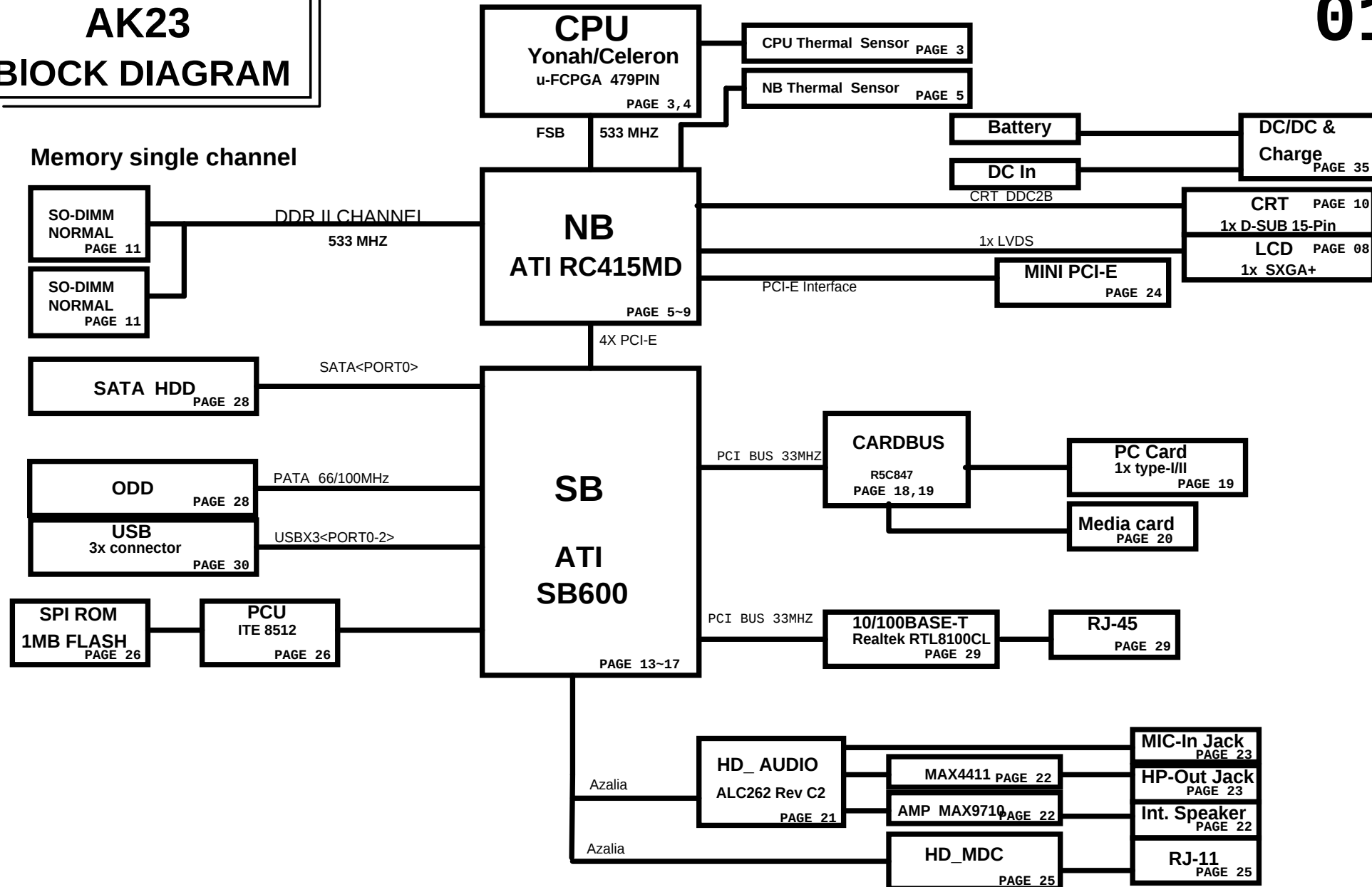


AK23 BLOCK DIAGRAM

01



QUANTA
COMPUTER

Title		
BLOCK DIAGRAM		
Size	Document Number	Rev
B	AK23 Main Board	B
Date: Friday, June 29, 2007		
Sheet 1 of 38		

1. PAGE LIST

01--BLOCK DIAGRAM
02--PAGE LIST
03--Yonah CPU (HOST BUS)-1
04--Yonah CPU (POWER/NC)-2
05--RC415MD-AGTL+ I/F 1/5

31--CPU CORE (MAX8736)
32--3V/5V_MAX8744
33--VCCP/VCC1.2/VCC1.5
34--1.8VSUS/DDRVTM
35--Battery charger

06--RC415MD-PCIE LINK I/F 2/5
07--RC415MD-DDR2 I/F 3/5
08--RC415MD-VIDEO & STRAPS 4/5
09--RC415MD-POWER 5/5
10--CRT PORT

36--Battery CONN
37--Discharge
38--Change list

11--DDR2 SODIMM X2 and Terms
12--EXT CLK GEM
13--SB600-PCIE/PCI/CPU/LPC -1
14--SB600-ACPI/GPIO/USB/AC97 -2
15--SB600-SATA/IDE/HWM/SPI -3

16--SB600-POWER & DECOUPLING -4
17--SB600-STRAPS -5
18--R5C847 PCI
19--R5C847 CARDBUS/MEDIA
20--SD_MS_XD SLOT

21--HD_ALC262
22--AUDIO AMP.
23--BUZZER & Headphone-out
24--Mini PCI-E
25--HD_MDC

26--PCU ITE 8512
27--INT.KB &TP CONN
28--SATA(HDD),PATA(ODD) CONN
29--LAN (RTL 8100CL)
30--USB PORT/USB Board CONN

2. PCI Description :

IDSEL	CHIP	PCIINT	CHIP
AD24	LAN (RTL8100CL)	IRQA	LAN(RTL8100CL)
AD26	CardBus (R5C847)	IRQB	CardBus
AD28		IRQC	CardBus
		IRQD	CardBus
		IRQE	
		IRQF	

BUSMASTER	REQ	CHIP
	REQ0 / GNT0	LAN(RTL8100CL)
	REQ1 / GNT1	CardBus R5C847
	REQ2 / GNT2	
	REQ3 / GNT3	
	REQ4 / GNT4	

3. PCI_E Description :

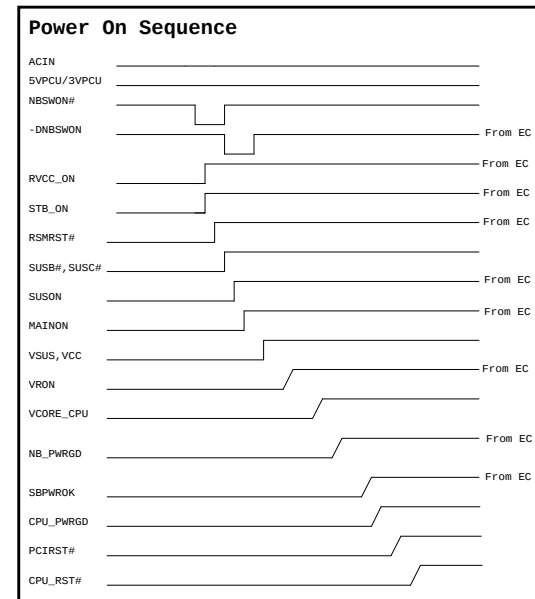
CHIP
Port 0,1 A-LINK
Port 2 Mini-PCIE (Wireless card)

4.Power rails

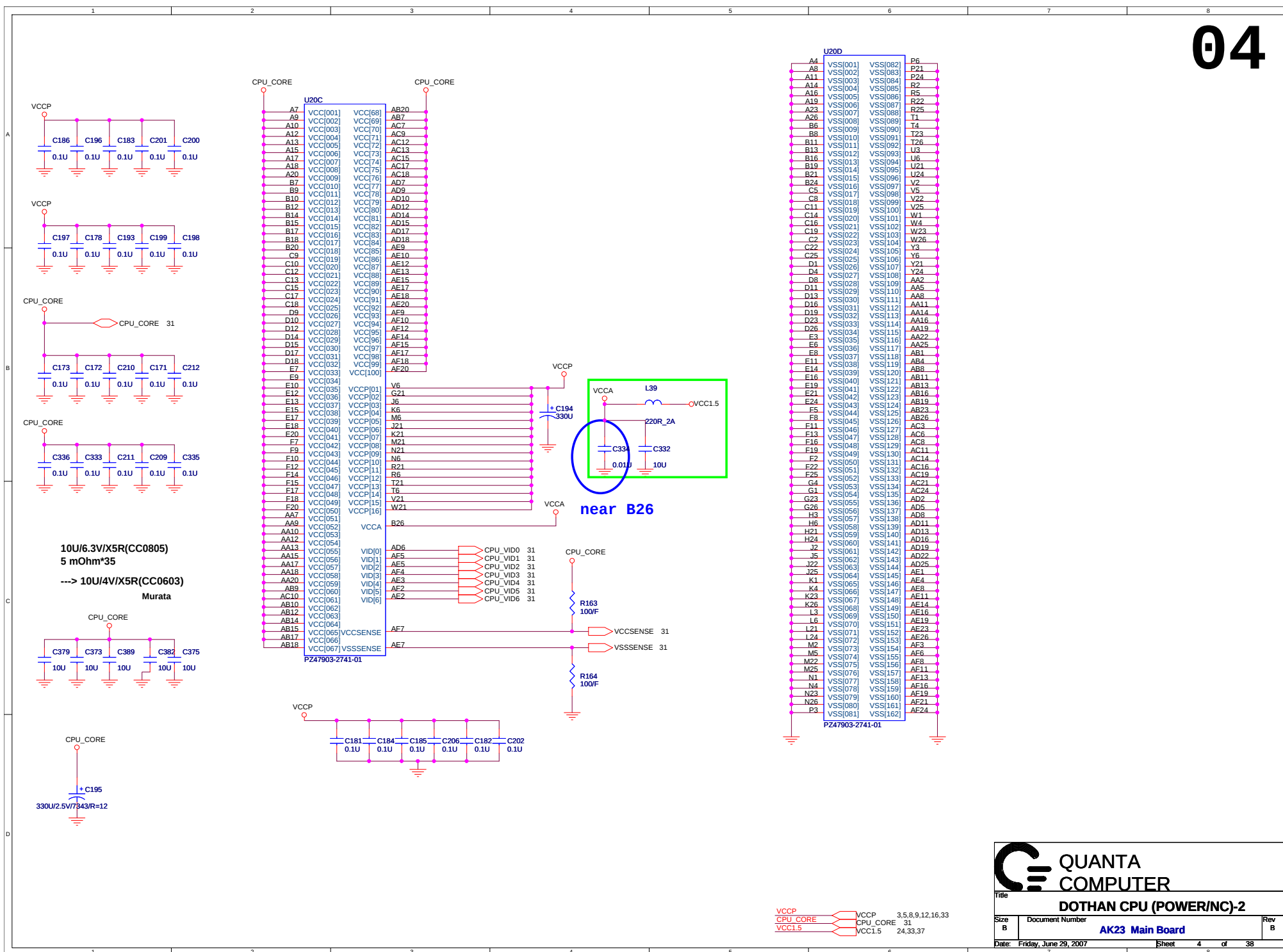
02

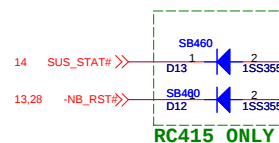
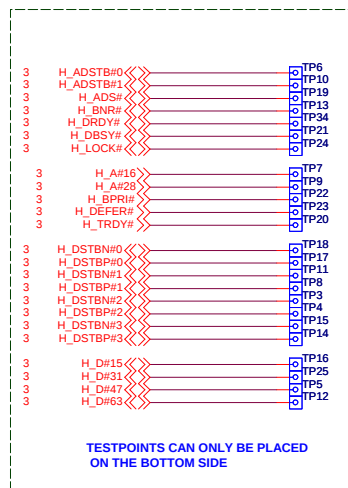
POWER RAIL	VOLTAGE SIGNAL	S0	S1	S2	S3	S4	S5
CPU_CORE	VRON	ON	ON	ON	OFF	OFF	OFF
VCC_NB	VRON	ON	ON	ON	OFF	OFF	OFF
VTT_DDR	MAINON	ON	ON	ON	OFF	OFF	OFF
VCCP	MAINON	ON	ON	ON	OFF	OFF	OFF
VCCCORE	VRON	ON	ON	ON	OFF	OFF	OFF
RVCC3	RVCCON	ON	ON	ON	ON	ON	OFF
VCC1.2	MAINON	ON	ON	ON	OFF	OFF	OFF
VCC1.5	MAINON	ON	ON	ON	OFF	OFF	OFF
VCC1.8	MAINON	ON	ON	ON	OFF	OFF	OFF
VCC3.3	MAINON	ON	ON	ON	OFF	OFF	OFF
VCC5	MAINON	ON	ON	ON	OFF	OFF	OFF
+1.2VALW	STB_ON	ON	ON	ON	ON	ON	ON
+3.3VALW	STB_ON	ON	ON	ON	ON	ON	ON
1.8VSUS	SUSON	ON	ON	ON	ON	OFF	OFF
3VSUS	SUSON	ON	ON	ON	ON	OFF	OFF
5VSUS	SUSON	ON	ON	ON	ON	OFF	OFF
3VPCU	VIN	ON	ON	ON	ON	ON	ON
5VPCU	VIN	ON	ON	ON	ON	ON	ON

5. POWER ON SEQUENCE









H_RST# need to fork out from NB

PLACE GTLREF CIRCUIT CLOSE TO NB, USE 10/10 WIDTH/SPACE

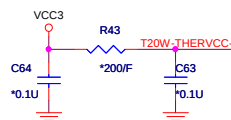
PLACE C165,C328 CLOSE TO NB, AND CONNECT IOPLLVS TO GND DIRECTLY

PLACE C161 CLOSE NB BALL

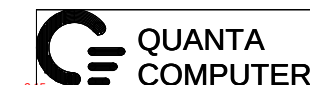
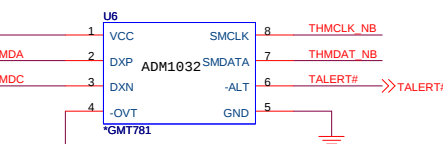
ROUTE THRMDA AND THRMDC TRACES AS DIFF PAIRS TO SIO AND SB

Note:
* Stuff only for RC415
** Stuff only for RC610
*** Stuff only for RC415 and SB460

RC610/RC415	RC610	RC415
R72	53.6R	49.9R
R73	21R	24.9R



NB Thermal Sensor



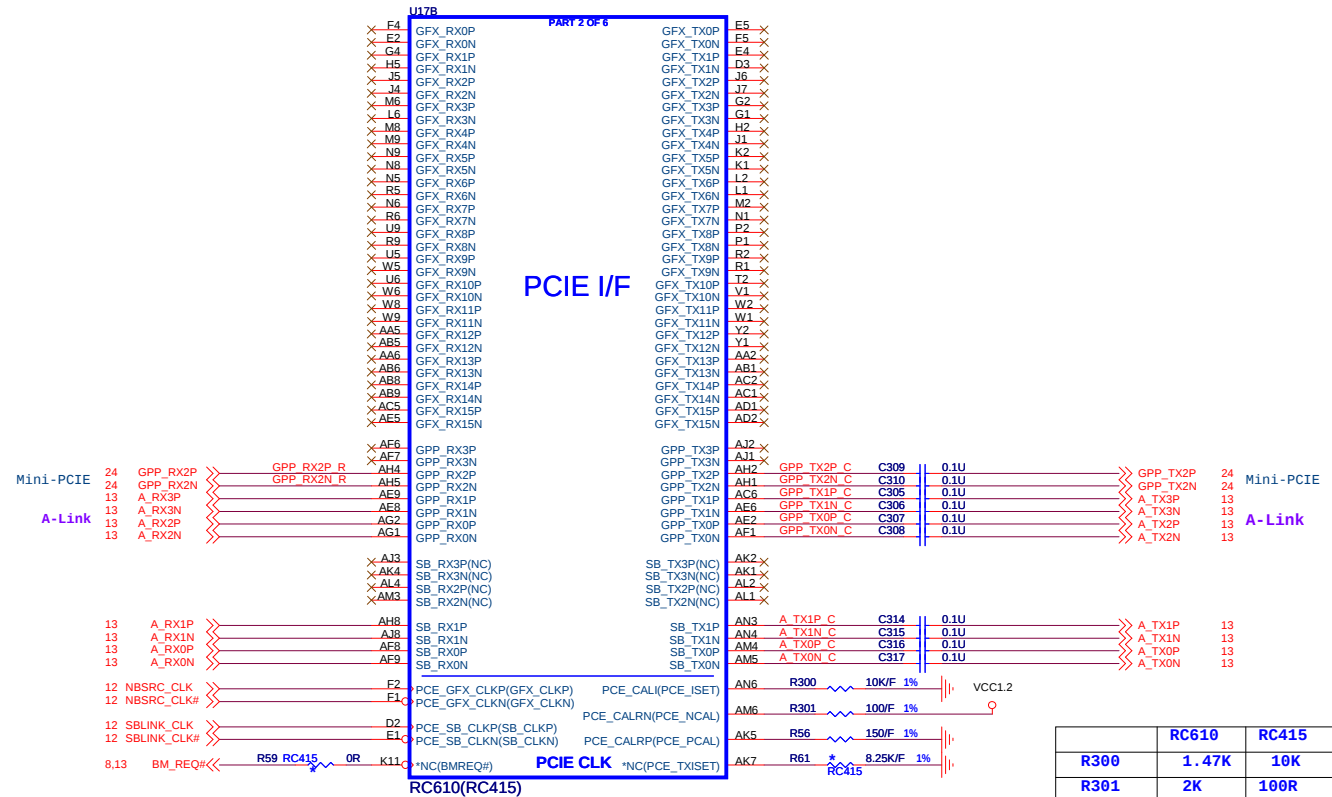
RC415-AGTL+I/F

Size	Document Number	Rev
Custom	AK23 Main Board	B
Date:	Friday, June 29, 2007	Sheet 5 of 38



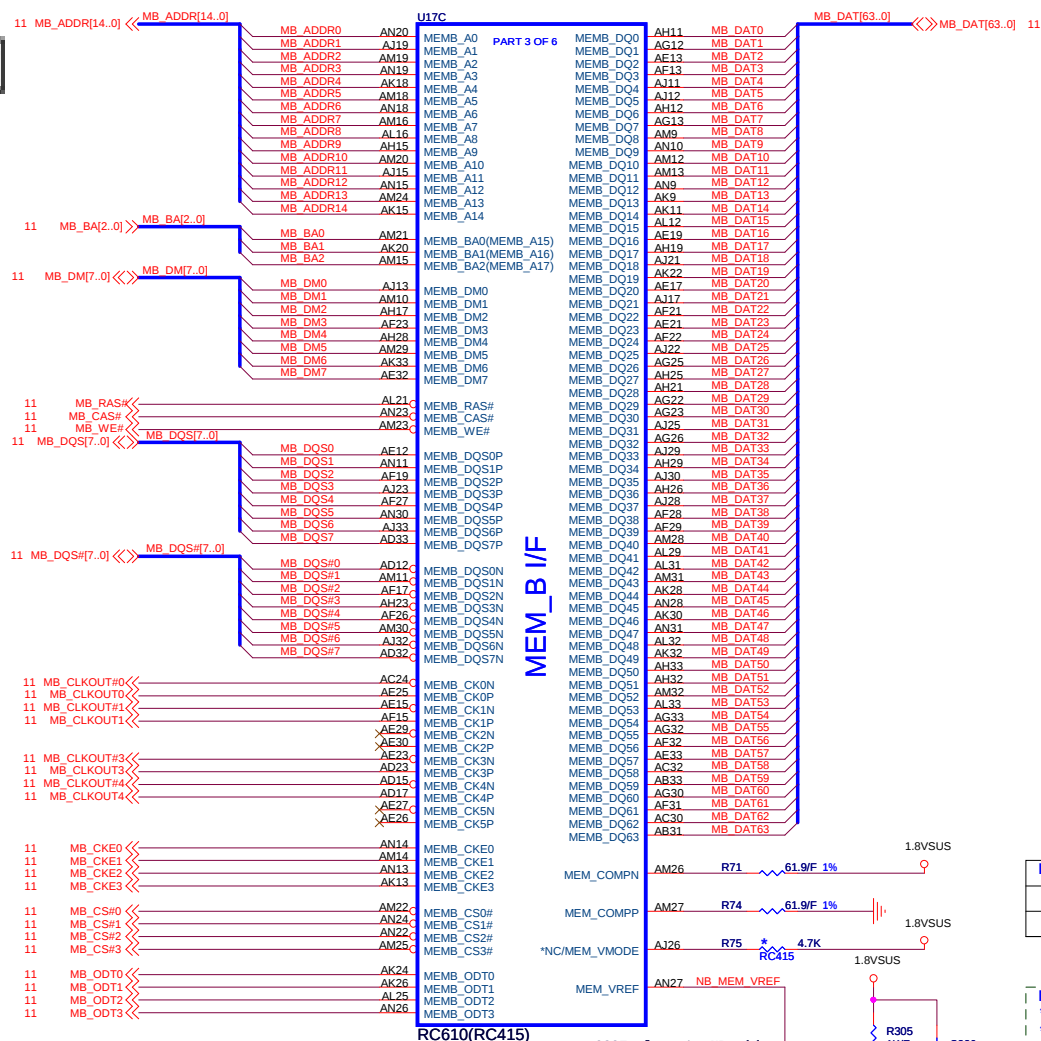
CLOSE TO NB (U200) < 0.5 INCH
NO STUBBING

06



VCC1.2 VCC1.2 9,15,24,33,37

Title			
RC415-PCIE I/F			
Size	Document Number	Rev	
Custom	AK23 Main Board	B	
Date:	Friday, June 29, 2007	Sheet	6 of 38



1.8VSUS 1.8VSUS 5,9,11,24,33,34,37

QUANTA COMPUTER			
Title RC415-DDR2 I/F			
Size	Document Number	Rev	
Custom	AK23 Main Board	B	
Date	Friday, June 29, 2007	Sheet	7 of 38

The schematic diagram illustrates the internal connections and component placement of the RC610 (RC415) board. It shows various power and ground planes (VCC3, VCC1.8) and their connections to different components. Key components include capacitors (C313, C67, C113, C89, C311, C324, R302, R55, R60, R57, R49, R51, R49) and resistors. The diagram is organized into sections for VCC3, VCC3, VCC1.8, VCC1.8, VCC1.8, and VCC3. The components are labeled with their values and tolerances. The diagram is a detailed representation of the board's internal connections and component placement.

Power and Ground Connections:

- VCC3:** Connected to VDD3_1, VDD3_2, VDD3_3, VDD3_4, VDD3_5, VDD3_6, VDD3_7, VDD3_8, VDD3_9, VDD3_10, VDD3_11, VDD3_12, VDD3_13, VDD3_14, VDD3_15, VDD3_16, VDD3_17, VDD3_18, VDD3_19, VDD3_20, VDD3_21, VDD3_22, VDD3_23, VDD3_24, VDD3_25, VDD3_26, VDD3_27, VDD3_28, VDD3_29, VDD3_30, VDD3_31, VDD3_32, VDD3_33, VDD3_34, VDD3_35, VDD3_36, VDD3_37, VDD3_38, VDD3_39, VDD3_40, VDD3_41, VDD3_42, VDD3_43, VDD3_44, VDD3_45, VDD3_46, VDD3_47, VDD3_48, VDD3_49, VDD3_50, VDD3_51, VDD3_52, VDD3_53, VDD3_54, VDD3_55, VDD3_56, VDD3_57, VDD3_58, VDD3_59, VDD3_60, VDD3_61, VDD3_62, VDD3_63, VDD3_64, VDD3_65, VDD3_66, VDD3_67, VDD3_68, VDD3_69, VDD3_70, VDD3_71, VDD3_72, VDD3_73, VDD3_74, VDD3_75, VDD3_76, VDD3_77, VDD3_78, VDD3_79, VDD3_80, VDD3_81, VDD3_82, VDD3_83, VDD3_84, VDD3_85, VDD3_86, VDD3_87, VDD3_88, VDD3_89, VDD3_90, VDD3_91, VDD3_92, VDD3_93, VDD3_94, VDD3_95, VDD3_96, VDD3_97, VDD3_98, VDD3_99, VDD3_100.
- VCC1.8:** Connected to VDD1_1, VDD1_2, VDD1_3, VDD1_4, VDD1_5, VDD1_6, VDD1_7, VDD1_8, VDD1_9, VDD1_10, VDD1_11, VDD1_12, VDD1_13, VDD1_14, VDD1_15, VDD1_16, VDD1_17, VDD1_18, VDD1_19, VDD1_20, VDD1_21, VDD1_22, VDD1_23, VDD1_24, VDD1_25, VDD1_26, VDD1_27, VDD1_28, VDD1_29, VDD1_30, VDD1_31, VDD1_32, VDD1_33, VDD1_34, VDD1_35, VDD1_36, VDD1_37, VDD1_38, VDD1_39, VDD1_40, VDD1_41, VDD1_42, VDD1_43, VDD1_44, VDD1_45, VDD1_46, VDD1_47, VDD1_48, VDD1_49, VDD1_50, VDD1_51, VDD1_52, VDD1_53, VDD1_54, VDD1_55, VDD1_56, VDD1_57, VDD1_58, VDD1_59, VDD1_60, VDD1_61, VDD1_62, VDD1_63, VDD1_64, VDD1_65, VDD1_66, VDD1_67, VDD1_68, VDD1_69, VDD1_70, VDD1_71, VDD1_72, VDD1_73, VDD1_74, VDD1_75, VDD1_76, VDD1_77, VDD1_78, VDD1_79, VDD1_80, VDD1_81, VDD1_82, VDD1_83, VDD1_84, VDD1_85, VDD1_86, VDD1_87, VDD1_88, VDD1_89, VDD1_90, VDD1_91, VDD1_92, VDD1_93, VDD1_94, VDD1_95, VDD1_96, VDD1_97, VDD1_98, VDD1_99, VDD1_100.

Signal and Control Connections:

- TP33 TP1:** Connected to TMSD HPD, DDC DATA, A16.
- TP2:** Connected to SB OSC, 2.7K, TV CLKIN, B7.
- OSC14M:** Connected to OSCIN, NC(OSCOUT), NC(TVCLKIN), C2.
- NC_CLK, NC_CLK#:** Connected to CPU_CLK, CPU_CLKN, C7.
- RC CLK, RC DATA:** Connected to I2C_CLK, I2C_DATA, A6.

Component Values and Tolerances:

- C313: 4.7uF, 5.3V
- C67: 4.7uF, 6.3V
- C113: 2.2uF, 6.3V
- C89: 2.2uF, 6.3V
- C311: 4.7uF, 6.3V
- C324: 4.7uF, 6.3V
- R302: 715F, 1%
- R55: 150F, 1%
- R60: 150F, 1%
- R57: 150F, 1%
- R49: 4.7K
- R51: 4.7K

Board Labels:

- RC610 (RC415)
- RC610 (RC415)

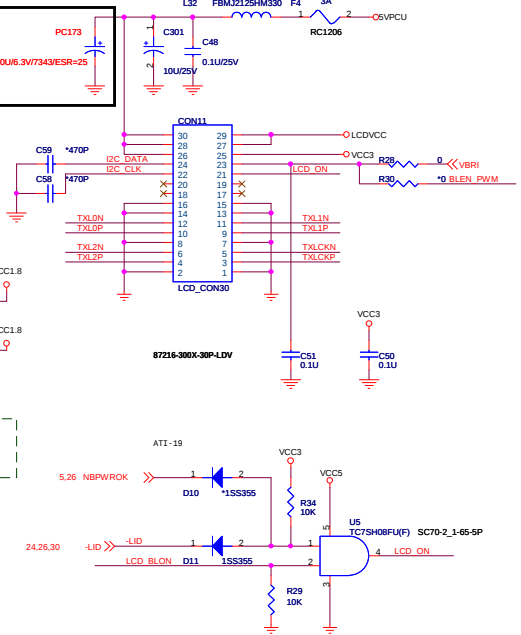
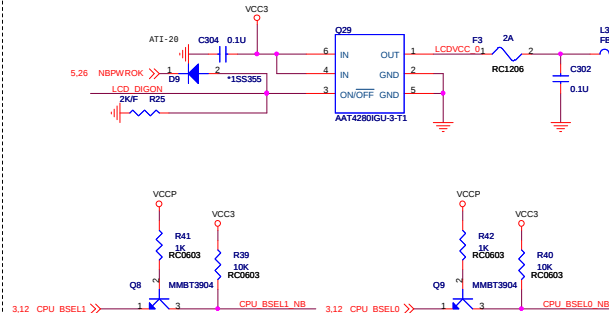
PLACE C324 CLOSE TO M
AND CONNECT PLLVSS T
GND PLANE DIRECTLY

PLACE R55, R60 AND R62
CLOSE TO NB

PLACE R45,R46 AND R44
CLOSE TO NB

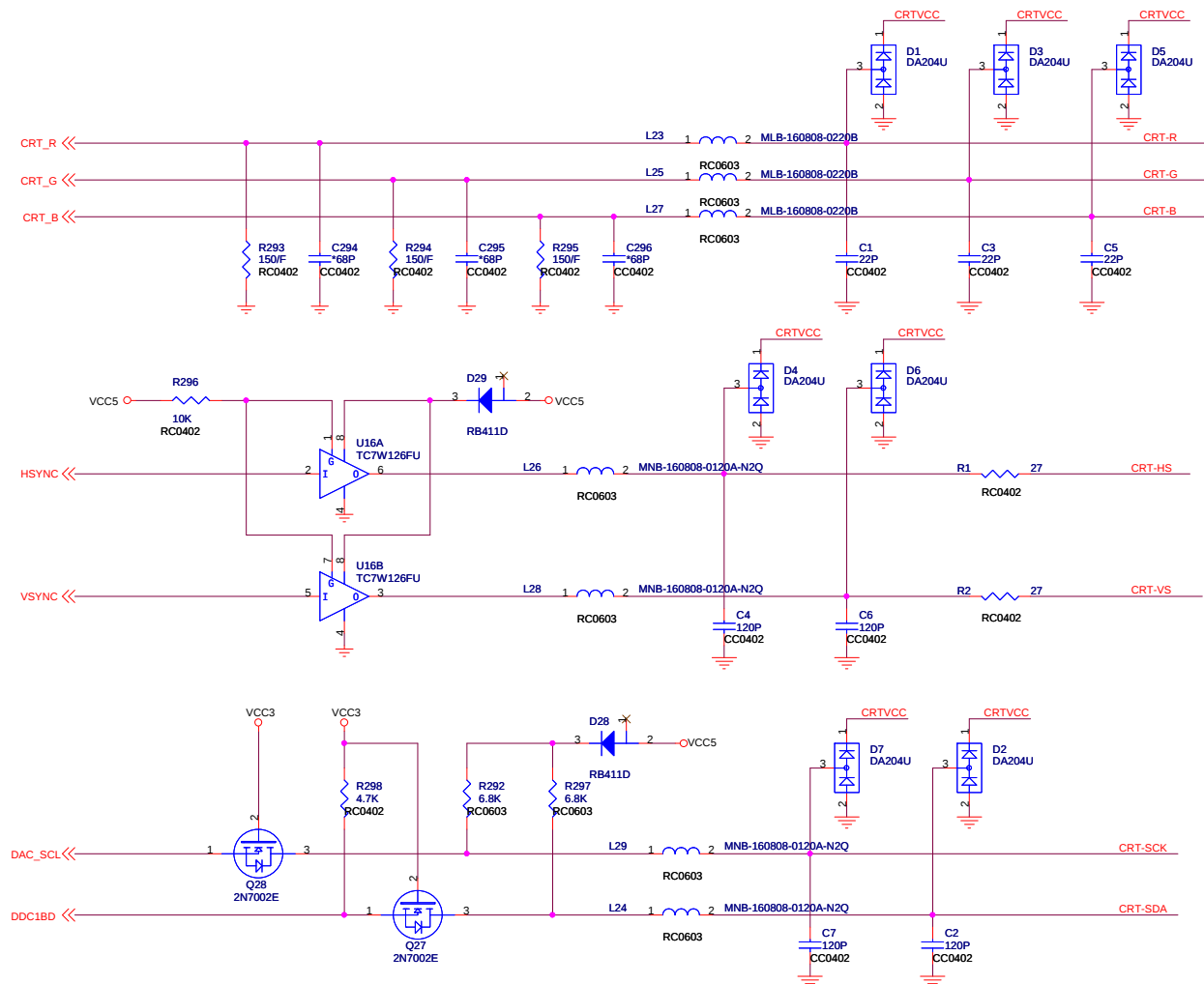
```
Note:
* Stuff only for RC415
** Stuff only for RC610
```

PANEL VCC CONTROL

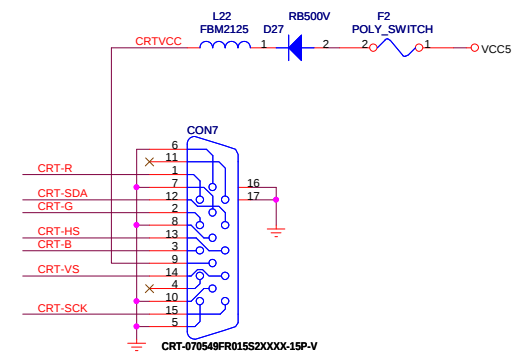


VIN	VIN	24,31,32,33,34,35,36
VCC1.2	VCC1.2	6,9,15,24,33,37
VCC1.8	VCC1.8	5,9,34,37
VCC5	VCC5	3,10,16,19,21,22,23,24,25,26,27,28,30,32,37
VCC3		





CRT CONNECTOR

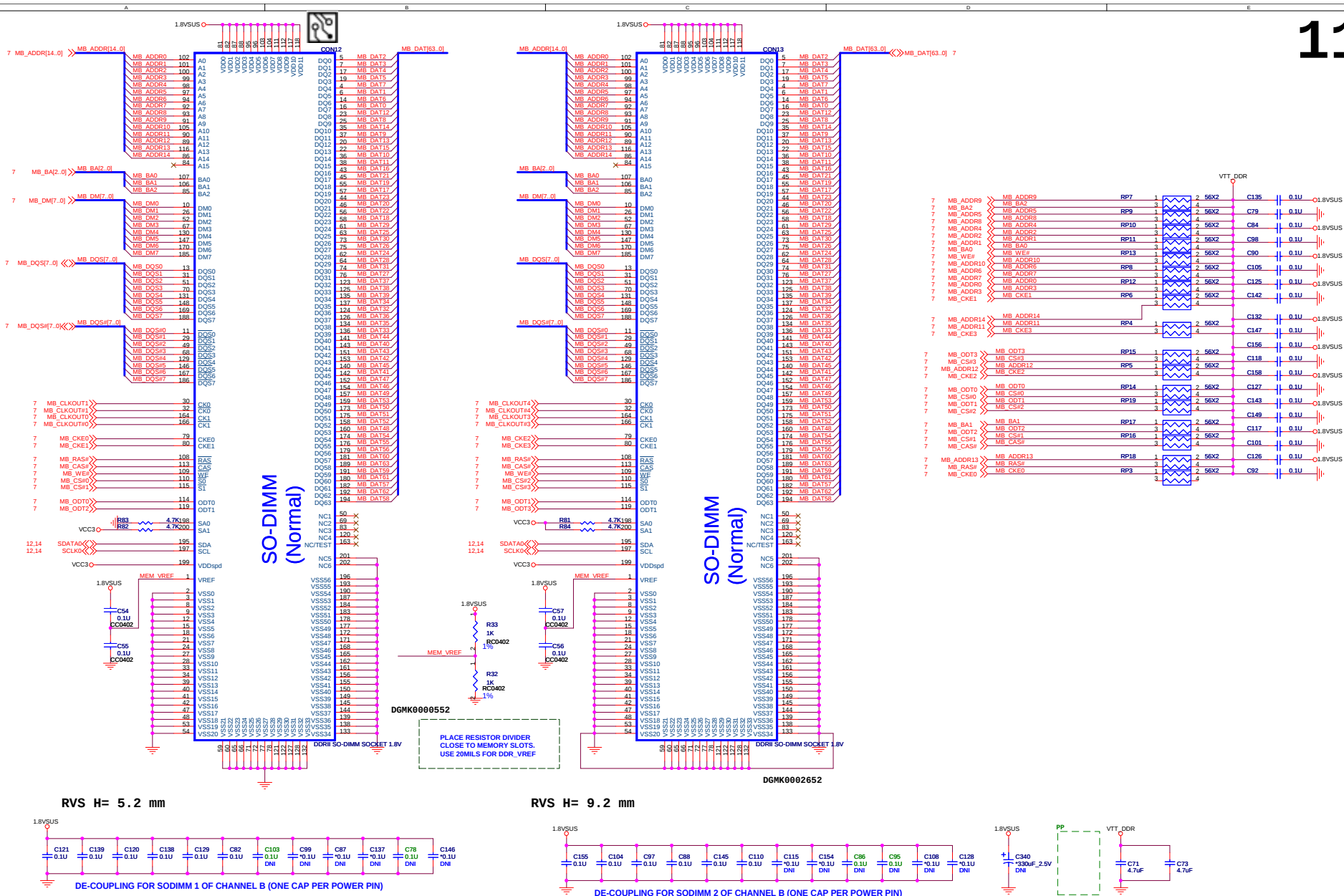


VCC5 3,8,16,19,21,22,23,24,25,26,27,28,30,32,37
VCC3 3,5,8,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,28,29,30,31,32,33,37



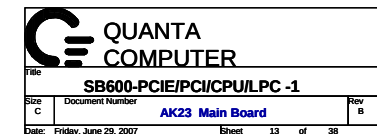
QUANTA
COMPUTER

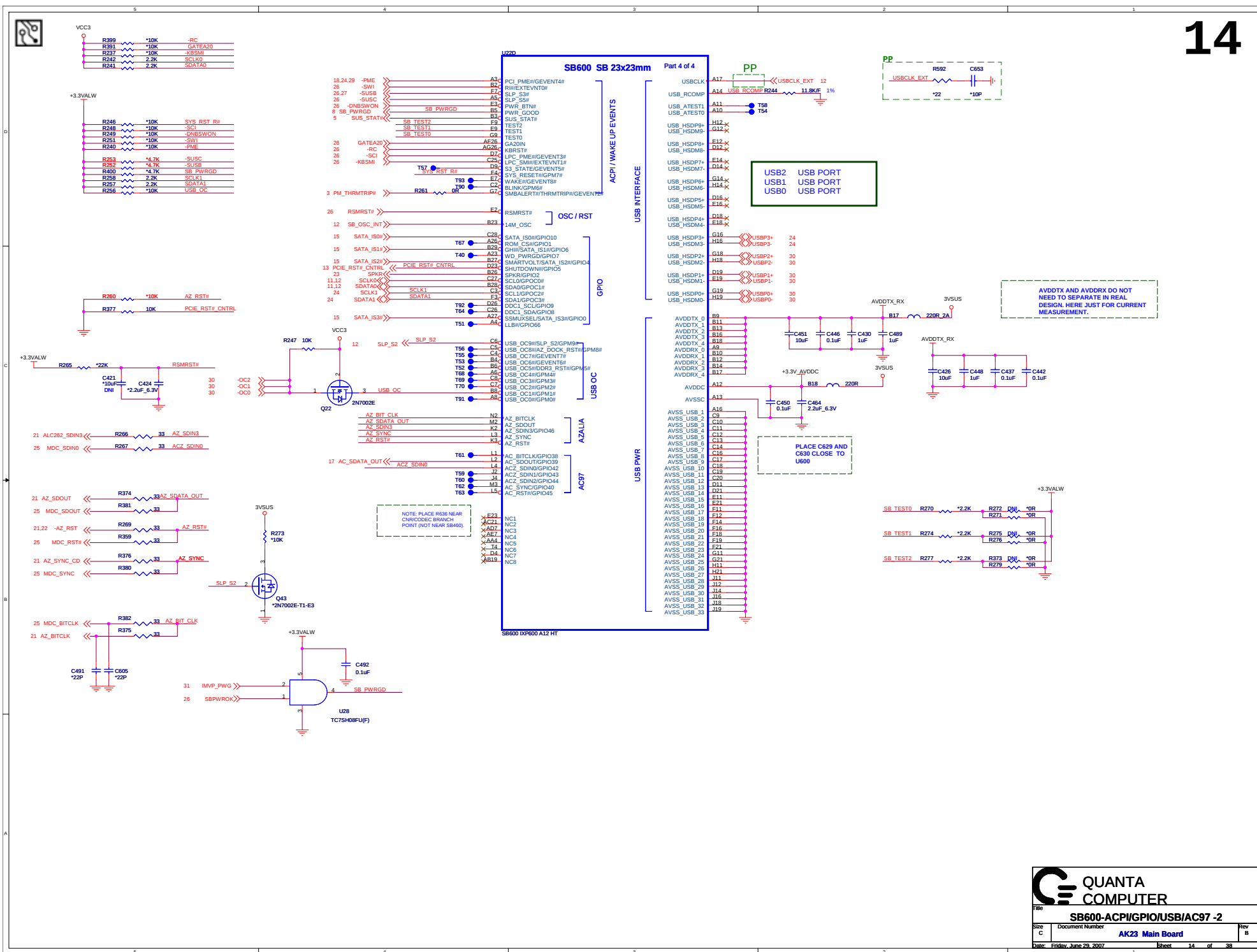
Title			
CRT/TV OUT PORT			
Size B	Document Number	Rev B	
		AK23 Main Board	
Date:	Friday, June 29, 2007	Sheet	10 of 38



FSC	FSB	FSA	CPU	SRC	PCI	REF
1	0	1	100	100	33	14.31
0	0	1	133	100	33	14.31
0	1	1	166	100	33	14.31
1	1	1	----	---	---	---

DEFAULT: 00
00: 100 MHZ
01: 133 MHZ
10: --
11: --







NOTE: J600&J601 ARE SMT. J602&J603 ARE THT.

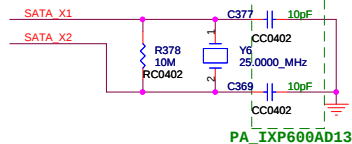
15

PLACE SATA AC COUPLING
CAPS CLOSE TO SB600

28 SATA_TXP0<< C564 .01uF SATA_TX0+ AH21 SATA_TX0+
28 SATA_TXN0<< C398 .01uF SATA_TX0- AJ21 SATA_TX0-
28 SATA_RXN0<< C566 .01uF SATA_RX0- AH20 SATA_RX0-
28 SATA_RXP0<< C572 .01uF SATA_RX0+ AJ20 SATA_RX0+

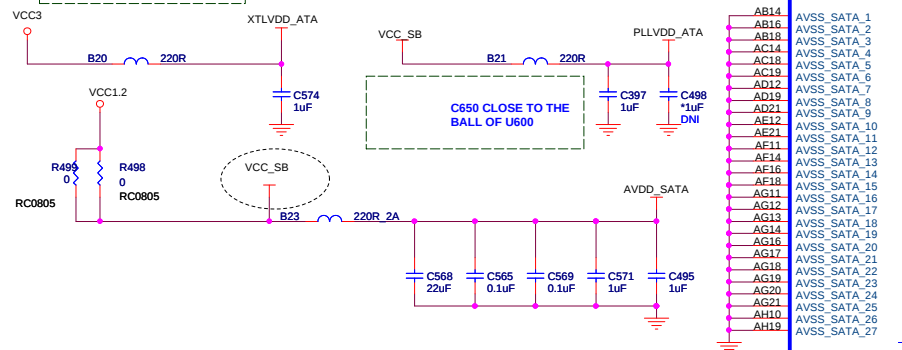
T29 AH18 SATA_TX1+
T30 AJ18 SATA_TX1-
T31 AH17 SATA_RX1-
T33 AJ17 SATA_RX1+
T38 AH13 SATA_TX2+
T34 AH14 SATA_TX2-
T35 AH16 SATA_RX2-
T36 AJ16 SATA_RX2+
T87 AH11 SATA_TX3+
T86 AJ11 SATA_TX3-
T41 AH12 SATA_RX3-
T88 AJ13 SATA_RX3+

R407 1K 1% SATA_CAL AF12 SATA_CAL
SATA_X1 AD16 SATA_X1
SATA_X2 AD18 SATA_X2
26 -SATALED<< AC12C SATA_ACT#/GPIO67
PLLVDV_ATA AD14 PLLVDV_SATA_1
AJ10 PLLVDV_SATA_2
XTLVDD_ATA AC16 XTLVDV_SATA
AVDD_SATA AE14 AVDD_SATA_1
AE18 AVDD_SATA_2
AE19 AVDD_SATA_3
AF19 AVDD_SATA_4
AE21 AVDD_SATA_5
AG22 AVDD_SATA_6
AH22 AVDD_SATA_7
AH23 AVDD_SATA_8
AJ12 AVDD_SATA_9
AJ14 AVDD_SATA_10
AJ19 AVDD_SATA_11
AJ22 AVDD_SATA_12
AJ23 AVDD_SATA_13
AB14 AVSS_SATA_1
AB16 AVSS_SATA_2
AB18 AVSS_SATA_3
AC14 AVSS_SATA_4
AC18 AVSS_SATA_5
AC19 AVSS_SATA_6
AD12 AVSS_SATA_7
AD19 AVSS_SATA_8
AD21 AVSS_SATA_9
AE12 AVSS_SATA_10
AE21 AVSS_SATA_11
AE14 AVSS_SATA_12
AE18 AVSS_SATA_13
AF16 AVSS_SATA_14
AG11 AVSS_SATA_15
AG12 AVSS_SATA_16
AG13 AVSS_SATA_17
AG14 AVSS_SATA_18
AG15 AVSS_SATA_19
AG17 AVSS_SATA_20
AG18 AVSS_SATA_21
AG19 AVSS_SATA_22
AG21 AVSS_SATA_23
AG22 AVSS_SATA_24
AH10 AVSS_SATA_25
AH19 AVSS_SATA_26
AH19 AVSS_SATA_27



C649 CLOSE TO THE
BALL OF U600

C650 CLOSE TO THE
BALL OF U600



SB600 IXP600 A12 HT

SB600 SB 23x23mm
Part 2 of 4

SERIAL ATA

SERIAL ATA POWER

SPI ROM

HW MONITOR

IDE_IORDY AB29 PIORDY 28
IDE_IRQ AA29 PDORQ 28
IDE_A0 AA29 PDA0 28
IDE_A1 AB27 PDA1 28
IDE_A2 AB28 PDA2 28
IDE_DACK# AC27 PDACK 28
IDE_DRQ AC27 PDORQ 28
IDE_IOR# AC29 PDIOR 28
IDE_IOW# AC28 PDIOV 28
IDE_CS1# W28 PDCS1 28
IDE_CS3# W27 PDCS3 28
IDE_D0/GPIO15 AD26 IDE D0
IDE_D1/GPIO16 AE29 IDE D1
IDE_D2/GPIO17 AE29 IDE D2
IDE_D3/GPIO18 AE27 IDE D3
IDE_D4/GPIO19 AG29 IDE D4
IDE_D5/GPIO20 AH28 IDE D5
IDE_D6/GPIO21 AJ28 IDE D6
IDE_D7/GPIO22 AJ27 IDE D7
IDE_D8/GPIO23 AG27 IDE D8
IDE_D9/GPIO24 AG28 IDE D9
IDE_D10/GPIO25 AE28 IDE D10
IDE_D11/GPIO26 AE29 IDE D11
IDE_D12/GPIO27 AE29 IDE D12
IDE_D13/GPIO28 AD25 IDE D13
IDE_D14/GPIO29 AD29 IDE D14
IDE_D15/GPIO30 AD29 IDE D15
IDE D0..15 PDD0..15 28

SPI_DI/GPIO12 J3
SPI_DO/GPIO11 J6
SPI_CLK/GPIO47 G3
SPI_HOLD#/GPIO31 G2
SPI_CS#/GPIO32 G6
LAN_RST#/GPIO13 C23
ROM_RST#/GPIO14 G5
FANOUT0/GPIO3 T3
FANOUT1/GPIO48 T3
FANOUT2/GPIO49 V4
FANIN0/GPIO50 N3
FANIN1/GPIO51 P2
FANIN2/GPIO52 W4
TEMP_COMM P5
TEMPIN0/GPIO61 P7
TEMPIN1/GPIO62 P8
TEMPIN2/GPIO63 T8
TEMPIN3/TALERT#/GPIO64 T7
VIN0/GPIO53 V5
VIN1/GPIO54 L7
VIN2/GPIO55 M8
VIN3/GPIO56 V6
VIN4/GPIO57 V6
VIN5/GPIO58 P4
VIN6/GPIO59 M7
VIN7/GPIO60 V7
AVDD_HWM
AVDD N1
AVSS M1
HWM_AGND
C573 0.1uF
C570 2.2uF 6.3V
R496 0R
R491 0R
TALERT# 3.5

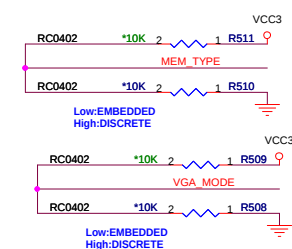
NOTE:
IF THERE IS NO IDE,
PLEASE PUT TEST
POINTS HERE FOR
DEBUG BUS.

PP

16M SST P/N:AKE28FP0K07
8M Winbond P/N:AKE3GFP0N08

NOTE:
ALL HWM VALUES ARE TBD

NOTE: ROUTE TEMP_COMM
AS A 10MIL TRACE

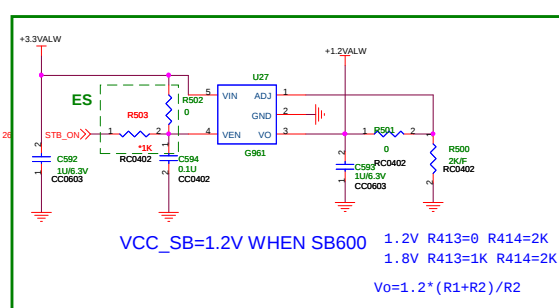
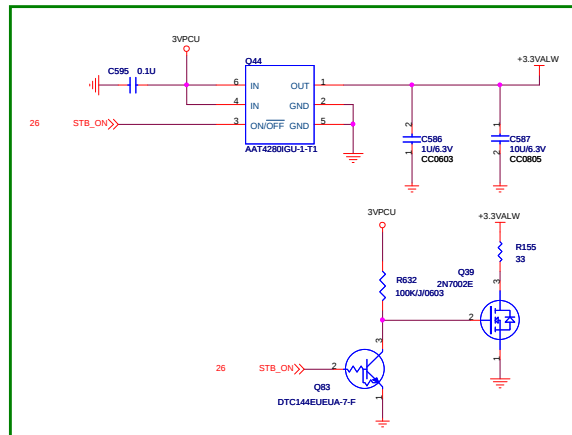
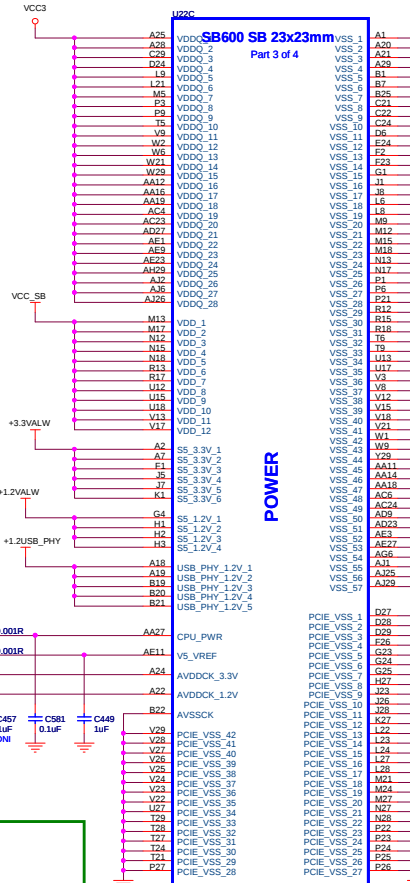
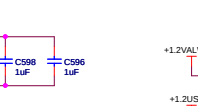
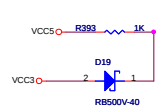
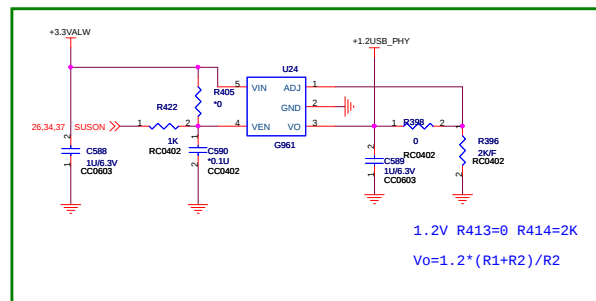
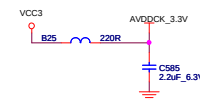
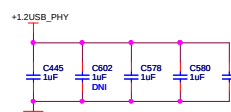
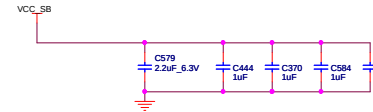
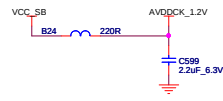
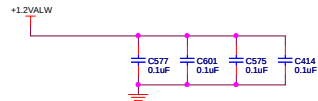
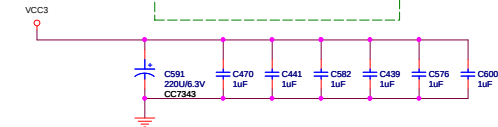


QUANTA
COMPUTER

Title			SB600-SATA/IDE/HWM/SPI -3
Size	Document Number	Rev	B
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Date:	Friday, June 29, 2007	Sheet	15 of 38

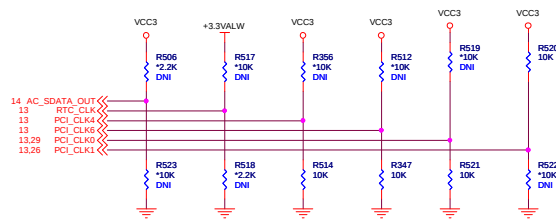


PLACE ALL THE DECOUPLING CAPS ON THIS SHEET CLOSE TO SB AS POSSIBLE.



REQUIRED STRAPS

SB600 HAS AN INTERNAL PD FOR AC_SDOUT_OUT
SB600 HAS AN INTERNAL PU FOR RTC_CLK

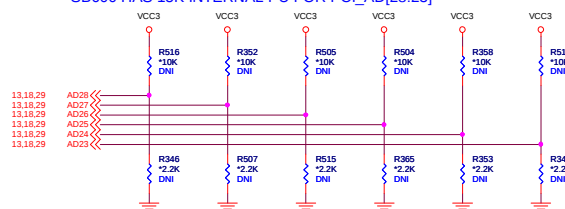


SB600 Internal PD 10K

	AC_SDOUT	RTC_CLK	PCI_CLK4	PCI_CLK6	PCI_CLK0	PCI_CLK1
PULL HIGH	USE DEBUG STRAPS	INTERNAL RTC DEFAULT	USE INT. PLL48	CPU IF=K8	ROM TYPE: H, H = PCI ROM H, L = SPI ROM L, H = LPC ROM L, L = FWH ROM	DEFAULT
PULL LOW	IGNORE DEBUG STRAPS DEFAULT	EXT. RTC (PD on X1, apply 32KHz to RTC_CLK)	USE EXT. 48MHZ DEFAULT	CPU IF=P4 DEFAULT		

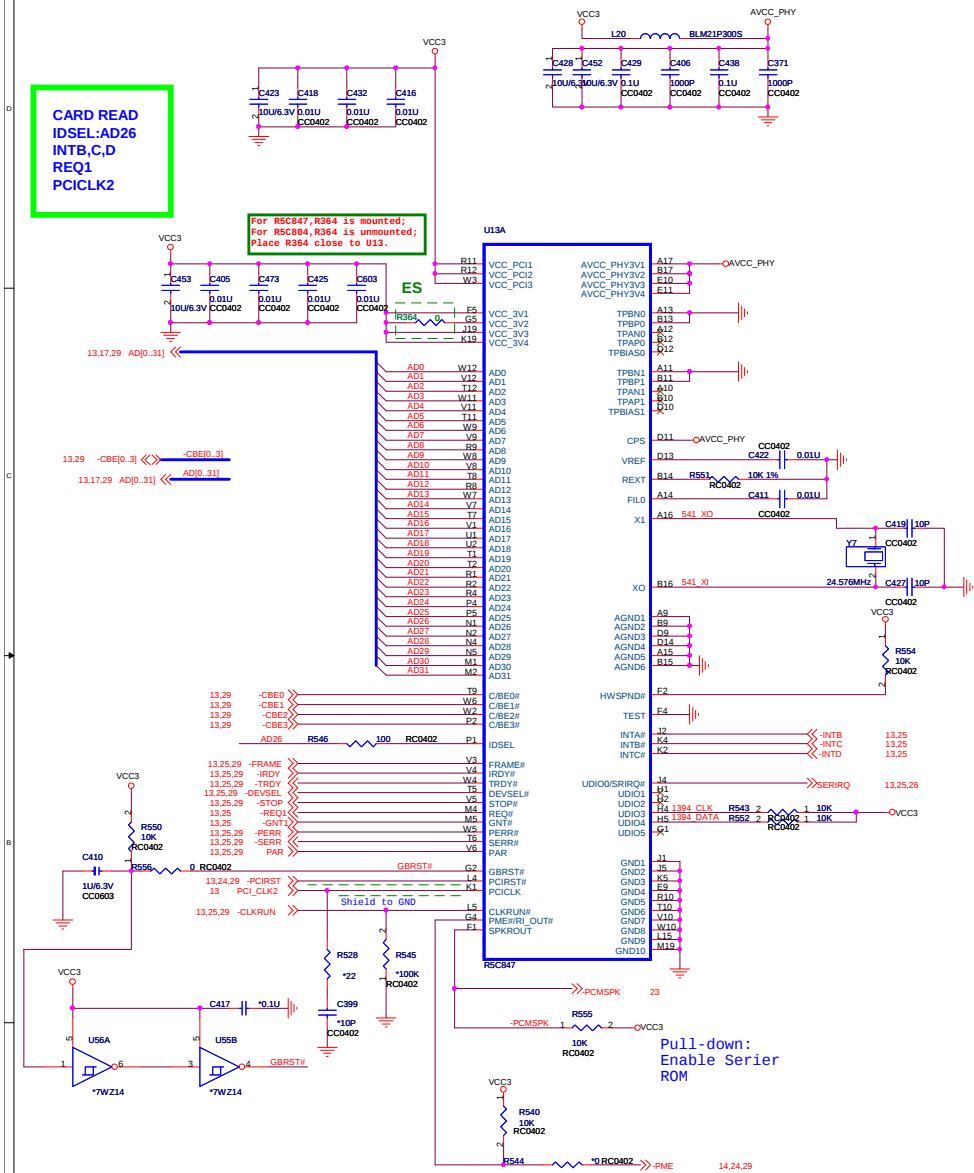
DEBUG STRAPS

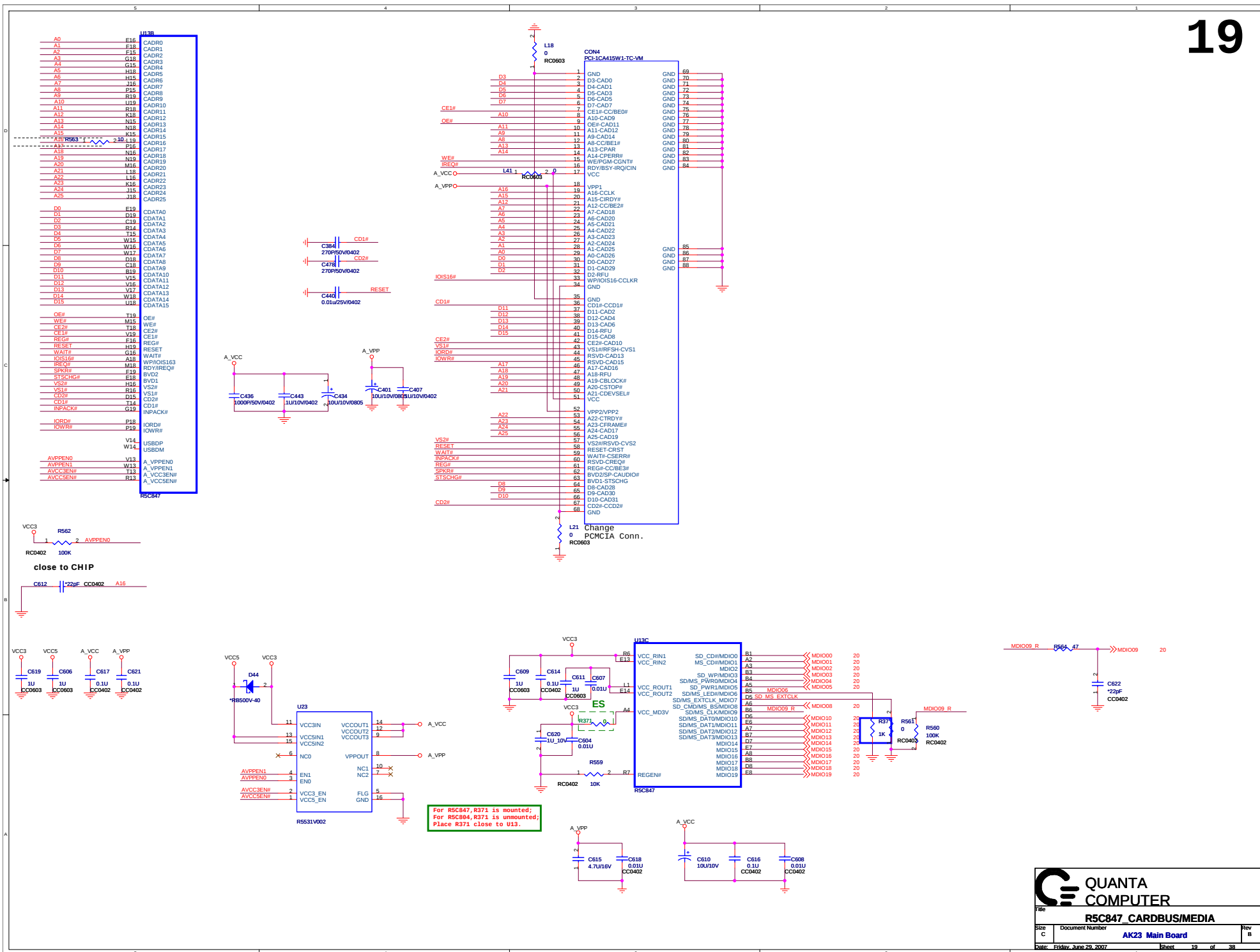
SB600 HAS 15K INTERNAL PU FOR PCI_AD[28:23]

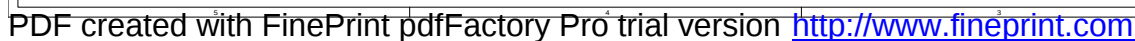


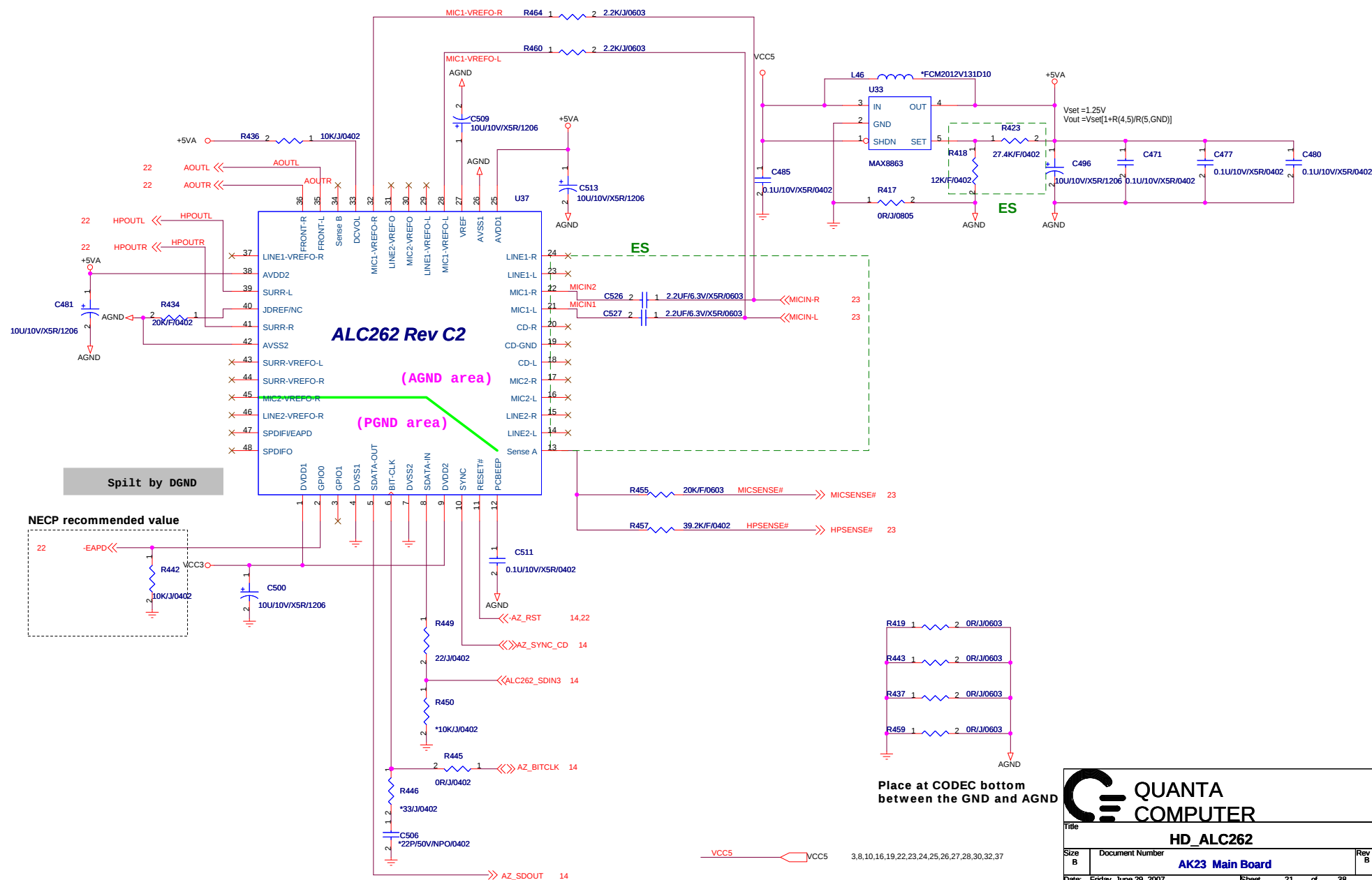
	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE LONG RESET DEFAULT	USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	BOOTFAILTIMER DISABLED DEFAULT
PULL LOW	USE SHORT RESET	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	BOOTFAILTIMER ENABLED

For R5C847, R364 is mounted;
For R5C804, R364 is unmounted;
Place R364 close to U13.





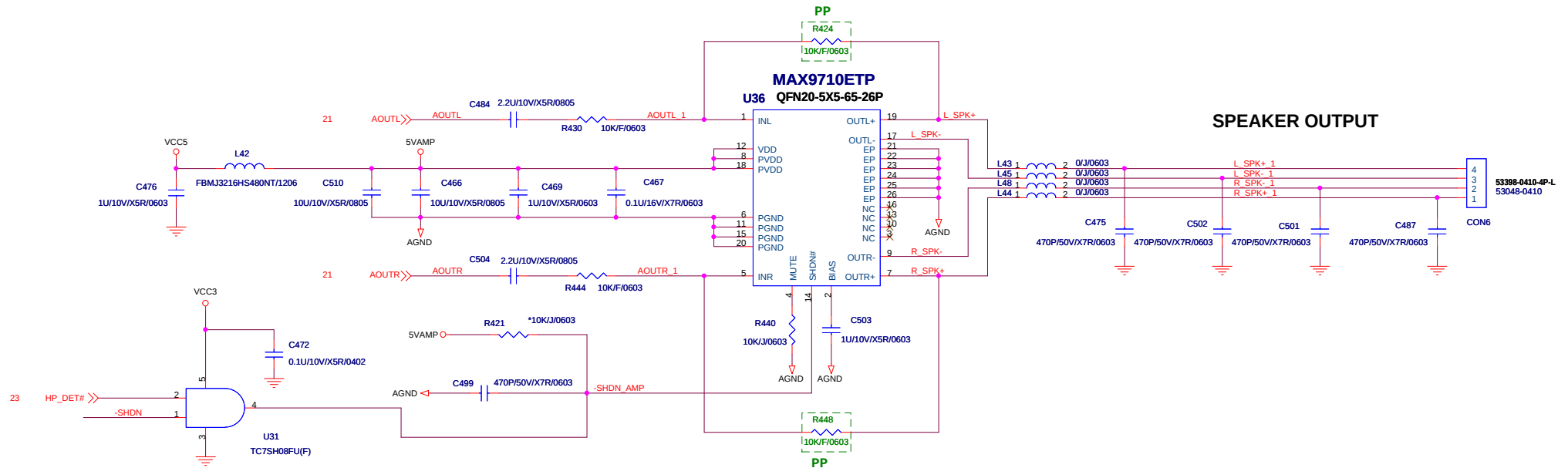




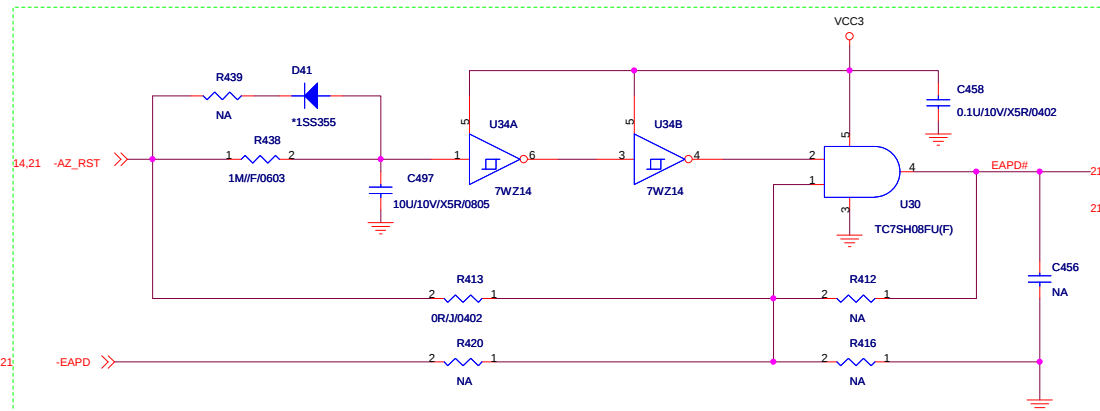
Audio AMP.

AUDIO AMPLIFIER

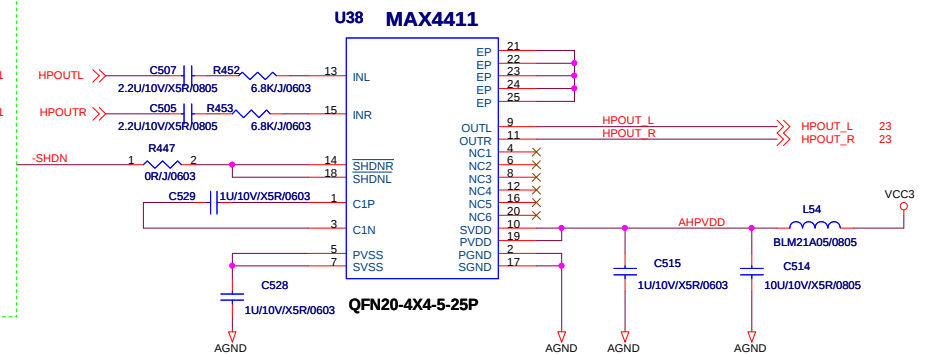
22



NECP recommend EAPD Control circuit for Vista



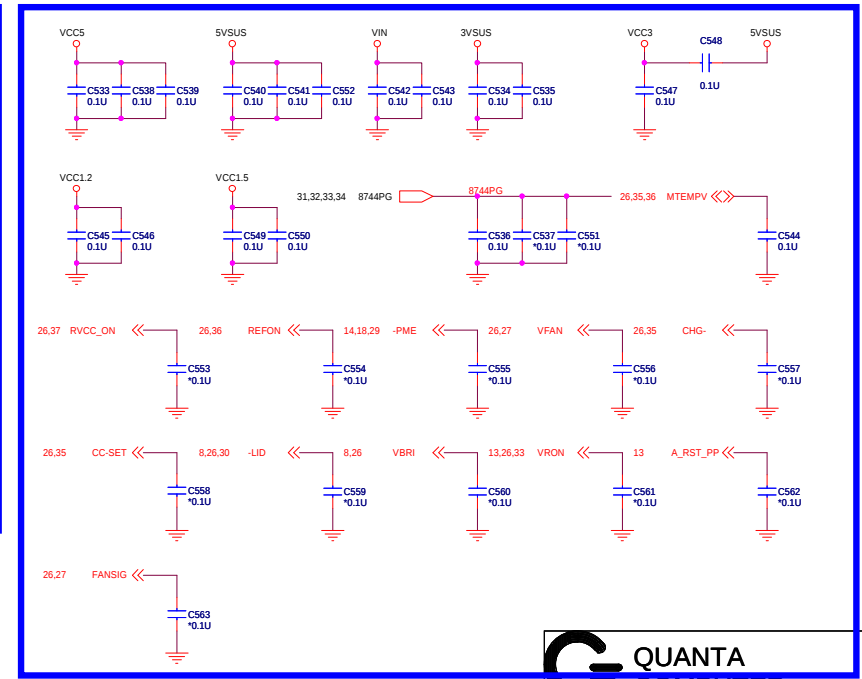
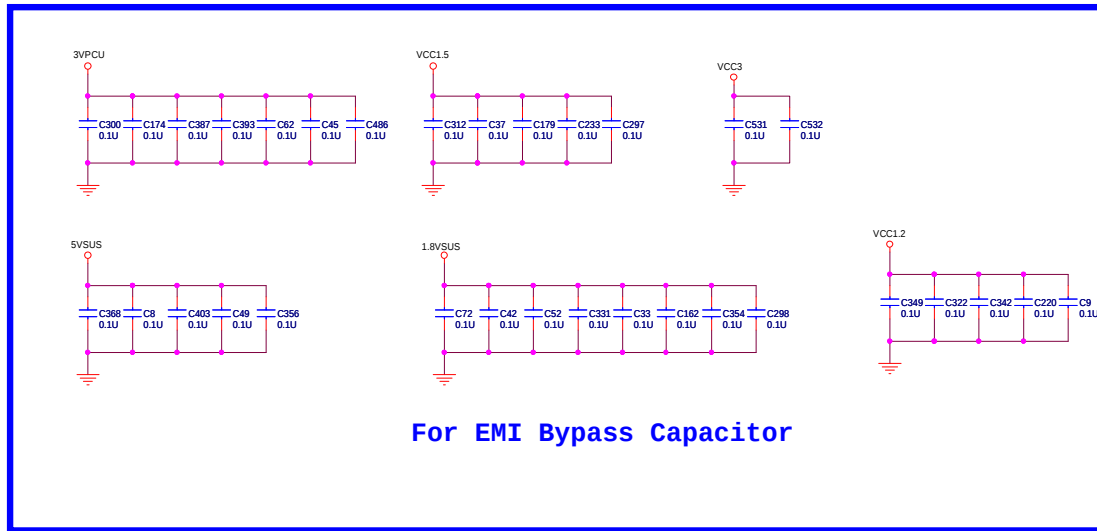
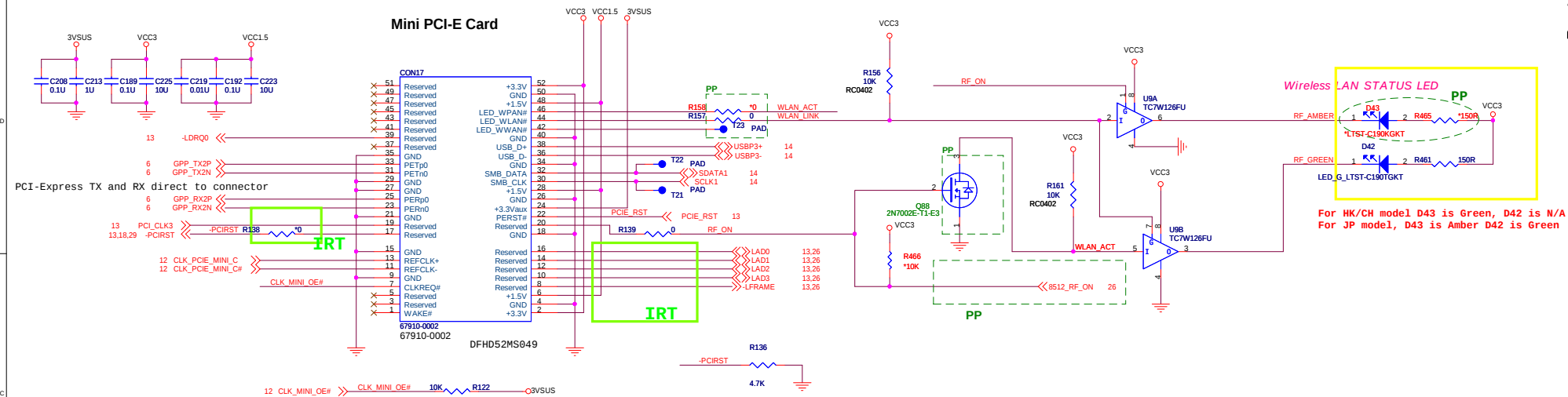
H.P AMPLIFIER



VCC3 3,5,8,10,11,12,13,14,15,16,17,18,19,20,21,23,24,25,26,28,29,30,31,32,33,37
VCC5 3,8,10,16,19,21,23,24,25,26,27,28,30,32,37

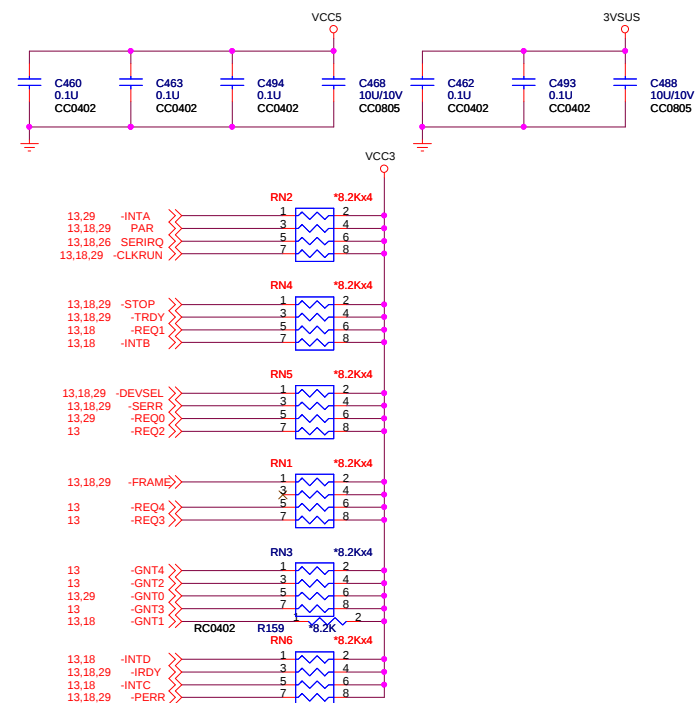
QUANTA COMPUTER			
Title Audio Board			
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VCC3	VCC3	3.5, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 28, 29, 30, 31, 32, 33, 37
3VSUS	3VSUS	9, 14, 25, 29, 32, 33, 37
VCC1.5	VCC1.5	4, 33, 37

QUANTA COMPUTER		Title	
		Mini PCI-E Card	
Size	Document Number	AK23 Main Board	
Custom		Rev B	
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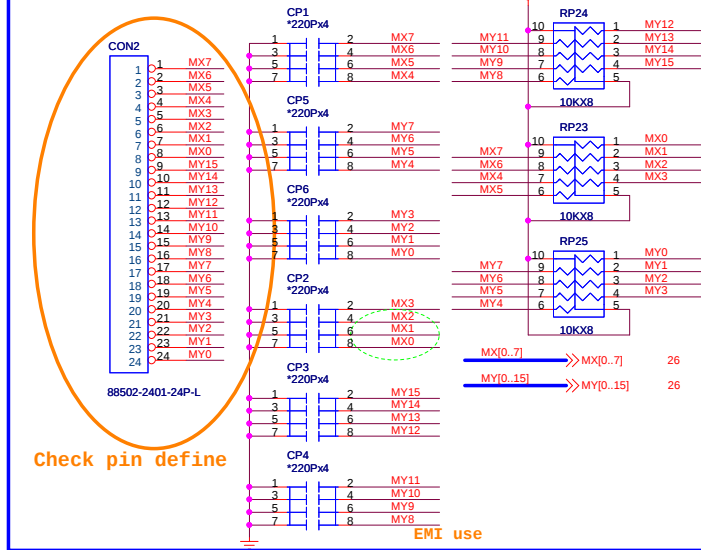
[illegible]

VCC3	VCC3	3,5,8,10,11,12,13,14,15,16,17,18,19,20,21,2
3VSUS	3VSUS	9,14,24,29,32,33,37
VCC5	VCC5	3,8,10,16,19,21,22,23,24,26,27,28,30,32,37

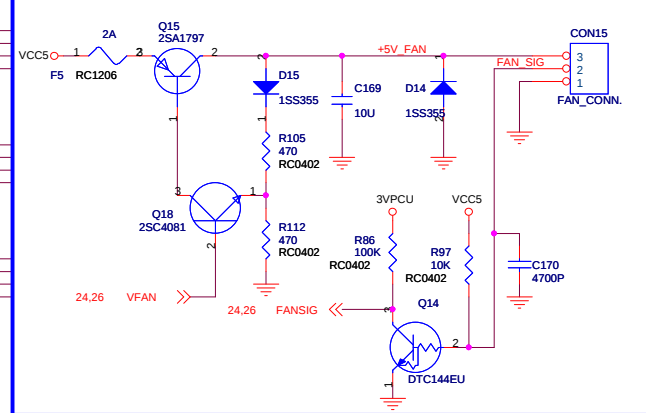
**HD_MDC**

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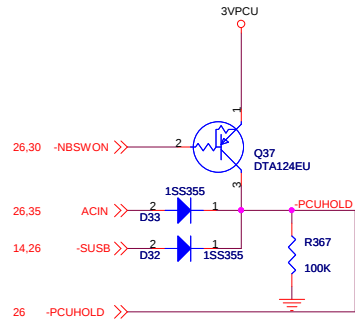
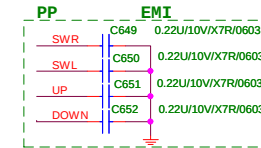
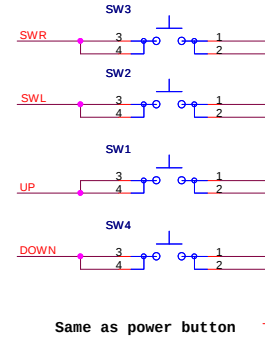
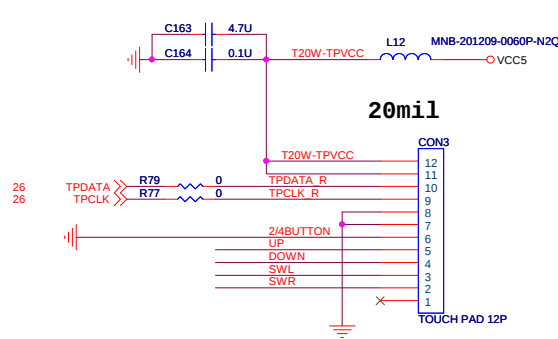
INT. KEYBOARD



FAN Circuit



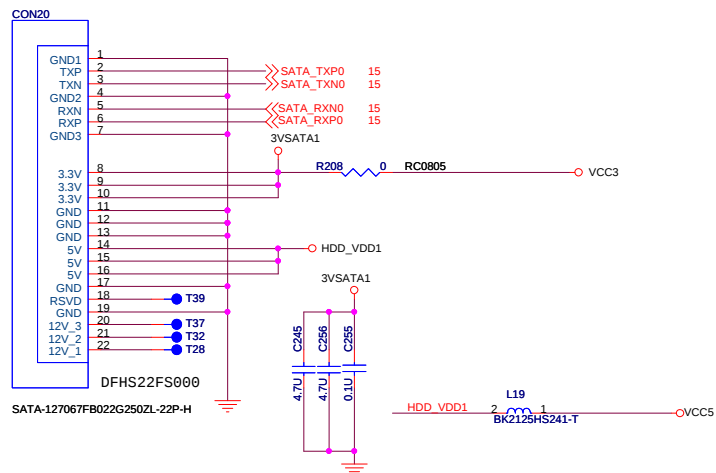
TOUCHPAD BOARD CON



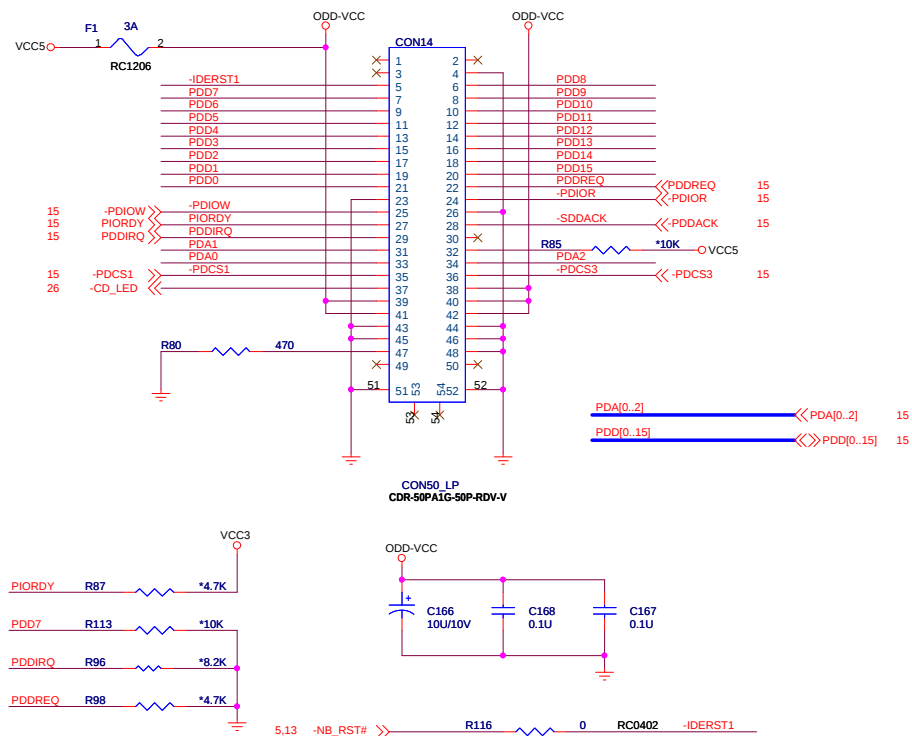
3VPCU 3VPCU 16,24,26,31,32,34,36
VCC5 VCC5 3,8,10,16,19,21,22,23,24,25,26,28,30,32,37

QUANTA COMPUTER			
INT.KB &TP CONN			
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SATA_TOP(MASTER)



ODD Connector



VCC3 3,5,8,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,29,30,31,32,33,37

VCC5 3,8,10,16,19,21,22,23,24,25,26,27,30,32,37

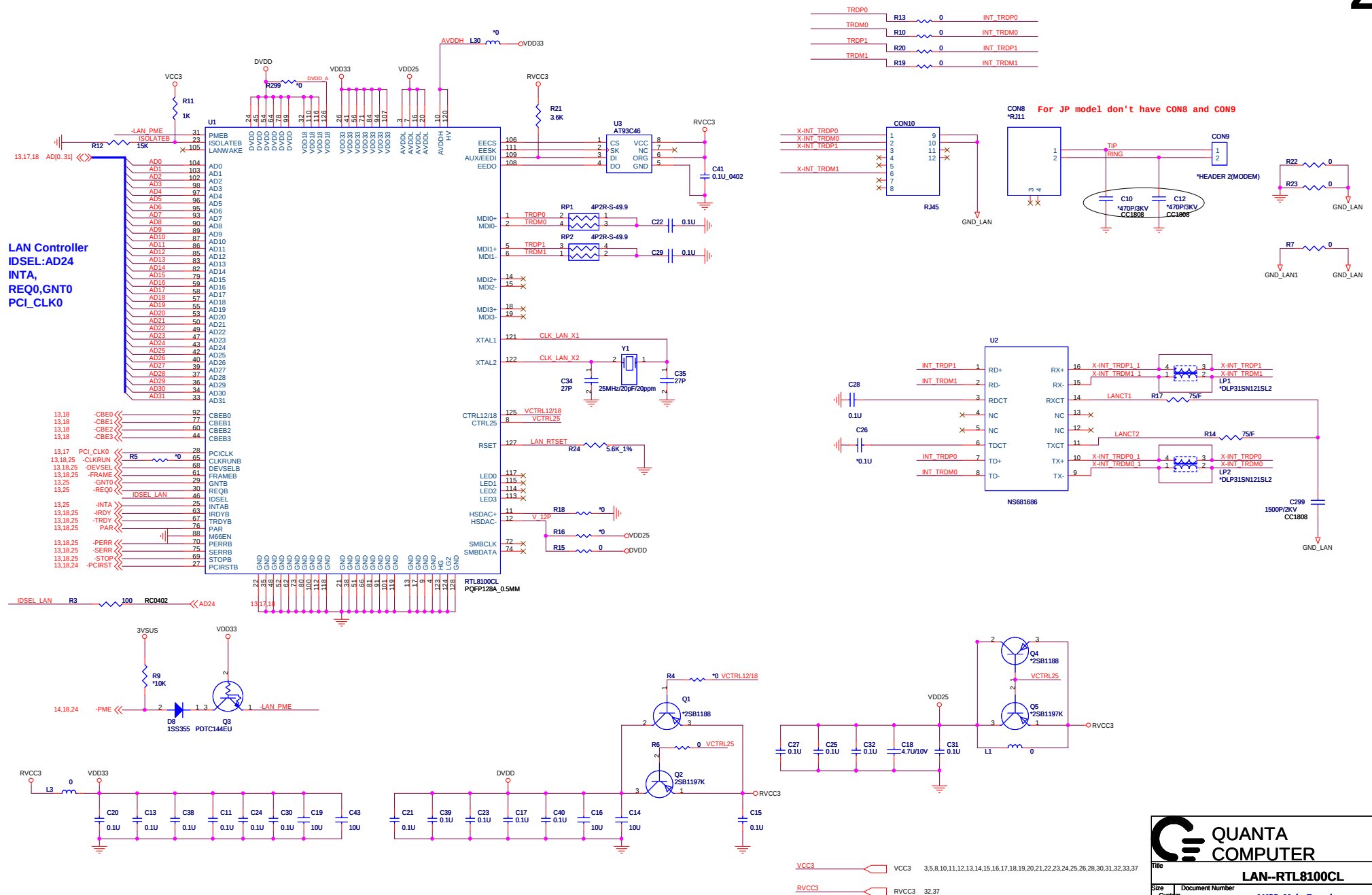


QUANTA
COMPUTER

Title SATA(HDD),PATA(ODD) CONNECT

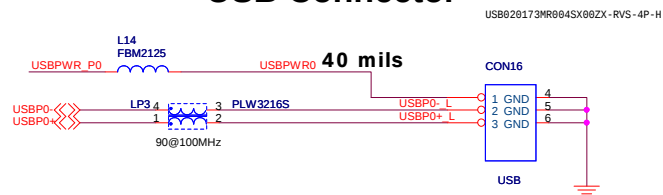
Size B Document Number AK23 Main Board Rev B

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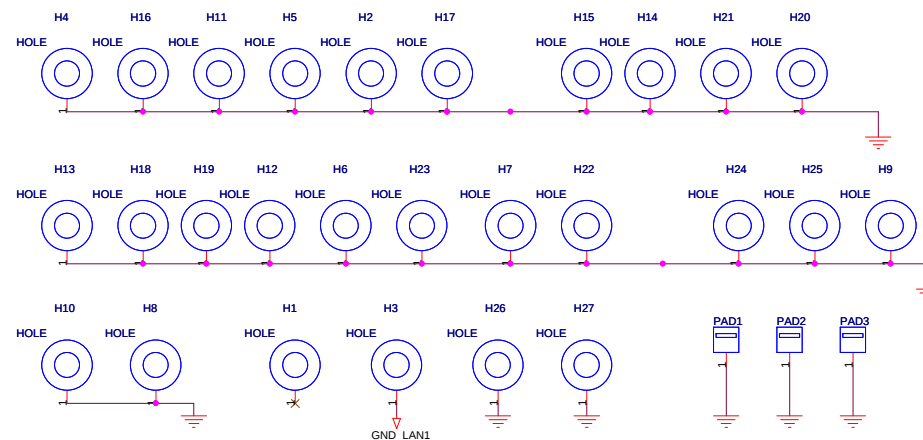
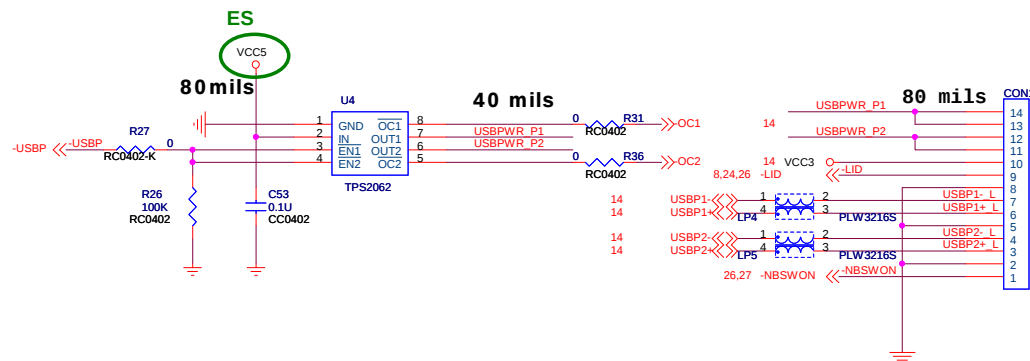
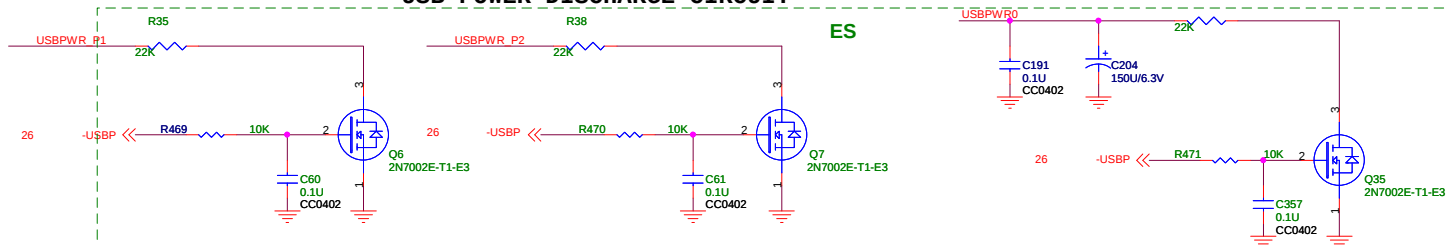


QUANTA COMPUTER			
Title LAN--RTL8100CL			
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USB Connector



USB POWER DISCHARGE CIRCUIT



VCC3 VCC3 3,5,8,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,28,29,31,32,33,37

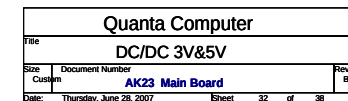
5VSUS 5VSUS 24,31,32,33,37



Title	USB PORT/USB board conn
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Size Custom	Document Number AK23 Main Board	Rev B
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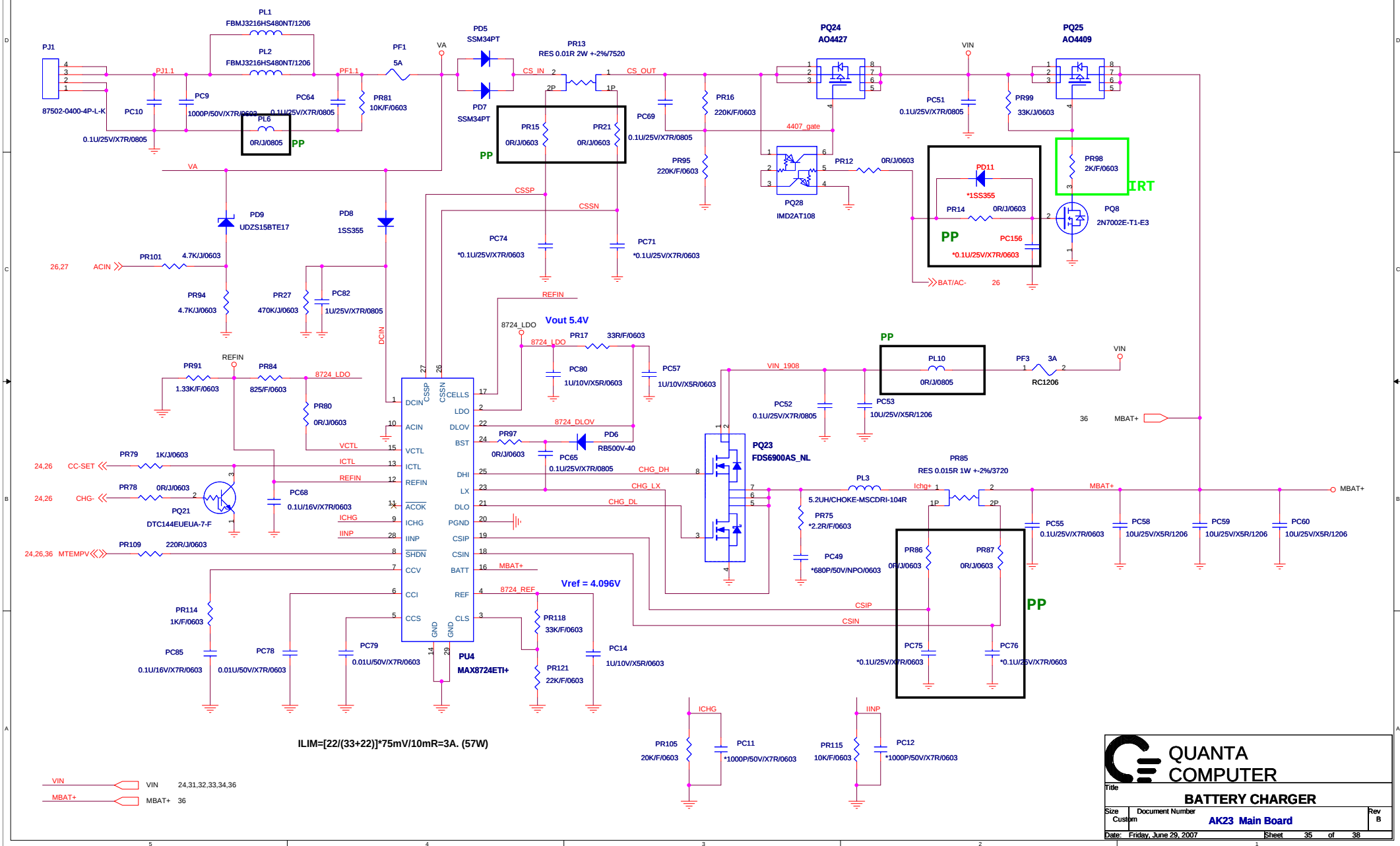
32



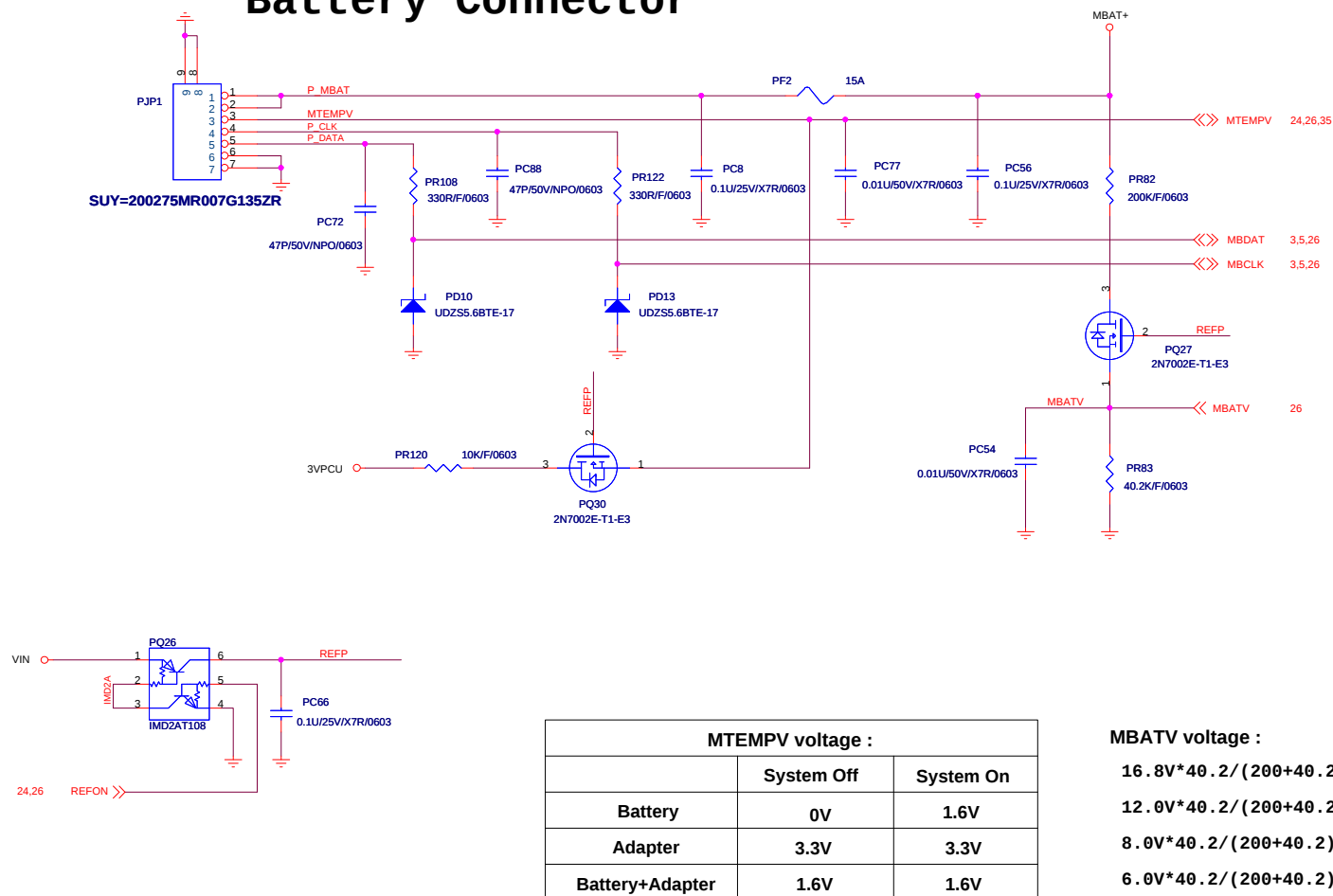


Battery Charger

35



Battery Connector



3VPCU 3VPCU 16,24,26,27,31,32,34
 VIN VIN 24,31,32,33,34,35
 MBAT+ MBAT+ 35

QUANTA
COMPUTER

Title

BATTERY CONNECTOR

Size Custom

Document Number **AK23 Main Board**

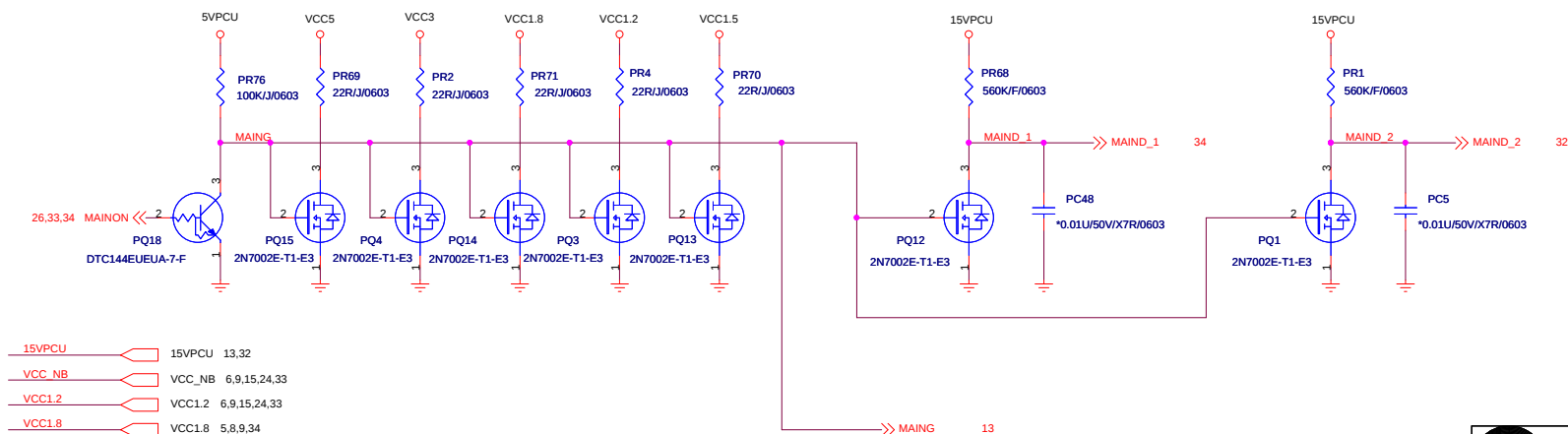
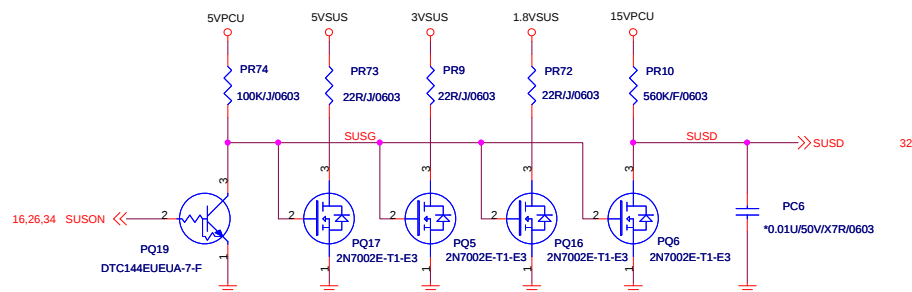
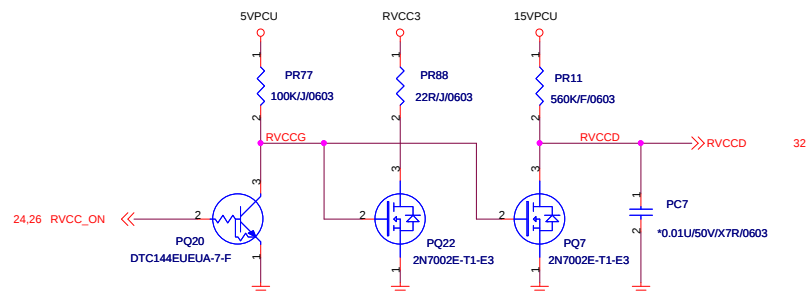
Date: Friday, June 29, 2007

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Battery Connector

37



RVCC3	RVCC3	29,32
1.8VSUS	1.8VSUS	5,7,9,11,24,33,34
3VSUS	3VSUS	9,14,24,25,29,32,33
5VSUS	5VSUS	24,31,32,33
RVCCD	RVCCD	32
SUSD	SUSD	32
MAIND_1	MAIND_1	34
MAIND_2	MAIND_2	32

**QUANTA
COMPUTER**

Title: **DISCHARGE**

Size: Custom Document Number: **AK23 Main Board** Rev: B

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^ ES2 Change list(Rev 2A)

0323:

- 1.Change SB460 to SB600;
- 2.Change TI1510 to R5C847;
- 3.Change EC WINBOND 541 to ITE8512;
- 4.Remove ATI DDR2-667 workaround;

0325:

- 1.Remove 1394 function circuit;
- 2.Delete U59 Express power switch circuit;

0327:

Page 12: Change R89 from 4.7K to 0 and reserve C176 for SB600;

Page 20: Change Media Card CONN to reverse model;

Page 21: Change C526,C527 value to 2.2uF and Delete C516, C517, C522-C525 for NECP requirement;

Page 23: Change L49 to 0ohm for NECP requirement;

Page 24: Remove RF Switch and Let EC(Pin:PWM4/GPA4) control Enable/Disable function;

Page 26: Reserve 10K Pull-up resistor for -VOLUME;

0329:

Page 26: Add R342 for KB_NEW use;

Page 30: Change USB Power line from 5VSUS to VCC5 and Add USB Power discharge circuit for NECP requirement;

0403:

Page 16: Reserve R503,add R502 for lable no found issue;

Delete the original reserved Page 37:VGA power;

0409:

Page 13:ADD R360 and R363 for the selection of R5C847 and R5C804;

Page 18:ADD R364 for the selection of R5C847 and R5C804;

Page 19:ADD R371 for the selection of R5C847 and R5C804;

0411:

Page 21:Change the Value of R423 and R418 to 27.4K and 12K for NECP request;

0413:

Page 20:Change C623 to 2.2uF from 47uF for NECP request;

0418:

Page 33:Change PR171 from 97.6K to 51.1K,Change PC41 from 3300PF/50V/X7R/0603 to 0.01UF/50V/X7R/0603,

Change PR169 from 100K/F/0603 to 20K/F/0603,Change PQ47 from AO4468 to AO4404 for current limit setting of VCC1.2;

^ ES2 to PP Change list(Rev 3A)

0511:

Page 33:Change PR171 from 51.1K to 287K,Change PR169 from 20K to 100K,Change PC41 from 0.01UF to 2200PF for current limit setting of VCC1.2;

Page 35:Add PD11 and PC156,but no mount it;

0514:

Page 14:Delete R243 for leaving more space to the trace layout;

0515:

Page 3:Delete R166,D18,C224,U10,C222,Q20 for leaving more space to add PCIE_PVDD Power Sequence Requirement circuit;

Page 13:Add and Reserve AMD PCIE_PVDD Power Sequence Requirement circuit;

Page 15:Delete R403,R468,R493,R490,U53,R494,R495,C567 for leaving more space to add PCIE_PVDD Power Sequence Requirement circuit;

0519:

Page3:Add and Reserve C222,C224,C226,C227,C228 to H_INIT#,H_IGNNE#,H_STPCLK#,H_SMI#,H_INTR signal for AMD recommendation;

Page13:Using VRON to control PCIE_PVDD Power Sequence Requirement circuit;

0521:

Page3:Change R102 to 62ohm from 75ohm for following Intel CPU Spec;

Page5:Change R76 to 127ohm from 100ohm,R78 to 61.9ohm from 51ohm for following Intel CPU Spec;

Page9:ADD RC415MD Power Up Sequence to follow VDDR3/VDDL33/AVDD power up after VDD_MEM and VDD18 for AMD recommendation;

Page22:Change R424,R448 from 11K to 10K due to change gain of internal speaker;

0523:

Page11:Delete C341 for EMI layout suggestion;

Page24:Add Q88 and Delete D35 for WLAN LED driver schedule requirement of NECP(Reserve R158,R466,D43,R465);

Page26:Add C648 for EMI solution;

Page27:Add C649,C650,C651,C652 for EMI solution;

Page35:Add PL6,PL10,PR15,PR21,PR86,PR87 and Reserve PC75,PC76 for EMI solution;

0524:

Page14:Add and Reserve R592,C653 for EMI solution;

^ PP to IRT Change list

Page13: Add R166,R167,C229 from ATI suggestion

Del B15, Add B19 from ATI suggestion

Page24: Delete R142, RP27,RP26,R126 and change to short circuit for non-necessary parts.

 QUANTA COMPUTER			
Change list			
File	Document Number	Rev	B
C	AK23 Main Board		
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