MODEL:	REV:	CHANGE LIST:
ZL5 MotherBoard	1A	FIRST RELEASE
	2A	01. Page2 : Unstaff R202 for correct clock setting 02. Page3 : Delete JP2, Unstaff C561 and C559 ~ C562, C567 change P/N to CH6101M9A07 due to the height limitaion 03. Page5 : Change DDR MD terminator resistor array to 56ohm 4P2R type 04. Page9 : Change R20 to 6.2K, Unstaff C13 05. Page10 : Modify the CRT circuit due to the bad signal quality of CM2009 (Delete U1, Add D25, D28 ~ D32, Q35, Q36, R405, R404, R406, U31, U32) 06. Page11 : RN5, RN7, RN8, RN11, RN20, RN21 change P/N to CJ282084N01 07. Page12 : Modify the power good circuit (Delete D15, Add R402, R403) 08. Page16 : Modify the lan led circuit to fit to the right led color definition (R350, R353 change to pull high, Add D26, D27, CN3 change footprint) 09. Page17 : CN7, CN8 change footprint 10. Page19 : HOLE25 change to TOP layer 11. Page20 : Cancel the HOLD# ciruit (Unstaff R95, R111, D5, D7, Q17, Staff Q15, R99) 12. Page21 : SW2, SW3 change P/N to DHPPS11BD0 13. Page22 : Add PR123, PD16, PC149; PD13 change P/N to BC05FA20Z01; PU12 change P/N to AL001999W16 14. Page23 : PR63 change to 11K/F; PD15 change P/N to BC10QS04C01; Staff PC77 1000P 15. Page25 : PL8, PL9 change size to RC0805; PD8, PD9 change P/N to BC10QS04C01 16. Page26 : Unstaff PQ4; PR101, PR105 change P/N to CS31003B919; PU9 change P/N to AJ017720W06 17. Delete JP1, JP2 ~ JP6 18. U20 change P/N to AJ007600T25 19. L7, L8, L9, L10, L11, L12, L13, L14, L15, L16, L18, L24, L26, L27, L40, L43, L47, L48, L49, L50 change P/N to CX0QNT03004 20. PQ3, PQ4, PQ5, PQ6, PQ8, PQ9, PQ10, PQ12, PQ13, PQ14, PQ15, PQ16, PQ18, PQ24, PQ32, PQ33, PQ35, Q2, Q3, Q4, Q5, Q6, Q8, Q9, Q11, Q26, Q27, Q34 change P/N to BAM70020074
	3A	01. Page2 : Staff R176 33ohm for 302ELV clock 02. Page4 : Staff C131, C175, C188, C189 03. Page9 : Staff R295(0ohm), R294 change P/N to CS00002JB03, Unstaff Y4, C31, C554 for 302ELV clock; Add C710 ~ C713, R407 ~ R410 for EMI reserved. 04. Page10 : D17 change p/n to BC05FA20Z01 to enlarge the current limit; L1 ~ L3 change p/n to CX808600101 for EMI 05. Page12 : C633, C634 change P/N to CH01806JB07 to adjust RTC accuracy; Add JP1 for RTC reset 06. Page15 : Add C709 07. Page17 : Unstaff CN8, CN10; Add C700 ~ C708 for EMI 08. Page19 : Delete HOLE18; Staff PAD4 for modem cable
	3B	01. Page17 : L36, R274, R279 change p/n to CX8HS121001; Staff R270, R273 100pF 02. Page18 : L54, L55 change p/n to CX8HS121001; Unstaff R260, R261, R265, R271, R278 03. Page19 : Staff PAD9(FDMK1004010) for EMI 04. Page22 : Unstaff PR112 for thermal shutdown working properly 05. Q2, Q3, Q4, Q5, Q6, Q8, Q9, Q11, Q18, Q26, Q27, Q34, Q35, Q36, PQ3, PQ4, PQ5, PQ6, PQ8, PQ9, PQ10, PQ12, PQ13, PQ14, PQ15, PQ16, PQ18, PQ24, PQ32, PQ33, PQ35 change p/n to BAN70020Z13

MODEL : ZL5 MB

PAGE	FROM	TO
1	3A	3B
2	3A	3B
3	3A	3B
4	3A	3B
5	3A	3B
6	3A	3B
7	3A	3B
8	3A	3B
9	3A	3B
10	3A	3B
11	3A	3B
12	3A	3B
13	3A	3B
14	3A	3B
15	3A	3B
16	3A	3B
17	3A	3B
18	3A	3B
19	3A	3B
20	3A	3B
21	3A	3B
22	3A	3B
23	3A	3B
24	3A	3B
25	3A	3B
26	3A	3B

Quanta Computer Inc.	PROJECT : ZL5	APPROVE BY: SAINT LIN	DRAWING BY:DILBERT YU	REV 3B
	MB ASSY'S P/N : 31ZL5MB0009	PROJECT LEADER: SAINT LIN	DOCUMENT NO:	DATE :2005/3/9

COVER SHEET 1 OF 1

ZL5
Block Diagram

CLK-GEN
ICS 952801
Page 2
- HOST 200MHz
- ZCLK 133MHz
- AGP 66MHz
- PCI 33MHz
- USB 48MHz
- REF 14.318MHz

3V/5V
Page 22
- 3V_ALWAYS
- 5VPCU
- 3V_S5
- 1.8V_S5
- 3VSUS
- 5VSUS
- +3V
- +5V
- 15V

2.5V/1.25V
Page 23
- 2.5VSUS
- 1.25VREF
- +2.5V
- DDR_VTT

1.2V/1.5V 1.8V
Page 24
- +1.2V_HT
- +1.5V
- +1.8V

CPU CORE
Page 25
- VCC_CORE

BATTERY CHARGER
Page 26

DDR SO-DIMM
Page 5
DDR 333

CPU
AMD Athlon64
SMT uPGA754
Page 3,4

Thermal
Thermal sensor & Fan

HyperTransport
16x16
1600MT/s

NB
SIS M760GX
(698 PIN BGA)
Page 6,7,8

RGB
CRT
1x D-SUB 15-Pin
Page 10

INTA#
DVO
LVDS Transmitter
SIS302ELV
Page 9
LVDS
LCD
15" XGA/WXGA
Page 10

MuTIOL(1GB/s)

SB
SIS 963L
(371 PIN BGA)
Page 11,12,13

HDD
Primary Master
Page 19
ATA 66/100

ODD
Secondary Master
Page 19
ATA 66/100

USB
3x connector
Page 15
USB 2.0

MINI USB
(BLUETOOTH)
Page 15

REQ0#, GNT0#
INTB#, INTC# IDSEL : AD22
PCI 2.2 133MB/s (33MHZ)
Mini PCI
WLAN 802.11A/G
Page 15
Antenna

REQ1#, GNT1#
INTD# IDSEL : AD17
CardBus
TI PCI1410
Page 14
PC Card
1x type-I/II

MII
LAN PHY
RTL8201CP
Page 16
Transformer
Page 16
RJ-45
Page 16

AC'97 2.1
MDC1.5
56K MODEM
Page 17
RJ-11
Page 16

AC97 Codec
ALC203
Page 17
MIC-In Jack
Line-In Jack

AMP
MAX9755
Page 18
HP-Out Jack
Int. Speaker

LPC

Int. Keyboard
87-Key
Page 21

Touch Pad
6-Button
Page 21

EC
NS PC97551
Page 20

BIOS
Page 20

PROJECT : ZL5
Quanta Computer Inc.

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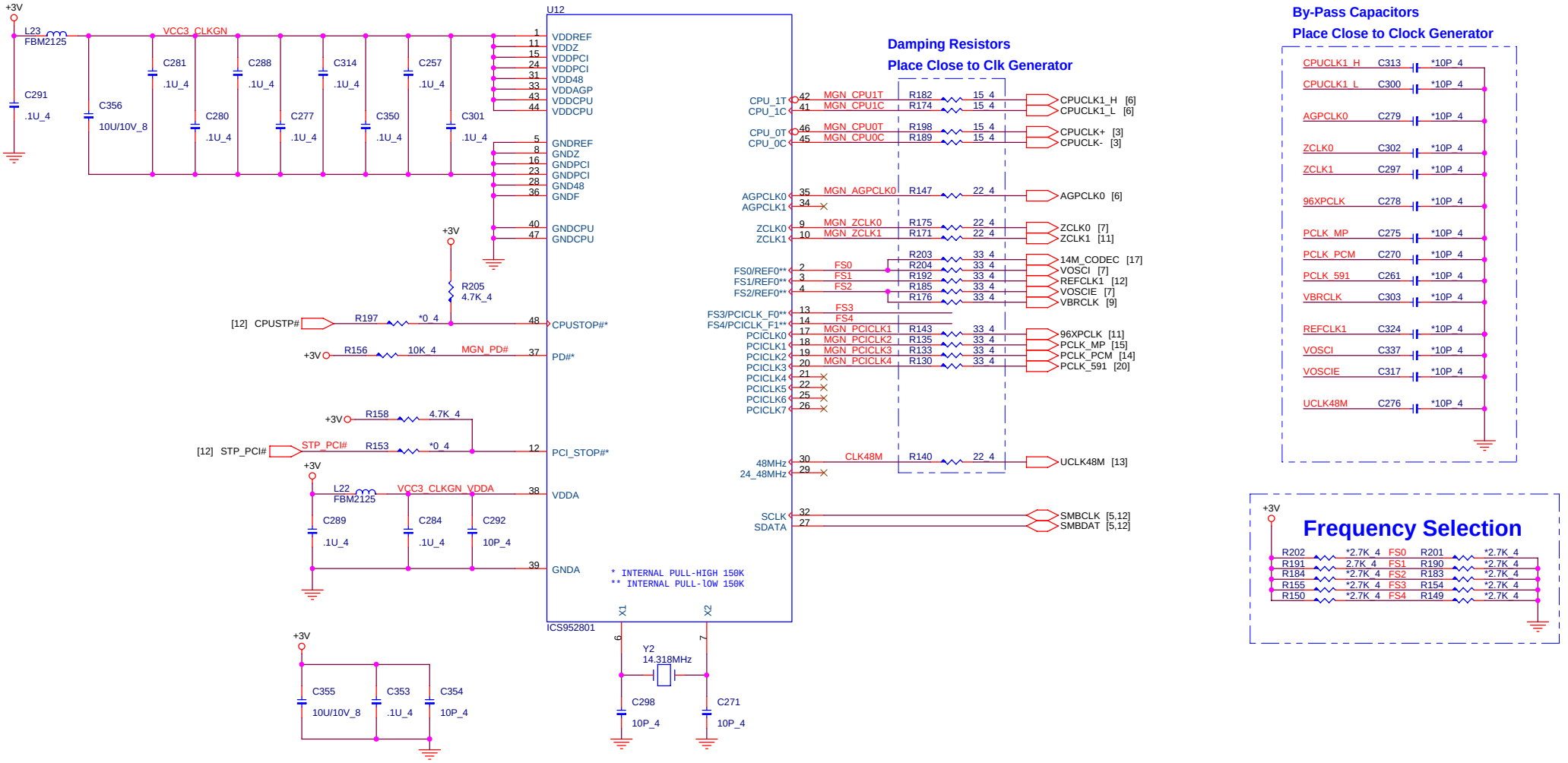

CLK Table for SiS M760 (Not For ICS ICS-952801)

SiS 755/M760 CLOCK									
(FS4)	(FS3)	(FS2)	(FS1)	(FS0)	CPU (MHz)	ZCLK (MHz)	AGPCLK (MHz)	PCI (MHz)	VCO (MHz)
0	0	0	0	0	200	66.66	66.66	33.33	400
0	0	0	0	1	200	100	66.66	33.33	400
0	0	0	1	0	200	133.33	66.66	33.33	400
0	0	0	1	1	200	166.66	66.66	33.33	1000
0	0	1	0	0	233	66.66	66.66	33.33	466
0	0	1	0	1	233	93.2	66.66	33.33	466
0	0	1	1	0	233	133.28	66.66	33.33	933
0	0	1	1	1	233	139.8	69.9	33.33	699
0	1	0	0	0	266	66.66	66.66	33.33	266
0	1	0	0	1	266	106.4	66.5	33.33	532
0	1	0	1	0	266	133	66.5	33.33	532
0	1	0	1	1	266	159.6	66.5	33.33	798
0	1	1	0	0	200	133	50	33.33	400
0	1	1	0	1	200	114	66.66	33.33	800
0	1	1	1	0	200	142	66.66	33.33	1000
0	1	1	1	1	200	160	66.66	33.33	800

SiS 755/M760 CLOCK								
(FS4)	(FS3)	(FS2)	(FS1)	(FS0)	CPU (MHz)	ZCLK (MHz)	AGPCLK (MHz)	PCI (MHz)
1	0	0	0	0	180	135	67.5	33.75
1	0	0	0	1	185	132.14	66.07	33.04
1	0	0	1	0	190	135.71	67.08	33.93
1	0	0	1	1	195	130	65	32.5
1	0	1	0	0	205	136.66	68.33	34.17
1	0	1	0	1	210	140	70	35
1	0	1	1	0	215	129	64.5	32.25
1	0	1	1	1	220	132	66	33
1	1	0	0	0	66.66	66.66	66.66	33.33
1	1	0	0	1	66.66	100	66.66	33.33
1	1	0	1	0	100	100	66.66	33.33
1	1	0	1	1	100	133.33	66.66	33.33
1	1	1	0	0	133	100	66.66	33.33
1	1	1	0	1	133	133.33	66.66	33.33
1	1	1	1	0	166	100	66.66	33.33
1	1	1	1	1	166	133.33	66.66	33.33

PROJECT : ZL5
Quanta Computer Inc.

Size	Document Number	Rev
	CLOCK GENERATOR	3B
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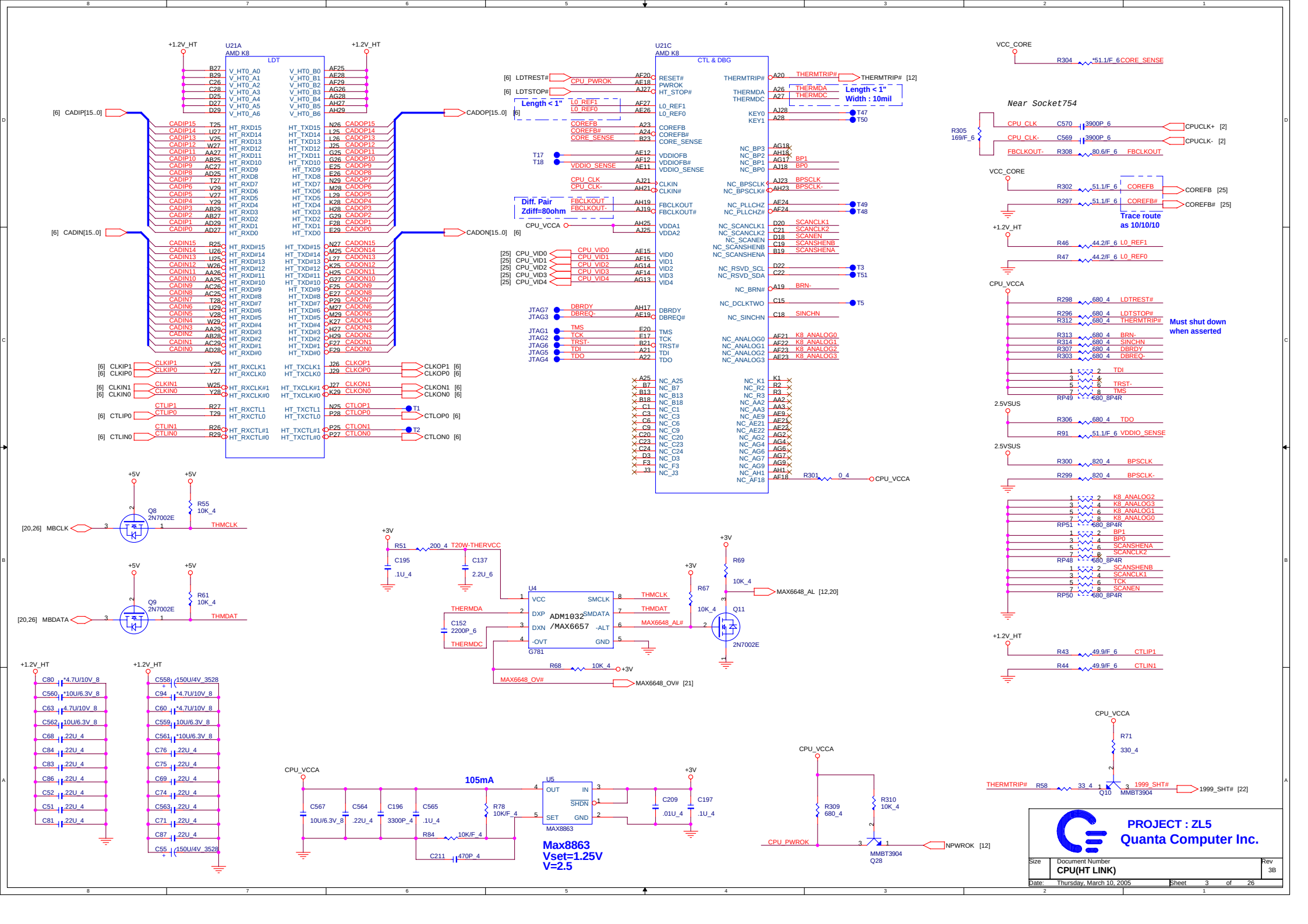
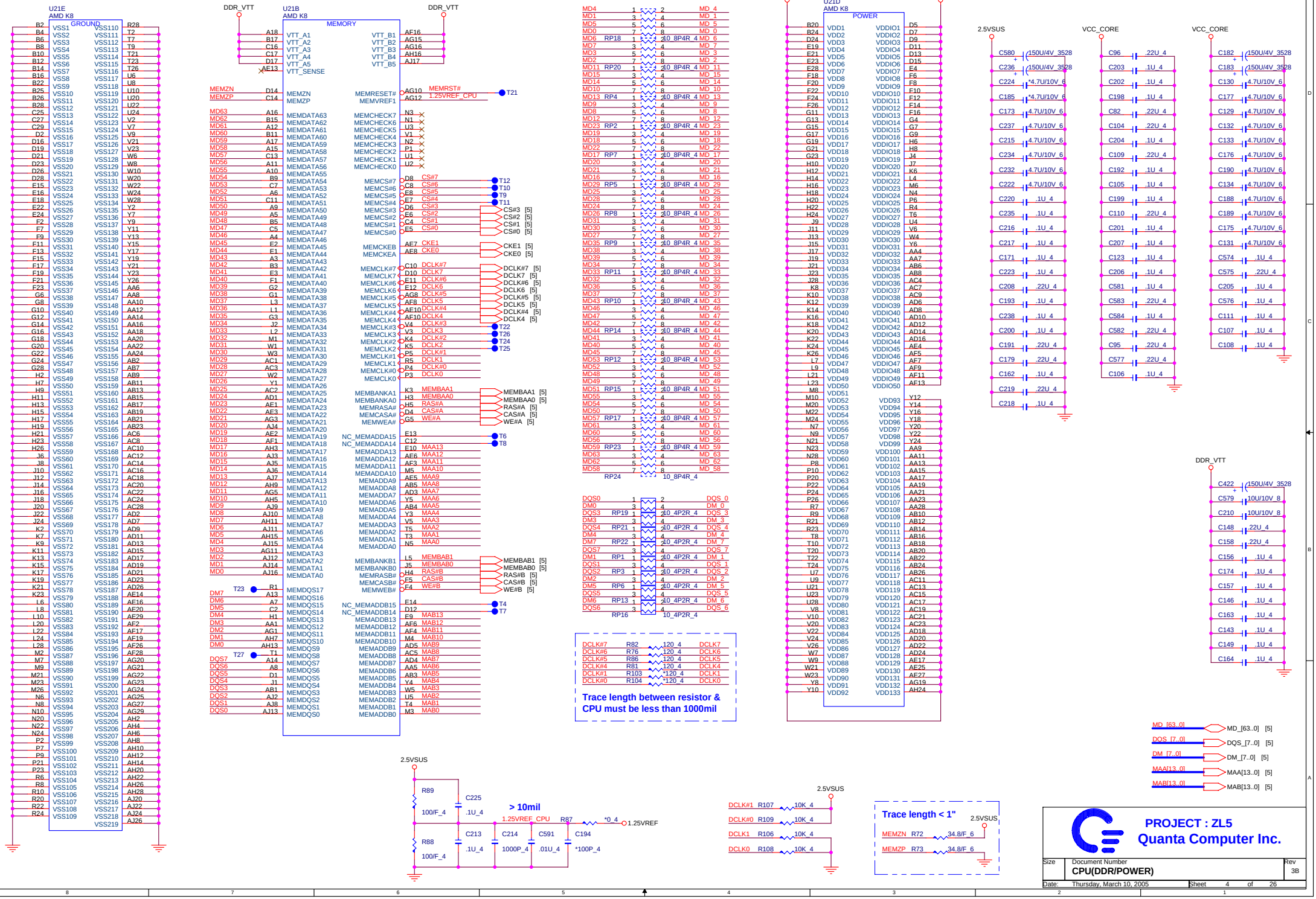
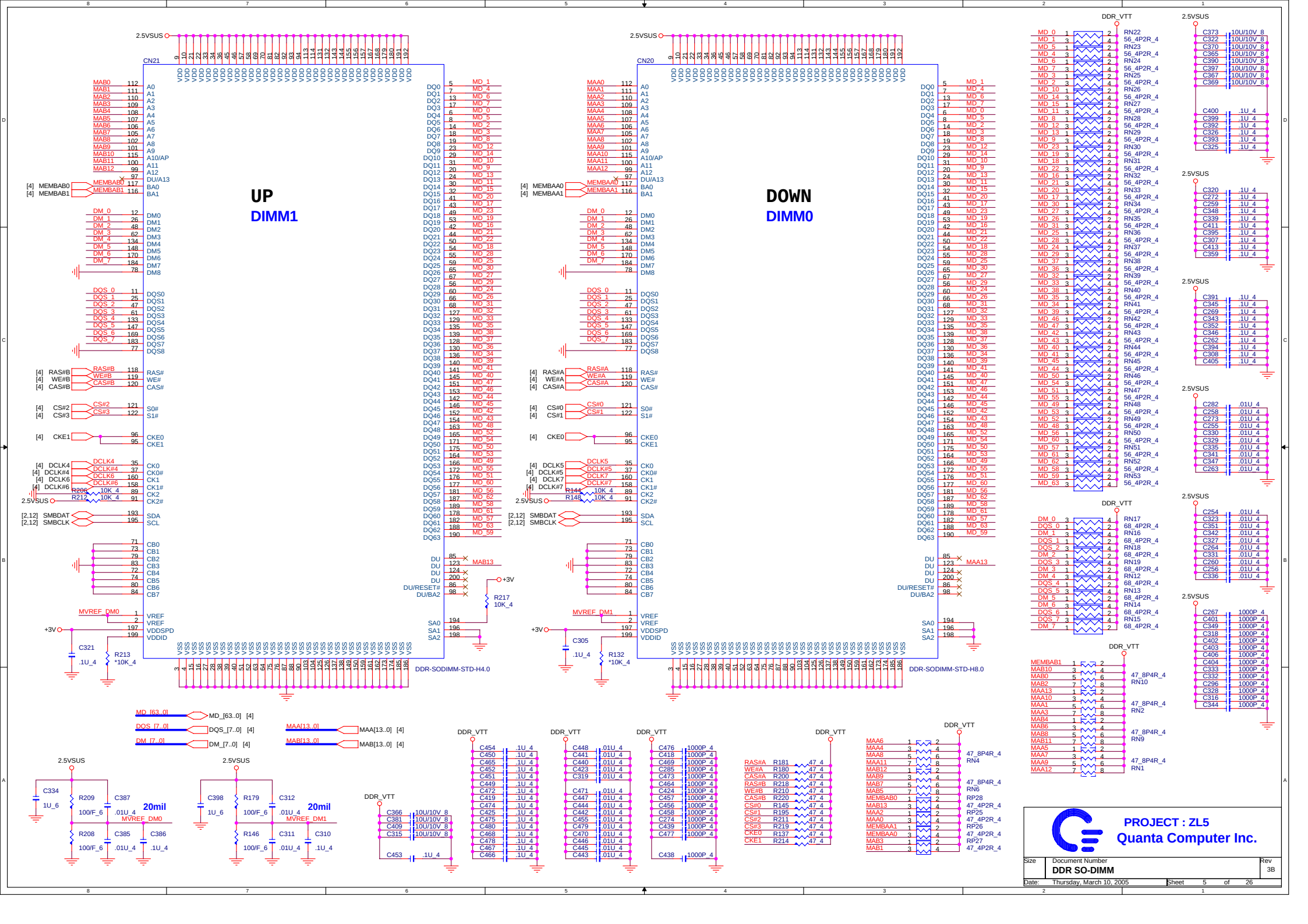

U21A
AMD K8
LDT
U21C
AMD K8
CTL & DBG
Near Socket754
Length < 1"
Width : 10mil
Length < 1"
Diff. Pair
Zdiff=80ohm
Trace route
as 10/10/10
Must shut down
when asserted
105mA
Max8863
Vset=1.25V
V=2.5
PROJECT : ZL5
Quanta Computer Inc.
CPU(HT LINK)
Thursday, March 10, 2005

CPU DDR/POWER I/F




UP
DIMM1
DOWN
DIMM0
CN21
CN20
2.5VSUS
DDR_VTT
+3V
MVREF_DM0
MVREF_DM1
DDR-SODIMM-STD-H4.0
DDR-SODIMM-STD-H8.0
MD_[63..0]
DQS_[7..0]
DM_[7..0]
MAA[13..0]
MAB[13..0]
20mil
PROJECT : ZL5
Quanta Computer Inc.
DDR SO-DIMM
Rev 3B
Thursday, March 10, 2005
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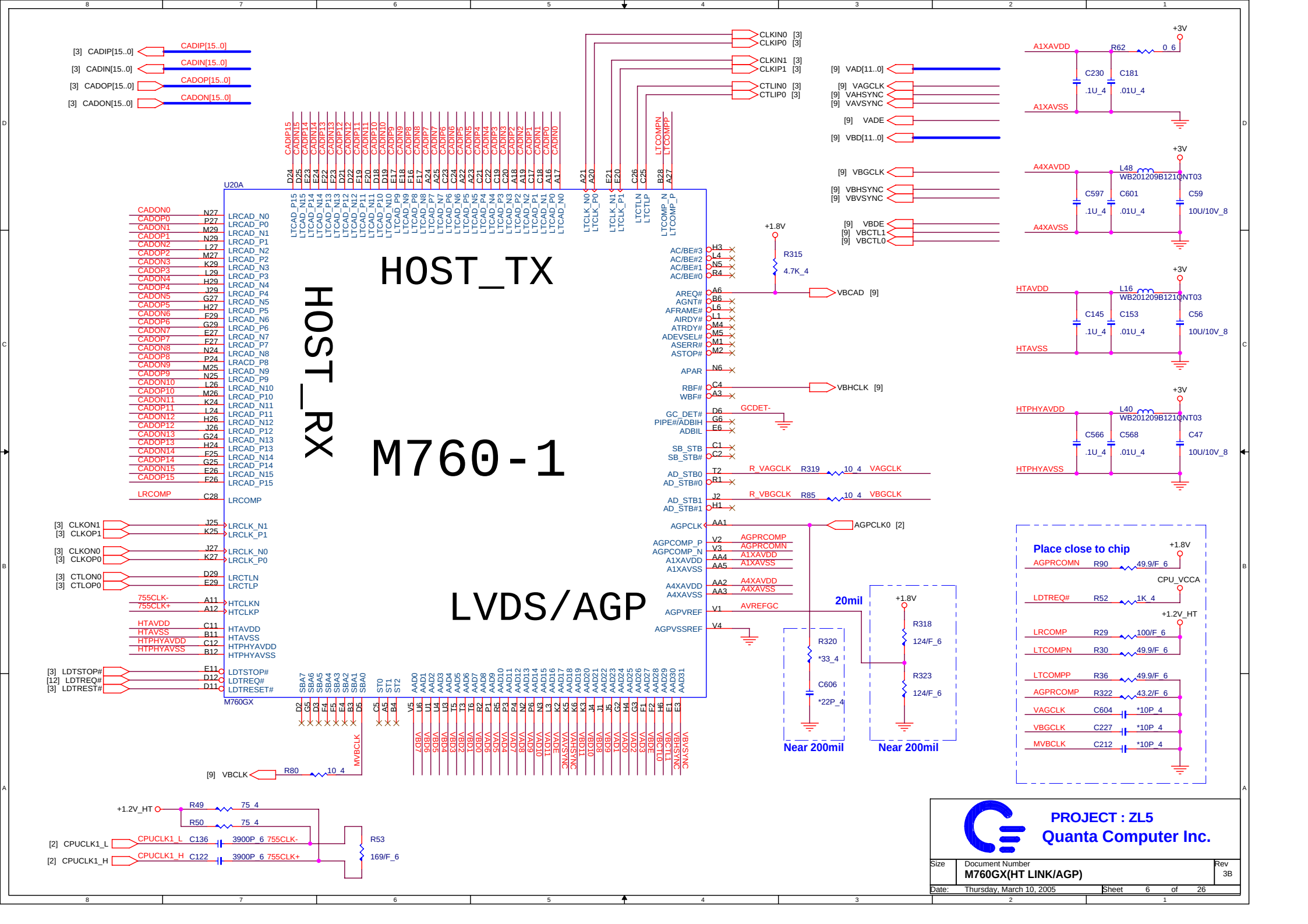
HOST_TX
HOST_RX
M760-1
LVDS/AGP
U20A
M760GX
[3] CADIP[15..0]
[3] CADIN[15..0]
[3] CADOP[15..0]
[3] CADON[15..0]
CADIP[15..0]
CADIN[15..0]
CADOP[15..0]
CADON[15..0]
CLKIN0 [3]
CLKIP0 [3]
CLKIN1 [3]
CLKIP1 [3]
CTLIN0 [3]
CTLIP0 [3]
[9] VAD[11..0]
[9] VAGCLK
[9] VAHSYNC
[9] VAVSYNC
[9] VADE
[9] VBD[11..0]
[9] VBGCLK
[9] VBHSYNC
[9] VBVSYNC
[9] VBDE
[9] VBCTL1
[9] VBCTL0
+3V
A1XAVDD
R62
0_6
C230
.1U_4
C181
.01U_4
A1XAVSS
A4XAVDD
L48
WB201209B121CNT03
C597
.1U_4
C601
.01U_4
C59
10U/10V_8
A4XAVSS
HTAVDD
L16
WB201209B121CNT03
C145
.1U_4
C153
.01U_4
C56
10U/10V_8
HTAVSS
HTPHYAVDD
L40
WB201209B121CNT03
C566
.1U_4
C568
.01U_4
C47
10U/10V_8
HTPHYAVSS
+1.8V
R315
4.7K_4
VBCAD [9]
VBHCLK [9]
GCDET-
R_VAGCLK
R319
10_4
VAGCLK
R_VBGCLK
R85
10_4
VBGCLK
AGPCLK0 [2]
AGPRCOMP
AGPRCOMN
A1XAVDD
A1XAVSS
A4XAVDD
A4XAVSS
AVREFGC
20mil
R320
*33_4
C606
*22P_4
R318
124/F_6
R323
124/F_6
Near 200mil
Near 200mil
Place close to chip
AGPRCOMN R90 49.9/F_6
CPU_VCCA
LDTREQ# R52 1K_4
+1.2V_HT
LRCOMP R29 100/F_6
LTCOMPN R30 49.9/F_6
LTCOMPP R36 49.9/F_6
AGPRCOMP R322 43.2/F_6
VAGCLK C604 *10P_4
VBGCLK C227 *10P_4
MVBCLK C212 *10P_4
[9] VBCLK
R80
10_4
MVBCLK
+1.2V_HT
R49
75_4
R50
75_4
[2] CPUCLK1_L
CPUCLK1_L C136
3900P_6 755CLK-
[2] CPUCLK1_H
CPUCLK1_H C122
3900P_6 755CLK+
R53
169/F_6
PROJECT : ZL5
Quanta Computer Inc.
Size
Document Number
M760GX(HT LINK/AGP)
Rev
3B
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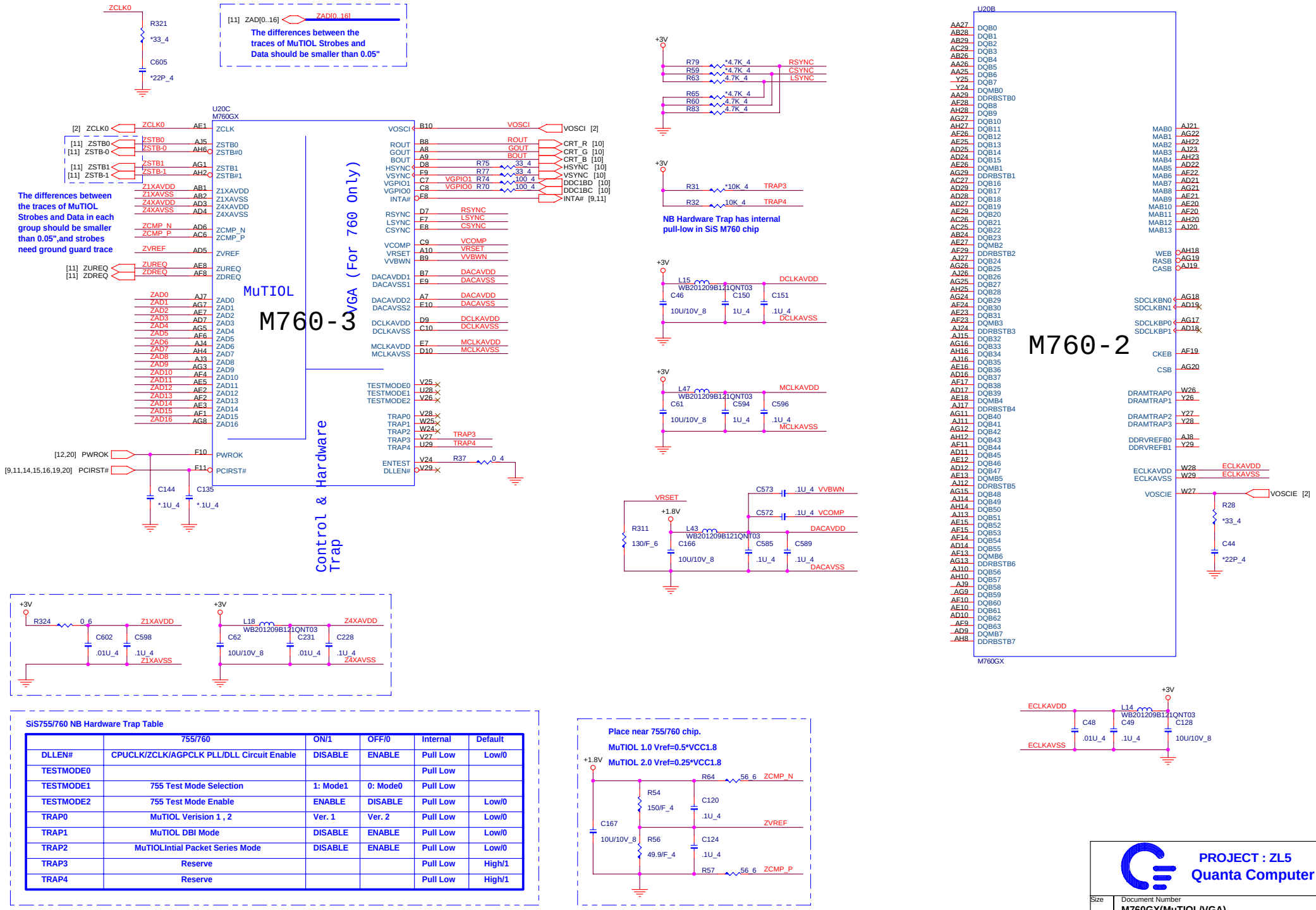
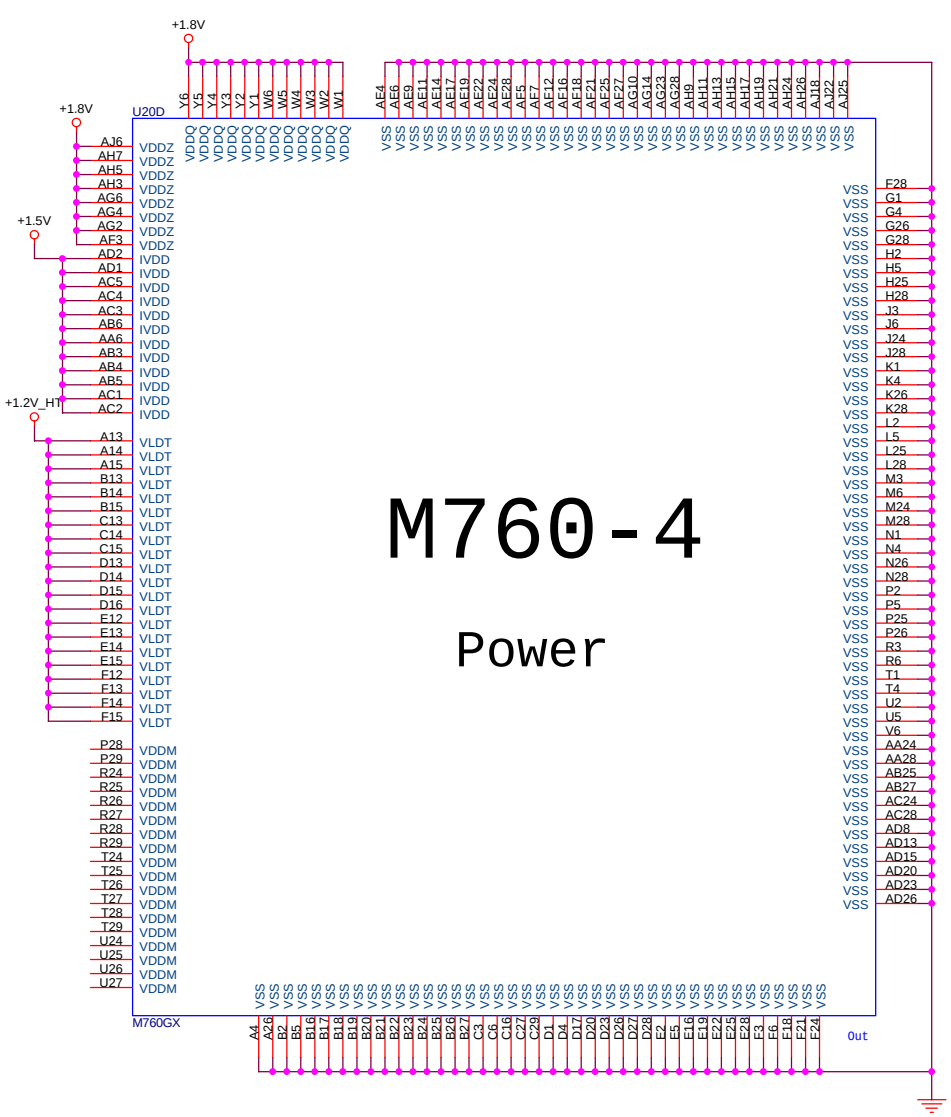


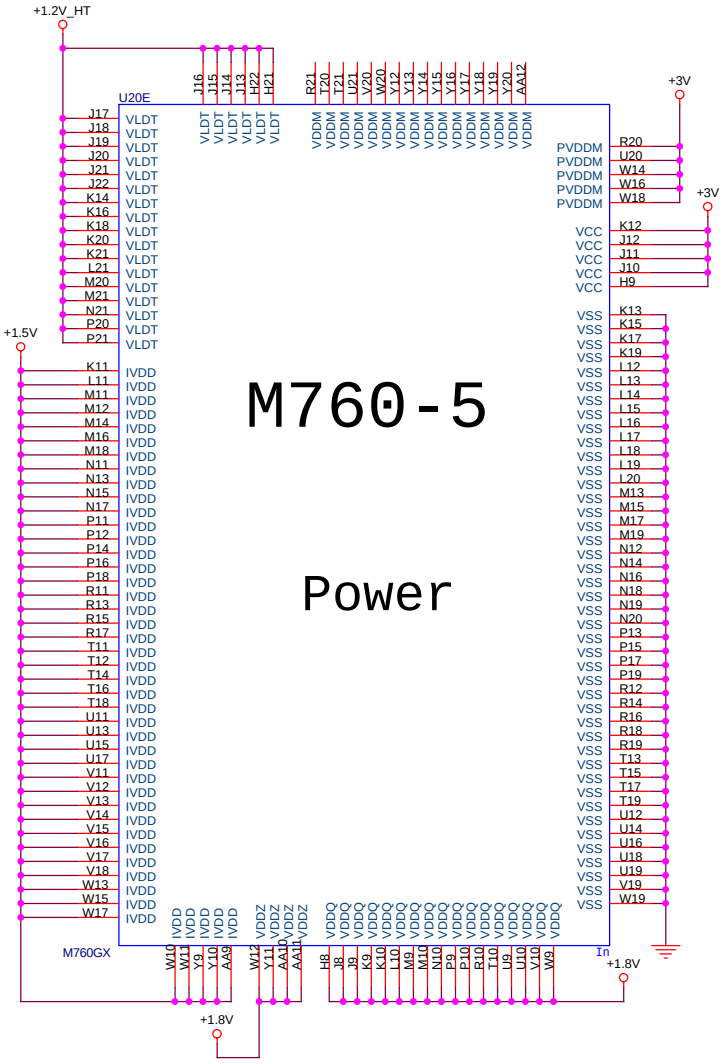
SiS755/760 NB Hardware Trap Table

	755/760	ON/1	OFF/0	Internal	Default
DLLEN#	CPUCLK/ZCLK/AGPCLK PLL/DLL Circuit Enable	DISABLE	ENABLE	Pull Low	Low/0
TESTMODE0				Pull Low	
TESTMODE1	755 Test Mode Selection	1: Mode1	0: Mode0	Pull Low	
TESTMODE2	755 Test Mode Enable	ENABLE	DISABLE	Pull Low	Low/0
TRAP0	MuTIOL Verision 1 , 2	Ver. 1	Ver. 2	Pull Low	Low/0
TRAP1	MuTIOL DBI Mode	DISABLE	ENABLE	Pull Low	Low/0
TRAP2	MuTIOLIntial Packet Series Mode	DISABLE	ENABLE	Pull Low	Low/0
TRAP3	Reserve			Pull Low	High/1
TRAP4	Reserve			Pull Low	High/1

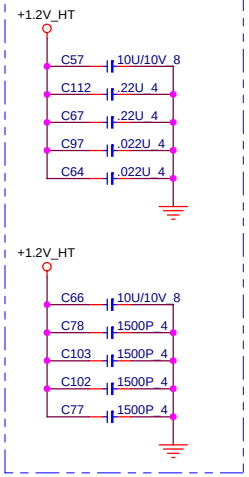
Place near 755/760 chip.
MuTIOL 1.0 Vref=0.5*VCC1.8
MuTIOL 2.0 Vref=0.25*VCC1.8

If Support SiS M760LV IVDD=1.5V

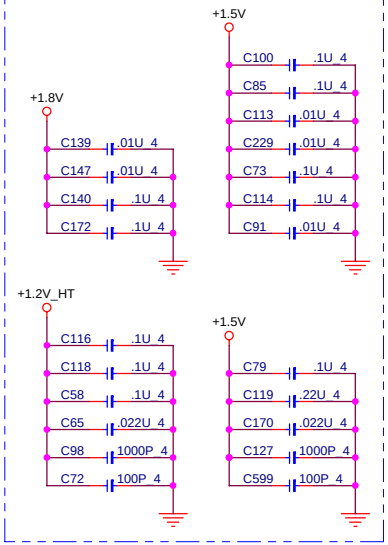


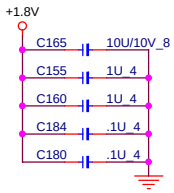


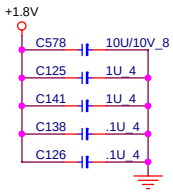
LAYOUT: Place HT bypass caps on topside near connected Lokar HT link.

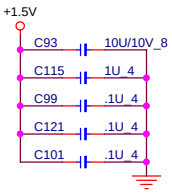


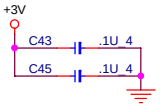
Place these capacitors under 760 solder side.

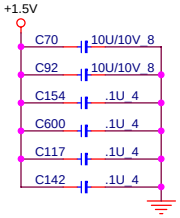


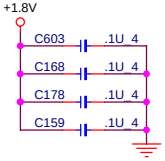












PROJECT : ZL5
Quanta Computer Inc.

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	M760GX(POWER)	3B
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302ELV/302LV

U18

302ELV

Reserved for EMI, Place close to U18

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Quanta Computer Inc.

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	302ELV(LVDS)	3B
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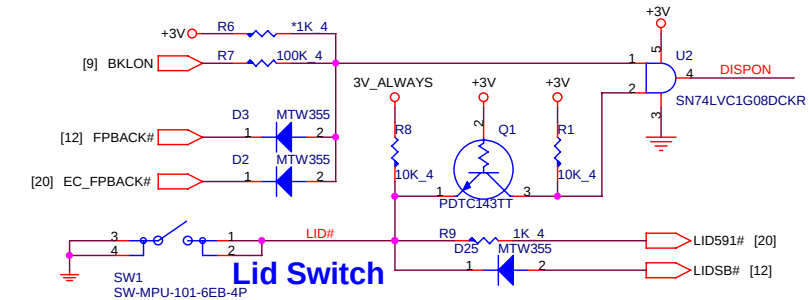

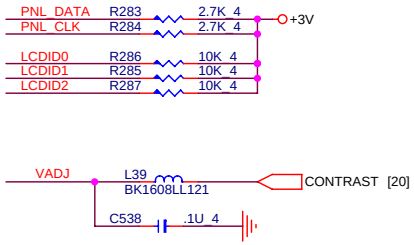

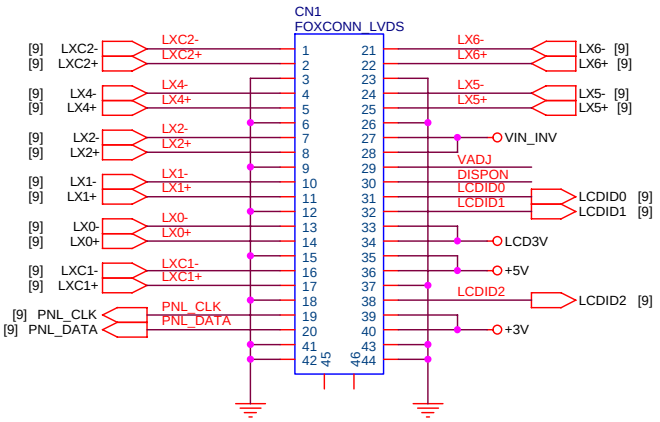

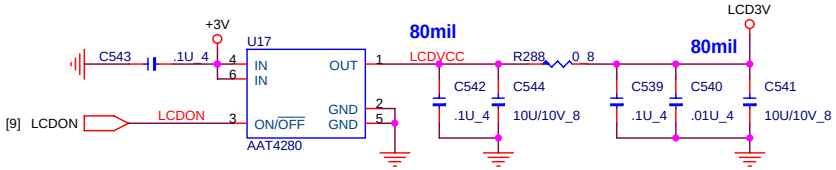

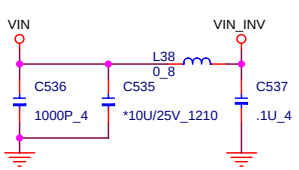

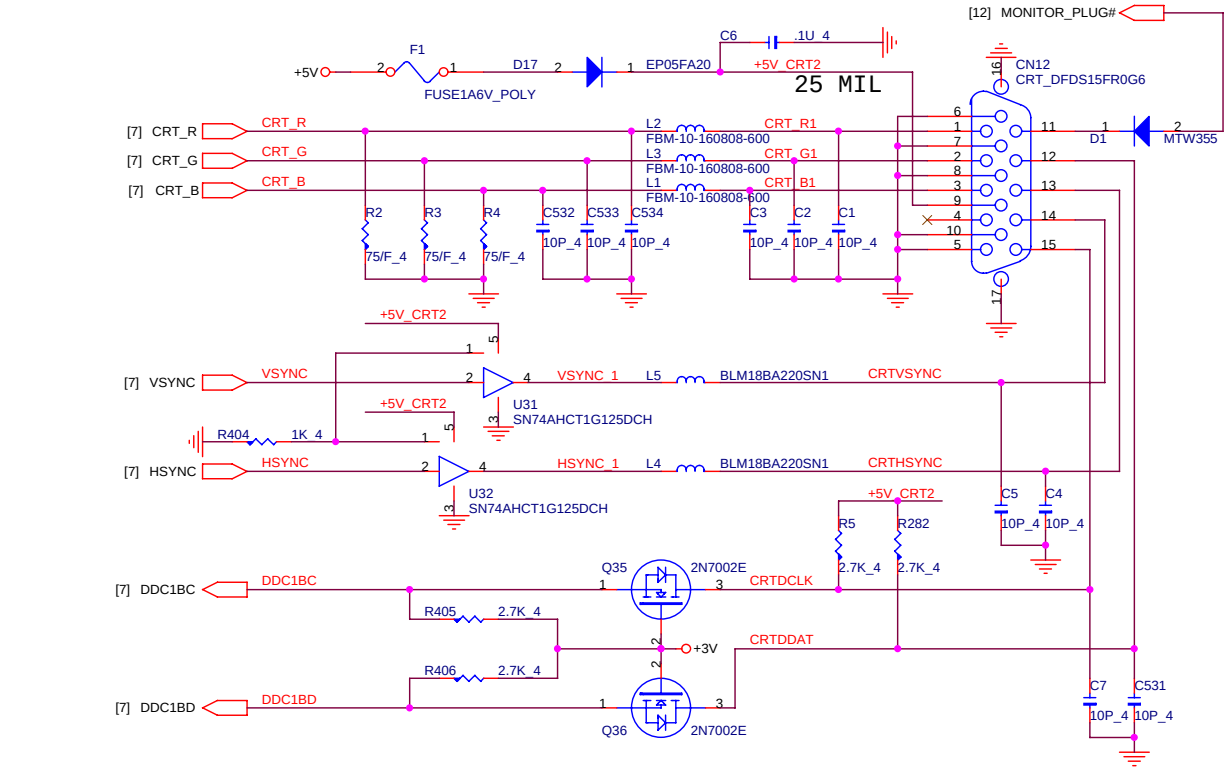

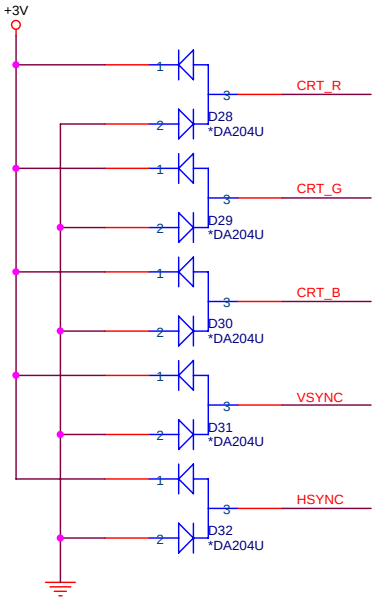

PROJECT : ZL5
Quanta Computer Inc.

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	CRT/LVDS	3B
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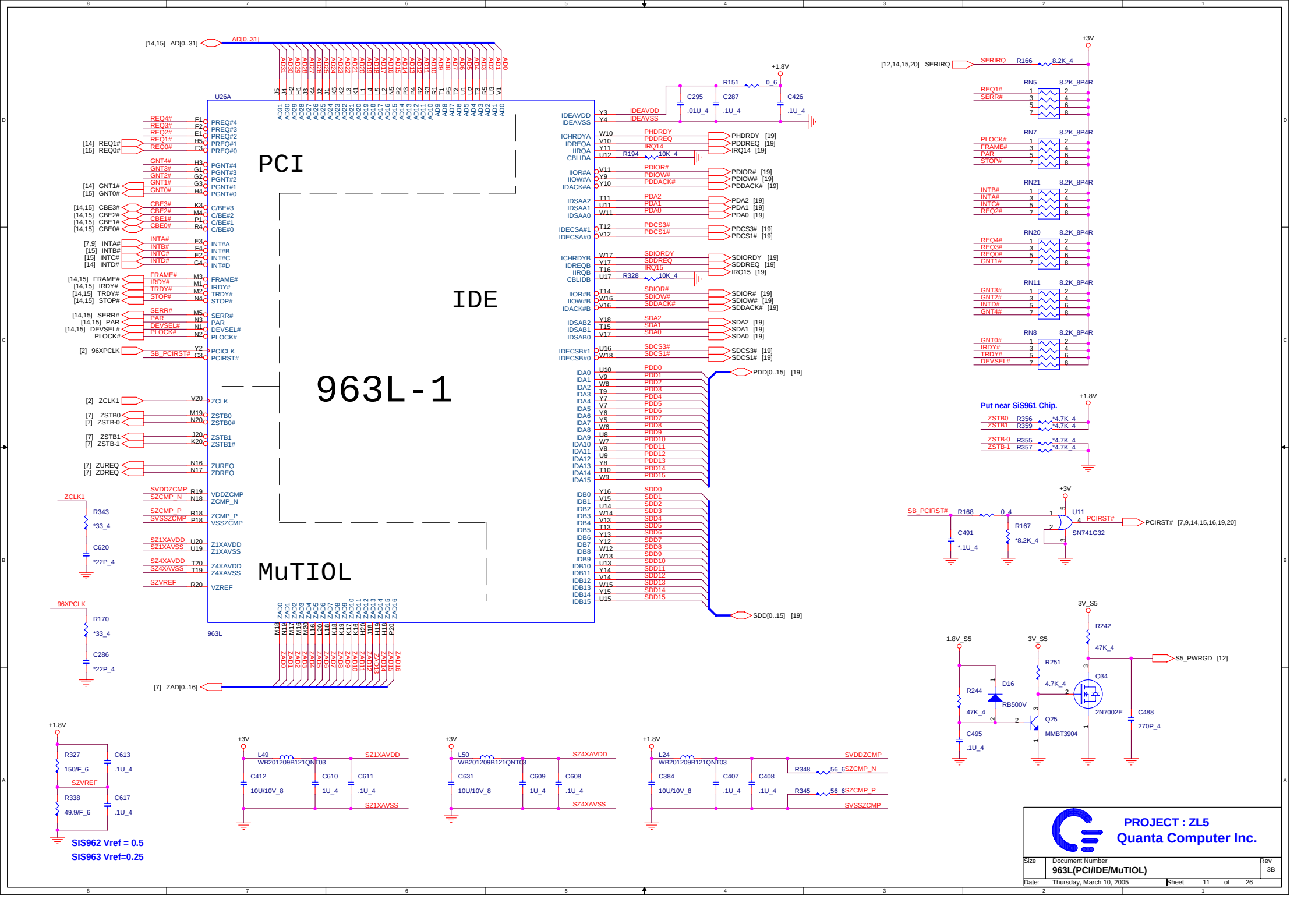
U26A
963L
PCI
IDE
MuTIOL
963L-1
[14,15] AD[0..31]
AD[0..31]
[7] ZAD[0..16]
[2] 96XPCLK
[2] ZCLK1
[7] ZSTB0
[7] ZSTB-0
[7] ZSTB1
[7] ZSTB-1
[7] ZUREQ
[7] ZDREQ
[14] REQ1#
[15] REQ0#
[14] GNT1#
[15] GNT0#
[14,15] CBE3#
[14,15] CBE2#
[14,15] CBE1#
[14,15] CBE0#
[7,9] INTA#
[15] INTB#
[15] INTC#
[14] INTD#
[14,15] FRAME#
[14,15] IRDY#
[14,15] TRDY#
[14,15] STOP#
[14,15] SERR#
[14,15] PAR
[14,15] DEVSEL#
PLOCK#
SB_PCIRST#
SVDDZCMP
SZCMP_N
SZCMP_P
SVSSZCMP
SZ1XAVDD
SZ1XAVSS
SZ4XAVDD
SZ4XAVSS
SZVREF
ZCLK1
R343
*33_4
C620
*22P_4
96XPCLK
R170
*33_4
C286
*22P_4
IDEAVDD
IDEAVSS
ICHRDYA
IDREQA
IIRQA
CBLIDA
IIOR#A
IIOW#A
IDACK#A
IDSAA2
IDSAA1
IDSAA0
IDECSA#1
IDECSA#0
ICHRDYB
IDREQB
IIRQB
CBLIDB
IIOR#B
IIOW#B
IDACK#B
IDSAB2
IDSAB1
IDSAB0
IDECSB#1
IDECSB#0
IDA0
IDA1
IDA2
IDA3
IDA4
IDA5
IDA6
IDA7
IDA8
IDA9
IDA10
IDA11
IDA12
IDA13
IDA14
IDA15
IDB0
IDB1
IDB2
IDB3
IDB4
IDB5
IDB6
IDB7
IDB8
IDB9
IDB10
IDB11
IDB12
IDB13
IDB14
IDB15
PHDRDY [19]
PDDREQ [19]
IRQ14 [19]
PDIOR# [19]
PDIOW# [19]
PDDACK# [19]
PDA2 [19]
PDA1 [19]
PDA0 [19]
PDCS3# [19]
PDCS1# [19]
SDIORDY [19]
SDDREQ [19]
IRQ15 [19]
SDIOR# [19]
SDIOW# [19]
SDDACK# [19]
SDA2 [19]
SDA1 [19]
SDA0 [19]
SDCS3# [19]
SDCS1# [19]
PDD[0..15] [19]
SDD[0..15] [19]
R151 0_6
C295 .01U_4
C287 .1U_4
C426 .1U_4
R194 10K_4
R328 10K_4
+1.8V
[12,14,15,20] SERIRQ
SERIRQ R166 8.2K_4
RN5 8.2K_8P4R
REQ1#
SERR#
RN7 8.2K_8P4R
PLOCK#
FRAME#
PAR
STOP#
RN21 8.2K_8P4R
INTB#
INTA#
INTC#
REQ2#
RN20 8.2K_8P4R
REQ4#
REQ3#
REQ0#
GNT1#
RN11 8.2K_8P4R
GNT3#
GNT2#
INTD#
GNT4#
RN8 8.2K_8P4R
GNT0#
IRDY#
TRDY#
DEVSEL#
Put near SiS961 Chip.
ZSTB0 R356 *4.7K_4
ZSTB1 R359 *4.7K_4
ZSTB-0 R355 *4.7K_4
ZSTB-1 R357 *4.7K_4
SB_PCIRST# R168 0_4
C491 *.1U_4
R167 *8.2K_4
U11
SN741G32
PCIRST# [7,9,14,15,16,19,20]
1.8V_S5
3V_S5
R242 47K_4
R251 4.7K_4
R244 47K_4
D16
RB500V
Q25
MMBT3904
Q34
2N7002E
C495 .1U_4
C488 270P_4
S5_PWRGD [12]
R327 150/F_6
C613 .1U_4
SZVREF
R338 49.9/F_6
C617 .1U_4
SIS962 Vref = 0.5
SIS963 Vref=0.25
L49 WB201209B121QNT03
C412 10U/10V_8
C610 1U_4
C611 .1U_4
L50 WB201209B121QNT03
C631 10U/10V_8
C609 1U_4
C608 .1U_4
L24 WB201209B121QNT03
C384 10U/10V_8
C407 .1U_4
C408 .1U_4
R348 56_6 SZCMP_N
R345 56_6 SZCMP_P
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Quanta Computer Inc.
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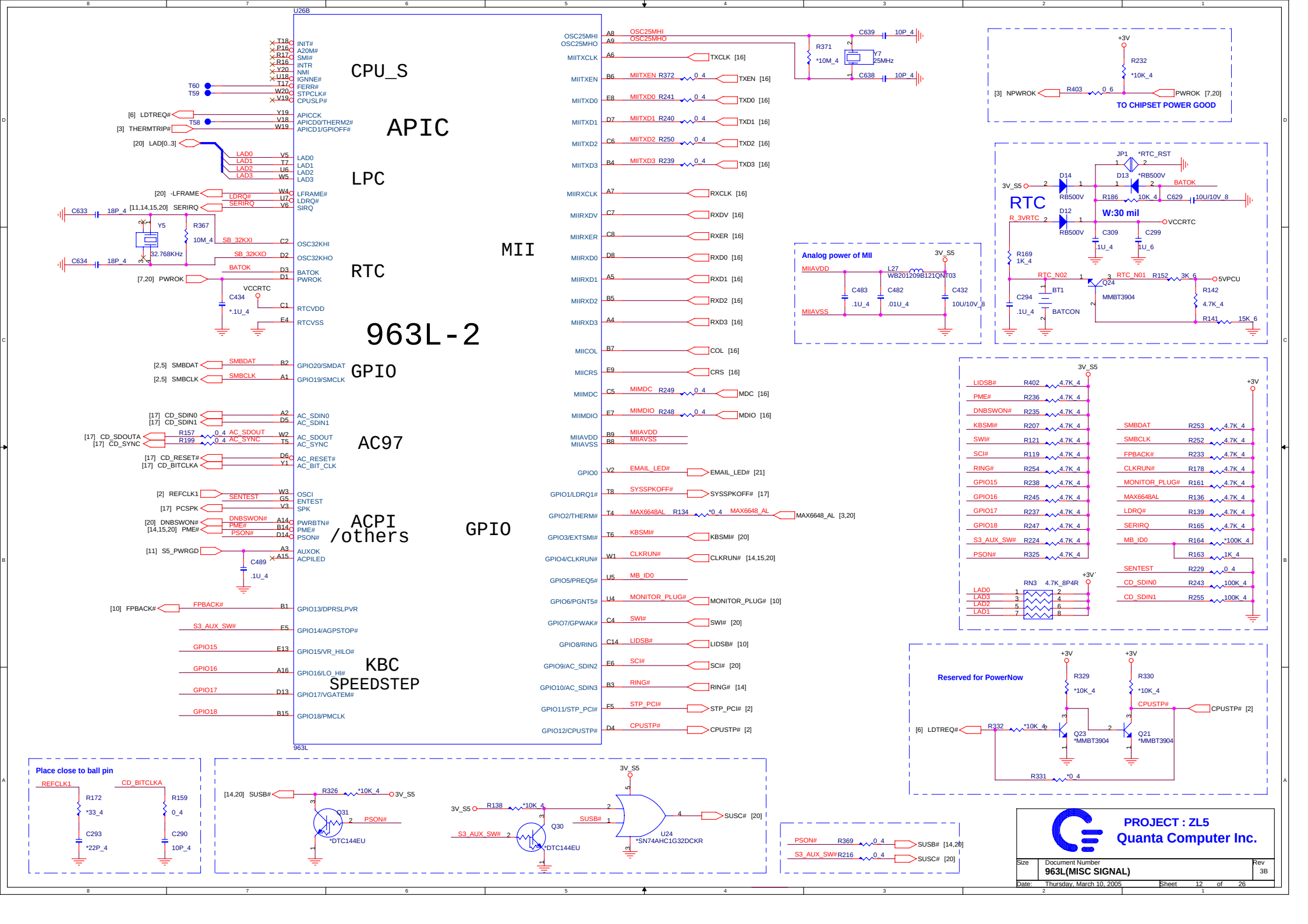
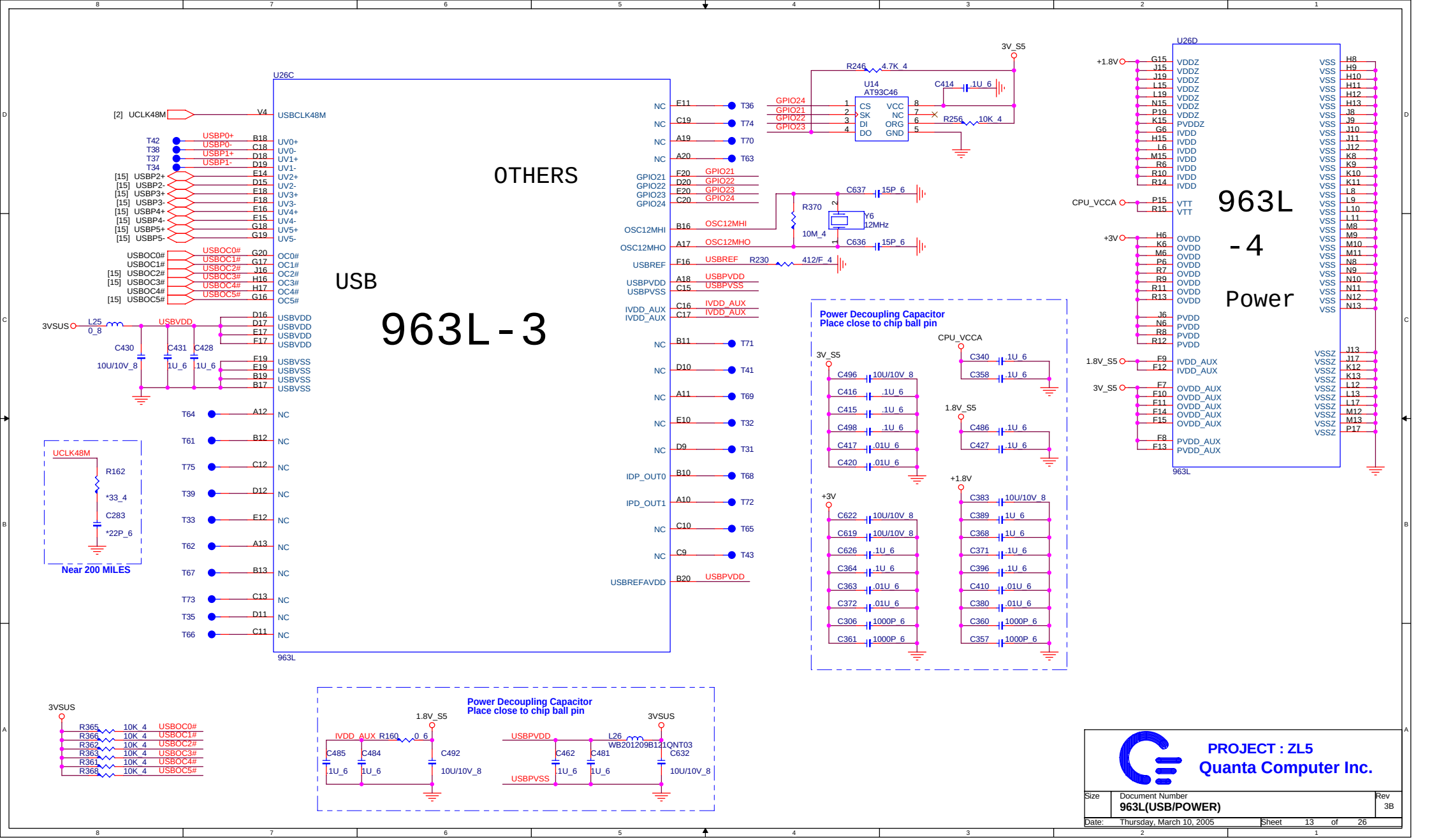

963L-2
CPU_S
APIC
LPC
RTC
MII
GPIO
AC97
ACPI /others
KBC SPEEDSTEP
RTC
W:30 mil
Analog power of MII
Reserved for PowerNow
TO CHIPSET POWER GOOD
Place close to ball pin
PROJECT : ZL5
Quanta Computer Inc.
963L(MISC SIGNAL)


USB
963L-3
OTHERS
U26C
963L
[2] UCLK48M
USBCLK48M
USBP0+
USBP0-
USBP1+
USBP1-
USBOC0#
USBOC1#
USBOC2#
USBOC3#
USBOC4#
USBOC5#
3VSUS
USBVDD
L25
0_8
C430
C431
C428
10U/10V_8
1U_6
.1U_6
USBVSS
UCLK48M
R162
*33_4
C283
*22P_6
Near 200 MILES
NC
GPIO21
GPIO22
GPIO23
GPIO24
OSC12MHI
OSC12MHO
USBREF
R230
412/F_4
USBPVDD
USBPVSS
IVDD_AUX
IDP_OUT0
IPD_OUT1
USBREFAVDD
R246
4.7K_4
U14
AT93C46
CS
SK
DI
DO
VCC
NC
ORG
GND
C414
R256
10K_4
3V_S5
C637
15P_6
R370
Y6
12MHz
10M_4
C636
Power Decoupling Capacitor
Place close to chip ball pin
CPU_VCCA
C496
C416
C415
C498
C417
C420
10U/10V_8
.1U_6
.01U_6
C340
C358
1.8V_S5
C486
C427
+3V
+1.8V
C622
C619
C626
C364
C363
C372
C306
C361
1000P_6
C383
C389
C368
C371
C396
C410
C380
C360
C357
U26D
963L
-4
Power
VDDZ
PVDDZ
IVDD
VTT
OVDD
PVDD
IVDD_AUX
OVDD_AUX
PVDD_AUX
VSS
VSSZ
1.8V_S5
3V_S5
R365
R366
R362
R363
R361
R368
10K_4
USBOC0#
USBOC1#
USBOC2#
USBOC3#
USBOC4#
USBOC5#
IVDD_AUX
R160
0_6
C485
C484
C492
C462
C481
C632
L26
WB201209B121QNT03
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ID Select : AD17
Interrupt Pin : INTD#
Request Indicate : REQ1#
Grant Indicate : GNT1#

U13
PCI1410A

U15
TPS2211A

CARDBUS SLOT

CN22

FOX_WZ21131-G2

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ID Select : AD22
Interrupt Pin : INTB# , INTC#
Request Indicate : REQ0#
Grant Indicate : GNT0#

PCLK_MP R66 *22_4 C161 *10P_4

IDSEL_MP R48 150_4 AD22

[11,14] AD[0..31] AD[0..31]

MINI-PCI

CN17

[21] WIRELESS_LED
[20] RF_EN
D4 MTW355
[11] INTC#
[2] PCLK_MP
[11] REQ0#
[11,14] CBE3#
[11,14] CBE2#
[11,14] IRDY#
[12,14,20] CLKRUN#
[11,14] SERR#
R42 10K_4
[11,14] CBE1#

1	TIP	RING	2
3	LAN1	LAN2	4
5	LAN3	LAN4	6
7	LAN5	LAN6	8
9	LAN7	LAN8	10
11	LED_GP	LED_YP	12
13	LED_GN	LED_YN	14
15	NC1	NC2	16
17	-INTB	+5V	18
19	+3V	-INTA	20
21	R(IRQ3)	R(IRQ4)	22
23	GND	+3VAUX	24
25	PCICLK	-RST	26
27	GND	+3V	28
29	-REQ	-GNT	30
31	+3V	GND	32
33	AD31	-PME	34
35	AD29	(V)	36
37	GND	AD30	38
39	AD27	+3V	40
41	AD25	AD28	42
43	(V)	AD26	44
45	-CBE3	AD24	46
47	AD23	IDSEL	48
49	GND	GND	50
51	AD21	AD22	52
53	AD19	AD20	54
55	GND	PAR	56
57	AD17	AD18	58
59	-CBE2	AD16	60
61	-IRDY	GND	62
63	+3V	-FRAME	64
65	-CLKRUN	-TRDY	66
67	-SERR	-STOP	68
69	GND	+3V	70
71	-PERR	-DEVSEL	72
73	-CBE1	GND	74
75	AD14	AD15	76
77	GND	AD13	78
79	AD12	AD11	80
81	AD10	GND	82
83	GND	AD9	84
85	AD8	-CBE0	86
87	AD7	+3V	88
89	+3V	AD6	90
91	AD5	AD4	92
93	(V)	AD2	94
95	AD3	AD0	96
97	+5V	(V)	98
99	AD1	SERIRQ	100
101	GND	GND	102
103	SYNC	M66EN	104
105	SDIN0	SDOUT	106
107	BITCLK	SDIN1	108
109	-AC_PRIMARY	-RESET	110
111	BEEP	-MPCICACK	112
113	AGND	AGND	114
115	+MIC	+SPK	116
117	-MIC	-SPK	118
119	AGND	AGND	120
121	-RI	NC4	122
123	+5VA	+3VAUX	124
	GND	GND	
125			126

MINIPCI_DGMC4000382

+3V, +5V, +5VA, 3VSUS

INTB# [11]
PCIRST# [7,9,11,14,16,19,20]
GNT0# [11]
PME# [12,14,20]
PAR [11,14]
FRAME# [11,14]
TRDY# [11,14]
STOP# [11,14]
DEVSEL# [11,14]
CBE0# [11,14]
SERIRQ [11,12,14,20]

SDIN1_MINI R33 *10K_4 3V_S5

AD31 AD29 AD27 AD25 AD23 AD21 AD19 AD17 AD12 AD10 AD8 AD7 AD5 AD3 AD1
AD30 AD28 AD26 AD24 IDSEL_MP AD22 AD20 AD18 AD16 AD15 AD13 AD11 AD9 CBE0# AD6 AD4 AD2 AD0

VIN +5V

C221 .1U_6
C557 .1U_6
C50 .1U_6
C709 .1U_6

+3V: C186 .1U_4, C54 .1U_4, C53 .1U_4, C169 .1U_4
+5V: C41 .1U_4, C187 .1U_4
VIN: C642 *.01U_6, C683 *.01U_6, C684 *.1U_6, C641 *.1U_6, C640 *.1U_6, C682 *10U/25V_1210

[20] USBPWR_ON# R94 0_4 USBPWRON#
R92 *0_4

U6 TPS2061DGNR
5VSUS, USBPWR2, R100 0_4 USBOC2# [13], R96 *6.34K/F_6

U9 TPS2061DGNR
5VSUS, USBPWRON#, USBPWR3, R124 0_4 USBOC3# [13], R122 *6.34K/F_6

U16 TPS2061DGNR
5VSUS, USBPWRON#, USBPWR5, R267 0_4 USBOC5# [13], R268 *6.34K/F_6

C240 47U/6.3V_1210, USBPWR2, L19 BK2125HS330, USB2POWER
[13] USBP2-
[13] USBP2+
L17 DLW21HN900SQ2L
C226 *10P_4, C233 *10P_4
BUSBP2-, BUSBP2+
CN18 USB_DFHD04MR671

C251 47U/6.3V_1210, USBPWR3, L21 BK2125HS330, USB3POWER
[13] USBP3-
[13] USBP3+
L20 DLW21HN900SQ2L
C243 *10P_4, C246 *10P_4
BUSBP3-, BUSBP3+
CN19 USB_DFHD04MR671

C521 47U/6.3V_1210, USBPWR5, L32 BK2125HS330, USB5POWER
[13] USBP5-
[13] USBP5+
L33 DLW21HN900SQ2L
C678 *10P_4, C679 *10P_4
BUSBP5-, BUSBP5+
CN24 USB_DFHD04MR671

BT_POWERON# [20]
3VSUS
Q29 AO3403
C590 10U/10V_8
L42 BK2125HS330
BT_POWER
CN5
[13] USBP4+
[13] USBP4-
L41 DLW21HN900SQ2L
C587 *10P_4, C588 *10P_4
BUSBP4+, BUSBP4-
[21] BT_LED
C586 .01U_4
PTWO_MINIUSB

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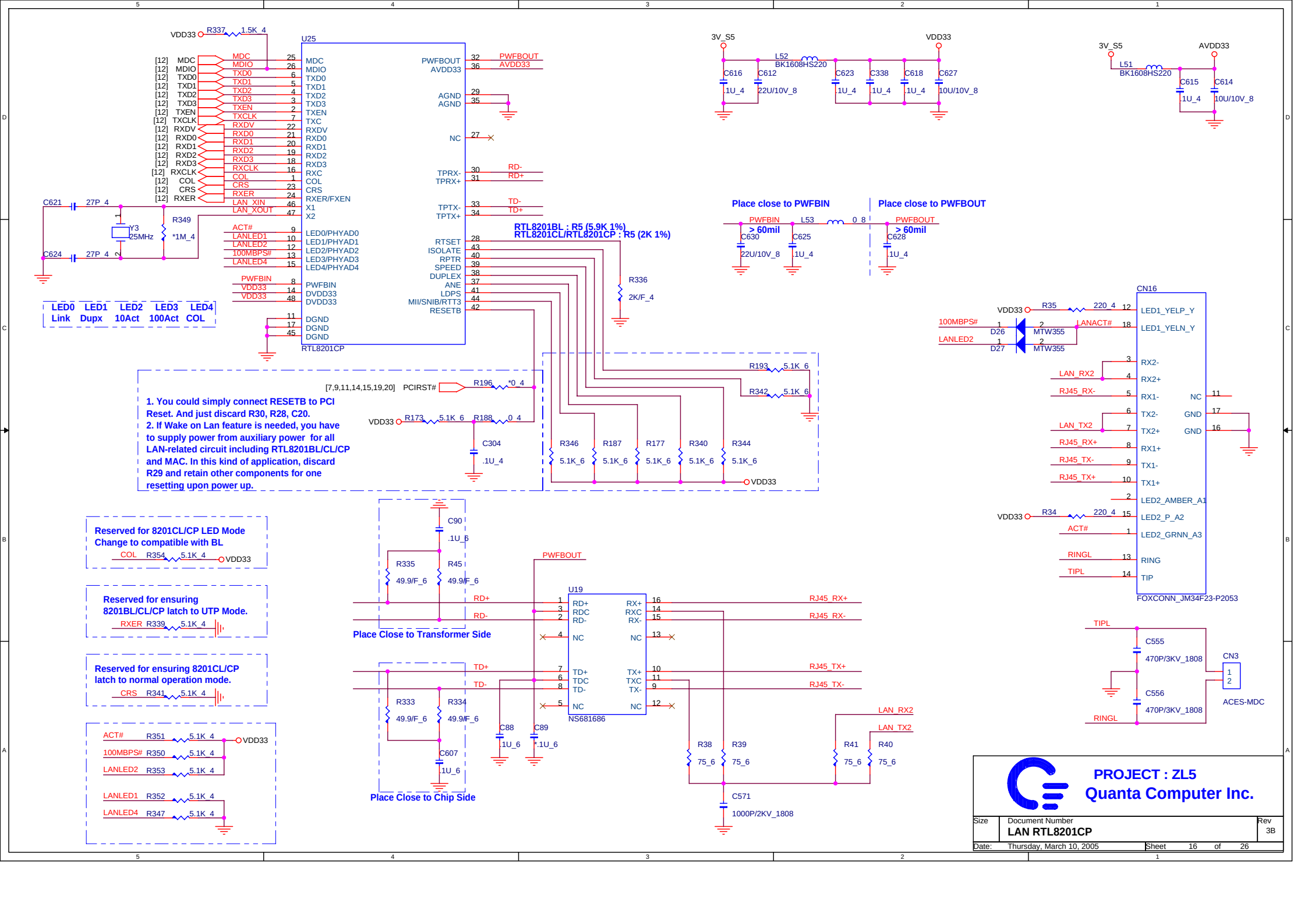

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Quanta Computer Inc.

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	LAN RTL8201CP	3B
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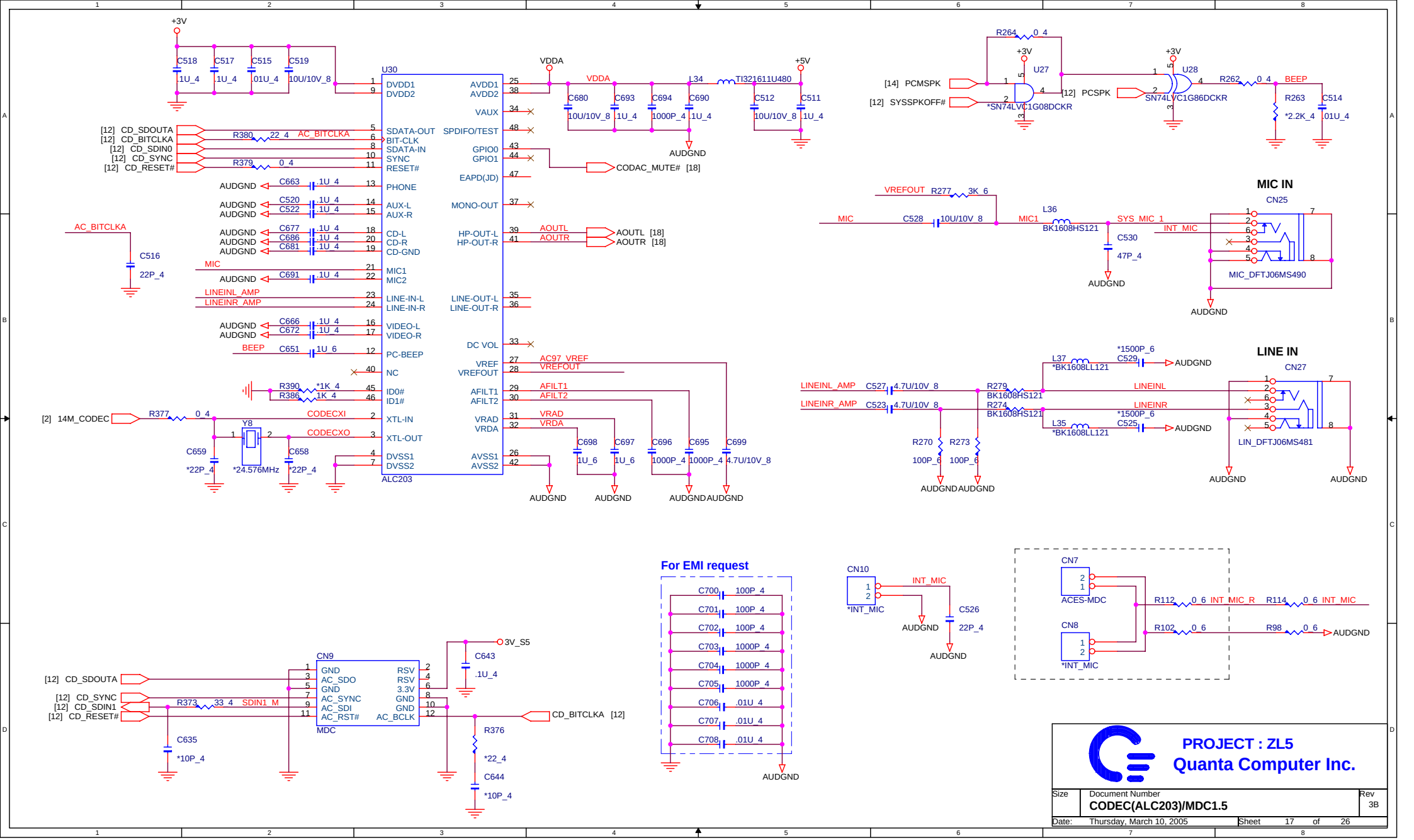
U30
ALC203
DVDD1
DVDD2
AVDD1
AVDD2
VAUX
SDATA-OUT
BIT-CLK
SDATA-IN
SYNC
RESET#
SPDIFO/TEST
GPIO0
GPIO1
EAPD(JD)
PHONE
MONO-OUT
AUX-L
AUX-R
CD-L
CD-R
CD-GND
HP-OUT-L
HP-OUT-R
MIC1
MIC2
LINE-IN-L
LINE-IN-R
LINE-OUT-L
LINE-OUT-R
VIDEO-L
VIDEO-R
DC VOL
PC-BEEP
VREF
VREFOUT
NC
AFILT1
AFILT2
ID0#
ID1#
VRAD
VRDA
XTL-IN
XTL-OUT
AVSS1
AVSS2
DVSS1
DVSS2
+3V
+5V
VDDA
AUDGND
AC_BITCLKA
MIC
LINEINL_AMP
LINEINR_AMP
AOUTL
AOUTR
AC97_VREF
VREFOUT
AFILT1
AFILT2
VRAD
VRDA
CODAC_MUTE# [18]
[12] CD_SDOUTA
[12] CD_BITCLKA
[12] CD_SDIN0
[12] CD_SYNC
[12] CD_RESET#
[2] 14M_CODEC
CODECXI
CODECXO
*24.576MHz
R380 22_4 AC_BITCLKA
R379 0_4
R377 0_4
R390 *1K_4
R386 1K_4
C516 22P_4
C659 *22P_4
C658 *22P_4
C663 .1U_4
C520 .1U_4
C522 .1U_4
C677 .1U_4
C686 .1U_4
C681 .1U_4
C691 .1U_4
C666 .1U_4
C672 .1U_4
C651 1U_6
C680 10U/10V_8
C693 .1U_4
C694 1000P_4
C690 .1U_4
L34 TI321611U480
C512 10U/10V_8
C511 .1U_4
C698 1U_6
C697 1U_6
C696 1000P_4
C695 1000P_4
C699 4.7U/10V_8
C518 .1U_4
C517 .1U_4
C515 .01U_4
C519 10U/10V_8
R264 0_4
U27
U28
SN74LVC1G08DCKR
SN74LVC1G86DCKR
[14] PCMSPK
[12] SYSSPKOFF#
[12] PCSPK
R262 0_4
BEEP
R263 *2.2K_4
C514 .01U_4
MIC IN
CN25
MIC_DFTJ06MS490
VREFOUT R277 3K_6
MIC
C528 10U/10V_8
MIC1
L36 BK1608HS121
SYS_MIC_1
INT_MIC
C530 47P_4
LINE IN
CN27
LIN_DFTJ06MS481
LINEINL_AMP C527 4.7U/10V_8
LINEINR_AMP C523 4.7U/10V_8
R279 BK1608HS121
R274 BK1608HS121
L37 *BK1608LL121
L35 *BK1608LL121
*1500P_6
C529
C525
R270 100P_6
R273 100P_6
LINEINL
LINEINR
For EMI request
C700 100P_4
C701 100P_4
C702 100P_4
C703 1000P_4
C704 1000P_4
C705 1000P_4
C706 .01U_4
C707 .01U_4
C708 .01U_4
CN10
*INT_MIC
C526 22P_4
CN7
ACES-MDC
CN8
R112 0_6 INT_MIC_R
R114 0_6 INT_MIC
R102 0_6
R98 0_6
CN9
MDC
GND
AC_SDO
GND
AC_SYNC
AC_SDI
AC_RST#
RSV
RSV
3.3V
GND
GND
AC_BCLK
3V_S5
C643 .1U_4
R373 33_4 SDIN1_M
C635 *10P_4
R376 *22_4
C644 *10P_4
CD_BITCLKA [12]
PROJECT : ZL5
Quanta Computer Inc.
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CODEC(ALC203)/MDC1.5
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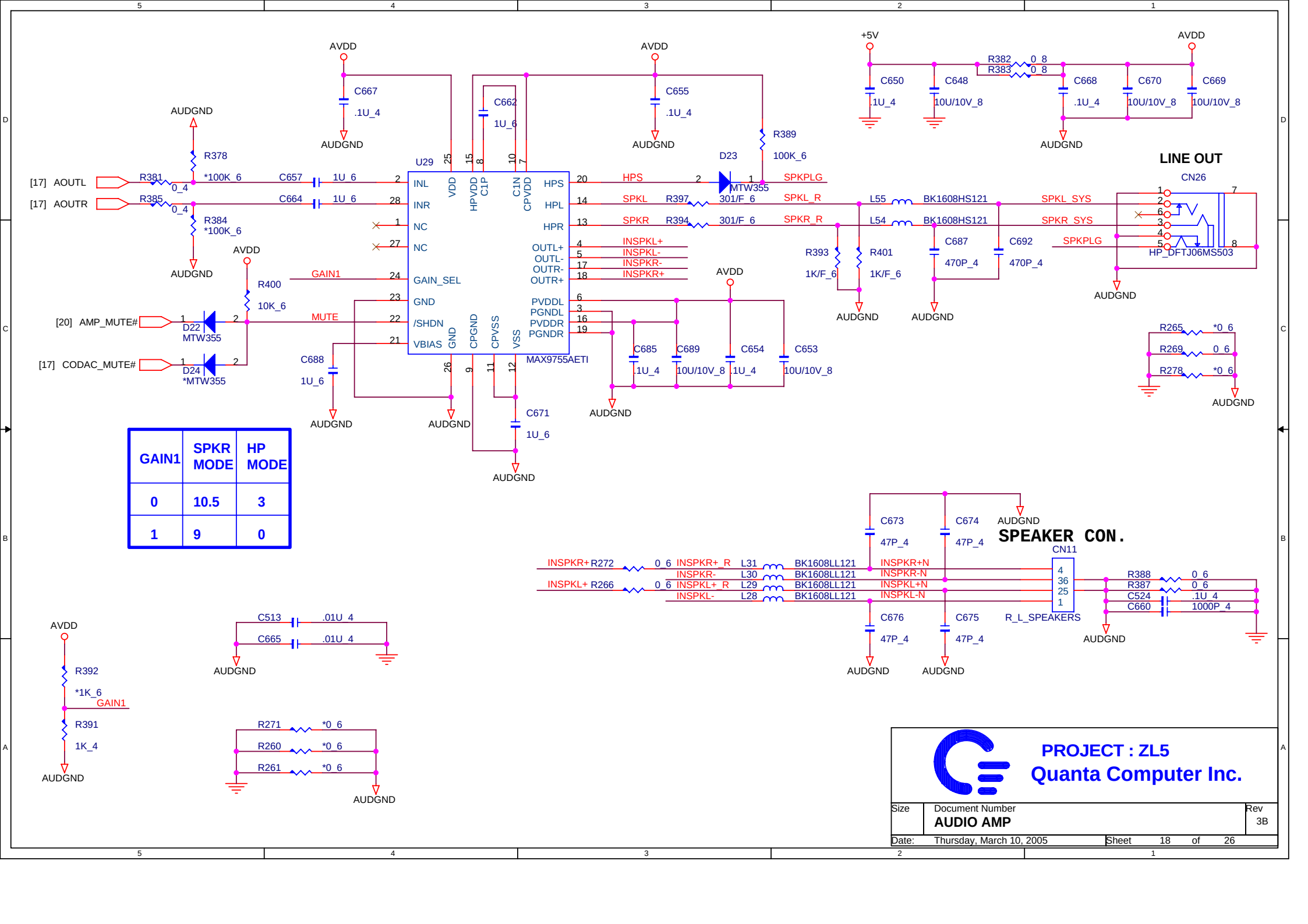

GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0

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	AUDIO AMP	3B
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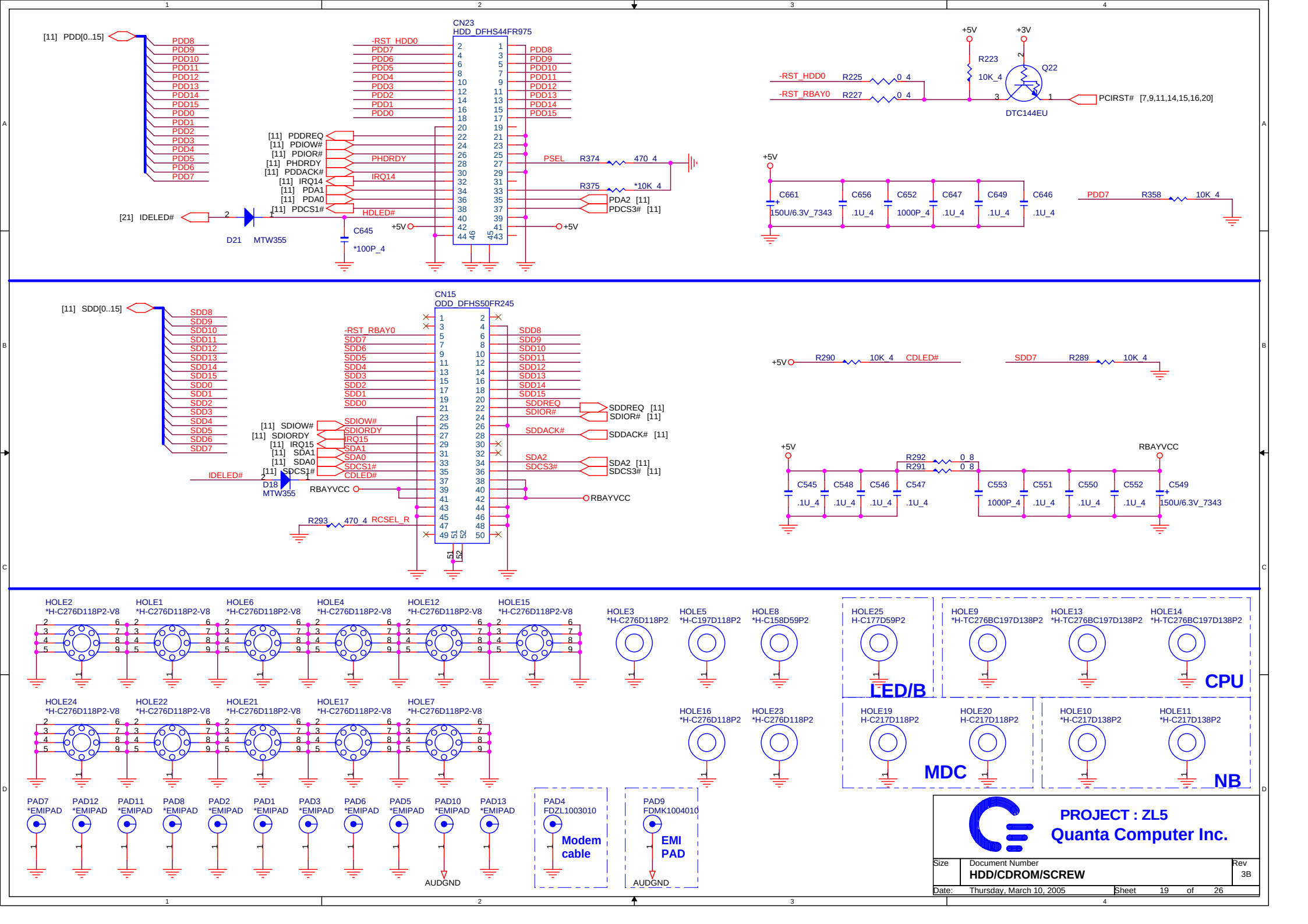
[11] PDD[0..15]
PDD8
PDD9
PDD10
PDD11
PDD12
PDD13
PDD14
PDD15
PDD0
PDD1
PDD2
PDD3
PDD4
PDD5
PDD6
PDD7
CN23
HDD_DFHS44FR975
-RST_HDD0
[11] PDDREQ
[11] PDIOW#
[11] PDIOR#
PHDRDY
[11] PHDRDY
[11] PDDACK#
IRQ14
[11] IRQ14
[11] PDA1
[11] PDA0
[11] PDCS1#
HDLED#
[21] IDELED#
D21 MTW355
C645
*100P_4
+5V
PSEL
R374 470_4
R375 *10K_4
PDA2 [11]
PDCS3# [11]
+3V
R223 10K_4
Q22
-RST_RBAY0
R225 0_4
R227 0_4
DTC144EU
PCIRST# [7,9,11,14,15,16,20]
C661 150U/6.3V_7343
C656 .1U_4
C652 1000P_4
C647 .1U_4
C649 .1U_4
C646 .1U_4
PDD7 R358 10K_4
[11] SDD[0..15]
SDD8
SDD9
SDD10
SDD11
SDD12
SDD13
SDD14
SDD15
SDD0
SDD1
SDD2
SDD3
SDD4
SDD5
SDD6
SDD7
CN15
ODD_DFHS50FR245
-RST_RBAY0
SDDREQ
SDIOR#
SDDACK#
SDA2
SDCS3#
[11] SDIOW#
[11] SDIORDY
[11] IRQ15
[11] SDA1
[11] SDA0
[11] SDCS1#
CDLED#
IDELED#
D18 MTW355
RBAYVCC
R293 470_4 RCSEL_R
SDDREQ [11]
SDIOR# [11]
SDDACK# [11]
SDA2 [11]
SDCS3# [11]
R290 10K_4 CDLED#
SDD7 R289 10K_4
R292 0_8
R291 0_8
C545 .1U_4
C548 .1U_4
C546 .1U_4
C547 .1U_4
C553 1000P_4
C551 .1U_4
C550 .1U_4
C552 .1U_4
C549 150U/6.3V_7343
HOLE2 *H-C276D118P2-V8
HOLE1 *H-C276D118P2-V8
HOLE6 *H-C276D118P2-V8
HOLE4 *H-C276D118P2-V8
HOLE12 *H-C276D118P2-V8
HOLE15 *H-C276D118P2-V8
HOLE3 *H-C276D118P2
HOLE5 *H-C197D118P2
HOLE8 *H-C158D59P2
HOLE25 H-C177D59P2
LED/B
HOLE9 *H-TC276BC197D138P2
HOLE13 *H-TC276BC197D138P2
HOLE14 *H-TC276BC197D138P2
CPU
HOLE24 *H-C276D118P2-V8
HOLE22 *H-C276D118P2-V8
HOLE21 *H-C276D118P2-V8
HOLE17 *H-C276D118P2-V8
HOLE7 *H-C276D118P2-V8
HOLE16 *H-C276D118P2
HOLE23 *H-C276D118P2
HOLE19 H-C217D118P2
HOLE20 H-C217D118P2
MDC
HOLE10 *H-C217D138P2
HOLE11 *H-C217D138P2
NB
PAD7 *EMIPAD
PAD12 *EMIPAD
PAD11 *EMIPAD
PAD8 *EMIPAD
PAD2 *EMIPAD
PAD1 *EMIPAD
PAD3 *EMIPAD
PAD6 *EMIPAD
PAD5 *EMIPAD
PAD10 *EMIPAD
PAD13 *EMIPAD
AUDGND
PAD4 FDZL1003010
Modem cable
PAD9 FDMK1004010
EMI PAD
AUDGND
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Quanta Computer Inc.
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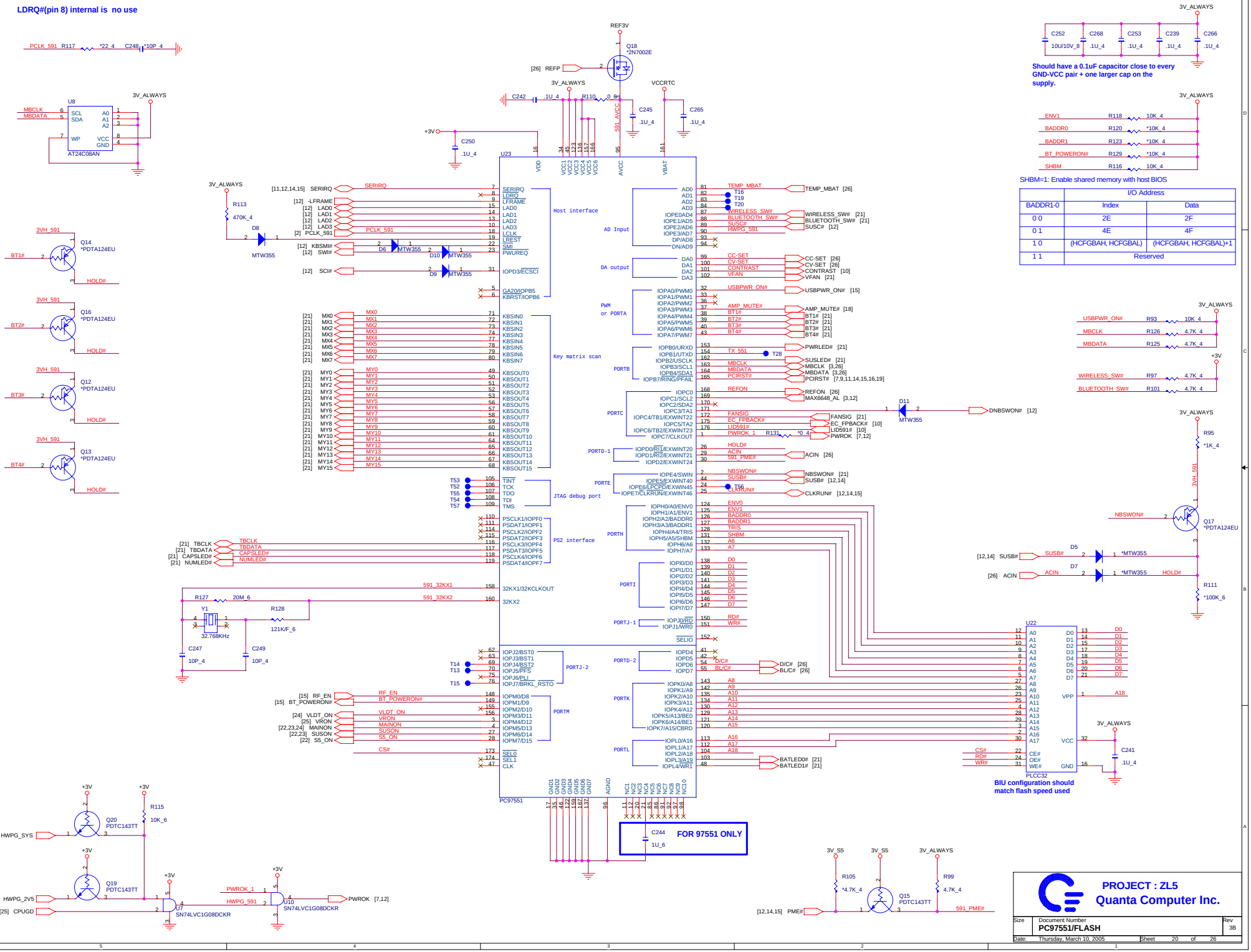
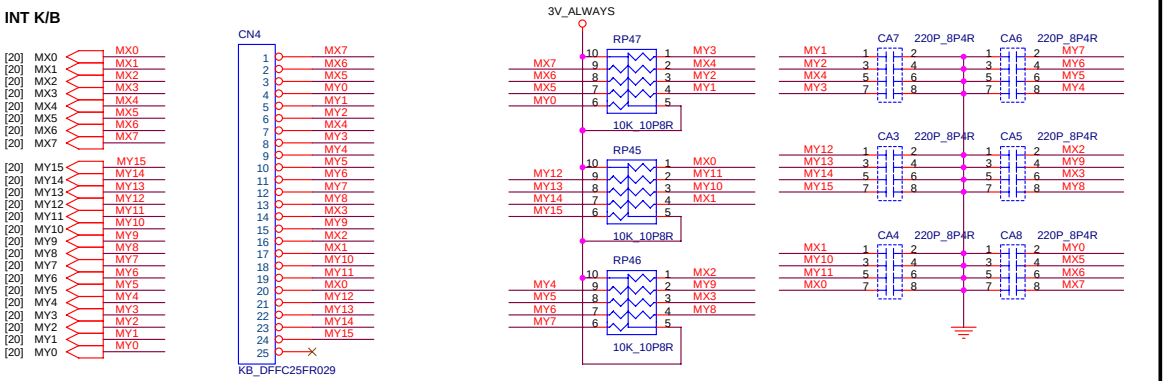
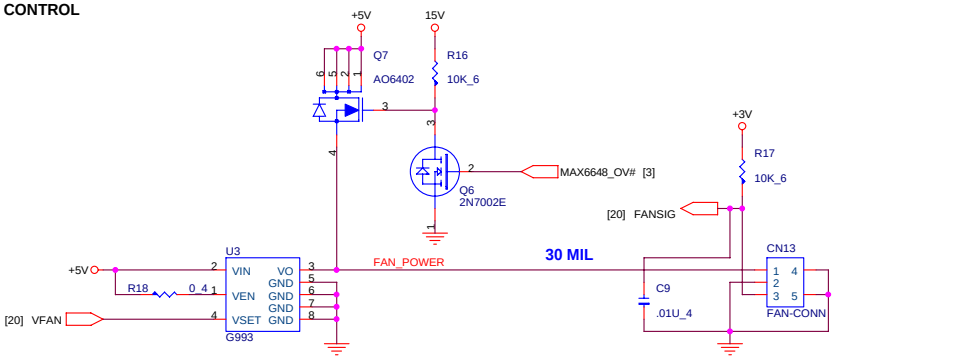
LDRQ#(pin 8) internal is no use



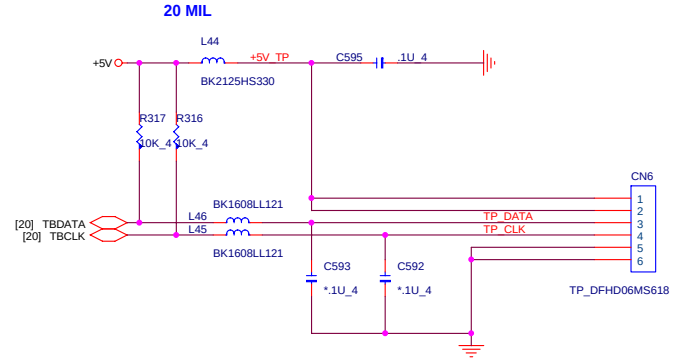
INT K/B

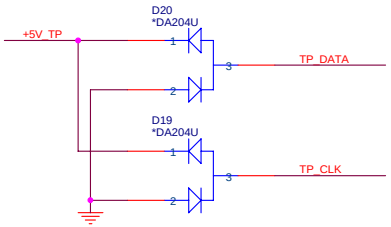


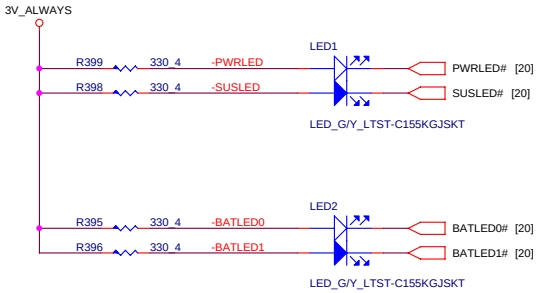
FAN CONTROL

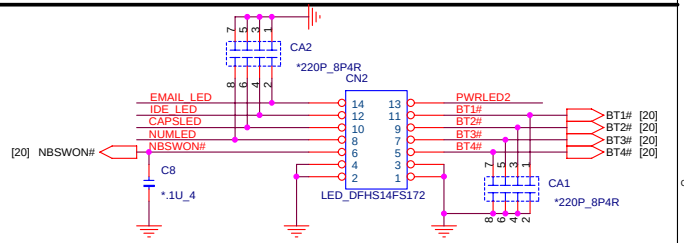


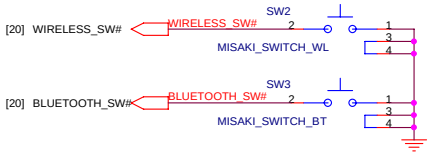
TOUCH PAD

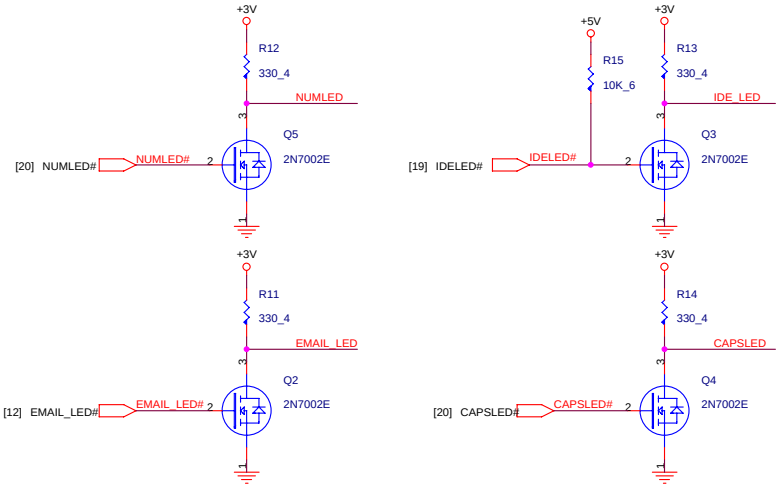


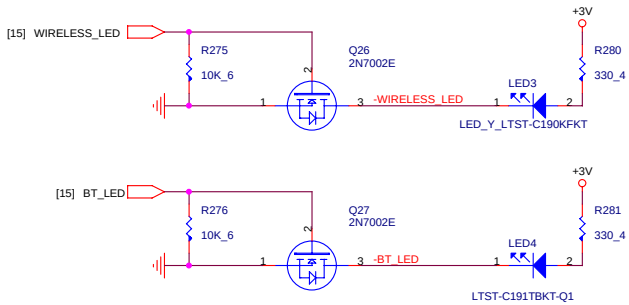












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	TP/FAN/SWITCH/LED/KB	3B
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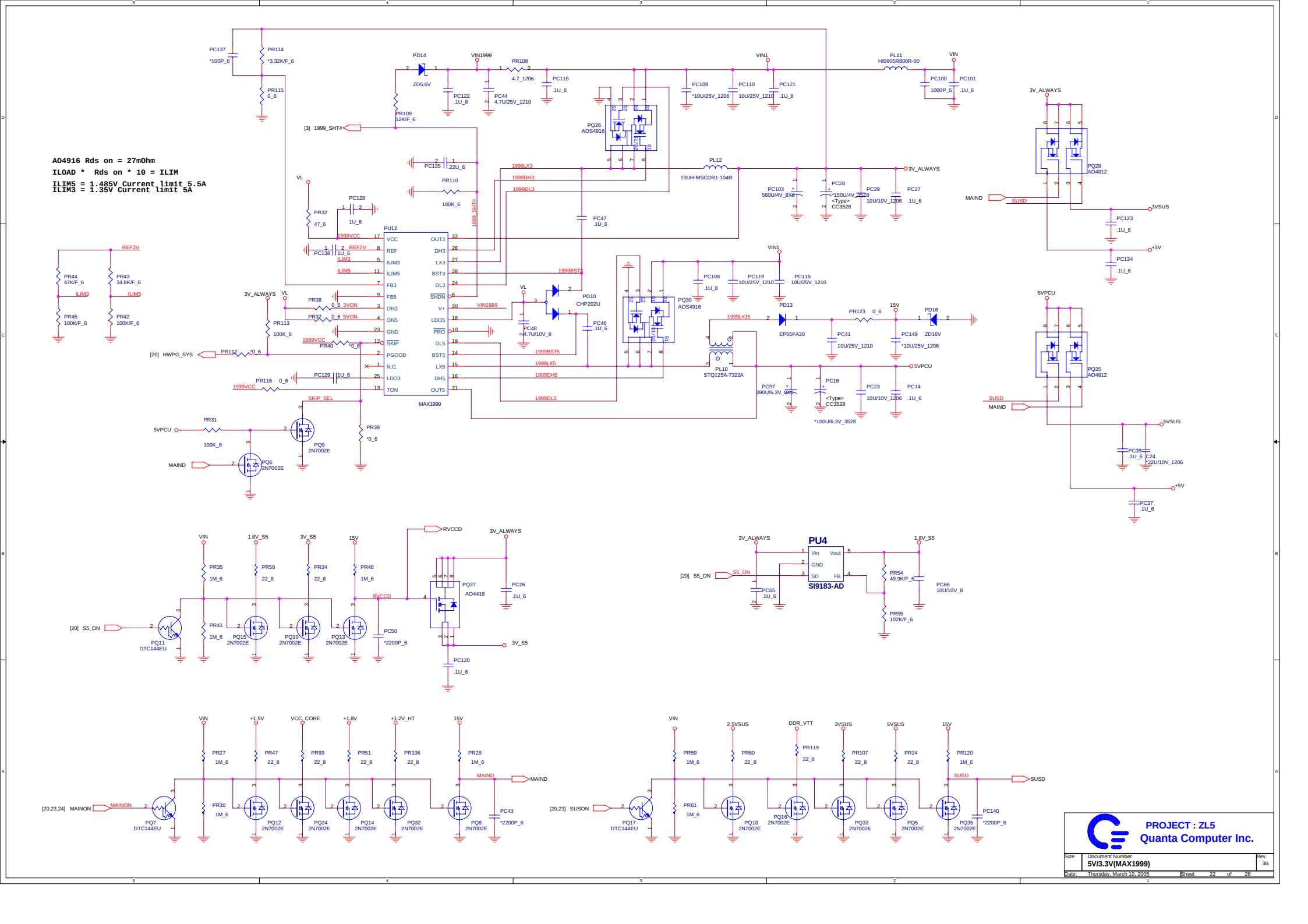
AO4916 Rds on = 27mOhm
ILOAD * Rds on * 10 = ILIM
ILIM5 = 1.485V Current limit 5.5A
ILIM3 = 1.35V Current limit 5A
MAX1999
PU12
PU4
SI9183-AD
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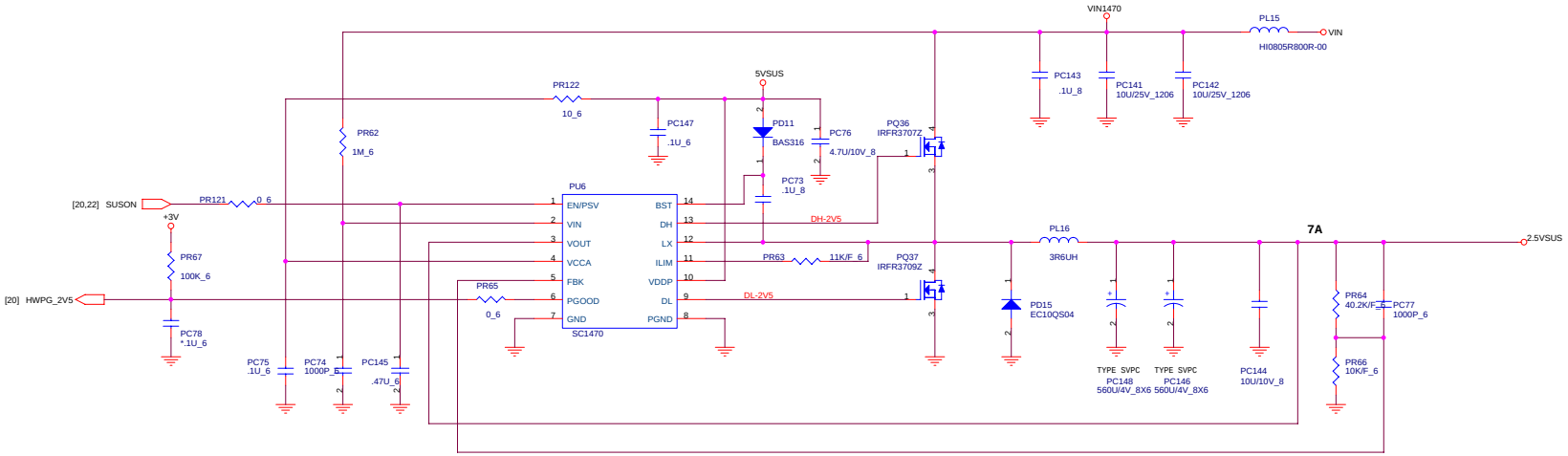

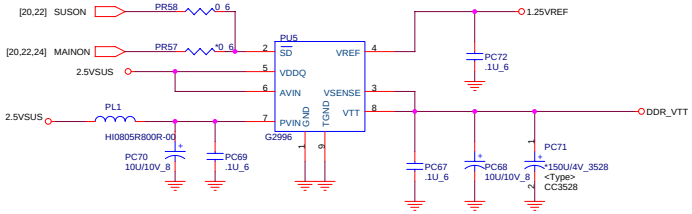

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Size	Document Number	Rev
	2.5VSUS/+1.25TERM	3B
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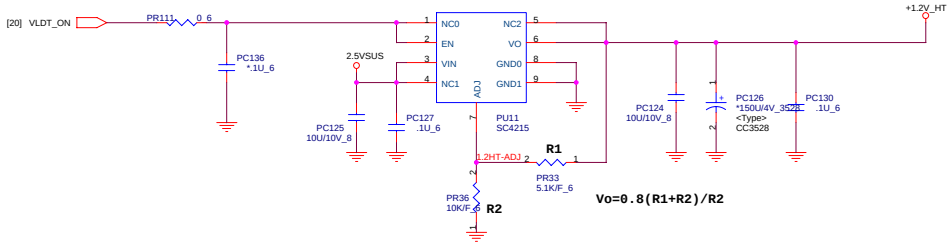

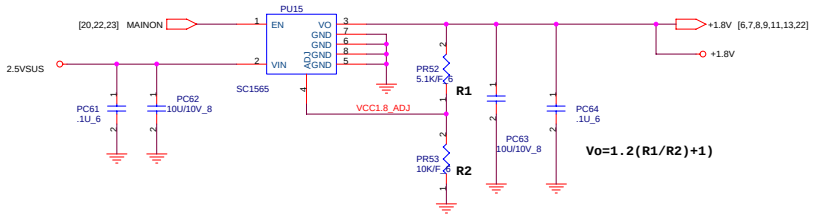

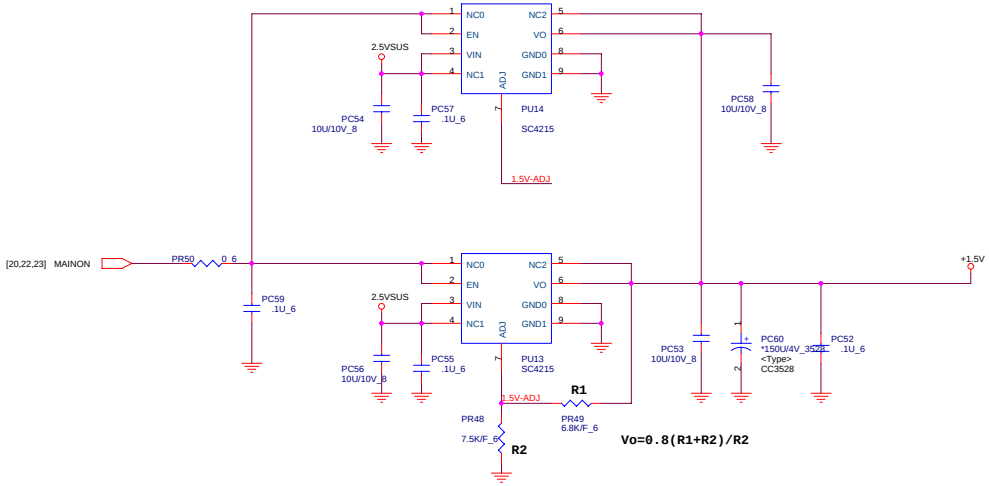

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Quanta Computer Inc.

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	+1.5V/+1.8V/+1.2V	3B
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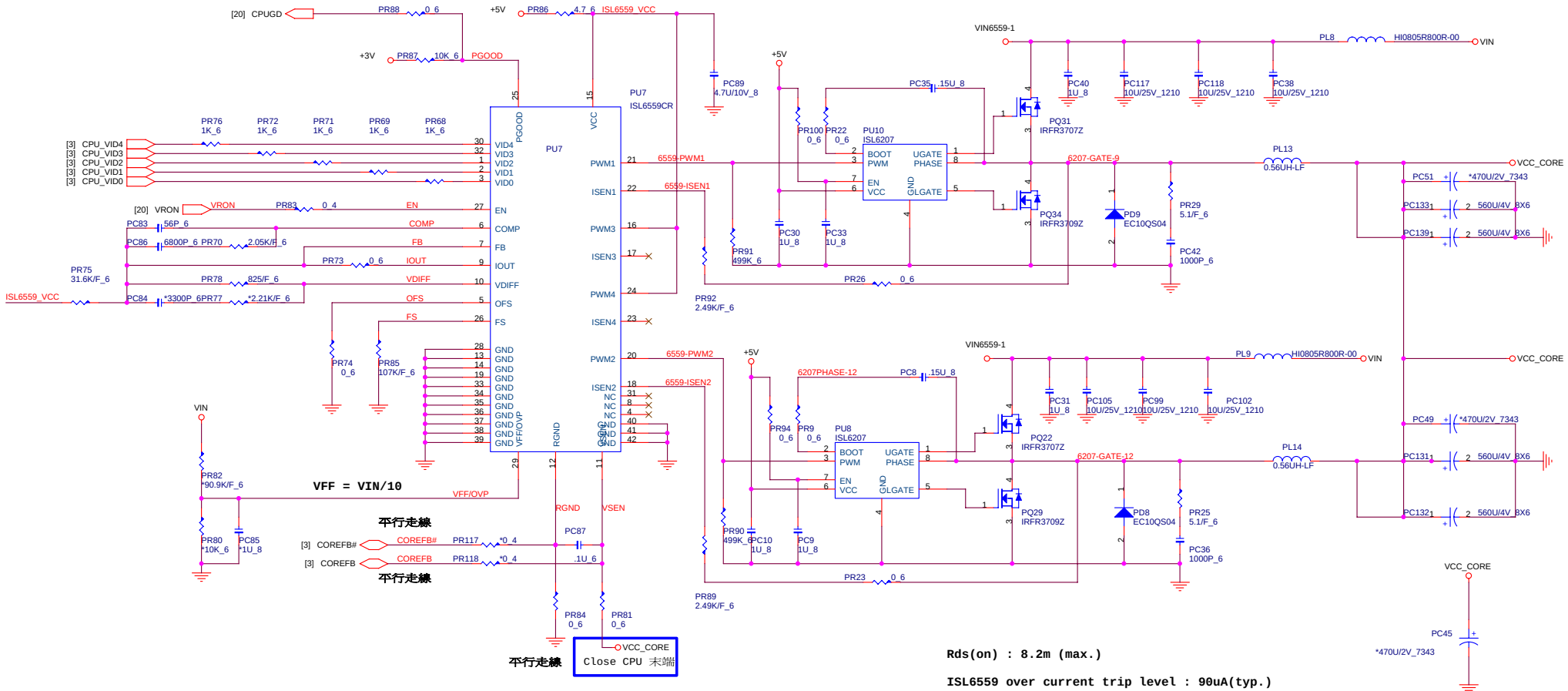
Vcore



Rds(on) : 8.2m (max.)

ISL6559 over current trip level : 90uA(typ.)
Full load Isen current : 90uA/1.5 ~ 60uA
AMD LPM 35W current 28A

Rds(on) * Io(phase) = Rsen * Isen
8.2m*1.3*(28A/2) = Rsen*60uA
Rsen = 2.48K ~ 2.49K
OCP : 28A*1.5 = 42A

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	CPU CORE	3B
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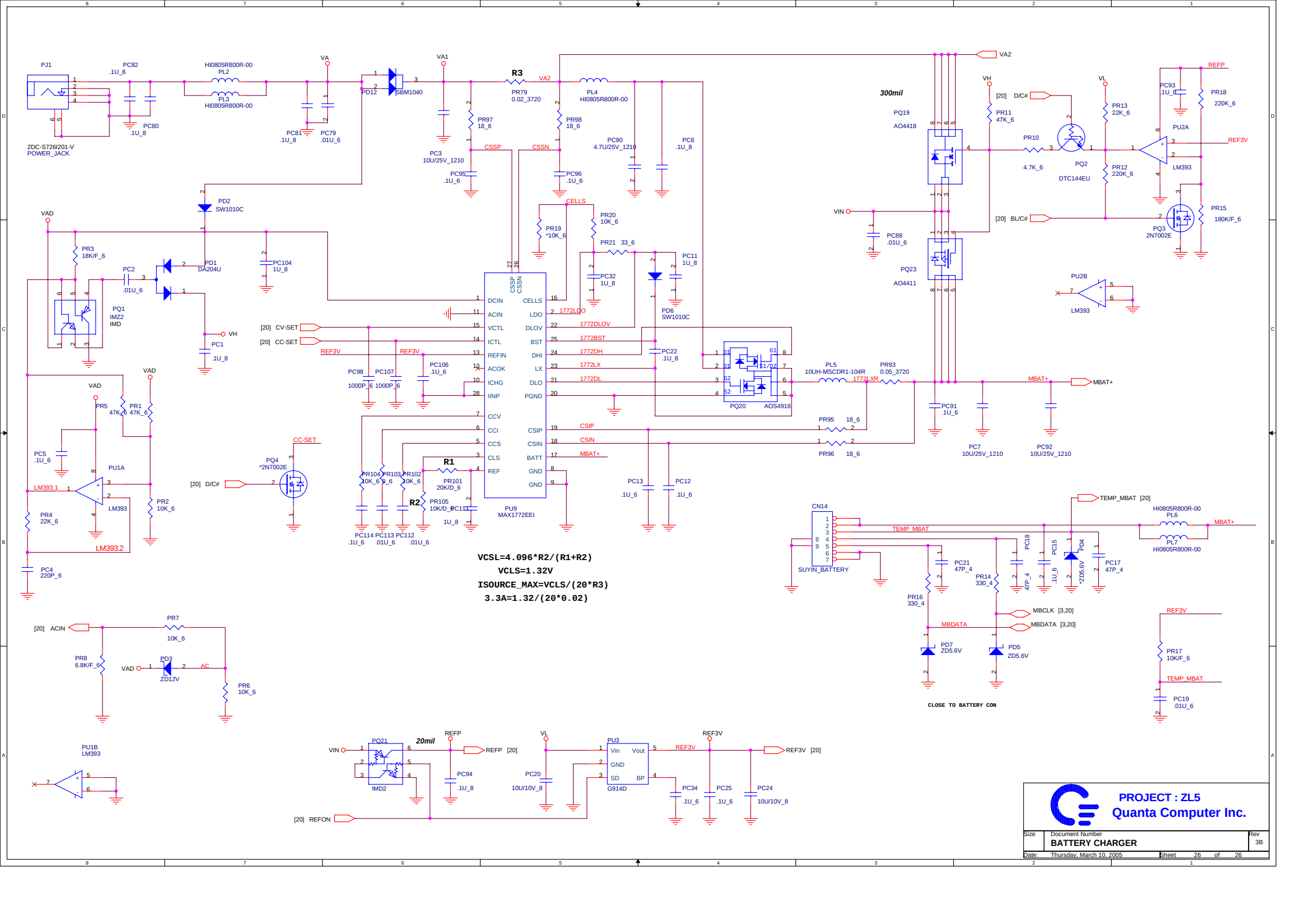

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	BATTERY CHARGER	3B
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