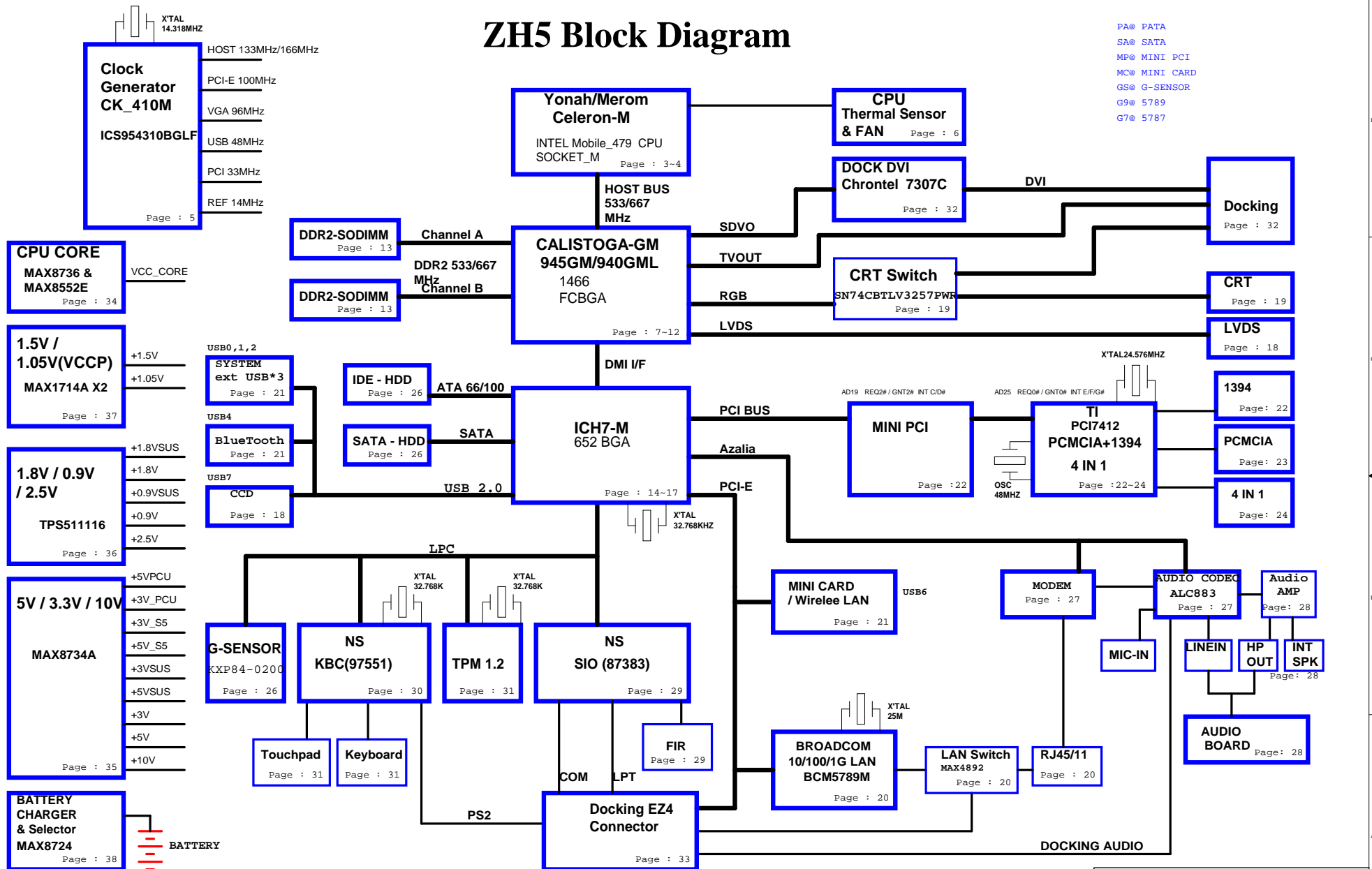


ZH5 Block Diagram

PA@ PATA
 SA@ SATA
 MP@ MINI PCI
 MC@ MINI CARD
 GS@ G-SENSOR
 G9@ 5789
 G7@ 5787



PCI DEVICE	IDSEL#	REQ# / GNT#	Interrupts
PCI7412	AD25	REQ0# / GNT0#	INT E/F/G#
MINI PCI	AD19	REQ2# / GNT2#	INT C/D#

PROJECT : ZH5
Quanta Computer Inc.

Size	Document Number	Rev
	BLOCK DIAGRAM	1A
Date:	Friday, September 08, 2006	Sheet 1 of 39

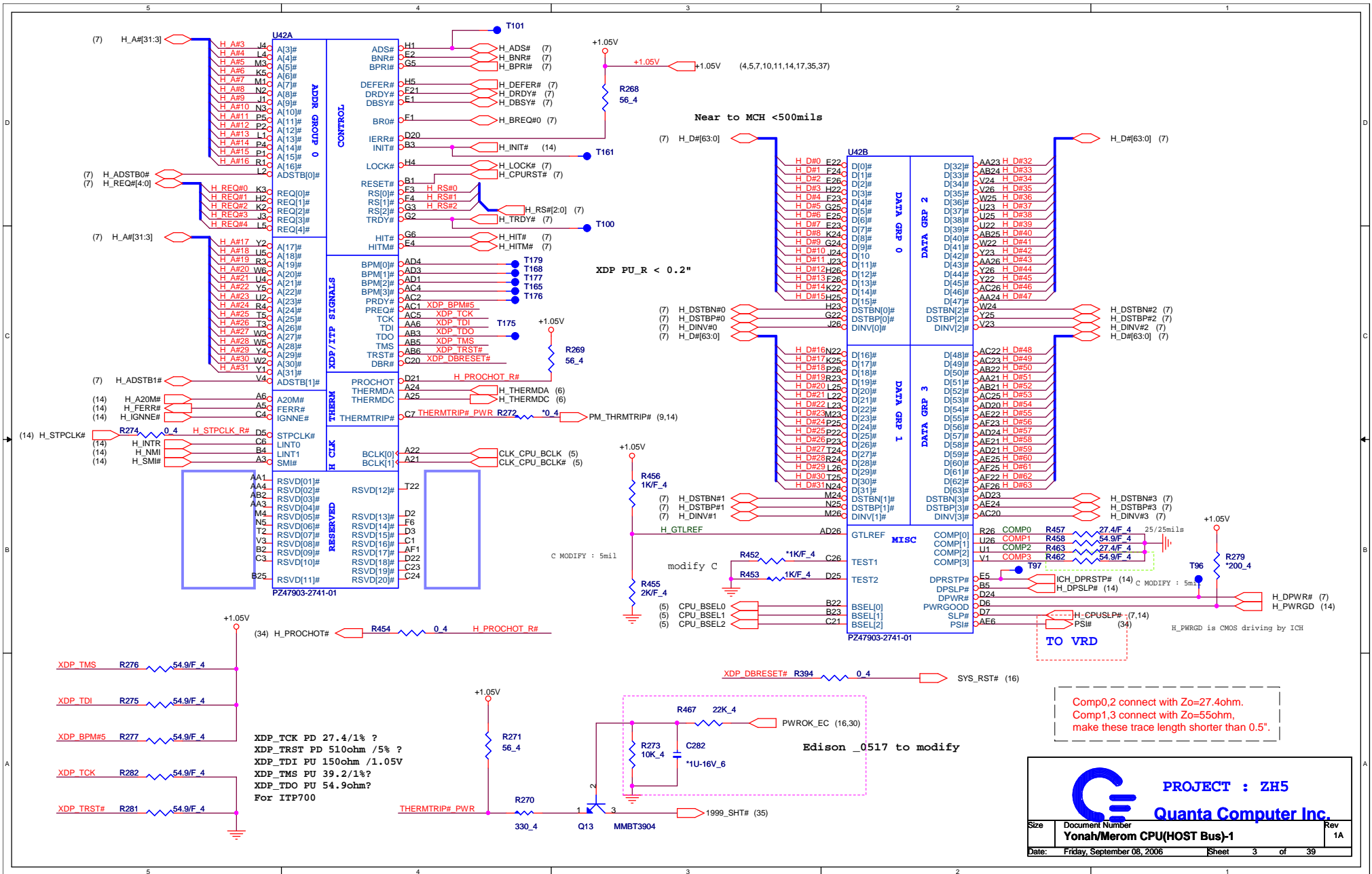
TABLE OF CONTENTS

Page 01 : BLOCK DIAGRAM
Page 02 : TABLE OF CONTENTS
Page 03 : Yonah/Merom CPU(HOST Bus)-1
Page 04 : Yonah/Merom CPU(POWER/NC)-2
Page 05 : CLOCK GENERATOR
Page 06 : THERMAL SENSOR & FAN
Page 07 : GMCH HOST Bus(1 of 6)
Page 08 : GMCH DDRII MEMORY (2 of 6)
Page 09 : GMCH DMI & VEDIO (3 of 6)
Page 10 : GMCH POWER & STRAP(4 of 6)
Page 11 : GMCH LVDS/DAC-PWR2 (5 of 6)
Page 12 : GMCH GND (6 of 6)
Page 13 : DDRII SO-DIMM & TERMINATOR
Page 14 : ICH7-M RTC/SATA/IDE/AZALIA/CPU (1 OF 4)
Page 15 : ICH7-M MDI/PCI E/PCI/USB (2 OF 4)
Page 16 : ICH7-M GPIO/SMBus (3 of 4)
Page 17 : ICH7-M POWER & GND (4 of 4)
Page 18 : LVDS CONNECTOR & CCD
Page 19 : CRT PORT
Page 20 : GigaLAN BCM5787MKMLG & RJ45/RJ11
Page 21 : PCMCIA /Mini Card /USB / Blue Tooth
Page 22 : PCI7412-IEEE1394
Page 23 : PCI7412-PCMCIA
Page 24 : PCI7412-CARD READER
Page 25 : HOLES
Page 26 : SATA/PATA HDD /G SENSOR
Page 27 : CODEC ALC883 & MDC
Page 28 : AUDIO AMP & SPEAK/LIN OUT
Page 29 : SIO (87383)
Page 30 : EC Controller PC97551 & FLASH
Page 31 : SWITCH,LED,KB,TP,TPM1.2,EMI PAD
Page 32 : DOCK DVI CH7307C
Page 33 : DOCK EZ4 CONNECTOR
Page 34 : CPU CORE (MAX8736ETL+)
Page 35 : SYSTEM +5V/+3V(MAX8734A)
Page 36 : DDRII POWER 1.8VSUS / 0.9VTERM
Page 37 : CHIPSET POWER +1.5V / VCCP(+1.05V)
Page 38 : BATTERY CHARGER & SELECTOR



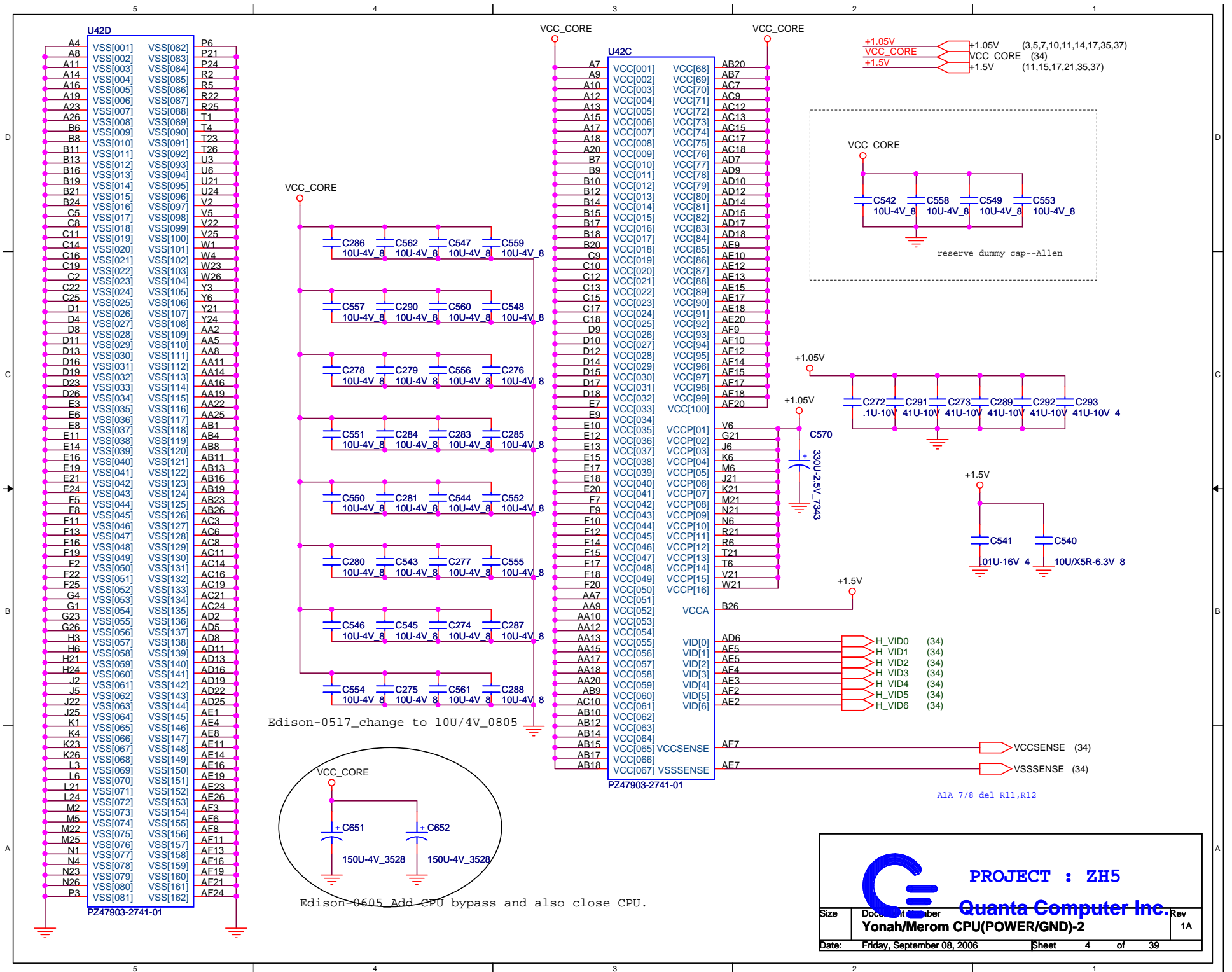
PROJECT : ZH5
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Size	Document Number	Rev
	TABLE OF CONTENTS	1A
Date:	Friday, September 08, 2006	Sheet 2 of 39



PROJECT : ZH5
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Size	Document Number	Rev
	Yonah/Merom CPU(HOST Bus)-1	1A
Date:	Friday, September 08, 2006	Sheet 3 of 39

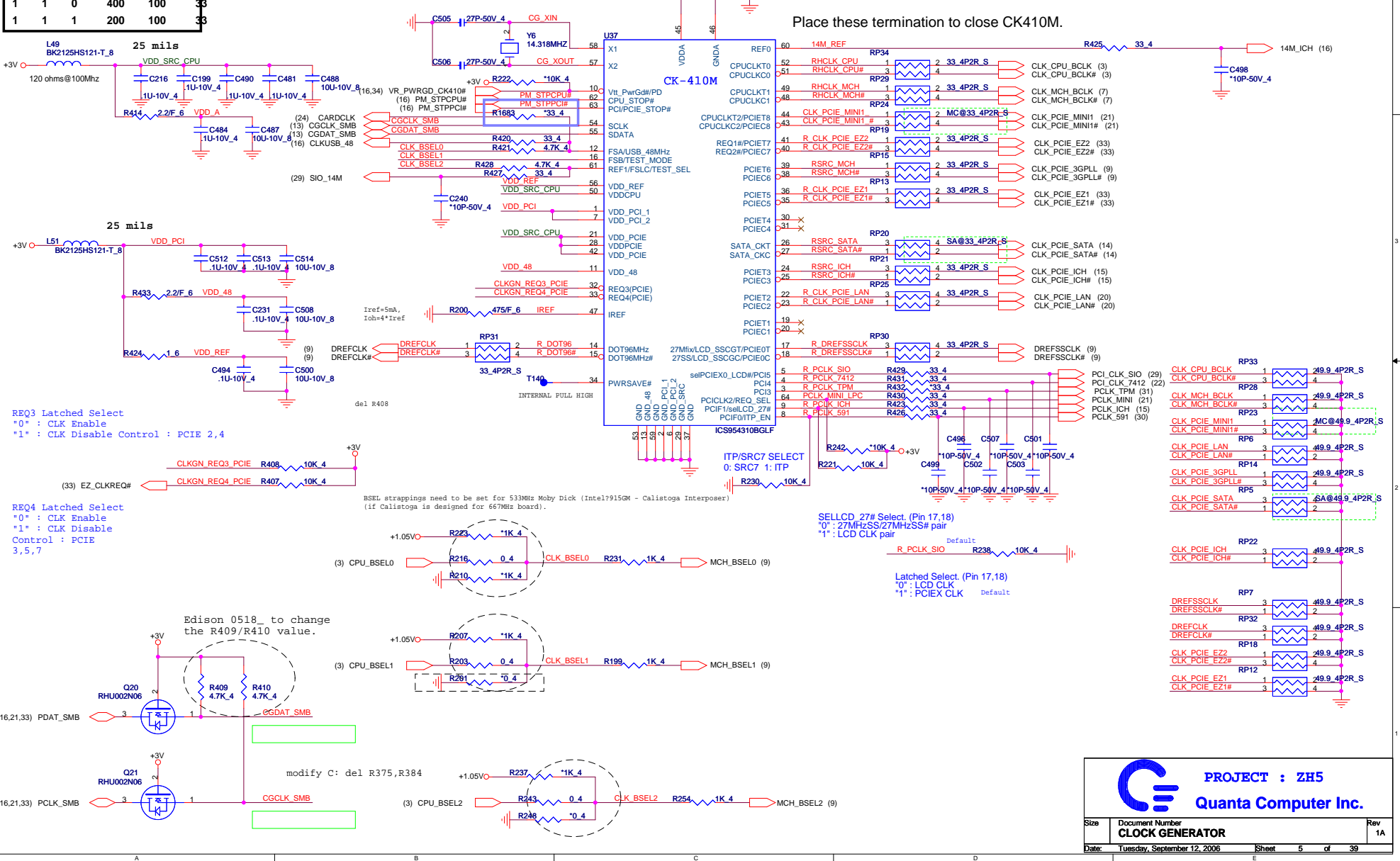


FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	200	100	33

Default

Close to IC <500mils

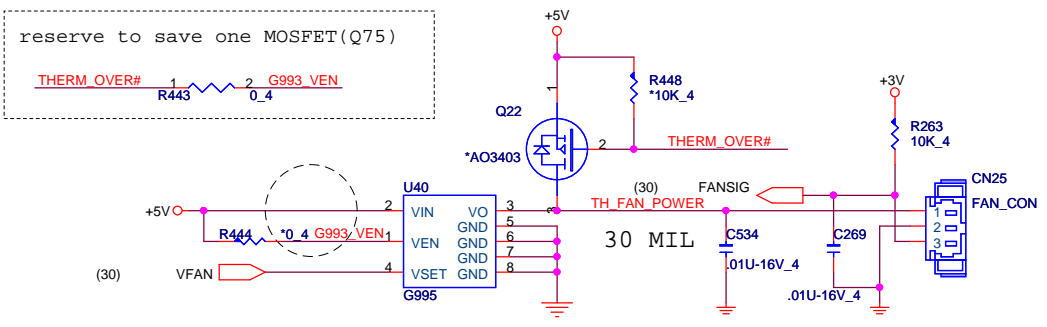
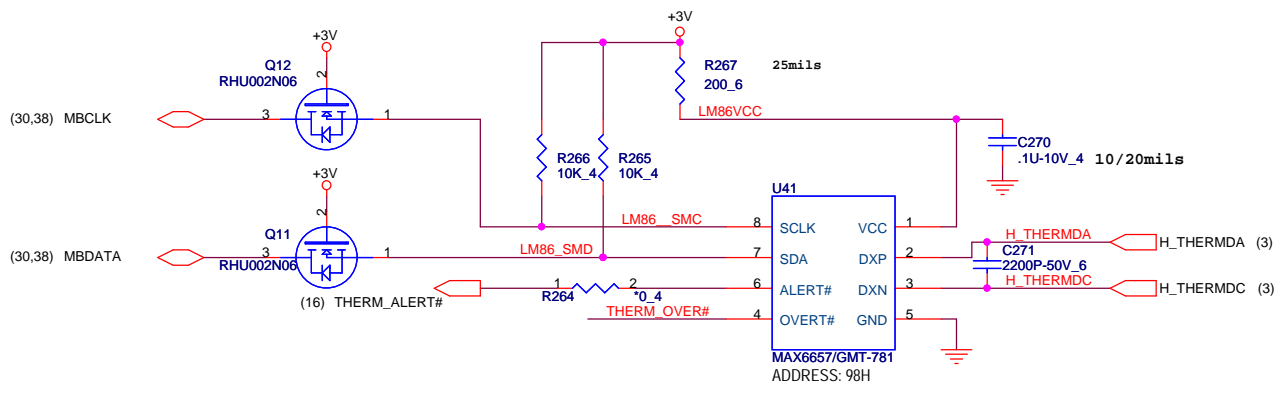
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PROJECT : ZH5
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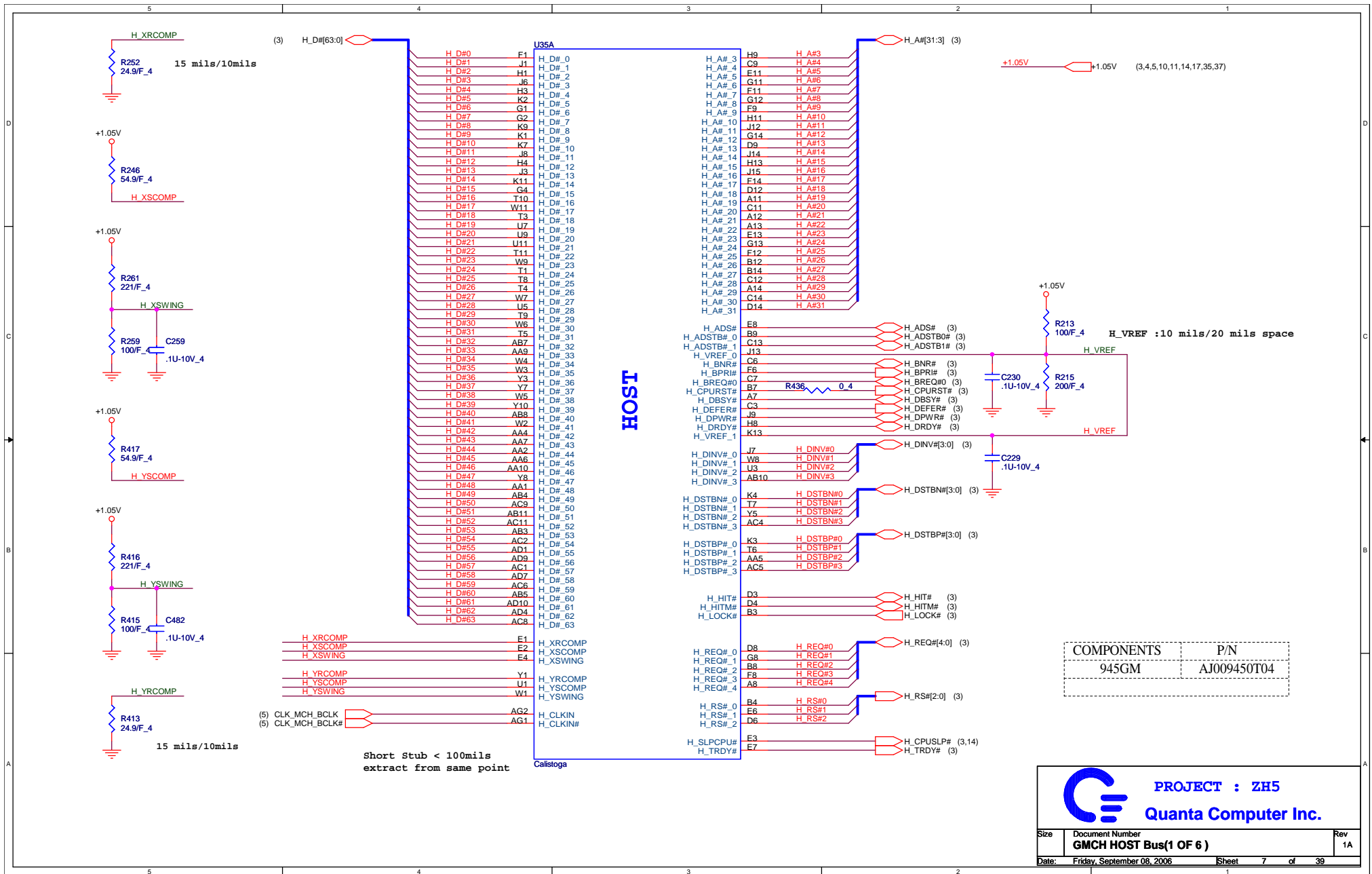
Size: Document Number
CLOCK GENERATOR Rev 1A

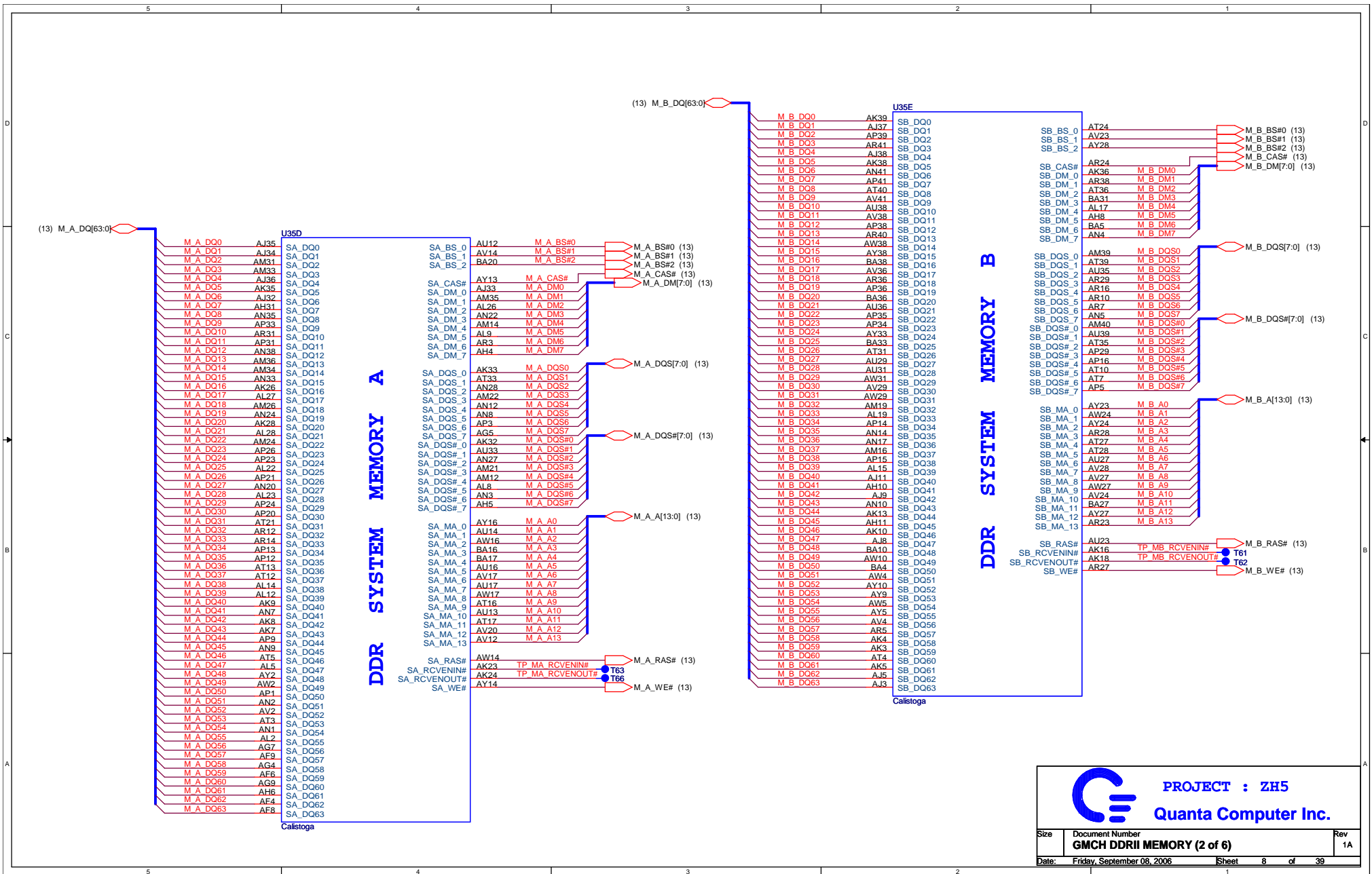
Date: Tuesday, September 12, 2006 Sheet 5 of 39



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Quanta Computer Inc.

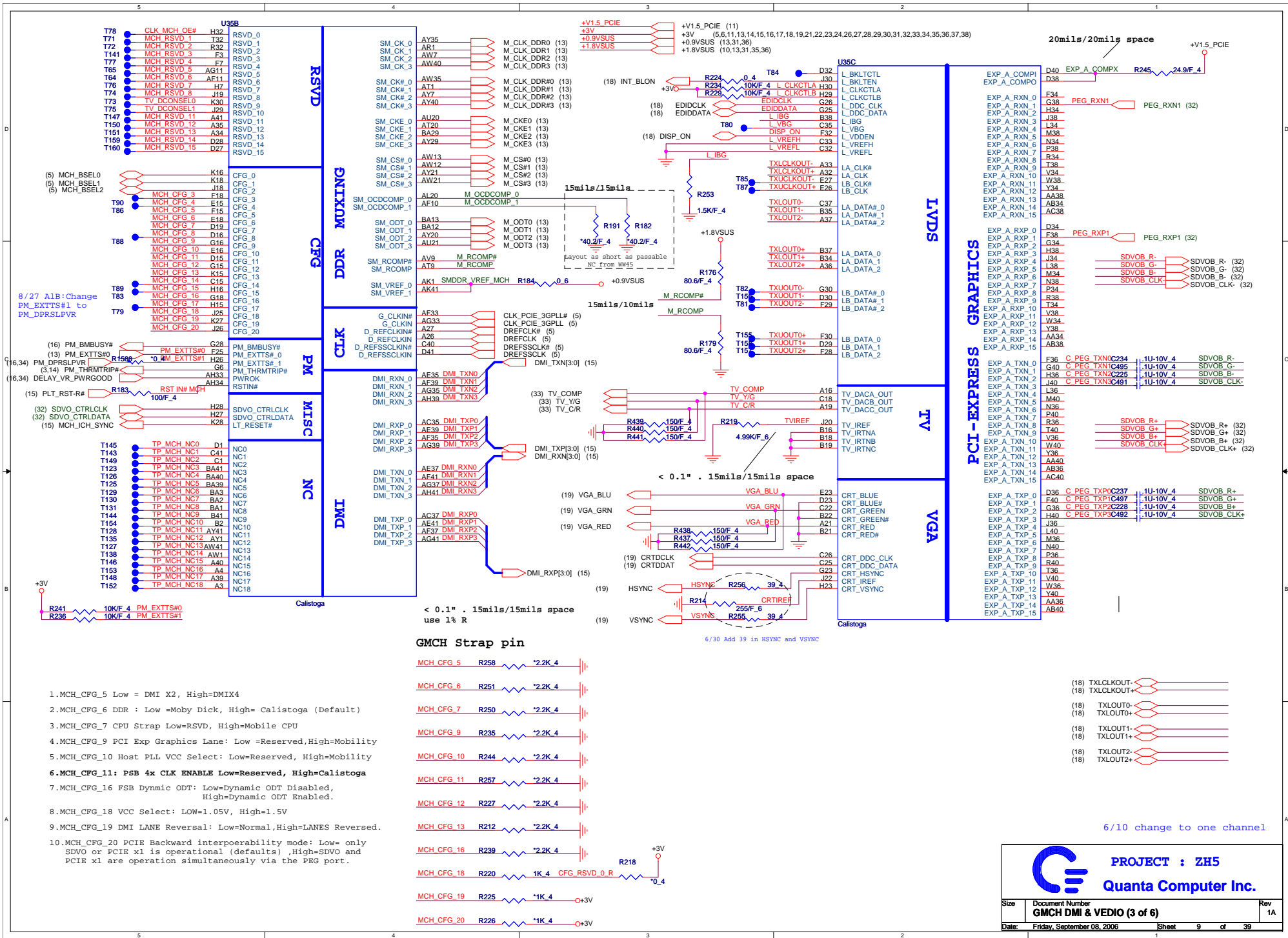
Size	Document Number	Rev
	CPU THERMAL SENSOR & FAN	1A
Date:	Friday, September 08, 2006	Sheet 6 of 39

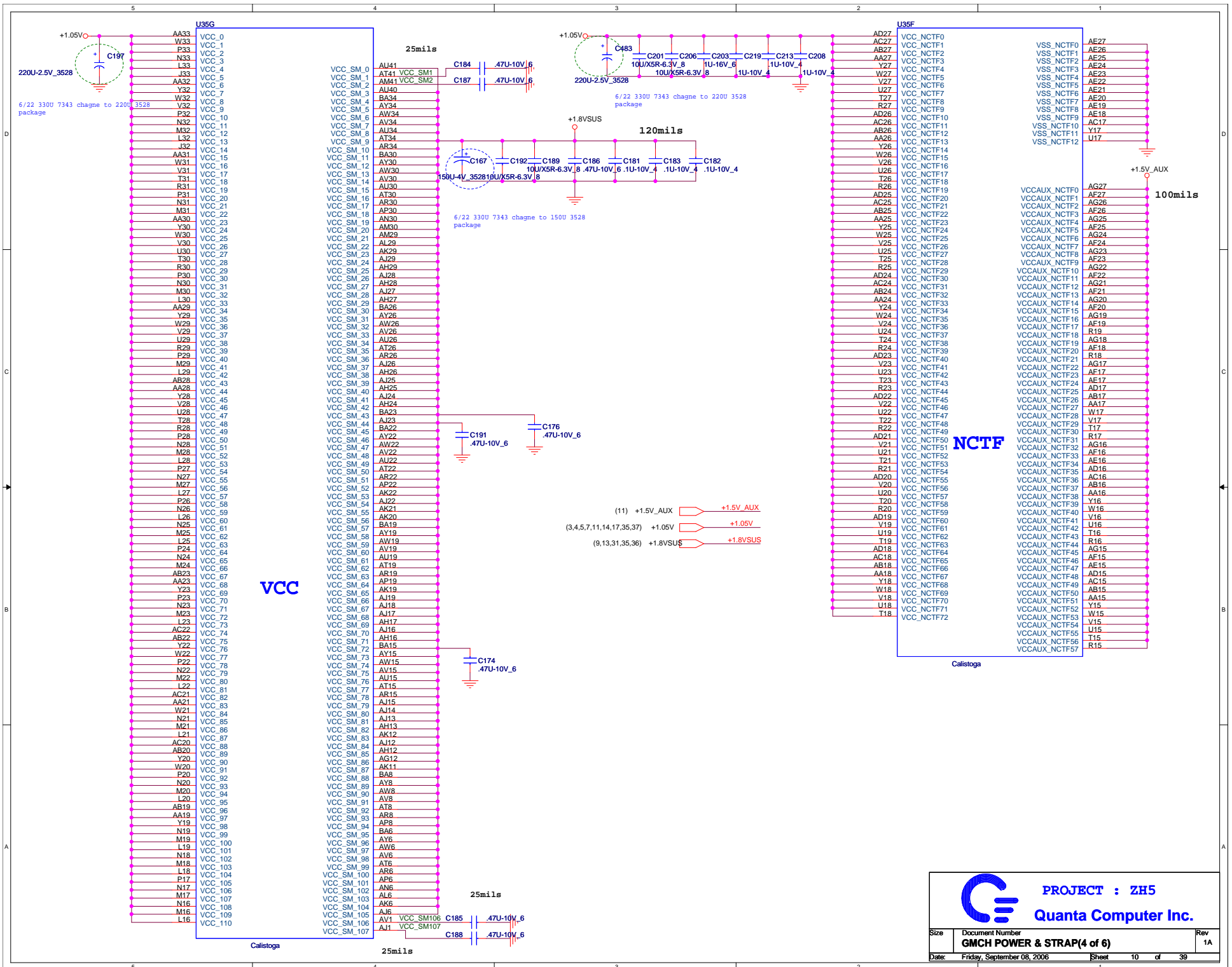


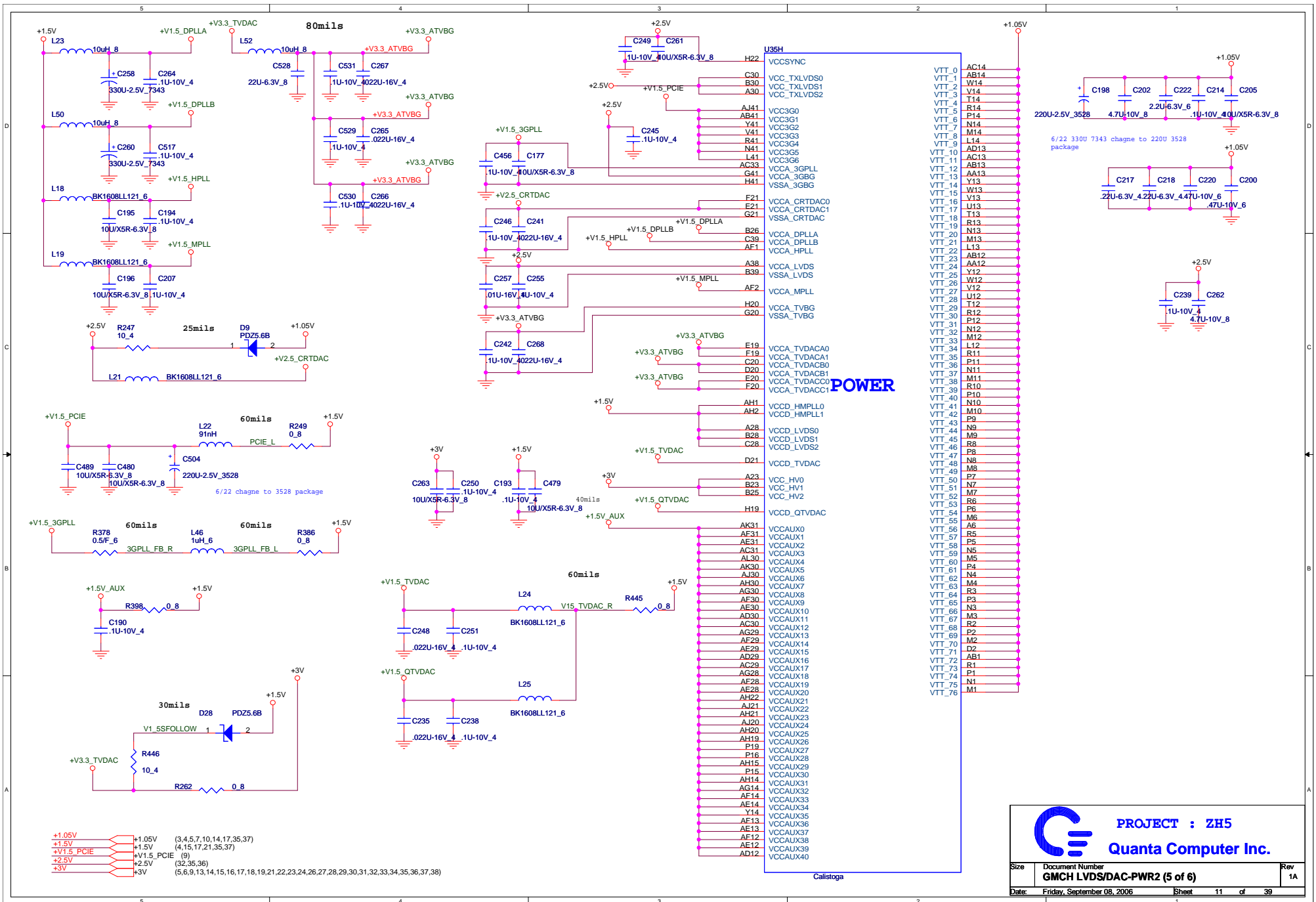


PROJECT : ZH5
Quanta Computer Inc.

Size	Document Number	Rev
	GMCH DDRII MEMORY (2 of 6)	1A
Date:	Friday, September 08, 2006	Sheet 8 of 39

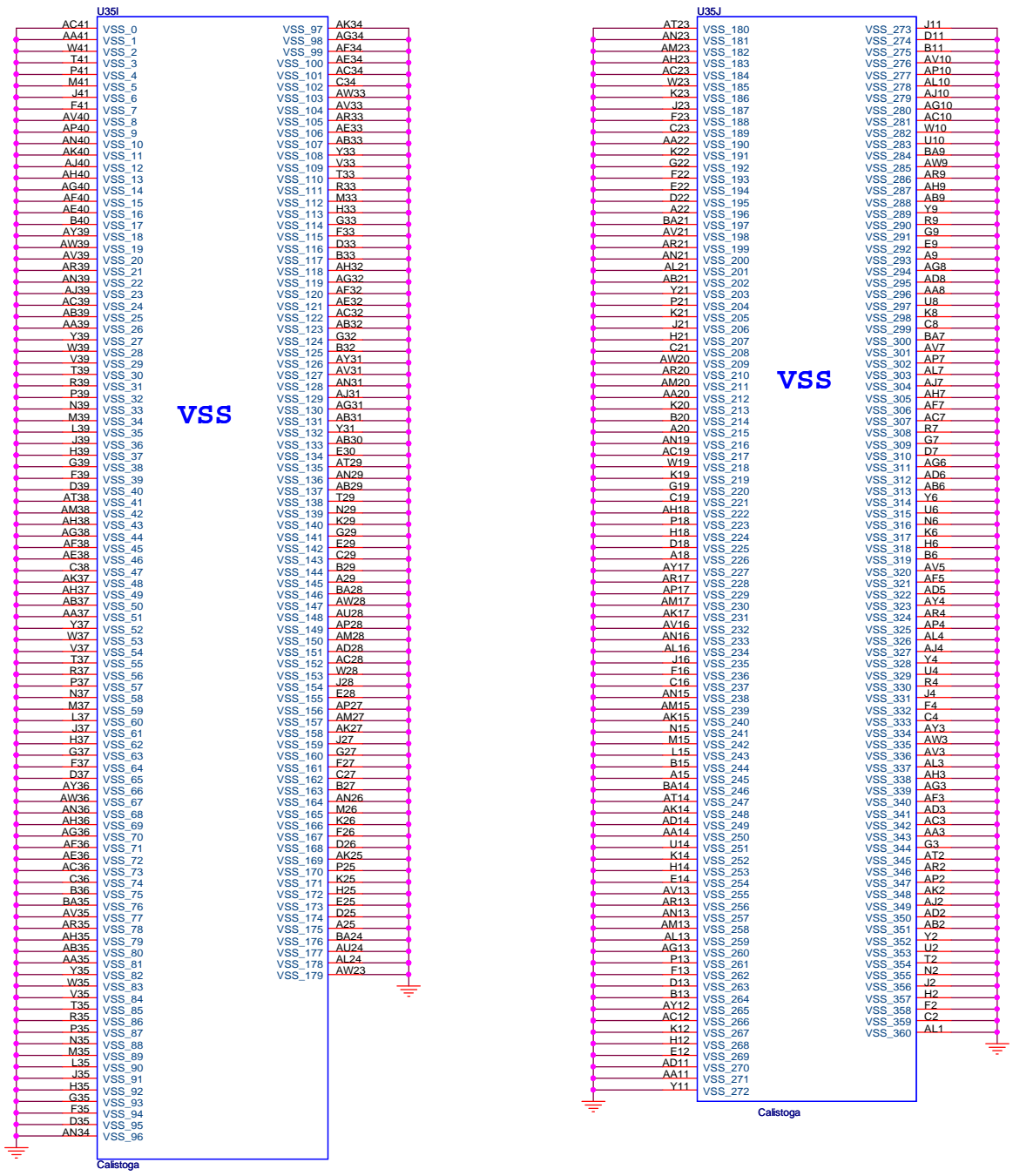







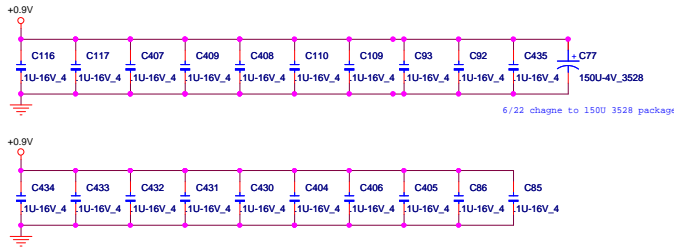
PROJECT : ZH5
Quanta Computer Inc.

Size	Document Number	Rev
	GMCH LVDS/DAC-PWR2 (5 of 6)	1A
Date:	Friday, September 08, 2006	Sheet 11 of 39

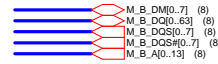
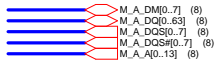
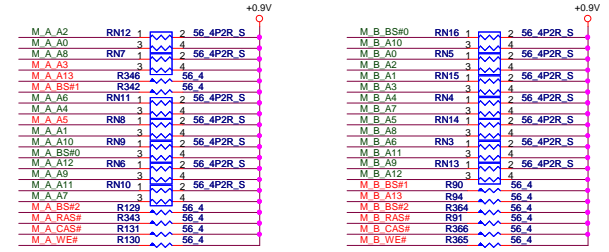
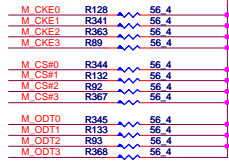


		PROJECT : ZH5	
		Quanta Computer Inc.	
Size	Document Number	Rev	
	GMCH GND(6 OF 6)	1A	
Date:	Friday, September 08, 2006	Sheet	12 of 39

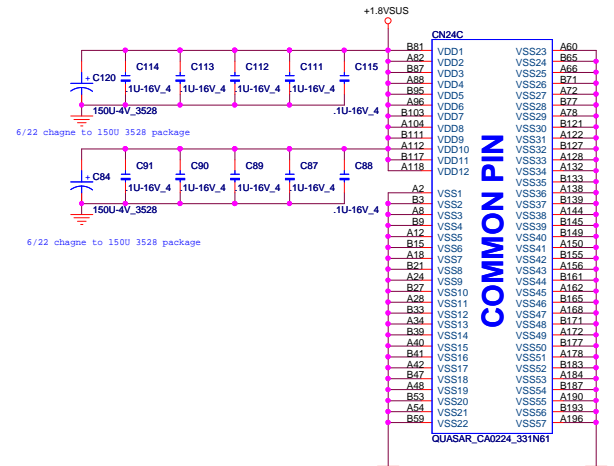
TERMINATOR DECOUPLING CAPACITOR



DDR2 TERMINATOR



DDR2 SO-DIMM SOCKET



CN24A

M_A DM0	A10	DM0	A5	M_A DQ5	DQ0
M_A DM1	A26	DM1	A7	M_A DQ1	DQ1
M_A DM2	A52	DM2	A17	M_A DQ2	DQ2
M_A DM3	A67	DM3	A19	M_A DQ3	DQ3
M_A DM4	A130	DM4	A4	M_A DQ4	DQ4
M_A DM5	A147	DM5	A6	M_A DQ0	DQ5
M_A DM6	A170	DM6	A14	M_A DQ6	DQ6
M_A DM7	A185	DM7	A16	M_A DQ7	DQ7
			A23	M_A DQ12	DQ8
			A25	M_A DQ8	DQ9
M_A DQS0	A13	DQS0	A35	M_A DQ9	DQ10
M_A DQS1	A31	DQS1	A37	M_A DQ11	DQ11
M_A DQS2	A51	DQS2	A20	M_A DQ13	DQ12
M_A DQS3	A70	DQS3	A22	M_A DQ14	DQ13
M_A DQS4	A131	DQS4	A36	M_A DQ10	DQ14
M_A DQS5	A148	DQS5	A38	M_A DQ15	DQ15
M_A DQS6	A169	DQS6	A14	M_A DQ16	DQ16
M_A DQS7	A188	DQS7	A45	M_A DQ17	DQ17
			A55	M_A DQ18	DQ18
			A72	M_A DQ19	DQ19
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M_A DQS#1	A29	DQS#1	A46	M_A DQ21	DQ21
M_A DQS#2	A49	DQS#2	A66	M_A DQ22	DQ22
M_A DQS#3	A68	DQS#3	A68	M_A DQ23	DQ23
M_A DQS#4	A129	DQS#4	A61	M_A DQ24	DQ24
M_A DQS#5	A146	DQS#5	A63	M_A DQ25	DQ25
M_A DQS#6	A167	DQS#6	A73	M_A DQ26	DQ26
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			A74	M_A DQ30	DQ29
M_A A0	A102	A0	A78	M_A DQ31	DQ30
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M_A A2	A100	A2	A123	M_A DQ33	DQ32
M_A A3	A99	A3	A135	M_A DQ34	DQ33
M_A A4	A98	A4	A137	M_A DQ35	DQ34
M_A A5	A97	A5	A124	M_A DQ33	DQ35
M_A A6	A94	A6	A126	M_A DQ37	DQ36
M_A A7	A92	A7	A134	M_A DQ38	DQ37
M_A A8	A93	A8	A136	M_A DQ39	DQ38
M_A A9	A91	A9	A141	M_A DQ45	DQ39
M_A A10	A105	A10/AP	A143	M_A DQ41	DQ40
M_A A11	A90	A11	A151	M_A DQ42	DQ41
M_A A12	A89	A12	A153	M_A DQ43	DQ42
M_A A13	A116	NC/A13	A140	M_A DQ40	DQ43
			A142	M_A DQ44	DQ44
			A94	NC/A14	DQ45
			A152	M_A DQ46	DQ46
			A154	M_A DQ47	DQ47
			A157	M_A DQ48	DQ48
			A159	M_A DQ49	DQ49
			A172	M_A DQ51	DQ50
			A176	M_A DQ52	DQ51
			A180	M_A DQ53	DQ52
			A174	M_A DQ54	DQ53
			A178	M_A DQ55	DQ54
			A179	M_A DQ56	DQ55
			A181	M_A DQ57	DQ56
			A191	M_A DQ59	DQ57
			A189	M_A DQ58	DQ58
			A190	M_A DQ61	DQ59
			A182	M_A DQ61	DQ60
			A192	M_A DQ62	DQ61
			A194	M_A DQ63	DQ62
			A194	M_A DQ63	DQ63

CN24B

M_B DM0	B10	DM0	B5	M_B DQ4	DQ0
M_B DM1	B26	DM1	B7	M_B DQ0	DQ1
M_B DM2	B52	DM2	B17	M_B DQ6	DQ2
M_B DM3	B67	DM3	B20	M_B DQ7	DQ3
M_B DM4	B130	DM4	B4	M_B DQ1	DQ4
M_B DM5	B147	DM5	B6	M_B DQ5	DQ5
M_B DM6	B170	DM6	B14	M_B DQ6	DQ6
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M_B DQS1	B31	DQS1	B20	M_B DQ13	DQ12
M_B DQS2	B51	DQS2	B22	M_B DQ9	DQ13
M_B DQS3	B70	DQS3	B36	M_B DQ14	DQ14
M_B DQS4	A131	DQS4	B43	M_B DQ15	DQ15
M_B DQS5	A148	DQS5	B45	M_B DQ16	DQ16
M_B DQS6	A169	DQS6	B44	M_B DQ20	DQ17
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			B189	M_B DQ59	DQ56
			B191	M_B DQ58	DQ57
			B190	M_B DQ60	DQ58
			B182	M_B DQ61	DQ59
			B192	M_B DQ62	DQ60
			B194	M_B DQ63	DQ61

DUAL DDR2 SO-DIMM MODULE A SIDE

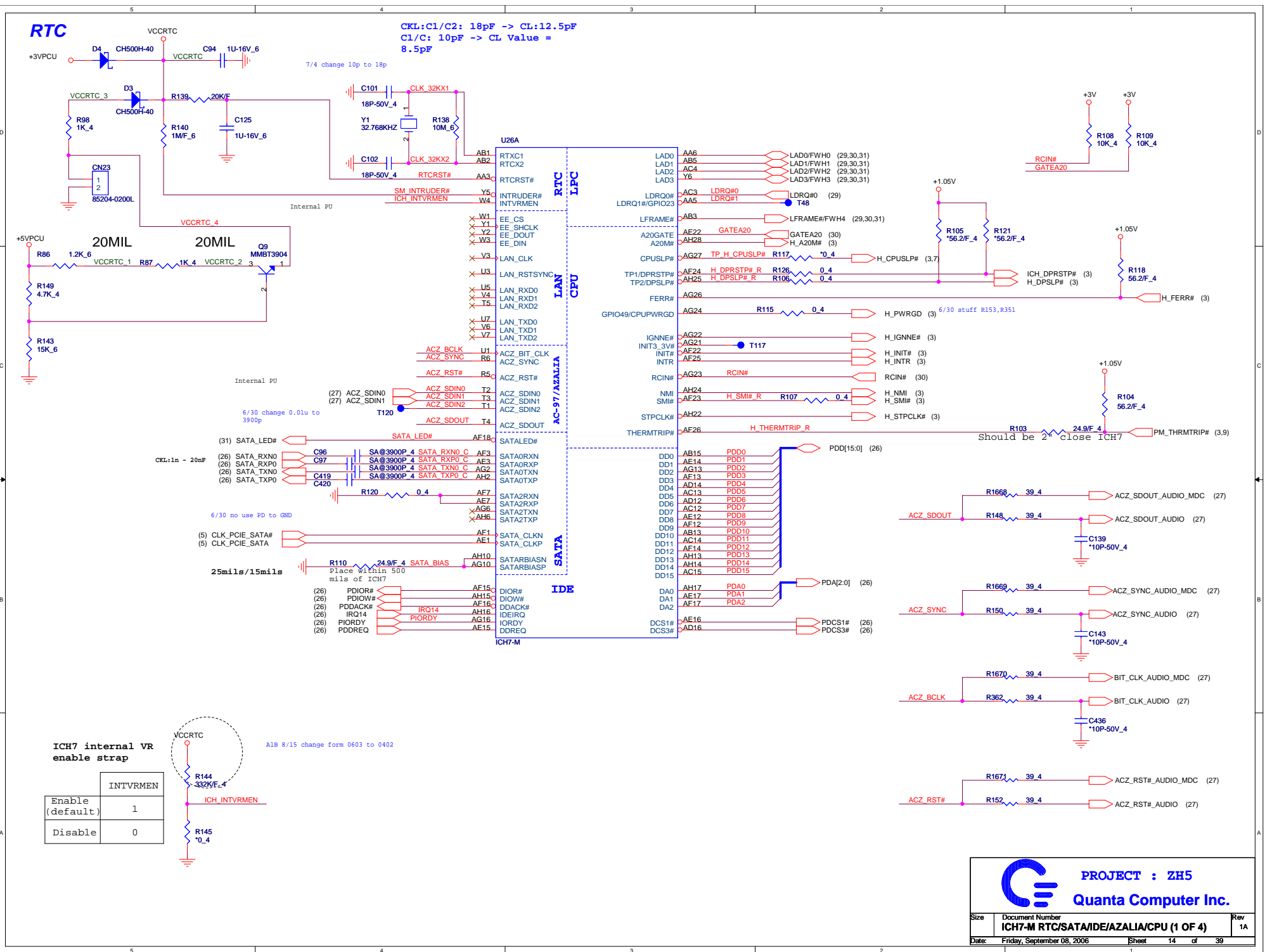
DUAL DDR2 SO-DIMM MODULE B SIDE

PROJECT : ZH5
Quanta Computer Inc.

Size: Document Number: **DDR2 SO-DIMM & TERMINATOR** Rev: 1A
Date: Friday, September 06, 2006 Sheet: 13 of 39

RTC

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



ICH7 internal VR enable strap

	INTVRMEN
Enable (default)	1
Disable	0

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Size	Document Number	Rev
	ICH7-M RTC/SATA/IDE/AZALIA/CPU (1 OF 4)	1A
Date:	Friday, September 08, 2006	Sheet 14 of 39

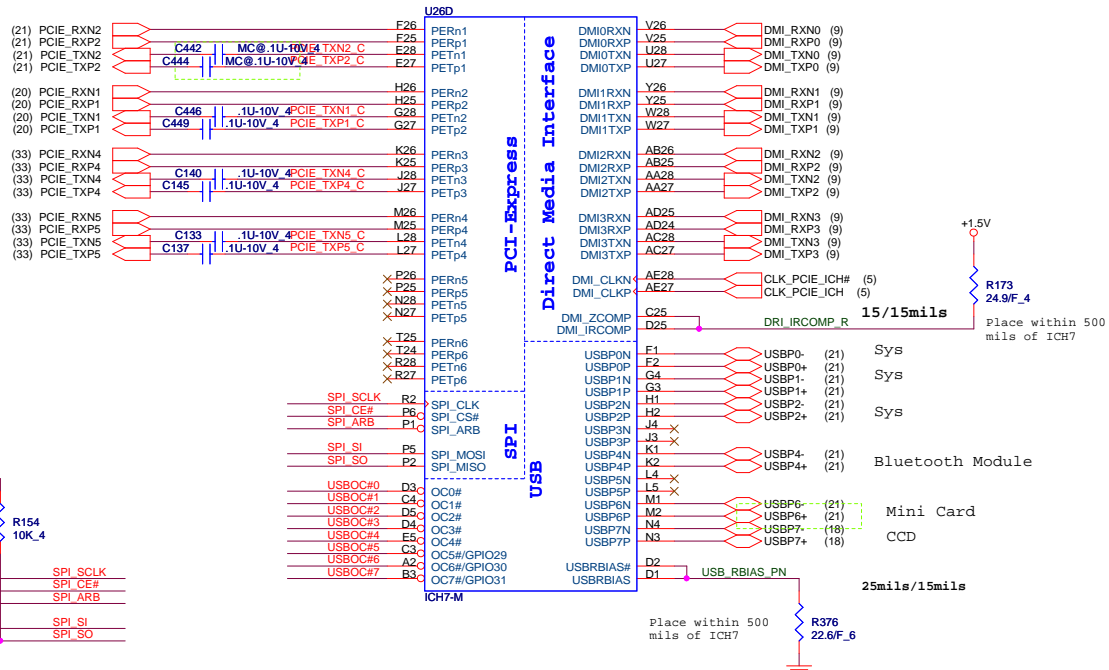
MINI CARD PCI-E

5789M

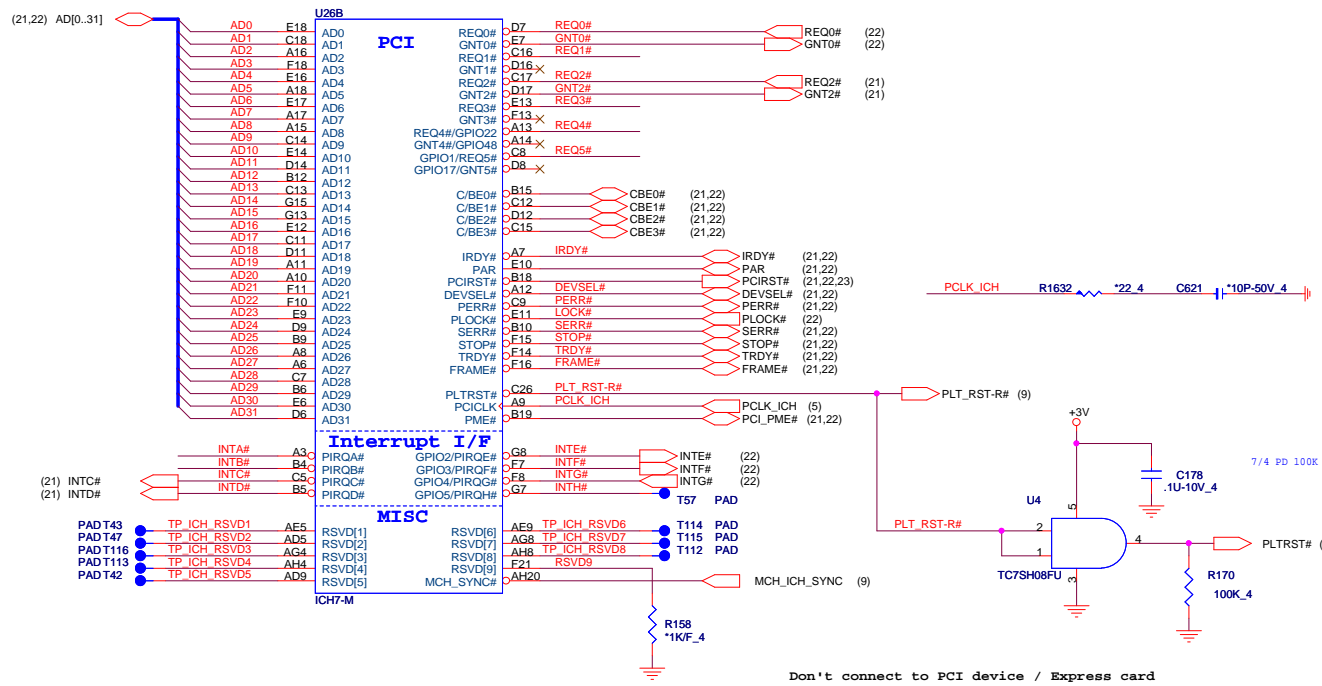
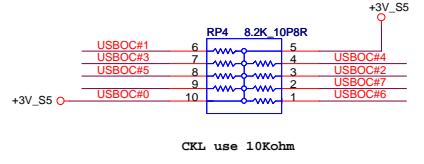
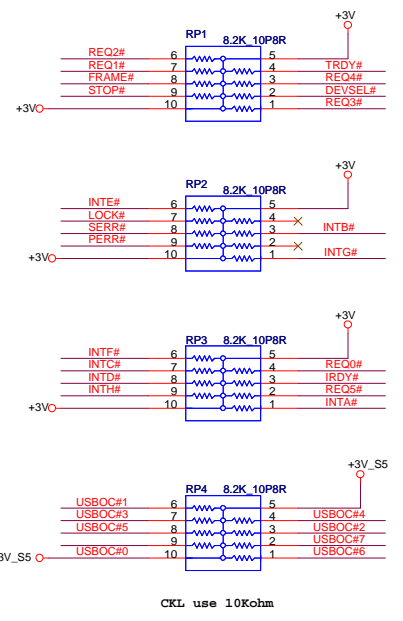
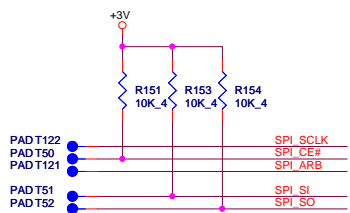
EZ4

EZ4

modify C



AlA 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

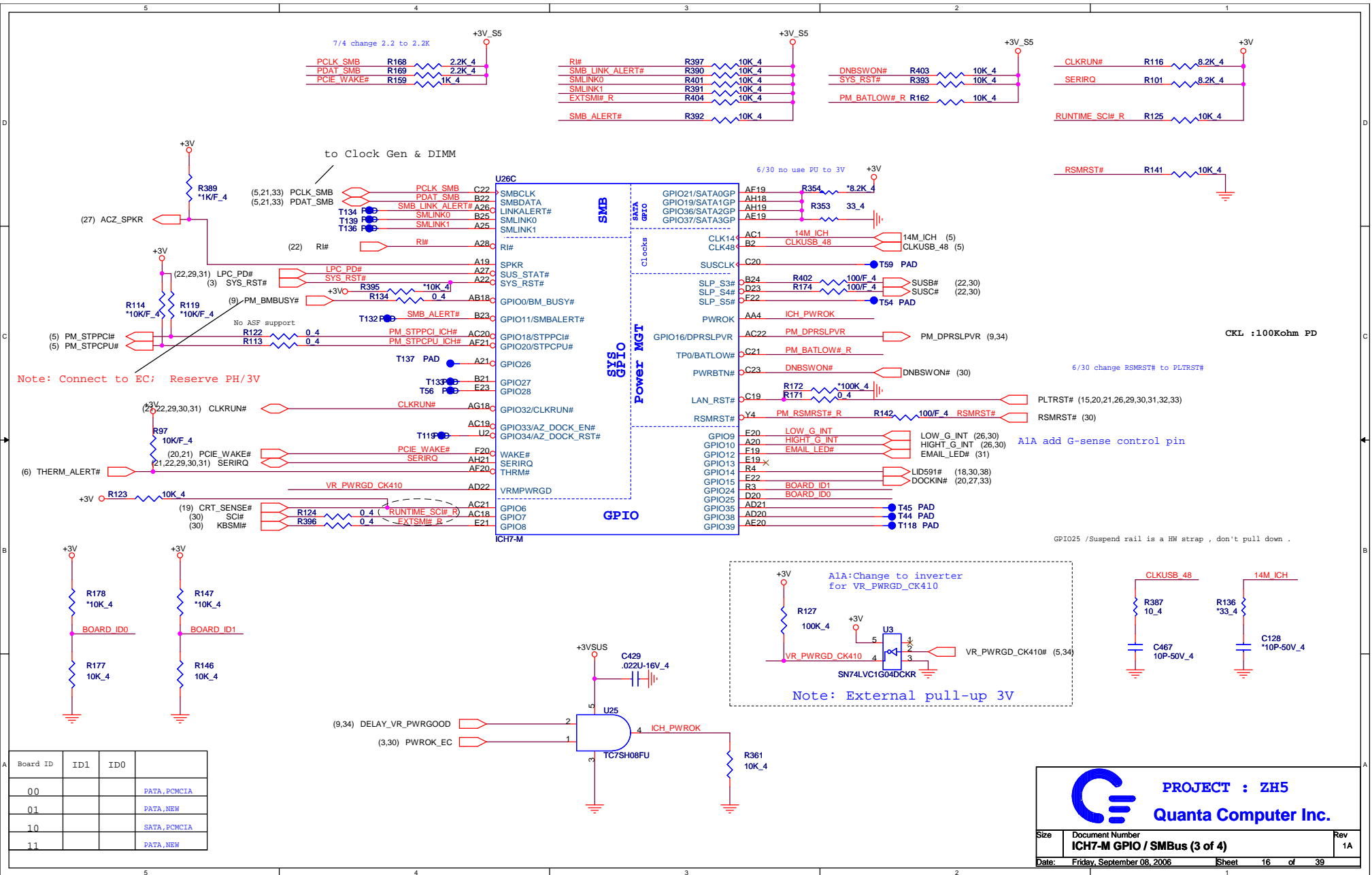
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PCI7411	AD25	REQ0# / GNT0#	INT E/F/G#

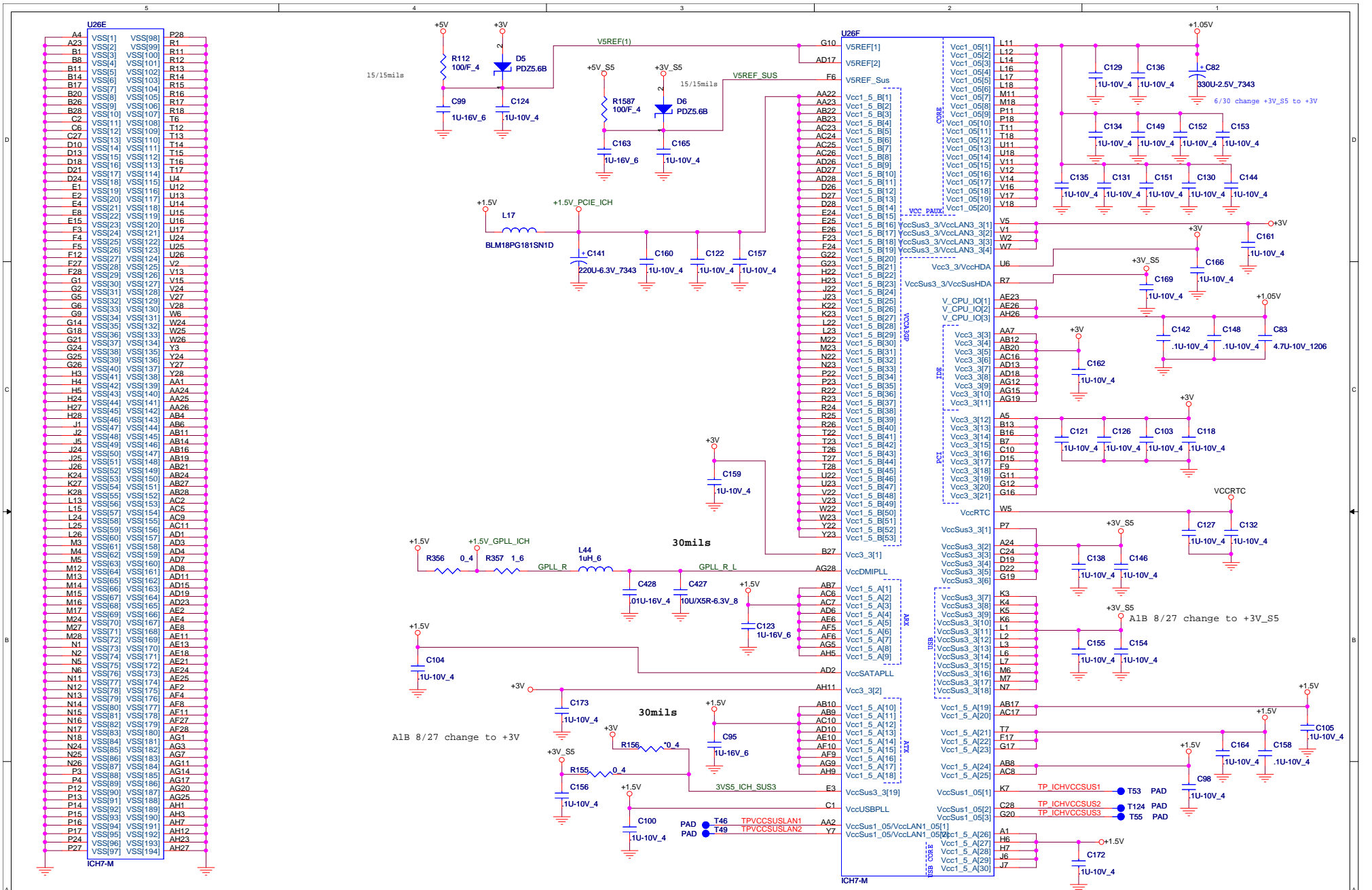


PROJECT : ZH5
Quanta Computer Inc.

Size	Document Number	Rev
	ICH7-M MDI/PCI E/PC/USB (2 OF 4)	1A
Date:	Friday, September 08, 2006	Sheet 15 of 39

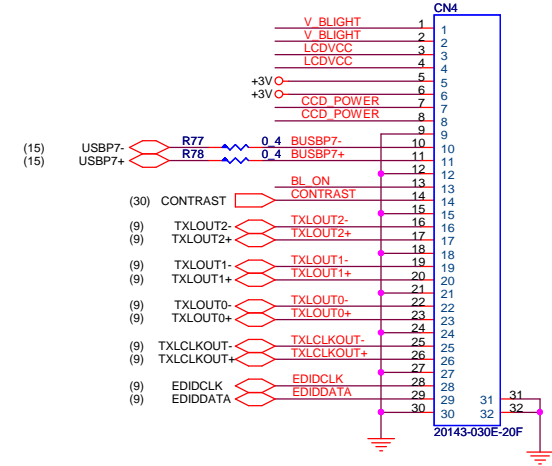
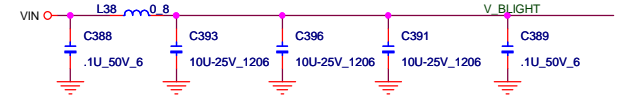
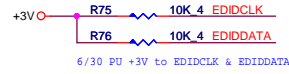
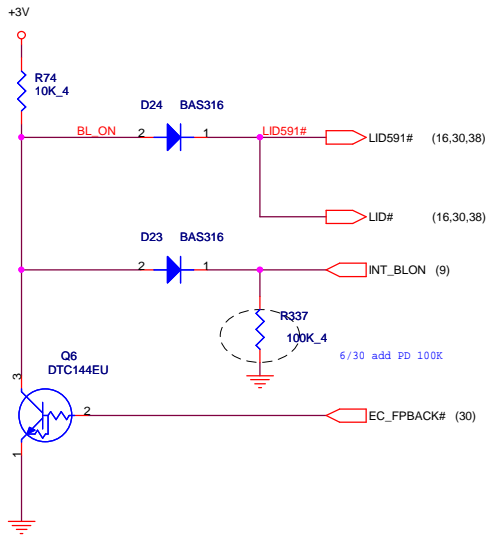
Don't connect to PCI device / Express card



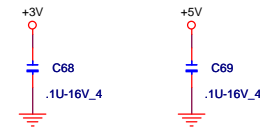
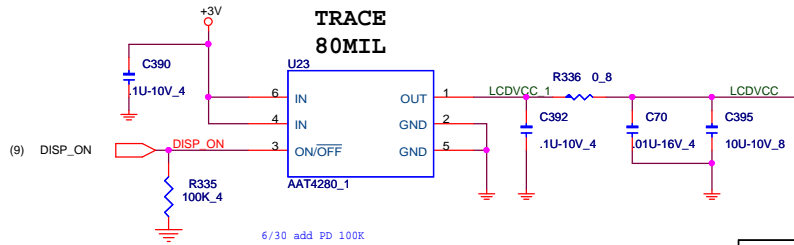
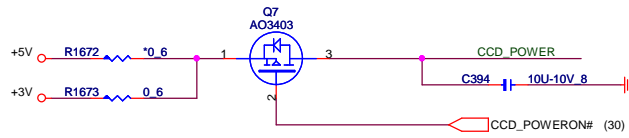



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Quanta Computer Inc.

Size	Document Number	Rev
	ICHT7-M POWER & GND (4 of 4)	1A
Date:	Friday, September 08, 2006	Sheet 17 of 39



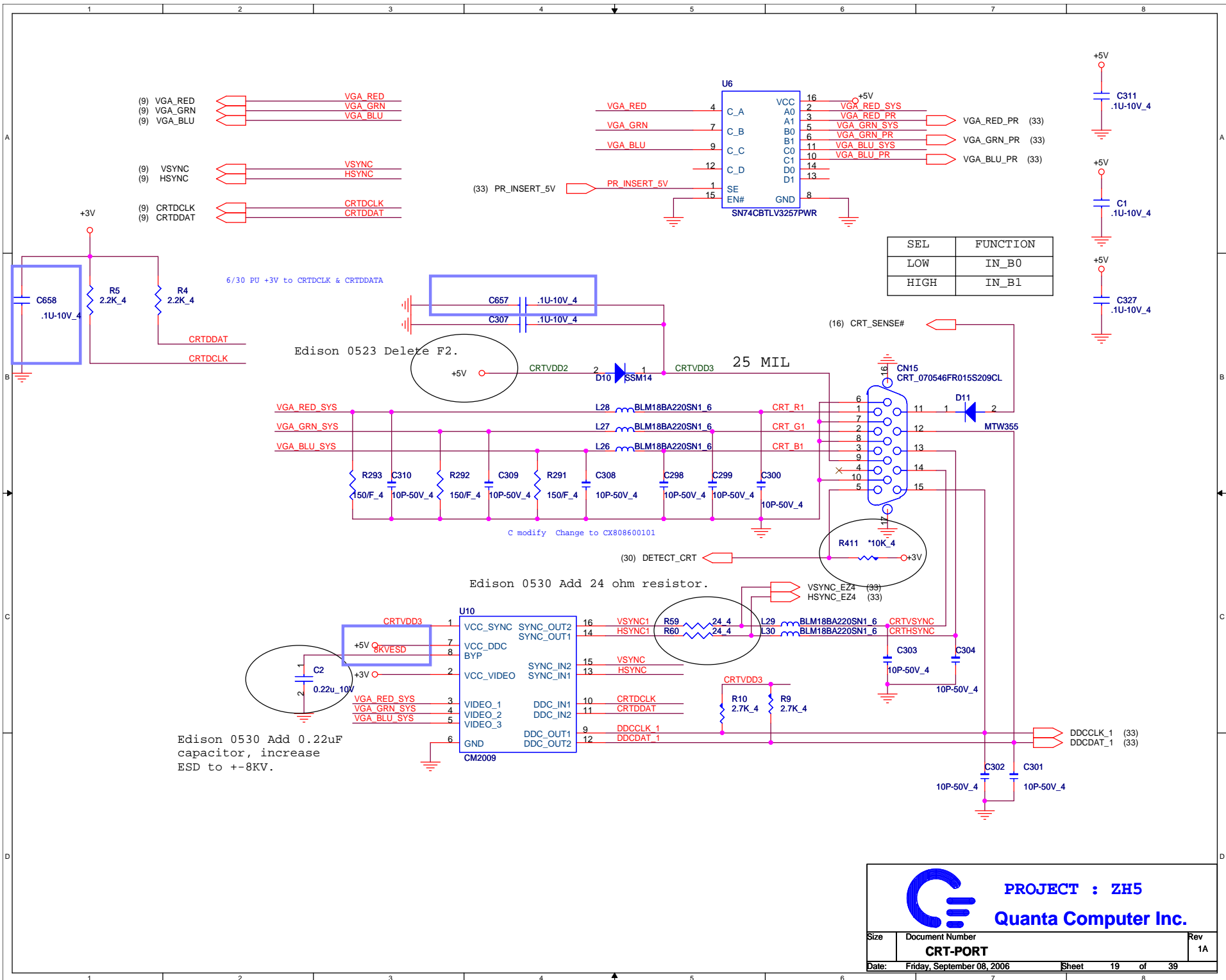
CAMERA MODULE CONNECTOR



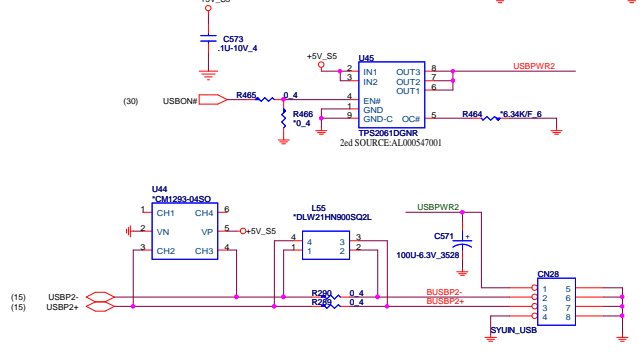
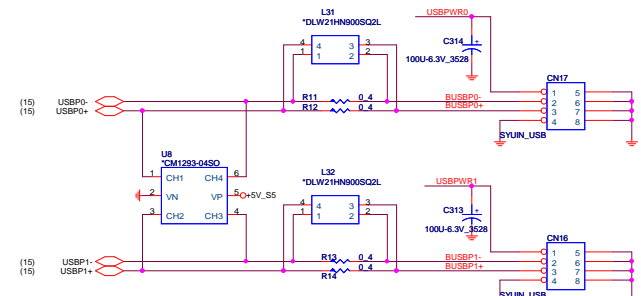
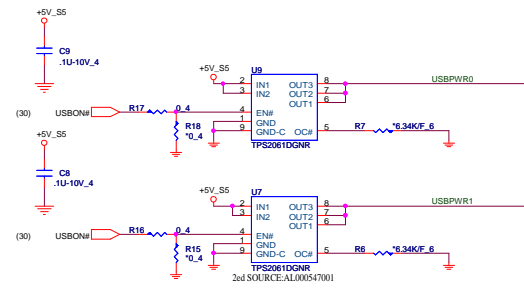
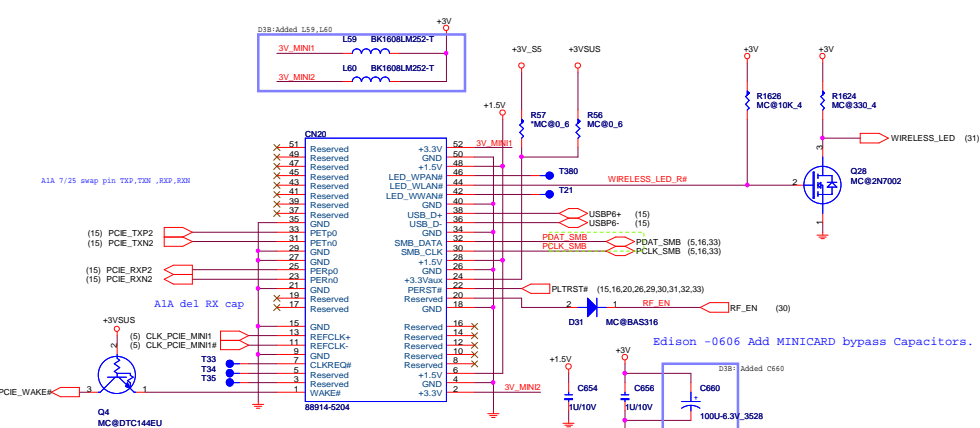
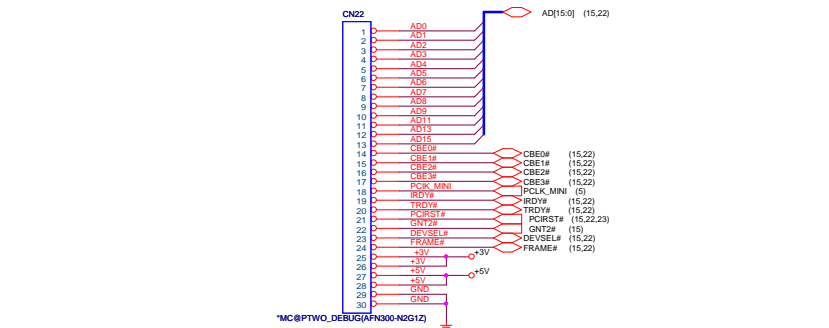
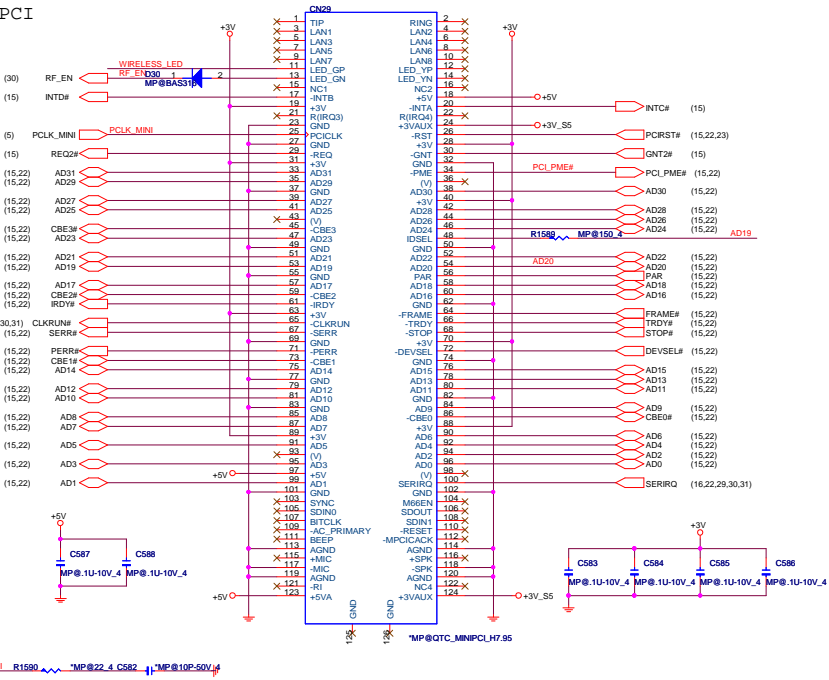


PROJECT : ZH5
Quanta Computer Inc.

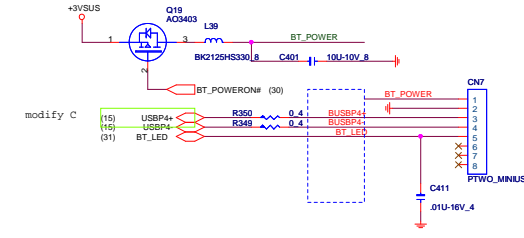
Size	Document Number	Rev
	LVDS CONNECTOR & CCD	1A
Date:	Friday, September 08, 2006	Sheet 18 of 39

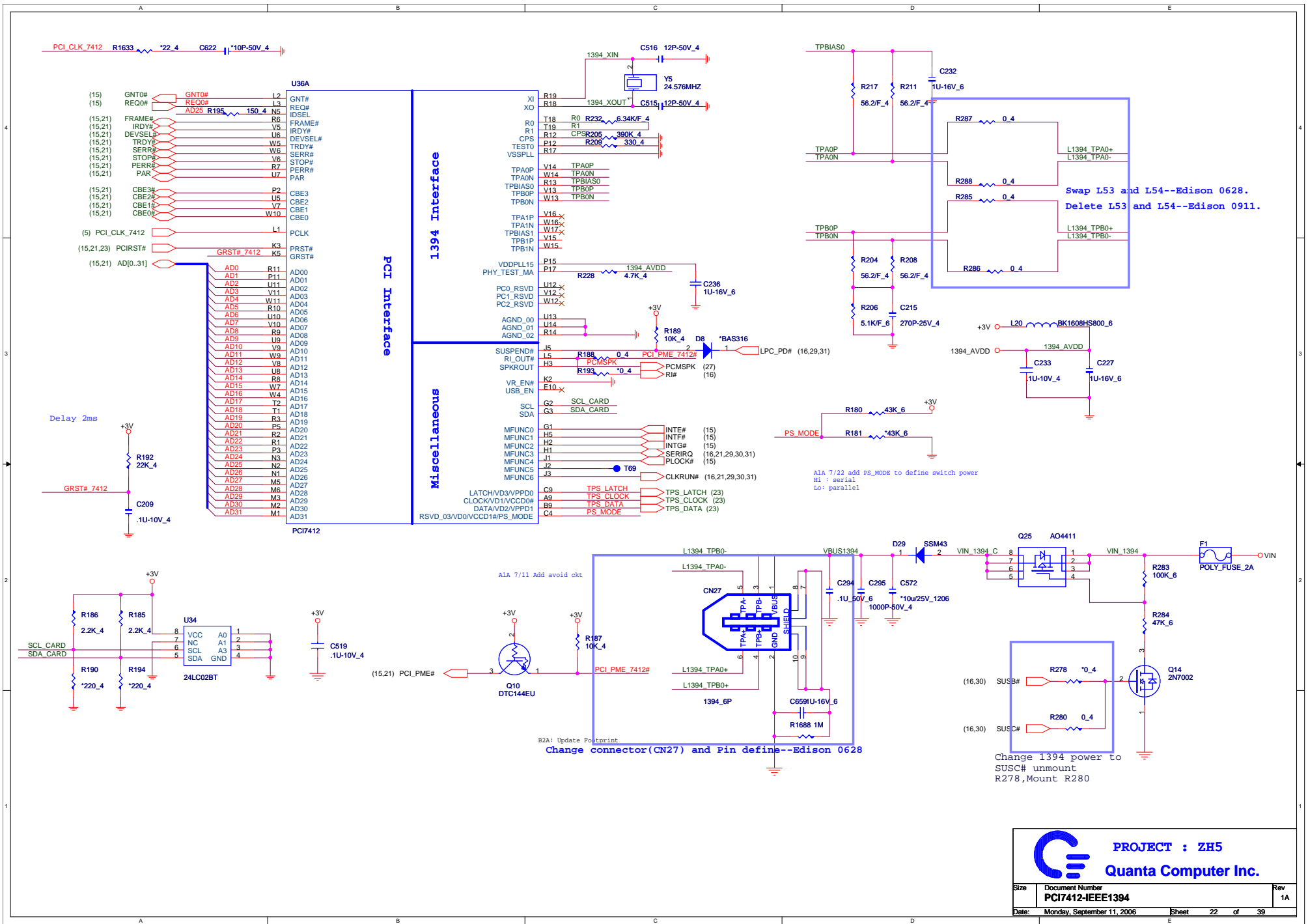


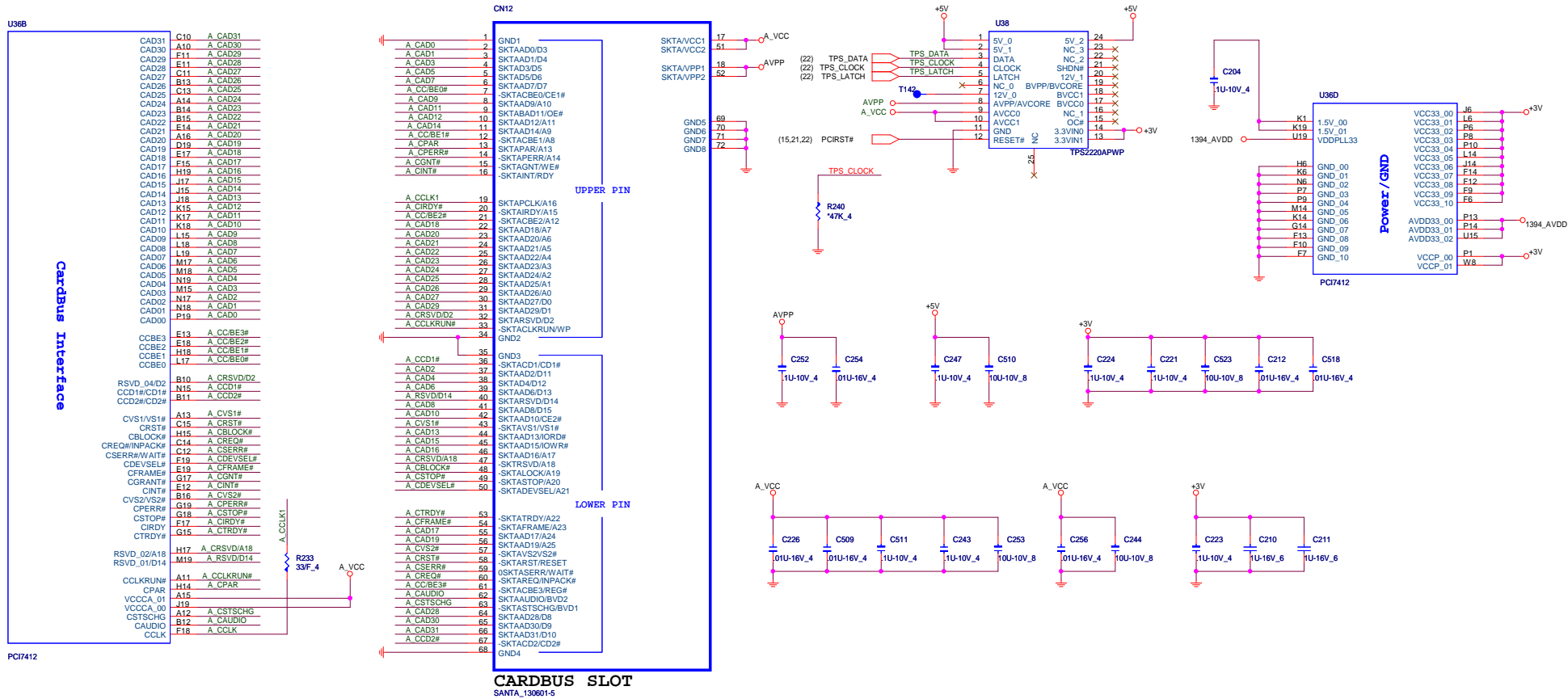
MINI-PCI



BLUETOOTH MODULE CONNECTOR

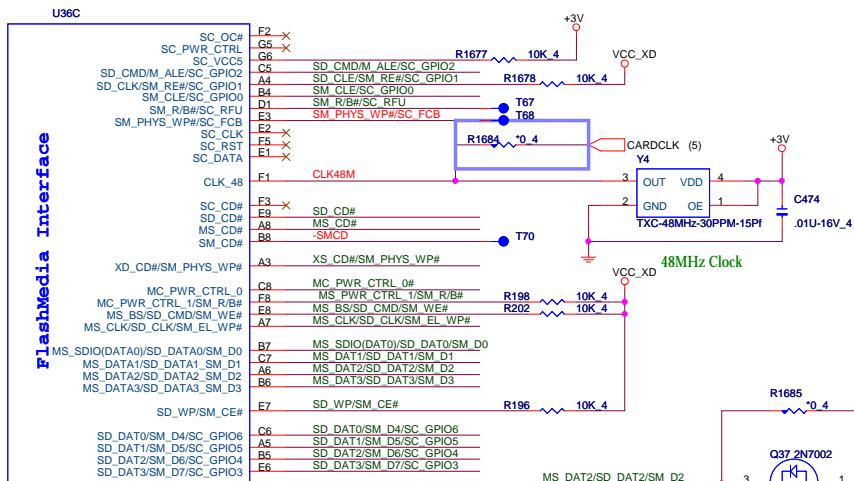




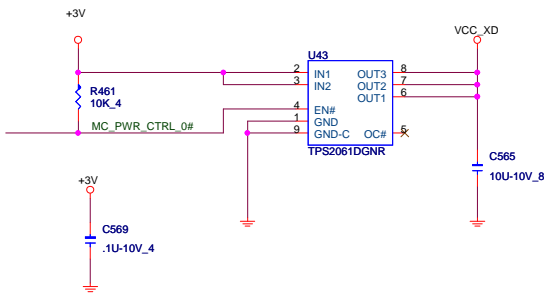
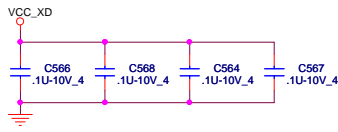
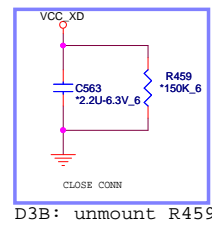
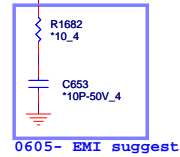
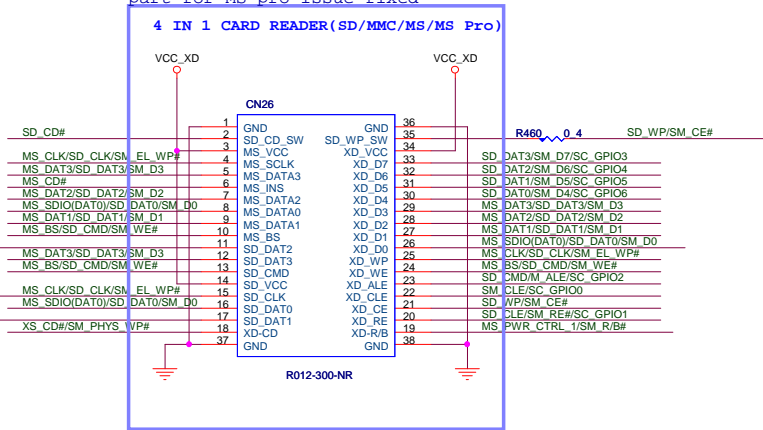


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Quanta Computer Inc.

Size	Document Number	Rev
	PCI7412-PCMCIA	1A
Date:	Friday, September 08, 2006	Sheet 23 of 38

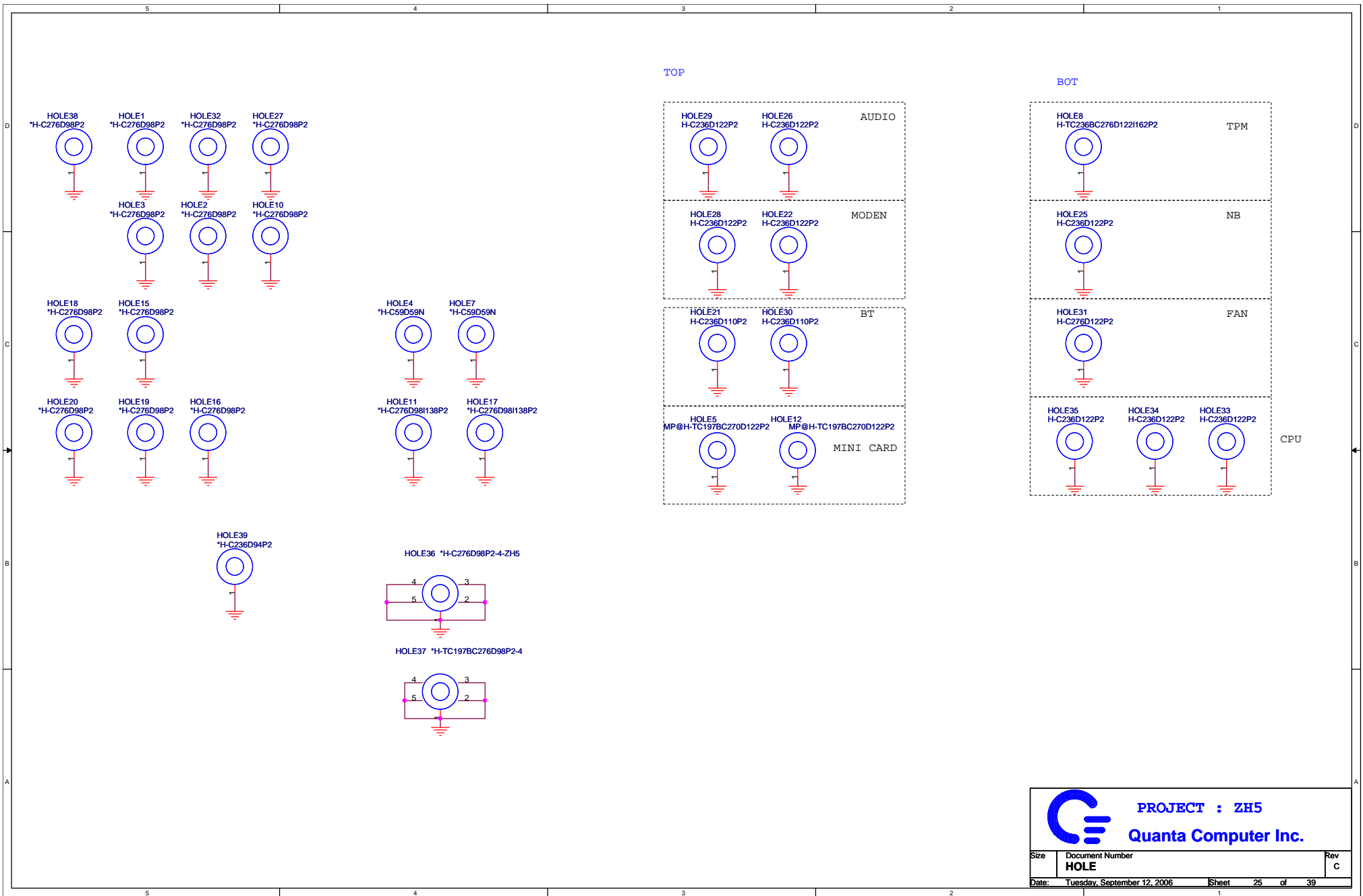



B2A: Change CN26, modify pin define and update part for MS pro issue fixed

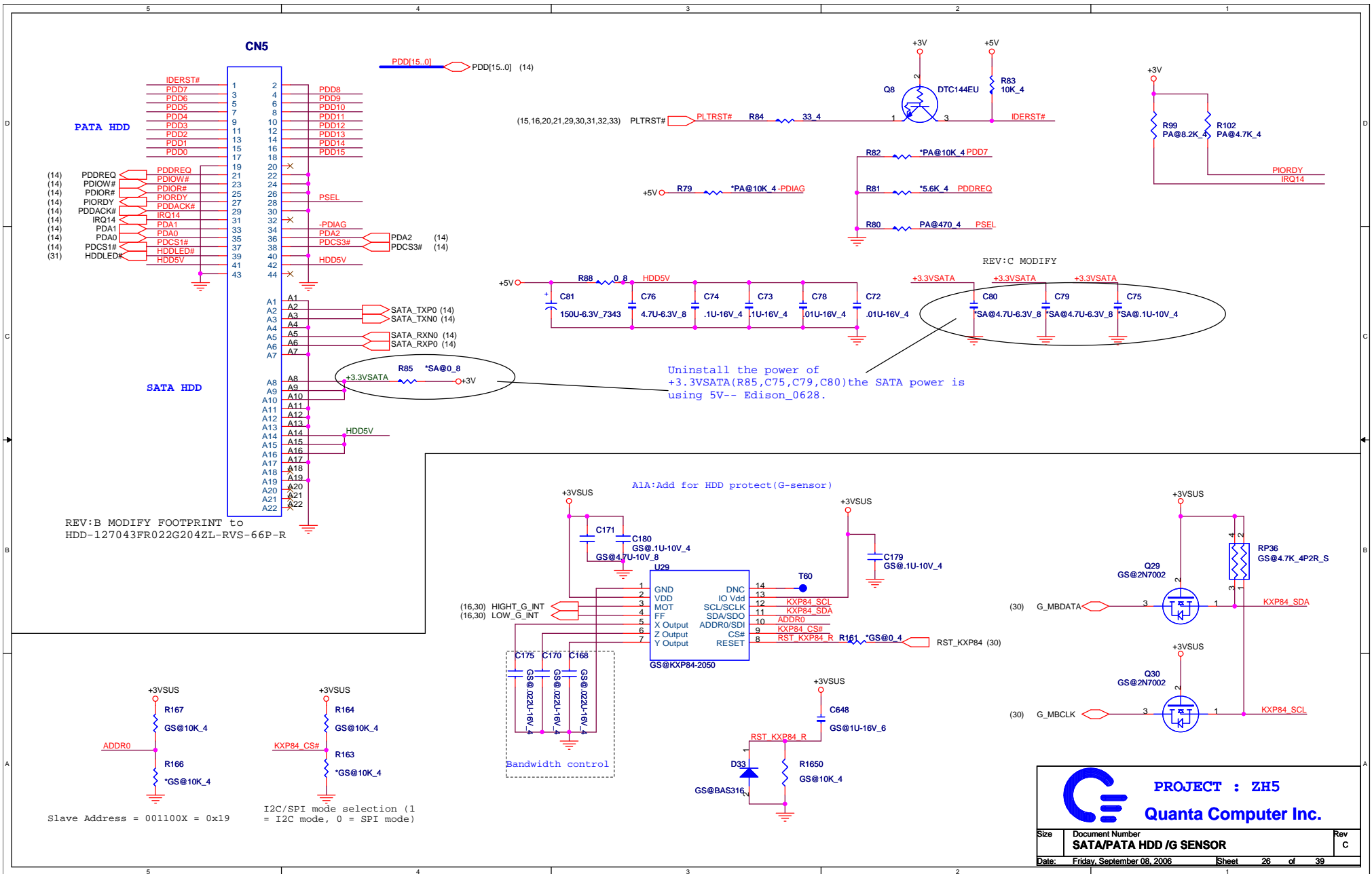


PROJECT : ZH5
Quanta Computer Inc.

Size	Document Number	Rev
	PCI7412-CARD READER	1A
Date:	Friday, September 08, 2006	Sheet 24 of 39



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			HOLE	C
Date:	Tuesday, September 12, 2006	Sheet	25	of 39

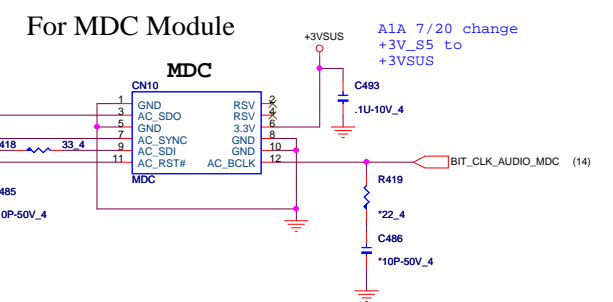
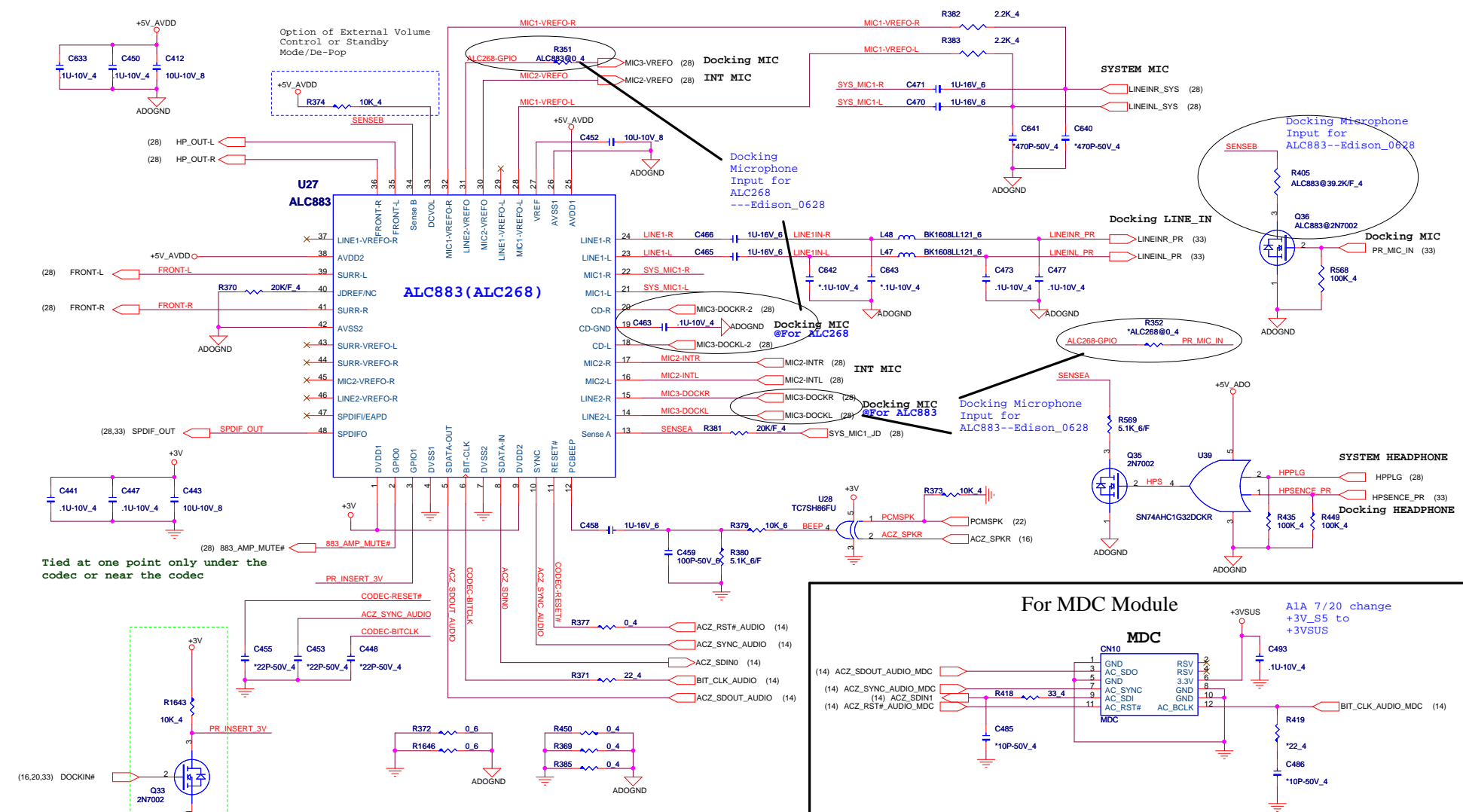


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Quanta Computer Inc.

Size	Document Number	Rev
	SATA/PATA HDD /G SENSOR	C
Date:	Friday, September 08, 2006	Sheet 26 of 39

CODEC (ALC268)

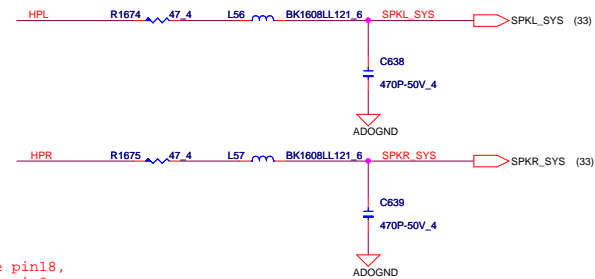
LINE IN



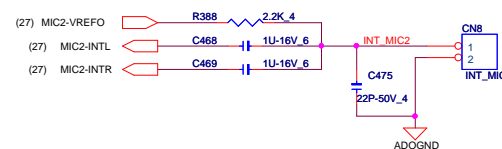
PROJECT : ZH5
Quanta Computer Inc.

Size	Document Number	Rev
	CODEC ALC883 & MDC	1A
Date:	Friday, September 08, 2006	Sheet 27 of 39

DOCK HEADPHONE

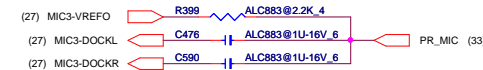


MIC



The Placement close to U27(ALC883/ALC268)

Docking Microphone Input for ALC883 ---Edison_0628



Docking Microphone Input for ALC268 ---Edison_0628

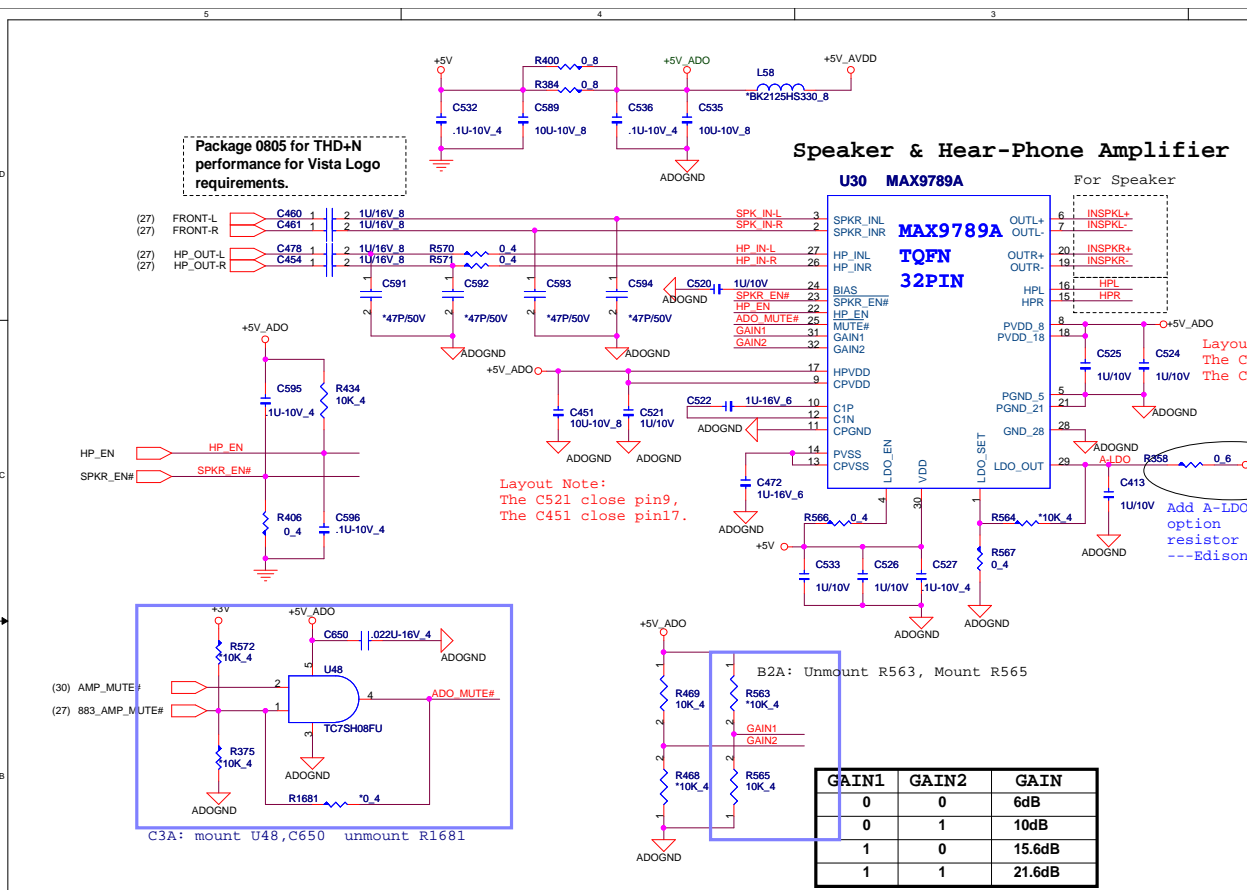


Speaker & Hear-Phone Amplifier

U30 MAX9789A

MAX9789A
TQFN
32PIN

For Speaker

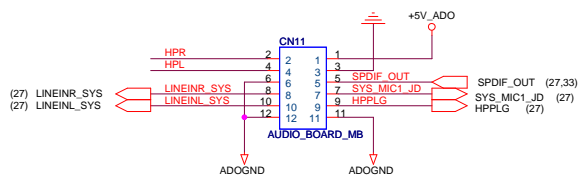


GAIN1	GAIN2	GAIN
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB

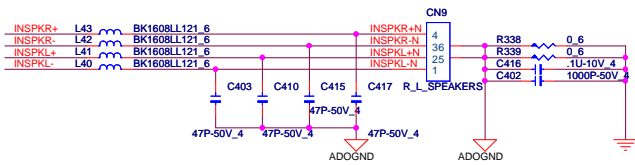
B2A: Unmount R563, Mount R565

Package 0805 for THD+N performance for Vista Logo requirements.

AUDIO BOARD



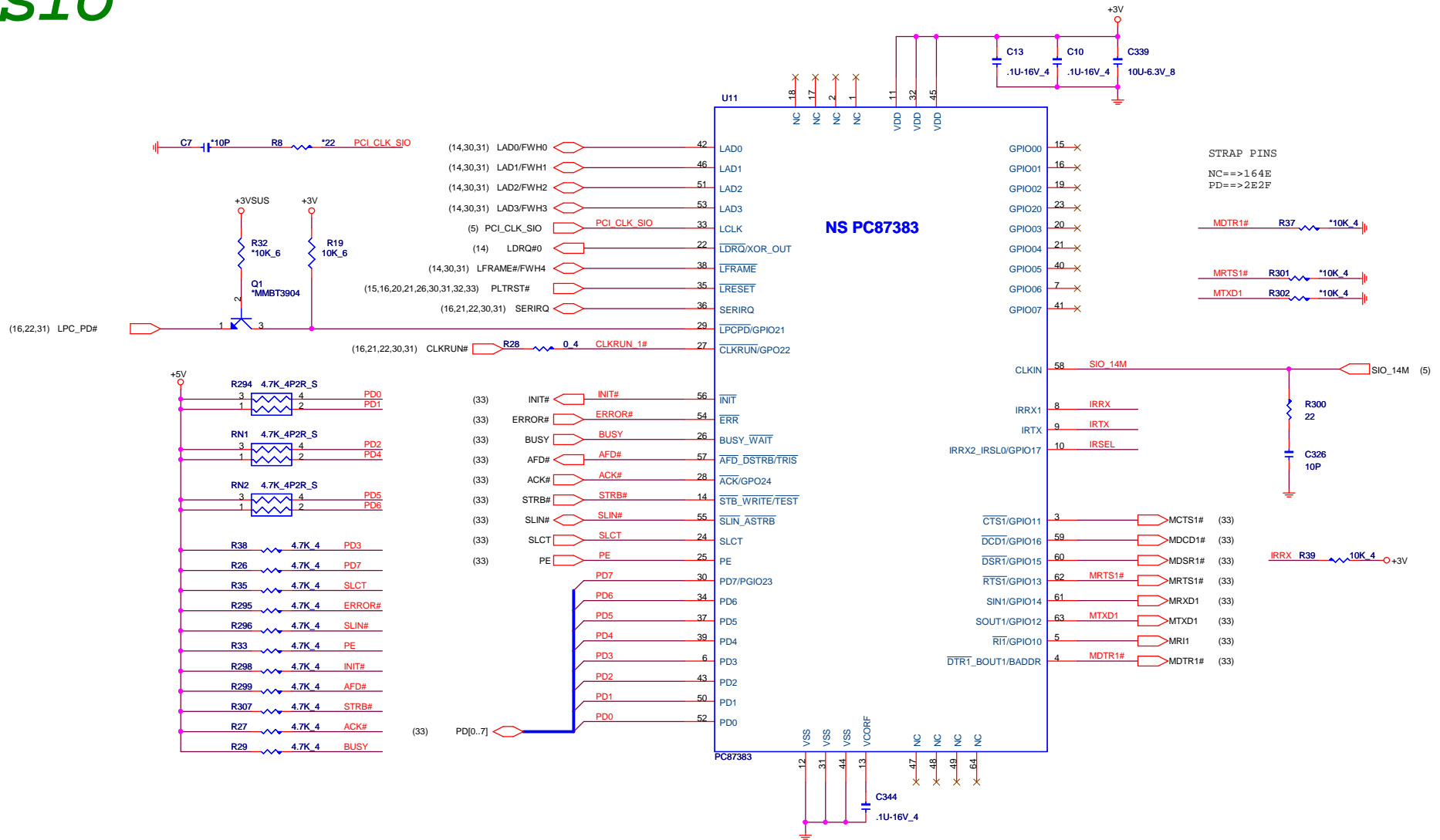
SPEAKER CONNECTOR




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Quanta Computer Inc.

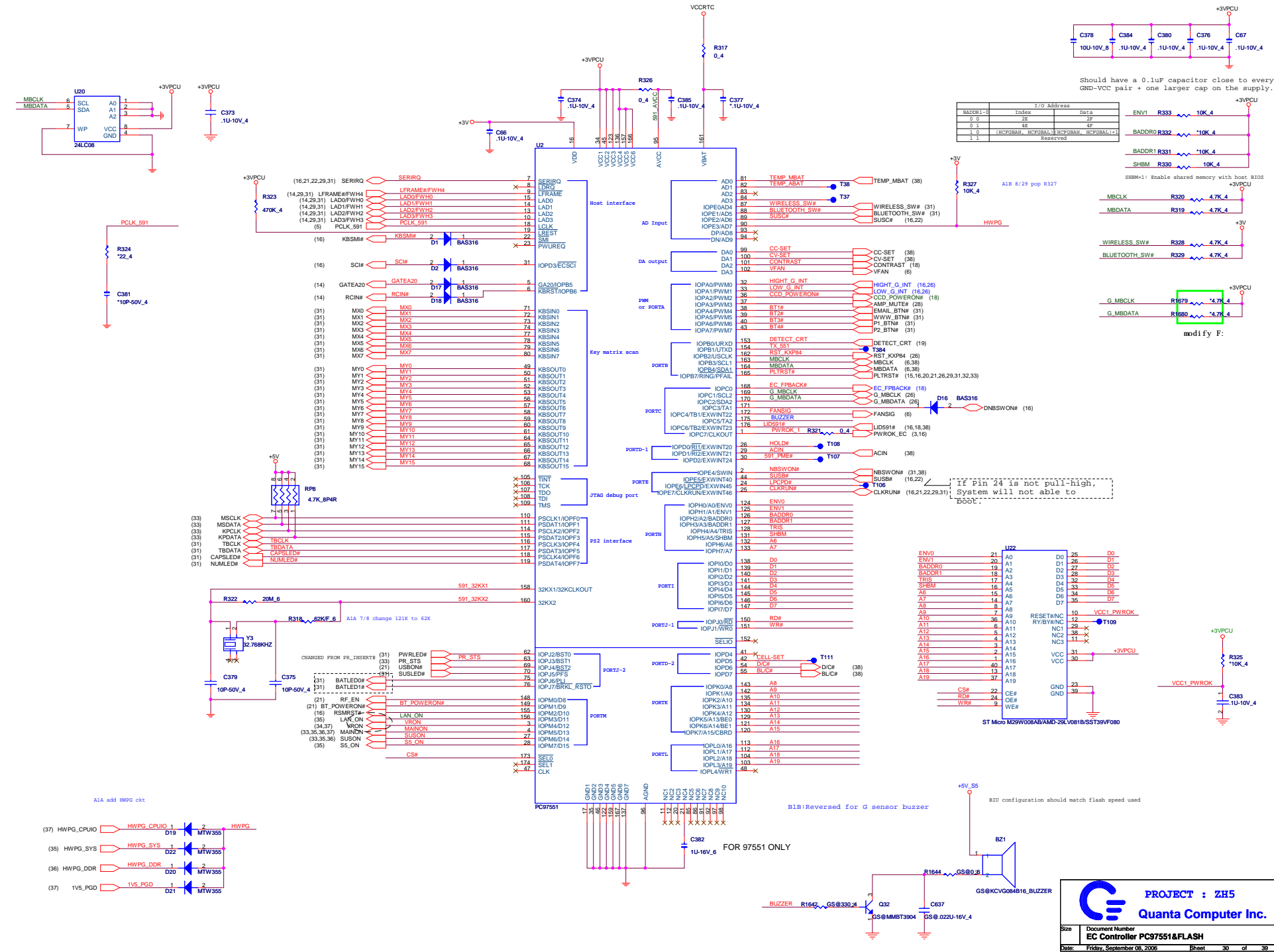
Size Document Number
AUDIO AMP & SPEAK/LIN OUT Rev
Date: Friday, September 08, 2006 Sheet 28 of 39 1A

SIO



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		SIO (87383)
Size Custom	Rev 1A	Date: Friday, September 08, 2006
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LDRQ# (pin 8) internal is no use



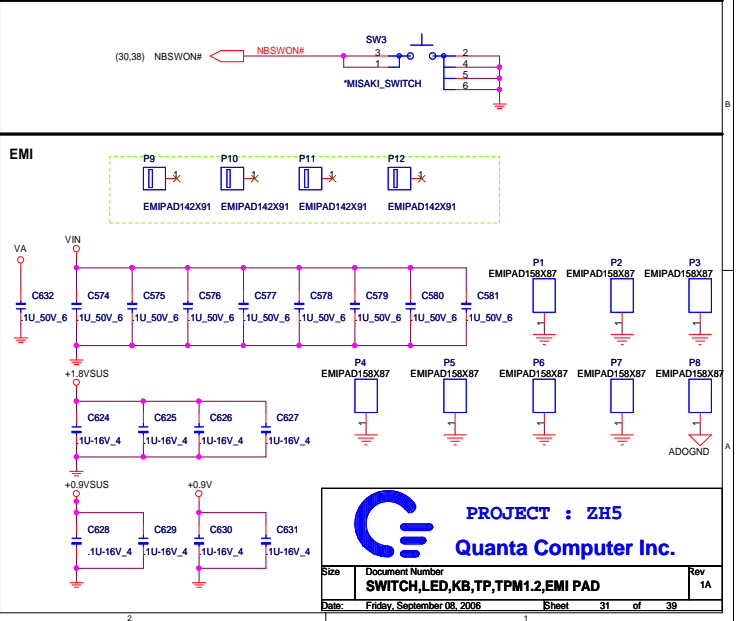
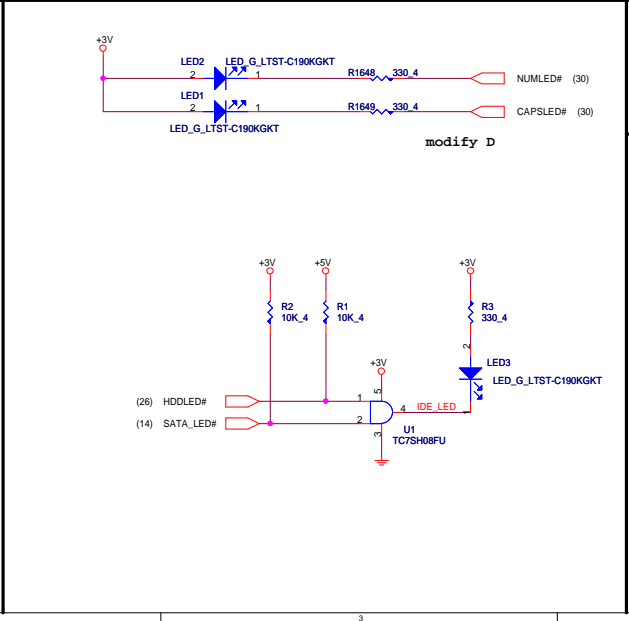
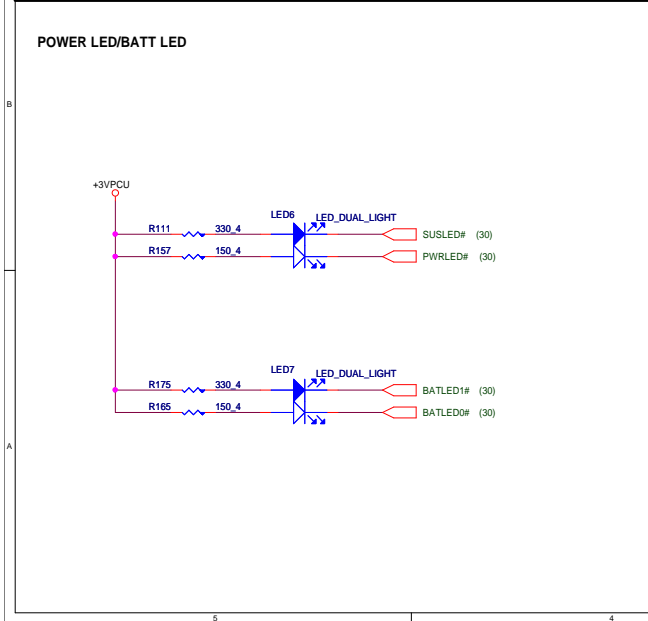
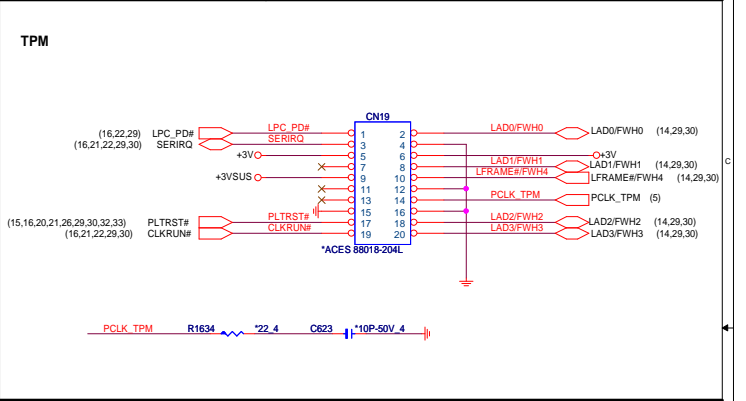
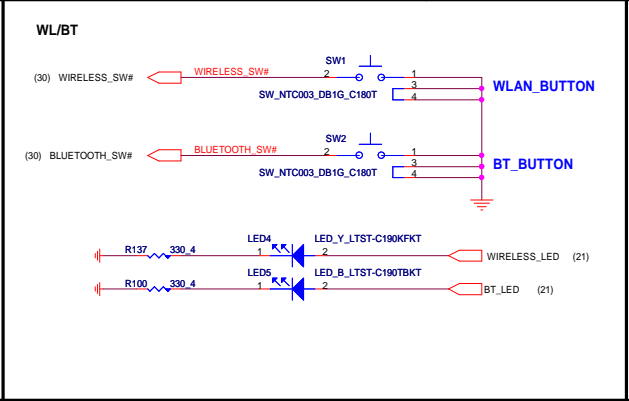
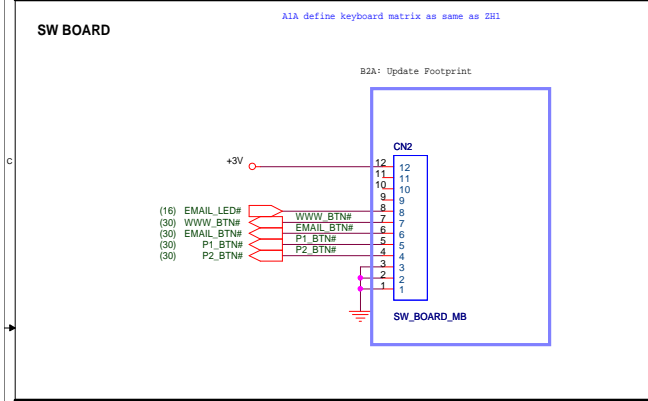
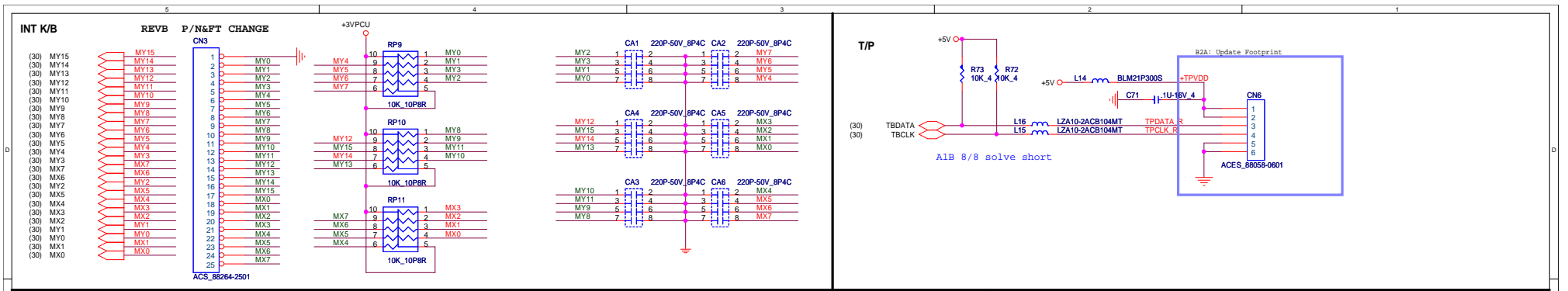
BADDR1-0	I/O Address	Data
0	2E	2F
1	4E	4F
1-0	UNCONTROL, UNPWRON#, UNPWROK#, UNPWROK2#	Reserved

Component List:

Ref	Value/Part	Ref	Value/Part
U2	7805	D2	10K
U1	256KB	D3	10K
U3	128KB	D4	10K
R300	10K	D5	10K
R301	10K	D6	10K
R302	10K	D7	10K
R303	10K	D8	10K
R304	10K	D9	10K
R305	10K	D10	10K
R306	10K	D11	10K
R307	10K	D12	10K
R308	10K	D13	10K
R309	10K	D14	10K
R310	10K	D15	10K
R311	10K	D16	10K
R312	10K	D17	10K
R313	10K	D18	10K
R314	10K	D19	10K
R315	10K	D20	10K
R316	10K	D21	10K
R317	10K	D22	10K
R318	10K	D23	10K
R319	10K	D24	10K
R320	10K	D25	10K
R321	10K	D26	10K
R322	10K	D27	10K
R323	10K	D28	10K
R324	10K	D29	10K
R325	10K	D30	10K
R326	10K	D31	10K
R327	100K	D32	10K
R328	10K	D33	10K
R329	10K	D34	10K
R330	10K	D35	10K
R331	10K	D36	10K
R332	10K	D37	10K
R333	10K	D38	10K
R334	10K	D39	10K
R335	10K	D40	10K

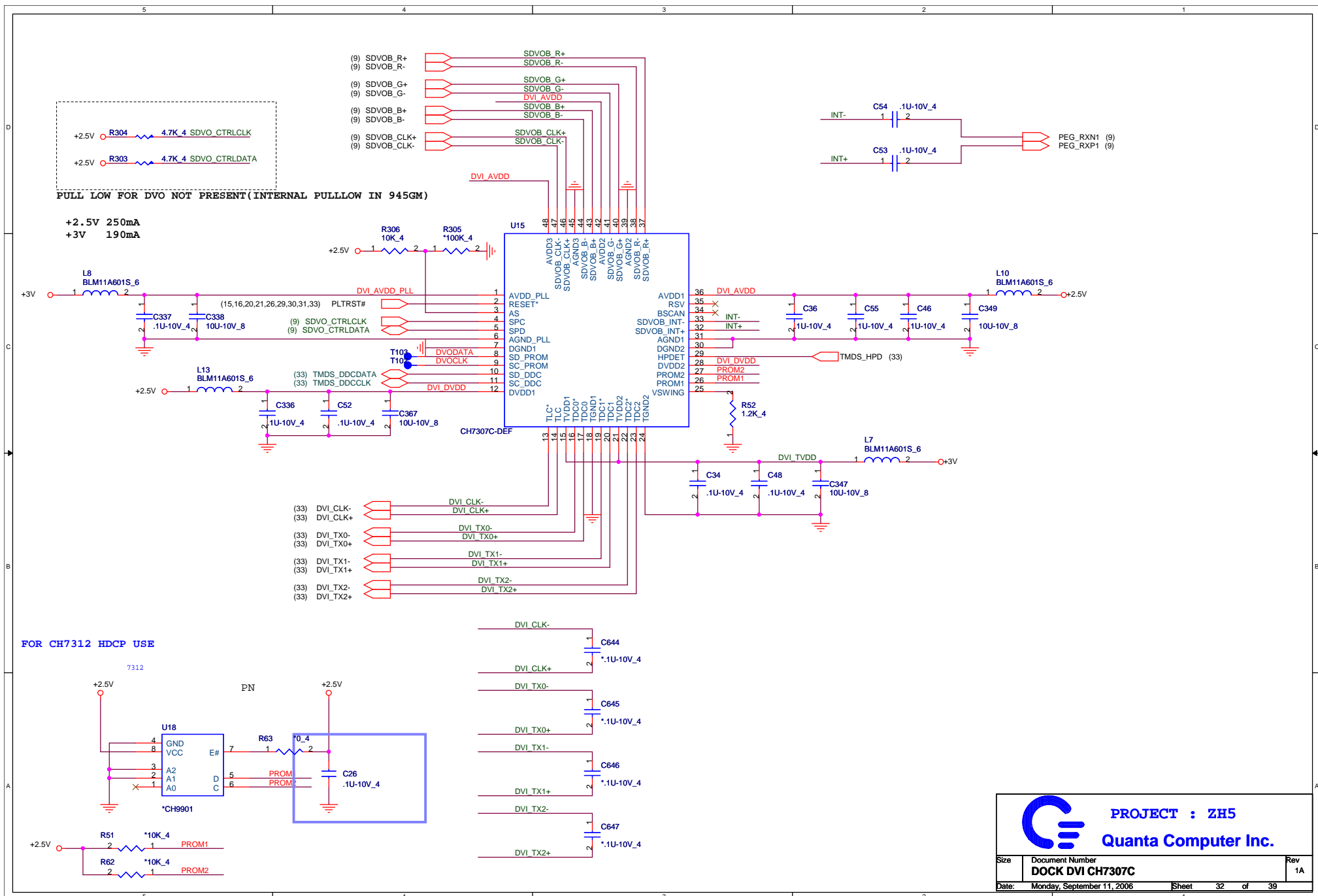
PROJECT : ZH5
Quanta Computer Inc.

Size Document Number
 EC Controller PC97551&FLASH
 Date Friday, September 08, 2006



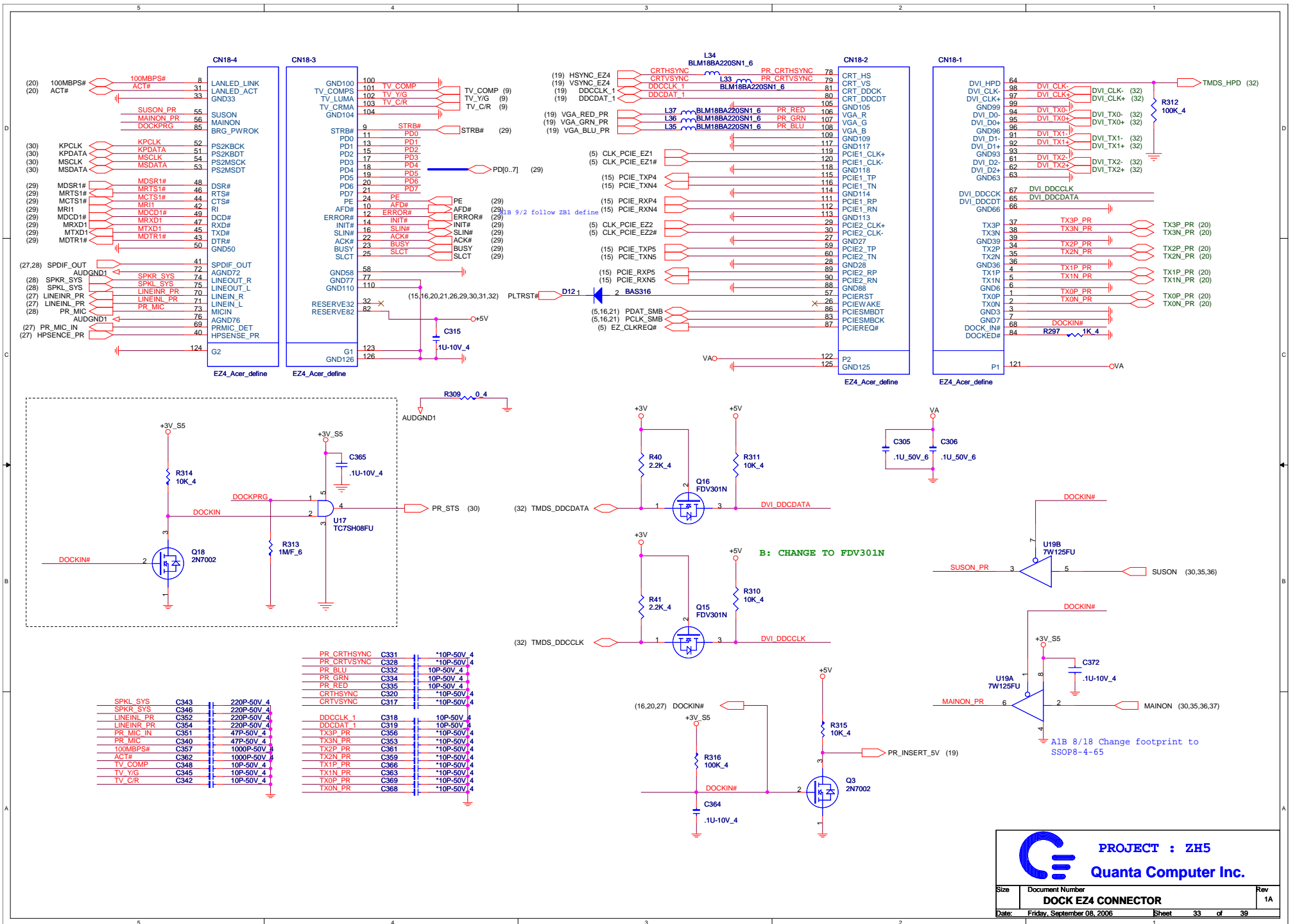
PROJECT : ZH5
Quanta Computer Inc.

Size	Document Number	Rev
Date	SWITCH_LED,KB,TP,TPM1.2,EMI PAD	1A
Date:	Friday, September 08, 2006	Sheet 31 of 39



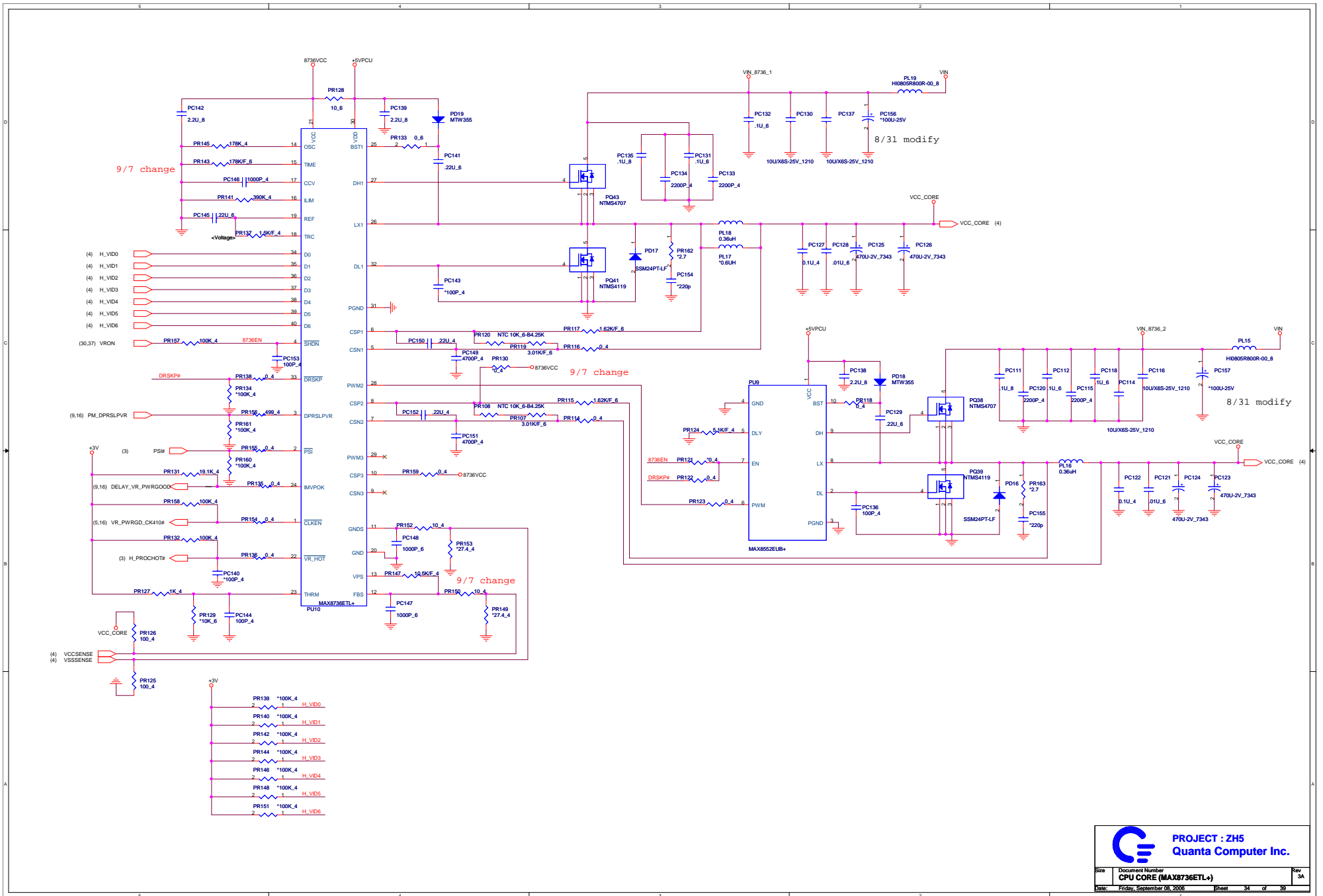
PROJECT : ZH5
Quanta Computer Inc.

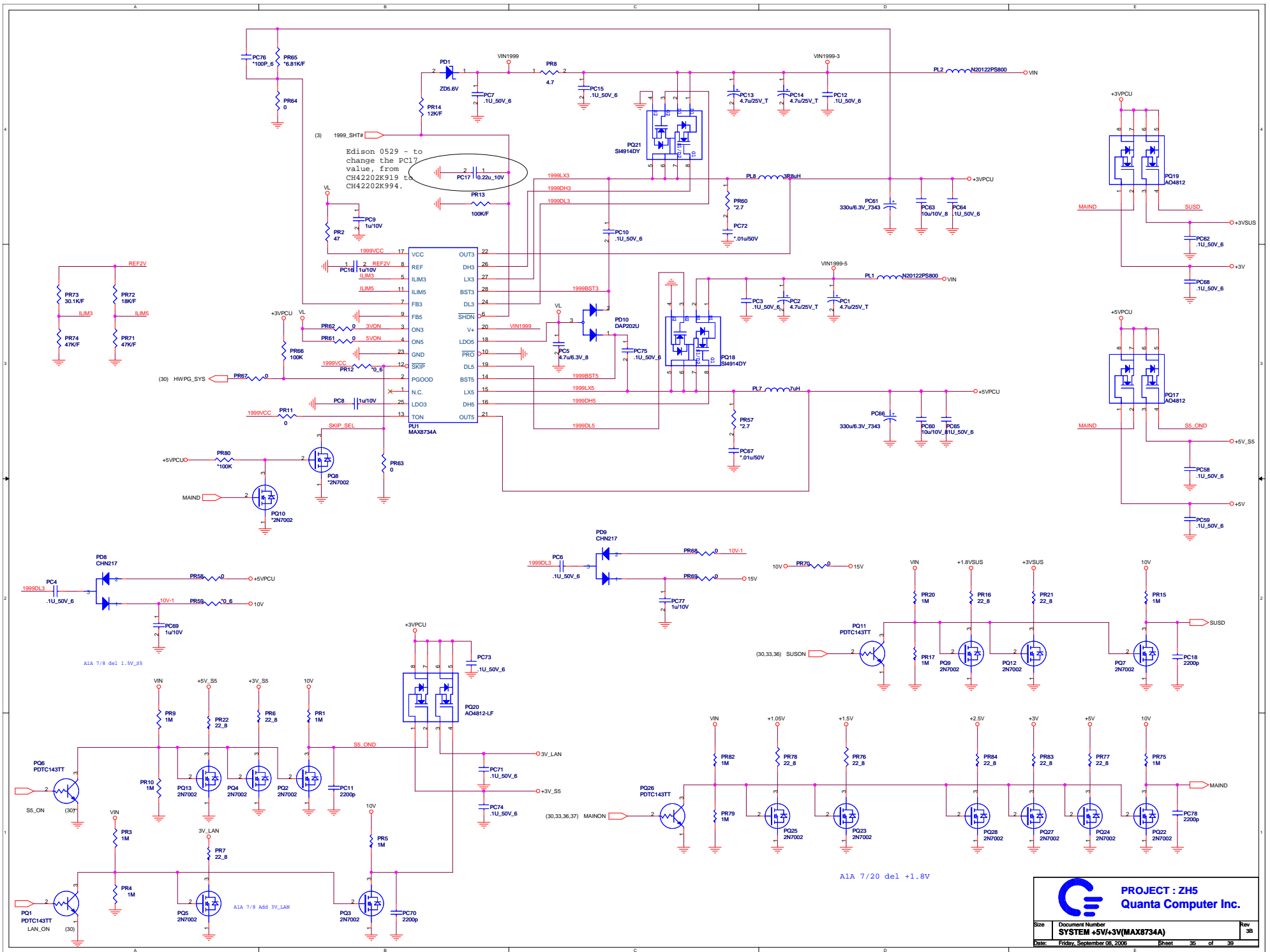
Size	Document Number	Rev
	DOCK DVI CH7307C	1A
Date:	Monday, September 11, 2006	Sheet 32 of 39

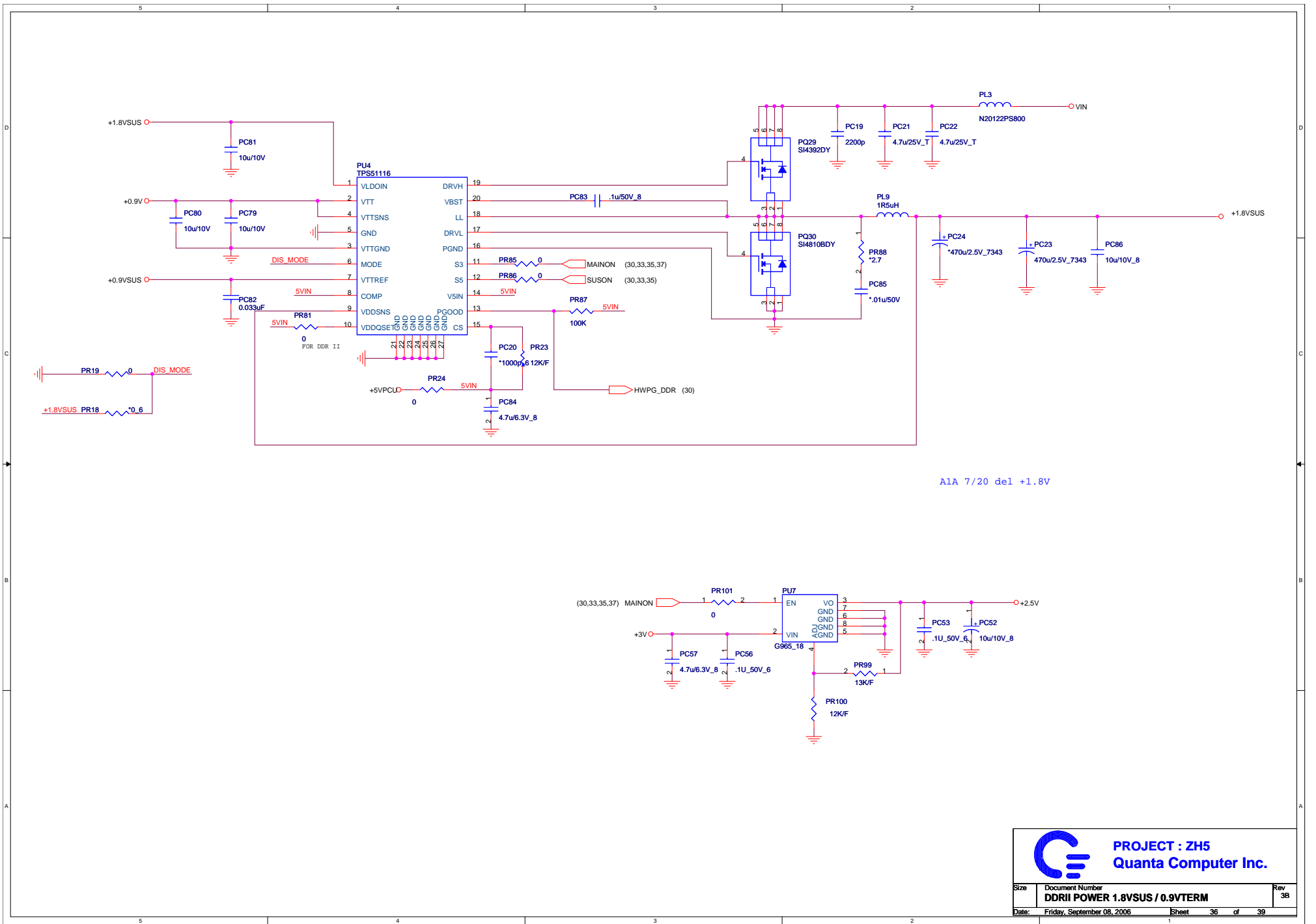



PROJECT : ZH5
Quanta Computer Inc.

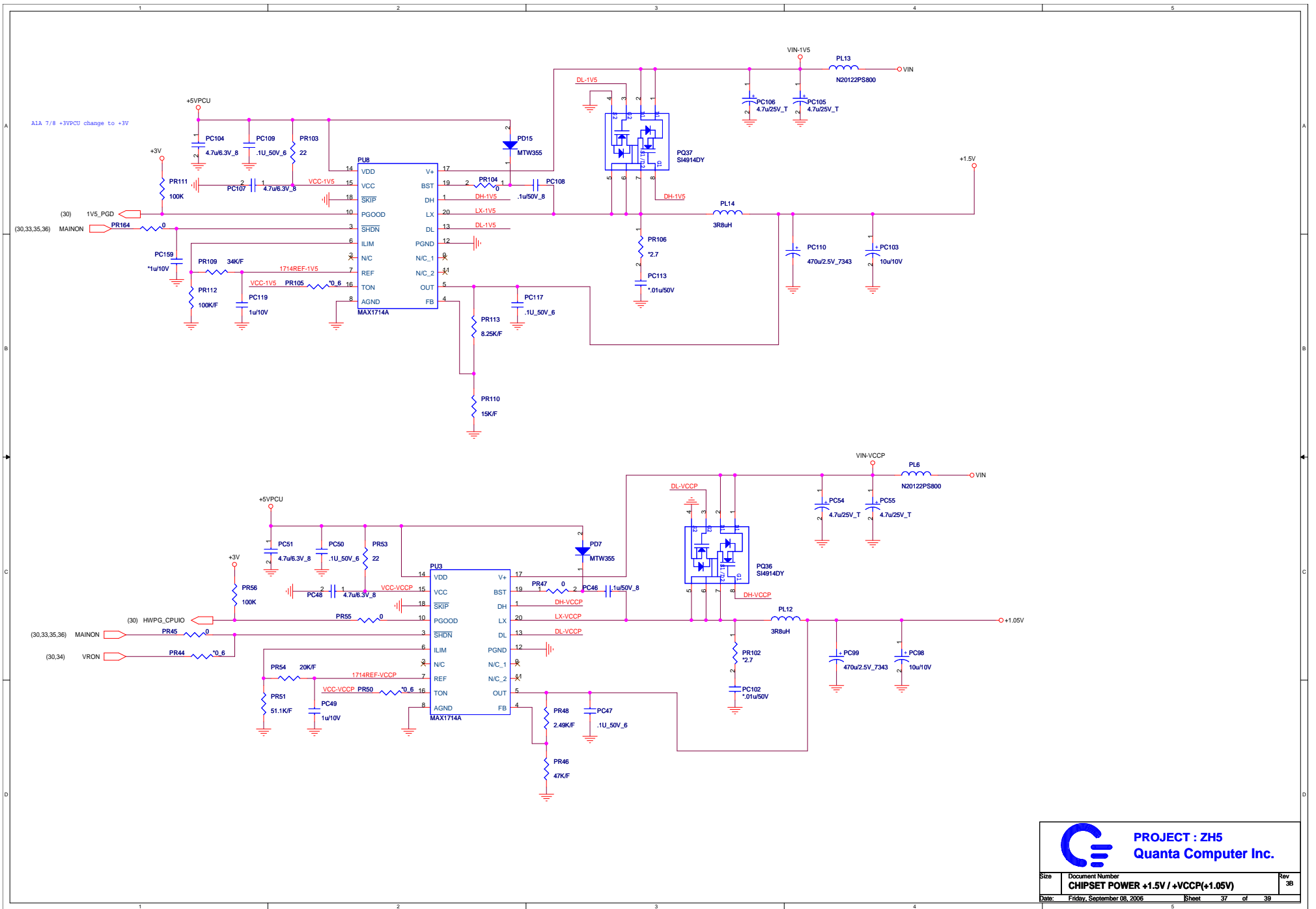
Size	Document Number	Rev
	DOCK EZ4 CONNECTOR	1A
Date:	Friday, September 08, 2006	Sheet 33 of 39





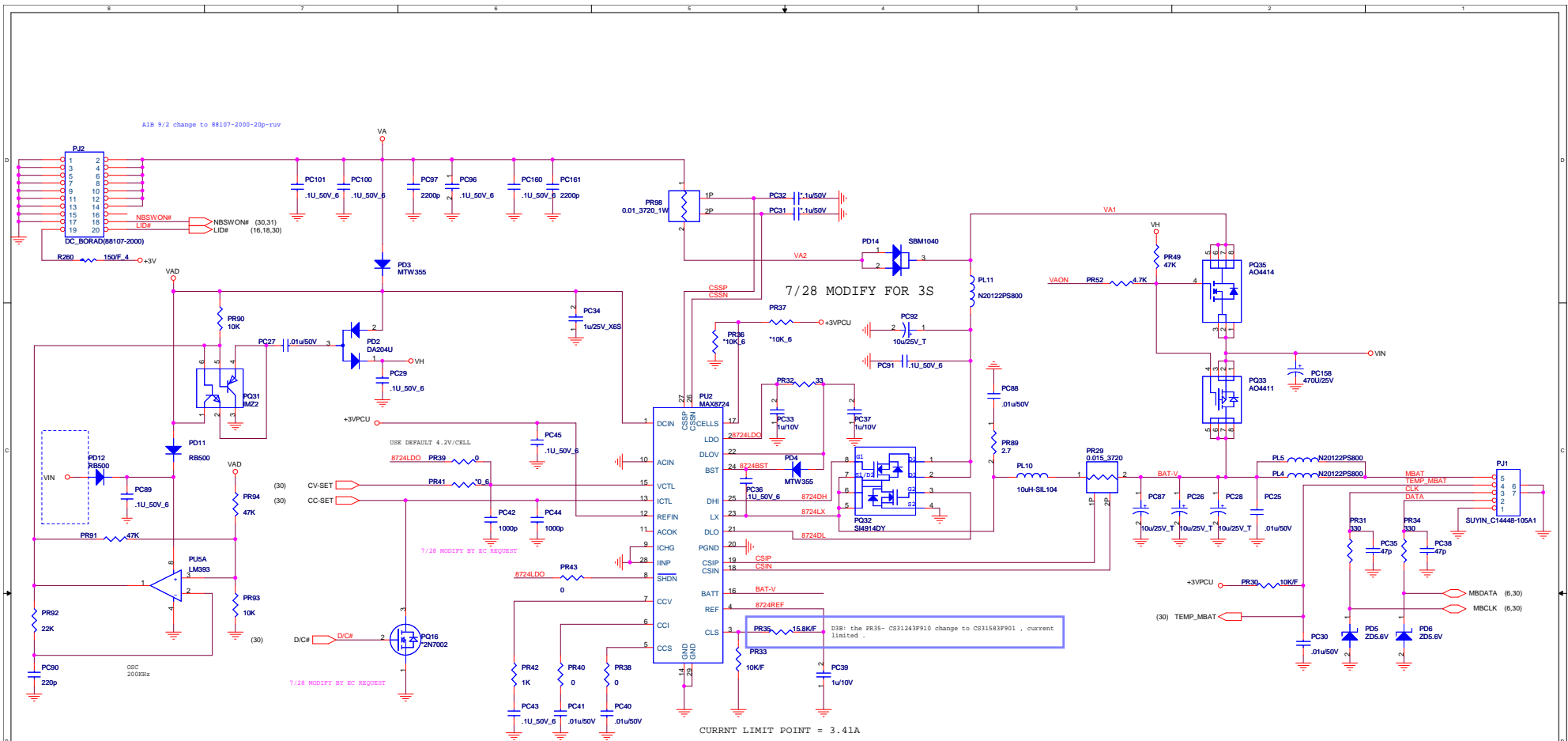


		PROJECT : ZH5 Quanta Computer Inc.	
		Size: Document Number DDRII POWER 1.8VSUS / 0.9VTERM	Rev 3B
Date: Friday, September 08, 2006		Sheet: 36	of: 39

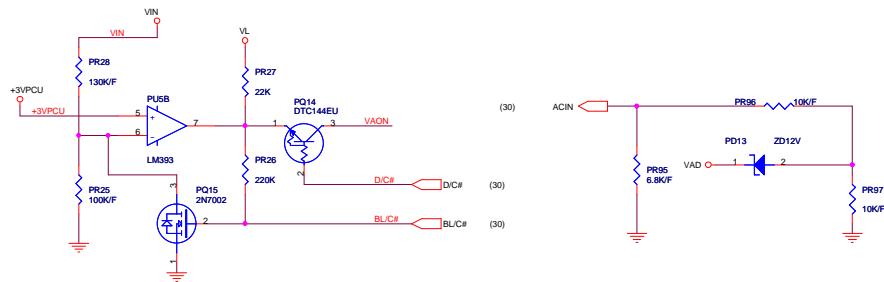


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Quanta Computer Inc.

Size	Document Number	Rev
	CHIPSET POWER +1.5V / +VCCP(+1.05V)	3B
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BATTERY LOW = 7.6V



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		Size Document Number BATTERY CHARGER & SELECTOR	Rev 3A
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