

RW3 SYSTEM BLOCK DIAGRAM

Voltage Rails

PWR_SRC	Primary DC system power supply
+3VSUS	3.3V switched power rail (off in S4-S5)
+3V	3.3V switched power rail (off in S3-S5)
3VPCU	3V always on power rail
+3V_S5	3.3V switched power rail (off in S5-S5)
+1.8VSUS	+1.8V switched power rail (off in S4-S5)
+5V	5V switched power rail (off in S3-S5)
5VPCU	5V always on power rail
+5VSUS	5V switched power rail (off in S5-S5)
VDDR2	+1.8V switched power rail (off in S3-S5)

VCC_CORE	1.34V/0.94V switched power rail for CPU core voltage (off in S3-S5)
+VCCP	1.2V power rail regulator from 2.5VSUS for CPU VID (off in S3-S5)
+1.35V	+1.35V power rail for NB_CORE (off in S3-S5)

+2.5VSUS	2.5V switched power rail for DDR Memory (off in S4-S5)
+1.25V	1.25V switched power rail for DDR Termination (off in S3-S5)

+1.5V	1.5V power rail regulator from 2.5VSUS for AGP I/F (off in S3-S5)
+1.5V_S5	1.5V power rail regulator from 2.5VSUS for AGP I/F (off in S5-S5)
+2.5V	2.5V switched power rail for VGA Frame Buffer (off in S3-S5)
SMDDR_VREF	0.9V switched power rail for DDR2 reference (off in S4-S5)
LANVCC	3V switched power rail (off in S5-S5)

BATT CHARGER

PAGE :27

DC/DC

PAGE :23,24,25,26

EC board

EC connector

KBC NS PC97551

+3V
+5V
3VPCU
+3V_S5
+3VSUS
VCCRTC

Flash BIOS
3VPCU

TouchPad
+5V

Int. Keyboard

DOTHAN

(Micro-FCPGA 478)

+3V
+1.5V
+1.8V
+VCCP
VCC_CORE

Page : 02, 03

CPU VR

MAX1907

VHCORE Page :28

X'TAL
14.318M

CLOCKS

(ICS9554206BG-T)

+3V
+VCCP

Page :09

TFT LCD 14" (RESOLUTION 1280x768)

Panel Connector

+3VSUS
VIN
+3V
+5V

Page :16

CRT

+3V
+5V

Page :16

LAN 10/100

RTL8100CL

LANVCC
REQ0
GNT0
PIRQD#
AD29

Page :13

RJ45

PAGE :13

DDR-SODIMM1

+1.8VSUS SMDDR_VREF
+3V VDDR2

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DDR-SODIMM2

+1.8VSUS SMDDR_VREF
+3V VDDR2

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Hard Disk Drive

+5V

Page : 10

DVD ROM Drive

+5V

Page : 10

SOUTH BRIDGE

ICH6-M

(BGA 609)

+1.5V
+2.5V
+3V
+5V
+1.5V_S5
+3V_S5
+VCCP
3VPCU
+5VSUS
+VCCRTC

Page : 10, 11, 12

LPC BUS

EC board

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MDC

+3VSUS

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AC'97 CODEC

+3V
+5V
VDDA

Page :18

Audio AMP

MAX9750CETI

VDDA

Page :19

Stereo Speaker

Page :19

100/133Mhz

FSB400(3.2GB/s)/533(4.3GB/s)MHz

NORTH BRIDGE

Intel 915GME

(BGA 1257P)

+1.5V
+2.5V
+3V
+2.5VSUS
+VCCP
VCC3G_PCIE

Page : 04, 05, 06, 07

DMI I/F
(X2 or X4)

266/533Mhz

UMA

LVDS

RGB

PCI BUS

33Mhz (133 MB)

USB 2.0

USB 2.0 Conn.
BLUETOOTH

USB 5

+5V

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USB 2.0 Conn.

USB 0, 1, 2

+5V

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USB 2.0 Conn.
3 IN 1

USB 3, 4

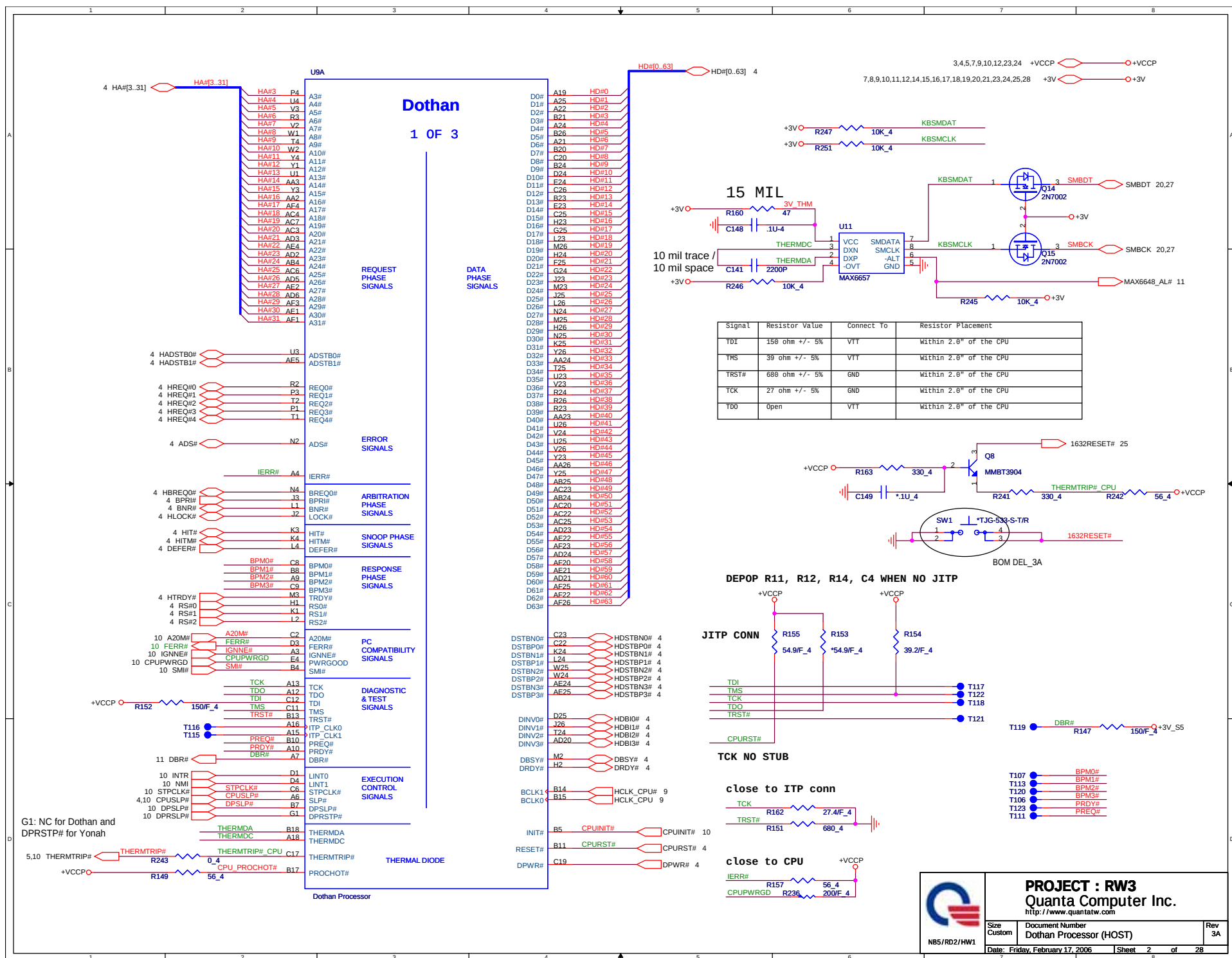
+3V
+5V

Page :21

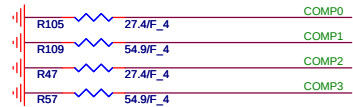


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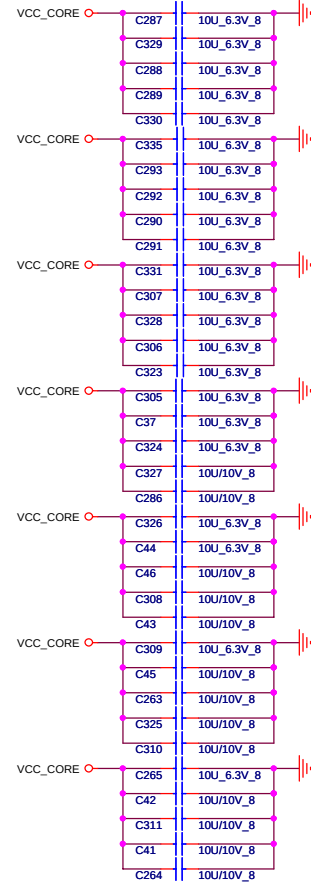
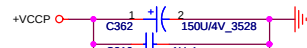
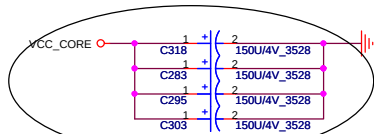
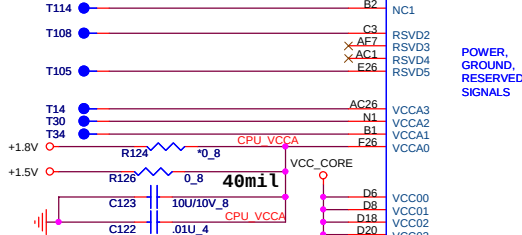
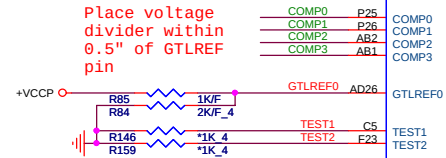


COMP0, COMP2 Trace should be 27.4 f 15%
COMP1, COMP3 Trace should be 55 f 15%



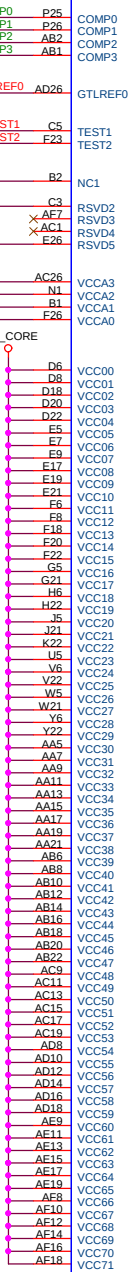
Place pulldown resistors within 0.5" of COMP pins

Place voltage divider within 0.5" of GTLREF pin

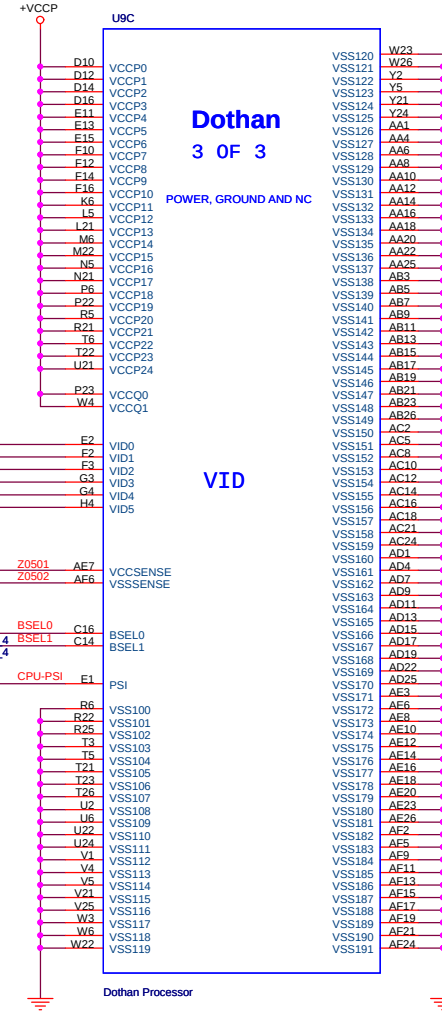
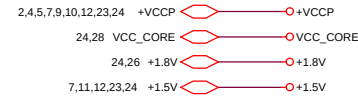


Dothan
2 OF 3

POWER, GROUND, RESERVED SIGNALS



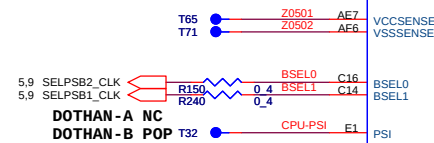
Dothan Processor



Dothan
3 OF 3

POWER, GROUND AND NC

VID



DOETHAN - A NC
DOETHAN - B POP T32

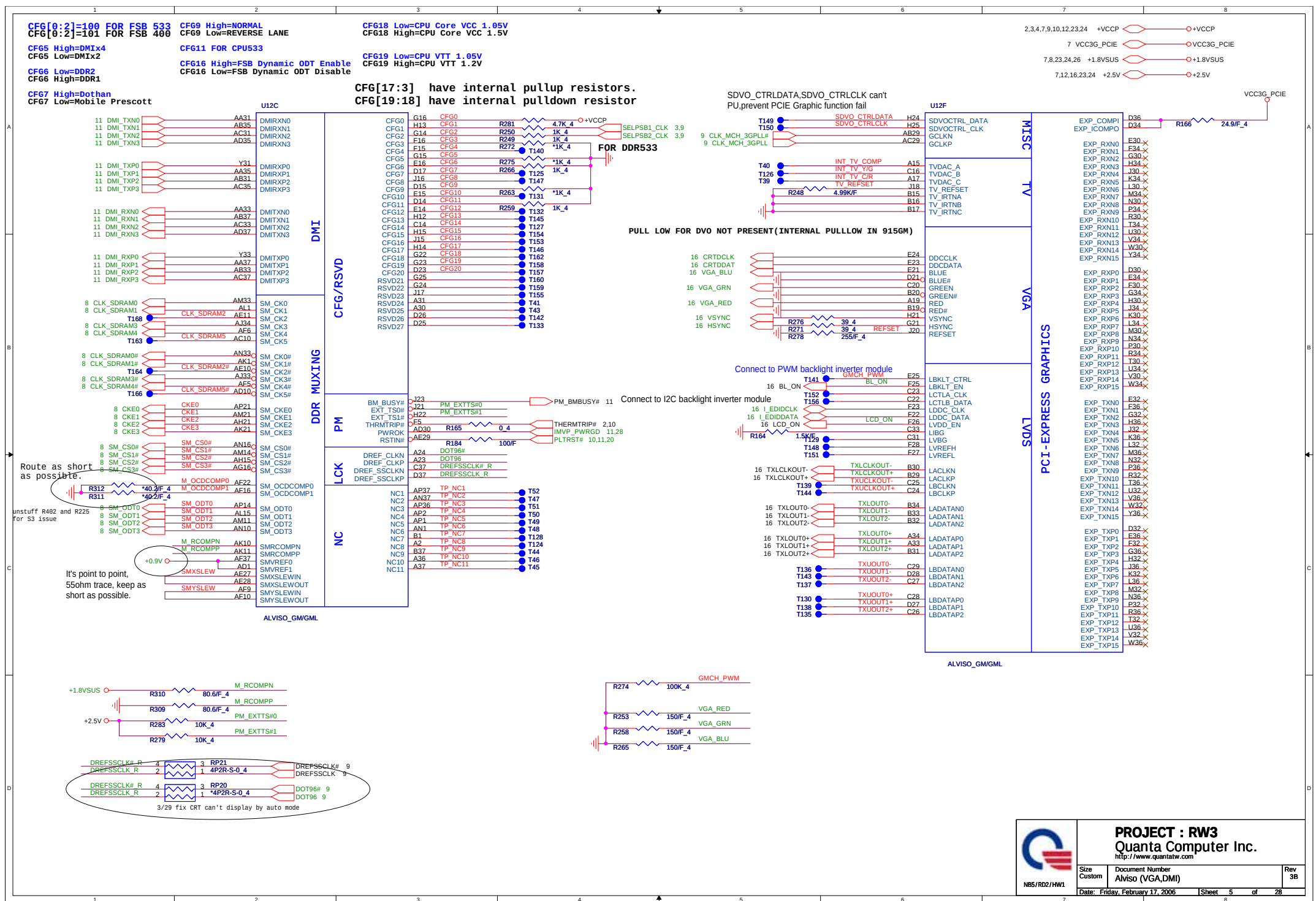
Dothan Processor

Total caps = 2633 uF

ESR = 15m ohm/5 // 5m ohm/25 // 5m ohm/15

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R_A_MD[0..63] R_A_MD[0..63] 8
M_A_MA[0..13] M_A_MA[0..13] 8
R_A_SM_DQS[0..7] R_A_SM_DQS[0..7] 8
R_A_SDM[0..7] R_A_SDM[0..7] 8
R_A_SM_DQS#[0..7] R_A_SM_DQS#[0..7] 8

U12B
R_A MD0 AG35 SADO0
R_A MD1 AH35 SADO1
R_A MD2 AL35 SADO2
R_A MD3 AL37 SADO3
R_A MD4 AH36 SADO4
R_A MD5 AJ35 SADO5
R_A MD6 AK37 SADO6
R_A MD7 AL34 SADO7
R_A MD8 AM36 SADO8
R_A MD9 AN35 SADO9
R_A MD10 AP32 SADO10
R_A MD11 AM31 SADO11
R_A MD12 AM34 SADO12
R_A MD13 AM35 SADO13
R_A MD14 AL32 SADO14
R_A MD15 AM32 SADO15
R_A MD16 AN31 SADO16
R_A MD17 AP31 SADO17
R_A MD18 AN28 SADO18
R_A MD19 AP28 SADO19
R_A MD20 AL30 SADO20
R_A MD21 AM30 SADO21
R_A MD22 AM28 SADO22
R_A MD23 AL28 SADO23
R_A MD24 AP27 SADO24
R_A MD25 AM27 SADO25
R_A MD26 AM23 SADO26
R_A MD27 AM22 SADO27
R_A MD28 AL23 SADO28
R_A MD29 AM24 SADO29
R_A MD30 AL22 SADO30
R_A MD31 AP22 SADO31
R_A MD32 AM5 SADO32
R_A MD33 AL9 SADO33
R_A MD34 AL6 SADO34
R_A MD35 AP7 SADO35
R_A MD36 AP10 SADO36
R_A MD37 AL7 SADO37
R_A MD38 AL7 SADO38
R_A MD39 AM7 SADO39
R_A MD40 AN5 SADO40
R_A MD41 AN6 SADO41
R_A MD42 AN3 SADO42
R_A MD43 AP3 SADO43
R_A MD44 AP6 SADO44
R_A MD45 AM6 SADO45
R_A MD46 AL4 SADO46
R_A MD47 AM3 SADO47
R_A MD48 AK2 SADO48
R_A MD49 AK3 SADO49
R_A MD50 AG2 SADO50
R_A MD51 AG1 SADO51
R_A MD52 AL3 SADO52
R_A MD53 AM2 SADO53
R_A MD54 AH3 SADO54
R_A MD55 AG3 SADO55
R_A MD56 AE3 SADO56
R_A MD57 AE3 SADO57
R_A MD58 AD6 SADO58
R_A MD59 AC4 SADO59
R_A MD60 AE2 SADO60
R_A MD61 AE1 SADO61
R_A MD62 AD4 SADO62
R_A MD63 AD5 SADO63

DDR SYSTEM MEMORY A

SA_BS0# AK15 M_A BA0 M_A_BA0 8
SA_BS1# AK16 M_A BA1 M_A_BA1 8
SA_BS2# AK21 M_A BA2 M_A_BA2 8
SA_DM0 AJ37 R_A SDM0
SA_DM1 AP35 R_A SDM1
SA_DM2 AL29 R_A SDM2
SA_DM3 AP24 R_A SDM3
SA_DM4 AP9 R_A SDM4
SA_DM5 AP4 R_A SDM5
SA_DM6 AJ2 R_A SDM6
SA_DM7 AD3 R_A SDM7
SA_DQS0 AK36 R_A SM DQS0
SA_DQS1 AP33 R_A SM DQS1
SA_DQS2 AN29 R_A SM DQS2
SA_DQS3 AP23 R_A SM DQS3
SA_DQS4 AM8 R_A SM DQS4
SA_DQS5 AM4 R_A SM DQS5
SA_DQS6 AJ1 R_A SM DQS6
SA_DQS7 AE5 R_A SM DQS7
SA_DQS# AK35 R_A SM DQS#0
SA_DQS1# AP34 R_A SM DQS#1
SA_DQS2# AN30 R_A SM DQS#2
SA_DQS3# AN23 R_A SM DQS#3
SA_DQS4# AN8 R_A SM DQS#4
SA_DQS5# AM5 R_A SM DQS#5
SA_DQS6# AH1 R_A SM DQS#6
SA_DQS7# AE4 R_A SM DQS#7
SA_MA0 AL17 M_A MA0
SA_MA1 AP17 M_A MA1
SA_MA2 AP18 M_A MA2
SA_MA3 AM17 M_A MA3
SA_MA4 AN18 M_A MA4
SA_MA5 AM18 M_A MA5
SA_MA6 AL19 M_A MA6
SA_MA7 AP20 M_A MA7
SA_MA8 AM19 M_A MA8
SA_MA9 AM16 M_A MA10
SA_MA10 AN20 M_A MA11
SA_MA11 AM20 M_A MA12
SA_MA12 AM15 M_A MA13
SA_CAS# AN15 M_A SCASA# M_A_SCASA# 8
SA_RAS# AP16 M_A SRASA# M_A_SRASA# 8
SA_RCVENIN# AE29 S_A RCVENIN# T169
SA_RCVENOUT# AE28 S_A RCVENOUT# T170
SA_WE# AP15 M_A BMWEA# M_A_BMWEA# 8

ALVISO_GM/GML

R_B_MD[0..63] R_B_MD[0..63] 8
M_B_MA[0..13] M_B_MA[0..13] 8
R_B_SM_DQS[0..7] R_B_SM_DQS[0..7] 8
R_B_SDM[0..7] R_B_SDM[0..7] 8
R_B_SM_DQS#[0..7] R_B_SM_DQS#[0..7] 8

U12G
R_B MD0 AE31 SBDQ0
R_B MD1 AE32 SBDQ1
R_B MD2 AG36 SBDQ2
R_B MD3 AG36 SBDQ3
R_B MD4 AE34 SBDQ4
R_B MD5 AE33 SBDQ5
R_B MD6 AE30 SBDQ6
R_B MD7 AE30 SBDQ7
R_B MD8 AH33 SBDQ8
R_B MD9 AH32 SBDQ9
R_B MD10 AK31 SBDQ10
R_B MD11 AG30 SBDQ11
R_B MD12 AG34 SBDQ12
R_B MD13 AG33 SBDQ13
R_B MD14 AH31 SBDQ14
R_B MD15 AJ31 SBDQ15
R_B MD16 AK30 SBDQ16
R_B MD17 AJ30 SBDQ17
R_B MD18 AH29 SBDQ18
R_B MD19 AH28 SBDQ19
R_B MD20 AK29 SBDQ20
R_B MD21 AH30 SBDQ21
R_B MD22 AH27 SBDQ22
R_B MD23 AG28 SBDQ23
R_B MD24 AE24 SBDQ24
R_B MD25 AG23 SBDQ25
R_B MD26 AJ22 SBDQ26
R_B MD27 AK22 SBDQ27
R_B MD28 AH24 SBDQ28
R_B MD29 AH23 SBDQ29
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R_B MD33 AG9 SBDQ33
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R_B MD35 AHR SBDQ35
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R_B MD38 AJ9 SBDQ38
R_B MD39 AK9 SBDQ39
R_B MD40 AJ7 SBDQ40
R_B MD41 AK6 SBDQ41
R_B MD42 AJ4 SBDQ42
R_B MD43 AH5 SBDQ43
R_B MD44 AK8 SBDQ44
R_B MD45 AJ8 SBDQ45
R_B MD46 AJ5 SBDQ46
R_B MD47 AK4 SBDQ47
R_B MD48 AG5 SBDQ48
R_B MD49 AG4 SBDQ49
R_B MD50 AD8 SBDQ50
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R_B MD52 AH4 SBDQ52
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R_B MD55 AD7 SBDQ55
R_B MD56 AC5 SBDQ56
R_B MD57 AB8 SBDQ57
R_B MD58 AB6 SBDQ58
R_B MD59 AA8 SBDQ59
R_B MD60 AC8 SBDQ60
R_B MD61 AC7 SBDQ61
R_B MD62 AA4 SBDQ62
R_B MD63 AA6 SBDQ63

DDR SYSTEM MEMORY B

SB_BS0# AJ15 M_B BA0 M_B_BA0 8
SB_BS1# AG17 M_B BA1 M_B_BA1 8
SB_BS2# AG21 M_B BA2 M_B_BA2 8
SB_DM0 AE32 R_B SDM0
SB_DM1 AK34 R_B SDM1
SB_DM2 AK27 R_B SDM2
SB_DM3 AK24 R_B SDM3
SB_DM4 AJ10 R_B SDM4
SB_DM5 AK5 R_B SDM5
SB_DM6 AE7 R_B SDM6
SB_DM7 AB7 R_B SDM7
SB_DQS0 AE34 R_B SM DQS0
SB_DQS1 AK32 R_B SM DQS1
SB_DQS2 AJ28 R_B SM DQS2
SB_DQS3 AK23 R_B SM DQS3
SB_DQS4 AM10 R_B SM DQS4
SB_DQS5 AH6 R_B SM DQS5
SB_DQS6 AF8 R_B SM DQS6
SB_DQS7 AB4 R_B SM DQS7
SB_DQS# AE35 R_B SM DQS#0
SB_DQS1# AK33 R_B SM DQS#1
SB_DQS2# AK28 R_B SM DQS#2
SB_DQS3# AJ23 R_B SM DQS#3
SB_DQS4# AL10 R_B SM DQS#4
SB_DQS5# AH7 R_B SM DQS#5
SB_DQS6# AE7 R_B SM DQS#6
SB_DQS7# AB5 R_B SM DQS#7
SB_MA0 AH17 M_B MA0
SB_MA1 AK17 M_B MA1
SB_MA2 AH18 M_B MA2
SB_MA3 AJ18 M_B MA3
SB_MA4 AK18 M_B MA4
SB_MA5 AJ19 M_B MA5
SB_MA6 AK19 M_B MA6
SB_MA7 AH19 M_B MA7
SB_MA8 AJ20 M_B MA8
SB_MA9 AH20 M_B MA9
SB_MA10 AJ16 M_B MA10
SB_MA11 AG18 M_B MA11
SB_MA12 AG20 M_B MA12
SB_MA13 AG15 M_B MA13
SB_CAS# AH14 M_B SCASA# M_B_SCASA# 8
SB_RAS# AK14 M_B SRASA# M_B_SRASA# 8
SB_RCVENIN# AE15 S_B RCVENIN# T167
SB_RCVENOUT# AE14 S_B RCVENOUT# T165
SB_WE# AH16 M_B BMWEA# M_B_BMWEA# 8

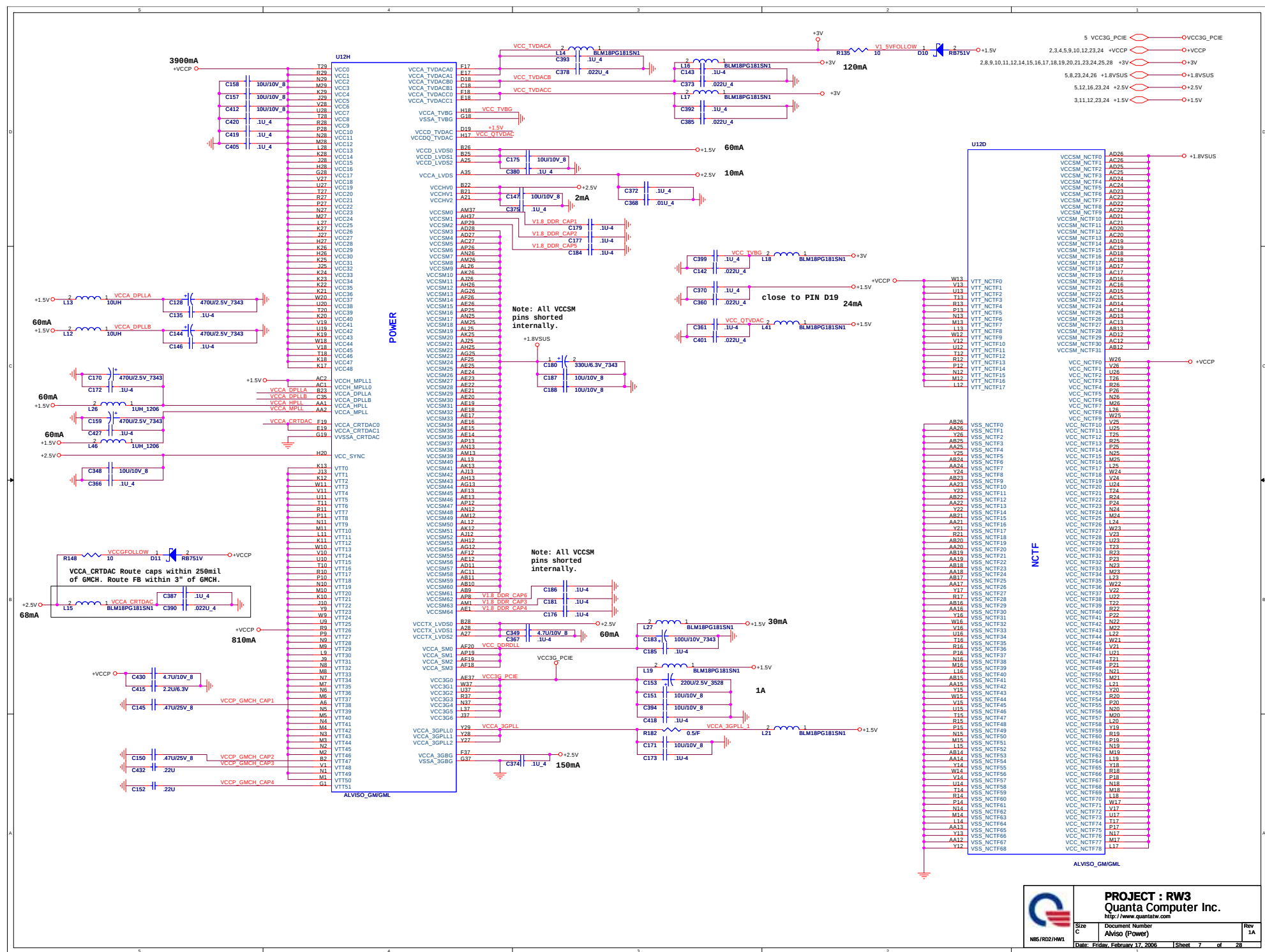
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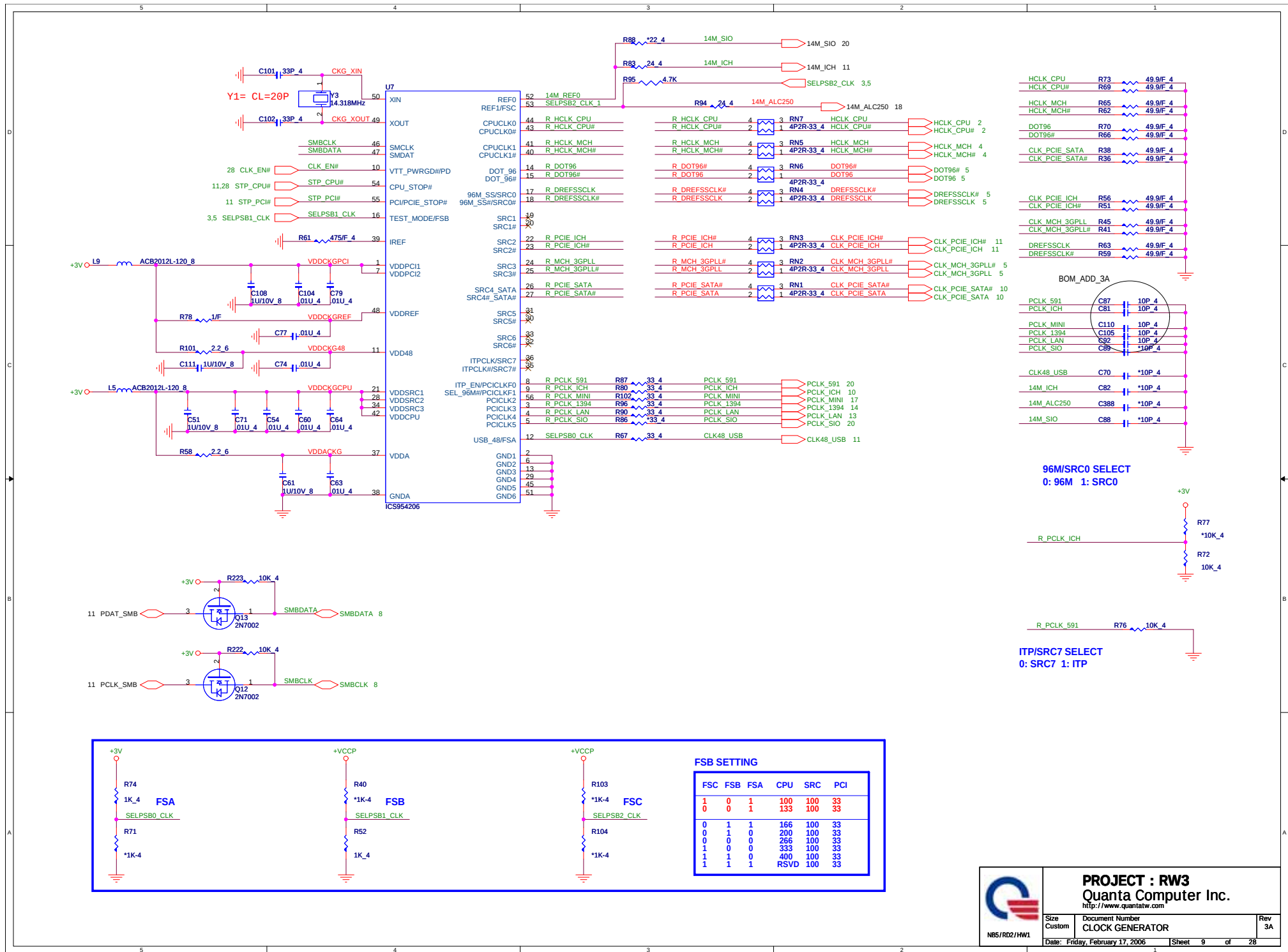


NR5/RD2/HW1

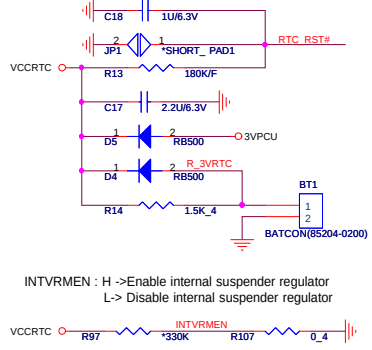
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RTC

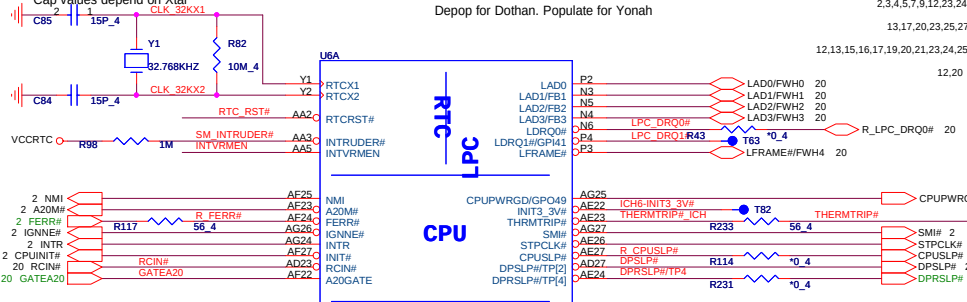


INTVRMEN : H -> Enable internal suspender regulator
L -> Disable internal suspender regulator



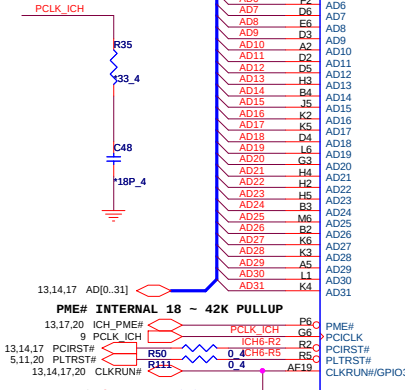
THERMTRIP# 75 pull-up to VCCP within 2" from the series resistor
CPUSLP# INSTALL FOR DOTHAN-A AND NOT INSTALL FOR DOTHAN-B

Depop for Dothan. Populate for Yonah

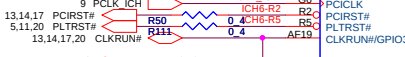


CPU

PCI

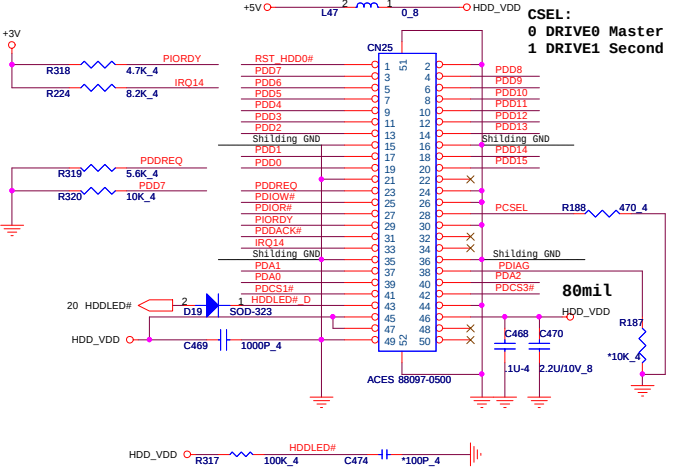


PME# INTERNAL 18 ~ 42K PULLUP



HDD CONNECTOR

80mil



CSEL:
0 DRIVE0 Master
1 DRIVE1 Second

IDE

SATA

AC-97/AZALIA

ICH6-M

AC-97/AZALIA

ICH6-M

AC-97/AZALIA

ICH6-M

AC-97/AZALIA

ICH6-M

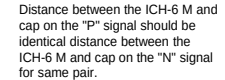
AC-97/AZALIA

ICH6-M

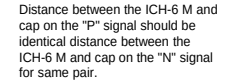
AC-97/AZALIA

ICH6-M

Distance between the ICH6-M and cap on the "P" signal should be identical distance between the ICH6-M and cap on the "N" signal for same pair.

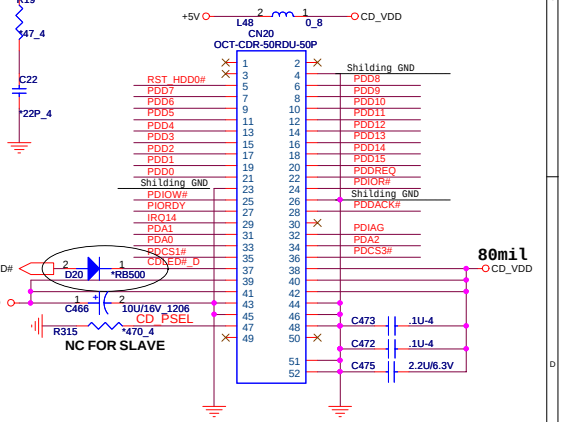


RE00 : LAN
RE01 : MINI PCI
RE02 : 1394



CD-ROM CONNECTOR

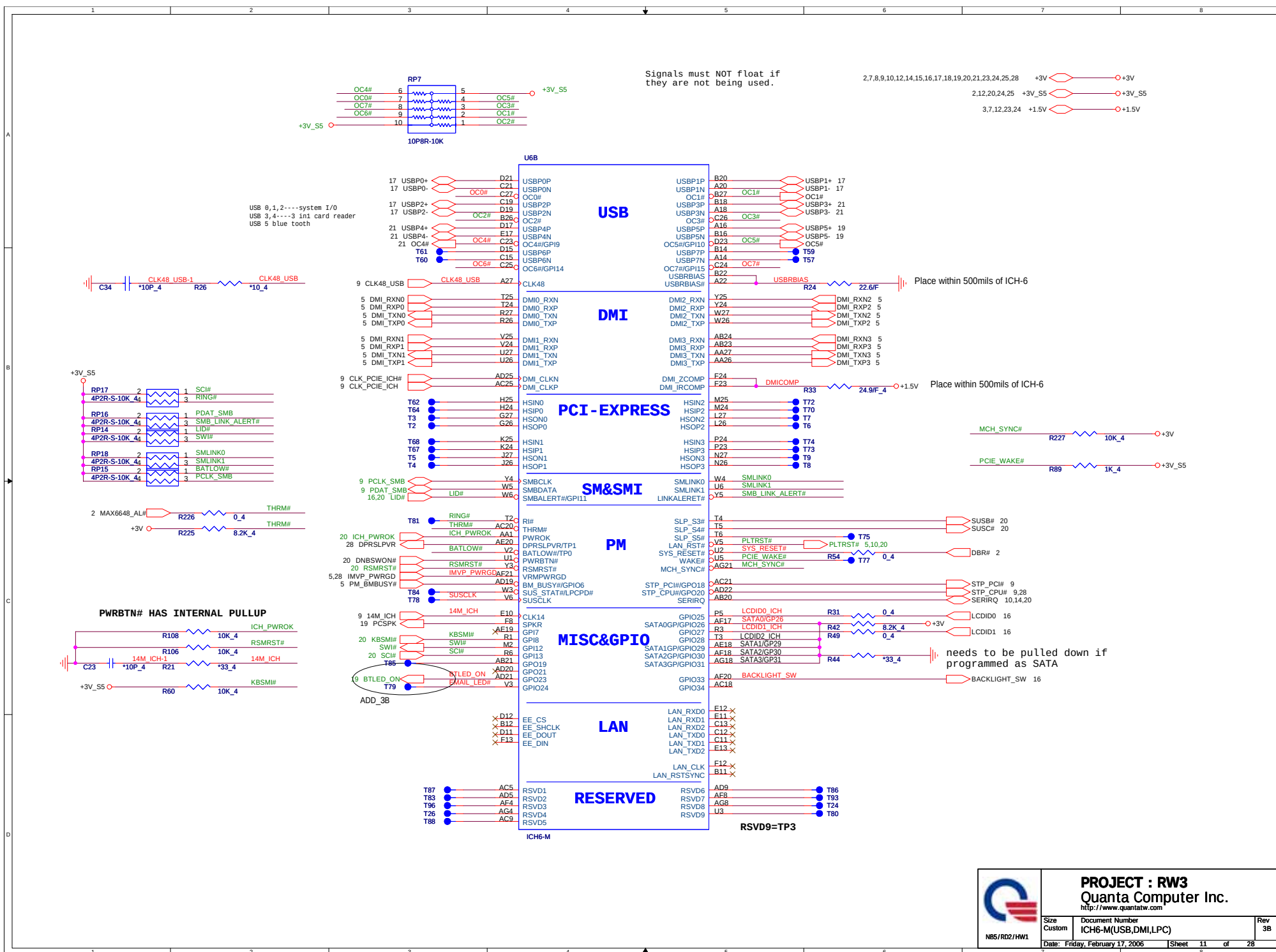
80mil



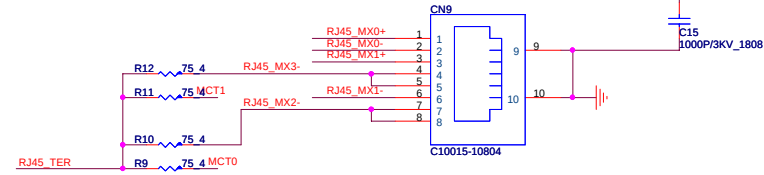
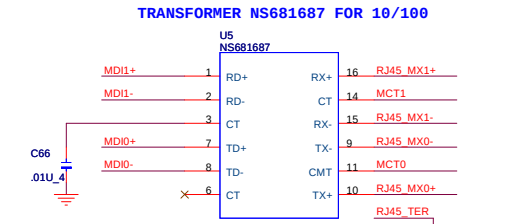
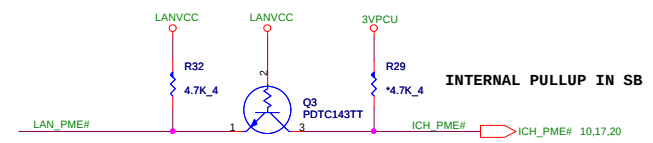
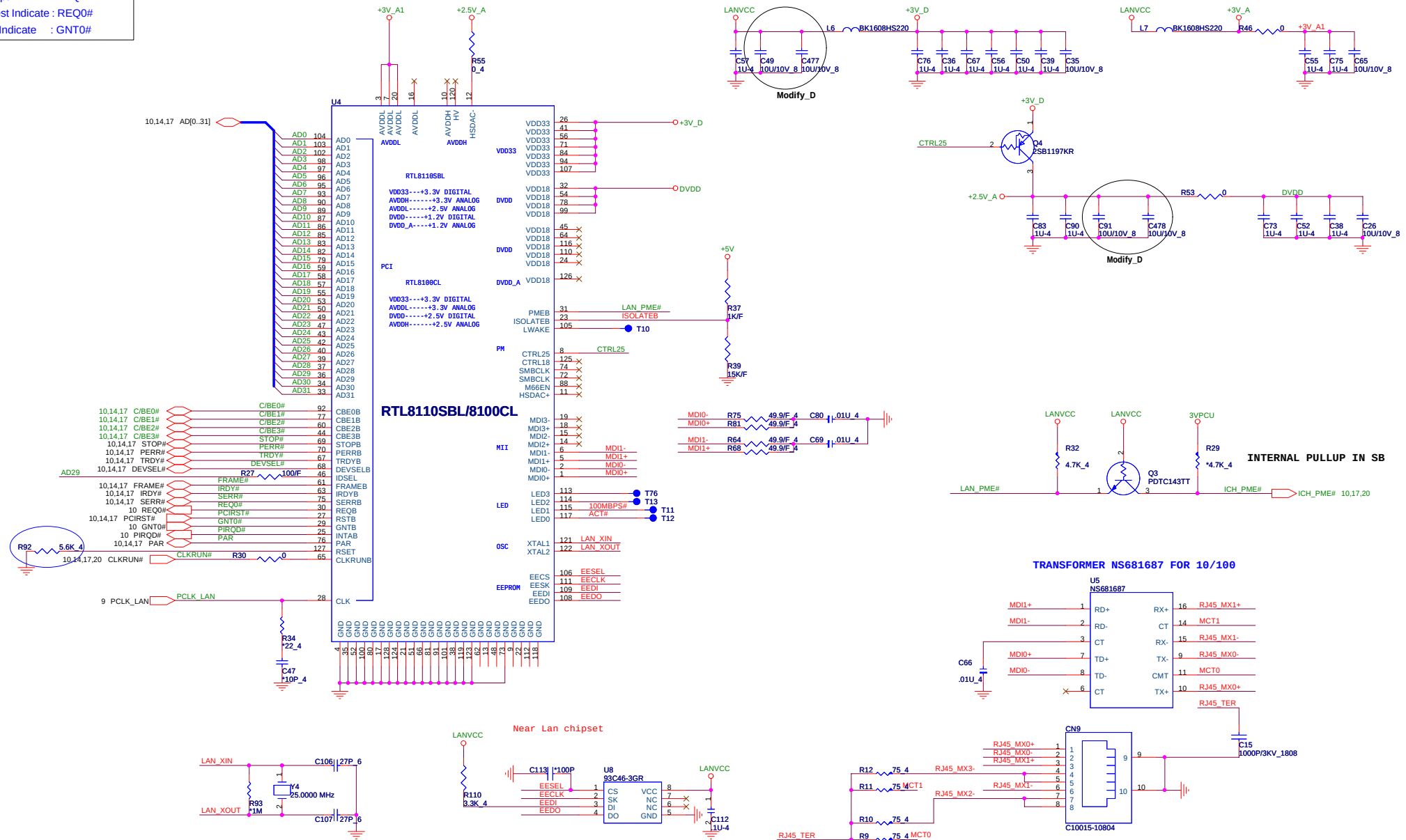
PROJECT : RW3

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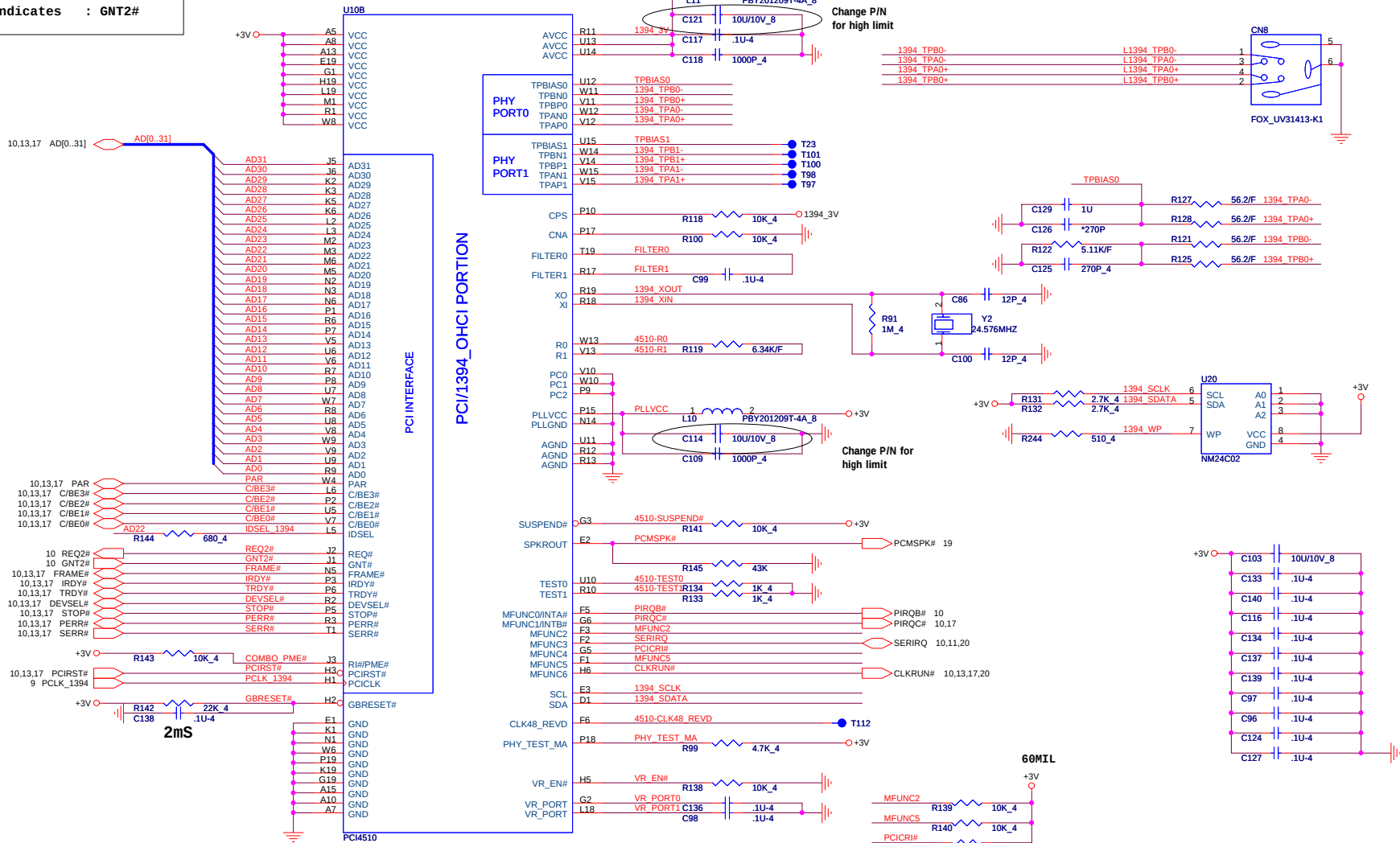


ID Select : AD29
Interrupt Pin :PIRQD#
Request Indicate : REQ0#
Grant Indicate : GNT0#

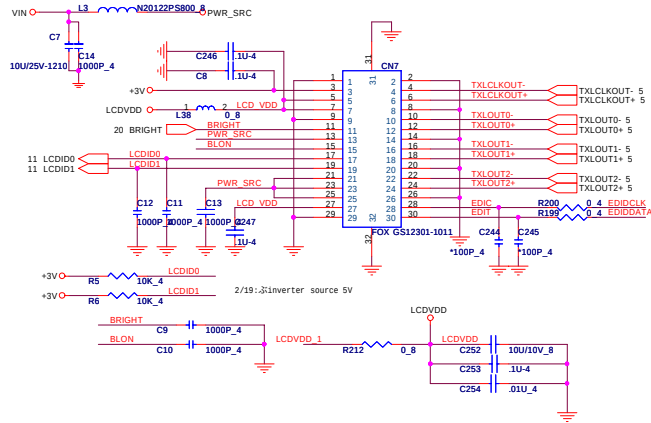


ID Select : AD22
Interrupt Pin : PIRQ B,C#
Request indicates : REQ2#
Grant indicates : GNT2#

CARDBUS/1394

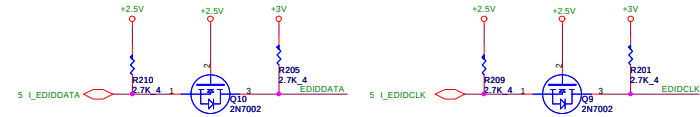
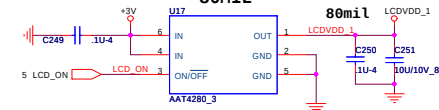


PANEL CONNECTOR

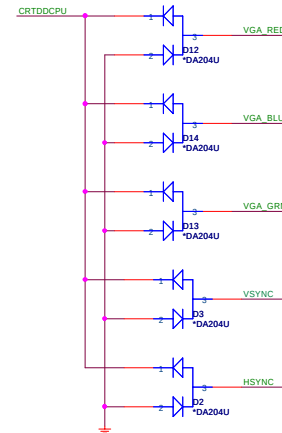
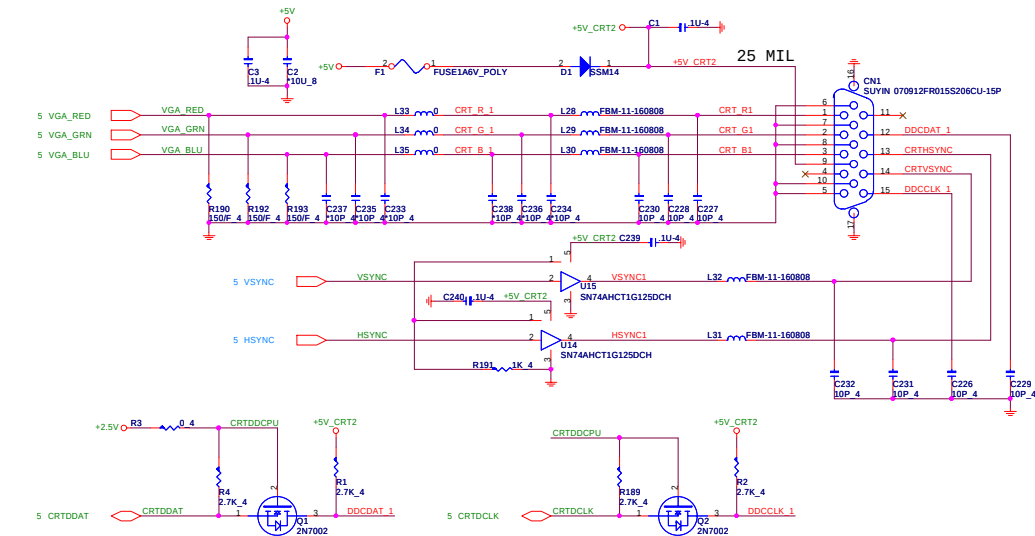


PANEL VCC CONTROL

TRACE 80MIL



CRT CONNECTOR



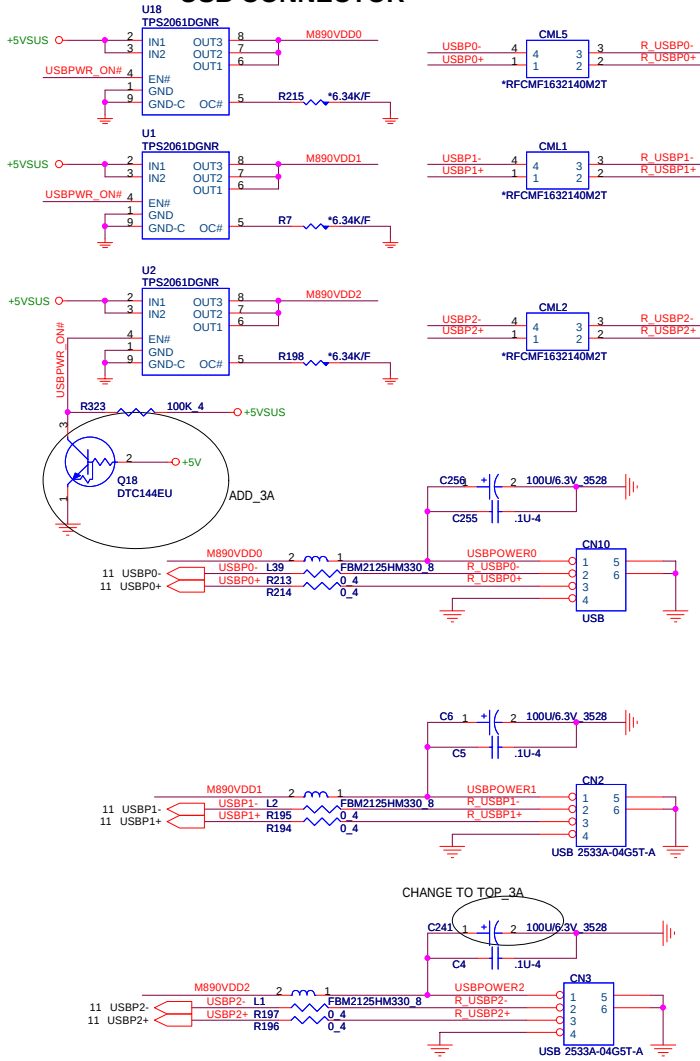
24,25,26,27,28 VIN
2,7,8,9,10,11,12,14,15,17,18,19,20,21,23,24,25,28 +3V
10,12,13,15,17,19,20,21,23,24,25,26 +5V
17,19,20,24,25 +3VSUS



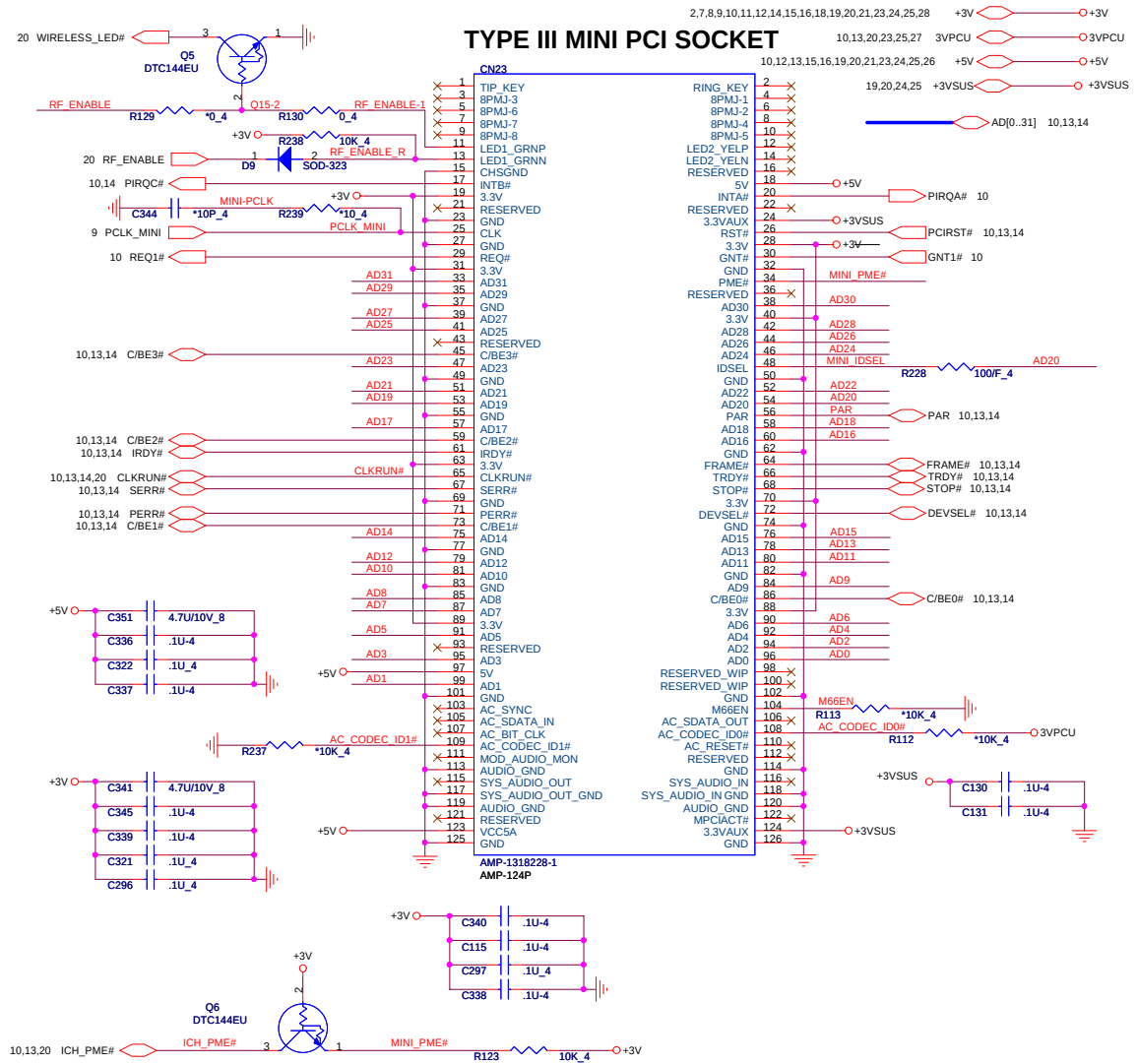
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USB CONNECTOR



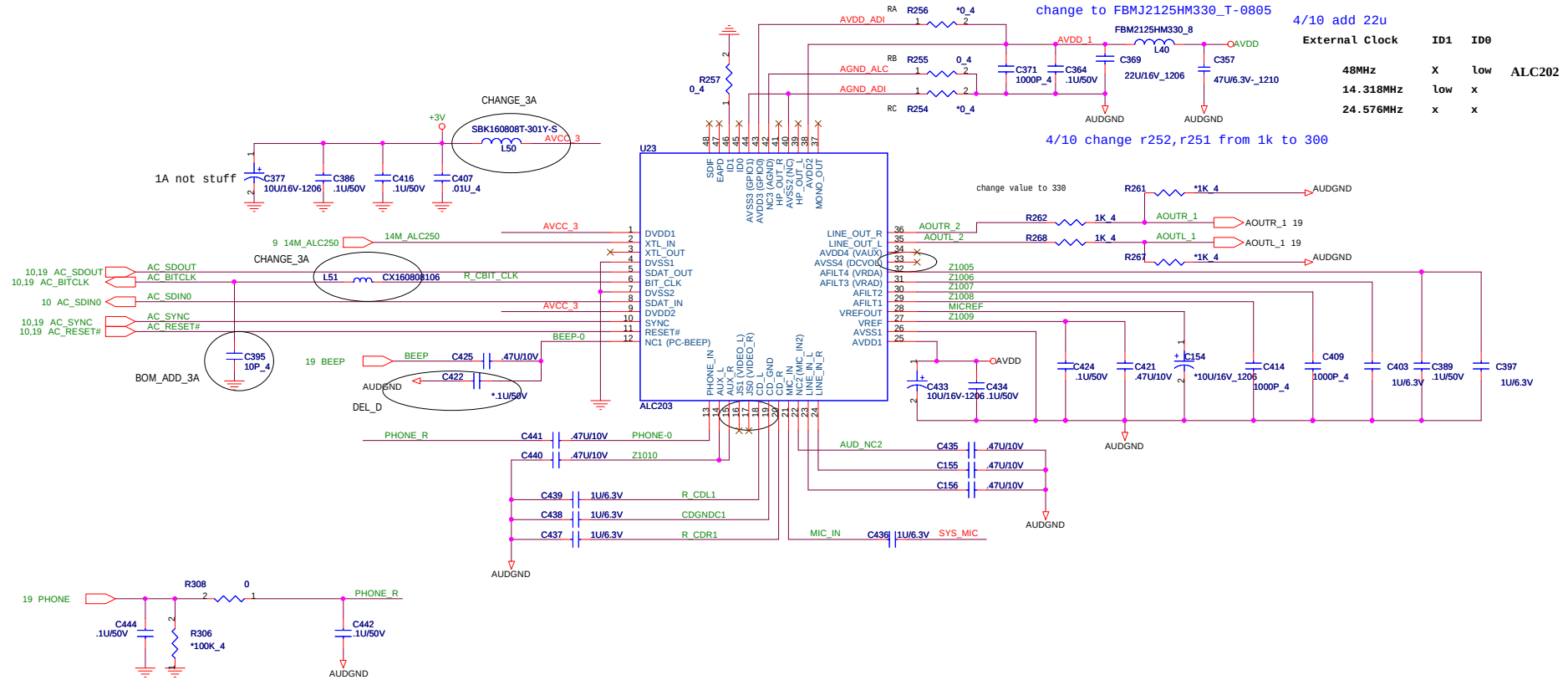
TYPE III MINI PCI SOCKET



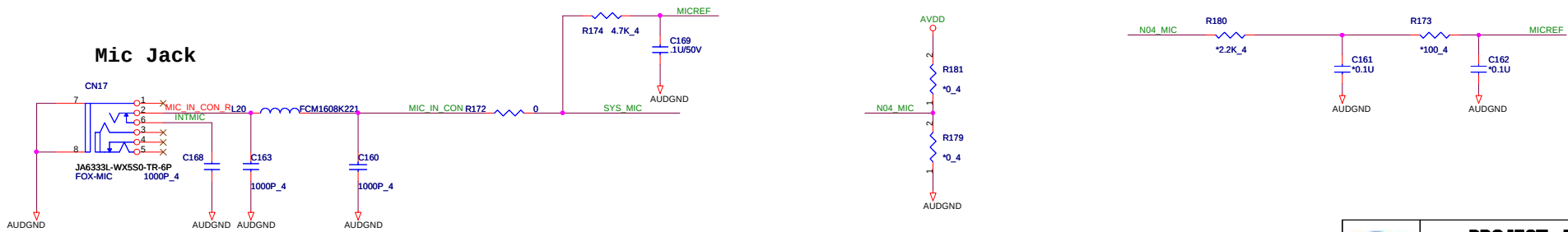
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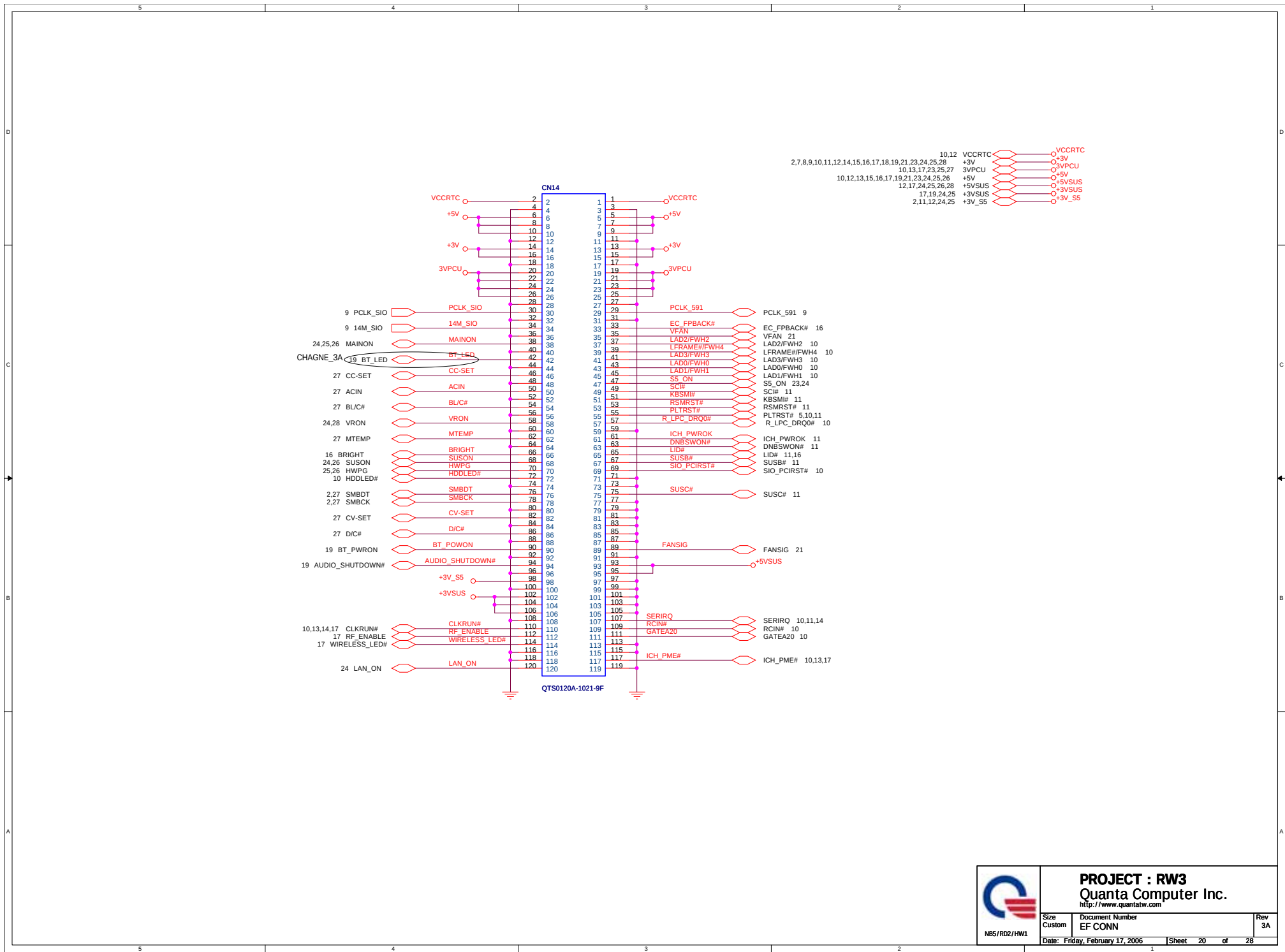
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AC97 CODEC



Mic Jack





NBS/RD2/HW1

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FAN CONTROL

20 FANSIG

3 IN 1 CONNECTOR

25 +12V

2,7,8,9,10,11,12,14,15,16,17,18,19,20,23,24,25,28 +3V

10,12,13,15,16,17,19,20,23,24,25,26 +5V

14 USBP3+ USBP3+ 11

13 USBP3- USBP3- 11

12 USBP4+ USBP4+ 11

11 USBP4- USBP4- 11

10

9

8

7

6

5

4

3

2

1

OC4#

5V

3V

12V

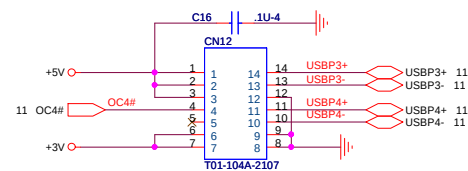
C16 .1U-4

CN12

C19 .01U-4

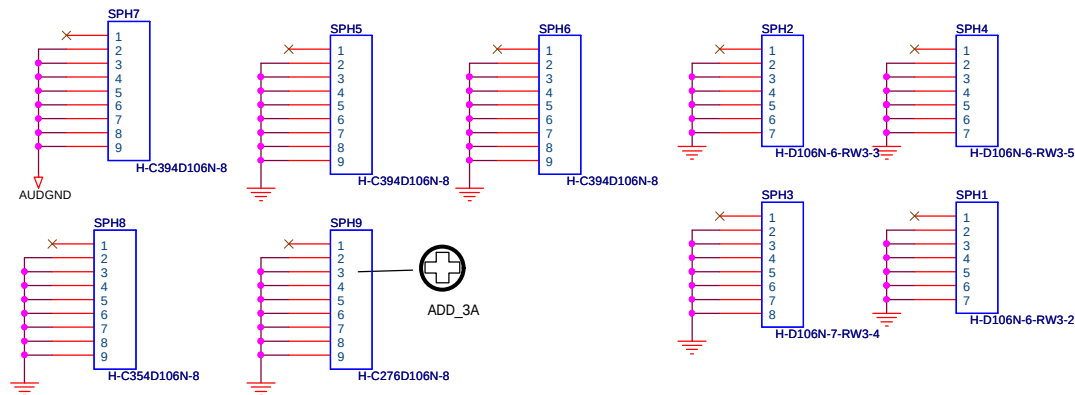
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T01-104A-2107

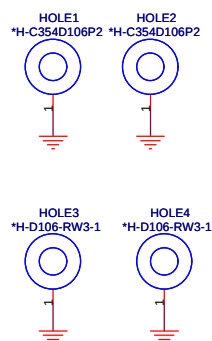


10,13,17,20,23,25,27 3VPCU  3VPCU
2,7,8,9,10,11,12,14,15,16,17,18,19,20,21,23,24,25,28 +3V  +3V

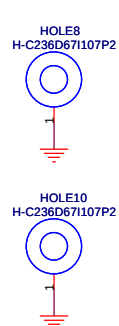
LED	COLOR	SWITCH
POWER	GREEN & RED	POWER
BATTERY	GREEN & RED	MAIL
CAPS	GREEN	INTERNAL
NUM	GREEN	WIRELESS
SCROLL	GREEN	
HDD & CDROM	GREEN	
WIRELESS	GREEN	



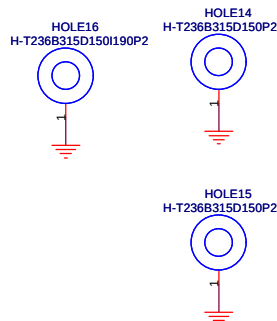
SCREW



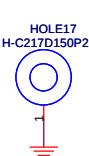
EC board



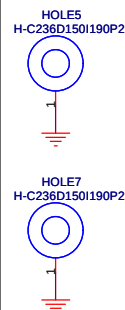
PCB HOLD



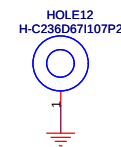
HDD



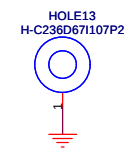
3 IN1



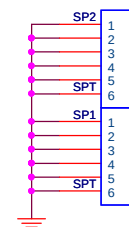
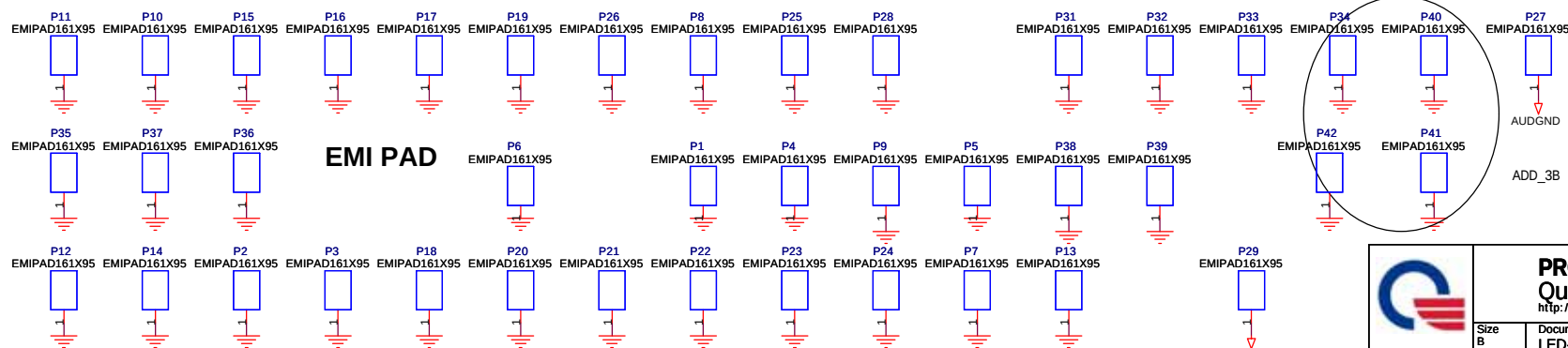
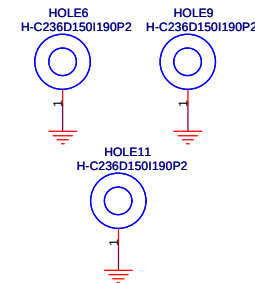
NB



MODEM

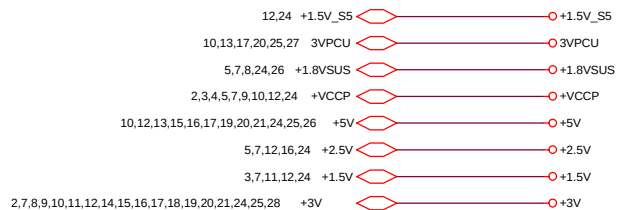
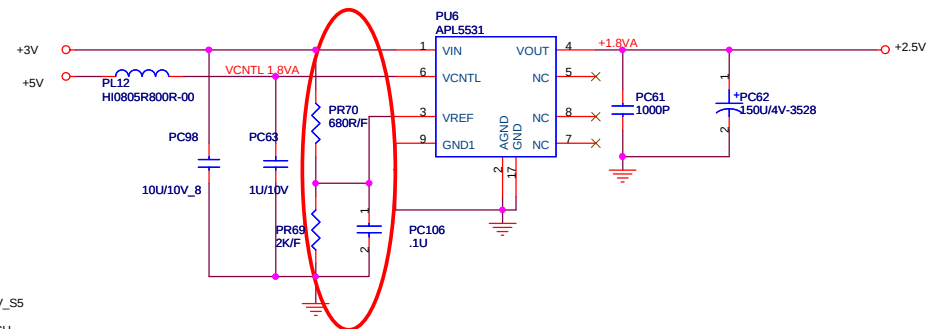
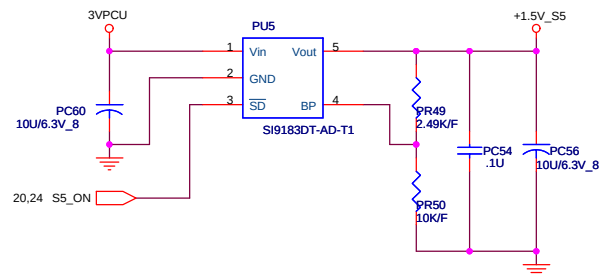
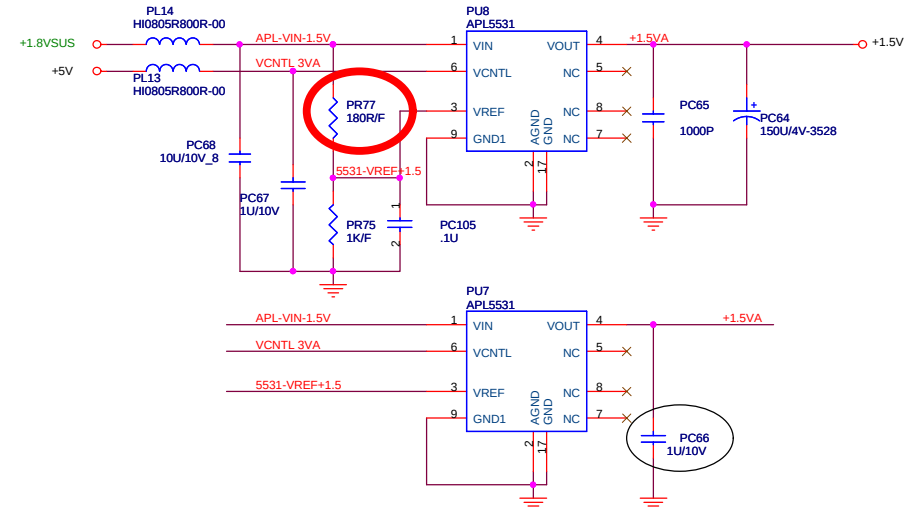
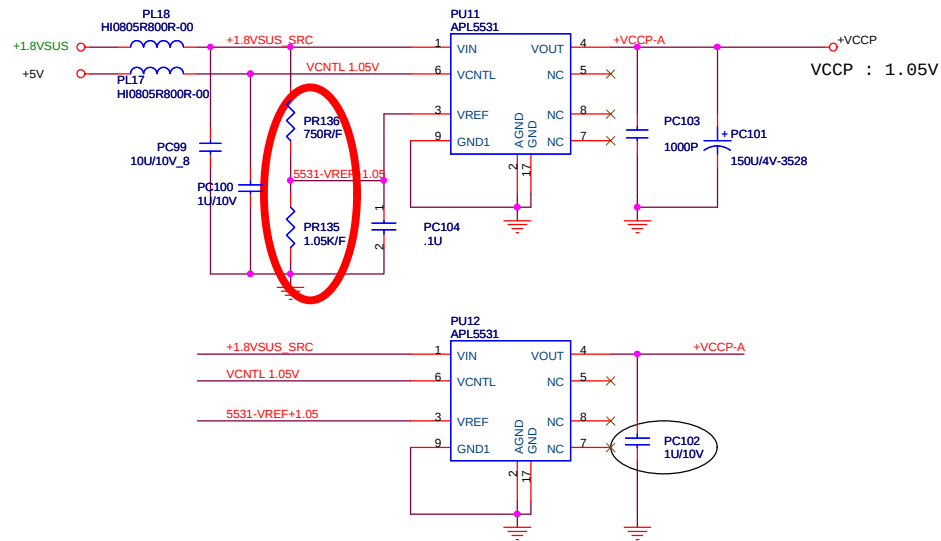


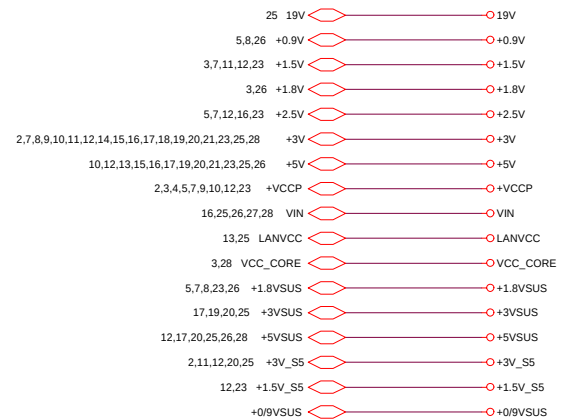
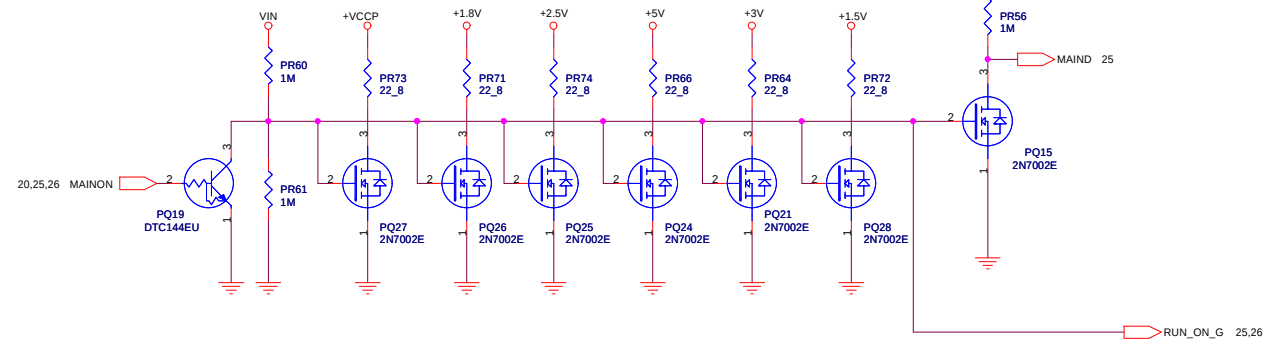
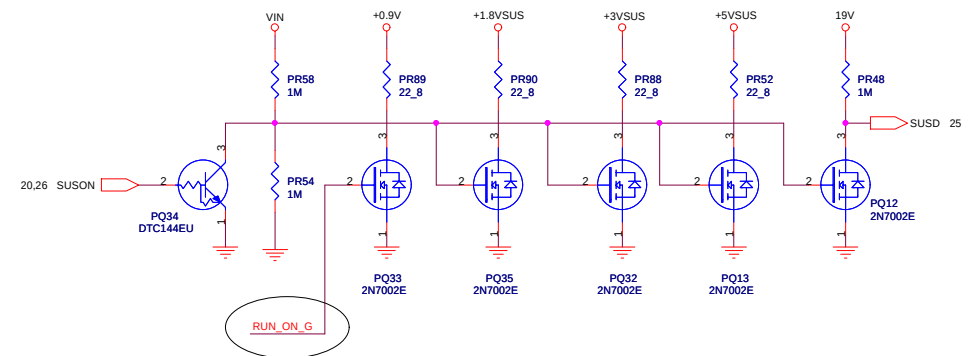
CPU

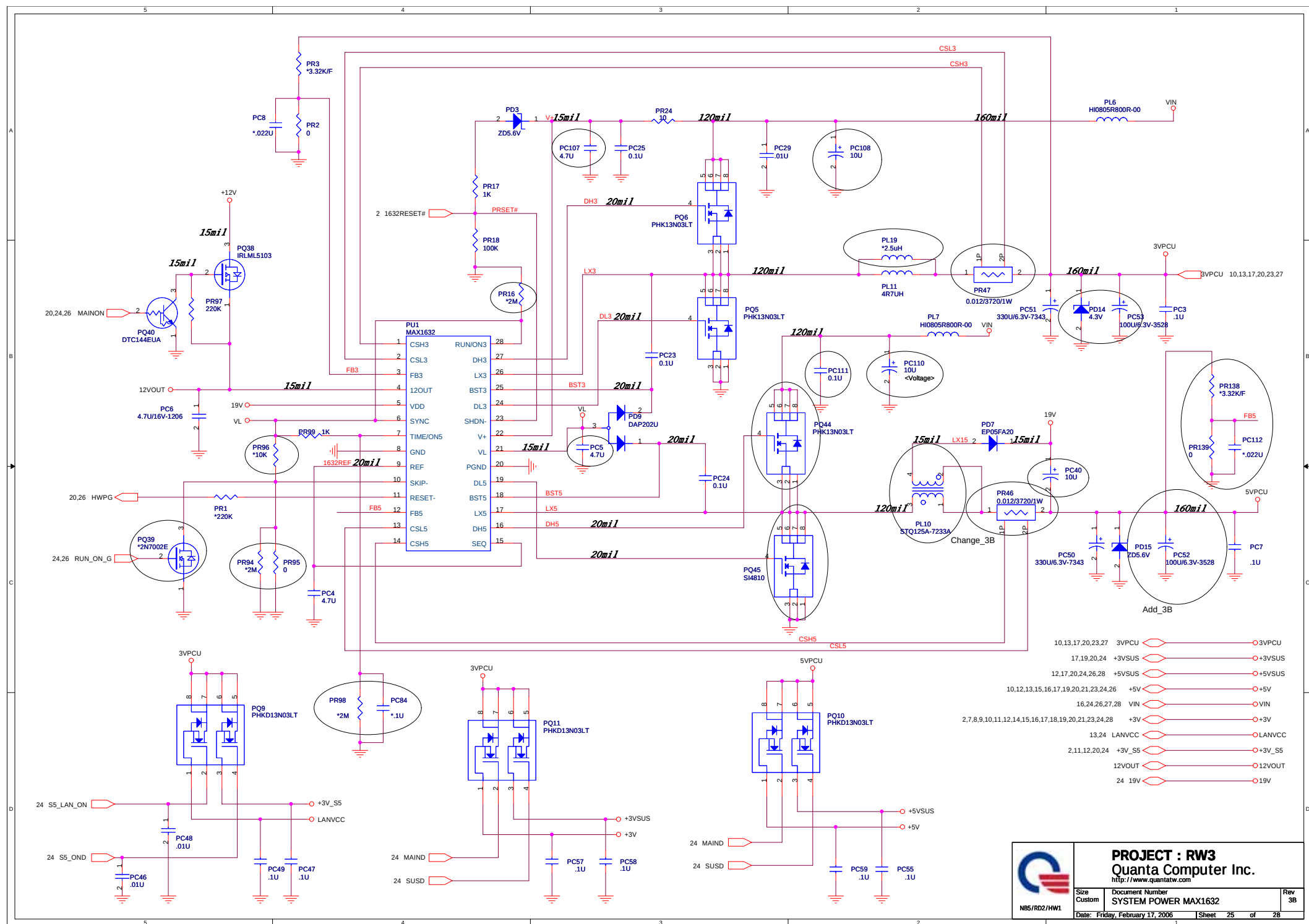


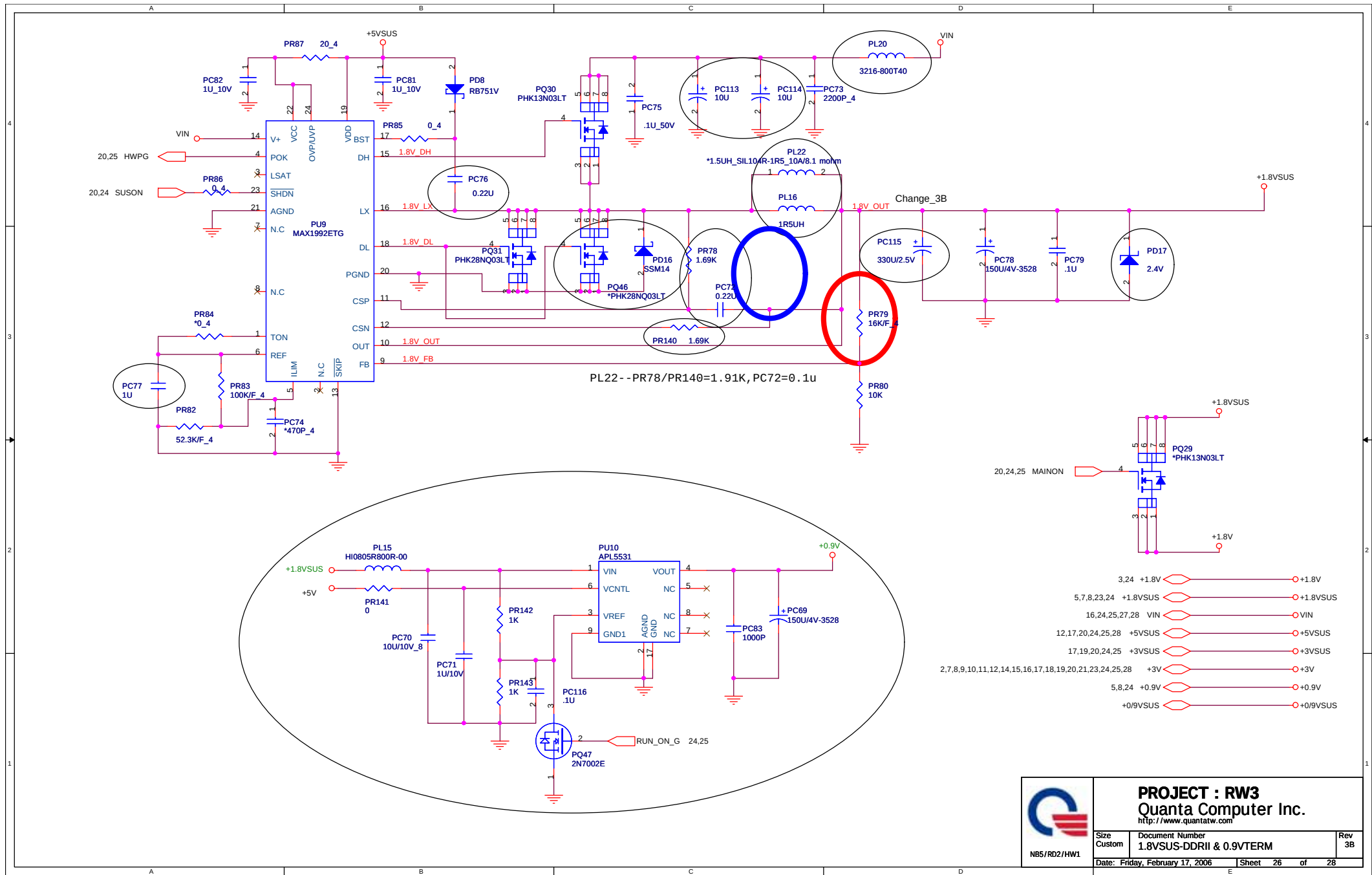
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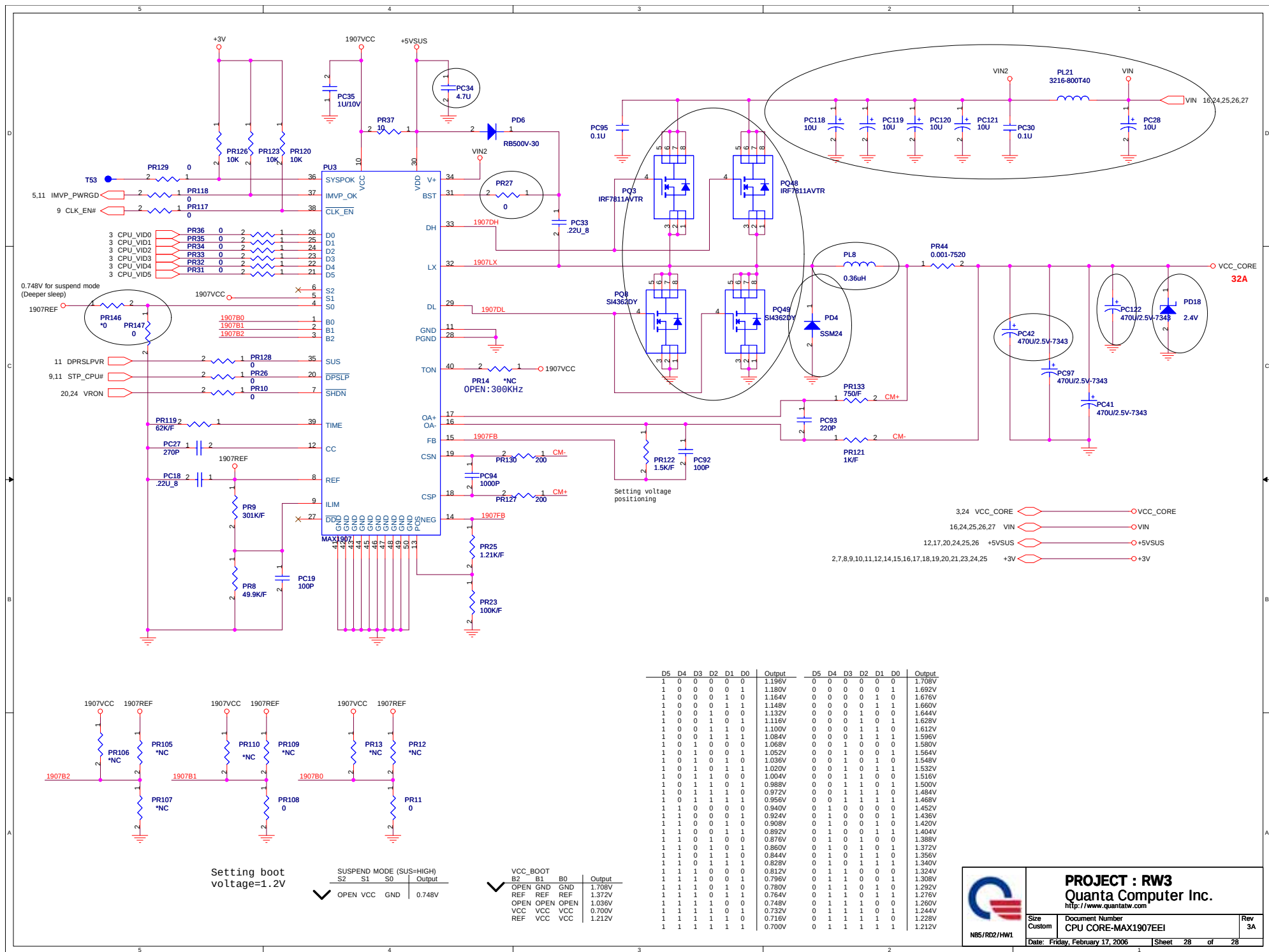
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