

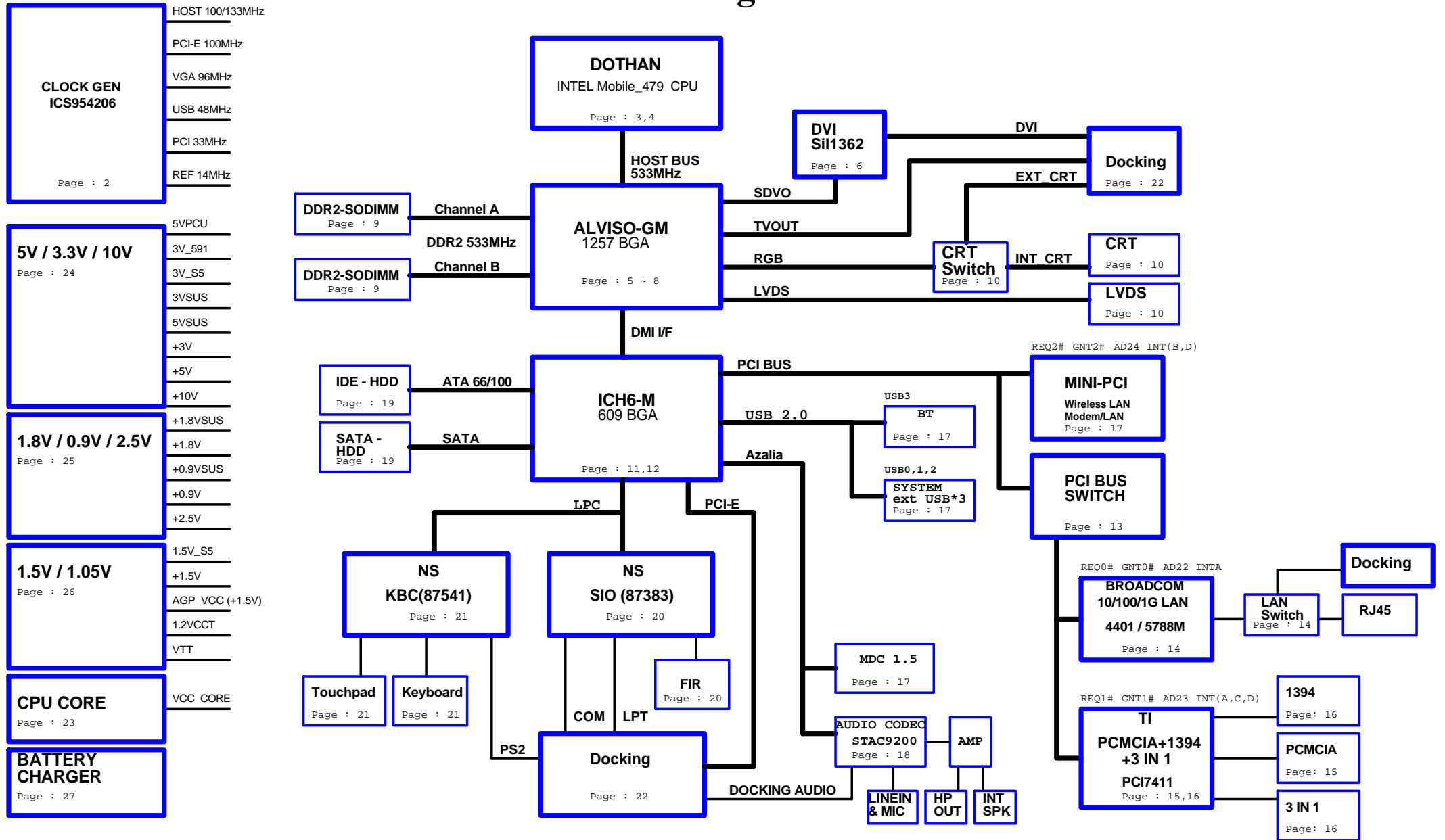
MODEL :	REV :	CHANGE LIST :	MODEL : ZH1 MB																																																																																	
ZH1 MotherBoard	1A	FIRST RELEASE																																																																																		
	2A	PAGE02. 1.MODIFY BSEL0 & BSEL1 2.ADD PCIE CLOCK FOR SATA PAGE03. 1.UN-STUFF R218 PAGE05. 1.MODIFY BSEL0 & BSEL1 2. REMOVE M_OCDCOMP RESISTOR (Intel Errta) PAGE06. 1.MODIFY SDVO I2C BUS PULL HIGH TO 5.6K PAGE08. 1.MODIFY CAPACITOR P/N DUE TO ME ISSUE PAGE09. 1.MODIFY SO-DIMM SA0 & SA1 PAGE10. 1.MODIFY Q9,Q10 TO 2N7002 2. MODIFY RGB BEAD VALUE 3. DELETE SYNC BEFORE BUFFER RESISTOR 4. DELETE LCD_ON PULL DOWN RESISTOR 5.MODIFY LVDS CONNECTOR PAGE11. 1.MODIFY ICH-6 PULL HIGH RESISTOR VALUE 2. MODIFY Azalia LAYOUT TOPOLOGY 3.ADD SATA CIRCUIT 4. LAN_RST# CONNECT TO PLTRST# PAGE12. 1.MODIFY LAN POWER TO +1.5V & +3V (S3~S4 OFF) PAGE14. 1.MODIFY LAN RDAC TO 1.18K FOR IEEE TEST PAGE15. 1.MODIFY IDSEL RESISTOR TO 150 OHM PAGE16. 1.MODIFY I394 POWER CLASS TO 30W 2.MODIFY CRYSTAL CL VALUE 3.ADD MOS FOR I394 POWER PAGE17. 1.MODIFY IDSEL RESISTOR TO 150 OHM 2. MODIFY Azalia LAYOUT TOPOLOGY 3. MODIFY USB COMMON CHOKE FOOTPRINT & P/N PAGE18. 1.MODIFY Azalia LAYOUT TOPOLOGY 2. DELETE R458 3. ADD DIODE FOR HPS PAGE19. 1.MODIFY LED7,LED8 FOOTPRINT 2.ADD SATA INTERFACE HDD 3.REMOVE R465 , 6648_OV# USE PULL HIGH +3V PAGE20. 1.MODIFY I_rDA C504 LOCATION PAGE21. 1.MODIFY KB MATRIX 2. ADD PME & MAX6648_AL# PAGE22. 1.MODIFY U18 FOOTPRINT PAGE23. 1.MODIFY PR116 FROM 787/F TO 1.54K/F FOR CPU LOAD LINE 2.MODIFY PQ41 FROM SUD50N03-09P TO AOD404 FOR CPU EFFICIENCY PAGE24. 1.REMOVE PQ2,PQ3,PR74 AND MOUNT PR57 FOR POWER SOURCE OF TURN ON MOSFET2.ADD PR136,PR137,PC132,PC133 FOR EMI REQUEST PAGE25. 1.MODIFY PR78 NETNAME S5 ON CHANGE TO NETNAME SUSON 2.MODIFY PR80,PC89 FOR EMI REQUEST 3.MODIFY +VCCP POWER UP SEQUENCE PAGE26. 1.ADD PR138,PR139,PC134,PC135 FOR EMI REQUEST 2.REMOVE JP2,JP3 PAGE27. 1.REMOVE PC98 FOR ME REQUEST 2.MODIFY PR26 FROM 22K/F TO 12K/F FOR CONSTANT CURRENT LIMIT	<table border="1"> <thead> <tr> <th>PAGE</th> <th>FROM</th> <th>TO</th> </tr> </thead> <tbody> <tr><td>1</td><td>1A</td><td></td></tr> <tr><td>2</td><td>2A</td><td></td></tr> <tr><td>3</td><td>2A</td><td></td></tr> <tr><td>4</td><td>1A</td><td></td></tr> <tr><td>5</td><td>2B</td><td></td></tr> <tr><td>6</td><td>2B</td><td>3A</td></tr> <tr><td>7</td><td>2B</td><td></td></tr> <tr><td>8</td><td>2B</td><td></td></tr> <tr><td>9</td><td>2A</td><td>3A</td></tr> <tr><td>10</td><td>2A</td><td>3A</td></tr> <tr><td>11</td><td>2B</td><td></td></tr> <tr><td>12</td><td>2B</td><td></td></tr> <tr><td>13</td><td>2A</td><td>3A</td></tr> <tr><td>14</td><td>2A</td><td>3A</td></tr> <tr><td>15</td><td>2A</td><td>3A</td></tr> <tr><td>16</td><td>2A</td><td>3A</td></tr> <tr><td>17</td><td>2A</td><td>3A</td></tr> <tr><td>18</td><td>2A</td><td>3A</td></tr> <tr><td>19</td><td>2A</td><td></td></tr> <tr><td>20</td><td>2A</td><td></td></tr> <tr><td>21</td><td>2A</td><td>3A</td></tr> <tr><td>22</td><td>2A</td><td>3A</td></tr> <tr><td>23</td><td>2A</td><td>3A</td></tr> <tr><td>24</td><td>2A</td><td>3A</td></tr> <tr><td>25</td><td>2A</td><td>3A</td></tr> <tr><td>26</td><td>2A</td><td>3A</td></tr> </tbody> </table>	PAGE	FROM	TO	1	1A		2	2A		3	2A		4	1A		5	2B		6	2B	3A	7	2B		8	2B		9	2A	3A	10	2A	3A	11	2B		12	2B		13	2A	3A	14	2A	3A	15	2A	3A	16	2A	3A	17	2A	3A	18	2A	3A	19	2A		20	2A		21	2A	3A	22	2A	3A	23	2A	3A	24	2A	3A	25	2A	3A	26	2A	3A
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3A	PAGE 06. ADD DVI SERIAL RESISTORS FOR EMI PAGE 09. MODIFY DDR2 CONNECTOR P/N PAGE 10. MODIFY RGB BEAD FROM 22 TO 30 PAGE 13. MODIFY CRYSTAL SERIAL RESISTOR R354 TO 200 OHM PAGE 14. MODIFY PCI BUS PAGE 15. MODIFY I394 POWER SWITCH GATE ENABLE SIGNAL PAGE 16. MODIFY USB POWER SWITCH PAGE 17. MODIFY AUDIO POWER & AMP INPUT CIRCUIT PAGE 18. MODIFY FAN & SW ECARD CONNECTOR P/N PAGE 21. MODIFY RGB FOR EMI SOLUTION PAGE 22. MODIFY CAPACITOR FOR NOISE PAGE 23. STUFF SNUBBER CIRCUIT PAGE 24. UN-STUFF PC23 & STUFF SNUBBER CIRCUIT PAGE 25. STUFF SNUBBER CIRCUIT PAGE 26. STUFF SNUBBER CIRCUIT																																																																																			



PROJECT : ZH1	APPROVE BY: JIM HSU	DRAWING BY:JACKY CHENG	REV 3A
MB ASSY'S P/N : 31ZH1MB0001	PROJECT LEADER: JIM HSU	DOCUMENT NO: 204	DATE :2004/12/16

COVER SHEET 1 OF 1

ZH1 Block Diagram

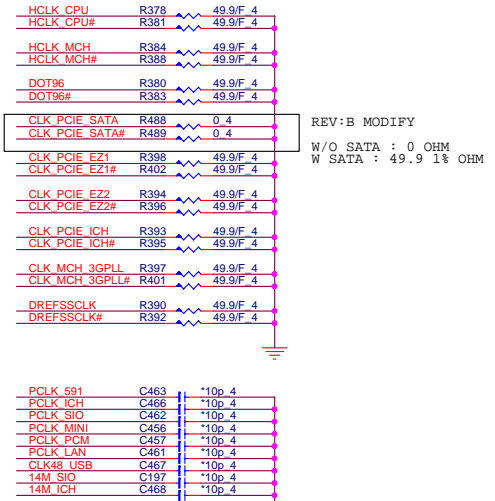
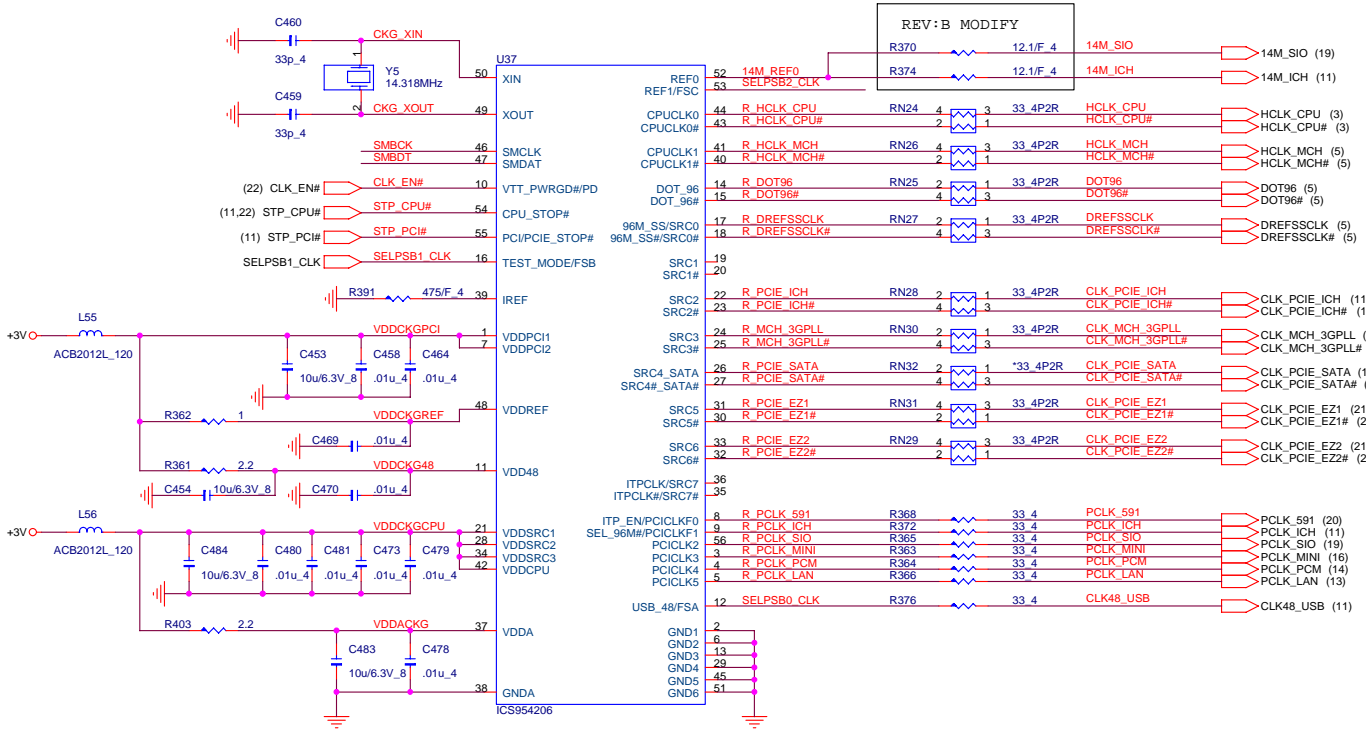


PCI ROUTING TABLE	IDSEL	INTERUPT	DEVICE
REQ0# / GNT0#	AD22	INTA#	BROADCOM LAN
REQ2# / GNT2#	AD24	INTB# , INTD#	MINI-PCI
REQ1# / GNT1#	AD23	INTC# , INTD# , INTA#	TI 7411

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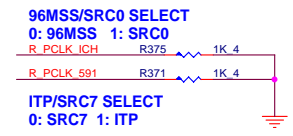
 PROJECT : ZH1
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	BLOCK DIAGRAM	1A
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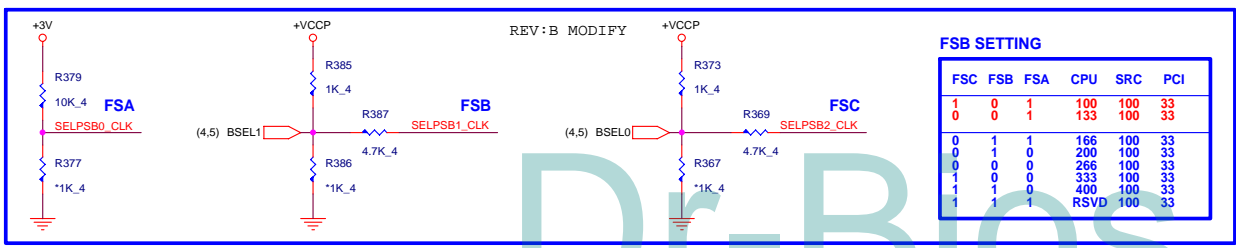
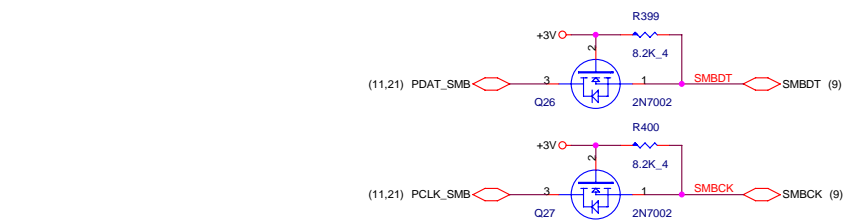
REV:B MODIFY
W/O SATA : 0 OHM
W SATA : 49.9 1% OHM

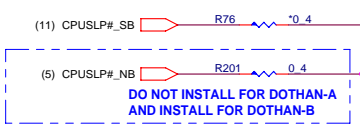
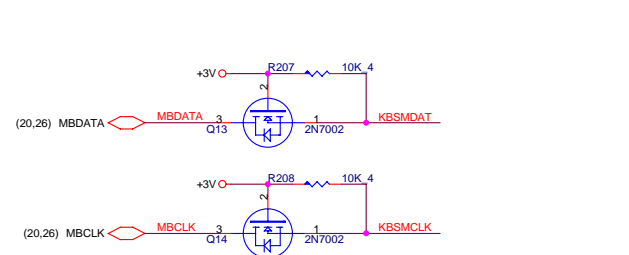
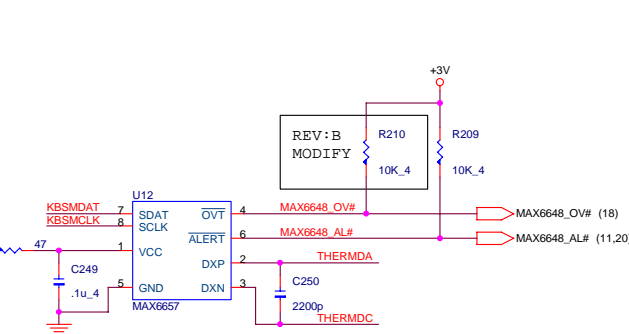
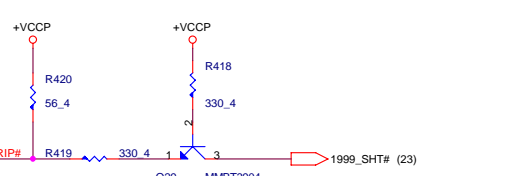
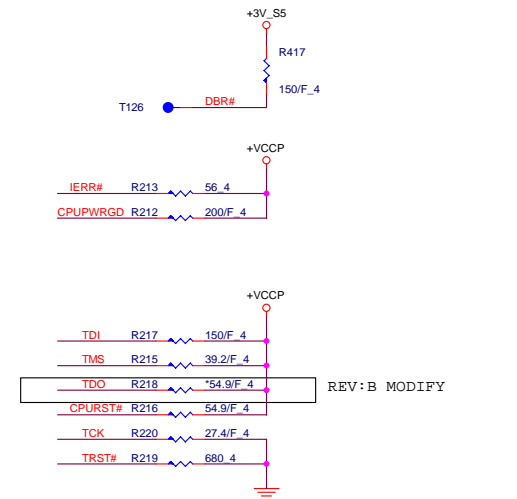
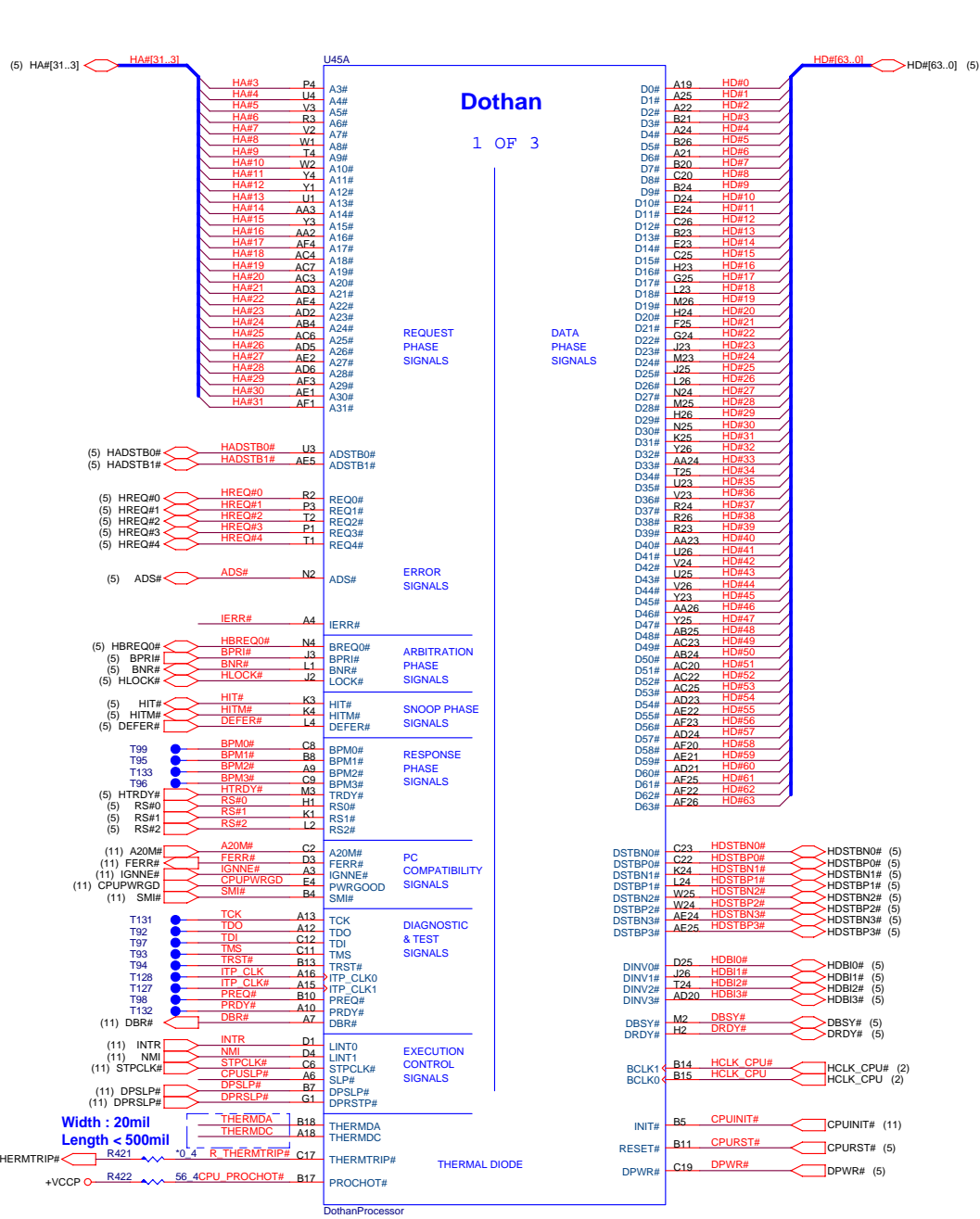
REV:B MODIFY



96MSS/SRC0 SELECT
0: 96MSS 1: SRC0
R_PCLK_ICH R375 1K 4
R_PCLK_591 R371 1K 4

ITP/SRC7 SELECT
0: SRC7 1: ITP



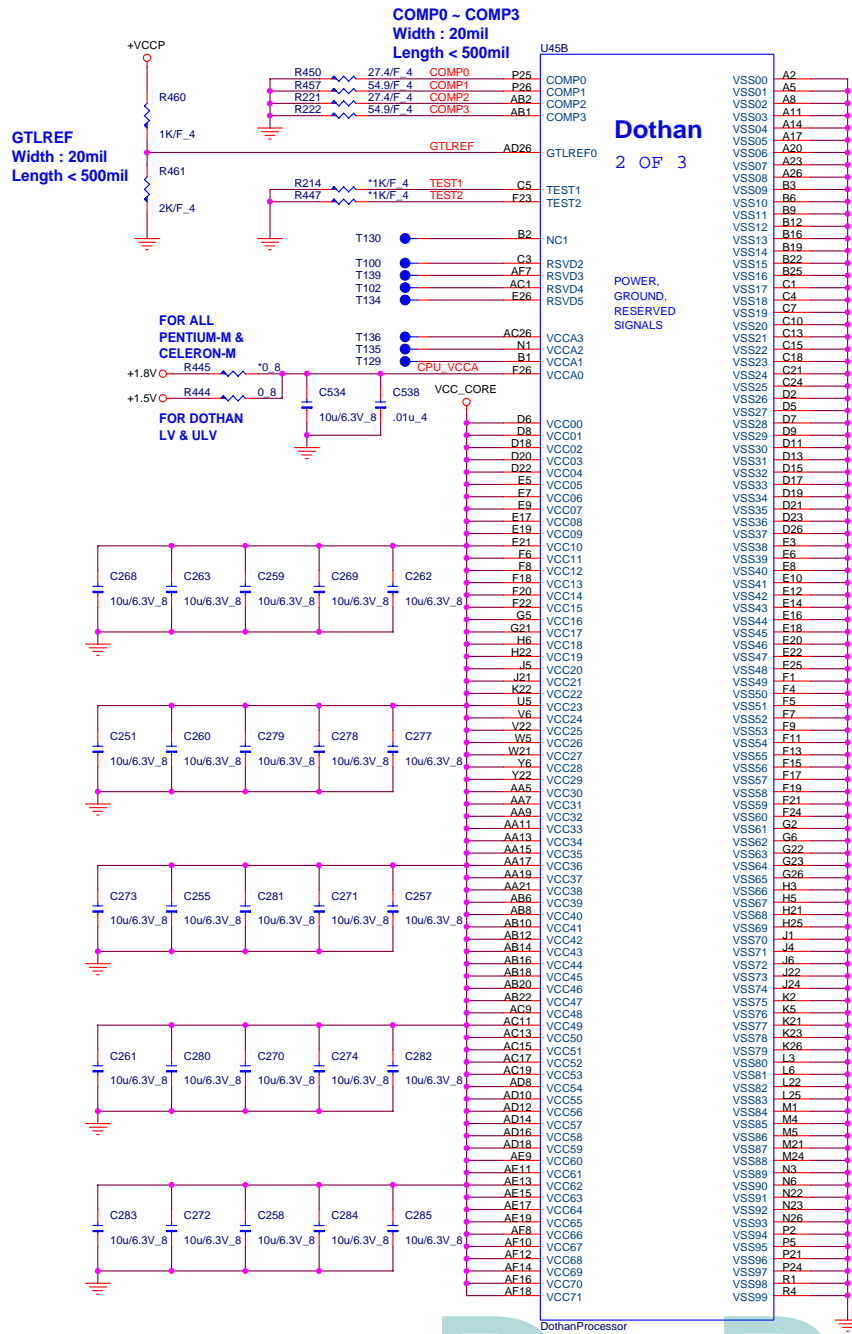


DO NOT INSTALL FOR DOTHAN-A AND INSTALL FOR DOTHAN-B



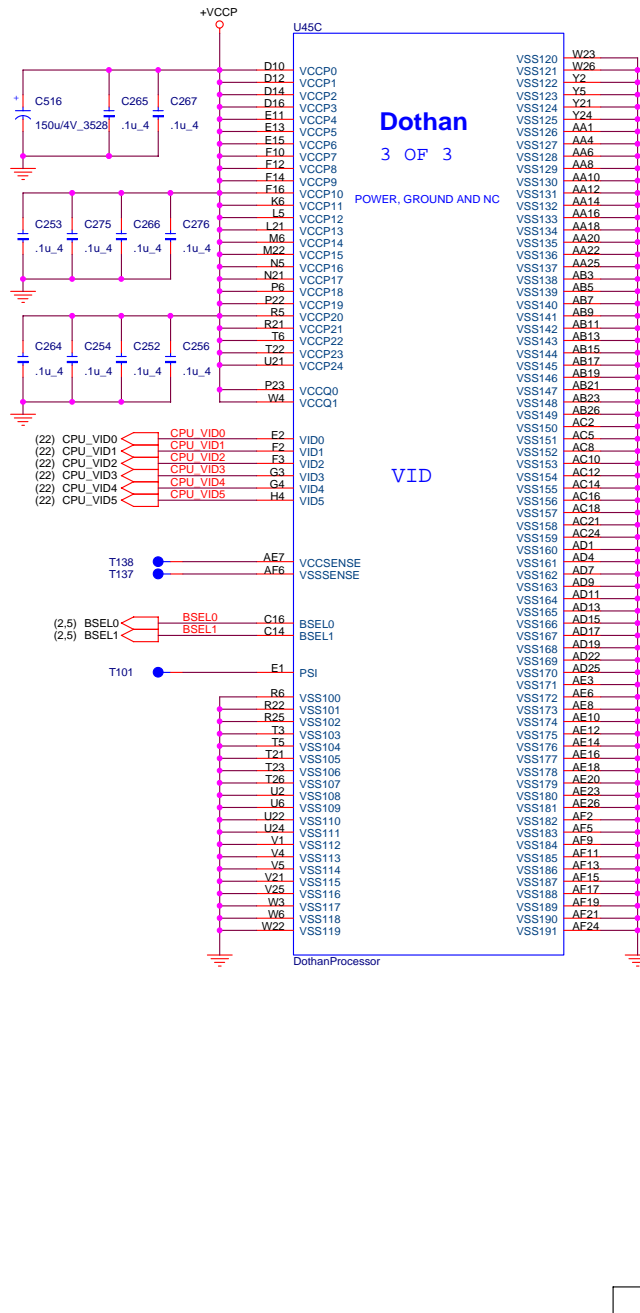
PROJECT : ZH1
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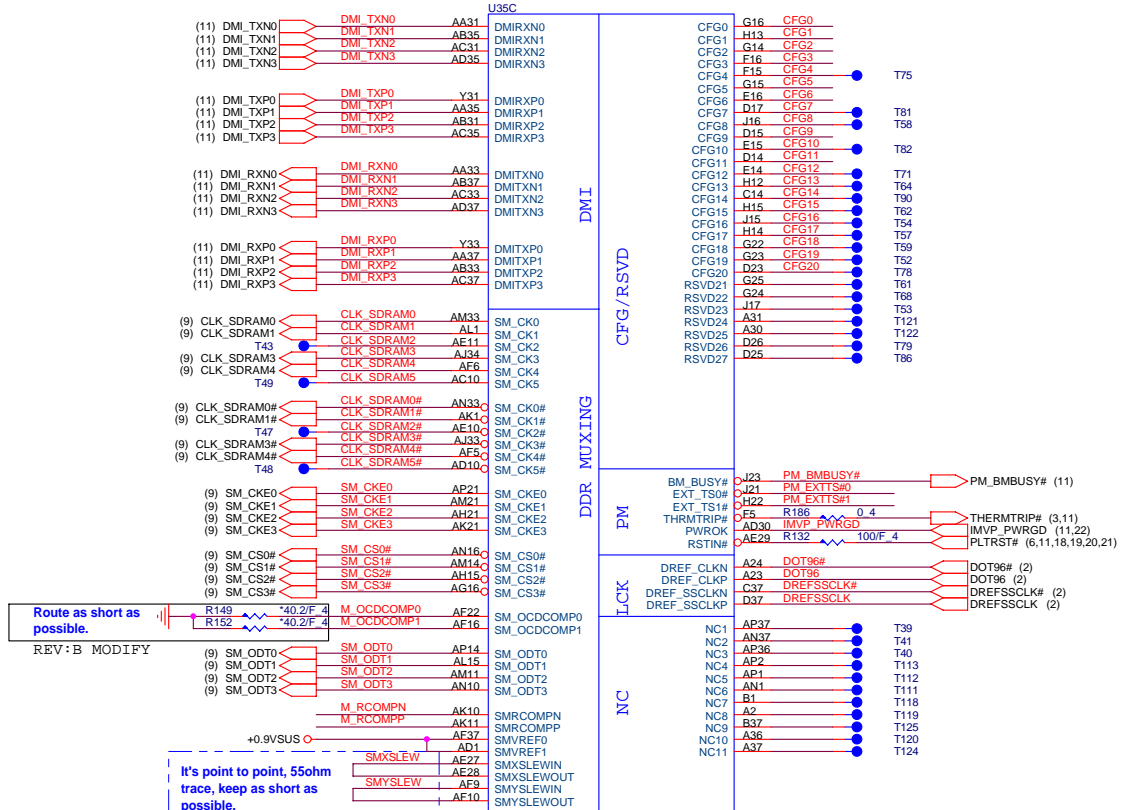
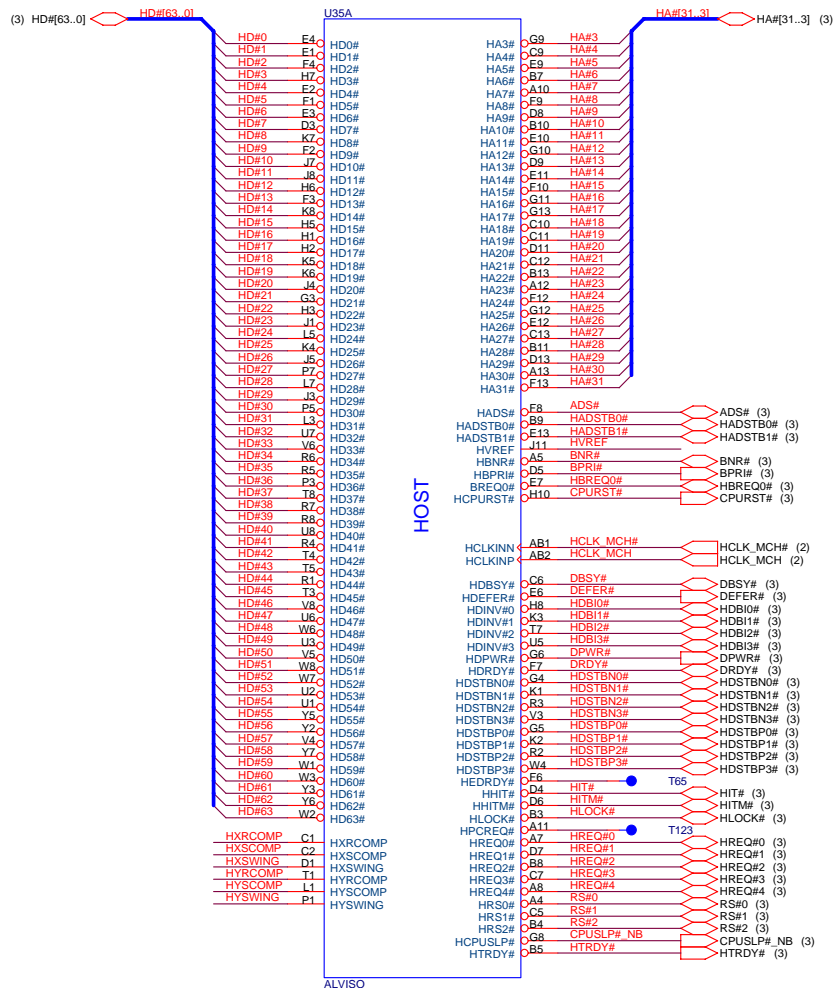
Size	Document Number	Rev
	CPU (HOST BUS)	2A
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Dothan
2 OF 3

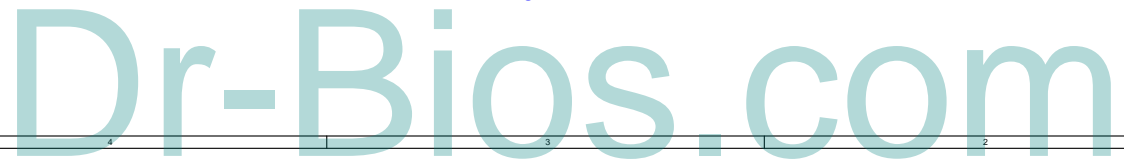
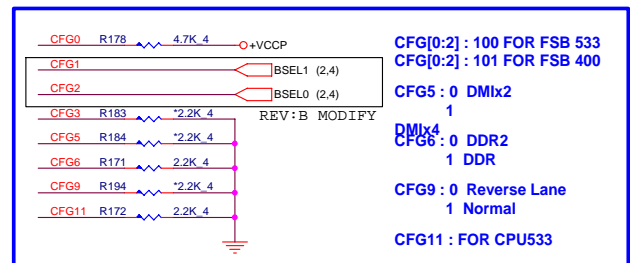
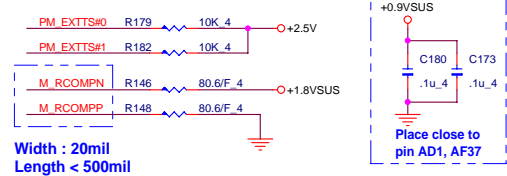
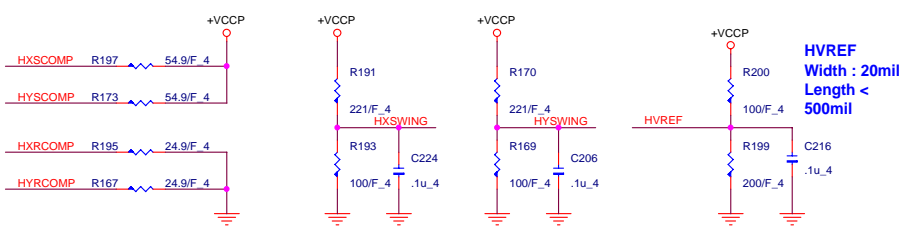
POWER, GROUND, RESERVED SIGNALS





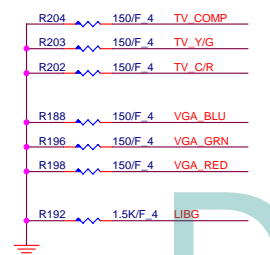
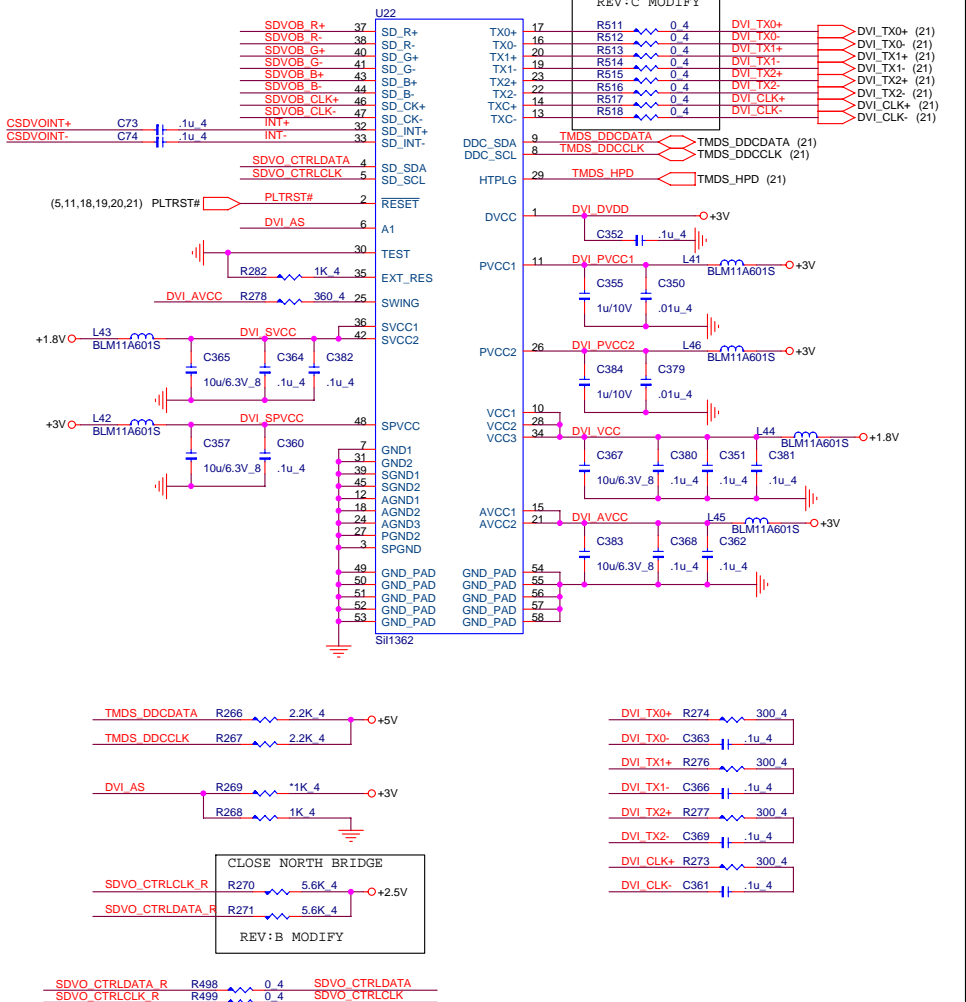
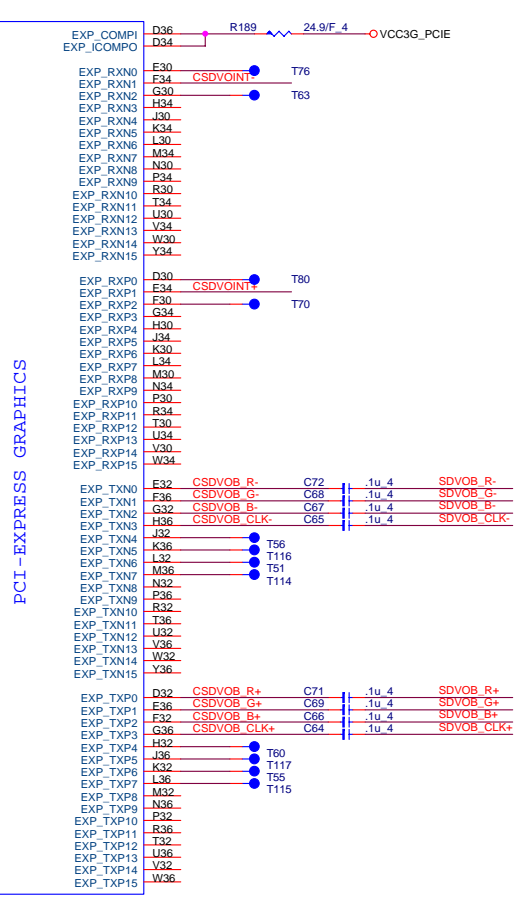
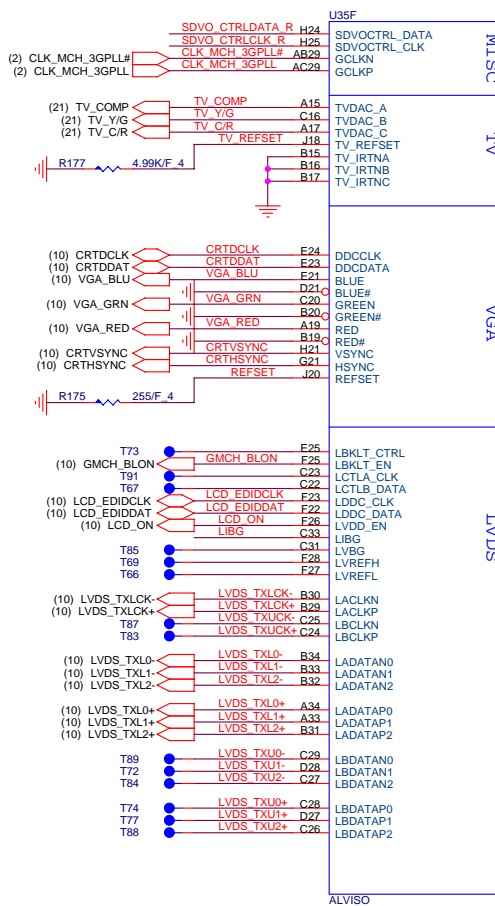
Route as short as possible.
REV: B MODIFY

It's nice to point, 550ohm trace, keep as short as possible.



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Size	Document Number	Rev
	GMCH (HOST/DMI)	2B
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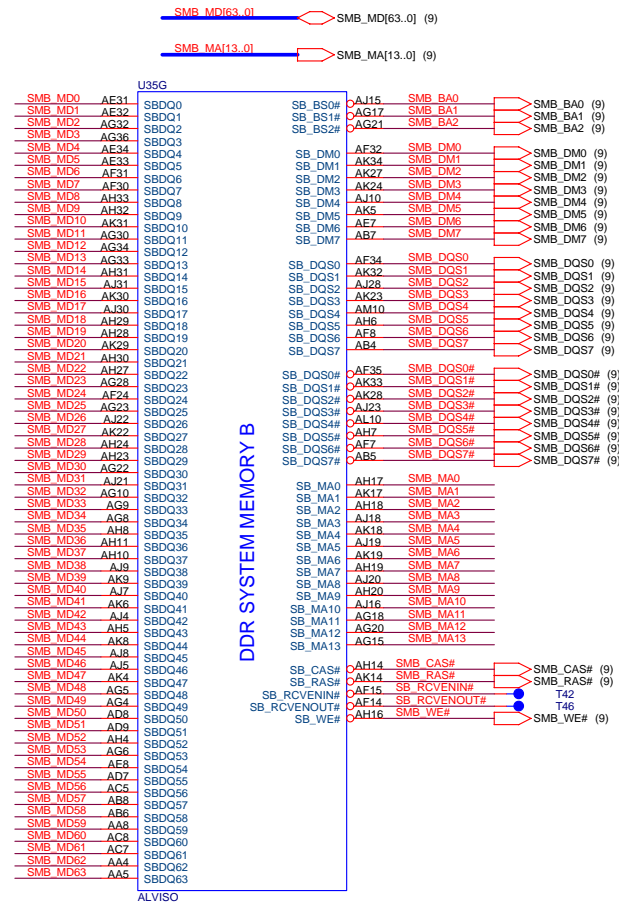
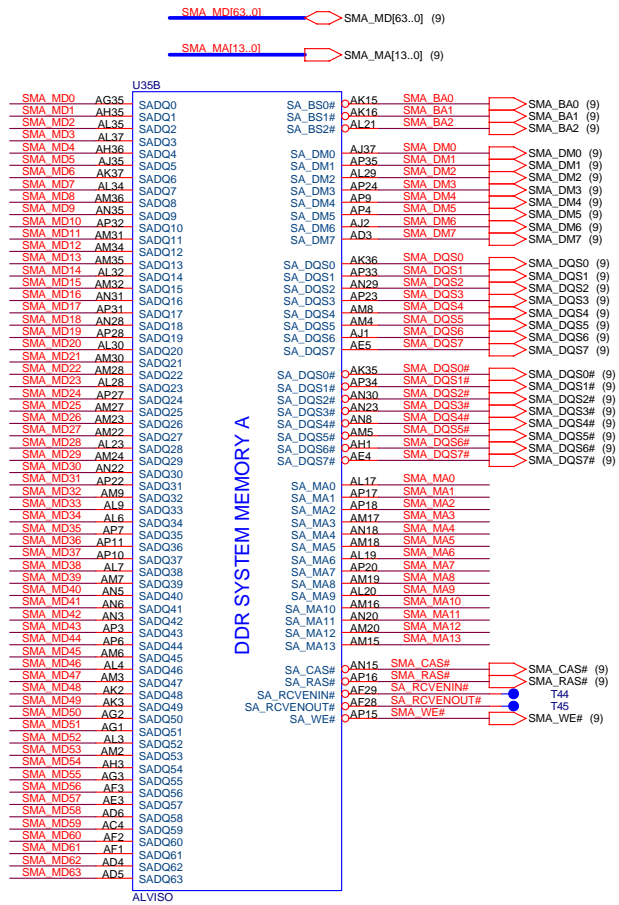
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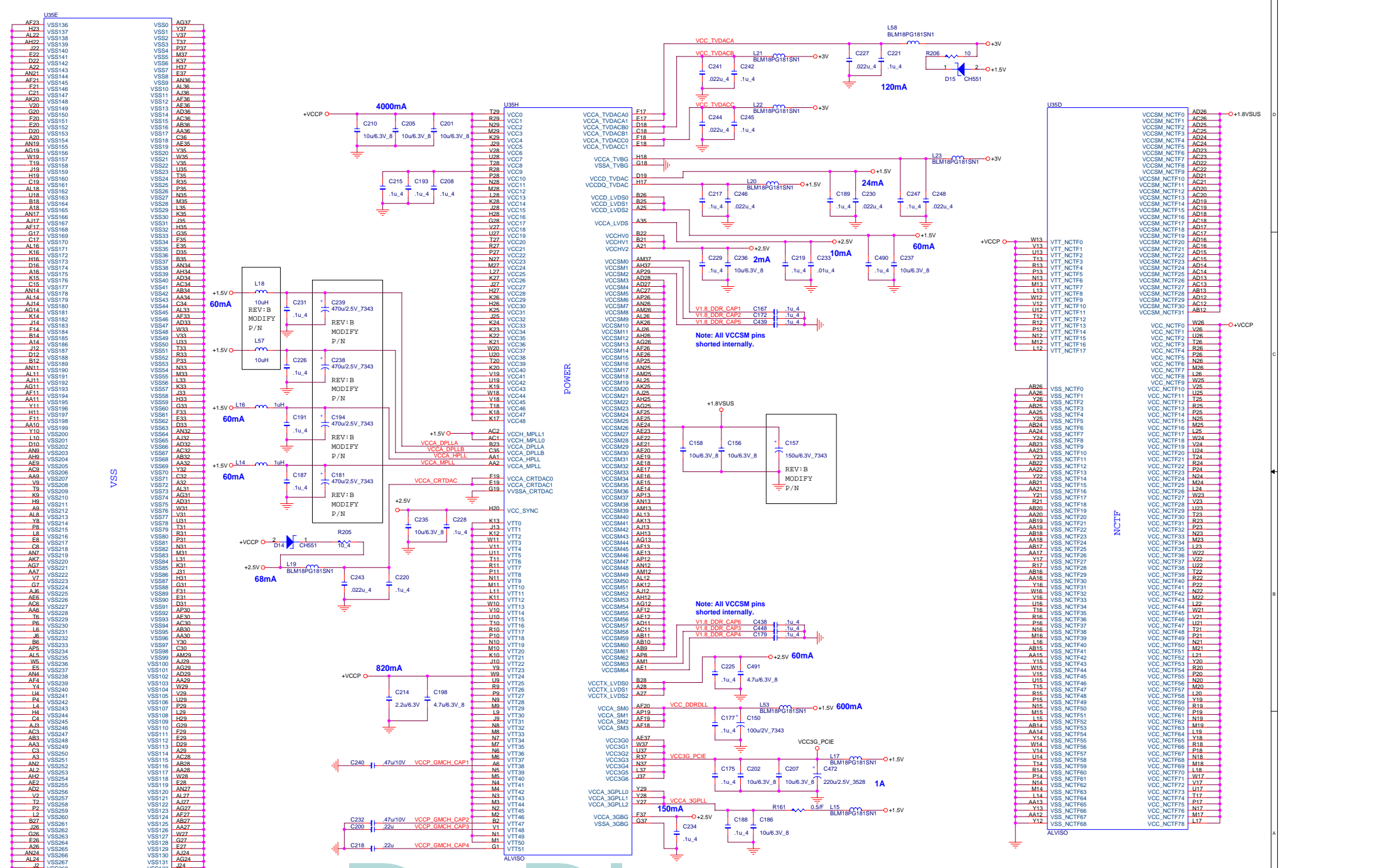
PROJECT : ZH1
Quanta Computer Inc.


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GMCH (VGA)

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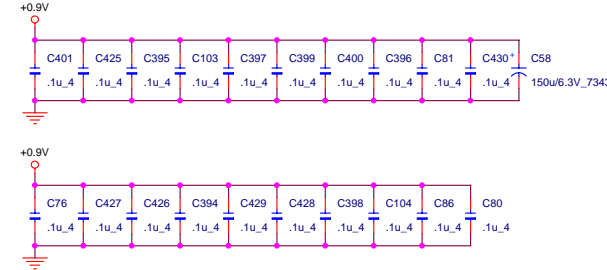




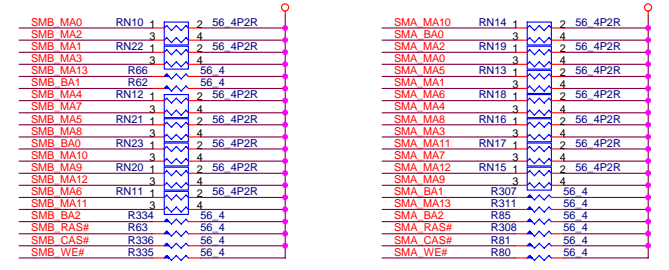
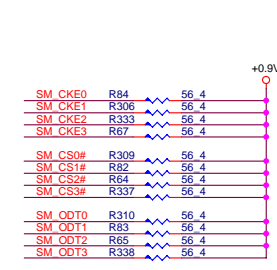

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Quanta Computer Inc.

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	GMCH (POWER)	2B
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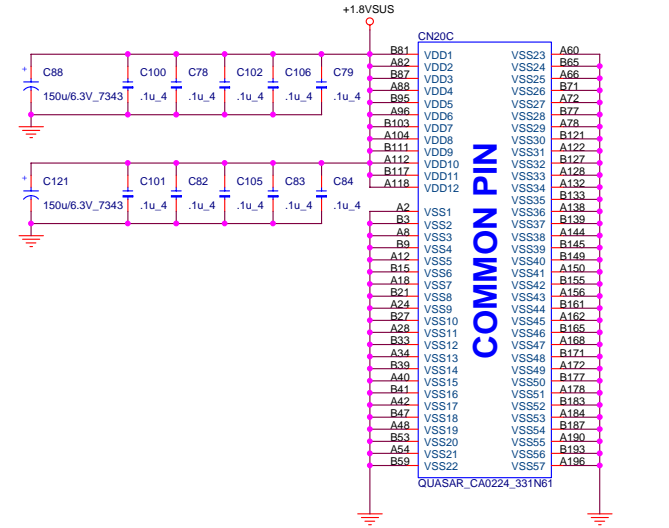
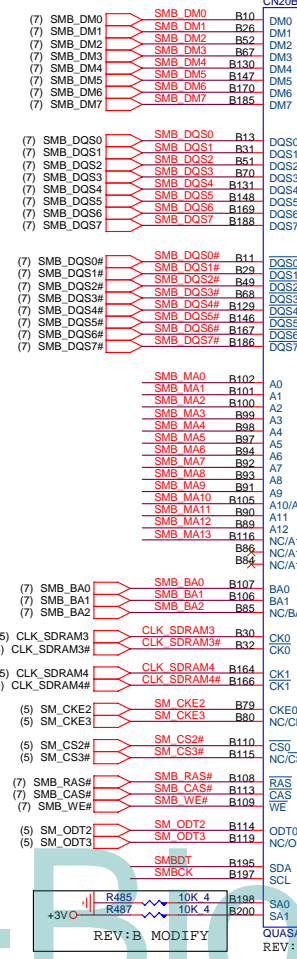
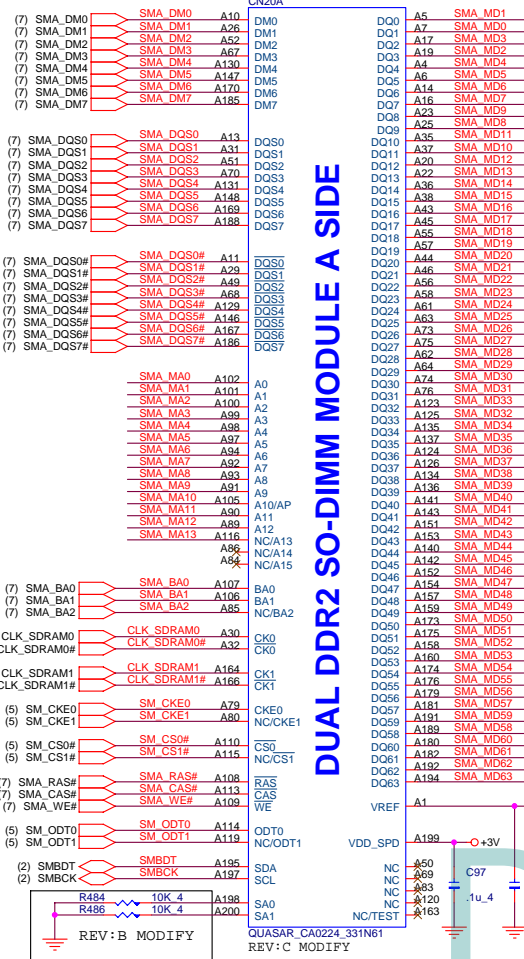
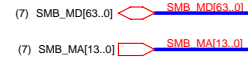
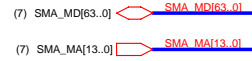
TERMINATOR DECOUPLING CAPACITOR



DDR2 TERMINATOR

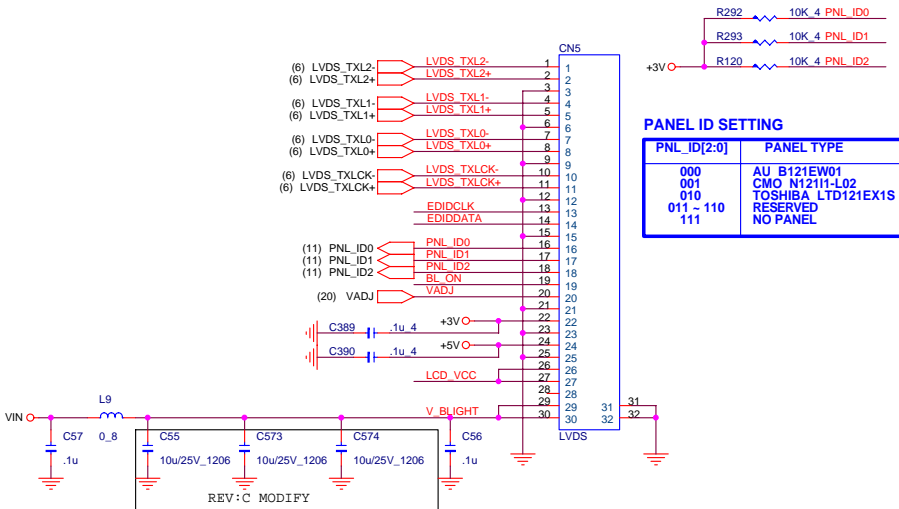


DDR2 SO-DIMM SOCKET



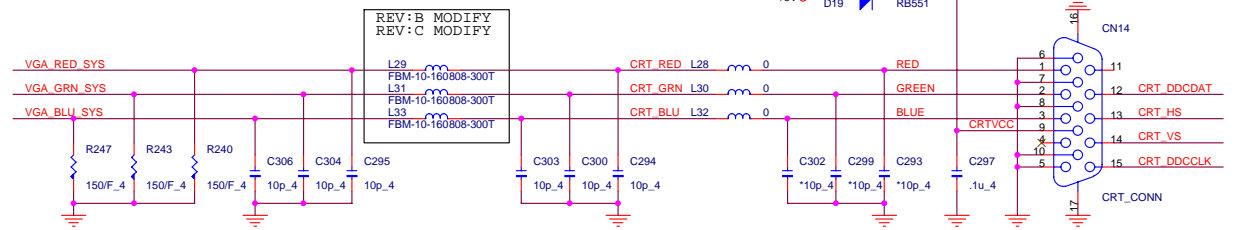
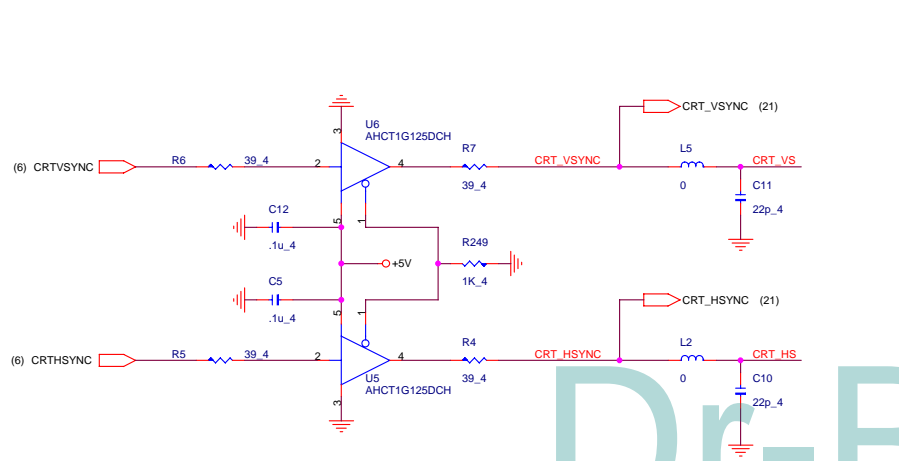
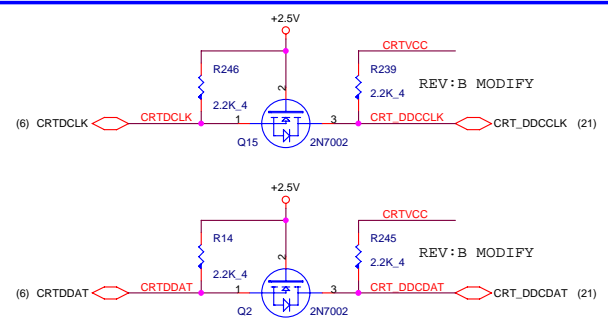
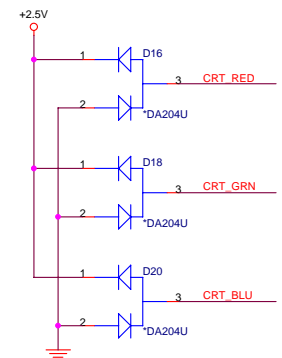
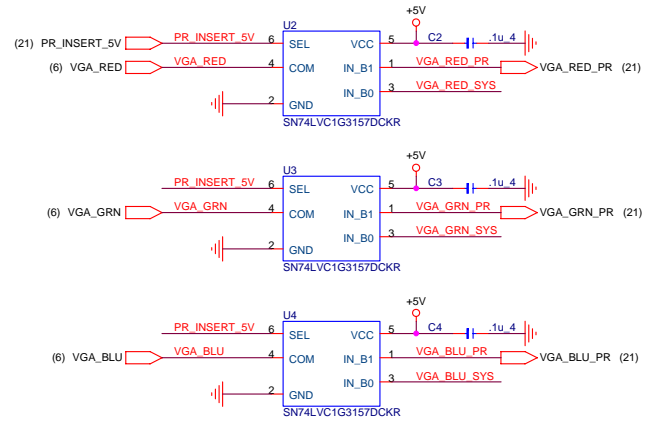
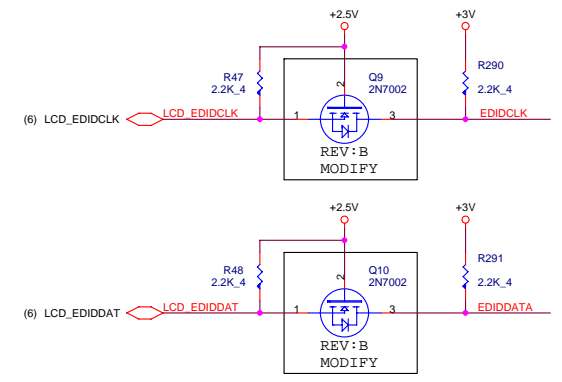
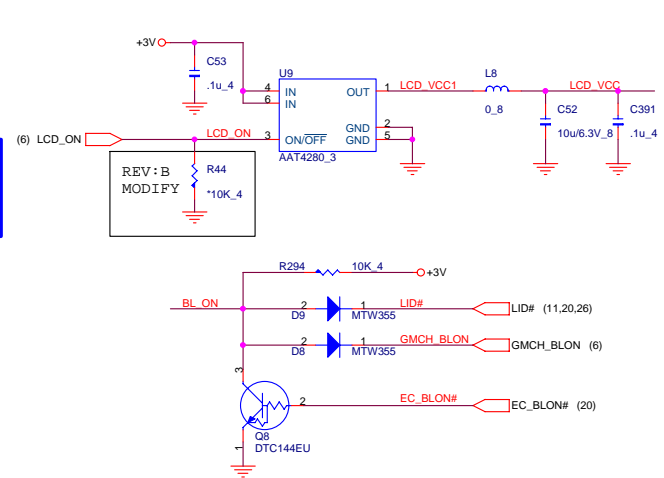
**PROJECT : ZH1
Quanta Computer Inc.**

Size Document Number
DDR2 SO-DIMM & TERMINATOR
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PANEL ID SETTING

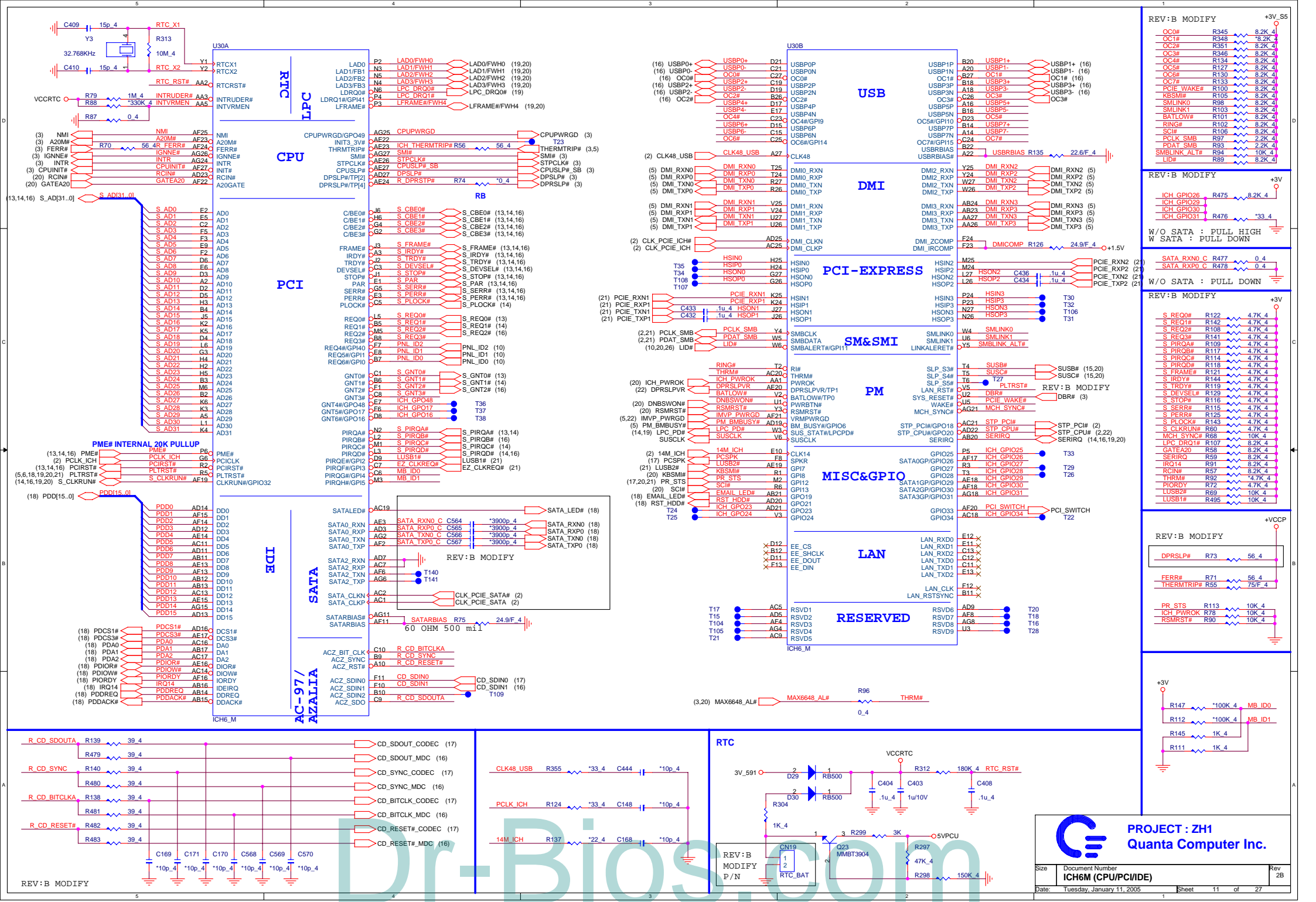
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001	CMO N121H-L02
010	TOSHIBA LTD121EX1S
011 - 110	RESERVED
111	NO PANEL



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REV:B MODIFY

OC0#	R345	8.2K 4
OC1#	R348	8.2K 4
OC2#	R351	8.2K 4
OC3#	R346	8.2K 4
OC4#	R134	8.2K 4
OC5#	R127	8.2K 4
OC6#	R130	8.2K 4
OC7#	R133	8.2K 4
OC8#	R97	2.2K 4
PCIE_WAKE#	R100	8.2K 4
KBSM#	R105	8.2K 4
SMLINK0	R98	8.2K 4
SMLINK1	R103	8.2K 4
BATLOW#	R101	8.2K 4
RING#	R102	8.2K 4
SCH#	R106	8.2K 4
PC1K SMB	R97	2.2K 4
PDAT SMB	R93	2.2K 4
SMLINK ALT#	R94	10K 4
LID#	R89	8.2K 4

REV:B MODIFY

ICH_GPIO26	R475	8.2K 4
ICH_GPIO29		
ICH_GPIO30		
ICH_GPIO31	R476	33 4

W/O SATA : PULL HIGH W SATA : PULL DOWN

SATA_RXN0 C	R477	0.4
SATA_RXP0 C	R478	0.4

W/O SATA : PULL DOWN

REV:B MODIFY

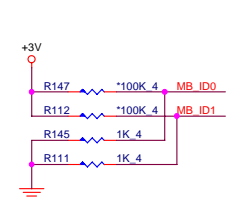
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S_REQ1#	R142	4.7K 4
S_REQ2#	R108	4.7K 4
S_REQ3#	R141	4.7K 4
S_PIRQ0#	R109	4.7K 4
S_PIRQ1#	R117	4.7K 4
S_PIRQ2#	R114	4.7K 4
S_PIRQ3#	R118	4.7K 4
S_FRAME#	R121	4.7K 4
S_TRDY#	R144	4.7K 4
S_DEVSEL#	R129	4.7K 4
S_STOP#	R116	4.7K 4
S_SERR#	R115	4.7K 4
S_PERR#	R125	4.7K 4
S_PLOCK#	R143	4.7K 4
S_CLKRUN#	R60	4.7K 4
ICH_SYNC#	R68	10K 4
LPC_DRO1#	R107	8.2K 4
GATEA20	R58	8.2K 4
SERIRQ	R59	8.2K 4
IRQ14	R91	8.2K 4
RCIN#	R57	8.2K 4
THRM#	R92	4.7K 4
P1ORDY	R72	4.7K 4
LUSB2#	R69	10K 4
LUSB1#	R495	10K 4

REV:B MODIFY

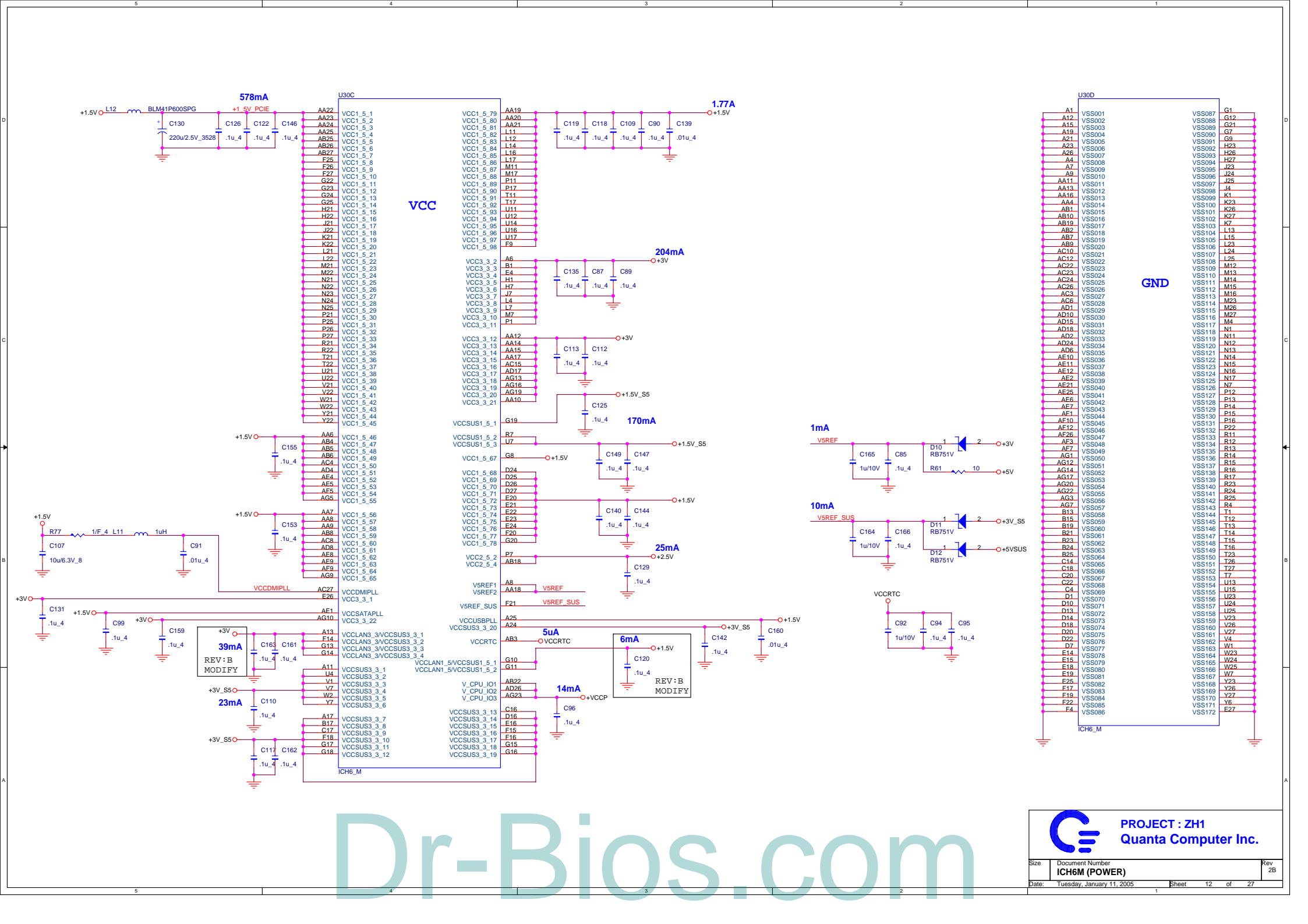
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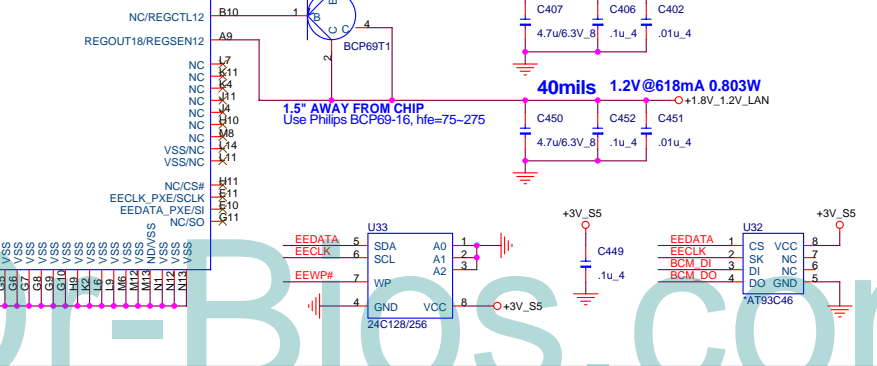
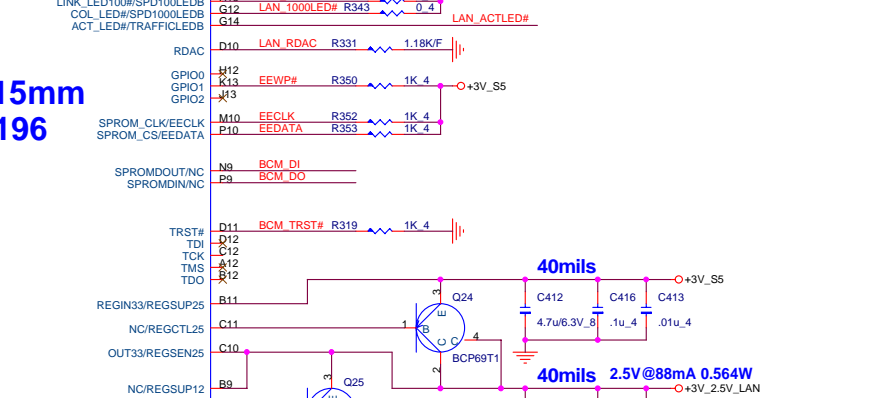
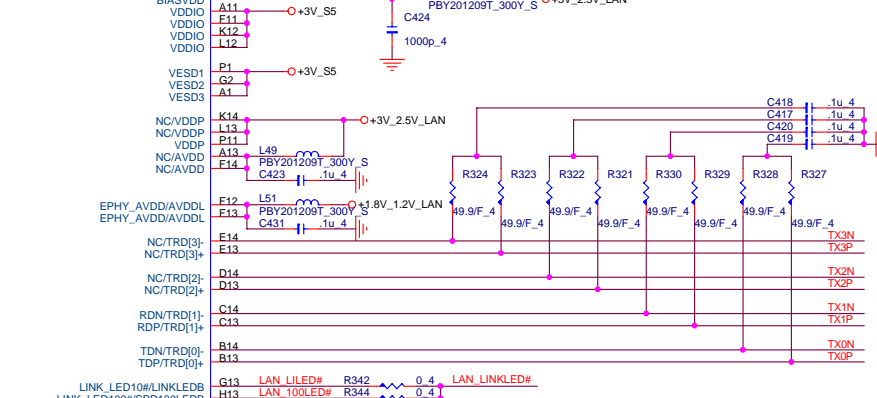
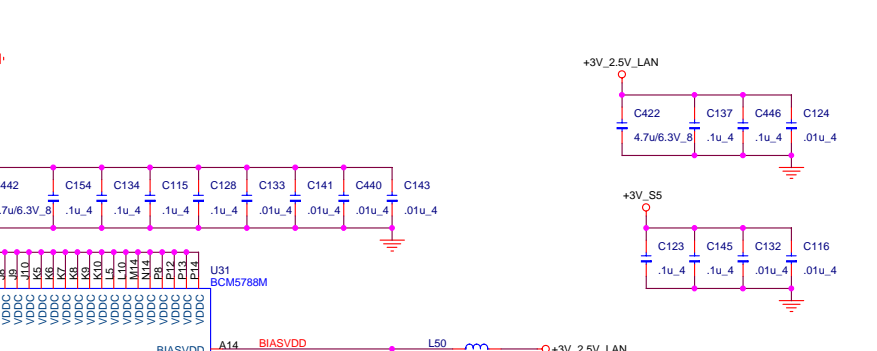
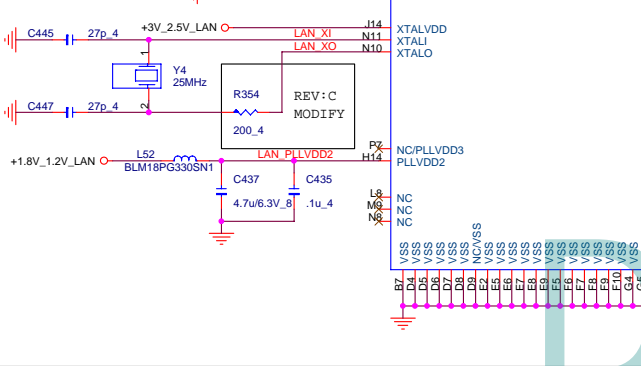
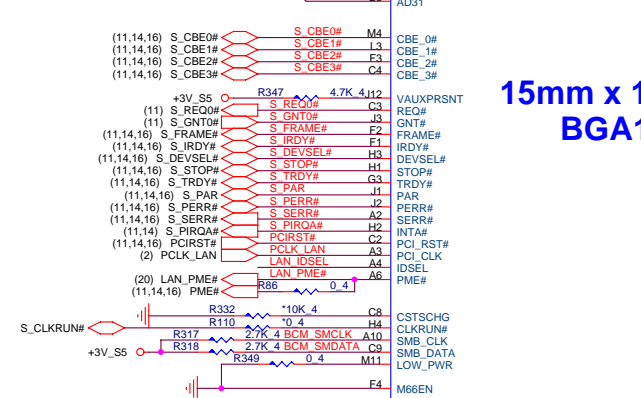
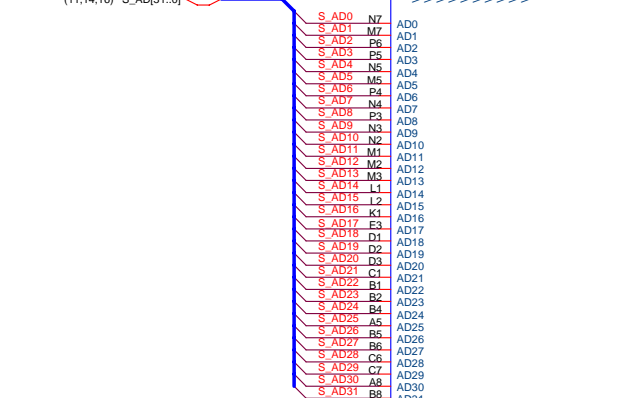
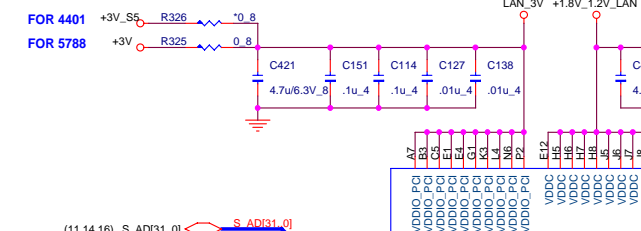
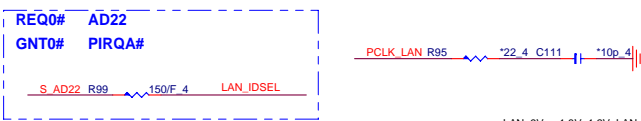
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THERMTRIP# R55 75F 4

PR_STS	R113	10K 4
ICH_PWROK	R73	10K 4
RSMRST#	R90	10K 4



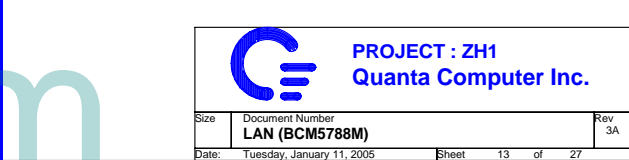
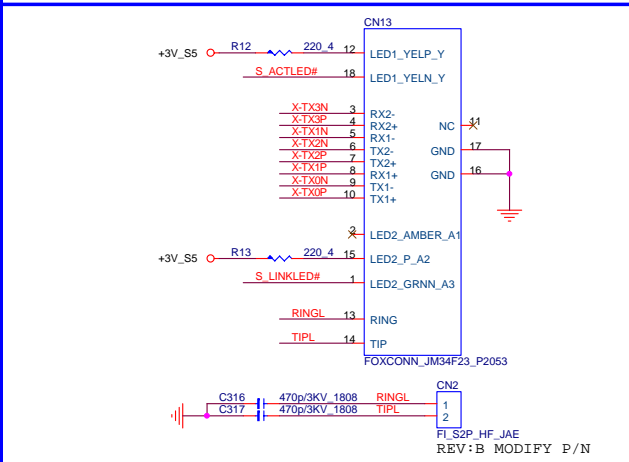
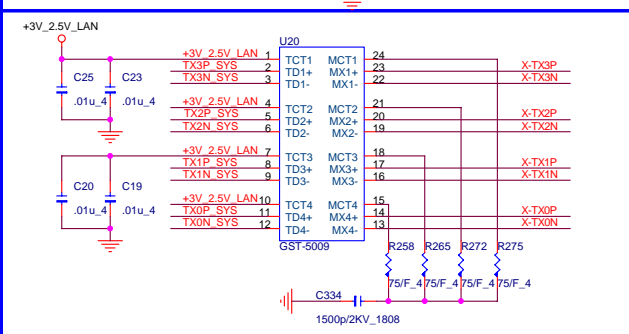
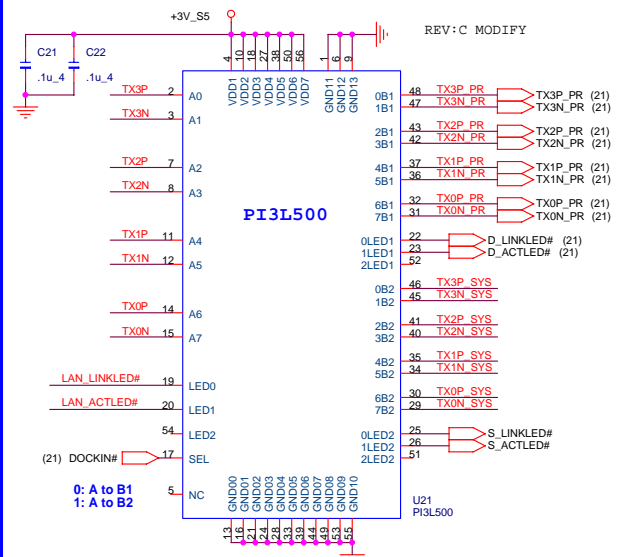
PROJECT : ZH1
Quanta Computer Inc.



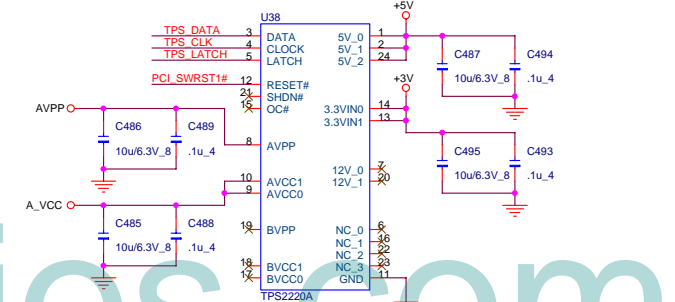
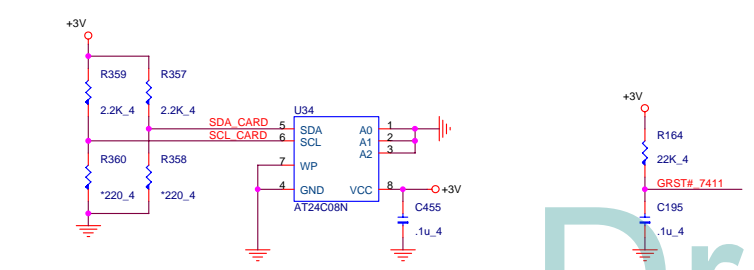
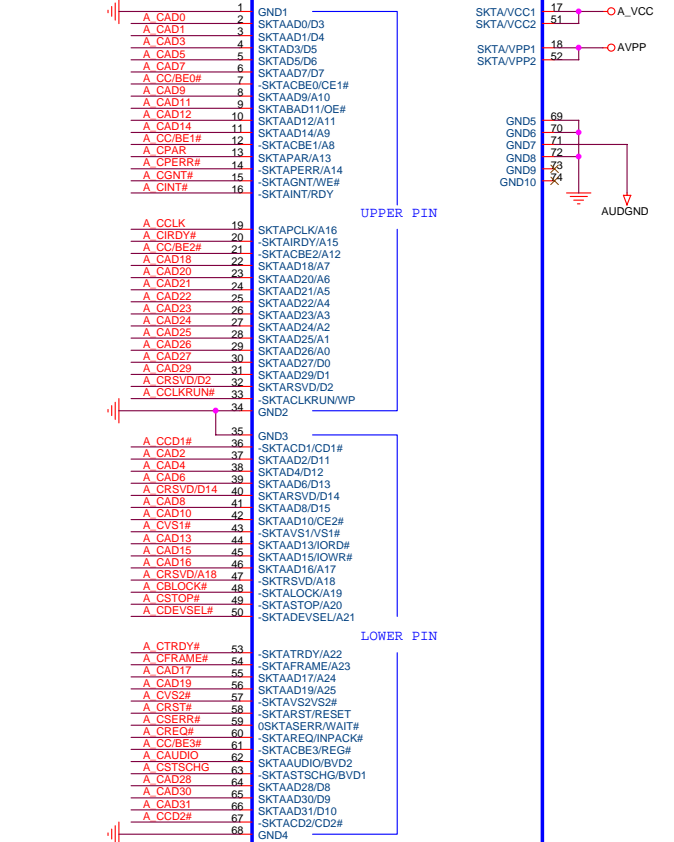
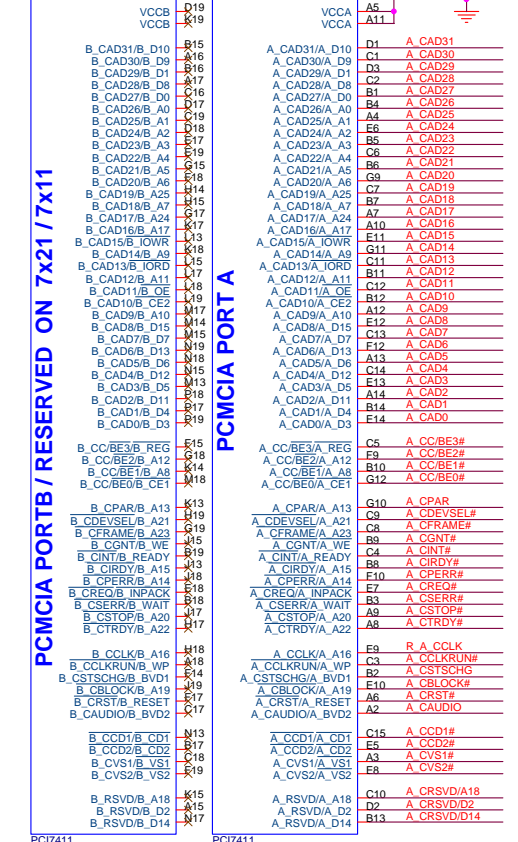
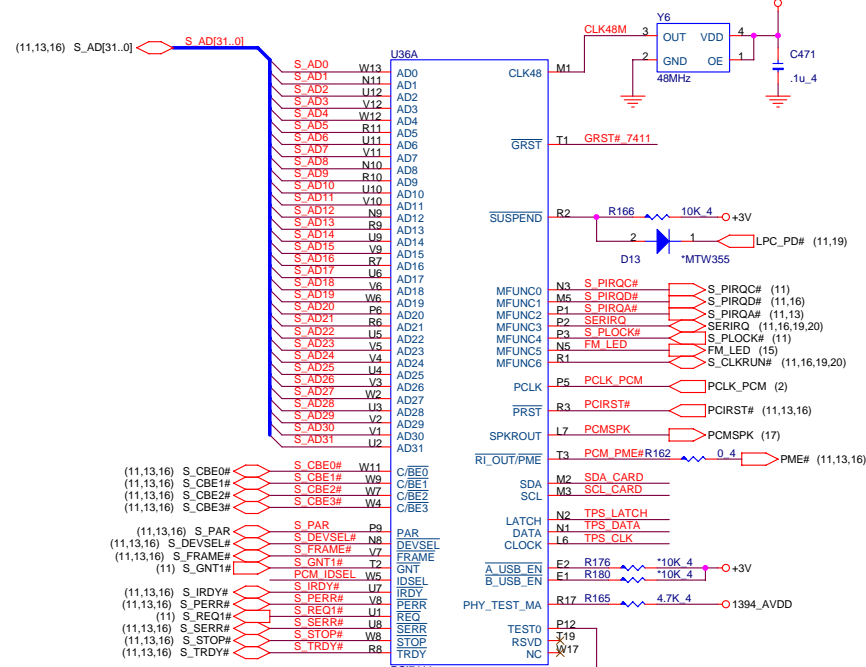


15mm x 15mm
BGA196

40mils
2.5V @ 88mA 0.564W
40mils
1.2V @ 618mA 0.803W
1.5" AWAY FROM CHIP
Use Philips BCP69-16, hfe=75-275



REV: B MODIFY
 S_AD23 R159 150/F 4 PCMC_IDSEL

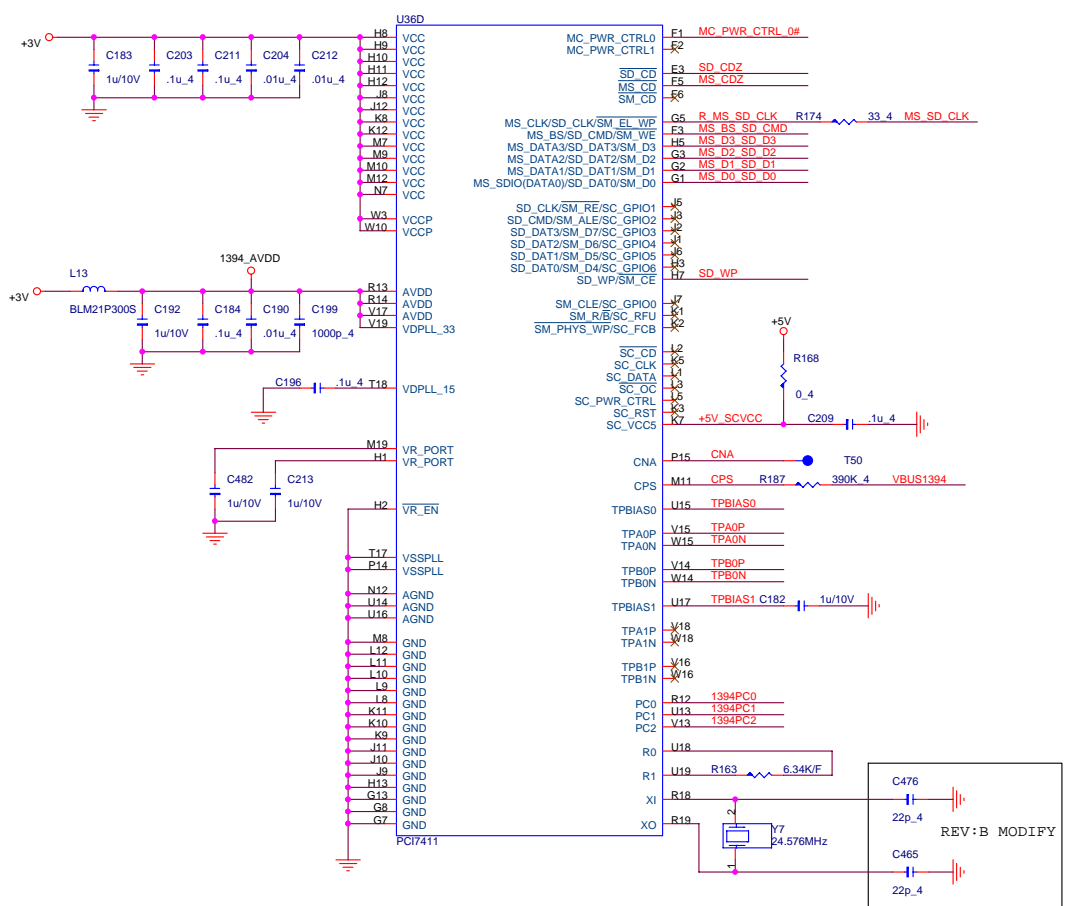


PROJECT : ZH1
 Quanta Computer Inc.

Size Document Number
 PC17411 (PCMCIA)

Date: Tuesday, January 11, 2005 Sheet 14 of 27 Rev 3A

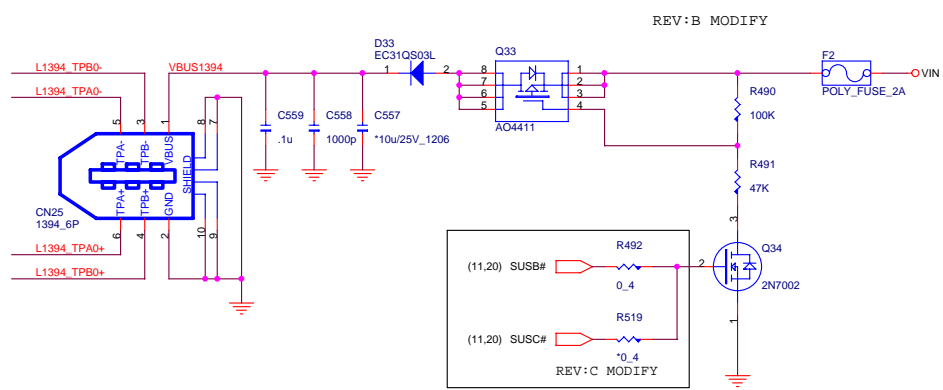
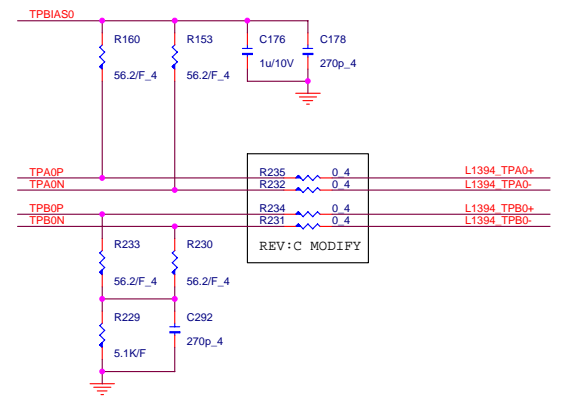
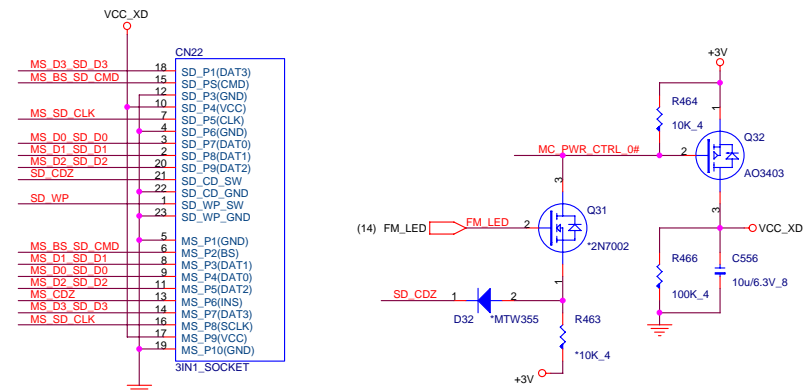
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Power Class REV: B MODIFY

PC[2:0]	VBUS POWER
000	No Power
001	15W
010	30W
011	45W

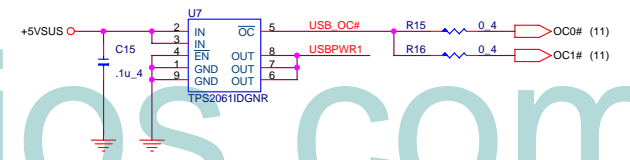
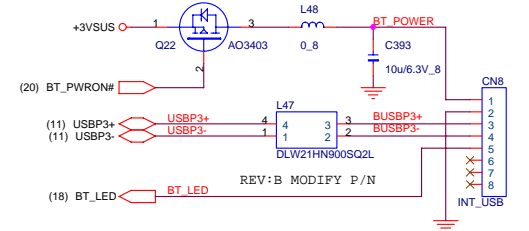
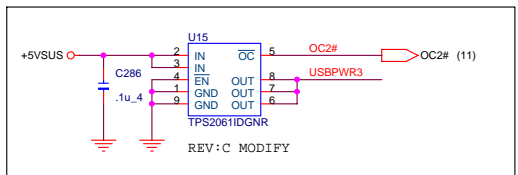
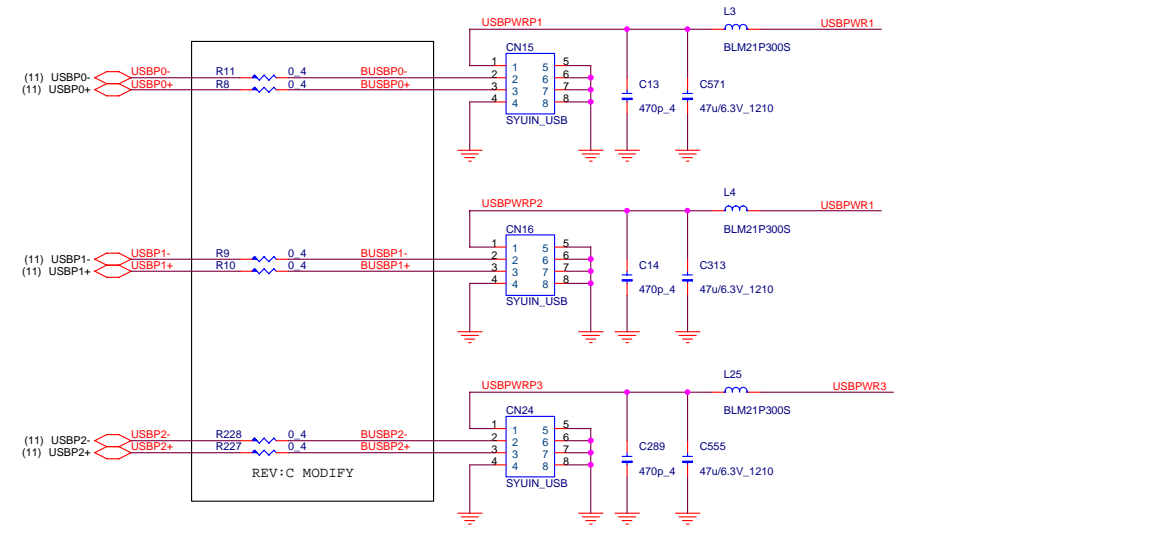
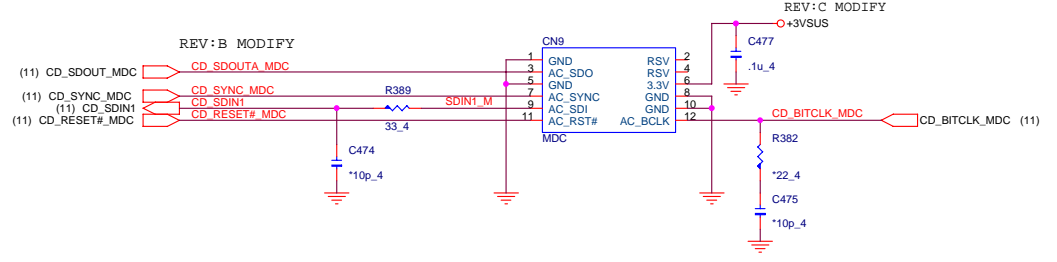
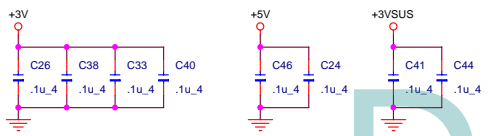
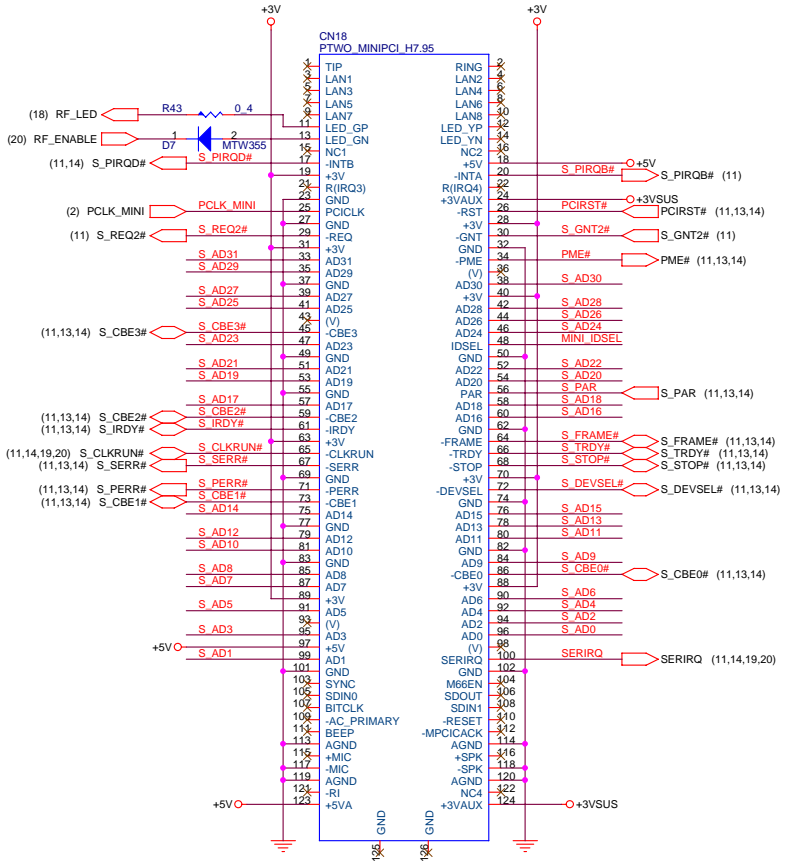
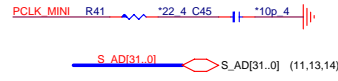
DEFAULT



REQ2# AD24
GNT2# PIRQ(B,D)#

S_AD24 R35 150/F 4 MINI_IDSEL

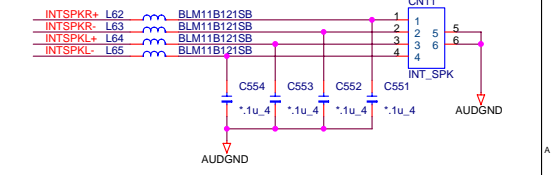
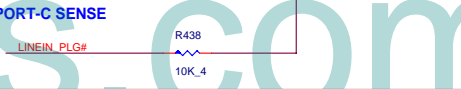
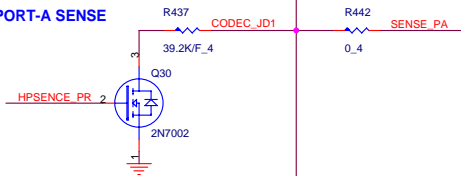
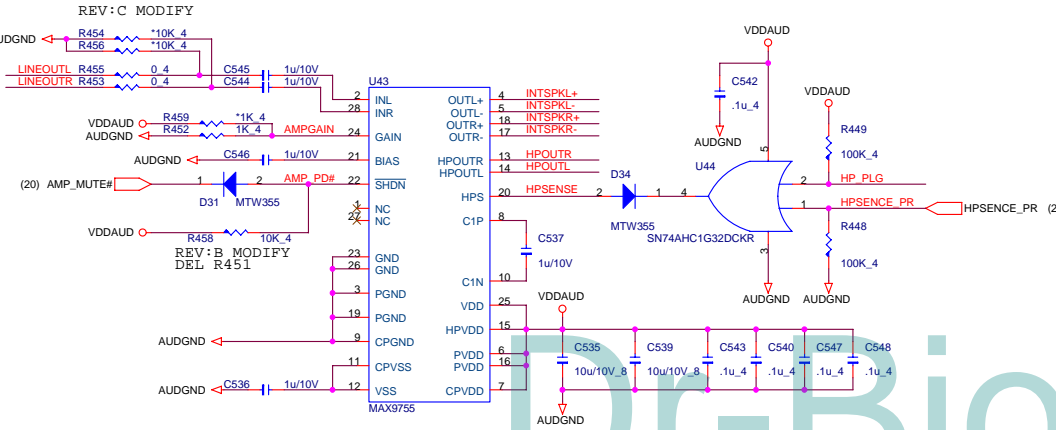
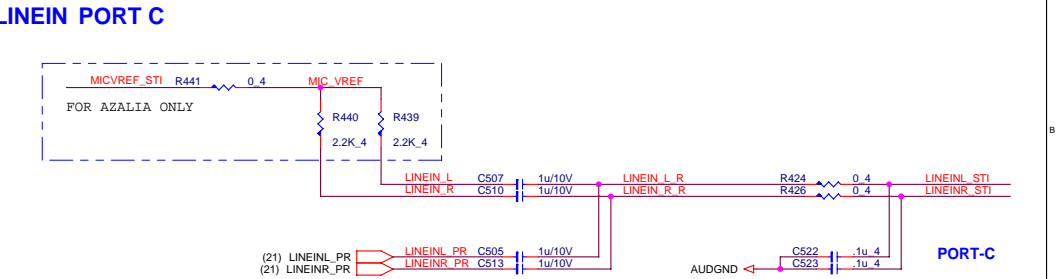
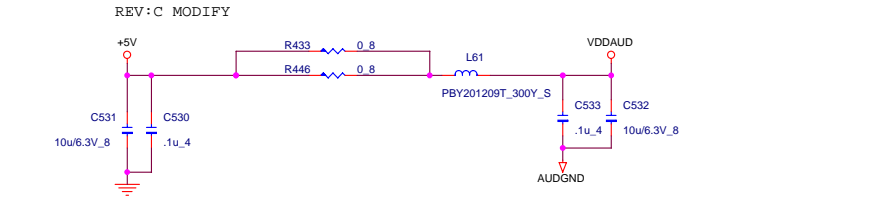
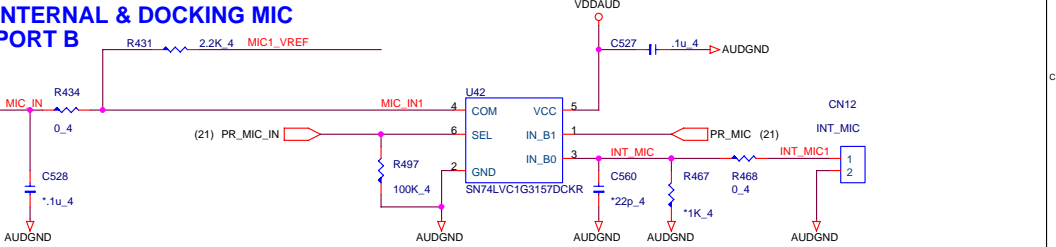
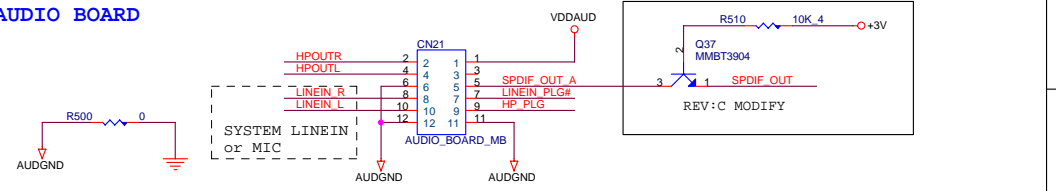
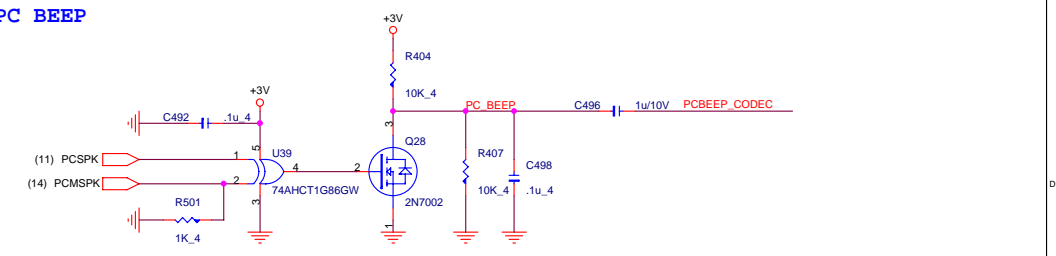
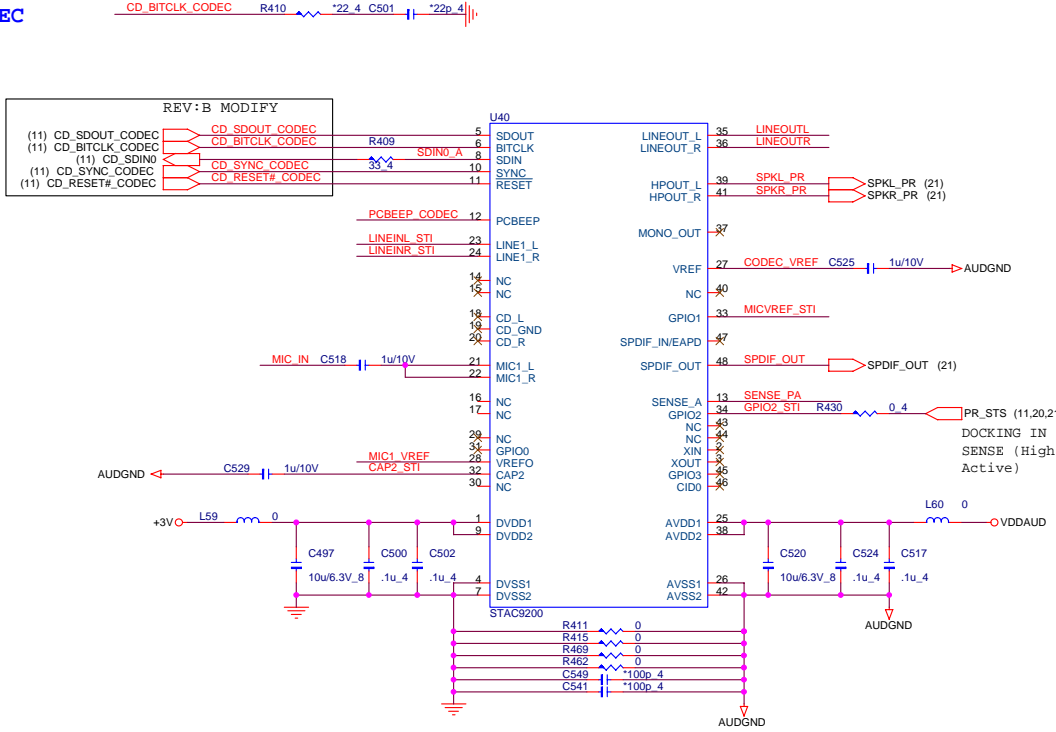
REV:B MODIFY



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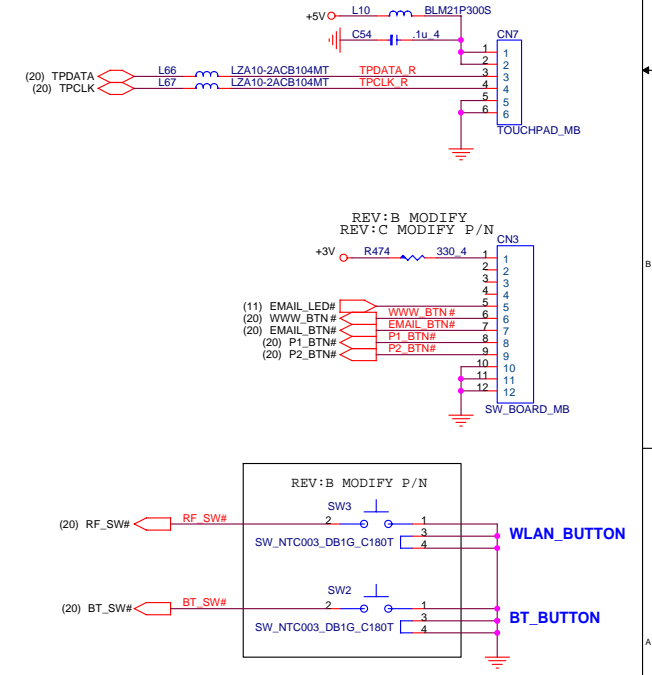
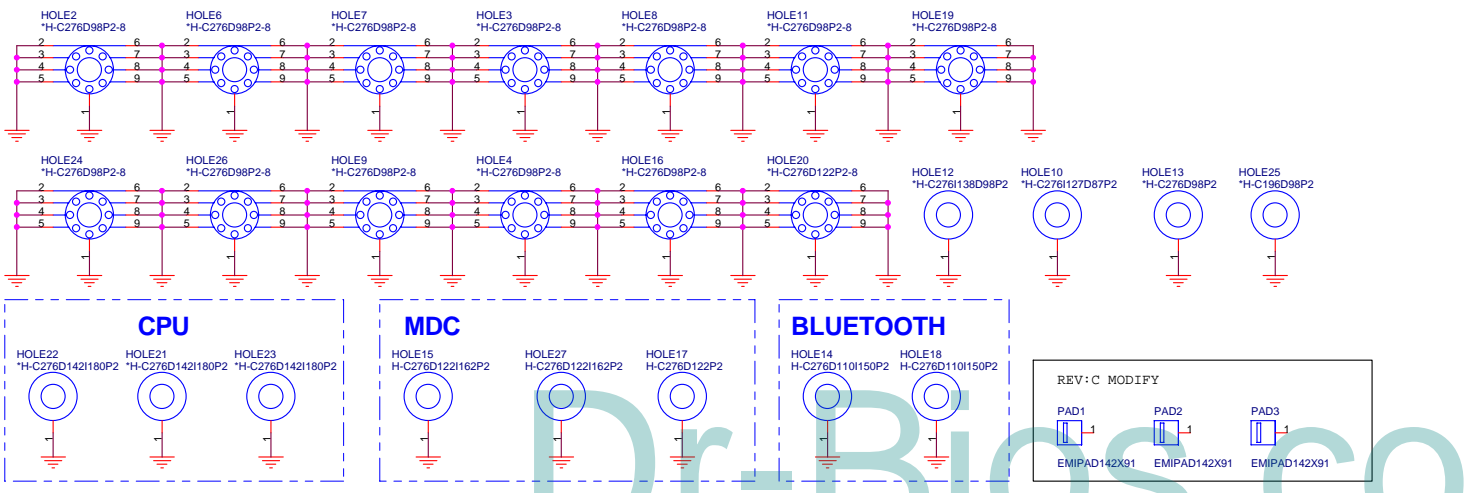
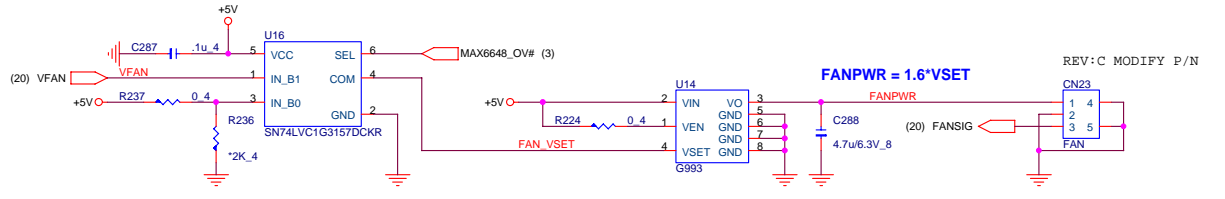
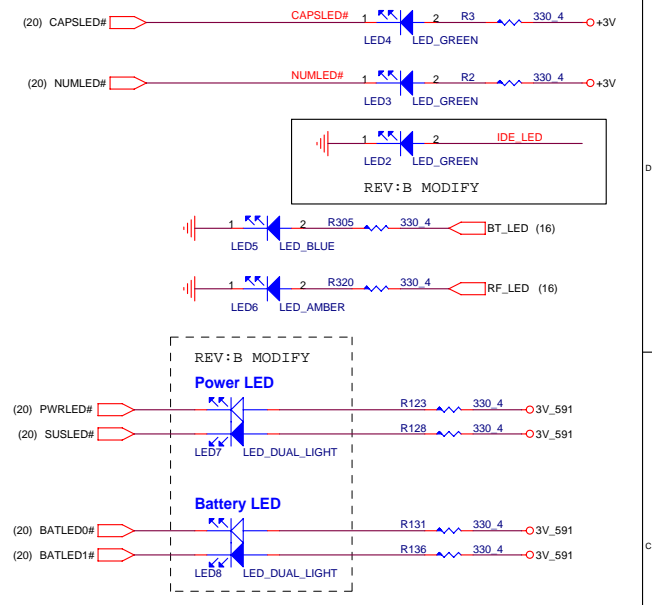
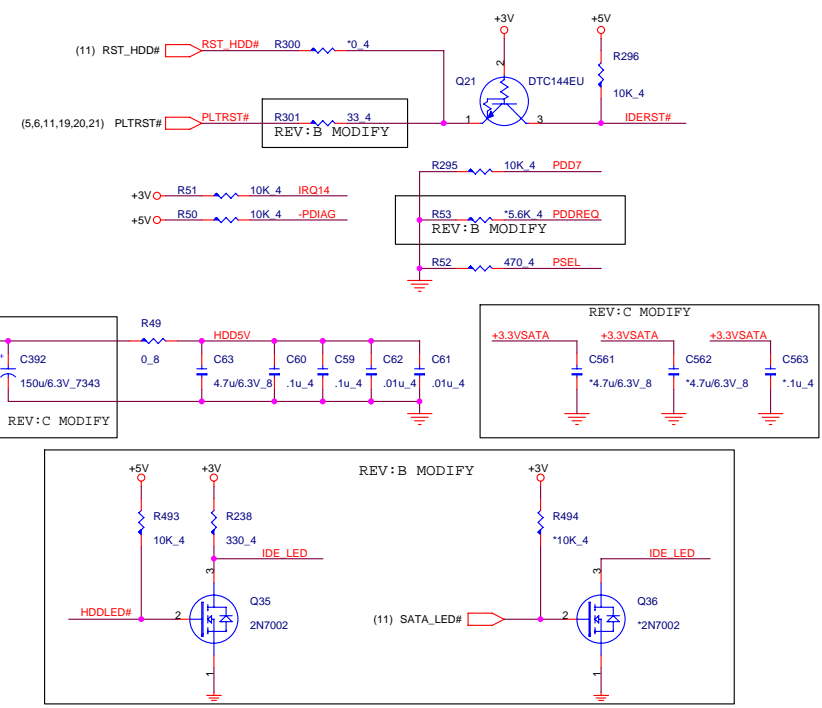
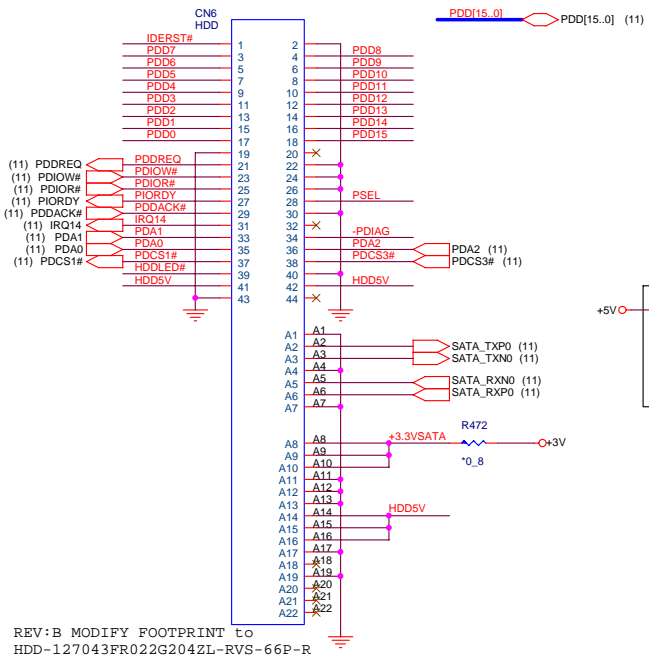
PROJECT : ZH1
Quanta Computer Inc.

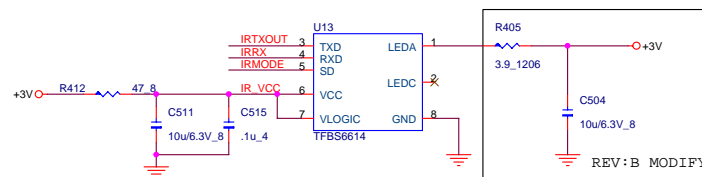
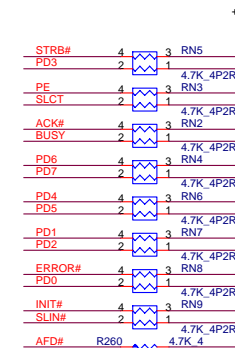
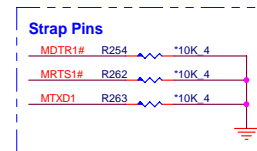
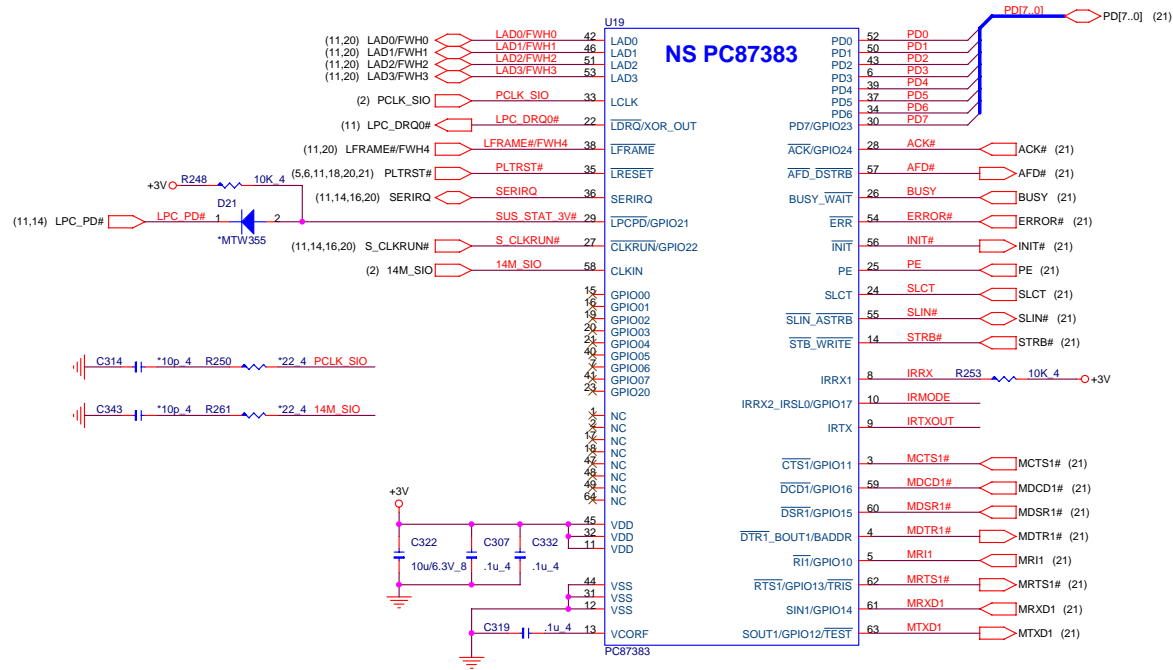
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	MINIPCI/USB/MDC	3A
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Quanta Computer Inc.

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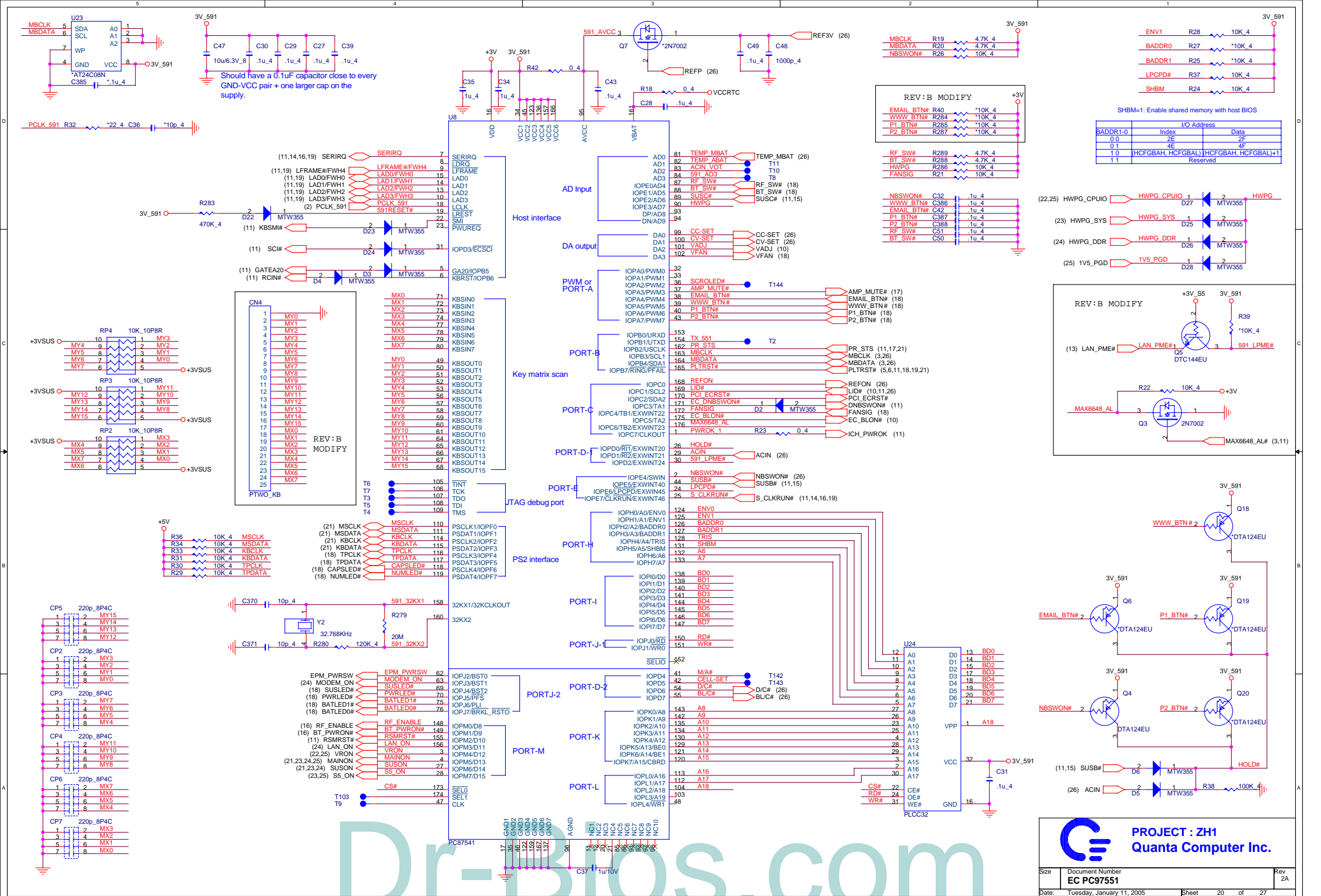


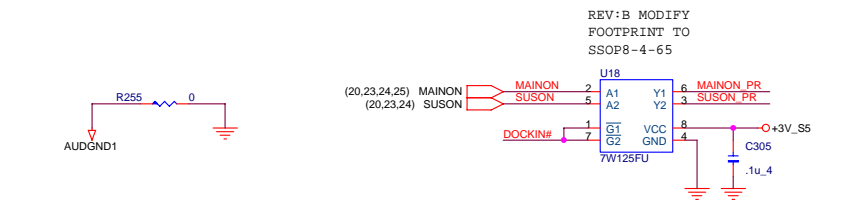
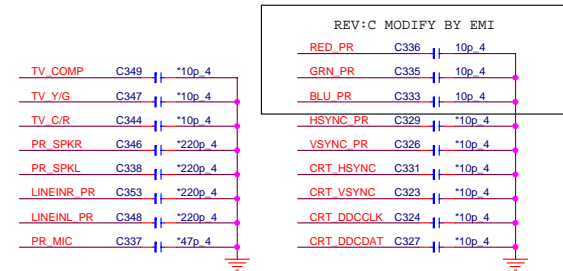
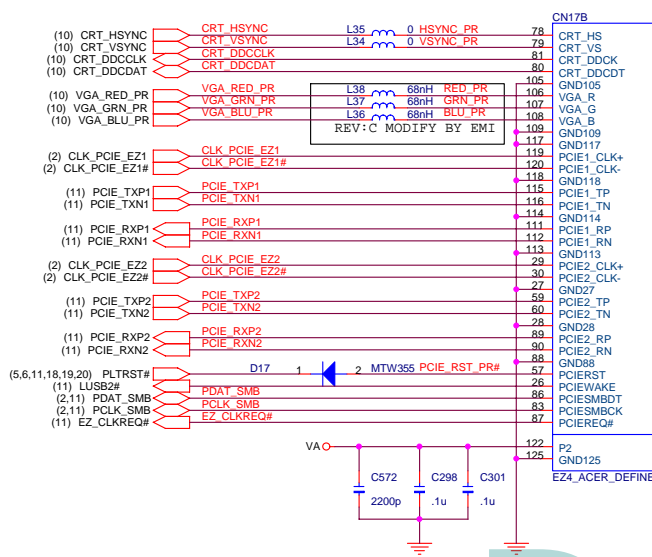
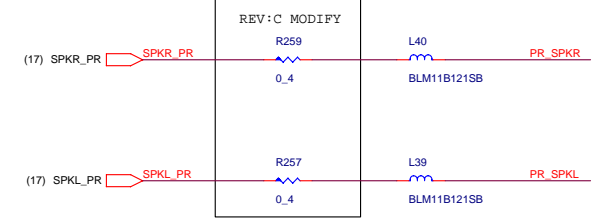
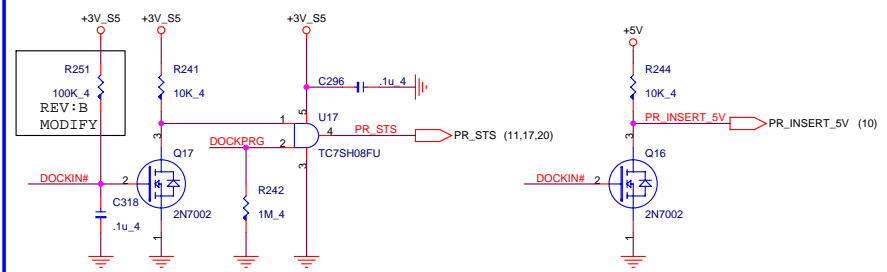
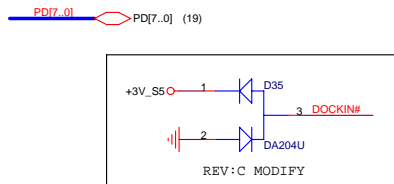
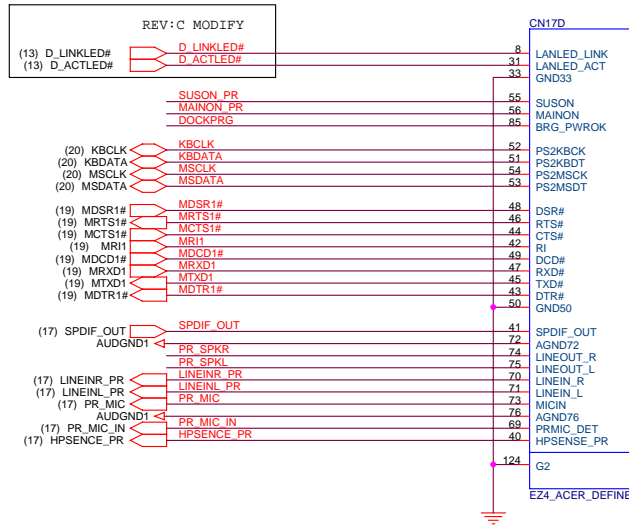


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PROJECT : ZH1
Quanta Computer Inc.

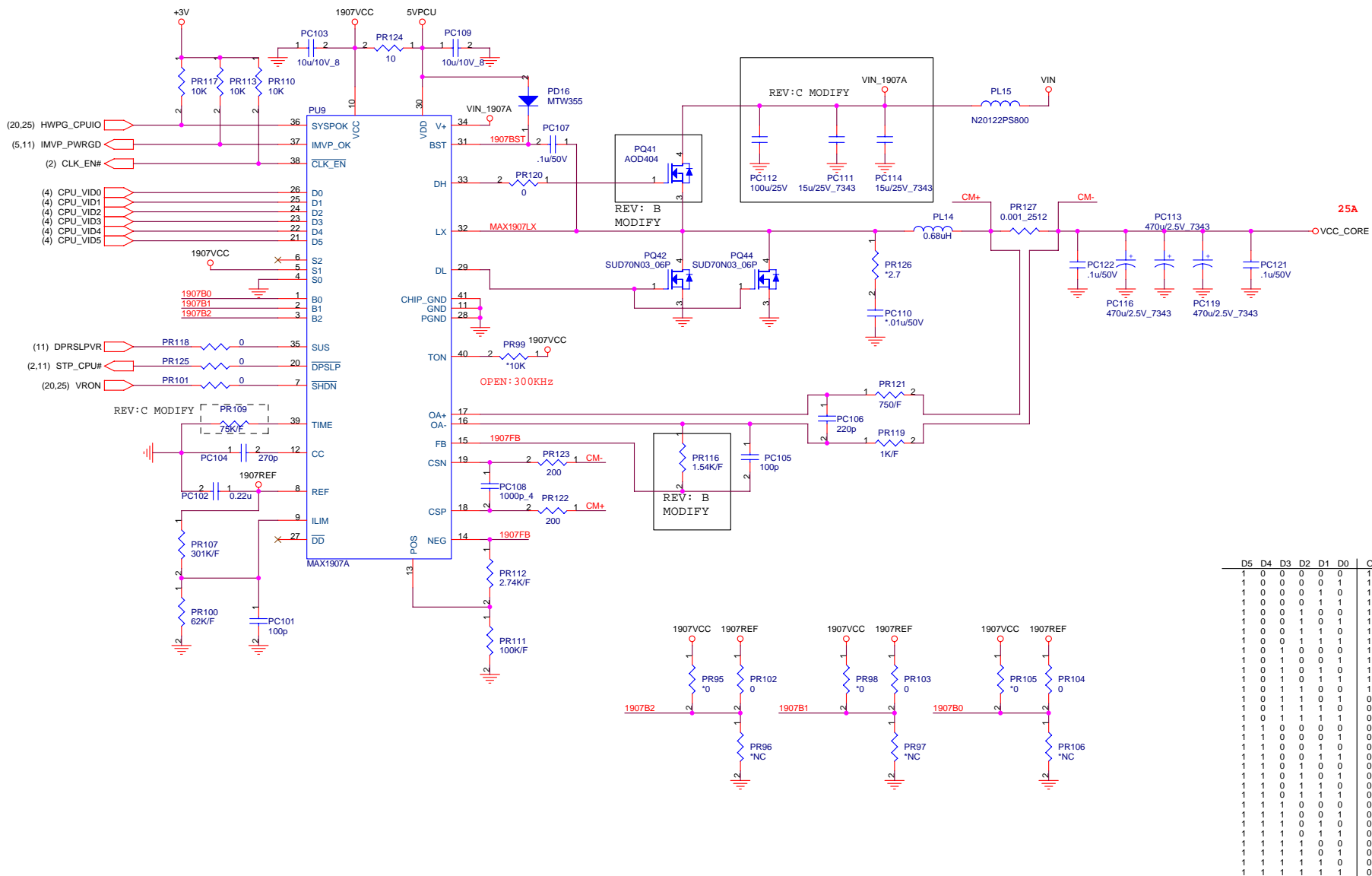
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	SIO PC87383	ZA
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D5	D4	D3	D2	D1	D0	Output	D5	D4	D3	D2	D1	D0	Output
1	0	0	0	0	0	1.196V	0	0	0	0	0	0	1.708V
1	0	0	0	0	1	1.180V	0	0	0	0	0	1	1.692V
1	0	0	0	1	0	1.184V	0	0	0	0	0	1	1.676V
1	0	0	0	1	1	1.148V	0	0	0	0	0	1	1.660V
1	0	0	1	0	0	1.132V	0	0	0	0	1	0	1.644V
1	0	0	1	0	1	1.116V	0	0	0	1	0	1	1.628V
1	0	0	1	1	0	1.100V	0	0	0	1	0	0	1.612V
1	0	1	0	0	0	1.084V	0	0	0	1	0	1	1.596V
1	0	1	0	0	1	1.068V	0	0	0	1	0	0	1.580V
1	0	1	0	1	0	1.052V	0	0	1	0	0	0	1.564V
1	0	1	0	1	1	1.036V	0	0	1	0	1	0	1.548V
1	0	1	1	0	0	1.020V	0	0	1	0	1	0	1.532V
1	0	1	1	0	1	1.004V	0	0	1	0	0	0	1.516V
1	0	1	1	1	0	0.988V	0	0	1	1	0	0	1.500V
1	0	1	1	1	1	0.972V	0	0	1	1	1	0	1.484V
1	0	1	1	1	1	0.956V	0	0	1	1	1	1	1.468V
1	1	0	0	0	0	0.940V	0	1	0	0	0	0	1.452V
1	1	0	0	0	1	0.924V	0	1	0	0	0	1	1.436V
1	1	0	0	1	0	0.908V	0	1	0	0	1	0	1.420V
1	1	0	0	1	1	0.892V	0	1	0	0	1	1	1.404V
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1	1	0	1	1	0	0.844V	0	1	0	1	0	0	1.356V
1	1	0	1	1	1	0.828V	0	1	0	1	1	0	1.340V
1	1	1	0	0	0	0.812V	0	1	1	0	0	0	1.324V
1	1	1	0	0	1	0.796V	0	1	1	0	0	1	1.308V
1	1	1	0	1	0	0.780V	0	1	1	0	1	0	1.292V
1	1	1	0	1	1	0.764V	0	1	1	0	1	1	1.276V
1	1	1	1	0	0	0.748V	0	1	1	1	0	0	1.260V
1	1	1	1	0	1	0.732V	0	1	1	1	0	1	1.244V
1	1	1	1	1	0	0.716V	0	1	1	1	1	0	1.228V
1	1	1	1	1	1	0.700V	0	1	1	1	1	1	1.212V

SUSPEND MODE (SUS=HIGH)

S2	S1	S0	Output
OPEN	VCC	GND	0.748V

VCC_BOOT

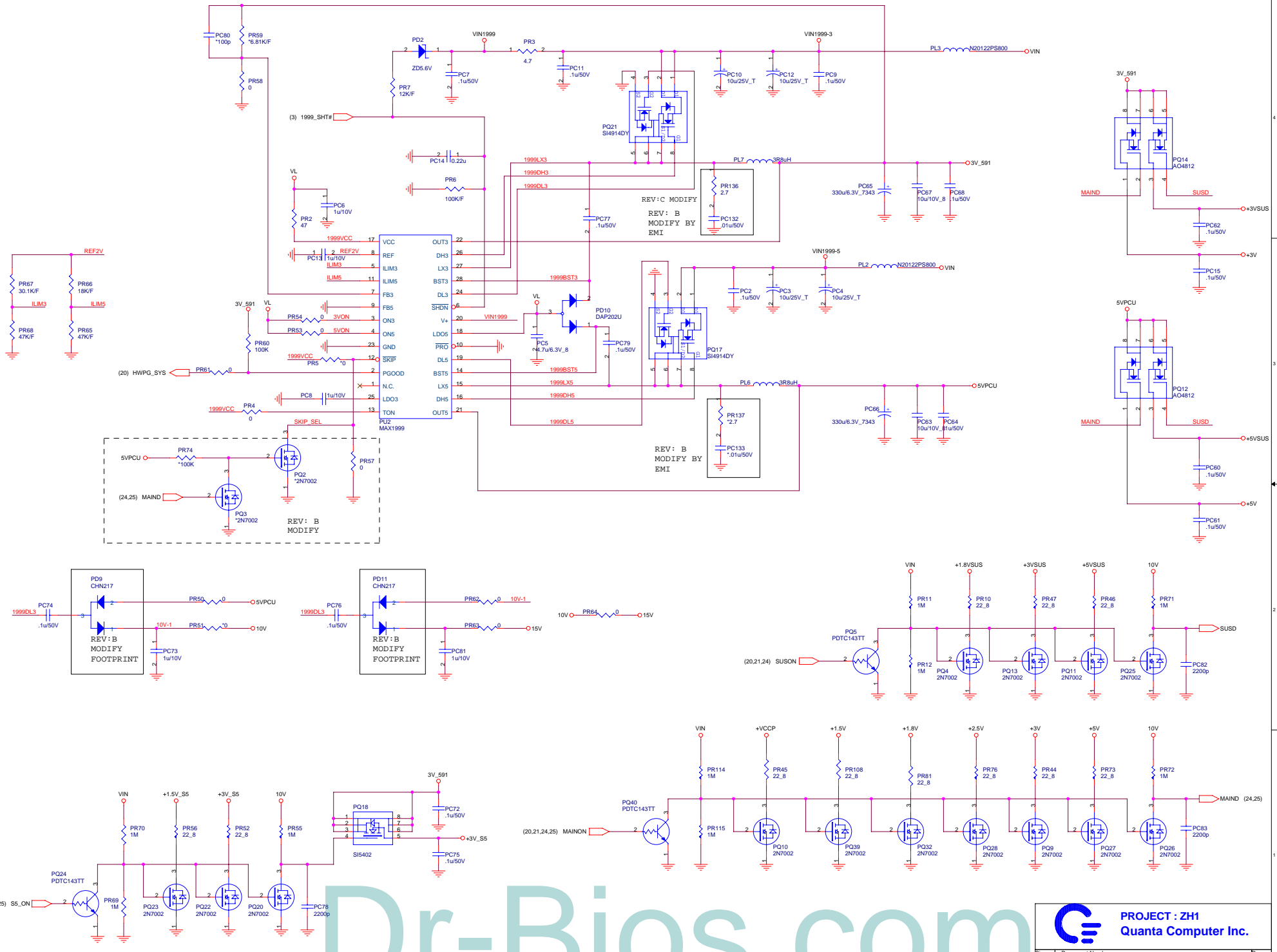
B2	B1	B0	Output
GND	GND	GND	1.708V
REF	REF	REF	1.372V
OPEN	OPEN	OPEN	1.036V
VCC	VCC	VCC	0.700V
REF	VCC	VCC	1.212V

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Size: Document Number
CPU CORE (MAX1907)

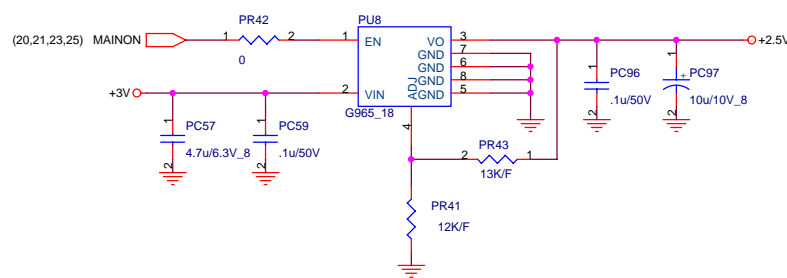
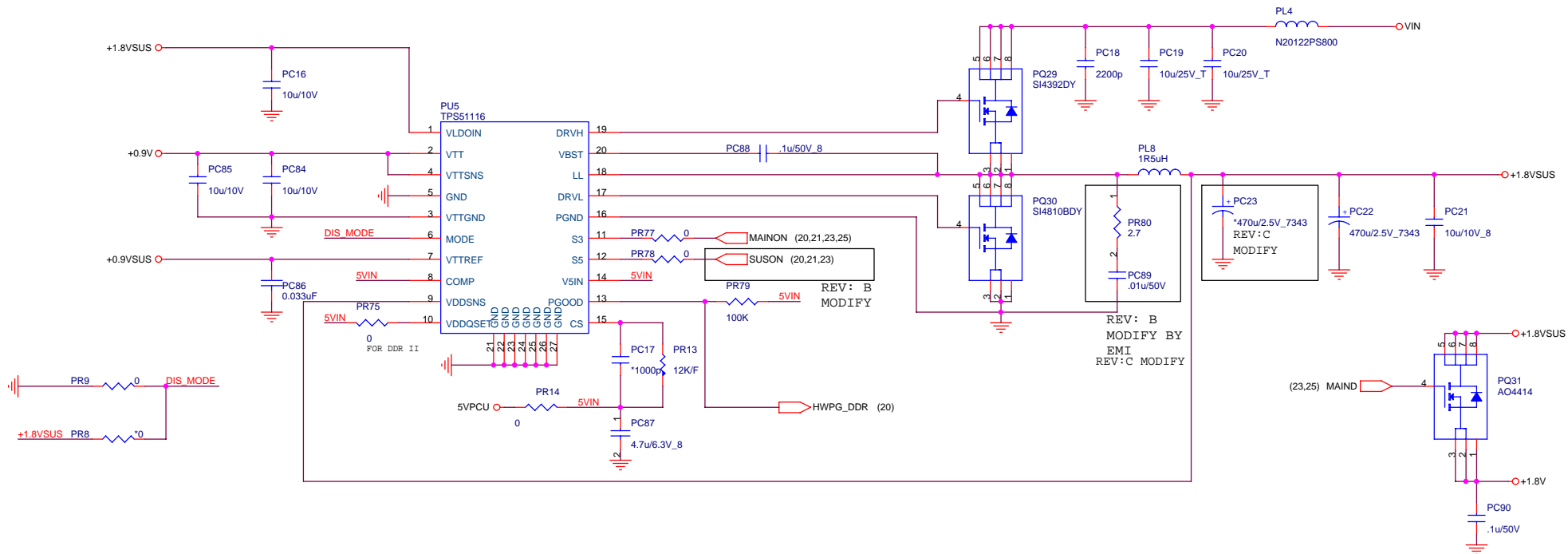
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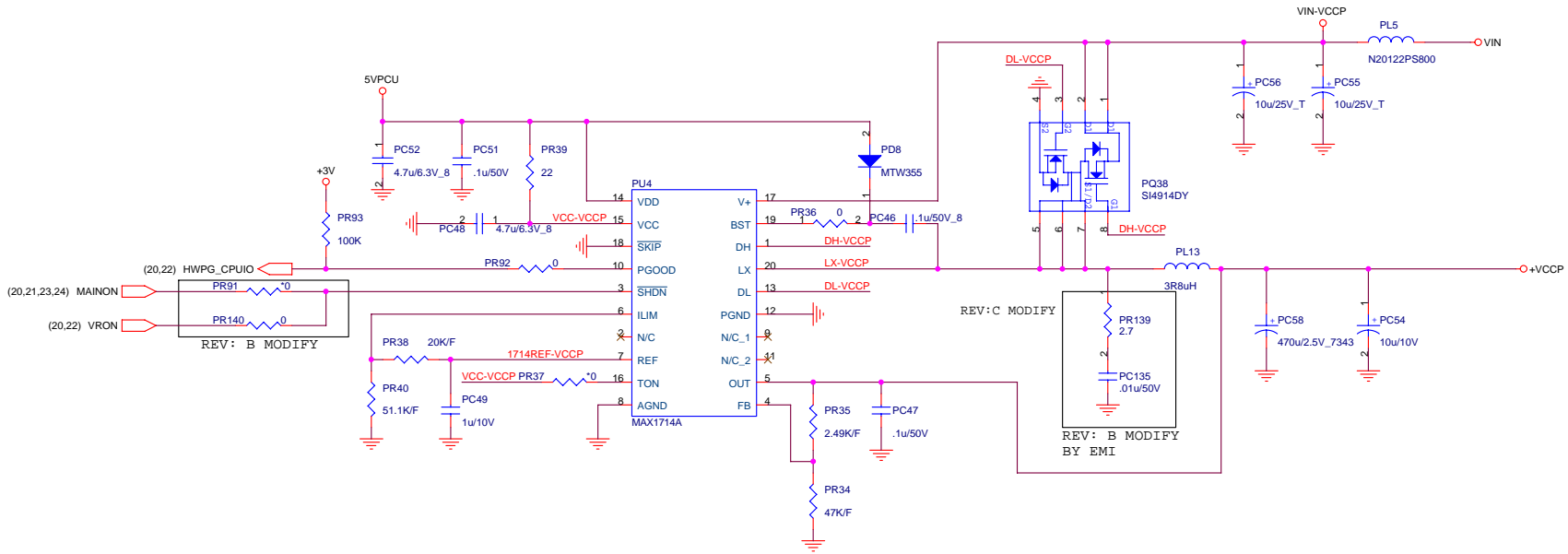
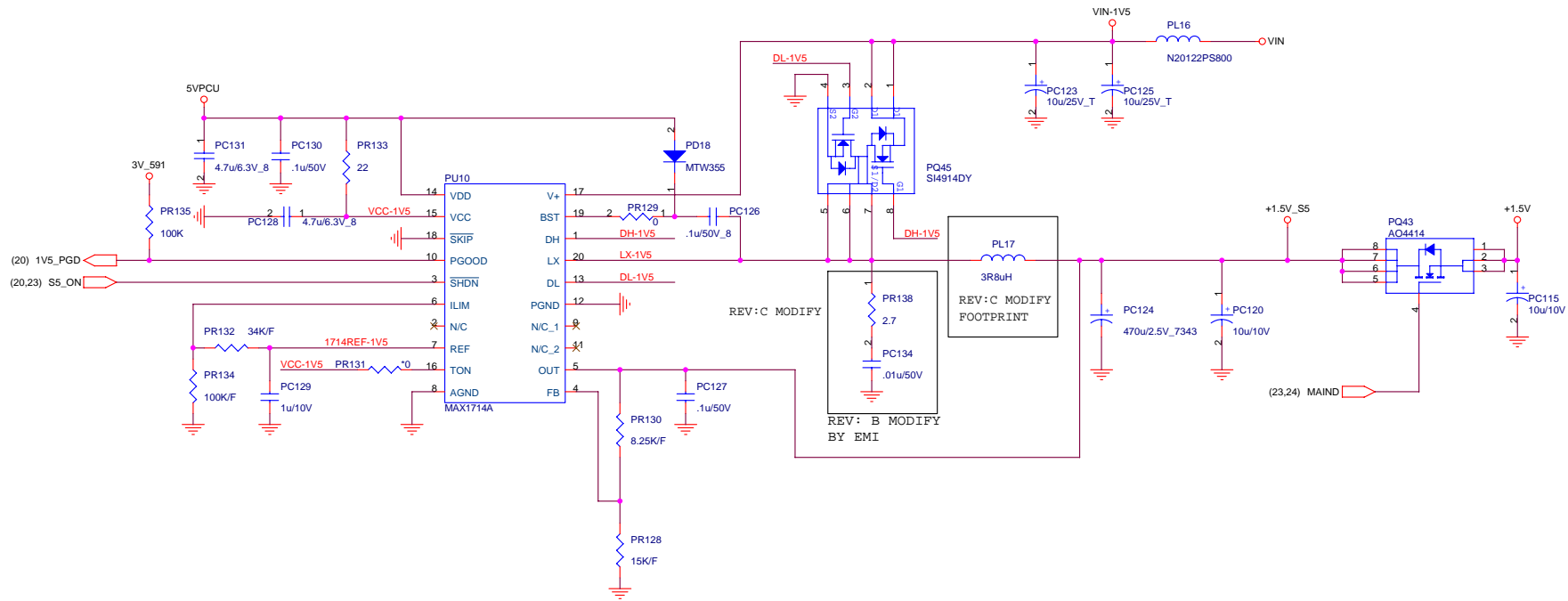
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Quanta Computer Inc.

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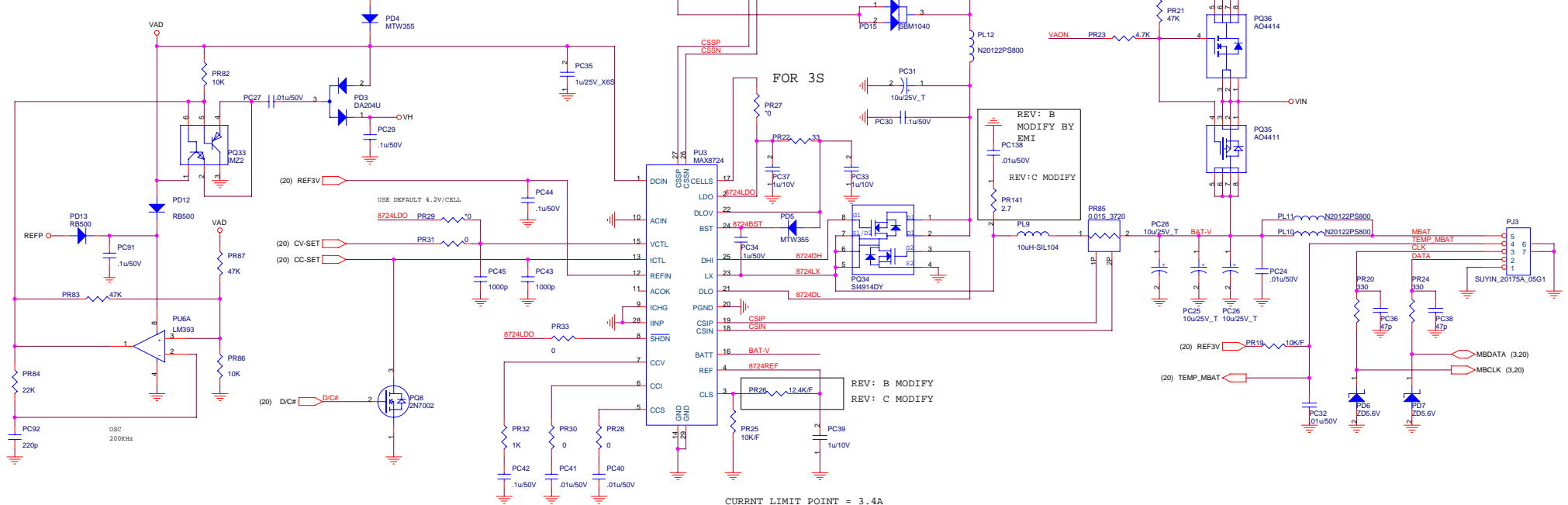
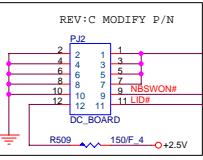
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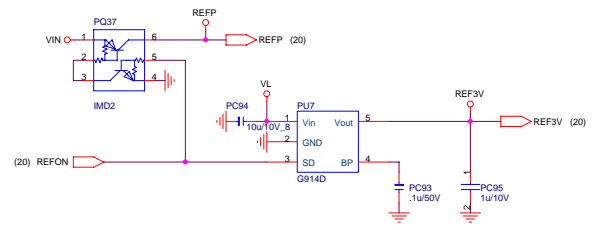
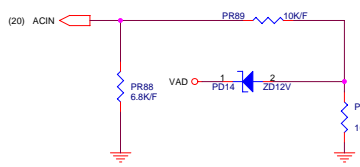
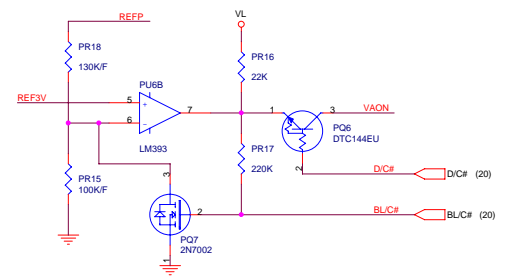
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	+1.5V / +VCCP	3A
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BATTERY LOW = 7.6V



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