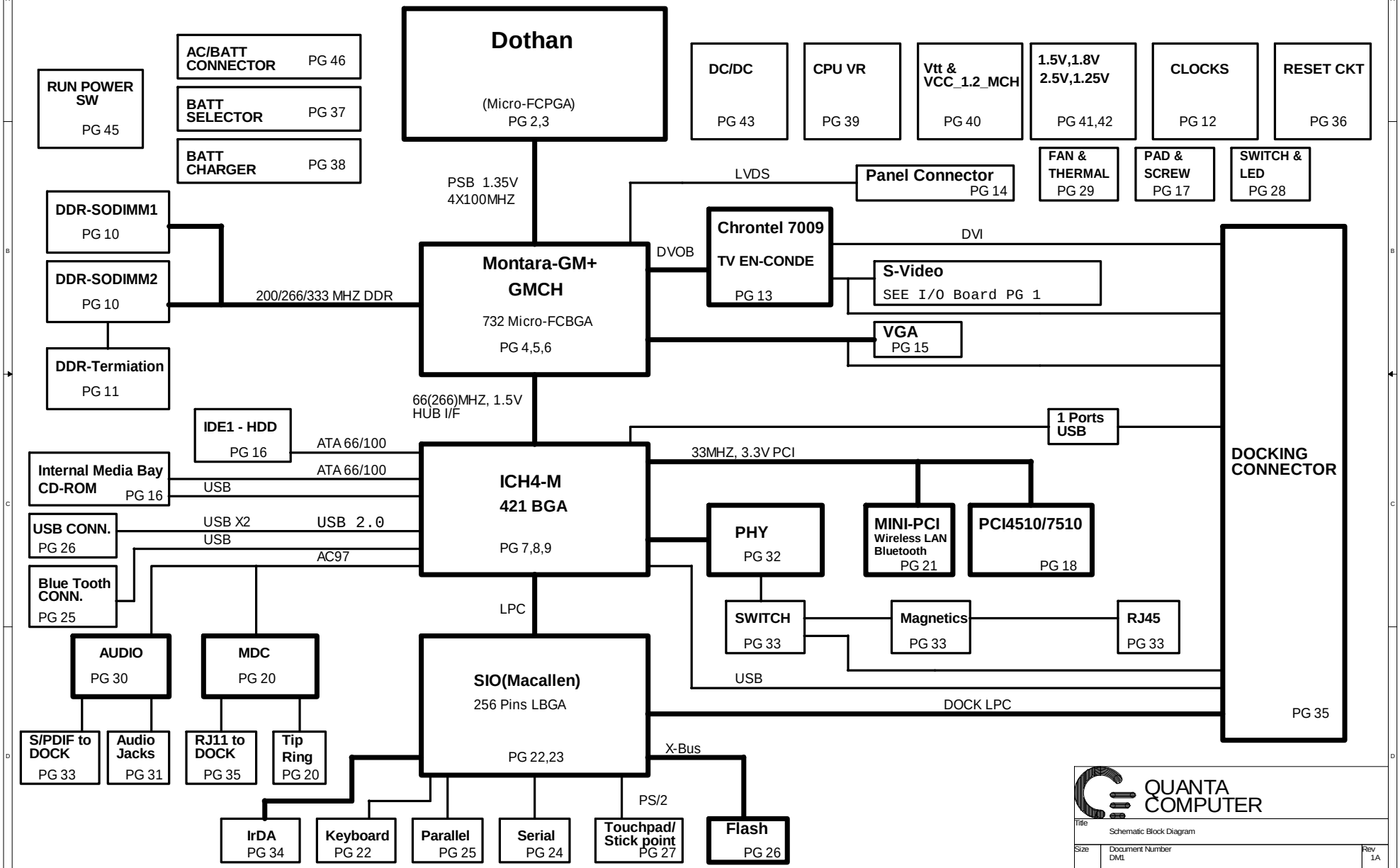
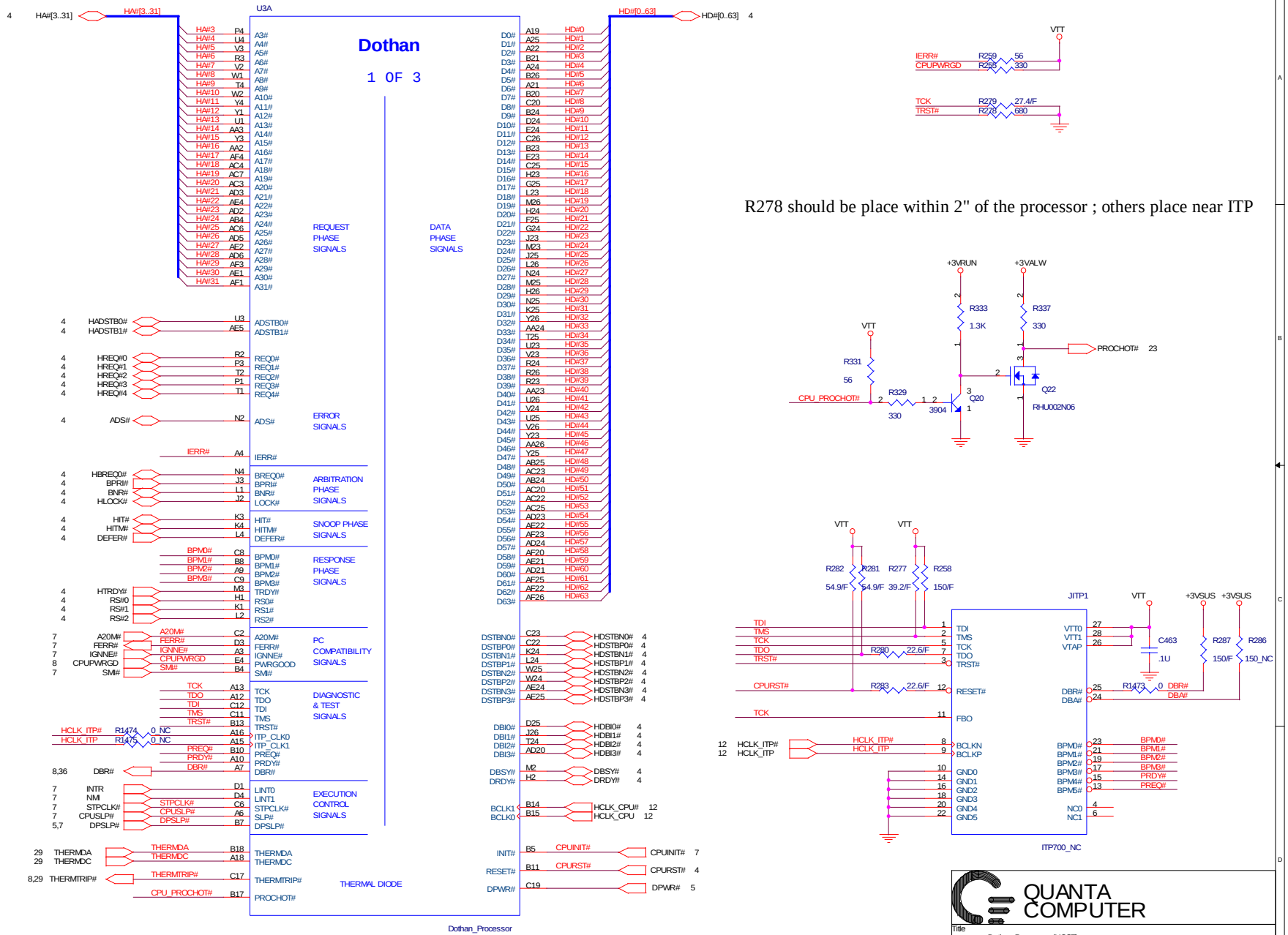
DM1

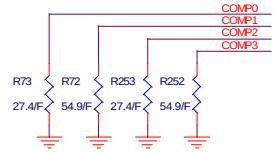


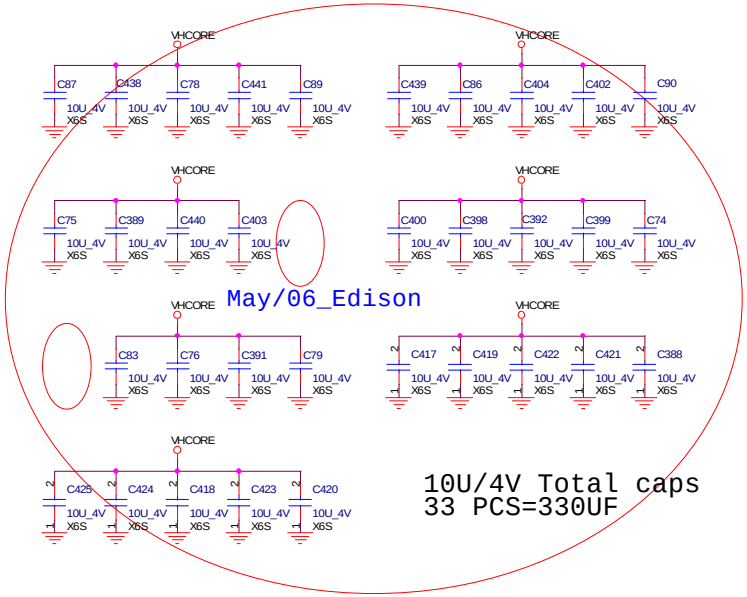
QUANTA COMPUTER

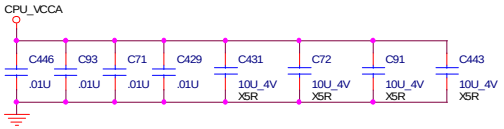
Title	Schematic Block Diagram	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 1 of 46	

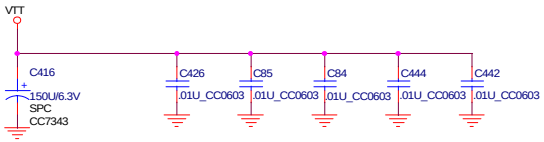

U3A
Dothan
1 OF 3
REQUEST PHASE SIGNALS
DATA PHASE SIGNALS
ERROR SIGNALS
ARBITRATION PHASE SIGNALS
SNOOP PHASE SIGNALS
RESPONSE PHASE SIGNALS
PC COMPATIBILITY SIGNALS
DIAGNOSTIC & TEST SIGNALS
EXECUTION CONTROL SIGNALS
THERMAL DIODE
Dothan_Processor
R278 should be place within 2" of the processor ; others place near ITP
ITP700_NC
QUANTA COMPUTER
Title
Dothan Processor (HOST)
Size
Document Number
DM1
Rev
1A
Date: Friday, July 18, 2003
Sheet 2 of 46

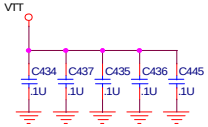
These 4 Resistors need to place with 0.5" of CPU.
Comp0,2 trace need to be zo=27.4 ohm,
comp1,3 traces need to be zo=55 ohm.

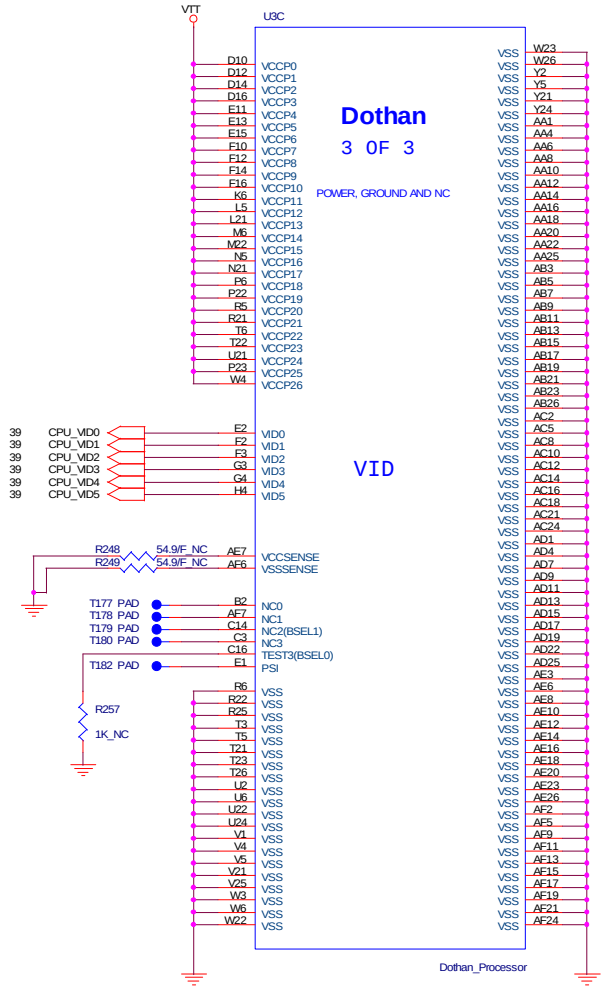






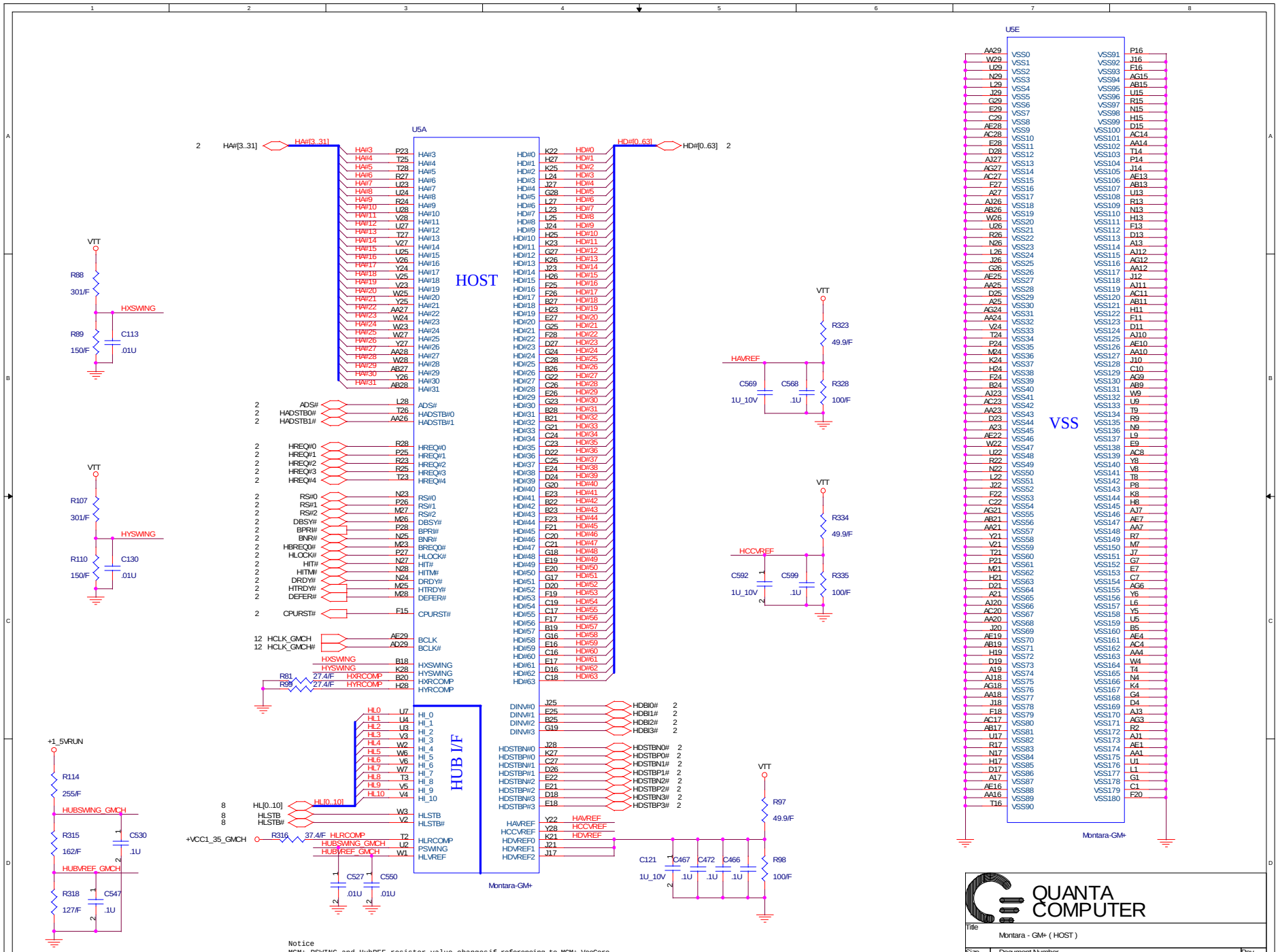


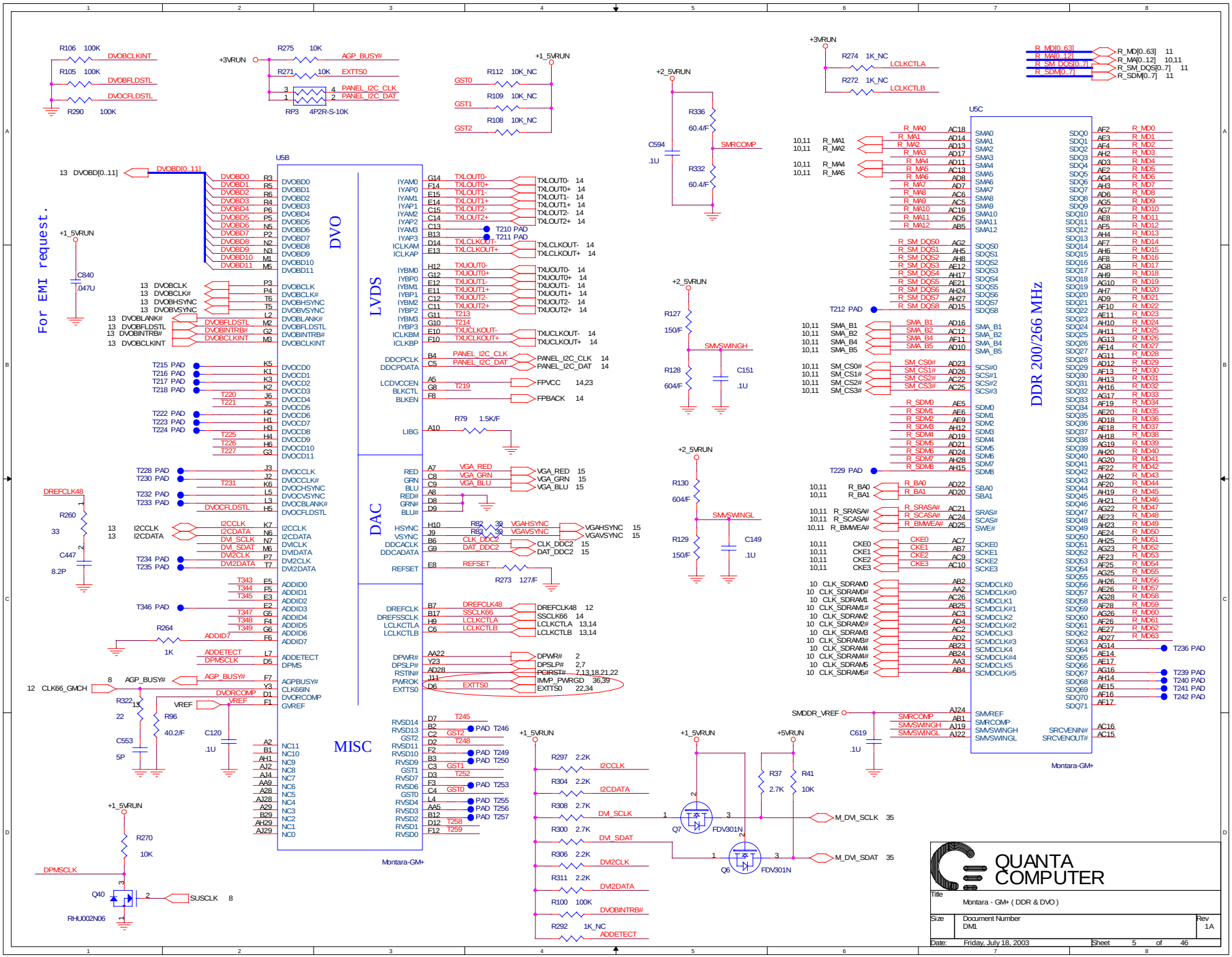




QUANTA COMPUTER

Title	Dothan Processor (POWER)	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 3 of 46	


U5A
HOST
HA#[3..31]
HD#[0..63]
HXSWING
HYSWING
HXRCOMP
HYRCOMP
HUB I/F
HL[0..10]
HLSTB
HLSTB#
HLRCOMP
PSWING
HLVREF
Montara-GM+
U5E
VSS
Montara-GM+
VTT
R88
301/F
R89
150/F
C113
.01U
R107
301/F
R110
150/F
C130
.01U
R114
255/F
R315
162/F
C530
.1U
R318
127/F
C547
.1U
+1_5VRUN
+VCC1_35_GMCH
R316
37.4/F
HUBSWING_GMCH
HUBVREF_GMCH
C527
.01U
C550
.01U
R81
27.4/F
R82
27.4/F
HAVREF
HCCVREF
HDVREF
R323
49.9/F
R328
100/F
C569
1U_10V
C568
.1U
R334
49.9/F
R335
100/F
C592
1U_10V
C599
.1U
R97
49.9/F
R98
100/F
C121
1U_10V
C467
.1U
C472
.1U
C466
.1U
Keep with 50 mil
Notice
MGM+ PSWING and HubREF resistor value changesif referencing to MGM+ VccCore
MGM+ Hub RCOMP resistor needs to chang from 27.4ohm to 37.4ohm
QUANTA COMPUTER
Title
Montara - GM+ (HOST)
Size
Document Number
DM1
Rev
1A
Date: Friday, July 18, 2003
Sheet 4 of 46


For EMI request.
DVO
LVDS
DAC
MISC
U5B
U5C
DDR 200/266 MHz
Montara-GM+
QUANTA COMPUTER
Title
Montara - GM+ (DDR & DVO)
Size
Document Number
DM1
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1A
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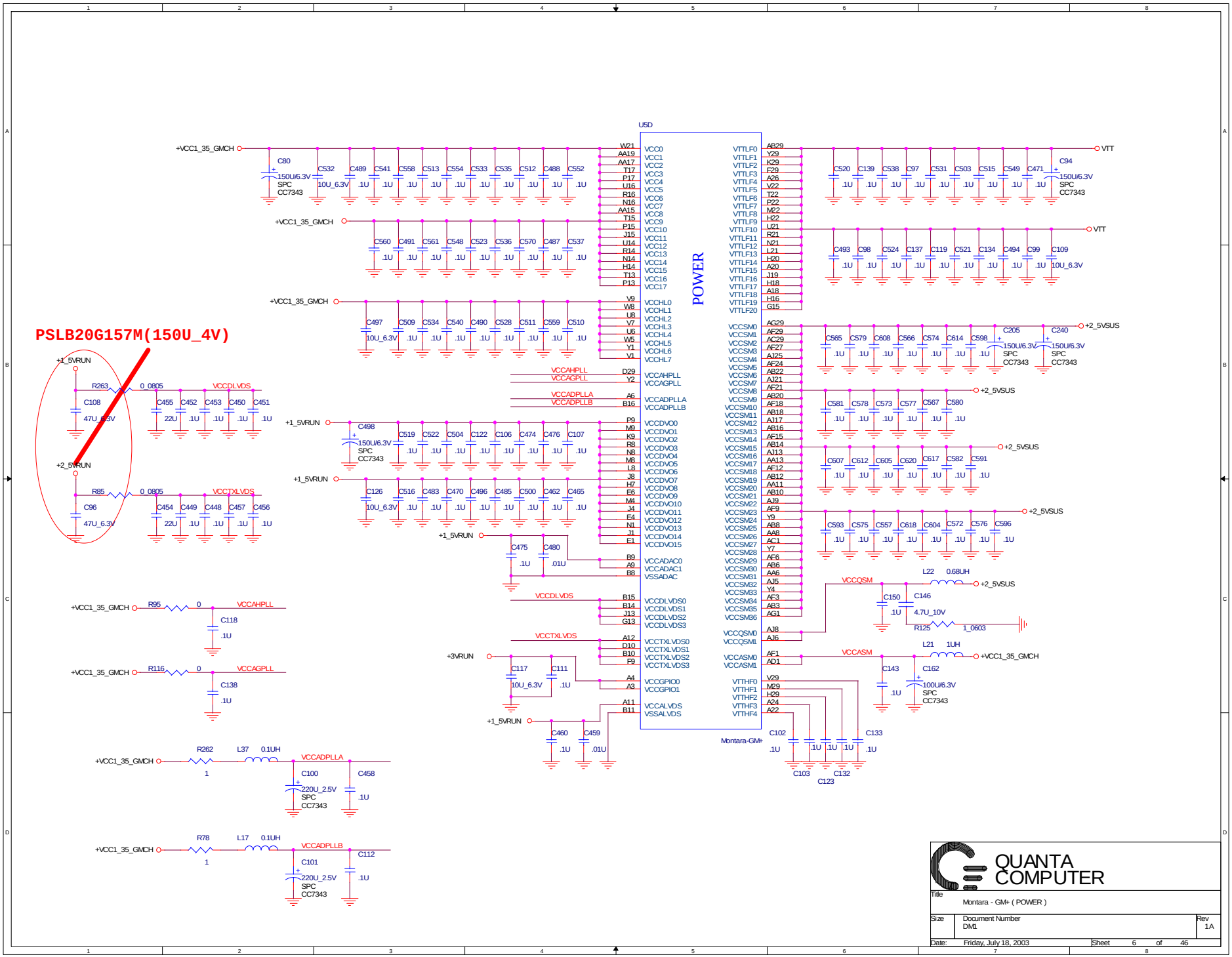
U5D
POWER
PSLB20G157M(150U_4V)
+1_5VRUN
+2_5VRUN
VCCDLVDS
VCCTXLVDS
VCCAHPLL
VCCAGPLL
VCCADPLLA
VCCADPLLB
+VCC1_35_GMCH
+3VRUN
VTT
+2_5VSUS
VCCQSM
VCCASM
+VCC1_35_GMCH
Montara-GM+
QUANTA COMPUTER
Title
Montara - GM+ (POWER)
Size
Document Number
DM1
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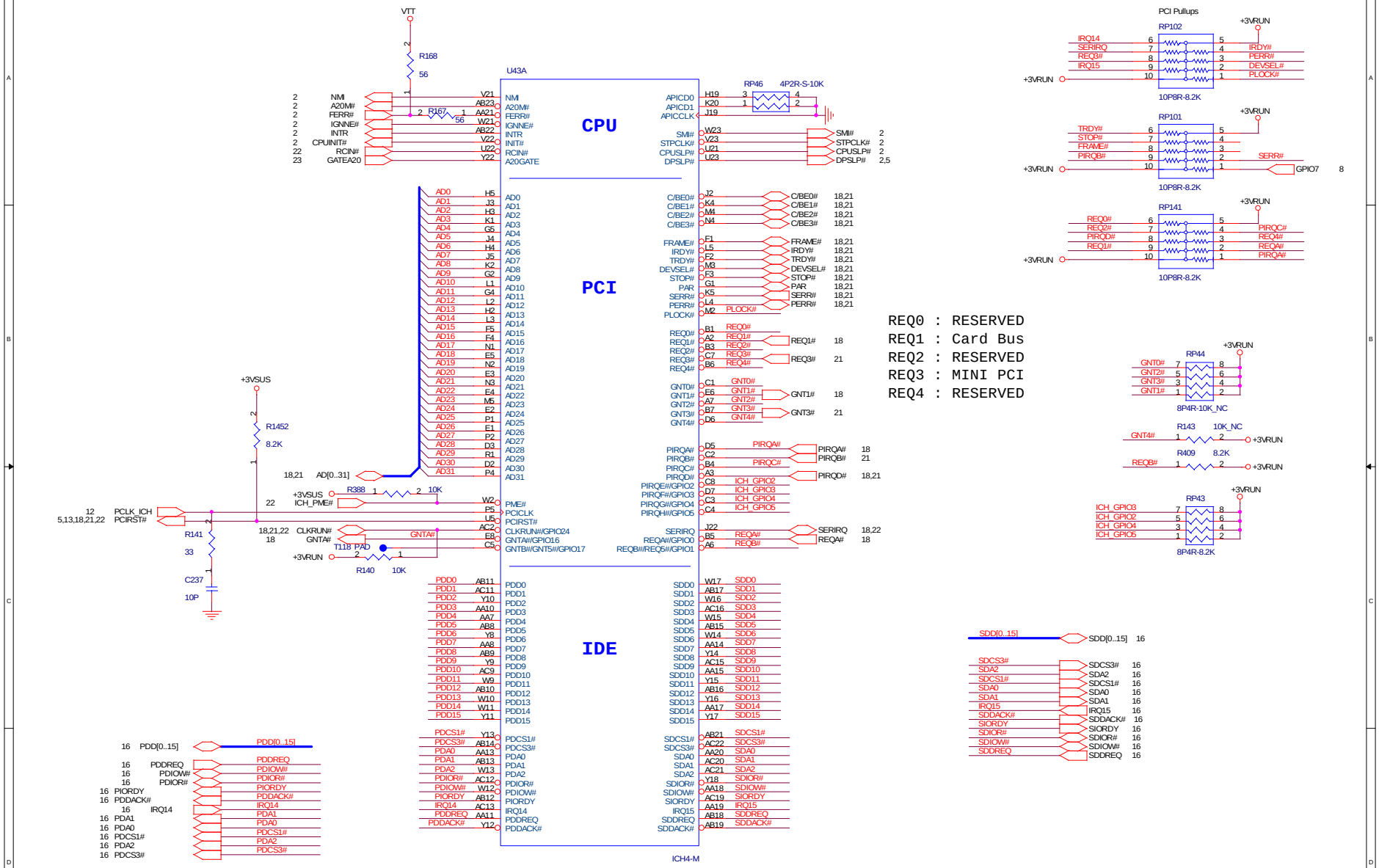
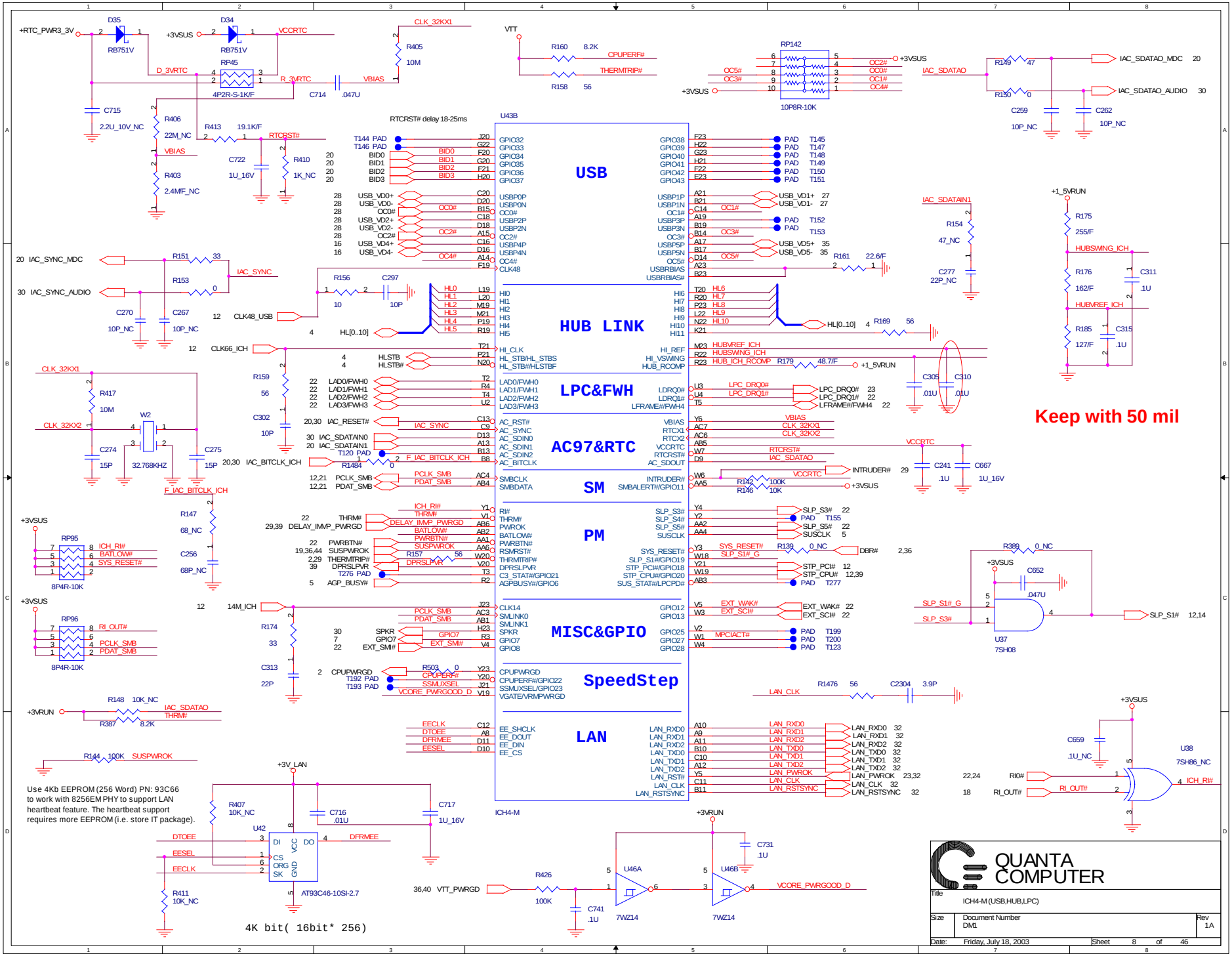
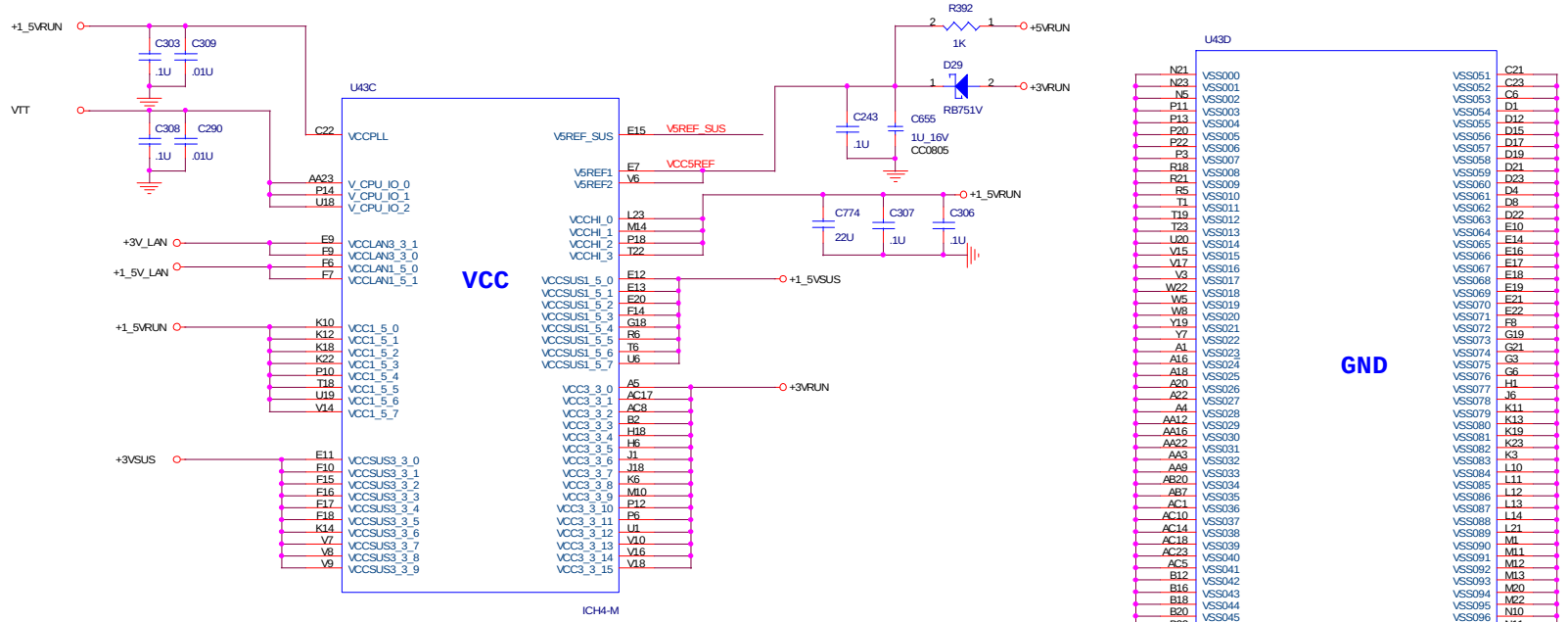
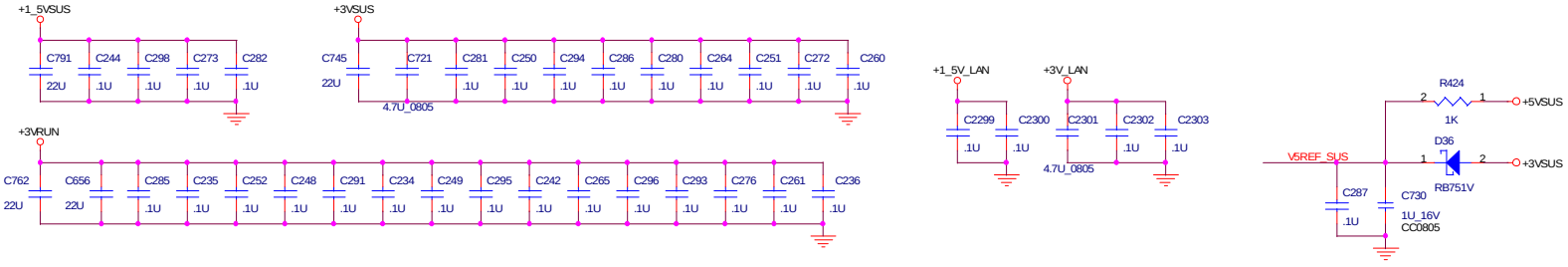
1A
Date: Friday, July 18, 2003
Sheet 6 of 46



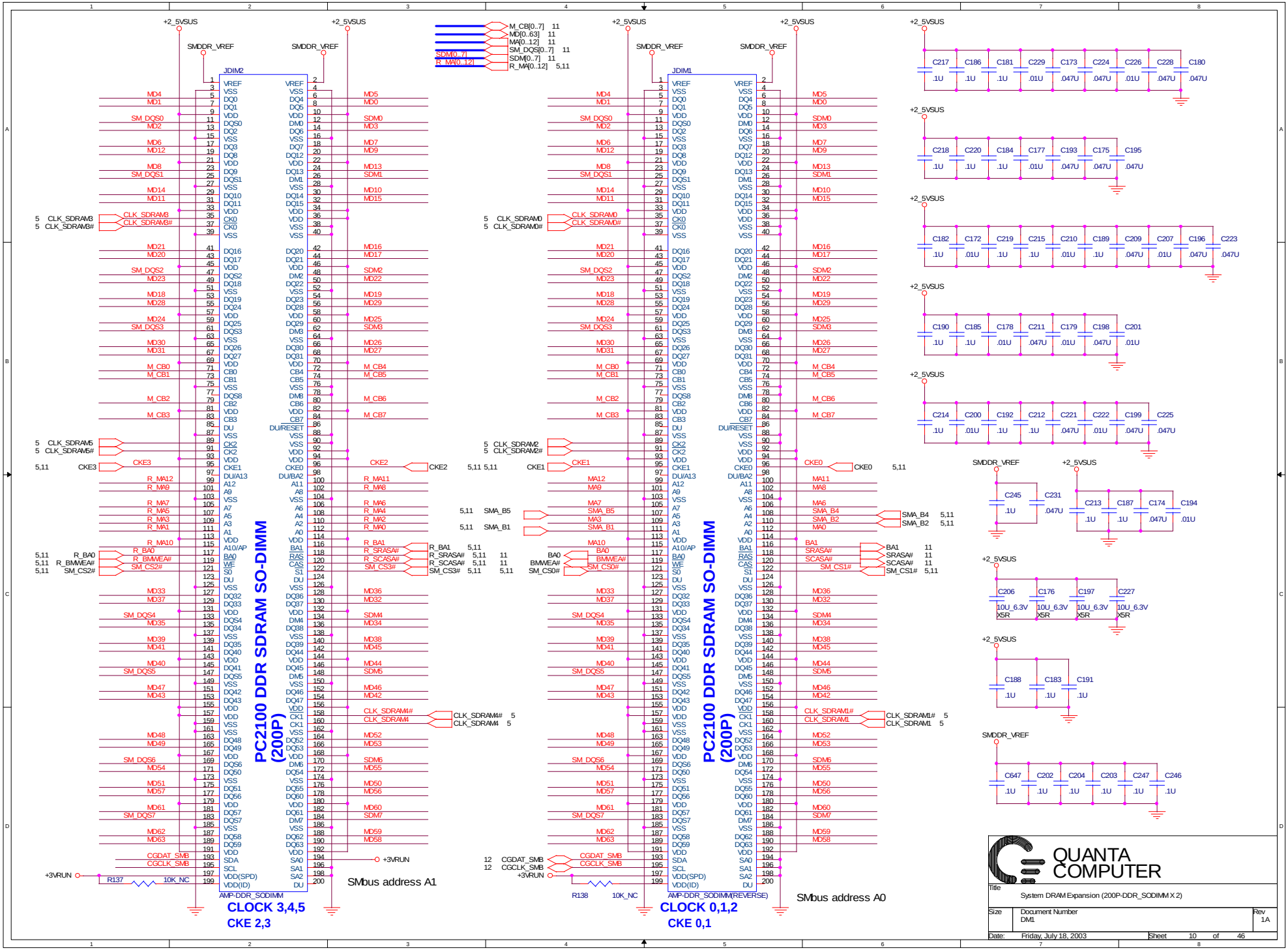
QUANTA COMPUTER		
Title	ICH4-M (CPU,PCI,IDE)	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 7 of 46	


USB
HUB LINK
LPC&FWH
AC97&RTC
SM
PM
MISC&GPIO
SpeedSteP
LAN
ICH4-M
U43B
Keep with 50 mil
Use 4Kb EEPROM (256 Word) PN: 93C66 to work with 8256EM PHY to support LAN heartbeat feature. The heartbeat support requires more EEPROM (i.e. store IT package).
4K bit(16bit* 256)
AT93C46-10SI-2.7
QUANTA COMPUTER
Title
ICH4-M (USB,HUB,LPC)
Size
Document Number
DM1
Rev
1A
Date: Friday, July 18, 2003
Sheet 8 of 46





QUANTA COMPUTER			
Title	ICH4-M (POWER&GND)		
Size	Document Number DM1		Rev 1A
Date: Friday, July 18, 2003		Sheet 9 of 46	


JDIM2
JDIM1
PC2100 DDR SDRAM SO-DIMM (200P)
AMP-DDR_SODIMM
AMP-DDR_SODIMM(REVERSE)
SMbus address A1
SMbus address A0
CLOCK 3,4,5
CKE 2,3
CLOCK 0,1,2
CKE 0,1
QUANTA COMPUTER
System DRAM Expansion (200P-DDR_SODIMM X 2)
Document Number DM1
Rev 1A
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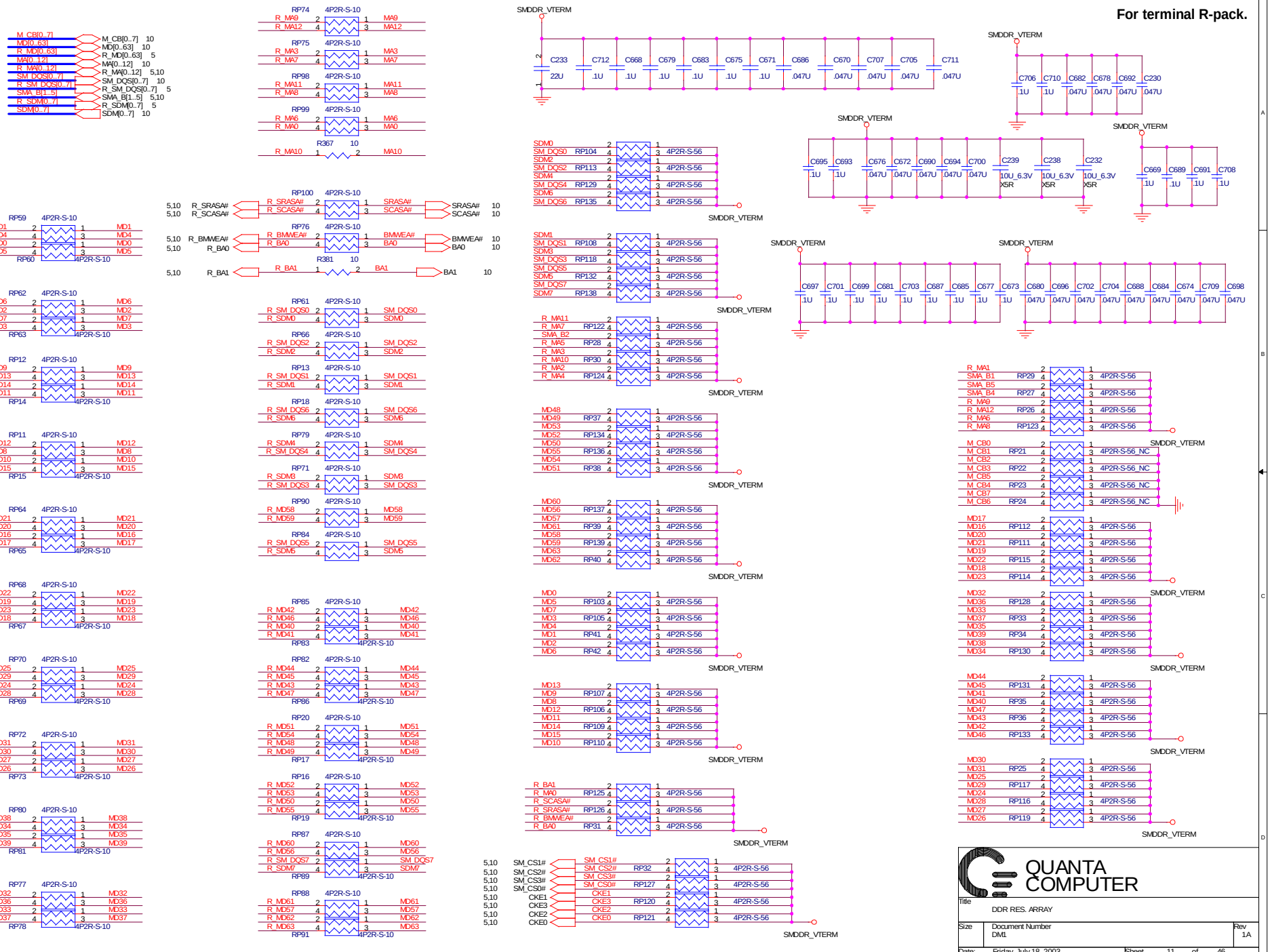
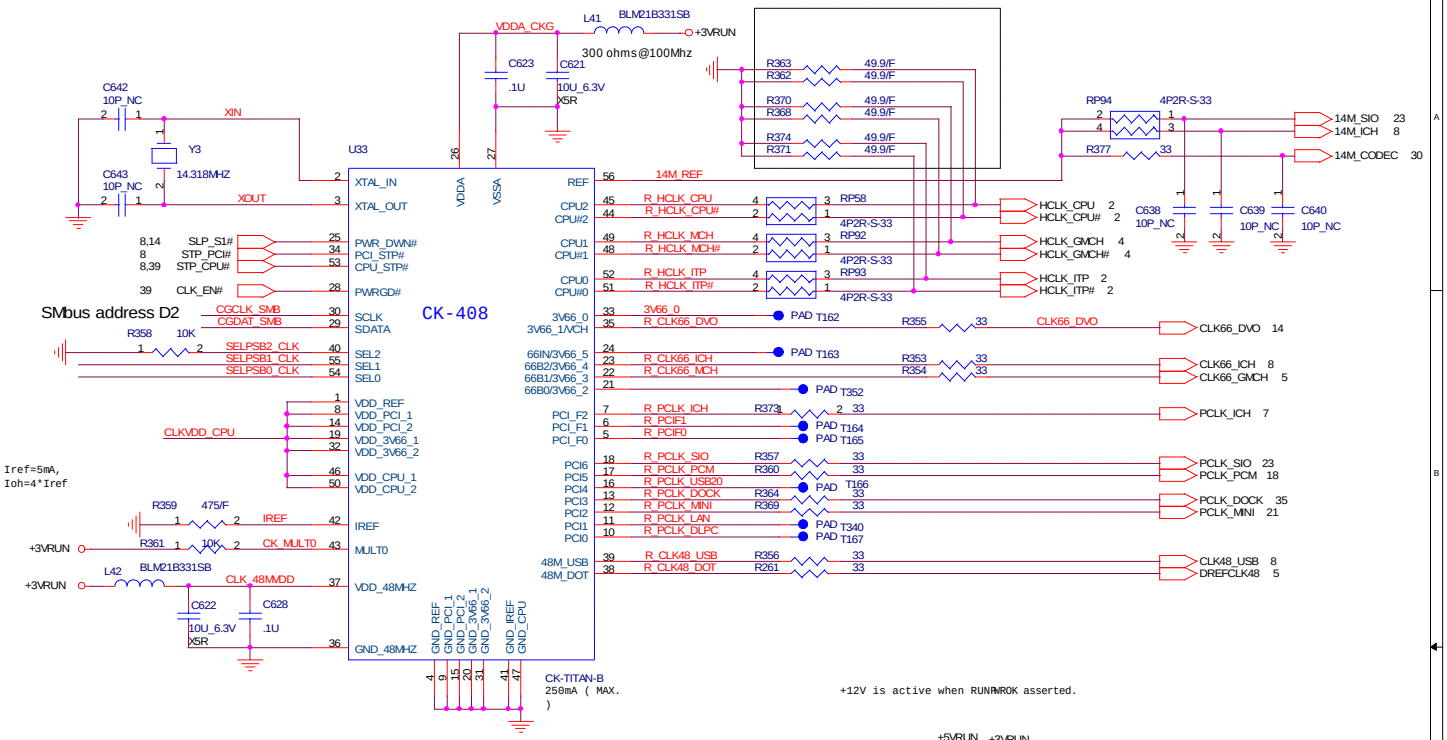
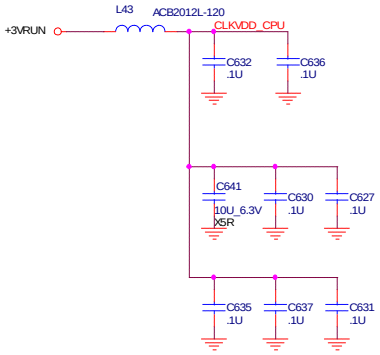
For terminal R-pack.



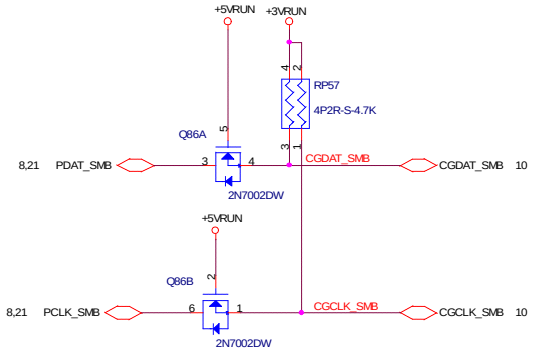
S2	S1	S0	CPU	3V66[0..4]	3V66_5/66IN
1	0	0	66	66IN	66 Input
1	0	1	100	66IN	66 Input
1	1	0	200	66IN	66 Input
1	1	1	133	66IN	66 Input
0	0	0	66	66	66 Input
0	0	1	100	66	66 Input
0	1	0	200	66	66 Input
0	1	1	133	66	66 Input

Place these termination
to close CK408.





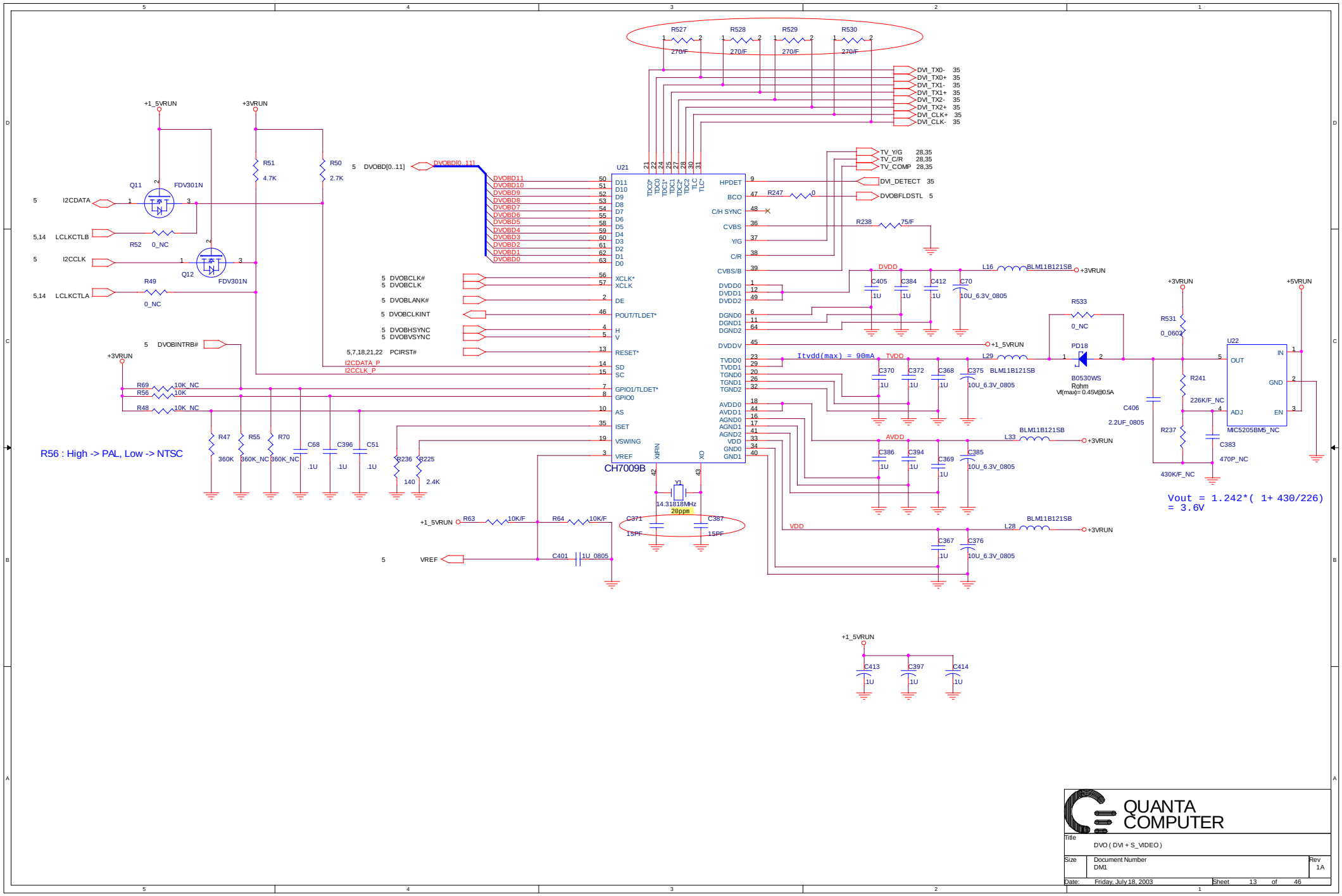
+12V is active when RUNPWROK asserted.

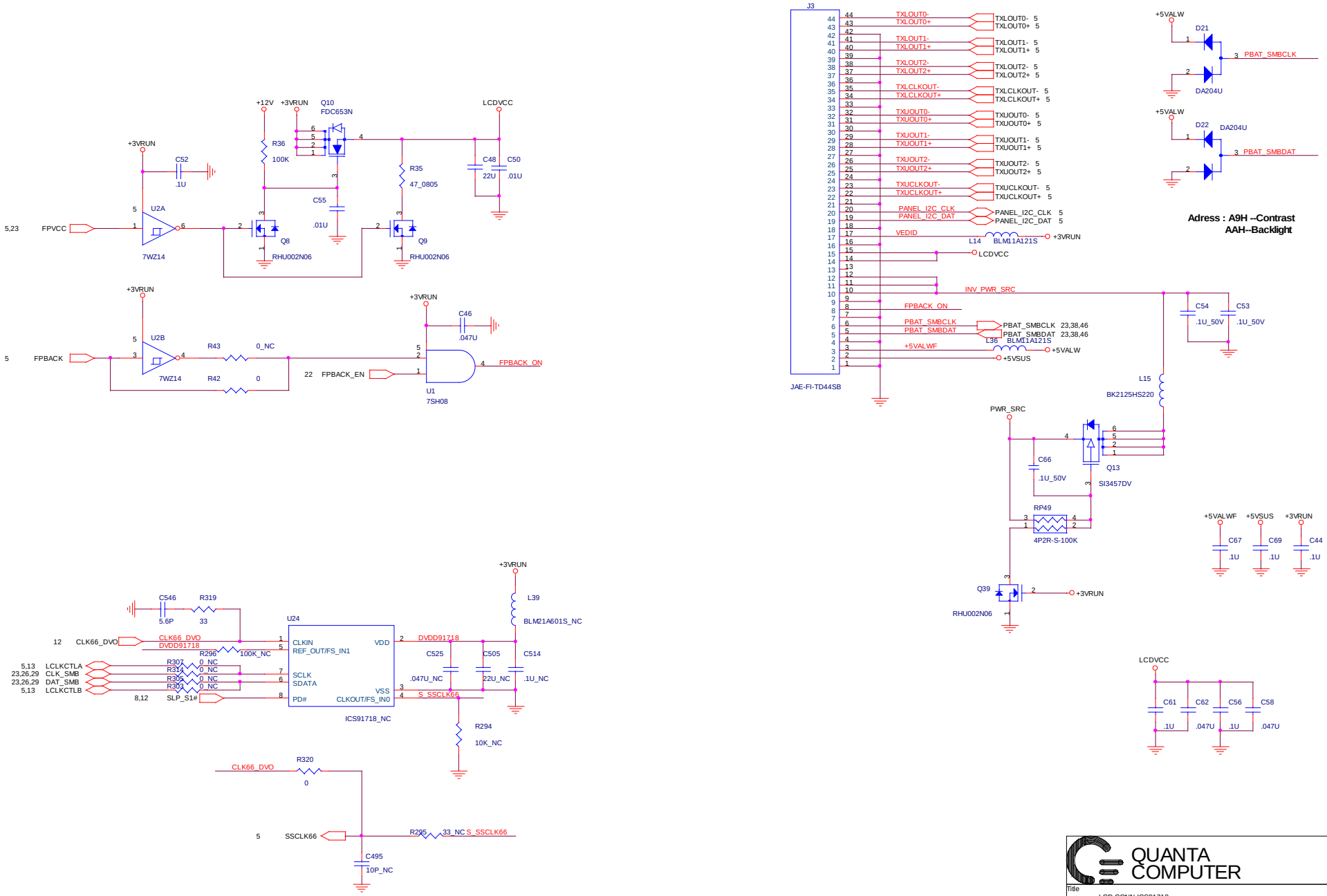


These are for backdrive issue

QUANTA COMPUTER

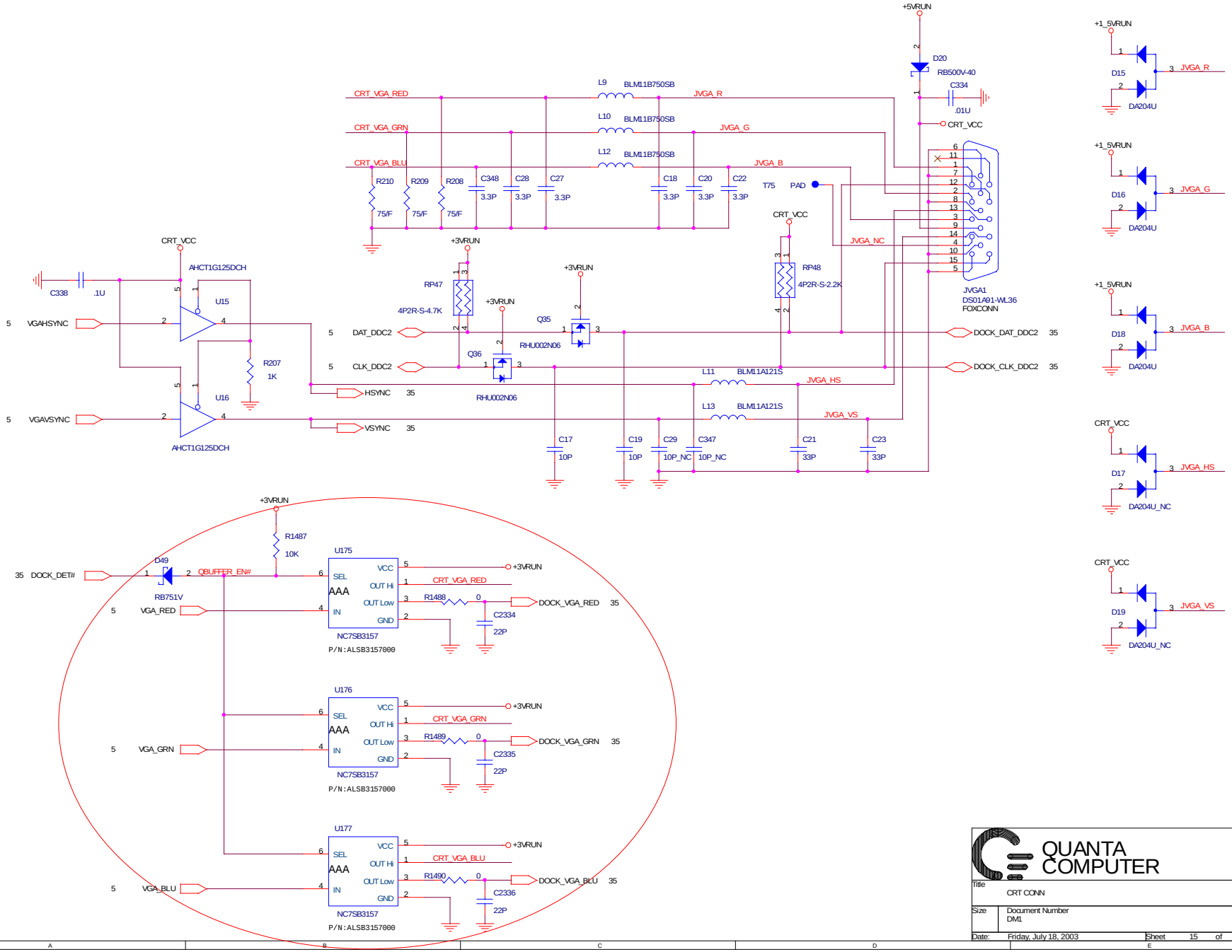
Title	CLOCK GENERATOR	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 12 of 46	


R56 : High -> PAL, Low -> NTSC
CH7009B
U21
Itvdd(max) = 90mA
Vout = 1.242*(1+ 430/226)
= 3.6V
B0530WS
Rohm
Vf(max)= 0.45V@0.5A
MIC5205BM5_NC
14.31818MHz
20ppm
QUANTA COMPUTER
DVO (DVI + S_VIDEO)
DM1
Friday, July 18, 2003
Sheet 13 of 46



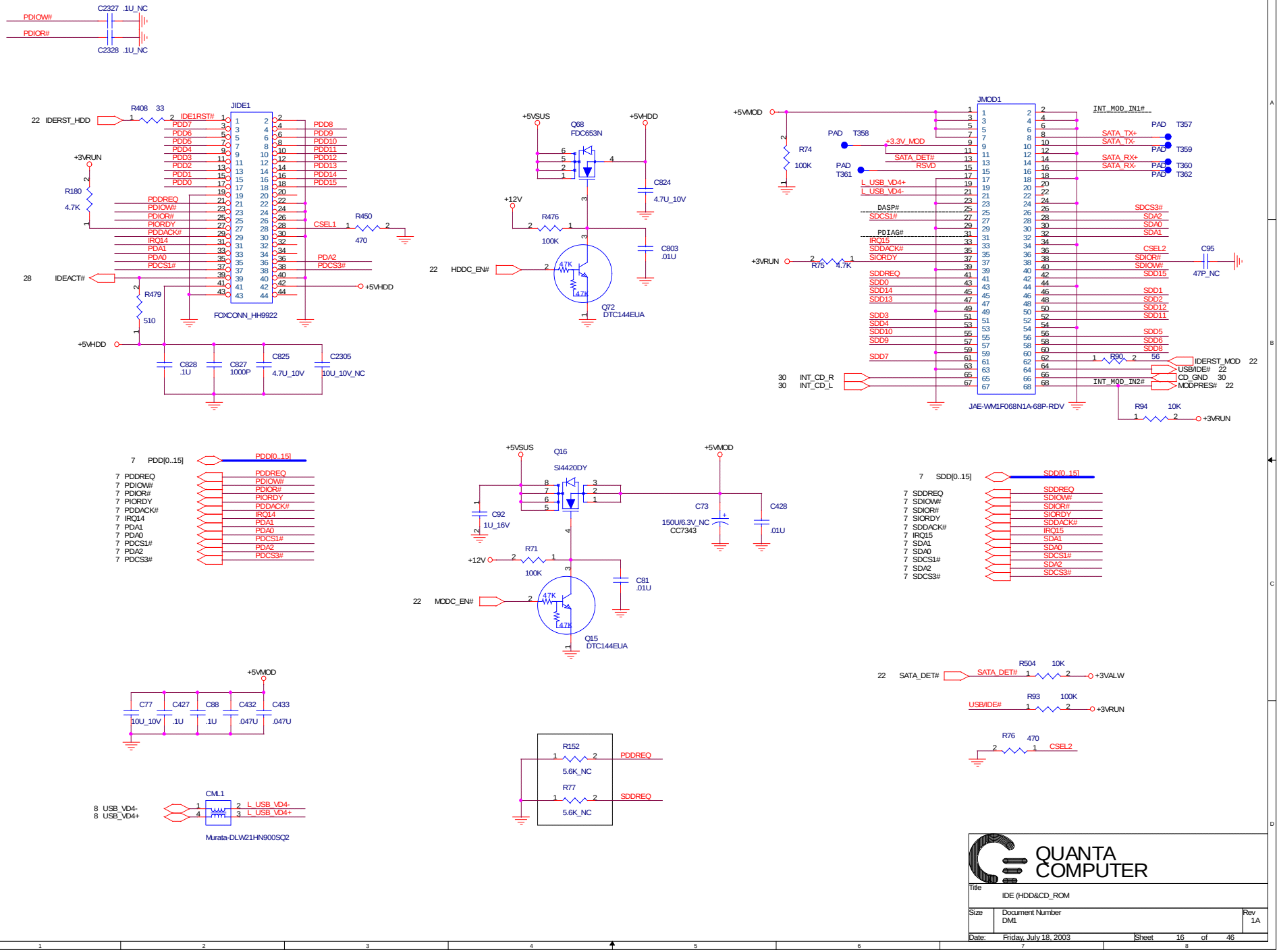
QUANTA COMPUTER

Title	LCD CONN,ICS91718	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 14 of 46	



QUANTA COMPUTER

Title	CRT CONN
Size	Document Number: DM1 — Rev: 1A
Date:	Friday, July 18, 2003 — Sheet 15 of 46


C2327 .1U_NC
PDIOW#
PDIOR#
C2328 .1U_NC
JIDE1
22 IDERST_HDD
R408 33
IDE1RST#
PDD7
PDD6
PDD5
PDD4
PDD3
PDD2
PDD1
PDD0
PDD8
PDD9
PDD10
PDD11
PDD12
PDD13
PDD14
PDD15
+3VRUN
R180
4.7K
PDDREQ
PDIOW#
PDIOR#
PIORDY
PDDACK#
IRQ14
PDA1
PDA0
PDCS1#
CSEL1
R450
470
PDA2
PDCS3#
28 IDEACT#
R479
510
+5VHDD
FOXCONN_HH9922
C828 .1U
C827 1000P
C825 4.7U_10V
C2305 10U_10V_NC
+5VSUS
Q68
FDC653N
+5VHDD
C824 4.7U_10V
+12V
R476
100K
C803 .01U
22 HDDC_EN#
47K
47K
Q72
DTC144EUA
+5VMOD
JMOD1
INT_MOD_IN1#
PAD T358
R74
100K
+3.3V_MOD
SATA_DET#
RSVD
PAD T361
L_USB_VD4+
L_USB_VD4-
DASP#
SDCS1#
PDIAG#
IRQ15
SDDACK#
SIORDY
SDDREQ
SDD0
SDD14
SDD13
SDD3
SDD4
SDD10
SDD9
SDD7
PAD T357
SATA_TX+
SATA_TX-
PAD T359
SATA_RX+
SATA_RX-
PAD T360
PAD T362
SDCS3#
SDA2
SDA0
SDA1
CSEL2
C95
47P_NC
SDIOR#
SDIOW#
SDD15
SDD1
SDD2
SDD12
SDD11
SDD5
SDD6
SDD8
+3VRUN
R75 4.7K
30 INT_CD_R
30 INT_CD_L
R90 56
IDERST_MOD 22
USB/IDE# 22
CD_GND 30
MODPRES# 22
INT_MOD_IN2#
R94 10K
+3VRUN
JAE-WM1F068N1A-68P-RDV
7 PDD[0..15]
PDD[0..15]
7 PDDREQ
7 PDIOW#
7 PDIOR#
7 PIORDY
7 PDDACK#
7 IRQ14
7 PDA1
7 PDA0
7 PDCS1#
7 PDA2
7 PDCS3#
+5VSUS
Q16
SI4420DY
+5VMOD
C92 1U_16V
C73 150U/6.3V_NC CC7343
C428 .01U
+12V
R71
100K
C81 .01U
22 MODC_EN#
47K
47K
Q15
DTC144EUA
7 SDD[0..15]
SDD[0..15]
7 SDDREQ
7 SDIOW#
7 SDIOR#
7 SIORDY
7 SDDACK#
7 IRQ15
7 SDA1
7 SDA0
7 SDCS1#
7 SDA2
7 SDCS3#
22 SATA_DET#
R504 10K
SATA_DET#
+3VALW
USB/IDE#
R93 100K
+3VRUN
R76 470
CSEL2
+5VMOD
C77 10U_10V
C427 .1U
C88 .1U
C432 .047U
C433 .047U
R152
5.6K_NC
PDDREQ
R77
5.6K_NC
SDDREQ
8 USB_VD4-
8 USB_VD4+
CML1
L_USB_VD4-
L_USB_VD4+
Murata-DLW21HN900SQ2
QUANTA COMPUTER
Title
IDE (HDD&CD_ROM
Size
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DM1
Rev
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PV11 PAD198X98 GND
PV25 PAD198X98 GND
PV14 PAD198X98 GND
PV23 PAD198X98 GND
PV9 PAD198X98 GND
PV10 PAD198X98 GND
PV15 PAD198X98 GND

H2 HOLE-C315D102P2-4
H3 HOLE-C315D102P2-4
H7 HOLE-C197D110P2-4
H6 HOLE-TC236BC197D110P2-4

CPU

PV41 PAD198X98 GND
PV24 PAD198X98 GND
PV3 PAD198X98 GND
PV29 PAD198X98 GND
PV28 PAD198X98 GND
PV19 PAD198X98 GND
PV5 PAD198X98 GND

H10 HOLE-C315D126P2-3
H16 HOLE-C315D126P2-4
H14 HOLE-C315D126P2-4

PV21 PAD198X98 GND
PV7 PAD198X98 GND
PV6 PAD198X98 GND
PV18 PAD198X98 GND
PV4 PAD198X98 GND

H19 HOLE-C315D126P2-2

H15 HOLE-C315D126P2-4
H20 HOLE-C315D126P2-4
H5 HOLE-C236D126P2-4

PV31 PAD198X98 GND
PV32 PAD198X98 GND
PV34 PAD198X98 GND
PV35 PAD138X98 GND
PV36 PAD198X98 GND
PV37 PAD198X98 GND
PV38 PAD198X98 GND
PV40 PAD198X98 GND

DC_IN+ C2316 .1U C2317 .1U
PWR_SRC C2318 .1U C2319 .1U
+3VRUN C2320 .1U C2321 .1U C2322 .1U
VTT C2323 .1U
+5VRUN C2324 .1U
+3V_SRC C2325 .1U

DECOUPLING CAP

HEAT SINK

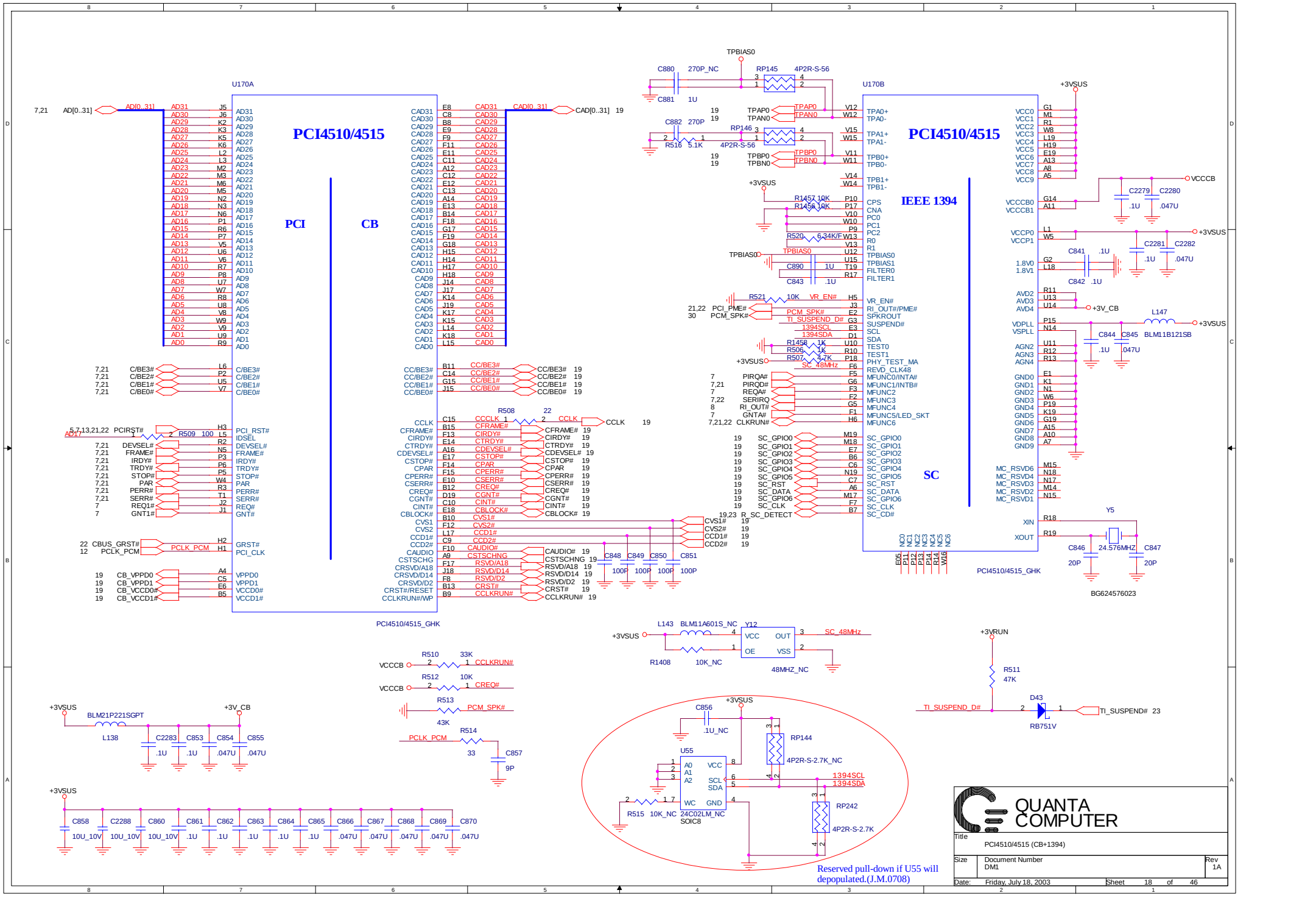
H8 HOLE-TC315BC256D102P2-4
H9 HOLE-TC315BC256D102P2-4
H4 HOLE-C315D126P2-4

H18 HOLE-C197D126P2
H12 HOLE-OB189X31D189X31N
H11 HOLE-OB189X31D189X31N

H21 HOLE-C315D118P2-4
H22 HOLE-C315D126P2-2

QUANTA COMPUTER

Title	SCREW PAD	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 17 of 46	


U170A
PCI4510/4515
PCI
CB
U170B
PCI4510/4515
IEEE 1394
SC
PCI4510/4515_GHK
PCI4510/4515_GHK
TPBIAS0
+3VSUS
+3V_CB
+3VRUN
VCCCB
AD[0..31]
CAD[0..31]
CCLK
CBUS_GRST#
PCLK_PCM
PCIRST#
DEVSEL#
FRAME#
IRDY#
TRDY#
STOP#
PAR
PERR#
SERR#
REQ1#
GNT1#
CVS1
CVS2
CCD1#
CCD2#
CAUDIO
CSTSCHNG
RSVD/A18
RSVD/D14
RSVD/D2
CRST#
CCLKRUN#
TPA0+
TPA0-
TPA1+
TPA1-
TPB0+
TPB0-
TPB1+
TPB1-
CPS
CNA
PC0
PC1
PC2
R0
R1
TPBIAS1
FILTER0
FILTER1
VR_EN#
RI_OUT#/PME#
SPKROUT
SUSPEND#
SCL
SDA
TEST0
TEST1
PHY_TEST_MA
REVD_CLK48
MFUNC0/INTA#
MFUNC1/INTB#
MFUNC2
MFUNC3
MFUNC4
MFUNC5/LED_SKT
MFUNC6
SC_GPIO0
SC_GPIO1
SC_GPIO2
SC_GPIO3
SC_GPIO4
SC_GPIO5
SC_RST
SC_DATA
SC_GPIO6
SC_CLK
SC_CD#
VCC0
VCC1
VCC2
VCC3
VCC4
VCC5
VCC6
VCC7
VCC8
VCC9
VCCCB0
VCCCB1
VCCP0
VCCP1
1.8V0
1.8V1
AVD2
AVD3
AVD4
VDPLL
VSPLL
AGN2
AGN3
AGN4
GND0
GND1
GND2
GND3
GND4
GND5
GND6
GND7
GND8
GND9
MC_RSVD6
MC_RSVD4
MC_RSVD3
MC_RSVD2
MC_RSVD1
XIN
XOUT
BG624576023
QUANTA COMPUTER
Title
PCI4510/4515 (CB+1394)
Size
Document Number
DM1
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1A
Date:
Friday, July 18, 2003
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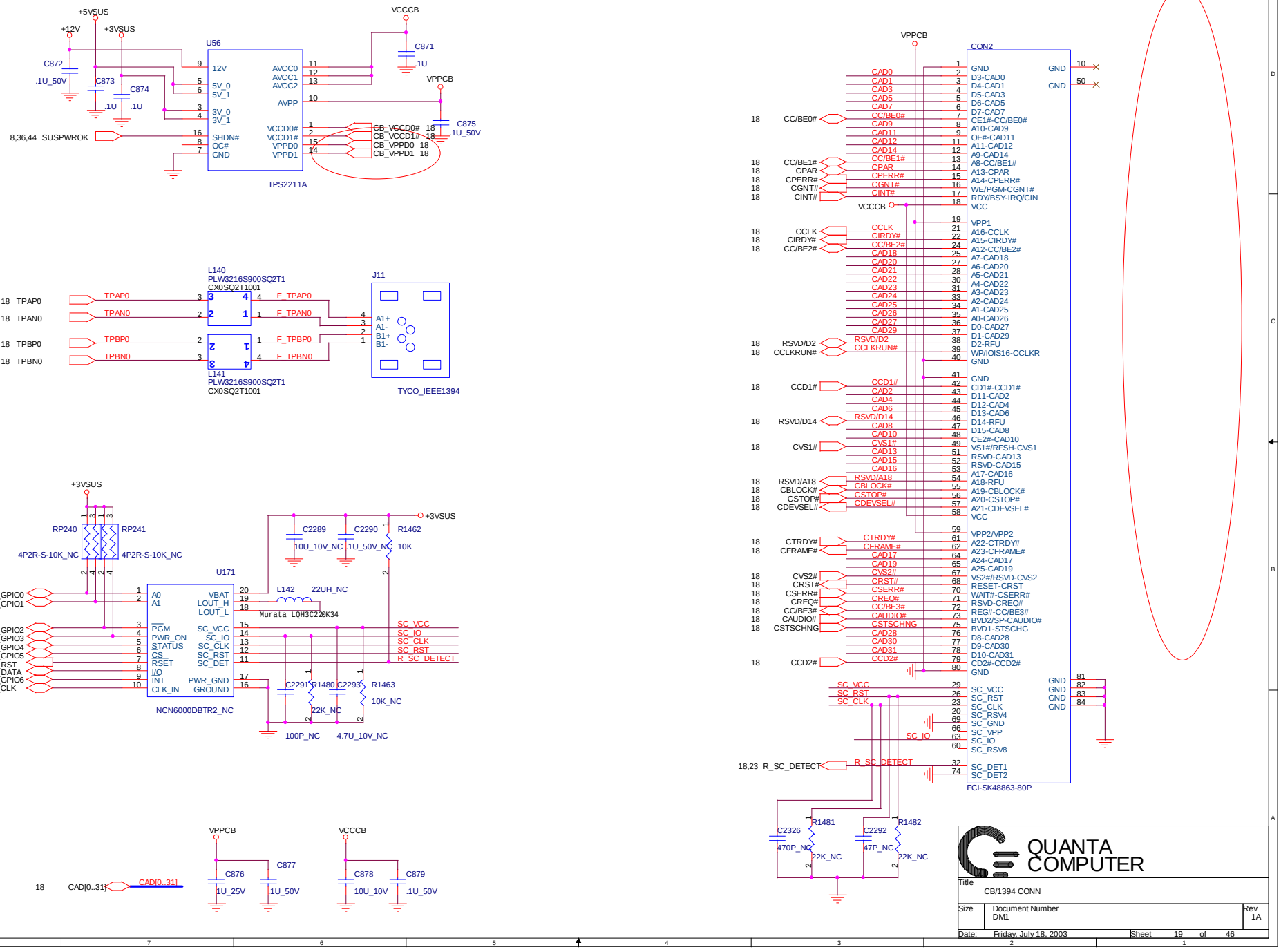
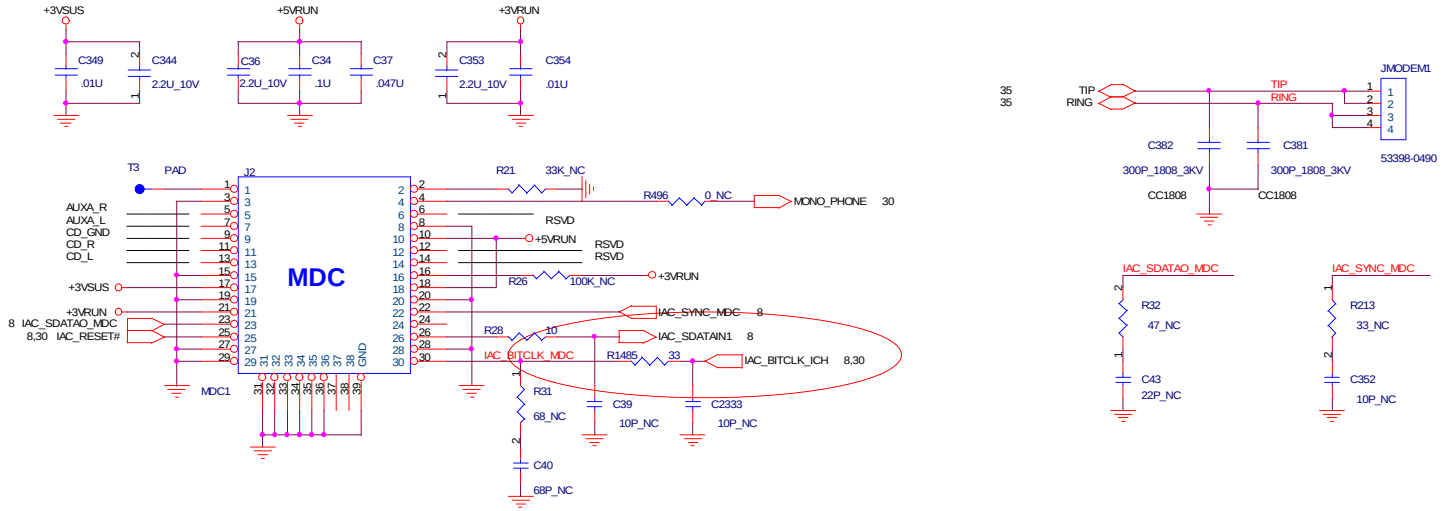
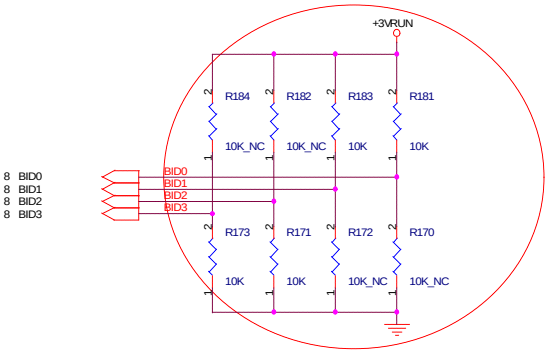
18
of
46
Reserved pull-down if U55 will depopulated.(J.M.0708)


+5VSUS
+12V
+3VSUS
VCCCB
VPPCB
U56
C872
.1U_50V
C873
.1U
C874
.1U
C871
.1U
C875
.1U_50V
8,36,44 SUSPWROK
12V
5V_0
5V_1
3V_0
3V_1
SHDN#
OC#
GND
AVCC0
AVCC1
AVCC2
AVPP
VCCD0#
VCCD1#
VPPD0
VPPD1
CB_VCCD0# 18
CB_VCCD1# 18
CB_VPPD0 18
CB_VPPD1 18
TPS2211A
L140
PLW3216S900SQ2T1
CX0SQ2T1001
L141
PLW3216S900SQ2T1
CX0SQ2T1001
J11
18 TPAP0
18 TPAN0
18 TPBP0
18 TPBN0
TPAP0
TPAN0
TPBP0
TPBN0
F_TPAP0
F_TPAN0
F_TPBP0
F_TPBN0
A1+
A1-
B1+
B1-
TYCO_IEEE1394
RP240
RP241
4P2R-S-10K_NC
4P2R-S-10K_NC
U171
C2289
10U_10V_NC
C2290
.1U_50V_NC
R1462
10K
L142
22UH_NC
Murata LQH3C220K34
18 SC_GPIO0
18 SC_GPIO1
18 SC_GPIO2
18 SC_GPIO3
18 SC_GPIO4
18 SC_GPIO5
18 SC_RST
18 SC_DATA
18 SC_GPIO6
18 SC_CLK
A0
A1
PGM
PWR_ON
STATUS
CS_
RSET
I/O
INT
CLK_IN
VBAT
LOUT_H
LOUT_L
SC_VCC
SC_IO
SC_CLK
SC_RST
SC_DET
PWR_GND
GROUND
SC_VCC
SC_IO
SC_CLK
SC_RST
R_SC_DETECT
C2291
100P_NC
R1480
22K_NC
C2293
4.7U_10V_NC
R1463
10K_NC
NCN6000DBTR2_NC
18 CAD[0..31]
CAD[0..31]
C876
1U_25V
C877
.1U_50V
C878
10U_10V
C879
.1U_50V
CON2
18 CC/BE0#
18 CC/BE1#
18 CPAR
18 CPERR#
18 CGNT#
18 CINT#
18 CCLK
18 CIRDY#
18 CC/BE2#
18 RSVD/D2
18 CCLKRUN#
18 CCD1#
18 RSVD/D14
18 CVS1#
18 RSVD/A18
18 CBLOCK#
18 CSTOP#
18 CDEVSEL#
18 CTRDY#
18 CFRAME#
18 CVS2#
18 CRST#
18 CSERR#
18 CREQ#
18 CC/BE3#
18 CAUDIO#
18 CSTSCHNG
18 CCD2#
GND
D3-CAD0
D4-CAD1
D5-CAD3
D6-CAD5
D7-CAD7
CE1#-CC/BE0#
A10-CAD9
OE#-CAD11
A11-CAD12
A9-CAD14
A8-CC/BE1#
A13-CPAR
A14-CPERR#
WE/PGM-CGNT#
RDY/BSY-IRQ/CIN
VCC
VPP1
A16-CCLK
A15-CIRDY#
A12-CC/BE2#
A7-CAD18
A6-CAD20
A5-CAD21
A4-CAD22
A3-CAD23
A2-CAD24
A1-CAD25
A0-CAD26
D0-CAD27
D1-CAD29
D2-RFU
WP/IOIS16-CCLKR
GND
CD1#-CCD1#
D11-CAD2
D12-CAD4
D13-CAD6
D14-RFU
D15-CAD8
CE2#-CAD10
VS1#/RFSH-CVS1
RSVD-CAD13
RSVD-CAD15
A17-CAD16
A18-RFU
A19-CBLOCK#
A20-CSTOP#
A21-CDEVSEL#
VCC
VPP2/VPP2
A22-CTRDY#
A23-CFRAME#
A24-CAD17
A25-CAD19
VS2#/RSVD-CVS2
RESET-CRST
WAIT#-CSERR#
RSVD-CREQ#
REG#-CC/BE3#
BVD2/SP-CAUDIO#
BVD1-STSCHG
D8-CAD28
D9-CAD30
D10-CAD31
CD2#-CCD2#
GND
SC_VCC
SC_RST
SC_CLK
SC_RSV4
SC_GND
SC_VPP
SC_IO
SC_RSV8
SC_DET1
SC_DET2
GND
GND
GND
GND
18,23 R_SC_DETECT
R_SC_DETECT
FCI-SK48863-80P
C2326
470P_NC
R1481
22K_NC
C2292
47P_NC
R1482
22K_NC
QUANTA
COMPUTER
Title
CB/1394 CONN
Size
Document Number
DM1
Rev
1A
Date: Friday, July 18, 2003
Sheet 19 of 46

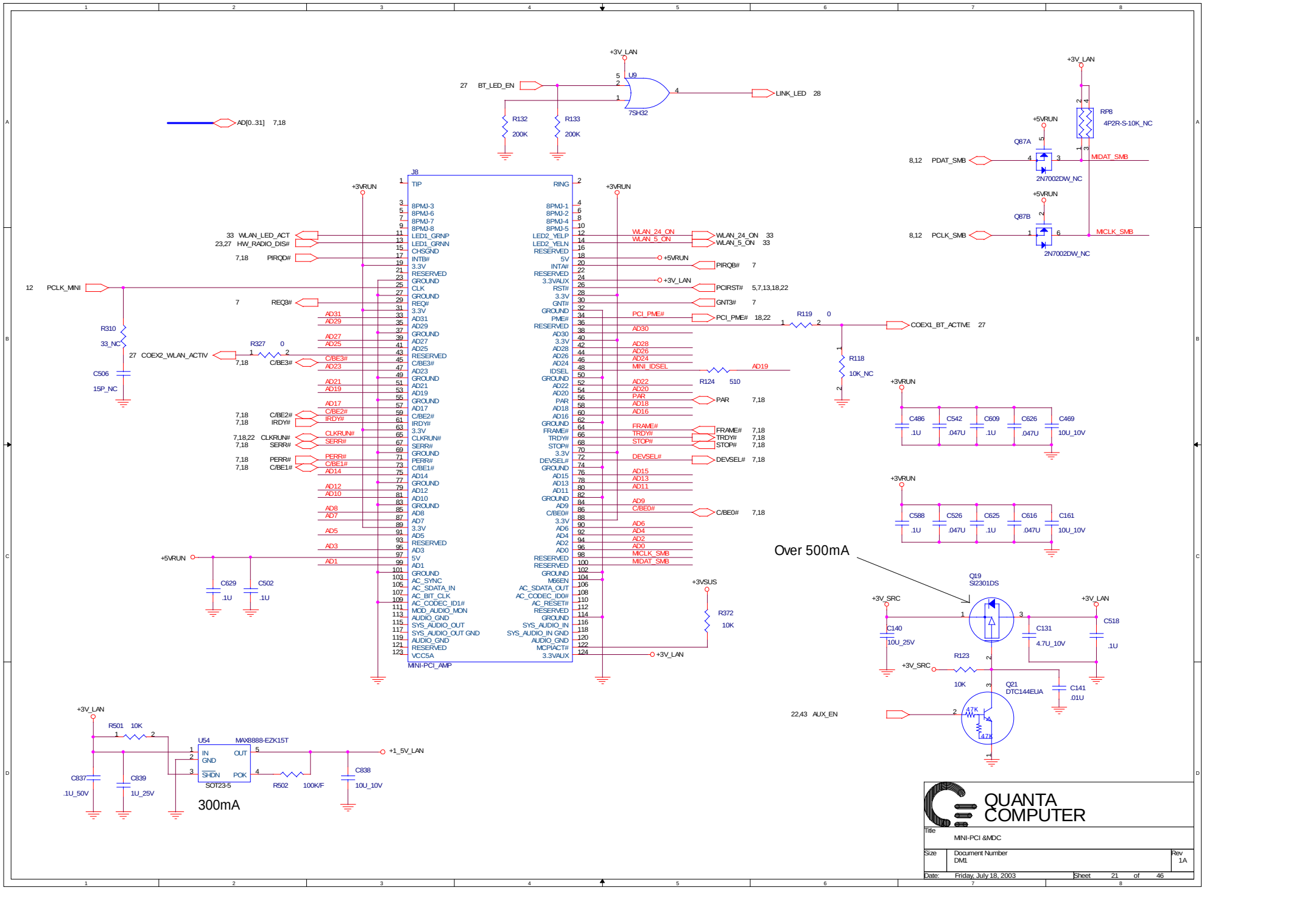


BID3	BID2	BID1	BID0	Board Revision
0	0	0	0	PROTO1
0	0	1	0	PROTO2
0	0	1	1	PROTO3
0	1	0	0	PROTO4
0	1	0	1	QT1
0	1	1	0	RAMP

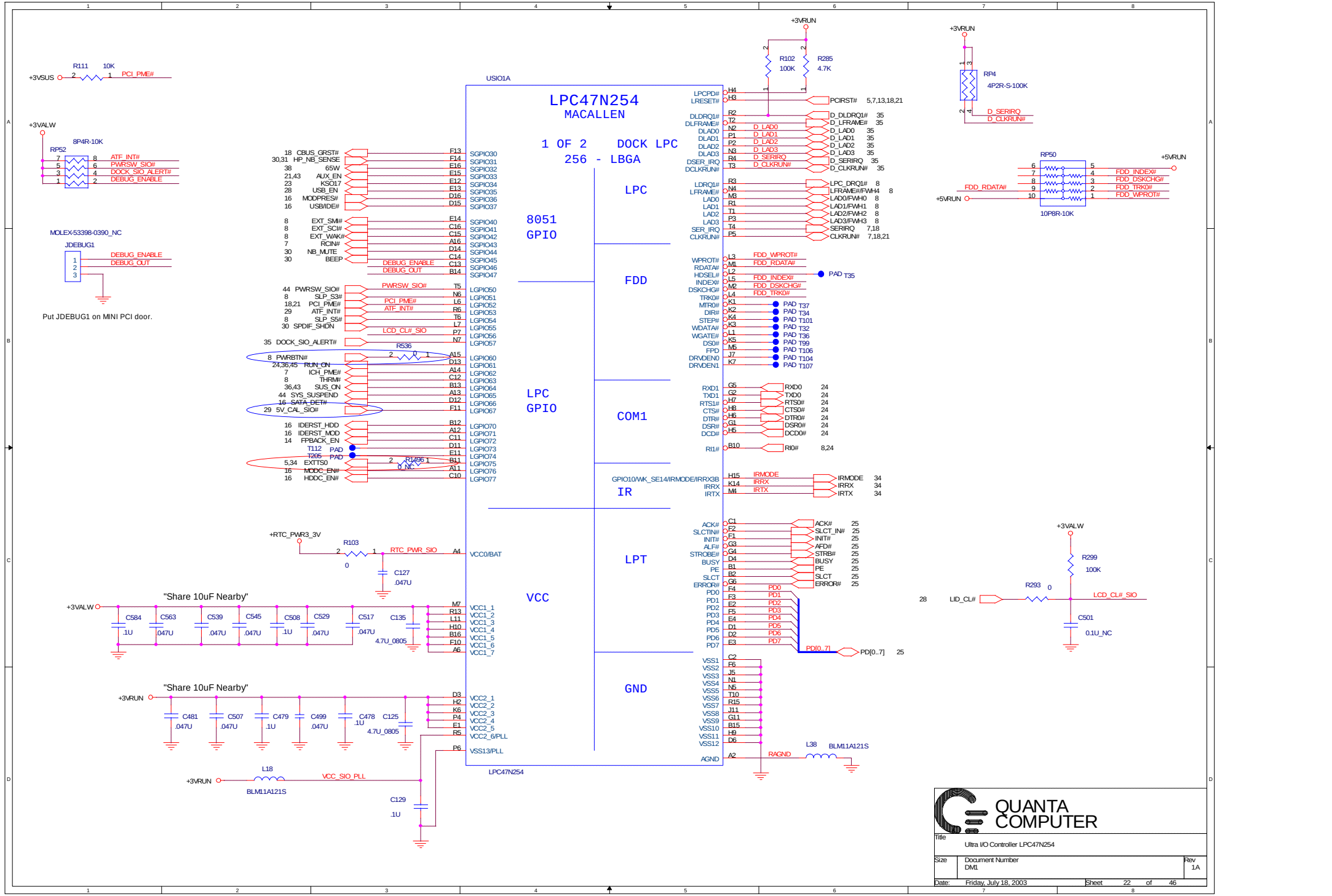


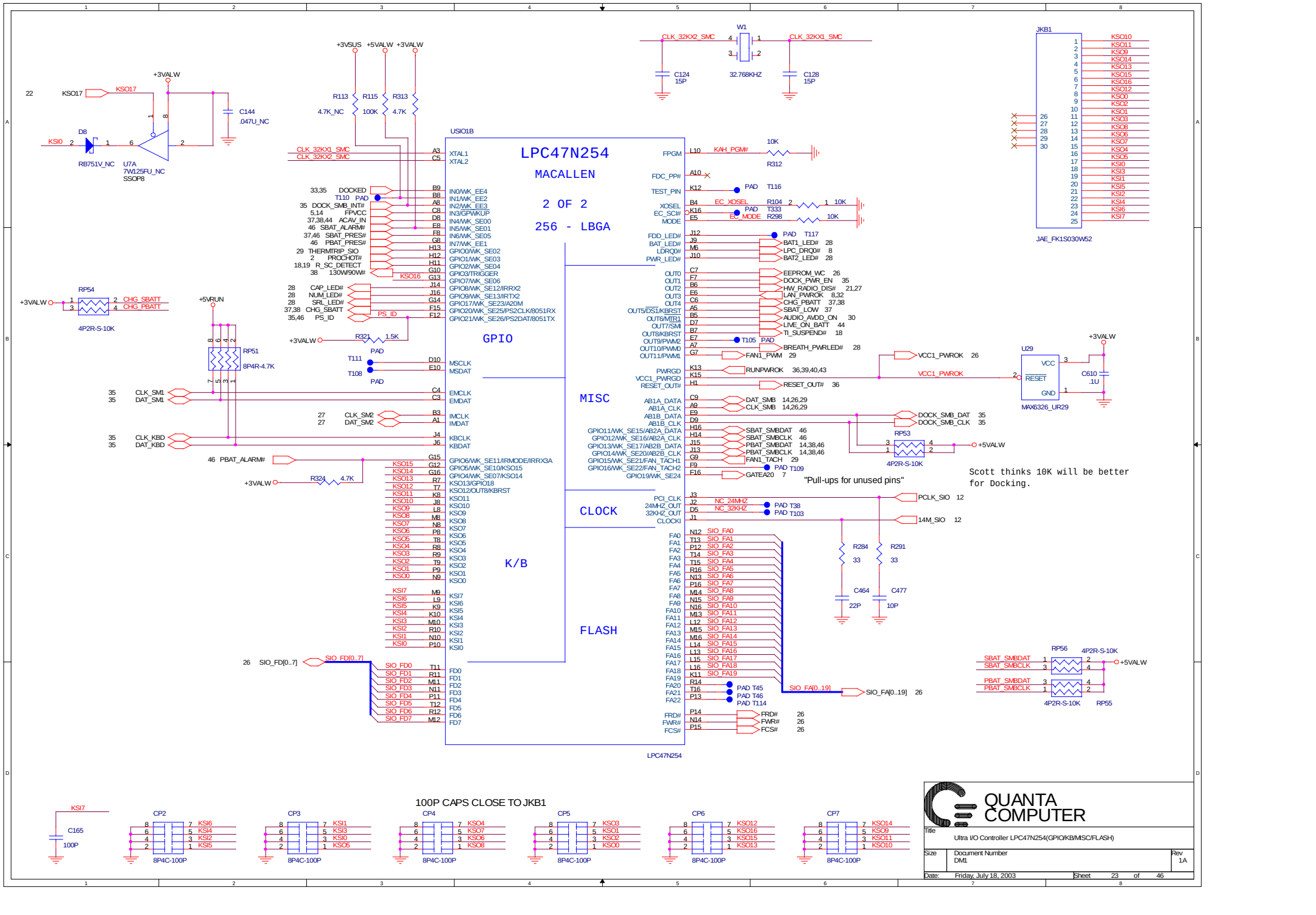
QUANTA COMPUTER

Title	MDC CONN.	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 20 of 46	

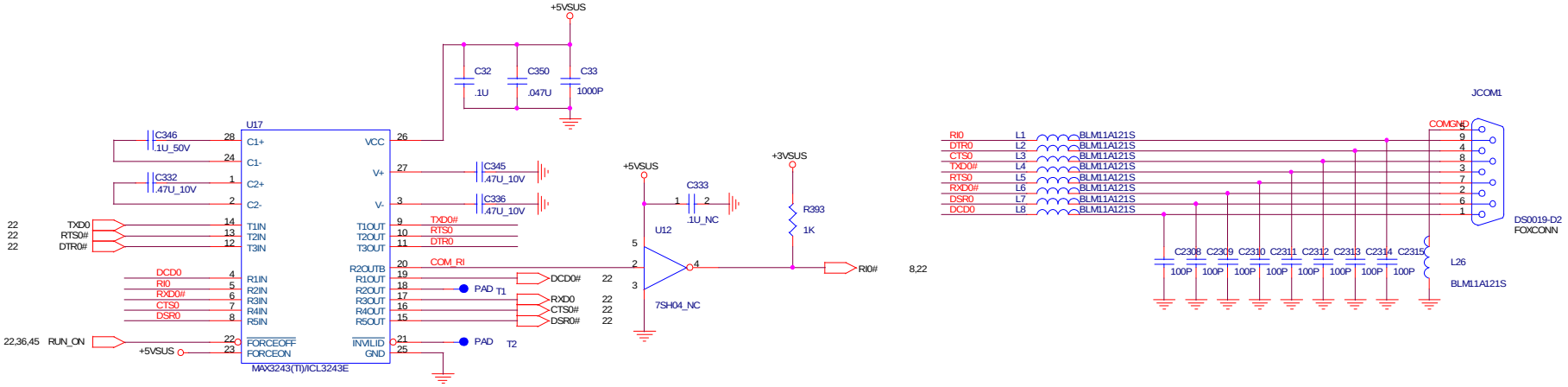


QUANTA COMPUTER			
Title	MINI-PCI &MDC		
Size	Document Number DM1		Rev 1A
Date:	Friday, July 18, 2003	Sheet 21 of 46	


LPC47N254
MACALLEN
1 OF 2 DOCK LPC
256 - LBGA
USIO1A
LPC47N254
8051 GPIO
LPC
FDD
LPC GPIO
COM1
IR
LPT
VCC
GND
+3VRUN
+3VALW
+3VSUS
+5VRUN
R111 10K
PCI_PME#
RP52 8P4R-10K
ATF_INT#
PWRSW_SIO#
DOCK_SIO_ALERT#
DEBUG_ENABLE
MOLEX-53398-0390_NC
JDEBUG1
DEBUG_ENABLE
DEBUG_OUT
Put JDEBUG1 on MINI PCI door.
R102 100K
R285 4.7K
RP4 4P2R-S-100K
D_SERIRQ
D_CLKRUN#
RP50 10P8R-10K
FDD_INDEX#
FDD_DSKCHG#
FDD_TRK0#
FDD_WPROT#
FDD_RDATA#
R536
R1496 0_NC
R103
RTC_PWR_SIO
C127 .047U
"Share 10uF Nearby"
C584 .1U
C563 .047U
C539 .047U
C545 .047U
C508 .1U
C529 .047U
C517 .047U
C135 4.7U_0805
C481 .047U
C507 .047U
C479 .1U
C499 .047U
C478 .1U
C125 4.7U_0805
L18 BLM11A121S
VCC_SIO_PLL
C129 .1U
L38 BLM11A121S
RAGND
R299 100K
R293 0
LCD_CL#_SIO
C501 0.1U_NC
LID_CL#
QUANTA COMPUTER
Title
Ultra I/O Controller LPC47N254
Size
Document Number
DM1
Rev
1A
Date: Friday, July 18, 2003
Sheet 22 of 46



Title	Ultra I/O Controller LPC47N254(GPIO/KB/MISC/FLASH)		
Size	Document Number DM1		Rev 1A
Date:	Friday, July 18, 2003	Sheet 23 of 46	

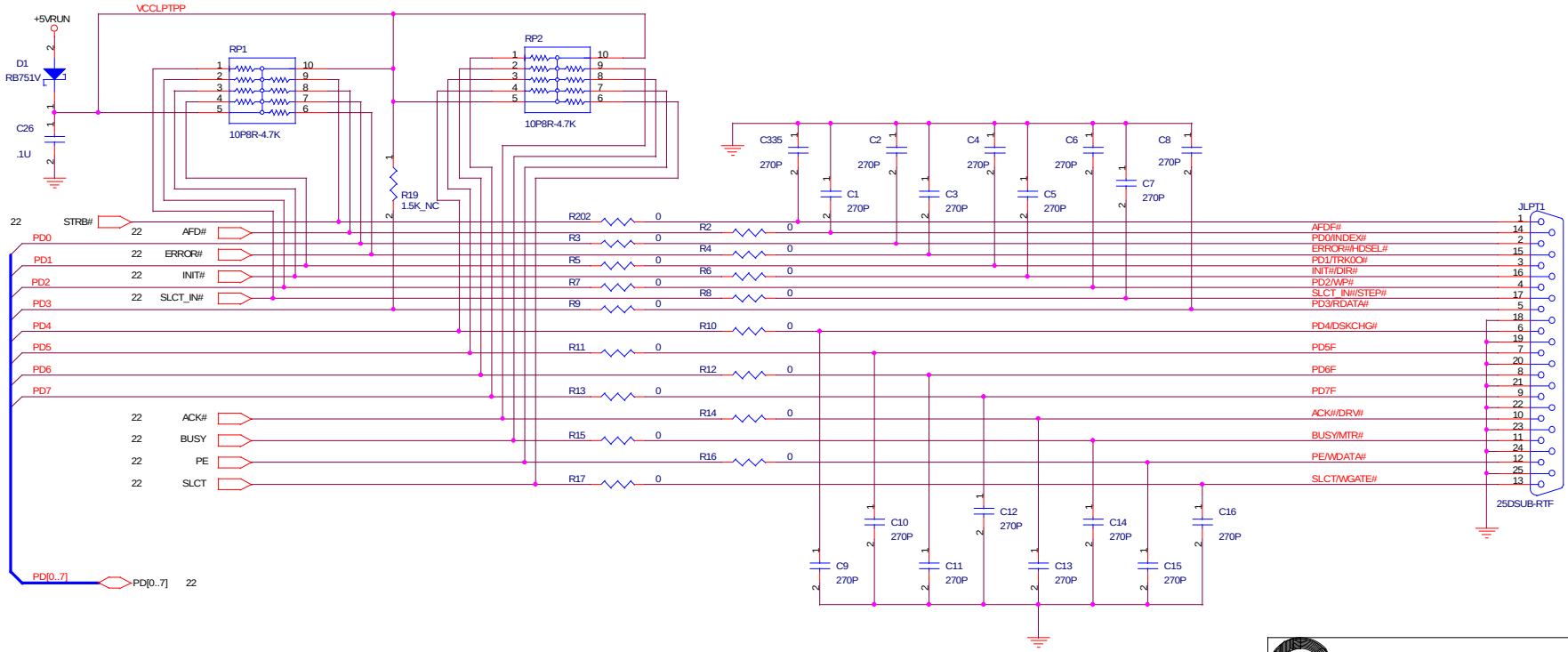


If MAX3243 pin 22 tied to RUN_ON,then it can not support Ring Out

Place these beads to JCOM1 as close as possible

QUANTA COMPUTER

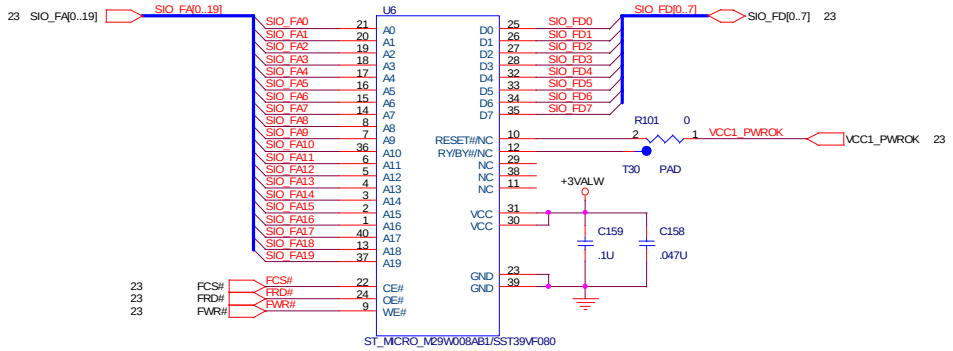
Title	SERIAL PORT	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 24 of 46	



QUANTA COMPUTER

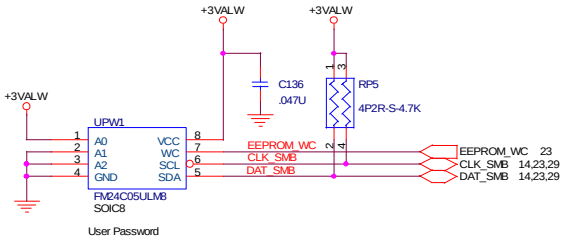
Title	PARALLEL CONN.	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 25 of 46	

8Mbit (1M Byte),NO PLCC TYPE



SST :Pin10,12 are NC

1.MAX6326_UR29 has >100mS reset timing.So we can tie it's reset# pin to +3VALW directly.
2.SIO has internal 20 mS delay of VCC1_PWROK

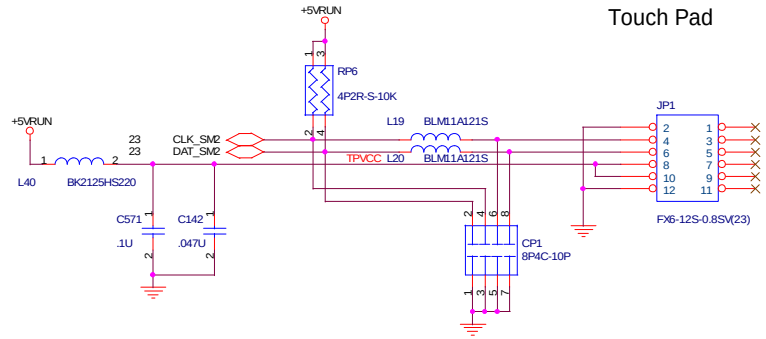


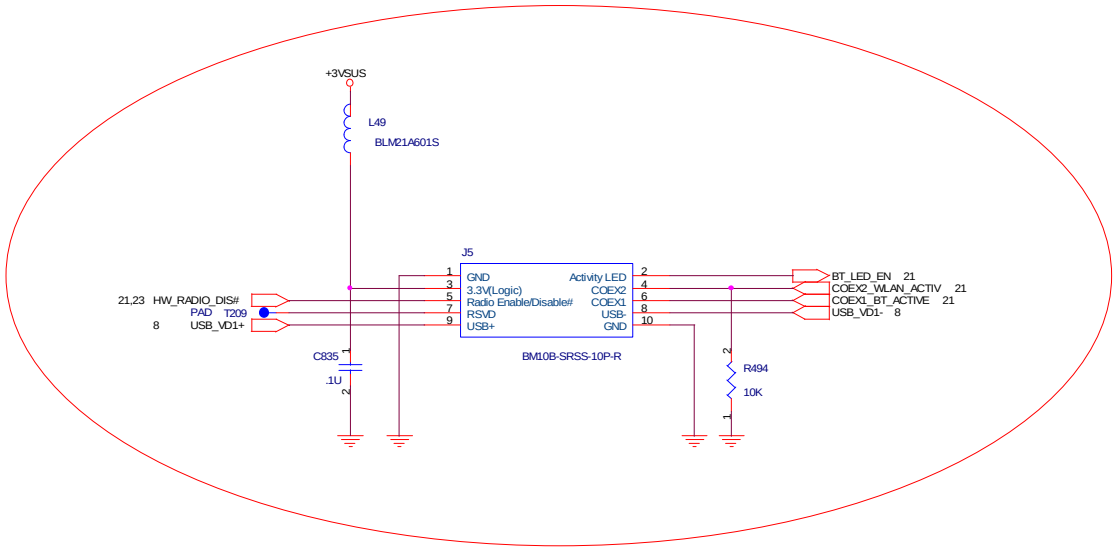
SMbus address A2

QUANTA COMPUTER

Title	FLASH	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 26 of 46	

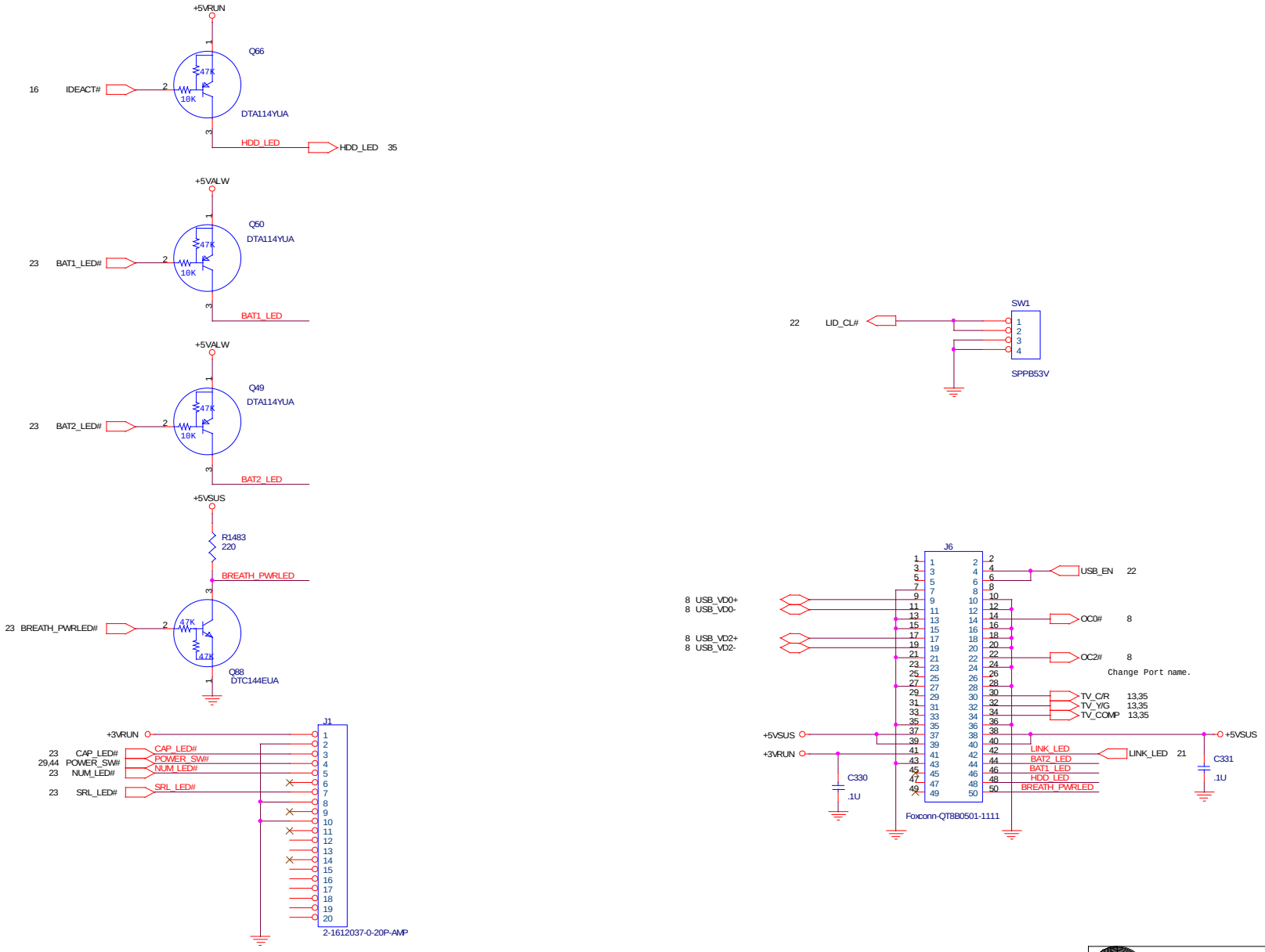
Touch Pad





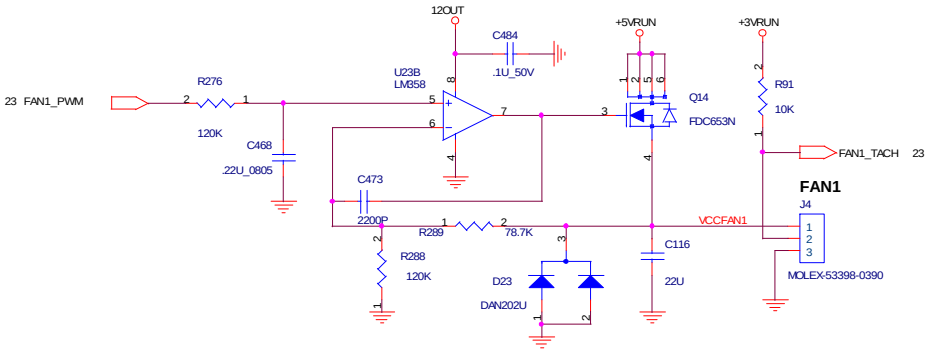
QUANTA COMPUTER

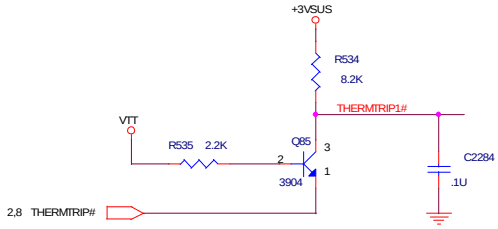
Title	TOUCH PAD & BULE TOOTH	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 27 of 46	

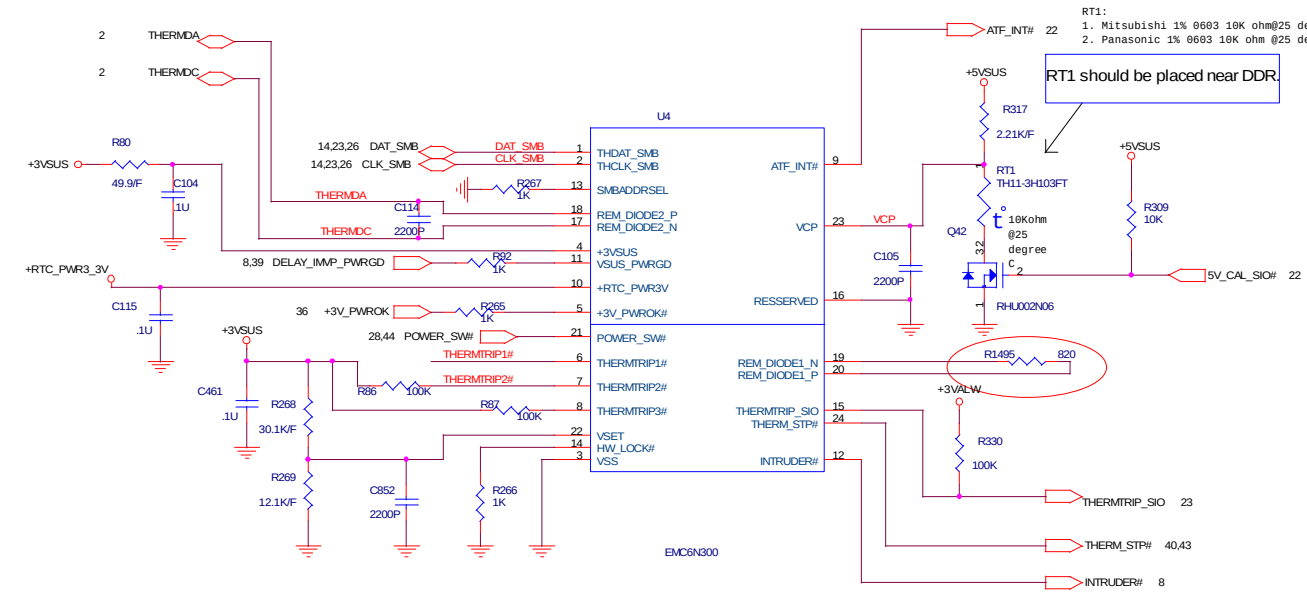


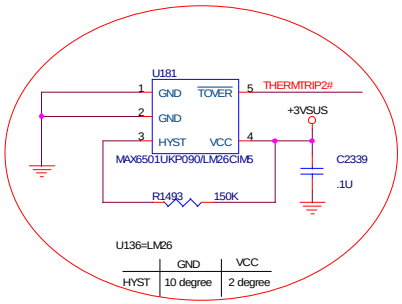
QUANTA COMPUTER

Title	SWITCH & LED	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 28 of 46	









Notes:

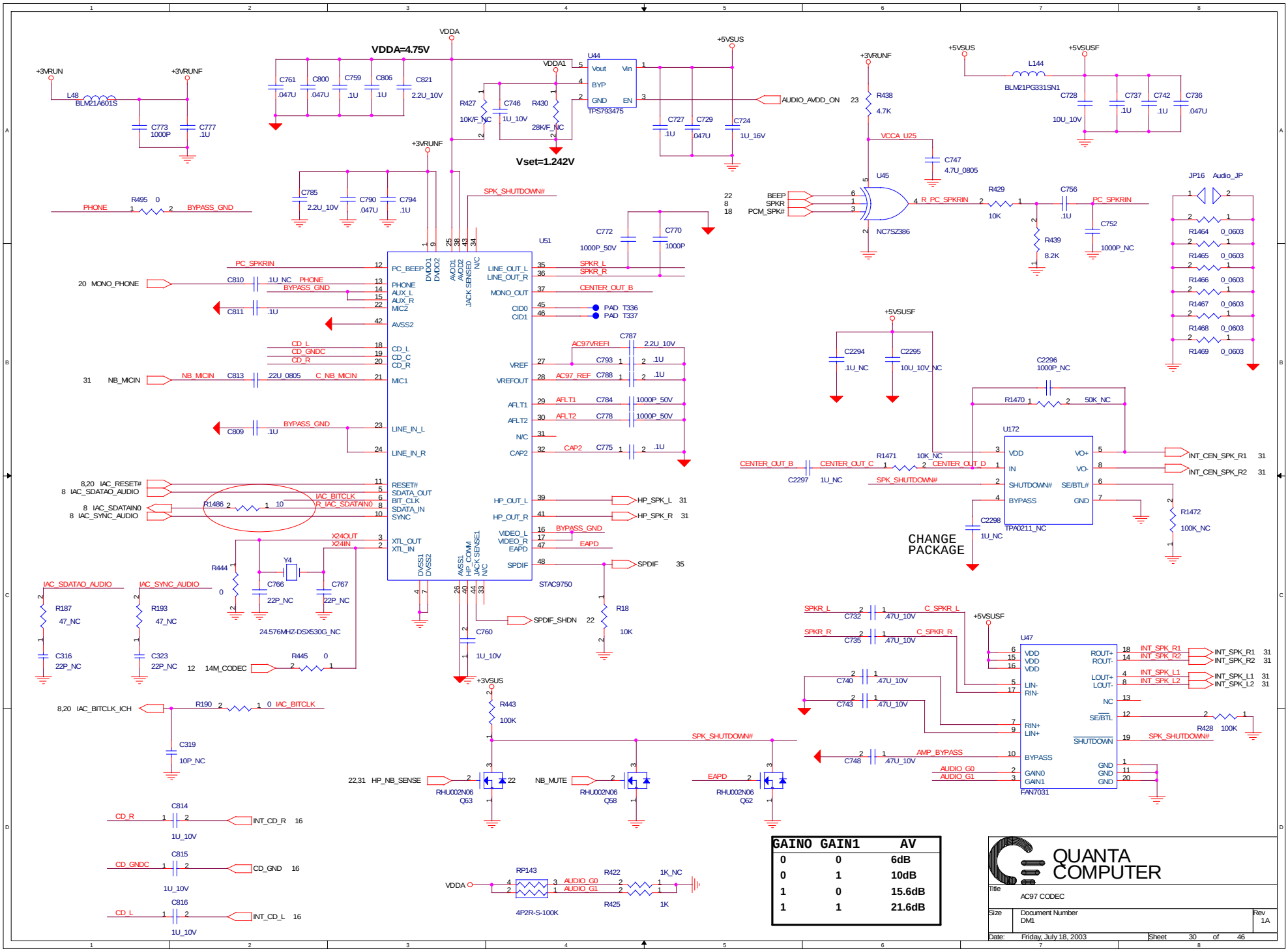
Vset=(Tp-75)/16
Where Tp=75 to
106 degree C

Set trip point=90 degree c
Vset = (90-75)/16=
0.9375 V

Guardian temp-tolerance= +/-3 degree C

QUANTA COMPUTER

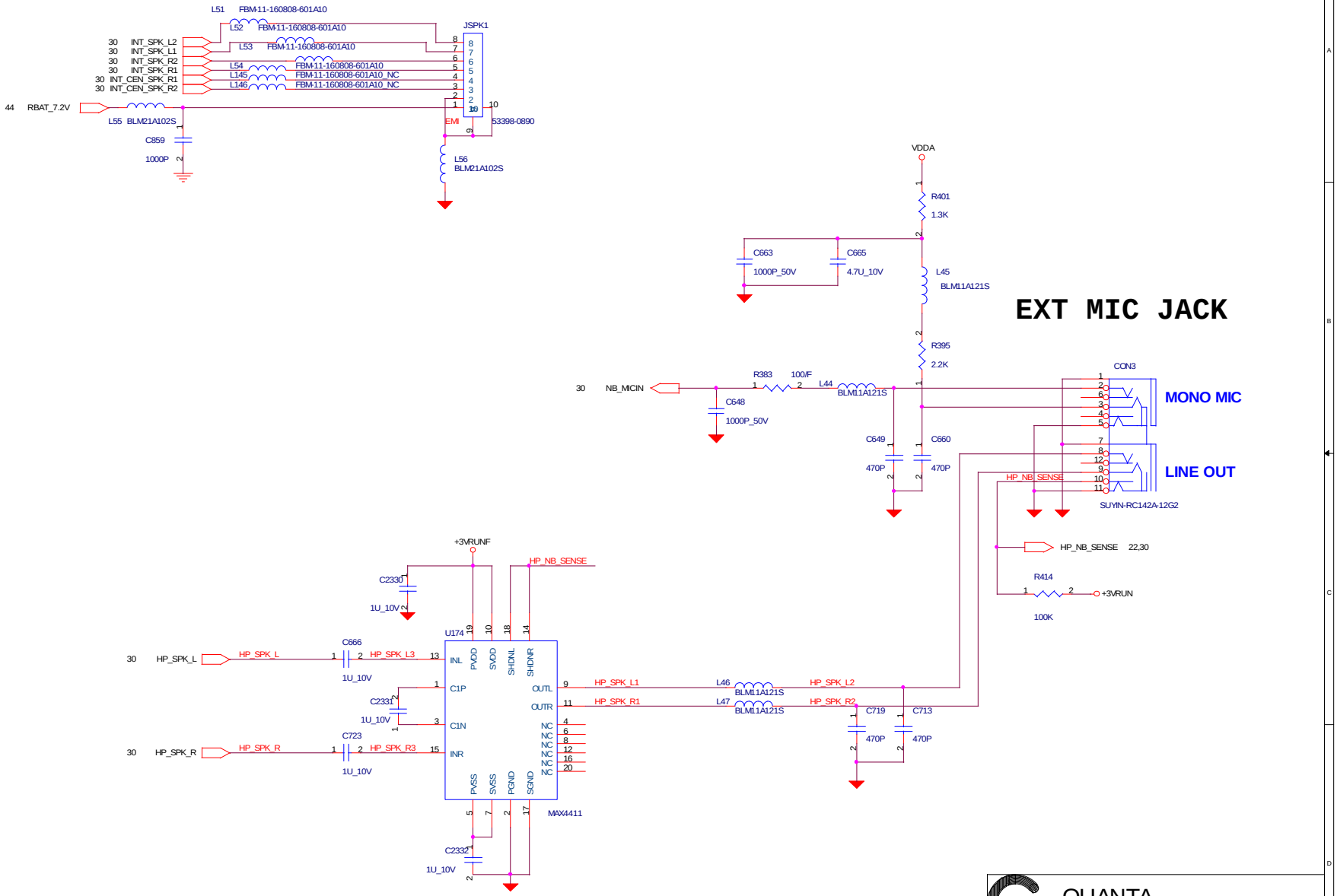
Title	FAN & THERMAL	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 29 of 46	



GAINO	GAIN1	AV
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB

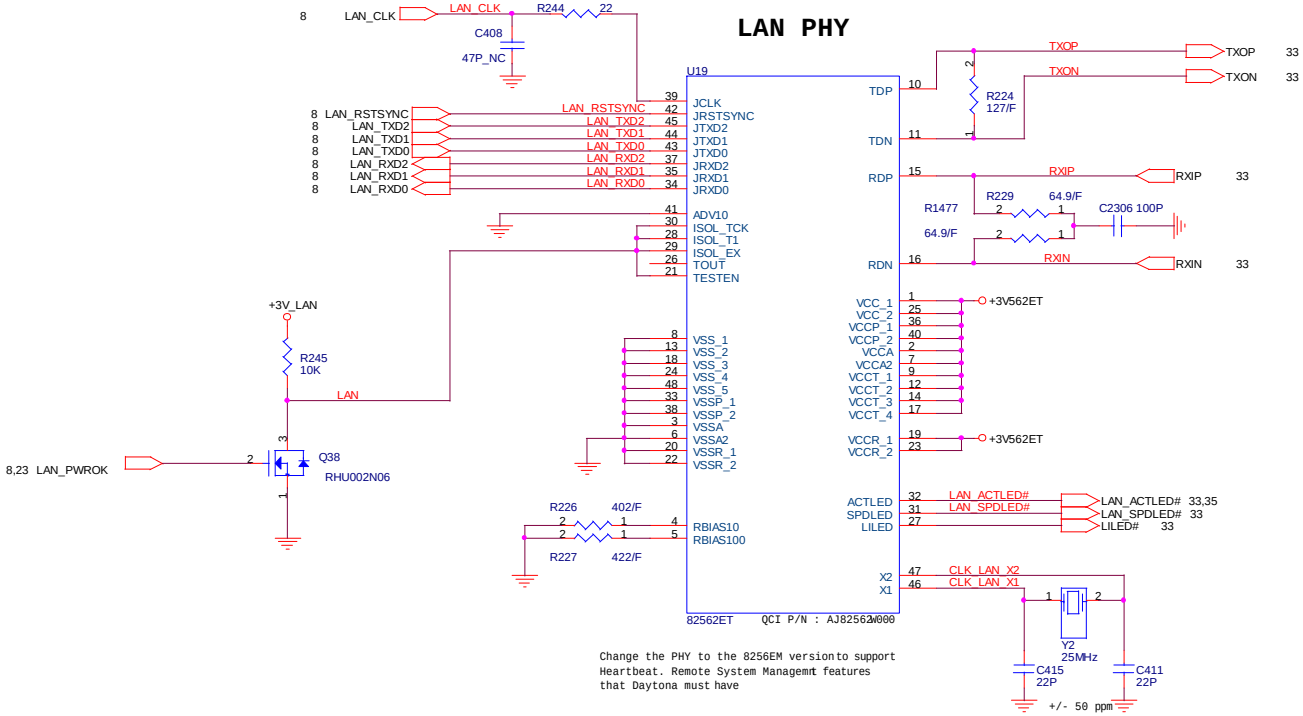
QUANTA COMPUTER

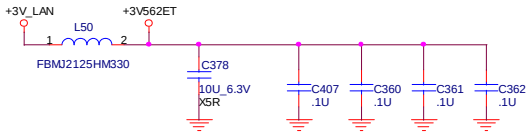
Title	AC97 CODEC	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 30 of 46	

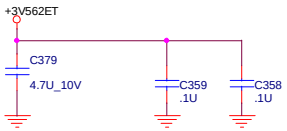


QUANTA COMPUTER

Title	AUDIO CONN	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 31 of 46	





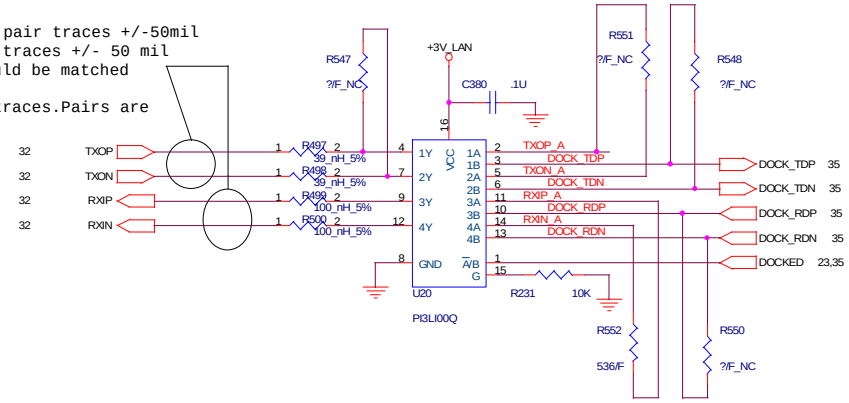


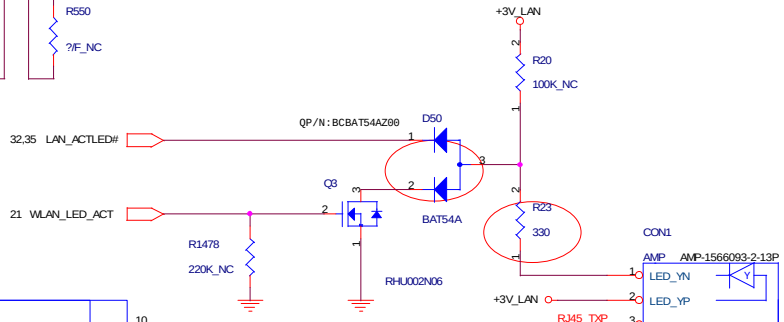
QUANTA COMPUTER

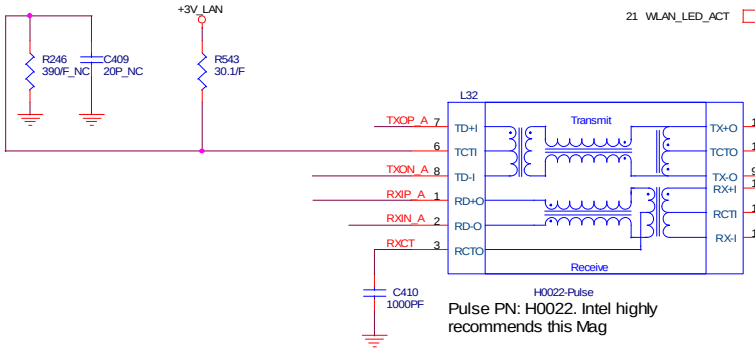
Title	LAN INTERFACE	
Size: Custom	Document Number: DM1	Rev: 1A
Date: Friday, July 18, 2003	Sheet 32 of 46	

Match trace length

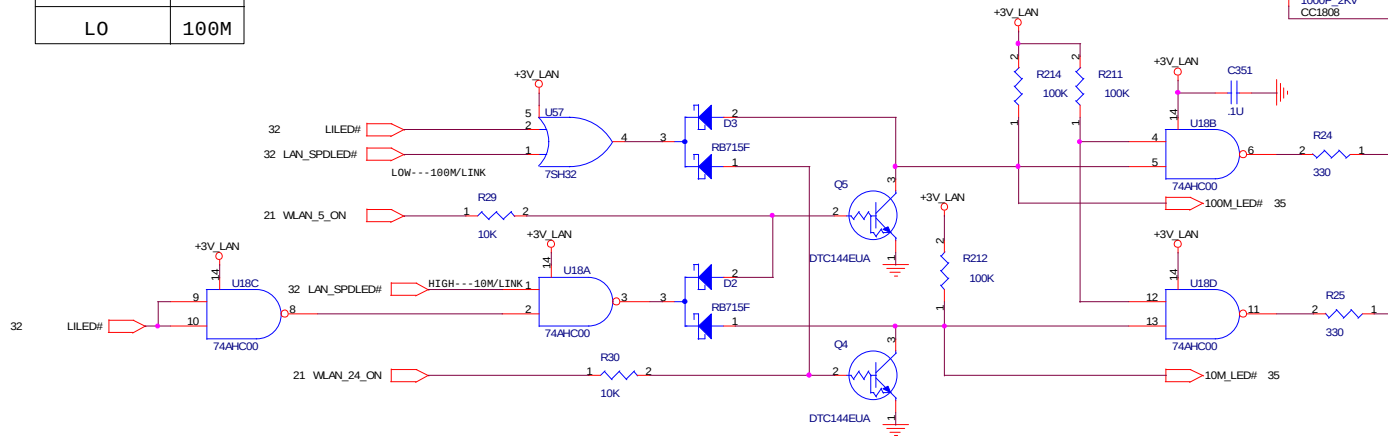
LAYOUT NOTES:
Match total length of chip side Rx and Tx pair traces +/-50mil
Match length of cable side Rx and Tx pair traces +/- 50 mil
Total line TX+ to TX- and RX- and RX+ should be matched within 50 mils.
Keep 50mil space between pairs and other traces.Pairs are 100ohm differential,

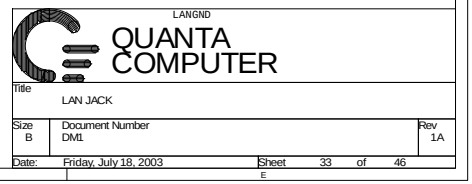


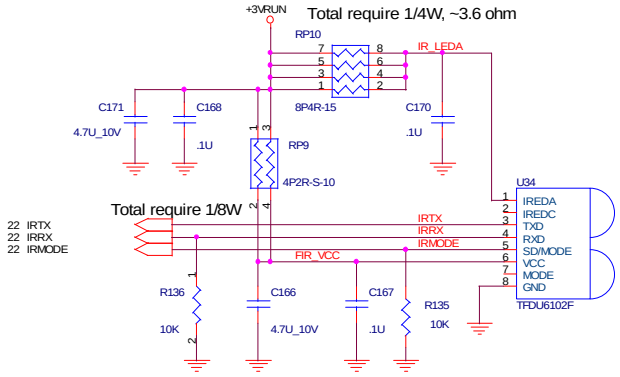


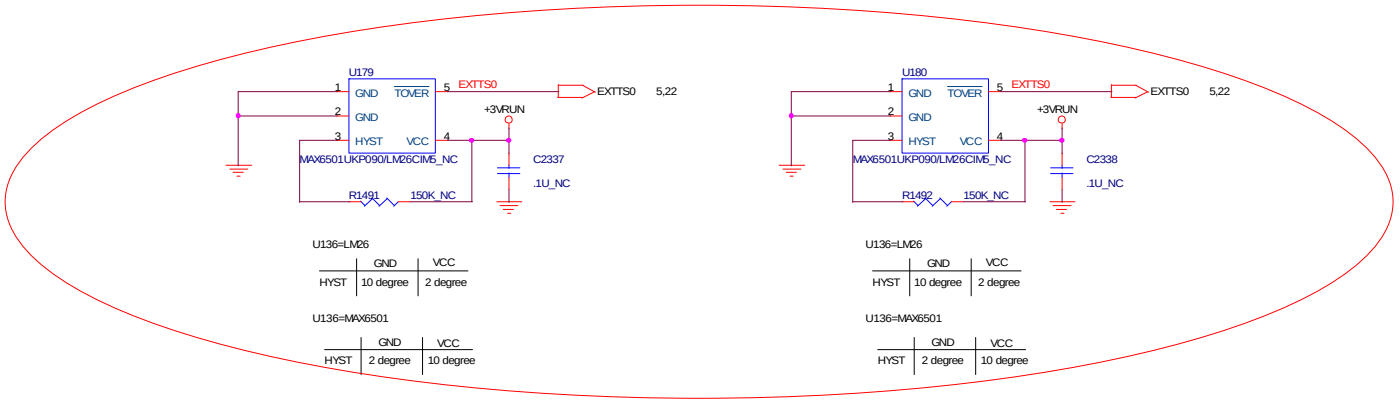


LAN_SPDLED#	SPEED
HI	10M
LO	100M



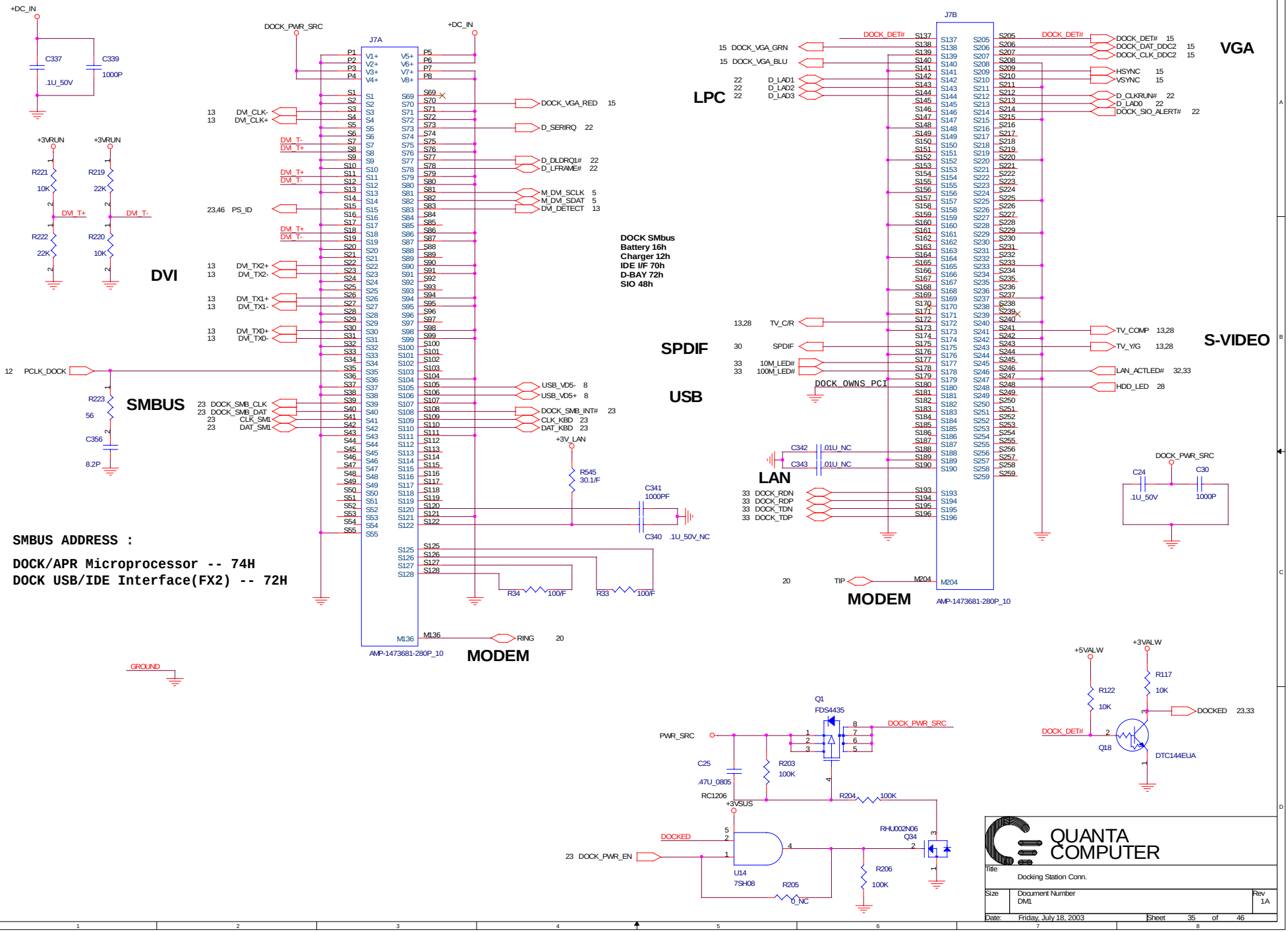


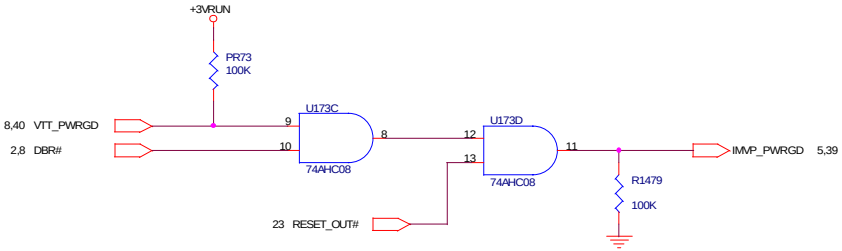


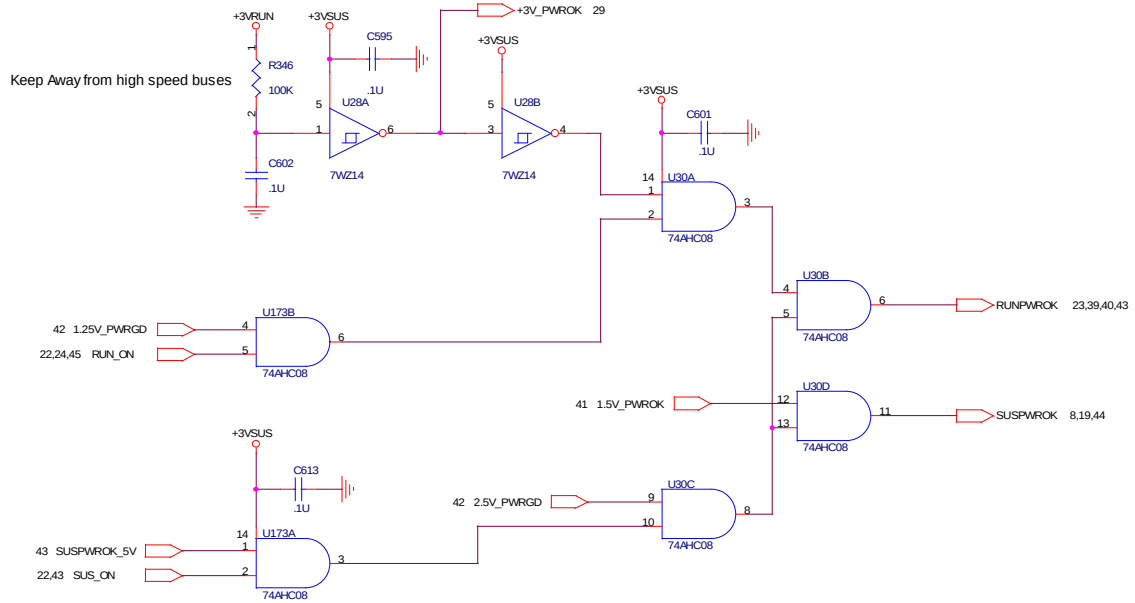


QUANTA COMPUTER

Title	FIR	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 34 of 46	

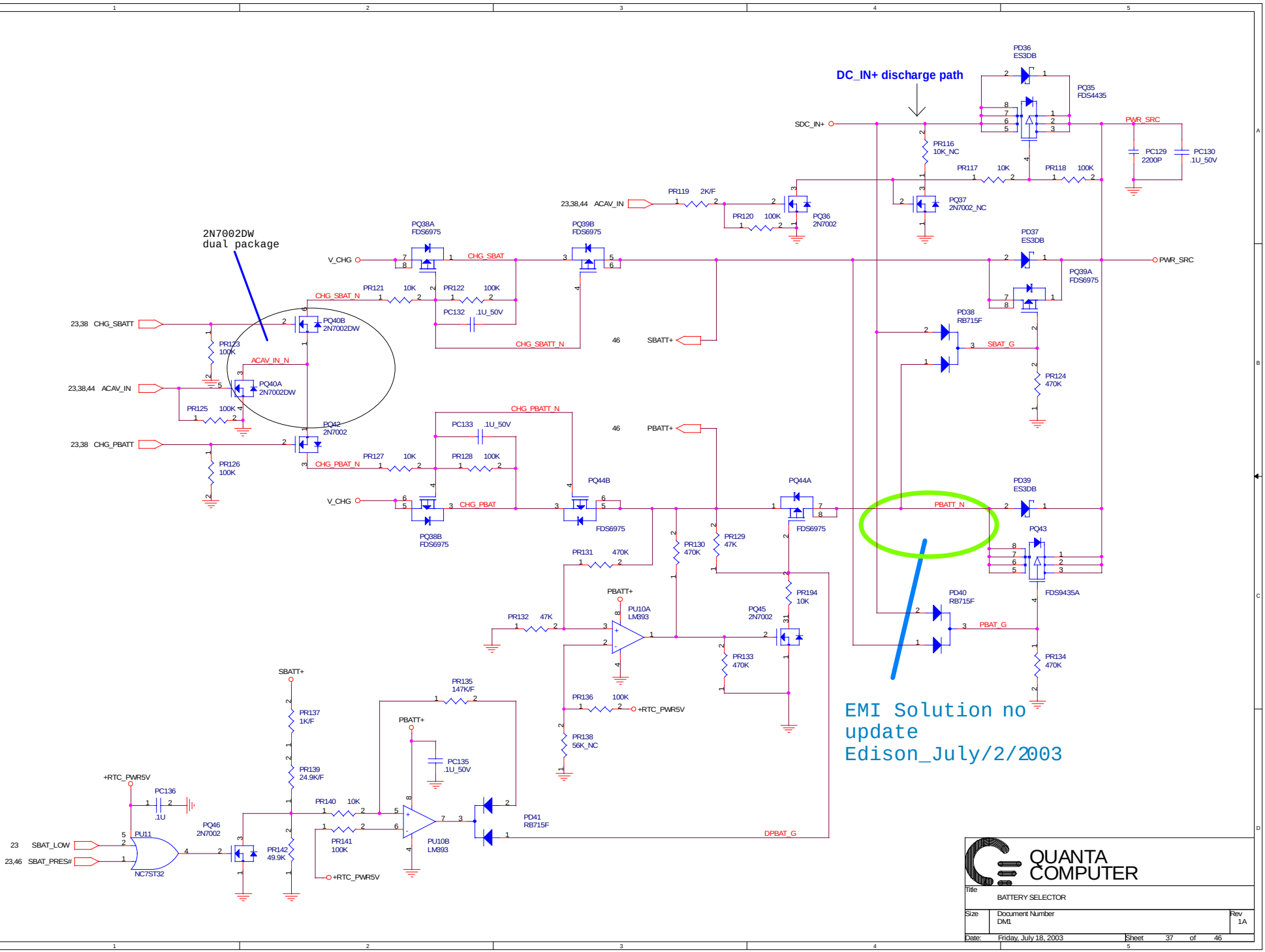

+DC_IN
C337
.1U_50V
C339
1000P
+3VRUN
R221
10K
R222
22K
DVI_T+
+3VRUN
R219
22K
R220
10K
DVI_T-
DVI
DOCK_PWR_SRC
J7A
+DC_IN
13 DVI_CLK-
13 DVI_CLK+
DVI_T-
DVI_T+
DVI_T+
DVI_T-
23,46 PS_ID
DVI_T+
DVI_T-
13 DVI_TX2+
13 DVI_TX2-
13 DVI_TX1+
13 DVI_TX1-
13 DVI_TX0+
13 DVI_TX0-
DOCK_VGA_RED 15
D_SERIRQ 22
D_DLDRQ1# 22
D_LFRAME# 22
M_DVI_SCLK 5
M_DVI_SDAT 5
DVI_DETECT 13
DOCK SMbus
Battery 16h
Charger 12h
IDE I/F 70h
D-BAY 72h
SIO 48h
12 PCLK_DOCK
R223
56
C356
8.2P
SMBUS
23 DOCK_SMB_CLK
23 DOCK_SMB_DAT
23 CLK_SM1
23 DAT_SM1
USB_VD5- 8
USB_VD5+ 8
DOCK_SMB_INT# 23
CLK_KBD 23
DAT_KBD 23
+3V_LAN
R545
30.1/F
C341
1000PF
C340 .1U_50V_NC
R34 100/F
R33 100/F
M136
RING 20
AMP-1473681-280P_10
MODEM
SPDIF
USB
GROUND
SMBUS ADDRESS :
DOCK/APR Microprocessor -- 74H
DOCK USB/IDE Interface(FX2) -- 72H
J7B
LPC
15 DOCK_VGA_GRN
15 DOCK_VGA_BLU
22 D_LAD1
22 D_LAD2
22 D_LAD3
DOCK_DET#
13,28 TV_C/R
30 SPDIF
33 10M_LED#
33 100M_LED#
DOCK_OWNS_PCI
C342 .01U_NC
C343 .01U_NC
LAN
33 DOCK_RDN
33 DOCK_RDP
33 DOCK_TDN
33 DOCK_TDP
20 TIP
M204
AMP-1473681-280P_10
MODEM
VGA
DOCK_DET# 15
DOCK_DAT_DDC2 15
DOCK_CLK_DDC2 15
HSYNC 15
VSYNC 15
D_CLKRUN# 22
D_LAD0 22
DOCK_SIO_ALERT# 22
S-VIDEO
TV_COMP 13,28
TV_Y/G 13,28
LAN_ACTLED# 32,33
HDD_LED 28
DOCK_PWR_SRC
C24 .1U_50V
C30 1000P
PWR_SRC
Q1
FDS4435
DOCK_PWR_SRC
C25 .47U_0805
R203 100K
RC1206
R204 100K
+3VSUS
DOCKED
23 DOCK_PWR_EN
U14
7SH08
R205 0_NC
RHU002N06
Q34
R206 100K
+5VALW
R122 10K
DOCK_DET#
+3VALW
R117 10K
DOCKED 23,33
Q18
DTC144EUA
QUANTA COMPUTER
Title
Docking Station Conn.
Size
Document Number
DM1
Rev
1A
Date: Friday, July 18, 2003
Sheet 35 of 46





QUANTA COMPUTER

Title	POWER GOOD	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 36 of 46	


DC_IN+ discharge path
2N7002DW
dual package
SDC_IN+
PWR_SRC
PD36
ES3DB
PQ35
FDS4435
PR116
10K_NC
PR117
10K
PR118
100K
PC129
2200P
PC130
.1U_50V
PQ37
2N7002_NC
23,38,44 ACAV_IN
PR119
2K/F
PR120
100K
PQ36
2N7002
PQ38A
FDS6975
PQ39B
FDS6975
V_CHG
CHG_SBAT
PD37
ES3DB
PQ39A
FDS6975
PR121
10K
PR122
100K
PC132
.1U_50V
CHG_SBAT_N
46
SBATT+
23,38 CHG_SBATT
PQ40B
2N7002DW
PR123
100K
PD38
RB715F
SBAT_G
PR124
470K
ACAV_IN_N
23,38,44 ACAV_IN
PQ40A
2N7002DW
PR125
100K
CHG_PBATT_N
PC133
.1U_50V
46
PBATT+
PQ42
2N7002
23,38 CHG_PBATT
PR126
100K
PR127
10K
PR128
100K
CHG_PBAT
V_CHG
PQ44B
PQ44A
PD39
ES3DB
PBATT_N
PQ38B
FDS6975
FDS6975
FDS6975
PQ43
FDS9435A
PR131
470K
PR130
470K
PR129
47K
PR194
10K
PD40
RB715F
PBAT_G
PR132
47K
PU10A
LM393
PQ45
2N7002
PR133
470K
PR134
470K
SBATT+
PR135
147K/F
PR136
100K
+RTC_PWR5V
PR137
1K/F
PR138
56K_NC
PBATT+
PC135
.1U_50V
PR139
24.9K/F
+RTC_PWR5V
PC136
.1U
PR140
10K
PD41
RB715F
23 SBAT_LOW
23,46 SBAT_PRES#
PU11
NC7ST32
PQ46
2N7002
PR142
49.9K
PR141
100K
PU10B
LM393
+RTC_PWR5V
DPBAT_G
EMI Solution no update
Edison_July/2/2003
QUANTA COMPUTER
Title
BATTERY SELECTOR
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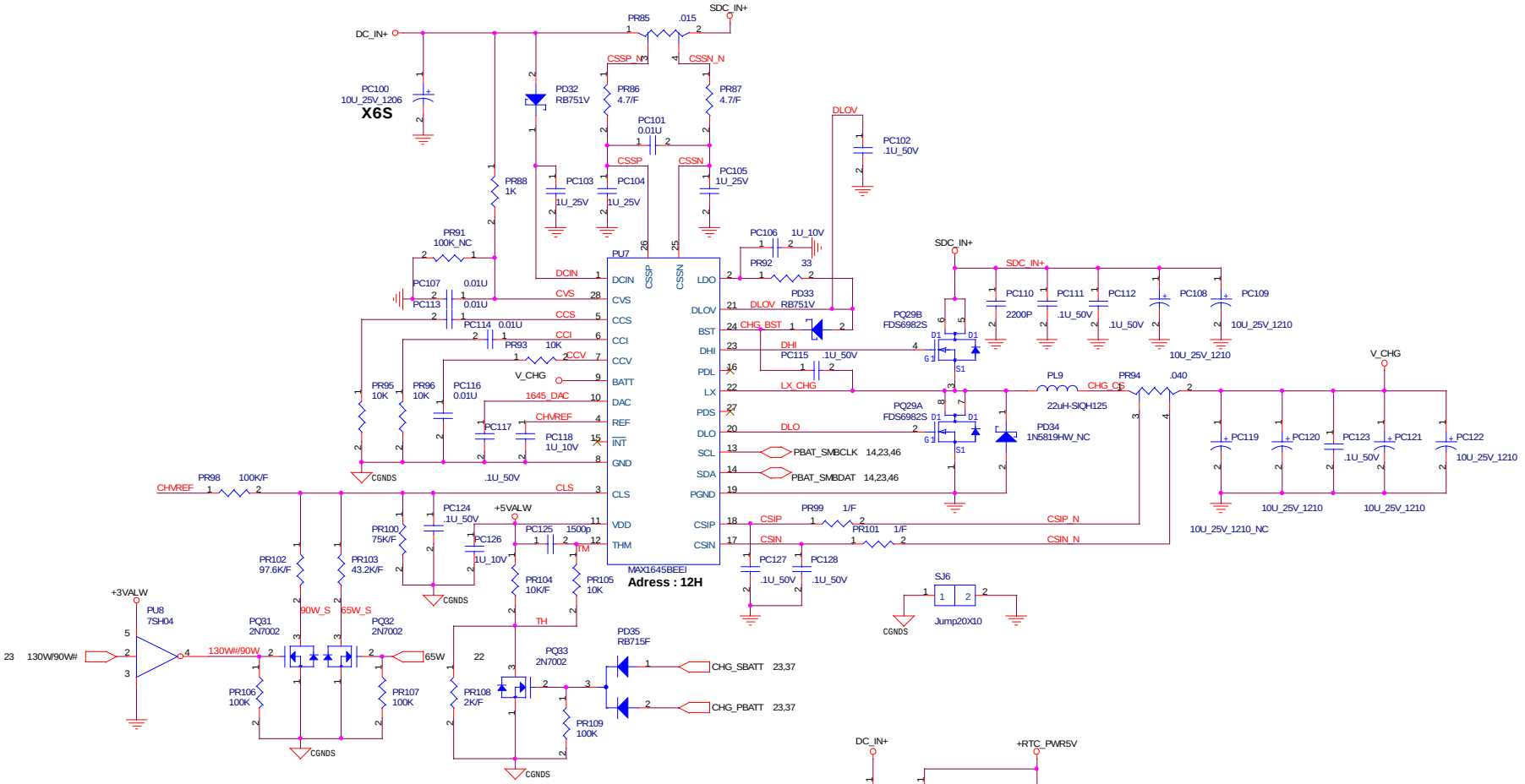

	65W (2.93A)	90W (4.2A)	130W (5.8A)
65W	H	L	L
130W/90W#	H	L	H

The library of PU9 will modify April/8_Edison

QUANTA COMPUTER

Title	Battery Charger	
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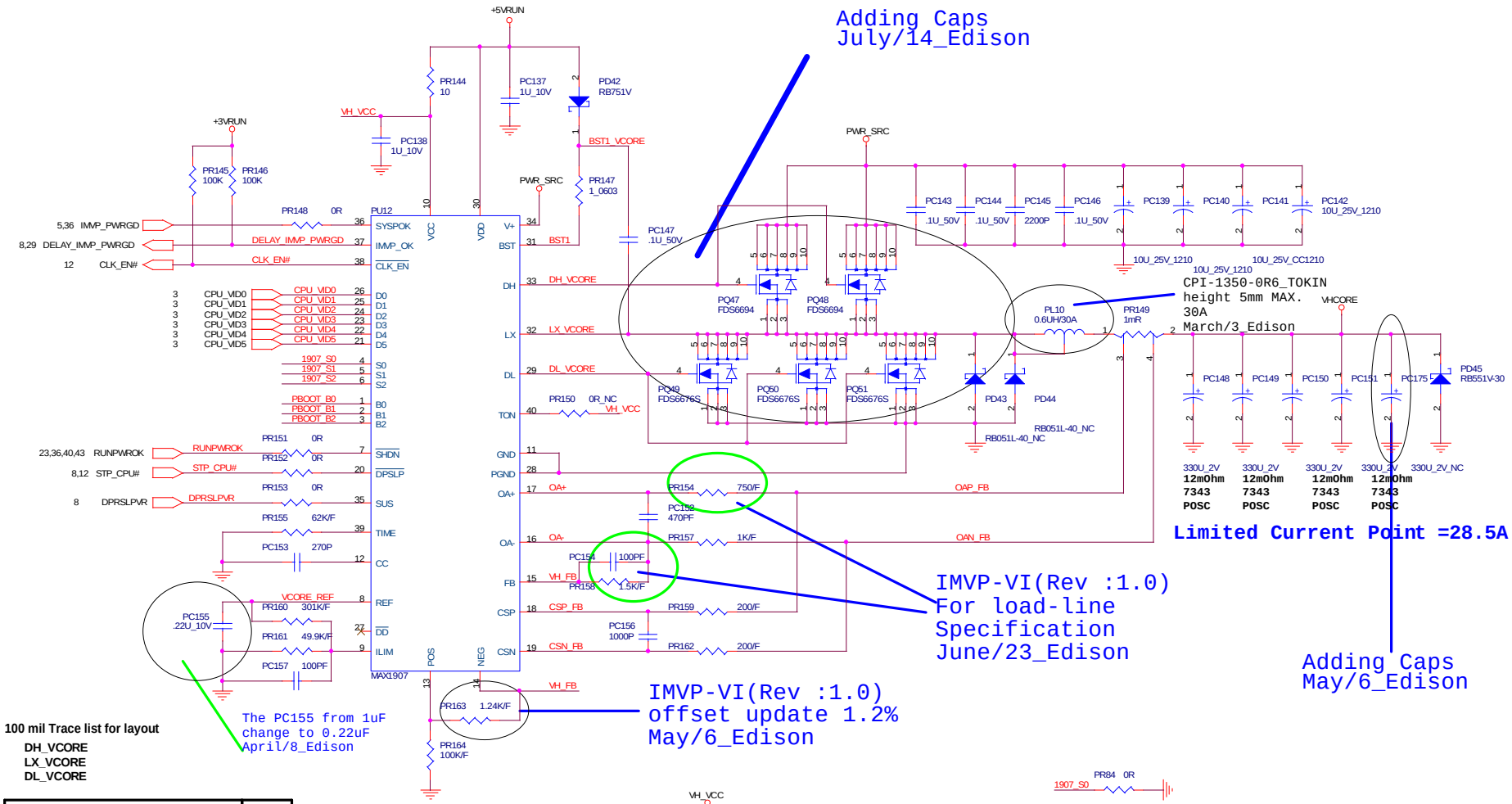

100 mil Trace list for layout

- DH_VCORE
- LX_VCORE
- DL_VCORE

V I D						Vcore
VID 5	VID 4	VID 3	VID 2	VID 1	VID 0	V
0	0	1	1	1	1	1.468
0	1	0	1	1	1	1.340
0	1	1	0	0	0	1.324
0	1	1	0	1	0	1.292
0	1	1	1	0	0	1.260
0	1	1	1	0	1	1.244
0	1	1	1	1	1	1.212
1	0	0	0	0	1	1.180
1	0	0	0	1	1	1.148
1	0	0	1	1	0	1.100
1	0	1	0	0	1	1.052
1	0	1	0	1	1	1.020
1	0	1	1	1	0	0.972
1	1	0	0	0	0	0.940

PBOOT VOLTAGE
SETTING UP ON
1.212V

The C4 mode voltage is 0.748V

QUANTA COMPUTER

Title	CPU POWER	
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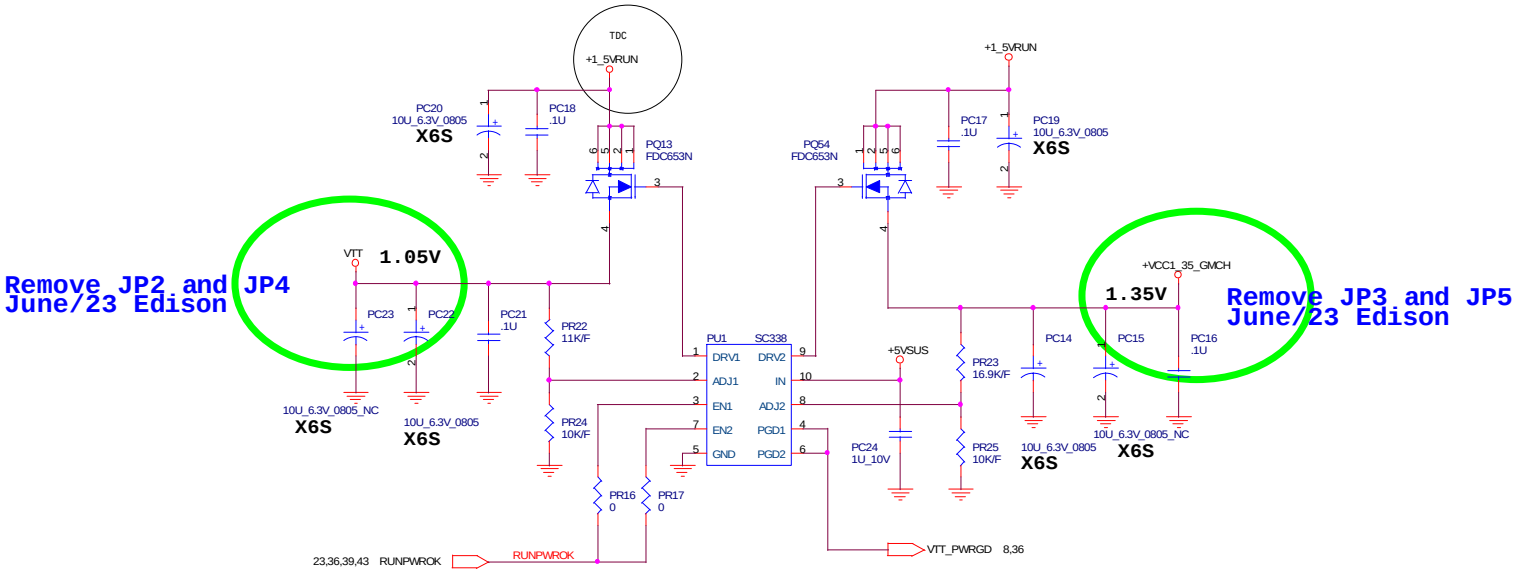
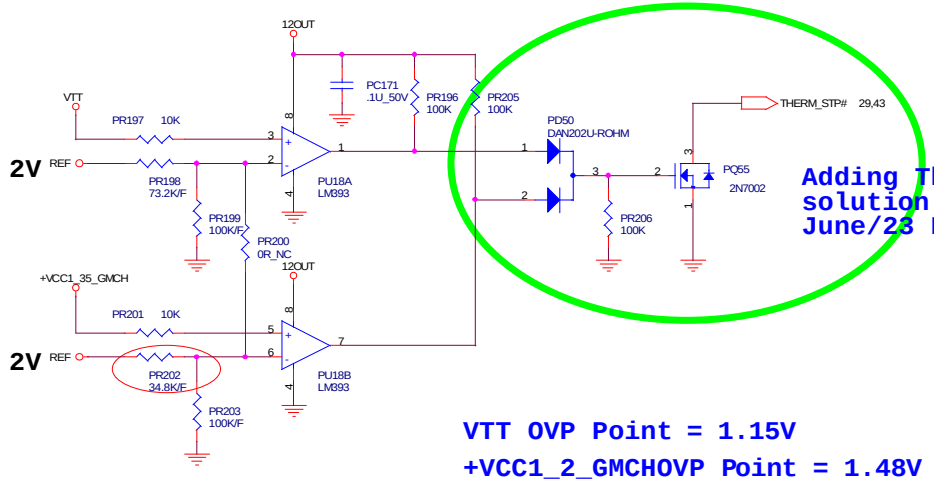


Remove JP2 and JP4
June/23 Edison

Remove JP3 and JP5
June/23 Edison

VTT Current Limite 3.2A

1.20V - GM, PR23=14.0K/F
1.35V - GM+ PR23=16.9K/F
+VCC1_2_GMCH Current Limite 3.2A



Adding The OVP solution
June/23 Edison

VTT OVP Point = 1.15V
+VCC1_2_GMCHOVP Point = 1.48V

QUANTA COMPUTER

Title	VTT,VCC1_2_MCH	
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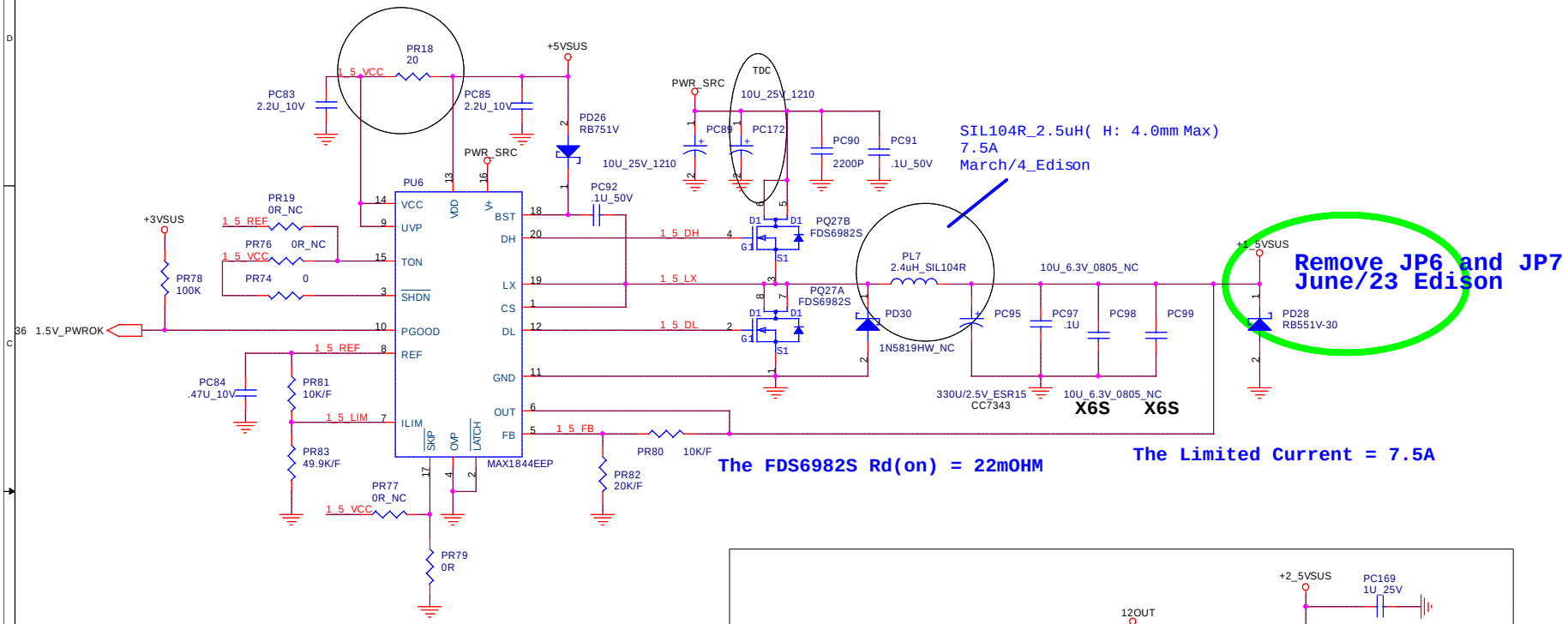

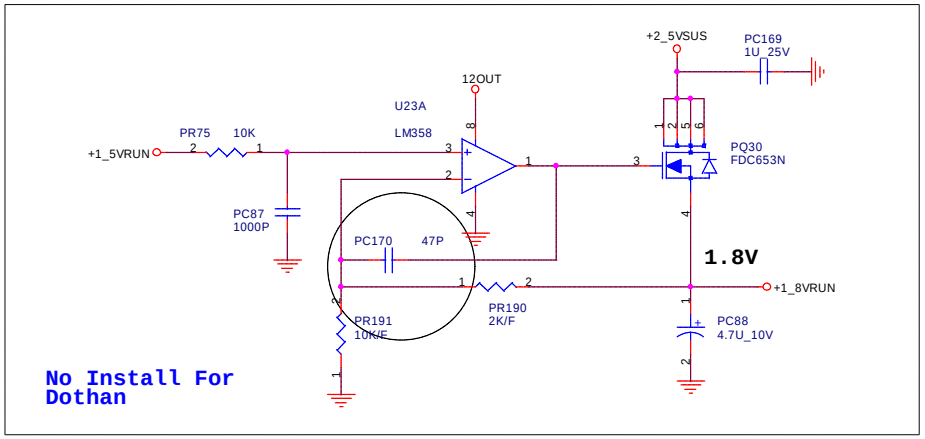

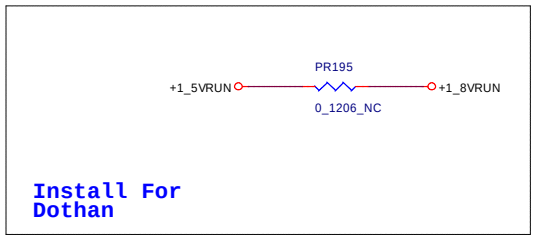

QUANTA COMPUTER

Title	+1_5VSUS & +1_8VRUN	
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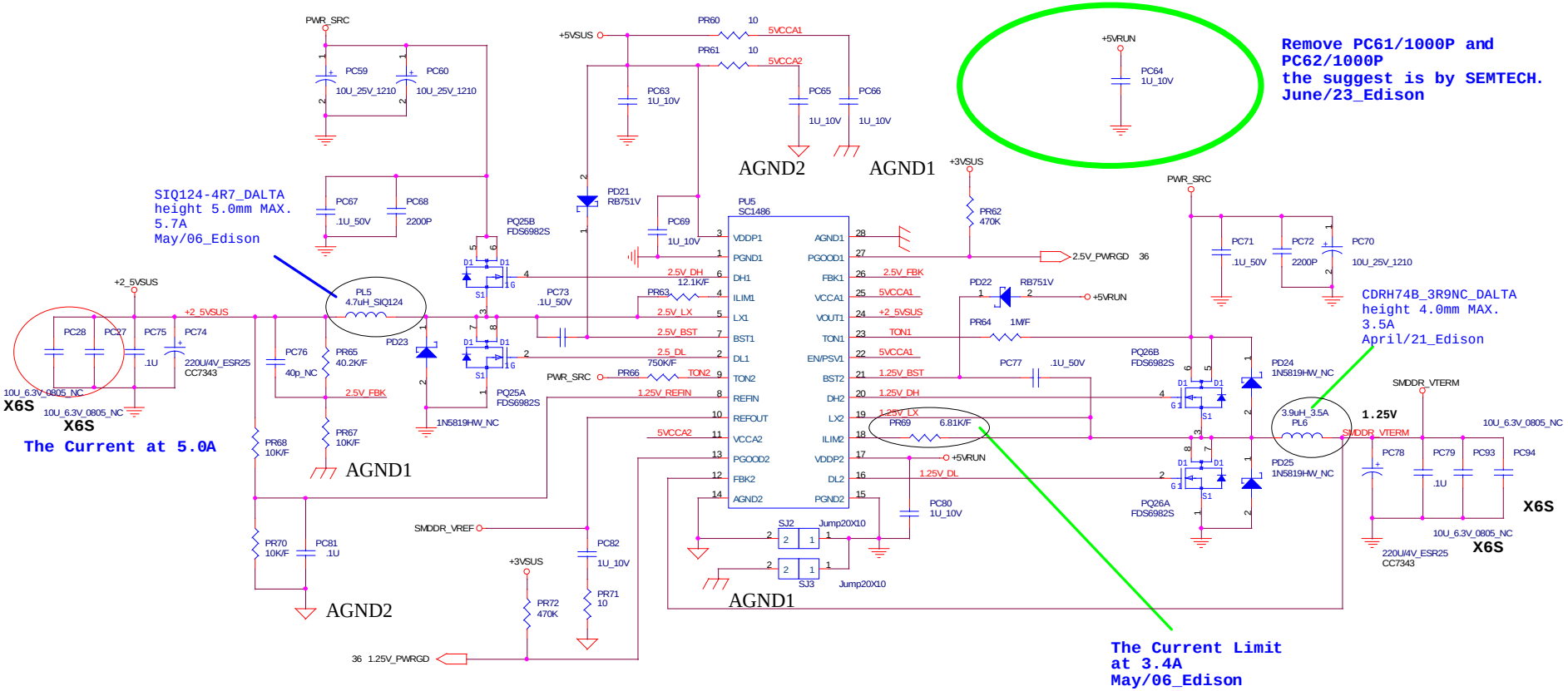
Remove PC61/1000P and PC62/1000P the suggest is by SEMTECH. June/23_Edison
SIQ124-4R7_DALTA height 5.0mm MAX. 5.7A May/06_Edison
CDRH74B_3R9NC_DALTA height 4.0mm MAX. 3.5A April/21_Edison
The Current at 5.0A
The Current Limit at 3.4A May/06_Edison
PWR_SRC
+5VSUS
+3VSUS
+5VRUN
+2_5VSUS
AGND1
AGND2
PU5 SC1486
PD21 RB751V
PD22 RB751V
PD23 1N5819HW_NC
PD24 1N5819HW_NC
PD25 1N5819HW_NC
PQ25A FDS6982S
PQ25B FDS6982S
PQ26A FDS6982S
PQ26B FDS6982S
PL5 4.7uH_SIQ124
PL6 3.9uH_3.5A
PC59 10U_25V_1210
PC60 10U_25V_1210
PC63 1U_10V
PC64 1U_10V
PC65 1U_10V
PC66 1U_10V
PC67 .1U_50V
PC68 2200P
PC69 1U_10V
PC70 10U_25V_1210
PC71 .1U_50V
PC72 2200P
PC73 .1U_50V
PC75 .1U
PC76 40p_NC
PC77 .1U_50V
PC78 220U/4V_ESR25 CC7343
PC79 .1U
PC80 1U_10V
PC81 .1U
PC82 1U_10V
PC93 10U_6.3V_0805_NC
PC94 X6S
PR60 10
PR61 10
PR62 470K
PR63 12.1K/F
PR64 1M/F
PR65 40.2K/F
PR66 750K/F
PR67 10K/F
PR68 10K/F
PR69 6.81K/F
PR70 10K/F
PR71 10
PR72 470K
SJ2 Jumper20X10
SJ3 Jumper20X10
5VCCA1
5VCCA2
2.5V_PWRGD
2.5V_FBK
2.5V_DH
2.5V_LX
2.5V_BST
2.5_DL
1.25V_REFIN
1.25V_BST
1.25V_DH
1.25V_LX
1.25V_DL
TON1
TON2
SMDDR_VREF
SMDDR_VTERM
1.25V
X6S
QUANTA COMPUTER
Title 2.5V,1.25V
Size Document Number DM1 Rev 1A
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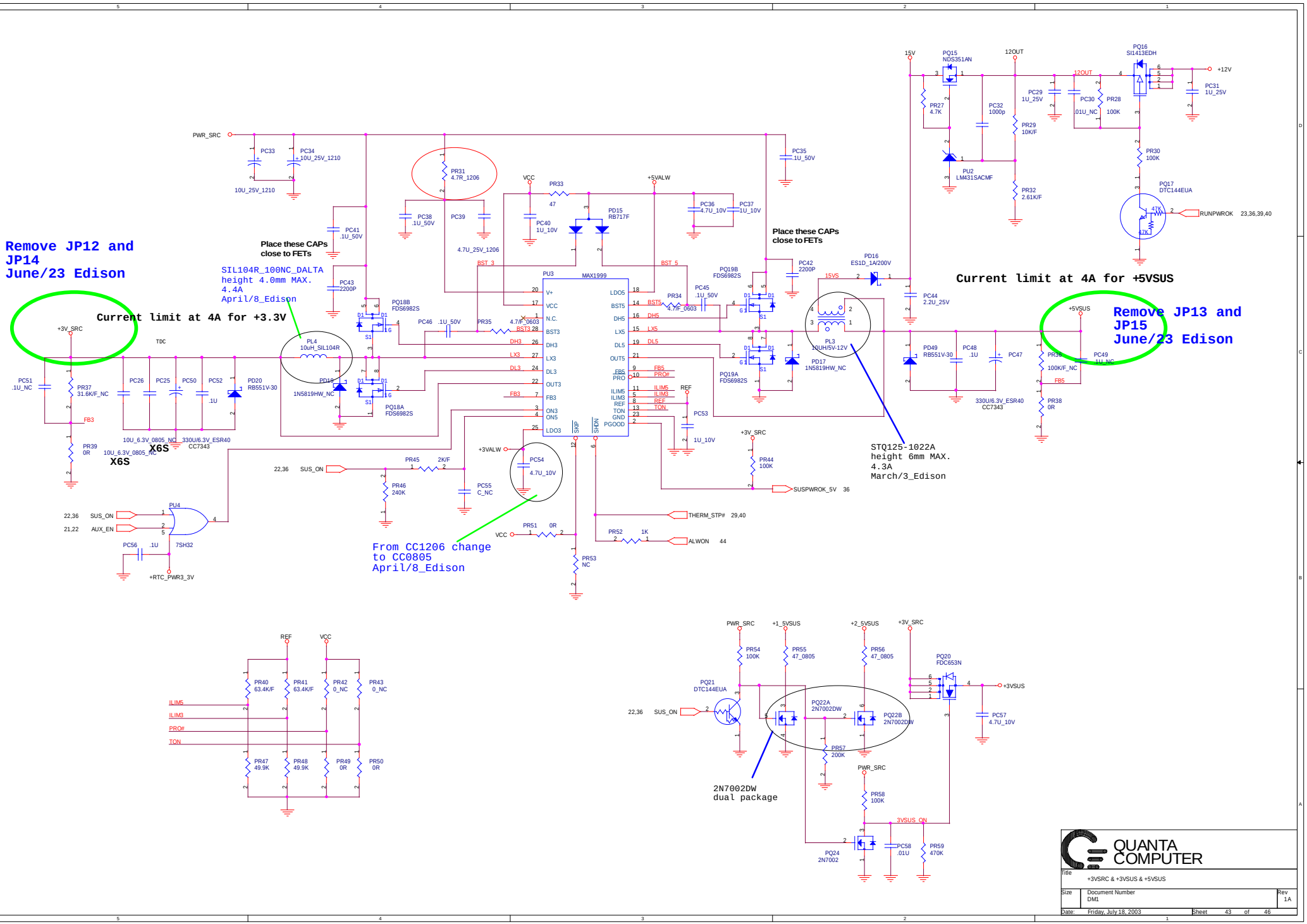
Remove JP12 and JP14
June/23 Edison
Place these CAPs close to FETs
SIL104R_100NC_DALTA
height 4.0mm MAX.
4.4A
April/8_Edison
Current limit at 4A for +3.3V
Place these CAPs close to FETs
Current limit at 4A for +5VSUS
Remove JP13 and JP15
June/23 Edison
STQ125-1022A
height 6mm MAX.
4.3A
March/3_Edison
From CC1206 change to CC0805
April/8_Edison
2N7002DW dual package
MAX1999
X6S
X6S
QUANTA COMPUTER
+3VSRC & +3VSUS & +5VSUS
Friday, July 18, 2003
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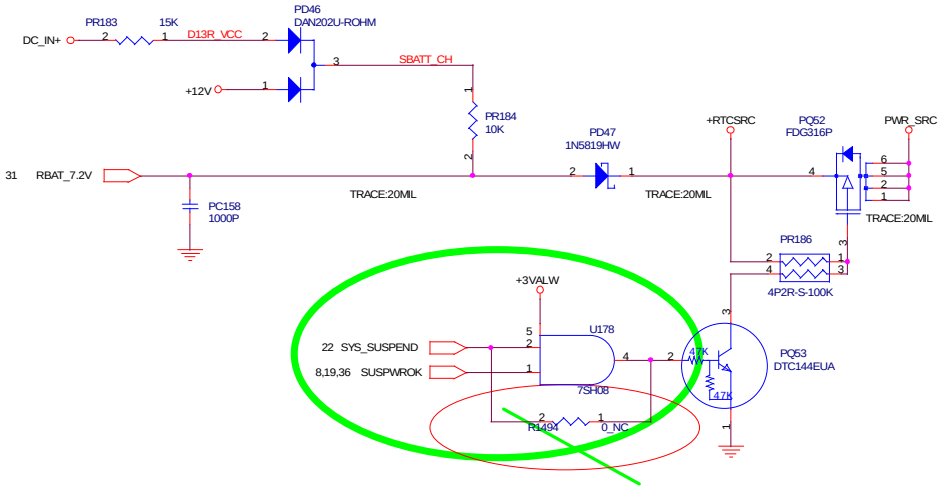

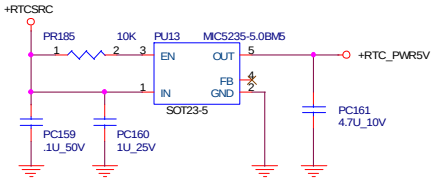

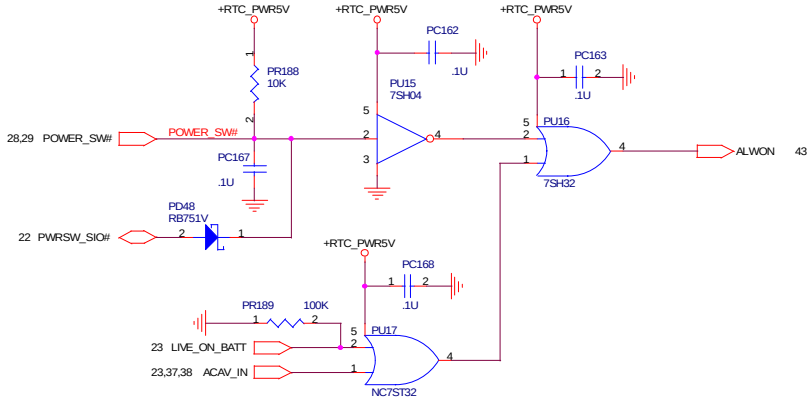

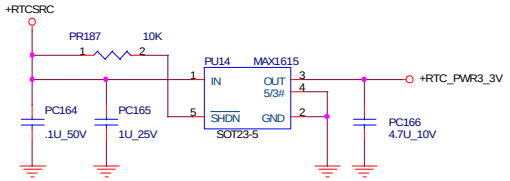

QUANTA COMPUTER

Title	DCIN,BATT CONNECTOR	
Size	Document Number DM1	Rev 1A
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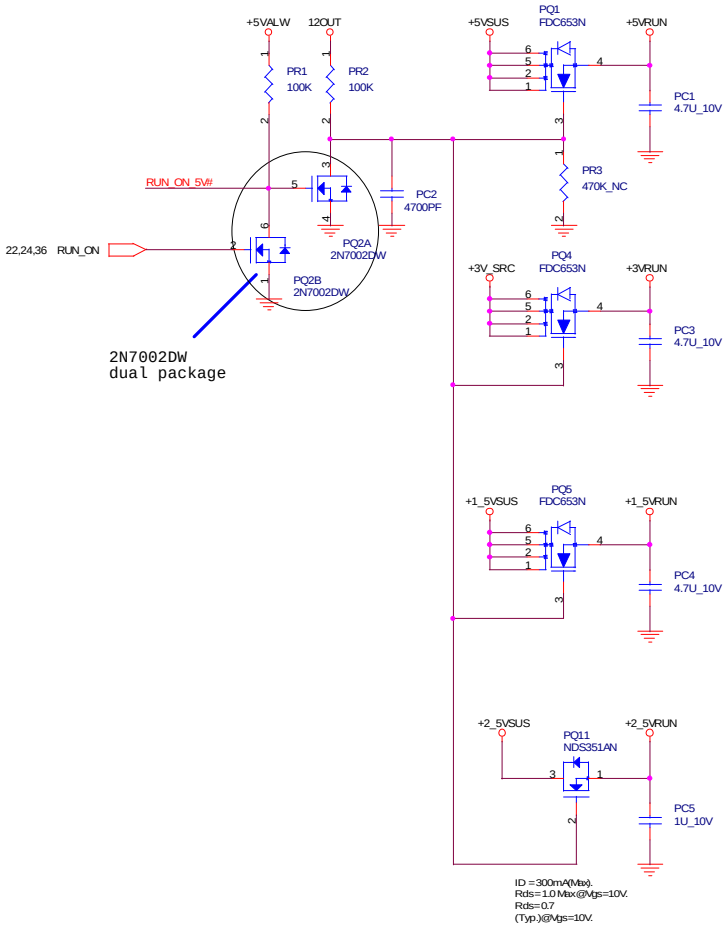
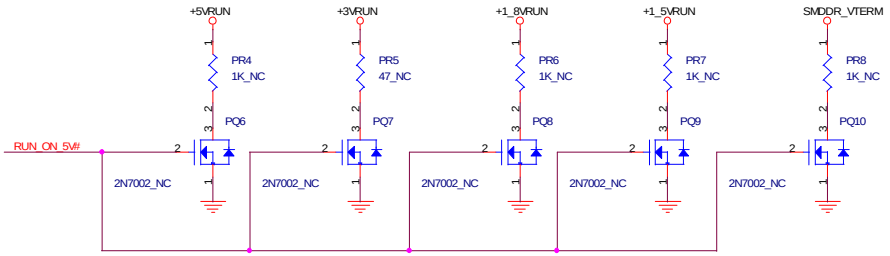
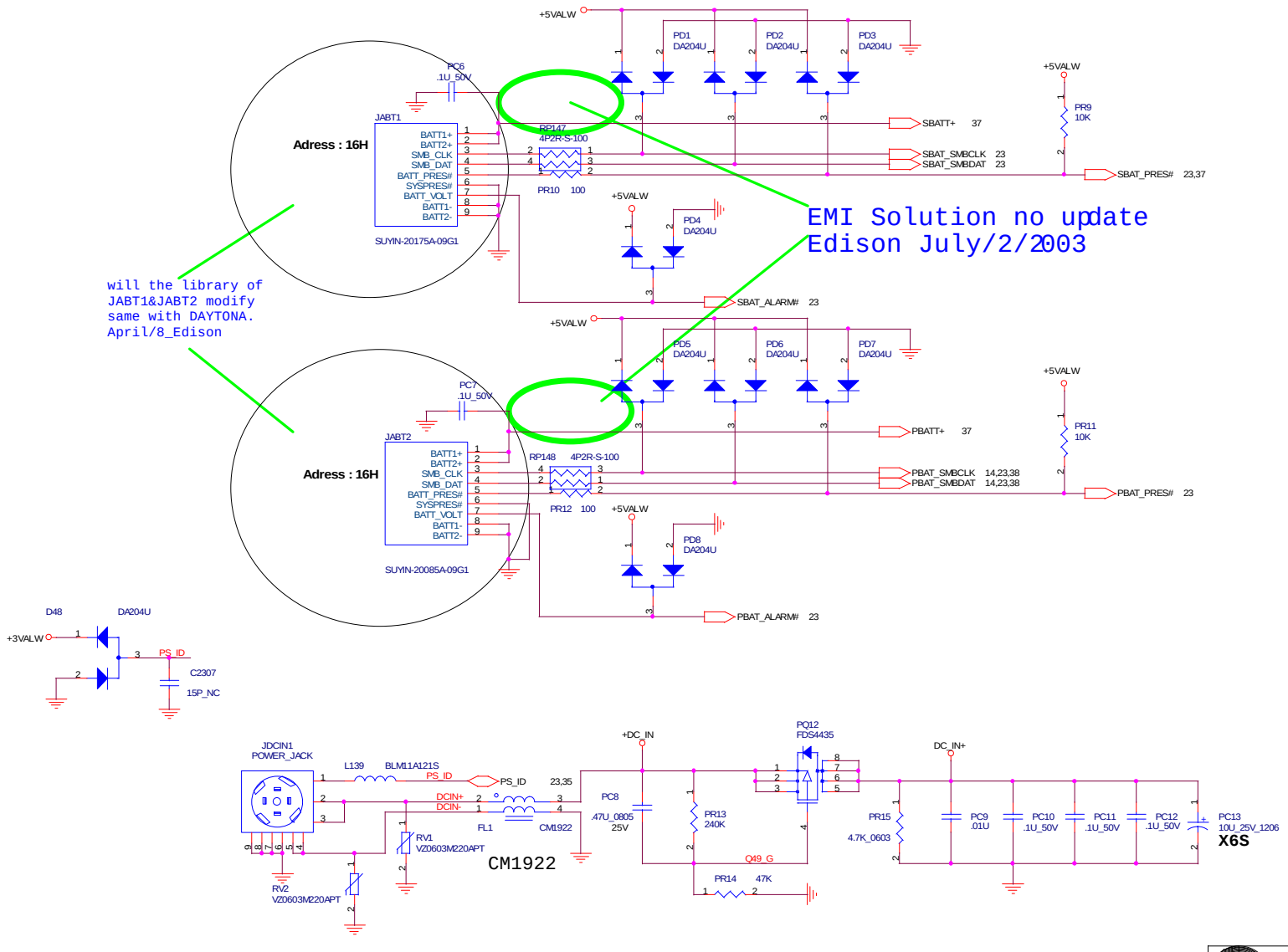




Reserve discharge path

QUANTA COMPUTER

Title	RUN POWER SW	
Size	Document Number DM1	Rev 1A
Date: Friday, July 18, 2003	Sheet 45 of 46	



QUANTA COMPUTER

Title	DCIN,BATT CONNECTOR	
Size	Document Number DM1	Rev 1A
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