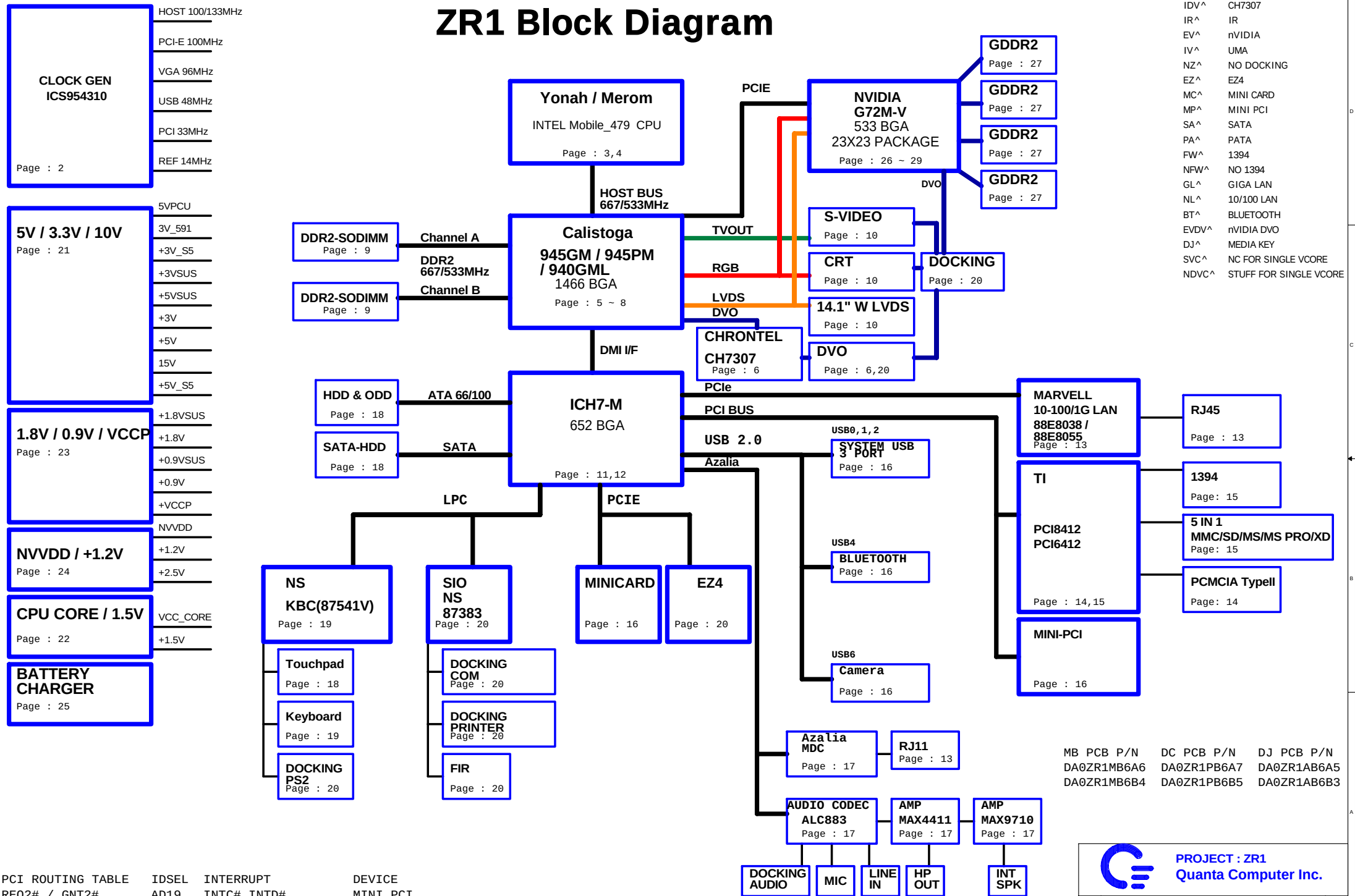


MODEL :		REV:	CHANGE LIST:	ECN NO	MODEL : ZR1 MB		
ZR1 MotherBoard	1A	FIRST RELEASE		E200604-0013 E200605-0194	PAGE	FROM	TO
	2A	PAGE 02 : ADD EMI SOLUTION PAGE 03 : MODIFY MDC NUT / UN-STUFF CPURST# PU R151 PAGE 06 : STUFF LIBG R430 FOR 940GML / MOVE TMDS PU AT NB SIDE PAGE 10 : ADD LCD PIN 31 & 33 TO 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 PAGE 18 : MODIFY R522,R524 FOR REDUCE DISTORTION / RESERVE R541,R542,R543 FOR NOISE REDUCTION / STUFF U41 / UN-STUFF D30 FOR POP ISSUE 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	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
					11	2A	3A
					12	1A	
					13	2A	3A
					14	1A	3A
					15	1A	3A
					16	2A	3A
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					18	2A	3A
					19	1A	
					20	2A	3A
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					24	2A	3A
					25	1A	3A
					26	1A	
					27	1A	
					28	1A	
					29	1A	

ZR1 Block Diagram



IDV^ 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
GL^ GIGA LAN
NL^ 10/100 LAN
BT^ BLUETOOTH
EVDV^ nVIDIA DVO
DJ^ MEDIA KEY
SVC^ NC FOR SINGLE VCORE
NDVC^ STUFF FOR SINGLE VCORE

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

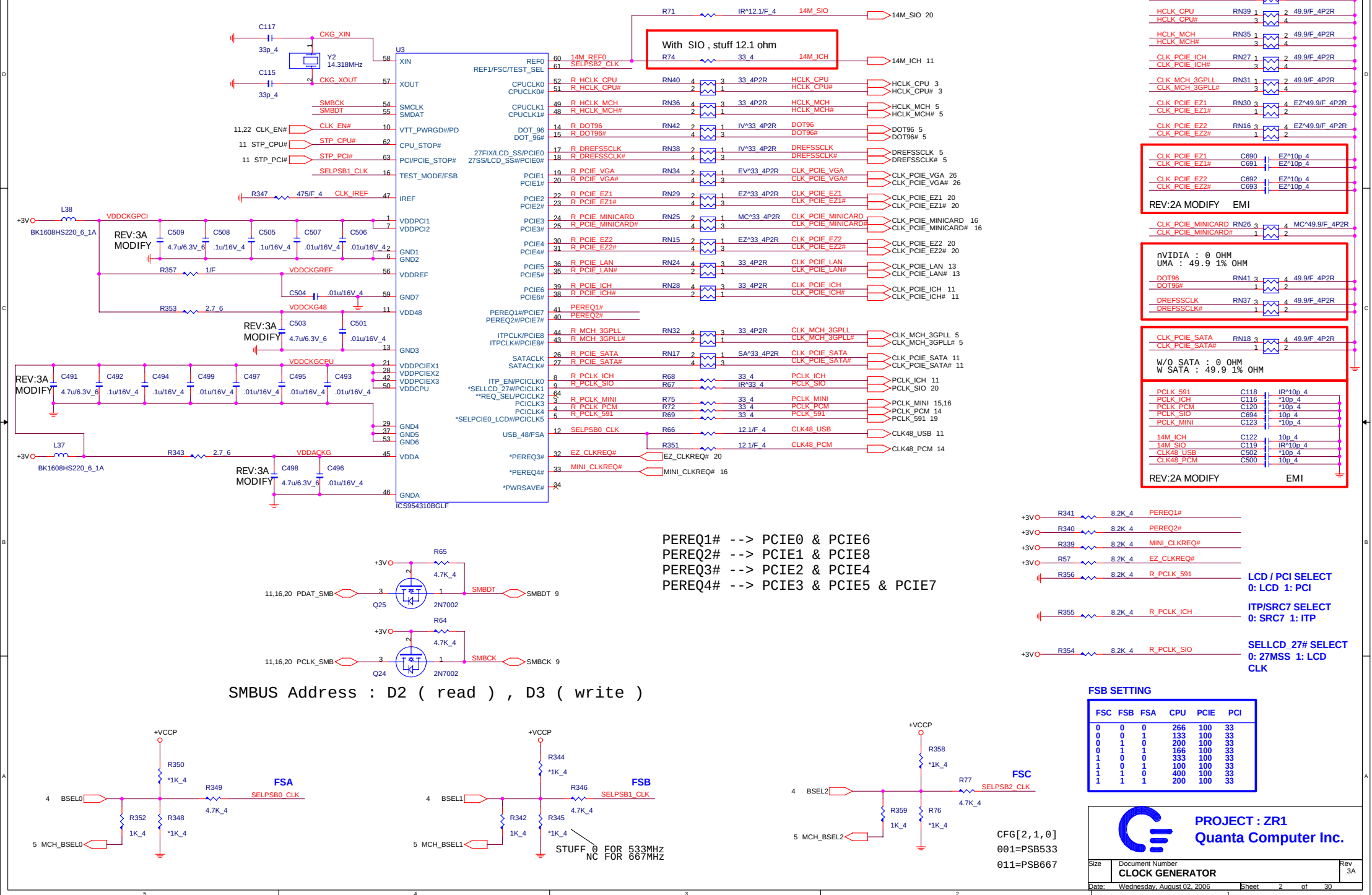


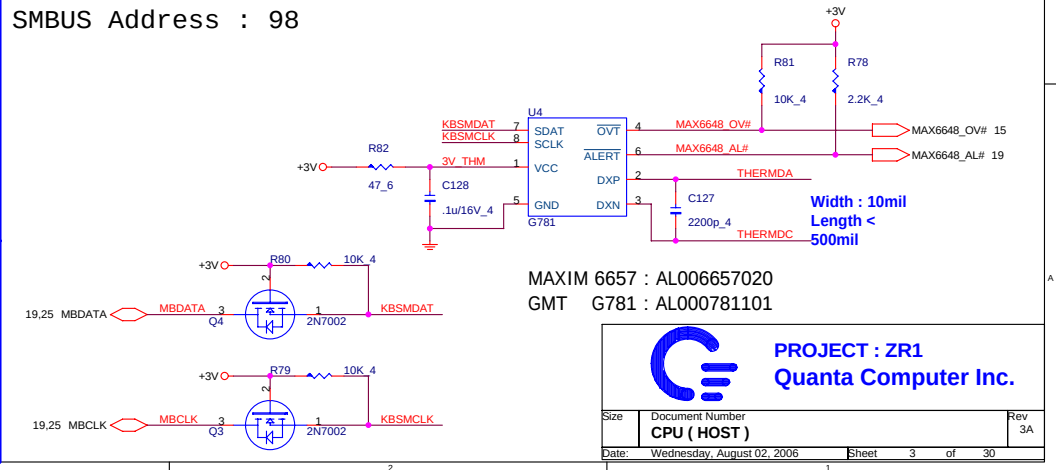
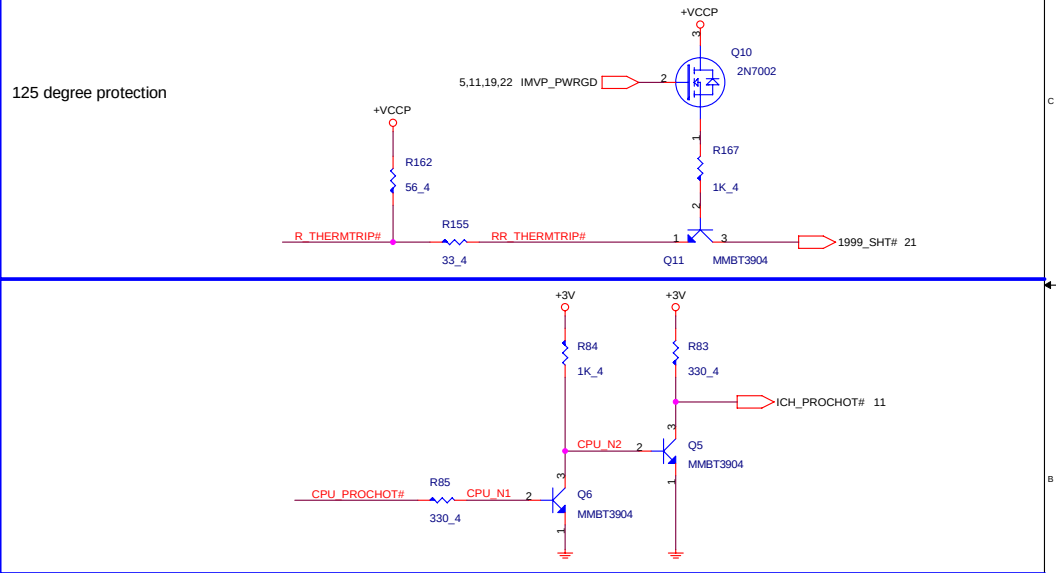
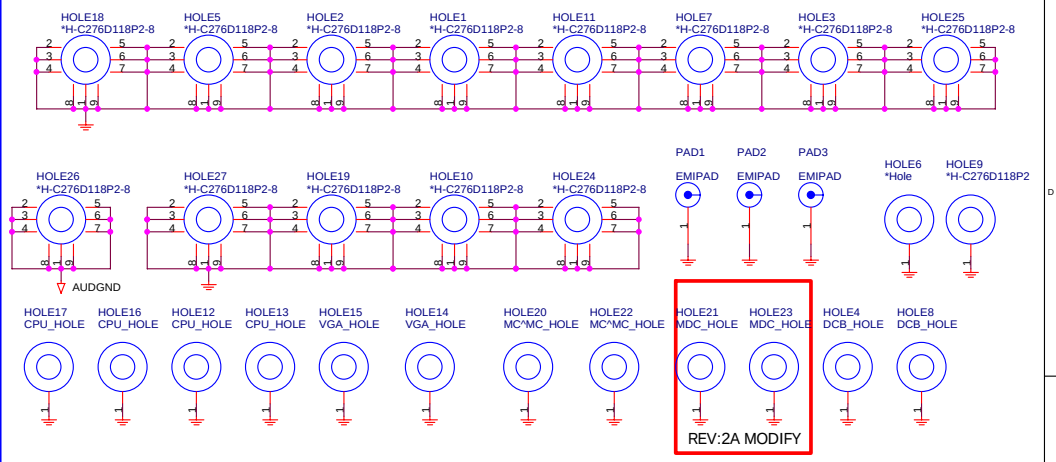
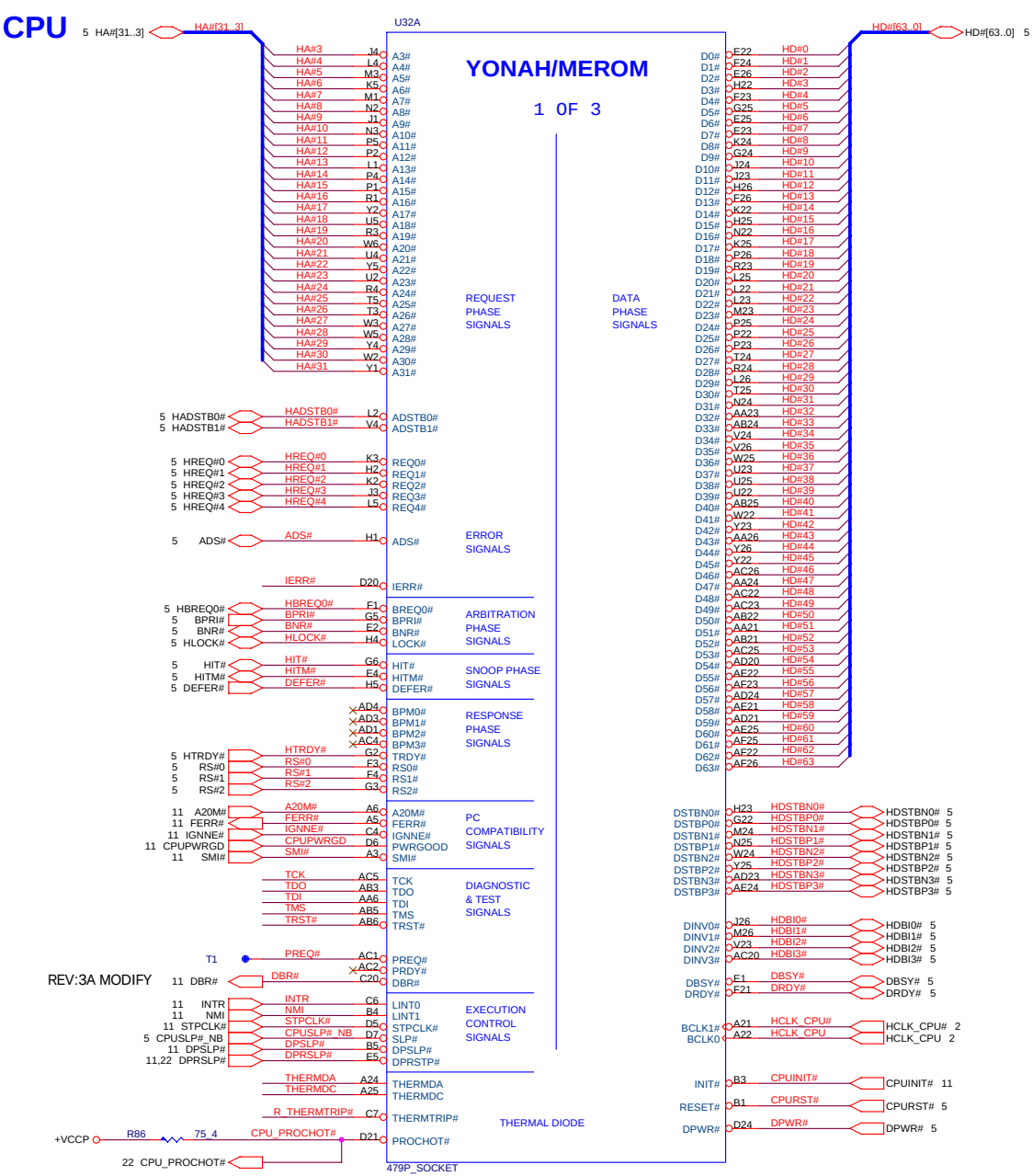
PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number	Rev
	BLOCK DIAGRAM	1A
Date: Wednesday, August 02, 2006	Sheet 1 of 30	

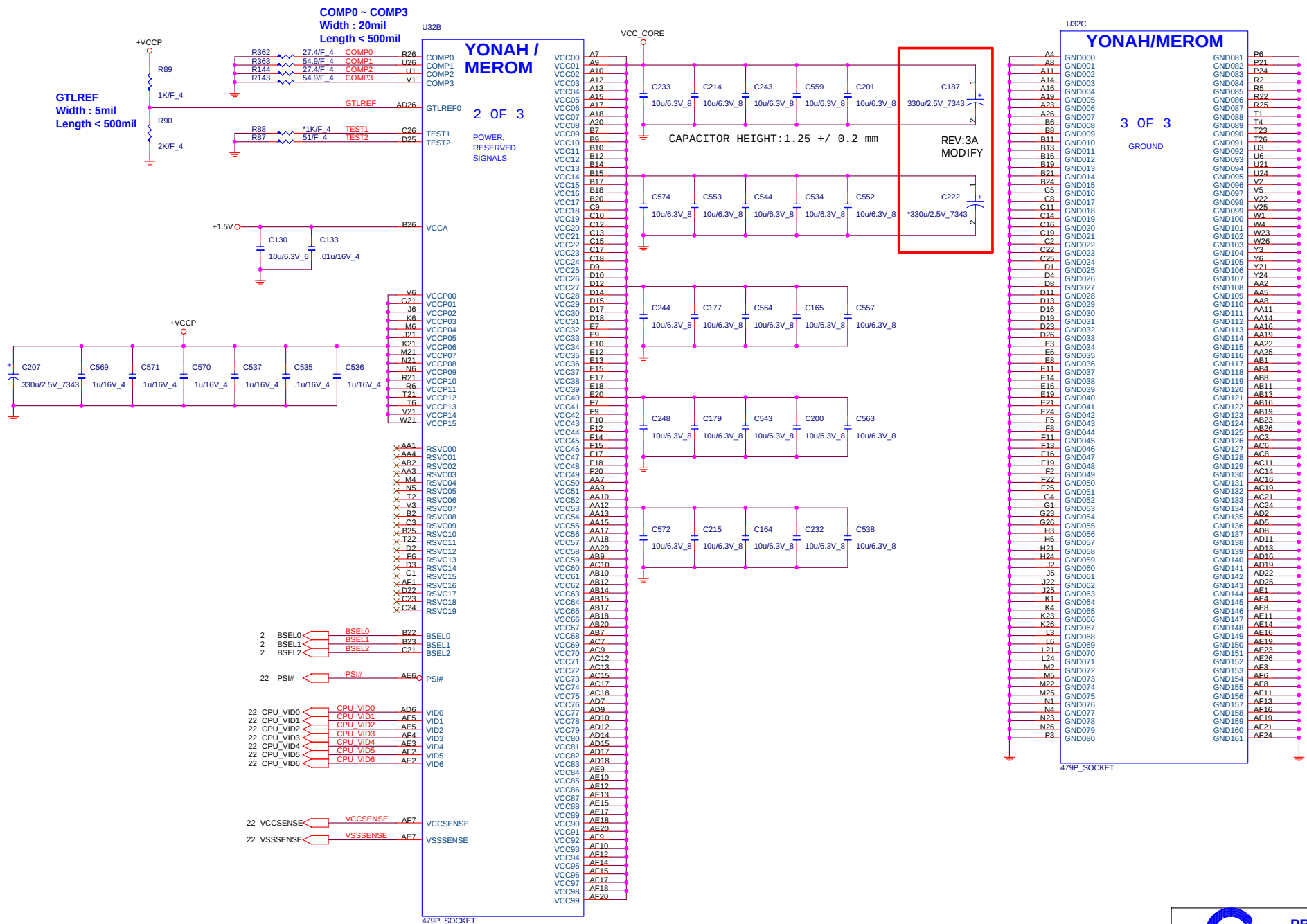
PCI ROUTING TABLE	IDSEL	INTERRUPT	DEVICE
REQ2# / GNT2#	AD19	INTC#, INTD#	MINI PCI
REQ0# / GNT0#	AD25	INTE#, INTF#, INTG#	TI XX12

CLOCK GENERATOR

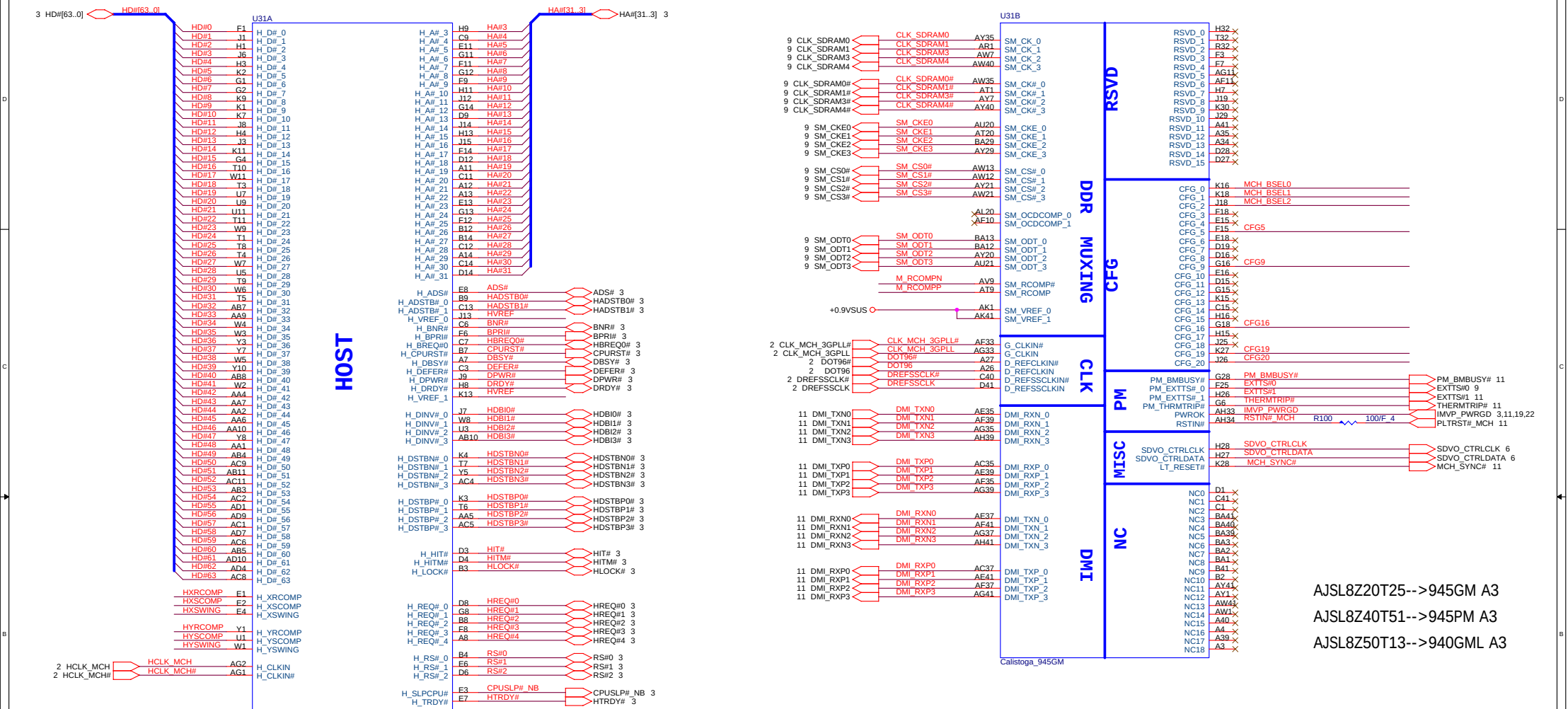




CPU



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

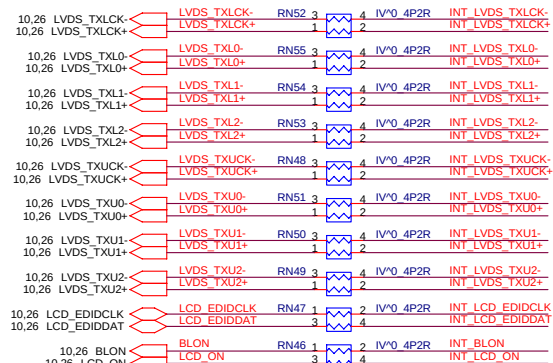
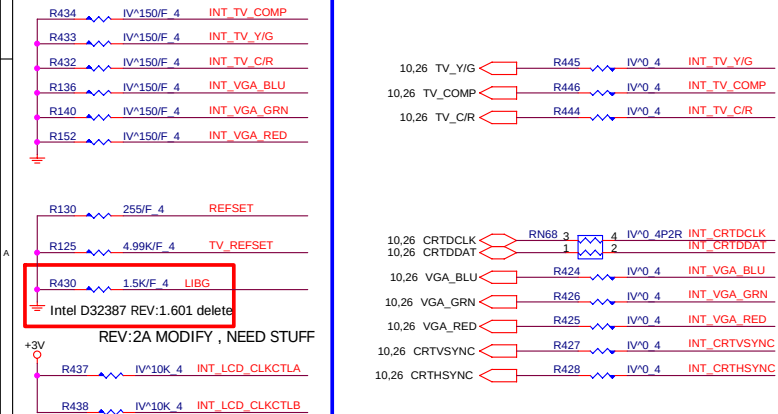
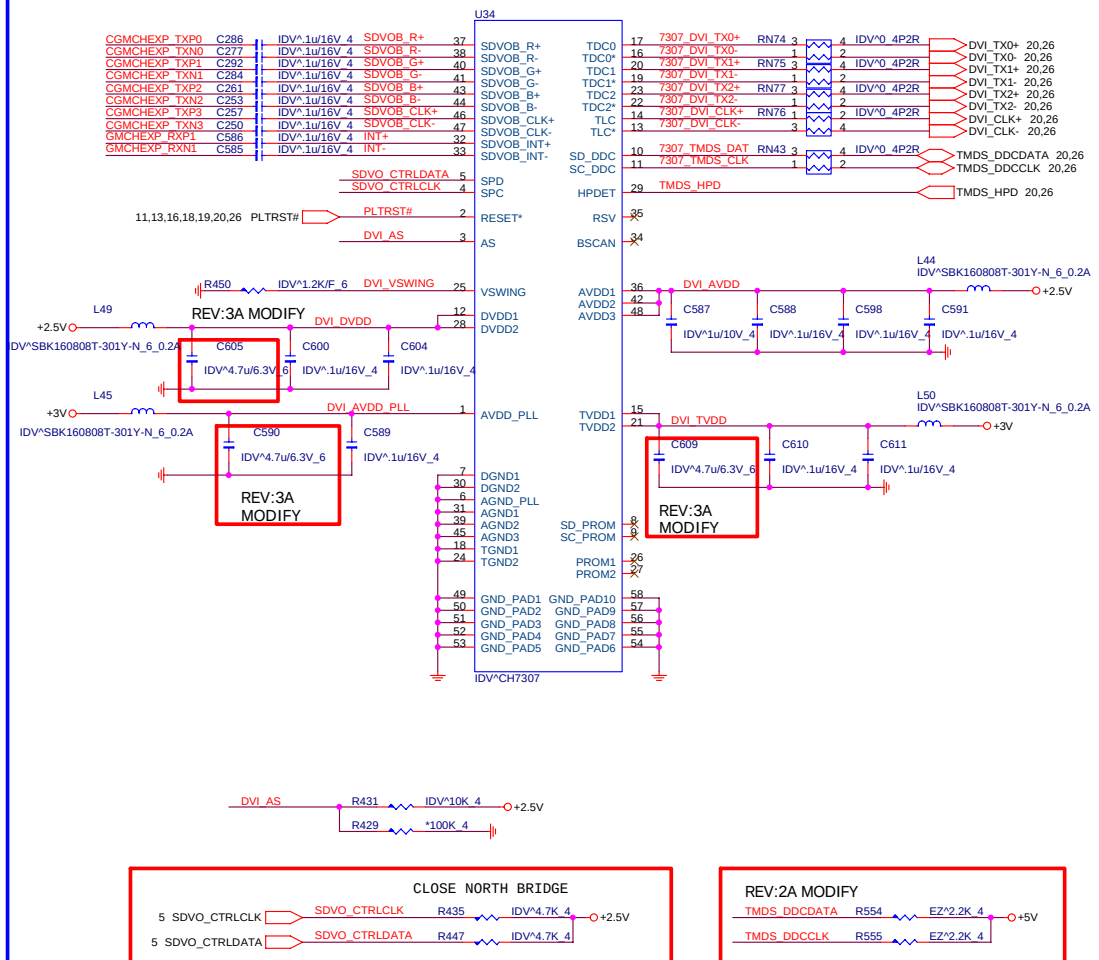
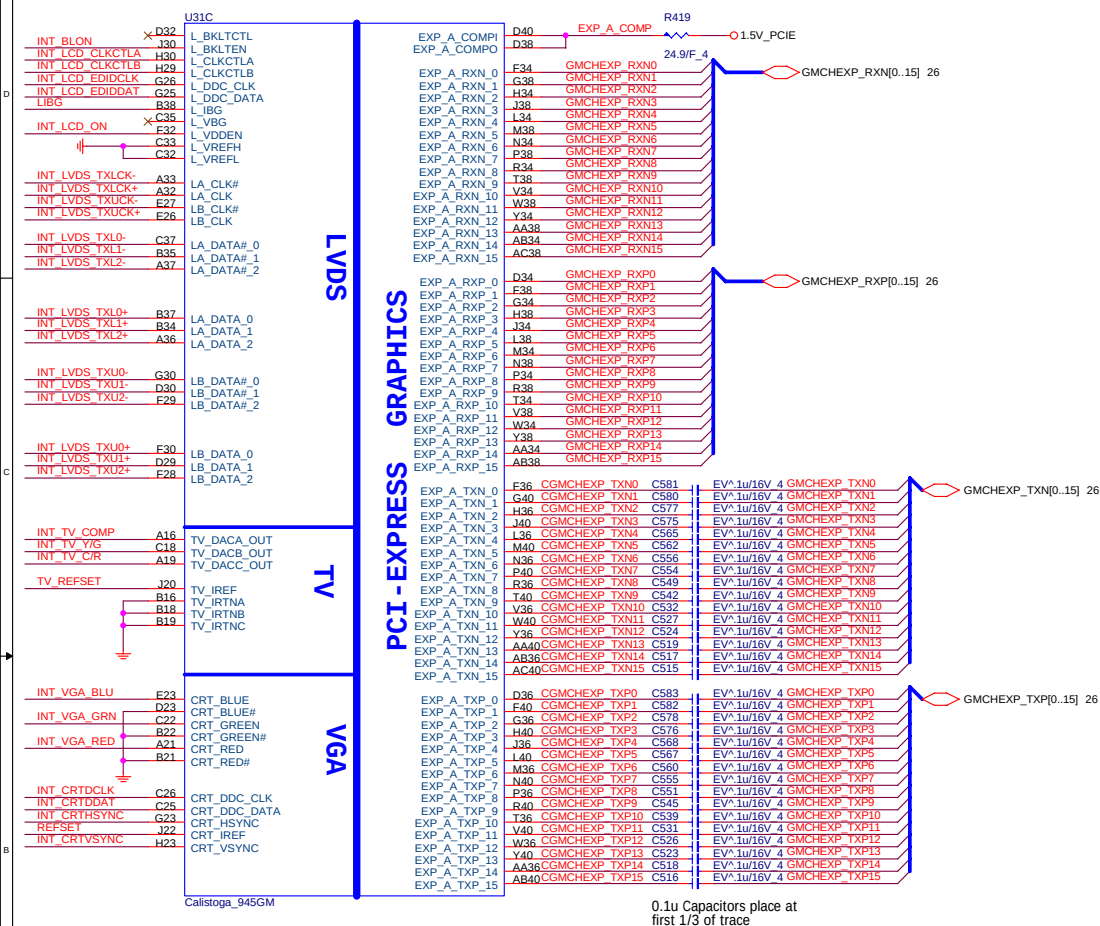
GMCH Strap pin



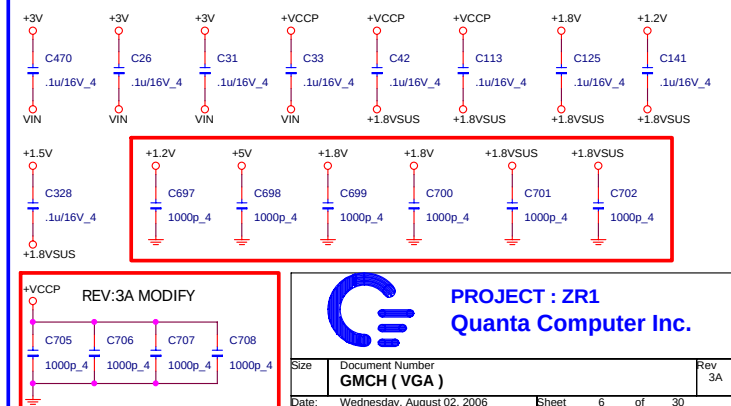
PROJECT : ZR1
Quanta Computer Inc.

Size	Document Number GMCH (HOST / DMI)	Rev 1A
Date:	Wednesday, August 02, 2006	Sheet 5 of 30

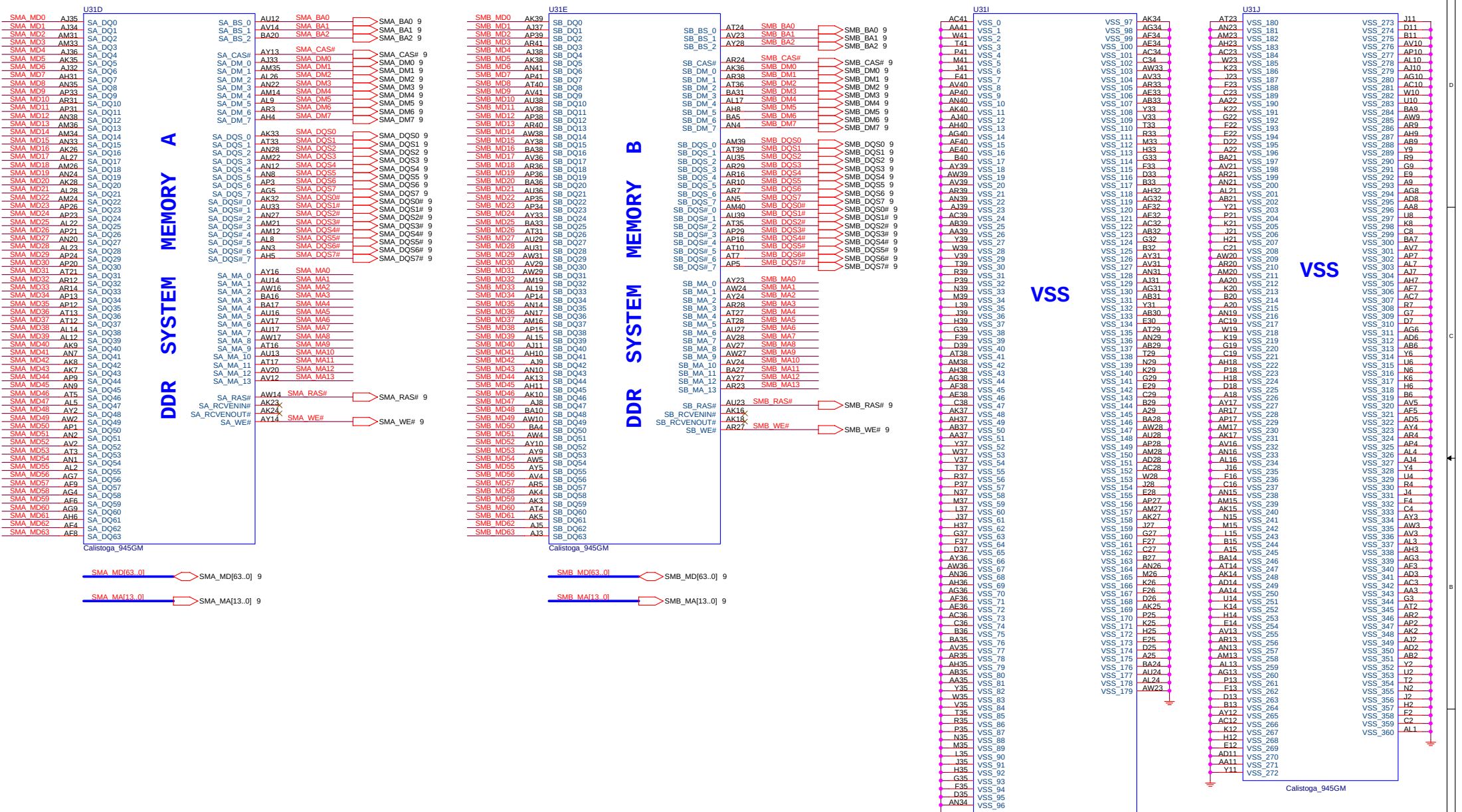
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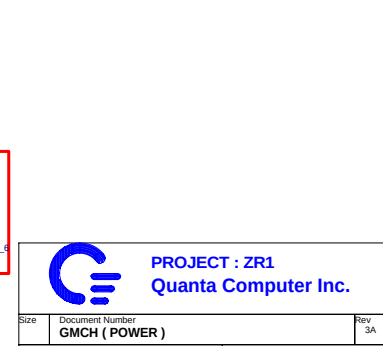
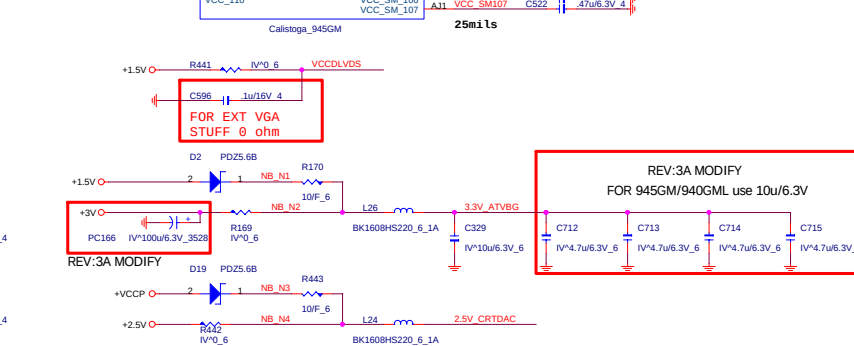
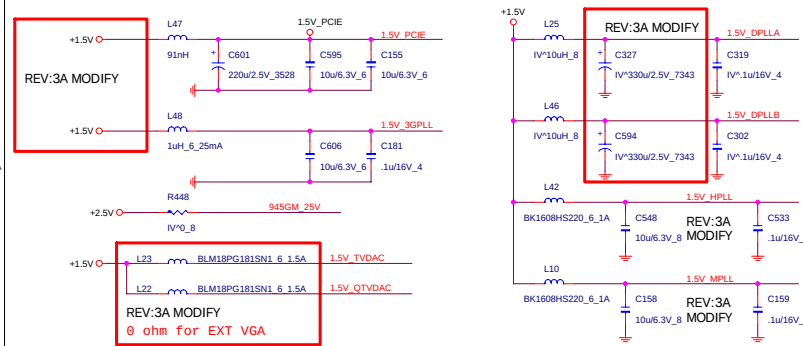
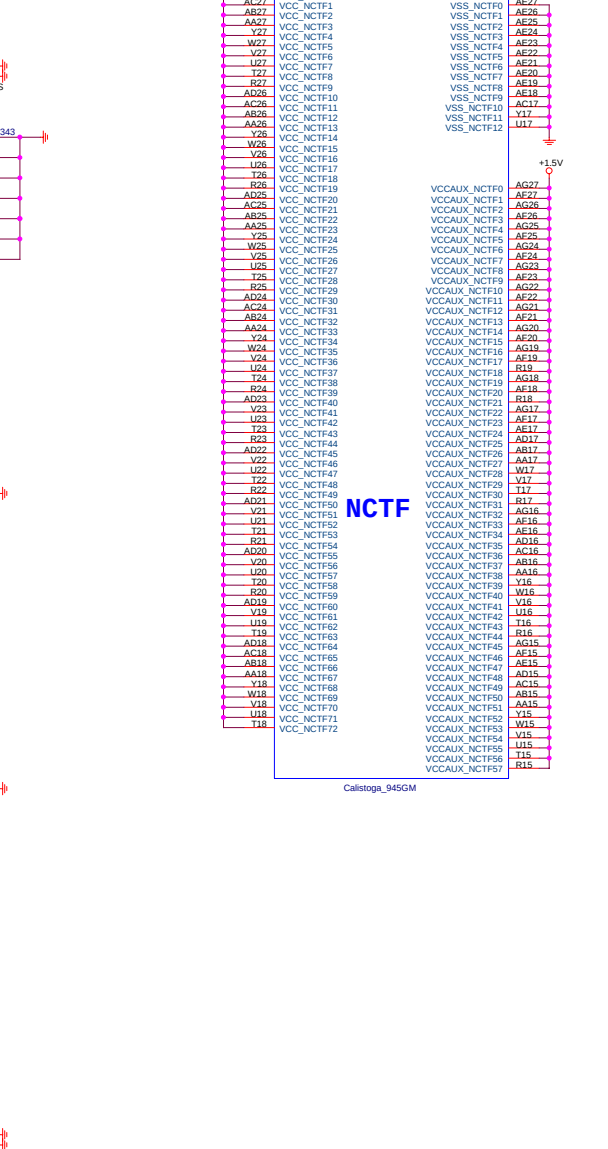
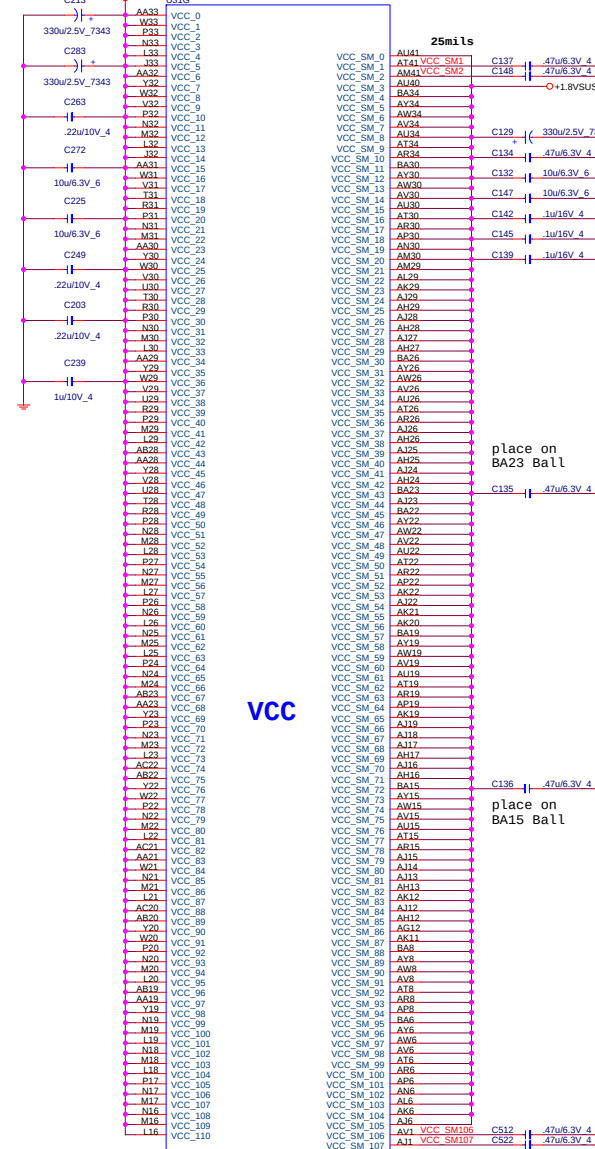
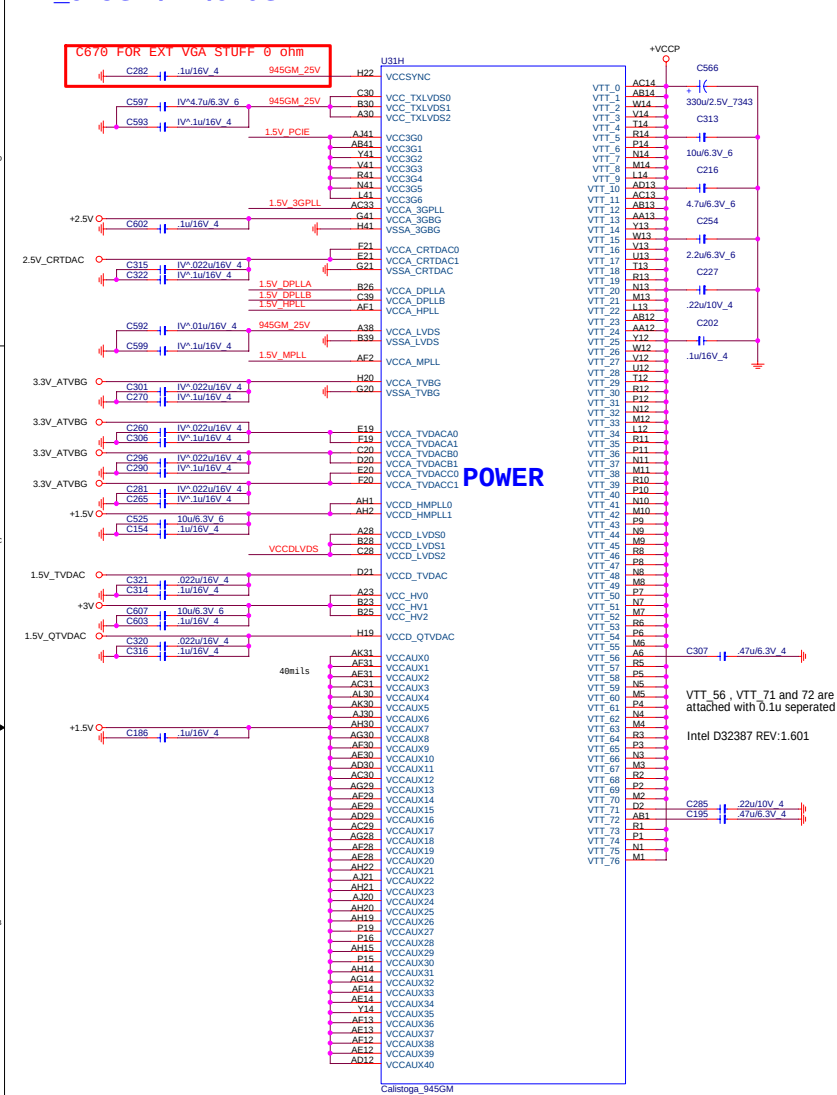
Signal Cross Moat



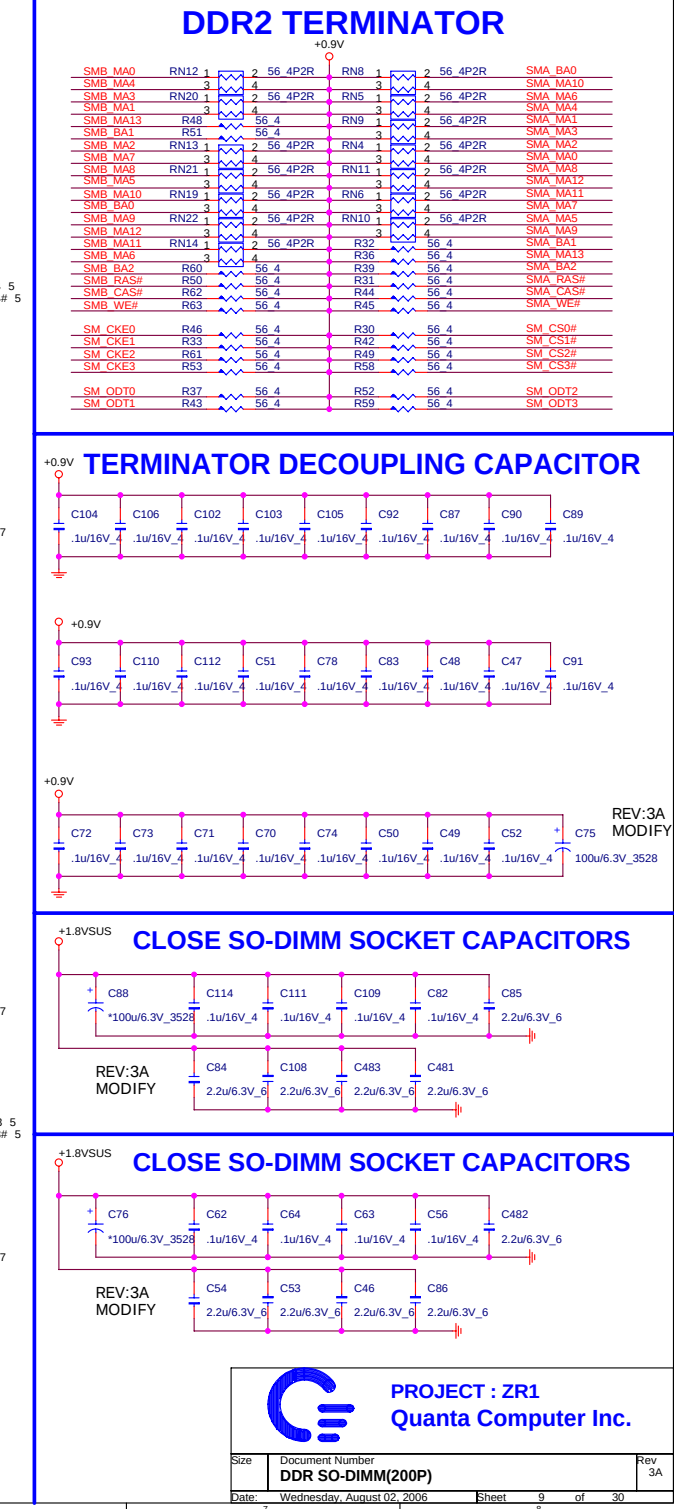
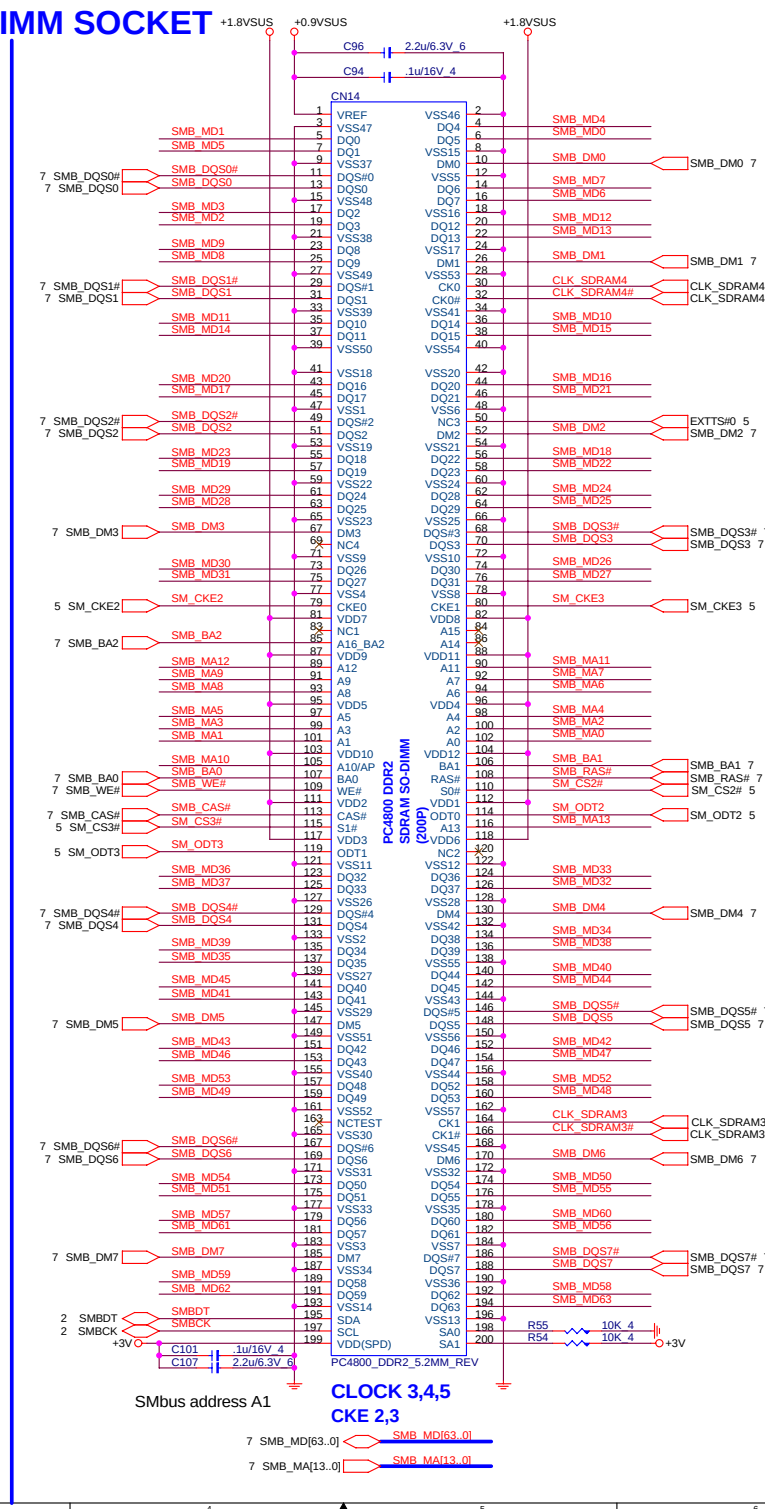
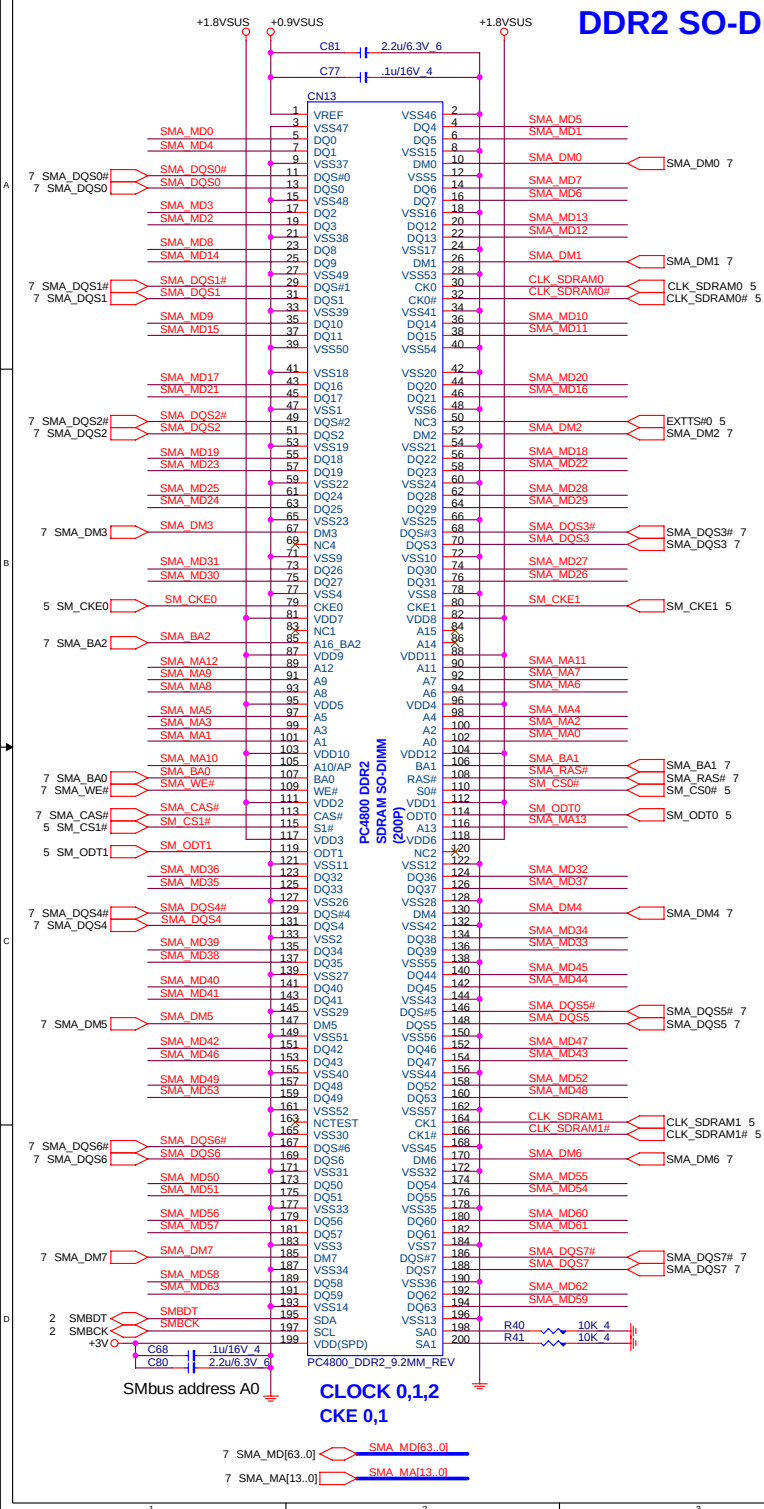
NB_945GM/PM/940GML



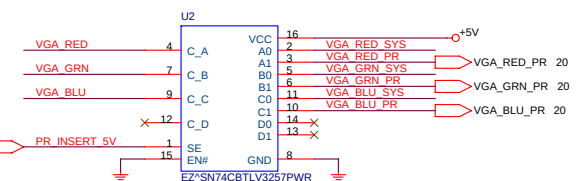
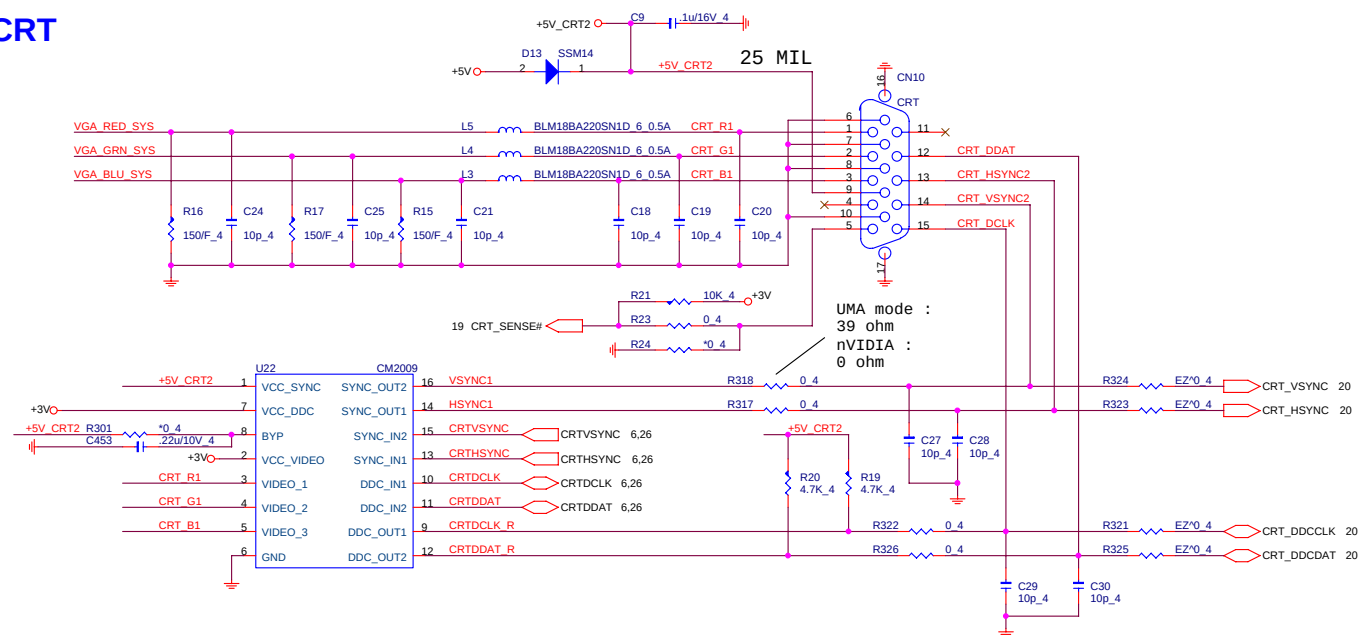
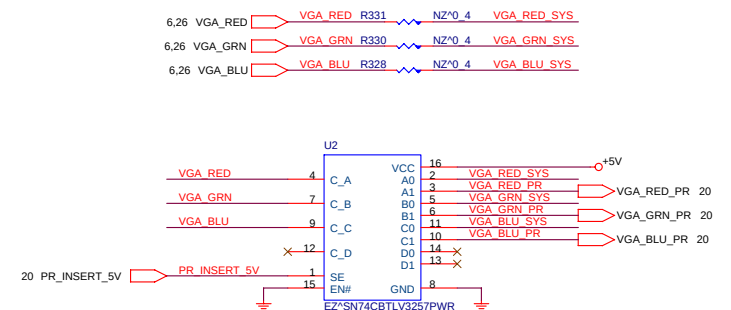
NB 945GM/PM/940GML



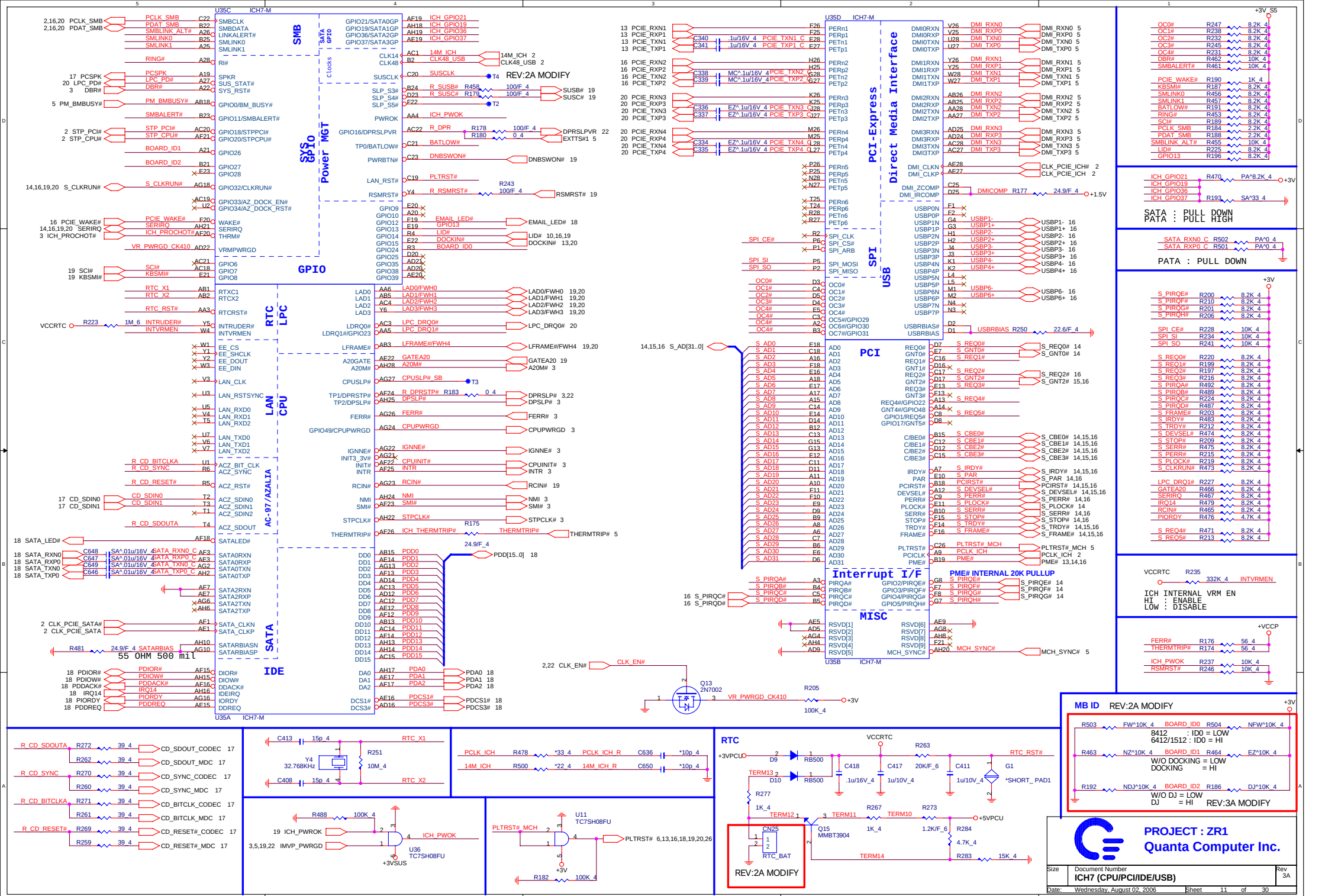
DDR2 TERMINATOR

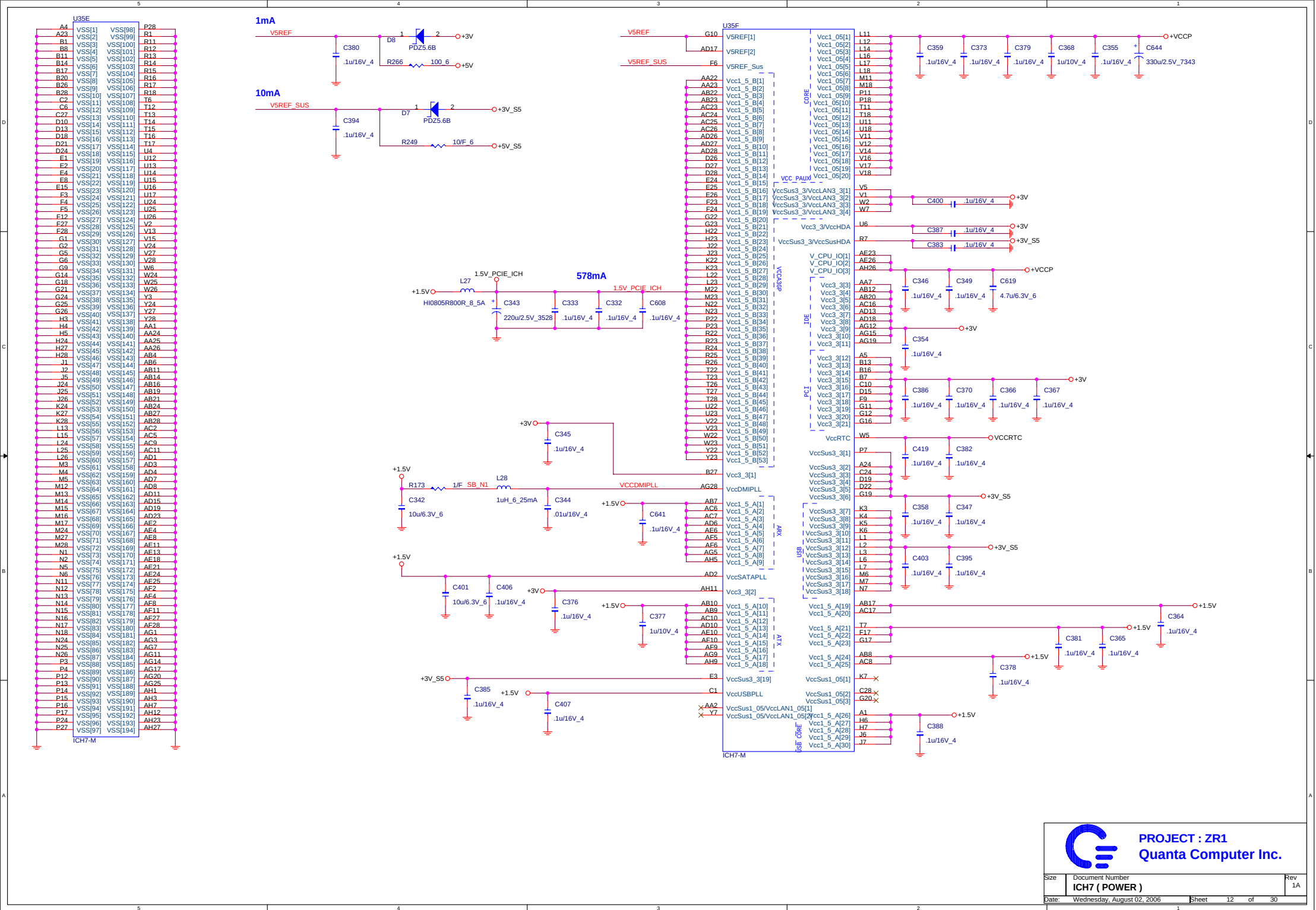


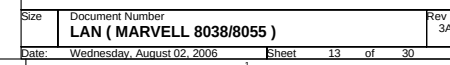
CRT



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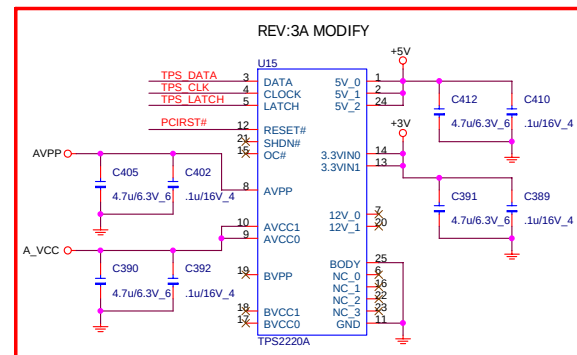
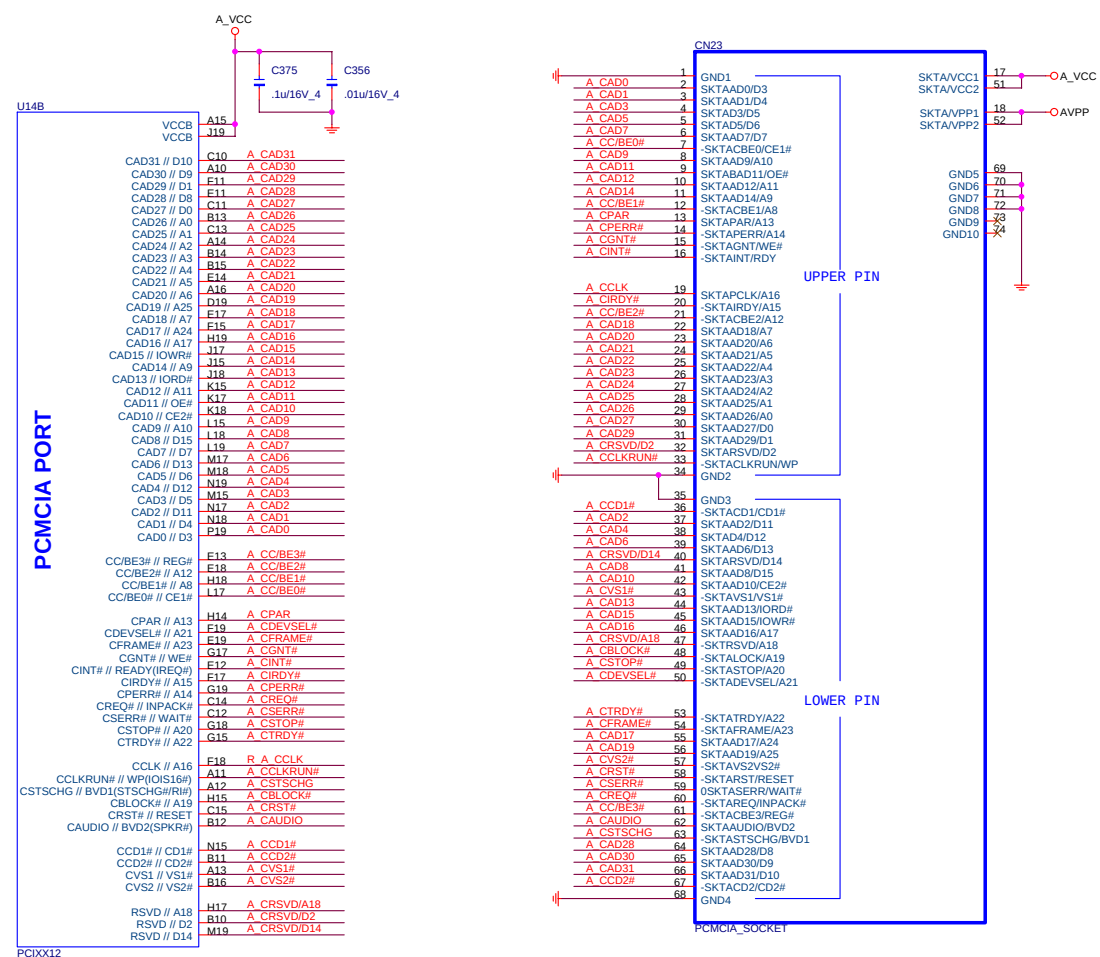
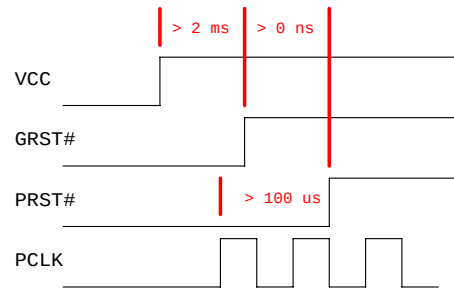
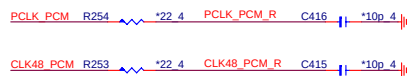
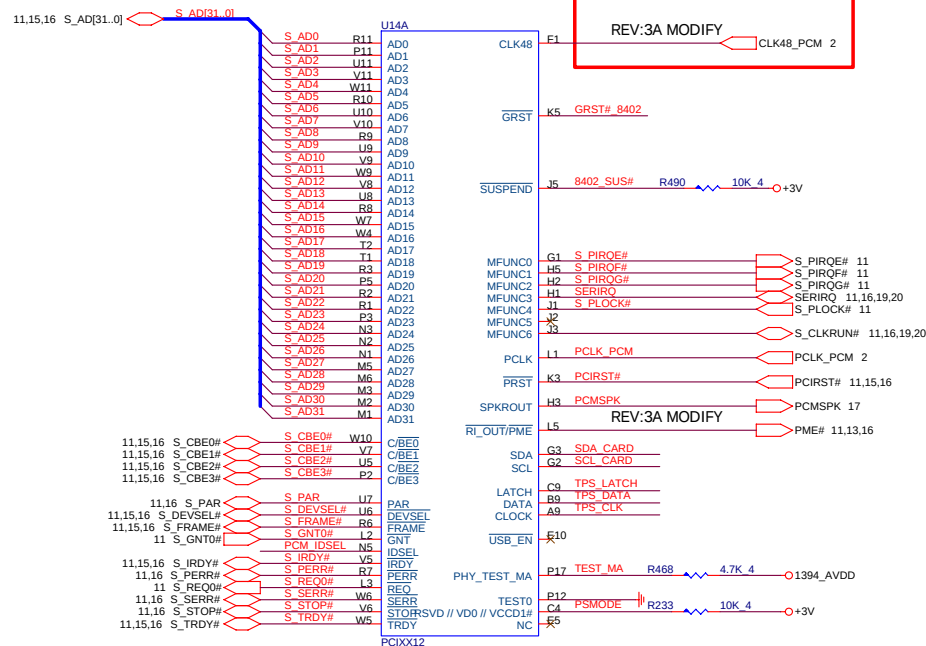


PCIXX12 PCMCIA

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

S_AD25 R255 150/F 4 PCM_IDSEL

PCI8412 : AJ084120T08	PCMCIA / 1394 / 5 IN 1
PCI6412 : AL064120T04	PCMCIA / 5 IN 1

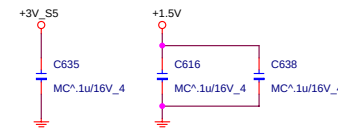
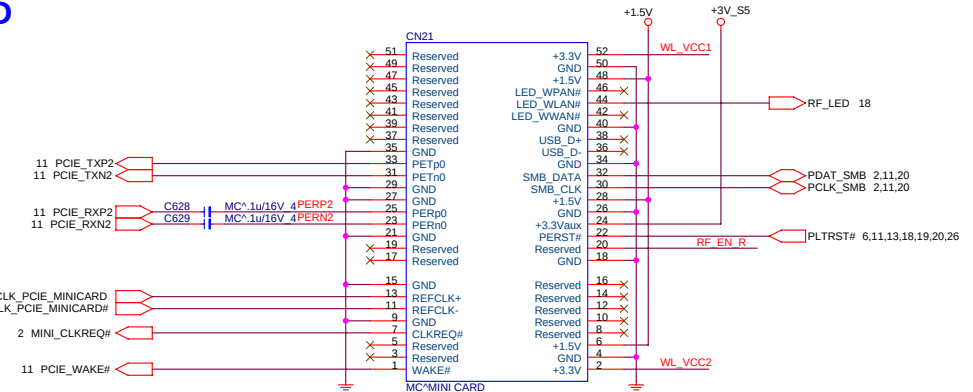


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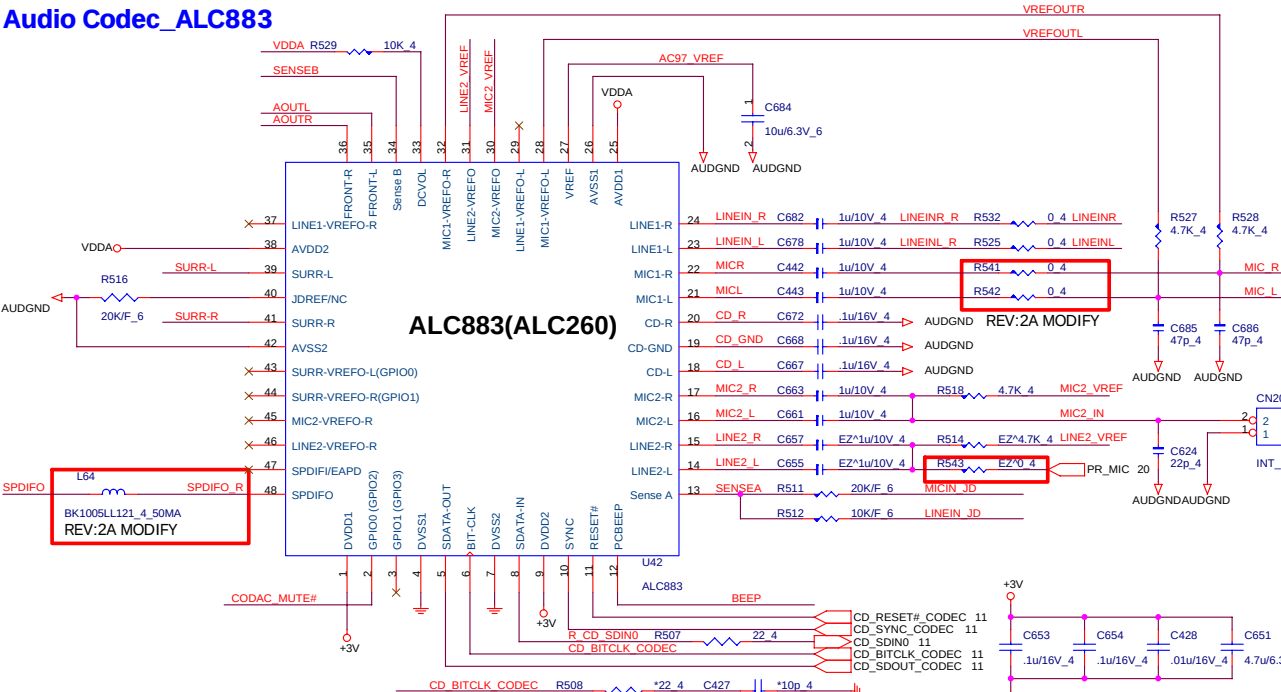
Size	Document Number PCIXX12 (PCMCIA)	Rev 3A
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GNT2# PIRQ(C,D)#

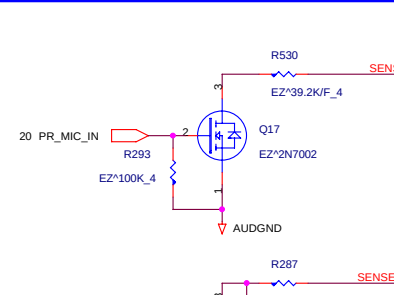
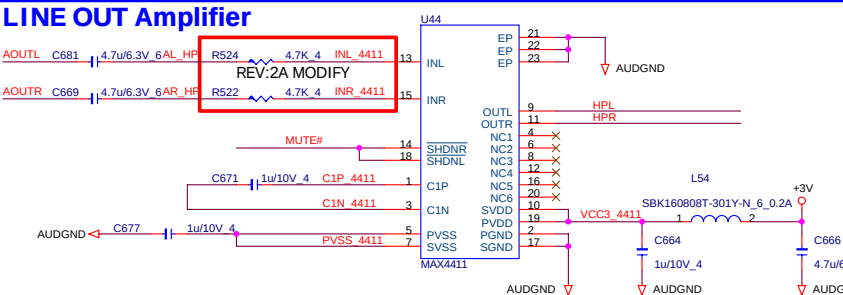
S AD19 R282 MP*150/F 4 MINI IDSEL



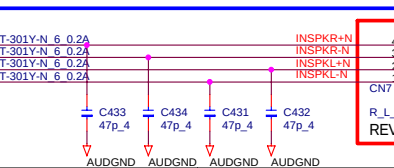
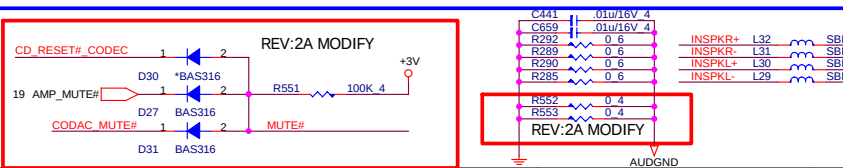
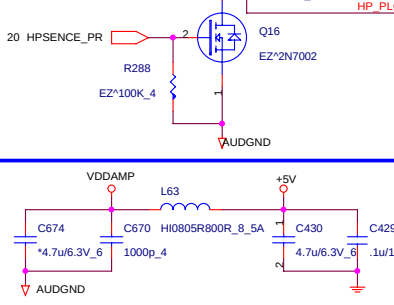
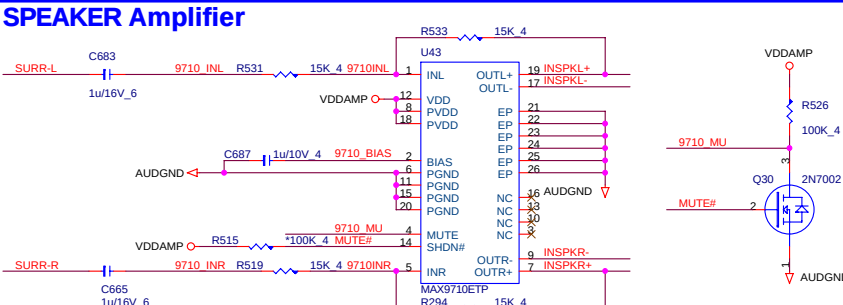
Audio Codec_ALC883



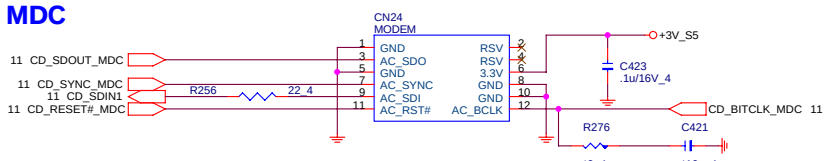
LINE OUT Amplifier



SPEAKER Amplifier

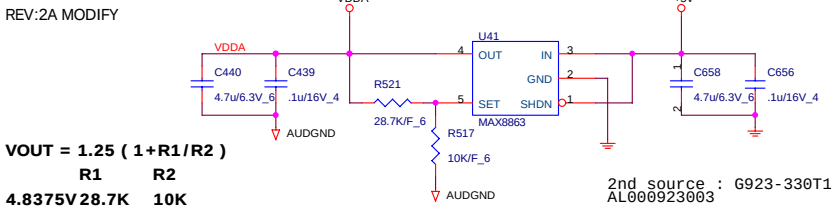


MDC

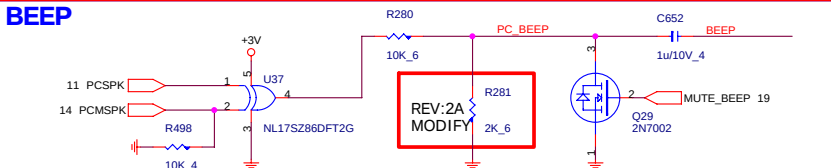


Audio Codec Power

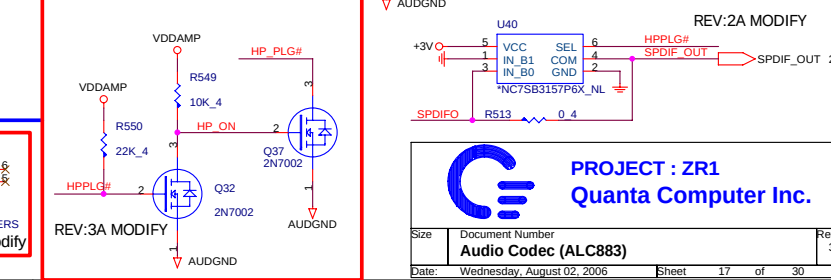
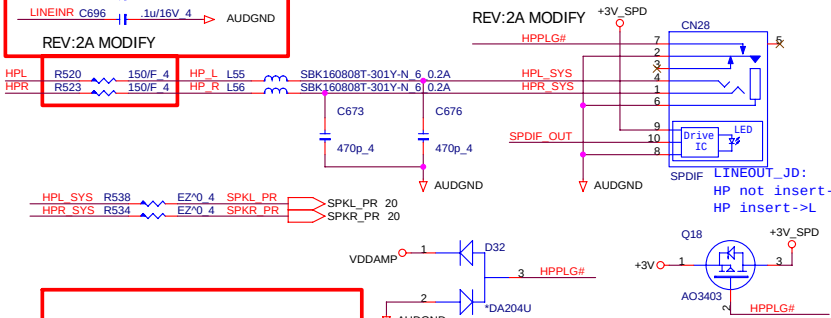
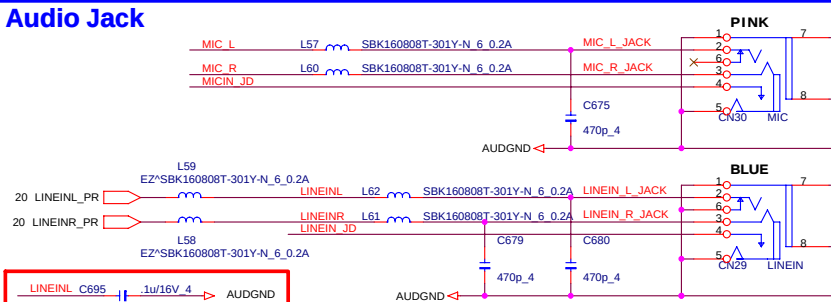
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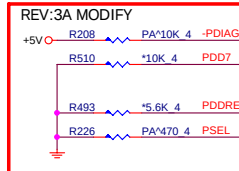
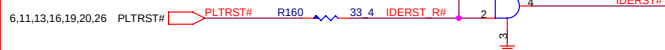
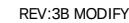
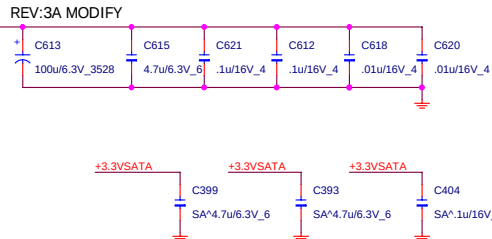
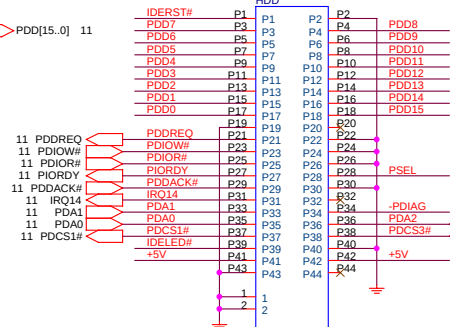
BEEP



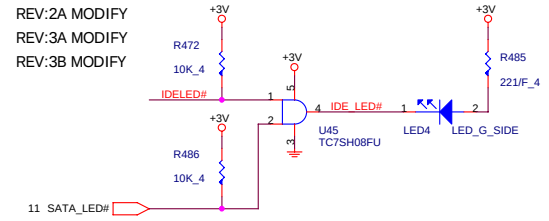
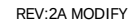
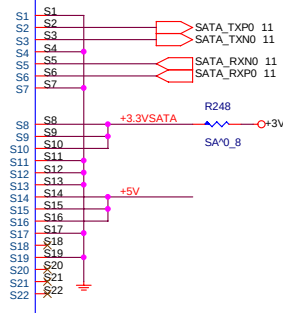
Audio Jack



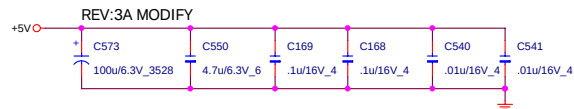
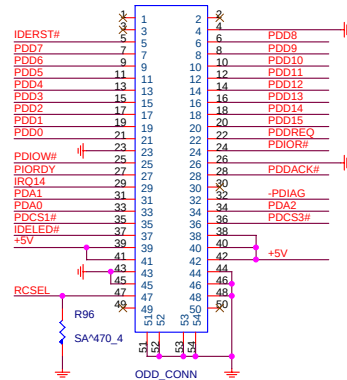
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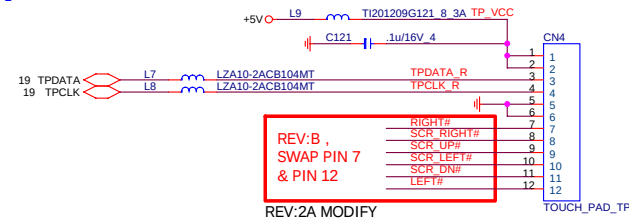
SATA



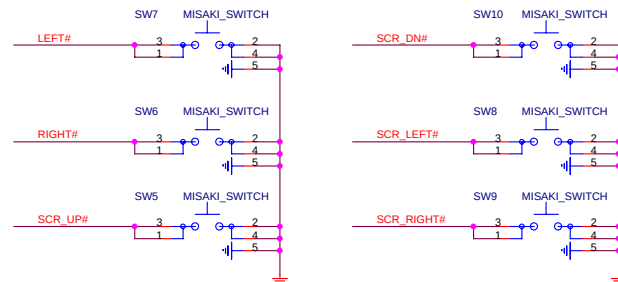
ODD



TP CONN



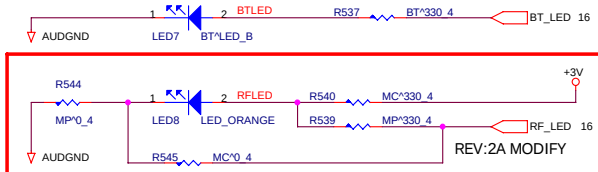
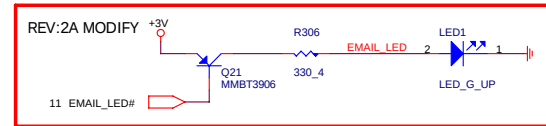
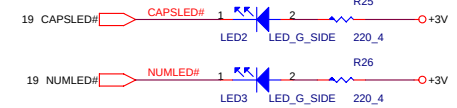
TP SWITCH



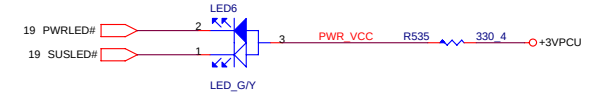
WL & BT SWITCH



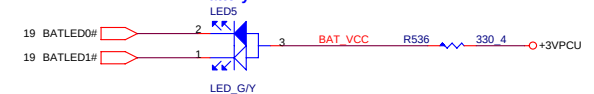
LED



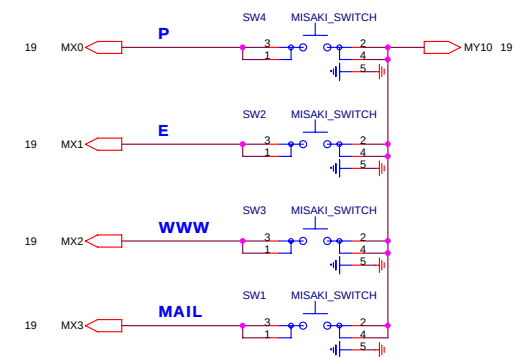
Power LED



Battery LED



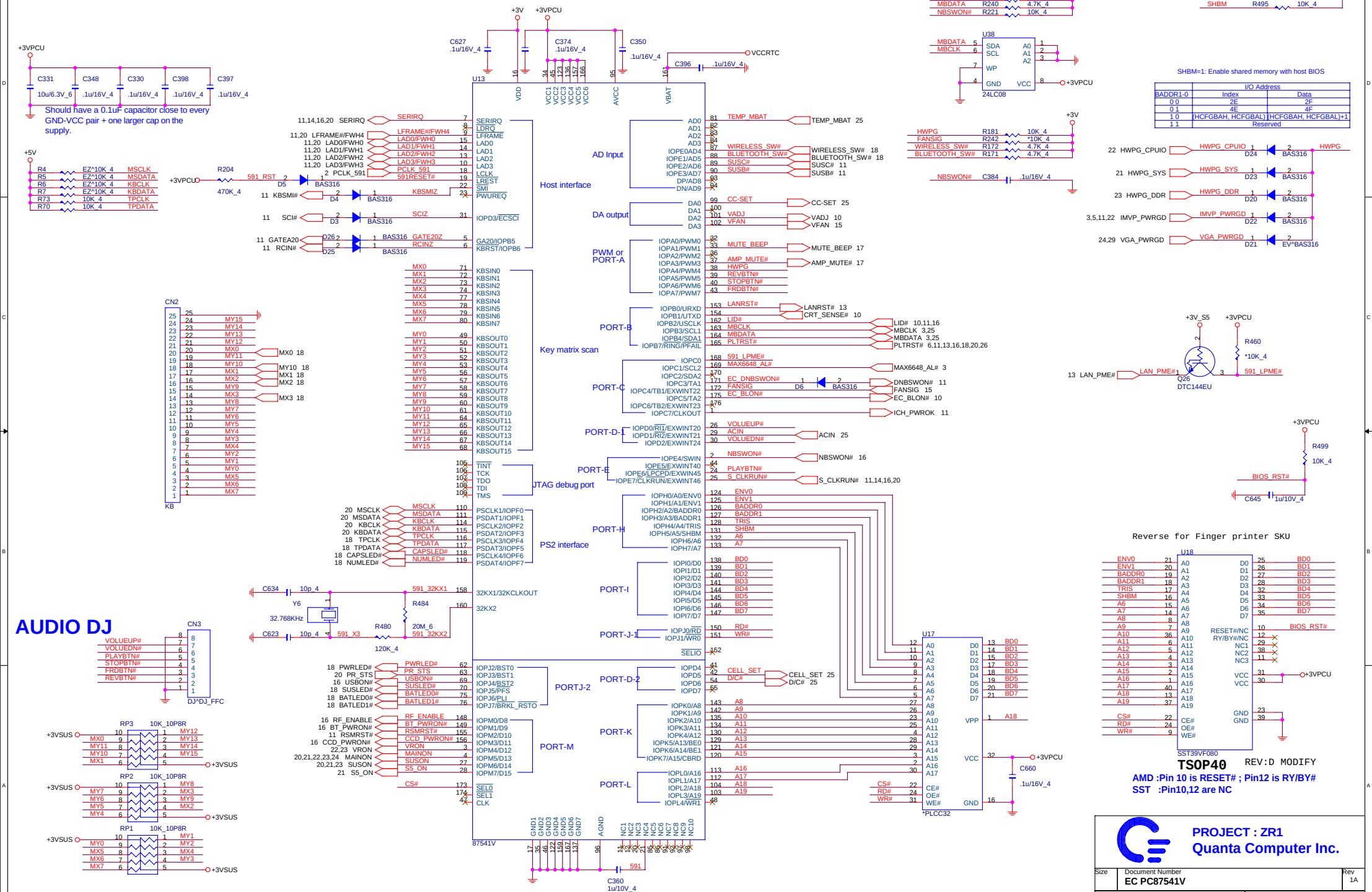
QUICK KEY SWITCH



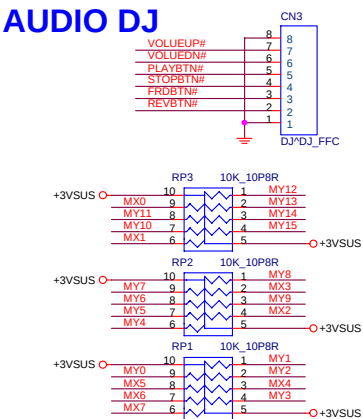
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Quanta Computer Inc.

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



AUDIO DJ

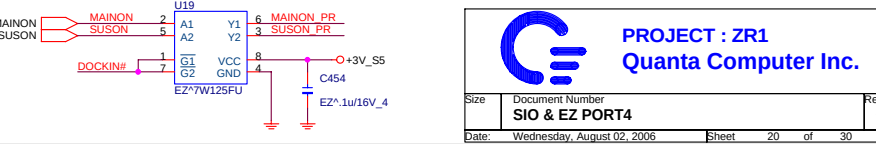
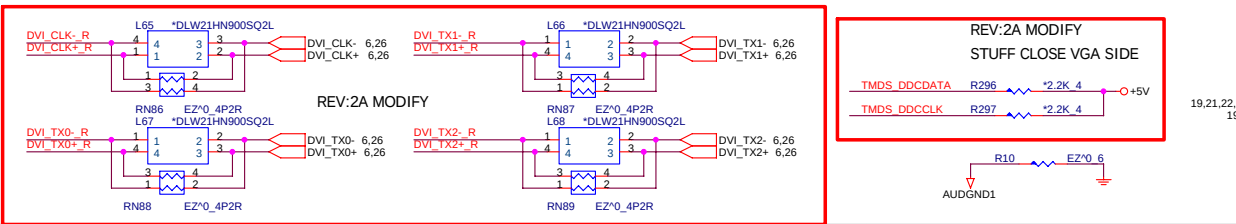
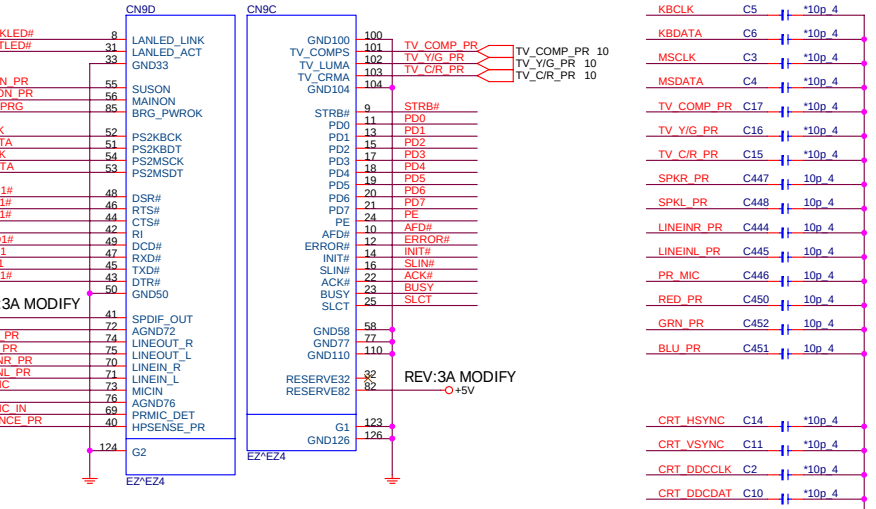
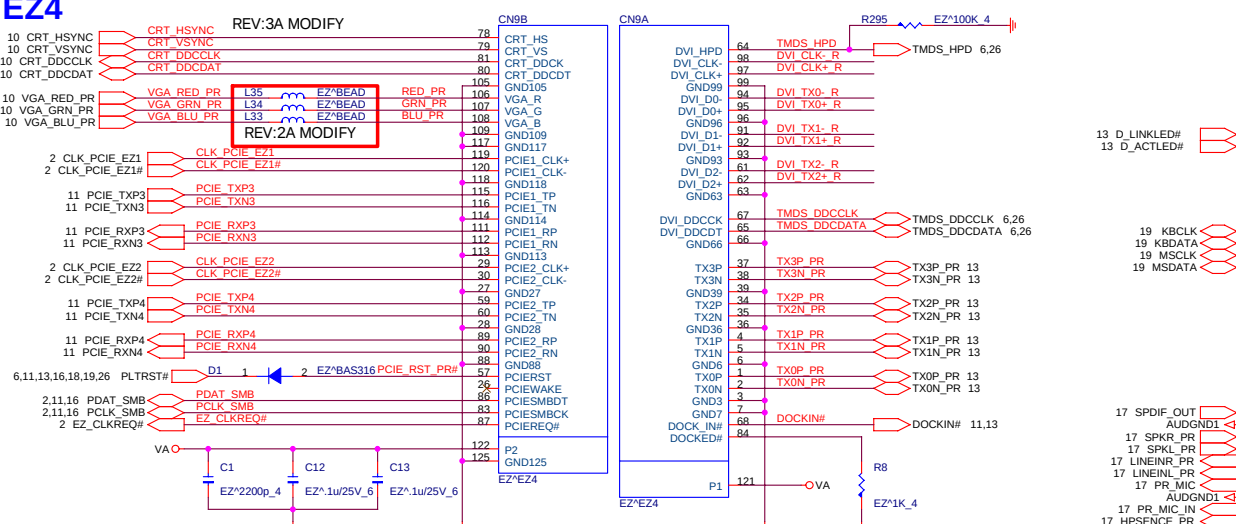
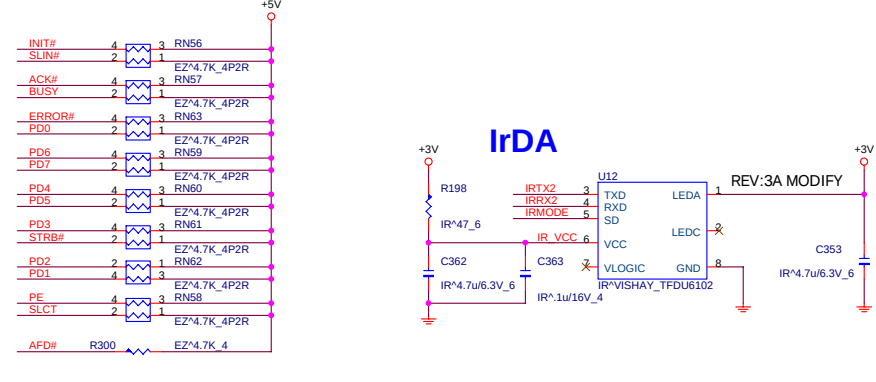
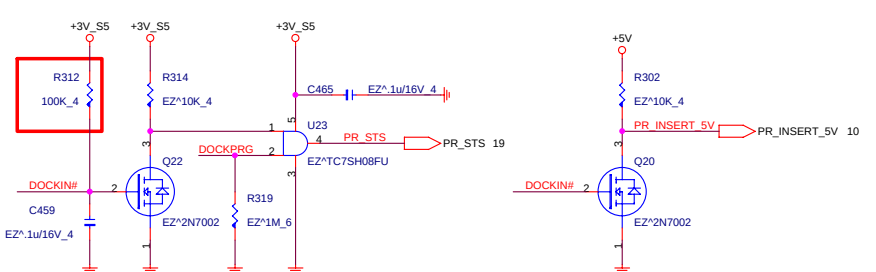
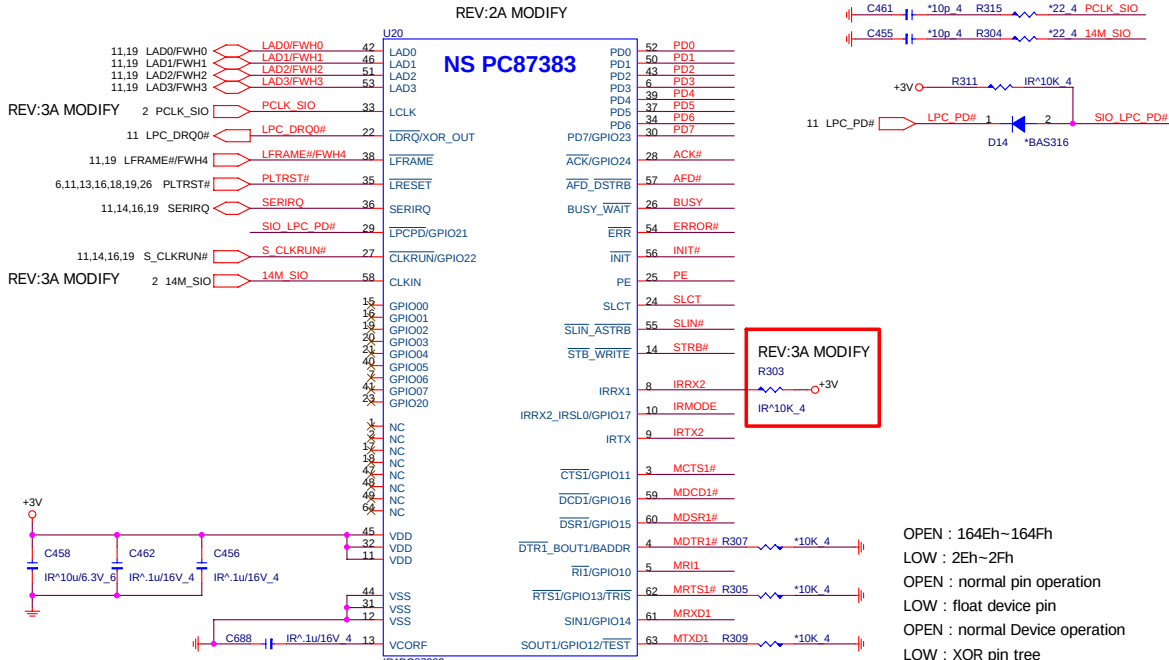


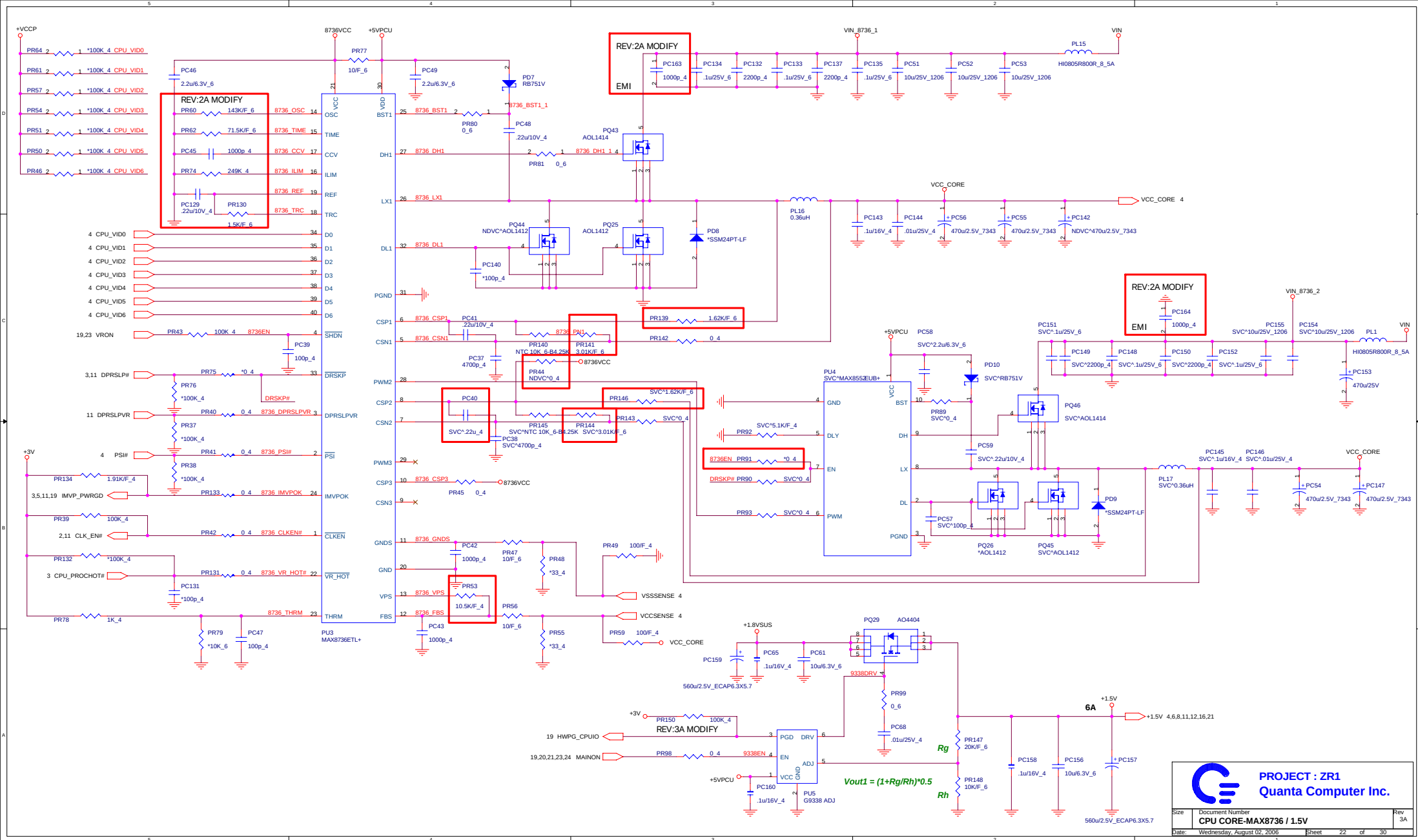
TSOP40 REV:D MODIFY

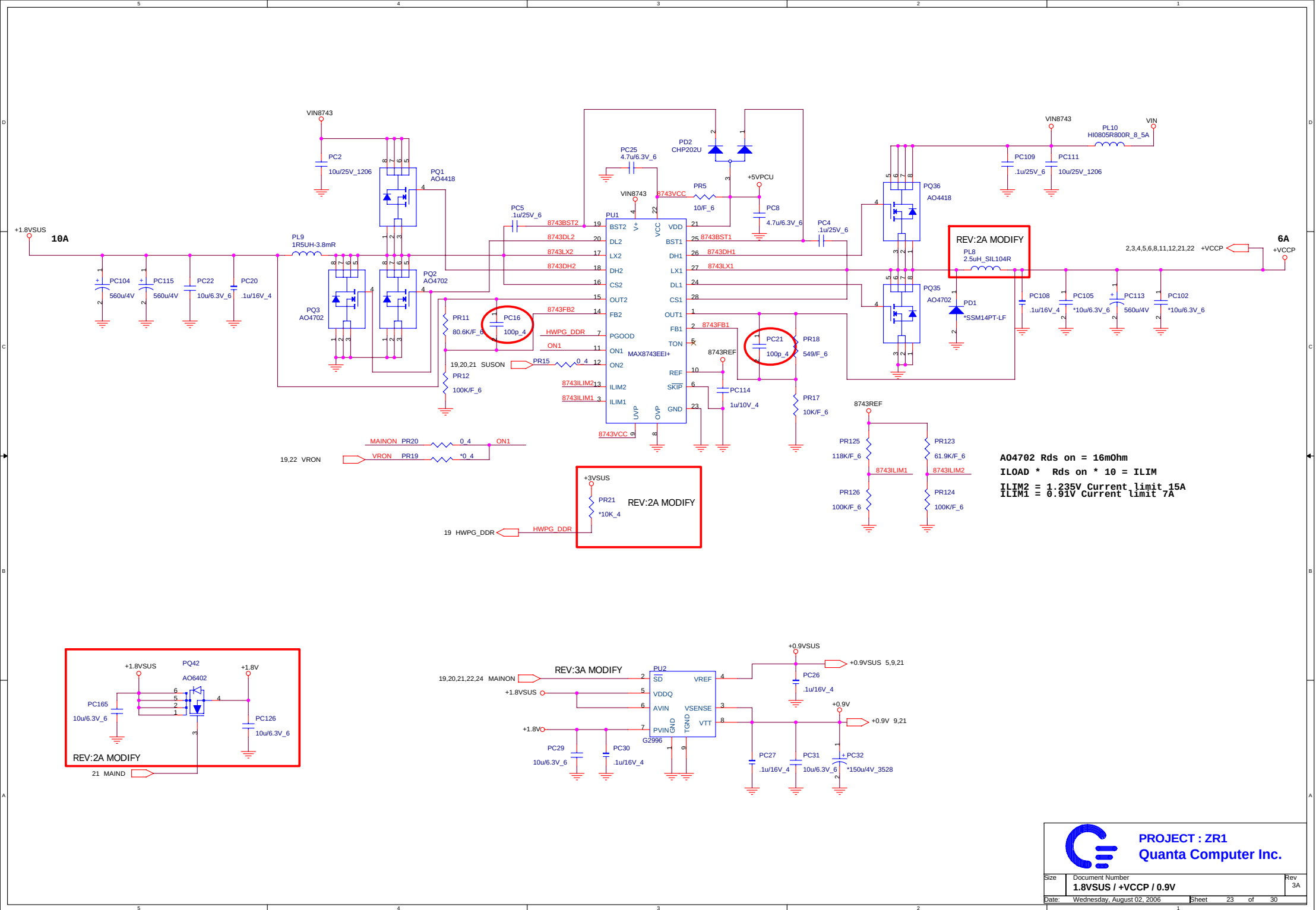
AMD :Pin 10 is RESET# ; Pin12 is RY/BY#
SST :Pin10,12 are NC

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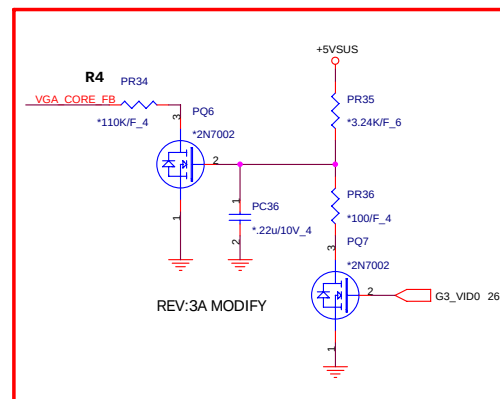
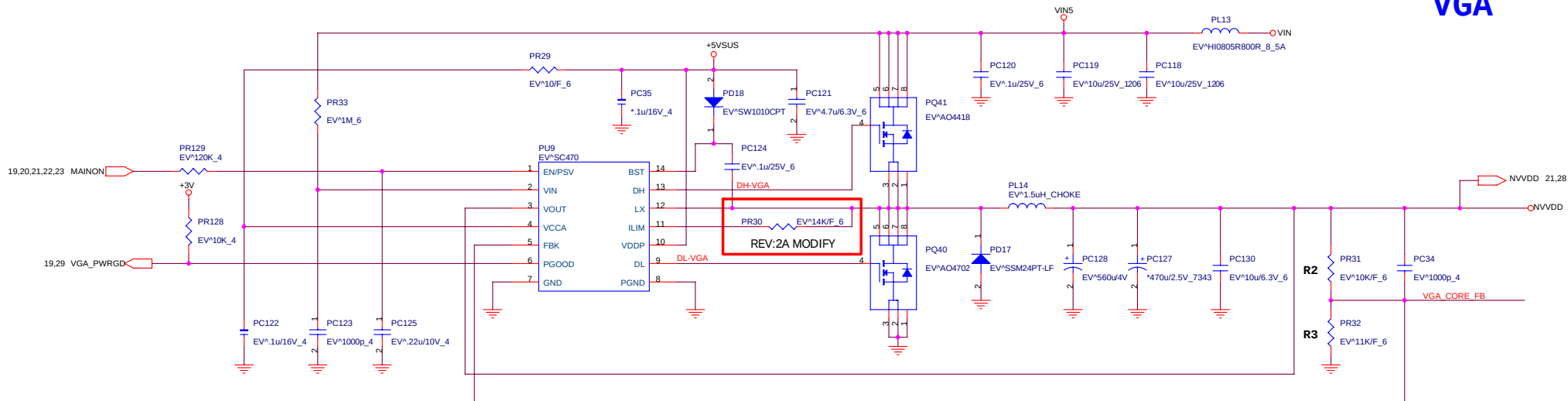




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VGA



$$HI \rightarrow VOUT = (1 + R2/R3) * 0.5$$

$$LO \rightarrow VOUT = (1 + R2 / (R3 // R4)) * 0.5$$

M52P (G)

PR1 : 10K
PR4 : 11K
PR2 : 110K

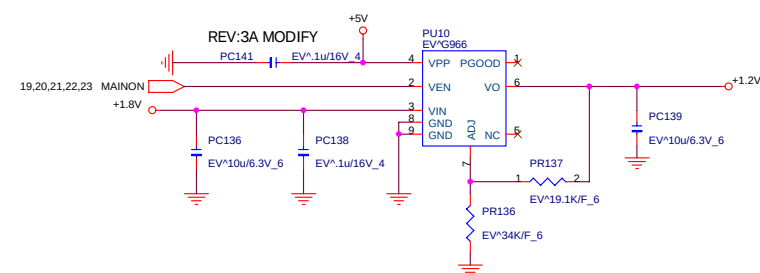
M54P

PR1 : 12K
PR4 : 12K
PR2 : 60.4K

Power Play Mode

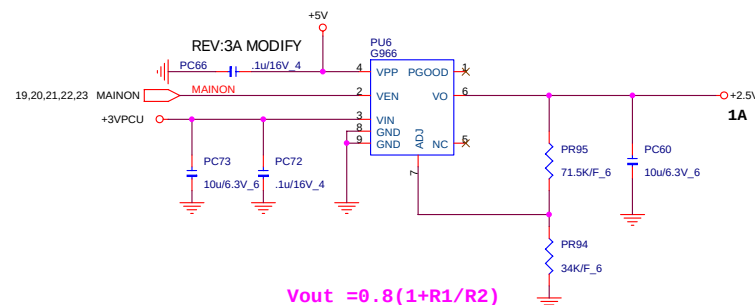
VGA_PWR_SW | VGA_CORE

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



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

2A

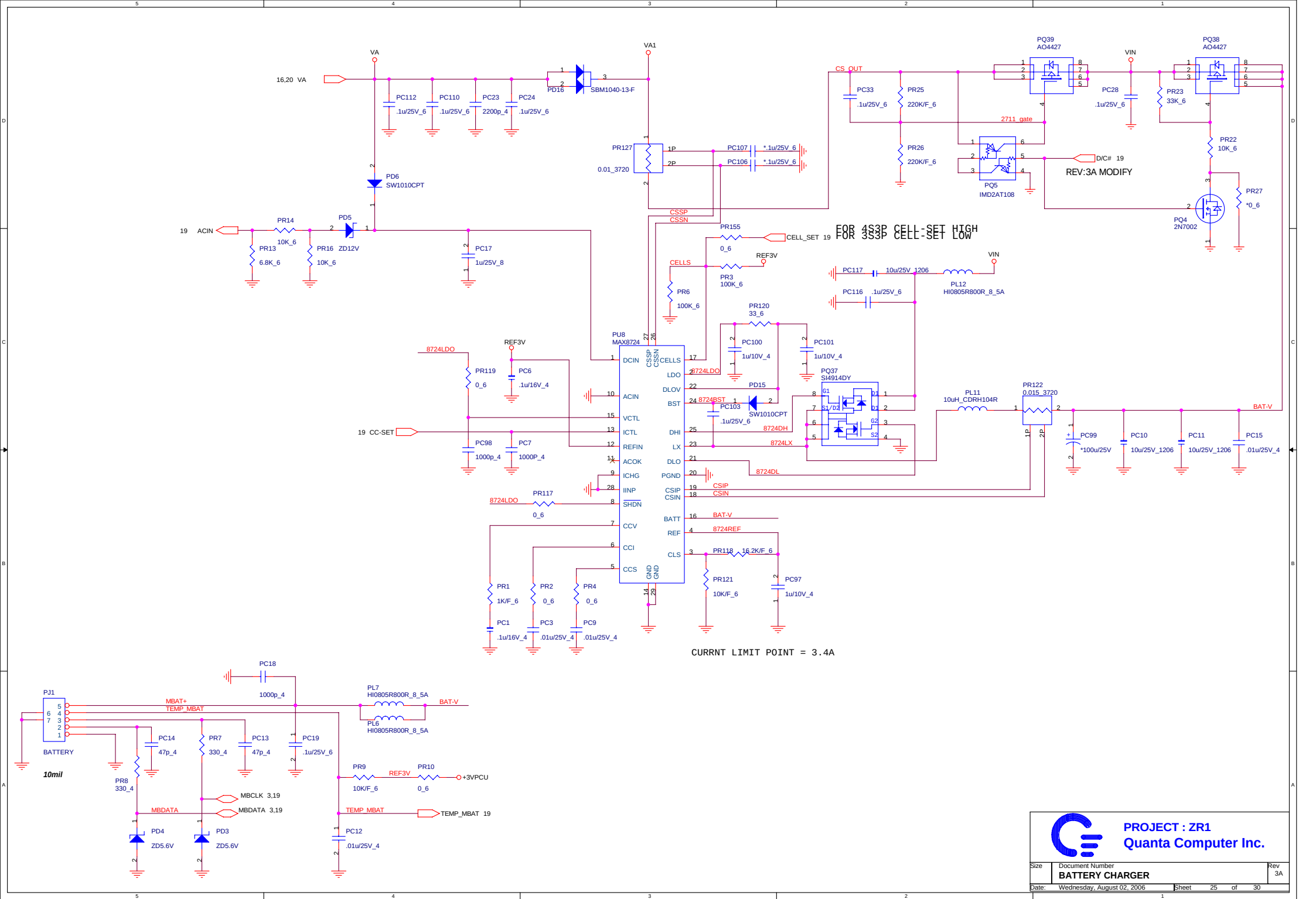


$$Vout = 0.8(1 + R1/R2) = 0.8(1 + 20K/20K) = 2.5V$$

1A



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NVIDIA
G72M
G3-64
(23X 23)

