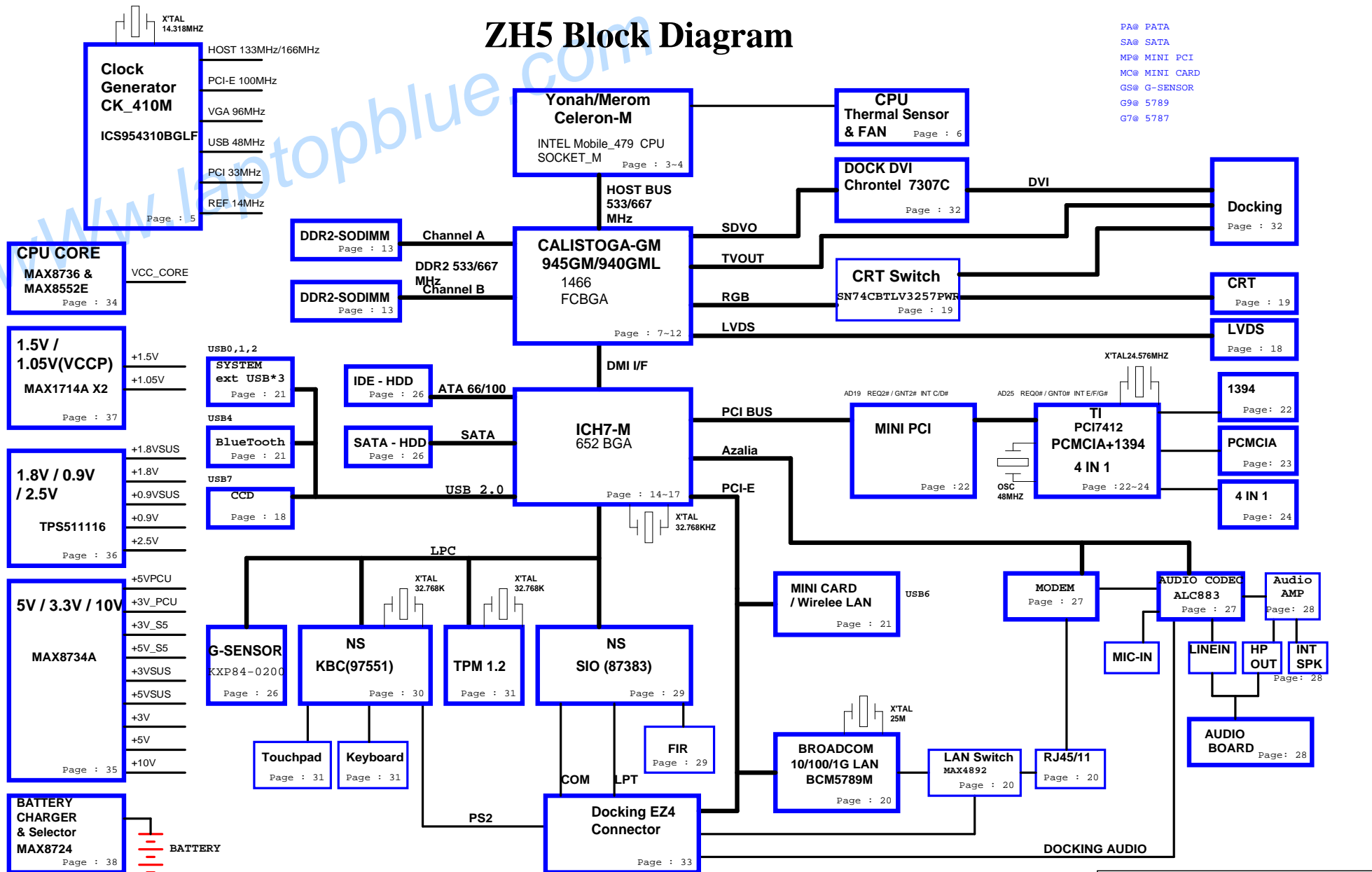



ZH5 Block Diagram

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

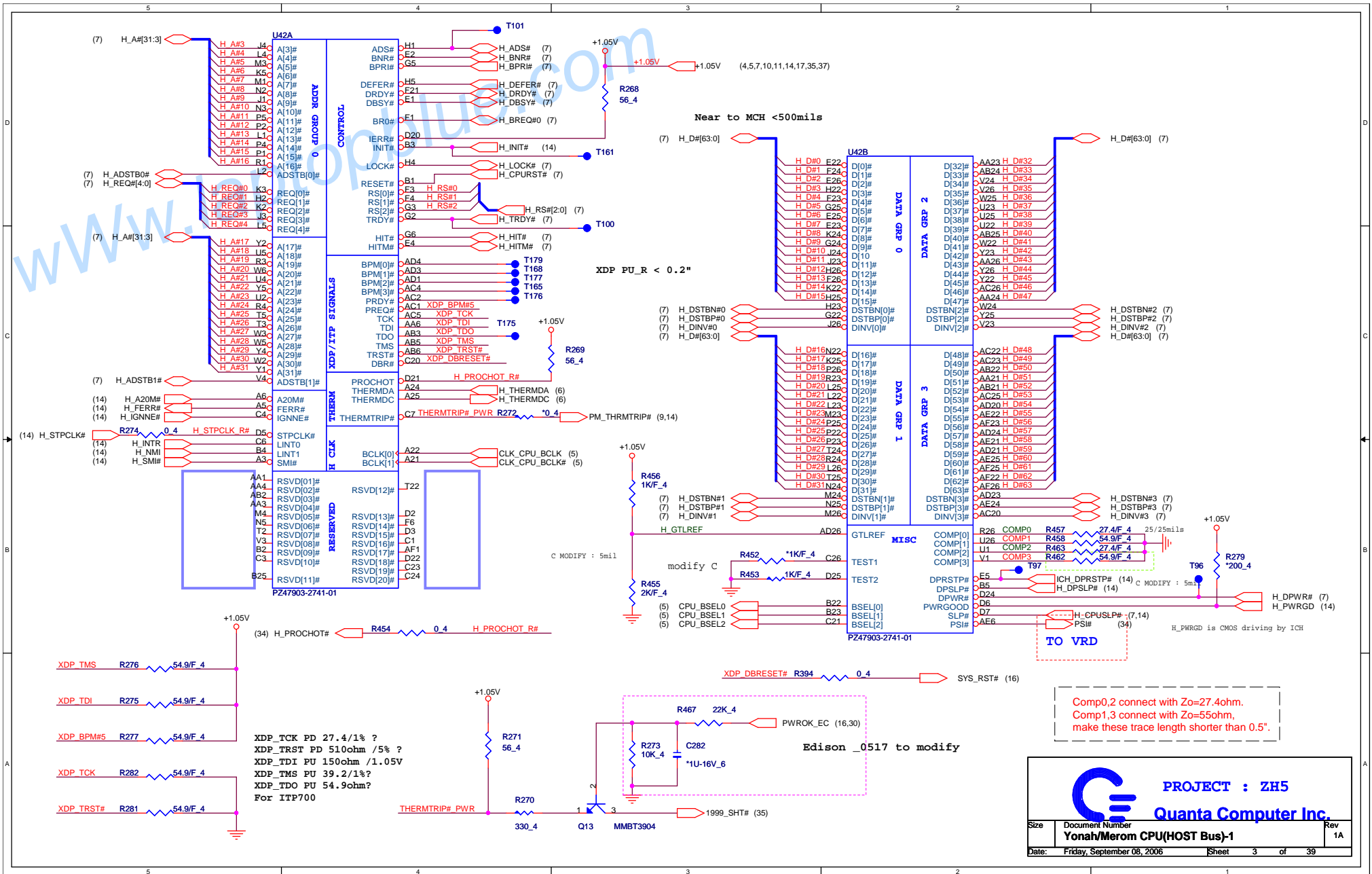
TABLE OF CONTENTS

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



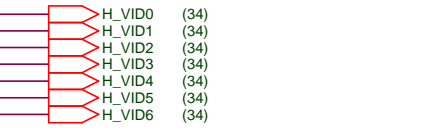
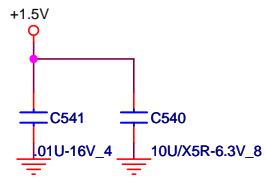
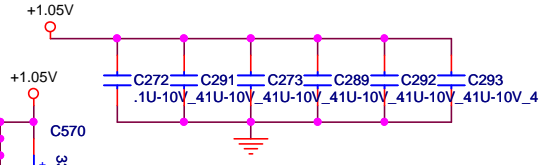
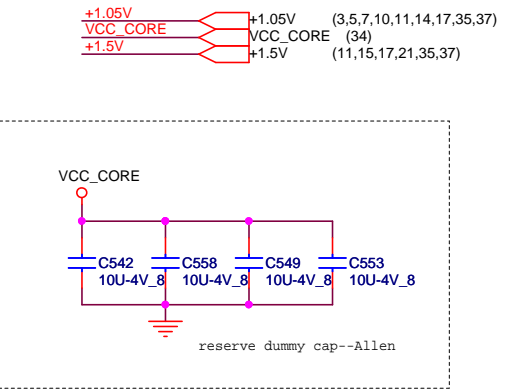
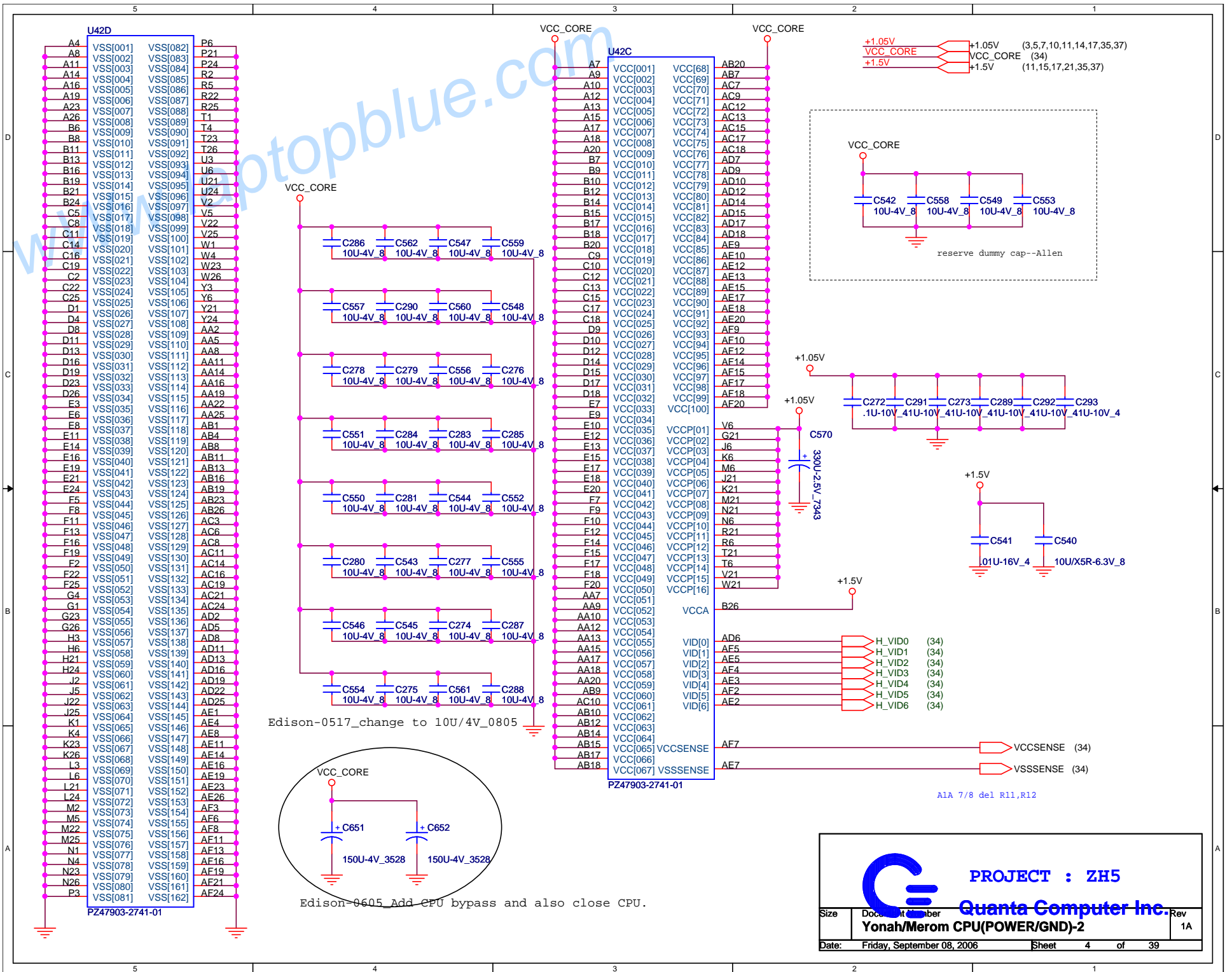
PROJECT : ZH5
 Quanta Computer Inc.

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



PROJECT : ZH5
Quanta Computer Inc.

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



A1A 7/8 del R11,R12

PROJECT : ZH5

Yonah/Merom CPU(POWER/GND)-2

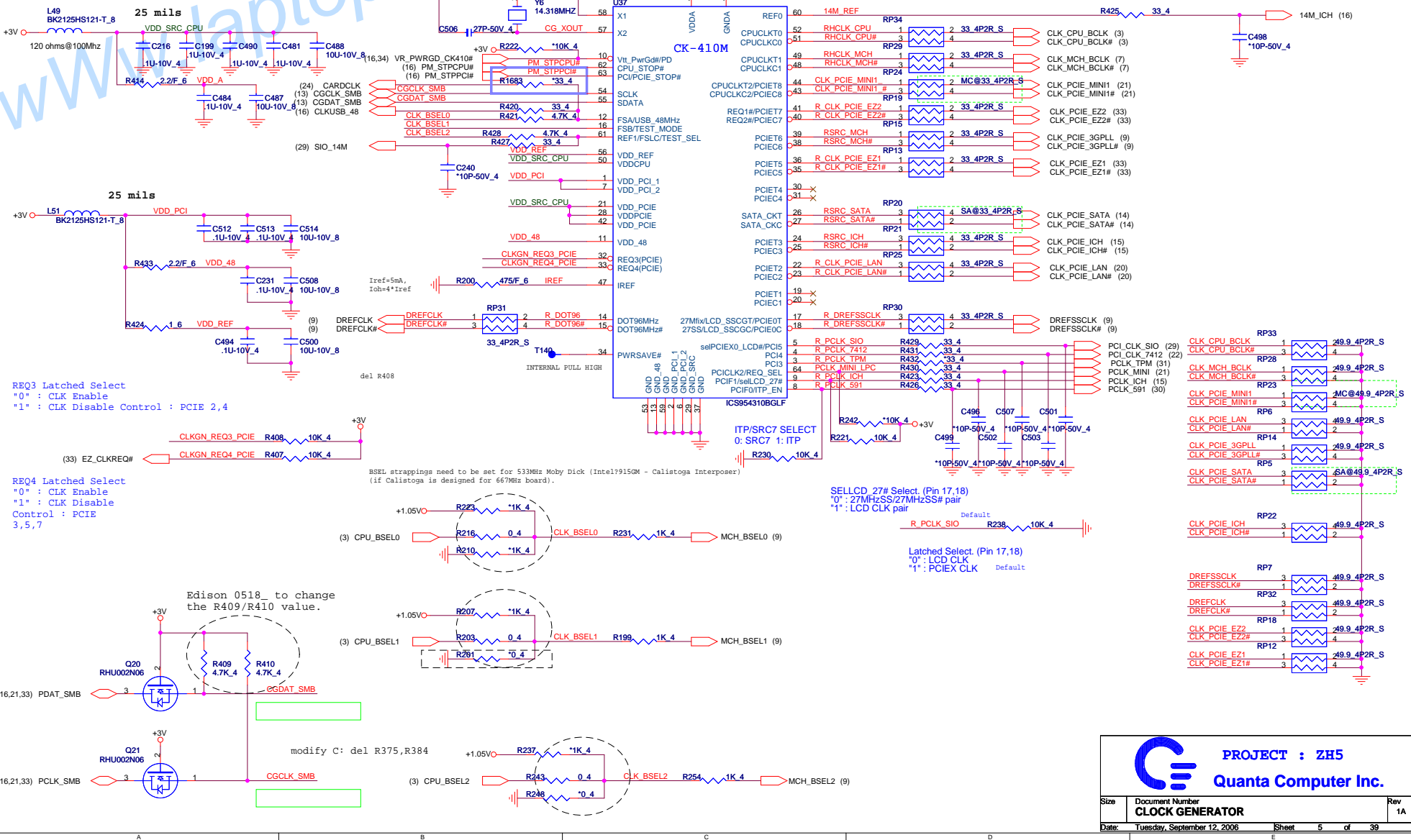
Size	Document Number	Rev
		1A
Date:	Friday, September 08, 2006	Sheet 4 of 39

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

Place these termination to close CK410M.



REQ3 Latched Select
 0 : CLK Enable
 1 : CLK Disable Control : PCIE 2,4

REQ4 Latched Select
 0 : CLK Enable
 1 : CLK Disable Control : PCIE 3,5,7

BSEL strappings need to be set for 533MHz Moby Dick (Intel1915GM - Calistoga Interposer) (if Calistoga is designed for 667MHz board).

SELLCD 27# Select. (Pin 17,18)
 0 : 27MHzSS/27MHzSS# pair
 1 : LCD CLK pair

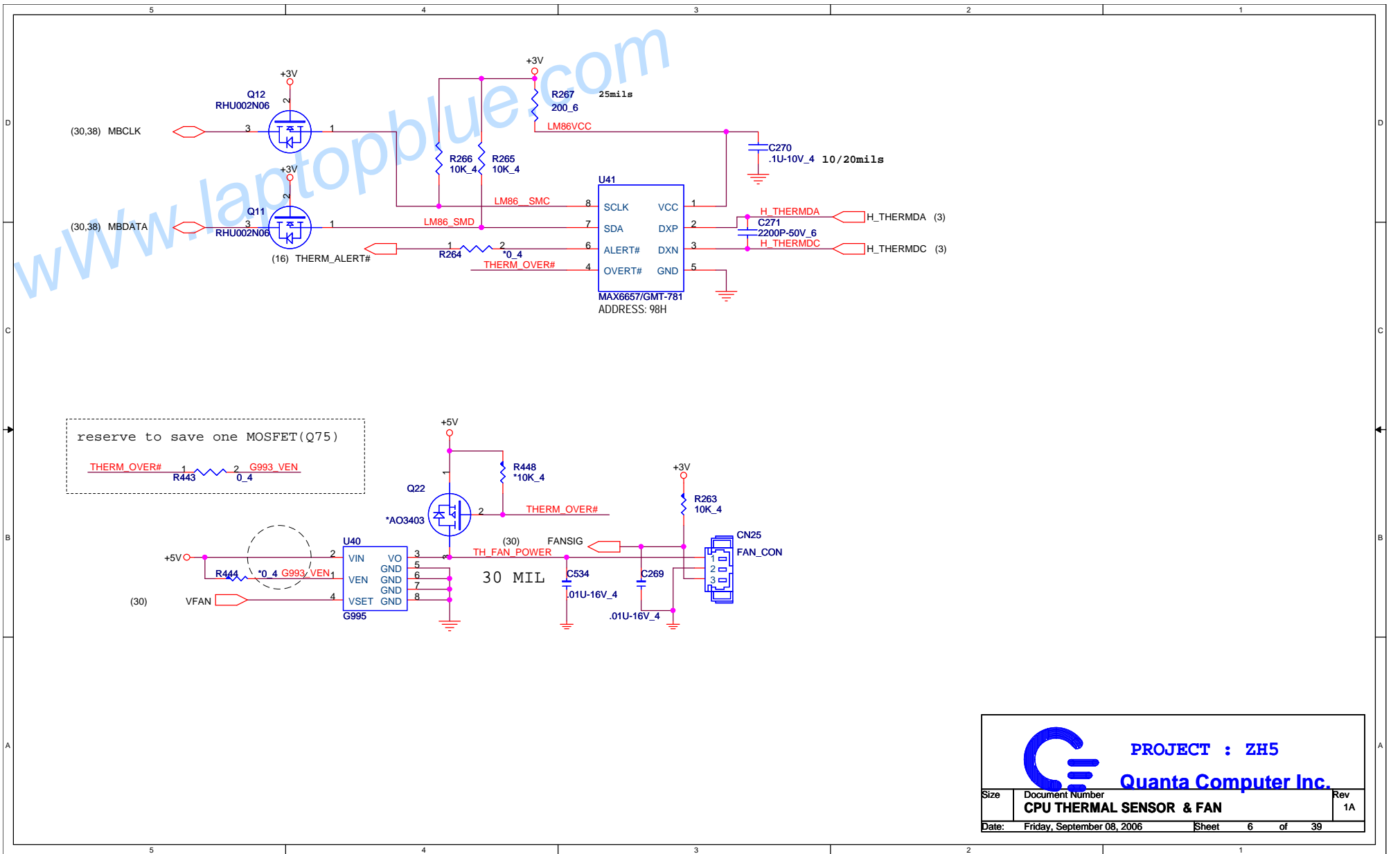
Latched Select. (Pin 17,18)
 0 : LCD CLK
 1 : PCIE CLK

Edison 0518_to change the R409/R410 value.

modify C: del R375,R384

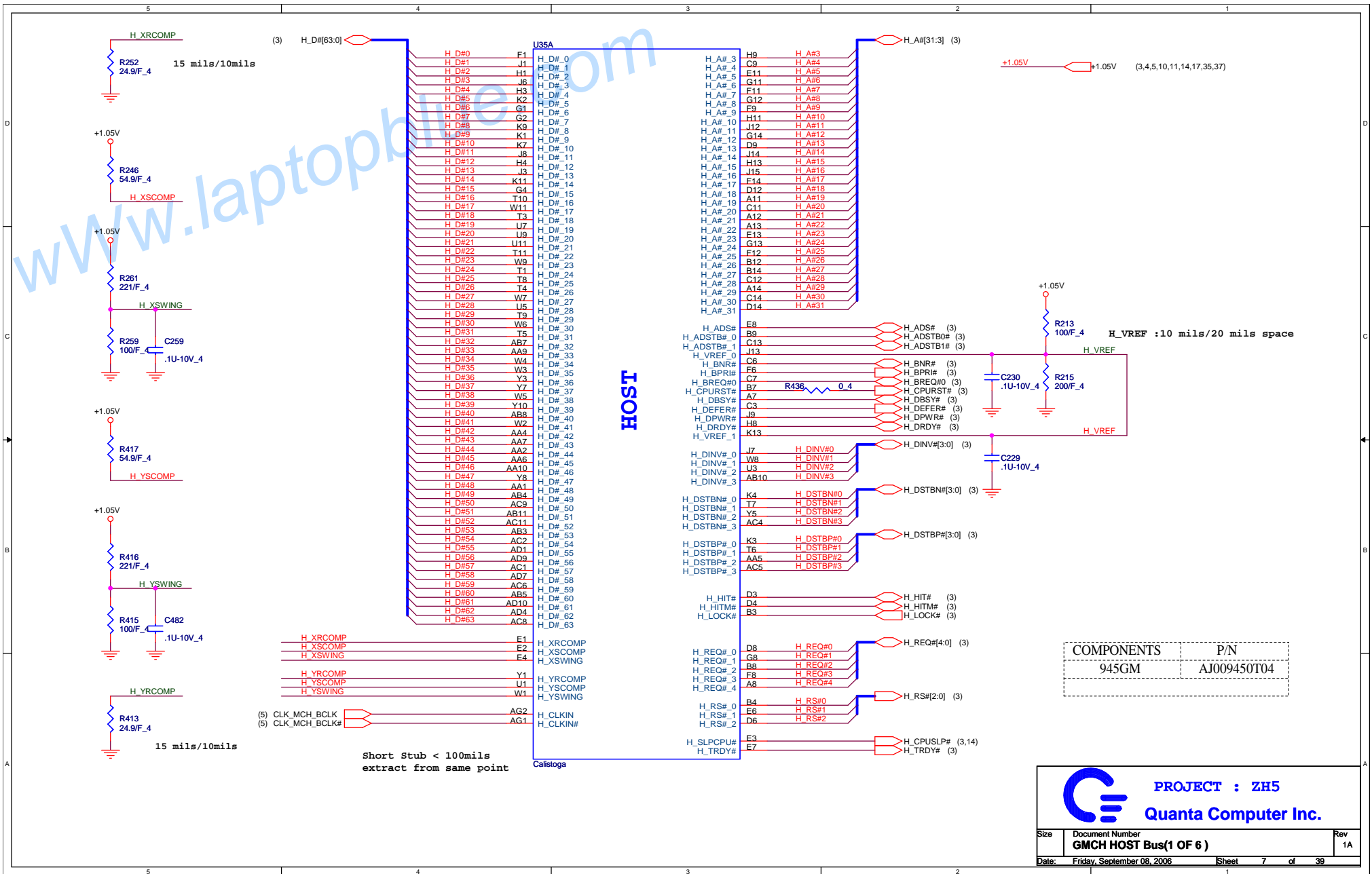
PROJECT : ZH5
Quanta Computer Inc.

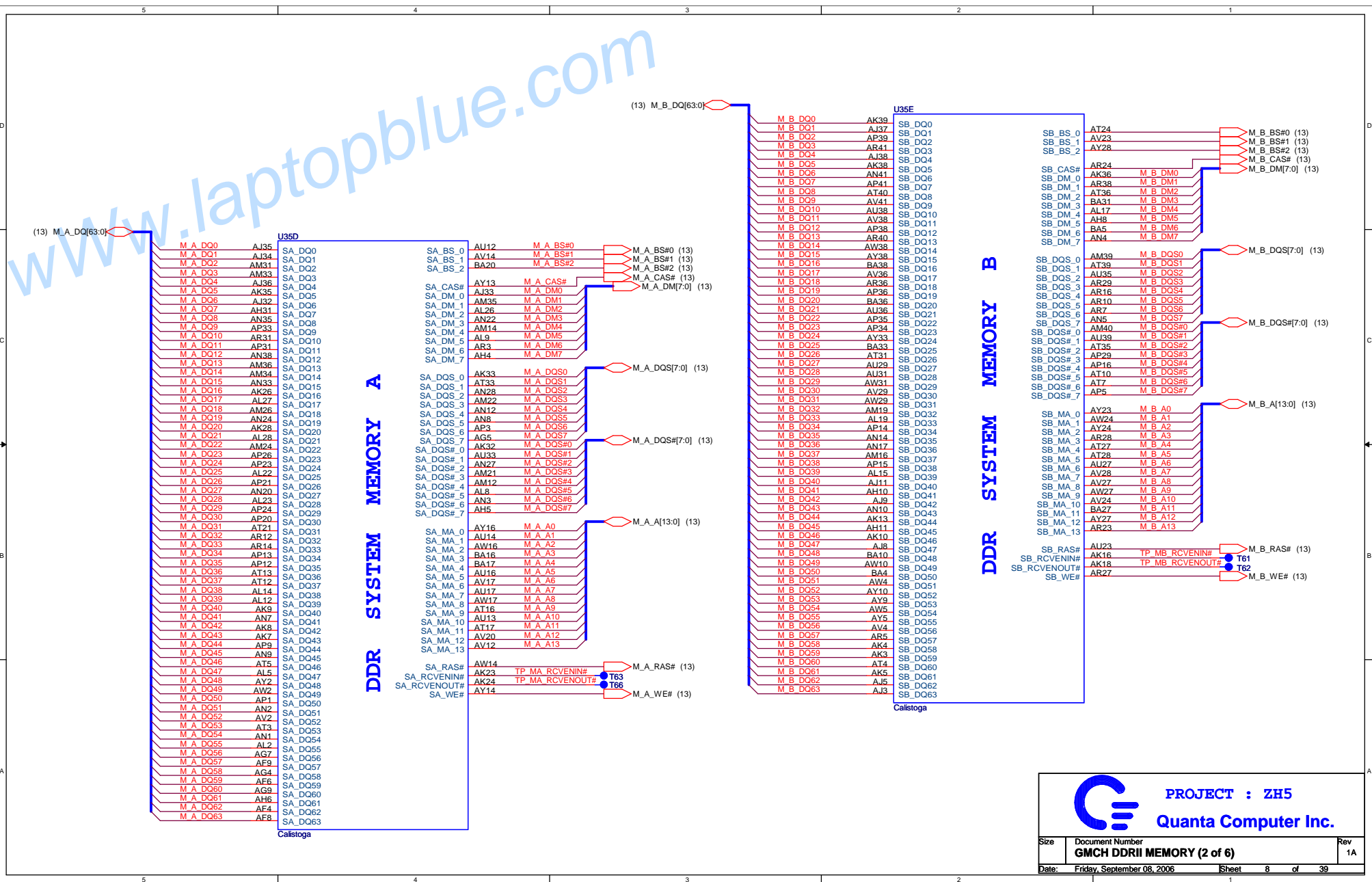
Size	Document Number	Rev
Date:	CLOCK GENERATOR	1A
Tuesday, September 12, 2006	Sheet 5 of 39	




PROJECT : ZH5
Quanta Computer Inc.

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

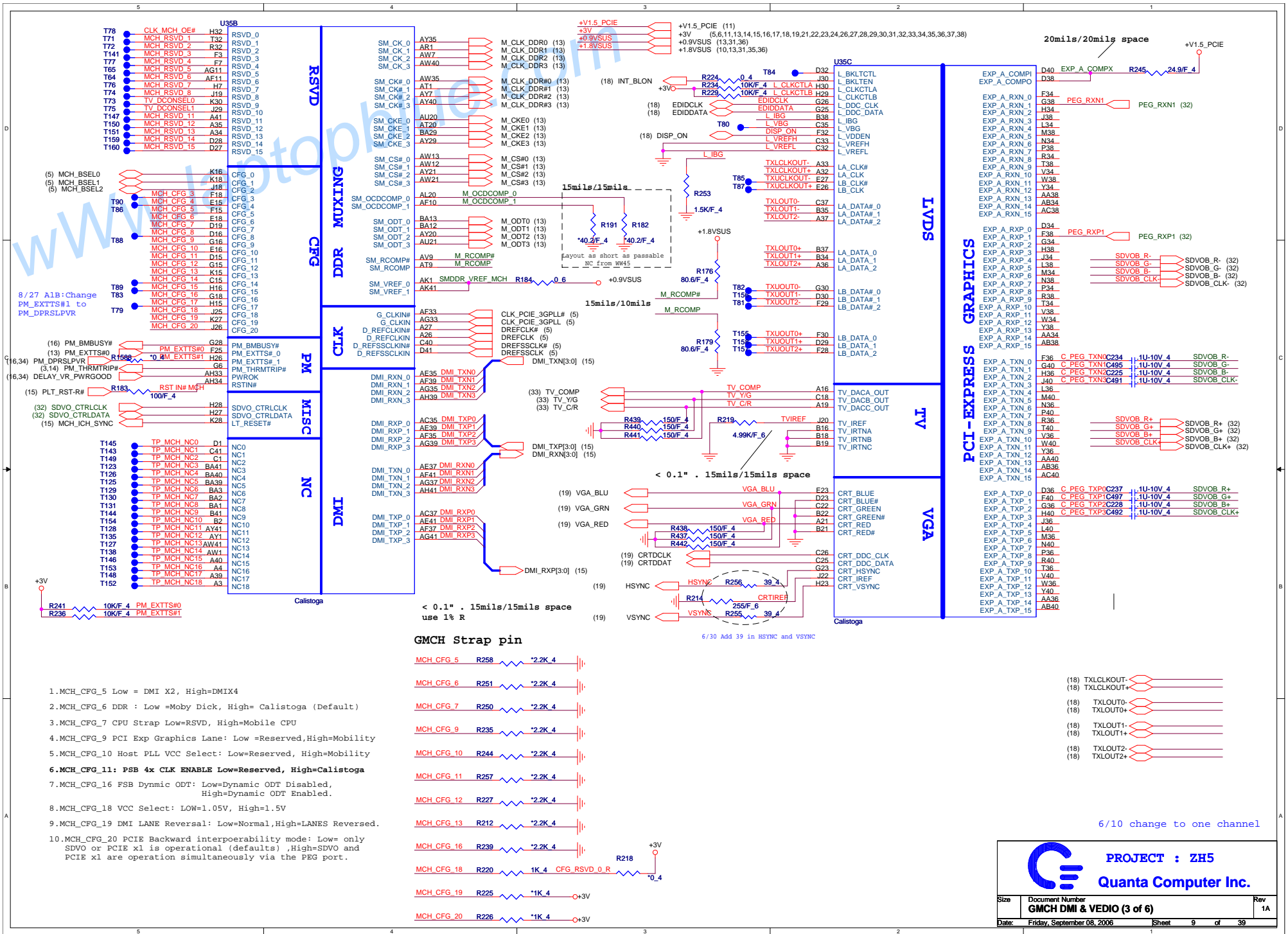


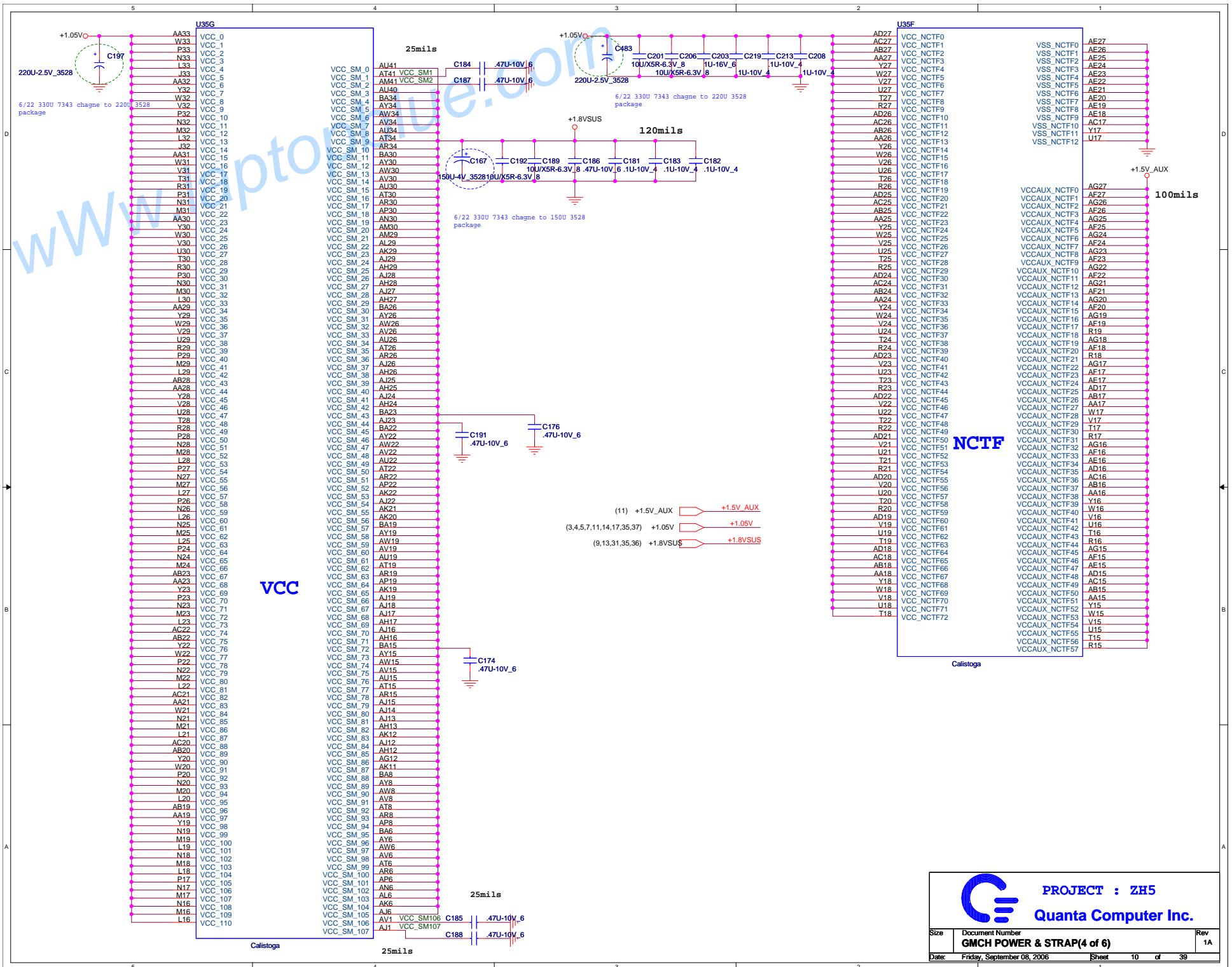


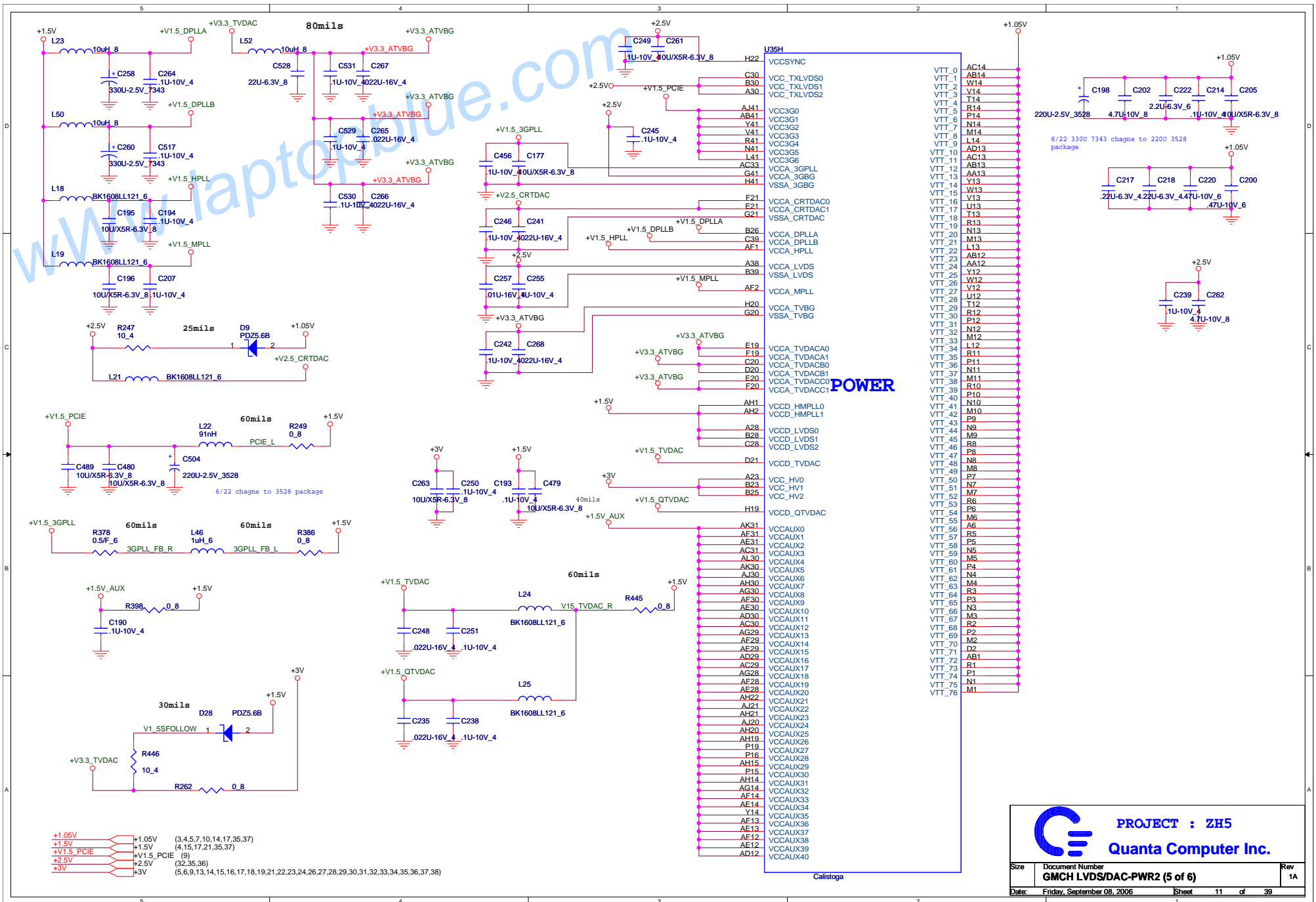


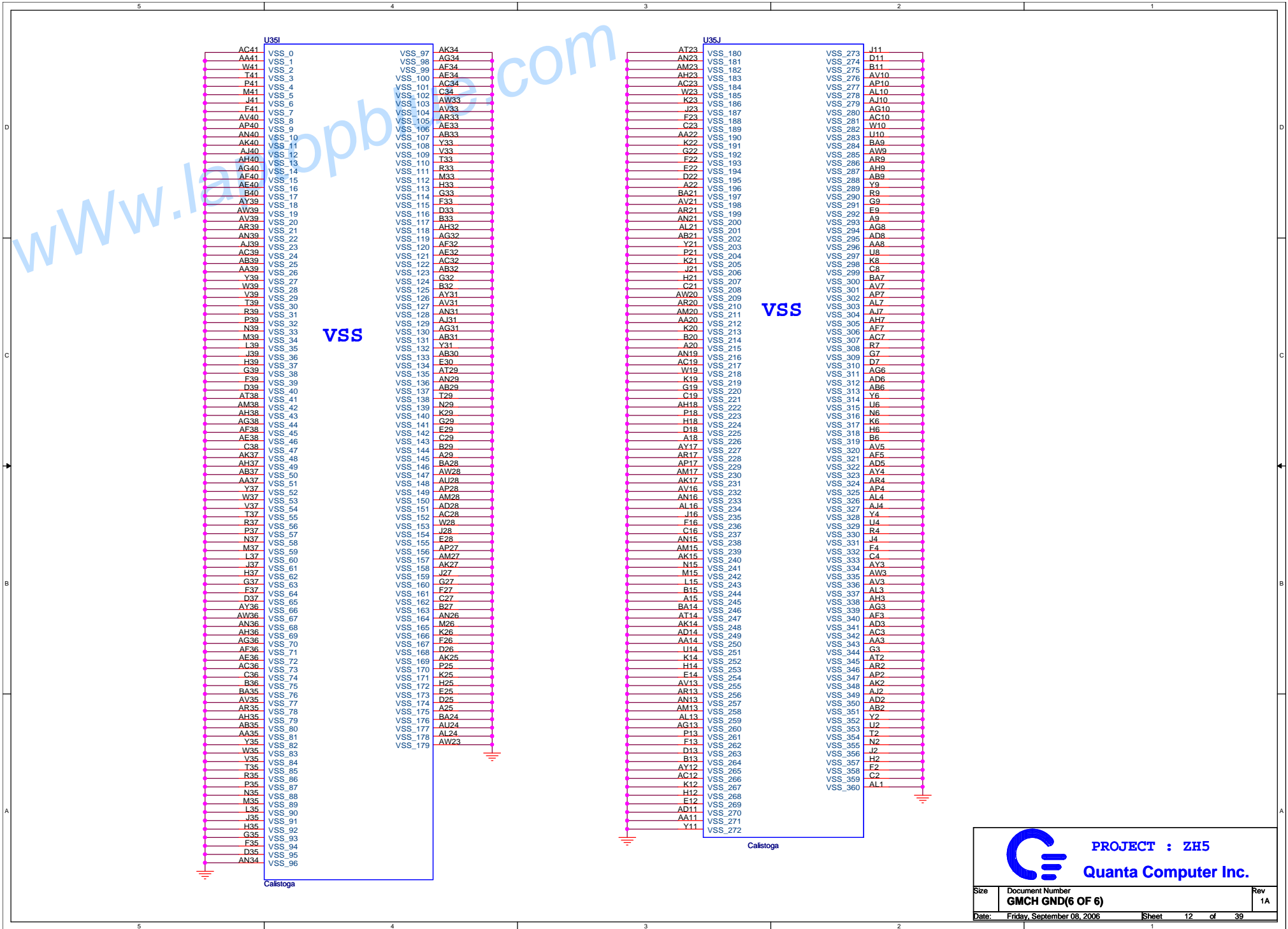
PROJECT : ZH5
Quanta Computer Inc.


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





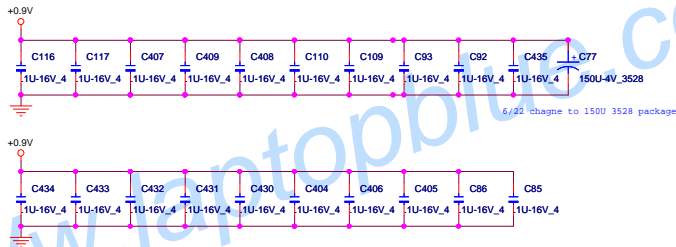




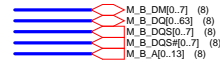
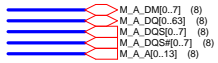
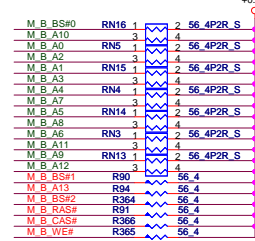
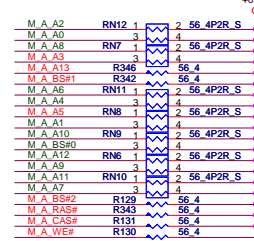
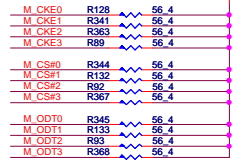

PROJECT : ZH5
Quanta Computer Inc.

Size	Document Number	Rev
	GMCH GND(6 OF 6)	1A
Date:	Friday, September 08, 2006	Sheet 12 of 39

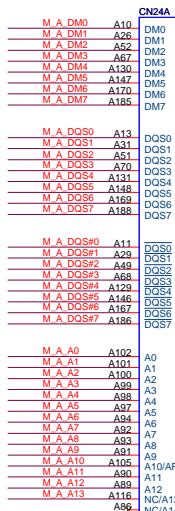
TERMINATOR DECOUPLING CAPACITOR



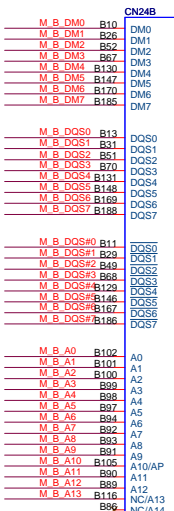
DDR2 TERMINATOR



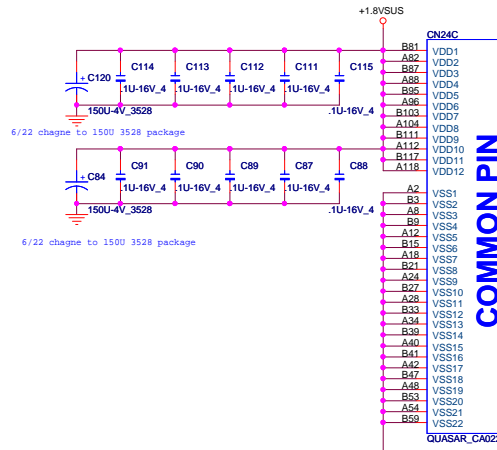
DDR2 SO-DIMM SOCKET



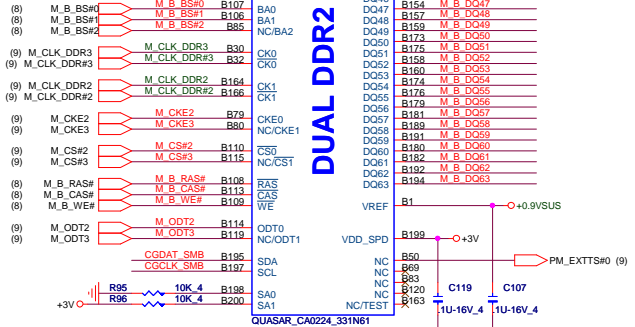
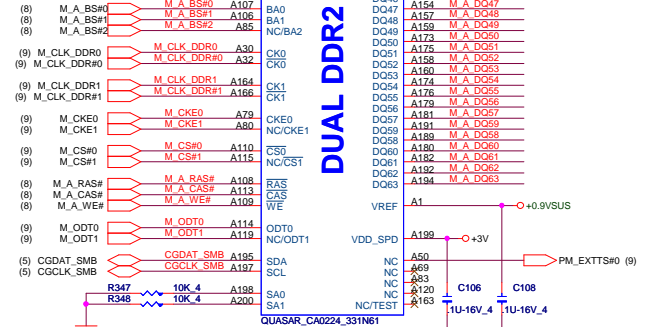
DUAL DDR2 SO-DIMM MODULE A SIDE



DUAL DDR2 SO-DIMM MODULE B SIDE



COMMON PIN



			PROJECT : ZH5
Quanta Computer Inc.			
Size	Document Number	Rev	
	DDR2 SO-DIMM & TERMINATOR	1A	
Date:	Friday, September 06, 2006	Sheet	13 of 39

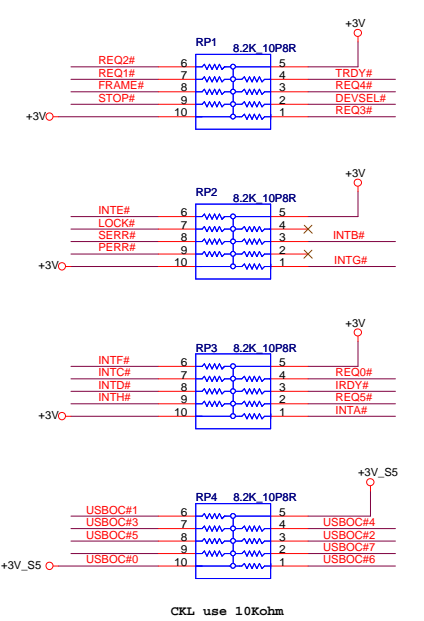
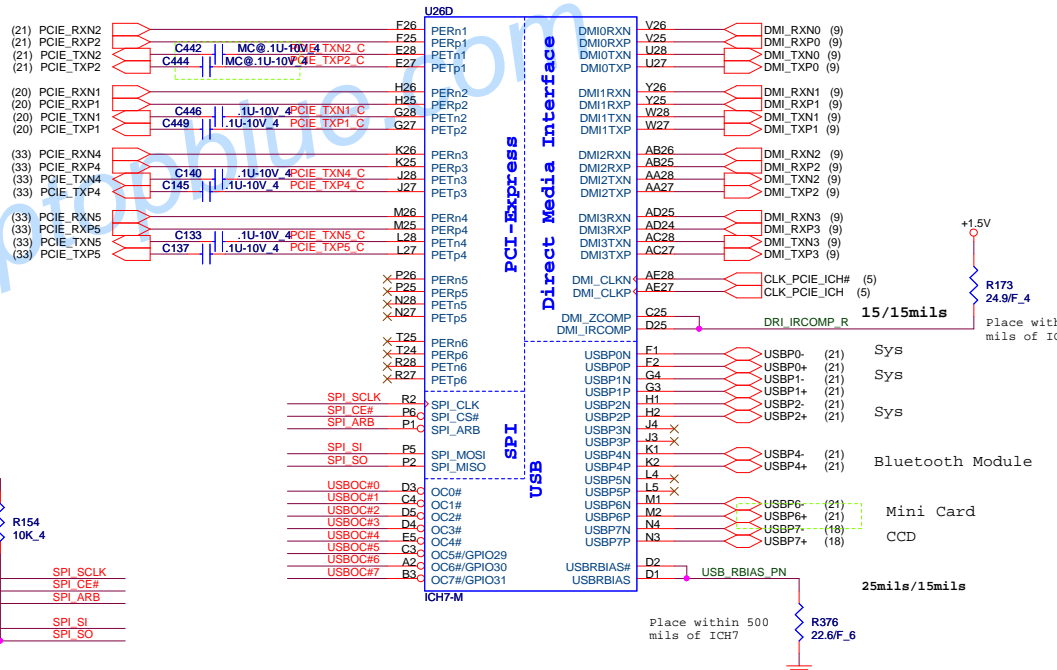
MINI CARD PCI-E

5789M

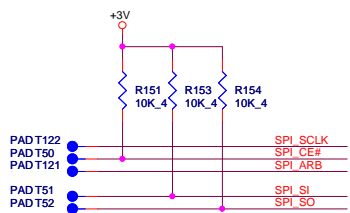
EZ4

EZ4

modify C



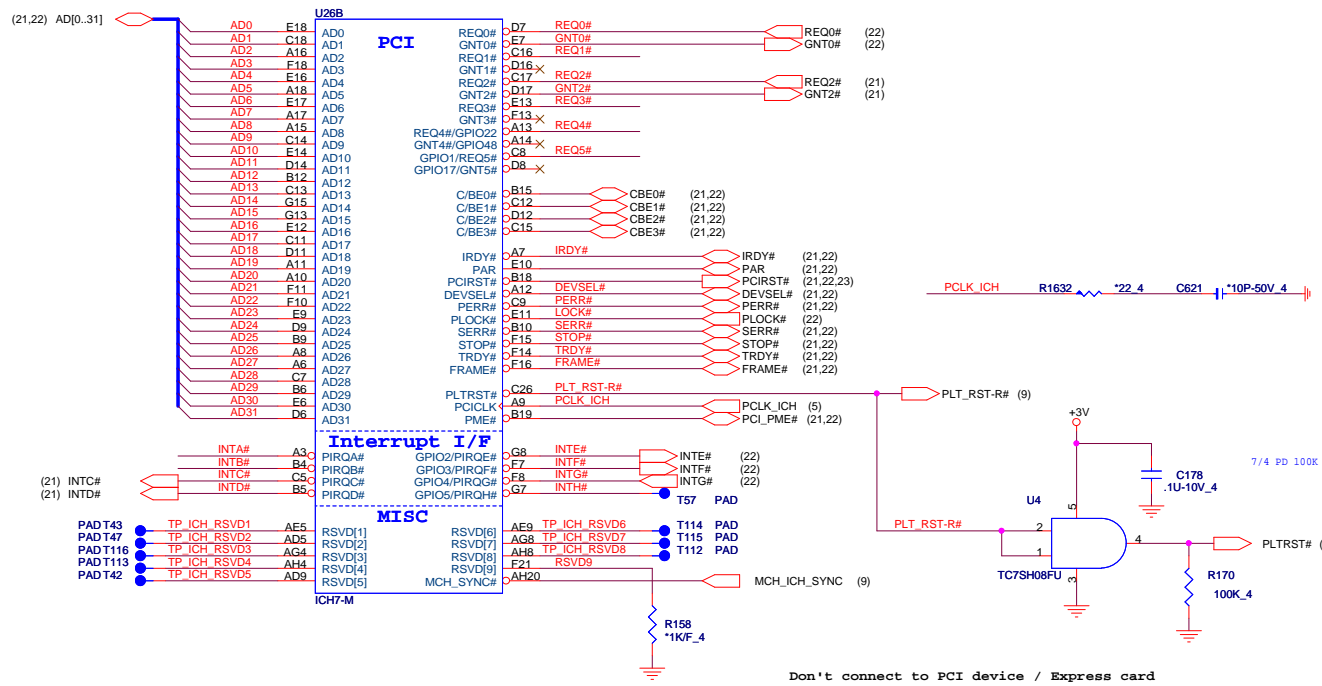
ALA 8/1 chagne PCI-E signal for different SB use



CKL use 10Kohm

ICH7 Boot BIOS select

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

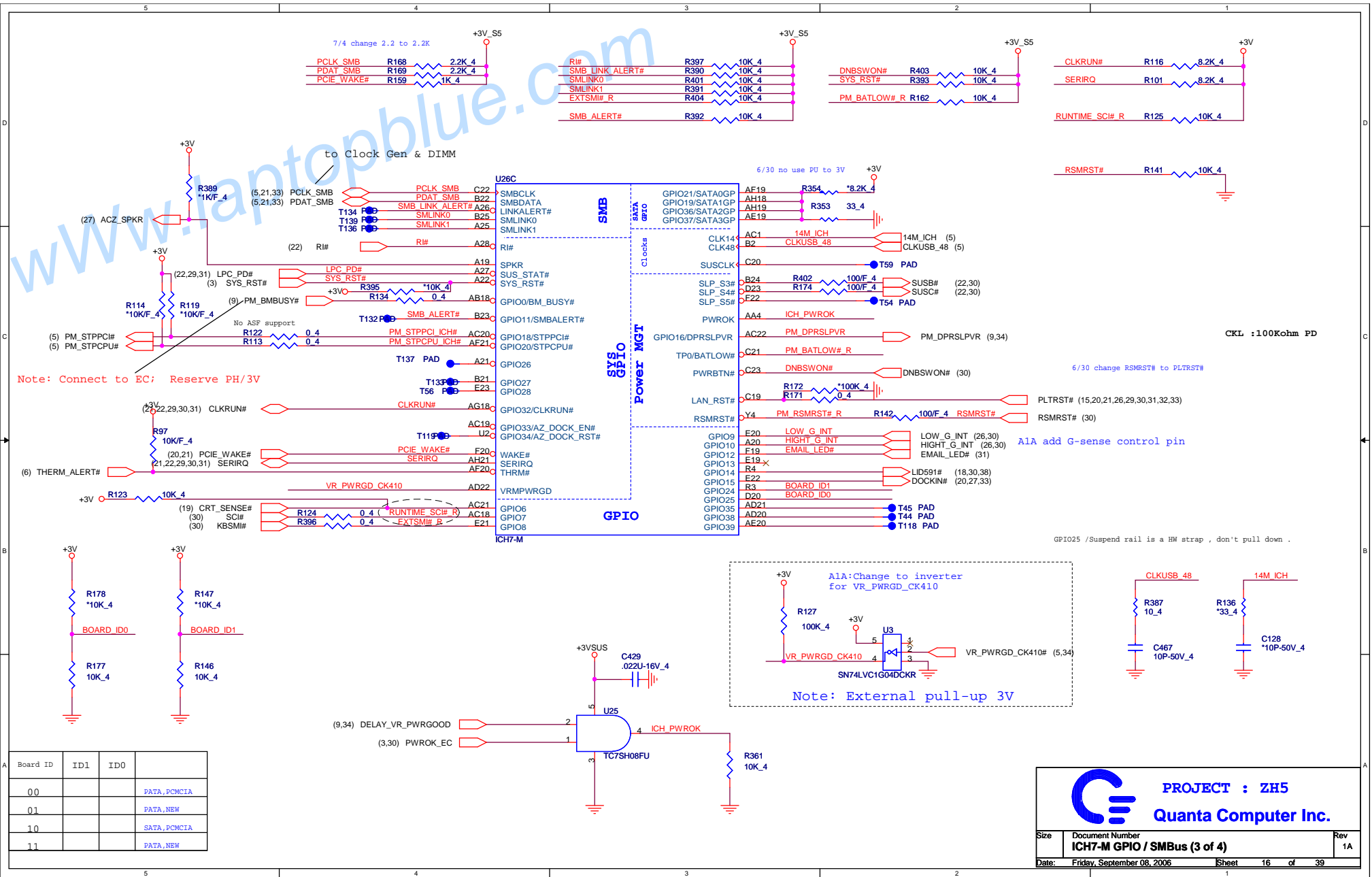


PCI DEVICE	IDSEL#	REQ# / GNT#	Interrupts
PCI7411	AD25	REQ0# / GNT0#	INT E/F/G#

PROJECT : ZH5
Quanta Computer Inc.

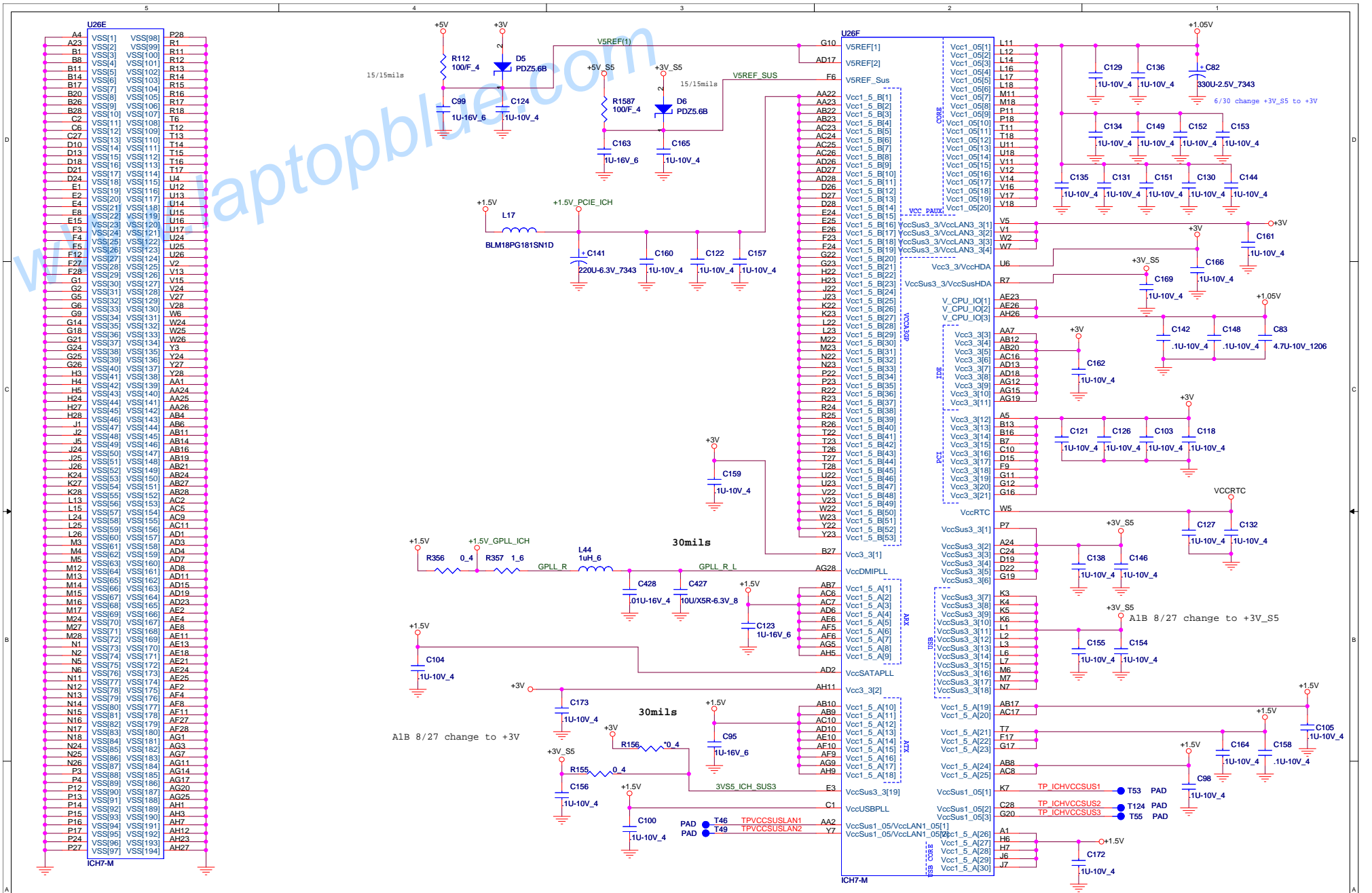
Size: Document Number: ICH7-M MDI/PCI E/PC/USB (2 OF 4) Rev: 1A
Date: Friday, September 08, 2006 Sheet: 15 of 39


Don't connect to PCI device / Express card



PROJECT : ZH5
Quanta Computer Inc.

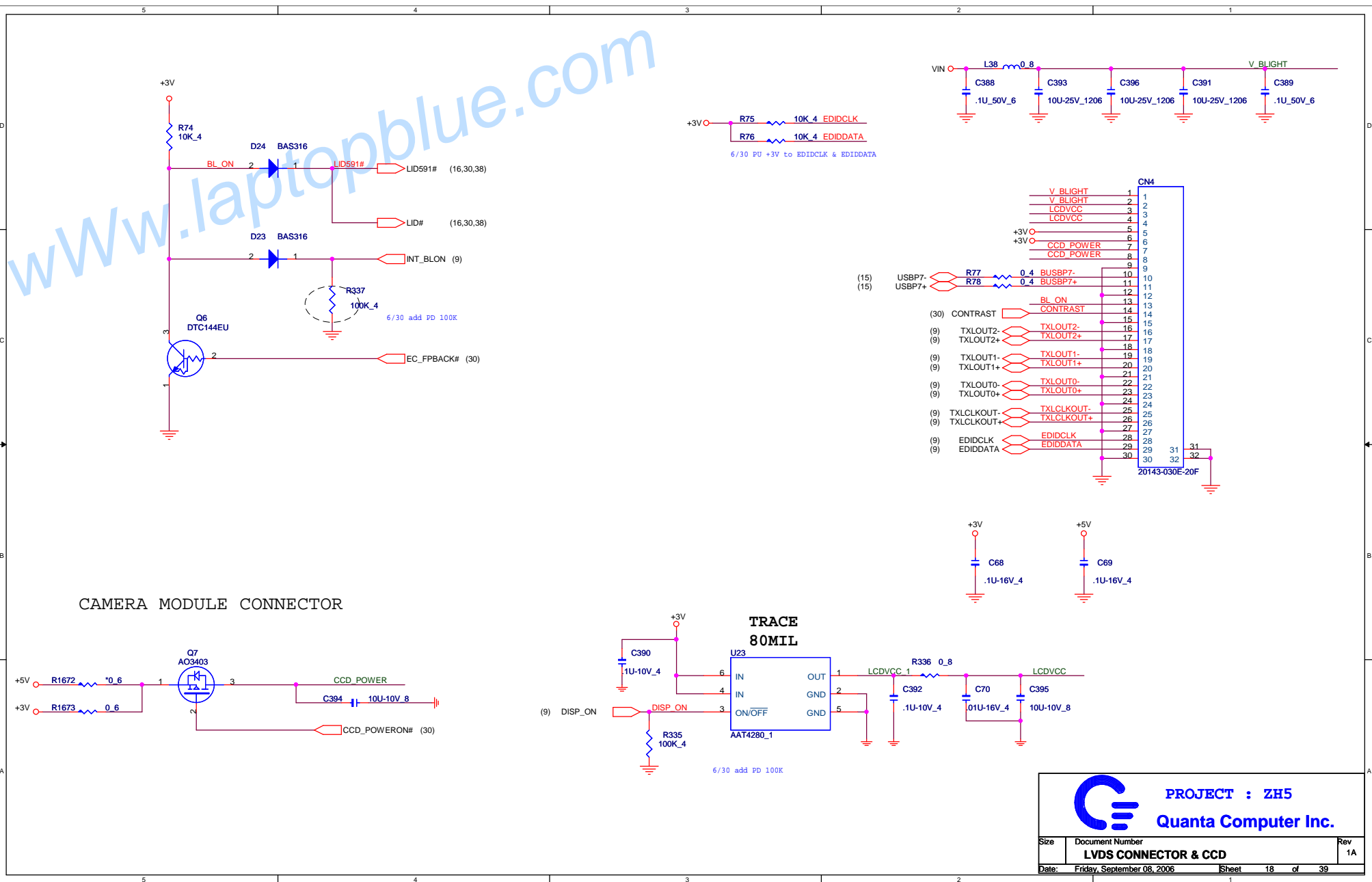
Size	Document Number	Rev
	ICH7-M GPIO / SMBus (3 of 4)	1A
Date:	Friday, September 08, 2006	Sheet 16 of 39






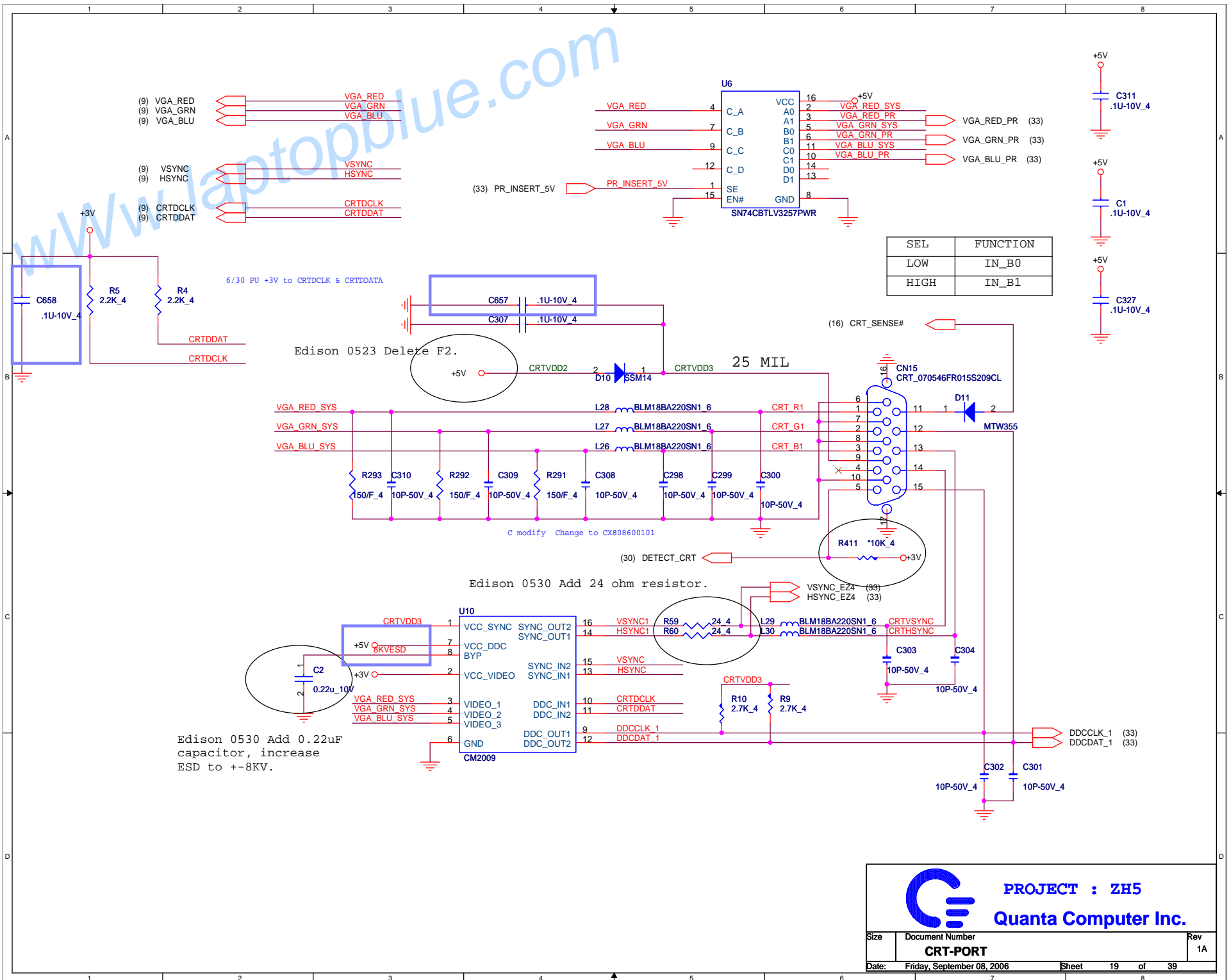
PROJECT : ZH5
Quanta Computer Inc.

Size	Document Number	Rev
	ICH7-M POWER & GND (4 of 4)	1A
Date:	Friday, September 08, 2006	Sheet 17 of 39



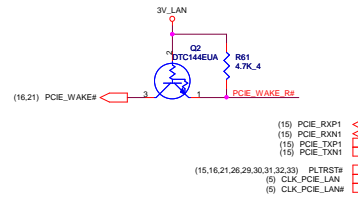
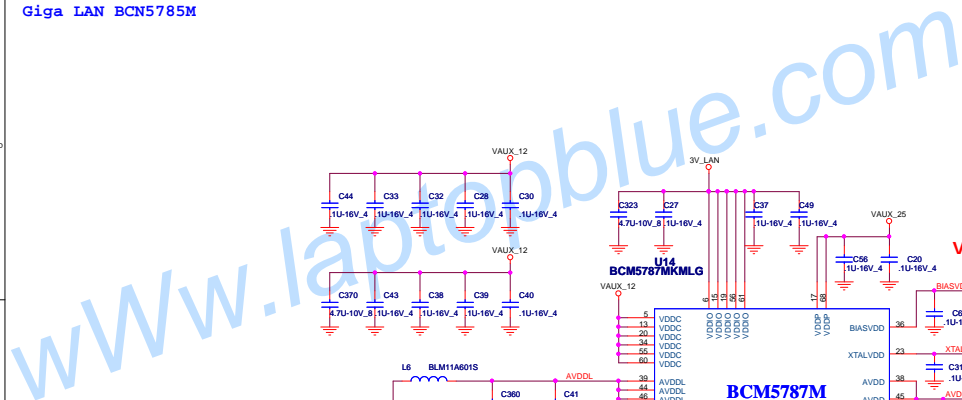

PROJECT : ZH5
Quanta Computer Inc.

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

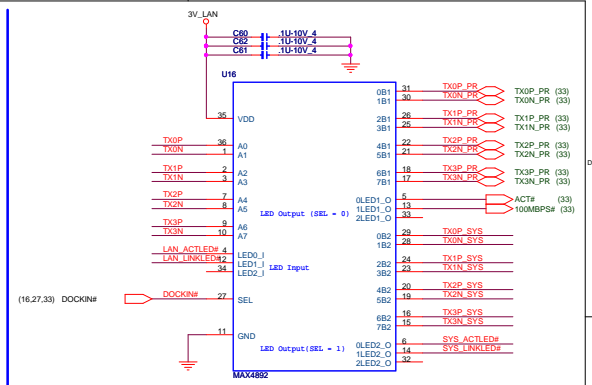
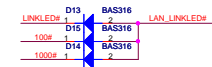
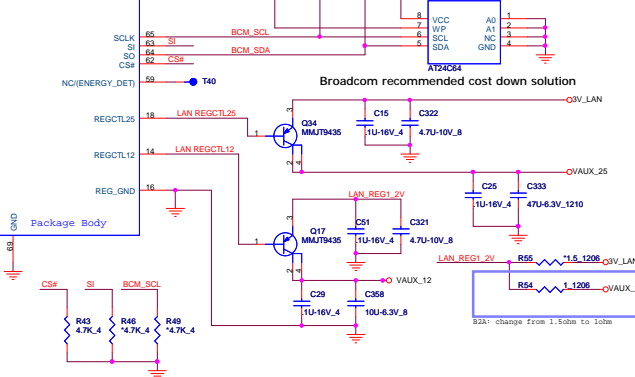
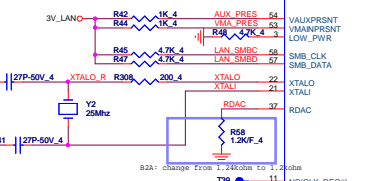


PROJECT : ZH5
Quanta Computer Inc.

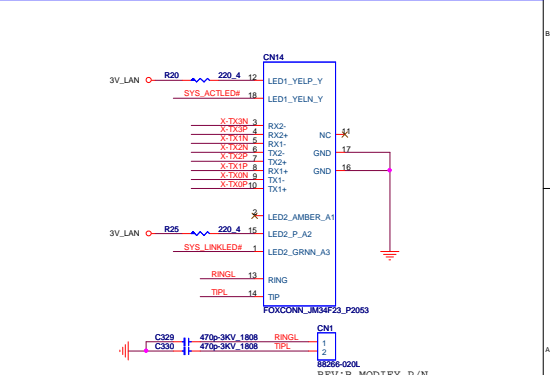
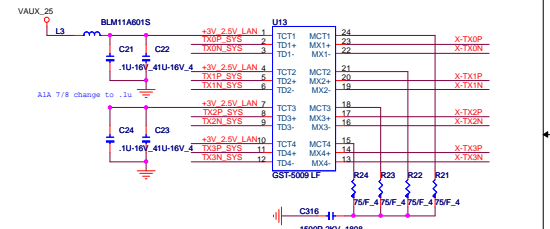
Size	Document Number	Rev
	CRT-PORT	1A
Date:	Friday, September 08, 2006	Sheet 19 of 39



- (15) PCIE_RXP1
- (15) PCIE_RXN1
- (15) PCIE_TXP1
- (15) PCIE_TXN1
- (15,16,21,26,29,30,31,32,33) PLTRST#
- (5) CLK_PCIE_LAN
- (5) CLK_PCIE_LAN#



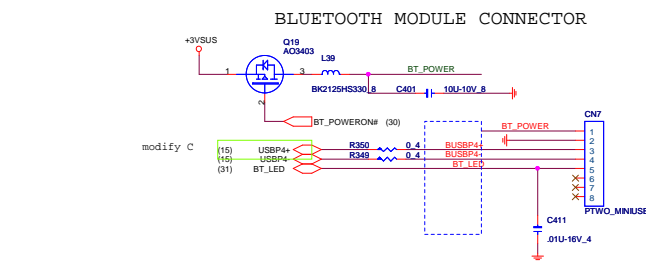
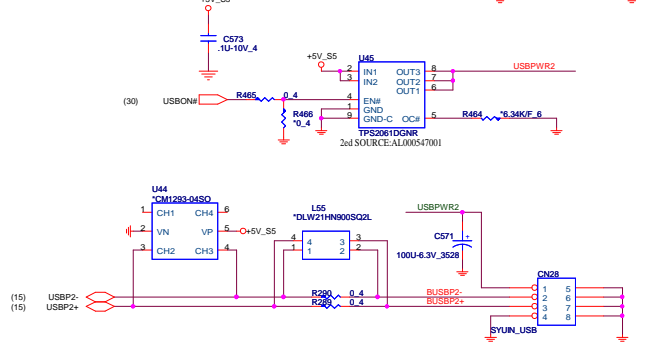
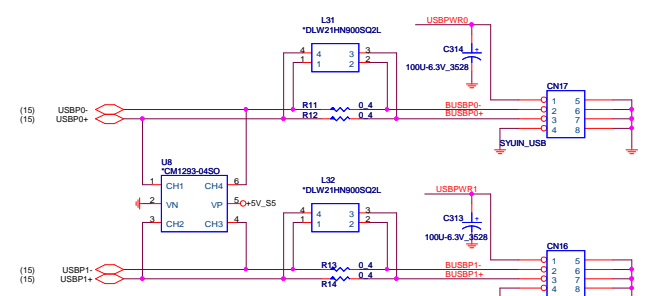
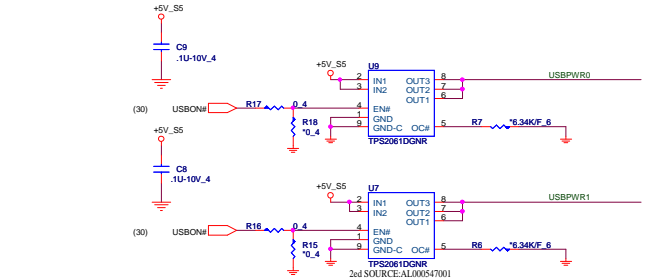
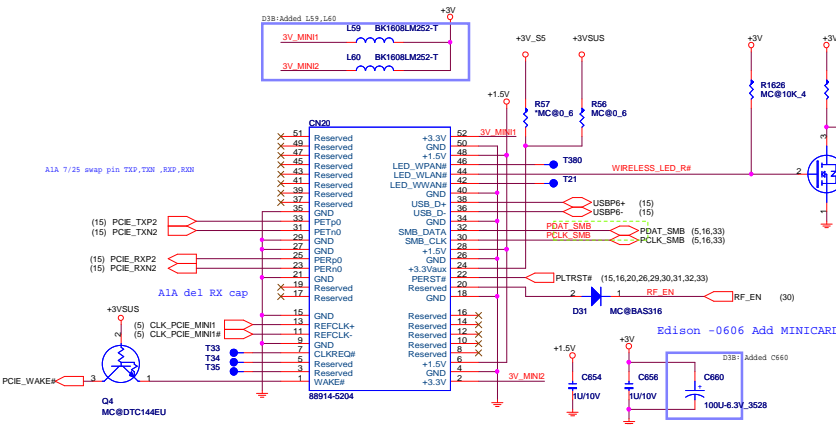
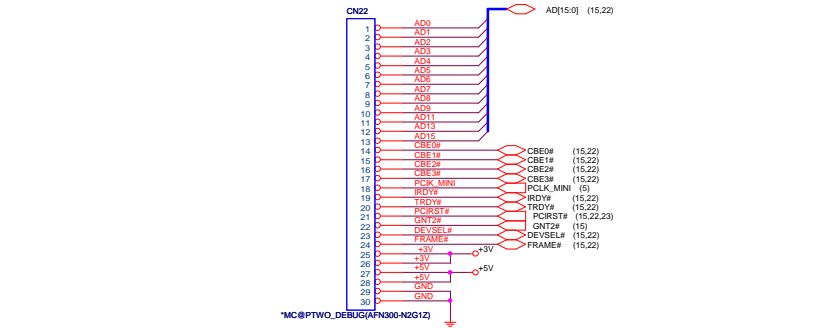
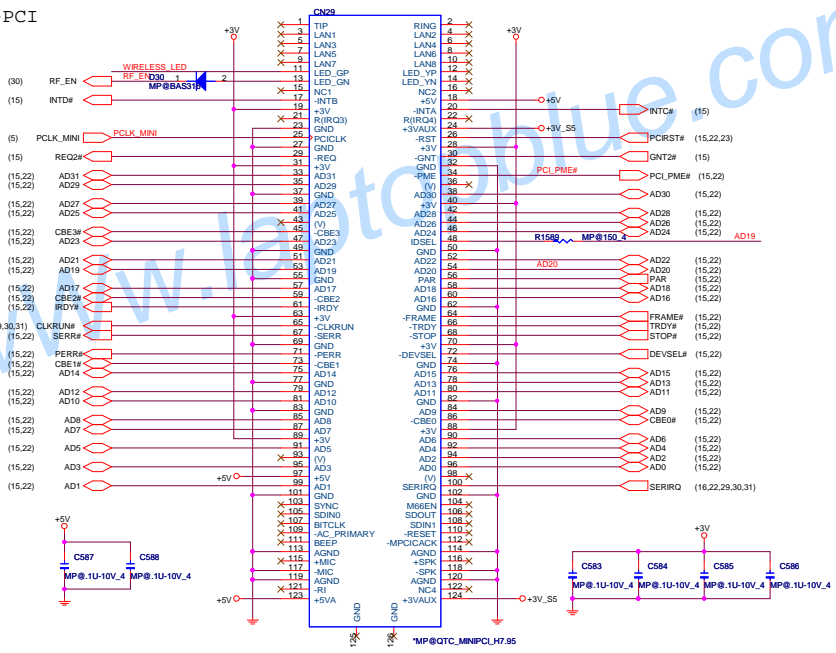
SEL	CONNECTION
0	Ax to xB1: LED2 to xLED1
1	Ax to xB2: LED2 to xLED2



PROJECT : ZH5
Quanta Computer Inc.

Rev	1A
Sheet	20 of 39
Date:	Friday, September 08, 2006

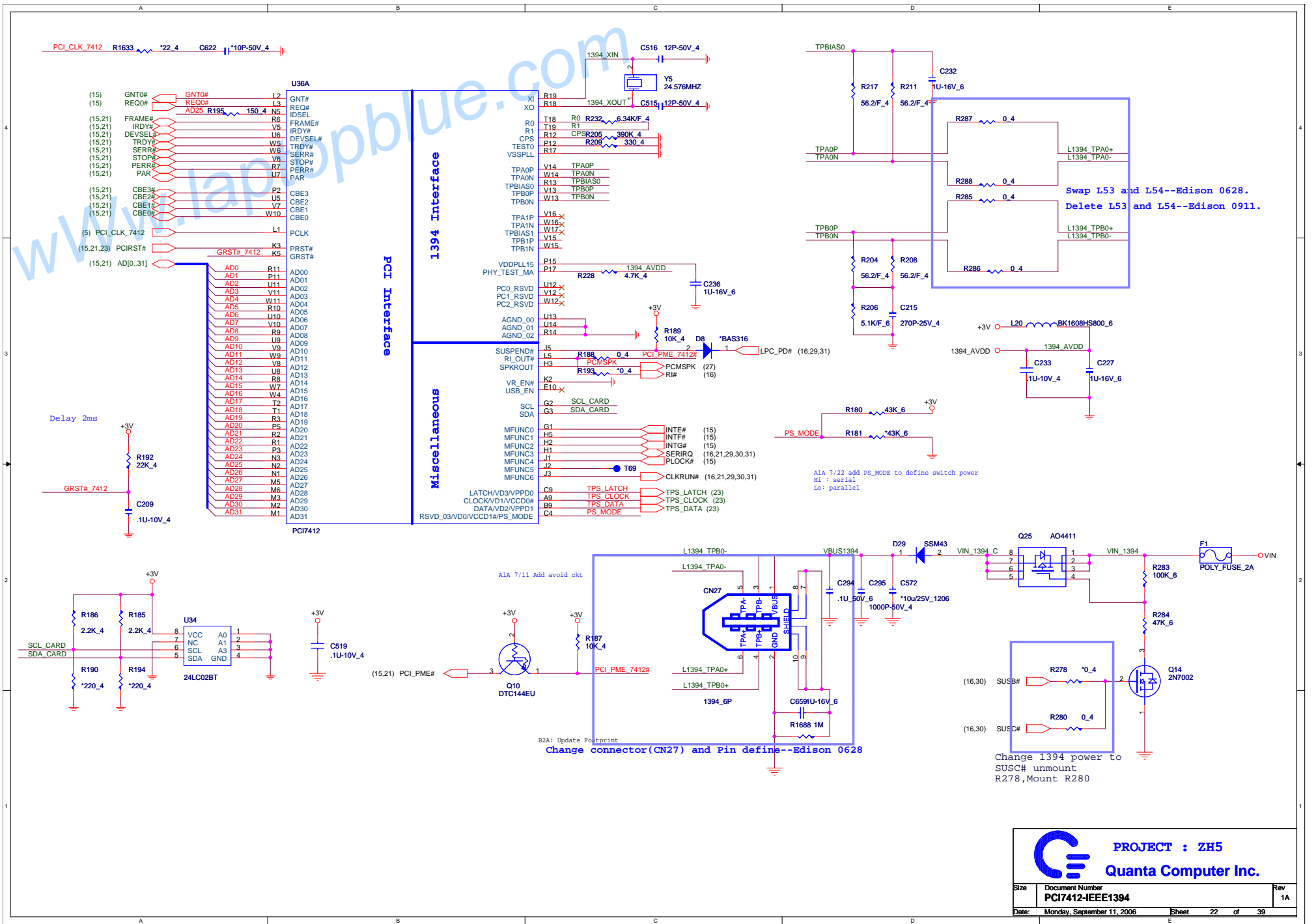
MINI-PCI



BLUETOOTH MODULE CONNECTOR

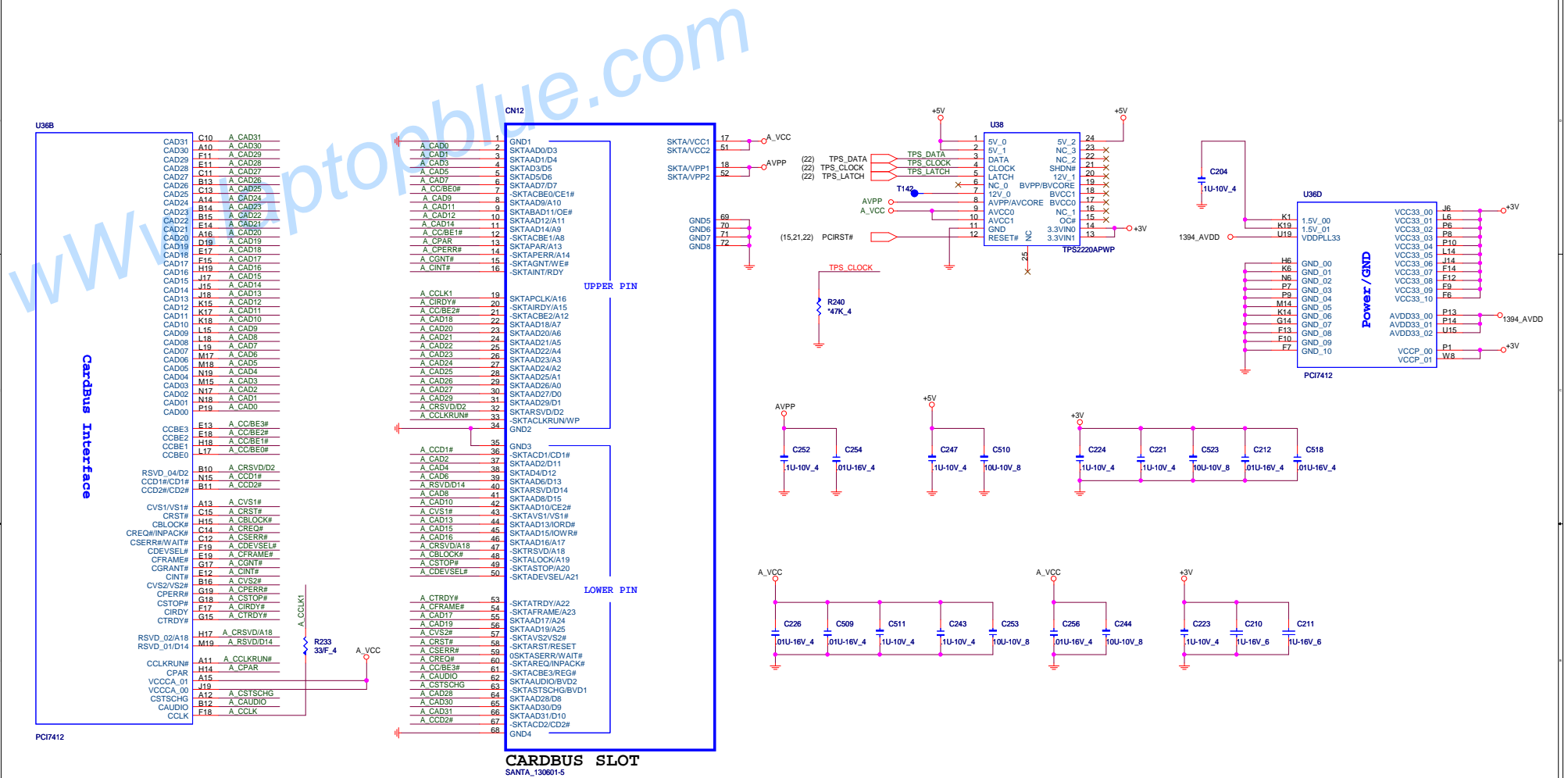
PROJECT : ZH5
Quanta Computer Inc.

Size: Document Number: PCMCIA / Mini Card / USB / Blue Tooth
 Date: Tuesday, September 12, 2006 Sheet 21 of 39



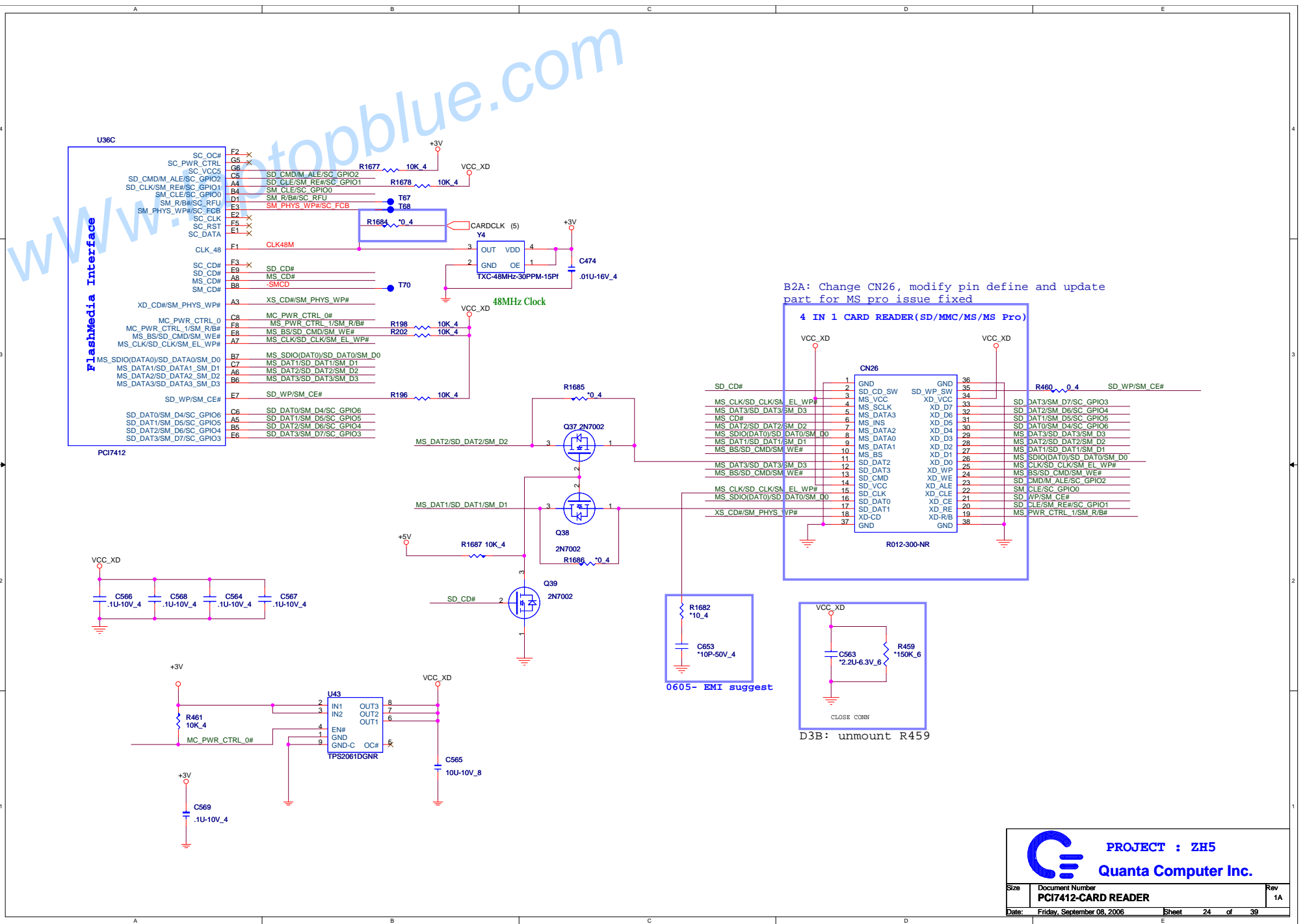
PROJECT : ZH5
Quanta Computer Inc.


Size	Document Number	Rev
	PCI7412-IEEE1394	1A
Date:	Monday, September 11, 2006	Sheet 22 of 39



PROJECT : ZH5
Quanta Computer Inc.

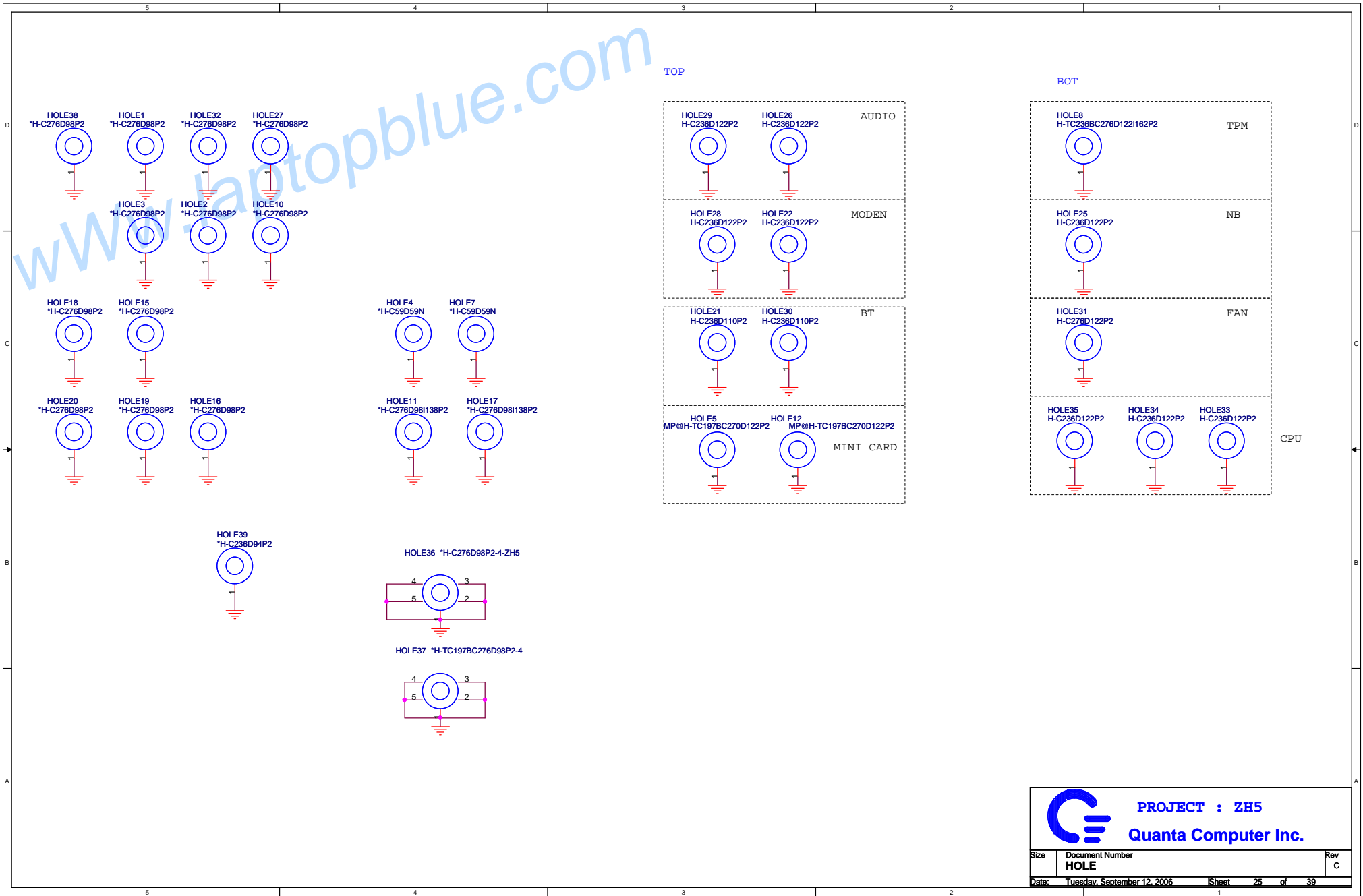
Size	Document Number	Rev
	PCI7412-PCMCIA	1A
Date:	Friday, September 08, 2006	Sheet 23 of 38




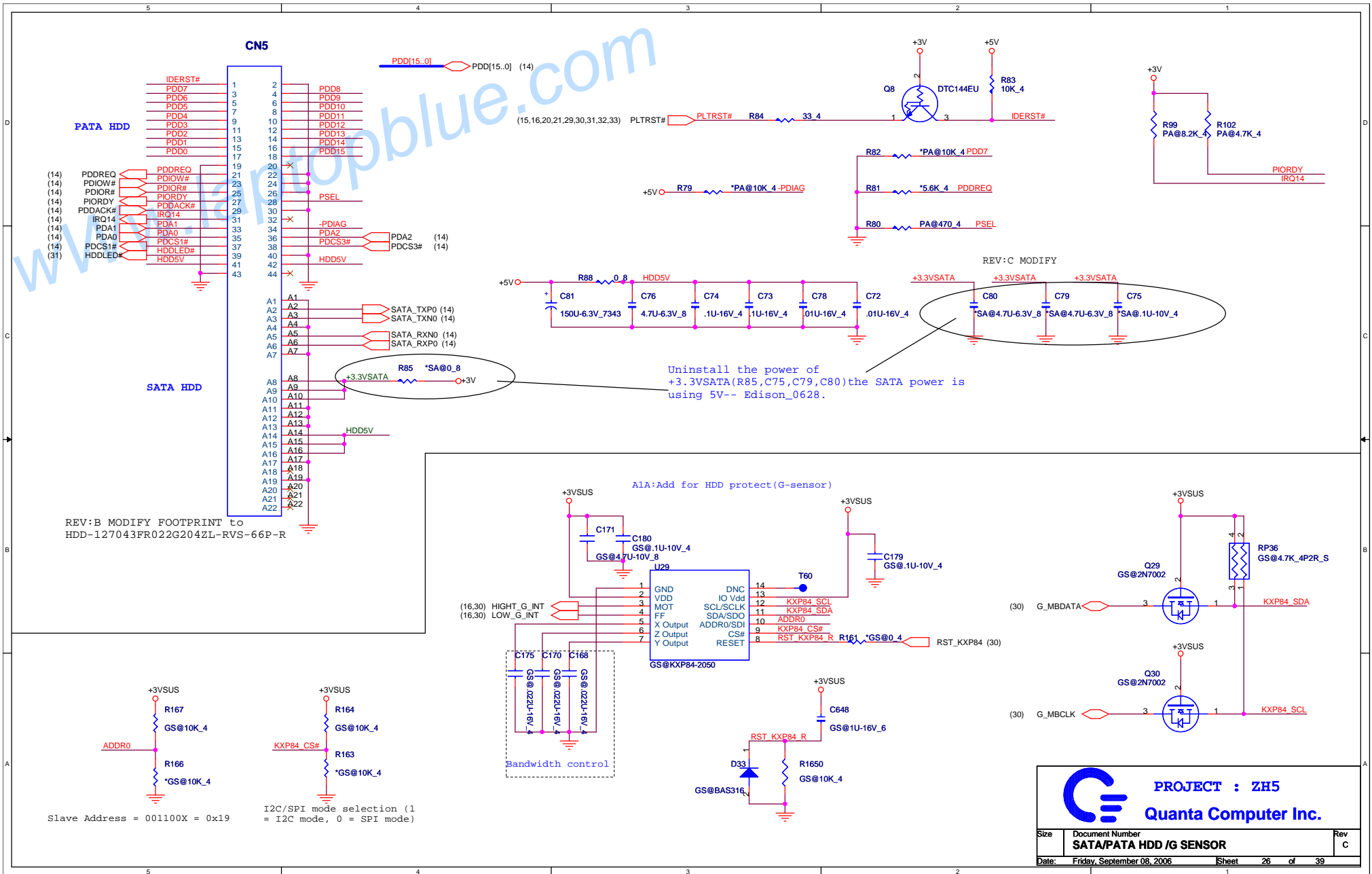


PROJECT : ZH5
Quanta Computer Inc.

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

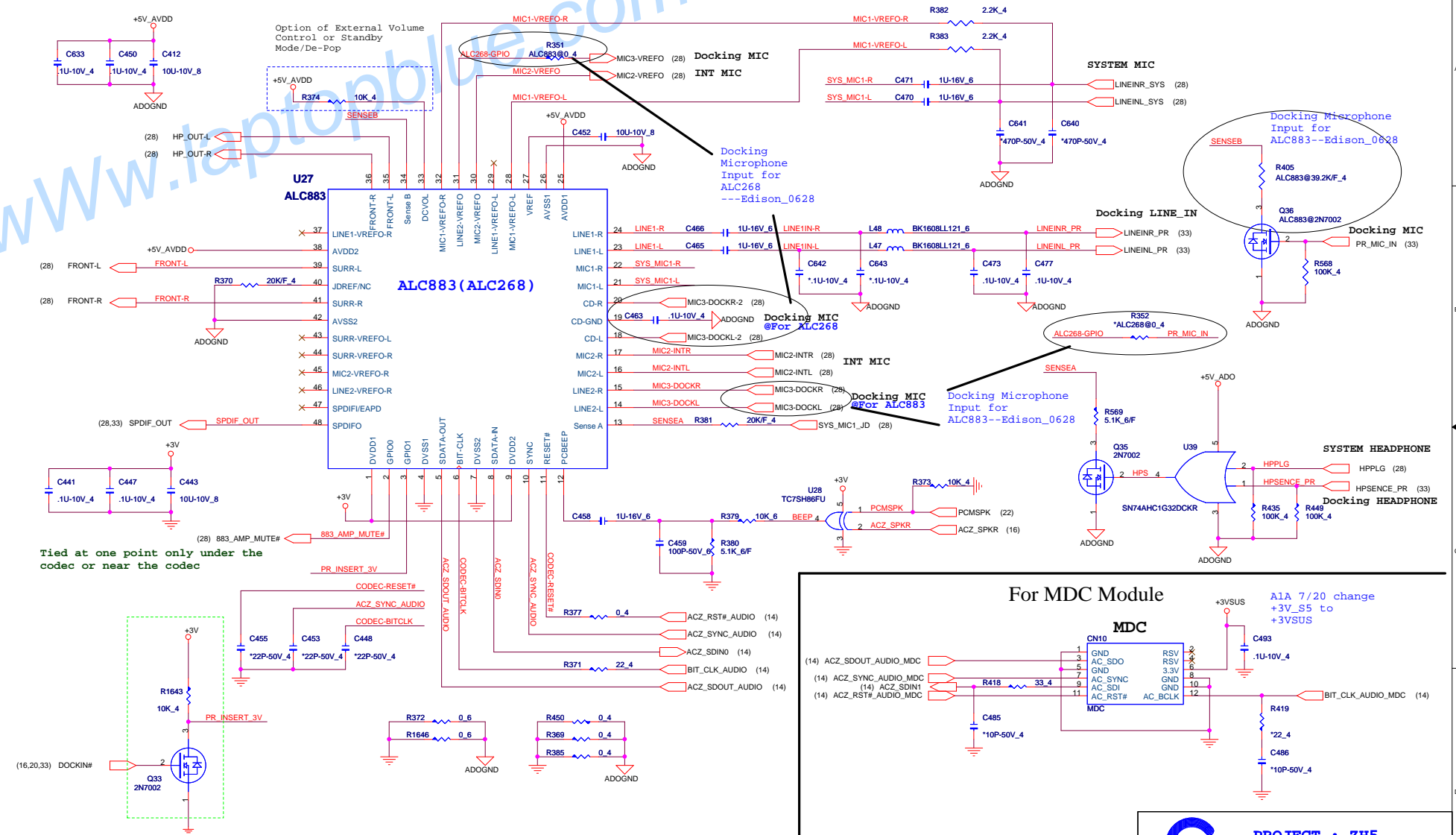


		PROJECT : ZH5	
		Quanta Computer Inc.	
Size	Document Number	Rev	
	HOLE	C	
Date:	Tuesday, September 12, 2006	Sheet	25 of 39



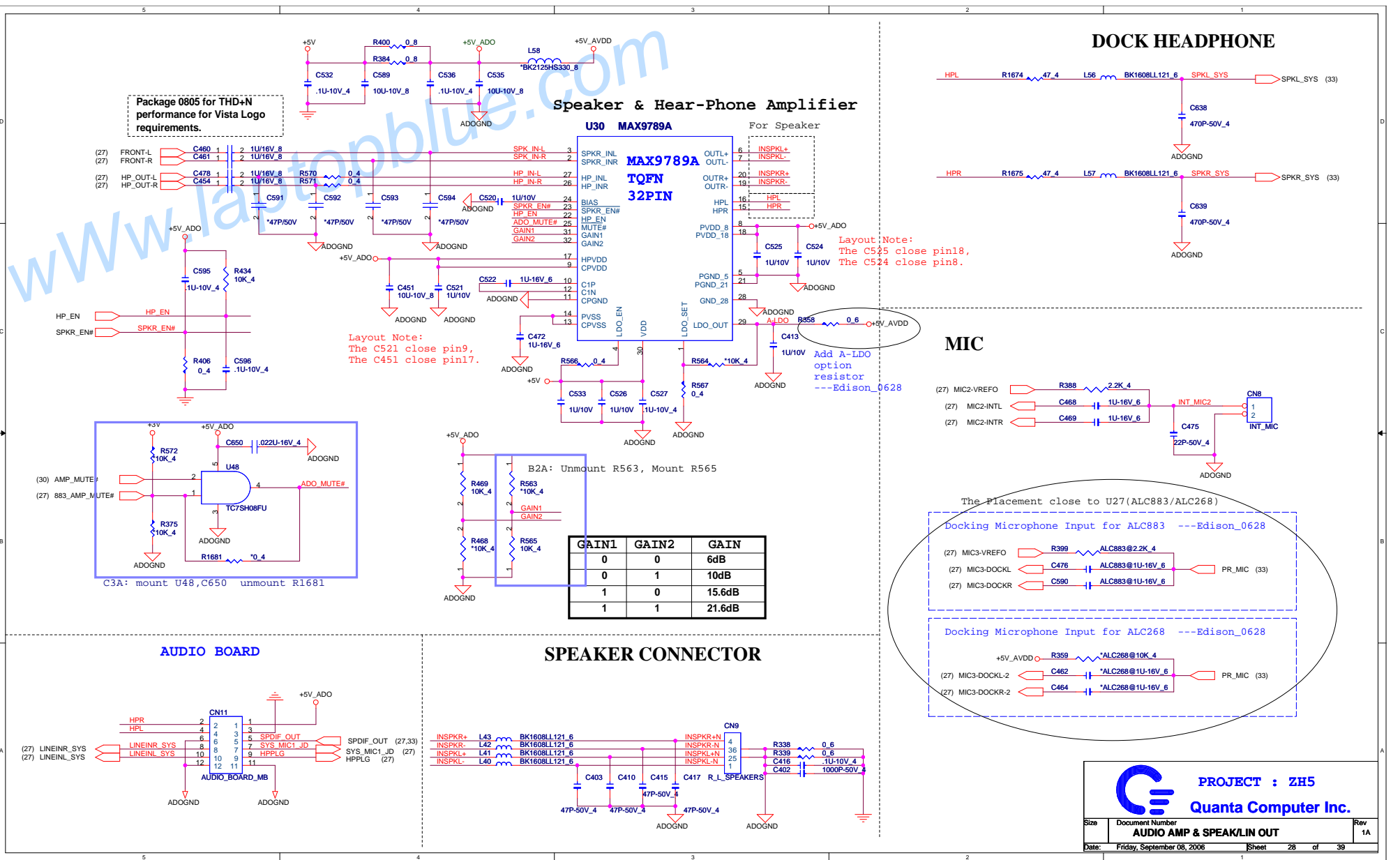
CODEC (ALC268)

LINE IN



PROJECT : ZH5
Quanta Computer Inc.

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



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

Speaker & Hear-Phone Amplifier

U30 MAX9789A

MAX9789A
TQFN
32PIN

For Speaker

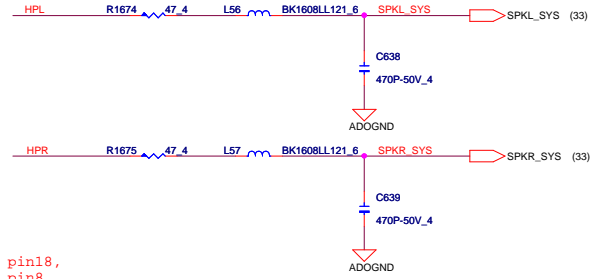
Layout Note:
The C521 close pin9,
The C451 close pin17.

Layout Note:
The C525 close pin18,
The C524 close pin8.

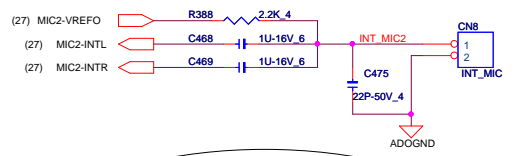
Add A-LDO option resistor
---Edison_0628

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

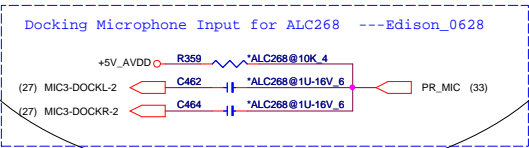
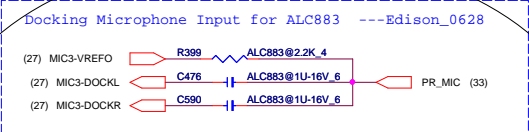
DOCK HEADPHONE



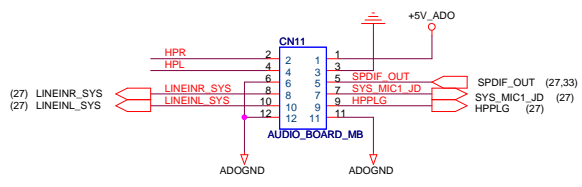
MIC



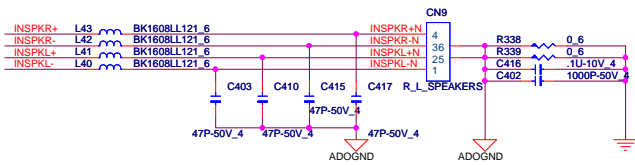
The Placement close to U27(ALC883/ALC268)



AUDIO BOARD



SPEAKER CONNECTOR

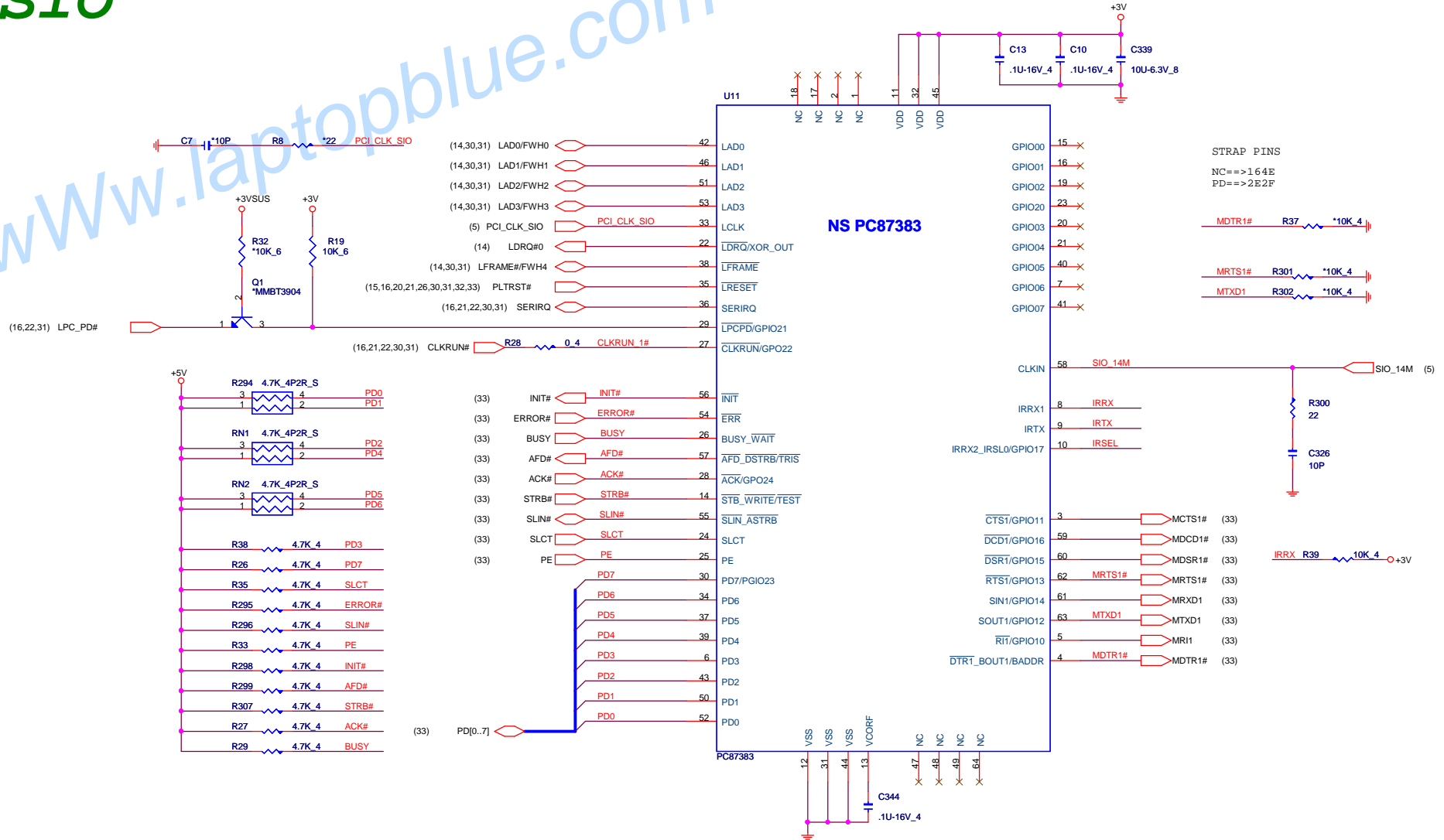


PROJECT : ZH5
Quanta Computer Inc.

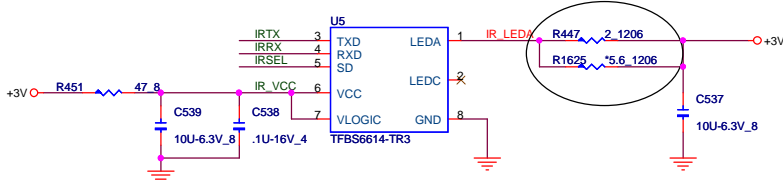
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Date:	Friday, September 08, 2006	Sheet 28 of 39

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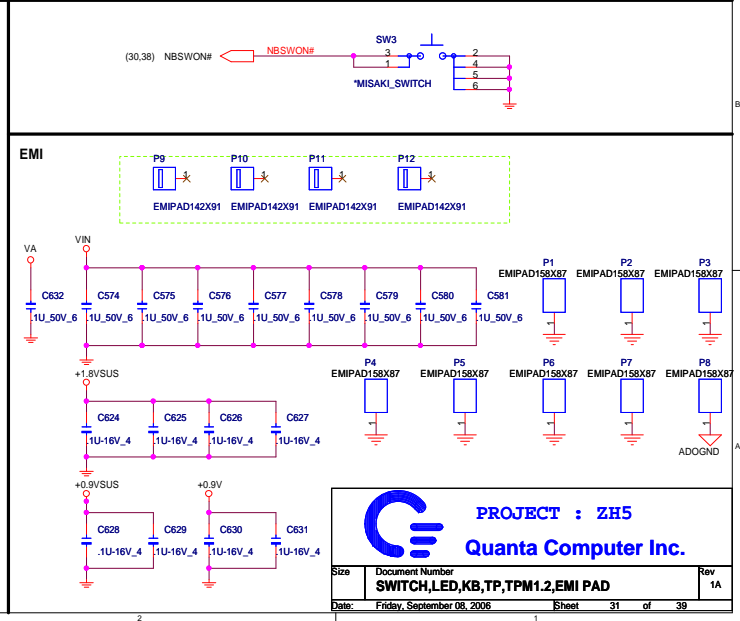
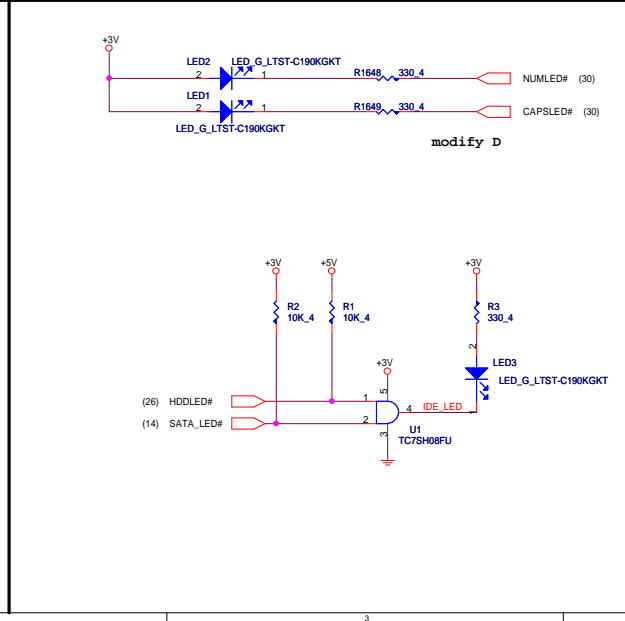
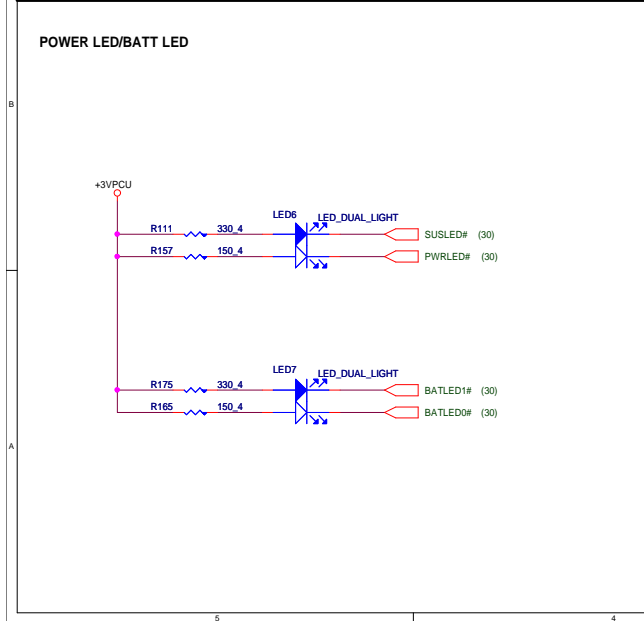
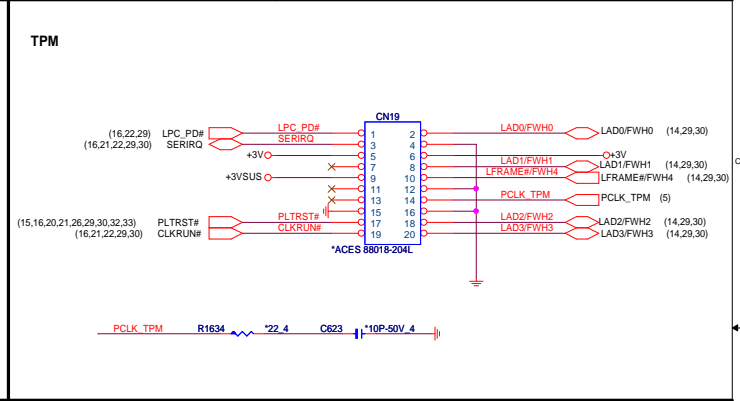
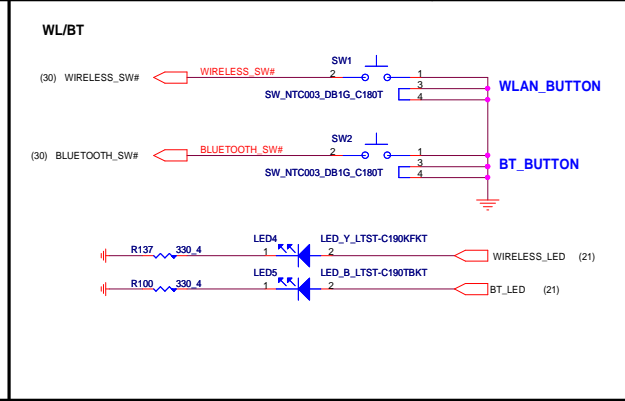
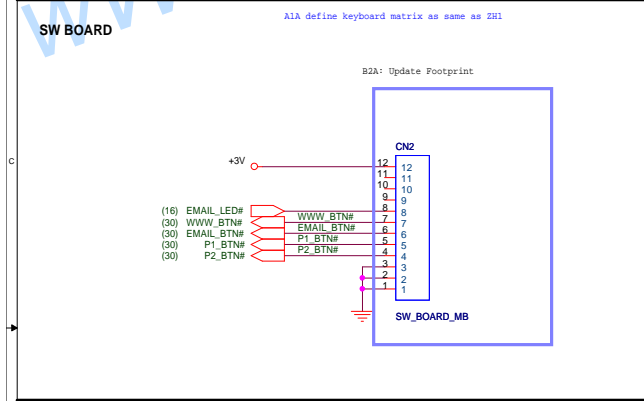
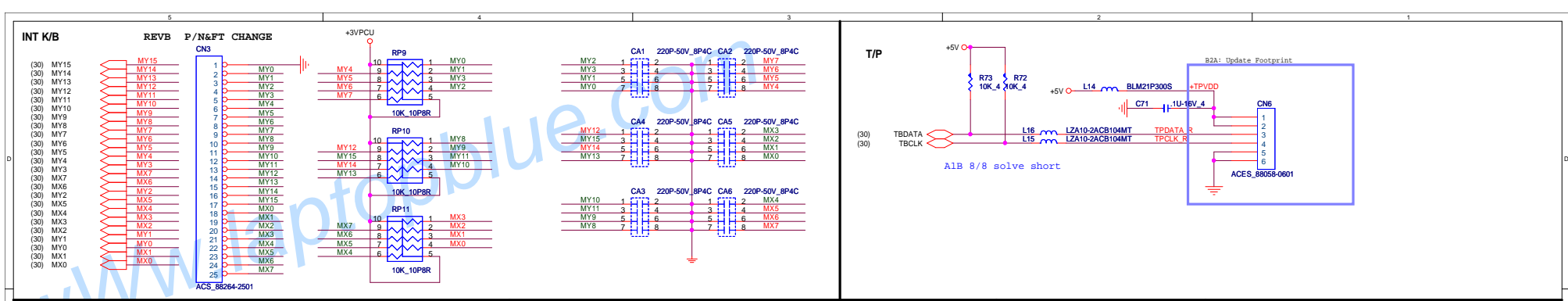
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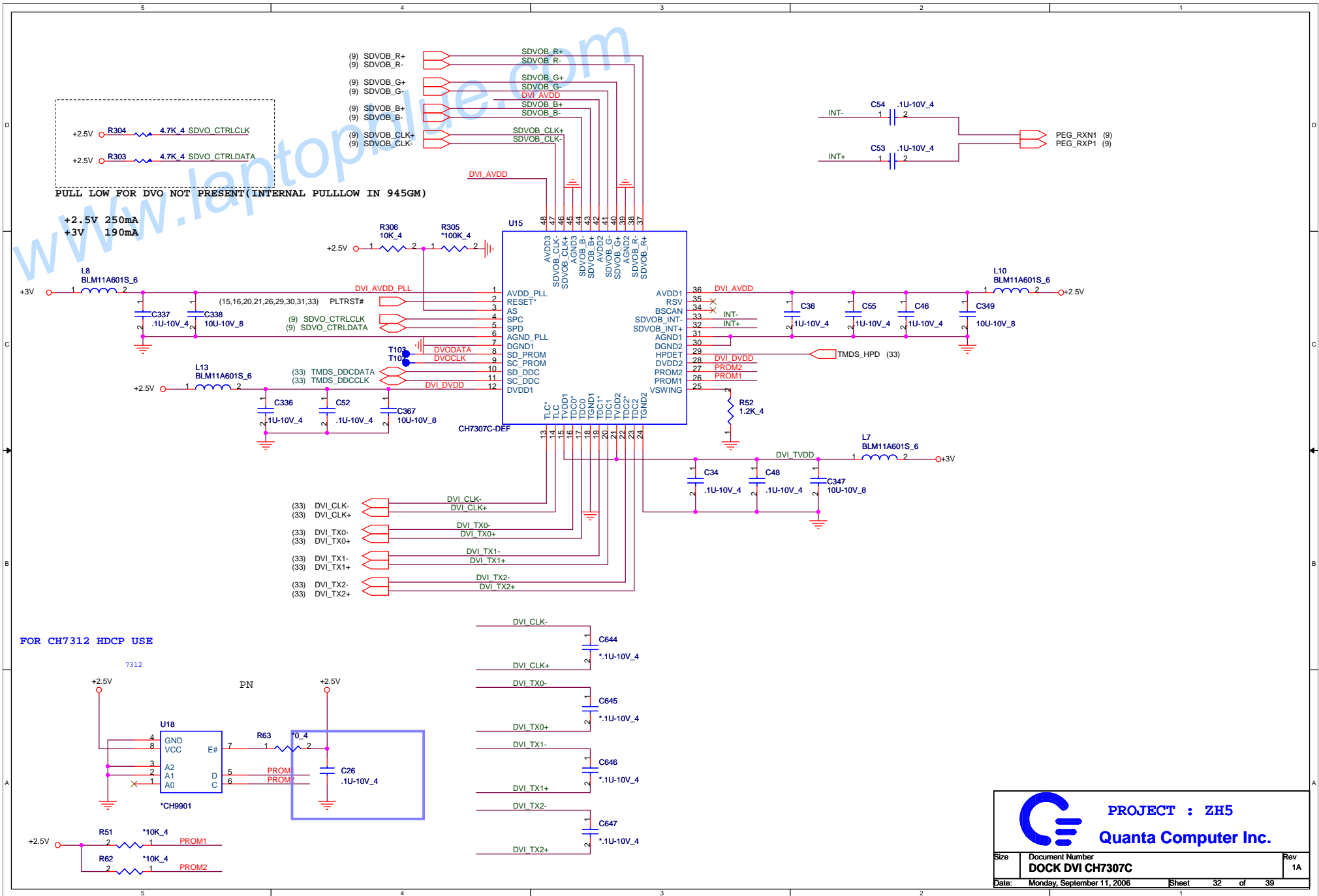


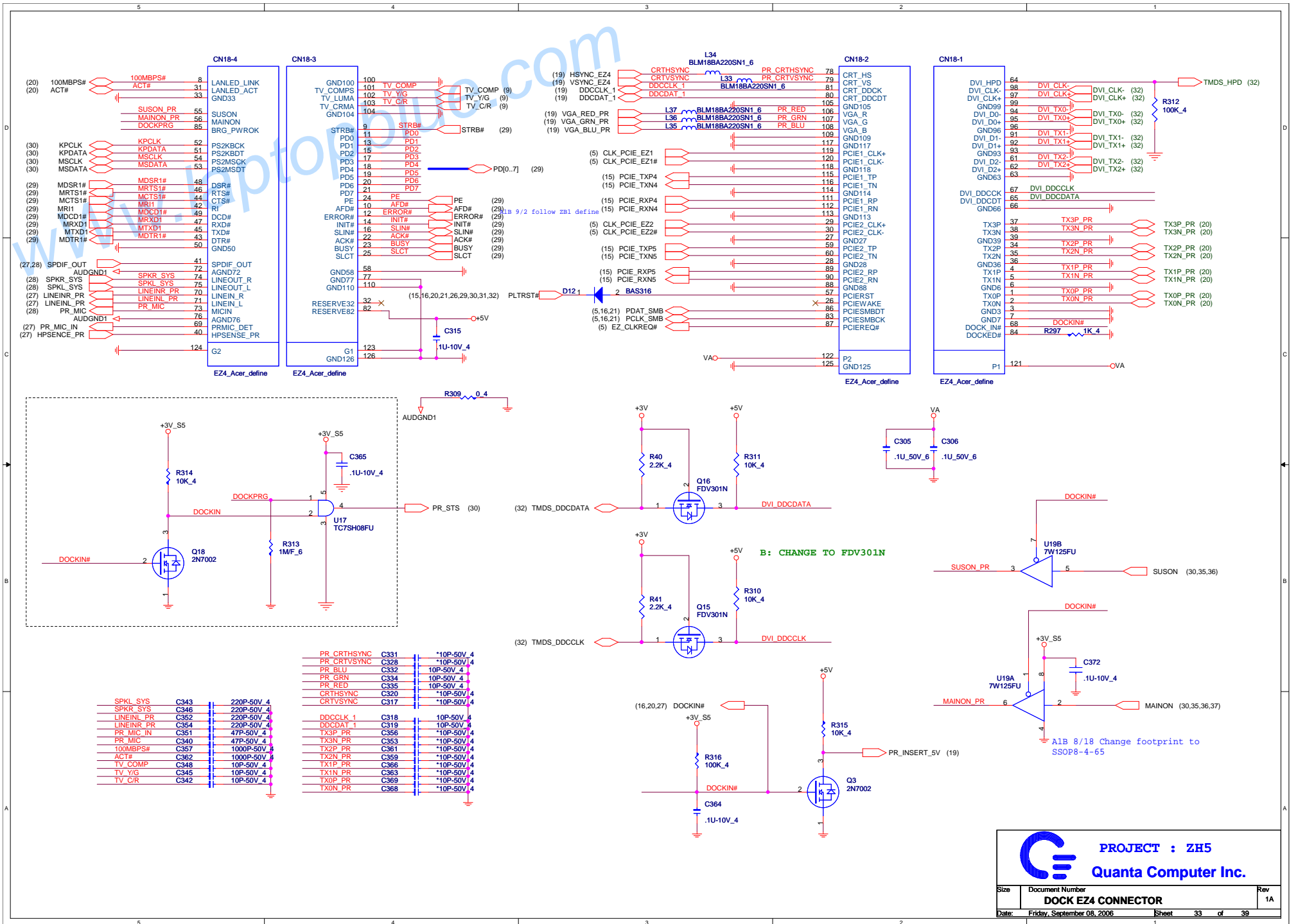
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		PROJECT : ZH5 Quanta Computer Inc.	
Date: Friday, September 08, 2006		Sheet 29 of 39	

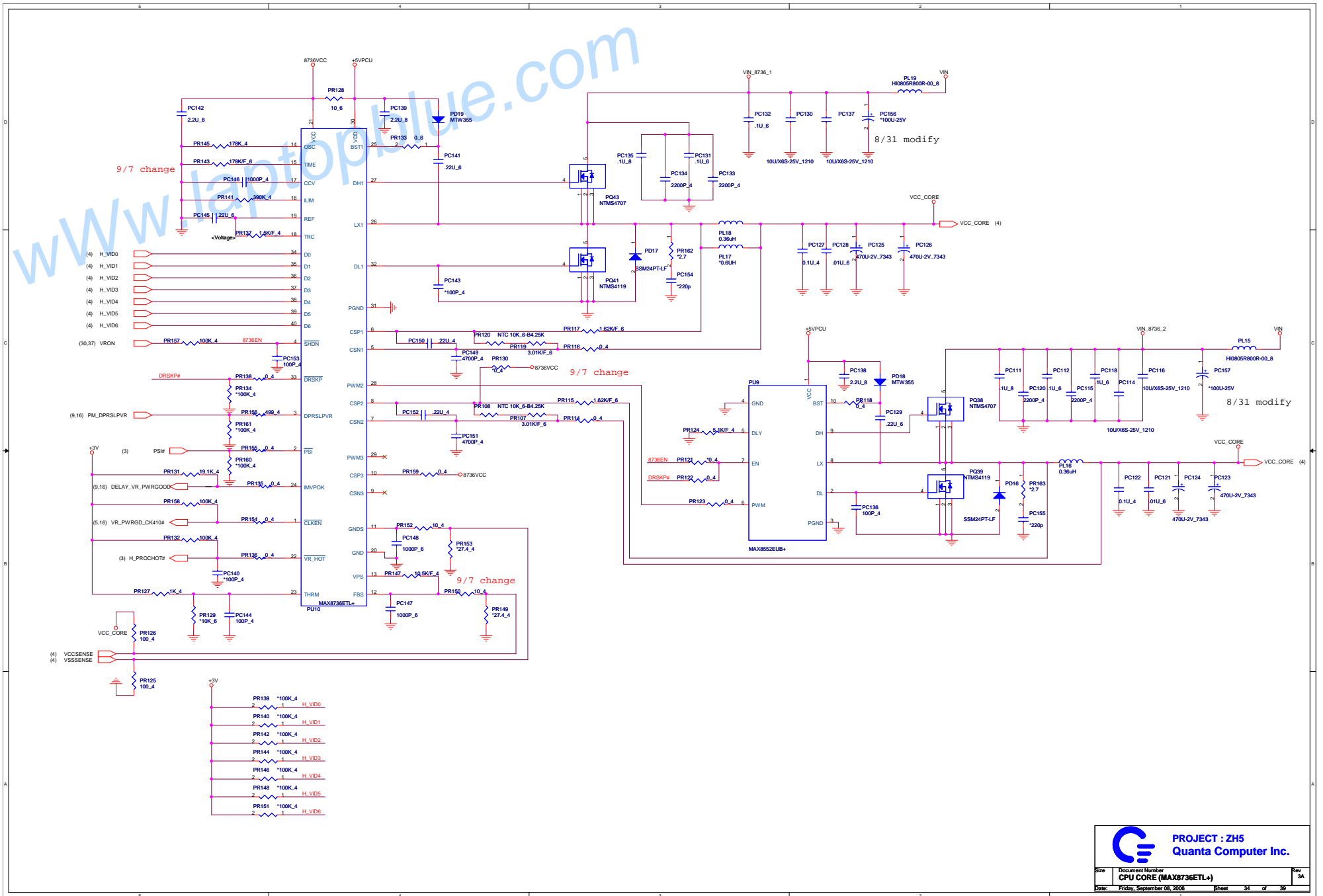


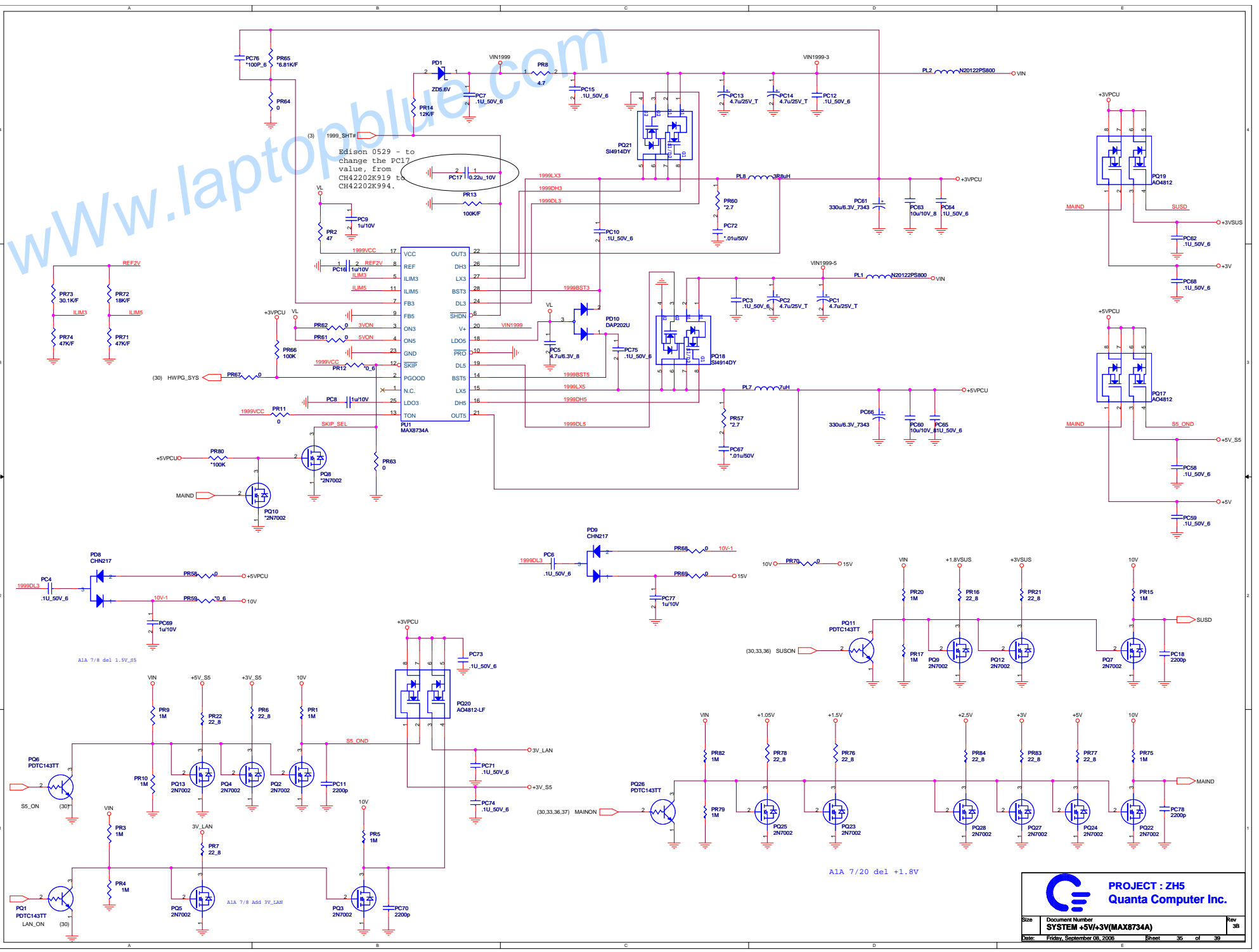




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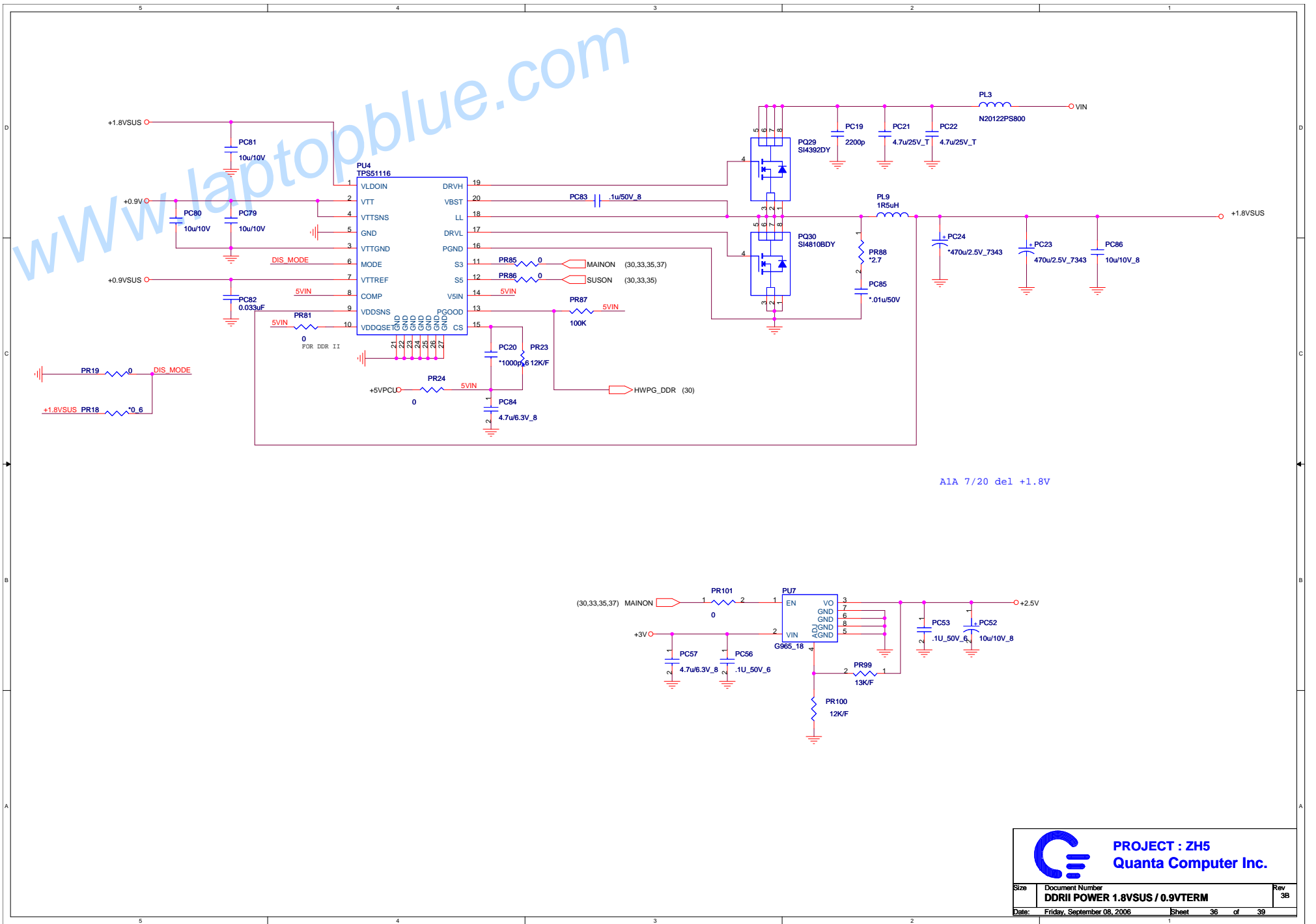
Size	Document Number	Rev
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Date:	Friday, September 08, 2006	Sheet 33 of 39






PROJECT : ZHS
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Size	Document Number	Rev
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Date:	Friday, September 08, 2006	Sheet 35 of 39



		PROJECT : ZH5 Quanta Computer Inc.	
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Date: Friday, September 08, 2006		Sheet 36 of 39	

