
Size A4	Project Name 1003HA		Rev 1.3G
Date: Monday, January 19, 2009	Sheet	19 of 50	



U25上:VR5 & VR6-->22 OHM
U25 /X :VR5 & VR6 -->0 OHM

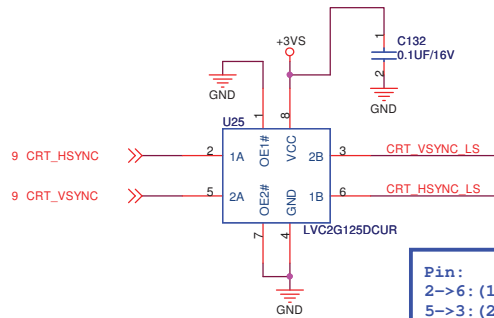
C11 C12 for EA measurement

Change VR5 and VR6 to 0 ohm
for EA measurement result

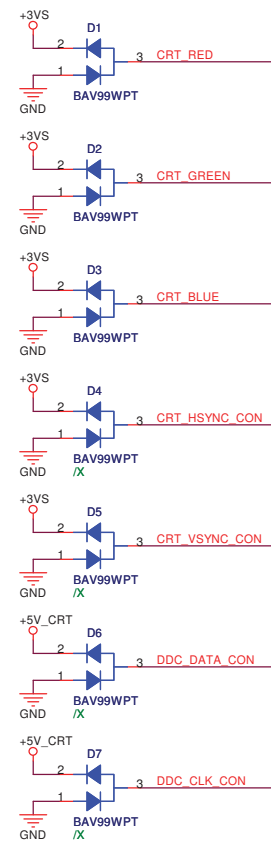


VGA use 12G10110015W

VGA use 12G101102155, but use
12G10110015W footprint



Pin:
2->6: (1A->1B)
5->3: (2A->2B)



<Variant Name>



Title : AR8113/AR8132

ASUSTek Computer INC

Engineer: *Ryan Fan*

Size	Project Name
------	--------------

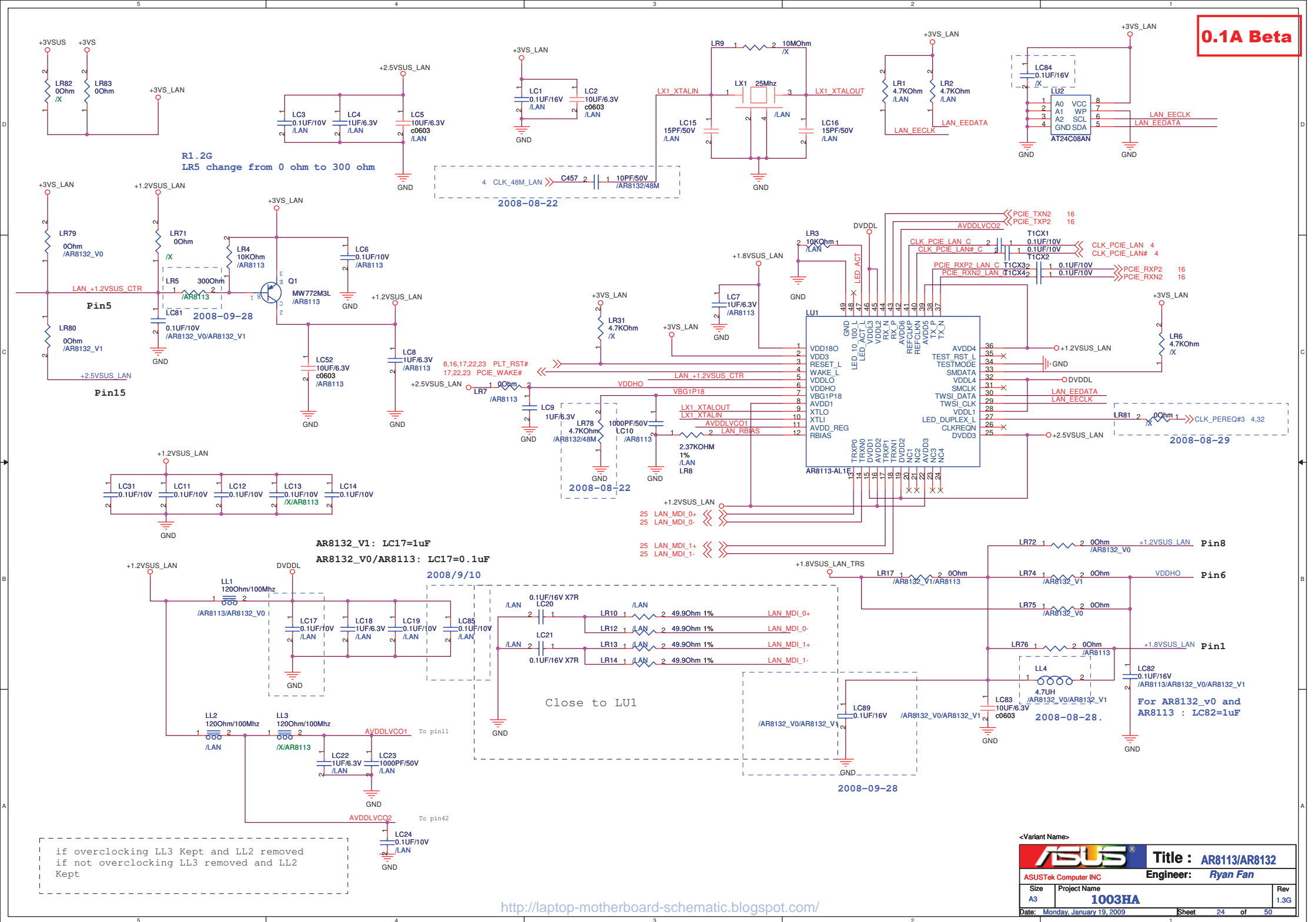
A3	1003HA
----	--------

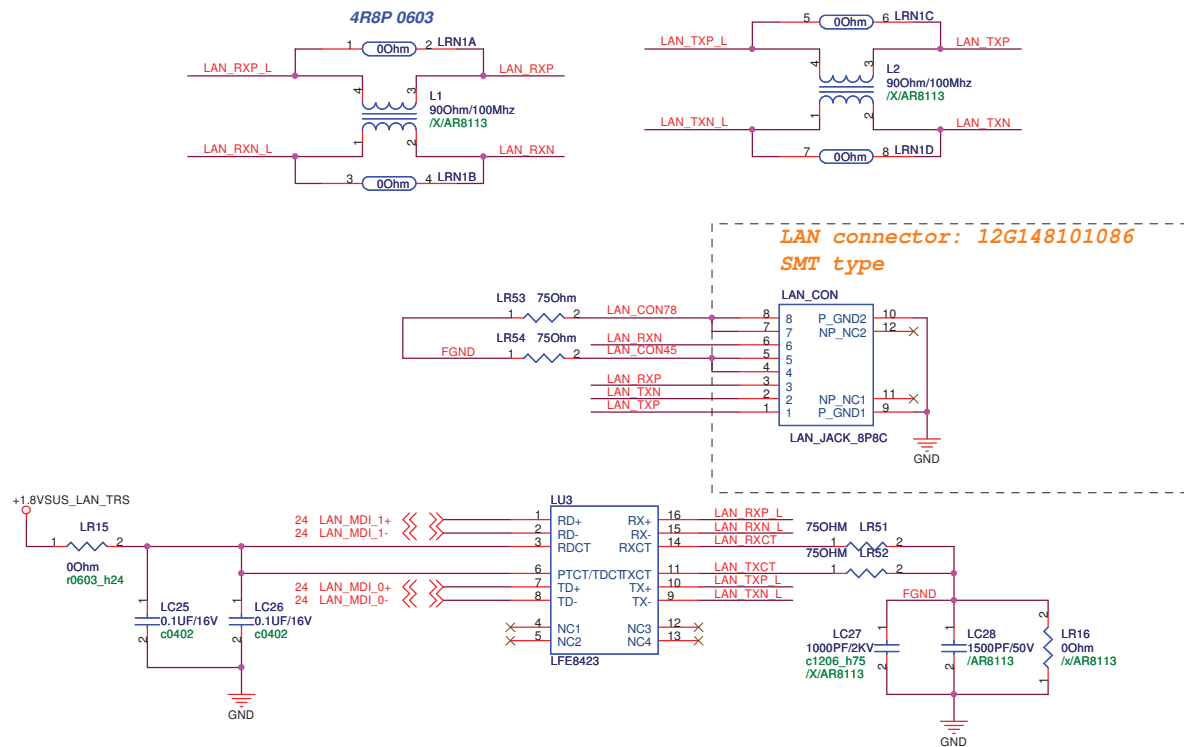
Date: Monday, January 19, 2009

Sheet 24 of 5

Rev

3G

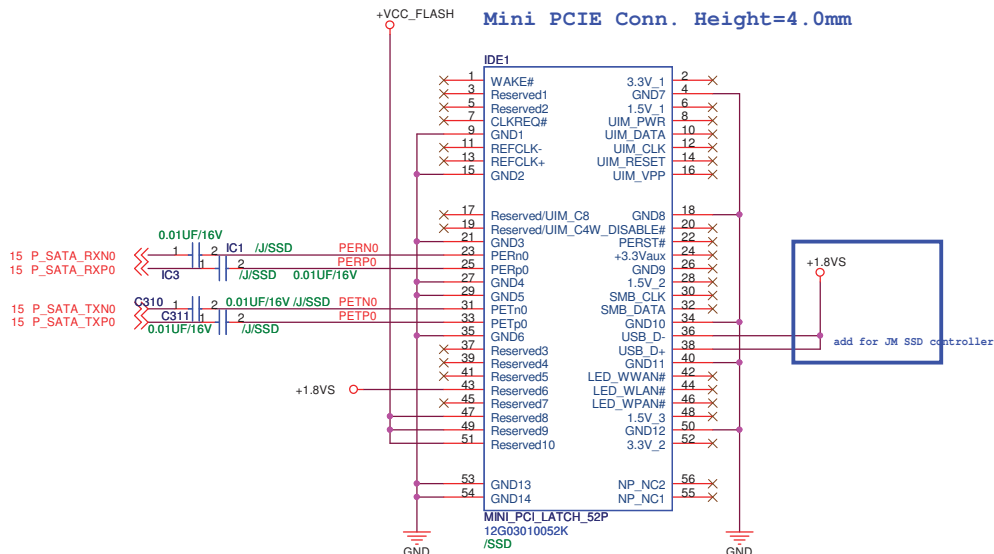
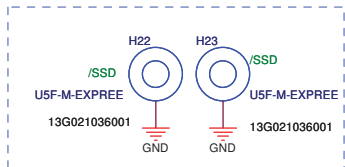
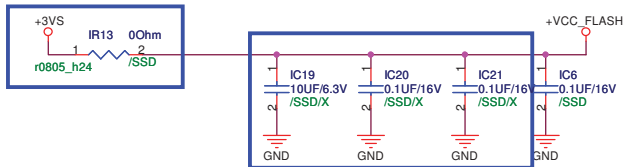
[illegible]



<Variant Name>

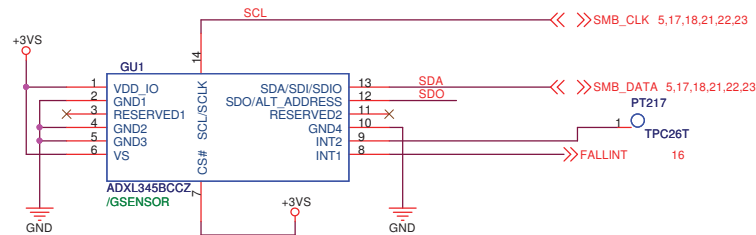
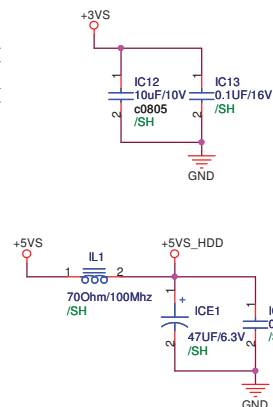
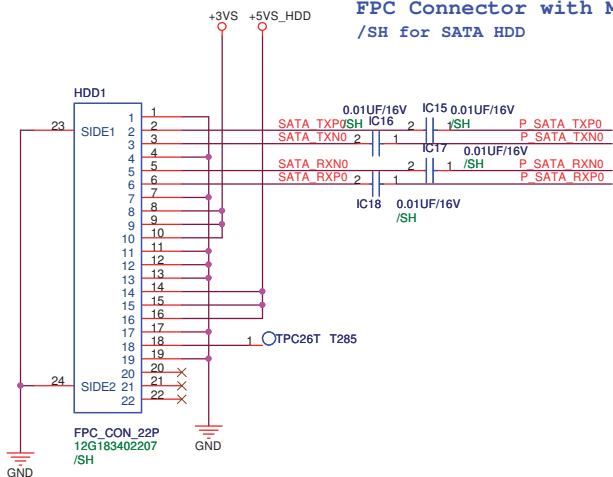
ASUS		Title : RJ45	
ASUSTek Computer INC.		Engineer: <i>Ryan Fan</i>	
Size A3	Project Name 1003HA	Rev 1.3G	
Date: Monday, January 19, 2009	Sheet	25	of 50

POWER

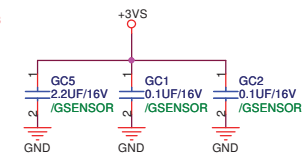
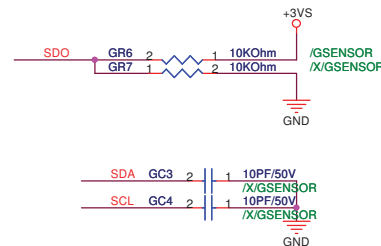


SATA HDD Connector

FPC Connector with Mylar
/SH for SATA HDD

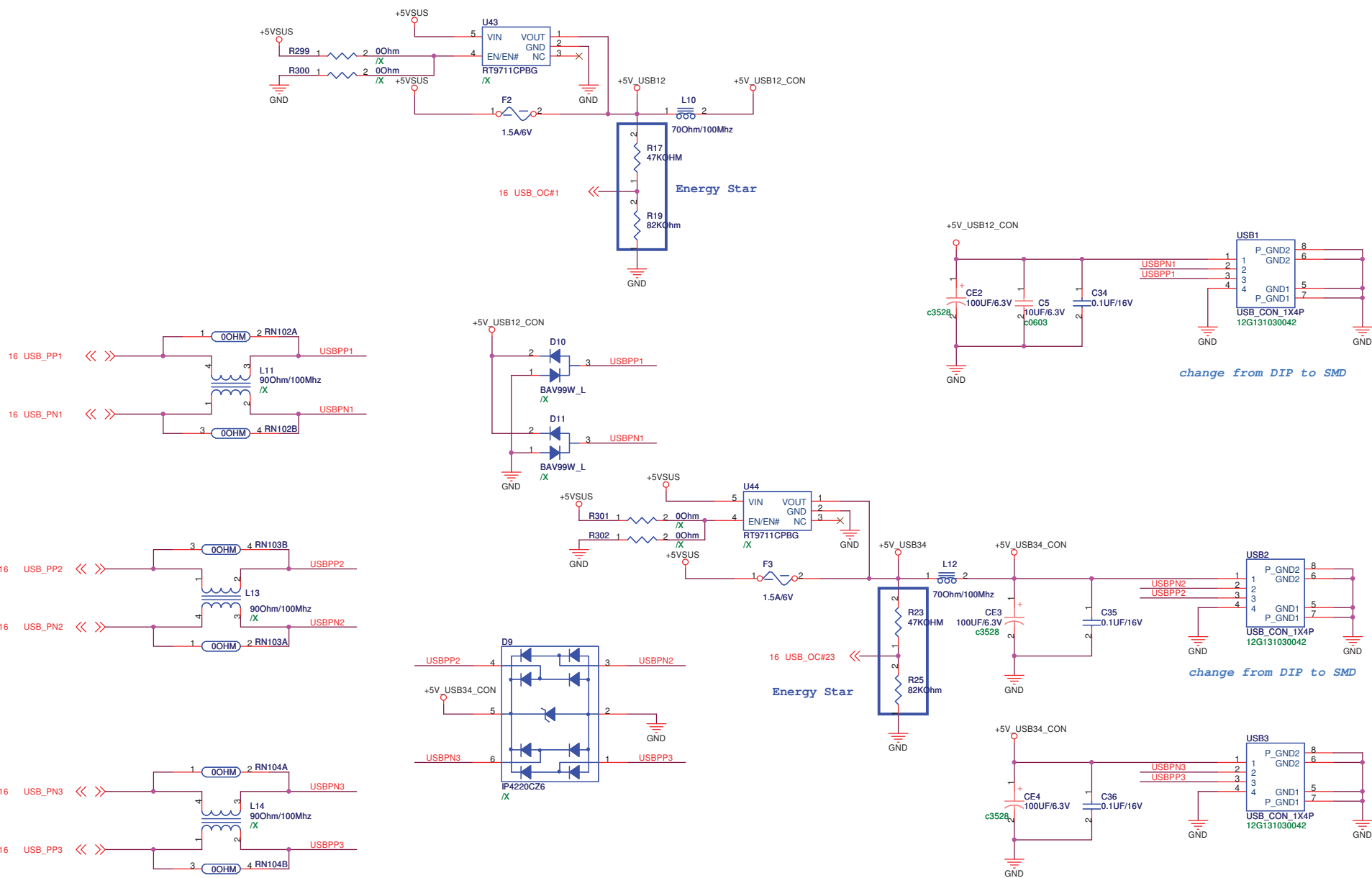


Install GR6 being slaveaddr "3A"
for ADI/Freescale/ST G-sensors

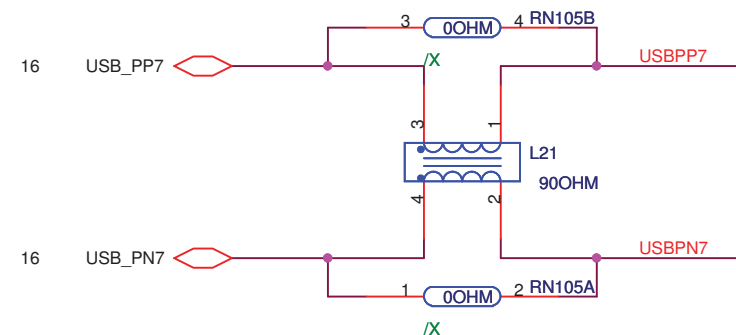
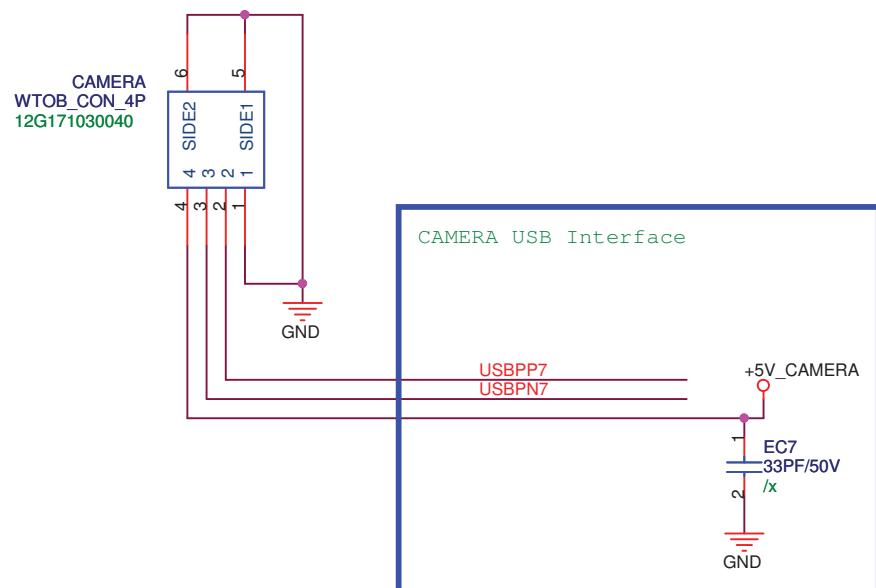
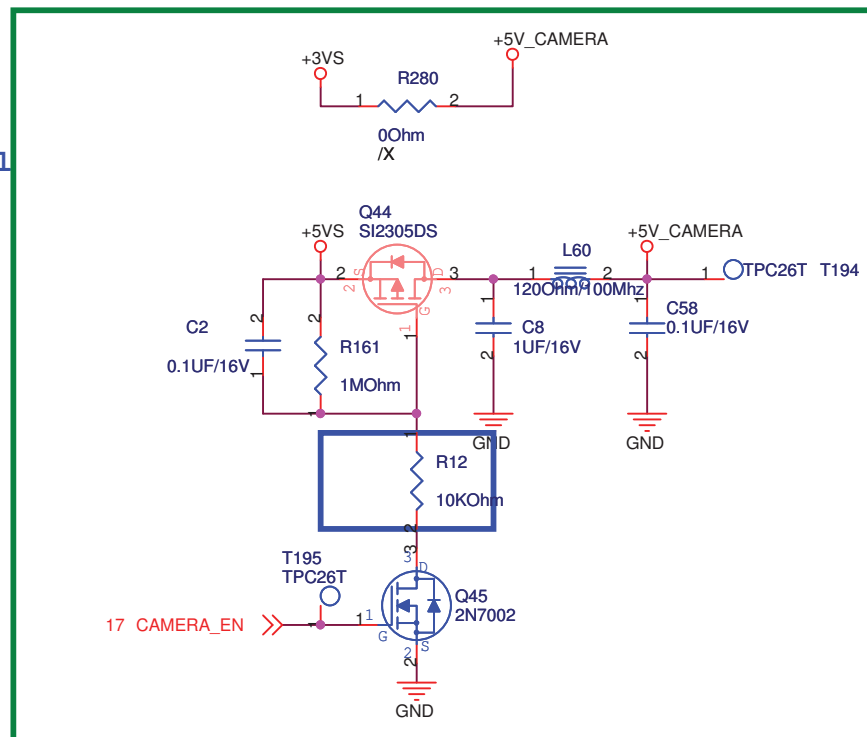


<Variant Name>

ASUS		Title : HD + Flash Conn	
ASUSTek Computer INC.		Engineer: Ryan Fan	
Size	Project Name		Rev
A3	1003HA		1.3G
Date: Monday, January 19, 2009		Sheet	26 of 50



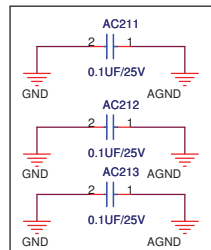
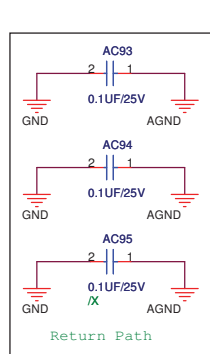
Power Control



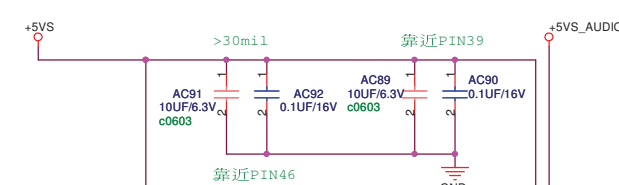
R1.2G
change from RN105 to L21 for RF

<Variant Name>

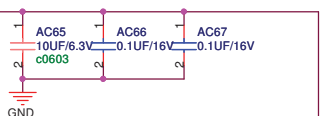
ASUS		Title : Camera Power	
ASUSTek Computer INC.		Engineer: Ryan Fan	
Size A4	Project Name 1003HA		Rev 1.3G
Date: Monday, January 19, 2009		Sheet 28 of 50	



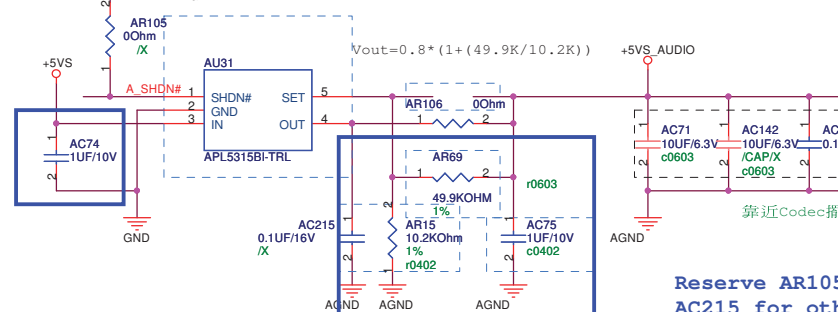
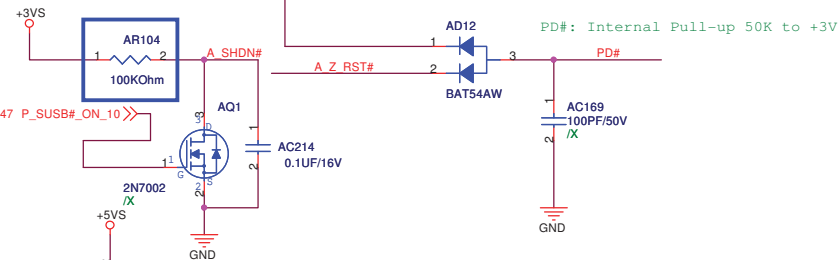
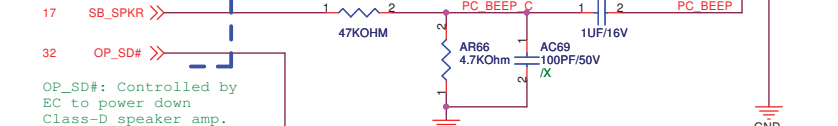
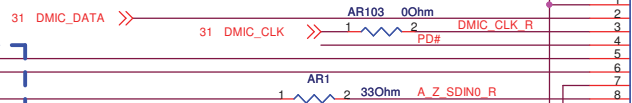
1.1G Add,
for Codec ground ring



靠近Codec擺放



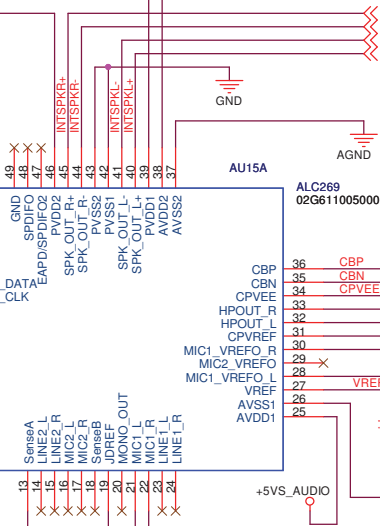
15 A_Z_SDOOUT
15,41 A_Z_BITCLK
15 A_Z_SDI0
15 A_Z_SYNC
15 A_Z_RST#



For Audio Noise Issue

Reserve AR105 AR106
AC215 for other LDO
solution

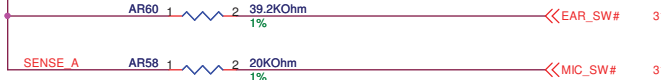
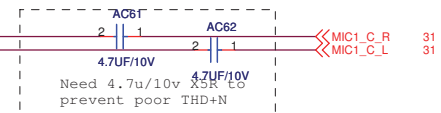
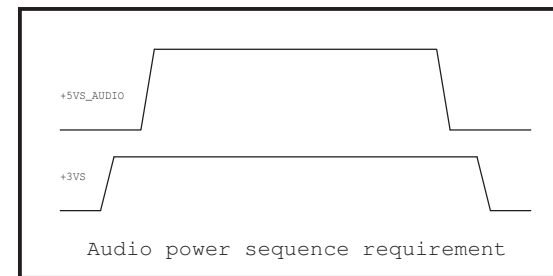
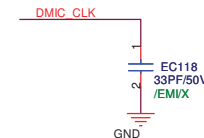
<http://laptop-motherboard-schematic.blogspot.com/>



02G611005001 in the BOM

1.1G AC96 AC76 change to 0402 type

Analog: Pin.13~Pin.38
Digital: Pin.1~Pin.12
and Pin.39~Pin.48



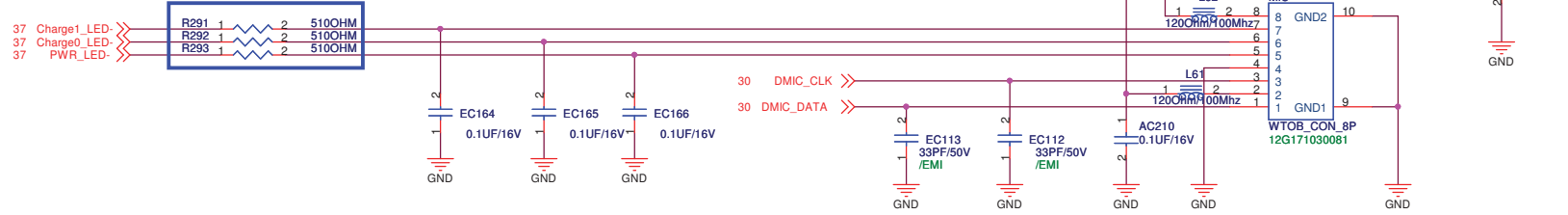
<Variant Name>

ASUS		Title : ALC269-1	
ASUSTek Computer Inc.		Engineer: Ryan Fan	
Size A3	Project Name 1003HA	Rev 1.3G	
Date: Monday, January 19, 2009	Sheet	30	of 50

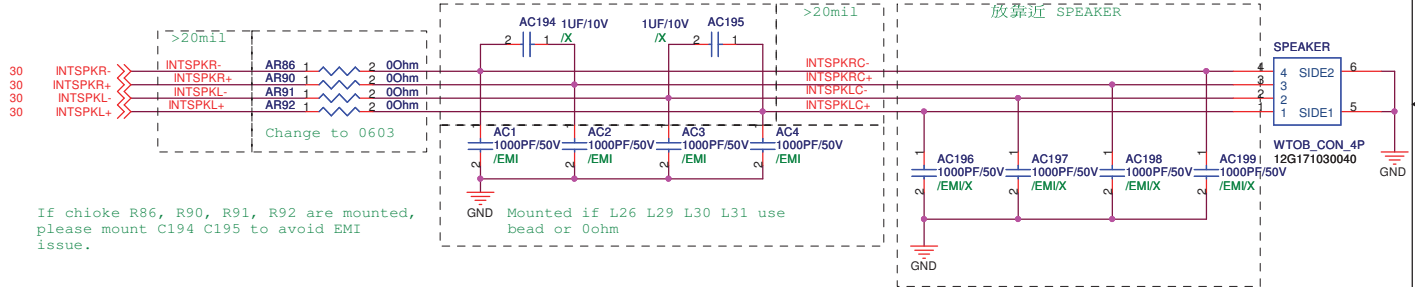
1.1G add PWR LED and Charge LED

DMIC Cable length should be less 30cm

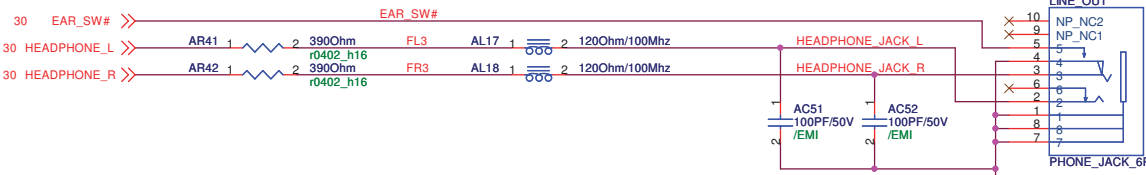
Change R291 R292 R293 to 510 Ohm



Total length from speakerR+- L+- (pin40 41 44 45) to internal speaker please as short as possible (<20cm is better)

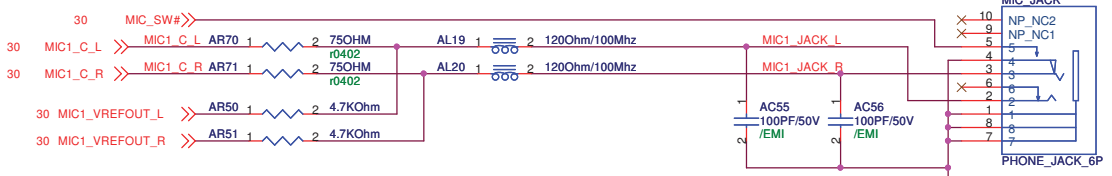


R1.2G
For France ' AR41 and AR42 mounted 390 ohm

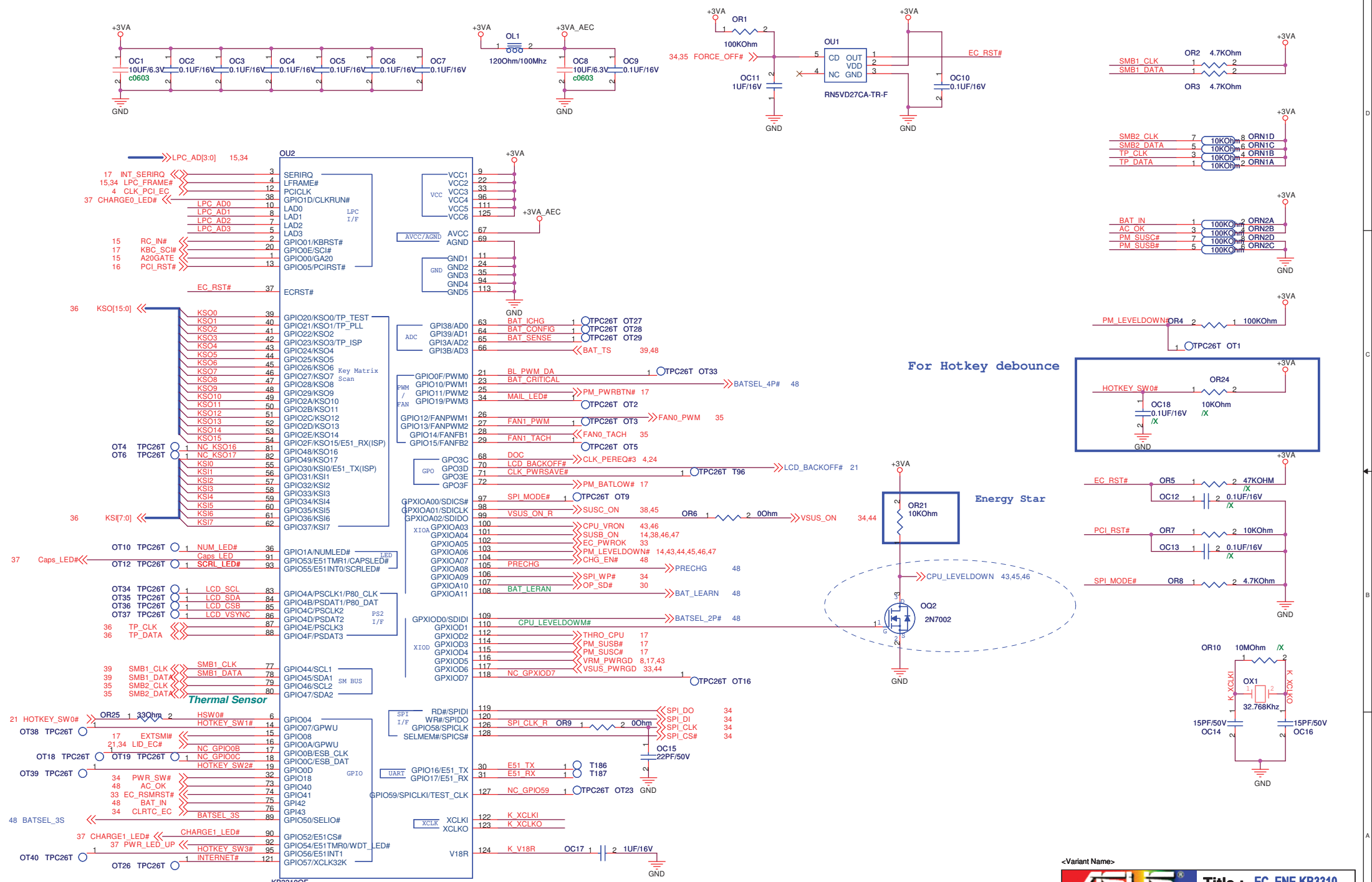


LINE_OUT use
12G14050106P (SINGATRON)
Black

R70 and R71: If don't need retasking function, change to 1K.



MIC_JACK use
12G14050106P (SINGATRON)
Black

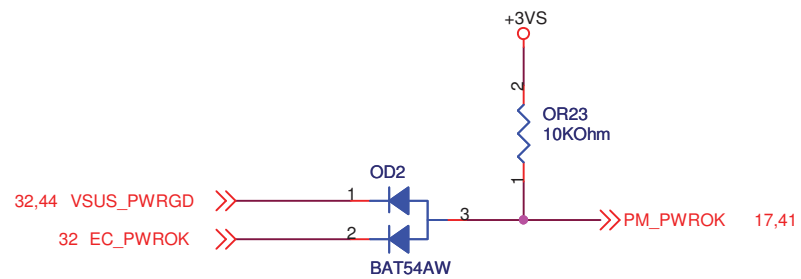
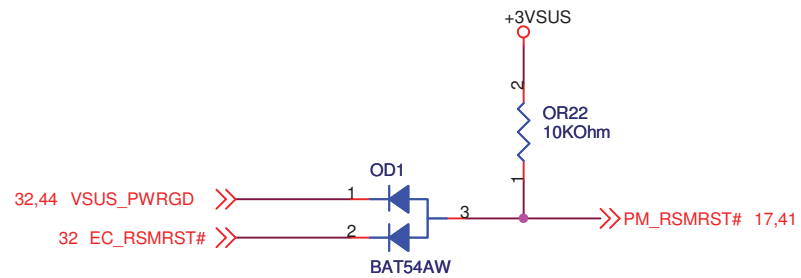


OR25 1.1G For Hotkey debounce
HOTKEY_SW0# - HOTKEY_SW3# internal PU


<http://laptop-motherboard-schematic.blogspot.com/>

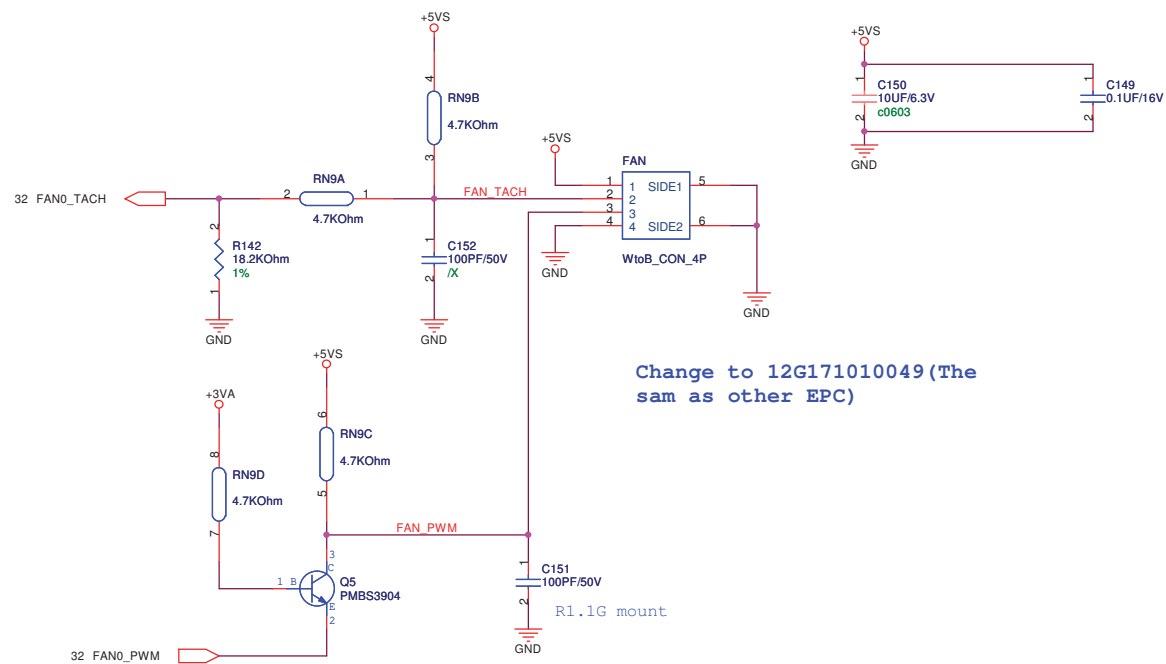
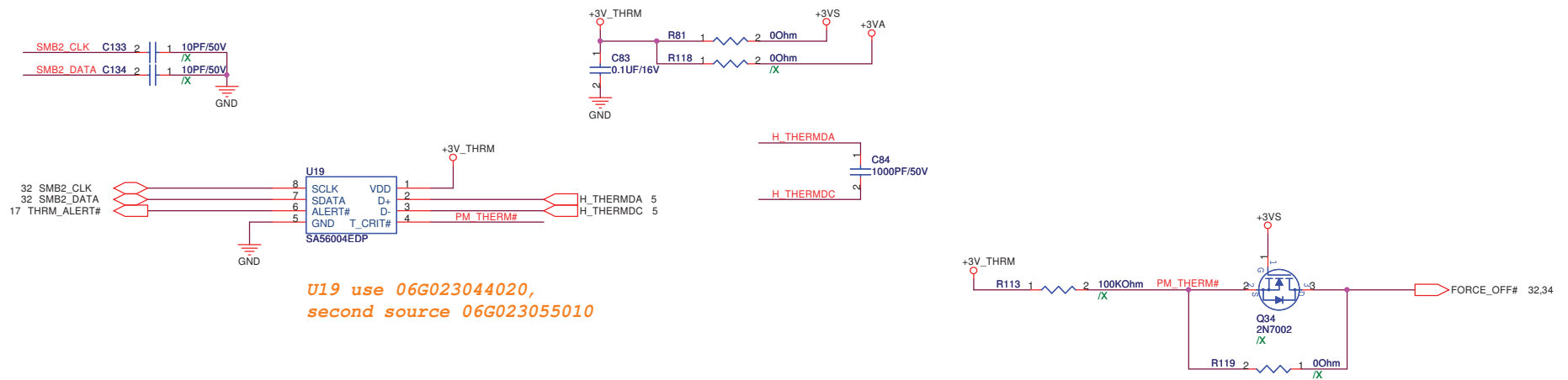
<Variant Name>

ASUS		Title : EC_ENE KB3310	
ASUSTek Computer INC.		Engineer: Ryan Fan	
Size	Project Name	Rev	
A3	1003HA	1.3G	
Date: Monday, January 19, 2009	Sheet	32	of 50

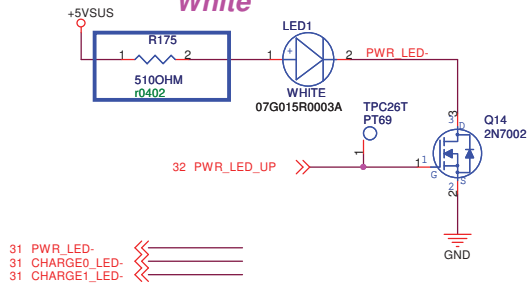


<Variant Name>

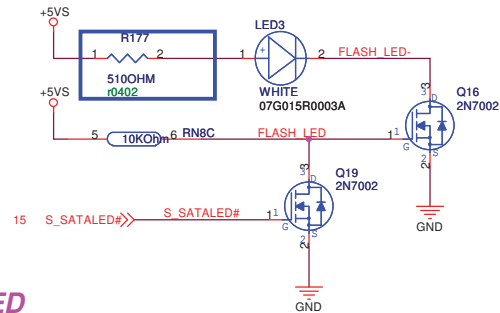
		Title : EC_UART_KC3820	
ASUSTek Computer INC.		Engineer: <i>Ryan Fan</i>	
Size A4	Project Name 1003HA		Rev 1.3G
Date: Monday, January 19, 2009		Sheet 33	of 50



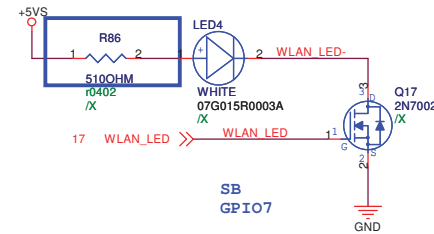
for POWER LED White



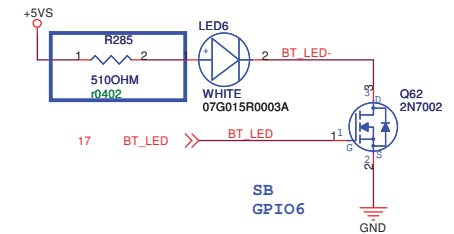
for FLASH LED White



White /X

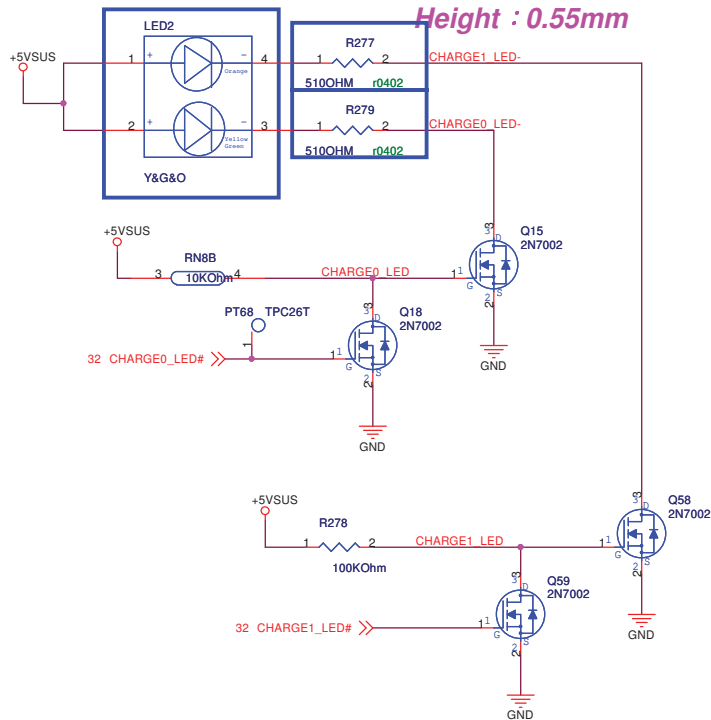


for WIFI/BlueTooth LED White



1.1G change to EVERLIGHT

for CHARGE LED Height : 0.55mm



S0/S3	接上充電器	未接上充電器
電池狀態 95%~100%	綠色燈恆亮	燈號不亮
電池為半飽狀態 11%~94%	橘色燈恆亮	燈號不亮
電力不足狀態 0%~10%	橘色燈閃爍=>橘色燈閃爍(0.5Hz)	橘色燈閃爍=>橘色燈閃爍(0.5Hz)

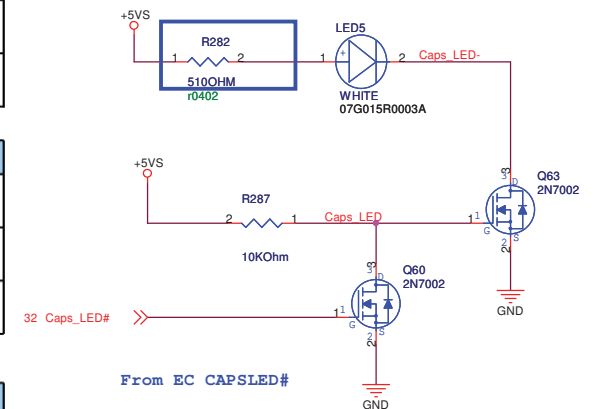
**Alarm Power Level: Default 10%. Sync. OS settings.

S4/S5	接上充電器	未接上充電器
電池狀態 95%~100%	綠色燈恆亮	燈號不亮
電池為半飽狀態 11%~94%	橘色燈恆亮	燈號不亮
電力不足狀態 0%~10%	橘色燈閃爍=>橘色燈閃爍(0.5Hz)	燈號不亮

**Alarm Power Level: Default 10%. Sync. OS settings.

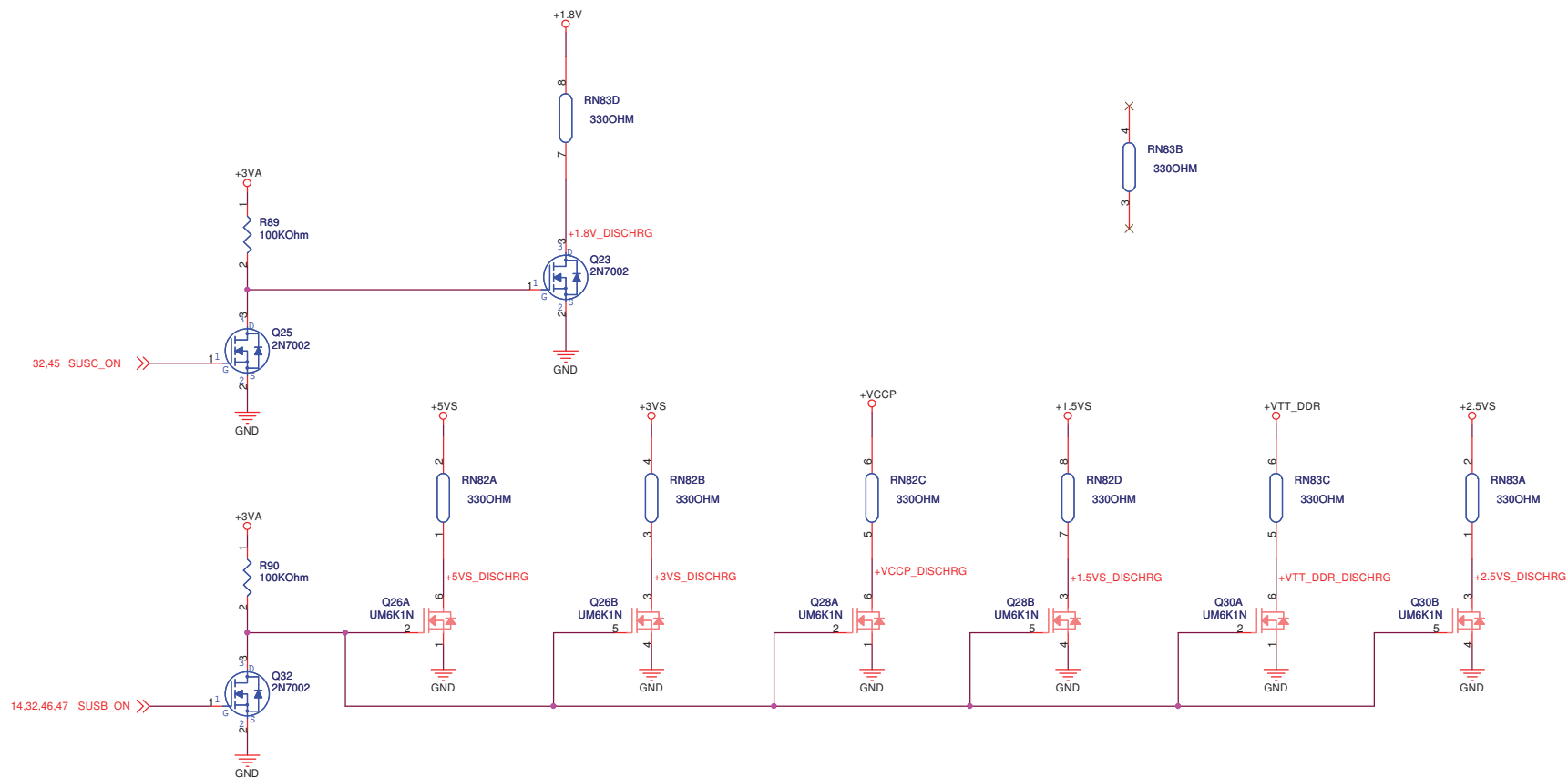
S0/S3/S4/S5	接上充電器	未接上充電器
沒有放入電池	燈號不亮	燈號不亮

for Caps Lock LED White



From EC CAPSLED#

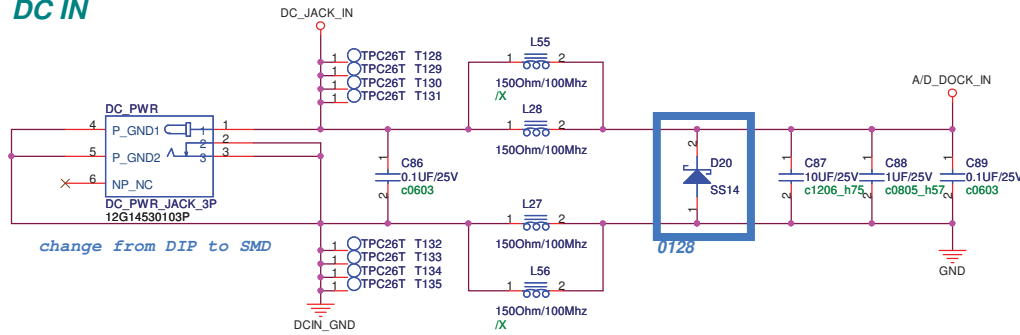
<Variant Name>



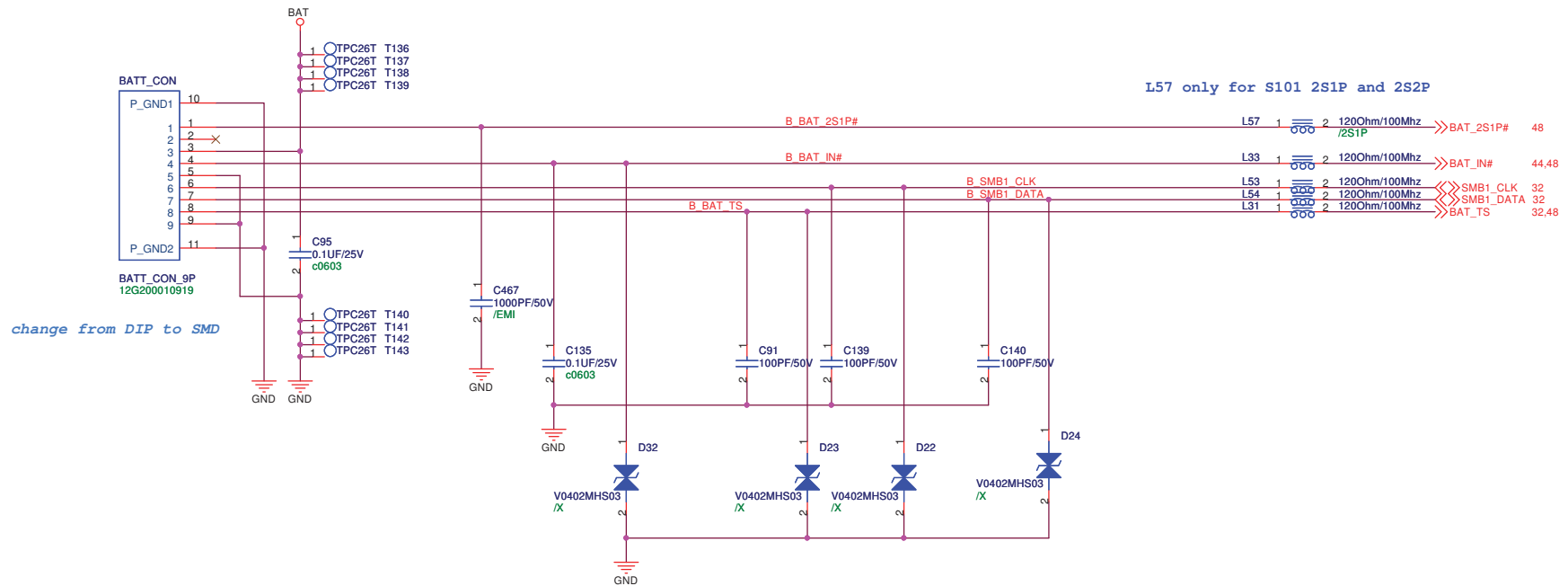
<Variant Name>

ASUS		Title : Discharge	
ASUSTek Computer INC.		Engineer: Ryan Fan	
Size A3	Project Name 1003HA		Rev 1.3G
Date: Monday, January 19, 2009		Sheet	38 of 50

DC IN

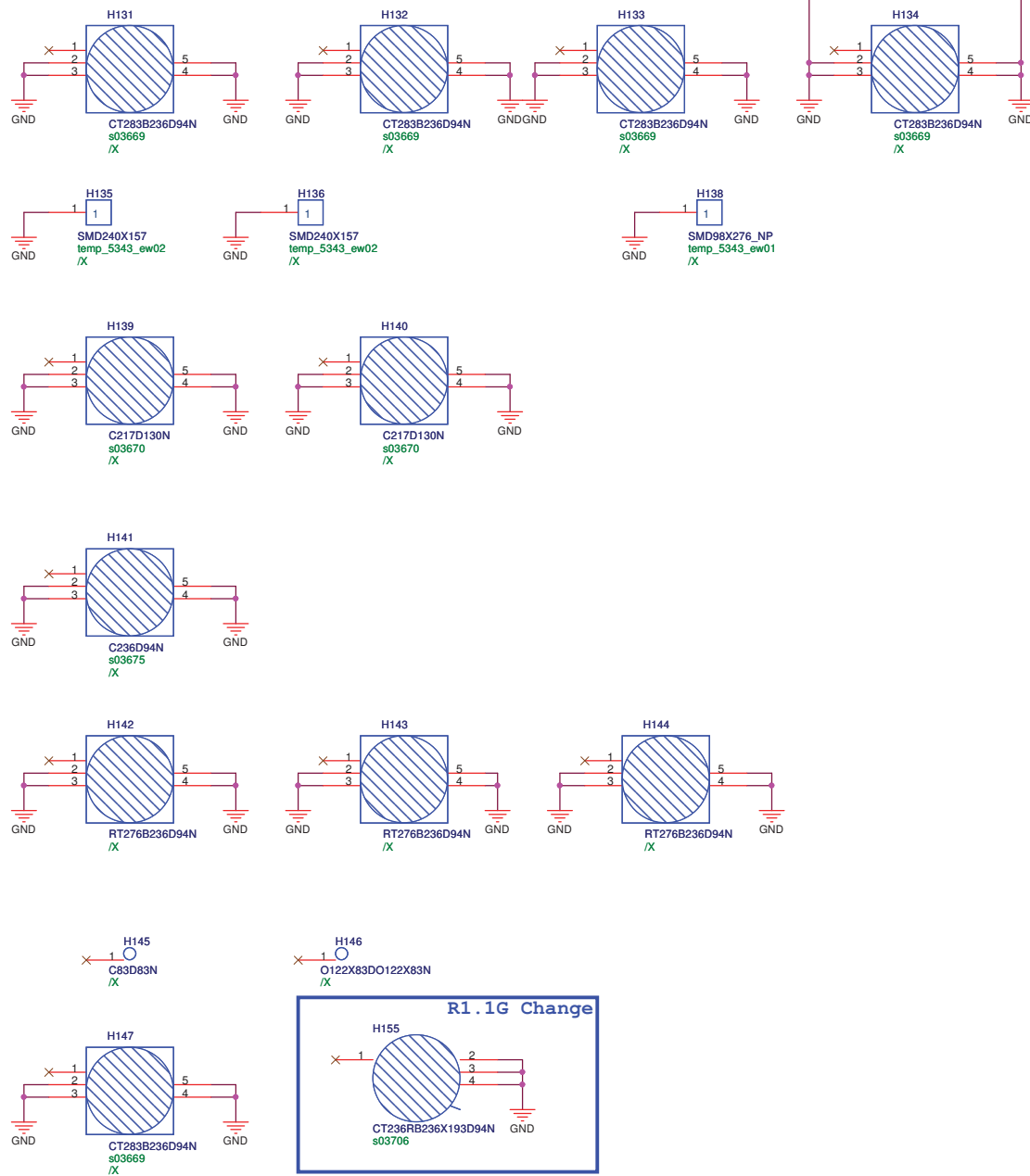


BAT IN



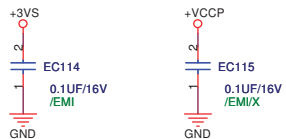
<Variant Name>

ASUS		Title : PWR Jack	
ASUSTek Computer INC.		Engineer: Ryan Fan	
Size	Project Name		Rev
A3	1003HA		1.3G
Date: Monday, January 19, 2009		Sheet	39 of 50

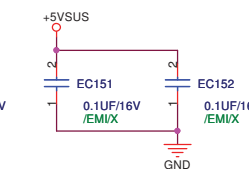
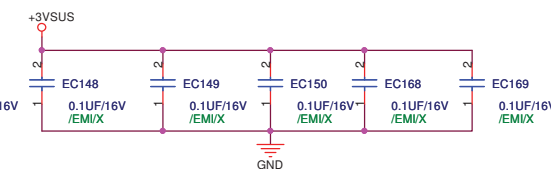
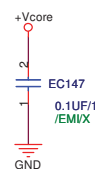
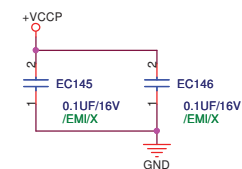
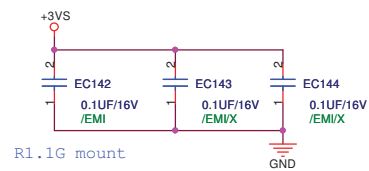
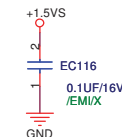
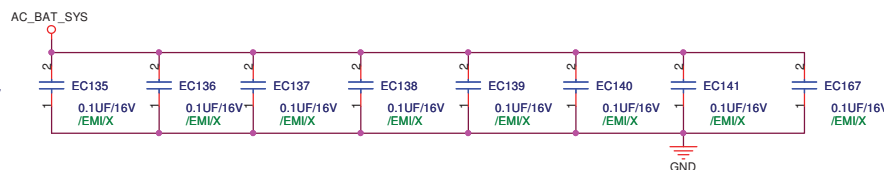
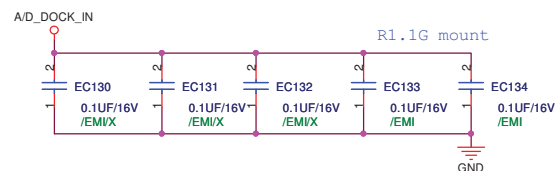
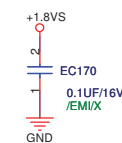
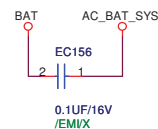
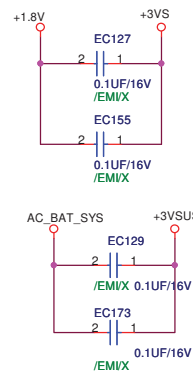
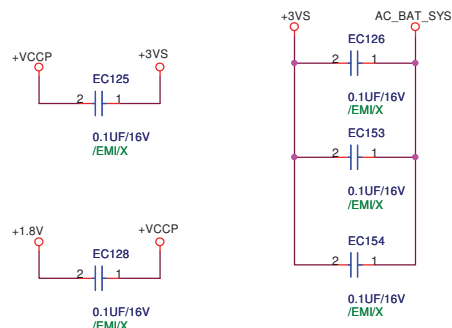
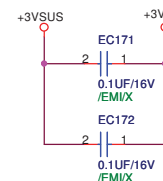
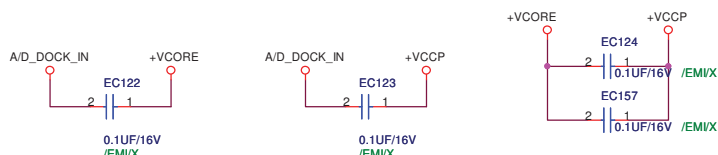
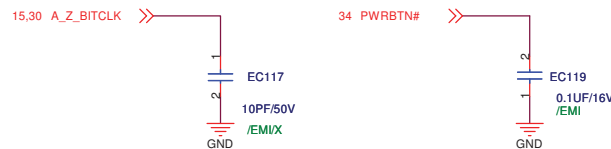
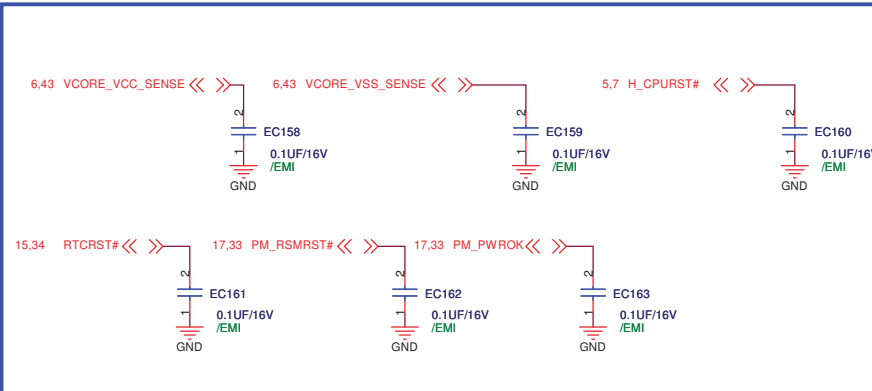


<Variant Name>

ASUS		Title : Srew Hole	
ASUSTek Computer INC.		Engineer: <i>Ryan Fan</i>	
Size A3	Project Name 1003HA	Rev 1.3G	
Date: Monday, January 19, 2009		Sheet	40 of 50

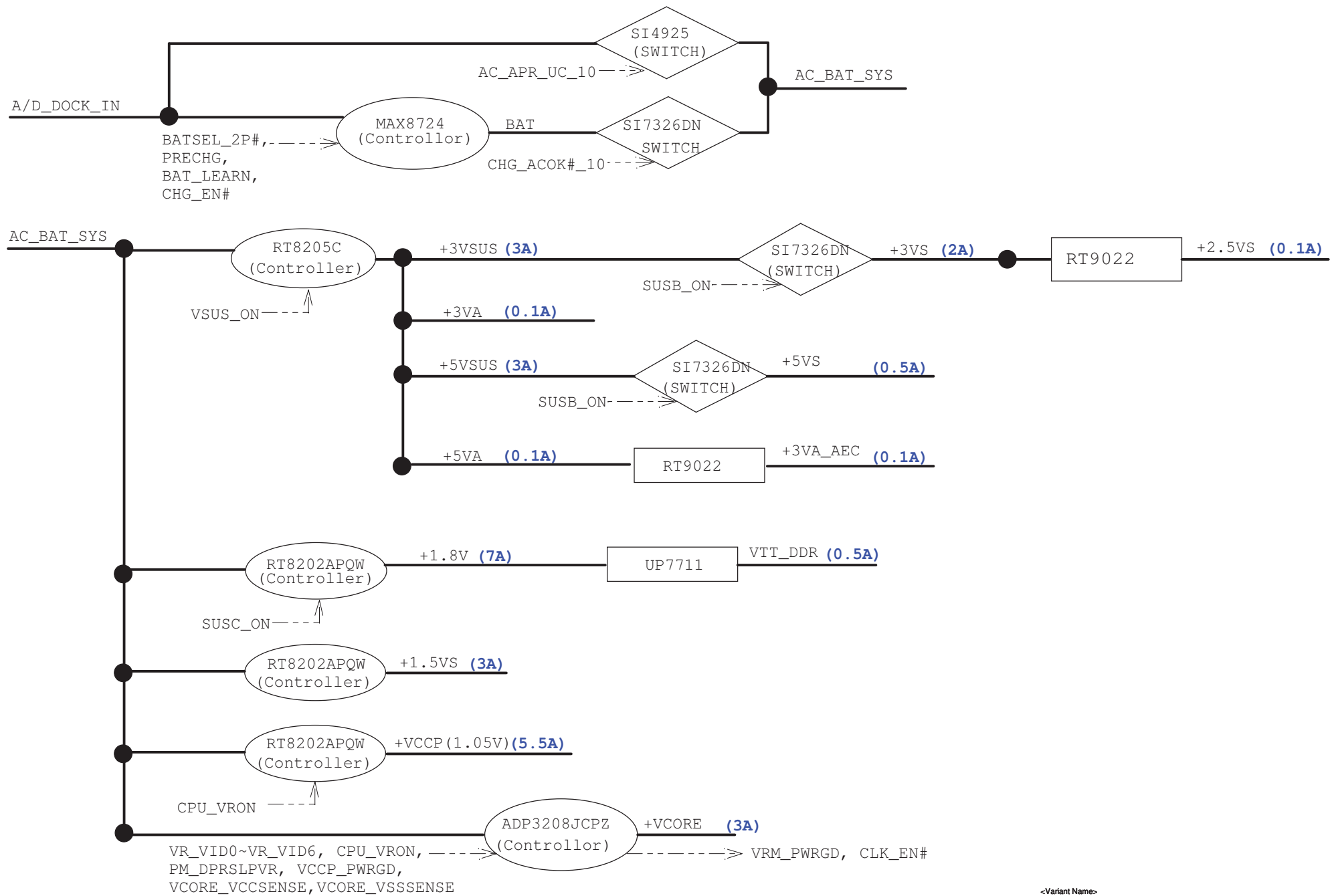


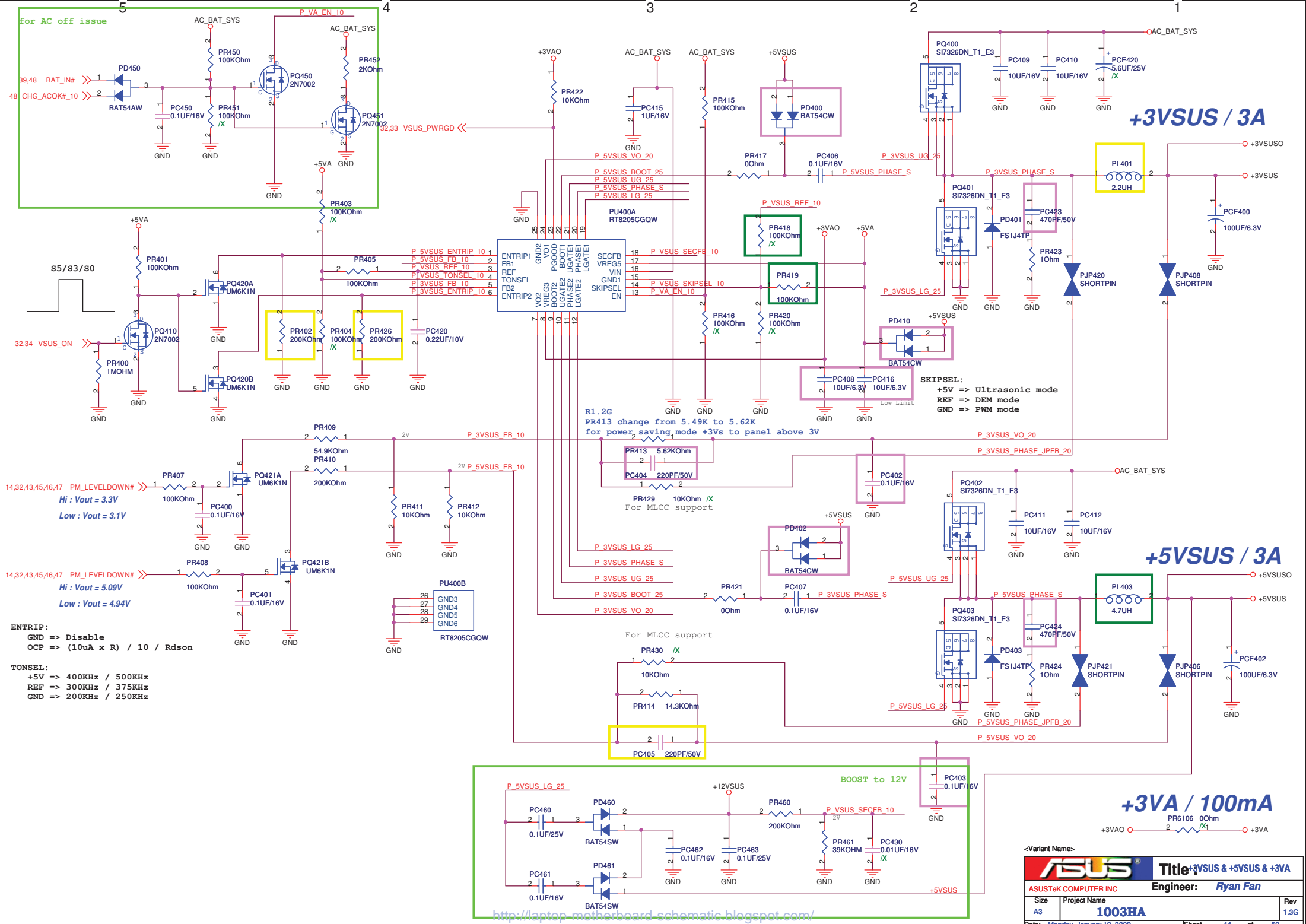
For ESD



<Variant Name>

ASUS		Title : EMI	
ASUSTek Computer INC.		Engineer: Ryan Fan	
Size	Project Name	Rev	
A3	1003HA	1.3G	
Date: Monday, January 19, 2009	Sheet	41	of 50



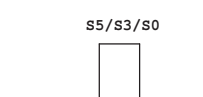


For AC off issue

+3VSUS / 3A

+5VSUS / 3A

+3VA / 100mA



14,32,43,45,46,47 PM_LEVELDOWN#
Hi : Vout = 3.3V
Low : Vout = 3.1V

14,32,43,45,46,47 PM_LEVELDOWN#
Hi : Vout = 5.09V
Low : Vout = 4.94V

ENTRIP :
GND => Disable
OCP => (10uA x R) / 10 / Rdson

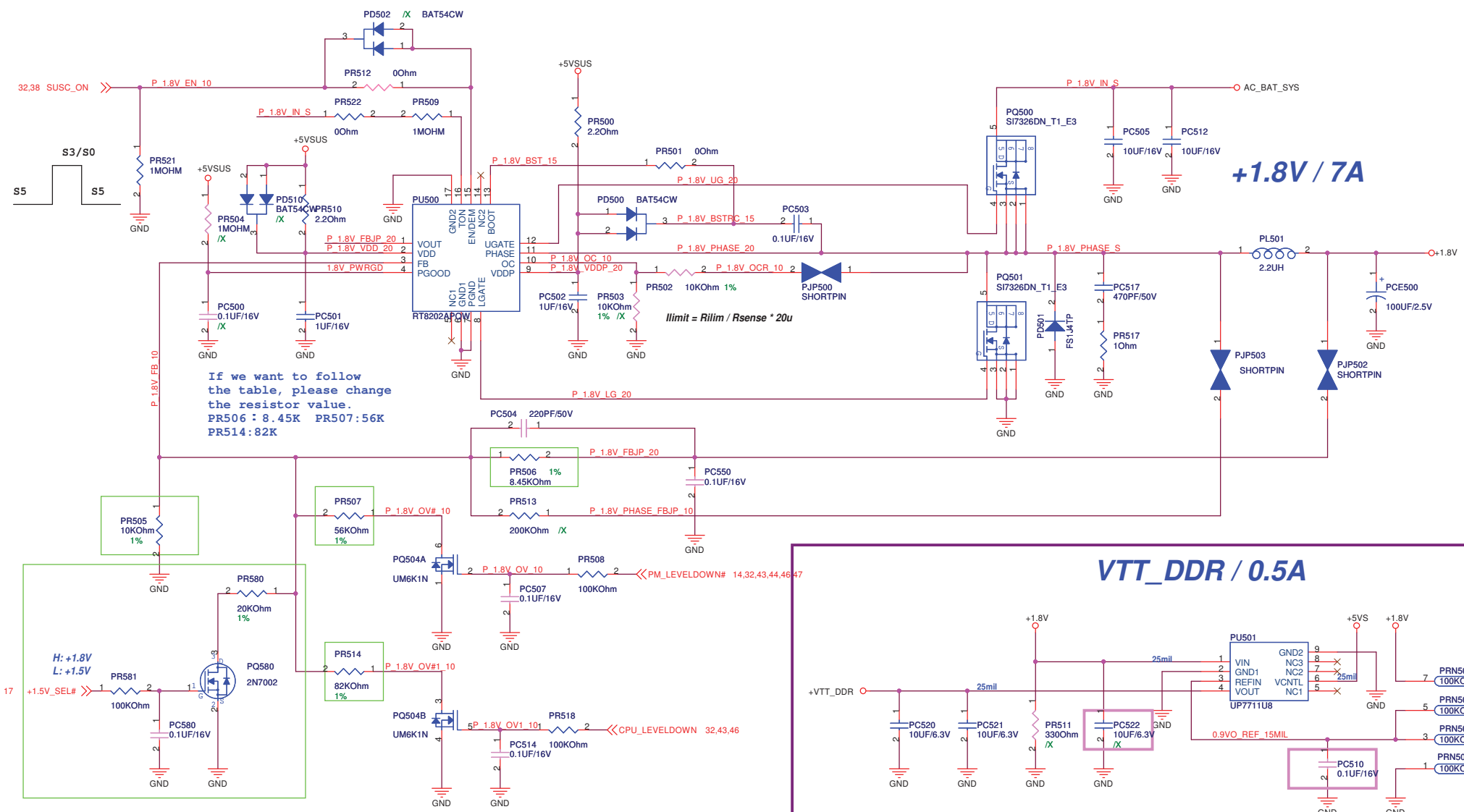
TONSEL :
+5V => 400KHz / 500KHz
REF => 300KHz / 375KHz
GND => 200KHz / 250KHz

R1.2G
PR413 change from 5.49K to 5.62K
for power saving mode +3Vs to panel above 3V

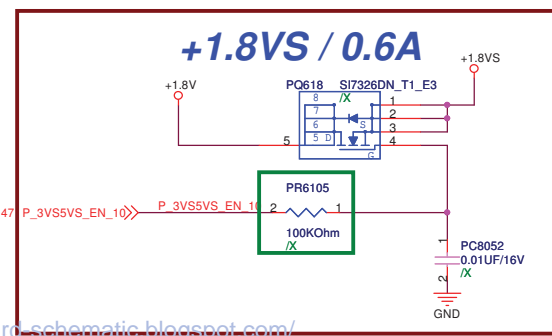
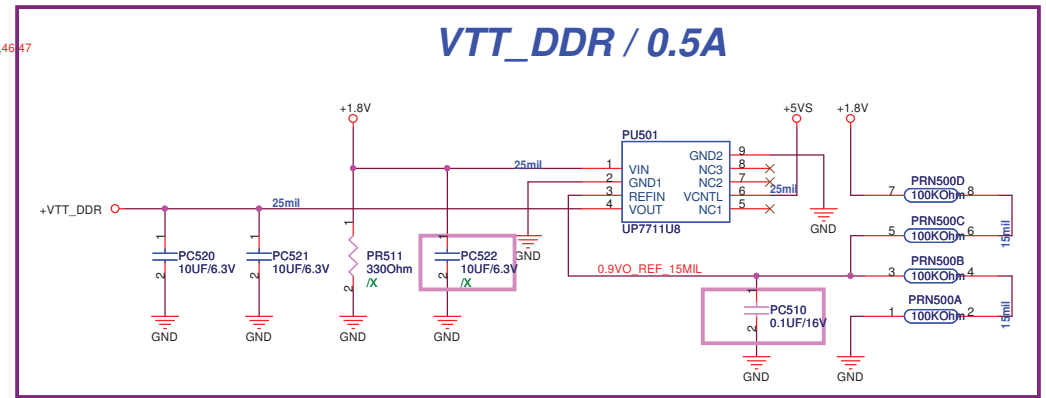
For MLCC support

<http://laptop-motherboard-schematic.blogspot.com/>

ASUS		Title: +3VSUS + +5VSUS + +3VA	
ASUSTek COMPUTER INC		Engineer: Ryan Fan	
Size A3	Project Name 1003HA	Rev 1.3G	
Date: Monday, January 19, 2009		Sheet	44 of 50



+1.5V_SEL#	PM_LEVELDOWN#	CPU_LEVELDOWN	CPU_LEVELDOWN#	Voltage	Status
H	L	L	H	1.72V	Power Saving
H	H	L	H	1.84V	Normal
H	H	L	H	1.84V	Performance
H	L	H	L	1.782V	N/A
L	L	L	H	1.4V	Power Saving
L	H	L	H	1.5V	Normal
L	H	H	L	1.58V	Performance



+1.8V / 7A

VTT_DDR / 0.5A

+1.8VS / 0.6A

<Variant Name>

ASUS Title : **+1.8V & VTTDDR**

ASUSTek Computer INC. Engineer: **Ryan Fan**

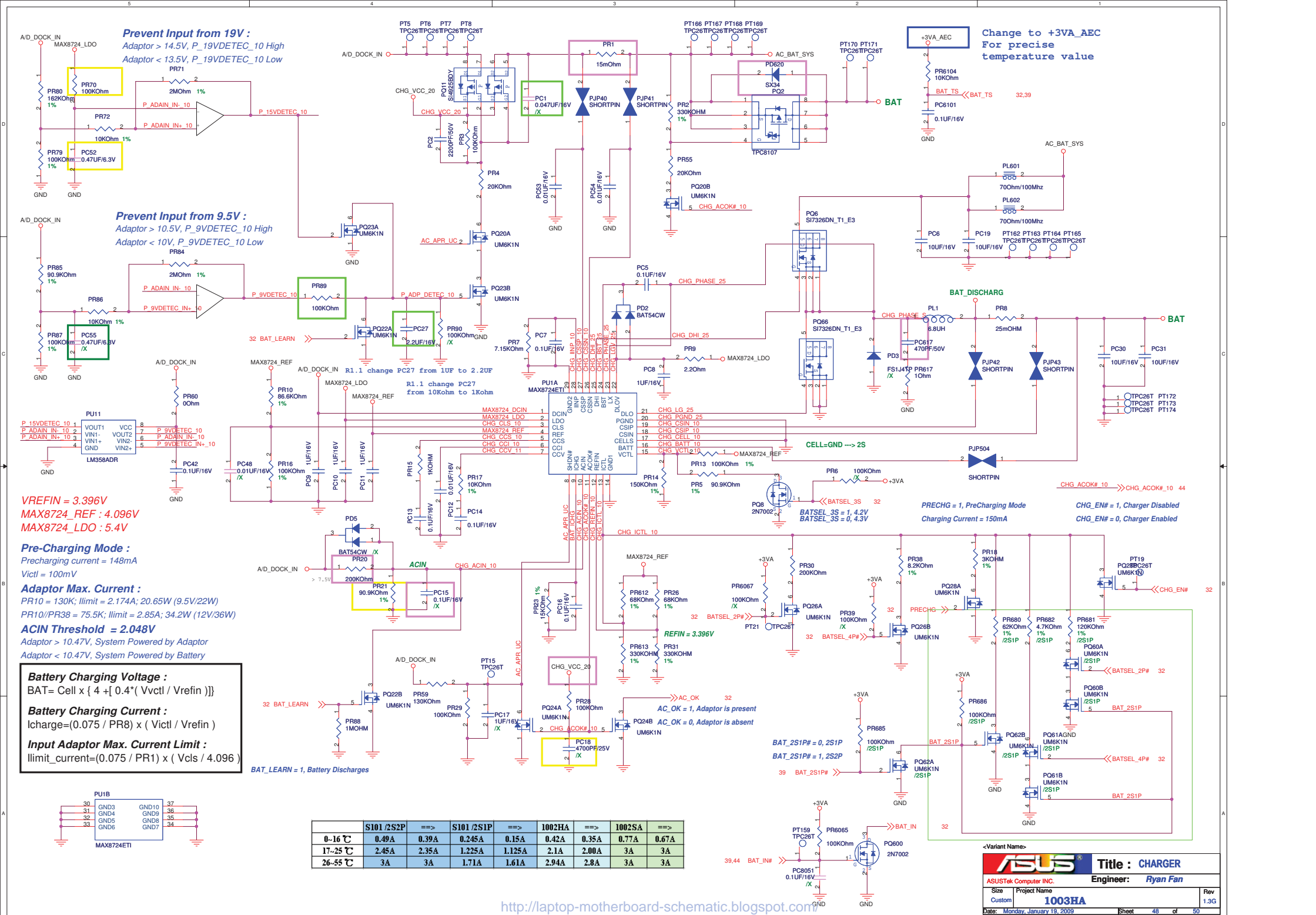
Size	Project Name	Rev
A3	1003HA	1.3G

Date: Monday, January 19, 2009 Sheet 45 of 50

BI 201

		Title : VCCP	
ASUSTek Computer INC.		Engineer : <i>Ryan Fan</i>	
Size A3	Project Name 1003HA		Rev 1.3G
Date: Monday, January 19, 2009		Sheet 46 of 50	

PM_LEVELDOWN#	CPU_LEVELDOWN	CPU_LEVELDOWN#	Voltage	Status
L	L	H	0.89V	Power Saving
H	L	H	1.04V	Normal
H	L	H	1.04V	Performance
L	H	L	1.072V	N/A



EC KB3310 GPIO SETTING

Pin	Pin Name	Signal Name	Type	Note
1	GPIO00/GA20	A20GATE	O	
2	GPIO01/KBRST#	RC_IN#	O	
6	GPIO04	HOTKEY_SW0#	I	Internal pull high
13	GPIO05/PCIRST#	PCI_RST#	I	
14	GPIO07	HOTKEY_SW1#	I	Internal Pull Up
15	GPIO08	EXTSMI#	OD	10K ohm Pull Up to +3VSU
16	GPIO0A	LID_EC#	I	Internal pull high
17	GPIO0B/ESB_CLK	NC	O	
18	GPIO0C/ESB_DAT	NC	O	
19	GPIO0D	HOTKEY_SW2#	I	Internal pull high
20	GPIO0E/SCI#	KBC_SCI#	OD	10K ohm Pull Up to +3VSUS
21	GPIO0F/PWM0	BL_PWM_DA	O	
23	GPIO10/PWM1	BATSEL_4P#	O	Battery charging current setting
25	GPIO11/PWM2	PM_PWRBTN#	OD	Internal pull high in ICH
26	GPIO12/FANPWM1	FAN0_PWM	O	CPU Fan
27	GPIO13/FANPWM2	FAN1_PWM	O	VGA Fan
28	GPIO14/FANFB1	FAN0_TACH	I	CPU FanTach
29	GPIO15/FANFB2	FAN1_TACH	I	VGA FanTach
30	GPIO16/E51_TX	E51_TX	O	RS232 debug port
31	GPIO17/E51_RX	E51_RX	O	RS232 debug port
32	GPIO18	PWR_SW#	I	Internal pull high
34	GPIO19/PWM3	MAIL_LED#	O	
36	GPIO1A/NUMLED	NUM_LED#	O	
38	GPIO1D/CLKRUN#	NC	O	
39	GPIO20/KSO0/TP_TEST	KSO0	O	
40	GPIO21/KSO1/TP_PLL	KSO1	O	
41	GPIO22/KSO2	KSO2	O	
42	GPIO23/KSO3	KSO3	O	
43	GPIO24/KSO4	KSO4	O	
44	GPIO25/KSO5	KSO5	O	
45	GPIO26/KSO6	KSO6	O	
46	GPIO27/KSO7	KSO7	O	
47	GPIO28/KSO8	KSO8	O	
48	GPIO29/KSO9	KSO9	O	
49	GPIO2A/KSO10	KSO10	O	
50	GPIO2B/KSO11	KSO11	O	
51	GPIO2C/KSO12	KSO12	O	
52	GPIO2D/KSO13	KSO13	O	
53	GPIO2E/KSO14	KSO14	O	
54	GPIO2F/KSO15	KSO15	O	
55	GPIO30/KSI0	KSI0	I	Internal pull high
56	GPIO31/KSI1	KSI1	I	Internal pull high
57	GPIO32/KSI2	KSI2	I	Internal pull high
58	GPIO33/KSI3	KSI3	I	Internal pull high
59	GPIO34/KSI4	KSI4	I	Internal pull high
60	GPIO35/KSI5	KSI5	I	Internal pull high
61	GPIO36/KSI6	KSI6	I	Internal pull high
62	GPIO37/KSI7	KSI7	I	Internal pull high
63	GPI38/AD0	BAT_Ichg	I	
64	GPI39/AD1	BAT_CONFIG	I	Battery configuration
65	GPIO3A/AD2	BAT_SENSE	I	Battery Voltage Sensor
66	GPIO3B/AD3	BAT_TS	I	Battery Thermal Sensor
68	GPO3C/DA0	DOC	O	Trigger Clock Gen

EC KB3310 Other Pin SETTING

Pin	Pin Name	Signal Name	Type	Note
3	SERIRQ	INT_SERIRQ	I/OD	10K pull high to +3V
4	LFRAME#	LPC_FRAME#	I	
5	LAD3	LPC_AD3	I/O	
7	LAD2	LPC_AD2	I/O	
8	LAD1	LPC_AD1	I/O	
9	VCC	+3VA_EC	P	
10	LAD0	LPC_AD0	I/O	
11	GND	GND	P	
12	PCICLK	CLK_PCI_EC	I	
22	VCC	+3VA_EC	P	
24	GND	GND	P	
33	VCC	+3VA_EC	P	
35	GND	GND	P	
37	ECRST#	EC_RST#	I	100K pull high to +3VA_EC
67	AVCC	+3VACC	P	
69	AGND	AGND	P	
94	GND	GND	P	
96	VCC	+3VA_EC	P	
111	VCC	+3VA_EC	P	
113	GND	GND	P	
119	RD#/SPIDI	SPI_SO	I	
120	WR#/SPIDO	SPI_SI	O	
112	XCLKI	32KXCLKI	I	
123	XCLKO	32KXCLKO	O	
124	V18R	V18R	P	Reserved 1uF to GND
125	VCC	+3VA_EC	P	
128	SPICS#/SELMEM#	SPI_CE#	O	


Pin	Pin Name	Signal Name	Type	Note
70	GPO3D/DA1	LCD_BACKOFF#	O	
71	GPO3E/DA2	CLK_PWRSERVE#	O	
72	GPO3F/DA3	BAT_LL#	O	Battery Low Low
73	GPIO40	AC_OK	I	AC Adaptor Plug in
74	GPIO41	PM_RSMRST#	O	10K pull down to GND
75	GPI42	BAT_IN	I	
76	GPI43	CLRTC_EC	I	
77	GPIO44/SCL1	SMB0_CLK	I/OD	4.7K pull high to +3VA_EC
78	GPIO45/SDA1	SMB0_DAT	I/OD	4.7K pull high to +3VA_EC
79	GPIO46/SCL2	SMB1_CLK	I/OD	10K pull high to +3V
80	GPIO47/SDA2	SMB1_DAT	I/OD	10K pull high to +3V
81	GPIO48/KSO16	KB pin 28	I	for KB type detection
82	GPIO49/KSO17	KB pin 27	I	for KB type detection
83	GPIO4A/PSCLK1	AUO_SCL	O	for AUO, default H at S0
84	GPIO4B/PSDAT1	AUO_SDA	O	for AUO, default L at S0
85	GPIO4C/PSCLK2	AUO_CSB	O	for AUO, default H at S0
86	GPIO4D/PSDAT2	LVDD_EN	I	for AUO 7" Panel
87	GPIO4E/PSCLK3	TP_CLK	I/OD	10K pull high to +3V
88	GPIO4F/PSDAT3	TP_DAT	I/OD	10K pull high to +3V
89	GPIO50/SELIO#	BATSEL_3S	O	Battery series, H:3S, L:4S
90	GPIO52/E51_CS#	CHG_LED_UP#	O	
91	GPIO53/CAPLED	CAP_LED#	O	
92	GPIO54	PWR_LED_UP	O	
93	GPIO55/SCRLED	SCRLED#	O	
95	GPIO56	PWR4G_SW#	I	Internal pull high
97	GPXOA00/SDICS#	SPI_MODE#	O	4.7K pull down to GND
98	GPXOA01/SDICLK	SUSC_ON	O	
99	GPXOA02/SDIDO	VSUS_ON	O	
100	GPXOA03	CPU_VRON	O	
101	GPXOA04	SUSB_ON	O	
102	GPXOA05	ICH_PWROK	O	
103	GPXOA06	VOLT_CTRL	O	
104	GPXOA07	CHG_EN#	O	Battery charging enabled
105	GPXOA08	PRECHG	O	
106	GPXOA09	SPI_WP#	O	
107	GPXOA10	OP_SD#	O	Audio OP
108	GPXOA11	BAT_LEARN	O	
109	GPXID0/SDIDI	BATSEL_2P#	O	Battery parallel, H:1P, L:2P~3P
110	GPXID1	NC	O	
112	GPXID2	THRO_CPU	O	Active if CPU temperature over spec
114	GPXID3	SUSB#	I	100K pull down to GND
115	GPXID4	SUSC#	I	100K pull down to GND
116	GPXID5	CPUPWR_GD	I	Pull high to +3V
117	GPXID6	VSUS_GD	I	
118	GPXID7	NC	O	
121	GPIO57	INTERNET#	I	Internal pull high
126	GPIO57/SPICLK	SPI_CLK	O	
127	GPIO59/TEST_CLK	NC	O	

<Variant Name>

		Title : EC Pin Define	
ASUSTek Computer INC.		Engineer: Ryan Fan	
Size A3	Project Name 1003HA		Rev 1.3G
Date: Monday, January 19, 2009	Sheet	49	of 50



<Variant Name>



ASUSTek Computer INC.

Title : **History**

Engineer: *Ryan Fan*

Size	Project Name	Rev
A3	1003HA	1.3G

Date: **Monday, January 19, 2009** Sheet **50** of **50**