REVISIONS							
REV	DESCRIPTION	DFT	DATE	CHK	DATE	APVD	DATE

INTEL(R) PENTIUM(R) M PROCESSOR / INTEL(R) E7501 CHIPSET PLATFORM REFERENCE SCHEMATICS

REV A2.1

THIS SCHEMATIC IS PROVIDED AS IS, WITH NO WARRANTIES WHATSOEVER, PRUPOSE OR ANY WARRANTY ARISING OUT OF PROPOSAL, SPECIFICATION OR SAMPLE

NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED HEREIN. INTEL DISCLAIMS ALL LIABILITY, INCLUDING LIABILITY FOR INFRINGEMENT OF ANY PROPRIETARY RIGHTS, RELATING TO USE OF INFORMATION IN THIS SPECIFICATION. TNTEL DOES NOT WARRANT OR REPRESENT THAT SUCH USE WILL NOT INFRINGE SUCH RIGHTS.

THIS DRAWING CONTAINS INFORMATION WHICH HAS NOT BEEN VERIFIED FOR MANUFACTURING AS AN END USER PRODUCT. INTEL IS NOT RESPONSIBLE FOR THE MISUSE OF THIS INFORMATION.

* OTHER NAMES AND BRANDS MAY BE CLAIMED AS THE PROPERTY OF OTHERS.

DRAWING

NOTES:

1. THIS SCHEMATIC DOCUMENTS THE GENERIC PRODUCT WITH ALL POSSIBLE CONFIGURATIONS. PLEASE REFER TO SPECIFIC PRODUCT PBA EPLs FOR ITEMS SHOWN AS OPTIONAL IN THE SCHEMATIC.
2. RESISTORS ARE IN OHMS UNLESS OTHERWISE SPECIFIED.
3. VCC = +5V UNLESS OTHERWISE SPECIFIED.
4. * SUFFIX INDICATES ACTIVE LOW SIGNAL.
5. \I SUFFIX INDICATES SIGNAL EXITS HIERARCHICAL BLOCK.
6. THIS DOCUMENT ALSO EXISTS ON ELECTRONIC MEDIA.

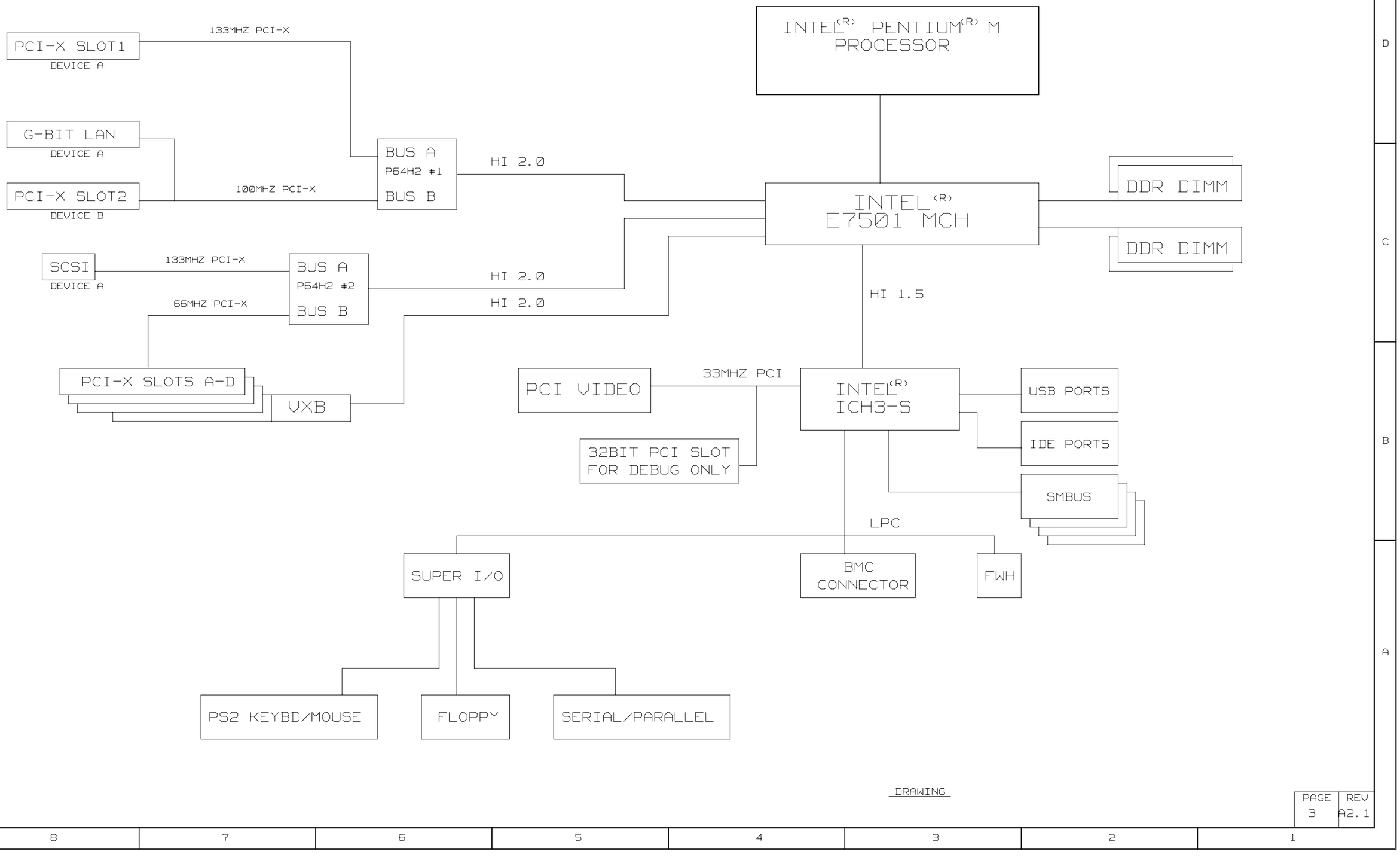
BOM RELEASE DATE		PB NUMBER	
SIGNATURE	DATE	intel CORPORATION 5000 W CHANDLER BLVD CHANDLER, AZ 85226	
DRN BY			
CHK BY		TITLE	
ENGR APVD			
APVD			PAGE 1/82 / REV A2.1
APVD			

TABLE OF CONTENTS

DRAWING

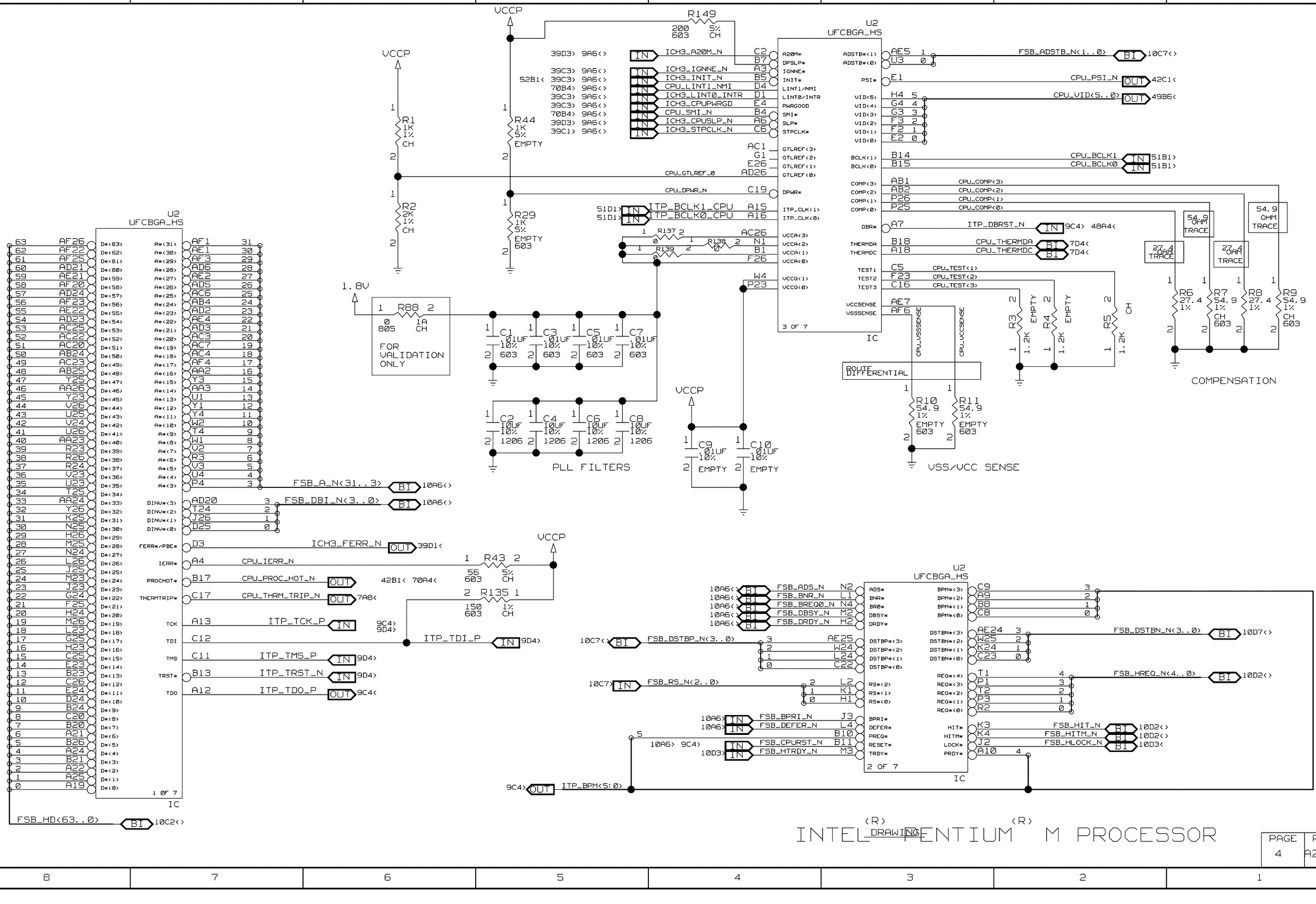
PAGE	REV
2	A2.1

SYSTEM BLOCK DIAGRAM



DRAWING

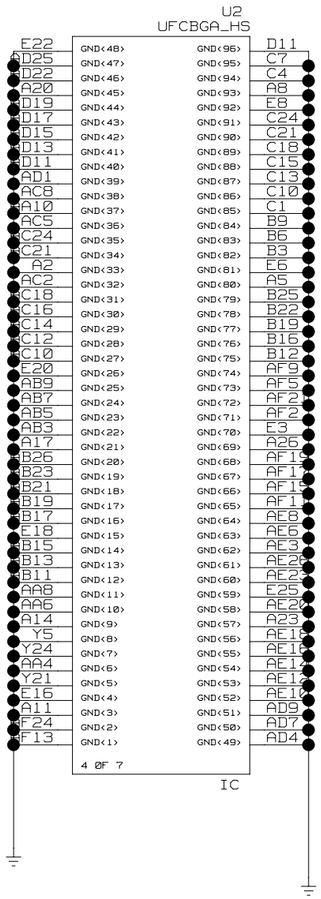
PAGE	REV
3	A2.1

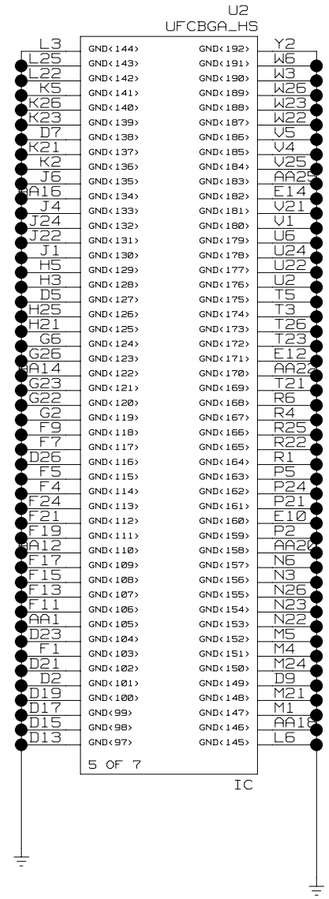


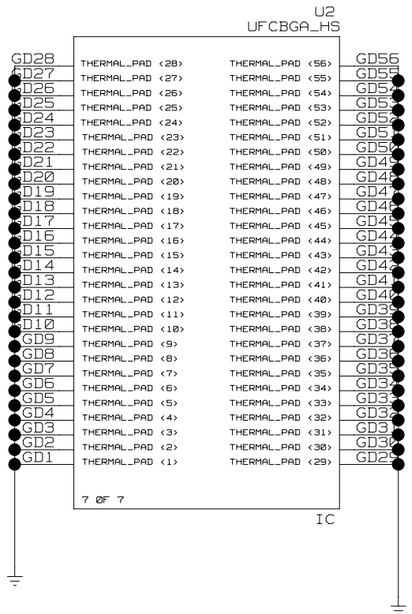
(R) (R)
INTEL PENTIUM M PROCESSOR

DRAWING

PAGE	REV
4	A2.1

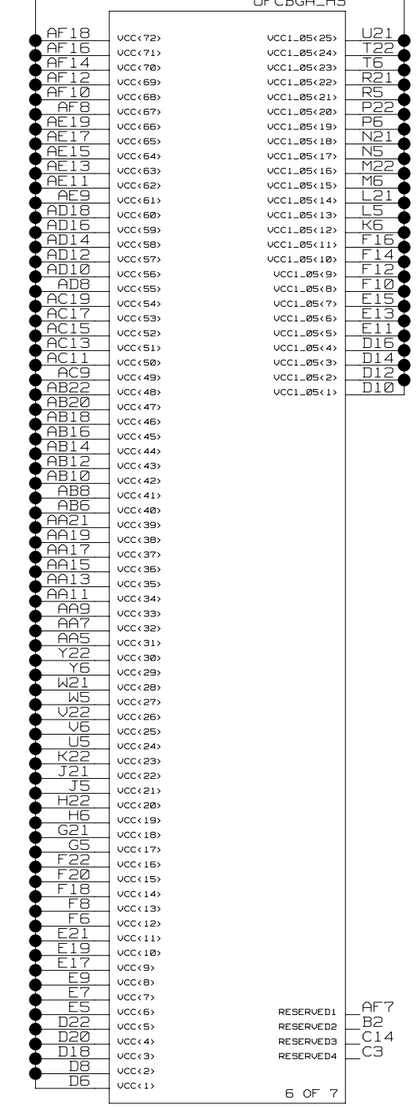






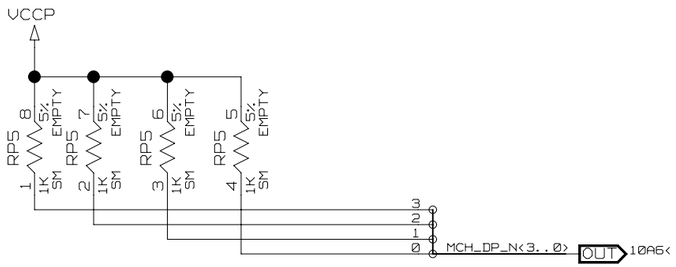
CPUVCC

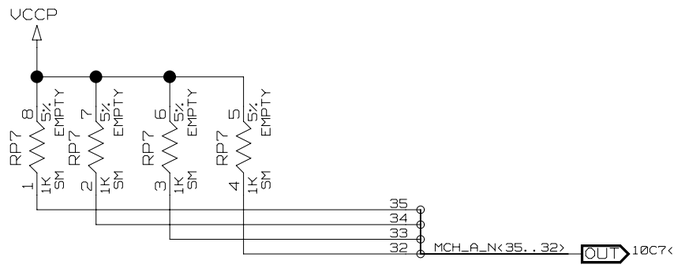
VCCP

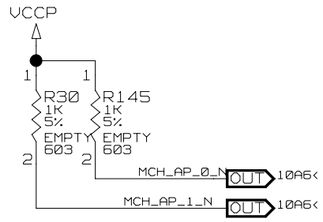


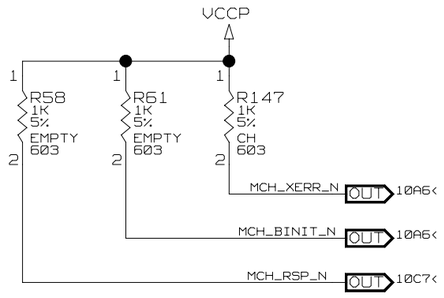
DRAWING

PAGE	REV
5	A2.1





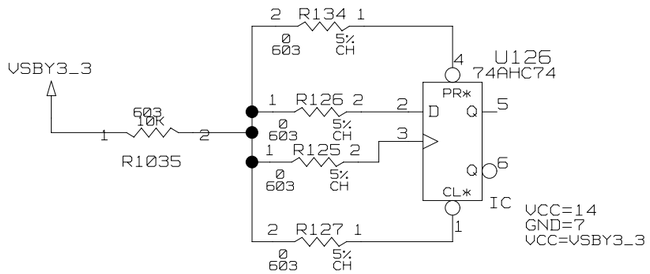


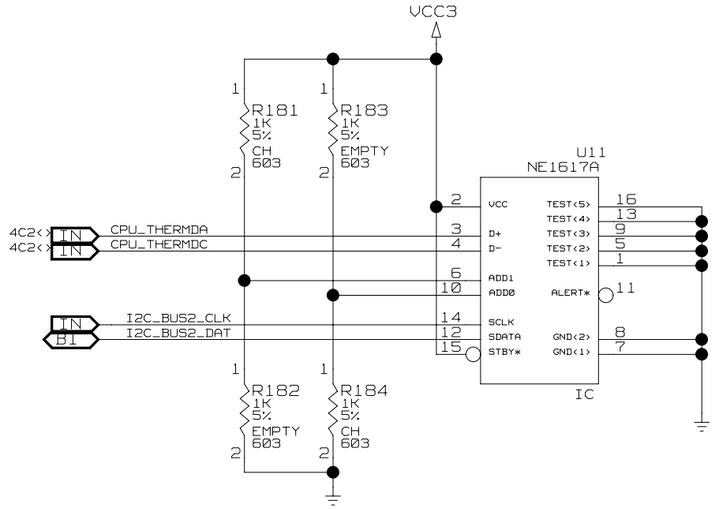


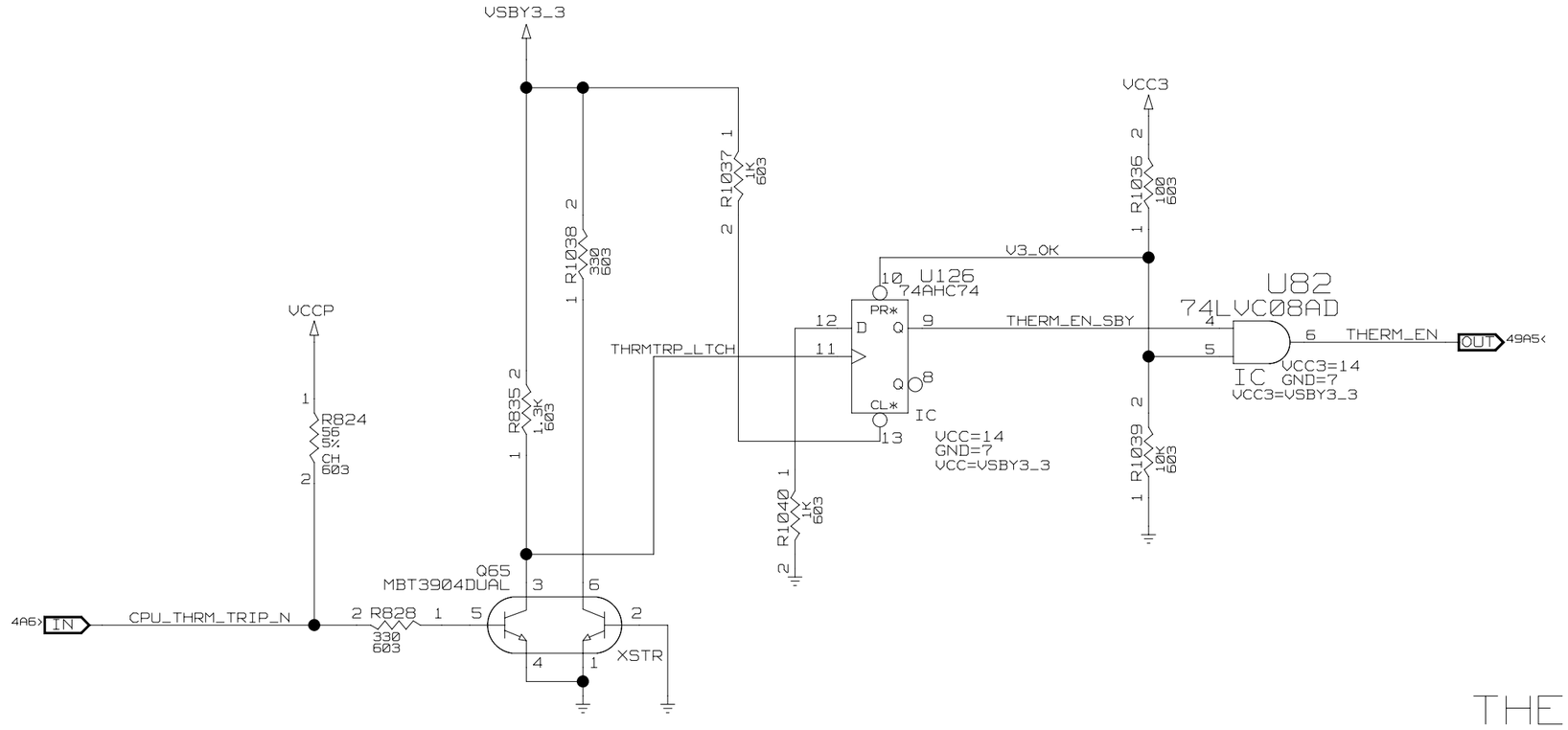
MCH PULL-UP RESISTORS

DRAWING

PAGE	REV
6	A2.1



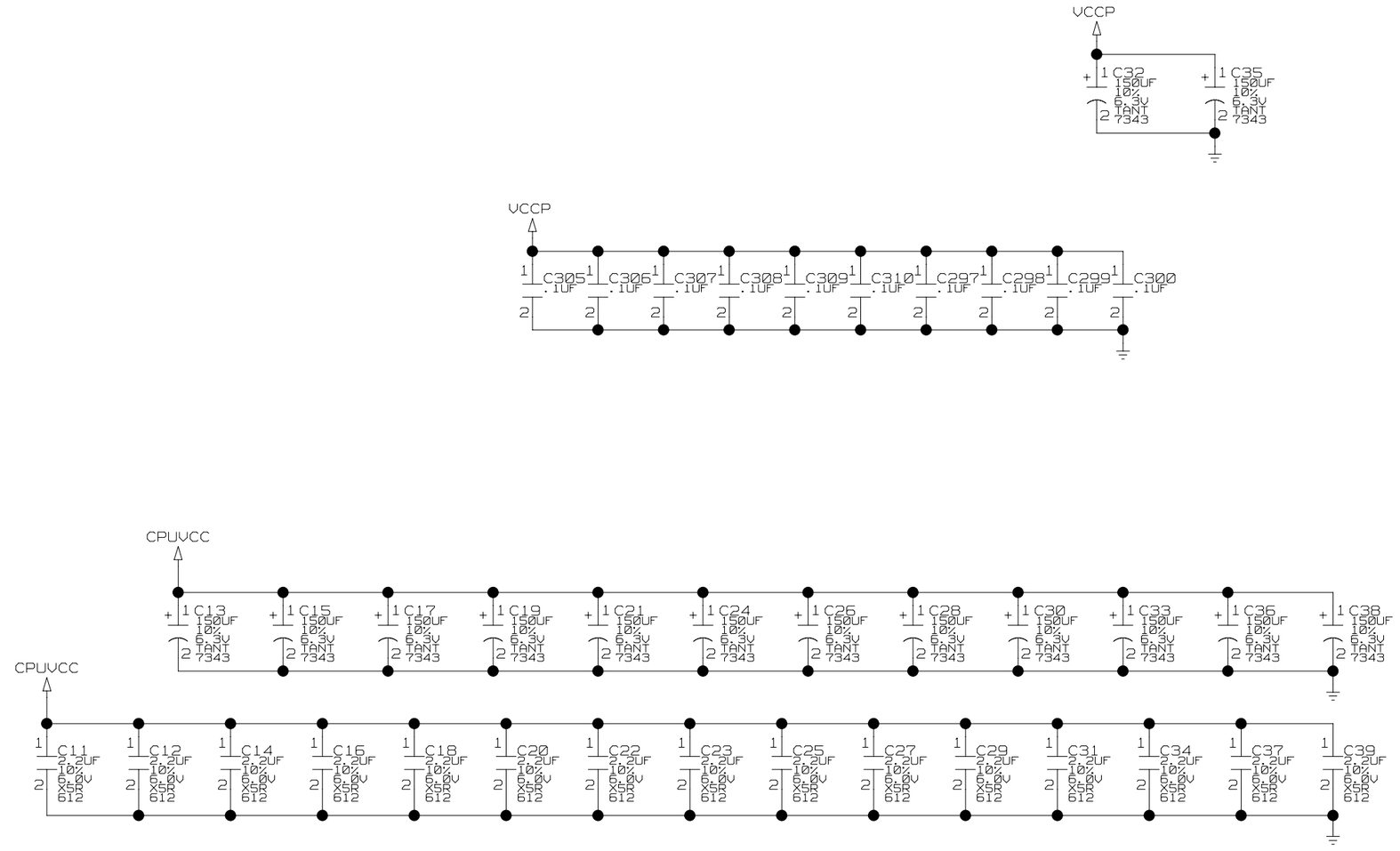




THERMTRIP LATCH LOGIC

DRAWING

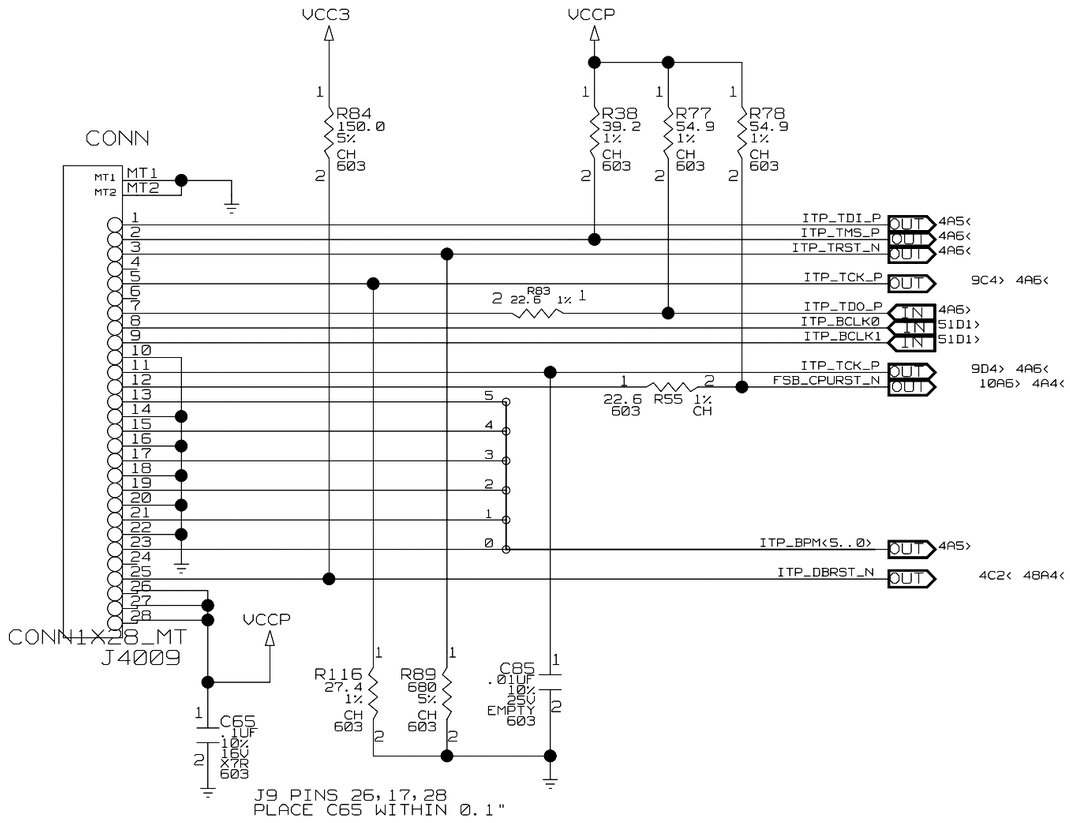
PAGE	REV
7	A2.1

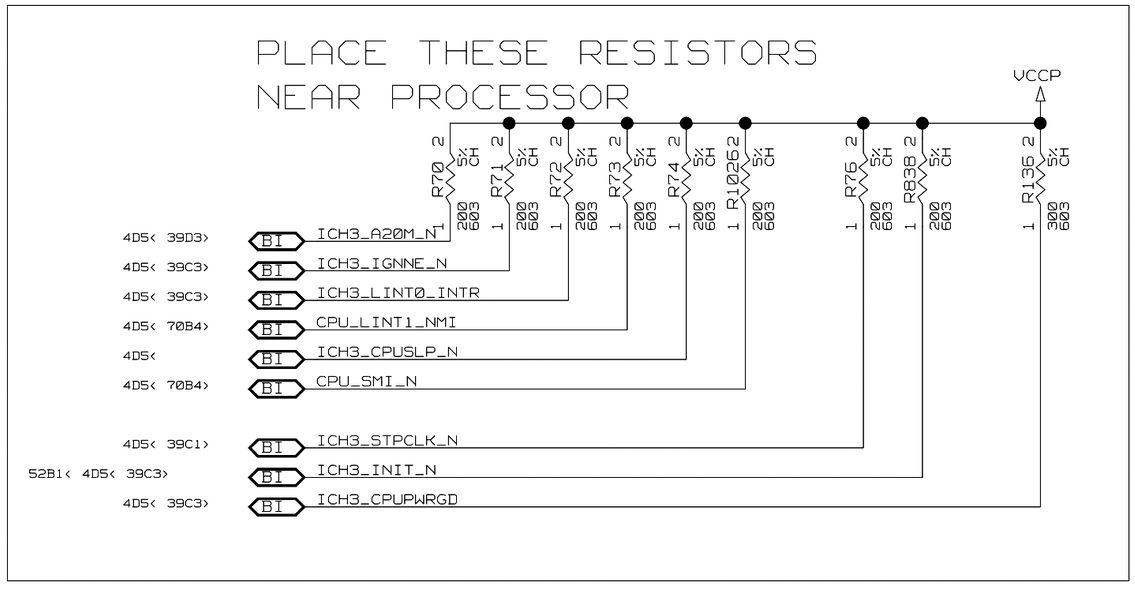


PROCESSOR DECOUPLING

DRAWING

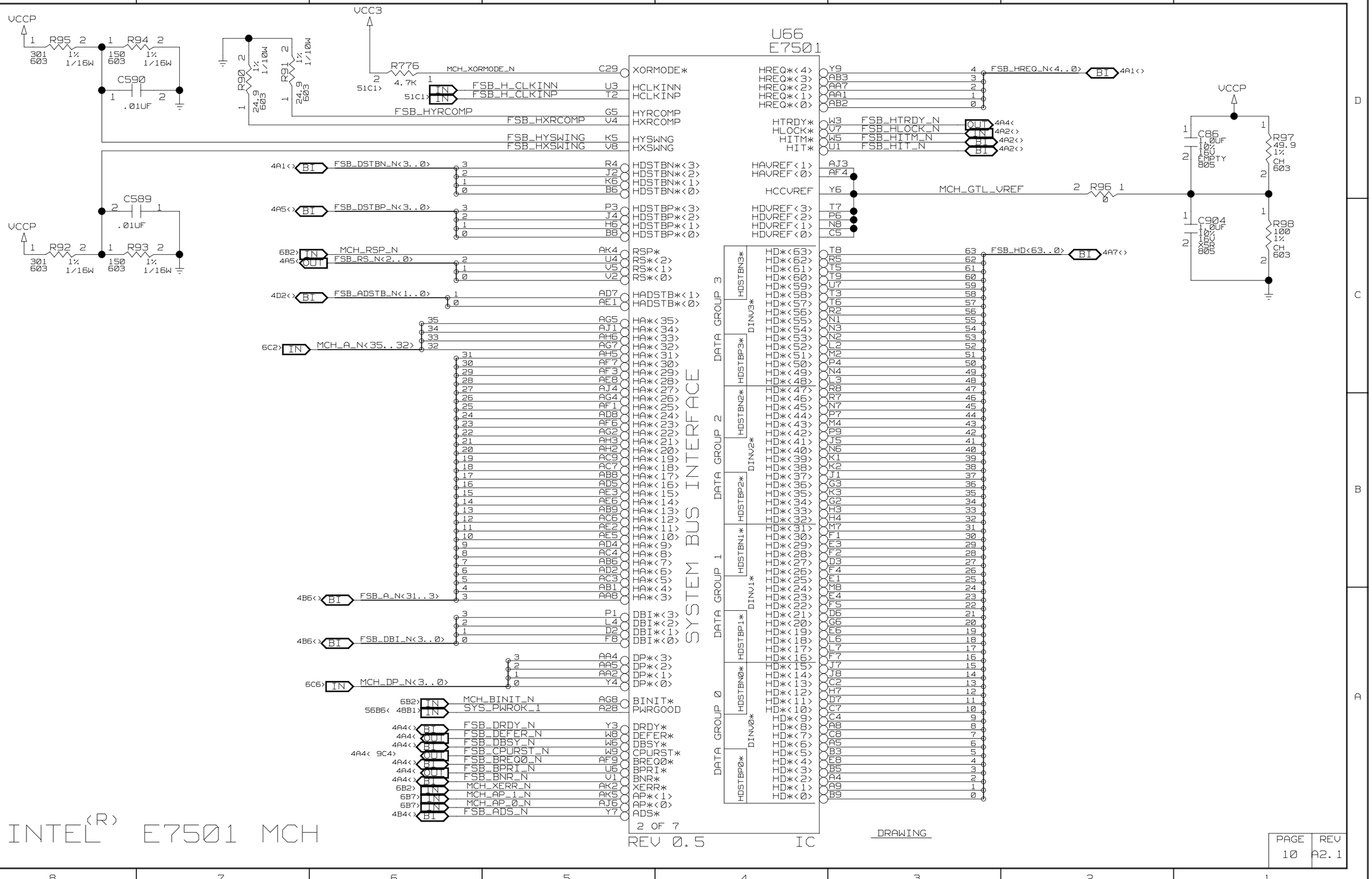
PAGE	REV
8	A2.1

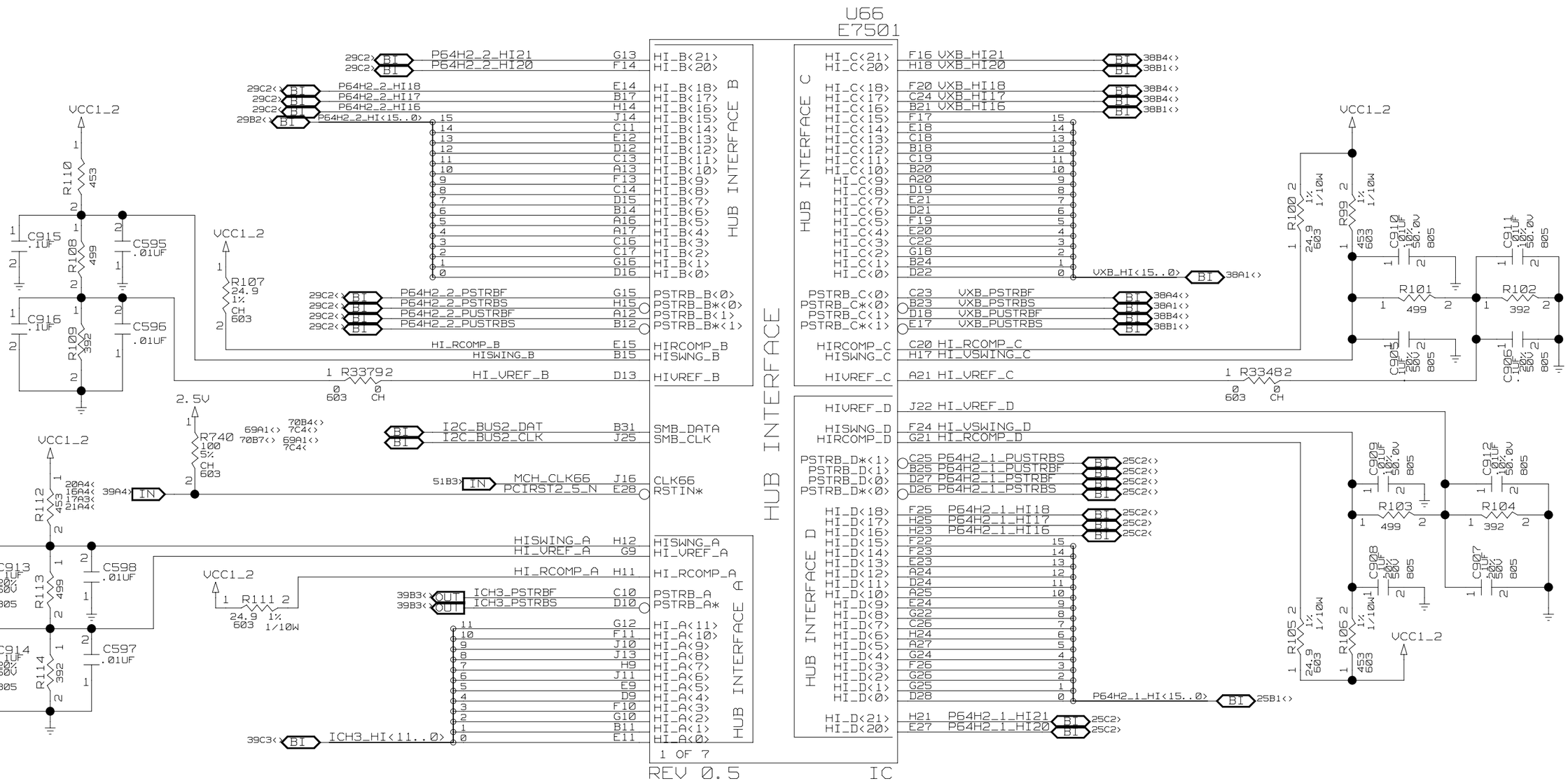


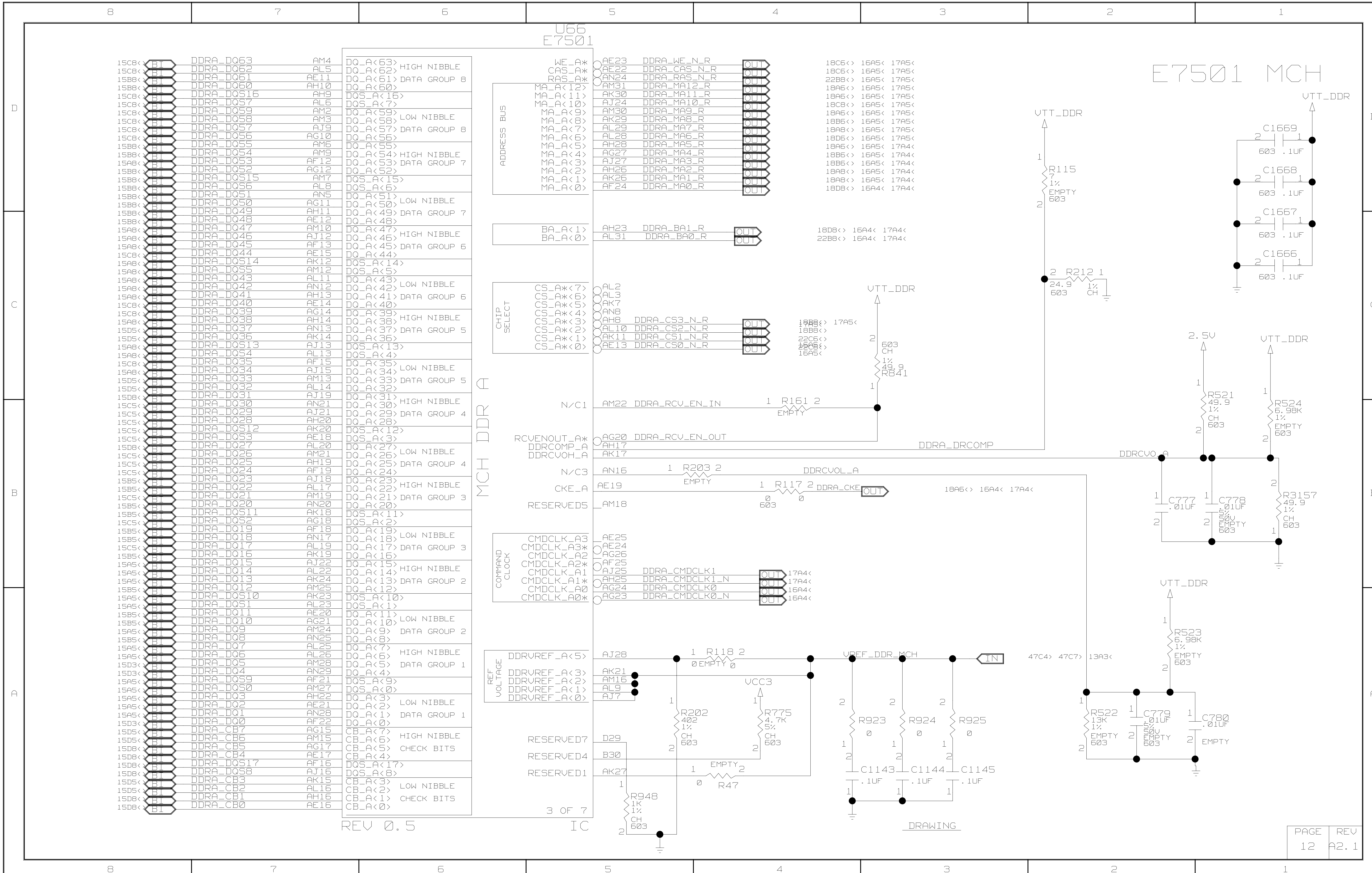


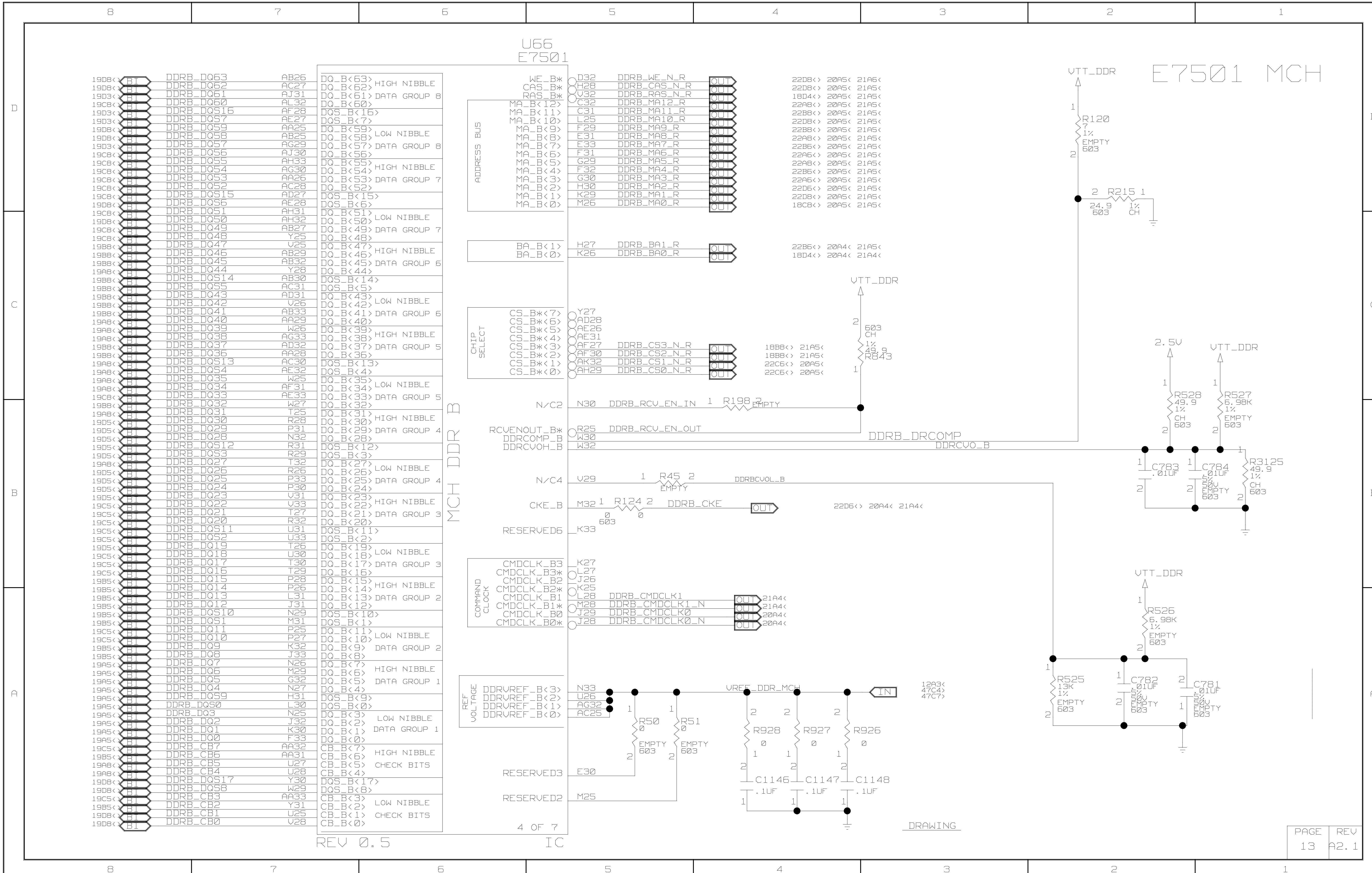
DRAWING

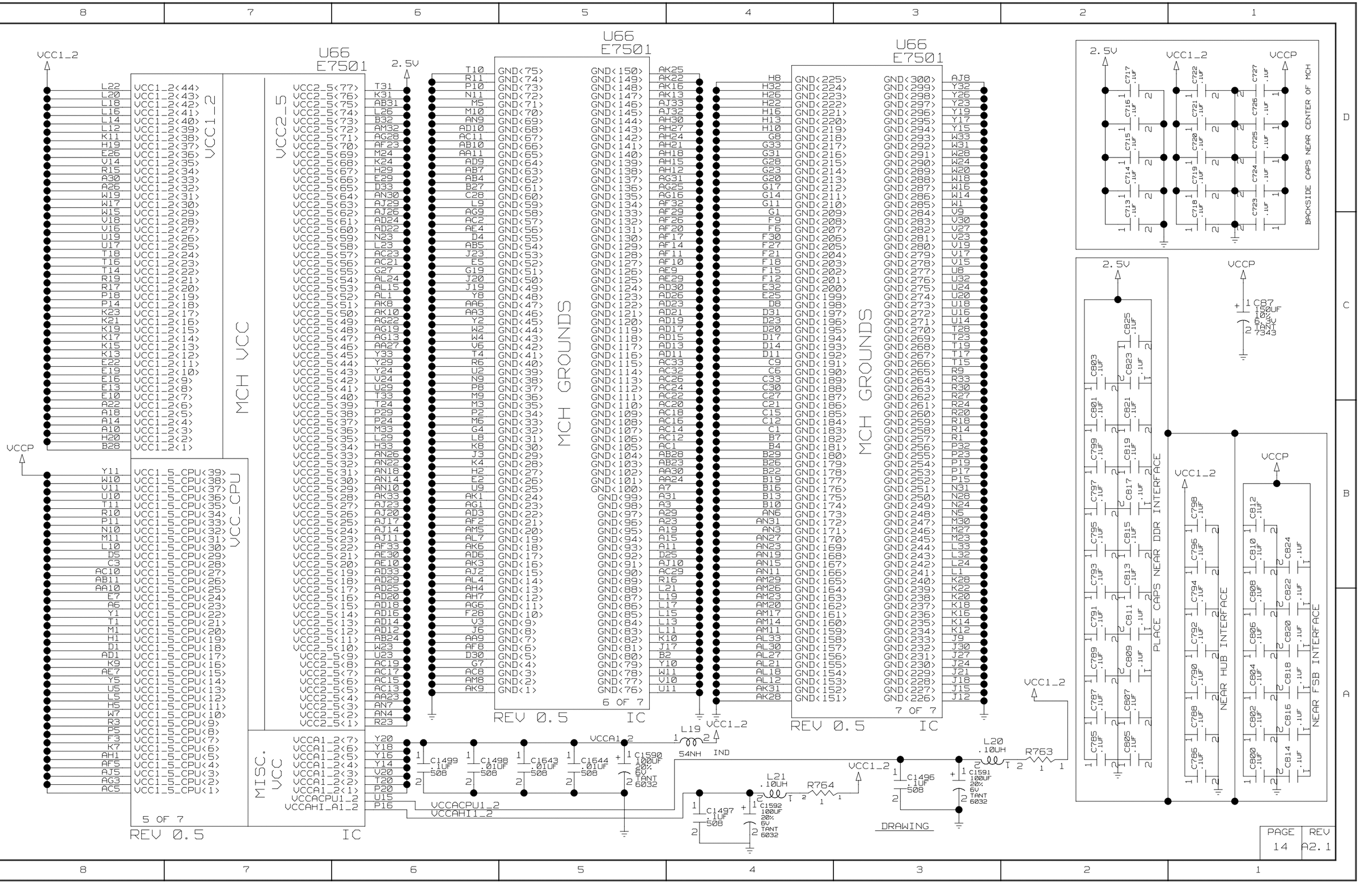
PAGE	REV
9	A2.1


VCCP
R95 301 1% 1/16W
R94 150 1% 1/16W
C590 .01UF
VCC3
R776 4.7K
MCH_XORMODE_N
FSB_H_CLKINN
FSB_H_CLKINP
R90 24.9 1% 1/10W
R91 24.9 1% 1/10W
FSB_HYRCOMP
FSB_HXRCOMP
FSB_HYSWING
FSB_HXSWING
C589 .01UF
R92 301 1% 1/16W
R93 150 1% 1/16W
U66
E7501
XORMODE*
HCLKINN
HCLKINP
HYRCOMP
HXRCOMP
HYSWING
HXSWING
FSB_DSTBN_N<3..0>
HDSTBN*<3>
HDSTBN*<2>
HDSTBN*<1>
HDSTBN*<0>
FSB_DSTBP_N<3..0>
HDSTBP*<3>
HDSTBP*<2>
HDSTBP*<1>
HDSTBP*<0>
MCH_RSP_N
FSB_RS_N<2..0>
RSP*
RS*<2>
RS*<1>
RS*<0>
FSB_ADSTB_N<1..0>
HADSTB*<1>
HADSTB*<0>
MCH_A_N<35..32>
HA*<35>
HA*<34>
HA*<33>
HA*<32>
HA*<31>
HA*<30>
HA*<29>
HA*<28>
HA*<27>
HA*<26>
HA*<25>
HA*<24>
HA*<23>
HA*<22>
HA*<21>
HA*<20>
HA*<19>
HA*<18>
HA*<17>
HA*<16>
HA*<15>
HA*<14>
HA*<13>
HA*<12>
HA*<11>
HA*<10>
HA*<9>
HA*<8>
HA*<7>
HA*<6>
HA*<5>
HA*<4>
HA*<3>
FSB_A_N<31..3>
FSB_DBI_N<3..0>
DBI*<3>
DBI*<2>
DBI*<1>
DBI*<0>
MCH_DP_N<3..0>
DP*<3>
DP*<2>
DP*<1>
DP*<0>
MCH_BINIT_N
SYS_PWROK_1
BINIT*
PWRGOOD
FSB_DRDY_N
FSB_DEFER_N
FSB_DBSY_N
FSB_CPURST_N
FSB_BREQ0_N
FSB_BPRI_N
FSB_BNR_N
MCH_XERR_N
MCH_AP_1_N
MCH_AP_0_N
FSB_ADS_N
DRDY*
DEFER*
DBSY*
CPURST*
BREQ0*
BPRI*
BNR*
XERR*
AP*<1>
AP*<0>
ADS*
2 OF 7
SYSTEM BUS INTERFACE
REV 0.5
IC
HREQ*<4>
HREQ*<3>
HREQ*<2>
HREQ*<1>
HREQ*<0>
FSB_HREQ_N<4..0>
HTRDY*
HLOCK*
HITM*
HIT*
FSB_HTRDY_N
FSB_HLOCK_N
FSB_HITM_N
FSB_HIT_N
HAVREF<1>
HAVREF<0>
HCCVREF
HDVREF<3>
HDVREF<2>
HDVREF<1>
HDVREF<0>
MCH_GTL_VREF
R96 0
C86 1.0UF
R97 49.9 1% CH 603
C904 1.0UF
R98 100 1% CH 603
FSB_HD<63..0>
DATA GROUP 3
DATA GROUP 2
DATA GROUP 1
DATA GROUP 0
HDSTBN3*
HDSTBP3*
HDSTBN2*
HDSTBP2*
HDSTBN1*
HDSTBP1*
HDSTBN0*
HDSTBP0*
DINV3*
DINV2*
DINV1*
DINV0*
HD*<63>
HD*<62>
HD*<61>
HD*<60>
HD*<59>
HD*<58>
HD*<57>
HD*<56>
HD*<55>
HD*<54>
HD*<53>
HD*<52>
HD*<51>
HD*<50>
HD*<49>
HD*<48>
HD*<47>
HD*<46>
HD*<45>
HD*<44>
HD*<43>
HD*<42>
HD*<41>
HD*<40>
HD*<39>
HD*<38>
HD*<37>
HD*<36>
HD*<35>
HD*<34>
HD*<33>
HD*<32>
HD*<31>
HD*<30>
HD*<29>
HD*<28>
HD*<27>
HD*<26>
HD*<25>
HD*<24>
HD*<23>
HD*<22>
HD*<21>
HD*<20>
HD*<19>
HD*<18>
HD*<17>
HD*<16>
HD*<15>
HD*<14>
HD*<13>
HD*<12>
HD*<11>
HD*<10>
HD*<9>
HD*<8>
HD*<7>
HD*<6>
HD*<5>
HD*<4>
HD*<3>
HD*<2>
HD*<1>
HD*<0>
INTEL(R) E7501 MCH
DRAWING
PAGE 10
REV A2.1


U66
E7501
HUB INTERFACE B
HUB INTERFACE A
HUB INTERFACE C
HUB INTERFACE D
HUB INTERFACE
HI_B<21> G13 P64H2_2_HI21
HI_B<20> F14 P64H2_2_HI20
HI_B<18> E14 P64H2_2_HI18
HI_B<17> B17 P64H2_2_HI17
HI_B<16> H14 P64H2_2_HI16
HI_B<15> J14 P64H2_2_HI<15..0>
HI_B<14> C11
HI_B<13> E12
HI_B<12> D12
HI_B<11> C13
HI_B<10> A13
HI_B<9> F13
HI_B<8> C14
HI_B<7> D15
HI_B<6> B14
HI_B<5> A16
HI_B<4> A17
HI_B<3> C16
HI_B<2> C17
HI_B<1> G16
HI_B<0> D16
PSTRB_B<0> G15 P64H2_2_PSTRBF
PSTRB_B*<0> H15 P64H2_2_PSTRBS
PSTRB_B<1> A12 P64H2_2_PUSTRBF
PSTRB_B*<1> B12 P64H2_2_PUSTRBS
HIRCOMP_B E15 HI_RCOMP_B
HISWING_B B15
HIVREF_B D13 HI_VREF_B
SMB_DATA B31 I2C_BUS2_DAT
SMB_CLK J25 I2C_BUS2_CLK
CLK66 J16 MCH_CLK66
RSTIN* E28 PCIRST2_S_N
HISWNG_A H12
HI_VREF_A G9
HI_RCOMP_A H11
PSTRB_A C10 ICH3_PSTRBF
PSTRB_A* D10 ICH3_PSTRBS
HI_A<11> G12
HI_A<10> F11
HI_A<9> J10
HI_A<8> J13
HI_A<7> H9
HI_A<6> J11
HI_A<5> E9
HI_A<4> D9
HI_A<3> F10
HI_A<2> G10
HI_A<1> B11
HI_A<0> E11
ICH3_HI<11..0>
1 OF 7
REV 0.5
IC
HI_C<21> F16 VXB_HI21
HI_C<20> H18 VXB_HI20
HI_C<18> F20 VXB_HI18
HI_C<17> C24 VXB_HI17
HI_C<16> B21 VXB_HI16
HI_C<15> F17
HI_C<14> E18
HI_C<13> C18
HI_C<12> B18
HI_C<11> C19
HI_C<10> B20
HI_C<9> A20
HI_C<8> D19
HI_C<7> E21
HI_C<6> D21
HI_C<5> F19
HI_C<4> E20
HI_C<3> C22
HI_C<2> G18
HI_C<1> B24
HI_C<0> D22
VXB_HI<15..0>
PSTRB_C<0> C23 VXB_PSTRBF
PSTRB_C*<0> B23 VXB_PSTRBS
PSTRB_C<1> D18 VXB_PUSTRBF
PSTRB_C*<1> E17 VXB_PUSTRBS
HIRCOMP_C C20 HI_RCOMP_C
HISWNG_C H17 HI_VSWING_C
HIVREF_C A21 HI_VREF_C
HIVREF_D J22 HI_VREF_D
HISWNG_D F24 HI_VSWING_D
HIRCOMP_D G21 HI_RCOMP_D
PSTRB_D*<1> C25 P64H2_1_PUSTRBS
PSTRB_D<1> B25 P64H2_1_PUSTRBF
PSTRB_D<0> D27 P64H2_1_PSTRBF
PSTRB_D*<0> D26 P64H2_1_PSTRBS
HI_D<18> F25 P64H2_1_HI18
HI_D<17> H25 P64H2_1_HI17
HI_D<16> H23 P64H2_1_HI16
HI_D<15> F22
HI_D<14> F23
HI_D<13> E23
HI_D<12> A24
HI_D<11> D24
HI_D<10> A25
HI_D<9> E24
HI_D<8> G22
HI_D<7> C26
HI_D<6> H24
HI_D<5> A27
HI_D<4> G24
HI_D<3> F26
HI_D<2> G26
HI_D<1> G25
HI_D<0> D28
P64H2_1_HI<15..0>
HI_D<21> H21 P64H2_1_HI21
HI_D<20> E27 P64H2_1_HI20
VCC1_2
2.5V
R110 453
R108 499
R109 392
R107 24.9 1% CH 603
R740 100 5% CH 603
R112 453
R113 499
R114 392
R111 2 24.9 1% 1/10W 603
R33792 0 603 CH
R33482 0 603 CH
R100 2 24.9 1% 1/10W 603
R99 2 453 1% 1/10W 603
R105 2 24.9 1% 1/10W 603
R106 2 453 1% 1/10W 603
R101 499
R102 392
R103 499
R104 392
C915 .1UF
C595 .01UF
C916 .1UF
C596 .01UF
C913 .1UF 20% 50V 805
C598 .01UF
C914 .1UF 20% 50V 805
C597 .01UF
C910 .01UF 10% 50.0V 805
C911 .01UF 10% 50.0V 805
C905 .1UF 10% 50V 805
C909 .01UF 10% 50.0V 805
C912 .01UF 10% 50.0V 805
C908 .1UF 10% 50V 805
C907 .1UF 10% 50V 805
IN
OUT
BI
E7501 MCH
DRAWING
PAGE 11
REV A2.1


E7501 MCH
U66
E7501
MCH DDR A
REV 0.5
3 OF 7
IC
DDRA_DQ63
DDRA_DQ62
DDRA_DQ61
DDRA_DQ60
DDRA_DQS16
DDRA_DQ57
DDRA_DQ59
DDRA_DQ58
DDRA_DQ57
DDRA_DQ56
DDRA_DQ55
DDRA_DQ54
DDRA_DQ53
DDRA_DQ52
DDRA_DQS15
DDRA_DQS6
DDRA_DQ51
DDRA_DQ50
DDRA_DQ49
DDRA_DQ48
DDRA_DQ47
DDRA_DQ46
DDRA_DQ45
DDRA_DQ44
DDRA_DQS14
DDRA_DQS5
DDRA_DQ43
DDRA_DQ42
DDRA_DQ41
DDRA_DQ40
DDRA_DQ39
DDRA_DQ38
DDRA_DQ37
DDRA_DQ36
DDRA_DQS13
DDRA_DQS4
DDRA_DQ35
DDRA_DQ34
DDRA_DQ33
DDRA_DQ32
DDRA_DQ31
DDRA_DQ30
DDRA_DQ29
DDRA_DQ28
DDRA_DQS12
DDRA_DQS3
DDRA_DQ27
DDRA_DQ26
DDRA_DQ25
DDRA_DQ24
DDRA_DQ23
DDRA_DQ22
DDRA_DQ21
DDRA_DQ20
DDRA_DQS11
DDRA_DQS2
DDRA_DQ19
DDRA_DQ18
DDRA_DQ17
DDRA_DQ16
DDRA_DQ15
DDRA_DQ14
DDRA_DQ13
DDRA_DQ12
DDRA_DQS10
DDRA_DQS1
DDRA_DQ11
DDRA_DQ10
DDRA_DQ9
DDRA_DQ8
DDRA_DQ7
DDRA_DQ6
DDRA_DQ5
DDRA_DQ4
DDRA_DQS9
DDRA_DQS0
DDRA_DQ3
DDRA_DQ2
DDRA_DQ1
DDRA_DQ0
DDRA_CB7
DDRA_CB6
DDRA_CB5
DDRA_CB4
DDRA_DQS17
DDRA_DQS8
DDRA_CB3
DDRA_CB2
DDRA_CB1
DDRA_CB0
HIGH NIBBLE DATA GROUP 8
LOW NIBBLE DATA GROUP 8
HIGH NIBBLE DATA GROUP 7
LOW NIBBLE DATA GROUP 7
HIGH NIBBLE DATA GROUP 6
LOW NIBBLE DATA GROUP 6
HIGH NIBBLE DATA GROUP 5
LOW NIBBLE DATA GROUP 5
HIGH NIBBLE DATA GROUP 4
LOW NIBBLE DATA GROUP 4
HIGH NIBBLE DATA GROUP 3
LOW NIBBLE DATA GROUP 3
HIGH NIBBLE DATA GROUP 2
LOW NIBBLE DATA GROUP 2
HIGH NIBBLE DATA GROUP 1
LOW NIBBLE DATA GROUP 1
HIGH NIBBLE CHECK BITS
LOW NIBBLE CHECK BITS
ADDRESS BUS
CHIP SELECT
COMMAND CLOCK
REF VOLTAGE
WE_A*
CAS_A*
RAS_A*
DDRA_WE_N_R
DDRA_CAS_N_R
DDRA_RAS_N_R
DDRA_MA12_R
DDRA_MA11_R
DDRA_MA10_R
DDRA_MA9_R
DDRA_MA8_R
DDRA_MA7_R
DDRA_MA6_R
DDRA_MA5_R
DDRA_MA4_R
DDRA_MA3_R
DDRA_MA2_R
DDRA_MA1_R
DDRA_MA0_R
DDRA_BA1_R
DDRA_BA0_R
DDRA_CS3_N_R
DDRA_CS2_N_R
DDRA_CS1_N_R
DDRA_CS0_N_R
N/C1
DDRA_RCV_EN_IN
RCVENOUT_A*
DDRA_RCV_EN_OUT
DDRCOMP_A
DDRVOH_A
DDRA_DRCOMP
DDRCVO_A
N/C3
DDRCVOL_A
CKE_A
DDRA_CKE
RESERVED5
CMDCLK_A3
CMDCLK_A3*
CMDCLK_A2
CMDCLK_A2*
CMDCLK_A1
CMDCLK_A1*
CMDCLK_A0
CMDCLK_A0*
DDRA_CMDCLK1
DDRA_CMDCLK1_N
DDRA_CMDCLK0
DDRA_CMDCLK0_N
DDRVREF_A<5>
DDRVREF_A<3>
DDRVREF_A<2>
DDRVREF_A<1>
DDRVREF_A<0>
VREF_DDR_MCH
IN
RESERVED7
RESERVED4
RESERVED1
VTT_DDR
2.5V
VCC3
R115
R212
R841
R161
R203
R117
R521
R524
R3157
C777
C778
R523
R522
C779
C780
R118
R202
R775
R923
R924
R925
C1143
C1144
C1145
R47
R948
C1669
C1668
C1667
C1666
DRAWING
PAGE 12
REV A2.1


E7501 MCH
U66
E7501
MCH DDR B
4 OF 7
REV 0.5
IC
DDRB_DQ63 … DDRB_DQ0
DDRB_DQS17 … DDRB_DQS0
DDRB_CB7 … DDRB_CB0
HIGH NIBBLE DATA GROUP 8
LOW NIBBLE DATA GROUP 8
HIGH NIBBLE DATA GROUP 7
LOW NIBBLE DATA GROUP 7
HIGH NIBBLE DATA GROUP 6
LOW NIBBLE DATA GROUP 6
HIGH NIBBLE DATA GROUP 5
LOW NIBBLE DATA GROUP 5
HIGH NIBBLE DATA GROUP 4
LOW NIBBLE DATA GROUP 4
HIGH NIBBLE DATA GROUP 3
LOW NIBBLE DATA GROUP 3
HIGH NIBBLE DATA GROUP 2
LOW NIBBLE DATA GROUP 2
HIGH NIBBLE DATA GROUP 1
LOW NIBBLE DATA GROUP 1
HIGH NIBBLE CHECK BITS
LOW NIBBLE CHECK BITS
ADDRESS BUS
CHIP SELECT
COMMAND CLOCK
REF VOLTAGE
DDRB_WE_N_R
DDRB_CAS_N_R
DDRB_RAS_N_R
DDRB_MA12_R
DDRB_MA11_R
DDRB_MA10_R
DDRB_MA9_R
DDRB_MA8_R
DDRB_MA7_R
DDRB_MA6_R
DDRB_MA5_R
DDRB_MA4_R
DDRB_MA3_R
DDRB_MA2_R
DDRB_MA1_R
DDRB_MA0_R
DDRB_BA1_R
DDRB_BA0_R
DDRB_CS3_N_R
DDRB_CS2_N_R
DDRB_CS1_N_R
DDRB_CS0_N_R
DDRB_RCV_EN_IN
DDRB_RCV_EN_OUT
DDRB_DRCOMP
DDRCVO_B
DDRBCVOL_B
DDRB_CKE
DDRB_CMDCLK1
DDRB_CMDCLK1_N
DDRB_CMDCLK0
DDRB_CMDCLK0_N
VREF_DDR_MCH
VTT_DDR
2.5V
R120 7 1% EMPTY 603
R215 24.9 1% CH 603
R843 49.9 1% CH 603
R198 EMPTY
R45 EMPTY
R124 0 603
R528 49.9 1% CH 603
R527 6.98K 1% EMPTY 603
R3125 49.9 1% CH 603
C783 .01UF
C784 .01UF 5% 50V EMPTY 603
R526 6.98K 1% EMPTY 603
R525 13K 1% EMPTY 603
C782 .01UF 5% 50V EMPTY 603
C781 .01UF 5% 50V EMPTY 603
R50 0 EMPTY 603
R51 0 EMPTY 603
R928 0
R927 0
R926 0
C1146 .1UF
C1147 .1UF
C1148 .1UF
RESERVED6
RESERVED3
RESERVED2
DRAWING
PAGE 13
REV A2.1


U66
E7501
MCH VCC
VCC1_2
VCC1_5_CPU
VCC_CPU
5 OF 7
REV 0.5
IC
U66
E7501
VCC2_5
MCH GROUNDS
6 OF 7
REV 0.5
IC
U66
E7501
MCH GROUNDS
7 OF 7
REV 0.5
IC
MISC. VCC
IC
2.5V
VCC1_2
VCCP
VCCA1_2
VCCACPU1_2
VCCAHI1_2
L19
54NH IND
L20
.10UH
L21
.10UH
R763
R764
DRAWING
BACKSIDE CAPS NEAR CENTER OF MCH
PLACE CAPS NEAR DDR INTERFACE
NEAR HUB INTERFACE
NEAR FSB INTERFACE
PAGE 14
REV A2.1

DDR CHANNEL A SERIES RESISTORS

RP13
12B8< B1 DDRA_DQ27 1 8 DDRA_DQ27_R B1
12B8< B1 DDRA_DQ31 2 7 DDRA_DQ31_R B1
12A8< B1 DDRA_CB4 3 6 DDRA_CB4_R B1
12A8< B1 DDRA_CB5 4 5 DDRA_CB5_R B1
10 5% .063W
16D4<> 17D4<> 18A8<>
16D5<> 17D4<> 18B6<>
16D3<> 17D2<> 18A8<>
16D3<> 17D2<> 18B6<>

RP14
12A8< B1 DDRA_CB0 1 8 DDRA_CB0_R B1
12A8< B1 DDRA_CB1 2 7 DDRA_CB1_R B1
12A8< B1 DDRA_DQS8 3 6 DDRA_DQS8_R B1
12A8< B1 DDRA_DQS17 4 5 DDRA_DQS17_R B1
10 5% .063W
16D2<> 17D2<> 18D8<>
16D2<> 17D2<> 18D8<>
16D2<> 17D2<> 18D8<>
16D3<> 17D2<> 18D8<>

RP15
12C8< B1 DDRA_DQ39 1 8 DDRA_DQ39_R B1
12C8< B1 DDRA_DQ44 2 7 DDRA_DQ44_R B1
12C8< B1 DDRA_DQ35 3 6 DDRA_DQ35_R B1
12C8< B1 DDRA_DQ40 4 5 DDRA_DQ40_R B1
10 5% .063W
16D5<> 17D5<> 18A8<>
16D6<> 17D5<> 18B8<>
16D5<> 17D5<> 18A8<>
16D5<> 17D5<> 18B8<>

RP16
12D8< B1 DDRA_DQ63 1 8 DDRA_DQ63_R B1
12D8< B1 DDRA_DQ58 2 7 DDRA_DQ58_R B1
12D8< B1 DDRA_DQ57 3 6 DDRA_DQ57_R B1
12D8< B1 DDRA_DQ59 4 5 DDRA_DQ59_R B1
10 5% .063W
16D7<> 17D6<> 18B8<>
16D6<> 17D6<> 18B8<>
16D6<> 17D6<> 18B8<>
16D6<> 17D6<> 18B8<>

RP17
12D8< B1 DDRA_DQ56 1 8 DDRA_DQ56_R B1
12D8< B1 DDRA_DQS16 2 7 DDRA_DQS16_R B1
12D8< B1 DDRA_DQ62 3 6 DDRA_DQ62_R B1
12D8< B1 DDRA_DQ57 4 5 DDRA_DQ57_R B1
10 5% .063W
16D6<> 17D6<> 18B6<>
16D7<> 17D6<> 18C6<>
16D7<> 17D6<> 18C6<>
16D6<> 17D6<> 18B6<>

RP18
12D8< B1 DDRA_DQS15 1 8 DDRA_DQS15_R B1
12D8< B1 DDRA_DQS6 2 7 DDRA_DQS6_R B1
12D8< B1 DDRA_DQ54 3 6 DDRA_DQ54_R B1
12D8< B1 DDRA_DQS5 4 5 DDRA_DQS5_R B1
10 5% .063W
16D6<> 17D6<> 18B8<>
16D6<> 17D6<> 18B8<>
16D6<> 17D6<> 18C8<>
16D6<> 17D6<> 18C8<>

RP19
12C8< B1 DDRA_DQ50 1 8 DDRA_DQ50_R B1
12D8< B1 DDRA_DQ60 2 7 DDRA_DQ60_R B1
12D8< B1 DDRA_DQ51 3 6 DDRA_DQ51_R B1
12D8< B1 DDRA_DQ61 4 5 DDRA_DQ61_R B1
10 5% .063W
16D6<> 17D6<> 18C8<>
16D7<> 17D6<> 18C8<>
16D6<> 17D6<> 18C8<>
16D7<> 17D6<> 18C8<>

RP20
12C8< B1 DDRA_DQ48 1 8 DDRA_DQ48_R B1
12D8< B1 DDRA_DQ52 2 7 DDRA_DQ52_R B1
12C8< B1 DDRA_DQ49 3 6 DDRA_DQ49_R B1
12D8< B1 DDRA_DQ53 4 5 DDRA_DQ53_R B1
10 5% .063W
16D6<> 17D6<> 18B8<>
16D6<> 17D6<> 18B8<>
16D6<> 17D6<> 18B8<>
16D6<> 17D6<> 18B8<>

RP21
12C8< B1 DDRA_DQ45 1 8 DDRA_DQ45_R B1
12C8< B1 DDRA_DQ41 2 7 DDRA_DQ41_R B1
12D8< B1 DDRA_DQS14 3 6 DDRA_DQS14_R B1
12C8< B1 DDRA_DQS5 4 5 DDRA_DQS5_R B1
10 5% .063W
16D6<> 17D5<> 18A8<>
16D5<> 17D5<> 18C6<>
16D6<> 17D5<> 18A8<>
16D5<> 17D5<> 18C6<>

RP22
12C8< B1 DDRA_DQ42 1 8 DDRA_DQ42_R B1
12C8< B1 DDRA_DQ46 2 7 DDRA_DQ46_R B1
12C8< B1 DDRA_DQ47 3 6 DDRA_DQ47_R B1
12C8< B1 DDRA_DQ43 4 5 DDRA_DQ43_R B1
10 5% .063W
16D5<> 17D5<> 18D6<>
16D6<> 17D5<> 18D6<>
16D6<> 17D5<> 18D6<>
16D5<> 17D5<> 18D6<>

RP23
12C8< B1 DDRA_DQS4 1 8 DDRA_DQS4_R B1
12C8< B1 DDRA_DQ34 2 7 DDRA_DQ34_R B1
12C8< B1 DDRA_DQ38 3 6 DDRA_DQ38_R B1
12C8< B1 DDRA_DQS13 4 5 DDRA_DQS13_R B1
10 5% .063W
16D5<> 17D5<> 18B6<>
16D5<> 17D5<> 18B6<>
16D5<> 17D5<> 18B6<>
16D5<> 17D5<> 18B6<>

RP24
12C8< B1 DDRA_DQ36 1 8 DDRA_DQ36_R B1
12C8< B1 DDRA_DQ32 2 7 DDRA_DQ32_R B1
12C8< B1 DDRA_DQ37 3 6 DDRA_DQ37_R B1
12C8< B1 DDRA_DQ33 4 5 DDRA_DQ33_R B1
10 5% .063W
16D5<> 17D5<> 18A8<>
16D5<> 17D5<> 18A8<>
16D5<> 17D5<> 18A8<>
16D5<> 17D5<> 18A8<>

RP25
12A8< B1 DDRA_CB2 1 8 DDRA_CB2_R B1
12A8< B1 DDRA_CB6 2 7 DDRA_CB6_R B1
12A8< B1 DDRA_CB3 3 6 DDRA_CB3_R B1
12A8< B1 DDRA_CB7 4 5 DDRA_CB7_R B1
10 5% .063W
16D2<> 17D2<> 18D8<
16D3<> 17D2<> 18C8<>
16D2<> 17D2<> 18D8<>
16D3<> 17D2<> 18C8<>

RP26
12B8< B1 DDRA_DQ24 1 8 DDRA_DQ24_R B1
12B8< B1 DDRA_DQ28 2 7 DDRA_DQ28_R B1
12B8< B1 DDRA_DQ29 3 6 DDRA_DQ29_R B1
12B8< B1 DDRA_DQ25 4 5 DDRA_DQ25_R B1
10 5% .063W
16D4<> 17D4<> 18D6<>
16D5<> 17D4<> 18D6<>
16D5<> 17D4<> 18D8<>
16D4<> 17D4<> 18D6<>

RP27
12B8< B1 DDRA_DQS3 1 8 DDRA_DQS3_R B1
12B8< B1 DDRA_DQS12 2 7 DDRA_DQS12_R B1
12B8< B1 DDRA_DQ30 3 6 DDRA_DQ30_R B1
12B8< B1 DDRA_DQ26 4 5 DDRA_DQ26_R B1
10 5% .063W
16D4<> 17D4<> 18B6<>
16D5<> 17D4<> 18D8<>
16D5<> 17D4<> 18D8<>
16D4<> 17D4<> 18B6<>

RP28
12B8< B1 DDRA_DQ17 1 8 DDRA_DQ17_R B1
12B8< B1 DDRA_DQ21 2 7 DDRA_DQ21_R B1
12B8< B1 DDRA_DQS2 3 6 DDRA_DQS2_R B1
12B8< B1 DDRA_DQS11 4 5 DDRA_DQS11_R B1
10 5% .063W
16D4<> 17D4<> 18A6<>
16D4<> 17D4<> 18A6<>
16D4<> 17D4<> 18A6<>
16D4<> 17D4<> 18A8<>

RP29
12B8< B1 DDRA_DQ18 1 8 DDRA_DQ18_R B1
12B8< B1 DDRA_DQ22 2 7 DDRA_DQ22_R B1
12B8< B1 DDRA_DQ23 3 6 DDRA_DQ23_R B1
12B8< B1 DDRA_DQ19 4 5 DDRA_DQ19_R B1
10 5% .063W
16D4<> 17D4<> 18A8<>
16D4<> 17D4<> 18A8<>
16D4<> 17D4<> 18B6<>
16D4<> 17D4<> 18A6<>

RP30
12A8< B1 DDRA_DQ10 1 8 DDRA_DQ10_R B1
12A8< B1 DDRA_DQ11 2 7 DDRA_DQ11_R B1
12B8< B1 DDRA_DQ20 3 6 DDRA_DQ20_R B1
12B8< B1 DDRA_DQ16 4 5 DDRA_DQ16_R B1
10 5% .063W
16D3<> 17D3<> 18A6<>
16D3<> 17D3<> 18A6<>
16D4<> 17D4<> 18A6<>
16D4<> 17D4<> 18A6<>

RP31
12A8< B1 DDRA_DQ8 1 8 DDRA_DQ8_R B1
12B8< B1 DDRA_DQ12 2 7 DDRA_DQ12_R B1
12A8< B1 DDRA_DQ9 3 6 DDRA_DQ9_R B1
12A8< B1 DDRA_DQS1 4 5 DDRA_DQS1_R B1
10 5% .063W
16D3<> 17D3<> 18C6<>
16D4<> 17D3<> 18C6<>
16D3<> 17D3<> 18D6<>
16D3<> 17D3<> 18D6<>

RP32
12B8< B1 DDRA_DQ13 1 8 DDRA_DQ13_R B1
12A8< B1 DDRA_DQS10 2 7 DDRA_DQS10_R B1
12B8< B1 DDRA_DQ14 3 6 DDRA_DQ14_R B1
12B8< B1 DDRA_DQ15 4 5 DDRA_DQ15_R B1
10 5% .063W
16D4<> 17D3<> 18D6<>
16D4<> 17D3<> 18C6<>
16D4<> 17D3<> 18A6<>
16D4<> 17D3<> 18A6<>

RP33
12A8< B1 DDRA_DQ1 1 8 DDRA_DQ1_R B1
12A8< B1 DDRA_DQS9 2 7 DDRA_DQS9_R B1
12A8< B1 DDRA_DQS0 3 6 DDRA_DQS0_R B1
12A8< B1 DDRA_DQ6 4 5 DDRA_DQ6_R B1
10 5% .063W
16D3<> 17D3<> 22A8<>
16D3<> 17D3<> 18C6<>
16D3<> 17D3<> 18C6<>
16D3<> 17D3<> 18C6<>

RP34
12A8< B1 DDRA_DQ2 1 8 DDRA_DQ2_R B1
12A8< B1 DDRA_DQ7 2 7 DDRA_DQ7_R B1
12A8< B1 DDRA_DQ3 3 6 DDRA_DQ3_R B1
4 5
10 5% .063W
16D3<> 17D3<> 18C6<>
16D3<> 17D3<> 18C6<>
16D3<> 17D3<> 18C6<>

DRAWING

PLACE NEAR DIMM A-1

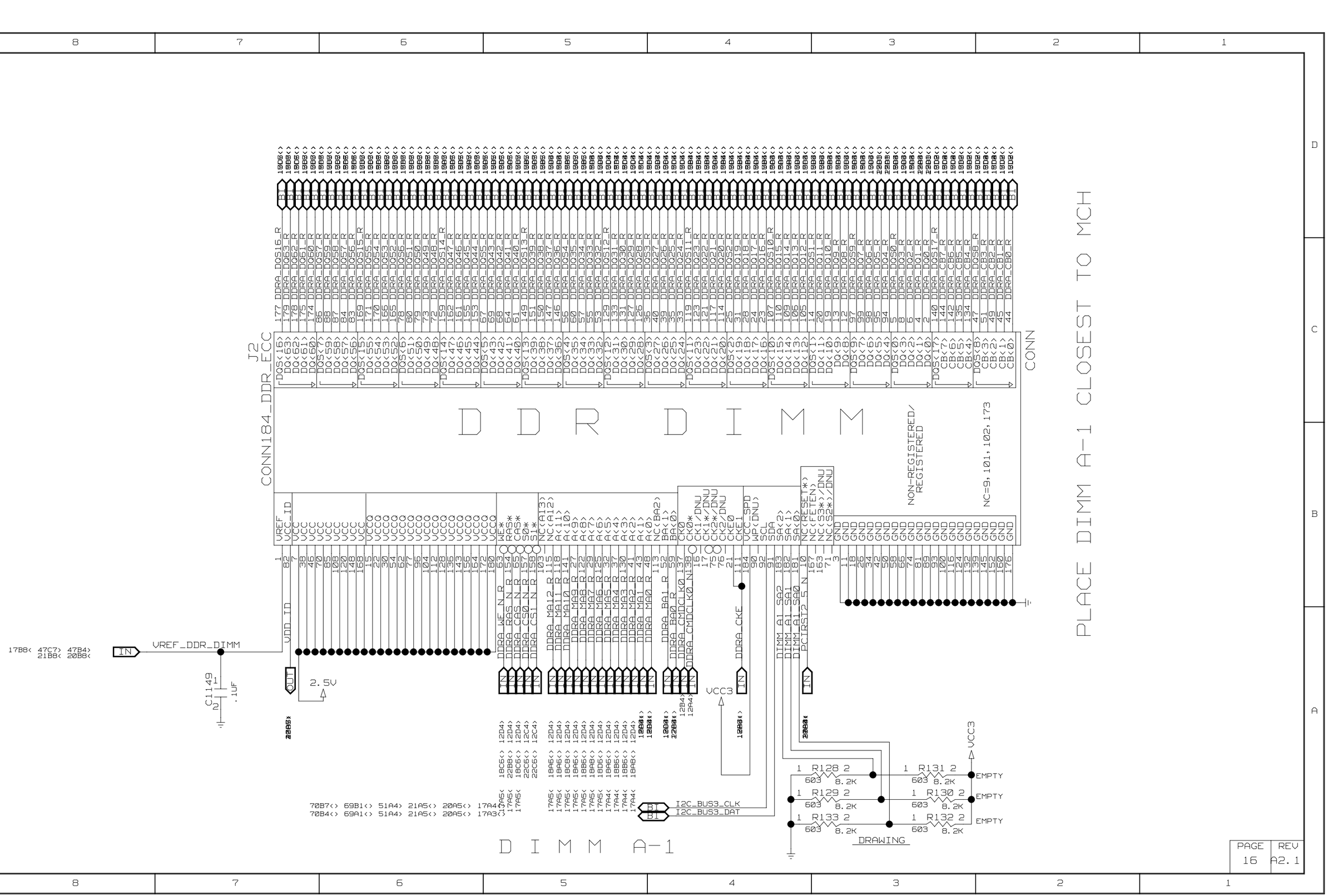
RP35
12A8< B1 DDRA_DQ0 1 8 DDRA_DQ0_R B1
12A8< B1 DDRA_DQ4 3 6 DDRA_DQ4_R B1
12A8< B1 DDRA_DQ5 4 5 DDRA_DQ5_R B1
10 5% .063W
22A8<>
16D3<> 17D3<>
16D3<> 17D3<>
16D3<> 17D3<>
22A8<>

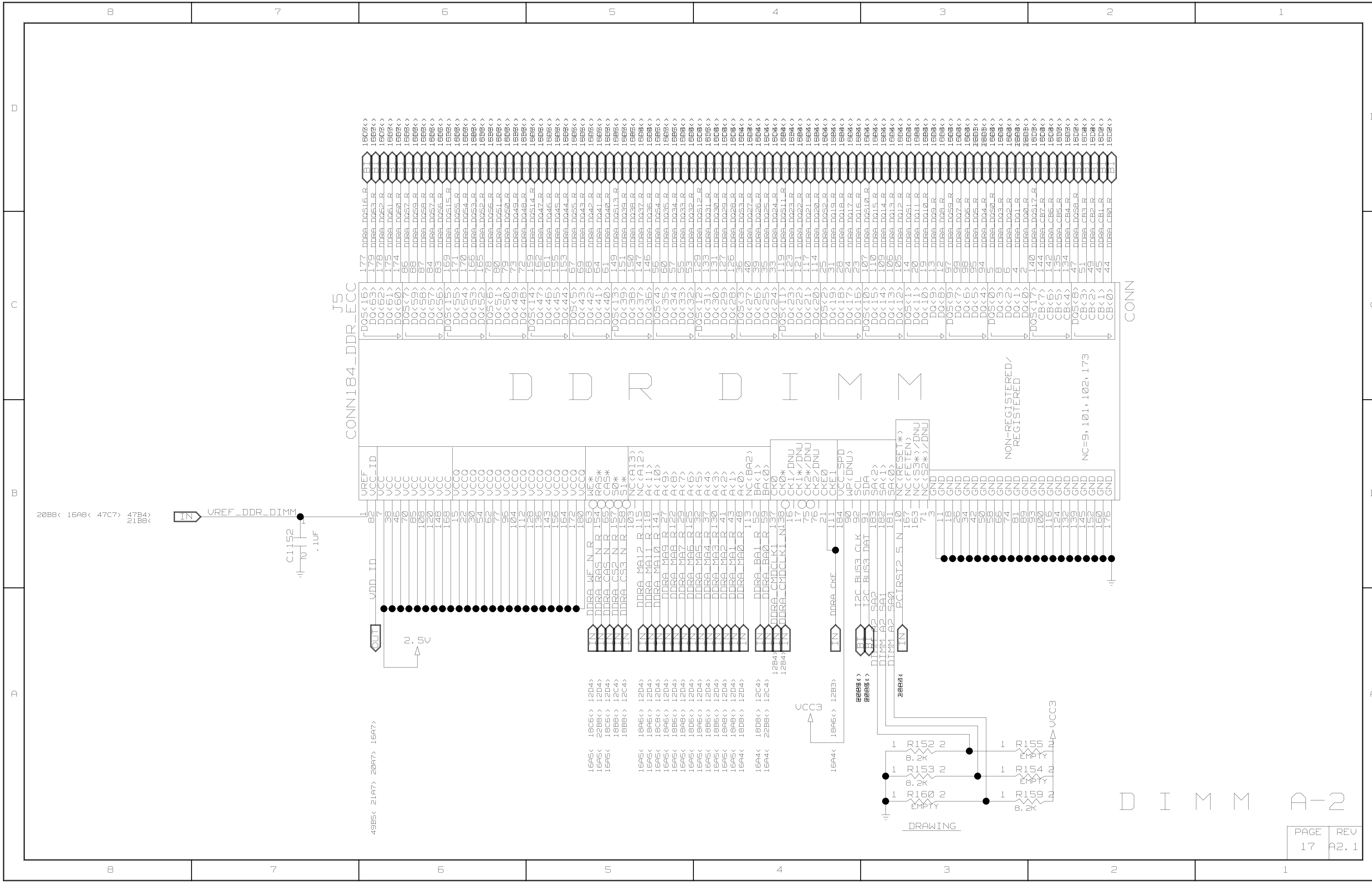
2.5V
C843 1 2 1UF 10%
C842 1 2 1UF 10%
C841 1 2 1UF 10%
C840 1 2 1UF 10%
C839 1 2 1UF 10%
C838 1 2 1UF 10% 16V 603
0.1UF BACKSIDE OR FRONTSIDE CAPS
6 CAPS BETWEEN EACH PAIR OF DIMMS

2.5V
C765 1 2 100UF 20% 6.3V TANT 6032
C764 1 2 100UF 20% 6.3V TANT 6032
C763 1 2 100UF 20% 6.3V TANT 6032
C762 1 2 100UF 20% 6.3V TANT 6032
C761 1 2 100UF 20% 6.3V TANT 6032
C760 1 2 100UF 20% 6.3V TANT 6032
PLACE 100UF CAPS SURROUNDING CHANNEL A DIMMS

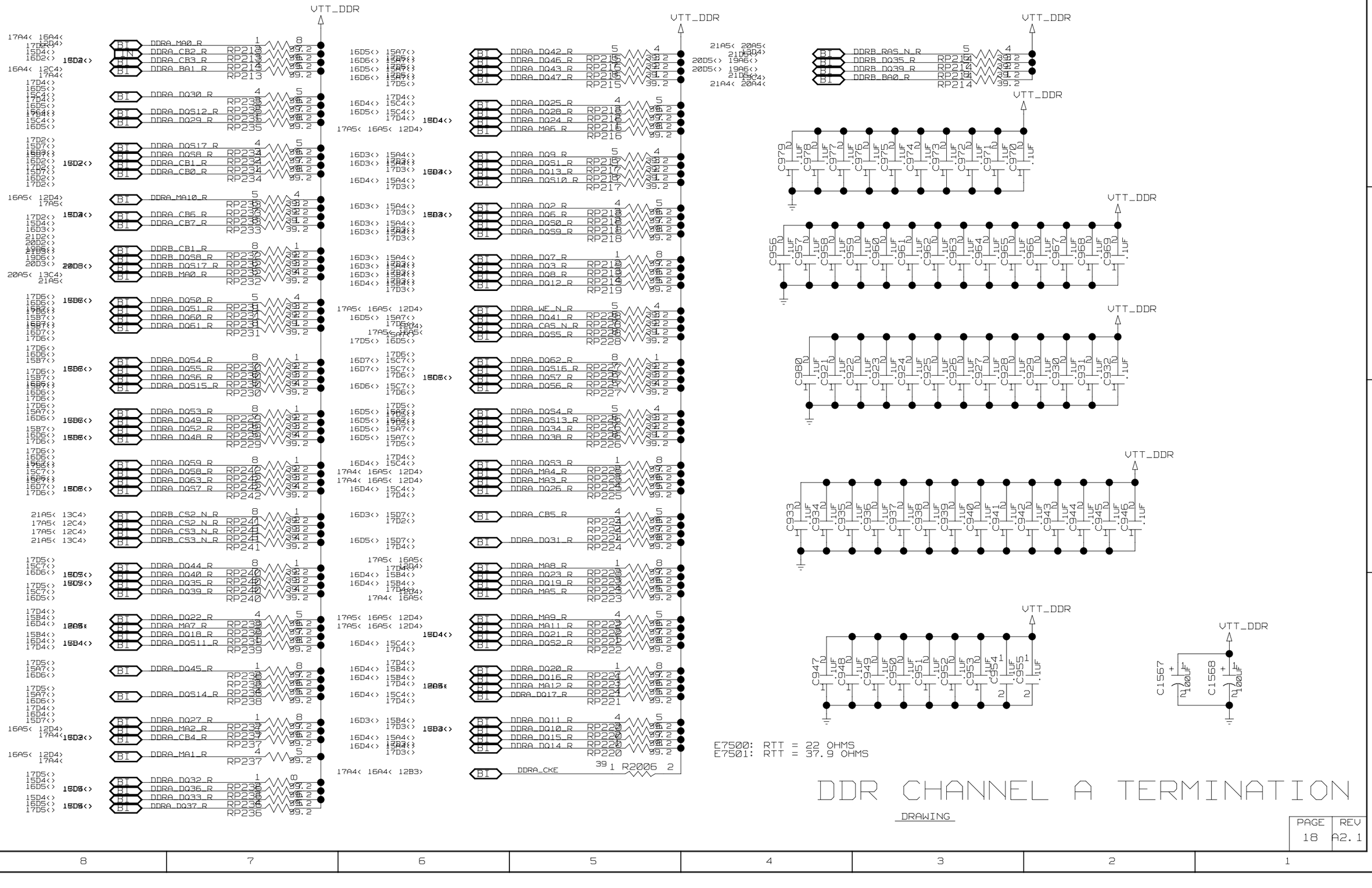
CAD NOTE:
ALL CAPS SHOULD HAVE DIRECT CONNECTION
TO 2.5V PLANE AND 2 VIAS TO GND.

PAGE	REV
15	A2.1


DDR DIMM A-1
PLACE DIMM A-1 CLOSEST TO MCH
J2
CONN184_DDR_ECC
CONN
VREF_DDR_DIMM
VDD_ID
2.5V
C1149
.1UF
DDRA_WE_N_R
DDRA_RAS_N_R
DDRA_CAS_N_R
DDRA_CS0_N_R
DDRA_CS1
DDRA_MA12_R
DDRA_MA11_R
DDRA_MA10_R
DDRA_MA9_R
DDRA_MA8_R
DDRA_MA7_R
DDRA_MA6_R
DDRA_MA5_R
DDRA_MA4_R
DDRA_MA3_R
DDRA_MA2_R
DDRA_MA1_R
DDRA_MA0_R
DDRA_BA1_R
DDRA_BA0_R
DDRA_CMDCLK0_N
DDRA_CMDCLK0
DDRA_CKE
VCC3
DIMM_A1_SA2
DIMM_A1_SA1
DIMM_A1_SA0
PCIRST2_5_N
NON-REGISTERED/
REGISTERED
NC=9,101,102,173
I2C_BUS3_CLK
I2C_BUS3_DAT
R128 2 603 8.2K
R131 2 603 8.2K
R129 2 603 8.2K
R130 2 603 8.2K
R133 2 603 8.2K
R132 2 603 8.2K
EMPTY
DRAWING
DIMM A-1
PAGE 16
REV A2.1



J5
CONN184_DDR_ECC
DDR DIMM
CONN
NON-REGISTERED/ REGISTERED
NC=9,101,102,173
VREF_DDR_DIMM
C1152
.1UF
VDD_ID
2.5V
DDRA_CKE
VCC3
I2C_BUS3_CLK
I2C_BUS3_DAT
DIMM_A2_SA2
DIMM_A2_SA1
DIMM_A2_SA0
PCIRST2_5_N
R152
R153
R160
R155
R154
R159
8.2K
EMPTY
DRAWING
DIMM A-2
PAGE 17
REV A2.1



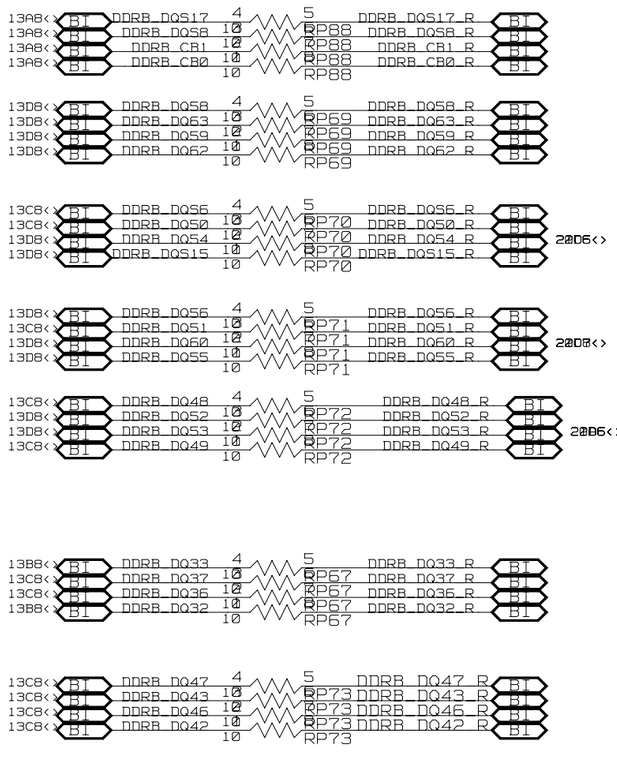
E7500: RTT = 22 OHMS
E7501: RTT = 37.9 OHMS

DDR CHANNEL A TERMINATION

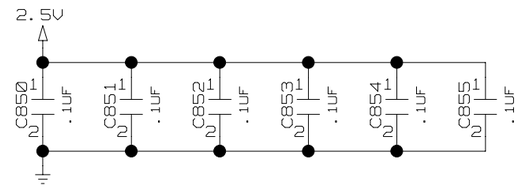
DRAWING

PAGE	REV
18	A2.1

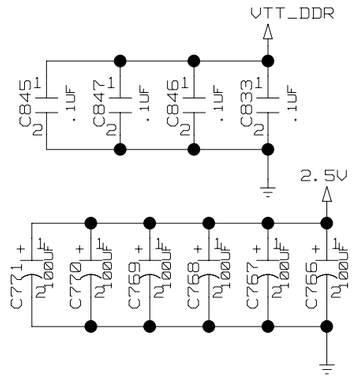
D D R CHANNEL B SERIES RESISTORS



PLACE NEAR D I M M B-1



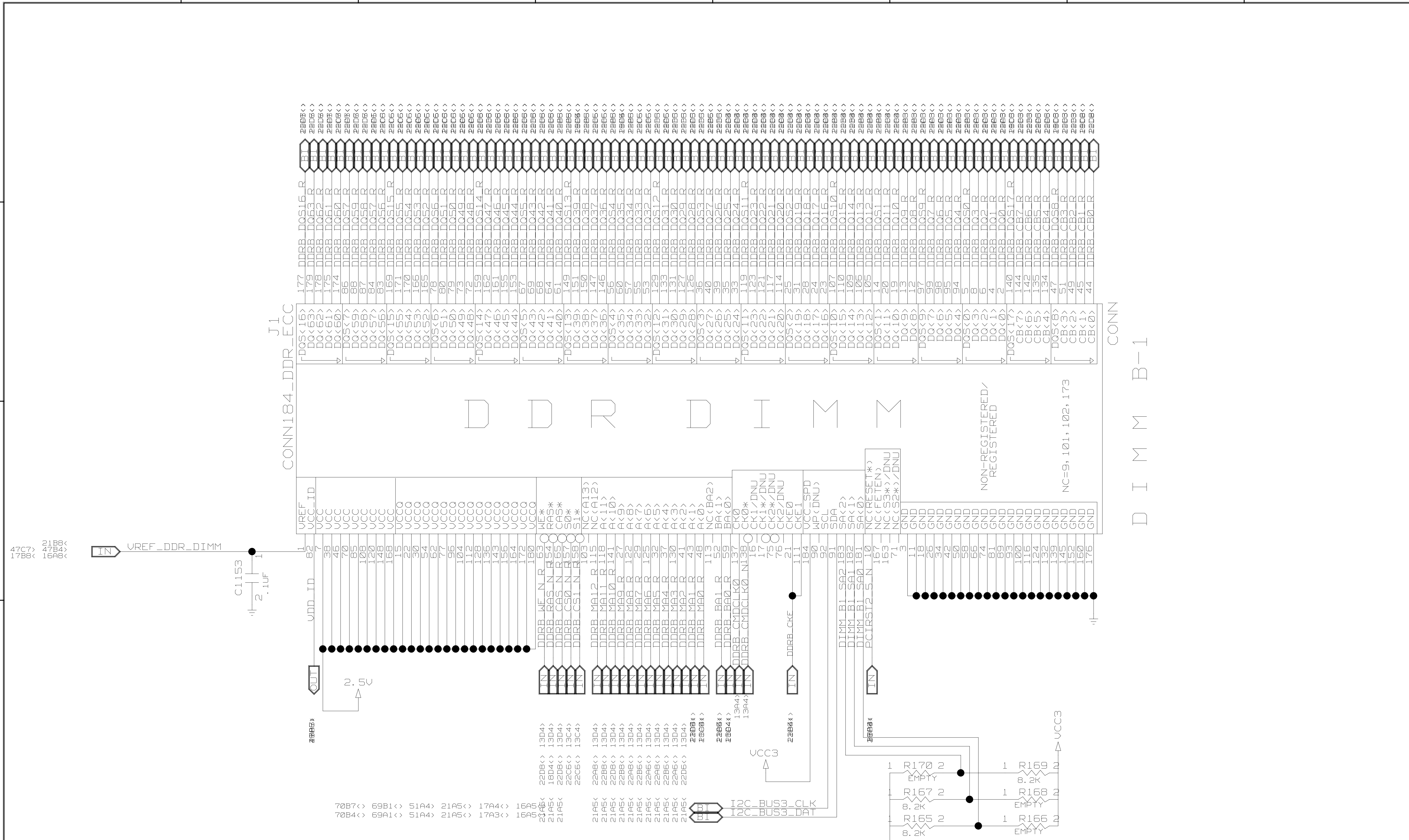
0.1 UF BACKSIDE OR FRONTSIDE CAPS
6 CAPS BETWEEN EACH PAIR OF DIMMS



PLACE 100UF CAPS SURROUNDING CHAN B DIMMS
CAD NOTE: ALL CAPS SHOULD HAVE
DIRECT ATTACHMENT TO 2.5V PLANE,
AND 2 VIAS TO GND

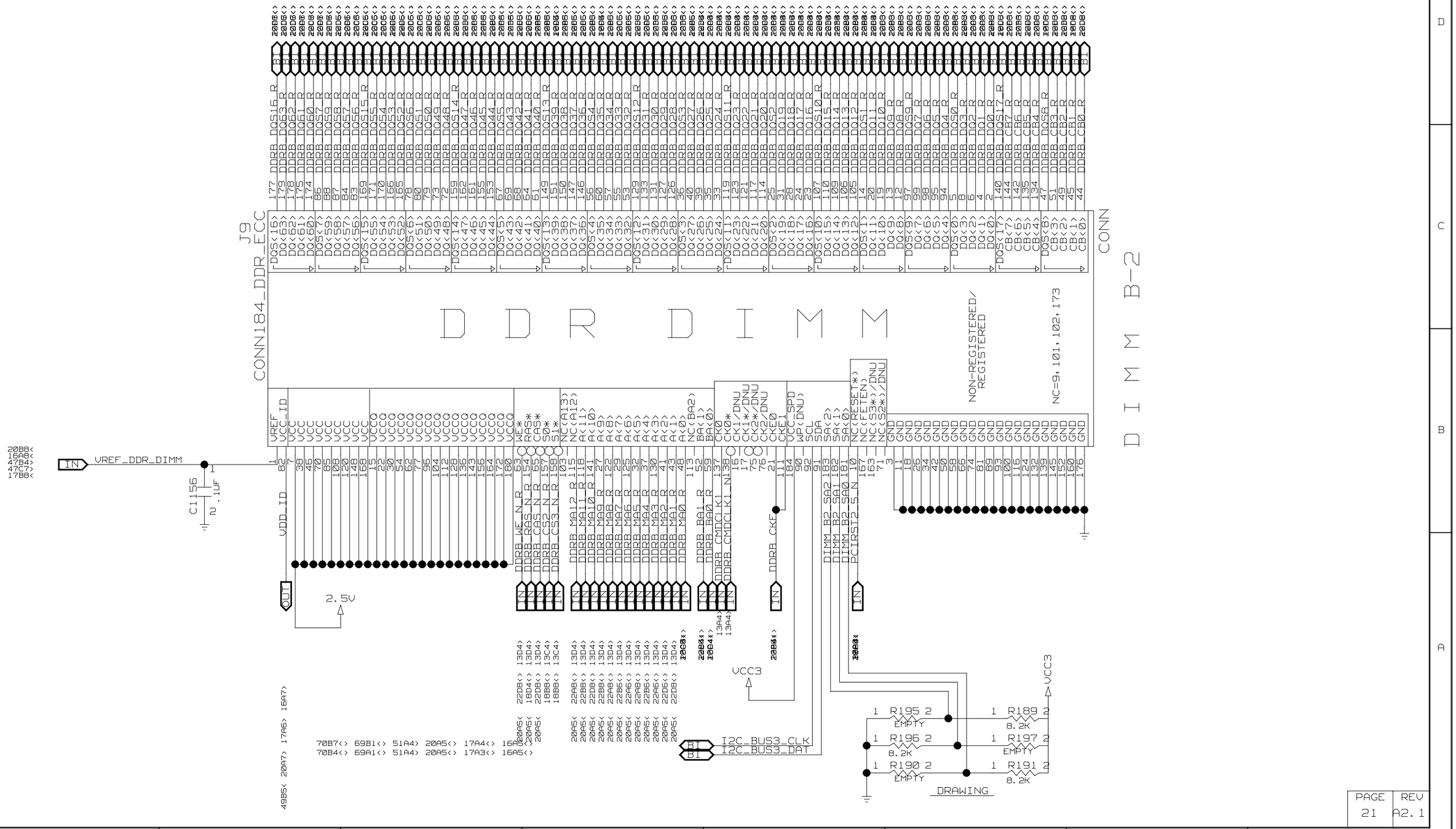
DRAWING

PAGE	REV
19	A2.1

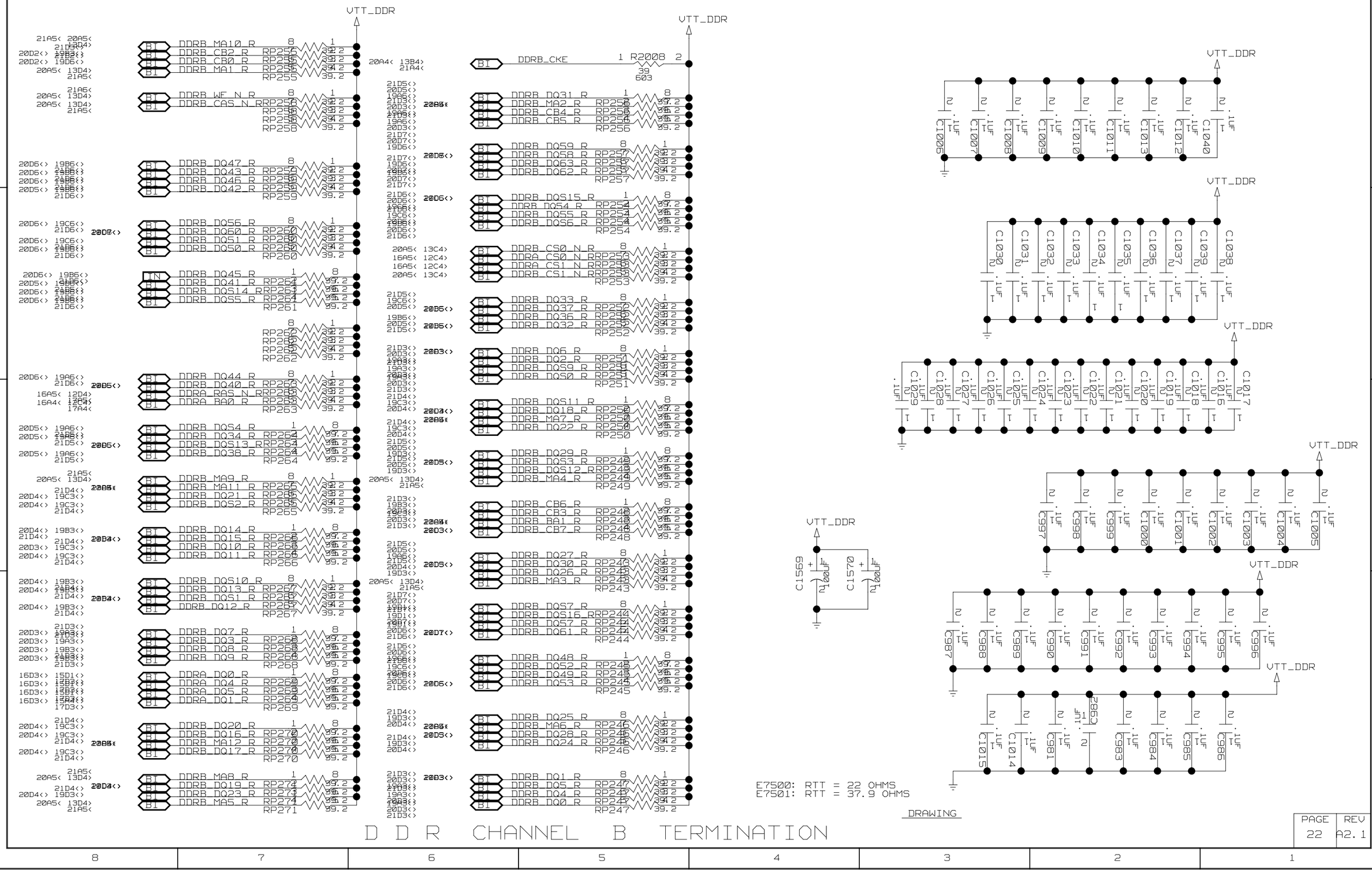


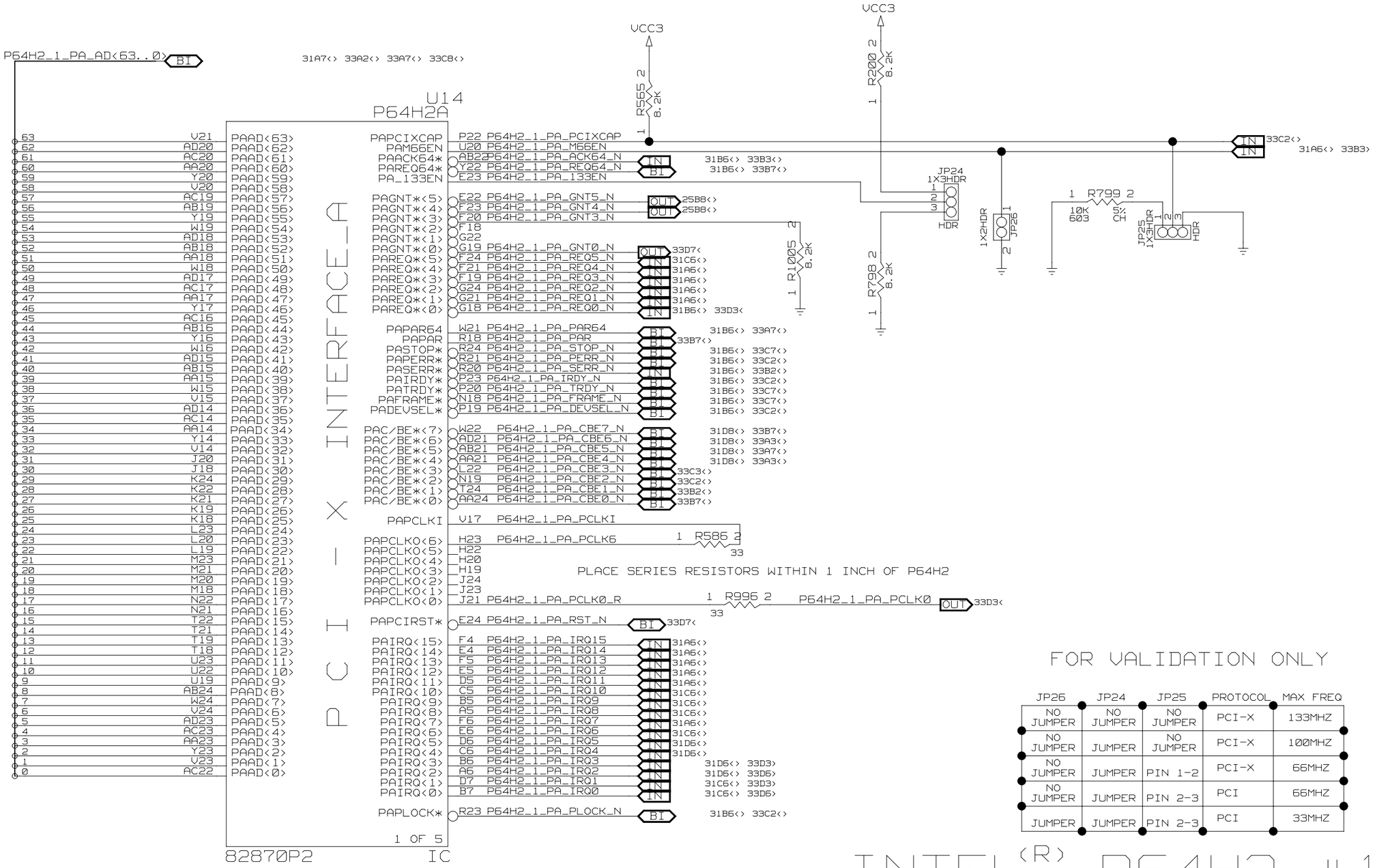
PLACE DIMM B - 1 CLOSEST TO MCH

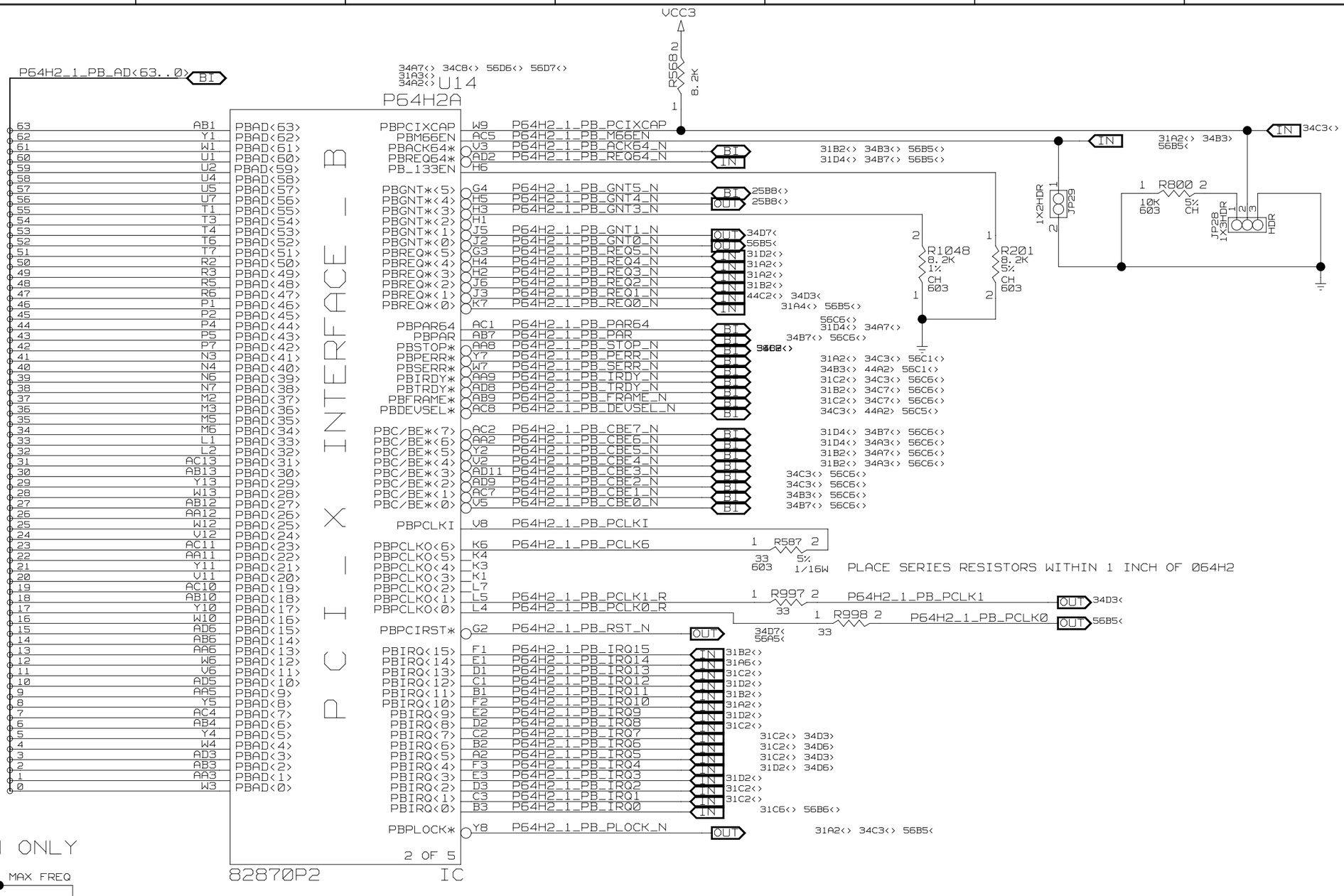
PAGE	REV
20	A2.1

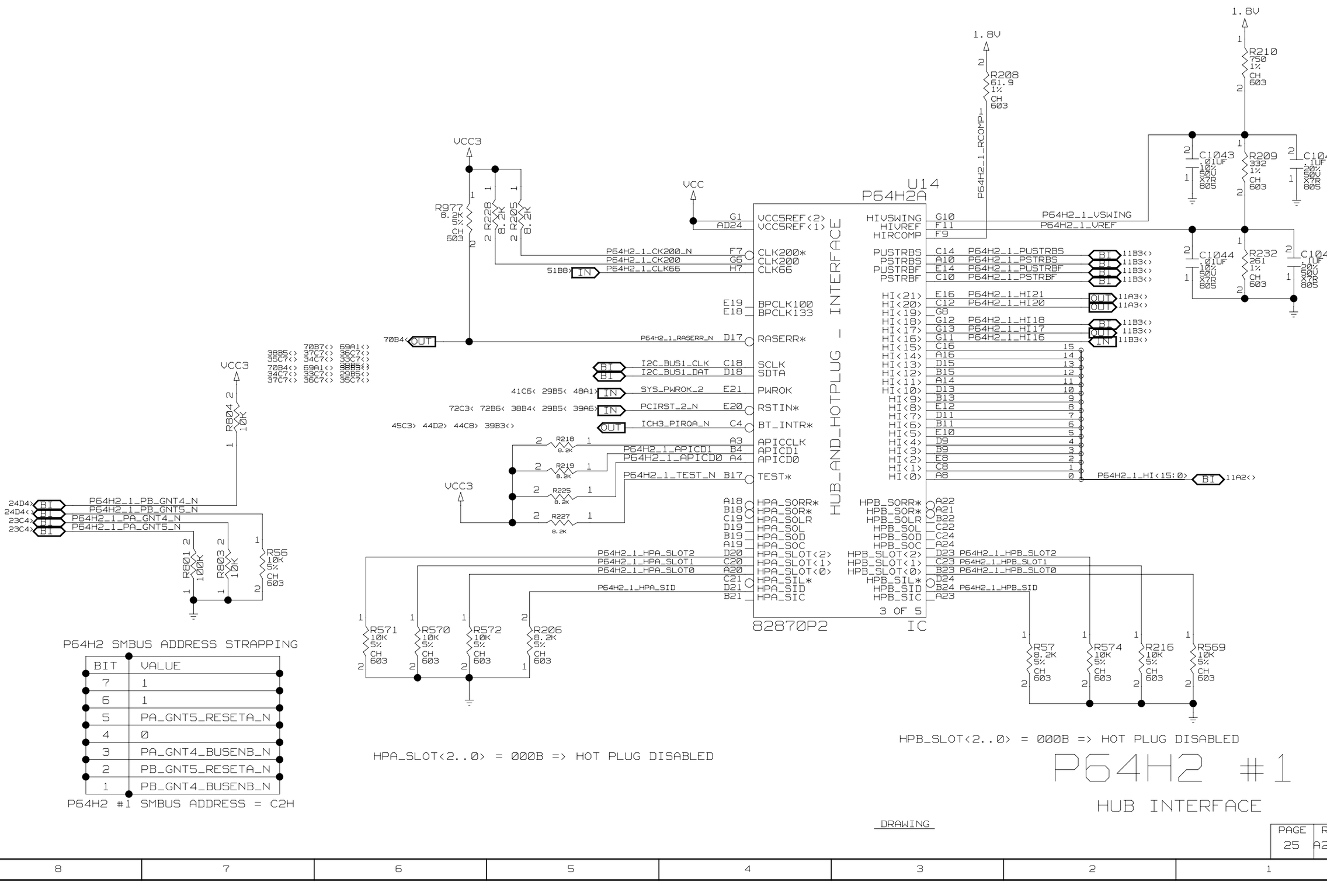


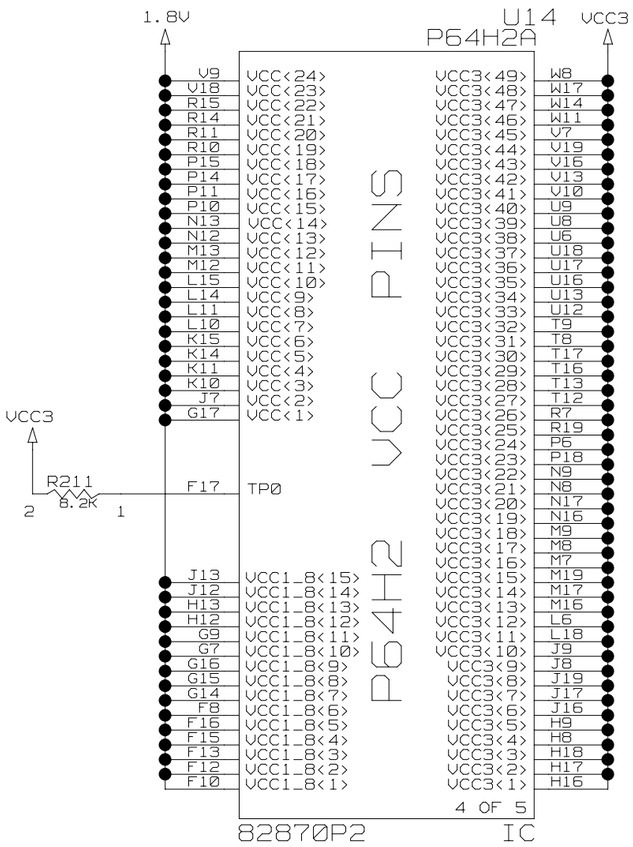
PAGE	REV
21	A2.1

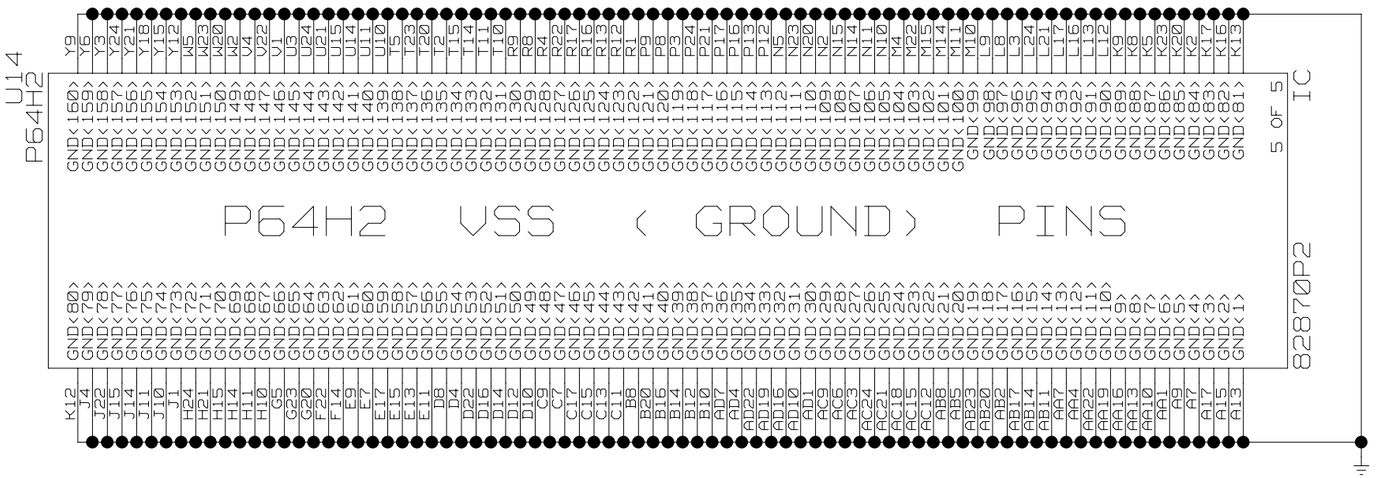

VTT_DDR
DDRB_MA10_R RP255
DDRB_CB2_R RP255
DDRB_CB0_R RP255
DDRB_MA1_R RP255
DDRB_WE_N_R RP256
DDRB_CAS_N_R RP256
DDRB_DQ47_R RP259
DDRB_DQ43_R RP259
DDRB_DQ46_R RP259
DDRB_DQ42_R RP259
DDRB_DQ56_R RP260
DDRB_DQ60_R RP260
DDRB_DQ51_R RP260
DDRB_DQ50_R RP260
DDRB_DQ45_R RP261
DDRB_DQ41_R RP261
DDRB_DQS14_R RP261
DDRB_DQS5_R RP261
RP262
DDRB_DQ44_R RP263
DDRB_DQ40_R RP263
DDRA_RAS_N_R RP263
DDRA_BA0_R RP263
DDRB_DQS4_R RP264
DDRB_DQ34_R RP264
DDRB_DQS13_R RP264
DDRB_DQ38_R RP264
DDRB_MA9_R RP265
DDRB_MA11_R RP265
DDRB_DQ21_R RP265
DDRB_DQS2_R RP265
DDRB_DQ14_R RP266
DDRB_DQ15_R RP266
DDRB_DQ10_R RP266
DDRB_DQ11_R RP266
DDRB_DQS10_R RP267
DDRB_DQ13_R RP267
DDRB_DQS1_R RP267
DDRB_DQ12_R RP267
DDRB_DQ7_R RP268
DDRB_DQ3_R RP268
DDRB_DQ8_R RP268
DDRB_DQ9_R RP268
DDRA_DQ0_R RP269
DDRA_DQ4_R RP269
DDRA_DQ5_R RP269
DDRA_DQ1_R RP269
DDRB_DQ20_R RP270
DDRB_DQ16_R RP270
DDRB_MA12_R RP270
DDRB_DQ17_R RP270
DDRB_MA8_R RP271
DDRB_DQ19_R RP271
DDRB_DQ23_R RP271
DDRB_MA5_R RP271
VTT_DDR
DDRB_CKE R2008 603
DDRB_DQ31_R RP256
DDRB_MA2_R RP256
DDRB_CB4_R RP256
DDRB_CB5_R RP256
DDRB_DQS9_R RP257
DDRB_DQ58_R RP257
DDRB_DQ63_R RP257
DDRB_DQ62_R RP257
DDRB_DQS15_R RP254
DDRB_DQ54_R RP254
DDRB_DQ55_R RP254
DDRB_DQS6_R RP254
DDRB_CS0_N_R RP253
DDRA_CS0_N_R RP253
DDRA_CS1_N_R RP253
DDRB_CS1_N_R RP253
DDRB_DQ33_R RP252
DDRB_DQ37_R RP252
DDRB_DQ36_R RP252
DDRB_DQ32_R RP252
DDRB_DQ6_R RP251
DDRB_DQ2_R RP251
DDRB_DQS9_R RP251
DDRB_DQS0_R RP251
DDRB_DQS11_R RP250
DDRB_DQ18_R RP250
DDRB_MA7_R RP250
DDRB_DQ22_R RP250
DDRB_DQ29_R RP249
DDRB_DQS3_R RP249
DDRB_DQS12_R RP249
DDRB_MA4_R RP249
DDRB_CB6_R RP248
DDRB_CB3_R RP248
DDRB_BA1_R RP248
DDRB_CB7_R RP248
DDRB_DQ27_R RP243
DDRB_DQ30_R RP243
DDRB_DQ26_R RP243
DDRB_MA3_R RP243
DDRB_DQS7_R RP244
DDRB_DQS16_R RP244
DDRB_DQS7_R RP244
DDRB_DQ61_R RP244
DDRB_DQ48_R RP245
DDRB_DQ52_R RP245
DDRB_DQ49_R RP245
DDRB_DQ53_R RP245
DDRB_DQ25_R RP246
DDRB_MA6_R RP246
DDRB_DQ28_R RP246
DDRB_DQ24_R RP246
DDRB_DQ1_R RP247
DDRB_DQ5_R RP247
DDRB_DQ4_R RP247
DDRB_DQ0_R RP247
C1005 C1007 C1008 C1009 C1010 C1011 C1013 C1012 C1040
C1030 C1031 C1032 C1033 C1034 C1035 C1036 C1037 C1039 C1038
C1029 C1028 C1027 C1026 C1025 C1024 C1023 C1022 C1021 C1020 C1019 C1018 C1016 C1017
C997 C998 C999 C1000 C1001 C1002 C1003 C1004 C1005
C987 C988 C989 C990 C991 C992 C993 C994 C995 C996
C1015 C1014 C981 C983 C984 C985 C986
C1559 C1570 100UF
C2862 1UF
E7500: RTT = 22 OHMS
E7501: RTT = 37.9 OHMS
DRAWING
D D R CHANNEL B TERMINATION
PAGE 22
REV A2.1

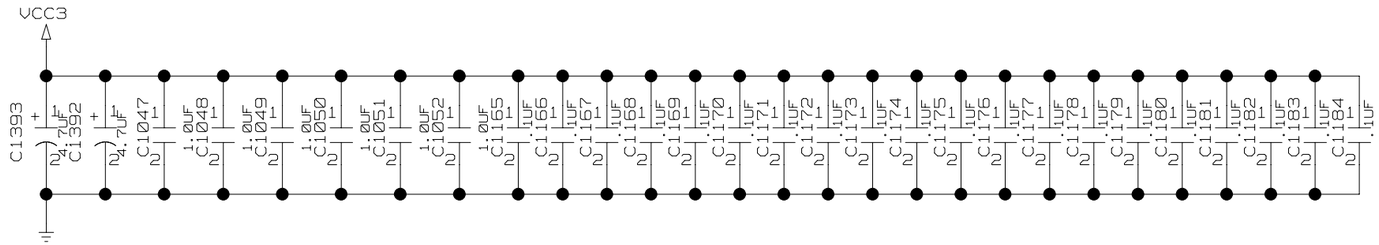

P64H2_1_PA_AD<63..0>
BI
31A7<> 33A2<> 33A7<> 33C8<>
U14
P64H2A
INTERFACE_A
PCI-X
82870P2
IC
1 OF 5
VCC3
R565 2 8.2K
R200 2 8.2K
R798 2 8.2K
R1005 2 8.2K
R799 2
10K
JP24 1X3HDR
JP26 1X2HDR
JP25 1X3HDR
HDR
PAPCIXCAP P22 P64H2_1_PA_PCIXCAP
PAM66EN U20 P64H2_1_PA_M66EN
PAACK64* AB22 P64H2_1_PA_ACK64_N
PAREQ64* Y22 P64H2_1_PA_REQ64_N
PA_133EN E23 P64H2_1_PA_133EN
PAGNT*<5> F22 P64H2_1_PA_GNT5_N
PAGNT*<4> F23 P64H2_1_PA_GNT4_N
PAGNT*<3> F20 P64H2_1_PA_GNT3_N
PAGNT*<2> F18
PAGNT*<1> G22
PAGNT*<0> G19 P64H2_1_PA_GNT0_N
PAREQ*<5> F24 P64H2_1_PA_REQ5_N
PAREQ*<4> F21 P64H2_1_PA_REQ4_N
PAREQ*<3> F19 P64H2_1_PA_REQ3_N
PAREQ*<2> G24 P64H2_1_PA_REQ2_N
PAREQ*<1> G21 P64H2_1_PA_REQ1_N
PAREQ*<0> G18 P64H2_1_PA_REQ0_N
PAPAR64 W21 P64H2_1_PA_PAR64
PAPAR R18 P64H2_1_PA_PAR
PASTOP* R24 P64H2_1_PA_STOP_N
PAPERR* R21 P64H2_1_PA_PERR_N
PASERR* R20 P64H2_1_PA_SERR_N
PAIRDY* P23 P64H2_1_PA_IRDY_N
PATRDY* P20 P64H2_1_PA_TRDY_N
PAFRAME* N18 P64H2_1_PA_FRAME_N
PADEVSEL* P19 P64H2_1_PA_DEVSEL_N
PAC/BE*<7> W22 P64H2_1_PA_CBE7_N
PAC/BE*<6> AD21 P64H2_1_PA_CBE6_N
PAC/BE*<5> AB21 P64H2_1_PA_CBE5_N
PAC/BE*<4> AA21 P64H2_1_PA_CBE4_N
PAC/BE*<3> L22 P64H2_1_PA_CBE3_N
PAC/BE*<2> N19 P64H2_1_PA_CBE2_N
PAC/BE*<1> T24 P64H2_1_PA_CBE1_N
PAC/BE*<0> AA24 P64H2_1_PA_CBE0_N
PAPCLKI V17 P64H2_1_PA_PCLKI
PAPCLKO<6> H23 P64H2_1_PA_PCLK6
PAPCLKO<5> H22
PAPCLKO<4> H20
PAPCLKO<3> H19
PAPCLKO<2> J24
PAPCLKO<1> J23
PAPCLKO<0> J21 P64H2_1_PA_PCLK0_R
PAPCIRST* E24 P64H2_1_PA_RST_N
PAIRQ<15> F4 P64H2_1_PA_IRQ15
PAIRQ<14> E4 P64H2_1_PA_IRQ14
PAIRQ<13> F5 P64H2_1_PA_IRQ13
PAIRQ<12> E5 P64H2_1_PA_IRQ12
PAIRQ<11> D5 P64H2_1_PA_IRQ11
PAIRQ<10> C5 P64H2_1_PA_IRQ10
PAIRQ<9> B5 P64H2_1_PA_IRQ9
PAIRQ<8> A5 P64H2_1_PA_IRQ8
PAIRQ<7> F6 P64H2_1_PA_IRQ7
PAIRQ<6> E6 P64H2_1_PA_IRQ6
PAIRQ<5> D6 P64H2_1_PA_IRQ5
PAIRQ<4> C6 P64H2_1_PA_IRQ4
PAIRQ<3> B6 P64H2_1_PA_IRQ3
PAIRQ<2> A6 P64H2_1_PA_IRQ2
PAIRQ<1> D7 P64H2_1_PA_IRQ1
PAIRQ<0> B7 P64H2_1_PA_IRQ0
PAPLOCK* R23 P64H2_1_PA_PLOCK_N
R586 2 33
R996 2 33
P64H2_1_PA_PCLK0
PLACE SERIES RESISTORS WITHIN 1 INCH OF P64H2
33C2<>
31A6<> 33B3>
31B6<> 33B3<>
31B6<> 33B7<>
25B8<>
33D7<
31C6<>
31A6<>
31B6<> 33D3<
31B6<> 33A7<>
33B7<>
31B6<> 33C7<>
31B6<> 33C2<>
31B6<> 33B2<>
31B6<> 33C7<>
31B6<> 33C7<>
31B6<> 33C2<>
31D8<> 33B7<>
31D8<> 33A3<>
31D8<> 33A7<>
31D8<> 33A3<>
33C3<>
33C2<>
33B2<>
33B7<>
33D3<
31D6<> 33D3>
31D6<> 33D6>
31C6<> 33D3>
31C6<> 33D6>
31B6<> 33C2<>
FOR VALIDATION ONLY
JP26 JP24 JP25 PROTOCOL MAX FREQ
NO JUMPER NO JUMPER NO JUMPER PCI-X 133MHZ
NO JUMPER JUMPER NO JUMPER PCI-X 100MHZ
NO JUMPER JUMPER PIN 1-2 PCI-X 66MHZ
NO JUMPER JUMPER PIN 2-3 PCI 66MHZ
JUMPER JUMPER PIN 2-3 PCI 33MHZ
INTEL(R) P64H2 #1
133MHZ SLOT1
DRAWING
PAGE 23
REV A2.1


P64H2_1_PB_AD<63..0>
U14
P64H2A
X INTERFACE - B
PCI
82870P2 IC
2 OF 5
VCC3
R568 2
8.2K
R587 2
33
5%
1/16W
PLACE SERIES RESISTORS WITHIN 1 INCH OF 064H2
R997 2
R998 2
R1048
8.2K
1%
CH
603
R201
8.2K
5%
R800 2
10K
JP29
1X2HDR
JP28
1X3HDR
HDR
FOR VALIDATION ONLY
JP29 JP28 PROTOCOL MAX FREQ
NO JUMPER | NO JUMPER | PCI-X | 100MHZ
NO JUMPER | PIN 1-2 | PCI-X | 66MHZ
NO JUMPER | PIN 2-3 | PCI | 66MHZ
JUMPER | PIN 2-3 | PCI | 33MHZ
DRAWING
P64H2 #1
100MHZ PCI-X SLOT
AND LAN CONTROLLER
PAGE 24
REV A2.1


U14
P64H2A
HUB_AND_HOTPLUG - INTERFACE
82870P2
IC
3 OF 5
VCC3
VCC
1.8V
VCC5REF<2>
VCC5REF<1>
P64H2_1_CK200_N
P64H2_1_CK200
P64H2_1_CLK66
CLK200*
CLK200
CLK66
BPCLK100
BPCLK133
RASERR*
SCLK
SDTA
PWROK
RSTIN*
BT_INTR*
APICCLK
APICD1
APICD0
TEST*
HPA_SORR*
HPA_SOR*
HPA_SOLR
HPA_SOL
HPA_SOD
HPA_SOC
HPA_SLOT<2>
HPA_SLOT<1>
HPA_SLOT<0>
HPA_SIL*
HPA_SID
HPA_SIC
HIVSWING
HIVREF
HIRCOMP
P64H2_1_RCOMP
P64H2_1_VSWING
P64H2_1_VREF
PUSTRBS
PSTRBS
PUSTRBF
PSTRBF
HI<21>
HI<20>
HI<18>
HI<17>
HI<16>
HI<15:0>
HPB_SORR*
HPB_SOR*
HPB_SOLR
HPB_SOL
HPB_SOD
HPB_SOC
HPB_SLOT<2>
HPB_SLOT<1>
HPB_SLOT<0>
HPB_SIL*
HPB_SID
HPB_SIC
P64H2_1_HPA_SLOT2
P64H2_1_HPA_SLOT1
P64H2_1_HPA_SLOT0
P64H2_1_HPA_SID
P64H2_1_HPB_SLOT2
P64H2_1_HPB_SLOT1
P64H2_1_HPB_SLOT0
P64H2_1_HPB_SID
R977 8.2K 5%
R228 8.2K
R205 8.2K
R208 61.9 1%
R210 750 1%
R209 332 1%
R232 261 1%
C1043 .01UF 10% 50V X7R 805
C1041 .1UF 20% 50V X7R 805
C1044 .01UF 10% 50V X7R 805
C1042 .1UF 20% 50V X7R 805
R804 10K
R801 100K
R803 10K
R56 10K 5%
R218 8.2K
R219 8.2K
R225 8.2K
R227 8.2K
R571 10K 5%
R570 10K 5%
R572 10K 5%
R206 8.2K 5%
R57 8.2K 5%
R574 10K 5%
R216 10K 5%
R569 10K 5%
CH 603
P64H2 SMBUS ADDRESS STRAPPING
BIT
VALUE
7 1
6 1
5 PA_GNT5_RESETA_N
4 0
3 PA_GNT4_BUSENB_N
2 PB_GNT5_RESETA_N
1 PB_GNT4_BUSENB_N
P64H2 #1 SMBUS ADDRESS = C2H
HPA_SLOT<2..0> = 000B => HOT PLUG DISABLED
HPB_SLOT<2..0> = 000B => HOT PLUG DISABLED
P64H2 #1
HUB INTERFACE
DRAWING
PAGE 25
REV A2.1





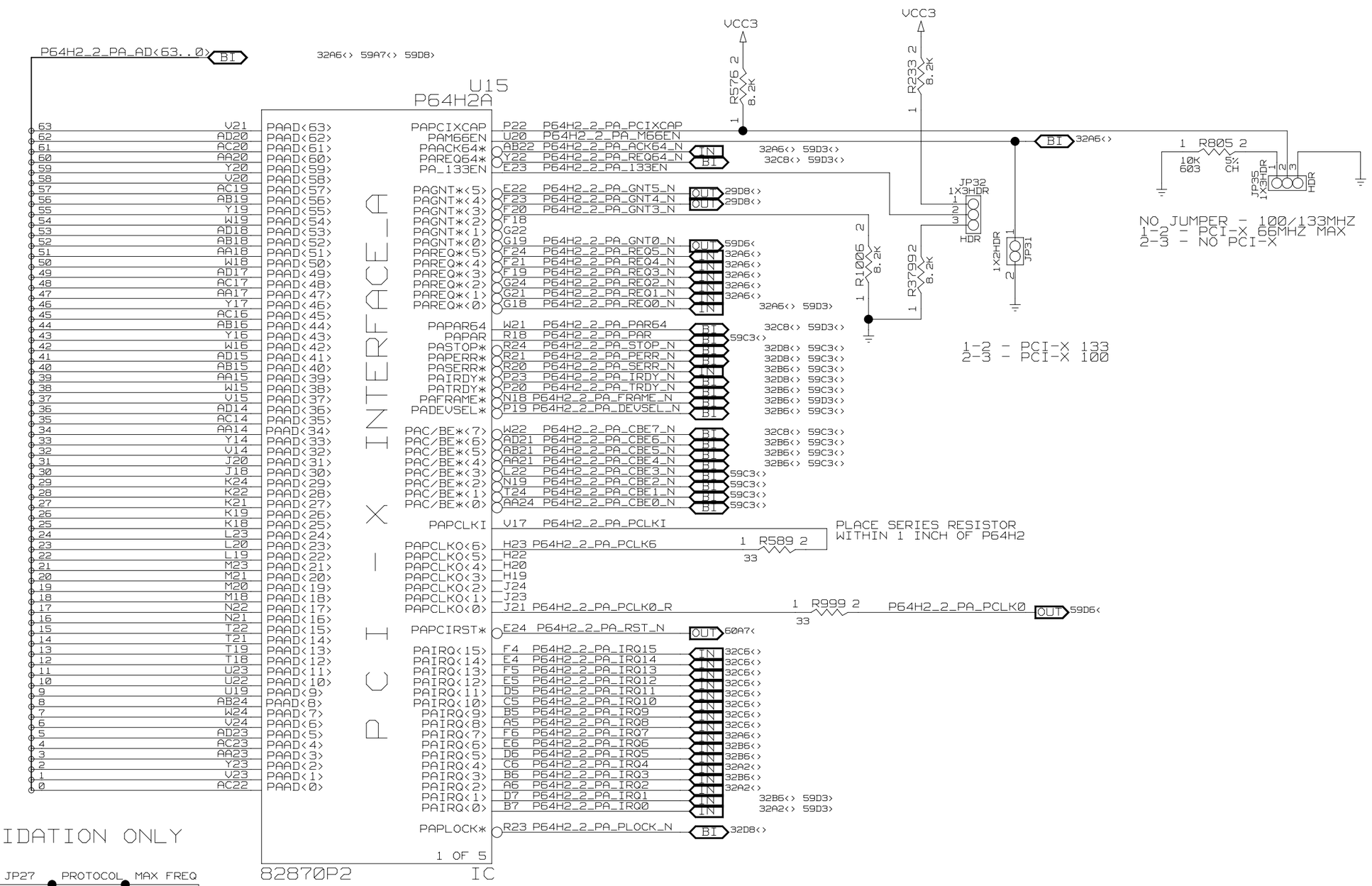


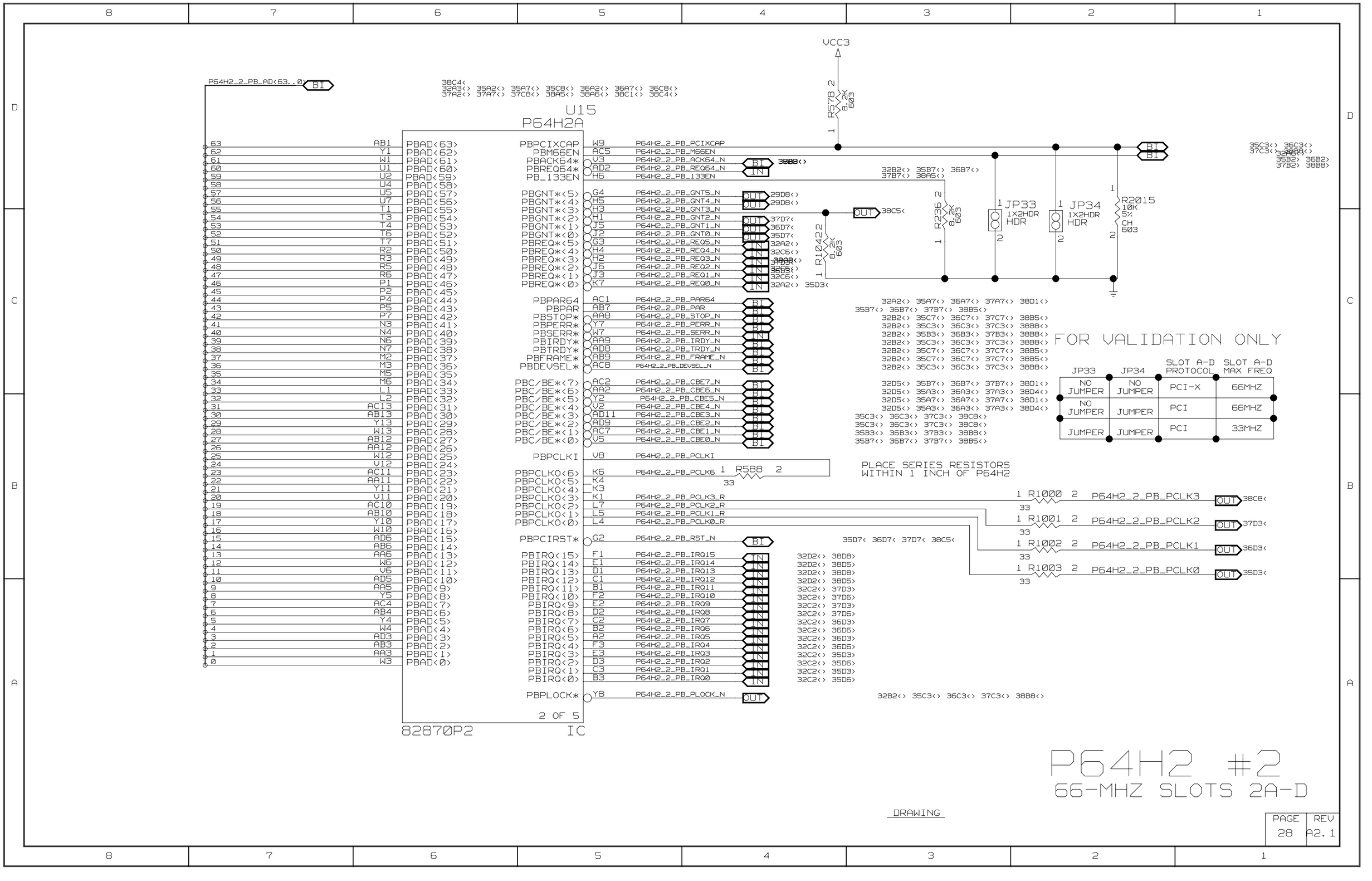
P64H2 #1

POWER AND DECOUPLING

DRAWING

PAGE	REV
26	A2.1


P64H2_2_PA_AD<63..0>
32A6<> 59A7<> 59D8>
U15
P64H2A
PCI-X INTERFACE_A
82870P2 IC
1 OF 5
VCC3
R576 2 8.2K
R233 2 8.2K
R1005 2 8.2K
R37992 8.2K
JP32 1X3HDR
JP31 1X2HDR
R805 2 10K 5% 603
JP35 1X3HDR
NO JUMPER - 100/133MHZ
1-2 - PCI-X 66MHZ MAX
2-3 - NO PCI-X
1-2 - PCI-X 133
2-3 - PCI-X 100
PLACE SERIES RESISTOR WITHIN 1 INCH OF P64H2
R589 2 33
R999 2 33
P64H2_2_PA_PCLK0
FOR VALIDATION ONLY
JP31 JP32 JP27 PROTOCOL MAX FREQ
NO JUMPER NO JUMPER NO JUMPER PCI-X 133MHZ
NO JUMPER JUMPER NO JUMPER PCI-X 100MHZ
NO JUMPER JUMPER PIN 1-2 PCI-X 66MHZ
NO JUMPER JUMPER PIN 2-3 PCI 66MHZ
JUMPER JUMPER PIN 2-3 PCI 33MHZ
P64H2 #2
SCSI CONTROLLER
DRAWING
PAGE 27
REV A2.1


P64H2_2_PB_AD<63..0>
U15
P64H2A
82870P2
IC
2 OF 5
VCC3
R578 2 8.2K 603
R1042 2 8.2K 603
R235 2 8.2K 603
JP33 1X2HDR HDR
JP34 1X2HDR HDR
R2015 10K 5% CH 603
FOR VALIDATION ONLY
JP33 JP34 SLOT A-D PROTOCOL SLOT A-D MAX FREQ
NO JUMPER NO JUMPER PCI-X 66MHZ
NO JUMPER JUMPER PCI 66MHZ
JUMPER JUMPER PCI 33MHZ
PLACE SERIES RESISTORS WITHIN 1 INCH OF P64H2
R588 33
R1000 33 P64H2_2_PB_PCLK3
R1001 33 P64H2_2_PB_PCLK2
R1002 33 P64H2_2_PB_PCLK1
R1003 33 P64H2_2_PB_PCLK0
P64H2 #2
66-MHZ SLOTS 2A-D
DRAWING
PAGE 28
REV A2.1

28C4> BI P64H2_2_PB_GNT4_N
28D4> BI P64H2_2_PB_GNT5_N
27D4> BI P64H2_2_PA_GNT4_N
27D4> BI P64H2_2_PA_GNT5_N

R807 10K
R809 10K
R808 10K
R805 10K

P64H2 SMBUS ADDRESS STRAPPING

BIT	VALUE
7	1
6	1
5	PA_GNT5_N
4	0
3	PA_GNT4_N
2	PB_GNT5_N
1	PB_GNT4_N

P64H2 #2 SMBUS ADDRESS = C0H

VCC3

R978 8.2K 1% 1/16W 603
R265 8.2K
R241 8.2K

VCC

U15
P64H2A

	G1	VCC5REF<2>	
	AD24	VCC5REF<1>	
P64H2_2_CK200_N	F7	CLK200*	
P64H2_2_CK200	G5	CLK200	
51B8> IN P64H2_2_CLK66	H7	CLK66	
	E19	BPCLK100	
	E18	BPCLK133	
70B7< OUT P64H2_2_RASERR_N	D17	RASERR*	
38B5< 37C7< 36C7< 35C7< 34C7< 33C7< 25C5< 70B7< 69A1< I2C_BUS1_CLK BI	C18	SCLK	
37C7< 36C7< 35C7< 34C7< 33C7< 25C5< 70B4< 69A1< 38B5< 41C6< 25B5< 48A1< I2C_BUS1_DAT BI	D18	SDTA	
SYS_PWROK_2 IN	E21	PWROK	
72C3< 72B6< 38B4< 25B5< 39A6> PCIRST_2_N IN	E20	RSTIN*	
44D2> 44C4> 39B3<> ICH3_PIRQB_N OUT	C4	BT_INTR*	
P64H2_2_APICCLK	A3	APICCLK	
P64H2_2_APICD1	B4	APICD1	
P64H2_2_APICD0	A4	APICD0	
P64H2_2_TEST_N	B17	TEST*	
	A18	HPA_SORR*	
	B18	HPA_SOR*	
	C19	HPA_SOLR	
	D19	HPA_SOL	
	B19	HPA_SOD	
	A19	HPA_SOC	
P64H2_2_HPA_SLOT2	D20	HPA_SLOT<2>	
P64H2_2_HPA_SLOT1	C20	HPA_SLOT<1>	
P64H2_2_HPA_SLOT0	A20	HPA_SLOT<0>	
	C21	HPA_SIL*	
P64H2_2_HPA_SID	D21	HPA_SID	
	B21	HPA_SIC	
		3 OF 5	

82870P2 IC

R240 10K
R254 8.2K
R253 8.2K
R252 8.2K

R812 10K
R1051 10K
R1050 10K
R1043 8.2K

HPA_SLOT<2..0> = 000B => HOT PLUG DISABLED

1.8V

R258 61.9 1% CH 603

	G10	P64H2_2_VSWING	
	F11	P64H2_2_VREF	
	F9	P64H2_2_RCOMP	
PUSTRBS	C14	P64H2_2_PUSTRBS	BI 11C7<>
PSTRBS	A10	P64H2_2_PSTRBS	BI 11C7<>
PUSTRBF	E14	P64H2_2_PUSTRBF	BI 11C7<>
PSTRBF	C10	P64H2_2_PSTRBF	BI 11C7<>
HI<21>	E16	P64H2_2_HI21	OUT 11D7<>
HI<20>	C12	P64H2_2_HI20	OUT 11D7<>
HI<19>	G8		
HI<18>	G12	P64H2_2_HI18	BI 11D7<>
HI<17>	G13	P64H2_2_HI17	OUT 11D7<>
HI<16>	G11	P64H2_2_HI16	IN 11D7<>
HI<15>	C16		15
HI<14>	A16		14
HI<13>	D15		13
HI<12>	B15		12
HI<11>	A14		11
HI<10>	D13		10
HI<9>	B13		9
HI<8>	E12		8
HI<7>	D11		7
HI<6>	B11		6
HI<5>	F10		5
HI<4>	D9		4
HI<3>	B9		3
HI<2>	E8		2
HI<1>	C8		1
HI<0>	A8		0 P64H2_2_HI<15:0> BI 11D7<>

HPB_SORR*	A22		
HPB_SOR*	A21		
HPB_SOLR	B22		
HPB_SOL	C22		
HPB_SOD	C24		
HPB_SOC	A24		
HPB_SLOT<2>	D23	P64H2_2_HPB_SLOT2	
HPB_SLOT<1>	C23	P64H2_2_HPB_SLOT1	
HPB_SLOT<0>	B23	P64H2_2_HPB_SLOT0	
HPB_SIL*	D24		
HPB_SID	B24	P64H2_2_HPB_SID	
HPB_SIC	A23		

R146 8.2K 5% CH 603

RS81 10K
RS82 10K
RS80 10K

HPB_SLOT<2..0> = 000B => HOT PLUG DISABLED

1.8V

R260 750 1% CH 603

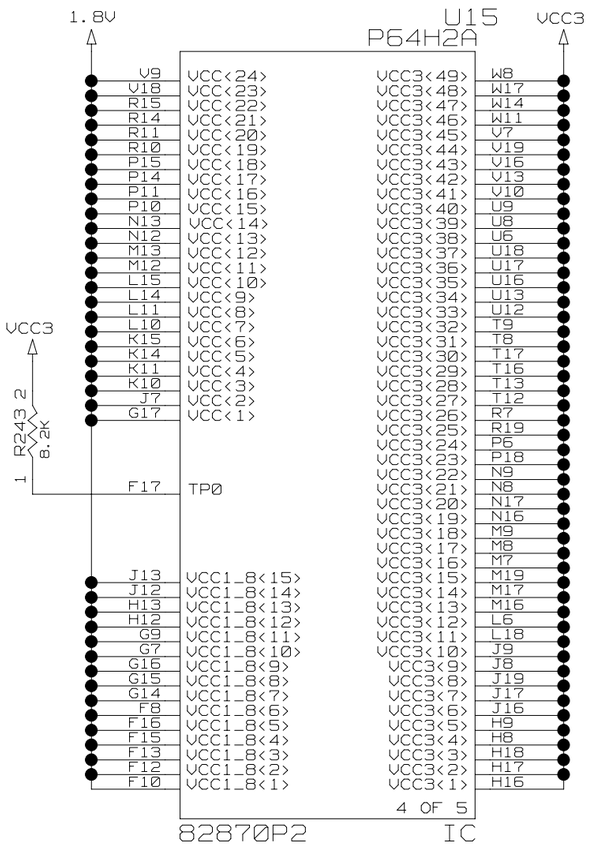
C1055 .01UF 10% 50V X7R 805
R259 332 1% CH 603
C1053 .01UF 10% 50V X7R 805

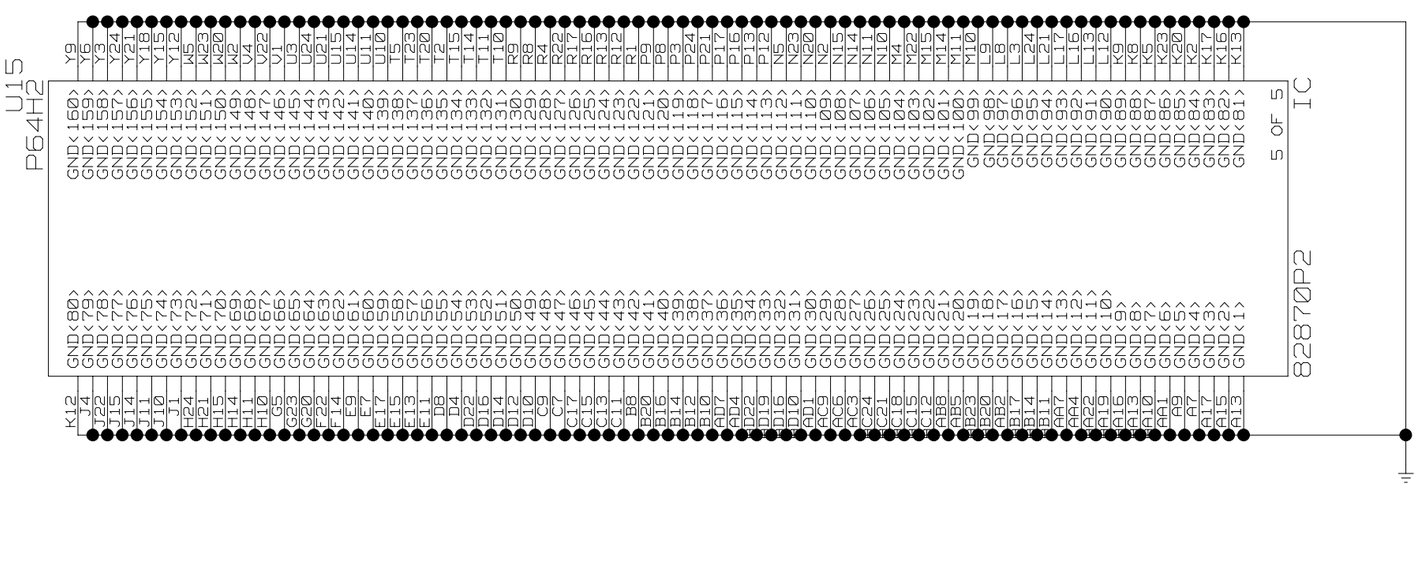
C1056 .01UF 10% 50V X7R 805
R257 261 1% CH 603
C1054 .01UF 10% 50V X7R 805

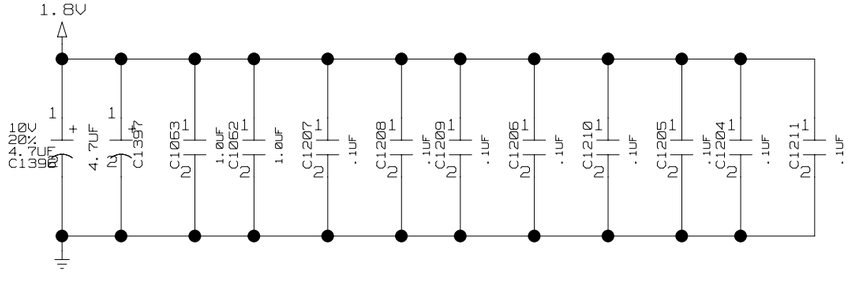
P64H2 #2
HUB INTERFACE

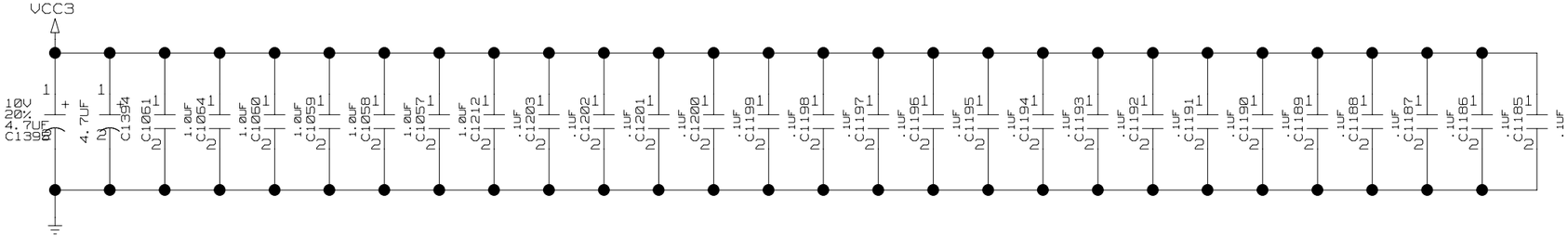
DRAWING

PAGE	REV
29	A2.1







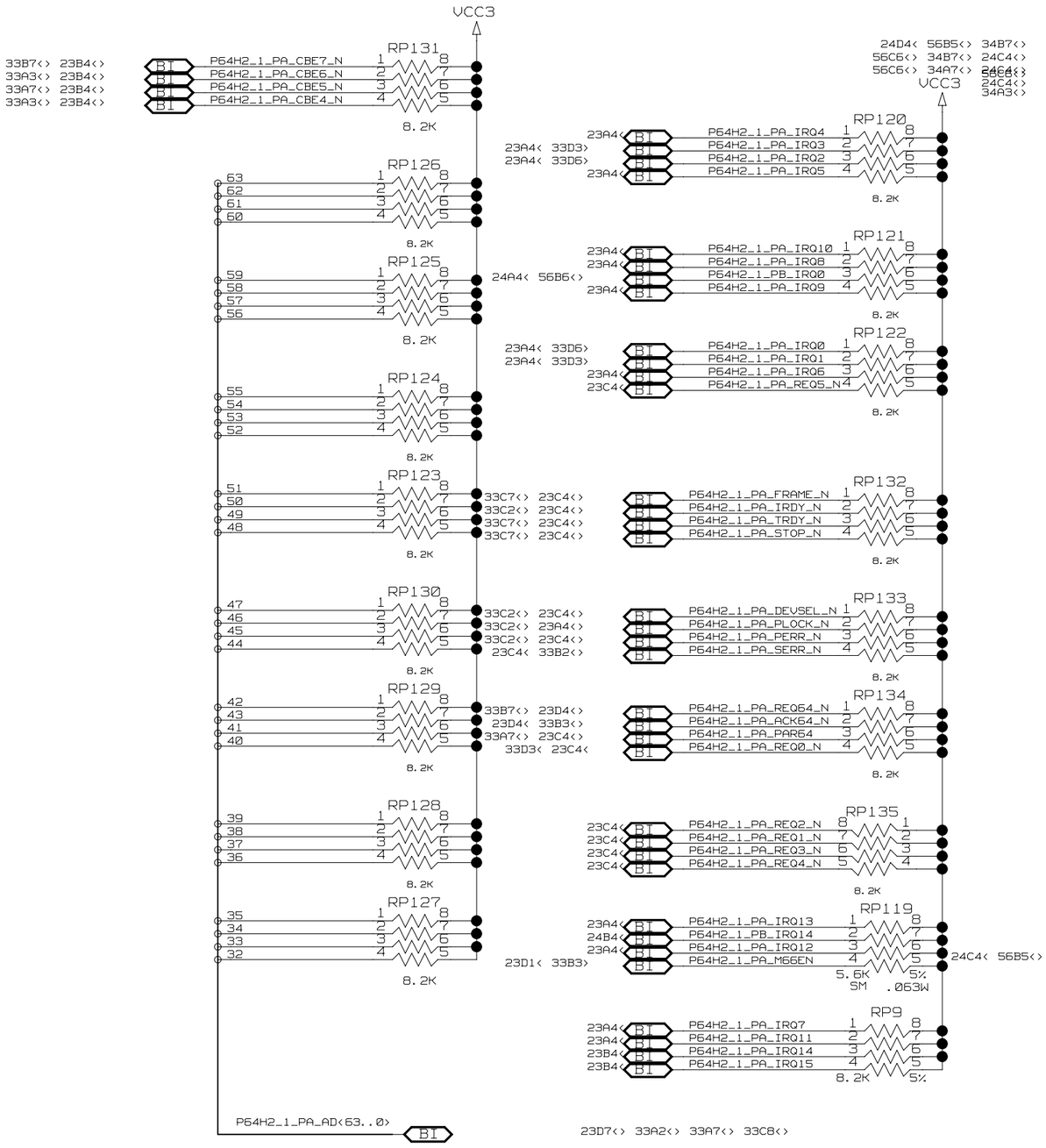


P64H2 #2
POWER AND DECOUPLING

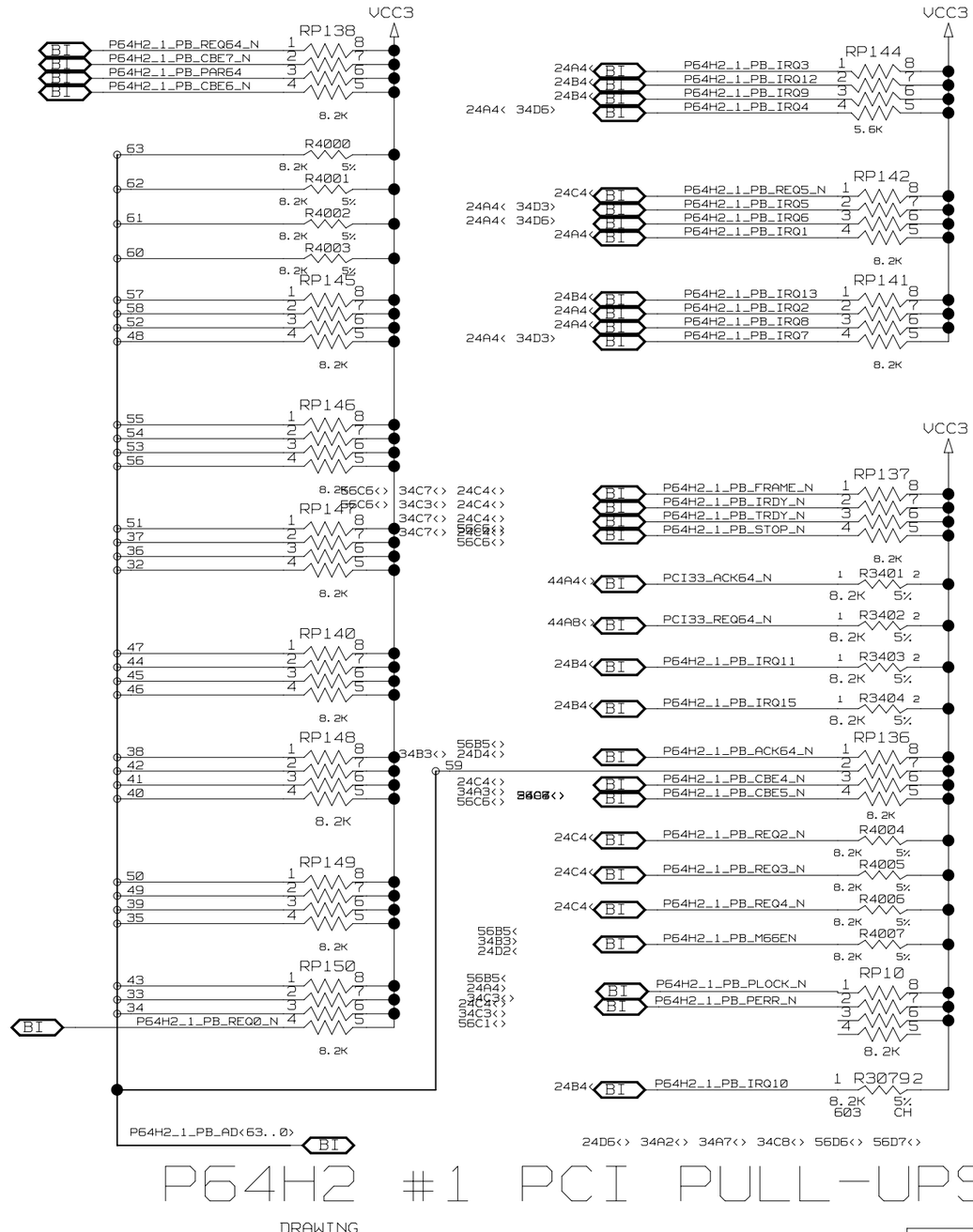
DRAWING

PAGE	REV
30	A2.1

P64H2 #1 PCI BUS A PULL-UPS



P64H2 #1 PCI BUS B PULL-UPS



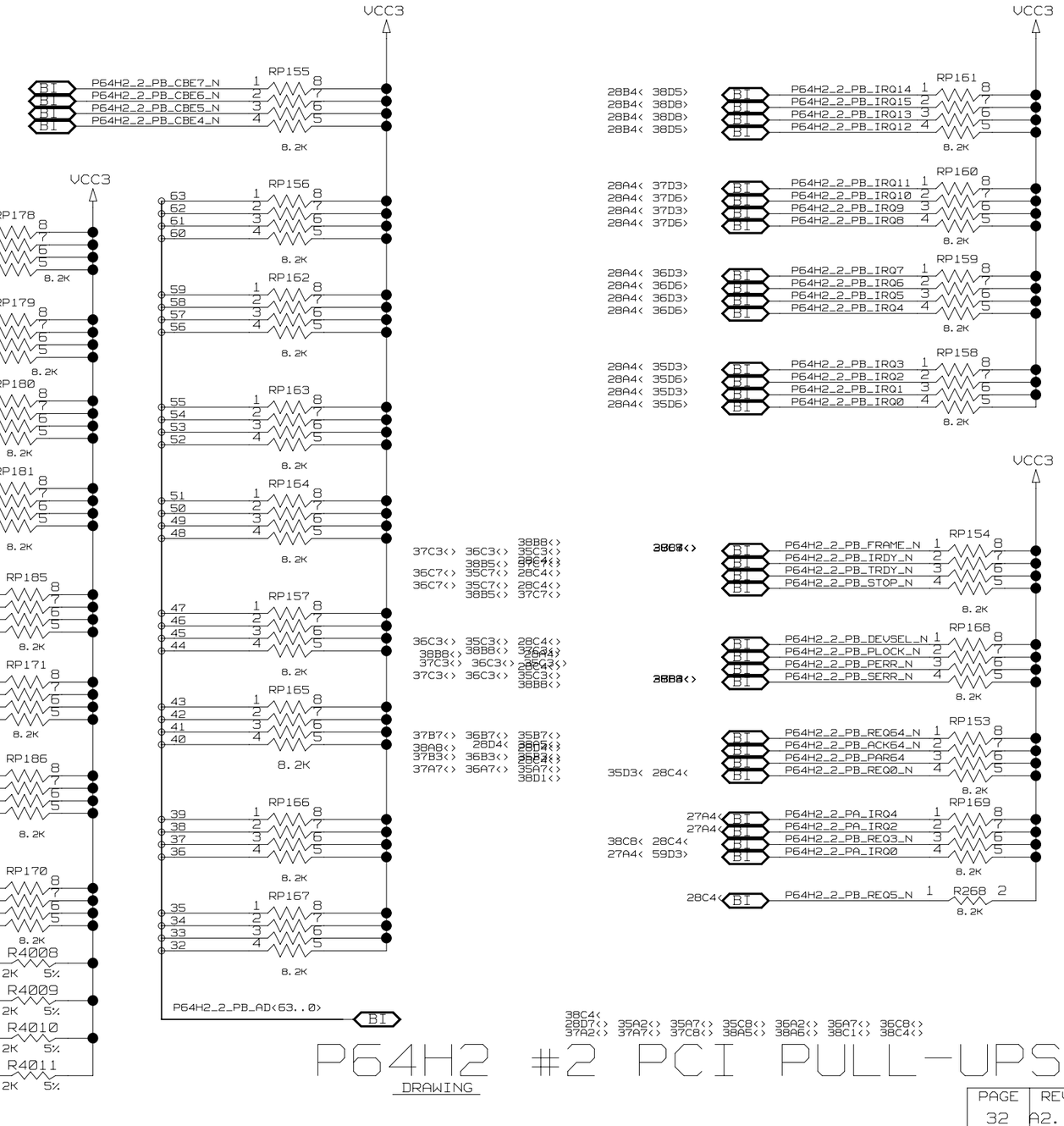
P64H2 #1 PCI PULL-UPS

DRAWING

PAGE	REV
31	A2.1

P64H2 #2 PCI BUS A PULL-UPS

P64H2 #2 PCI BUS B PULL-UPS



P64H2 #2 PCI PULL-UPS

DRAWING

PAGE	REV
32	A2.1

PCI_X_3V

J20

CONN

VCC3 +12VPC -12VPC VSBY3_3 VCC

PCI_SLOTS_TRST_N SLOT_1A_TMS SLOT_1A_TDI P64H2_1_PA_IRQ0 P64H2_1_PA_IRQ2 SLOT_1A_3VAUX P64H2_1_PA_RST_N P64H2_1_PA_GNT0_N ICH3_PME_N SLOT_1A_PME_N P64H2_1_PA_AD<17> SLOT_1A_IDSEL P64H2_1_PA_FRAME_N P64H2_1_PA_TRDY_N P64H2_1_PA_STOP_N I2C_BUS1_CLK I2C_BUS1_DAT P64H2_1_PA_PAR P64H2_1_PA_CBE0_N P64H2_1_PA_REQ64_N P64H2_1_PA_CBE7_N P64H2_1_PA_CBE5_N P64H2_1_PA_PAR64 P64H2_1_PA_AD<63..0>

PCI_SLOTS_TCK P64H2_1_PA_IRQ1 P64H2_1_PA_IRQ3 P64H2_1_PA_PCLK0 P64H2_1_PA_REQ0_N P64H2_1_PA_CBE3_N P64H2_1_PA_CBE2_N P64H2_1_PA_IRDY_N P64H2_1_PA_DEVSEL_N P64H2_1_PA_PCIXCAP P64H2_1_PA_PLOCK_N P64H2_1_PA_PERR_N P64H2_1_PA_SERR_N P64H2_1_PA_CBE1_N P64H2_1_PA_M66EN P64H2_1_PA_ACK64_N P64H2_1_PA_CBE6_N P64H2_1_PA_CBE4_N

R275 5.6K R966 5.6K R965 5.6K R272 0 CH 603 R271 0 CH 603 R273 100 R270 5.6K

C1217 .1UF C1218 .1UF C1399 22UF 1210

C1215 .1UF C1214 .1UF C1213 .1UF C1216 .1UF C1398 22UF 1210

C1220 .1UF C1401 22.0UF C1219 .1UF C1400 22.0UF

PCIX SLOT 1 (133MHZ)
P64H2 #1, PCI BUS A
IDSEL = AD17
REQ#/GNT# = 0
IRQ#<0..3>
PCLK 0

DRAWING

PAGE	REV
33	A2.1

PCI_X_3V

J21

CONN

VCC3 +12VPC -12VPC VSBY3_3 VCC

PCI_SLOTS_TRST_N
SLOT_1B_TMS
SLOT_1B_TDI
P64H2_1_PB_IRQ4
P64H2_1_PB_IRQ6
SLOT_1B_3VAUX
P64H2_1_PB_RST_N
P64H2_1_PB_GNT1_N
ICH3_PME_N
SLOT_1B_PME_N
P64H2_1_PB_AD<18>
SLOT_1B_IDSEL
P64H2_1_PB_FRAME_N
P64H2_1_PB_TRDY_N
P64H2_1_PB_STOP_N
I2C_BUS1_CLK
I2C_BUS1_DAT
P64H2_1_PB_PAR
P64H2_1_PB_CBE0_N
P64H2_1_PB_REQ64_N
P64H2_1_PB_CBE7_N
P64H2_1_PB_CBE5_N
P64H2_1_PB_PAR64
P64H2_1_PB_AD<63..0>

PCI_SLOTS_TCK
P64H2_1_PB_IRQ5
P64H2_1_PB_IRQ7
P64H2_1_PB_PCLK1
P64H2_1_PB_REQ1_N
P64H2_1_PB_CBE3_N
P64H2_1_PB_CBE2_N
P64H2_1_PB_IRDY_N
P64H2_1_PB_DEVSEL_N
P64H2_1_PB_PCIXCAP
P64H2_1_PB_PLOCK_N
P64H2_1_PB_PERR_N
P64H2_1_PB_SERR_N
P64H2_1_PB_CBE1_N
P64H2_1_PB_M66EN
P64H2_1_PB_ACK64_N
P64H2_1_PB_CBE6_N
P64H2_1_PB_CBE4_N
P64H2_1_PB_AD<63..0>

PCIX SLOT 2 (100MHZ)
P64H2 #1, PCI BUS B
IDSEL = AD18
REQ#/GNT# = 1
IRQ#<4..7>
PCLK1

DRAWING

PAGE	REV
34	A2.1

PCI_X_3V

J23

CONN

VCC3 +12VPC -12VPC VSBY3_3 VCC

PCI_SLOTS_TRST_N
SLOT_2A_TMS
SLOT_2A_TDI
P64H2_2_PB_IRQ0
P64H2_2_PB_IRQ2
SLOT_2A_3VAUX
P64H2_2_PB_RST_N
P64H2_2_PB_GNT0_N
ICH3_PME_N
SLOT_2A_PME_N
P64H2_2_PB_AD<17>
SLOT_2A_IDSEL
P64H2_2_PB_FRAME_N
P64H2_2_PB_TRDY_N
P64H2_2_PB_STOP_N
I2C_BUS1_CLK
I2C_BUS1_DAT
P64H2_2_PB_PAR
P64H2_2_PB_CBE0_N
P64H2_2_PB_REQ64_N
P64H2_2_PB_CBE7_N
P64H2_2_PB_CBE5_N
P64H2_2_PB_PAR64
P64H2_2_PB_AD<63..0>

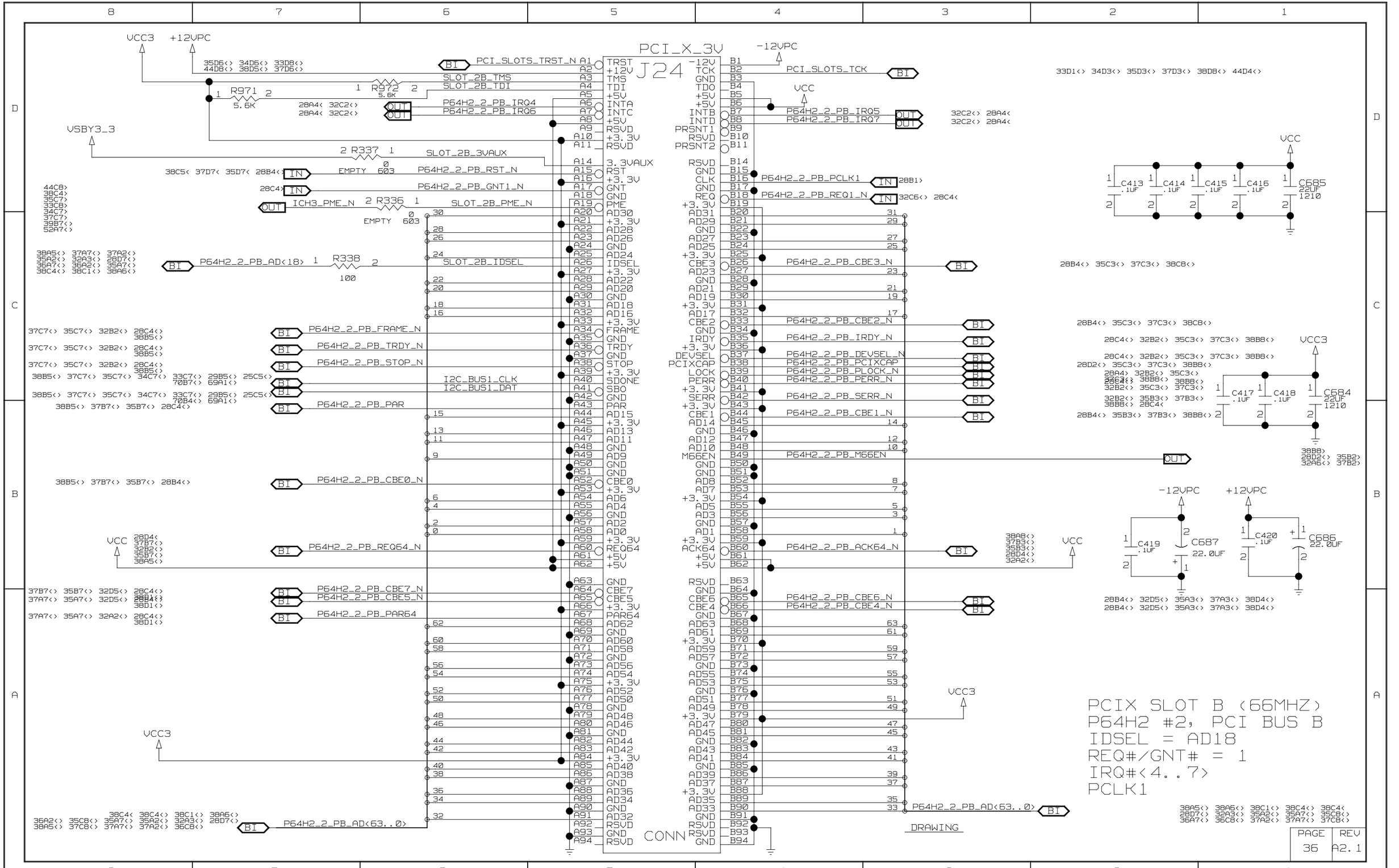
PCI_SLOTS_TCK
P64H2_2_PB_IRQ1
P64H2_2_PB_IRQ3
P64H2_2_PB_PCLK0
P64H2_2_PB_REQ0_N
P64H2_2_PB_CBE3_N
P64H2_2_PB_CBE2_N
P64H2_2_PB_IRDY_N
P64H2_2_PB_DEVSEL_N
P64H2_2_PB_PCIXCAP
P64H2_2_PB_PLOCK_N
P64H2_2_PB_PERR_N
P64H2_2_PB_SERR_N
P64H2_2_PB_CBE1_N
P64H2_2_PB_M66EN
P64H2_2_PB_ACK64_N
P64H2_2_PB_CBE6_N
P64H2_2_PB_CBE4_N

C408 C407 C406 C405 C683 22UF 1210
C410 C409 C680 22UF 1210
C412 C682 22.0UF
C411 C681 22.0UF

PCIX SLOT A (66MHZ)
P64H2 #2, PCI BUS B
IDSEL = AD17
REQ#/GNT# = 0
IRQ#<0..3>
PCLK0

DRAWING

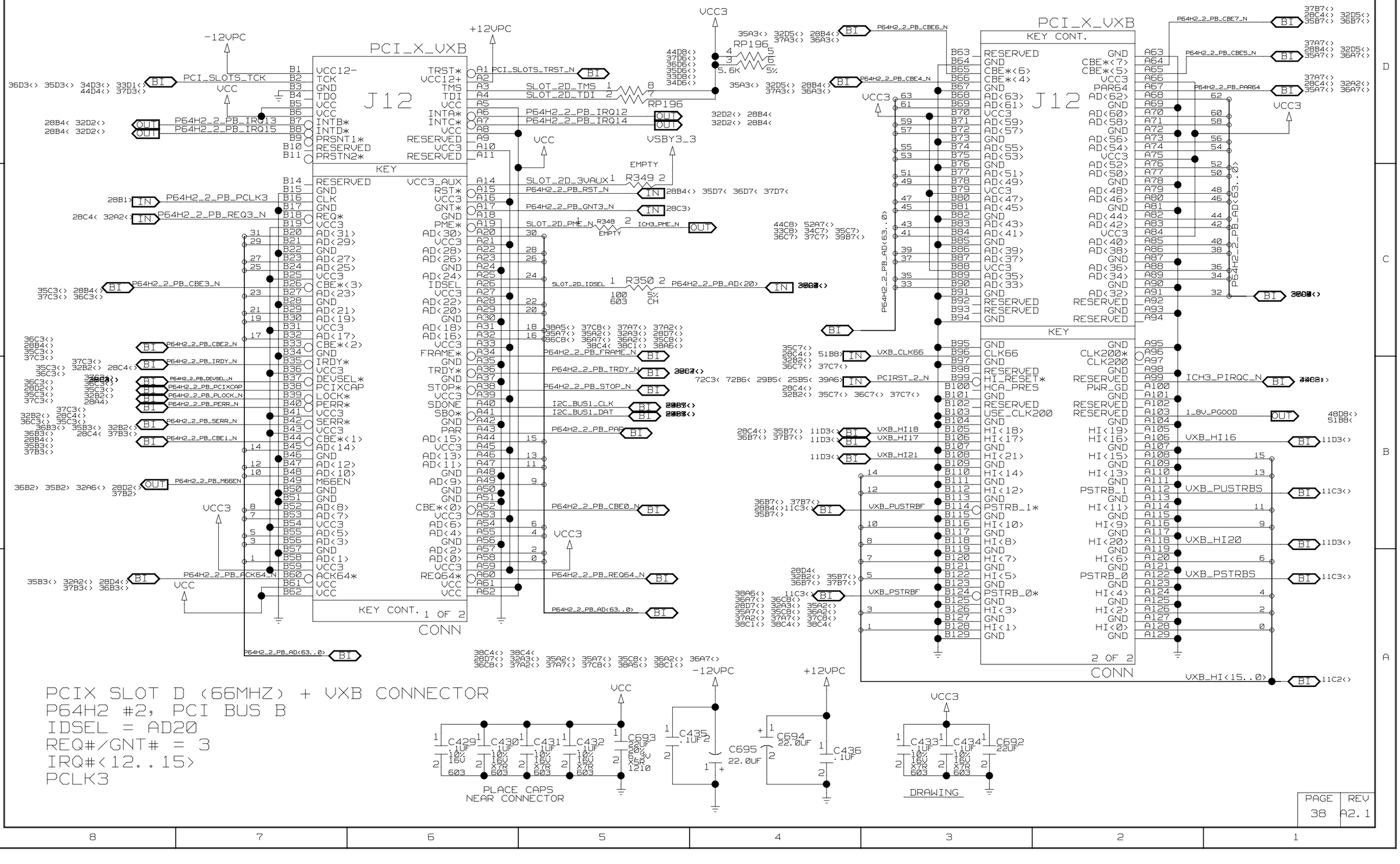
PAGE	REV
35	A2.1

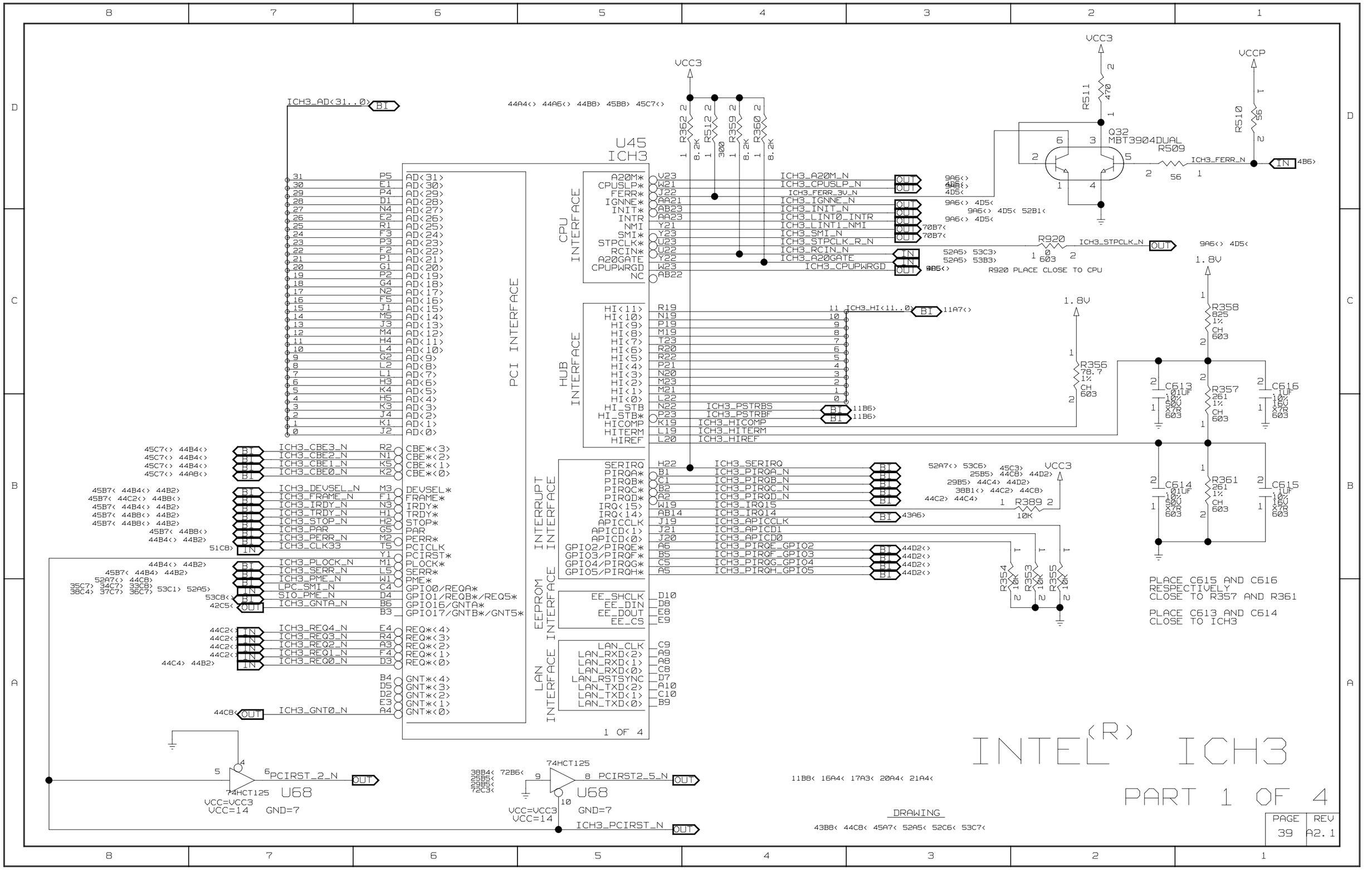

PCI_X_3V
J24
CONN
PCI_SLOTS_TRST_N
SLOT_2B_TMS
SLOT_2B_TDI
P64H2_2_PB_IRQ4
P64H2_2_PB_IRQ6
SLOT_2B_3VAUX
P64H2_2_PB_RST_N
P64H2_2_PB_GNT1_N
ICH3_PME_N
SLOT_2B_PME_N
P64H2_2_PB_AD<18>
SLOT_2B_IDSEL
P64H2_2_PB_FRAME_N
P64H2_2_PB_TRDY_N
P64H2_2_PB_STOP_N
I2C_BUS1_CLK
I2C_BUS1_DAT
P64H2_2_PB_PAR
P64H2_2_PB_CBE0_N
P64H2_2_PB_REQ64_N
P64H2_2_PB_CBE7_N
P64H2_2_PB_CBE5_N
P64H2_2_PB_PAR64
P64H2_2_PB_AD<63..0>
PCI_SLOTS_TCK
P64H2_2_PB_IRQ5
P64H2_2_PB_IRQ7
P64H2_2_PB_PCLK1
P64H2_2_PB_REQ1_N
P64H2_2_PB_CBE3_N
P64H2_2_PB_CBE2_N
P64H2_2_PB_IRDY_N
P64H2_2_PB_DEVSEL_N
P64H2_2_PB_PCIXCAP
P64H2_2_PB_PLOCK_N
P64H2_2_PB_PERR_N
P64H2_2_PB_SERR_N
P64H2_2_PB_CBE1_N
P64H2_2_PB_M66EN
P64H2_2_PB_ACK64_N
P64H2_2_PB_CBE6_N
P64H2_2_PB_CBE4_N
P64H2_2_PB_AD<63..0>
VCC
VCC3
VSBY3_3
+12VPC
-12VPC
R971
R972
R337
R336
R338
EMPTY
C413
C414
C415
C416
C685
C417
C418
C684
C419
C687
C420
C686
PCIX SLOT B (66MHZ)
P64H2 #2, PCI BUS B
IDSEL = AD18
REQ#/GNT# = 1
IRQ#<4..7>
PCLK1
DRAWING
PAGE
36
REV
A2.1

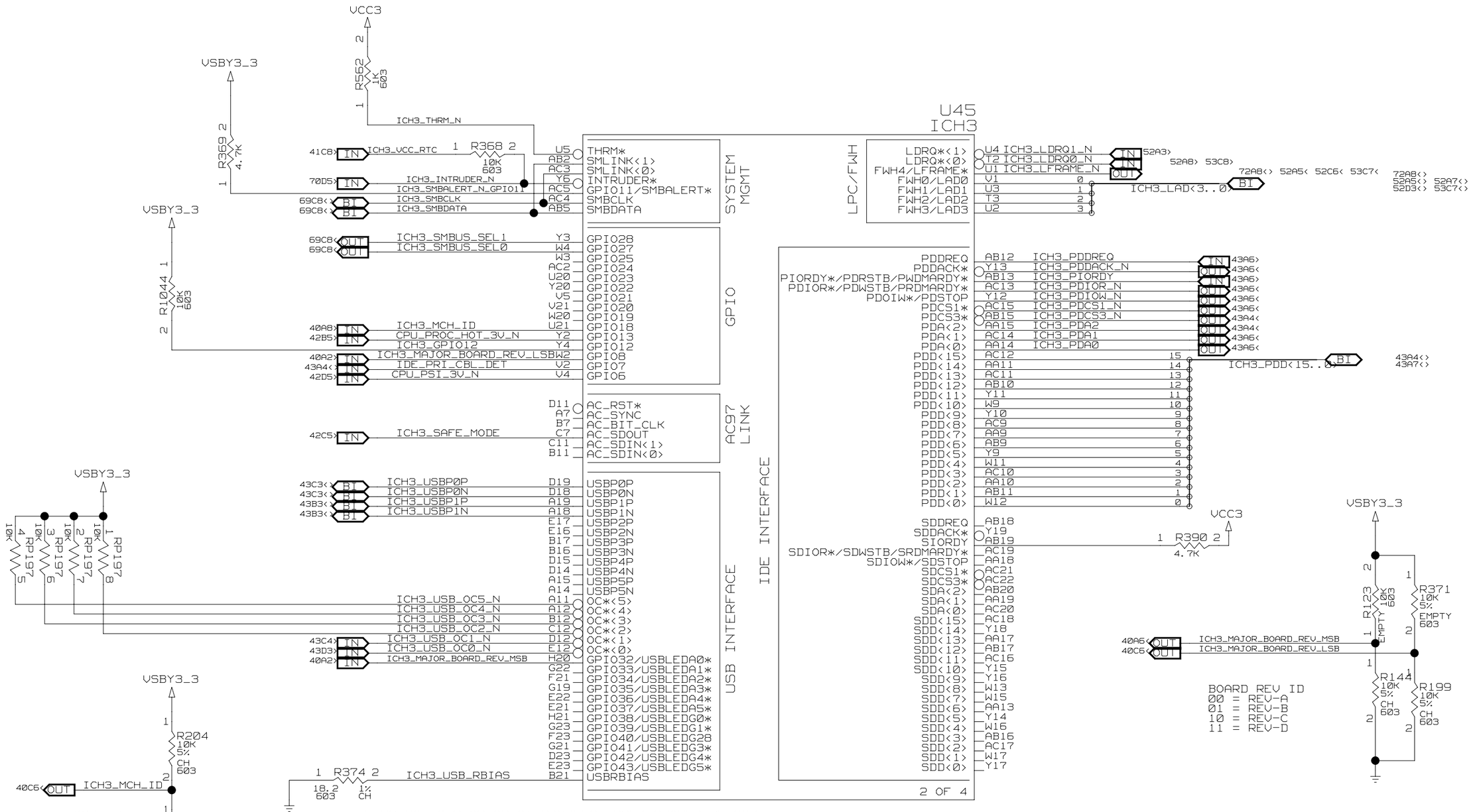
PCIX SLOT C (66MHZ)
P64H2 #2, PCI BUS B
IDSEL = AD19
REQ#/GNT# = 2
IRQ#<8..11>
PCLK2

DRAWING

PAGE	REV
37	A2.1


PCI_X_VXB
J12
KEY
KEY CONT. 1 OF 2
CONN
PCI_X_VXB
KEY CONT.
J12
KEY
2 OF 2
CONN
-12VPC
+12VPC
VCC
VCC3
VSBY3_3
PCI_SLOTS_TCK
PCI_SLOTS_TRST_N
SLOT_2D_TMS
SLOT_2D_TDI
SLOT_2D_3VAUX
SLOT_2D_PME_N
SLOT_2D_IDSEL
I2C_BUS1_CLK
I2C_BUS1_DAT
P64H2_2_PB_IRQ12
P64H2_2_PB_IRQ13
P64H2_2_PB_IRQ14
P64H2_2_PB_IRQ15
P64H2_2_PB_RST_N
P64H2_2_PB_GNT3_N
P64H2_2_PB_REQ3_N
P64H2_2_PB_PCLK3
P64H2_2_PB_AD<20>
P64H2_2_PB_FRAME_N
P64H2_2_PB_IRDY_N
P64H2_2_PB_TRDY_N
P64H2_2_PB_DEVSEL_N
P64H2_2_PB_STOP_N
P64H2_2_PB_PCIXCAP
P64H2_2_PB_PLOCK_N
P64H2_2_PB_PERR_N
P64H2_2_PB_SERR_N
P64H2_2_PB_CBE1_N
P64H2_2_PB_PAR
P64H2_2_PB_CBE0_N
P64H2_2_PB_REQ64_N
P64H2_2_PB_ACK64_N
P64H2_2_PB_M66EN
P64H2_2_PB_AD<63..0>
P64H2_2_PB_CBE3_N
P64H2_2_PB_CBE2_N
P64H2_2_PB_CBE7_N
P64H2_2_PB_CBE6_N
P64H2_2_PB_CBE5_N
P64H2_2_PB_CBE4_N
P64H2_2_PB_PAR64
VXB_CLK66
PCIRST_2_N
ICH3_PIRQC_N
1_8V_PGOOD
VXB_HI16
VXB_PUSTRBS
VXB_HI20
VXB_PSTRBS
VXB_HI<15..0>
VXB_HI18
VXB_HI17
VXB_HI21
VXB_PUSTRBF
VXB_PSTRBF
RP196
RP196
R349
R348
R350
PCIX SLOT D (66MHZ) + VXB CONNECTOR
P64H2 #2, PCI BUS B
IDSEL = AD20
REQ#/GNT# = 3
IRQ#<12..15>
PCLK3
PLACE CAPS
NEAR CONNECTOR
DRAWING
PAGE 38
REV A2.1

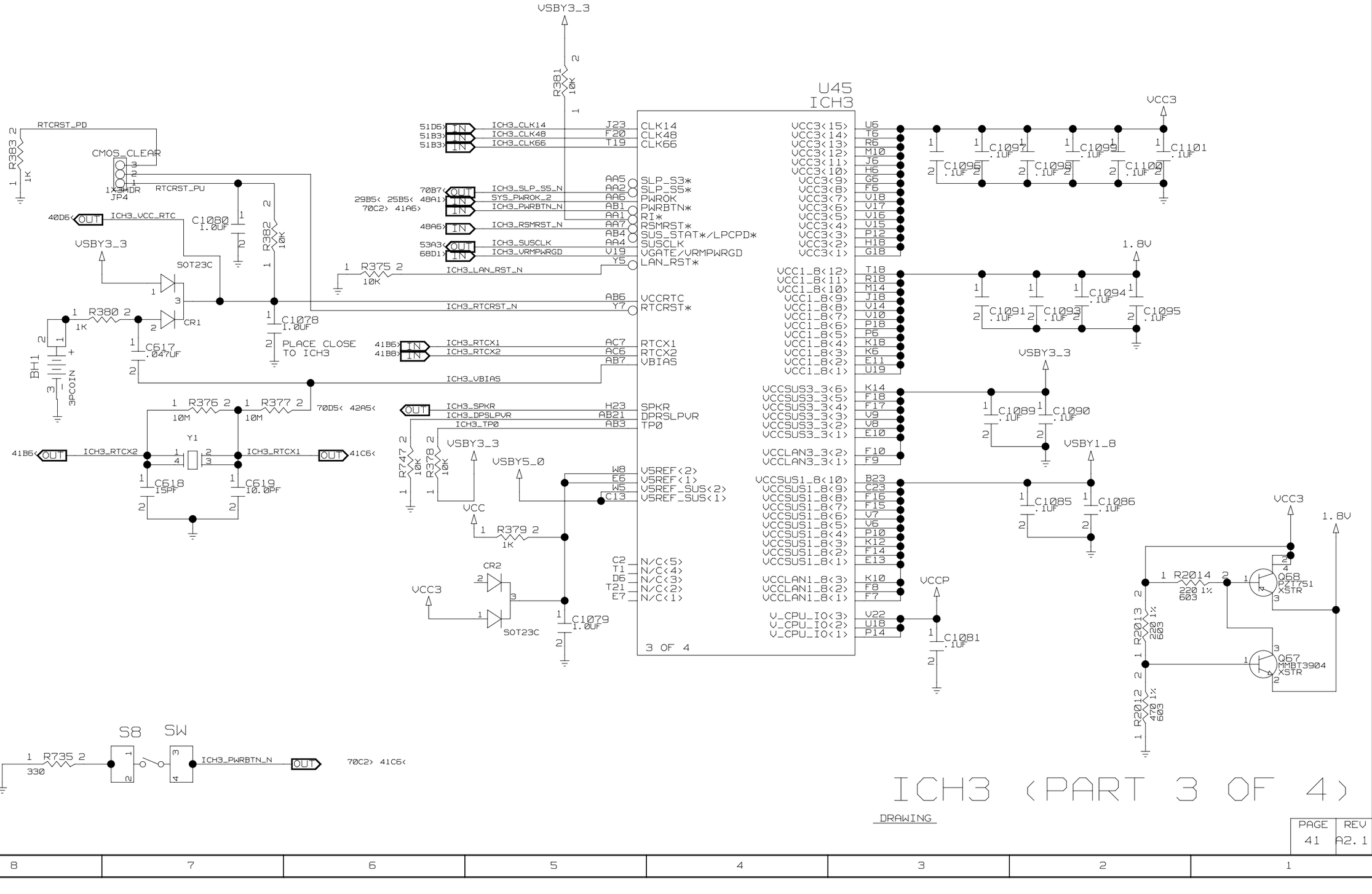

U45
ICH3
PCI INTERFACE
CPU INTERFACE
HUB INTERFACE
INTERRUPT INTERFACE
EEPROM INTERFACE
LAN INTERFACE
ICH3_AD<31..0>
ICH3_CBE3_N
ICH3_CBE2_N
ICH3_CBE1_N
ICH3_CBE0_N
ICH3_DEVSEL_N
ICH3_FRAME_N
ICH3_IRDY_N
ICH3_TRDY_N
ICH3_STOP_N
ICH3_PAR
ICH3_PERR_N
ICH3_CLK33
ICH3_PLOCK_N
ICH3_SERR_N
ICH3_PME_N
LPC_SMI_N
SIO_PME_N
ICH3_GNTA_N
ICH3_REQ4_N
ICH3_REQ3_N
ICH3_REQ2_N
ICH3_REQ1_N
ICH3_REQ0_N
ICH3_GNT0_N
ICH3_A20M_N
ICH3_CPUSLP_N
ICH3_FERR_3V_N
ICH3_IGNNE_N
ICH3_INIT_N
ICH3_LINT0_INTR
ICH3_LINT1_NMI
ICH3_SMI_N
ICH3_STPCLK_R_N
ICH3_RCIN_N
ICH3_A20GATE
ICH3_CPUPWRGD
ICH3_HI<11..0>
ICH3_PSTRBS
ICH3_PSTRBF
ICH3_HICOMP
ICH3_HITERM
ICH3_HIREF
ICH3_SERIRQ
ICH3_PIRQA_N
ICH3_PIRQB_N
ICH3_PIRQC_N
ICH3_PIRQD_N
ICH3_IRQ15
ICH3_IRQ14
ICH3_APICCLK
ICH3_APICCD1
ICH3_APICCD0
ICH3_PIRQE_GPIO2
ICH3_PIRQF_GPIO3
ICH3_PIRQG_GPIO4
ICH3_PIRQH_GPIO5
EE_SHCLK
EE_DIN
EE_DOUT
EE_CS
LAN_CLK
LAN_RXD<2>
LAN_RXD<1>
LAN_RXD<0>
LAN_RSTSYNC
LAN_TXD<2>
LAN_TXD<1>
LAN_TXD<0>
ICH3_FERR_N
ICH3_STPCLK_N
ICH3_IRQ14
ICH3_PCIRST_N
PCIRST_2_N
PCIRST2_5_N
R362 8.2K
R512 300
R359 8.2K
R360 8.2K
R511 470
R510 56
R509 56
Q32 MBT3904DUAL
R920 0 603
R920 PLACE CLOSE TO CPU
R358 825 1% CH 603
R356 78.7 1% CH 603
R357 261 1% CH 603
R361 261 1% CH 603
R389 10K
R354 10K
R353 10K
R355 10K
C613 .01UF 10% 50V X7R 603
C614 .01UF 10% 50V X7R 603
C615 .1UF 10% 16V X7R 603
C616 .1UF 10% 16V X7R 603
PLACE C615 AND C616 RESPECTIVELY CLOSE TO R357 AND R361
PLACE C613 AND C614 CLOSE TO ICH3
74HCT125 U68
VCC=VCC3 VCC=14 GND=7
1 OF 4
INTEL(R) ICH3
PART 1 OF 4
DRAWING
PAGE 39
REV A2.1



ICH3 (PART 2 OF 4)

DRAWING

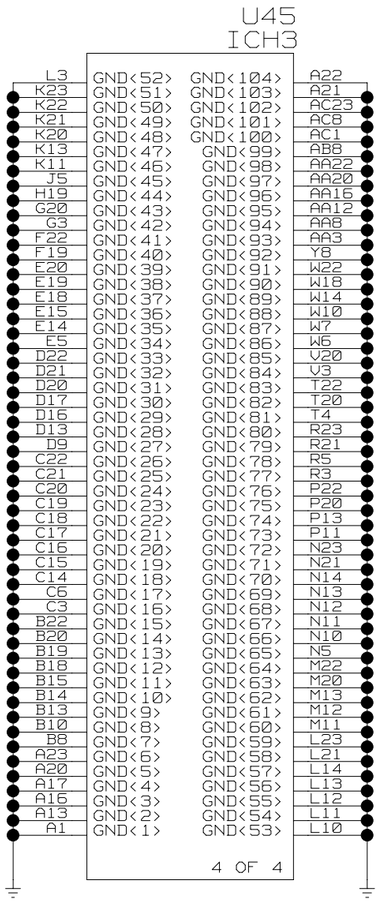
PAGE	REV
40	A2.1

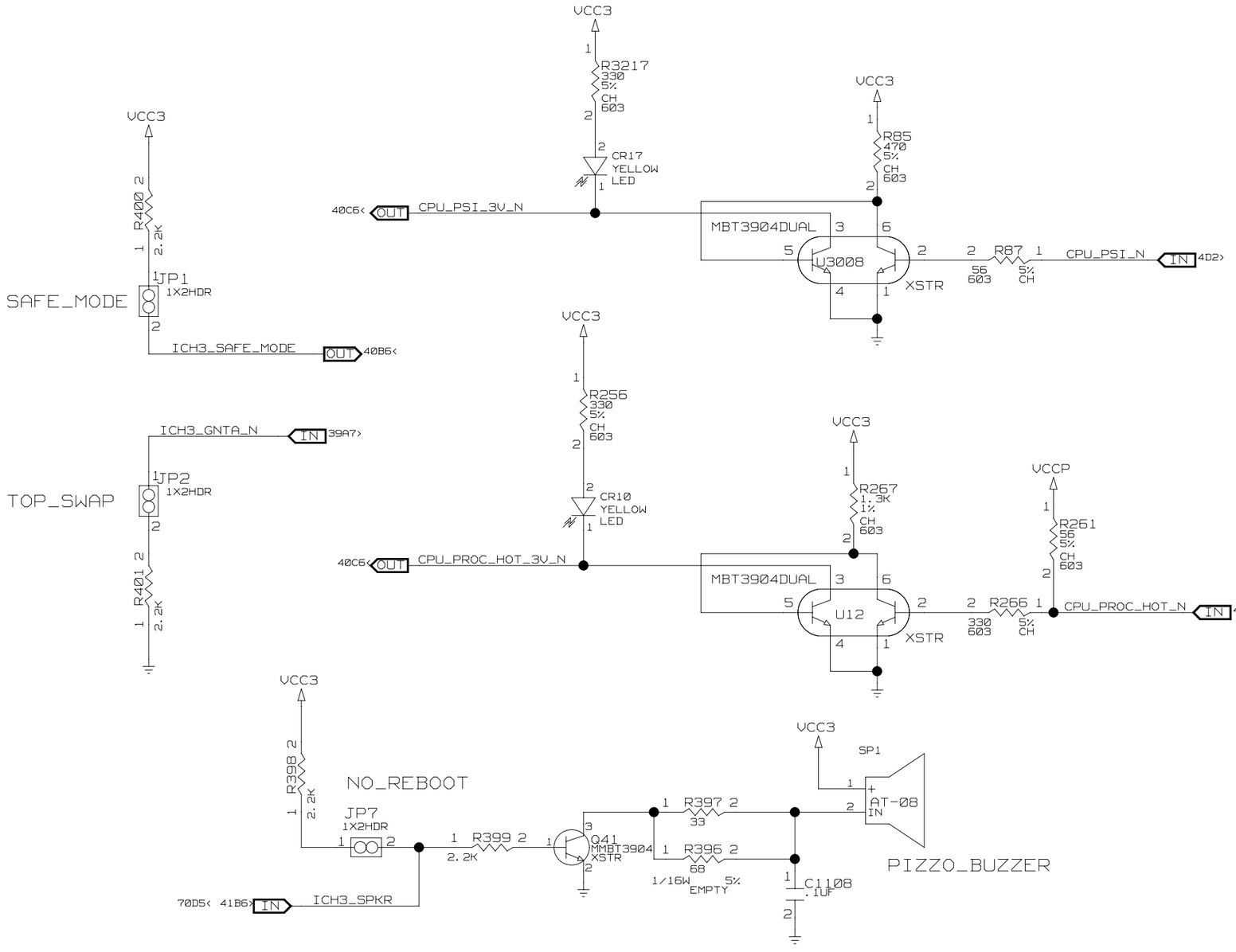


ICH3 (PART 3 OF 4)

DRAWING

PAGE	REV
41	A2.1



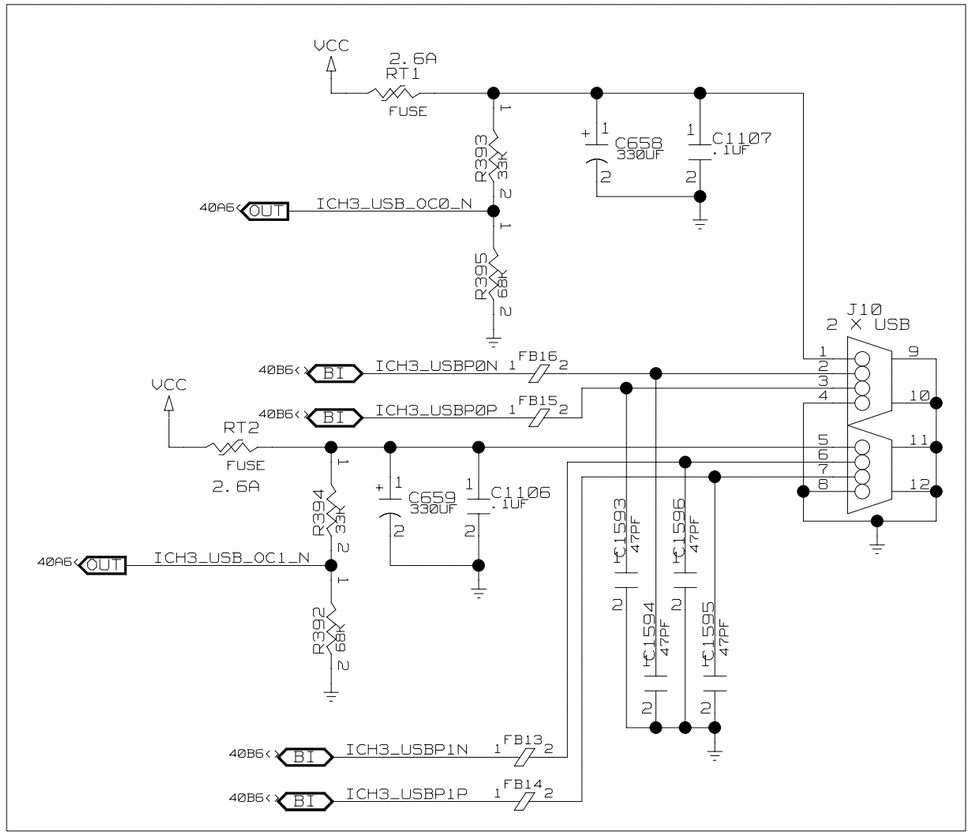


STRAP OPTIONS AND SPEAKER CIRCUITRY

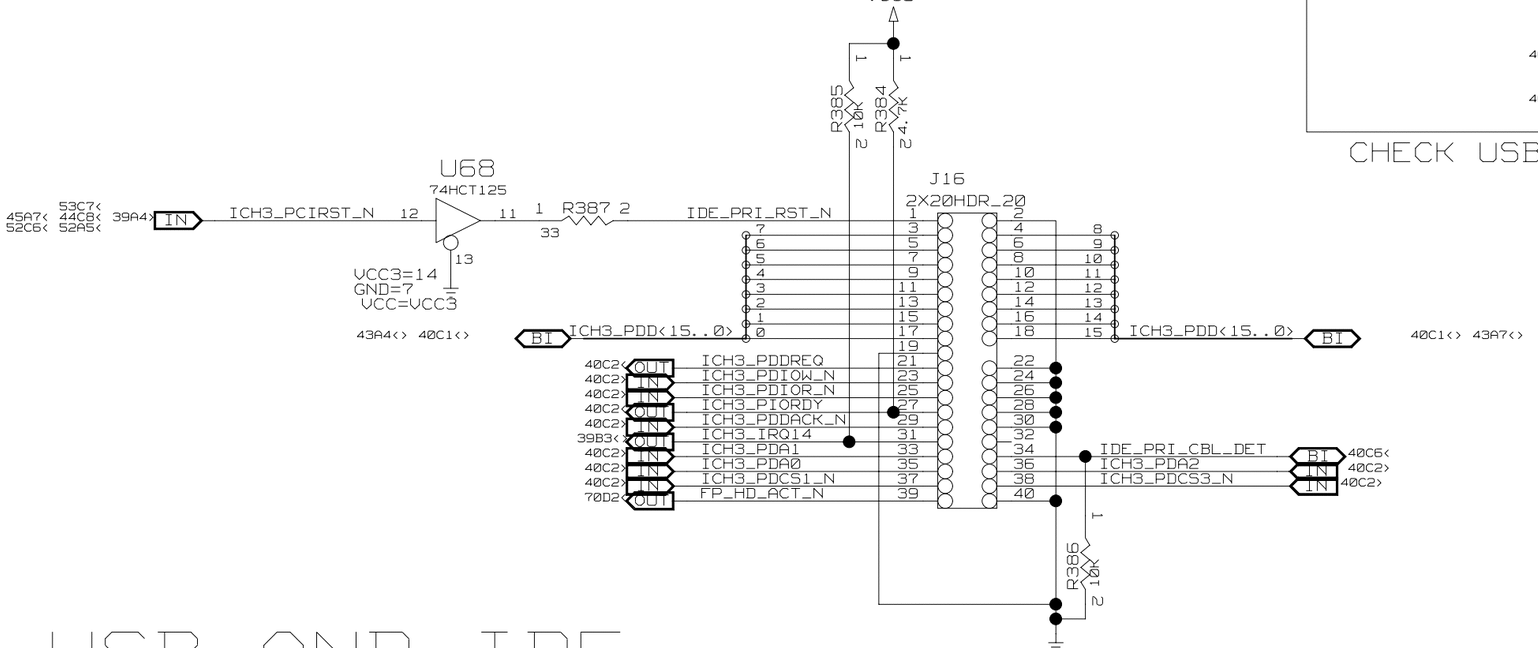
ICH3 (PART 4 OF 4)

DRAWING

PAGE	REV
42	A2.1



CHECK USB DESIGN GUIDELINES

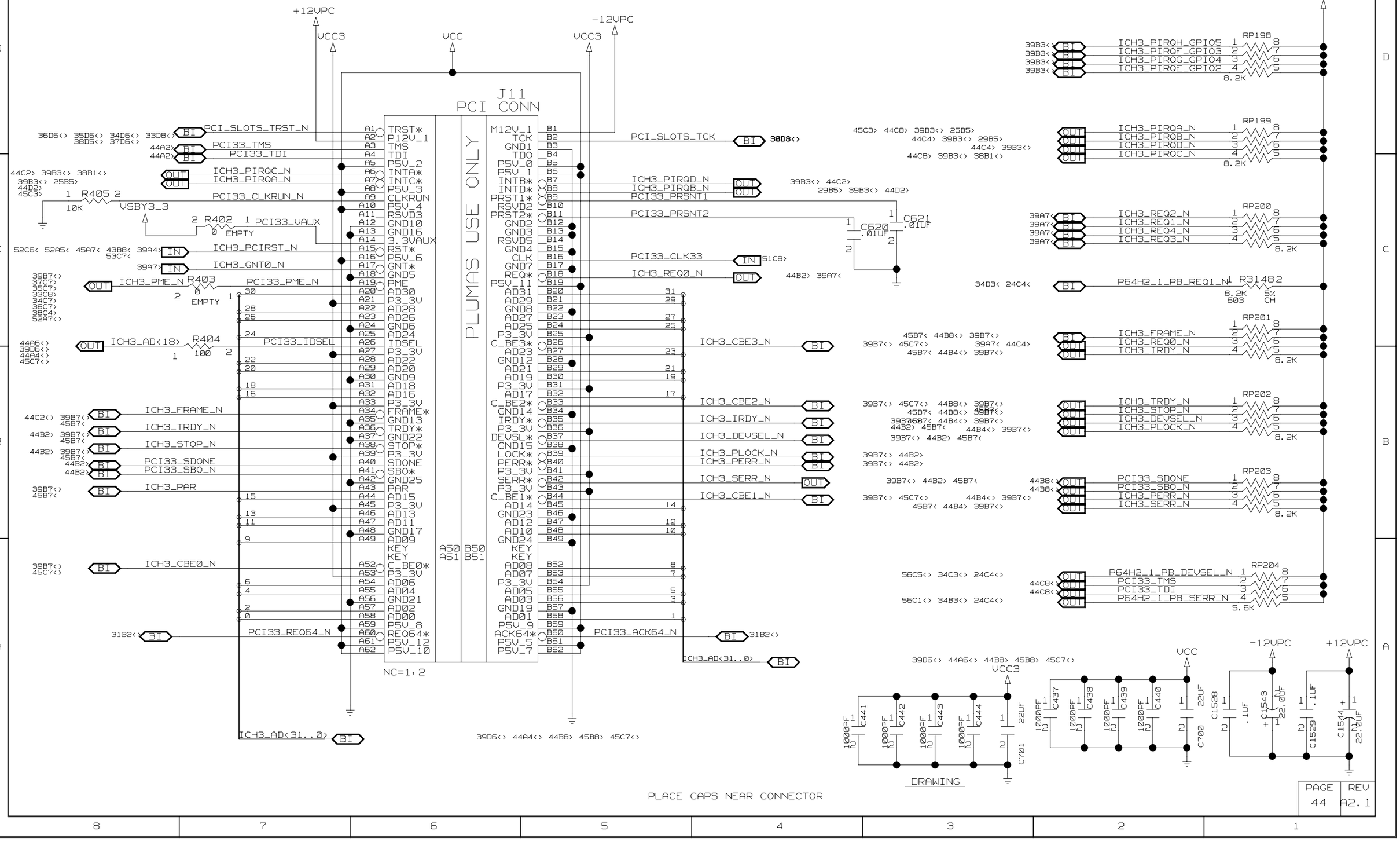


USB AND IDE

DRAWING

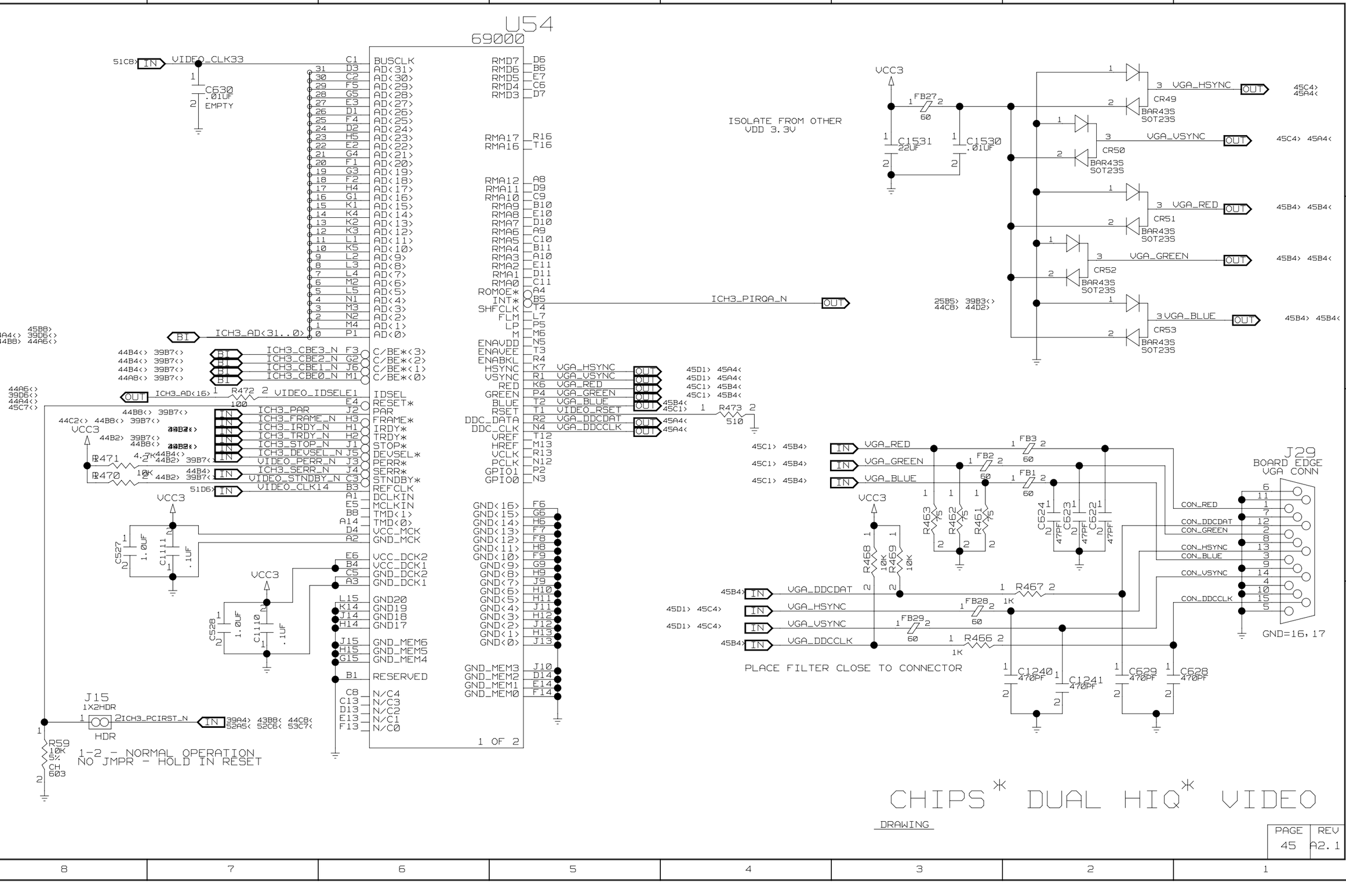
PAGE	REV
43	A2.1

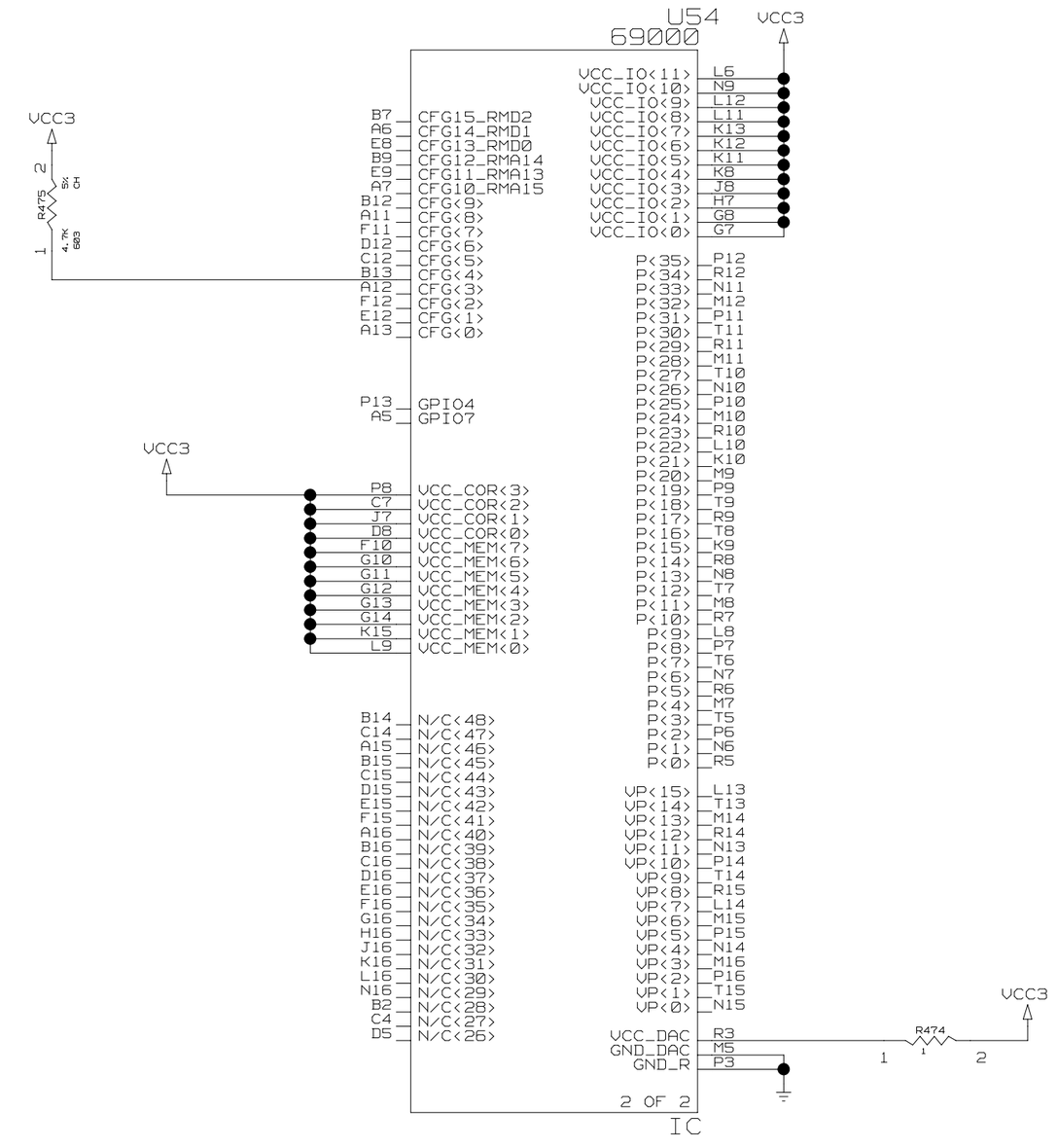
PCI-33 (ICH3) CONNECTOR, TERMINATION, AND DECOUPLING



PLACE CAPS NEAR CONNECTOR

PAGE	REV
44	A2.1


U54
69000
51C8> IN VIDEO_CLK33
C630 .01UF EMPTY
51D6> IN VIDEO_CLK14
AD<31> AD<30> AD<29> AD<28> AD<27> AD<26> AD<25> AD<24> AD<23> AD<22> AD<21> AD<20> AD<19> AD<18> AD<17> AD<16> AD<15> AD<14> AD<13> AD<12> AD<11> AD<10> AD<9> AD<8> AD<7> AD<6> AD<5> AD<4> AD<3> AD<2> AD<1> AD<0>
BI ICH3_AD<31..0>
ICH3_CBE3_N ICH3_CBE2_N ICH3_CBE1_N ICH3_CBE0_N
C/BE*<3> C/BE*<2> C/BE*<1> C/BE*<0>
OUT ICH3_AD<16> R472 100 VIDEO_IDSEL
IDSEL RESET* PAR FRAME* IRDY* TRDY* STOP* DEVSEL* PERR* SERR* STNDBY* REFCLK DCLKIN MCLKIN TMD<1> TMD<0> VCC_MCK GND_MCK VCC_DCK2 VCC_DCK1 GND_DCK2 GND_DCK1 GND20 GND19 GND18 GND17 GND_MEM6 GND_MEM5 GND_MEM4 RESERVED N/C4 N/C3 N/C2 N/C1 N/C0
ICH3_PAR ICH3_FRAME_N ICH3_IRDY_N ICH3_TRDY_N ICH3_STOP_N ICH3_DEVSEL_N VIDEO_PERR_N ICH3_SERR_N VIDEO_STNDBY_N
R471 4.7K R470 10K
VCC3
C527 1.0UF C1111 .1UF
C528 1.0UF C1110 .1UF
J15 1X2HDR HDR
ICH3_PCIRST_N
R59 10K 5% CH 603
1-2 - NORMAL OPERATION
NO JMPR - HOLD IN RESET
RMD7 RMD6 RMD5 RMD4 RMD3
RMA17 RMA16
RMA12 RMA11 RMA10 RMA9 RMA8 RMA7 RMA6 RMA5 RMA4 RMA3 RMA2 RMA1 RMA0
ROMOE* INT* SHFCLK FLM LP M ENAVDD ENAVEE ENABKL
ICH3_PIRQA_N
HSYNC VSYNC RED GREEN BLUE RSET DDC_DATA DDC_CLK VREF HREF VCLK PCLK GPIO1 GPIO0
VGA_HSYNC VGA_VSYNC VGA_RED VGA_GREEN VGA_BLUE VIDEO_RSET VGA_DDCDAT VGA_DDCCLK
R473 510
GND<16> GND<15> GND<14> GND<13> GND<12> GND<11> GND<10> GND<9> GND<8> GND<7> GND<6> GND<5> GND<4> GND<3> GND<2> GND<1> GND<0>
GND_MEM3 GND_MEM2 GND_MEM1 GND_MEM0
1 OF 2
ISOLATE FROM OTHER VDD 3.3V
VCC3
FB27 60
C1531 22UF C1530 .01UF
VGA_HSYNC VGA_VSYNC VGA_RED VGA_GREEN VGA_BLUE
CR49 CR50 CR51 CR52 CR53
BAR43S SOT23S
J29 BOARD EDGE VGA CONN
CON_RED CON_DDCDAT CON_GREEN CON_HSYNC CON_BLUE CON_VSYNC CON_DDCCLK
GND=16,17
R458 10K R459 10K
R463 75 R462 75 R461 75
C624 47PF C623 47PF C622 47PF
FB3 FB2 FB1 60
R467 1K R466 1K
FB28 FB29
C1240 470PF C1241 470PF C629 470PF C628 470PF
PLACE FILTER CLOSE TO CONNECTOR
CHIPS* DUAL HIQ* VIDEO
DRAWING
PAGE 45
REV A2.1



DRAWING

VIDEO

PAGE	REV
46	A2.1

VTT_DDR SUPPLY

+2.5V SUPPLY

U104 FAN5066

U103 LM2904

U1 LTC1929

Q44 N-MOSFET IC

Q43 N-MOSFET IC

Q1 N-MOSFET IC

Q2 N-MOSFET IC

Q3 N-MOSFET IC

Q4 N-MOSFET IC

Q5 N-MOSFET IC

Q6 N-MOSFET IC

Q7 N-MOSFET IC

Q8 N-MOSFET IC

VCC

VCC3

VQP

2.5V

HIDRV

LODRV

VTT_DDR_L

VTT_DDR

RC5051_ENABLE

VTT_DDR_PGOOD

2_5V_PGOOD

VREF_DDR_MCH

VREF_DDR_DIMM

V2_5_L1

V2_5_L2

V2_5SENSE1_P

V2_5SENSE1_M

V2_5SENSE2_P

V2_5SENSE2_M

1929_VOS_P

1929_VOS_M

PLACE CAPS CLSOE TO HIGH-SIDE FETS

ROUTE AS DIFF PAIR

ORIGINATING NEAR DIMMS

PLACE BETWEEN VR PINS 2,3

PLACE BETWEEN VR PINS 13, 14

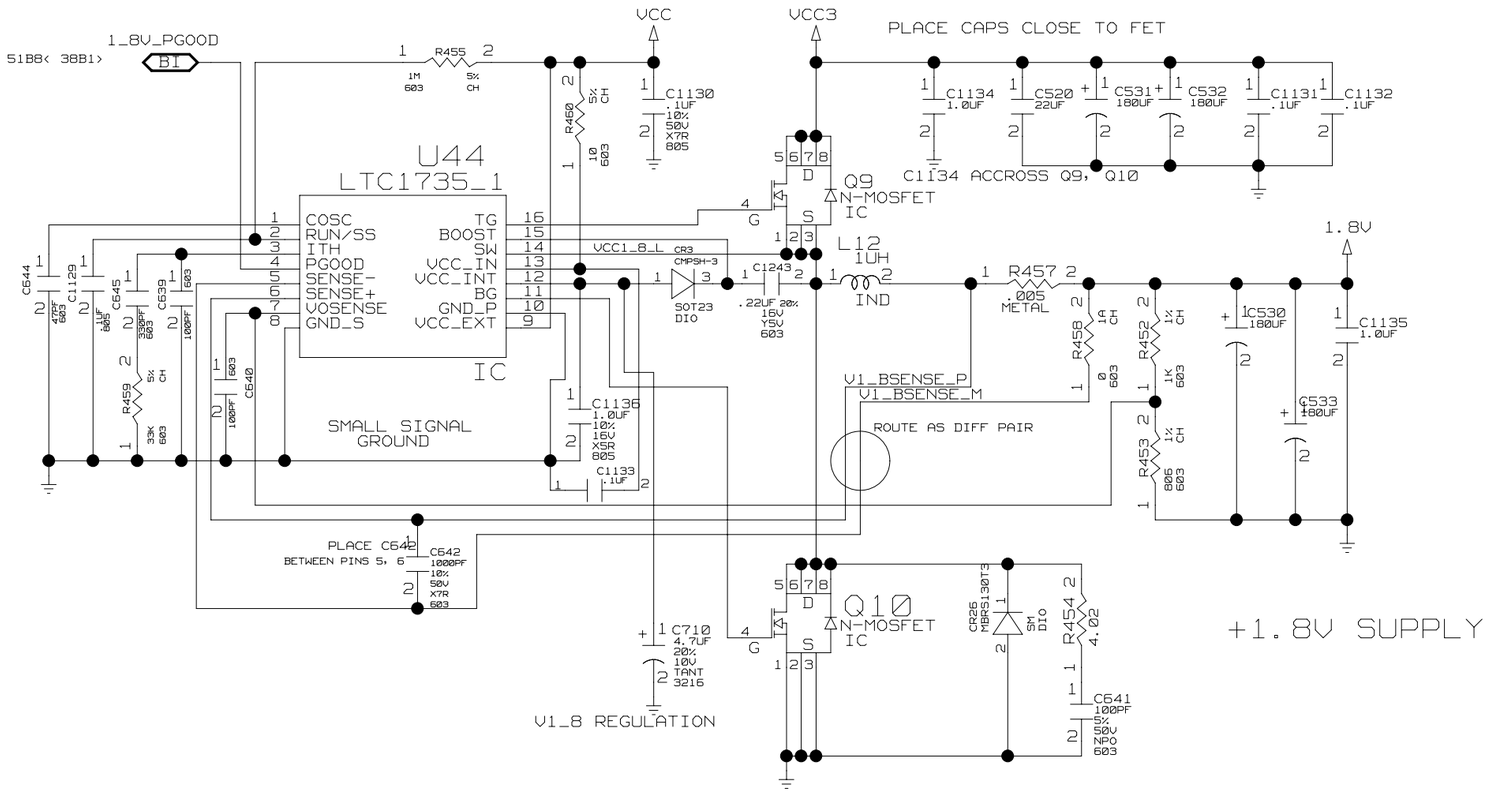
PLACE C1124 BETWEEN VR PINS 20, 21

SMALL SIGNAL GROUND

NOTE
FOR E7501 A0 STEPPING, R423=16.2K
FOR E7501 A1 STEPPING, R423=17.4K

DRAWING

PAGE	REV
47	A2.1


1_8V_PGOOD
51B8< 38B1>
BI
R455 1M 603 5% CH
VCC
VCC3
PLACE CAPS CLOSE TO FET
C1130 .1UF 10% 50V X7R 805
R460 5% CH 10 603
C1134 1.0UF
C520 22UF
C531 180UF
C532 180UF
C1131 .1UF
C1132 .1UF
C1134 ACCROSS Q9, Q10
U44
LTC1735_1
COSC
RUN/SS
ITH
PGOOD
SENSE-
SENSE+
VOSENSE
GND_S
TG
BOOST
SW
VCC_IN
VCC_INT
BG
GND_P
VCC_EXT
IC
Q9
N-MOSFET
IC
VCC1_8_L
CR3 CMPSH-3 SOT23 DIO
C1243 .22UF 20% 16V Y5V 603
L12 1UH IND
R457 .005 METAL
1.8V
R458 1A CH 0 603
R452 1% CH 1K 603
R453 1% CH 1K 603 805
C1530 180UF
C533 180UF
C1135 1.0UF
V1_BSENSE_P
V1_BSENSE_M
ROUTE AS DIFF PAIR
C544 470PF 603
C1129 1UF 805
C545 330PF 603
C639 100PF 603
R459 5% CH 33K 603
C640 100PF 603
SMALL SIGNAL GROUND
C1136 1.0UF 10% 16V X5R 805
C1133 .1UF
PLACE C642 BETWEEN PINS 5, 6
C642 1000PF 10% 50V X7R 603
C710 4.7UF 20% 10V TANT 3216
V1_8 REGULATION
Q10
N-MOSFET
IC
CR26 MBRS130T3 SM DIO
R454 4.02
C641 100PF 5% 50V NPO 603
+1.8V SUPPLY
VSBY5_0
VSBY1_8
LT1761_1_8
LT1761
IN
SHDN*
GND
OUT
BYP
U18
IC
C882 1.0UF 10% 16V X5R 805
C638 .01UF 20% 50V X7R 603
C709 10UF 20% 16V TANT 3528
VSBY1_8 REGULATION
VSBY1_8
VSBY5_0
VSBY3_3
VSBY3_3
U59
LTC1326
VCC3
VCC
VCCA
PBR*
GND
RST
RST*
SRST*
IC
R529 1% CH 6.04K 603
R530 5% CH 10K 603
R546 10K 603
R1016 5% CH 20K 603
ICH3_RSMRST_N
OUT 41C6<
STANDBY SUPPLY MONITOR
70C2> BI PWROK_RST_N
S9 SW
R648 1A CH 0 603
RESET_BTN
C1137 1.0UF 10% 16V X5R 805
VCC3
CR9 GREEN LED
R1047 1K 5% CH 603
R531 10K 5% CH 603
R224 5% CH 330 603
SOT23C BAV70LT1
CR72
49A4< 70B7> IN PS_PWRGD_SYS
PWROK_0
U72 74LVC14 IC VCC3=14 GND=7
47B6> IN 2_5V_PGOOD R771 0 603 0 CH
47D5> IN VTT_DDR_PGOOD R768 0 603 0 CH
R770 0 603 0 CH
4C2< 9C4> IN ITP_DBRST_N R976 0 603 0 CH
68B6> IN VCCP_PGOOD R143 0 603 1A CH
SYS_PWROK_1
SYS_PWROK_2
OUT
10A6< 55B6<
41C6< 25B5< 29B5<
PWROK GENERATION
DRAWING
PAGE 48
REV A2.1

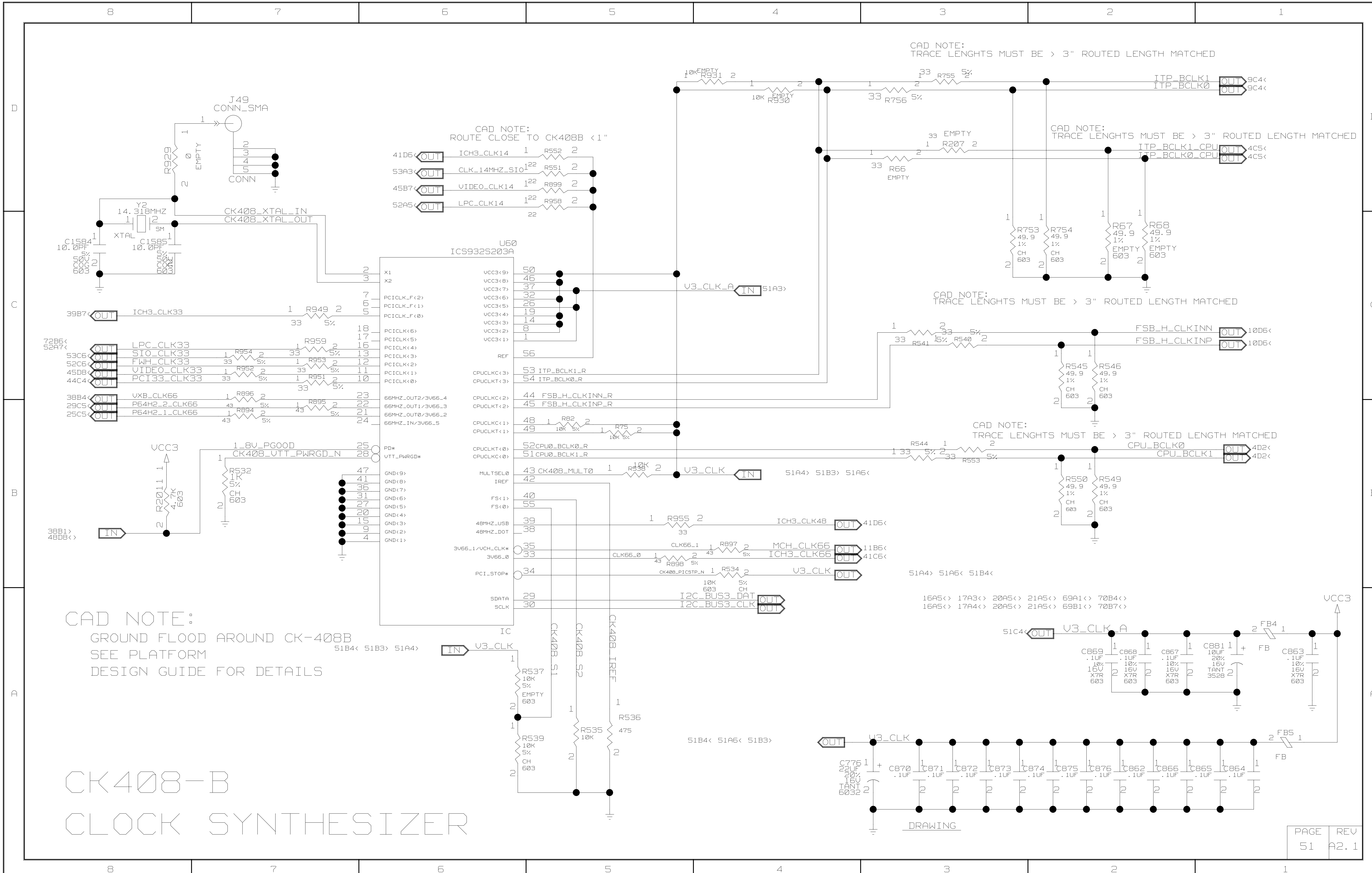
POWER CONNECTORS

VRD ENABLE LOGIC

J100 CONN24_WTX_MAIN
J101 CONN22_WTX
J102 CONN8_WTX_DIG
U16 QS3384
U17 QS3384
U113 74ACT04
U82 74LVC08AD
U57 74LVC00A
Q48 MMBT3904 XSTR
Q60 MBT3904DUAL XSTR
J4 2X3HDR HDR
J6 2X3HDR HDR
J28 1X2HDR HDR
RP1 100
RP2 100

DRAWING

PAGE	REV
49	A2.1


CAD NOTE:
TRACE LENGHTS MUST BE > 3" ROUTED LENGTH MATCHED
CAD NOTE:
ROUTE CLOSE TO CK408B <1"
J49
CONN_SMA
CONN
R929
EMPTY
Y2
14.318MHZ
XTAL
SM
C1584
10.0PF
C1585
10.0PF
50V
COG
603
CK408_XTAL_IN
CK408_XTAL_OUT
U60
ICS932S203A
ICH3_CLK14
CLK_14MHZ_SIO
VIDEO_CLK14
LPC_CLK14
R552
R551
R899
R958
ITP_BCLK1
ITP_BCLK0
ITP_BCLK1_CPU
ITP_BCLK0_CPU
R931
R930
R755
R756
R207
R66
R753
R754
R67
R68
49.9
EMPTY
V3_CLK_A
ICH3_CLK33
R949
LPC_CLK33
SIO_CLK33
FWH_CLK33
VIDEO_CLK33
PCI33_CLK33
VXB_CLK66
P64H2_2_CLK66
P64H2_1_CLK66
FSB_H_CLKINN
FSB_H_CLKINP
R541
R540
R545
R546
ITP_BCLK1_R
ITP_BCLK0_R
FSB_H_CLKINN_R
FSB_H_CLKINP_R
R82
R75
CPU0_BCLK0_R
CPU0_BCLK1_R
CPU_BCLK0
CPU_BCLK1
R544
R553
R550
R549
VCC3
1_8V_PGOOD
CK408_VTT_PWRGD_N
R532
R2011
4.7K
CK408_MULT0
R538
V3_CLK
ICH3_CLK48
R955
MCH_CLK66
ICH3_CLK66
CLK66_1
CLK66_0
R897
R898
CK408_PCISTP_N
R534
I2C_BUS3_DAT
I2C_BUS3_CLK
CK408_S1
CK408_S2
CK408_IREF
R537
R539
R535
R536
475
FB4
FB5
FB
C869
C868
C867
C881
C863
C776
C870
C871
C872
C873
C874
C875
C876
C862
C866
C865
C864
DRAWING
CAD NOTE:
GROUND FLOOD AROUND CK-408B
SEE PLATFORM
DESIGN GUIDE FOR DETAILS
CK408-B
CLOCK SYNTHESIZER
PAGE
51
REV
A2.1

FWH CIRCUITRY

DRAWING

PAGE	REV
52	A2.1

WP JUMPER SETTING

1 - 2	BIOS WRITE PROTECT
3 - 4	LOCK ENABLE
NO JUMPER	WRITE ENABLE

N/C TSOP ONLY
1, 3, 4, 5, 6, 8, 13, 14

DECOUPLING

U69
FWH_8M
IC

J27
1X4HDR
HDR

J50
2X30RCPT
CONN
NC=61, 62

Q33
MBT3904DUAL
XSTR

SIO CIRCUITRY

U56
LPC47B27

DEPOPULATE IF USING LPC CONNECTOR FOR DEBUG

R1053 8.2K 1% CH 603

R932 8.2K

DEFAULT I/O ADDRESS IS 2E

R499 4.7K 603 5% CH

R933 8.2K 1%

R497 1K 603 5% CH

R963 0

R757 GP30 4.7K 5%

R758 GP31 4.7K 603 5% CH

C712 2.2UF 20% 6V TANT 3216

C885 .1UF 10% 16V X7R 603

C886 .1UF 10% 16V X7R 603

C887 .1UF 10% 16V X7R 603

C888 .1UF 10% 16V X7R 603

C889 .01UF 20% 50V X7R 603

C883 .1UF 10% 16V X7R 603

C884 .1UF 10% 16V X7R 603

VCC3=53,65,93
VSS=7,31,60,76

IC

DRAWING

PAGE	REV
53	A2.1

LEGACY I/O

MOUSE & KEYBOARD

VCC
RT5 THRMSTR 1.10
V5_KB_RT
FB18 FB
V5_KB
C1450 .01UF 10% 50V X7R 603
C1449 1000PF 10% 50V X7R 603
RP283 2.7K 5% .063W
KBDATA
KBCLK
MSDATA
MSCLK
FB17
CON_KBDATA
CON_KBCLK
CON_MSDATA
CON_MSCLK
C1448 C1451 C1452 C1453 470PF 5% 50V COG 603

J40
PS2 STACK
P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 P14 P15 P16 P17
CONN

PARALLEL PORT

CR45 MMBD914LT1 SOT23 DIO
LPT_V5_0
RP211 RP208 RP212 RP206 2.7K 5% .063W IC SM
R560 2.7K 5% CH 603

LPT_STROBE_N
LPT_ALF_N
LPT_PD0
LPT_PD1
LPT_INIT_N
LPT_PD2
LPT_SLCTIN_N
LPT_PD3
LPT_ERROR_N
LPT_PD4
LPT_PD5
LPT_PD6
LPT_PD7
LPT_ACK_N
LPT_BUSY
LPT_PE
LPT_SLCT
RP209 RP210 RP207 33 5%
LPT_STROBE_N_R
LPT_ALF_N_R
LPT_PD0_R
LPT_PD1_R
LPT_INIT_N_R
LPT_PD2_R
LPT_SELECTIN_R
LPT_PD3_R
LPT_PD4_R
LPT_PD5_R
LPT_PD6_R
LTP_PD7_R
C1246 C1245 C1260 C1244 C1257 C1247 C1258 C1259 C1253 C1251 C1254 C1250 C1255 C1249 C1256 C1248 C1252 180PF

J31
TALL DSUB 25
I47
27

SERIAL PORT

J35
2 ROW
DSUB

+12VPC
U61
GD75232S
VDD+ RA1 RA2 RA3 RA4 RA5 DY1 DY2 DY3 VDD-
RY1 RY2 RY3 RY4 RY5 DA1 DA2 DA3 VDD-
SER_DCD SER_DSR SER_RXD SER_CTS SER_RI SER_RTS SER_TXD SER_DTR
COM_DCD1_N COM_DSR1_N COM_RXD1 COM_CTS1_N COM_RI1_N COM_RTS1_N COM_TXD1 COM_DTR1_N
IC
VCC=20
GND=11
-12VPC
C1265 C1267 C1263 C1261 C1266 C1268 C1264 C1262 220PF

FLOPPY CONNECTOR

J34
2X17HDR_5
HDR
DRVEN0 DRVEN1 INDEX_N MTR0_N DS0_N DIR_N STEP_N WDATA_N WGATE_N TRK0_N WRTPRT_N RDATA_N HDSEL_N DSKCHG_N
RP205 1K 5%
R559 1K 603 5% CH

DRAWING

PAGE	REV
54	A2.1

V1.2 REGULATION

NOTE: ROUTE AS DIFFERENTIAL PAIR

1_2_PGOOD — OUT 47BB

VCC

C1548 .1UF 20% 50V X7R 805

R813 1M 5% CH 603

R817 10

U115 LTC1735_1 IC

1	COSC	TG	16
2	RUN/SS	BOOST	15
3	ITH	SW	14
4	PGOOD	VCC_IN	13
5	SENSE-	VCC_INT	12
6	SENSE+	BG	11
7	VOSENSE	GND_P	10
8	GND_S	VCC_EXT	9

C1561 47PF 5% 50V NPO 603

C1549 .1UF 20% 50V X7R 805

C1563 330PF 10% 50V X7R 603

R816 33K 5% CH 603

C1559 100PF 5% 50V NPO 603

C1562 100PF 5% 50V NPO 603

SMALL SIGNAL GROUND

C1547 1.0UF

C1566 4.7UF 20% 10V TANT 3216

C1552 .1UF

PLACE C1550 BETWEEN PINS 5, 6

C1560 100PF 10% 50V X7R 603

PLACE C1547 CLOSE TO PINS 10, 12

CR78 CMPSH-3 SOT23 DIO

C1564 .22UF 20% 16V X5R 603

Q49 N-MOSFET IC

PLACE CAPS CLOSE TO FET

C1546 22UF 20% 6.3V X5R 1210

C1555 180UF 20% 4V ALUM 7343

C1556 180UF 20% 4V ALUM 7343

C1553 .1UF 20% 50V X7R 805

C1550 1UF 20% 50V X7R 805

C1551 1.0UF 10% 16V X5R 805

L22 1UH IND

R8142 .01 2010 1% CH

R815 0

R818 402 1% CH 603

R819 806 1% CH 603

C1558 180UF 20% 4V ALUM 7343

C1557 180UF 20% 4V ALUM 7343

C1554 1.0UF 10% 16V X5R 805

VCC1_2

V1_2SENSE_P

V1_2SENSE_N

VCC1_2_L

R797 4.7 EMPTY

C1565 100PF 5% 50V NPO 603

Q50 N-MOSFET IC

CR79 MBRS130T3 DIO

DRAWING

PAGE	REV
55	A2.1

INTEL(R) 82544EI GIGABIT LAN CONTROLLER

LAN CONTROLLER
P64H2 #1, PCI BUS B
IDSEL = AD17
REQ#/GNT# = 0
IRQ#0

24D6<> 31A3<> 34A2<> 34A7<> 56D7<>

U79
82544EI

PCI ADD/DATA/CTL

P64H2_1_PB_AD<63..0> BI

63 AF21 AD<63>
62 AD21 AD<62>
61 AC21 AD<61>
60 AC22 AD<60>
59 AD23 AD<59>
58 AC24 AD<58>
57 AC25 AD<57>
56 AB23 AD<56>
55 AB24 AD<55>
54 AB26 AD<54>
53 AA23 AD<53>
52 AA25 AD<52>
51 AA26 AD<51>
50 Y23 AD<50>
49 Y24 AD<49>
48 Y26 AD<48>
47 W23 AD<47>
46 W25 AD<46>
45 W26 AD<45>
44 V24 AD<44>
43 V26 AD<43>
42 U23 AD<42>
41 U25 AD<41>
40 U26 AD<40>
39 T23 AD<39>
38 T24 AD<38>
37 T26 AD<37>
36 R23 AD<36>
35 R25 AD<35>
34 R26 AD<34>
33 P23 AD<33>
32 P24 AD<32>
31 AB4 AD<31>
30 AB1 AD<30>
29 AC3 AD<29>
28 AB3 AD<28>
27 AC2 AD<27>
26 AE4 AD<26>
25 AC1 AD<25>
24 AF4 AD<24>
23 AD5 AD<23>
22 AF6 AD<22>
21 AC6 AD<21>
20 AE6 AD<20>
19 AF7 AD<19>
18 AD7 AD<18>
17 AC7 AD<17>
16 AF8 AD<16>
15 AC12 AD<15>
14 AE12 AD<14>
13 AF13 AD<13>
12 AC13 AD<12>
11 AD13 AD<11>
10 AF14 AD<10>
9 AE14 AD<9>
8 AC14 AD<8>
7 AD15 AD<7>
6 AC15 AD<6>
5 AF16 AD<5>
4 AE16 AD<4>
3 AC16 AD<3>
2 AF17 AD<2>
1 AD17 AD<1>
0 AF18 AD<0>

CBE#<7> AC19 P64H2_1_PB_CBE7_N BI 24C4<> 31D4<>
CBE#<6> AF20 P64H2_1_PB_CBE6_N BI 34B4<> 34B7<>
CBE#<5> AE20 P64H2_1_PB_CBE5_N BI 24C4<> 31B2<>
CBE#<4> AC20 P64H2_1_PB_CBE4_N BI 34B4<> 34A7<>
CBE#<3> AF5 P64H2_1_PB_CBE3_N BI 24B4<> 34C3<>
CBE#<2> AE8 P64H2_1_PB_CBE2_N BI 24B4<> 34C3<>
CBE#<1> AF12 P64H2_1_PB_CBE1_N BI 24B4<> 34B3<>
CBE#<0> AF15 P64H2_1_PB_CBE0_N BI 24B4<> 34B7<>

PAR AC11 P64H2_1_PB_PAR BI 24C4<> 34B7<>
PAR64 AD19 P64H2_1_PB_PAR64 BI 34B4<>
FRAME# AC8 P64H2_1_PB_FRAME_N BI 24C4<> 31C2<>
IRDY# AF9 P64H2_1_PB_IRDY_N BI 34C4<> 34C7<>
TRDY# AD9 P64H2_1_PB_TRDY_N BI 24C4<> 31B2<>
STOP# AE10 P64H2_1_PB_STOP_N BI 24C4<> 31B2<>
IDSEL AC5 LAN_IDSEL 34C7<>
DEVSEL# AF10 P64H2_1_PB_DEVSEL_N BI 24C4<> 34C3<>
VIO<2> AF24 44A2>
VIO<1> AF3

REQ64# AF19 P64H2_1_PB_REQ64_N BI 31D4<> 34B7<>
ACK64# AC18 P64H2_1_PB_ACK64_N BI 24B4<> 31B2<>
REQ# AA1 P64H2_1_PB_REQ0_N BI 31A4<> 24C4<> 34B3<>
GNT# AA4 P64H2_1_PB_GNT0_N IN 24C4>
LOCK# AC10 P64H2_1_PB_PLOCK_N IN

CLK Y3 P64H2_1_PB_PCLK0 IN 24B2>
M66EN AE18 P64H2_1_PB_M66EN IN
RST# Y1

LAN_PWR_GOOD B21 SYS_PWR0K_1 IN 48B1> 10A6<
PME# AA2 PME_N
APM_WAKEUP P25
AUX_PWR Y4 AUX_PWR
PWR_STATE1 V1
PWR_STATE0 V4

INTA# W2 P64H2_1_PB_IRQ0 BI 31C6<> 24A4<

1 OF 4
IC

P64H2_1_PB_LAN_RST_N

R900 2 1K 5% CH 603 1
R934 2 10K 5% 1/16W 603 1
VCC3

JP14
1X2HDR
1 2 P64H2_1_PB_RST_N IN 24B4> 34D7<
HDR

R226 10K 5% CH 603 1 2

1-2 - NORMAL OPERATION
NO JMPR - HOLD IN RESET

P64H2_1_PB_AD<17> BI

R759 2 100 5% CH 603 1
R653 2 10K 5% CH 603 1

VCC3

U101
AT93C46A_66

8 VCC
3 DI
1 CS
2 SK
5 GND
NC=6,7
DO 4

C1599 .01UF 5% 50V X7R 603 1 2

R936 2 1K 1% 1/16W 603 1

IC

EE_DI D25
EE_DO D24
EE_CS D23
EE_SK E24

U79
82544EI

EE_D1
EE_D0
EE_CS
EE_SK

EEPROM/FLASH INTJTAG

F26 FL_ADD<18>
D26 FL_ADD<17>
H26 FL_ADD<16>
E26 FL_ADD<15>
F25 FL_ADD<14>
G25 FL_ADD<13>
F24 FL_ADD<12>
G23 FL_ADD<11>
L26 FL_ADD<10>
G26 FL_ADD<9>
J26 FL_ADD<8>
H24 FL_ADD<7>
J23 FL_ADD<6>
H25 FL_ADD<5>
J24 FL_ADD<4>
K25 FL_ADD<3>
K24 FL_ADD<2>
K26 FL_ADD<1>
M25 FL_ADD<0>
L23 FL_CS*
H23 FL_OE*
F23 FL_WE*

L25 FL_DATA<7>
M26 FL_DATA<6>
N24 FL_DATA<5>
M24 FL_DATA<4>
P26 FL_DATA<3>
N23 FL_DATA<2>
N26 FL_DATA<1>
M23 FL_DATA<0>

R939 2 680 1

A14 LOX
C23 XOFF
A23 XON
C22 ABV_HI
D21 BLW_LO

MISC.

K1 SDP7
K2 SDP6
K3 SDP4
K4 SDP3
J3 SDP2
J1 SDP1
G2 SDP0

R935 1 330 2
CR81 YELLOW LED

56B2< BI 82544EI_TEST A13 TEST
L3 GMII_TEST1
L2 GMII_TEST0
B8 COL_TEST
C8 CRS_TEST

SERR# AD11 P64H2_1_PB_SERR_N BI
PERR# AF11 P64H2_1_PB_PERR_N BI

44A2>
34B3<>
34C4<>
24C4<>
31A2<>

ZN_COMP W1 ZN_COMP
ZP_COMP W4 ZP_COMP

R660 2 24.9 1% 1

TBI_MODE A21 TBI_MODE
TX_DATA<9> A7
TX_DATA<8> D8
TX_DATA<7> D7
TX_DATA<6> A6
TX_DATA<5> B6
TX_DATA<4> D6
TX_DATA<3> A5
TX_DATA<2> C5
TX_DATA<1> D5
TX_DATA<0> A4
GTX_CLK C7 82544EI_TEST
EWRAP D13

TBI INT

RX_DATA<9> D12
RX_DATA<8> C12
RX_DATA<7> B11
RX_DATA<6> C11
RX_DATA<5> A10
RX_DATA<4> D10
RX_DATA<3> A9
RX_DATA<2> B9
RX_DATA<1> D9
RX_DATA<0> A8
RBC0 B13
RBC1 A12

R664 2 24.9 1% 1
R938 2 1% 1
RP27 5% 2
1 8
2 7
3 6
4 5
680 5% SM .063W

56A4< BI

Y3 25.000MHZ
SM
1XTAL
C1271 22PF 5% 50V NP0 603 2
C1270 22PF 5% 50V NP0 603 2

LINK_UP* P3 LINK_UP_N OUT 58C3<
RX_ACTIVITY* P1
TX_ACTIVITY* R4 LINK_ACT_N OUT 58C3<
LINK10* R3
LINK100* R2 LINK100_N OUT 58B3<
LINK1000* R1 LINK1000_N OUT 58B3<

LED

XTAL1 B4 XTAL1
XTAL2 C4 XTAL2
REF E3
R658 2 2.49K 1% 1

MDI_0- C1 MDIO_N BI 58B8<>
MDI_0+ C2 MDIO BI 58B8<>
MDI_1- D1 MDI1_N BI 58B8<>
MDI_1+ D2 MDI1 BI 58B8<>
MDI_2- E1 MDI2_N BI 58B8<>
MDI_2+ E2 MDI2 BI 58B8<>
MDI_3- F1 MDI3_N BI 58B8<>
MDI_3+ F2 MDI3 BI 58B8<>

PHY

TCK T3 JTAG_TCK
TDI U4
TDO U2
TMS U1 JTAG_TMS
TRST* T1

R937 2 1K 1
R659 1K 1
R652 2 1K 1

JTAG

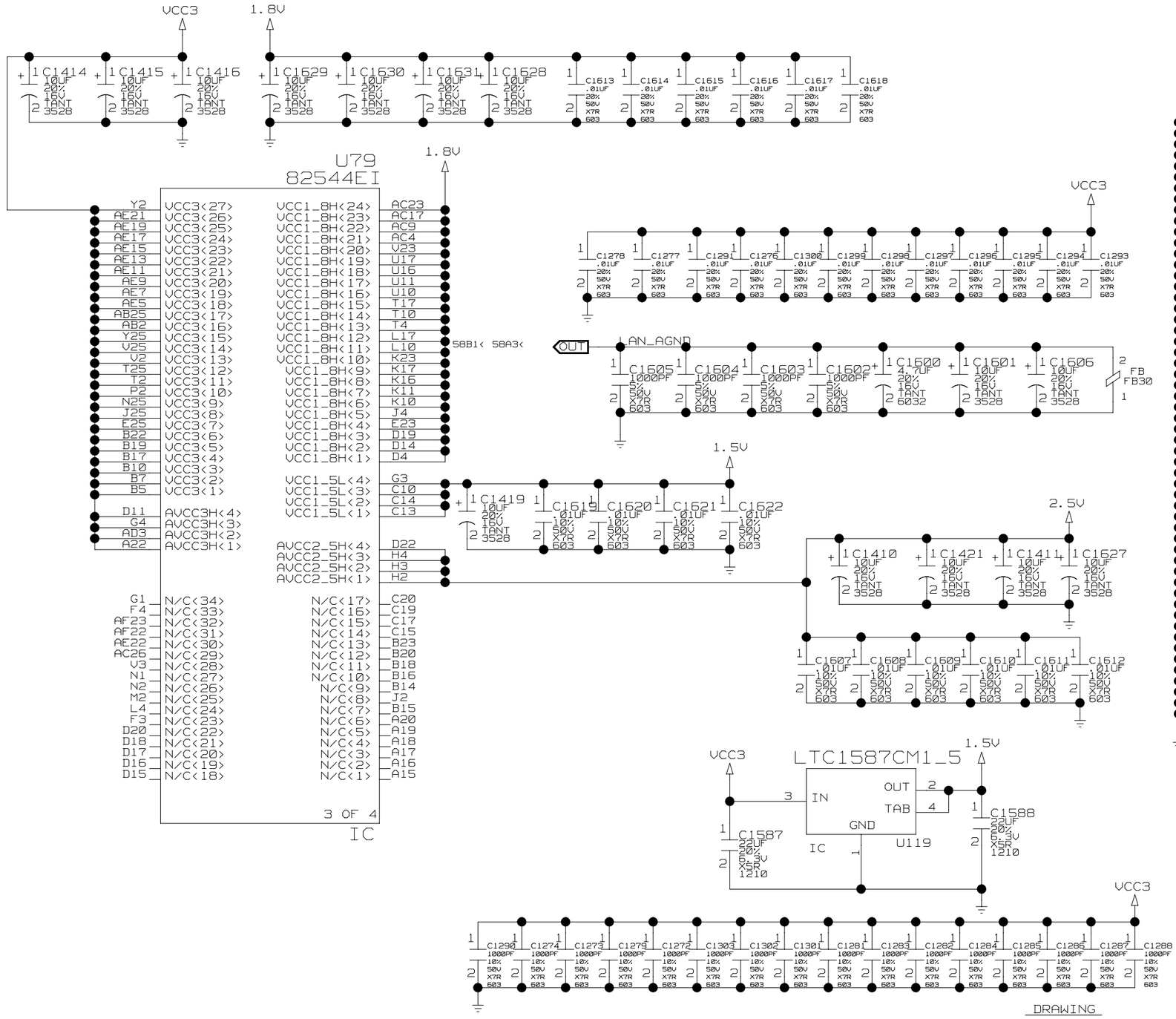
2 OF 4
IC

VCC3

DRAWING

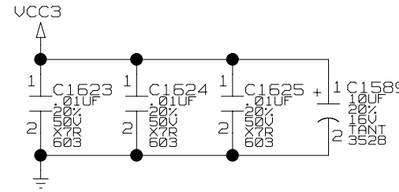
PAGE	REV
56	A2.1

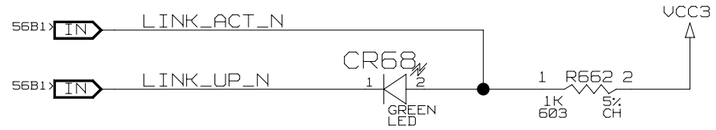
GIGABIT LAN CONTROLLER

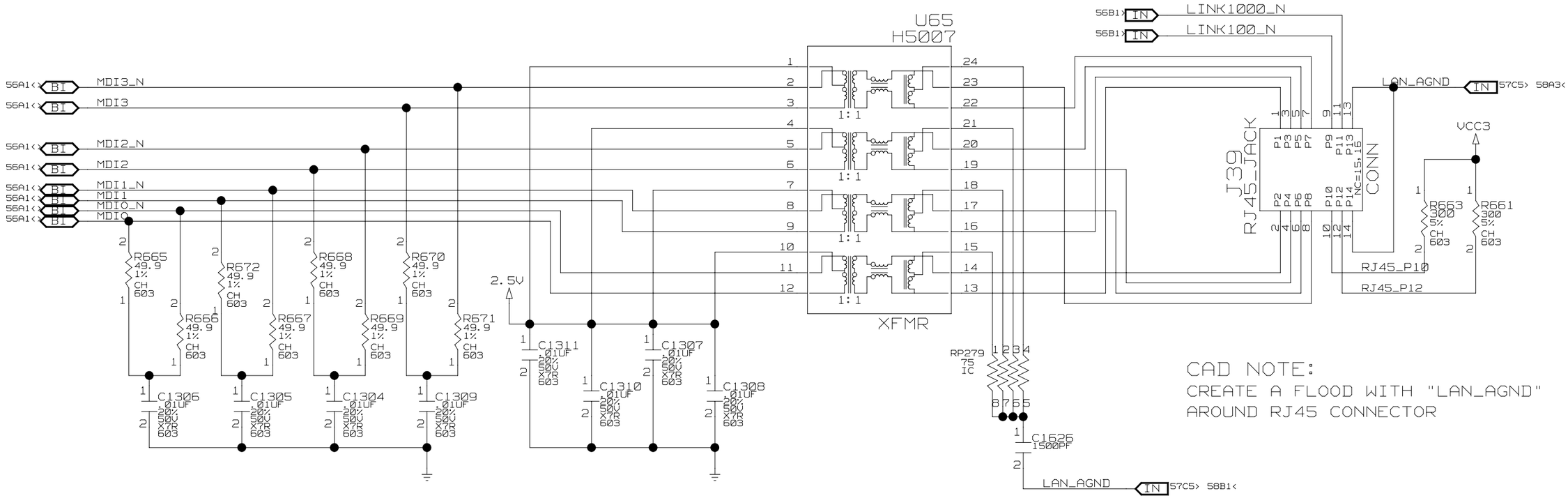


DRAWING

PAGE	REV
57	A2.1







LAN MAGNETICS AND CONNECTOR

DRAWING

PAGE	REV
58	A2.1

SCSI CONTROLLER

U78
AIC_7902A

R673 1 2 0
32A6<> 27D6<> 59A7<>
OUT P64H2_2_PA_AD<17>
R679 1 2 100
27B2> IN P64H2_2_PA_PCLK0 T1 PCLK
R3 TRST*
27C4> IN P64H2_2_PA_GNT0_N AE1 GNT*
SCSI_IDESL AE4 IDSEL
R676 1 2 0
R674 1 2 0
R675 1 2 0
T4 TCK
U4 TMS
P4 TDI

AD<63:0>
63 AC17 AD<63>
62 AD17 AD<62>
61 AE17 AD<61>
60 AF17 AD<60>
59 AC18 AD<59>
58 AD18 AD<58>
57 AE18 AD<57>
56 AC19 AD<56>
55 AD19 AD<55>
54 AE19 AD<54>
53 AC20 AD<53>
52 AD20 AD<52>
51 AE20 AD<51>
50 AF20 AD<50>
49 AC21 AD<49>
48 AD21 AD<48>
47 AE21 AD<47>
46 AC22 AD<46>
45 AD22 AD<45>
44 AE22 AD<44>
43 AD23 AD<43>
42 AE23 AD<42>
41 AF23 AD<41>
40 AD24 AD<40>
39 AF24 AD<39>
38 AE24 AD<38>
37 AF26 AD<37>
36 AF25 AD<36>
35 AE26 AD<35>
34 AE25 AD<34>
33 AD26 AD<33>
32 AD25 AD<32>
31 AC2 AD<31>
30 AD2 AD<30>
29 AE2 AD<29>
28 AC3 AD<28>
27 AD3 AD<27>
26 AE3 AD<26>
25 AF3 AD<25>
24 AC4 AD<24>
23 AF4 AD<23>
22 AC5 AD<22>
21 AD5 AD<21>
20 AE5 AD<20>
19 AF5 AD<19>
18 AC6 AD<18>
17 AD6 AD<17>
16 AE6 AD<16>
15 AC10 AD<15>
14 AD10 AD<14>
13 AE10 AD<13>
12 AC11 AD<12>
11 AD11 AD<11>
10 AE11 AD<10>
9 AF11 AD<9>
8 AC12 AD<8>
7 AE12 AD<7>
6 AC13 AD<6>
5 AD13 AD<5>
4 AE13 AD<4>
3 AF13 AD<3>
2 AC14 AD<2>
1 AD14 AD<1>
0 AE14 AD<0>

59D8> 32A6<> 27D6<> BI P64H2_2_PA_AD<63:0>

P2 RSVD1
R2 RSVD2
V4 RSVD3
U3 TEST10

SAME AS AIC7902

1 OF 6

IC

INTA* AB3 P64H2_2_PA_IRQ0 OUT 32A2<> 27A4<
INTB* AB2 P64H2_2_PA_IRQ1 OUT 32B6<> 27A4<
PREQ* AF1 P64H2_2_PA_REQ0_N OUT 32A6<> 27C4<
TDO R4
ACK64* AC15 P64H2_2_PA_ACK64_N BI 32A6<> 27D4<
REQ64* AD15 P64H2_2_PA_REQ64_N BI 27D4<> 32C8<>
PAR64 AF16 P64H2_2_PA_PAR64 BI 27C4<> 32C8<>
FRAME* AD7 P64H2_2_PA_FRAME_N BI 27C4<> 32B6<>
IRDY* AE7 P64H2_2_PA_IRDY_N BI 27C4<> 32D8<>
PAR AD9 P64H2_2_PA_PAR BI 27C4<>
DEVSEL* AD8 P64H2_2_PA_DEVSEL_N BI 27C4<> 32B6<>
TRDY* AC8 P64H2_2_PA_TRDY_N BI 27C4<> 32B6<>
STOP* AE8 P64H2_2_PA_STOP_N BI 27C4<> 32D8<>
PERR* AF8 P64H2_2_PA_PERR_N BI 27C4<> 32D8<>
SERR* AC9 P64H2_2_PA_SERR_N BI 32B6<> 27C4<

CBE*<7> AE15 P64H2_2_PA_CBE7_N BI 27C4<> 32C8<>
CBE*<6> AC16 P64H2_2_PA_CBE6_N BI 27C4<> 32B6<>
CBE*<5> AD16 P64H2_2_PA_CBE5_N BI 27C4<> 32B6<>
CBE*<4> AE16 P64H2_2_PA_CBE4_N BI 27B4<> 32B6<>
CBE*<3> AD4 P64H2_2_PA_CBE3_N BI 27B4<>
CBE*<2> AC7 P64H2_2_PA_CBE2_N BI 27B4<>
CBE*<1> AE9 P64H2_2_PA_CBE1_N BI 27B4<>
CBE*<0> AD12 P64H2_2_PA_CBE0_N BI 27B4<>

ROMOE* P24
SEECS AC26 SCSI_SEECS
MWE* T23
ROMCS* N23
BRDWE AB24
BRDOE* AB23

1K R677 EMPTY 1 2

MA<18> N24
MA<17> N25
MA<16> T24
MA<15> T25
MA<14> R25
MA<13> R24
MA<12> T26
MA<11> P25
MA<10> P23
MA<9> P26
MA<8> R23
MA<7> U23
MA<6> U24
MA<5> U25
MA<4> U26
MA<3> V23
MA<2> V24
MA<1> V25
MA<0> W23

MD<7> AA23
MD<6> Y26
MD<5> Y25
MD<4> Y24
MD<3> Y23
MD<2> W26
MD<1> W25
MD<0> W24

SEECK AC25 SCSI_SEECK
SEEDO AC24 SCSI_SEEDO
SEEDI AC23 SCSI_SEEDI

RSVD4 W4
TEST2 Y4 AIC7902_TEST2 BI 62A8<>
RSVD8 AA24
RSVD7 AA25
RSVD6 AB26
RSVD5 AB25

3.3 VOLT PART ONLY

VCC3

U64
AT93C66
4 CS
3 SK
2 DI
1 DO
8 VCC
5 GND
6 ORG
NC=7
IC

R678 1 2 2.7K 603 5% CH
C1312 .01UF 2 1

DRAWING

PAGE	REV
59	A2.1

SCSI CONTROLLER

U78
AIC_7902A

SCSI

2 OF 6
IC

3 OF 6
IC

1-2 = NORMAL OPERATION
NO JMPR = HOLD IN RESET

DRAWING

PAGE	REV
60	A2.1

SCSI CONTROLLER

U78
AIC_7902A

IN SCSI_CORE_VCC

C1426 10UF 20% 16V TANT 3528
C1317 .01UF

AF21	VCC1_8<20>	GND<72>	AB22
AF18	VCC1_8<19>	GND<71>	AB21
AF15	VCC1_8<18>	GND<70>	AB18
AF12	VCC1_8<17>	GND<69>	AB17
AF9	VCC1_8<16>	GND<68>	AB14
AF6	VCC1_8<15>	GND<67>	AB13
AA26	VCC1_8<14>	GND<66>	AB10
AA1	VCC1_8<13>	GND<65>	AB9
W1	VCC1_8<12>	GND<64>	AB6
V26	VCC1_8<11>	GND<63>	AB5
R26	VCC1_8<10>	GND<62>	AA22
R1	VCC1_8<9>	GND<61>	AA5
M1	VCC1_8<8>	GND<60>	V22
L26	VCC1_8<7>	GND<59>	V5
L1	VCC1_8<6>	GND<58>	U22
K25	VCC1_8<5>	GND<57>	U5
D14	VCC1_8<4>	GND<56>	T16
C17	VCC1_8<3>	GND<55>	T15
A14	VCC1_8<2>	GND<54>	T14
A7	VCC1_8<1>	GND<53>	T13
		GND<52>	T12
		GND<51>	T11
		GND<50>	R16
		GND<49>	R15
		GND<48>	R14
		GND<47>	R13
		GND<46>	R12
		GND<45>	R11
		GND<44>	P22
		GND<43>	P16
		GND<42>	P15
		GND<41>	P14
		GND<40>	P13
		GND<39>	P12
		GND<38>	P11
		GND<37>	P5
		GND<36>	N22
		GND<35>	N16
		GND<34>	N15
		GND<33>	N14
		GND<32>	N13
		GND<31>	N12
		GND<30>	N11
		GND<29>	N5
		GND<28>	M16
		GND<27>	M15
		GND<26>	M14
		GND<25>	M13
		GND<24>	M12
		GND<23>	M11
		GND<22>	L16
		GND<21>	L15
		GND<20>	L14
		GND<19>	L13
		GND<18>	L12
		GND<17>	L11
		GND<16>	K22
		GND<15>	K5
		GND<14>	J22
		GND<13>	J5
		GND<12>	F22
		GND<11>	F5
		GND<10>	E22
		GND<9>	E21
		GND<8>	E18
		GND<7>	E17
		GND<6>	E14
		GND<5>	E13
		GND<4>	E10
		GND<3>	E9
		GND<2>	E6
		GND<1>	E5

POWERS/GROUNDS

6 OF 6
IC

63B6 IN SCSI_VCC

C898 10UF 20% 16V X5R 1210
C1324 .1UF
C1321 .01UF 5% 50V X7R 603
C1323 .1UF
C1314 .01UF
C1424 10UF 20% 16V TANT 3528

C897 10UF 20% 16V X5R 1210
C1319 .1UF
C1322 .01UF 5% 50V X7R 603
C1320 .1UF
C1315 .01UF
C1423 10UF 20% 16V TANT 3528

U78
AIC_7902A

H22	SVCCA25<5>	M5	SVCCB25<5>
G22	SVCCA25<4>	L5	SVCCB25<4>
E20	SVCCA25<3>	H5	SVCCB25<3>
E19	SVCCA25<2>	G5	SVCCB25<2>
E16	SVCCA25<1>	E8	SVCCB25<1>
E15	SVCCA25<0>	E7	SVCCB25<0>

G26	SVCC1_8<3>	K1	SVCC33<5>
D4	SVCC1_8<2>	H26	SVCC33<4>
C23	SVCC1_8<1>	D23	SVCC33<3>
C3	SVCC1_8<0>	A16	SVCC33<2>
		A4	SVCC33<1>
		A1	SVCC33<0>

AF22	VCC3<16>
AF19	VCC3<15>
AF14	VCC3<14>
AF10	VCC3<13>
AF7	VCC3<12>
AF2	VCC3<11>
Y22	VCC3<10>
W22	VCC3<9>
T22	VCC3<8>
T5	VCC3<7>
R22	VCC3<6>
R5	VCC3<5>
M22	VCC3<4>
L22	VCC3<3>
E12	VCC3<2>
E11	VCC3<1>

POWERS/GROUNDS

4 OF 6
IC

C1316 .01UF
C1422 10UF 20% 16V TANT 3528
VCC3
C1425 10UF 20% 16V TANT 3528
C1313 .01UF
VCC3
C1427 10UF 20% 16V TANT 3528
C1318 .01UF

DRAWING

PAGE	REV
61	A2.1

SCSI CONTROLLER

U78
AIC_7902A

SCSI POWER/GND AND TEST

W2 PXAGND1
Y2 PXAGND2
V1 PCAGND1
V2 PCAGND2
AA3 PZGND
AB1 PAGUARDG
C14 AGND<5>
C13 AGND<4>
C12 AGND<3>
B14 AGND<2>
A13 AGND<1>
C11 AGND<0>
C10 STAGARDG
D10 SRAGARDG

63C4< 62C3> 62B3> OUT SCSI_AGND

PXVCC18 P1
PXAVCC18 Y1
PXAVCC331 U1
PXAVCC332 U2
PCAVCC331 T2
PCAVCC332 T3
PZV33 AA2
PAGUARDV AC1
VCC3

AVCC18<3> D7
AVCC18<2> C7
AVCC18<1> B7
AVCC18<0> A8

AVCC33<4> A10
AVCC33<3> A9
AVCC33<2> B8
AVCC33<1> A12
AVCC33<0> A11

STAGARDV C8
SRAGARDV D8

TERMPWRA H23 AIC7902_TERMPWRA
TERMPWRB D12 AIC7902_TERMPWRB

VIO<9> AB20
VIO<8> AB19
VIO<7> AB16
VIO<6> AB15
VIO<5> AB12
VIO<4> AB11
VIO<3> AB8
VIO<2> AB7
VIO<1> Y5
VIO<0> W5

62A8< BI AIC7902_TEST9 Y3 TEST9
W3 TEST8
V3 TEST7
D13 TEST6
D11 TEST5
G23 TEST4

TEST3 H24 AIC7902_TEST3 BI 62A8<>
TEST1 AA4 AIC7902_TEST1 BI 62A8<>
TEST0 AB4 AIC7902_TEST0 BI 62A8<>

5 OF 6
IC

SCSI_CORE_VCC IN 63B2> 61D8<

C1335 .01UF 5% 50V X7R 603
C1428 10UF 20% 16V TANT 3528

SCSI_CORE_VCCA_PX
FB6 FB
C1333 .01UF 5% 50V X7R 603
C1429 10UF 20% 16V TANT 3528
62C8> 62B3> 62C3> 63C4< OUT SCSI_AGND

SCSI_V3_3A_PX
FB9 FB
C1334 .01UF 5% 50V X7R 603
C1330 .01UF 5% 50V X7R 603
C1329 .01UF 5% 50V X7R 603
C1430 10UF 20% 16V TANT 3528
63C4< 62C8> 62B3> 62C3> OUT SCSI_AGND

SCSI_CORE_VCCA
FB10 FB
C1331 .01UF 5% 50V X7R 603
C1328 .01UF 5% 50V X7R 603
C1431 10UF 20% 16V TANT 3528
62C8> 62C3> 62B3> 63C4< OUT SCSI_AGND

SCSI_V3_3A_0
FB8 FB
C1332 .01UF 5% 50V X7R 603
C1327 .01UF 5% 50V X7R 603
C1432 10UF 20% 16V TANT 3528
62C8> 62B3> 62C3> 63C4< OUT SCSI_AGND

SCSI_V3_3A_1
FB7 FB
C1325 .01UF 5% 50V X7R 603
C1326 .01UF 5% 50V X7R 603
62C8> 62B3> 62C3> 63C4< OUT SCSI_AGND

VCC3

C1340 1000PF 10% 50V X7R 603
C1339 1000PF 10% 50V X7R 603

R688 1K 5% 1/16W LVTRMPWR_A IN 64C5> 65D5<
R689 1K LVTRMPWR_B IN 54C2> 56D5<

R1007 10K 603
R1008 10K 603
R1009 10K 603
R1010 10K 603
U71 1.24V DIO NC=1,2
U70 1.24V DIO NC=1,2

62B4< BI AIC7902_TEST3 R1011 4.7K 603 EMPTY

RP280 4.7K EMPTY
62B7< BI AIC7902_TEST9
59A3< BI AIC7902_TEST2
62B4< BI AIC7902_TEST1
62B4< BI AIC7902_TEST0

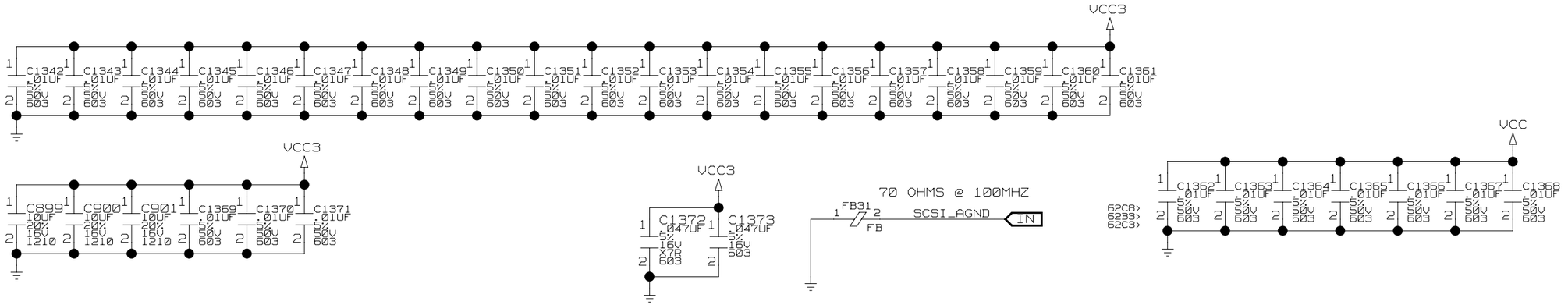
NOPOP RP280 AND R1011 FOR
AIC7902 A-2 AND LATER STEPPINGS

C1336 .01UF 5% 50V X7R 603
C1337 .01UF 5% 50V X7R 603
C1338 .01UF 5% 50V X7R 603
C1341 .1UF

DRAWING

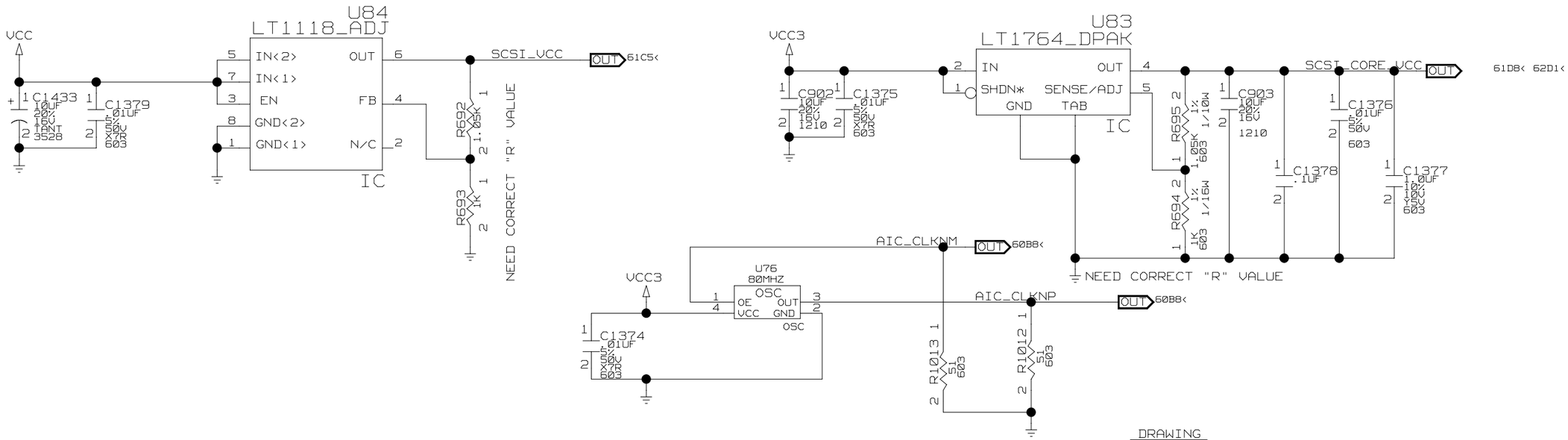
PAGE	REV
62	A2.1

AIC - 7902 SCSI DECOUPLING RECOMMENDATION FOR POWER SUPPLIES



ISOLATE DIGITAL & ANALOG GROUND

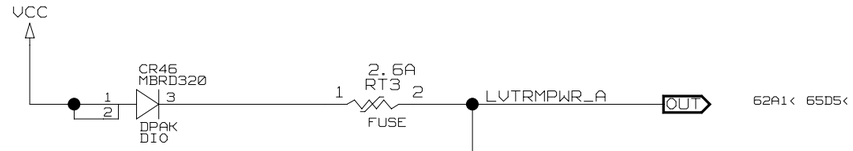
VOLTAGE REGULATORS AND SCSI CLOCK

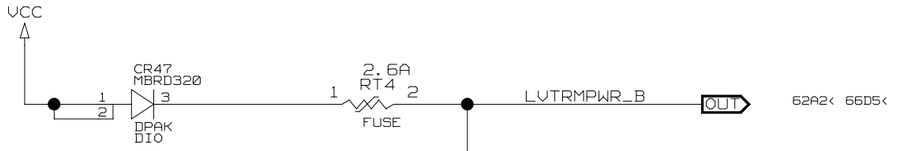


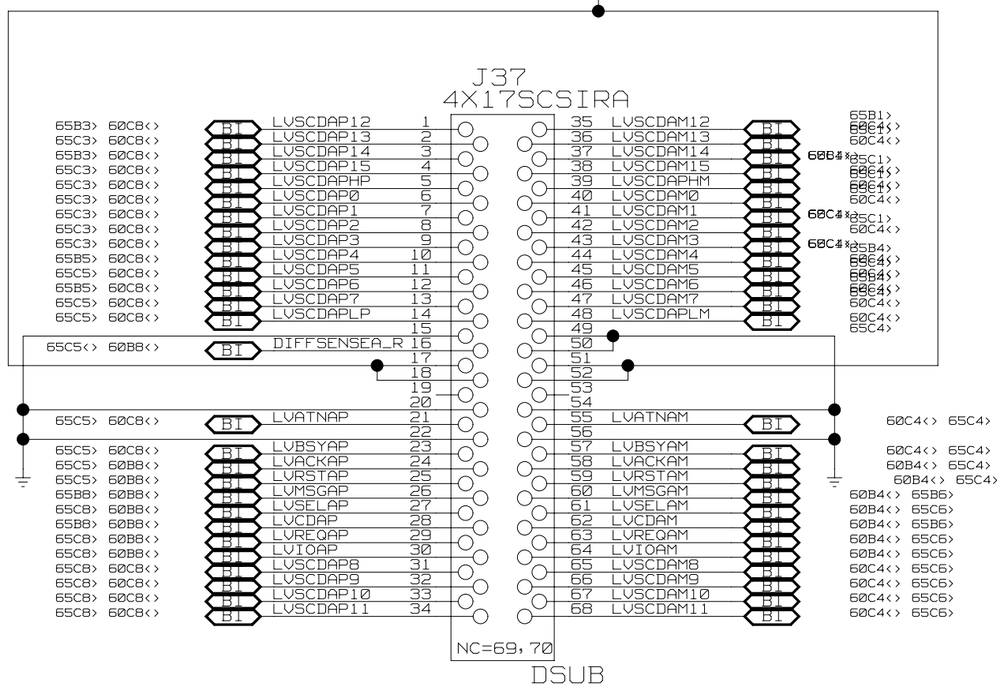
DRAWING

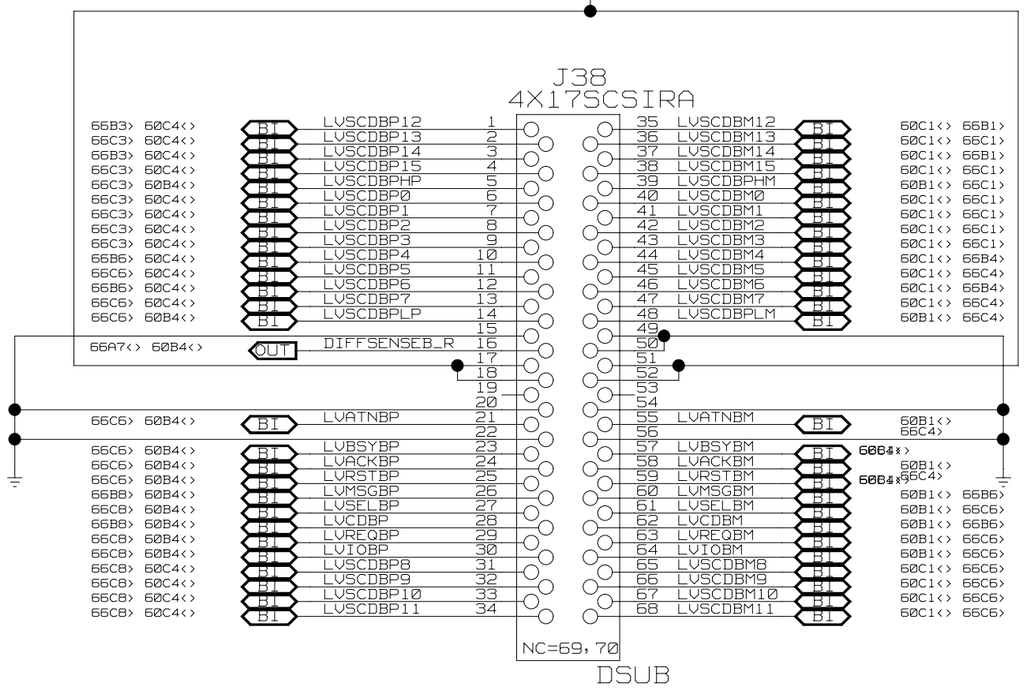
PAGE	REV
63	A2.1

SCSI CONNECTORS A AND B









DRAWING

PAGE	REV
64	A2.1

TERMINATION SCSI CHANNEL A

DRAWING

PAGE	REV
65	A2.1

40 MIL

LVTRMPWR_A IN 64C5> 62A1<

C1380 .1UF

C1434 10UF 20% 16V TANT 3528

DIFFSENSEA_R BI 60B8<> 64B7<>

R697 4.7K 603 5% 1/16W

R702 20K

CHA_TERMEN 60B5> IN

R700 1K

U93 DS2119M

DIFFSENSE, TPWR1, TPWR2, DIFF_CAP, HS_GND, HS_GND, GND, ISO, MSTR/SLV, VREF, IC

RP<9> LVSELAP 25 — RN<9> 26 LVSELAM

RP<8> LVREQAP 23 — RN<8> 24 LVREQAM

RP<7> LVSCDAP8 20 — RN<7> 21 LVSCDAM8

RP<6> LVSCDAP10 18 — RN<6> 19 LVSCDAM10

RP<5> LVSCDAP11 11 — RN<5> 12 LVSCDAM11

RP<4> LVSCDAP9 9 — RN<4> 10 LVSCDAM9

RP<3> LVIOAP 7 — RN<3> 8 LVIOAM

RP<2> LVCDAP 4 — RN<2> 5 LVCDAM

RP<1> LVMSGAP 2 — RN<1> 3 LVMSGAM

20 MIL

C1435 4.7UF 20% 10V 3216

C1381 .1UF

20 MIL

U94 DS2119M

DIFFSENSE, TPWR1, TPWR2, DIFF_CAP, HS_GND, HS_GND, GND, ISO, MSTR/SLV, VREF, IC

RP<9> LVSCDAP5 25 — RN<9> 26 LVSCDAM5

RP<8> LVSCDAP7 23 — RN<8> 24 LVSCDAM7

RP<7> LVATNAP 20 — RN<7> 21 LVATNAM

RP<6> LVBSYAP 18 — RN<6> 19 LVBSYAM

RP<5> LVRSTAP 11 — RN<5> 12 LVRSTAM

RP<4> LVACKAP 9 — RN<4> 10 LVACKAM

RP<3> LVSCDAPLP 7 — RN<3> 8 LVSCDAPLM

RP<2> LVSCDAP6 4 — RN<2> 5 LVSCDAM6

RP<1> LVSCDAP4 2 — RN<1> 3 LVSCDAM4

C1384 .1UF

20 MIL

C1436 4.7UF 20% 10V 3216

C1382 .1UF

20 MIL

U95 DS2119M

DIFFSENSE, TPWR1, TPWR2, DIFF_CAP, HS_GND, HS_GND, GND, ISO, MSTR/SLV, VREF, IC

RP<9> LVSCDAP13 25 — RN<9> 26 LVSCDAM13

RP<8> LVSCDAP15 23 — RN<8> 24 LVSCDAM15

RP<7> LVSCDAP0 20 — RN<7> 21 LVSCDAM0

RP<6> LVSCDAP2 18 — RN<6> 19 LVSCDAM2

RP<5> LVSCDAP3 11 — RN<5> 12 LVSCDAM3

RP<4> LVSCDAP1 9 — RN<4> 10 LVSCDAM1

RP<3> LVSCDAPHP 7 — RN<3> 8 LVSCDAPHM

RP<2> LVSCDAP14 4 — RN<2> 5 LVSCDAM14

RP<1> LVSCDAP12 2 — RN<1> 3 LVSCDAM12

20 MIL

C1437 4.7UF 20% 10V 3216

C1383 .1UF

20 MIL

TERMINATION SCSI CHANNEL B

DRAWING

PAGE	REV
66	A2.1

40 MIL

LVTRMPWR_B IN 64C2> 62A2<

C1388 .1UF

C1441 10UF 20% 16V TANT 3528

R704 4.7K 5% 1/16W 603

U96
DS2119M

DIFFSENSE TPWR1 TPWR2 DIFF_CAP HS_GND HS_GND GND ISO MSTR/SLV VREF IC

RP<9> RP<8> RP<7> RP<6> RP<5> RP<4> RP<3> RP<2> RP<1>

RN<9> RN<8> RN<7> RN<6> RN<5> RN<4> RN<3> RN<2> RN<1>

LVSELBP LVREQBP LVSCDBP8 LVSCDBP10 LVSCDBP11 LVSCDBP9 LVIOBP LVCDBP LVMSGBP

LVSELBM LVREQBM LVSCDBM8 LVSCDBM10 LVSCDBM11 LVSCDBM9 LVIOBM LVCDBM LVMSGBM

C1440 4.7UF 20% 10V 3216

C1387 .1UF

20 MIL

U97
DS2119M

DIFFSENSE TPWR1 TPWR2 DIFF_CAP HS_GND HS_GND GND ISO MSTR/SLV VREF IC

RP<9> RP<8> RP<7> RP<6> RP<5> RP<4> RP<3> RP<2> RP<1>

RN<9> RN<8> RN<7> RN<6> RN<5> RN<4> RN<3> RN<2> RN<1>

LVSCDBP5 LVSCDBP7 LVATNBP LVBSYBP LVRSTBP LVACKBP LVSCDBPLP LVSCDBP6 LVSCDBP4

LVSCDBM5 LVSCDBM7 LVATNBM LVBSYBM LVRSTBM LVACKBM LVSCDBPLM LVSCDBM6 LVSCDBM4

20K R708

C1389 .1UF

C1439 4.7UF 20% 10V 3216

C1386 .1UF

20 MIL

U98
DS2119M

DIFFSENSE TPWR1 TPWR2 DIFF_CAP HS_GND HS_GND GND ISO MSTR/SLV VREF IC

RP<9> RP<8> RP<7> RP<6> RP<5> RP<4> RP<3> RP<2> RP<1>

RN<9> RN<8> RN<7> RN<6> RN<5> RN<4> RN<3> RN<2> RN<1>

LVSCDBP13 LVSCDBP15 LVSCDBP0 LVSCDBP2 LVSCDBP3 LVSCDBP1 LVSCDBPHP LVSCDBP14 LVSCDBP12

LVSCDBM13 LVSCDBM15 LVSCDBM0 LVSCDBM2 LVSCDBM3 LVSCDBM1 LVSCDBPHM LVSCDBM14 LVSCDBM12

C1438 4.7UF 20% 10V 3216

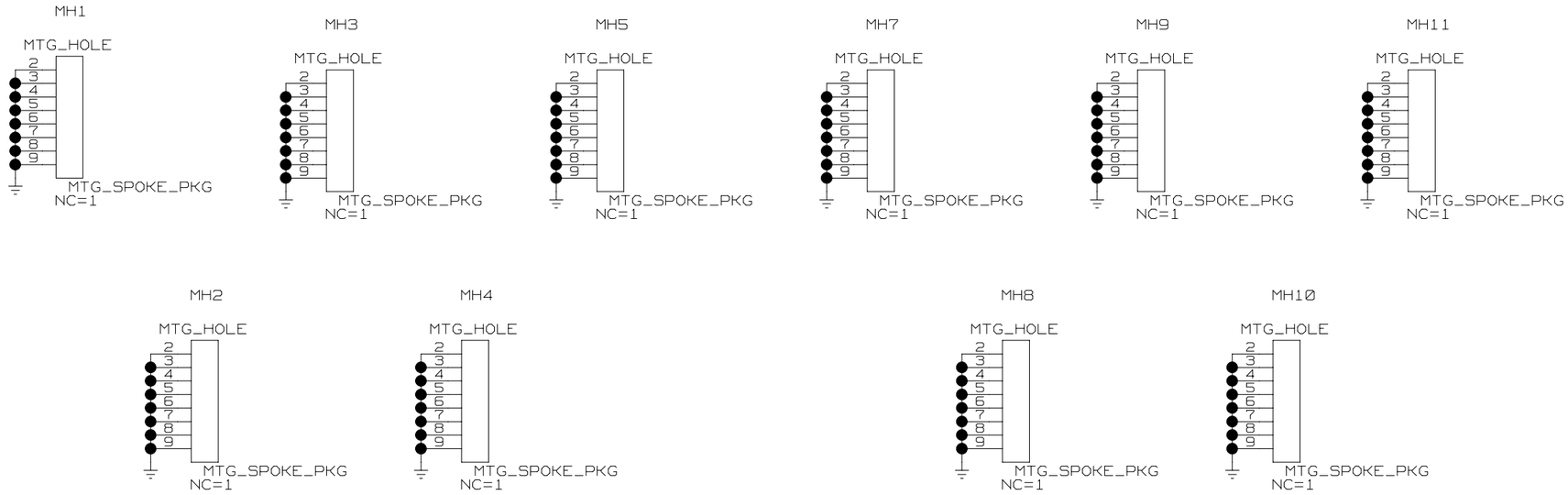
C1385 .1UF

20 MIL

64B4> 60B4<> BI DIFFSENSEB_R

60B1> IN CHB_TERMEN

R709 1K



MOUNTING HOLES

DRAWING

PAGE	REV
67	A2.1

+12V INPUT CAPS

+12V
C51 .01UF 5% 50V X7R 603
+12V
C74 10UF 20% 15V Y5V 1210
C75 10UF 20% 15V Y5V 1210

VCC
C59 .01UF 5% 50V X7R 603
C78 1.0UF 10% 10V X5R 805

VCC3
R54 680 5% CH 603
50B3> IN VID_PGOOD
R141 2 0 603 1A CH
ICH3_VRMPWRGD OUT 41C6<

VCC
+12V
R121 1M 5% CH 603
R119 10 5% CH 603
C72 1UF 20% 6.3V X5R 603
C73 1000PF 10% 50V X7R 603

U4
SC1470 IC
VCC 10
VIN 2
VCCA 4
FB 5
ILIM 11
EN/PSV 1
LX 12
VOUT 3
PGOOD 6
DH 13
DL 9
BST 14
AGND 7
GND 8
VCCP_PGOOD OUT 48A4<

VCC
R140 2 0 603 1A EMPTY
C88 .01UF 5% 50V X7R 603
R31 2 8.25K 603 1% CH

VCC
CR12 30V SM DIO 5A SCHOTTKY
R122 2 0 603 1A CH
C60 .1UF 10% 16V X7R 603

SI4966-DY IC
MOSFET_DUAL_8P
U5
D2<2> 6
D2<1> 5
S2 3
D1<2> 8
D1<1> 7
S1 1
G2 4
G1 2
+12V

L1 3.3UH IND
R86 2 .002 1% SM METAL
VCCP

CR13 30V SM DIO 5A SCHOTTKY
R69 4.02 5% EMPTY 1206
C94 100PF 5% 50V NPO 603
1_05_FBK

C90 100PF 5% 50V NPO 603
R37 11.0K .1% CH 603
R36 10K .1% CH 603
NOTE: 0.1% TOLERANCE

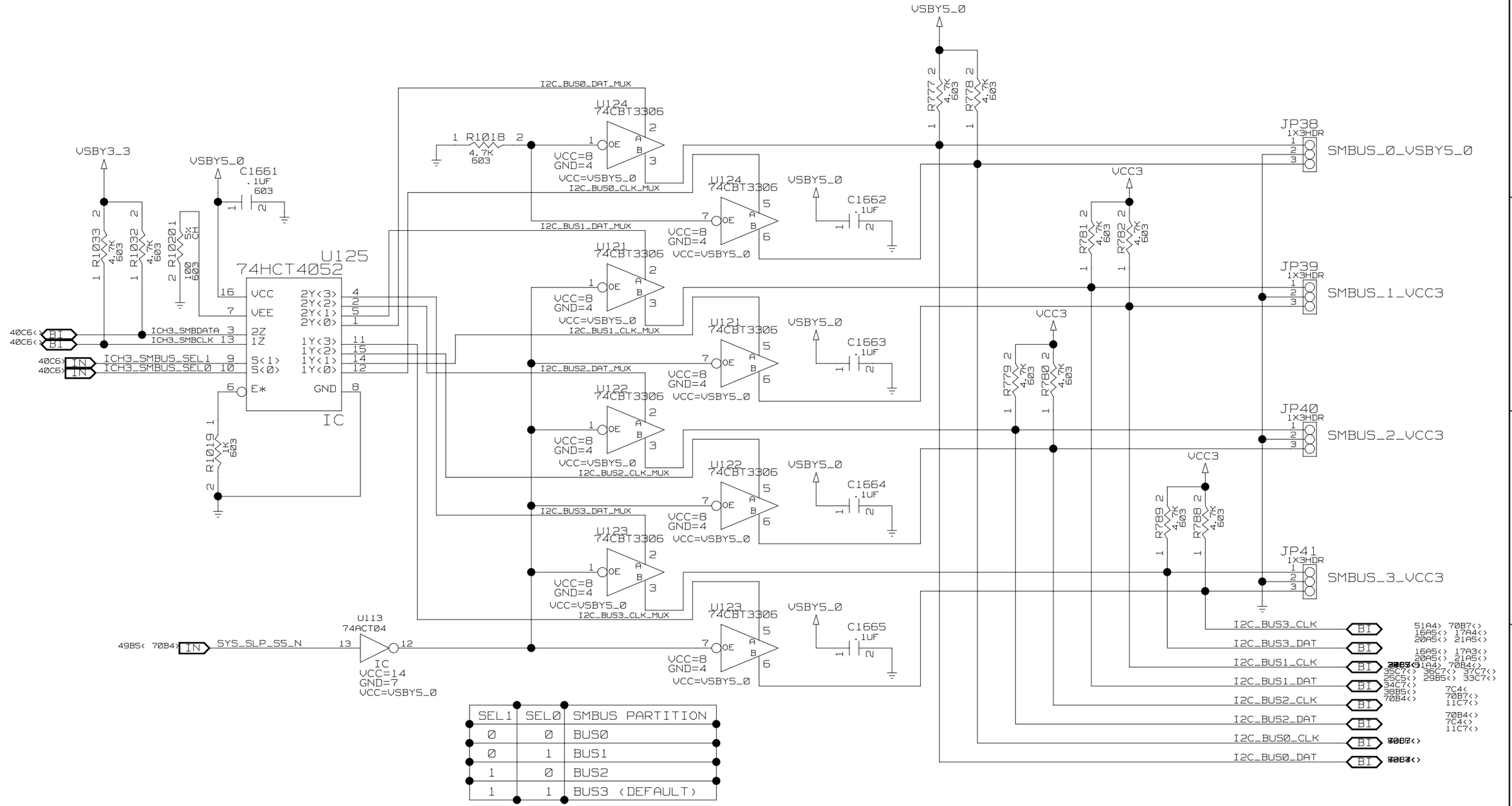
C91 1UF 20% 6.3V X5R 603
MUST USE 12-MILLI OHM POS/SP CAP
C80 330UF 10% 4V TANT 7343
CR14 40V SM DIO 1A SCHOTTKY

1_05_AGND
TIE AGND AND GND TOGETHER AT THE OUTPUT CAPS
R150 2 0 805 1A CH

1.05V VCCP REGULATION

DRAWING

PAGE	REV
68	A2.1

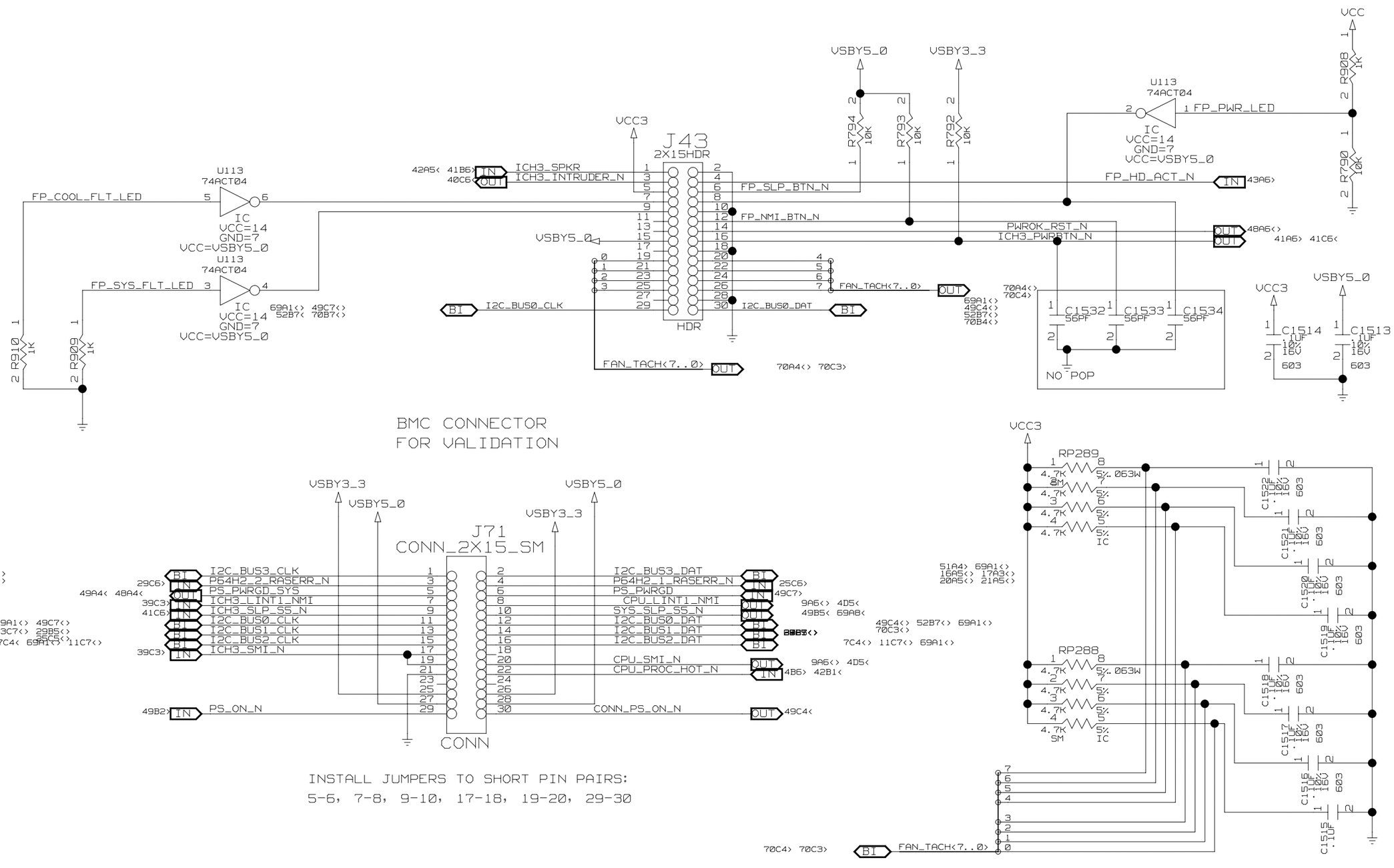


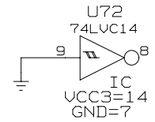
SEL1	SEL0	SMBUS PARTITION
0	0	BUS0
0	1	BUS1
1	0	BUS2
1	1	BUS3 (DEFAULT)

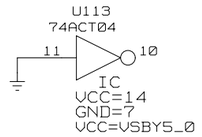
SMBUS MUX

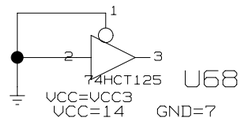
DRAWING

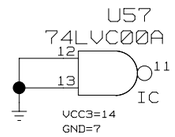
PAGE	REV
69	A2.1

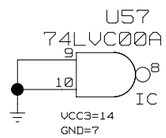

VCC
R908 1K
R790 10K
U113 74ACT04
FP_PWR_LED
IC VCC=14 GND=7 VCC=VSBY5_0
VSBY5_0
VSBY3_3
R794 10K
R793 10K
R792 10K
VCC3
J43
2X15HDR
ICH3_SPKR
ICH3_INTRUDER_N
FP_SLP_BTN_N
FP_NMI_BTN_N
PWROK_RST_N
ICH3_PWRBTN_N
FP_HD_ACT_N
FAN_TACH<7..0>
I2C_BUS0_CLK
I2C_BUS0_DAT
HDR
FP_COOL_FLT_LED
FP_SYS_FLT_LED
R910 1K
R909 1K
C1532 56PF
C1533 56PF
C1534 56PF
NO POP
C1514 .1UF 10% 16V 603
C1513 .1UF 10% 16V 603
BMC CONNECTOR
FOR VALIDATION
J71
CONN_2X15_SM
I2C_BUS3_CLK
P64H2_2_RASERR_N
PS_PWRGD_SYS
ICH3_LINT1_NMI
ICH3_SLP_S5_N
I2C_BUS0_CLK
I2C_BUS1_CLK
I2C_BUS2_CLK
ICH3_SMI_N
PS_ON_N
I2C_BUS3_DAT
P64H2_1_RASERR_N
PS_PWRGD
CPU_LINT1_NMI
SYS_SLP_S5_N
I2C_BUS0_DAT
I2C_BUS1_DAT
I2C_BUS2_DAT
CPU_SMI_N
CPU_PROC_HOT_N
CONN_PS_ON_N
CONN
INSTALL JUMPERS TO SHORT PIN PAIRS:
5-6, 7-8, 9-10, 17-18, 19-20, 29-30
RP289 4.7K 5% .063W SM
RP288 4.7K 5% .063W SM
C1522 .1UF 10% 16V 603
C1521 .1UF 10% 16V 603
C1520 .1UF 10% 16V 603
C1519 .1UF 10% 16V 603
C1518 .1UF 10% 16V 603
C1517 .1UF 10% 16V 603
C1516 .1UF 10% 16V 603
C1515 .1UF 10% 16V 603
FAN_TACH<7..0>
FRONT PANEL CONNECTOR
DRAWING
PAGE 70
REV A2.1

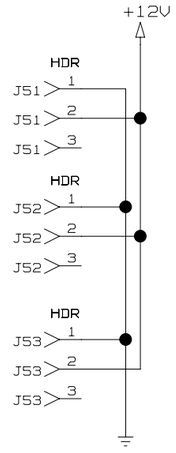








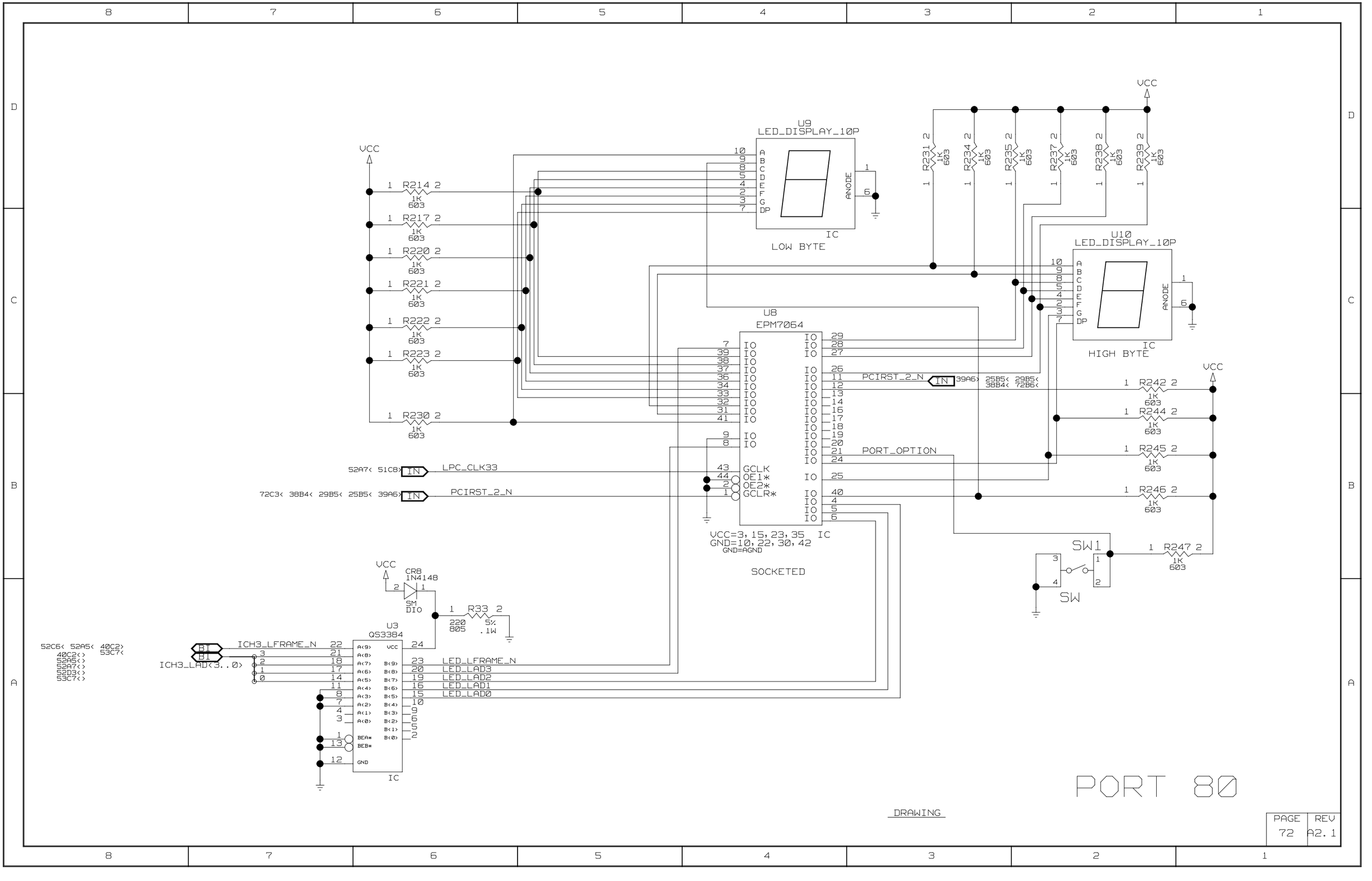




SPARE GATES

DRAWING

PAGE	REV
71	A2.1


U9
LED_DISPLAY_10P
ANODE
IC
LOW BYTE
U10
LED_DISPLAY_10P
ANODE
IC
HIGH BYTE
VCC
R214 2
R217 2
R220 2
R221 2
R222 2
R223 2
R230 2
R231 2
R234 2
R235 2
R237 2
R238 2
R239 2
1K
603
U8
EPM7064
PCIRST_2_N
IN
PORT_OPTION
LPC_CLK33
GCLK
OE1*
OE2*
GCLR*
VCC=3, 15, 23, 35 IC
GND=10, 22, 30, 42
GND=AGND
SOCKETED
R242 2
R244 2
R245 2
R246 2
R247 2
SW1
SW
CR8
1N4148
SM
DIO
R33 2
220
805
5%
.1W
U3
QS3384
ICH3_LFRAME_N
ICH3_LAD<3..0>
LED_LFRAME_N
LED_LAD3
LED_LAD2
LED_LAD1
LED_LAD0
VCC
GND
BEA*
BEB*
IC
PORT 80
DRAWING
PAGE
72
REV
A2.1

*** Signal Cross-Reference ***
--- for the entire design --

1_2_PGOOD	55D5> 47B8<
1_05_AGND	68A4<
1_05_FBK	68A4<
1_8V_PGOOD	38B1> 48D8<> 51B8<
2_5V_PGOOD	47B6> 48A4<
1929_VOS_M	47A3<
1929_VOS_P	47A3<
82544EI_TEST	56A4<> 56B2<>
AIC7902_TERMPWRA	62C5<
AIC7902_TERMPWRB	62C5<
AIC7902_TEST0	62A8<> 62B5<>
AIC7902_TEST1	62A8<> 62B5<>
AIC7902_TEST2	59A3<> 62A8<>
AIC7902_TEST3	62A8<> 62B5<>
AIC7902_TEST9	62A8<> 62B7<>
AIC_CLKNM	63A4> 60B8<
AIC_CLKNM_R	60B7<
AIC_CLKNP	63A3> 60B8<
AIC_CLKNP_R	60B7<
AUX_PWR	56B7<
CHA_TERMEN	60B5> 65A5<
CHB_TERMEN	60B1> 66A5<
CK408_IREF	51A5<>
CK408_MULT0	51B5<
CK408_PICSTP_N	51B5<
CK408_S1	51A5<
CK408_S2	51A5<
CK408_VTT_PWRGD_N	51B7<
CK408_XTAL_IN	51C7<
CK408_XTAL_OUT	51C7<>
CLK66_0	51B5<>
CLK66_1	51B5<>
CLK_14MHZ_SIO	51D6> 53A3<
COM_CTS1_N	54C1> 53B6<
COM_DCD1_N	54C1> 53B6<
COM_DSR1_N	54C1> 53B6<
COM_DTR1_N	53B6> 54C1<
COM_RI1_N	54C1> 53B6<
COM_RTS1_N	53B6> 54C1<
COM_RXD1	54C1> 53B6<
COM_TXD1	53B6> 54C1<
CONN_PS_ON_N	70A4> 49C4<
CON_BLUE	45B1<
CON_DDCCLK	45A1<
CON_DDCDAT	45B1<
CON_GREEN	45B1<
CON_HSYNC	45B1<
CON_KBCLK	54C6<
CON_KBDATA	54D6<
CON_MSCLK	54C6<
CON_MSDATA	54C6<
CON_RED	45B1<
CON_VSYNC	45B1<
CPU0_BCLK0_R	51B5<>
CPU0_BCLK1_R	51B5<>
CPU_BCLK0	51B1> 4D2<
CPU_BCLK1	51B1> 4D2<
CPU_COMP<3..0>	4C3<> 4D3<>
CPU_DPWR_N	4D4<
CPU_GTLREF_0	4D4<
CPU_IERR_N	4B7<>
CPU_LINT1_NMI	9A6<> 70B4> 4D4<
CPU_OK	49A3<
CPU_OK_N	49A4<>
CPU_OK_N_R	49A3<
CPU_PROC_HOT_3V_N	42B5> 40C6<
CPU_PROC_HOT_N	4B6> 42B1< 70A4<
CPU_PSI_3V_N	42D5> 40C6<
CPU_PSI_N	4D2> 42C1<
CPU_SMI_N	9A6<> 70B4> 4D4<
CPU_TEST<3..1>	4C3<
CPU_THERMDA	4C2<> 7D4<
CPU_THERMDC	4C2<> 7D4<
CPU_THRM_TRIP_N	4A6> 7A8<
CPU_VCCSENSE	4C3<>
CPU_VID<5..0>	4D2> 49B6<
CPU_VSSSENSE	4C3<>
DDRA_BA0_R	12C4> 22B8<> 16A4< 17A4<
DDRA_BA1_R	12C4> 18D8<> 16A4< 17A4<
DDRA_CAS_N_R	12D4> 18C6<> 16A5< 17A5<
DDRA_CB0	12A8<> 15D8<>
DDRA_CB0_R	15D7<> 16D2<> 17D2<> 18D8<>
DDRA_CB1	12A8<> 15D8<>
DDRA_CB1_R	15D7<> 16D2<> 17D2<> 18D8<>
DDRA_CB2	12A8<> 15D5<>
DDRA_CB2_R	15D4<> 16D2<> 17D2<> 18D8<
DDRA_CB3	12A8<> 15D5<>
DDRA_CB3_R	15D4<> 16D2<> 17D2<> 18D8<>
DDRA_CB4	12A8<> 15D8<>
DDRA_CB4_R	15D7<> 16D3<> 17D2<> 18A8<>
DDRA_CB5	12A8<> 15D8<>
DDRA_CB5_R	15D7<> 16D3<> 17D2<> 18B6<>
DDRA_CB6	12A8<> 15D5<>
DDRA_CB6_R	15D4<> 16D3<> 17D2<> 18C8<>
DDRA_CB7	12A8<> 15D5<>
DDRA_CB7_R	15D4<> 16D3<> 17D2<> 18C8<>
DDRA_CKE	12B4> 18A6<> 16A4< 17A4<
DDRA_CMDCLK0	12B4> 16A4<
DDRA_CMDCLK0_N	12A4> 16A4<
DDRA_CMDCLK1	12B4> 17A4<
DDRA_CMDCLK1_N	12A4> 17A4<
DDRA_CS0_N_R	12C4> 22C6<> 16A5<
DDRA_CS1_N_R	12C4> 22C6<> 16A5<
DDRA_CS2_N_R	12C4> 18B8<> 17A5<
DDRA_CS3_N_R	12C4> 18B8<> 17A5<
DDRA_DQ0	12A8<> 15D3<>
DDRA_DQ0_R	15D2<> 16D3<> 17D2<> 22A8<>
DDRA_DQ1	12A8<> 15A5<>
DDRA_DQ1_R	15A4<> 16D3<> 17D3<> 22A8<>
DDRA_DQ2	12A8<> 15A5<>
DDRA_DQ2_R	15A4<> 16D3<> 17D3<> 18C6<>
DDRA_DQ3	12A8<> 15A5<>
DDRA_DQ3_R	15A4<> 16D3<> 17D3<> 18C6<>
DDRA_DQ4	12A8<> 15D3<>
DDRA_DQ4_R	15D2<> 16D3<> 17D3<> 22A8<>
DDRA_DQ5	12A8<> 15D3<>
DDRA_DQ5_R	15D2<> 16D3<> 17D3<> 22A8<>
DDRA_DQ6	12A8<> 15A5<>
DDRA_DQ6_R	15A4<> 16D3<> 17D3<> 18C6<>
DDRA_DQ7	12A8<> 15A5<>
DDRA_DQ7_R	15A4<> 16D3<> 17D3<> 18C6<>
DDRA_DQ8	12A8<> 15B5<>
DDRA_DQ8_R	15B4<> 16D3<> 17D3<> 18C6<>
DDRA_DQ9	12A8<> 15A5<>
DDRA_DQ9_R	15A4<> 16D3<> 17D3<> 18D6<>
DDRA_DQ10	12A8<> 15B5<>
DDRA_DQ10_R	15B4<> 16D3<> 17D3<> 18A6<>
DDRA_DQ11	12A8<> 15B5<>
DDRA_DQ11_R	15B4<> 16D3<> 17D3<> 18A6<>
DDRA_DQ12	12B8<> 15B5<>
DDRA_DQ12_R	15B4<> 16D4<> 17D3<> 18C6<>
DDRA_DQ13	12B8<> 15A5<>
DDRA_DQ13_R	15A4<> 16D4<> 17D3<> 18D6<>
DDRA_DQ14	12B8<> 15A5<>
DDRA_DQ14_R	15A4<> 16D4<> 17D3<> 18A6<>
DDRA_DQ15	12B8<> 15A5<>
DDRA_DQ15_R	15A4<> 16D4<> 17D3<> 18A6<>
DDRA_DQ16	12B8<> 15B5<>
DDRA_DQ16_R	15B4<> 16D4<> 17D3<> 18A6<>
DDRA_DQ17	12B8<> 15C5<>
DDRA_DQ17_R	15C4<> 16D4<> 17D4<> 18A6<>
DDRA_DQ18	12B8<> 15B5<>
DDRA_DQ18_R	15B4<> 16D4<> 17D4<> 18A8<>
DDRA_DQ19	12B8<> 15B5<>
DDRA_DQ19_R	15B4<> 16D4<> 17D4<> 18A6<>
DDRA_DQ20	12B8<> 15B5<>
DDRA_DQ20_R	15B4<> 16D4<> 17D4<> 18A6<>
DDRA_DQ21	12B8<> 15C5<>
DDRA_DQ21_R	15C4<> 16D4<> 17D4<> 18A6<>
DDRA_DQ22	12B8<> 15B5<>
DDRA_DQ22_R	15B4<> 16D4<> 17D4<> 18A8<>
DDRA_DQ23	12B8<> 15B5<>
DDRA_DQ23_R	15B4<> 16D4<> 17D4<> 18B6<>
DDRA_DQ24	12B8<> 15C5<>
DDRA_DQ24_R	15C4<> 16D4<> 17D4<> 18D6<>
DDRA_DQ25	12B8<> 15C5<>
DDRA_DQ25_R	15C4<> 16D4<> 17D4<> 18D6<>
DDRA_DQ26	12B8<> 15C5<>
DDRA_DQ26_R	15C4<> 16D4<> 17D4<> 18B6<>
DDRA_DQ27	12B8<> 15D8<>
DDRA_DQ27_R	15D7<> 16D4<> 17D4<> 18A8<>
DDRA_DQ28	12B8<> 15C5<>
DDRA_DQ28_R	15C4<> 16D5<> 17D4<> 18D6<>
DDRA_DQ29	12B8<> 15C5<>
DDRA_DQ29_R	15C4<> 16D5<> 17D4<> 18D8<>
DDRA_DQ30	12B8<> 15C5<>
DDRA_DQ30_R	15C4<> 16D5<> 17D4<> 18D8<>
DDRA_DQ31	12C8<> 15D8<>
DDRA_DQ31_R	15D7<> 16D5<> 17D4<> 18B6<>
DDRA_DQ32	12C8<> 15D5<>
DDRA_DQ32_R	15D4<> 16D5<> 17D4<> 18A8<>
DDRA_DQ33	12C8<> 15D5<>
DDRA_DQ33_R	15D4<> 16D5<> 17D5<> 18A8<>
DDRA_DQ34	12C8<> 15A8<>
DDRA_DQ34_R	15A7<> 16D5<> 17D5<> 18B6<>
DDRA_DQ35	12C8<> 15C8<>
DDRA_DQ35_R	15C7<> 16D5<> 17D5<> 18A8<>
DDRA_DQ36	12C8<> 15D5<>
DDRA_DQ36_R	15D4<> 16D5<> 17D5<> 18A8<>
DDRA_DQ37	12C8<> 15D5<>
DDRA_DQ37_R	15D4<> 16D5<> 17D5<> 18A8<>
DDRA_DQ38	12C8<> 15A8<>
DDRA_DQ38_R	15A7<> 16D5<> 17D5<> 18B6<>
DDRA_DQ39	12C8<> 15C8<>
DDRA_DQ39_R	15C7<> 16D5<> 17D5<> 18A8<>
DDRA_DQ40	12C8<> 15C8<>
DDRA_DQ40_R	15C7<> 16D5<> 17D5<> 18B8<>
DDRA_DQ41	12C8<> 15A8<>
DDRA_DQ41_R	15A7<> 16D5<> 17D5<> 18C6<>
DDRA_DQ42	12C8<> 15A8<>
DDRA_DQ42_R	15A7<> 16D5<> 17D5<> 18D6<>
DDRA_DQ43	12C8<> 15A8<>
DDRA_DQ43_R	15A7<> 16D5<> 17D5<> 18D6<>
DDRA_DQ44	12C8<> 15C8<>
DDRA_DQ44_R	15C7<> 16D6<> 17D5<> 18B8<>
DDRA_DQ45	12C8<> 15A8<>
DDRA_DQ45_R	15A7<> 16D6<> 17D5<> 18A8<>
DDRA_DQ46	12C8<> 15A8<>
DDRA_DQ46_R	15A7<> 16D6<> 17D5<> 18D6<>
DDRA_DQ47	12C8<> 15A8<>
DDRA_DQ47_R	15A7<> 16D6<> 17D5<> 18D6<>
DDRA_DQ48	12C8<> 15B8<>
DDRA_DQ48_R	15B7<> 16D6<> 17D5<> 18B8<>
DDRA_DQ49	12C8<> 15B8<>
DDRA_DQ49_R	15B7<> 16D6<> 17D6<> 18B8<>
DDRA_DQ50	12D8<> 15B8<>
DDRA_DQ50_R	15B7<> 16D6<> 17D6<> 18C8<>
DDRA_DQ51	12D8<> 15B8<>
DDRA_DQ51_R	15B7<> 16D6<> 17D6<> 18C8<>
DDRA_DQ52	12D8<> 15B8<>
DDRA_DQ52_R	15B7<> 16D6<> 17D6<> 18B8<>
DDRA_DQ53	12D8<> 15A8<>
DDRA_DQ53_R	15A7<> 16D6<> 17D6<> 18B8<>
DDRA_DQ54	12D8<> 15B8<>
DDRA_DQ54_R	15B7<> 16D6<> 17D6<> 18C8<>
DDRA_DQ55	12D8<> 15B8<>
DDRA_DQ55_R	15B7<> 16D6<> 17D6<> 18C8<>
DDRA_DQ56	12D8<> 15C8<>
DDRA_DQ56_R	15C7<> 16D6<> 17D6<> 18B6<>
DDRA_DQ57	12D8<> 15C8<>
DDRA_DQ57_R	15C7<> 16D6<> 17D6<> 18C6<>
DDRA_DQ58	12D8<> 15C8<>
DDRA_DQ58_R	15C7<> 16D6<> 17D6<> 18B8<>
DDRA_DQ59	12D8<> 15C8<>
DDRA_DQ59_R	15C7<> 16D6<> 17D6<> 18B8<>
DDRA_DQ60	12D8<> 15B8<>
DDRA_DQ60_R	15B7<> 16D7<> 17D6<> 18C8<>
DDRA_DQ61	12D8<> 15B8<>
DDRA_DQ61_R	15B7<> 16D7<> 17D6<> 18C8<>
DDRA_DQ62	12D8<> 15C8<>
DDRA_DQ62_R	15C7<> 16D7<> 17D6<> 18C6<>
DDRA_DQ63	12D8<> 15C8<>
DDRA_DQ63_R	15C7<> 16D7<> 17D6<> 18B8<>
DDRA_DQS0	12A8<> 15A5<>
DDRA_DQS0_R	15A4<> 16D3<> 17D3<> 18C6<>
DDRA_DQS1	12A8<> 15A5<>
DDRA_DQS1_R	15A4<> 16D3<> 17D3<> 18D6<>
DDRA_DQS2	12B8<> 15C5<>
DDRA_DQS2_R	15C4<> 16D4<> 17D4<> 18A6<>
DDRA_DQS3	12B8<> 15C5<>
DDRA_DQS3_R	15C4<> 16D4<> 17D4<> 18B6<>
DDRA_DQS4	12C8<> 15A8<>
DDRA_DQS4_R	15A7<> 16D5<> 17D5<> 18B6<>
DDRA_DQS5	12C8<> 15A8<>
DDRA_DQS5_R	15A7<> 16D5<> 17D5<> 18C6<>
DDRA_DQS6	12D8<> 15B8<>
DDRA_DQS6_R	15B7<> 16D6<> 17D6<> 18C8<>
DDRA_DQS7	12D8<> 15C8<>
DDRA_DQS7_R	15C7<> 16D6<> 17D6<> 18B8<>
DDRA_DQS8	12A8<> 15D8<>
DDRA_DQS8_R	15D7<> 16D2<> 17D2<> 18D8<>
DDRA_DQS9	12A8<> 15A5<>
DDRA_DQS9_R	15A4<> 16D3<> 17D3<> 18C6<>
DDRA_DQS10	12A8<> 15A5<>
DDRA_DQS10_R	15A4<> 16D4<> 17D3<> 18D6<>
DDRA_DQS11	12B8<> 15C5<>
DDRA_DQS11_R	15C4<> 16D4<> 17D4<> 18A8<>
DDRA_DQS12	12B8<> 15C5<>
DDRA_DQS12_R	15C4<> 16D5<> 17D4<> 18D8<>
DDRA_DQS13	12C8<> 15A8<>
DDRA_DQS13_R	15A7<> 16D5<> 17D5<> 18B6<>
DDRA_DQS14	12C8<> 15A8<>
DDRA_DQS14_R	15A7<> 16D6<> 17D5<> 18A8<>
DDRA_DQS15	12D8<> 15B8<>
DDRA_DQS15_R	15B7<> 16D6<> 17D6<> 18B8<>
DDRA_DQS16	12D8<> 15C8<>
DDRA_DQS16_R	15C7<> 16D7<> 17D6<> 18C6<>
DDRA_DQS17	12A8<> 15D8<>
DDRA_DQS17_R	15D7<> 16D3<> 17D2<> 18D8<>
DDRA_DRCOMP	12B3<
DDRA_MA0_R	12D4> 18D8<> 16A4< 17A4<
DDRA_MA1_R	12D4> 18A8<> 16A5< 17A4<
DDRA_MA2_R	12D4> 18A8<> 16A5< 17A4<
DDRA_MA3_R	12D4> 18B6<> 16A5< 17A4<
DDRA_MA4_R	12D4> 18B6<> 16A5< 17A4<
DDRA_MA5_R	12D4> 18A6<> 16A5< 17A4<
DDRA_MA6_R	12D4> 18D6<> 16A5< 17A4<
DDRA_MA7_R	12D4> 18A8<> 16A5< 17A5<
DDRA_MA8_R	12D4> 18B6<> 16A5< 17A5<
DDRA_MA9_R	12D4> 18A6<> 16A5< 17A5<
DDRA_MA10_R	12D4> 18C8<> 16A5< 17A5<
DDRA_MA11_R	12D4> 18A6<> 16A5< 17A5<
DDRA_MA12_R	12D4> 18A6<> 16A5< 17A5<
DDRA_RAS_N_R	12D4> 22B8<> 16A5< 17A5<
DDRA_RCV_EN_IN	12B5<
DDRA_RCV_EN_OUT	12B5<>
DDRA_WE_N_R	12D4> 18C6<> 16A5< 17A5<
DDRBCVOL_B	13B4<
DDRB_BA0_R	13C4> 18D4<> 20A4< 21A4<
DDRB_BA1_R	13C4> 22B6<> 20A4< 21A4<
DDRB_CAS_N_R	13D4> 22D8<> 20A5< 21A5<
DDRB_CB0	13A8<> 19D8<>
DDRB_CB0_R	19D6<> 20D2<> 21D2<> 22D8<>
DDRB_CB1	13A8<> 19D8<>
DDRB_CB1_R	18C8<> 19D6<> 20D2<> 21D2<>
DDRB_CB2	13A8<> 19B5<>
DDRB_CB2_R	19B4<> 20D2<> 21D2<> 22D8<>
DDRB_CB3	13A8<> 19C5<>
DDRB_CB3_R	19C4<> 20D2<> 21D3<> 22B6<>
DDRB_CB4	13A8<> 19A8<>
DDRB_CB4_R	19A6<> 20D3<> 21D3<> 22D6<>
DDRB_CB5	13A8<> 19A8<>
DDRB_CB5_R	19A6<> 20D3<> 21D3<> 22D6<>
DDRB_CB6	13A8<> 19C5<>
DDRB_CB6_R	19C4<> 20D3<> 21D3<> 22B6<>
DDRB_CB7	13A8<> 19C5<>
DDRB_CB7_R	19C4<> 20D3<> 21D3<> 22B6<>
DDRB_CKE	13B4> 22D6<> 20A4< 21A4<
DDRB_CMDCLK0	13A4> 20A4<
DDRB_CMDCLK0_N	13A4> 20A4<
DDRB_CMDCLK1	13A4> 21A4<
DDRB_CMDCLK1_N	13A4> 21A4<
DDRB_CS0_N_R	13C4> 22C6<> 20A5<
DDRB_CS1_N_R	13C4> 22C6<> 20A5<
DDRB_CS2_N_R	13C4> 18B8<> 21A5<
DDRB_CS3_N_R	13C4> 18B8<> 21A5<
DDRB_DQ0	13A8<> 19A5<>
DDRB_DQ0_R	19A4<> 20D3<> 21D3<> 22A6<>
DDRB_DQ1	13A8<> 19A5<>
DDRB_DQ1_R	19A4<> 20D3<> 21D3<> 22A6<>
DDRB_DQ2	13A8<> 19A5<>
DDRB_DQ2_R	19A4<> 20D3<> 21D3<> 22C6<>
DDRB_DQ3	13A8<> 19A5<>
DDRB_DQ3_R	19A4<> 20D3<> 21D3<> 22A8<>
DDRB_DQ4	13A8<> 19A5<>
DDRB_DQ4_R	19A4<> 20D3<> 21D3<> 22A6<>
DDRB_DQ5	13A8<> 19A5<>
DDRB_DQ5_R	19A4<> 20D3<> 21D3<> 22A6<>
DDRB_DQ6	13A8<> 19A5<>
DDRB_DQ6_R	19A4<> 20D3<> 21D3<> 22C6<>
DDRB_DQ7	13A8<> 19A5<>
DDRB_DQ7_R	19A4<> 20D3<> 21D3<> 22A8<>
DDRB_DQ8	13A8<> 19B5<>
DDRB_DQ8_R	19B4<> 20D3<> 21D3<> 22A8<>
DDRB_DQ9	13A8<> 19B5<>
DDRB_DQ9_R	19B4<> 20D3<> 21D3<> 22A8<>
DDRB_DQ10	13A8<> 19C5<>
DDRB_DQ10_R	19C4<> 20D3<> 21D3<> 22B8<>
DDRB_DQ11	13A8<> 19C5<>
DDRB_DQ11_R	19C4<> 20D3<> 21D4<> 22B8<>
DDRB_DQ12	13A8<> 19B5<>
DDRB_DQ12_R	19B4<> 20D4<> 21D4<> 22A8<>
DDRB_DQ13	13A8<> 19B5<>
DDRB_DQ13_R	19B4<> 20D4<> 21D4<> 22A8<>
DDRB_DQ14	13B8<> 19B5<>
DDRB_DQ14_R	19B4<> 20D4<> 21D4<> 22B8<>
DDRB_DQ15	13B8<> 19B5<>
DDRB_DQ15_R	19B4<> 20D4<> 21D4<> 22B8<>
DDRB_DQ16	13B8<> 19C5<>
DDRB_DQ16_R	19C4<> 20D4<> 21D4<> 22A8<>
DDRB_DQ17	13B8<> 19C5<>
DDRB_DQ17_R	19C4<> 20D4<> 21D4<> 22A8<>
DDRB_DQ18	13B8<> 19C5<>
DDRB_DQ18_R	19C4<> 20D4<> 21D4<> 22B6<>
DDRB_DQ19	13B8<> 19D5<>
DDRB_DQ19_R	19D4<> 20D4<> 21D4<> 22A8<>
DDRB_DQ20	13B8<> 19C5<>
DDRB_DQ20_R	19C4<> 20D4<> 21D4<> 22A8<>
DDRB_DQ21	13B8<> 19C5<>
DDRB_DQ21_R	19C4<> 20D4<> 21D4<> 22B6<>
DDRB_DQ22	13B8<> 19D5<>
DDRB_DQ22_R	19D4<> 20D4<> 21D4<> 22B6<>
DDRB_DQ23	13B8<> 19D5<>
DDRB_DQ23_R	19D4<> 20D4<> 21D4<> 22A8<>
DDRB_DQ24	13B8<> 19D5<>
DDRB_DQ24_R	19D4<> 20D4<> 21D4<> 22A6<>
DDRB_DQ25	13B8<> 19D5<>
DDRB_DQ25_R	19D4<> 20D4<> 21D4<> 22A6<>
DDRB_DQ26	13B8<> 19D5<>
DDRB_DQ26_R	19D4<> 20D4<> 21D4<> 22B6<>
DDRB_DQ27	13B8<> 19A8<>
DDRB_DQ27_R	19A6<> 20D4<> 21D5<> 22B6<>
DDRB_DQ28	13B8<> 19D5<>
DDRB_DQ28_R	19D4<> 20D5<> 21D5<> 22A6<>
DDRB_DQ29	13B8<> 19D5<>
DDRB_DQ29_R	19D4<> 20D5<> 21D5<> 22B6<>
DDRB_DQ30	13B8<> 19D5<>
DDRB_DQ30_R	19D4<> 20D5<> 21D5<> 22B6<>
DDRB_DQ31	13B8<> 19A8<>
DDRB_DQ31_R	19A6<> 20D5<> 21D5<> 22D6<>
DDRB_DQ32	13B8<> 19B8<>
DDRB_DQ32_R	19B6<> 20D5<> 21D5<> 22C6<>
DDRB_DQ33	13C8<> 19C8<>
DDRB_DQ33_R	19C6<> 20D5<> 21D5<> 22C6<>
DDRB_DQ34	13C8<> 19A8<>
DDRB_DQ34_R	19A6<> 20D5<> 21D5<> 22B8<>
DDRB_DQ35	13C8<> 19A8<>
DDRB_DQ35_R	18D4<> 19A6<> 20D5<> 21D5<>
DDRB_DQ36	13C8<> 19B8<>
DDRB_DQ36_R	19B6<> 20D5<> 21D5<> 22C6<>
DDRB_DQ37	13C8<> 19C8<>
DDRB_DQ37_R	19C6<> 20D5<> 21D5<> 22C6<>
DDRB_DQ38	13C8<> 19A8<>
DDRB_DQ38_R	19A6<> 20D5<> 21D5<> 22B8<>
DDRB_DQ39	13C8<> 19A8<>
DDRB_DQ39_R	18D4<> 19A6<> 20D5<> 21D5<>
DDRB_DQ40	13C8<> 19A8<>
DDRB_DQ40_R	19A6<> 20D5<> 21D5<> 22B8<>
DDRB_DQ41	13C8<> 19B8<>
DDRB_DQ41_R	19B6<> 20D5<> 21D5<> 22C8<>
DDRB_DQ42	13C8<> 19B8<>
DDRB_DQ42_R	19B6<> 20D5<> 21D5<> 22C8<>
DDRB_DQ43	13C8<> 19B8<>
DDRB_DQ43_R	19B6<> 20D5<> 21D6<> 22D8<>
DDRB_DQ44	13C8<> 19A8<>
DDRB_DQ44_R	19A6<> 20D6<> 21D6<> 22C8<>
DDRB_DQ45	13C8<> 19B8<>
DDRB_DQ45_R	19B6<> 20D6<> 21D6<> 22C8<
DDRB_DQ46	13C8<> 19B8<>
DDRB_DQ46_R	19B6<> 20D6<> 21D6<> 22D8<>
DDRB_DQ47	13C8<> 19B8<>
DDRB_DQ47_R	19B6<> 20D6<> 21D6<> 22D8<>
DDRB_DQ48	13C8<> 19C8<>
DDRB_DQ48_R	19C6<> 20D6<> 21D6<> 22A6<>
DDRB_DQ49	13C8<> 19C8<>
DDRB_DQ49_R	19C6<> 20D6<> 21D6<> 22A6<>
DDRB_DQ50	13C8<> 19D8<>
DDRB_DQ50_R	19D6<> 20D6<> 21D6<> 22C8<>
DDRB_DQ51	13C8<> 19C8<>
DDRB_DQ51_R	19C6<> 20D6<> 21D6<> 22C8<>
DDRB_DQ52	13D8<> 19C8<>
DDRB_DQ52_R	19C6<> 20D6<> 21D6<> 22A6<>

DRAWING

PAGE	REV
73	A2.1

```
DDRB_DQ53       13D8<> 19C8<>
DDRB_DQ53_R     19C6<> 20D6<> 21D6<> 22A6<>
DDRB_DQ54       13D8<> 19D8<>
DDRB_DQ54_R     19D6<> 20D6<> 21D6<> 22C6<>
DDRB_DQ55       13D8<> 19C8<>
DDRB_DQ55_R     19C6<> 20D6<> 21D6<> 22C6<>
DDRB_DQ56       13D8<> 19C8<>
DDRB_DQ56_R     19C6<> 20D6<> 21D6<> 22C8<>
DDRB_DQ57       13D8<> 19D2<>
DDRB_DQ57_R     19D1<> 20D6<> 21D6<> 22A6<>
DDRB_DQ58       13D8<> 19D8<>
DDRB_DQ58_R     19D6<> 20D6<> 21D6<> 22D6<>
DDRB_DQ59       13D8<> 19D8<>
DDRB_DQ59_R     19D6<> 20D6<> 21D7<> 22D6<>
DDRB_DQ60       13D8<> 19C8<>
DDRB_DQ60_R     19C6<> 20D7<> 21D7<> 22C8<>
DDRB_DQ61       13D8<> 19D2<>
DDRB_DQ61_R     19D1<> 20D7<> 21D7<> 22A6<>
DDRB_DQ62       13D8<> 19D8<>
DDRB_DQ62_R     19D6<> 20D7<> 21D7<> 22D6<>
DDRB_DQ63       13D8<> 19D8<>
DDRB_DQ63_R     19D6<> 20D7<> 21D7<> 22D6<>
DDRB_DQS0       13A8<> 19A5<>
DDRB_DQS0_R     19A4<> 20D3<> 21D3<> 22C6<>
DDRB_DQS1       13A8<> 19B5<>
DDRB_DQS1_R     19B4<> 20D4<> 21D4<> 22A8<>
DDRB_DQS2       13B8<> 19C5<>
DDRB_DQS2_R     19C4<> 20D4<> 21D4<> 22B8<>
DDRB_DQS3       13B8<> 19D5<>
DDRB_DQS3_R     19D4<> 20D5<> 21D5<> 22B6<>
DDRB_DQS4       13C8<> 19A8<>
DDRB_DQS4_R     19A6<> 20D5<> 21D5<> 22B8<>
DDRB_DQS5       13C8<> 19B8<>
DDRB_DQS5_R     19B6<> 20D6<> 21D6<> 22C8<>
DDRB_DQS6       13D8<> 19D8<>
DDRB_DQS6_R     19D6<> 20D6<> 21D6<> 22C6<>
DDRB_DQS7       13D8<> 19D2<>
DDRB_DQS7_R     19D1<> 20D7<> 21D7<> 22A6<>
DDRB_DQS8       13A8<> 19D8<>
DDRB_DQS8_R     18C8<> 19D6<> 20D3<> 21D3<>
DDRB_DQS9       13A8<> 19A5<>
DDRB_DQS9_R     19A4<> 20D3<> 21D3<> 22C6<>
DDRB_DQS10      13A8<> 19B5<>
DDRB_DQS10_R    19B4<> 20D4<> 21D4<> 22A8<>
DDRB_DQS11      13B8<> 19C5<>
DDRB_DQS11_R    19C4<> 20D4<> 21D4<> 22B6<>
DDRB_DQS12      13B8<> 19D5<>
DDRB_DQS12_R    19D4<> 20D5<> 21D5<> 22B6<>
DDRB_DQS13      13C8<> 19A8<>
DDRB_DQS13_R    19A6<> 20D5<> 21D5<> 22B8<>
DDRB_DQS14      13C8<> 19B8<>
DDRB_DQS14_R    19B6<> 20D6<> 21D6<> 22C8<>
DDRB_DQS15      13D8<> 19C8<>
DDRB_DQS15_R    19C6<> 20D6<> 21D6<> 22C6<>
DDRB_DQS16      13D8<> 19D2<>
DDRB_DQS16_R    19D1<> 20D7<> 21D7<> 22A6<>
DDRB_DQS17      13A8<> 19D8<>
DDRB_DQS17_R    18C8<> 19D6<> 20D3<> 21D3<>
DDRB_DRCOMP     13B3<>
DDRB_MA0_R      13D4> 18C8<> 20A5< 21A5<
DDRB_MA1_R      13D4> 22D8<> 20A5< 21A5<
DDRB_MA2_R      13D4> 22D6<> 20A5< 21A5<
DDRB_MA3_R      13D4> 22A6<> 20A5< 21A5<
DDRB_MA4_R      13D4> 22B6<> 20A5< 21A5<
DDRB_MA5_R      13D4> 22A8<> 20A5< 21A5<
DDRB_MA6_R      13D4> 22A6<> 20A5< 21A5<
DDRB_MA7_R      13D4> 22B6<> 20A5< 21A5<
DDRB_MA8_R      13D4> 22A8<> 20A5< 21A5<
DDRB_MA9_R      13D4> 22B8<> 20A5< 21A5<
DDRB_MA10_R     13D4> 22D8<> 20A5< 21A5<
DDRB_MA11_R     13D4> 22B8<> 20A5< 21A5<
DDRB_MA12_R     13D4> 22A8<> 20A5< 21A5<
DDRB_RAS_N_R    13D4> 18D4<> 20A5< 21A5<
DDRB_RCV_EN_IN  13B5<
DDRB_RCV_EN_OUT 13B5<>
DDRB_WE_N_R     13D4> 22D8<> 20A5< 21A5<
DDRCVOL_A       12B4<
DDRCVO_A        12B2<
DDRCVO_B        13B3<
DIFFSENSEA      60B7<
DIFFSENSEA_R    60B8<> 64B7<> 65C5<>
DIFFSENSEB      60B3<
DIFFSENSEB_R    60B4<> 64B3> 66A7<>
DIMM_A1_SA0     16A4<
DIMM_A1_SA1     16A4<
```

```
DIMM_A1_SA2     16A4<
DIMM_A2_SA0     17A3<
DIMM_A2_SA1     17A3<
DIMM_A2_SA2     17A3<
DIMM_B1_SA0     20A4<
DIMM_B1_SA1     20A4<
DIMM_B1_SA2     20A4<
DIMM_B2_SA0     21A4<
DIMM_B2_SA1     21A4<
DIMM_B2_SA2     21A4<
DIR_N           53D6> 54A2<
DRVEN0          53D6> 54B2<
DRVEN1          53D6> 54B2<
DSKCHG_N        54A2> 53C6<
DSO_N           53D6> 54A2<
EE_CS           56C4<>
EE_DI           56C4<>
EE_DO           56C4<>
EE_SK           56C4<>
FAN_TACH<7..0>  70A3<> 70C3> 70C4>
FP_COOL_FLT_LED 70D8<
FP_HD_ACT_N     43A6> 70D2<
FP_NMI_BTN_N    70C4<
FP_PWR_LED      70D2<
FP_SLP_BTN_N    70D4<
FP_SYS_FLT_LED  70C7<
FSB_ADSTB_N<1..0> 4D2<> 10C6<>
FSB_ADS_N       4B4<> 10A6<>
FSB_A_N<31..3>  4B6<> 10A6<>
FSB_BNR_N       4A4<> 10A6<>
FSB_BPRI_N      10A6> 4A4<
FSB_BREQ0_N     4A4<> 10A6<>
FSB_CPURST_N    9C4> 10A6> 4A4<
FSB_DBI_N<3..0> 4B6<> 10A6<>
FSB_DBSY_N      4A4<> 10A6<>
FSB_DEFER_N     10A6> 4A4<
FSB_DRDY_N      4A4<> 10A6<>
FSB_DSTBN_N<3..0> 4A1<> 10D6<>
FSB_DSTBP_N<3..0> 4A5<> 10C6<>
FSB_HD<63..0>   4A8<> 10C2<>
FSB_HITM_N      4A2<> 10D3<>
FSB_HIT_N       4A2<> 10D3<>
FSB_HLOCK_N     4A2<> 10D3<
FSB_HREQ_N<4..0> 4A1<> 10D2<>
FSB_HTRDY_N     10D3> 4A4<
FSB_HXRCOMP     10D5<
FSB_HXSWING     10D5<
FSB_HYRCOMP     10D6<
FSB_HYSWING     10D5<
FSB_H_CLKINN    51C1> 10D6<
FSB_H_CLKINN_R  51C5<>
FSB_H_CLKINP    51C1> 10D6<
FSB_H_CLKINP_R  51B5<>
FSB_RS_N<2..0>  10C6> 4A5<
FWH_CLK33       51C8> 52C6<
FWH_FGP_10      52C4<
FWH_FGP_11      52C4<
FWH_FGP_12      52C4<
FWH_FGP_13      52C4<
FWH_FGP_14      52C4<
FWH_IC          52D5<
FWH_INIT_N      52C4<
FWH_J4BIT_1     52D8<
FWH_J4BIT_4     52D7<
FWH_TBL_N       52D5<
FWH_WP_N        52D5<
GND=AGND        72B4<>
GP30            53A4<>
GP31            53A4<>
HDSEL_N         53C6> 54A2<
HIDRV           47D4<
HISWING_A       11B6<
HISWING_B       11C6<
HI_RCOMP_A      11B6<
HI_RCOMP_B      11C6<>
HI_RCOMP_C      11C4<>
HI_RCOMP_D      11C4<>
HI_VREF_A       11B6<
HI_VREF_B       11C6<
HI_VREF_C       11C4<
HI_VREF_D       11C4<
HI_VSWING_C     11C4<
HI_VSWING_D     11C4<
I2C_BUS0_CLK    49C7<> 69A1<> 70B7<> 70C5<> 52B7<
I2C_BUS0_CLK_MUX 69D5<>
```

```
I2C_BUS0_DAT    49C4<> 52B7<> 69A1<> 70B4<> 70C4<>
I2C_BUS0_DAT_MUX 69D6<>
I2C_BUS1_CLK    25C5<> 29B5<> 33C7<> 34C7<> 35C7<>
                36C7<> 37C7<> 38B5<> 69A1<> 70B7<>
I2C_BUS1_CLK_MUX 69C5<>
I2C_BUS1_DAT    25C5<> 29B5<> 33C7<> 34C7<> 35C7<>
                36C7<> 37C7<> 38B5<> 69A1<> 70B4<>
I2C_BUS1_DAT_MUX 69C6<>
I2C_BUS2_CLK    11C6<> 69A1<> 70B7<> 7C4<
I2C_BUS2_CLK_MUX 69B5<>
I2C_BUS2_DAT    7C4<> 11C6<> 69A1<> 70B4<>
I2C_BUS2_DAT_MUX 69C6<>
I2C_BUS3_CLK    16A4<> 17A3<> 20A4<> 21A4<> 51A4>
                69B1<> 70B7<>
I2C_BUS3_CLK_MUX 69B5<>
I2C_BUS3_DAT    16A4<> 17A3<> 20A4<> 21A4<> 51A4>
                69A1<> 70B4<>
I2C_BUS3_DAT_MUX 69B6<>
ICH3_A20GATE    52A5> 53C3> 39C3<
ICH3_A20M_N     9A6<> 39D3> 4D4<
ICH3_AD<31..0>  39D6<> 44A4<> 44A7<> 44C8> 45B7>
                45C7<>
ICH3_APICCLK    39B4<
ICH3_APICD0     39B4<>
ICH3_APICD1     39B4<>
ICH3_CBE0_N     39B7<> 44A8<> 45C7<>
ICH3_CBE1_N     39B7<> 44B4<> 45C7<>
ICH3_CBE2_N     39B7<> 44B4<> 45C7<>
ICH3_CBE3_N     39B7<> 44C4<> 45C7<>
ICH3_CLK14      51D6> 41D5<
ICH3_CLK33      51C8> 39B7<
ICH3_CLK48      51B4> 41D5<
ICH3_CLK66      51B4> 41D5<
ICH3_CPUPWRGD   9A6<> 39C3> 4D4<
ICH3_CPUSLP_N   9A6<> 39D3> 4D4<
ICH3_DEVSEL_N   39B7<> 44B2> 44B4<> 45B7<
ICH3_DPSLPUR    41B6<>
ICH3_DPSLP_N    9A6<> 39C3> 4D4<
ICH3_FERR_3V_N  39D4<
ICH3_FERR_N     4B6> 39D1<
ICH3_FRAME_N    39B7<> 44B8<> 44C2<> 45B7<
ICH3_GNT0_N     39A7> 44C7<
ICH3_GNTA_N     39A7> 42C5<
ICH3_GPIO12     40C6<
ICH3_HI<11..0>  11A7<> 39C3<>
ICH3_HICOMP     39B4<>
ICH3_HIREF      39B4<
ICH3_HITERM     39B4<
ICH3_IGNNE_N    9A6<> 39D3> 4D4<
ICH3_INIT_N     9A6<> 39C3> 4D4< 52B1<
ICH3_INTRUDER_N 70D5> 40C6<
ICH3_IRDY_N     39B7<> 44B2> 44B4<> 45B7<
ICH3_IRQ14      39B3<> 43A6>
ICH3_IRQ15      39B4<
ICH3_LAD<3..0>  40C2<> 52A5<> 52A7<> 52D3<> 53C7<>
                72A7<>
ICH3_LAN_RST_N  41C6<
ICH3_LDRQ0_N    52A8> 53C8> 40D2<
ICH3_LDRQ1_N    52A3> 40D2<
ICH3_LFRAME_N   40D2> 72A7<> 52A5< 52C6< 53C7<
ICH3_LINT0_INTR 9A6<> 39C3> 4D4<
ICH3_LINT1_NMI  39C3> 70B7<
ICH3_MAJOR_BOARD_REV_LSB 40A2> 40C6<
ICH3_MAJOR_BOARD_REV_MSB 40A2> 40A6<
ICH3_MCH_ID     40A8> 40C6<
ICH3_PAR        39B7<> 44B8<> 45B7<
ICH3_PCIRST_N   39A5> 43B8< 44C7< 45A7< 52A5< 52C6<
                53C7<
ICH3_PDA0       40C2> 43A6<
ICH3_PDA1       40C2> 43A6<
ICH3_PDA2       40C2> 43A4<
ICH3_PDCS1_N    40C2> 43A6<
ICH3_PDCS3_N    40C2> 43A4<
ICH3_PDD<15..0> 40C1<> 43A4<> 43A6<>
ICH3_PDDACK_N   40C2> 43A6<
ICH3_PDDREQ     43A6> 40C2<
ICH3_PDIOR_N    40C2> 43A6<
ICH3_PDIOW_N    40C2> 43A6<
ICH3_PERR_N     39B7<> 44B2> 44B4<>
ICH3_PIORDY     43A6> 40C2<
ICH3_PIRQA_N    25B5> 39B3<> 44C7> 44D2> 45C4>
ICH3_PIRQB_N    29B5> 39B3<> 44C4> 44D2>
ICH3_PIRQC_N    38B1<> 39B3<> 44C2> 44C7>
ICH3_PIRQD_N    39B3<> 44C4> 44D2>
ICH3_PIRQE_GPIO2 39B3<> 44D2<>
```

```
ICH3_PIRQF_GPIO3 39B3<> 44D2<>
ICH3_PIRQG_GPIO4 39B3<> 44D2<>
ICH3_PIRQH_GPIO5 39B3<> 44D2<>
ICH3_PLOCK_N    39B7<> 44B2> 44B4<>
ICH3_PME_N      33D7> 34D7> 35D7> 36D7> 37D7> 38C5>
                39B7<> 44CB> 52A7<>
ICH3_PSTRBF     11B6> 39B4<>
ICH3_PSTRBS     11B6> 39B4<>
ICH3_PWRBTN_N   41A6> 70C2> 41C5<
ICH3_RCIN_N     52A5> 53C3> 39C3<
ICH3_REQ0_N     44C2> 44C4> 39A7<
ICH3_REQ1_N     44C2<> 39A7<
ICH3_REQ2_N     44C2<> 39A7<
ICH3_REQ3_N     44C2<> 39A7<
ICH3_REQ4_N     44C2<> 39A7<
ICH3_RSMRST_N   48A6> 41C5<
ICH3_RTCRST_N   41C6<
ICH3_RTCX1      41B6> 41C6<
ICH3_RTCX2      41B8> 41C6<
ICH3_SAFE_MODE  42C5> 40B6<
ICH3_SERIRQ     39B3<> 52A7<> 53C6>
ICH3_SERR_N     39B7<> 44B2> 44B4> 45B7<
ICH3_SLP_S5_N   41C5> 70B7<
ICH3_SMBALERT_N_GPIO11 40C6<
ICH3_SMBCLK     40C6<> 69C8<>
ICH3_SMBDATA    40C6<> 69C8<>
ICH3_SMBUS_SEL0 40C6> 69C8<
ICH3_SMBUS_SEL1 40C6> 69C8<
ICH3_SMI_N      39C3> 70B7<
ICH3_SPKR       41B6> 42A5< 70D5<
ICH3_STOP_N     39B7<> 44B2> 44B8<> 45B7<
ICH3_STPCLK_N   9A6<> 39C2> 4D4<
ICH3_STPCLK_R_N 39C4<>
ICH3_SUSCLK     41C5> 53A3<
ICH3_THRM_N     40D6<
ICH3_TP0        41B6<
ICH3_TRDY_N     39B7<> 44B2> 44B8<> 45B7<
ICH3_USBP0N     40B6<> 43C3<>
ICH3_USBP0P     40B6<> 43C3<>
ICH3_USBP1N     40B6<> 43B3<>
ICH3_USBP1P     40B6<> 43B3<>
ICH3_USB_OC0_N  43D3> 40A6<
ICH3_USB_OC1_N  43C4> 40A6<
ICH3_USB_OC2_N  40A6<
ICH3_USB_OC3_N  40B6<
ICH3_USB_OC4_N  40B6<
ICH3_USB_OC5_N  40B6<
ICH3_USB_RBIAS  40A6<
ICH3_VBIAS      41B6<
ICH3_VCC_RTC    41C7> 40D6<
ICH3_VRMPWRGD   68D1> 41C5<
IDE_PRI_CBL_DET 43A4<> 40C6<
IDE_PRI_RST_N   43B6<
INDEX_N         54A2> 53C6<
ITP_BCLK0       51D1> 9C4<
ITP_BCLK0_CPU   51D1> 4C4<
ITP_BCLK0_R     51C5<>
ITP_BCLK1       51D1> 9C4<
ITP_BCLK1_CPU   51D1> 4C4<
ITP_BCLK1_R     51C5<>
ITP_BPM<?..?>   4A5> 9C4>
ITP_DBRST_N     9C4> 4C2< 48A4<
ITP_TCK_P       9C4> 9D4> 4A6<
ITP_TDI_P       9D4> 4A5<
ITP_TDO_P       4A6> 9D4<
ITP_TMS_P       9D4> 4A6<
ITP_TRST_N      9D4> 4A6<
JTAG_TCK        56A2<
JTAG_TMS        56A2<
KBCLK           53C3<> 54C8<
KBDATA          53C3<> 54D8<
LAN_AGND        57C5> 58A3< 58B1<
LAN_IDSEL       56C6<
LED_LAD0        72A6<>
LED_LAD1        72A6<>
LED_LAD2        72A6<>
LED_LAD3        72A6<>
LED_LFRAME_N    72A6<>
LINK100_N       56B1> 58B3<
LINK1000_N      56B1> 58B3<
LINK_ACT_N      56B1> 58C3<
LINK_UP_N       56B1> 58C3<
LODRV           47D4<
LPC_CLK14       51D6> 52A5<
LPC_CLK33       51C8> 52A7< 72B6<
```

```
LPC_CLKRUN_N    52A7<
LPC_LDRQ0_N     52A7<
LPC_LDRQ1_N     52A5<
LPC_SMI_N       52A5> 53C2> 39A7<
LPC_SUS_STAT_N  53C8> 52A7<
LPT_ACK_N       54A7> 53B3<
LPT_ALF_N       53B3> 54B7<
LPT_ALF_N_R     54B6<
LPT_BUSY        54A7> 53B3<
LPT_ERROR_N     54A7> 53B3<
LPT_INIT_N      53B3> 54B7<
LPT_INIT_N_R    54B6<
LPT_PD0         53B3<> 54B7<>
LPT_PD0_R       54B6<
LPT_PD1         53B3<> 54B7<>
LPT_PD1_R       54B6<
LPT_PD2         53B3<> 54B7<>
LPT_PD2_R       54B6<
LPT_PD3         53B3<> 54A7<>
LPT_PD3_R       54A6<
LPT_PD4         53B3<> 54A7<>
LPT_PD4_R       54A6<
LPT_PD5         53B3<> 54A7<>
LPT_PD5_R       54A6<
LPT_PD6         53B3<> 54A7<>
LPT_PD6_R       54A6<
LPT_PD7         53B3<> 54A7<>
LPT_PE          54A7> 53B3<
LPT_SELECTIN_N_R 54B6<
LPT_SLCT        54A7> 53B3<
LPT_SLCTIN_N    53B3> 54B7<
LPT_STROBE_N    53B3> 54B7<
LPT_STROBE_N_R  54B6<
LPT_V5_0        54B7<
LTP_PD7_R       54A6<
LVACKAM         60C5<> 64B6<> 65C4>
LVACKAP         60C7<> 64B7<> 65C5>
LVACKBM         60B1<> 64B2<> 66C4>
LVACKBP         60B4<> 64B3<> 66C5>
LVATNAM         60C5<> 64B6<> 65C4>
LVATNAP         60C7<> 64B7<> 65C5>
LVATNBM         60B1<> 64B2<> 66C4>
LVATNBP         60B4<> 64B3<> 66C5>
LVBSYAM         60C5<> 64B6<> 65C4>
LVBSYAP         60C7<> 64B7<> 65C5>
LVBSYBM         60B1<> 64B2<> 66C4>
LVBSYBP         60B4<> 64B3<> 66C5>
LVCDAM          60B5<> 64B6<> 65C6>
LVCDAP          60B7<> 64B7<> 65C8>
LVCDBM          60B1<> 64B2<> 66C6>
LVCDBP          60B4<> 64B3<> 66C8>
LVIOAM          60B5<> 64B6<> 65C6>
LVIOAP          60B7<> 64B7<> 65C8>
LVIOBM          60B1<> 64B2<> 66C6>
LVIOBP          60B4<> 64B3<> 66C8>
LVMSGAM         60B5<> 64B6<> 65B6>
LVMSGAP         60B7<> 64B7<> 65B8>
LVMSGBM         60B1<> 64B2<> 66B6>
LVMSGBP         60B4<> 64B3<> 66B8>
LVREQAM         60B5<> 64B6<> 65C6>
LVREQAP         60B7<> 64B7<> 65C8>
LVREQBM         60B1<> 64B2<> 66C6>
LVREQBP         60B4<> 64B3<> 66C8>
LVRSTAM         60B5<> 64B6<> 65C4>
LVRSTAP         60B7<> 64B7<> 65C5>
LVRSTBM         60B1<> 64B2<> 66C4>
LVRSTBP         60B4<> 64B3<> 66C5>
LVSCDAM0        60C5<> 64C6<> 65C1>
LVSCDAM1        60C5<> 64C6<> 65C1>
LVSCDAM2        60C5<> 64C6<> 65C1>
LVSCDAM3        60C5<> 64B6<> 65C1>
LVSCDAM4        60C5<> 64B6<> 65B4>
LVSCDAM5        60C5<> 64B6<> 65C4>
LVSCDAM6        60C5<> 64B6<> 65C4>
LVSCDAM7        60C5<> 64B6<> 65C4>
LVSCDAM8        60C5<> 64B6<> 65C6>
LVSCDAM9        60C5<> 64A6<> 65C6>
LVSCDAM10       60C5<> 64A6<> 65C6>
LVSCDAM11       60C5<> 64A6<> 65C6>
LVSCDAM12       60C5<> 64C6<> 65B1>
LVSCDAM13       60C5<> 64C6<> 65C1>
LVSCDAM14       60C5<> 64C6<> 65C1>
LVSCDAM15       60C5<> 64C6<> 65C1>
LVSCDAP0        60C7<> 64C7<> 65C3>
LVSCDAP1        60C7<> 64C7<> 65C3>
```

DRAWING

PAGE	REV
74	A2.1

LVSCDAP2 60C7<> 64C7<> 65C3>
LVSCDAP3 60C7<> 64B7<> 65C3>
LVSCDAP4 60C7<> 64B7<> 65B5>
LVSCDAP5 60C7<> 64B7<> 65C5>
LVSCDAP6 60C7<> 64B7<> 65C5>
LVSCDAP7 60C7<> 64B7<> 65C5>
LVSCDAP8 60C7<> 64B7<> 65C8>
LVSCDAP9 60C7<> 64A7<> 65C8>
LVSCDAP10 60C7<> 64A7<> 65C8>
LVSCDAP11 60C7<> 64A7<> 65C8>
LVSCDAP12 60C7<> 64C7<> 65B3>
LVSCDAP13 60C7<> 64C7<> 65C3>
LVSCDAP14 60C7<> 64C7<> 65C3>
LVSCDAP15 60C7<> 64C7<> 65C3>
LVSCDAPHM 60C5<> 64C6<> 65C1>
LVSCDAPHP 60C7<> 64C7<> 65C3>
LVSCDAPLM 60C5<> 64B6<> 65C4>
LVSCDAPLP 60C7<> 64B7<> 65C5>
LVSCDBM0 60C1<> 64C2<> 66C1>
LVSCDBM1 60C1<> 64C2<> 66C1>
LVSCDBM2 60C1<> 64C2<> 66C1>
LVSCDBM3 60C1<> 64B2<> 66C1>
LVSCDBM4 60C1<> 64B2<> 66B4>
LVSCDBM5 60C1<> 64B2<> 66C4>
LVSCDBM6 60C1<> 64B2<> 66C4>
LVSCDBM7 60C1<> 64B2<> 66C4>
LVSCDBM8 60C1<> 64B2<> 66C6>
LVSCDBM9 60C1<> 64A2<> 66C6>
LVSCDBM10 60C1<> 64A2<> 66C6>
LVSCDBM11 60C1<> 64A2<> 66C6>
LVSCDBM12 60C1<> 64C2<> 66B1>
LVSCDBM13 60C1<> 64C2<> 66C1>
LVSCDBM14 60C1<> 64C2<> 66C1>
LVSCDBM15 60C1<> 64C2<> 66C1>
LVSCDBP0 60C4<> 64C3<> 66C3>
LVSCDBP1 60C4<> 64C3<> 66C3>
LVSCDBP2 60C4<> 64C3<> 66C3>
LVSCDBP3 60C4<> 64B3<> 66C3>
LVSCDBP4 60C4<> 64B3<> 66B5>
LVSCDBP5 60C4<> 64B3<> 66C5>
LVSCDBP6 60C4<> 64B3<> 66C5>
LVSCDBP7 60C4<> 64B3<> 66C5>
LVSCDBP8 60C4<> 64B3<> 66C8>
LVSCDBP9 60C4<> 64A3<> 66C8>
LVSCDBP10 60C4<> 64A3<> 66C8>
LVSCDBP11 60C4<> 64A3<> 66C8>
LVSCDBP12 60C4<> 64C3<> 66B3>
LVSCDBP13 60C4<> 64C3<> 66C3>
LVSCDBP14 60C4<> 64C3<> 66C3>
LVSCDBP15 60C4<> 64C3<> 66C3>
LVSCDBPHM 60B1<> 64C2<> 66C1>
LVSCDBPHP 60B4<> 64C3<> 66C3>
LVSCDBPLM 60B1<> 64B2<> 66C4>
LVSCDBPLP 60B4<> 64B3<> 66C5>
LVSELAM 60B5<> 64B6<> 65C6>
LVSELAP 60B7<> 64B7<> 65C8>
LVSELBM 60B1<> 64B2<> 66C6>
LVSELBP 60B4<> 64B3<> 66C8>
LVTRMPWR_A 64D5> 62A1< 65D5<
LVTRMPWR_B 64D2> 62A3< 66D5<
MCH_AP_0_N 6B7> 10A6<
MCH_AP_1_N 6B7> 10A6<
MCH_A_N<35..32> 6C2> 10C6<
MCH_BINIT_N 6B2> 10A6<
MCH_CLK66 51B4> 11B6<
MCH_DP_N<3..0> 6C6> 10A6<
MCH_GTL_VREF 10D3<
MCH_RSP_N 6B2> 10C6<
MCH_XERR_N 6B2> 10A6<
MCH_XORMODE_N 10D6<
MDI1 56A2<> 58B8<>
MDI1_N 56A2<> 58B8<>
MDI2 56A2<> 58B8<>
MDI2_N 56A2<> 58B8<>
MDI3 56A2<> 58B8<>
MDI3_N 56A2<> 58B8<>
MDIO 56A2<> 58B8<>
MDIO_N 56A2<> 58B8<>
MSCLK 53C3<> 54C8<
MSDATA 53C3<> 54C8<
MTRO_N 53D6> 54A2<
P64H2_1_APICD0 25B5<>
P64H2_1_APICD1 25B5<>
P64H2_1_CK200 25C5<
P64H2_1_CK200_N 25C5<

P64H2_1_CLK66 51B8> 25C5<
P64H2_1_HI16 11B3<> 25C2<
P64H2_1_HI17 11B3<> 25C2>
P64H2_1_HI18 11B3<> 25C2<>
P64H2_1_HI20 11A3<> 25C2>
P64H2_1_HI21 11A3<> 25C2>
P64H2_1_HI<?..?> 11A2<> 25B1<>
P64H2_1_HPA_SID 25A5<
P64H2_1_HPA_SLOT0 25B5<
P64H2_1_HPA_SLOT1 25B5<
P64H2_1_HPA_SLOT2 25B5<
P64H2_1_HPB_SID 25A3<
P64H2_1_HPB_SLOT0 25B3<
P64H2_1_HPB_SLOT1 25B3<
P64H2_1_HPB_SLOT2 25B3<
P64H2_1_PA_133EN 23D5<
P64H2_1_PA_ACK64_N 31B6<> 33B3<> 23D4<
P64H2_1_PA_AD<63..0> 23D7<> 31A7<> 33A2<> 33A7<>
33C7<>
P64H2_1_PA_CBE0_N 23B4<> 33B7<>
P64H2_1_PA_CBE1_N 23B4<> 33B2<>
P64H2_1_PA_CBE2_N 23B4<> 33C2<>
P64H2_1_PA_CBE3_N 23B4<> 33C3<>
P64H2_1_PA_CBE4_N 23B4<> 31D8<> 33A3<>
P64H2_1_PA_CBE5_N 23B4<> 31D8<> 33A7<>
P64H2_1_PA_CBE6_N 23B4<> 31D8<> 33A3<>
P64H2_1_PA_CBE7_N 23B4<> 31D8<> 33B7<>
P64H2_1_PA_DEVSEL_N 23C4<> 31B6<> 33C2<>
P64H2_1_PA_FRAME_N 23C4<> 31B6<> 33C7<>
P64H2_1_PA_GNT0_N 23C4> 33D7<
P64H2_1_PA_GNT3_N 23C5<>
P64H2_1_PA_GNT4_N 23C4> 25B8<>
P64H2_1_PA_GNT5_N 23C4> 25B8<>
P64H2_1_PA_IRDY_N 23C4<> 31B6<> 33C2<>
P64H2_1_PA_IRQ0 31C6<> 33D6> 23A4<
P64H2_1_PA_IRQ1 31C6<> 33D3> 23A4<
P64H2_1_PA_IRQ2 31D6<> 33D6> 23A4<
P64H2_1_PA_IRQ3 31D6<> 33D3> 23A4<
P64H2_1_PA_IRQ4 31D6<> 23A4<
P64H2_1_PA_IRQ5 31D6<> 23A4<
P64H2_1_PA_IRQ6 31C6<> 23A4<
P64H2_1_PA_IRQ7 31A6<> 23A4<
P64H2_1_PA_IRQ8 31C6<> 23A4<
P64H2_1_PA_IRQ9 31C6<> 23A4<
P64H2_1_PA_IRQ10 31C6<> 23A4<
P64H2_1_PA_IRQ11 31A6<> 23A4<
P64H2_1_PA_IRQ12 31A6<> 23A4<
P64H2_1_PA_IRQ13 31A6<> 23A4<
P64H2_1_PA_IRQ14 31A6<> 23B4<
P64H2_1_PA_IRQ15 31A6<> 23B4<
P64H2_1_PA_M66EN 31A6<> 33B3> 23D1<
P64H2_1_PA_PAR 23C4<> 33B7<>
P64H2_1_PA_PAR64 23C4<> 31B6<> 33A7<>
P64H2_1_PA_PCIXCAP 33C2<> 23D1<
P64H2_1_PA_PCLK0 23B3> 33D3<
P64H2_1_PA_PCLK0_R 23B5<>
P64H2_1_PA_PCLK6 23B5<>
P64H2_1_PA_PCLKI 23B5<
P64H2_1_PA_PERR_N 23C4<> 31B6<> 33C2<>
P64H2_1_PA_PLOCK_N 23A4<> 31B6<> 33C2<>
P64H2_1_PA_REQ0_N 31B6<> 23C4< 33D3<
P64H2_1_PA_REQ1_N 31A6<> 23C4<
P64H2_1_PA_REQ2_N 31A6<> 23C4<
P64H2_1_PA_REQ3_N 31A6<> 23C4<
P64H2_1_PA_REQ4_N 31A6<> 23C4<
P64H2_1_PA_REQ5_N 31C6<> 23C4<
P64H2_1_PA_REQ64_N 23D4<> 31B6<> 33B7<>
P64H2_1_PA_RST_N 23B4<> 33D7<
P64H2_1_PA_SERR_N 31B6<> 33C2<> 23C4<
P64H2_1_PA_STOP_N 23C4<> 31B6<> 33C7<>
P64H2_1_PA_TRDY_N 23C4<> 31B6<> 33C7<>
P64H2_1_PB_ACK64_N 24D4<> 31B2<> 34B3<> 56B6<>
P64H2_1_PB_AD<63..0> 24D6<> 31A3<> 34A2<> 34A7<>
34C7<> 56D6<> 56D7<>
P64H2_1_PB_CBE0_N 24B4<> 34B7<> 56C6<>
P64H2_1_PB_CBE1_N 24B4<> 34B3<> 56C6<>
P64H2_1_PB_CBE2_N 24B4<> 34C3<> 56C6<>
P64H2_1_PB_CBE3_N 24C4<> 34C3<> 56C6<>
P64H2_1_PB_CBE4_N 24C4<> 31B2<> 34A3<> 56C6<>
P64H2_1_PB_CBE5_N 24C4<> 31B2<> 34A7<> 56C6<>
P64H2_1_PB_CBE6_N 24C4<> 31D4<> 34A3<> 56C6<>
P64H2_1_PB_CBE7_N 24C4<> 31D4<> 34B7<> 56C6<>
P64H2_1_PB_DEVSEL_N 24C4<> 34C3<> 44A2> 56C6<>
P64H2_1_PB_FRAME_N 24C4<> 31C2<> 34C7<> 56C6<>
P64H2_1_PB_GNT0_N 24C4> 56B6<

P64H2_1_PB_GNT1_N 24D4> 34D7<
P64H2_1_PB_GNT3_N 24D5<>
P64H2_1_PB_GNT4_N 24D4> 25B8<>
P64H2_1_PB_GNT5_N 24D4<> 25B8<>
P64H2_1_PB_IRDY_N 24C4<> 31C2<> 34C3<> 56C6<>
P64H2_1_PB_IRQ0 31C6<> 56B6<> 24A4<
P64H2_1_PB_IRQ1 31C2<> 24A4<
P64H2_1_PB_IRQ2 31C2<> 24A4<
P64H2_1_PB_IRQ3 31D2<> 24A4<
P64H2_1_PB_IRQ4 31D2<> 34D6> 24A4<
P64H2_1_PB_IRQ5 31C2<> 34D3> 24A4<
P64H2_1_PB_IRQ6 31C2<> 34D6> 24A4<
P64H2_1_PB_IRQ7 31C2<> 34D3> 24A4<
P64H2_1_PB_IRQ8 31C2<> 24A4<
P64H2_1_PB_IRQ9 31D2<> 24B4<
P64H2_1_PB_IRQ10 31A2<> 24B4<
P64H2_1_PB_IRQ11 31B2<> 24B4<
P64H2_1_PB_IRQ12 31D2<> 24B4<
P64H2_1_PB_IRQ13 31C2<> 24B4<
P64H2_1_PB_IRQ14 31A6<> 24B4<
P64H2_1_PB_IRQ15 31B2<> 24B4<
P64H2_1_PB_LAN_RST_N 56A7<
P64H2_1_PB_M66EN 31A2<> 34B3> 24D2< 56B5<
P64H2_1_PB_PAR 24C4<> 34B7<> 56C6<>
P64H2_1_PB_PAR64 24C4<> 31D4<> 34A7<> 56C6<>
P64H2_1_PB_PCIXCAP 34C3<> 24D1<
P64H2_1_PB_PCLK0 24B2> 56B6<
P64H2_1_PB_PCLK0_R 24B5<>
P64H2_1_PB_PCLK1 24B2> 34D3<
P64H2_1_PB_PCLK1_R 24B5<>
P64H2_1_PB_PCLK6 24B5<>
P64H2_1_PB_PCLKI 24B5<
P64H2_1_PB_PERR_N 24C4<> 31A2<> 34C3<> 56C1<>
P64H2_1_PB_PLOCK_N 24A4> 31A2<> 34C3<> 56B6<
P64H2_1_PB_REQ0_N 31A4<> 56B6<> 24C4<
P64H2_1_PB_REQ1_N 44C2<> 24C4< 34D3<
P64H2_1_PB_REQ2_N 31B2<> 24C4<
P64H2_1_PB_REQ3_N 31A2<> 24C4<
P64H2_1_PB_REQ4_N 31A2<> 24C4<
P64H2_1_PB_REQ5_N 31D2<> 24C4<
P64H2_1_PB_REQ64_N 31D4<> 34B7<> 56B6<> 24D4<
P64H2_1_PB_RST_N 24B4> 34D7< 56A6<
P64H2_1_PB_SERR_N 24C4<> 34C3<> 44A2> 56C1<>
P64H2_1_PB_STOP_N 24C4<> 31B2<> 34C7<> 56C6<>
P64H2_1_PB_TRDY_N 24C4<> 31C2<> 34C7<> 56C6<>
P64H2_1_PSTRBF 11B3<> 25C2<>
P64H2_1_PSTRBS 11B3<> 25C2<>
P64H2_1_PUSTRBF 11B3<> 25C2<>
P64H2_1_PUSTRBS 11B3<> 25C2<>
P64H2_1_RASERR_N 25C6> 70B4<
P64H2_1_RCOMP 25C3<>
P64H2_1_TEST_N 25B5<
P64H2_1_VREF 25C2<
P64H2_1_VSWING 25C2<
P64H2_2_APICCLK 29B5<
P64H2_2_APICD0 29B5<>
P64H2_2_APICD1 29B5<>
P64H2_2_CK200 29C5<
P64H2_2_CK200_N 29C5<
P64H2_2_CLK66 51B8> 29C5<
P64H2_2_HI16 11D7<> 29C2<
P64H2_2_HI17 11D7<> 29C2>
P64H2_2_HI18 11D7<> 29C2<>
P64H2_2_HI20 11D6<> 29C2>
P64H2_2_HI21 11D6<> 29C2>
P64H2_2_HI<?..?> 11D7<> 29B2<>
P64H2_2_HPA_SID 29A5<
P64H2_2_HPA_SLOT0 29A5<
P64H2_2_HPA_SLOT1 29A5<
P64H2_2_HPA_SLOT2 29B5<
P64H2_2_HPB_SID 29A3<
P64H2_2_HPB_SLOT0 29A3<
P64H2_2_HPB_SLOT1 29A3<
P64H2_2_HPB_SLOT2 29B3<
P64H2_2_PA_133EN 27D5<
P64H2_2_PA_ACK64_N 32A6<> 59D3<> 27D4<
P64H2_2_PA_AD<?..?> 27D7<> 32A6<> 59A6<> 59D8>
P64H2_2_PA_CBE0_N 27B4<> 59C3<>
P64H2_2_PA_CBE1_N 27B4<> 59C3<>
P64H2_2_PA_CBE2_N 27B4<> 59C3<>
P64H2_2_PA_CBE3_N 27B4<> 59C3<>
P64H2_2_PA_CBE4_N 27C4<> 32B6<> 59C3<>
P64H2_2_PA_CBE5_N 27C4<> 32B6<> 59C3<>
P64H2_2_PA_CBE6_N 27C4<> 32B6<> 59C3<>
P64H2_2_PA_CBE7_N 27C4<> 32C8<> 59C3<>

P64H2_2_PA_DEVSEL_N 27C4<> 32B6<> 59C3<>
P64H2_2_PA_FRAME_N 27C4<> 32B6<> 59D3<>
P64H2_2_PA_GNT0_N 27C4> 59D6<
P64H2_2_PA_GNT3_N 27D5<>
P64H2_2_PA_GNT4_N 27D4> 29D8<>
P64H2_2_PA_GNT5_N 27D4> 29D8<>
P64H2_2_PA_IRDY_N 27C4<> 32D8<> 59D3<>
P64H2_2_PA_IRQ0 32A2<> 59D3> 27A4<
P64H2_2_PA_IRQ1 32B6<> 59D3> 27A4<
P64H2_2_PA_IRQ2 32A2<> 27A4<
P64H2_2_PA_IRQ3 32B6<> 27A4<
P64H2_2_PA_IRQ4 32A2<> 27A4<
P64H2_2_PA_IRQ5 32B6<> 27A4<
P64H2_2_PA_IRQ6 32B6<> 27A4<
P64H2_2_PA_IRQ7 32A6<> 27A4<
P64H2_2_PA_IRQ8 32C6<> 27A4<
P64H2_2_PA_IRQ9 32C6<> 27A4<
P64H2_2_PA_IRQ10 32C6<> 27B4<
P64H2_2_PA_IRQ11 32C6<> 27B4<
P64H2_2_PA_IRQ12 32C6<> 27B4<
P64H2_2_PA_IRQ13 32C6<> 27B4<
P64H2_2_PA_IRQ14 32C6<> 27B4<
P64H2_2_PA_IRQ15 32C6<> 27B4<
P64H2_2_PA_M66EN 27D3<> 32A6<>
P64H2_2_PA_PAR 27C4<> 59C3<>
P64H2_2_PA_PAR64 27C4<> 32C8<> 59D3<>
P64H2_2_PA_PCIXCAP 27D5<
P64H2_2_PA_PCLK0 27B3> 59D6<
P64H2_2_PA_PCLK0_R 27B5<>
P64H2_2_PA_PCLK6 27B5<>
P64H2_2_PA_PCLKI 27B5<
P64H2_2_PA_PERR_N 27C4<> 32D8<> 59C3<>
P64H2_2_PA_PLOCK_N 27A4<> 32D8<>
P64H2_2_PA_REQ0_N 32A6<> 59D3> 27C4<
P64H2_2_PA_REQ1_N 32A6<> 27C4<
P64H2_2_PA_REQ2_N 32A6<> 27C4<
P64H2_2_PA_REQ3_N 32A6<> 27C4<
P64H2_2_PA_REQ4_N 32A6<> 27C4<
P64H2_2_PA_REQ5_N 32A6<> 27C4<
P64H2_2_PA_REQ64_N 27D4<> 32C8<> 59D3<>
P64H2_2_PA_RST_N 27B4> 60A7<
P64H2_2_PA_SERR_N 32B6<> 59C3<> 27C4<
P64H2_2_PA_STOP_N 27C4<> 32D8<> 59C3<>
P64H2_2_PA_TRDY_N 27C4<> 32B6<> 59C3<>
P64H2_2_PB_133EN 28D5<
P64H2_2_PB_ACK64_N 28D4<> 32A2<> 35B3<> 36B3<>
37B3<> 38A8<>
P64H2_2_PB_AD<63..0> 28D7<> 32A3<> 35A2<> 35A7<>
35C7<> 36A2<> 36A7<> 36C7<> 37A2<>
37A7<> 37C7<> 38A5<> 38A7<> 38C1<>
38C4<> 38C4<
P64H2_2_PB_CBE0_N 28B4<> 35B7<> 36B7<> 37B7<>
38B5<>
P64H2_2_PB_CBE1_N 28B4<> 35B3<> 36B3<> 37B3<>
38B8<>
P64H2_2_PB_CBE2_N 28B4<> 35C3<> 36C3<> 37C3<>
38C8<>
P64H2_2_PB_CBE3_N 28B4<> 35C3<> 36C3<> 37C3<>
38C8<>
P64H2_2_PB_CBE4_N 28B4<> 32D4<> 35A3<> 36A3<>
37A3<> 38D3<>
P64H2_2_PB_CBE5_N 28B4<> 32D4<> 35A7<> 36A7<>
37A7<> 38D1<>
P64H2_2_PB_CBE6_N 28C4<> 32D4<> 35A3<> 36A3<>
37A3<> 38D3<>
P64H2_2_PB_CBE7_N 28C4<> 32D4<> 35B7<> 36B7<>
37B7<> 38D1<>
P64H2_2_PB_DEVSEL_N 28C4<> 32B2<> 35C3<> 36C3<>
37C3<> 38B8<>
P64H2_2_PB_FRAME_N 28C4<> 32B2<> 35C7<> 36C7<>
37C7<> 38C5<>
P64H2_2_PB_GNT0_N 28C4> 35D7<
P64H2_2_PB_GNT1_N 28C4> 36D7<
P64H2_2_PB_GNT2_N 28C4> 37D7<
P64H2_2_PB_GNT3_N 28C3> 38C5<
P64H2_2_PB_GNT4_N 28D4> 29D8<>
P64H2_2_PB_GNT5_N 28D4> 29D8<>
P64H2_2_PB_IRDY_N 28C4<> 32B2<> 35C3<> 36C3<>
37C3<> 38B8<>
P64H2_2_PB_IRQ0 32C2<> 35D6> 28A4<
P64H2_2_PB_IRQ1 32C2<> 35D3> 28A4<
P64H2_2_PB_IRQ2 32C2<> 35D6> 28A4<
P64H2_2_PB_IRQ3 32C2<> 35D3> 28A4<
P64H2_2_PB_IRQ4 32C2<> 35D6> 28A4<
P64H2_2_PB_IRQ5 32C2<> 35D3> 28A4<

P64H2_2_PB_IRQ6 32C2<> 36D6> 28A4<
P64H2_2_PB_IRQ7 32C2<> 36D3> 28A4<
P64H2_2_PB_IRQ8 32C2<> 37D6> 28A4<
P64H2_2_PB_IRQ9 32C2<> 37D3> 28A4<
P64H2_2_PB_IRQ10 32C2<> 37D6> 28A4<
P64H2_2_PB_IRQ11 32C2<> 37D3> 28A4<
P64H2_2_PB_IRQ12 32D2<> 38D5> 28B4<
P64H2_2_PB_IRQ13 32D2<> 38D8> 28B4<
P64H2_2_PB_IRQ14 32D2<> 38D5> 28B4<
P64H2_2_PB_IRQ15 32D2<> 38D8> 28B4<
P64H2_2_PB_M66EN 28D2<> 32A6<> 35B2> 36B2> 37B2>
38B8>
P64H2_2_PB_PAR 28C4<> 35B7<> 36B7<> 37B7<> 38B5<>
P64H2_2_PB_PAR64 28C4<> 32A2<> 35A7<> 36A7<> 37A7<>
38D1<>
P64H2_2_PB_PCIXCAP 28D2<> 35C3<> 36C3<> 37C3<>
38B8<>
P64H2_2_PB_PCLK0 28B1> 35D3<
P64H2_2_PB_PCLK0_R 28B5<>
P64H2_2_PB_PCLK1 28B1> 36D3<
P64H2_2_PB_PCLK1_R 28B5<>
P64H2_2_PB_PCLK2 28B1> 37D3<
P64H2_2_PB_PCLK2_R 28B5<>
P64H2_2_PB_PCLK3 28B1> 38C8<
P64H2_2_PB_PCLK3_R 28B5<>
P64H2_2_PB_PCLK6 28B5<>
P64H2_2_PB_PCLKI 28B5<
P64H2_2_PB_PERR_N 28C4<> 32B2<> 35C3<> 36C3<>
37C3<> 38B8<>
P64H2_2_PB_PLOCK_N 28A4> 32B2<> 35C3<> 36C3<>
37C3<> 38B8<>
P64H2_2_PB_REQ0_N 32A2<> 28C4< 35D3<
P64H2_2_PB_REQ1_N 32C6<> 28C4< 36D3<
P64H2_2_PB_REQ2_N 32C6<> 28C4< 37D3<
P64H2_2_PB_REQ3_N 32A2<> 28C4< 38C8<
P64H2_2_PB_REQ4_N 32C6<> 28C4<
P64H2_2_PB_REQ5_N 32A2<> 28C4<
P64H2_2_PB_REQ64_N 32B2<> 35B7<> 36B7<> 37B7<>
38A5<> 28D4<
P64H2_2_PB_RST_N 28B4<> 35D7< 36D7< 37D7< 38C5<
P64H2_2_PB_SERR_N 32B2<> 35C3<> 36C3<> 37C3<>
38B8<> 28C4<
P64H2_2_PB_STOP_N 28C4<> 32B2<> 35C7<> 36C7<>
37C7<> 38B5<>
P64H2_2_PB_TRDY_N 28C4<> 32B2<> 35C7<> 36C7<>
37C7<> 38B5<>
P64H2_2_PSTRBF 11C6<> 29C2<>
P64H2_2_PSTRBS 11C6<> 29C2<>
P64H2_2_PUSTRBF 11C6<> 29C2<>
P64H2_2_PUSTRBS 11C6<> 29C2<>
P64H2_2_RASERR_N 29C6> 70B7<
P64H2_2_RCOMP 29C3<>
P64H2_2_TEST_N 29B5<
P64H2_2_VREF 29C3<
P64H2_2_VSWING 29C3<
PCI33_ACK64_N 31B2<> 44A4<>
PCI33_CLK33 51C8> 44C4<
PCI33_CLKRUN_N 44C7<
PCI33_IDSEL 44C7<
PCI33_PME_N 44C7<
PCI33_PRSNT1 44C5<
PCI33_PRSNT2 44C5<
PCI33_REQ64_N 31B2<> 44A8<>
PCI33_SBO_N 44B2> 44B8<>
PCI33_SDONE 44B2> 44B8<>
PCI33_TDI 44A2> 44C7<>
PCI33_TMS 44A2> 44D7<>
PCI33_VAUX 44C7<
PCIRST2_5_N 39A5> 11B8< 16A4< 17A3< 20A4< 21A4<

PCIRST_2_N 39A7> 25B5< 29B5< 38B3< 72B6< 72C3<

PCI_SLOTS_TCK 33D2<> 34D3<> 35D3<> 36D3<> 37D3<>
38D7<> 44D4<>
PCI_SLOTS_TRST_N 33D8<> 34D6<> 35D6<> 36D6<> 37D6<>
38D5<> 44D7<>
PME_N 56B7<>
PORT_OPTION 72B3<>
PS_ON_N 49B3> 70A7<
PS_PWRGD 49C7> 70B4<
PS_PWRGD_SYS 70B7> 48A4< 49A3<
PWROK_0 48A3<
PWROK_RST_N 48A5<> 70C2>
RC5051_ENABLE 47D8<
RDATA_N 54A2> 53C6<

DRAWING

PAGE	REV
75	A2.1

RJ45_P10	58A2<
RJ45_P12	58A2<
RTCRST_PD	41D8<
RTCRST_PU	41C7<
R_ICH3_INIT_N	52B2<
SCSI_AGND	62B3> 62C3> 62C7> 63C4<
SCSI_CORE_VCC	63B2> 61D8< 62D1<
SCSI_CORE_VCCA	62C4<
SCSI_CORE_VCCA_PX	62D4<
SCSI_IDESL	59D6<
SCSI_SEECK	59A4<>
SCSI_SEECS	59C3<>
SCSI_SEEDI	59A4<>
SCSI_SEEDO	59A4<>
SCSI_V3_3A_0	62B4<
SCSI_V3_3A_1	62B4<
SCSI_V3_3A_PX	62C4<
SCSI_VCC	63B6> 61C5<
SER_CTS	54C3<
SER_DCD	54C3<
SER_DSR	54C3<
SER_DTR	54C3<>
SER_RI	54C3<
SER_RTS	54C3<>
SER_RXD	54C3<
SER_TXD	54C3<>
SIOCLKRUN	53C4<>
SIO_CLK33	51C8> 53C6<
SIO_LDRQ0_N	53C6<>
SIO_PME_N	39A7<> 53C8<>
SLOT_1A_3VAUX	33D6<
SLOT_1A_IDSEL	33C6<
SLOT_1A_PME_N	33D7<
SLOT_1A_TDI	33D6<
SLOT_1A_TMS	33D6<
SLOT_1B_3VAUX	34D6<
SLOT_1B_IDSEL	34C6<
SLOT_1B_PME_N	34D6<
SLOT_1B_TDI	34D6<
SLOT_1B_TMS	34D6<
SLOT_2A_3VAUX	35D6<
SLOT_2A_IDSEL	35C6<
SLOT_2A_PME_N	35D6<
SLOT_2A_TDI	35D6<
SLOT_2A_TMS	35D6<
SLOT_2B_3VAUX	36D6<
SLOT_2B_IDSEL	36C6<
SLOT_2B_PME_N	36D6<
SLOT_2B_TDI	36D6<
SLOT_2B_TMS	36D6<
SLOT_2C_3VAUX	37D6<
SLOT_2C_IDSEL	37C6<
SLOT_2C_PME_N	37D6<
SLOT_2C_TDI	37D6<
SLOT_2C_TMS	37D6<
SLOT_2D_3VAUX	38C5<>
SLOT_2D_IDSEL	38C5<>
SLOT_2D_PME_N	38C5<>
SLOT_2D_TDI	38D5<>
SLOT_2D_TMS	38D5<>
SMC_SYS0PT	53C4<>
STEP_N	53D6> 54A2<
SYS_PWROK_1	48B1> 10A6< 56B6<
SYS_PWROK_2	48A1> 25B5< 29B5< 41C5<
SYS_SLP_S5_N	70B4> 49B5< 69A7<
TBI_MODE	56C2<
THERM_EN	7B3> 49A5<
THERM_EN_SBY	7B5<>
THRMTRP_LTCH	7B6<
TRK0_N	54A2> 53C6<
V1_2SENSE_N	55B3<
V1_2SENSE_P	55B3<
V1_8SENSE_M	48C6<
V1_8SENSE_P	48C6<
V2_5SENSE1_M	47A3<
V2_5SENSE1_P	47A3<
V2_5SENSE2_M	47A5<
V2_5SENSE2_P	47A5<
V2_5_L1	47B3<
V2_5_L2	47A4<
V3_CLK	51A4> 51B4> 51A6< 51B4<
V3_CLK_A	51A2> 51C4<
V3_OK	7B5<
V5_KB	54D6<
V5_KB_RT	54D7<

VCC1_2_L	55B3<
VCC1_8_L	48D6<
VCCA1_2	14A5<
VCCACPU1_2	14A6<
VCCAHI1_2	14A6<
VCCP_PGOOD	68B6> 48A4<
VDD_ID	16A7> 17A6> 20A7> 21A7> 49B5<
VGA_BLUE	45B5> 45C1> 45B3<
VGA_DDCCLK	45B5> 45A4<
VGA_DDCDAT	45B5> 45A4<
VGA_GREEN	45B5> 45C1> 45B3<
VGA_HSYNC	45C5> 45D1> 45A4<
VGA_RED	45C1> 45C5> 45B3<
VGA_VSYNC	45C5> 45D1> 45A4<
VIDEO_CLK14	51D6> 45B7<
VIDEO_CLK33	51C8> 45D7<
VIDEO_IDSEL	45B7<
VIDEO_PERR_N	45B7<>
VIDEO_RSET	45B5<
VIDEO_STNDBY_N	45B7<
VID_PGOOD	50B3> 68D2<
VMR_DAC_SS	50B3<> 50C2<>
VQP	47D4<
VRD_ON_N	49A2<>
VRD_ON_N_R	49A2<
VREF_DDR_DIMM	47B4> 47C7> 16A8< 17B7< 20B8< 21B8<
VREF_DDR_MCH	47C4> 47C7> 12A3< 13A3<
VRM_CORE	50A8<> 50B4<>
VRM_ON	49A2> 50B5<
VRM_PBOOT	50C2< 50C7<
VRM_VID<5..0>	49A7> 49D4> 50B5<
VTT_DDR_L	47D3<
VTT_DDR_PGOOD	47D5> 48A4<
VXB_CLK66	51C8> 38C3<
VXB_HI16	11D3<> 38B1<>
VXB_HI17	11D3<> 38B3<>
VXB_HI18	11D3<> 38B3<>
VXB_HI20	11D3<> 38B1<>
VXB_HI21	11D3<> 38B3<>
VXB_HI<15..0>	11C3<> 38A1<>
VXB_PSTRBF	11C3<> 38A4<>
VXB_PSTRBS	11C3<> 38A1<>
VXB_PUSTRBF	11C3<> 38B4<>
VXB_PUSTRBS	11C3<> 38B1<>
WDATA_N	53D6> 54A2<
WGATE_N	53D6> 54A2<
WRTPRT_N	54A2> 53C6<
WTX_SLEEP	49C5<
XTAL1	56A2<
XTAL2	56A2<>
ZN_COMP	56C2<
ZP_COMP	56C2<

DRAWING

PAGE	REV
76	A2.1

*** Unit Cross-Reference ***
--- for the entire design --

BH1	BATT_HLDR_3P	41B8
C1	CAPN	4C5
C2	CAPN	4B5
C3	CAPN	4C5
C4	CAPN	4B5
C5	CAPN	4C5
C6	CAPN	4B5
C7	CAPN	4C5
C8	CAPN	4B5
C9	CAPN	4B4
C10	CAPN	4B4
C11	CAPN	8B6
C12	CAPN	8B5
C13	CAP-P	8B5
C14	CAPN	8B5
C15	CAP-P	8B5
C16	CAPN	8B5
C17	CAP-P	8B4
C18	CAPN	8B4
C19	CAP-P	8B4
C20	CAPN	8B4
C21	CAP-P	8B4
C22	CAPN	8B4
C23	CAPN	8B3
C24	CAP-P	8B3
C25	CAPN	8B3
C26	CAP-P	8B3
C27	CAPN	8B3
C28	CAP-P	8B2
C29	CAPN	8B2
C30	CAP-P	8B2
C31	CAPN	8B2
C32	CAP-P	8D2
C33	CAP-P	8B2
C34	CAPN	8B2
C35	CAP-P	8D1
C36	CAP-P	8B1
C37	CAPN	8B1
C38	CAP-P	8B1
C39	CAPN	8B1
C40	CAPN	50B8
C41	CAPN	50B8
C42	CAPN	50A7
C43	CAPN	50B7
C44	CAPN	50A7
C45	CAPN	50A6
C46	CAPN	50A8
C47	CAPN	50C6
C48	CAPN	50A8
C49	CAPN	50D5
C50	CAP-P	50D7
C51	CAPN	50A7
C52	CAPN	50A7
C53	CAPN	50B2
C54	CAPN	50C2
C55	CAPN	50A1
C56	CAPN	50C1
C57	CAPN	50C1
C58	CAPN	50D7
C59	CAPN	68D5
C60	CAPN	68C5
C61	CAPN	68D7
C62	CAPN	50C5
C63	CAPN	50D4
C64	CAPN	50A4
C65	CAPN	9B6
C66	CAPN	50A3
C67	CAPN	50A3
C68	CAPN	50A3
C69	CAPN	50A2
C70	CAPN	50A2
C71	CAPN	50A2
C72	CAPN	68B8
C73	CAPN	68B7
C74	CAPN	68D6
C75	CAPN	68D6
C76	CAPN	50D7
C78	CAPN	68D5
C80	CAP-P	68B2
C83	CAPN	50D6
C84	CAPN	50B5
C85	CAPN	9B5
C86	CAPN	10D1
C87	CAP-P	14C1
C88	CAPN	68A7
C90	CAPN	68B3
C91	CAPN	68B2
C93	CAPN	50C2
C94	CAPN	68B4
C297	CAPN	8C2
C298	CAPN	8C2
C299	CAPN	8C2
C300	CAPN	8C2
C305	CAPN	8C4
C306	CAPN	8C4
C307	CAPN	8C3
C308	CAPN	8C3
C309	CAPN	8C3
C310	CAPN	8C3
C405	CAPN	35D1
C406	CAPN	35D1
C407	CAPN	35D2
C408	CAPN	35D2
C409	CAPN	35C1
C410	CAPN	35C1
C411	CAPN	35B1
C412	CAPN	35B2
C413	CAPN	36D2
C414	CAPN	36D2
C415	CAPN	36D1
C416	CAPN	36D1
C417	CAPN	36C1
C418	CAPN	36C1
C419	CAPN	36B2
C420	CAPN	36B1
C421	CAPN	37D2
C422	CAPN	37D2
C423	CAPN	37D1
C424	CAPN	37D1
C425	CAPN	37C1
C426	CAPN	37C1
C427	CAPN	37B2
C428	CAPN	37B1
C429	CAPN	38A6
C430	CAPN	38A6
C431	CAPN	38A5
C432	CAPN	38A5
C433	CAPN	38A3
C434	CAPN	38A3
C435	CAPN	38A5
C436	CAPN	38A4
C437	CAPN	44A2
C438	CAPN	44A2
C439	CAPN	44A2
C440	CAPN	44A2
C441	CAPN	44A3
C442	CAPN	44A3
C443	CAPN	44A3
C444	CAPN	44A3
C445	CAPN	49D2
C446	CAPN	49D2
C447	CAPN	49C2
C448	CAPN	49C3
C449	CAPN	49B1
C450	CAPN	49B1
C451	CAPN	49B1
C452	CAPN	49B1
C453	CAPN	49C2
C454	CAPN	49C2
C499	CAPN	49D1
C500	CAPN	49D1
C501	CAPN	49D1
C502	CAPN	49D2
C503	CAPN	49D2
C504	CAPN	49D2
C505	CAPN	49C2
C506	CAPN	49B2
C507	CAPN	49B2
C508	CAPN	49B1
C509	CAPN	49B1
C510	CAPN	49B1
C520	CAPN	48D5
C521	CAPN	49D2
C522	CAPN	49D2
C523	CAPN	49B2
C524	CAPN	49B2
C527	CAPN	45B8
C528	CAPN	45A7
C530	CAP-P	48D4
C531	CAP-P	48D5
C532	CAP-P	48D4
C533	CAP-P	48C4
C589	CAPN	10C8
C590	CAPN	10D8
C595	CAPN	11C8
C596	CAPN	11C8
C597	CAPN	11B8
C598	CAPN	11B8
C613	CAPN	39C2
C614	CAPN	39B2
C615	CAPN	39B1
C616	CAPN	39C1
C617	CAPN	41C7
C618	CAPN	41B7
C619	CAPN	41B7
C620	CAPN	44C4
C621	CAPN	44C3
C622	CAPN	45B2
C623	CAPN	45B2
C624	CAPN	45B2
C628	CAPN	45A1
C629	CAPN	45A2
C630	CAPN	45D7
C631	CAPN	47A8
C632	CAPN	47A8
C633	CAPN	47B2
C634	CAPN	47A4
C635	CAPN	47B8
C638	CAPN	48C2
C639	CAPN	48D8
C640	CAPN	48C8
C641	CAPN	48B5
C642	CAPN	48C7
C644	CAPN	48D8
C645	CAPN	48D8
C648	CAPN	49D1
C649	CAPN	49D2
C650	CAPN	49C2
C651	CAPN	49B1
C656	CAP-P	47A1
C657	CAP-P	47A1
C658	CAP-P	43D2
C659	CAP-P	43C3
C680	CAPN	35C1
C681	CAP-P	35B1
C682	CAP-P	35B2
C683	CAPN	35D1
C684	CAPN	36C1
C685	CAPN	36D1
C686	CAP-P	36B1
C687	CAP-P	36B2
C688	CAPN	37C1
C689	CAPN	37D1
C690	CAP-P	37B1
C691	CAP-P	37B2
C692	CAPN	38A3
C693	CAPN	38A5
C694	CAP-P	38A4
C695	CAP-P	38A4
C700	CAPN	44A2
C701	CAPN	44A3
C702	CAPN	47B2
C703	CAPN	47B2
C704	CAPN	47B2
C705	CAPN	47B2
C706	CAP-P	47A6
C709	CAP-P	48D1
C710	CAP-P	48C6
C711	CAP-P	52D2
C712	CAP-P	53A8
C713	CAPN	14C2
C714	CAPN	14D2
C715	CAPN	14D2
C716	CAPN	14D2
C717	CAPN	14D2
C718	CAPN	14C1
C719	CAPN	14D1
C720	CAPN	14D1
C721	CAPN	14D1
C722	CAPN	14D1
C723	CAPN	14C1
C724	CAPN	14D1
C725	CAPN	14D1
C726	CAPN	14D1
C727	CAPN	14D1
C760	CAP-P	15B1
C761	CAP-P	15B1
C762	CAP-P	15B1
C763	CAP-P	15B1
C764	CAP-P	15C1
C765	CAP-P	15C1
C766	CAP-P	19A1
C767	CAP-P	19A1
C768	CAP-P	19A1
C769	CAP-P	19A2
C770	CAP-P	19A2
C771	CAP-P	19A2
C776	CAP-P	51A3
C777	CAPN	12B2
C778	CAPN	12B1
C779	CAPN	12A2
C780	CAPN	12A1
C781	CAPN	13A2
C782	CAPN	13A2
C783	CAPN	13B2
C784	CAPN	13B1
C785	CAPN	14A2
C786	CAPN	14A1
C787	CAPN	14A2
C788	CAPN	14A1
C789	CAPN	14A2
C790	CAPN	14A1
C791	CAPN	14A2
C792	CAPN	14A1
C793	CAPN	14B2
C794	CAPN	14A1
C795	CAPN	14B2
C796	CAPN	14B1
C797	CAPN	14B2
C798	CAPN	14B1
C799	CAPN	14B2
C800	CAPN	14A1
C801	CAPN	14B2
C802	CAPN	14A1
C803	CAPN	14C2
C804	CAPN	14A1
C805	CAPN	14A2
C806	CAPN	14A1
C807	CAPN	14A2
C808	CAPN	14A1
C809	CAPN	14A2
C810	CAPN	14B1
C811	CAPN	14A2
C812	CAPN	14B1
C813	CAPN	14B2
C814	CAPN	14A1
C815	CAPN	14B2
C816	CAPN	14A1
C817	CAPN	14B2
C818	CAPN	14A1
C819	CAPN	14B2
C820	CAPN	14A1
C821	CAPN	14B2
C822	CAPN	14A1
C823	CAPN	14C2
C824	CAPN	14B1
C825	CAPN	14C2
C833	CAPN	19B1
C838	CAPN	15B2
C839	CAPN	15B2
C840	CAPN	15B2
C841	CAPN	15B2
C842	CAPN	15C2
C843	CAPN	15C2
C845	CAPN	19B2
C846	CAPN	19B2
C847	CAPN	19B2
C850	CAPN	19C2
C851	CAPN	19C2
C852	CAPN	19C2
C853	CAPN	19C1
C854	CAPN	19C1
C855	CAPN	19C1
C862	CAPN	51A2
C863	CAPN	51A1
C864	CAPN	51A1
C865	CAPN	51A1
C866	CAPN	51A2
C867	CAPN	51A2
C868	CAPN	51A2
C869	CAPN	51A2
C870	CAPN	51A3
C871	CAPN	51A3
C872	CAPN	51A3
C873	CAPN	51A3
C874	CAPN	51A2
C875	CAPN	51A2
C876	CAPN	51A2
C881	CAP-P	51A1
C882	CAPN	48C3
C883	CAPN	53D2
C884	CAPN	53D1
C885	CAPN	53A8
C886	CAPN	53A8
C887	CAPN	53A7
C888	CAPN	53A7
C889	CAPN	53A7
C893	CAPN	52D2
C894	CAPN	52D1
C895	CAPN	52D1
C897	CAPN	61B4
C898	CAPN	61C4
C899	CAPN	63C8
C900	CAPN	63C8
C901	CAPN	63C7
C902	CAPN	63B5
C903	CAPN	63B3
C904	CAPN	10C1
C905	CAPN	11C2
C906	CAPN	11C1
C907	CAPN	11B1
C908	CAPN	11B2
C909	CAPN	11B2
C910	CAPN	11C2
C911	CAPN	11C1
C912	CAPN	11B1
C913	CAPN	11B8
C914	CAPN	11B8
C915	CAPN	11C8
C916	CAPN	11C8
C921	CAPN	18B4
C922	CAPN	18B3
C923	CAPN	18B3
C924	CAPN	18B3
C925	CAPN	18B3
C926	CAPN	18B3
C927	CAPN	18B3
C928	CAPN	18B3
C929	CAPN	18B2
C930	CAPN	18B2
C931	CAPN	18B2
C932	CAPN	18B2
C933	CAPN	18B4
C934	CAPN	18B4
C935	CAPN	18B4
C936	CAPN	18B3
C937	CAPN	18B3
C938	CAPN	18B3
C939	CAPN	18B3
C940	CAPN	18B3
C941	CAPN	18B3
C942	CAPN	18B2
C943	CAPN	18B2
C944	CAPN	18B2
C945	CAPN	18B2
C946	CAPN	18B2
C947	CAPN	18A4
C948	CAPN	18A4
C949	CAPN	18A3
C950	CAPN	18A3
C951	CAPN	18A3
C952	CAPN	18A3
C953	CAPN	18A3
C954	CAPN	18A3
C955	CAPN	18A3
C956	CAPN	18C4
C957	CAPN	18C4
C958	CAPN	18C4
C959	CAPN	18C3
C960	CAPN	18C3
C961	CAPN	18C3
C962	CAPN	18C3

DRAWING

PAGE	REV
77	A2.1

C963	CAPN	18C3
C964	CAPN	18C3
C965	CAPN	18C3
C966	CAPN	18C2
C967	CAPN	18C2
C968	CAPN	18C2
C969	CAPN	18C2
C970	CAPN	18D3
C971	CAPN	18D3
C972	CAPN	18D3
C973	CAPN	18D3
C974	CAPN	18D3
C975	CAPN	18D3
C976	CAPN	18D3
C977	CAPN	18D4
C978	CAPN	18D4
C979	CAPN	18D4
C980	CAPN	18B4
C981	CAPN	22A2
C982	CAPN	22A2
C983	CAPN	22A2
C984	CAPN	22A2
C985	CAPN	22A2
C986	CAPN	22A1
C987	CAPN	22A3
C988	CAPN	22A3
C989	CAPN	22A3
C990	CAPN	22A2
C991	CAPN	22A2
C992	CAPN	22A2
C993	CAPN	22A2
C994	CAPN	22A2
C995	CAPN	22A1
C996	CAPN	22A1
C997	CAPN	22B2
C998	CAPN	22B2
C999	CAPN	22B2
C1000	CAPN	22B2
C1001	CAPN	22B2
C1002	CAPN	22B1
C1003	CAPN	22B1
C1004	CAPN	22B1
C1005	CAPN	22B1
C1006	CAPN	22D3
C1007	CAPN	22D3
C1008	CAPN	22D3
C1009	CAPN	22D2
C1010	CAPN	22D2
C1011	CAPN	22D2
C1012	CAPN	22D2
C1013	CAPN	22D2
C1014	CAPN	22A3
C1015	CAPN	22A3
C1016	CAPN	22C1
C1017	CAPN	22C1
C1018	CAPN	22C2
C1019	CAPN	22C2
C1020	CAPN	22C2
C1021	CAPN	22C2
C1022	CAPN	22C2
C1023	CAPN	22C2
C1024	CAPN	22C2
C1025	CAPN	22C3
C1026	CAPN	22C3
C1027	CAPN	22C3
C1028	CAPN	22C3
C1029	CAPN	22C3
C1030	CAPN	22C3
C1031	CAPN	22C3
C1032	CAPN	22C2
C1033	CAPN	22C2
C1034	CAPN	22C2
C1035	CAPN	22C2
C1036	CAPN	22C2
C1037	CAPN	22C2
C1038	CAPN	22C1
C1039	CAPN	22C1
C1040	CAPN	22D1
C1041	CAPN	25D1
C1042	CAPN	25C1
C1043	CAPN	25D1
C1044	CAPN	25C1
C1045	CAPN	26B4
C1046	CAPN	26B4
C1047	CAPN	26A5

C1048	CAPN	26A5
C1049	CAPN	26A5
C1050	CAPN	26A5
C1051	CAPN	26A4
C1052	CAPN	26A4
C1053	CAPN	29D1
C1054	CAPN	29C1
C1055	CAPN	29D1
C1056	CAPN	29C1
C1057	CAPN	30A5
C1058	CAPN	30A5
C1059	CAPN	30A5
C1060	CAPN	30A5
C1061	CAPN	30A6
C1062	CAPN	30B4
C1063	CAPN	30B4
C1064	CAPN	30A6
C1078	CAPN	41C7
C1079	CAPN	41A5
C1080	CAPN	41C7
C1081	CAPN	41A3
C1085	CAPN	41B2
C1086	CAPN	41B2
C1089	CAPN	41B3
C1090	CAPN	41B2
C1091	CAPN	41C3
C1093	CAPN	41C2
C1094	CAPN	41C2
C1095	CAPN	41C2
C1096	CAPN	41C3
C1097	CAPN	41C3
C1098	CAPN	41C2
C1099	CAPN	41C2
C1100	CAPN	41C2
C1101	CAPN	41C2
C1106	CAPN	43C2
C1107	CAPN	43D2
C1108	CAPN	42A3
C1110	CAPN	45A7
C1111	CAPN	45B7
C1112	CAPN	47B1
C1113	CAPN	47B1
C1114	CAPN	47B1
C1115	CAPN	47B1
C1124	CAPN	47A6
C1125	CAPN	47B8
C1126	CAPN	47B8
C1127	CAPN	47B6
C1128	CAPN	47A6
C1129	CAPN	48D8
C1130	CAPN	48D6
C1131	CAPN	48D4
C1132	CAPN	48D4
C1133	CAPN	48C6
C1134	CAPN	48D5
C1135	CAPN	48C4
C1136	CAPN	48C6
C1137	CAPN	48A5
C1143	CAPN	12A3
C1144	CAPN	12A3
C1145	CAPN	12A3
C1146	CAPN	13A4
C1147	CAPN	13A4
C1148	CAPN	13A4
C1149	CAPN	16A7
C1152	CAPN	17B7
C1153	CAPN	20B7
C1156	CAPN	21B7
C1157	CAPN	26B3
C1158	CAPN	26B3
C1159	CAPN	26B3
C1160	CAPN	26B3
C1161	CAPN	26B3
C1162	CAPN	26B2
C1163	CAPN	26B2
C1164	CAPN	26B2
C1165	CAPN	26A4
C1166	CAPN	26A4
C1167	CAPN	26A4
C1168	CAPN	26A4
C1169	CAPN	26A3
C1170	CAPN	26A3
C1171	CAPN	26A3
C1172	CAPN	26A3
C1173	CAPN	26A3

C1174	CAPN	26A3
C1175	CAPN	26A3
C1176	CAPN	26A2
C1177	CAPN	26A2
C1178	CAPN	26A2
C1179	CAPN	26A2
C1180	CAPN	26A2
C1181	CAPN	26A2
C1182	CAPN	26A1
C1183	CAPN	26A1
C1184	CAPN	26A1
C1185	CAPN	30A1
C1186	CAPN	30A1
C1187	CAPN	30A1
C1188	CAPN	30A1
C1189	CAPN	30A2
C1190	CAPN	30A2
C1191	CAPN	30A2
C1192	CAPN	30A2
C1193	CAPN	30A2
C1194	CAPN	30A3
C1195	CAPN	30A3
C1196	CAPN	30A3
C1197	CAPN	30A3
C1198	CAPN	30A3
C1199	CAPN	30A4
C1200	CAPN	30A4
C1201	CAPN	30A4
C1202	CAPN	30A4
C1203	CAPN	30A4
C1204	CAPN	30B2
C1205	CAPN	30B3
C1206	CAPN	30B3
C1207	CAPN	30B4
C1208	CAPN	30B4
C1209	CAPN	30B3
C1210	CAPN	30B3
C1211	CAPN	30B2
C1212	CAPN	30A5
C1213	CAPN	33B1
C1214	CAPN	33B2
C1215	CAPN	33B2
C1216	CAPN	33B1
C1217	CAPN	33C1
C1218	CAPN	33C1
C1219	CAPN	33A1
C1220	CAPN	33A2
C1221	CAPN	34B2
C1222	CAPN	34B1
C1223	CAPN	34C1
C1224	CAPN	34D1
C1225	CAPN	34D2
C1226	CAPN	34D2
C1227	CAPN	34D1
C1228	CAPN	34C1
C1240	CAPN	45A2
C1241	CAPN	45A2
C1243	CAPN	48D6
C1244	CAPN	54A6
C1245	CAPN	54A6
C1246	CAPN	54A6
C1247	CAPN	54A6
C1248	CAPN	54A4
C1249	CAPN	54A4
C1250	CAPN	54A5
C1251	CAPN	54A5
C1252	CAPN	54A4
C1253	CAPN	54A5
C1254	CAPN	54A5
C1255	CAPN	54A5
C1256	CAPN	54A4
C1257	CAPN	54A6
C1258	CAPN	54A6
C1259	CAPN	54A5
C1260	CAPN	54A6
C1261	CAPN	54C3
C1262	CAPN	54B3
C1263	CAPN	54C3
C1264	CAPN	54B3
C1265	CAPN	54C3
C1266	CAPN	54B4
C1267	CAPN	54C3
C1268	CAPN	54B3
C1269	CAPN	56B5
C1270	CAPN	56B1

C1271	CAPN	56B1
C1272	CAPN	57A5
C1273	CAPN	57A5
C1274	CAPN	57A6
C1276	CAPN	57C5
C1277	CAPN	57C5
C1278	CAPN	57C5
C1279	CAPN	57A5
C1281	CAPN	57A4
C1282	CAPN	57A4
C1283	CAPN	57A4
C1284	CAPN	57A4
C1285	CAPN	57A3
C1286	CAPN	57A3
C1287	CAPN	57A3
C1288	CAPN	57A3
C1290	CAPN	57A6
C1291	CAPN	57C5
C1293	CAPN	57C3
C1294	CAPN	57C3
C1295	CAPN	57C3
C1296	CAPN	57C4
C1297	CAPN	57C4
C1298	CAPN	57C4
C1299	CAPN	57C4
C1300	CAPN	57C4
C1301	CAPN	57A4
C1302	CAPN	57A5
C1303	CAPN	57A5
C1304	CAPN	58A7
C1305	CAPN	58A7
C1306	CAPN	58A8
C1307	CAPN	58A5
C1308	CAPN	58A5
C1309	CAPN	58A6
C1310	CAPN	58A5
C1311	CAPN	58A6
C1312	CAPN	59C1
C1313	CAPN	61A3
C1314	CAPN	61C3
C1315	CAPN	61B3
C1316	CAPN	61B3
C1317	CAPN	61D8
C1318	CAPN	61A2
C1319	CAPN	61B4
C1320	CAPN	61B3
C1321	CAPN	61C3
C1322	CAPN	61B4
C1323	CAPN	61C3
C1324	CAPN	61C4
C1325	CAPN	62B3
C1326	CAPN	62B3
C1327	CAPN	62B3
C1328	CAPN	62C3
C1329	CAPN	62C2
C1330	CAPN	62C3
C1331	CAPN	62C3
C1332	CAPN	62B3
C1333	CAPN	62C3
C1334	CAPN	62C3
C1335	CAPN	62D3
C1336	CAPN	62A5
C1337	CAPN	62A5
C1338	CAPN	62A4
C1339	CAPN	62A4
C1340	CAPN	62A3
C1341	CAPN	62A4
C1342	CAPN	63D8
C1343	CAPN	63D8
C1344	CAPN	63D7
C1345	CAPN	63D7
C1346	CAPN	63D7
C1347	CAPN	63D7
C1348	CAPN	63D6
C1349	CAPN	63D6
C1350	CAPN	63D6
C1351	CAPN	63D6
C1352	CAPN	63D5
C1353	CAPN	63D5
C1354	CAPN	63D5
C1355	CAPN	63D5
C1356	CAPN	63D4
C1357	CAPN	63D4
C1358	CAPN	63D4
C1359	CAPN	63D4

C1360	CAPN	63D3
C1361	CAPN	63D3
C1362	CAPN	63C3
C1363	CAPN	63C3
C1364	CAPN	63C2
C1365	CAPN	63C2
C1366	CAPN	63C2
C1367	CAPN	63C2
C1368	CAPN	63C1
C1369	CAPN	63C7
C1370	CAPN	63C7
C1371	CAPN	63C7
C1372	CAPN	63C5
C1373	CAPN	63C5
C1374	CAPN	63A6
C1375	CAPN	63B5
C1376	CAPN	63B2
C1377	CAPN	63A2
C1378	CAPN	63A3
C1379	CAPN	63B8
C1380	CAPN	65D6
C1381	CAPN	65B7
C1382	CAPN	65B4
C1383	CAPN	65B1
C1384	CAPN	65B5
C1385	CAPN	66B1
C1386	CAPN	66B4
C1387	CAPN	66B7
C1388	CAPN	66D6
C1389	CAPN	66B5
C1390	CAP-P	26B4
C1391	CAP-P	26B4
C1392	CAP-P	26A5
C1393	CAP-P	26A6
C1394	CAP-P	30A6
C1395	CAP-P	30A6
C1396	CAP-P	30B5
C1397	CAP-P	30B4
C1398	CAPN	33B1
C1399	CAPN	33C1
C1400	CAP-P	33A1
C1401	CAP-P	33A1
C1402	CAP-P	34B1
C1403	CAP-P	34B1
C1404	CAPN	34D1
C1405	CAPN	34C1
C1410	CAP-P	57B4
C1411	CAP-P	57B3
C1414	CAP-P	57D8
C1415	CAP-P	57D7
C1416	CAP-P	57D7
C1419	CAP-P	57B6
C1421	CAP-P	57B4
C1422	CAP-P	61B3
C1423	CAP-P	61B2
C1424	CAP-P	61C2
C1425	CAP-P	61A3
C1426	CAP-P	61D8
C1427	CAP-P	61A3
C1428	CAP-P	62D3
C1429	CAP-P	62C2
C1430	CAP-P	62C2
C1431	CAP-P	62C2
C1432	CAP-P	62B1
C1433	CAP-P	63B8
C1434	CAP-P	65D5
C1435	CAP-P	65B7
C1436	CAP-P	65B4
C1437	CAP-P	65B2
C1438	CAP-P	66B2
C1439	CAP-P	66B4
C1440	CAP-P	66B7
C1441	CAP-P	66D5
C1448	CAPN	54C6
C1449	CAPN	54D6
C1450	CAPN	54D6
C1451	CAPN	54C6
C1452	CAPN	54C6
C1453	CAPN	54C6
C1479	CAP-P	47D4
C1481	CAP-P	47D1
C1482	CAP-P	47D1
C1483	CAP-P	47D1
C1484	CAP-P	47D2
C1496	CAPN	14A3

DRAWING

PAGE	REV
78	A2.1

C1497	CAPN	14A4
C1498	CAPN	14A6
C1499	CAPN	14A6
C1501	CAPN	47D7
C1502	CAPN	47D7
C1503	CAPN	47D5
C1504	CAPN	47D8
C1505	CAPN	47D7
C1506	CAPN	47D3
C1507	CAPN	47D2
C1508	CAPN	47C4
C1513	CAPN	70C1
C1514	CAPN	70C1
C1515	CAPN	70A1
C1516	CAPN	70A1
C1517	CAPN	70A1
C1518	CAPN	70A1
C1519	CAPN	70B1
C1520	CAPN	70B1
C1521	CAPN	70B1
C1522	CAPN	70B1
C1528	CAPN	44A1
C1529	CAPN	44A1
C1530	CAPN	45D3
C1531	CAPN	45D3
C1532	CAPN	70C2
C1533	CAPN	70C2
C1534	CAPN	70C2
C1543	CAP-P	44A1
C1544	CAP-P	44A1
C1546	CAPN	55C3
C1547	CAPN	55B5
C1548	CAPN	55D4
C1549	CAPN	55C8
C1550	CAPN	55C1
C1551	CAPN	55C2
C1552	CAPN	55B4
C1553	CAPN	55C1
C1554	CAPN	55B1
C1555	CAP-P	55D2
C1556	CAP-P	55C2
C1557	CAP-P	55B1
C1558	CAP-P	55B1
C1559	CAPN	55B7
C1560	CAPN	55B5
C1561	CAPN	55C8
C1562	CAPN	55B6
C1563	CAPN	55C7
C1564	CAPN	55C3
C1565	CAPN	55A2
C1566	CAP-P	55B4
C1567	CAP-P	18A2
C1568	CAP-P	18A1
C1569	CAP-P	22A4
C1570	CAP-P	22A4
C1575	CAPN	47A6
C1576	CAPN	47B2
C1577	CAP-P	47D4
C1584	CAPN	51C8
C1585	CAPN	51C8
C1587	CAPN	57A5
C1588	CAPN	57A3
C1589	CAP-P	58D2
C1590	CAP-P	14A5
C1591	CAP-P	14A3
C1592	CAP-P	14A4
C1593	CAPN	43C2
C1594	CAPN	43B2
C1595	CAPN	43B2
C1596	CAPN	43C2
C1597	CAPN	47C7
C1598	CAPN	56B5
C1599	CAPN	56D4
C1600	CAP-P	57C4
C1601	CAP-P	57C3
C1602	CAPN	57C4
C1603	CAPN	57C4
C1604	CAPN	57C5
C1605	CAPN	57C5
C1606	CAP-P	57C3
C1607	CAPN	57B4
C1608	CAPN	57B4
C1609	CAPN	57B4
C1610	CAPN	57B3
C1611	CAPN	57B3

C1612	CAPN	57B3
C1613	CAPN	57D5
C1614	CAPN	57D5
C1615	CAPN	57D5
C1616	CAPN	57D5
C1617	CAPN	57D4
C1618	CAPN	57D4
C1619	CAPN	57B5
C1620	CAPN	57B5
C1621	CAPN	57B5
C1622	CAPN	57B5
C1623	CAPN	58D3
C1624	CAPN	58D3
C1625	CAPN	58D2
C1626	CAPN	58A3
C1627	CAP-P	57B3
C1628	CAP-P	57D6
C1629	CAP-P	57D7
C1630	CAP-P	57D6
C1631	CAP-P	57D6
C1641	CAPN	47C8
C1642	CAPN	47C8
C1643	CAPN	14A5
C1644	CAPN	14A5
C1661	CAPN	69D7
C1662	CAPN	69C4
C1663	CAPN	69C4
C1664	CAPN	69B4
C1665	CAPN	69B4
C1666	CAPN	12C1
C1667	CAPN	12C1
C1668	CAPN	12D1
C1669	CAPN	12D1
C1670	CAPN	49C5
C1671	CAPN	49C7
C4059	CAPN	50A7
C4061	CAPN	50A6
CR1	DIOSOT23C	41C7
CR2	DIOSOT23C	41B5
CR3	DIODE	48D6
CR4	DIODE	47A4
CR5	DIODE	47B6
CR6	DIODE	47A6
CR7	DIODE	47B2
CR8	DIODE	72B6
CR9	LED	48B3
CR10	LED	42C4
CR11	SCHOTTKY	50A2
CR12	SCHOTTKY	68C6
CR13	SCHOTTKY	68B4
CR14	SCHOTTKY	68B1
CR16	SCHOTTKY	50A4
CR17	LED	42D4
CR18	SCHOTTKY	50C2
CR26	DIODE	48C5
CR45	DIODE	54B7
CR46	DIODPAK	64D7
CR47	DIODPAK	64D4
CR49	DIOSOT23S	45D2
CR50	DIOSOT23S	45D2
CR51	DIOSOT23S	45C2
CR52	DIOSOT23S	45C2
CR53	DIOSOT23S	45C2
CR68	LED	58C2
CR72	DIOSOT23C	48A4
CR74	SCHOTTKY	47D2
CR78	DIODE	55C4
CR79	DIODE	55A2
CR80	DIODE	47C7
CR81	LED	56A4
CR3008	SCHOTTKY	50D4
FB1	FERR_BD	45B2
FB2	FERR_BD	45B3
FB3	FERR_BD	45B2
FB4	FERRITE	51A1
FB5	FERRITE	51A1
FB6	FERRITE	62D2
FB7	FERRITE	62B2
FB8	FERRITE	62B2
FB9	FERRITE	62C2
FB10	FERRITE	62C2
FB13	FERR_BD	43B2
FB14	FERR_BD	43B2
FB15	FERR_BD	43C2
FB16	FERR_BD	43C2

FB17	FBPAK4L	54C7 54D7
FB18	FERR_BD	54D6
FB27	FERR_BD	45D3
FB28	FERR_BD	45A3
FB29	FERR_BD	45A3
FB30	FERRITE	57C3
FB31	FERRITE	63C4
J1	CONN184_DDR_ECC	20C7
J2	CONN184_DDR_ECC	16C7
J4	2X3HDR	49A6
J5	CONN184_DDR_ECC	17C7
J6	2X3HDR	49A6
J9	CONN184_DDR_ECC	21C7
J10	CON2XUSB	43C1
J11	CONPCI	44D6
J12	PCI_X_VXB	38D2 38D6
J15	1X2HDR	45A8
J16	2X20HDR20	43B5
J20	PCI_X_3V	33D5
J21	PCI_X_3V	34D5
J23	PCI_X_3V	35D5
J24	PCI_X_3V	36D5
J25	PCI_X_3V	37D5
J27	1X4HDR	52D7
J28	1X2HDR	49A5
J29	CONVGAEDGE	45B1
J31	DSUB25TALL_B	54B4
J34	2X17HDR5	54B3
J35	DSUB9	54D2
J37	4X17SCSIRA	64C6
J38	4X17SCSIRA	64C3
J39	RJ45_JACK	58B2
J40	PS2STACK	54D5
J43	2X15HDR	70D4
J49	CONN_SMA	51D7
J50	2X30RCPT	52B6
J51	1X3HDR	71A5 71B5
J52	1X3HDR	71A5
J53	1X3HDR	71A5
J71	CONN_2X15_SM	70B5
J100	CONN24_WTX_MAIN	49D8
J101	CONN22_WTX	49C5
J102	CONN8_WTX_DIG	49D5
J4009	CONN1X28_MT	9B6
JP1	1X2HDR	42C6
JP2	1X2HDR	42C6
JP4	1X3HDR	41C7
JP7	1X2HDR	42A5
JP14	1X2HDR	56A6
JP19	1X2HDR	60A6
JP24	1X3HDR	23D3
JP25	1X3HDR	23C2
JP26	1X2HDR	23C3
JP28	1X3HDR	24D1
JP29	1X2HDR	24D2
JP31	1X2HDR	27C3
JP32	1X3HDR	27D3
JP33	1X2HDR	28C2
JP34	1X2HDR	28C2
JP35	1X3HDR	27D1
JP38	1X3HDR	69D2
JP39	1X3HDR	69C2
JP40	1X3HDR	69C2
JP41	1X3HDR	69B2
L1	INDUCTOR	68B4
L2	INDUCTOR	50C1
L3	INDUCTOR	50B2
L7	INDUCTOR	47B2
L8	INDUCTOR	47A4
L12	INDUCTOR	48D6
L18	INDUCTOR	47D2
L19	INDUCTOR	14A4
L20	INDUCTOR	14A3
L21	INDUCTOR	14A4
L22	INDUCTOR	55C3
MH1	MTG_HOLE	67D7
MH2	MTG_HOLE	67C7
MH3	MTG_HOLE	67D6
MH4	MTG_HOLE	67C6
MH5	MTG_HOLE	67D5
MH7	MTG_HOLE	67D4
MH8	MTG_HOLE	67C4
MH9	MTG_HOLE	67D3
MH10	MTG_HOLE	67C3
MH11	MTG_HOLE	67D2

POT1	POT_TC03	47C8
POT2	POT_TC03	47C8
Q1	MOSFETN	47B3
Q2	MOSFETN	47B3
Q3	MOSFETN	47A5
Q4	MOSFETN	47A5
Q5	MOSFETN	47B3
Q6	MOSFETN	47B3
Q7	MOSFETN	47A4
Q8	MOSFETN	47A4
Q9	MOSFETN	48D6
Q10	MOSFETN	48C6
Q11	MOSFETN	50C3
Q20	MGSF1N02LT1	52C5
Q21	MOSFETN	50C3
Q22	MOSFETN	50B3
Q23	MOSFETN	50A3
Q24	MOSFETN	50C2
Q25	MOSFETN	50A2
Q26	MOSFETN	50C2
Q27	MOSFETN	50B2
Q32	MBT3904DUAL	39D2
Q33	MBT3904DUAL	52B2
Q41	NPN	42A4
Q43	MOSFETN	47D3
Q44	MOSFETN	47D3
Q48	NPN	49B3
Q49	MOSFETN	55C3
Q50	MOSFETN	55A3
Q60	MBT3904DUAL	49A2
Q65	MBT3904DUAL	7A6
Q67	NPN	41A1
Q68	PZT751	41A1
R1	RESN	4D6
R2	RESN	4C6
R3	RESN	4C2
R4	RESN	4C2
R5	RESN	4C2
R6	RESN	4C1
R7	RESN	4C1
R8	RESN	4C1
R9	RESN	4C1
R10	RESN	4B3
R11	RESN	4B3
R12	RESN	49A4
R13	RESN	50C8
R14	RESN	50C8
R15	RESN	50B8
R16	RESN	50C7
R17	RESN	50C7
R18	RESN	50B7
R19	RESN	50C7
R20	RESN	50B7
R21	RESN	50A7
R22	RESN	50A6
R23	RESN	50A6
R24	RESN	50C6
R25	RESN	50B6
R26	RESN	50D6
R27	RESN	50D5
R28	RESN	50D6
R29	RESN	4C5
R30	RESN	6B8
R31	RESN	68A6
R32	RESN	50A5
R33	RESN	72A6
R34	RESN	50A4
R35	RESN	50D4
R36	RESN	68A3
R37	RESN	68B3
R38	RESN	9D5
R39	RESN	50C8
R40	RESN	50B5
R41	RESN	50B1
R42	RESN	50C1
R43	RESN	4B5
R44	RESN	4D5
R45	RESN	13B5
R46	RESN	49D4
R47	RESN	12A4
R48	RESN	49D3
R49	RESN	49D3
R50	RESN	13A5
R51	RESN	13A5
R52	RESN	50D6

R53	RESN	50B6
R54	RESN	68D2
R55	RESN	9C5
R56	RESN	25B7
R57	RESN	25A2
R58	RESN	6B3
R59	RESN	45A8
R60	RESN	50C2
R61	RESN	6B3
R63	RESN	49A2
R64	RESN	49D3
R65	RESN	50D2
R66	RESN	51D3
R67	RESN	51C2
R68	RESN	51C2
R69	RESN	68B4
R70	RESN	9A6
R71	RESN	9A6
R72	RESN	9A5
R73	RESN	9A5
R74	RESN	9A5
R75	RESN	51B5
R76	RESN	9A4
R77	RESN	9D5
R78	RESN	9D4
R80	RESN	49D3
R81	RESN	49D3
R82	RESN	51B5
R83	RESN	9D5
R84	RESN	9D6
R85	RESN	42D3
R86	RESN	68B3
R87	RESN	42C2
R88	RESN	4C6
R89	RESN	9B5
R90	RESN	10D7
R91	RESN	10D7
R92	RESN	10C8
R93	RESN	10C7
R94	RESN	10D7
R95	RESN	10D8
R96	RESN	10D2
R97	RESN	10D1
R98	RESN	10C1
R99	RESN	11D2
R100	RESN	11D2
R101	RESN	11C1
R102	RESN	11C1
R103	RESN	11B2
R104	RESN	11B1
R105	RESN	11B2
R106	RESN	11B2
R107	RESN	11C7
R108	RESN	11C8
R109	RESN	11C8
R110	RESN	11D8
R111	RESN	11B7
R112	RESN	11B8
R113	RESN	11B8
R114	RESN	11B8
R115	RESN	12D2
R116	RESN	9B6
R117	RESN	12B4
R118	RESN	12A4
R119	RESN	68B8
R120	RESN	13D2
R121	RESN	68C7
R122	RESN	68C6
R123	RESN	40B1
R124	RESN	13B5
R125	RESN	7C6
R126	RESN	7C6
R127	RESN	7C6
R128	RESN	16A3
R129	RESN	16A3
R130	RESN	16A3
R131	RESN	16A3
R132	RESN	16A3
R133	RESN	16A3
R134	RESN	7D6
R135	RESN	4B5
R136	RESN	9A4
R137	RESN	4C4
R138	RESN	4C4
R139	RESN	4C4

DRAWING

PAGE	REV
79	A2.1

R140	RESN	68B8
R141	RESN	68D2
R142	RESN	49D3
R143	RESN	48A4
R144	RESN	40A1
R145	RESN	6B7
R146	RESN	29A2
R147	RESN	6B2
R148	RESN	49D3
R149	RESN	9A5
R150	RESN	68A2
R152	RESN	17A3
R153	RESN	17A3
R154	RESN	17A2
R155	RESN	17A2
R159	RESN	17A2
R160	RESN	17A3
R161	RESN	12B4
R165	RESN	20A3
R166	RESN	20A3
R167	RESN	20A3
R168	RESN	20A3
R169	RESN	20A3
R170	RESN	20A3
R174	RESN	49A5
R181	RESN	7D3
R182	RESN	7C3
R183	RESN	7D3
R184	RESN	7C3
R189	RESN	21A3
R190	RESN	21A3
R191	RESN	21A3
R195	RESN	21A3
R196	RESN	21A3
R197	RESN	21A3
R198	RESN	13B4
R199	RESN	40A1
R200	RESN	23D3
R201	RESN	24C2
R202	RESN	12A5
R203	RESN	12B4
R204	RESN	40A7
R205	RESN	25C5
R206	RESN	25A5
R207	RESN	51D3
R208	RESN	25D3
R209	RESN	25D1
R210	RESN	25D1
R211	RESN	26B8
R212	RESN	12C2
R213	RESN	40A7
R214	RESN	72D6
R215	RESN	13D2
R216	RESN	25A2
R217	RESN	72C6
R218	RESN	25B5
R219	RESN	25B5
R220	RESN	72C6
R221	RESN	72C6
R222	RESN	72C6
R223	RESN	72C6
R224	RESN	48B2
R225	RESN	25B5
R226	RESN	56A7
R227	RESN	25B5
R228	RESN	25C5
R229	RESN	60A6
R230	RESN	72B6
R231	RESN	72D3
R232	RESN	25C1
R233	RESN	27D3
R234	RESN	72D3
R235	RESN	72D2
R236	RES	28C3
R237	RESN	72D2
R238	RESN	72D2
R239	RESN	72D2
R240	RES	29B7
R241	RESN	29C5
R242	RESN	72C2
R243	RESN	30C8
R244	RESN	72B2
R245	RESN	72B2
R246	RESN	72B2
R247	RESN	72B1

R255	RESN	60B7
R256	RESN	42C4
R257	RESN	29C1
R258	RESN	29D3
R259	RESN	29D1
R260	RESN	29D1
R261	RESN	42B2
R262	RESN	29B7
R263	RESN	29B7
R264	RESN	29B7
R265	RESN	29C6
R266	RESN	42B2
R267	RESN	42C3
R268	RESN	32A1
R270	RES	33D2
R271	RESN	33D7
R272	RESN	33D6
R273	RES	33C7
R275	RES	33D8
R277	RESN	34D6
R278	RESN	34D6
R279	RES	34C7
R329	RESN	35D6
R330	RESN	35D6
R331	RES	35C7
R336	RESN	36D6
R337	RESN	36D6
R338	RES	36C7
R342	RESN	37D6
R343	RESN	37D6
R344	RES	37C7
R348	RESN	38C5
R349	RESN	38C5
R350	RESN	38C5
R353	RESN	39B2
R354	RESN	39B3
R355	RESN	39B2
R356	RESN	39C2
R357	RESN	39C1
R358	RESN	39C1
R359	RESN	39D4
R360	RESN	39D4
R361	RESN	39B1
R362	RESN	39D4
R368	RESN	40D6
R369	RESN	40D7
R371	RESN	40B1
R374	RESN	40A6
R375	RESN	41C6
R376	RESN	41B7
R377	RESN	41B7
R378	RESN	41B6
R379	RESN	41B5
R380	RESN	41C7
R381	RESN	41D5
R382	RESN	41C7
R383	RESN	41C8
R384	RESN	43B5
R385	RESN	43B6
R386	RESN	43A5
R387	RESN	43B6
R389	RESN	39B2
R390	RESN	40B2
R392	RESN	43B3
R393	RESN	43D2
R394	RESN	43C3
R395	RESN	43C2
R396	RESN	42A3
R397	RESN	42A3
R398	RESN	42B5
R399	RESN	42A4
R400	RESN	42D6
R401	RESN	42B6
R402	RESN	44C7
R403	RESN	44C7
R404	RESN	44C7
R405	RESN	44C8
R421	RESN	47B7
R422	RESN	47A8
R423	RESN	47A8
R424	RESN	47A8
R425	RESN	47B2
R426	RESN	47A3
R427	RESN	47B2
R428	RESN	47A4

R429	RESN	47B8
R430	RESN	47A8
R431	RESN	47A8
R433	RESN	47A3
R434	RESN	47B1
R435	RESN	47A1
R436	RESN	47A1
R452	RESN	48C5
R453	RESN	48C5
R454	RESN	48C5
R455	RESN	48D7
R457	RESN	48D5
R458	RESN	48C5
R459	RESN	48C8
R460	RESN	48D7
R461	RESN	45B3
R462	RESN	45B3
R463	RESN	45B3
R466	RESN	45A3
R467	RESN	45B2
R468	RESN	45B3
R469	RESN	45B3
R470	RESN	45B8
R471	RESN	45B8
R472	RESN	45B7
R473	RESN	45B4
R474	RESN	46A4
R475	RESN	46C7
R482	RESN	52C7
R483	RESN	52D8
R484	RESN	52B1
R485	RESN	52C3
R486	RESN	52C3
R487	RESN	52C3
R488	RESN	52C5
R489	RESN	52C6
R490	RESN	52C3
R491	RESN	52C7
R492	RESN	52C2
R493	RESN	52C2
R494	RESN	52C3
R495	RESN	52D6
R496	RESN	52D7
R497	RESN	53C3
R499	RESN	53C3
R500	RESN	49C1
R501	RESN	49C1
R502	RESN	49C1
R503	RESN	49C1
R504	RESN	49D1
R505	RESN	49D1
R506	RESN	49D1
R507	RESN	49D1
R509	RESN	39D2
R510	RESN	39D1
R511	RESN	39D2
R512	RESN	39D4
R520	RESN	49A2
R521	RESN	12C1
R522	RESN	12A2
R523	RESN	12A2
R524	RESN	12B1
R525	RESN	13A2
R526	RESN	13A2
R527	RESN	13C1
R528	RESN	13C2
R529	RESN	48A8
R530	RESN	48A8
R531	RESN	48B3
R532	RESN	51B7
R534	RESN	51B4
R535	RESN	51A5
R536	RESN	51A5
R537	RESN	51A6
R538	RESN	51B5
R539	RESN	51A6
R540	RESN	51C3
R541	RESN	51C3
R544	RESN	51B3
R545	RESN	51C2
R546	RESN	51C2
R549	RESN	51B2
R550	RESN	51B2
R551	RESN	51D5
R552	RESN	51D5

R553	RESN	51B3
R559	RESN	54A2
R560	RESN	54B4
R562	RESN	40D6
R565	RESN	23D4
R568	RESN	24D4
R569	RESN	25A1
R570	RESN	25A6
R571	RESN	25A6
R572	RESN	25A6
R574	RESN	25A2
R576	RESN	27D4
R578	RES	28D4
R580	RES	29A2
R581	RES	29A2
R582	RES	29A2
R586	RESN	23B4
R587	RESN	24B3
R588	RESN	28B4
R589	RESN	27B4
R646	RESN	48A7
R648	RESN	48A6
R652	RESN	56A2
R653	RESN	56D5
R658	RESN	56A1
R659	RESN	56A1
R660	RESN	56C1
R661	RESN	58B1
R662	RESN	58C1
R663	RESN	58B1
R664	RESN	56C1
R665	RESN	58A8
R666	RESN	58A7
R667	RESN	58A7
R668	RESN	58A7
R669	RESN	58A7
R670	RESN	58A6
R671	RESN	58A6
R672	RESN	58A7
R673	RESN	59D8
R674	RESN	59D5
R675	RESN	59D6
R676	RESN	59D6
R677	RESN	59C3
R678	RESN	59C1
R679	RESN	59D7
R680	RESN	60B7
R681	RESN	60B5
R682	RESN	60A5
R683	RESN	60A1
R684	RESN	60A5
R685	RESN	60A1
R688	RESN	62A2
R689	RESN	62A3
R692	RESN	63B6
R693	RESN	63A6
R694	RESN	63A3
R695	RESN	63B3
R697	RESN	65C3
R700	RESN	65A4
R702	RESN	65B6
R704	RESN	66C3
R708	RESN	66B6
R709	RESN	66A4
R735	RESN	41A8
R740	RESN	11C7
R747	RESN	41B6
R748	RESN	47C6
R749	RESN	47C6
R750	RESN	47D5
R751	RESN	47D5
R752	RESN	47D8
R753	RESN	51C3
R754	RESN	51C2
R755	RESN	51D3
R756	RESN	51D3
R757	RESN	53A4
R758	RESN	53A3
R759	RESN	56D5
R760	RESN	60B2
R761	RESN	60B5
R763	RESN	14A2
R764	RESN	14A4
R765	RESN	60B4
R766	RESN	60B7

R768	RESN	48A4
R770	RESN	48A4
R771	RESN	48A4
R772	RESN	49B3
R773	RESN	49B5
R774	RESN	49B4
R775	RESN	12A4
R776	RESN	10D6
R777	RESN	69D4
R778	RESN	69D3
R779	RESN	69C3
R780	RESN	69C3
R781	RESN	69C3
R782	RESN	69C3
R788	RESN	69B2
R789	RESN	69B2
R790	RESN	70D1
R792	RESN	70D3
R793	RESN	70D3
R794	RESN	70D4
R797	RESN	55B2
R798	RESN	23C3
R799	RESN	23C2
R800	RESN	24D2
R801	RESN	25B7
R803	RESN	25B7
R804	RESN	25B7
R805	RESN	27D2
R806	RES	29D6
R807	RES	29D7
R808	RES	29D7
R809	RES	29D7
R812	RES	29A6
R813	RESN	55D5
R814	RESN	55C2
R815	RESN	55B2
R816	RESN	55B7
R817	RESN	55C5
R818	RESN	55B2
R819	RESN	55B2
R824	RESN	7A7
R828	RESN	7A7
R835	RESN	7A6
R838	RESN	9A4
R841	RESN	12C3
R843	RESN	13C3
R894	RESN	51B7
R895	RESN	51B7
R896	RESN	51C7
R897	RESN	51B4
R898	RESN	51B5
R899	RESN	51D5
R900	RESN	56A6
R908	RESN	70D1
R909	RESN	70C7
R910	RESN	70C8
R920	RESN	39C2
R923	RESN	12A3
R924	RESN	12A3
R925	RESN	12A3
R926	RESN	13A3
R927	RESN	13A4
R928	RESN	13A4
R929	RESN	51D8
R930	RESN	51D4
R931	RESN	51D4
R932	RESN	53C7
R933	RESN	53C2
R934	RESN	56A5
R935	RESN	56A4
R936	RESN	56D3
R937	RESN	56A2
R938	RESN	56C1
R939	RESN	56B4
R948	RESN	12A5
R949	RESN	51C7
R951	RESN	51C7
R952	RESN	51C7
R953	RESN	51C7
R954	RESN	51C7
R955	RESN	51B5
R956	RESN	47C5
R957	RESN	47B5
R958	RESN	51D5
R959	RESN	51C7

DRAWING

PAGE	REV
80	A2.1

```
R960  RESN      52A7
R961  RESN      52A4
R962  RESN      52A7
R963  RESN      53C7
R965  RESN      33D6
R966  RESN      33D7
R967  RESN      34D7
R968  RESN      34D6
R969  RESN      35D7
R970  RESN      35D6
R971  RESN      36D7
R972  RESN      36D6
R973  RESN      37D7
R974  RESN      37D6
R976  RESN      48A4
R977  RESN      25C6
R978  RESN      29C6
R996  RESN      23B4
R997  RESN      24B3
R998  RESN      24B3
R999  RESN      27B4
R1000 RESN      28B2
R1001 RESN      28B2
R1002 RESN      28B2
R1003 RESN      28B2
R1005 RESN      23C4
R1006 RESN      27C3
R1007 RESN      62A4
R1008 RESN      62A2
R1009 RESN      62A4
R1010 RESN      62A2
R1011 RESN      62A7
R1012 RESN      63A4
R1013 RESN      63A4
R1016 RESN      48A7
R1017 RESN      48A1
R1018 RESN      69D6
R1019 RESN      69B7
R1020 RESN      69C8
R1021 RESN      49A3
R1022 RESN      49A2
R1026 RESN      9A5
R1032 RESN      69C8
R1033 RESN      69C8
R1035 RESN      7C7
R1036 RES       7B4
R1037 RESN      7B6
R1038 RESN      7B6
R1039 RESN      7A4
R1040 RESN      7A5
R1042 RES       28C4
R1043 RESN      29A5
R1044 RESN      40C7
R1047 RESN      48B3
R1048 RESN      24C3
R1050 RES       29A6
R1051 RES       29A6
R1053 RESN      53C7
R1502 RESN      39C4
R2000 RESN      49C4
R2001 RESN      49D6
R2002 RESN      49C6
R2003 RESN      49C5
R2005 RESN      49C5
R2006 RESN      18A5
R2008 RESN      22D5
R2011 RESN      51B8
R2012 RESN      41A2
R2013 RESN      41A2
R2014 RESN      41A1
R2015 RESN      28D2
R3033 RESN      50C5
R3079 RESN      31A1
R3125 RESN      13B1
R3148 RESN      44C1
R3157 RESN      12B1
R3217 RESN      42D4
R3348 RESN      11C2
R3379 RESN      11C7
R3401 RESN      31B1
R3402 RESN      31B1
R3403 RESN      31B1
R3404 RESN      31B1
R3799 RESN      27C3
R4000 RESN      31D3
```

```
R4001 RESN      31D3
R4002 RESN      31C3
R4003 RESN      31C3
R4004 RESN      31B1
R4005 RESN      31A1
R4006 RESN      31A1
R4007 RESN      31A1
R4008 RESN      32A5
R4009 RESN      32A5
R4010 RESN      32A5
R4011 RESN      32A5
RP1   RPAK4C-4R 49A6
RP2   RPAK4C-4R 49A6
RP5   RPAK4C-4R 6D7 6D8
RP7   RPAK4C-4R 6D3 6D4
RP9   RPAK4C-4R 31A5
RP10  RPAK4C-4R 31A1
RP13  RPAK4C-4R 15D7
RP14  RPAK4C-4R 15D7
RP15  RPAK4C-4R 15C7 15D7
RP16  RPAK4C-4R 15C7
RP17  RPAK4C-4R 15C7
RP18  RPAK4C-4R 15B7
RP19  RPAK4C-4R 15B7
RP20  RPAK4C-4R 15B7
RP21  RPAK4C-4R 15A7
RP22  RPAK4C-4R 15A7
RP23  RPAK4C-4R 15A7
RP24  RPAK4C-4R 15D5
RP25  RPAK4C-4R 15D5
RP26  RPAK4C-4R 15C5
RP27  RPAK4C-4R 15C5
RP28  RPAK4C-4R 15C5
RP29  RPAK4C-4R 15B5
RP30  RPAK4C-4R 15B5
RP31  RPAK4C-4R 15A5 15B5 15B5
RP32  RPAK4C-4R 15A5
RP33  RPAK4C-4R 15A5
RP34  RPAK4C-4R 15A5
RP35  RPAK4C-4R 15D2
RP66  RPAK4C-4R 19B4 19C4
RP67  RPAK4C-4R 19B7 19C7
RP68  RPAK4C-4R 19D2
RP69  RPAK4C-4R 19D7
RP70  RPAK4C-4R 19C7 19C7 19D7 19D7
RP71  RPAK4C-4R 19C7
RP72  RPAK4C-4R 19C7
RP73  RPAK4C-4R 19B7
RP74  RPAK4C-4R 19B7
RP75  RPAK4C-4R 19A7
RP76  RPAK4C-4R 19A7
RP77  RPAK4C-4R 19A7
RP78  RPAK4C-4R 19D4
RP79  RPAK4C-4R 19D4
RP80  RPAK4C-4R 19C4 19D4
RP81  RPAK4C-4R 19C4
RP82  RPAK4C-4R 19C4
RP83  RPAK4C-4R 19B4
RP84  RPAK4C-4R 19B4
RP85  RPAK4C-4R 19A4
RP86  RPAK4C-4R 19A4
RP87  RPAK4C-4R 19A4
RP88  RPAK4C-4R 19D7
RP119 RPAK4C-4R 31A5
RP120 RPAK4C-4R 31D5
RP121 RPAK4C-4R 31C5
RP122 RPAK4C-4R 31C5
RP123 RPAK4C-4R 31B7 31C7
RP124 RPAK4C-4R 31C7
RP125 RPAK4C-4R 31C7
RP126 RPAK4C-4R 31C7 31C7 31D7 31D7
RP127 RPAK4C-4R 31A7
RP128 RPAK4C-4R 31A7
RP129 RPAK4C-4R 31B7
RP130 RPAK4C-4R 31B7
RP131 RPAK4C-4R 31D7
RP132 RPAK4C-4R 31B5 31C5
RP133 RPAK4C-4R 31B5
RP134 RPAK4C-4R 31B5
RP135 RPAK4C-4R 31A5
RP136 RPAK4C-4R 31B1
RP137 RPAK4C-4R 31C1
RP138 RPAK4C-4R 31D3
RP140 RPAK4C-4R 31B3
RP141 RPAK4C-4R 31C1
```

```
RP142 RPAK4C-4R 31C1 31D1 31D1
RP144 RPAK4C-4R 31D1
RP145 RPAK4C-4R 31C3
RP146 RPAK4C-4R 31C3
RP147 RPAK4C-4R 31B3 31C3
RP148 RPAK4C-4R 31B3
RP149 RPAK4C-4R 31A3
RP150 RPAK4C-4R 31A3
RP153 RPAK4C-4R 32A1 32B1
RP154 RPAK4C-4R 32B1
RP155 RPAK4C-4R 32D4
RP156 RPAK4C-4R 32C4
RP157 RPAK4C-4R 32B4
RP158 RPAK4C-4R 32C1
RP159 RPAK4C-4R 32C1
RP160 RPAK4C-4R 32C1
RP161 RPAK4C-4R 32D1
RP162 RPAK4C-4R 32C4
RP163 RPAK4C-4R 32C4
RP164 RPAK4C-4R 32B4
RP165 RPAK4C-4R 32B4
RP166 RPAK4C-4R 32A4
RP167 RPAK4C-4R 32A4
RP168 RPAK4C-4R 32B1
RP169 RPAK4C-4R 32A1
RP170 RPAK4C-4R 32A5
RP171 RPAK4C-4R 32B5
RP172 RPAK4C-4R 32A7
RP173 RPAK4C-4R 32A7
RP174 RPAK4C-4R 32B7
RP175 RPAK4C-4R 32B7
RP176 RPAK4C-4R 32C7
RP177 RPAK4C-4R 32C7
RP178 RPAK4C-4R 32C5
RP179 RPAK4C-4R 32C5
RP180 RPAK4C-4R 32C5
RP181 RPAK4C-4R 32B5
RP182 RPAK4C-4R 32B7
RP183 RPAK4C-4R 32C7
RP184 RPAK4C-4R 32D7
RP185 RPAK4C-4R 32B5
RP186 RPAK4C-4R 32A5
RP196 RPAK4C-4R 38D4 38D4 38D5 38D5
RP197 RPAK4C-4R 40B7 40B8
RP198 RPAK4C-4R 44D1
RP199 RPAK4C-4R 44C1 44D1
RP200 RPAK4C-4R 44C1
RP201 RPAK4C-4R 44B1 44C1
RP202 RPAK4C-4R 44B1
RP203 RPAK4C-4R 44B1
RP204 RPAK4C-4R 44A1
RP205 RPAK4C-4R 54A2
RP206 RPAK4C-4R 54B4
RP207 RPAK4C-4R 54A7
RP208 RPAK4C-4R 54B5 54B6
RP209 RPAK4C-4R 54B7
RP210 RPAK4C-4R 54B7
RP211 RPAK4C-4R 54B6
RP212 RPAK4C-4R 54B5
RP213 RPAK4C-4R 18D7
RP214 RPAK4C-4R 18D3
RP215 RPAK4C-4R 18D5
RP216 RPAK4C-4R 18D5
RP217 RPAK4C-4R 18C5 18D5
RP218 RPAK4C-4R 18C5
RP219 RPAK4C-4R 18C5
RP220 RPAK4C-4R 18A5
RP221 RPAK4C-4R 18A5
RP222 RPAK4C-4R 18A5
RP223 RPAK4C-4R 18A5 18B5
RP224 RPAK4C-4R 18B5
RP225 RPAK4C-4R 18B5
RP226 RPAK4C-4R 18B5
RP227 RPAK4C-4R 18B5 18C5
RP228 RPAK4C-4R 18C5
RP229 RPAK4C-4R 18B7
RP230 RPAK4C-4R 18B7 18C7
RP231 RPAK4C-4R 18C7
RP232 RPAK4C-4R 18C7
RP233 RPAK4C-4R 18C7
RP234 RPAK4C-4R 18D7
RP235 RPAK4C-4R 18D7
RP236 RPAK4C-4R 18A7
RP237 RPAK4C-4R 18A7
RP238 RPAK4C-4R 18A7
```

```
RP239 RPAK4C-4R 18A7
RP240 RPAK4C-4R 18A7 18B7
RP241 RPAK4C-4R 18B7
RP242 RPAK4C-4R 18B7
RP243 RPAK4C-4R 22A5 22B5
RP244 RPAK4C-4R 22A5
RP245 RPAK4C-4R 22A5
RP246 RPAK4C-4R 22A5
RP247 RPAK4C-4R 22A5
RP248 RPAK4C-4R 22B5
RP249 RPAK4C-4R 22B5
RP250 RPAK4C-4R 22B5
RP251 RPAK4C-4R 22B5 22C5
RP252 RPAK4C-4R 22C5
RP253 RPAK4C-4R 22C5
RP254 RPAK4C-4R 22C5
RP255 RPAK4C-4R 22D7
RP256 RPAK4C-4R 22D5
RP257 RPAK4C-4R 22D5
RP258 RPAK4C-4R 22D7
RP259 RPAK4C-4R 22C7 22D7
RP260 RPAK4C-4R 22C7
RP261 RPAK4C-4R 22C7
RP262 RPAK4C-4R 22C7
RP263 RPAK4C-4R 22B7
RP264 RPAK4C-4R 22B7
RP265 RPAK4C-4R 22B7
RP266 RPAK4C-4R 22B7
RP267 RPAK4C-4R 22A7
RP268 RPAK4C-4R 22A7
RP269 RPAK4C-4R 22A7
RP270 RPAK4C-4R 22A7
RP271 RPAK4C-4R 22A7
RP277 RPAK4C-4R 56C1
RP279 RPAK4C-4R 58A3 58A4
RP280 RPAK4C-4R 62A7
RP282 RPAK4C-4R 60B8
RP283 RPAK4C-4R 54D7 54D8 54D8
RP288 RPAK4C-4R 70A2 70B2
RP289 RPAK4C-4R 70B2
RT1   FUSE_SMT   43D3
RT2   FUSE_SMT   43C3
RT3   FUSE_SMT   64D6
RT4   FUSE_SMT   64D3
RT5   THERMISTOR 54D7
S8    SWSPST_PB_SM 41A7
S9    SWSPST_PB_SM 48A5
SP1   SPKR       42B3
SW1   SWSPST_PB_SM 72B2
U1    LTC1929    47B7
U2    BANIAS_HS 4B3 4C7 4D3 5C4 5D2 5D5 5D7
U3    QS3384     72A6
U4    SC1470     68B6
U5    MOSFETN_8P 68B5
U8    EPM7064    72C4
U9    LED_DISPLAY_10P 72D4
U10   LED_DISPLAY_10P 72C2
U11   NE1617A    7D2
U12   MBT3904DUAL 42B3
U14   P64H2A     23D5 24D5 25D3 26C6 26D6
U15   P64H2A     27D5 28D5 29C3 30D6 30D7
U16   QS3384     49B7
U17   QS3384     49A7
U18   LT1761     48C3
U44   LTC1735_1 48D7
U45   ICH3       39D5 40D3 41D3 42D7
U54   69000      45D5 46D4
U56   LPC47B27   53D5
U57   74LVC00A   49A3 49A4 71B3 71C3
U59   LTC1326    48A7
U60   ICS932S203A 51C6
U61   GD75232S   54D2
U64   AT93C66    59C1
U65   H5007      58B4
U66   E7501      10D4 11D4 12D5 13D5 14D3 14D5 14D6
U68   74HCT125   39A5 39A7 43B7 71C4
U69   FWH_8M     52D4
U70   TLV431A    62A2
U71   TLV431A    62A4
U72   74LVC14    48A2 48B2 71D5
U76   OSC_PWR    63A5
U78   AIC_7902A 59D4 60C2 60D6 61C1 61D6 62D5
U79   82544EI    56C2 56C7 57D2 57D6
U82   74LVC08AD 7B4 49B4
U83   LT1764_DPAK 63B3
```

```
U84   LT1118_ADJ 63B7
U93   DS2119M    65C7
U94   DS2119M    65C4
U95   DS2119M    65C2
U96   DS2119M    66C7
U97   DS2119M    66C4
U98   DS2119M    66C2
U101  AT93C46    56D4
U103  LM2904     47C6
U104  FAN5066    47D6
U113  74ACT04    49B6 69B6 70C7 70D2 70D7 71C5
U115  LTC1735_1 55C5
U119  LT1587CM1_5 57A4
U121  74CBT3306 69C5
U122  74CBT3306 69B5 69C5
U123  74CBT3306 69B5
U124  74CBT3306 69D5
U125  74HCT4052 69C7
U126  74AHC74   7B5 7C6
U3003 SC1476    50C4
U3008 MBT3904DUAL 42C3
Y1    XTAL4P    41B7
Y2    CRYSTAL   51D8
Y3    CRYSTAL   56B1
```

DRAWING

PAGE	REV
81	A2.1

REVISIONS

A2 PRODUCTION RELEASE

A2.1 CORRECTED THERMTRIP PAGE 7 RECONNECTED Q65.2 TO GROUND