Z05 SYSTEM BLOCK DIAGRAM

CPU CORE / VDDNB (ISL6265A) PAGE 26

NB_CORE +1.1V (RT8202) PAGE 28

+1.1V_NB (RT8202) PAGE 27

DDR II SMDDR_VTERM 1.8VSUS(TPS51116REGR) PAGE 29

SYSTEM POWER (ISL6237) PAGE 25

SYSTEM CHARGER (ISL6251A) PAGE 24

DDRII-SODIMM1 PAGE 6 — DDRII 667/800 MHz

DDRII-SODIMM2 PAGE 6 — DDRII 667/800 MHz

AMD Griffin Lion Sabie
S1G2 Processor
638P (uPGA)/35W
PAGE 2,3,4,5

CPU THERMAL SENSOR PAGE 4

CPU Fan PAGE 23

HT3 LINK

LVDS PAGE 14 — LVDS

CRT PAGE 14 — CRT

NORTH BRIDGE & SOUTH BRIDGE

MCP77M

27mm X 27mm, 836pin BGA

PAGE 7,8,9,10, 11,12,13

14.318MHz

PCI-E

PCIE4 X1 — Mini PCI-E Card (Wireless LAN) PAGE 17

PCIE3 X1 — Express Card (NEW CARD) PAGE 17

PCIE2 X1 — LAN BRODCOM BCM8764M (10/100/GagaLAN) PAGE 15 — RJ45 PAGE 15

USB2.0

X1 USB 8

X1 USB 5

USB 0,1,7 X3 — USB2.0 Ports PAGE 16,24

USB 6 X1 — Bluetooth PAGE 16

USB 3 X1 — PC-cam PAGE 14

USB 10 X1 — Fingerprint PAGE 23

USB 2 X1 — Card Reader Realtek RTS5158E (7 in 1) PAGE 19

SATA - HDD PAGE 18 — SATA0

ODD(SATA) PAGE 18 — SATA1

Azalia

Azalia AudioController RealTek ALC268 PAGE 20

MDC 1.5 PAGE 20 — RJ11 PAGE 15

LPC

Keyboard PAGE 23 — KBC (WPCE775C) PAGE 22

Touch Pad PAGE 18

SPI ROM PAGE 22

Audio Amplifier PAGE 20

Int MIC PAGE 20

Speaker PAGE 20

SPIDF/Phone Jack PAGE 21

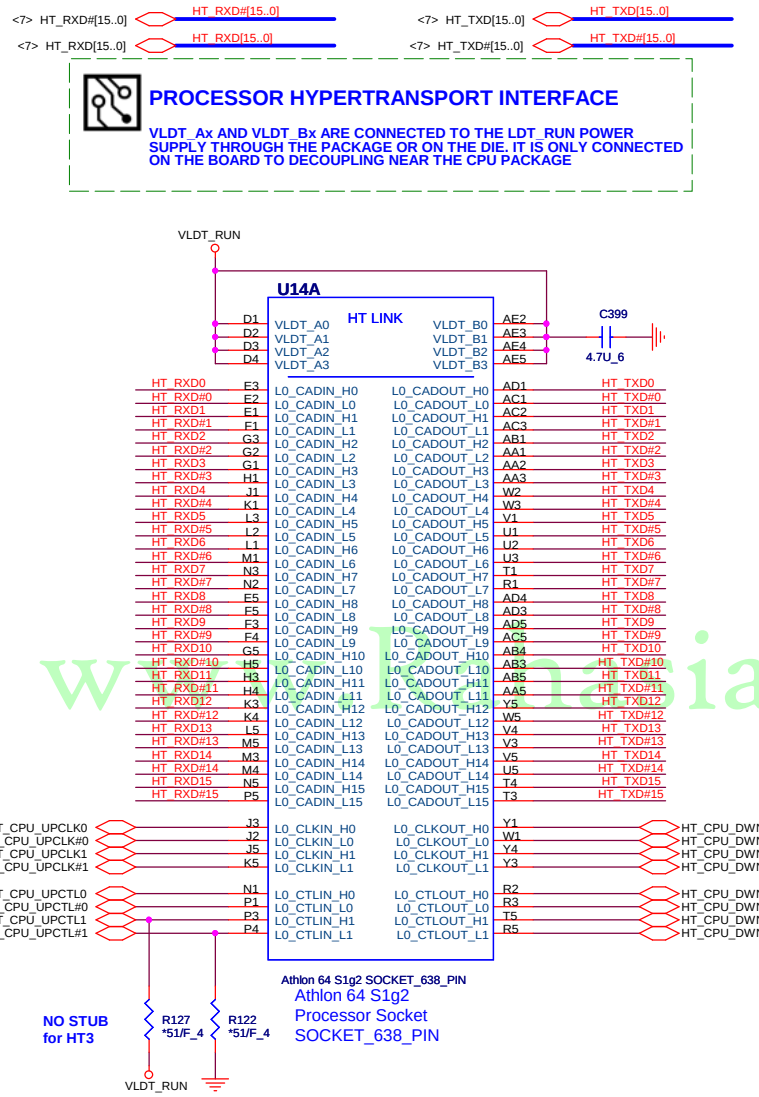
Line in PAGE 21

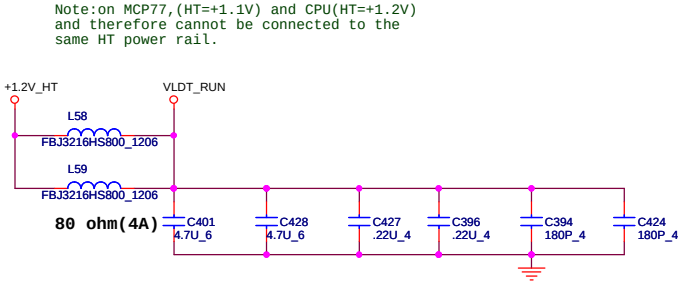
MIC Jack PAGE 21

PCB STACK UP

LAYER 1 : TOP
LAYER 2 : GND
LAYER 3 : IN1
LAYER 4 : IN2
LAYER 5 : VCC
LAYER 6 : BOT

Quanta Computer Inc.
PROJECT : Z05
Size | Document Number: Block Diagram | Rev 1A
Date: Friday, March 07, 2008 | Sheet 1 of 34





LAYOUT: Place bypass cap on topside of board

NEAR HT POWER PINS THAT ARE NOT CONNECTED DIRECTLY TO DOWNSTREAM HT DEVICE, BUT CONNECTED INTERNALLY TO OTHER HT POWER PINS
PLACE CLOSE TO VLDT0 POWER PINS

Quanta Computer Inc.
PROJECT : Z05

Size	Document Number	Rev
	AMD Griffin HT I/F	1A
Date: Monday, February 25, 2008	Sheet 2 of 34	

Processor DDR2 Memory Interface

VDD_VTT_SUS_CPU IS CONNECTED TO THE VDD_VTT_SUS POWER SUPPLY THROUGH THE PACKAGE OR ON THE DIE. IT IS ONLY CONNECTED ON THE BOARD TO DECOUPLING NEAR THE CPU PACKAGE

PLACE THEM CLOSE TO CPU WITHIN 1"

U14B

MEM:CMD/CTRL/CLK

Athlon 64 S1g2 SOCKET_638_PIN

Athlon 64 S1g2 Processor Socket SOCKET_638_PIN

U14C

MEM:DATA

To reverse SODIMM socket

To normal SODIMM socket

PLACE CLOSE TO PROCESSOR WITHIN 1.5 INCH

PLACE CLOSE TO PROCESSOR WITHIN 1.5 INCH

Quanta Computer Inc.

PROJECT : Z05

Size	Document Number	Rev
	AMD Griffin DDRII MEMORY I/F	1A

Date: Monday, February 25, 2008 Sheet 3 of 34

ATHLON Control and Debug

LAYOUT: ROUTE VDDA TRACE APPROX. 50 mils WIDE (USE 2x25 mil TRACES TO EXIT BALL FIELD) AND 500 mils LONG.

CPU_VDDA_RUN

+2.5V — L24 BLM18PG330SN1D_6 — CPU_VDDA_RUN

C285 100U-6.3V_3528 | C270 4.7U_6 | C208 .22U_4 | C209 3300P_4

If AMD SI is not used, the SID pin can be left unconnected and SIC should have a 390- (±5%) pulldown to VSS.

+1.8VSUS — R261 390_4 — CPU_SID — CPU_SID <12>
R262 390_4 — CPU_SIC — CPU_SIC <12>
R263 *390_4
R264 *1K/F_4 — CPU_ALERT

U14D

CPU_VDDA_RUN — F8 VDDA1, F9 VDDA2
CPU_CLKP — C448 3900P_4 — CPU_CLKIN_SC_P A9
CPU_CLKN — C449 3900P_4 — CPU_CLKIN_SC_N A8
Keep trace from resistor to CPU within 0.6"
Keep trace from caps to CPU within 1.2"
<7> CPU_CLKP — R329 169/F_6 — <7> CPU_CLKN
place them to CPU within 1.5"
CPU_HT_RESET# B7
CPU_HT_PWRGD A7
CPU_HT_LDTSTOP# E10
CPU_LDT_REQ# CPU C6
CPU_SIC AF4
CPU_SID AF5
CPU_ALERT AE6
VLDT_RUN — R73 44.2/F_4 — CPU_HTREF0 R6
R72 44.2/F_4 — CPU_HTREF1 P6
<26> CPU_VDD0_FB_H F6
<26> CPU_VDD0_FB_L E6
<26> CPU_VDD1_FB_H Y6
<26> CPU_VDD1_FB_L AB6
CPU_DBRDY G10
CPU_TMS AA9
CPU_TCK AC9
CPU_TRST# AD9
CPU_TDI AF9
CPU_TEST23_TSTUPD AD7
CPU_TEST18_PLLTEST1 H10
CPU_TEST19_PLLTEST0 G9
CPU_TEST25_H_BYPASSCLK_H E9
CPU_TEST25_L_BYPASSCLK_L E8
CPU_TEST21_SCANEN AB8
CPU_TEST20_SCANCLK2 AF7
CPU_TEST24_SCANCLK1 AE7
CPU_TEST22_SCANSHIFTEN AE8
CPU_TEST12_SCANSHIFTENB AC8
CPU_TEST27_SINGLECHAIN AF8
R168 0_4 — CPU_TEST9_ANALOGIN C2
AA6
A3 RSVD1, A5 RSVD2, B3 RSVD3, B5 RSVD4, C1 RSVD5
H18 RSVD10, H19 RSVD9, AA7 RSVD8, D5 RSVD7, C5 RSVD6
KEY1 M11, KEY2 W18
SVC A6 — CPU_SVC_R, SVD A4 — CPU_SVD_R
THERMTRIP_L AF6 — CPU_THERMTRIP#
PROCHOT_L AC7 — CPU_PROCHOT#
MEMHOT_L AA8 — CPU_MEMHOT#
THERMDC W7 — CPU_THERMDC
THERMDA W8 — CPU_THERMDA
VDDIO_FB_H W9 — Y9 — T14 — VDDIO_FB_H <29>
VDDNB_FB_H H6 — G6 — CPU_VDDNB_RUN_FB_H <26>, CPU_VDDNB_RUN_FB_L <26>
DBREQ_L E10 — CPU_DBREQ#
TDO AE9 — CPU_TDO
TEST28_H J7 — CPU_TEST28_H_PLLCHRZ_P — T45
TEST28_L H8 — CPU_TEST28_L_PLLCHRZ_N — T42
route as differential as short as possible testpoint under package
TEST17 D7 — CPU_TEST17_BP3 — T61
TEST16 E7 — CPU_TEST16_BP2 — T62
TEST15 F7 — CPU_TEST15_BP1 — T56
TEST14 C7 — CPU_TEST14_BP0 — T52
TEST7 C3, TEST10 K8, TEST8 C4
TEST29_H C9 — CPU_TEST29_H_FBCLKOUT_P — T53
TEST29_L C8 — CPU_TEST29_L_FBCLKOUT_N — T60

Athlon 64 S1g2 SOCKET_638_PIN
Athlon 64 S1g2 Processor Socket SOCKET_638_PIN

+1.8VSUS — R402 *510/F_4 — T79 CPU_TEST23_TSTUPD; T44 CPU_TEST18_PLLTEST1; T51 CPU_TEST19_PLLTEST0
T63 — T55 — R403 *510/F_4

+1.8VSUS — R163 300_4 — <7> HTCPU_PWRGD — R162 0_4 — CPU_HT_PWRGD — C531 .1U_4 — Close CPU Sockt
2/20/08' Implement on C-test

+1.8VSUS — R158 300_4 — <7> HTCPU_STOP# — R157 0_4 — CPU_HT_LDTSTOP#

+1.8VSUS — R161 300_4 — <7> HTCPU_RST# — R160 0_4 — CPU_HT_RESET#

+1.8VSUS — R165 300_4 — CPU_LDT_REQ# CPU — R164 0_4 — HTCPU_REQ# — HTCPU_REQ# <7>

+1.8VSUS — R50 330_4 — R55 *4.7K_4 — PWROK_EC <12,22>
R58 *4.7K_4
+1.8VSUS — R250 300_4 — CPU_THERMTRIP# — Q8 MMBT3904 — THERM_SYS_PWR <25,30>
R49 0_4 — MCP77_THERMIP# <7>
+1.8VSUS — R252 300_4 — CPU_PROCHOT# — Q24 MMBT3904 — EC_PROCHOT# <22>
R251 *0_4 — MCP77_PROCHOT# <7>
+1.8VSUS — R255 *300_4 — CPU_MEMHOT# — Q23 *MMBT3904 — CPUMEMHOT# <22>
R67 *330_4

VID Override Circuit

+1.8VSUS — R155 1K_4, R167 1K_4
CPU_SVC_R — R159 0_4 — Serial VID Clock — CPU SVC <26>
CPU_SVD_R — R150 0_4 — Serial VID Data — CPU SVD <26>
HTCPU_PWRGD — R171 0_4 — CPU_PWRGD_SVID <26>
R166 *220_4, R156 *220_4

VFIX MODE

SVC	SVD	Voltage Output(CPU Power)
0	0	1.4V
0	1	1.2V
1	0	1.0V
1	1	0.8V

CPU H/W MONITOR

2/20/08' Reserve 0 ohm for CPU thermal issue on C-test

+3V — R39 47/F_6 — 3V_THM — 15 MIL — R404 *0_4 — C35 .1U_4 — CPU_THERMDC — C37 2200P_4 — CPU_THERMDA
10 mil trace / 10 mil space

U4 G781: VCC, DXN, DXP, -OVT, -ALT, SMDATA, SMCLK, GND, KBSMDAT, KBSMCLK
Address 98H

+3V — R25 10K_4 — Q3 2N7002E — To SB GPIO — THERM_ALERT# <12>
+3V — R24 4.7K_4 — Q5 2N7002E — MBDATA_CPU <22>
+3V — R23 4.7K_4 — Q4 2N7002E — MBCLK_CPU <22>
+3V — R36 10K_4 — To FAN — CPUFAN#_ON <23>

+1.8VSUS
CPU_TEST27_SINGLECHAIN — R392 *300_4
CPU_TEST12_SCANSHIFTENB — R393 *300_4
CPU_TEST14_BP0 — R394 *300_4
CPU_TEST15_BP1 — R395 *300_4
CPU_TEST18_PLLTEST1 — R396 *300_4
CPU_TEST19_PLLTEST0 — R397 *300_4
CPU_TEST20_SCANCLK2 — R398 *300_4
CPU_TEST21_SCANEN — R399 300_4
CPU_TEST22_SCANSHIFTEN — R400 *300_4
CPU_TEST24_SCANCLK1 — R401 300_4
2/20/08' Mount 300 ohm on C-test

+1.8VSUS — R289 *220_4, R287 *220_4, R107 *220_4, R254 *220_4, R148 300_4
2/20/08' Mount 300 ohm on C-test

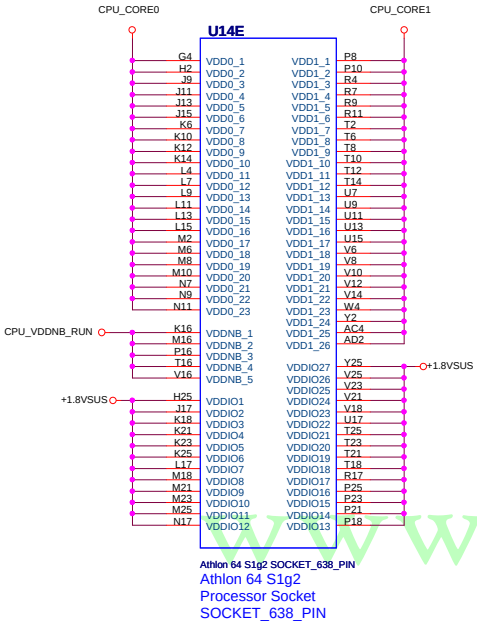
HDT CONNECTOR

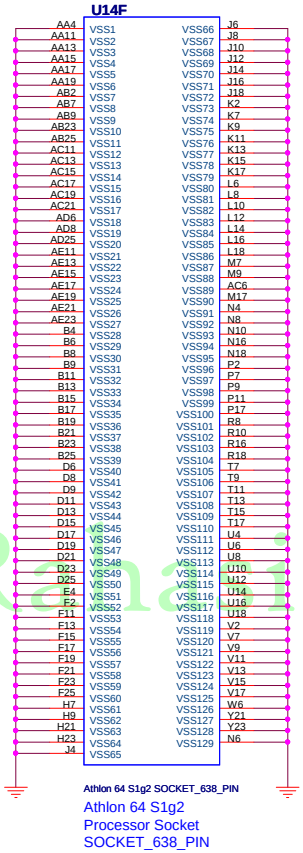
CN6 *ASP-68200-07-25P-L0V
*HDTGND
CPU_DBREQ# — T59
CPU_DBRDY — T46
CPU_TCK — T78
CPU_TMS — T19
CPU_TDI — T80
CPU_TRST# — T86
CPU_TDO — T77
GND1, RSVD1, RSVD0, DBREQ_L, DBRDY, TCK, TMS, TDI, TRST_L, TDO, VCC_PROC_IO_21, VCC_PROC_IO_23, KEY
GND2, GND4, GND6, GND8, GND10, GND12, GND14, GND16, GND18, GND20, GND22, RESET_L, GND26

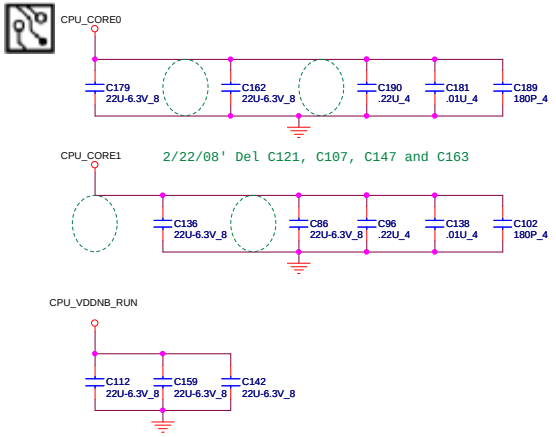
+1.8VSUS — R174 10K_4 — Q14 MMBT3904 — CPU_HT_RESET#
+3V — R172 1K/F_4 — H_HTCPU_RST# — T64

Quanta Computer Inc.
PROJECT : Z05
Size | Document Number: AMD Griffin CTRL & DEBUG | Rev 1A
Date: Monday, February 25, 2008 | Sheet 4 of 34

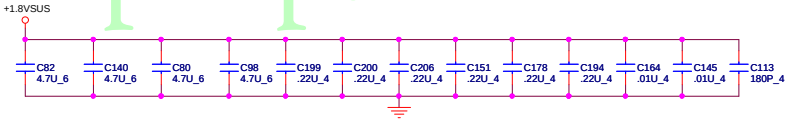
PROCESSOR POWER AND GROUND

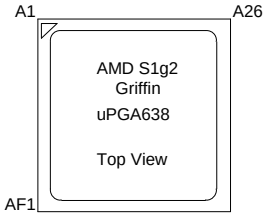




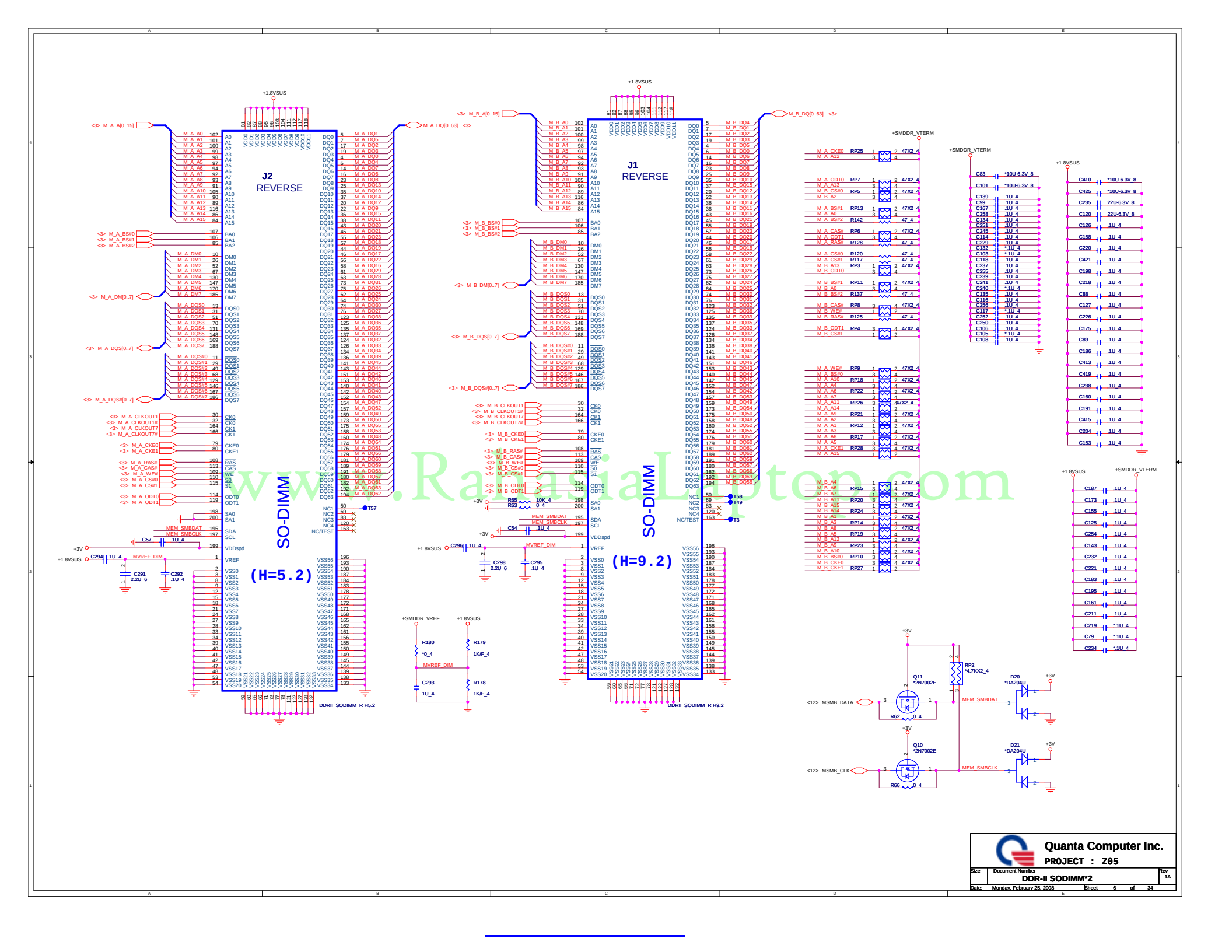


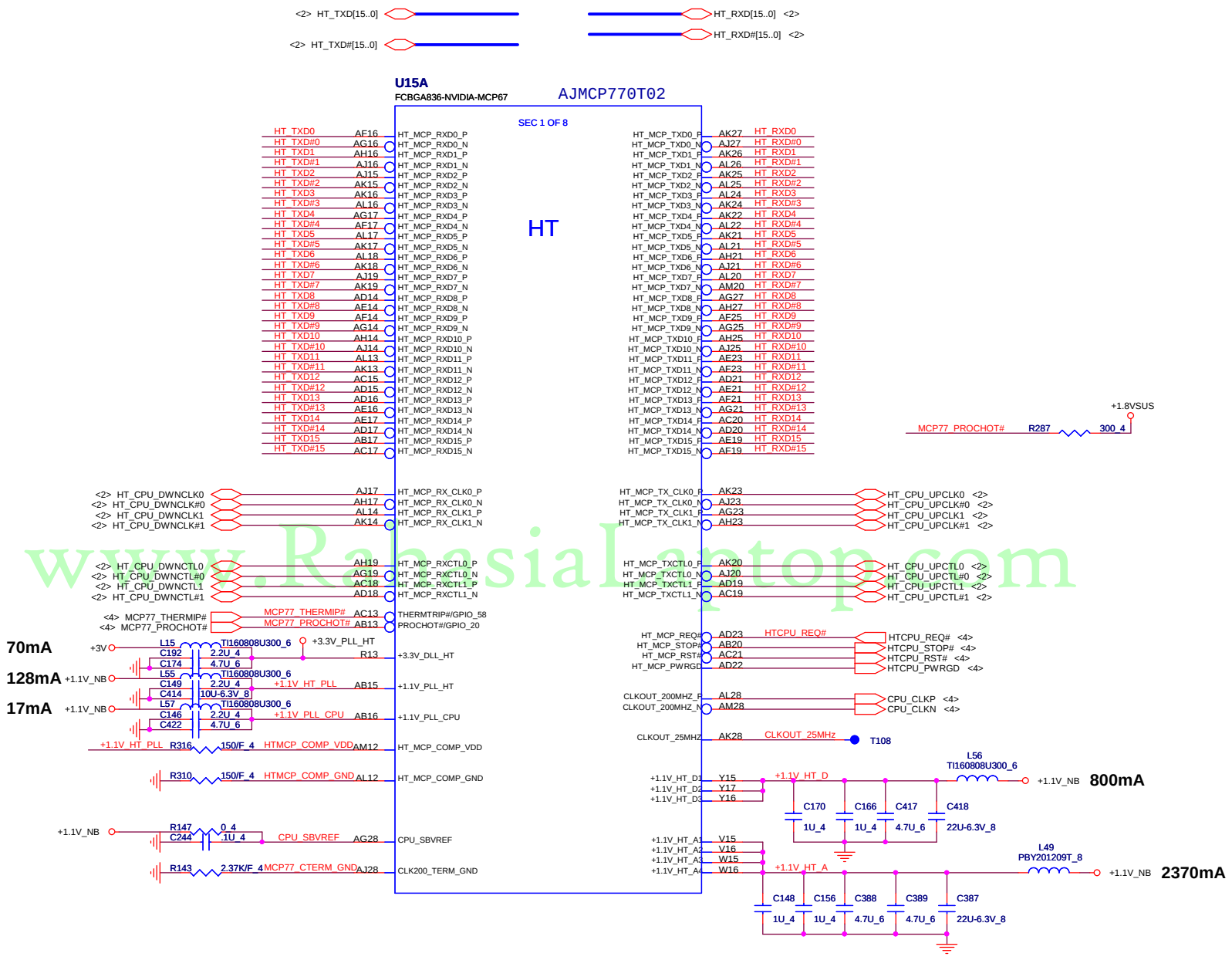
DECOUPLING BETWEEN PROCESSOR AND DIMMs
PLACE CLOSE TO PROCESSOR AS POSSIBLE



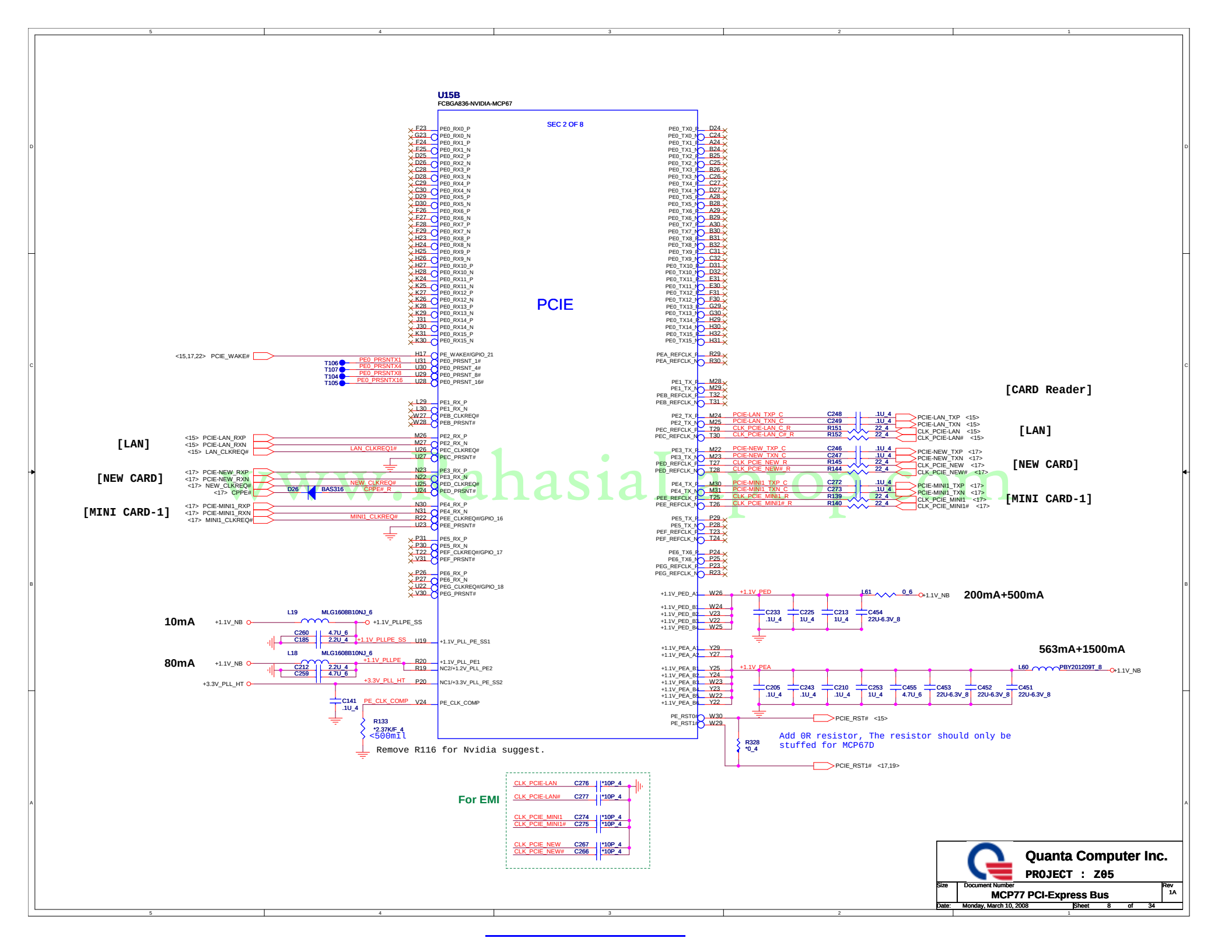


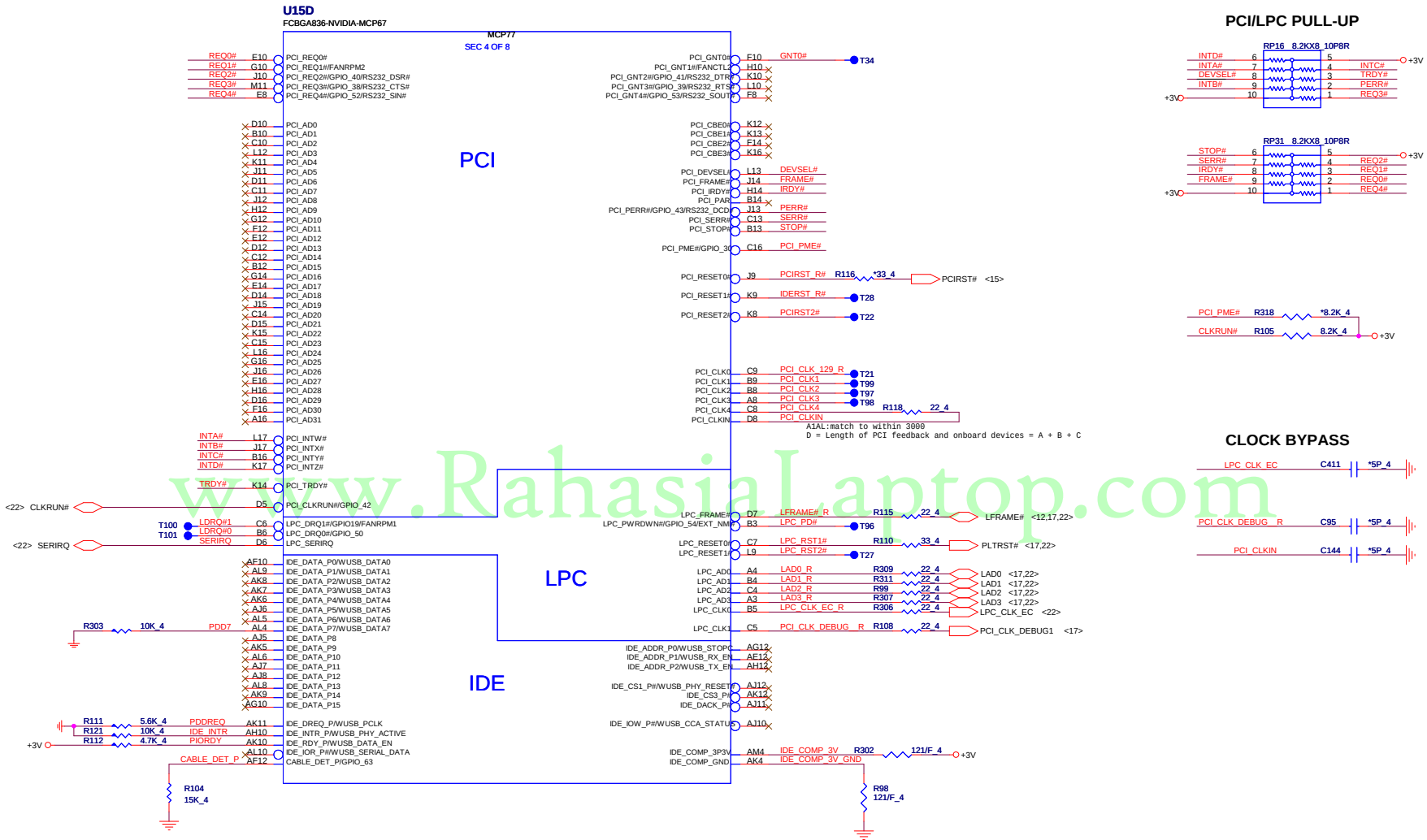
Quanta Computer Inc.		
PROJECT : Z05		
Size	Document Number	Rev
	AMD Griffin PWR & GND	1A
Date: Monday, February 25, 2008	Sheet 5 of 34	



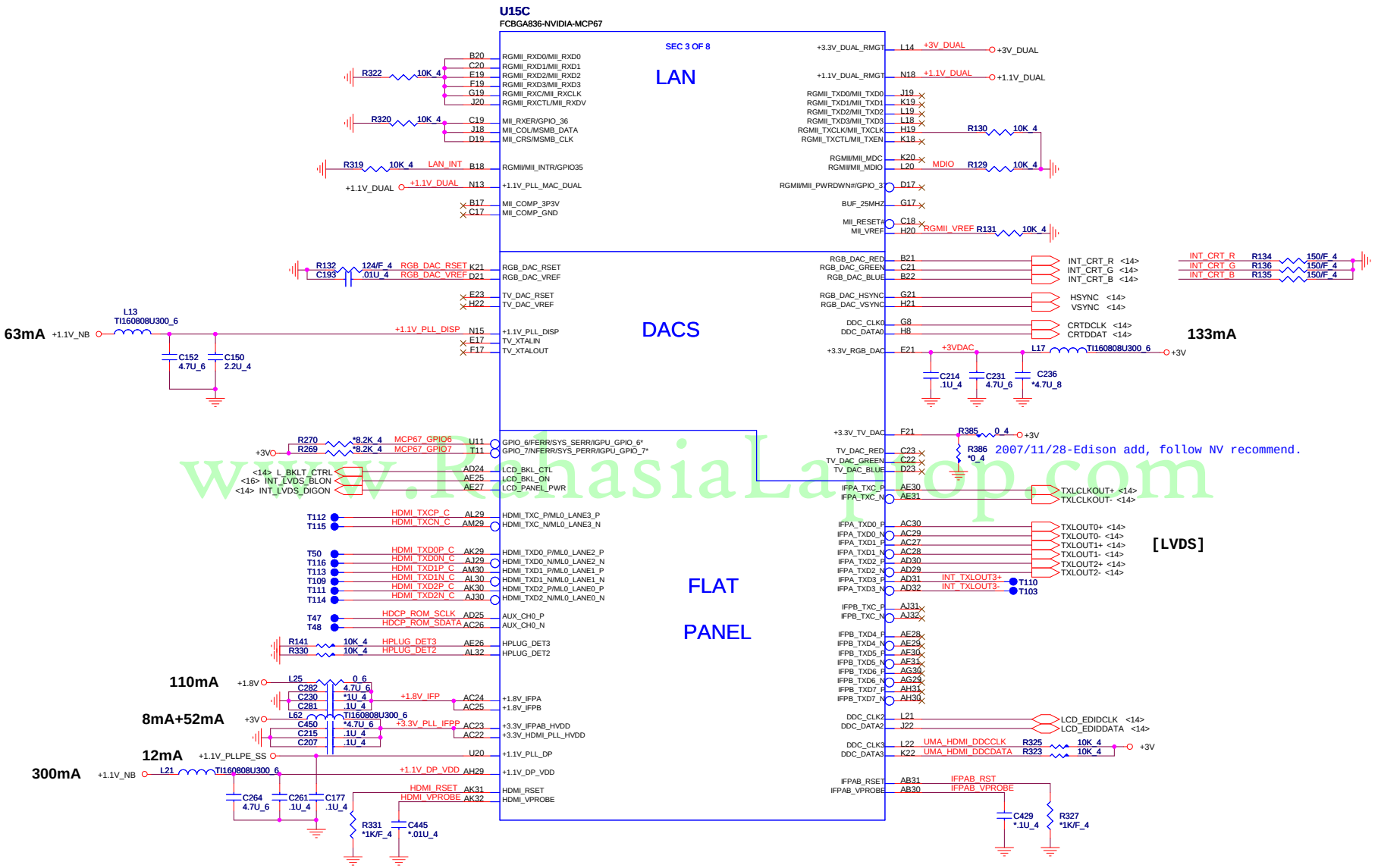


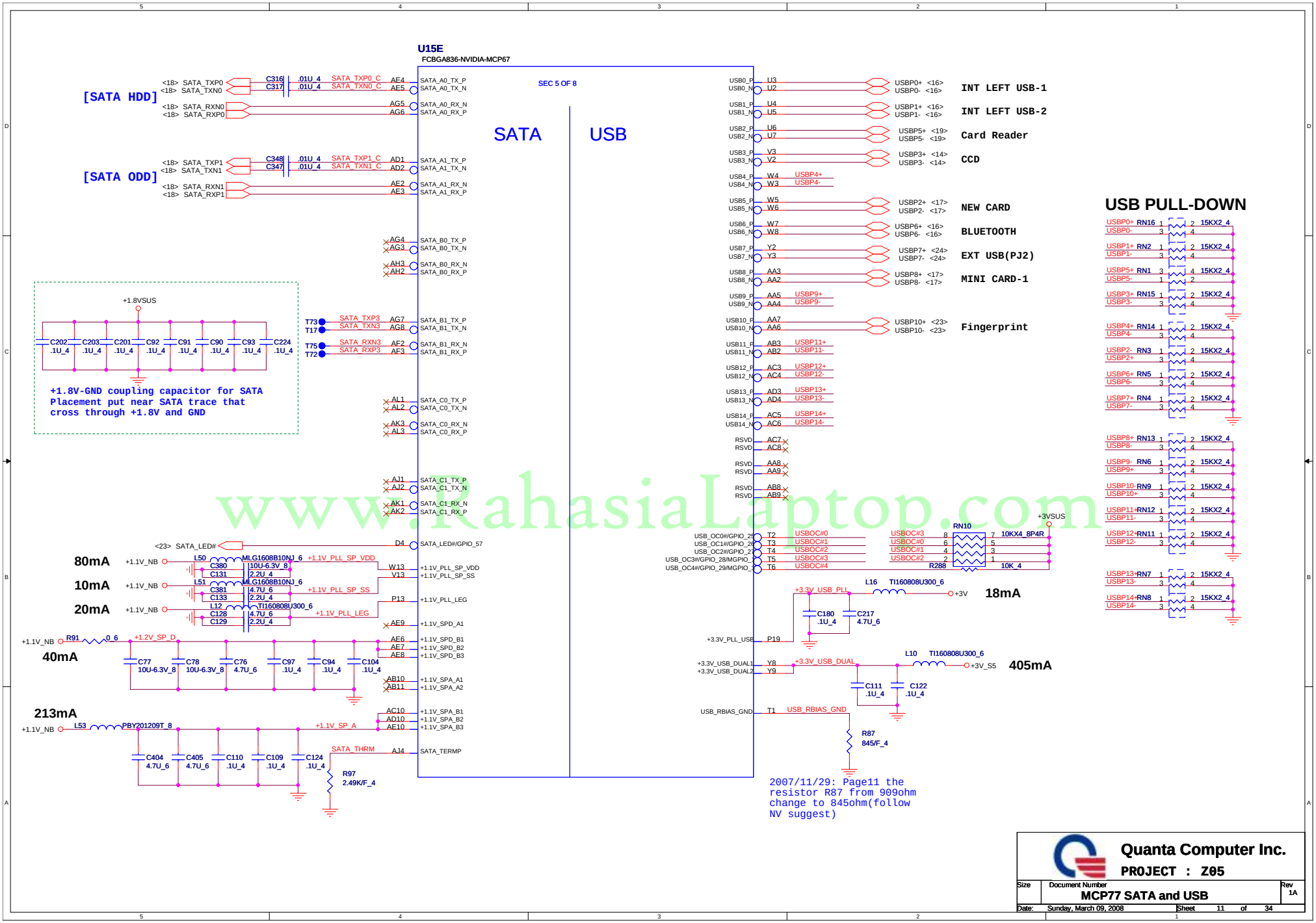
Quanta Computer Inc.		
PROJECT : Z05		
Size	Document Number	Rev
	MCP77 HyperTransport Bus	1A
Date: Monday, March 10, 2008	Sheet 7 of 34	

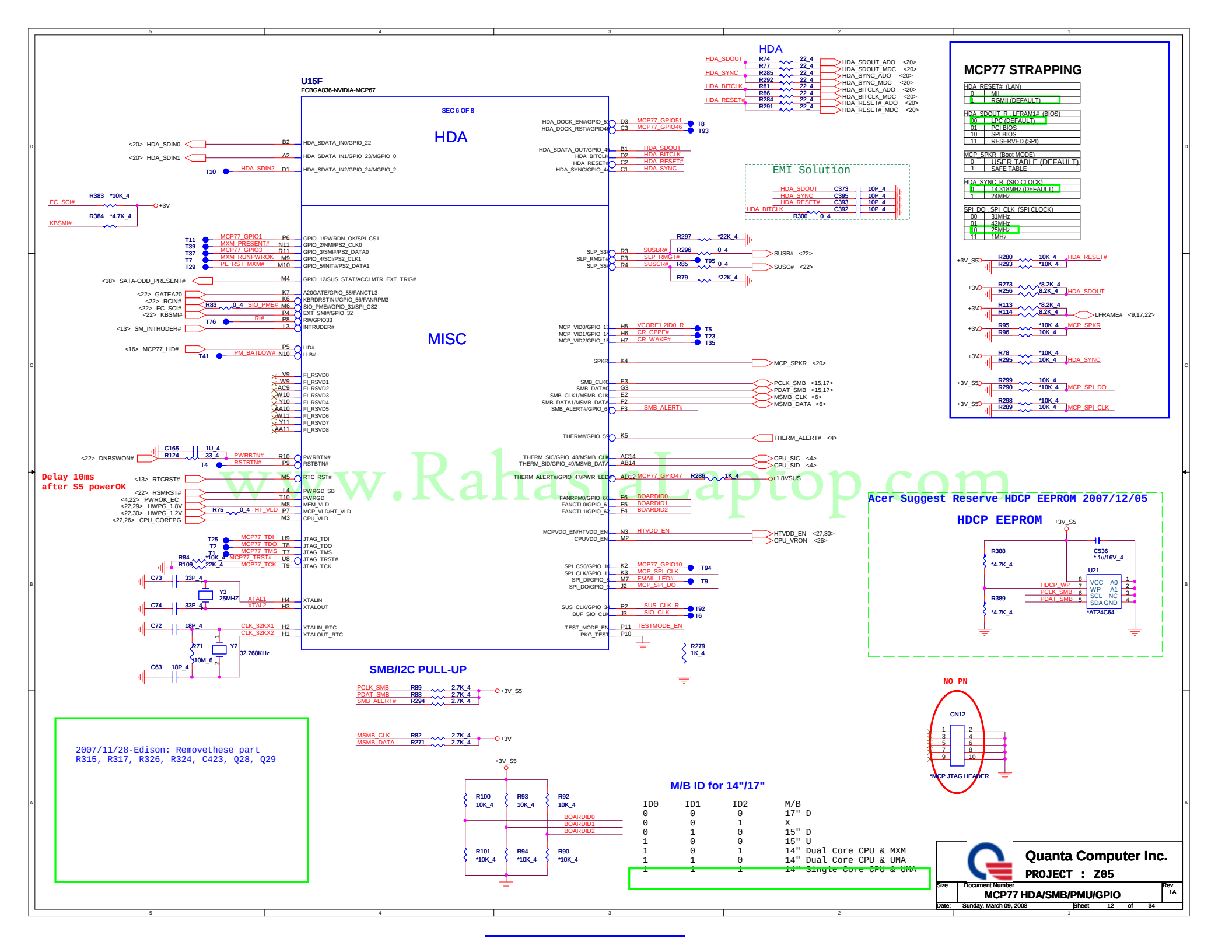

U15B
FCBGA836-NVIDIA-MCP67
SEC 2 OF 8
PCIE
[LAN]
[NEW CARD]
[MINI CARD-1]
[CARD Reader]
[LAN]
[NEW CARD]
[MINI CARD-1]
10mA
80mA
200mA+500mA
563mA+1500mA
For EMI
Remove R116 for Nvidia suggest.
Add 0R resistor, The resistor should only be stuffed for MCP67D
Quanta Computer Inc.
PROJECT : Z05
MCP77 PCI-Express Bus
Monday, March 10, 2008



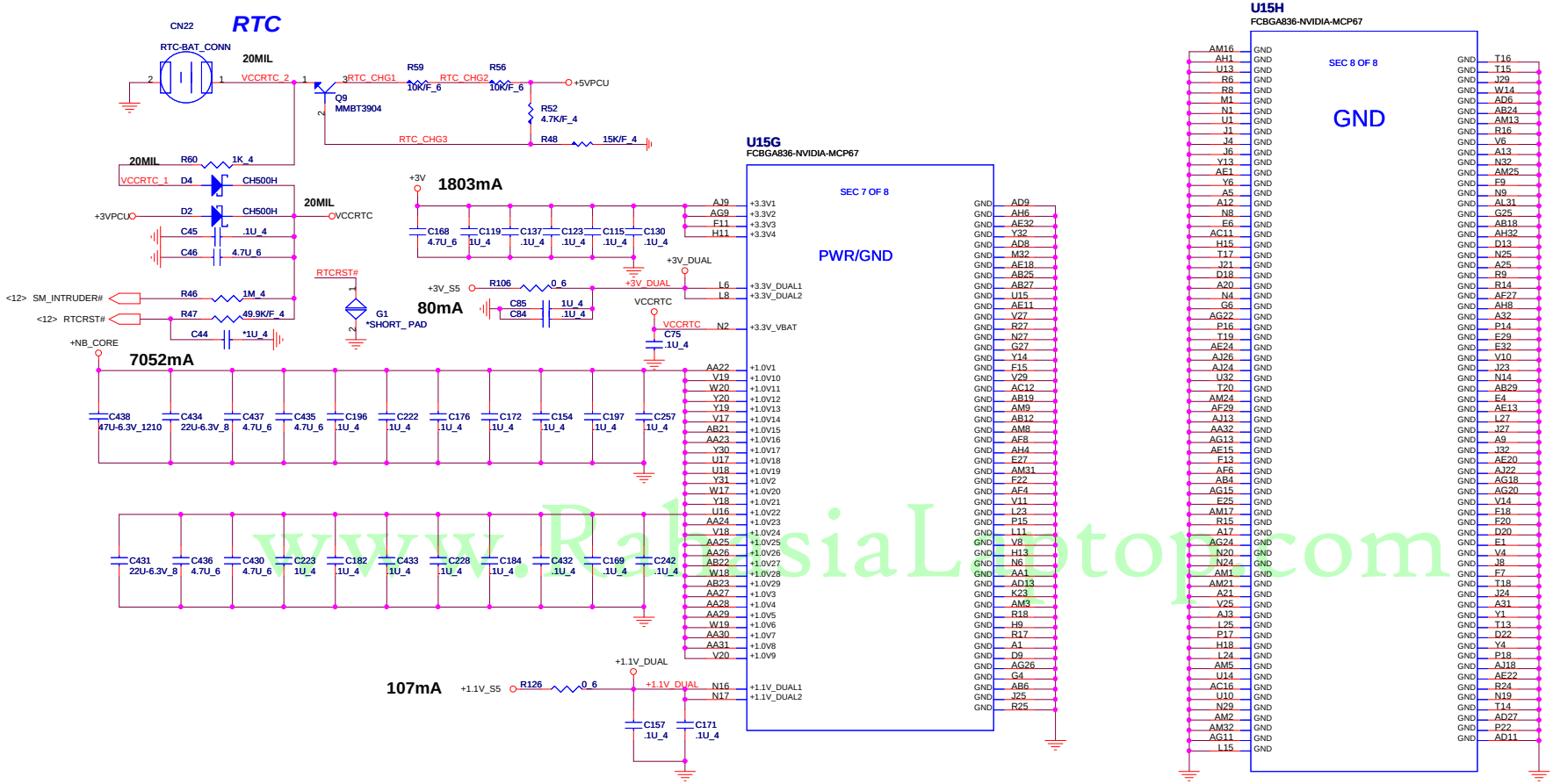
Quanta Computer Inc.		
PROJECT : Z05		
Size	Document Number	Rev 1A
	MCP77 PCI/LPC/IDE	
Date: Monday, February 25, 2008	Sheet 9 of 34	


U15C
FCBGA836-NVIDIA-MCP67
SEC 3 OF 8
LAN
DACS
FLAT
PANEL
RGMII_RXD0/MII_RXD0
RGMII_RXD1/MII_RXD1
RGMII_RXD2/MII_RXD2
RGMII_RXD3/MII_RXD3
RGMII_RXC/MII_RXCLK
RGMII_RXCTL/MII_RXDV
MII_RXER/GPIO_36
MII_COL/MSMB_DATA
MII_CRS/MSMB_CLK
RGMII/MII_INTR/GPIO35
+1.1V_PLL_MAC_DUAL
MII_COMP_3P3V
MII_COMP_GND
RGB_DAC_RSET
RGB_DAC_VREF
TV_DAC_RSET
TV_DAC_VREF
+1.1V_PLL_DISP
TV_XTALIN
TV_XTALOUT
GPIO_6/FERR/SYS_SERR/IGPU_GPIO_6*
GPIO_7/NFERR/SYS_PERR/IGPU_GPIO_7*
LCD_BKL_CTL
LCD_BKL_ON
LCD_PANEL_PWR
HDMI_TXC_P/ML0_LANE3_P
HDMI_TXC_N/ML0_LANE3_N
HDMI_TXD0_P/ML0_LANE2_P
HDMI_TXD0_N/ML0_LANE2_N
HDMI_TXD1_P/ML0_LANE1_P
HDMI_TXD1_N/ML0_LANE1_N
HDMI_TXD2_P/ML0_LANE0_P
HDMI_TXD2_N/ML0_LANE0_N
AUX_CH0_P
AUX_CH0_N
HPLUG_DET3
HPLUG_DET2
+1.8V_IFPA
+1.8V_IFPB
+3.3V_IFPAB_HVDD
+3.3V_HDMI_PLL_HVDD
+1.1V_PLL_DP
+1.1V_DP_VDD
HDMI_RSET
HDMI_VPROBE
+3.3V_DUAL_RMGT
+1.1V_DUAL_RMGT
RGMII_TXD0/MII_TXD0
RGMII_TXD1/MII_TXD1
RGMII_TXD2/MII_TXD2
RGMII_TXD3/MII_TXD3
RGMII_TXCLK/MII_TXCLK
RGMII_TXCTL/MII_TXEN
RGMII/MII_MDC
RGMII/MII_MDIO
RGMII/MII_PWRDWN#/GPIO_3
BUF_25MHZ
MII_RESET#
MII_VREF
RGB_DAC_RED
RGB_DAC_GREEN
RGB_DAC_BLUE
RGB_DAC_HSYNC
RGB_DAC_VSYNC
DDC_CLK0
DDC_DAT0
+3.3V_RGB_DAC
+3.3V_TV_DAC
TV_DAC_RED
TV_DAC_GREEN
TV_DAC_BLUE
IFPA_TXC_P
IFPA_TXC_N
IFPA_TXD0_P
IFPA_TXD0_N
IFPA_TXD1_P
IFPA_TXD1_N
IFPA_TXD2_P
IFPA_TXD2_N
IFPA_TXD3_P
IFPA_TXD3_N
IFPB_TXC_P
IFPB_TXC_N
IFPB_TXD4_P
IFPB_TXD4_N
IFPB_TXD5_P
IFPB_TXD5_N
IFPB_TXD6_P
IFPB_TXD6_N
IFPB_TXD7_P
IFPB_TXD7_N
DDC_CLK2
DDC_DATA2
DDC_CLK3
DDC_DATA3
IFPAB_RSET
IFPAB_VPROBE
INT_CRT_R <14>
INT_CRT_G <14>
INT_CRT_B <14>
HSYNC <14>
VSYNC <14>
CRTDCLK <14>
CRTDDAT <14>
TXLCLKOUT+ <14>
TXLCLKOUT- <14>
TXLOUT0+ <14>
TXLOUT0- <14>
TXLOUT1+ <14>
TXLOUT1- <14>
TXLOUT2+ <14>
TXLOUT2- <14>
INT_TXLOUT3+
INT_TXLOUT3-
LCD_EDIDCLK <14>
LCD_EDIDDATA <14>
UMA_HDMI_DDCCLK
UMA_HDMI_DDCDATA
MDIO
[LVDS]
63mA
133mA
110mA
8mA+52mA
12mA
300mA
2007/11/28-Edison add, follow NV recommend.
www.RahasiaLaptop.com
Quanta Computer Inc.
PROJECT : Z05
Size
Document Number
MCP77 LAN and Graphics
Rev 1A
Date: Monday, February 25, 2008
Sheet 10 of 34





MCP77 POWER PLANE/GND & BYPASS

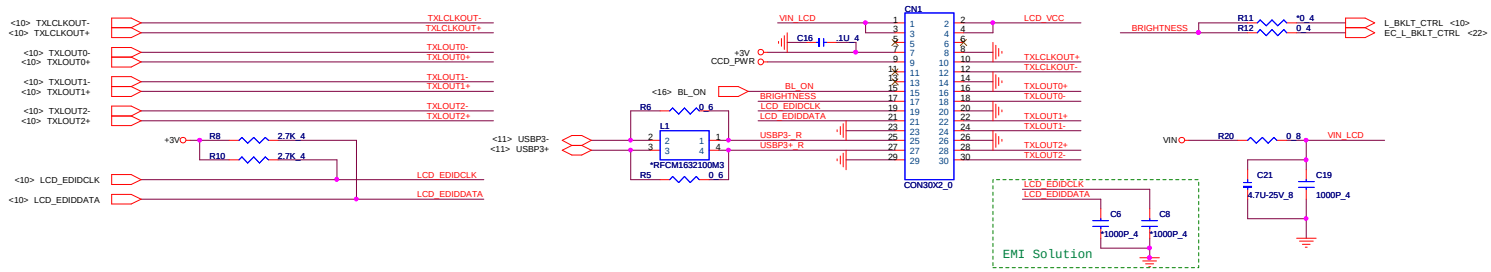


Quanta Computer Inc.
PROJECT : Z05

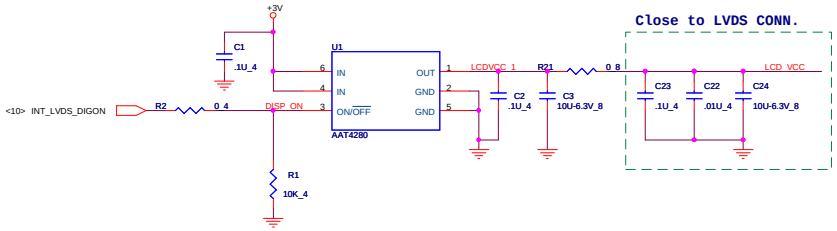
Size	Document Number	Rev
	MCP77 POWER/GND/RTC	1A
Date: Monday, February 25, 2008	Sheet 13 of 34	

LVDS

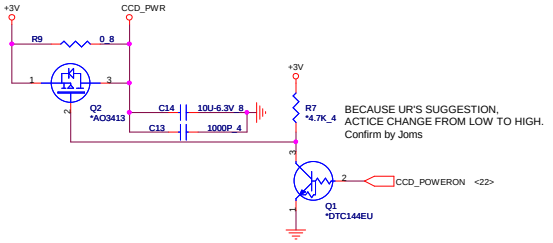
SINGLE_CH



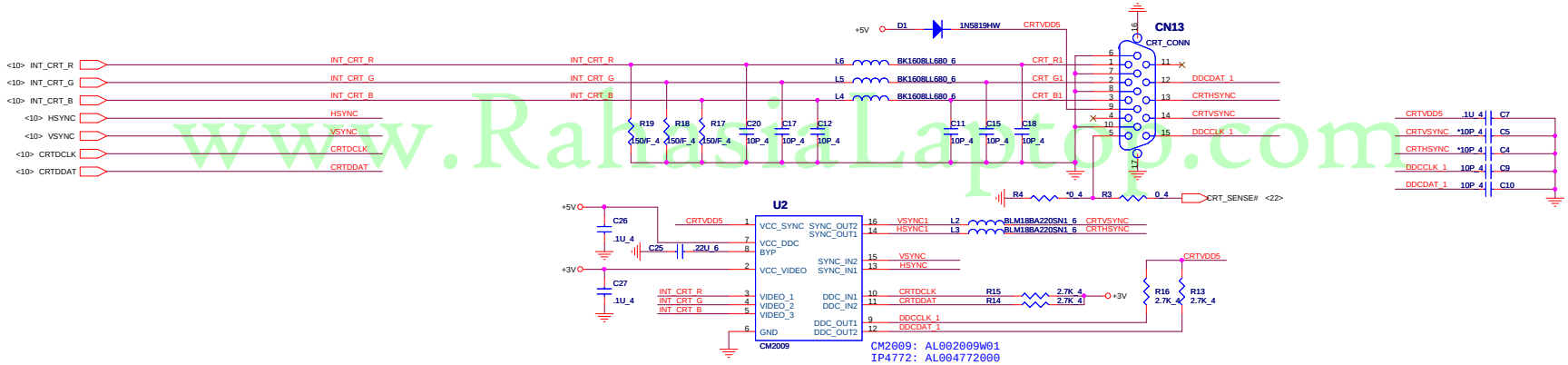
LCD POWER



CAMERA MODULE POWER



CRT

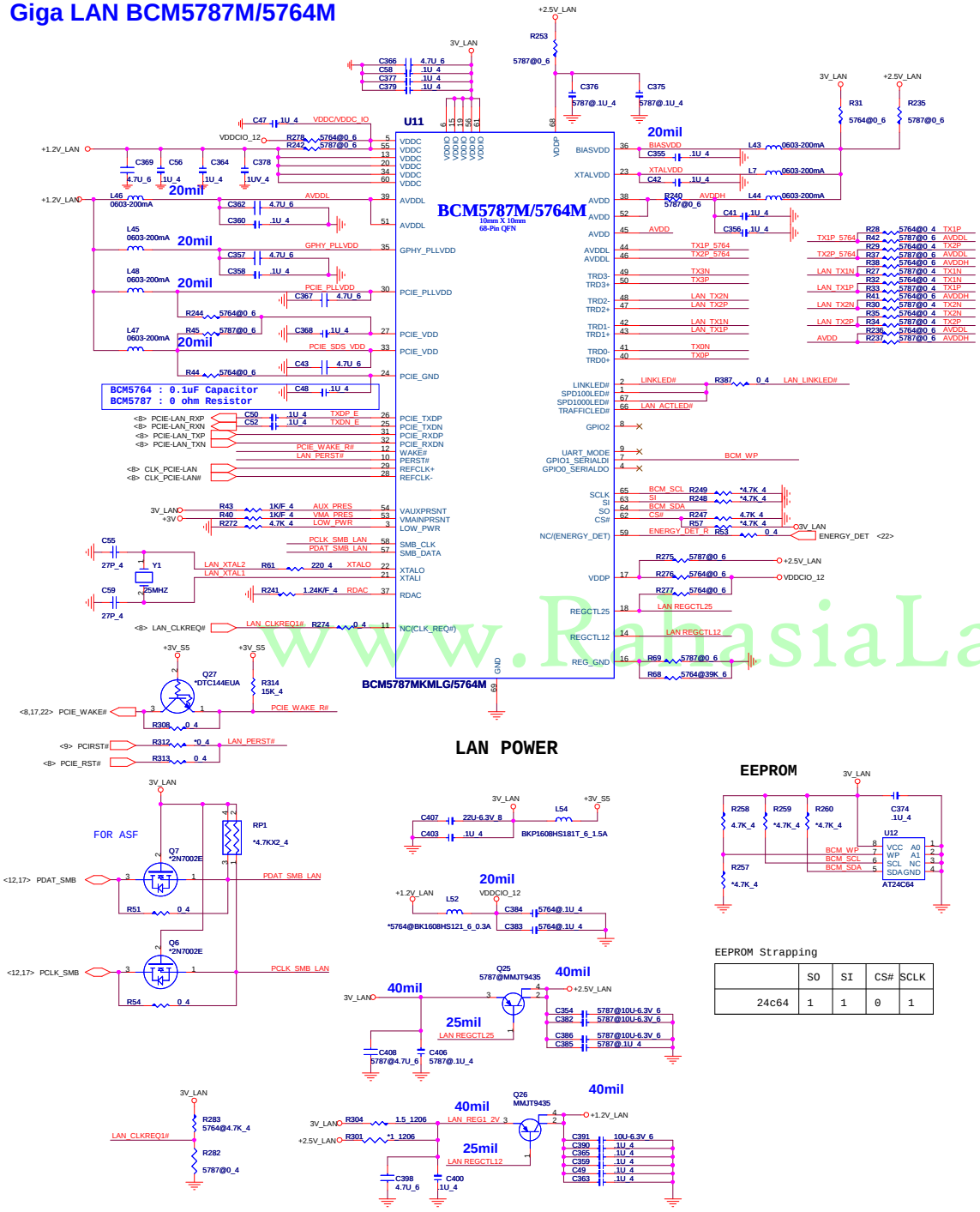


TV Out (SVHS) MiniDIN 7-pin

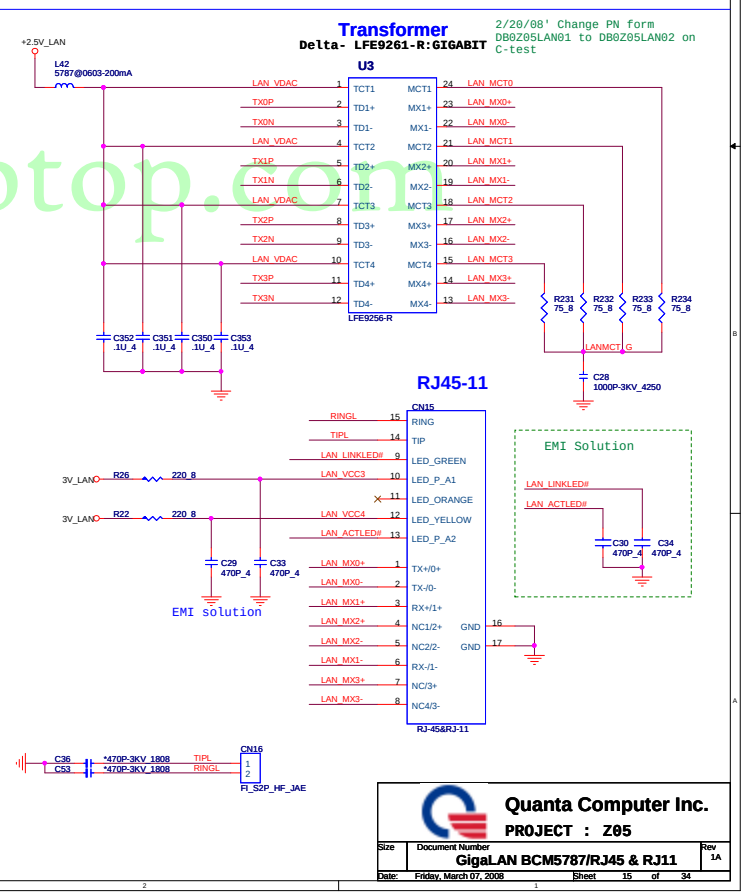
Delete TVOUT MiniDIN

Quanta Computer Inc.		
PROJECT : Z05		
Size	Document Number: LVDS/CRT/PC-Camera	Rev: 1A
Date: Monday, February 25, 2008	Sheet 14 of 34	

Giga LAN BCM5787M/5764M



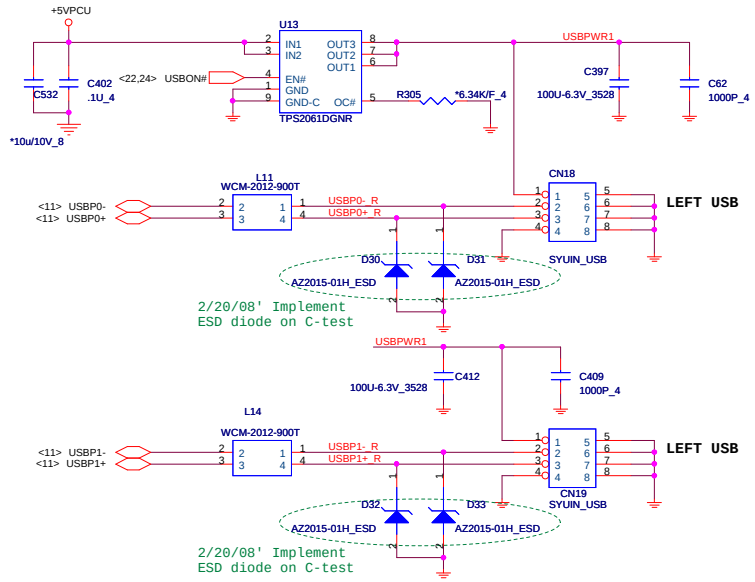
Delete LAN within DOCK Selector



Quanta Computer Inc.
PROJECT : Z05

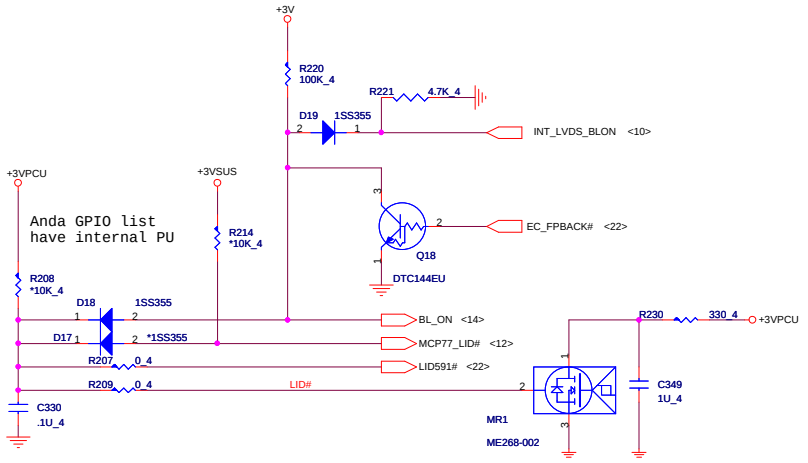
Size	Document Number	Rev
	GigaLAN BCM5787/RJ45 & RJ11	1A

Date: Friday, March 07, 2008 Sheet 15 of 34



Delete CIR Function
2007/09/21

LID SWITCH



CPU

H16 h-tc213bc244d146p2
H17 h-tc213bc244d146p2
H12 h-tc213bc244d146p2
H13 h-tc213bc244d146p2

MDC

H23 h-tc118bc197d83p2
H26 h-tc118bc197d83p2

BLUETOOTH

H25 h-tc165bc118d79p2
H24 h-tc165bc118d79p2

Power Board

H9 h-c197d87p2
H10 h-c197d87p2

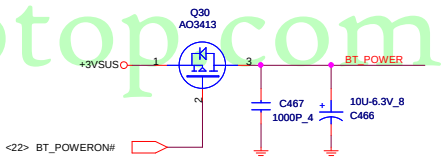
FAN

H15 H-C276D146P2
H6 h-c236d146p2
H5 h-c236d146p2

PAD2 *EMIPAD
PAD3 *EMIPAD
PAD4 *EMIPAD
PAD5 *EMIPAD
PAD10 *EMIPAD
PAD8 *EMIPAD
PAD11 *EMIPAD
PAD9 *EMIPAD
PAD1 *EMIPAD
PAD12 *EMIPAD
PAD7 *EMIPAD
PAD6 *EMIPAD

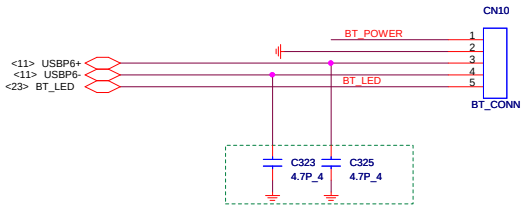
H7 h-c315d110p2-8
H22 h-c276d118p2-8
H20 h-c283d118p2-8
H29 H-C315D118P2-8
H11 H-sc315d118p2-8
H8 h-tc315be433x315d118p2-8
H14 h-c236d118p2
H2 H-C315D118P2-8
H32 H-C315D118P2-8
H28 H-C315D118P2-8
H30 h-c315d118p2-8
H1 H-C315D118P2-8
H21 H-C315D118P2-8
H18 h-c276d118p2-8
H19 h-c276d118p2-8
H27 h-c276d118p2-8
10/8

BLUETOOTH MODULE CONNECTOR



2007/12/4 add

H33 h-tp236bpsd118p2-7
H34 h-c65d65n



2007/12/4 add

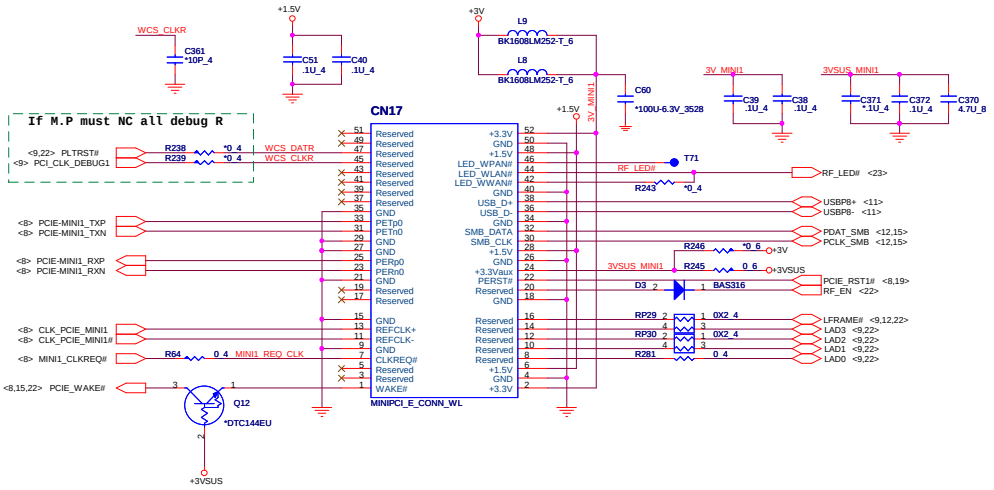
PAD13 *ME-PAD
PAD14 *ME-PAD
PAD15 *ME-PAD
PAD16 *ME-PAD
PAD17 *ME-PAD
PAD18 *ME-PAD
PAD19 *ME-PAD
PAD20 *ME-PAD
PAD21 *ME-PAD
PAD22 *ME-PAD
PAD23 *ME-PAD
PAD25 *ME-PAD
PAD26 *ME-PAD

Quanta Computer Inc.
PROJECT : Z05

Size	Document Number	Rev
	USB/BT/LID/HOLE	1A
Date: Sunday, March 09, 2008	Sheet 16 of 34	

MINI-Card

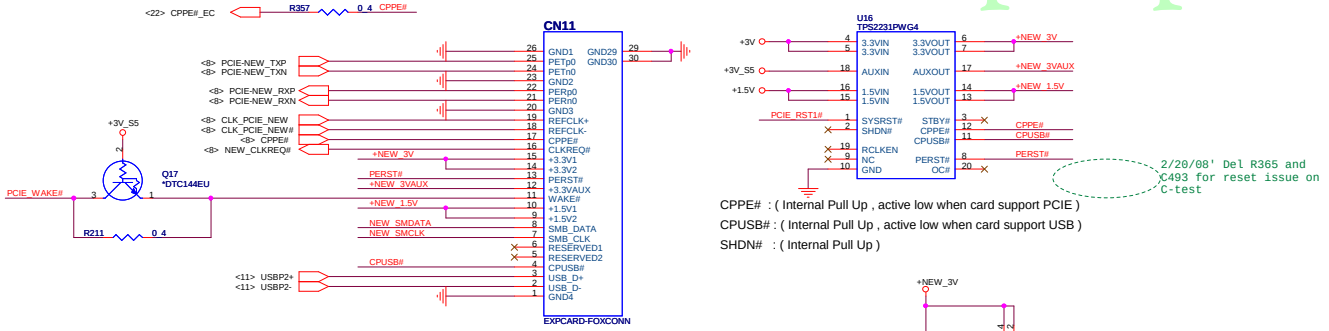
MINI-Card Port-1

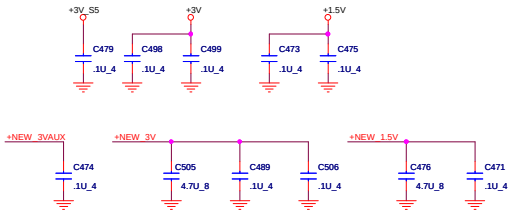


Delete MINI-Card Port-2

New card

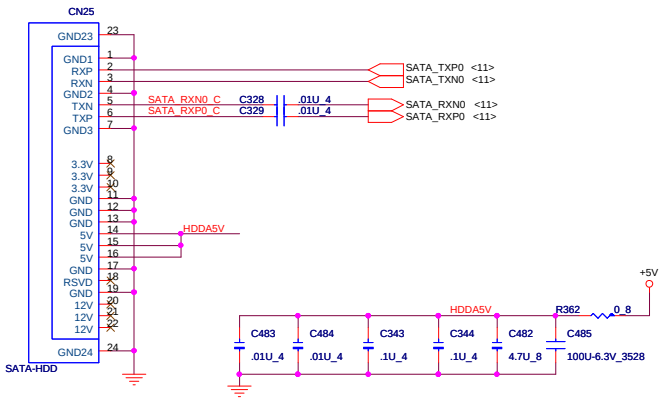
NEW CARD'S POWER SWITCH



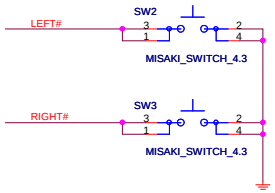


Quanta Computer Inc.	
PROJECT : Z05	
Size	Document Number: MINI PCI-E card & NEW CARD — Rev: 1A
Date: Sunday, March 09, 2008	Sheet 17 of 34

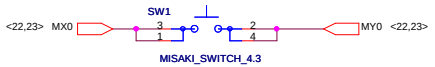
SATA HDD



TP SWITCH

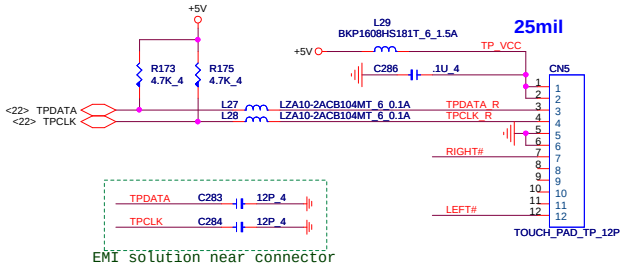


E-KEY

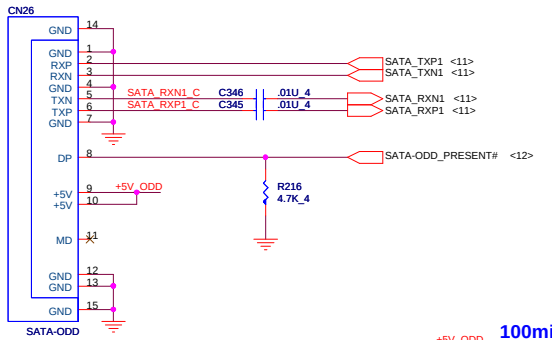


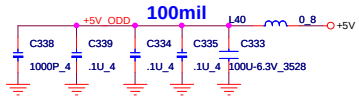
MX0 MY0:E-Key

TP CONN



ODD (SATA)



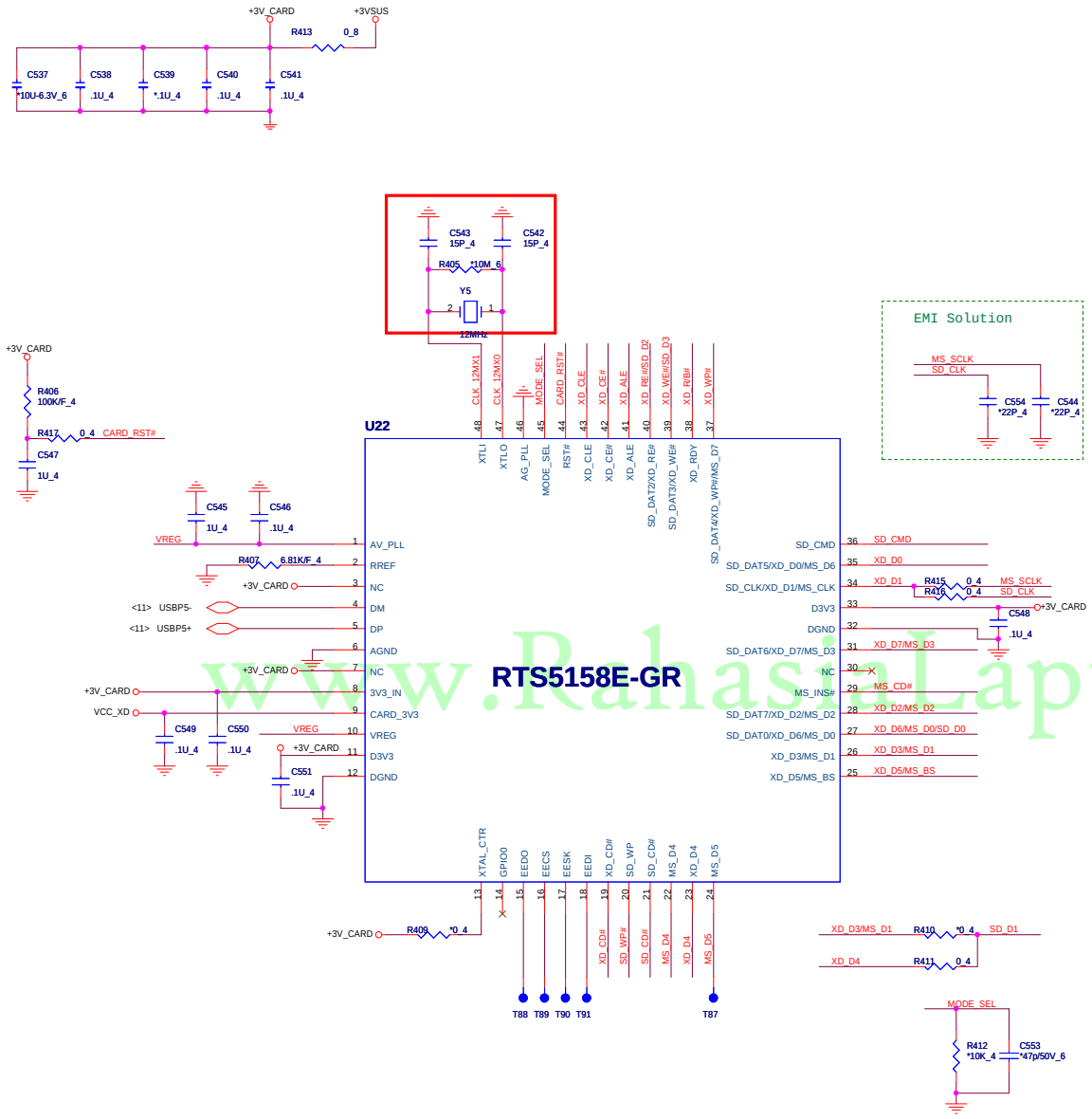


Quanta Computer Inc.

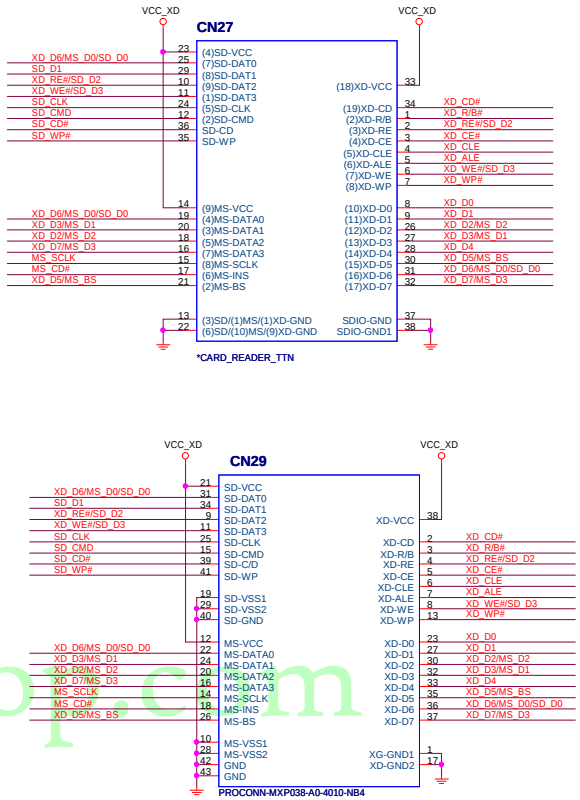
PROJECT : Z05

Size	Document Number	Rev
	SATA-HDD & SATA-ODD&TP	1A

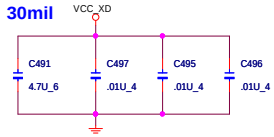
Date: Monday, February 25, 2008 Sheet 18 of 34



7 IN 1 CARD READER

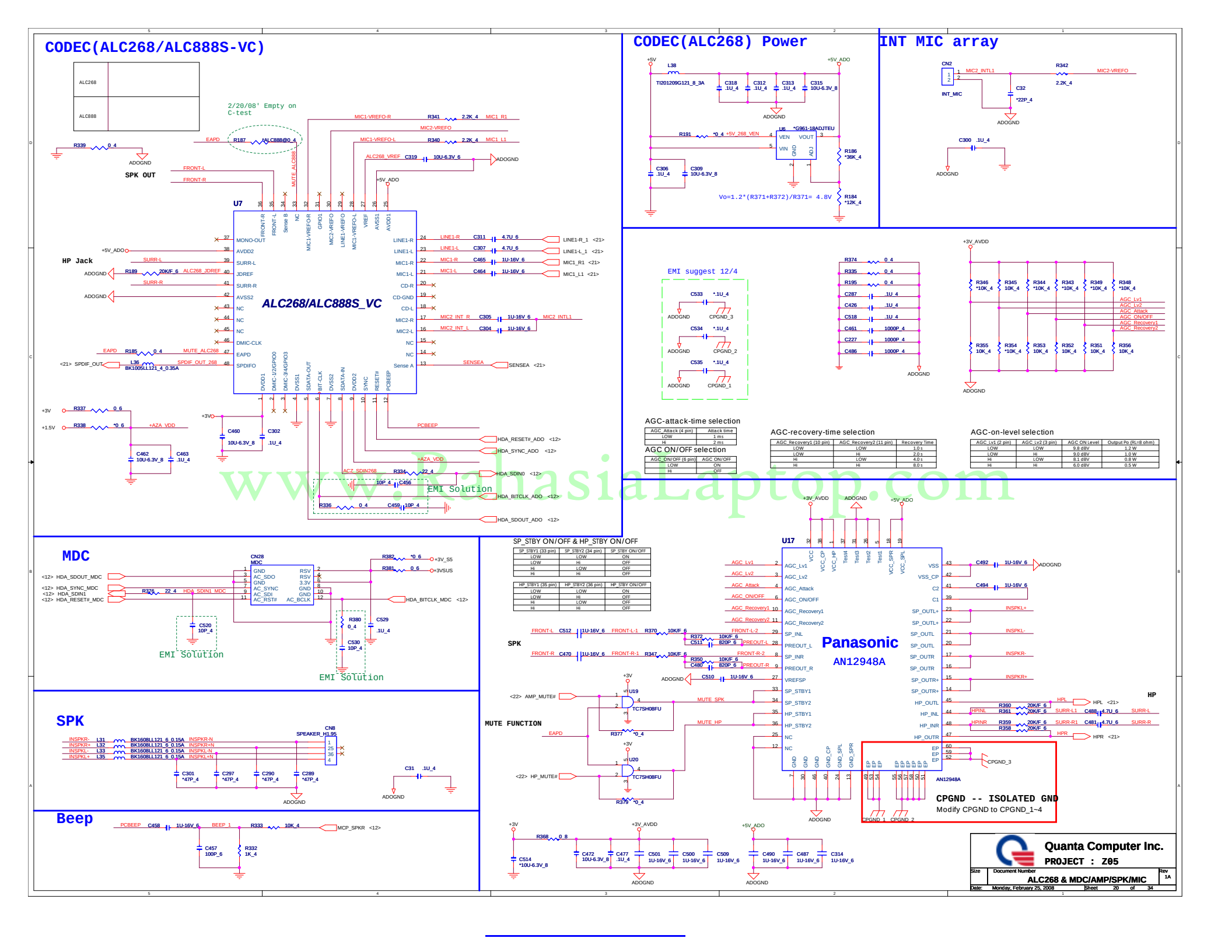


CARDREADER POWER

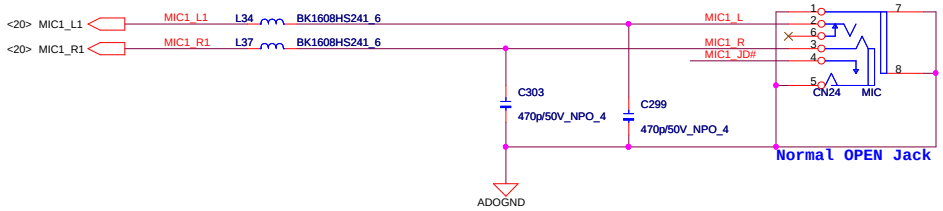


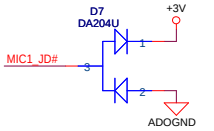
Quanta Computer Inc.
PROJECT : Z05

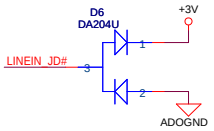
Size	Document Number	Rev
	RTS5158E -Card Reader	1A
Date: Monday, March 10, 2008	Sheet 19 of 34	

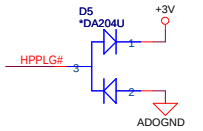

CODEC(ALC268/ALC888S-VC)
ALC268
ALC888
2/20/08' Empty on C-test
SPK OUT
HP Jack
ALC268/ALC888S_VC
U7
EMI Solution
MDC
SPK
Beep
CODEC(ALC268) Power
INT MIC array
EMI suggest 12/4
AGC-attack-time selection
AGC ON/OFF selection
AGC-recovery-time selection
AGC-on-level selection
SP_STBY ON/OFF & HP_STBY ON/OFF
Panasonic
AN12948A
MUTE FUNCTION
CPGND -- ISOLATED GND
Modify CPGND to CPGND_1~4
Quanta Computer Inc.
PROJECT : Z05
ALC268 & MDC/AMP/SPK/MIC
Monday, February 25, 2008
Sheet 20 of 34
www.RahasiaLaptop.com

MIC

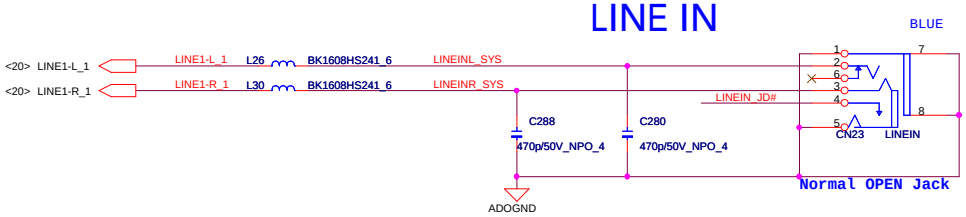




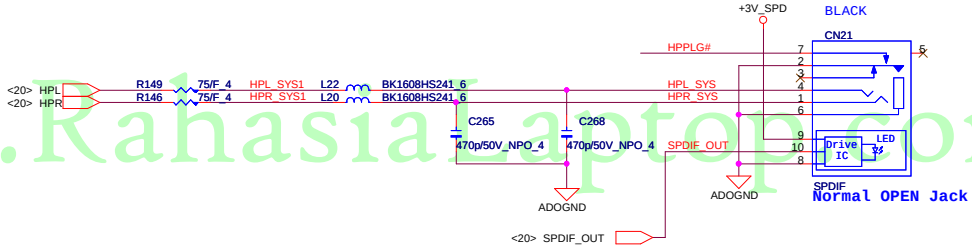


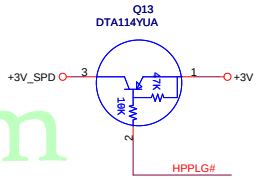


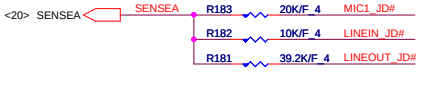
LINE IN

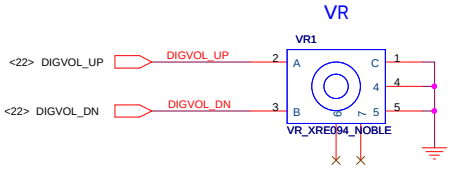


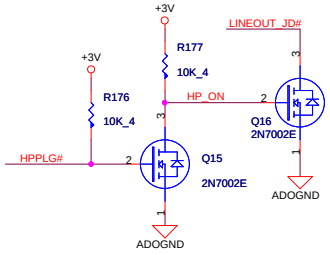
HeadPhone OUT/SPDIF







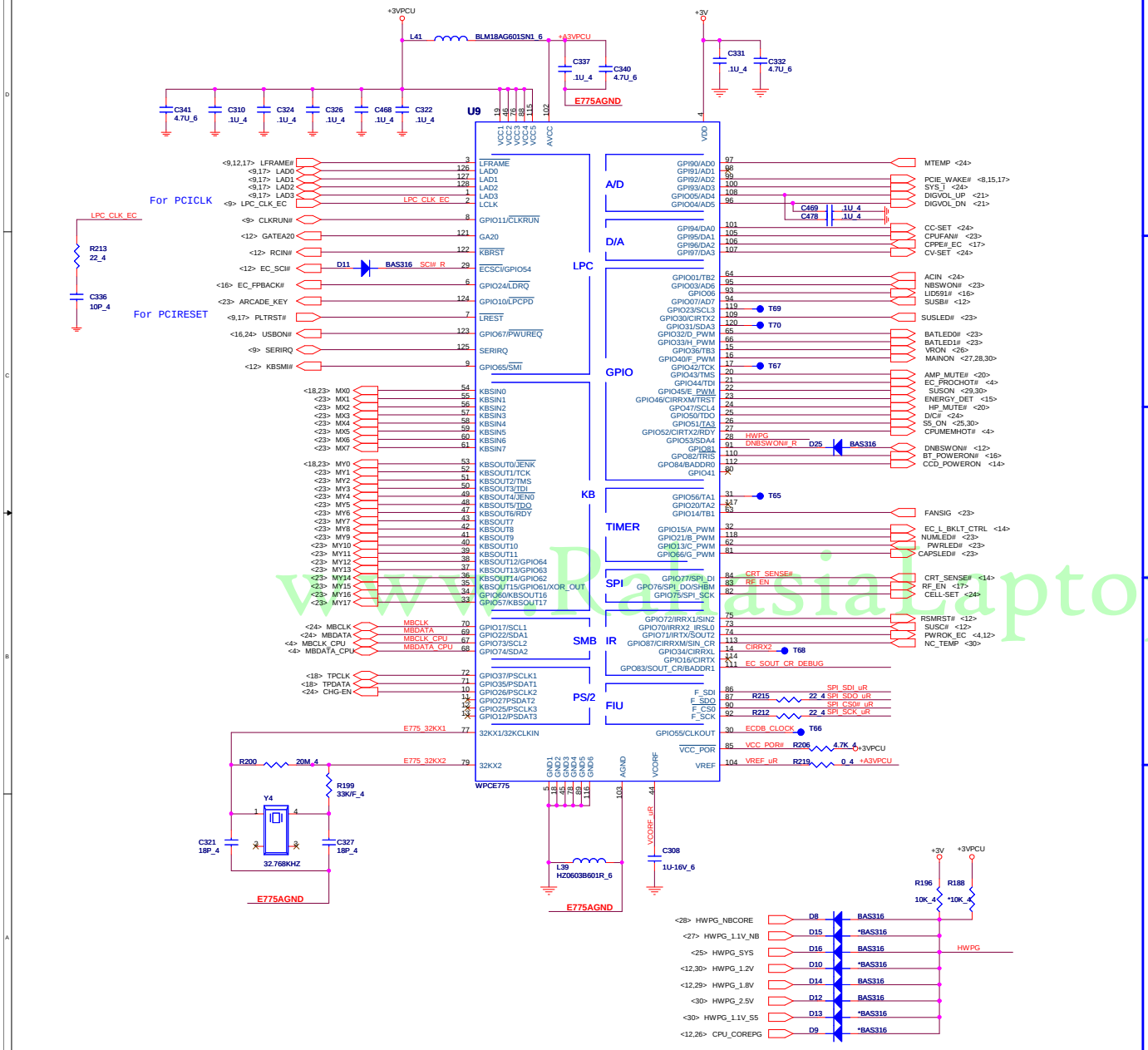




Quanta Computer Inc.
PROJECT : Z05

Size	Document Number	Rev
	Audio Jack	1A
Date: Monday, February 25, 2008	Sheet 21 of 34	

WPCE775C



I/O ADDRESS SETTING

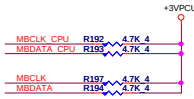
BADDR1-0	I/O Address	
	Index	Data
0 0	XOR TREE TEST MODE	
0 1	CORE DEFINED	
1 0	2Eh	2Fh
1 1	164Eh	164Fh

SHBM=0: Enable shared memory with host BIOS

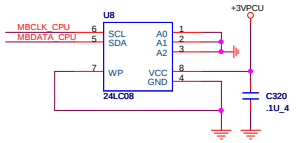
BADDR0 — CCD_POWERON — R218 10K_4
BADDR1 — EC_SOUT_CR_DEBUG — R217 *10K_4
SHBM — RF_EN — R202 10K_4

Disabled ('1') if using FWH device on LPC.
Enabled ('0') if using SPI flash for both system BIOS and EC firmware

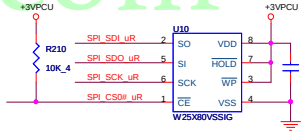
SMBUS PULL-UP



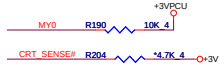
ACER ID



SPI FLASH

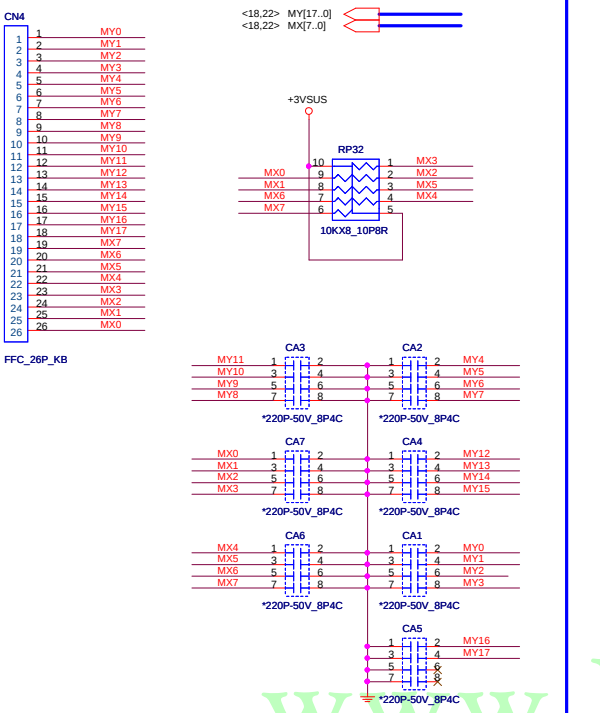


INTERNAL KEYBOARD STRIP SET

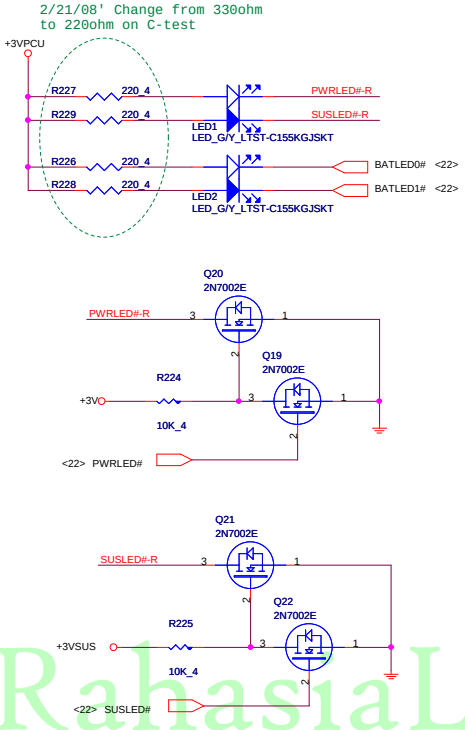


Quanta Computer Inc.	
PROJECT : Z05	
Size	Document Number: EC WPCE775C_0DG & SPI — Rev 1A
Date: Monday, February 25, 2008	Sheet 22 of 34

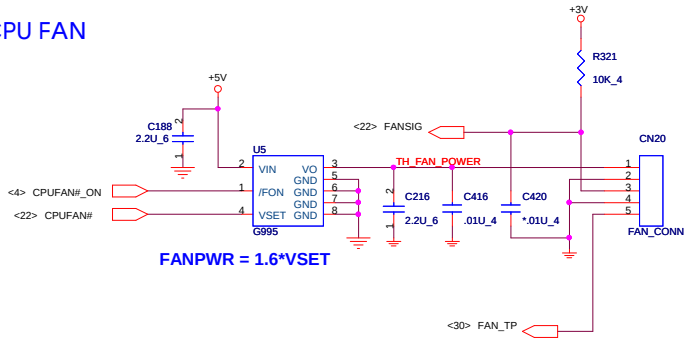
INT K/B



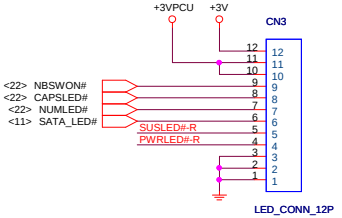
LED



CPU FAN



LED BOARD CONN.



Debug

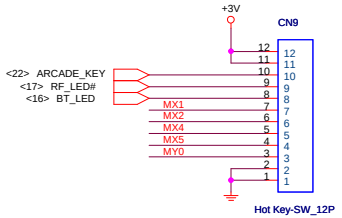
Delete Debug Port(PCI & IDE)

Fingerprint BOARD CONN.

Button BOARD CONN.

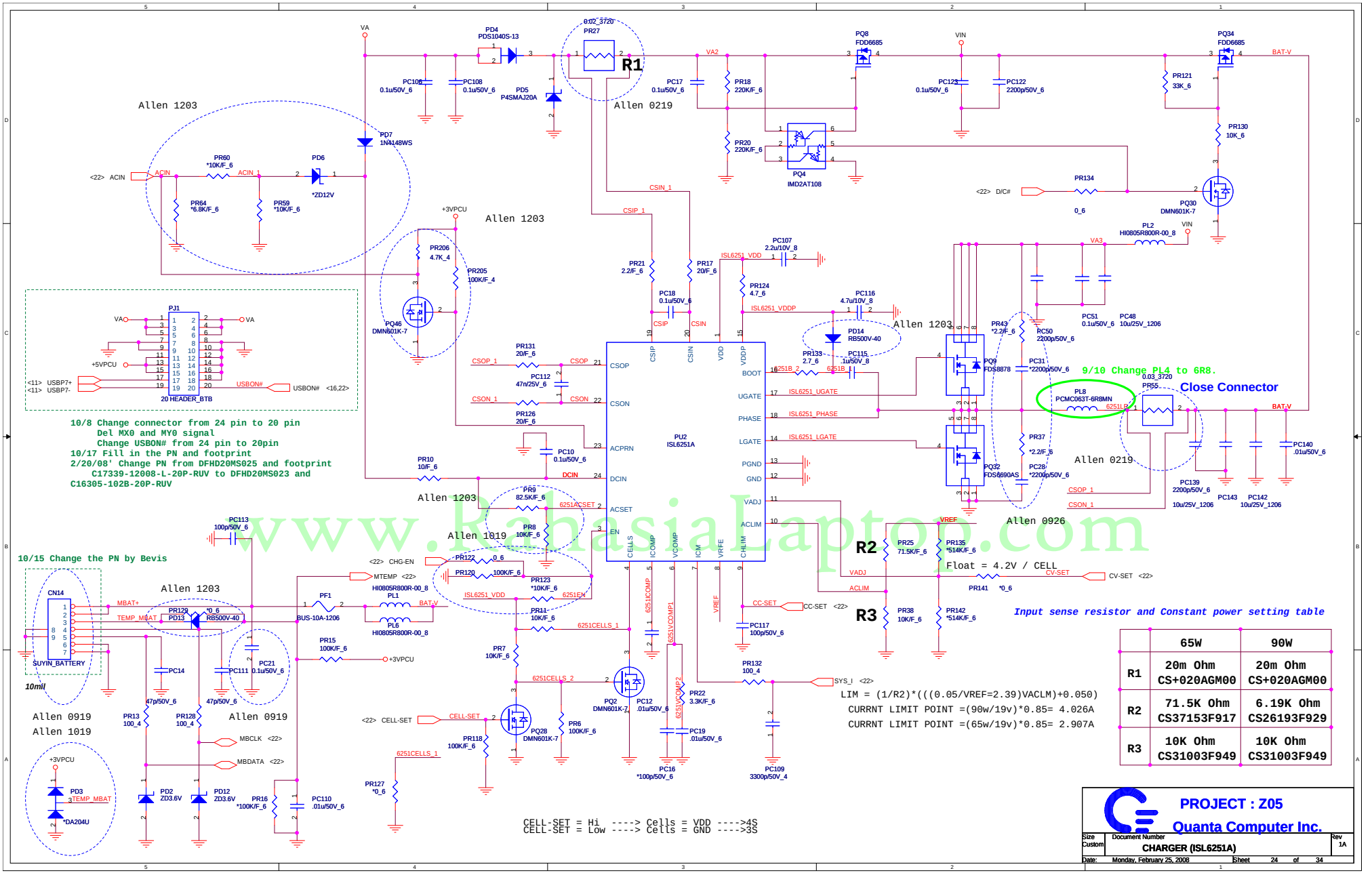
BUTTON MATRIX

	MY0
MX1	MAIL
MX2	WWW
MX4	WIRELESS
MX5	BLUETOOTH

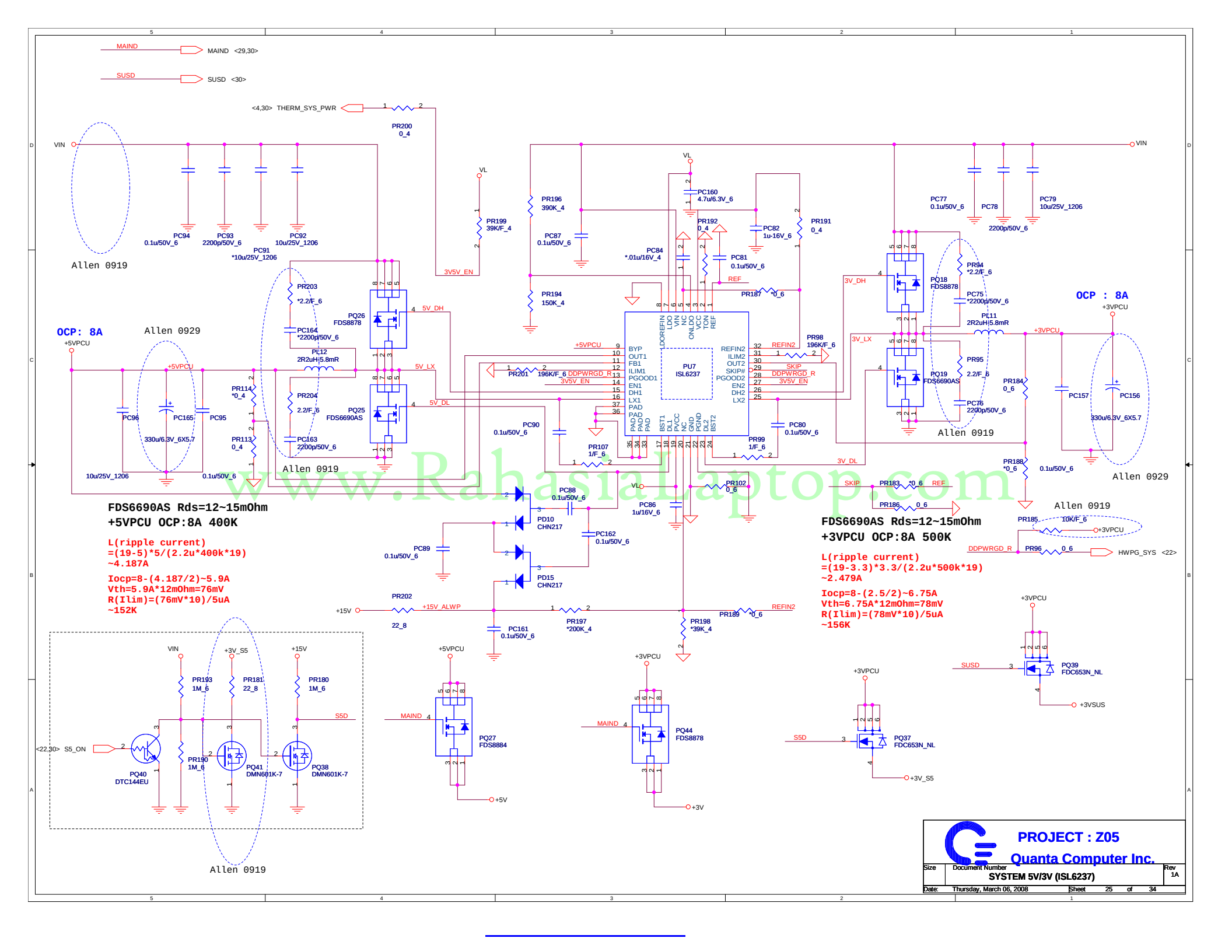


Quanta Computer Inc.
PROJECT : Z05

Size	Document Number	Rev
	FAN,SWITCH,LED,KB,FINGERPRINT	1A
Date: Sunday, March 09, 2008	Sheet 23 of 34	



	65W	90W
R1	20m Ohm CS+020AGM00	20m Ohm CS+020AGM00
R2	71.5K Ohm CS37153F917	6.19K Ohm CS26193F929
R3	10K Ohm CS31003F949	10K Ohm CS31003F949



OFS/VFIXEN	Offset & Droop	SVI	VFIX
GND	0	0	X
+3.3V	X	X	0
+5V	X	0	X

Metal VID Codes

SVC	SVD	Output
0	0	1.1
0	1	1.0
1	0	0.9
1	1	0.8

VFIXEN VID Codes

SVC	SVD	Output
0	0	1.4
0	1	1.2
1	0	1.0
1	1	0.8

OCP:3A 260K

OCP:20A 300K

OCP:20A 300K

Pin 49 is GND Pin

Close to CPU socket

Parallel

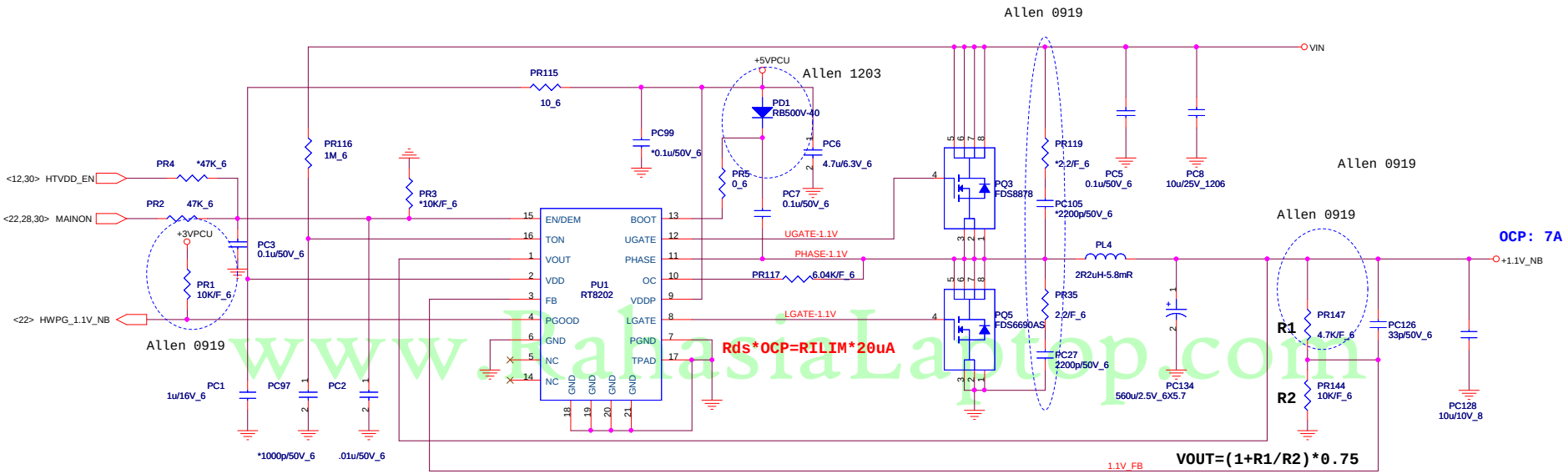
Close to CPU socket

PROJECT : Z05

Quanta Computer Inc.

Size	Document Number	Rev
	AMD Gfiffin (ISL6265)	1A

Date: Thursday, March 06, 2008 Sheet 26 of 34



TON=3.85p*RTON*Vout/(Vin-0.5)

Frequency=Vout/(Vin*TON)

TON=3.85p*1M*1/(Vin-0.5)

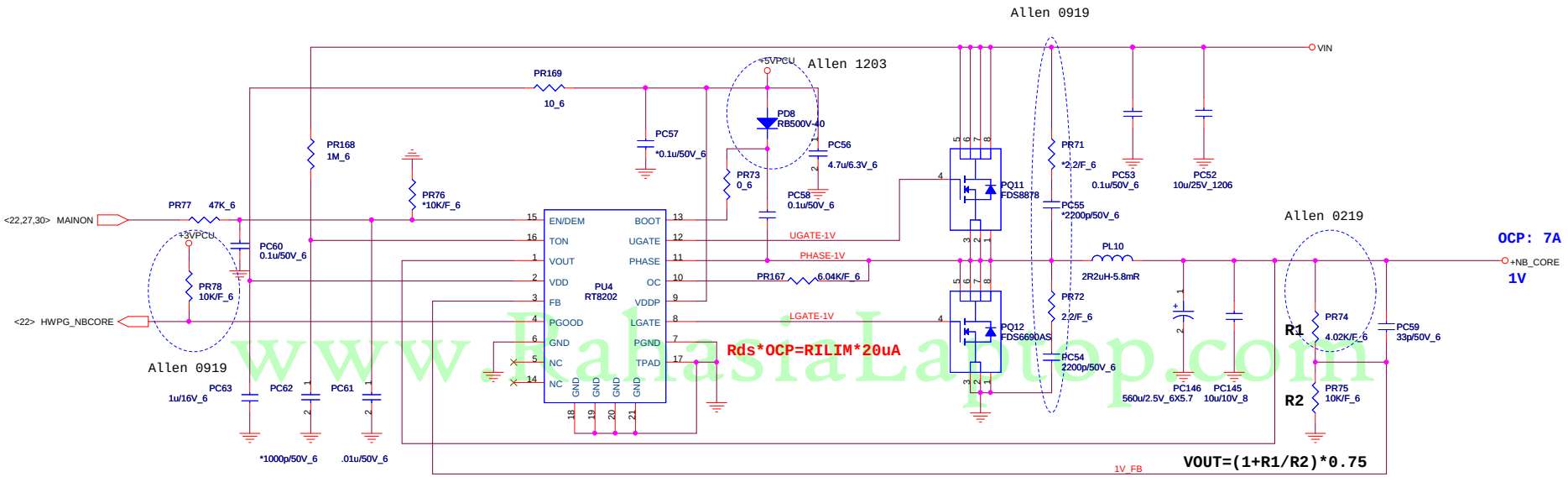
Frequency=1/(0.0036767)=272K

FDS6690AS Rds=12~15mOhm
OCP=7-0.8A
L(ripple current)
=(19-1)*1/(2.2u*272k*19)
~1.58A

12m*6=RILIM*20uA
RILIM=3.6K(2.5~8K)

PROJECT : Z05
Quanta Computer Inc.

Size	Document Number	Rev
	NB_VCC (RT8202)	1A
Date: Monday, February 25, 2008	Sheet 27 of 34	



TON=3.85p*RTON*Vout/(Vin-0.5)

Frequency=Vout/(Vin*TON)

TON=3.85p*1M*1/(Vin-0.5)

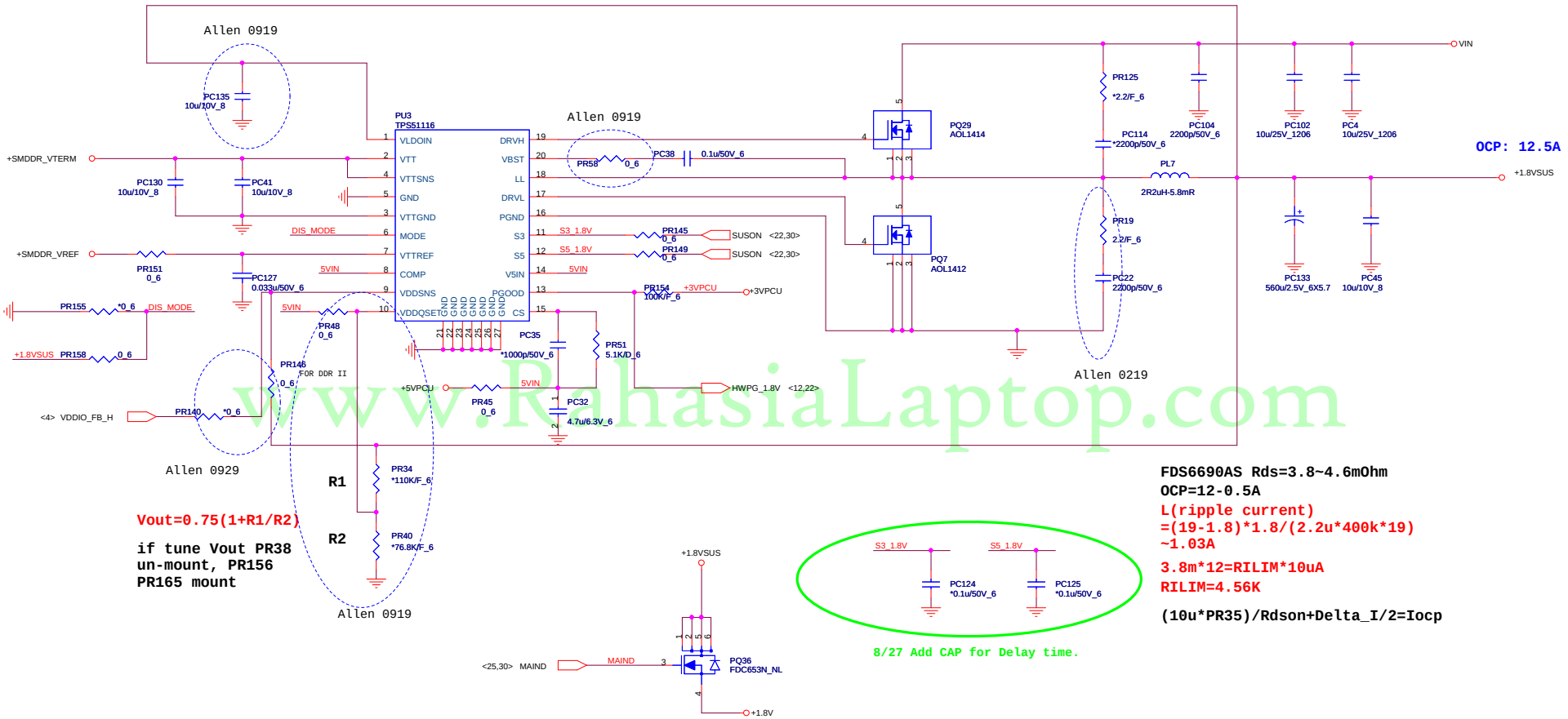
Frequency=1/(0.0036767)=272K

FDS6690AS Rds=12~15mOhm
OCP=7-0.8A
L(ripple current)
=(19-1)*1/(2.2u*272k*19)
~1.58A

12m*6=RILIM*20uA
RILIM=3.6K(2.5~8K)

PROJECT : Z05
Quanta Computer Inc.

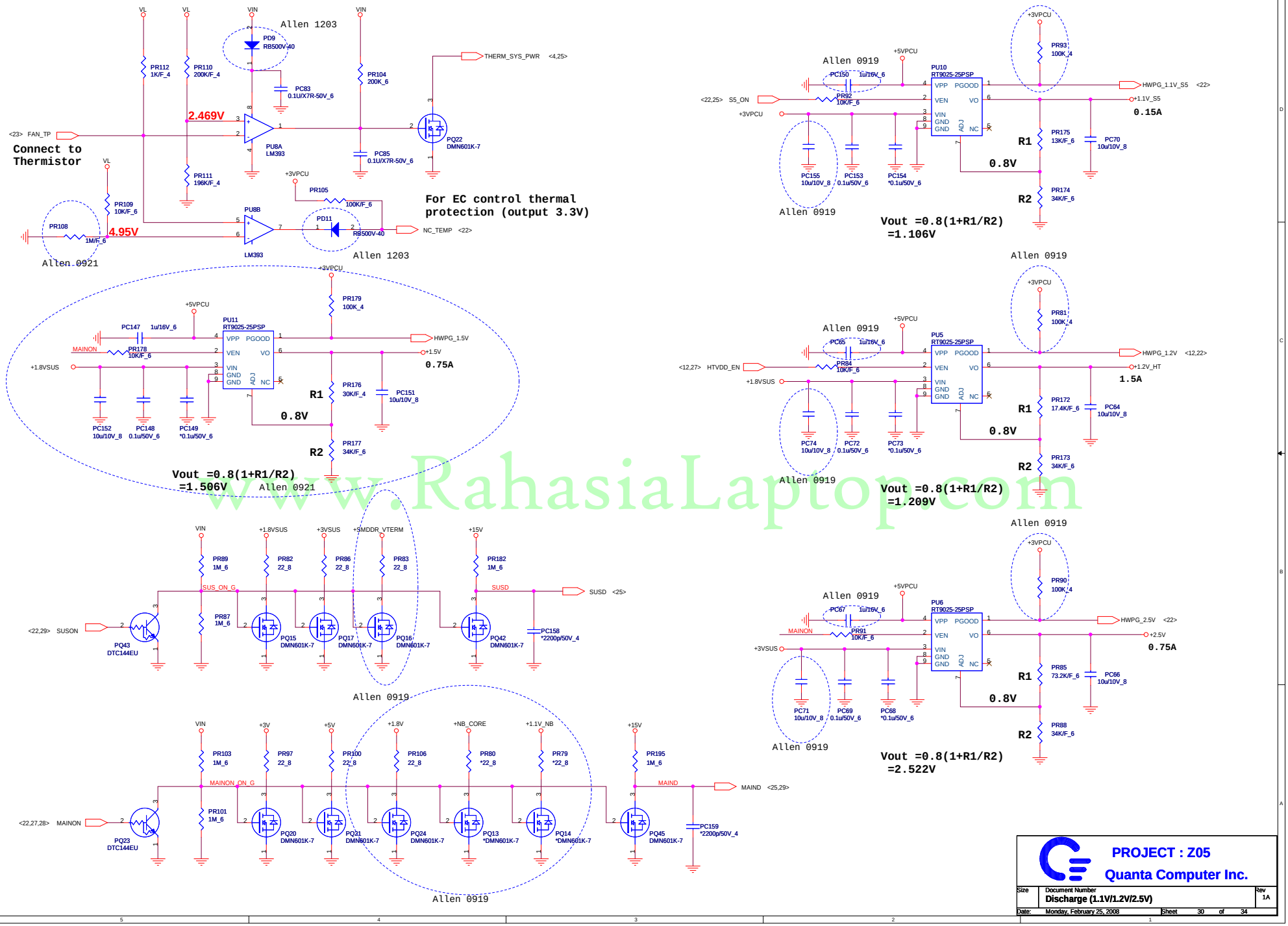
Size	Document Number	Rev
	NB_VCC (RT8202)	1A
Date: Monday, February 25, 2008	Sheet 28 of 34	

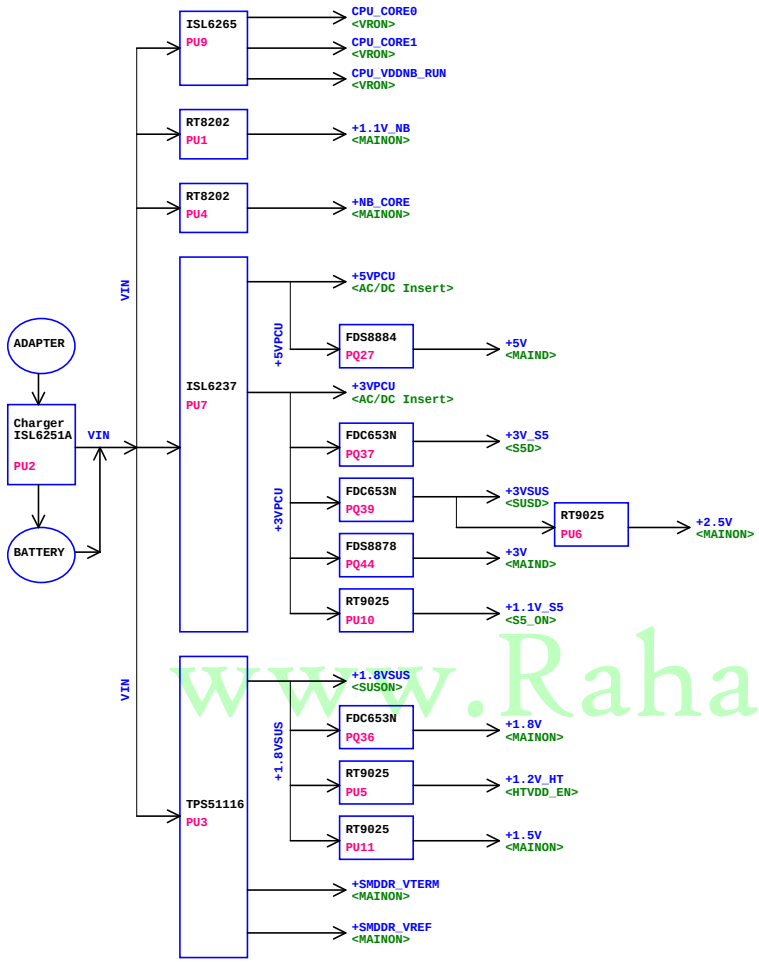


PROJECT : Z05

Quanta Computer Inc.

Size	Document Number	Rev
	DDR 1.8V(TPS51116)	1A
Date: Monday, February 25, 2008	Sheet 29 of 34	





1. +1.1V_S5MCP77M Power(+1.1V_DUAL)
2. +5VPCUPower IC VCC, USB PORT POWER(S3 control)
3. +5VAudio, FAN, Touch pad, SATA HDD, ODD, CRT
4. +3V_S5MCP77M, New Card, LAN Power
5. +3VPCUKBC WPCE755C,SPI ROM, LED, LID Switch, Fingerprint Module
6. +3VSUSBluetooth, Mini Card, MDC
7. +3VCPU Thermal Sense, MCP77M, System Memory, LCD Panel, PC Camera, Mini card, New Card, Audio, Codec, Card Reader, KBC WPCE775C, LED
8. +2.5VCPU VDDA
9. +3V_LANLAN Power(BCM5764M)
10. +1.2V_LANLAN Power(BCM5764M)
11. +2.5V_LANLAN Power(BCM5787M)
12. +1.5VMini Card, New Card
13. +1.8VSUSCPU VDD I/O, System Memory
14. SMDDR_VTEMCPU Memory Interface , SYSTEM DDR DIMM Memory Termination
15. +1.8VMCP77M LCD Interface
16. +1.1V_NBMCP77M (HT Interface, PCI-E Interface, I/O Power, SATA Interface)
17. +NB_COREMCP77M Core Power
18. +1.2V_HTCPU HT Power
19. CPU_CORE0 CPU Power
20. CPU_CORE1 CPU Power
21. CPU_VDDNB_RUNCPU NB Power
22.

PROJECT : Z05
Quanta Computer Inc.
Power Tree
Monday, February 25, 2008