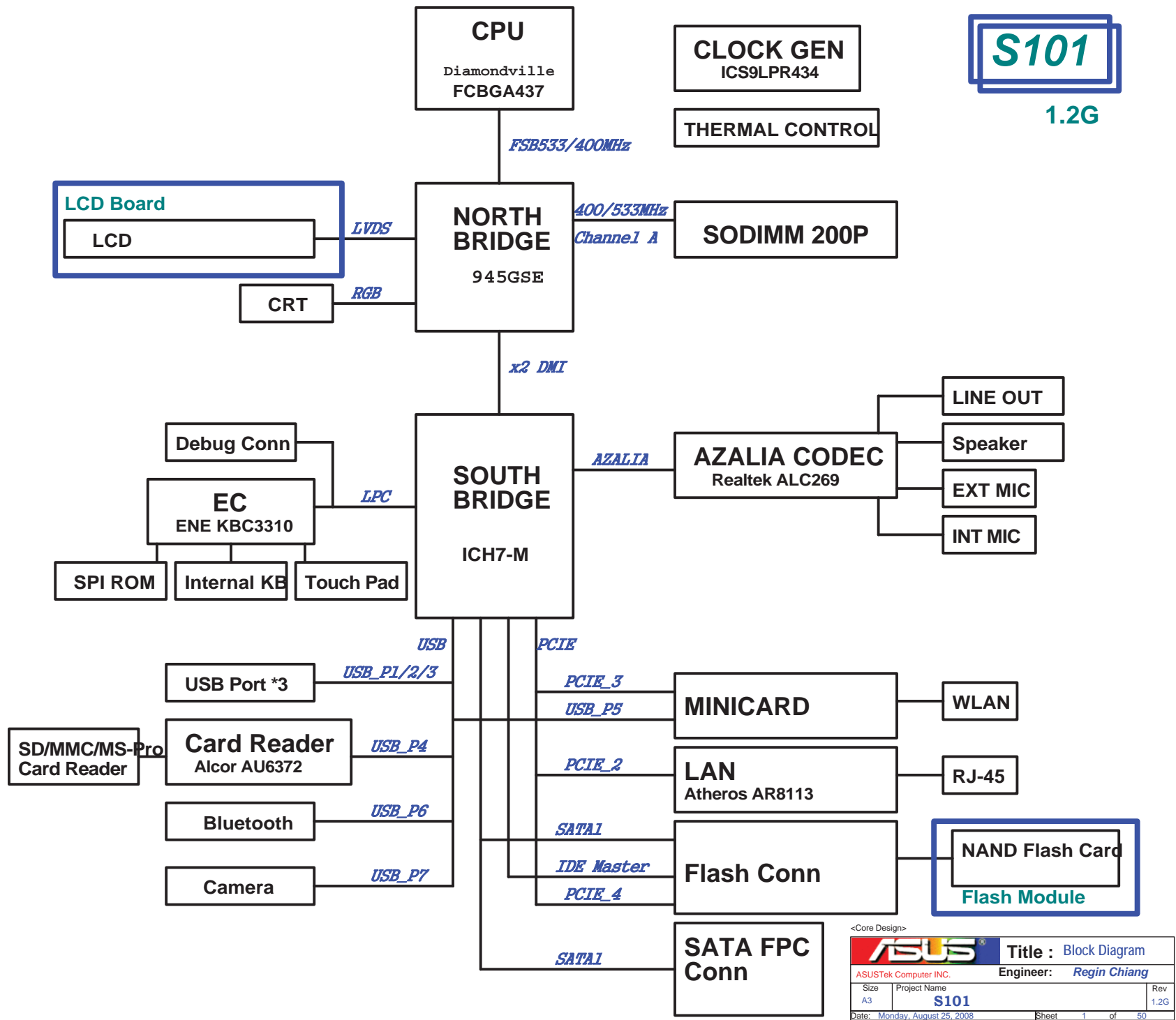


01_Block Diagram
02_System Setting
03_Power Sequence
04_Clock Gen_ICS9LPR434
05_Diamondville_BUS
06_Diamondville_PWR
07_NB-945GMS(HOST)
08_NB-945GMS(DMI)
09_NB-945GMS(GRAPHIC)
10_NB-945GMS(DDR2)
11_NB-945GMS(PWR)
12_NB-945GMS(PWR2)
13_NB-945GMS(GND)
14_SB-ICH7M(PWR)
15_SB-ICH7M(1)
16_SB-ICH7M(2)
17_SB-ICH7M(3)
18_DDR2 SODIMM
19_DDR2_Termination
20_Onboard VGA
21_LCD Conn_LID
22_Blank
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



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	NC
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

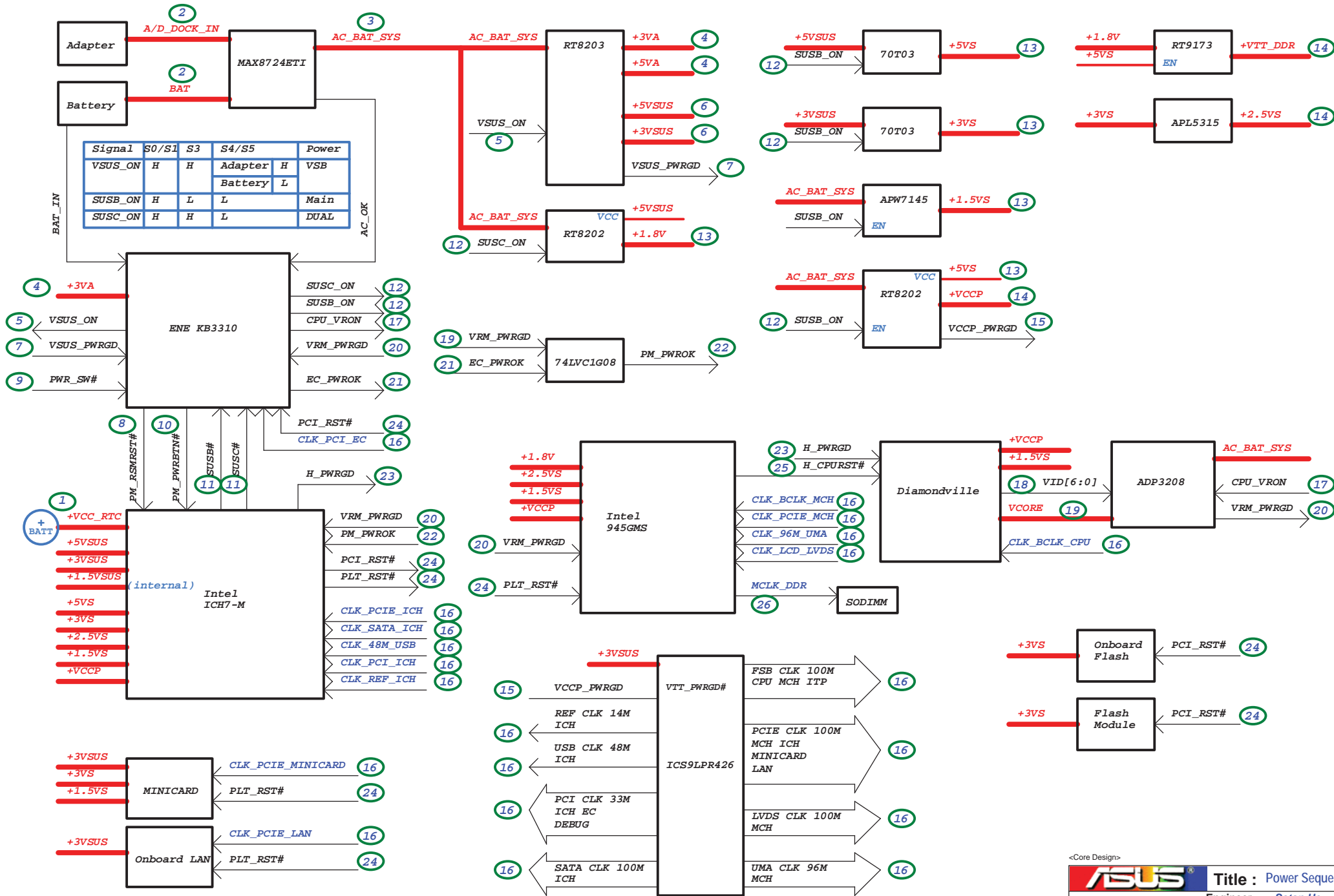
PCIE 1	NC
PCIE 2	LAN
PCIE 3	Minicard
PCIE 4	SSD

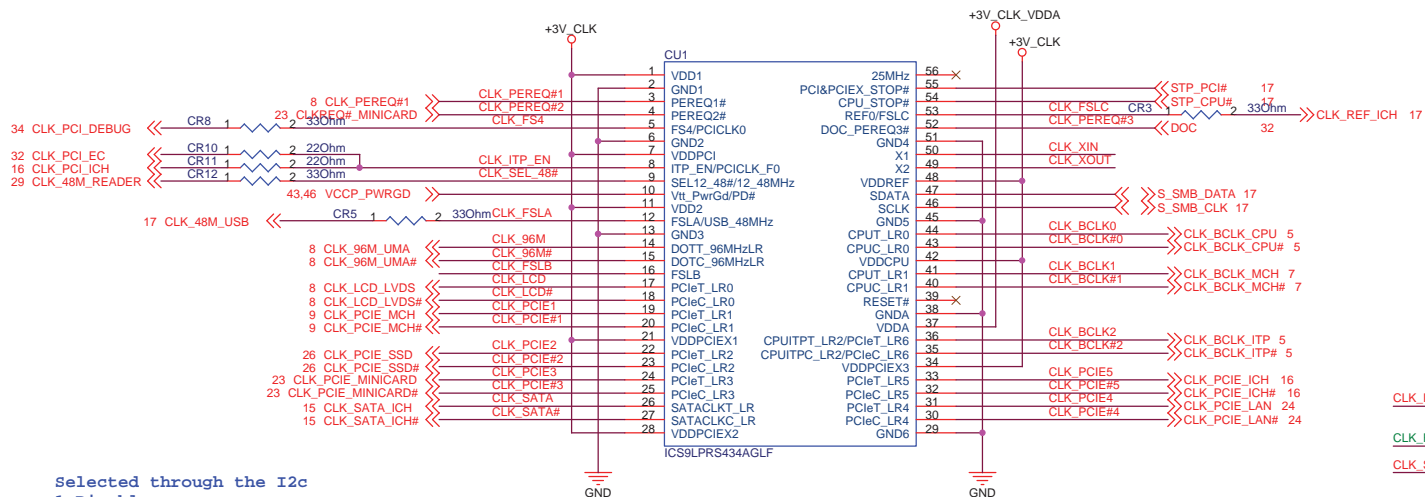
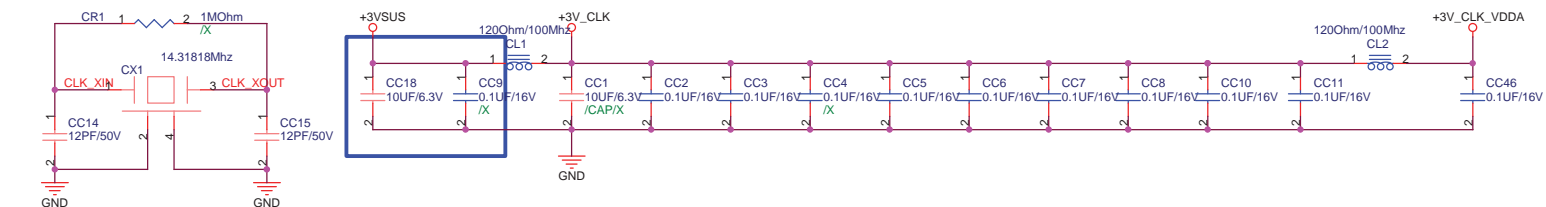
Azalia

ACZ_SDIN0	CODEC
ACZ_SDIN1	NC
ACZ_SDIN2	NC

<Core Design>

		Title : System Setting	
ASUSTek Computer INC.		Engineer: Satan_He	
Size A3	Project Name S101	Rev 1.2G	
Date: Monday, August 25, 2008		Sheet 2 of 50	



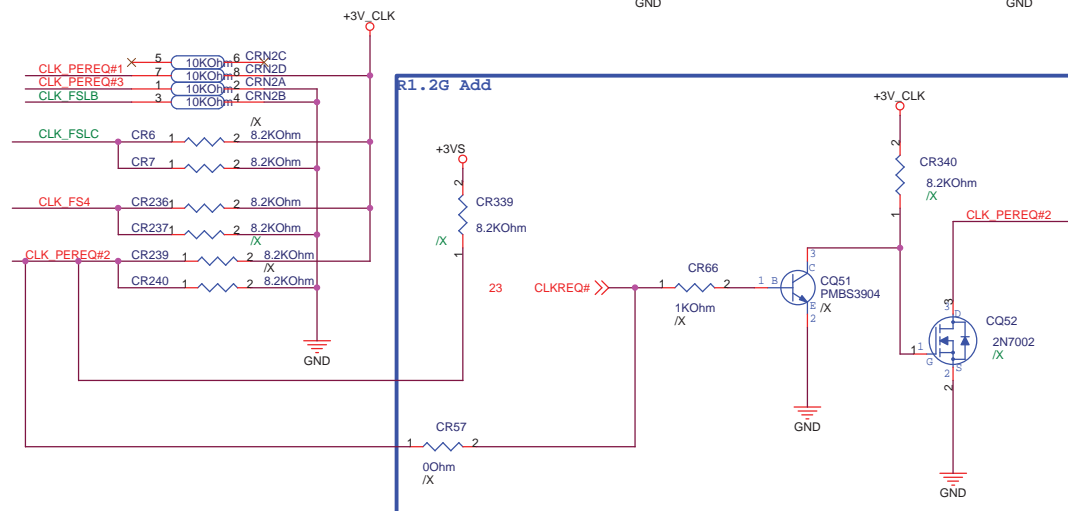
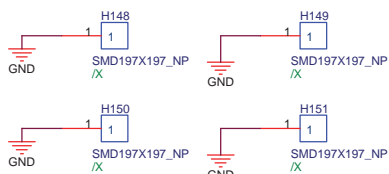


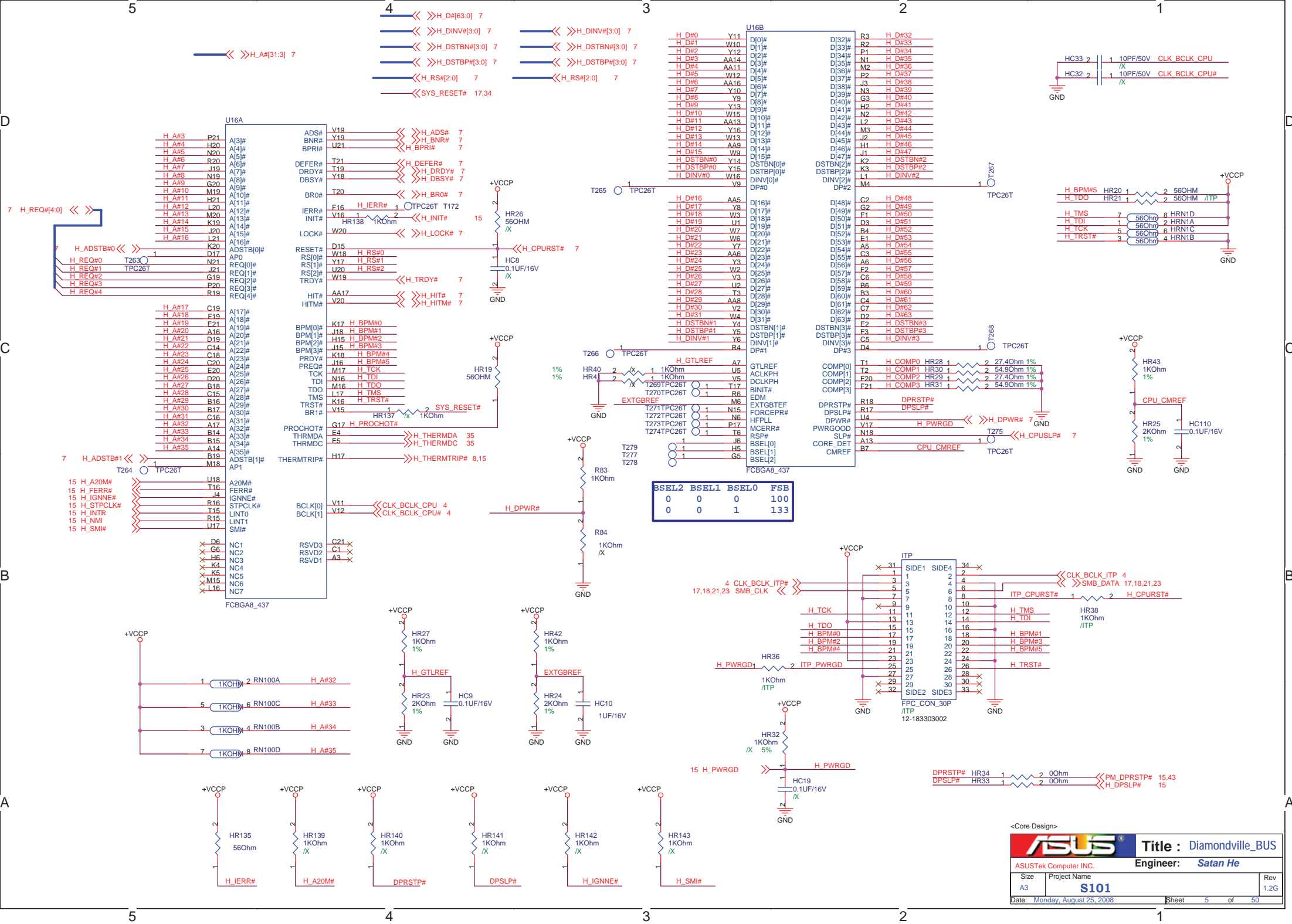
Selected through the I2c
1:Disable
0:Enable

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

H148-H151 reserve to place GASKET for EMI

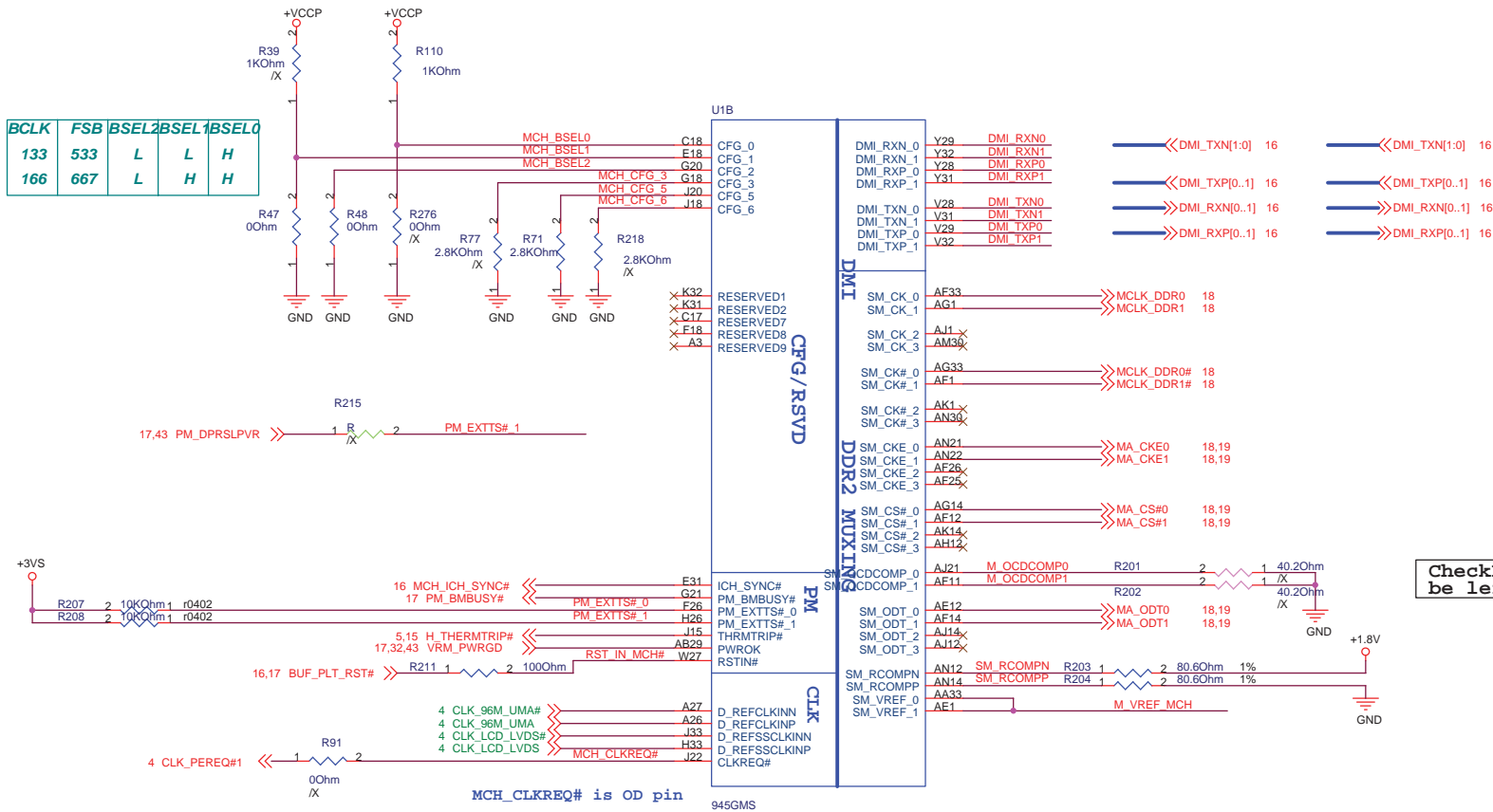




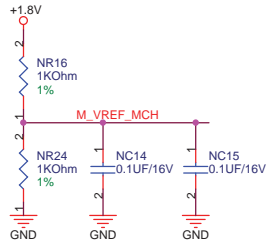


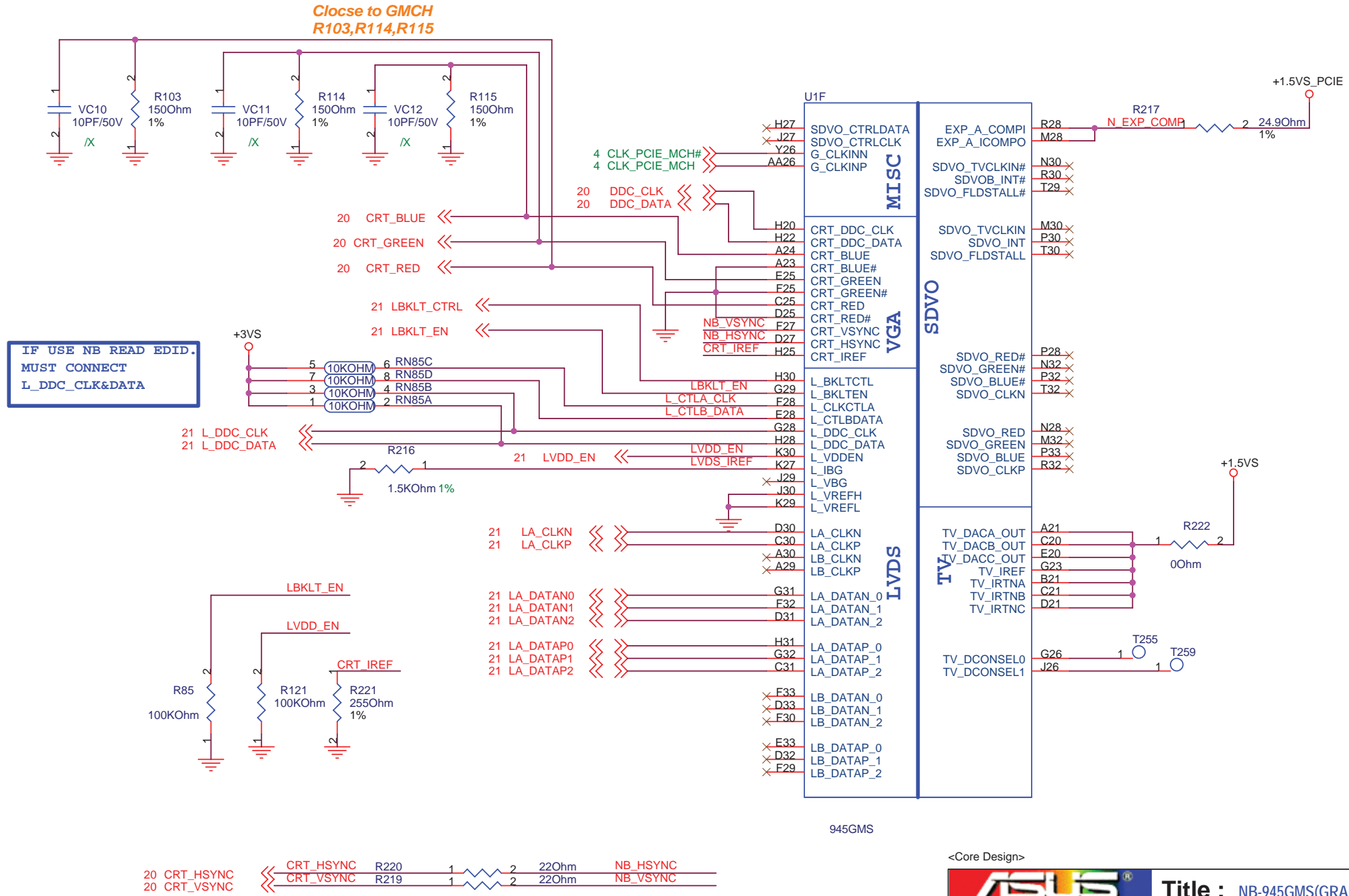
		Title : NB-945GMS(HOST)	
ASUSTek COMPUTER INC.		Engineer: <i>Satan He</i>	
Size A3	Project Name S101		Rev 1.2G
Date: Monday, August 25, 2008		Sheet 7	of 50

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




CheckList notes :Can be left as NC





<Core Design>

		Title : NB-945GMS(GRAPHIC)	
ASUSTeK COMPUTER INC.		Engineer: Satan_He	
Size A4	Project Name S101		Rev 1.2G
Date: Monday, August 25, 2008		Sheet	9 of 50

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

U1C
MA_DQ0 AC31 SA_DQ_0
MA_DQ1 AB28 SA_DQ_1
MA_DQ2 AE33 SA_DQ_2
MA_DQ3 AF32 SA_DQ_3
MA_DQ4 AC33 SA_DQ_4
MA_DQ5 AB32 SA_DQ_5
MA_DQ6 AB31 SA_DQ_6
MA_DQ7 AE31 SA_DQ_7
MA_DQ8 AH31 SA_DQ_8
MA_DQ9 AK31 SA_DQ_9
MA_DQ10 AL28 SA_DQ_10
MA_DQ11 AK27 SA_DQ_11
MA_DQ12 AH30 SA_DQ_12
MA_DQ13 AL32 SA_DQ_13
MA_DQ14 AJ28 SA_DQ_14
MA_DQ15 AJ27 SA_DQ_15
MA_DQ16 AH32 SA_DQ_16
MA_DQ17 AF31 SA_DQ_17
MA_DQ18 AH27 SA_DQ_18
MA_DQ19 AF28 SA_DQ_19
MA_DQ20 AJ32 SA_DQ_20
MA_DQ21 AG31 SA_DQ_21
MA_DQ22 AG28 SA_DQ_22
MA_DQ23 AG27 SA_DQ_23
MA_DQ24 AN27 SA_DQ_24
MA_DQ25 AM26 SA_DQ_25
MA_DQ26 AJ26 SA_DQ_26
MA_DQ27 AJ25 SA_DQ_27
MA_DQ28 AL27 SA_DQ_28
MA_DQ29 AN26 SA_DQ_29
MA_DQ30 AH25 SA_DQ_30
MA_DQ31 AG26 SA_DQ_31
MA_DQ32 AM12 SA_DQ_32
MA_DQ33 AL11 SA_DQ_33
MA_DQ34 AH9 SA_DQ_34
MA_DQ35 AK9 SA_DQ_35
MA_DQ36 AM11 SA_DQ_36
MA_DQ37 AK11 SA_DQ_37
MA_DQ38 AM8 SA_DQ_38
MA_DQ39 AK8 SA_DQ_39
MA_DQ40 AG8 SA_DQ_40
MA_DQ41 AF9 SA_DQ_41
MA_DQ42 AF8 SA_DQ_42
MA_DQ43 AK6 SA_DQ_43
MA_DQ44 AF7 SA_DQ_44
MA_DQ45 AG11 SA_DQ_45
MA_DQ46 AJ6 SA_DQ_46
MA_DQ47 AH6 SA_DQ_47
MA_DQ48 AN6 SA_DQ_48
MA_DQ49 AM6 SA_DQ_49
MA_DQ50 AK3 SA_DQ_50
MA_DQ51 AL2 SA_DQ_51
MA_DQ52 AL5 SA_DQ_52
MA_DQ53 AJ3 SA_DQ_53
MA_DQ54 AJ2 SA_DQ_54
MA_DQ55 AG2 SA_DQ_55
MA_DQ56 AE7 SA_DQ_56
MA_DQ57 AE3 SA_DQ_57
MA_DQ58 AF6 SA_DQ_58
MA_DQ59 AH5 SA_DQ_59
MA_DQ60 AG3 SA_DQ_60
MA_DQ61 AG5 SA_DQ_61
MA_DQ62 AF5 SA_DQ_62
MA_DQ63 AF5 SA_DQ_63
AG19 SB_CAS#
AG21 SB_RAS#
AG20 SB_WE#

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
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
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 AG16 MA_MA9
SA_MA_10 AL17 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 >> MA_RAS# 18,19
SA_RCVENOUT# AM28 >> MA_RAS# 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 AK21
SB_MA_2 AK22
SB_MA_3 AL22
SB_MA_4 AH22
SB_MA_5 AG22
SB_MA_6 AF21
SB_MA_7 AM21
SB_MA_8 AE24
SB_MA_9 AL20
SB_MA_10 AE22
SB_MA_11 AE26
SB_MA_12 AE20
SB_MA_13 AE20

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

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

<< >> MA_MA [13:0] 18,19

<< >> MA_CAS# 18,19
<< >> MA_RAS# 18,19
<< >> MA_WE# 18,19


U1G

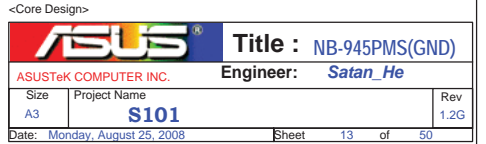
W33 NC1
AM33 NC2
AL33 NC3
C33 NC4
B33 NC5
AN32 NC6
A32 NC7
AN31 NC8
W28 NC9
V27 NC10
W29 NC11
J24 NC12
H24 NC13
W32 NC14
G24 NC15
F24 NC16
F24 NC17
D24 NC18
K33 NC19
A31 NC20
E21 NC21
C23 NC22
AN19 NC23
AM19 NC24
AL19 NC25
AK19 NC26
NC26 NC27
AJ19 NC28
AH19 NC29
AN3 NC30
Y9 NC31
J19 NC32
H19 NC33
G19 NC34
F19 NC35
D19 NC36
C19 NC37
B19 NC38
A19 NC39
Y8 NC40
G16 NC41
F16 NC42
D16 NC43
C16 NC44
B16 NC45
AN2 NC46
A16 NC47
Y7 NC48
AM4 NC49
AF4 NC50
AD4 NC51
AL4 NC52
AK4 NC53
W31 NC54
AJ4 NC55
AH4 NC56
AG4 NC57
AE4 NC58
AM1 NC59
NC60
NC61 Y6
NC62 AL1
NC63 Y5
NC64 W10
NC65 W25
NC66 Y24
NC67 U24
NC68 V10
NC69 U10
NC70 K18
NC71
NC72
RESERVED26 Y25
RESERVED27 Y24
RESERVED28 AB22
RESERVED29 AB21
RESERVED30 AB19
RESERVED31 AB16
RESERVED32 AB14
RESERVED33 AA12
RESERVED34 W24
RESERVED35 AB24
RESERVED36 AB20
RESERVED37 AB18
RESERVED38 AB15
RESERVED39 AB13
RESERVED40 AB12
RESERVED41 AB11
RESERVED42 AB10

NC

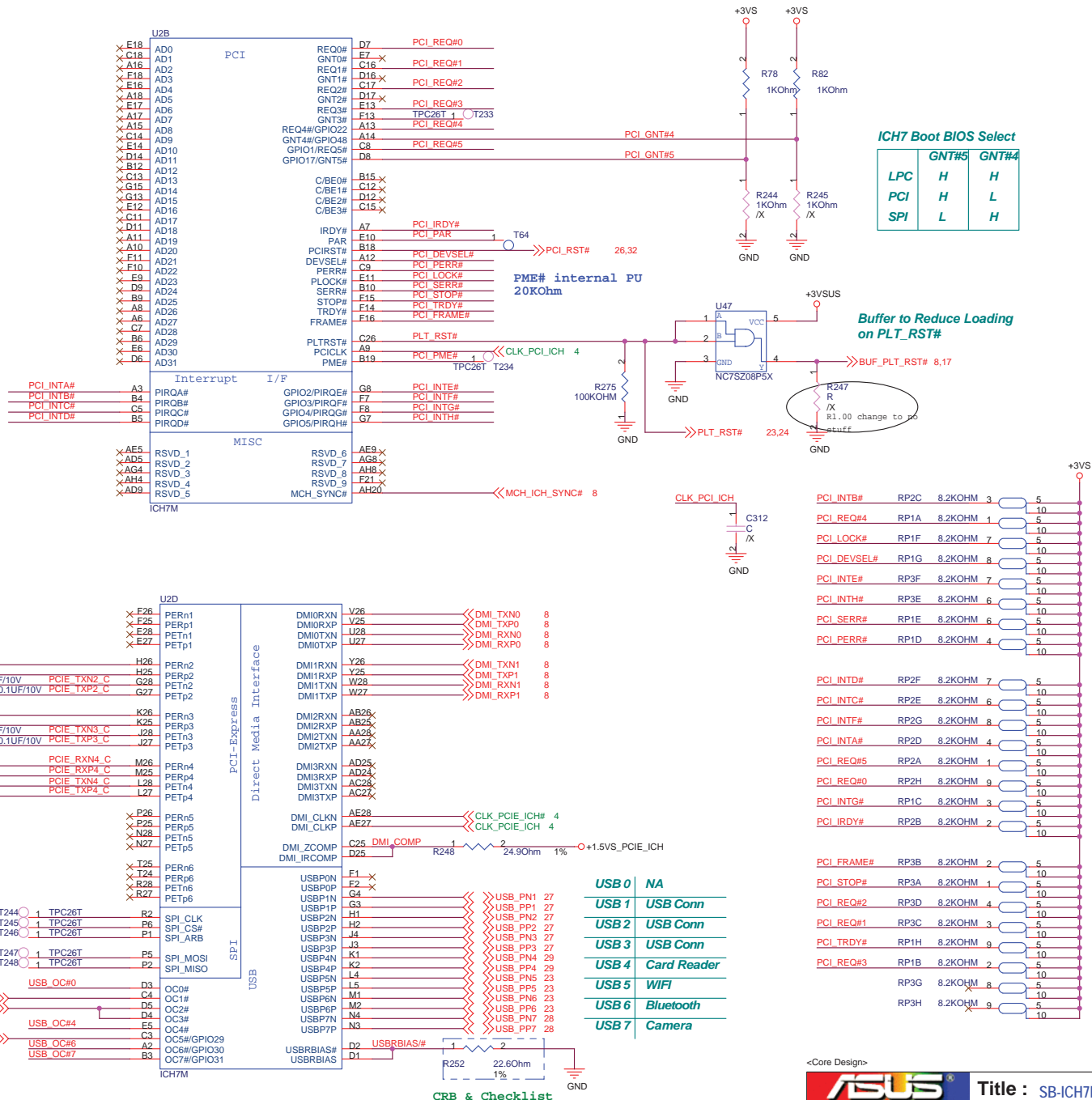
945GMS

<Core Design>

		Title : NB-945GMS(DDR2)	
ASUSTek COMPUTER INC.		Engineer: <i>Satan He</i>	
Size A3	Project Name S101		Rev 1.2G
Date: Monday, August 25, 2008		Sheet 10 of 50	







ICH7 Boot BIOS Select

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

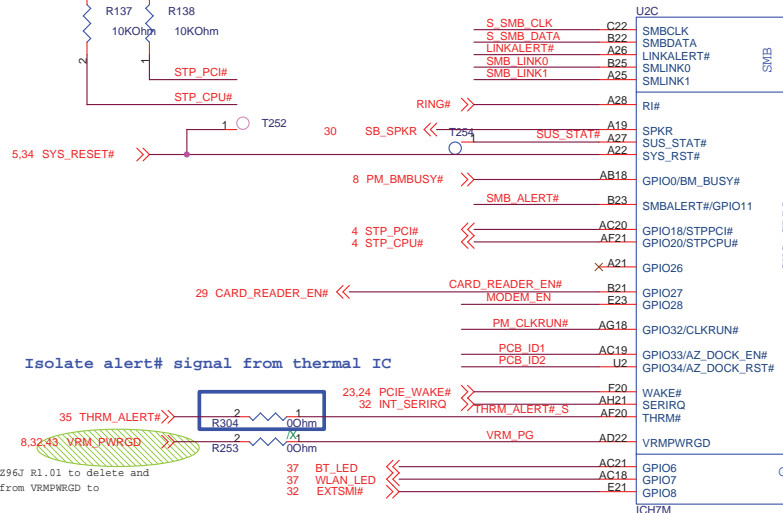
Buffer to Reduce Loading on PLT_RST#

PCI_INTB#	RP2C	8.2KOHM	3	5
PCI_REQ#4	RP1A	8.2KOHM	1	10
PCI_LOCK#	RP1F	8.2KOHM	7	10
PCI_DEVSEL#	RP1G	8.2KOHM	8	5
PCI_INTE#	RP3F	8.2KOHM	7	5
PCI_INTH#	RP3E	8.2KOHM	6	10
PCI_SERR#	RP1E	8.2KOHM	6	10
PCI_PERR#	RP1D	8.2KOHM	4	10
PCI_INTD#	RP2F	8.2KOHM	7	5
PCI_INTC#	RP2E	8.2KOHM	6	5
PCI_INTF#	RP2G	8.2KOHM	8	5
PCI_INTA#	RP2D	8.2KOHM	4	5
PCI_REQ#5	RP2A	8.2KOHM	1	5
PCI_REQ#0	RP2H	8.2KOHM	9	5
PCI_INTG#	RP1C	8.2KOHM	3	5
PCI_IRDY#	RP2B	8.2KOHM	2	5
PCI_FRAME#	RP3B	8.2KOHM	2	5
PCI_STOP#	RP3A	8.2KOHM	1	5
PCI_REQ#2	RP3D	8.2KOHM	4	5
PCI_REQ#1	RP3C	8.2KOHM	3	5
PCI_TRDY#	RP1H	8.2KOHM	9	5
PCI_REQ#3	RP1B	8.2KOHM	2	5
	RP3G	8.2KOHM	8	5
	RP3H	8.2KOHM	9	5

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

<Core Design>

ASUS		Title : SB-ICH7M(2)	
ASUSTek COMPUTER INC.		Engineer: Satan He	
Size	Project Name		Rev
Custom	S101		1.2G
Date: Monday, August 25, 2008		Sheet	16 of 50

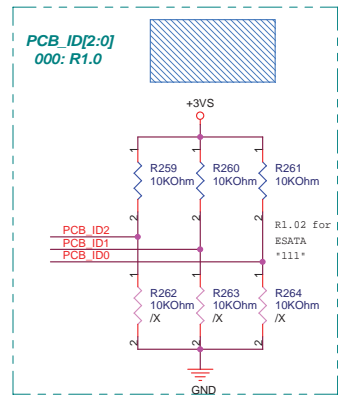
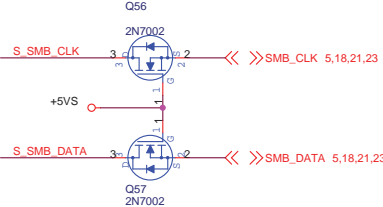


Isolate alert# signal from thermal IC



05/12/30, refer Z963 R1.01 to delete and change net name from VRMPWRGD to VRM_PWRGD.

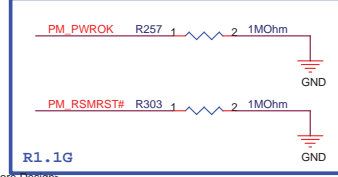
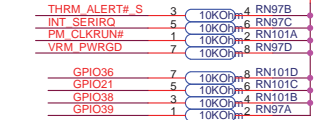
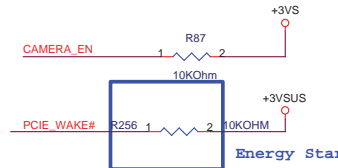
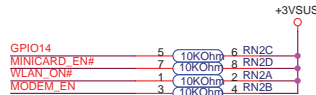
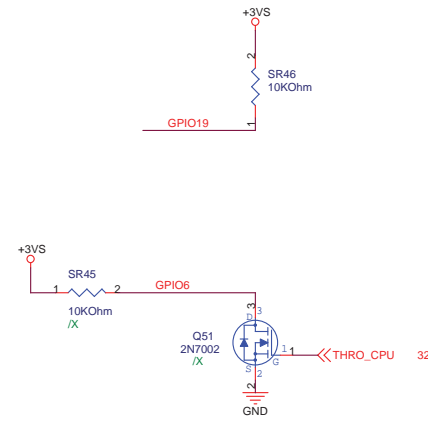
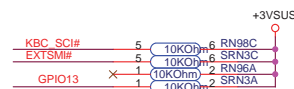
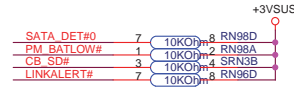
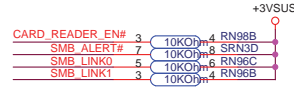
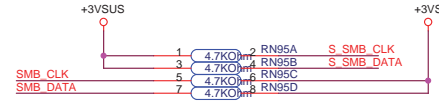
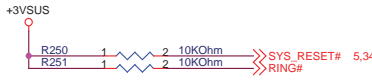
S_SMB_CLK >>> S_SMB_CLK 4
S_SMB_DATA >>> S_SMB_DATA 4

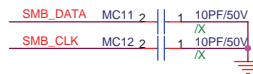
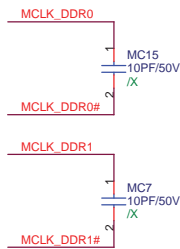


PCB_VID3 : PROJECT CODE

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





STD Type

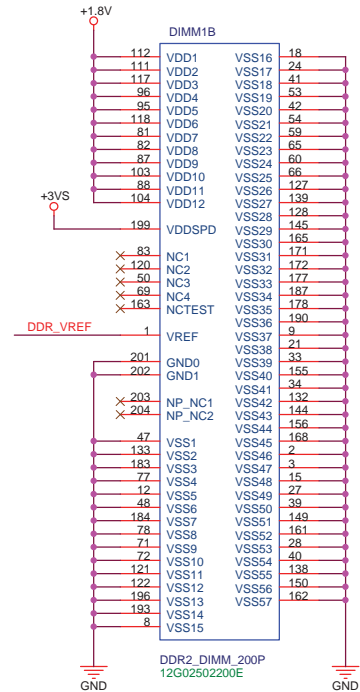
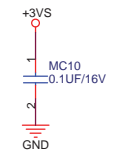
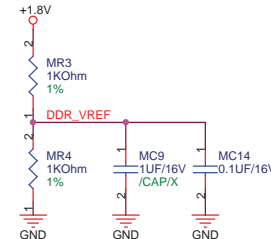
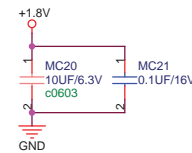
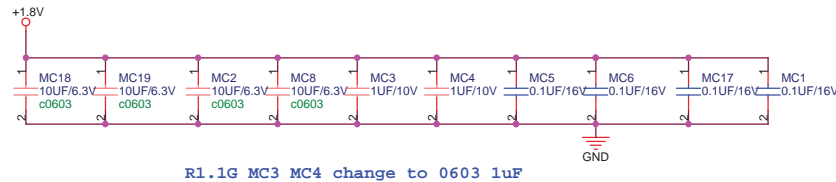
DIMM1A

MA_MA0	102	A0	DQ0	5	MA_DQ0
MA_MA1	101	A1	DQ1	7	MA_DQ1
MA_MA2	100	A2	DQ2	17	MA_DQ2
MA_MA3	99	A3	DQ3	19	MA_DQ3
MA_MA4	98	A4	DQ4	4	MA_DQ4
MA_MA5	97	A5	DQ5	6	MA_DQ5
MA_MA6	94	A6	DQ6	14	MA_DQ6
MA_MA7	92	A7	DQ7	16	MA_DQ7
MA_MA8	93	A8			
MA_MA9	91	A9	DQ8	23	MA_DQ8
MA_MA10	105	A10/AP	DQ9	25	MA_DQ9
MA_MA11	90	A11	DQ10	35	MA_DQ10
MA_MA12	89	A12	DQ11	37	MA_DQ11
MA_MA13	116	A13	DQ12	20	MA_DQ12
	86	A14	DQ13	22	MA_DQ13
	84	A15	DQ14	36	MA_DQ14
	85	A16_BA2	DQ15	38	MA_DQ15
MA_BA2					
MA_BA0	107	BA0	DQ16	43	MA_DQ16
MA_BA1	106	BA1	DQ17	45	MA_DQ17
	110	S0#	DQ18	55	MA_DQ18
	115	S1#	DQ19	57	MA_DQ19
	30	CK0	DQ20	46	MA_DQ20
	32	CK0#	DQ21	56	MA_DQ21
	164	CK1	DQ22	58	MA_DQ22
	166	CK1#	DQ23	61	MA_DQ23
	79	CKE0	DQ24	63	MA_DQ24
	80	CKE1	DQ25	73	MA_DQ25
	113	CAS#	DQ26	75	MA_DQ26
	108	RAS#	DQ27	62	MA_DQ27
	109	WE#	DQ28	64	MA_DQ28
	198	SA0	DQ29	74	MA_DQ29
	200	SA1	DQ30	76	MA_DQ30
	197	SCL	DQ31	123	MA_DQ31
	195	SDA	DQ32	125	MA_DQ32
			DQ33	135	MA_DQ33
			DQ34	137	MA_DQ34
			DQ35	124	MA_DQ35
			DQ36	126	MA_DQ36
			DQ37	134	MA_DQ37
			DQ38	136	MA_DQ38
			DQ39	141	MA_DQ39
			DQ40	143	MA_DQ40
			DQ41	151	MA_DQ41
			DQ42	153	MA_DQ42
			DQ43	140	MA_DQ43
			DQ44	142	MA_DQ44
			DQ45	152	MA_DQ45
			DQ46	154	MA_DQ46
			DQ47	157	MA_DQ47
			DQ48	159	MA_DQ48
			DQ49	173	MA_DQ49
			DQ50	175	MA_DQ50
			DQ51	158	MA_DQ51
			DQ52	160	MA_DQ52
			DQ53	174	MA_DQ53
			DQ54	176	MA_DQ54
			DQ55	179	MA_DQ55
			DQ56	181	MA_DQ56
			DQ57	189	MA_DQ57
			DQ58	191	MA_DQ58
			DQ59	180	MA_DQ59
			DQ60	182	MA_DQ60
			DQ61	192	MA_DQ61
			DQ62	194	MA_DQ62
			DQ63		MA_DQ63

DDR2_DIMM_200P
12G02502200E

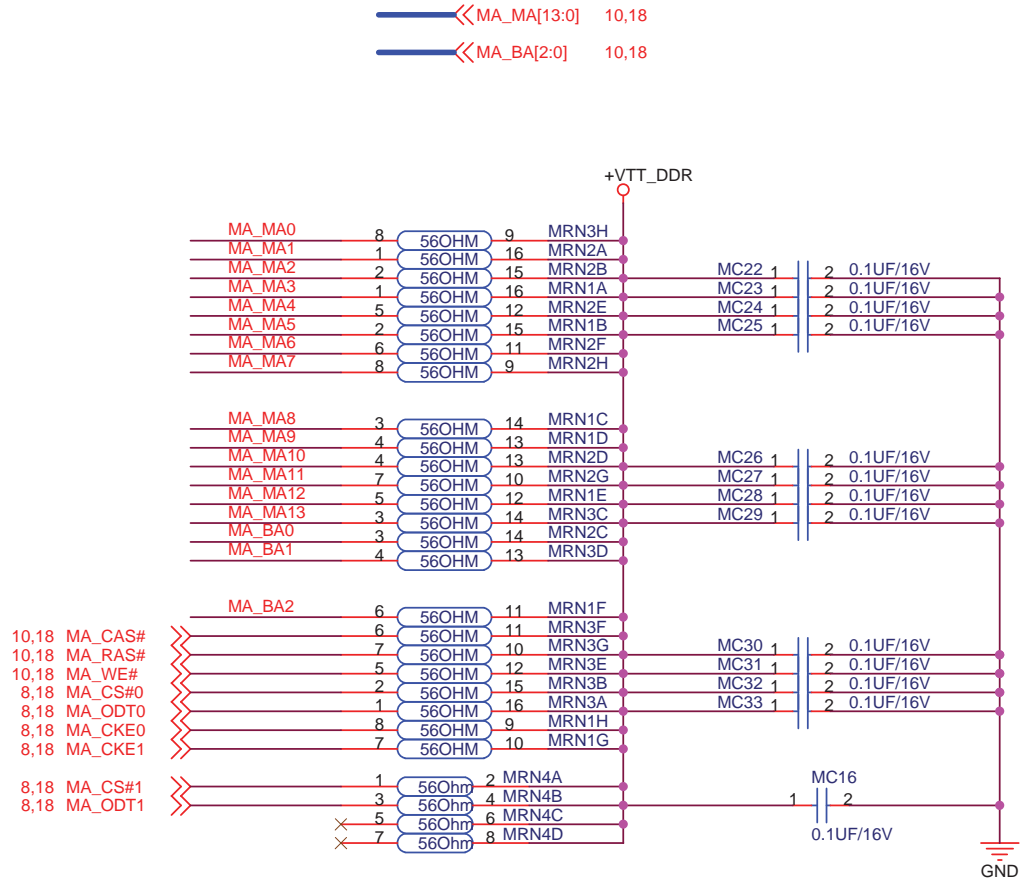
DDR2 Conn. Height=4.0mm

GROUP1
GROUP2
SWAP




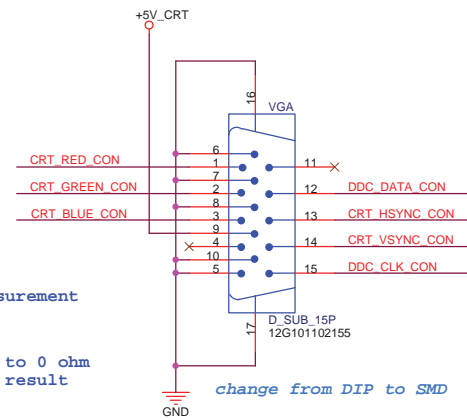
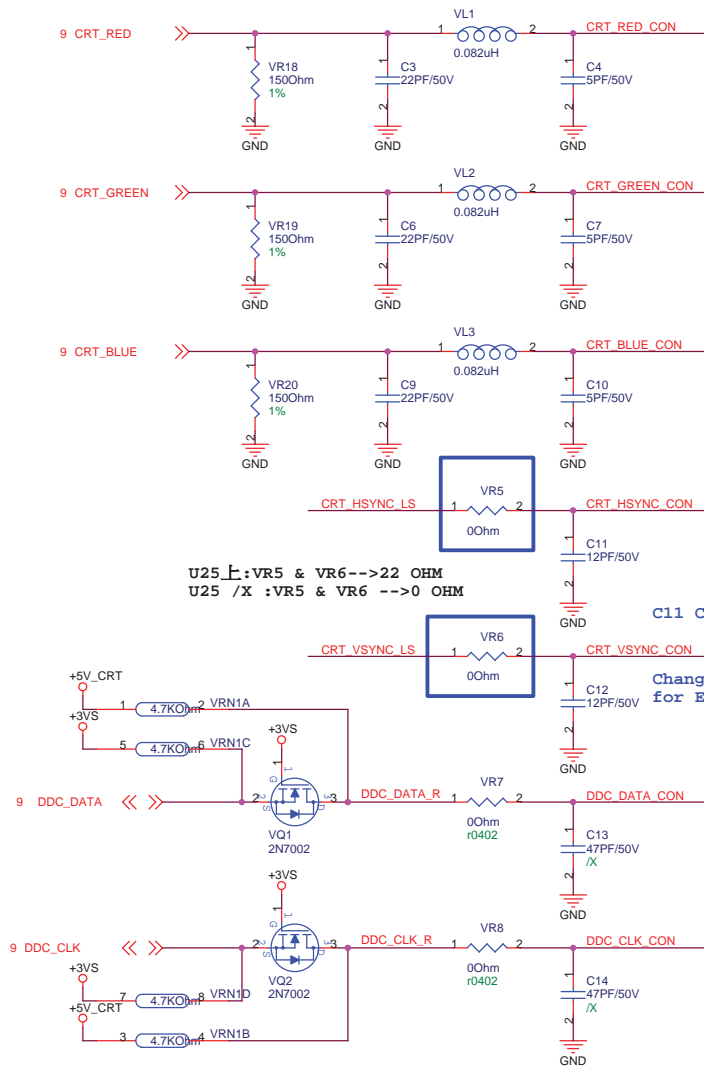
<Core Design>

ASUS		Title : DDR2 SODIMM	
ASUSTek Computer INC.		Engineer: Kell_Huang	
Size A3	Project Name S101	Rev 1.2G	
Date: Monday, August 25, 2008		Sheet 18	of 50



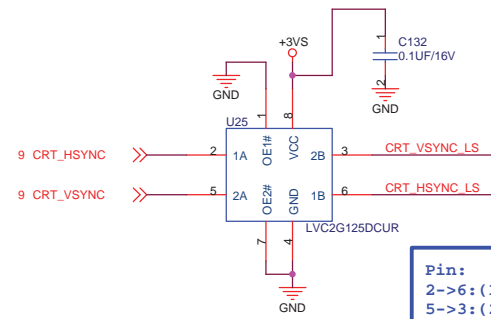
<Core Design>

		Title : DDR2_Termination	
ASUSTek Computer INC.		Engineer: Kell_Huang	
Size A4	Project Name S101		Rev 1.2G
Date: Monday, August 25, 2008		Sheet	19 of 50

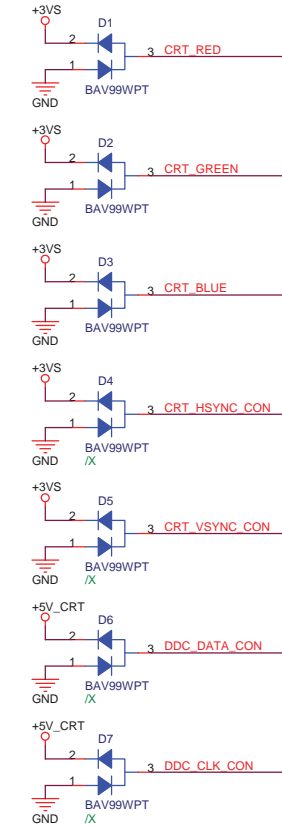
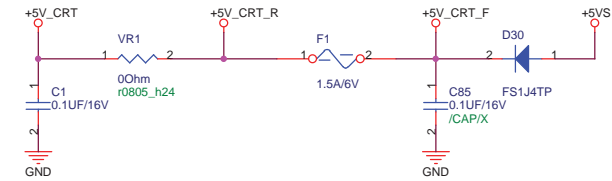


VGA use 12G10110015W

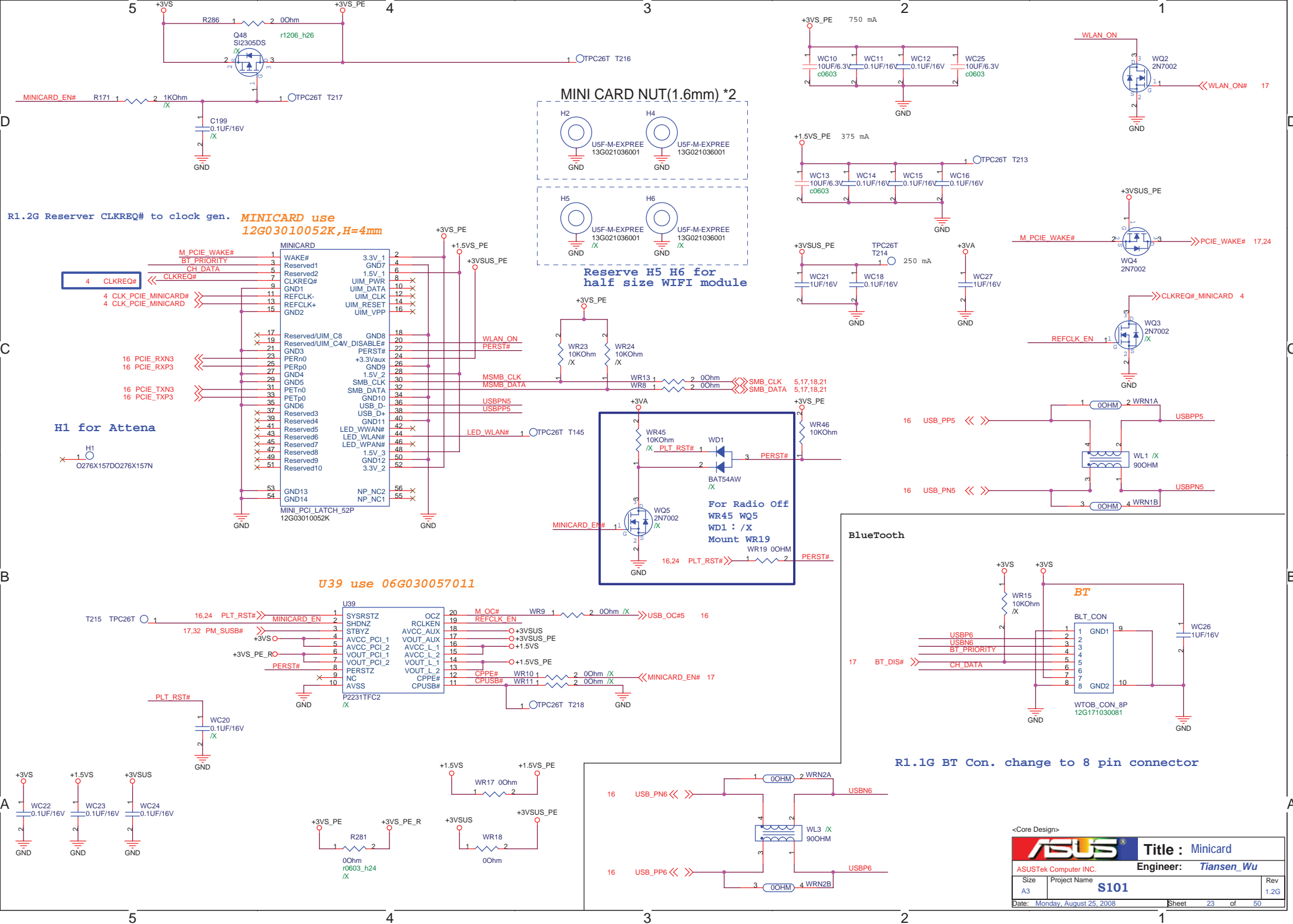
VGA use 12G101102155, but use 12G10110015W footprint

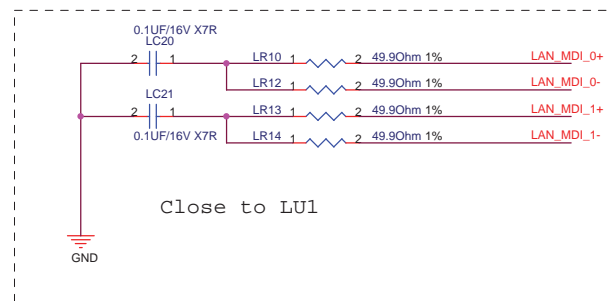
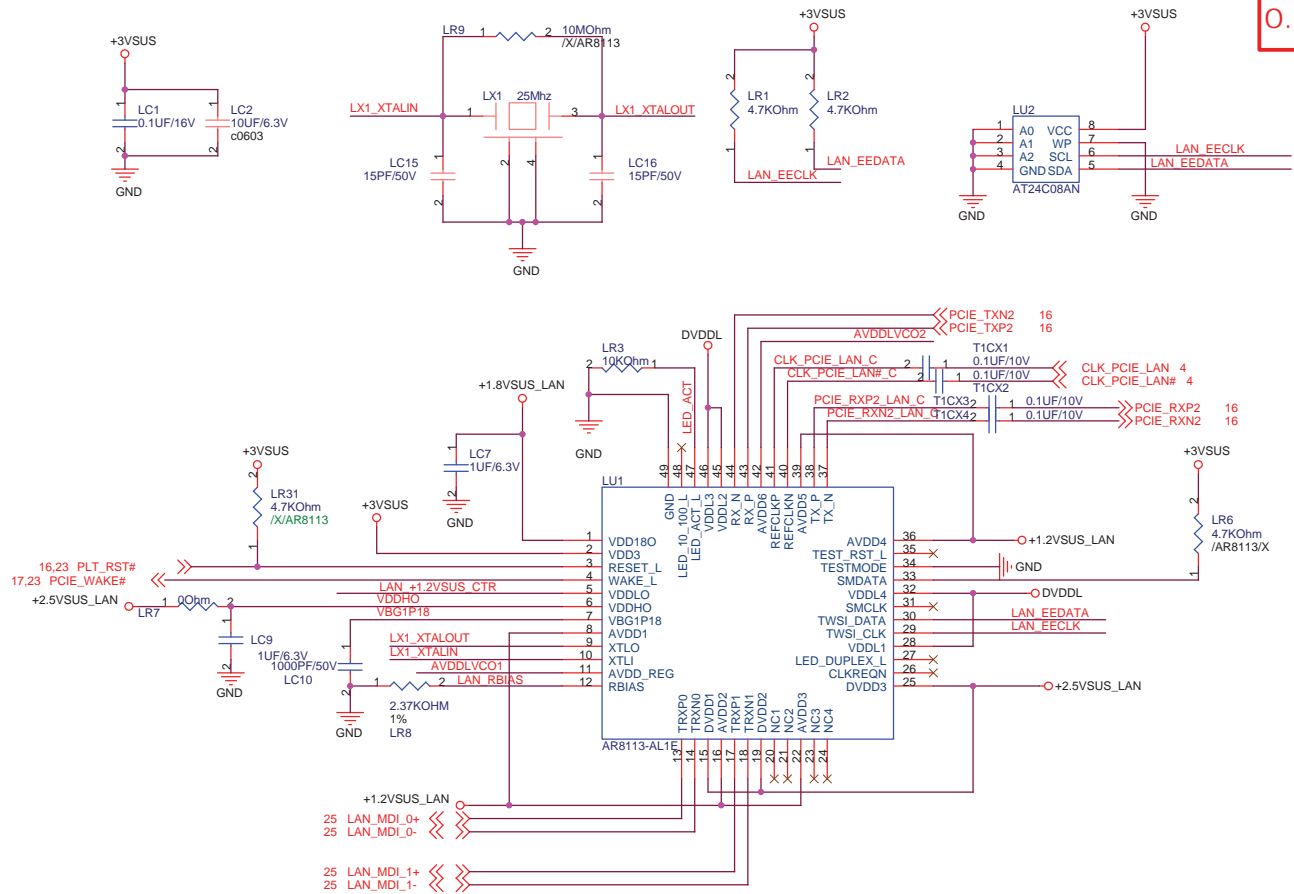
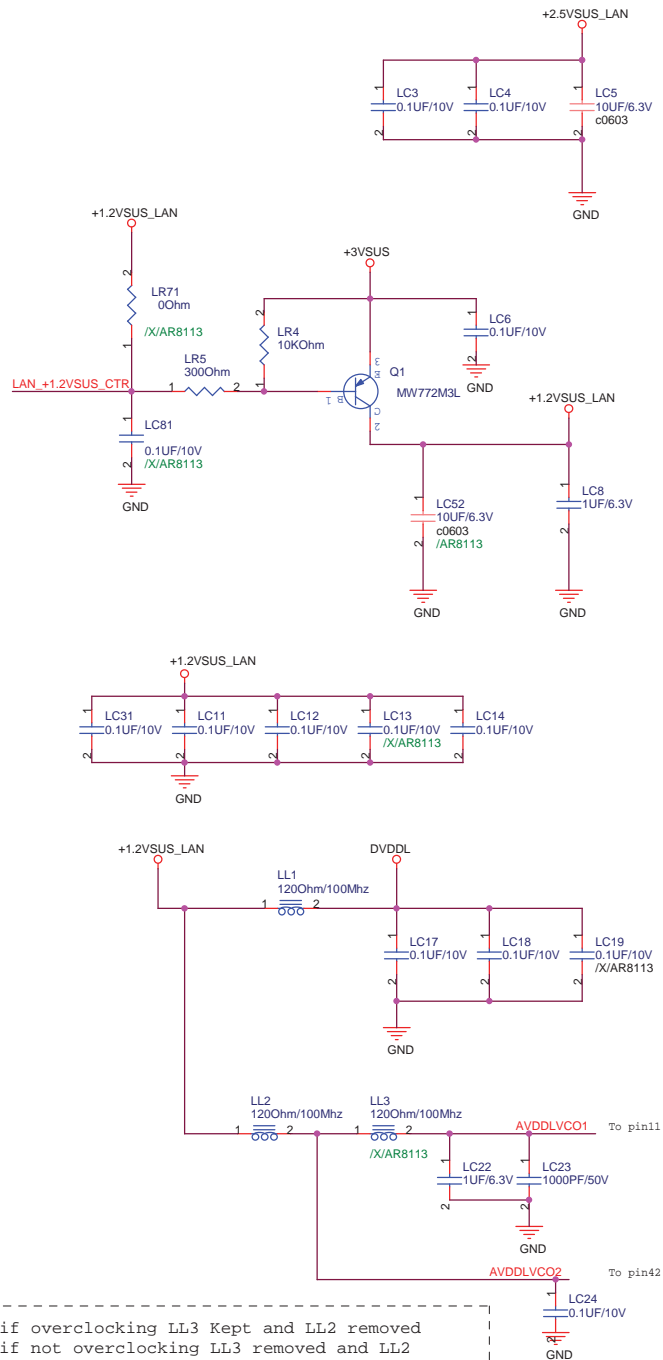


Pin:
2->6: (1A->1B)
5->3: (2A->2B)

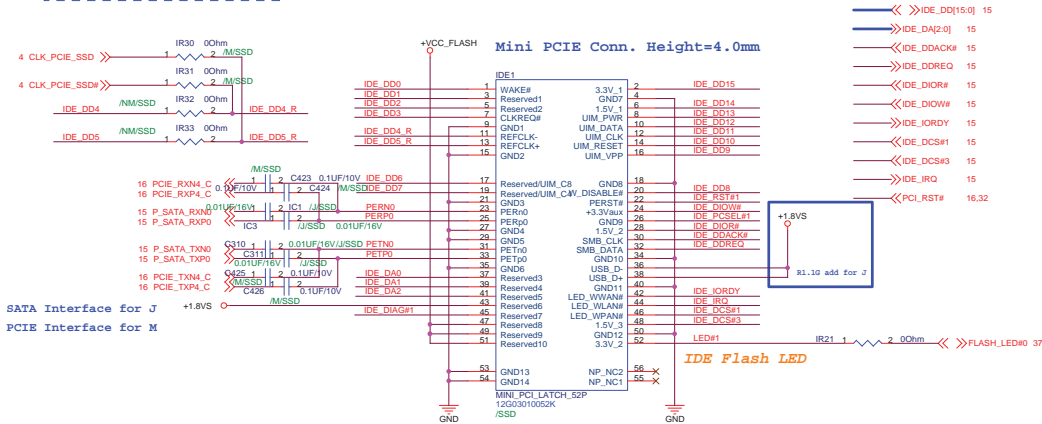


ASUS		Title : Onboard VGA	
ASUSTek Computer INC.		Engineer: Kell_Huang	
Size	Project Name	Rev	
A3	S101	1.2G	
Date: Monday, August 25, 2008	Sheet	20	of 50





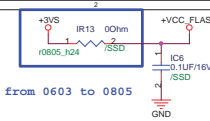
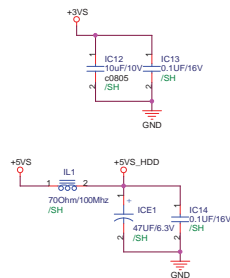
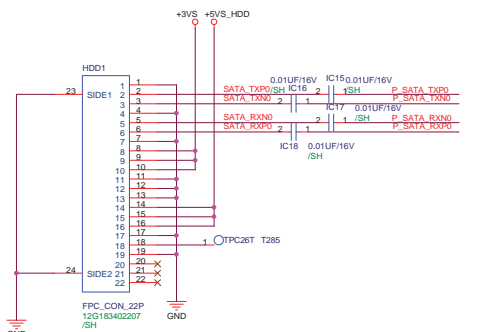
```
if overclocking LL3 Kept and LL2 removed
if not overclocking LL3 removed and LL2
Kept
```

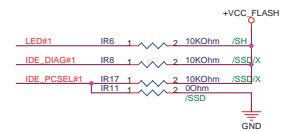
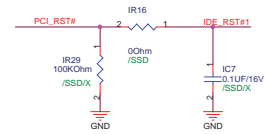
SATA HDD Connector

FPC Connector with Mylar

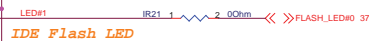
/SH for SATA HDD



R1.2G Change from 0603 to 0805



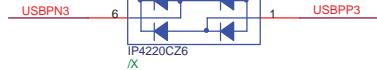
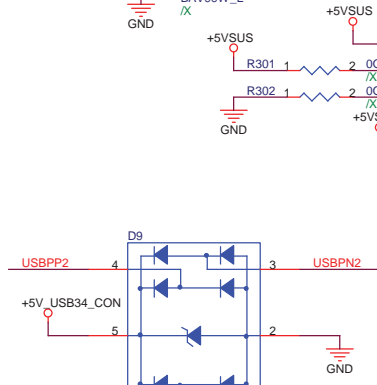
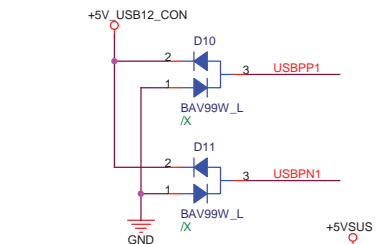
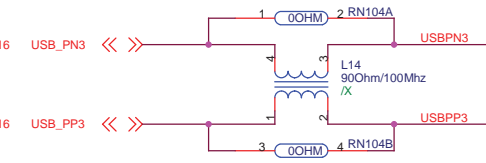
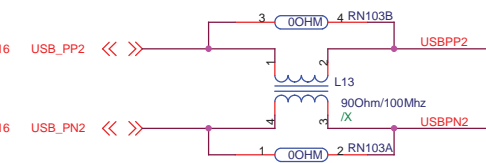
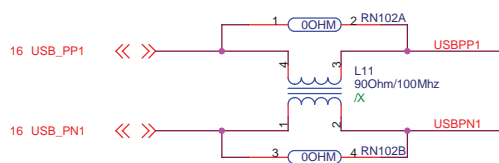
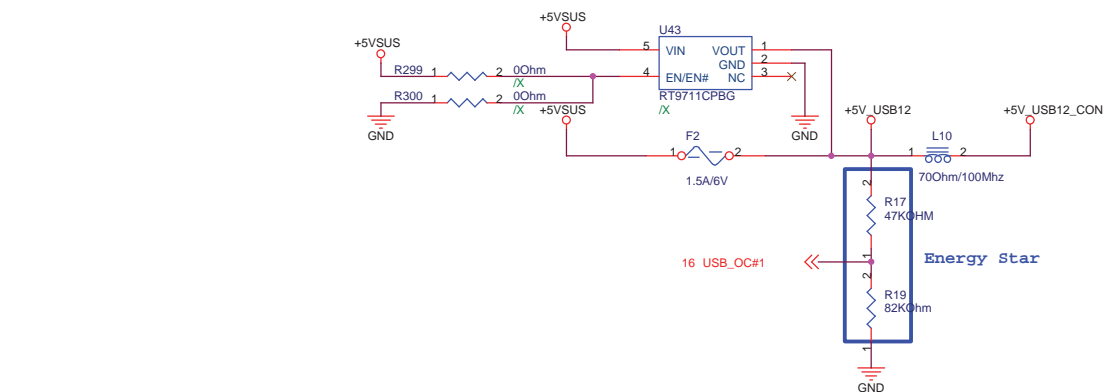
```
HD Master/Slave:
Master:Low
Slave :NC or
High
```



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

<Core Design>

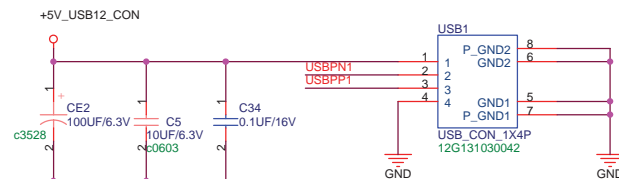




Energy Star

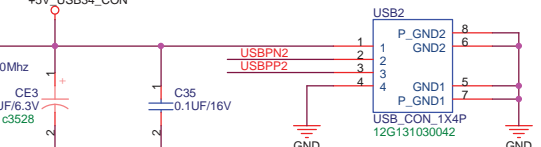
Energy Star

1.1G change USB con. to 12G131030042

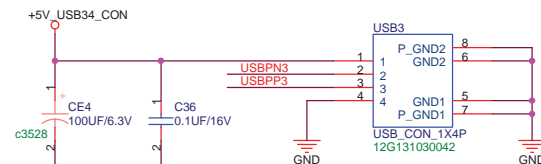


change from DIP to SMD

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



change from DIP to SMD

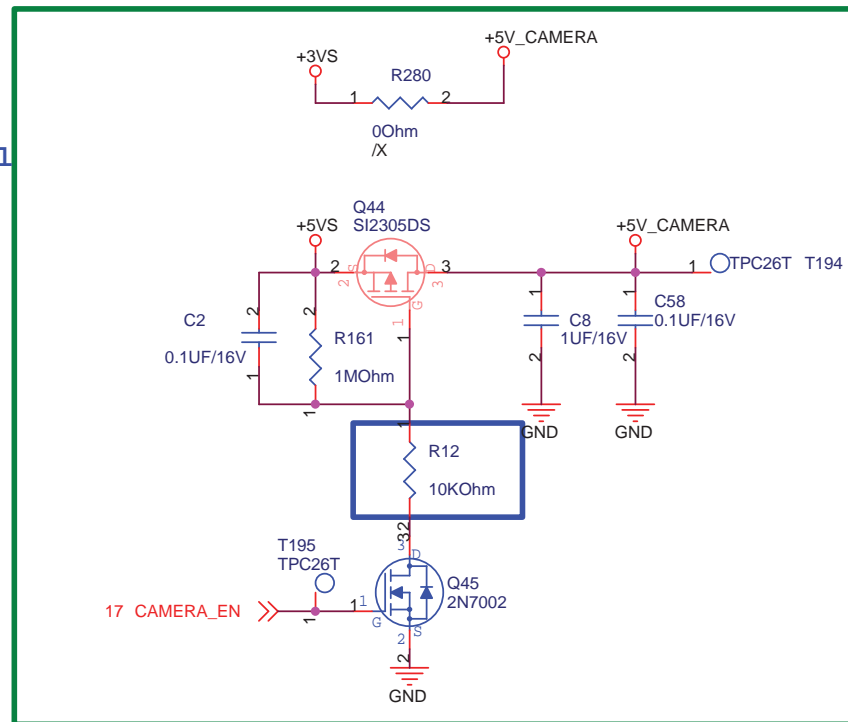


change from DIP to SMD

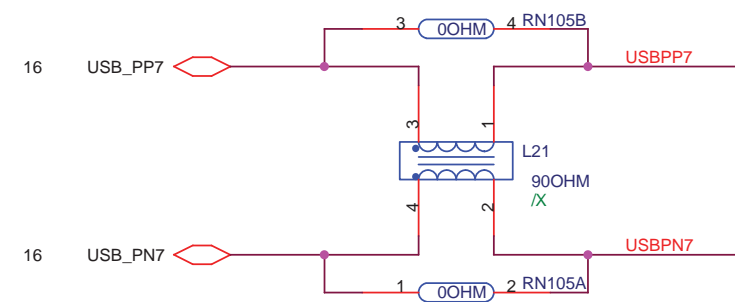
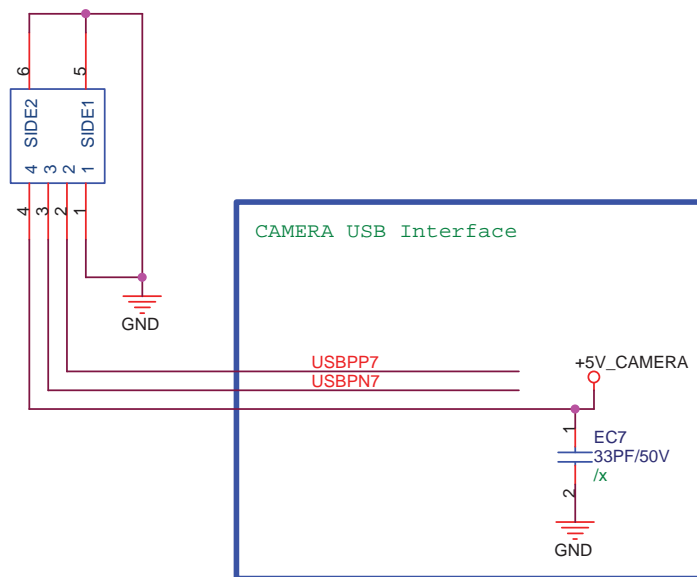
<Core Design>

ASUS		Title : USB Port	
ASUSTek Computer INC.		Engineer: Kell_Huang	
Size	Project Name		Rev
A3	S101		1.2G
Date: Monday, August 25, 2008		Sheet	27 of 50

Power Control

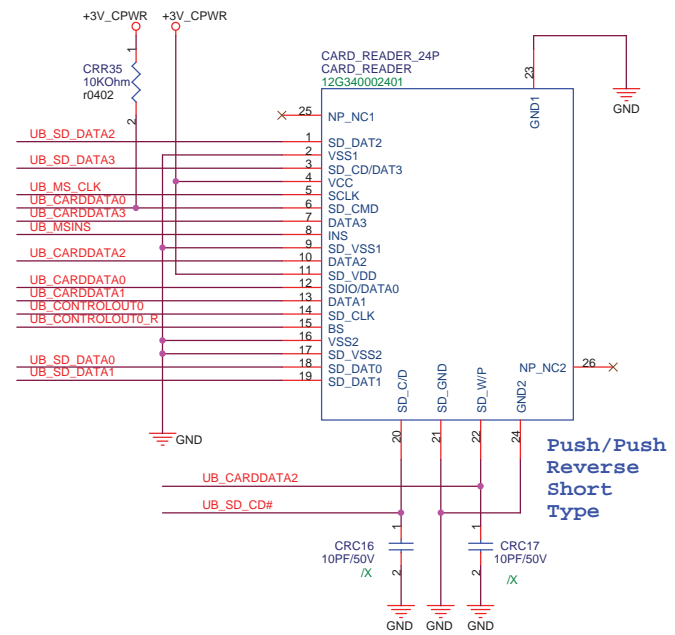
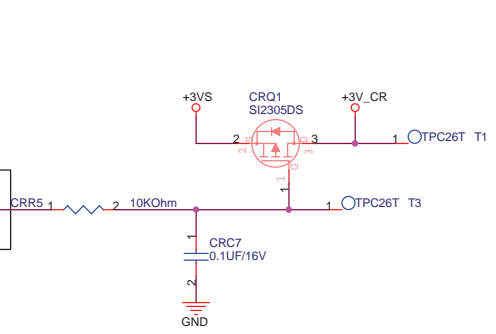
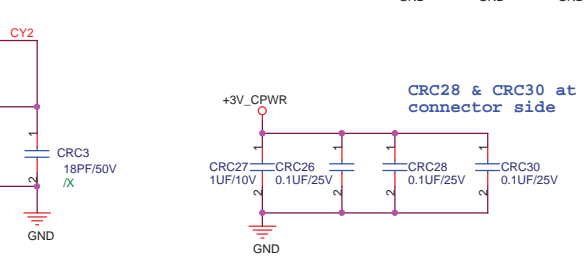
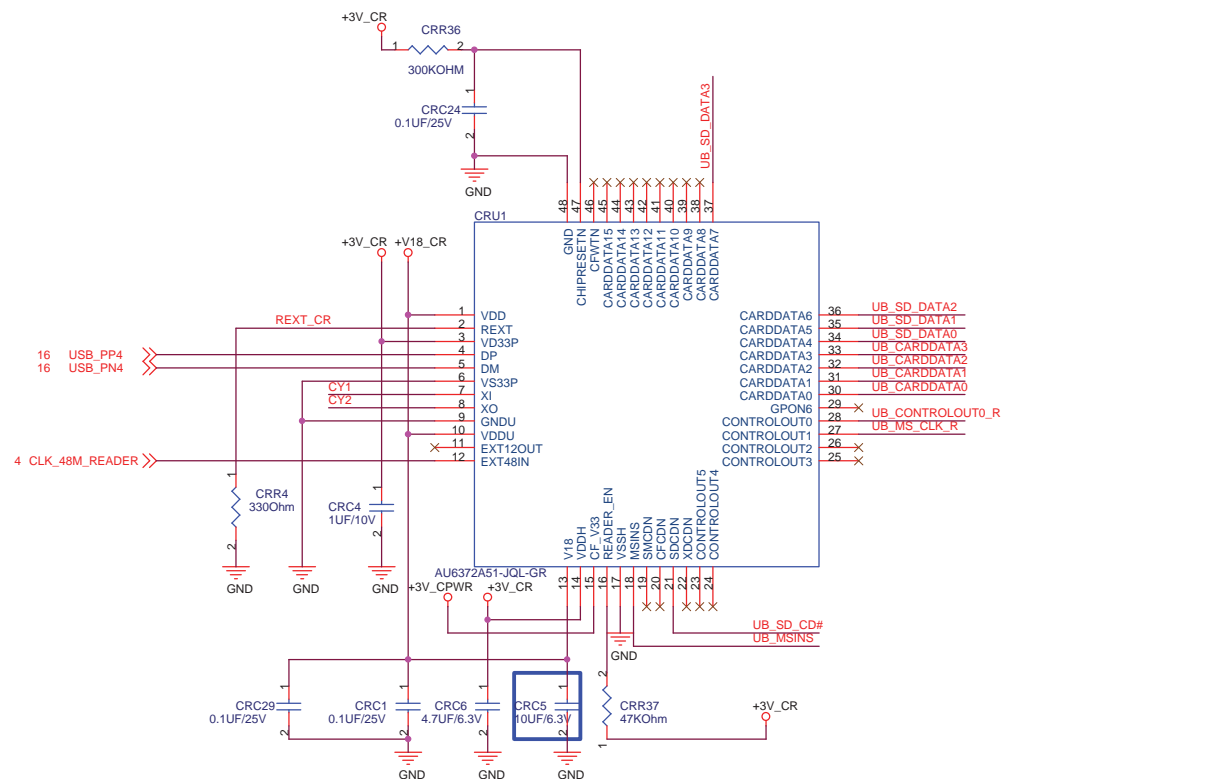


CAMERA
WTOB_CON_4P
12G171030040



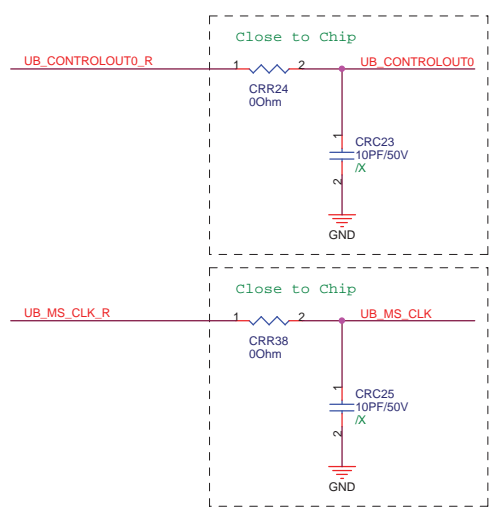
<Core Design>

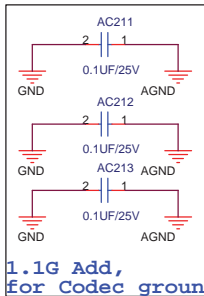
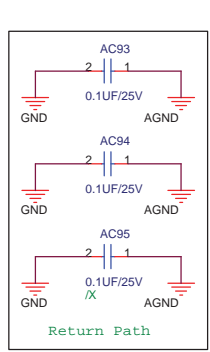
ASUS		Title : Camera Power	
ASUSTek Computer INC.		Engineer: Kell_Huang	
Size A4	Project Name S101		Rev 1.2G
Date: Monday, August 25, 2008		Sheet 28 of 50	



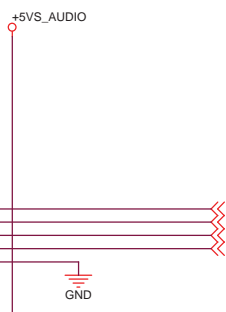
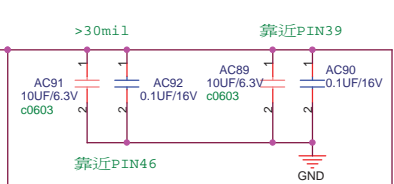
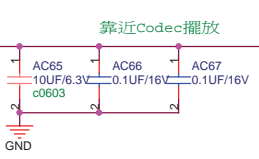
SDWP: Internal Pull-up
SDCDN: Internal Pull-up
SDWP = 1 Write protect
SDWP = 0 Write-able
SDCDN = 1 No card
SDCDN = 0 Card inserted

Card Insert: Pin.20 and Pin.21 are Shorted.
Card not Insert: Pin.20 and Pin.21 are Opened.
Write Protect: Pin.22 and Pin.21 are Opened.
Write Enable: Pin.22 and Pin.21 are Shorted.



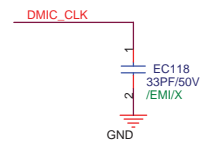


1.1G Add,
for Codec ground ring



02G611005001 in the BOM

1.1G AC96 AC76 change to 0402 type



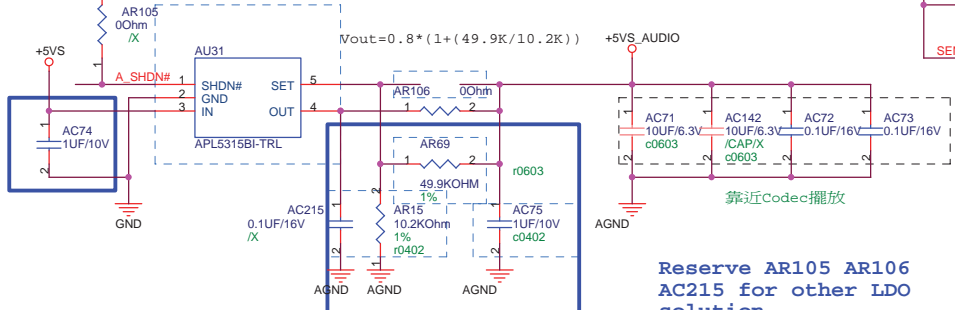
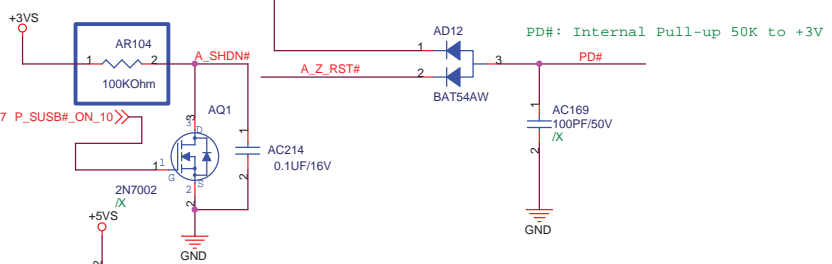
15 A_Z_SDOUT
15,41 A_Z_BITCLK

15 A_Z_SDI0

15 A_Z_SYNC
15 A_Z_RST#

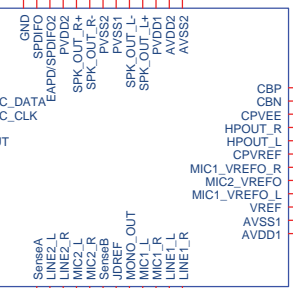
17 SB_SPKR
32 OP_SD#

OP_SD#: Controlled by
EC to power down
Class-D speaker amp.

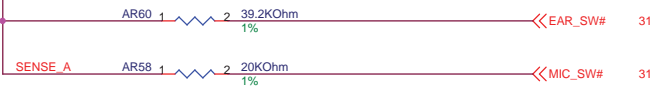
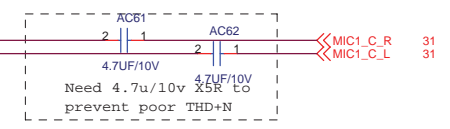
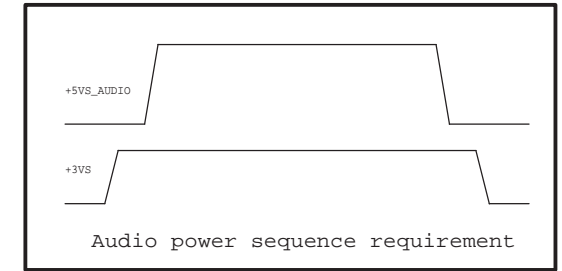


Reserve AR105 AR106
AC215 for other LDO
solution

For Audio Noise Issue



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

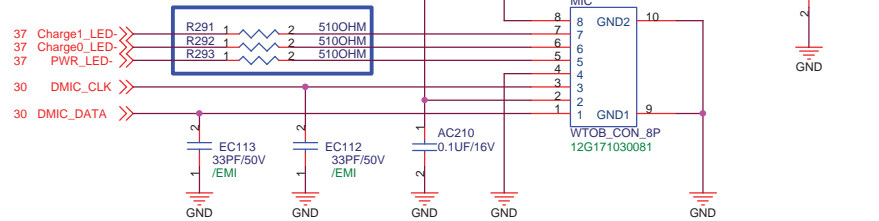


ASUS		Title : ALC269-1	
ASUSTek Computer Inc.		Engineer: Mick	
Size A3	Project Name S101	Rev 1.2G	
Date: Monday, August 25, 2008	Sheet	30	of 50

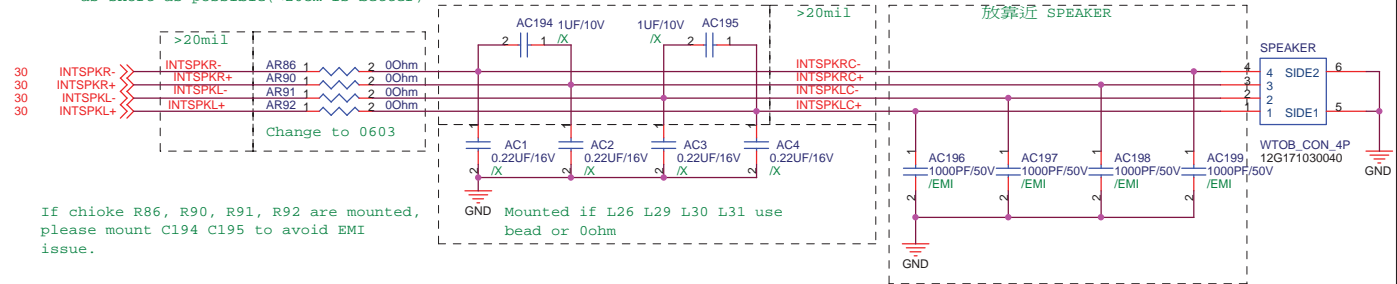
1.1G add PWR LED and Charge LED

DMIC Cable length should be less 30cm

Change R291 R292 R293 to 510 Ohm

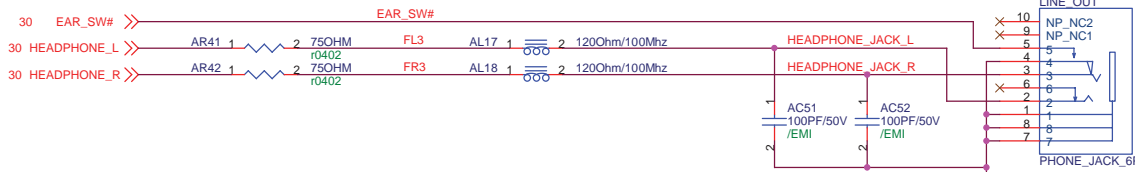


Total length from speakerR+- L+- (pin40 41 44 45) to internal speaker please as short as possible(<20cm is better)



If chioke R86, R90, R91, R92 are mounted, please mount C194 C195 to avoid EMI issue.

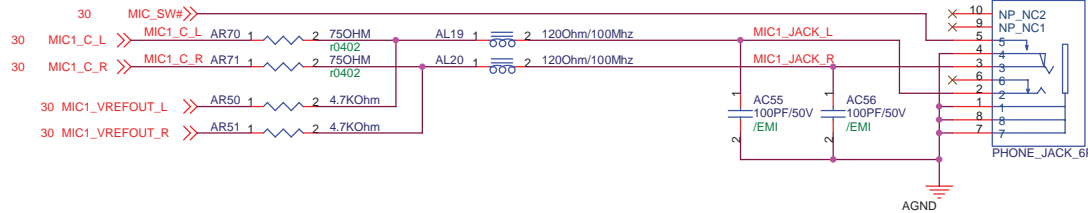
LINE_OUT use
12G14050106P(SINGATRON)
Black



1.1G Change audio con. to black

change from DIP to SMD

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



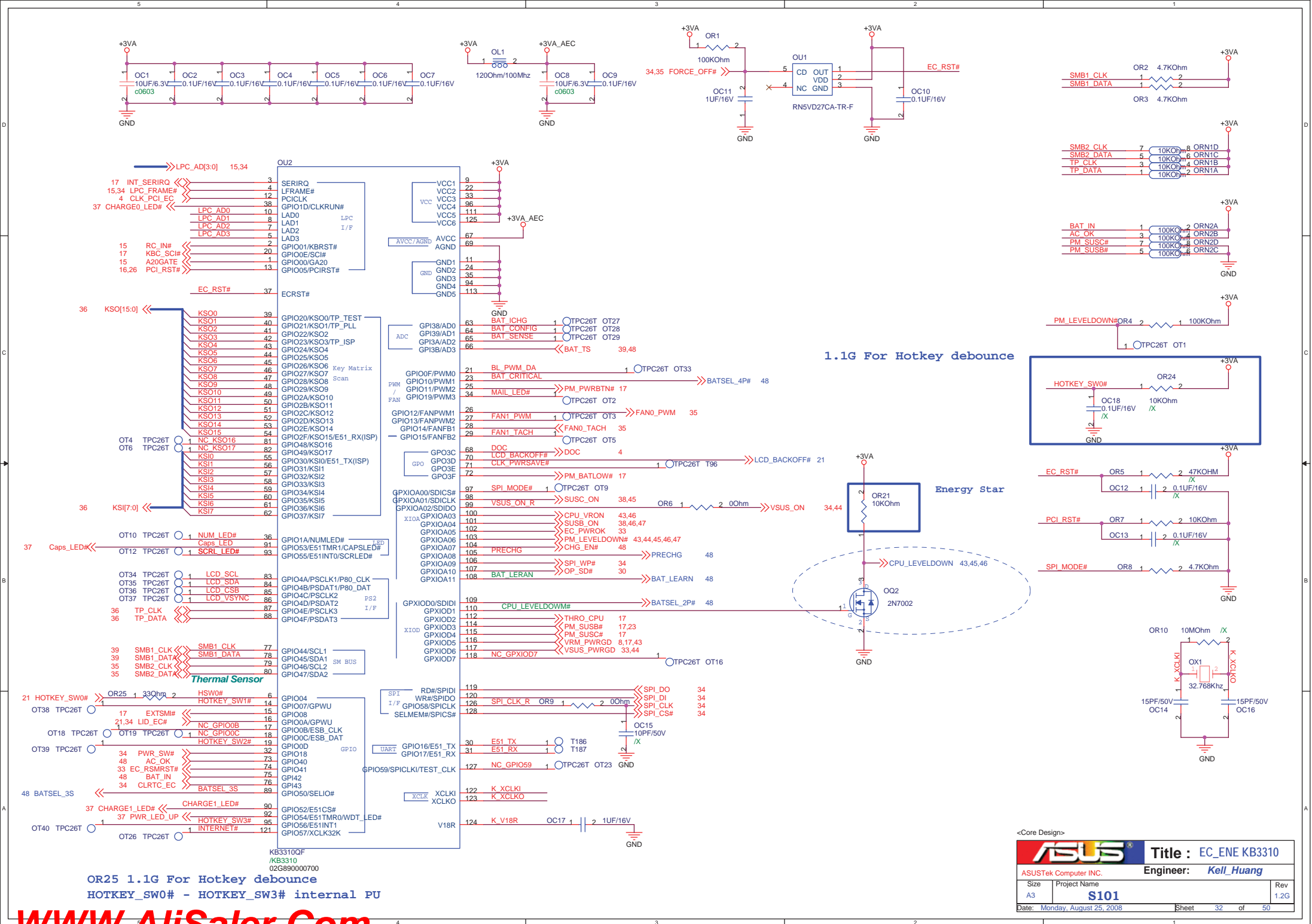
MIC_JACK use
12G14050106P(SINGATRON)
Black

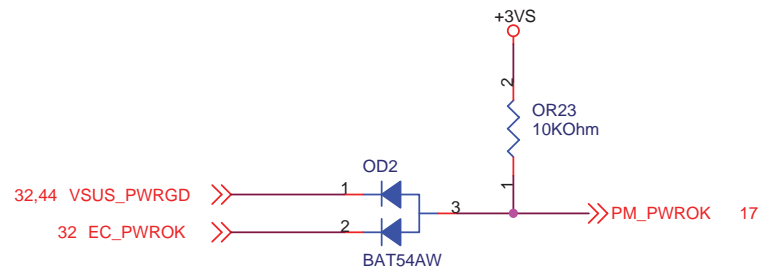
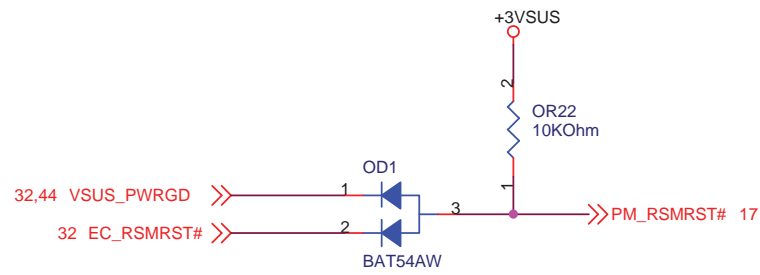
1.1G Change audio con. to black

change from DIP to SMD


<Core Design>

ASUS		Title : ALC269-2	
ASUSTek Computer Inc.		Engineer: MICK	
Size A3	Project Name S101	Rev 1.2G	
Date: Monday, August 25, 2008	Sheet	31	of 50





<Core Design>

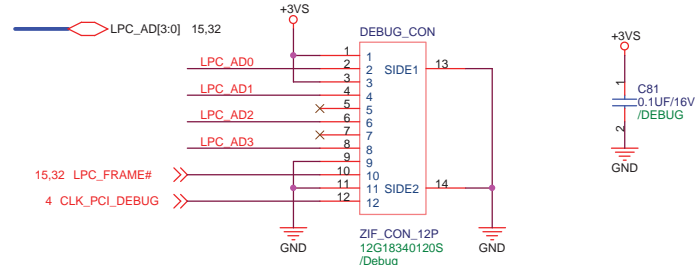
		Title : EC_UART_KC3820	
ASUSTek Computer INC.		Engineer: Kell_Huang	
Size A4	Project Name S101		Rev 1.2G
Date: Monday, August 25, 2008		Sheet	33 of 50

prevent system power on when LCD close

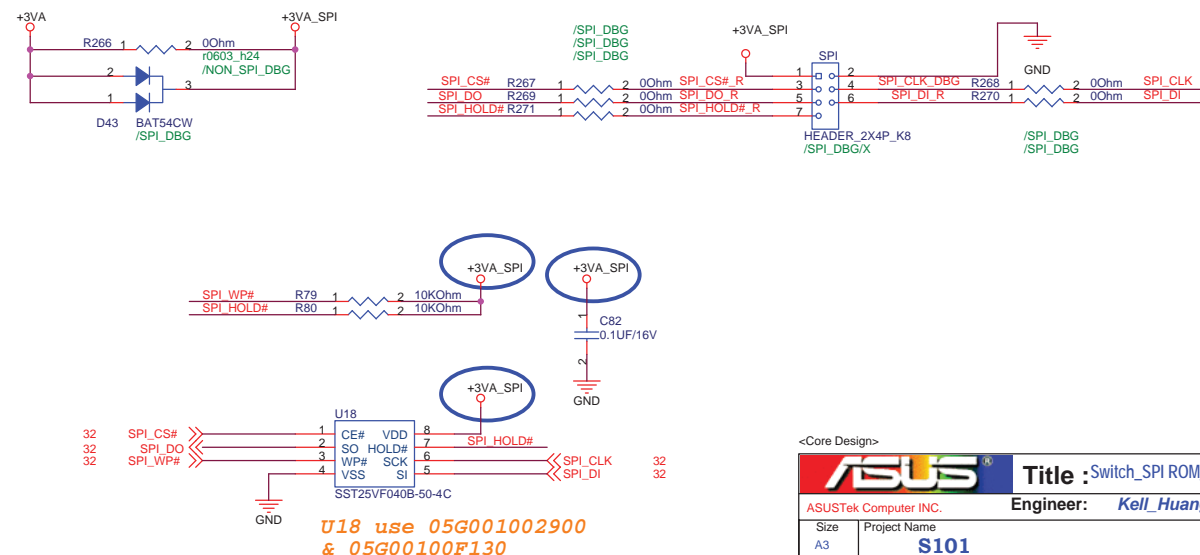
H152&H154 : Pad for EMI

prevent system auto power on when CMOS clear

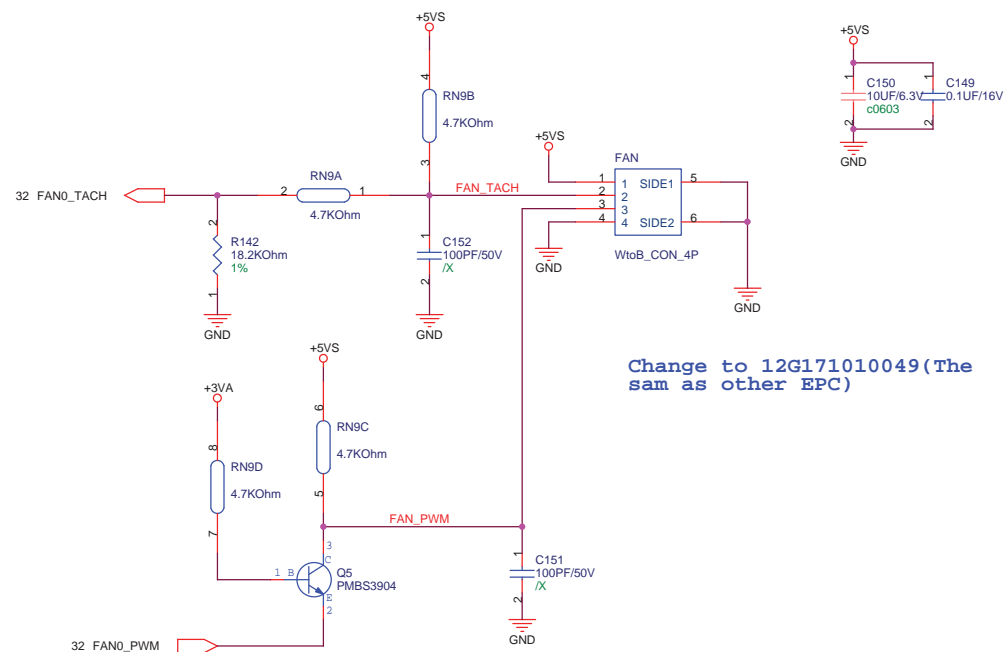
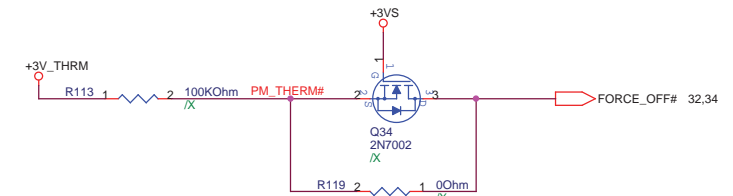
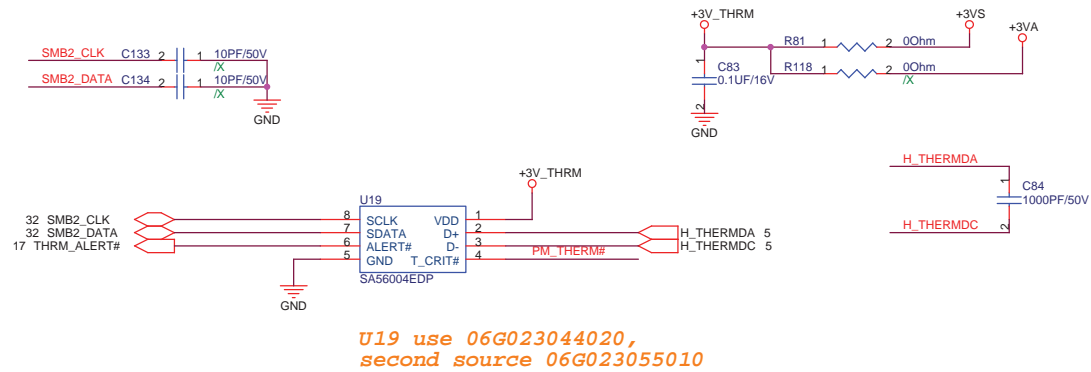
For Debug

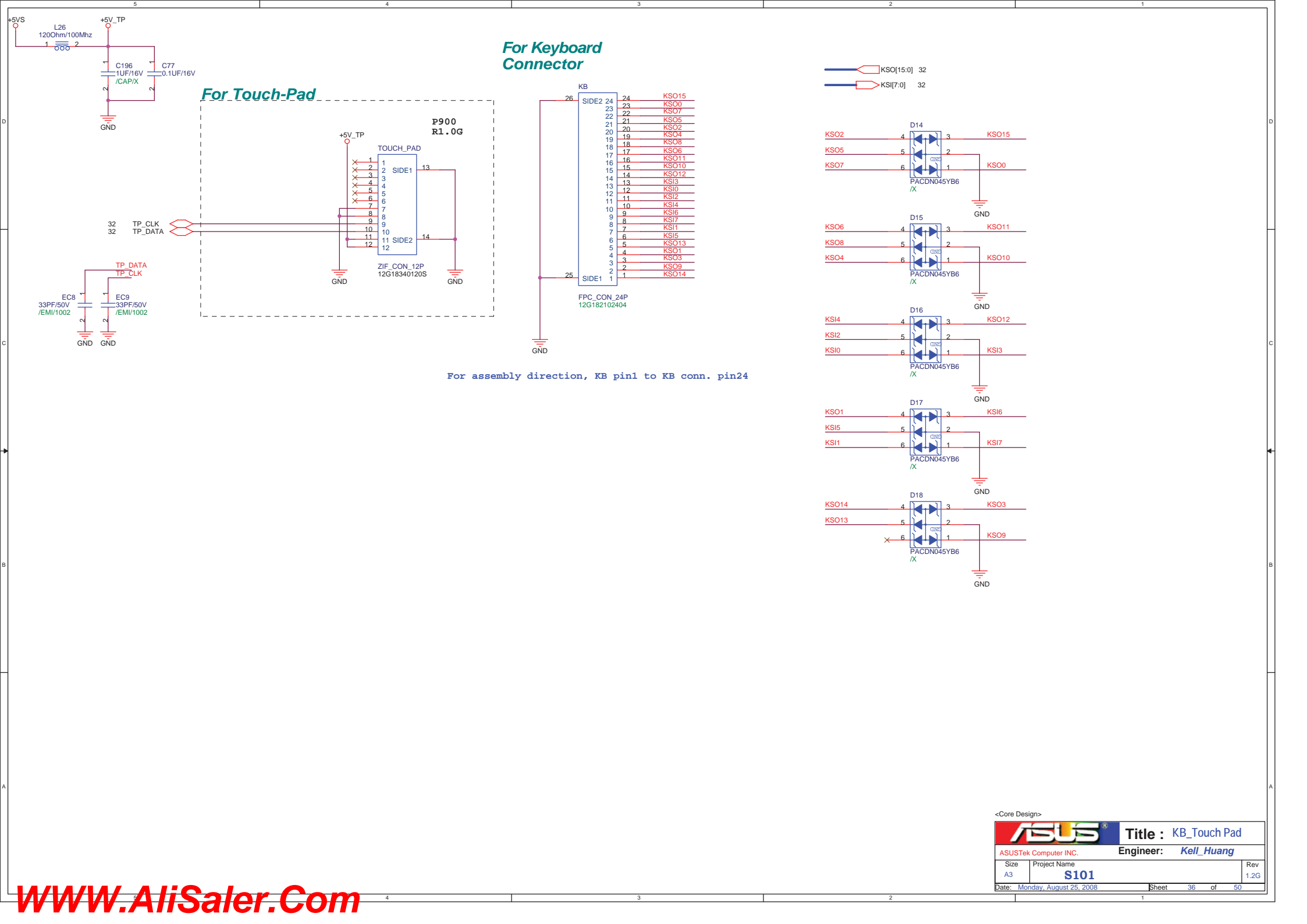


Debug Card cable use Z96 Touch Pad cable, P/N:
14G124110126, 14G124110120, 14G124110121
14G124110124, 14G124110125

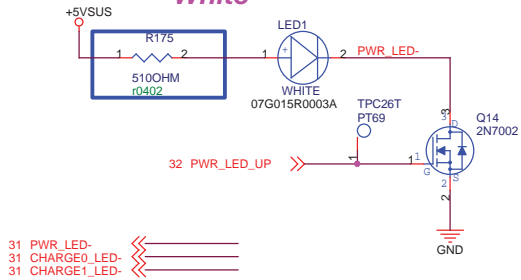


ASUS		Title : Switch_SPI ROM_Debug	
ASUSTek Computer INC.		Engineer: Keli_Huang	
Size	A3	Project Name	S101
Date:	Monday, August 25, 2008	Sheet	34 of 50

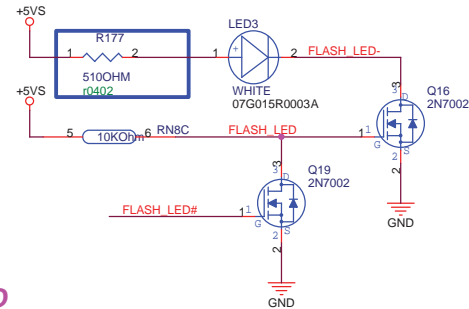




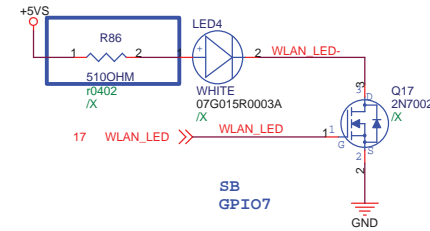
for POWER LED White



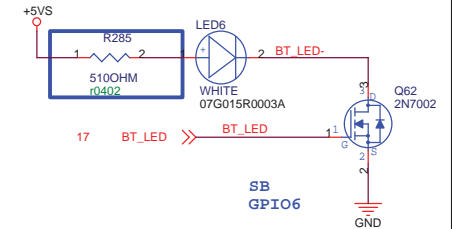
for FLASH LED White



White /X

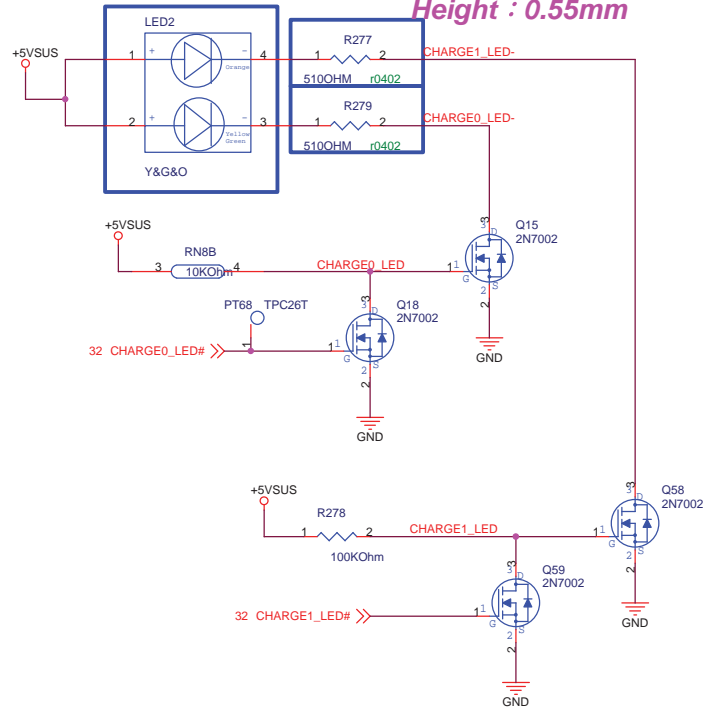


for WIFI/BlueTooth LED White

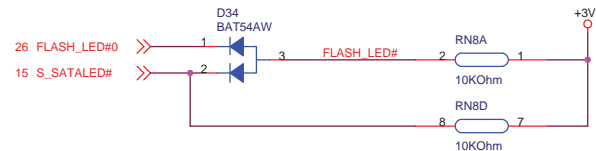


1.1G change to EVERLIGHT

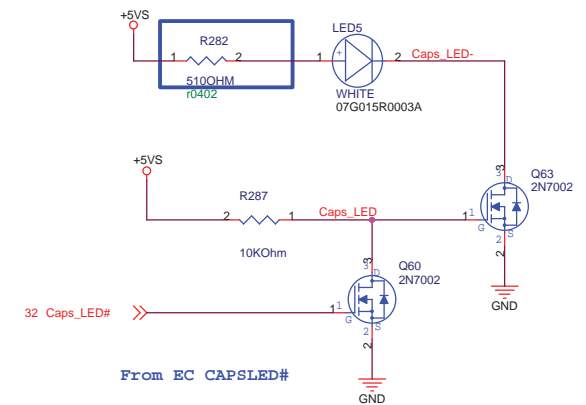
for CHARGE LED Height : 0.55mm



Change LED resistor to 510 Ohm, about 4mA



for Caps Lock LED White



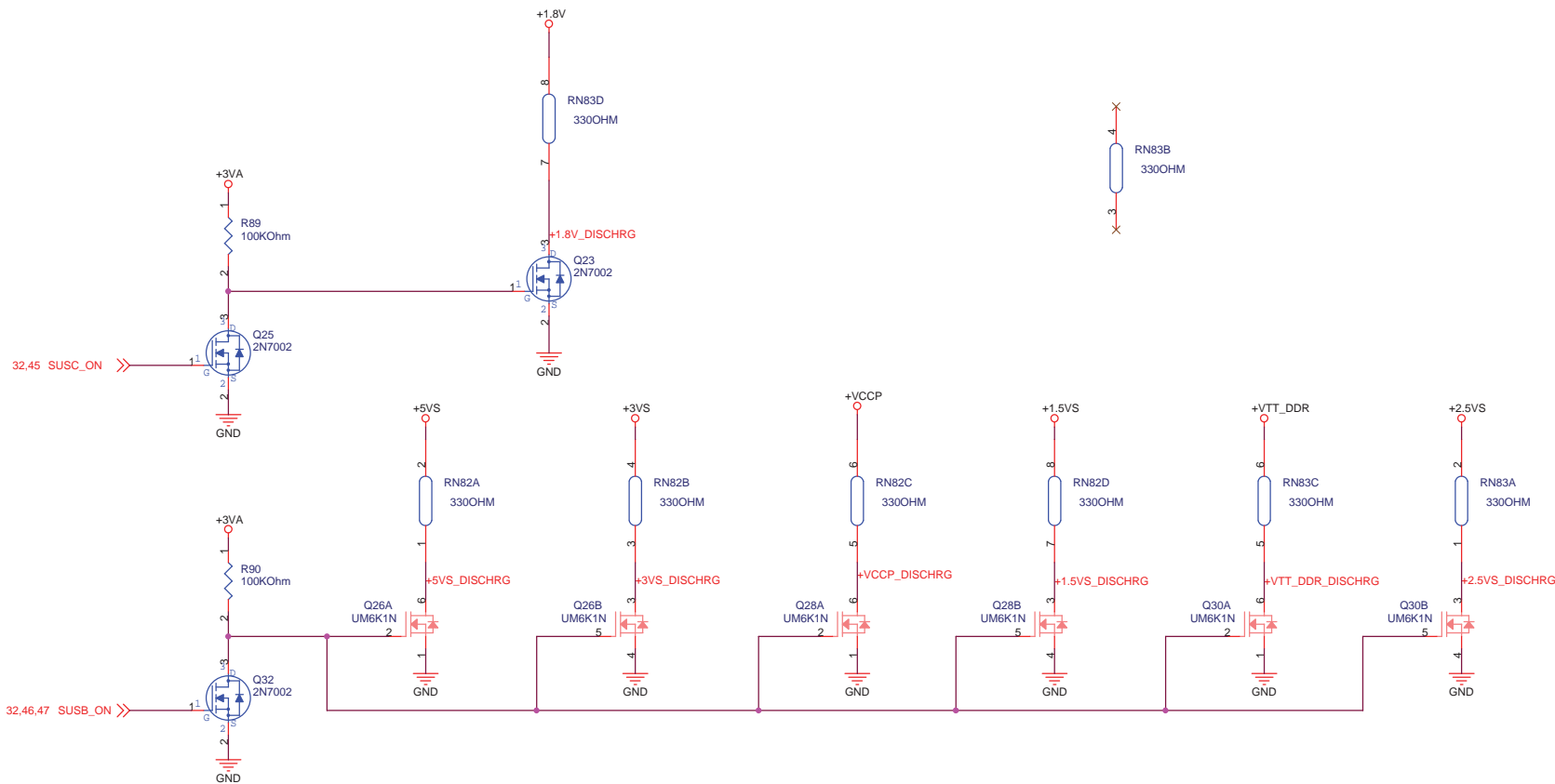
The battery charge indicator (LED) shows the status of the battery's power as follows:

scenario	Adapter mode	Battery mode
Battery power is between 100%~80%	Orange ON	Green ON
Battery power is between 80%~10%	Orange Blinking Slowly	Green Blinking Slowly
Battery power is less than 10%	Orange Blinking Quickly	Green Blinking Quickly
S3/S5 Mode	Scenario the same as above	Off

Note: The BATTERY LED should be off when the machine has no battery attached.

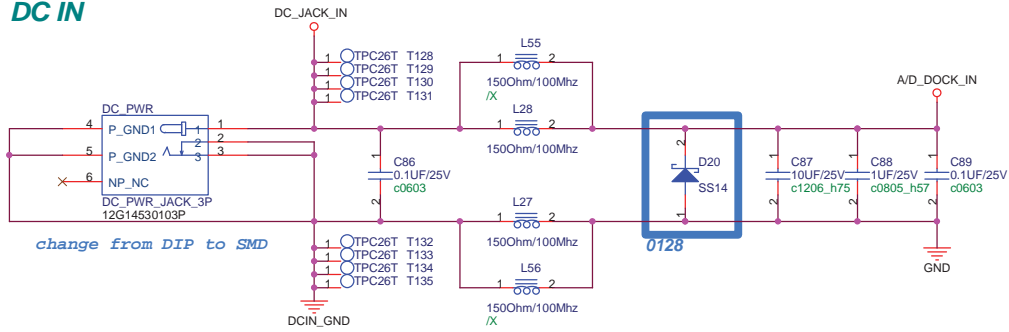
<Core Design>

ASUS		Title : LED	
ASUSTek Computer INC.		Engineer: Kell_Huang	
Size A3	Project Name S101	Rev 1.2G	
Date: Monday, August 25, 2008	Sheet	37	of 50

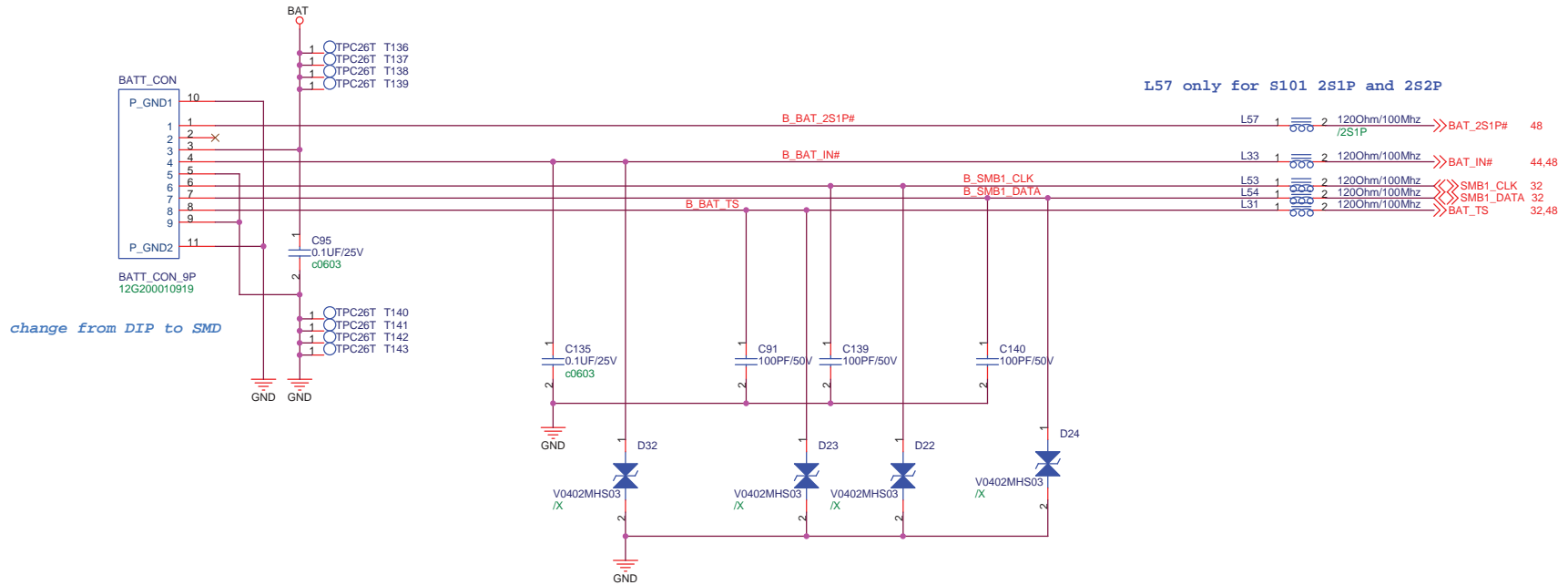


<Core Design>			
ASUS		Title : Discharge	
ASUSTek Computer INC.		Engineer: Kell_Huang	
Size	Project Name		Rev
A3	S101		1.2G
Date: Monday, August 25, 2008		Sheet	38 of 50

DC IN

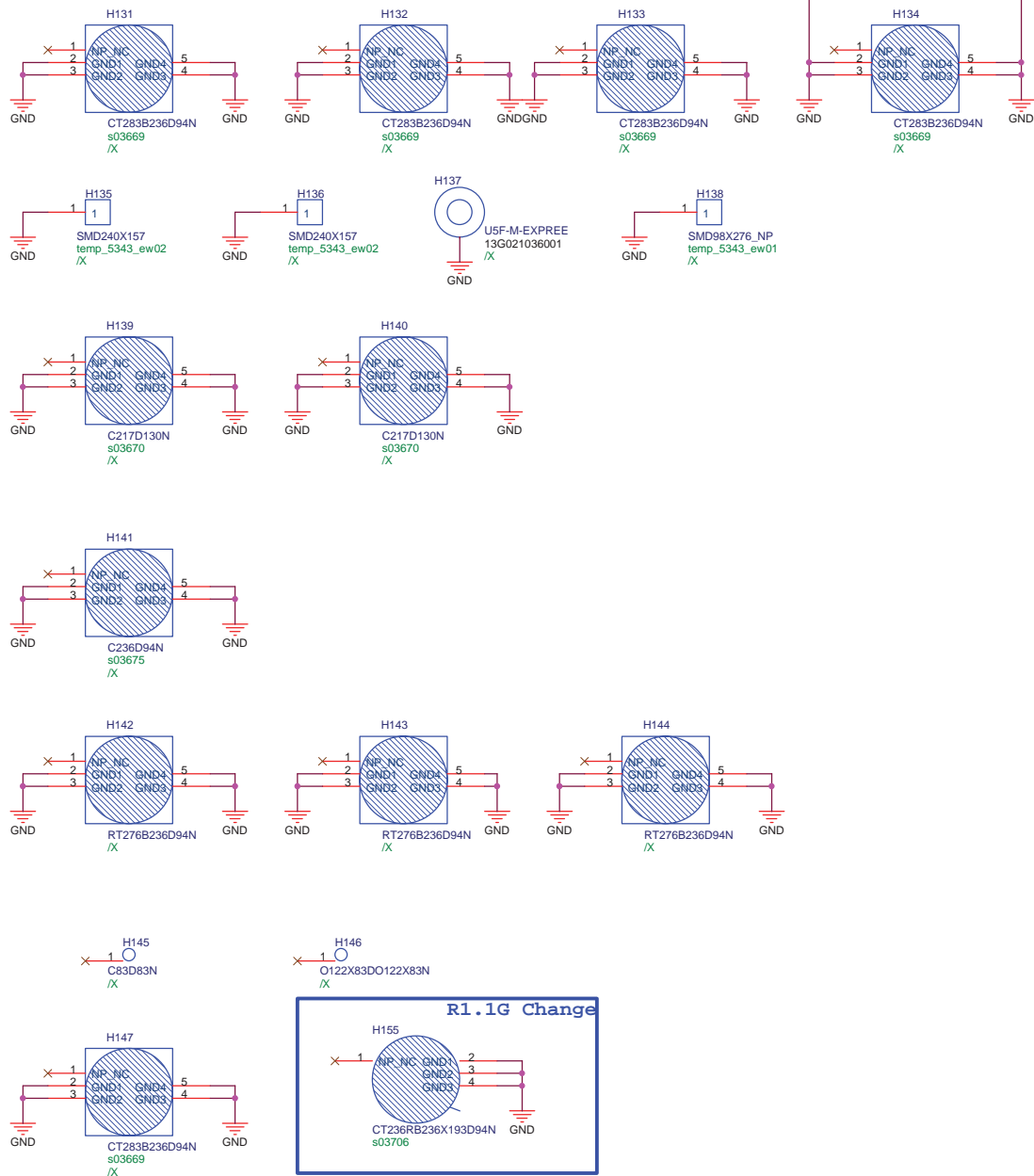


BAT IN



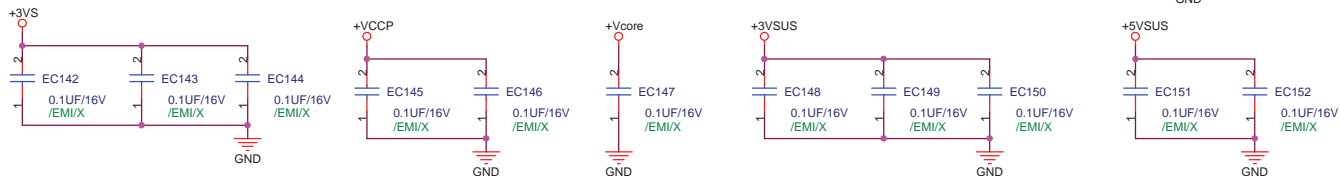
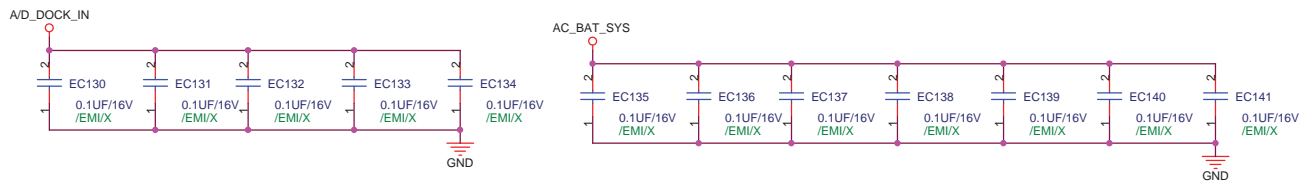
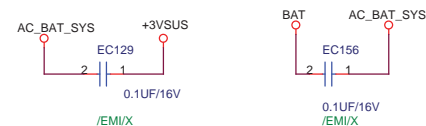
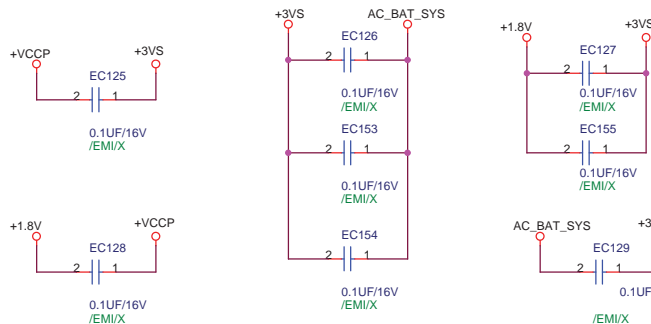
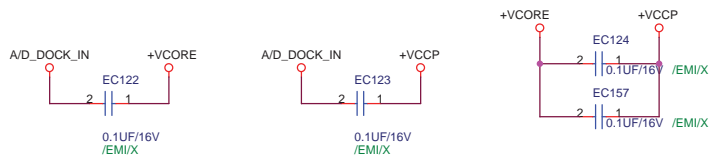
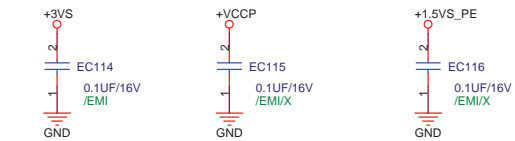
<Core Design>

ASUS		Title : PWR Jack	
ASUSTek Computer INC.		Engineer: Kell_Huang	
Size	Project Name	Rev	
A3	S101	1.2G	
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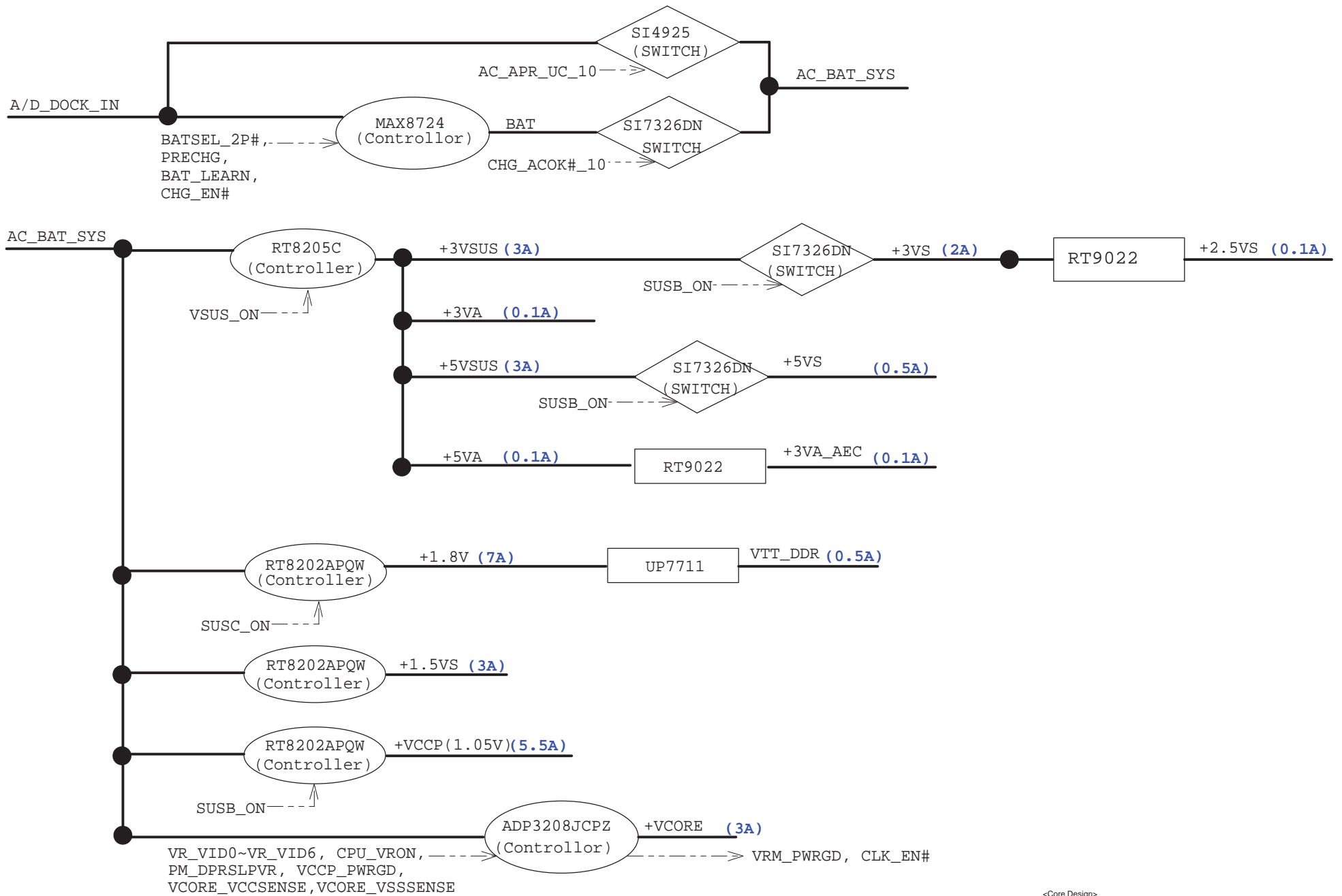


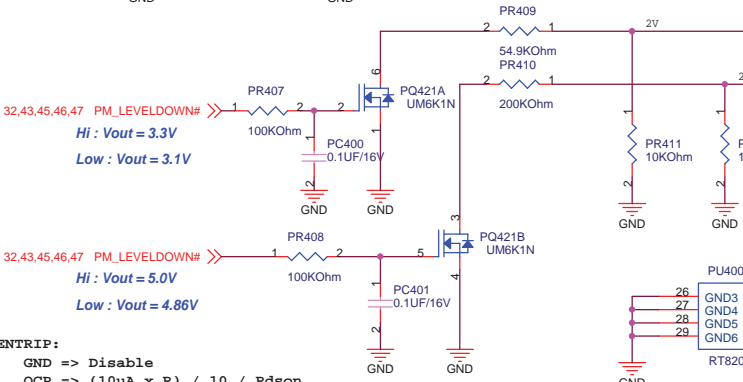
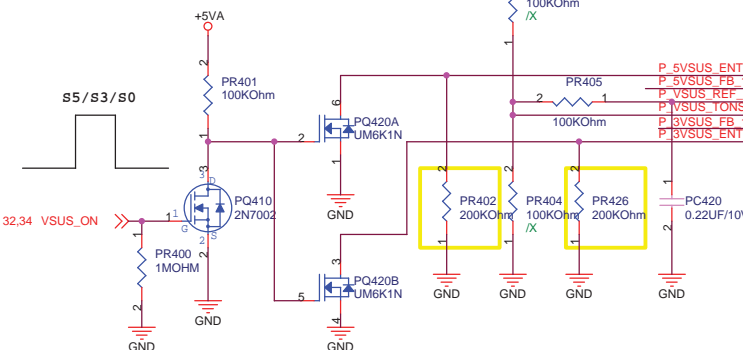
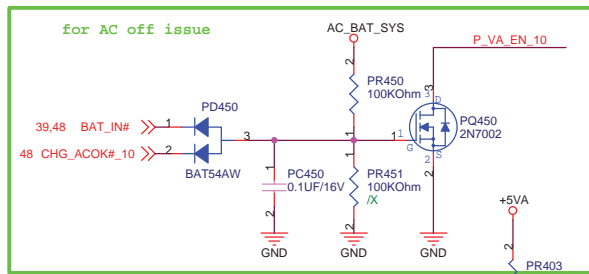
<Core Design>

ASUS		Title : Screw Hole	
ASUSTek Computer INC.		Engineer: Kell_Huang	
Size	Project Name		Rev
A3	S101		1.2G
Date: Monday, August 25, 2008		Sheet	40 of 50



<Core Design>		ASUS®		Title : EMI	
ASUSTek Computer INC.		Engineer: Kell_Huang			
Size	Project Name			Rev	
A3	S101			1.2G	
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ENTRIP:
GND => Disable
OCF => $(10\mu A \times R) / 10 / R_{dson}$

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

32.33 VSUS_PWRGD

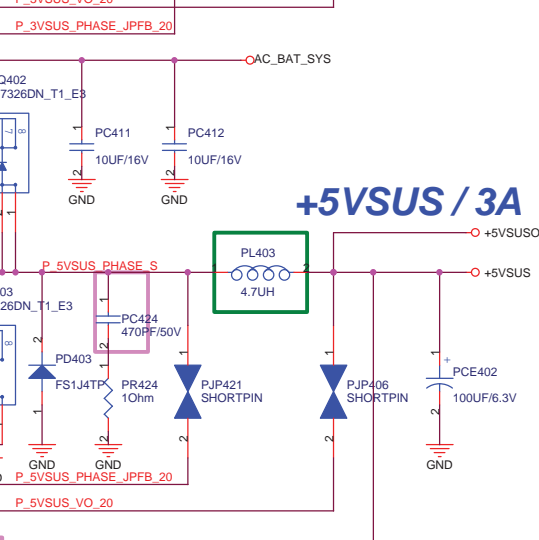
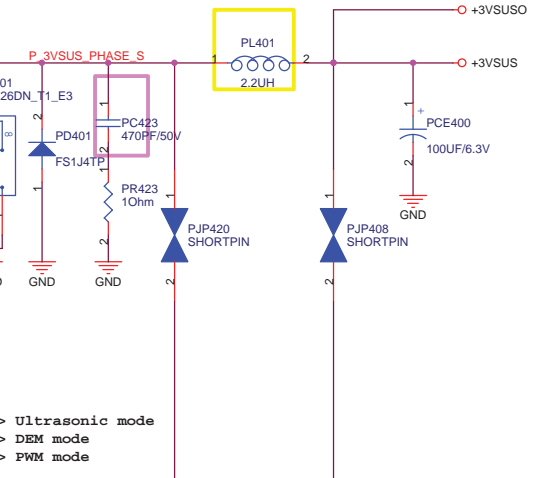
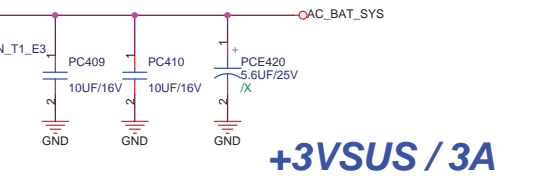
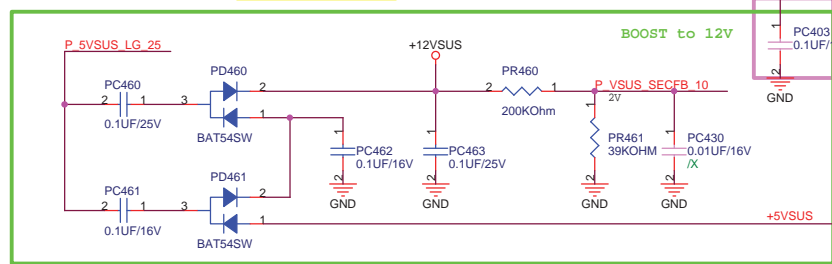
P 5VSUS FB 10
P VSUS REF 10
P VSUS TONSEL 10
P 3VSUS FB 10
P 3VSUS ENTRIP 10



P VSUS SECFB 10
P VSUS SKIPSEL 10
P VA EN 10

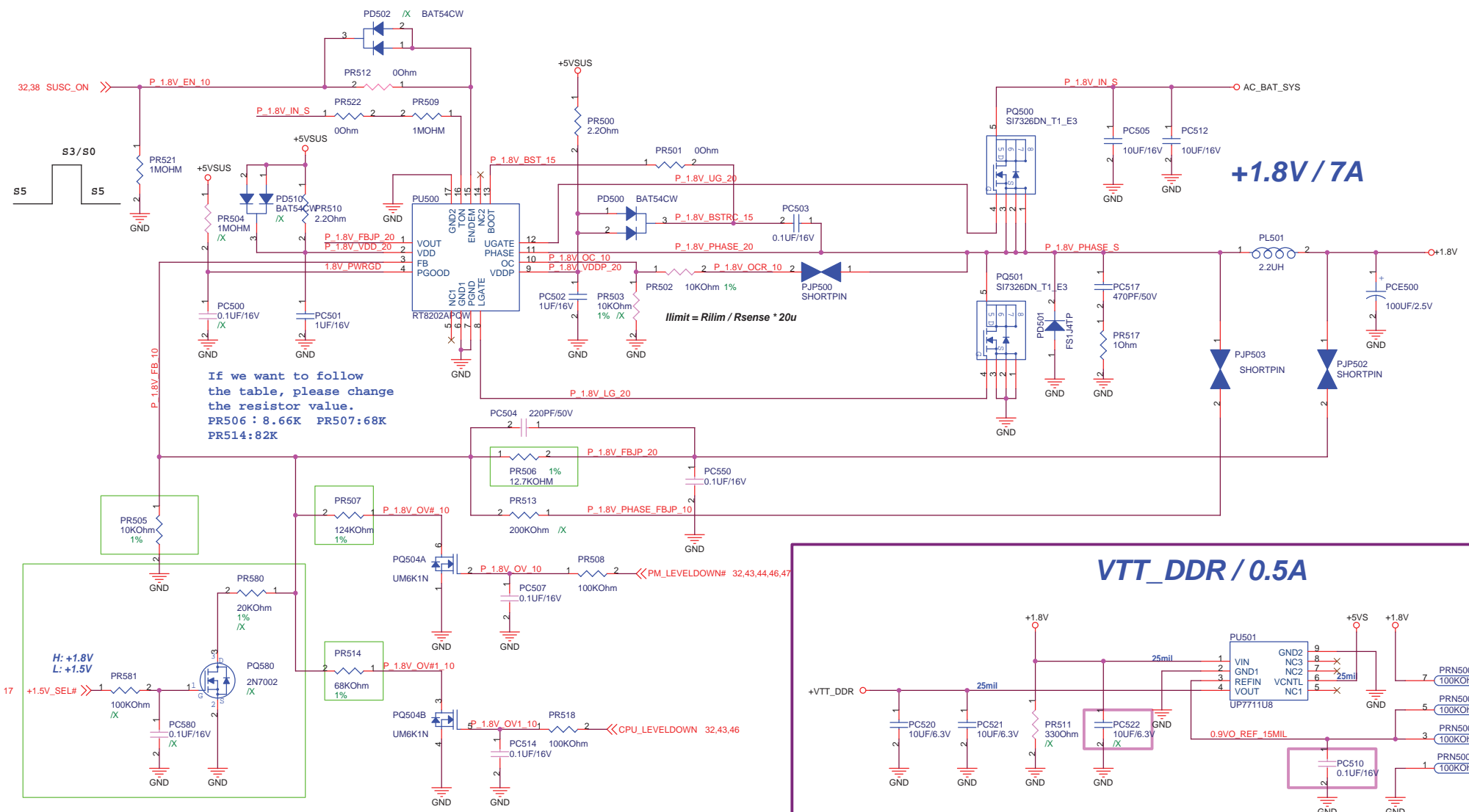
PR429 10KOhm /X
For MLCC support

For MLCC support



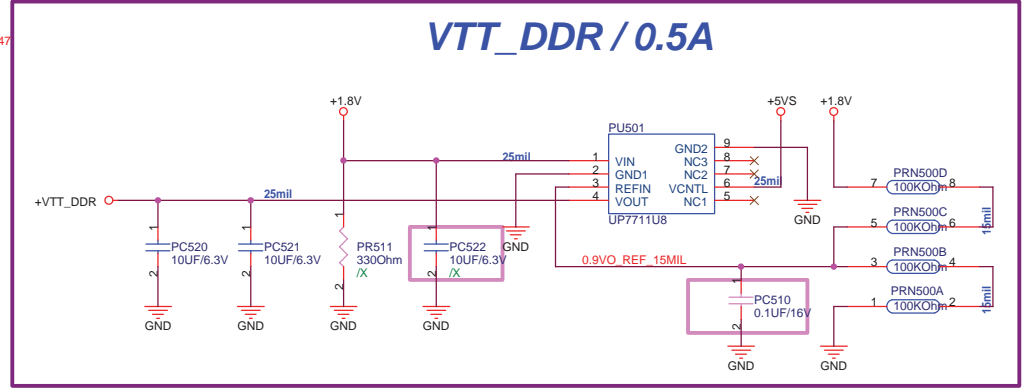
<Core Design>

ASUS		Title: 3VSUS & 5VSUS & 3VA	
ASUSTek COMPUTER INC		Engineer: N/A	
Size	Project Name	Rev	
A3	1001	1.2G	
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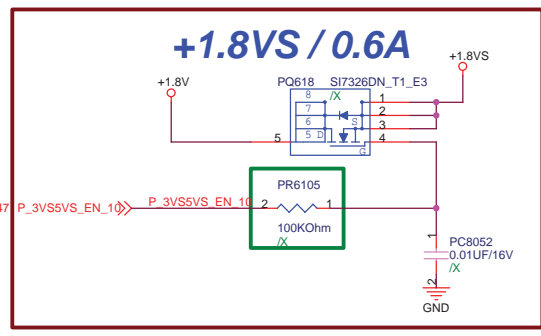


+1.8V / 7A

VTT_DDR / 0.5A

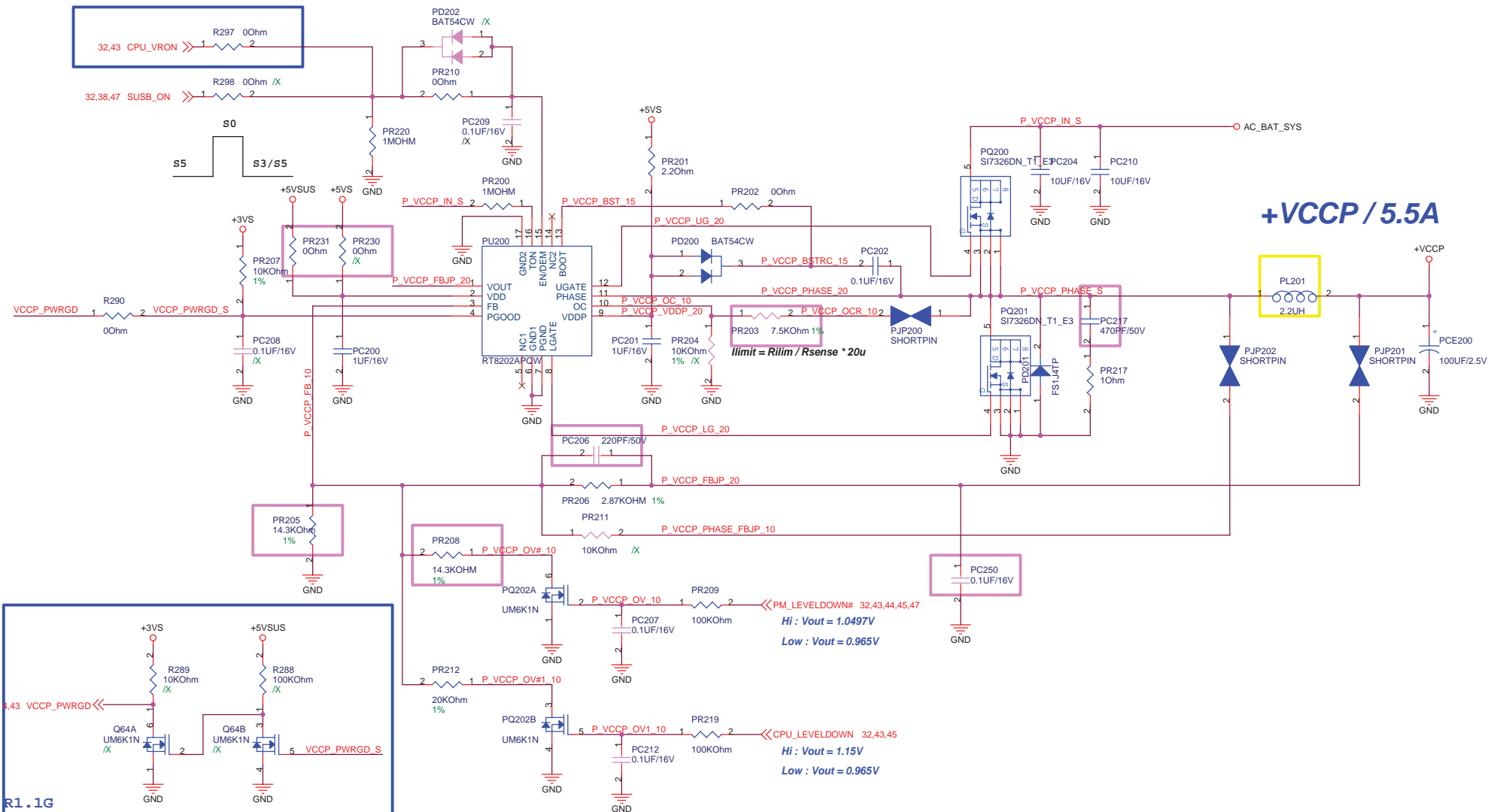


+1.8VS / 0.6A



+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
H	H	H	L	1.9V	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

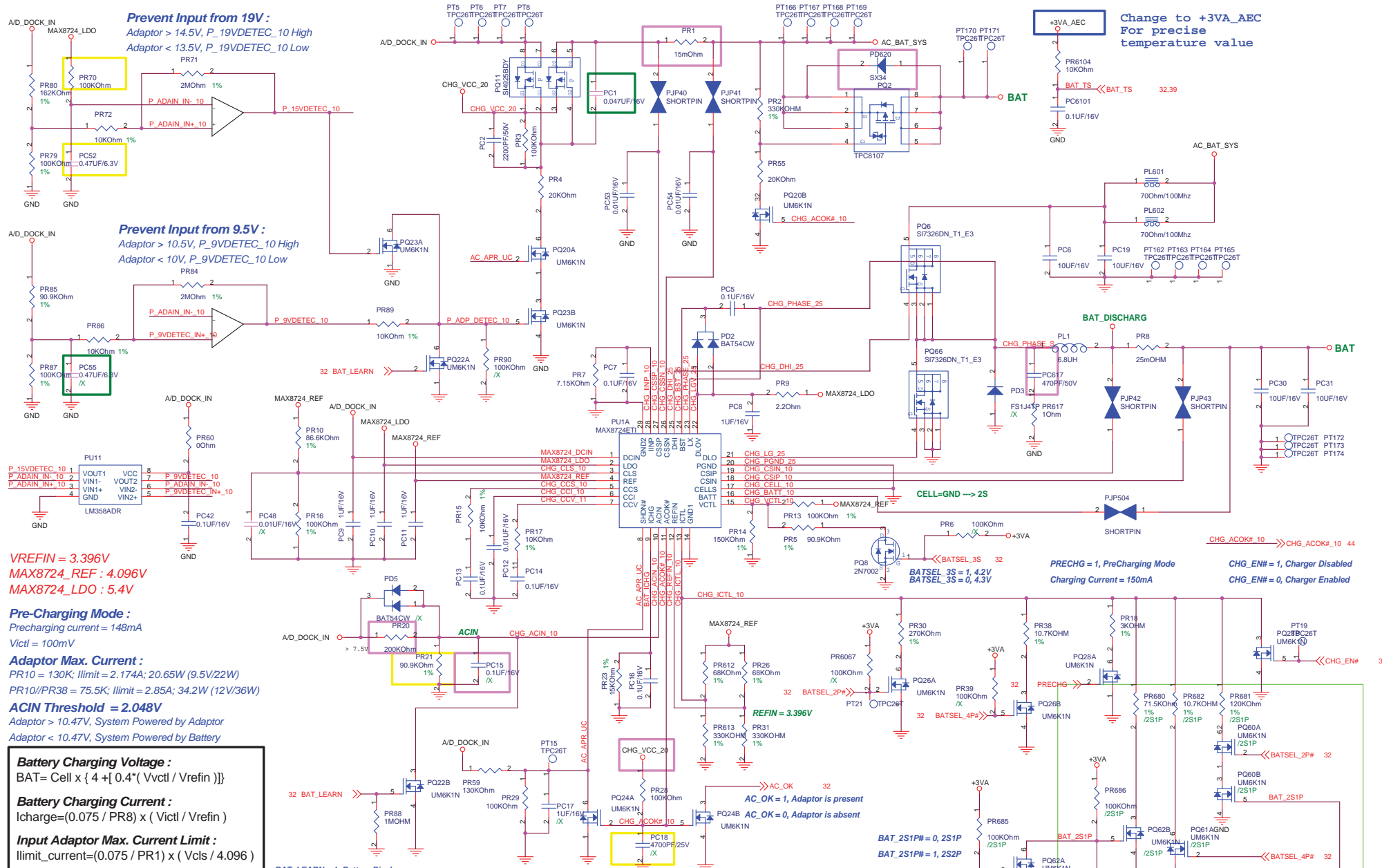
1.1G change Enable signal from CPU_VRON



PM_LEVELDOWN#	CPU_LEVELDOWN	CPU_LEVELDOWN#	Voltage	Status
L	L	H	0.965V	Power Saving
H	L	H	1.048V	Normal
H	H	L	1.157V	Performance
L	H	L	1.072V	N/A

<Core Design>

ASUS		Title : VCCP	
ASUSTek Computer INC.		Engineer: Joy_Zhou	
Size A3	Project Name 1001	Rev 1.2G	
Date: Monday, August 25, 2008		Sheet 46 of 50	



VREFIN = 3.396V
MAX8724_REF = 4.096V
MAX8724_LDO : 5.4V

Pre-Charging Mode :
Precharging current = 148mA
Vicl = 100mV

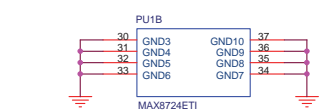
Adaptor Max. Current :
PR10 = 130K; Ilimit = 2.174A; 20.65W (9.5V/22W)
PR10/PR38 = 75.5K; Ilimit = 2.85A; 34.2W (12V/36W)

ACIN Threshold = 2.048V
Adaptor > 10.47V, System Powered by Adaptor
Adaptor < 10.47V, System Powered by Battery

Battery Charging Voltage :
 $BAT = Cell \times \{ 4 + [0.4 \times (V_{vcl} / V_{refin})] \}$

Battery Charging Current :
 $I_{charge} = (0.075 / PR8) \times (V_{icl} / V_{refin})$

Input Adaptor Max. Current Limit :
 $I_{limit_current} = (0.075 / PR1) \times (V_{cls} / 4.096)$



	S101/2S2P	S101/2S1P	1002HA	1002SA
0~16℃	0.49A	0.245A	0.42A	0.77A
17~25℃	2.45A	1.225A	2.1A	3A
26~55℃	3A	1.71A	2.94A	3A

Charging Current : 3555B0, 4900mA					
Temperature	PRECHG	4P#	2P#	Icharge, 2P	Icharge, 1P#
Pre-Charge	1	0	0	0.152A	0.146A
0~14℃, 0.1C	0	1	0	0.479A	0.243A
14~23℃, 0.5C	0	0	1	2.482A	1.216A
23~45℃, 0.7C	0	0	0	3A	1.677A

Title : CHARGER

ASUSTek Computer INC. Engineer: **Winnie_Chen**

Size: Custom Project Name: **S101** Rev: 1.2G

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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	EXTSMIH#	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/SC#	KBC_SC#	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

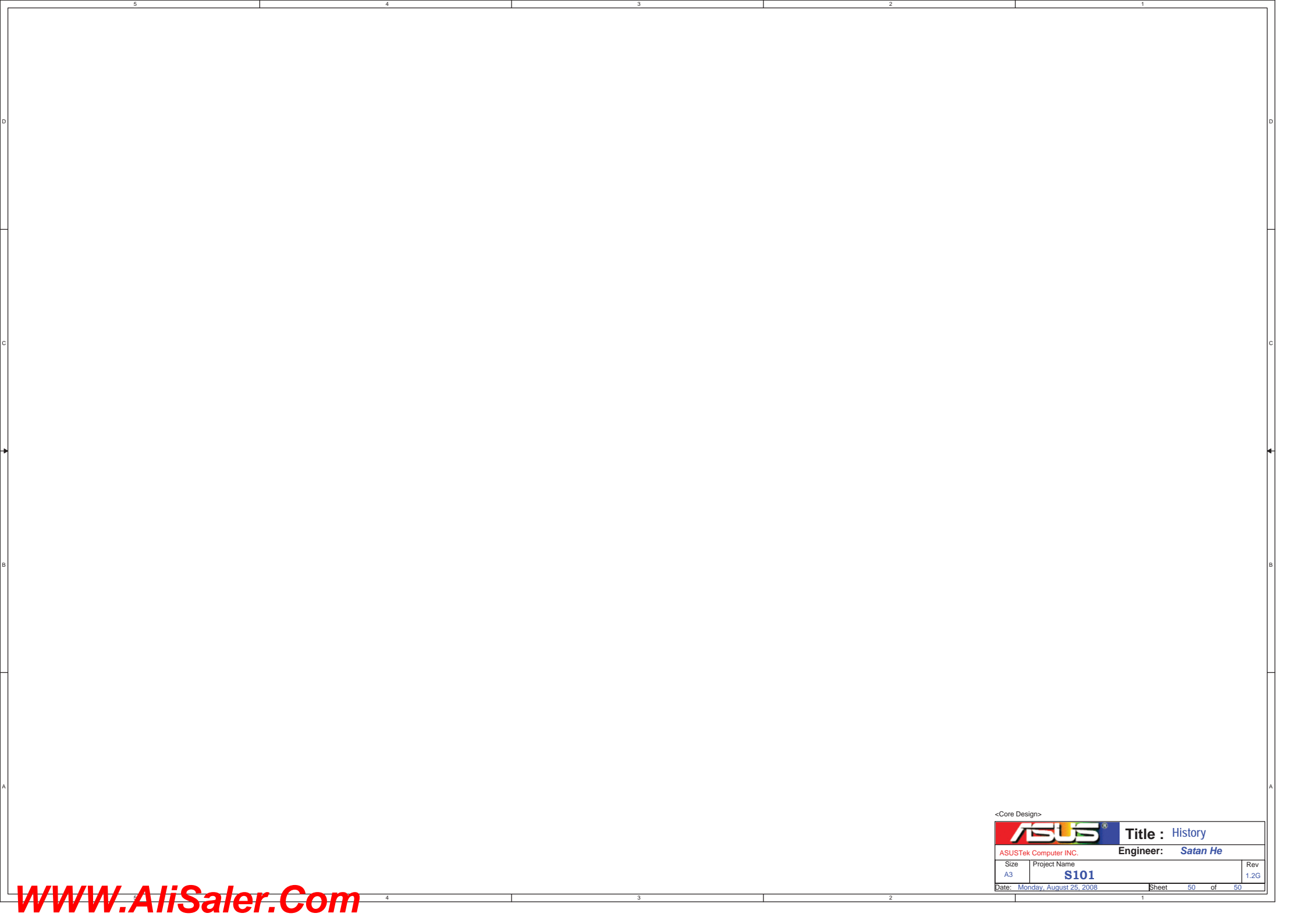
EC KB3310 Other Pin SETTING


Pin	Pin Name	Signal Name	Type	Note
3	SERIRQ	INT_SERIRQ	I/O	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/O	4.7K pull high to +3VA_EC
78	GPIO45/SDA1	SMB0_DAT	I/O	4.7K pull high to +3VA_EC
79	GPIO46/SCL2	SMB1_CLK	I/O	10K pull high to +3V
80	GPIO47/SDA2	SMB1_DAT	I/O	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/O	10K pull high to +3V
88	GPIO4F/PSDAT3	TP_DAT	I/O	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	

<Core Design>

ASUS		Title : EC Pin Define	
ASUSTek Computer INC.		Engineer: Satan He	
Size A3	Project Name S101	Rev 1.2G	
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<Core Design>			
		Title : History	
ASUSTek Computer INC.		Engineer: Satan He	
Size	Project Name		Rev
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