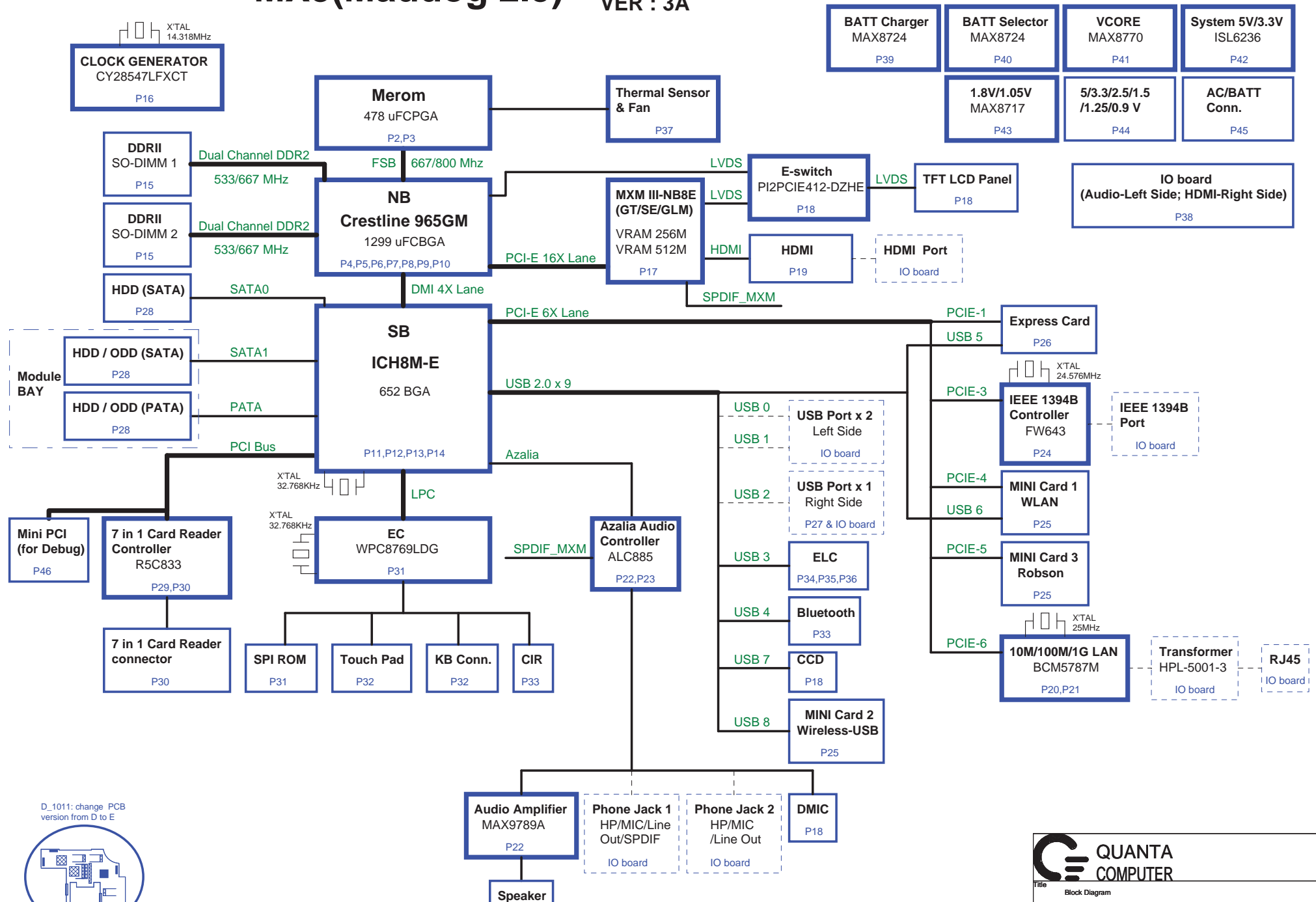
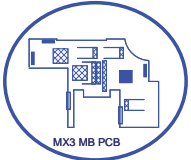


MX3(Maddog 2.5) VER : 3A



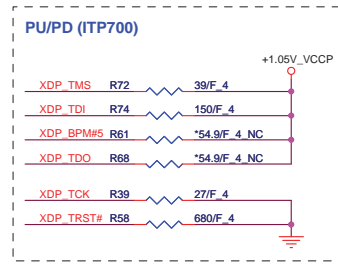
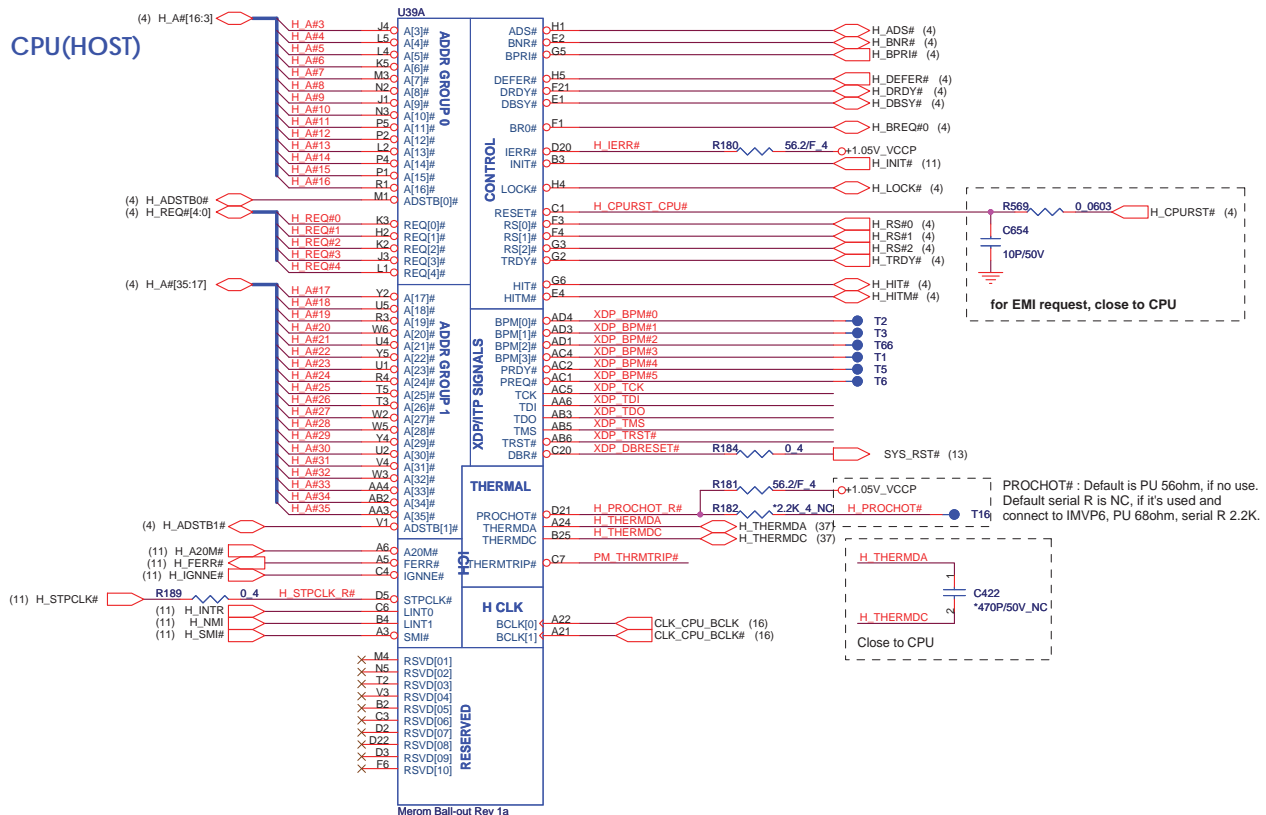
D_1011: change PCB version from D to E



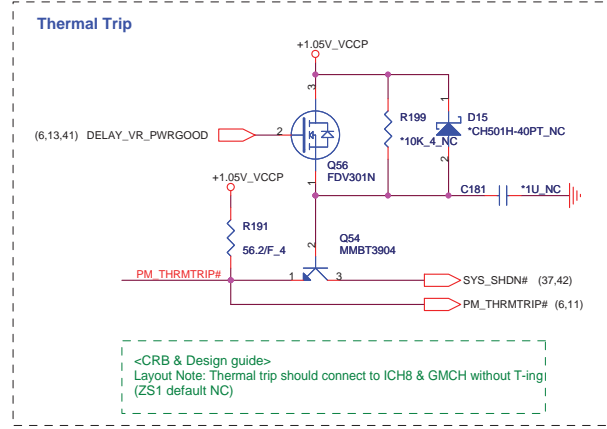
<http://laptop-motherboard-schematic.blogspot.com/>

		Title	
		Block Diagram	
Size	Document Number	Rev	
MX3		3A	
Date	Rev	Sheet	of
Rev, October 12, 2007		1	53

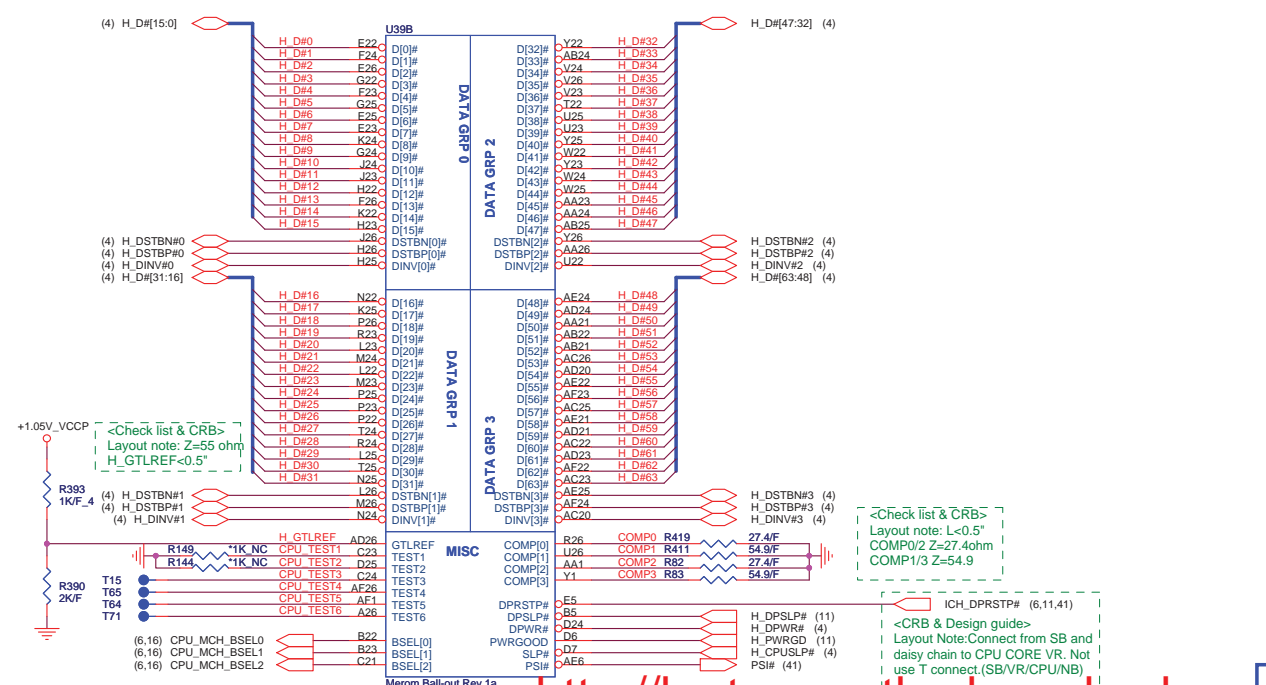
CPU(HOST)



Signal	Resistor Value	Connect To	Resistor Placement
TDI	150 ohm +/- 5%	VTT	Within 2.0" of the ITP
TMS	39 ohm +/- 5%	VTT	Within 2.0" of the ITP
TRST#	680 ohm +/- 5%	GND	Within 2.0" of the ITP
TCK	27 ohm +/- 5%	GND	Within 2.0" of the ITP
TDO	Open	VTT	Within 2.0" of the ITP
ITP_EN	PU Depop	+3.3V_RUN	Close to CK505 Pin37



<CRB & Design guide>
Layout Note: Thermal trip should connect to ICH8 & GMCH without T-inj (ZS1 default NC)



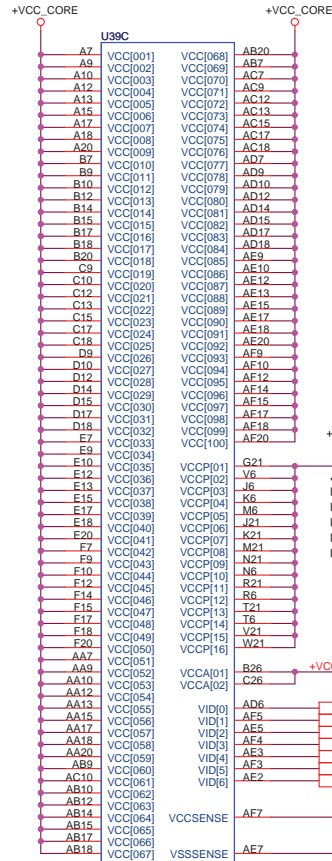
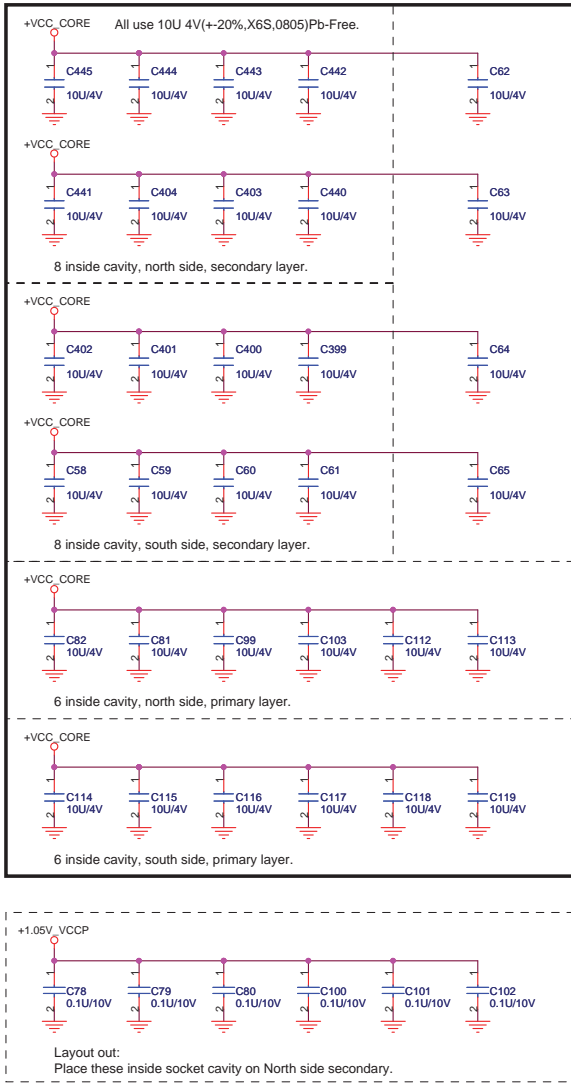
FSB	BCLK	BSEL2	BSEL1	BSEL0
533	133	0	0	1
667	166	0	1	1
800	200	0	1	0



Title	CPU Host(1/2)		Rev	2A
Size	800	200	Document Number	
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<http://laptop-motherboard-schematic.blogspot.com/>

CPU(Power)

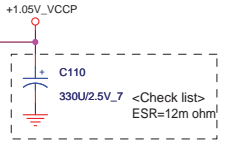


<REV.NO. 0.5/REF.NO.19343>

Ivcc Max 52A

Ivccp Max 6A(VCCP supply before Vcc stable)
Max 2A(VCCP supply after Vcc stable)

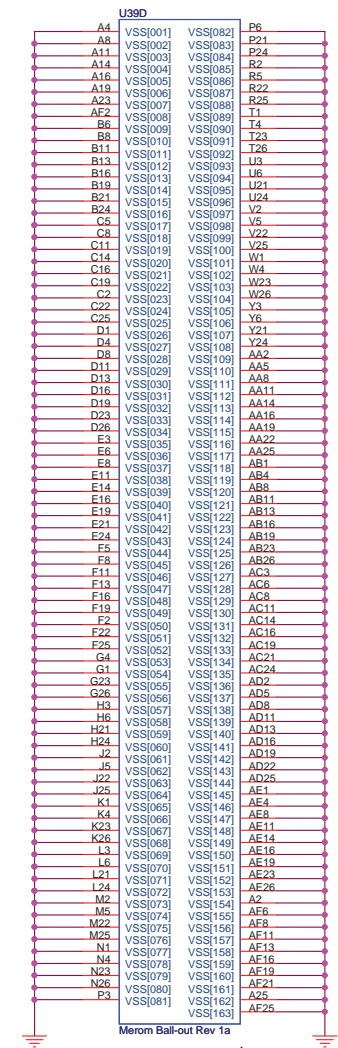
Ivcca Max 130mA



<CRB>
.01U near to B26 ball

Den_1011:change from
CH6102K9A01 to
CH6100KMEE3 for derating.

<Demo board>
Routing 27.4ohm with 50mils spacing
PU/PD near to CPU 1"

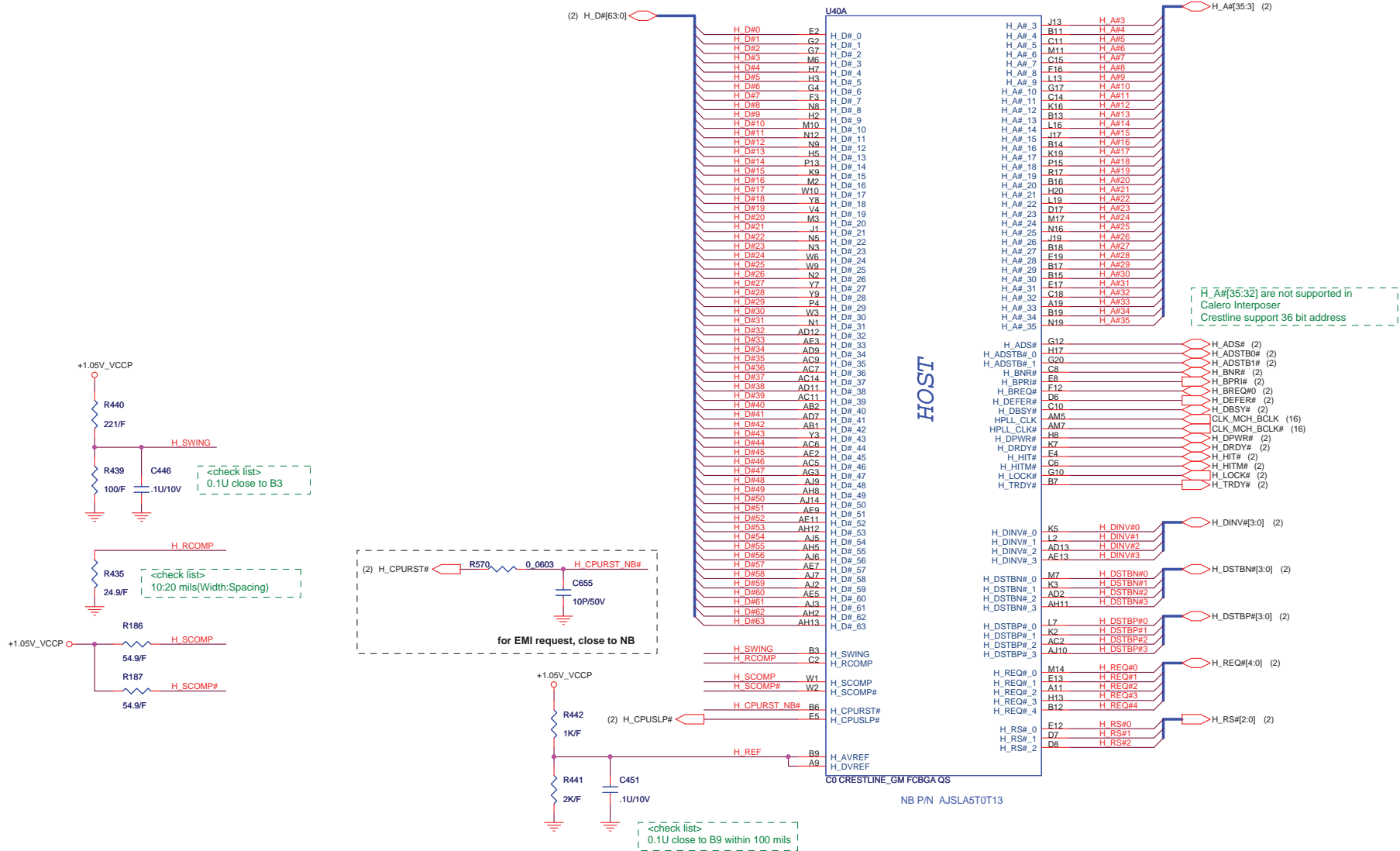


QUANTA COMPUTER

Title: CPU Power(2/2)

Size: MX3
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H_A# [35:32] are not supported in Calero Interposer
Crestline support 36 bit address

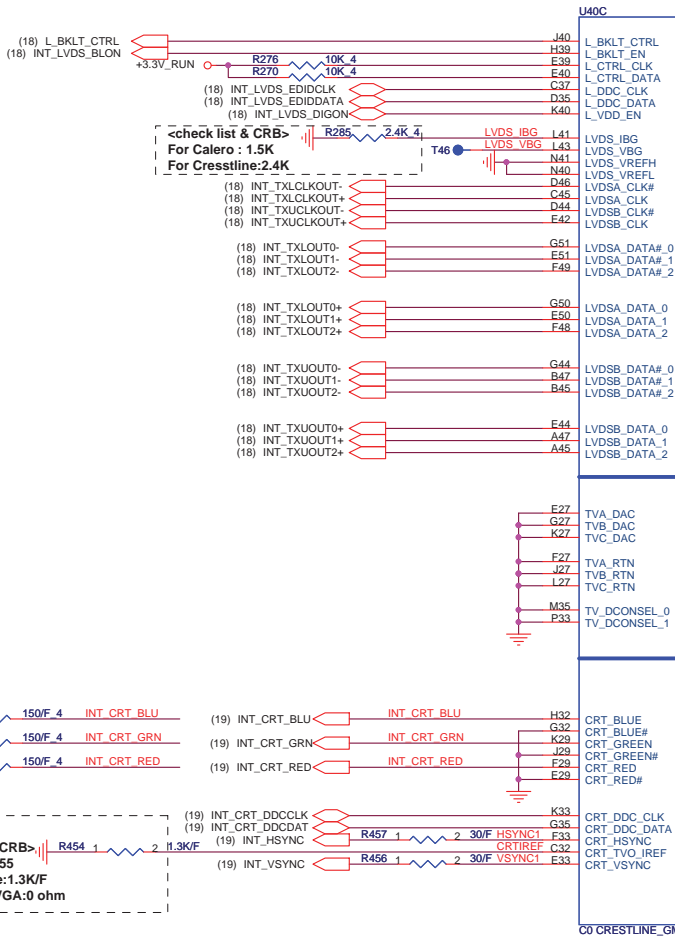
HOST

C0 CRESTLINE_GM FCBGA QS
NB P/N AJSLA5T0T13

QUANTA COMPUTER

Title: GMCH Host(1/7)

Size: MX3	Document Number: M3	Rev: 2B
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<check list & CRB>
For Calero : 1.5K
For Cresline:2.4K

<check list & CRB>
For Calero : 255
For Cresline:1.3K/F
For external VGA:0 ohm

<check list>
Vcc1_5 for Calero
Vcc1_25/Vcc1_05 for Cresline

<check list>
SDVO/PCIe/LVDS not implement
16 lanes NC

QUANTA COMPUTER

Title: GMCH Graphics(27)

Size: MX3
Document Number: Rev 2B

Date: Rev, October 12, 2007
Sheet: 5 of 53

Strapping table

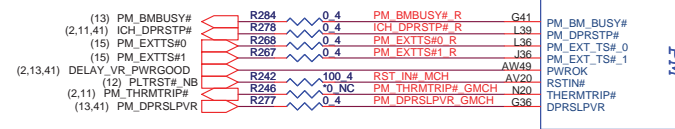
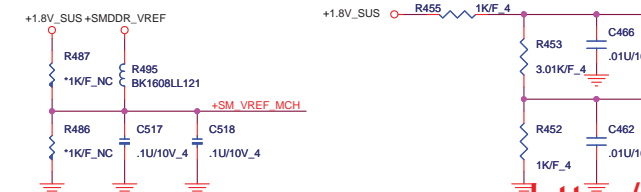
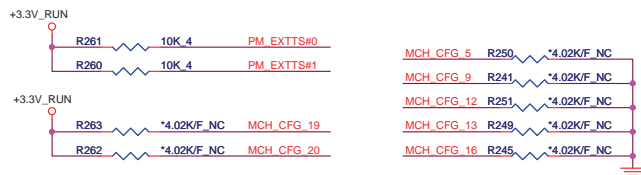
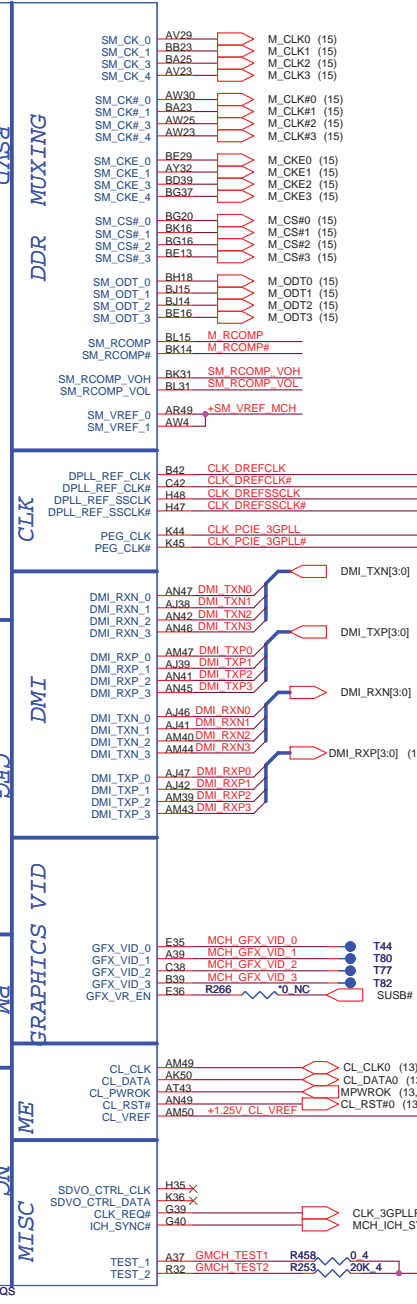
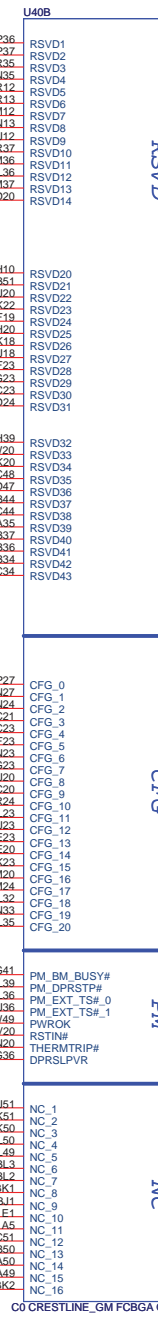
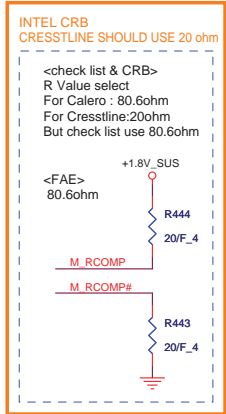
All strap are sampled with respect to the leading edge of the GMCH power ok signal

CFG[17:3] have internal pull-up

CFG[18:19] have internal pull-down

Any CFG signal strapping option not list below should be left NC pin

Pin Name	Strap Description	Configuration
CFG[2:0]	FSB Frequency Select	010 = FSB 800MHz 011 = FSB 667MHz
CFG[4:3]	Reserved	
CFG5	DMI X2 Select	0 = DMI X2 1 = DMI X4 (Default)
CFG6	Reserved	
CFG7	CPU Strap	0 = Reserved 1 = Mobile CPU (Default)
CFG8	Low Power PCI Express	0 = Normal mode 1 = Low Power mode (Default)
CFG9	PCI Express Graphics Lane Reversal	0 = Reverse Lanes 1 = Normal operation (Default)
CFG[11:10]	Reserved	
CFG[13:12]	XOR/ ALLZ/ Clock Un gating	00 = Reserved 01 = ALL-Z Mode Enabled 10 = XOR Mode Enabled 11 = Clock Gating Enabled (Default)
CFG[15:14]	Reserved	
CFG16	FSB Dynamic ODT	0 = Dynamic ODT disable 1 = Dynamic ODT Enable (Default)
CFG[18:17]	Reserved	
CFG19	DMI Lane Reversal	0 = Normal operation (Default) 1 = Reverse Lanes
CFG20	SDVO/PCIe concurrent	0 = Only SDVO or PCIe x1 is operation (Default) 1 = SDVO and PCIe x1 are operating simultaneously via the PEG port
SDVO_CTRLDATA	SDVO Present	0 = No SDVO Card present (Default) 1 = SDVO Card Present



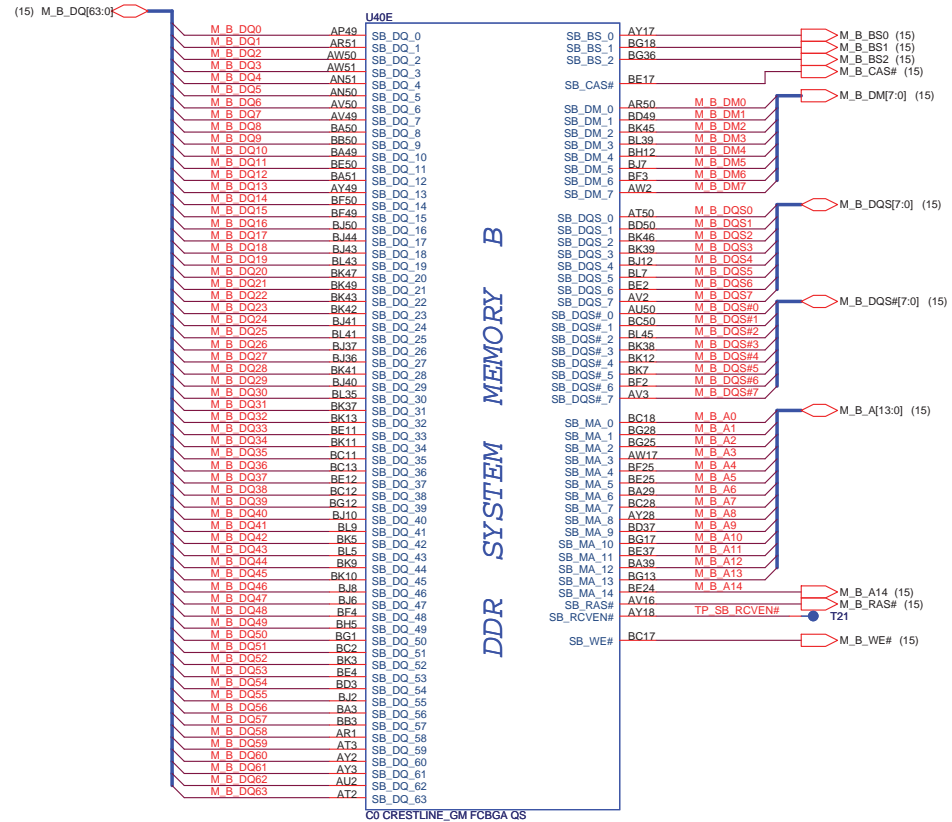
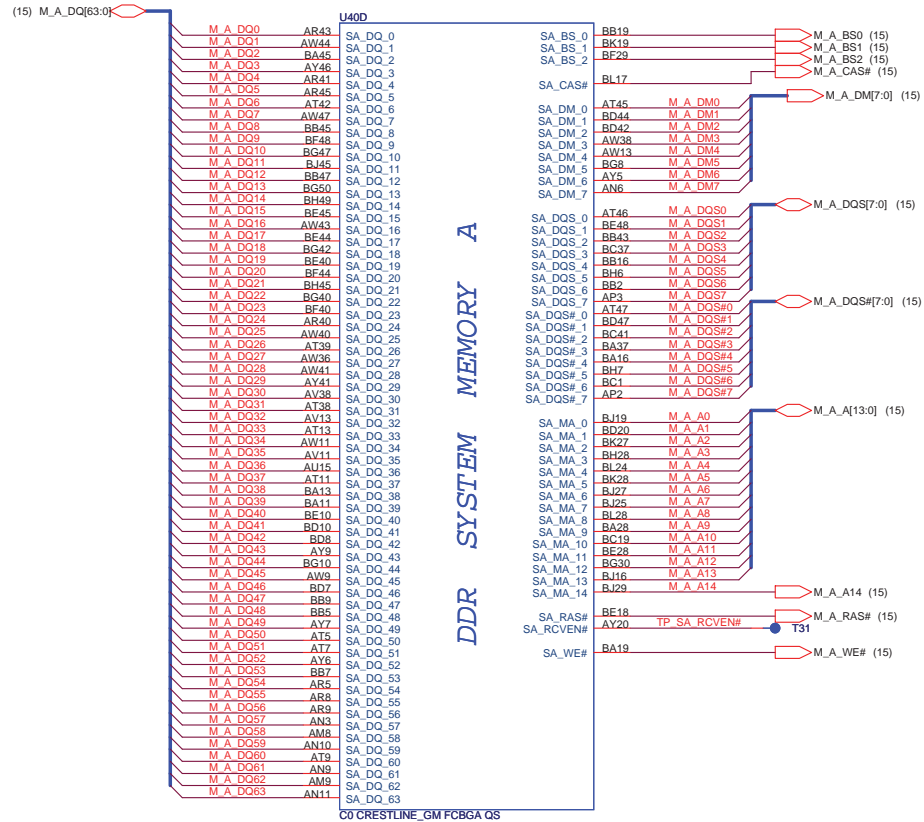
QUANTA COMPUTER

Title: GMCH Strapping(37)

Size: MX3
Document Number: Rev 2B

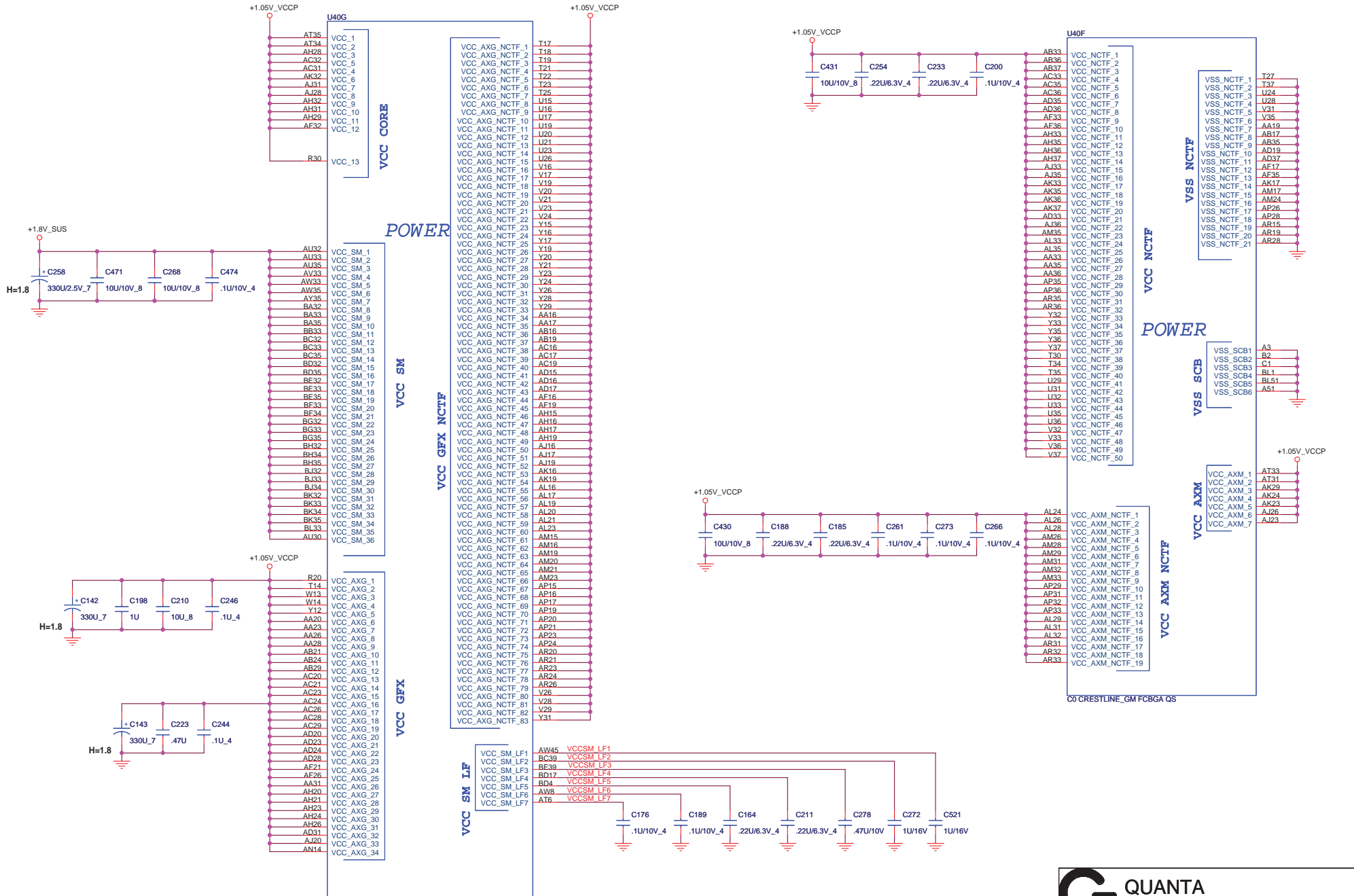
Rev: October 12, 2007
Sheet 6 of 53

NB(Memory controller)



Title		GMCH DDRII(47)	
Size	Document Number	Rev	2B
MX3			
Date	Rev	Sheet	7 of 53
File	Rev	October 12, 2007	

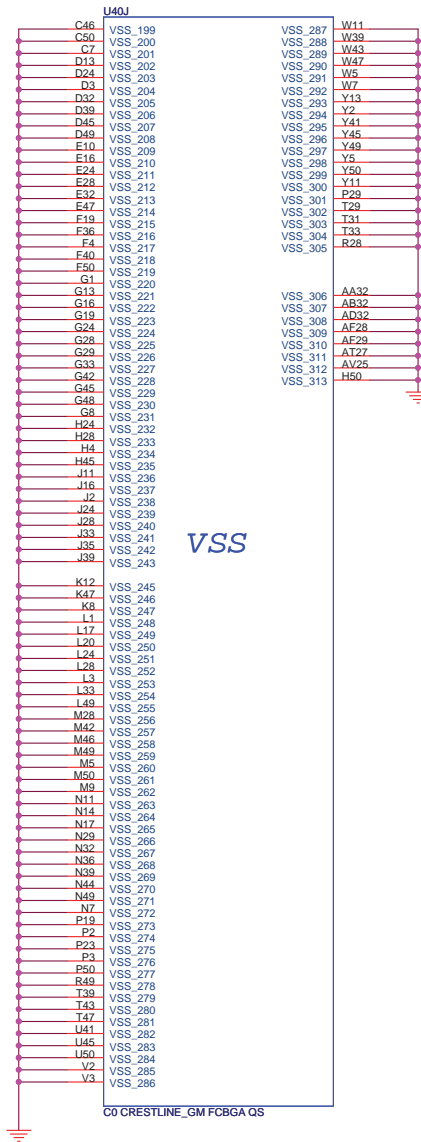
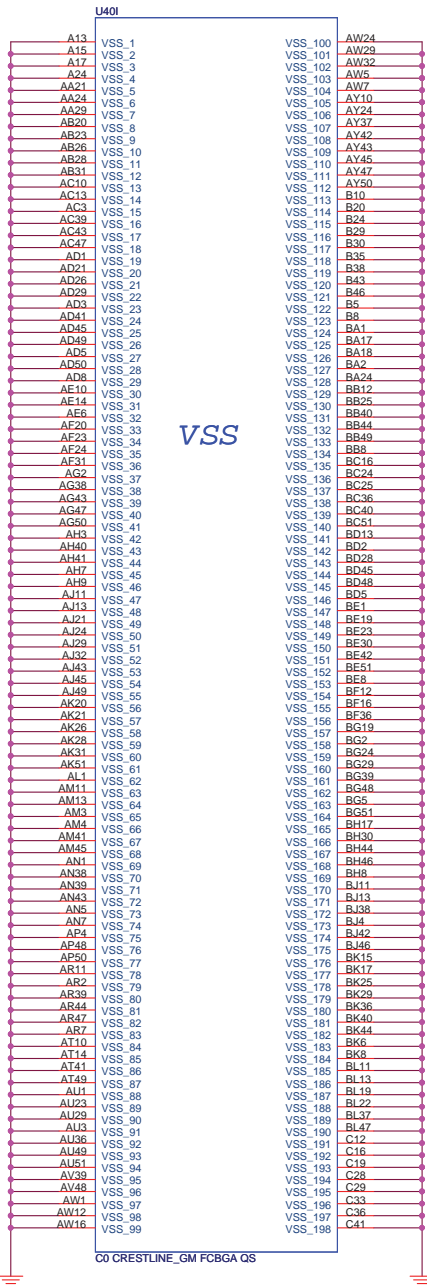
NB(Power-1)



QUANTA COMPUTER

Title: GMCH Power-1(5/7)

Size	Document Number	Rev
MX3		2B
Date	Rev	Sheet
File	Rev, October 12, 2007	8 of 53



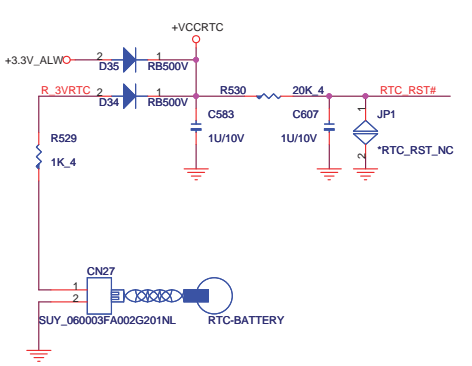
QUANTA COMPUTER

Title: GMCH Power-3(777)

Size	Document Number	Rev
MX3		2B

Date: Rev, October 12, 2007 Sheet 10 of 53

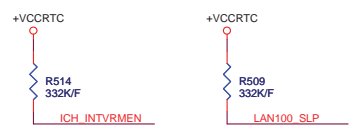
RTC



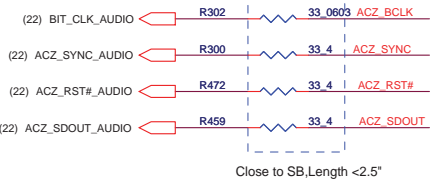
SB Strap

As Intel's review(Apr.,17,2007), internal VR must be enabled.

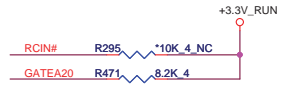
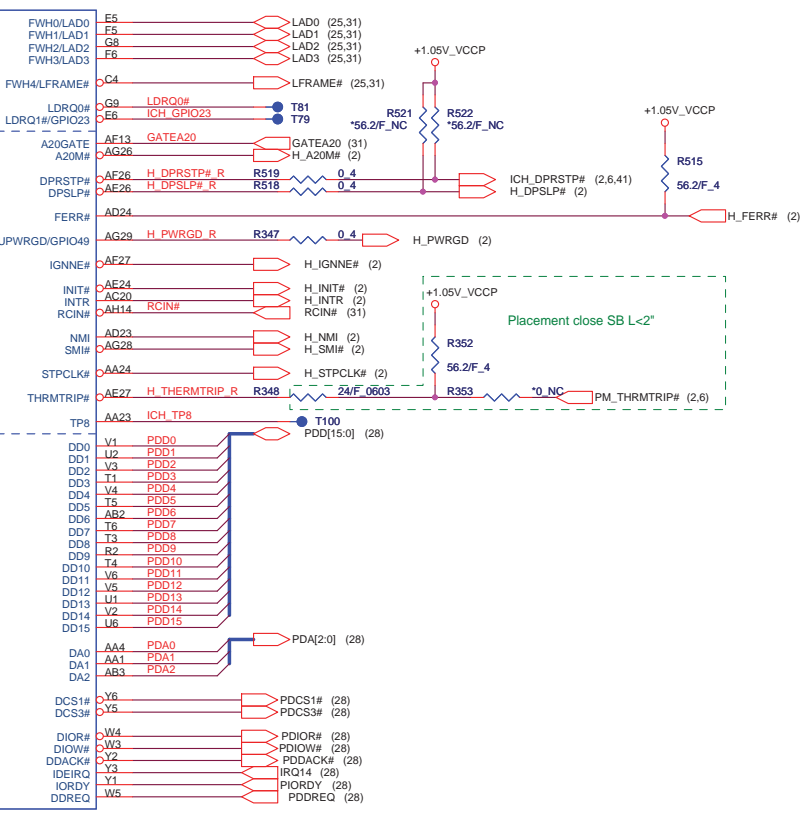
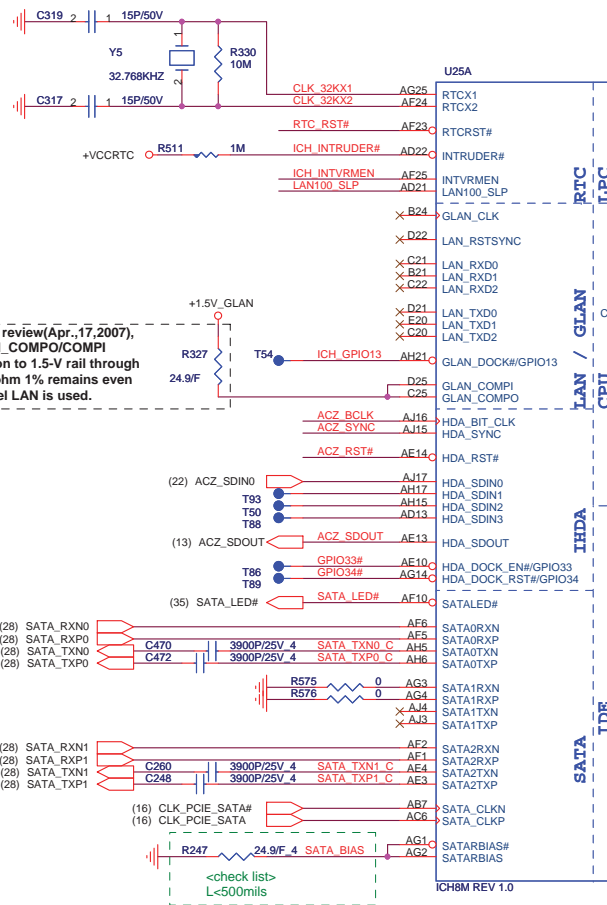
INTVRMEN	Low = Internal VR disable High = Internal VR enable(Default)
LAN100_SLP	Low = Internal VR disable High = Internal VR enable(Default)



HDA



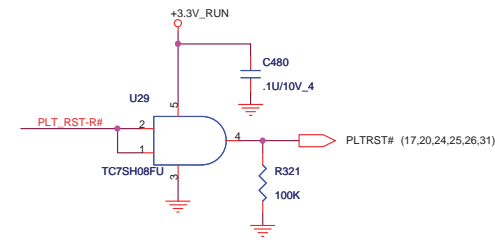
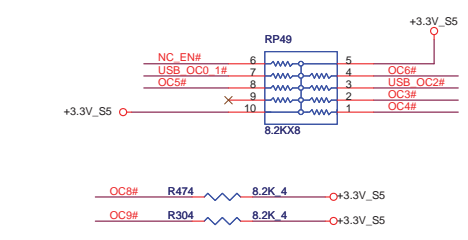
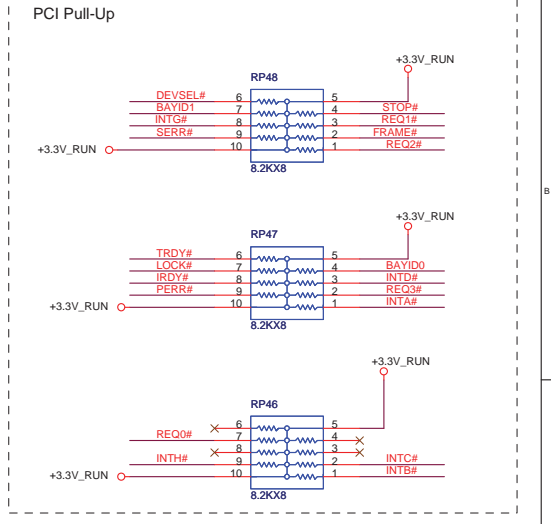
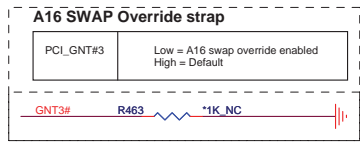
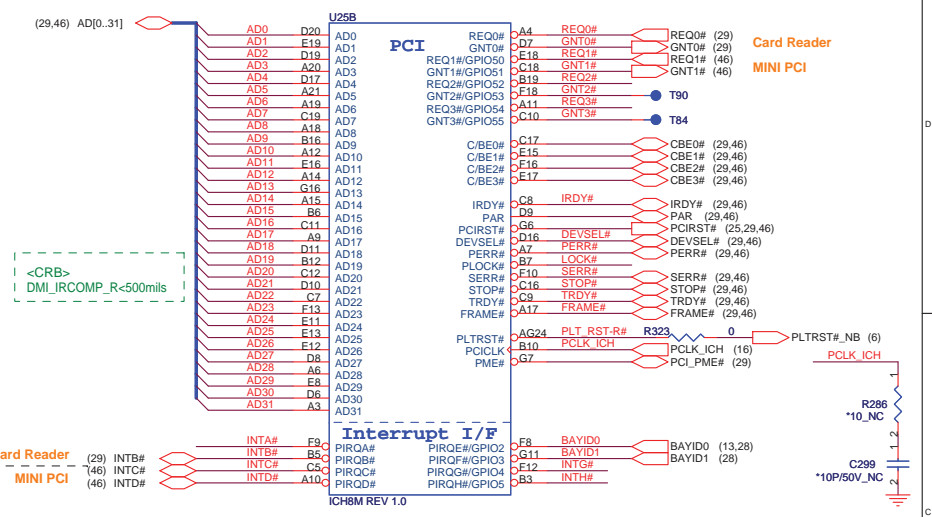
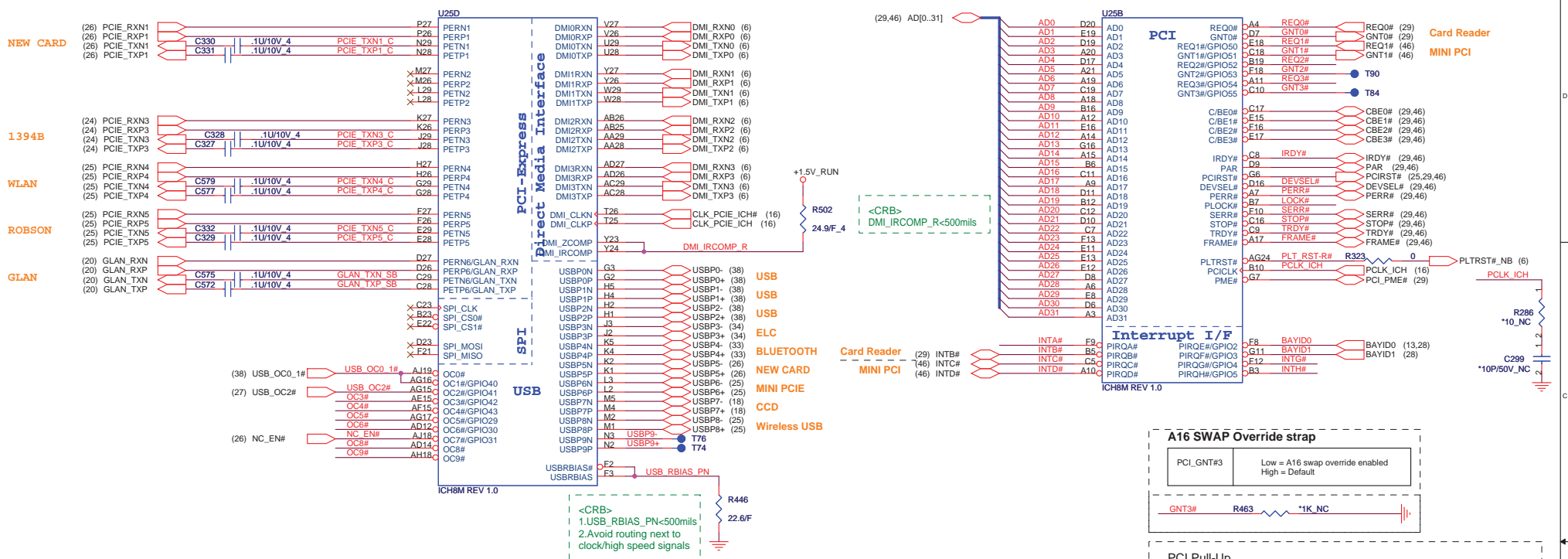
As Intel's review(Apr.,17,2007), the GLAN_COMP0/COMPI connection to 1.5-V rail through the 24.9 ohm 1% remains even if non-Intel LAN is used.



Title		IC88M Host(1/4)	
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SB-PCIE/USB/DMI

SB-PCI



QUANTA COMPUTER

Title: ICH8M PCIE/PCI/USB(2/4)

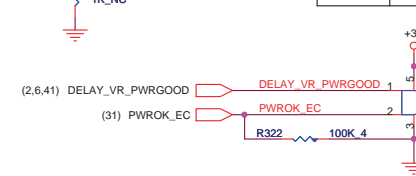
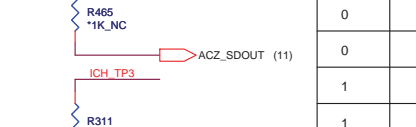
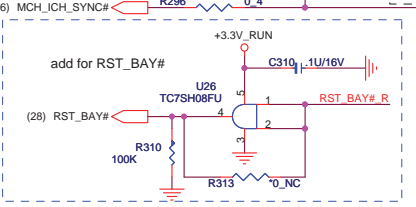
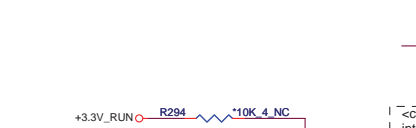
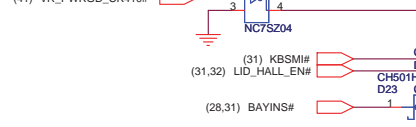
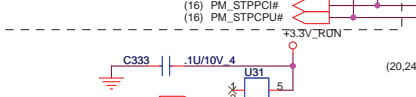
Size: MX3 Document Number: Rev 2B

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As Intel's review (Apr., 17, 2007), add 0 ohm between SMBus & SMLINK to let SMBus of ICH8M work in slave mode.



<FAE>
CRB STP_PCI# PU is no stuff. CRB STP_CPU# always keeps high to ensure ME alive in M1 state. (CLK_MCH_BCLK# must keep alive to make ME work) I think there will be update for this design, I suggest you to keep PU and 0Ω isolation resistors for this signal.

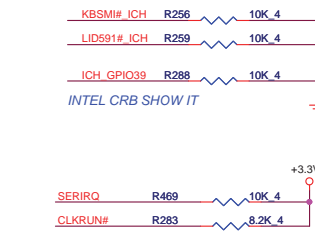
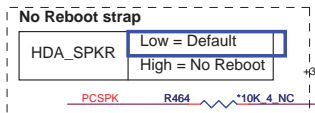
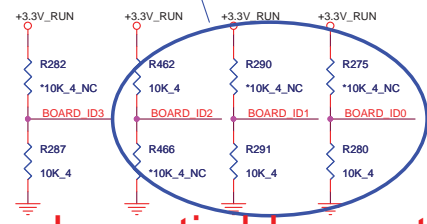


XOR Chain Entrance Strap

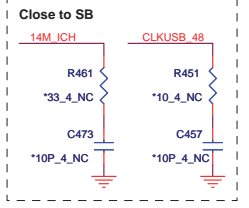
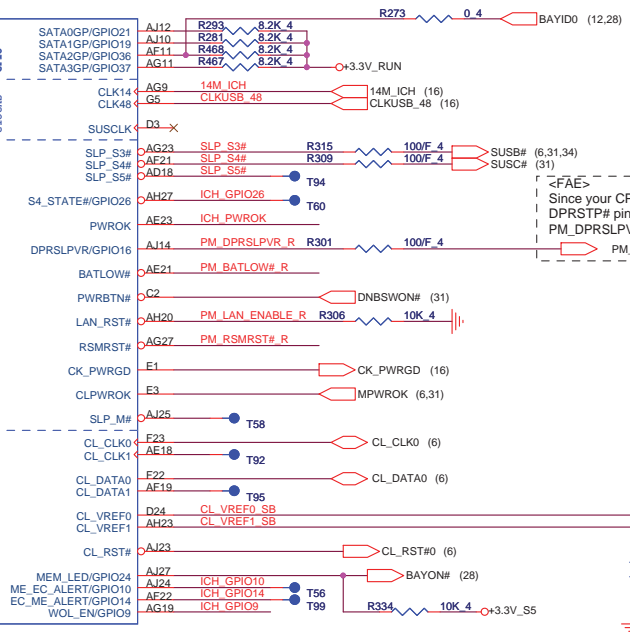
ICH_RSVD0	HDA_SDOOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal opration(Default)
1	1	Set PCIE port config bit 1

- PCLK_SMB R333 2.2K_4
- PDAT_SMB R500 2.2K_4
- SMB_CLK_ME R481 10K_4
- SMB_DATA_ME R489 10K_4
- RI# R480 10K_4
- PCIE_WAKE# R479 1K_4
- PM_BATLOW# R R492 8.2K_4
- BAYINS# R R496 10K
- SCI# R473 10K_4
- CL_RST#1 R577 *10K_NC
- SMB_ALERT# R493 10K_4
- SYS_RST# R470 10K_4
- ICH_GPIO10 R318 10K_4
- RST_BAY# R R312 10K_4
- ICH_GPIO14 R504 10K_4
- ICH_GPIO9 R307 100K_4
- VR_PWRGD_CLKEN R494 100K_4
- ICH_PWROK R317 10K_4

Board ID	ID3	ID2	ID1	ID0
EVT	0	0	0	0
DVT-1	0	0	0	1
DVT-2	0	0	1	0
PVT	0	0	1	1
Ramp1	0	1	0	0

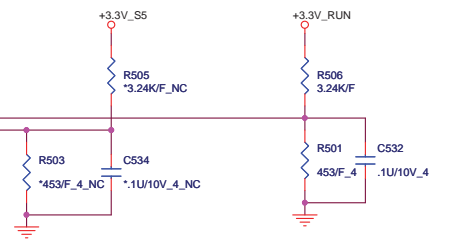


Den_1011: change BID from 0011 to 0100 for Ramp1

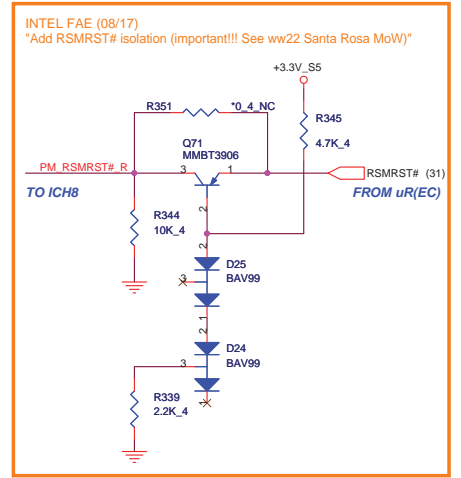


<FAE>
Since your CPU VRM has no DPRSTP# pin, connect PM_DPRSLPVR to IMVP6 is correct PM_DPRSLPVR (6,41)

If no use internal LAN MAC connect LAN_RST# to PLTRST# Use internal LAN MAC connect LAN_RST# to RSMRST# should go high no sooner than 10 ms after both VccLAN_3 and VccLAN_1 have reached their nominal voltages.



Controller Link 1 VREF for IAMT support only

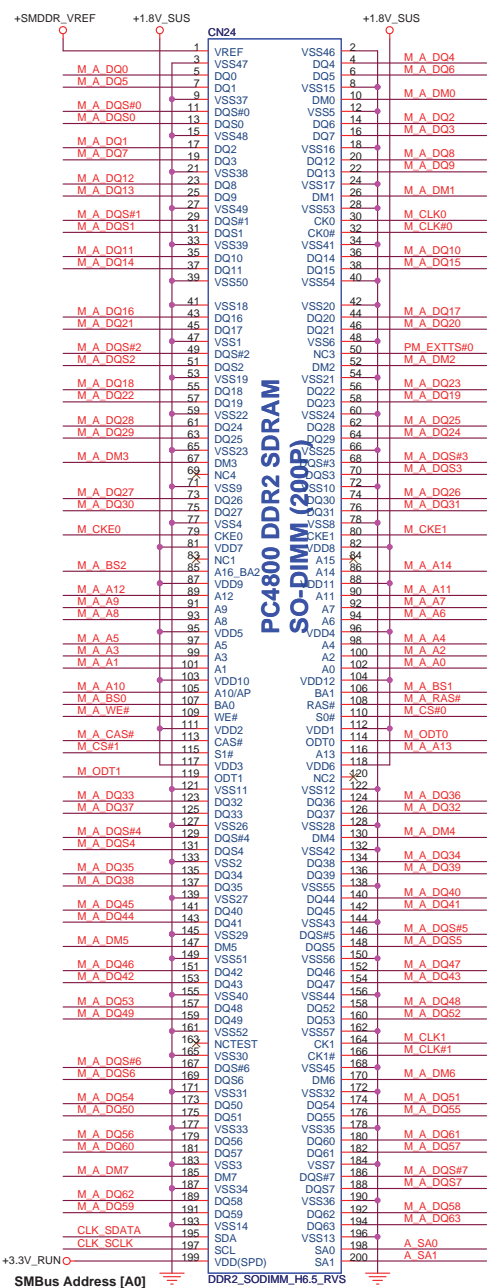


QUANTA COMPUTER

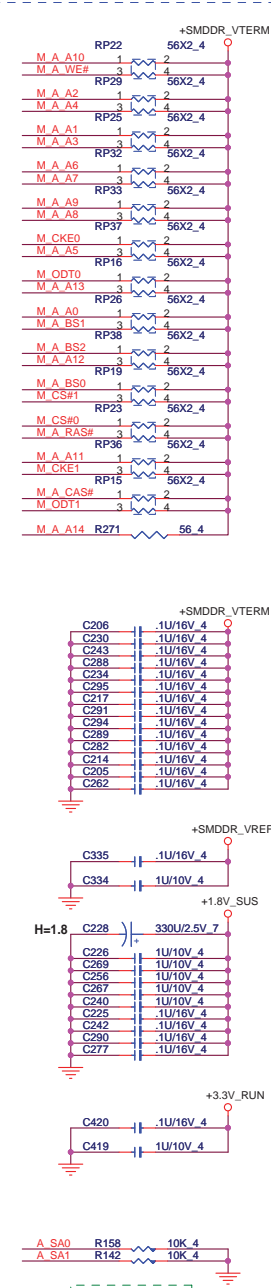
Title: ICH8M GPIO(3/4)

Size: MX3 Document Number: Rev: 3A

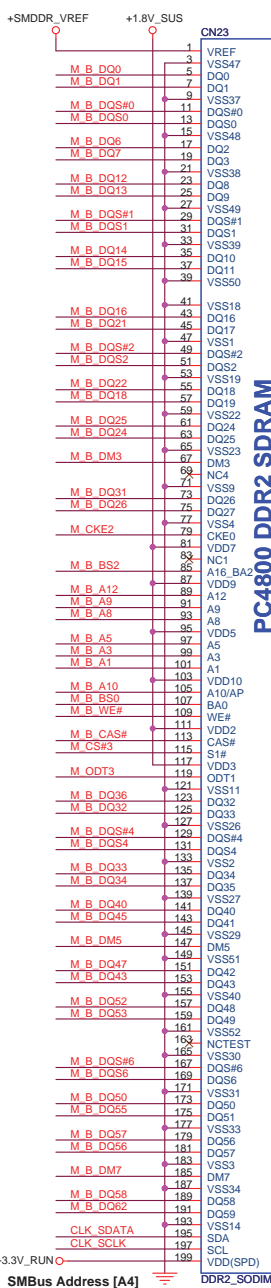
Date: Monday, October 15, 2007 Sheet: 13 of 53



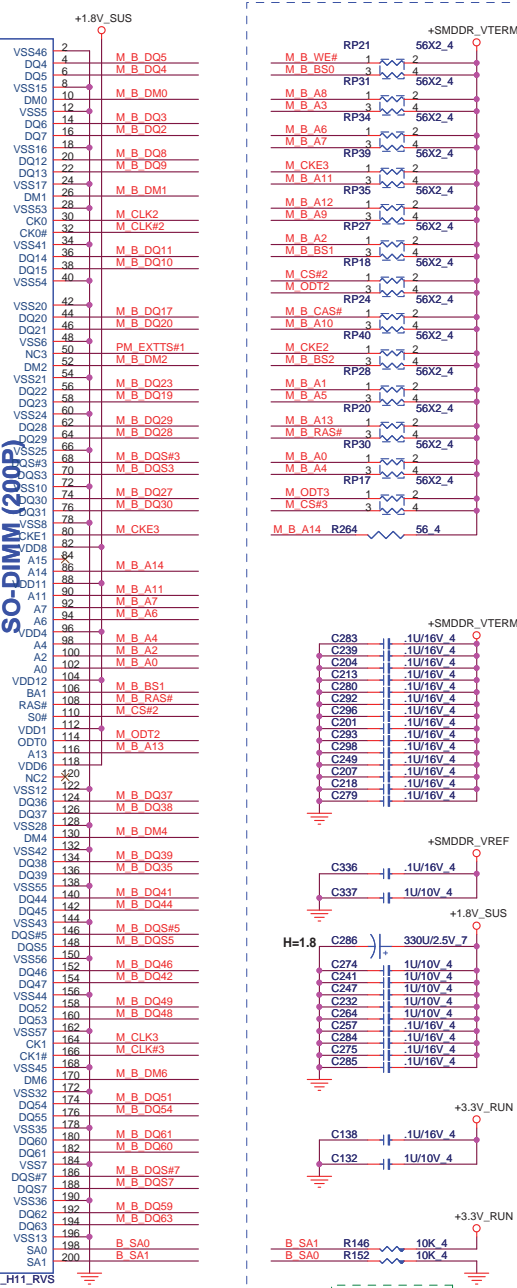
SO-DIMM0



SO-DIMM1



SO-DIMM2



SO-DIMM3

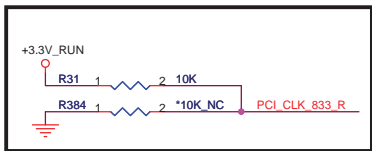
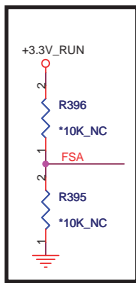


- (6) PM_EXTT#1 PM_EXTT#1
- (6) PM_EXTT#0 PM_EXTT#0
- (16) CLK_SDATA CLK_SDATA
- (16) CLK_SCLK CLK_SCLK
- (6) M_CS#(3:0) M_CS#(3:0)
- (6) M_ODT(3:0) M_ODT(3:0)
- (6) M_CKE(3:0) M_CKE(3:0)
- (6) M_CLK#(3:0) M_CLK#(3:0)
- (6) M_CLK(3:0) M_CLK(3:0)
- (7) M_A_CAS# M_A_CAS#
- (7) M_A_RAS# M_A_RAS#
- (7) M_A_WE# M_A_WE#
- (7) M_A_DM[7:0] M_A_DM[7:0]
- (7) M_A_DQS[7:0] M_A_DQS[7:0]
- (7) M_A_A[14:0] M_A_A[14:0]
- (7) M_A_DQ[63:0] M_A_DQ[63:0]
- (7) M_B_CAS# M_B_CAS#
- (7) M_B_RAS# M_B_RAS#
- (7) M_B_WE# M_B_WE#
- (7) M_B_BS[2:0] M_B_BS[2:0]
- (7) M_B_DM[7:0] M_B_DM[7:0]
- (7) M_B_DQS[7:0] M_B_DQS[7:0]
- (7) M_B_BS[7:0] M_B_BS[7:0]
- (7) M_B_A[14:0] M_B_A[14:0]
- (7) M_B_DQ[63:0] M_B_DQ[63:0]



Title			DDRII SO-DIMM		
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MX3		3A			
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Der_1015: change CN23 material P/N from DGMK0000S1 to DGMK000033

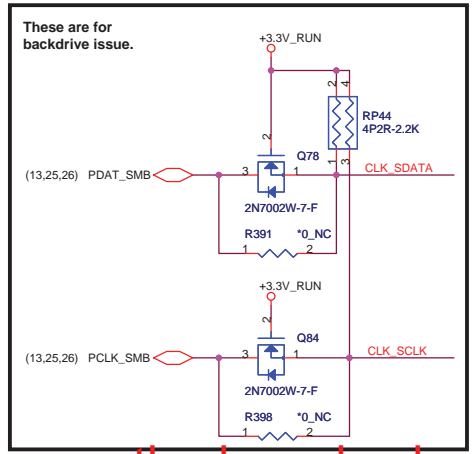
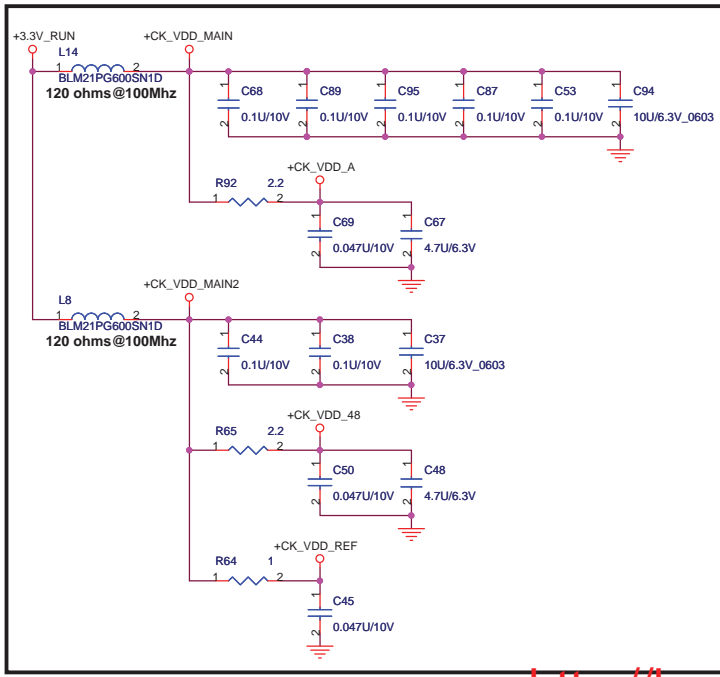
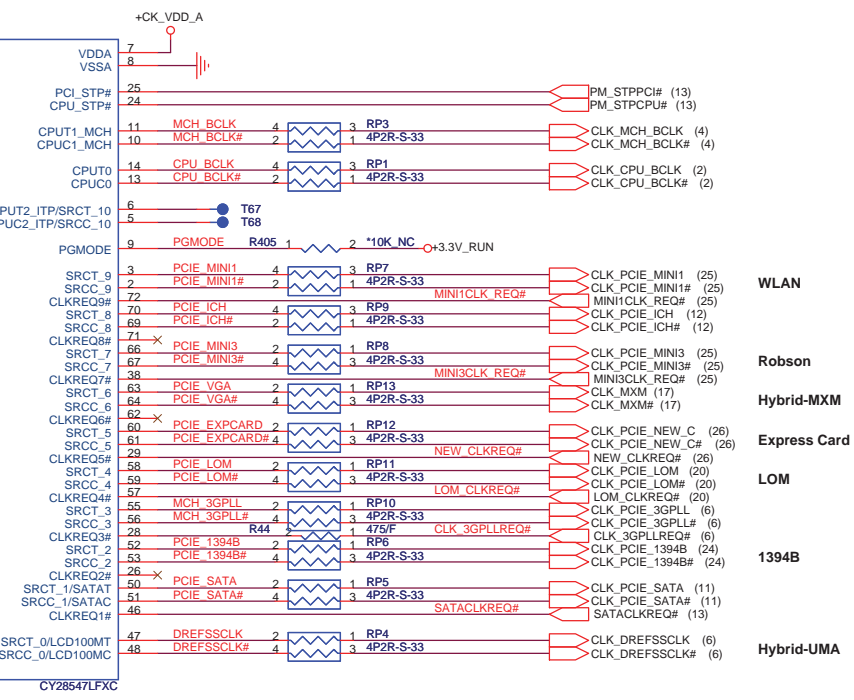
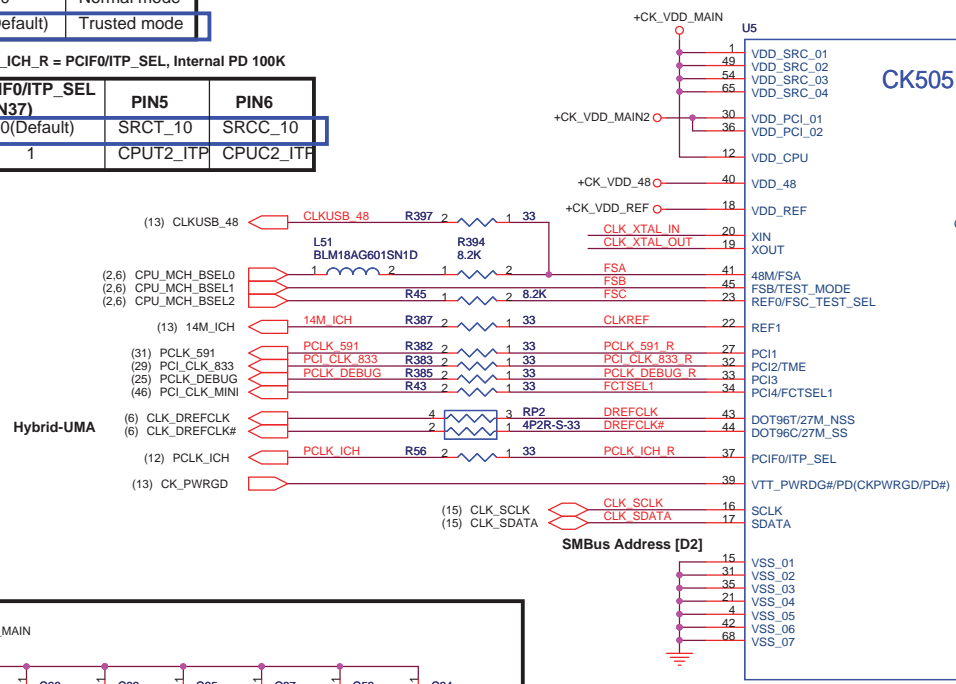
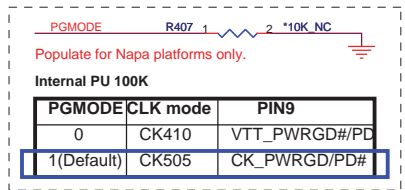
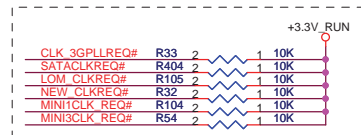
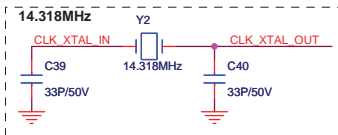
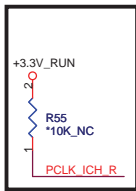


PCI_CLK_833_R = PCI2/TME, Internal PU 100K

PCI2/TME	PIN32
0	Normal mode
1(Default)	Trusted mode

PCLK_ICH_R = PCIF0/ITP_SEL, Internal PD 100K

PCIF0/ITP_SEL (PIN37)	PIN5	PIN6
0(Default)	SRCT_10	SRCC_10
1	CPUT2_ITP	CPUC2_ITP



FCTSEL1 = PCI4/FCTSEL1, Internal PD 100K

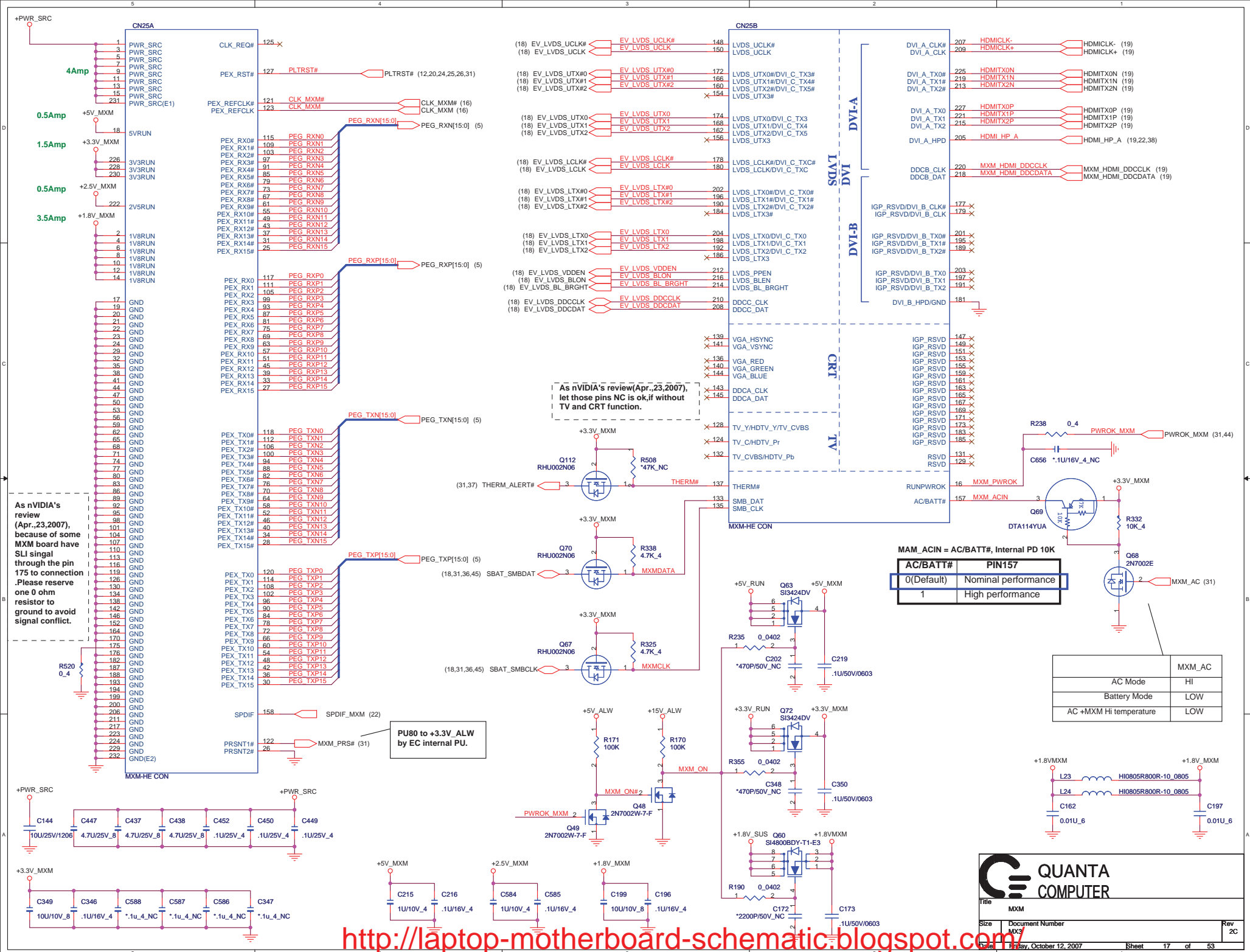
PCI4/FCTSEL1 (PIN34)	PIN43	PIN44	PIN47	PIN48
0 = UMA	DOT96T	DOT96C	96/100M_T	96/100M_C
1 = Discrete	27M_NSS	27M_SS	SRCT0	SRCC0

FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

QUANTA COMPUTER

Title: Clock Generator

Size: MX3
 Document Number: MX3
 Date: Friday, October 12, 2007
 Sheet: 16 of 53
 Rev: 1A



As nVIDIA's review (Apr.,23,2007), because some MXM board have SLI singal through the pin 175 to connection. Please reserve one 0 ohm resistor to ground to avoid signal conflict.

As nVIDIA's review (Apr.,23,2007), let those pins NC is ok, if without TV and CRT function.

PU80 to +3.3V_ALW by EC internal PU.

AC/BATT#	PIN157
0(Default)	Nominal performance
1	High performance

	MXM_AC
AC Mode	HI
Battery Mode	LOW
AC+MXM Hi temperature	LOW

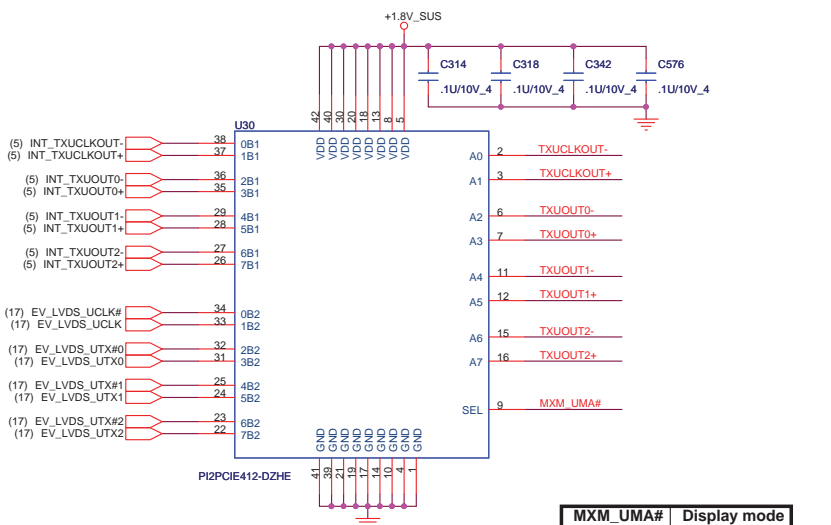
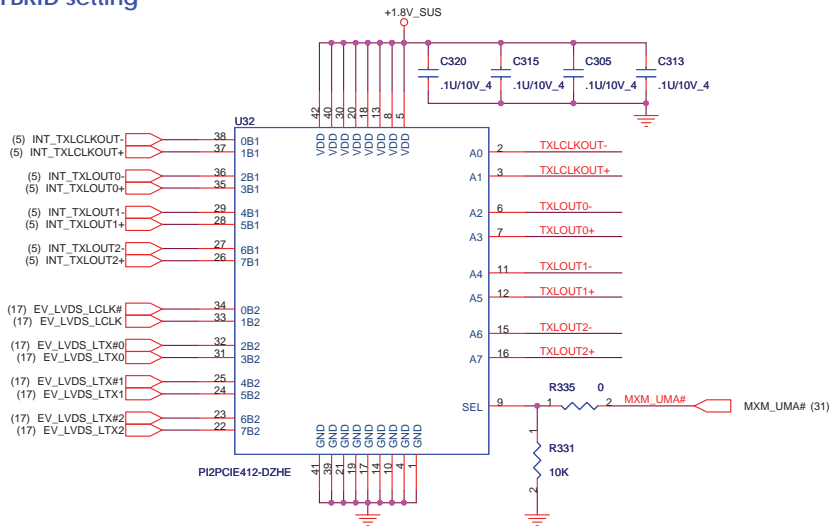
QUANTA COMPUTER

Title: MXM

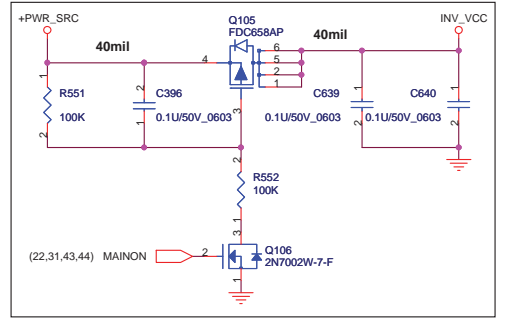
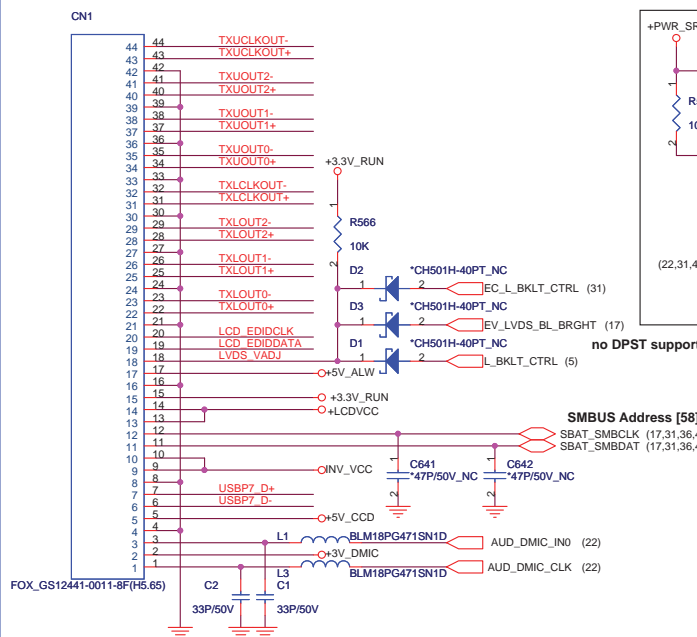
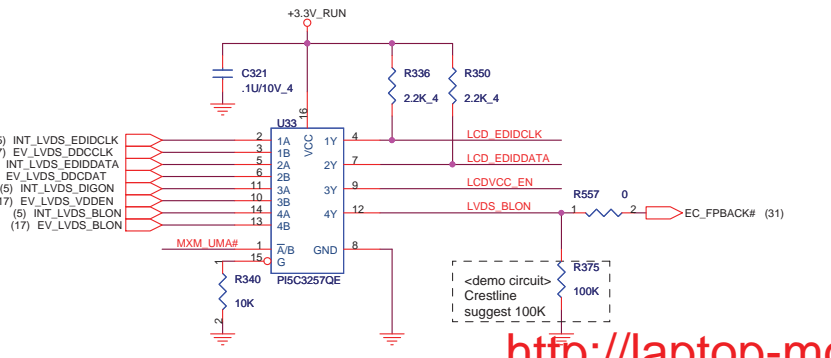
Size: MX3 Document Number: Rev 2C

Date: Rev, October 12, 2007 Sheet 17 of 53

HYBRID setting

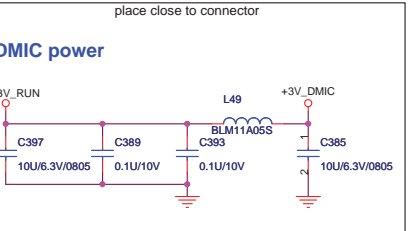
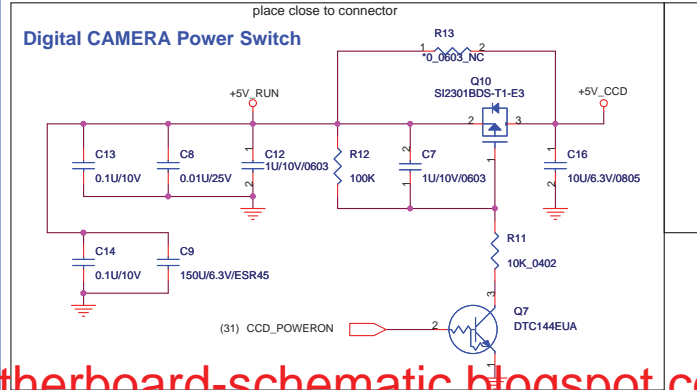
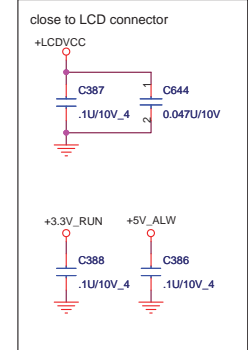
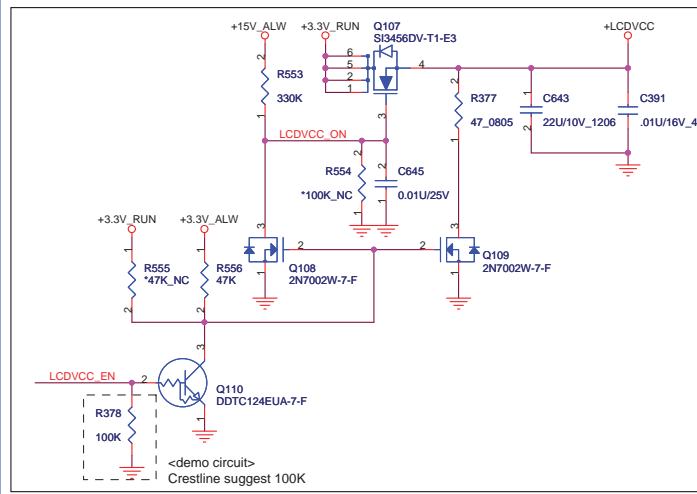
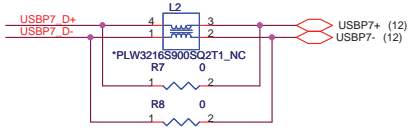


MXM_UMA#	Display mode
0	Hybrid-UMA
1	Hybrid-MXM



no DPST support

Add : A9H --Contrast
AAH --Backlight



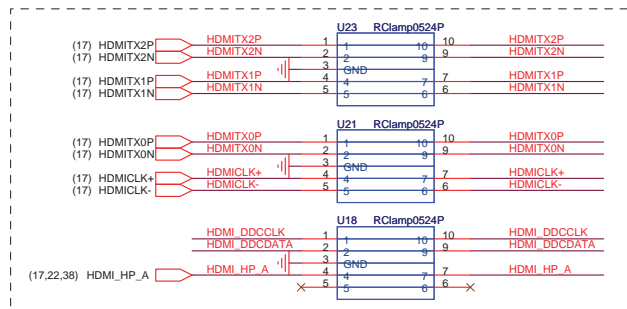
QUANTA COMPUTER

Title: LVDS/E-switch/CCD/DMIC

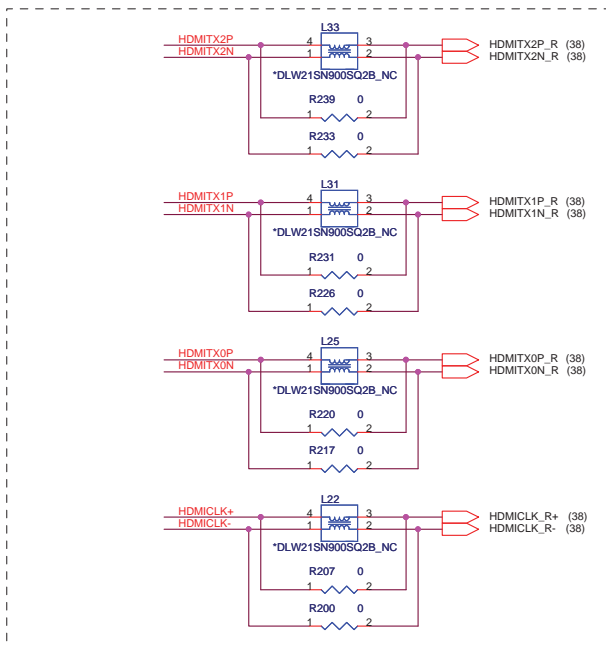
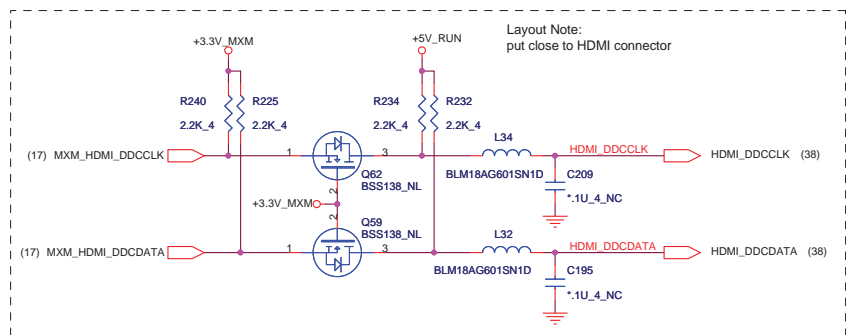
Size	Document Number	Rev
MX3		2A

Rev: October 12, 2007 Sheet 18 of 53

HDMI

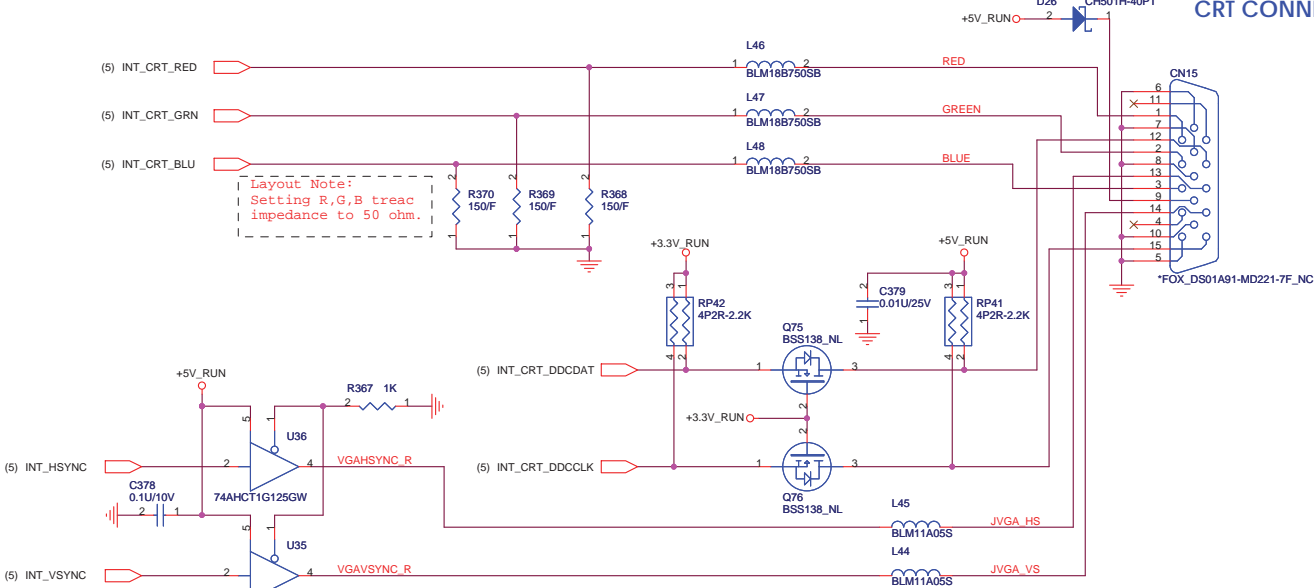


for ESD



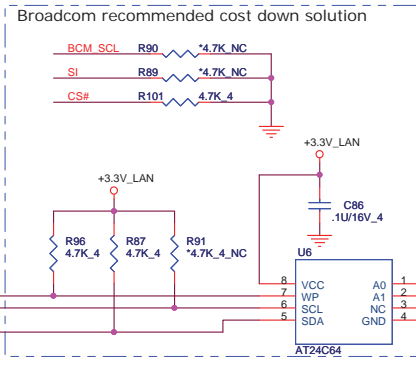
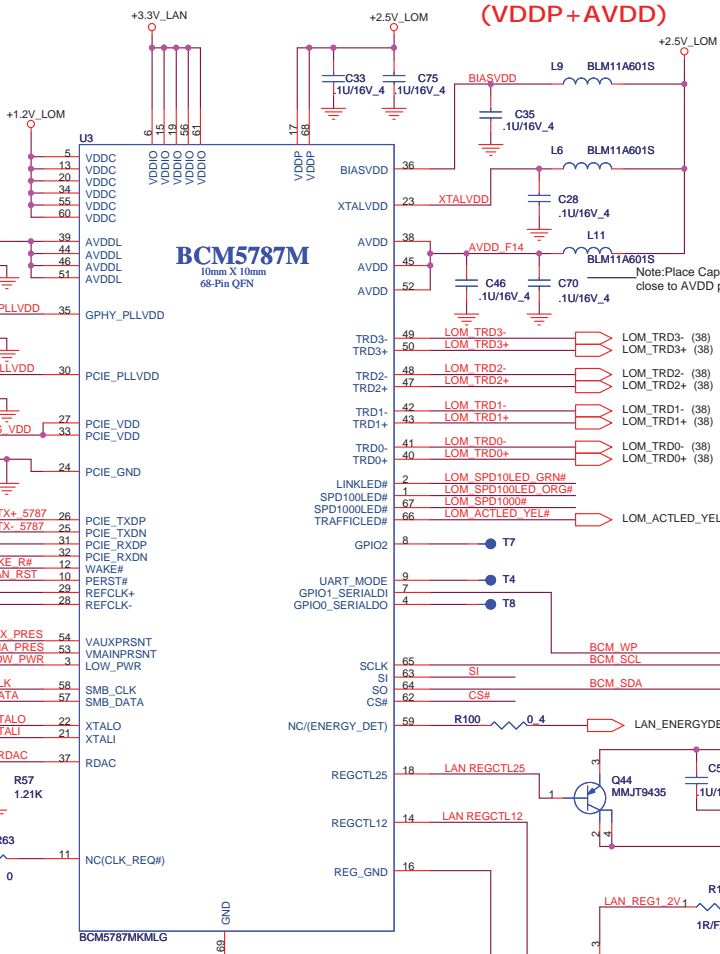
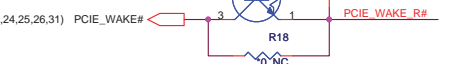
for EMI

CRT CONNECTOR FOR Debug



Layout Note:
Setting R,G,B treac
impedance to 50 ohm.

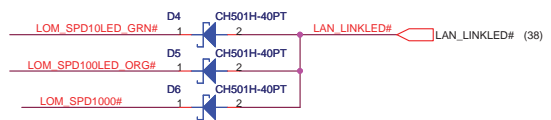
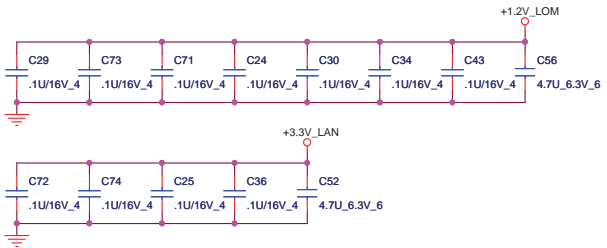
QUANTA COMPUTER	
Title: HDMI & CRT(for debug)	
Size: MX3	Document Number: Rev 2B
Date: 7 Nov, October 12, 2007	Sheet: 19 of 53



AT24C64: 64Kbit, I2C EEPROM

NVRAM Type	SO	SI	CS#	SCLK
EEPROM-24C64-(376KHZ)	1	1	0	1

* SO,SI,CS# and SCLK have internal pull ups.

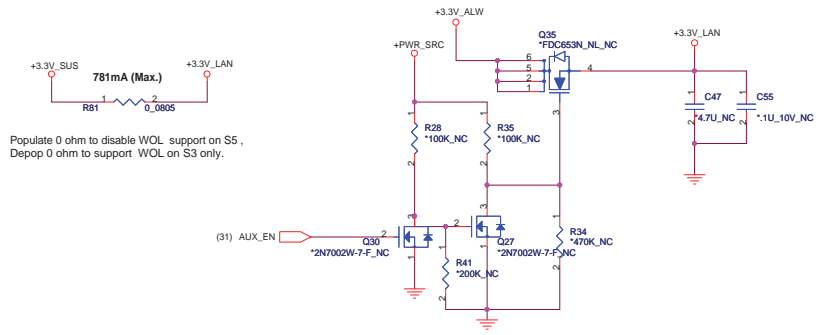



LAN(BCM5787M)

Size	Document Number	Rev
MX3		2A

Rev: October 12, 2007 Sheet 20 of 53

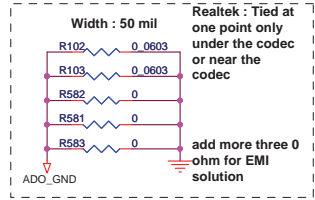
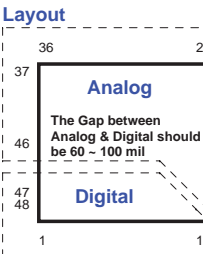
LAN POWER



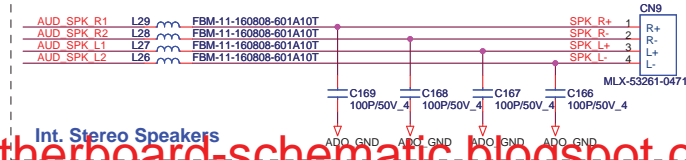
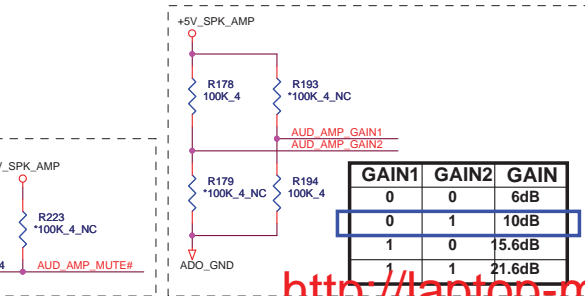
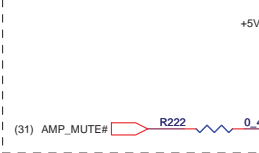
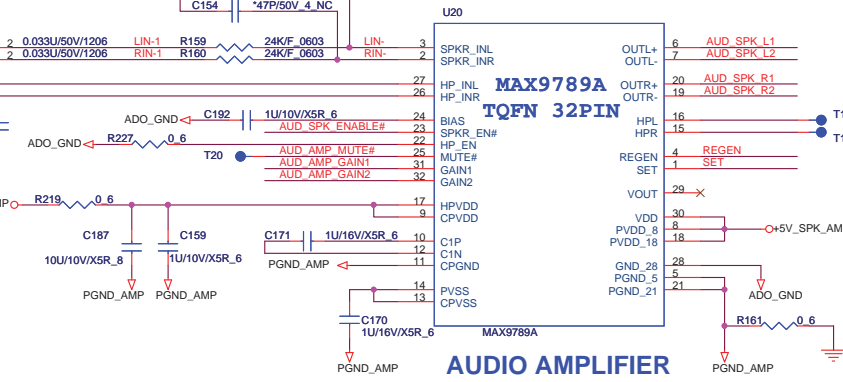
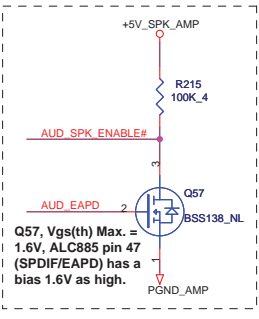
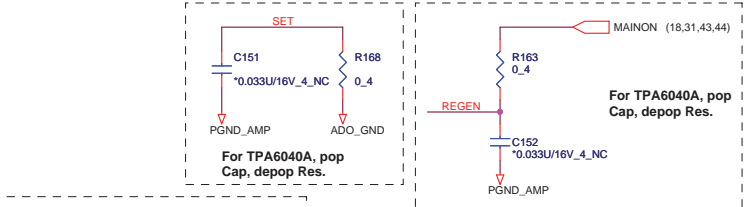
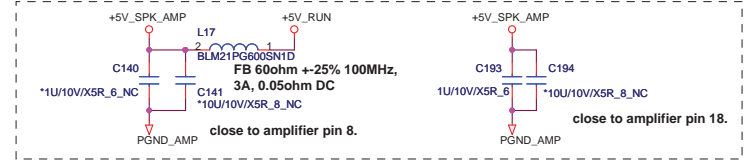
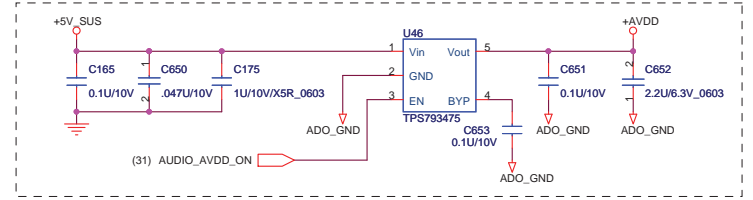
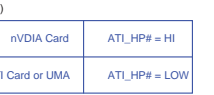
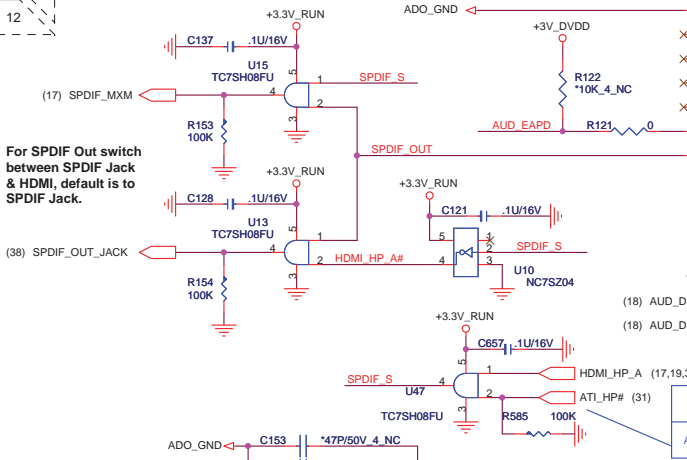
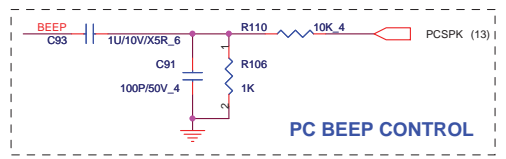
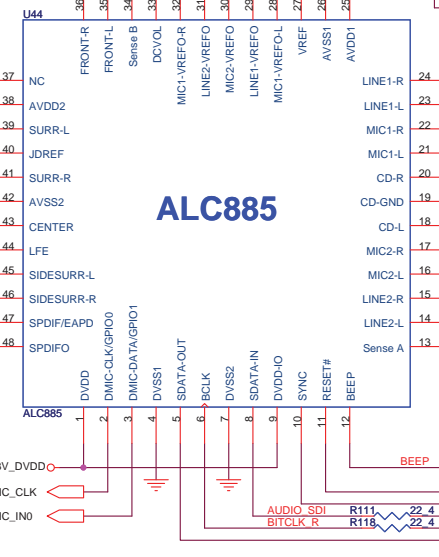
 QUANTA COMPUTER		
File LAN Power		
Size	Document Number M03	Rev 1A
Date: Friday, October 12, 2007	Sheet 21 of 53	

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

Codec
 PORT_X Pin: W/S=10/10
 VREFOUT_X Pin: W/S=10/10
 FOR HP: W/S=20/20
 Power Pin: 20mil



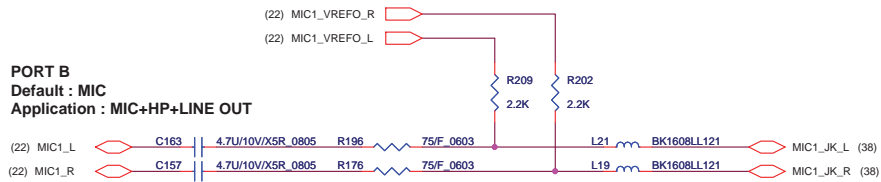
Place sense Res close to Audio Codec
SENSE B
 PORT E : 39.2K 1% ; PORT F : 20K 1%
 PORT G : 10K 1% ; PORT H : 5.1K 1%



QUANTA COMPUTER

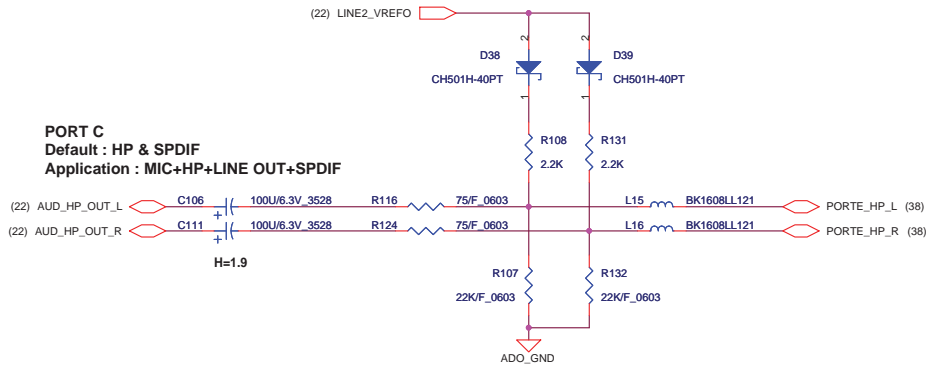
Title: Audio ALC885/AMP/SPK
 Size: MX3
 Document Number: Rev 2C
 Date: Rev, October 12, 2007
 Sheet 22 of 53


PORT B
Default : MIC
Application : MIC+HP+LINE OUT



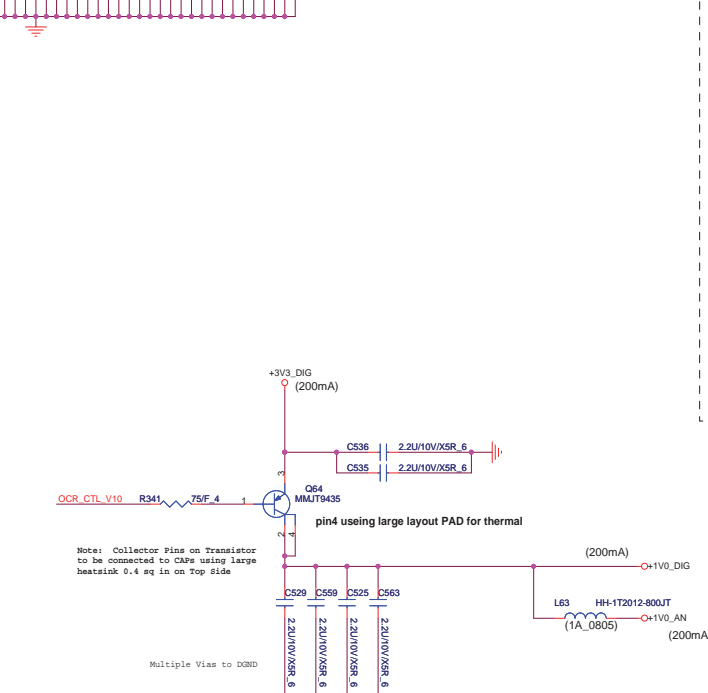
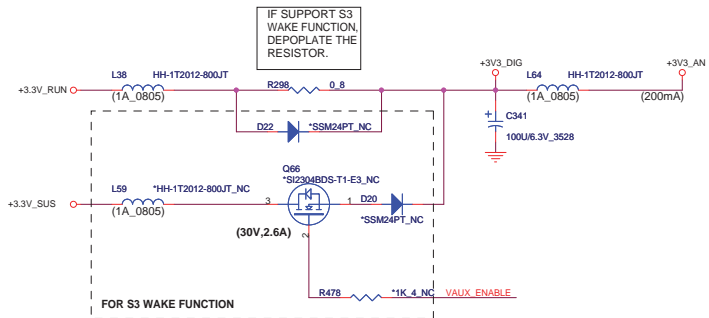
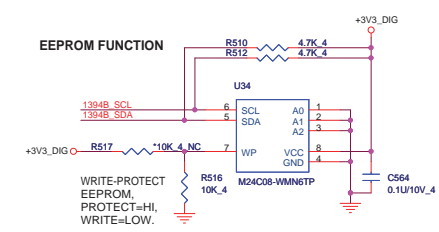
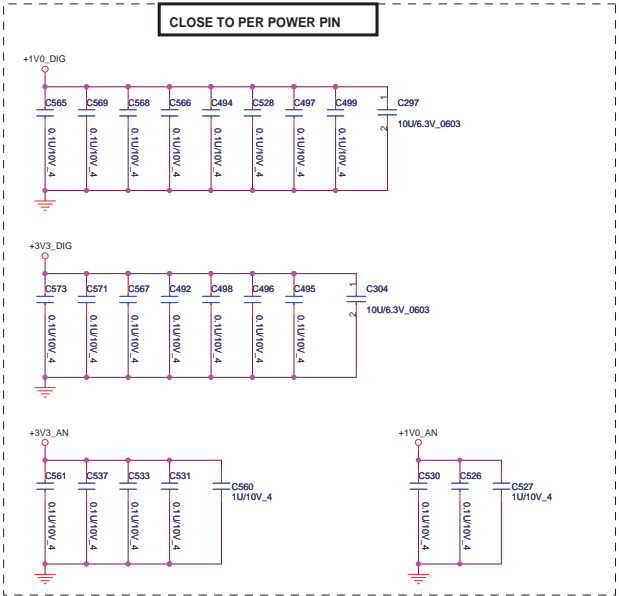
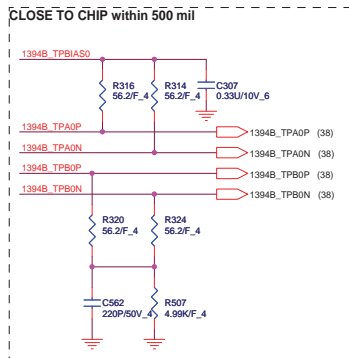
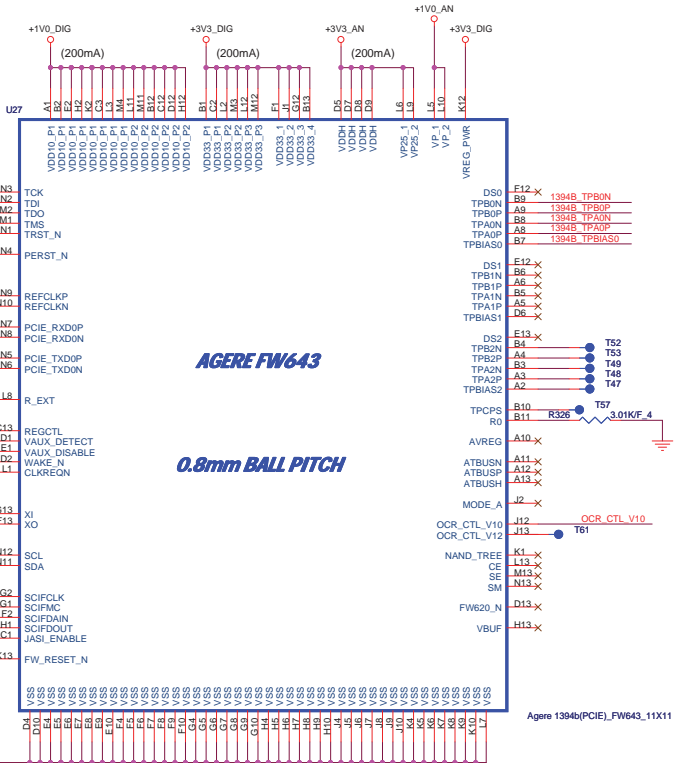
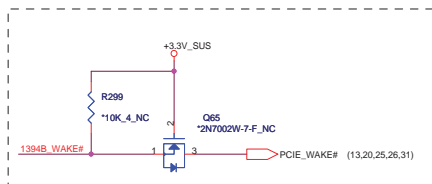
1. In order to meet Vista Premium requirements, MLCC input cap must use X5R dielectric material and 10V DC rated voltage.
2. If use polarity 100uF cap, then need to add 22K pull-down resistors.
3. R196, R176, R116, R124 are used for enhancing Audio quality and ESD ability.

PORT C
Default : HP & SPDIF
Application : MIC+HP+LINE OUT+SPDIF



 QUANTA COMPUTER		Title	
		Audio HP/MIC	
Size	Document Number	Rev	
MX3		2A	
Date	Rev	Sheet	of
Rev, October 12, 2007		23	53

FOR S3 WAKE FUNCTION

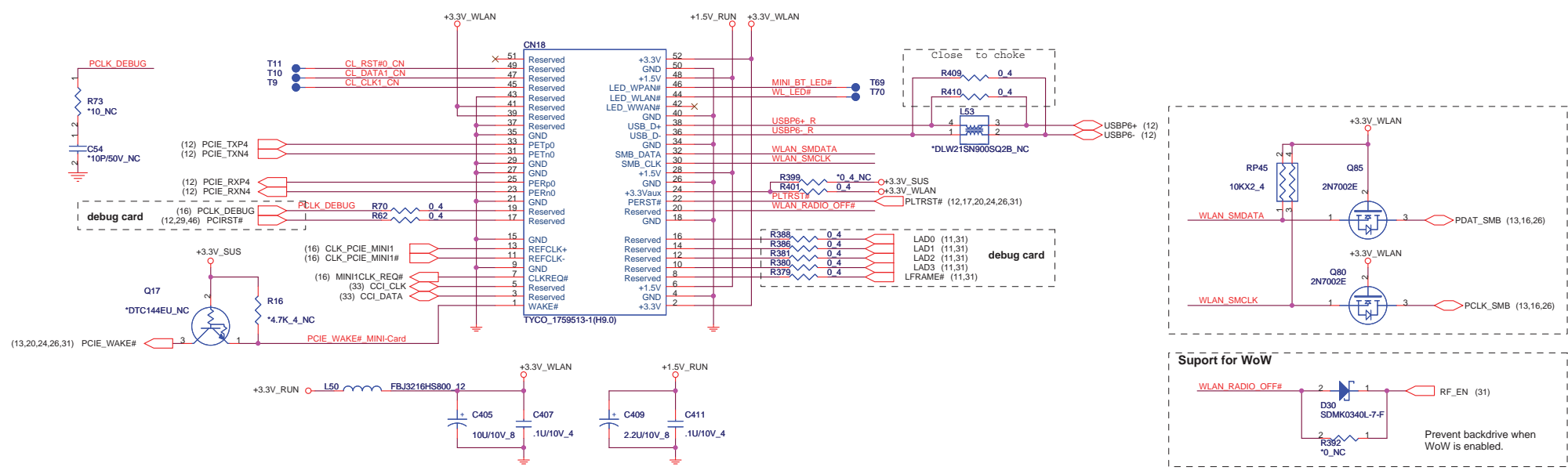


For FW643 rev03, EEPROM is not supported for code reading, pop this Res. For rev04, EEPROM is supported, depop this Res. Considering the cost saving, may pop this Res always for code reading from BIOS.

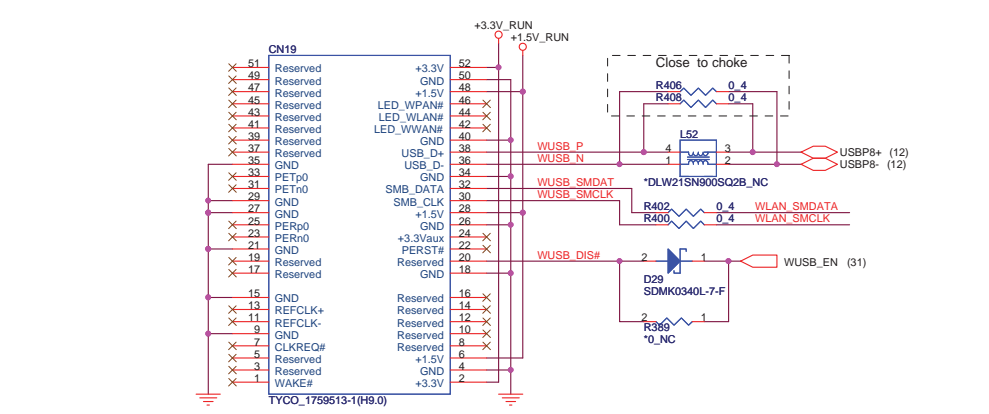
IF SUPPORT S3 WAKE FUNCTION, DEPOPULATE THE RESISTOR.

Note: Collector Pins on Transistor to be connected to CAPs using large heatsink 0.4 sq in on Top side

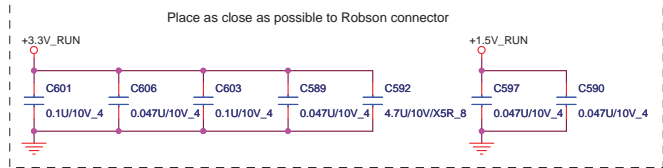
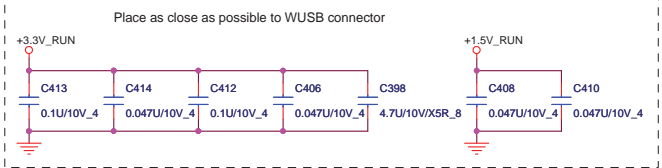
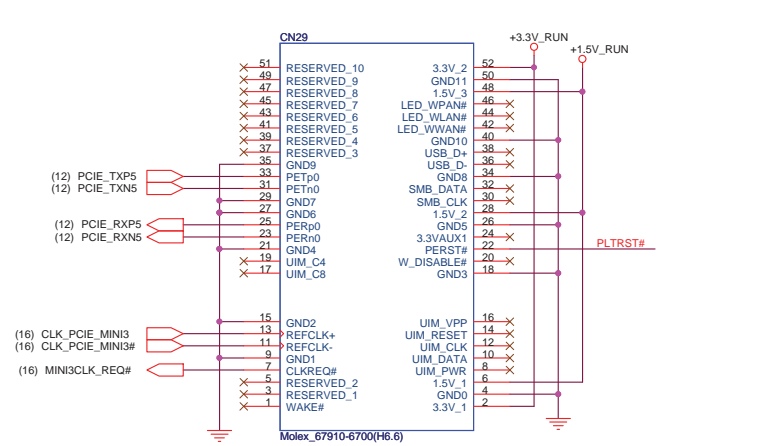
MiniCard connector - WLAN



MiniCard connector - Wireless-USB



MiniCard connector - Robson

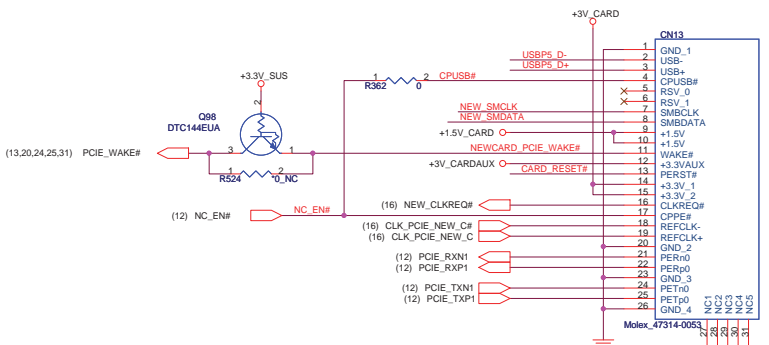


QUANTA COMPUTER

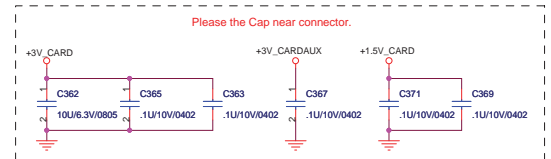
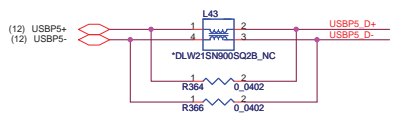
Title: Mini Card(WLAN/WUSB/Rob)

Size	Document Number	Rev
MX3		1A
Date	Rev	Sheet
Rev, October 12, 2007		25 of 53

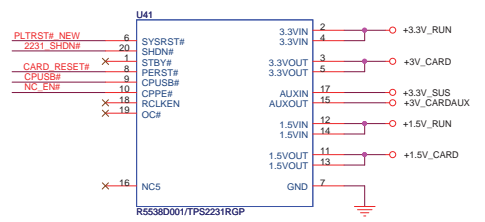
Express Card



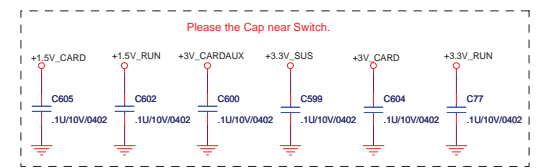
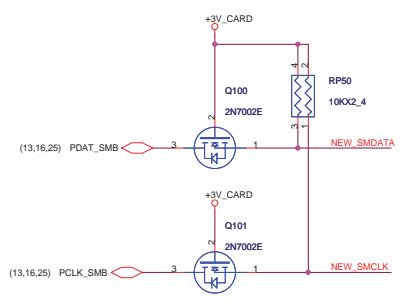
P/N: DFHS26FS093 for adding Cap.



Please the Cap near connector.

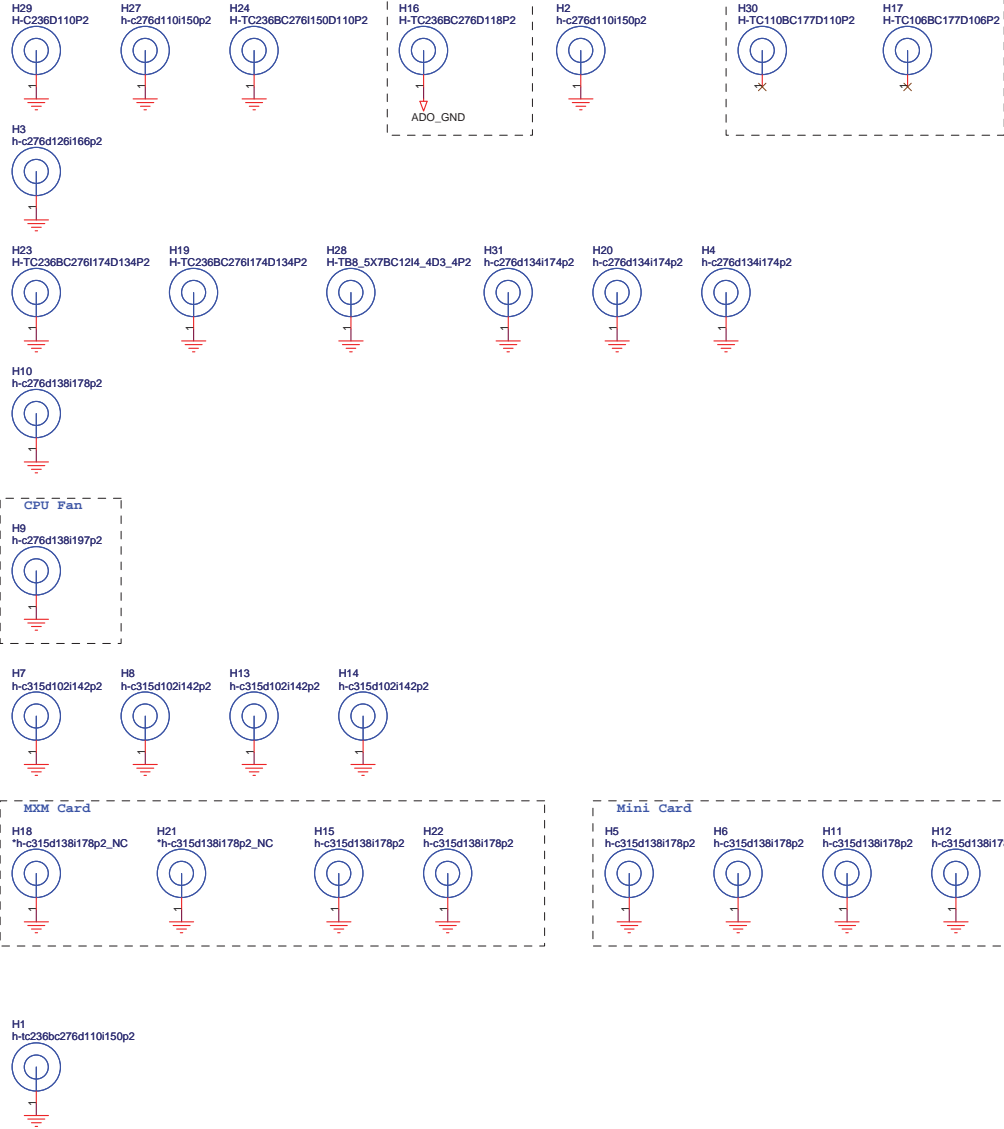
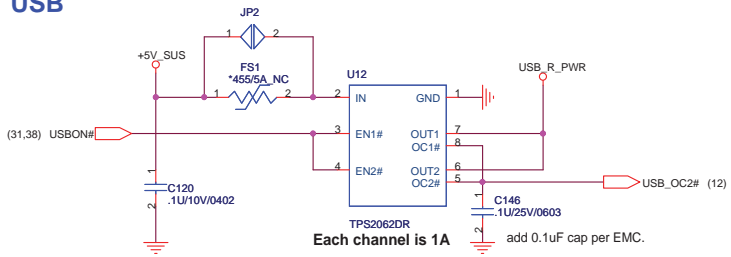


+1.5V_CARD Max. 650mA, Average 500mA
 +3V_CARD Max. 1300mA, Average 1000mA
 +3V_CARDAUX Max. 400mA, Average 275mA

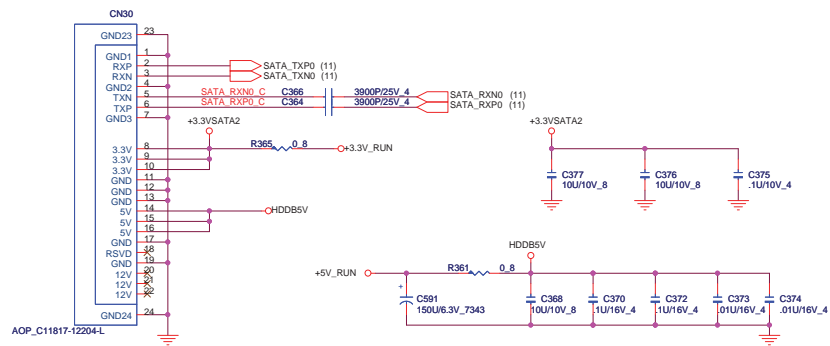


Please the Cap near Switch.

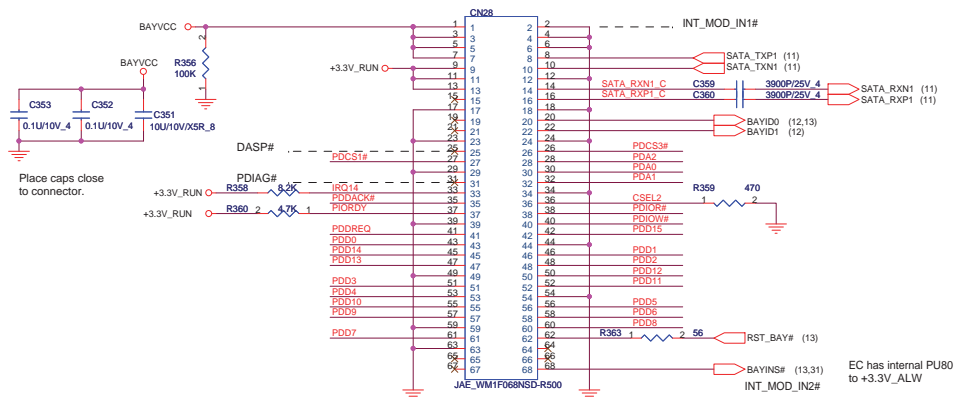
USB



Main

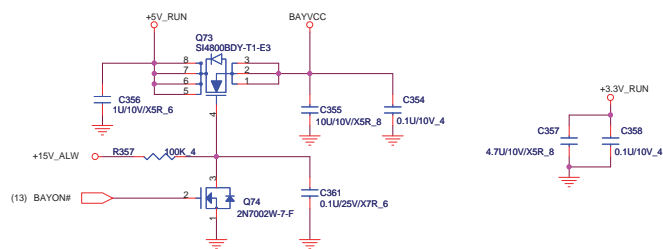
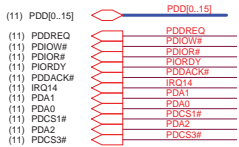


BAY(ODD,HDD)



LBAY ID STATUS

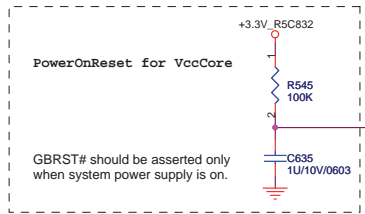
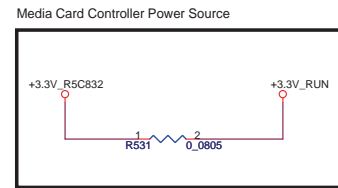
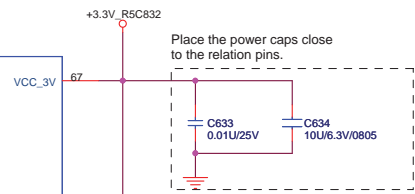
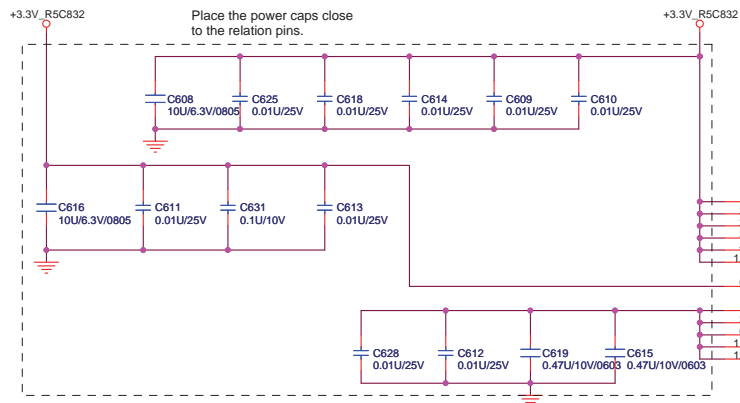
LEFT BAYID1	LEFT BAYID0	STATUS
0	0	(SATA) ODD
1	0	HDD
0	1	(PATA) ODD
1	1	HDD



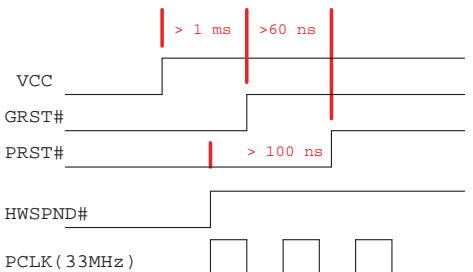
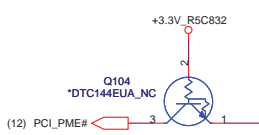
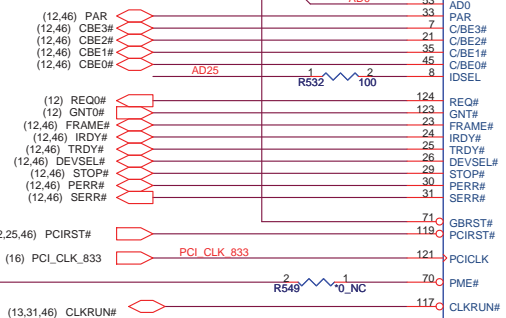
QUANTA COMPUTER

File: SATA-HDD & Module Bay

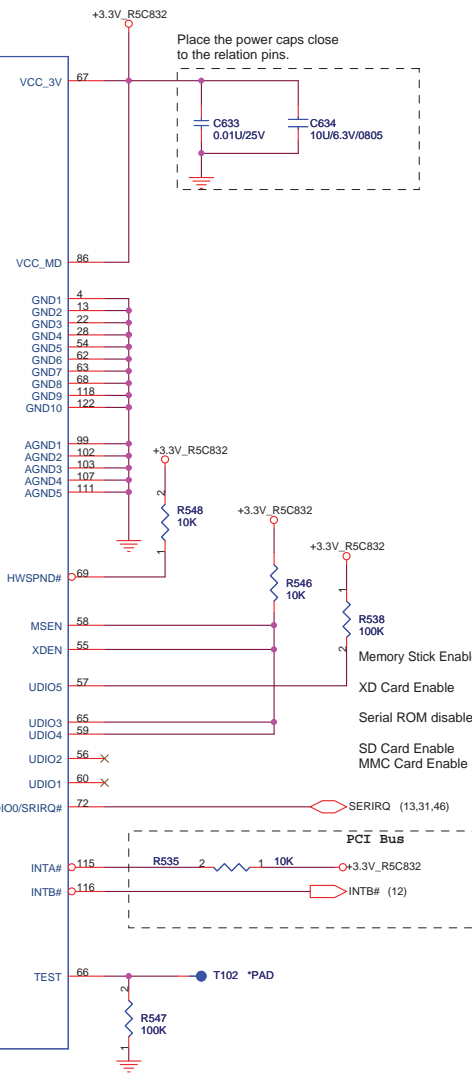
Size	Document Number: Mx3	Rev: 1A
Date:	Friday, October 12, 2007	Sheet: 28 of 53



REQ0# GNT0#
 IDSEL: AD25
 CardReader: INTB#



PCI / OTHER



Memory Stick Enable
 XD Card Enable
 Serial ROM disable
 SD Card Enable
 MMC Card Enable

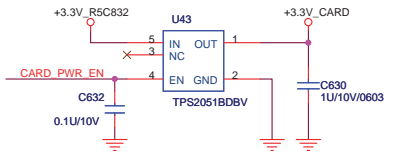
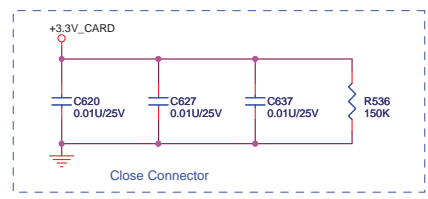
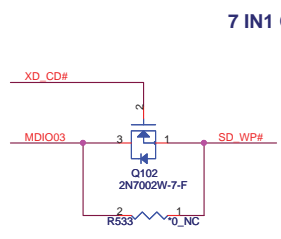
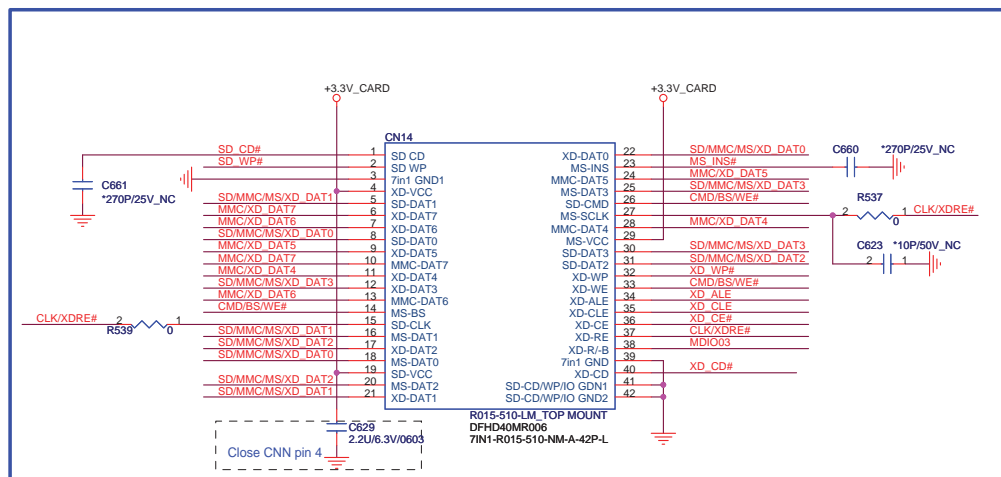
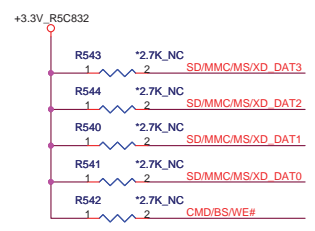
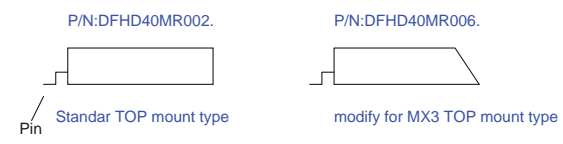
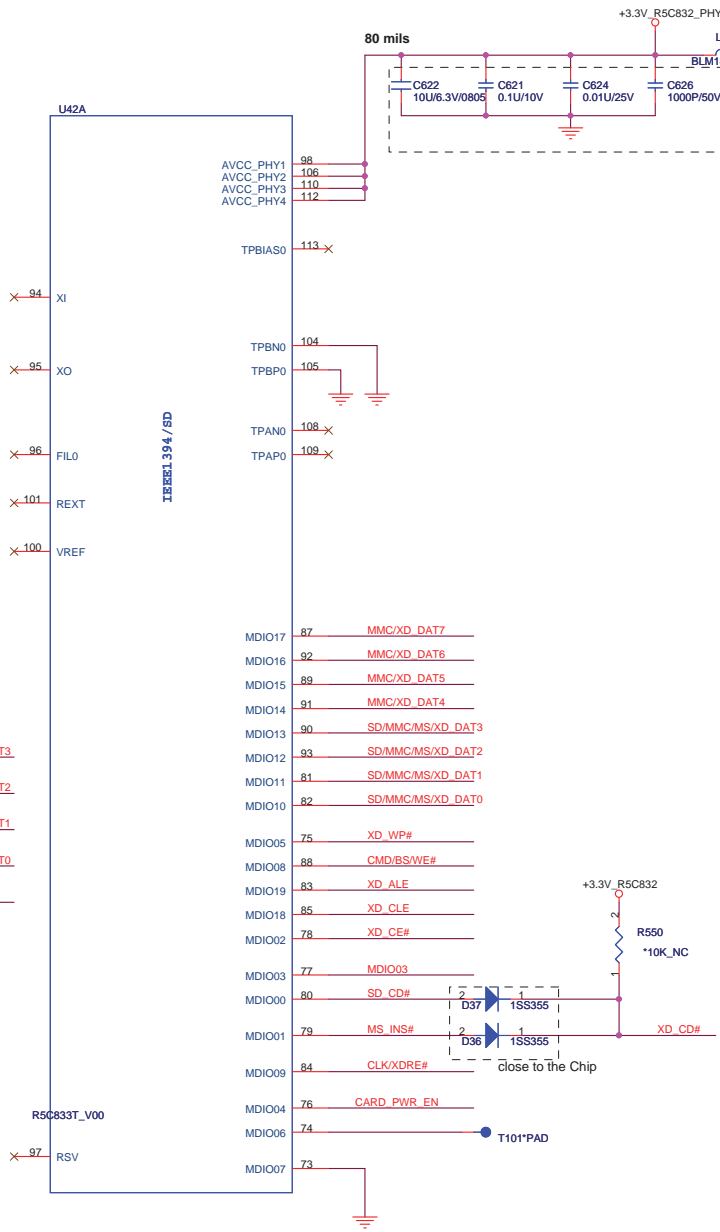
1394 Interrupt(if disable, need pull-hi)
 Media card Interrupt

QUANTA COMPUTER

Title: Card Reader PCI(R5C833)

Size	Document Number	Rev
MX3		1A
Date	Rev, October 12, 2007	Sheet 29 of 53

No usage this 1394a function, so delete connection.



AAT4250 will be tested by 2nd source after the 2nd build

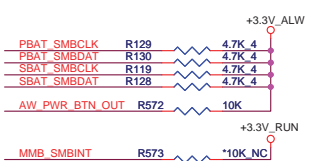
QUANTA COMPUTER

Title: Card Reader CONN 7 in 1

Size	Document Number	Rev
	MX3	2C
Date	Friday, October 12, 2007	Sheet 30 of 53

1/13 Confirm by vendor mail:
 VBAT for keep PLL power let power up can quick.
 If no VBAT will switch to VCCpower.
 If PLL no power will cause boot time delay.

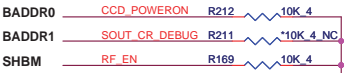
SM BUS PU



I/O ADDRESS SETTING

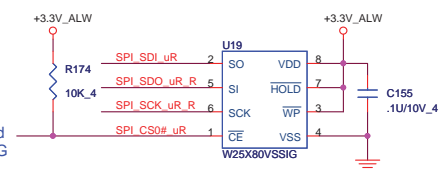
I/O Address	
BADDR1-0	Index Data
0 0	XOR TREE TEST MODE
0 1	CORE DEFINED
1 0	2Eh 2Fh
1 1	164Eh 164Fh

SHBM=0: Enable shared memory with host BIOS



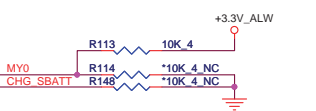
1/13 Confirm by vendor mail:
 Disabled (1) if using FWH device on LPC.
 Enabled (0) if using SPI flash for both system BIOS and EC firmware

SPI FLASH



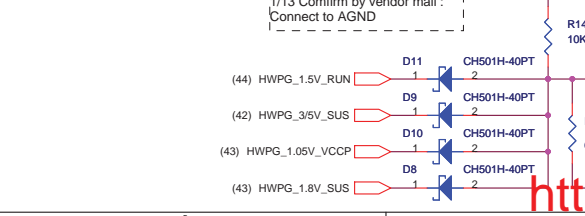
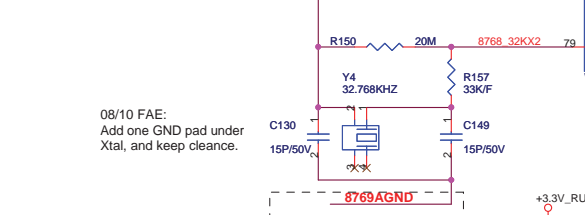
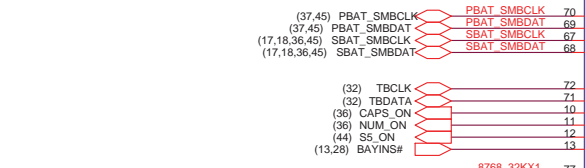
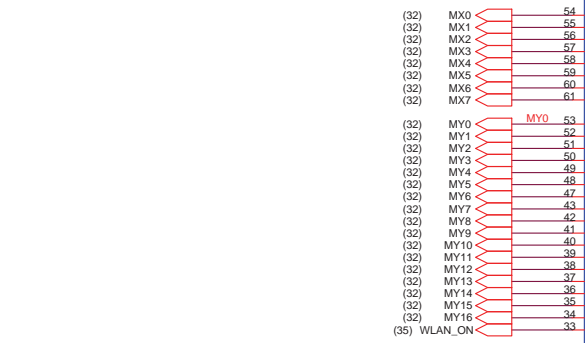
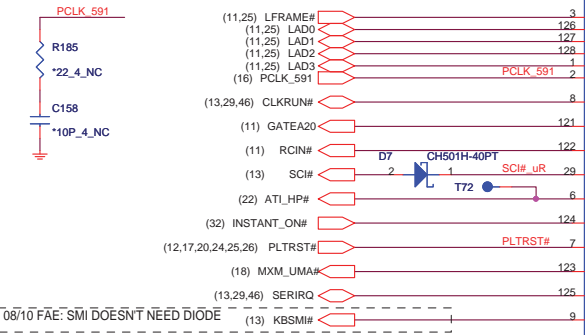
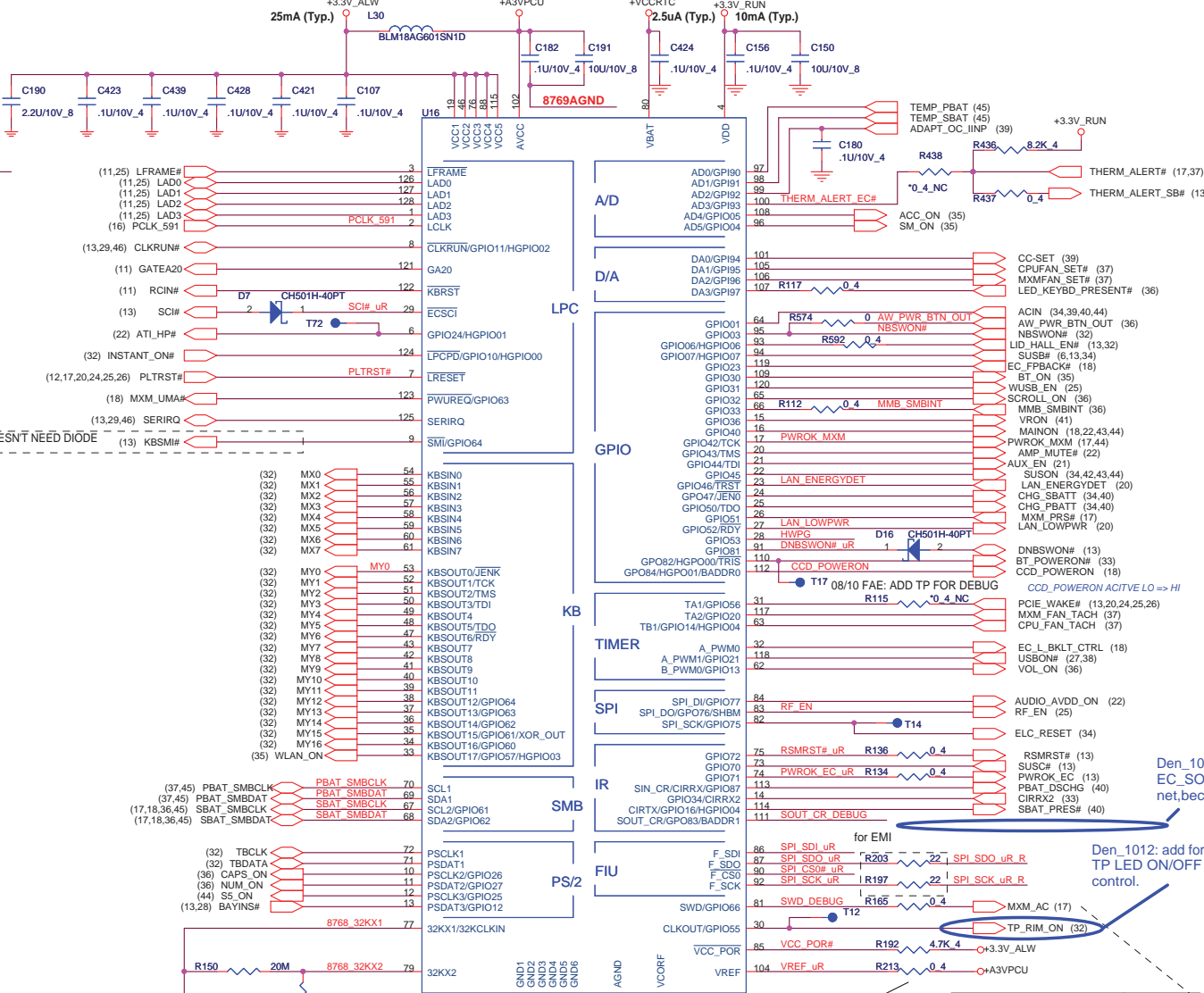
1/13 Confirm by vendor mail:
 If the Southbridge enables 'Long Wait Abort' by default, the flash device should be 50MHz (or faster)

Internal Keyboard or JTAG setting



JEN0# = CHG_SBATT, JENK# = MY0; Internal PU(30K) for JEN0#, PU(80K) for JENK#

JEN0#	JENK#	Functionality of Pins (Pin 24)	Functionality of Pins (Pin 53)
1(Default)	1(Default)	GPIO Port signals	Keyboard Scan outputs
0	1	JTAG signals	Keyboard Scan outputs
1	0	GPIO Port signals	JTAG signals
0	0	Illegal Strap Combination	



0--AVCC power for DA pin power reference
 08/10 FAE: Please connect VREF (uRider pin104) to +A3VPCU instead of +3VPCU.

08/10 FAE:
 L58 can change from BEAD to short.
 But, please put AGND & 32K CAP & AVCC CAP at one point.
 Keep BEAD for safe.

08/10 FAE:
 Add one GND pad under Xtal, and keep clearance.

1/13 Confirm by vendor mail:
 Connect to AGND

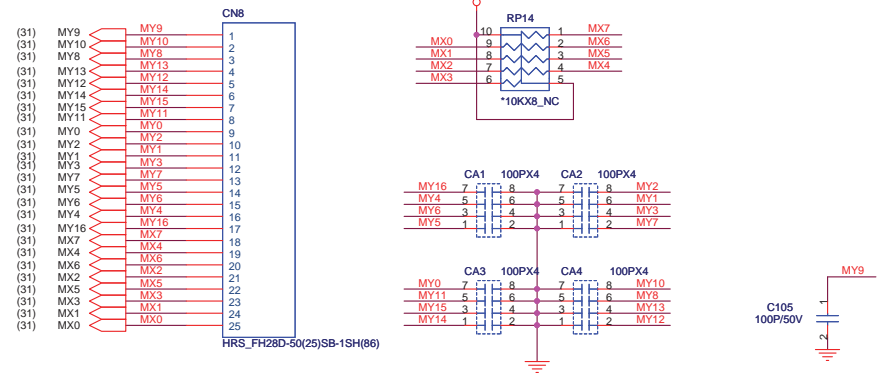
QUANTA COMPUTER

Title: EC(WPC8769LDG)

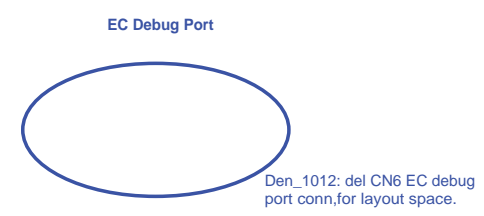
Size: MX3 Document Number: Rev: 3A

Date: February, October 12, 2007 Sheet: 31 of 53

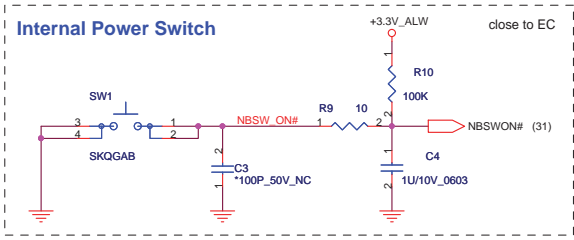
INT K/B



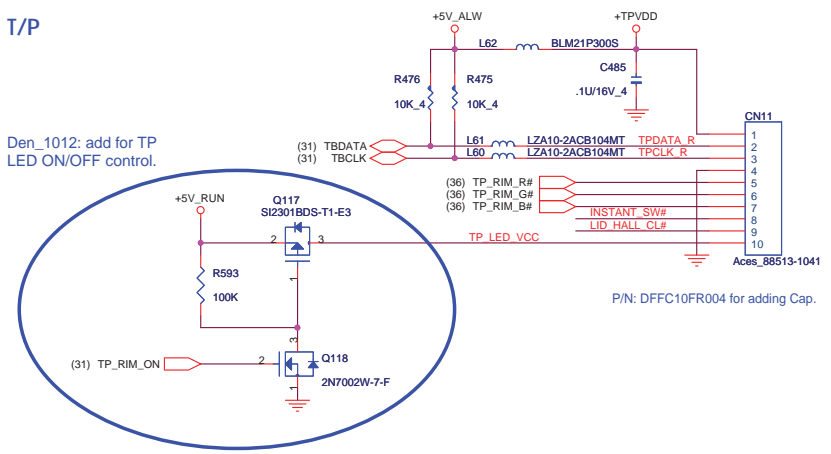
DEBUG PORT



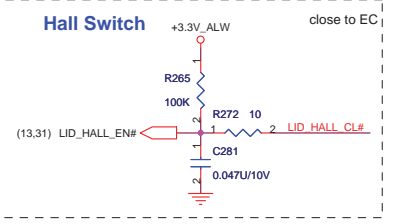
Internal Power Switch



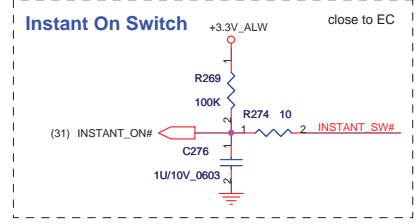
T/P



Hall Switch

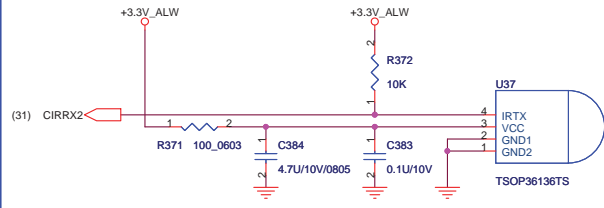


Instant On Switch

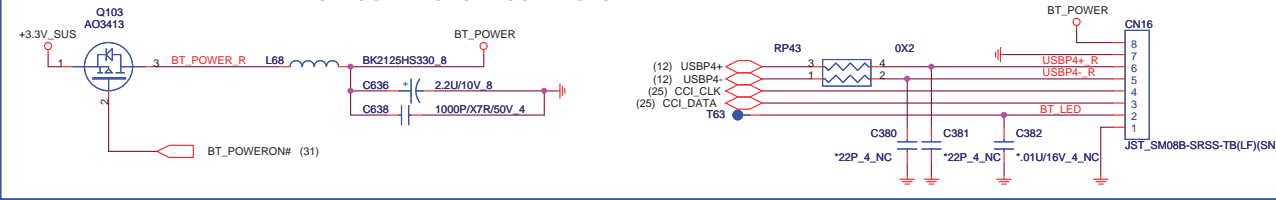


Title		KB/TP/SW/Hall IC/Debug	
Size	Document Number	Rev	
MX3		3A	
Date	Rev	Sheet	of
Rev, October 12, 2007		32	53

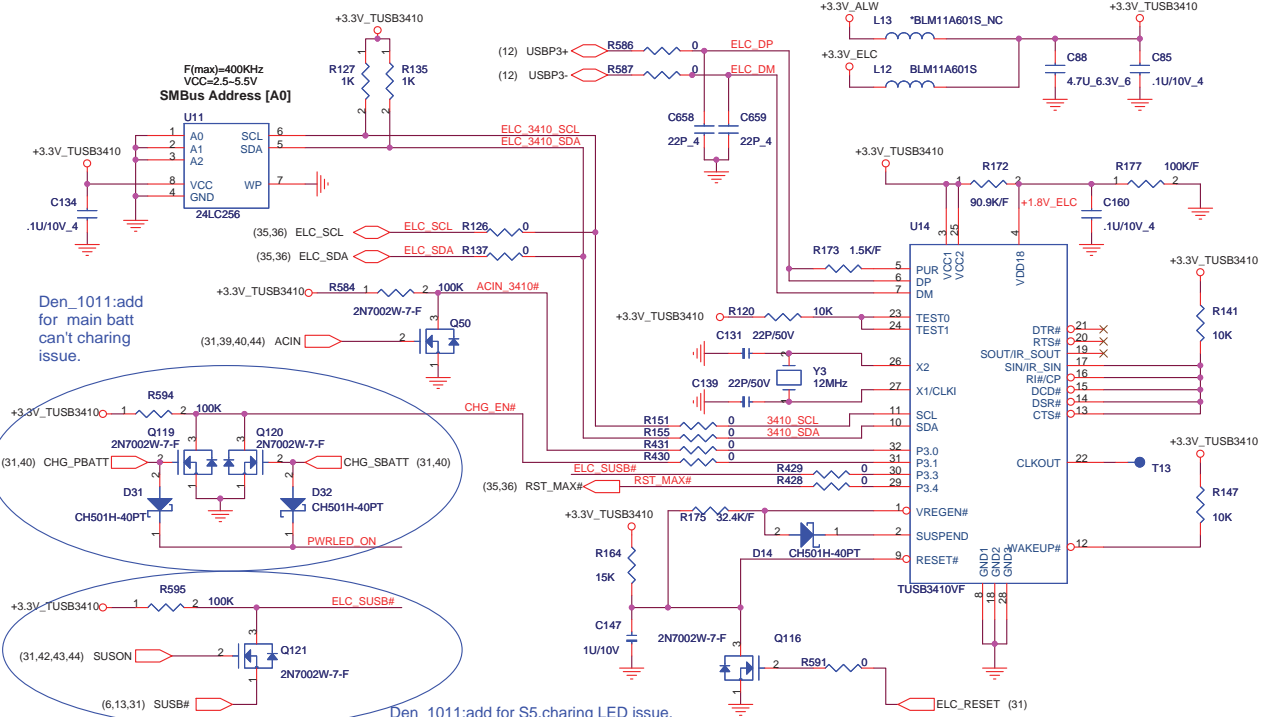
CIR module



BLUETOOTH MODULE CONNECTOR



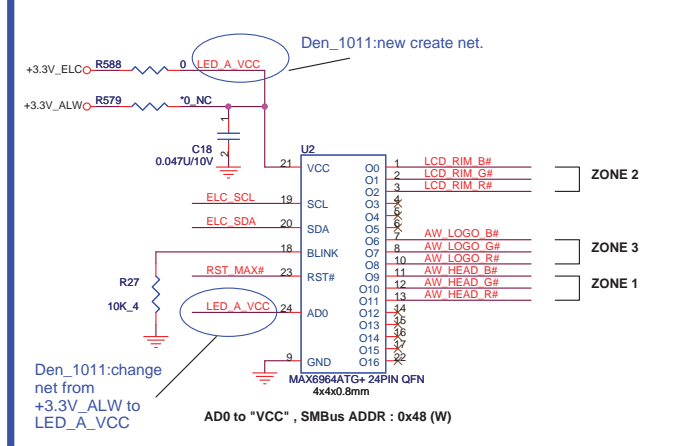
ELC USB to I2C Controller (TUSB3410VF)



Den_1011:add for main batt can't charging issue.

Den_1011:add for S5,charging LED issue.

ZONE 1,2,3 --- ELC Controller (LCD Panel, A-Cover)

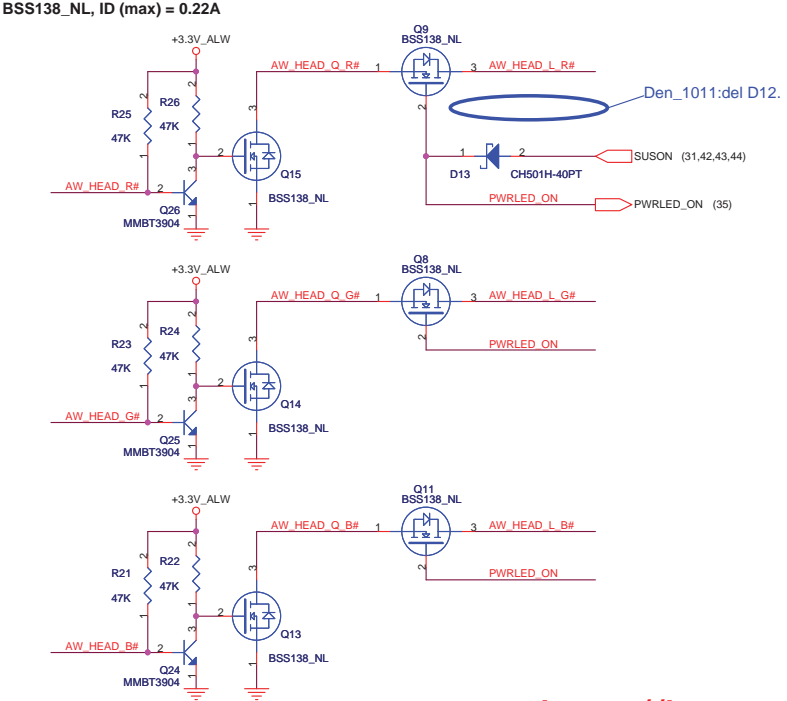


Den_1011:new create net.

Den_1011:change net from +3.3V_ALW to LED_A_VCC

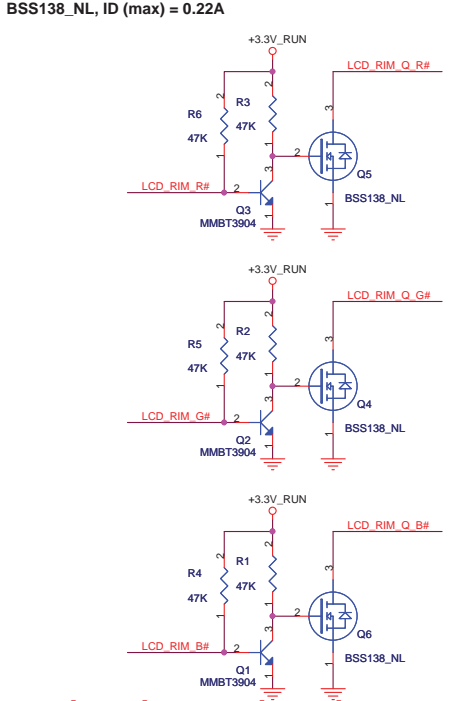
AD0 to "VCC", SMBus ADDR : 0x48 (W)

ZONE 1 --- AW Head Buffer (A-Cover, RGB LED*3)

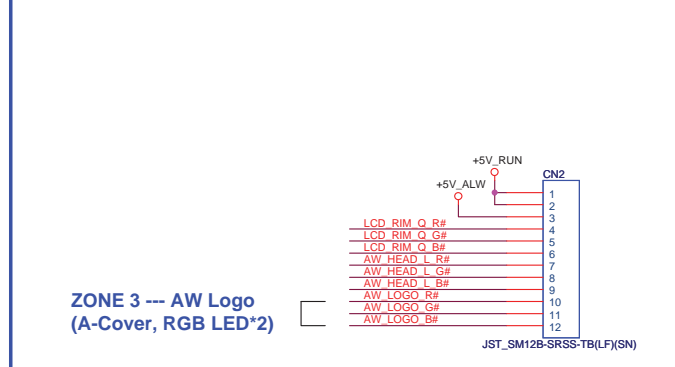


Den_1011:del D12.

ZONE 2 --- LCD RIM Buffer (A-Cover, RGB LED*4)



LED Connector (12 Pins) --- MB to LCD Panel (A-Cover)

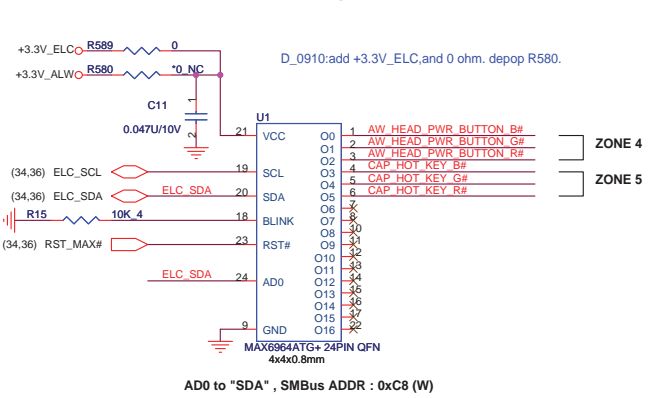


ZONE 3 --- AW Logo (A-Cover, RGB LED*2)

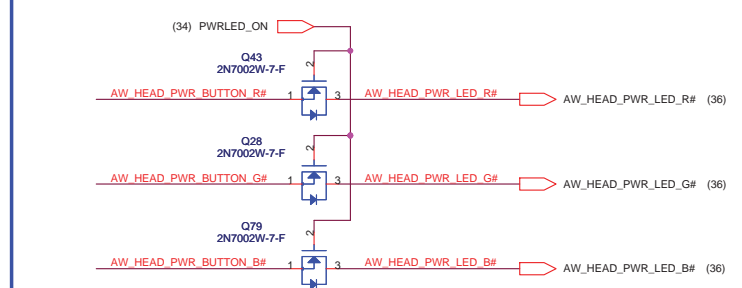


Title			ELC TUSB3410VF & ZONE 1-3		
Size	Document Number	Rev			
MX3		3A			
Date	Rev	Sheet	34 of 53		
Rev	October 12, 2007				

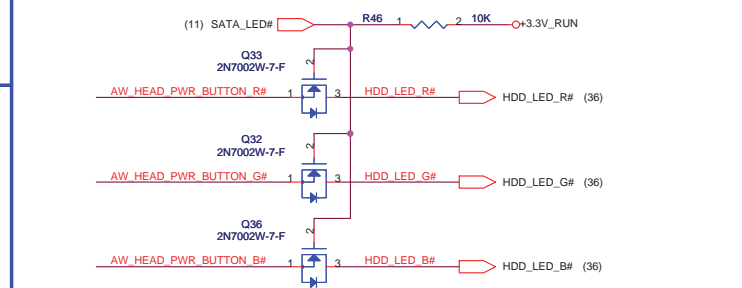
ZONE 4,5 --- ELC Controller (MMB Right/Left Board, C-Cover)



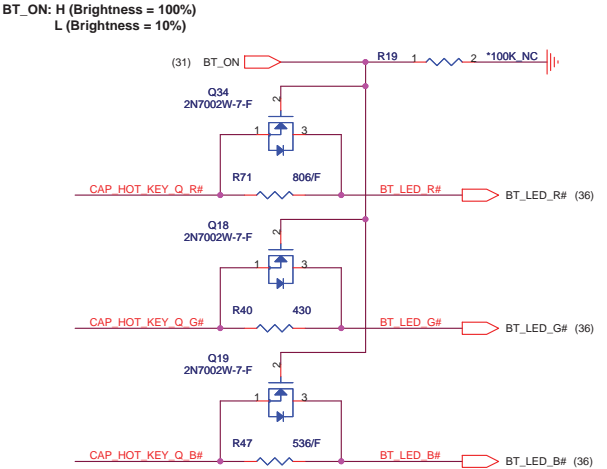
ZONE 4 --- Power Status--AW Head_RIM (C-Cover, RGB LED*1)



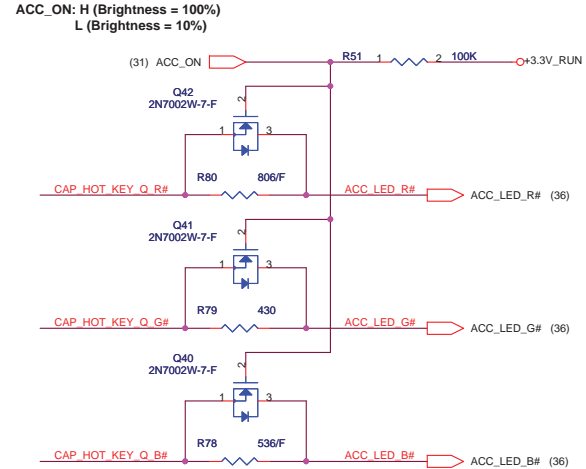
ZONE 4 --- HDD ACT--AW Head_Eyes (C-Cover, RGB LED*1)



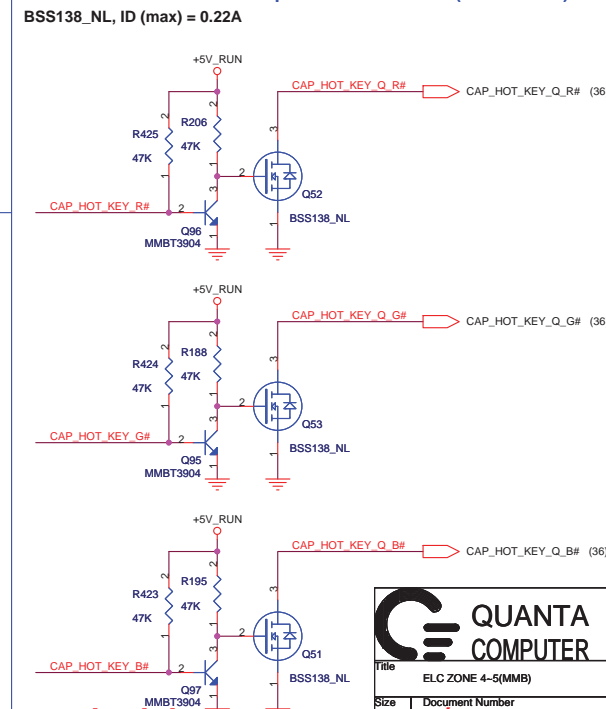
ZONE 5 --- BT (Bluetooth) LED



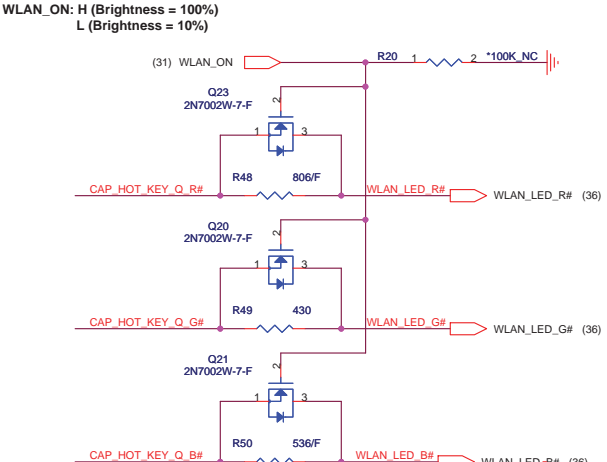
ZONE 5 --- ACC (Alienware command center) LED



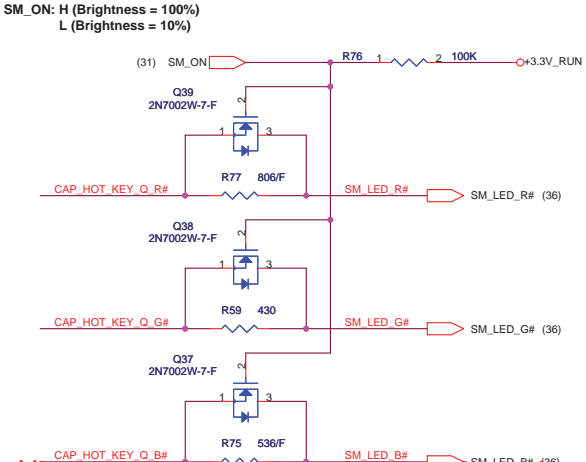
ZONE 5 --- LED Buffer (C-Cover, RGB LED*7)
1.MMB Right -- BT/WLAN/ACC/SM (RGB LED*4)
2.MMB Left -- Caps/Num/Scroll Lock (RGB LED*3)



ZONE 5 --- WLAN (Wireless LAN) LED



ZONE 5--- SM (Silent Mode) LED

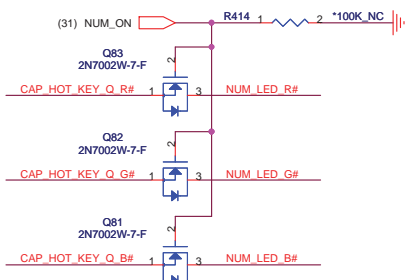


QUANTA COMPUTER

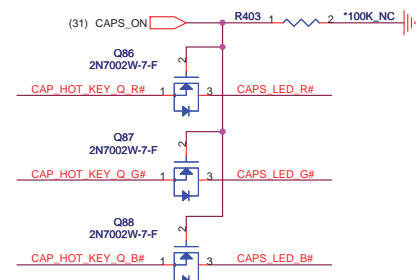
Title: ELC ZONE 4-5(MMB)

Size: MX3	Document Number: MX3	Rev: 2C
Date: Rev, October 12, 2007	Sheet: 35 of 53	

ZONE 5 --- NUM (Num Lock) LED

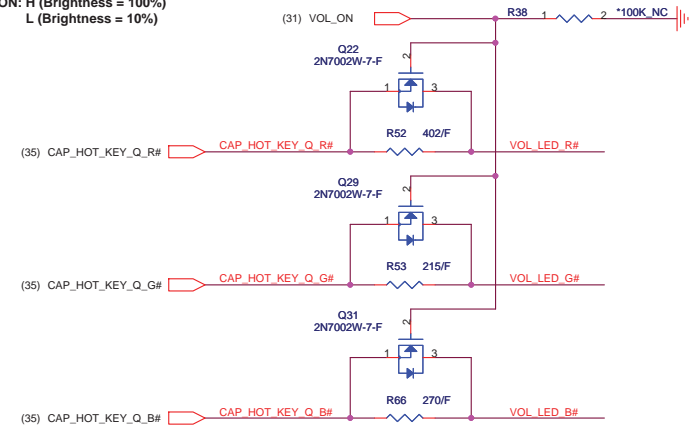


ZONE 5 --- CAPS (Caps Lock) LED

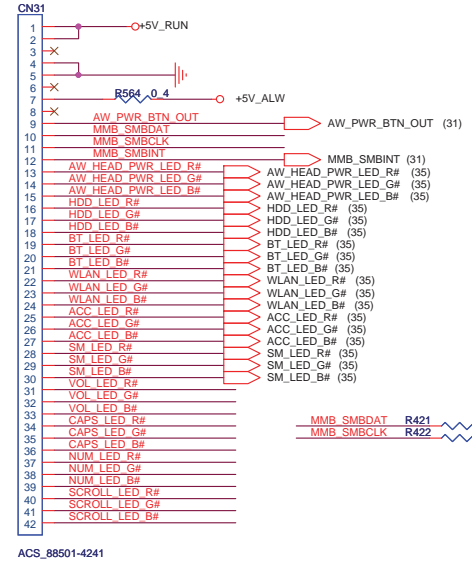


ZONE 5 --- VOL (Volum Slider) LED

VOL_ON: H (Brightness = 100%)
L (Brightness = 10%)

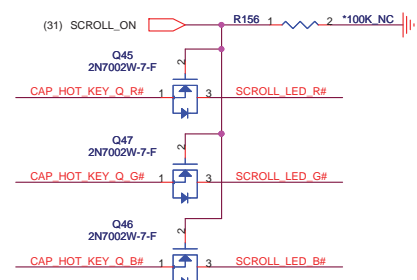


MMB CONN (42Pins)



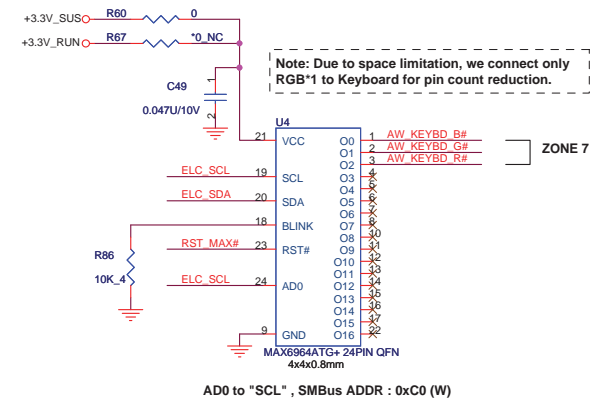
MMB_SMBDAT R421 0.4 SBAT_SMBDAT (17,18,31,45)
MMB_SMBCLK R422 0.4 SBAT_SMBCLK (17,18,31,45)

ZONE 5 --- SCROLL (Scroll Lock) LED



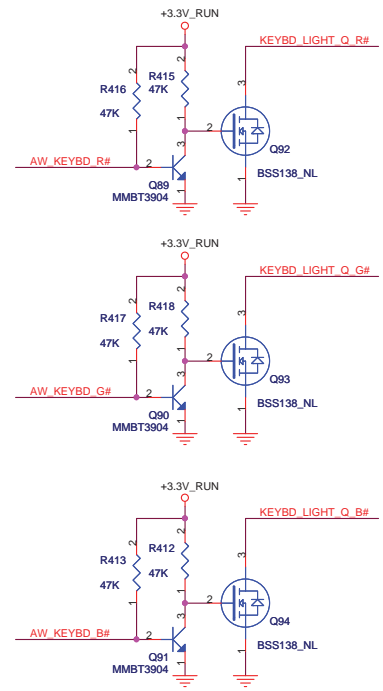
ZONE 7 --- ELC Controller (Keyboard)

Note: LED Vendor: EVERLIGHT
P/N:12-23A/R6GHBHC-A01/2D



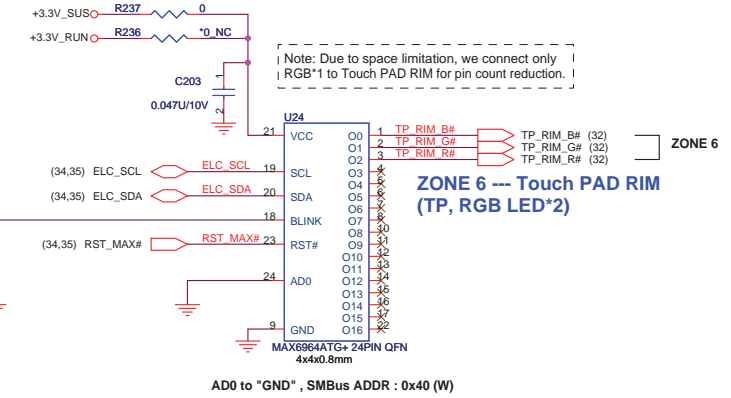
ZONE 7 --- Keyboard Buffer (KB, RGB LED*9)

BSS138_NL, ID (max) = 0.22A



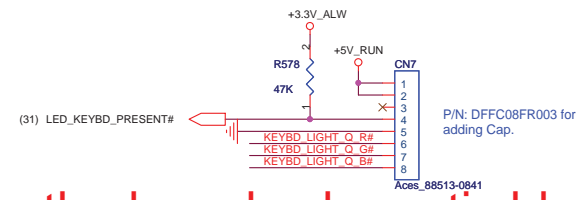
ZONE 6 --- ELC Controller (Touch PAD RIM)

Note: LED Vendor: EVERLIGHT
P/N:12-23A/R6GHBHC-A01/2D



ZONE 6 --- Touch PAD RIM (TP, RGB LED*2)

LED Connector (8 Pins) --- MB to Keyboard



QUANTA COMPUTER

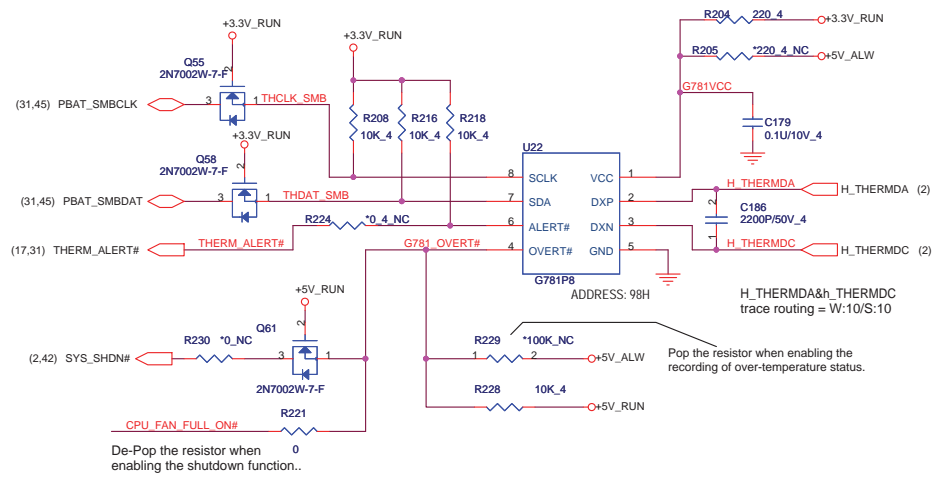
Title: ELC ZONE 5-7(MMB,TP,KB)

Size	Document Number	Rev
MX3		2B

Date: February, October 12, 2007 Sheet 36 of 53

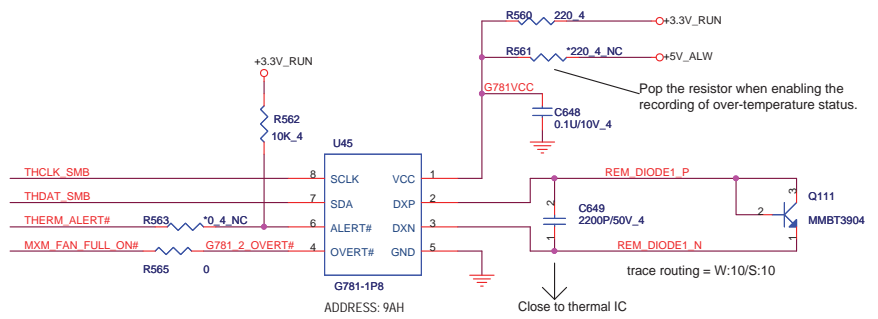
THERMAL

A: FOR CPU TEMP.
B: MB SKIN TEMP (CPU SIDE)



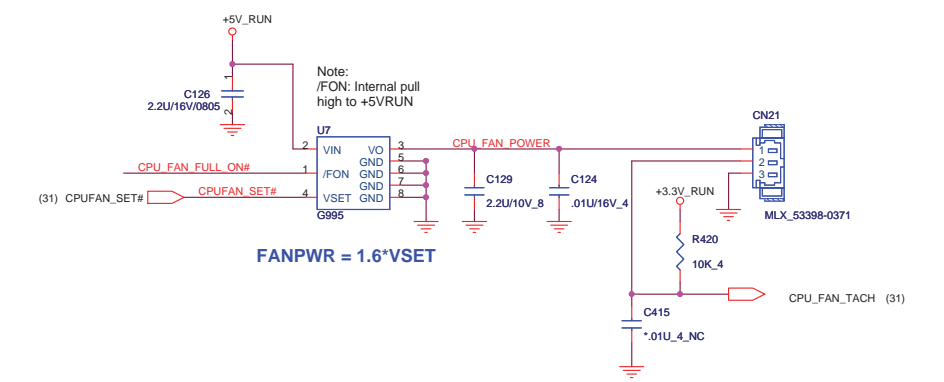
Note: The Over-Temperature flags stay high until cleared by POR, or until the status byte register is read.

C: FOR MXM MODULE TEMP.
D: MB SKIN TEMP (MXM MODULE)



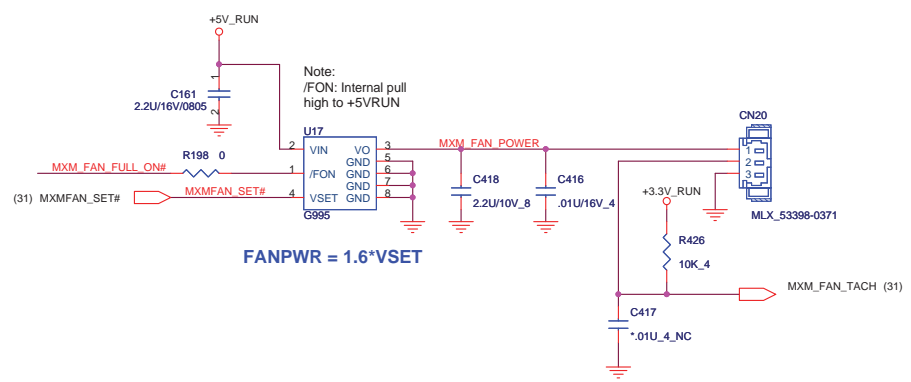
Note: The Over-Temperature flags stay high until cleared by POR, or until the status byte register is read.

CPU FAN



$FANPWR = 1.6 * VSET$

MXM FAN



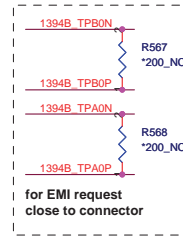
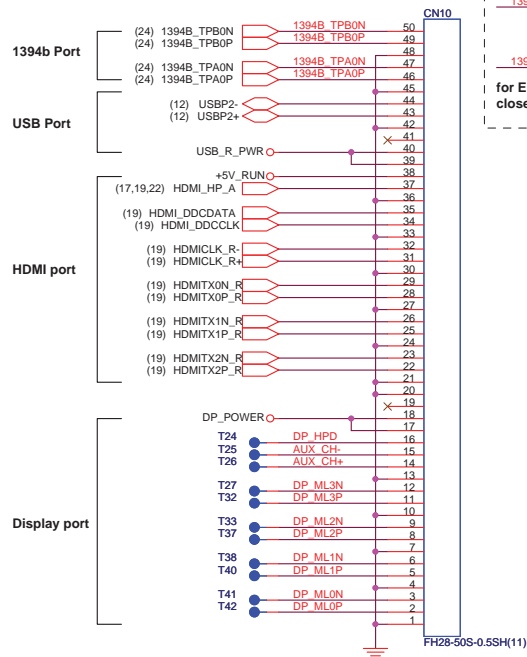
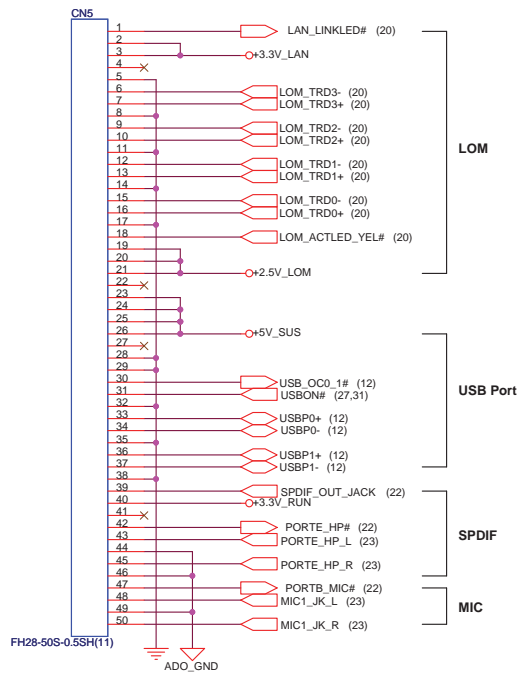
$FANPWR = 1.6 * VSET$

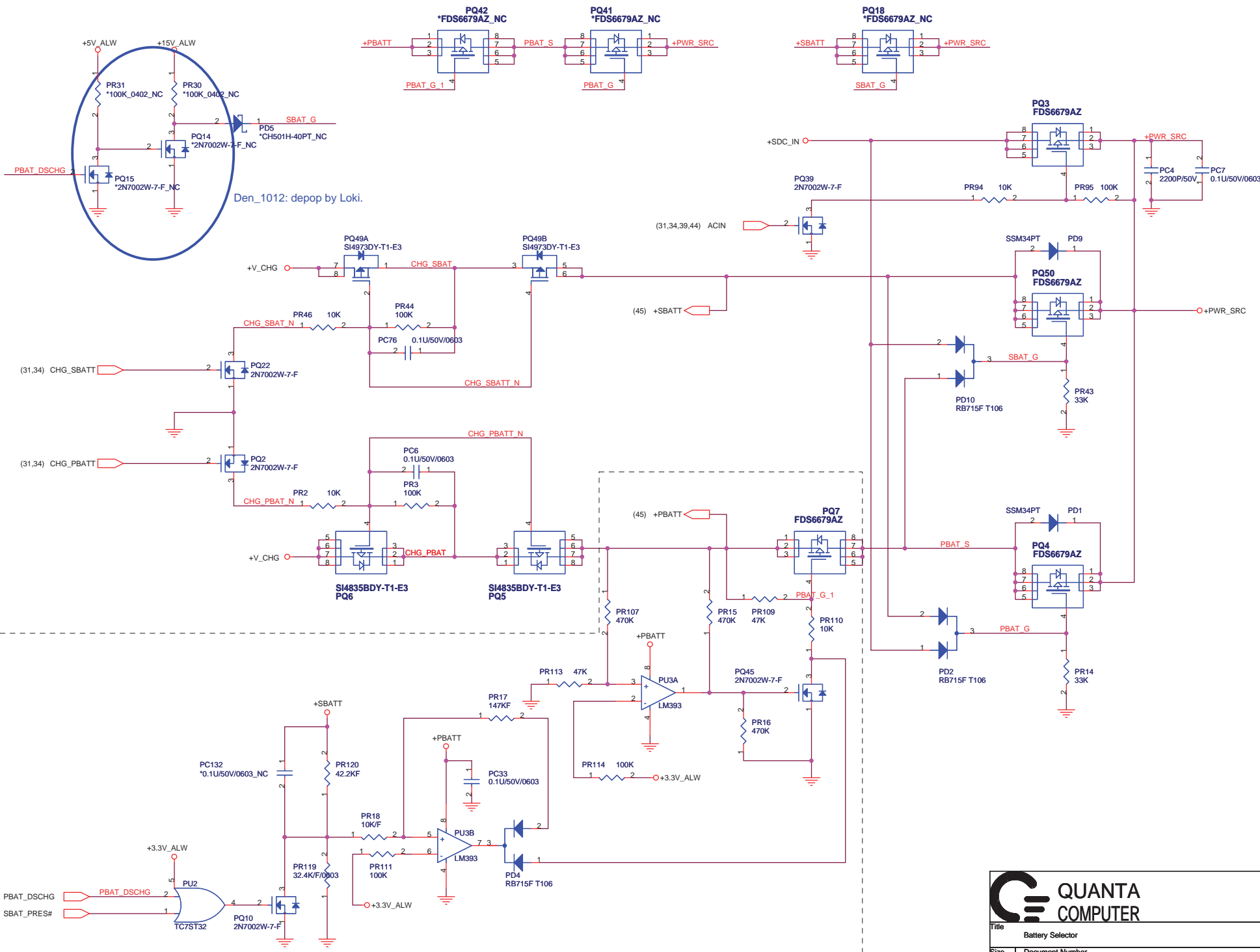
QUANTA COMPUTER

Title		Thermal & Fan	
Size	Document Number	Rev	
MX3		2A	
Date	Rev	Sheet	of
Rev. October 12, 2007		37	53

to AUDIO board connector

to HDMI board connector

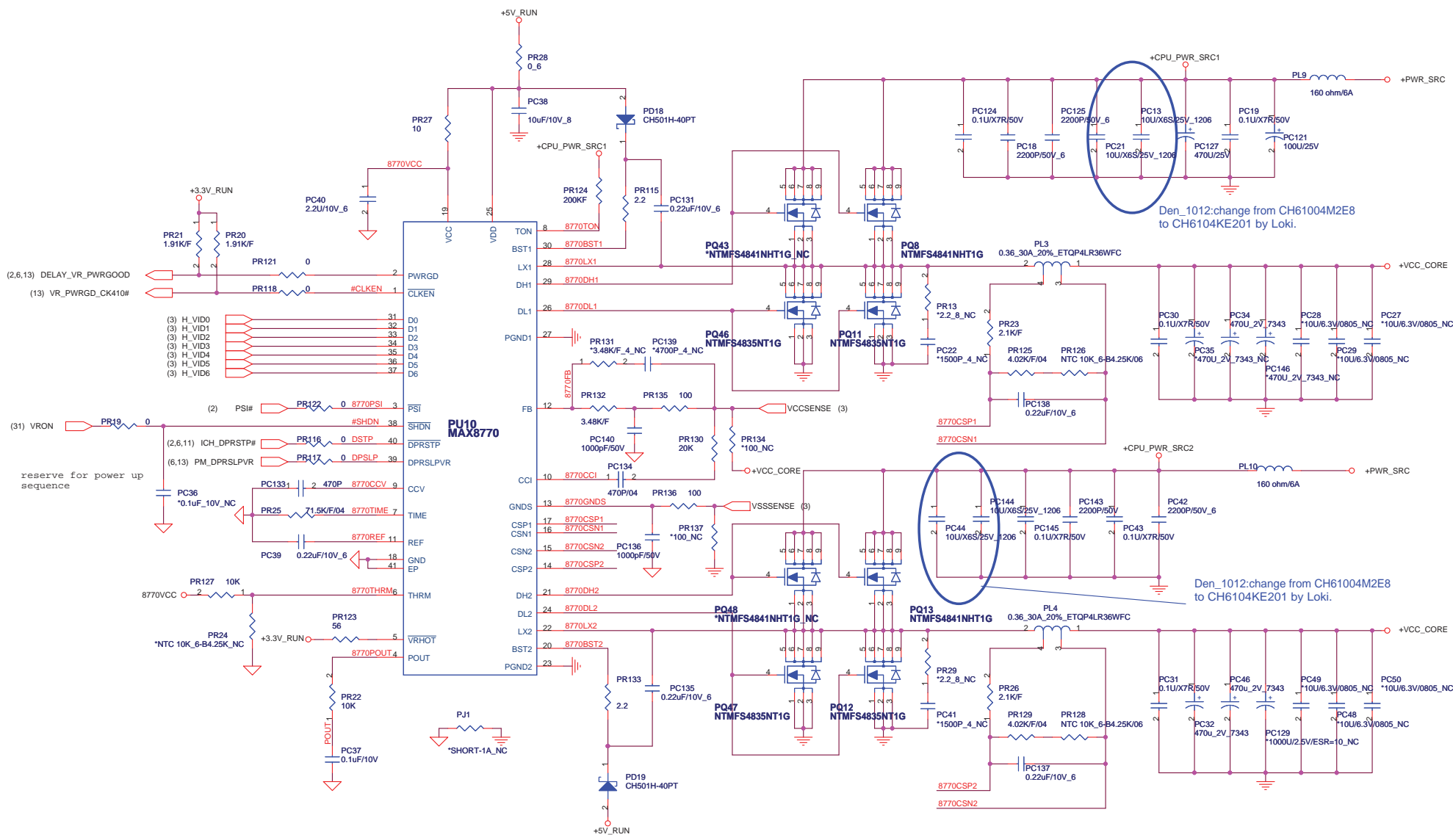





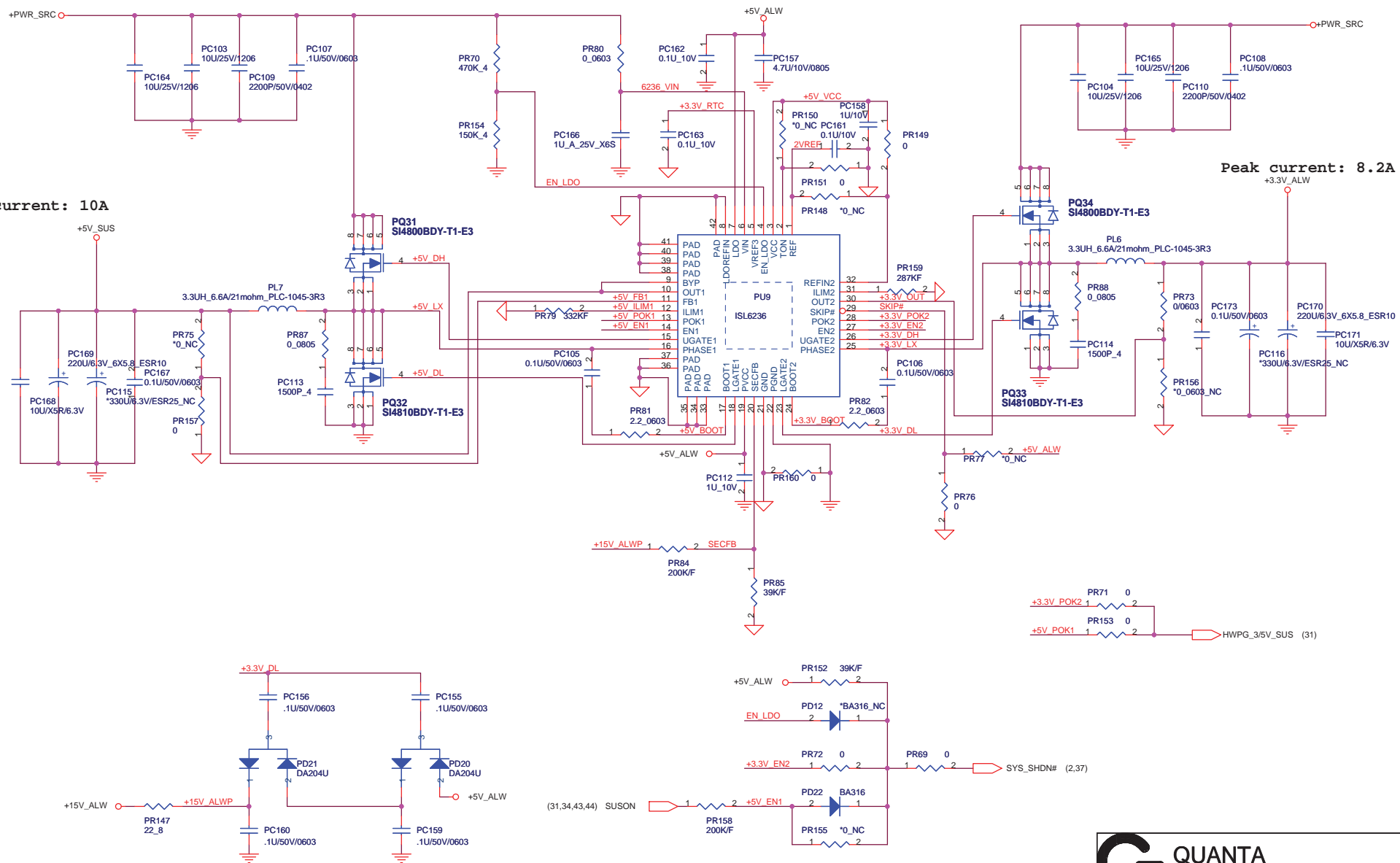
Den_1012: depop by Loki.



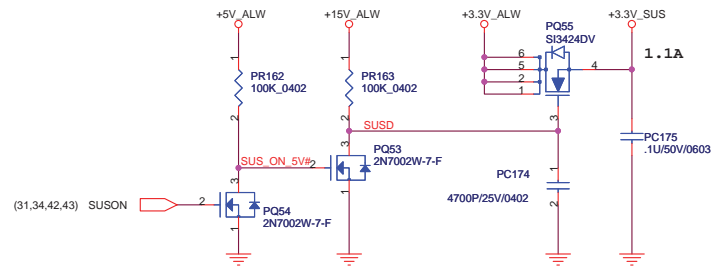
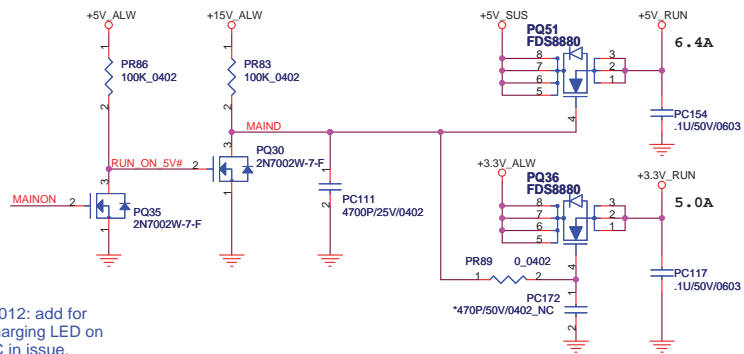
Title Battery Selector		
Size MX3	Document Number MX3	Rev 3A
Date Friday, October 12, 2007	Sheet 40	of 53



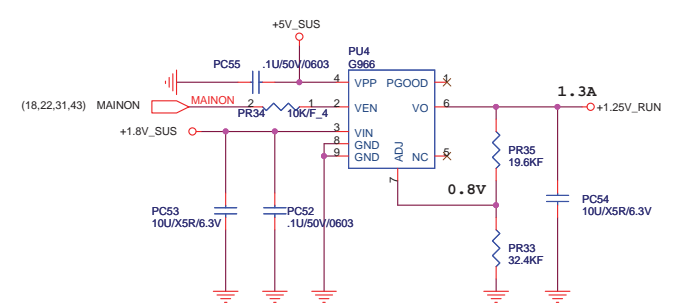
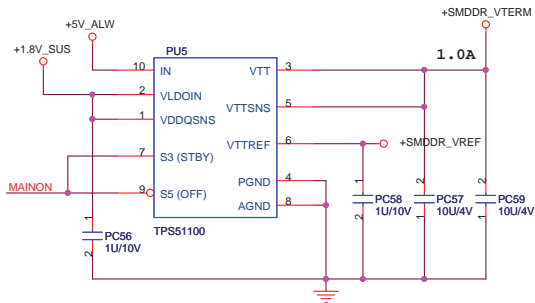
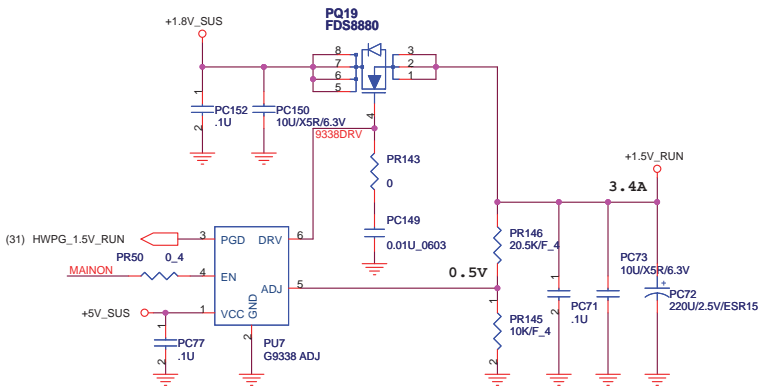
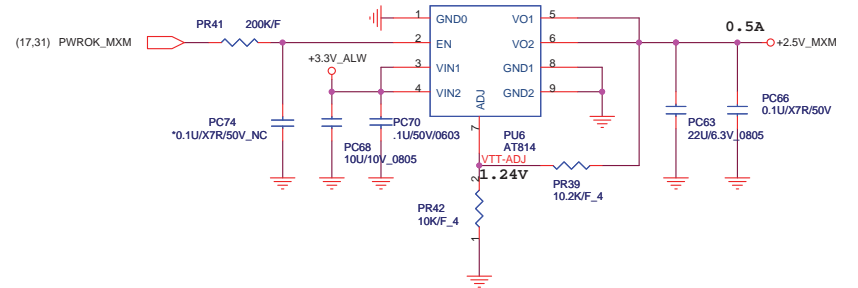
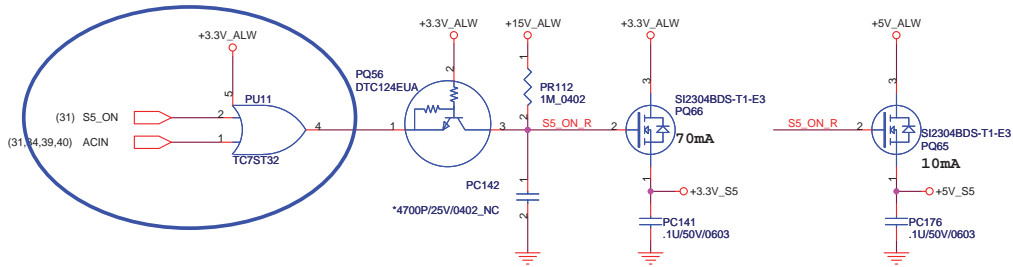
 QUANTA COMPUTER		
Title CPU Core_2 phase(MAX8770)		
Size	Document Number	Rev
	MX3	3A
Date	Friday, October 12, 2007	Sheet 41 of 53



			Title SYS 5V/3V(ISL6236)
Size MX3	Document Number MX3	Rev 2C	
Date Friday, October 12, 2007	Sheet 42	of 53	

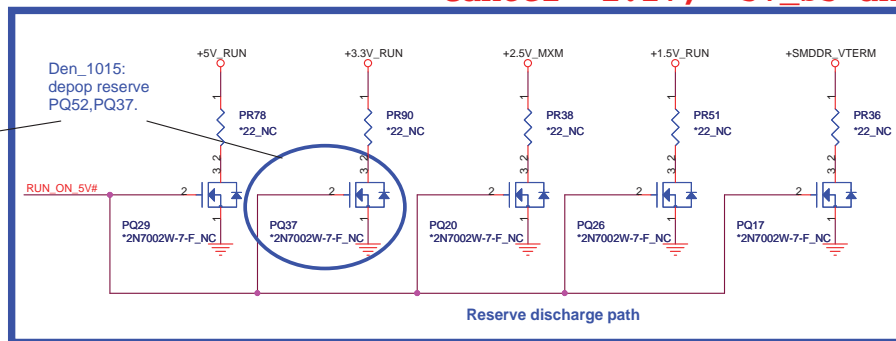
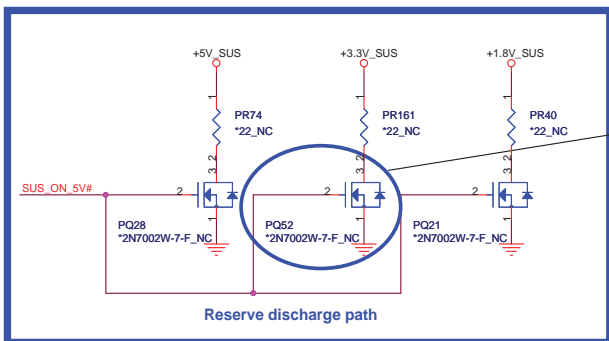


Den_1012: add for ELC charging LED on first AC in issue.



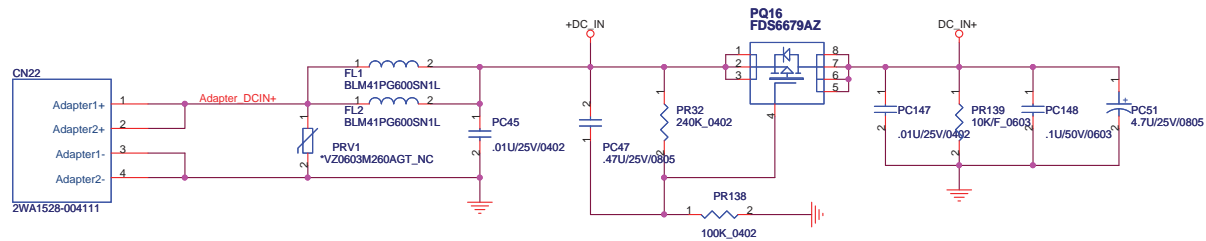
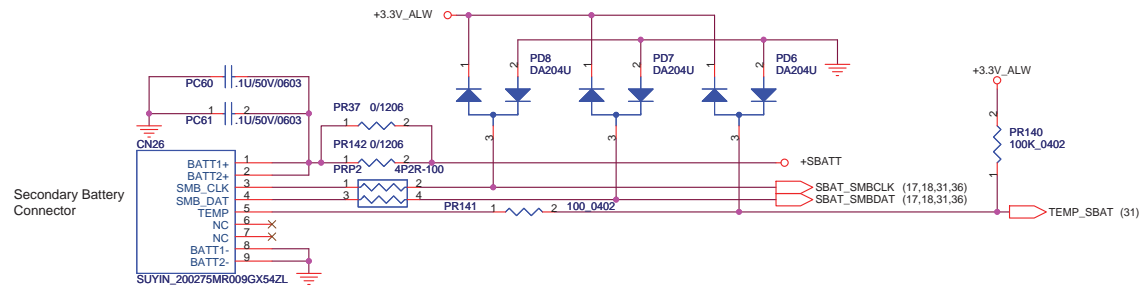
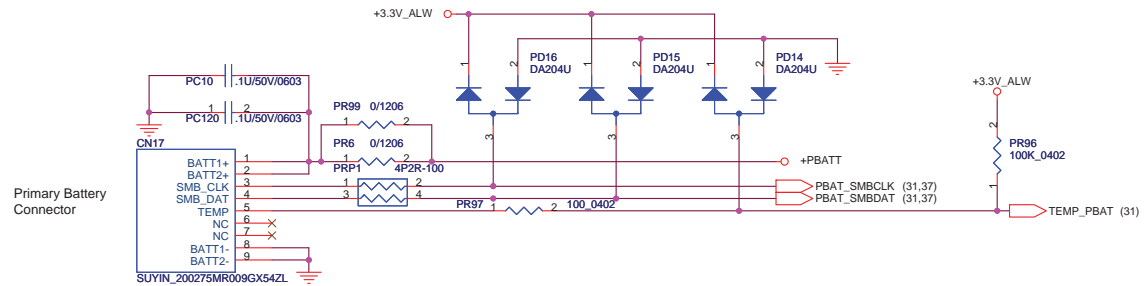
Cancel +1.2V, +5V_S5 and +1.5V_S5


PR33= 32.4k for +1.25V_RUN rising up to 1.28V



Den_1015: depop reserve PQ52, PQ37.

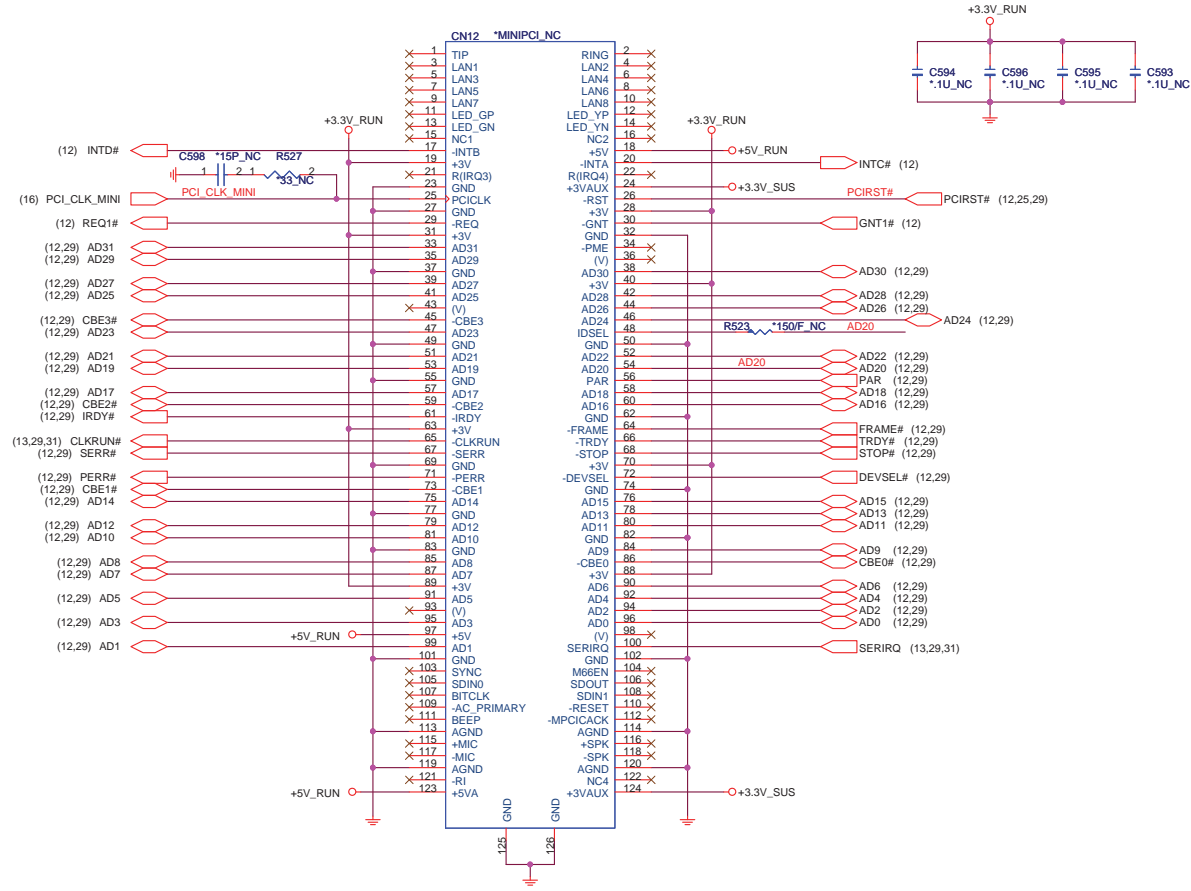
Size:	Document Number: MX3	Rev: 3A
Date: Monday, October 15, 2007	Sheet: 44	of 53



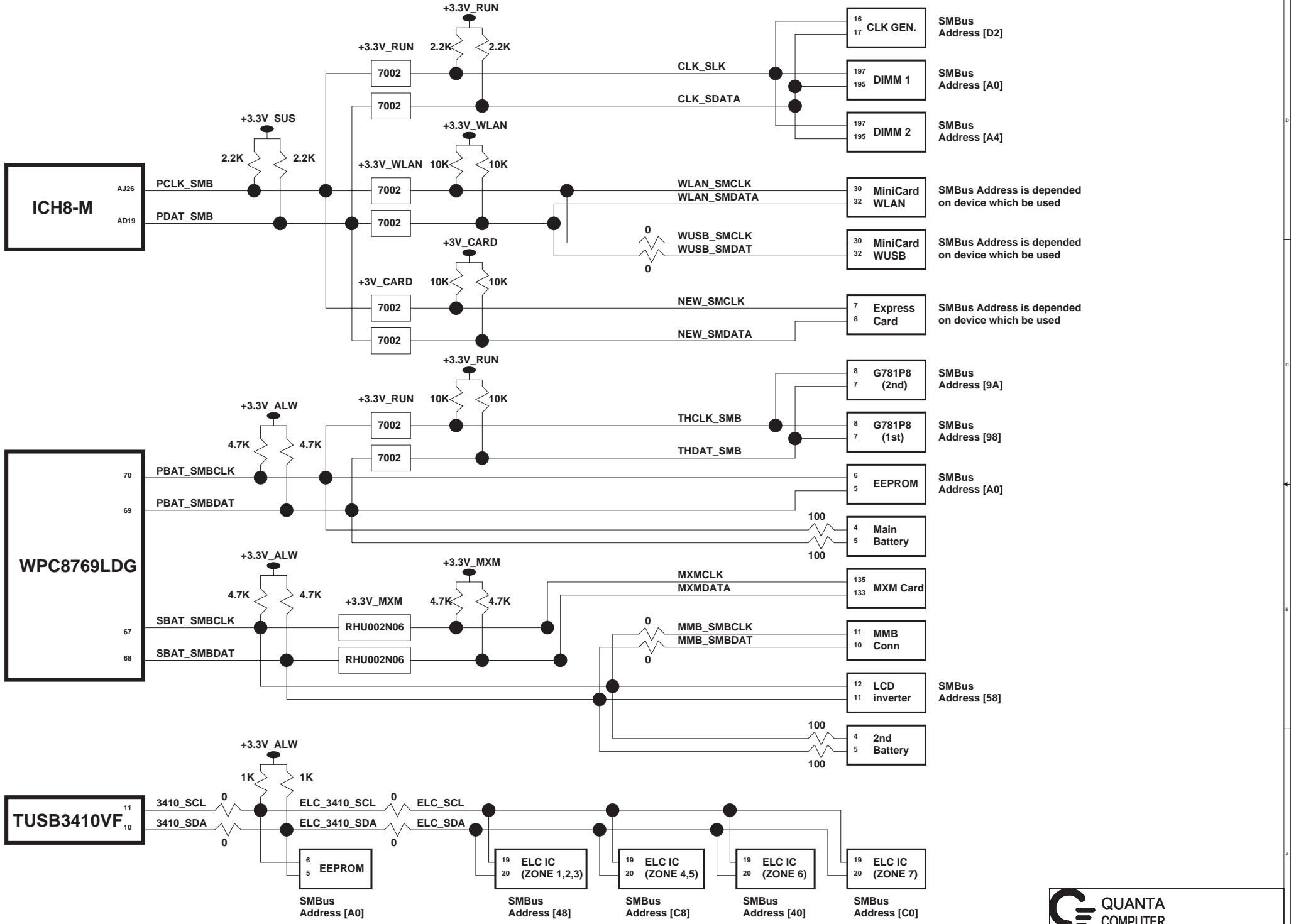
 QUANTA COMPUTER		Title	
		DCIN & Battery	
Size	Document Number	Rev	
	MX3	2A	
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ID Select : AD20
 Interrupt Pin : INTC#, INTD#
 Request Indicate : REQ1#
 Grant Indicate : GNT1#

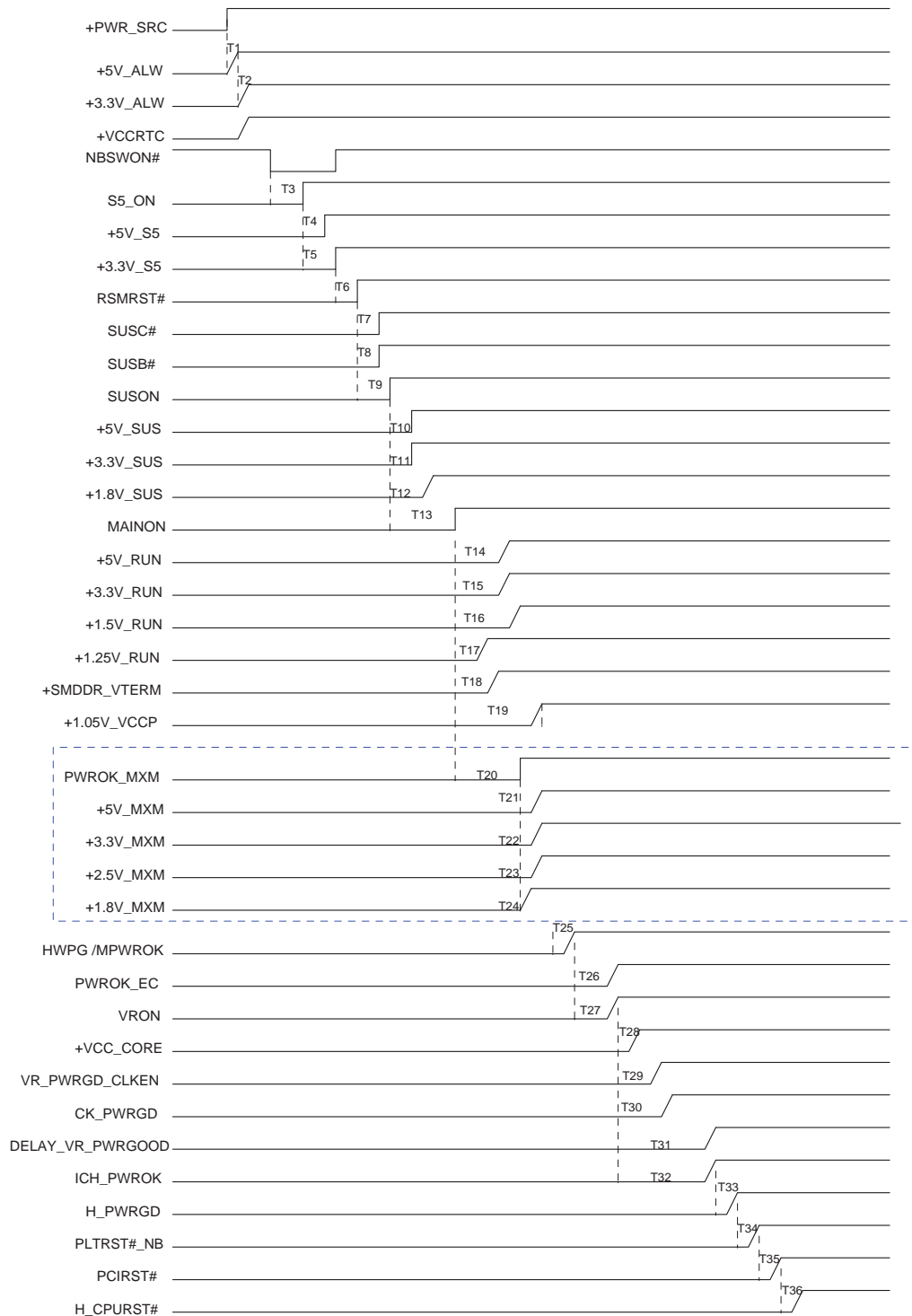
DEBUG PURPOSE ONLY



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MX3 Power On Timing



For MXM
Card Power

ITEM	Measure Point		Time
T1	+PWR_SRC	To +5V_ALW	
T2	+5V_ALW	To +3.3V_ALW	
T3	NBSWON#	To S5_ON	
T4	S5_ON	To +5V_S5	
T5	S5_ON	To +3.3V_S5	
T6	+3.3V_S5	To RSMRST#	
T7	RSMRST#	To SUSC#	
T8	RSMRST#	To SUSB#	
T9	RSMRST#	To SUSON	
T10	SUSON	To +5V_SUS	
T11	SUSON	To +3.3V_SUS	
T12	SUSON	To +1.8V_SUS	
T13	SUSON	To MAINON	
T14	MAINON	To +5V_RUN	
T15	MAINON	To +3.3V_RUN	
T16	MAINON	To +1.5V_RUN	
T17	MAINON	To +1.25V_RUN	
T18	MAINON	To +SMDDR_VTERM	
T19	MAINON	To +1.05V_VCCP	
T20	MAINON	To PWROK_MXM	
T21	PWROK_MXM	To +5V_MXM	
T22	PWROK_MXM	To +3.3V_MXM	
T23	PWROK_MXM	To +2.5V_MXM	
T24	PWROK_MXM	To +1.8V_MXM	
T25	+1.05V_VCCP	To HWPG/MPWROK	
T26	HWPG/MPWROK	To PWROK_EC	
T27	HWPG/MPWROK	To VRON	
T28	VRON	To +VCC_CORE	
T29	VRON	To VR_PWRGD_CLKEN	
T30	VRON	To CK_PWRGD	
T31	VRON	To DELAY_VR_PWRGOOD	
T32	VRON	To ICH_PWROK	
T33	ICH_PWROK	To H_PWRGD	
T34	H_PWRGD	To PLTRST#_NB	
T35	PLTRST#_NB	To PCIRST#	
T36	PCIRST#	To H_CPURST#	