

PCB PIN AND DESCRIPTION

PCB ED5 MB(8L309X218, REV A)
P/N: DA0ED5MB8A8

PCB ED5 MB(8L309X218, REV B)
P/N: DA0ED5MB8B6

PCB ED5 USB/B(8L, 47.5X16.8, REV A)
P/N: DA0ED5SB8A5

PCB ED5 USB/B(8L, 47.5X16.8, REV B)
P/N: DA0ED5SB8B3

ED5

SATA
ED5 SATA ASSY P/N
ED5 MB S/S ASSY P/N: 51ED5SS0018
ED5 MB C/S ASSY P/N: 41ED5CS0015
ED5 MB ASSY P/N: 31ED5MB0012
W/O ANT
ED5 USB/B S/S ASSY P/N: 4NED5SS0011
ED5 USB/B ASSY P/N: 3NED5UB0011

PATA
ED5 ASSY P/N
ED5 MB S/S ASSY P/N: 51ED5SS0000
ED5 MB C/S ASSY P/N: 41ED5CS0007
ED5 MB ASSY P/N: 31ED5MB0004
ANT
ED5 USB/B S/S ASSY P/N: 4NED5SS0002
ED5 USB/B ASSY P/N: 3NED5UB0003

VCC_CORE
CPU VR
PG 30
+1.2V
+VCCP
PG 31
+1.8VSUS
+1.8V
SMDDR_VTERM
PG 32
+3VPCU
+3V_S5
+3VSUS
+5VSUS
+5V
+12V
VIN
PG 33
CHARGER
PG 34

HOST 133/166MHz
PCIE 100MHz
VGA 96MHz
USB 48MHz
REF 14MHz

CLOCK GENERATOR
ICS951462
PG 13

DDRII-SODIMM1
PG 7,8
DDRII-SODIMM2
PG 7,8
533/ 667 MHZ DDR II

AMD S1
Turion 64 Rev.F Dual-Core/
Sempron Rev.F Single-Core
Dual-Core 35W / Single-Core 25W
(638 S1g1 socket)
PG 3,4,5,6

Panel Connector
PG 20
S-Video
PG 20
VGA
PG 20
LVDS
TVOUT
VGA

RS485
465 FCBGA
PG 9,10,11,12
HT_LINK
A_LINK

Express Card
PCIE1 & USB4 NEW CARD PG 24
Mini PCI-E Card (WLAN)
PCIE2 PCI Express Mini Card PG 19
Mini PCI-E Card (TV)
PCIE3 & USB5 PCI Express Mini Card PG 19
LAN RTL8111B-GR
PCIE0 PG 23
Magnetic RJ45

SATA - HDD
PG 21
PATA - HDD
PG 21
Internal ODD CD-ROM
PG 21
SATA0
PATA 100
Azalia

SB460
549 BGA
PG 14,15,16,17
LPC

Bluetooth
USB7 PG 22
USB2.0 I/O Ports
USB0 & USB1 PG 22
DSC USB I/F
USB6 PG 22
USB2.0 (P0~P7)
PCI Bus 33MHz

ANTENNA JACK
USB2.0 I/O
USB DAUGHTERBOARD

Azalia Audio
PG 26
Amplifier MAX9755A
PG 27
Azalia MDC
PG 26
MIC. PG 27
INT. S.P. PG 27
H.P. PG 27
MODEM RJ 11 PG 23

KBC
NS97551
PG 28
SWITCH LED PG 29
K/B CONN. PG 29
Touch Pad PG 29
Flash ROM PG 28
X-Bus

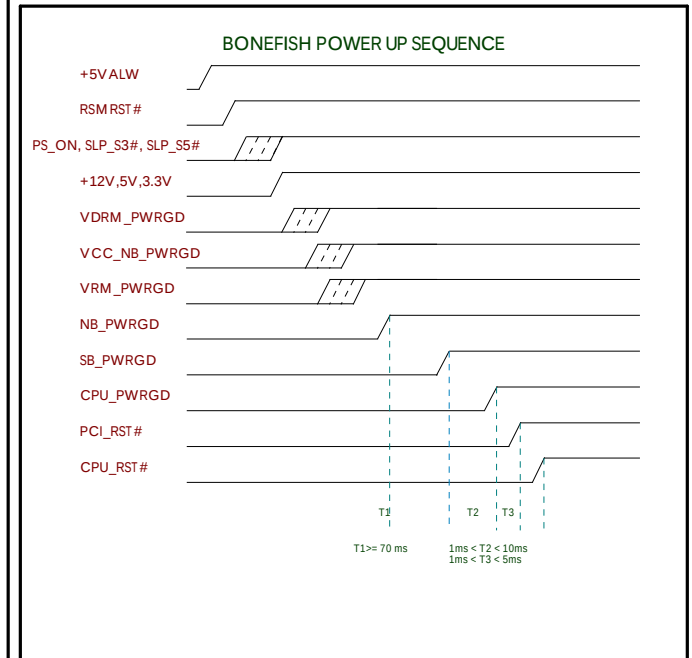
TI PCI8402
AD17 REQ3#, GNT3# INTE#, INTG#, INT#
PG 24,25
MINI PCI CN.
AD20 REQ2#, GNT2# INTF#, INTG#
PG 18
DEBUG PURPOSE ONLY
Card Reader PG 25
IEEE1394 CN. PG 25

PROJECT : ED5
Quanta Computer Inc.
Size Document Number
BLOCK DIAGRAM
Date: Monday, May 22, 2006 Sheet 1 of 34 Rev 1A

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 Page 08 : DDRII TERMINATION
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 Page 32 : 1.8V/DDRII
 Page 33 : SYSTEM 3V/5V
 Page 34 : BATTERY CHARGER

	POWER	VOLTAGE	ACTIVE SCOPE	ROUTING	PAGE
SYSTEM	+12V	+12V	OFF IN S3-S5	PLANE	41
	-12V	-12V	OFF IN S3-S5	TRACE 20 MIL	41
	+5V	+5V	OFF IN S3-S5	PLANE	41
	+3.3V	+3.3V	OFF IN S3-S5	PLANE	41
	+5VALW	+5V	S0-S5	PLANE/ 50 MIL	41
	+3.3VALW	+3.3V	S0-S5	TRACE 30 MIL	41
	+1.8VALW	+2.5V	S0-S5	TRACE 30 MIL	21
	+5V_DUAL	+5V	S0-S5	PLANE/ 100 MIL	41
	+3.3V_DUAL	+3.3V	S0-S5	PLANE/ 50 MIL	41
CPU	VCCCORE	VID[0..6]	OFF IN S3-S5	PLANE+COPER	37
	VCCP	+1.05V	OFF IN S3-S5	PLANE+COPER	38
	VCCA	+1.5V	OFF IN S3-S5	TRACE 20 MIL	38
RC485 NB	VCC_NB	+1.2V/1.0V	OFF IN S3-S5	PLANE+COPER	39
	VDD_CPU	+1.05V	OFF IN S3-S5	PLANE+COPER	38
	VDD_MEM	+1.8V	S0-S3	PLANE+COPER	40
	VDD18	+1.8V	OFF IN S3-S5	TRACE 20 MIL	12
	VDDA18	+1.8V	OFF IN S3-S5	COPPER	12
	VDDA12	+1.2V	OFF IN S3-S5	PLANE+COPPER	12
	AVDD	+3.3V	OFF IN S3-S5	TRACE 20 MIL	11
	AVDDQ	+1.8V	OFF IN S3-S5	TRACE 20 MIL	11
	PLVDD	+1.8V	OFF IN S3-S5	TRACE 20 MIL	11
	LPVDD	+1.8V	OFF IN S3-S5	TRACE 20 MIL	11
	LVDDR	+1.8V	OFF IN S3-S5	TRACE 30 MIL	11
	VDDR3	+3.3V	OFF IN S3-S5	TRACE 30 MIL	11
	VTT_DDR	+0.9V	OFF IN S3-S5	COPPER	40
	VDD_CLK	+3.3V	OFF IN S3-S5	COPPER	14
SB460 SB	+3.3V_SB	+3.3V	OFF IN S3-S5	PLANE	21
	+1.8V_SB	+1.8V	OFF IN S3-S5	PLANE	21
	+3.3VALW_SB	+3.3V	S0-S5	PLANE	21
	+1.8VALW_SB	+1.8V	S0-S5	PLANE	21
	+1.8V_SUB_PHY	+1.8V	S0-S5	TRACE 30 MIL	21
	AVDD_CK	+1.8V	OFF IN S3-S5	TRACE 10 MIL	21
	V5_REF	+5V	OFF IN S3-S5	TRACE 10 MIL	21
	CPU-PWR	+1.05V	OFF IN S3-S5	TRACE 20 MIL	21
	PCIE_PVDD	+1.8V	OFF IN S3-S5	TRACE 20 MIL	18
	PCIE_VDDR	+1.8V	OFF IN S3-S5	PLANE+COPER	18
	+1.8V_ATA	+1.8V	OFF IN S3-S5	PLANE	20
	PLLVDV_ATA	+1.8V	OFF IN S3-S5	TRACE 20 MIL	20
	XTLVDD_ATA	+1.8V	OFF IN S3-S5	TRACE 20 MIL	20
	AVDD_USB_TX	+1.8V	S0-S5	PLANE+COPER	19
	AVDD_USB_RX	+1.8V	S0-S5	PLANE+COPER	19
	+3.3V_AVDDC	+3.3V	S0-S5	TRACE 20 MIL	19
	V_BAT	+3.0V	--	TRACE 10 MIL	18



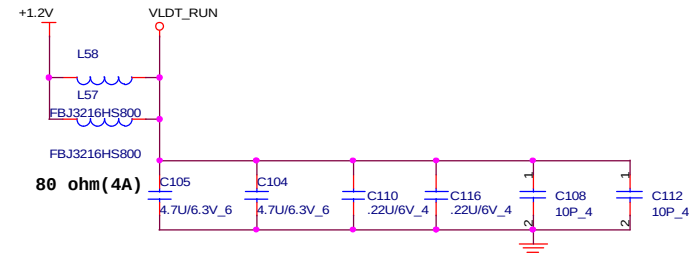
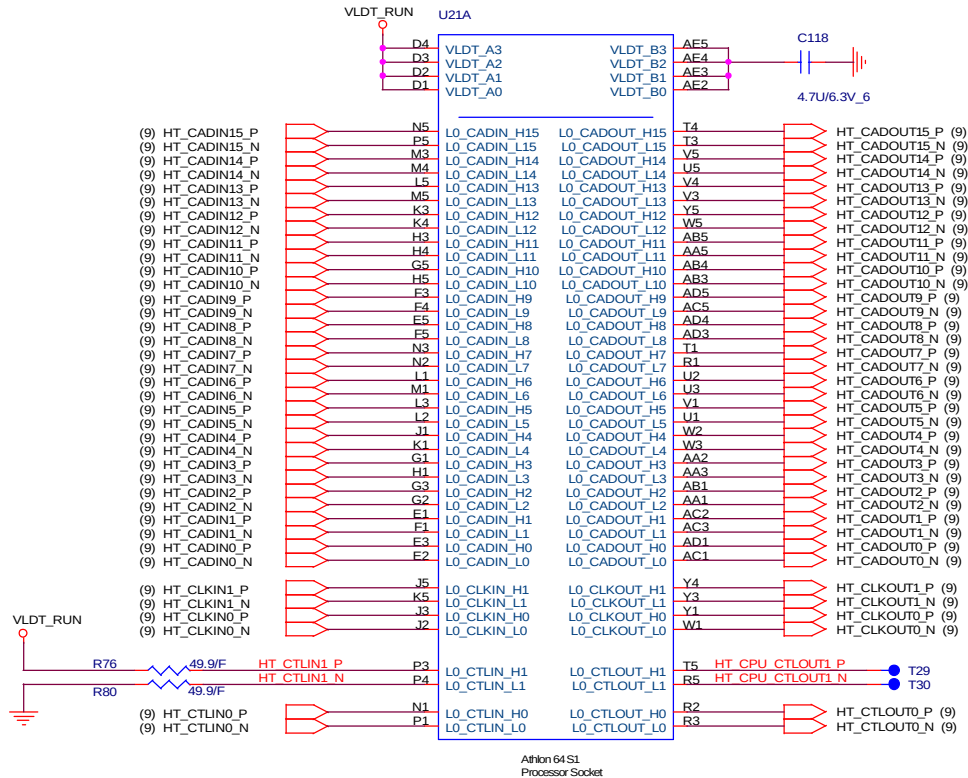
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PROCESSOR HYPERTRANSPORT INTERFACE

VLDT_Ax AND VLDT_Bx ARE CONNECTED TO THE LDT_RUN POWER SUPPLY THROUGH THE PACKAGE OR ON THE DIE. IT IS ONLY CONNECTED ON THE BOARD TO DECOUPLING NEAR THE CPU PACKAGE



LAYOUT: Place bypass cap on topside of board

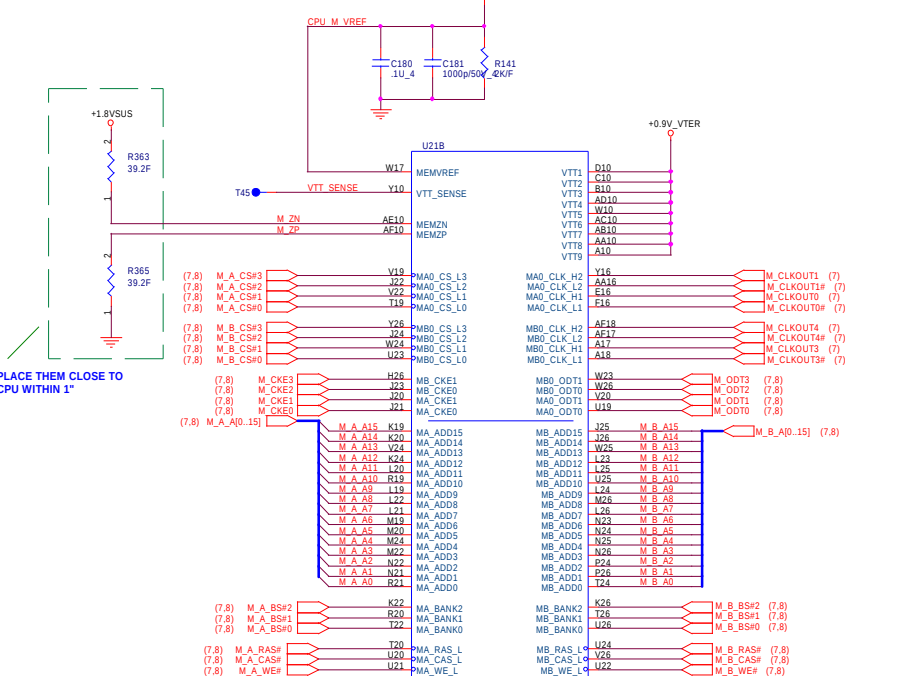


NEAR HT POWER PINS THAT ARE NOT CONNECTED DIRECTLY TO DOWNSTREAM HT DEVICE, BUT CONNECTED INTERNALLY TO OTHER HT POWER PINS
PLACE CLOSE TO VLDT0 POWER PINS

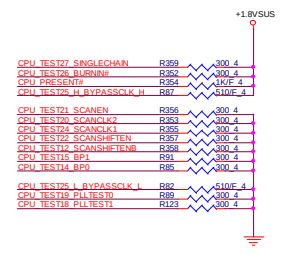
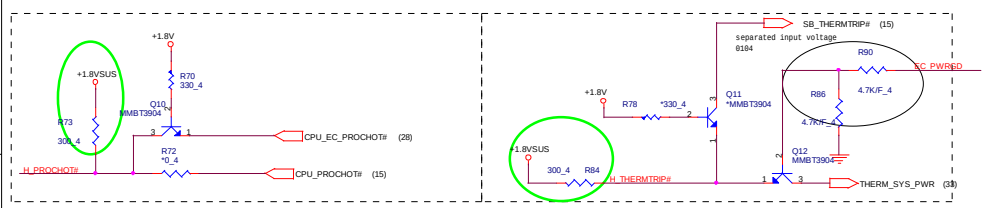
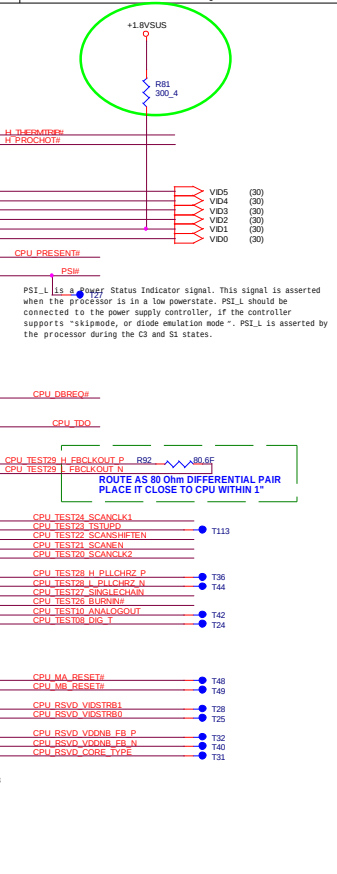
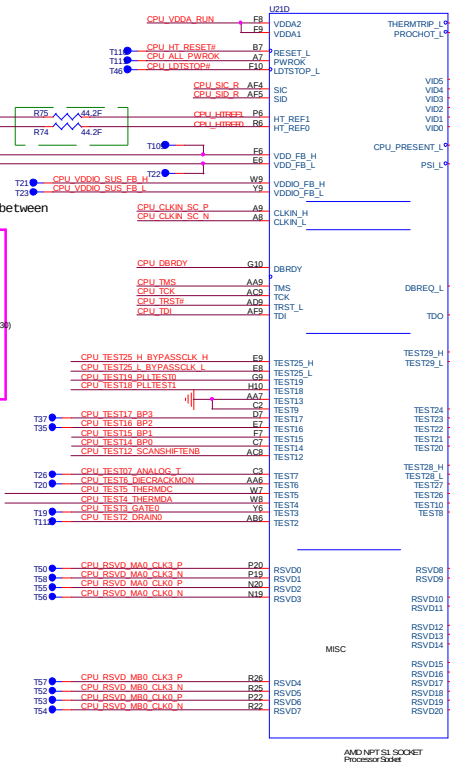
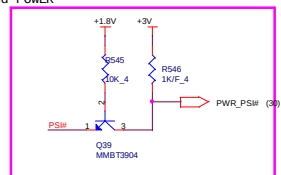
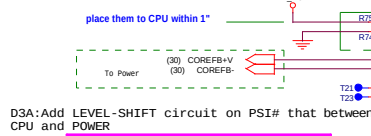
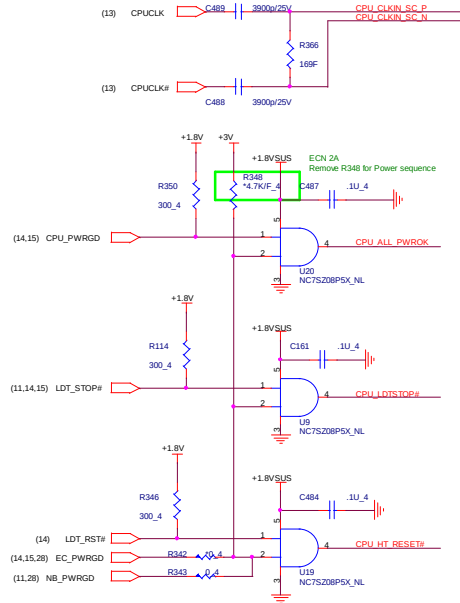
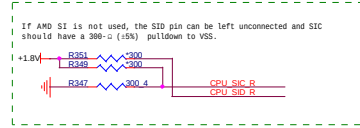
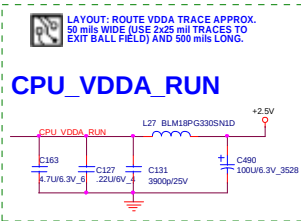


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Quanta Computer Inc.

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	ATHLON64 HT I/F	1A
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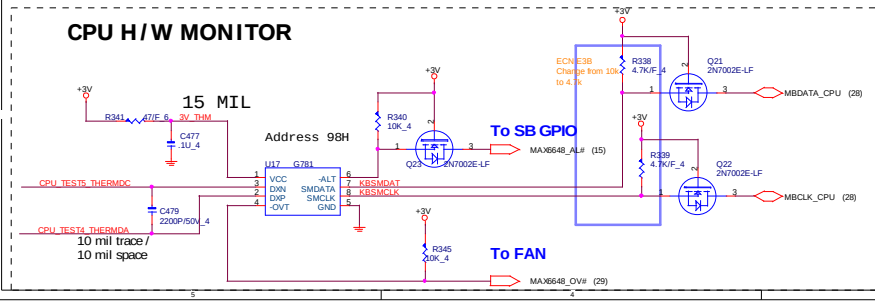
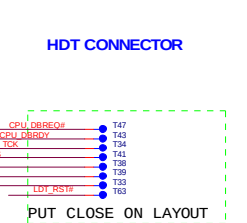
[illegible]

ATHLON Control and Debug



IF no use which Net need pull-up or down

NOTE: HDT TERMINATION IS REQUIRED FOR REV. A5 SILICON ONLY.

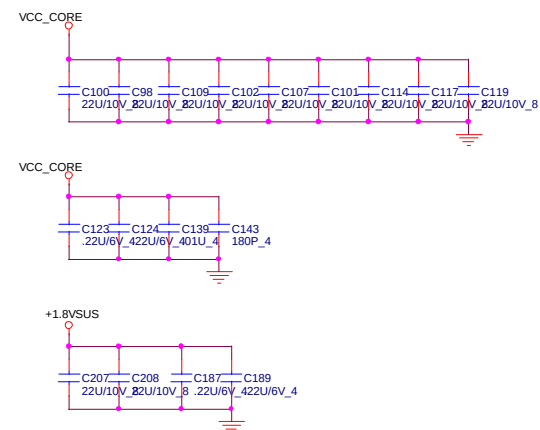


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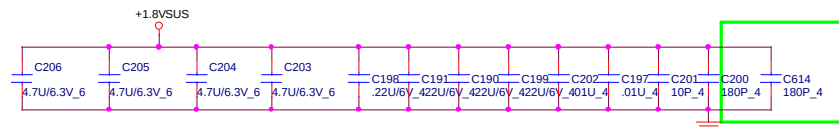
Size Document Number
ATHLON64 CTRL & DEBUG
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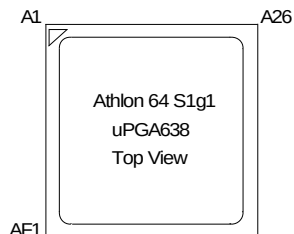
BOTTOMSIDE DECOUPLING

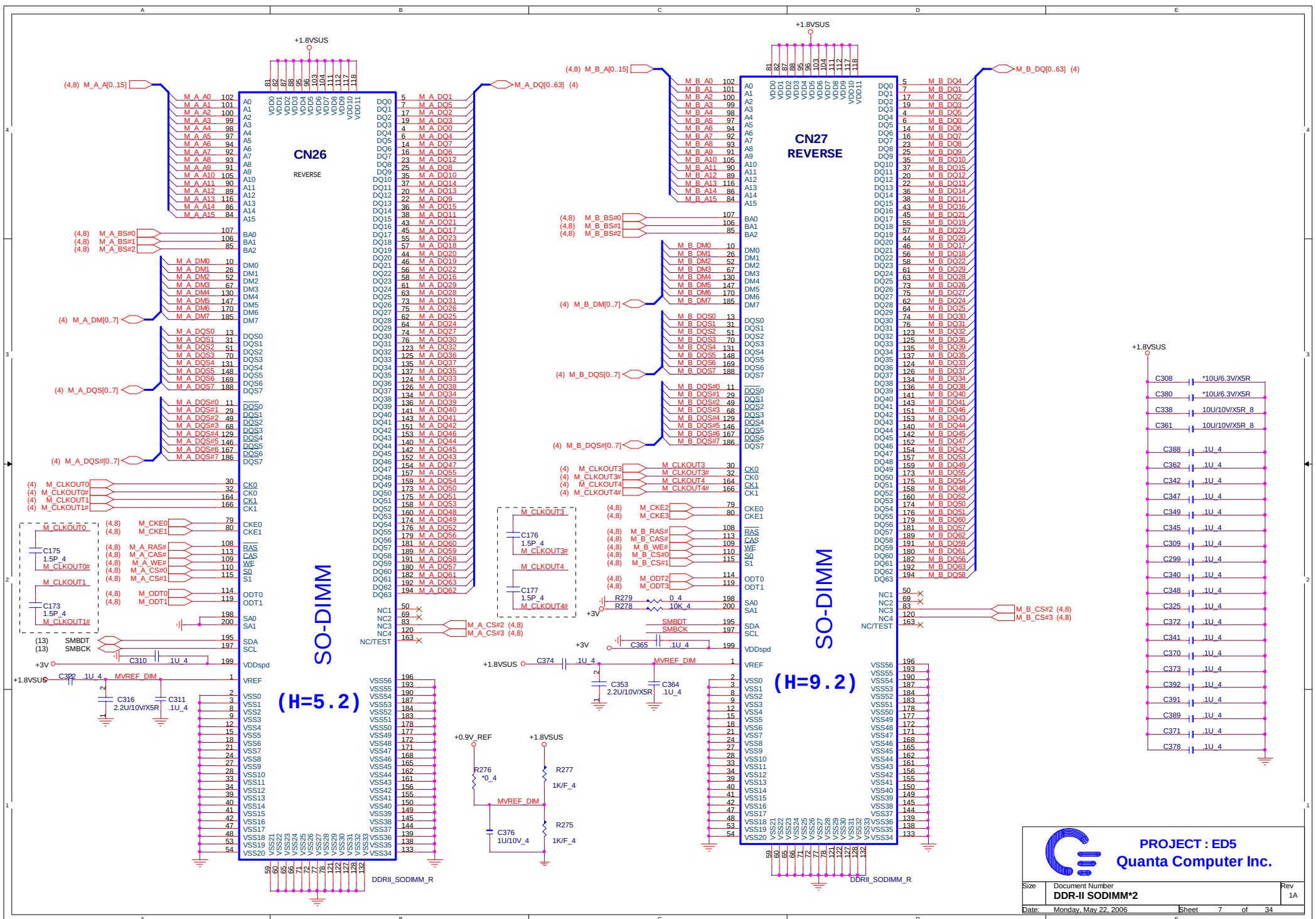


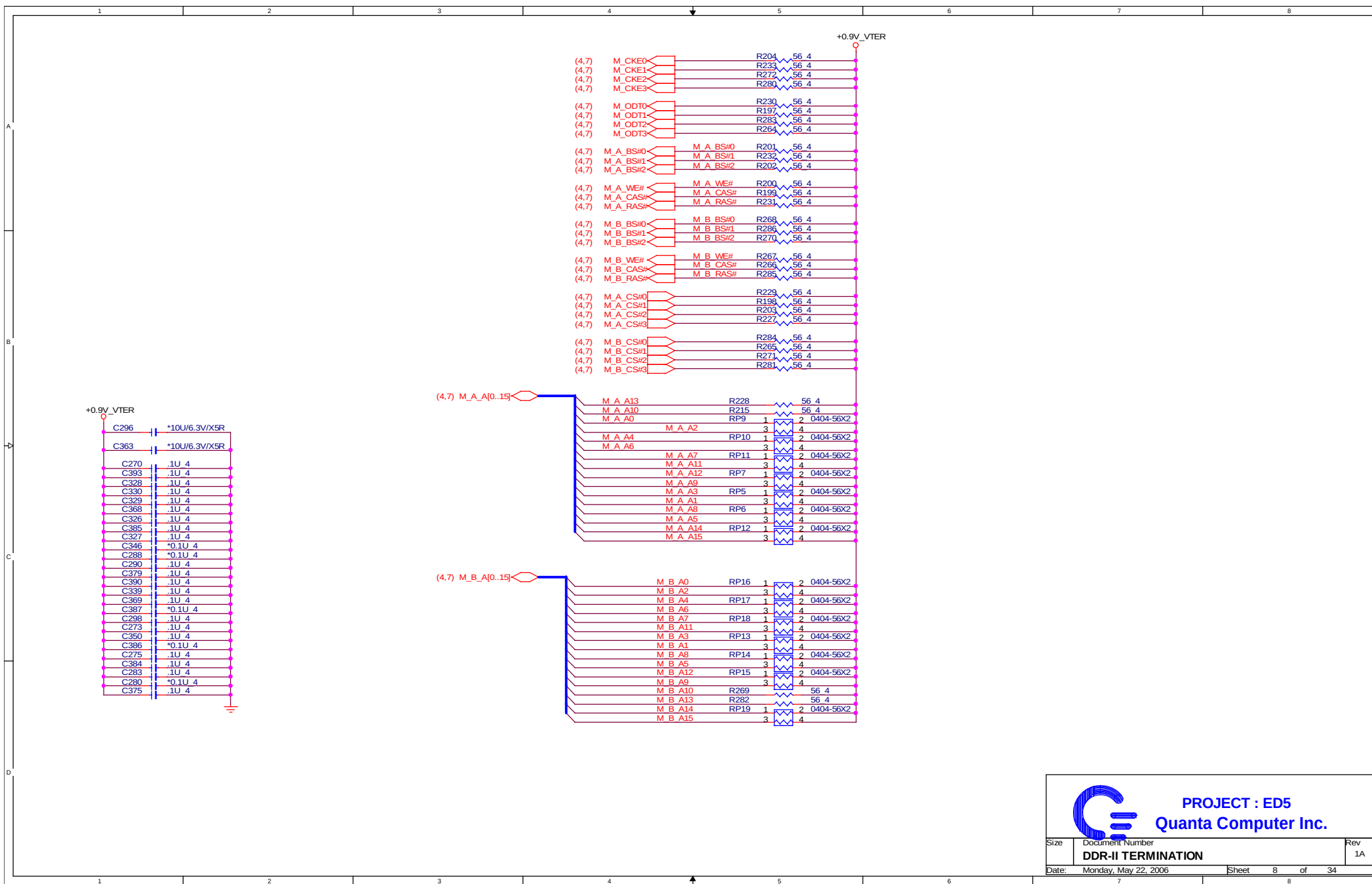
DECOUPLING BETWEEN PROCESSOR AND DIMMS PLACE CLOSE TO PROCESSOR AS POSSIBLE

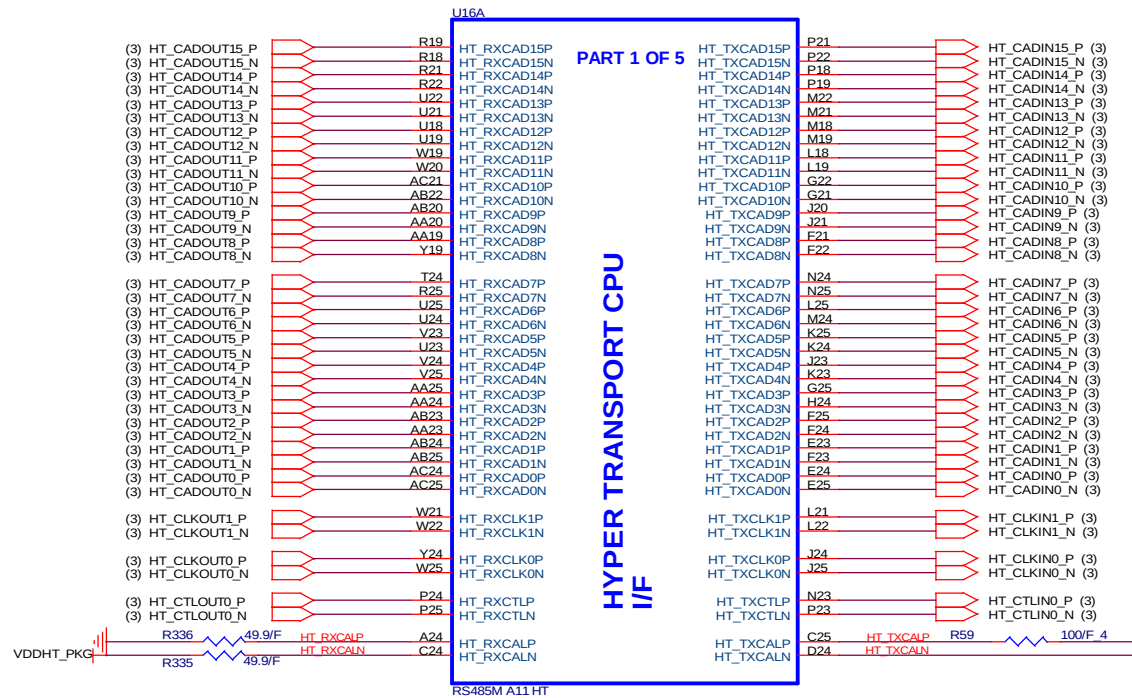


PROCESSOR POWER AND GROUND



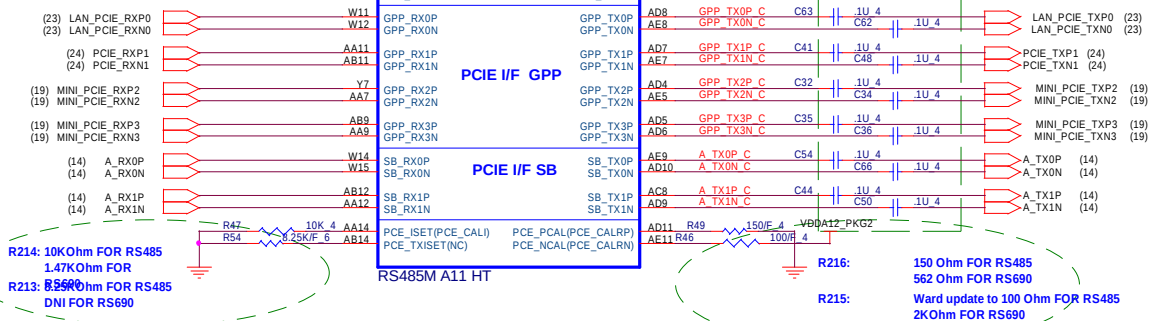
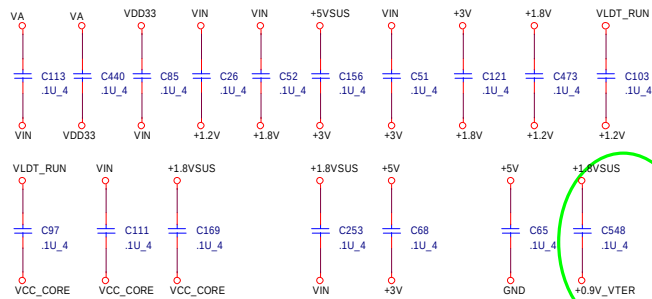






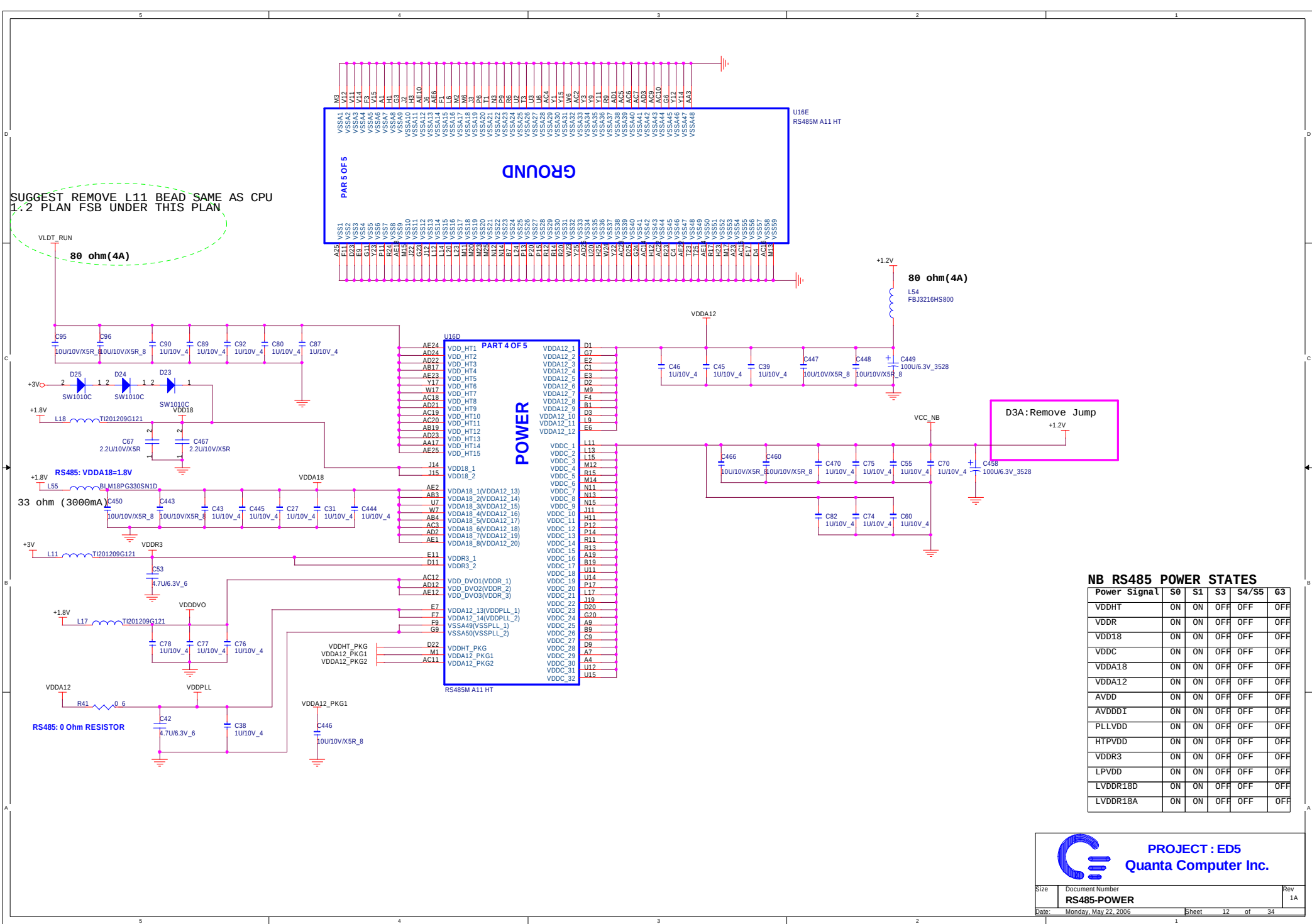
PROJECT : ED5
Quanta Computer Inc.

Size	Document Number	Rev
	RS485-HT LINK0 I/F	1A
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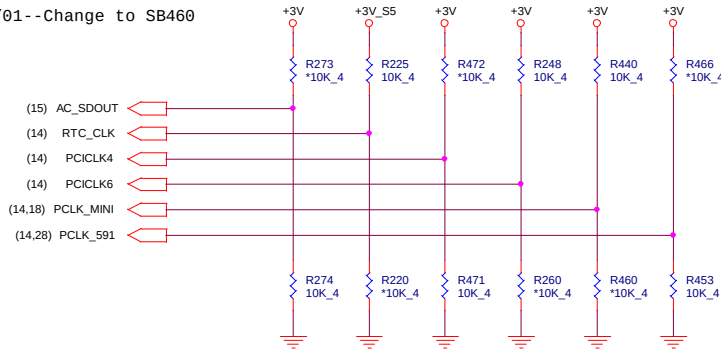
PROJECT : ED5
Quanta Computer Inc.

Size	Document Number	Rev
	RS485-PCIE LINK I/F	1A
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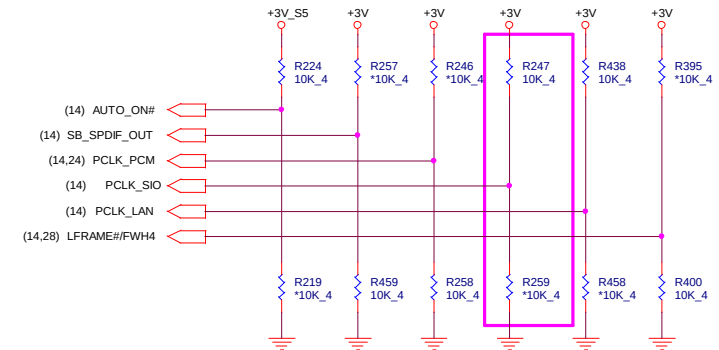
Edison-11/01--Change to SB460



REQUIRED STRAPS

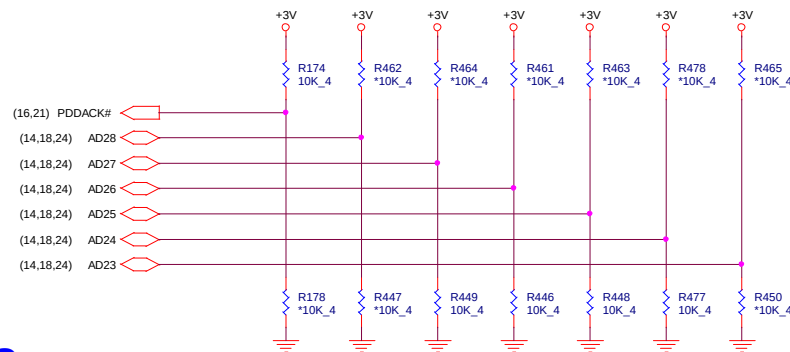
	AC_SDOUT	RTC_CLK	PCI_CLK4	PCI_CLK6	PCLK_MINI	PCLK_591
PULL HIGH	USE DEBUG STRAPS	INTERNAL RTC DEFAULT	USE INT. PLL48	CPU IF=K8	ROM TYPE: H, H = PCI ROM H, L = LPC TYPE I ROM L, H = LPC TYPE II ROM	DEFAULT
PULL LOW	IGNORE DEBUG STRAPS DEFAULT	EXTERNAL RTC	USE EXT. 48MHZ DEFAULT	CPU IF=P4 DEFAULT	L, L = FWH ROM NOTE: FOR SB460, PCLK[8:7] ARE CONNECTED TO SUBSTRATE BALLS PCLK[1:0]	

D3A:BOM change. R247: Stuff, R259: Un-stuff. Disable USB PHY POWERDOWN.



	AUTO_ON#	SB_SPDIF_OUT	PCLK_PCM	PCLK_SIO	PCLK_LAN	LFRAME#
PULL HIGH	ACPWON	SPDIF_OUT	PCI_CLK2	PCI_CLK3	PCI_CLK5	LFRAME#
PULL LOW	MANUAL PWR ON DEFAULT	SIO 24MHz	XTAL MODE NOT SUPPORTED	USB PHY POWERDOWN DISABLE DEFAULT	PCIE_CM_SET LOW DEFAULT	ENABLE THERMTRIP# DEFAULT
PULL LOW	AUTO PWR ON	SIO 48MHz DEFAULT	48MHZ OSC MODE DEFAULT	USB PHY POWERDOWN ENABLE	PCIE_CM_SET HIGH	DISABLE THERMTRIP#

BIOS ENABLE AFTER STARTUP



DEBUG STRAPS

	PDDACK#	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE LONG RESET DEFAULT	Reserved	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	Reserved
PULL LOW	USE SHORT RESET		USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	

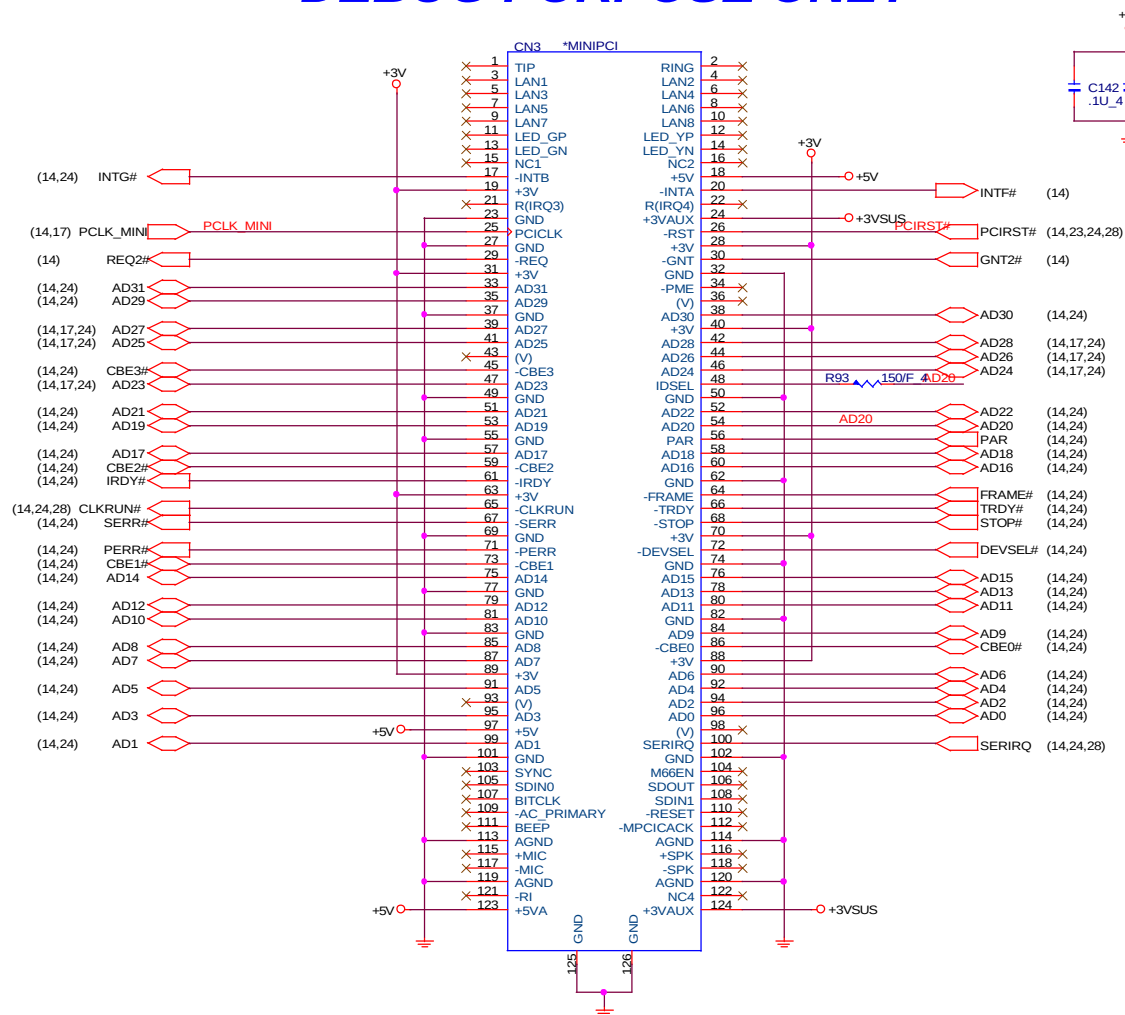
SB-4

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Size Custom	Document Number SB460M STRAPS	Rev 1A
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ID Select : AD20
 Interrupt Pin : INTG#, INTF#
 Request Indicate : REQ2#
 Grant Indicate : GNT2#

DEBUG PURPOSE ONLY



MPC

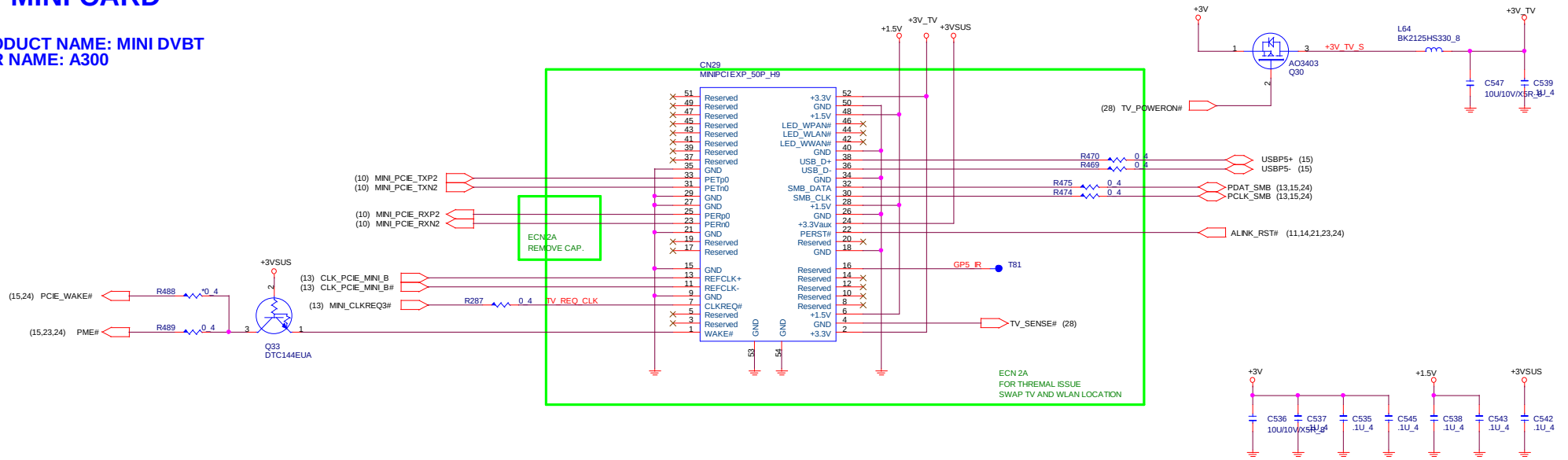


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Quanta Computer Inc.

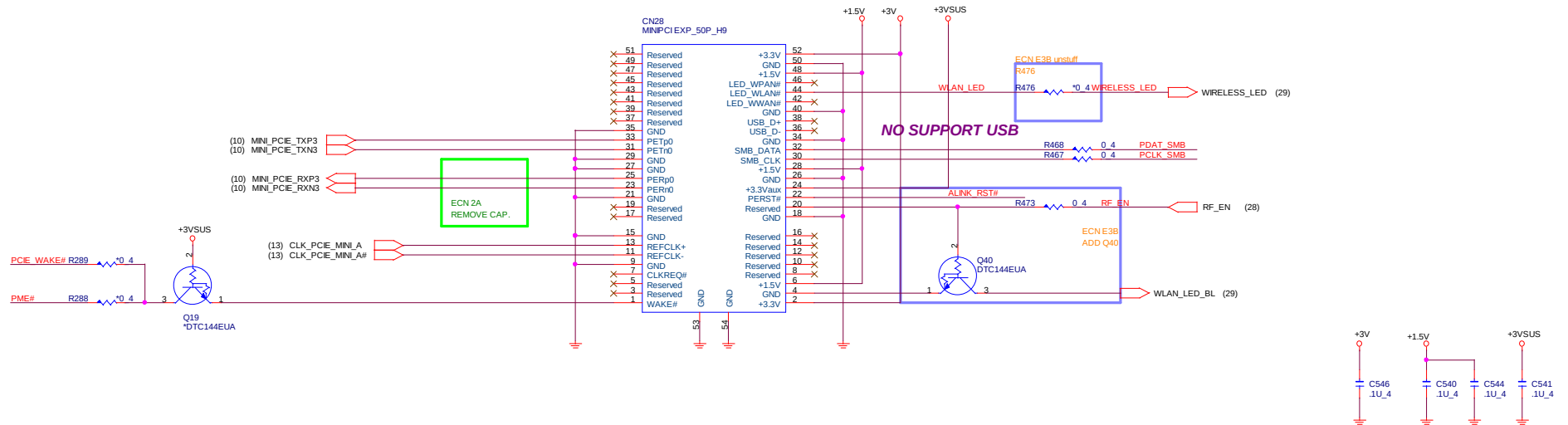
Size	Document Number	Rev
	MINI PCI CONNECTOR (DEBUG ONLY)	1A
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TV MINI CARD

PRODUCT NAME: MINI DVBT
MFR NAME: A300

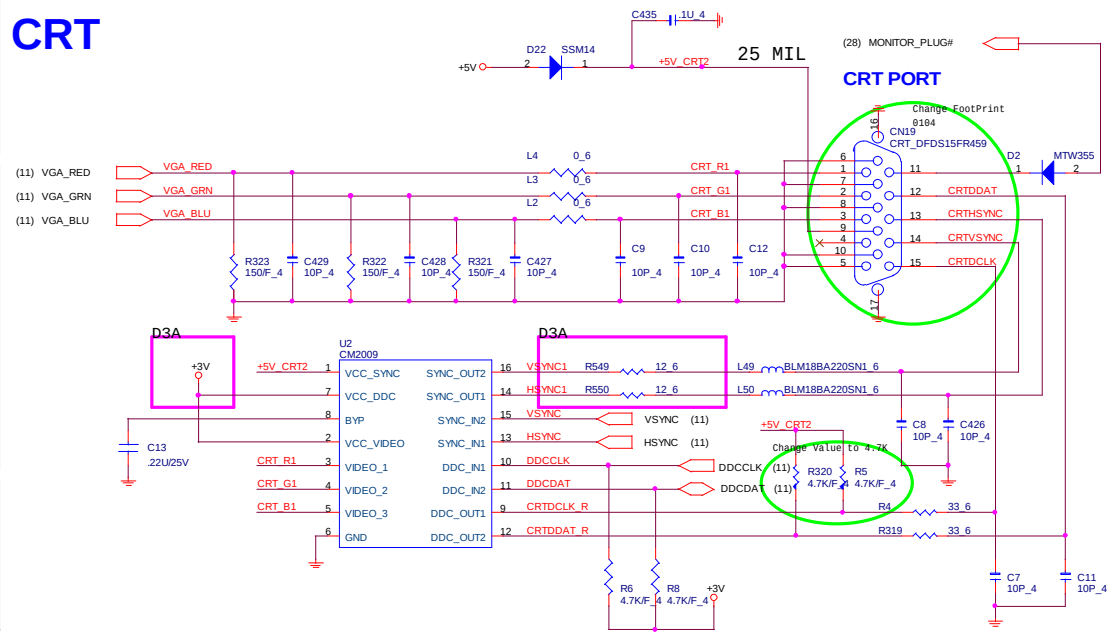


WLAN MINI CARD

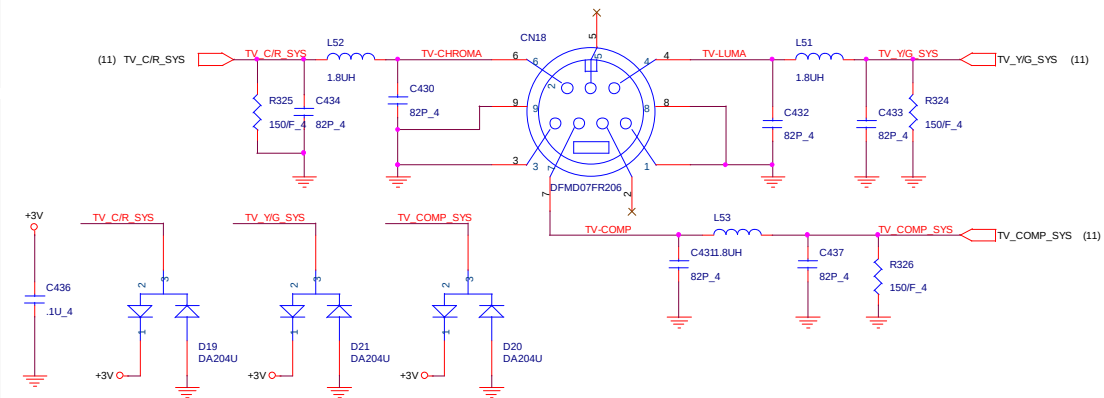


MINI CARD

CRT

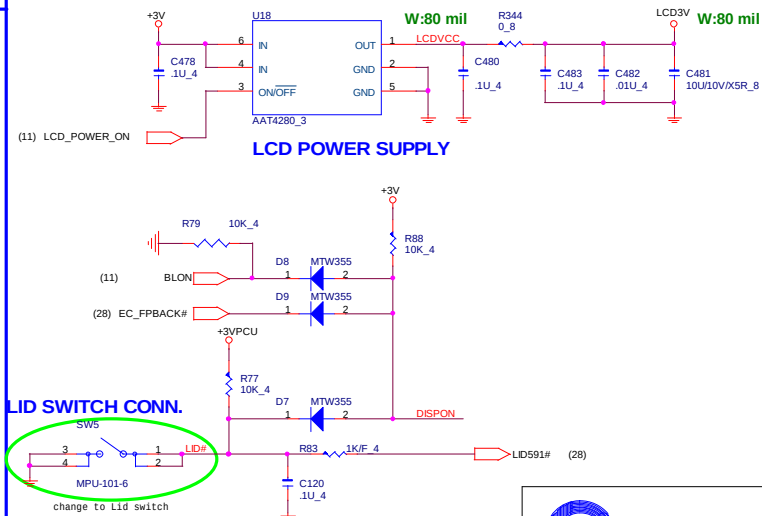
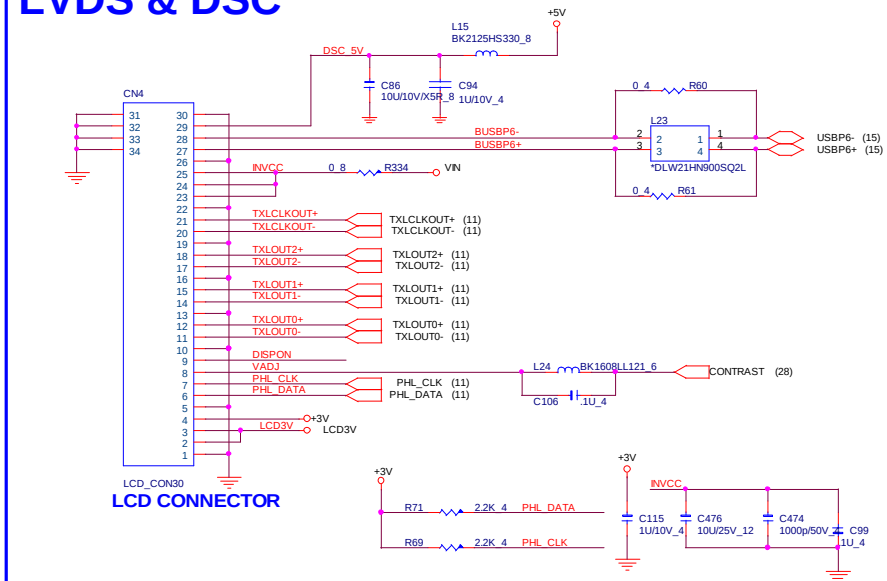


TV



CRT, LVDS, TV, DSC

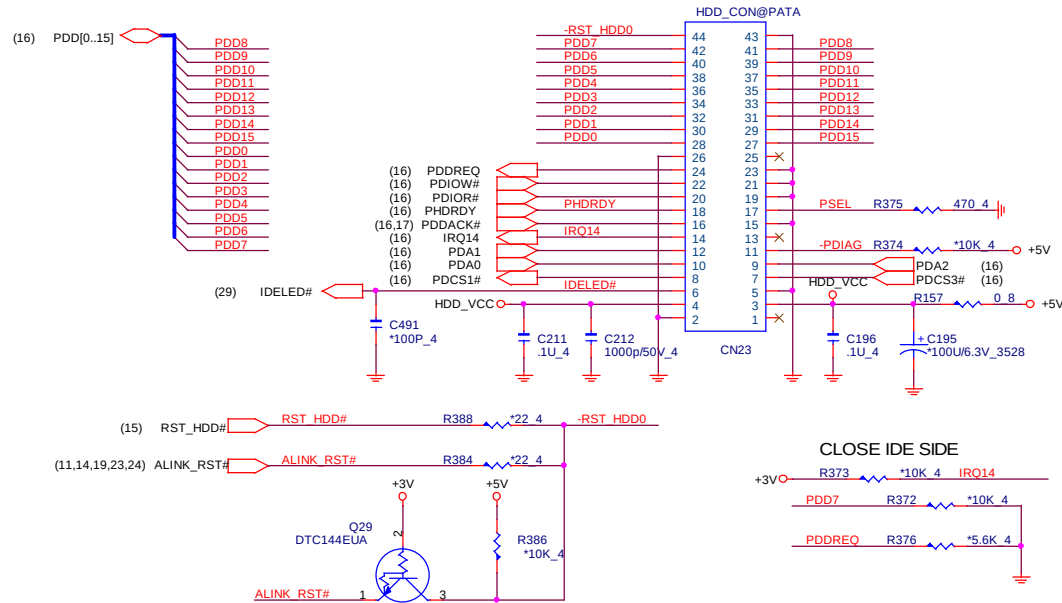
LVDS & DSC



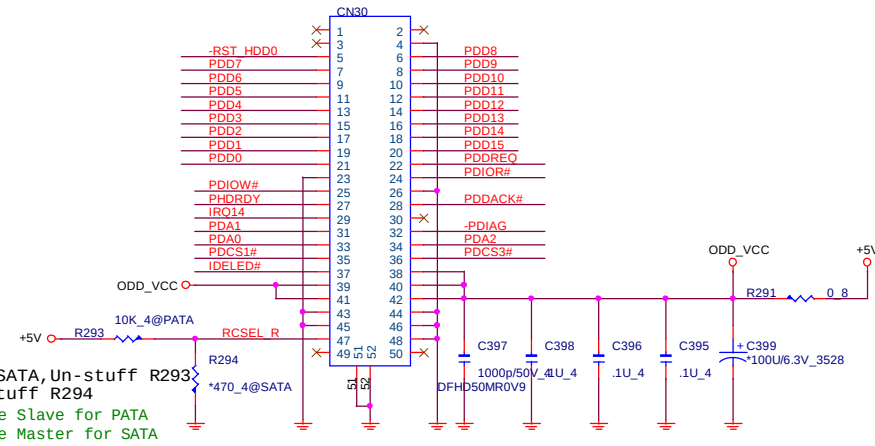
PROJECT : ED5
Quanta Computer Inc.

Size	Document Number	Rev
VGA Ports, LID, S-VIDEO, DSC		1A
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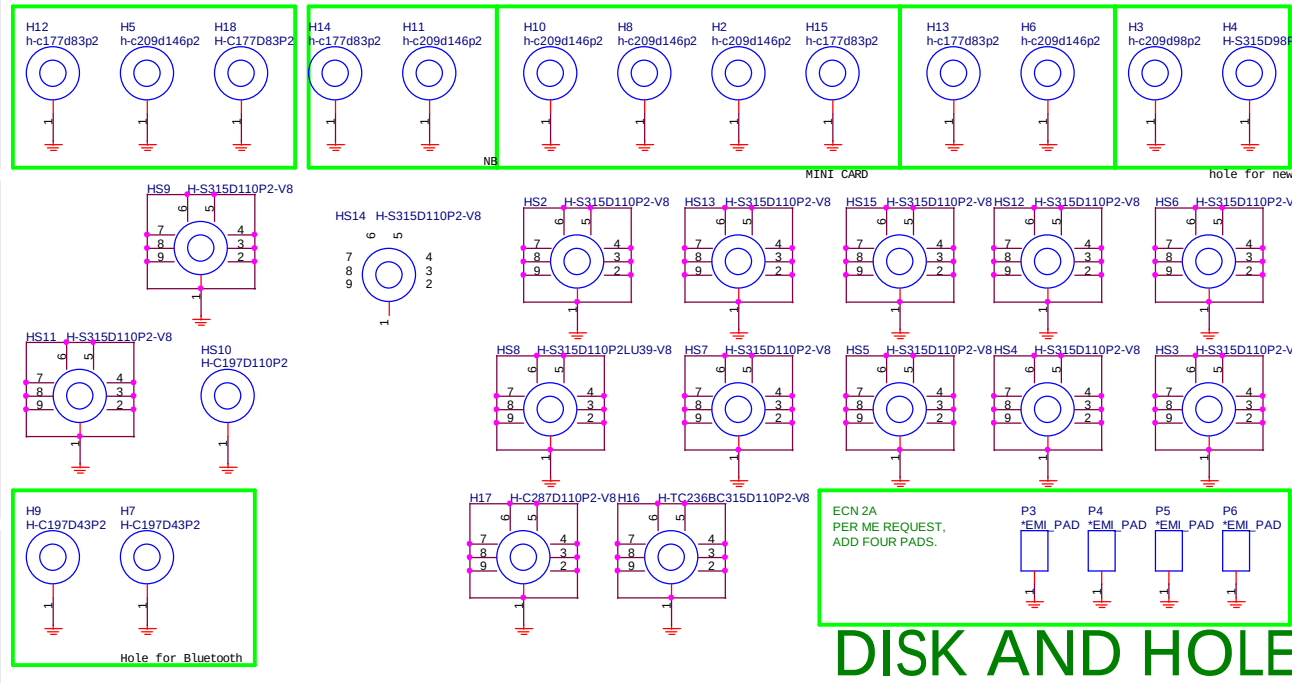
PATA HDD



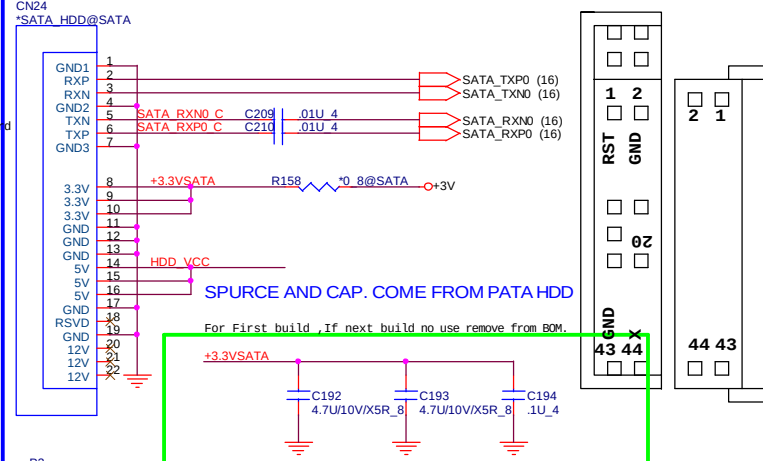
PATA ODD



When SATA, Un-stuff R293 and stuff R294
Reserve Slave for PATA
Reserve Master for SATA



SATA HDD



SPURCE AND CAP. COME FROM PATA HDD

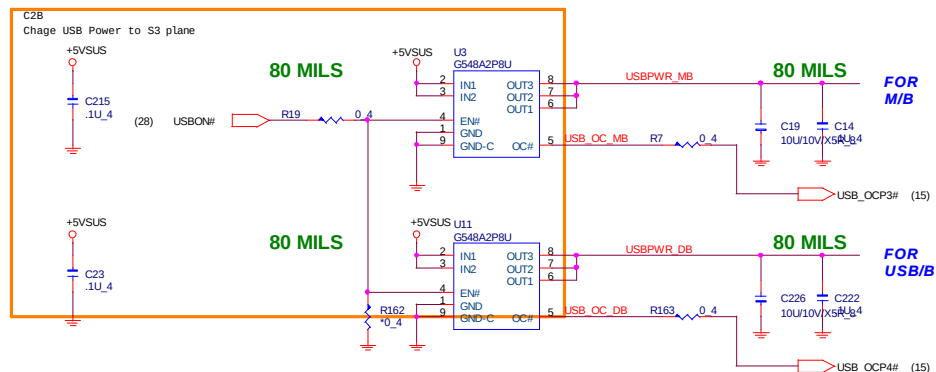
For First build ,If next build no use remove from BOM.

PROJECT : ED5
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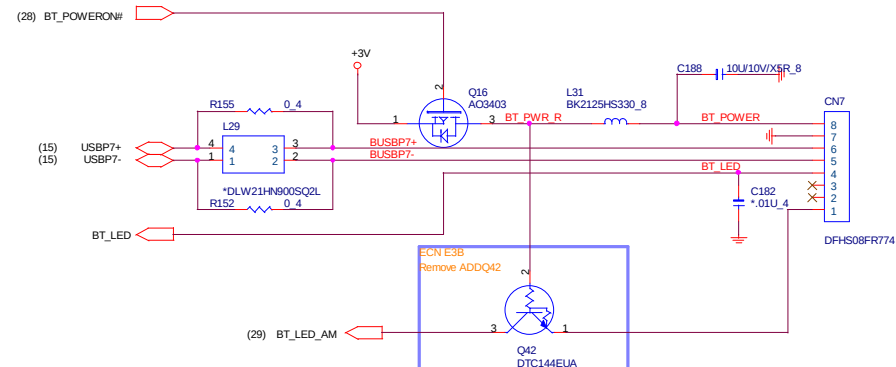
Size Document Number
HDD & CDROM , HOLES
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DISK AND HOLE

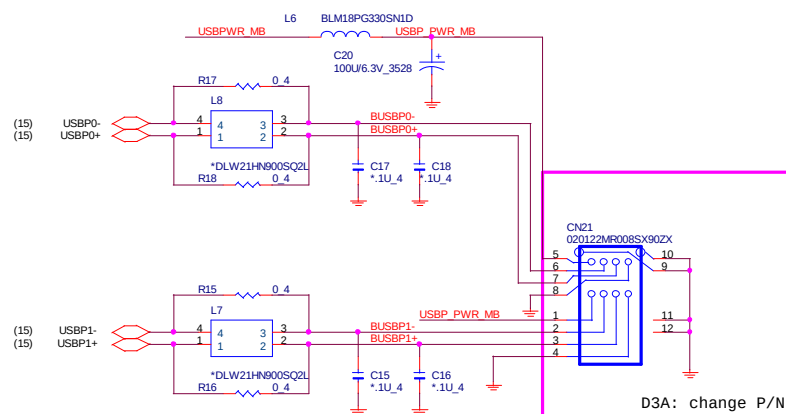
USB POWER SUPPLY



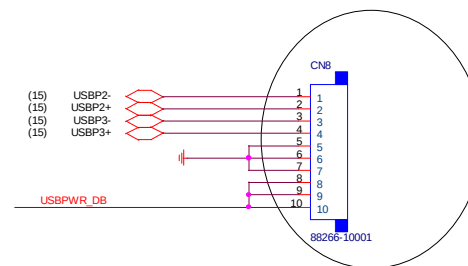
BLUETOOTH



USB I/O CONNECTORS



USB BAORD WIRE CONNECTOR



USB, BT, USB/B COONECTOR

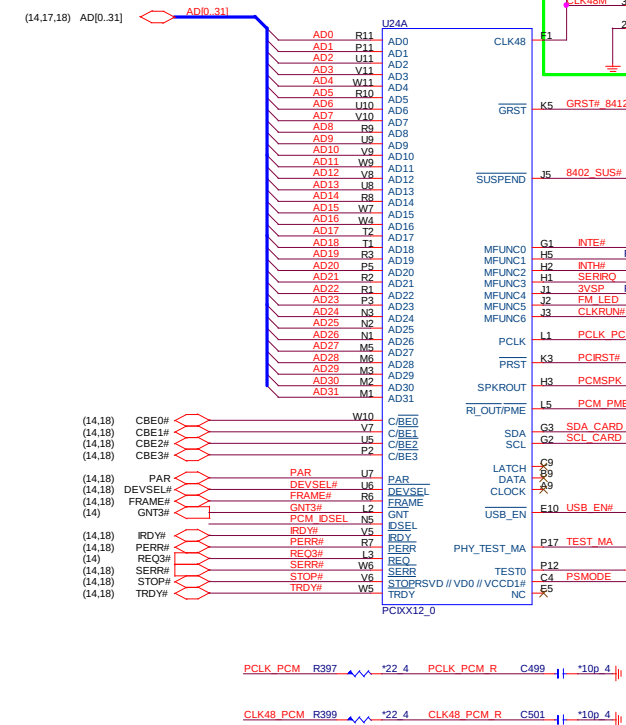
PROJECT : ED5
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Size	Document Number	Rev
	MINI PCI & USB PORT & BT	1A
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```

ID Select      : AD17
Interrupt Pin   : INTE#, INTG#, INTH#
Request Indicate : REQ3#
Grant Indicate  : GNT3#

```



VCC

GRST#

PRST#

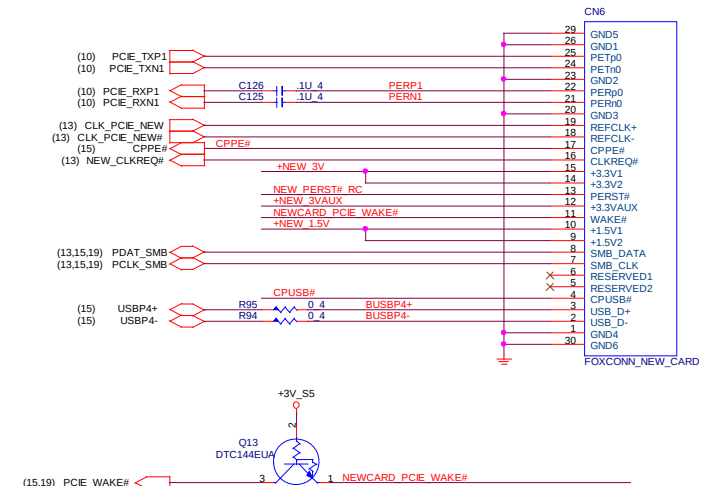
PCLK

> 2 ms

> 0 ns

> 100 us

NEW CARD HEADER: DFHD26MR074 (13081-1)
NEW CARD EJECTER: FBZF1026019 (130851-3)



U8
TPS2231PWG4

3V → 4 (3.3VIN), 5 (3.3VOUT)
3V_S5 → 18 (AUXIN)
1.5V → 16 (1.5VIN), 15 (1.5VOUT)

ALINK_RST# (11,14,19,21,23) → 1 (SYNRST#)

19 (RCLKEN) → X
19 (NC) → X
10 (GND) → GND

2 (SYNRST#) → X
3 (STB#) → X
12 (CPPE#) → X
11 (CPUS#) → X

6 (3.3VOUT) → NEW_3V
7 (3.3VOUT) → X
17 (AUXOUT) → NEW_3VAUX
14 (1.5VOUT) → X
13 (1.5VOUT) → NEW_1.5V

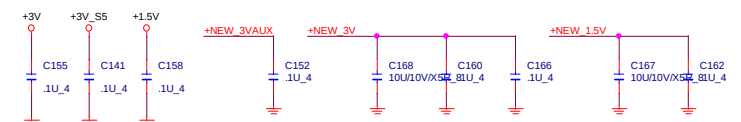
8 (PERST#) → NEW PERST#
20 (OC#) → X

F3C: Add RC delay on new of NEW_PERST#

NEW PERST# → RS53 (28.7K Ω) → NEW PERST# RC
C618 (3900pF/25V)

CPPE# : (Internal Pull Up , active low when card support PCIe)

CPPE# : (Internal Pull Up , active low when card support PCIE)
CPUSB# : (Internal Pull Up , active low when card support USB)
SHDN# : (Internal Pull Up)



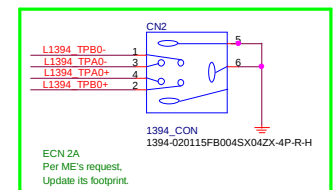
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Quanta Computer Inc.

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IEEE1394 & CARD READER



Support :
MMC
SD
Memory Stick
Memory Stick Pro
xD



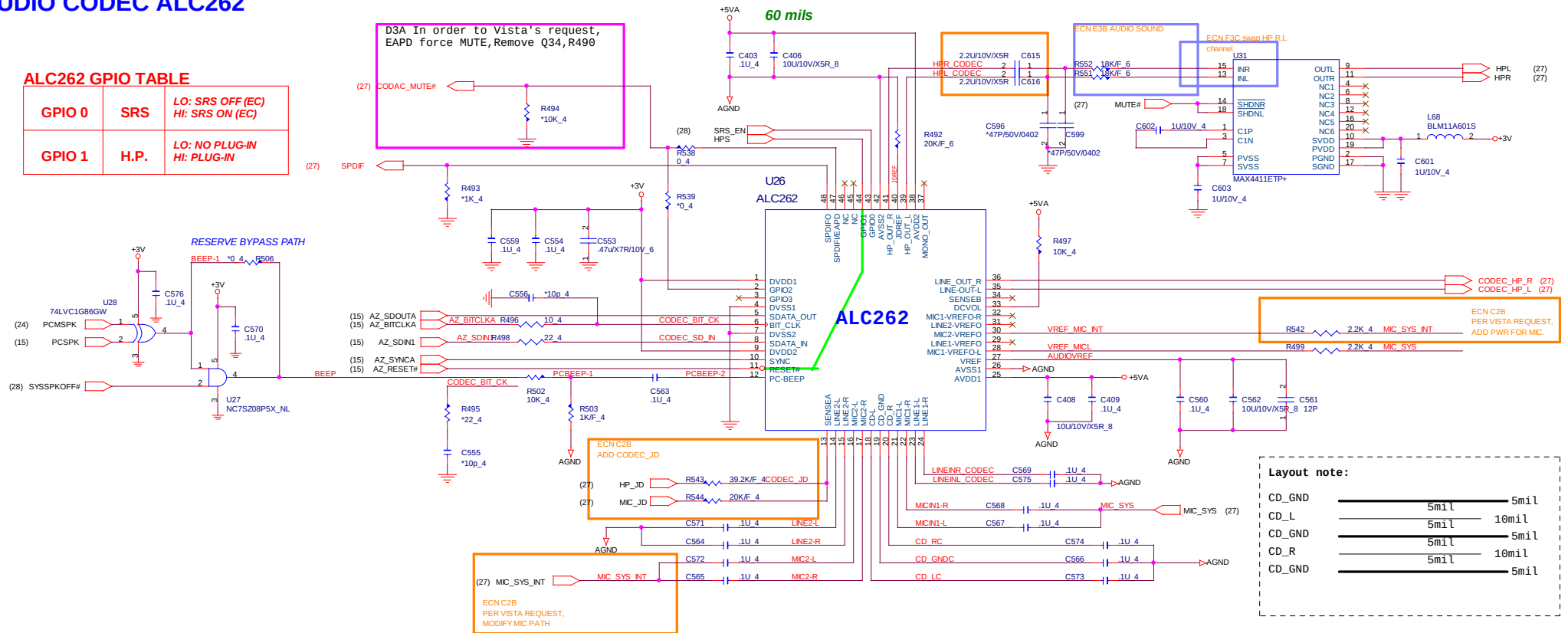

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Docuement Number	Revision
PCIB402-2 (1394 & 5 IN 1)	2
Date: Monday, May 22, 2006	Sheet 25 of 34

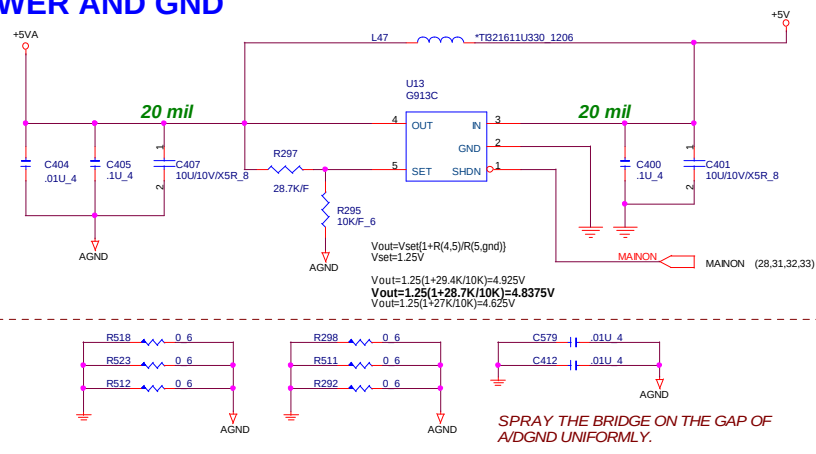
AUDIO CODEC ALC262

ALC262 GPIO TABLE

GPIO 0	SRS	LO: SRS OFF (EC) HI: SRS ON (EC)
GPIO 1	H.P.	LO: NO PLUG-IN HI: PLUG-IN

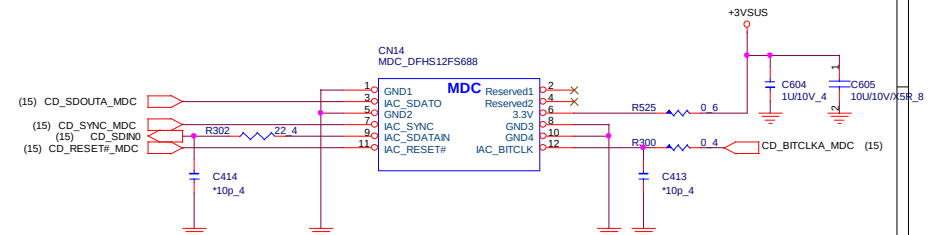


AUDIO POWER AND GND



AUDIO CODEC & MDC

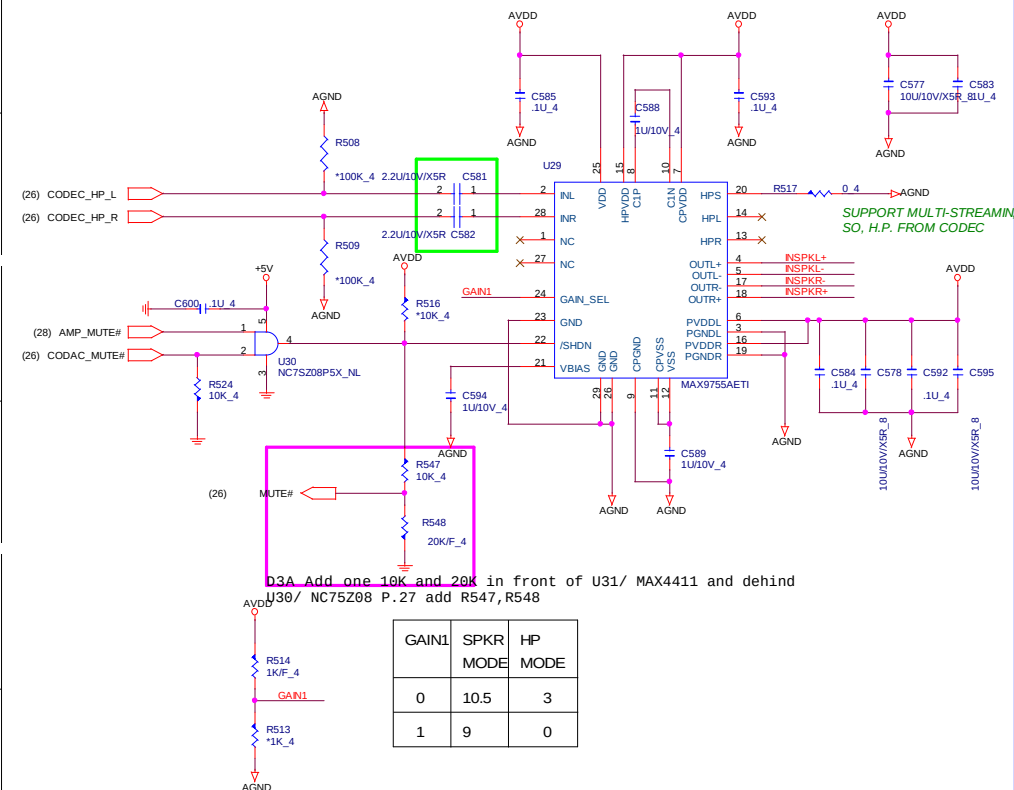
AZALIA MDC INTERFACE



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AUDIO AMP. (MAX9755)



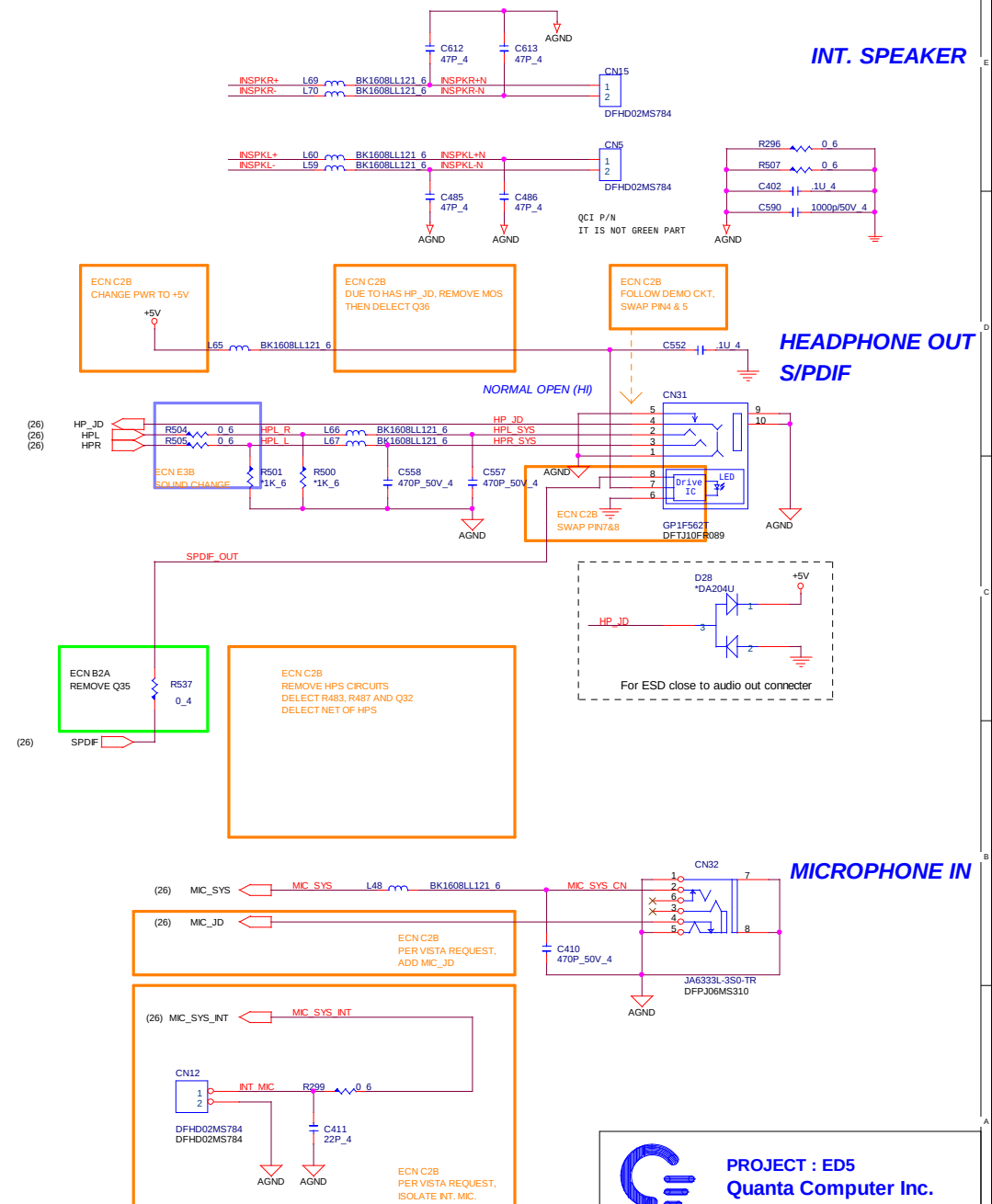
D3A Add one 10K and 20K in front of U31/ MAX4411 and behind U30/ NC75Z08 P.27 add R547,R548

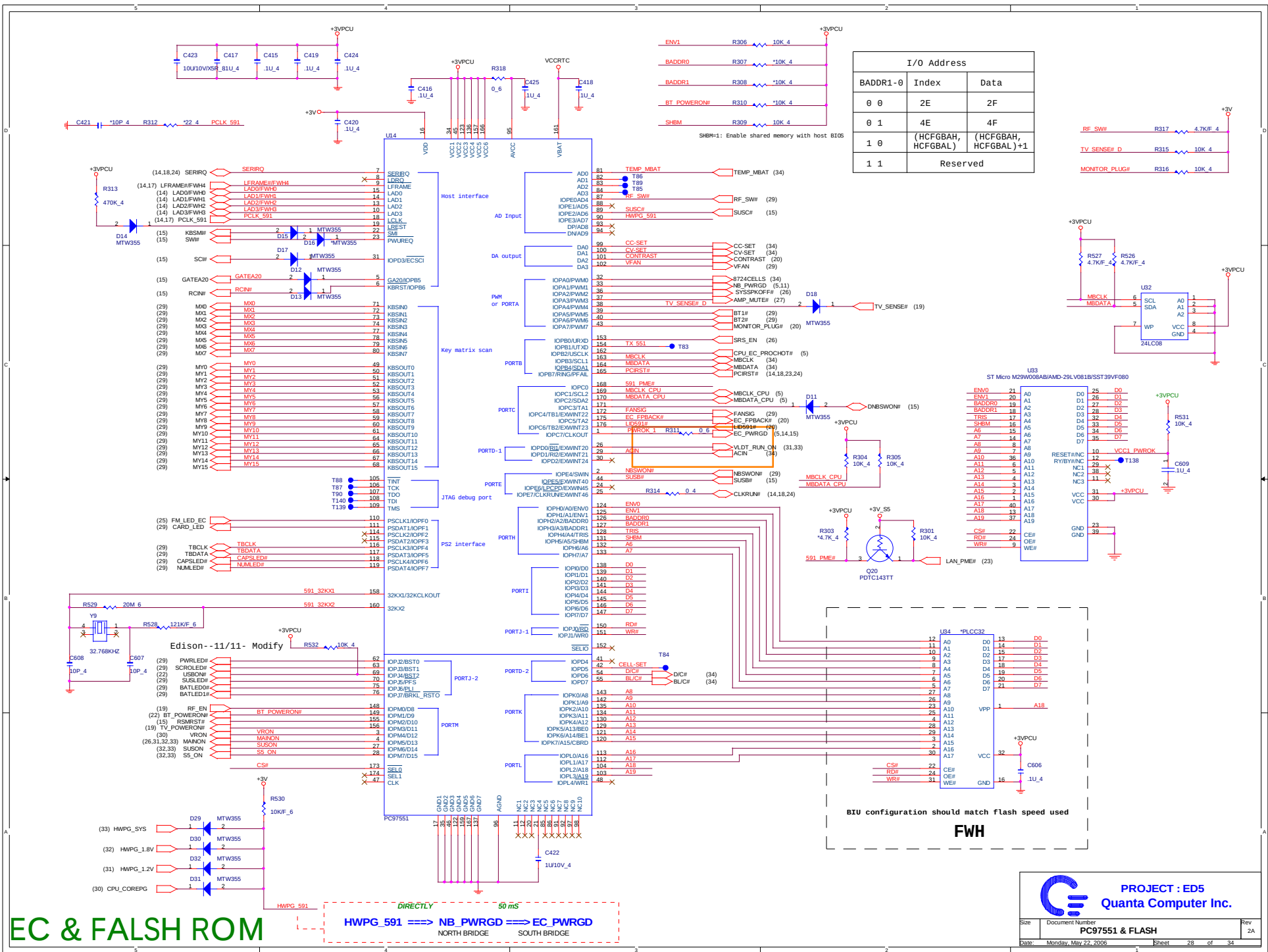
GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0

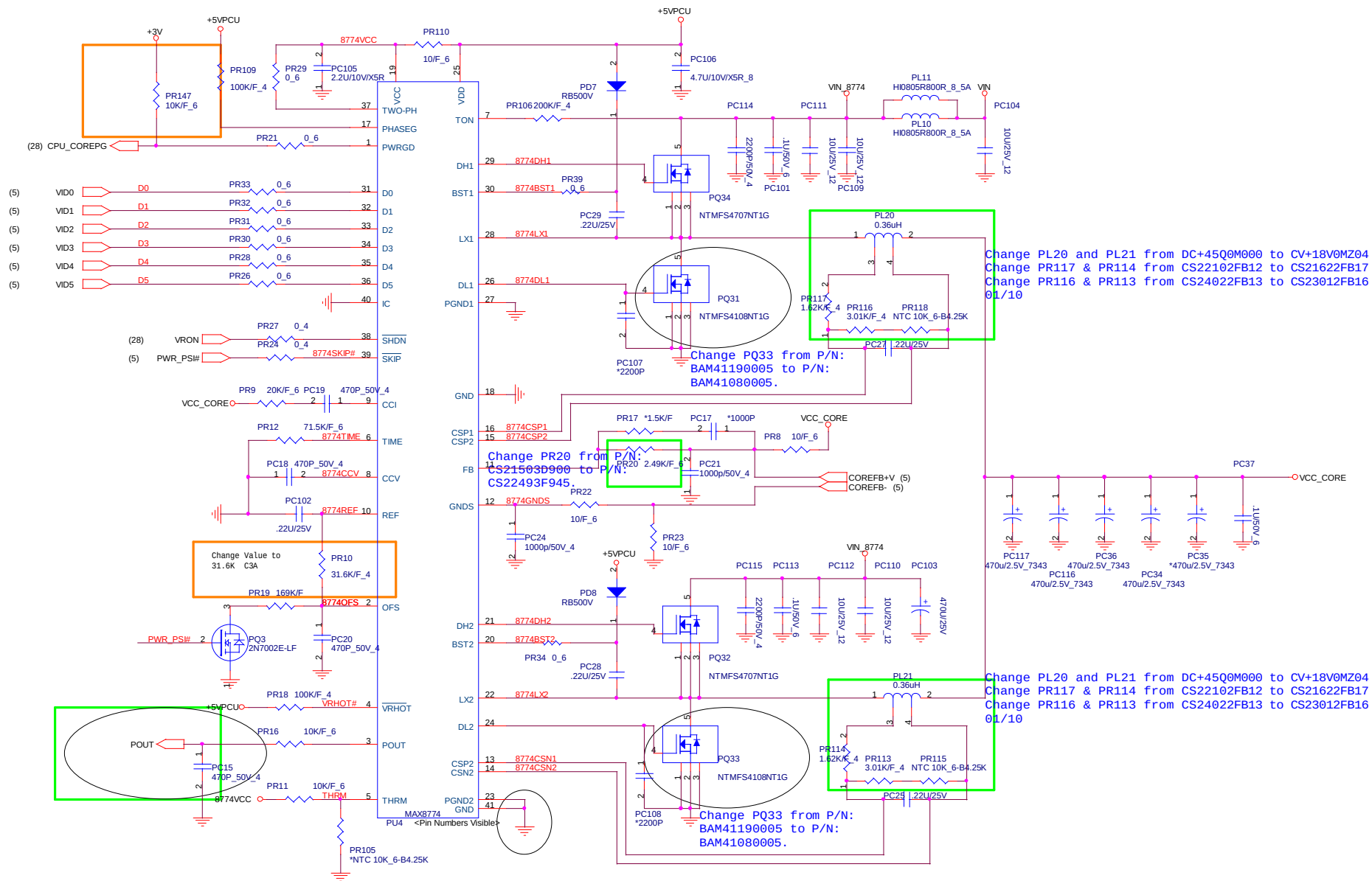
AMP. POWER SUPPLY

AUDIO AMP. & JACK

AUDIO JACK

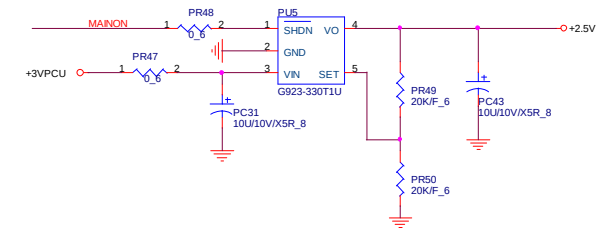
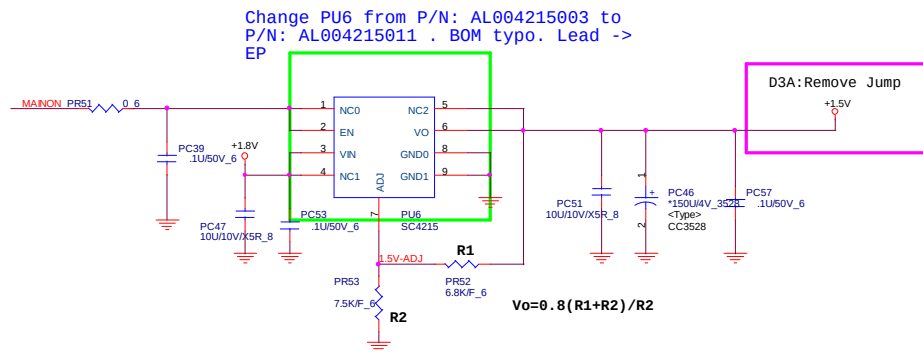
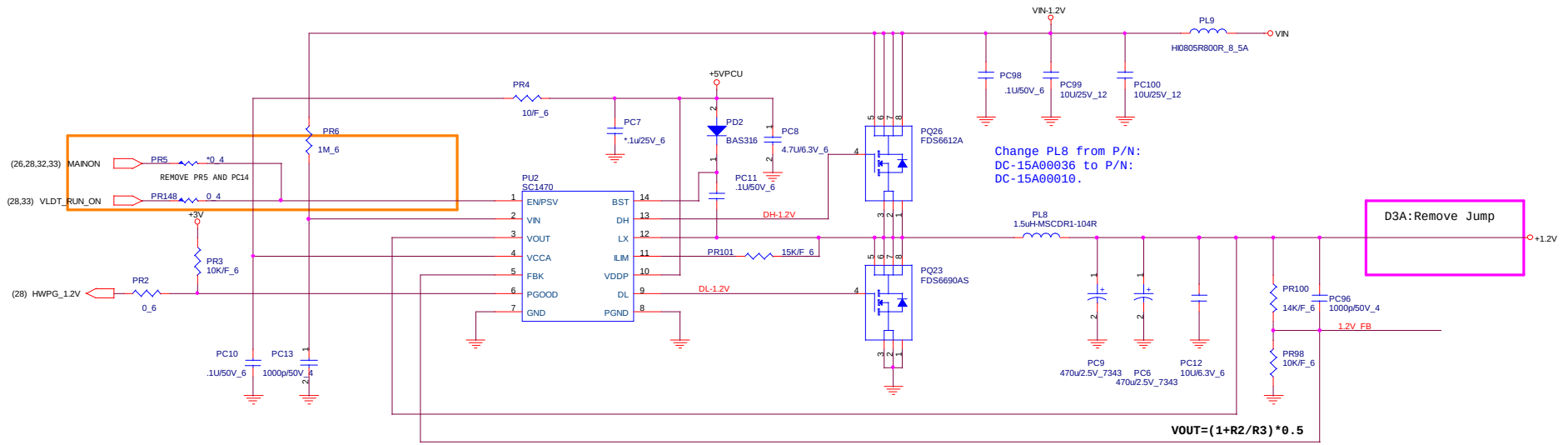


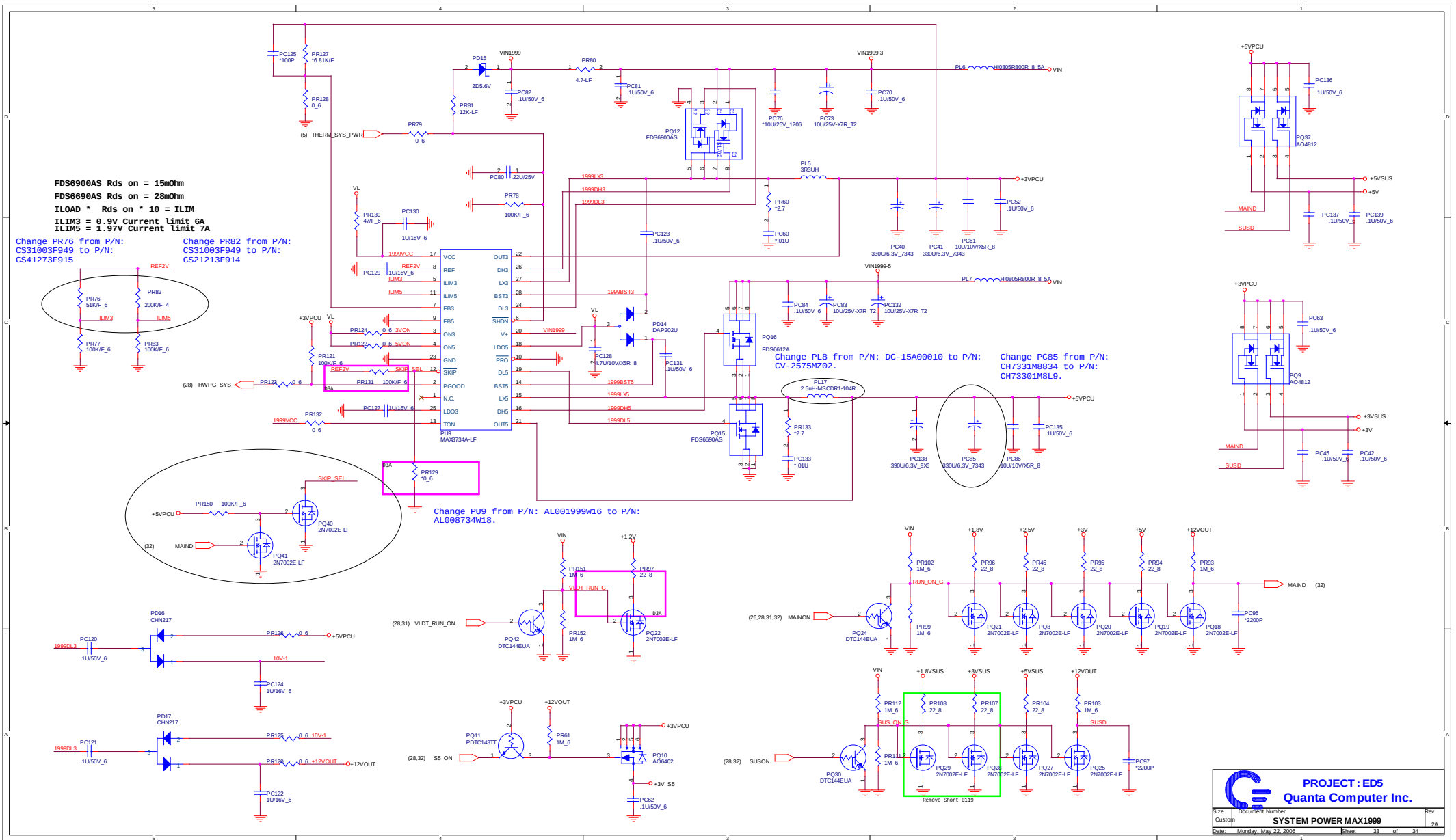




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Size	Document Number	Rev
	CPU CORE MAX8760	2A
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D3A: Modify circuit and Layout, update BOM, too

