MODEL:	REV:	CHANGE LIST:	ECN NO
ZR1 MotherBoard	1A	FIRST RELEASE	E200604-0013 E200605-0194
	2A	PAGE 02 : ADD EMI SOLUTION PAGE 03 : MODIFY MDC NUT / UN-STUFF CPURST# PU R151 PAGE 06 : STUFF LIBG R430 FOR 940GML / MOVE TMDS PU AT NB SIDE PAGE 10 : ADD LCD PIN 31 & 33 TO GND FOR EMI / MODIFY S-VIDEO CONNECTOR P/N PAGE 11 : MODIFY RTC BATTERY CONNECTOR / ADD MB GPIO FOR FACTORY IDENTIFY / REMOVE SUSCLK FOR SMSC SIO PAGE 13 : MODIFY VMAIN_AVAL TO +3V_S5 / UN-STUFF R28 & R29 FOR LAN LED NO ACTIVE ISSUE PAGE 16 : ADD MINI-CARD BYPASS CAPACITOR BY ACER REQUEST / ALWAYS STUFF D11 FOR MINI-CARD W/L CAN'T ENABLE PAGE 17 : ADD L64 ON SPDIF FOR EMI / MODIFY BEEP NOISE (R281) / ADD C695,C696 FOR REDUCE LINE IN NOISE / MODIFY SPDIF CIRCUIT MODIFY R522,R524 FOR REDUCE DISTORTION / RESERVE R541,R542,R543 FOR NOISE REDUCTION / STUFF U41 / UN-STUFF D30 FOR POP ISSUE PAGE 18 : MODIFY RF LED : EMAIL LED : IDE LED CIRCUIT / MODIFY TP PIN DEFINE PAGE 20 : MODIFY SIO TO NS87383 / ADD RGB EMI SOLUTION / RESERVE DVI EMI SOLUTION / UN-STUFF TMDS PU AT DOCKING SIDE PAGE 21 : MODIFY PL2,PL5 TO 2R5 FOR REDUCE POWER RIPPLE & INCREASE POWER BUGET PAGE 22 : SOLVE CPU VCORE UN-STABLE ISSUE TO CHANGE SERVAL COMPONENT VALUE PAGE 23 : MODIFY PL8 TO 2R5 FOR COST DOWN / ADD PC16,PC21 FOR PWM STABILITY / UN-STUFF PR21 FOR WRONG PU POWER LEVEL PAGE 24 : MODIFY PR30 FOR NVVDD POWER QUALITY	E200605-3569 E200605-6558
	3A	PAGE 02 : MODIFY C509,C503,C491,C498 to 4.7uF PAGE 03 : REMOVE R102 0 ohm PAGE 04 : Modify C187 to 330uF , remove C222 PAGE 06 : MODIFY C605,C590,C609 to 4.7uF / Add EMI solution C705 ~ C708 PAGE 08 : MODIFY L22,L23,Add PC166,C712~C715 for TV noise / Modify C327,C594 to 330uF;C158,C548 to 10uF / remove R449,R451 0 ohm PAGE 09 : Remove C76,C88 / modify C75 to 100uF PAGE 10 : Modify TV filter circuit / modify LCD VCC circuit PAGE 11 : Add media board GPIO pin PAGE 13 : Modify C99,C97,C98,C61,C79 to 4.7uF PAGE 14 : Remove R497,R222 0 ohm / modify C390,C391,C405,C412 to 4.7uF PAGE 15 : Modify C642,C409 to 4.7uF / modify R163,R164,R161,R153 to RN92,RN93 PAGE 16 : Modify R452,R454 to RN91, R389,R392 to RN90 PAGE 17 : Modify C651,C430,C440,C658,C666 to 4.7uF / Modify SPDIF circuit PAGE 18 : Remove R208,R510 for ODD / Remove R459,R106 0 ohm PAGE 20 : Modify SIO clock & strap R303 PAGE 21 : Remove PR110,PR155,PR114,PR106,PR153 0 ohm / Add PC167 for TV noise PAGE 22 : Remove PR149 0 ohm PAGE 23 : Remove PR24 0 ohm PAGE 24 : Remove NVVDD switching voltage circuit / remove PR135,PR100 0 ohm PAGE 25 : Remove PR28 0 ohm	

MODEL : ZR1 MB

PAGE	FROM	TO
1	1A	
2	2A	3A
3	2A	3A
4	1A	3A
5	1A	
6	2A	3A
7	1A	
8	1A	3A
9	1A	3A
10	2A	3A
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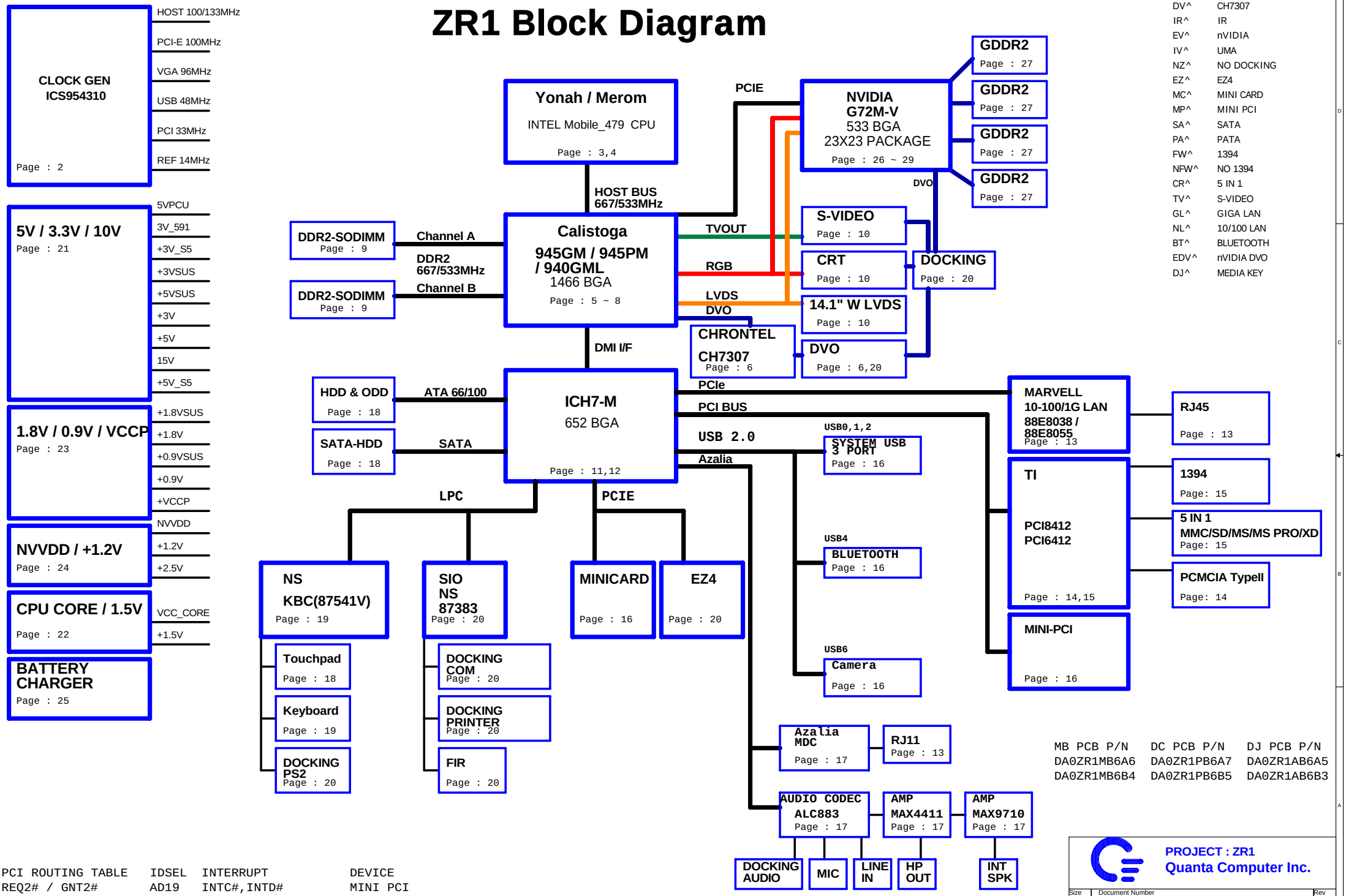
23	2A	3A
24	2A	3A
25	1A	3A
26	1A	
27	1A	
28	1A	
29	1A	

Quanta Computer Inc.	PROJECT : ZR1	APPROVE BY: JIM HSU	DRAWING BY:JACKY CHENG	REV 3A
	MB ASSY'S P/N : 31ZR1MB0008,16,24,32,41,59,83,91,B4	PROJECT LEADER: JIM HSU	DOCUMENT NO: 204	DATE :2006/06/26

COVER SHEET 1 OF 1

ZR1 Block Diagram



DV^	CH7307
IR^	IR
EV^	nVIDIA
IV^	UMA
NZ^	NO DOCKING
EZ^	EZ4
MC^	MINI CARD
MP^	MINI PCI
SA^	SATA
PA^	PATA
FW^	1394
NFW^	NO 1394
CR^	5 IN 1
TV^	S-VIDEO
GL^	GIGA LAN
NL^	10/100 LAN
BT^	BLUETOOTH
EDV^	nVIDIA DVO
DJ^	MEDIA KEY

MB PCB P/N	DC PCB P/N	DJ PCB P/N
DA0ZR1MB6A6	DA0ZR1PB6A7	DA0ZR1AB6A5
DA0ZR1MB6B4	DA0ZR1PB6B5	DA0ZR1AB6B3

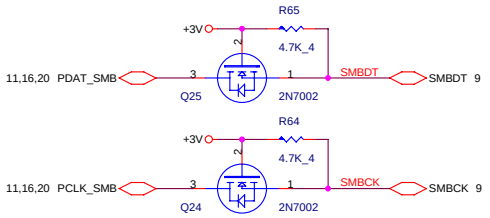
PCI ROUTING TABLE	IDSEL	INTERRUPT	DEVICE
REQ2# / GNT2#	AD19	INTC#,INTD#	MINI PCI
REQ0# / GNT0#	AD25	INTE#,INTF#,INTG#	TI XX12

PROJECT : ZR1
Quanta Computer Inc.

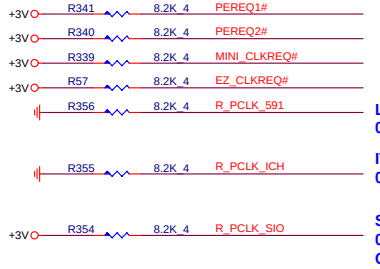
Size	Document Number	Rev
	BLOCK DIAGRAM	1A
Date: Thursday, June 29, 2006	Sheet 1 of 29	

CLOCK GENERATOR

PEREQ1# --> PCIE0 & PCIE6
PEREQ2# --> PCIE1 & PCIE8
PEREQ3# --> PCIE2 & PCIE4
PEREQ4# --> PCIE3 & PCIE5 & PCIE7



SMBUS Address : D2 (read) , D3 (write)



FSB SETTING

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

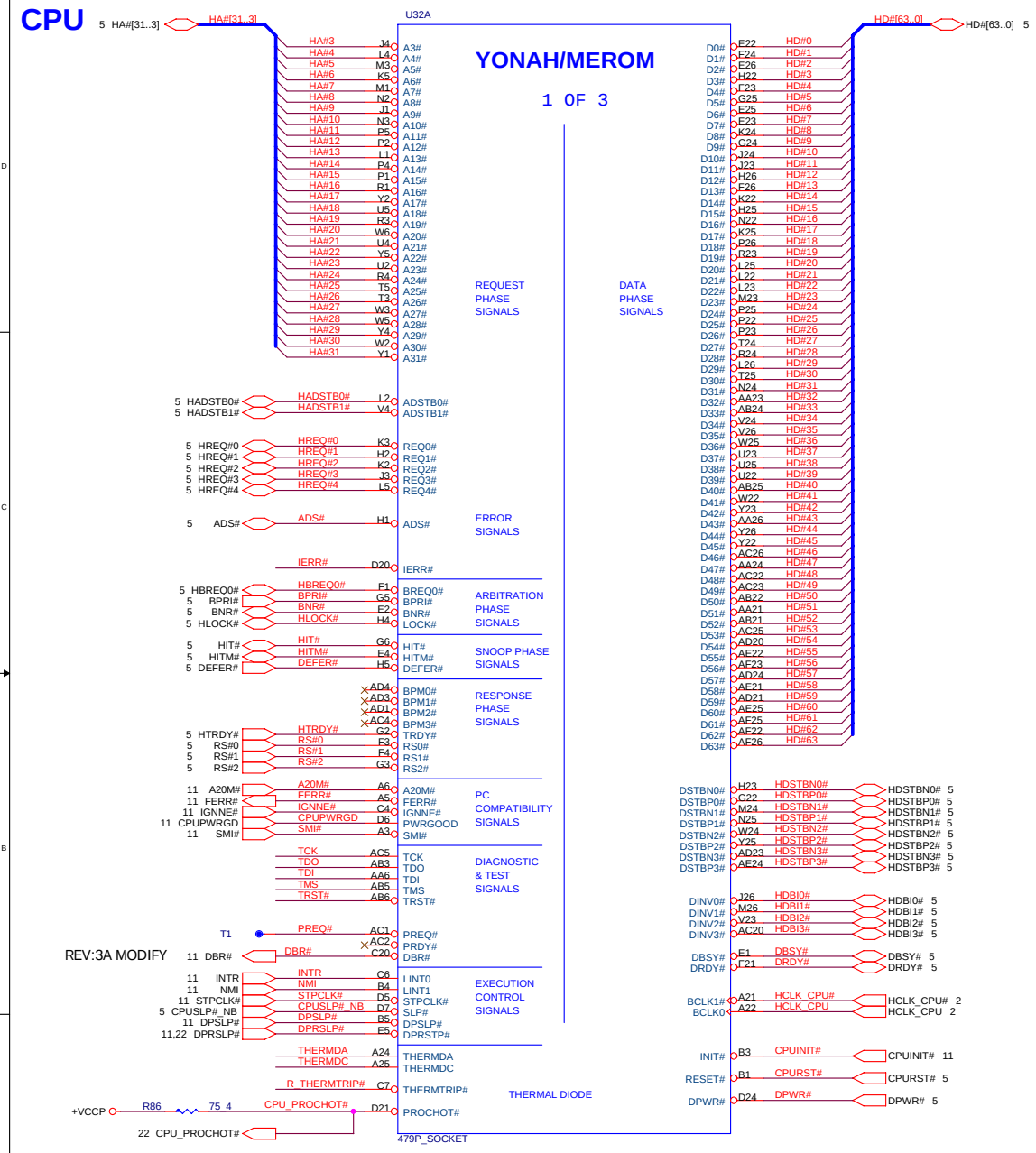
CFG[2,1,0]
001=PSB533
011=PSB667

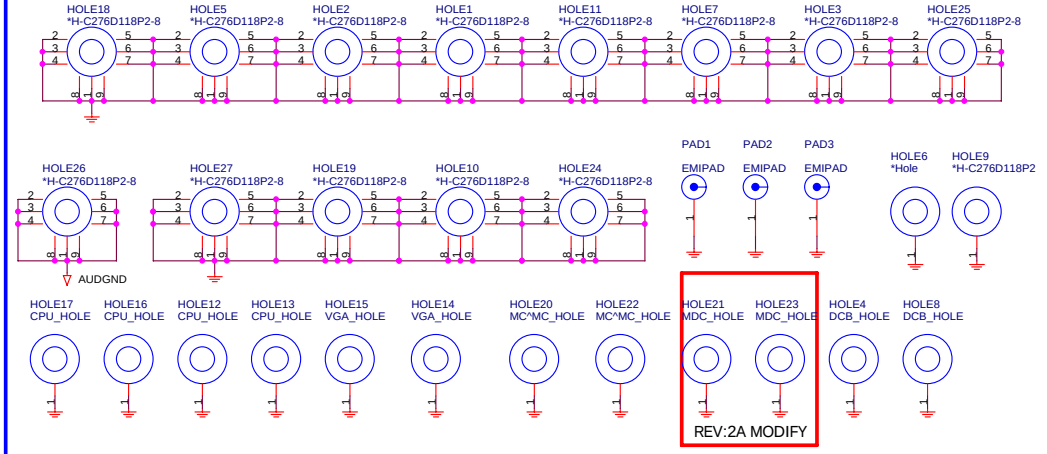
PROJECT : ZR1
Quanta Computer Inc.

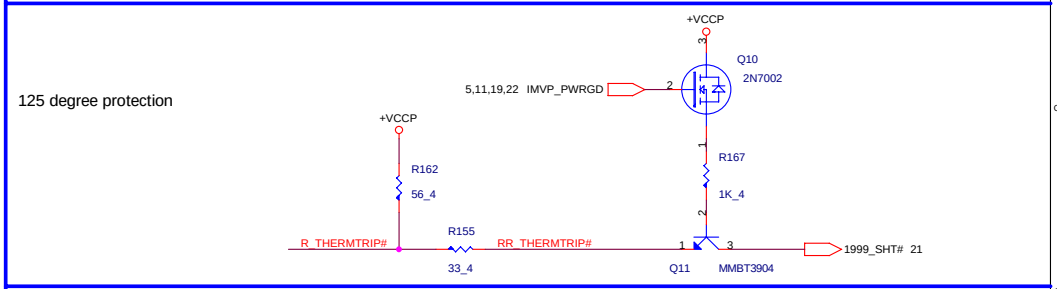
Size	Document Number	Rev
	CLOCK GENERATOR	3A

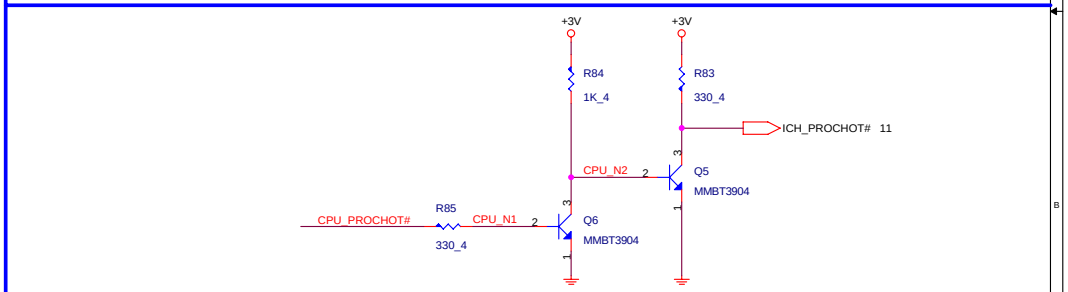
Date: Thursday, June 29, 2006 Sheet 2 of 29

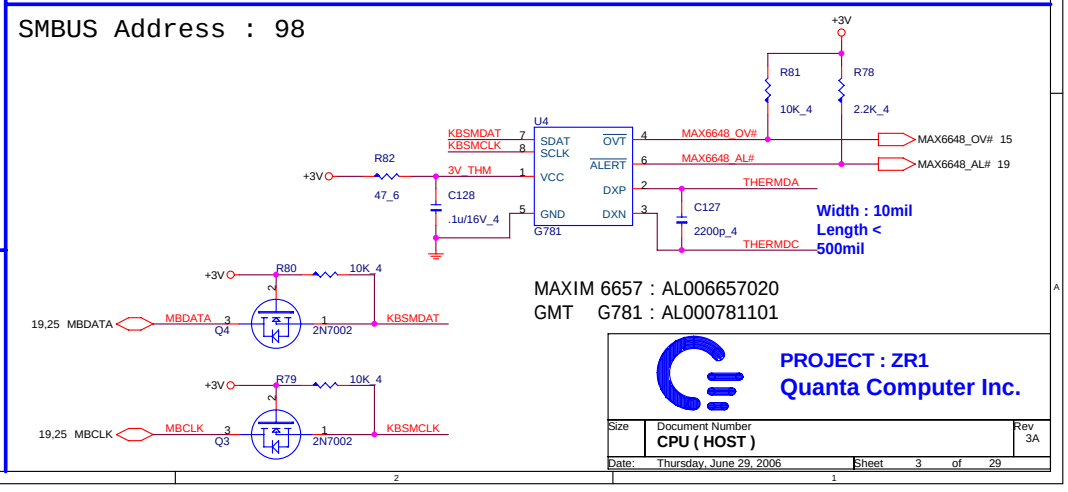
CPU

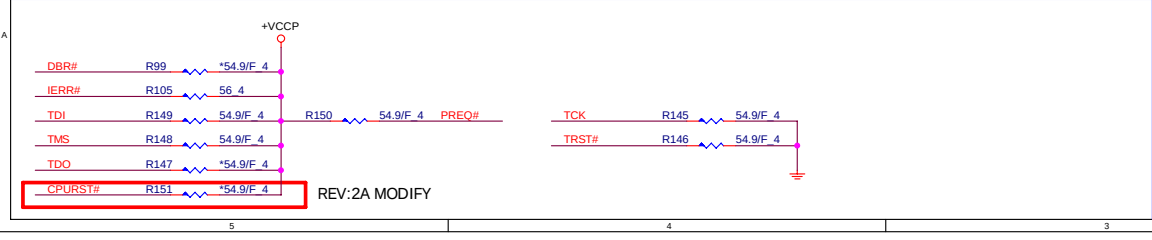










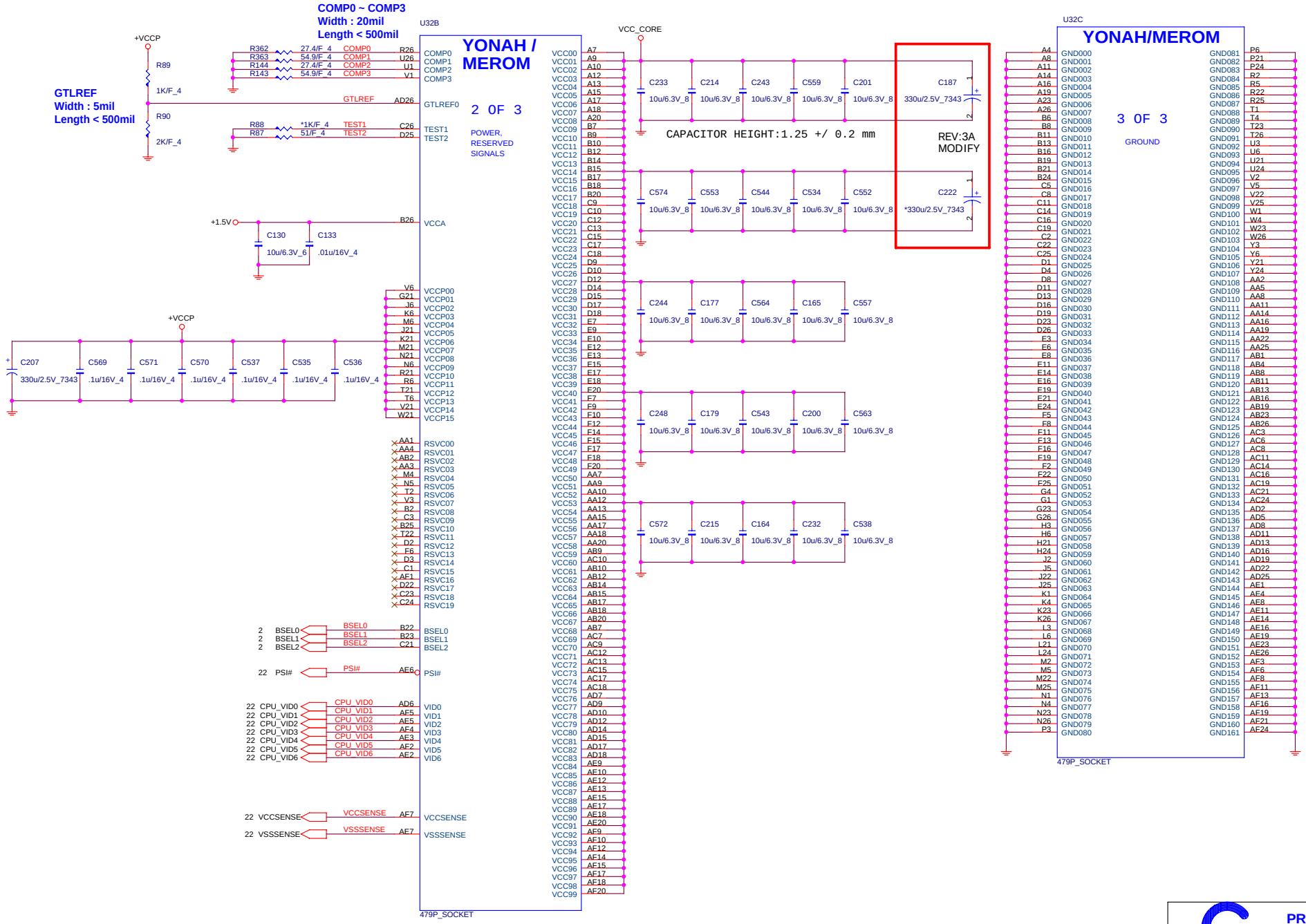


PROJECT : ZR1

Quanta Computer Inc.

Size	Document Number	Rev
	CPU (HOST)	3A
Date: Thursday, June 29, 2006	Sheet 3 of 29	

CPU



PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number	Rev
	CPU (POWER)	3A

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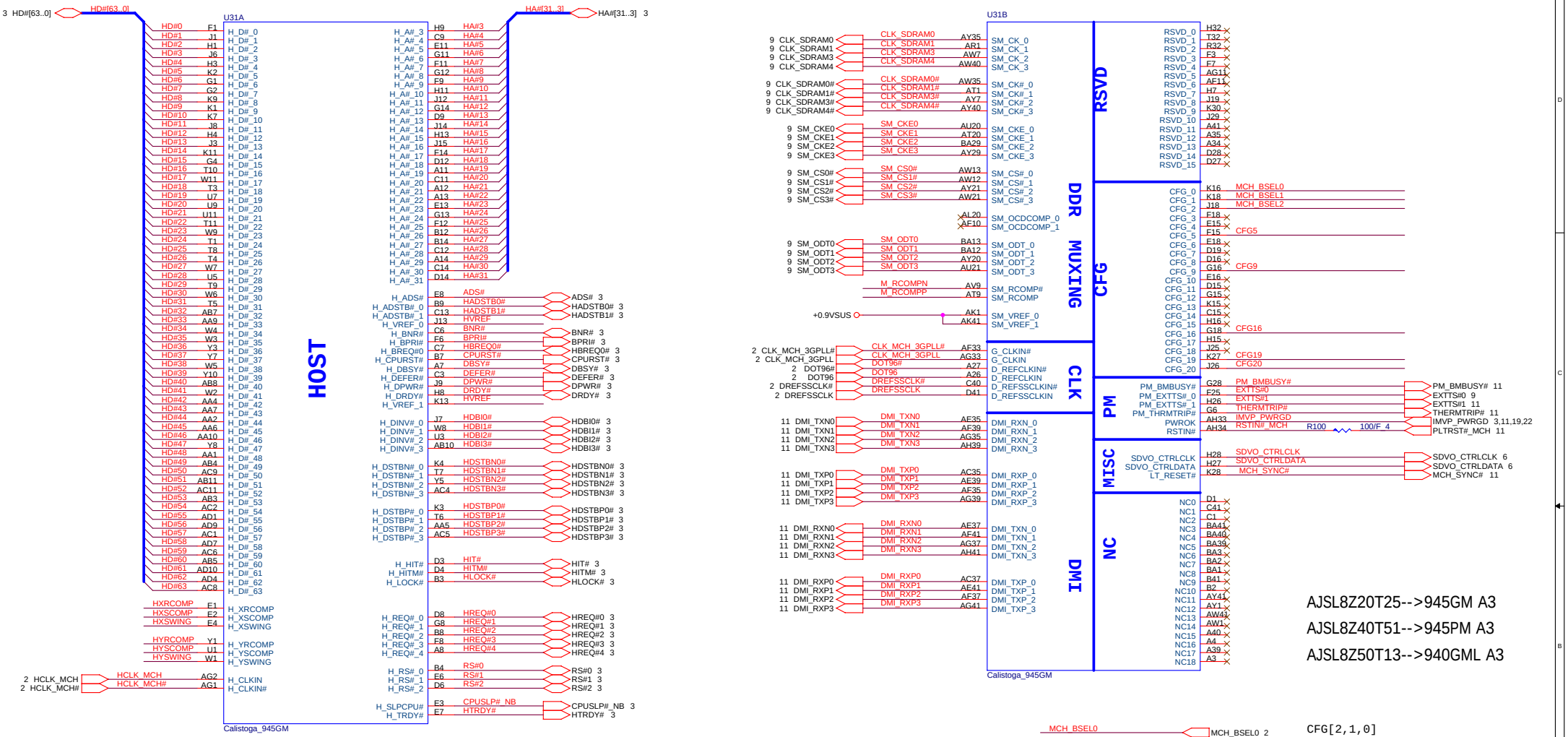
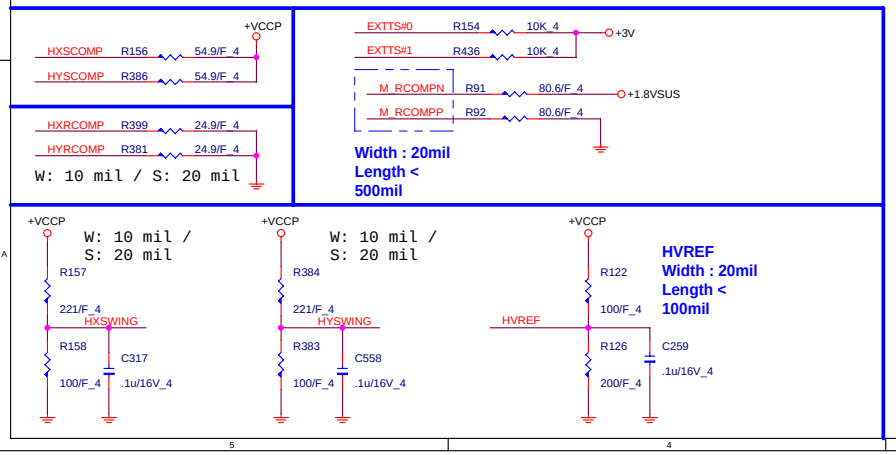
NB_945GM/PM/940GML



AJSL8Z20T25-->945GM A3

AJSL8Z40T51-->945PM A3

AJSL8Z50T13-->940GML A3



1.MCH_CFG_5 : Low = DMI X2, High=DMIX4

2.MCH_CFG_6 : Low = Moby Dick, High = Calistoga (Default)

3.MCH_CFG_7 : Low = RSVD, High = Mobile CPU

4.MCH_CFG_9 PCI Exp Graphics Lane: Low =Reverse lane ,High=Normal

5.MCH_CFG_10 Host PLL VCC Select: Low=Reserved, High=Mobility

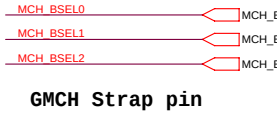
6.MCH_CFG_11: PSB 4x Enable : Low=Rsvd, High=Calistoga.

7.MCH_CFG_16 FSB Dynmic ODT: Low = Dynamic ODT Disabled,
High= Dynamic ODT Enabled.

8.MCH_CFG_18 VCC Select: LOW=1.05V, High=1.5V

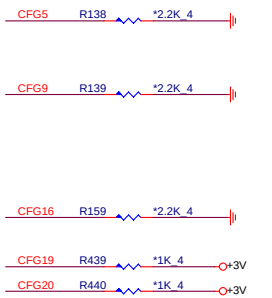
9.MCH_CFG_19 DMI LANE Reversal:Low=Normal,High=LANES Reversed.

10.MCH_CFG_20 PCIE Backward interpoerability mode: Low=
only SDVO or PCIE x1 is operational (defaults) ,
High=SDVO and PCIE x1 are operation
simultaneously via the PEG port.



CFG[2,1,0]
001=PSB533
011=PSB667

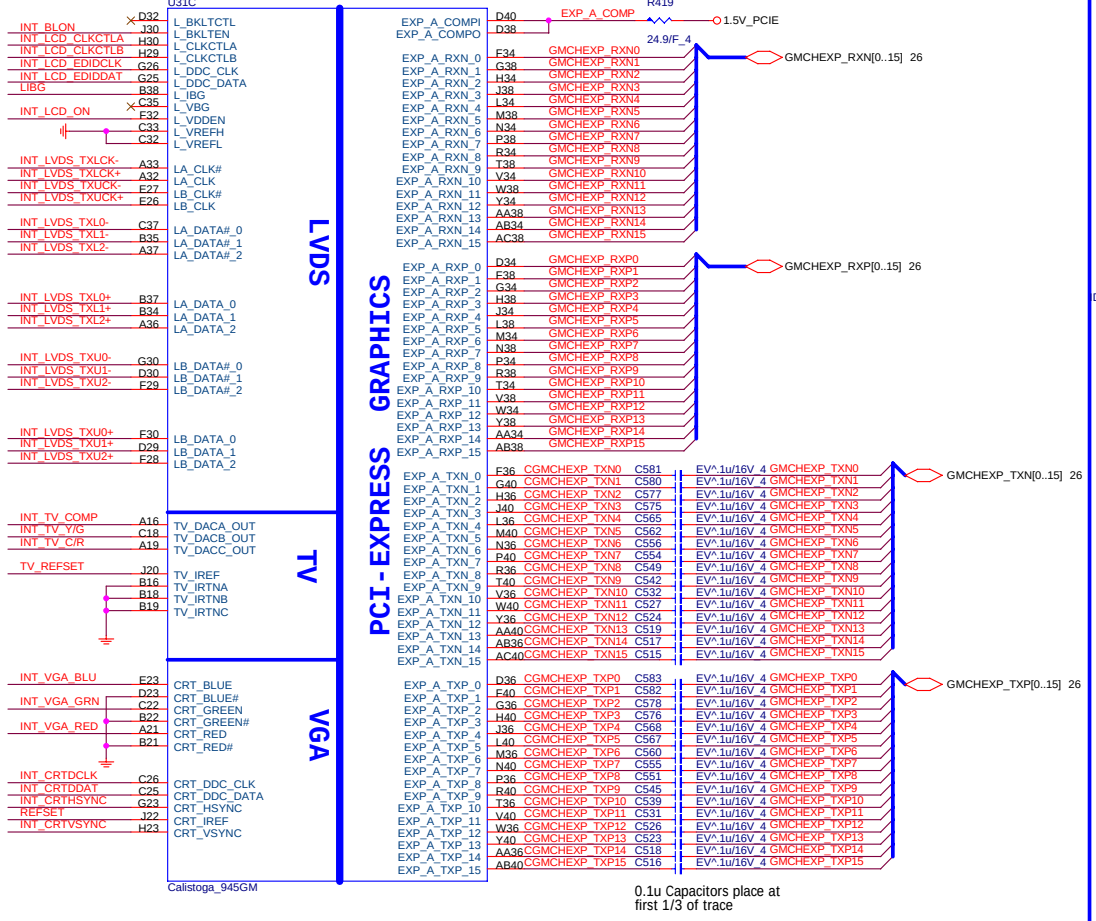
GMCH Strap pin



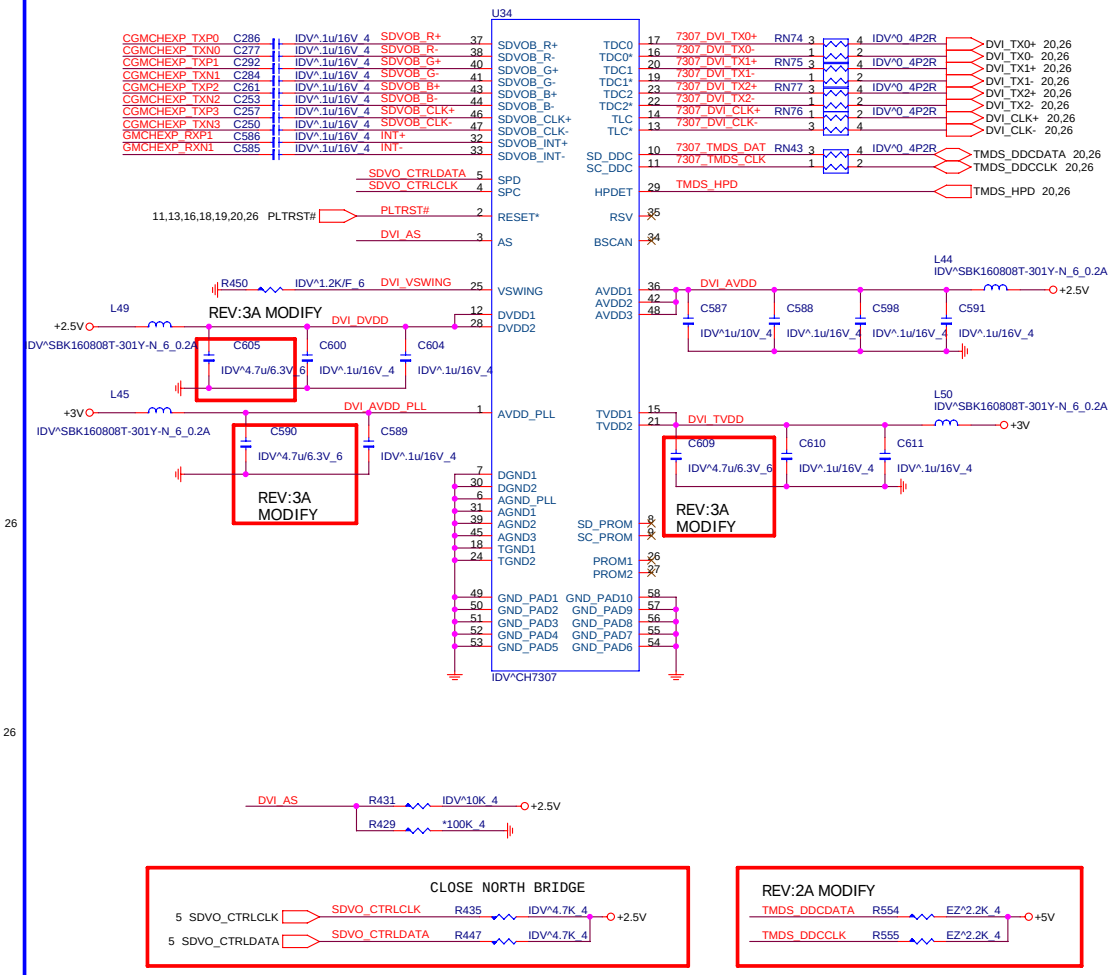
PROJECT : ZR1
Quanta Computer Inc.

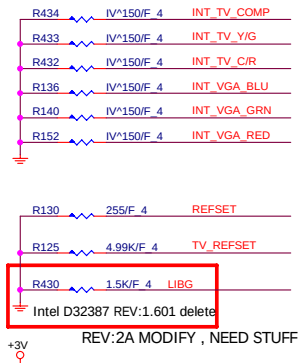
Size	Document Number	Rev
	GMCH (HOST / DMI)	1A
Date: Thursday, June 29, 2006	Sheet 5 of 29	

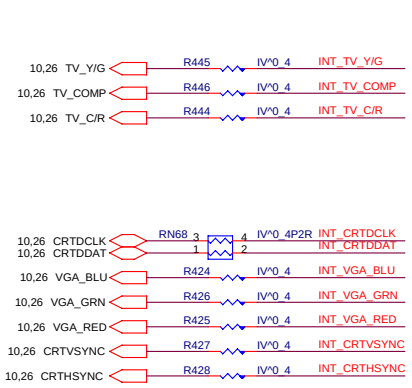
NB_945GM/PM/940GML

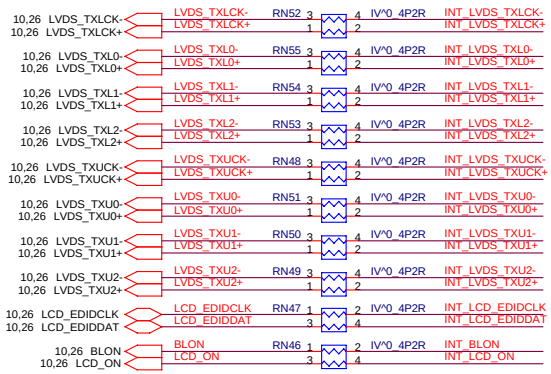


DVO_CH7307

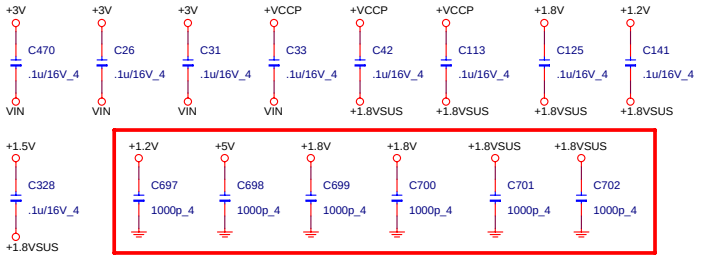


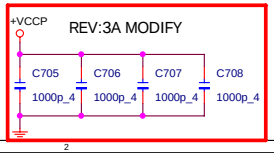


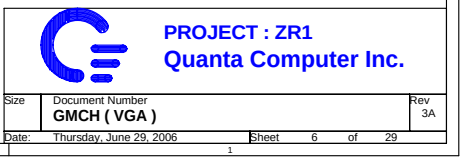




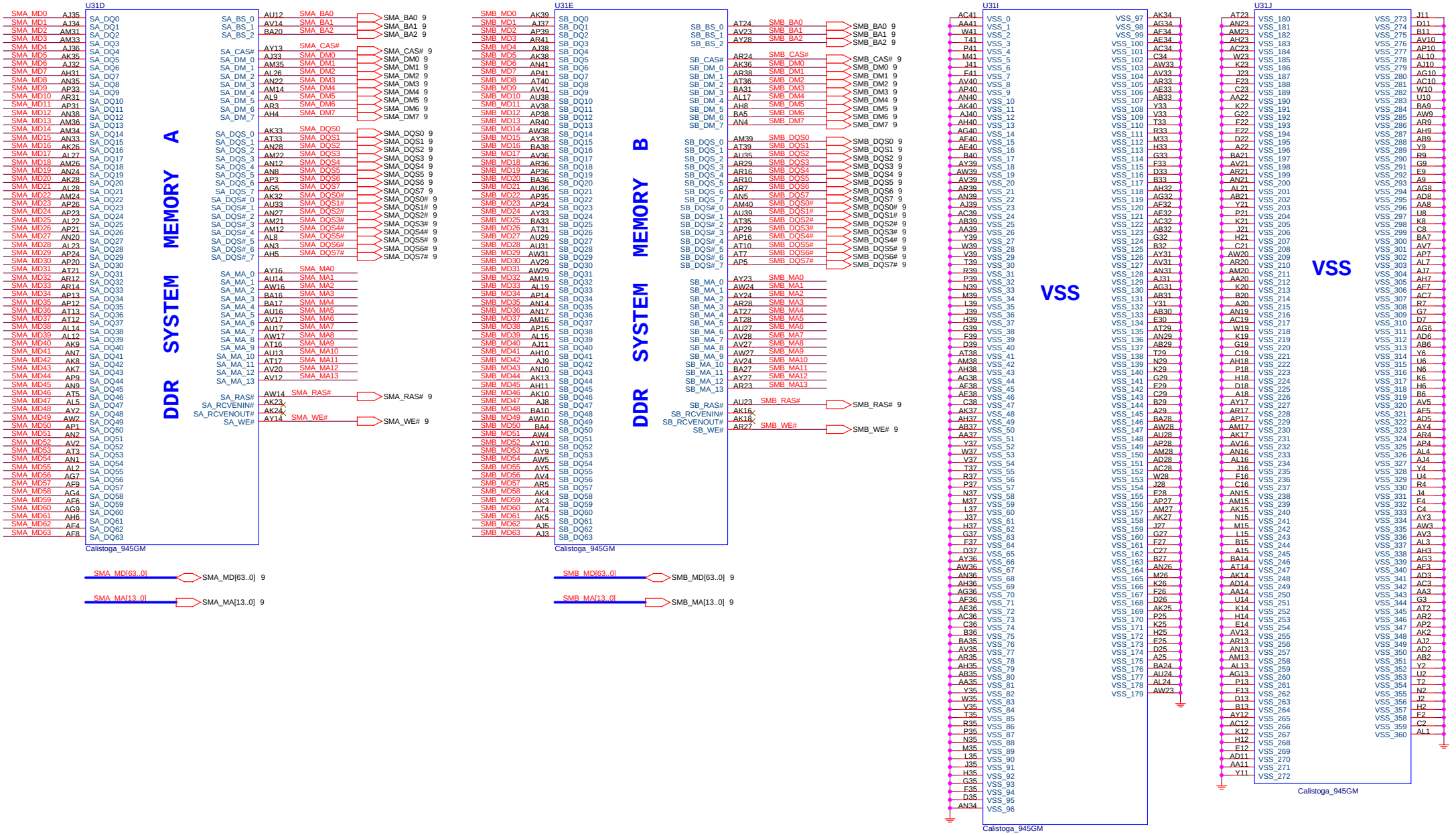
Signal Cross Moat







NB_945GM/PM/940GML

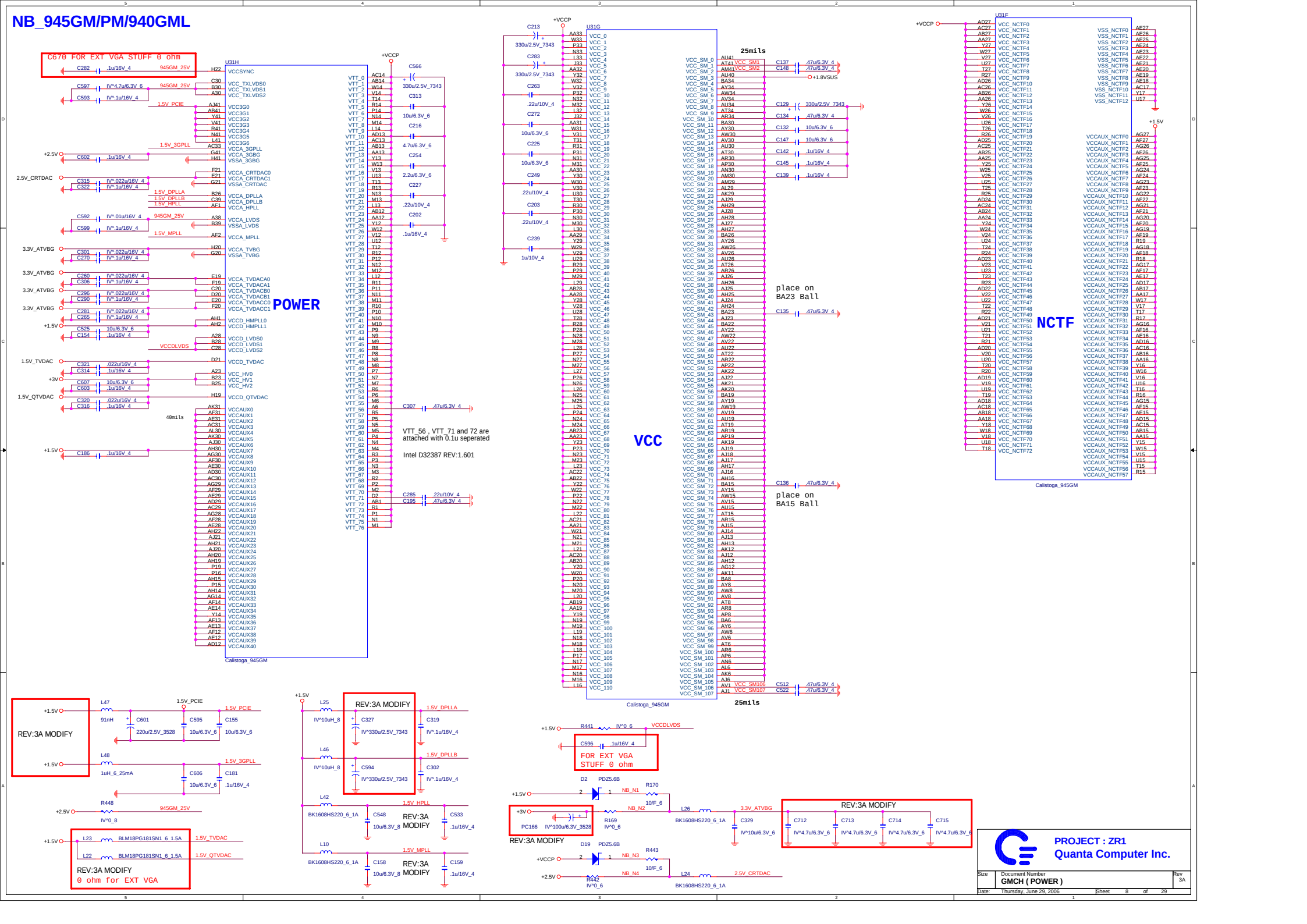


PROJECT : ZR1
Quanta Computer Inc.

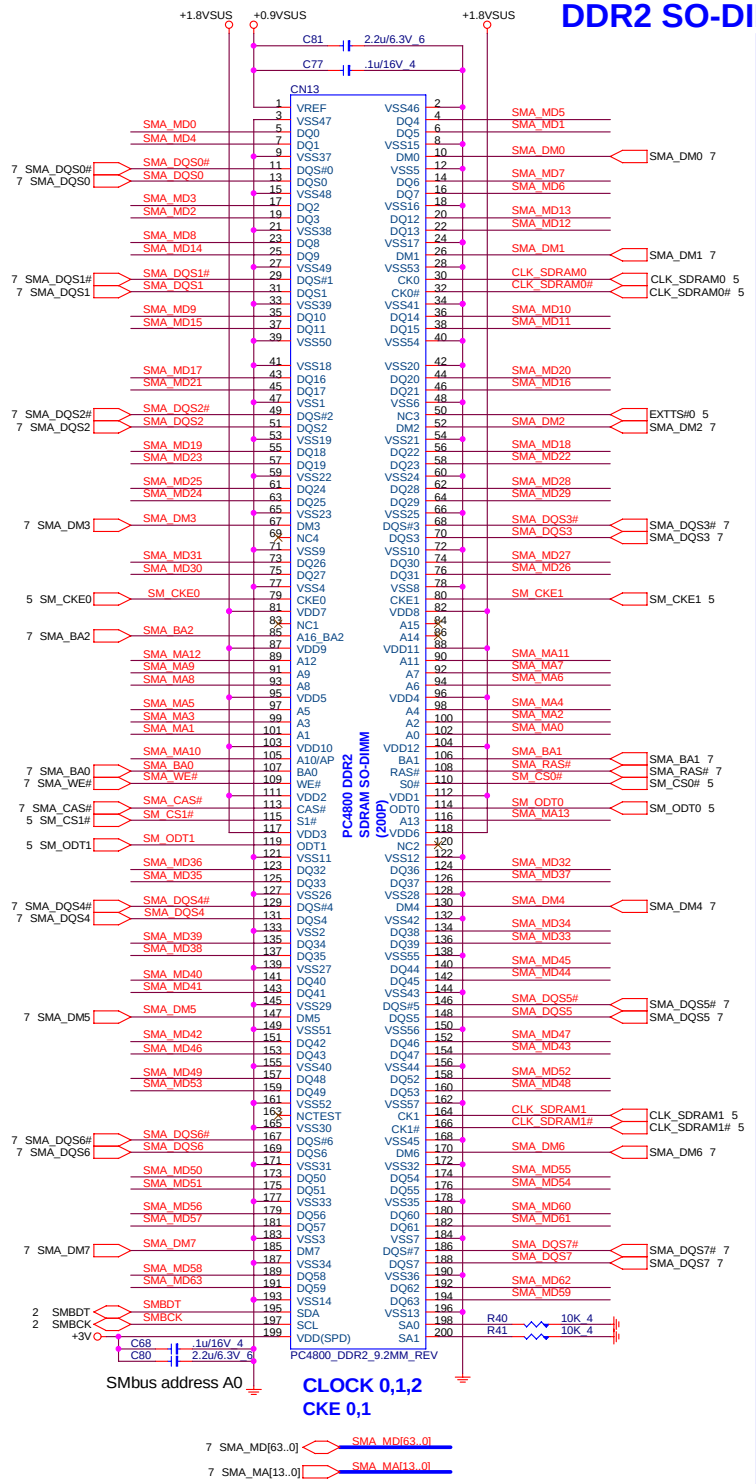
Size	Document Number	Rev
	GMCH (MEMORY)	1A

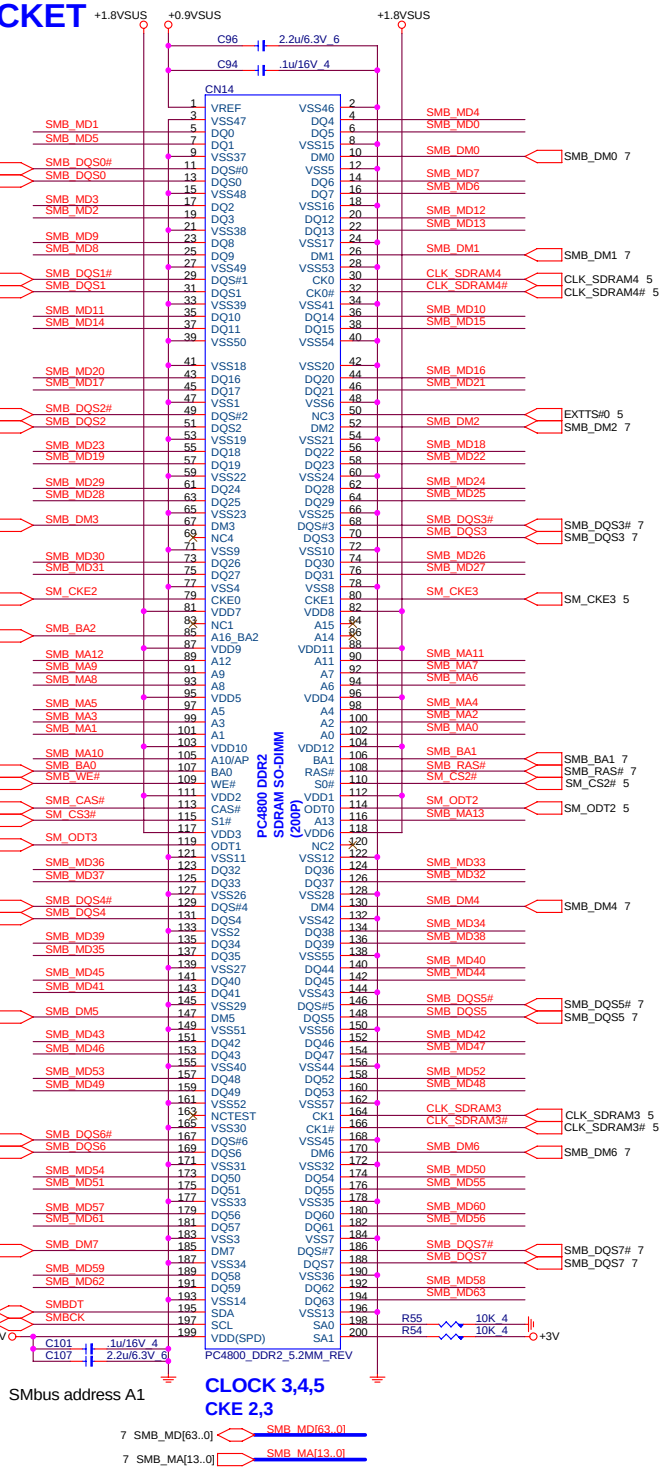
Date: Thursday, June 29, 2006 Sheet 7 of 29

NB_945GM/PM/940GML

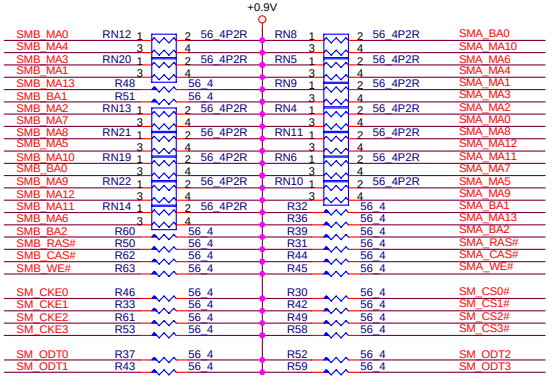


DDR2 SO-DIMM SOCKET

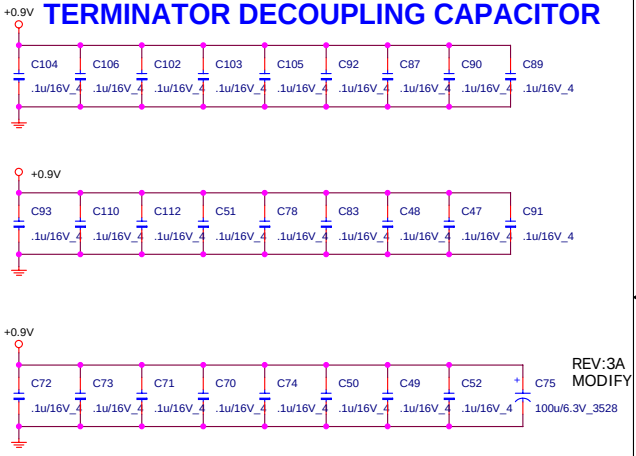




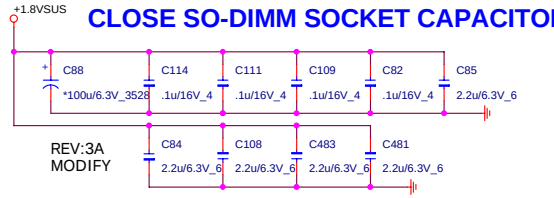
DDR2 TERMINATOR



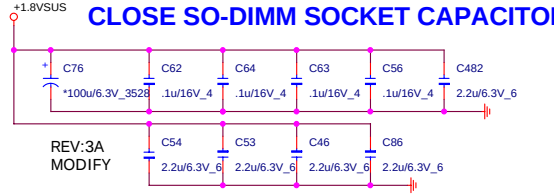
TERMINATOR DECOUPLING CAPACITOR



CLOSE SO-DIMM SOCKET CAPACITORS



CLOSE SO-DIMM SOCKET CAPACITORS

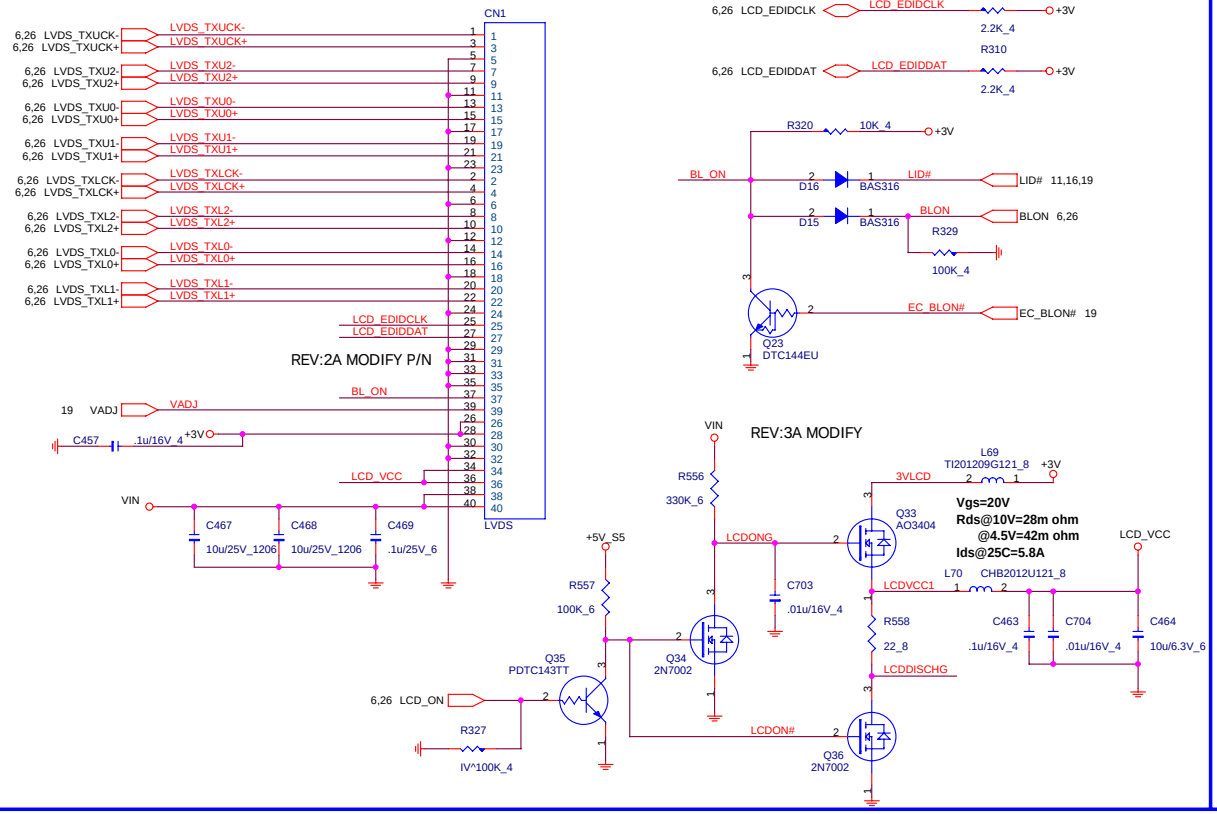


PROJECT : ZR1
Quanta Computer Inc.

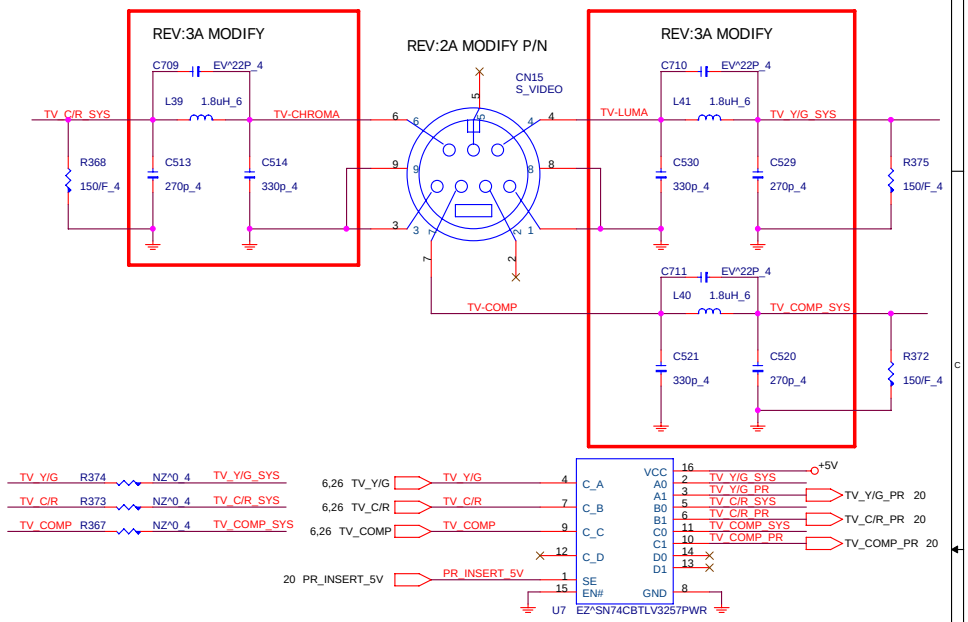
Size	Document Number	Rev
	DDR SO-DIMM(200P)	3A

Date: Thursday, June 29, 2006 Sheet 9 of 29

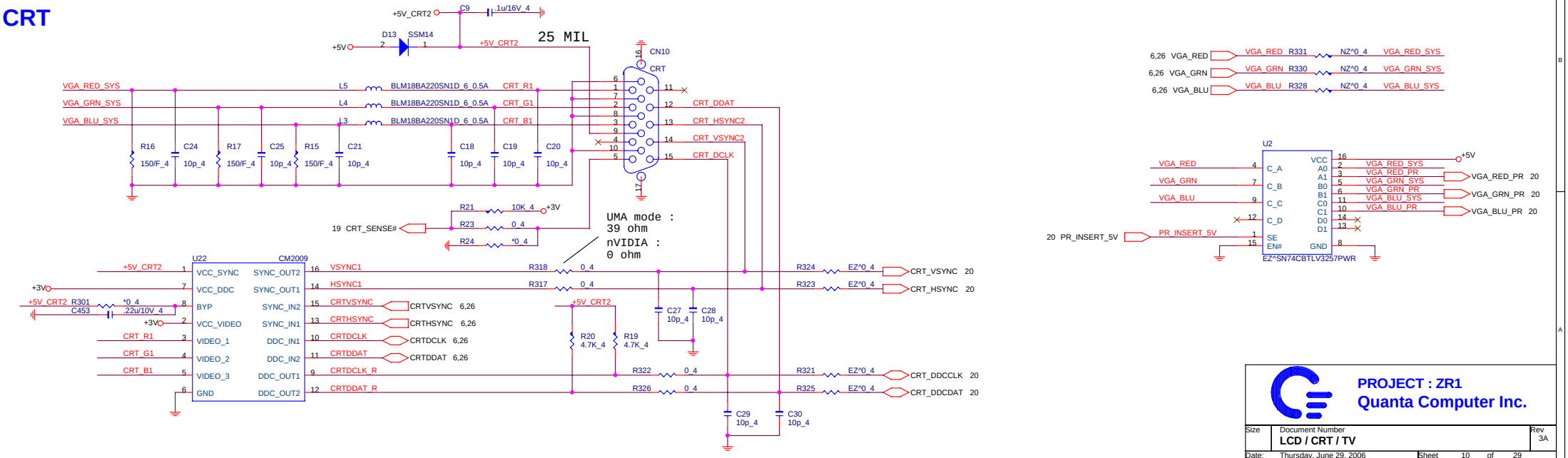
LVDS



S-VIDEO

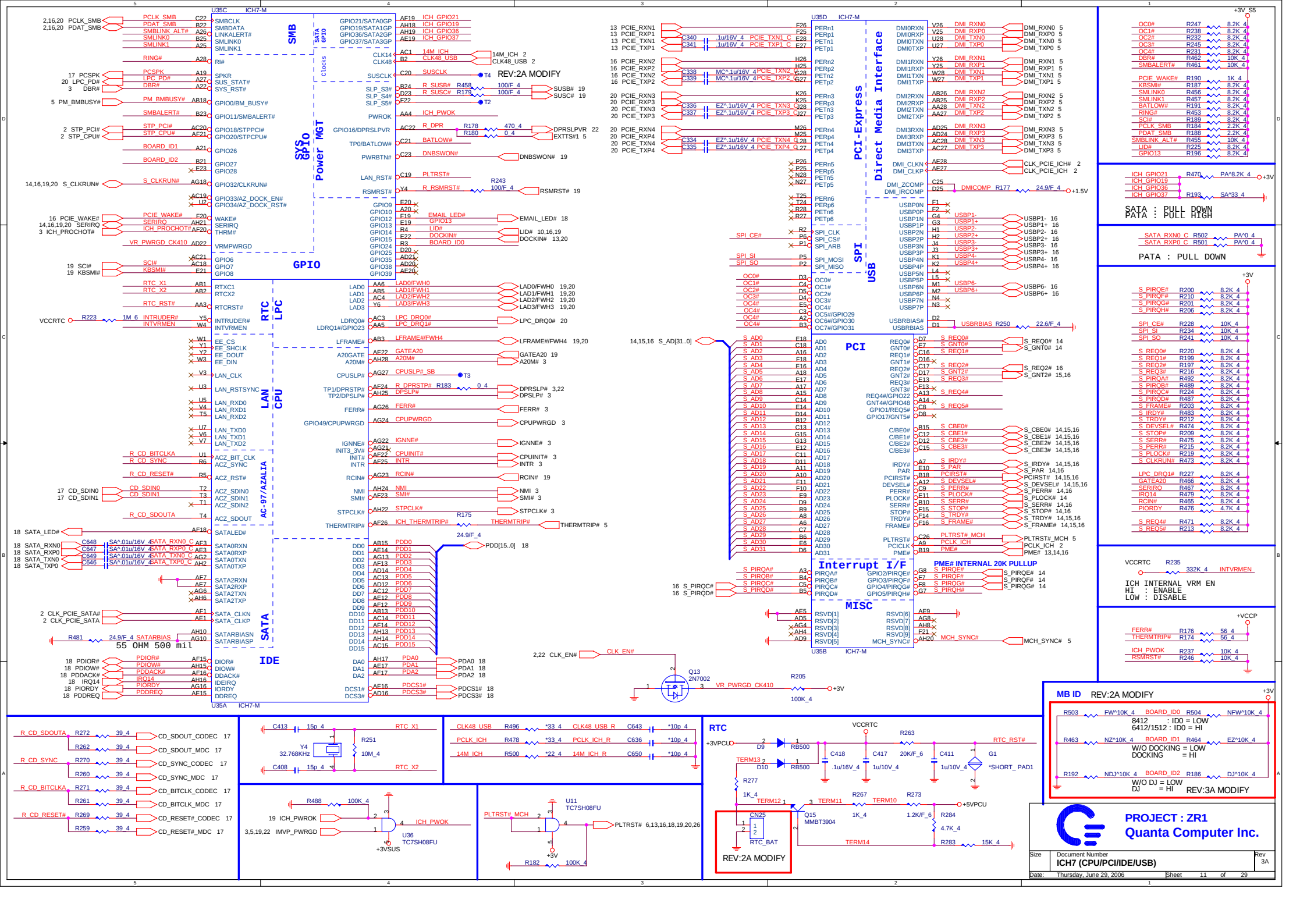


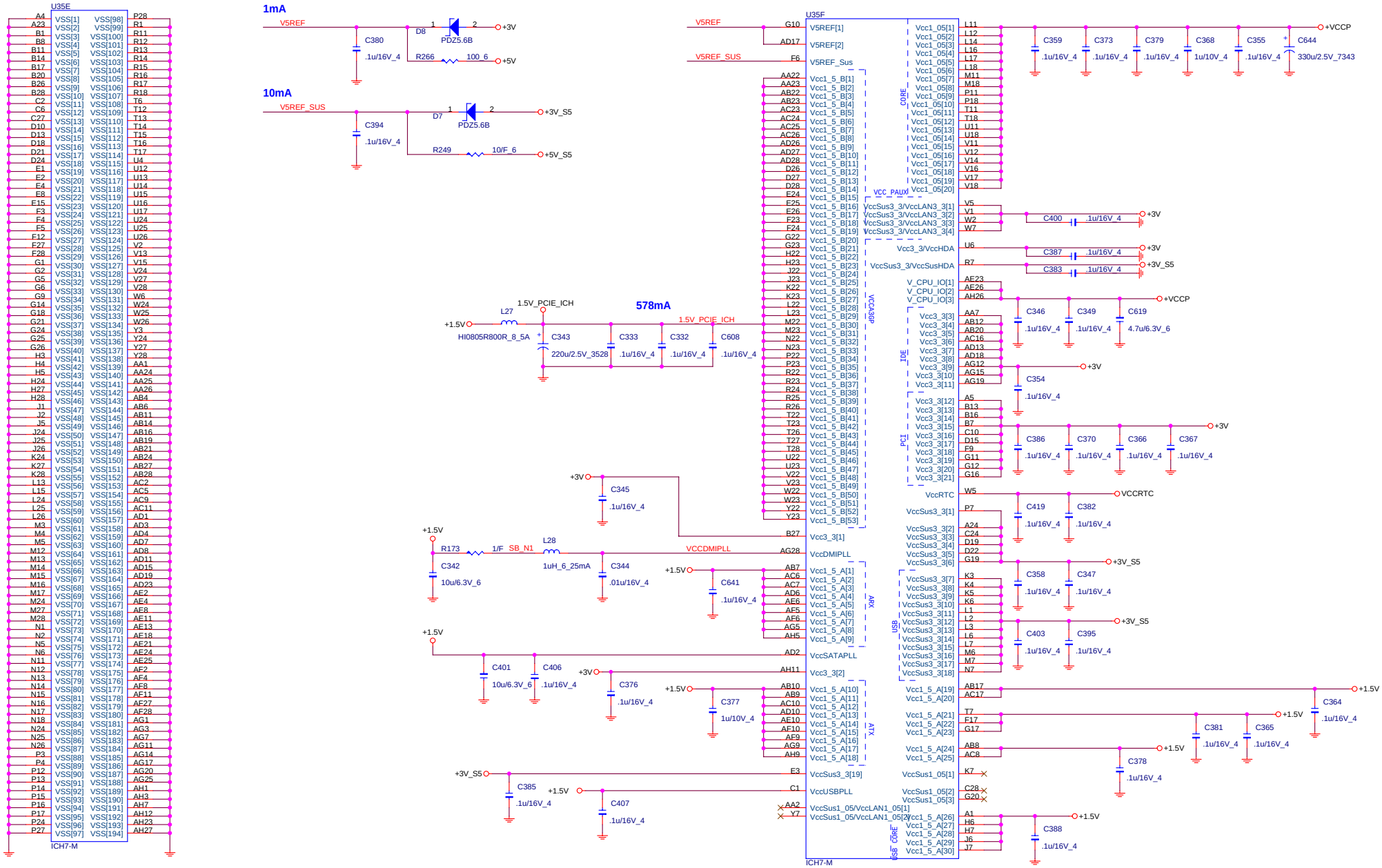
CRT



PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number	Rev
	LCD / CRT / TV	3A
Date: Thursday, June 29, 2006	Sheet 10 of 29	


U35C ICH7-M
SMB
SYS GPIO Power MGT
GPIO
RTC LPC
LAN CPU
AC-97/AZALIA
SATA
IDE
U35A ICH7-M
U35D ICH7-M
PCI-Express
Direct Media Interface
SPI
USB
PCI
Interrupt I/F
MISC
U35B ICH7-M
REV:2A MODIFY
55 OHM 500 mil
SATA : PULL DOWN
PATA : PULL HIGH
PATA : PULL DOWN
ICH INTERNAL VRM EN
HI : ENABLE
LOW : DISABLE
PME# INTERNAL 20K PULLUP
MB ID
8412 : ID0 = LOW
6412/1512 : ID0 = HI
W/O DOCKING = LOW
DOCKING = HI
W/O DJ = LOW
DJ = HI
REV:3A MODIFY
RTC
REV:2A MODIFY
PROJECT : ZR1
Quanta Computer Inc.
ICH7 (CPU/PCI/IDE/USB)
Thursday, June 29, 2006



PROJECT : ZR1
Quanta Computer Inc.

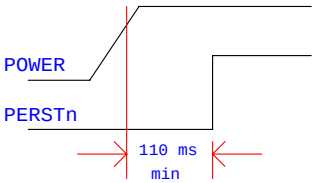
Size	Document Number	Rev
	ICH7 (POWER)	1A
Date: Thursday, June 29, 2006	Sheet 12 of 29	

LAN_88E8038/88E8055

10/100 : 88E8038 AJ080380000

GIGA : 88E8055 AJ080550011 A2

RESET TIMING



U27

88E805X

88E8038_55

FOR 8038 only

REV:2A MODIFY

4.87K for 8055

U1

EZ^MAX4892

SEL=0 A->B1 LED->LED1

SEL=1 A->B2 LED->LED2

U25

24LC08

Y1 25MHz

REV:3A MODIFY

25 mil Trace width

Q1 BCP69T1

Q2 BCP69T1

U21

TRANSFORMER

TERMINATION PLANE

CN8

FOXCONN_RJ45

PROJECT : ZR1

Quanta Computer Inc.

Size	Document Number	Rev
	LAN (MARVELL 8038/8055)	3A

Date: Thursday, June 29, 2006 Sheet 13 of 29

PCIXX12_PCMCIA

PCI8412 : AJ084120T08 PCMCIA / 1394 / 5 IN 1

PCI6412 : AL064120T04 PCMCIA / 5 IN 1

REQ0# AD25
GNT0# PIRQ(E,F,G)#

S_AD25 R255 150/F_4 PCM_IDSEL

11,15,16 S_AD[31..0] S_AD[31..0]

U14A PCIXX12

S_AD0 R11 AD0 … S_AD31 M1 AD31

S_CBE0# W10 C/BE0 … S_CBE3# P2 C/BE3

S_PAR U7 PAR
S_DEVSEL# U6 DEVSEL
S_FRAME# R6 FRAME
S_GNT0# L2 GNT
PCM_IDSEL N5 IDSEL
S_IRDY# V5 IRDY
S_PERR# R7 PERR
S_REQ0# L3 REQ
S_SERR# W6 SERR
S_STOP# V6 STOP
S_TRDY# W5 TRDY

CLK48 F1 — REV:3A MODIFY — CLK48_PCM 2
GRST K5 GRST# 8402
SUSPEND J5 8402_SUS# R490 10K_4 +3V

MFUNC0 G1 S_PIRQE# → S_PIRQE# 11
MFUNC1 H5 S_PIRQF# → S_PIRQF# 11
MFUNC2 H2 S_PIRQG# → S_PIRQG# 11
MFUNC3 H1 SERIRQ → SERIRQ 11,16,19,20
MFUNC4 J1 S_PLOCK# → S_PLOCK# 11
MFUNC5 J2
MFUNC6 J3 → S_CLKRUN# 11,16,19,20

PCLK L1 PCLK_PCM → PCLK_PCM 2
PRST K3 PCIRST# → PCIRST# 11,15,16
SPKROUT H3 PCMSPK → PCMSPK 17
RI_OUT/PME L5 — REV:3A MODIFY → PME# 11,13,16

SDA G3 SDA_CARD
SCL G2 SCL_CARD
LATCH C9 TPS_LATCH
DATA B9 TPS_DATA
CLOCK A9 TPS_CLK
USB_EN E10

PHY_TEST_MA P17 TEST_MA R468 4.7K_4 1394_AVDD
TEST0 P12
C4 PSMODE R233 10K_4 +3V
RSVD // VD0 // VCCD1# R5
NC

PCLK_PCM R254 *22_4 PCLK_PCM_R C416 *10p_4
CLK48_PCM R253 *22_4 CLK48_PCM_R C415 *10p_4

U14B PCMCIA PORT PCIXX12

A_VCC — C375 .1u/16V_4 — C356 .01u/16V_4
VCCB A15
VCCB J19

CAD31 // D10 C10 A_CAD31
CAD30 // D9 A10 A_CAD30
CAD29 // D1 F11 A_CAD29
CAD28 // D8 E11 A_CAD28
CAD27 // D0 C11 A_CAD27
CAD26 // A0 B13 A_CAD26
CAD25 // A1 C13 A_CAD25
CAD24 // A2 A14 A_CAD24
CAD23 // A3 B14 A_CAD23
CAD22 // A4 B15 A_CAD22
CAD21 // A5 E14 A_CAD21
CAD20 // A6 A16 A_CAD20
CAD19 // A25 D19 A_CAD19
CAD18 // A7 E17 A_CAD18
CAD17 // A24 F15 A_CAD17
CAD16 // A17 H19 A_CAD16
CAD15 // IOWR# J17 A_CAD15
CAD14 // A9 J15 A_CAD14
CAD13 // IORD# J18 A_CAD13
CAD12 // A11 K15 A_CAD12
CAD11 // OE# K17 A_CAD11
CAD10 // CE2# K18 A_CAD10
CAD9 // A10 L15 A_CAD9
CAD8 // D15 L18 A_CAD8
CAD7 // D7 L19 A_CAD7
CAD6 // D13 M17 A_CAD6
CAD5 // D6 M18 A_CAD5
CAD4 // D12 N19 A_CAD4
CAD3 // D5 M15 A_CAD3
CAD2 // D11 N17 A_CAD2
CAD1 // D4 N18 A_CAD1
CAD0 // D3 P19 A_CAD0

CC/BE3# // REG# E13 A_CC/BE3#
CC/BE2# // A12 E18 A_CC/BE2#
CC/BE1# // A8 H18 A_CC/BE1#
CC/BE0# // CE1# L17 A_CC/BE0#

CPAR // A13 H14 A_CPAR
CDEVSEL# // A21 F19 A_CDEVSEL#
CFRAME# // A23 E19 A_CFRAME#
CGNT# // WE# G17 A_CGNT#
CINT# // READY(IREQ#) E12 A_CINT#
CIRDY# // A15 F17 A_CIRDY#
CPERR# // A14 G19 A_CPERR#
CREQ# // INPACK# C14 A_CREQ#
CSERR# // WAIT# C12 A_CSERR#
CSTOP# // A20 G18 A_CSTOP#
CTRDY# // A22 G15 A_CTRDY#

CCLK // A16 F18 R_A_CCLK
CCLKRUN# // WP(IOIS16#) A11 A_CCLKRUN#
CSTSCHG // BVD1(STSCHG#/RI#) A12 A_CSTSCHG
CBLOCK# // A19 H15 A_CBLOCK#
CRST# // RESET C15 A_CRST#
CAUDIO // BVD2(SPKR#) B12 A_CAUDIO

CCD1# // CD1# N15 A_CCD1#
CCD2# // CD2# B11 A_CCD2#
CVS1 // VS1# A13 A_CVS1#
CVS2 // VS2# B16 A_CVS2#

RSVD // A18 H17 A_CRSVD/A18
RSVD // D2 B10 A_CRSVD/D2
RSVD // D14 M19 A_CRSVD/D14

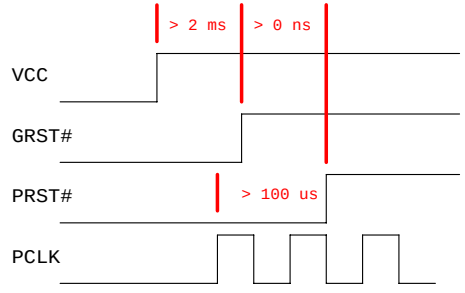
R_A_CCLK R244 33_4 A_CCLK

CN23 PCMCIA_SOCKET

A_CAD0	1	GND1	SKTA/VCC1 17 — A_VCC
A_CAD1	2	SKTAAD0/D3	SKTA/VCC2 51
A_CAD3	3	SKTAAD1/D4	
A_CAD5	4	SKTAD3/D5	SKTA/VPP1 18 — AVPP
A_CAD7	5	SKTAD5/D6	SKTA/VPP2 52
A_CC/BE0#	6	SKTAAD7/D7	
A_CAD9	7	-SKTACBE0/CE1#	
A_CAD11	8	SKTAAD9/A10	
A_CAD12	9	SKTAAD11/OE#	GND5 69
A_CAD14	10	SKTAAD12/A11	GND6 70
A_CC/BE1#	11	SKTAAD14/A9	GND7 71
A_CPAR	12	-SKTACBE1/A8	GND8 72
A_CPERR#	13	SKTAPAR/A13	GND9 73
A_CGNT#	14	-SKTAPERR/A14	GND10 74
A_CINT#	15	-SKTAGNT/WE#	
	16	-SKTAINT/RDY	
		UPPER PIN	
A_CCLK	19	SKTAPCLK/A16	
A_CIRDY#	20	-SKTAIRDY/A15	
A_CC/BE2#	21	-SKTACBE2/A12	
A_CAD18	22	SKTAAD18/A7	
A_CAD20	23	SKTAAD20/A6	
A_CAD21	24	SKTAAD21/A5	
A_CAD22	25	SKTAAD22/A4	
A_CAD23	26	SKTAAD23/A3	
A_CAD24	27	SKTAAD24/A2	
A_CAD25	28	SKTAAD25/A1	
A_CAD26	29	SKTAAD26/A0	
A_CAD27	30	SKTAAD27/D0	
A_CAD29	31	SKTAAD29/D1	
A_CRSVD/D2	32	SKTARSVD/D2	
A_CCLKRUN#	33	-SKTACLKRUN/WP	
	34	GND2	
	35	GND3	
A_CCD1#	36	-SKTACD1/CD1#	
A_CAD2	37	SKTAAD2/D11	
A_CAD4	38	SKTAD4/D12	
A_CAD6	39	SKTAAD6/D13	
A_CRSVD/D14	40	SKTARSVD/D14	
A_CAD8	41	SKTAAD8/D15	
A_CAD10	42	SKTAAD10/CE2#	
A_CVS1#	43	-SKTAVS1/VS1#	
A_CAD13	44	SKTAAD13/IORD#	
A_CAD15	45	SKTAAD15/IOWR#	
A_CAD16	46	SKTAAD16/A17	
A_CRSVD/A18	47	-SKTRSVD/A18	
A_CBLOCK#	48	-SKTALOCK/A19	
A_CSTOP#	49	-SKTASTOP/A20	
A_CDEVSEL#	50	-SKTADEVSEL/A21	
		LOWER PIN	
A_CTRDY#	53	-SKTATRDY/A22	
A_CFRAME#	54	-SKTAFRAME/A23	
A_CAD17	55	SKTAAD17/A24	
A_CAD19	56	SKTAAD19/A25	
A_CVS2#	57	-SKTAVS2VS2#	
A_CRST#	58	-SKTARST/RESET	
A_CSERR#	59	0SKTASERR/WAIT#	
A_CREQ#	60	-SKTAREQ/INPACK#	
A_CC/BE3#	61	-SKTACBE3/REG#	
A_CAUDIO	62	SKTAAUDIO/BVD2	
A_CSTSCHG	63	-SKTASTSCHG/BVD1	
A_CAD28	64	SKTAAD28/D8	
A_CAD30	65	SKTAAD30/D9	
A_CAD31	66	SKTAAD31/D10	
A_CCD2#	67	-SKTACD2/CD2#	
	68	GND4	

+3V
R265 FW^2.2K_4 R252 FW^2.2K_4
R274 NFW^2.2K_4 R258 NFW^2.2K_4
SDA_CARD SCL_CARD
U16 SDA SCL WP GND VCC A0 A1 A2 FW^24LC08
C422 FW^.1u/16V_4

+3V R482 22K_4 GRST#_8402 C639 .22u/10V_4

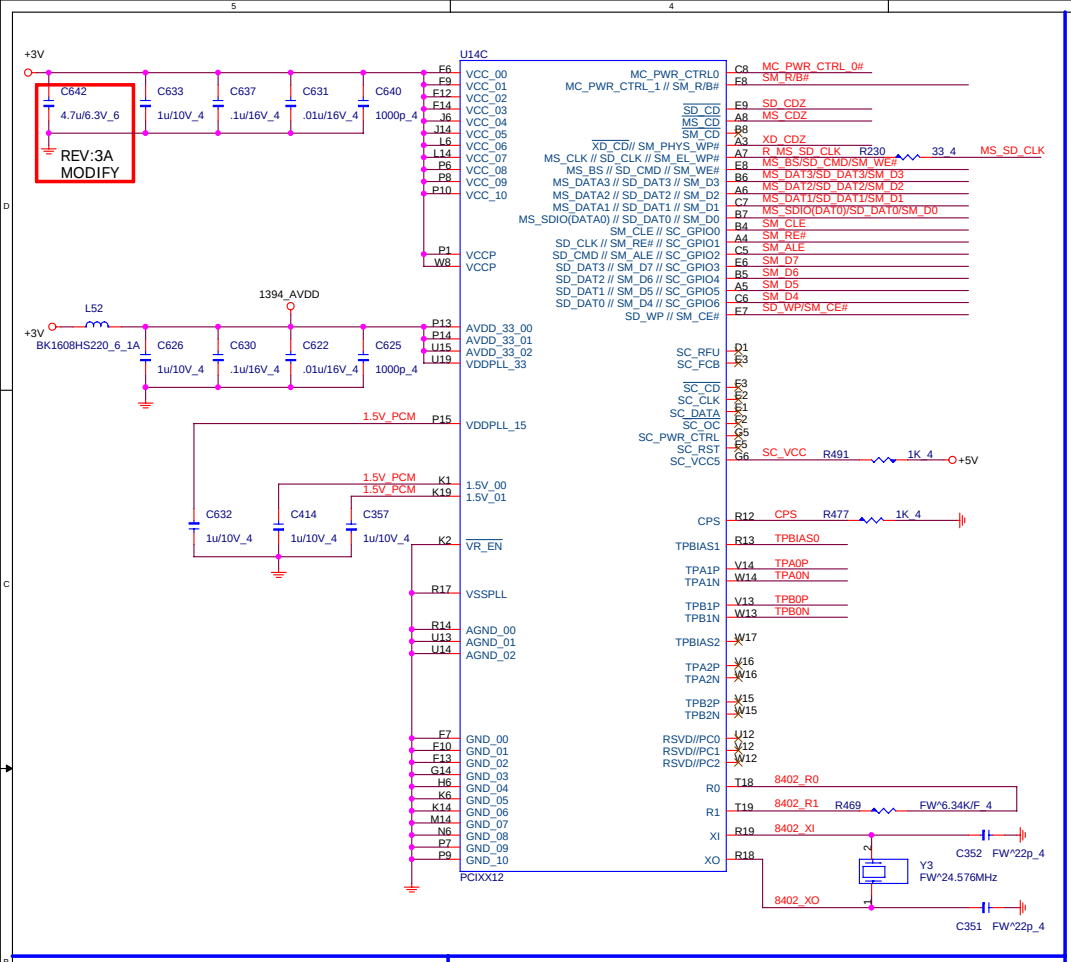


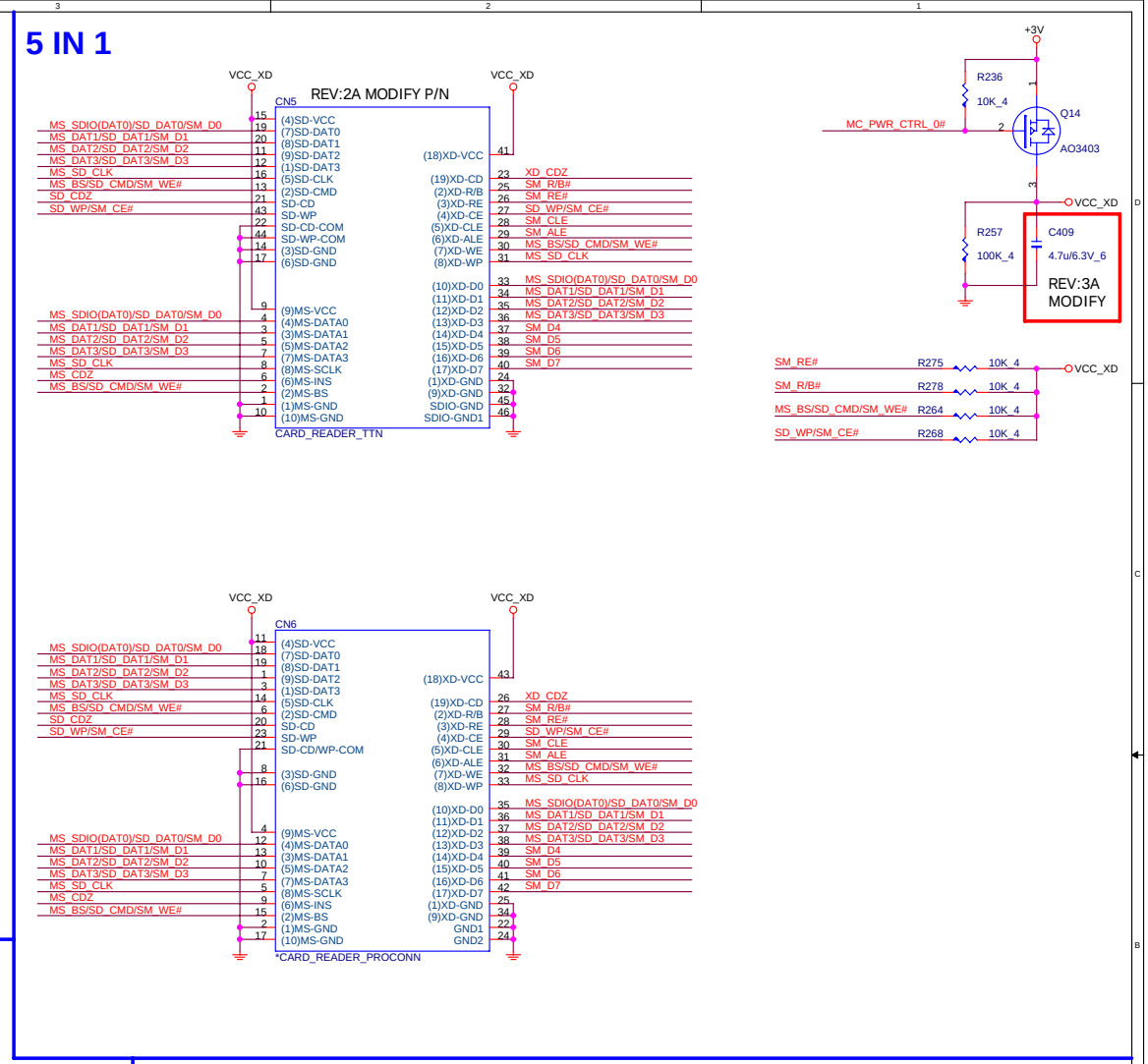
REV:3A MODIFY

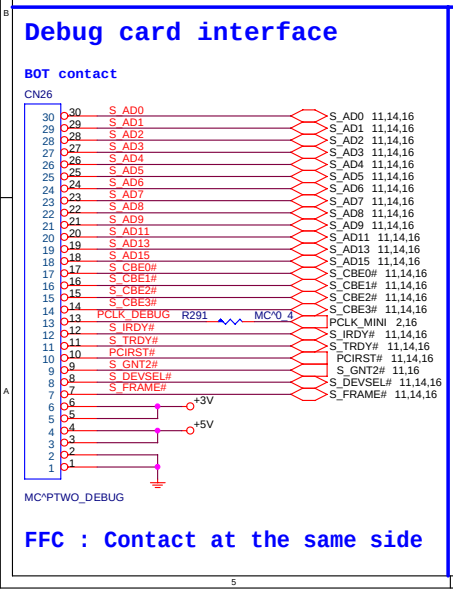
U15 TPS2220A
TPS_DATA TPS_CLK TPS_LATCH PCIRST#
DATA CLOCK LATCH RESET# SHDN# OC# AVPP AVCC1 AVCC0 BVPP BVCC1 BVCC0
5V_0 5V_1 5V_2 3.3VIN0 3.3VIN1 12V_0 12V_1 BODY NC_0 NC_1 NC_2 NC_3 GND
+5V +3V
AVPP C405 4.7u/6.3V_6 C402 .1u/16V_4
A_VCC C390 4.7u/6.3V_6 C392 .1u/16V_4
C412 4.7u/6.3V_6 C410 .1u/16V_4
C391 4.7u/6.3V_6 C389 .1u/16V_4

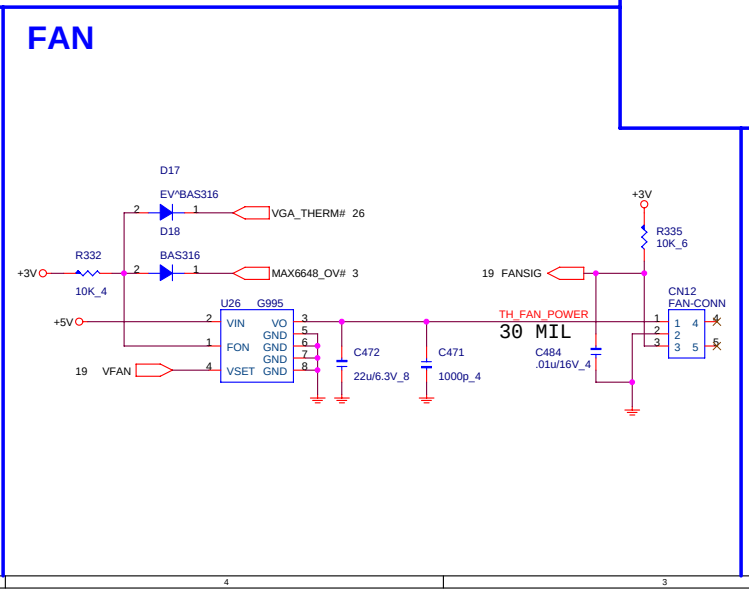
PROJECT : ZR1
Quanta Computer Inc.

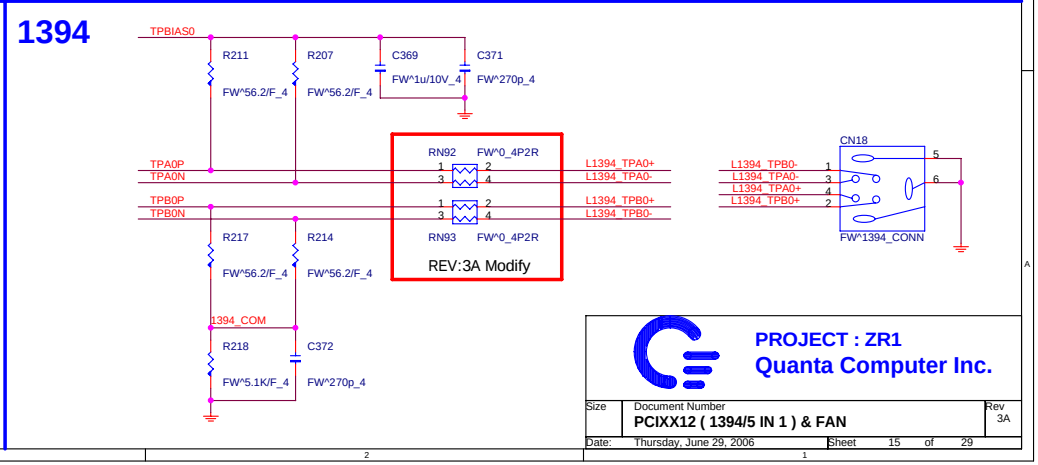
Size	Document Number	Rev
	PCIXX12 (PCMCIA)	3A
Date: Thursday, June 29, 2006	Sheet 14 of 29	











PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number	Rev
	PCIXX12 (1394/5 IN 1) & FAN	3A
Date: Thursday, June 29, 2006	Sheet 15 of 29	

MINI-PCI

REQ2# AD19
GNT2# PIRQ(C,D)#

S_AD19 R282 MP^150/F_4 MINI_IDSEL

PCLK_MINI R286 *22_4 C435 *22p_4

S_AD[31..0] S_AD[31..0] 11,14,15

CN27 MP^PTWO_MINIPCI_H6.8

D11 BAS316

18 RF_LED
19 RF_ENABLE
RF_EN_R
11 S_PIRQD#
2,15 PCLK_MINI
11 S_REQ2#
11,14,15 S_CBE3#
11,14,15 S_CBE2#
11,14,15 S_IRDY#
11,14,19,20 S_CLKRUN#
11,14 S_SERR#
11,14 S_PERR#
11,14,15 S_CBE1#

TIP LAN1 LAN3 LAN5 LAN7 LED_GP LED_GN NC1 -INTB +3V R(IRQ3) GND PCICLK GND -REQ +3V AD31 AD29 GND AD27 AD25 (V) -CBE3 AD23 GND AD21 AD19 GND AD17 -CBE2 -IRDY +3V -CLKRUN -SERR GND -PERR -CBE1 AD14 GND AD12 AD10 GND AD8 AD7 +3V AD5 (V) AD3 +5V AD1 GND SYNC SDIN0 BITCLK -AC_PRIMARY BEEP AGND +MIC -MIC AGND -RI +5VA

RING LAN2 LAN4 LAN6 LAN8 LED_YP LED_YN NC2 +5V -INTA R(IRQ4) +3VAUX -RST +3V -GNT GND -PME (V) AD30 +3V AD28 AD26 AD24 IDSEL GND AD22 AD20 PAR AD18 AD16 GND -FRAME -TRDY -STOP +3V -DEVSEL GND AD15 AD13 AD11 GND AD9 -CBE0 +3V AD6 AD4 AD2 AD0 (V) SERIRQ GND M66EN SDOUT SDIN1 -RESET -MPCICACK AGND +SPK -SPK AGND NC4 +3VAUX

S_PIRQC# +5V S_PIRQC# 11
PCIRST# +3VSUS PCIRST# 11,14,15
S_GNT2# S_GNT2# 11,15
PME# PME# 11,13,14
S_AD30
S_AD28
S_AD26
S_AD24
MINI_IDSEL
S_AD22
S_AD20
S_PAR S_PAR 11,14
S_AD18
S_AD16
S_FRAME# S_FRAME# 11,14,15
S_TRDY# S_TRDY# 11,14,15
S_STOP# S_STOP# 11,14
S_DEVSEL# S_DEVSEL# 11,14,15
S_AD15
S_AD13
S_AD11
S_AD9
S_CBE0# S_CBE0# 11,14,15
S_AD6
S_AD4
S_AD2
S_AD0
SERIRQ SERIRQ 11,14,19,20

C438 C420 C436 C437 MP^.1u/16V_4
C662 C425 C424 C426 MP^.1u/16V_4

USB

REV:3A Modify

11 USBP1-
11 USBP1+
RN90 0_4P2R
L43
*DLW21HN900SQ2L
USBPWRP1
CN17 USB
C561 470p_4
L12 TI201209G121_8_3A
C546 100u/6.3V_3528

+5V_S5
U9 G548A2P8U
19 USBON#
R109 *6.34K/F_4
USBPWR1

DC/B CONNECTOR

USB PORT
USB PORT
USB Camera

11 USBP3-
11 USBP3+
11 USBP2-
11 USBP2+
11 USBP6-
11 USBP6+
CN11 B2B
VA VA 20,25
+5V_S5
+3V
USBON# USBON# 19
CCD_PWRON# CCD_PWRON# 19
LID# LID# 10,11,19
NBSWON# NBSWON# 19

MINI-CARD

CN21 MC^MINI CARD

11 PCIE_TXP2
11 PCIE_TXN2
11 PCIE_RXP2
11 PCIE_RXN2
C628 C629 MC^.1u/16V_4
PERP2 PERN2
2 CLK_PCIE_MINICARD
2 CLK_PCIE_MINICARD#
2 MINI_CLKREQ#
11 PCIE_WAKE#

Reserved GND +3.3V +1.5V LED_WPAN# LED_WLAN# LED_WWAN# USB_D+ USB_D- SMB_DATA SMB_CLK +3.3Vaux PERST# REFCLK+ REFCLK- CLKREQ# WAKE#

WL_VCC1
RF_LED 18
PDAT_SMB 2,11,20
PCLK_SMB 2,11,20
RF_EN_R
PLTRST# 6,11,13,18,19,20,26
WL_VCC2

BLUETOOTH

+3VSUS
Q12 BT^AO3403
BT_POWER
C617 BT^4.7u/6.3V_6
19 BT_PWRON#
REV:3A Modify
RN91 BT^0_4P2R
11 USBP4+
11 USBP4-
L51 *DLW21HN900SQ2L
BUSBP4+
BUSBP4-
CN19 BT^USB_BT
+1.8VSUS
18 BT_LED

REV:2A MODIFY
R547 MC^0_6 WL_VCC1
C689 MC^.1u/16V_4
R548 MC^0_6 WL_VCC2
C614 MC^.1u/16V_4

C635 C616 C638 MC^.1u/16V_4

PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number	Rev
	MINI_CARDPCI/USB/BT/DC	3A
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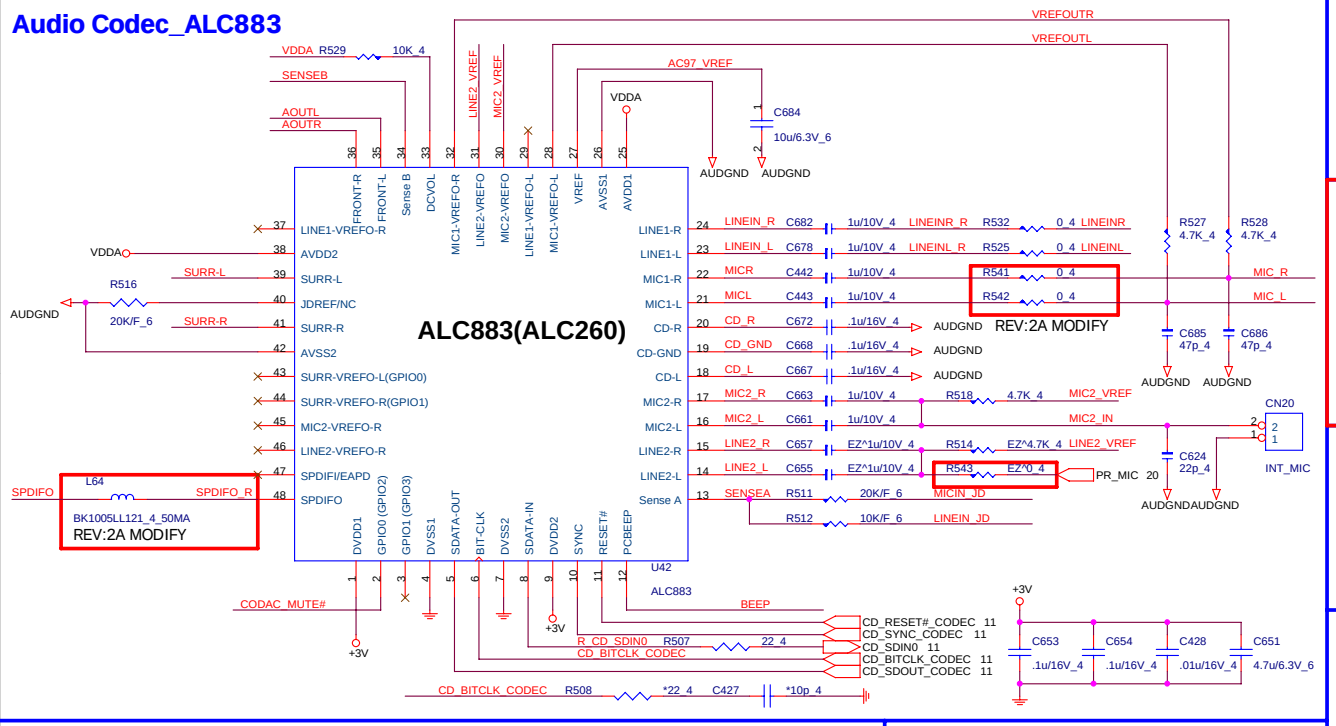
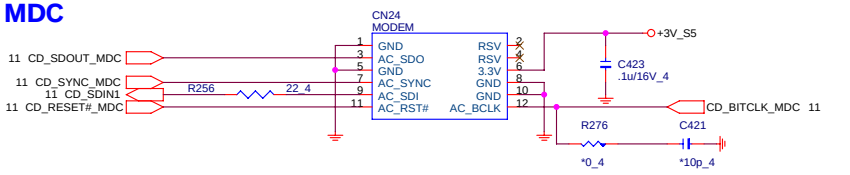
Audio Codec_ALC883

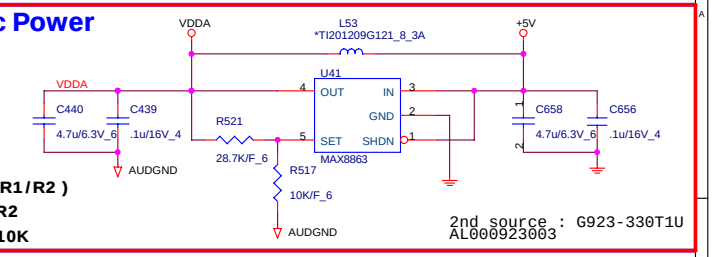


MDC



Audio Codec Power

REV:2A MODIFY

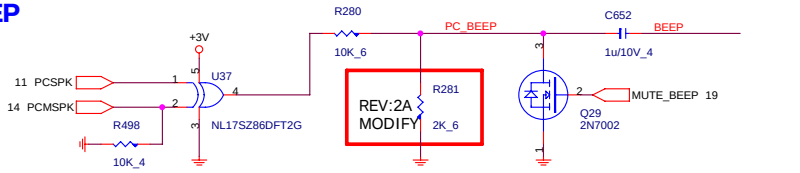


VOUT = 1.25 (1+R1/R2)

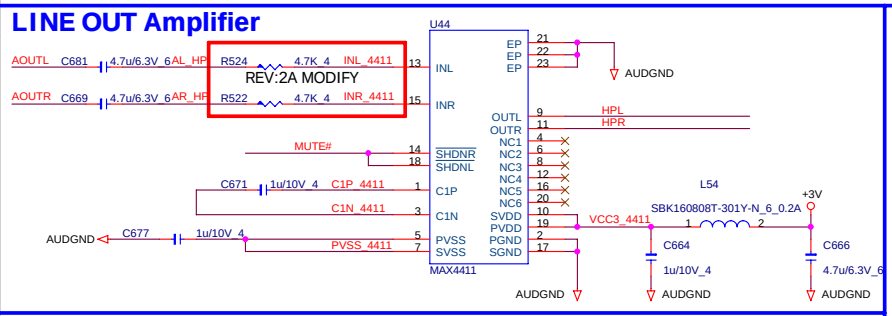
R1	R2
4.8375V	28.7K 10K

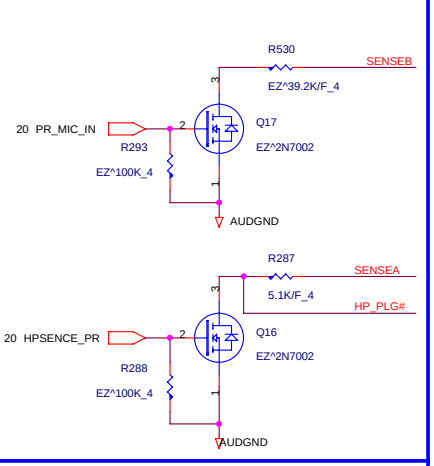
2nd source : G923-330T1U
AL000923003

BEEP

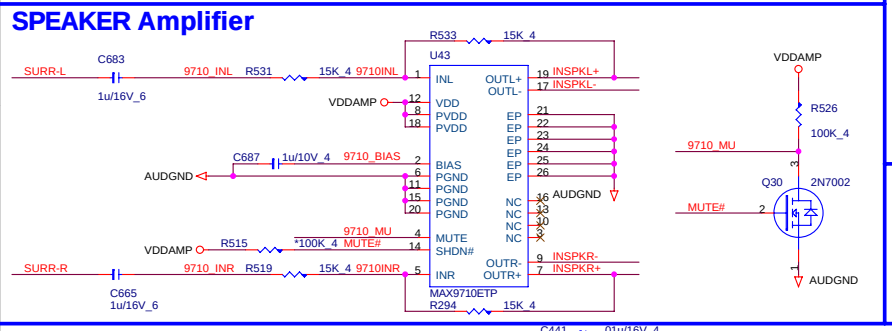


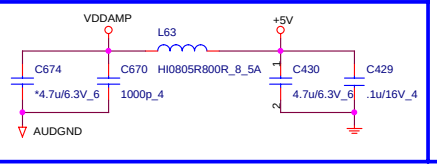
LINE OUT Amplifier



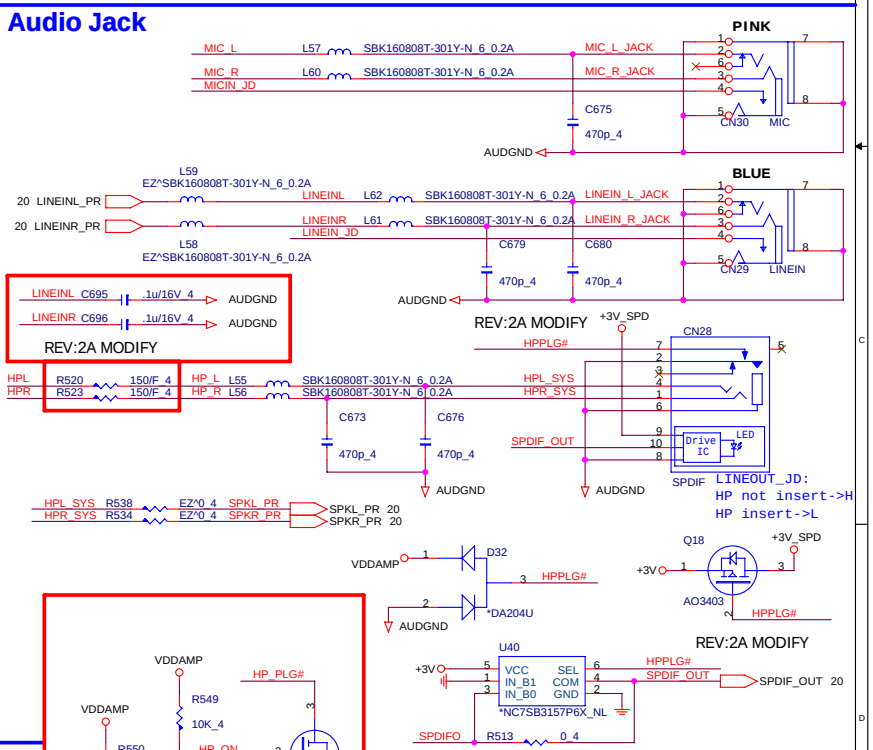


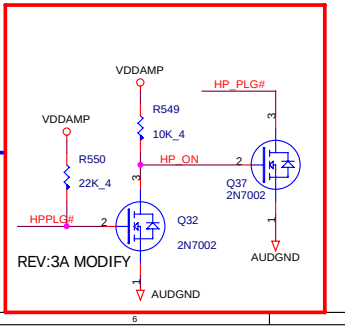
SPEAKER Amplifier

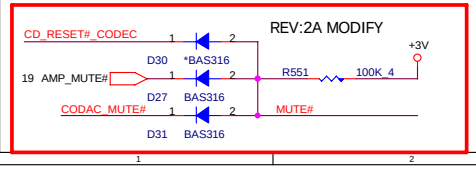


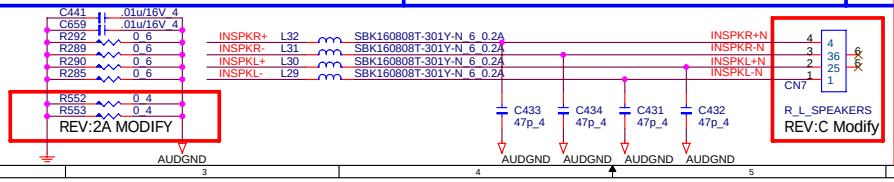


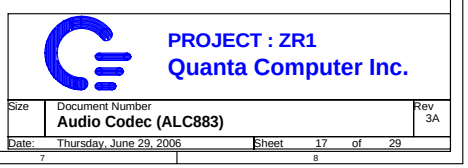
Audio Jack



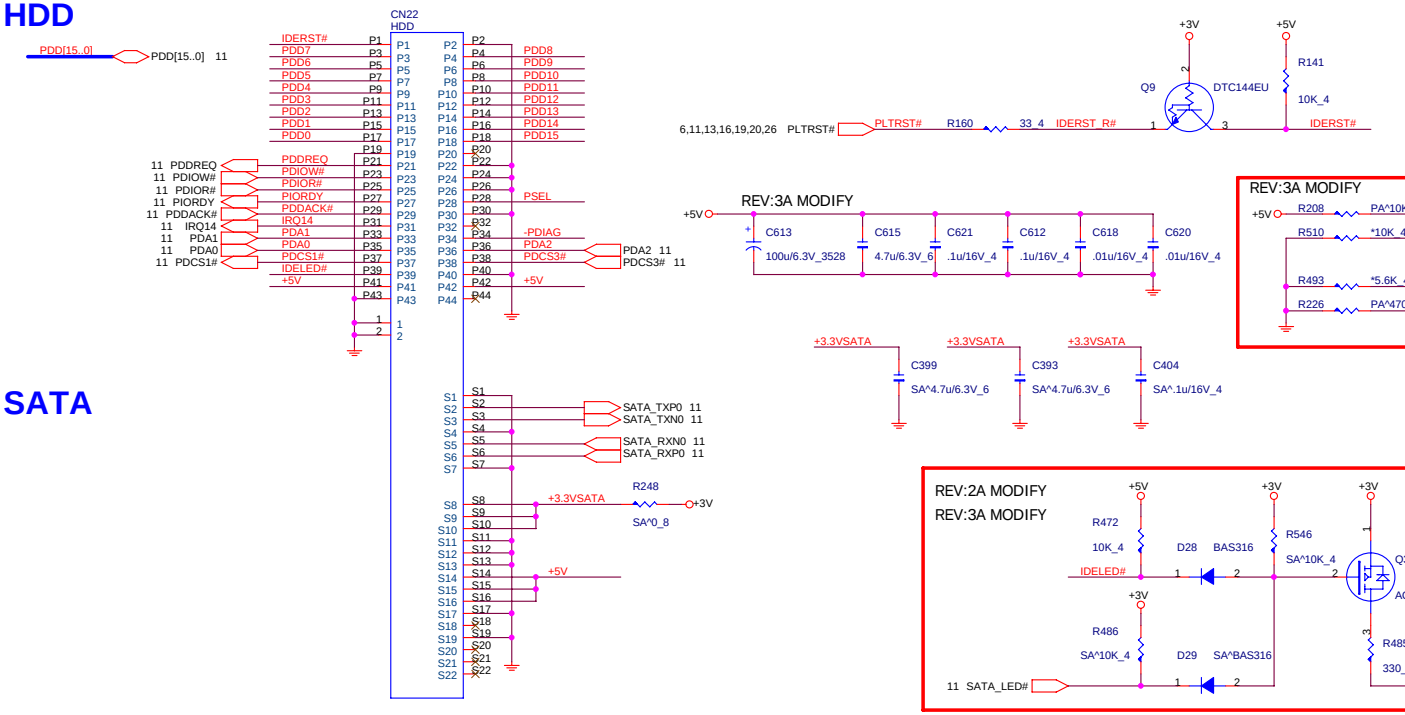








HDD



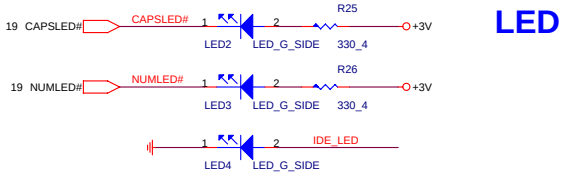
SATA

REV:3A MODIFY

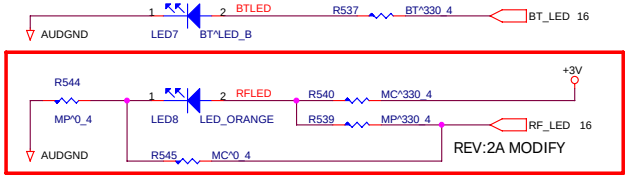
REV:3A MODIFY

REV:2A MODIFY
REV:3A MODIFY

LED

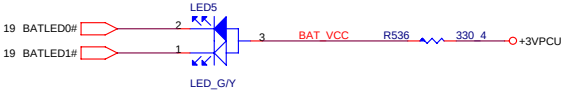


REV:2A MODIFY

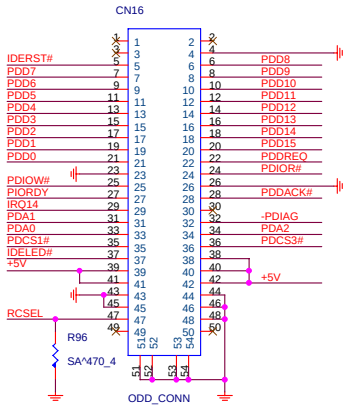


Power LED

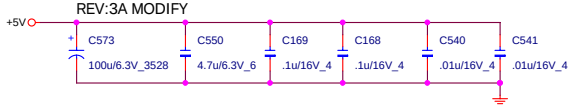
Battery LED



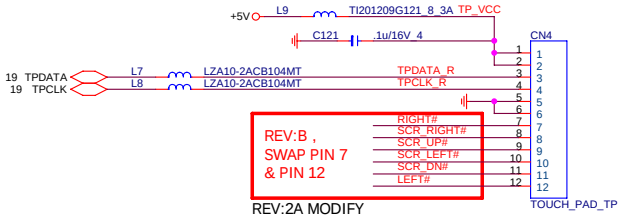
ODD



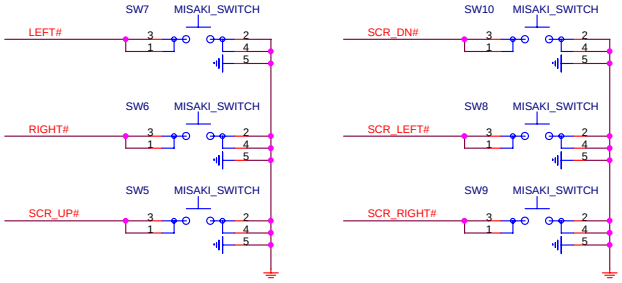
REV:3A MODIFY



TP CONN

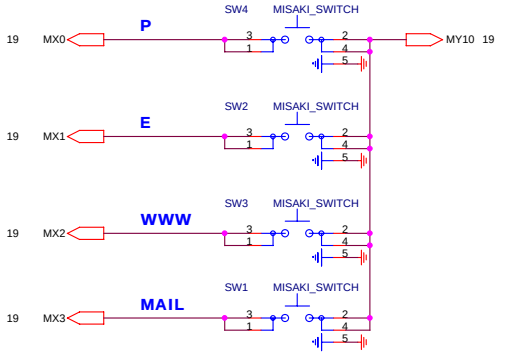


TP SWITCH



WL & BT SWITCH

QUICK KEY SWITCH



PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number	Rev
	HDD/ODD/LED/SW/TP	3A
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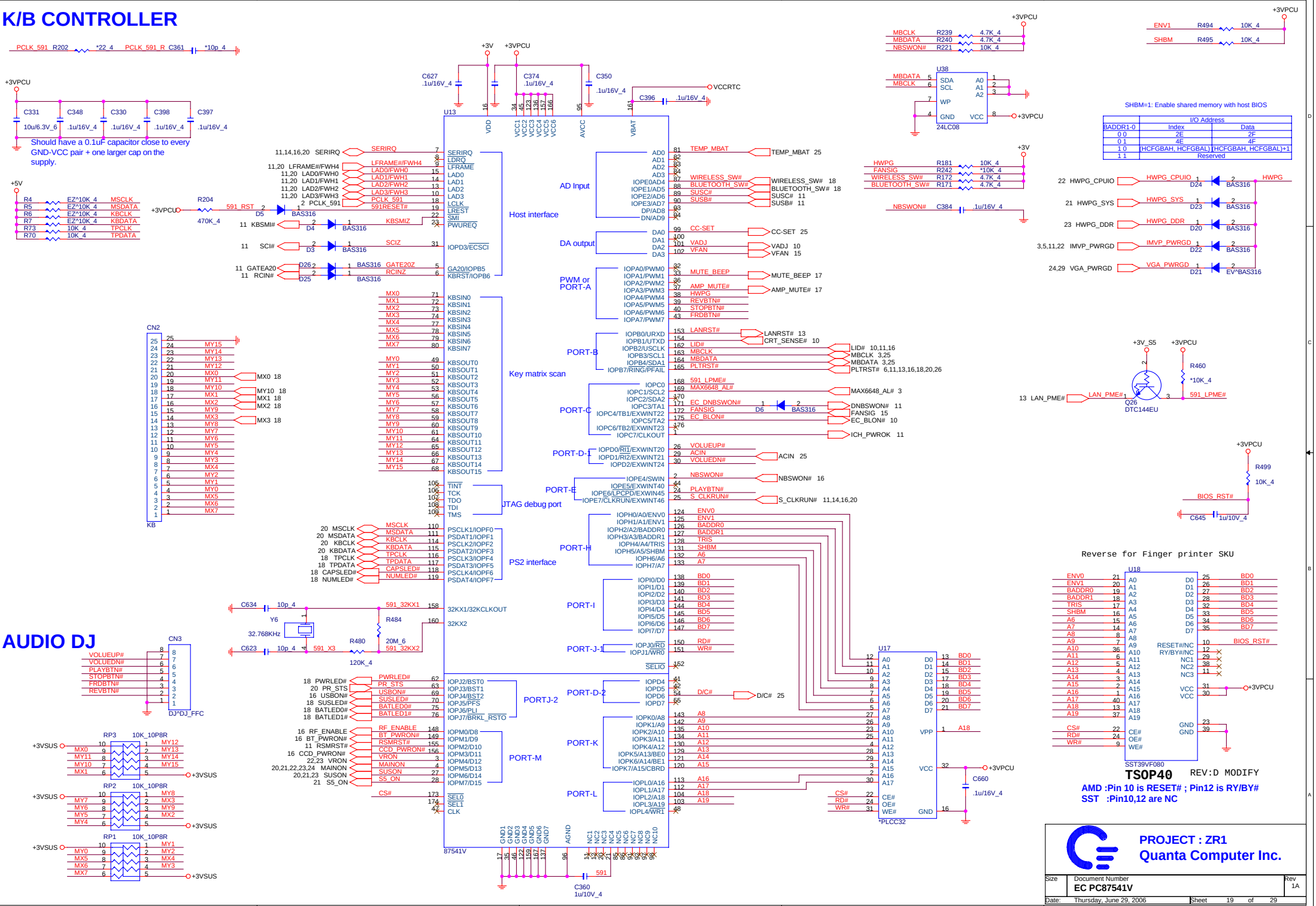
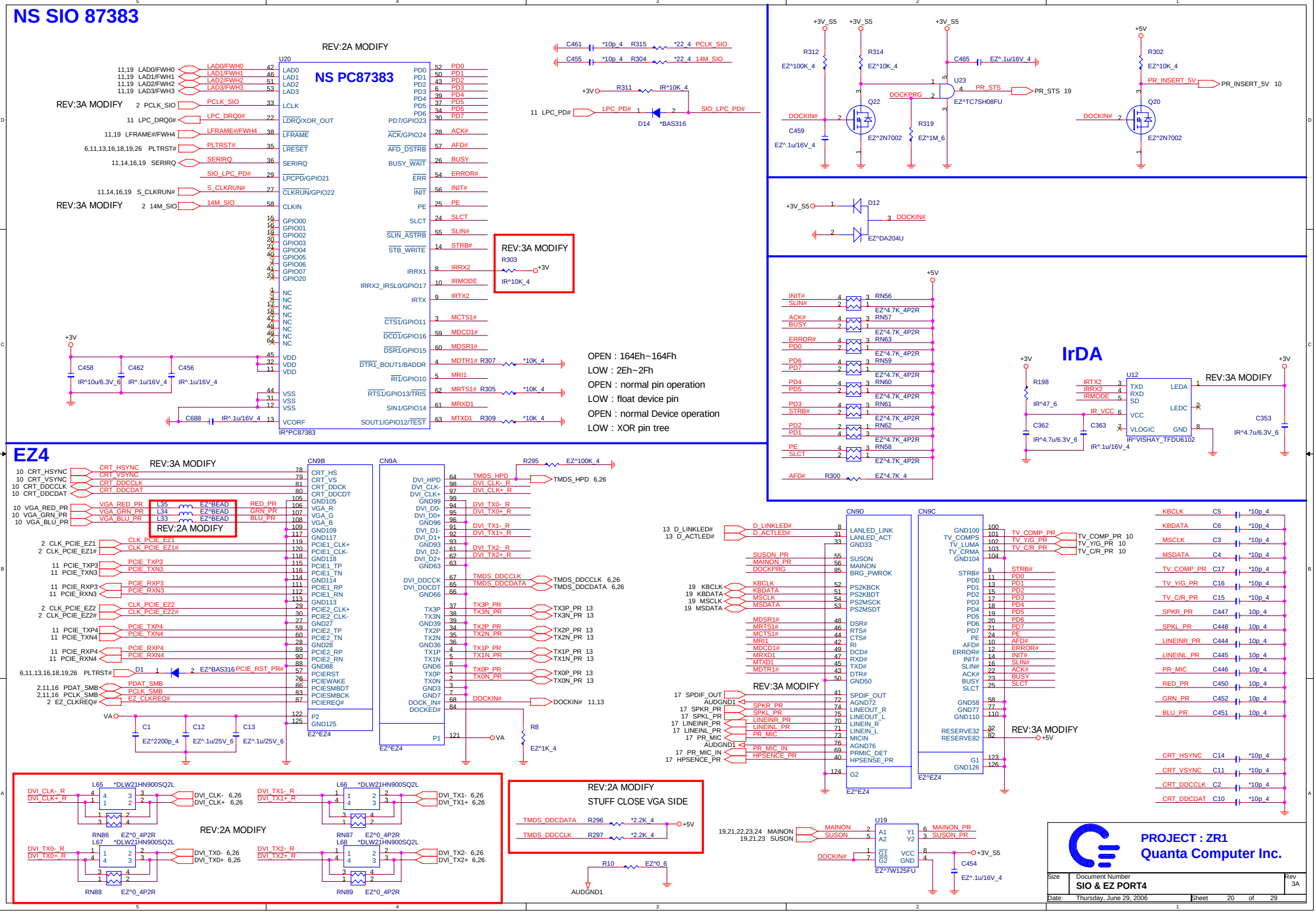
K/B CONTROLLER



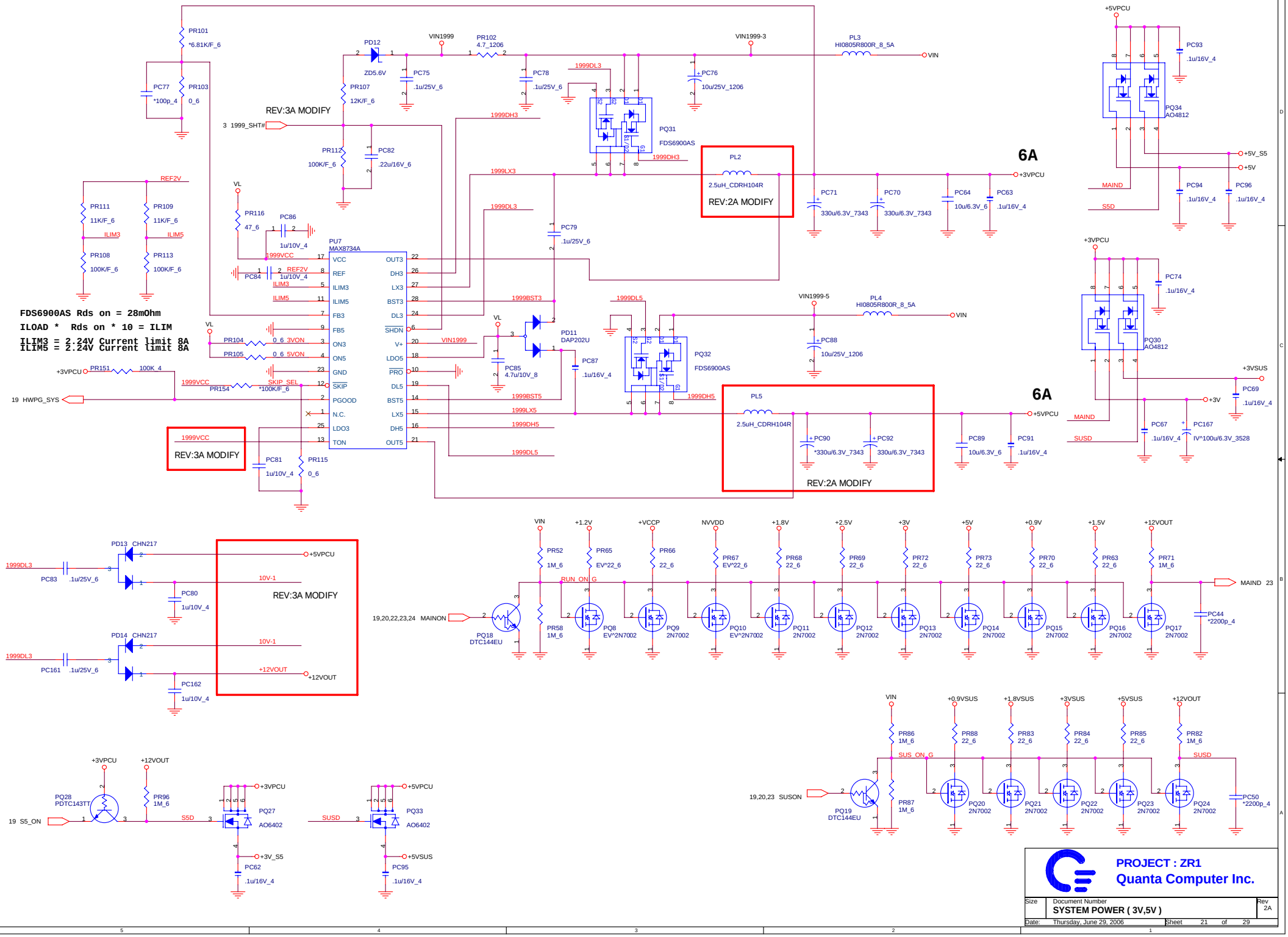
AUDIO DJ

NS SIO 87383



IrDA

EZ4



Size	Document Number	Rev
	SYSTEM POWER (3V,5V)	2A
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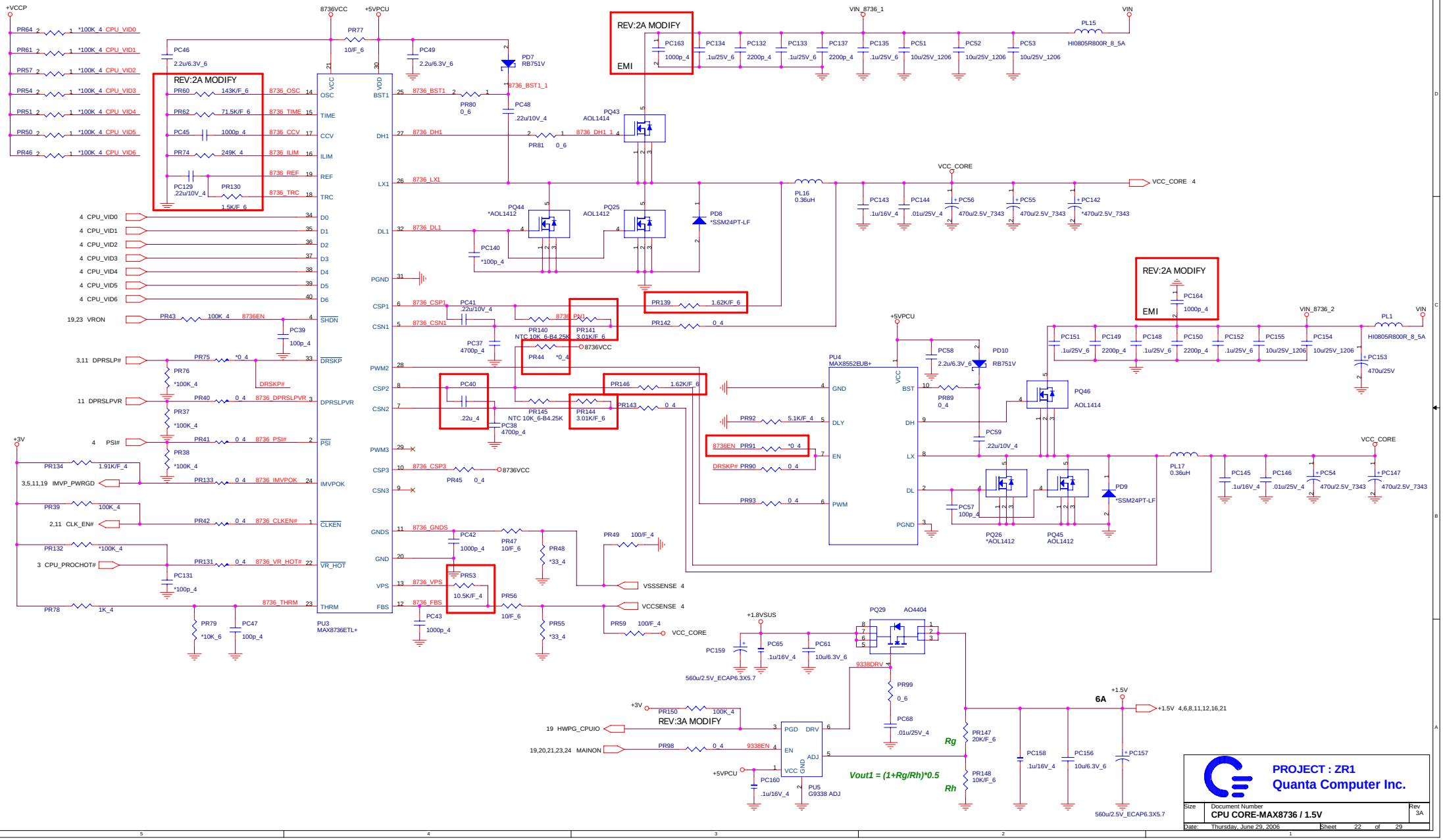
PROJECT : ZR1
Quanta Computer Inc.


REV:2A MODIFY
EMI
REV:2A MODIFY
REV:2A MODIFY
EMI
REV:3A MODIFY
MAX8736ETL+
MAX8552EUB+
AOL1414
*AOL1412
AO4404
9338DRV
G9338 ADJ
Vout1 = (1+Rg/Rh)*0.5
Rg
Rh
PROJECT : ZR1
Quanta Computer Inc.
CPU CORE-MAX8736 / 1.5V
Rev 3A
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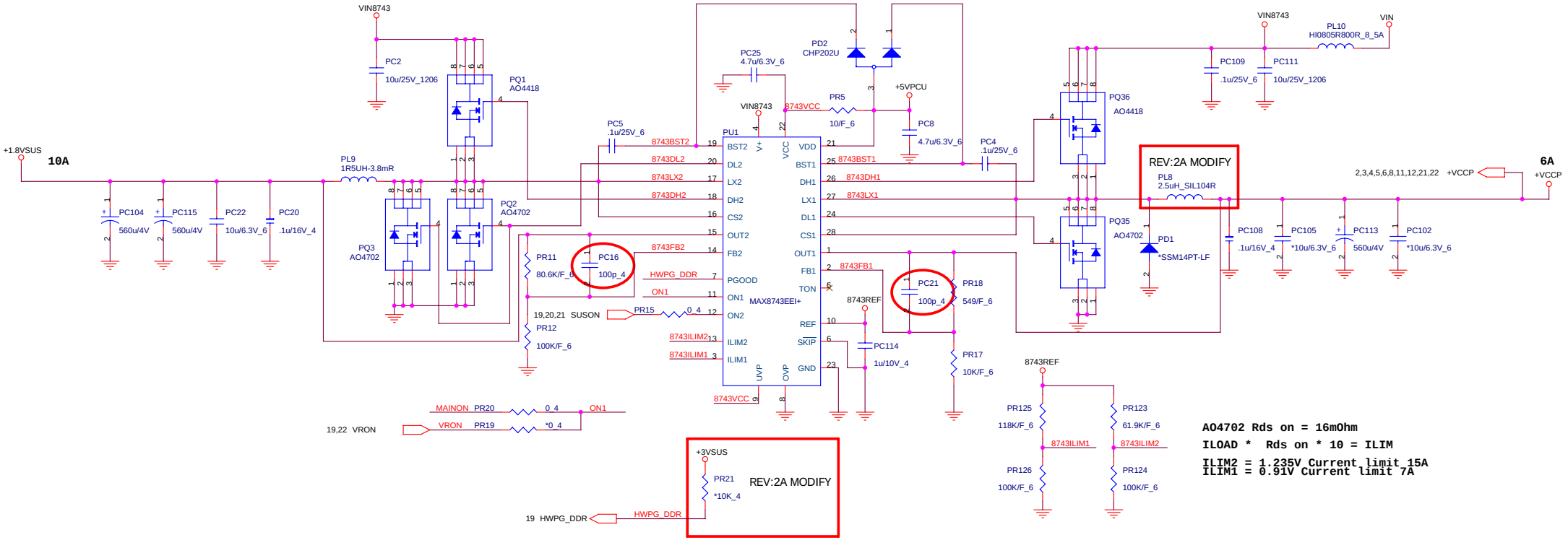

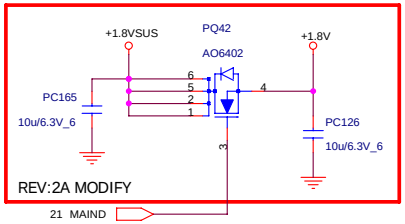

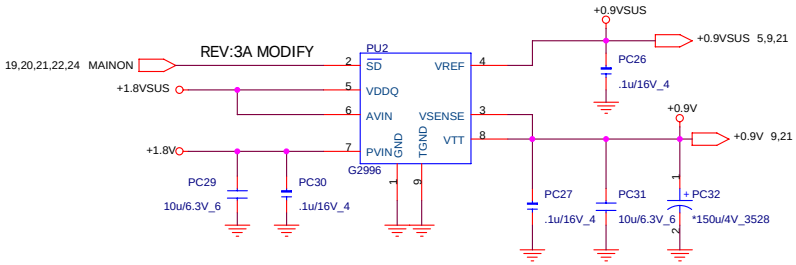

PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number	Rev
	1.8VSUS / +VCCP / 0.9V	3A

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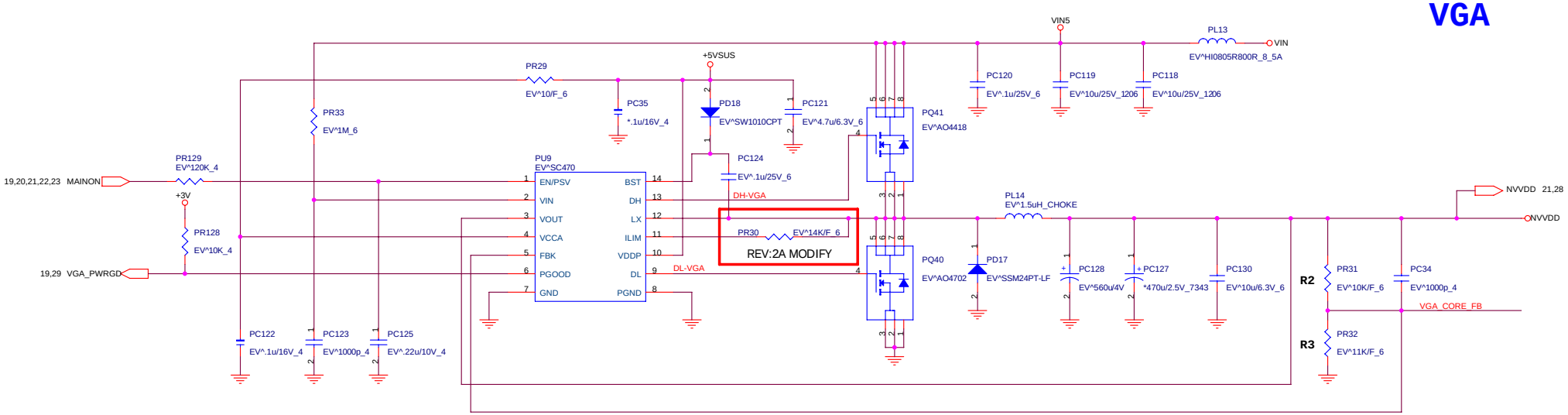
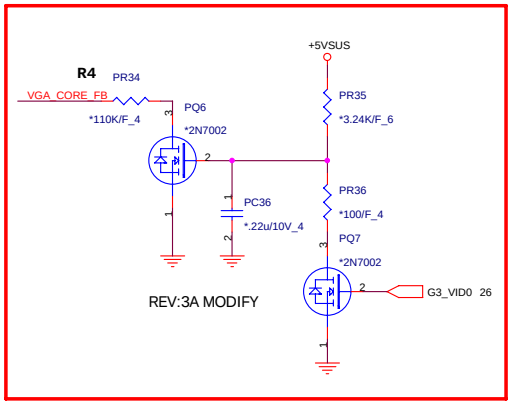
VGA





HI-->VOUT=(1+R2/R3)*0.5

LO-->VOUT=(1+R2/(R3//R4))*0.5

M52P(G)

PR1 : 10K

PR4 : 11K

PR2 : 110K

M54P

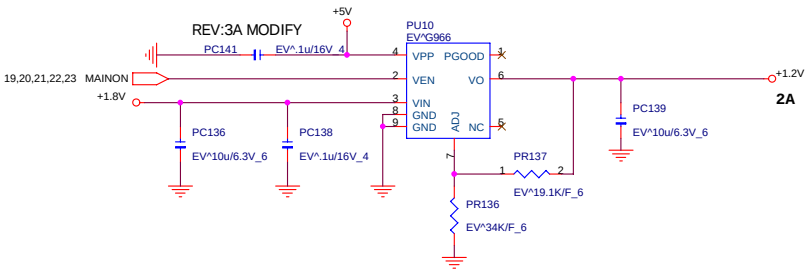
PR1 : 12K

PR4 : 12K

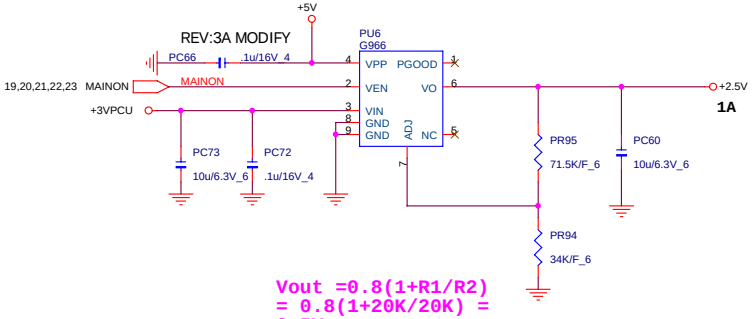
PR2 : 60.4K

Power Play Mode

VGA_PWR_SW	VGA_CORE
HI	0.95V--M52P(G) 1.0V --M54P
Default LO	1.0V--M52P(G) 1.1V--M54P



Vout =0.8(1+R1/R2) = 0.8(1+20K/20K) = 1.2V



Vout =0.8(1+R1/R2) = 0.8(1+20K/20K) = 2.5V

PROJECT : ZR1

Quanta Computer Inc.

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	VGA (1.0V/1.2V/2.5V)	3A

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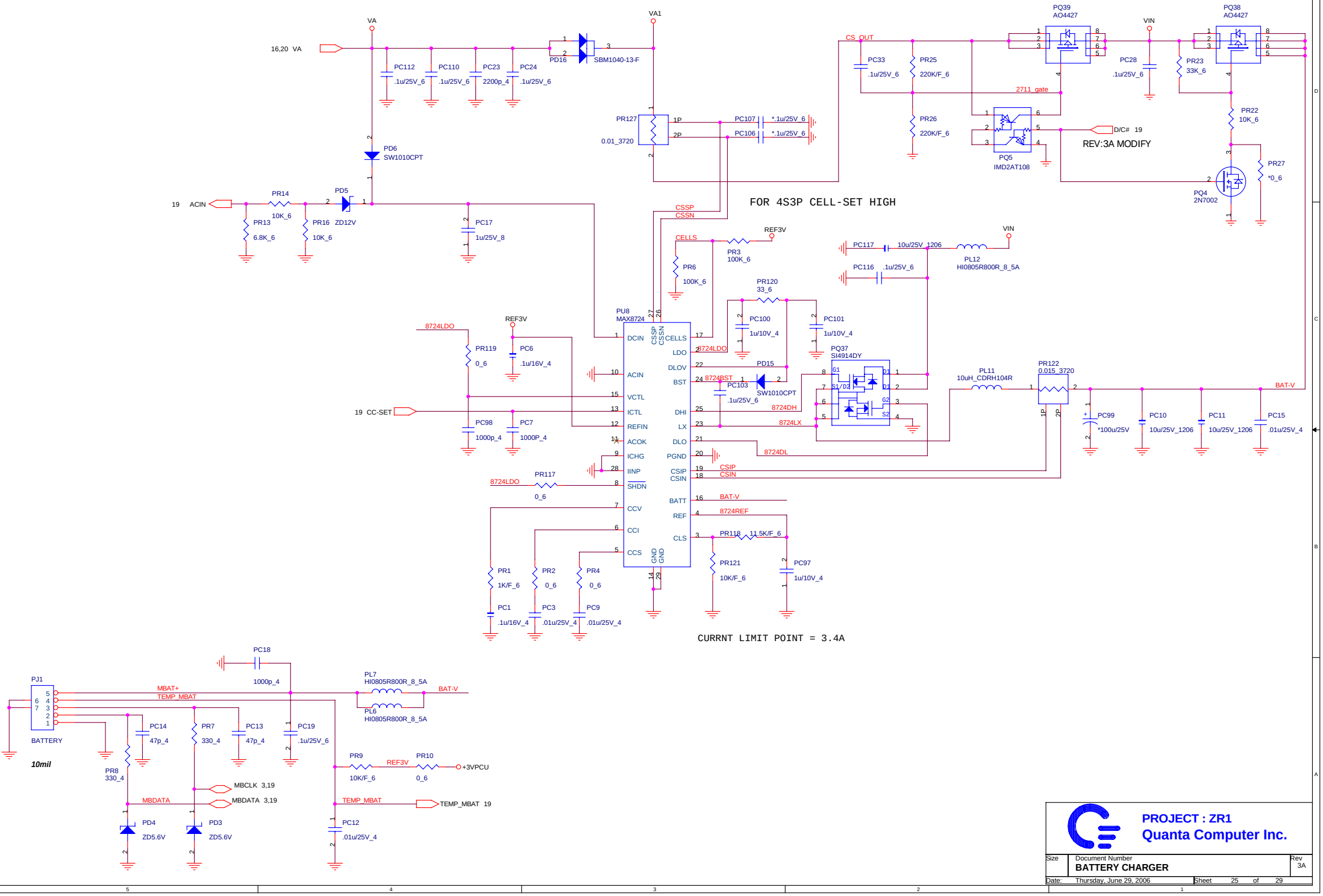
VA
16,20 VA
PC112 .1u/25V_6
PC110 .1u/25V_6
PC23 2200p_4
PC24 .1u/25V_6
PD16
SBM1040-13-F
VA1
PD6
SW1010CPT
PR127
0.01_3720
PC107 *.1u/25V_6
PC106 *.1u/25V_6
CS_OUT
PC33 .1u/25V_6
PR25 220K/F_6
PR26 220K/F_6
PQ39
AO4427
2711_gate
PQ5
IMD2AT108
D/C# 19
REV:3A MODIFY
VIN
PC28 .1u/25V_6
PQ38
AO4427
PR23 33K_6
PR22 10K_6
PR27 *0_6
PQ4
2N7002
FOR 4S3P CELL-SET HIGH
19 ACIN
PR14 10K_6
PR13 6.8K_6
PR16 10K_6
PD5 ZD12V
PC17 1u/25V_8
CSSP
CSSN
CELLS
REF3V
PR3 100K_6
PR6 100K_6
PC117 10u/25V_1206
PC116 .1u/25V_6
PL12
HI0805R800R_8_5A
PR120 33_6
PC100 1u/10V_4
PC101 1u/10V_4
PU8
MAX8724
8724LDO
PR119 0_6
PC6 .1u/16V_4
19 CC-SET
PC98 1000p_4
PC7 1000P_4
DCIN
ACIN
VCTL
ICTL
REFIN
ACOK
ICHG
IINP
SHDN
CCV
CCI
CCS
CSSP
CSSN
GND
GND
CELLS
LDO
DLOV
BST
DHI
LX
DLO
PGND
CSIP
CSIN
BATT
REF
CLS
PD15
SW1010CPT
PC103 .1u/25V_6
8724BST
8724DH
8724LX
8724DL
PQ37
SI4914DY
PL11
10uH_CDRH104R
PR122
0.015_3720
BAT-V
PC99 *100u/25V
PC10 10u/25V_1206
PC11 10u/25V_1206
PC15 .01u/25V_4
PR117 0_6
8724REF
PR118 11.5K/F_6
PR121 10K/F_6
PC97 1u/10V_4
PR1 1K/F_6
PR2 0_6
PR4 0_6
PC1 .1u/16V_4
PC3 .01u/25V_4
PC9 .01u/25V_4
CURRNT LIMIT POINT = 3.4A
PC18 1000p_4
PJ1
BATTERY
10mil
MBAT+
TEMP_MBAT
PL7
HI0805R800R_8_5A
PL6
HI0805R800R_8_5A
PC14 47p_4
PR7 330_4
PC13 47p_4
PC19 .1u/25V_6
PR8 330_4
PR9 10K/F_6
PR10 0_6
+3VPCU
MBCLK 3,19
MBDATA
MBDATA 3,19
TEMP_MBAT
TEMP_MBAT 19
PD4 ZD5.6V
PD3 ZD5.6V
PC12 .01u/25V_4
PROJECT : ZR1
Quanta Computer Inc.
Size
Document Number
BATTERY CHARGER
Rev
3A
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NVIDIA G72M G3-64 (23X 23)

0.1u Capacitors place at last 1/3 of trace

6 GMCHEXP_TXP[0..15]
6 GMCHEXP_TXN[0..15]
6 GMCHEXP_RXP[0..15]
6 GMCHEXP_RXN[0..15]

U30A

PCI EXPRESS

GMCHEXP_RXP0 C299 EV^.1u/16V_4 V_GMCHEXP_RXP0 AD5 PEX_TX0P
GMCHEXP_RXN0 C295 EV^.1u/16V_4 V_GMCHEXP_RXN0 AD6 PEX_TX0N
GMCHEXP_TXP0 AF1 PEX_RX0P
GMCHEXP_TXN0 AG2 PEX_RX0N
GMCHEXP_RXP1 C303 EV^.1u/16V_4 V_GMCHEXP_RXP1 AE6 PEX_TX1P
GMCHEXP_RXN1 C297 EV^.1u/16V_4 V_GMCHEXP_RXN1 AE7 PEX_TX1N
GMCHEXP_TXP1 AG3 PEX_RX1P
GMCHEXP_TXN1 AG4 PEX_RX1N
GMCHEXP_RXP2 C280 EV^.1u/16V_4 V_GMCHEXP_RXP2 AD7 PEX_TX2P
GMCHEXP_RXN2 C275 EV^.1u/16V_4 V_GMCHEXP_RXN2 AC7 PEX_TX2N
GMCHEXP_TXP2 AF4 PEX_RX2P
GMCHEXP_TXN2 AF5 PEX_RX2N
GMCHEXP_RXP3 C271 EV^.1u/16V_4 V_GMCHEXP_RXP3 AE9 PEX_TX3P
GMCHEXP_RXN3 C267 EV^.1u/16V_4 V_GMCHEXP_RXN3 AE10 PEX_TX3N
GMCHEXP_TXP3 AG6 PEX_RX3P
GMCHEXP_TXN3 AG7 PEX_RX3N
GMCHEXP_RXP4 C245 EV^.1u/16V_4 V_GMCHEXP_RXP4 AD10 PEX_TX4P
GMCHEXP_RXN4 C238 EV^.1u/16V_4 V_GMCHEXP_RXN4 AC10 PEX_TX4N
GMCHEXP_TXP4 AF7 PEX_RX4P
GMCHEXP_TXN4 AF8 PEX_RX4N
GMCHEXP_RXP5 C237 EV^.1u/16V_4 V_GMCHEXP_RXP5 AE12 PEX_TX5P
GMCHEXP_RXN5 C228 EV^.1u/16V_4 V_GMCHEXP_RXN5 AE13 PEX_TX5N
GMCHEXP_TXP5 AG9 PEX_RX5P
GMCHEXP_TXN5 AG10 PEX_RX5N
GMCHEXP_RXP6 C226 EV^.1u/16V_4 V_GMCHEXP_RXP6 AD13 PEX_TX6P
GMCHEXP_RXN6 C220 EV^.1u/16V_4 V_GMCHEXP_RXN6 AC13 PEX_TX6N
GMCHEXP_TXP6 AE10 PEX_RX6P
GMCHEXP_TXN6 AF11 PEX_RX6N
GMCHEXP_RXP7 C217 EV^.1u/16V_4 V_GMCHEXP_RXP7 AC15 PEX_TX7P
GMCHEXP_RXN7 C205 EV^.1u/16V_4 V_GMCHEXP_RXN7 AD15 PEX_TX7N
GMCHEXP_TXP7 AG12 PEX_RX7P
GMCHEXP_TXN7 AG13 PEX_RX7N
GMCHEXP_RXP8 C204 EV^.1u/16V_4 V_GMCHEXP_RXP8 AE15 PEX_TX8P
GMCHEXP_RXN8 C198 EV^.1u/16V_4 V_GMCHEXP_RXN8 AE16 PEX_TX8N
GMCHEXP_TXP8 AG15 PEX_RX8P
GMCHEXP_TXN8 AG16 PEX_RX8N
GMCHEXP_RXP9 C188 EV^.1u/16V_4 V_GMCHEXP_RXP9 AC18 PEX_TX9P
GMCHEXP_RXN9 C174 EV^.1u/16V_4 V_GMCHEXP_RXN9 AD18 PEX_TX9N
GMCHEXP_TXP9 AF16 PEX_RX9P
GMCHEXP_TXN9 AF17 PEX_RX9N
GMCHEXP_RXP10 C172 EV^.1u/16V_4 V_GMCHEXP_RXP10 AE18 PEX_TX10P
GMCHEXP_RXN10 C166 EV^.1u/16V_4 V_GMCHEXP_RXN10 AE19 PEX_TX10N
GMCHEXP_TXP10 AG18 PEX_RX10P
GMCHEXP_TXN10 AG19 PEX_RX10N
GMCHEXP_RXP11 C157 EV^.1u/16V_4 V_GMCHEXP_RXP11 AC21 PEX_TX11P
GMCHEXP_RXN11 C153 EV^.1u/16V_4 V_GMCHEXP_RXN11 AD21 PEX_TX11N
GMCHEXP_TXP11 AF19 PEX_RX11P
GMCHEXP_TXN11 AF20 PEX_RX11N
GMCHEXP_RXP12 C152 EV^.1u/16V_4 V_GMCHEXP_RXP12 AE21 PEX_TX12P
GMCHEXP_RXN12 C150 EV^.1u/16V_4 V_GMCHEXP_RXN12 AE22 PEX_TX12N
GMCHEXP_TXP12 AG21 PEX_RX12P
GMCHEXP_TXN12 AG22 PEX_RX12N
GMCHEXP_RXP13 C149 EV^.1u/16V_4 V_GMCHEXP_RXP13 AD22 PEX_TX13P
GMCHEXP_RXN13 C146 EV^.1u/16V_4 V_GMCHEXP_RXN13 AD23 PEX_TX13N
GMCHEXP_TXP13 AF22 PEX_RX13P
GMCHEXP_TXN13 AF23 PEX_RX13N
GMCHEXP_RXP14 C144 EV^.1u/16V_4 V_GMCHEXP_RXP14 AF25 PEX_TX14P
GMCHEXP_RXN14 C143 EV^.1u/16V_4 V_GMCHEXP_RXN14 AE25 PEX_TX14N
GMCHEXP_TXP14 AG24 PEX_RX14P
GMCHEXP_TXN14 AG25 PEX_RX14N
GMCHEXP_RXP15 C140 EV^.1u/16V_4 V_GMCHEXP_RXP15 AE24 PEX_TX15P
GMCHEXP_RXN15 C138 EV^.1u/16V_4 V_GMCHEXP_RXN15 AD24 PEX_TX15N
GMCHEXP_TXP15 AG26 PEX_RX15P
GMCHEXP_TXN15 AF27 PEX_RX15N

2 CLK_PCIE_VGA AE3 PEX_REFCLK
2 CLK_PCIE_VGA# AE4 PEX_REFCLK#

AF13 PEX_TSTCLK_OUT
AF14 PEX_TSTCLK_OUT#

6,11,13,16,18,19,20 PLTRST# PLTRST# R114 EV^0_4 PEX_RST AC6 PEX_RST

THERMDC_VGA C9 THERMDN
THERMDA_VGA B9 THERMDP
THERMAL

PLLVDD H4 PLLVDD

XTALSSIN C1 XTALSSIN
XTALOUTBUFF C3 XTALOUTBUFF
XTALIN B1 XTALIN
XTALOUT C2 XTALOUT
PLLGND H5
PLL

XTAL_BUFF R397 *EV^22_4 R398 EV^10K_4

Stuff for use GPU internal SS

D11 CLAMP

6,10 LCD_EDIDCLK RN69 3 1 4 2 EV^33_4P2R VTHM_CLK E9 I2C_SCL
6,10 LCD_EDIDDAT VTHM_DAT D8 I2C_SDA

EV^GF_GO7300

GPIO

GPIO0 A9 G3_GPIO0 R395 EV^100K_4 R391 EV^10K_4 TMDS_HPD TMDS_HPD 6,20
GPIO1 D9
GPIO2 A10
GPIO3 B10 DISP_ON1 R385 EV^0_4 LCD_ON LCD_ON 6,10
GPIO4 C10 EXT_BLON R388 EV^0_4 BLON BLON 6,10
GPIO5 C12 G3_VID0 R382 EV^10K_4 +3V G3_VID0 24
GPIO6 B12
GPIO7 A12
GPIO8 A13 VGAGPIO8_THRM
GPIO9 B13 R107 EV^0_4 VGA_THERM#
GPIO10 B15
GPIO11 A15
GPIO12 B16

JTAG

JTAG_TCK AE27 G72_JTAG_TCK R371 EV^10K_4
JTAG_TMS AD26 G72_JTAG_TMS R370 EV^10K_4 +3V
JTAG_TDI AD27 G72_JTAG_TDI R369 EV^10K_4
JTAG_TDO AE26
JTAG_TRST AD25 G72_JTAG_TRST R94 EV^10K_4

IFPA LVDS-L

IFPATXC# U4 EXT_LVDS_TXLCK- RN81 3 4 EV^0_4P2R LVDS_TXLCK- LVDS_TXLCK- 6,10
IFPATXC T4 EXT_LVDS_TXLCK+ 1 2 LVDS_TXLCK+ LVDS_TXLCK+ 6,10
IFPATXD0# N5 EXT_LVDS_TXL0- RN78 3 4 EV^0_4P2R LVDS_TXL0- LVDS_TXL0- 6,10
IFPATXD0 N4 EXT_LVDS_TXL0+ 1 2 LVDS_TXL0+ LVDS_TXL0+ 6,10
IFPATXD1# R4 EXT_LVDS_TXL1- RN79 3 4 EV^0_4P2R LVDS_TXL1- LVDS_TXL1- 6,10
IFPATXD1 R5 EXT_LVDS_TXL1+ 1 2 LVDS_TXL1+ LVDS_TXL1+ 6,10
IFPATXD2# T6 EXT_LVDS_TXL2- RN80 3 4 EV^0_4P2R LVDS_TXL2- LVDS_TXL2- 6,10
IFPATXD2 T5 EXT_LVDS_TXL2+ 1 2 LVDS_TXL2+ LVDS_TXL2+ 6,10
IFPATXD3# P6
IFPATXD3 R6

IFPB LVDS-U

IFPBTXC# W6 EXT_LVDS_TXUCK- RN85 3 4 EV^0_4P2R LVDS_TXUCK- LVDS_TXUCK- 6,10
IFPBTXC W5 EXT_LVDS_TXUCK+ 1 2 LVDS_TXUCK+ LVDS_TXUCK+ 6,10
IFPBTXD0# W2 EXT_LVDS_TXU0- RN82 3 4 EV^0_4P2R LVDS_TXU0- LVDS_TXU0- 6,10
IFPBTXD0 W3 EXT_LVDS_TXU0+ 1 2 LVDS_TXU0+ LVDS_TXU0+ 6,10
IFPBTXD4 AA3 EXT_LVDS_TXU1- RN83 3 4 EV^0_4P2R LVDS_TXU1- LVDS_TXU1- 6,10
IFPBTXD5# AA2 EXT_LVDS_TXU1+ 1 2 LVDS_TXU1+ LVDS_TXU1+ 6,10
IFPBTXD5 AA1 EXT_LVDS_TXU2- RN84 3 4 EV^0_4P2R LVDS_TXU2- LVDS_TXU2- 6,10
IFPBTXD6# AB1 EXT_LVDS_TXU2+ 1 2 LVDS_TXU2+ LVDS_TXU2+ 6,10
IFPBTXD6 AB2
IFPBTXD7# AB3
IFPBTXD7

IFPC DVI

IFPCTXC# W1 G72_DVI_CLK- RN73 1 2 EVDV^0_4P2R DVI_CLK- DVI_CLK- 6,20
IFPCTXC V1 G72_DVI_CLK+ 3 4 DVI_CLK+ DVI_CLK+ 6,20
IFPCTXD0# R1 G72_DVI_TX0- RN70 3 4 EVDV^0_4P2R DVI_TX0- DVI_TX0- 6,20
IFPCTXD0 T1 G72_DVI_TX0+ 1 2 DVI_TX0+ DVI_TX0+ 6,20
IFPCTXD1# T2 G72_DVI_TX1- RN71 3 4 EVDV^0_4P2R DVI_TX1- DVI_TX1- 6,20
IFPCTXD1 T3 G72_DVI_TX1+ 1 2 DVI_TX1+ DVI_TX1+ 6,20
IFPCTXD2# V3 G72_DVI_TX2- RN72 3 4 EVDV^0_4P2R DVI_TX2- DVI_TX2- 6,20
IFPCTXD2 V2 G72_DVI_TX2+ 1 2 DVI_TX2+ DVI_TX2+ 6,20

DACA CRT

I2CA_SCL D10 EXT_DDCCLK RN45 3 4 EV^0_4P2R CRTDCLK CRTDCLK 6,10
I2CA_SDA E10 EXT_DDCDAT 1 2 CRTDDAT CRTDDAT 6,10
DACA_HSYNC AD4 EXT_HSYNC R414 EV^0_4 CRTHSYNC CRTHSYNC 6,10
DACA_VSYNC AC4 EXT_VSYNC R413 EV^0_4 CRTVSYNC CRTVSYNC 6,10
DACA_RED AE1 EXT_VGA_RED R423 EV^0_4 VGA_RED VGA_RED 6,10
DACA_GREEN AD1 EXT_VGA_GRN R421 EV^0_4 VGA_GRN VGA_GRN 6,10
DACA_BLUE AD2 EXT_VGA_BLU R422 EV^0_4 VGA_BLU VGA_BLU 6,10
DACA_IDUMP U9

DACB TV

I2CB_SCL F9 G72_TMDS_CLK RN44 3 4 EV^0_4P2R TMDS_DDCCLK TMDS_DDCCLK 6,20
I2CB_SDA F10 G72_TMDS_DAT 1 2 TMDS_DDCDATA TMDS_DDCDATA 6,20
DACB_HSYNC E6
DACB_VSYNC F5
DACB_RED F4 EXT_TV_C/R R166 EV^0_4 TV_C/R TV_C/R 6,10
DACB_GREEN E4 EXT_TV_Y/G R165 EV^0_4 TV_Y/G TV_Y/G 6,10
DACB_BLUE D5 EXT_TV_COMP R168 EV^0_4 TV_COMP TV_COMP 6,10
DACB_IDUMP L9

DACC

U30F

GROUND

R2 GND00
E2 GND01
H2 GND02
L2 GND03
P2 GND04
U2 GND05
Y2 GND06
AC2 GND07
AF2 GND08
AF3 GND09
B5 GND10
E5 GND11
L5 GND12
P5 GND13
U5 GND14
Y5 GND15
AC5 GND16
H6 GND17
AF6 GND18
B8 GND19
E8 GND20
AD8 GND21
K9 GND22
P9 GND23
V9 GND24
AD9 GND25
AF9 GND26
B11 GND27
E11 GND28
F11 GND29
L11 GND30
P11 GND31
U11 GND32
AD11 GND33
N12 GND34
P12 GND35
R12 GND36
AD12 GND37
AF12 GND38
N13 GND39
P13 GND40
R13 GND41
B14 GND42
E14 GND43
J14 GND44
L14 GND45
N14 GND46
P14 GND47
R14 GND48
U14 GND49
W14 GND50
AC14 GND51
AD14 GND52
N15 GND53
P15 GND54
R15 GND55
AF15 GND56
N16 GND57
P16 GND58
R16 GND59
AD16 GND60
B17 GND61
E17 GND62
L17 GND63
P17 GND64
U17 GND65
AD17 GND66
AF18 GND67
K19 GND68
P19 GND69
V19 GND70
AD19 GND71
B20 GND72
E20 GND73
AD20 GND74
AF21 GND75
B23 GND76
E23 GND77
H23 GND78
L23 GND79
P23 GND80
U23 GND81
Y23 GND82
AC23 GND83
AF24 GND84
B26 GND85
E26 GND86
H26 GND87
L26 GND88
P26 GND89
U26 GND90
Y26 GND91
AC26 GND92
AF26 GND93

EV^GF_GO7300

Thermal Sensor for Graphic

SLAVE ADDRESS: 9A

15 MIL

+3V R111 *EV^200_6 3V_THM2 C196 *EV^.1u/16V_4

U10
VCC /ALERT
DXN SDA
DXP SCLK
GND /THERM
*EV^MAX6649

THERMDC_VGA C190 *EV^2200p_4
THERMDA_VGA

10 mil trace / 10 mil space

R117 *EV^2.2K_4 R118 *EV^2.2K_4 R120 *EV^2.2K_4
R115 *EV^0_4 VGAGPIO8_THRM
VTHM_DAT VTHM_CLK
VGA_THERM# R108 *EV^0_4 VGA_THERM# 15

MAXIM : AL006649019
GMT : AL000799001

MEMORY CLOCK SPREAD SPECTRUM

3V_THM3 R380 +3V C547 *EV^4.7/F_6 *EV^.1u/16V_4

XTAL_BUFF U33 XIN XOUT VSS VDD SRS PD SSCLK REF
1726_S0
XTALSSIN R128 *EV^22_4 XLOUT
R134 EV^10K_4
*EV^25819
MK_PD R378 *10K_4 *EV^10K_4 +3V
MK_27M R379
1726_S0 R394 *10K_4 R393 *EV^10K_4 +3V

Stuff for use GPU internal SS

+2.5V L16 EV^BK1608HS220_6_1A PLLVDD
C300 *4.7u/6.3V_6 C289 EV^4.7u/6.3V_6 C279 EV^470p_4 C274 EV^4700p_4

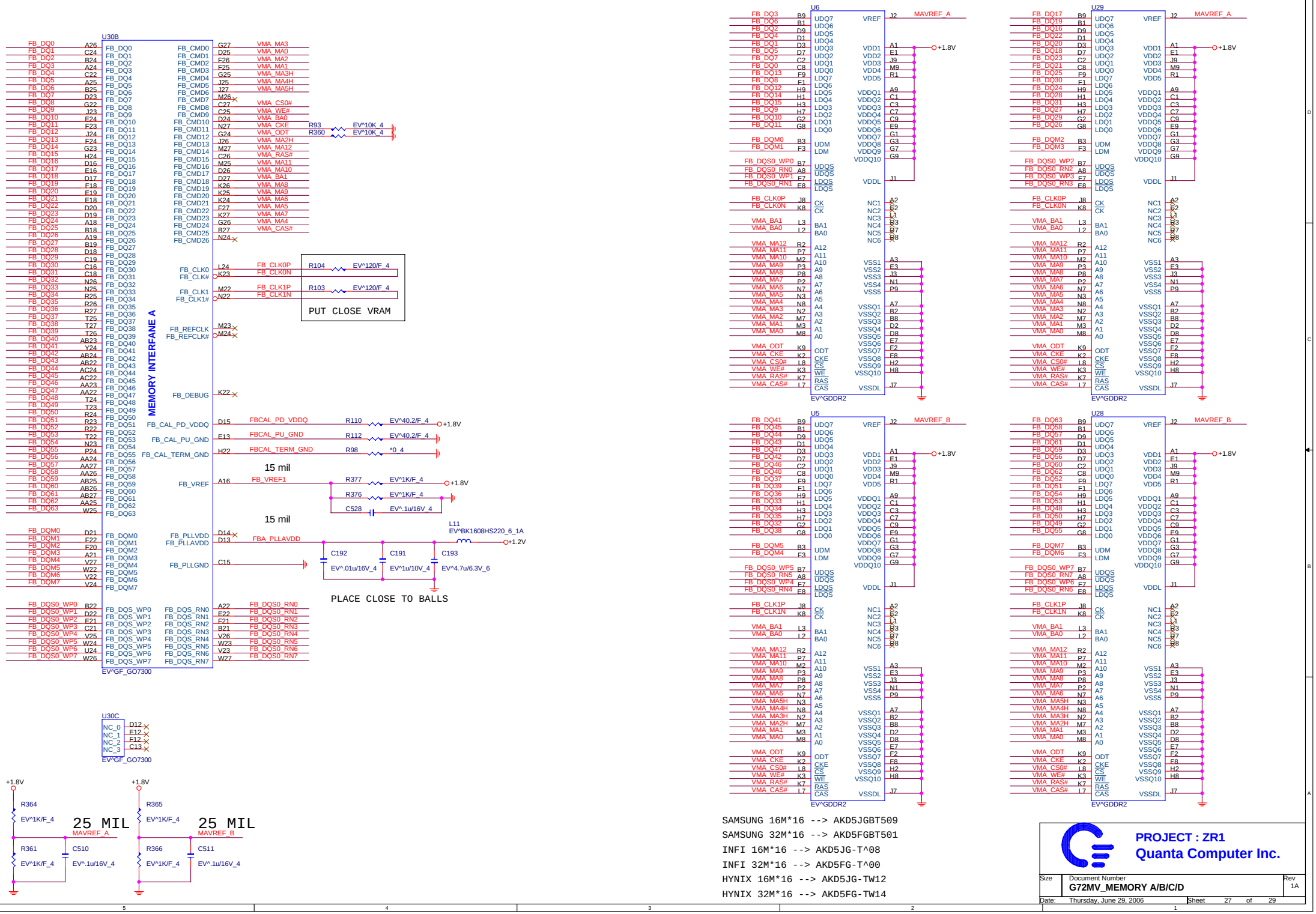
XTALIN Y5 XTALOUT
C584 EV^22p_4 EV^27MHz C579 EV^22p_4

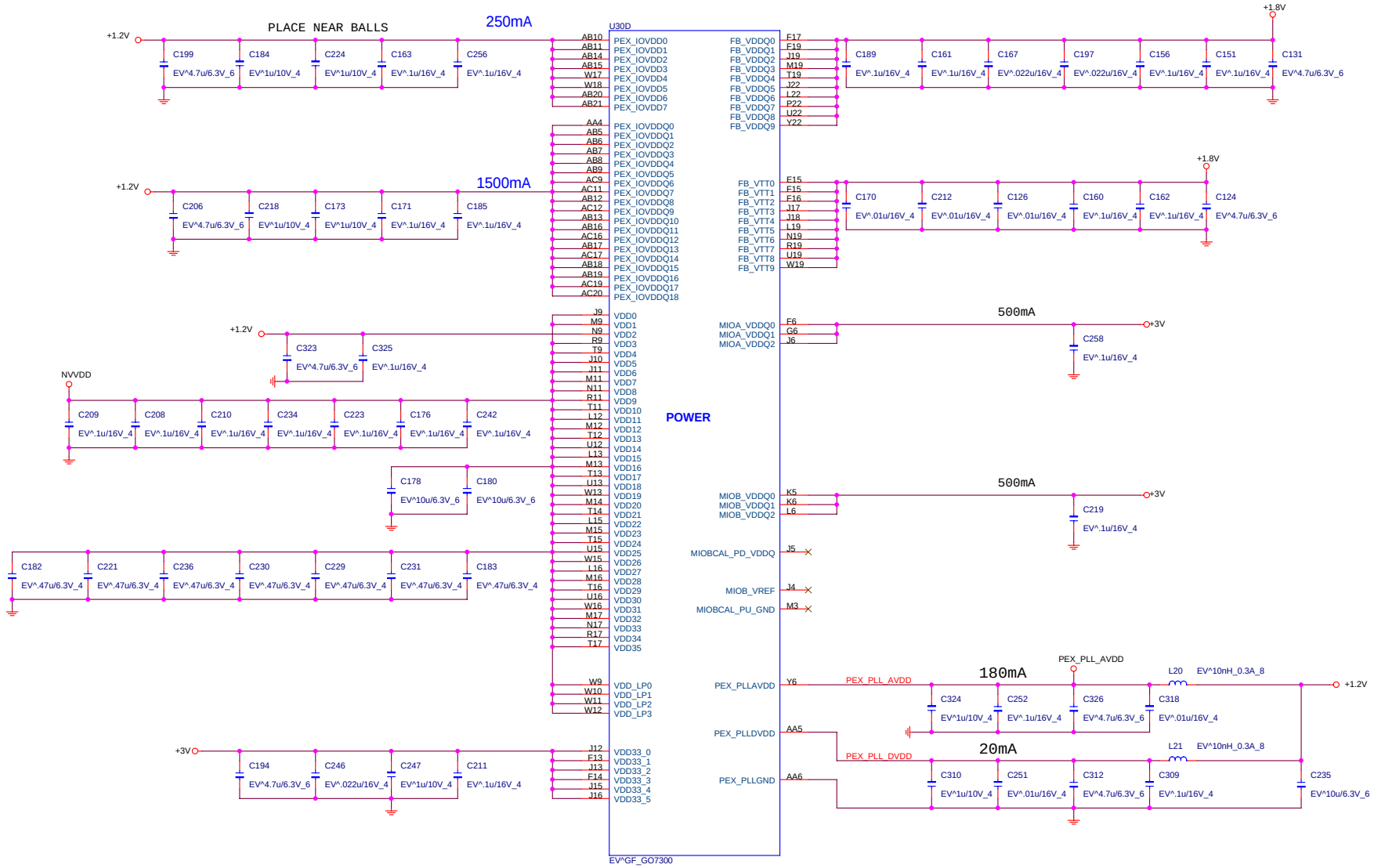
PLACE CLOSE TO GPU

DISP_ON1 R387 EV^1K_4
EXT_BLON R390 EV^1K_4
EXT_TV_C/R R135 EV^150/F_4 R417 EV^150/F_4 EXT_VGA_RED
EXT_TV_Y/G R124 EV^150/F_4 R415 EV^150/F_4 EXT_VGA_GRN
EXT_TV_COMP R121 EV^150/F_4 R416 EV^150/F_4 EXT_VGA_BLU

PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number	Rev
	G72MV_PCIE/DAC/GND	1A
Date: Thursday, June 29, 2006	Sheet 26 of 29	


U30B
MEMORY INTERFANE A
EV^GF_GO7300
U30C
NC_0
NC_1
NC_2
NC_3
EV^GF_GO7300
PUT CLOSE VRAM
15 mil
15 mil
PLACE CLOSE TO BALLS
+1.8V
+1.2V
25 MIL
MAVREF_A
25 MIL
MAVREF_B
U6
U29
U5
U28
EV^GDDR2
SAMSUNG 16M*16 --> AKD5JGBT509
SAMSUNG 32M*16 --> AKD5FGBT501
INFI 16M*16 --> AKD5JG-T^08
INFI 32M*16 --> AKD5FG-T^00
HYNIX 16M*16 --> AKD5JG-TW12
HYNIX 32M*16 --> AKD5FG-TW14
PROJECT : ZR1
Quanta Computer Inc.
Size
Document Number
G72MV_MEMORY A/B/C/D
Rev
1A
Date: Thursday, June 29, 2006
Sheet 27 of 29



PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number	Rev
	G72MV_POWER	1A

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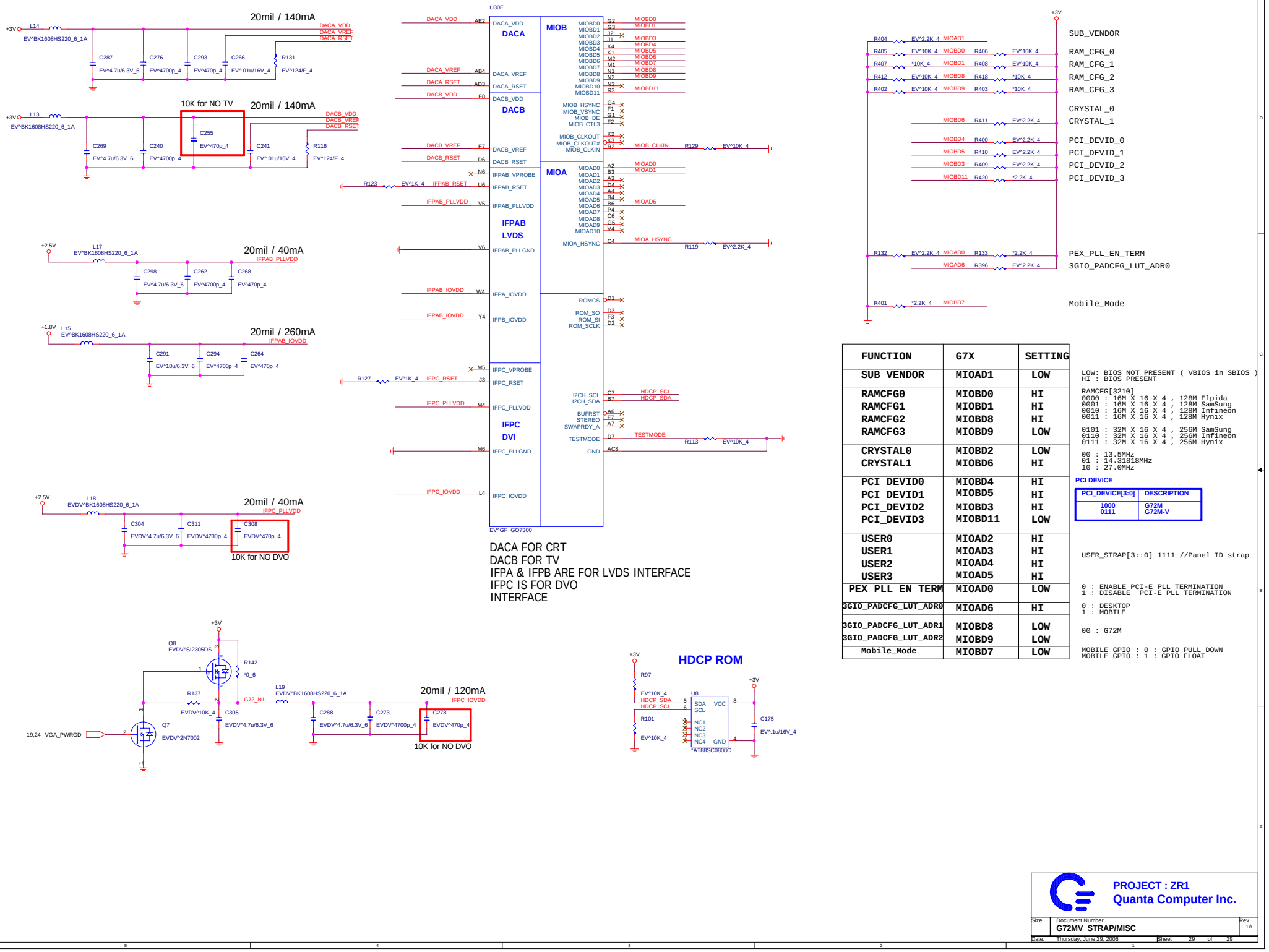

FUNCTION	G7X	SETTING
SUB_VENDOR	MIOAD1	LOW
RAMCFG0	MIOBD0	HI
RAMCFG1	MIOBD1	HI
RAMCFG2	MIOBD8	HI
RAMCFG3	MIOBD9	LOW
CRYSTAL0	MIOBD2	LOW
CRYSTAL1	MIOBD6	HI
PCI_DEVID0	MIOBD4	HI
PCI_DEVID1	MIOBD5	HI
PCI_DEVID2	MIOBD3	HI
PCI_DEVID3	MIOBD11	LOW
USER0	MIOAD2	HI
USER1	MIOAD3	HI
USER2	MIOAD4	HI
USER3	MIOAD5	HI
PEX_PLL_EN_TERM	MIOAD0	LOW
3GIO_PADCFG_LUT_ADR0	MIOAD6	HI
3GIO_PADCFG_LUT_ADR1	MIOBD8	LOW
3GIO_PADCFG_LUT_ADR2	MIOBD9	LOW
Mobile_Mode	MIOBD7	LOW

LOW: BIOS NOT PRESENT (VBIOS in SBIOS)
HI : BIOS PRESENT

RAMCFG[3210]
0000 : 16M X 16 X 4 , 128M Elpida
0001 : 16M X 16 X 4 , 128M SamSung
0010 : 16M X 16 X 4 , 128M Infineon
0011 : 16M X 16 X 4 , 128M Hynix

0101 : 32M X 16 X 4 , 256M SamSung
0110 : 32M X 16 X 4 , 256M Infineon
0111 : 32M X 16 X 4 , 256M Hynix

00 : 13.5MHz
01 : 14.31818MHz
10 : 27.0MHz

PCI DEVICE

PCI_DEVICE[3:0]	DESCRIPTION
1000	G72M
0111	G72M-V

USER_STRAP[3::0] 1111 //Panel ID strap

0 : ENABLE PCI-E PLL TERMINATION
1 : DISABLE PCI-E PLL TERMINATION

0 : DESKTOP
1 : MOBILE

00 : G72M

MOBILE GPIO : 0 : GPIO PULL DOWN
MOBILE GPIO : 1 : GPIO FLOAT

PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number	Rev
	G72MV_STRAP/MISC	1A

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