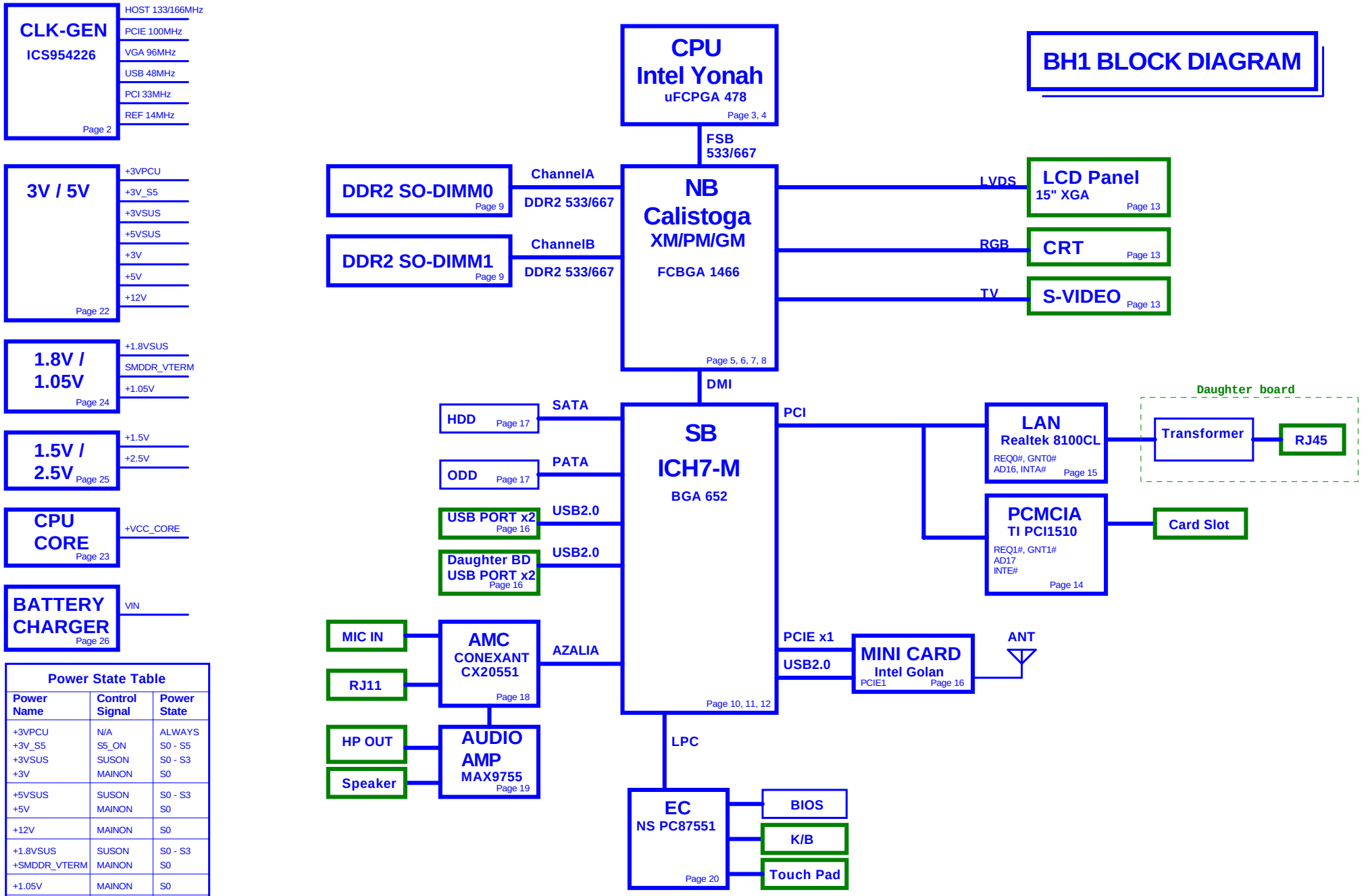
BH1 BLOCK DIAGRAM



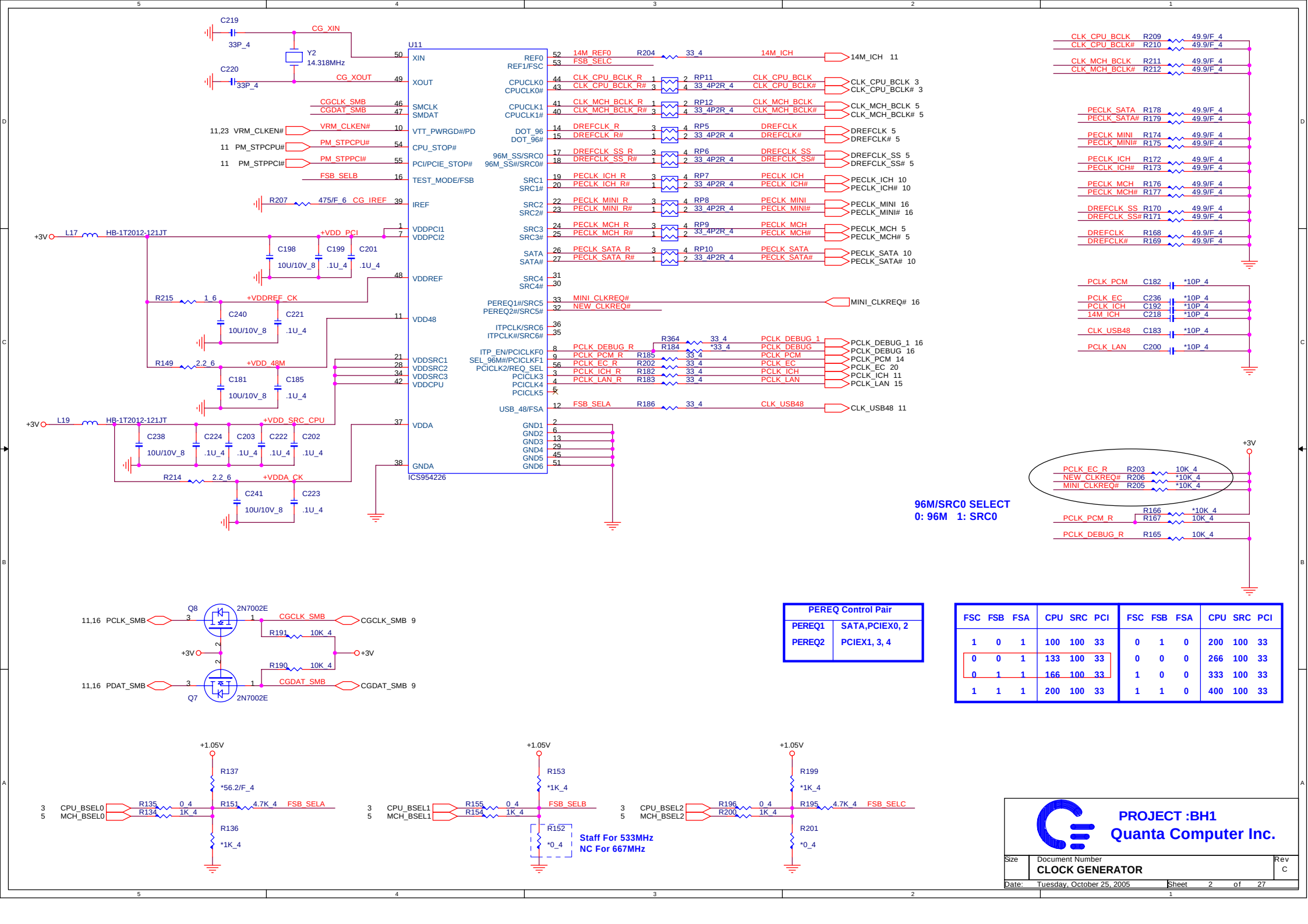
Power State Table

Power Name	Control Signal	Power State
+3VPCU +3V_S5 +3VSUS +3V	N/A S5_ON SUSON MAINON	ALWAYS S0 - S5 S0 - S3 S0
+5VSUS +5V	SUSON MAINON	S0 - S3 S0
+12V	MAINON	S0
+1.8VSUS +SMDDR_VTERM	SUSON MAINON	S0 - S3 S0
+1.05V	MAINON	S0
+1.5V	MAINON	S0
+2.5V	MAINON	S0
+VCC_CORE	VRON	S0

PROJECT :BH1
Quanta Computer Inc.

Size	Document Number	Rev
	BLOCK DIAGRAM	C

Date: Tuesday, October 25, 2005 Sheet 1 of 27



PEREQ Control Pair	
PEREQ1	SATA,PCIEX0, 2
PEREQ2	PCIEX1, 3, 4

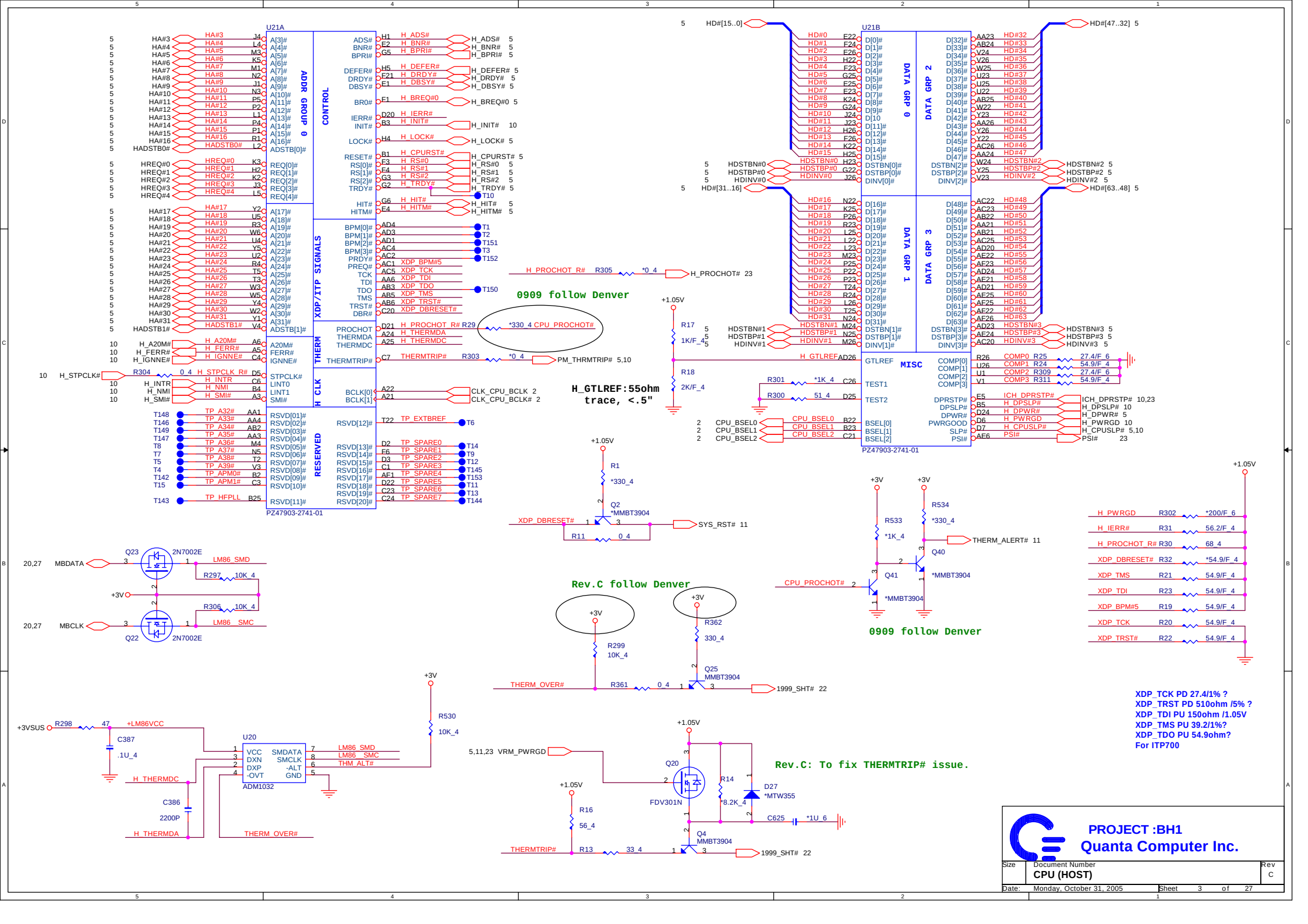
FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
1	1	1	200	100	33

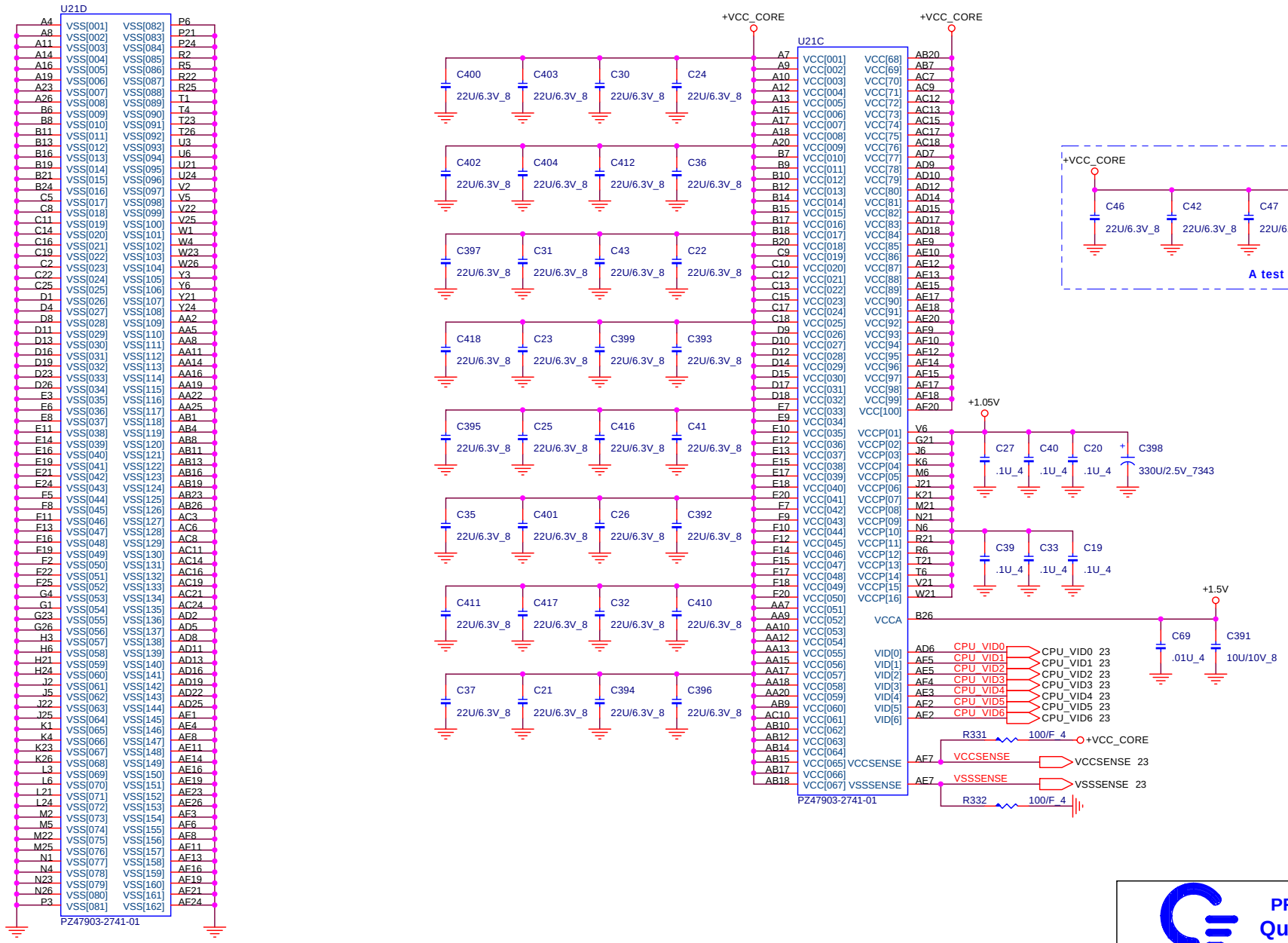
FSC	FSB	FSA	CPU	SRC	PCI
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33

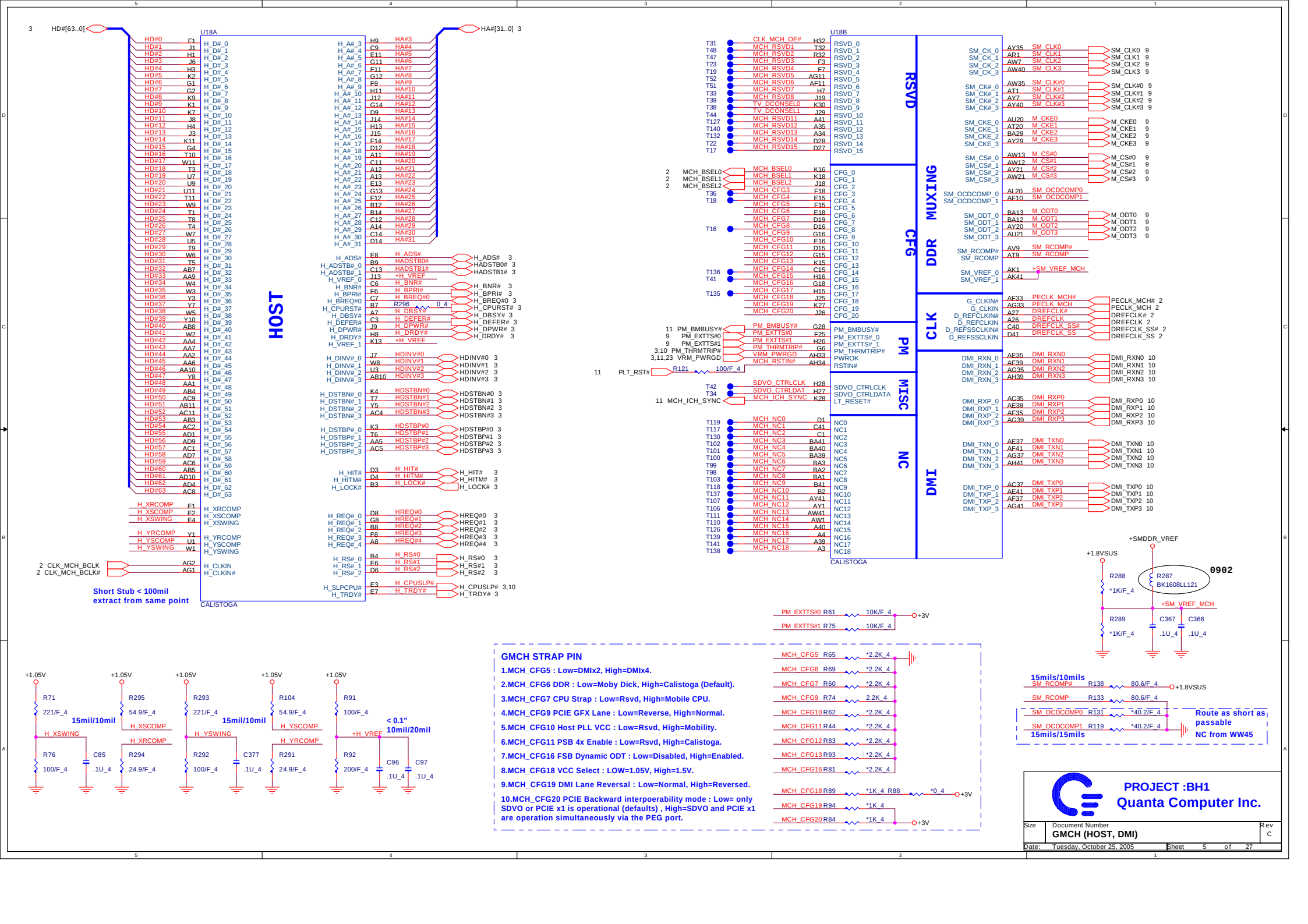
PROJECT :BH1
Quanta Computer Inc.

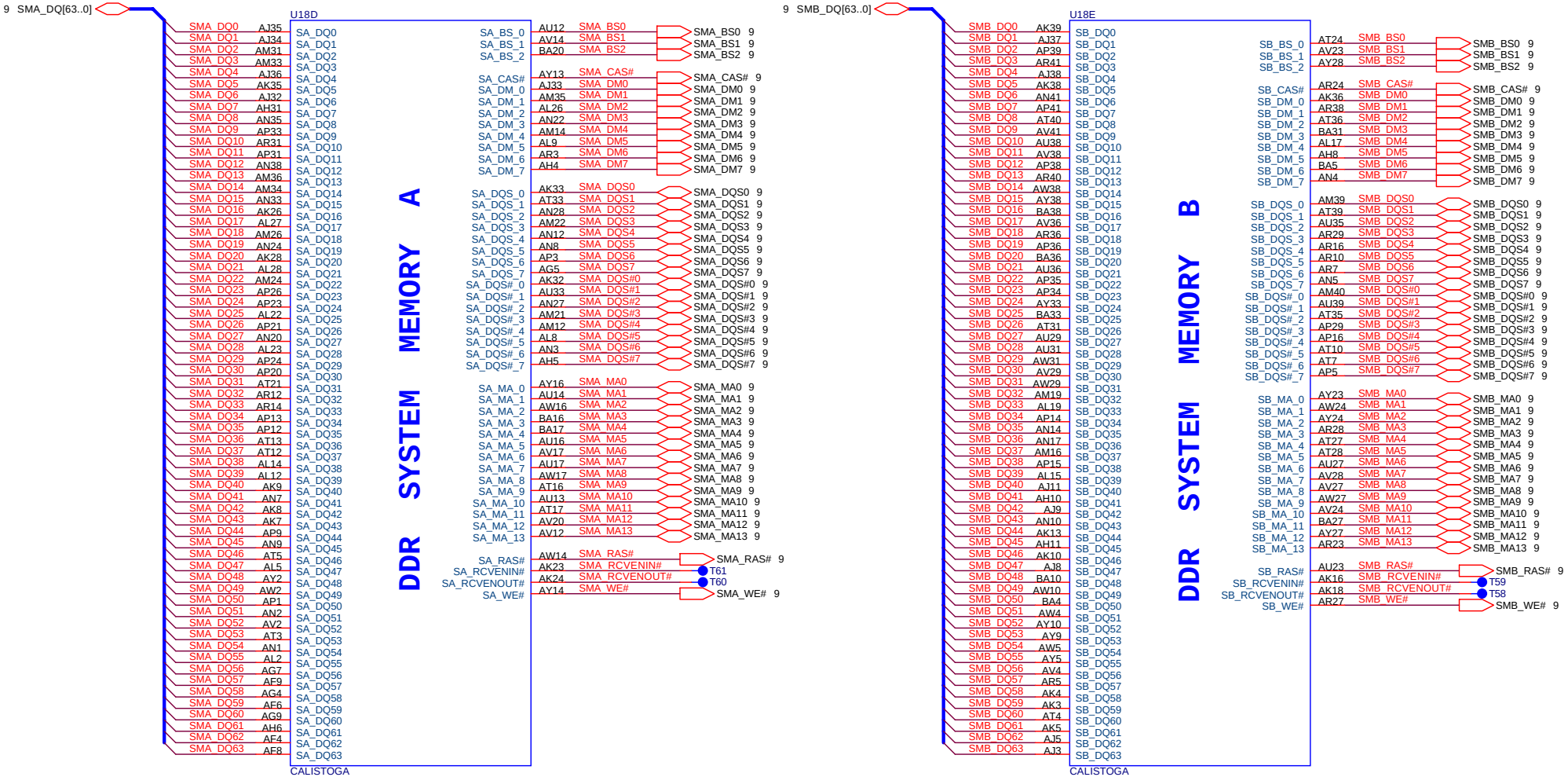
Size	Document Number	Rev
	CLOCK GENERATOR	C

Date: Tuesday, October 25, 2005 Sheet 2 of 27


U21A
ADDR GROUP 0
CONTROL
XDP/ITP SIGNALS
THERM
H_CLK
RESERVED
PZ47903-2741-01
U21B
DATA GRP 0
DATA GRP 2
DATA GRP 1
DATA GRP 3
MISC
PZ47903-2741-01
0909 follow Denver
H_GTLREF:55ohm trace, <.5"
Rev.C follow Denver
0909 follow Denver
Rev.C: To fix THERMTRIP# issue.
XDP_TCK PD 27.4/1% ?
XDP_TRST PD 510ohm /5% ?
XDP_TDI PU 150ohm /1.05V
XDP_TMS PU 39.2/1%?
XDP_TDO PU 54.9ohm?
For ITP700
U20
ADM1032
PROJECT :BH1
Quanta Computer Inc.
CPU (HOST)
Monday, October 31, 2005


U21D
PZ47903-2741-01
U21C
PZ47903-2741-01
+VCC_CORE
+1.05V
+1.5V
A test Install
C400
C403
C30
C24
C402
C404
C412
C36
C397
C31
C43
C22
C418
C23
C399
C393
C395
C25
C416
C41
C35
C401
C26
C392
C411
C417
C32
C410
C37
C21
C394
C396
22U/6.3V_8
C46
C42
C47
C45
C27
C40
C20
C398
.1U_4
330U/2.5V_7343
C39
C33
C19
C69
C391
.01U_4
10U/10V_8
CPU_VID0
CPU_VID1
CPU_VID2
CPU_VID3
CPU_VID4
CPU_VID5
CPU_VID6
R331
R332
100/F_4
VCCSENSE
VSSSENSE
PROJECT :BH1
Quanta Computer Inc.
CPU (POWER)
Tuesday, October 25, 2005
Sheet 4 of 27


HOST
CALISTOGA
RSVD
CFG
DDR MUXING
CLK
PM
MISC
NC
DMI
GMCH STRAP PIN
1.MCH_CFG5 : Low=DMIx2, High=DMIx4.
2.MCH_CFG6 DDR : Low=Moby Dick, High=Calistoga (Default).
3.MCH_CFG7 CPU Strap : Low=Rsvd, High=Mobile CPU.
4.MCH_CFG9 PCIE GFX Lane : Low=Reverse, High=Normal.
5.MCH_CFG10 Host PLL VCC : Low=Rsvd, High=Mobility.
6.MCH_CFG11 PSB 4x Enable : Low=Rsvd, High=Calistoga.
7.MCH_CFG16 FSB Dynamic ODT : Low=Disabled, High=Enabled.
8.MCH_CFG18 VCC Select : LOW=1.05V, High=1.5V.
9.MCH_CFG19 DMI Lane Reversal : Low=Normal, High=Reversed.
10.MCH_CFG20 PCIE Backward interpoerability mode : Low= only SDVO or PCIE x1 is operational (defaults) , High=SDVO and PCIE x1 are operation simultaneously via the PEG port.
Short Stub < 100mil
extract from same point
15mil/10mil
< 0.1"
10mil/20mil
15mils/10mils
Route as short as passable
NC from WW45
PROJECT :BH1
Quanta Computer Inc.
GMCH (HOST, DMI)
Tuesday, October 25, 2005
Sheet 5 of 27


9 SMA_DQ[63..0]
U18D
SMA_DQ0 AJ35
SMA_DQ1 AJ34
SMA_DQ2 AM31
SMA_DQ3 AM33
SMA_DQ4 AJ36
SMA_DQ5 AK35
SMA_DQ6 AJ32
SMA_DQ7 AH31
SMA_DQ8 AN35
SMA_DQ9 AP33
SMA_DQ10 AR31
SMA_DQ11 AP31
SMA_DQ12 AN38
SMA_DQ13 AM36
SMA_DQ14 AM34
SMA_DQ15 AN33
SMA_DQ16 AK26
SMA_DQ17 AL27
SMA_DQ18 AM26
SMA_DQ19 AN24
SMA_DQ20 AK28
SMA_DQ21 AL28
SMA_DQ22 AM24
SMA_DQ23 AP26
SMA_DQ24 AP23
SMA_DQ25 AL22
SMA_DQ26 AP21
SMA_DQ27 AN20
SMA_DQ28 AL23
SMA_DQ29 AP24
SMA_DQ30 AP20
SMA_DQ31 AT21
SMA_DQ32 AR12
SMA_DQ33 AR14
SMA_DQ34 AP13
SMA_DQ35 AP12
SMA_DQ36 AT13
SMA_DQ37 AT12
SMA_DQ38 AL14
SMA_DQ39 AL12
SMA_DQ40 AK9
SMA_DQ41 AN7
SMA_DQ42 AK8
SMA_DQ43 AK7
SMA_DQ44 AP9
SMA_DQ45 AN9
SMA_DQ46 AT5
SMA_DQ47 AL5
SMA_DQ48 AY2
SMA_DQ49 AW2
SMA_DQ50 AP1
SMA_DQ51 AN2
SMA_DQ52 AV2
SMA_DQ53 AT3
SMA_DQ54 AN1
SMA_DQ55 AL2
SMA_DQ56 AG7
SMA_DQ57 AF9
SMA_DQ58 AG4
SMA_DQ59 AF6
SMA_DQ60 AG9
SMA_DQ61 AH6
SMA_DQ62 AF4
SMA_DQ63 AF8
SA_DQ0
SA_DQ1
SA_DQ2
SA_DQ3
SA_DQ4
SA_DQ5
SA_DQ6
SA_DQ7
SA_DQ8
SA_DQ9
SA_DQ10
SA_DQ11
SA_DQ12
SA_DQ13
SA_DQ14
SA_DQ15
SA_DQ16
SA_DQ17
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SA_DQ45
SA_DQ46
SA_DQ47
SA_DQ48
SA_DQ49
SA_DQ50
SA_DQ51
SA_DQ52
SA_DQ53
SA_DQ54
SA_DQ55
SA_DQ56
SA_DQ57
SA_DQ58
SA_DQ59
SA_DQ60
SA_DQ61
SA_DQ62
SA_DQ63
DDR SYSTEM MEMORY A
SA_BS_0
SA_BS_1
SA_BS_2
SA_CAS#
SA_DM_0
SA_DM_1
SA_DM_2
SA_DM_3
SA_DM_4
SA_DM_5
SA_DM_6
SA_DM_7
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SA_DQS_1
SA_DQS_2
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SA_DQS_5
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SA_DQS_7
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SA_DQS#_1
SA_DQS#_2
SA_DQS#_3
SA_DQS#_4
SA_DQS#_5
SA_DQS#_6
SA_DQS#_7
SA_MA_0
SA_MA_1
SA_MA_2
SA_MA_3
SA_MA_4
SA_MA_5
SA_MA_6
SA_MA_7
SA_MA_8
SA_MA_9
SA_MA_10
SA_MA_11
SA_MA_12
SA_MA_13
SA_RAS#
SA_RCVENIN#
SA_RCVENOUT#
SA_WE#
AU12 SMA_BS0
AV14 SMA_BS1
BA20 SMA_BS2
AY13 SMA_CAS#
AJ33 SMA_DM0
AM35 SMA_DM1
AL26 SMA_DM2
AN22 SMA_DM3
AM14 SMA_DM4
AL9 SMA_DM5
AR3 SMA_DM6
AH4 SMA_DM7
AK33 SMA_DQS0
AT33 SMA_DQS1
AN28 SMA_DQS2
AM22 SMA_DQS3
AN12 SMA_DQS4
AN8 SMA_DQS5
AP3 SMA_DQS6
AG5 SMA_DQS7
AK32 SMA_DQS#0
AU33 SMA_DQS#1
AN27 SMA_DQS#2
AM21 SMA_DQS#3
AM12 SMA_DQS#4
AL8 SMA_DQS#5
AN3 SMA_DQS#6
AH5 SMA_DQS#7
AY16 SMA_MA0
AU14 SMA_MA1
AW16 SMA_MA2
BA16 SMA_MA3
BA17 SMA_MA4
AU16 SMA_MA5
AV17 SMA_MA6
AU17 SMA_MA7
AW17 SMA_MA8
AT16 SMA_MA9
AU13 SMA_MA10
AT17 SMA_MA11
AV20 SMA_MA12
AV12 SMA_MA13
AW14 SMA_RAS#
AK23 SMA_RCVENIN#
AK24 SMA_RCVENOUT#
AY14 SMA_WE#
SMA_BS0 9
SMA_BS1 9
SMA_BS2 9
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SMA_DM3 9
SMA_DM4 9
SMA_DM5 9
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SMA_DM7 9
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SMA_DQS1 9
SMA_DQS2 9
SMA_DQS3 9
SMA_DQS4 9
SMA_DQS5 9
SMA_DQS6 9
SMA_DQS7 9
SMA_DQS#0 9
SMA_DQS#1 9
SMA_DQS#2 9
SMA_DQS#3 9
SMA_DQS#4 9
SMA_DQS#5 9
SMA_DQS#6 9
SMA_DQS#7 9
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T61
T60
SMA_WE# 9
CALISTOGA
9 SMB_DQ[63..0]
U18E
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SMB_DQ2 AP39
SMB_DQ3 AR41
SMB_DQ4 AJ38
SMB_DQ5 AK38
SMB_DQ6 AN41
SMB_DQ7 AP41
SMB_DQ8 AT40
SMB_DQ9 AV41
SMB_DQ10 AU38
SMB_DQ11 AV38
SMB_DQ12 AP38
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SMB_DQ14 AW38
SMB_DQ15 AY38
SMB_DQ16 BA38
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SMB_DQ18 AR36
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SMB_DQ20 BA36
SMB_DQ21 AU36
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SMB_DQ23 AP34
SMB_DQ24 AY33
SMB_DQ25 BA33
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SMB_DQ27 AU29
SMB_DQ28 AU31
SMB_DQ29 AW31
SMB_DQ30 AV29
SMB_DQ31 AW29
SMB_DQ32 AM19
SMB_DQ33 AL19
SMB_DQ34 AP14
SMB_DQ35 AN14
SMB_DQ36 AN17
SMB_DQ37 AM16
SMB_DQ38 AP15
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SMB_DQ42 AJ9
SMB_DQ43 AN10
SMB_DQ44 AK13
SMB_DQ45 AH11
SMB_DQ46 AK10
SMB_DQ47 AJ8
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SMB_DQ62 AJ5
SMB_DQ63 AJ3
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SB_DQ57
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SB_DQ62
SB_DQ63
DDR SYSTEM MEMORY B
SB_BS_0
SB_BS_1
SB_BS_2
SB_CAS#
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SB_DM_1
SB_DM_2
SB_DM_3
SB_DM_4
SB_DM_5
SB_DM_6
SB_DM_7
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SB_DQS_1
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SB_DQS_3
SB_DQS_4
SB_DQS_5
SB_DQS_6
SB_DQS_7
SB_DQS#_0
SB_DQS#_1
SB_DQS#_2
SB_DQS#_3
SB_DQS#_4
SB_DQS#_5
SB_DQS#_6
SB_DQS#_7
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SB_MA_1
SB_MA_2
SB_MA_3
SB_MA_4
SB_MA_5
SB_MA_6
SB_MA_7
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SB_MA_9
SB_MA_10
SB_MA_11
SB_MA_12
SB_MA_13
SB_RAS#
SB_RCVENIN#
SB_RCVENOUT#
SB_WE#
AT24 SMB_BS0
AV23 SMB_BS1
AY28 SMB_BS2
AR24 SMB_CAS#
AK36 SMB_DM0
AR38 SMB_DM1
AT36 SMB_DM2
BA31 SMB_DM3
AL17 SMB_DM4
AH8 SMB_DM5
BA5 SMB_DM6
AN4 SMB_DM7
AM39 SMB_DQS0
AT39 SMB_DQS1
AU35 SMB_DQS2
AR29 SMB_DQS3
AR16 SMB_DQS4
AR10 SMB_DQS5
AR7 SMB_DQS6
AN5 SMB_DQS7
AM40 SMB_DQS#0
AU39 SMB_DQS#1
AT35 SMB_DQS#2
AP29 SMB_DQS#3
AP16 SMB_DQS#4
AT10 SMB_DQS#5
AT7 SMB_DQS#6
AP5 SMB_DQS#7
AY23 SMB_MA0
AW24 SMB_MA1
AY24 SMB_MA2
AR28 SMB_MA3
AT27 SMB_MA4
AT28 SMB_MA5
AU27 SMB_MA6
AV28 SMB_MA7
AV27 SMB_MA8
AW27 SMB_MA9
AY24 SMB_MA10
BA27 SMB_MA11
AY27 SMB_MA12
AR23 SMB_MA13
AU23 SMB_RAS#
AK16 SMB_RCVENIN#
AK18 SMB_RCVENOUT#
AR27 SMB_WE#
SMB_BS0 9
SMB_BS1 9
SMB_BS2 9
SMB_CAS# 9
SMB_DM0 9
SMB_DM1 9
SMB_DM2 9
SMB_DM3 9
SMB_DM4 9
SMB_DM5 9
SMB_DM6 9
SMB_DM7 9
SMB_DQS0 9
SMB_DQS1 9
SMB_DQS2 9
SMB_DQS3 9
SMB_DQS4 9
SMB_DQS5 9
SMB_DQS6 9
SMB_DQS7 9
SMB_DQS#0 9
SMB_DQS#1 9
SMB_DQS#2 9
SMB_DQS#3 9
SMB_DQS#4 9
SMB_DQS#5 9
SMB_DQS#6 9
SMB_DQS#7 9
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SMB_MA1 9
SMB_MA2 9
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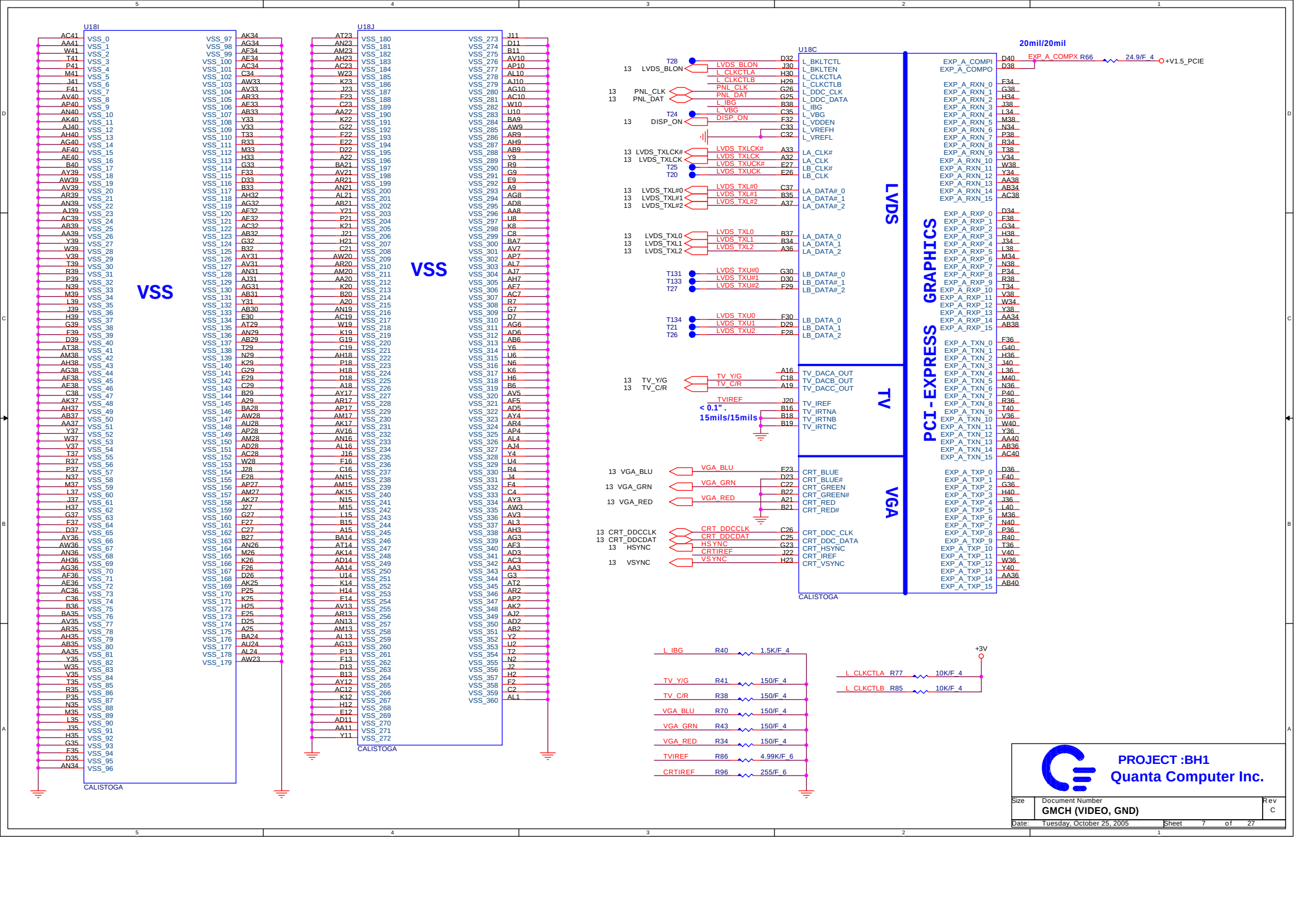
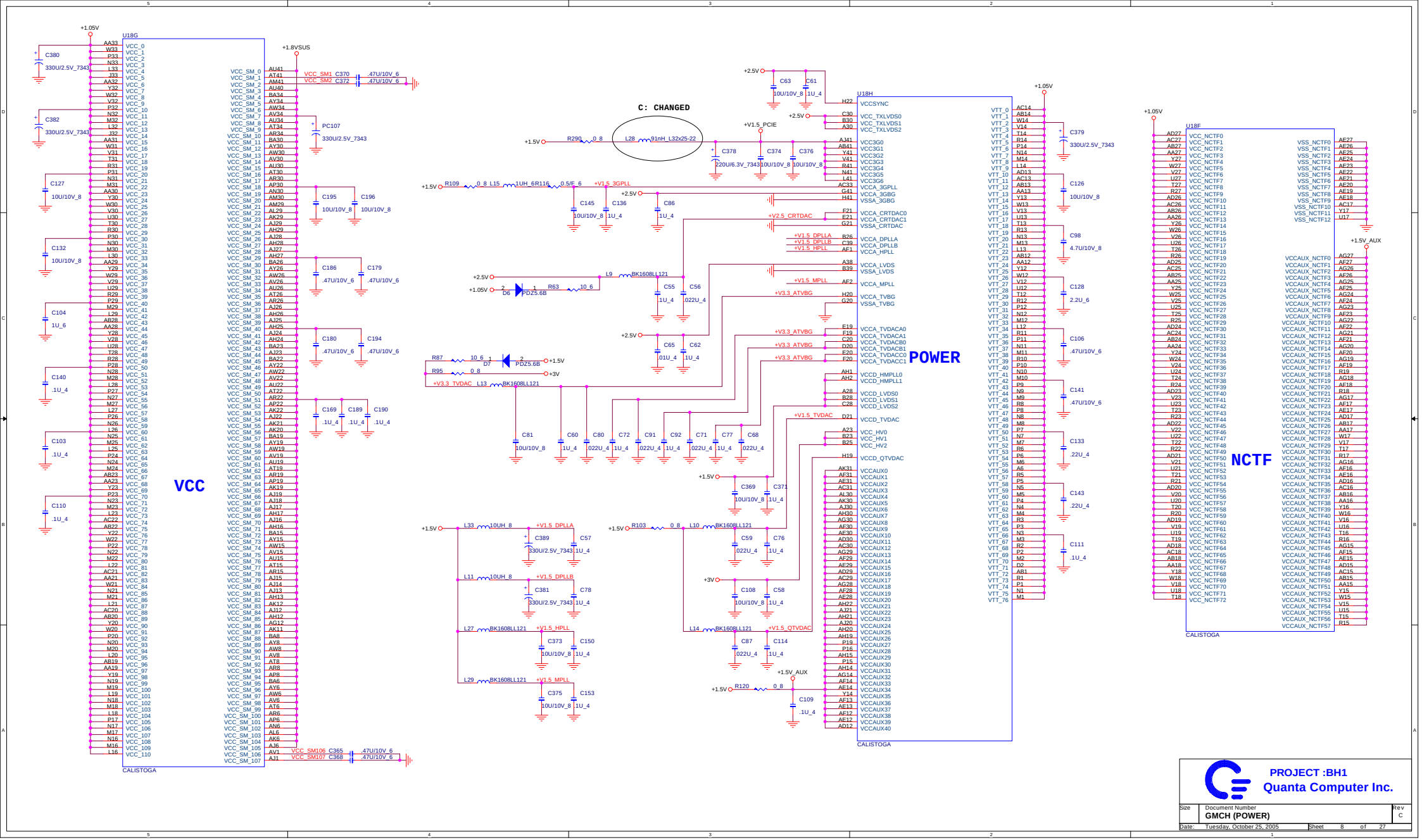
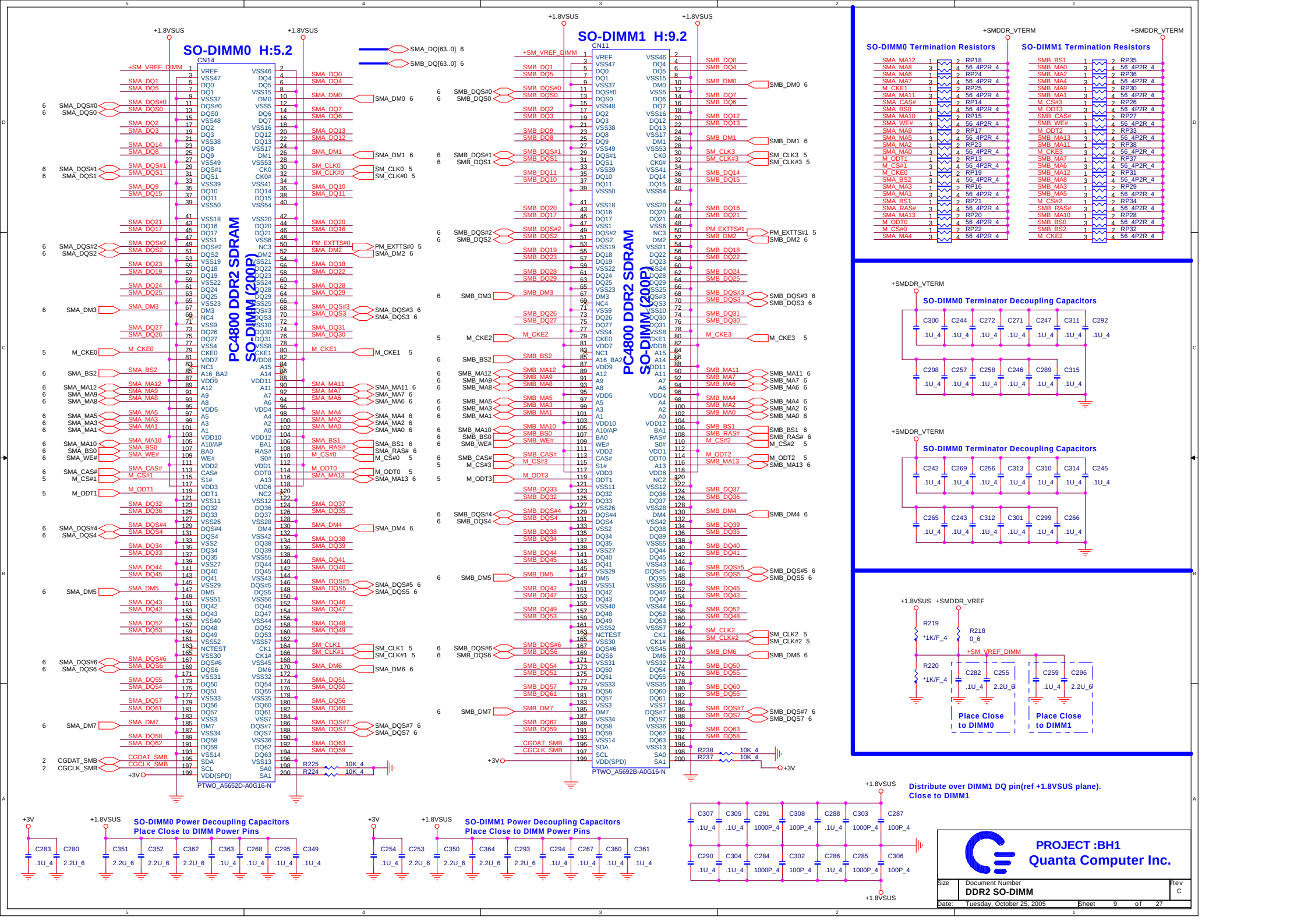
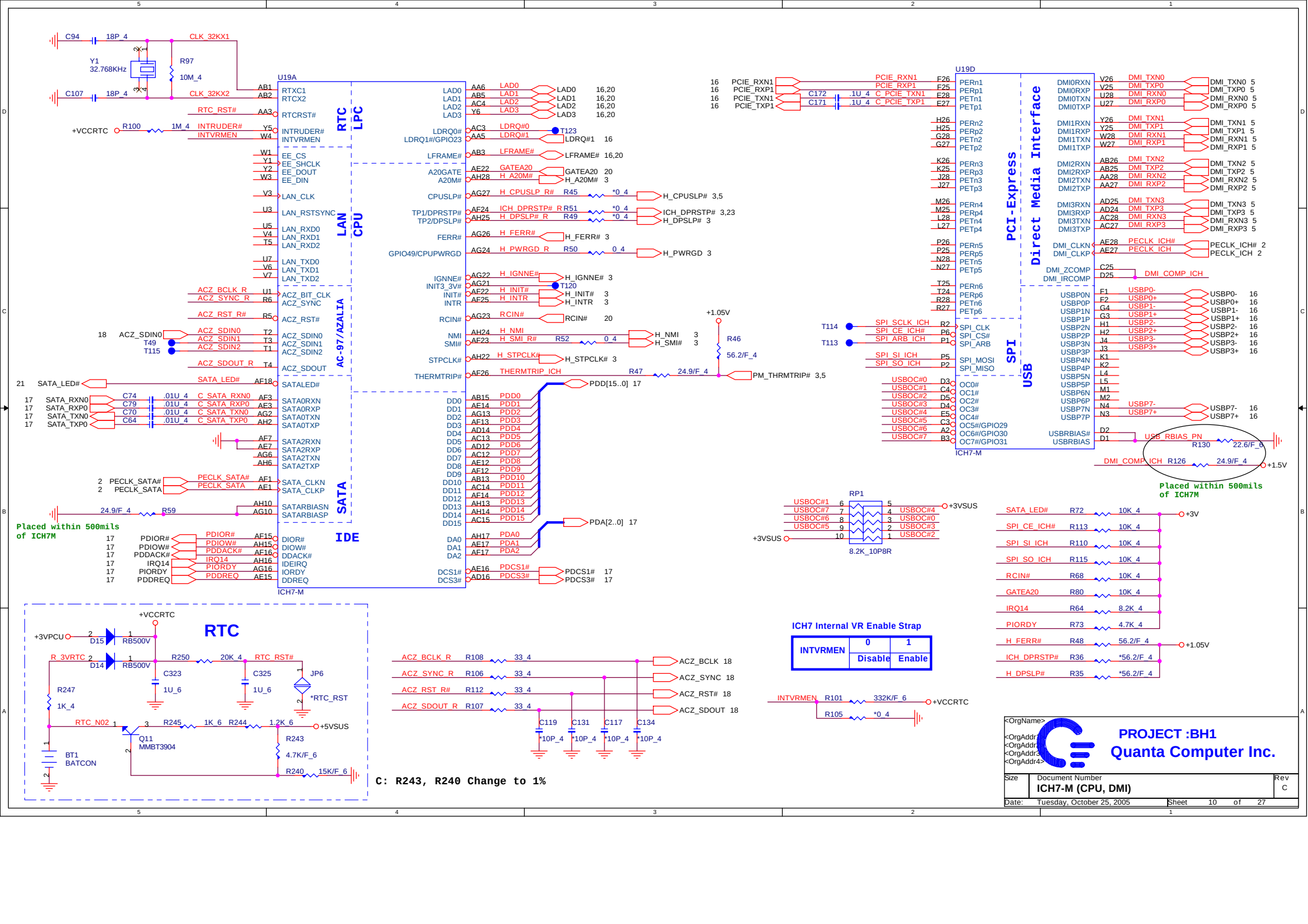
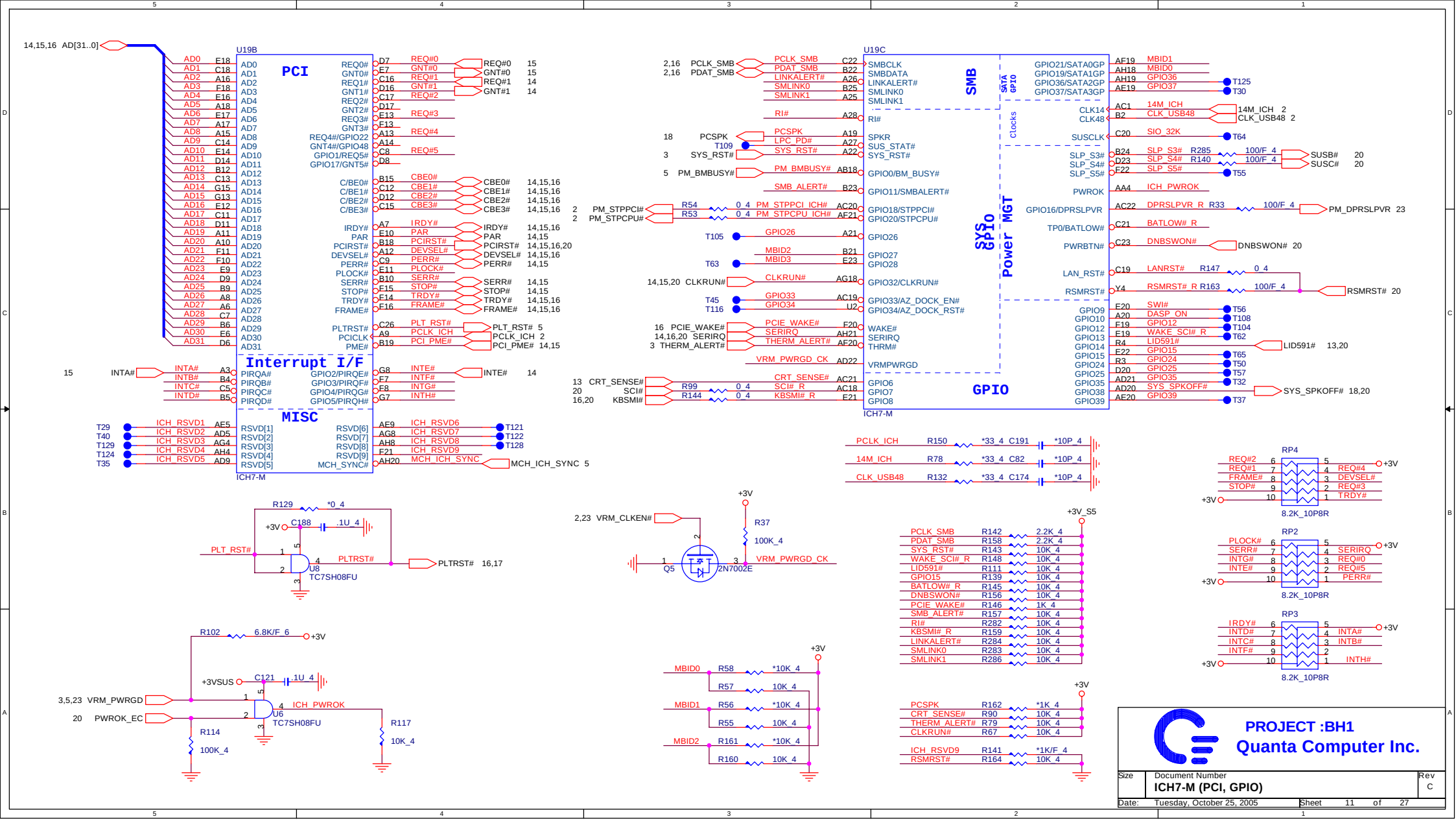
SMB_MA10 9
SMB_MA11 9
SMB_MA12 9
SMB_MA13 9
SMB_RAS# 9
T59
T58
SMB_WE# 9
CALISTOGA
PROJECT :BH1
Quanta Computer Inc.
Size
Document Number
GMCH (MEMORY)
Rev
C
Date: Tuesday, October 25, 2005
Sheet 6 of 27

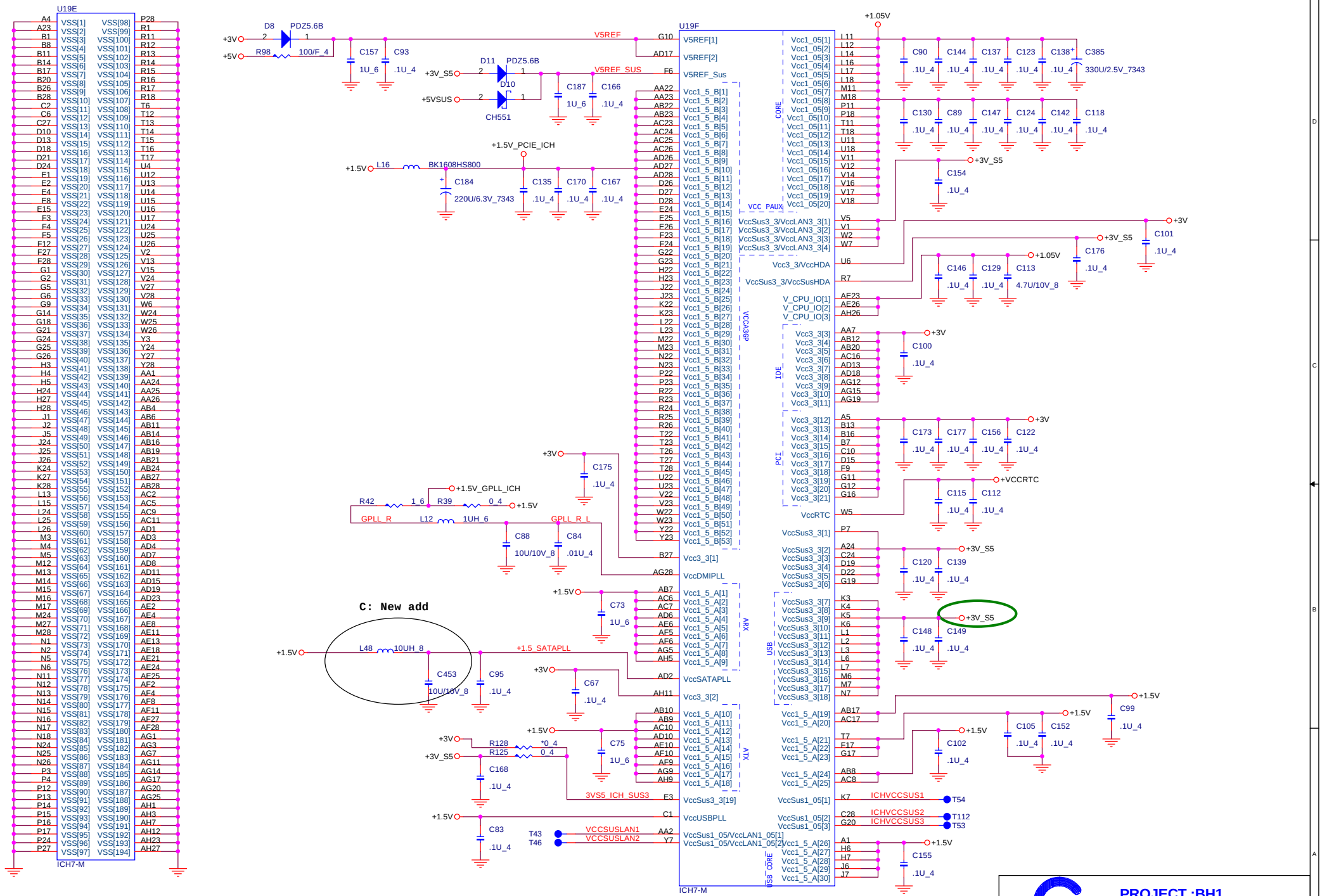

U18I
VSS
CALISTOGA
U18J
VSS
CALISTOGA
U18C
LVDS
TV
VGA
GRAPHICS
PCI-EXPRESS
CALISTOGA
20mil/20mil
EXP_A_COMPX R66 24.9/F_4
+V1.5_PCIE
< 0.1" .
15mils/15mils
L_IBG R40 1.5K/F_4
TV_Y/G R41 150/F_4
TV_C/R R38 150/F_4
VGA_BLU R70 150/F_4
VGA_GRN R43 150/F_4
VGA_RED R34 150/F_4
TVIREF R86 4.99K/F_6
CRTIREF R96 255/F_6
+3V
L_CLKCTLA R77 10K/F_4
L_CLKCTLB R85 10K/F_4
PROJECT :BH1
Quanta Computer Inc.
Size
Document Number
GMCH (VIDEO, GND)
Rev
C
Date: Tuesday, October 25, 2005
Sheet 7 of 27


C: CHANGED
VCC
POWER
NCTF
CALISTOGA
PROJECT :BH1
Quanta Computer Inc.
Document Number
GMCH (POWER)
Rev
C
Tuesday, October 25, 2005
Sheet 8 of 27

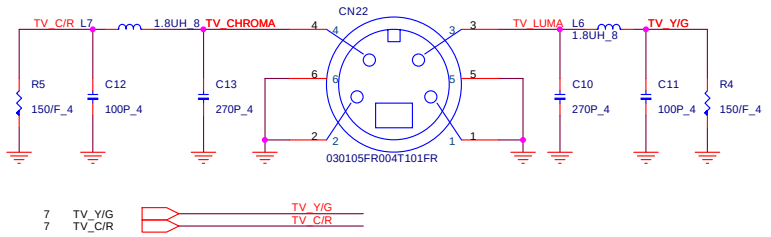

SO-DIMM0 H:5.2
SO-DIMM1 H:9.2
PC4800 DDR2 SDRAM SO-DIMM (200P)
CN14
CN11
PTWO_A5652D-A0G16-N
PTWO_A5692B-A0G16-N
SO-DIMM0 Termination Resistors
SO-DIMM1 Termination Resistors
SO-DIMM0 Terminator Decoupling Capacitors
SO-DIMM0 Terminator Decoupling Capacitors
SO-DIMM0 Power Decoupling Capacitors
Place Close to DIMM Power Pins
SO-DIMM1 Power Decoupling Capacitors
Place Close to DIMM Power Pins
Place Close to DIMM0
Place Close to DIMM1
Distribute over DIMM1 DQ pin(ref +1.8VSUS plane).
Close to DIMM1
PROJECT :BH1
Quanta Computer Inc.
DDR2 SO-DIMM
Tuesday, October 25, 2005
Sheet 9 of 27


U19A
ICH7-M
RTC
LPC
LAN
CPU
AC-97/AZALIA
SATA
IDE
U19D
PCI-Express
Direct Media Interface
SPI
USB
RTC
Placed within 500mils of ICH7M
ICH7 Internal VR Enable Strap
INTVRMEN 0 Disable 1 Enable
C: R243, R240 Change to 1%
PROJECT :BH1
Quanta Computer Inc.
Document Number
ICH7-M (CPU, DMI)
Rev C
Date: Tuesday, October 25, 2005
Sheet 10 of 27

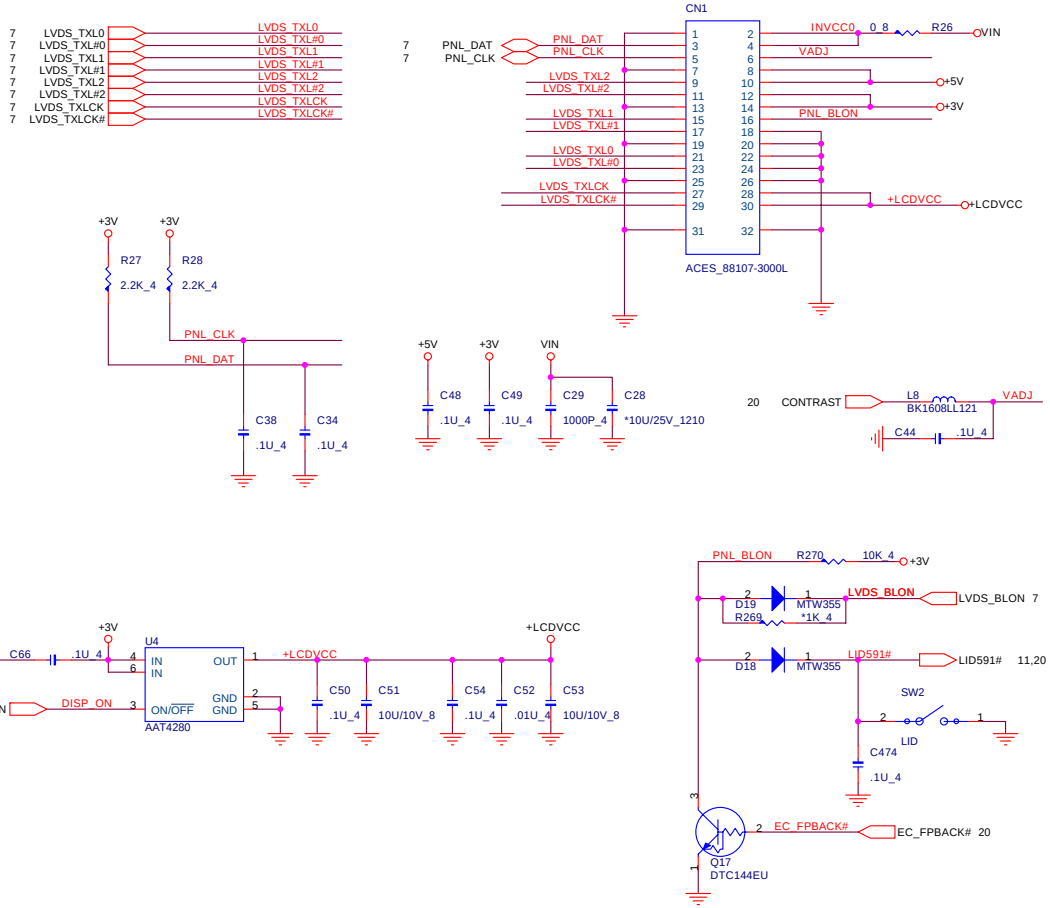

14,15,16 AD[31..0]
U19B
PCI
AD0 E18
AD1 C18
AD2 A16
AD3 F18
AD4 E16
AD5 A18
AD6 E17
AD7 A17
AD8 A15
AD9 C14
AD10 E14
AD11 D14
AD12 B12
AD13 C13
AD14 G15
AD15 G13
AD16 E12
AD17 C11
AD18 D11
AD19 A11
AD20 A10
AD21 F11
AD22 F10
AD23 E9
AD24 D9
AD25 B9
AD26 A8
AD27 A6
AD28 C7
AD29 B6
AD30 E6
AD31 D6
REQ0# D7 REQ#0
GNT0# E7 GNT#0
REQ1# C16 REQ#1
GNT1# D16 GNT#1
REQ2# C17 REQ#2
GNT2# D17
GNT3# E13 REQ#3
REQ4#/GPIO22 F13
GNT4#/GPIO48 A13 REQ#4
GPIO1/REQ5# A14
GPIO17/GNT5# C8 REQ#5
D8
C/BE0# B15 CBE0#
C/BE1# C12 CBE1#
C/BE2# D12 CBE2#
C/BE3# C15 CBE3#
IRDY# A7 IRDY#
PAR E10 PAR
PCIRST# B18 PCIRST#
DEVSEL# A12 DEVSEL#
PERR# C9 PERR#
PLOCK# E11 PLOCK#
SERR# B10 SERR#
STOP# F15 STOP#
TRDY# E14 TRDY#
FRAME# F16 FRAME#
PLTRST# C26 PLT_RST#
PCICLK A9 PCLK_ICH
PME# B19 PCI_PME#
Interrupt I/F
INTA# A3
INTB# B4
INTC# C5
INTD# B5
15 INTA#
PIRQA# G8 INTE#
PIRQB# E7 INTF#
PIRQC# F8 INTG#
PIRQD# G7 INTH#
MISC
T29 ICH_RSVD1 AE5
T40 ICH_RSVD2 AD5
T129 ICH_RSVD3 AG4
T124 ICH_RSVD4 AH4
T35 ICH_RSVD5 AD9
RSVD[1]
RSVD[2]
RSVD[3]
RSVD[4]
RSVD[5]
RSVD[6] AE9 ICH_RSVD6 T121
RSVD[7] AG8 ICH_RSVD7 T122
RSVD[8] AH8 ICH_RSVD8 T128
RSVD[9] F21 ICH_RSVD9
MCH_SYNC# AH20 MCH_ICH_SYNC
ICH7-M
U19C
SMB
SMBCLK C22
SMBDATA B22
LINKALERT# A26
SMLINK0 B25
SMLINK1 A25
2,16 PCLK_SMB
2,16 PDAT_SMB
RI# A28
SPKR A19
SUS_STAT# A27
SYS_RST# A22
18 PCSPK
T109
3 SYS_RST#
PM_BMBUSY# AB18
SMB_ALERT# B23
GPIO0/BM_BUSY#
GPIO11/SMBALERT#
GPIO18/STPPCI# AC20
GPIO20/STPCPU# AF21
2 PM_STPPCI#
2 PM_STPCPU#
R54 0_4 PM_STPPCI_ICH#
R53 0_4 PM_STPCPU_ICH#
T105 GPIO26 A21
MBID2 B21
MBID3 E23
T63
GPIO27
GPIO28
CLKRUN# AG18
14,15,20 CLKRUN#
GPIO32/CLKRUN#
GPIO33 AC19
GPIO34 U2
T45
T116
GPIO33/AZ_DOCK_EN#
GPIO34/AZ_DOCK_RST#
PCIE_WAKE# E20
SERIRQ AH21
THERM_ALERT# AE20
16 PCIE_WAKE#
14,16,20 SERIRQ
3 THERM_ALERT#
WAKE#
SERIRQ
THRM#
VRM_PWRGD_CK AD22
VRMPWRGD
CRT_SENSE# AC21
SCI# AC18
KBSMI# E21
13 CRT_SENSE#
20 SCI#
16,20 KBSMI#
R99 0_4 SCI#_R
R144 0_4 KBSMI#_R
GPIO6
GPIO7
GPIO8
GPIO
SATA GPIO
GPIO21/SATA0GP AF19 MBID1
GPIO19/SATA1GP AH18 MBID0
GPIO36/SATA2GP AH19 GPIO36 T125
GPIO37/SATA3GP AE19 GPIO37 T30
Clocks
CLK14 AC1 14M_ICH 2 14M_ICH
CLK48 B2 CLK_USB48 2 CLK_USB48
SUSCLK C20 SIO_32K T64
SLP_S3# B24 SLP_S3# R285 100/F_4 SUSB# 20
SLP_S4# D23 SLP_S4# R140 100/F_4 SUSC# 20
SLP_S5# F22 SLP_S5# T55
Power MGT
PWROK AA4 ICH_PWROK
GPIO16/DPRSLPVR AC22 DPRSLPVR_R R33 100/F_4 PM_DPRSLPVR 23
TP0/BATLOW# C21 BATLOW#_R
PWRBTN# C23 DNBSWON# DNBSWON# 20
LAN_RST# C19 LANRST# R147 0_4
RSMRST# Y4 RSMRST#_R R163 100/F_4 RSMRST# 20
GPIO9 E20 SWI#
GPIO10 A20 DASP_ON T56
GPIO12 E19 GPIO12 T108
GPIO13 E19 WAKE_SCI#_R T104
GPIO14 R4 LID591# T62
GPIO15 E22 GPIO15 LID591# 13,20
GPIO24 R3 GPIO24 T65
GPIO25 D20 GPIO25 T50
GPIO35 AD21 GPIO35 T57
GPIO38 AD20 SYS_SPKOFF# T32
GPIO39 AE20 GPIO39 SYS_SPKOFF# 18,20
T37
ICH7-M
R129 *0_4
C188 .1U_4
+3V
PLT_RST#
PLTRST#
U8
TC7SH08FU
PLTRST# 16,17
R102 6.8K/F_6 +3V
C121 .1U_4
+3VSUS
3,5,23 VRM_PWRGD
20 PWROK_EC
ICH_PWROK
U6
TC7SH08FU
R114 100K_4
R117 10K_4
2,23 VRM_CLKEN#
R37 100K_4
Q5 2N7002E
VRM_PWRGD_CK
MBID0 R58 *10K_4
R57 10K_4
MBID1 R56 *10K_4
R55 10K_4
MBID2 R161 *10K_4
R160 10K_4
PCLK_ICH R150 *33_4 C191 *10P_4
14M_ICH R78 *33_4 C82 *10P_4
CLK_USB48 R132 *33_4 C174 *10P_4
+3V_S5
PCLK_SMB R142 2.2K_4
PDAT_SMB R158 2.2K_4
SYS_RST# R143 10K_4
WAKE_SCI#_R R148 10K_4
LID591# R111 10K_4
GPIO15 R139 10K_4
BATLOW#_R R145 10K_4
DNBSWON# R156 10K_4
PCIE_WAKE# R146 1K_4
SMB_ALERT# R157 10K_4
RI# R282 10K_4
KBSMI#_R R159 10K_4
LINKALERT# R284 10K_4
SMLINK0 R283 10K_4
SMLINK1 R286 10K_4
PCSPK R162 *1K_4
CRT_SENSE# R90 10K_4
THERM_ALERT# R79 10K_4
CLKRUN# R67 10K_4
ICH_RSVD9 R141 *1K/F_4
RSMRST# R164 10K_4
RP4
REQ#2 6 5
REQ#1 7 4 REQ#4
FRAME# 8 3 DEVSEL#
STOP# 9 2 REQ#3
10 1 TRDY#
+3V
8.2K_10P8R
RP2
PLOCK# 6 5
SERR# 7 4 SERIRQ
INTG# 8 3 REQ#0
INTE# 9 2 REQ#5
10 1 PERR#
+3V
8.2K_10P8R
RP3
IRDY# 6 5
INTD# 7 4 INTA#
INTC# 8 3 INTB#
INTF# 9 2
10 1 INTH#
+3V
8.2K_10P8R
PROJECT :BH1
Quanta Computer Inc.
Size
Document Number
ICH7-M (PCI, GPIO)
Rev C
Date: Tuesday, October 25, 2005
Sheet 11 of 27


U19E
ICH7-M
U19F
ICH7-M
D8
PDZ5.6B
R98
100/F_4
D11
PDZ5.6B
D10
CH551
V5REF
V5REF_SUS
L16
BK1608HS800
C184
220U/6.3V_7343
+1.5V_PCIE_ICH
+1.5V_GPLL_ICH
R42
R39
GPLL_R
L12
1UH_6
GPLL_R_L
C: New add
L48
10UH_8
+1.5_SATAPLL
R128
R125
3VS5_ICH_SUS3
VCCSUSLAN1
VCCSUSLAN2
ICHVCCSUS1
ICHVCCSUS2
ICHVCCSUS3
+1.05V
+3V
+3V_S5
+VCCRTC
+1.5V
PROJECT :BH1
Quanta Computer Inc.
ICH7-M (POWER)
Tuesday, October 25, 2005
Sheet 12 of 27

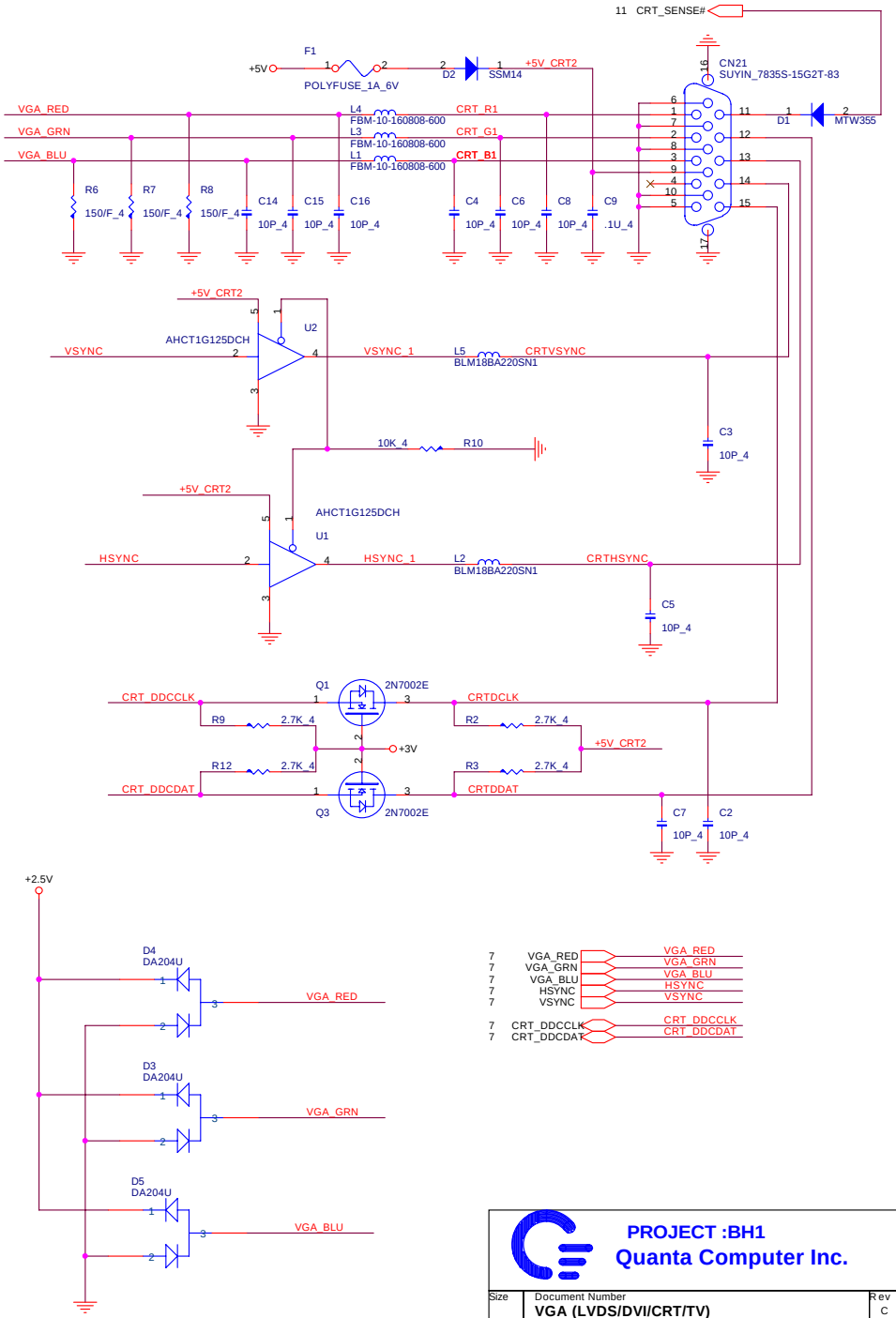
S-VIDEO



LVDS



CRT



PROJECT :BH1
Quanta Computer Inc.

Size	Document Number	Rev
	VGA (LVDS/DVI/CRT/TV)	C

Date: Tuesday, October 25, 2005 Sheet 13 of 27

ID Select : AD17
Interrupt Pin : INTE#
Request Indicate : REQ1#
Grant Indicate : GNT1#

CBS

CARDBUS SLOT

Near TPS2211A

Near Slot

Near Chipset

+3V Plane

Near Chipset

U12 TPS2211AIDBR

U10-1 PCI1510PGE

U10-2 PCI1510PGE

U10-4 PCI1510PGE

CN4 1CA4A501-TC-A2

Size	Document Number		Rev
	PCI1510		C
Date:	Tuesday, October 25, 2005	Sheet 14 of 27	

PROJECT :BH1
Quanta Computer Inc.

ID Select : AD16
Interrupt Pin : INTA#
Request Indicate : REQ0#
Grant Indicate : GNT0#

LAN

U14

RTL8110SBL/8100CL

Near Lan chipset

U13 93LC46

CN17 ACES-87212-0200L

CN19 RJ11 C10110-10204

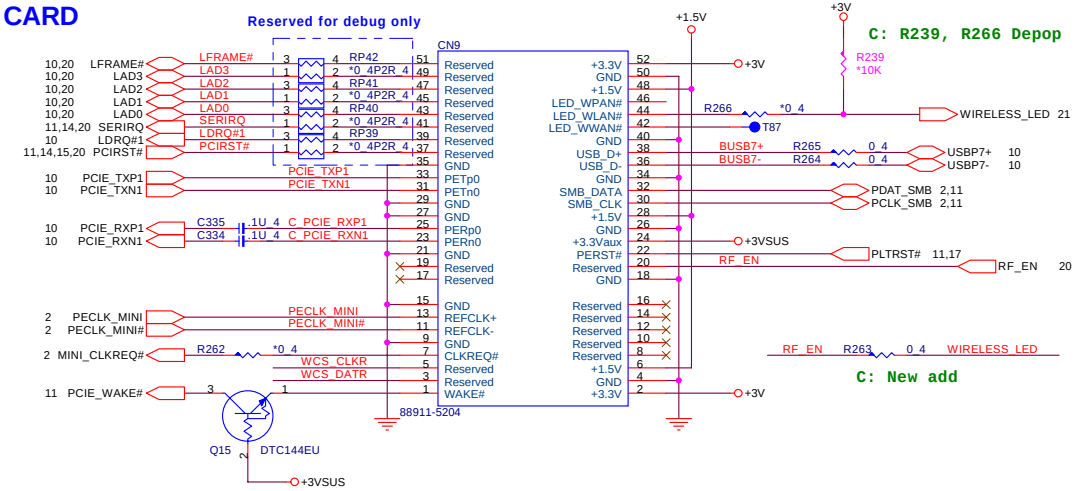
PROJECT :BH1
Quanta Computer Inc.

Size	Document Number	Rev
	LAN (RTL8100)	C

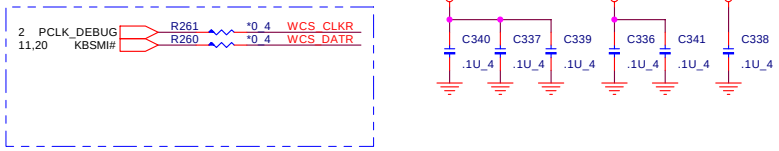
Date: Tuesday, October 25, 2005 Sheet 15 of 27

MINI CARD

Reserved for debug only

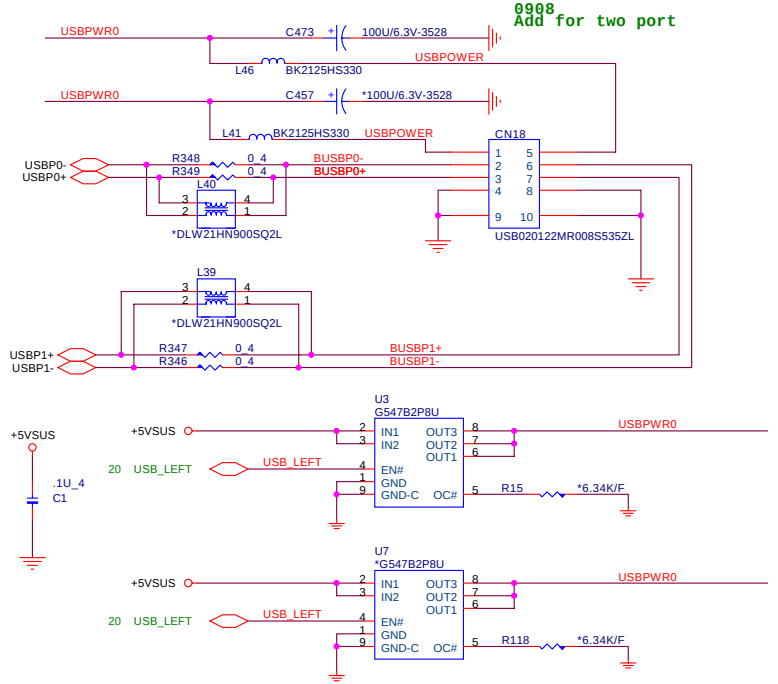


Add R879 ~ R881



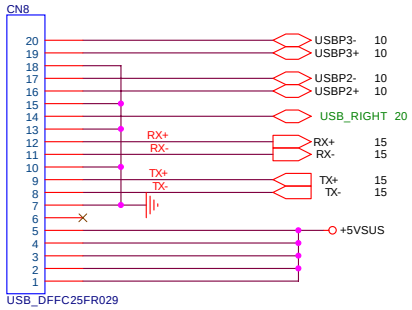
USB PORT x2

0908
Add for two port



USB/LAN BOARD

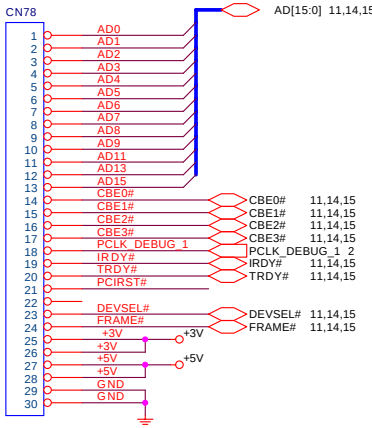
1018 change to FPC type



Debug card interface

Add for debug 0907

BOT contact

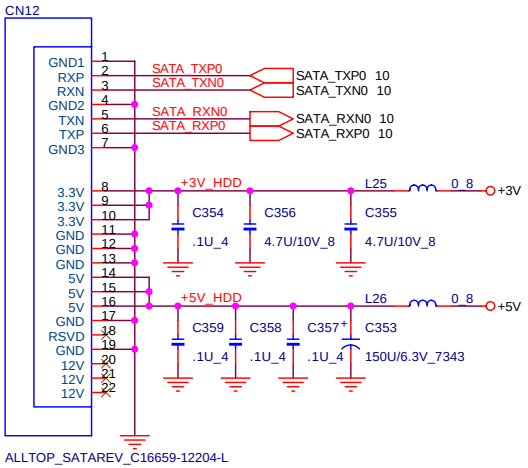


PTWO_DEBUG(AFN300-N2G1Z)(Pitch=1.0)

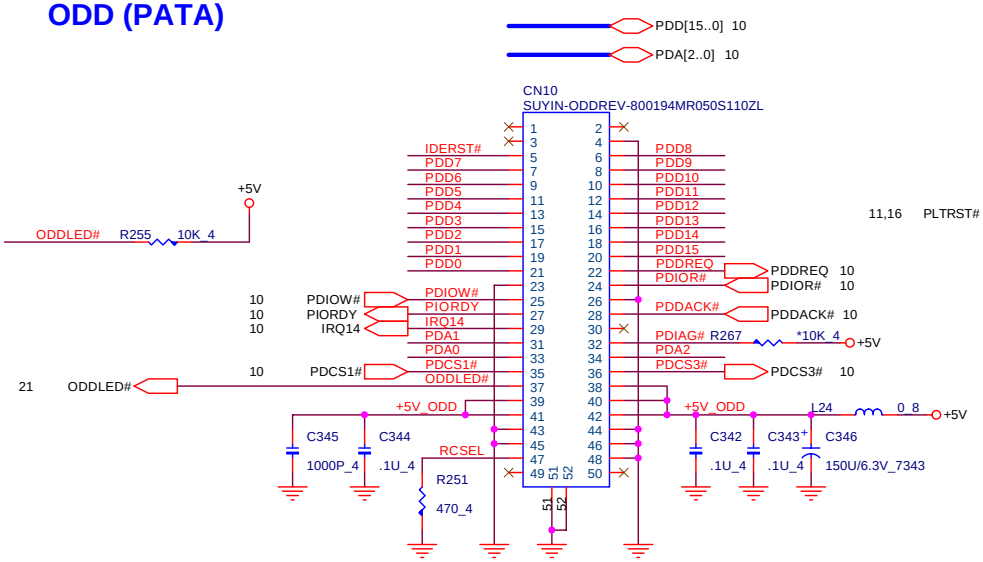
PROJECT :BH1
Quanta Computer Inc.

Size	Document Number	Rev
	MINI CARD/NEW CARD/USB	C
Date: Tuesday, October 25, 2005	Sheet 16 of 27	

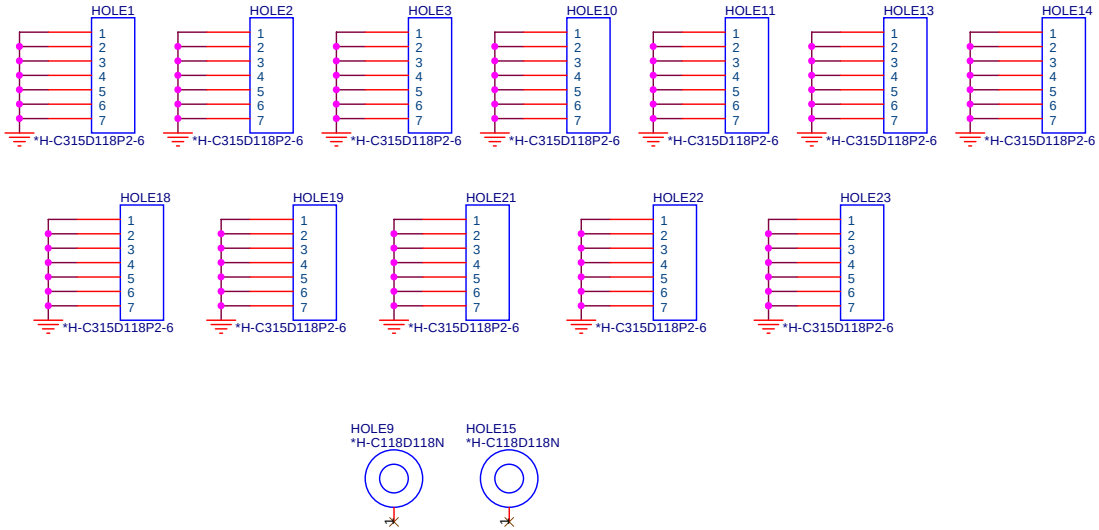
HDD (SATA)



ODD (PATA)



SCREW HOLE



MINI CARD

HOLE17 H-C177D87P2
HOLE16 H-C177D87P2

MODEM

HOLE4 *H-C177D59P2
HOLE7 *H-C177D59P2
AUDGND

CPU

HOLE8 *H-C189D189N
HOLE6 *H-C189D189N
HOLE5 *H-C189D189N

BATT

HOLE24 *H-C165D91P2
HOLE25 *H-C165D91P2

Wireless Antenna

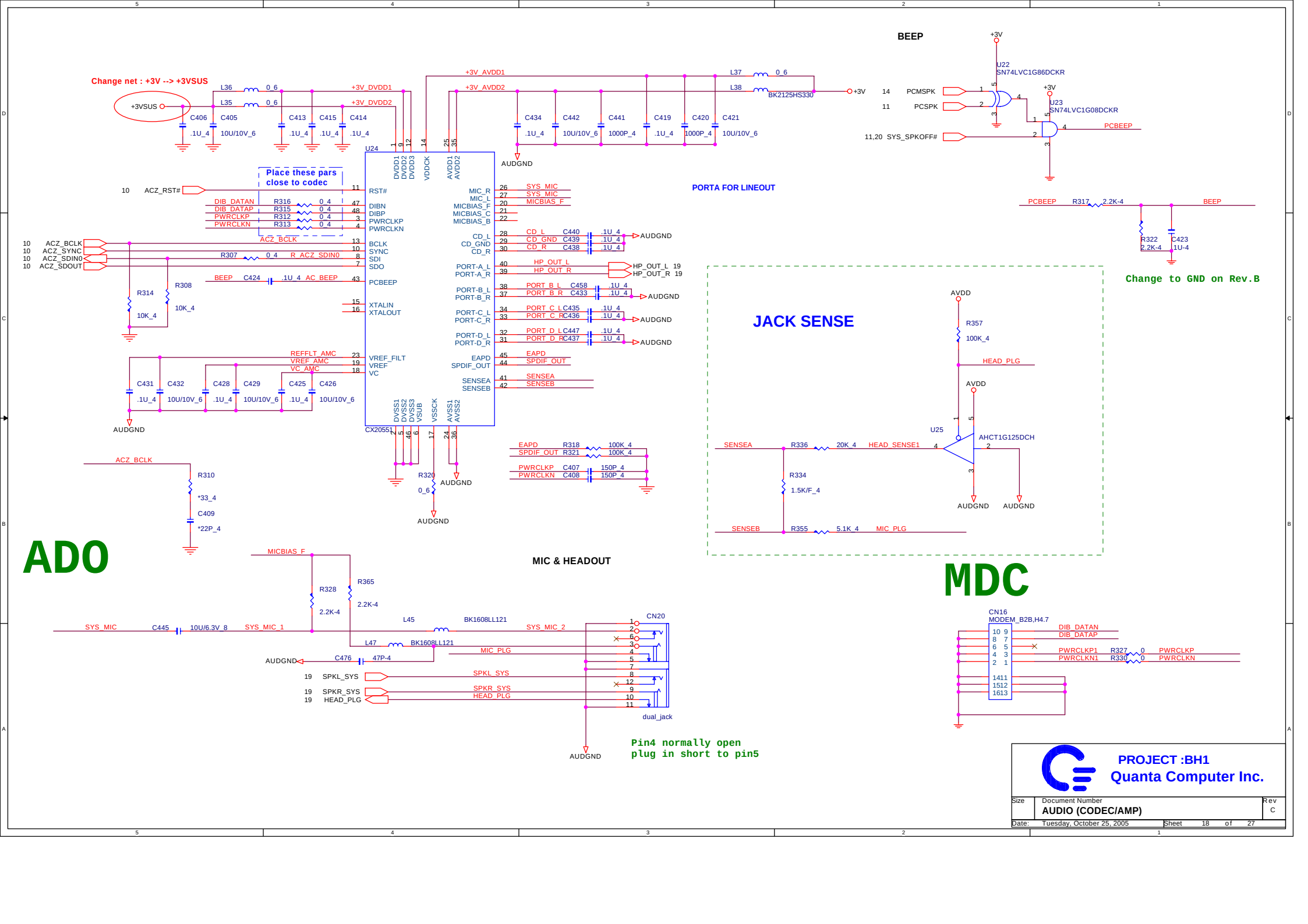
HOLE20
*H-O256X157D256X157N

NB

HOLE12
H-C236D125P2

PROJECT :BH1
Quanta Computer Inc.

Size	Document Number	Rev
	HDD/ODD/SCREW	C
Date: Tuesday, October 25, 2005	Sheet 17 of 27	


Change net : +3V --> +3VSUS
+3VSUS
L36 0_6 +3V_DVDD1
L35 0_6 +3V_DVDD2
C406 .1U_4
C405 10U/10V_6
C413 .1U_4
C415 .1U_4
C414 .1U_4
+3V_AVDD1
+3V_AVDD2
L37 0_6
L38 BK2125HS330
+3V
C434 .1U_4
C442 10U/10V_6
C441 1000P_4
C419 .1U_4
C420 1000P_4
C421 10U/10V_6
AUDGND
U24
CX20551
Place these pars close to codec
10 ACZ_RST#
DIB_DATAN R316 0_4
DIB_DATAP R315 0_4
PWRCLKP R312 0_4
PWRCLKN R313 0_4
ACZ_BCLK
R307 0_4 R_ACZ_SDIN0
10 ACZ_BCLK
10 ACZ_SYNC
10 ACZ_SDIN0
10 ACZ_SDOUT
BEEP C424 .1U_4 AC_BEEP
R314 10K_4
R308 10K_4
REFFLT_AMC
VREF_AMC
VC_AMC
C431 .1U_4
C432 10U/10V_6
C428 .1U_4
C429 10U/10V_6
C425 .1U_4
C426 10U/10V_6
RST#
DIBN
DIBP
PWRCLKP
PWRCLKN
BCLK
SYNC
SDI
SDO
PCBEEP
XTALIN
XTALOUT
VREF_FILT
VREF
VC
MIC_R
MIC_L
MICBIAS_F
MICBIAS_C
MICBIAS_B
CD_L
CD_GND
CD_R
PORT-A_L
PORT-A_R
PORT-B_L
PORT-B_R
PORT-C_L
PORT-C_R
PORT-D_L
PORT-D_R
EAPD
SPDIF_OUT
SENSEA
SENSEB
SYS_MIC
MICBIAS_F
C440 .1U_4
C439 .1U_4
C438 .1U_4
HP_OUT_L
HP_OUT_R
HP_OUT_L 19
HP_OUT_R 19
C458 .1U_4
C433 .1U_4
C435 .1U_4
C436 .1U_4
C447 .1U_4
C437 .1U_4
EAPD R318 100K_4
SPDIF_OUT R321 100K_4
PWRCLKP C407 150P_4
PWRCLKN C408 150P_4
R320 0_6
ACZ_BCLK
R310 *33_4
C409 *22P_4
PORTA FOR LINEOUT
BEEP
U22 SN74LVC1G86DCKR
U23 SN74LVC1G08DCKR
14 PCMSPK
11 PCSPK
11,20 SYS_SPKOFF#
PCBEEP
PCBEEP R317 2.2K-4
R322 2.2K-4
C423 1U-4
BEEP
Change to GND on Rev.B
JACK SENSE
AVDD
R357 100K_4
HEAD_PLG
U25 AHCT1G125DCH
SENSEA R336 20K_4 HEAD_SENSE1
R334 1.5K/F_4
SENSEB R355 5.1K_4 MIC_PLG
AUDGND
ADO
MIC & HEADOUT
MDC
MICBIAS_F
R328 2.2K-4
R365 2.2K-4
SYS_MIC C445 10U/6.3V_8 SYS_MIC_1
L45 BK1608LL121 SYS_MIC_2
L47 BK1608LL121 MIC_PLG
C476 47P-4
19 SPKL_SYS
19 SPKR_SYS
19 HEAD_PLG
CN20
dual_jack
Pin4 normally open
plug in short to pin5
CN16
MODEM_B2B,H4.7
DIB_DATAN
DIB_DATAP
PWRCLKP1 R327 0 PWRCLKP
PWRCLKN1 R330 0 PWRCLKN
PROJECT :BH1
Quanta Computer Inc.
Size
Document Number
AUDIO (CODEC/AMP)
Rev C
Date: Tuesday, October 25, 2005
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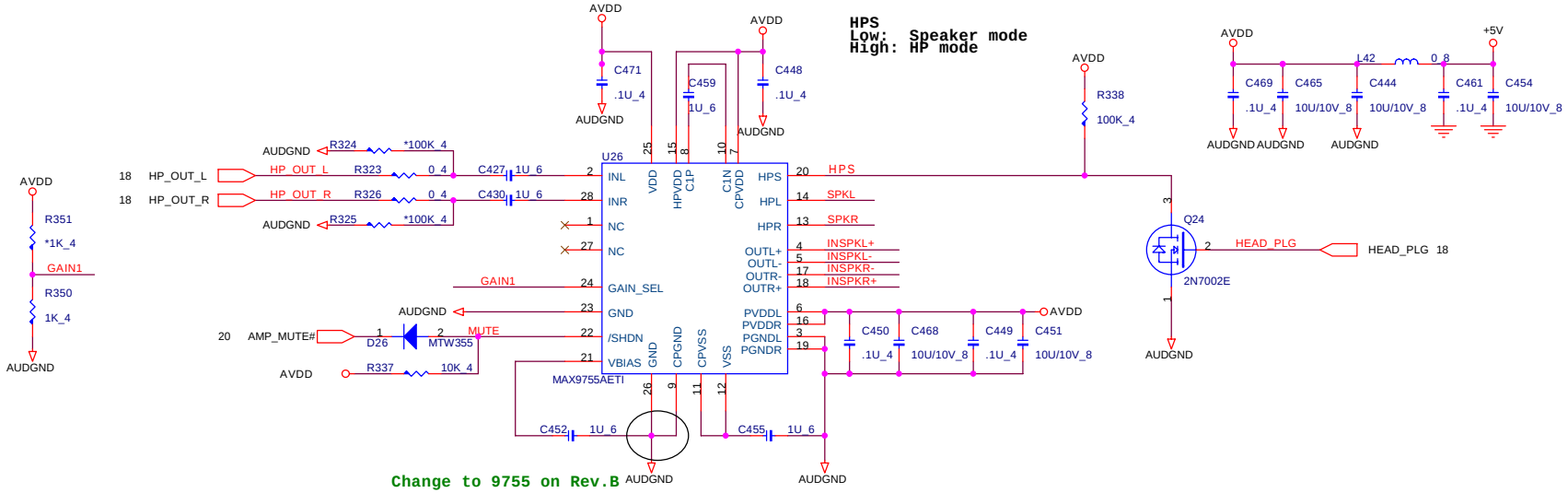
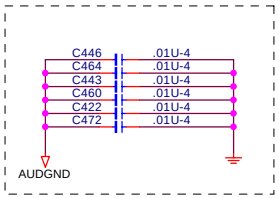
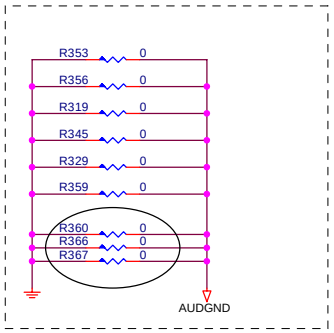
GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0

HPS
Low: Speaker mode
High: HP mode

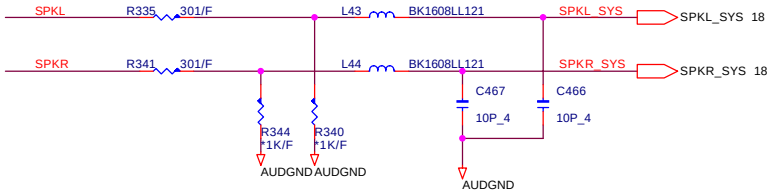


Change to 9755 on Rev.B

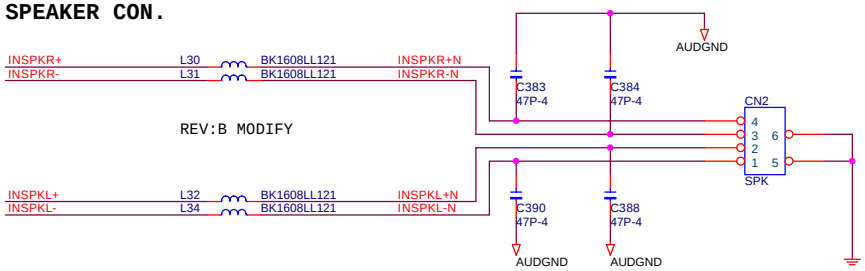




B: add on connector side



SPEAKER CON.



PROJECT :BH1
Quanta Computer Inc.

Size	Document Number	Rev
	AUDIO (AMP / LINEOUT)	C

Date: Tuesday, October 25, 2005 Sheet 19 of 27

KBC

LDRQ#(pin 8) internal is no use

Should have a 0.1uF capacitor close to every GND-VCC pair + one larger cap on the supply.

SHBM=1: Enable shared memory with host BIOS

I/O Address		
BADDR1-0	Index	Data
0 0	2E	2F
0 1	4E	4F
1 0	(HCFGBAH, HCFGBAL)	(HCFGBAH, HCFGBAL)+1
1 1	Reserved	

BIU configuration should match flash speed used

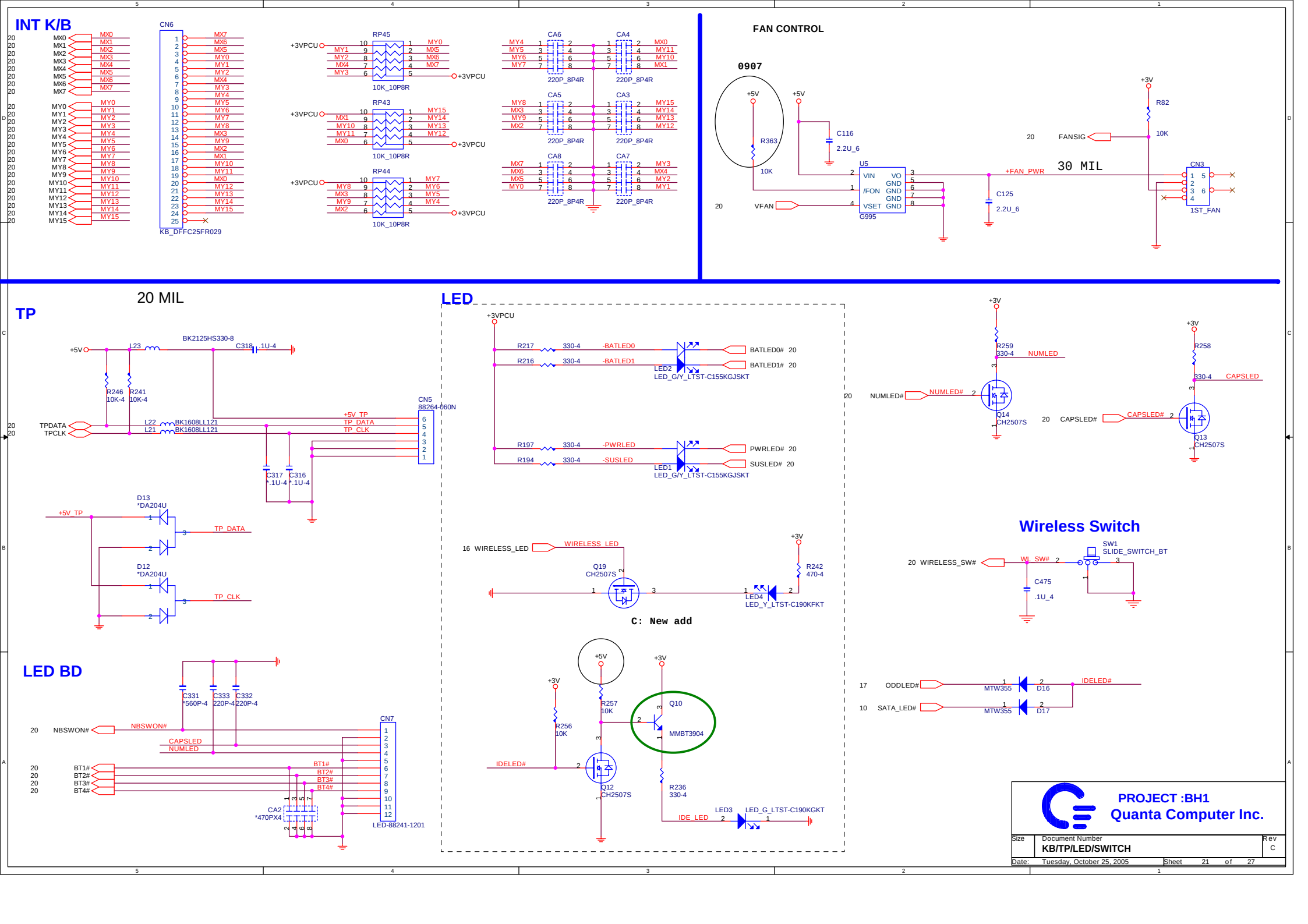
FOR 97551 ONLY

<OrgName>
<OrgAddr1>
<OrgAddr2>
<OrgAddr3>
<OrgAddr4>

PROJECT :BH1
Quanta Computer Inc.

Size	Document Number	Rev
	PC87541/FLASH	C

Date: Tuesday, October 25, 2005 Sheet 20 of 27


INT K/B
CN6
KB_DFFC25FR029
RP45
RP43
RP44
10K_10P8R
CA6
CA4
CA5
CA3
CA8
CA7
220P_8P4R
FAN CONTROL
0907
R363
10K
C116
2.2U_6
U5
G995
C125
R82
FANSIG
+FAN_PWR
30 MIL
CN3
1ST_FAN
TP
20 MIL
BK2125HS330-8
L23
C318
1U-4
R246
R241
TPDATA
TPCLK
L22
L21
BK1608LL121
CN5
88264-060N
C317
C316
D13
D12
*DA204U
TP_DATA
TP_CLK
LED
R217
R216
R197
R194
330-4
-BATLED0
-BATLED1
-PWRLED
-SUSLED
LED2
LED1
LED_G/Y_LTST-C155KGJSKT
BATLED0#
BATLED1#
PWRLED#
SUSLED#
WIRELESS_LED
Q19
CH2507S
R242
470-4
LED4
LED_Y_LTST-C190KFKT
C: New add
R257
10K
R256
Q10
MMBT3904
Q12
R236
LED3
LED_G_LTST-C190KGKT
IDE_LED
IDELED#
R259
NUMLED
R258
CAPSLED
Q14
Q13
NUMLED#
CAPSLED#
Wireless Switch
SW1
SLIDE_SWITCH_BT
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.1U_4
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BT1#
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BT4#
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*470PX4
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21
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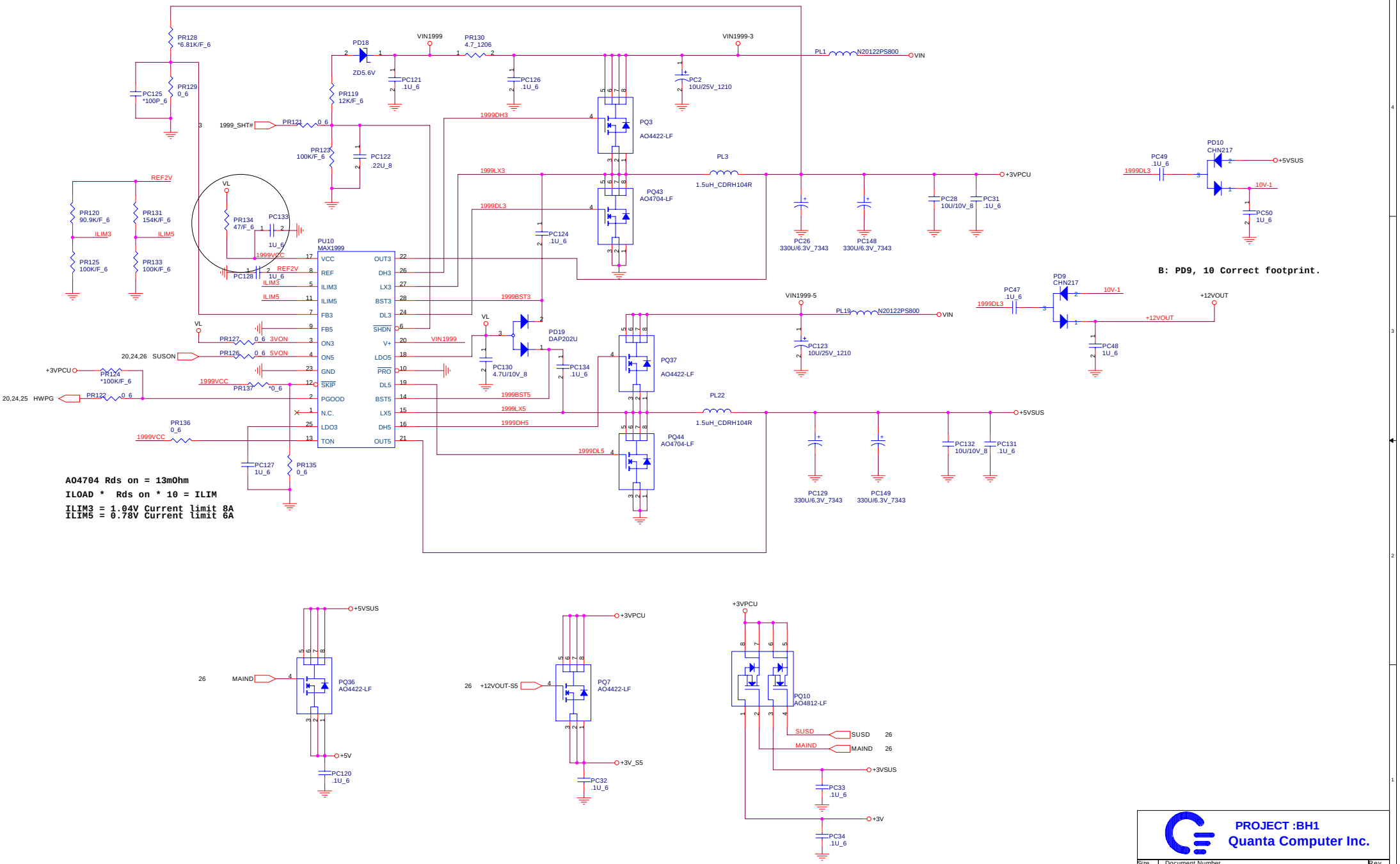

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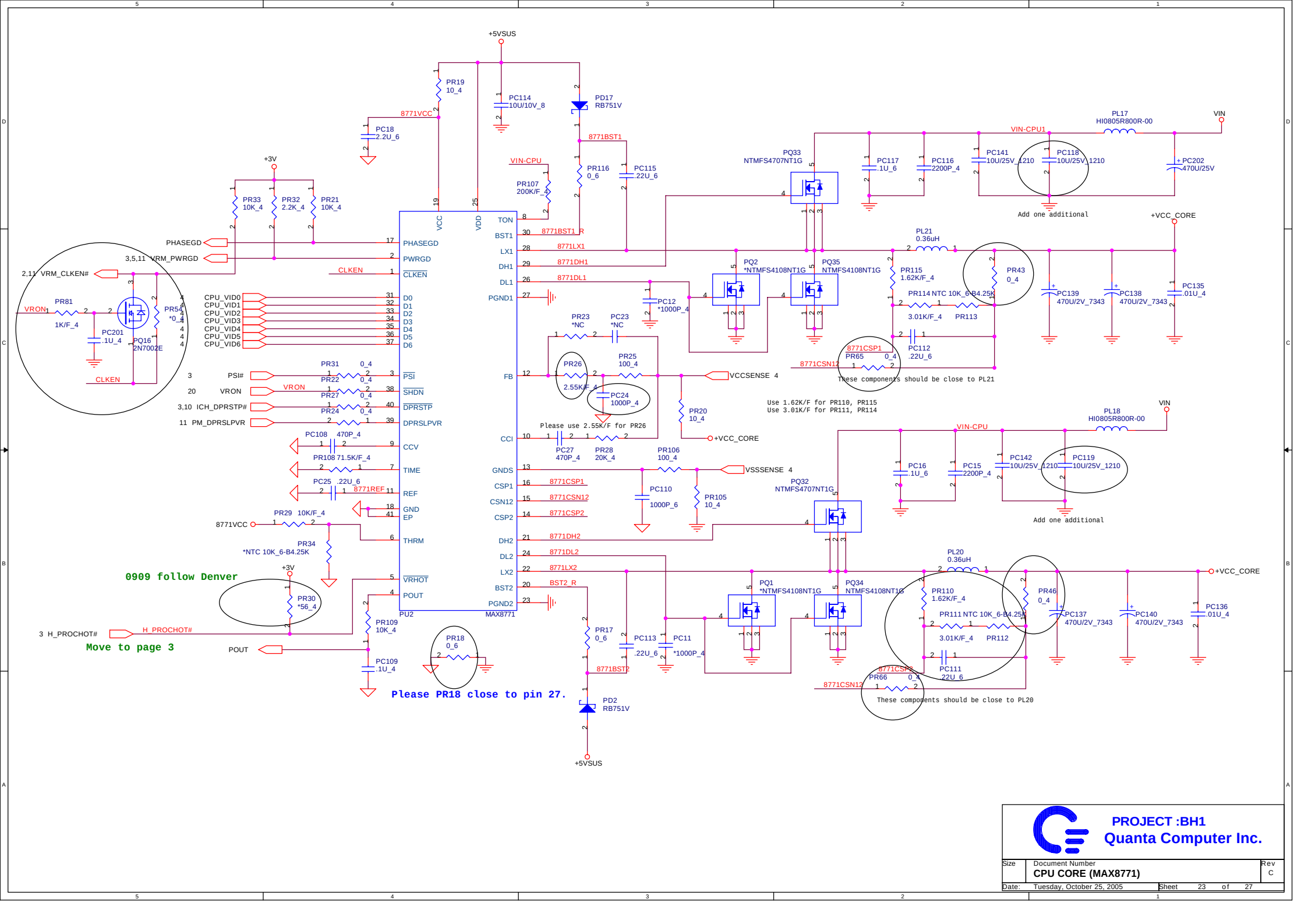

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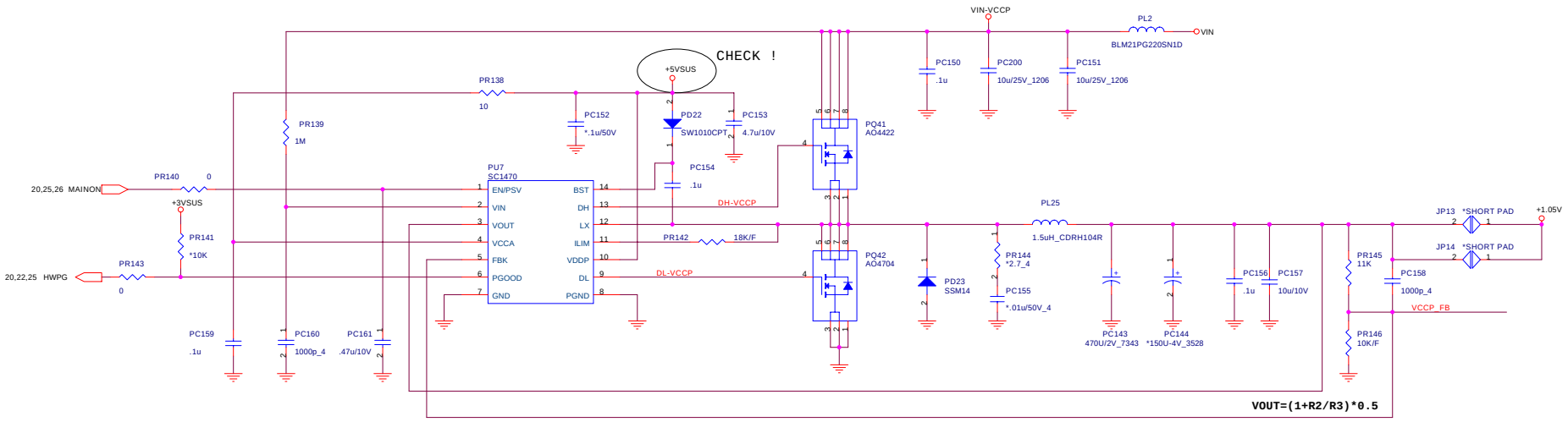

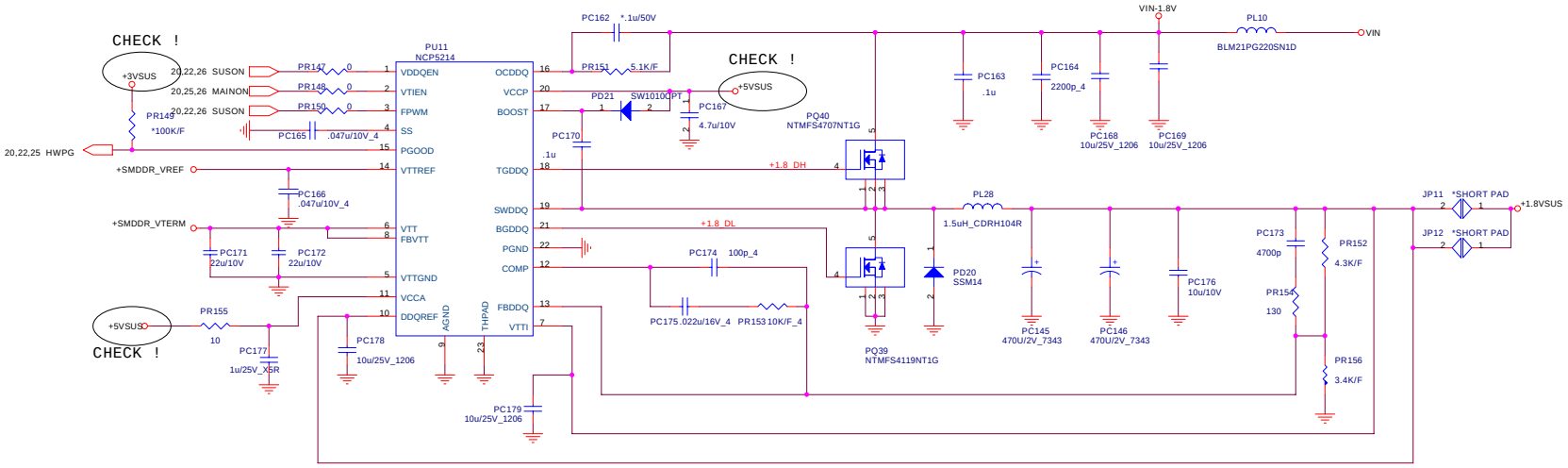

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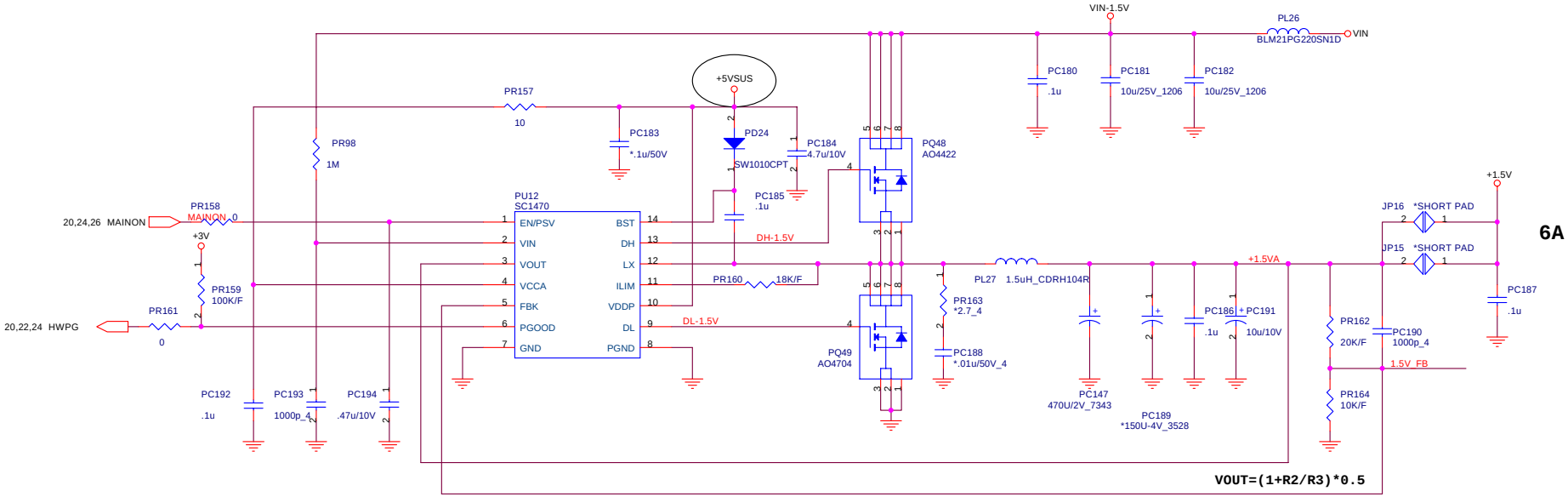

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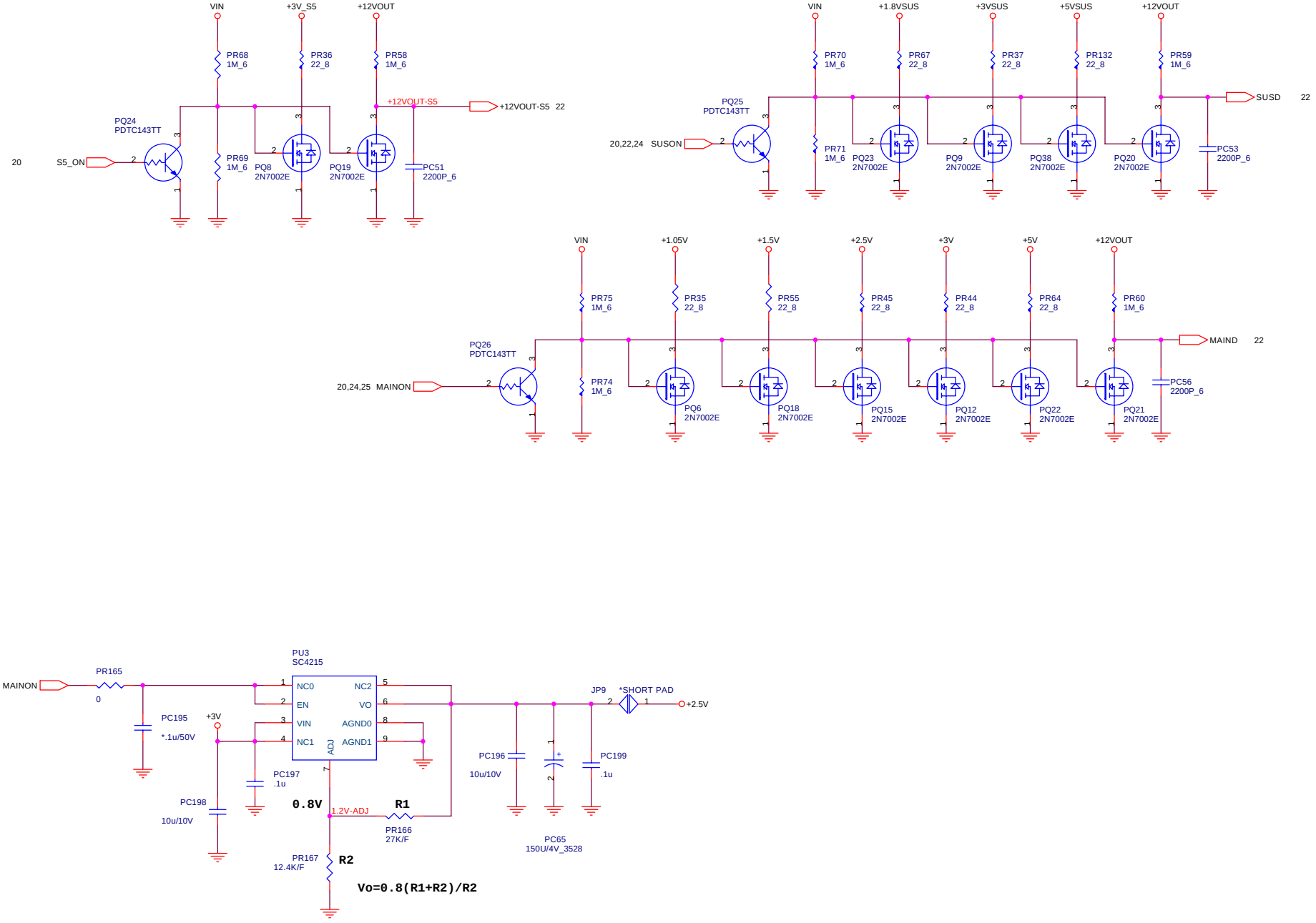

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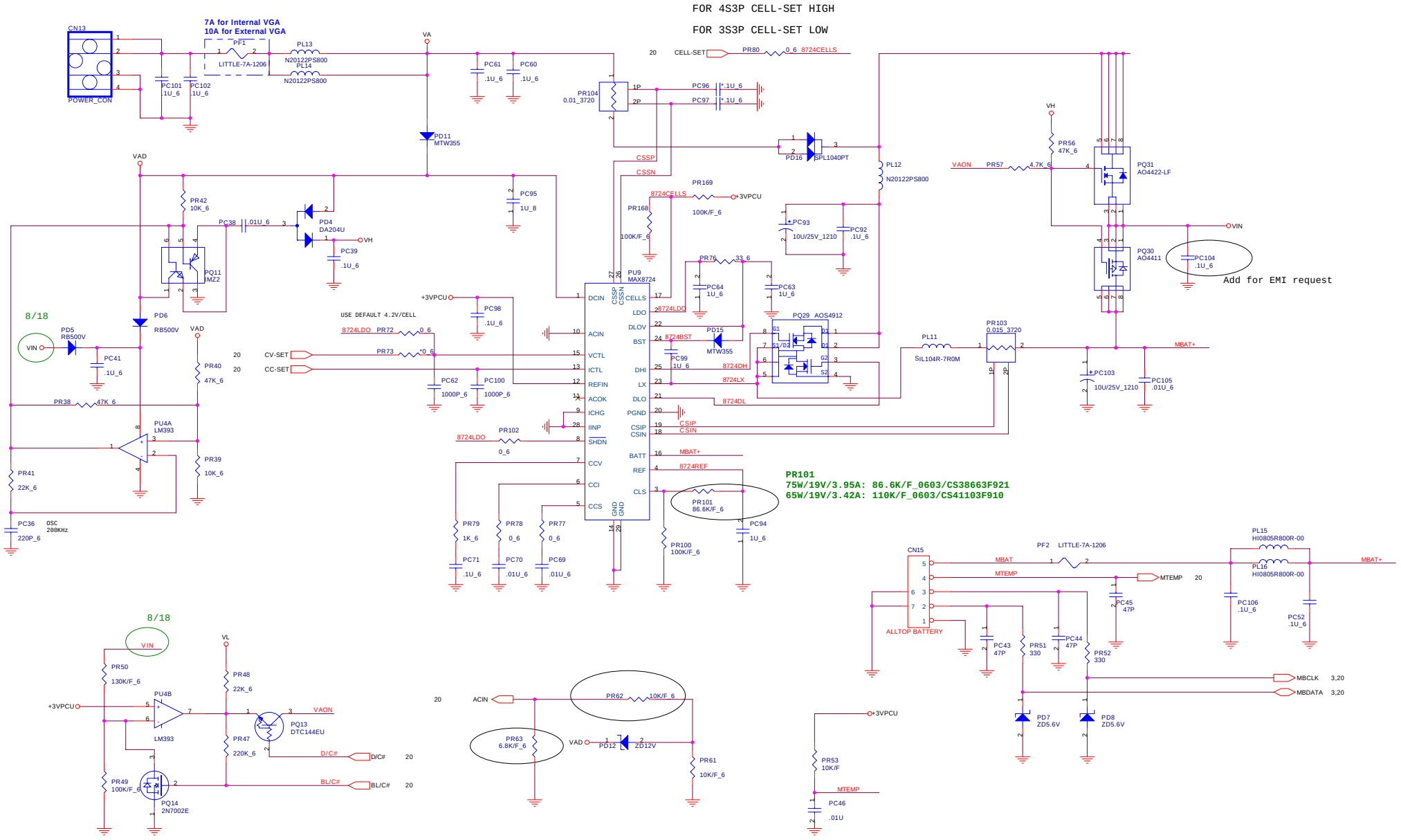

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