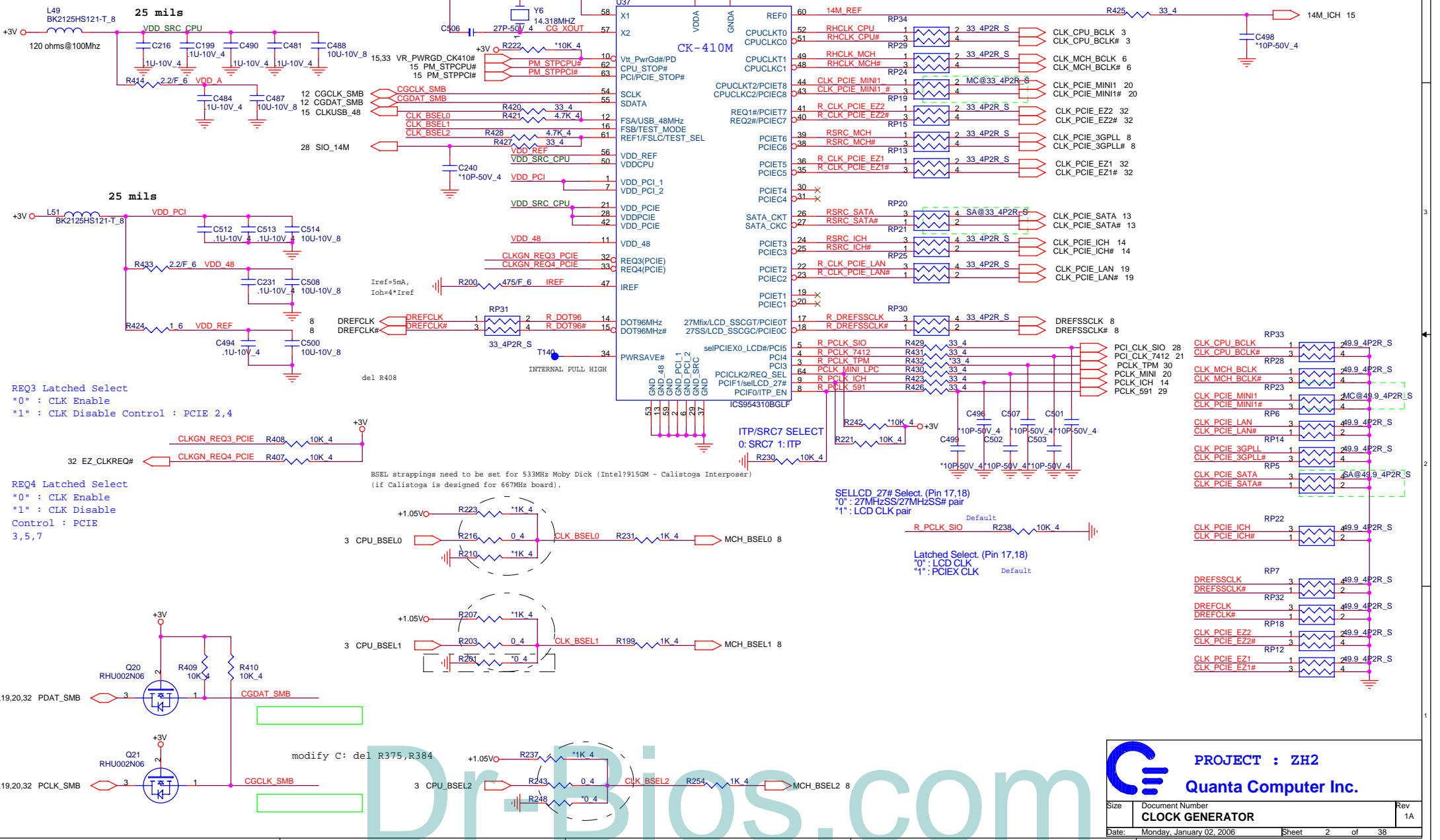




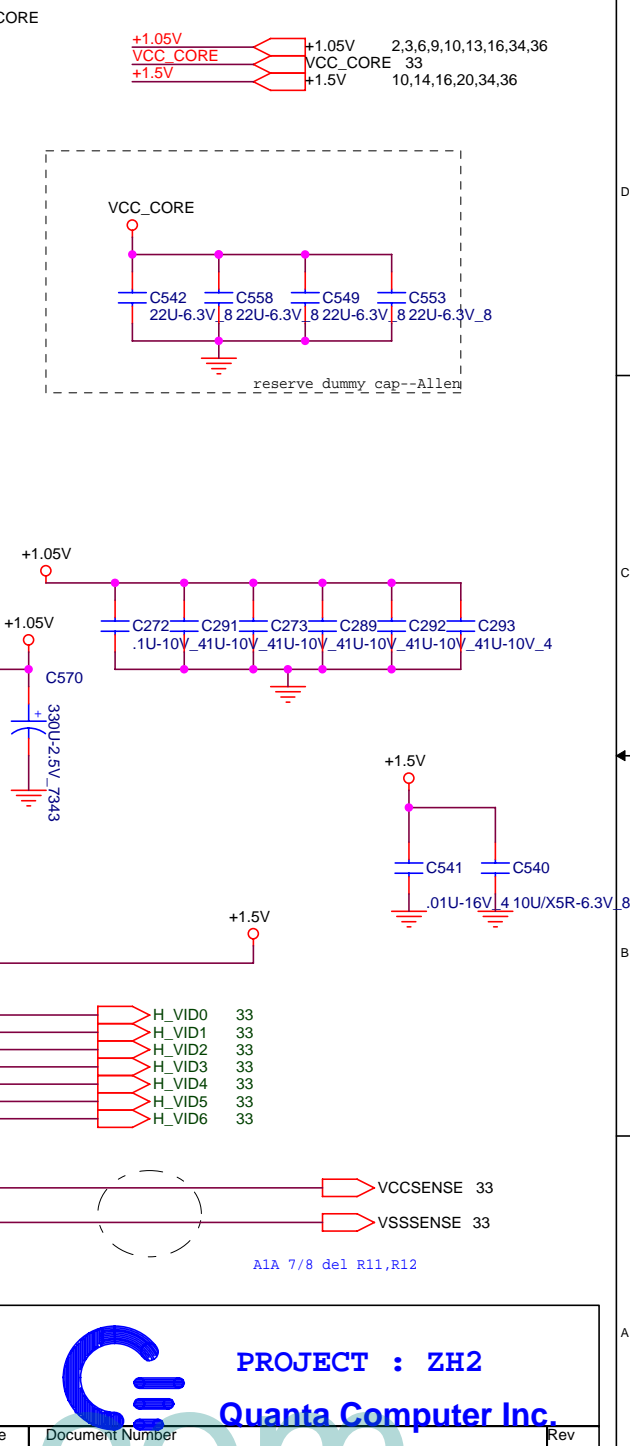
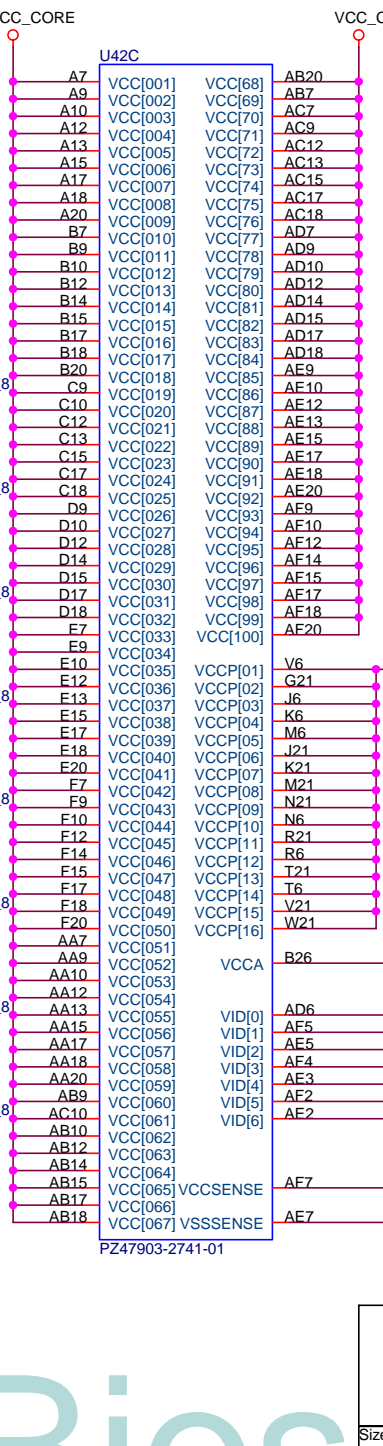
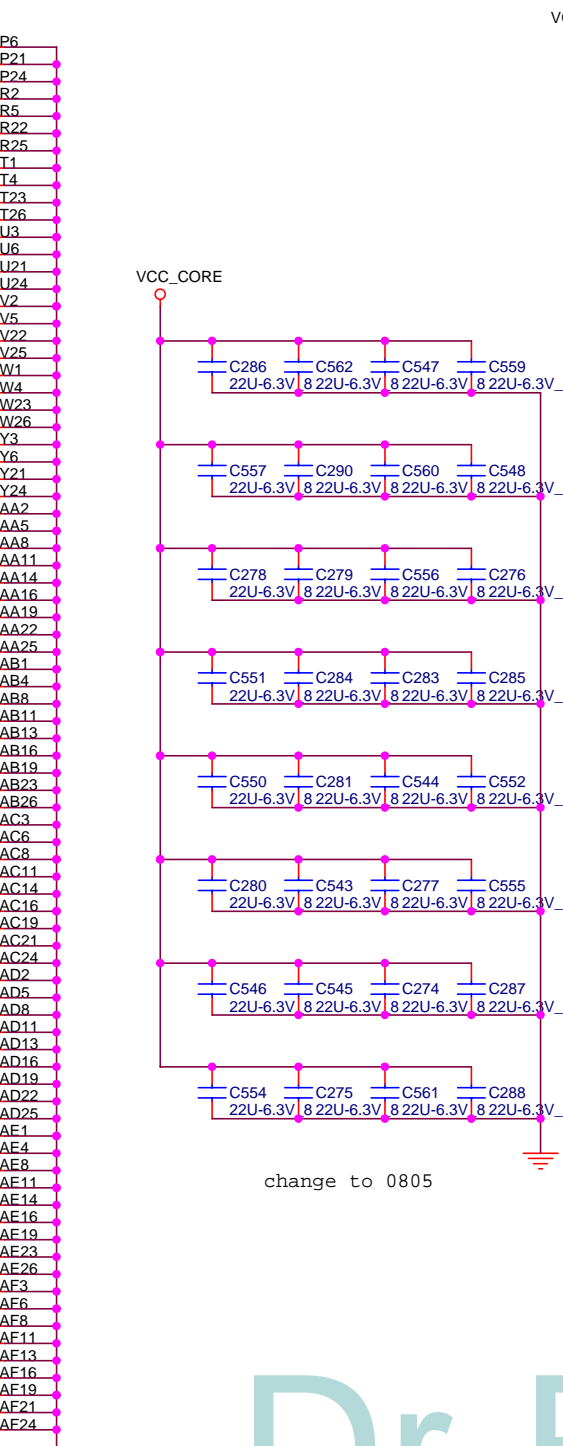
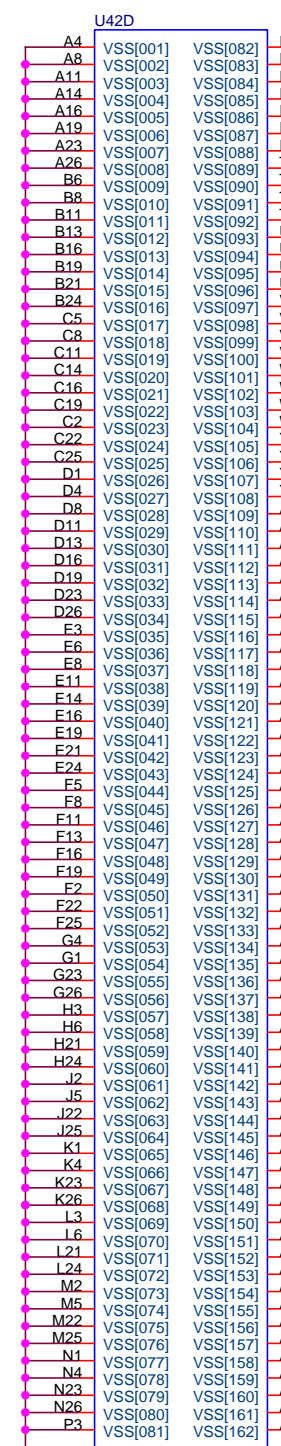
FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	200	100	33

Default



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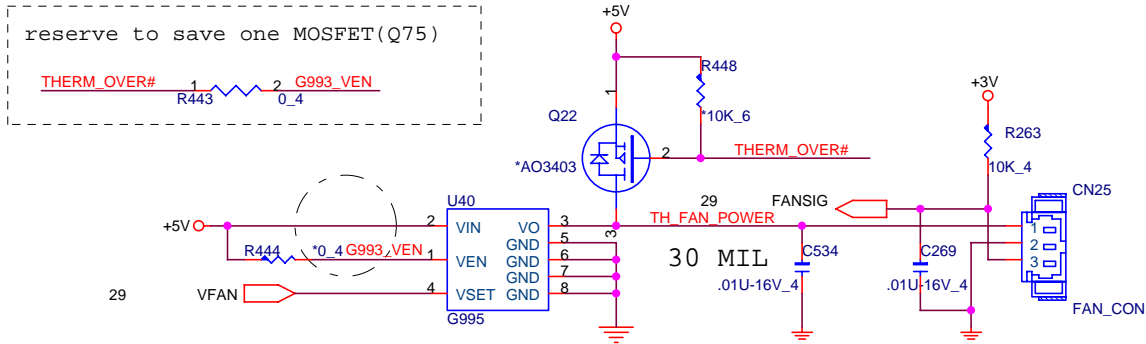
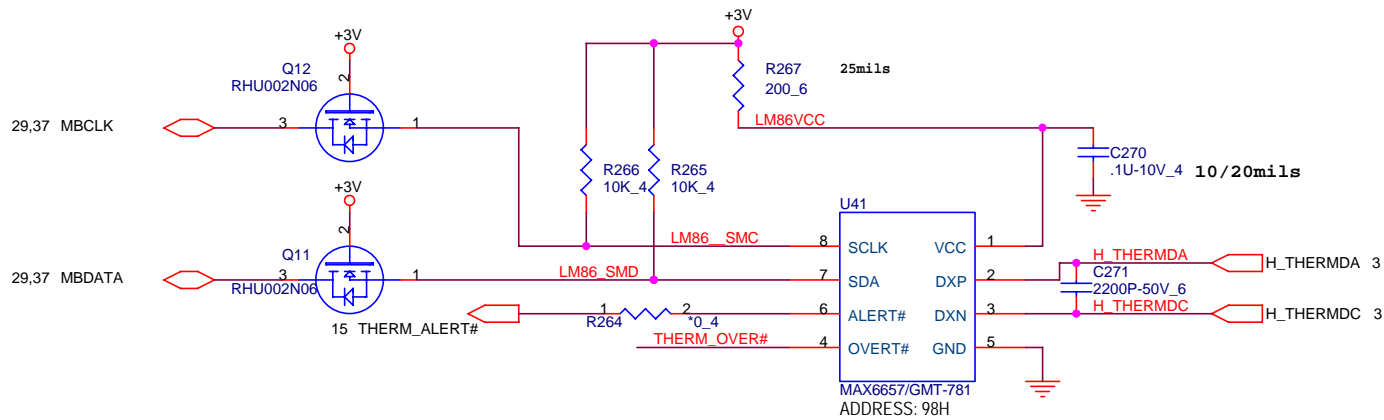




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**Quanta Computer Inc.**

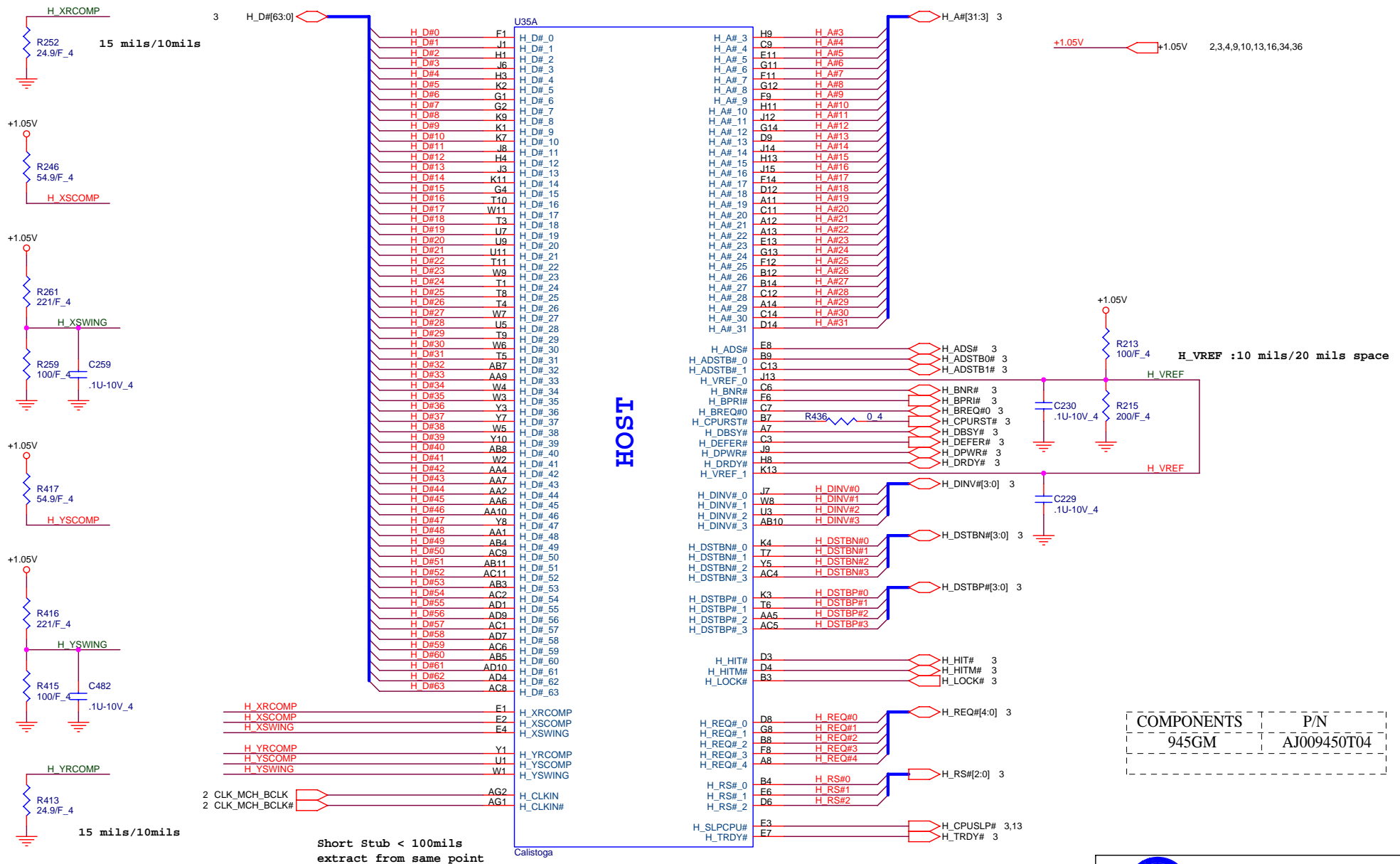
Size	Document Number	Rev
	<b>CPU(2 OF 2)</b>	1A
Date:	Monday, January 02, 2006	Sheet 4 of 38



**PROJECT : ZH2**

**Quanta Computer Inc.**

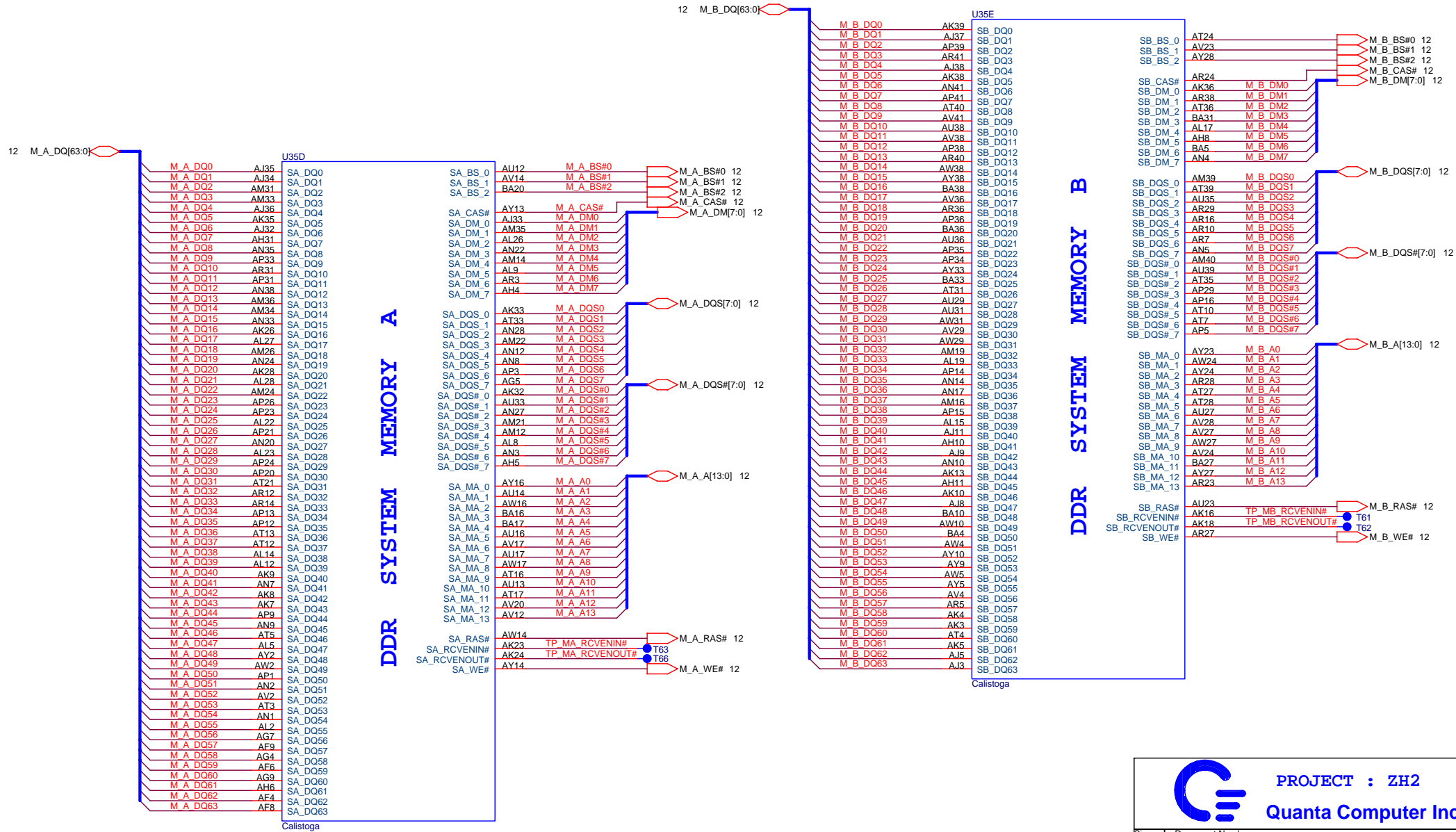
Size	Document Number	Rev
	<b>Thermal Sensor LM86</b>	1A
Date:	Monday, January 02, 2006	Sheet 5 of 38



**PROJECT : ZH2**  
**Quanta Computer Inc.**

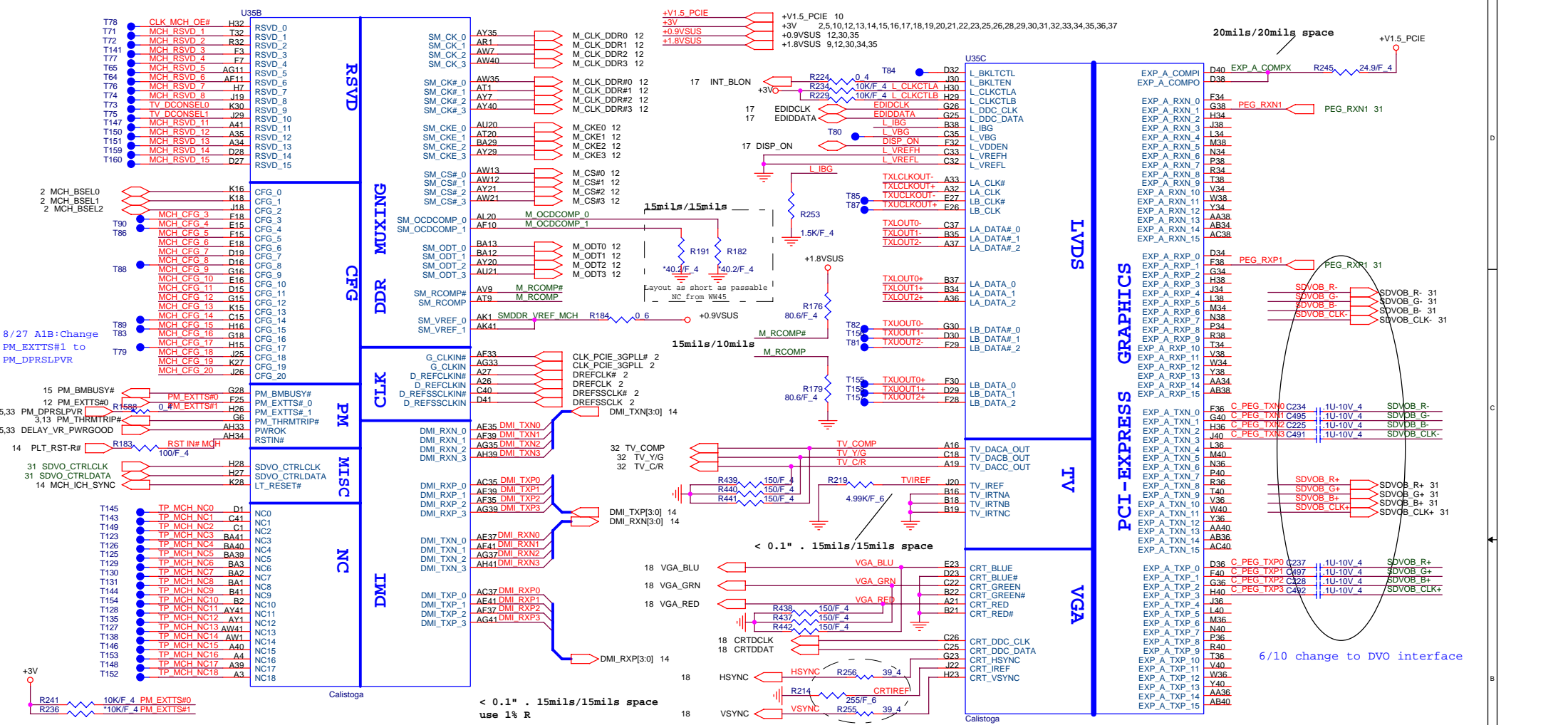
Size	Document Number	Rev
	<b>GMCH HOST(1 OF 6)</b>	1A
Date:	Monday, January 02, 2006	Sheet 6 of 38



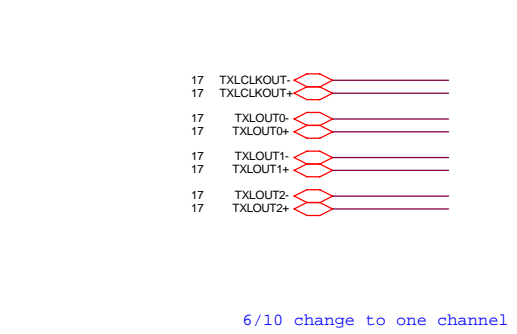
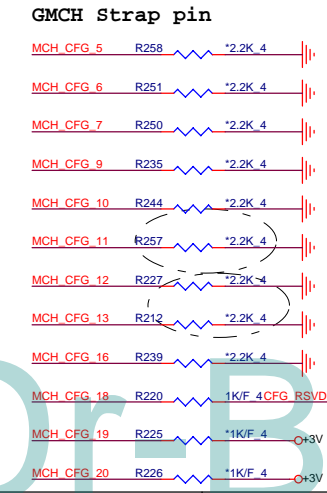


PROJECT : ZH2  
Quanta Computer Inc.

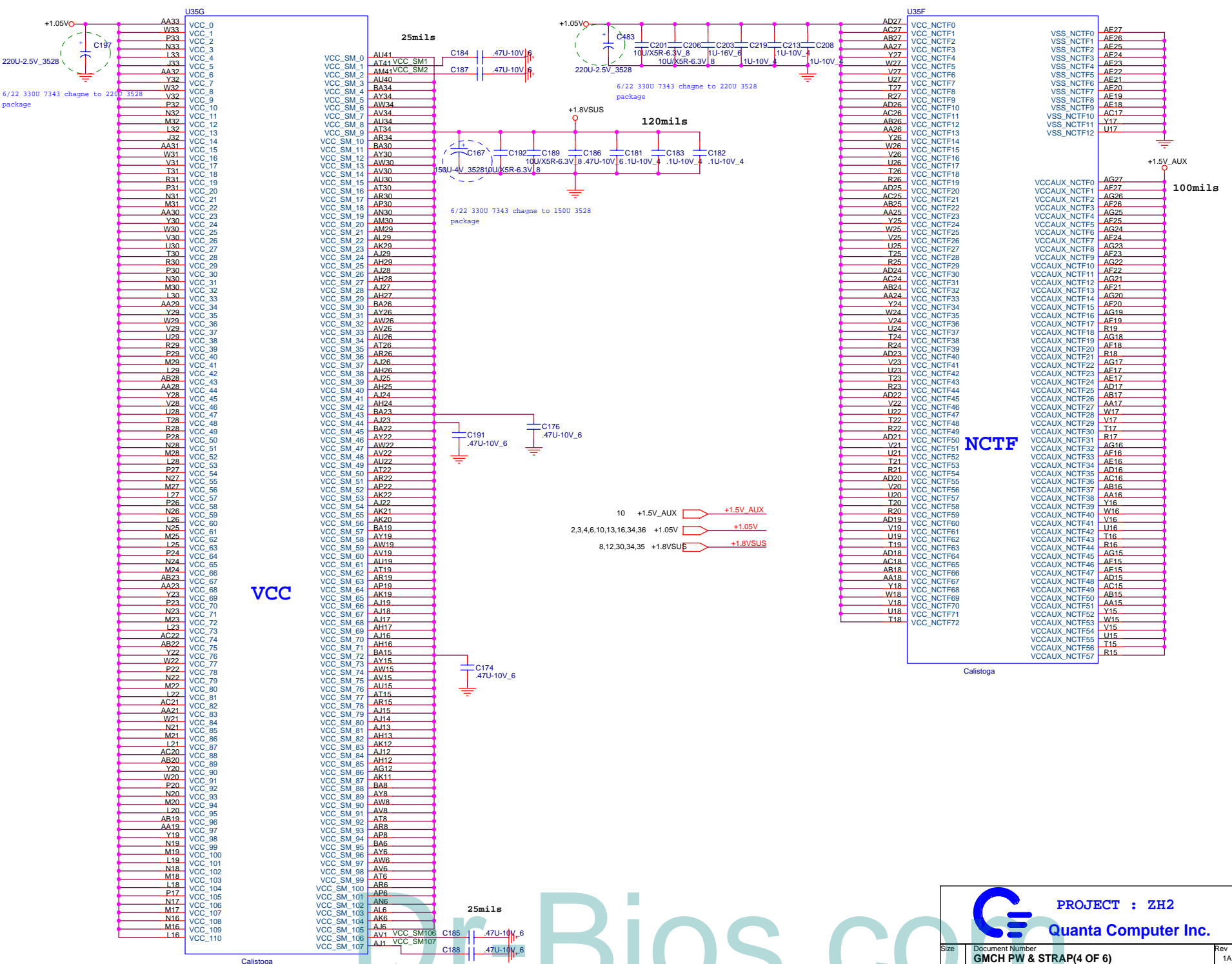
Size	Document Number	Rev
	GMCH DDR(2 OF 6)	1A
Date:	Monday, January 02, 2006	Sheet 7 of 38



- GMCH Strap pin**
- MCH\_CFG\_5 Low = DMI X2, High=DMIX4
  - MCH\_CFG\_6 DDR : Low =Moby Dick, High= Calistoga (Default)
  - MCH\_CFG\_7 CPU Strap Low=RSVD, High=Mobile CPU
  - MCH\_CFG\_9 PCI Exp Graphics Lane: Low =Reserved,High=Mobility
  - MCH\_CFG\_10 Host PLL VCC Select: Low=Reserved, High=Mobility
  - MCH\_CFG\_11: PSB 4x CLK ENABLE Low=Reserved, High=Calistoga
  - MCH\_CFG\_16 FSB Dynamic ODT: Low=Dynamic ODT Disabled, High=Dynamic ODT Enabled.
  - MCH\_CFG\_18 VCC Select: LOW=1.05V, High=1.5V
  - MCH\_CFG\_19 DMI LANE Reversal: Low=Normal,High=LANES Reversed.
  - MCH\_CFG\_20 PCIE Backward interoperability mode: Low= only SDVO or PCIE xl is operational (defaults) ,High=SDVO and PCIE xl are operation simultaneously via the PEG port.







VCC

NCTF

Calistoga



**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>GMCH PW &amp; STRAP(4 OF 6)</b>	1A
Date:	Monday, January 02, 2006	Sheet 9 of 38



U35I			
AC41	VSS_0	VSS_97	AK34
AA41	VSS_1	VSS_98	AG34
W41	VSS_2	AF34	AE34
T41	VSS_3	VSS_100	AE34
P41	VSS_4	VSS_101	AC34
M41	VSS_5	VSS_102	C34
J41	VSS_6	VSS_103	AW33
F41	VSS_7	VSS_104	AV33
AV40	VSS_8	VSS_105	AP33
AP40	VSS_9	VSS_106	AE33
AN40	VSS_10	VSS_107	AB33
AK40	VSS_11	VSS_108	Y33
AL40	VSS_12	VSS_109	V33
AH40	VSS_13	VSS_110	T33
AG40	VSS_14	VSS_111	R33
AF40	VSS_15	VSS_112	M33
AE40	VSS_16	VSS_113	H33
E40	VSS_17	VSS_114	G33
AY39	VSS_18	VSS_115	F33
AW39	VSS_19	VSS_116	D33
AV39	VSS_20	VSS_117	B33
AR39	VSS_21	VSS_118	AH32
AN39	VSS_22	VSS_119	AG32
AJ39	VSS_23	VSS_120	AF32
AC39	VSS_24	VSS_121	AE32
AB39	VSS_25	VSS_122	AC32
AA39	VSS_26	VSS_123	AB32
Y39	VSS_27	VSS_124	G32
W39	VSS_28	VSS_125	B32
V39	VSS_29	VSS_126	AY31
T39	VSS_30	VSS_127	AV31
R39	VSS_31	VSS_128	AN31
P39	VSS_32	VSS_129	AJ31
N39	VSS_33	VSS_130	AG31
M39	VSS_34	VSS_131	AB31
L39	VSS_35	VSS_132	Y31
J39	VSS_36	VSS_133	AB30
H39	VSS_37	VSS_134	E30
G39	VSS_38	VSS_135	AT29
F39	VSS_39	VSS_136	AN29
D39	VSS_40	VSS_137	AB29
AT38	VSS_41	VSS_138	T29
AM38	VSS_42	VSS_139	N29
AH38	VSS_43	VSS_140	K29
AG38	VSS_44	VSS_141	G29
AF38	VSS_45	VSS_142	E29
AE38	VSS_46	VSS_143	C29
C38	VSS_47	VSS_144	B29
AK37	VSS_48	VSS_145	A29
AH37	VSS_49	VSS_146	BA28
AB37	VSS_50	VSS_147	AW28
AA37	VSS_51	VSS_148	AU28
Y37	VSS_52	VSS_149	AP28
W37	VSS_53	VSS_150	AM28
V37	VSS_54	VSS_151	AD28
T37	VSS_55	VSS_152	AC28
R37	VSS_56	VSS_153	W28
P37	VSS_57	VSS_154	J28
N37	VSS_58	VSS_155	E28
M37	VSS_59	VSS_156	AP27
L37	VSS_60	VSS_157	AM27
J37	VSS_61	VSS_158	AK27
H37	VSS_62	VSS_159	J27
G37	VSS_63	VSS_160	G27
F37	VSS_64	VSS_161	F27
D37	VSS_65	VSS_162	C27
AY36	VSS_66	VSS_163	B27
AW36	VSS_67	VSS_164	AN26
AV36	VSS_68	VSS_165	M26
AR36	VSS_69	VSS_166	K26
AG36	VSS_70	VSS_167	F26
AF36	VSS_71	VSS_168	D26
AE36	VSS_72	VSS_169	AK25
AC36	VSS_73	VSS_170	P25
C36	VSS_74	VSS_171	K25
B36	VSS_75	VSS_172	H25
BA35	VSS_76	VSS_173	E25
AV35	VSS_77	VSS_174	D25
AR35	VSS_78	VSS_175	A25
AH35	VSS_79	VSS_176	BA24
AB35	VSS_80	VSS_177	AU24
AA35	VSS_81	VSS_178	AL24
Y35	VSS_82	VSS_179	AW23
W35	VSS_83		
V35	VSS_84		
T35	VSS_85		
R35	VSS_86		
P35	VSS_87		
N35	VSS_88		
M35	VSS_89		
L35	VSS_90		
J35	VSS_91		
H35	VSS_92		
G35	VSS_93		
F35	VSS_94		
D35	VSS_95		
AN34	VSS_96		

VSS

U35J			
AT23	VSS_180	VSS_273	J11
AN23	VSS_181	VSS_274	D11
AM23	VSS_182	VSS_275	B11
AH23	VSS_183	VSS_276	AV10
AC23	VSS_184	VSS_277	AP10
W23	VSS_185	VSS_278	AL10
K23	VSS_186	VSS_279	AJ10
AV33	VSS_187	VSS_280	AG10
F23	VSS_188	VSS_281	AC10
C23	VSS_189	VSS_282	W10
AA22	VSS_190	VSS_283	L10
K22	VSS_191	VSS_284	BA9
G22	VSS_192	VSS_285	AW9
F22	VSS_193	VSS_286	AR9
E22	VSS_194	VSS_287	AH9
D22	VSS_195	VSS_288	AB9
A22	VSS_196	VSS_289	Y9
BA21	VSS_197	VSS_290	R9
AV21	VSS_198	VSS_291	G9
AR21	VSS_199	VSS_292	E9
AN21	VSS_200	VSS_293	A9
AL21	VSS_201	VSS_294	AG8
AB21	VSS_202	VSS_295	AD8
Y21	VSS_203	VSS_296	AA8
P21	VSS_204	VSS_297	U8
K21	VSS_205	VSS_298	K8
AB32	VSS_206	VSS_299	C8
H21	VSS_207	VSS_300	BA7
C21	VSS_208	VSS_301	AV7
AW20	VSS_209	VSS_302	AP7
AR20	VSS_210	VSS_303	AL7
AM20	VSS_211	VSS_304	AJ7
AA20	VSS_212	VSS_305	AH7
K20	VSS_213	VSS_306	AF7
B20	VSS_214	VSS_307	AC7
Y20	VSS_215	VSS_308	R7
AN19	VSS_216	VSS_309	G7
AC19	VSS_217	VSS_310	D7
W19	VSS_218	VSS_311	AG6
K19	VSS_219	VSS_312	AD6
G19	VSS_220	VSS_313	AB6
C19	VSS_221	VSS_314	Y6
AH18	VSS_222	VSS_315	U6
K18	VSS_223	VSS_316	N6
H18	VSS_224	VSS_317	K6
D18	VSS_225	VSS_318	H6
A18	VSS_226	VSS_319	B6
AY17	VSS_227	VSS_320	AV5
AR17	VSS_228	VSS_321	AF5
AP17	VSS_229	VSS_322	AD5
AM17	VSS_230	VSS_323	AY4
AK17	VSS_231	VSS_324	AR4
AV16	VSS_232	VSS_325	AP4
AN16	VSS_233	VSS_326	AL4
AL16	VSS_234	VSS_327	AJ4
J16	VSS_235	VSS_328	Y4
F16	VSS_236	VSS_329	U4
C16	VSS_237	VSS_330	R4
AN15	VSS_238	VSS_331	J4
AM15	VSS_239	VSS_332	F4
AK15	VSS_240	VSS_333	C4
N15	VSS_241	VSS_334	AY3
M15	VSS_242	VSS_335	AW3
L15	VSS_243	VSS_336	AV3
B15	VSS_244	VSS_337	AL3
A15	VSS_245	VSS_338	AH3
BA14	VSS_246	VSS_339	AG3
AT14	VSS_247	VSS_340	AF3
AK14	VSS_248	VSS_341	AD3
AD14	VSS_249	VSS_342	AC3
A414	VSS_250	VSS_343	AA3
U14	VSS_251	VSS_344	G3
K14	VSS_252	VSS_345	AT2
H14	VSS_253	VSS_346	AR2
E14	VSS_254	VSS_347	AP2
AV13	VSS_255	VSS_348	AK2
AR13	VSS_256	VSS_349	AJ2
D25	VSS_257	VSS_350	AD2
AM13	VSS_258	VSS_351	AB2
AL13	VSS_259	VSS_352	Y2
AG13	VSS_260	VSS_353	U2
P13	VSS_261	VSS_354	T2
F13	VSS_262	VSS_355	N2
D13	VSS_263	VSS_356	J2
B13	VSS_264	VSS_357	H2
AY12	VSS_265	VSS_358	F2
AC12	VSS_266	VSS_359	C2
K12	VSS_267	VSS_360	AL1
H12	VSS_268		
E12	VSS_269		
AD11	VSS_270		
AA11	VSS_271		
Y11	VSS_272		

VSS

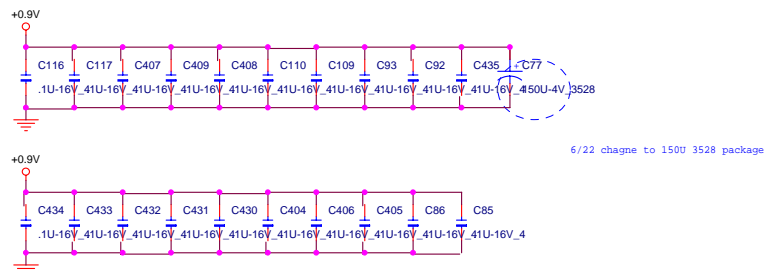
Callistoga

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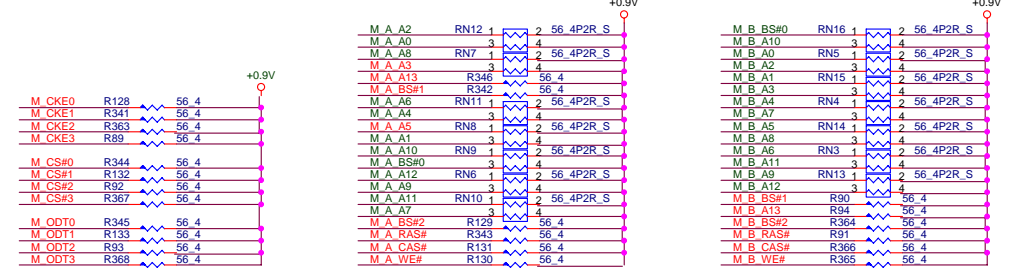
**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>GMCH GND(6 OF 6)</b>	1A
Date:	Monday, January 02, 2006	Sheet 11 of 38

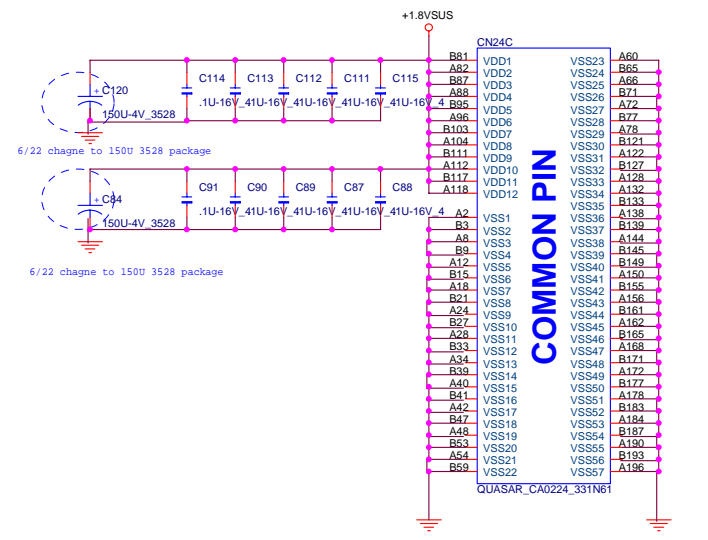
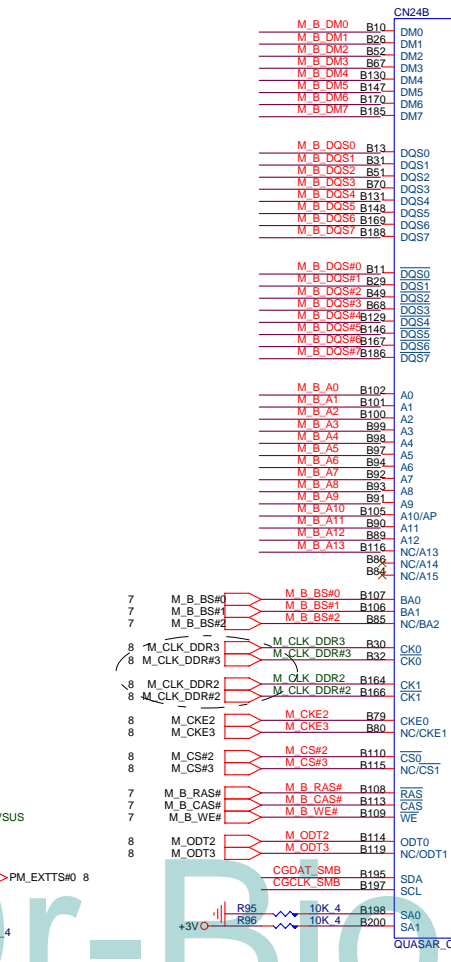
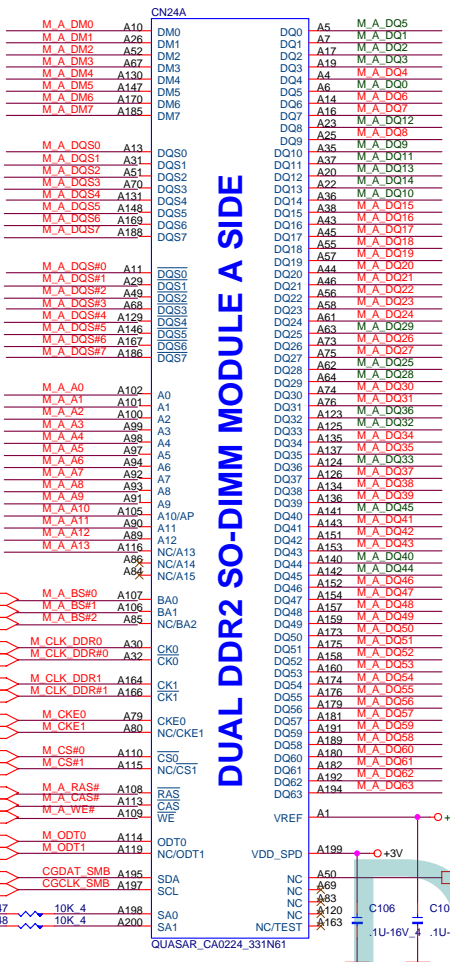
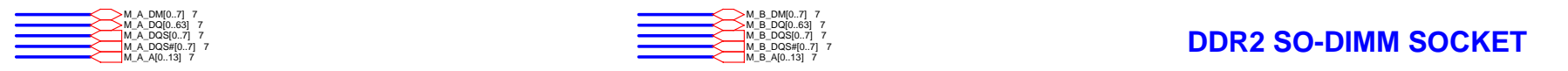
# TERMINATOR DECOUPLING CAPACITOR



# DDR2 TERMINATOR



# DDR2 SO-DIMM SOCKET

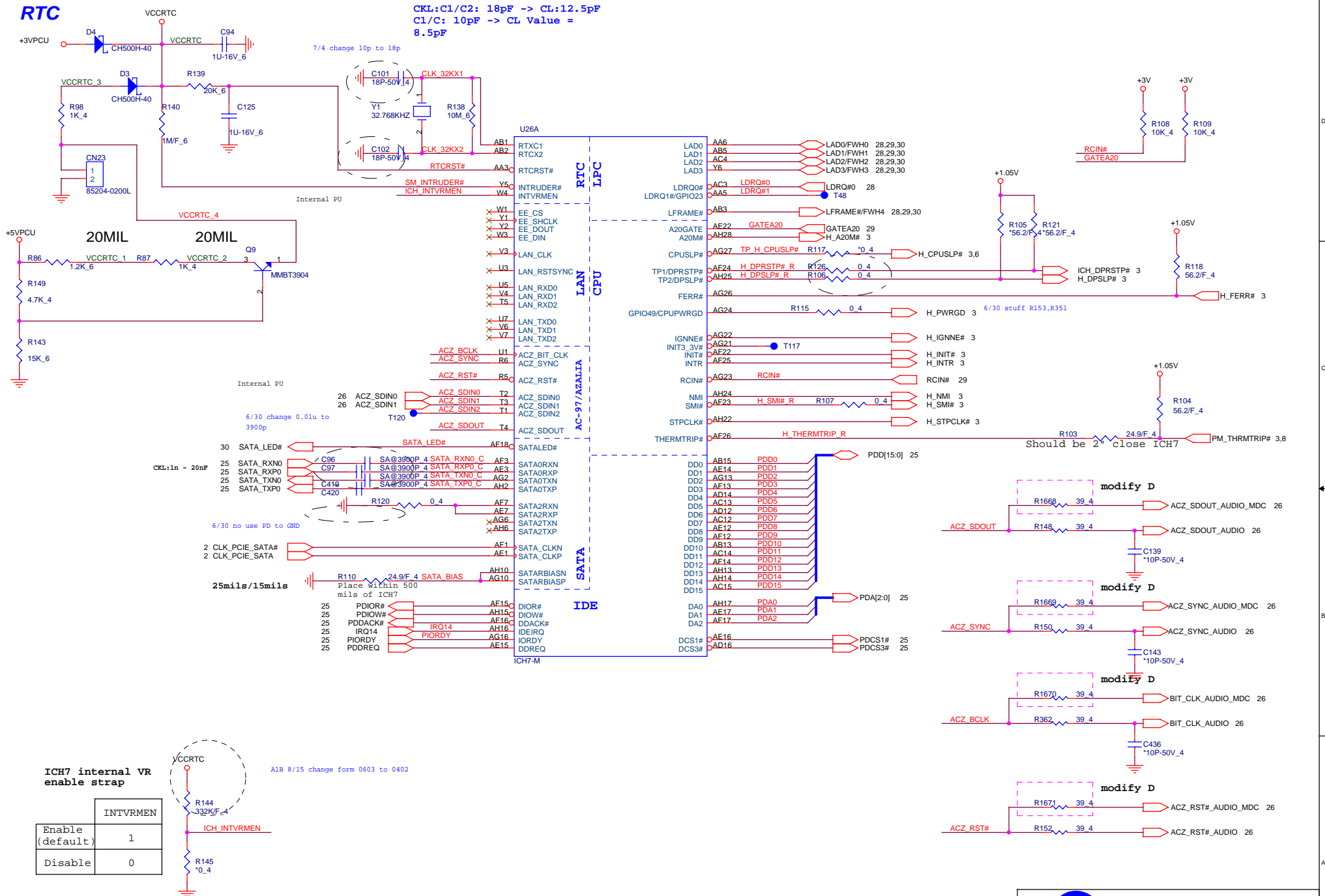


**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size: Document Number: SO-DIMM & TERMINATOR Rev: 1A  
Date: Monday, January 02, 2006 Sheet: 12 of 38

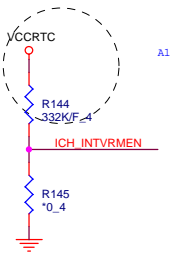
**RTC**

CLK: C1/C2: 18pF -> CL: 12.5pF  
 C1/C: 10pF -> CL Value = 8.5pF



ICH7 internal VR enable strap

	INTVRMEN
Enable (default)	1
Disable	0



A1B 8/15 change form 0603 to 0402



**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>ICH7-M HOST (1 OF 4)</b>	1A
Date:	Monday, January 02, 2006	Sheet 13 of 38



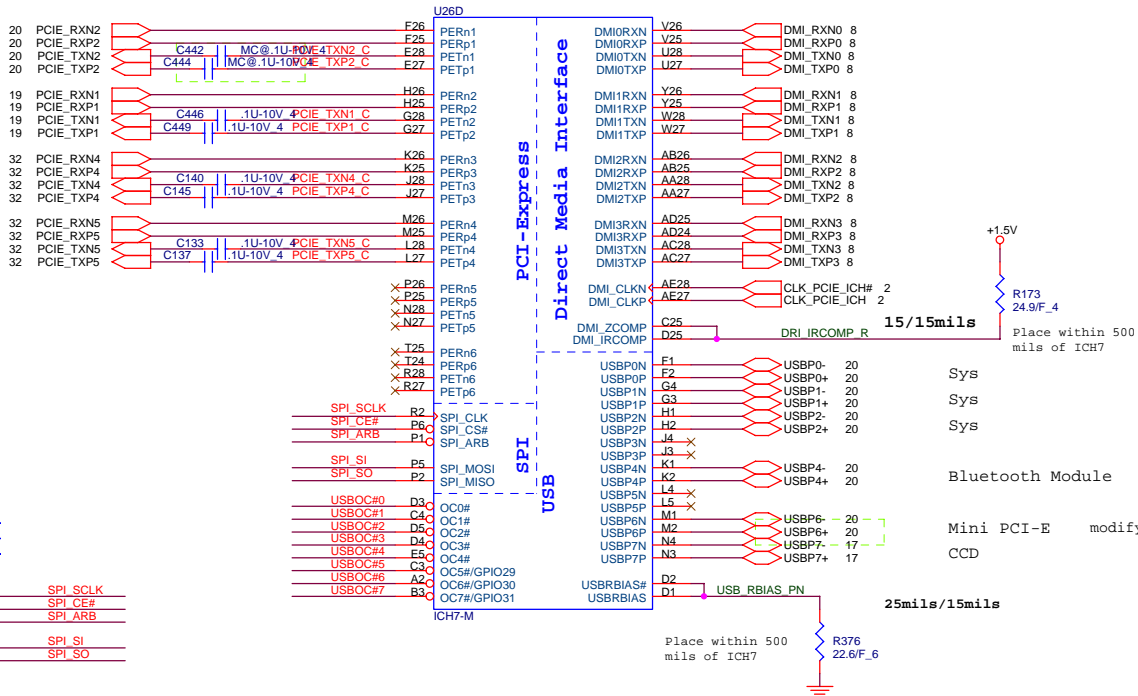
modify C

MINI CARD PCI-E

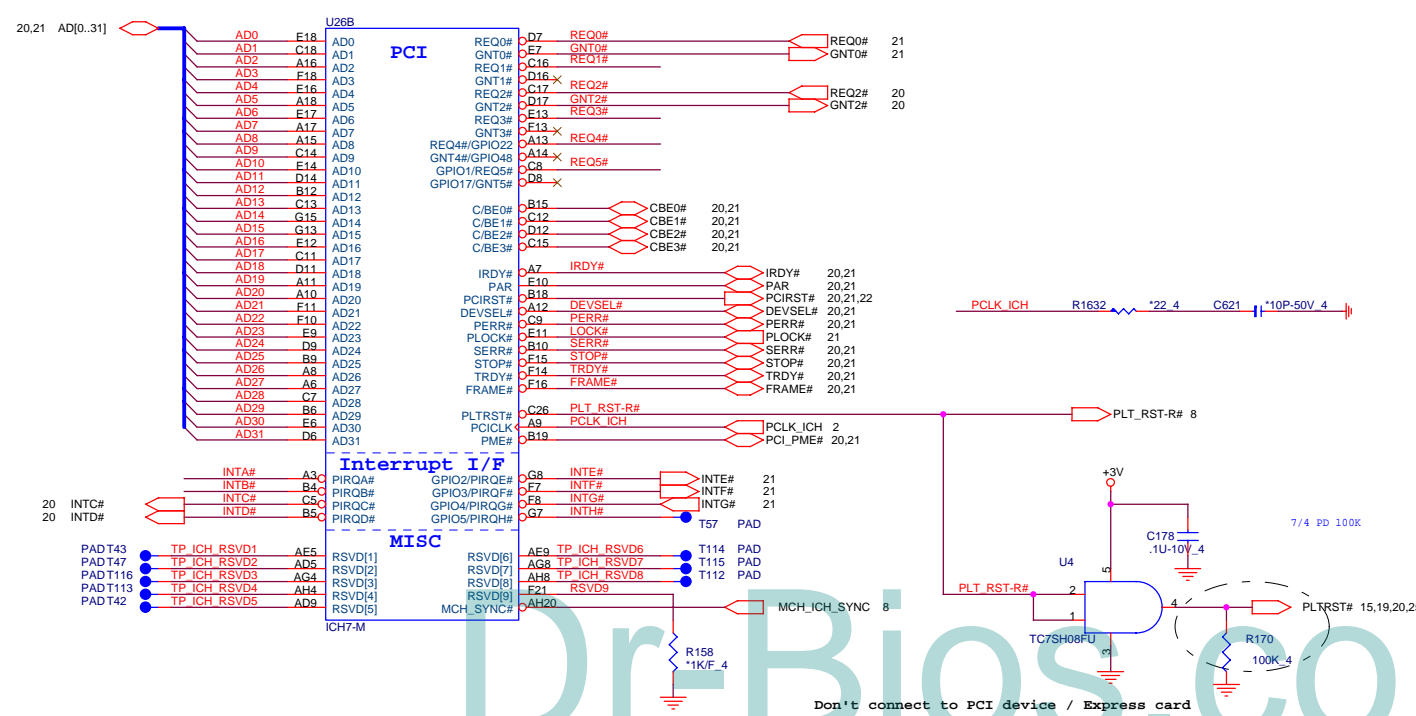
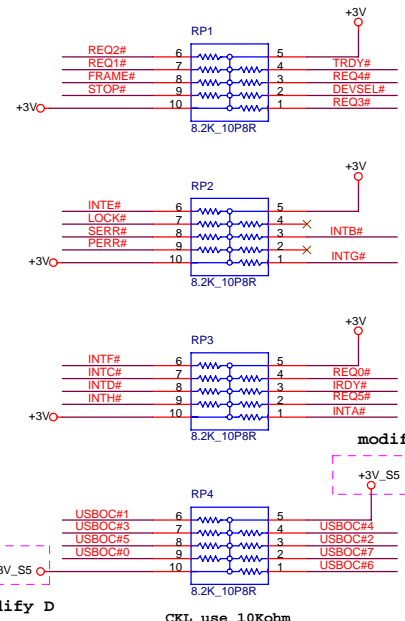
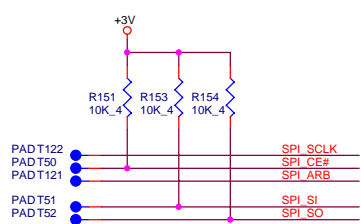
5789M

EZ4

EZ4



A1A 8/1 chagne PCI-E signal for different SB use



ICH7 Boot BIOS select

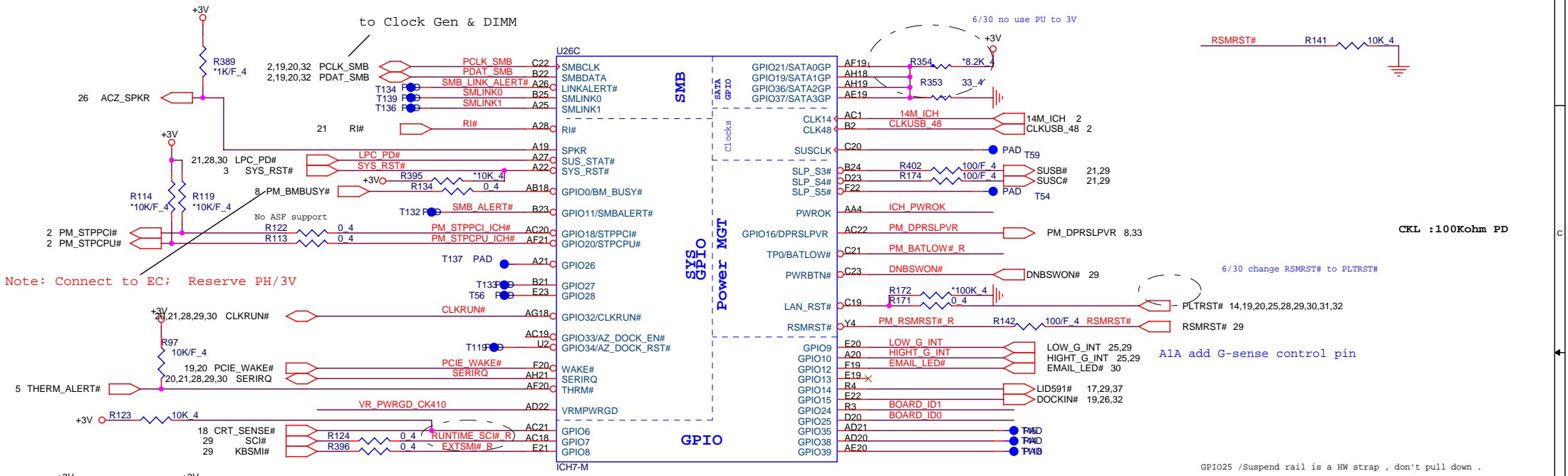
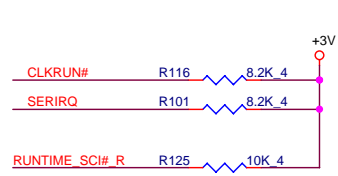
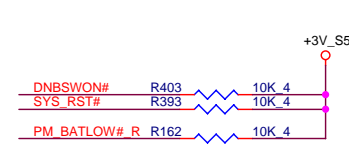
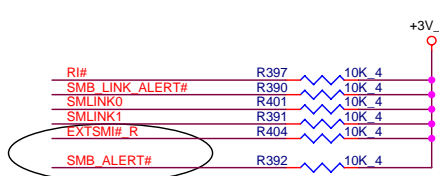
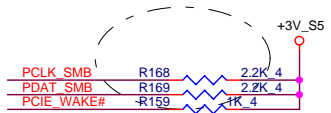
	STRAP	GNT5# R1	GNT4# R2
LPC (default)	11	UNSTUFF	UNSTUFF
PCI	10	UNSTUFF	STUFF
SPI	01	STUFF	UNSTUFF

PCI DEVICE	IDSEL#	REQ# / GNT#	Interrupts
PCI7411	AD25	REQ0# / GNT0#	INT E/F/G#

PROJECT : ZH2

Quanta Computer Inc.

7/4 change 2.2 to 2.2K

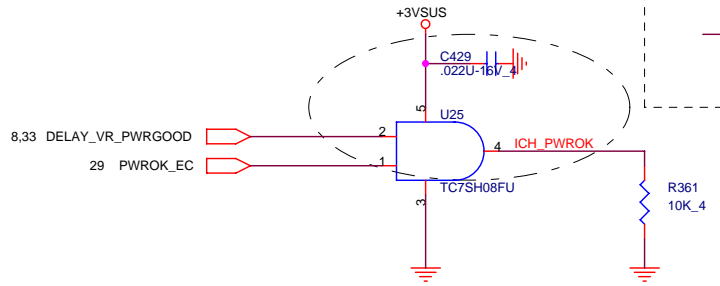
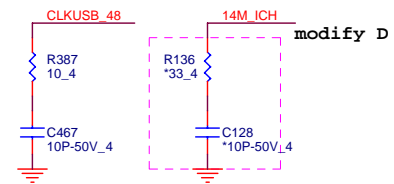
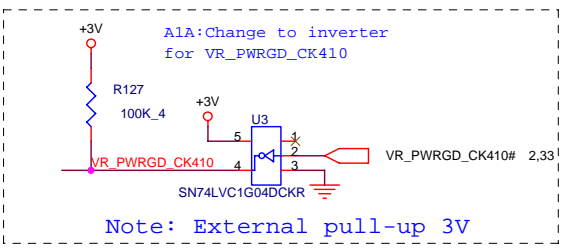
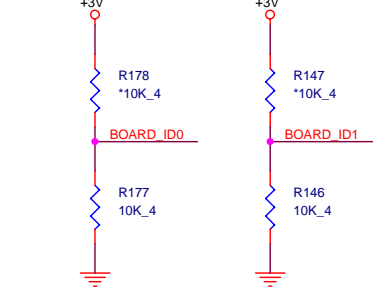


Note: Connect to EC; Reserve PH/3V


6/30 change RSMRST# to PLTRST#

A1A add G-sense control pin

GPIO25 /Suspend rail is a HW strap, don't pull down.



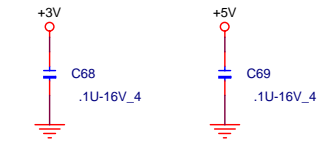
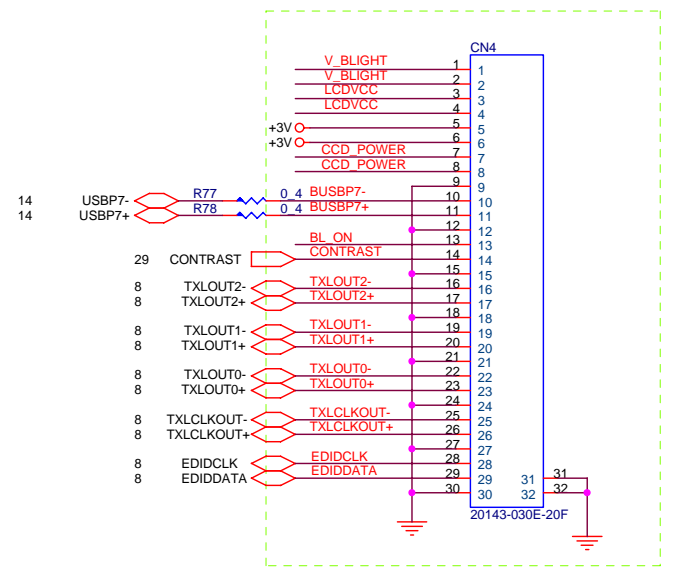
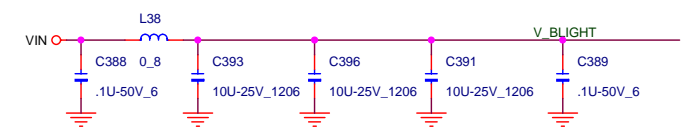
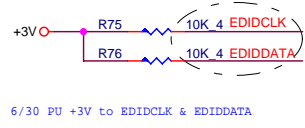
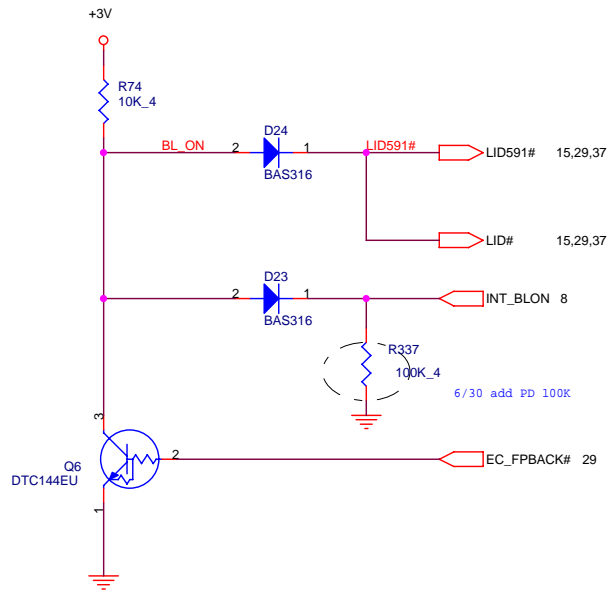
Board ID	ID1	ID0	
00			PATA, PCMCIA
01			PATA, NEW
10			SATA, PCMCIA
11			PATA, NEW



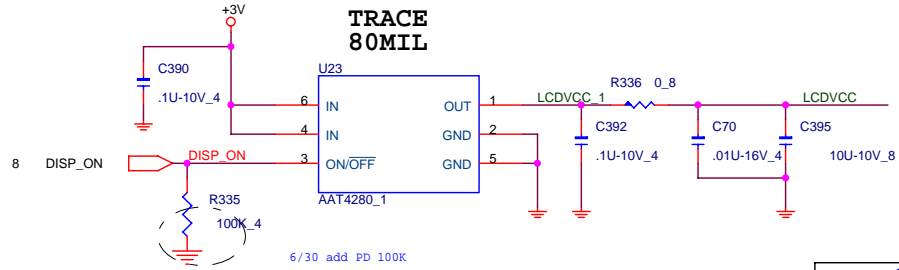
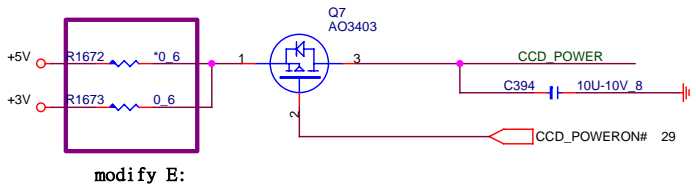
**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>ICH7-M GPIO (3 OF 4)</b>	1A
Date:	Monday, January 02, 2006	Sheet 15 of 38



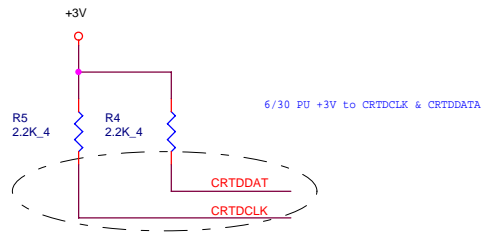
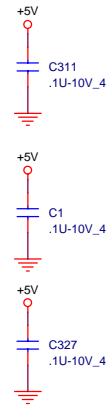
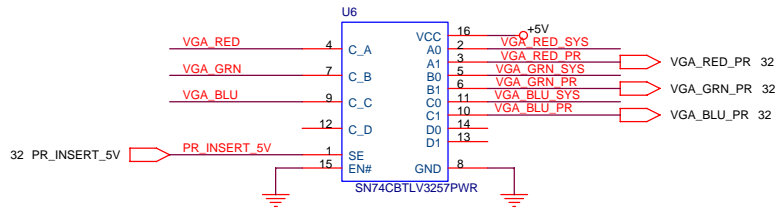


CAMERA MODULE CONNECTOR

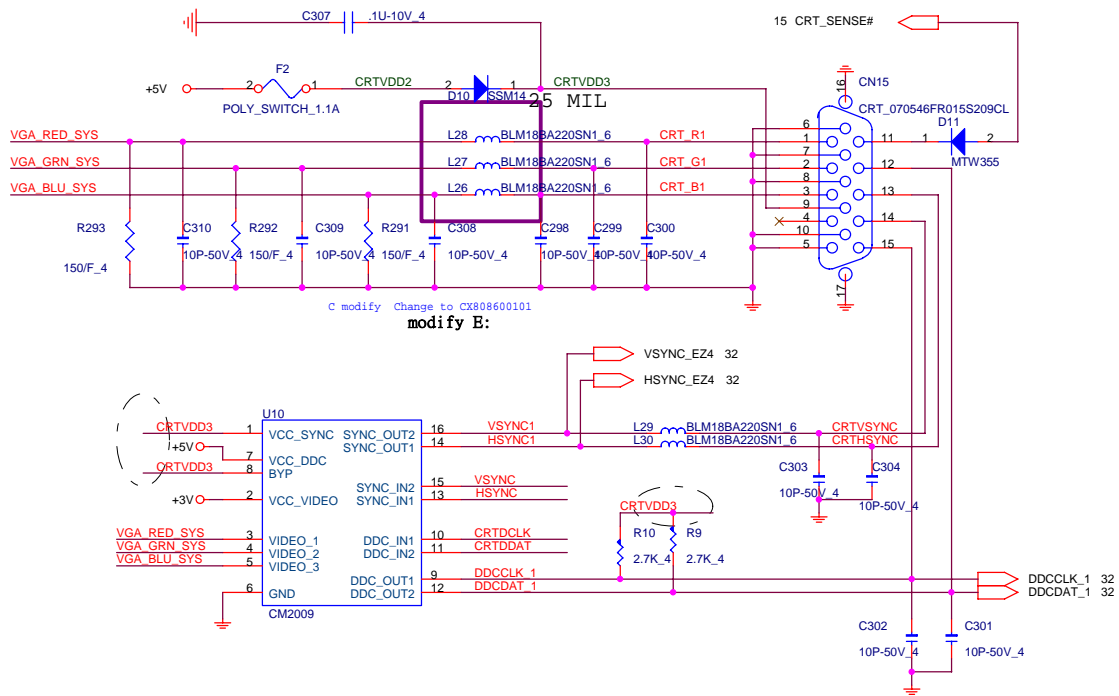


**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
		1A
<b>LVDS CONNECTOR</b>		
Date:	Monday, January 02, 2006	Sheet 17 of 38



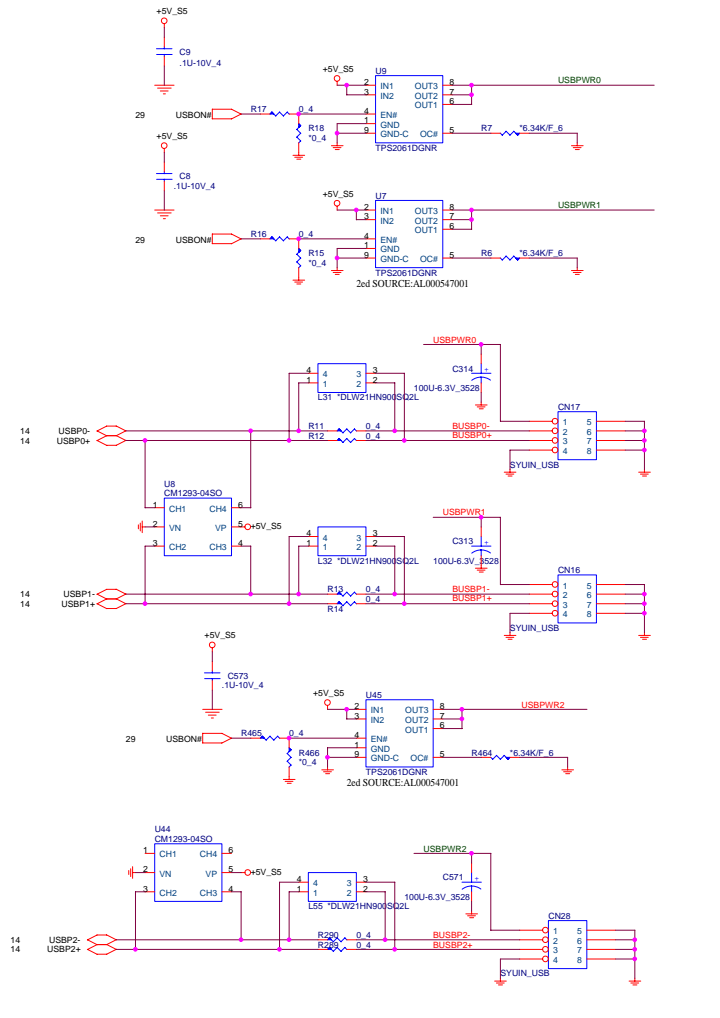
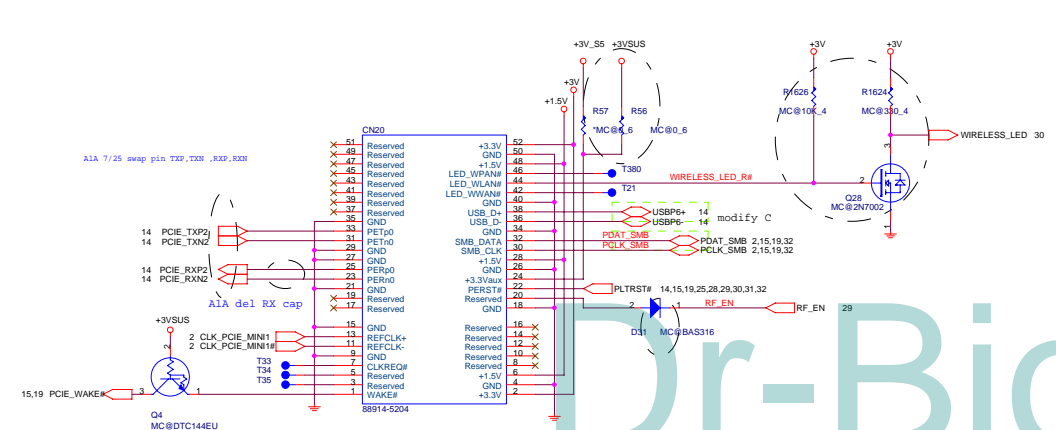
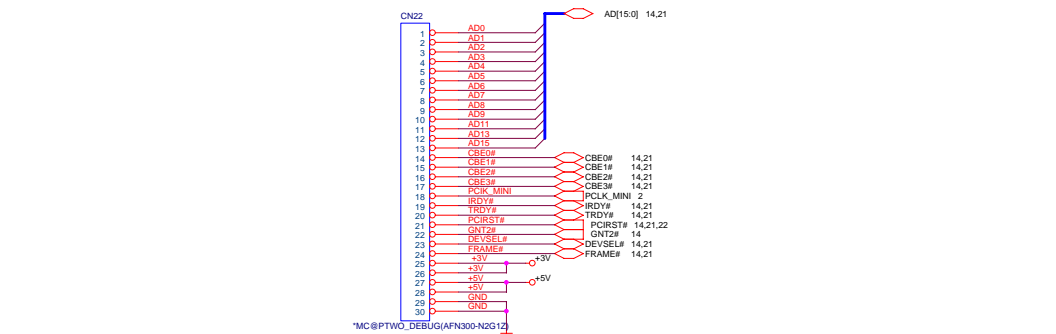
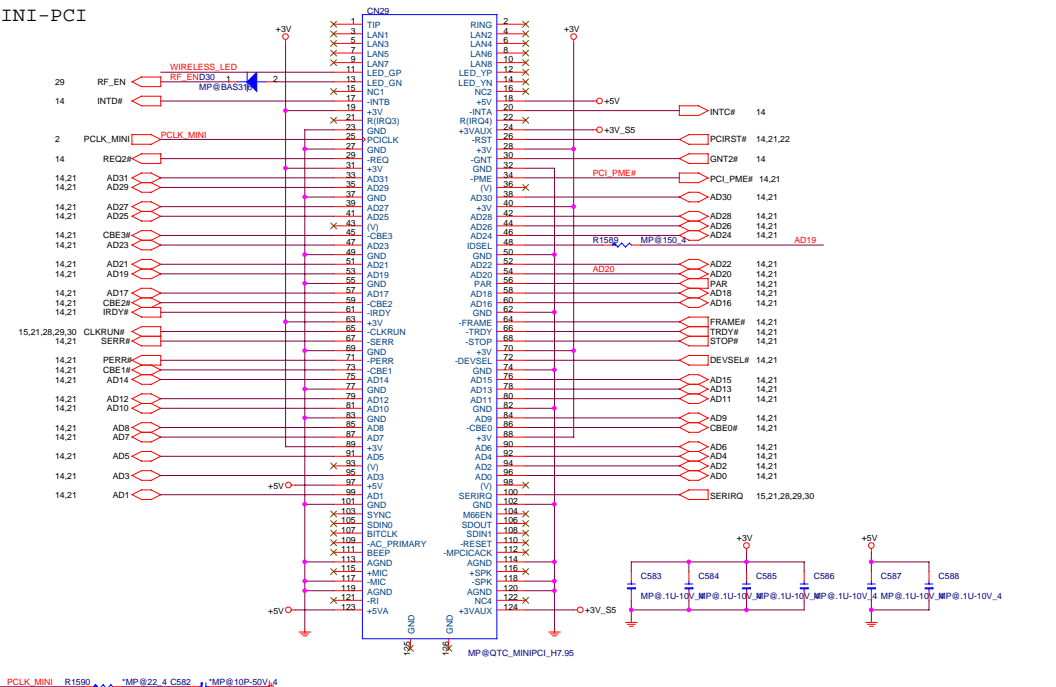
SEL	FUNCTION
LOW	IN_B0
HIGH	IN_B1



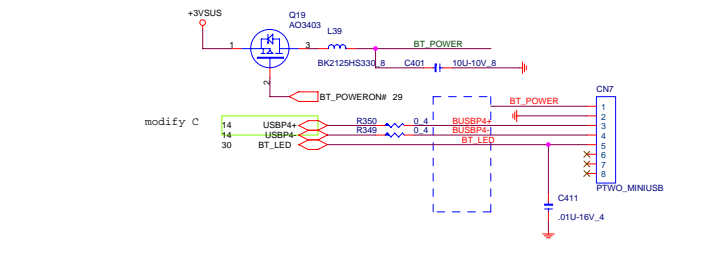




MINI-PCI



BLUETOOTH MODULE CONNECTOR

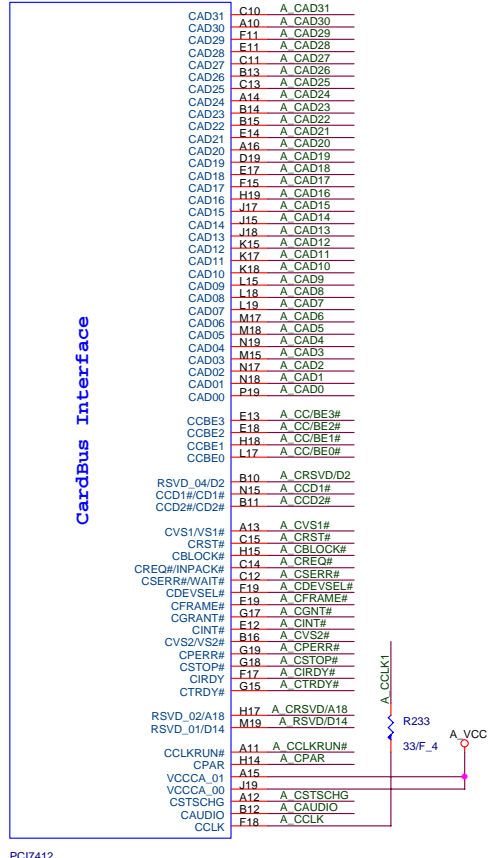


**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size: Document Number: Rev: 1A  
 MINI PCI,USB  
 Date: Monday, January 02, 2006 Sheet: 20 of 38



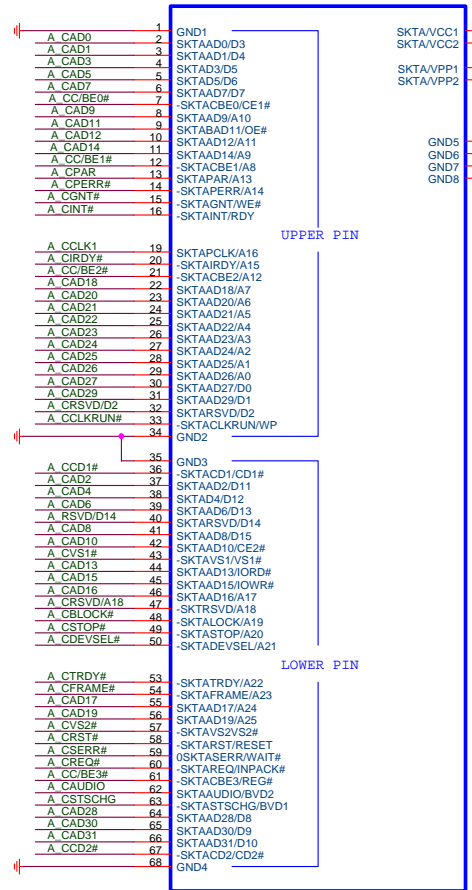
U36B

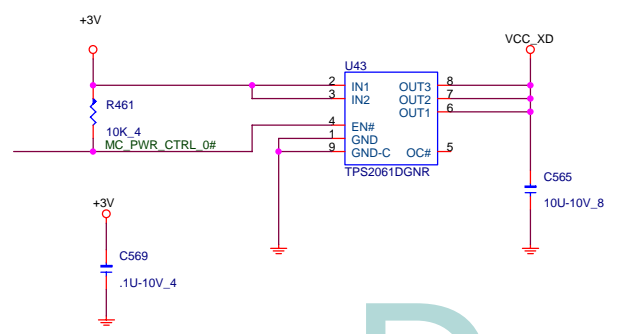
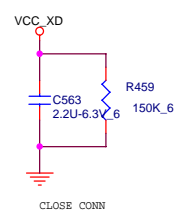
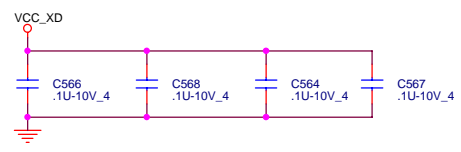
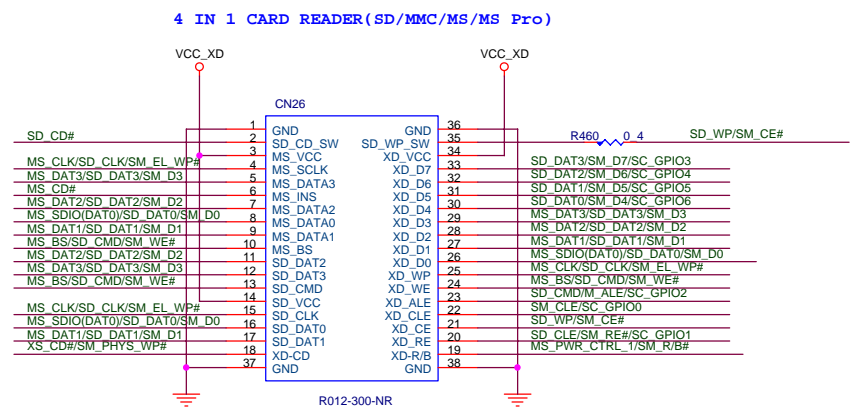
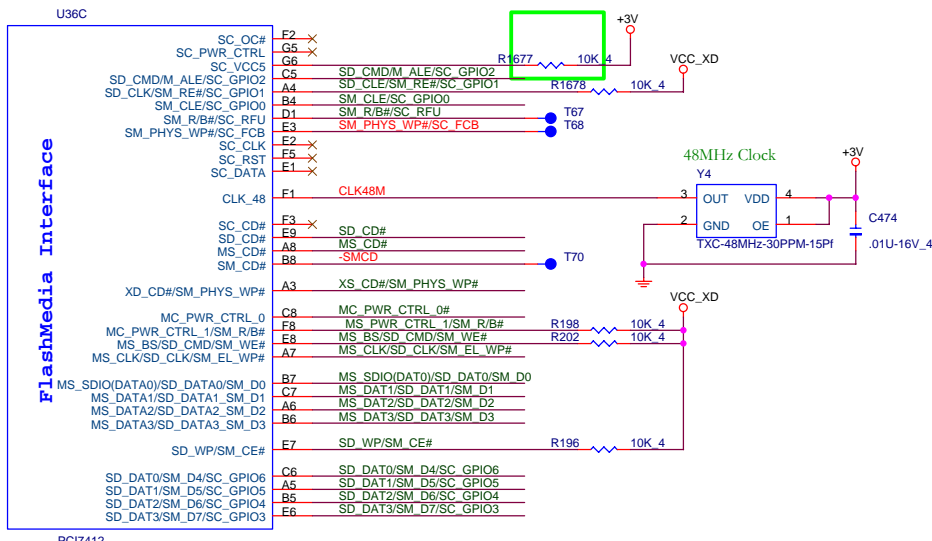


CardBus Interface

PCI7412

CN12





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**PROJECT : ZH2**  
**Quanta Computer Inc.**

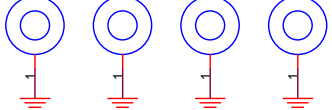
Size	Document Number	Rev
	PCI7412-CARD READER	1A
Date:	Monday, January 02, 2006	Sheet 23 of 38



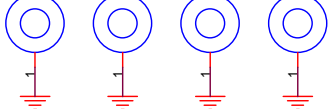
TOP

BOT

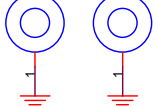
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HOLE1 \*H-C276D98P2  
HOLE32 \*H-C276D98P2  
HOLE31 \*H-C276D98P2



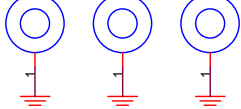
HOLE36 \*H-C276D98P2  
HOLE3 \*H-C276D98P2  
HOLE2 \*H-C276D98P2  
HOLE10 \*H-C276D98P2



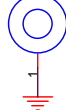
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HOLE15 \*H-C276D98P2



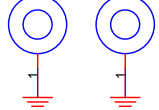
HOLE20 \*H-C276D98P2  
HOLE19 \*H-C276D98P2  
HOLE16 \*H-C276D98P2



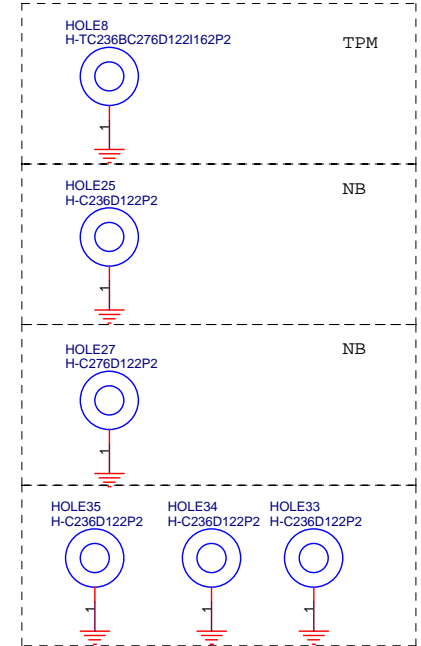
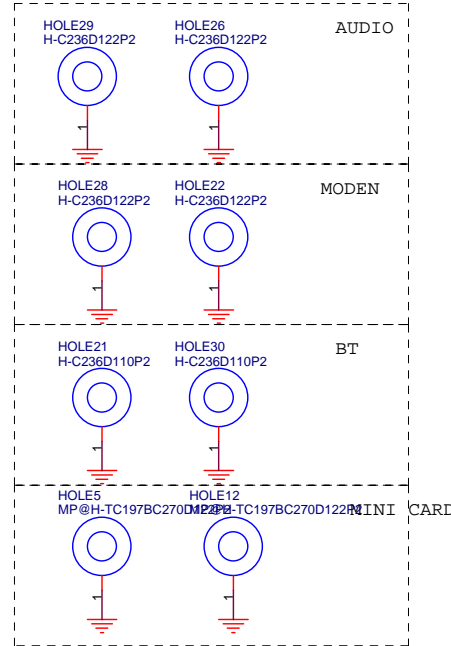
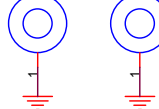

HOLE37 \*H-TC197BC276D98P2



HOLE4 \*H-C59D59N  
HOLE7 \*H-C59D59N



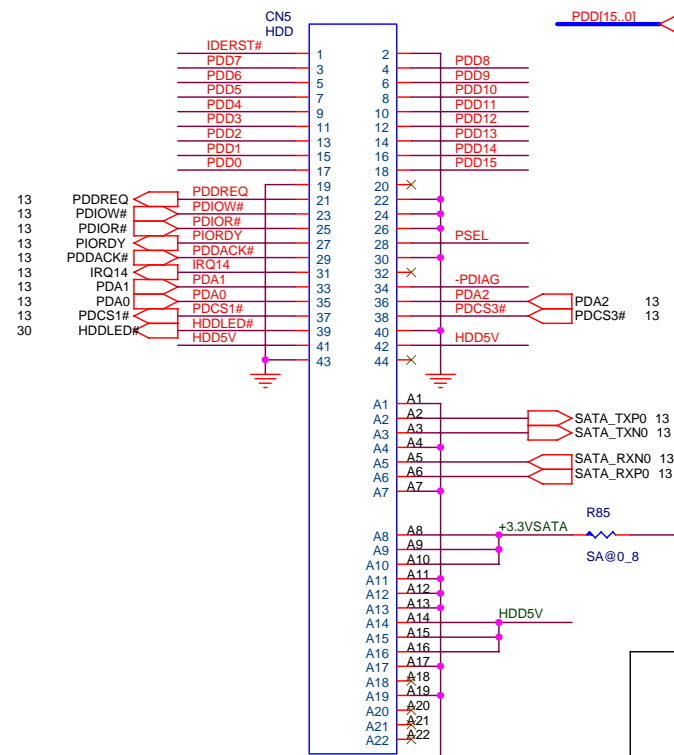
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HOLE17 \*H-C276D98P2

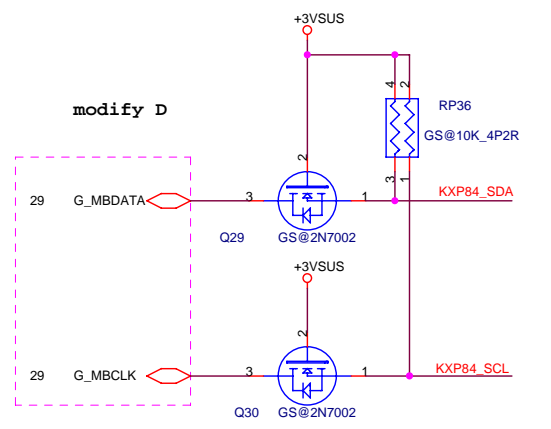
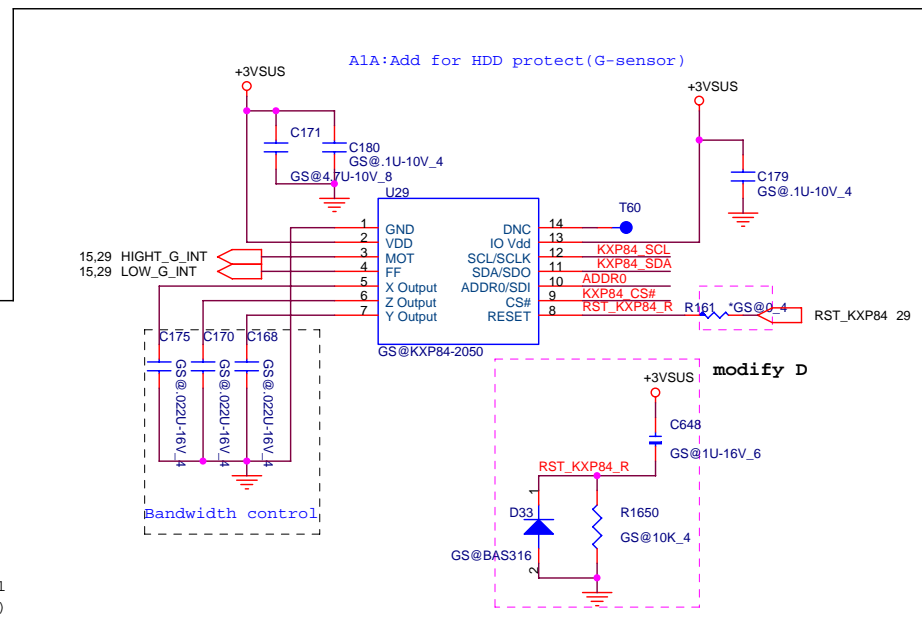
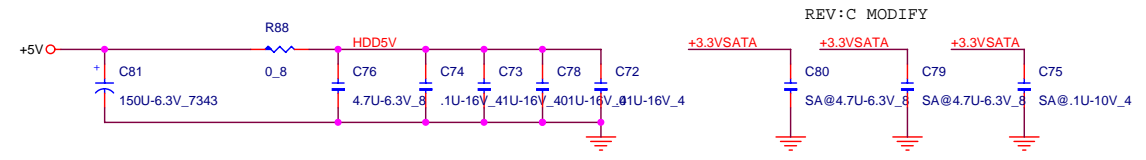
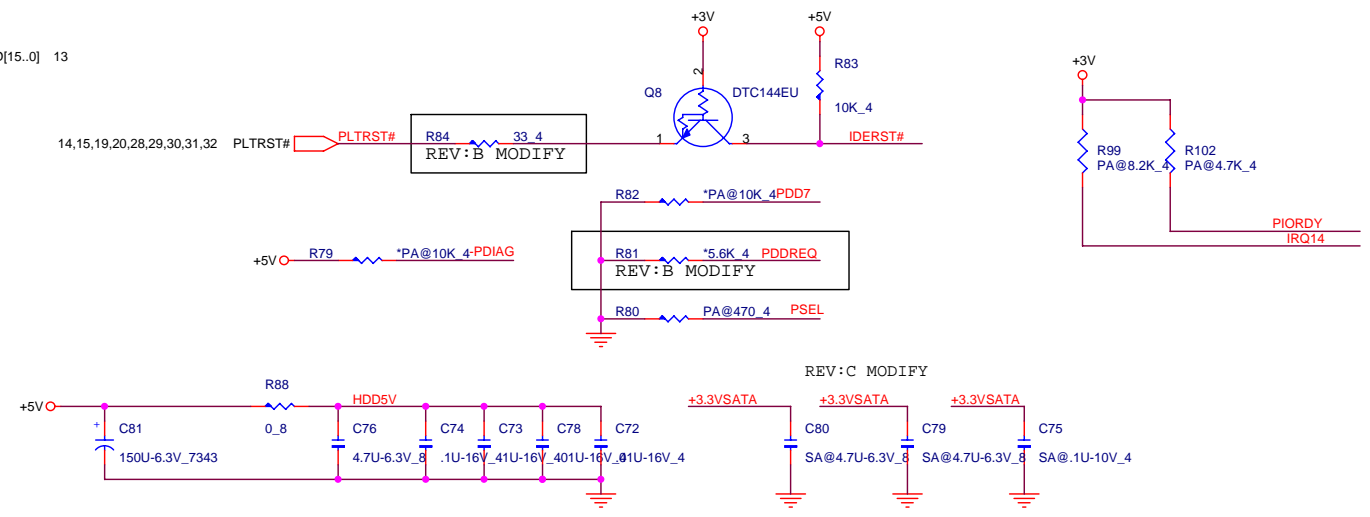
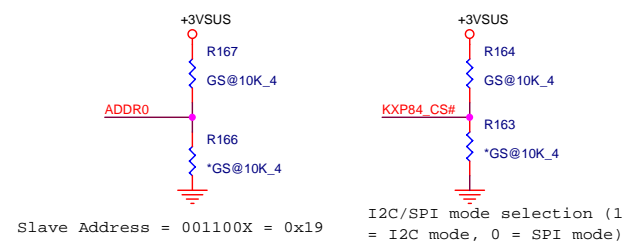
**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>NEW CARD &amp; HOLE</b>	C
Date:	Monday, January 02, 2006	Sheet 24 of 38

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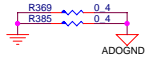
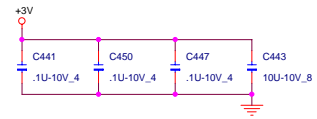
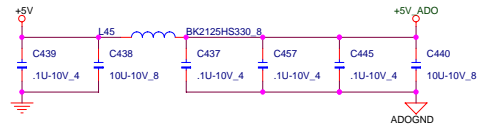
REV:B MODIFY FOOTPRINT to  
HDD-127043FR022G204ZL-RVS-66P-R



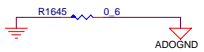
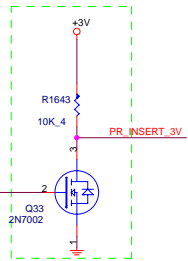
**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>NEW CARD &amp; HOLE</b>	C
Date:	Monday, January 02, 2006	Sheet 25 of 38

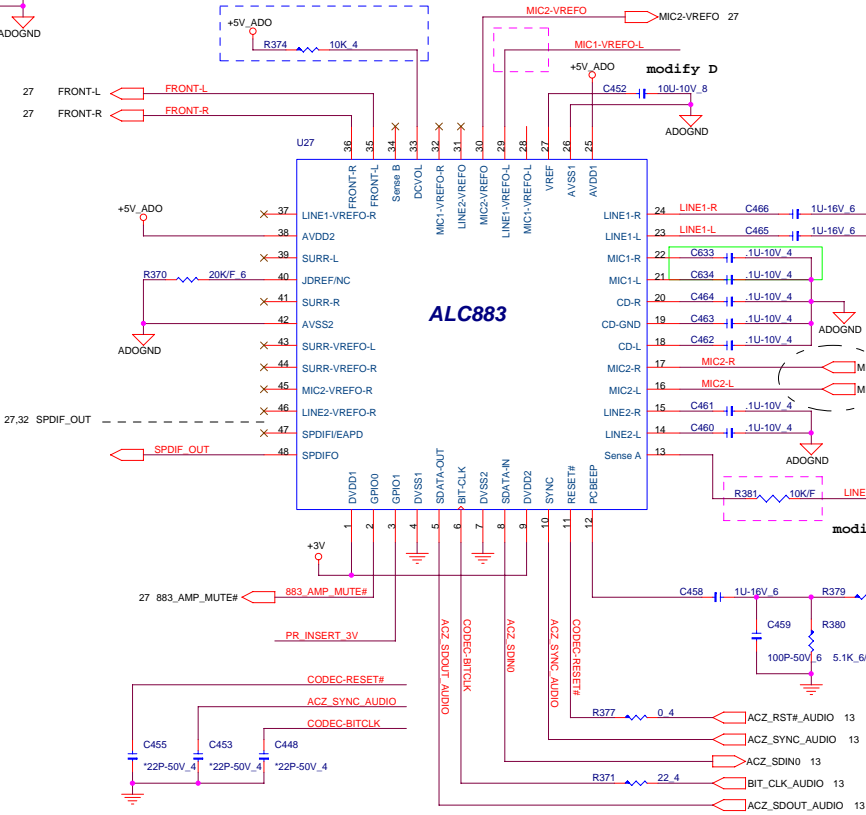
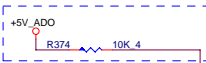
**CODEC (ALC883)**



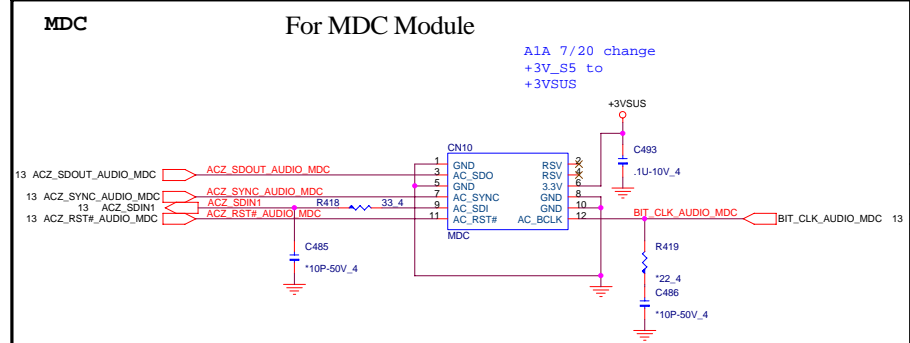
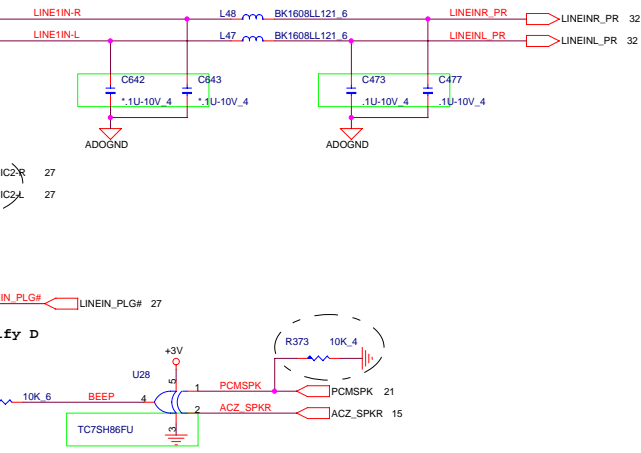
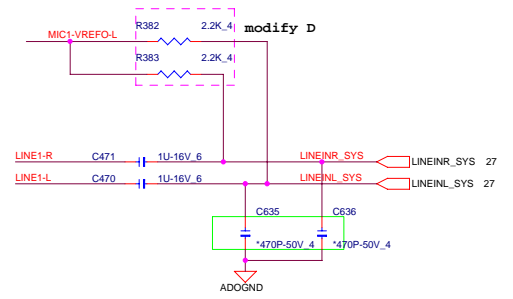
Tied at one point only under the codec or near the codec



Option of External Volume Control or Standby Mode/De-Pop



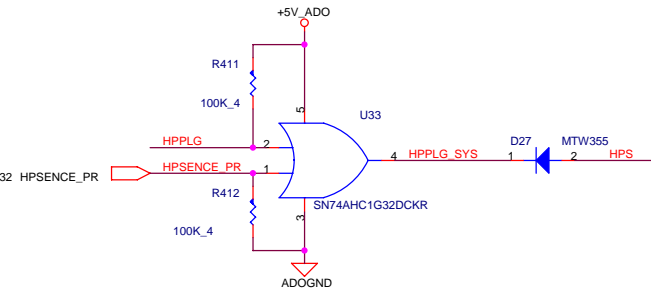
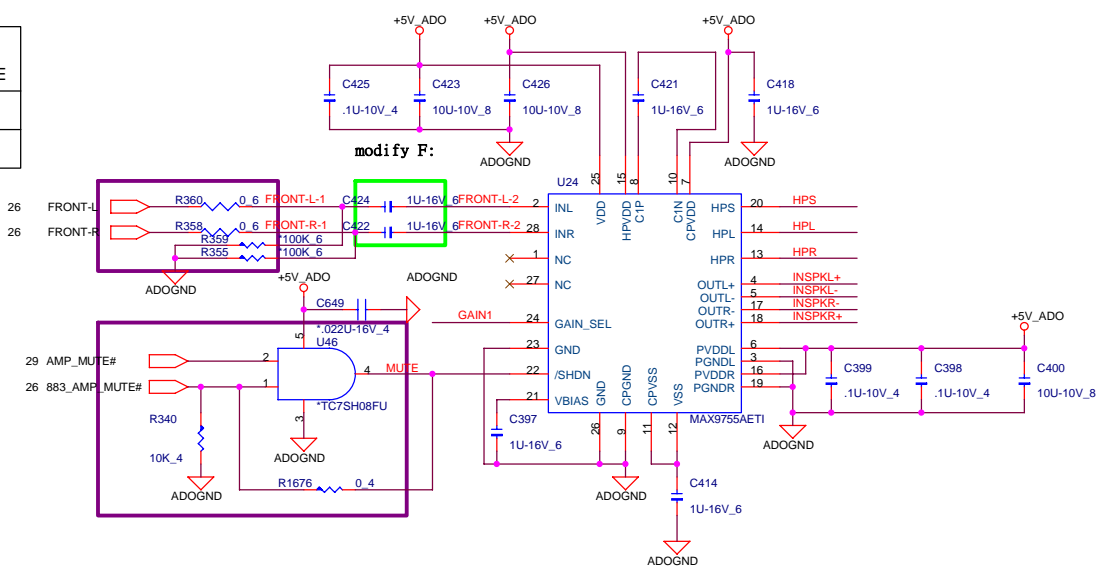
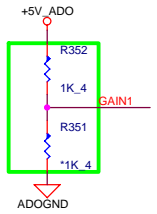
**LINE IN**



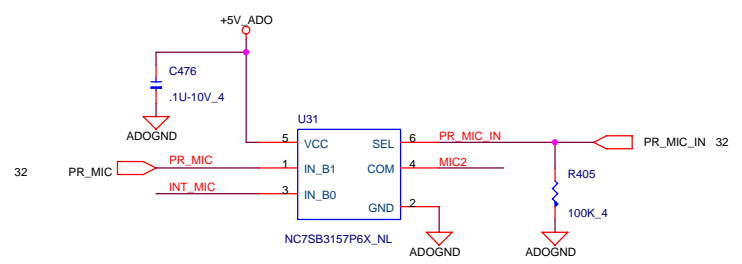
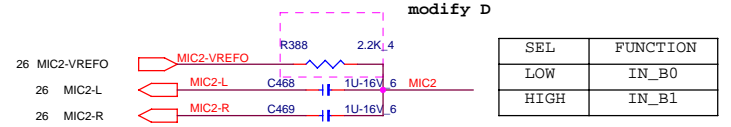
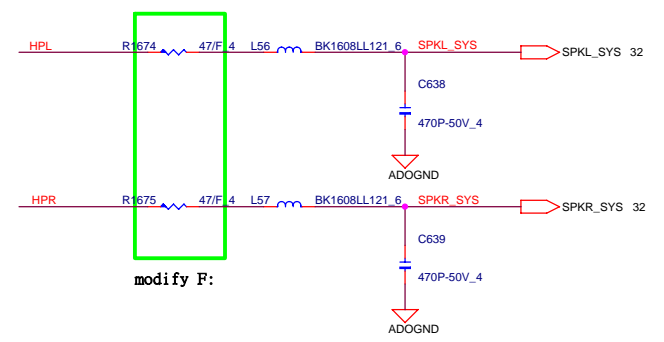
**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size: Document Number: REALTEK ALC883 & MDC Rev: 1A  
 Date: Monday, January 02, 2006 Sheet: 26 of 38

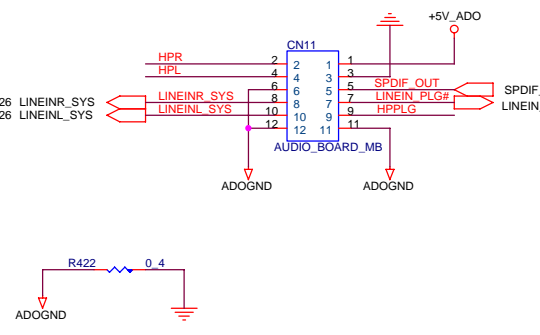
GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0



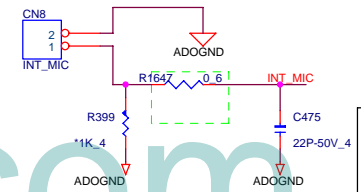
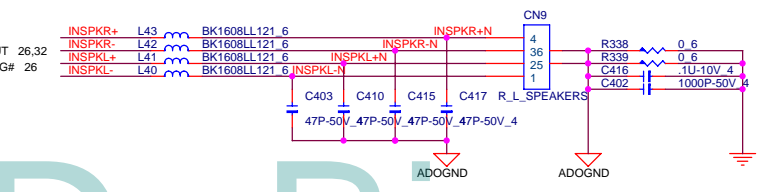
20 MIL



AUDIO BOARD



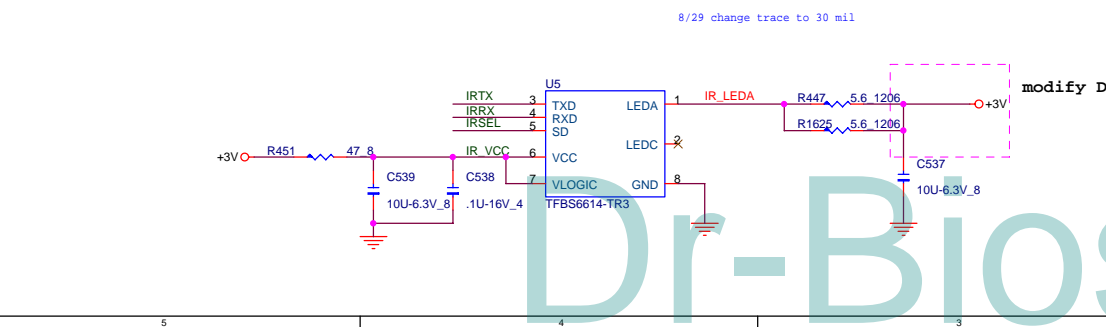
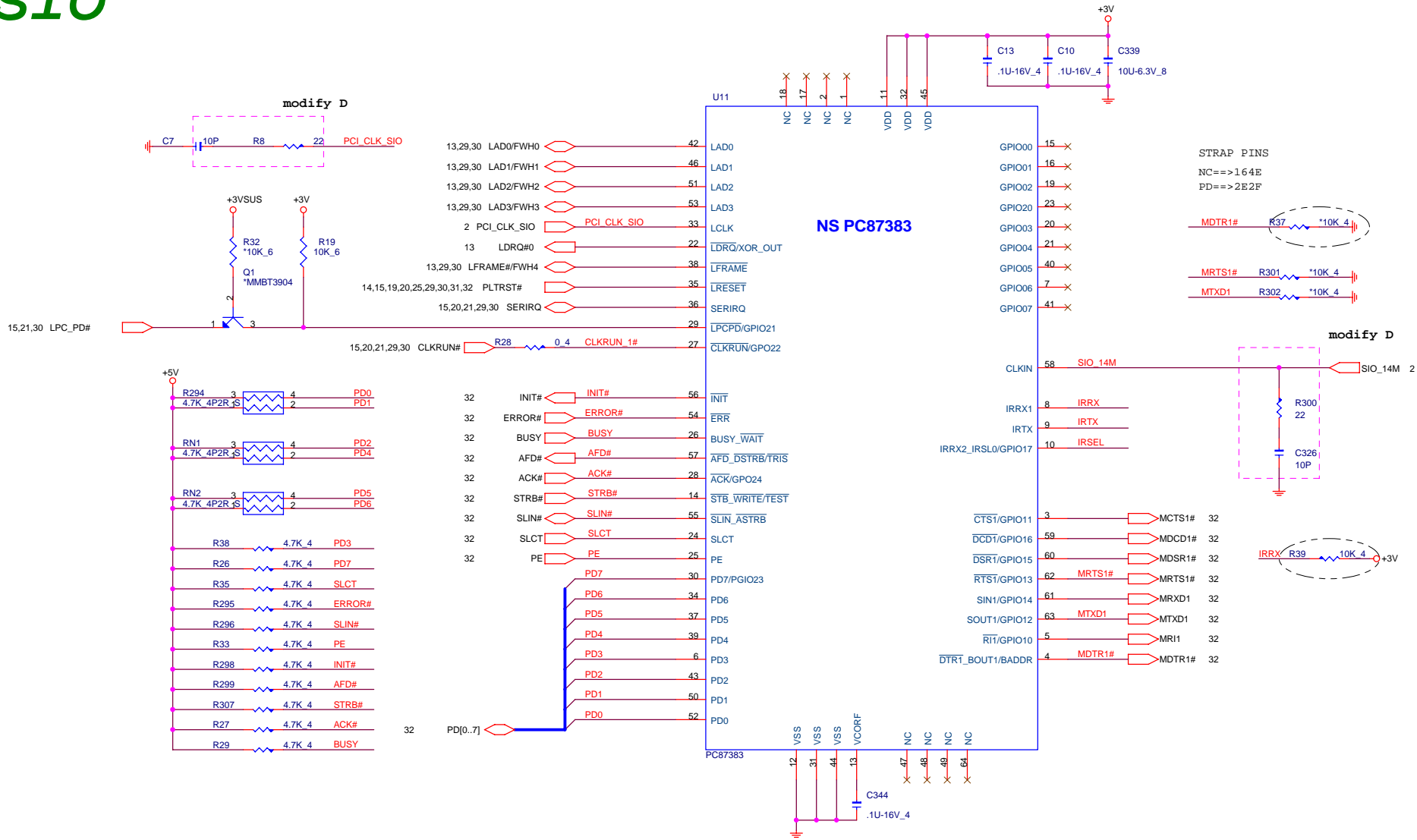
SPEAKER CONNECTOR



**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>AUDIO AMP(MAX 9755)</b>	1A
Date:	Monday, January 02, 2006	Sheet 27 of 38

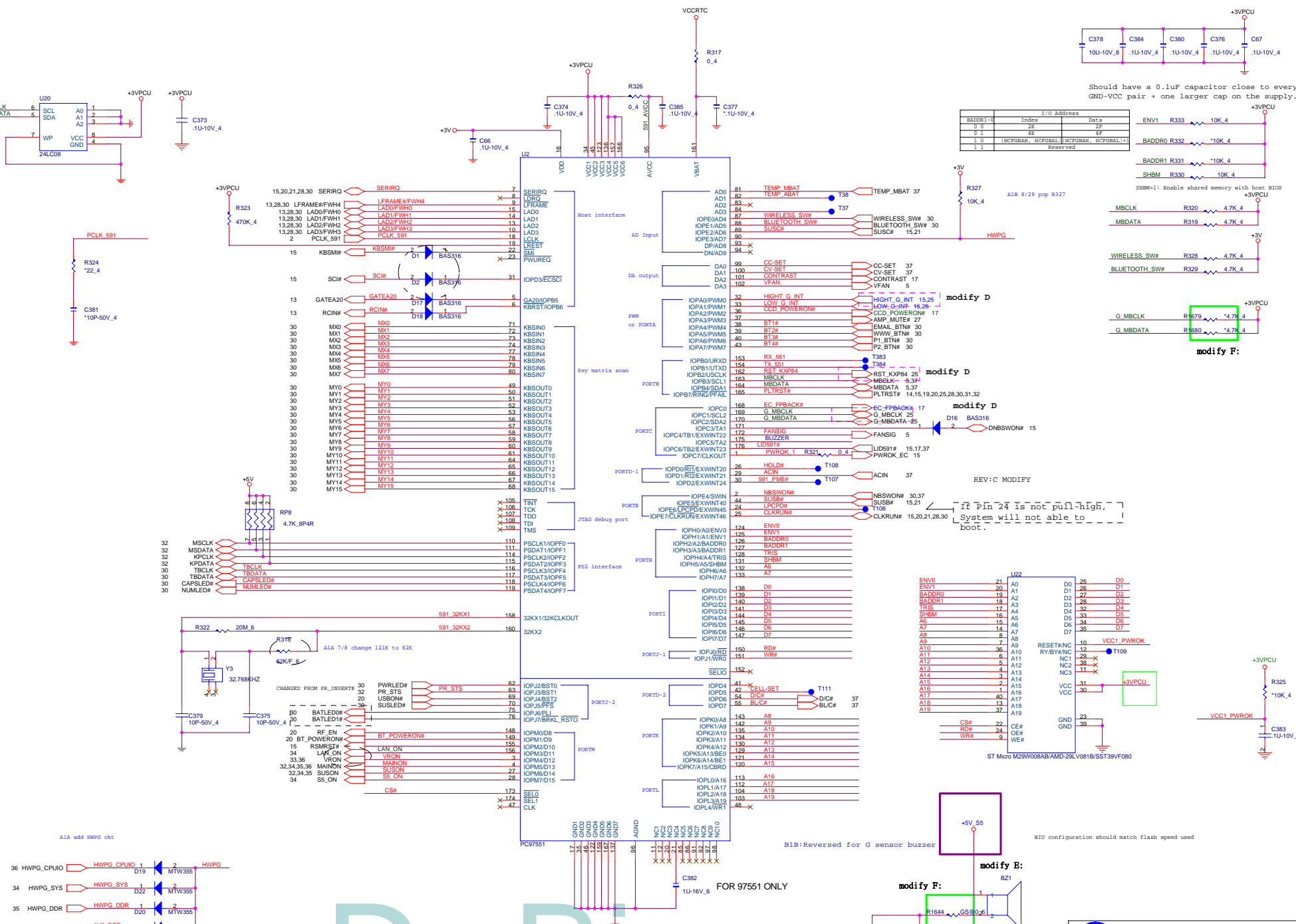
# SIO



		PROJECT : ZH2	
		Quanta Computer Inc.	
Size	Document Number	Rev	
Custom	SIO (87383)	E2B	
Date:	Monday, January 02, 2006	Sheet	28 of 38

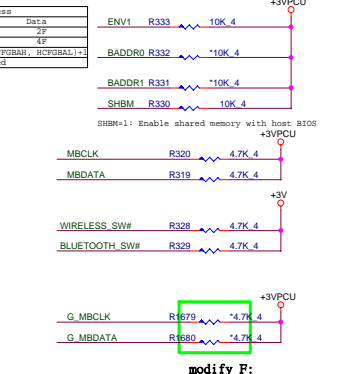
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LDRQ#(pin 8) internal is no use



BADDR[1:0]	Index	I/O Address	Data
0 0	2E	2E	2F
0 1	4E	4E	4F
1 0	(HCP0BAH, HCP0BAL, HCP0BAM, HCP0BAL)	Reserved	
1 1		Reserved	

Should have a 0.1uF capacitor close to every GND-VCC pair + one larger cap on the supply.

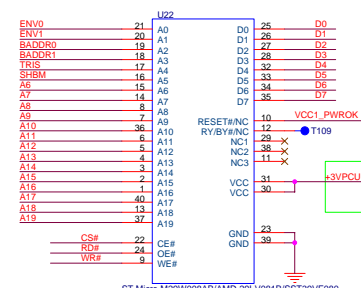


modify D

modify F:

REV: C MODIFY

If Pin 24 is not pull-high, System will not able to boot.

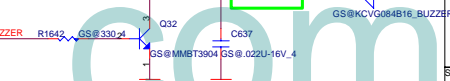


BIU configuration should match flash speed used

modify B:

modify F:

FOR 97551 ONLY

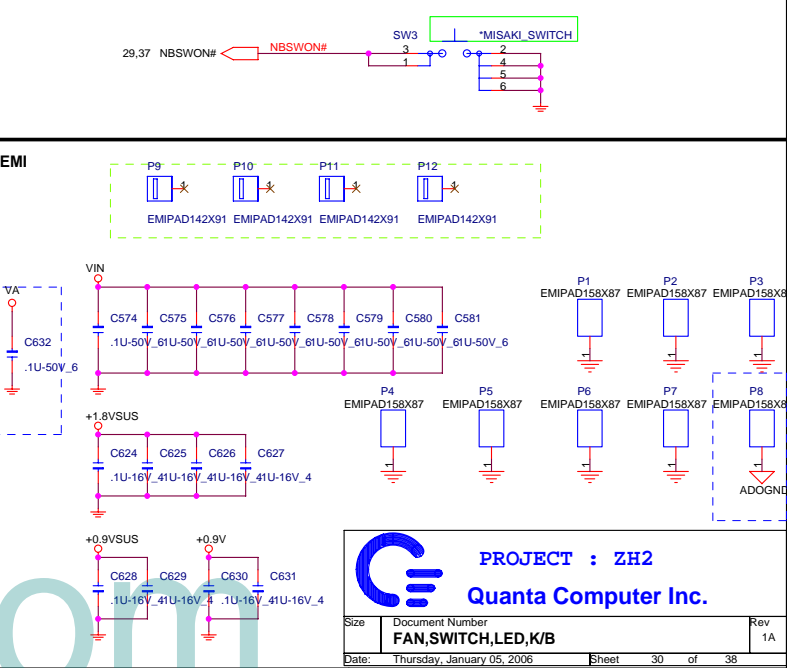
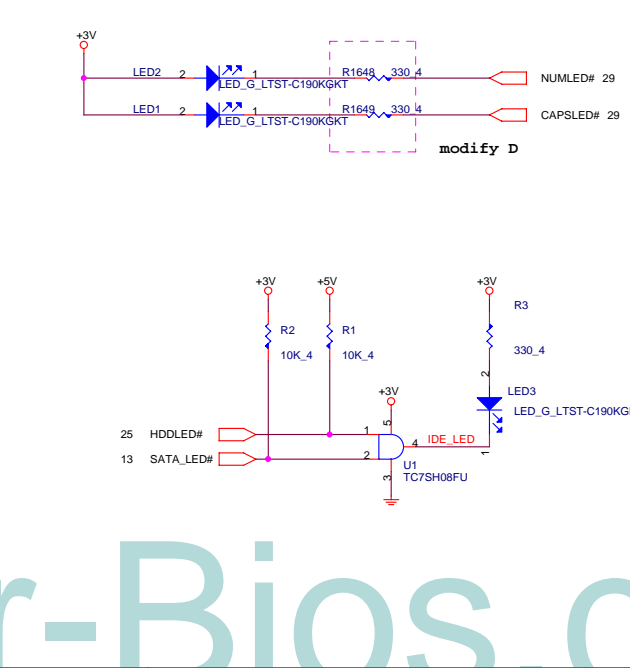
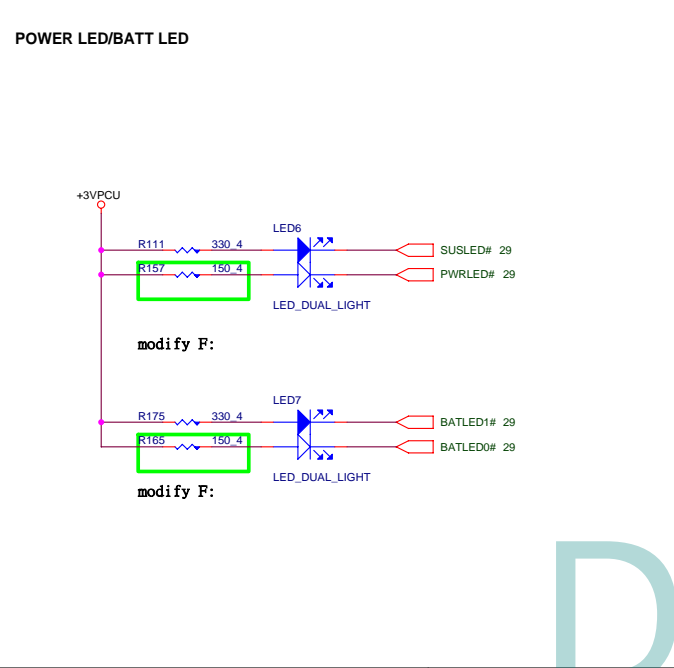
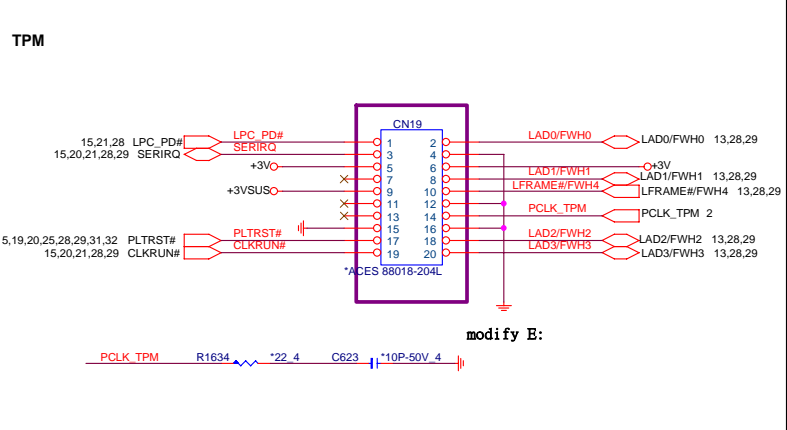
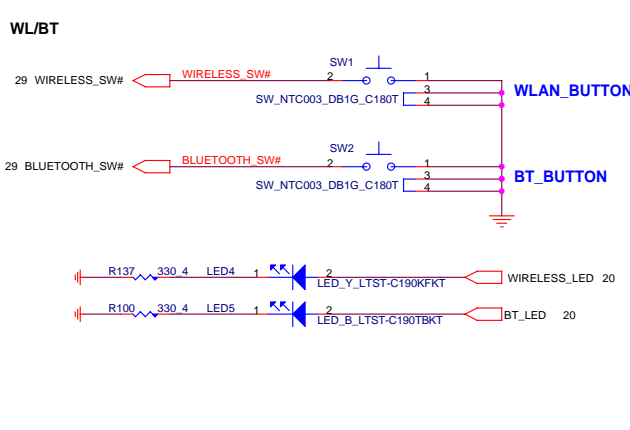
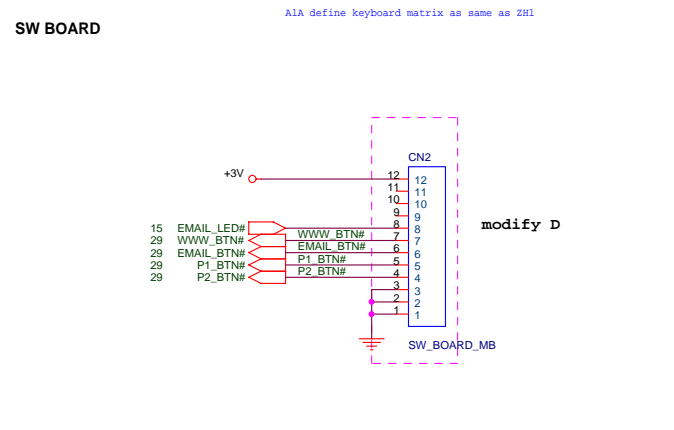
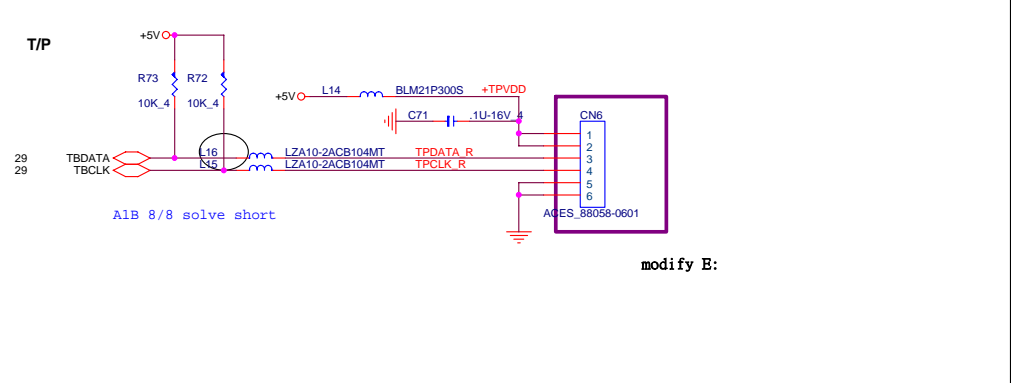
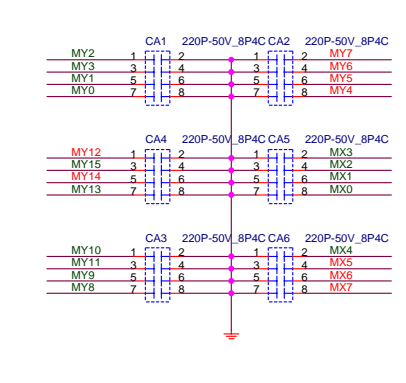
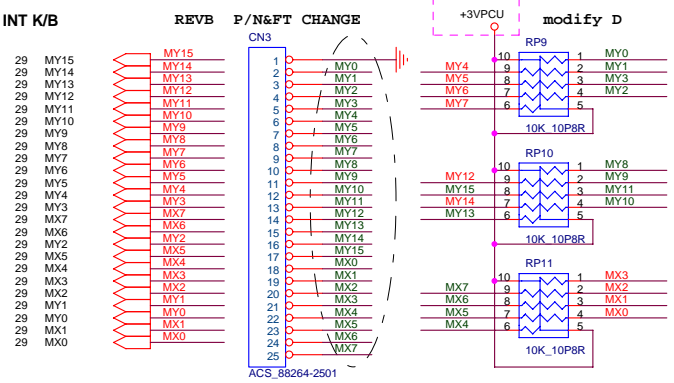


**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>97551 &amp; FLASH</b>	1A
Date	Tuesday, January 03, 2006	Sheet 29 of 38



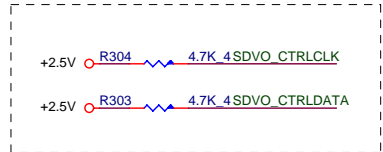




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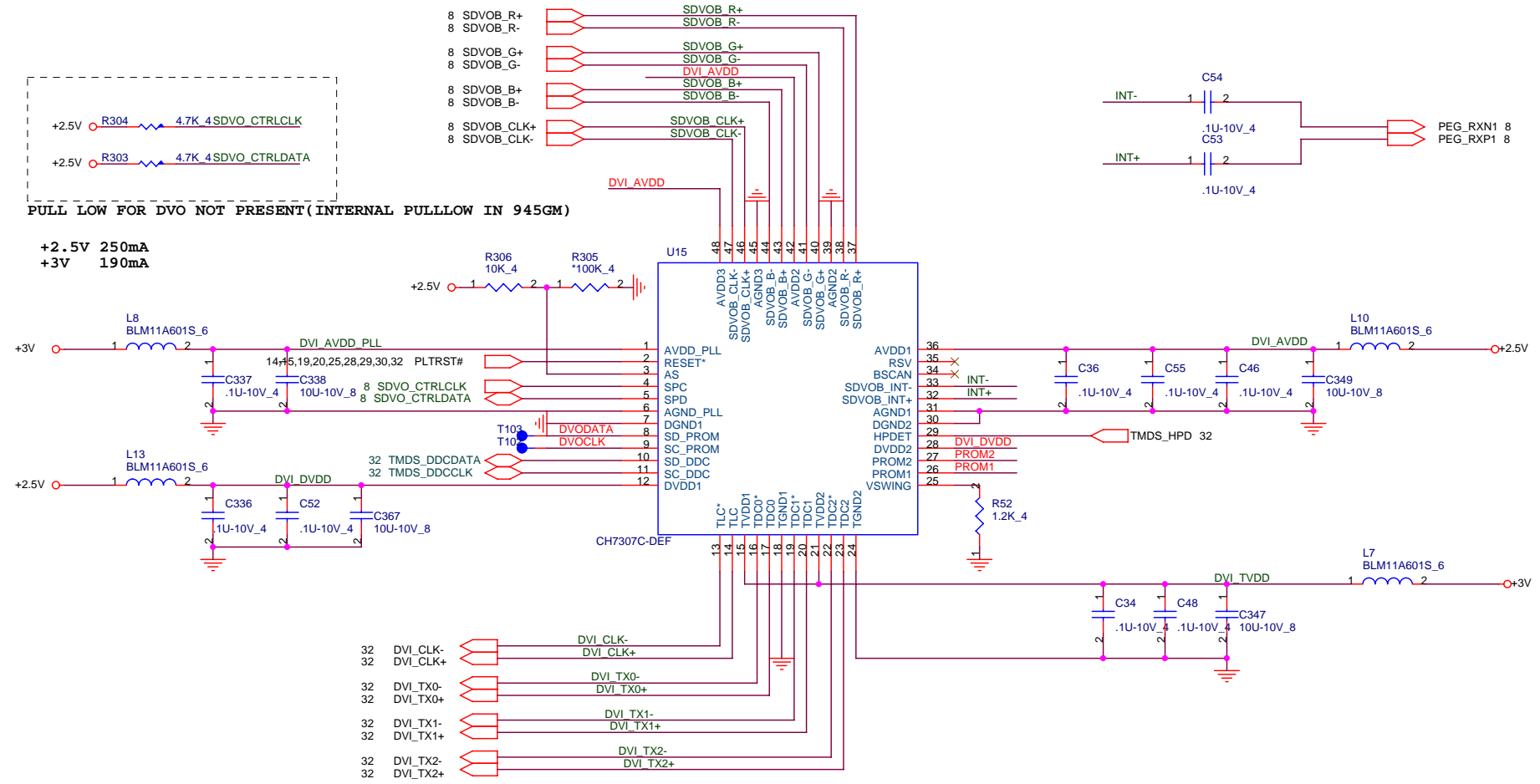
**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size: Document Number: **FAN,SWITCH,LED,K/B** Rev: 1A  
 Date: Thursday, January 05, 2006 Sheet: 30 of 38

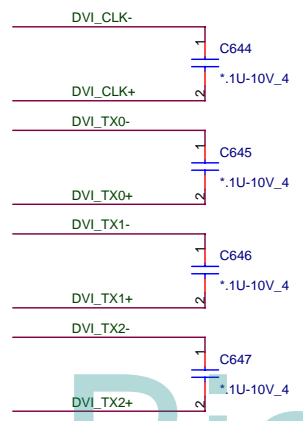
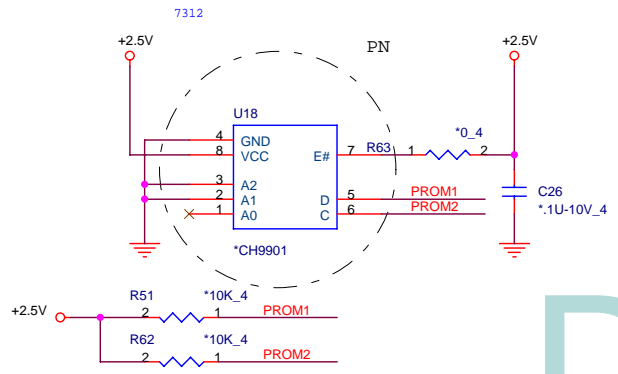



PULL LOW FOR DVO NOT PRESENT (INTERNAL PULLLOW IN 945GM)

+2.5V 250mA  
+3V 1.90mA



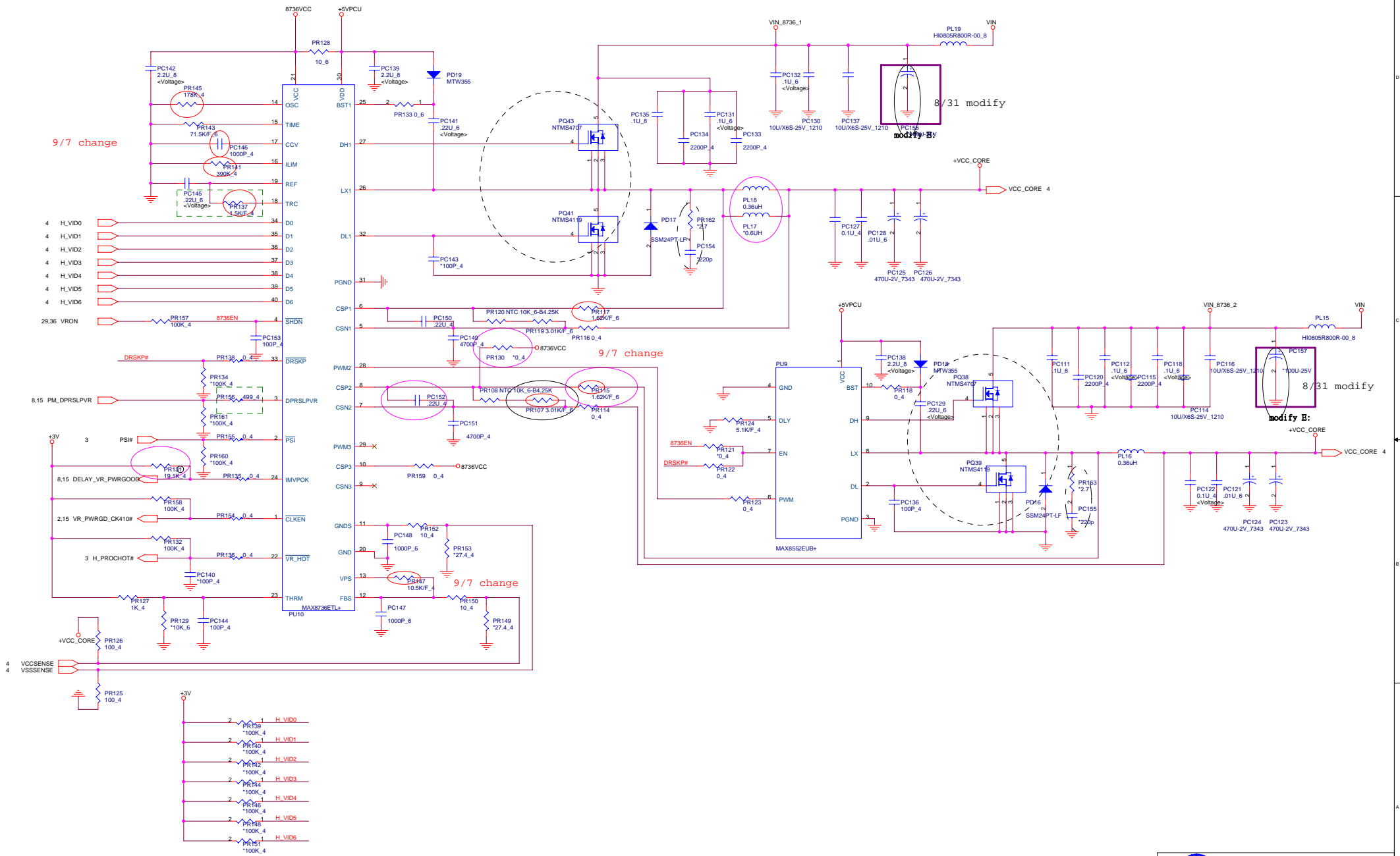
FOR CH7312 HDCP USE



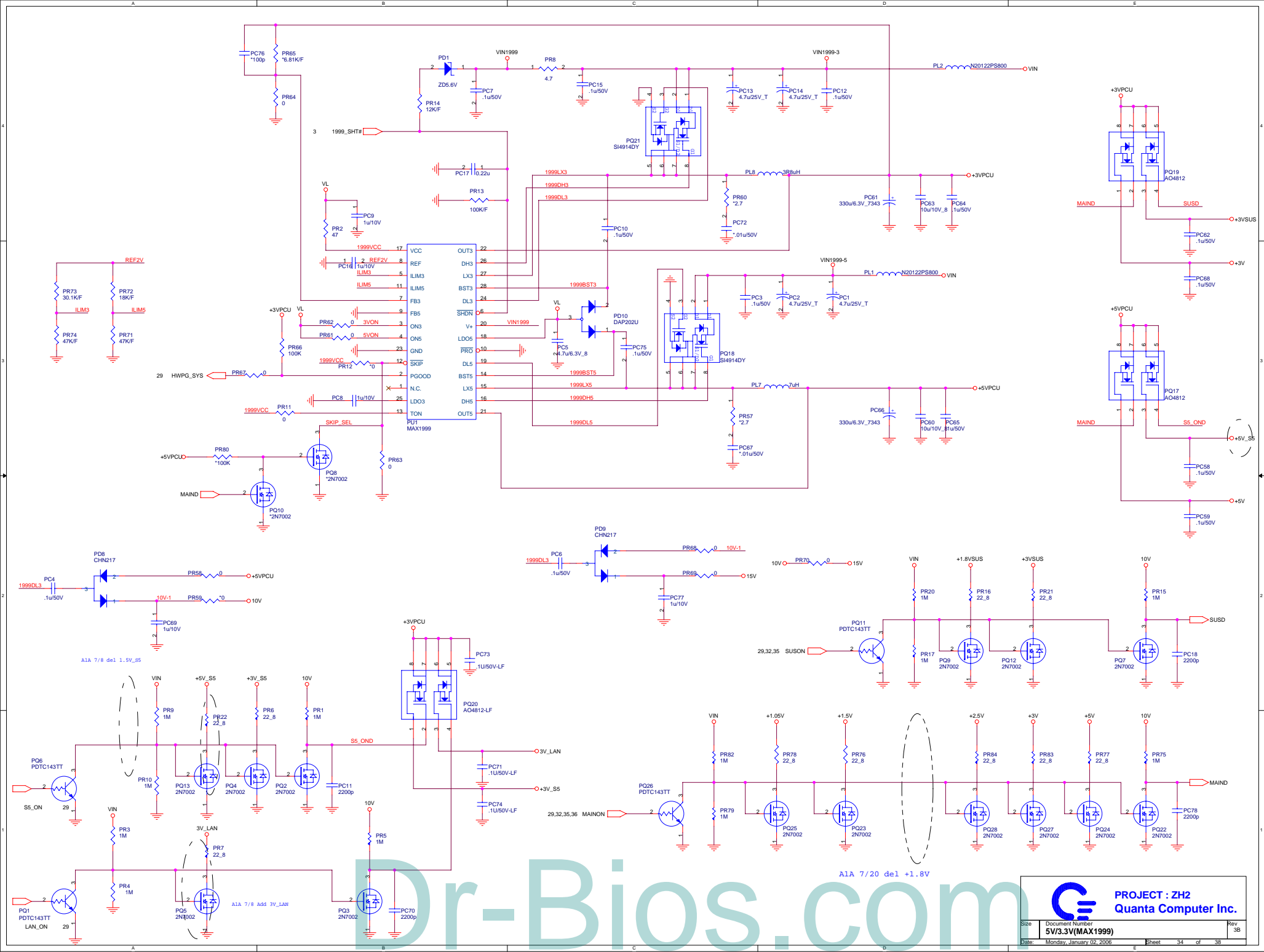
		PROJECT : ZH2	
		Quanta Computer Inc.	
Size	Document Number	Rev	
	CH7307	1A	
Date:	Monday, January 02, 2006	Sheet	31 of 38

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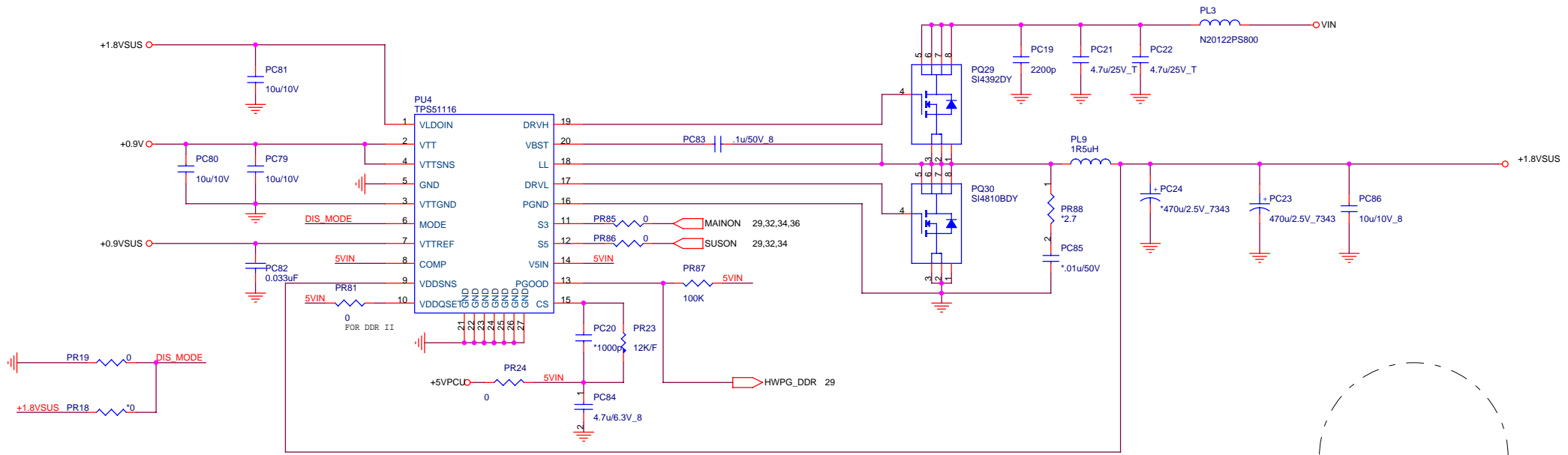


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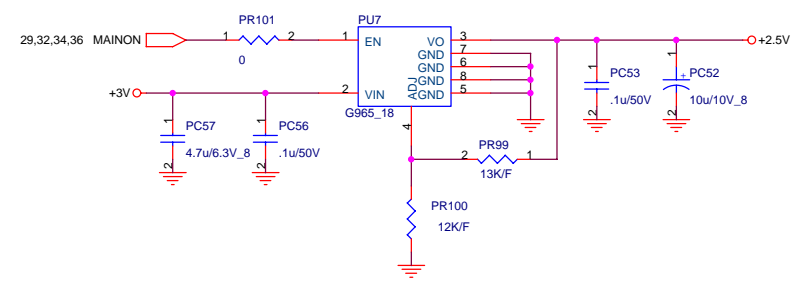
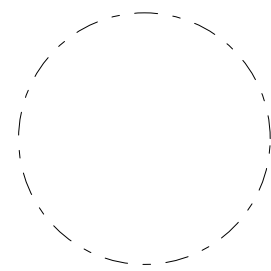


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<b>PROJECT : ZH2</b>		<b>Quanta Computer Inc.</b>
Size Document Number		
<b>5V/3.3V(MAX1999)</b>		Rev 3B
Date: Monday, January 02, 2006		Sheet 34 of 38



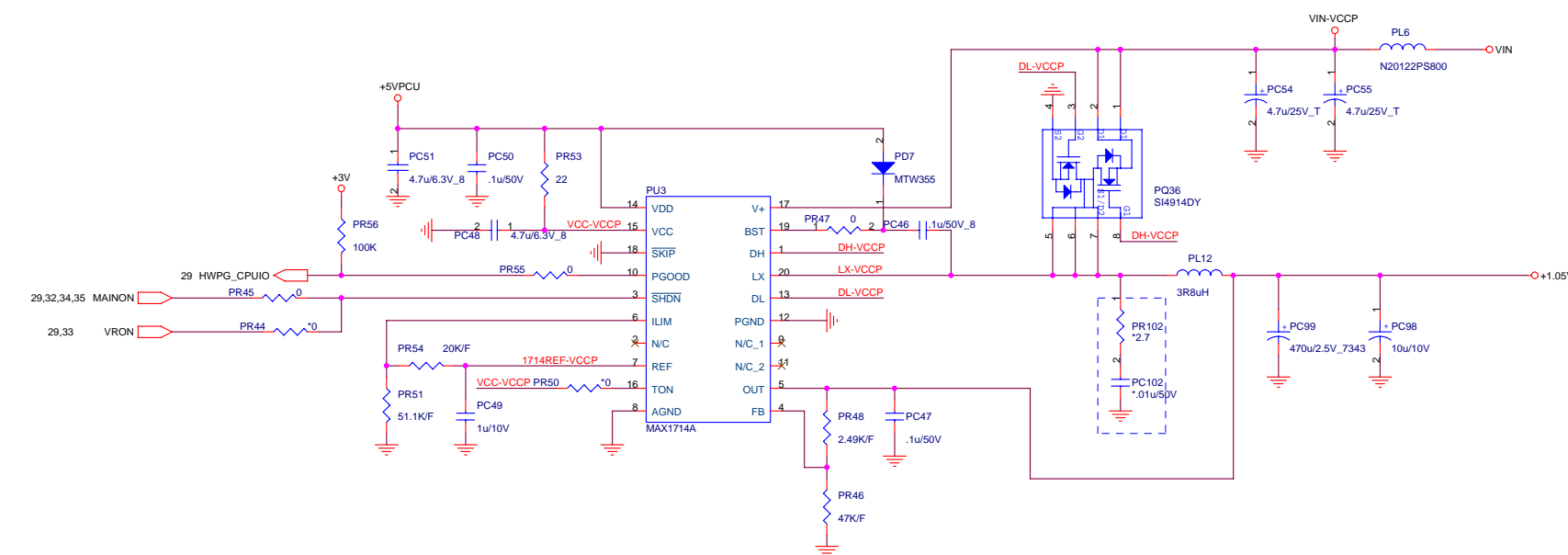
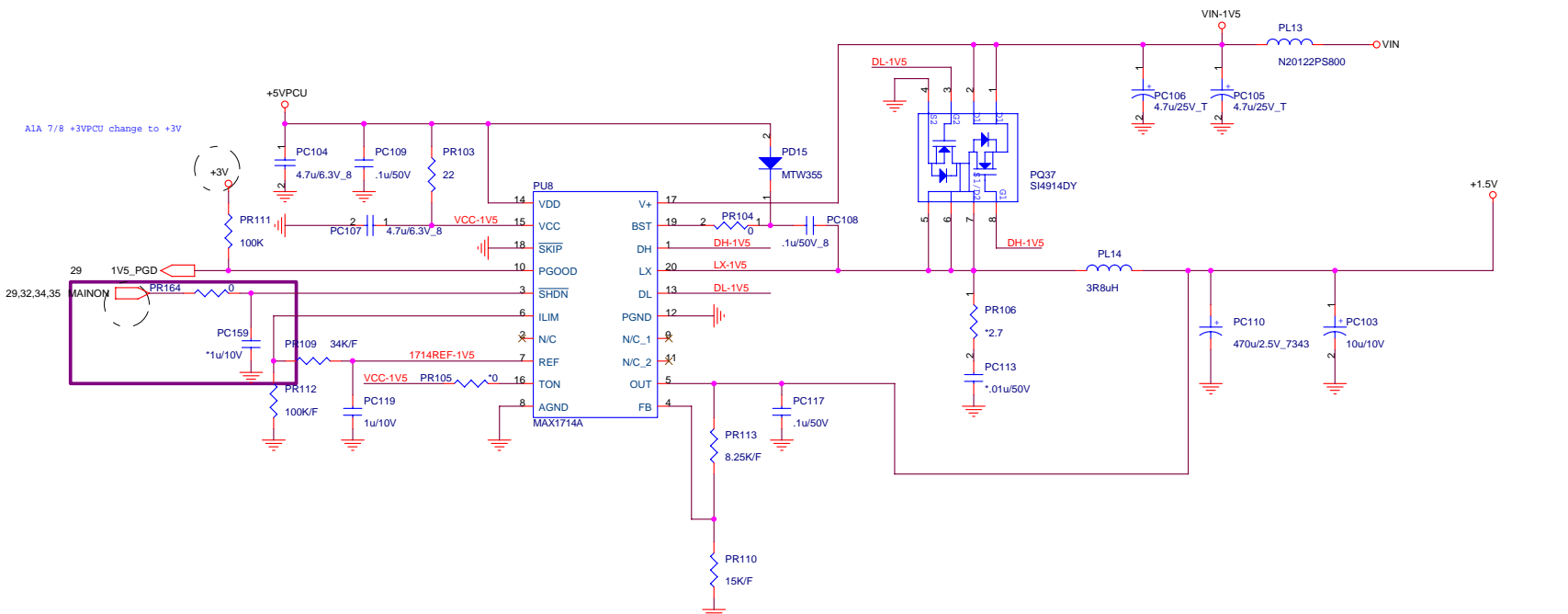
A1A 7/20 del +1.8V



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		<b>PROJECT : ZH2</b> <b>Quanta Computer Inc.</b>
Size	Document Number	Rev
	<b>2.5VSUS / 1.25VTERM</b>	<b>3B</b>
Date:	Monday, January 02, 2006	Sheet 35 of 38

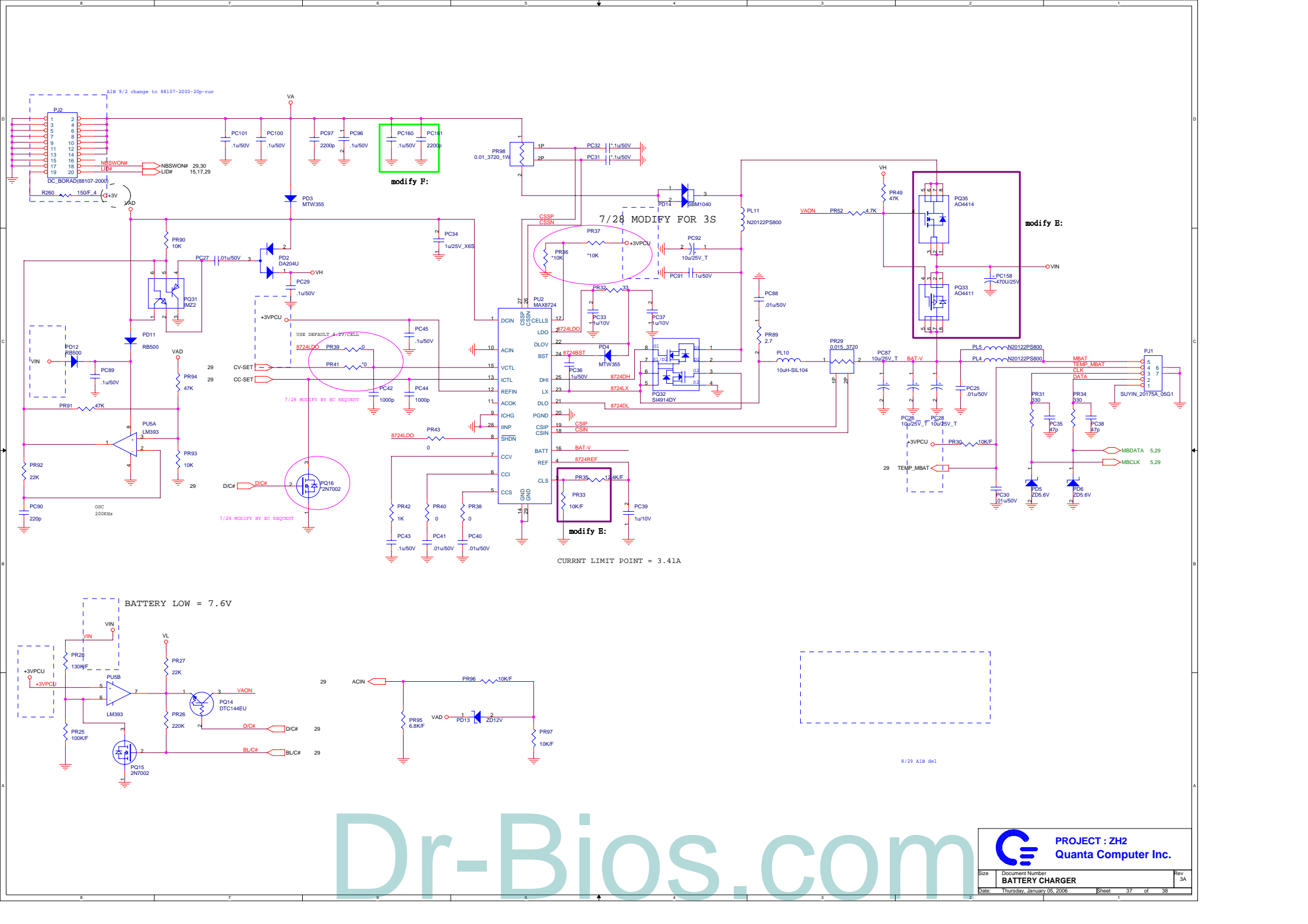




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**PROJECT : ZH2**  
**Quanta Computer Inc.**

Size	Document Number	Rev
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Date:	Monday, January 02, 2006	Sheet 36 of 38



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