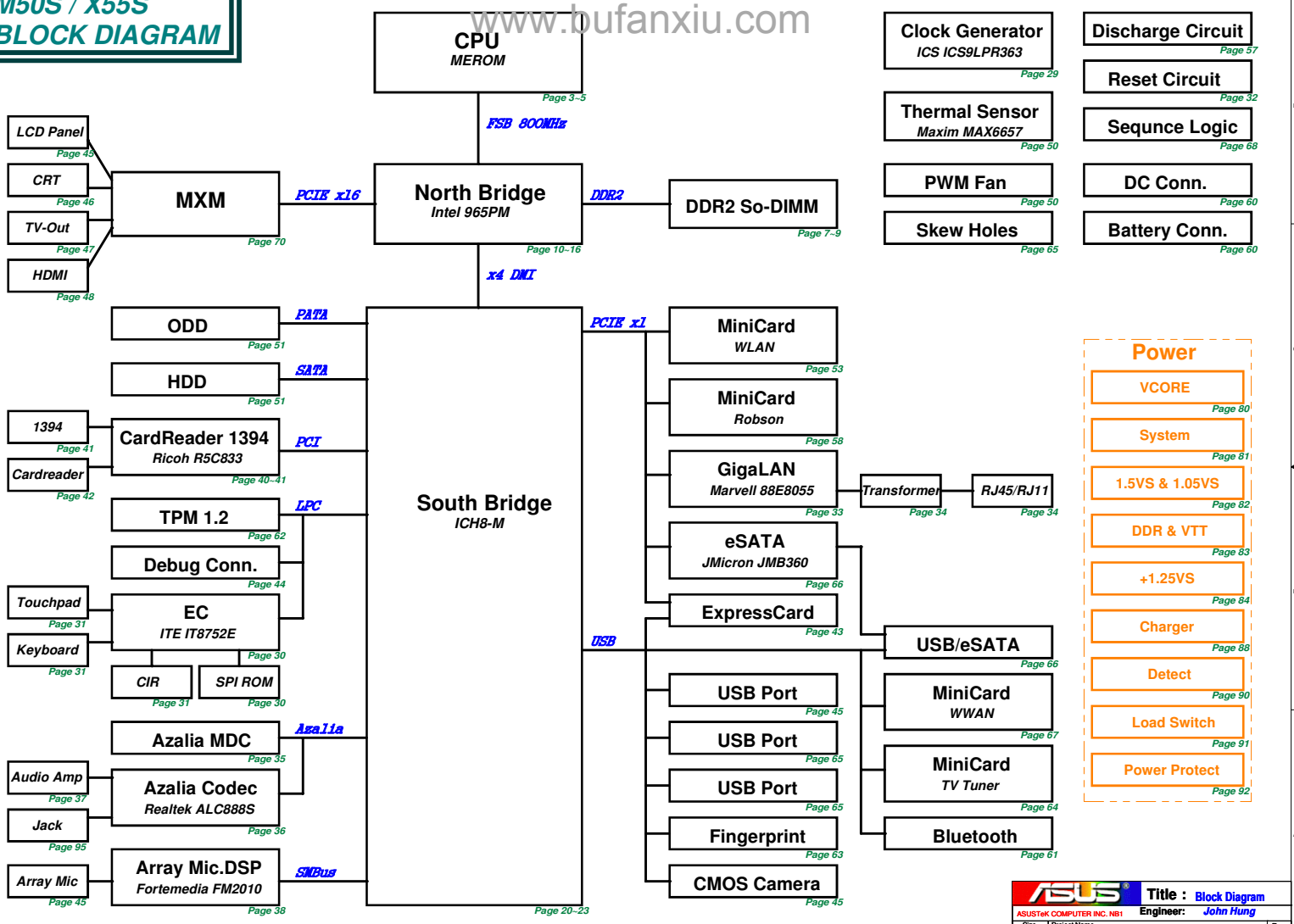


**M50S / X55S
BLOCK DIAGRAM**



Power

- VCORE (Page 80)
- System (Page 81)
- 1.5VS & 1.05VS (Page 82)
- DDR & VTT (Page 83)
- +1.25VS (Page 84)
- Charger (Page 88)
- Detect (Page 90)
- Load Switch (Page 91)
- Power Protect (Page 92)

« Kennedy_Zhang »

ASUS		Title : Block Diagram	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name		Rev
Custom	M50S/X55S		2.0
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ICH8-M GPIO SETTING

EC IT8752E GPIO SETTING

965GM/PM co-layout option:

Pin	Pin Name	Signal Name	Type	Pin	Pin Name	Signal Name	Type	Pin	Pin Name	Signal Name	Type
AG12	BM_BUS/#GPIO0	PM_BMBUSY#	I	28	PWM0/GPA0	PWR_LED_UP#	O	105	CLKRUN#/GPH0	PM_CLKRUN#	I/O
AJ8	TACH1/GPIO1	BT_DECT#	I	29	PWM1/GPA1	CHG_LED_UP#	O	106	CRX1/GPH1	3G_ON#	O
F8	PIRQE#/GPIO2	PCI_INTE#	I/OD	32	PWM2/GPA2			107	CTX1/GPH2	3G_LED_ON#	O
G11	PIRQF#/GPIO3	PCI_INTF#	I/OD	33	PWM3/GPA3			108	GPH3	BAT_LEARN	I/O
F12	PIRQG#/GPIO4	PCI_INTG#	I/OD	34	PWM4/GPA4	LCD_BL_PWM	O	109	GPH4		
B3	PIRQH#/GPIO5	PCI_INTH#	I/OD	35	PWM5/GPA5	FAN_PWM	O	110	GPH5	NUM_LED	O
AJ9	TACH2/GPIO6			36	PWM6/GPA6			111	GPH6	CAP_LED	O
AH9	TACH3/GPIO7	WLAN_LED_ON	O	38	PWM7/GPA7			74	ADC0/GP10	NV_OVERT#	I
AE16	GPIO8	EXT_SMI#	I	122	RXD/GPB0	CHG_EN#	O	75	ADC1/GP11	SUS_PWRGD	I
AG19	WOL_EN/GPIO9			123	TXD/GPB1	PRECHG	O	76	ADC2/GP12	ALL_SYS_PWRGD	I
AJ24	CLG_GPIO1/GPIO10			139	CTX0/GPB2			77	ADC3/GP13	CPU_PWRGD	I
AG22	SMBALERT#/GPIO11	SMB_ALERT#	I	124	SMCLK0/GPB3	SMB0_CLK	I/O	78	ADC4/GP14	PWR_MON	I
AC19	GPIO12	EXT_SCI#	I	125	SMDAT0/GPB4	SMB0_DAT	I/O	79	ADC5/GP15	ALS_DA	I
AH21	GLAN_DOCK#/GPIO13			142	GA20/GPB5	A20GATE	O	80	ADC6/GP16		
AF22	CLG_GPIO2/GPIO14			4	KBRST#/GPB6	RC_IN#	O	81	ADC7/GP17		
AE20	STP_PC/#GPIO15	STP_PC#	I/O	126	GPB7	PM_RSMRST#	O	84	DAC0/GP10	EC_CLK_EN	
AJ14	DPRSLVPR/GPIO16	PM_DPRSLVPR	O	133	CRX0/GPC0	CRX0	I	85	DAC1/GP11	PM_PWROK	
AG8	TACH0/GPIO17	WLAN_ON#	O	129	SMCLK1/GPC1	SMB1_CLK	I/O	86	DAC1/GP12		
AH12	GPIO18			130	SMDAT1/GPC2	SMB1_DAT	I/O	87	DAC1/GP13		
AJ10	GPIO19/SATA1GP			64	GPC3	PM_PWRBTN#	O	88	DAC1/GP14		
AE11	GPIO20	BT_LED_ON	O	136	WUI2/GPC4	AC_IN_OC#	I	89	DAC1/GP15		
AJ12	SATA0/GPIO21			65	GPC5	OP_SD#	O	15	GPK0		
AG10	SCLK/GPIO22			140	WUI3/GPC6	BAT1_IN_OC#	I	16	GPK1		
E6	LDRQ1#/GPIO23			20	GPC7	RFON_SW#	I	17	GPK2		
AJ27	CLG_GPIO0/GPIO24			22	WUI0/GPD0	PWRLIMIT#	I	18	GPK3		
AG18	STP_CPU#/GPIO25	STP_CPU#	O	25	WUI1/GPD1	PM_SUSC#	I	48	GPK4		
AH27	S4_STATE#/GPIO26			26	WUI4/GPD2	BUF_PLT_RST#	I	49	GPK5		
AH25	QRT_STATE0/GPIO27	BT_ON#	O	27	ECSCI#/GPD3	EXT_SCI#	O	62	GPK6		
AD16	QRT_STATE1/GPIO28	CB_SD#	O	19	GPD4	EXT_SMI#	O	63	GPK7		
AG17	OC#5/GPIO29	INT_USB_OC#	I	37	GPD5	LCD_BACKOFF#	O	90	GPL0		
AD12	OC#6/GPIO30	INT_USB_OC#	I	53	TACH0 / GPD6	FANO_TACH	I	91	GPL1		
AJ18	OC#7/GPIO31	INT_USB_OC#	I	54	GPD7			92	GPL2		
AH11	CLKRUN#/GPIO32	PM_CLKRUN#	O	23	GPE0	VSUS_ON	O	93	GPL3		
AE10	AZ_DOCK_EN#/GPIO33			94	GPE1	SUSC_EC#	O	119	GPL4		
AG14	AZ_DOCK_RST#/GPIO34			95	GPE2	SUSB_EC#	O	120	GPL5		
AG13	SATACLKREQ#/GPIO35			96	GPE3	CPU_VRON	O	134	GPL6		
AF11	SATA2GP/GPIO36	EMAIL_LED#	O	141	PWRSW/GPE4	PWR_SW#	I	135	GPL7		
AG11	SATA3GP/GPIO37	PCB_ID0	I	39	WUI5/GPE5	BAT2_IN_OC#	I				
AF9	SLOAD/GPIO38	PCB_ID1	I	21	GPE6	LID_SW#	I				
AJ11	SDATAOUT0/GPIO39	PCB_ID2	I	24	GPE7	INSTANT_ON#	I				
AG16	OC#1/GPIO40	USB_CON01_OC#	I	97	PS2CLK0/GPF0						
AG15	OC#2/GPIO41	USB_CON23_OC#	I	98	PS2DAT0/GPF1	COLOREN#	I				
AE15	OC#3/GPIO42	USB_CON23_OC#	I	99	PS2CLK1/GPF2	MARATHON#	I				
AF15	OC#4/GPIO43	NEWCARD_OC#	I	100	PS2DAT1/GPF3	DISTP#	I				
AD10	SATAOUT1/GPIO48			101	PS2CLK2/GPF4	TP_CLK	I/O				
AG29	CPUPWRGD/GPIO49	H_PWRGD	O	102	PS2DAT2/GPF5	TP_DAT	I/O				
E18	REQ1#/GPIO50	PCI_REQ#1	I/O	131	SMCLK2/GPF6	THRO_CPU	O				
C18	GNT1#/GPIO51			132	SMDAT2/GPF7	TP_LED	O				
B19	REQ2#/GPIO52	PCI_REQ#2	I/O	118	WUI7/GPG0						
F18	GNT2#/GPIO53			121	GPG1	PM_SUSB#	I				
A11	REQ3#/GPIO54	PCI_REQ#3	I/O	112	GPG2						
C10	GNT3#/GPIO55			116	GPG6						

965PM

Change:
 U1001 to 965PM, U3601 to ALC888S
 R1213-R1219 to 0ohm
 C1406, C1501-C1504, C1506-C1507, C1510, C1514 to 0ohm

Mount:
 D4801-D4803
 F4801
 J4801, J7001
 H7001-H7004
 Q4801
 R1112-R1117, R1203-R1212, R1502, R2910, R3618-R3620, R4801-R4804
 RX2901-RX2902, RX4801-RX4810
 CX1201-CX1232

Un-mount:
 R1202, R1401-R1403, R1501, R1503-R1505, R2909, R3621, R7001-R7008
 RN7001-RN7011
 RNX1201, RNX2901, RNX2915
 L1501-L1505
 C1404-C1405, C1407-C1409, C1505, C1509, C1511-C1513
 CE1404, CE1501-CE1503

965GM

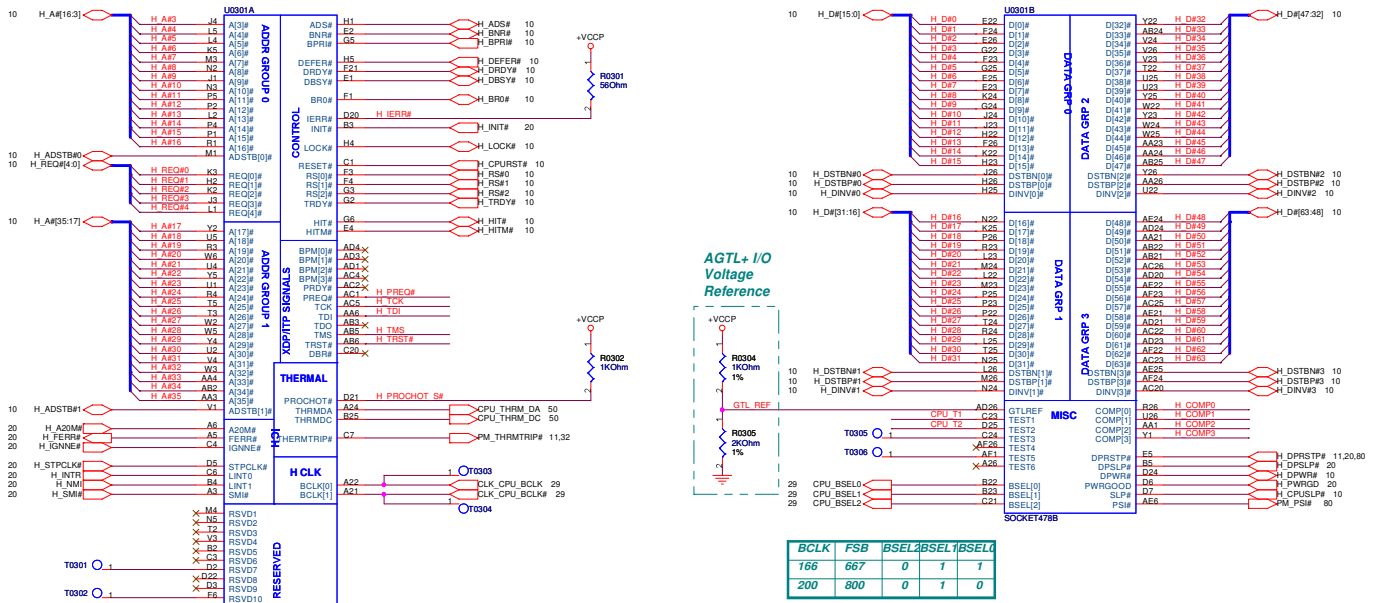
Change:
 U1001 to 965GM
 R1213-R1218 to 150ohm
 R1219 to 1.3Kohm

Un-mount:
 D4801-D4803
 F4801
 J4801, J7001
 H7001-H7004
 G4801
 R1112-R1117, R1203-R1212, R1502, R2910, R3618-R3620, R4801-R4804
 RX2901-RX2902, RX4801-RX4810
 CX1201-CX1232

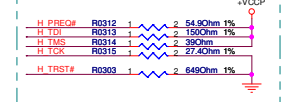
Mount:
 R1202, R1401-R1403, R1501, R1503-R1505, R2909, R3621, R7001-R7008
 RN7001-RN7011
 RNX1201, RNX2901, RNX2915
 L1501-L1505
 C1404-C1409, C1501-C1507, C1509-C1514
 CE1404, CE1501-CE1503

		Title : System Setting	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	2	of 35

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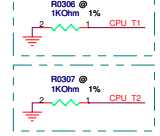


Default Strapping When XDP/ITP Not Used

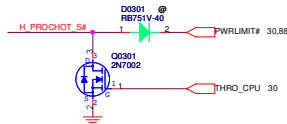
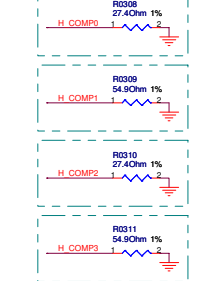


BCLK	FSB	BSEL2	BSEL1	BSEL0
166	667	0	1	1
200	800	0	1	0

CPU Test Pin

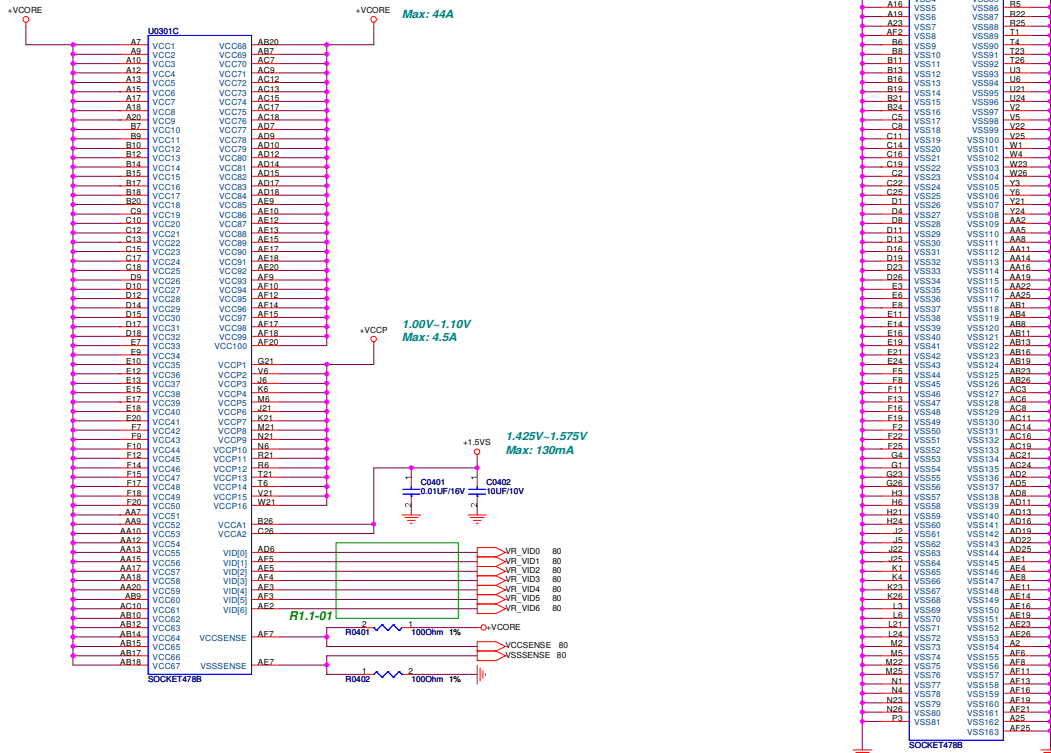


AGTL+ I/O Buffer Compensation



ASUS Title : CPU_Merom(Host)
 ASUSTek COMPUTER INC. NBI Engineer: John Hung
 Size: Custom Project Name: M50S/X55S Rev: 2.0
 Date: Monday, September 03, 2007 Sheet: 3 of 88

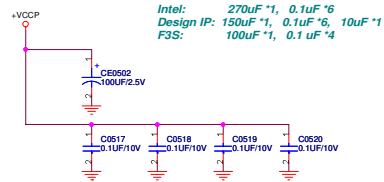
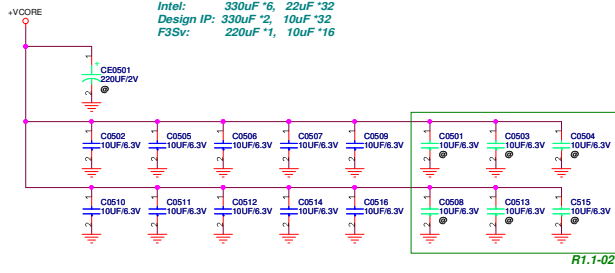
« Kennedy_Zhang »



U0001D		
A4	VSS1	VSS82
A8	VSS2	VSS83
A11	VSS3	VSS84
A14	VSS4	VSS85
A16	VSS5	VSS86
A18	VSS6	VSS87
A23	VSS7	VSS88
AE2	VSS8	VSS89
BB	VSS9	VSS90
BB	VSS10	VSS91
B11	VSS11	VSS92
B13	VSS12	VSS93
B16	VSS13	VSS94
B19	VSS14	VSS95
B21	VSS15	VSS96
B24	VSS16	VSS97
CS	VSS17	VSS98
CS	VSS18	VSS99
C11	VSS19	VSS100
C14	VSS20	VSS101
C16	VSS21	VSS102
C19	VSS22	VSS103
C2	VSS23	VSS104
C22	VSS24	VSS105
CA	VSS25	VSS106
D1	VSS26	VSS107
DA	VSS27	VSS108
D11	VSS28	VSS109
D13	VSS29	VSS110
D16	VSS30	VSS111
D16	VSS31	VSS112
D19	VSS32	VSS113
D23	VSS33	VSS114
D28	VSS34	VSS115
E8	VSS35	VSS116
E8	VSS36	VSS117
E8	VSS37	VSS118
E11	VSS38	VSS119
E14	VSS39	VSS120
E19	VSS40	VSS121
E21	VSS41	VSS122
E21	VSS42	VSS123
F4	VSS43	VSS124
F5	VSS44	VSS125
F8	VSS45	VSS126
F11	VSS46	VSS127
F13	VSS47	VSS128
F16	VSS48	VSS129
F19	VSS49	VSS130
F2	VSS50	VSS131
F22	VSS51	VSS132
G4	VSS52	VSS133
G4	VSS53	VSS134
G1	VSS54	VSS135
G63	VSS55	VSS136
G28	VSS56	VSS137
H3	VSS57	VSS138
H6	VSS58	VSS139
H21	VSS59	VSS140
H24	VSS60	VSS141
J2	VSS61	VSS142
J5	VSS62	VSS143
J22	VSS63	VSS144
K5	VSS64	VSS145
K1	VSS65	VSS146
K4	VSS66	VSS147
K23	VSS67	VSS148
K28	VSS68	VSS149
L3	VSS69	VSS150
L6	VSS70	VSS151
L41	VSS71	VSS152
L24	VSS72	VSS153
M2	VSS73	VSS154
M5	VSS74	VSS155
M22	VSS75	VSS156
M25	VSS76	VSS157
N1	VSS77	VSS158
N4	VSS78	VSS159
N23	VSS79	VSS160
N28	VSS80	VSS161
P3	VSS81	VSS162
	VSS163	AE25

ASUS Title : CPU_Merom(PWR)
ASUSTek COMPUTER INC. NBI Engineer: John Hung
Project Name: M50S/X55S
Date: Monday, September 03, 2007 Sheet 4 of 55

« Kennedy_Zhang »



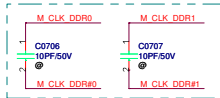
« Kennedy_Zhang »

ASUS		Title : CPU_Capacitors	
ASUSTeK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
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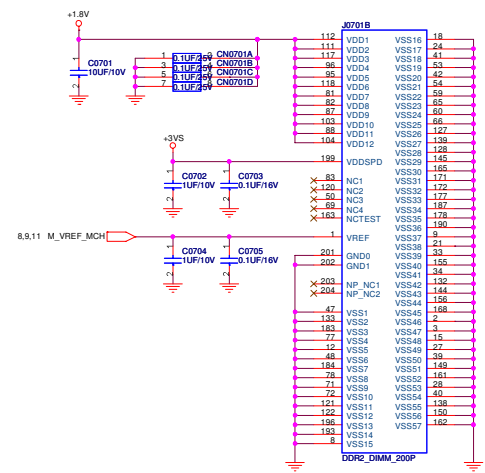
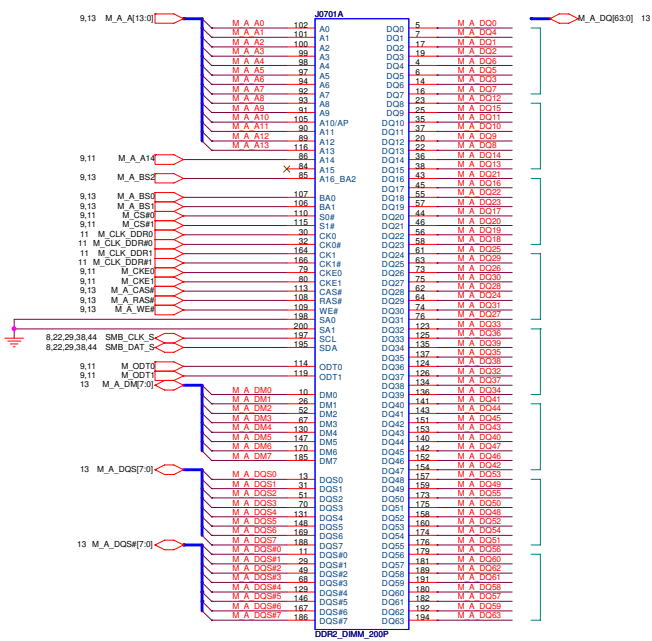
		Title : CPU****	
ASUSTEK COMPUTER INC. NB1		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	6 of 88

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Reserved for 3G



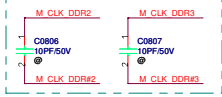
Reverse Type
H = 9.2 mm



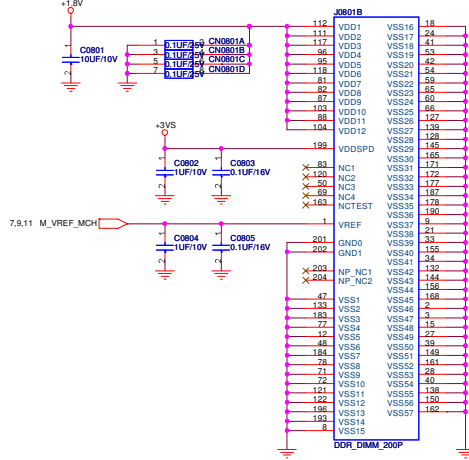
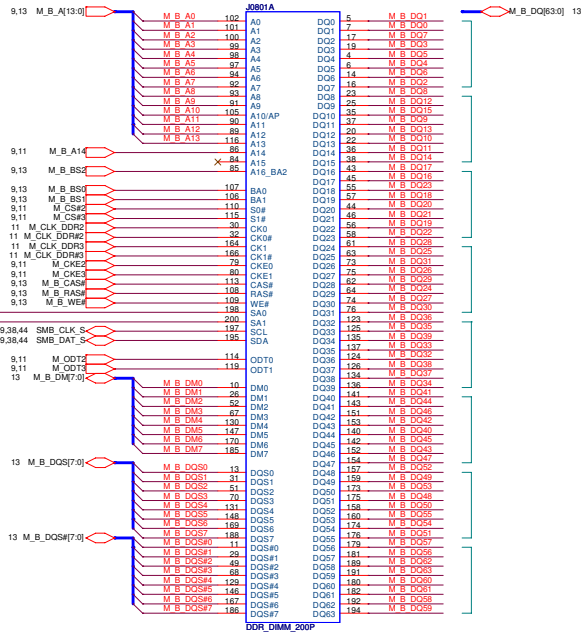
ASUS Title : DIM So-DIMM 0
 ASUSTek COMPUTER INC. (NBI) Engineer: John Hung
 Project Name: M50S/X555
 Date: Monday, September 03, 2007 Sheet 7 of 88

« Kennedy_Zhang »

Reserved for 3G

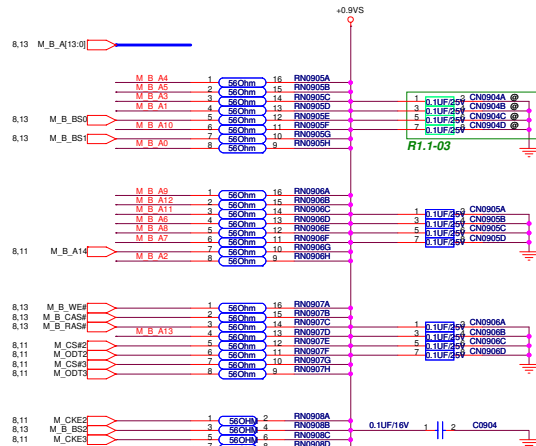
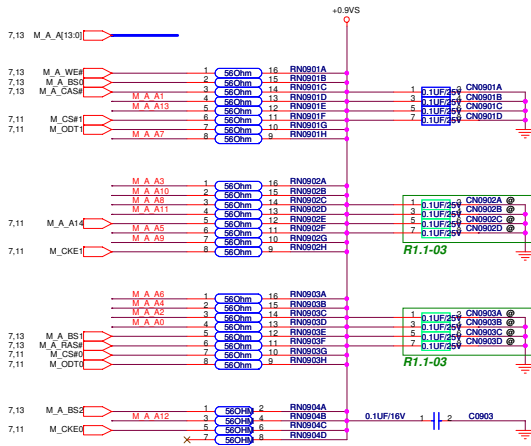
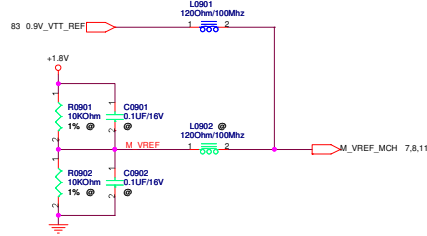


Reverse Type
H = 4.0 mm



ASUS		Title : DIM So-DIMM 1	
ASUSTek COMPUTER INC. NE1		Engineer: John Hung	
Site	Project Name	Rev	Rev
Custom	M50S/X55S	2.0	
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ASUS		Title : DIM_DDR2 Termination	
ASUSTek COMPUTER INC. NEI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
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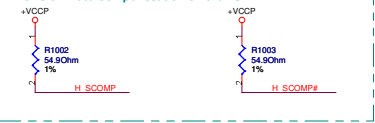
FSB RCOMP

For Calibrating the FSB I/O Buffer



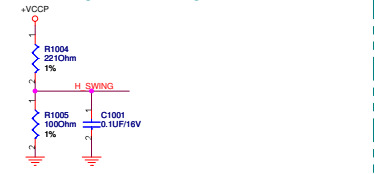
FSB SCOMP

For Slew Rate Compensation on the FSB



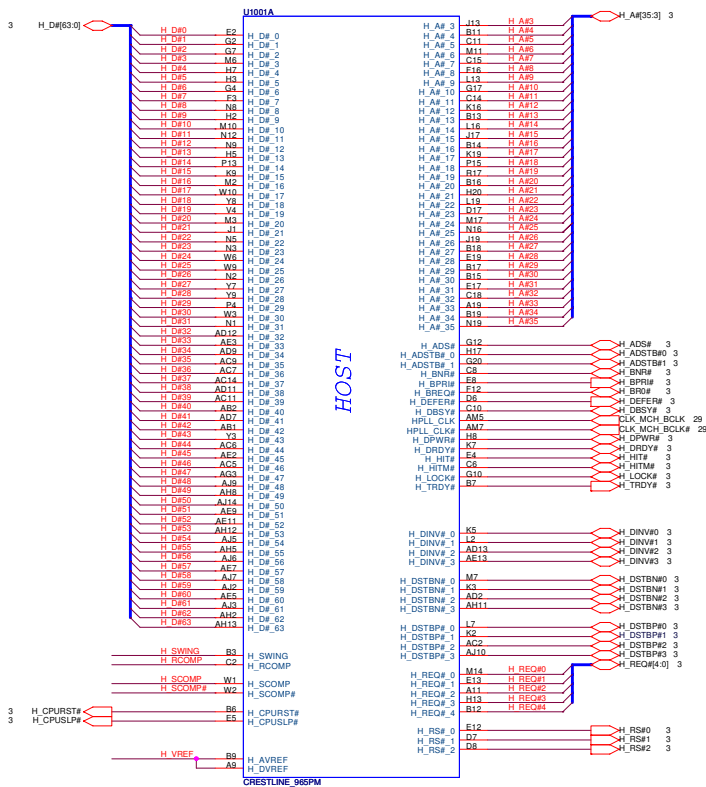
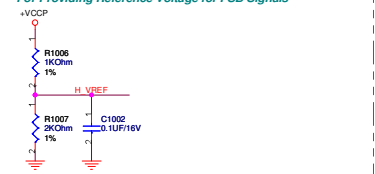
FSB Voltage Swing

For Providing a Reference Voltage to The FSB RCOMP circuits



FSB VREF

For Providing Reference Voltage for FSB Signals



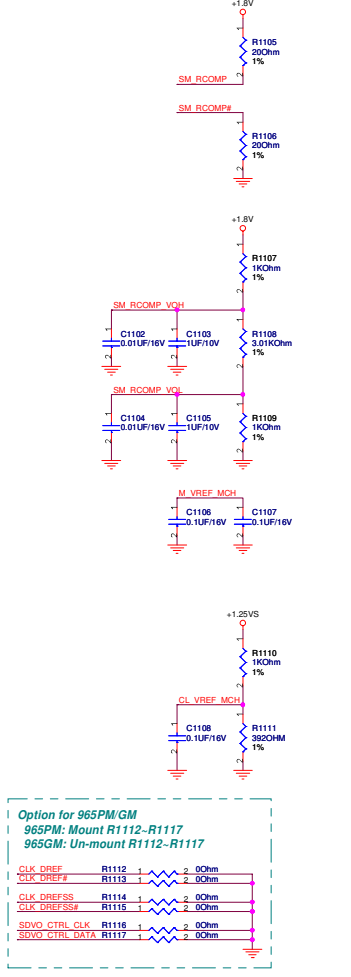
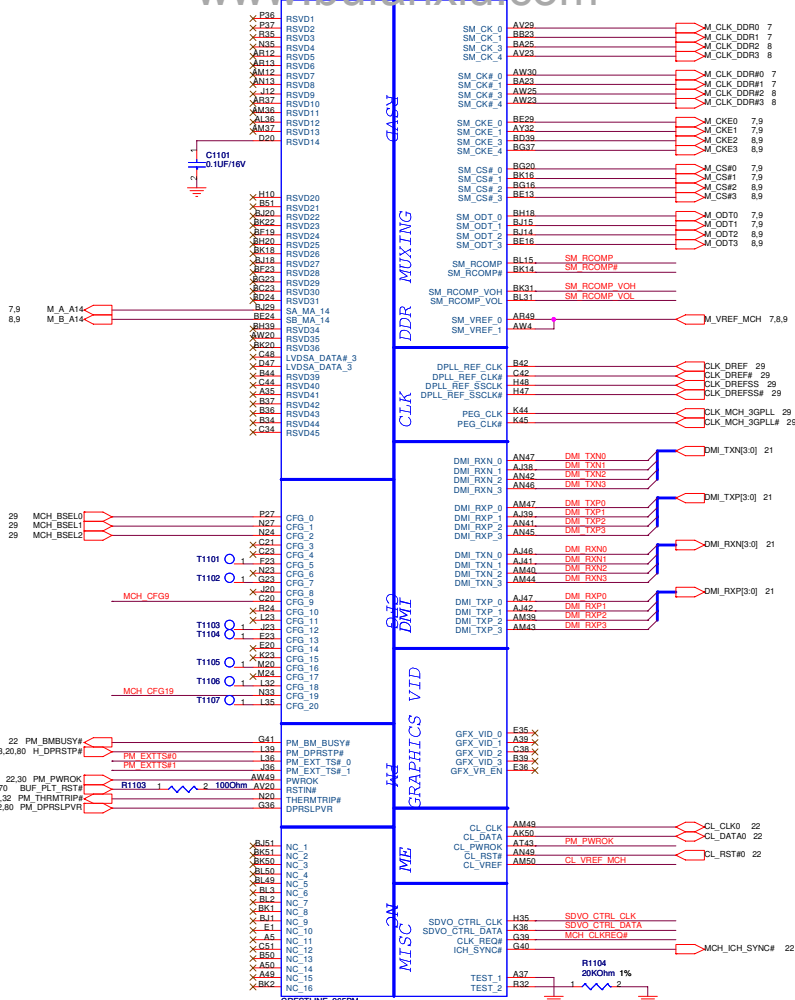
HOST



ASUS logo, Title: NB_965PM(Host), Engineer: John Hung, Project Name: M50S/X55S, Date: Monday, September 03, 2007, Sheet 10 of 88

<< Kennedy_Zhang >>

- CFG5 : DMI Strap**
0 = DMI x2
1 = DMI x4 (D)
- CFG7 : CPU Strap**
0 = Reserved
1 = Mobile CPU (D)
- CFG9 : PCIe Graphic Lane**
0 = Reverse Lane
1 = Normal Operation (D)
- CFG13:12 : GMCH Test Mode**
00 = Partial CLK Gating Disable
01 = XOR Mode Enable
10 = All Z Mode Enable
11 = Normal Operation (D)
- CFG16 : FSB Dynamic ODT**
0 = Dynamic ODT Disable
1 = Dynamic ODT Enable (D)
- CFG18 : Core Voltage**
0 = 1.05V (D)
1 = 1.5V
- CFG19 : DMI Lane Reversal**
0 = Normal Operation (D)
1 = Lanes Reversed
- CFG20 : Concurrent SDVO / PCIe**
0 = Only one is operational (D)
1 = operate simultaneous

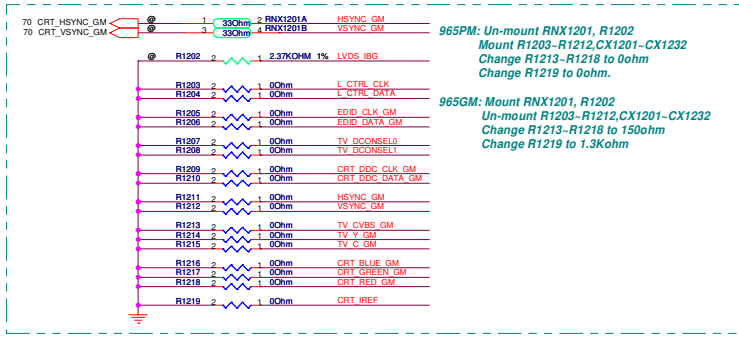
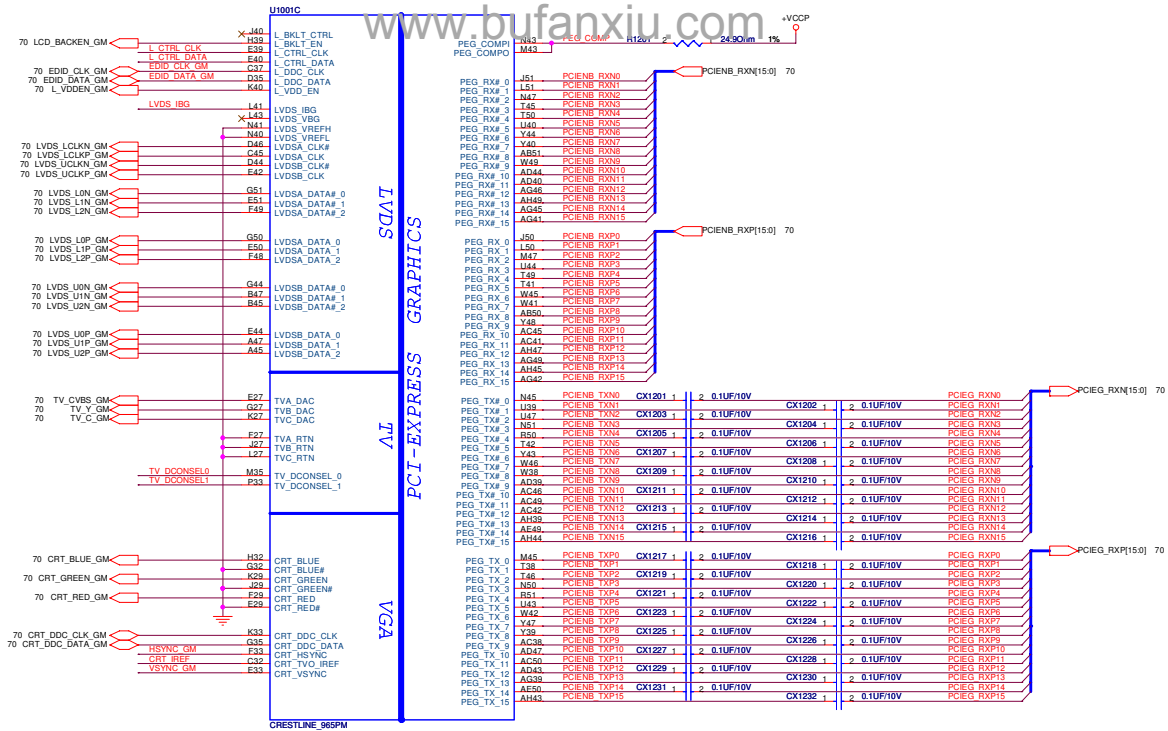


Option for 965PM/GM
965PM: Mount R1112-R1117
965GM: Un-mount R1112-R1117

CLK_DREF#	R1112	1	2	0Ohm
CLK_DREF#	R1113	1	2	0Ohm
CLK_DREFSS	R1114	1	2	0Ohm
CLK_DREFSS#	R1115	1	2	0Ohm
SDVO_CTRL_CLK	R1116	1	2	0Ohm
SDVO_CTRL_DATA	R1117	1	2	0Ohm

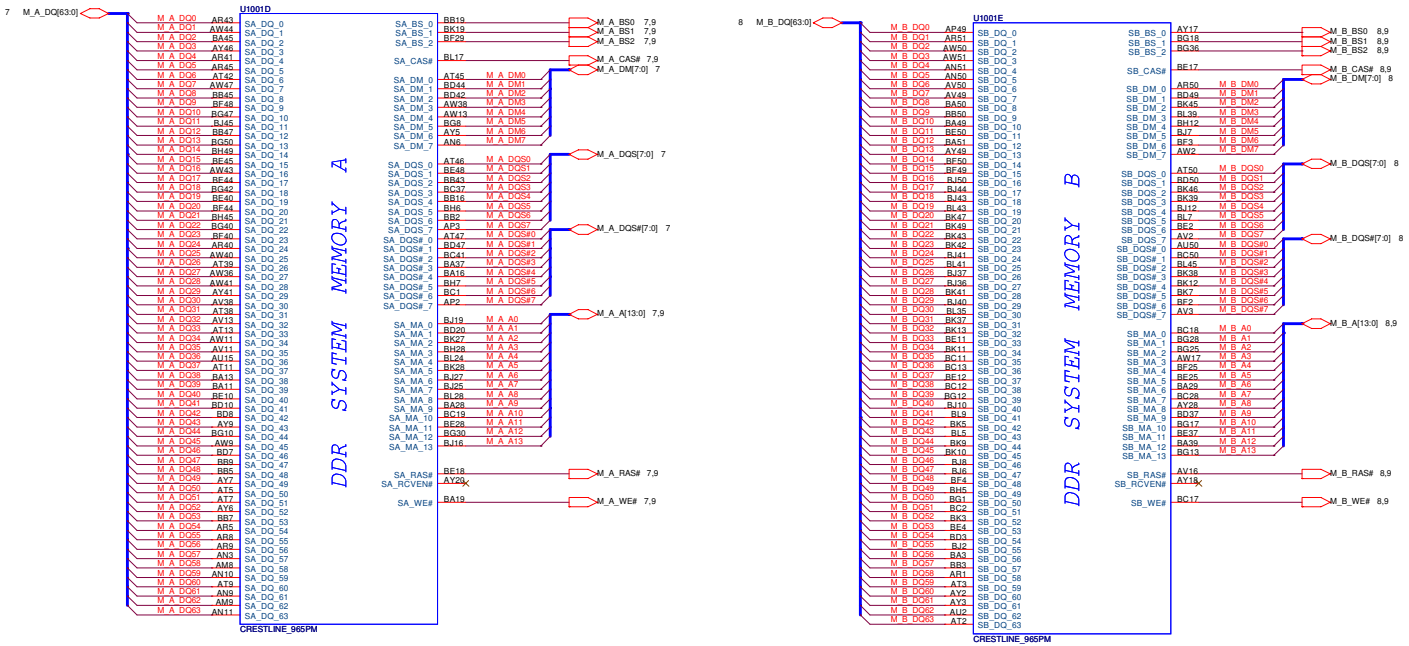
ASUS Title : NB_965PM(DMVCFG)
ASUSTeK COMPUTER INC. NBI Engineer: John Hung
 Date: Monday, September 03, 2007 Sheet: 11 of 88

« Kennedy_Zhang »



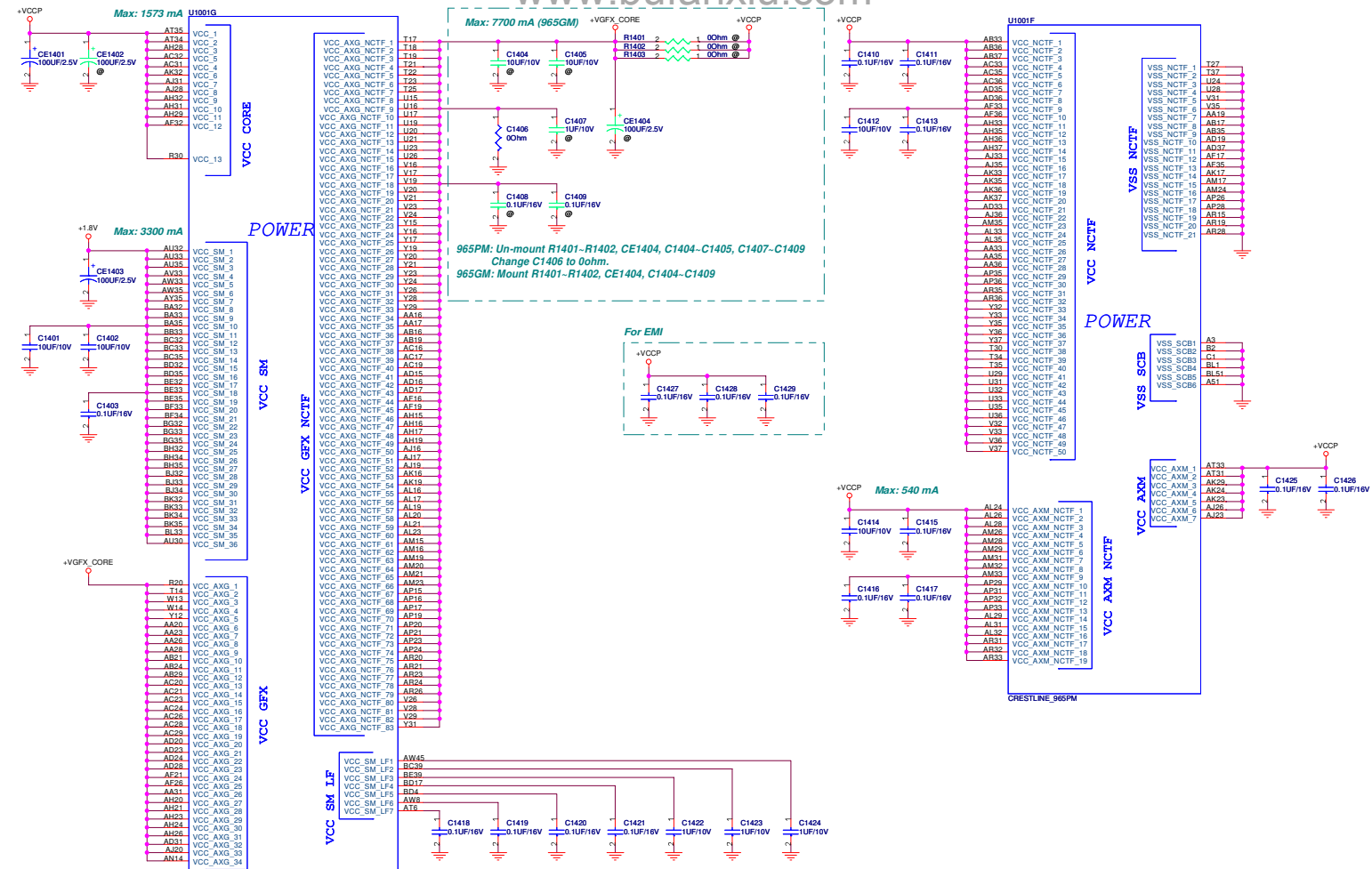
« Kennedy_Zhang »

ASUS		Title : NB_965PM(GFX)	
ASUSTeK COMPUTER INC. NEI		Engineer: John Hung	
Size	Project Name	Client	Rev
		M50S/X55S	2.0
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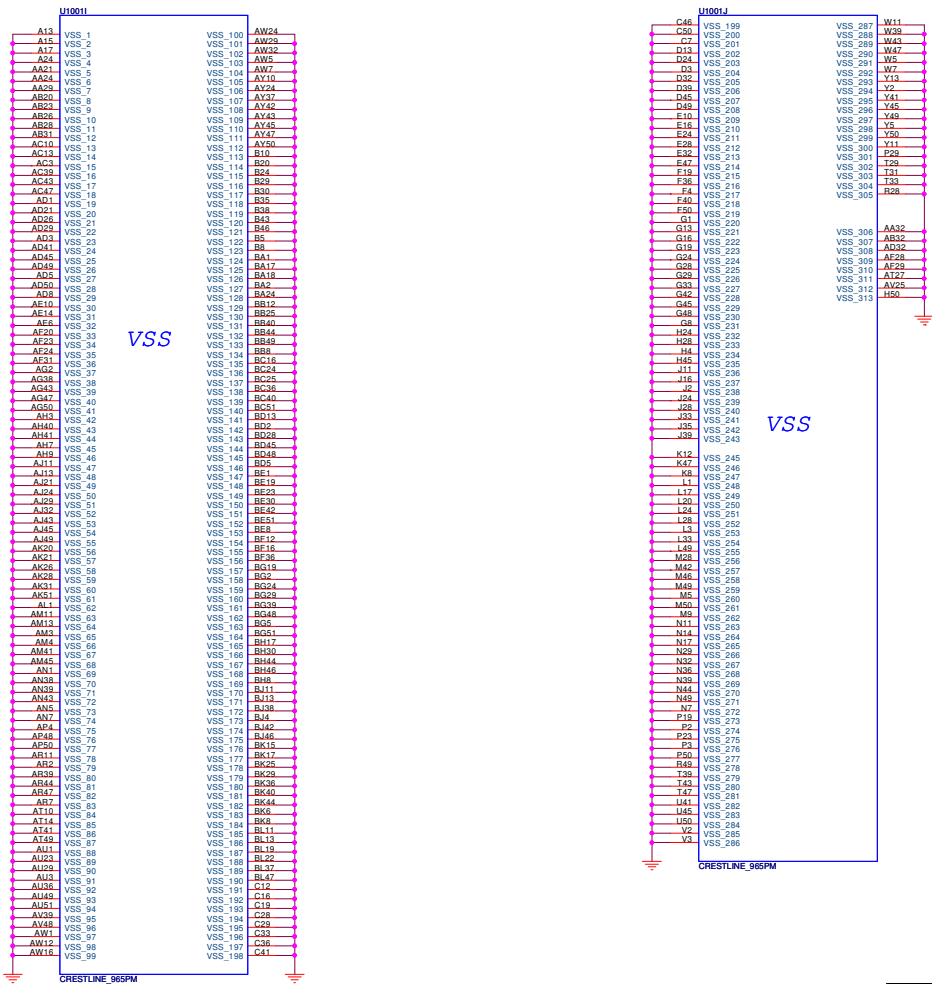
« Kennedy_Zhang »

ASUS Title : NB_965PM(DDR2)
 ASUSTeK COMPUTER INC. NBI Engineer: John Hung
 Sub Project Name
 Custom M50S/X55S
 Date: Monday, September 03, 2007 Sheet 13 of 35



ASUS		Title : NB_965PM(PWR)	
ASUSTek COMPUTER INC. NB1		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Tuesday, September 04, 2007	Sheet	14	of 85

« Kennedy_Zhang »



ASUS Title : NB_965PM(GND)
 ASUSTEK COMPUTER INC. NBI Engineer: John Hung
 Size Project Name
 Custom M50S/X55S
 Date: Monday, September 03, 2007 Sheet 16 of 35

« Kennedy_Zhang »

		Title : NB_****	
ASUSTEK COMPUTER INC. NB1		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	17 of 88

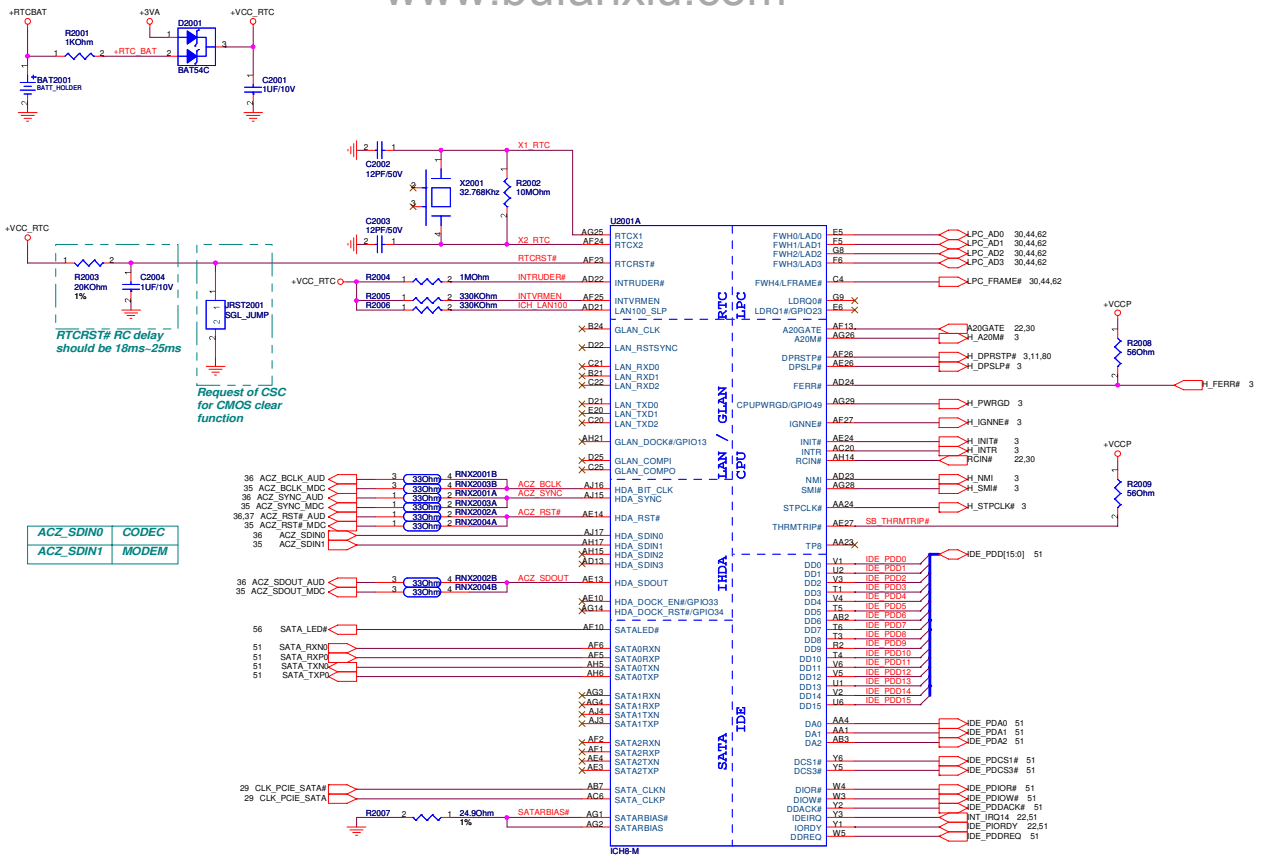
« Kennedy_Zhang »

		Title : NB_****	
ASUSTEK COMPUTER INC. NB1		Engineer: John Hung	
Size	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	18 of 88

« Kennedy_Zhang »

		Title : MEM ****	
ASUSTEK COMPUTER INC. NB1		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	19 of 88

« Kennedy_Zhang »



ASUS		Title : SB_ICH8M(1)	
ASUSTek COMPUTER INC. NB1		Engineer: John Hung	
Size	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007	Sheet	20	of 25

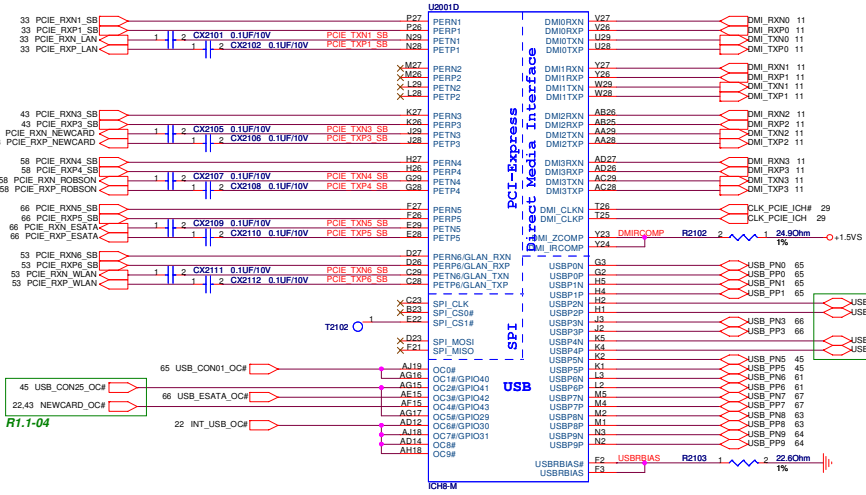
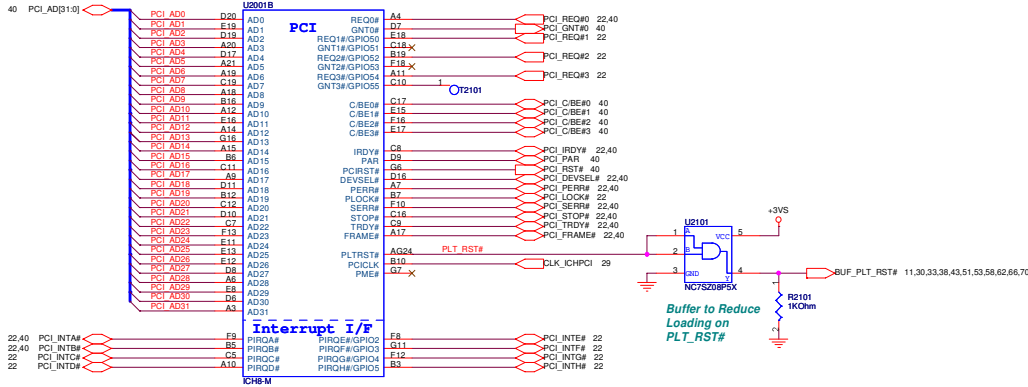
« Kennedy_Zhang »

ICH_TP3, ACZ_SDOUT : XOR Chain Entrance Strap
 00 = Reserved
 01 = Enter XOR Chain
 10 = Normal Operation (D)
 11 = Set PCIe Port Config Bit 1

GNT0#, SPI_CS1 : ICH8 Boot BIOS Select
 01 = SPI
 10 = PCI
 11 = LPC (D)

GNT2# : PCIe Port Configuration 2(Port 5/6)
 0 = Port 5 (x2)
 1 = Port 5 (x1), Port 6(x1) (D)

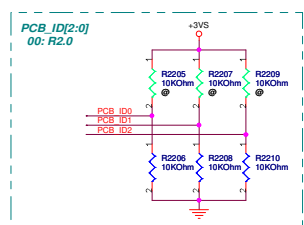
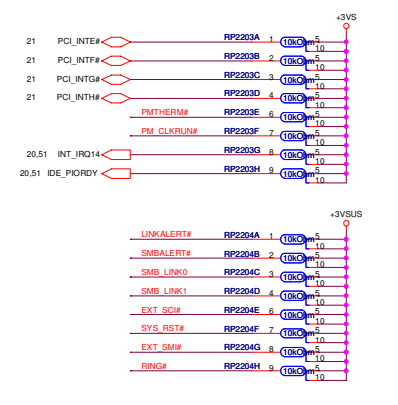
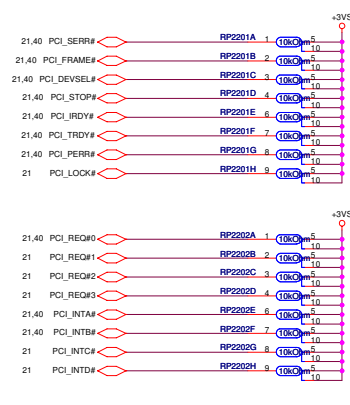
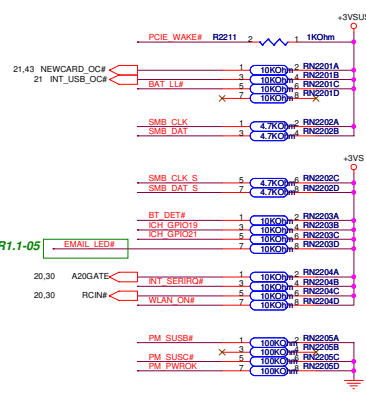
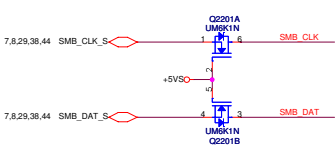
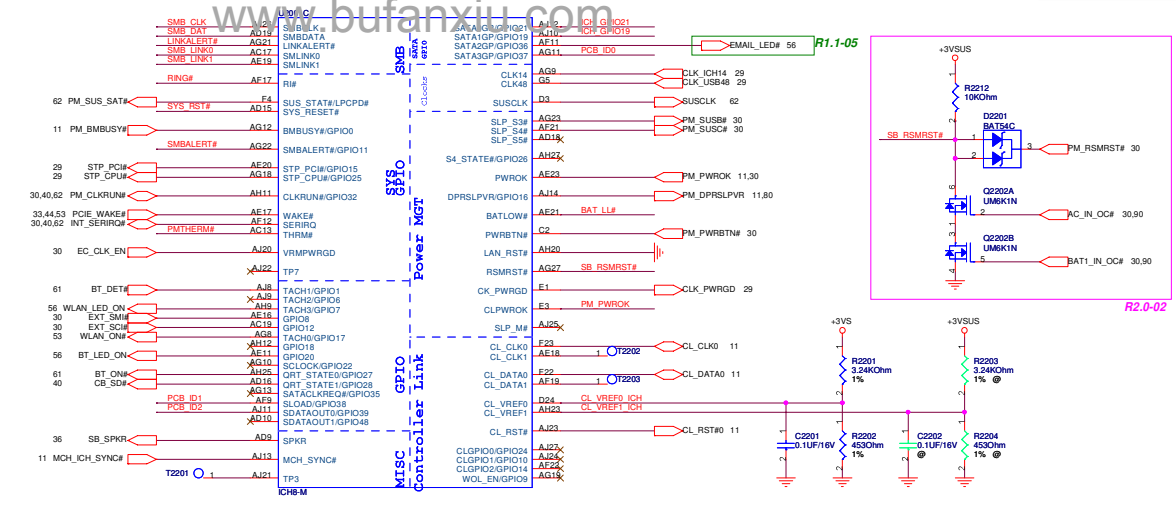
GNT3# : A16 Swap override strip
 0 = Enable
 1 = Default (D)



- USB 0 USB Conn.
- USB 1 USB Conn.
- USB 2 USB Conn.
- USB 3 eSATA/USB
- USB 4 NewCard
- USB 5 Camera
- USB 6 Bluetooth
- USB 7 3G Card
- USB 8 Fingerprint
- USB 9 TV Tuner

ASUS Title : SB_ICH8M(2)
 ASUSTeK COMPUTER INC. NBI Engineer: John Hung
 Site: Project Name: M50S/X55S
 Date: Monday, September 03, 2007 Sheet: 21 of 35

« Kennedy_Zhang »



ASUS Title : SB_ICH8M(3)
 ASUSTEK COMPUTER INC. NBI Engineer: John Hung
 Size Project Name
 Custom M50S/X55S
 Date: Monday, September 03, 2007 Sheet 22 of 35

« Kennedy_Zhang »

		Title : SB_***	
ASUSTeK COMPUTER INC. (NBI)		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	24 of 88

« Kennedy_Zhang »

		Title : SB_***	
ASUSTEK COMPUTER INC. (NB)		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	26 of 88

« Kennedy_Zhang »

		Title : SB_***	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	26 of 35

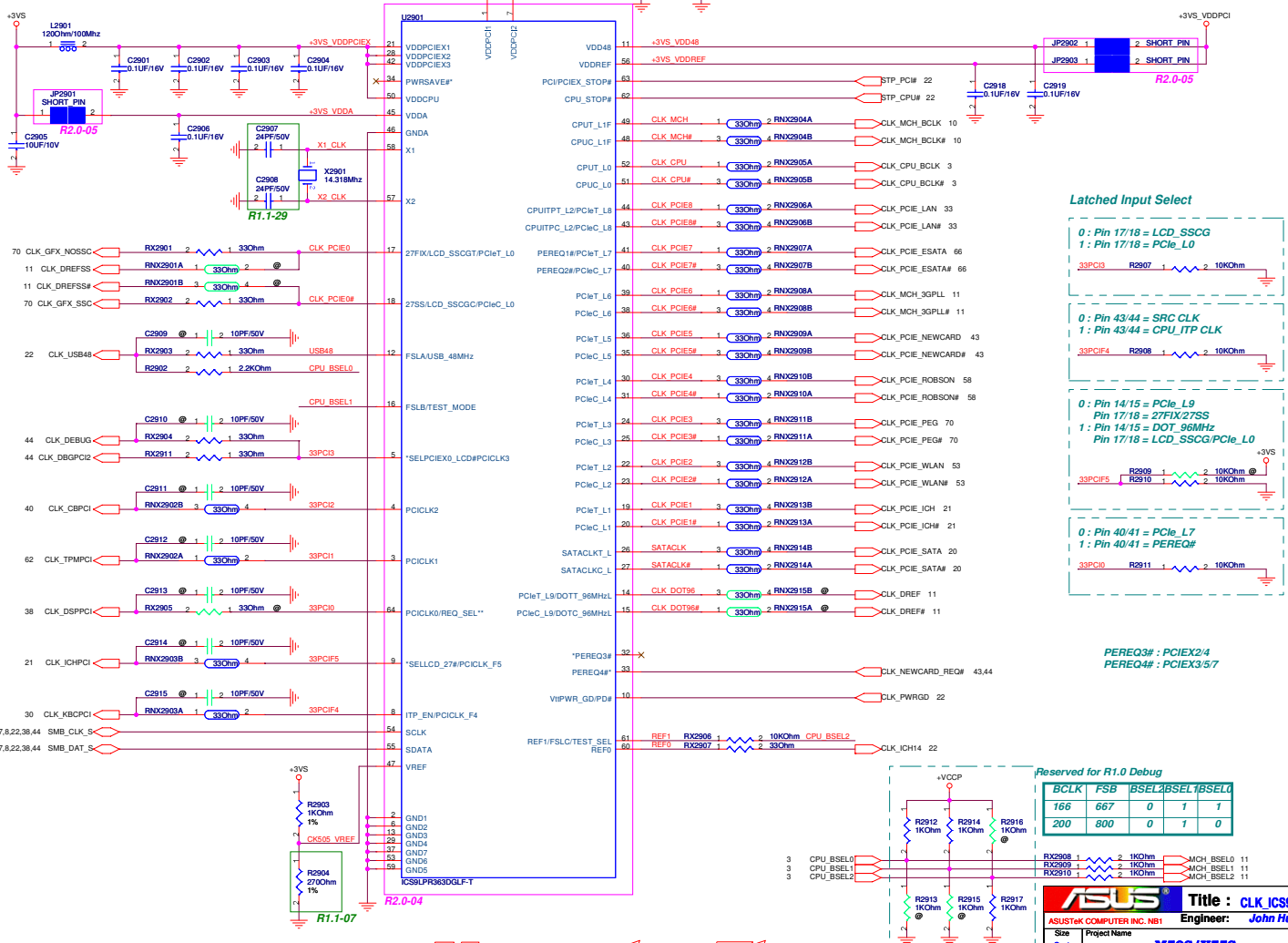
« Kennedy_Zhang »

		Title : SB_***	
ASUSTEK COMPUTER INC. NB1		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	27 of 88

« Kennedy_Zhang »

		Title : SB_***	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	28 of 35

« Kennedy_Zhang »



Latched Input Select

0 : Pin 17/18 = LCD_SSCG
1 : Pin 17/18 = PCIe_L0

0 : Pin 43/44 = SRC CLK
1 : Pin 43/44 = CPU_ITP CLK

0 : Pin 14/15 = PCIe_L9
1 : Pin 17/18 = 27FX/27SS
1 : Pin 14/15 = DOT_96MHz
1 : Pin 17/18 = LCD_SSCG/PCIe_L0

0 : Pin 40/41 = PCIe_L7
1 : Pin 40/41 = PEREQ#

PEREQ3# : PCIE X2/4
PEREQ4# : PCIE X3/5/7

Reserved for R1.0 Debug

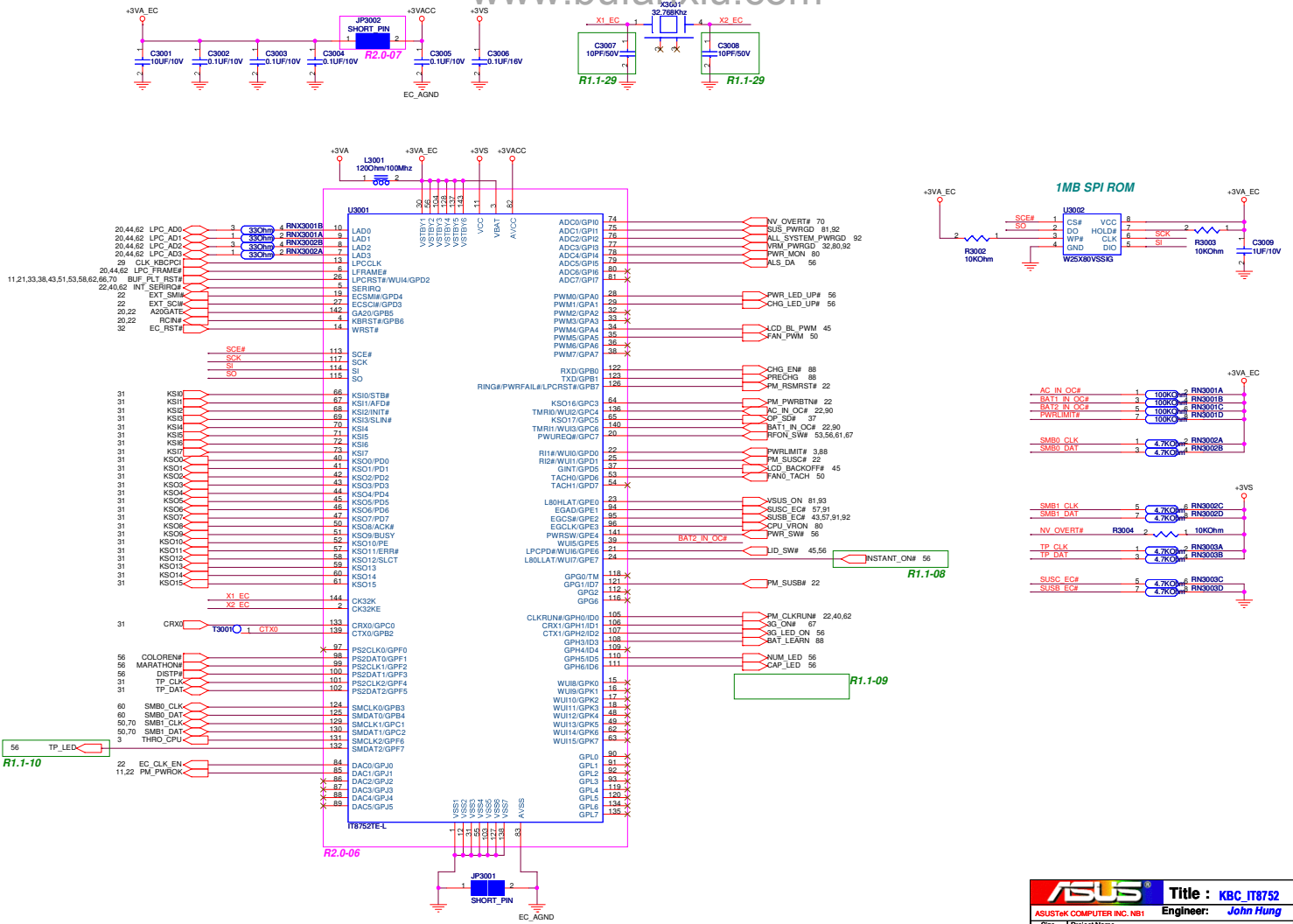
BCLK	FSB	BSEL2	BSEL1	BSEL0
166	667	0	1	1
200	800	0	1	0

3 CPU_BSEL0
3 CPU_BSEL1
3 CPU_BSEL2

RX2908 1KOhm
RX2909 1KOhm
RX2910 1KOhm
RX2913 1KOhm
RX2915 1KOhm
RX2917 1KOhm

ASUS Title : CLK_IC99LPR363
ASUSTeK COMPUTER INC. NBI Engineer: John Hung
Size Project Name
Custom M50S/X55S
Date: Tuesday, September 04, 2017 Sheet 29 of 35

« Kennedy_Zhang »

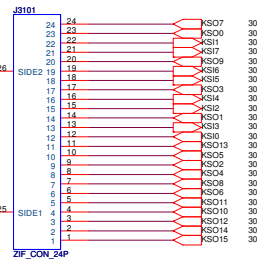
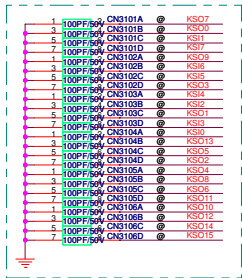


ASUS		Title : KBC_IT8752	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name	Customer	Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	30 of 35

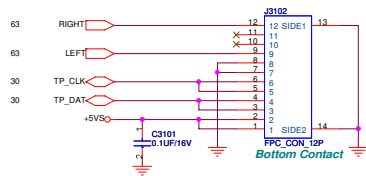
« Kennedy_Zhang »

Keyboard

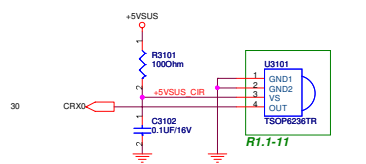
EMI



Touchpad

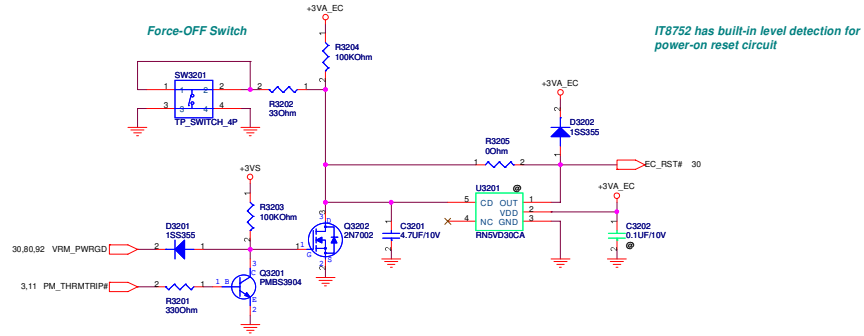


CIR



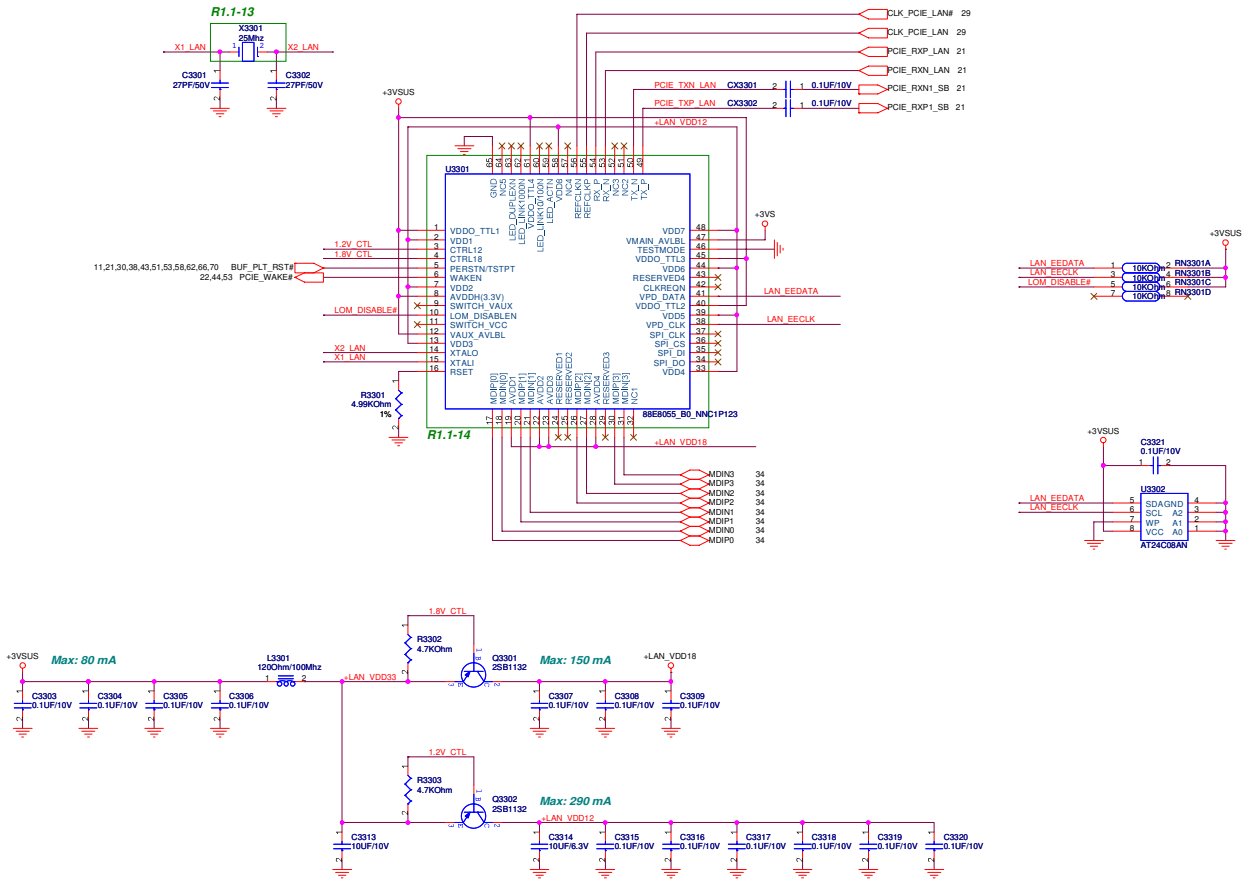
ASUS Title : KBC, KB, TP & CIR
 ASUSTEK COMPUTER INC. NBI Engineer: John Hung
 Size Project Name
 Custom M50S/X55S Rev 2.0
 Date: Monday, September 03, 2007 Sheet 31 of 35

« Kennedy_Zhang »



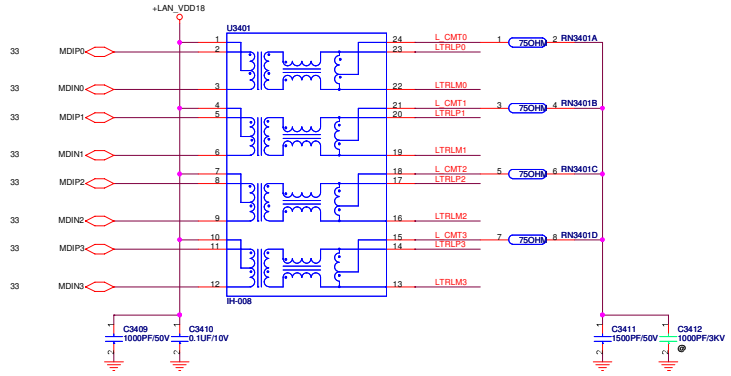
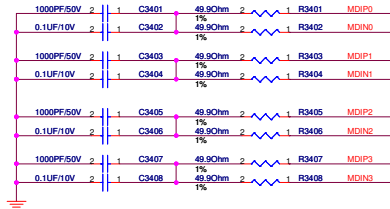
« Kennedy_Zhang »

ASUS		Title : RST_Reset Circuit	
ASUSTeK COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	32	of 88

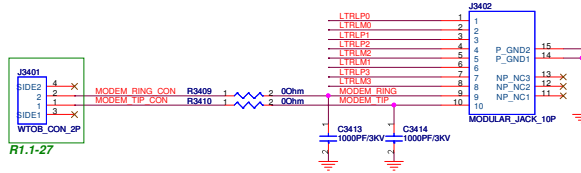


ASUS		Title : LAN_88E8055	
ASUSTek COMPUTER INC. NE1		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	33	of 88

« Kennedy_Zhang »



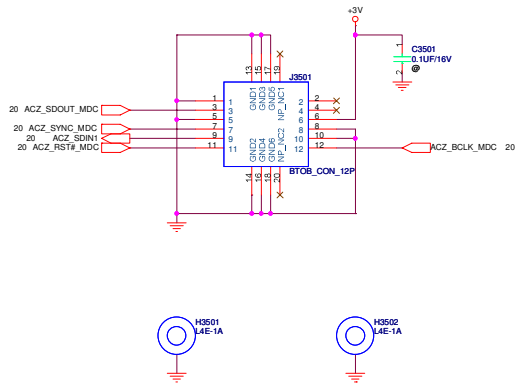
R1.1-28
R2.0-08



R1.1-27

ASUS		Title : LAN RJ45 & RJ11	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	34	of 88

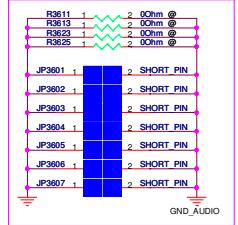
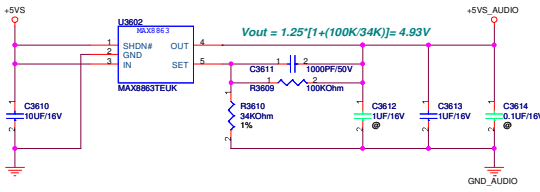
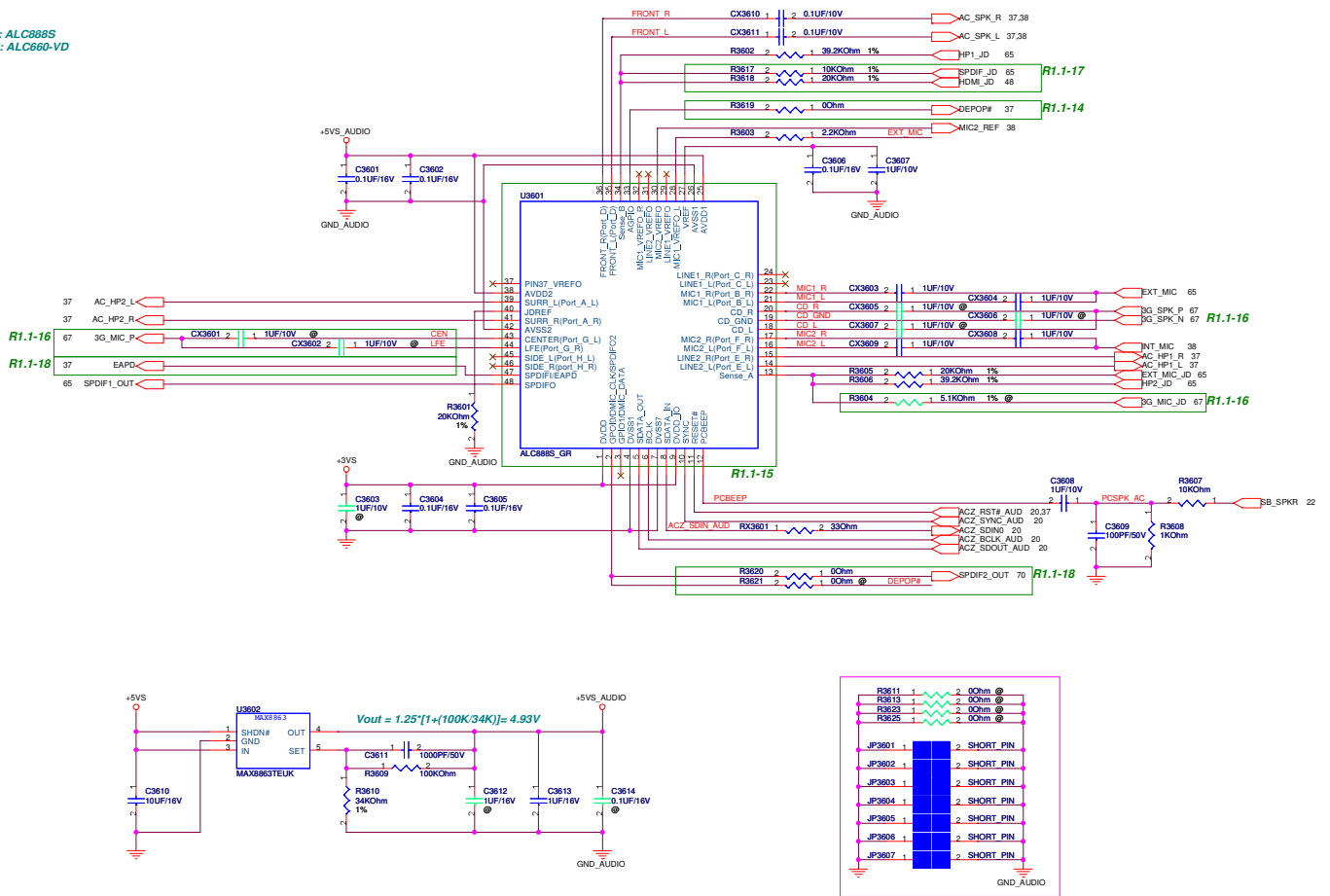
« Kennedy_Zhang »



« Kennedy_Zhang »

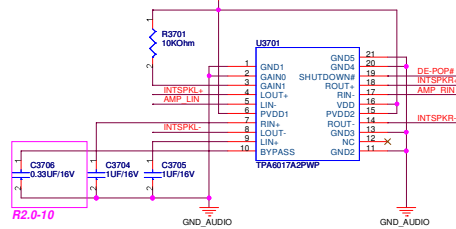
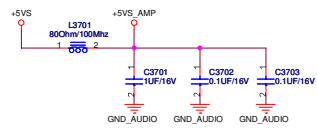
ASUS		Title : LAN_MDC	
ASUSTeK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	35	of 35

PM: ALC888S
GM: ALC660-VD

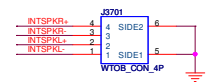


« Kennedy_Zhang »

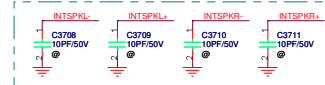
ASUS		Title : AUD_ALC888S	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007	Sheet	36	of 35



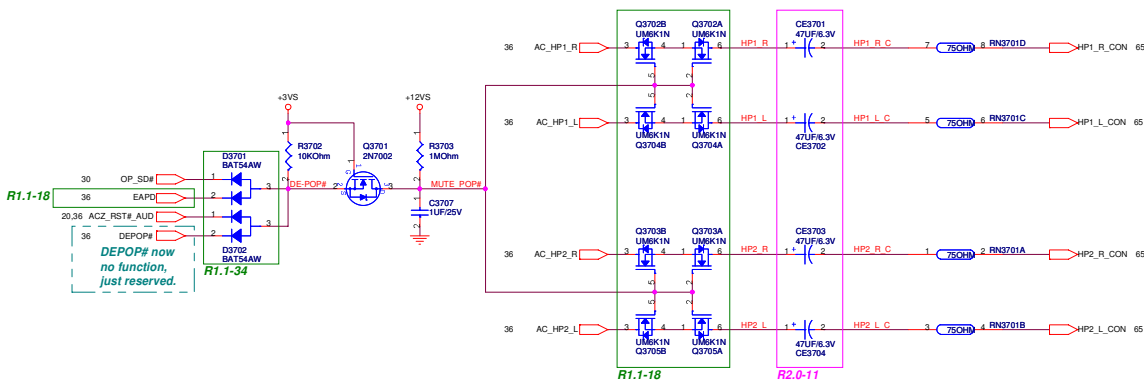
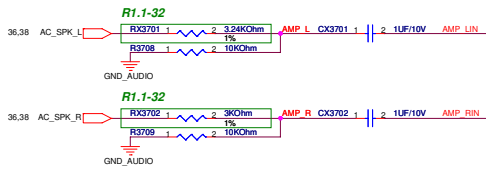
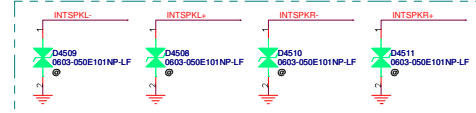
Internal Speaker Conn.



Reserved for 3G



Reserved for EMI



R1.1-18

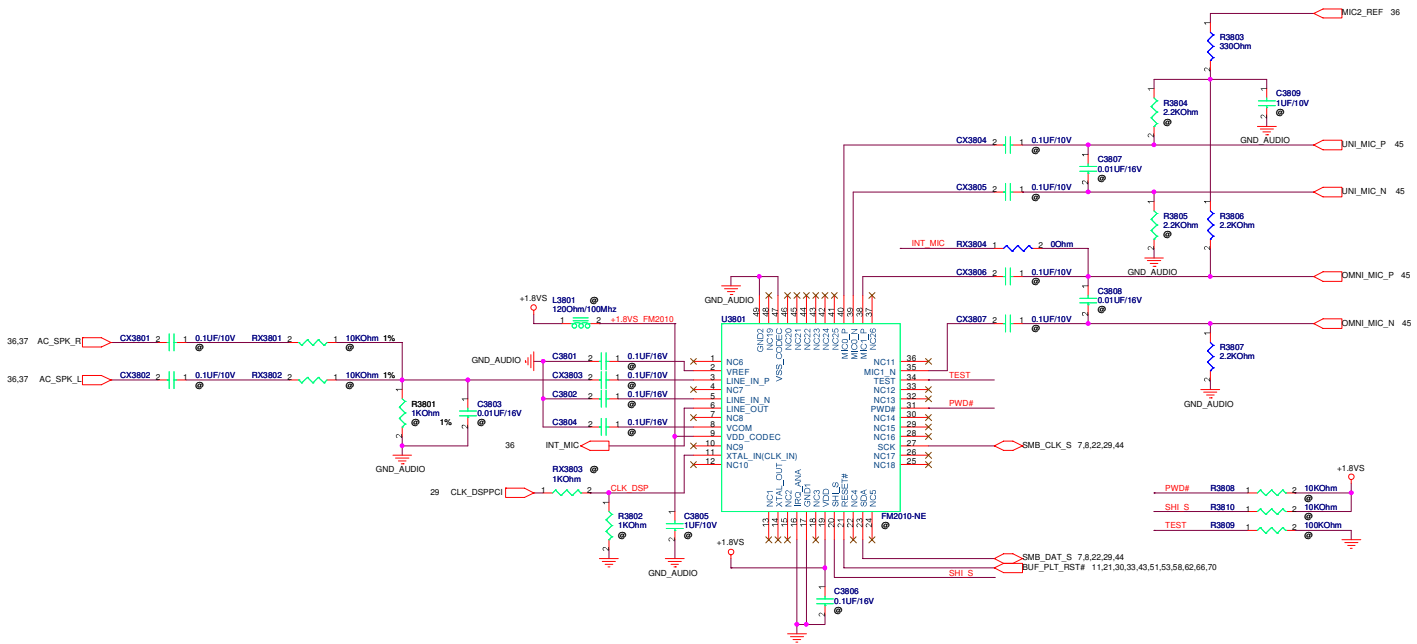
D3701 BATS4AW

D3702 BATS4AW

DEPOP# now no function, just reserved.

ASUS		Title : AUD_Amp & Jack	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Wednesday, September 05, 2012	Sheet	37	of 38

« Kennedy_Zhang »

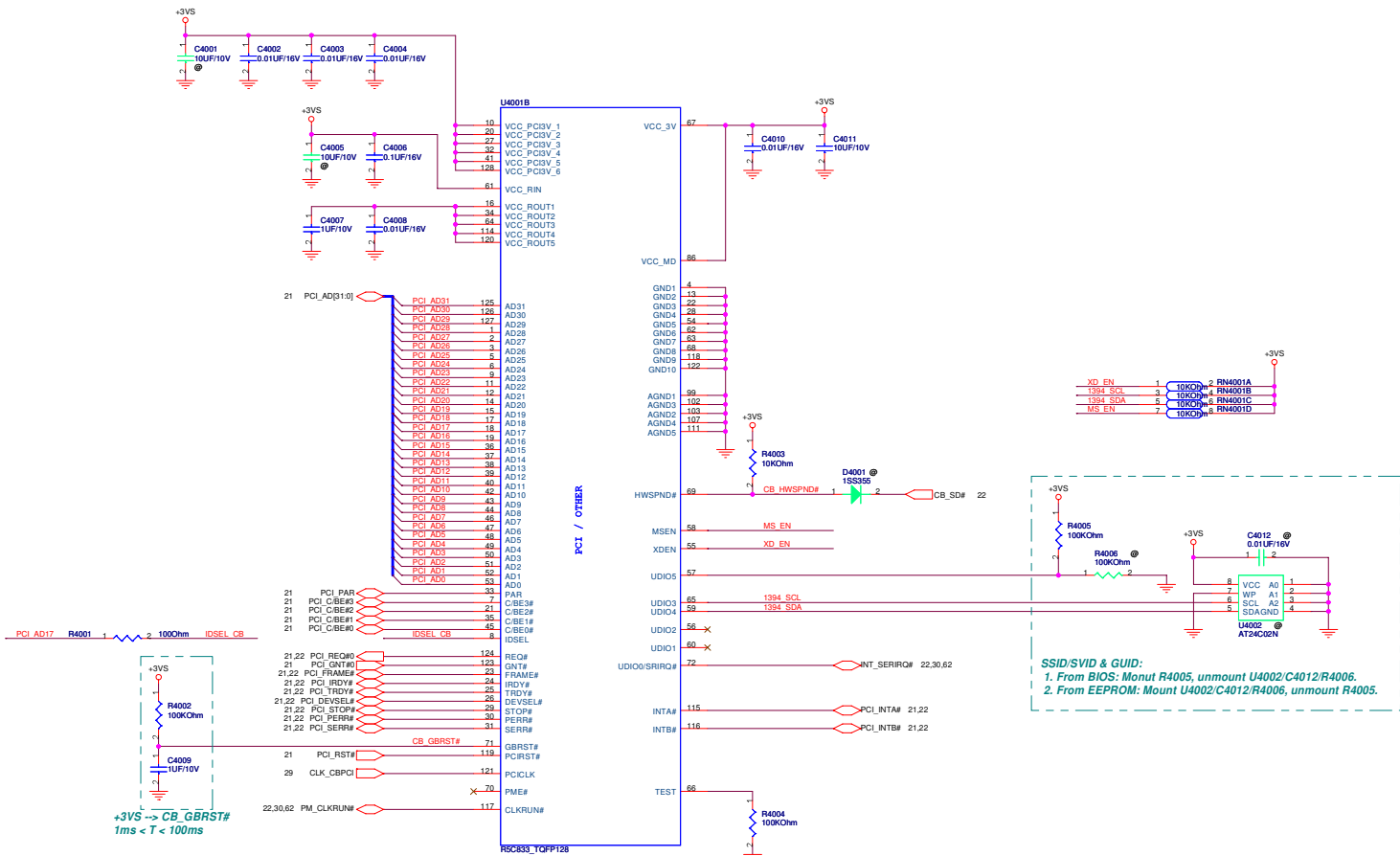


« Kennedy_Zhang »

ASUS		Title : AUD_FM2010	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Tuesday, September 04, 2007		Sheet	38 of 88

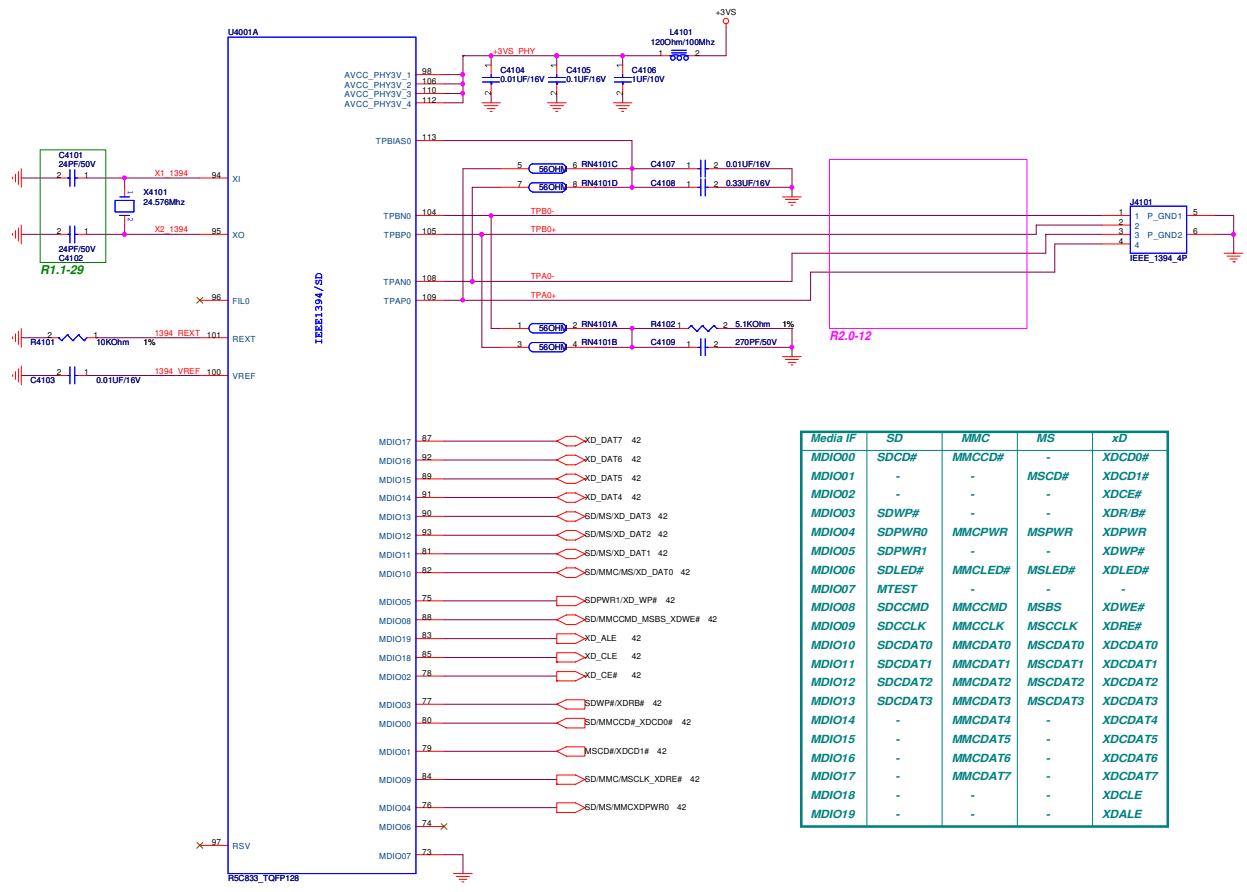
		Title : AUD ****	
ASUSTeK COMPUTER INC. (NB)		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	39 of 39

« Kennedy_Zhang »



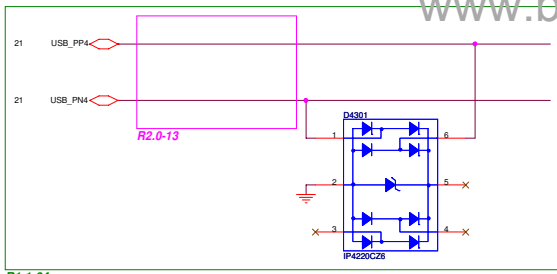
« Kennedy_Zhang »

ASUS		Title : CB_R5C833	
ASUSTEK COMPUTER INC. NE1		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	40	of 88

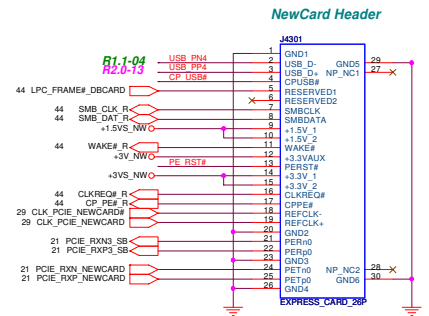


« Kennedy_Zhang »

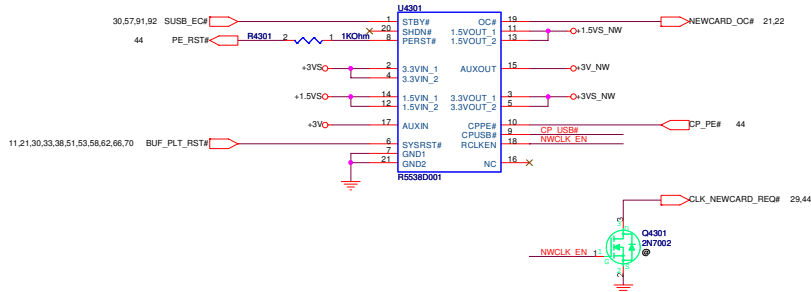
ASUS		Title : CB_R5C833	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	41	of 88



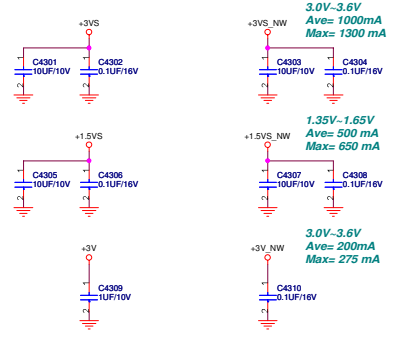
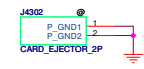
R1.1-04



NewCard Header



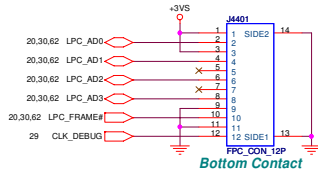
NewCard Ejector



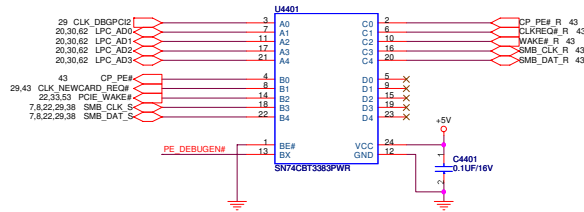
ASUS		Title : CB_NewCard	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	1.0	
Date: Monday, September 03, 2007	Sheet	43	of 88

« Kennedy_Zhang »

LPC Debug Port

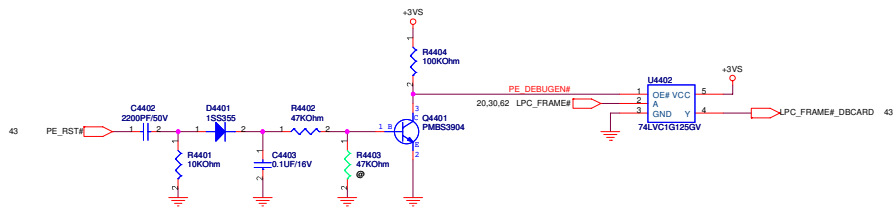


For NewCard Debug Card



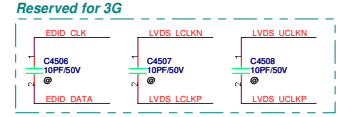
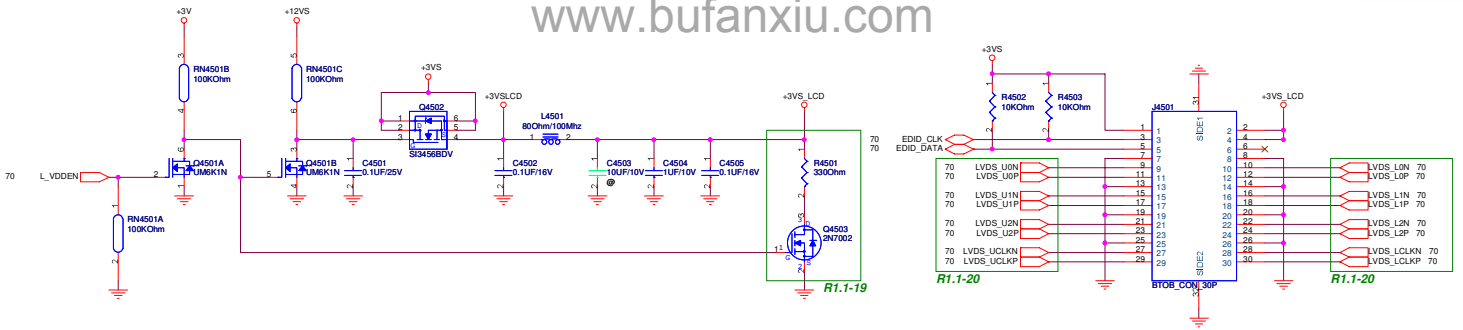
CP_PE#	@ 00hm	2	1	R4405	CP_PE# R
CLK_NEWCARD_REQ#	@	3	4	R4401B	CLK_REQ# R
PCIE_WAKE#	@	1	2	R4401A	WAKE# R
SMB_DAT# S	@	3	4	R4402B	SMB_DAT# R
SMB_CLK# S	@	1	2	00hm	SMB_CLK# R

R2.0-14

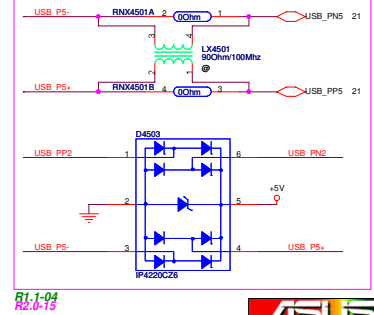
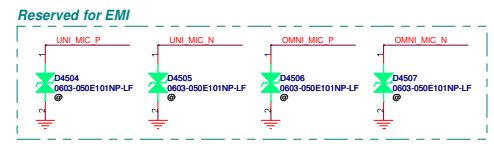
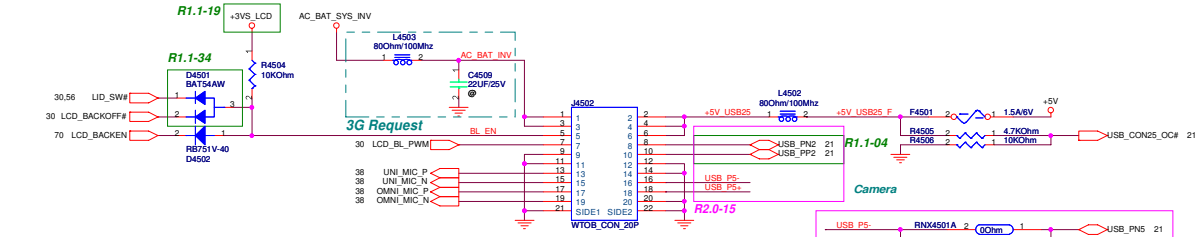


ASUS		Title : BUG_LPC Debug	
ASUSTek COMPUTER INC. NB1		Engineer: John Hung	
Size	Project Name	Rev	Rev
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	44	of 88

« Kennedy_Zhang »

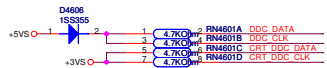
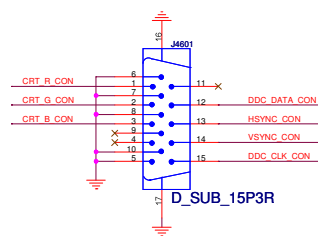
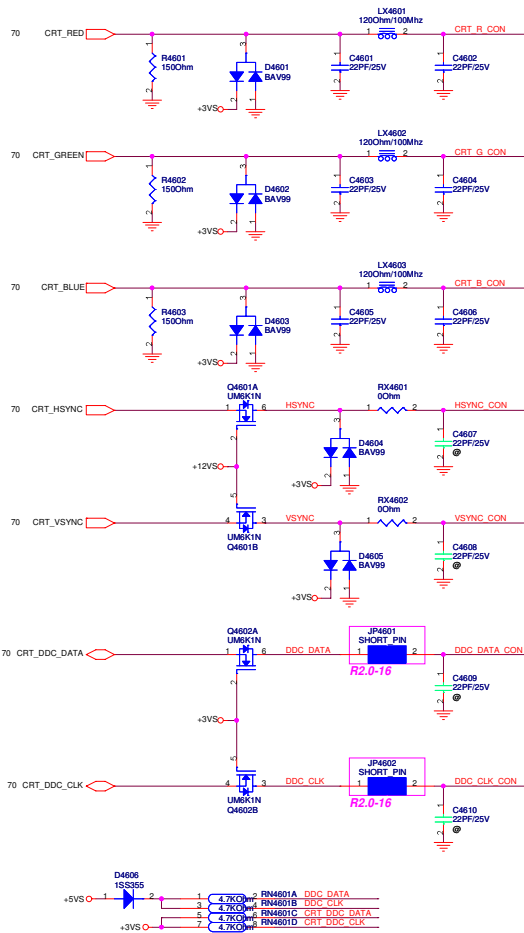


X 7 100K RN4501D



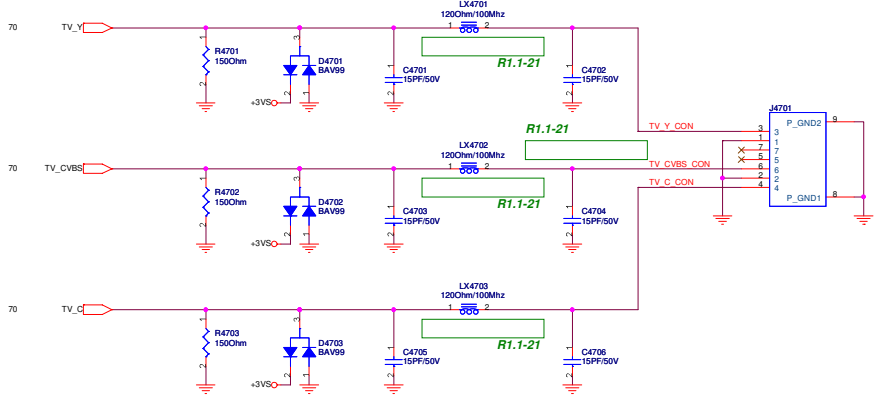
ASUS		Title : CRT_LCD Panel
ASUSTek COMPUTER INC. NB1		Engineer: John Hung
Size	Project Name	Rev
Custom	M50S/X55S	2.0
Date: Monday, September 03, 2007	Sheet	45 of 85

« Kennedy_Zhang »



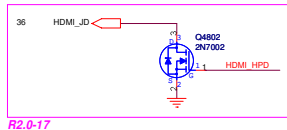
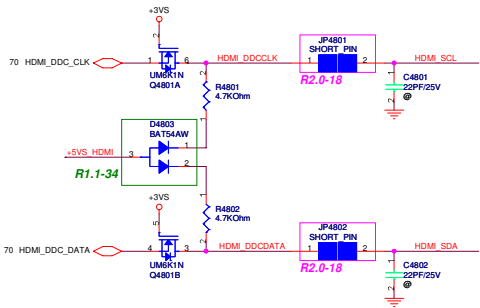
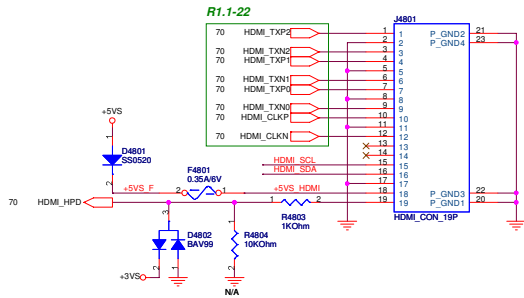
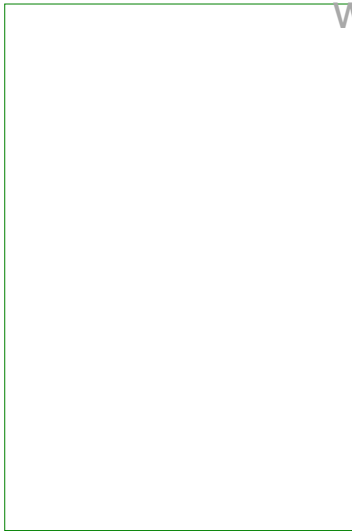
ASUS		Title : CRT_D-Sub	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	46	of 88

« Kennedy_Zhang »



« Kennedy_Zhang »

ASUS		Title : TV_TV-Out	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007	Sheet	47	of 88



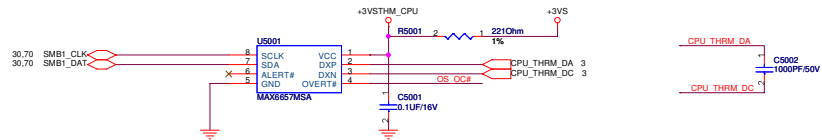
ASUS		Title : CRT_HDMI	
ASUSTeK COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	48	of 88

« Kennedy_Zhang »

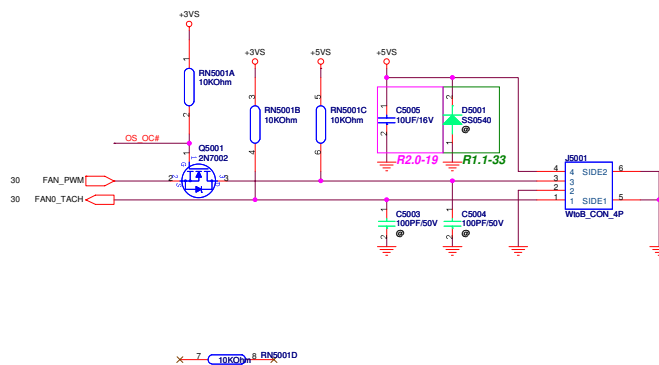
		Title : TV ***	
ASUSTEK COMPUTER INC. NB1		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	49 of 88

« Kennedy_Zhang »

CPU Thermal Sensor

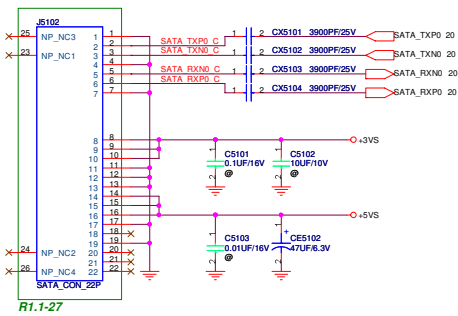
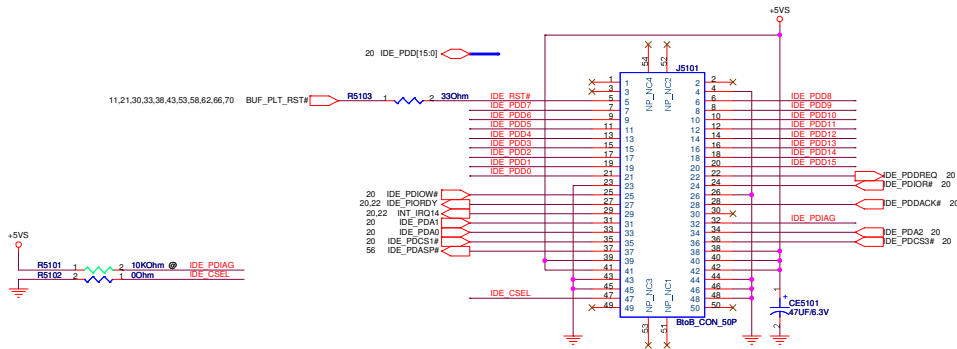


PWM Fan



ASUS		Title : FAN_Fan & Sensor	
ASUSTeK COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	50	of 55

« Kennedy_Zhang »



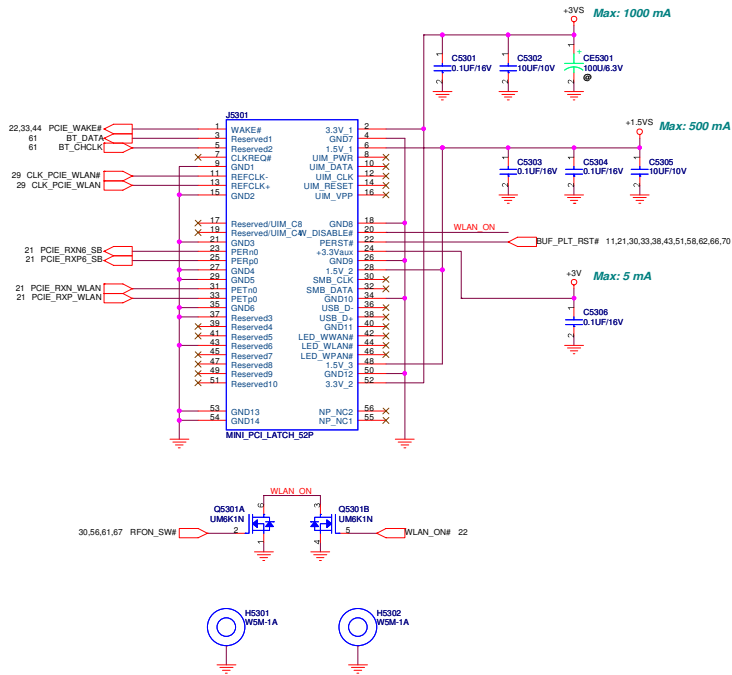
R1.1-27

ASUS		Title : XDD_HDD & ODD	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	Rev
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	51	of 55

<< Kennedy_Zhang >>

		Title : USB ****	
ASUSTeK COMPUTER INC. (NB)		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	52 of 55

« Kennedy_Zhang »



« Kennedy_Zhang »

ASUS		Title : PCI_WLAN	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Tuesday, September 04, 2017	Sheet	53	of 88

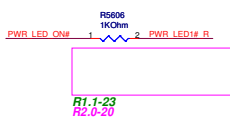
		Title : BAR_****	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	54 of 88

« Kennedy_Zhang »

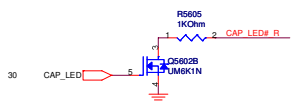
		Title : SIO ****	
ASUSTeK COMPUTER INC. (NBI)		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	55 of 55

« Kennedy_Zhang »

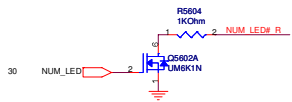
Power LED



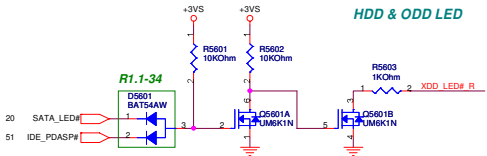
Cap Lock LED



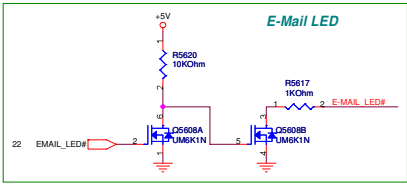
Num Lock LED



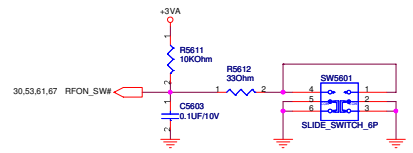
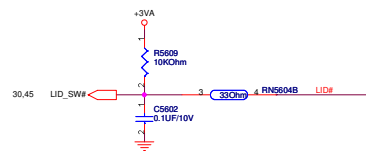
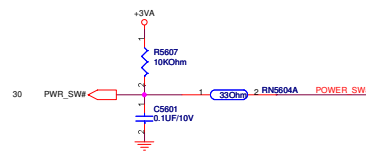
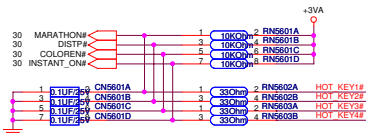
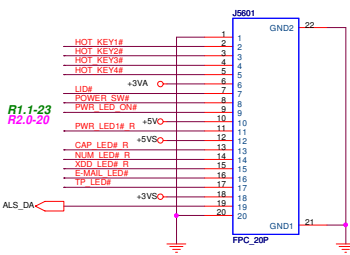
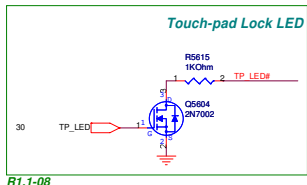
HDD & ODD LED



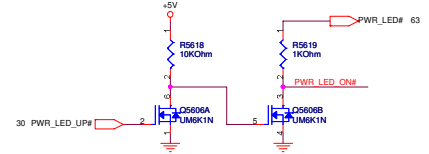
E-Mail LED



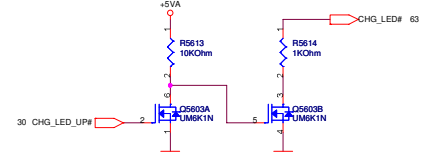
Touch-pad Lock LED



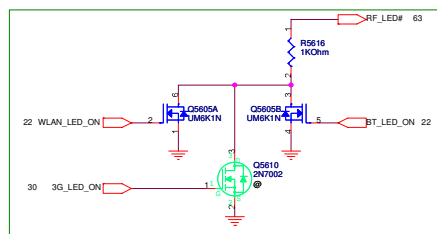
Power LED



Charger LED

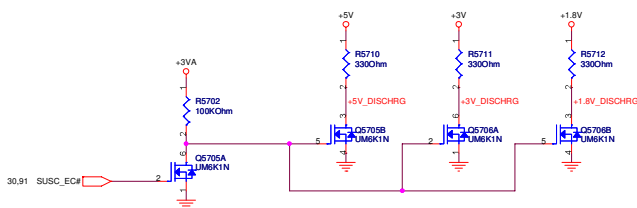
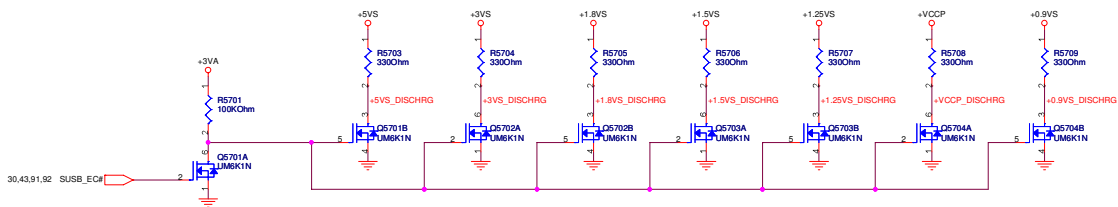


WLAN LED



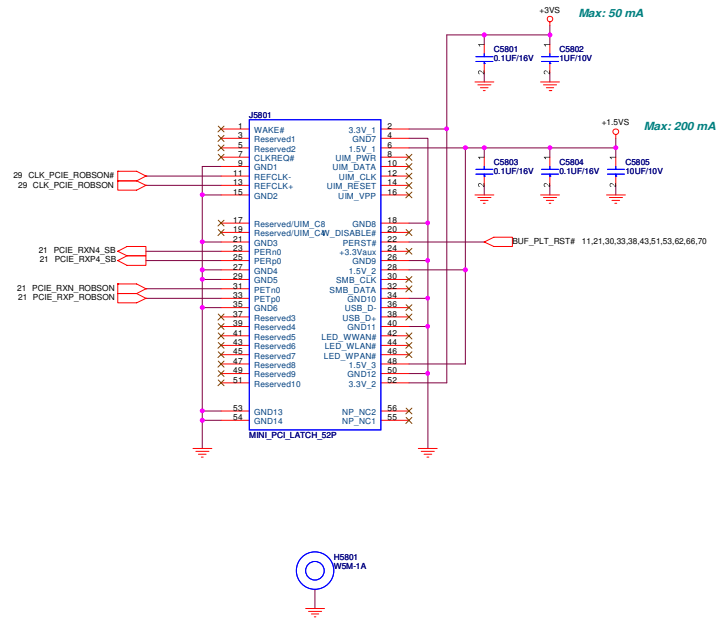
ASUS		Title : LED Indicator	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
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		Title : DSG Discharge	
ASUSTeK COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	57	of 88

« Kennedy_Zhang »



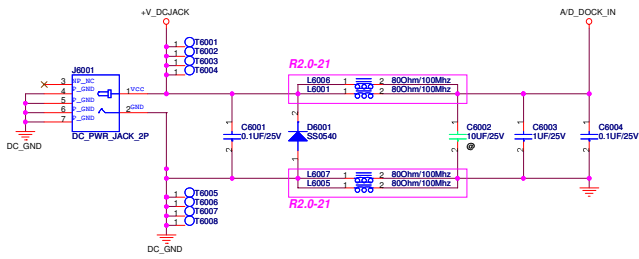
« Kennedy_Zhang »

ASUS		Title : ROB_Robson
ASUSTeK COMPUTER INC. NBI		Engineer: John Hung
Size	Project Name	Rev
Custom	M50S/X55S	2.0
Date: Monday, September 03, 2007	Sheet	58 of 55

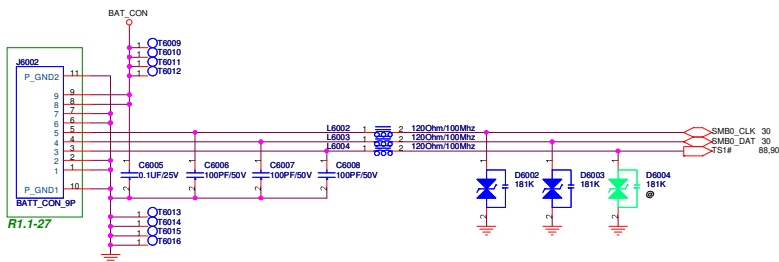
		Title : DJ ****	
ASUSTeK COMPUTER INC. (NB)		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	59 of 55

« Kennedy_Zhang »

DC Jack

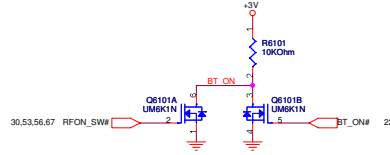
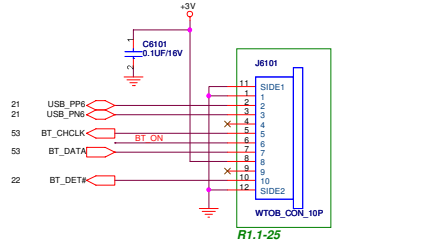


Battery Connector



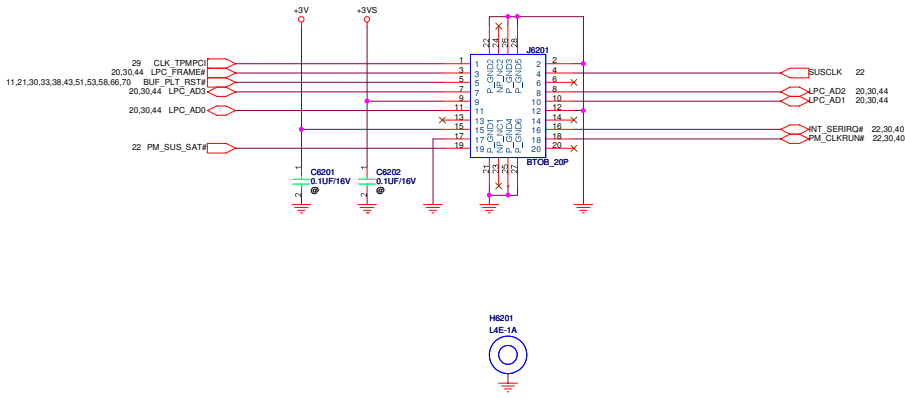
ASUS		Title : DC_DC & BAT Conn.	
ASUSTeK COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	60	of 88

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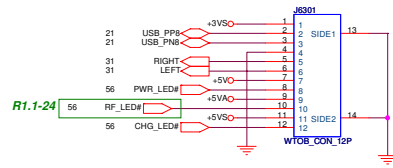
« Kennedy_Zhang »

ASUS		Title : BT Bluetooth	
ASUSTeK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
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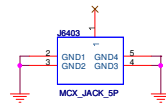
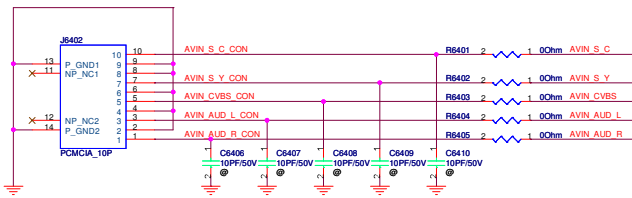
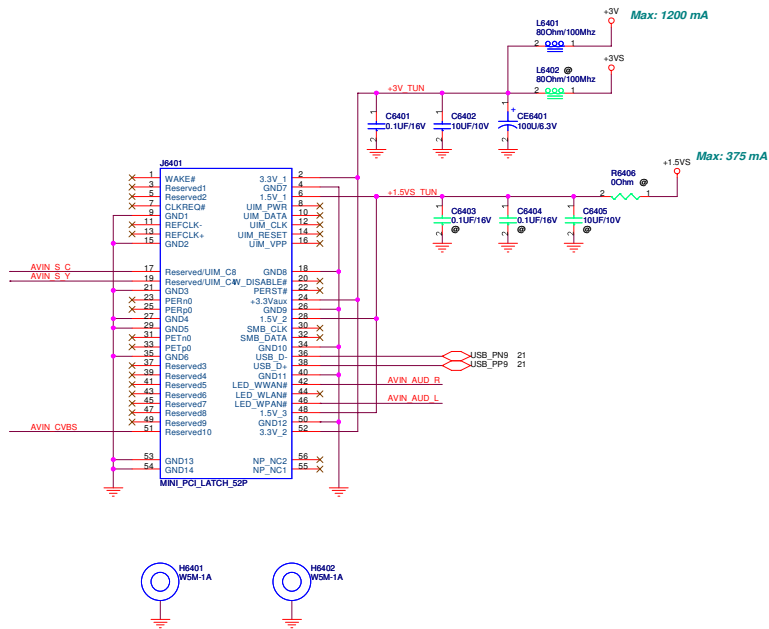
« Kennedy_Zhang »

ASUS		Title : TPM_TPM 1.2	
ASUSTeK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name	Rev	
Custom	M50S/X55S	2.0	
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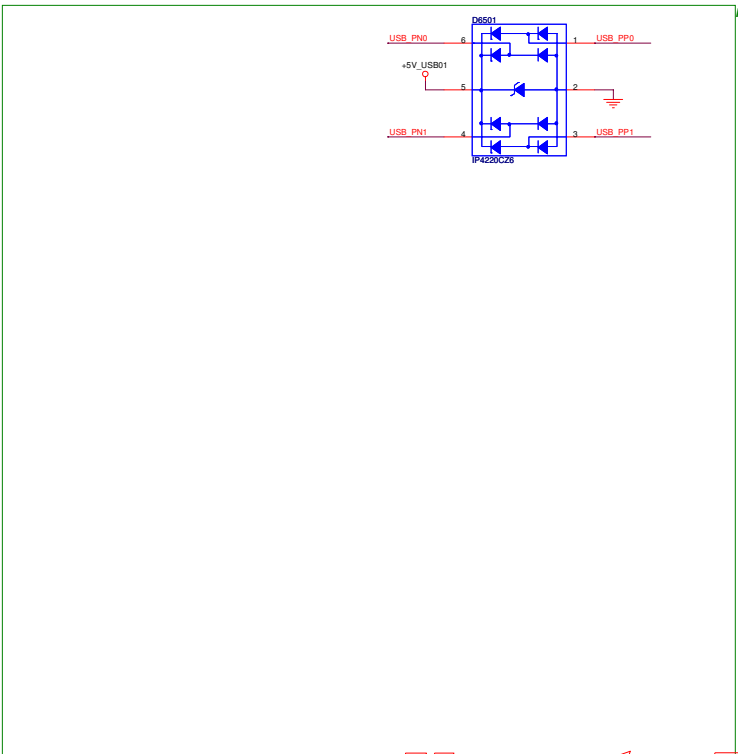
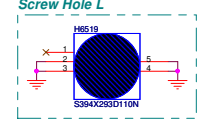
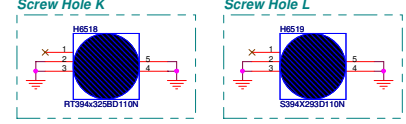
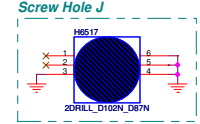
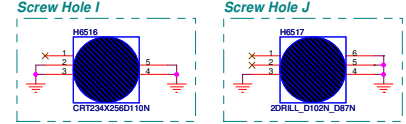
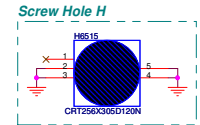
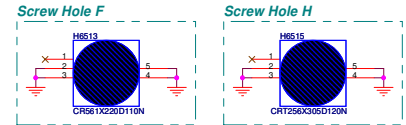
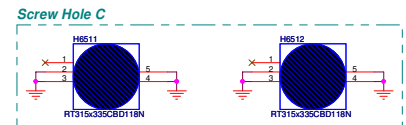
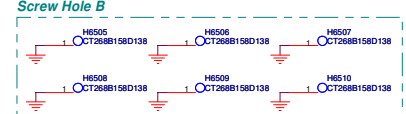
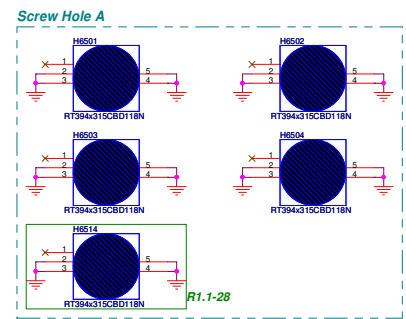
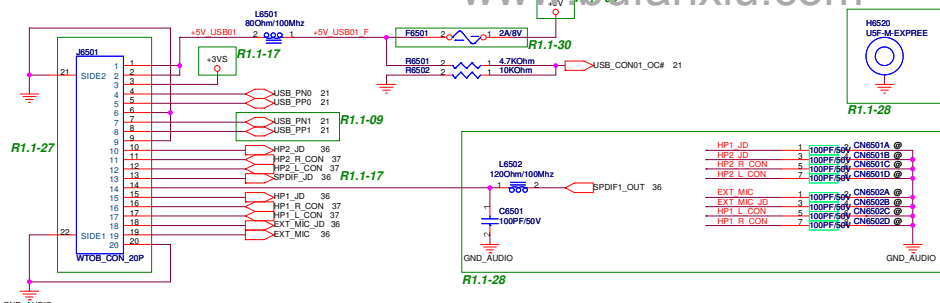
« Kennedy_Zhang »

ASUS		Title : FP_Fingerprint Conn.	
ASUSTeK COMPUTER INC. NB1		Engineer: John Hung	
Site	Project Name	Rev	
Custom	M50S/X55S	2.0	
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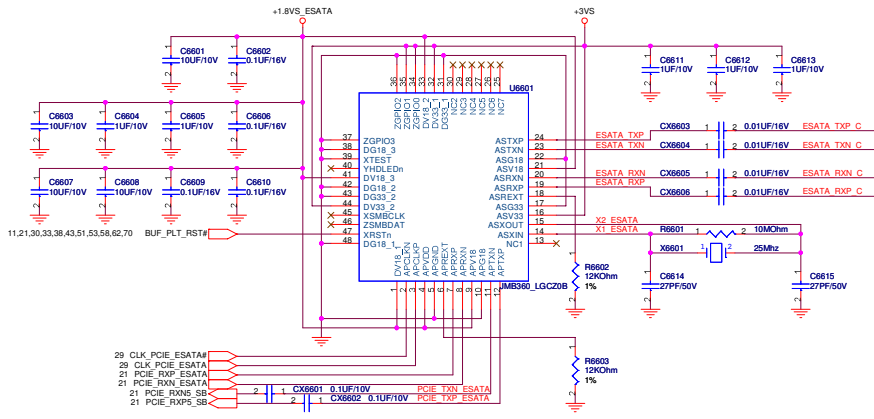
ASUS		Title : TUN_TV Tuner	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	Rev
Custom	M50S/X55S	2.0	2.0
Date: Tuesday, September 04, 2017	Sheet	84	of 88

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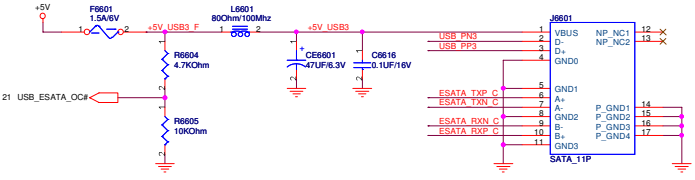
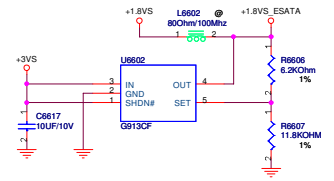
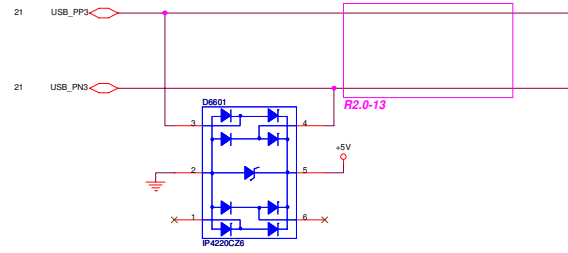


« Kennedy_Zhang »

ASUS		Title : ME_Conn & Screw Holes	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
Date: Monday, September 03, 2007	Sheet	65	of 85

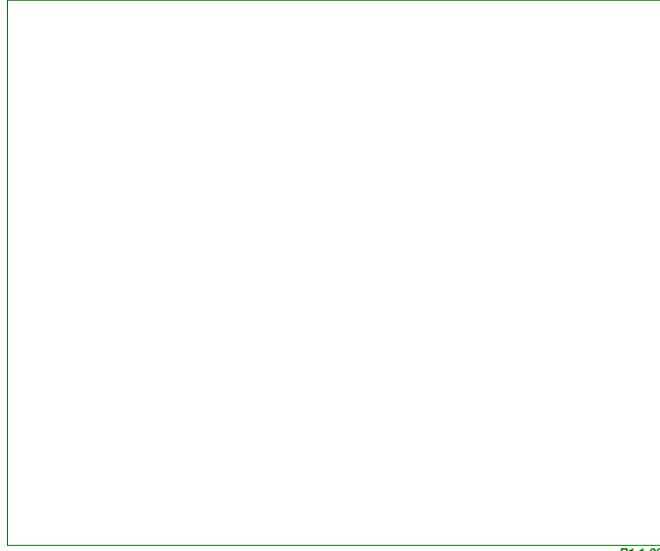


- ZGPIO :** Clock Type of PCI Express
 0 = 25MHz Oscillator (D)
 1 = 100MHz from PCI Express Finger
- ZGP11 :** Clock Source of SATA II
 0 = from Internal Clock Source (D)
 1 = from ASXIN & ASXOUT
- ZGP12 :** Interface to Debug Registers
 0 = SMBus I/F (D)
 1 = Reserved
- ZGP13 :** SMBus ID Address
 0 = 8'h44 (D)
 1 = 8'h4A



ASUS		Title : ESA_JMB360	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Size	Project Name	Rev	
Custom	M50S/X55S	2.0	
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R1.1-26

« Kennedy_Zhang »

		Title : OTH_****	
ASUSTEK COMPUTER INC. NB1		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	68 of 88

		Title : OTH_****	
ASUSTEK COMPUTER INC. NB1		Engineer: John Hung	
Size	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	69 of 88

« Kennedy_Zhang »

		Title : VGA ****	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		1.0
Date: Monday, September 03, 2007		Sheet	71 of 88

« Kennedy_Zhang »

		Title : VGA_****	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		1.0
Date: Monday, September 03, 2007		Sheet	72 of 88

« Kennedy_Zhang »

		Title : VGA ****	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		1.0
Date: Monday, September 03, 2007		Sheet	73 of 88

« Kennedy_Zhang »

		Title : VGA_****	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
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« Kennedy_Zhang »

		Title : VGA_****	
ASUSTEK COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	75 of 88

<< Kennedy_Zhang >>

		Title : VGA_****	
ASUSTeK COMPUTER INC. (NBI)		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	76 of 88

« Kennedy_Zhang »

		Title : VGA_****	
ASUSTeK COMPUTER INC. (NB)		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	77 of 88

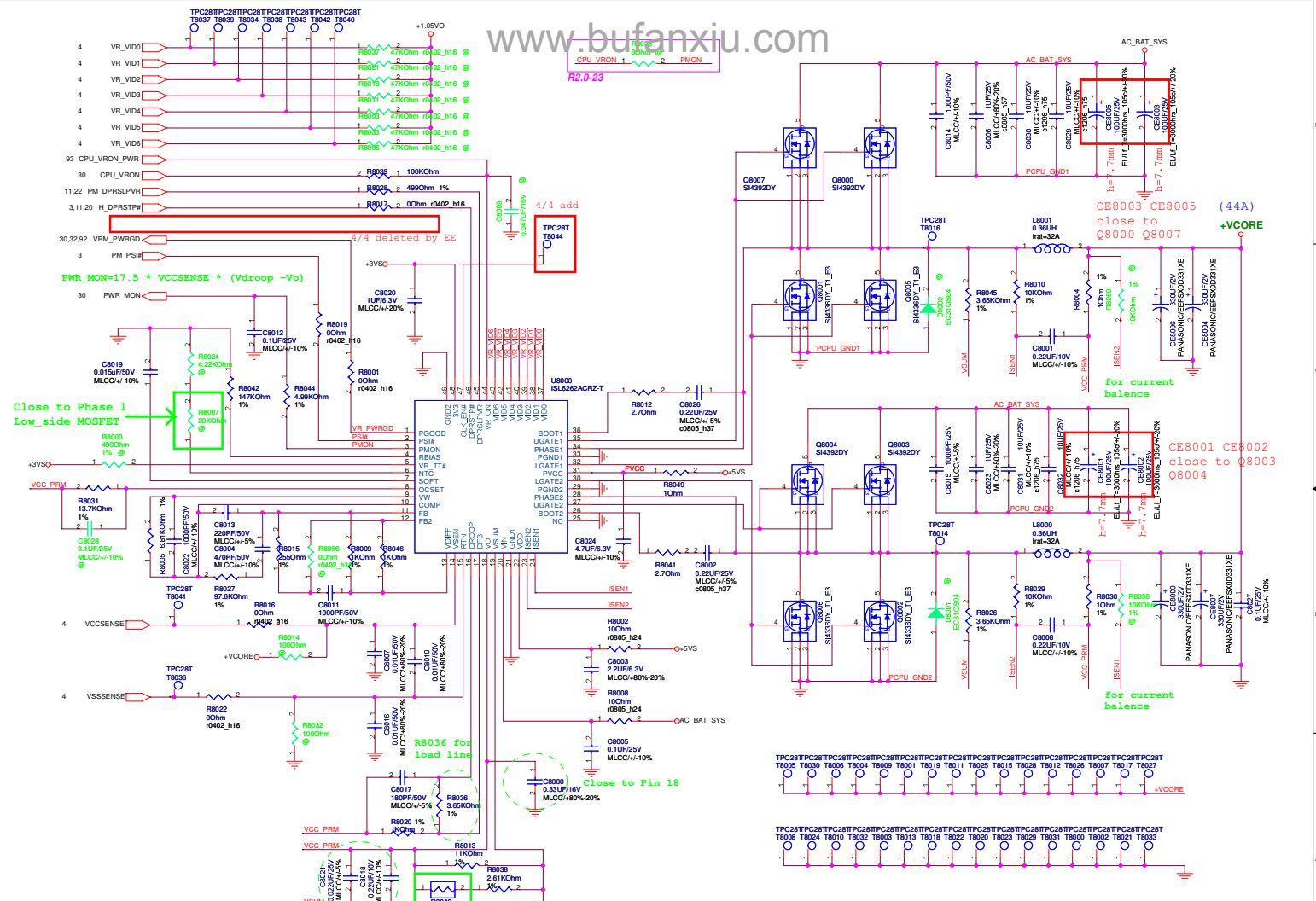
<< Kennedy_Zhang >>

		Title : VGA_****	
ASUSTEK COMPUTER INC. (NB)		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	78 of 88

<< Kennedy_Zhang >>

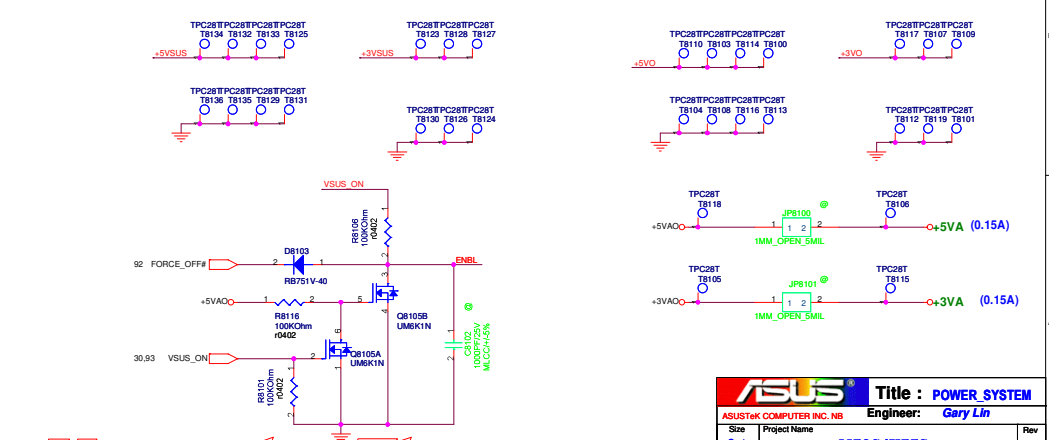
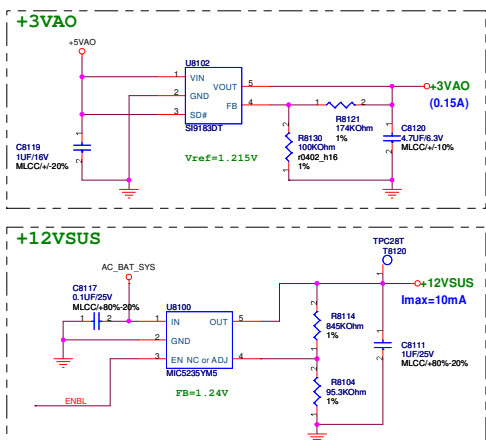
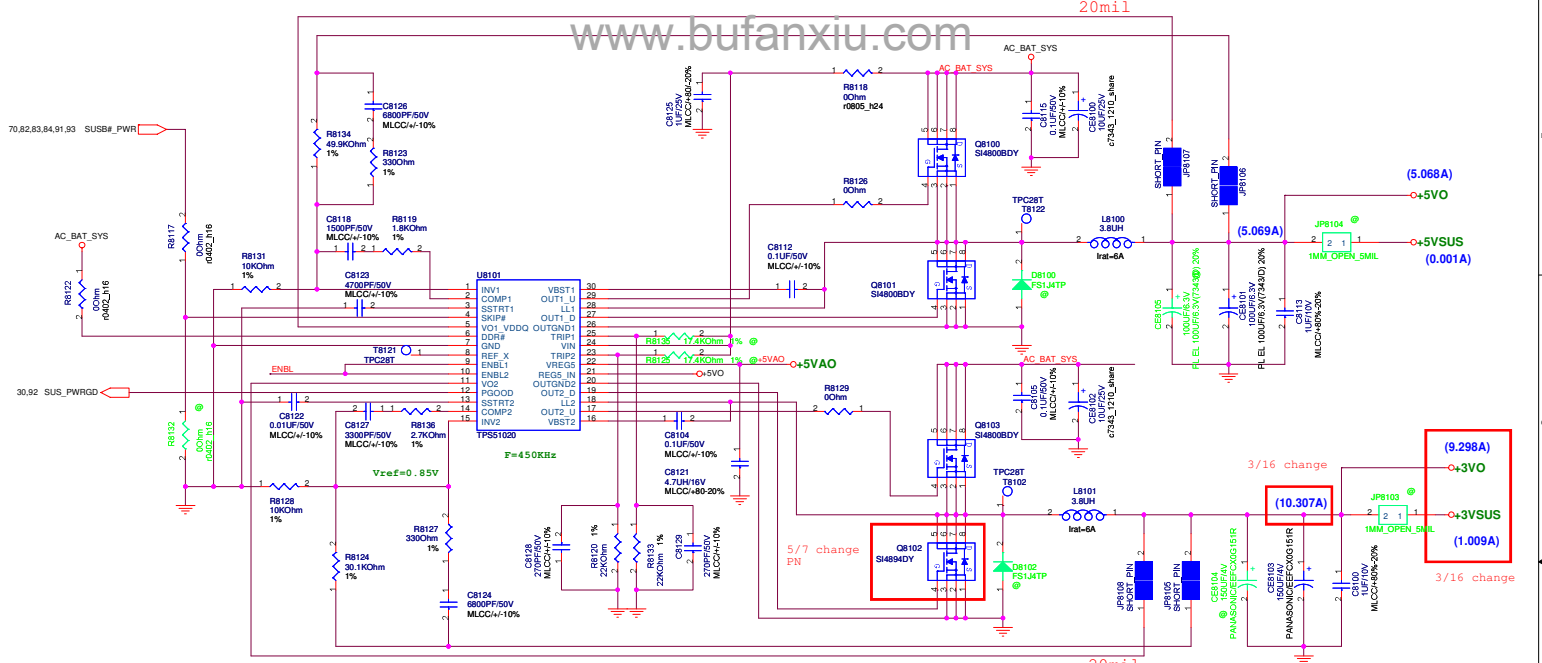
		Title : VGA_****	
ASUSTEK COMPUTER INC. (NB)		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		2.0
Date: Monday, September 03, 2007		Sheet	79 of 88

<< Kennedy_Zhang >>



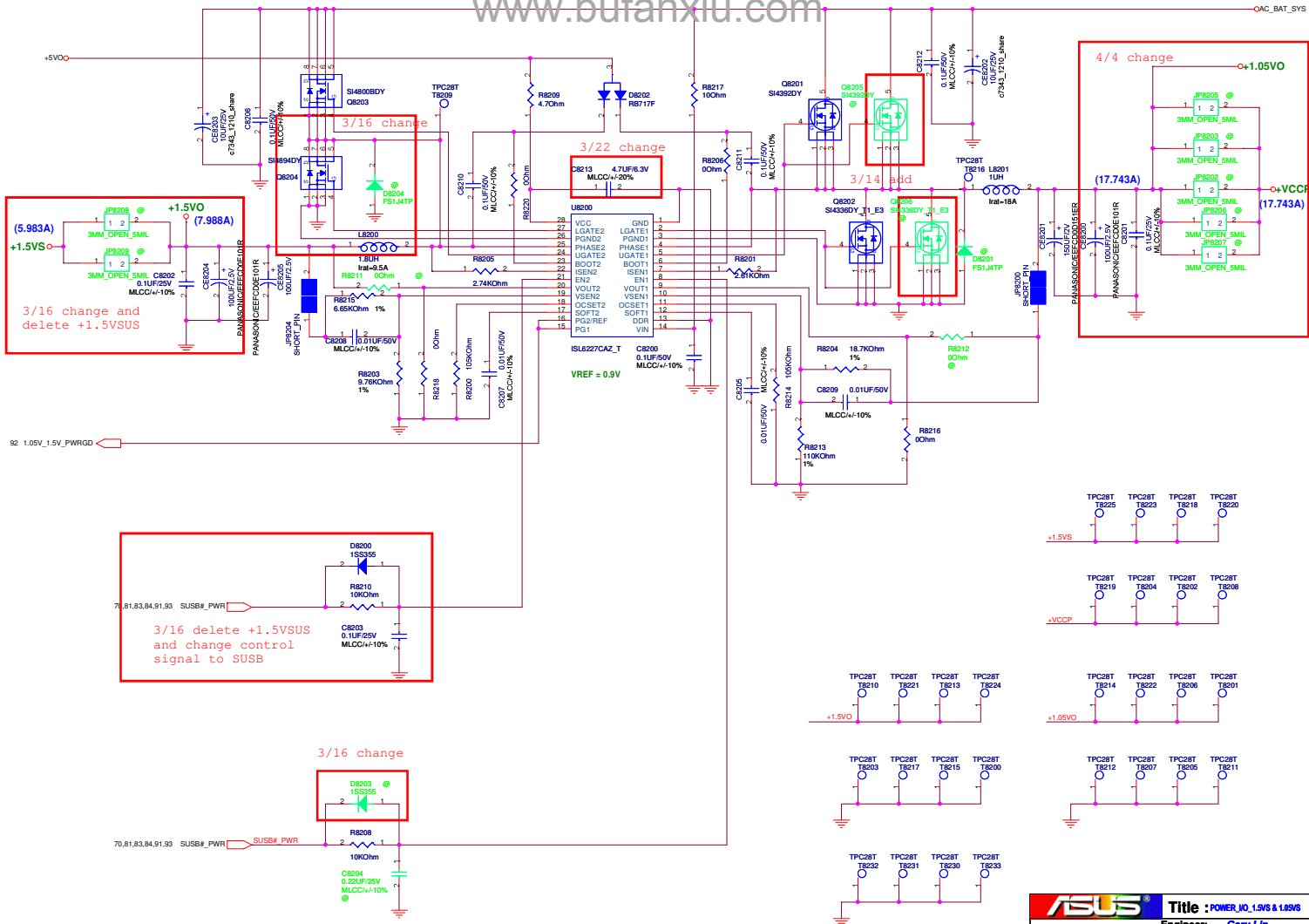
ASUS		Title : POWER_VCORE	
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin	
Size	Project Name	Rev	Rev
Custom	M50S/X55S	1.0	
Date: Monday, September 03, 2007	Sheet	80	of 88

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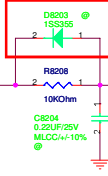
ASUS		Title : POWER_SYSTEM	
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin	
Size	Project Name	Customer	Rev
Custom	M50S/X55S		1.0
Date: Monday, September 03, 2007	Sheet	81	of 88

« Kennedy_Zhang »



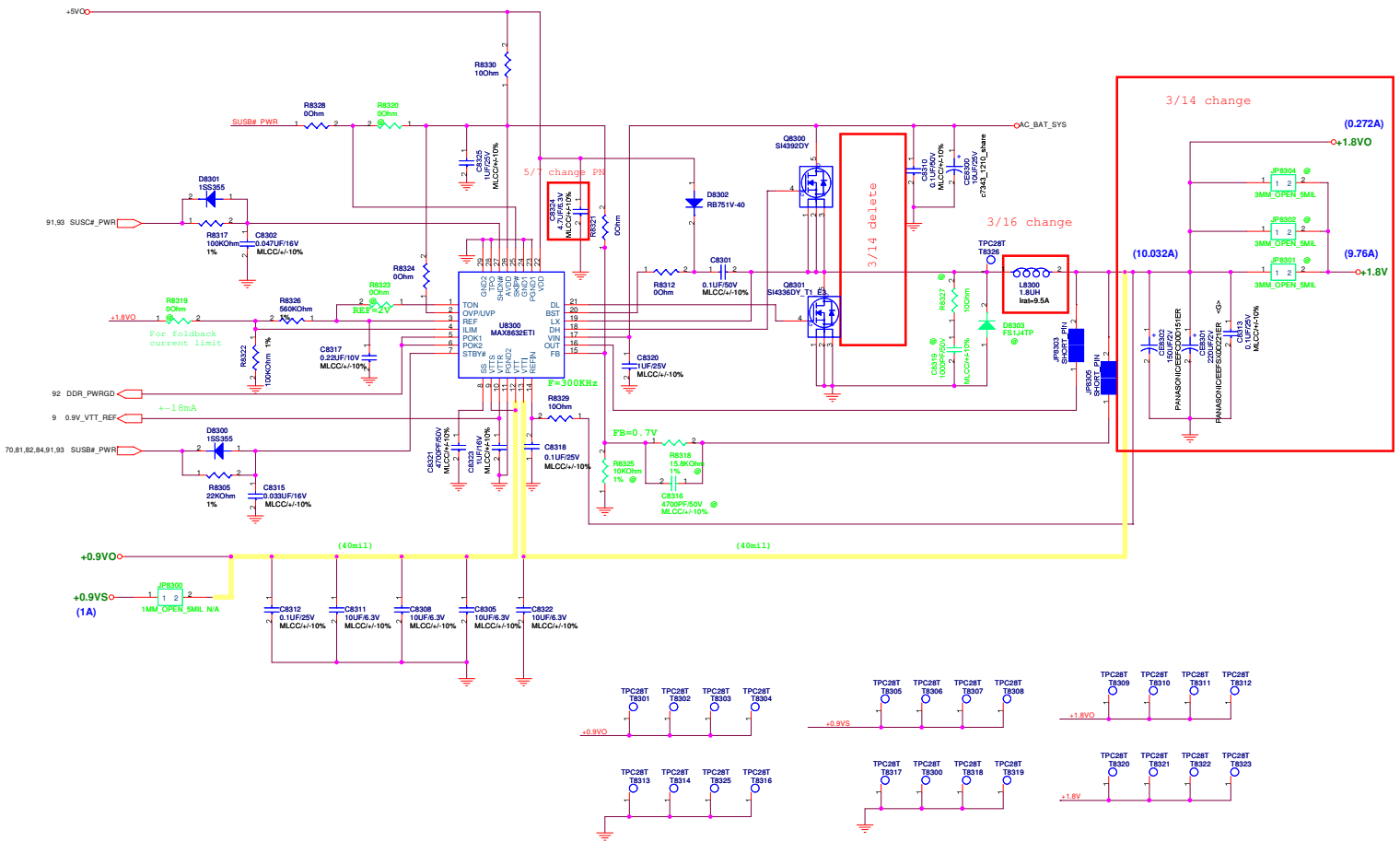
3/16 delete +1.5VSUS and change control signal to SUSB

3/16 change



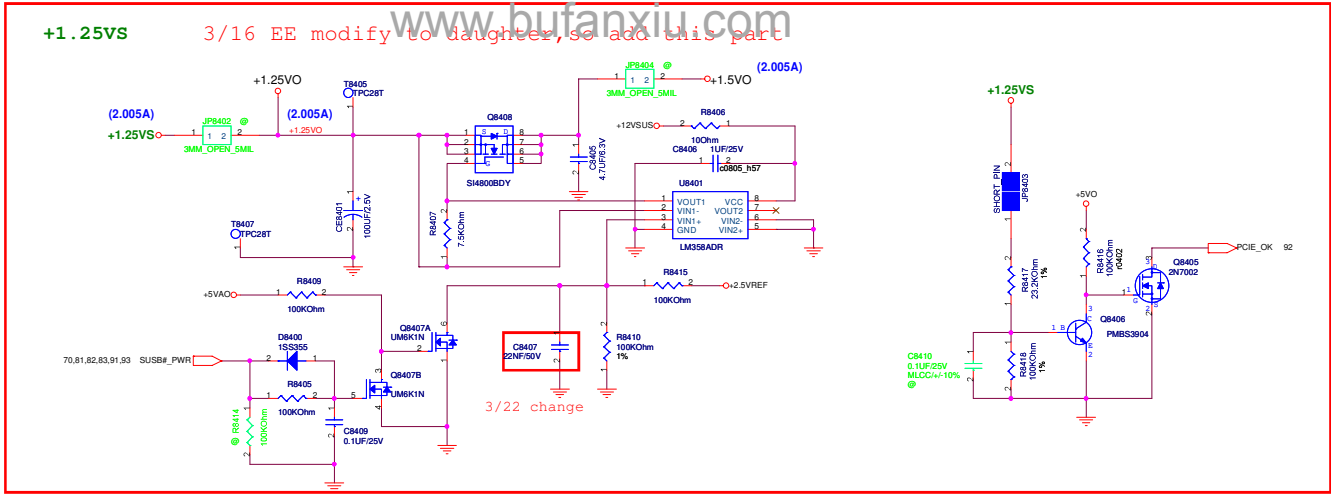
ASUS		Title : POWER_IO_1.5V5 & 1.05V	
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin	
Size	Project Name	Custom	Rev
		M50S/X55S	1.0
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« Kennedy_Zhang »



ASUS		Title : POWER_IO_DDR & VTT	
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin	
Size	Project Name	Rev	1.0
Custom	M50S/X55S		
Date	Monday, September 03, 2007	Sheet	83 of 89

<< Kennedy_Zhang >>



3/16 delete +2.5VSUS

« Kennedy_Zhang »

ASUS		Title : POWER_IO_+1.25VS	
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin	
Size	Project Name	Rev	
Custom	M50S/X55S	1.0	
Date: Monday, September 03, 2007	Sheet	84	of 88

3/14 EE modify to daughter,so delete this page

« Kennedy_Zhang »

		Title : N/A	
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin	
Site	Project Name		Rev
Custom	M50S/X55S		1.0
Date: Monday, September 03, 2007	Sheet	85	of 88

		Title : N/A	
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin	
Site	Project Name		Rev
Custom	M50S/X55S		1.0
Date: Monday, September 03, 2007		Sheet 06 of 06	

« Kennedy_Zhang »

« Kennedy_Zhang »

		Title : N/A
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin
Site	Project Name	Rev
Custom	M50S/X55S	1.0
Date: Monday, September 03, 2007	Sheet	87 of 88

90 WATT

4/17 DELETE BAT_S WITHOUT SHUTDOWN FUNCTION

AC_BAT_SYS_INV to Inverter connect, Power Issue +Email(mail), Put JP8805 close to Q8800

3/16 change

3/16 change colayout

4/4 deleted by EE

4/4 deleted

3/6 change for 3S2P/3S3P only 4/4 deleted

● AC_IN Threshold > 0.049Vms AD_DOCK_IN > 17.44V active

Adapter In(mA) = (0.075V/Rsense/Adm)/(VCL5-VREF)
 ResenseAdm=0.000m
 VCL5=2.534V
 => In(mA)=4.5A
 => Constant Power = 13 * 4.5 = 58.5W
 => RST to 200/257/1530K

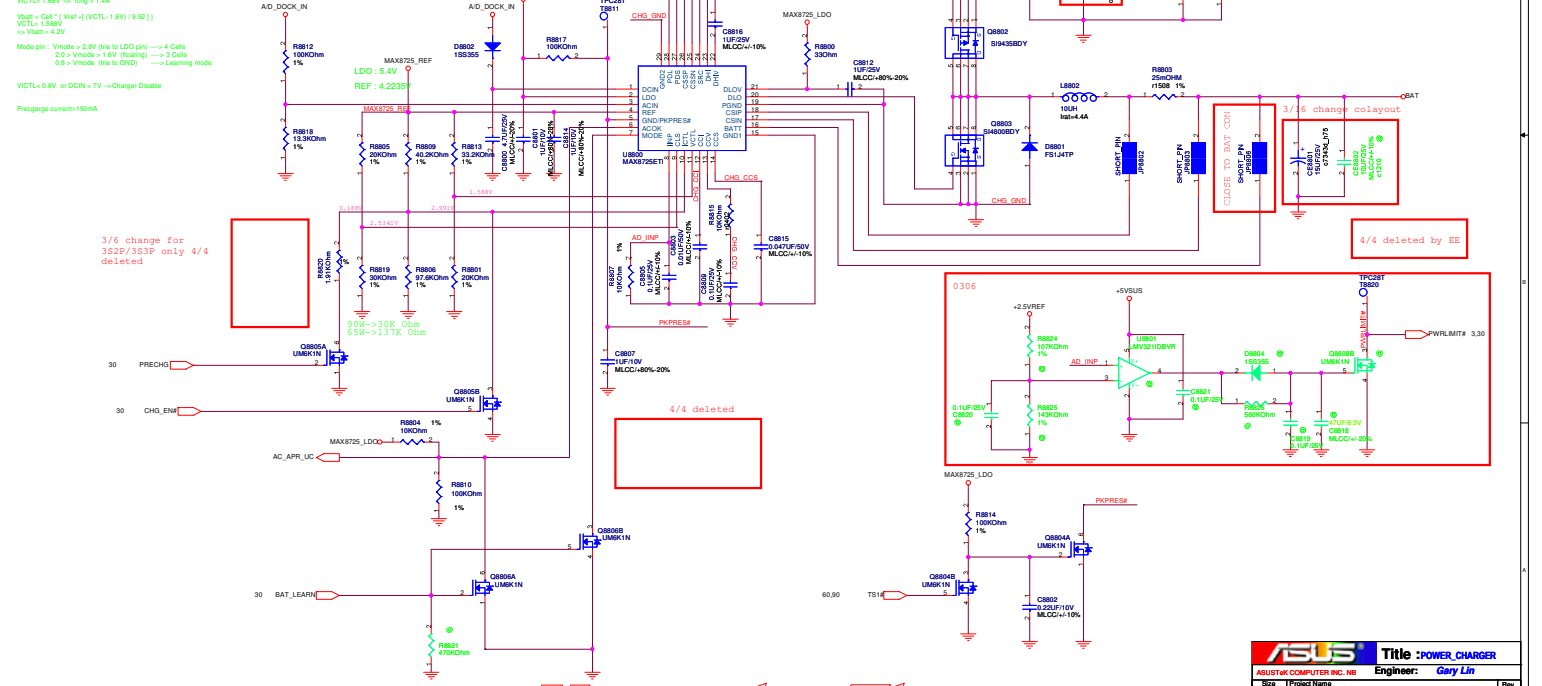
Charge Current Ichg = (0.075V/Rsense/CHG)/(VCTL3-V)
 ResenseCHG=0.0020m
 VCTL3-V = Ichg * 2.5A
 VCTL3 = 5.88V => Ichg = 1.4A

Vbat = Cell 1 (Vbat - (VCTL - 1.8V) / 9.52)
 VCTL = 5.88V
 => Vbat = 4.2V

Mode pin: Vinode > 2.8V (96 to LDO pin) => 4 Cells
 2.0 Vinode > 1.8V (Booting) => 3 Cells
 0.8 Vinode (96 to DND) => Learning mode

VICT < 0.8V or DCIN = 7V => Charger Disable

Precharge current=150mA



ASUS		Title: POWER CHARGER	
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin	
Size	Project Name	Rev	
C	M50S / X5SS	1.0	
Date:	Monday, September 14, 2009	Sheet	85 of 95

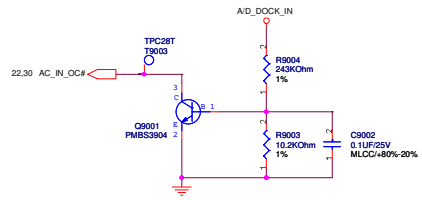
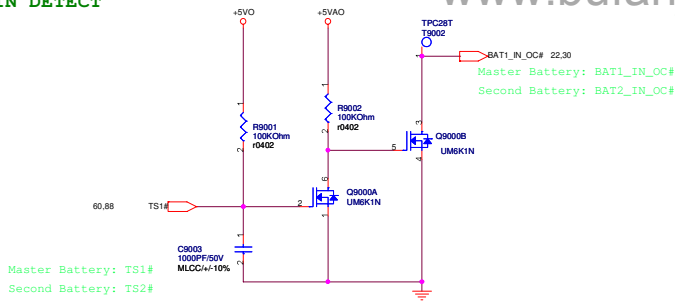
<< Kennedy_Zhang >>

		Title : N/A	
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin	
Site	Project Name		Rev
Custom	M50S/X55S		1.0
Date: Monday, September 03, 2007		Sheet	89 of 89

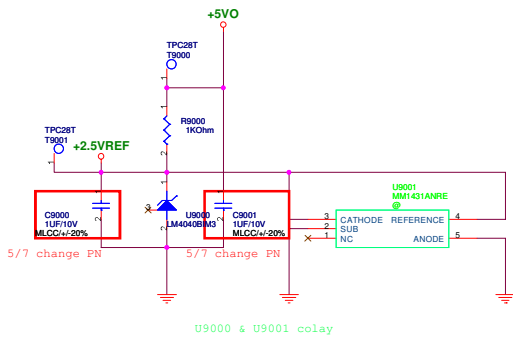
« Kennedy_Zhang »

BATTERY IN DETECT

ADAPTER IN DETECT



+2.5VREF

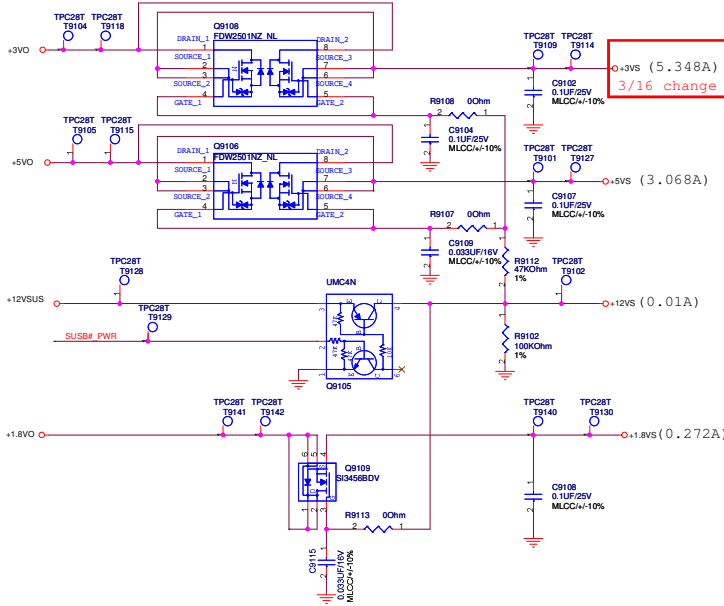


ASUS		Title : POWER_DETECT	
ASUSTek COMPUTER INC. NB		Engineer: Gary Lin	
Size	Project Name		Rev
Custom	M50S/X55S		1.0
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3/16 delete +1.5VS from load switch

3/14 delete +VRAM

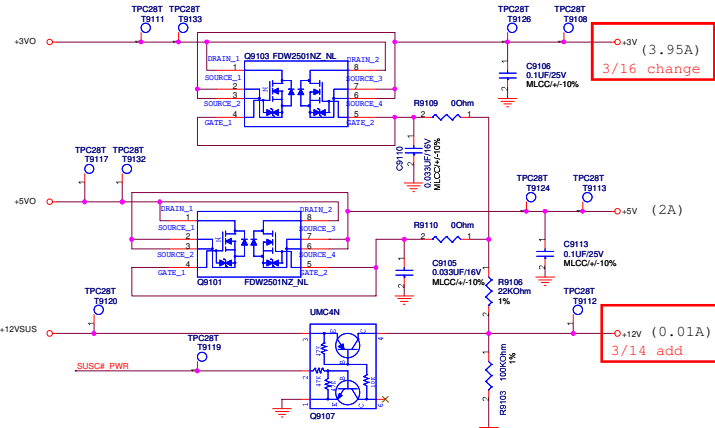


+3VS (5.348A)
3/16 change

+5VS (3.068A)

+12VSUS (0.01A)

+1.8VS (0.272A)

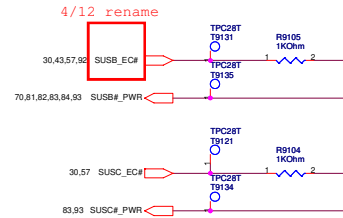


+3V (3.95A)
3/16 change

+5V (2A)

+12V (0.01A)
3/14 add

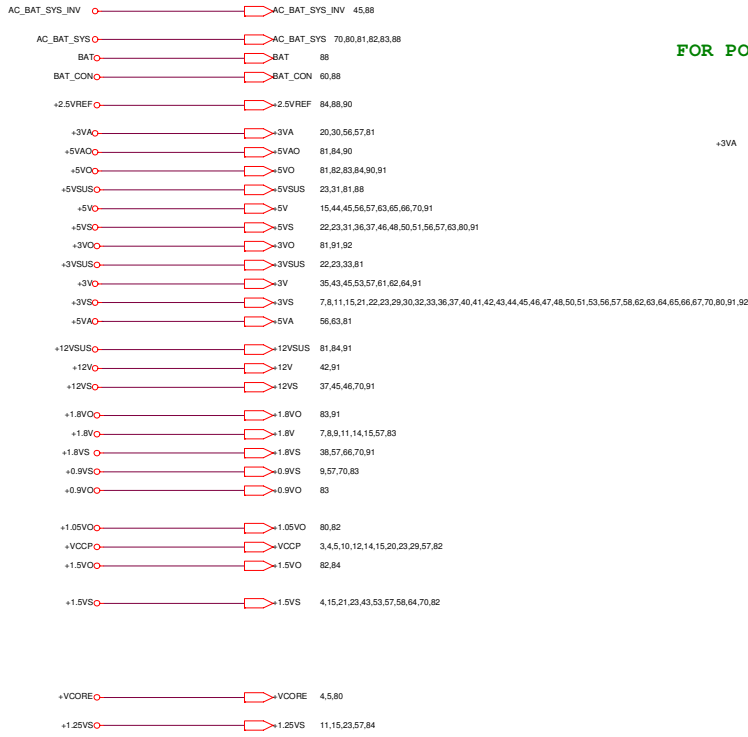
3/16 delete +1.5V



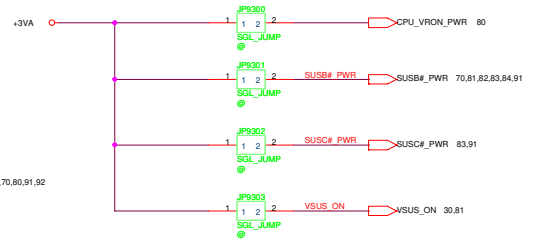
4/12 rename

ASUS		Title : POWER_LOAD_SWITCH	
ASUSTEK COMPUTER INC. NB		Engineer: Gary Lin	
Size	Project Name	Rev	
Custom	M50S/X55S	1.0	
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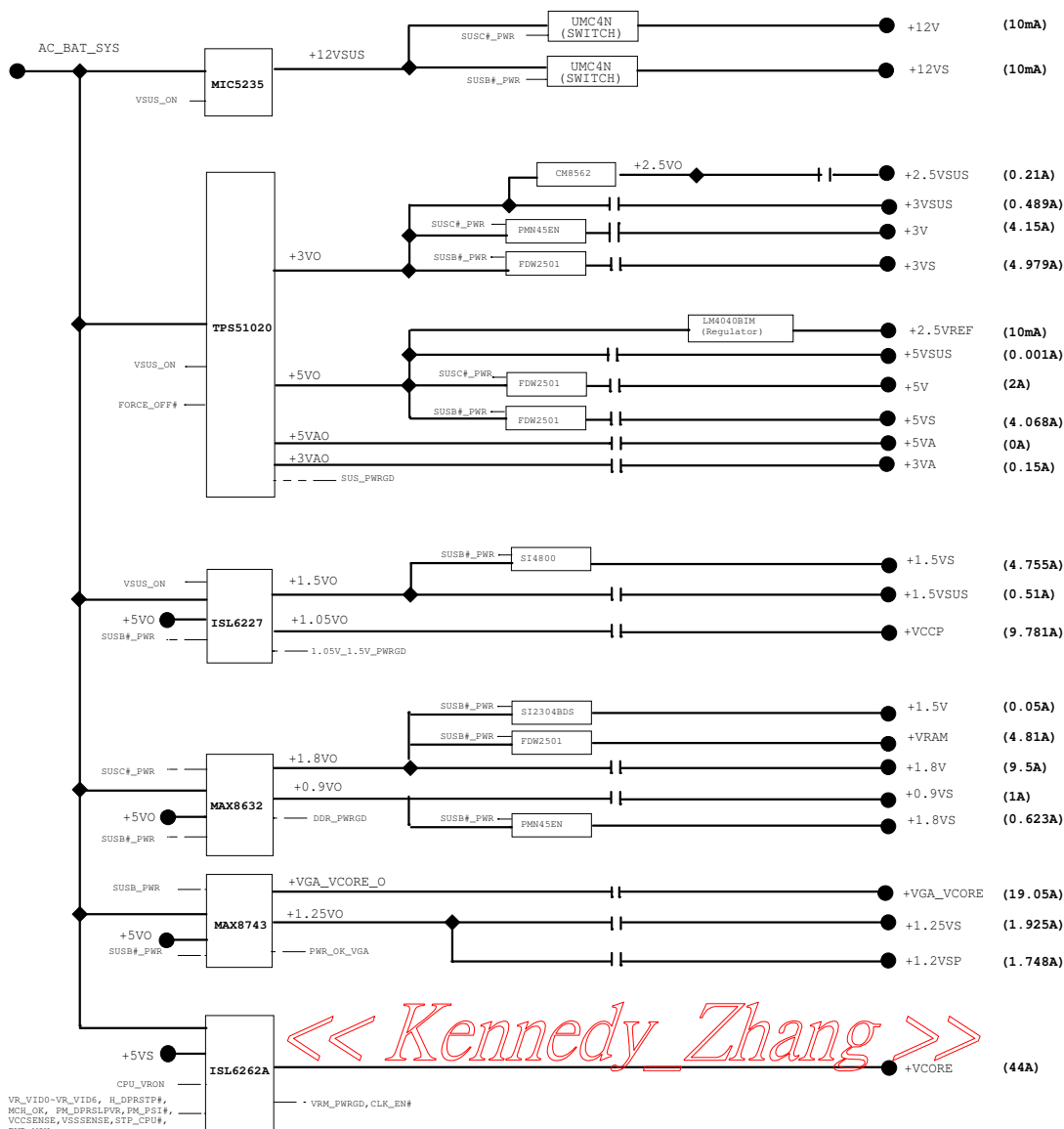


FOR POWER TEST



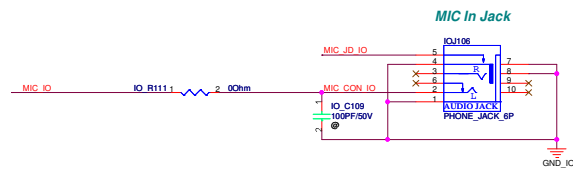
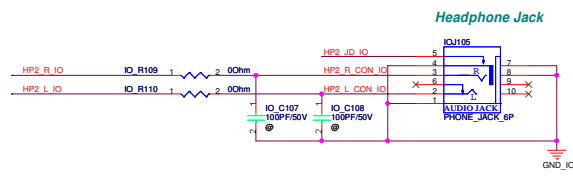
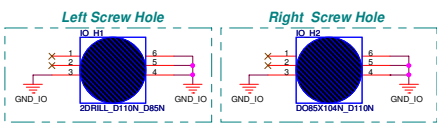
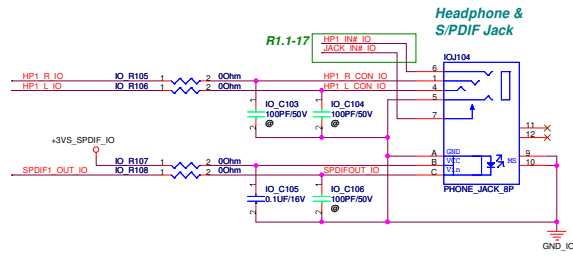
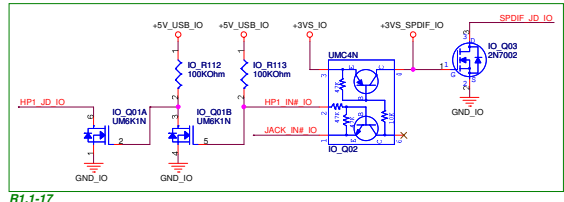
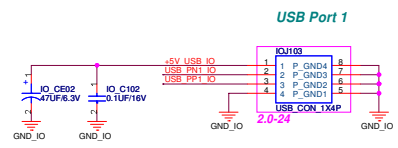
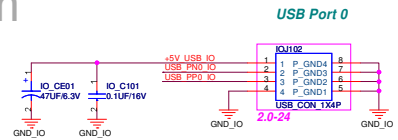
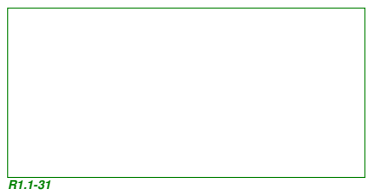
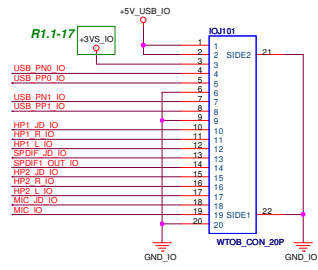
ASUS		Title : POWER_SIGNAL	
ASUSTek COMPUTER INC. NB		Engineer: LS87Y LIR	
Size	Project Name	Rev	
Custom	M50S/X55S	1.0	
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VR_VID0-VR_VID6, H_DPRSTP#, MCH_OK, PM_DPRS1PVR, PM_PSI#, VCCSENSE, VSSSENSE, STP_CPU#, PWR_MON



ASUS		Title : USB & Audio Jack
ASUSTek COMPUTER INC. NBI		Engineer: Wenchl_Shen
Site	Project Name	Rev
Customer	M50S/X55S	2.0
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Rev	Date	Description
R1.0		First Release!
R1.1 Green Block		** Merge IO board into main board PCB. Page 95. 01.Remove VR_VID[6:0] testing series 0 0hm. Page 4. 02.Change 6pcs +VCCORE capacitors to No-Stuff for cost down. Page 5. 03.Change 3pcs +0.9VS capacitors to No-Stuff for cost down. Page 9. 04.Change N1Sv USB port to follow N2Sv, and modify USB_OC#. Page 21,43,45. 05.PM Request: Change Bluetooth LED tp E-Mail LED. Page 22,56. 06.Follow Intel to change C2304 to 1uF/16V(XR). Page 23. 07.Follow R1E to change R2904 to 270ohm. Page 29. 08.Follow IT8752/8512 EC Common Hardware Pin Assignment v0.005, change GPE7 to INSTANT_ON# and GPG0 to PM_THERM#. Page 30. 09.PM REquest: Remove USB port charger function. Page 30,65. 10.PM change WLAN LED to touch-pad lock LED. Page 30,56. 11.Change IR to 36KHz to meet Vista remote control Min. range requirement. Page 31. 12.Remove testing 2nd CIR design. Page 31. 13.Change X3301 to 49S type for cost down. Page 33. 14.LAN chip version change. Page 33. 15.Audio codec chip change version. Page 36. 16.N1Sv/X55 will not supprot 3G function. Page 36,67. 17.Add S/PDIF & HDMI jack detect by Realtek sugesstion. Page 36,65,70,95. 18.Modify audio de-pop circuit. Page 36,37. 19.Modify LVDS power sequence failed bug. Page 45. 20.Modify LCD abnormal display bug due to LVDS pair mismatch. Page 45,70. 21.Remove HDIV support function. Page 47,70. 22.Remove HDMI EMI filter design. Page 48. 23.X55 need two pwer LEDs. Page 56. 24.PM change WLAN LED to RF LED. Page 56,63. 25.Bluetooth pin define error. Page 61. 26.Remove co-layout sequence logic control circuit. Page 68. 27.ME change parts: J3401,J5102,J6002,J6501. Page 34,51,60,65. 28.EMI modification. Page 34,36,65. 29.Crystal accuracy fine-tune. Page 30.USB droop test fail. Page 65. 31.Remove IO board USB common choke design. Page 95. 32.Speaker fine-tune. Page 37. 33.Cost down for 4-wire PWM fan. Page 50. 34.Cost down: Change RB717F to BAT54AW. Page 37,45,48,56.
R2.0 Pink Block		01.Change +1.25VS_MPLL, +1.25VS_PEGPLL & +1.8V_SM_CK PLL design. Page 15. 02.Add CMOS crack protection circuit. Page 22. 03.Reserve C2337 (10UF/16V) for +5VREF_ICH. Page 23. 04.Change ICS9LPR363 version from D to E for SATA clock jitter improve. Page 29. 05.With EMI's confirmation, replace R2901, R2905, R2906 with short-pad JP2901, JP2902, JP2903. Page 29. 06.With EC's confirmation, change ITE8752 P/N to 06G042016011. Page 30. 07.With EMI's confirmation, replace R3001 with short-pad JP3002. Page 30. 08.With EMI RD's confirmation, remove reserved LAN common choke circuit. Page 34. 09.With EMI's confirmation, change R3612, R3614, R3615, R3616, R3622, R3624, R3626 to short-pad JP3601-JP3607. And change R3611, R3613, R3623, R3625 to No-Stuff. Page 36. 10.Post wave sounds abnormal when audio amplifier use GMT G1431. Change C3706 to 0.33UF to shorten audio amplifier start-up time. Page 37.

Rev	Date	Description
		11.For cost down, change CE3701-CE3704 to 47UF. And after EA test, these can pass Vista audio criteria. Page 37. 12.With EMI's confirmation, remove reserved 1394 common choke circuit. Page 41. 13.With EMI's confirmation, remove reserved NewCard USB common choke circuit. Page 43. 14.Add NewCard debug card co-layout circuit. Page 44. 15.EMI modification: change reserved common choke circuit from USB port to internal camera port. Page 45. 16.With EMI's confirmation, replace RX4603, RX4604 with JP4601, JP4602. Page 46. 17.HDMI jack detection modification. Page 48,70. 18.With EMI's confirmation, replace RX4809, RX4810 with JP4801, JP4802. Page 48. 19.Change PWM FAN capacitors to 10UF. Page 50. 20.Modify X55S power LED design. Page 56. 21.Modify DC_IN bead for 120W design. Page 60. 22.With EMI's confirmation, remove reserved e-SATA/USB combo port USB common choke circuit. Page 66. 23.Reserve R8023 for shortage issue of ISL6262A. Page 80. 24.QTR USB plug test failed, change USB connector. Page 95.

		Title : Revision History	
ASUSTek COMPUTER INC. NBI		Engineer: John Hung	
Site	Project Name		Rev
Custom	M50S/X55S		1.0
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