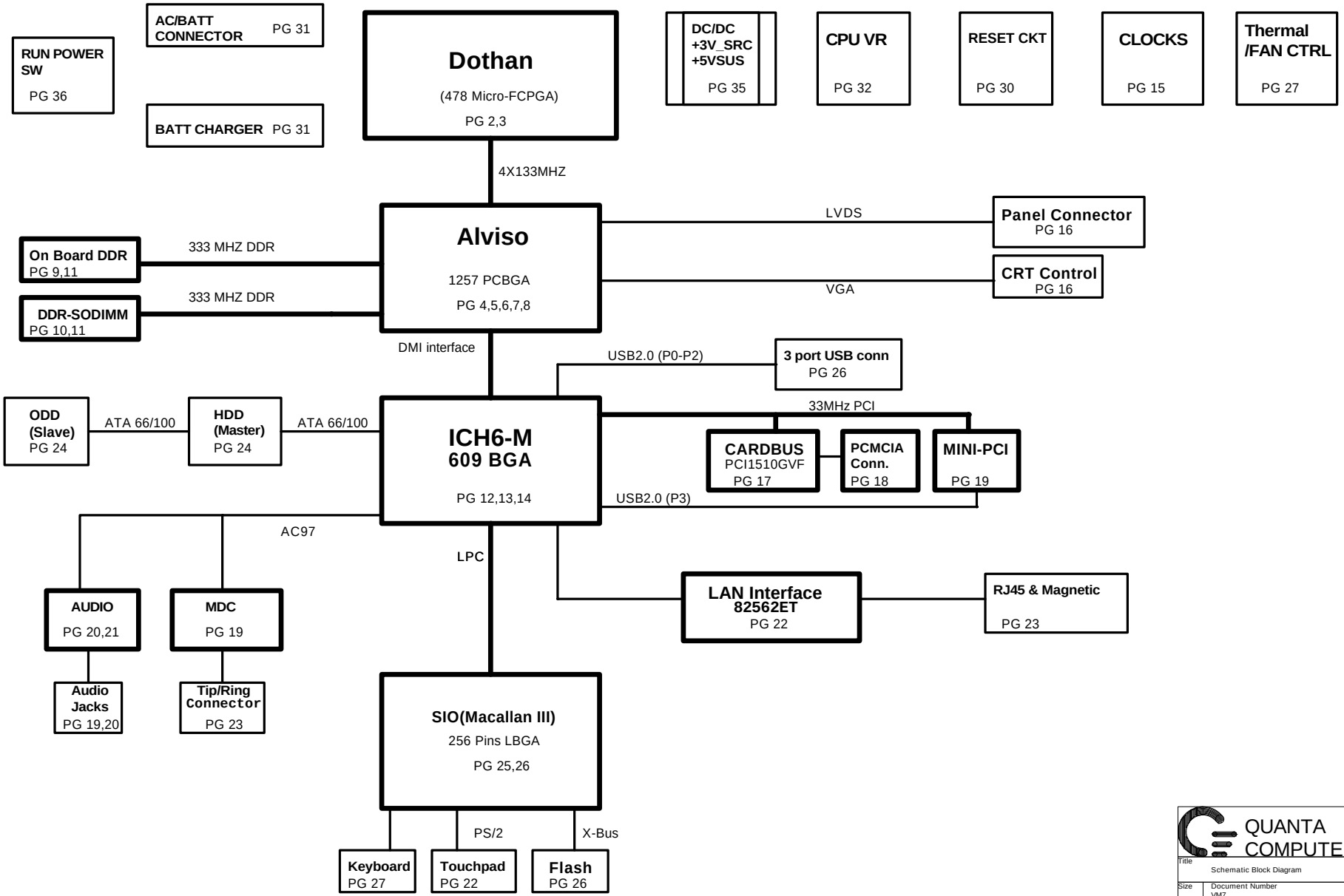
Tonga & Tyler (T2)

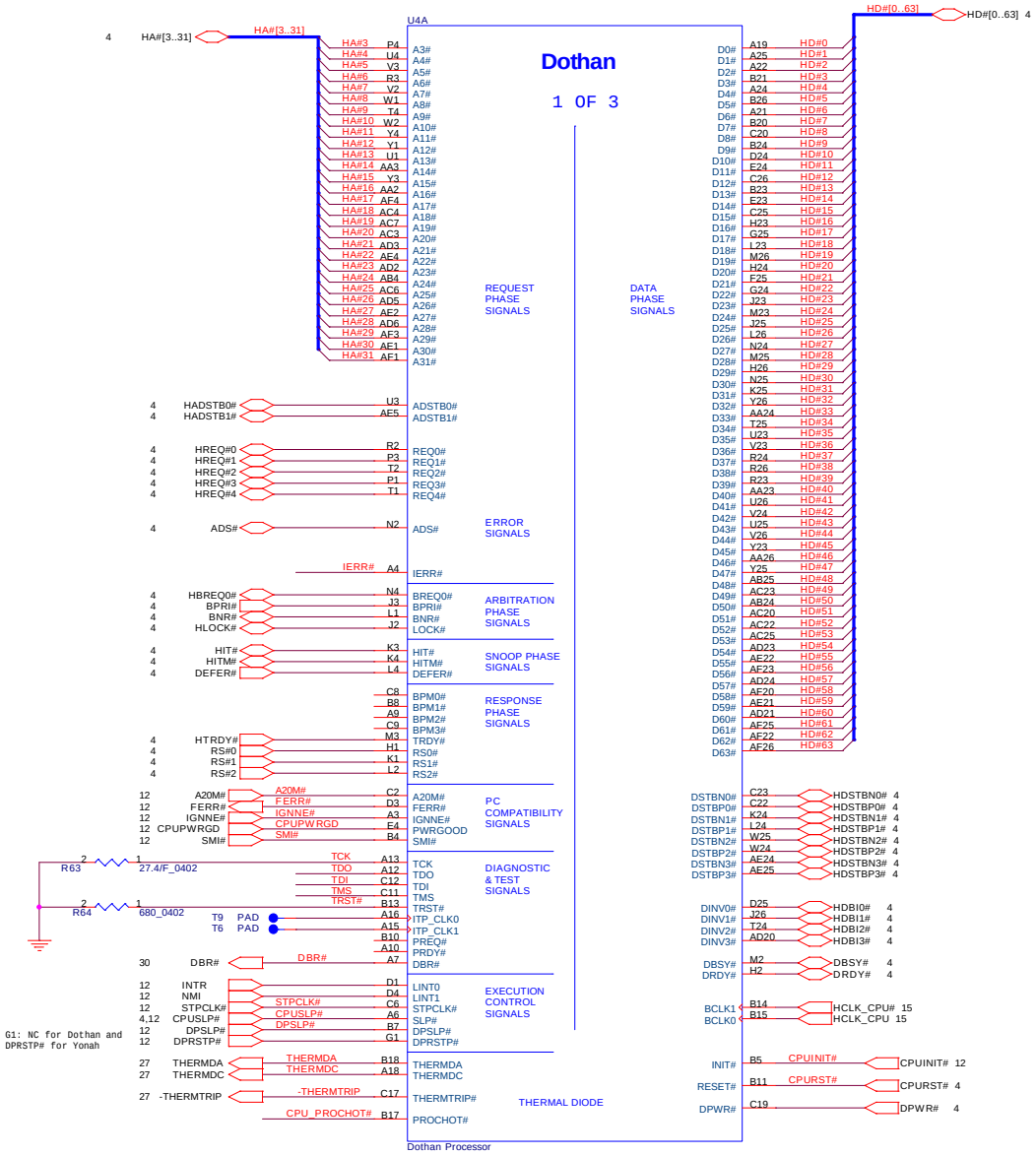
VER : 1A

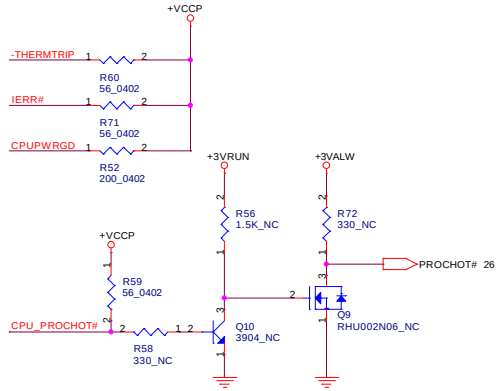
01



QUANTA COMPUTER

Title	Schematic Block Diagram		
Size	Document Number VM7		Rev 1A
Date:	Tuesday, August 17, 2004	Sheet 1 of 40	

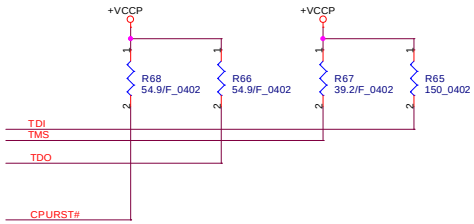


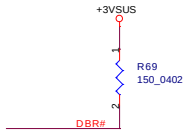


ITP disable guidelines

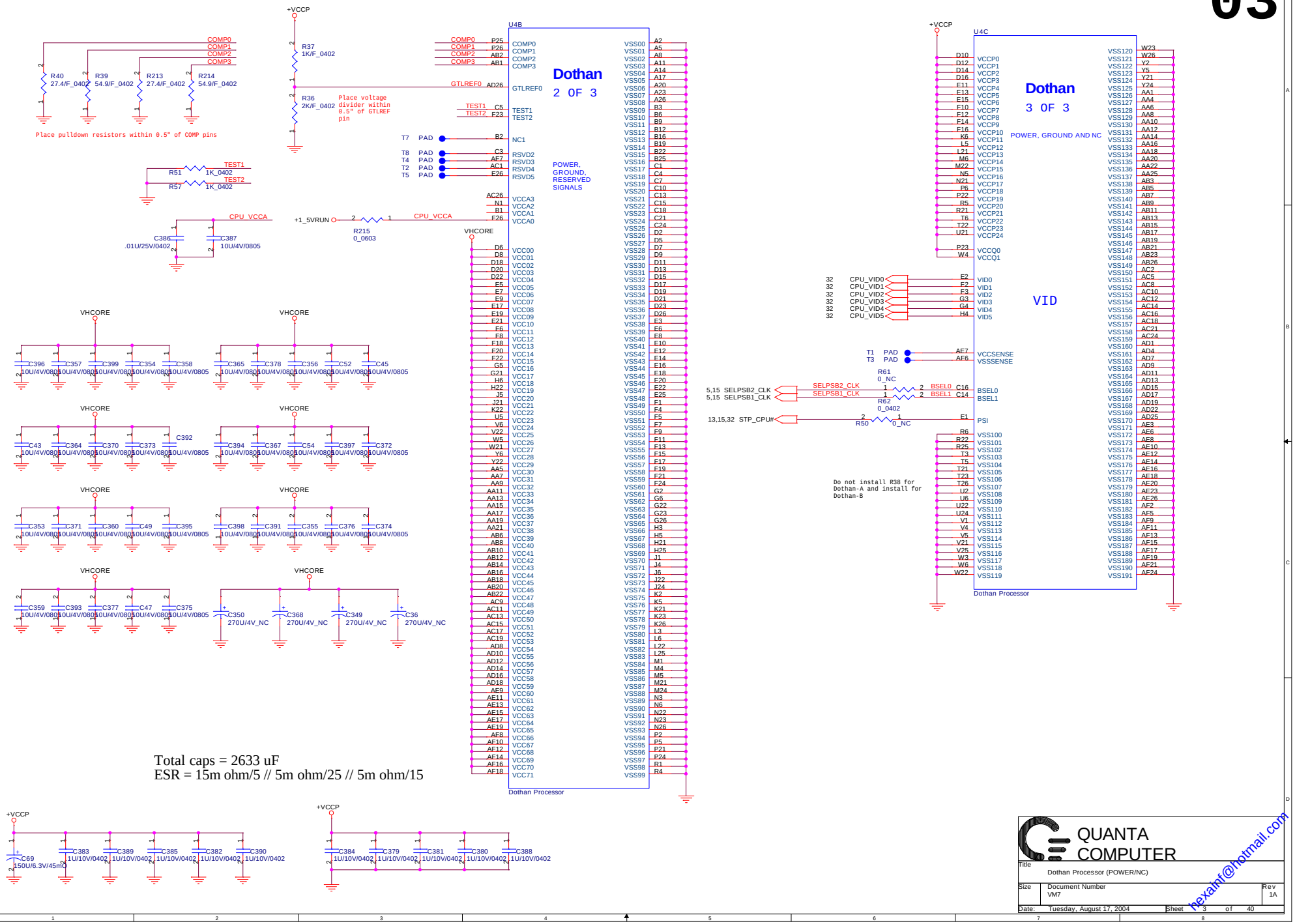
Signal	Resistor Value	Connect To	Resistor Placement
TDI	150 ohm +/- 5%	VCCP	Within 2.0" of the CPU
TMS	39 ohm +/- 5%	VCCP	Within 2.0" of the CPU
TRST#	680 ohm +/- 5%	GND	Within 2.0" of the CPU
TCK	27 ohm +/- 5%	GND	Within 2.0" of the CPU
TDO	Open	VCCP	Within 2.0" of the CPU

Note: Populate R178, R176, C339 when ITP connector is populated.





QUANTA COMPUTER			
Title: Dothan Processor (Host BUS)			
Size	Document Number: VM7		Rev: 1A
Date: Tuesday, August 17, 2004	Sheet 2 of 40		


+VCCP
R37 1K/F_0402
R36 2K/F_0402
Place voltage divider within 0.5" of GTLREF pin
COMP0
COMP1
COMP2
COMP3
R40 27.4/F_0402
R39 54.9/F_0402
R213 27.4/F_0402
R214 54.9/F_0402
Place pulldown resistors within 0.5" of COMP pins
TEST1
TEST2
R51 1K_0402
R57 1K_0402
CPU_VCCA
C386 .01U/25V/0402
C387 10U/4V/0805
+1_5VRUN
R215 0_0603
VHCORE
U4B
Dothan 2 OF 3
GTLREF0
NC1
RSVD2
RSVD3
RSVD4
RSVD5
POWER, GROUND, RESERVED SIGNALS
VCCA3
VCCA2
VCCA1
VCCA0
VCC00
VCC01
VCC02
VCC03
VCC04
VCC05
VCC06
VCC07
VCC08
VCC09
VCC10
VCC11
VCC12
VCC13
VCC14
VCC15
VCC16
VCC17
VCC18
VCC19
VCC20
VCC21
VCC22
VCC23
VCC24
VCC25
VCC26
VCC27
VCC28
VCC29
VCC30
VCC31
VCC32
VCC33
VCC34
VCC35
VCC36
VCC37
VCC38
VCC39
VCC40
VCC41
VCC42
VCC43
VCC44
VCC45
VCC46
VCC47
VCC48
VCC49
VCC50
VCC51
VCC52
VCC53
VCC54
VCC55
VCC56
VCC57
VCC58
VCC59
VCC60
VCC61
VCC62
VCC63
VCC64
VCC65
VCC66
VCC67
VCC68
VCC69
VCC70
VCC71
VSS00
VSS01
VSS02
VSS03
VSS04
VSS05
VSS06
VSS07
VSS08
VSS09
VSS10
VSS11
VSS12
VSS13
VSS14
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VSS16
VSS17
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VSS19
VSS20
VSS21
VSS22
VSS23
VSS24
VSS25
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VSS46
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VSS49
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VSS51
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VSS54
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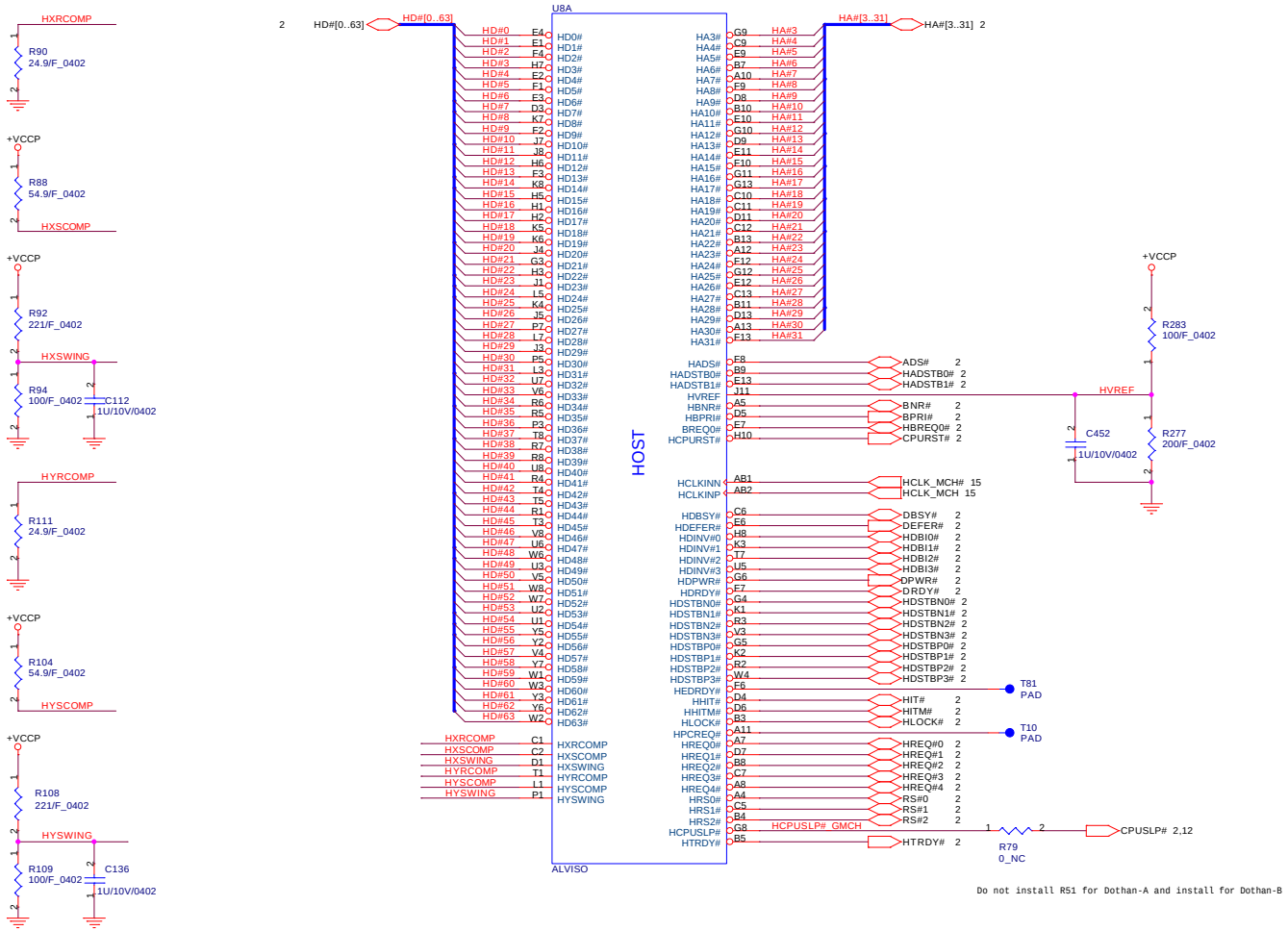
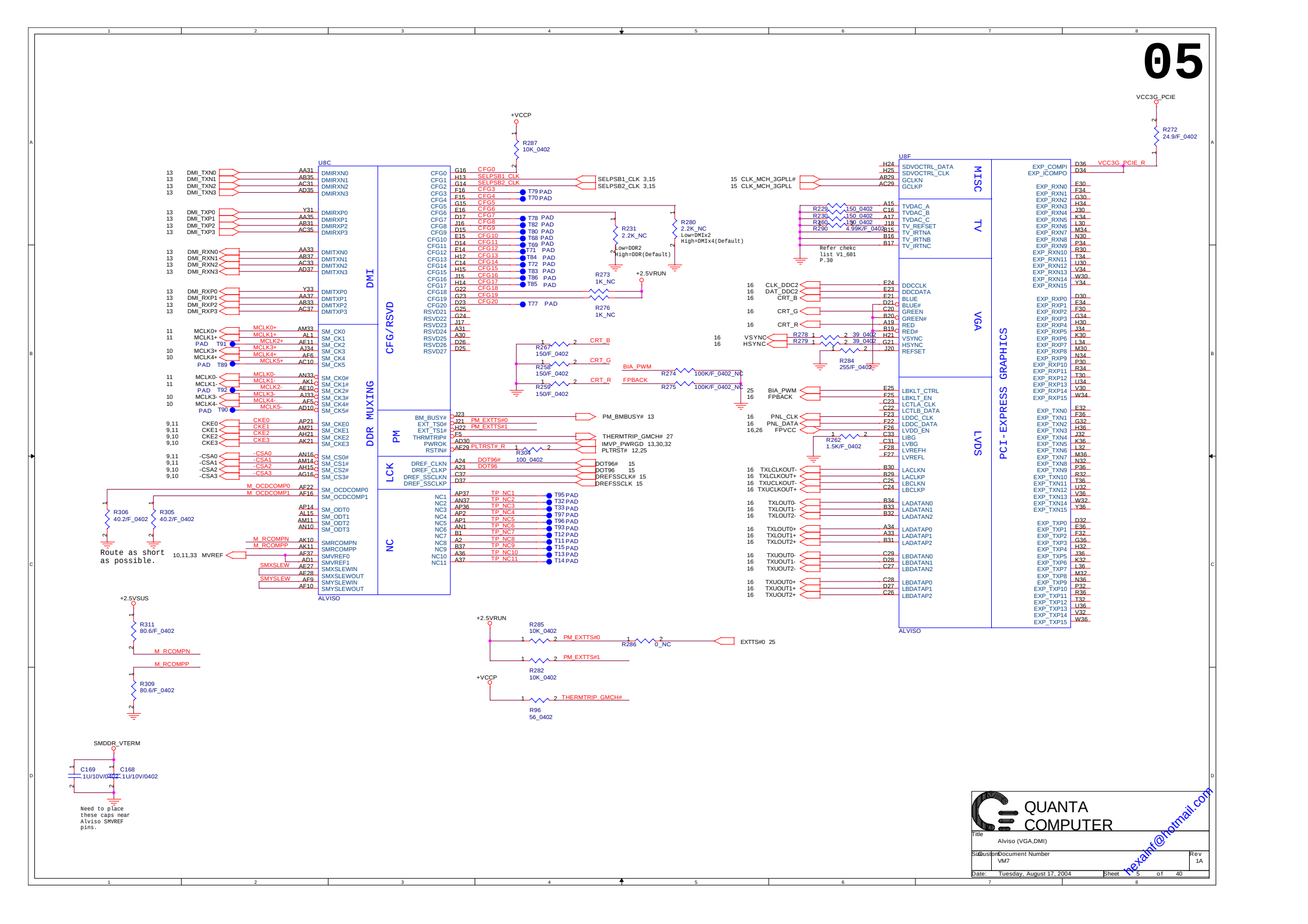
VSS72
VSS73
VSS74
VSS75
VSS76
VSS77
VSS78
VSS79
VSS80
VSS81
VSS82
VSS83
VSS84
VSS85
VSS86
VSS87
VSS88
VSS89
VSS90
VSS91
VSS92
VSS93
VSS94
VSS95
VSS96
VSS97
VSS98
VSS99
Dothan Processor
C396 10U/4V/0805
C357 10U/4V/0805
C399 10U/4V/0805
C354 10U/4V/0805
C358 10U/4V/0805
C365 10U/4V/0805
C378 10U/4V/0805
C356 10U/4V/0805
C52 10U/4V/0805
C45 10U/4V/0805
C43 10U/4V/0805
C364 10U/4V/0805
C370 10U/4V/0805
C373 10U/4V/0805
C392 10U/4V/0805
C394 10U/4V/0805
C367 10U/4V/0805
C54 10U/4V/0805
C397 10U/4V/0805
C372 10U/4V/0805
C353 10U/4V/0805
C371 10U/4V/0805
C360 10U/4V/0805
C49 10U/4V/0805
C395 10U/4V/0805
C398 10U/4V/0805
C391 10U/4V/0805
C355 10U/4V/0805
C376 10U/4V/0805
C374 10U/4V/0805
C359 10U/4V/0805
C393 10U/4V/0805
C377 10U/4V/0805
C47 10U/4V/0805
C375 10U/4V/0805
C350 270U/4V_NC
C368 270U/4V_NC
C349 270U/4V_NC
C36 270U/4V_NC
Total caps = 2633 uF
ESR = 15m ohm/5 // 5m ohm/25 // 5m ohm/15
C69 150U/6.3V/45m
C383 1U/10V/0402
C389 1U/10V/0402
C385 1U/10V/0402
C382 1U/10V/0402
C390 1U/10V/0402
C384 1U/10V/0402
C379 1U/10V/0402
C381 1U/10V/0402
C380 1U/10V/0402
C388 1U/10V/0402
U4C
Dothan 3 OF 3
POWER, GROUND AND NC
VCCP0
VCCP1
VCCP2
VCCP3
VCCP4
VCCP5
VCCP6
VCCP7
VCCP8
VCCP9
VCCP10
VCCP11
VCCP12
VCCP13
VCCP14
VCCP15
VCCP16
VCCP17
VCCP18
VCCP19
VCCP20
VCCP21
VCCP22
VCCP23
VCCP24
VCCQ0
VCCQ1
VID
CPU_VID0
CPU_VID1
CPU_VID2
CPU_VID3
CPU_VID4
CPU_VID5
VID0
VID1
VID2
VID3
VID4
VID5
VCCSENSE
VSSSENSE
R61 0_NC
R62 0_0402
R50 0_NC
SELPSB2_CLK
SELPSB1_CLK
BSEL0
BSEL1
PSI
STP_CPU#
Do not install R38 for Dothan-A and install for Dothan-B
Dothan Processor
QUANTA COMPUTER
Title
Dothan Processor (POWER/NC)
Size
Document Number
VM7
Rev
1A
Date: Tuesday, August 17, 2004
Sheet 3 of 40
hexainf@hotmail.com



QUANTA COMPUTER

Title	Alviso (Host)	
Size	Document Number VM7	Rev 1A
Date: Tuesday, August 17, 2004	Sheet 4 of 40	


05
U8C
DMI
DDR MUXING
CFG/RSVD
PM
LCK
NC
ALVISO
U8F
MISC
TV
VGA
LVDS
PCI-EXPRESS GRAPHICS
+VCCP
R287
10K_0402
VCC3G_PCIE
R272
24.9/F_0402
VCC3G_PCIE_R
R231
2.2K_NC
R280
2.2K_NC
Low=DMIx2
High=DMIx4(Default)
Low=DDR2
High=DDR(Default)
R273
1K_NC
R276
1K_NC
+2.5VRUN
R306
40.2/F_0402
R305
40.2/F_0402
Route as short
as possible.
10,11,33 MVREF
R311
80.6/F_0402
R309
80.6/F_0402
M_RCOMPN
M_RCOMPP
SMDDR_VTERM
C169
1U/10V/0402
C168
1U/10V/0402
Need to place
these caps near
Alviso SMVREF
pins.
R285
10K_0402
R286
0_NC
R282
10K_0402
R96
56_0402
PM_EXTTS#0
PM_EXTTS#1
THERMTRIP_GMCH#
EXTTS#0 25
R267
150/F_0402
R258
150/F_0402
R259
150/F_0402
CRT_B
CRT_G
CRT_R
BIA_PWM
FPBACK
R274
100K/F_0402_NC
R275
100K/F_0402_NC
R278
39_0402
R279
39_0402
R284
255/F_0402
R262
1.5K/F_0402
R304
100_0402
PM_BMBUSY# 13
THERMTRIP_GMCH# 27
IMVP_PWRGD 13,30,32
PLTRST# 12,25
DOT96# 15
DOT96 15
DREFSSCLK# 15
DREFSSCLK 15
R229
150_0402
R230
150_0402
R260
150_0402
R290
4.99K/F_0402
Refer chekc
list V1_601
P.30
QUANTA
COMPUTER
Title
Alviso (VGA,DMI)
Size
Custom
Document Number
VM7
Rev
1A
Date: Tuesday, August 17, 2004
Sheet 5 of 40
hexainf@hotmail.com

MAB[0..13] → MAB[0..13] 9,10
MAA[0..13] → MAA[0..13] 9,11
-CSA[0..3] → -CSA[0..3] 5,9,10,11
CKE[0..3] → CKE[0..3] 5,9,10,11

RMD[0..63] → RMD[0..63] 9,10,11
RDQM[0..7] → RDQM[0..7] 9,10,11
RDQS[0..7] → RDQS[0..7] 9,10,11

U8B
DDR SYSTEM MEMORY A
ALVISO

MD0	AG35	SADQ0	SA_BS0#	AK15	A_BS0# 9,11
MD1	AH35	SADQ1	SA_BS1#	AK16	A_BS1# 9,11
MD2	AL35	SADQ2	SA_BS2#	AL21	
MD3	AL37	SADQ3			
MD4	AH36	SADQ4	SA_DM0	AJ37	DQM0
MD5	AJ35	SADQ5	SA_DM1	AP35	DQM1
MD6	AK37	SADQ6	SA_DM2	AL29	DQM2
MD7	AL34	SADQ7	SA_DM3	AP24	DQM3
MD8	AM36	SADQ8	SA_DM4	AP9	DQM4
MD9	AN35	SADQ9	SA_DM5	AP4	DQM5
MD10	AP32	SADQ10	SA_DM6	AJ2	DQM6
MD11	AM31	SADQ11	SA_DM7	AD3	DQM7
MD12	AM34	SADQ12			
MD13	AM35	SADQ13	SA_DQS0	AK36	DQS0
MD14	AL32	SADQ14	SA_DQS1	AP33	DQS1
MD15	AM32	SADQ15	SA_DQS2	AN29	DQS2
MD16	AN31	SADQ16	SA_DQS3	AP23	DQS3
MD17	AP31	SADQ17	SA_DQS4	AM8	DQS4
MD18	AN28	SADQ18	SA_DQS5	AM4	DQS5
MD19	AP28	SADQ19	SA_DQS6	AJ1	DQS6
MD20	AL30	SADQ20	SA_DQS7	AE5	DQS7
MD21	AM30	SADQ21			
MD22	AM28	SADQ22	SA_DQS0#	AK35	
MD23	AL28	SADQ23	SA_DQS1#	AP34	
MD24	AP27	SADQ24	SA_DQS2#	AN30	
MD25	AM27	SADQ25	SA_DQS3#	AN23	
MD26	AM23	SADQ26	SA_DQS4#	AN8	
MD27	AM22	SADQ27	SA_DQS5#	AM5	
MD28	AL23	SADQ28	SA_DQS6#	AH1	
MD29	AM24	SADQ29	SA_DQS7#	AE4	
MD30	AN22	SADQ30			
MD31	AP22	SADQ31	SA_MA0	AL17	MAA0
MD32	AM9	SADQ32	SA_MA1	AP17	MAA1
MD33	AL9	SADQ33	SA_MA2	AP18	MAA2
MD34	AL6	SADQ34	SA_MA3	AM17	MAA3
MD35	AP7	SADQ35	SA_MA4	AN18	MAA4
MD36	AP11	SADQ36	SA_MA5	AM18	MAA5
MD37	AP10	SADQ37	SA_MA6	AL19	MAA6
MD38	AL7	SADQ38	SA_MA7	AP20	MAA7
MD39	AM7	SADQ39	SA_MA8	AM19	MAA8
MD40	AN5	SADQ40	SA_MA9	AL20	MAA9
MD41	AN6	SADQ41	SA_MA10	AM16	MAA10
MD42	AN3	SADQ42	SA_MA11	AN20	MAA11
MD43	AP3	SADQ43	SA_MA12	AM20	MAA12
MD44	AP6	SADQ44	SA_MA13	AM15	MAA13
MD45	AM6	SADQ45			
MD46	AL4	SADQ46	SA_CAS#	AN15	-DCASA 9,11
MD47	AM3	SADQ47	SA_RAS#	AP16	-DRASA 9,11
MD48	AK2	SADQ48	SA_RCVENIN#	AF29	
MD49	AK3	SADQ49	SA_RCVENOUT#	AF28	
MD50	AG2	SADQ50	SA_WE#	AP15	-DMWA 9,11
MD51	AG1	SADQ51			
MD52	AL3	SADQ52			
MD53	AM2	SADQ53			
MD54	AH3	SADQ54			
MD55	AG3	SADQ55			
MD56	AF3	SADQ56			
MD57	AE3	SADQ57			
MD58	AD6	SADQ58			
MD59	AC4	SADQ59			
MD60	AF2	SADQ60			
MD61	AF1	SADQ61			
MD62	AD4	SADQ62			
MD63	AD5	SADQ63			

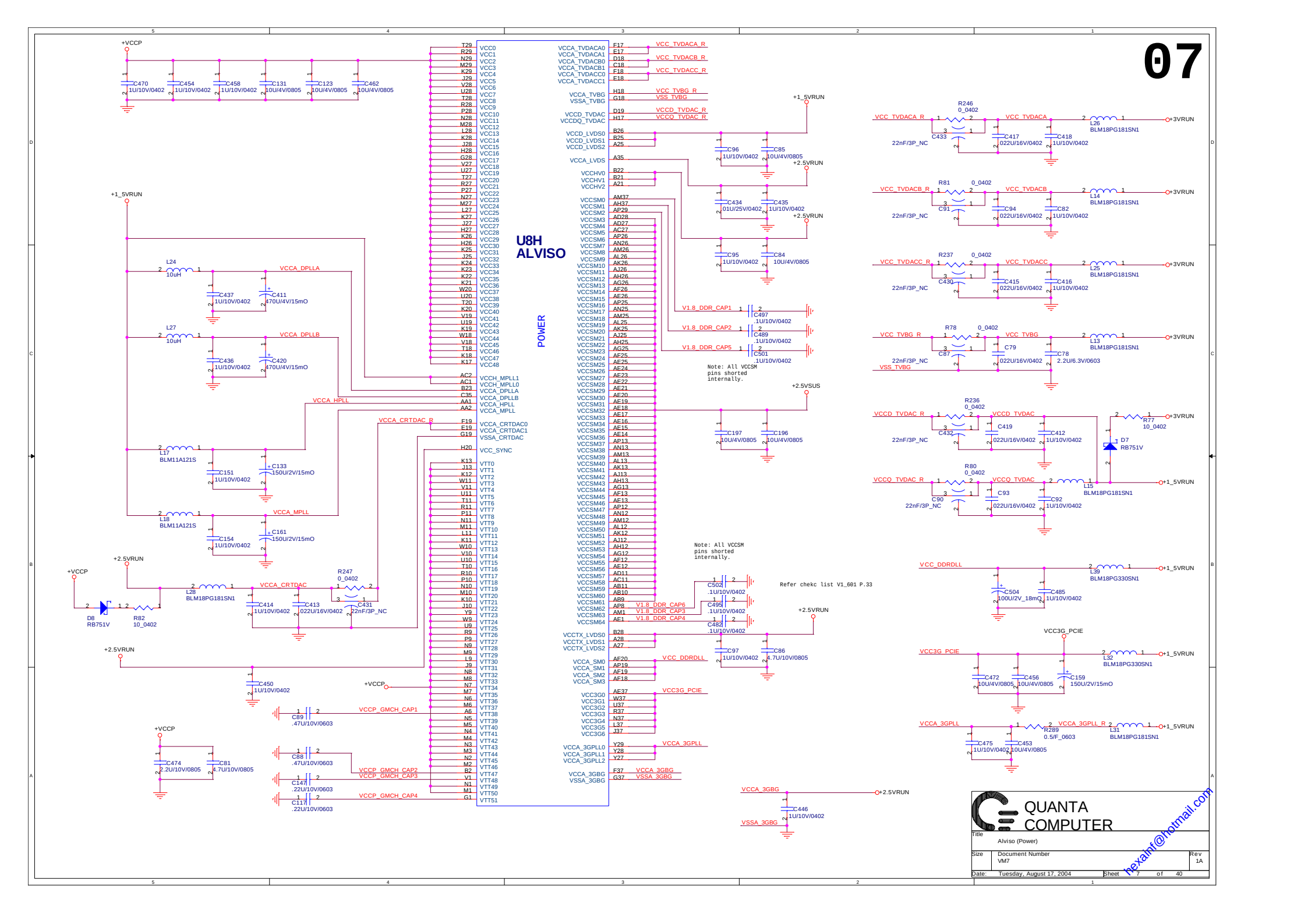
U8G
DDR SYSTEM MEMORY B
ALVISO

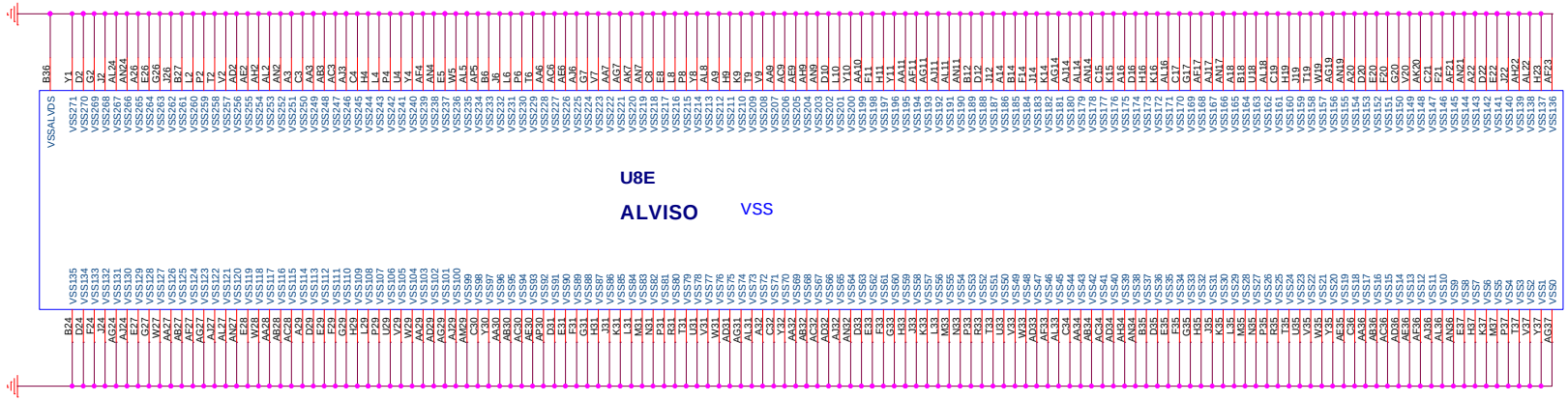
AE31	SBDQ0	SB_BS0#	AJ15	B_BS0# 9,10	
AE32	SBDQ1	SB_BS1#	AG17	B_BS1# 9,10	
AG32	SBDQ2	SB_BS2#	AG21		
AG36	SBDQ3				
AE34	SBDQ4	SB_DM0	AF32		
AE33	SBDQ5	SB_DM1	AK34		
AF31	SBDQ6	SB_DM2	AK27		
AF30	SBDQ7	SB_DM3	AK24		
AH33	SBDQ8	SB_DM4	AJ10		
AH32	SBDQ9	SB_DM5	AK5		
AK31	SBDQ10	SB_DM6	AE7		
AG30	SBDQ11	SB_DM7	AB7		
AG34	SBDQ12				
AG33	SBDQ13	SB_DQS0	AE34		
AH31	SBDQ14	SB_DQS1	AK32		
AJ31	SBDQ15	SB_DQS2	AJ28		
AK30	SBDQ16	SB_DQS3	AK23		
AJ30	SBDQ17	SB_DQS4	AM10		
AH29	SBDQ18	SB_DQS5	AH6		
AH28	SBDQ19	SB_DQS6	AF8		
AK29	SBDQ20	SB_DQS7	AB4		
AH30	SBDQ21				
AH27	SBDQ22	SB_DQS0#	AF35		
AG28	SBDQ23	SB_DQS1#	AK33		
AF24	SBDQ24	SB_DQS2#	AK28		
AG23	SBDQ25	SB_DQS3#	AJ23		
AJ22	SBDQ26	SB_DQS4#	AL10		
AK22	SBDQ27	SB_DQS5#	AH7		
AH24	SBDQ28	SB_DQS6#	AF7		
AH23	SBDQ29	SB_DQS7#	AB5		
AG22	SBDQ30				
AJ21	SBDQ31	SB_MA0	AH17	MAB0	
AG10	SBDQ32	SB_MA1	AK17	MAB1	
AG9	SBDQ33	SB_MA2	AH18	MAB2	
AG8	SBDQ34	SB_MA3	AJ18	MAB3	
AH8	SBDQ35	SB_MA4	AK18	MAB4	
AH11	SBDQ36	SB_MA5	AJ19	MAB5	
AH10	SBDQ37	SB_MA6	AK19	MAB6	
AJ9	SBDQ38	SB_MA7	AH19	MAB7	
AK9	SBDQ39	SB_MA8	AJ20	MAB8	
AJ7	SBDQ40	SB_MA9	AH20	MAB9	
AK6	SBDQ41	SB_MA10	AJ16	MAB10	
AJ4	SBDQ42	SB_MA11	AG18	MAB11	
AH5	SBDQ43	SB_MA12	AG20	MAB12	
AK8	SBDQ44	SB_MA13	AG15	MAB13	
AJ8	SBDQ45				
AJ5	SBDQ46	SB_CAS#	AH14	DCASB 9,10	
AK4	SBDQ47	SB_RAS#	AK14	DRASB 9,10	
AG5	SBDQ48	SB_RCVENIN#	AF15		
AG4	SBDQ49	SB_RCVENOUT#	AF14		
AD8	SBDQ50	SB_WE#	AH16	DMWB 9,10	
AD9	SBDQ51				
AH4	SBDQ52				
AG6	SBDQ53				
AE8	SBDQ54				
AD7	SBDQ55				
AC5	SBDQ56				
AB8	SBDQ57				
AB6	SBDQ58				
AA8	SBDQ59				
AC8	SBDQ60				
AC7	SBDQ61				
AA4	SBDQ62				
AA5	SBDQ63				

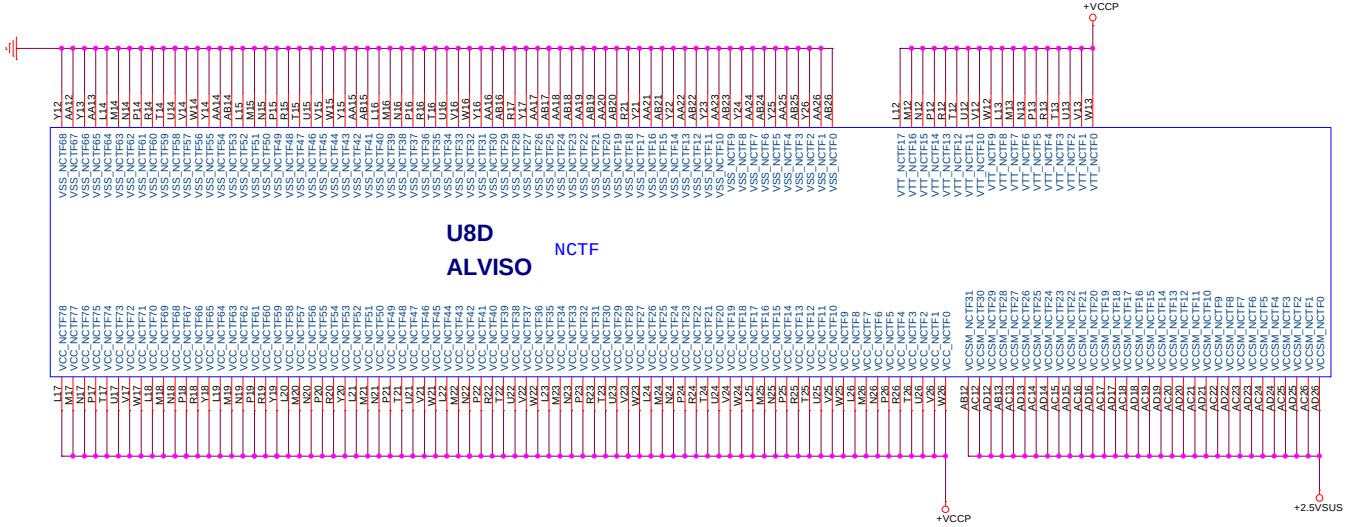
RN3 10X4: RMD59 MD59, RMD63 MD63, RMD58 MD58, RMD62 MD62
RN4 10X2: RDQS7 DQS7, RDQM7 DQM7
RN5 10X4: RMD60 MD60, RMD57 MD57, RMD61 MD61, RMD56 MD56
RN6 10X4: RMD51 MD51, RMD55 MD55, RMD54 MD54, RMD50 MD50
RN7 10X2: RDQM6 DQM6, RDQS6 DQS6
RN8 10X4: RMD48 MD48, RMD53 MD53, RMD52 MD52, RMD49 MD49
RN9 10X4: RMD43 MD43, RMD47 MD47, RMD42 MD42, RMD46 MD46
RN10 10X2: RDQM5 DQM5, RDQS5 DQS5
RN11 10X4: RMD45 MD45, RMD40 MD40, RMD41 MD41, RMD44 MD44
RN12 10X4: RMD38 MD38, RMD39 MD39, RMD35 MD35, RMD34 MD34
RN13 10X2: RDQM4 DQM4, RDQS4 DQS4
RN14 10X4: RMD32 MD32, RMD33 MD33, RMD37 MD37, RMD36 MD36
RN17 10X4: RMD26 MD26, RMD31 MD31, RMD30 MD30, RMD27 MD27
RN18 10X2: RDQS3 DQS3, RDQM3 DQM3
RN19 10X4: RMD29 MD29, RMD28 MD28, RMD25 MD25, RMD24 MD24
RN20 10X4: RMD23 MD23, RMD22 MD22, RMD18 MD18, RMD19 MD19
RN21 10X2: RDQM2 DQM2, RDQS2 DQS2
RN22 10X4: RMD20 MD20, RMD21 MD21, RMD16 MD16, RMD17 MD17
RN23 10X4: RMD11 MD11, RMD14 MD14, RMD10 MD10, RMD15 MD15
RN24 10X2: RDQM1 DQM1, RDQS1 DQS1
RN25 10X4: RMD12 MD12, RMD13 MD13, RMD9 MD9, RMD8 MD8
RN26 10X4: RMD7 MD7, RMD2 MD2, RMD3 MD3, RMD6 MD6
RN27 10X2: RDQS0 DQS0, RDQM0 DQM0
RN28 10X4: RMD5 MD5, RMD4 MD4, RMD0 MD0, RMD1 MD1

QUANTA COMPUTER

Title	Alviso (DDR)		
Size	Document Number VM7		Rev 1A
Date: Tuesday, August 17, 2004	Sheet 6 of 40		


07
U8H
ALVISO
POWER
Note: All VCCSM pins shorted internally.
Note: All VCCSM pins shorted internally.
Refer chekc list V1_601 P.33
QUANTA COMPUTER
Title
Alviso (Power)
Size
Document Number
VM7
Rev
1A
Date: Tuesday, August 17, 2004
Sheet 7 of 40
hexainf@hotmail.com





QUANTA COMPUTER

Title	Alviso (VSS/NC)		
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DDR TERMINATOR

09

RMD[0..63] RMD[0..63] 6,10,11
RDQM[0..7] RDQM[0..7] 6,10,11
RDQS[0..7] RDQS[0..7] 6,10,11

MAA[0..13] MAA[0..13] 6,11
-CSA[0..3] -CSA[0..3] 5,10,11
MAB[0..13] MAB[0..13] 6,10
CKE[0..3] CKE[0..3] 5,10,11

SMDDR_VTERM

RN35 56X4: RMD62 RMD59 RMD63 RMD58 | RN37 56X4: RMD61 RMD57 RMD60 RMD56
RN40 56X4: RMD49 RMD52 RMD53 RMD48 | RN38 56X4: RMD55 RMD51 RMD54 RMD50
RN41 56X4: RMD46 RMD43 RMD47 RMD42 | RN29 56X4: B_BS1# B_BS0# -CSA3 -DCASB → B_BS1# 6,10; B_BS0# 6,10; -DCASB 6,10
RN44 56X4: RMD34 RMD35 RMD39 RMD38 | RN43 56X4: RMD40 RMD41 RMD44 RMD45
RN47 56X4: MAA3 MAA10 A_BS1# MAA2 | RN46 56X4: RMD32 RMD33 RMD37 RMD36
6,11 A_BS1#
RN53 56X4: RMD24 RMD29 RMD28 RMD25 | RN59 56X4: RMD12 RMD13 RMD8 RMD9
RN51 56X4: RMD27 RMD26 RMD30 RMD31 | RN34 56X4: MAB12 MAB13 CKE3
RN56 56X4: RMD16 RMD17 RMD20 RMD21 | RN15 56X4: A_BS0# -DMWA -CSA0 -CSA1 → A_BS0# 6,11; -DMWA 6,11
RN57 56X4: RMD15 RMD10 RMD14 RMD11 | RN48 56X4: MAA4 MAA0 MAA5 MAA7
RN62 56X4: RMD4 RMD0 RMD5 RMD1 | RN16 56X4: -DCASA -DRASA MAA1 → -DCASA 6,11; -DRASA 6,11
RN33 56X4: MAB9 MAB7 MAB5 MAB3 | RN54 56X4: RMD23 RMD22 RMD18 RMD19
RN30 56X4: MAB0 -DRASB MAB4 MAB2 | RN60 56X4: RMD7 RMD2 RMD6 RMD3
6,10 -DRASB
RN32 56X4: MAB1 MAB10 -DMWB -CSA2 | RN31 56X4: MAB6 MAB8 MAB11 CKE2
6,10 -DMWB
RN49 56X4: MAA12 MAA11 MAA6 MAA8 | RN50 56X4: MAA9 MAA13 CKE1 CKE0

RDQM6 RDQS6 | RN39 10X2 | RDQM7 RDQS7
RDQM4 RDQS4 | RN45 10X2 | RDQM5 RDQS5
RDQS2 RDQM2 | RN55 10X2 | RDQM3 RDQS3
RDQM0 RDQS0 | RN61 10X2 | RDQM1 RDQS1
RN36 10X2
RN42 10X2
RN52 10X2
RN58 10X2

SMDDR_VTERM

C295 C297 C299 C301 .1U/10V/0402
C240 C284 C285 C290 .1U/10V/0402
C296 C298 C300 C302 .1U/10V/0402
C250 C257 C286 C239 .1U/10V/0402
C303 C305 C309 C313 .1U/10V/0402
C283 C306 C310 C314 .1U/10V/0402
C304 C307 C311 C315 .1U/10V/0402
C275 C308 C312 C294 .1U/10V/0402
C316 C320 C324 C328 .1U/10V/0402
C317 C321 C325 C330 .1U/10V/0402
C318 C322 C326 C331 .1U/10V/0402
C319 C323 C327 C332 .1U/10V/0402

+2.5VSUS

C245 C249 C260 C269 .1U/10V/0402
C246 C273 C254 C270 .1U/10V/0402
C247 C251 C252 C274 .1U/10V/0402
C248 C258 C253 C271 .1U/10V/0402
C272 .1U/10V/0402
C263 150U/6.3V/45mO
Footprint wrong

C278 C277 C259 C333 .1U/10V/0402
C266 C281 C282 C256 .1U/10V/0402
C293 C280 C329 C265 .1U/10V/0402
C291 C279 C276 C238 .1U/10V/0402

QUANTA COMPUTER

Title: DDR Terminators
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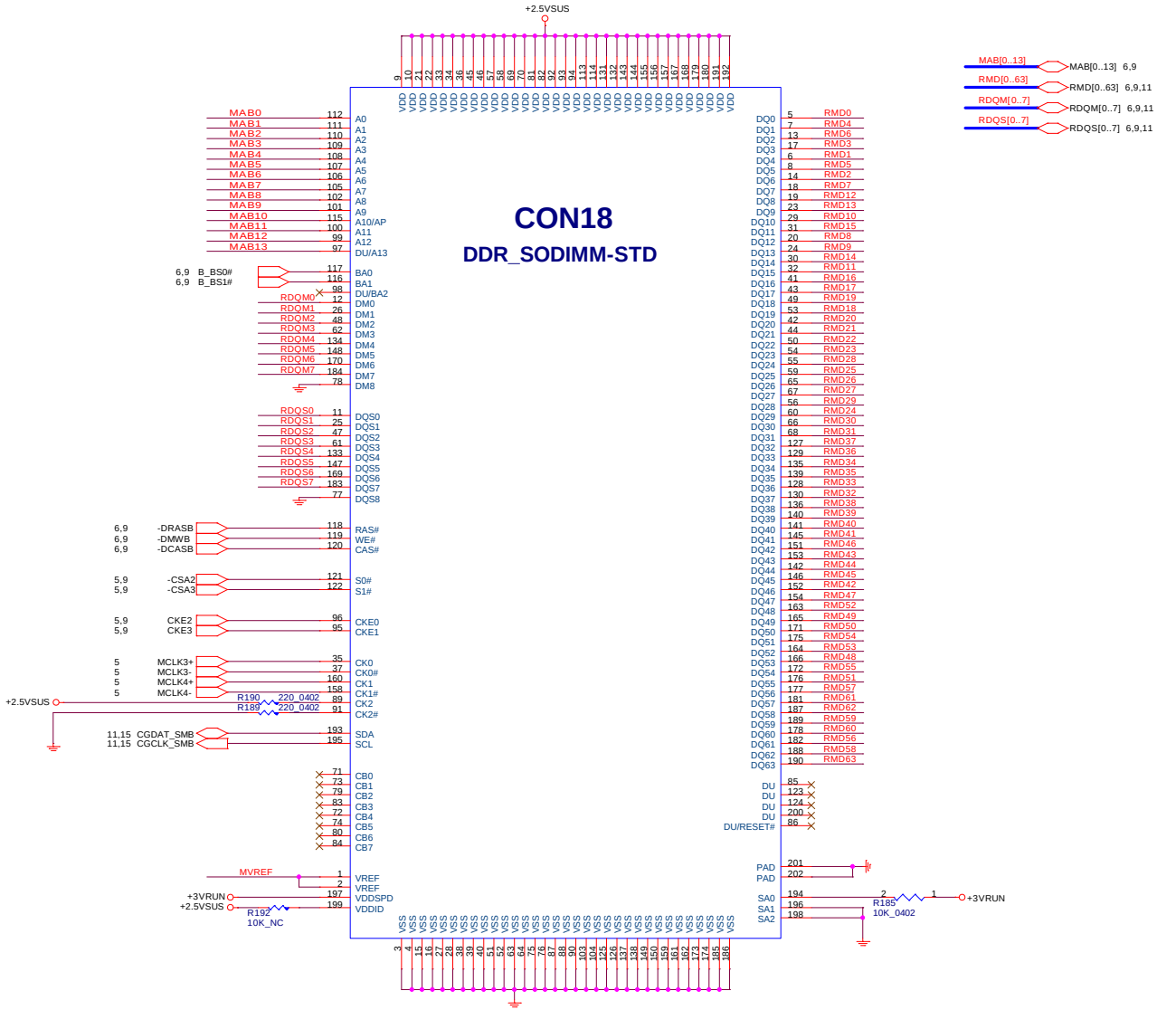
DDR - Modules

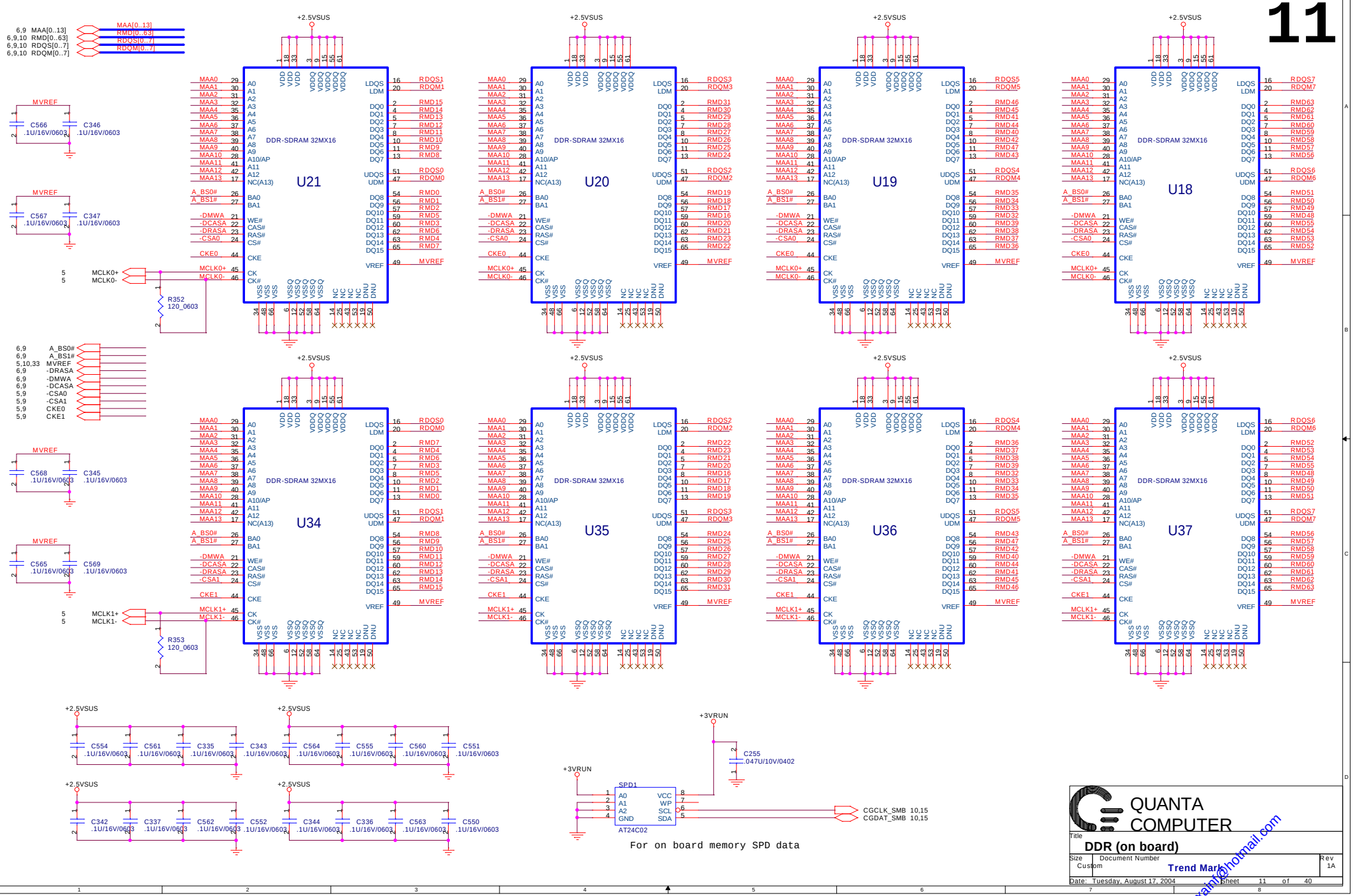


QUANTA COMPUTER

Title: **Memory - SODIMM**

Size	Document Number	Rev
Custom	Trend Mark	1A

Date: Tuesday, August 17, 2004 Sheet 10 of 40



Title	DDR (on board)
Size	Custom
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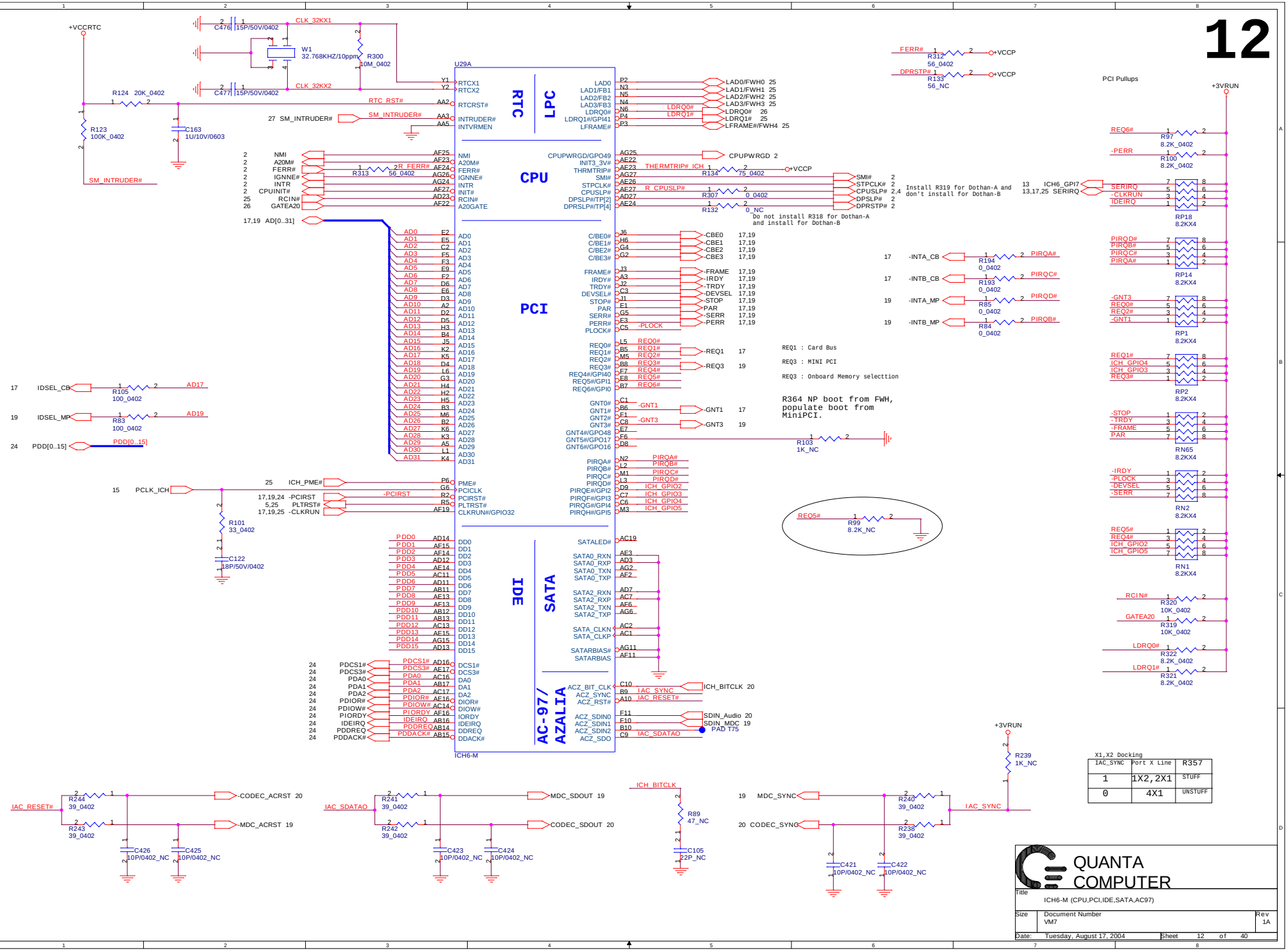
+VCCRTC
CLK_32KX1
CLK_32KX2
W1
32.768KHZ/10ppm
R300
10M_0402
C476
C477
15P/50V/0402
R124 20K_0402
R123
100K_0402
C163
1U/10V/0603
RTC_RST#
SM_INTRUDER#
27 SM_INTRUDER#
U29A
RTC
LPC
CPU
PCI
IDE
SATA
AC-97/
AZALIA
ICH6-M
RTCX1
RTCX2
RTCRST#
INTRUDER#
INTVRMEN
NMI
A20M#
FERR#
IGNNE#
INTR
CPUINIT#
RCIN#
GATEA20
R_FERR#
R313
56_0402
17,19 AD[0..31]
LAD0/FWH0 25
LAD1/FWH1 25
LAD2/FWH2 25
LAD3/FWH3 25
LDRQ0# 26
LDRQ1# 25
LFRAME#/FWH4 25
CPUPWRGD 2
THERMTRIP# ICH
R134
75_0402
+VCCP
R_CPUSLP#
R307
0_0402
R132
0_NC
Do not install R318 for Dothan-A
and install for Dothan-B
SMI# 2
STPCLK# 2
CPUSLP# 2,4
DPSLP# 2
DPRSTP# 2
Install R319 for Dothan-A and
don't install for Dothan-B
-CBE0 17,19
-CBE1 17,19
-CBE2 17,19
-CBE3 17,19
-FRAME 17,19
-IRDY 17,19
-TRDY 17,19
-DEVSEL 17,19
-STOP 17,19
PAR 17,19
-SERR 17,19
-PERR 17,19
-PLOCK
REQ1 17
REQ3 19
GNT1 17
GNT3 19
R103
1K_NC
REQ1 : Card Bus
REQ3 : MINI PCI
REQ3 : Onboard Memory selecttion
R364 NP boot from FWH,
populate boot from
MiniPCI.
REQ5#
R99
8.2K_NC
FERR#
R312
56_0402
DPRSTP#
R133
56_NC
PCI Pullups
+3VRUN
REQ6#
R97
8.2K_0402
-PERR
R100
8.2K_0402
13 ICH6_GPI7
13,17,25 SERIRQ
SERIRQ
-CLKRUN
IDEIRQ
RP18
8.2KX4
-INTA_CB 17
-INTB_CB 17
-INTA_MP 19
-INTB_MP 19
R194
R193
R85
R84
0_0402
PIRQA#
PIRQC#
PIRQD#
PIRQB#
RP14
-GNT3
REQ0#
REQ2#
-GNT1
RP1
REQ1#
ICH_GPIO4
ICH_GPIO3
REQ3#
RP2
-STOP
-TRDY
-FRAME
PAR
RN65
-IRDY
-PLOCK
-DEVSEL
-SERR
RN2
REQ5#
REQ4#
ICH_GPIO2
ICH_GPIO5
RN1
RCIN#
R320
10K_0402
GATEA20
R319
10K_0402
LDRQ0#
R322
8.2K_0402
LDRQ1#
R321
8.2K_0402
17 IDSEL_CB
19 IDSEL_MP
R105
100_0402
R83
100_0402
AD17
AD19
24 PDD[0..15]
PDD[0..15]
25 ICH_PME#
15 PCLK_ICH
17,19,24 -PCIRST
5,25 PLTRST#
17,19,25 -CLKRUN
R101
33_0402
C122
18P/50V/0402
24 PDCS1#
24 PDCS3#
24 PDA0
24 PDA1
24 PDA2
24 PDIOR#
24 PDIOW#
24 PIORDY
24 IDEIRQ
24 PDDREQ
24 PDDACK#
SATALED#
SATA0_RXN
SATA0_RXP
SATA0_TXN
SATA0_TXP
SATA2_RXN
SATA2_RXP
SATA2_TXN
SATA2_TXP
SATA_CLKN
SATA_CLKP
SATARBIAS#
SATARBIAS
ACZ_BIT_CLK
ACZ_SYNC
ACZ_RST#
ACZ_SDIN0
ACZ_SDIN1
ACZ_SDIN2
ACZ_SDO
ICH_BITCLK 20
IAC_SYNC
IAC_RESET#
SDIN_Audio 20
SDIN_MDC 19
PAD T75
IAC_SDATAO
+3VRUN
R239
1K_NC
X1,X2 Docking
IAC_SYNC | Port X Line | R357
1 | 1X2,2X1 | STUFF
0 | 4X1 | UNSTUFF
IAC_RESET#
R244
39_0402
R243
39_0402
-CODEC_ACRST 20
-MDC_ACRST 19
C426
10P/0402_NC
C425
10P/0402_NC
IAC_SDATAO
R241
39_0402
R242
39_0402
MDC_SDOUT 19
CODEC_SDOUT 20
C423
10P/0402_NC
C424
10P/0402_NC
ICH_BITCLK
R89
47_NC
C105
22P_NC
19 MDC_SYNC
20 CODEC_SYNC
R240
39_0402
R238
39_0402
IAC_SYNC
C421
10P/0402_NC
C422
10P/0402_NC
QUANTA
COMPUTER
Title
ICH6-M (CPU,PCI,IDE,SATA,AC97)
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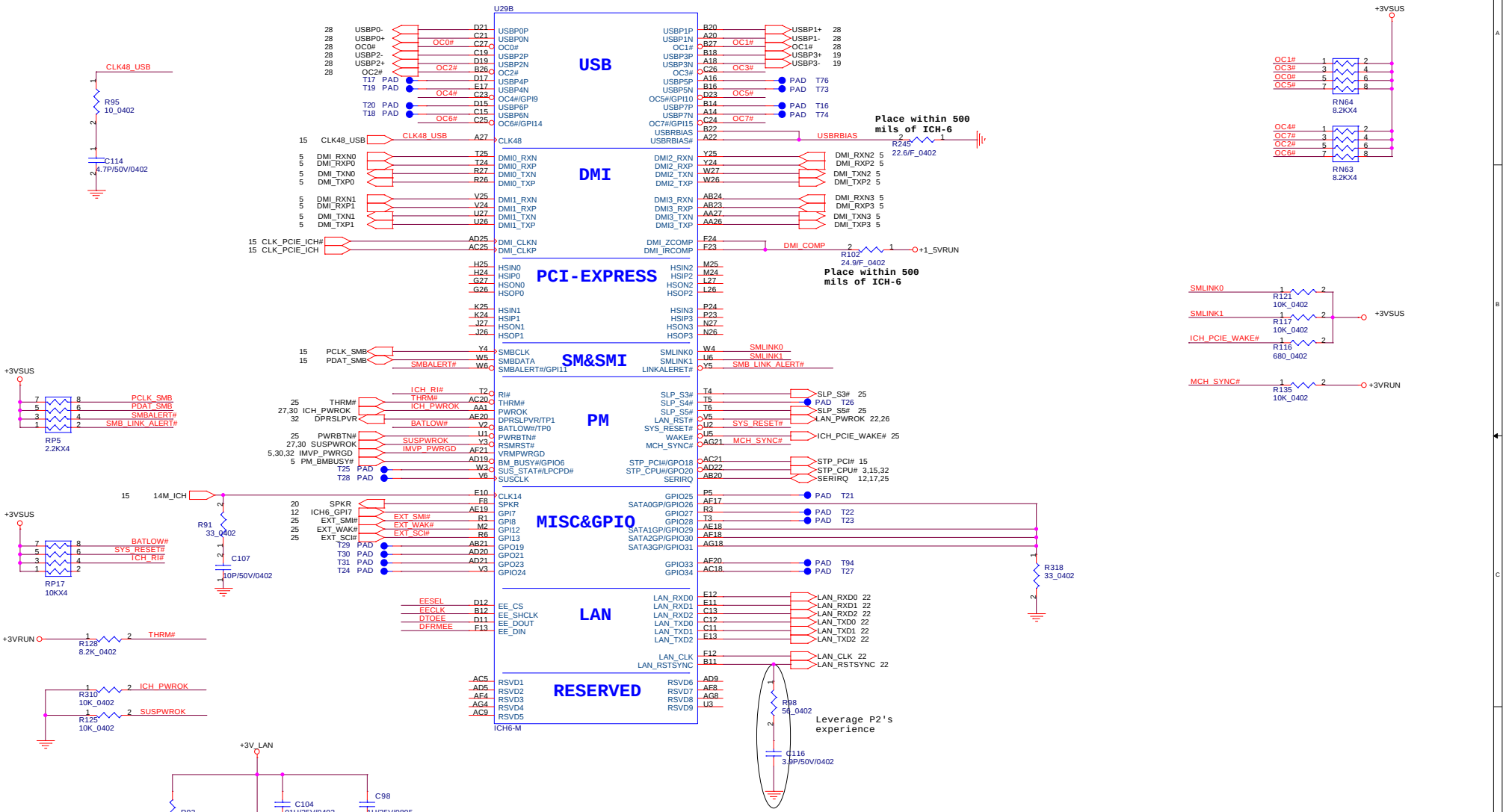
U29B
USB
DMI
PCI-EXPRESS
SM&SMI
PM
MISC&GPIO
LAN
RESERVED
ICH6-M
Place within 500 mils of ICH-6
Place within 500 mils of ICH-6
Leverage P2's experience
4K bit(16bit* 256)
QUANTA COMPUTER
ICH6-M (USB,DMI,LPC)
Document Number VM7
Rev 1A
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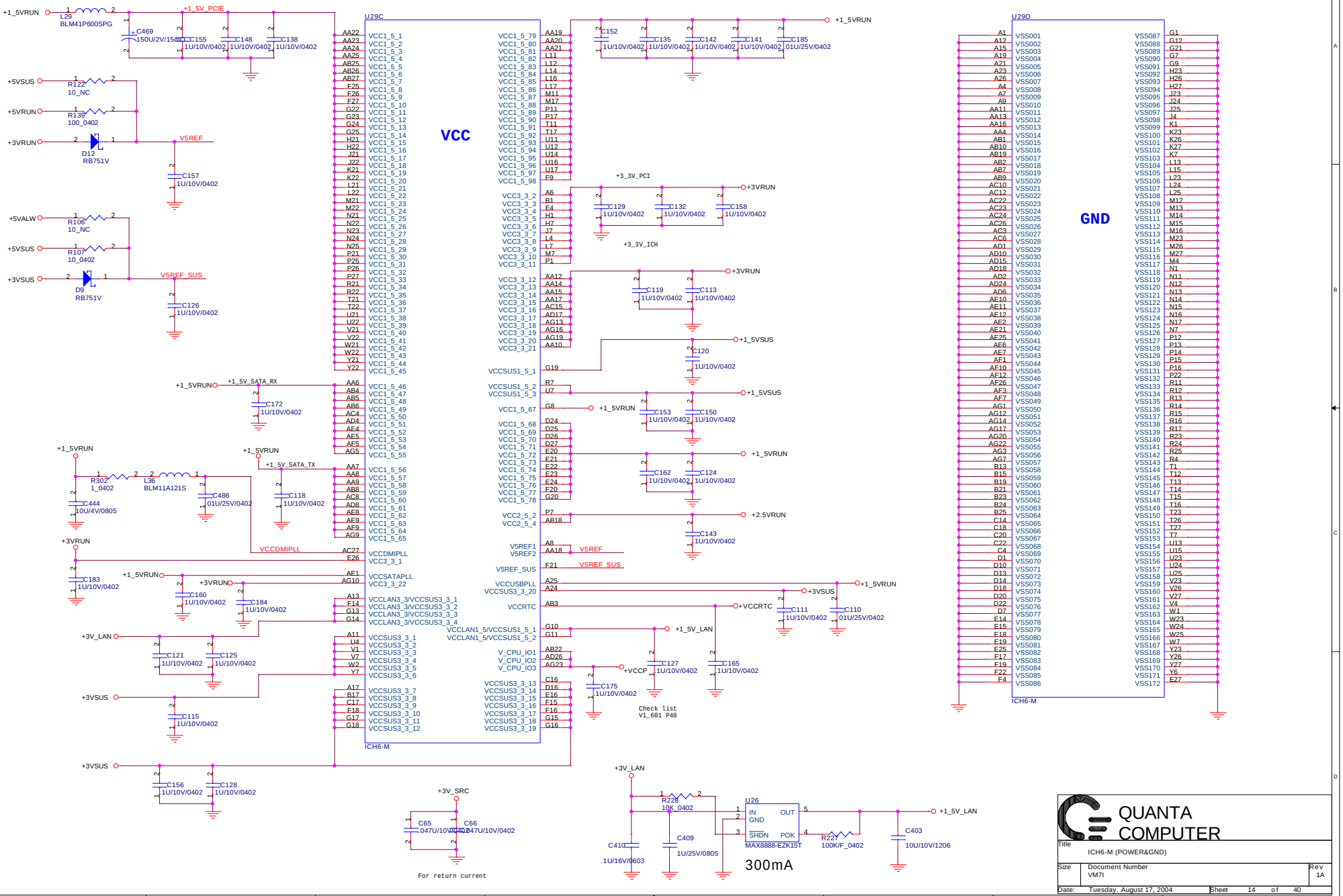
hexainf@hotmail.com


U29C
VCC
ICH6-M
U29D
GND
ICH6-M
+1_5VRUN
+1_5V_PCIE
L29
BLM41P600SPG
C469
150U/2V/1506
C155
1U/10V/0402
C148
1U/10V/0402
C138
1U/10V/0402
+5VSUS
R122
10_NC
+5VRUN
R139
100_0402
+3VRUN
D12
RB751V
V5REF
C157
1U/10V/0402
+5VALW
R106
10_NC
+5VSUS
R107
10_0402
+3VSUS
D9
RB751V
V5REF_SUS
C126
1U/10V/0402
+1_5V_SATA_RX
C172
1U/10V/0402
+1_5V_SATA_TX
C118
1U/10V/0402
R302
1_0402
L36
BLM11A121S
C486
01U/25V/0402
C444
10U/4V/0805
VCCDMIPLL
+3VRUN
C183
1U/10V/0402
C160
1U/10V/0402
C184
1U/10V/0402
+3V_LAN
C121
1U/10V/0402
C125
1U/10V/0402
C115
1U/10V/0402
C156
1U/10V/0402
C128
1U/10V/0402
C152
1U/10V/0402
C135
1U/10V/0402
C142
1U/10V/0402
C141
1U/10V/0402
C185
01U/25V/0402
+3_3V_PCI
C129
1U/10V/0402
C132
1U/10V/0402
C158
1U/10V/0402
+3_3V_ICH
C119
1U/10V/0402
C113
1U/10V/0402
C120
1U/10V/0402
C153
1U/10V/0402
C150
1U/10V/0402
C162
1U/10V/0402
C124
1U/10V/0402
C143
1U/10V/0402
V5REF
V5REF_SUS
C111
1U/10V/0402
C110
01U/25V/0402
C127
1U/10V/0402
C165
1U/10V/0402
C175
1U/10V/0402
+VCCP
Check list
V1_601 P48
+3V_SRC
C65
047U/10V/0402
C66
047U/10V/0402
For return current
+3V_LAN
R228
10K_0402
U26
IN
GND
SHDN
OUT
POK
MAX8888-EZK15T
R227
100K/F_0402
C410
.1U/16V/0603
C409
1U/25V/0805
C403
10U/10V/1206
300mA
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ICH6-M (POWER&GND)
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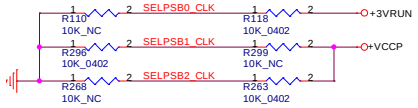
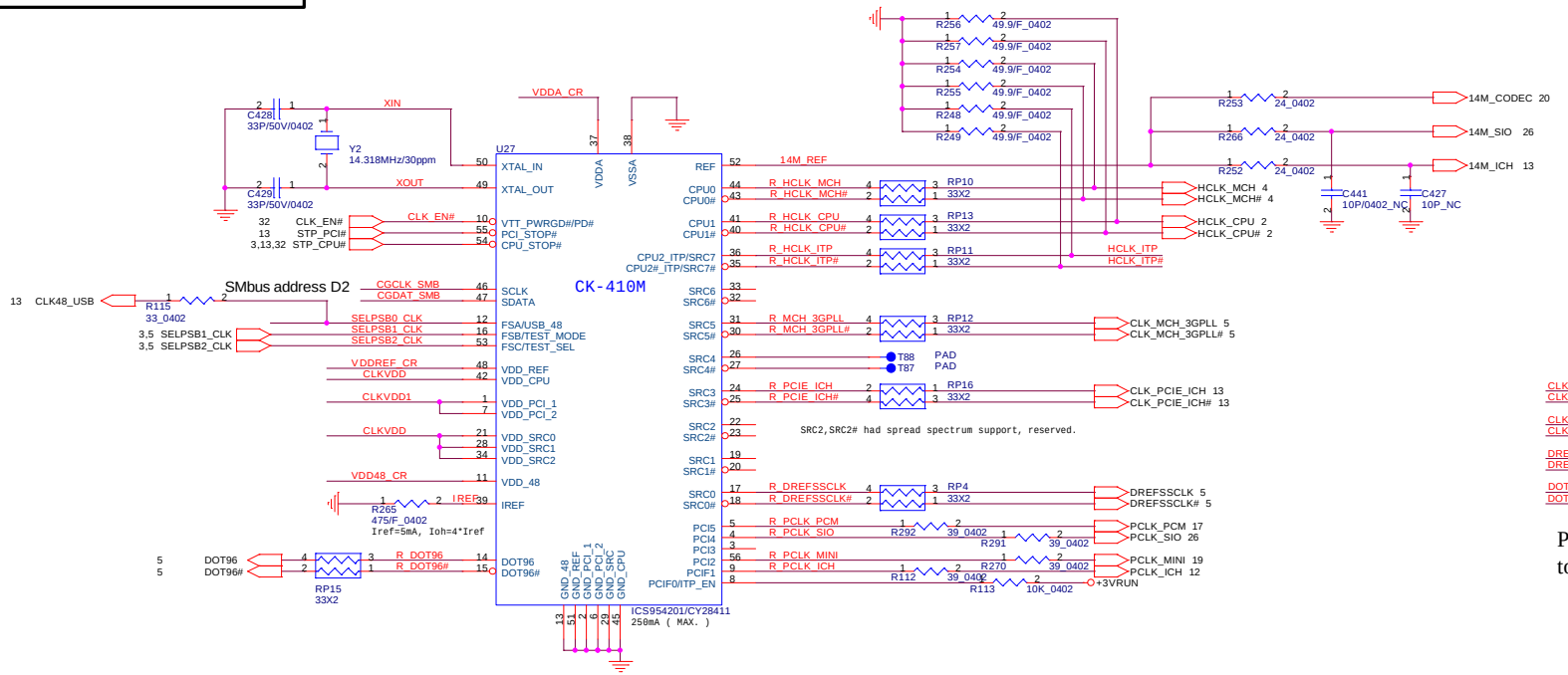
FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

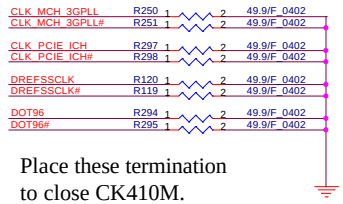


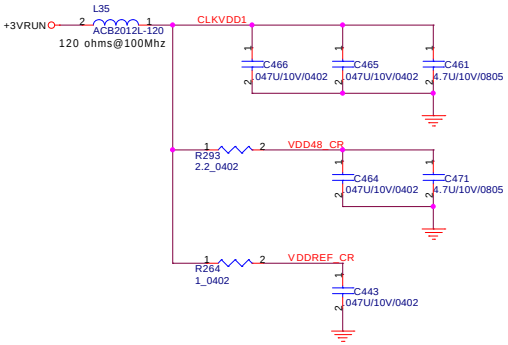
Depop R299 for Dothan-B

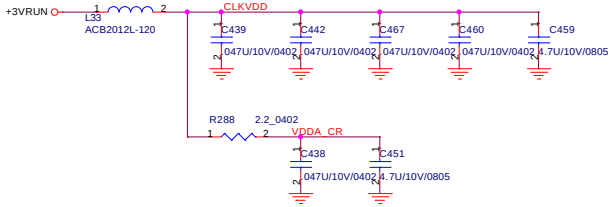
Place these termination to close CK410M.

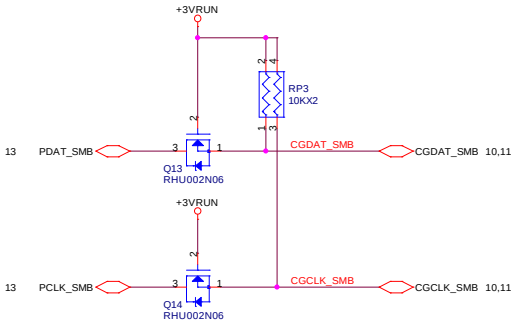


Place these termination to close CK410M.









These are for backdrive issue

QUANTA COMPUTER

Title	CLOCK GENERATOR		
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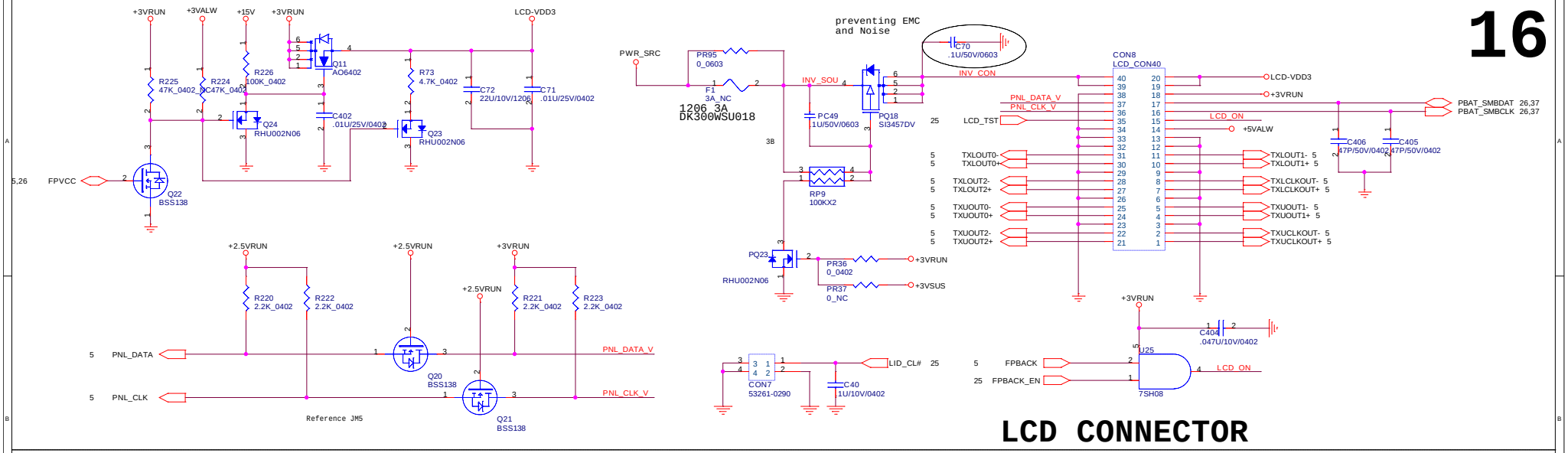
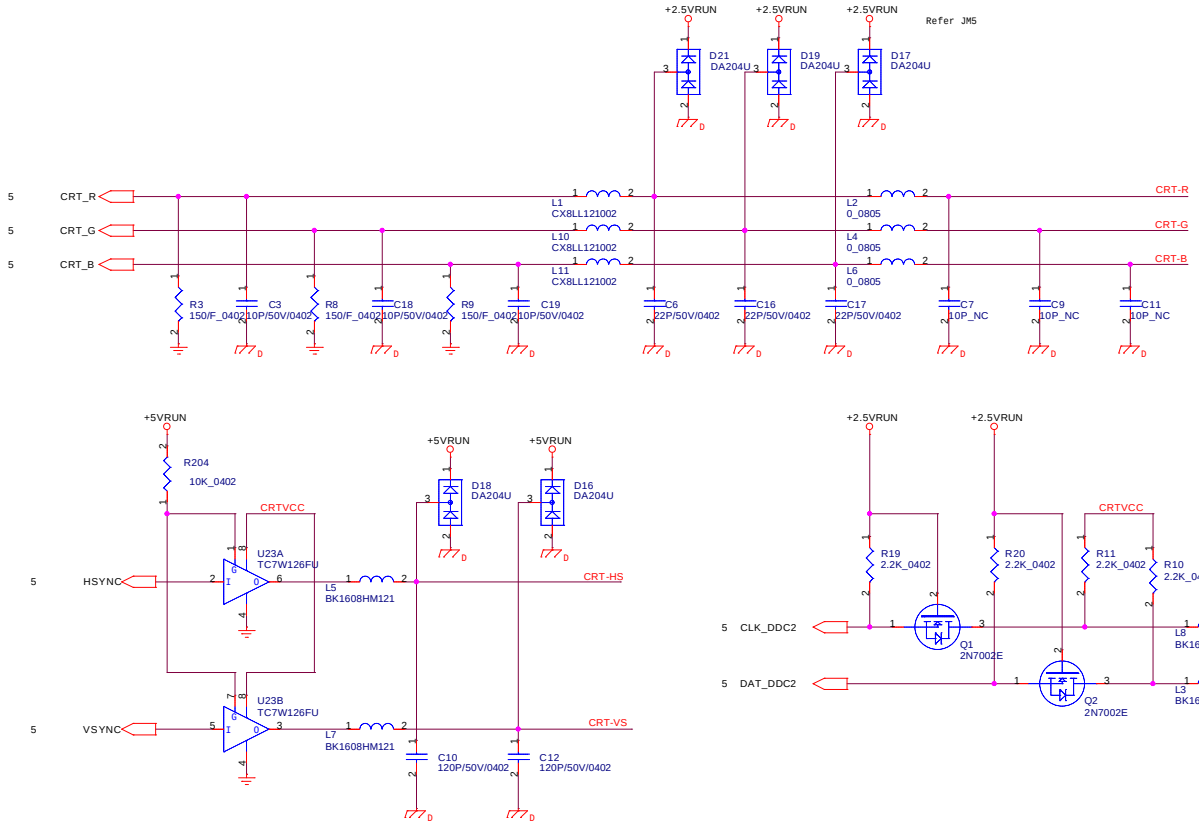
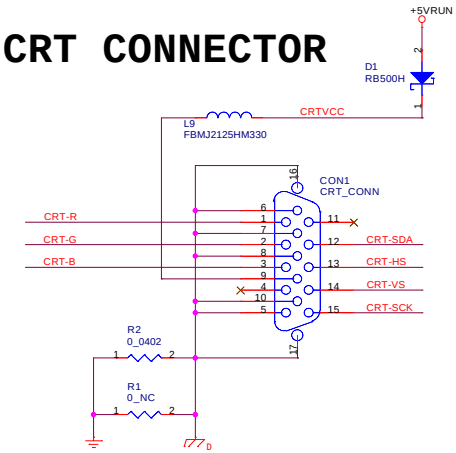


LCD CONNECTOR



CRT CONNECTOR



QUANTA COMPUTER

Title: **CRT PORT**

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Custom	Trend Mark	1A

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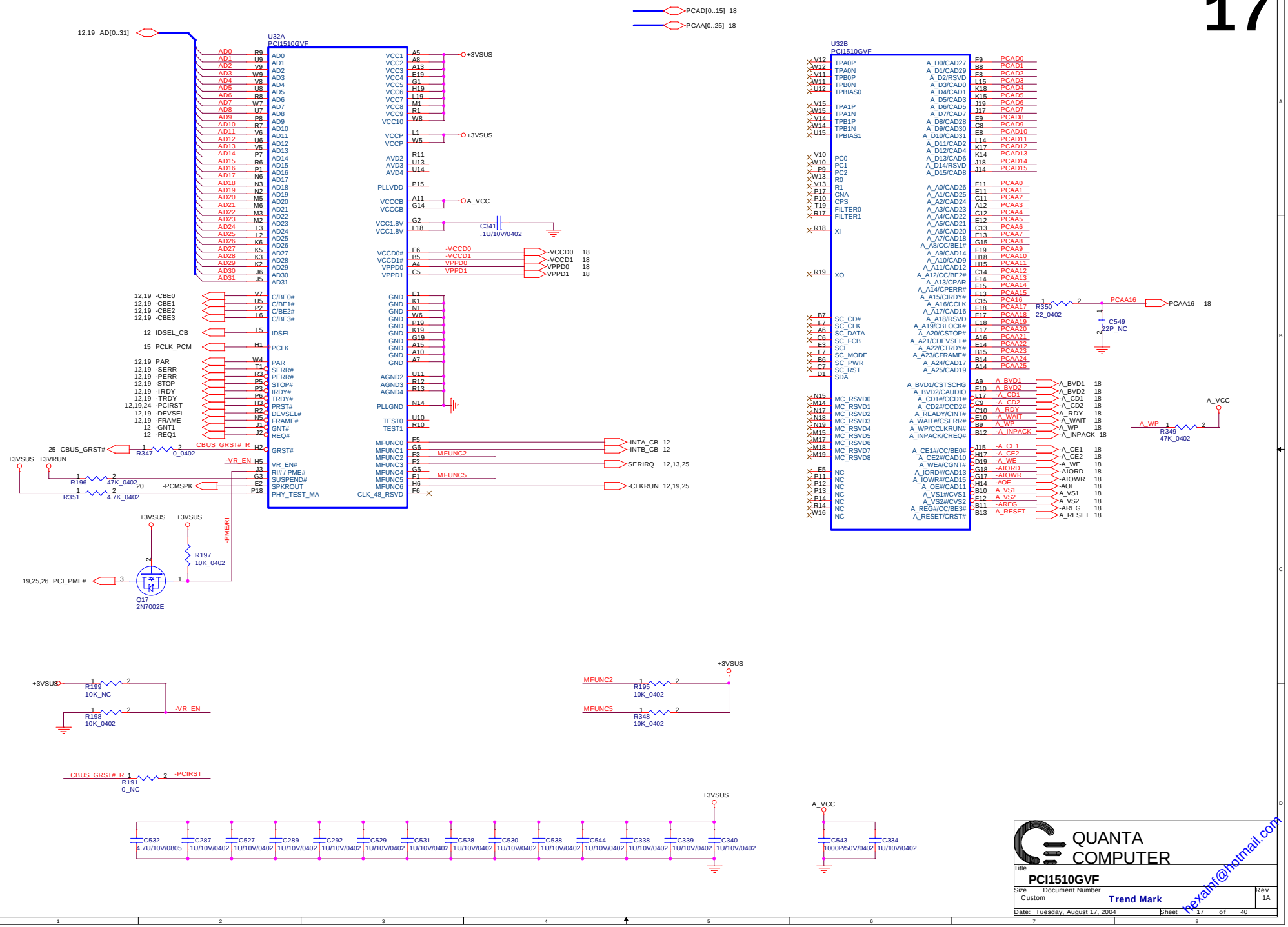

QUANTA COMPUTER		
Title: PCI1510GVF		
Size: Custom	Document Number: Trend Mark	Rev: 1A
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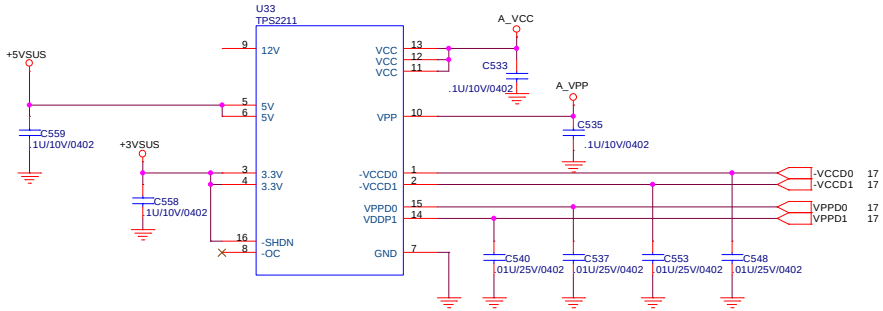
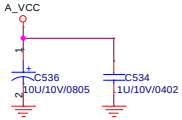
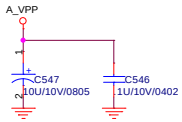
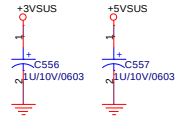
PCMCIA POWER SWITCH

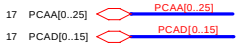


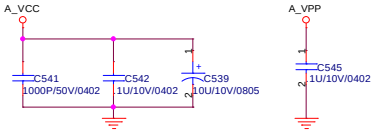


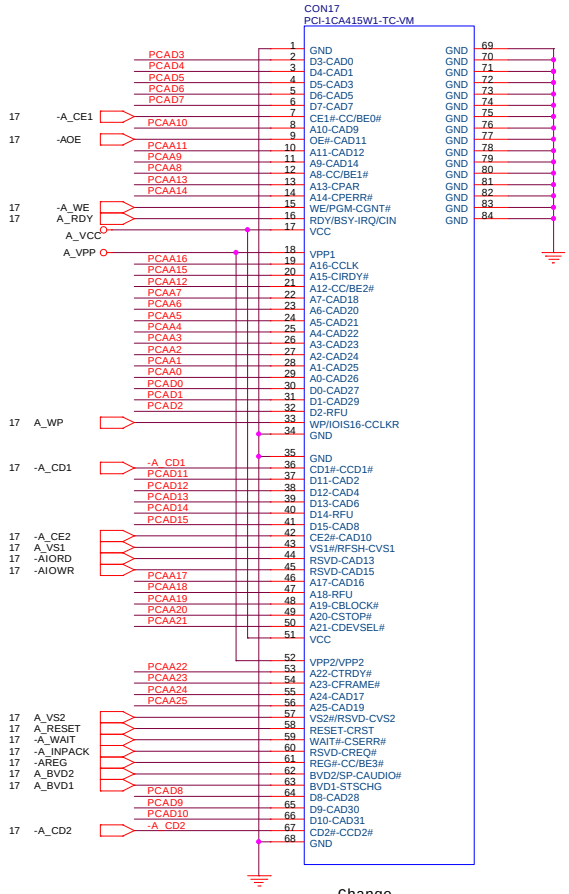


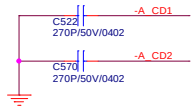


PCMCIA SOCKET





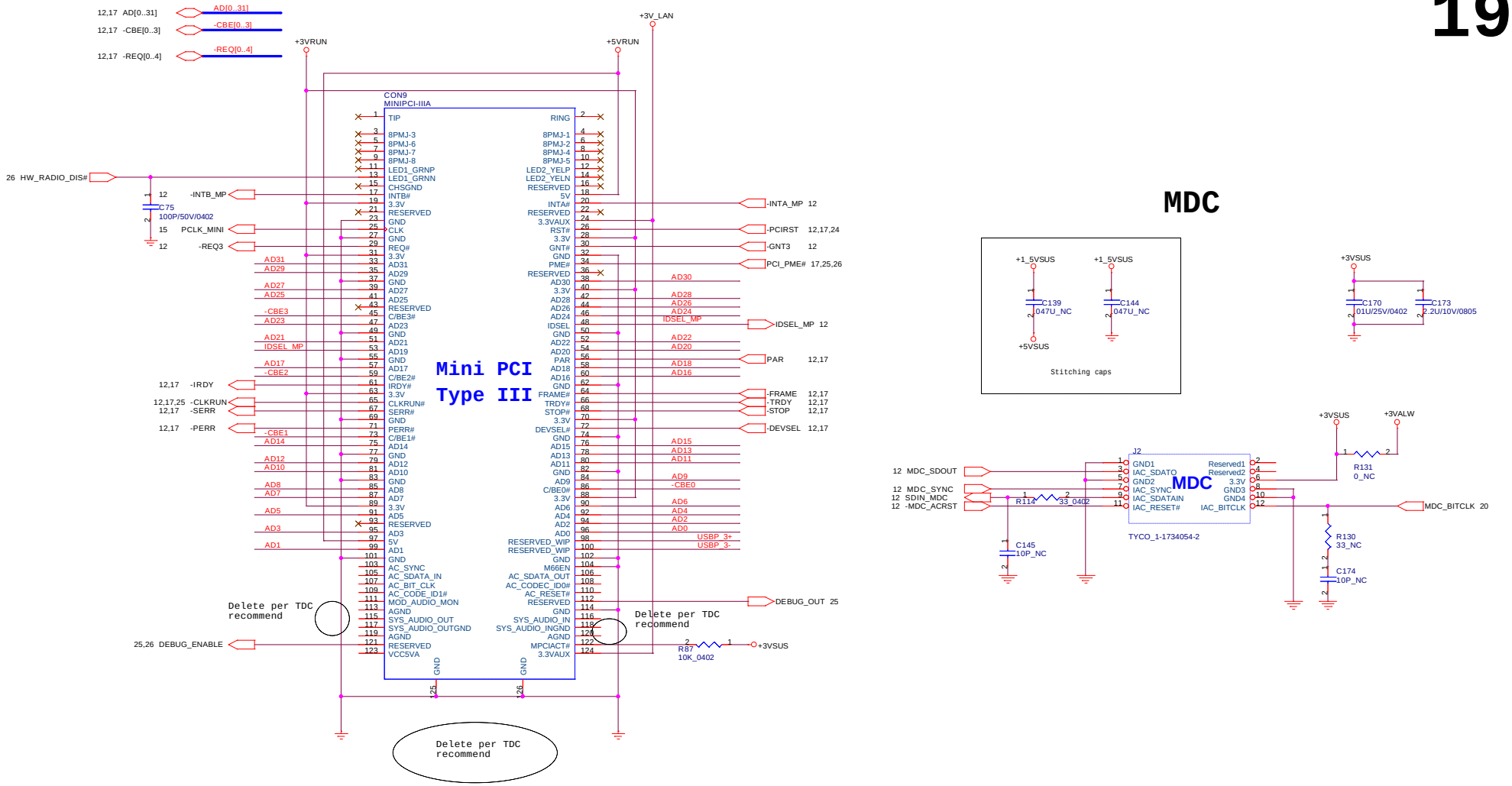


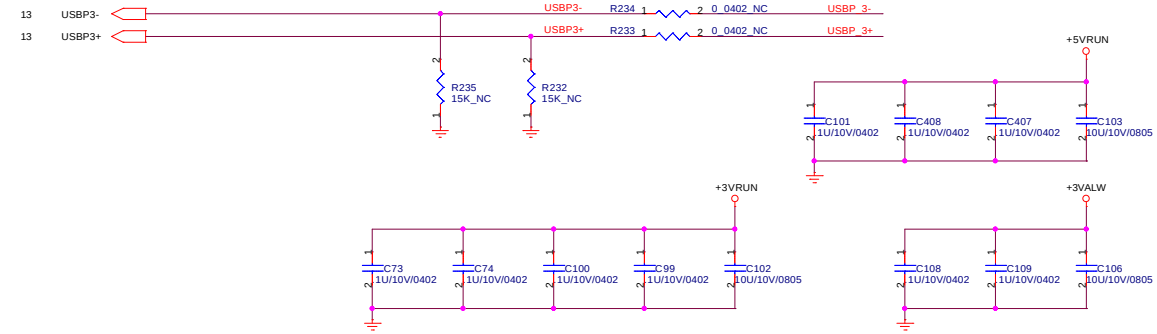


Change
PCMCIA Conn.

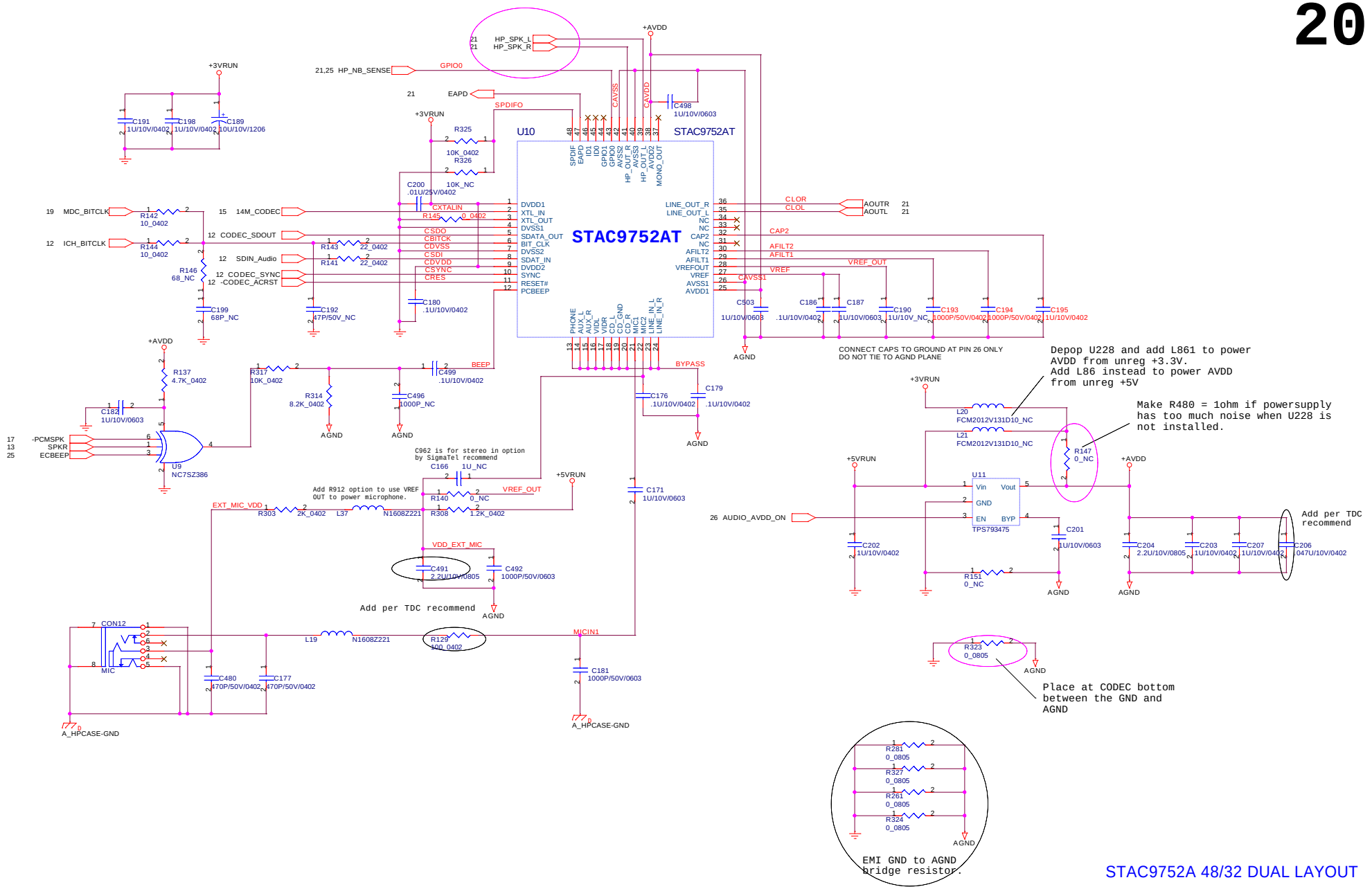
QUANTA COMPUTER

Title	PCMCIA SOCKET&POWER	
Size: Custom	Document Number: Trend Mark	Rev: 1A
Date: Tuesday, August 17, 2004	Sheet 18 of 40	





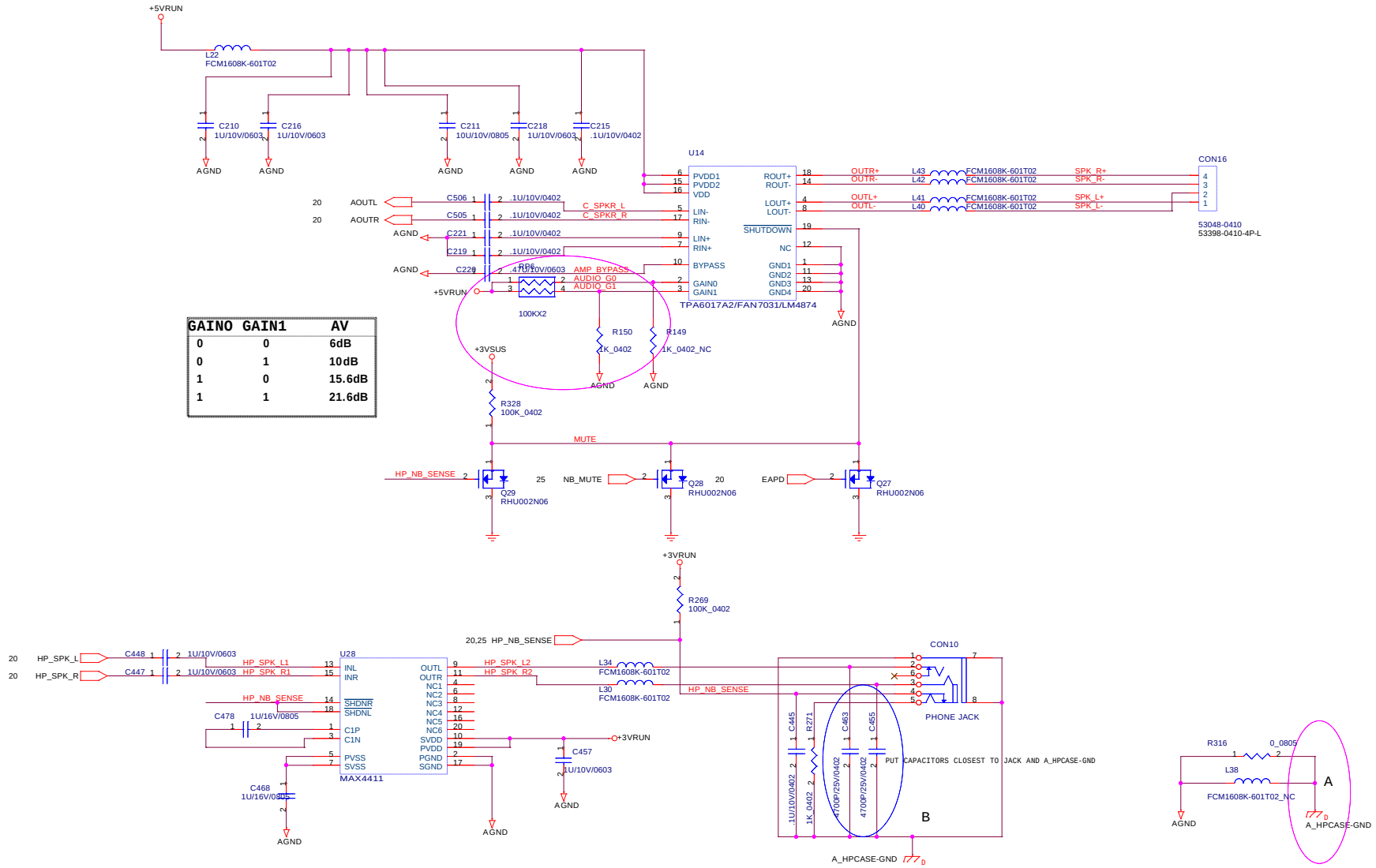
QUANTA COMPUTER			
Title: Mini PCI & MDC			
Size: Custom	Document Number: Trend Mark		Rev: 1A
Date: Tuesday, August 17, 2004	Sheet 19 of 40		



STAC9752A 48/32 DUAL LAYOUT

QUANTA COMPUTER

Title	Audio Codec STAC9753A	
Size: Custom	Document Number: Trend Mark	Rev: 1A
Date: Tuesday, August 17, 2004	Sheet 20 of 40	



QUANTA COMPUTER

Title: AUDIO AMP&BUZZER&HP-Out

Size	Document Number	Rev
Custom	Trend Mark	1A

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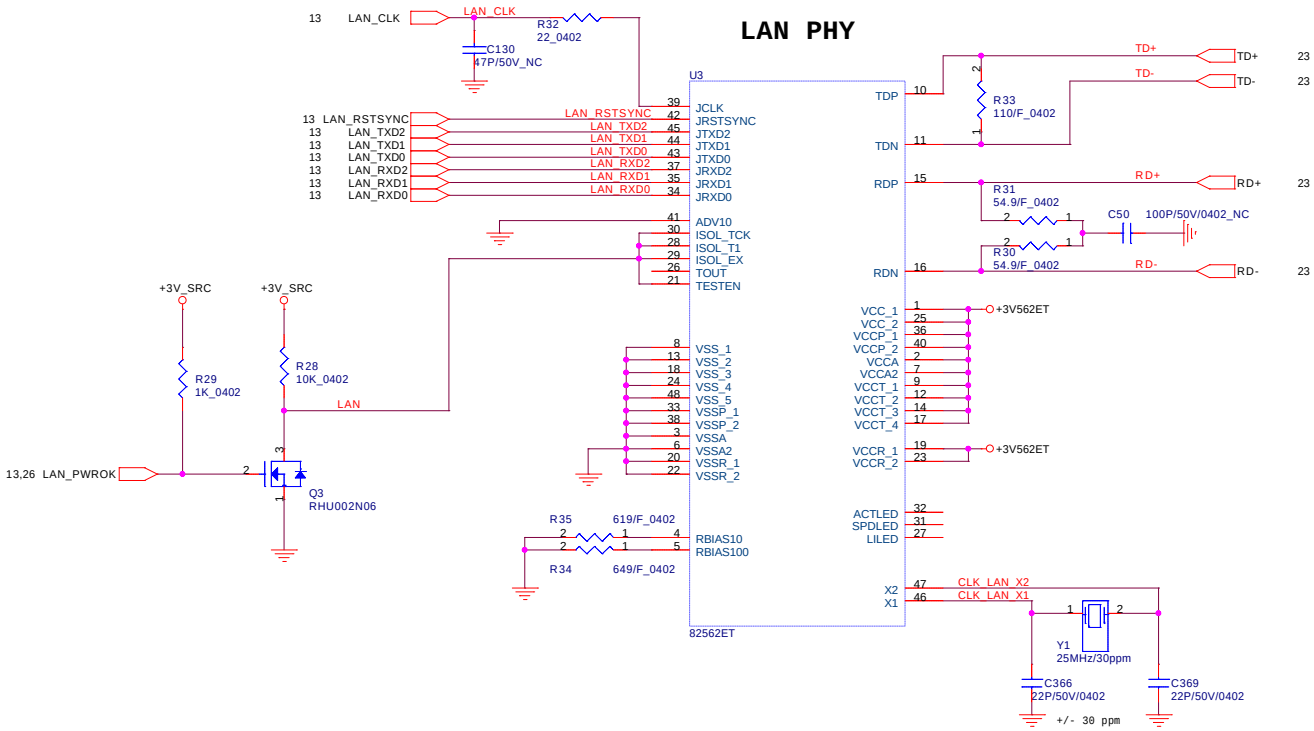
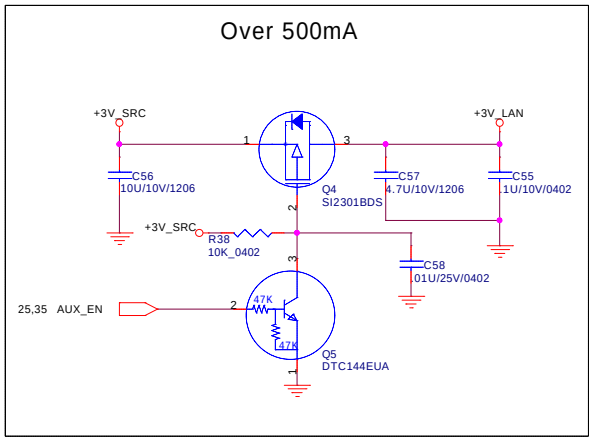
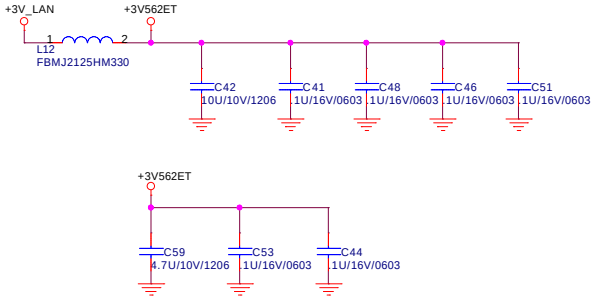
LAN PHY





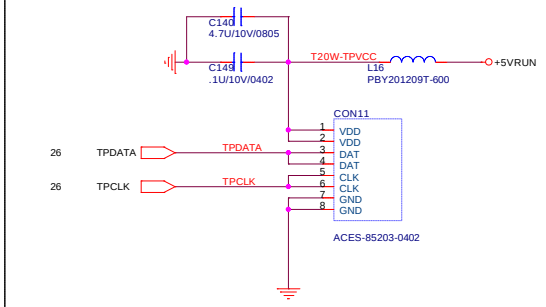


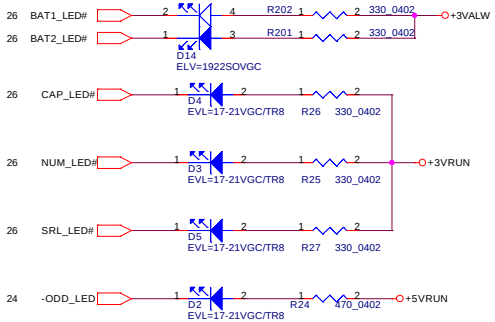
QUANTA COMPUTER

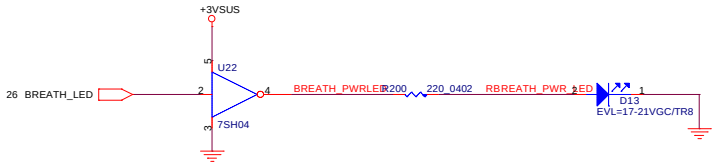
Title	LAN INTERFACE	
Size: Custom	Document Number: VM7	Rev: 1A
Date: Tuesday, August 17, 2004	Sheet 22 of 40	

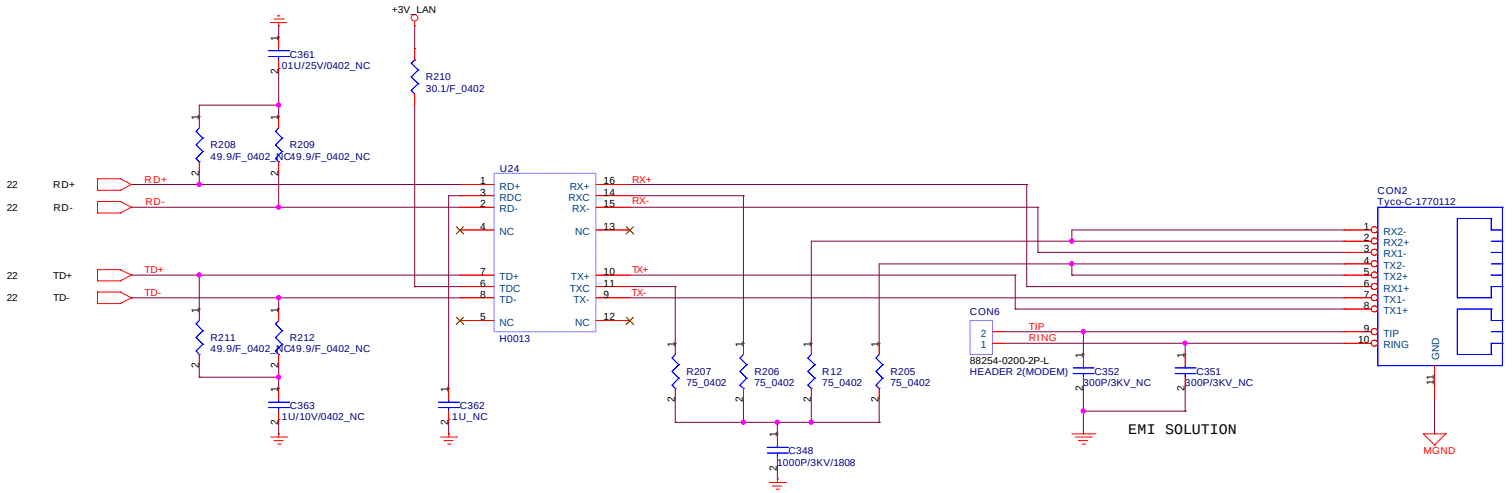
23

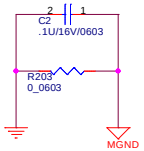
TOUCHPAD BOARD CON









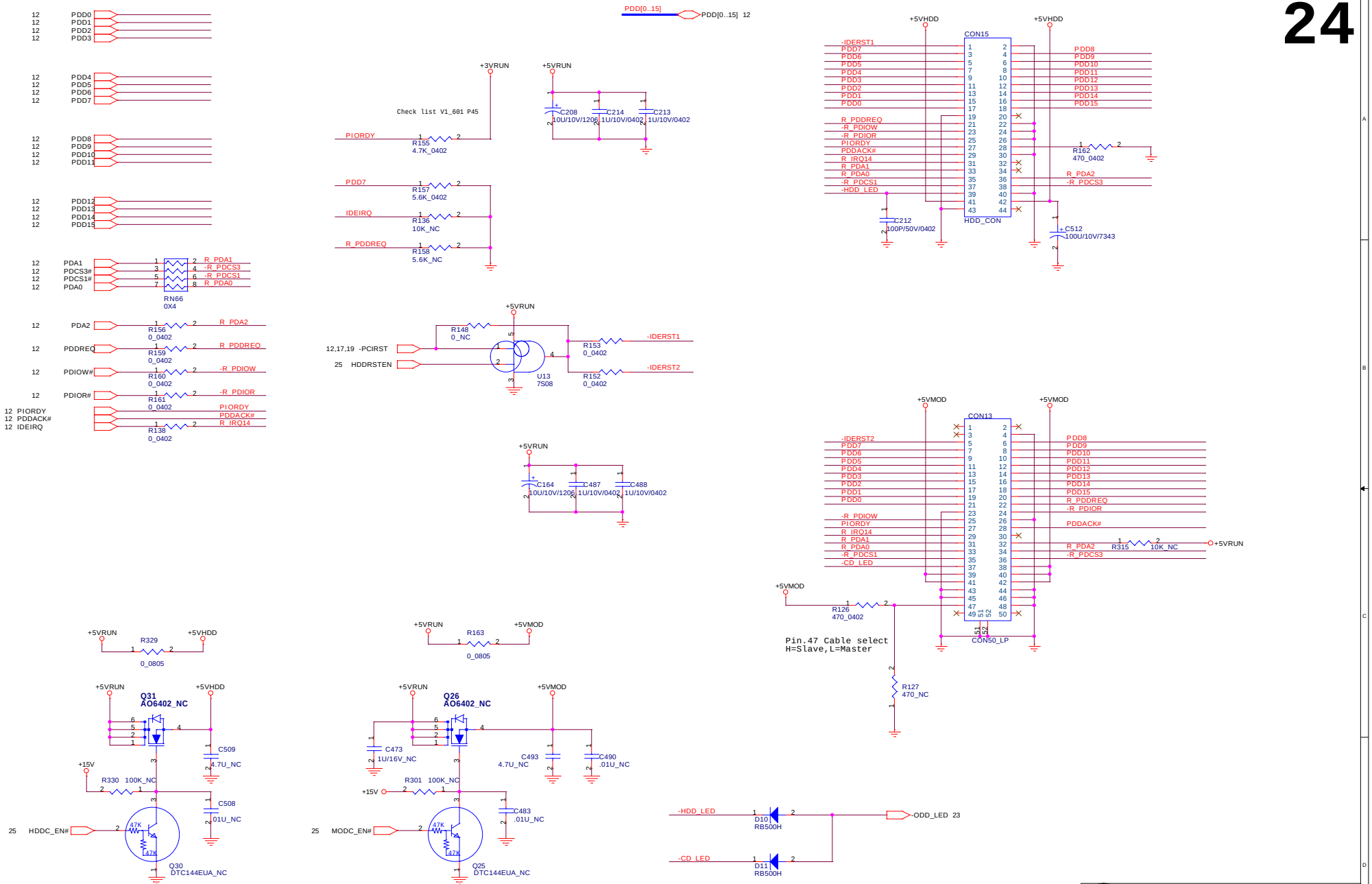


QUANTA COMPUTER

Title: **TP & LAN Connector**

Size: Custom | Document Number: **Trend Mark** | Rev: 1A

Date: Tuesday, August 17, 2004 | Sheet 23 of 40

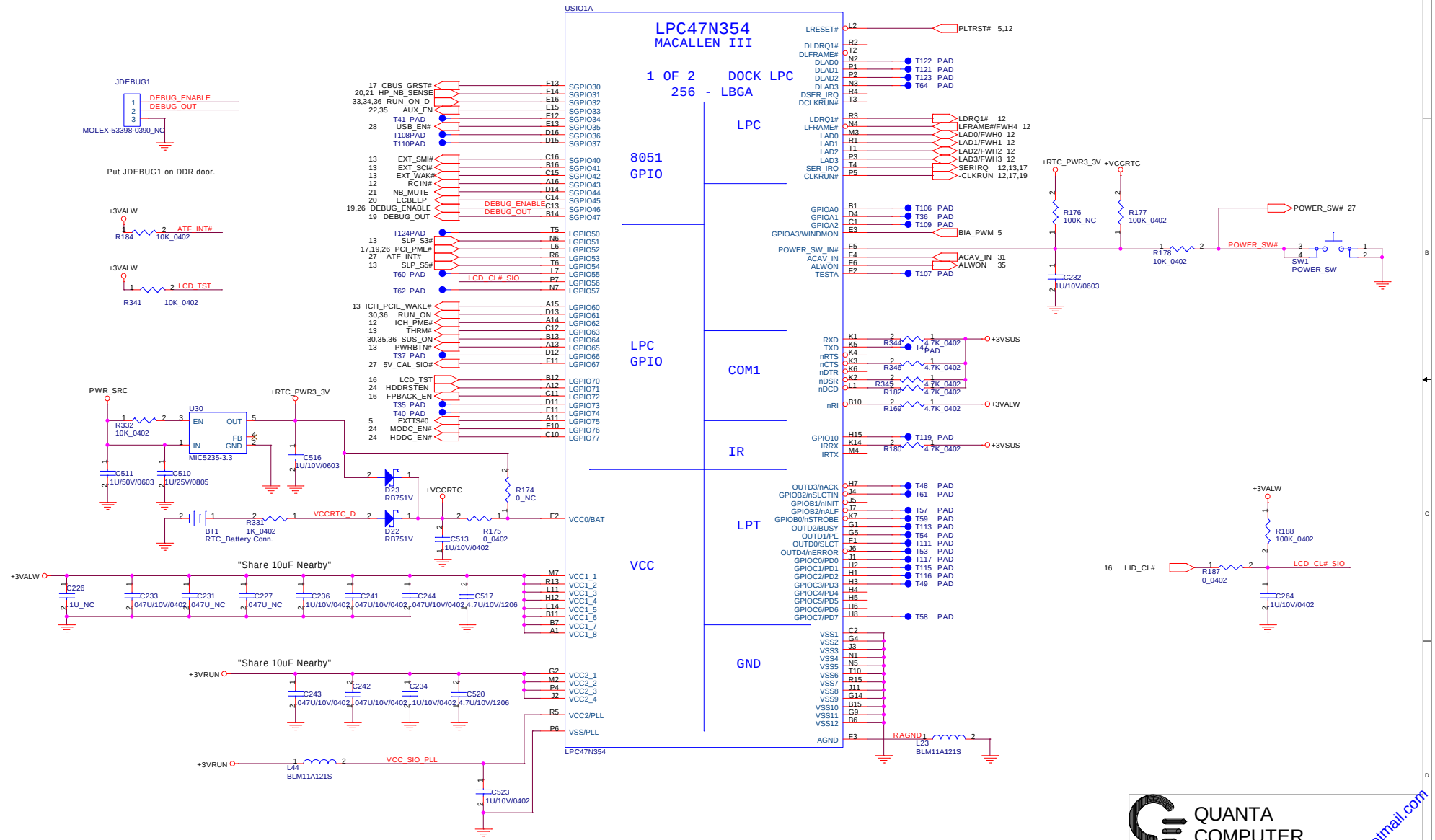


QUANTA COMPUTER

Title: **IDE HDD,ODD Connector**

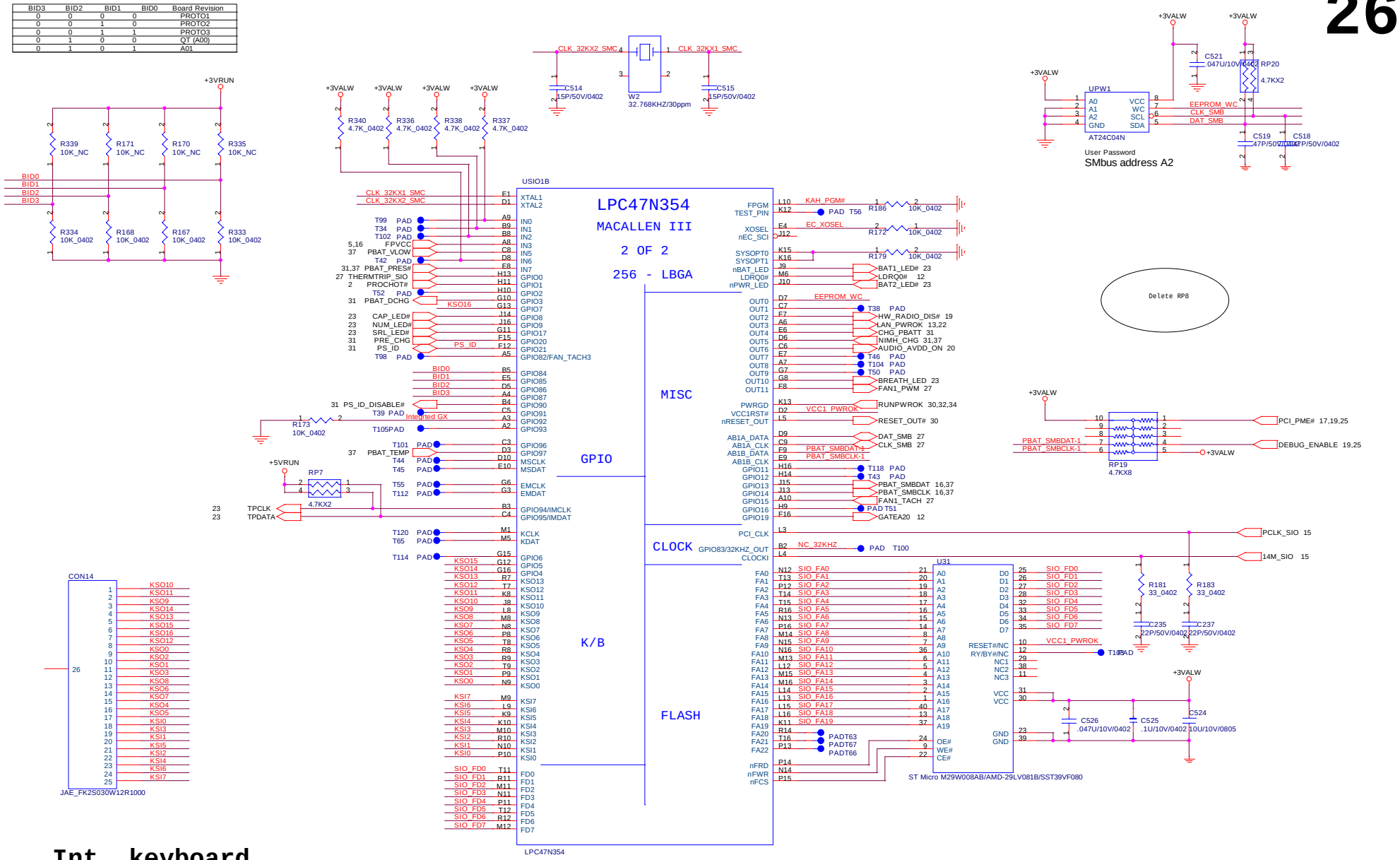
Size: Custom | Document Number: **Trend Mark** | Rev: 1A

Date: Tuesday, August 17, 2004 | Sheet 24 of 40



QUANTA COMPUTER		
Title	Ultra I/O Controller LPC47N254	
Size	Document Number VM7	Rev 1A
Date: Tuesday, August 17, 2004	Sheet 25 of 40	

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	QT (A00)
0	1	0	1	A01



QUANTA COMPUTER

Title: Ultra I/O Controller LPC47N254(GPIO/KB/MISC/FLASH)

Size: | Document Number: VM7 | Rev: 1A

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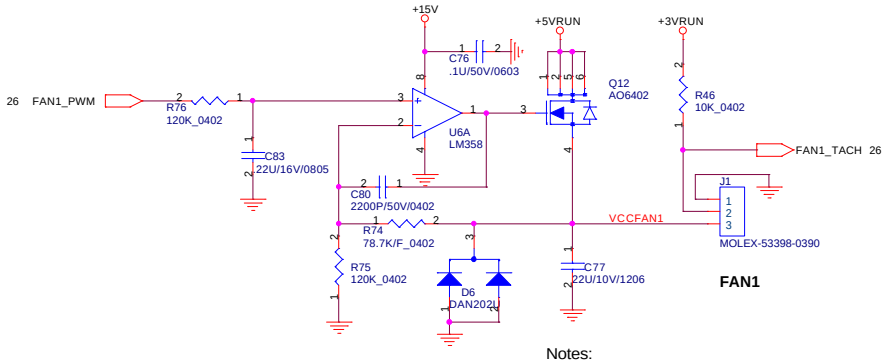


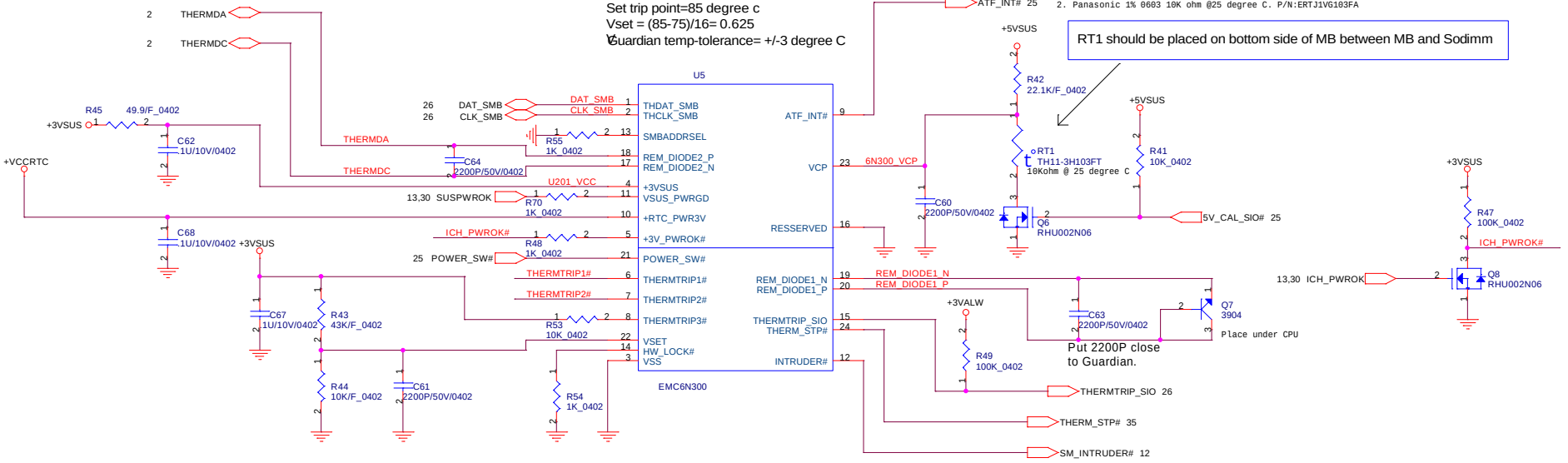
Notes:

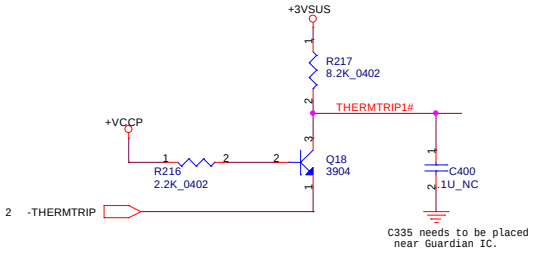
Vset=(Tp-75)/16
Where Tp=75 to
106 degree C

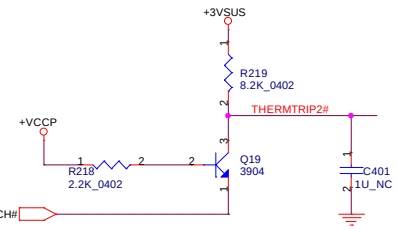
Set trip point=85 degree c
Vset = (85-75)/16= 0.625
Guardian temp-tolerance= +/-3 degree C

RT1:
1. Mitsubishi 1% 0603 10K ohm@25 degree C. P/N: TH11-3h103FT
2. Panasonic 1% 0603 10K ohm @25 degree C. P/N:ERTJ1VG103FA

RT1 should be placed on bottom side of MB between MB and Sodimm

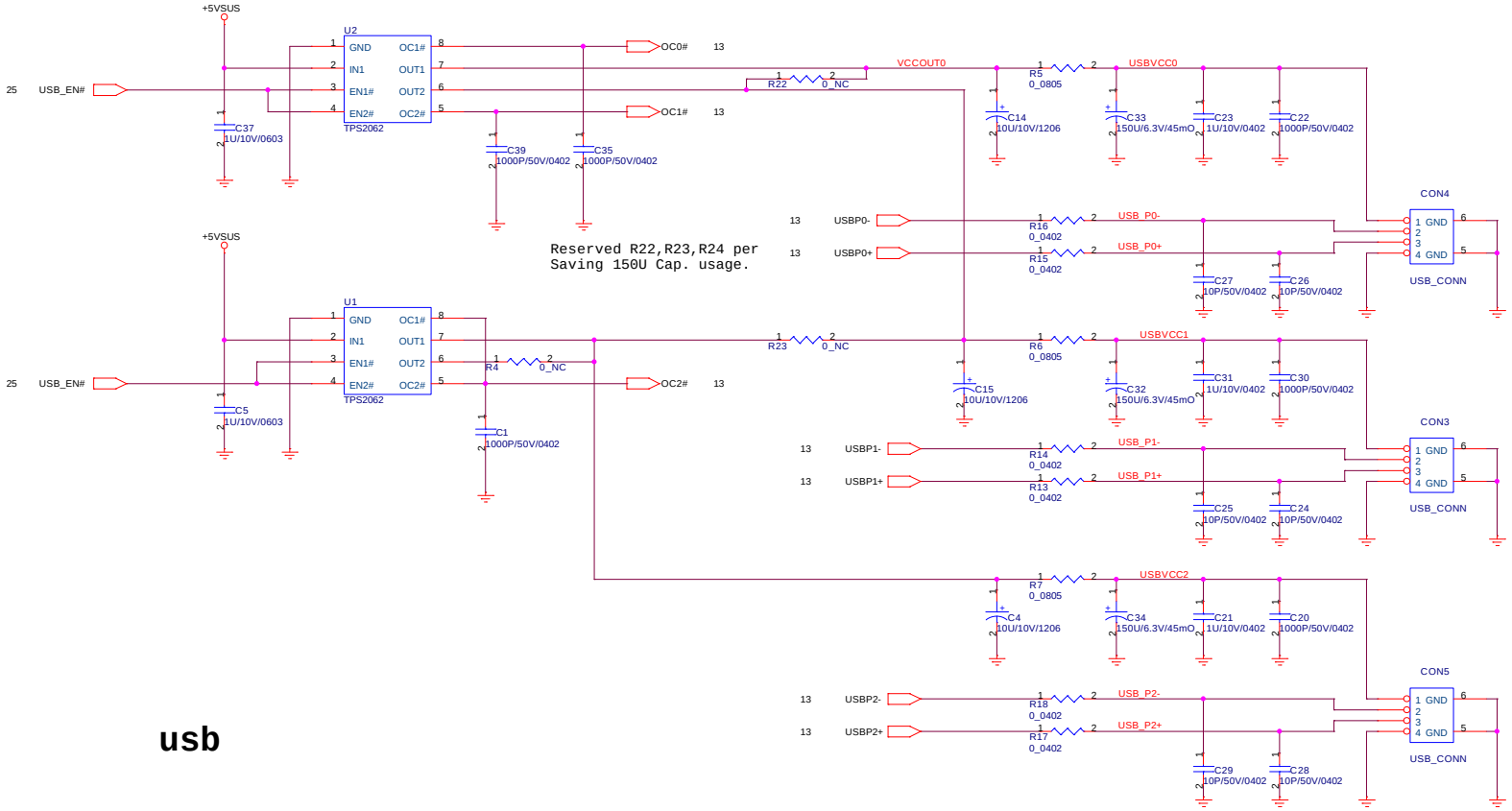






QUANTA COMPUTER

Title	FAN & THERMAL		
Size	Document Number VM7		Rev 1A
Date:	Tuesday, August 17, 2004	Sheet 27 of 40	



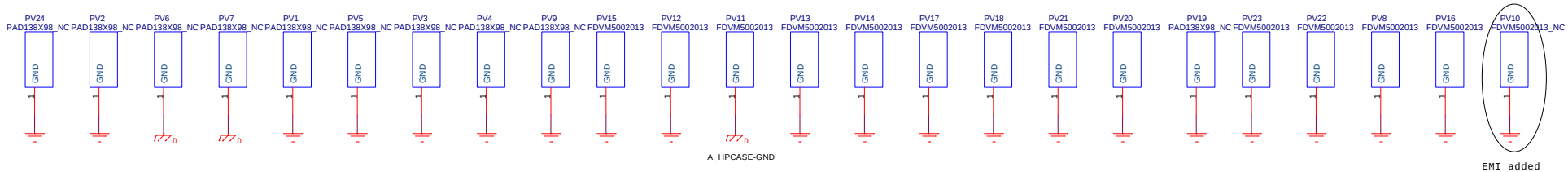
usb

QUANTA COMPUTER

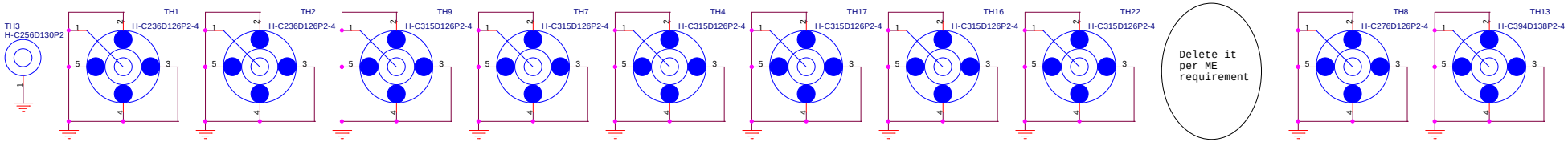
Title: **USB Connector**

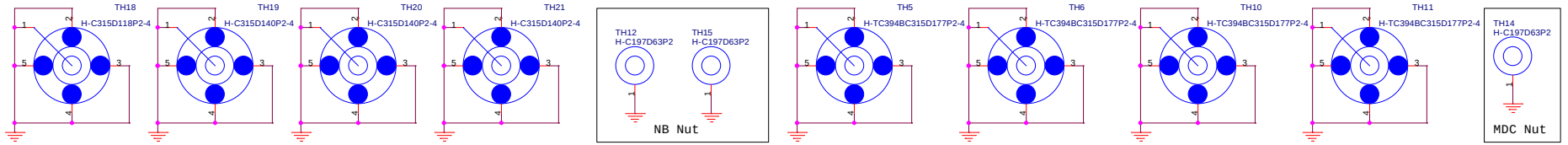
Size	Document Number	Rev
Custom	Trend Mark	1A

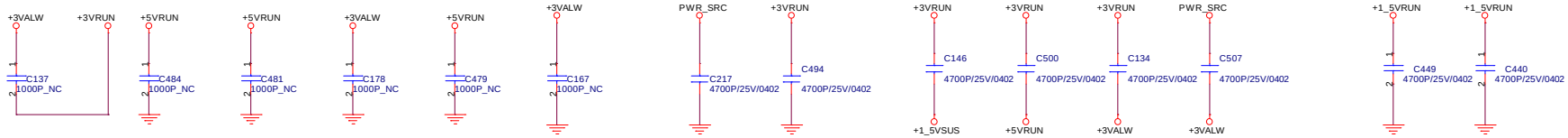
Date: Tuesday, August 17, 2004 Sheet 28 of 40



EMI SOLUTION







EMI require in 0810

QUANTA COMPUTER

Title: INT. KEYBOARD

Size: Custom | Document Number: Trend Mark | Rev: 1A

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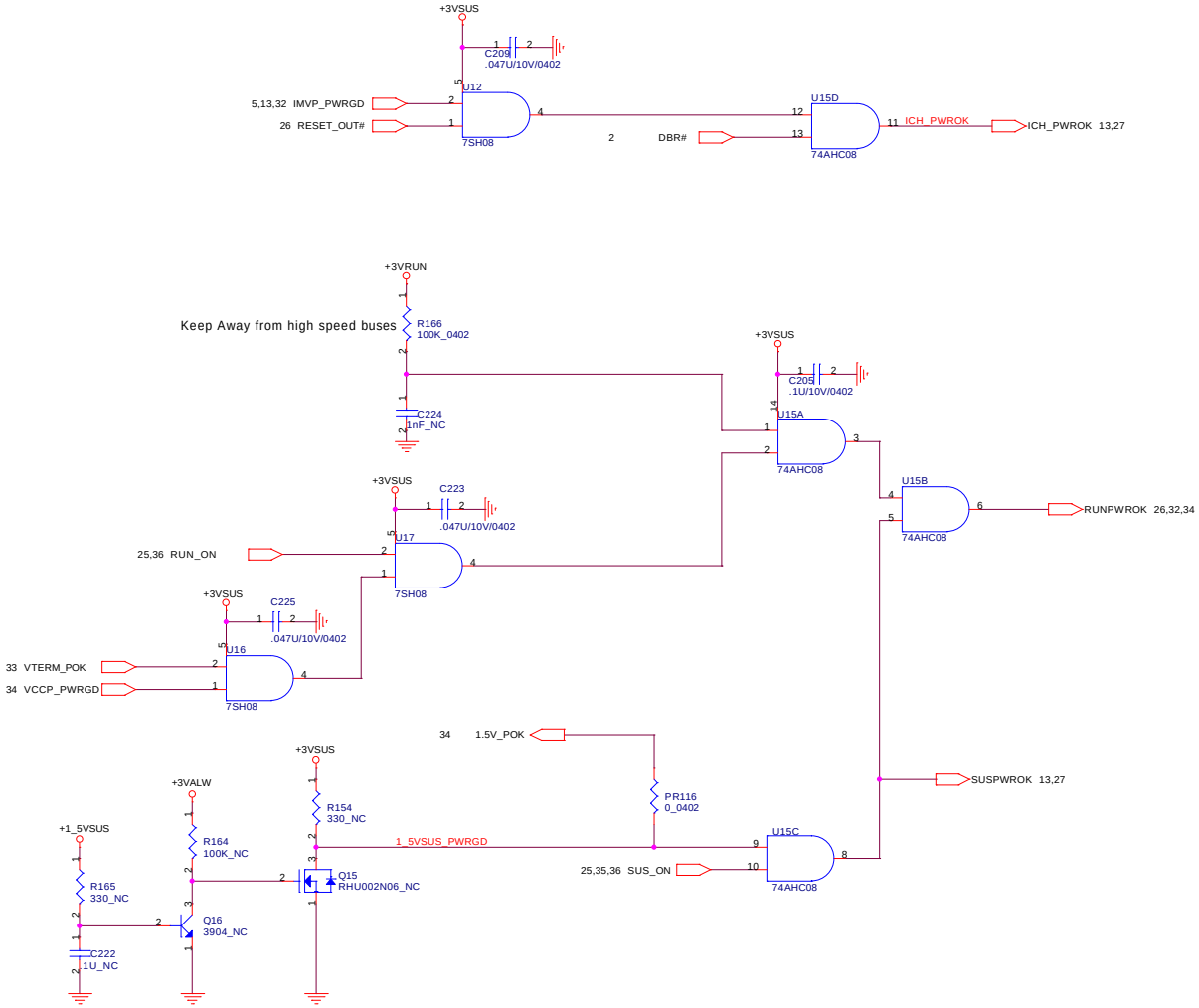
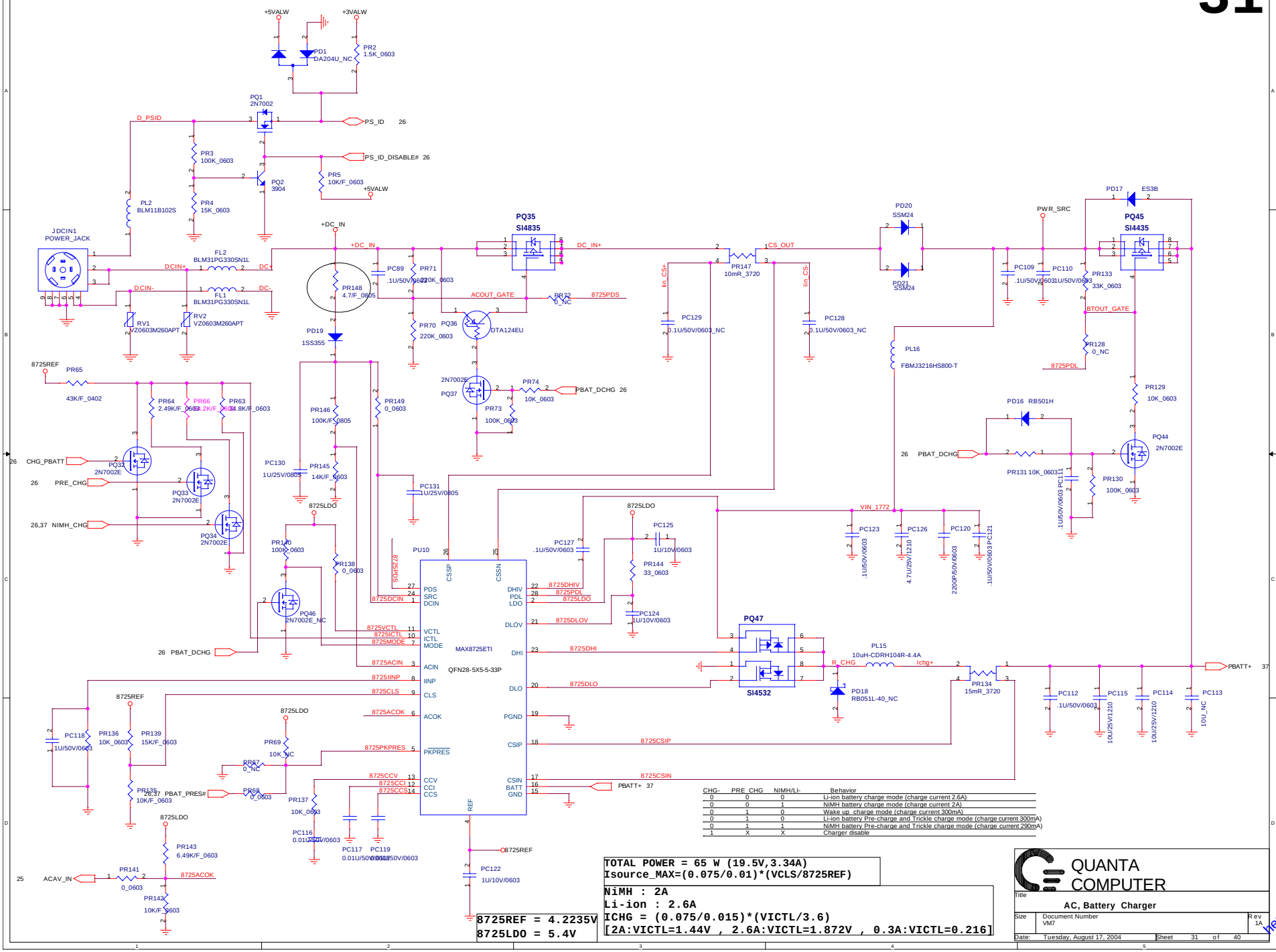


QUANTA COMPUTER

Title	Power Good Circuit	
Size	Document Number VM7	Rev 1A
Date: Tuesday, August 17, 2004	Sheet 30 of 40	



CHG-	PRE_CHG	NIMH/LI-	Behavior
0	0	0	Li-ion battery charge mode (charge current 2.6A)
0	0	1	NiMH battery charge mode (charge current 2A)
0	1	0	Wake up charge mode (charge current 300mA)
0	1	0	Li-ion battery Pre-charge and Trickle charge mode (charge current 300mA)
0	1	1	NiMH battery Pre-charge and Trickle charge mode (charge current 290mA)
1	X	X	Charger disable

TOTAL POWER = 65 W (19.5V,3.34A)
Isource_MAX=(0.075/0.01)*(VCLS/8725REF)

NiMH : 2A
Li-ion : 2.6A
ICHG = (0.075/0.015)*(VICTL/3.6)
[2A:VICTL=1.44V , 2.6A:VICTL=1.872V , 0.3A:VICTL=0.216]

8725REF = 4.2235V
8725LDO = 5.4V

QUANTA COMPUTER

Title: AC, Battery Charger

Size | Document Number: VM7 | Rev: 1A

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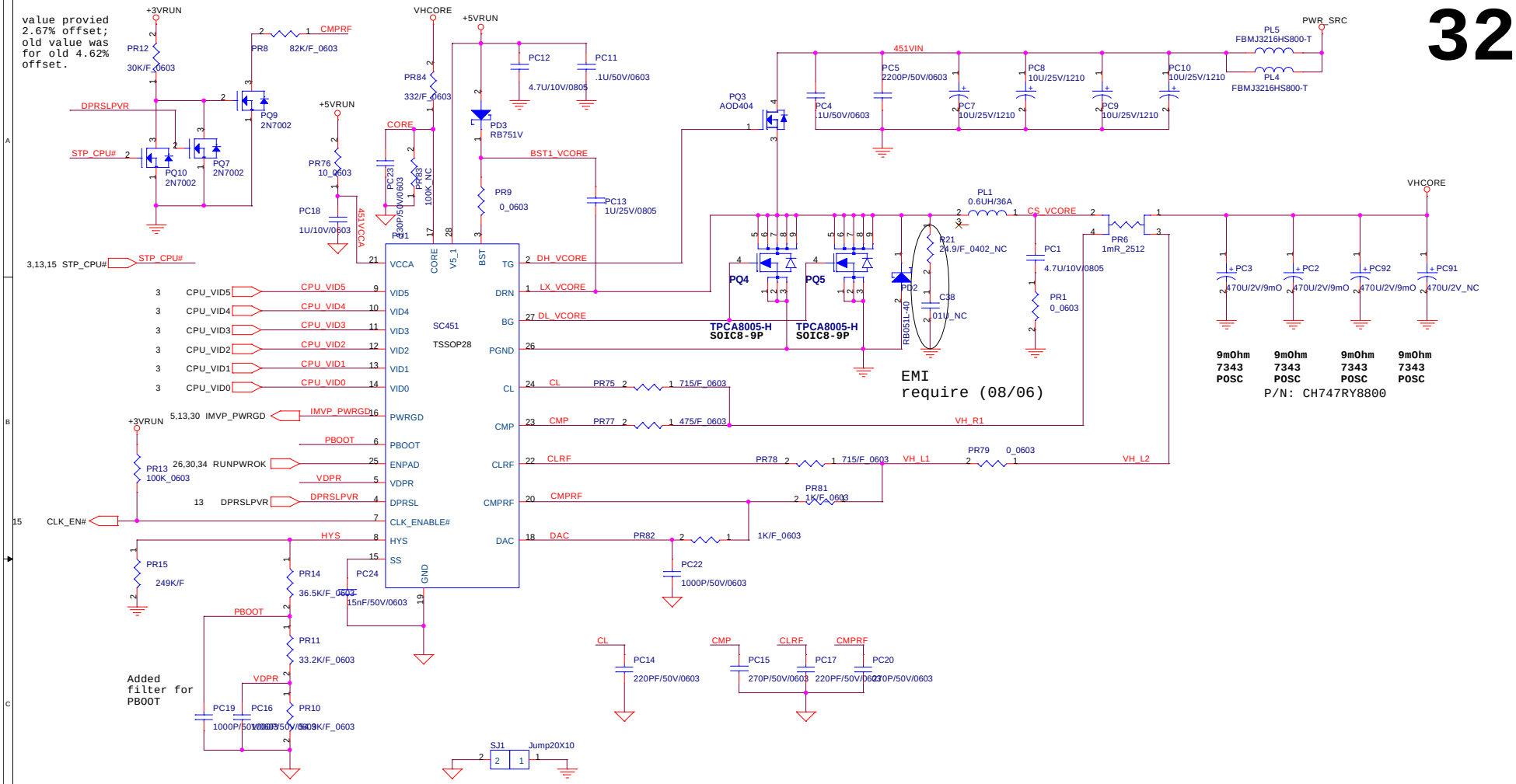
value provied 2.67% offset; old value was for old 4.62% offset.



D5	D4	D3	D2	D1	D0	Output	D5	D4	D3	D2	D1	D0	Output
1	0	0	0	0	0	1.196V	0	0	0	0	0	0	1.708V
1	0	0	0	0	1	1.180V	0	0	0	0	0	1	1.692V
1	0	0	0	1	0	1.164V	0	0	0	0	1	0	1.676V
1	0	0	0	1	1	1.148V	0	0	0	0	1	1	1.660V
1	0	0	1	0	0	1.132V	0	0	0	1	0	0	1.644V
1	0	0	1	0	1	1.116V	0	0	0	1	0	1	1.628V
1	0	0	1	1	0	1.100V	0	0	0	1	1	0	1.612V
1	0	0	1	1	1	1.084V	0	0	0	1	1	1	1.596V
1	0	1	0	0	0	1.068V	0	0	1	0	0	0	1.580V
1	0	1	0	0	1	1.052V	0	0	1	0	0	1	1.564V
1	0	1	0	1	0	1.036V	0	0	1	0	1	0	1.548V
1	0	1	0	1	1	1.020V	0	0	1	0	1	1	1.532V
1	0	1	1	0	0	1.004V	0	0	1	1	0	0	1.516V
1	0	1	1	0	1	0.988V	0	0	1	1	0	1	1.500V
1	0	1	1	1	0	0.972V	0	0	1	1	1	0	1.484V
1	0	1	1	1	1	0.956V	0	0	1	1	1	1	1.468V
1	1	0	0	0	0	0.940V	0	1	0	0	0	0	1.452V
1	1	0	0	0	1	0.924V	0	1	0	0	0	1	1.436V
1	1	0	0	1	0	0.908V	0	1	0	0	1	0	1.420V
1	1	0	0	1	1	0.892V	0	1	0	0	1	1	1.404V
1	1	0	1	0	0	0.876V	0	1	0		0	0	1.388V
1	1	0	1	0	1	0.860V	0	1	0		0	1	1.372V
1	1	0	1	1	0	0.844V	0	1	0	1	1	0	1.356V
1	1	0	1	1	1	0.828V	0	1	0	1	1	1	1.340V
1	1	1	0	0	0	0.812V	0	1	1	0	0	0	1.324V
1	1	1	0	0	1	0.796V	0	1	1	0	0	1	1.308V
1	1	1	0	1	0	0.780V	0	1	1	0	1	0	1.292V
1	1	1	0	1	1	0.764V	0	1	1	0	1	1	1.276V
1	1	1	1	0	0	0.748V	0	1	1	1	0	0	1.260V
1	1	1	1	0	1	0.732V	0	1	1	1	0	1	1.244V
1	1	1	1	1	0	0.716V	0	1	1	1	1	0	1.228V
1	1	1	1	1	1	0.700V	0	1	1	1	1	1	1.212V

QUANTA COMPUTER

Title: CPU POWER

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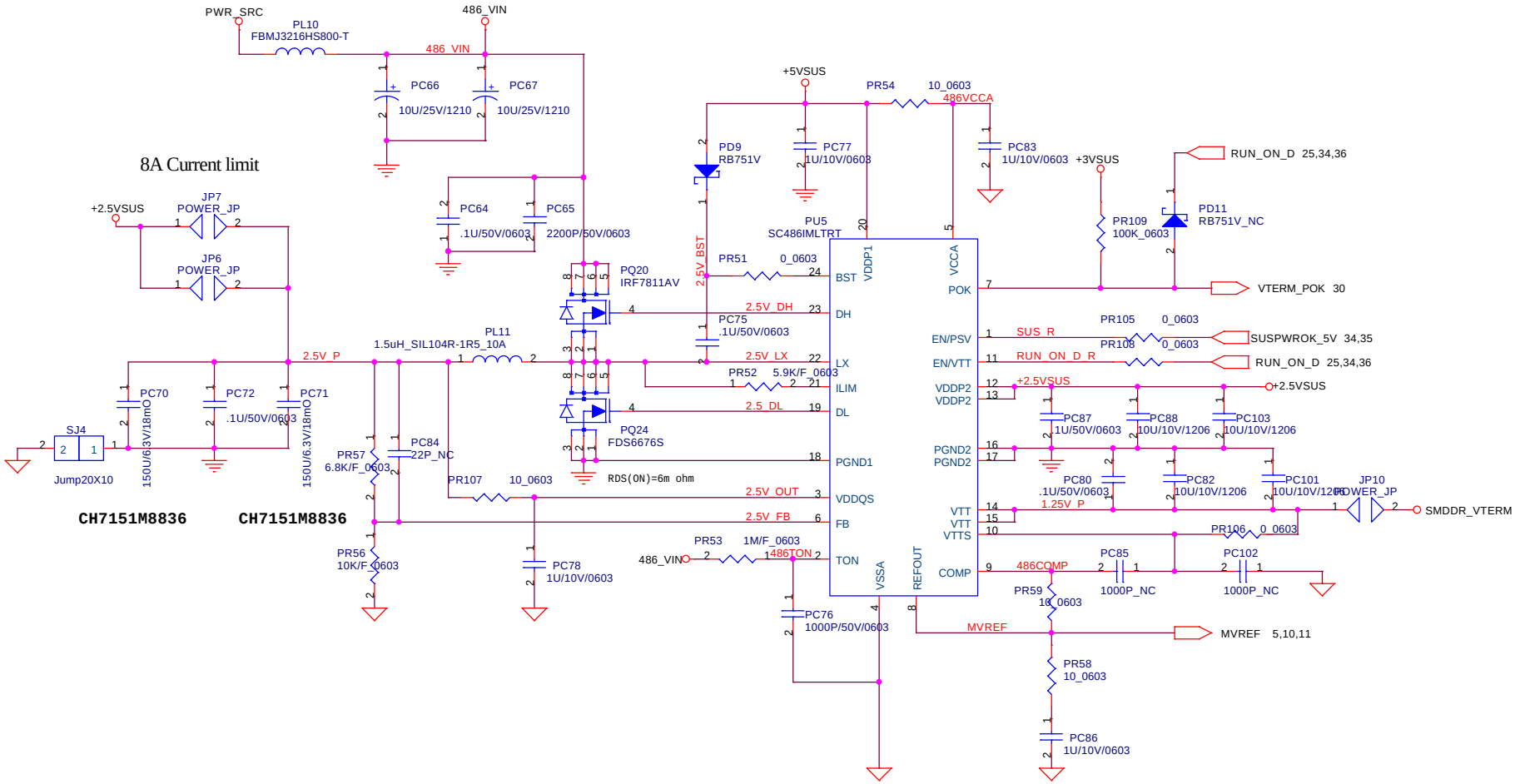
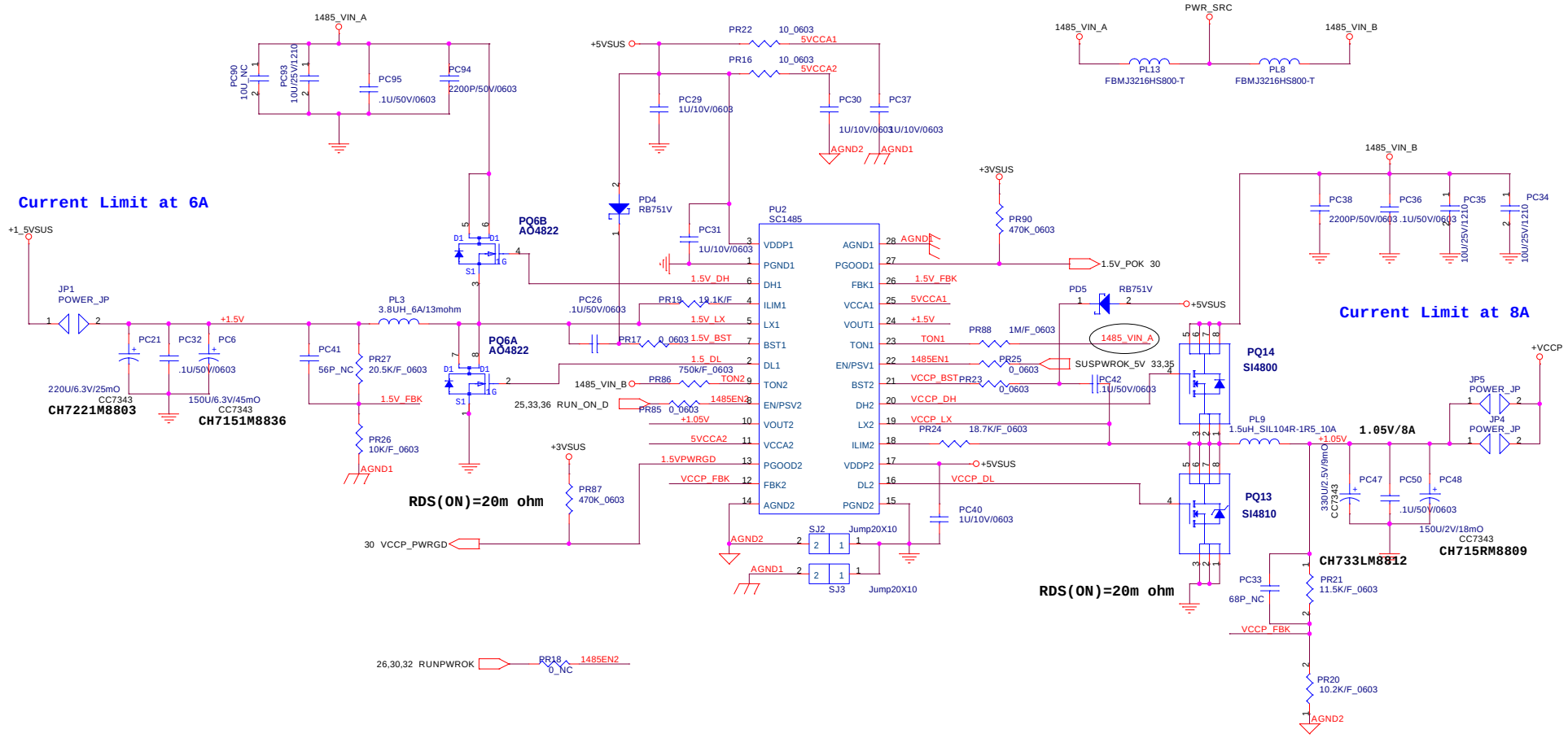
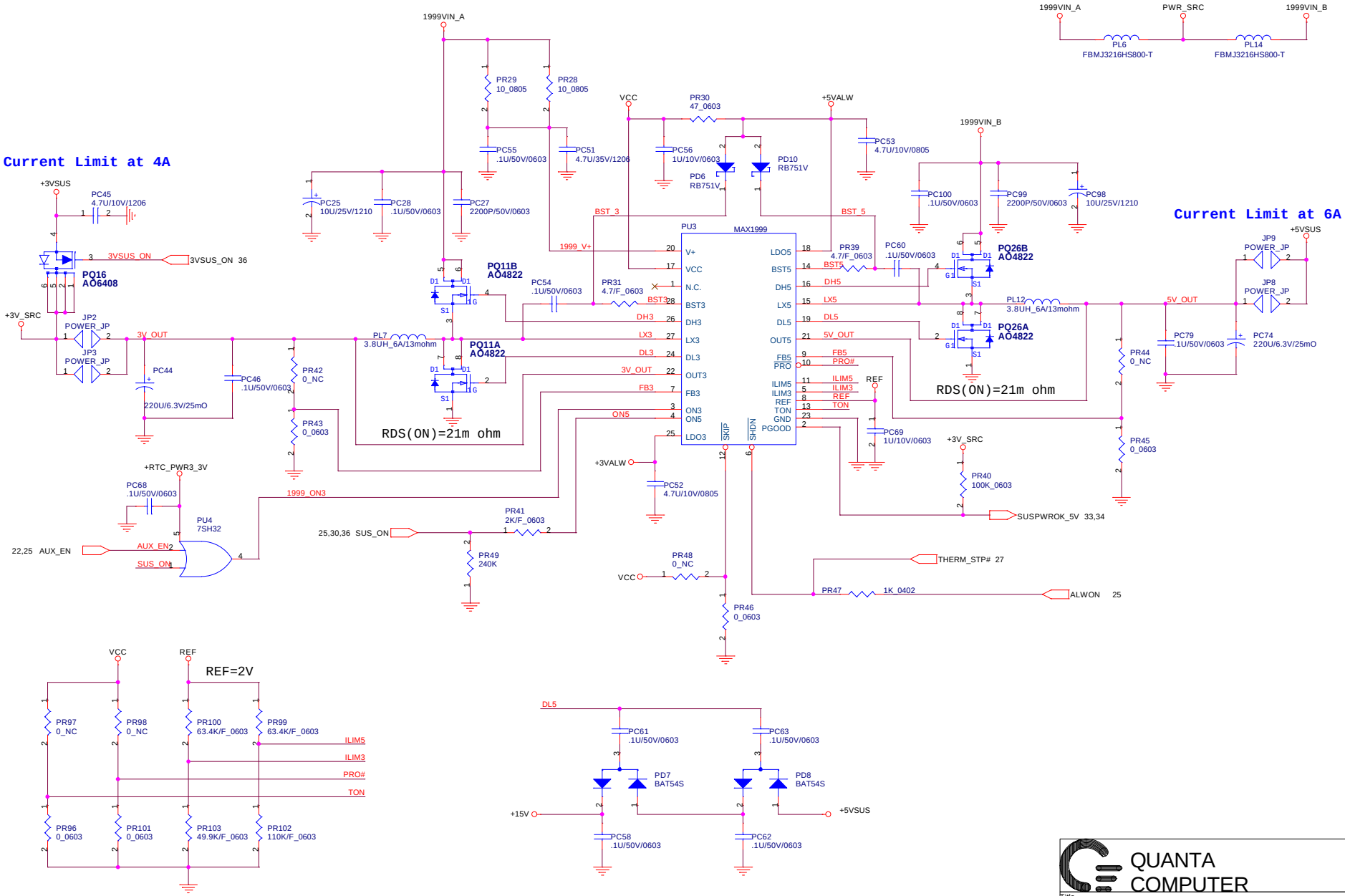


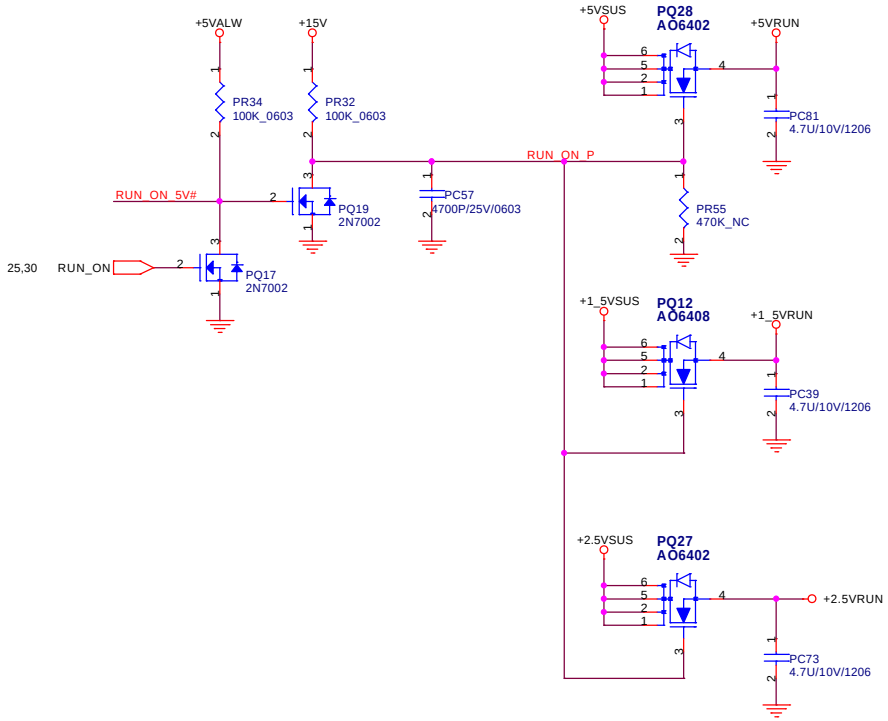
QUANTA COMPUTER

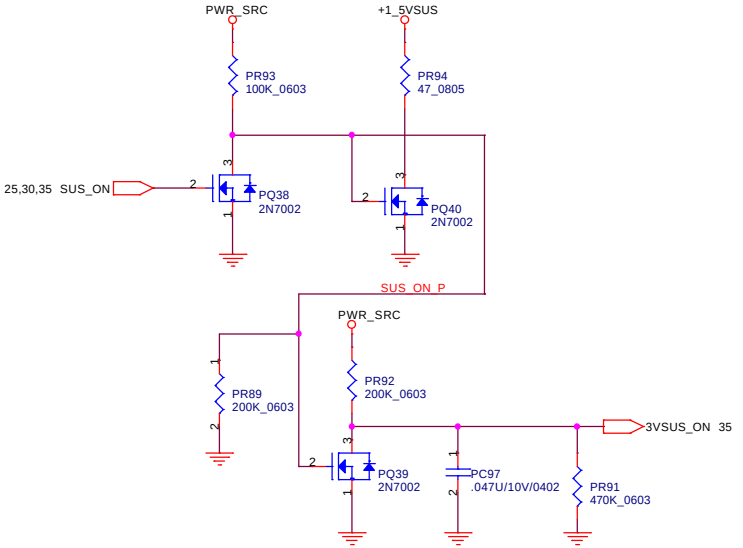
Title	2.5VSUS,SMDDR_VTER	
Size	Document Number VM7	Rev 1A
Date: Tuesday, August 17, 2004	Sheet 33 of 40	

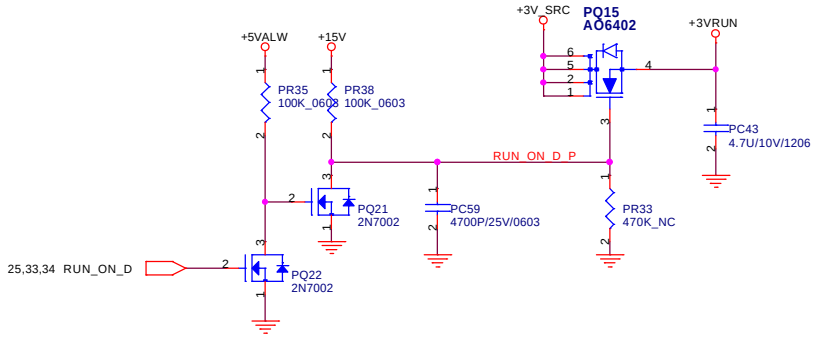


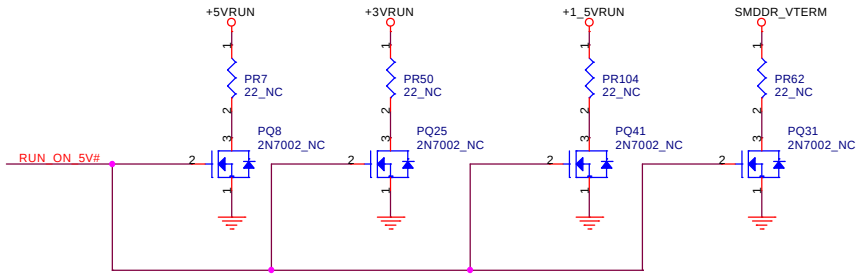
QUANTA COMPUTER		
Title: 1.5VSUS,VCCP(1.05V)		
Size	Document Number VM7	Rev 1A
Date: Tuesday, August 17, 2004	Sheet 34 of 40	







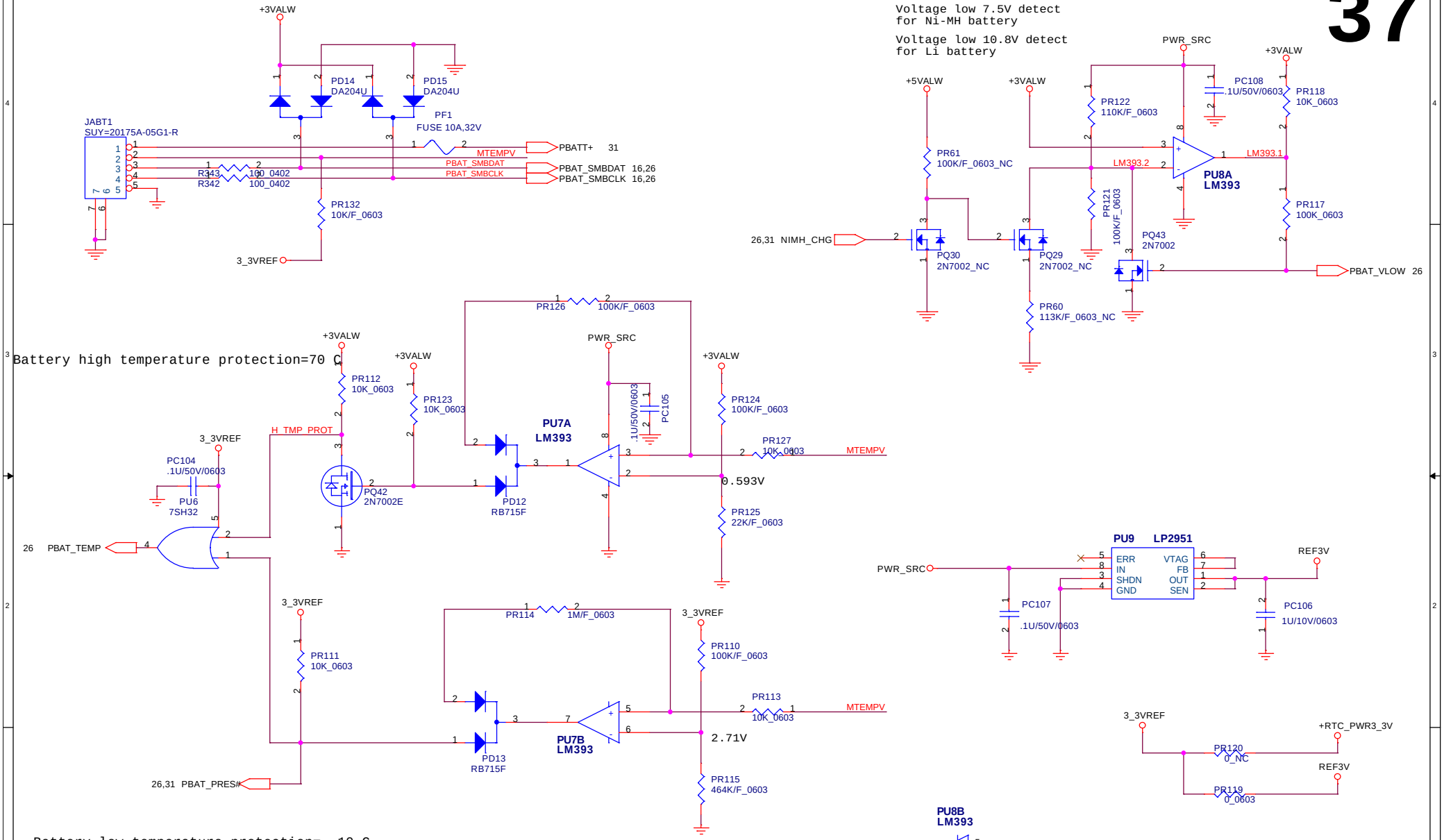




Reserve discharge path

QUANTA COMPUTER

Title	RUN POWER SW	
Size	Document Number VM7	Rev 1A
Date: Tuesday, August 17, 2004	Sheet 36 of 40	



When BATTERY not insert MTEMPV 3.3V
When BATTERY -10 C => NTC=46.6k MTEMPV 2.71V
When BATTERY 0C => NTC=28.8k MTEMPV=2.45V
When BATTERY 25 C => NTC=10K MTEMPV=1.65V
When BATTERY 60 C => NTC=3k MTEMPV=0.76V
When BATTERY 70 C => NTC=2.19K MTEMPV=0.593V

	PWR_SRC +3VAL	+3VALL	BAT 25C	BAT-20C	BAT 80C	BAT NOT IN	PBAT_PRES#	PBAT_TEMP	PBAT_VLOW
When Battery Only	V	-	X	X	X	-	Lo	Not Active	Not Active
When AC and Battery in	V	V	V			-	Lo	Lo	Active
	V	V		V		-	Hi	Hi	Active
	V	V			V	-	Lo	Hi	Active
When AC In , Battery Not In	V	V	X	X	X	V	Hi	X	X

QUANTA COMPUTER

Title: Battery connector & Protection

Size | Document Number: VM7 | Rev: 1A

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