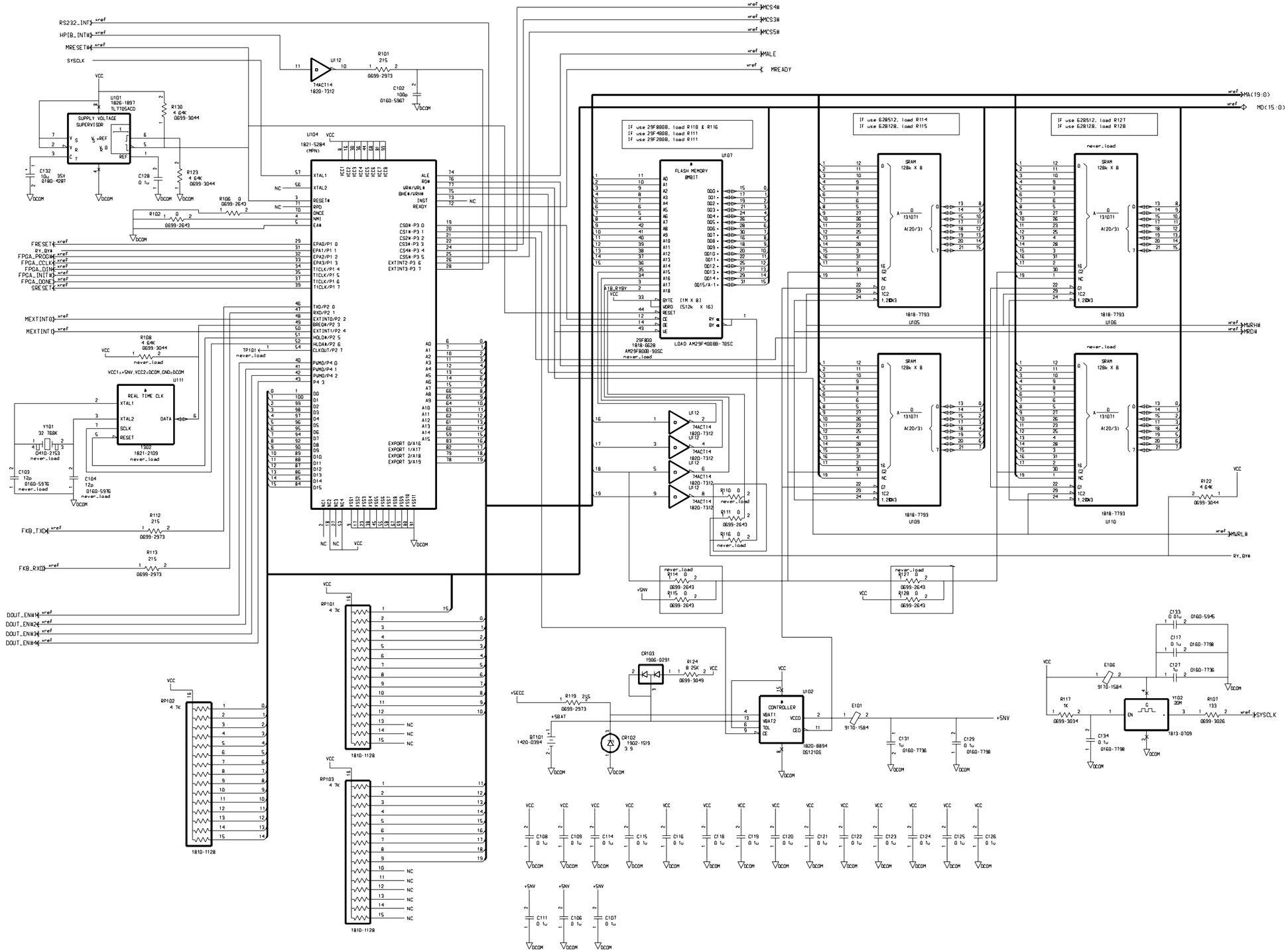
Appendix C
Schematics

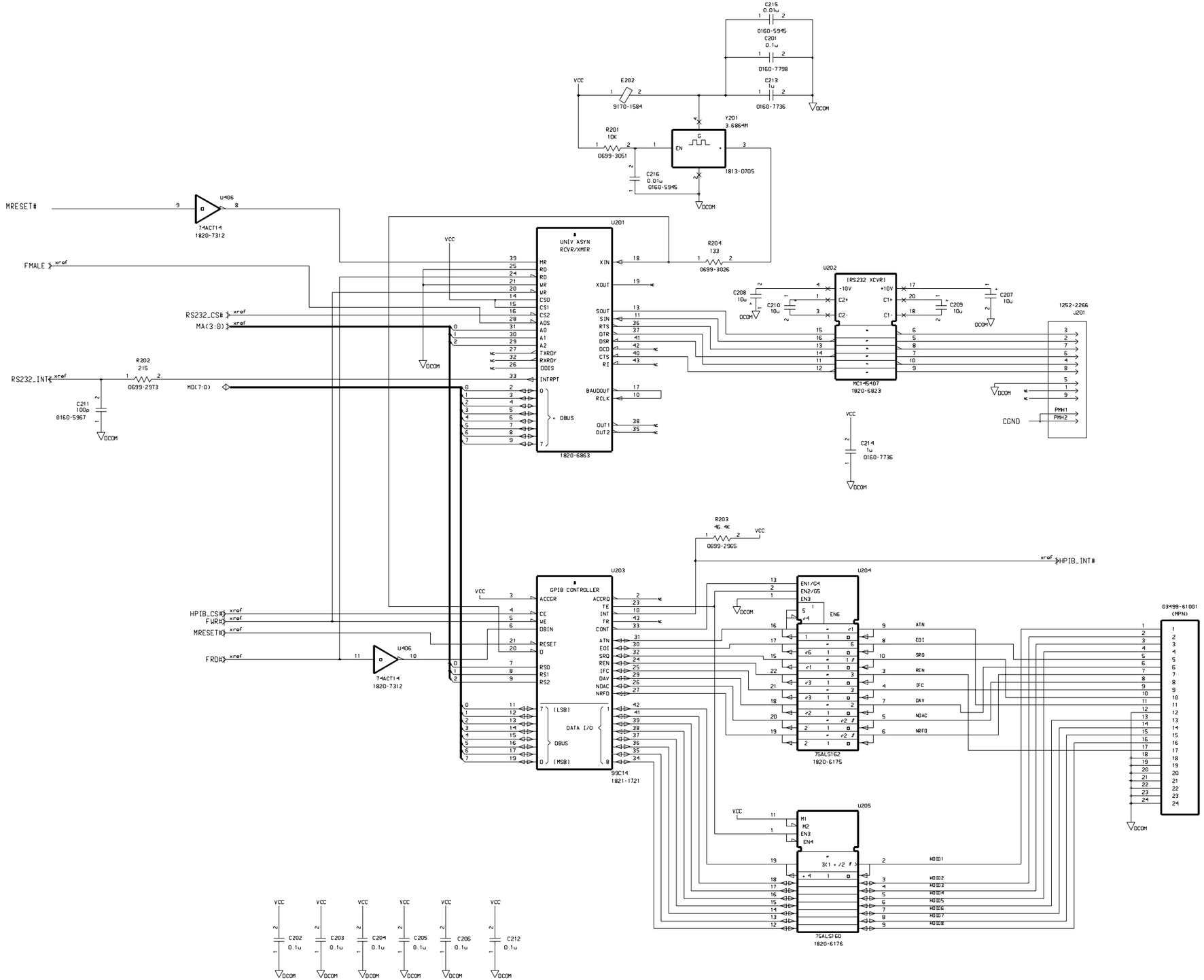
This chapter contains the schematics for the Agilent 3499A/B/C mainframes and the plug-in modules designed for Agilent 3499A/B/C Switch/Control System. For the schematics of the existing 3488A plug-in modules, you can refer to *Agilent 3488A Switch/Control System Service Manual*.

The schematics in this chapter include:

Agilent 3499A/B/C Controller Board 1.0
Component Locator
Page 131



Agilent 3499A/B/C Controller Board 1.0
Schematic (Sheet 1 of 5)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C201 0.1u 0160-7798
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E202 9170-1584
DCOM
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R201 10K 0699-3051
C216 0.01u 0160-5945
MRESET#
U406 74ACT14 1820-7312
FMALE
RS232_CS#
MA(3:0)
RS232_INT
R202 215 0699-2973
C211 100p 0160-5967
MD(7:0)
U201
UNIV ASYN RCVR/XMTR
1820-6863
R204 133 0699-3026
U202
(RS232 XCVR)
C208 10u
C210 10u
C209 10u
C207 10u
MC145407 1820-6823
1252-2266 J201
CGND
PMH1
PMH2
C214 1u 0160-7736
R203 46.4K 0699-2965
HPIB_INT#
U203
GPIB CONTROLLER
HPIB_CS#
FWR#
FRD#
99C14 1821-1721
U204
75ALS162 1820-6175
03499-61001 (MPN)
ATN
EOI
SRQ
REN
IFC
DAV
NDAC
NRFD
U205
75ALS160 1820-6176
HOST1
HOST2
HOST3
HOST4
HOST5
HOST6
HOST7
HOST8
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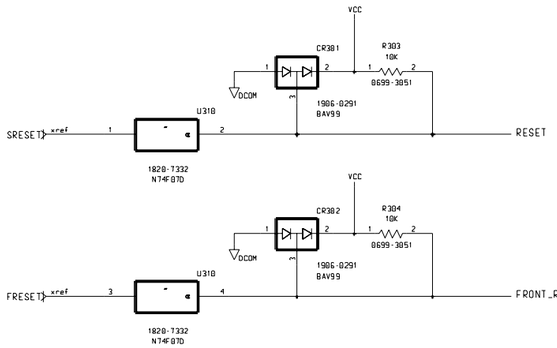
C203 0.1u
C204 0.1u
C205 0.1u
C206 0.1u
C212 0.1u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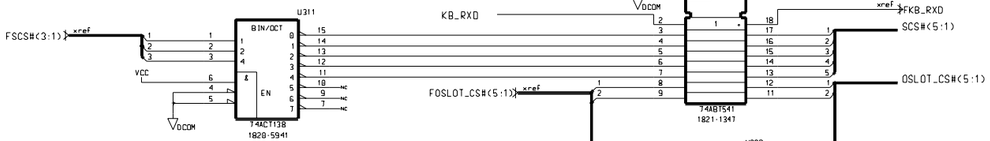
R303
10K
1906-0291
BAV99
0699-3051
U310
1820-7332
N74F07D
SRESET
RESET
FRESET
FRONT_RST
DCOM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BIN/OCT
74ACT138
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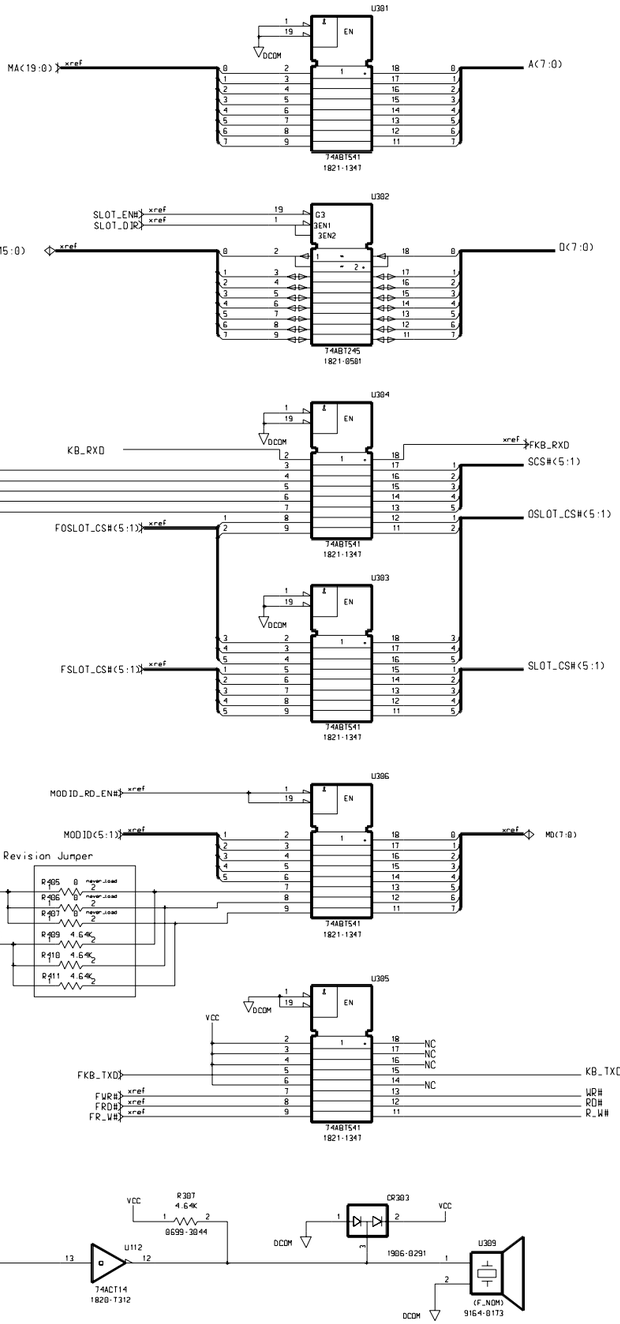
VCC
DCOM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A(7:0)
74ABT541
1821-1347
U302
SLOT_EN#
SLOT_DIR
MD(15:0)
D(7:0)
74ABT245
1821-0581
U304
KB_RXD
FKB_RXD
SCS#(5:1)
FOSLOT_CS#(5:1)
OSLOT_CS#(5:1)
U303
FSLOT_CS#(5:1)
SLOT_CS#(5:1)
U306
MODID_RD_EN#
MODID(5:1)
MD(7:0)
Hardware Revision Jumper
R405
R406
R407
R409
4.64K
R410
R411
U305
FKB_TXD
KB_TXD
FWR#
FRD#
FR_WR#
WR#
RD#
R_W#
U112
74ACT14
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BEEPER
R307
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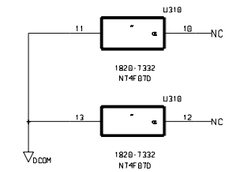
CR303
1906-0291
U309
(F_NOM)
9164-0113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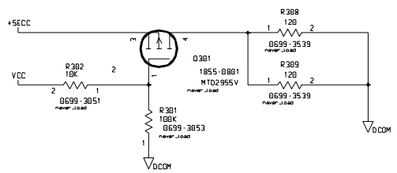
1820-7332
N74F07D
NC
DCOM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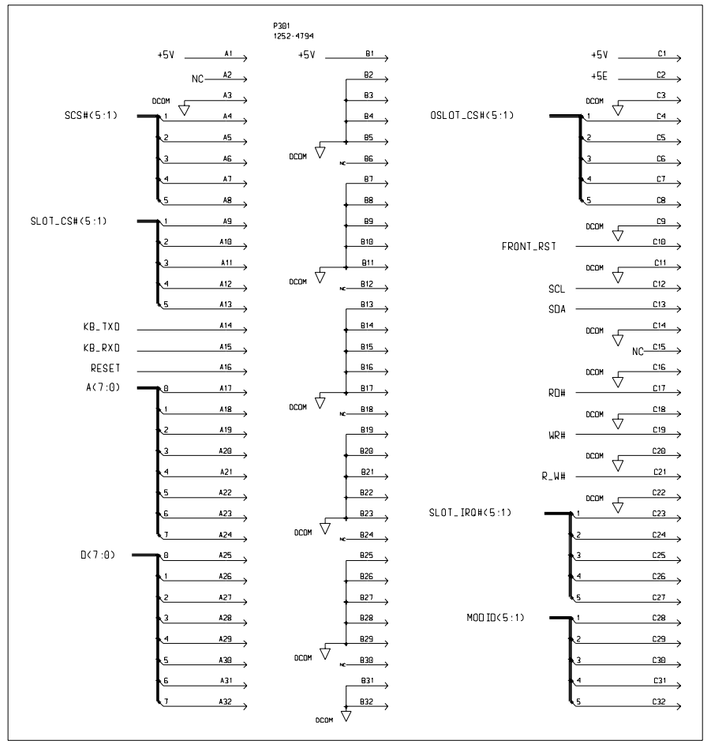
120
0699-3539
Q301
1855-0881
MTD2955V
VCC
R302
10K
0699-3051
R309
R301
100K
0699-3053
DCOM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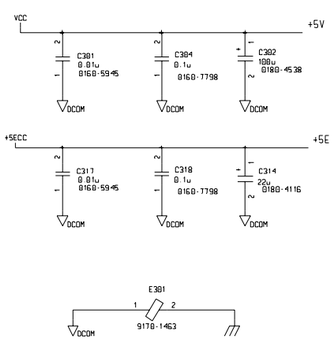
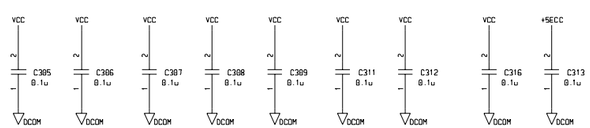
1252-4794
+5V
NC
SCS#(5:1)
SLOT_CS#(5:1)
KB_TXD
KB_RXD
RESET
A(7:0)
D(7:0)
DCOM
OSLOT_CS#(5:1)
FRONT_RST
SCL
SDA
RD#
WR#
R_W#
SLOT_IRQ#(5:1)
MODID(5:1)


VCC
+5V
C301
0.01u
0160-5945
C304
0.1u
0160-7798
C302
100u
0180-4538
+5ECC
+5E
C317
C318
C314
22u
0180-4116
E301
9170-1463
DCOM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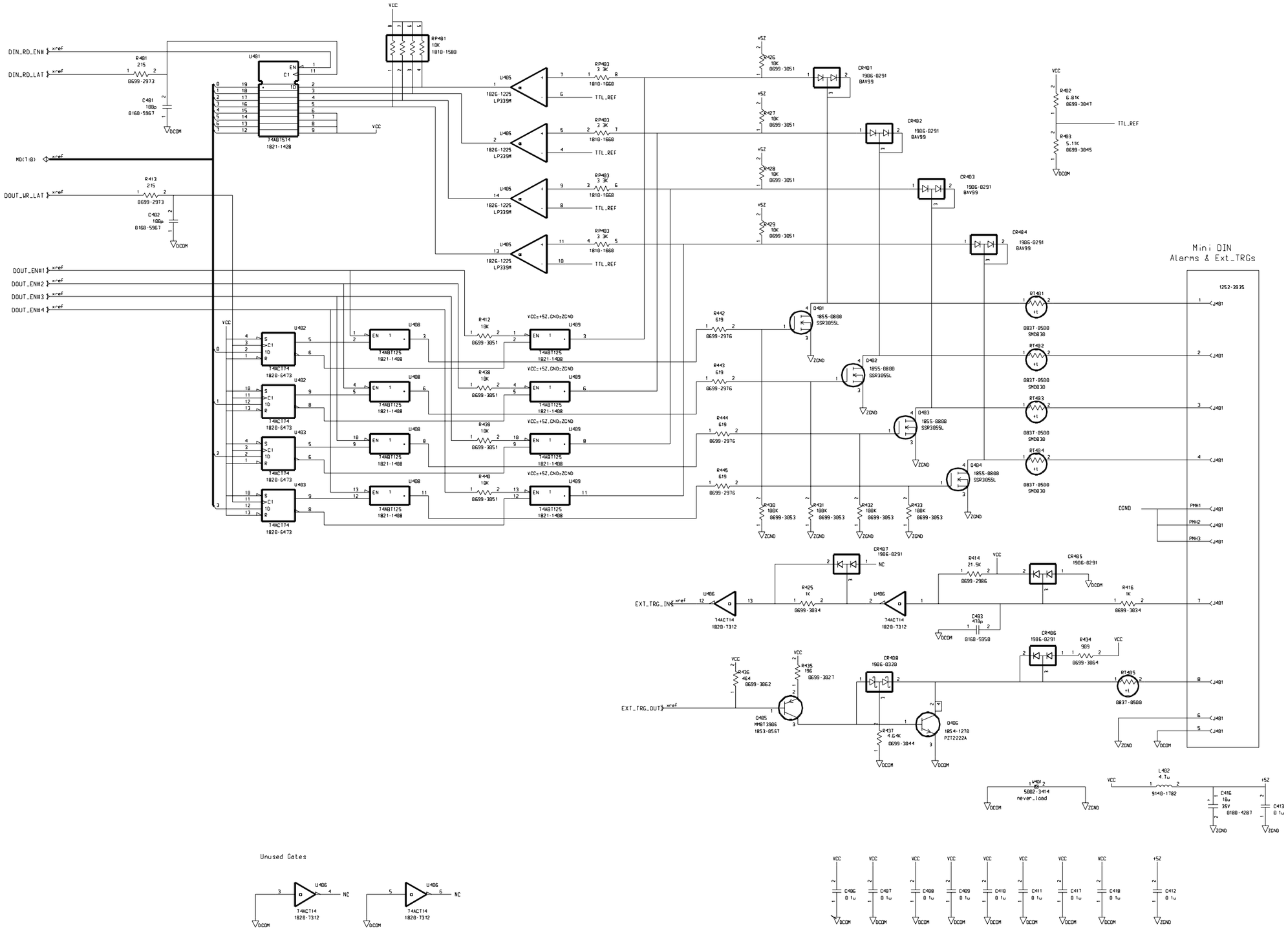
C306
C307
C308
C309
C311
C312
C316
C313
0.1u
DCOM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DOUT_WR_LAT
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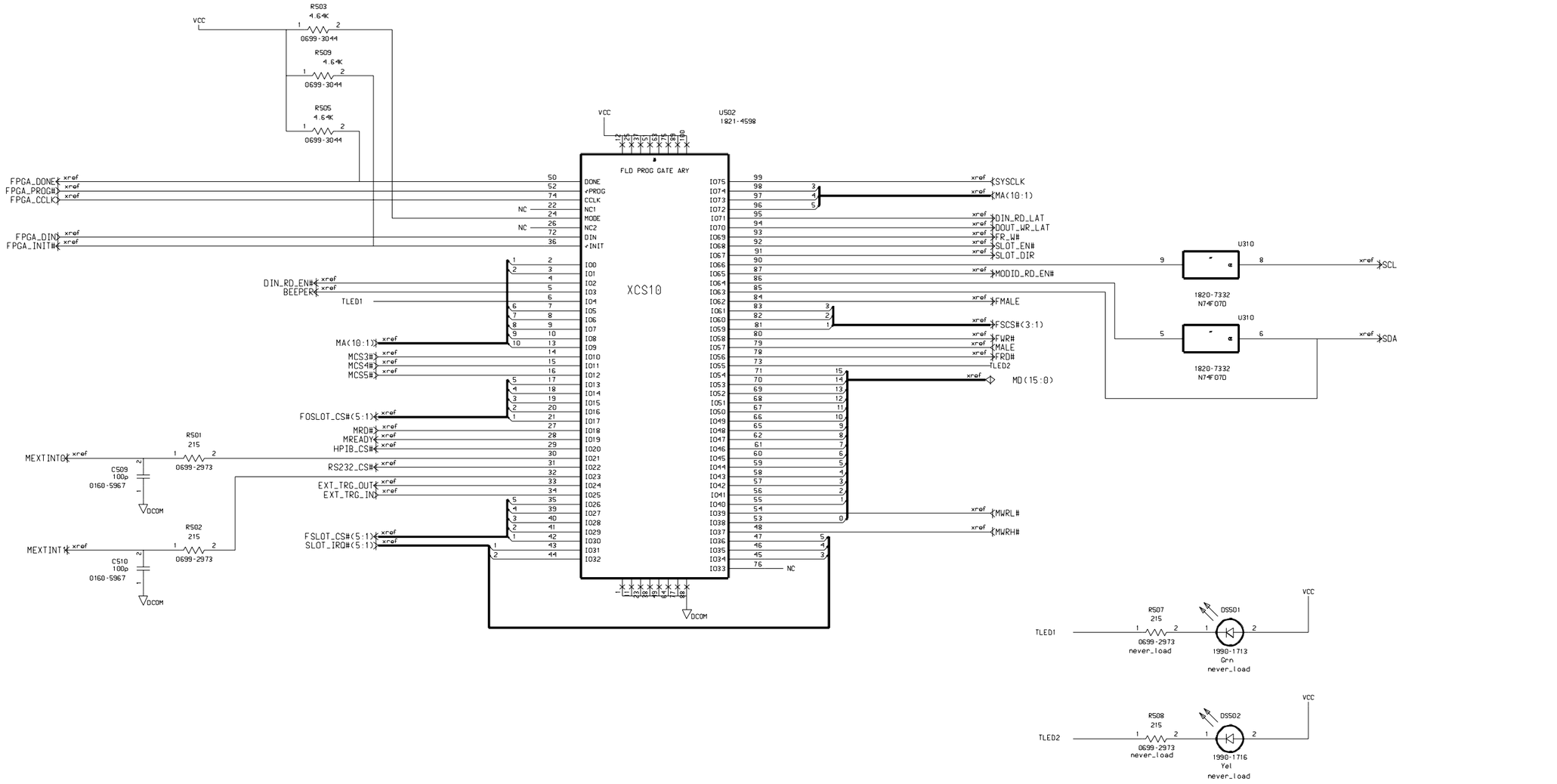
DOUT_EN#2
DOUT_EN#3
DOUT_EN#4
xref
R401 215 0699-2973
C401 100p 0160-5967
R413 215 0699-2973
C402 100p 0160-5967
DCOM
VCC
U401 T4ABT514 1821-1428
RP401 10K 1810-1580
U405 1826-1225 LP339M
RP403 3.3K 1810-1660
TTL_REF
+5Z
R426 10K 0699-3051
R427 10K 0699-3051
R428 10K 0699-3051
R429 10K 0699-3051
CR401 1906-0291 BAY99
CR402 1906-0291 BAY99
CR403 1906-0291 BAY99
CR404 1906-0291 BAY99
R402 6.81K 0699-3047
R403 5.11K 0699-3045
U402 T4ACT174 1820-6473
U403 T4ACT174 1820-6473
U408 T4ABT125 1821-1408
U409 T4ABT125 1821-1408
R412 10K 0699-3051
R438 10K 0699-3051
R439 10K 0699-3051
R440 10K 0699-3051
VCC=+5Z,CND=ZCND
R442 619 0699-2976
R443 619 0699-2976
R444 619 0699-2976
R445 619 0699-2976
R430 100K 0699-3053
R431 100K 0699-3053
R432 100K 0699-3053
R433 100K 0699-3053
ZCND
Q401 1855-0888 SSR3055L
Q402 1855-0888 SSR3055L
Q403 1855-0888 SSR3055L
Q404 1855-0888 SSR3055L
RT401 0837-0508 SMD030
RT402 0837-0508 SMD030
RT403 0837-0508 SMD030
RT404 0837-0508 SMD030
Mini DIN
Alarms & Ext_TRGs
1252-2935
J401
CGND
PMH1
PMH2
PMH3
U406 T4ACT14 1820-7312
EXT_TRG_IN
EXT_TRG_OUT
R425 1K 0699-3034
R416 1K 0699-3034
R414 21.5K 0699-2986
R434 909 0699-3064
R435 196 0699-3027
R436 464 0699-3062
R437 4.64K 0699-3044
CR405 1906-0291
CR406 1906-0291
CR407 1906-0291
CR408 1906-0320
C403 470p 0160-5950
Q405 MMBT3906 1853-0567
Q406 1854-1270 PZT2222A
RT405 0837-0508
W401 5002-3414 never_load
L402 4.7u 9140-1782
C416 10u 35V 0180-4287
C413 0.1u
C406 0.1u
C407 0.1u
C408 0.1u
C409 0.1u
C410 0.1u
C411 0.1u
C417 0.1u
C418 0.1u
C412 0.1u
Unused Gates
NC


RS03
4.64K
0699-3044
RS09
4.64K
0699-3044
RS05
4.64K
0699-3044
VCC
USO2
1821-4598
FLD PROG GATE ARY
XCS10
FPGA_DONE
FPGA_PROG#
FPGA_CCLK
FPGA_DIN
FPGA_INIT#
DIN_RD_EN#
BEEPER
TLED1
MA(10:1)
MCS3#
MCS4#
MCS5#
FOSLOT_CS#(5:1)
MRD#
MREADY
HPIB_CS#
RS232_CS#
EXT_TRG_OUT
EXT_TRG_IN
FSLOT_CS#(5:1)
SLOT_IRQ#(5:1)
SYSCLK
MA(10:1)
DIN_RD_LAT
DOUT_WR_LAT
FR_W#
SLOT_EN#
SLOT_DIR
MODID_RD_EN#
FMALE
FSCS#(3:1)
FWR#
FMALE
FRD#
TLED2
MD(15:0)
MWRL#
MWRH#
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1820-7332
N74F07D
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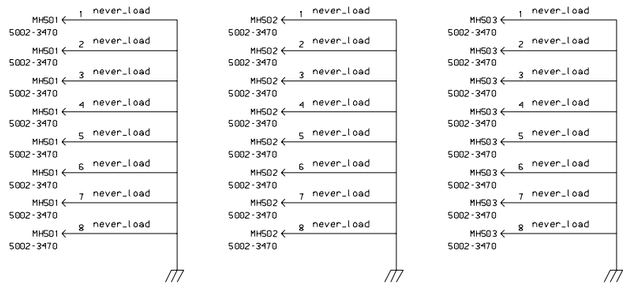
SDA
R501
215
0699-2973
C509
100p
0160-5967
MEXTINT
R502
215
0699-2973
C510
100p
0160-5967
DCOM
R507
215
0699-2973
never_load
DS501
1990-1713
Grn
R508
215
0699-2973
never_load
DS502
1990-1716
Yel
TLED2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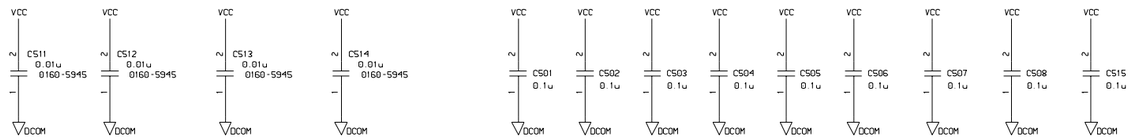
MH502
MH503
5002-3470
never_load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C514
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0160-5945
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C502
C503
C504
C505
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C507
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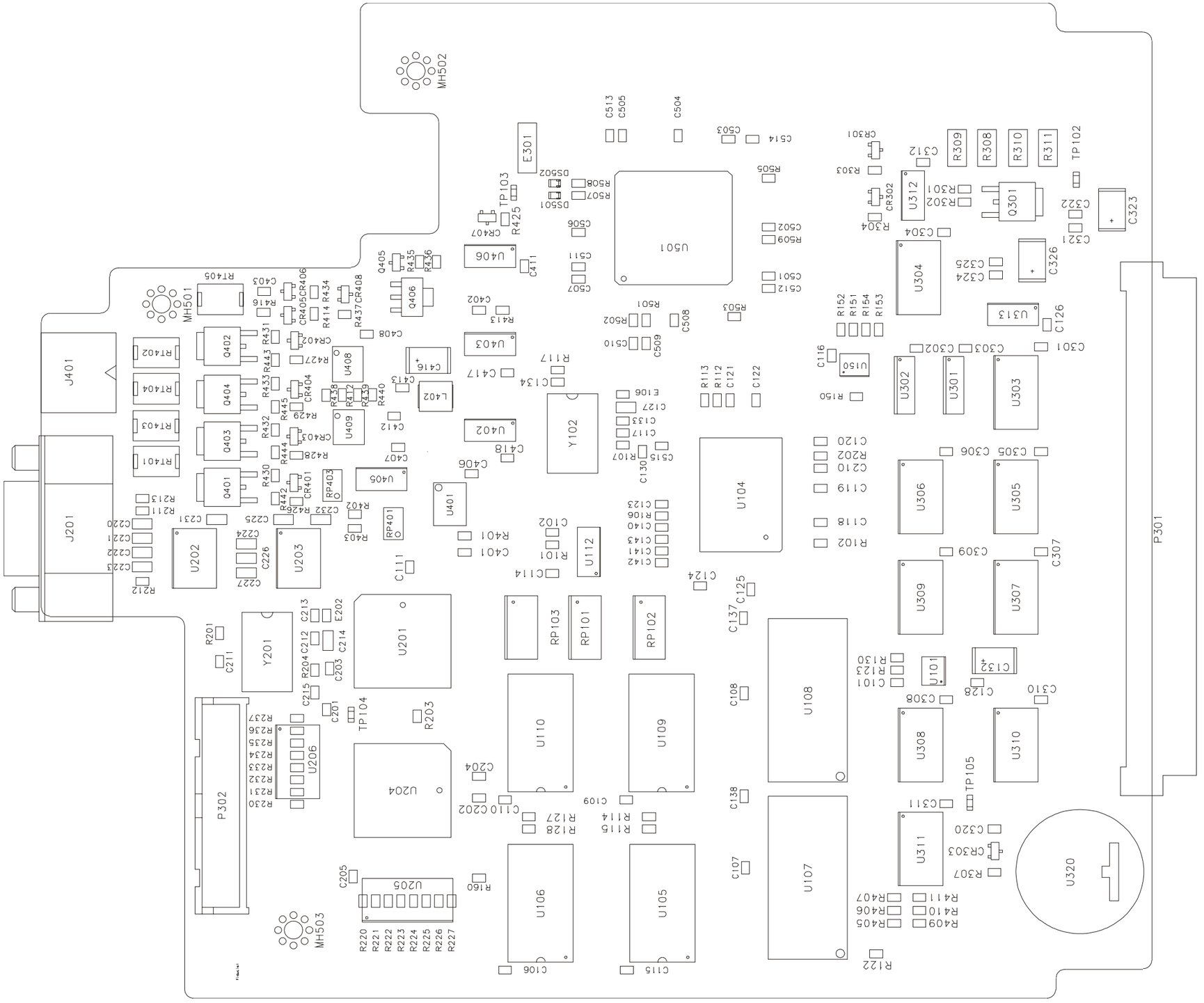
C515
0.1u
VCC
DCOM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MH503
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J201
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U402
U403
U404
U405
U406
U408
U409
Q401
Q402
Q403
Q404
Q405
Q406
U501
U104
U108
U107
U106
U105
U110
U109
U112
U201
U202
U203
U204
U205
U206
Y102
Y201
E301
E202
E1106
TP103
TP104
RP103
RP101
RP102
RP403
RP401
U302
U301
U303
U304
U306
U305
U309
U307
U308
U310
U311
U312
U313
U150
U101
U320
Q301
TP102
TP105
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C326
C322
C321
C324
C325
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C312
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C303
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C123
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C142
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C210
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R304
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R501
R503
R502
R508
R507
R506
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R151
R154
R153
R150
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R101
R122
R407
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R405
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R409
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R213
R211
R402
R403
R401
R201
R203
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R220
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R223
R224
R225
R226
R227
R230
R231
R232
R233
R234
R235
R236
R237
R416
R405
R414
R434
R437
R435
R436
R431
R443
R433
R445
R432
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R430
R442
R438
R412
R439
R440
R429
R428
R427
R426
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CR401
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DS501
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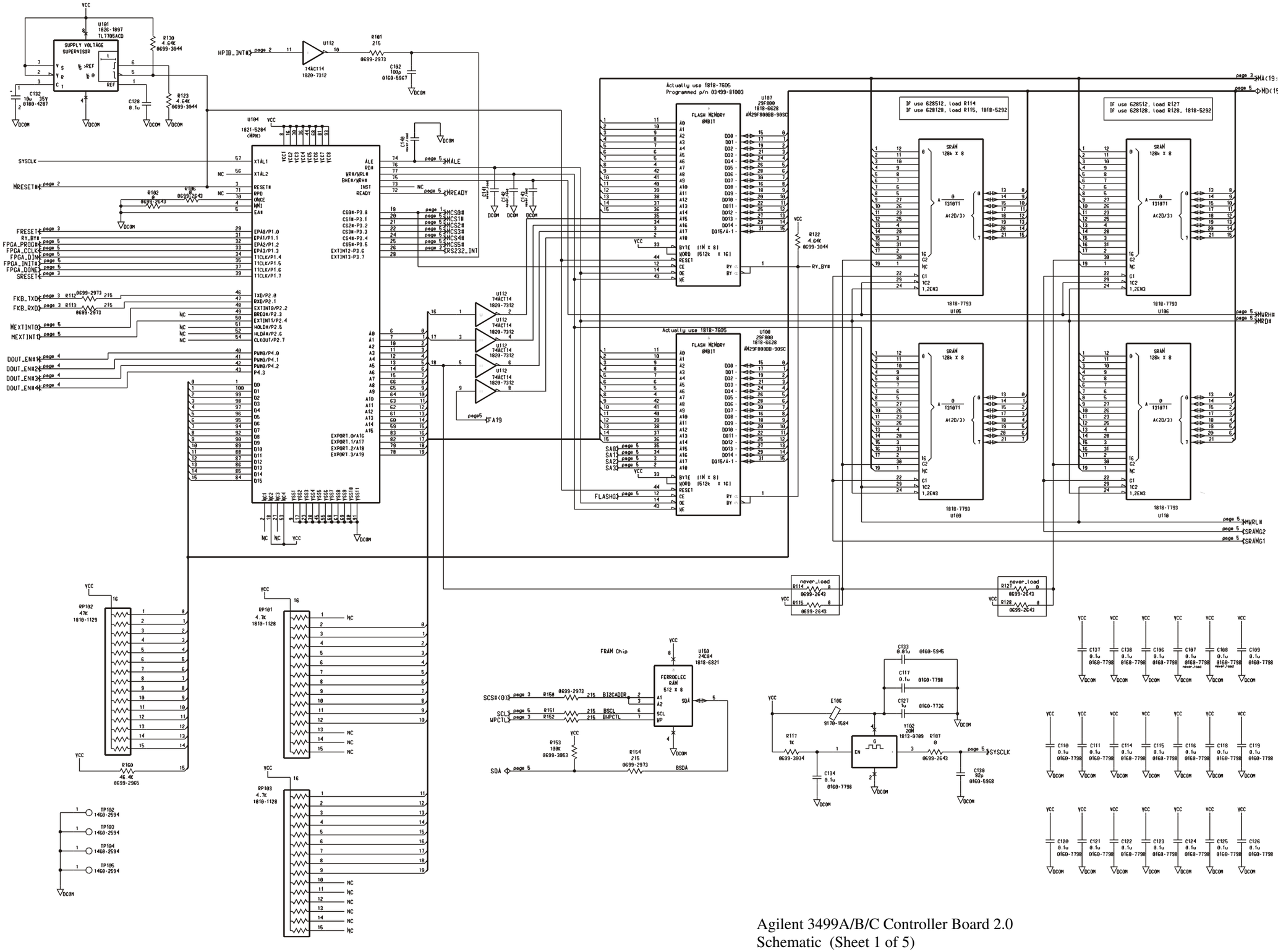
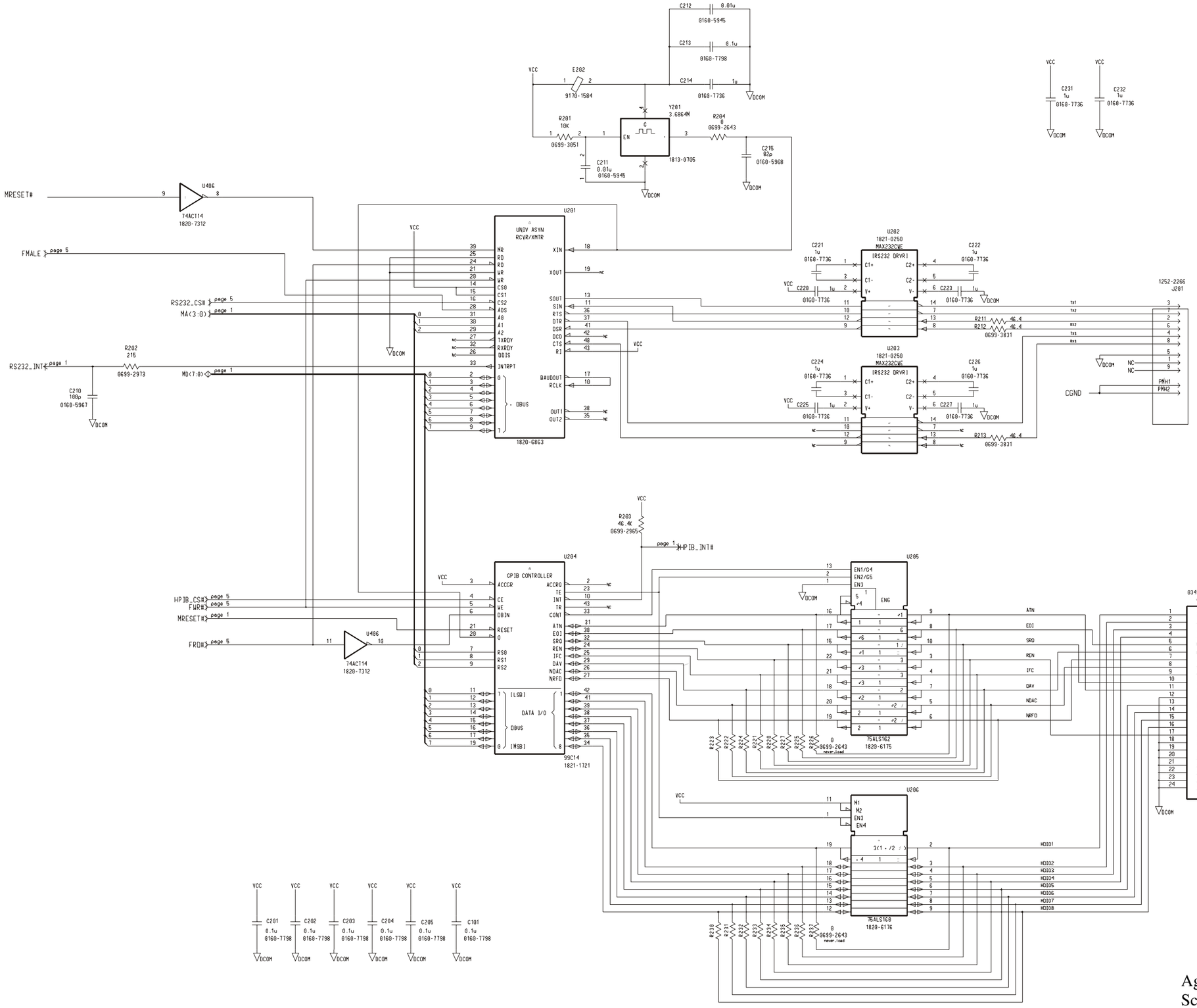
E202
E301



Agilent 3499A/B/C Controller Board 2.0
Schematic (Sheet 1 of 5)
Page 138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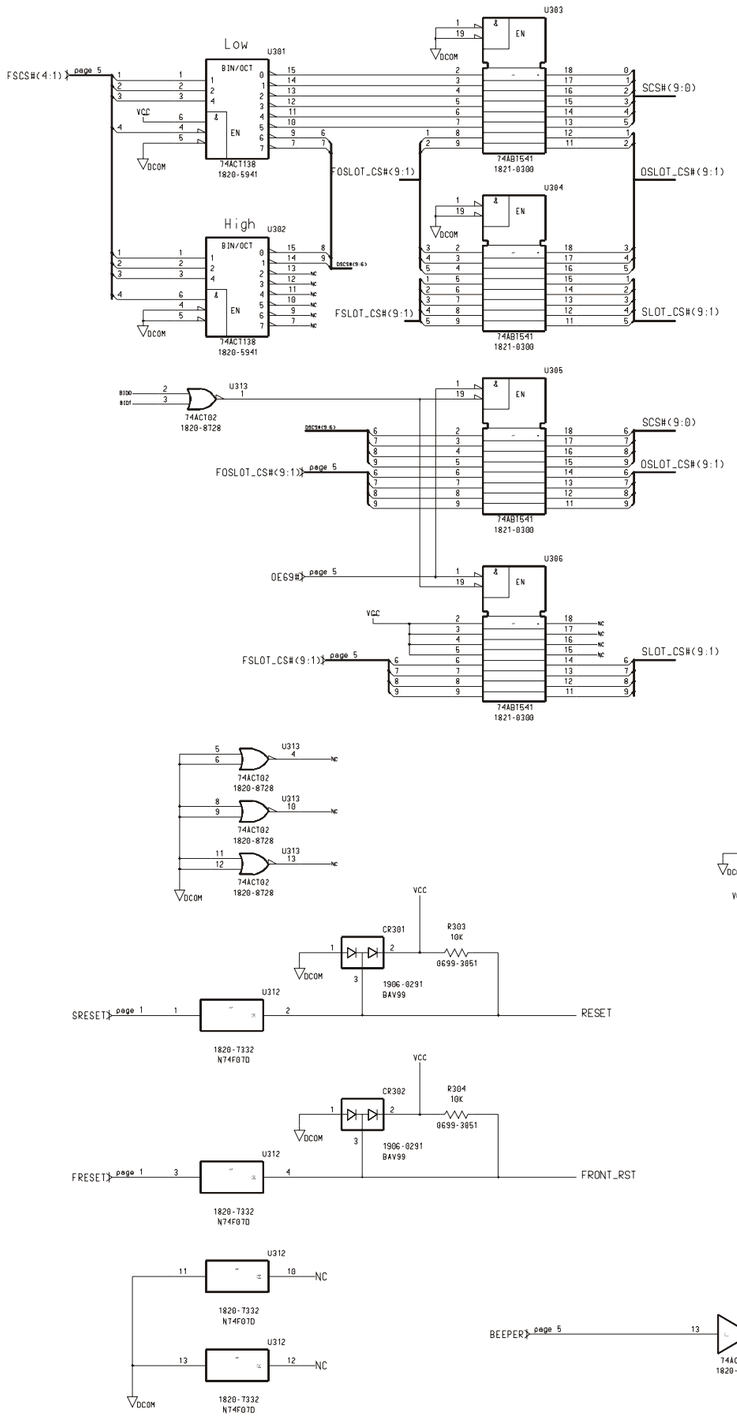
C213 0.1u 0160-7798
C214 1u 0160-7736
E202 9170-1584
Y201 3.686M 1813-0705
R201 10K 0699-3051
R204 0 0699-2643
C211 0.01u 0160-5945
C215 82p 0160-5968
C231 1u 0160-7736
C232 1u 0160-7736
MRESET#
U406 74ACT114 1820-7312
U201 UNIV ASYN RCVR/XMTR 1820-6863
FMALE page 5
RS232_CS# page 5
MA(3:0) page 1
RS232_INT page 1
MD(7:0) page 1
R202 215 0699-2973
C210 180p 0160-5967
U202 1821-0250 MAX232CWE IRS232 DRVR
U203 1821-0250 MAX232CWE IRS232 DRVR
C221 1u 0160-7736
C222 1u 0160-7736
C220 1u 0160-7736
C223 1u 0160-7736
C224 1u 0160-7736
C226 1u 0160-7736
C225 1u 0160-7736
C227 1u 0160-7736
R211 46.4 0699-3831
R212 46.4 0699-3831
R213 46.4 0699-3831
1252-2266 J201
CGND
R203 46.4K 0699-2965
HPIB_INT#
U204 GPIB CONTROLLER 99C14 1821-1721
HPIB_CS# page 5
FWR# page 5
MRESET# page 1
FRD# page 5
U406 74ACT114 1820-7312
U205 75ALS162 1820-6175
U206 75ALS760 1820-6176
R223 R224 R222 R220 R225 R226 0699-2643 never_load
R238 R237 R232 R233 R234 R235 R236 R231 0699-2643 never_load
ATN
EOI
SRQ
REN
IFC
DAV
NDAC
NRFD
P302 03499-61001 (MPN)
C201 C202 C203 C204 C205 C101 0.1u 0160-7798


Low
High
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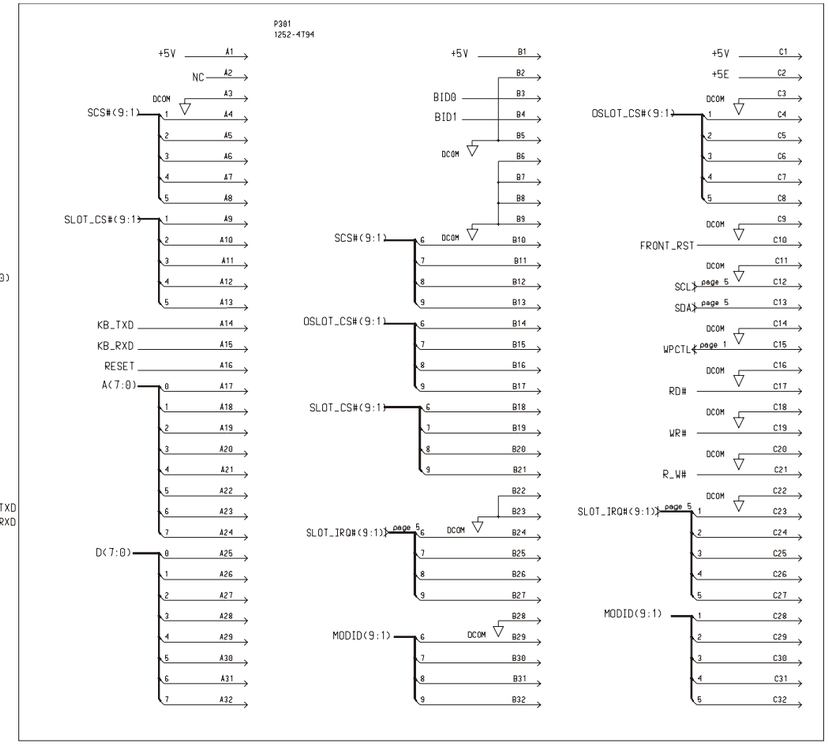
U302
BIN/OCT
74ACT138
1820-5941
EN
DCOM
VCC
FSCS#(4:1)
page 5
FOSLOT_CS#(9:1)
FSLOT_CS#(9:1)
SCS#(9:0)
OSLOT_CS#(9:1)
SLOT_CS#(9:1)
U303
U304
U305
U306
74ABT541
1821-0300
U313
74ACT02
1820-8728
OE69#
U312
1820-7332
N74F07D
SRESET#
RESET
FRESET#
FRONT_RST
CR301
CR302
1906-0291
BAV99
R303
R304
10K
0699-3851
U307
U308
U309
U310
U311
MA(19:0)
A(7:0)
MD(15:0)
D(7:0)
SLOT_EN#
SLOT_DIR#
74ABT1245
1820-7787
FKB_TXD
KB_RXD
KB_TXD
FKB_RXD
FWR#
FRD#
FR_W#
WR#
RD#
R_W#
MODID_RD_EN#
MODID(9:1)
Hardware Revision Jumper
R405 0
R406
R407
R409 4.64K
R410 4.64K
R411 4.64K
never_load
BID0
BID1
BEEPER#
U112
74ACT14
1820-7312
R307
4.64K
0699-3044
CR303
U320
(F_NOM)
9164-0173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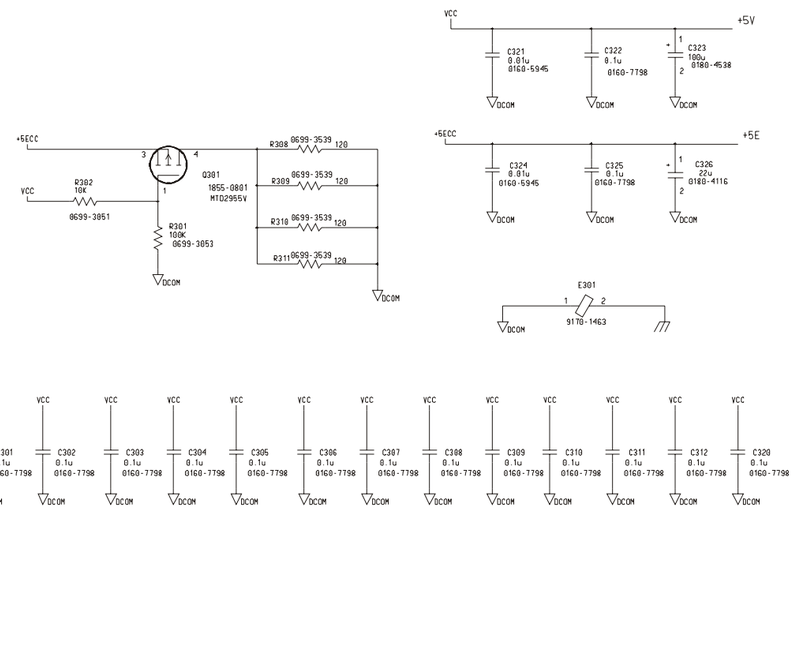
1252-4794
+5V
+5E
NC
DCOM
BID0
BID1
SCS#(9:1)
SLOT_CS#(9:1)
KB_TXD
KB_RXD
RESET
A(7:0)
D(7:0)
OSLOT_CS#(9:1)
SLOT_IRQ#(9:1)
MODID(9:1)
FRONT_RST
SCL
SDA
WPCTL#
RD#
WR#
R_W#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+5V
+5E
+5ECC
C321 0.01u 0160-5945
C322 0.1u 0160-7798
C323 100u 0180-4538
C324 0.01u 0160-5945
C325 0.1u 0160-7798
C326 22u 0180-4116
R308 0699-3539 120
R309 0699-3539 120
R310 0699-3539 120
R311 0699-3539 120
R302 10K 0699-3851
R301 100K 0699-3853
Q301 1855-0801 MTD2955V
E301 9170-1463
C301 0.1u 0160-7798
C302 0.1u 0160-7798
C303 0.1u 0160-7798
C304 0.1u 0160-7798
C305 0.1u 0160-7798
C306 0.1u 0160-7798
C307 0.1u 0160-7798
C308 0.1u 0160-7798
C309 0.1u 0160-7798
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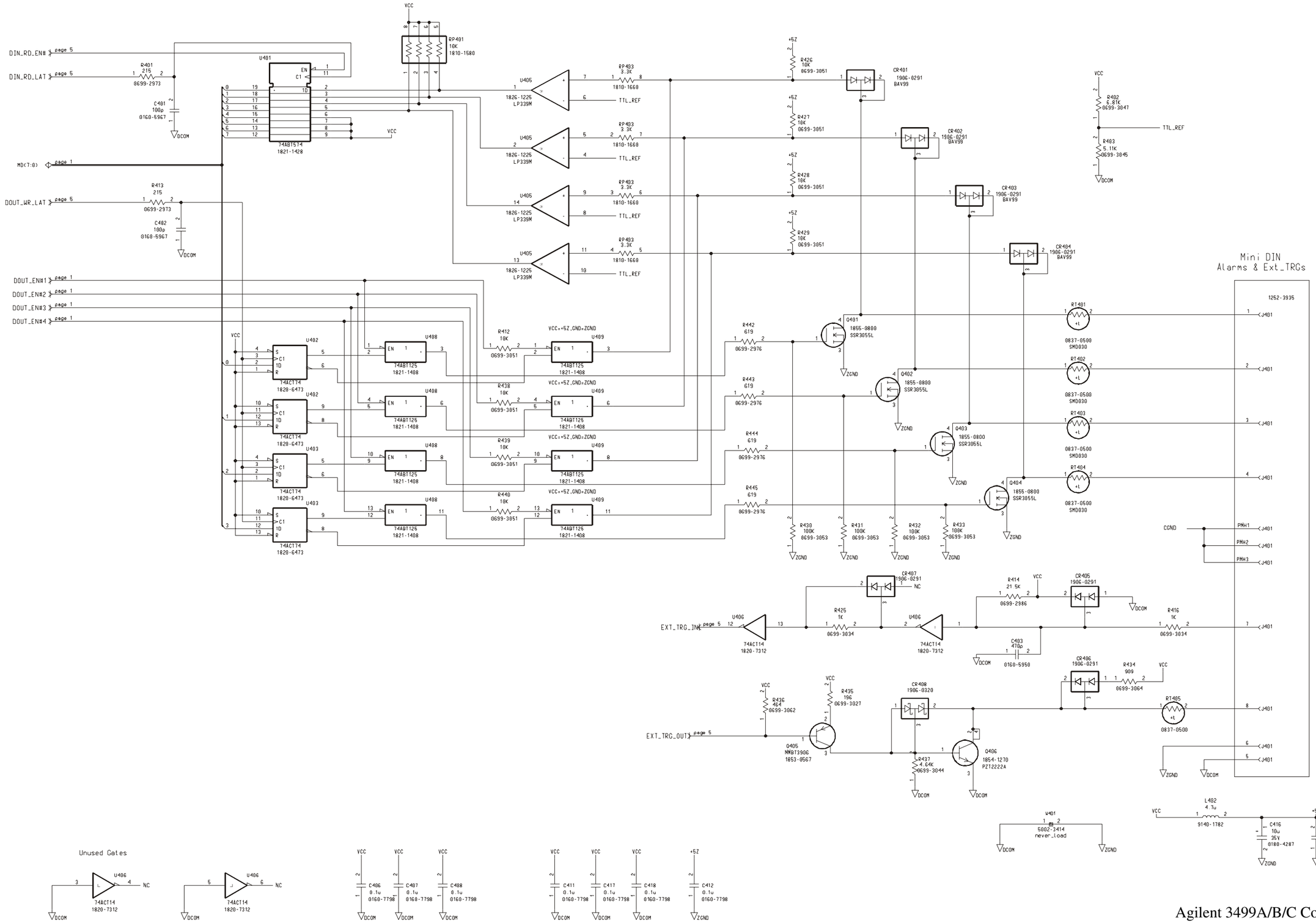
C312 0.1u 0160-7798
C320 0.1u 0160-7798


DIN_RD_EN# page 5
DIN_RD_LAT page 5
MD(7:0) page 1
DOUT_WR_LAT page 5
DOUT_EN#1 page 1
DOUT_EN#2 page 1
DOUT_EN#3 page 1
DOUT_EN#4 page 1
EXT_TRG_IN page 5
EXT_TRG_OUT page 5
VCC
DCOM
ZGND
TTL_REF
CGND
+5Z
U401
74ABT574
1821-1428
U402
74ACT74
1820-6473
U403
74ACT74
1820-6473
U405
1826-1225
LP339M
U406
74ACT14
1820-7312
U408
74ABT125
1821-1408
U409
74ABT125
1821-1408
RP401
10K
1810-1580
RP403
3.3K
1810-1660
R401
215
0699-2973
C401
100p
0160-5967
R402
6.81K
0699-3047
R403
5.11K
0699-3045
R412
10K
0699-3051
R413
215
0699-2973
C402
100p
0160-5967
R425
1K
0699-3034
R426
10K
0699-3051
R427
10K
0699-3051
R428
10K
0699-3051
R429
10K
0699-3051
R430
100K
0699-3053
R431
100K
0699-3053
R432
100K
0699-3053
R433
100K
0699-3053
R434
909
0699-3064
R435
196
0699-3027
R436
464
0699-3062
R437
4.64K
0699-3044
R438
10K
0699-3051
R439
10K
0699-3051
R440
10K
0699-3051
R442
619
0699-2976
R443
619
0699-2976
R444
619
0699-2976
R445
619
0699-2976
R414
21.5K
0699-2986
R416
1K
0699-3034
CR401
1906-0291
BAV99
CR402
1906-0291
BAV99
CR403
1906-0291
BAV99
CR404
1906-0291
BAV99
CR405
1906-0291
CR406
1906-0291
CR407
1906-0291
NC
CR408
1906-0320
Q401
1855-0800
SSR3055L
Q402
1855-0800
SSR3055L
Q403
1855-0800
SSR3055L
Q404
1855-0800
SSR3055L
Q405
NMBT3906
1853-0567
Q406
1854-1270
PZT2222A
RT401
RT402
RT403
RT404
RT405
0837-0500
SMD030
C403
470p
0160-5950
C406
0.1u
0160-7798
C407
0.1u
0160-7798
C408
0.1u
0160-7798
C411
0.1u
0160-7798
C417
0.1u
0160-7798
C418
0.1u
0160-7798
C412
0.1u
0160-7798
C413
0.1u
0160-7798
C416
10u
35V
0180-4287
L402
4.7u
9140-1782
W401
5002-3414
never_load
Mini DIN
Alarms & Ext_TRGs
1252-3935
J401
PMH1
PMH2
PMH3
Unused Gates
NC

R509 4.64K 0699-3044
R503 4.64K 0699-3044
R505 4.64K 0699-3044
VCC

U501 S20 1821-8504 XCS20-3TQ144C
LOGIC CELL ARRAY

FPGA_DONE page 1
FPGA_PROG# page 1
FPGA_CCLK page 1
FPGA_DIN page 1
SYSCLK page 1
MALE page 1
MRD# page 1
MEXTINT1 page 1
MEXTINT0 page 1
EXT_TRG_OUT page 4
EXT_TRG_IN page 4
MD(15:0) page 1
MA(11:1) page 1
FSLOT_CS#(9:1) page 3
OE69# page 3
FOSLOT_CS#(9:1) page 3
SLOT_IRQ#(9:1) page 3

R502 215 0699-2973
R501 215 0699-2973
C510 100p 0160-5967
C509 100p 0160-5967
DCOM

FPGA_INIT# page 1
MA(15:12) page 1
FA19 page 1
SA3 page 1
SA2 page 1
SA1 page 1
SA0 page 3
MCS2# page 1
MCS1# page 1
SRAMG2 page 1
SRAMG1 page 1
FLASHG page 1
FR_W# page 3
SLOT_EN# page 3
SLOT_DIR page 3
MREADY page 1
FRD# page 3
FWR# page 3
MWRL# page 1
MWRH# page 1
RS232_CS# page 2
HPIB_CS# page 2
TLED1
TLED2
DIN_RD_EN# page 4
DIN_RD_LAT page 4
DOUT_WR_LAT page 4
BEEPER page 3
FMALE page 2
FSCS#(4:1) page 3
MODID_RD_EN# page 3
MCS3# page 1
MCS4# page 1
MCS5# page 1
FSLOT_CS#(9:1) page 3
FOSLOT_CS#(9:1) page 3

R507 215 0699-2973 never_load
DS501 1990-1713 Grn never_load
R508 215 0699-2973 never_load
DS502 1990-1716 Yel never_load
TLED1
TLED2
VCC

U312 1820-7332 N74F07D
SCL page 3
SDA page 3

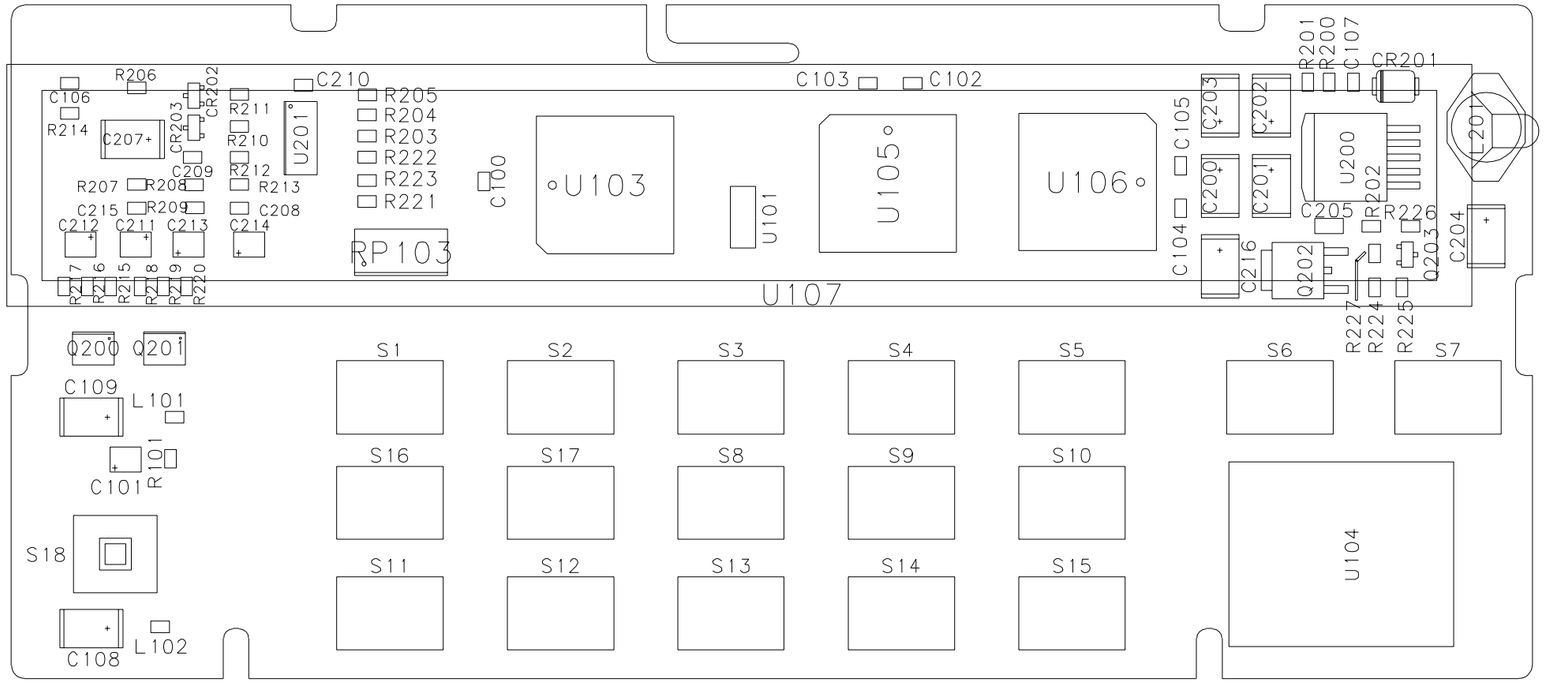
MH501 5002-3470 never_load
MH502 5002-3470 never_load
MH503 5002-3470 never_load

C511 0.01u 0160-5945
C512 0.01u 0160-5945
C513 0.01u 0160-5945
C514 0.01u 0160-5945

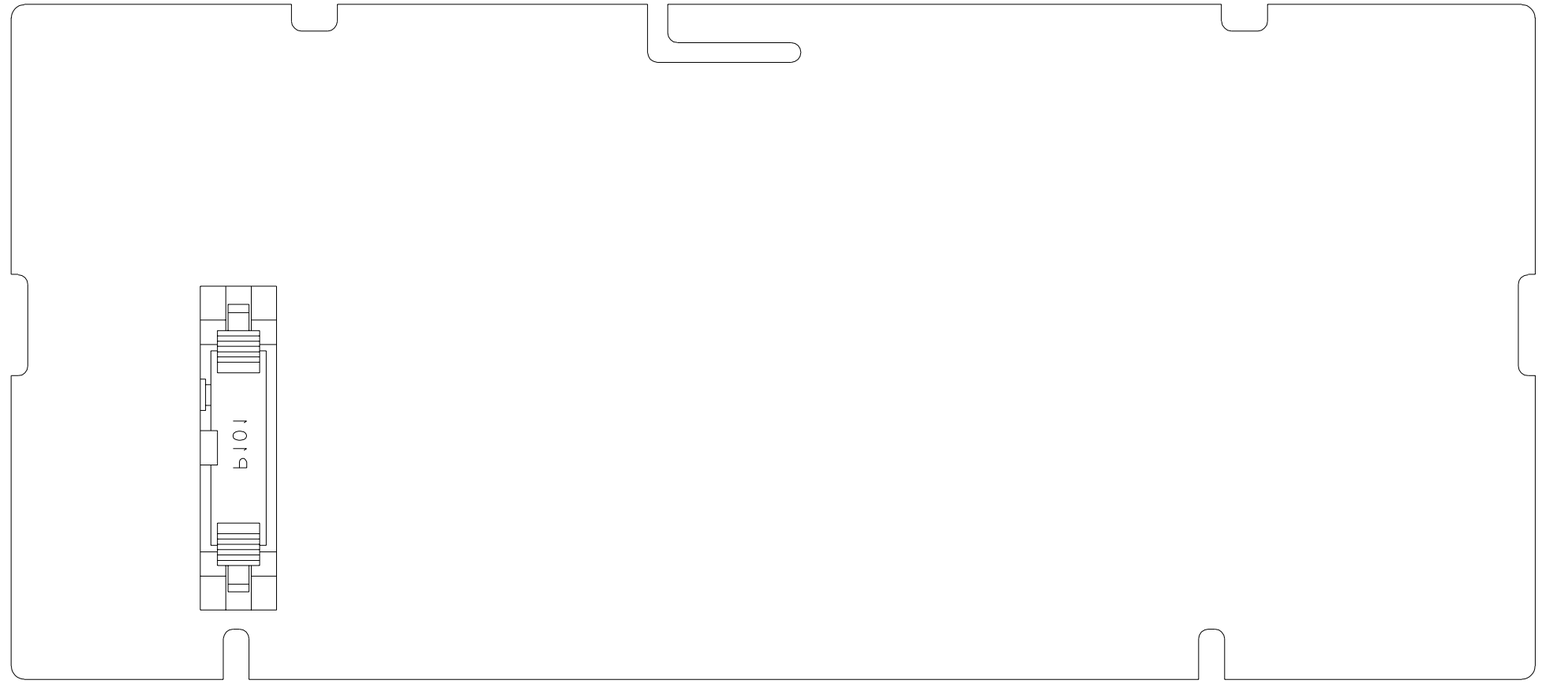
C501 0.1u 0160-7798
C502 0.1u 0160-7798
C503 0.1u 0160-7798
C504 0.1u 0160-7798
C505 0.1u 0160-7798
C506 0.1u 0160-7798
C507 0.1u 0160-7798
C508 0.1u 0160-7798
C515 0.1u 0160-7798

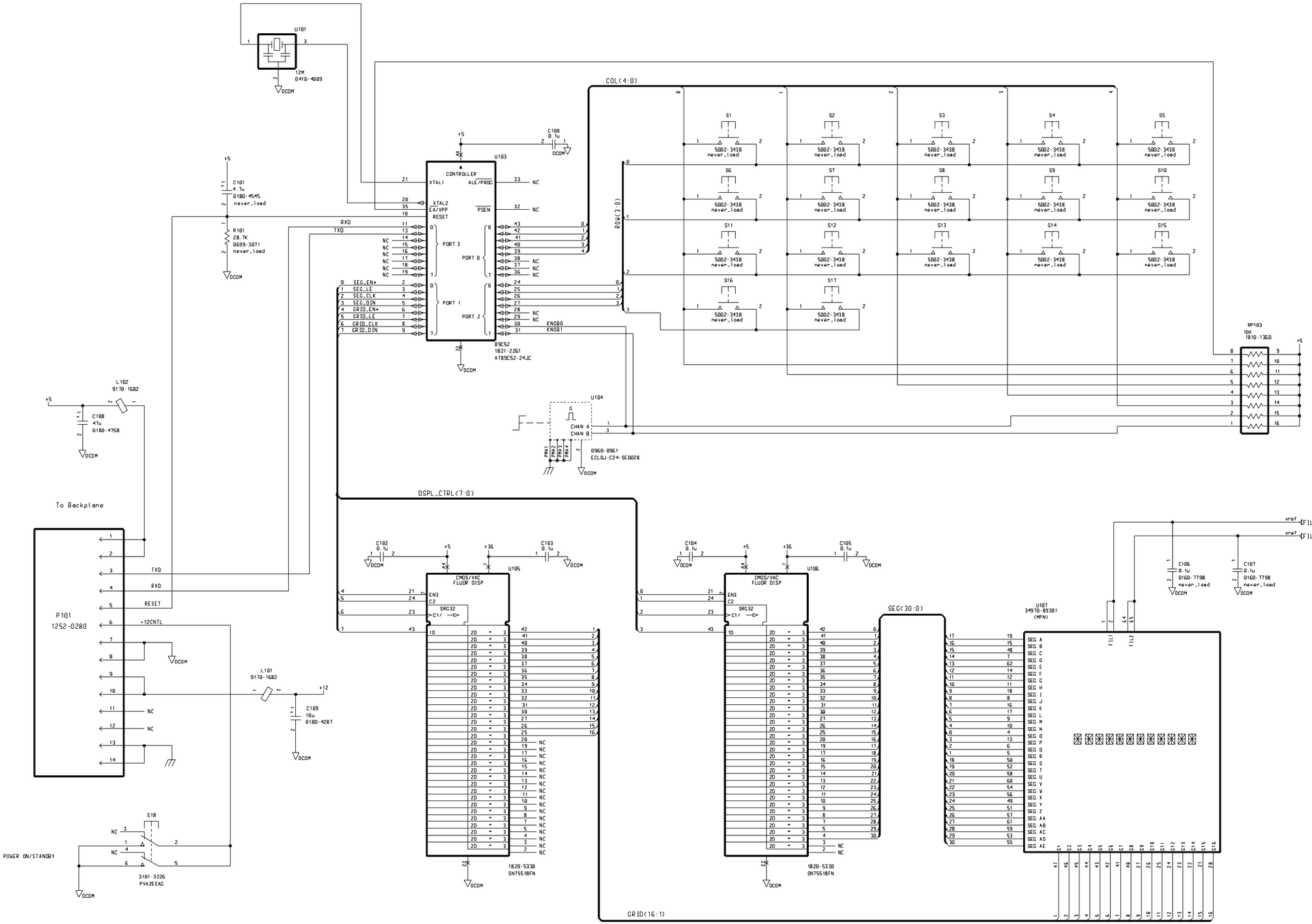
Agilent 3499A/B/C Controller Board 2.0
Schematic (Sheet 5 of 5)

Top Locator



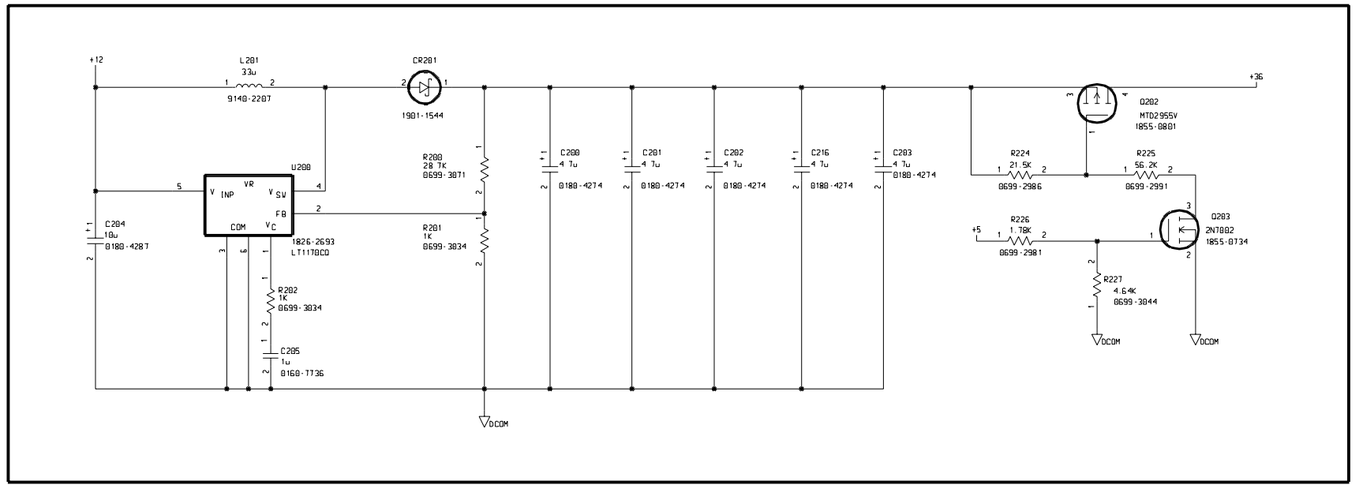
Bottom Locator

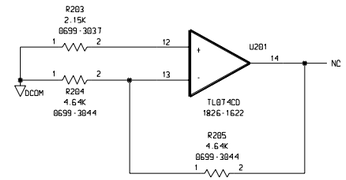



U101
12M
0410-4089
DCOM
+5
C100
0.1u
0160-4845
U103
CONTROLLER
XTAL1
XTAL2
EA/VPP
RESET
ALE/PROC
PSEN
NC
PORT 3
PORT 0
PORT 1
PORT 2
SEG_EN*
SEG_LE
SEG_CLK
SEG_DIN
GRID_EN*
GRID_LE
GRID_CLK
GRID_DIN
KN000
KN001
89C52
1821-2261
AT89C52-24JC
C101
4.7u
0180-4545
never_load
R101
28.7K
0699-3871
RXD
TXD
COL(4:0)
ROW(3:0)
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
5002-3418
RP103
10K
1810-1360
L102
9170-1682
C108
47u
0180-4758
U104
CHAN A
CHAN B
PWM1
PWM2
PWM3
PWM4
0960-0961
ECL0J-C24-SE0028
To Backplane
P101
1252-0280
TXD
RXD
RESET
+12CNTL
NC
L101
C109
10u
0180-4287
+12
S18
POWER ON/STANDBY
3101-3226
PVA2EEAC
DSPL_CTRL(7:0)
C102
C103
U105
CMOS/VAC
FLUOR DISP
EN3
C2
SRG32
C1/
1820-5330
SN75518FN
C104
C105
U106
SEG(30:0)
GRID(16:1)
C106
0160-7198
C107
U107
34970-89301
(MPN)
xref
FIL1
FIL2
SEG A
SEG B
SEG C
SEG D
SEG E
SEG F
SEG G
SEG H
SEG I
SEG J
SEG K
SEG L
SEG M
SEG N
SEG O
SEG P
SEG Q
SEG R
SEG S
SEG T
SEG U
SEG V
SEG W
SEG X
SEG Y
SEG Z
SEG AA
SEG AB
SEG AC
SEG AD
SEG AE

DC(12v) to DC (36v) Converter

Vo=(1+(R200/R201))*1.24

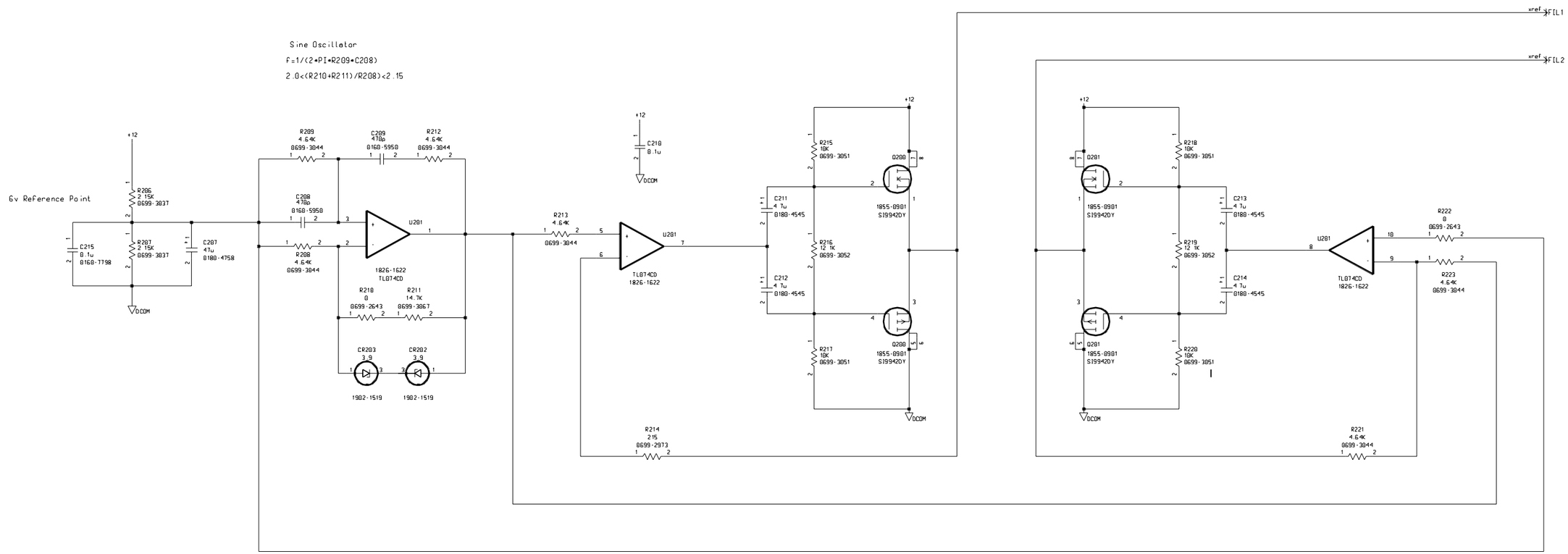


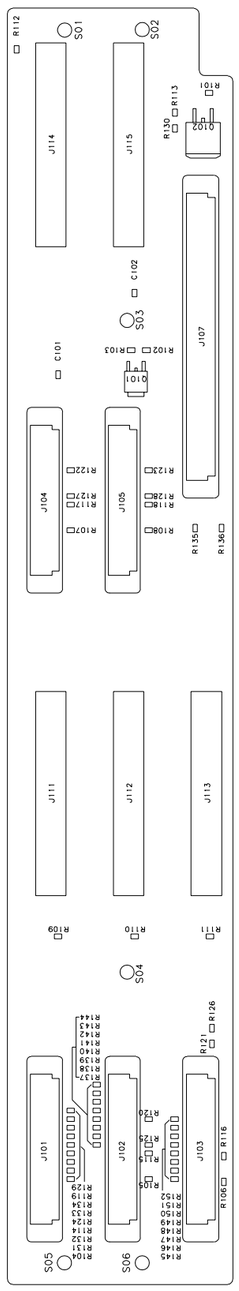


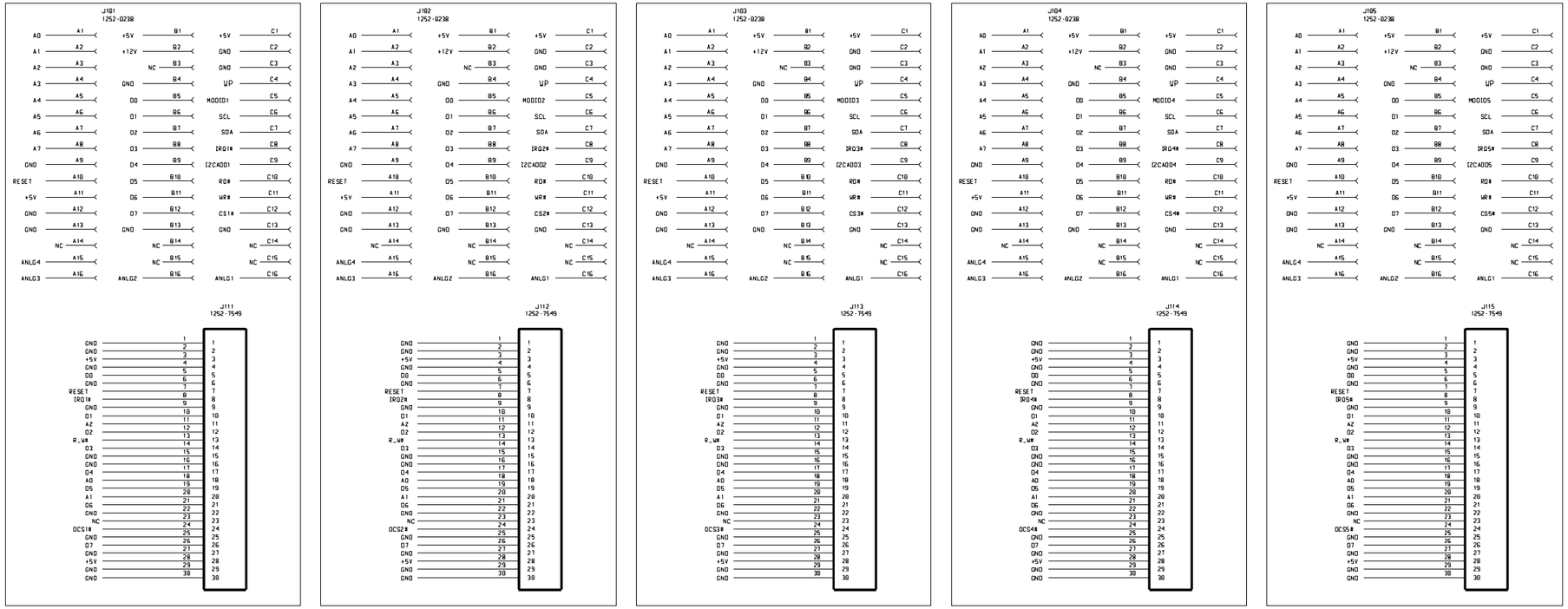
Sine Oscillator

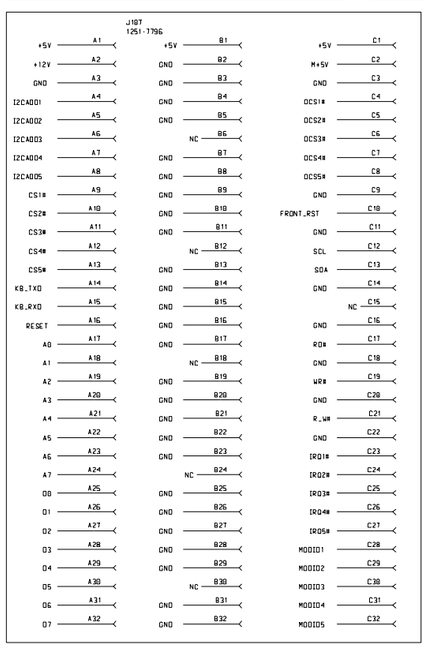
F=1/(2*PI*R209*C208)

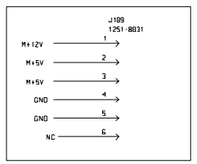
2.0<(R210+R211)/R208)<2.15

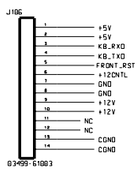


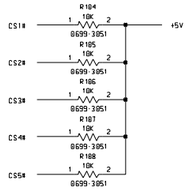

R112
SO1
SO2
J114
J115
R113
R130
R101
R110
C102
SO3
J107
C101
R103
R102
Q101
J104
J105
R123
R122
R124
R127
R128
R107
R108
R135
R136
R109
R110
R111
SO4
R121
R126
R144
R143
R142
R141
R140
R139
R137
R138
J101
J102
J103
R120
R125
R116
R119
R129
R134
R133
R132
R131
R150
R149
R148
R147
R146
R145
R152
R151
SO5
SO6

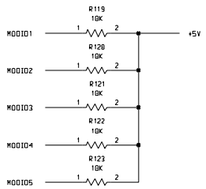

J101
1252-0238
J102
1252-0238
J103
1252-0238
J104
1252-0238
J105
1252-0238
J111
1252-7549
J112
1252-7549
J113
1252-7549
J114
1252-7549
J115
1252-7549

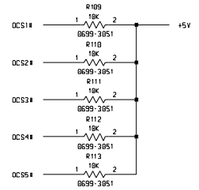

J107
1251-7796

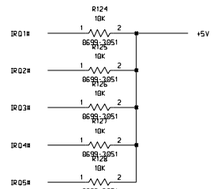

J109
1251-8831
M+12V
M+5V
M+5V
GND
GND
NC

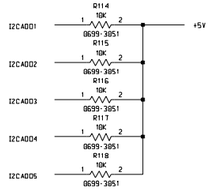

J106
03499-61083
+5V
+5V
KB_RXD
KB_TXD
FRONT_RST
+12CNTL
GND
GND
+12V
+12V
NC
NC
CGND
CGND

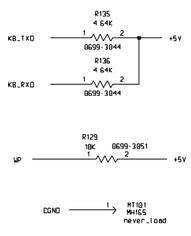

R104
10K
8699-3051
R105
10K
8699-3051
R106
10K
8699-3051
R107
10K
8699-3051
R108
10K
8699-3051
CS1#
CS2#
CS3#
CS4#
CS5#
+5V

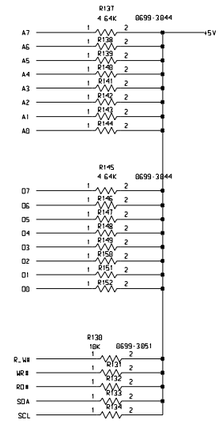

R119
10K
R120
10K
R121
10K
R122
10K
R123
10K
MODIO1
MODIO2
MODIO3
MODIO4
MODIO5
+5V

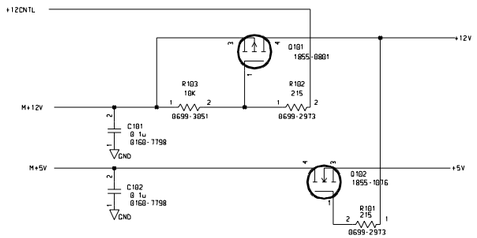

R109
10K
8699-3051
R110
10K
8699-3051
R111
10K
8699-3051
R112
10K
8699-3051
R113
10K
8699-3051
OCS1#
OCS2#
OCS3#
OCS4#
OCS5#
+5V

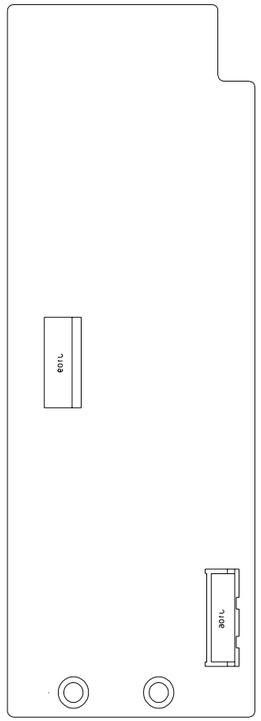

R124
10K
R125
10K
R126
10K
R127
10K
R128
10K
IRQ1#
IRQ2#
IRQ3#
IRQ4#
IRQ5#
+5V

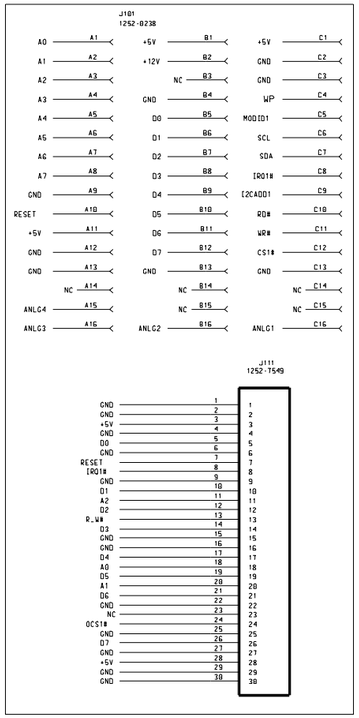

R114
10K
8699-3051
R115
10K
8699-3051
R116
10K
8699-3051
R117
10K
8699-3051
R118
10K
8699-3051
I2CADO1
I2CADO2
I2CADO3
I2CADO4
I2CADO5
+5V

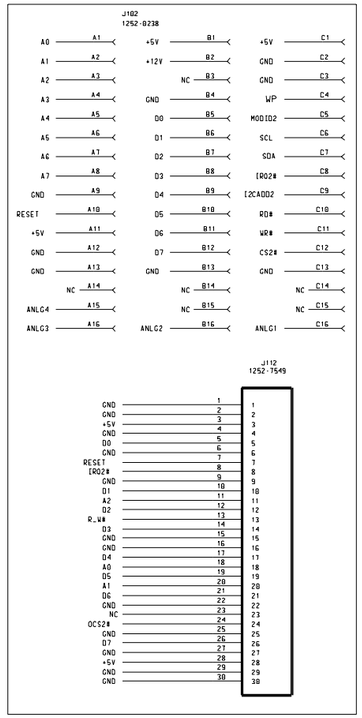

R135
4.64K
8699-3044
R136
4.64K
8699-3044
KB_TXD
KB_RXD
+5V
R129
10K
8699-3051
WP
+5V
CGND
MT101
Mnt65
never_load

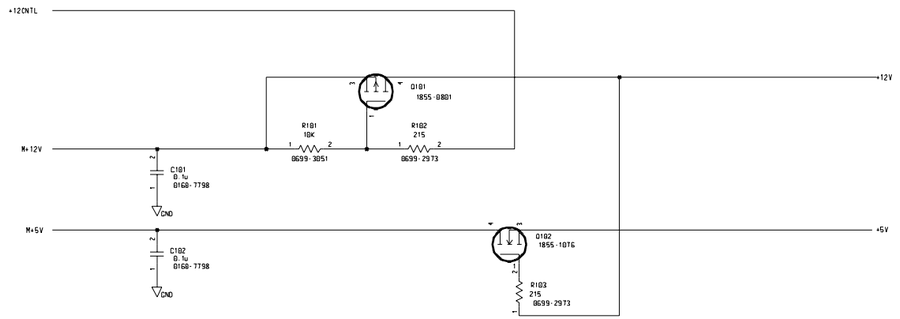

R137
4.64K
8699-3044
R145
10K
8699-3044
R130
10K
8699-3051
A7
A6
A5
A4
A3
A2
A1
A0
D7
D6
D5
D4
D3
D2
D1
D0
R_WR
WR#
RD#
SDA
SCL
+5V

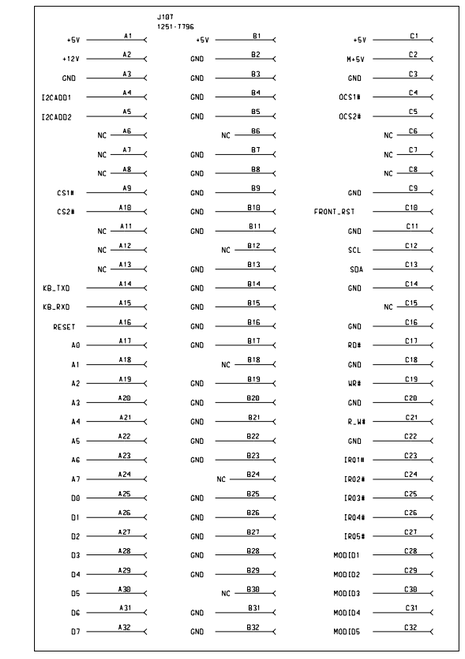

+12CNTL
+12V
M+12V
R103
10K
8699-3051
R102
215
8699-2973
Q101
1855-0801
C101
0.1u
8168-7798
GND
M+5V
+5V
C102
0.1u
8168-7798
GND
Q102
1855-1076
R101
215
8699-2973

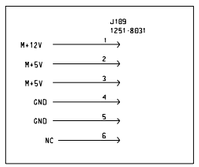

J101
J102
J111
J112
J107
Q102
S01
S02
S03
S04
S05

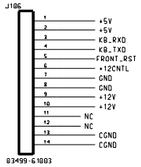

J101
1252-0238
A0 A1 +5V B1 +5V C1
A1 A2 +12V B2 GND C2
A2 A3 NC B3 GND C3
A3 A4 GND B4 WP C4
A4 A5 D0 B5 MODID1 C5
A5 A6 D1 B6 SCL C6
A6 A7 D2 B7 SDA C7
A7 A8 D3 B8 IRQ1# C8
GND A9 D4 B9 I2CADD1 C9
RESET A10 D5 B10 RD# C10
+5V A11 D6 B11 WR# C11
GND A12 D7 B12 CS1# C12
GND A13 GND B13 GND C13
NC A14 NC B14 NC C14
ANLG4 A15 NC B15 NC C15
ANLG3 A16 ANLG2 B16 ANLG1 C16
J111
1252-7549
GND 1 1
GND 2 2
+5V 3 3
GND 4 4
D0 5 5
GND 6 6
RESET 7 7
IRQ1# 8 8
GND 9 9
D1 10 10
A2 11 11
D2 12 12
R_W# 13 13
D3 14 14
GND 15 15
GND 16 16
D4 17 17
A0 18 18
D6 19 19
A1 20 20
D6 21 21
GND 22 22
NC 23 23
OCS1# 24 24
GND 25 25
D7 26 26
GND 27 27
+5V 28 28
GND 29 29
GND 30 30

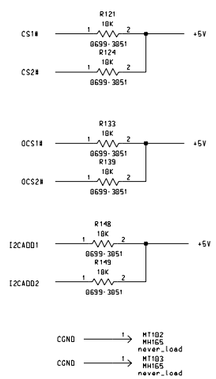

J102
1252-0238
A0 A1 +5V B1 +5V C1
A1 A2 +12V B2 GND C2
A2 A3 NC B3 GND C3
A3 A4 GND B4 WP C4
A4 A5 D0 B5 MODID2 C5
A5 A6 D1 B6 SCL C6
A6 A7 D2 B7 SDA C7
A7 A8 D3 B8 IRQ2# C8
GND A9 D4 B9 I2CADD2 C9
RESET A10 D5 B10 RD# C10
+5V A11 D6 B11 WR# C11
GND A12 D7 B12 CS2# C12
GND A13 GND B13 GND C13
NC A14 NC B14 NC C14
ANLG4 A15 NC B15 NC C15
ANLG3 A16 ANLG2 B16 ANLG1 C16
J112
1252-7549
GND 1 1
GND 2 2
+5V 3 3
GND 4 4
D0 5 5
GND 6 6
RESET 7 7
IRQ2# 8 8
GND 9 9
D1 10 10
A2 11 11
D2 12 12
R_W# 13 13
D3 14 14
GND 15 15
GND 16 16
D4 17 17
A0 18 18
D6 19 19
A1 20 20
D6 21 21
GND 22 22
NC 23 23
OCS2# 24 24
GND 25 25
D7 26 26
GND 27 27
+5V 28 28
GND 29 29
GND 30 30

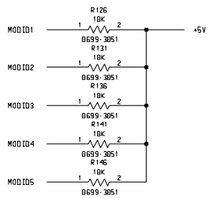

+12CNTL
M+12V
M+5V
+12V
+5V
Q101
1855-0801
R101
10K
0699-3051
R102
215
0699-2973
C101
0.1u
0160-7798
GND
C102
0.1u
0160-7798
GND
Q102
1855-1076
R103
215
0699-2973

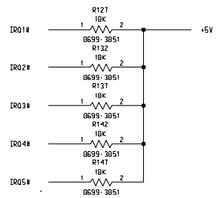

J107
1251-1796
+5V A1 +5V B1 +5V C1
+12V A2 GND B2 M+5V C2
GND A3 GND B3 GND C3
I2CADD1 A4 GND B4 OCS1# C4
I2CADD2 A5 GND B5 OCS2# C5
NC A6 NC B6 NC C6
NC A7 GND B7 NC C7
NC A8 GND B8 NC C8
CS1# A9 GND B9 GND C9
CS2# A10 GND B10 FRONT_RST C10
NC A11 GND B11 GND C11
NC A12 NC B12 SCL C12
NC A13 GND B13 SDA C13
KB_TXD A14 GND B14 GND C14
KB_RXD A15 GND B15 NC C15
RESET A16 GND B16 GND C16
A0 A17 GND B17 RD# C17
A1 A18 NC B18 GND C18
A2 A19 GND B19 WR# C19
A3 A20 GND B20 GND C20
A4 A21 GND B21 R_W# C21
A5 A22 GND B22 GND C22
A6 A23 GND B23 IRQ1# C23
A7 A24 NC B24 IRQ2# C24
D0 A25 GND B25 IRQ3# C25
D1 A26 GND B26 IRQ4# C26
D2 A27 GND B27 IRQ5# C27
D3 A28 GND B28 MODID1 C28
D4 A29 GND B29 MODID2 C29
D5 A30 NC B30 MODID3 C30
D6 A31 GND B31 MODID4 C31
D7 A32 GND B32 MODID5 C32

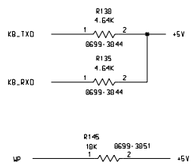

J109
1251-8031
M+12V 1
M+5V 2
M+5V 3
GND 4
GND 5
NC 6

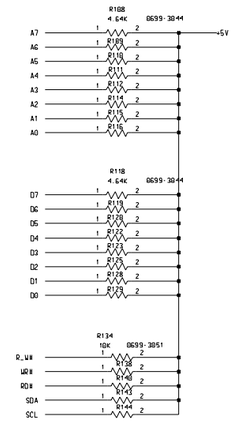

J106
1 +5V
2 +5V
3 KB_RXD
4 KB_TXD
5 FRONT_RST
6 +12CNTL
7 GND
8 GND
9 +12V
10 +12V
11 NC
12 NC
13 CGND
14 CGND
03499-61003

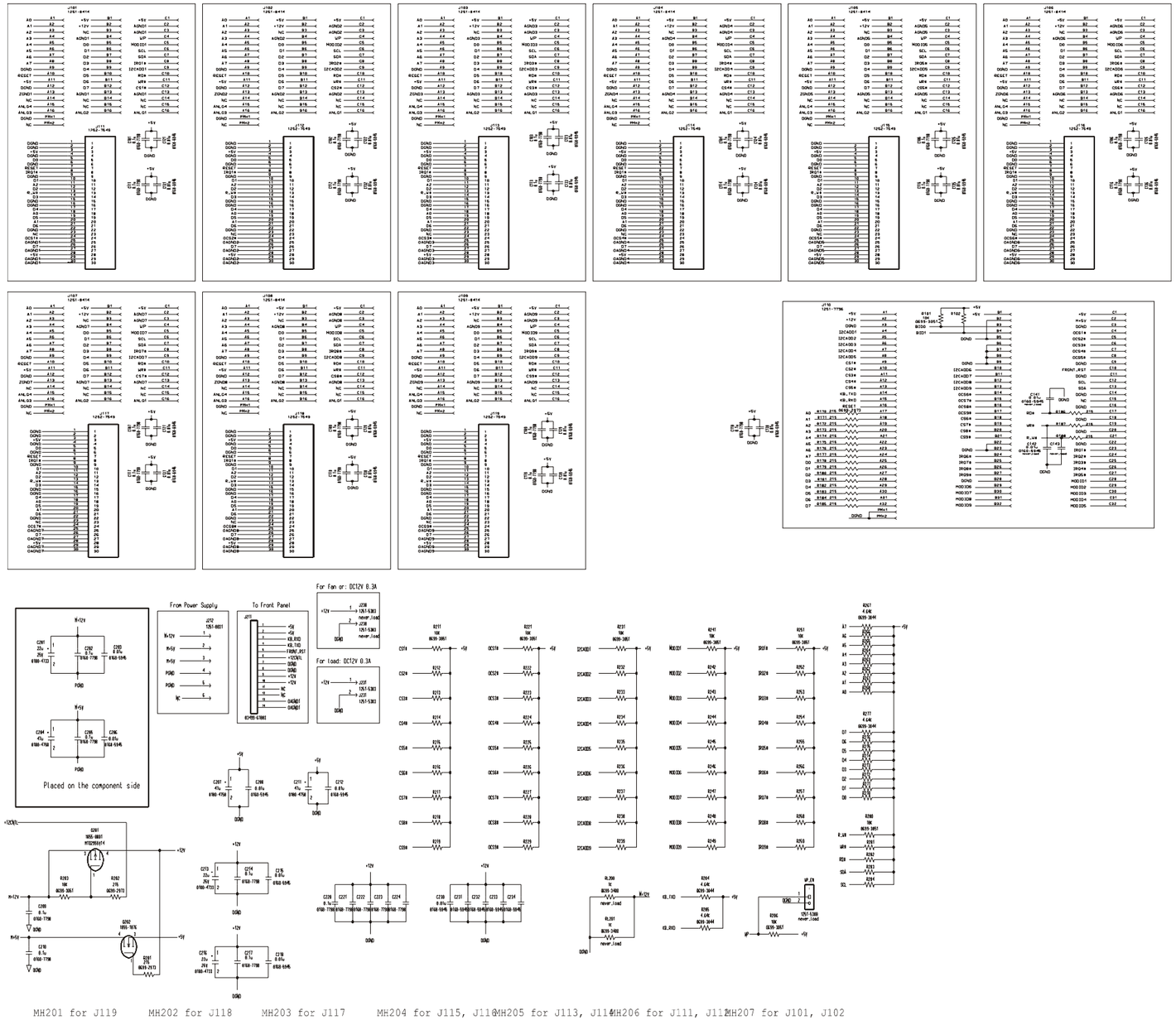

R121
10K
0699-3051
CS1#
+5V
R124
10K
0699-3051
CS2#
R133
10K
0699-3051
OCS1#
+5V
R139
10K
0699-3051
OCS2#
R148
10K
0699-3051
I2CADD1
+5V
R149
10K
0699-3051
I2CADD2
CGND
MT102
MH165
never_load
CGND
MT103
MH165
never_load

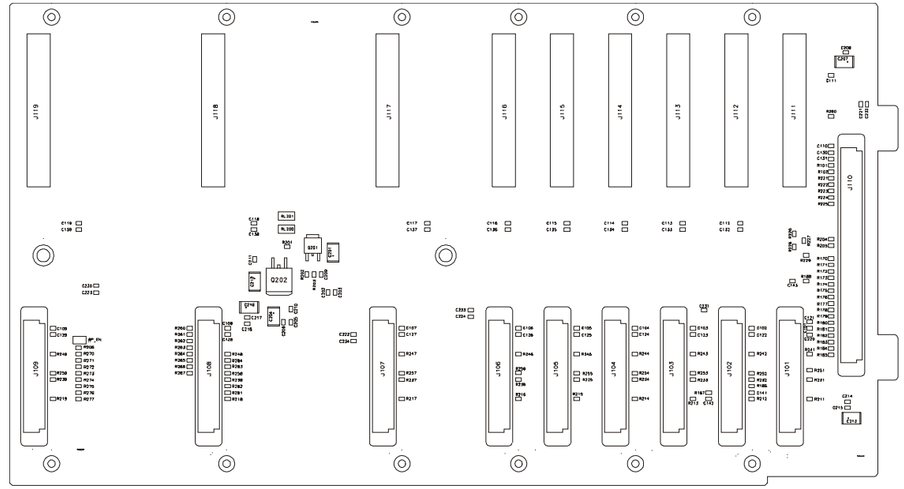

R126
10K
0699-3051
MODID1
+5V
R131
10K
0699-3051
MODID2
R136
10K
0699-3051
MODID3
R141
10K
0699-3051
MODID4
R145
10K
0699-3051
MODID5

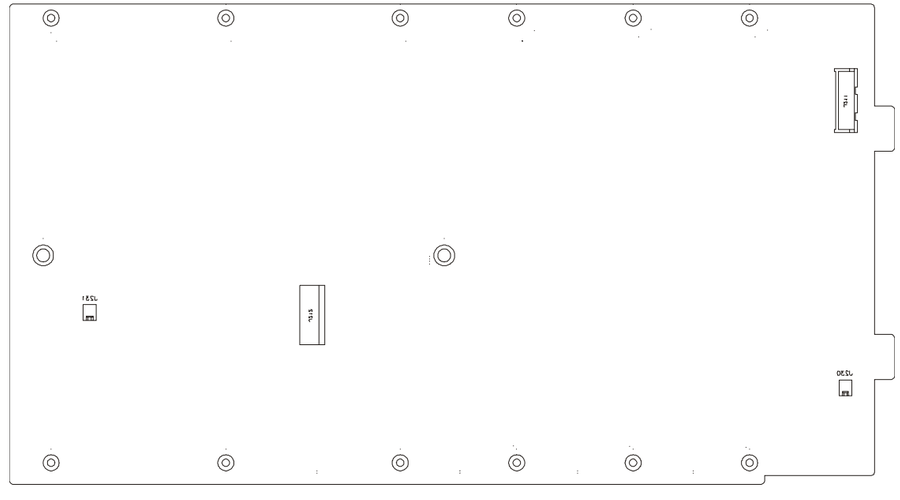

R127
10K
0699-3051
IRQ1#
+5V
R132
10K
0699-3051
IRQ2#
R137
10K
0699-3051
IRQ3#
R142
10K
0699-3051
IRQ4#
R147
10K
0699-3051
IRQ5#

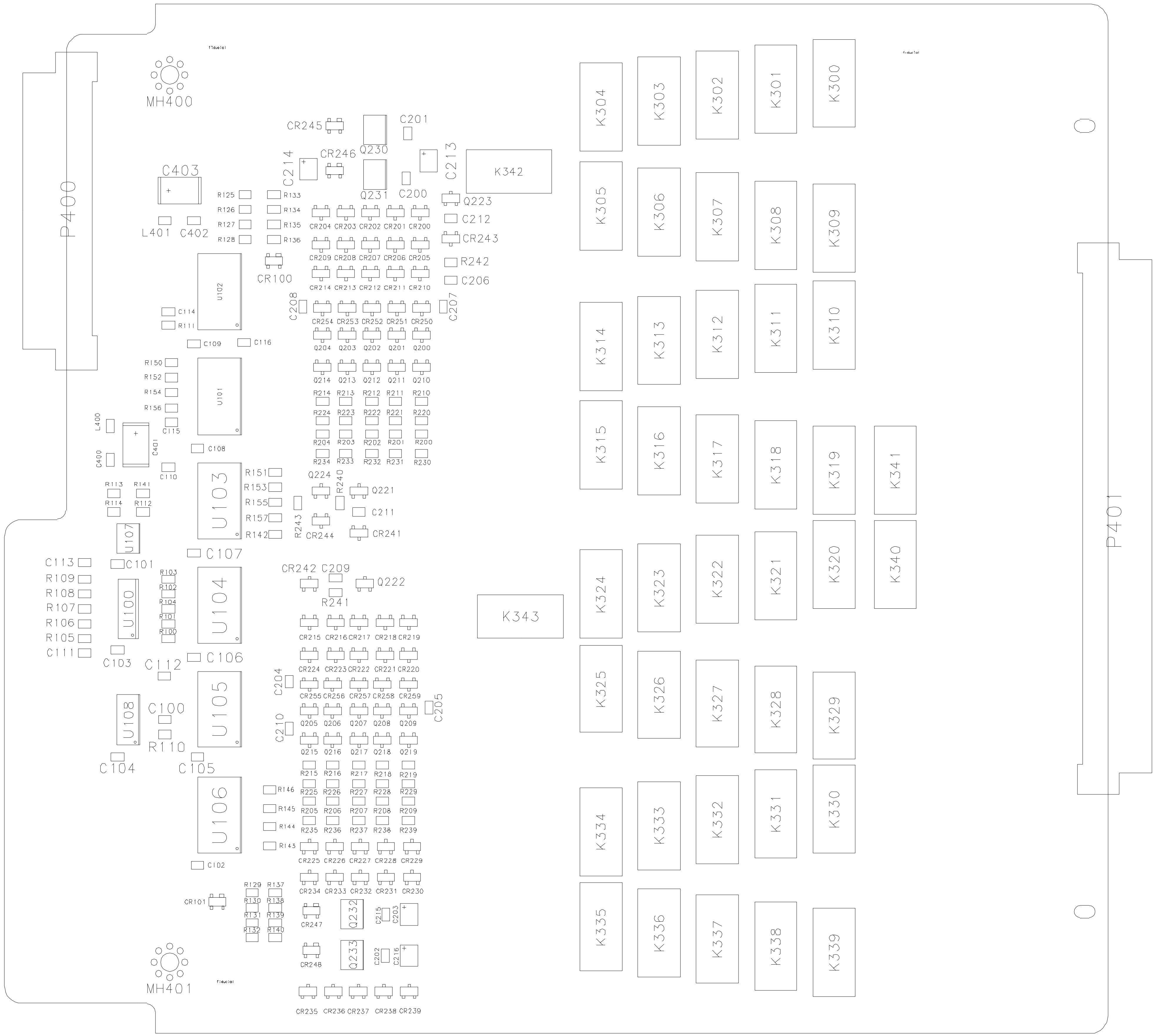

R138
4.64K
0699-3044
KB_TXD
+5V
R135
4.64K
0699-3044
KB_RXD
R145
10K
0699-3051
WP
+5V


R108
4.64K
0699-3044
A7
+5V
A6
A5
A4
A3
A2
A1
A0
R118
4.64K
0699-3044
D7
D6
D5
D4
D3
D2
D1
D0
R134
10K
0699-3051
R_W#
WR#
RD#
SDA
SCL

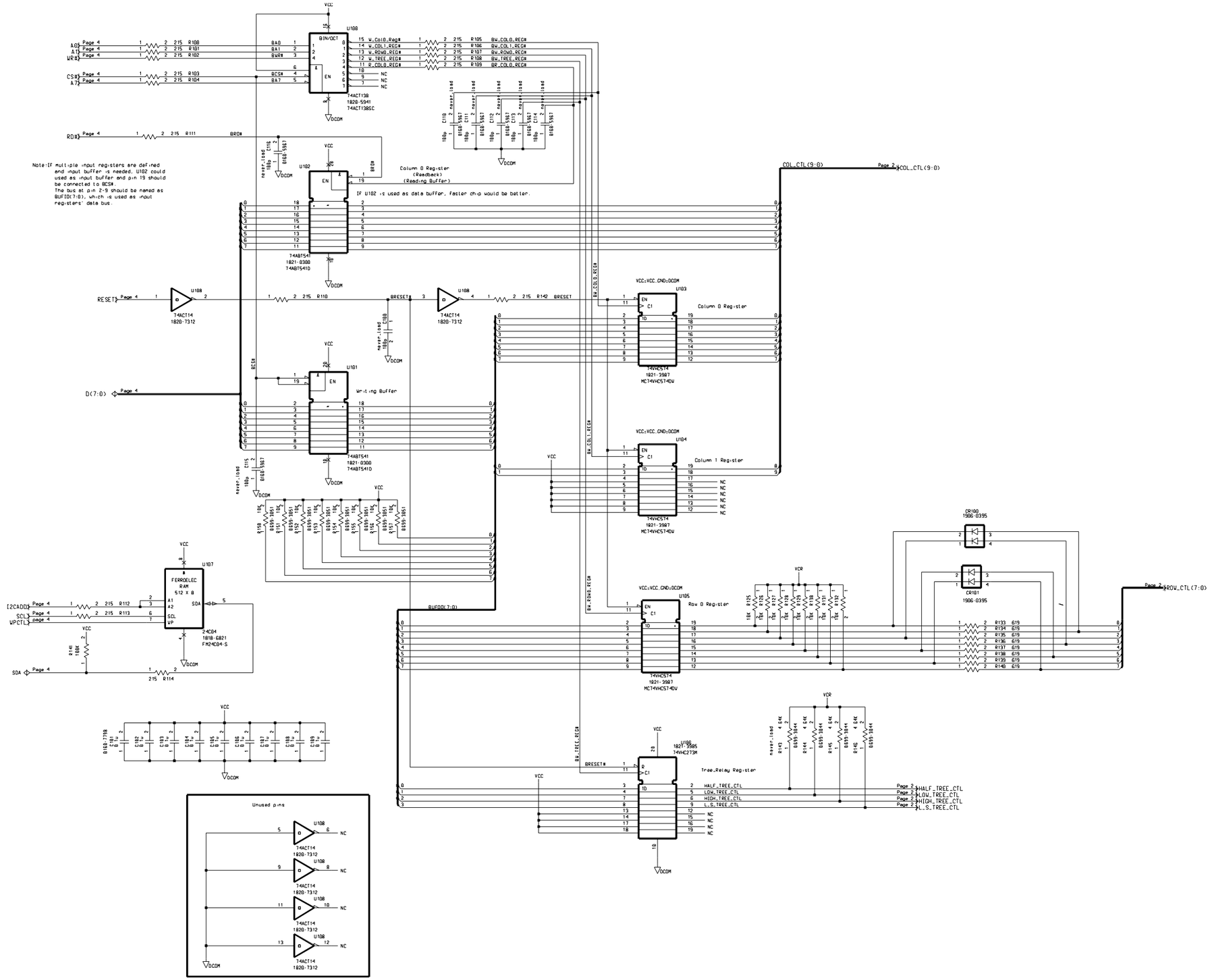

J101
J102
J103
J104
J105
J106
J107
J108
J109
J110
J111
J112
J113
J114
J115
J116
J117
J118
J119
Placed on the component side
From Power Supply
To Front Panel
For fan or: DC12V 0.3A
For load: DC12V 0.3A
MH201 for J119
MH202 for J118
MH203 for J117
MH204 for J115, J116
MH205 for J113, J114
MH206 for J111, J112
MH207 for J101, J102
MH208 for J103, J104
MH209 for J105, J106
MH210 for J107
MH211 for J108
MH212 for J109
MH213 for Digital GND
MH214 for J214



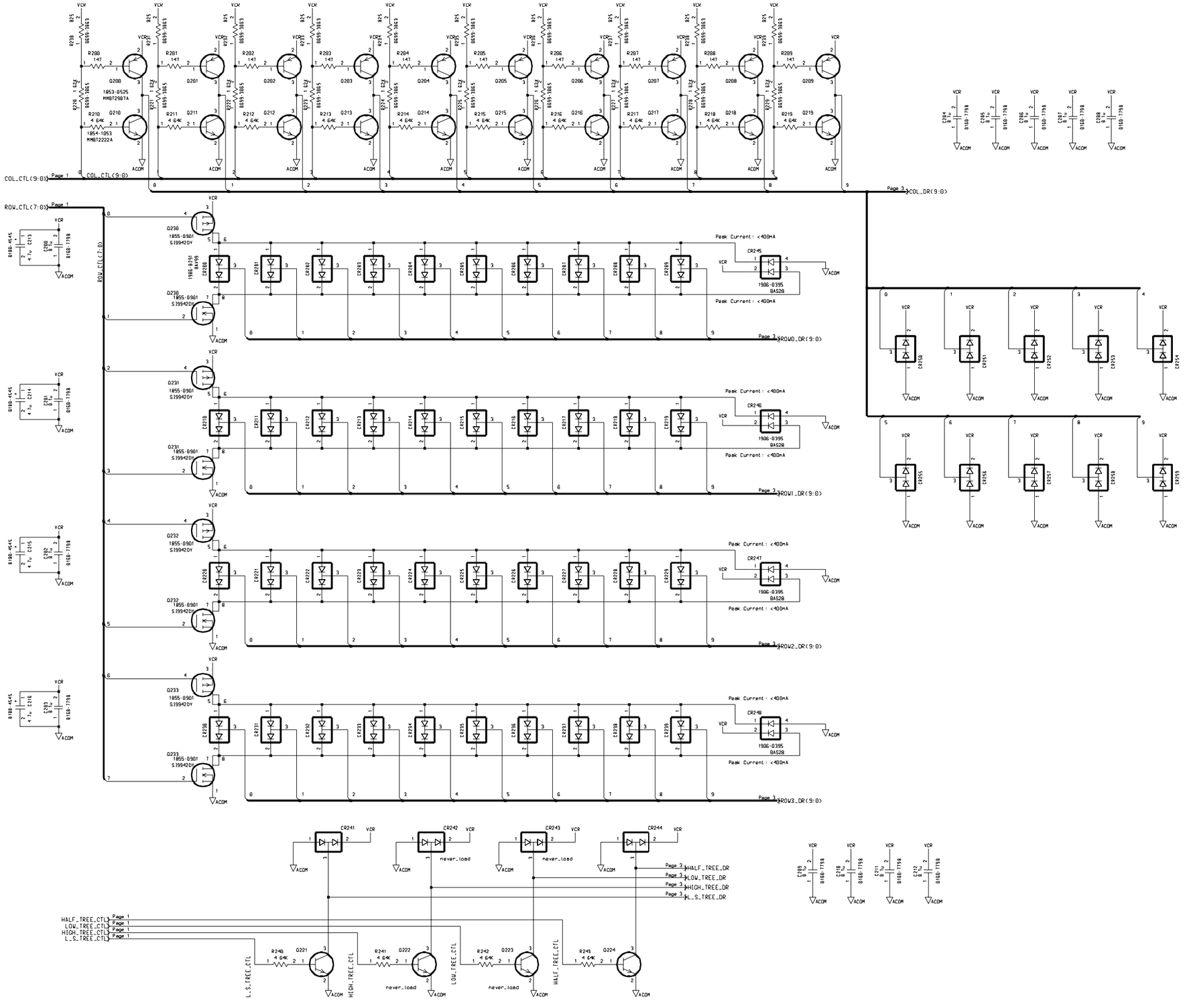



P400
MH400
MH401
C403
L401
C402
CR245
CR246
Q230
Q231
C201
C200
C214
C213
K342
Q223
C212
CR243
R242
C206
CR100
C208
C207
U102
U101
U103
U104
U105
U106
U100
U107
U108
C107
C106
C105
C104
C103
C112
C100
R110
C113
R109
R108
R107
R106
R105
C111
C101
CR242
C209
Q222
R241
Q224
Q221
C211
CR244
CR241
R243
K343
C204
C205
C210
Q232
Q233
K300
K301
K302
K303
K304
K305
K306
K307
K308
K309
K310
K311
K312
K313
K314
K315
K316
K317
K318
K319
K320
K321
K322
K323
K324
K325
K326
K327
K328
K329
K330
K331
K332
K333
K334
K335
K336
K337
K338
K339
K340
K341
P401

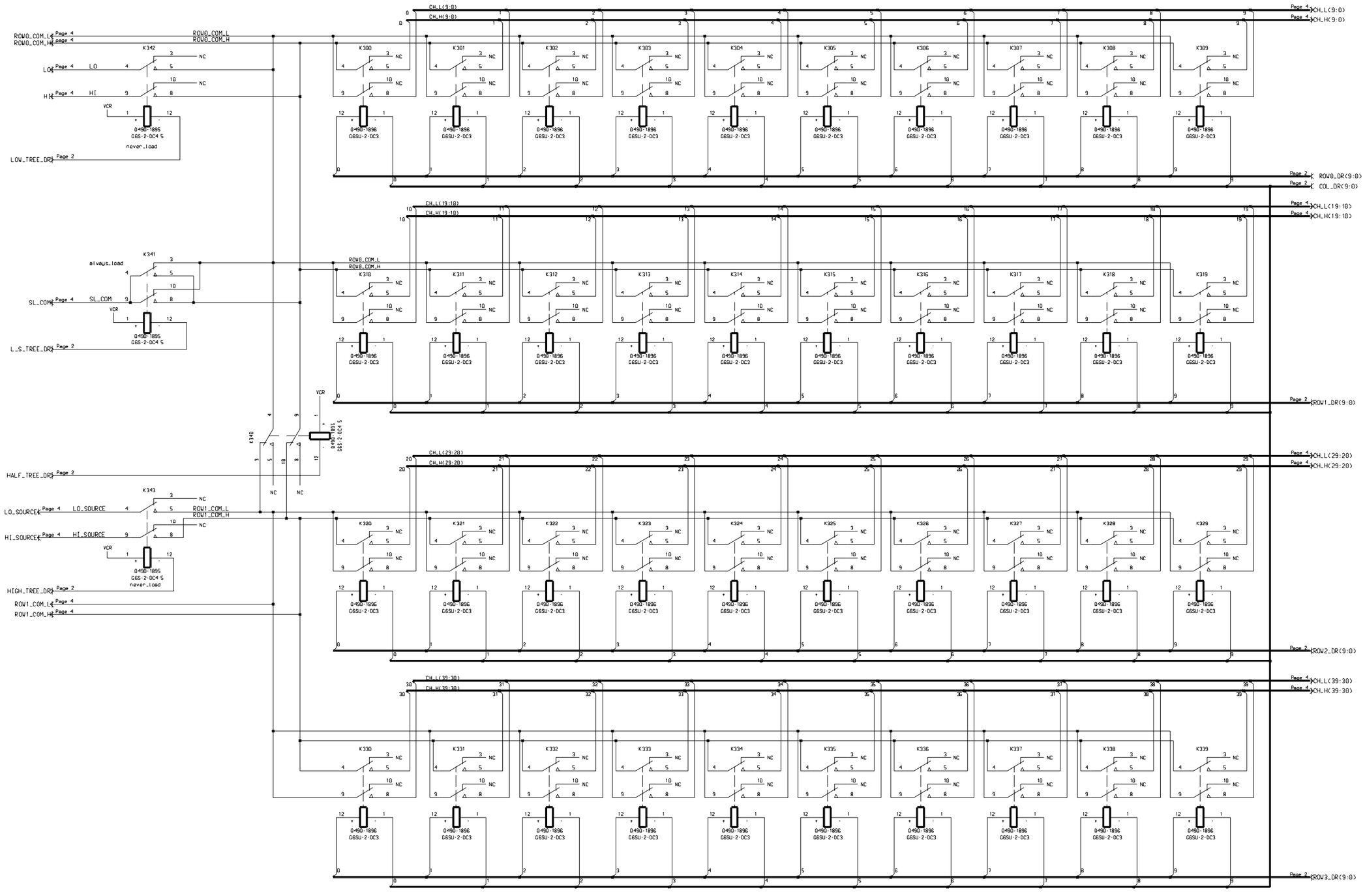
Agilent N2260A 40-Channel MUX Module
Component Locator
Page 149



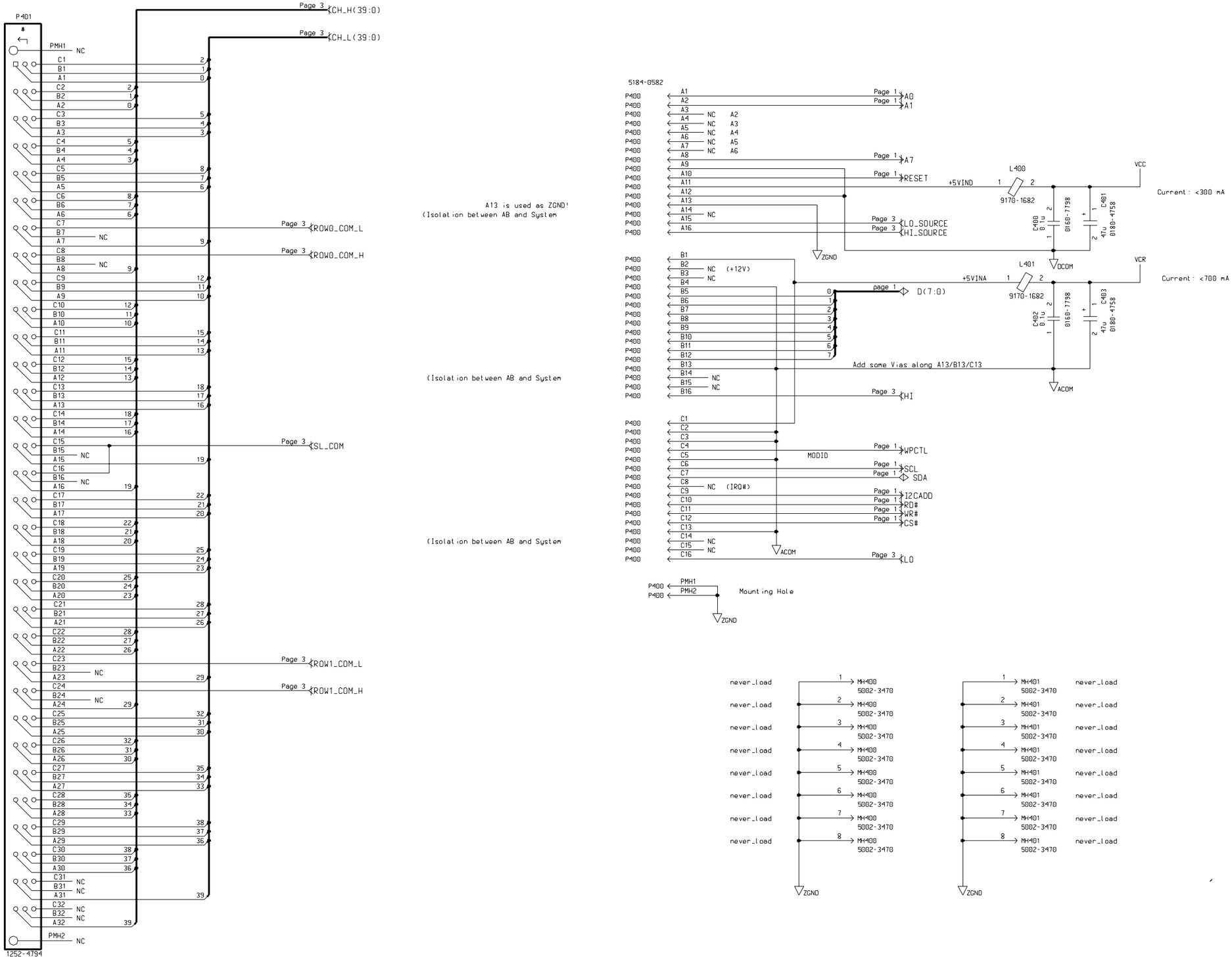
Agilent N2260A 40-Channel MUX Module
Schematic (Sheet 1 of 4)
Page 150



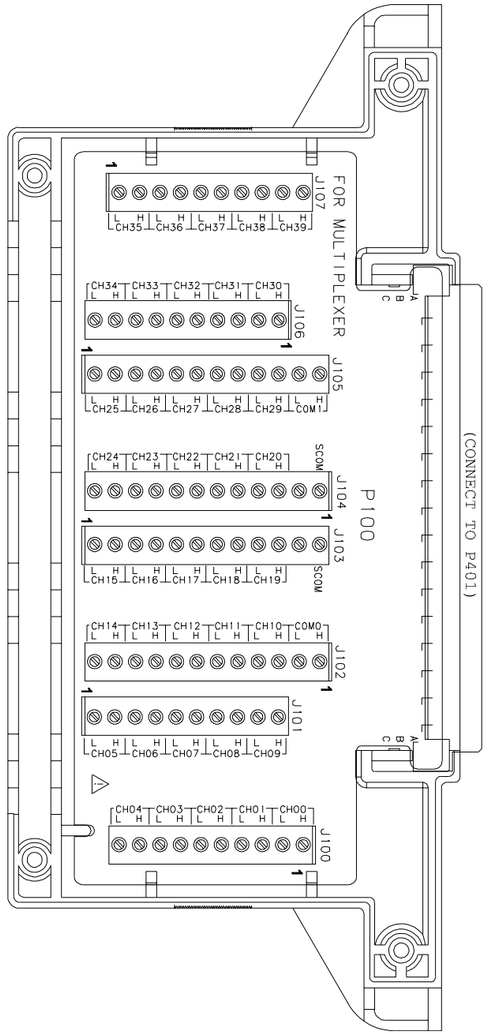
Agilent N2260A 40-Channel MUX Module
Schematic (Sheet 2 of 4)

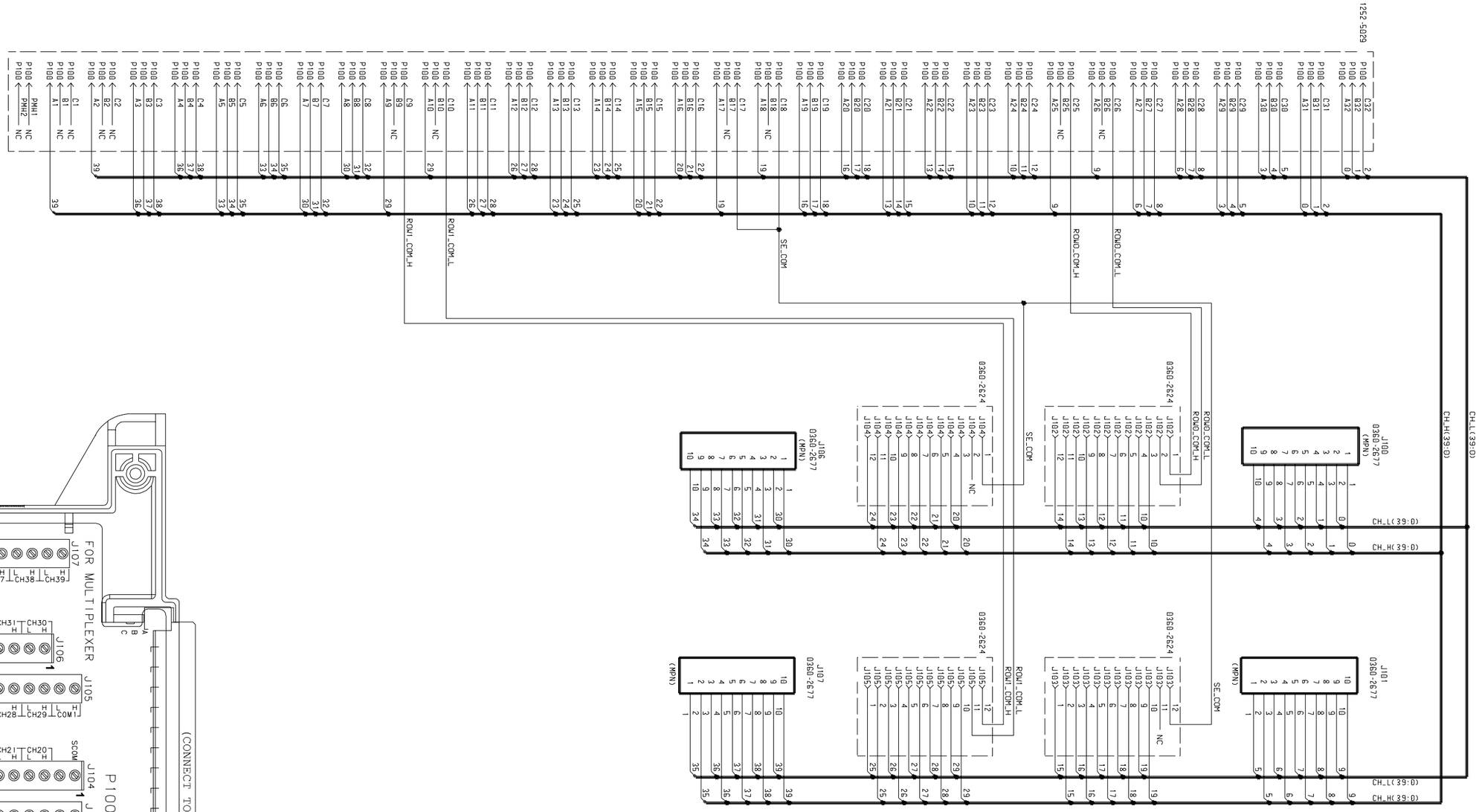


Relay Specification : 1A/200V

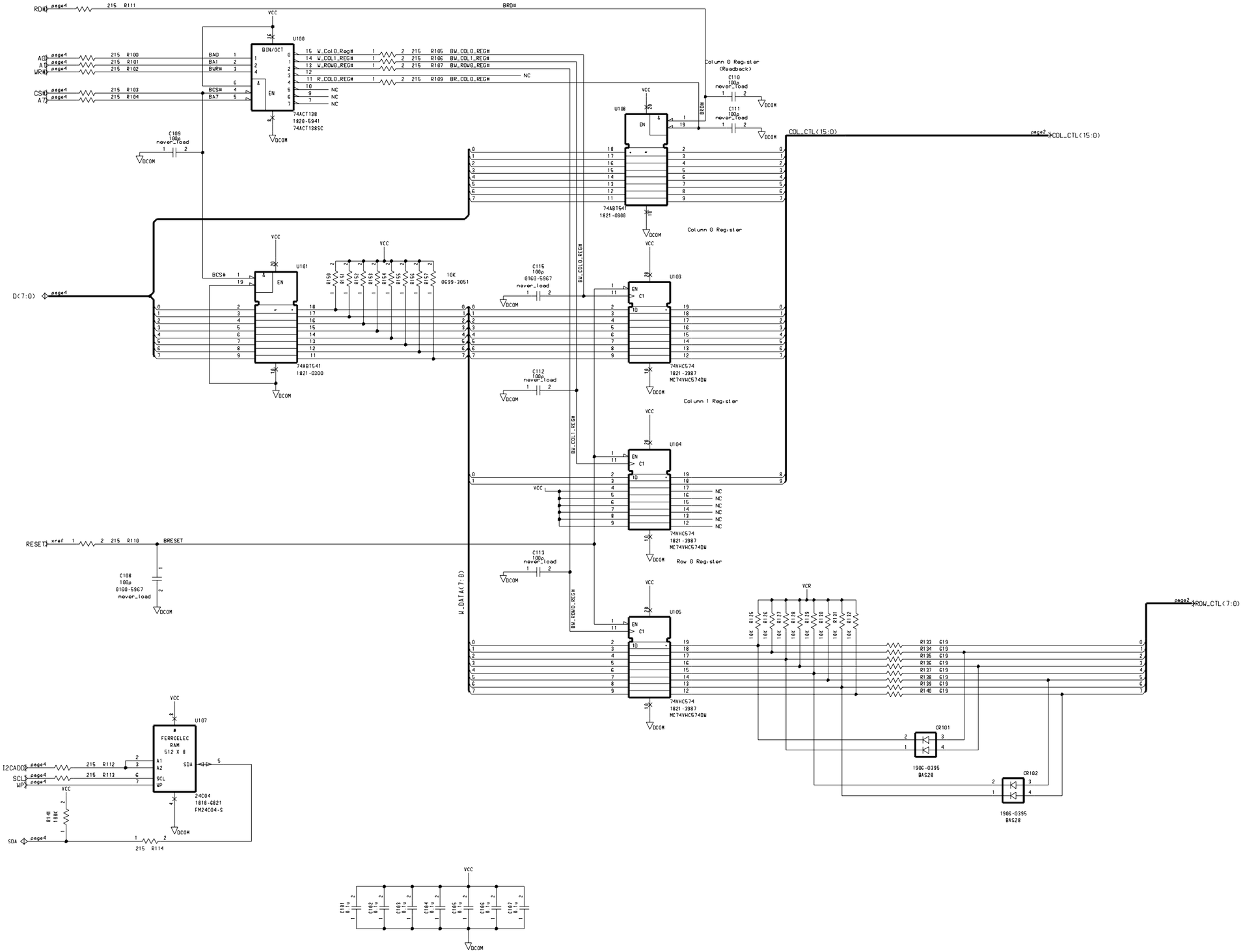


Agilent N2260A 40-Channel MUX Module
Schematic (Sheet 4 of 4)
Page 153


FOR MULTIPLEXER
J107
CH35 CH36 CH37 CH38 CH39
CH34 CH33 CH32 CH31 CH30
J106
J105
CH25 CH26 CH27 CH28 CH29 COM1
CH24 CH23 CH22 CH21 CH20
SCOM
J104
J103
CH15 CH16 CH17 CH18 CH19
CH14 CH13 CH12 CH11 CH10 COM0
J102
J101
CH05 CH06 CH07 CH08 CH09
CH04 CH03 CH02 CH01 CH00
J100
P100
(CONNECT TO P401)


1252-5029
P100
CH_L(39:0)
CH_H(39:0)
SE_COM
ROW0_COM_H
ROW0_COM_L
ROW1_COM_H
ROW1_COM_L
J100
J101
J102
J103
J104
J105
J106
J107
J108
(MPN)
D360-2624
D360-2677
NC

P400
P401
MH401
MH402
C403
L401
C402
C101
C102
C103
C104
C105
C106
C107
C108
C109
C110
C111
C112
C113
C115
C400
C401
L400
U101
U103
U104
U105
U107
U108
U100
R141
R114
R113
R110
R112
R111
R109
R107
R106
R105
R133
R125
R126
R134
R127
R135
R128
R136
R157
R156
R155
R154
R153
R152
R151
R150
R129
R137
R130
R138
R131
R139
R132
R140
C210
C201
C211
C202
C212
C203
C213
C204
Q220
Q221
Q222
Q223
CR240
CR241
CR242
CR243
CR101
CR102
CR200 CR201 CR202 CR203 CR204
CR209 CR208 CR207 CR206 CR205
CR210 CR211 CR212 CR213 CR214
CR219 CR218 CR217 CR216 CR215
CR220 CR221 CR222 CR223 CR224
CR229 CR228 CR227 CR226 CR225
CR230 CR231 CR232 CR233 CR234
CR239 CR238 CR237 CR236 CR235
R230 R220 Q200 Q210 CR244
R210 R200
R231 R221 Q201 Q211 CR245
R211 R201
R232 R222 Q202 Q212 CR246
R212 R202
R233 R223 Q203 Q213 CR247
R213 R203
R234 R224 Q204 Q214 CR248
R214 R204
R235 R225 Q205 Q215 CR249
R215 R205
R236 R226 Q206 Q216 CR250
R216 R206
R237 R227 Q207 Q217 CR251
R217 R207
R238 R228 Q208 Q218 CR252
R218 R208
R239 R229 Q209 Q219 CR253
R219 R209
C205
C206
C207
C208
C209
K304 K303 K302 K301 K300
K305 K306 K307 K308 K309
K314 K313 K312 K311 K310
K315 K316 K317 K318 K319
K324 K323 K322 K321 K320
K325 K326 K327 K328 K329
K334 K333 K332 K331 K330
K335 K336 K337 K338 K339



Agilent N2261A GP Relay Module
Schematic (Sheet 1 of 4)
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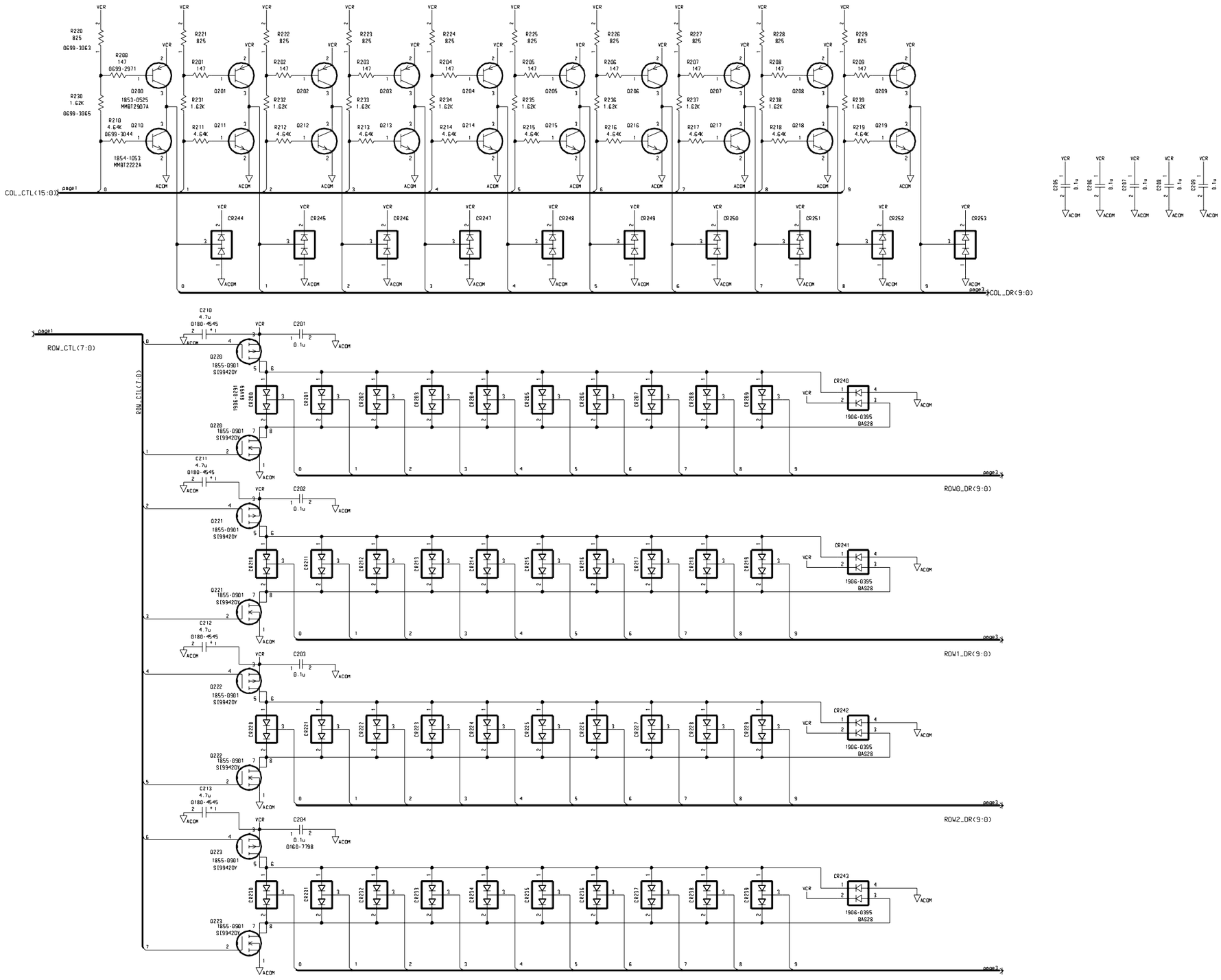
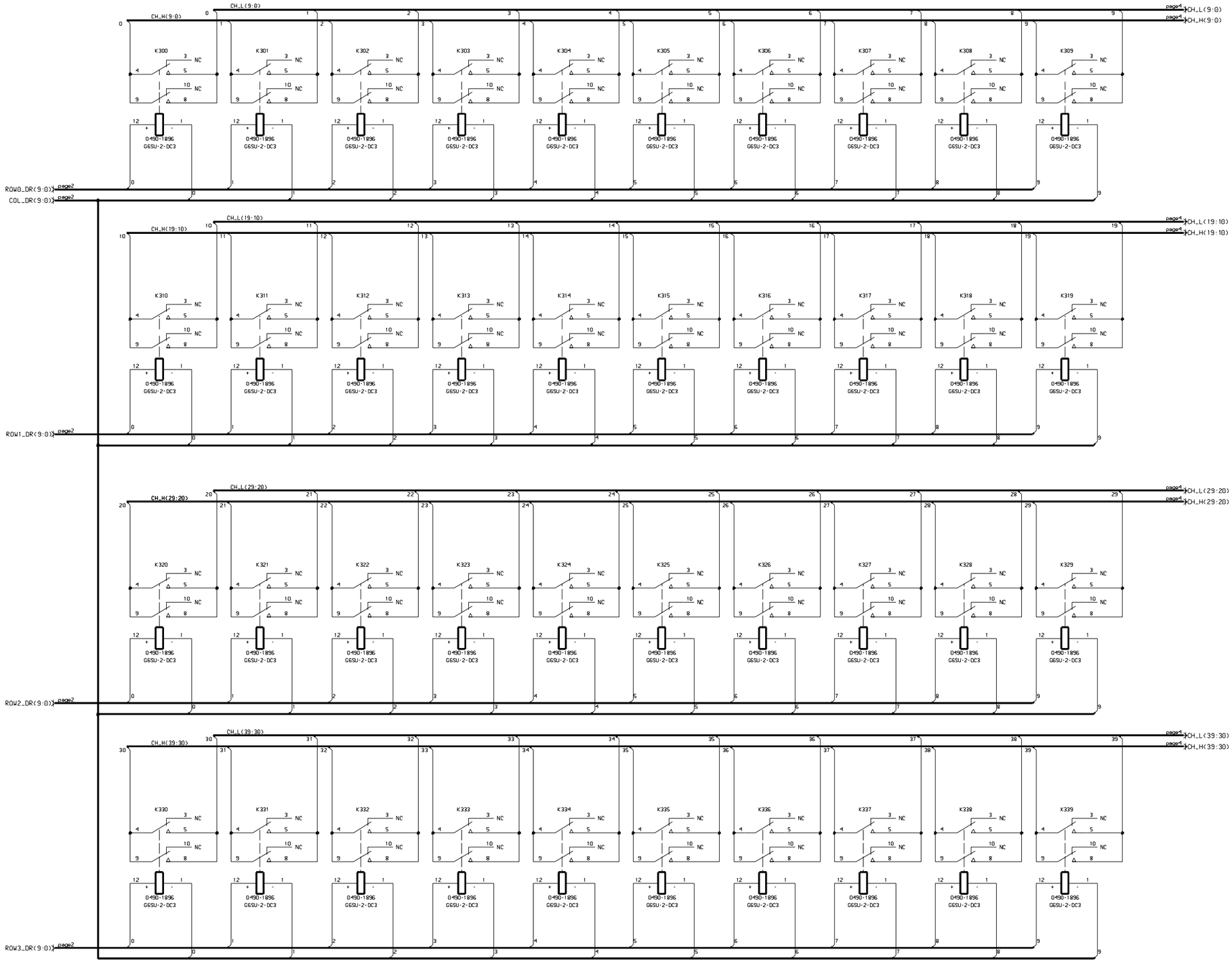
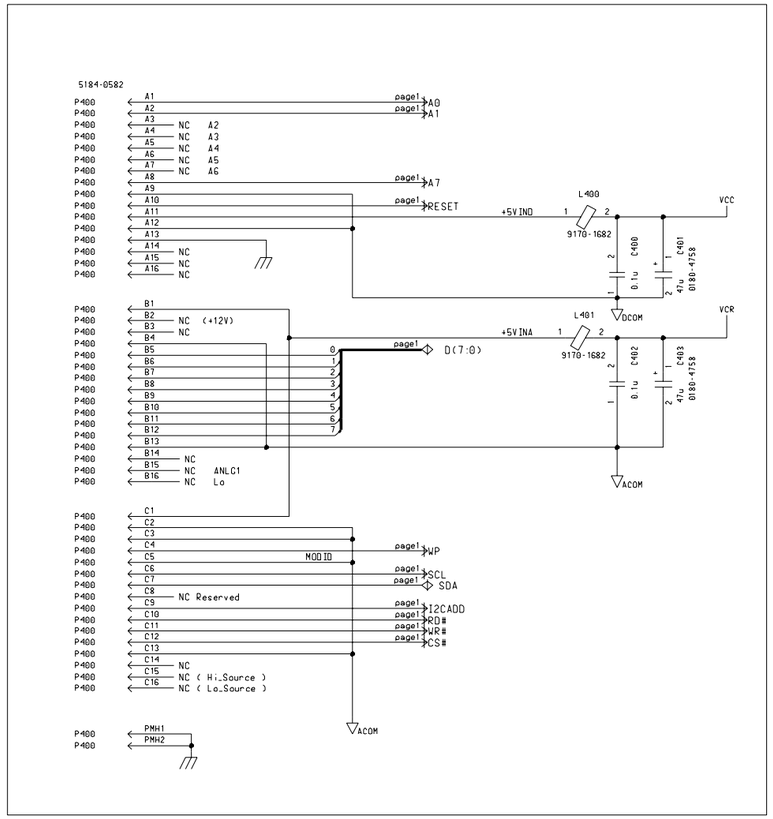
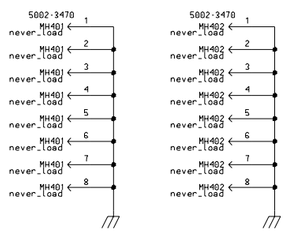

COL_CTL(15:0)
page1
COL_DR(9:0)
page3
ROW_CTL(7:0)
ROW0_DR(9:0)
ROW1_DR(9:0)
ROW2_DR(9:0)
ROW3_DR(9:0)
VCR
ACOM
1906-0395
BAS28
1855-0901
SI9942DY
1853-0525
MMBT2907A
1854-1053
MMBT2222A


CH_L(9:0)
CH_H(9:0)
page4
page4
K300
K301
K302
K303
K304
K305
K306
K307
K308
K309
3 NC
10 NC
0490-1896
G6SU-2-DC3
ROW0_DR(9:0)
COL_DR(9:0)
page2
page2
CH_L(19:10)
CH_H(19:10)
page4
page4
K310
K311
K312
K313
K314
K315
K316
K317
K318
K319
ROW1_DR(9:0)
page2
CH_L(29:20)
CH_H(29:20)
page4
page4
K320
K321
K322
K323
K324
K325
K326
K327
K328
K329
ROW2_DR(9:0)
page2
CH_L(39:30)
CH_H(39:30)
page4
page4
K330
K331
K332
K333
K334
K335
K336
K337
K338
K339
ROW3_DR(9:0)
page2

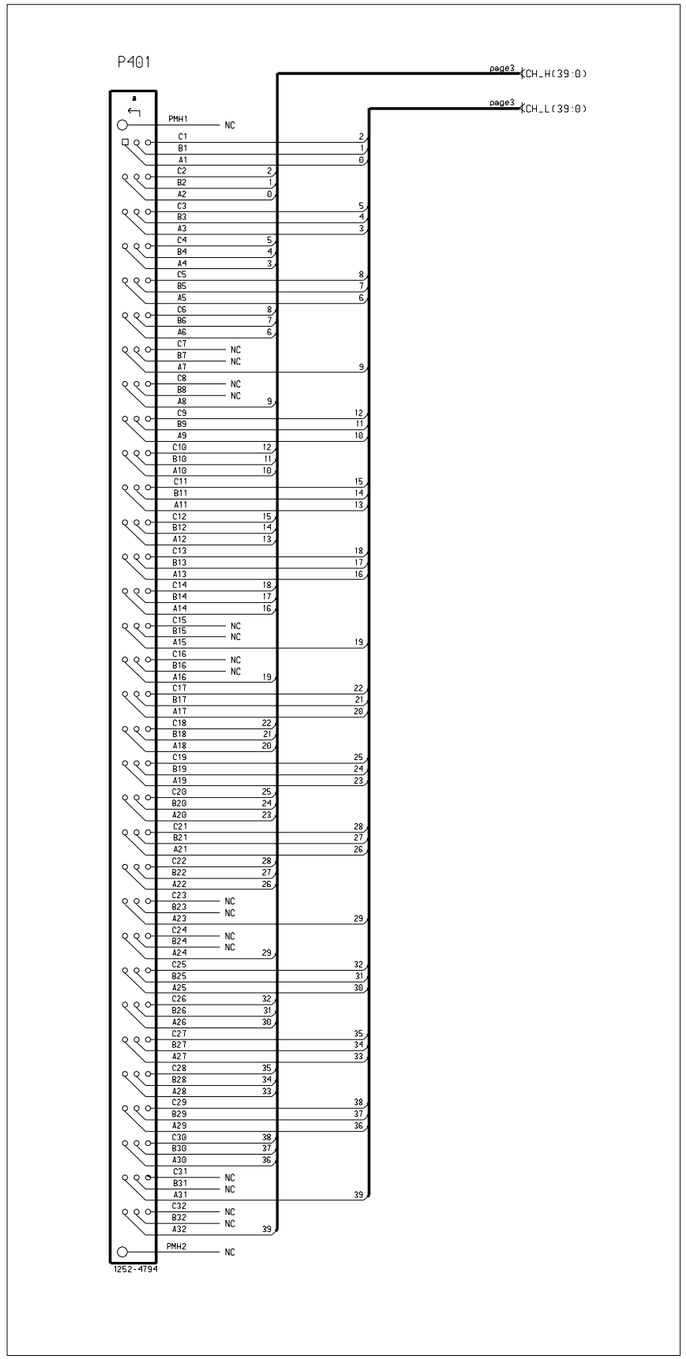
Backplane Connector

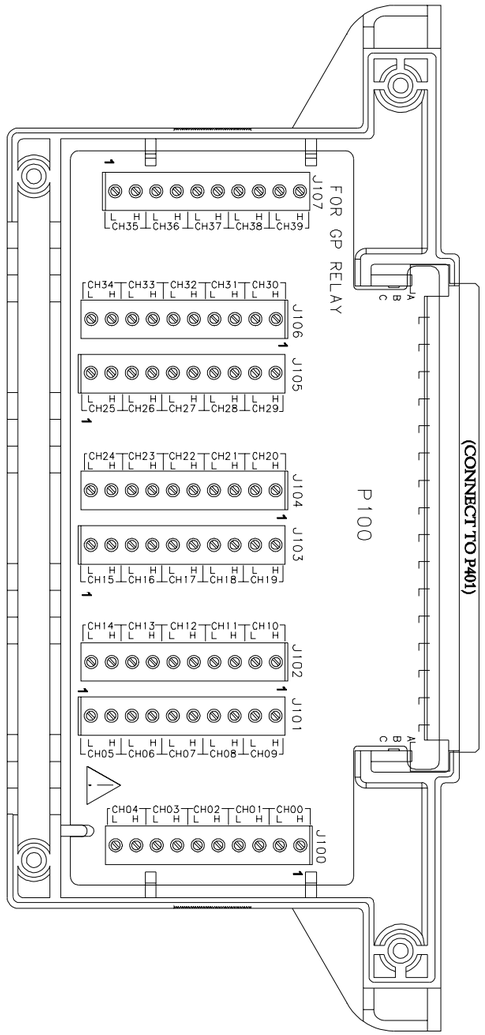


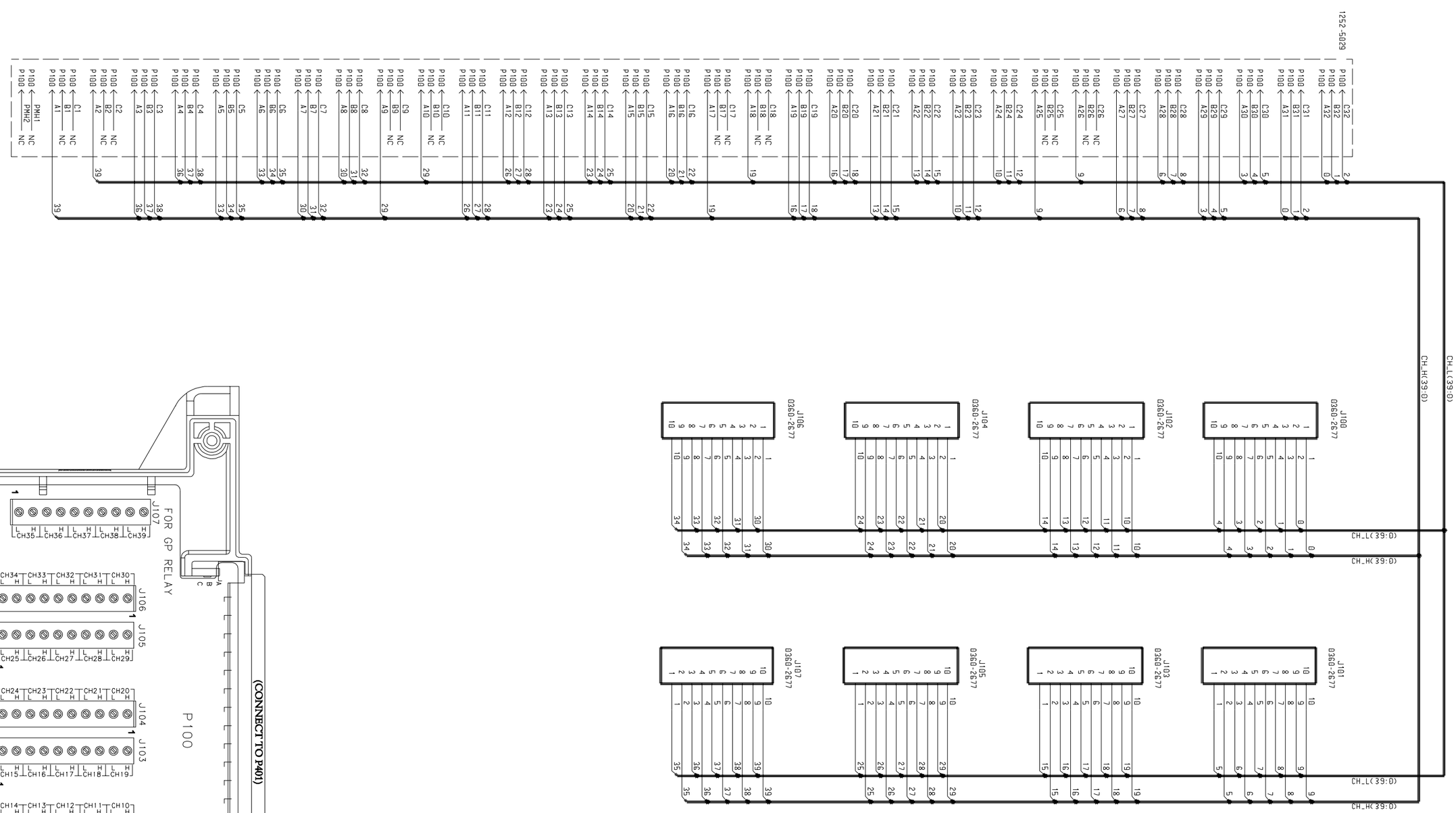
Two Mounting Holes

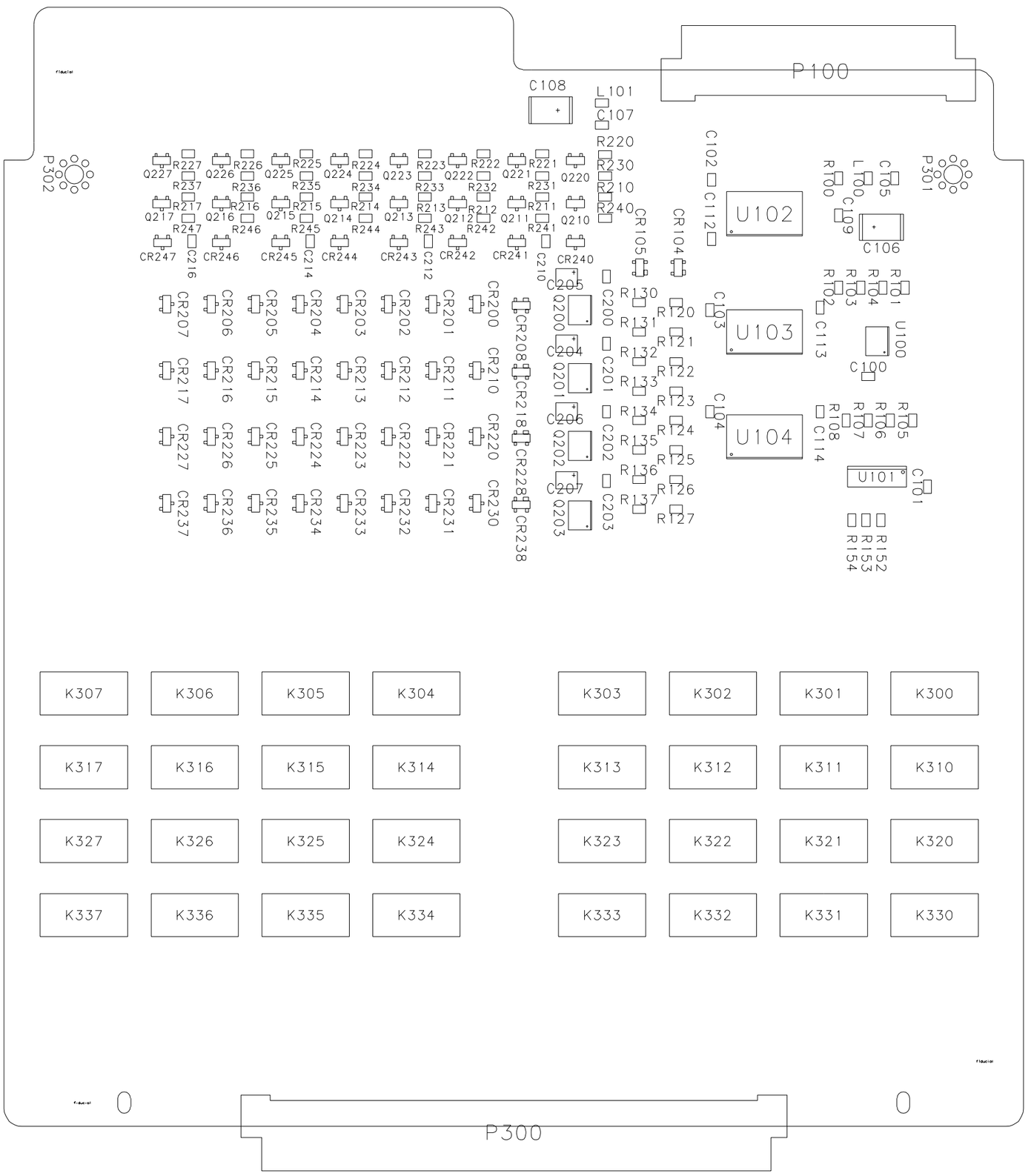


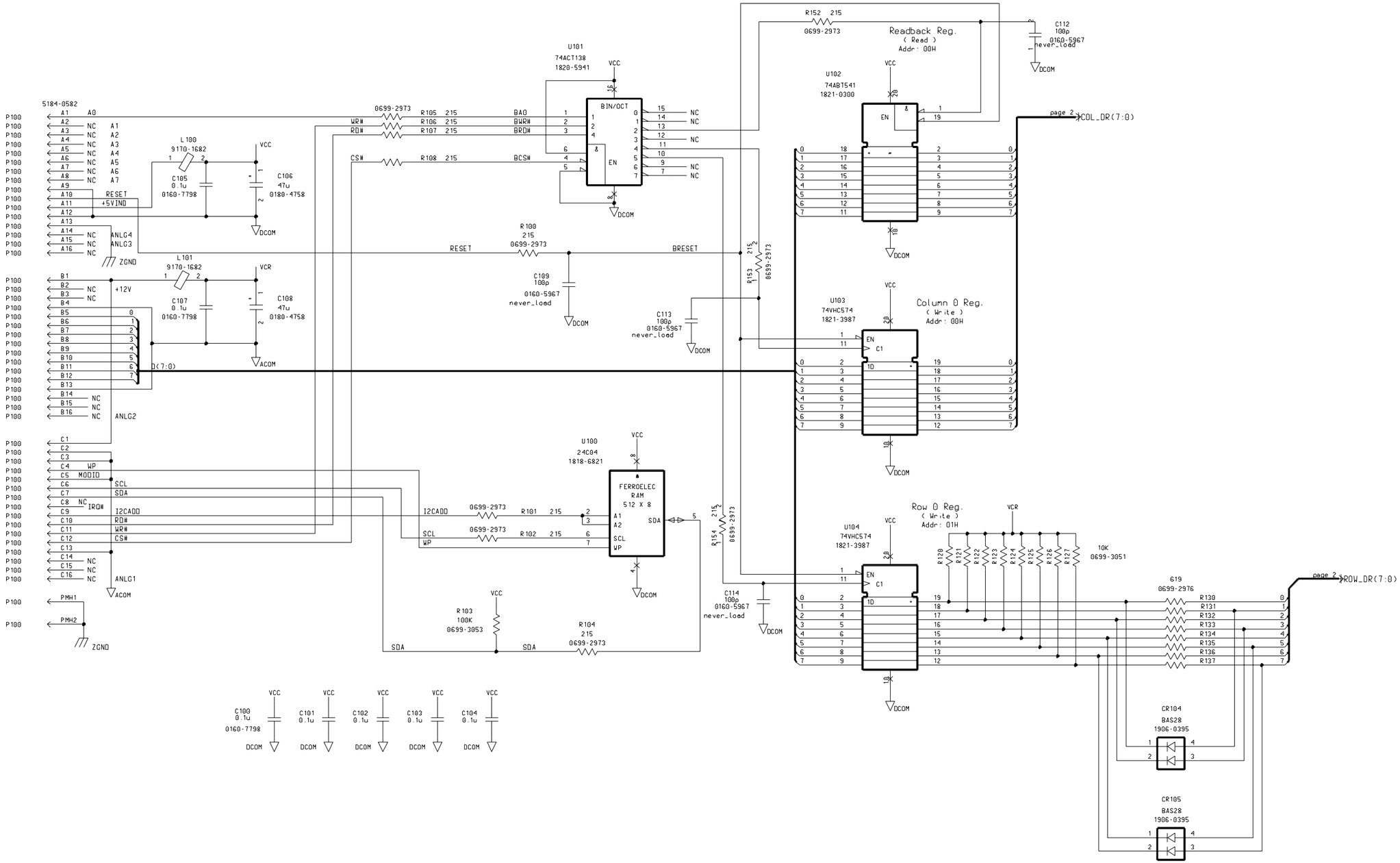
Front Connector




FOR GP RELAY
J107
CH35 CH36 CH37 CH38 CH39
J106
CH34 CH33 CH32 CH31 CH30
J105
CH25 CH26 CH27 CH28 CH29
J104
CH24 CH23 CH22 CH21 CH20
J103
CH15 CH16 CH17 CH18 CH19
J102
CH14 CH13 CH12 CH11 CH10
J101
CH05 CH06 CH07 CH08 CH09
J100
CH04 CH03 CH02 CH01 CH00
P100
(CONNECT TO P401)


1252-5029
P100
C32 B32 A32
C31 B31 A31
C30 B30 A30
C29 B29 A29
C28 B28 A28
C27 B27 A27
C26 B26 A26 NC
C25 B25 A25 NC
C24 B24 A24
C23 B23 A23
C22 B22 A22
C21 B21 A21
C20 B20 A20
C19 B19 A19
C18 B18 A18 NC
C17 B17 A17 NC
C16 B16 A16
C15 B15 A15
C14 B14 A14
C13 B13 A13
C12 B12 A12
C11 B11 A11
C10 B10 A10 NC
C9 B9 A9 NC
C8 B8 A8
C7 B7 A7
C6 B6 A6
C5 B5 A5
C4 B4 A4
C3 B3 A3
C2 B2 A2 NC
C1 B1 A1 NC
PMH1 PMH2 NC
CH_H(39:0)
CH_L(39:0)
J100
D360-2677
J102
D360-2677
J104
D360-2677
J106
D360-2677
J101
D360-2677
J103
D360-2677
J105
D360-2677
J107
D360-2677
CH_L(39:0)
CH_H(39:0)
CH_L(39:0)
CH_H(39:0)


P100
P300
P301
P302
U100
U101
U102
U103
U104
C108
L101
C107
R220
R230
R210
R240
C102
C112
C105
L100
C109
C106
C103
C113
C104
C114
C101
R100
R101
R102
R103
R104
R105
R106
R107
R108
R152
R153
R154
C100
CR104
CR105
C200
C201
C202
C203
R130
R131
R132
R133
R134
R135
R136
R137
R120
R121
R122
R123
R124
R125
R126
R127
C205
C204
C206
C207
Q200
Q201
Q202
Q203
CR208
CR218
CR228
CR238
CR200
CR210
CR220
CR230
CR201
CR211
CR221
CR231
CR202
CR212
CR222
CR232
CR203
CR213
CR223
CR233
CR204
CR214
CR224
CR234
CR205
CR215
CR225
CR235
CR206
CR216
CR226
CR236
CR207
CR217
CR227
CR237
R227
R226
R225
R224
R223
R222
R221
R220
Q227
Q226
Q225
Q224
Q223
Q222
Q221
Q220
R237
R236
R235
R234
R233
R232
R231
R230
R217
R216
R215
R214
R213
R212
R211
R210
Q217
Q216
Q215
Q214
Q213
Q212
Q211
Q210
R247
R246
R245
R244
R243
R242
R241
R240
CR247
CR246
CR245
CR244
CR243
CR242
CR241
CR240
C216
C214
C212
C210
K307
K306
K305
K304
K303
K302
K301
K300
K317
K316
K315
K314
K313
K312
K311
K310
K327
K326
K325
K324
K323
K322
K321
K320
K337
K336
K335
K334
K333
K332
K331
K330



Agilent N2262A 4 x 8 Matrix Module
Schematic (Sheet 1 of 3)
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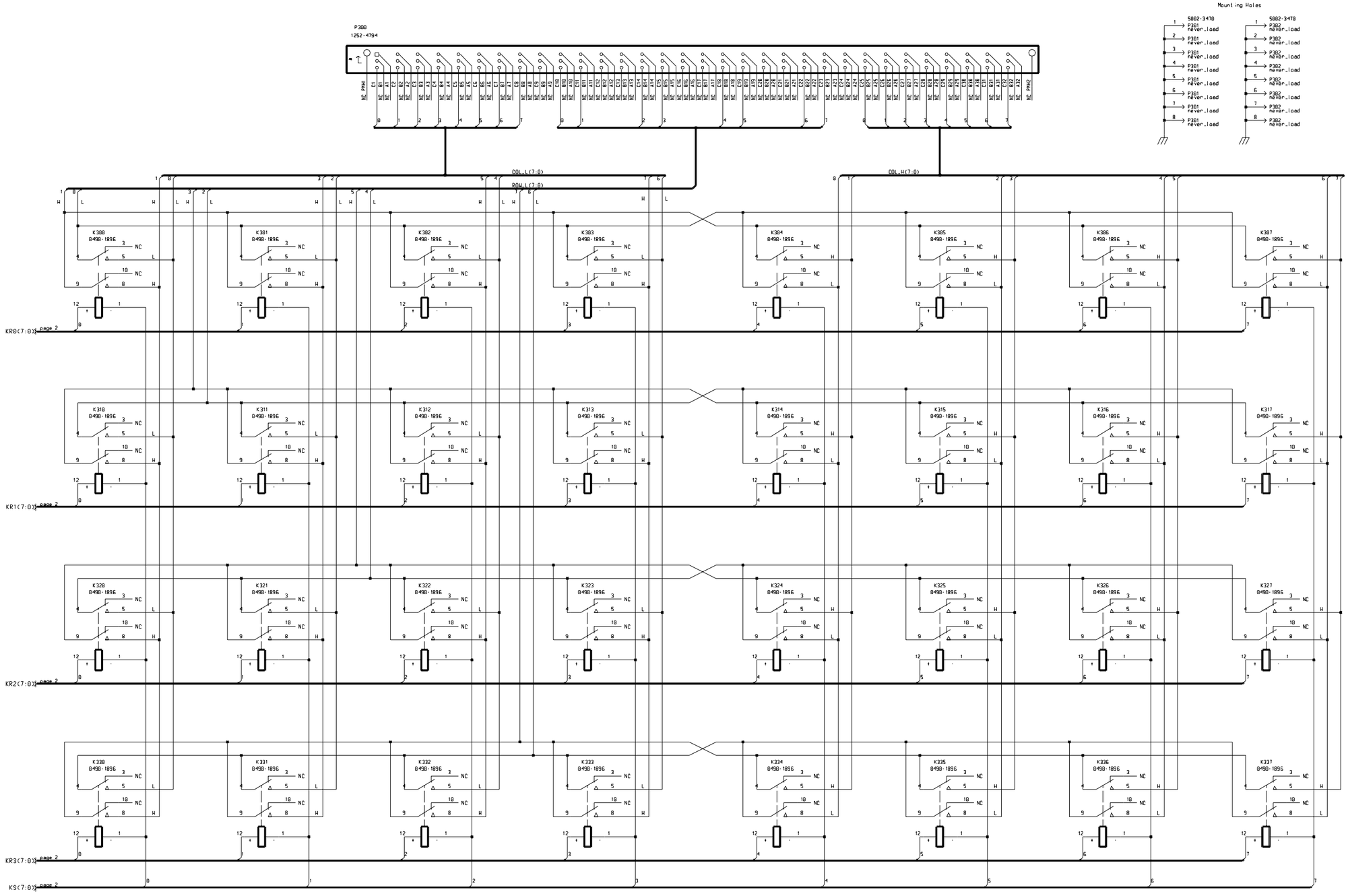
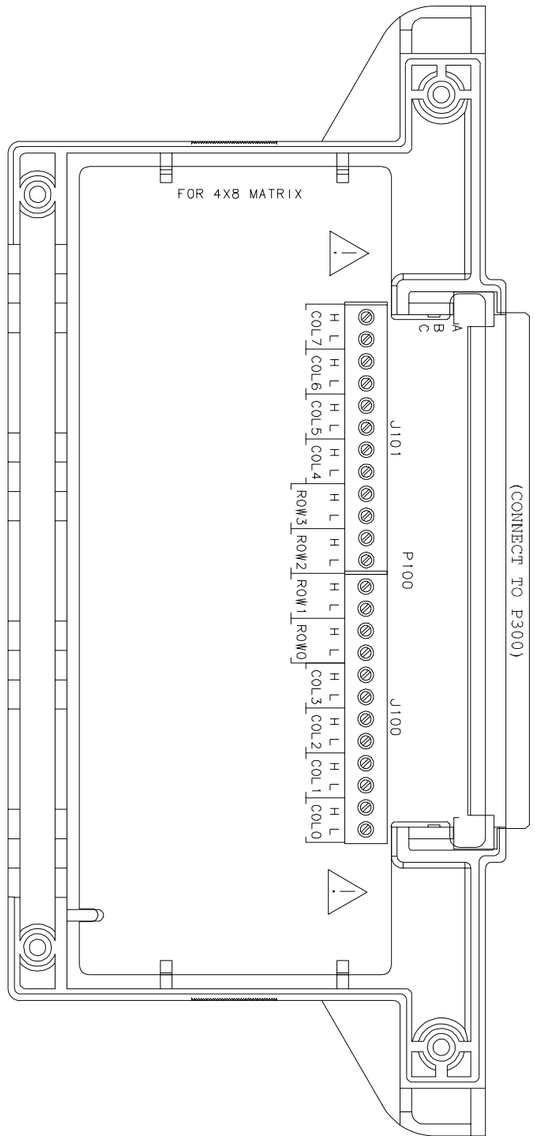
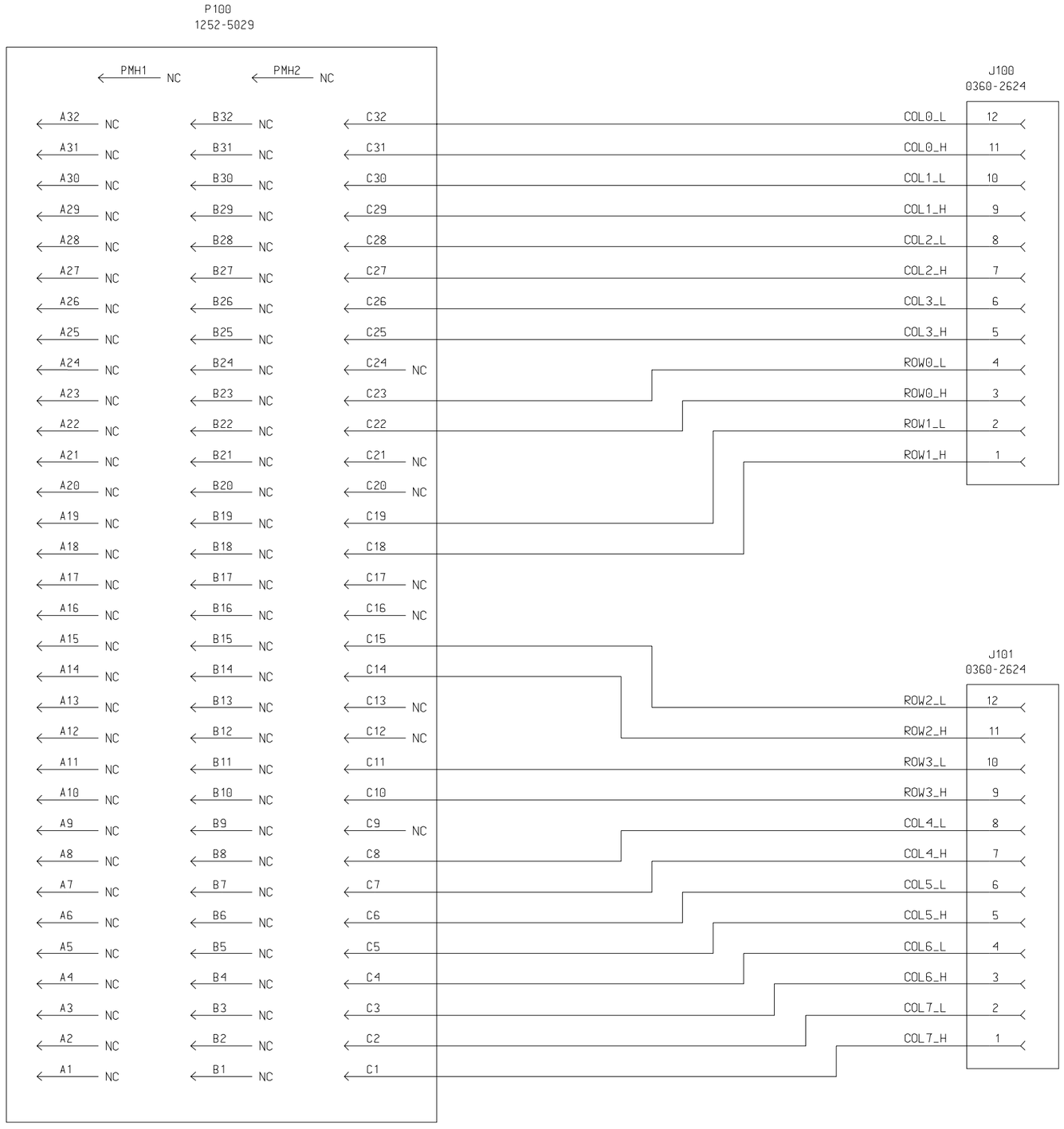
Note:

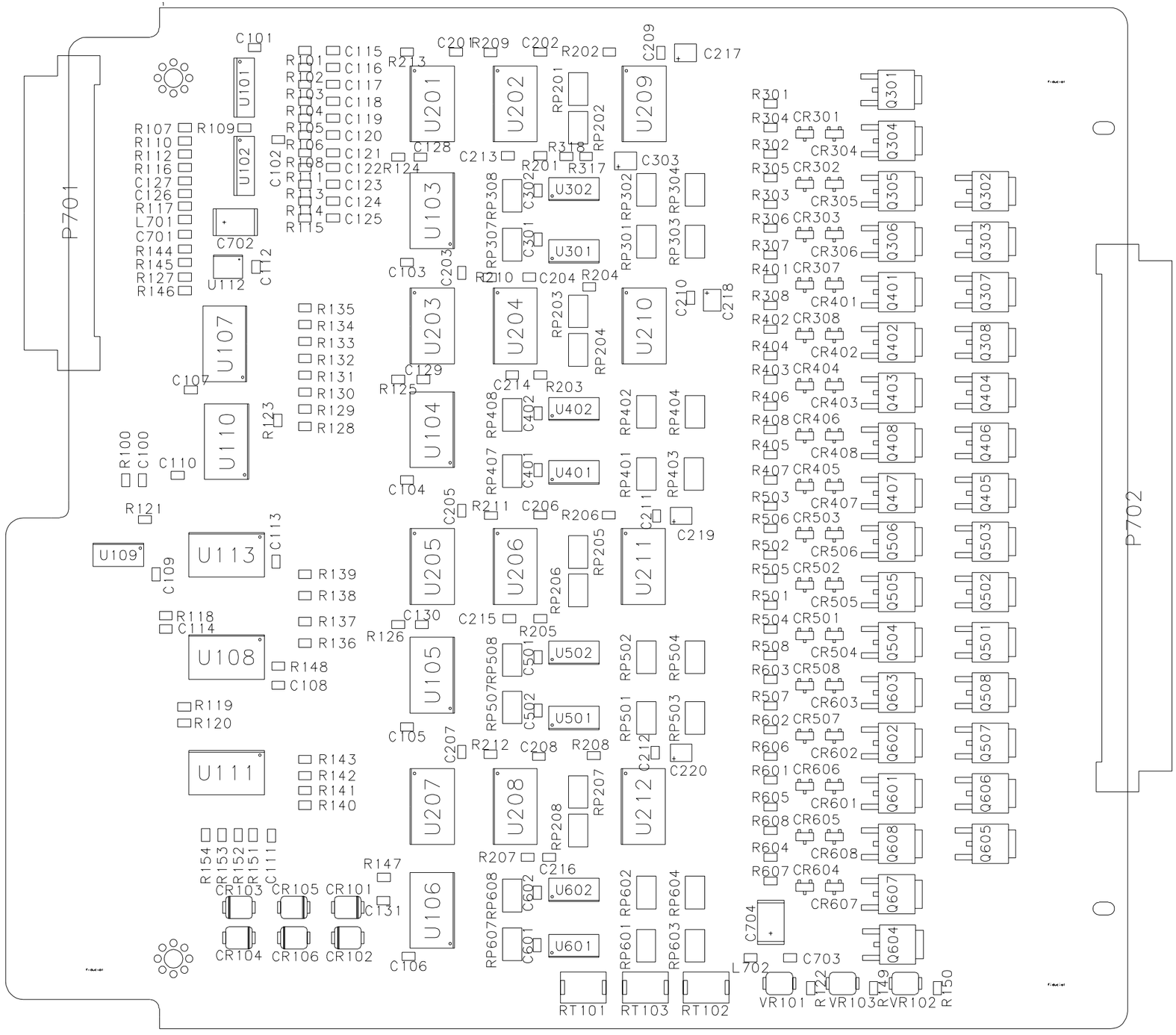
Digital signals should be as far away as possible from RELAY TRACES

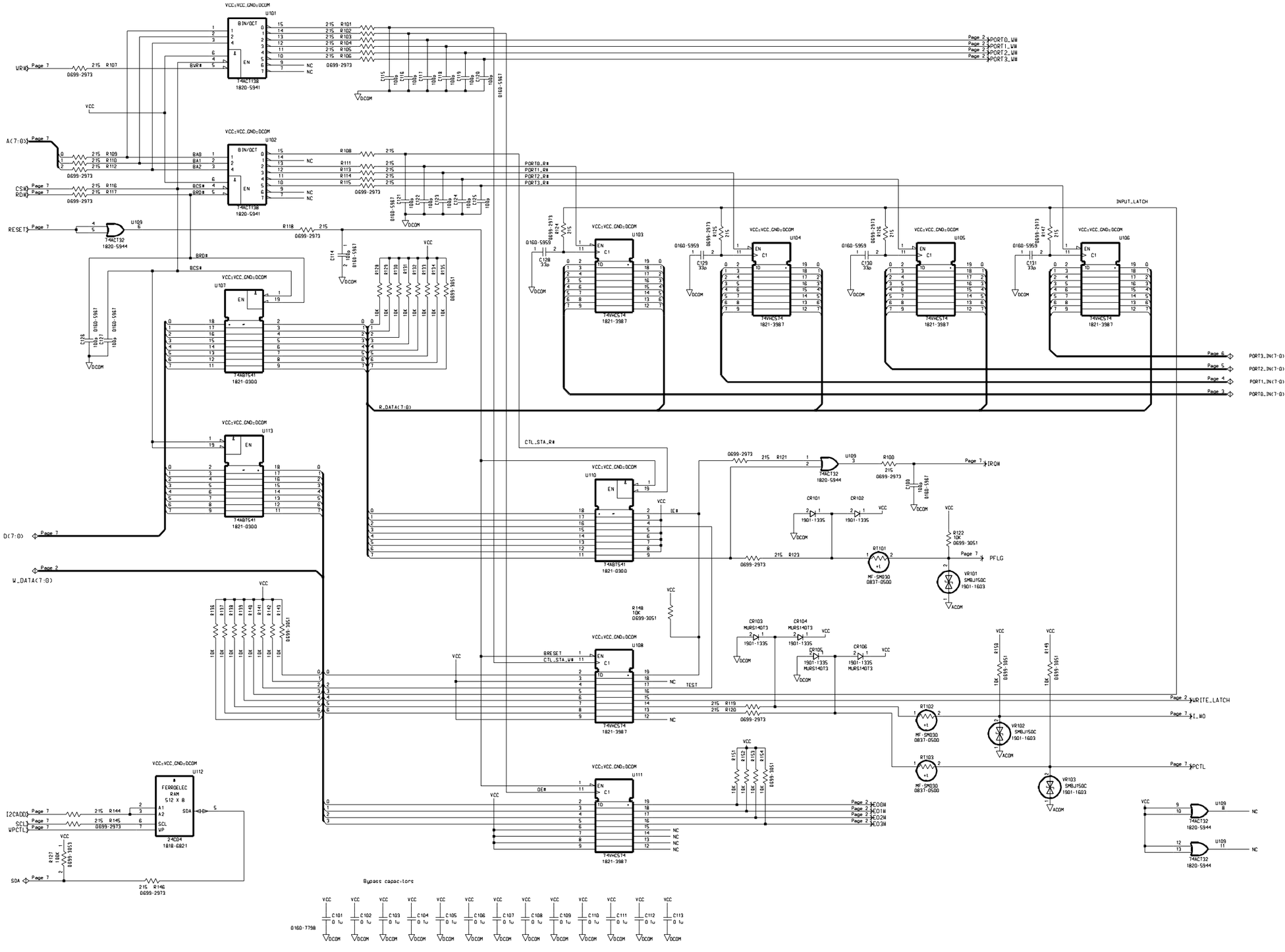


Relay Specification : 1A/200V


FOR 4X8 MATRIX
J101
P100
J100
(CONNECT TO P300)
COL7
COL6
COL5
COL4
ROW3
ROW2
ROW1
ROW0
COL3
COL2
COL1
COL0


P100
1252-5029
PMH1
PMH2
J100
0360-2624
COL0_L
COL0_H
COL1_L
COL1_H
COL2_L
COL2_H
COL3_L
COL3_H
ROW0_L
ROW0_H
ROW1_L
ROW1_H
J101
0360-2624
ROW2_L
ROW2_H
ROW3_L
ROW3_H
COL4_L
COL4_H
COL5_L
COL5_H
COL6_L
COL6_H
COL7_L
COL7_H


P701
P702
U101
U102
U107
U110
U113
U108
U111
U109
U112
U201
U202
U209
U103
U302
U301
U203
U204
U210
U104
U402
U401
U205
U206
U211
U105
U502
U501
U207
U208
U212
U106
U602
U601
C101
C102
C103
C104
C105
C106
C107
C108
C109
C110
C111
C112
C113
C114
C115
C116
C117
C118
C119
C120
C121
C122
C123
C124
C125
C126
C127
C128
C129
C130
C131
C201
C202
C203
C204
C205
C206
C207
C208
C209
C210
C211
C212
C213
C214
C215
C216
C217
C218
C219
C220
C301
C302
C303
C401
C402
C501
C502
C601
C602
C701
C702
C703
C704
R100
R101
R102
R103
R104
R105
R106
R107
R108
R109
R110
R111
R112
R113
R114
R115
R116
R117
R118
R119
R120
R121
R123
R124
R125
R126
R127
R128
R129
R130
R131
R132
R133
R134
R135
R136
R137
R138
R139
R140
R141
R142
R143
R144
R145
R146
R147
R148
R151
R152
R153
R154
R201
R202
R203
R204
R205
R206
R207
R208
R209
R210
R211
R212
R213
R301
R302
R303
R304
R305
R306
R307
R308
R317
R318
R401
R402
R403
R404
R405
R406
R407
R408
R501
R502
R503
R504
R505
R506
R507
R508
R601
R602
R603
R604
R605
R606
R607
R608
L701
L702
RP201
RP202
RP203
RP204
RP205
RP206
RP207
RP208
RP301
RP302
RP303
RP304
RP307
RP308
RP401
RP402
RP403
RP404
RP407
RP408
RP501
RP502
RP503
RP504
RP507
RP508
RP601
RP602
RP603
RP604
RP607
RP608
Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q308
Q401
Q402
Q403
Q404
Q405
Q406
Q407
Q408
Q501
Q502
Q503
Q504
Q505
Q506
Q507
Q508
Q601
Q602
Q603
Q604
Q605
Q606
Q607
Q608
CR101
CR102
CR103
CR104
CR105
CR106
CR301
CR302
CR303
CR304
CR305
CR306
CR307
CR308
CR401
CR402
CR403
CR404
CR405
CR406
CR407
CR408
CR501
CR502
CR503
CR504
CR505
CR506
CR507
CR508
CR601
CR602
CR603
CR604
CR605
CR606
CR607
CR608
RT101
RT102
RT103
VR101
VR102
VR103
R122
R149
R150



Agilent N2263A 32-Bit Digital I/O Module
Schematic (Sheet 1 of 7)
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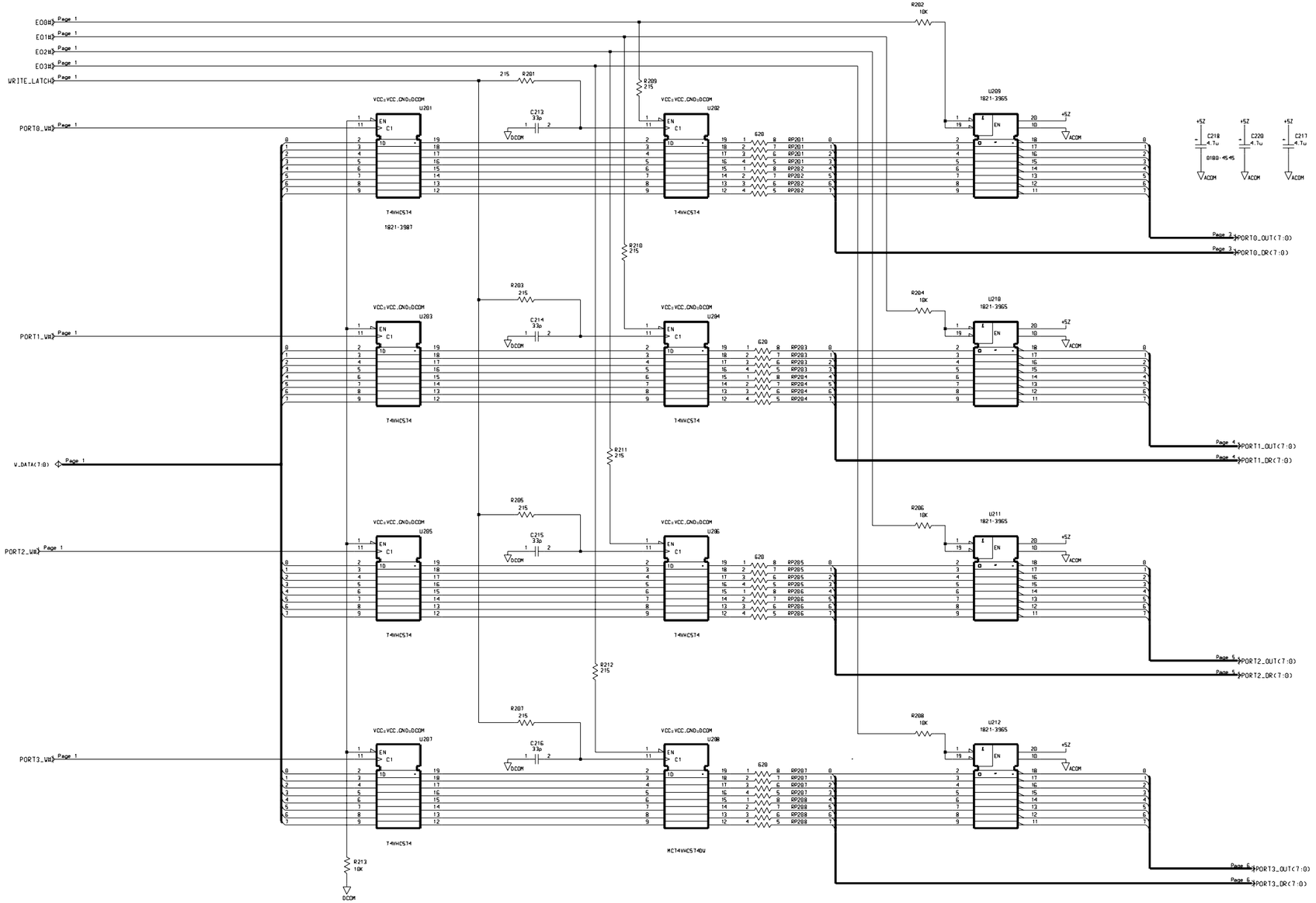
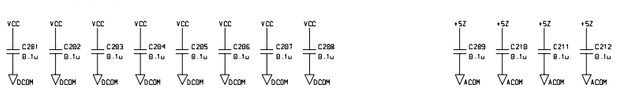
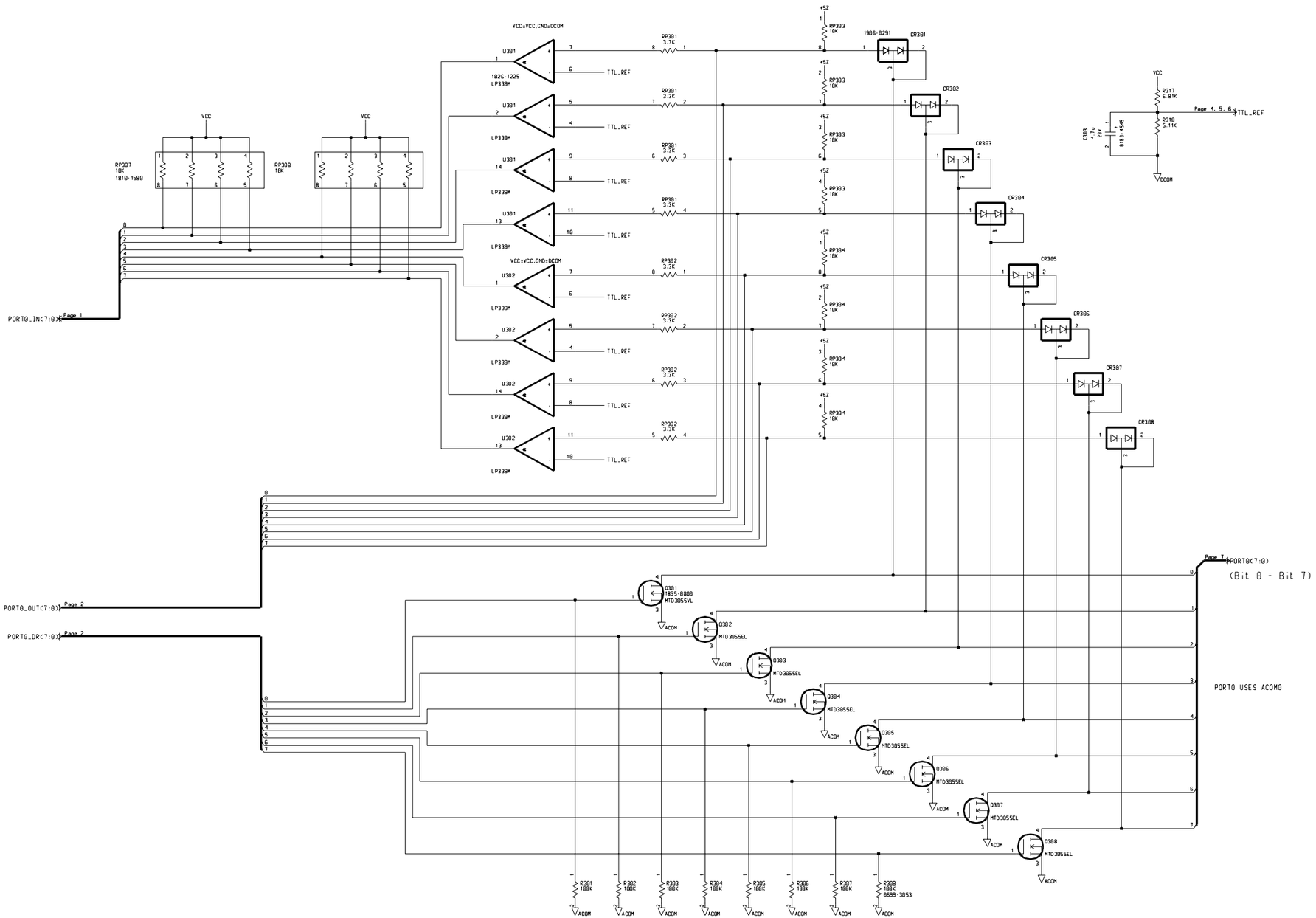
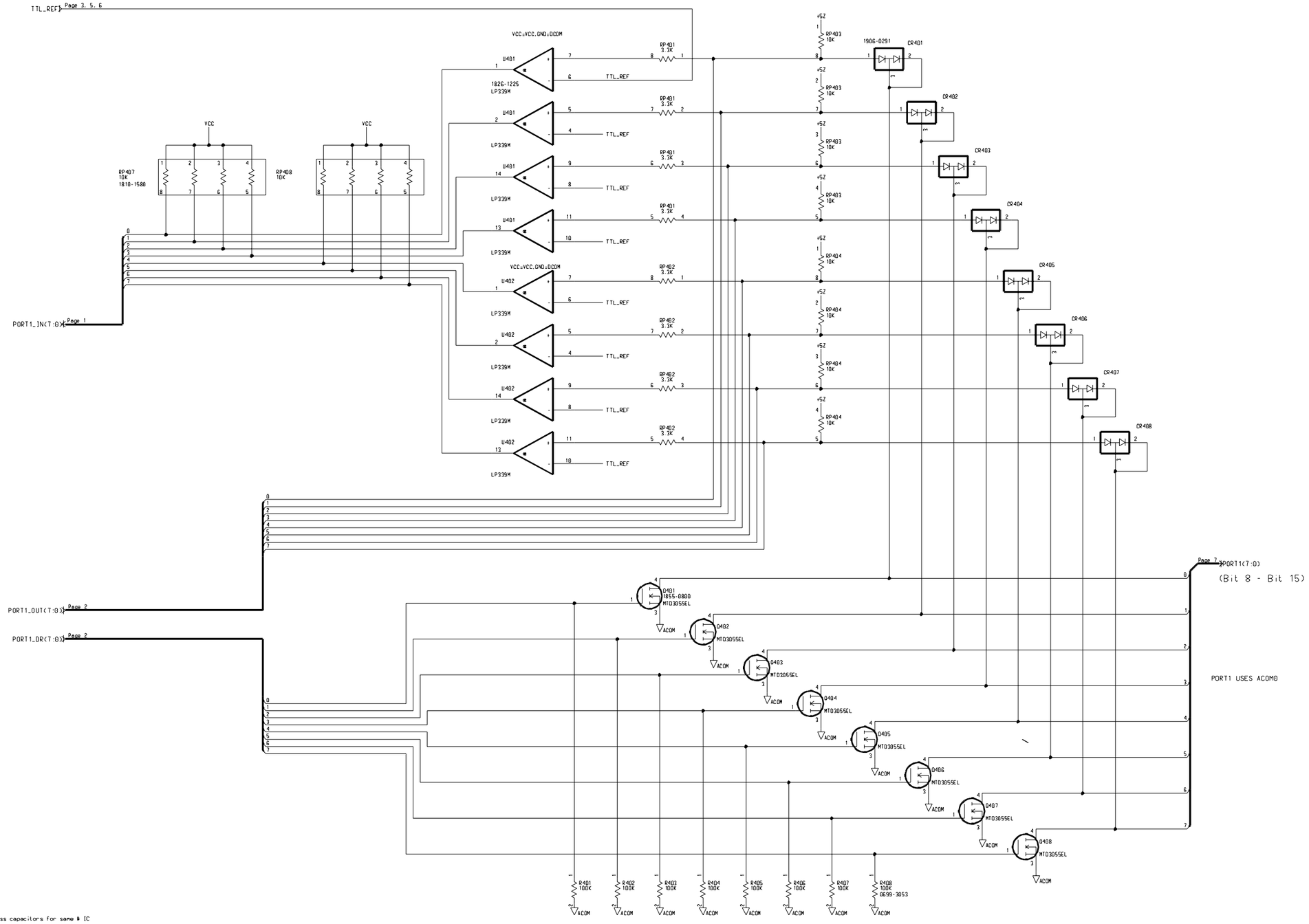
OUTPUT LATCHES & HIGH DRIVERS

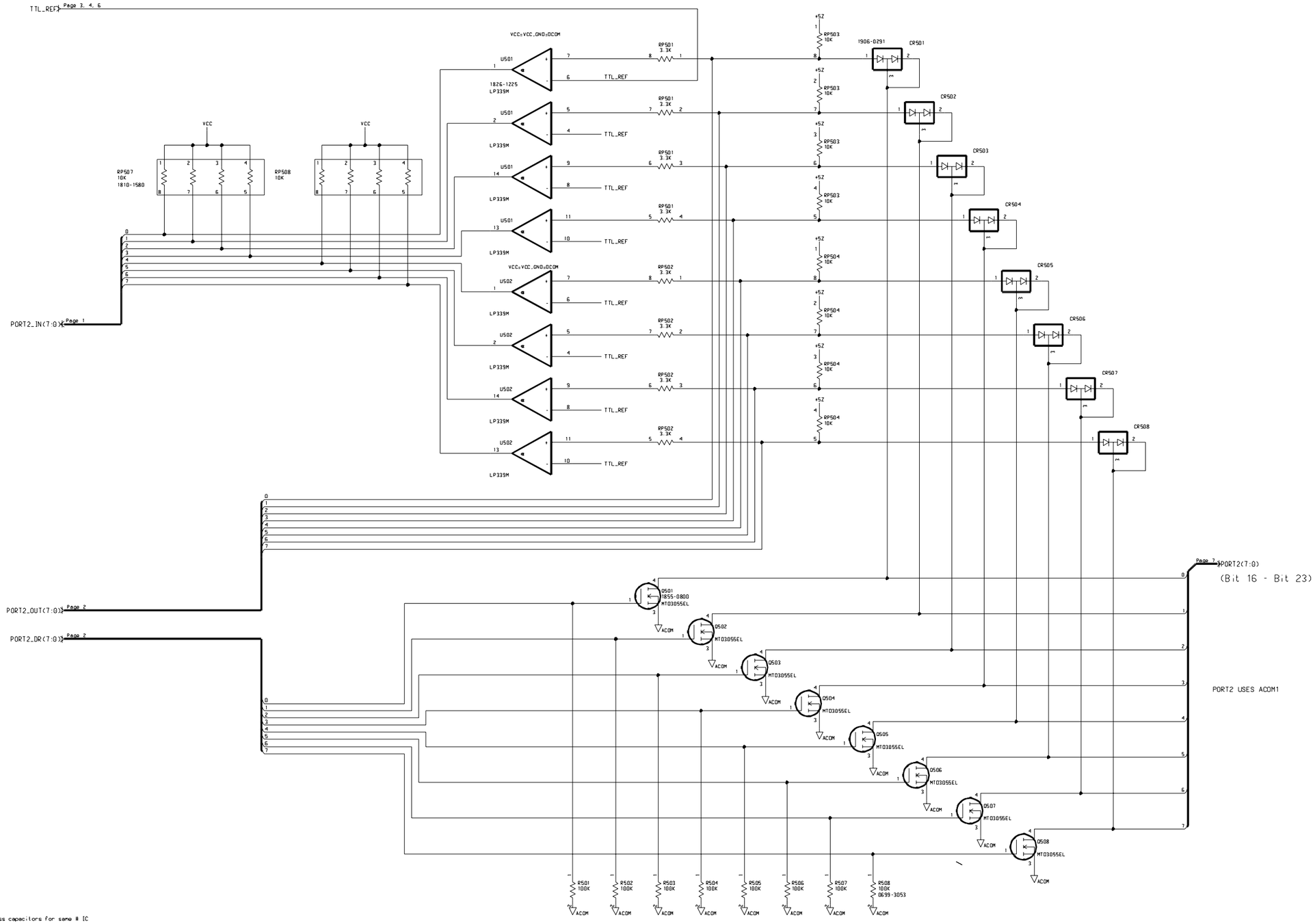


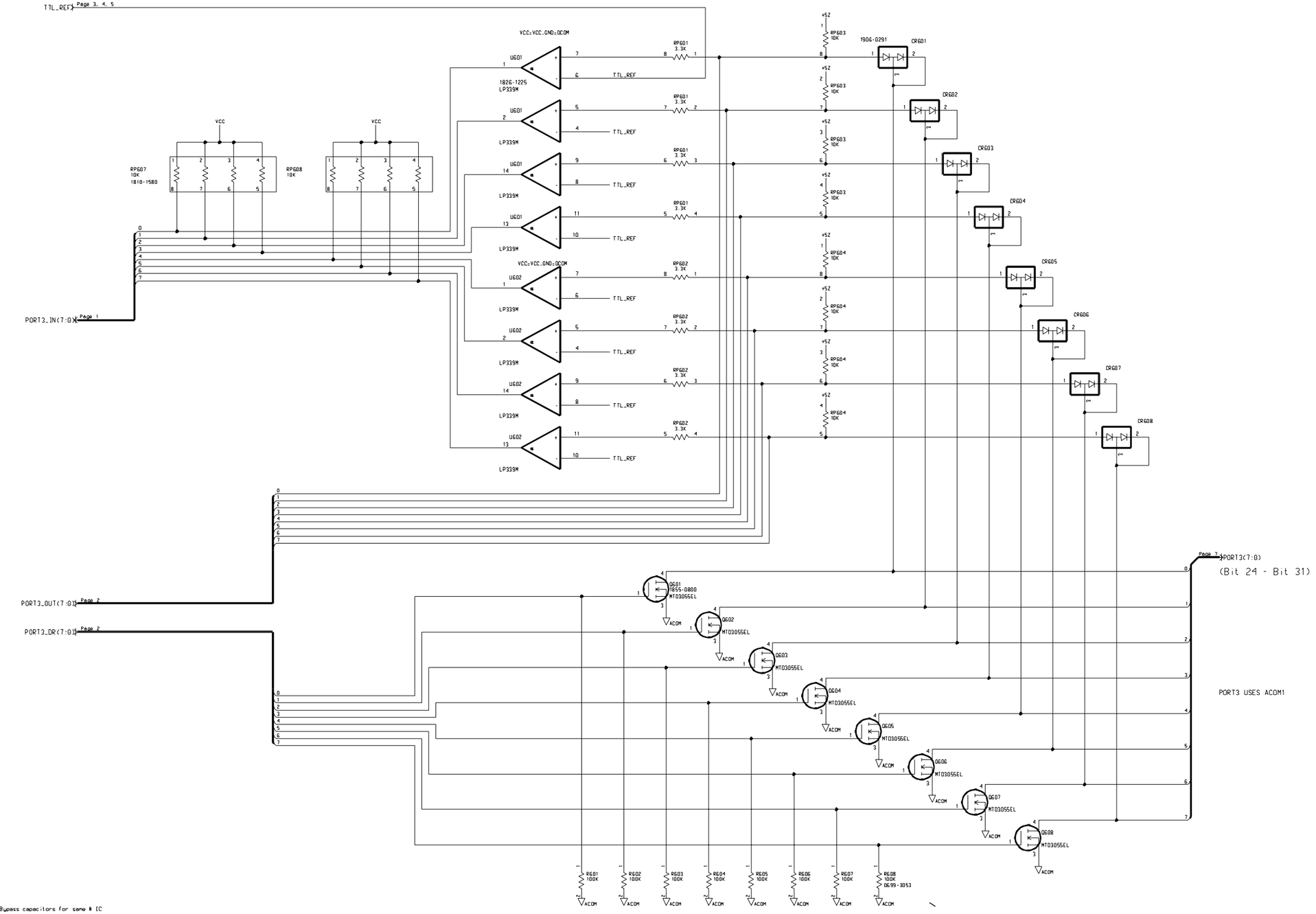
Bypass capacitors



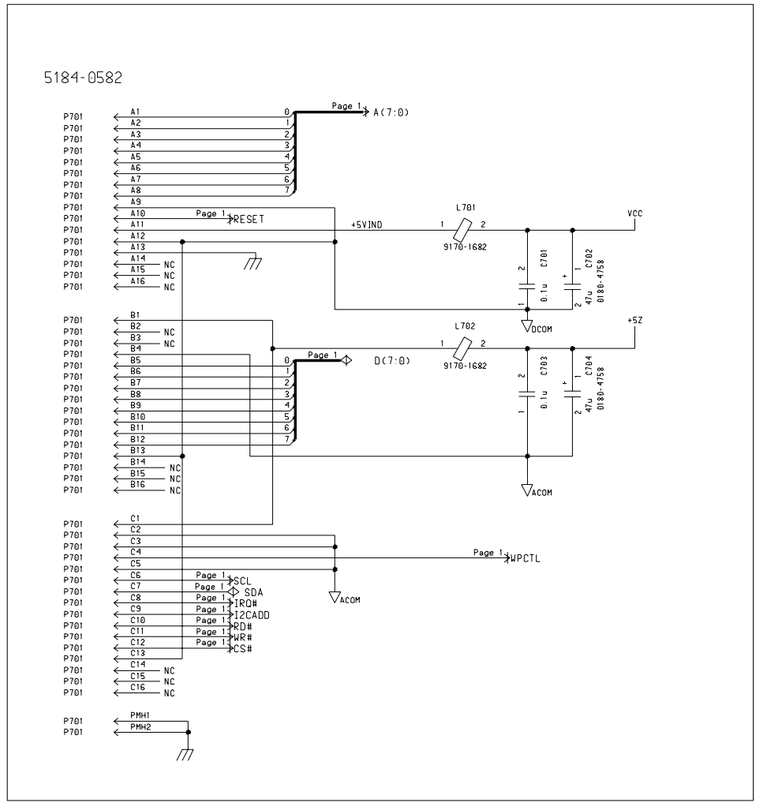

VCC=VCC,GND=DCOM
U301
1826-1225
LP339M
RP301
3.3K
TTL_REF
RP303
10K
+5Z
1906-0291
CR301
CR302
CR303
CR304
CR305
CR306
CR307
CR308
VCC
RP307
10K
1810-1580
RP308
10K
PORT0_IN(7:0)
Page 1
U302
RP302
RP304
RP317
6.81K
RP318
5.11K
Page 4, 5, 6
TTL_REF
C383
4.7u
20V
0180-4545
DCOM
PORT0_OUT(7:0)
Page 2
PORT0_DR(7:0)
Page 2
Q301
1855-0800
MTD3055VL
ACOM
Q302
MTD3055EL
Q303
Q304
Q305
Q306
Q307
Q308
R301
100K
R302
R303
R304
R305
R306
R307
R308
0699-3953
Page 7
PORT0(7:0)
(Bit 0 - Bit 7)
PORT0 USES ACOM0
Bypass capacitors for same # IC
C301
0.1u
DCOM
C302
0.1u
0160-7798


TTL_REF
Page 3, 5, 6
VCC=VCC, GND=DCOM
U401
1826-1225
LP339M
RP401
3.3K
RP403
10K
1986-0291
CR401
CR402
CR403
CR404
CR405
CR406
CR407
CR408
VCC
RP407
10K
1810-1580
RP408
10K
PORT1_IN<7:0>
Page 1
U402
RP402
PORT1_OUT<7:0>
Page 2
PORT1_DR<7:0>
Page 2
Q401
1855-0800
MTD3055EL
Q402
Q403
Q404
Q405
Q406
Q407
Q408
ACOM
R401
100K
R402
R403
R404
R405
R406
R407
R408
100K
8699-3053
Page 2
PORT1<7:0>
(Bit 8 - Bit 15)
PORT1 USES ACOM0
Bypass capacitors for same # IC
C401
0.1u
DCOM
C402
0.1u
0160-7798

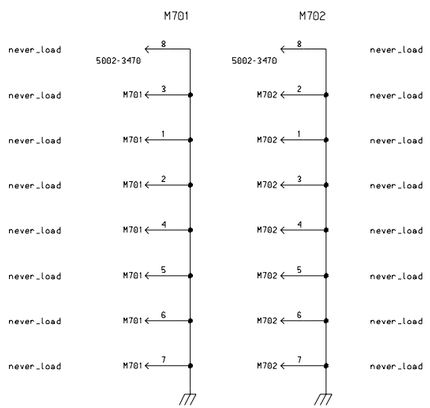

TTL_REF
Page 3, 4, 6
VCC=VCC,GND=DCOM
U501
1826-1225
LP339M
RP501
3.3K
RP503
10K
1906-0291
CR501
CR502
CR503
CR504
CR505
CR506
CR507
CR508
+5Z
VCC
RP507
10K
1810-1580
RP508
10K
PORT2_IN(7:0)
Page 1
U502
RP502
3.3K
RP504
10K
PORT2_OUT(7:0)
Page 2
PORT2_DR(7:0)
Page 2
Q501
1855-0800
MTD3055EL
Q502
Q503
Q504
Q505
Q506
Q507
Q508
ACOM
R501
100K
R502
R503
R504
R505
R506
R507
R508
100K
0699-3053
Page 2
PORT2(7:0)
(Bit 16 - Bit 23)
PORT2 USES ACOM1
Bypass capacitors for same # IC
VCC
C501
0.1u
DCOM
C502
0.1u
0160-7798


TTL_REF
Page 3, 4, 5
VCC=VCC,GND=DCOM
U601
1826-1225
LP339M
RP601
3.3K
RP603
10K
1906-0291
CR601
CR602
CR603
CR604
CR605
CR606
CR607
CR608
+5Z
VCC
RP607
10K
1810-1580
RP608
10K
PORT3_IN(7:0)
Page 1
U602
RP602
PORT3_OUT(7:0)
Page 2
PORT3_DR(7:0)
Page 2
Q601
7855-0800
MTD3055EL
ACOM
Q602
Q603
Q604
Q605
Q606
Q607
Q608
R601
100K
R602
R603
R604
R605
R606
R607
R608
0699-3053
PORT3(7:0)
Page 7
(Bit 24 - Bit 31)
PORT3 USES ACOM1
Bypass capacitors for same # IC
C601
0.1u
DCOM
C602
0.1u
0160-7798

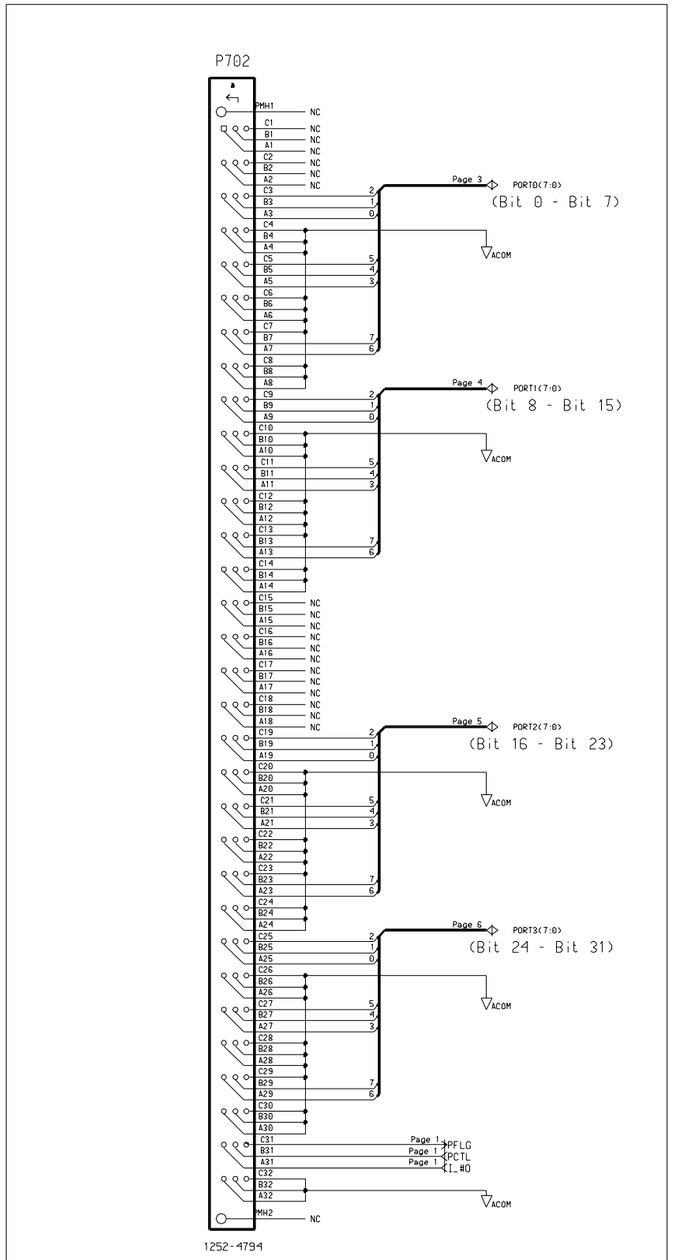
Backplane Connector

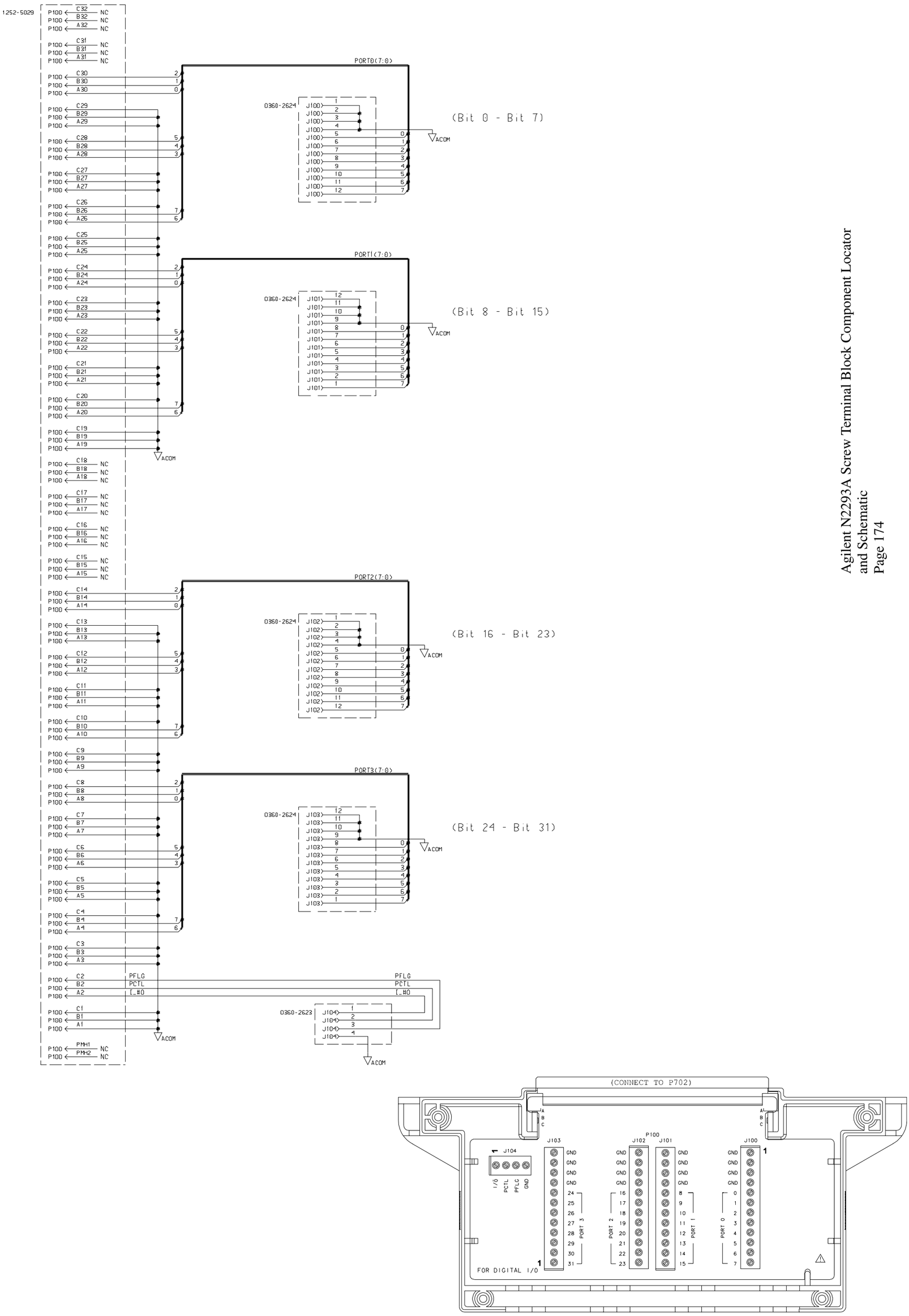


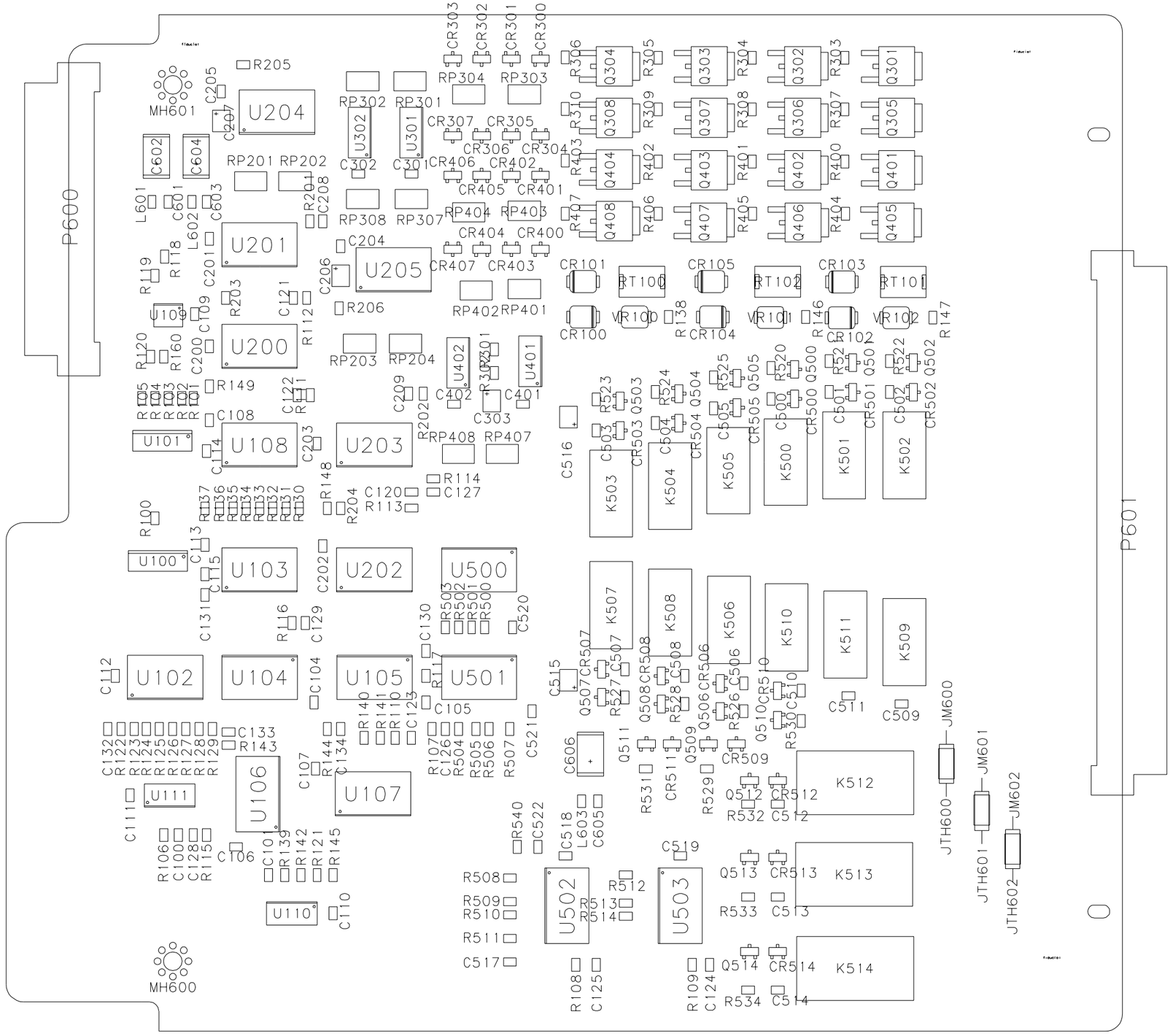
Two Mounting Holes with Soldermask

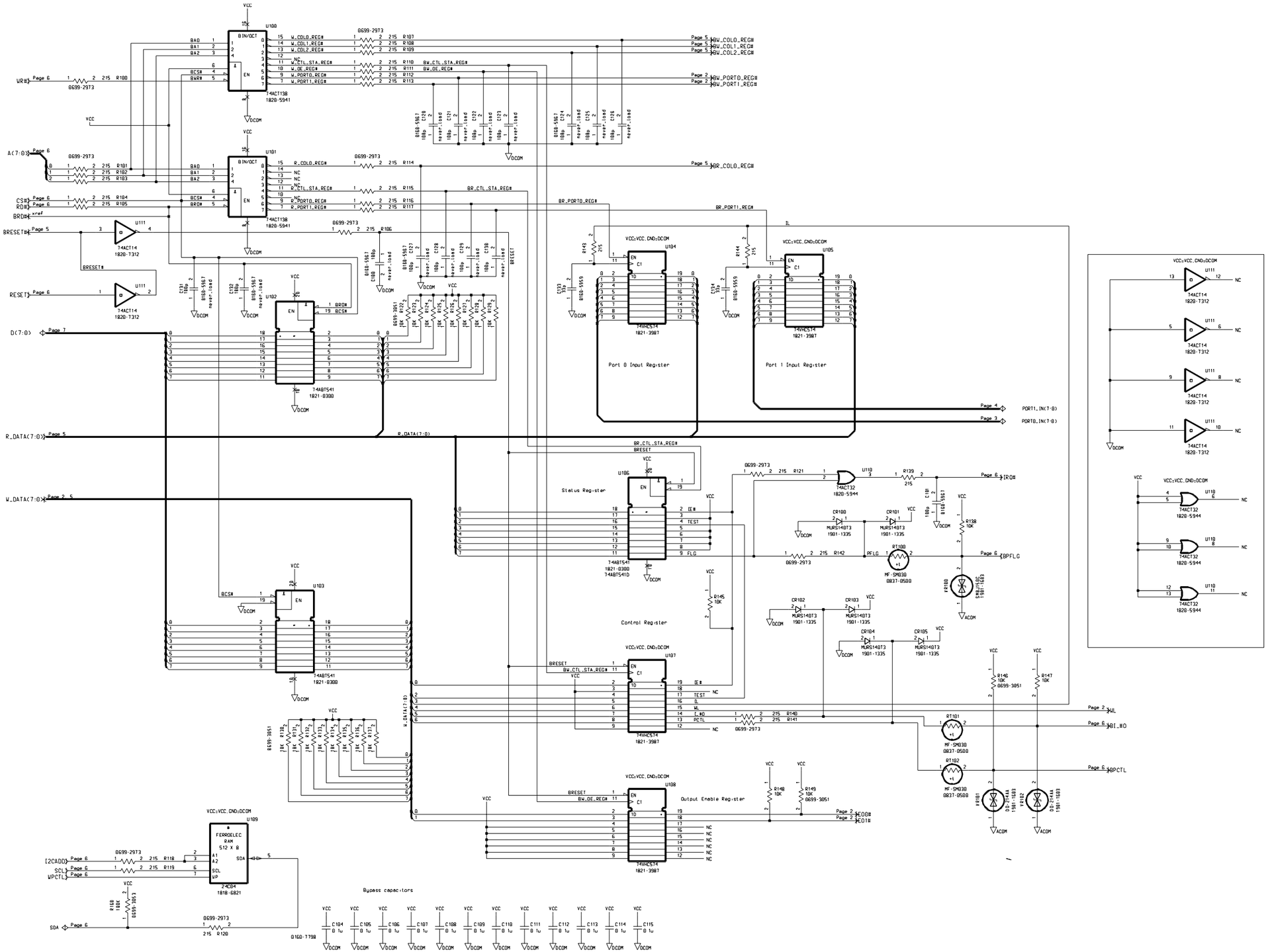


Front Connector




1252-5029
PORT0(7:0)
PORT1(7:0)
PORT2(7:0)
PORT3(7:0)
0360-2624
0360-2623
(Bit 0 - Bit 7)
(Bit 8 - Bit 15)
(Bit 16 - Bit 23)
(Bit 24 - Bit 31)
ACOM
PFLG
PCTL
I_H0
PMH1
PMH2
NC
(CONNECT TO P702)
P100
J100
J101
J102
J103
J104
GND
PORT 0
PORT 1
PORT 2
PORT 3
I/O
FOR DIGITAL I/O


P600
P601
MH601
MH600
U204
U201
U205
U200
U108
U203
U103
U202
U500
U102
U104
U105
U501
U106
U107
U111
U110
U100
U101
U109
U502
U503
K500
K501
K502
K503
K504
K505
K506
K507
K508
K509
K510
K511
K512
K513
K514
Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q308
Q401
Q402
Q403
Q404
Q405
Q406
Q407
Q408
CR100
CR101
CR102
CR103
CR104
CR105
VR100
VR101
VR102
RT100
RT101
RT102
JTH600
JTH601
JTH602
JM600
JM601
JM602



Agilent N2264A Multifunction Module
Schematic (Sheet 1 of 6)
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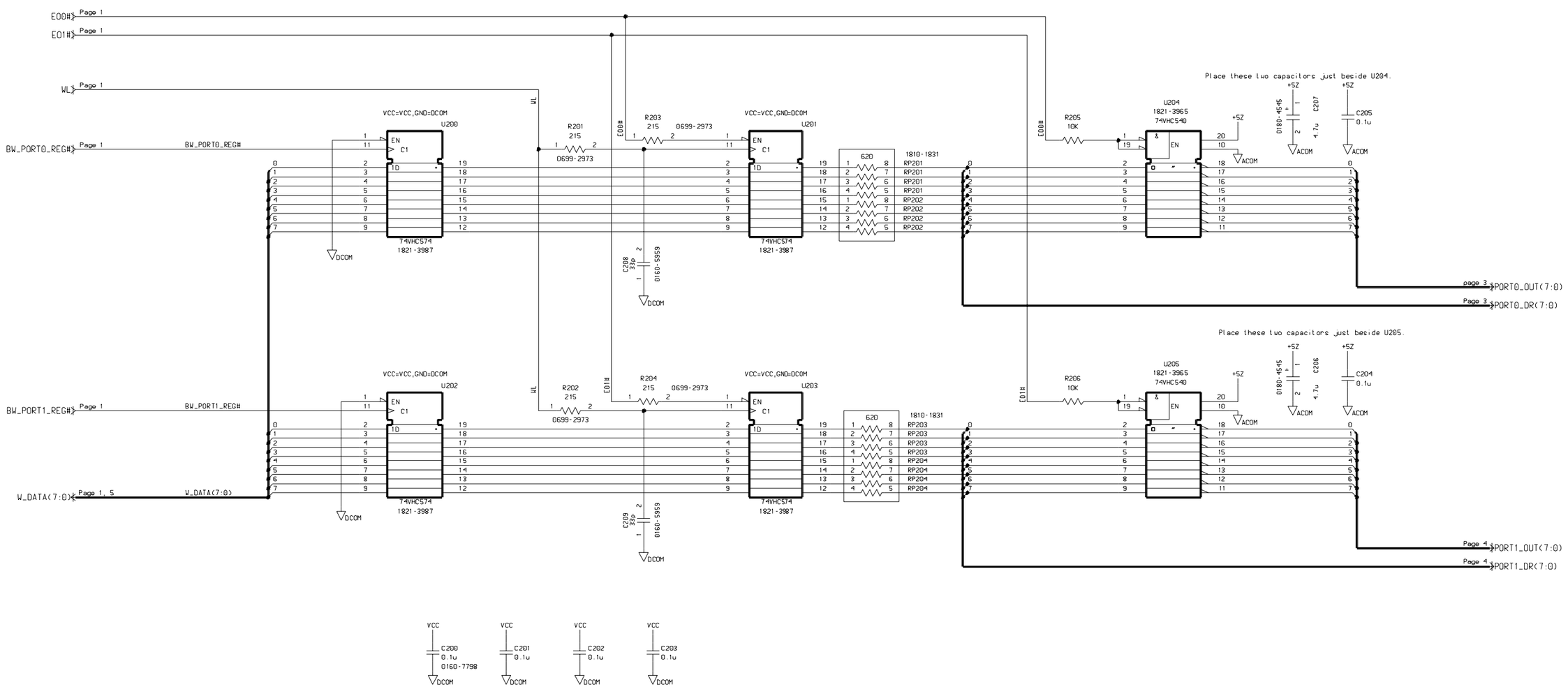
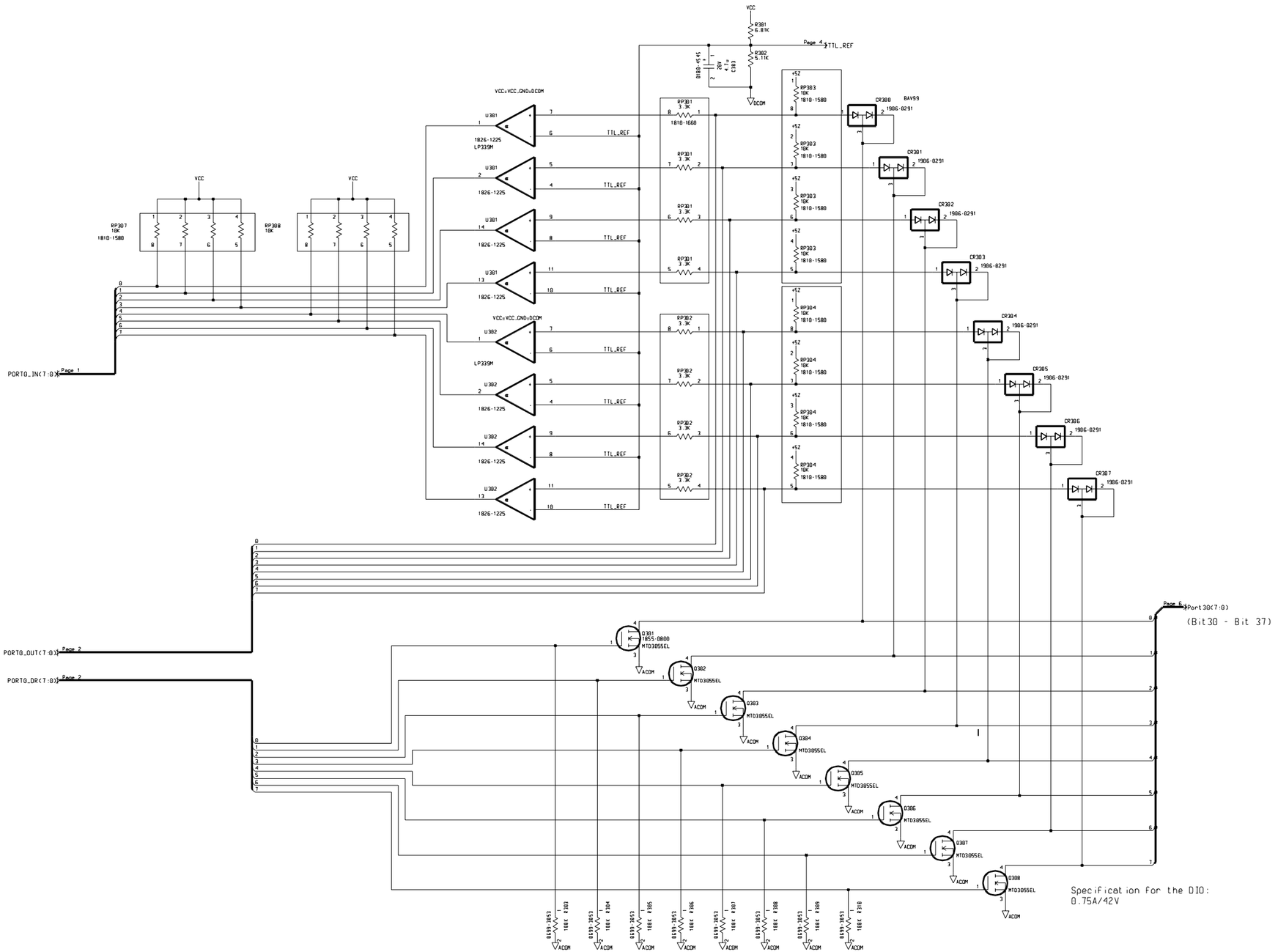
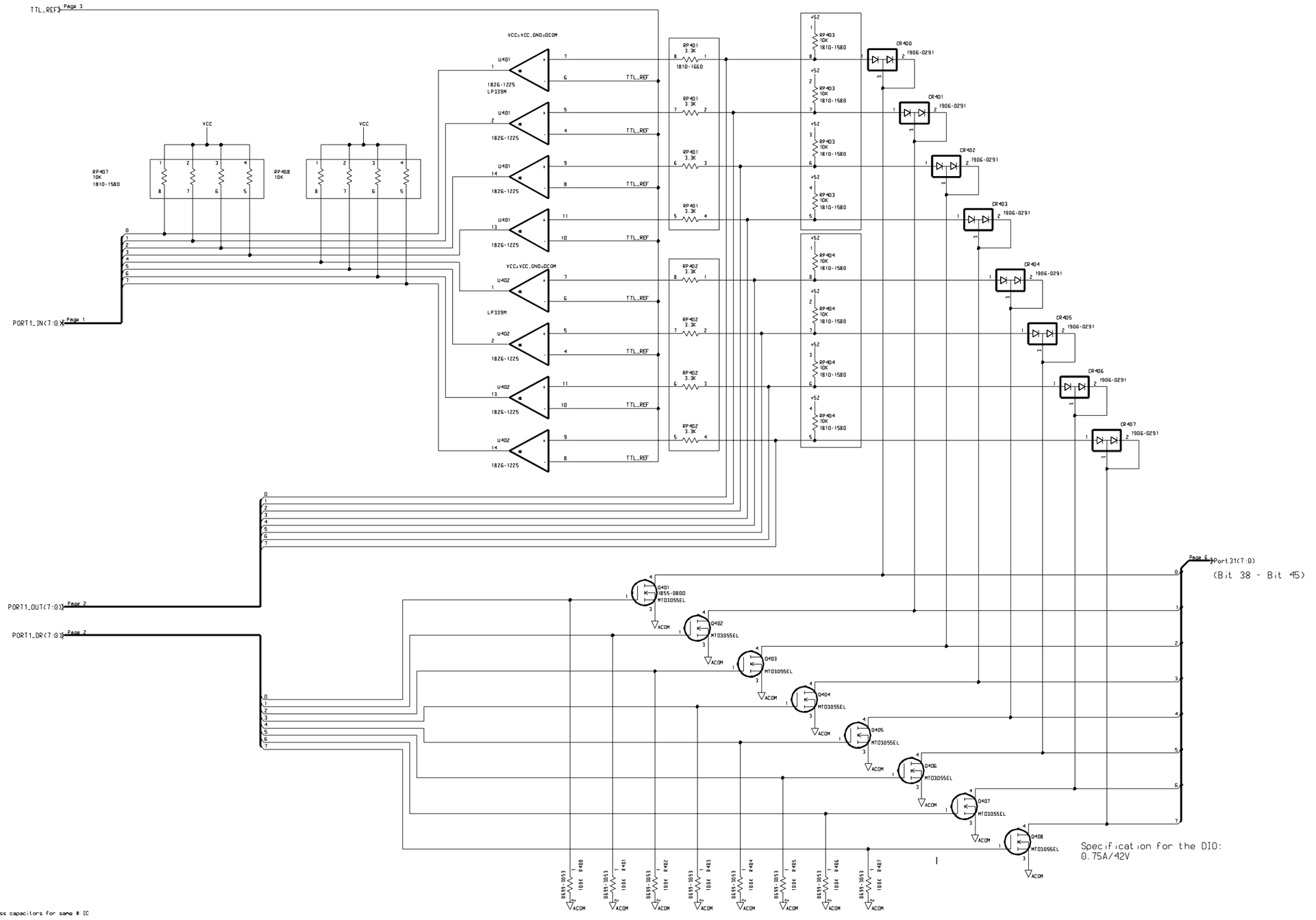
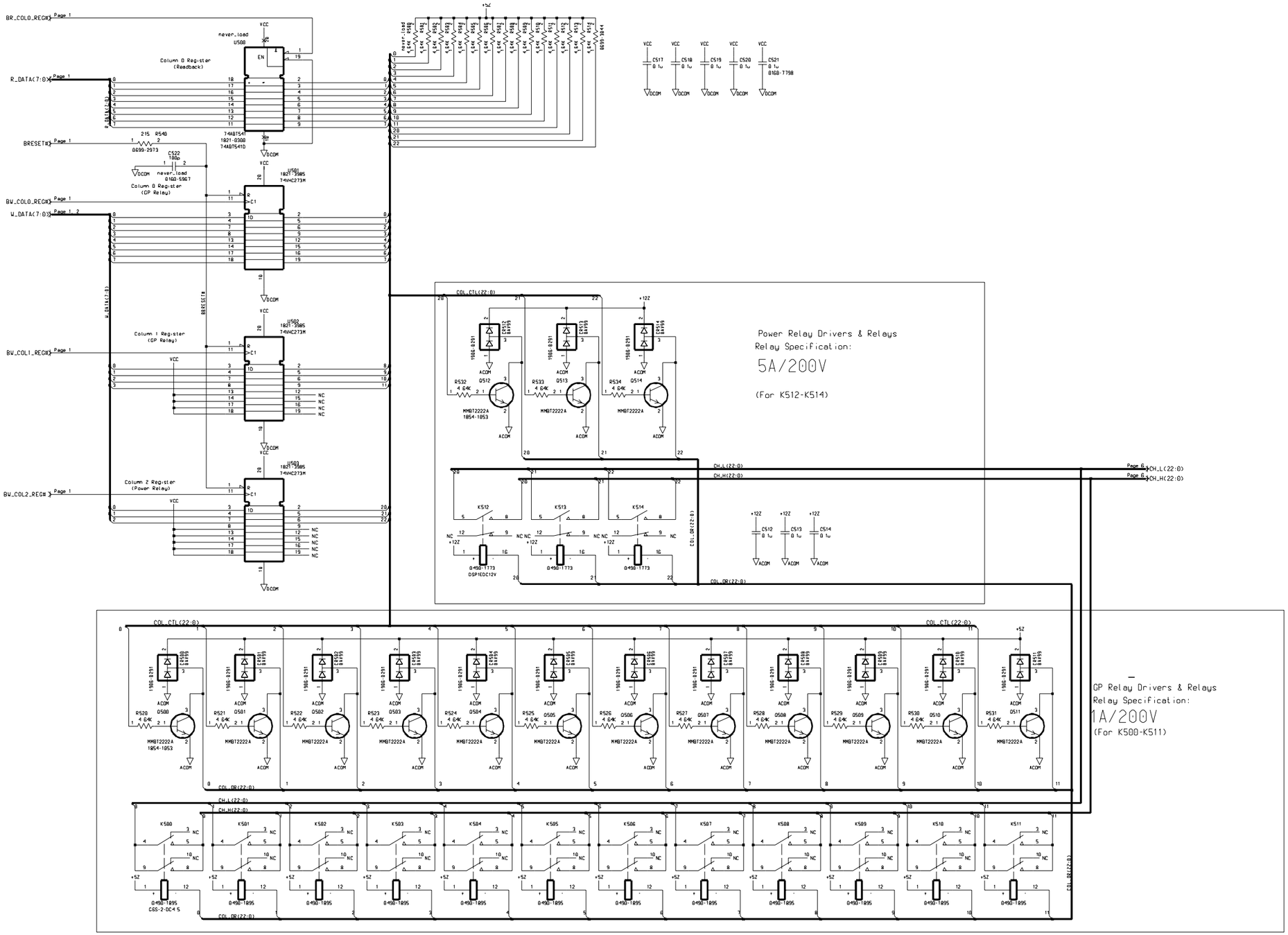

EO0#
Page 1
EO1#
Page 1
WL
Page 1
BW_PORT0_REG#
Page 1
BW_PORT0_REG#
BW_PORT1_REG#
Page 1
BW_PORT1_REG#
W_DATA(7:0)
Page 1, 5
W_DATA(7:0)
VCC=VCC,GND=DCOM
U200
U201
U202
U203
74VHC574
1821-3987
R201
215
0699-2973
R202
215
0699-2973
R203
215
0699-2973
R204
215
0699-2973
620
1810-1831
RP201
RP202
RP203
RP204
C208
33p
0160-5959
C209
33p
0160-5959
DCOM
R205
10K
R206
10K
U204
U205
1821-3965
74VHC540
EN
+5Z
ACOM
C205
0.1u
C204
0.1u
C207
4.7u
C206
4.7u
0180-4545
Place these two capacitors just beside U204.
Place these two capacitors just beside U205.
page 3
PORT0_OUT(7:0)
Page 3
PORT0_DR(7:0)
Page 4
PORT1_OUT(7:0)
Page 4
PORT1_DR(7:0)
VCC
C200
0.1u
0160-7798
C201
0.1u
C202
0.1u
C203
0.1u

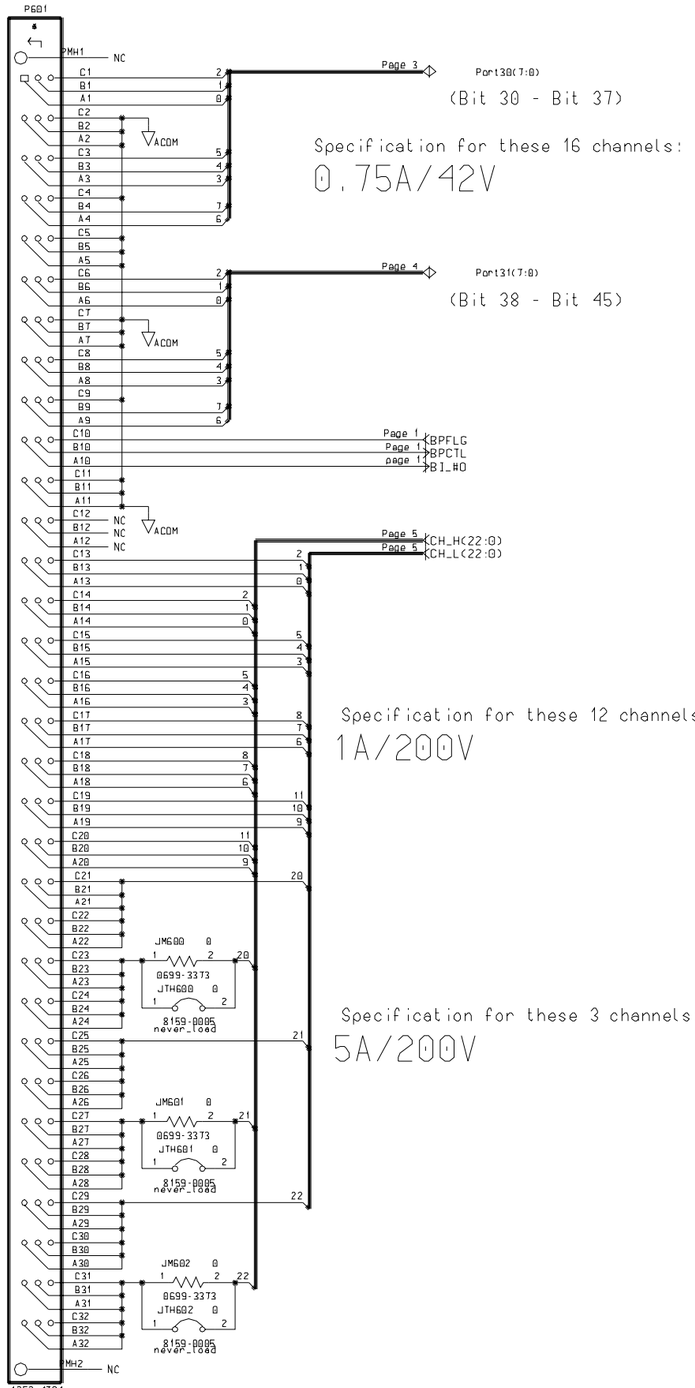

VCC
R301 6.81K
R302 5.11K
C303 4.7u 20V
DCOM
Page 4
TTL_REF
U301
U302
1826-1225
LP339M
RP301 3.3K
RP302 3.3K
RP303 10K
RP304 10K
1810-1580
CR300 BAY99
CR301
CR302
CR303
CR304
CR305
CR306
CR307
1906-0291
RP307 10K
RP308 10K
PORT0_IN<7:0>
Page 1
PORT0_OUT<7:0>
Page 2
PORT0_DR<7:0>
Page 2
Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q308
1855-0800
MTD3055EL
ACOM
Page 6
Port30<7:0>
(Bit30 - Bit 37)
Specification for the DIO:
0.75A/42V
Bypass capacitors for same 8 IC
C301
C302
0.1u
0160-7198


TTL_REF
Page 3
VCC=VCC,GND=DCOM
U401
1826-1225
LP339M
RP401
3.3K
1810-1660
TTL_REF
+5Z
RP403
10K
1810-1580
CR400
CR401
CR402
CR403
CR404
CR405
CR406
CR407
1906-0291
VCC
RP407
10K
1810-1580
RP408
10K
PORT1_IN(7:0)
Page 1
VCC=VCC,GND=DCOM
U402
LP339M
RP402
3.3K
RP404
10K
PORT1_OUT(7:0)
Page 2
PORT1_DR(7:0)
Page 2
Q401
1855-0800
MTD3055EL
Q402
Q403
Q404
Q405
Q406
Q407
Q408
ACOM
Page 6
Port31(7:0)
(Bit 38 - Bit 45)
8699-3053
R480
R481
R482
R483
R484
R485
R486
R487
100
Specification for the DIO:
0.75A/42V
Bypass capacitors for same 8 IC
C401
0.1u
C402
0.1u
0160-7798
DCOM



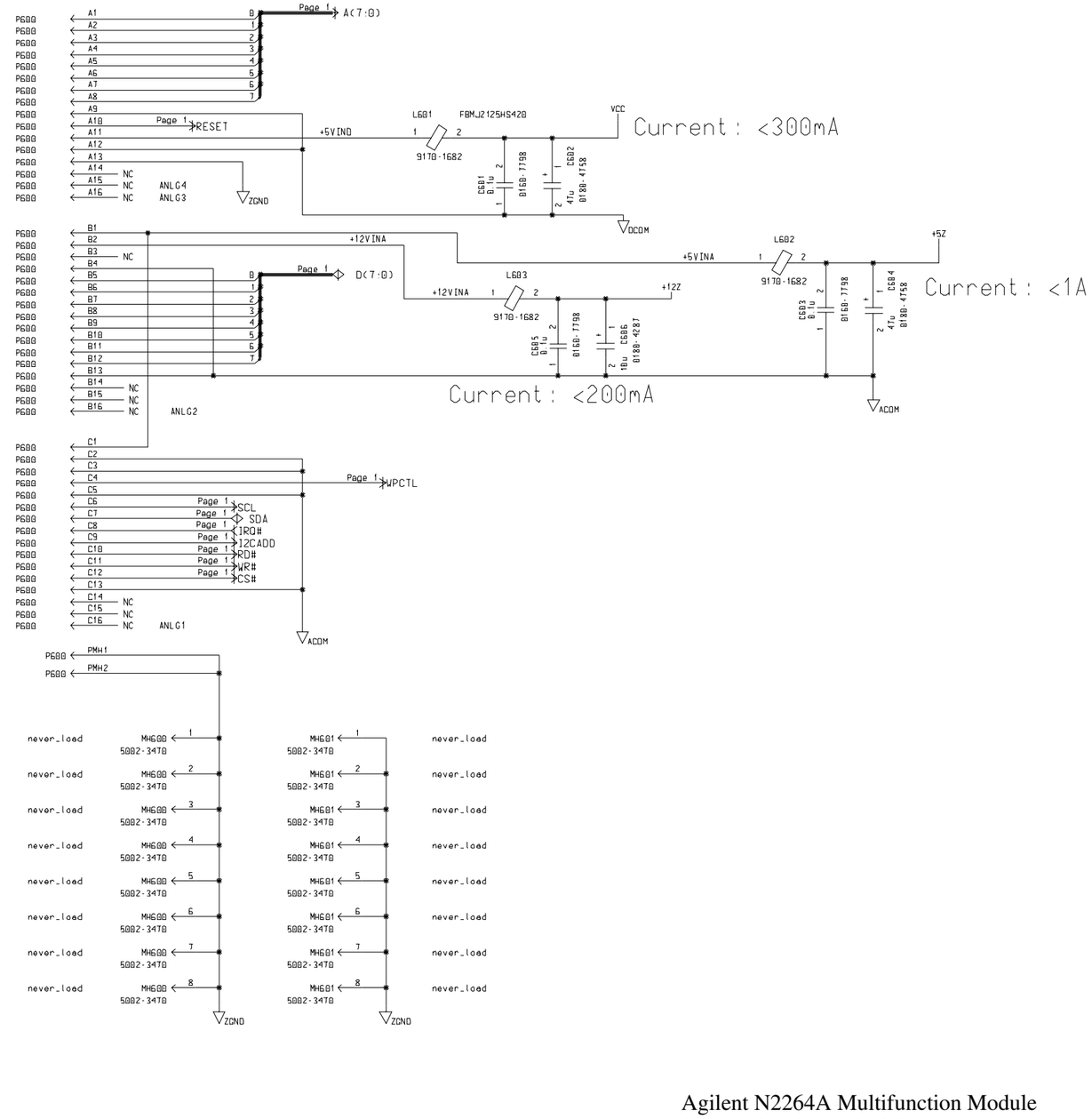
This capacitor should be placed just before +5Z entering into transistor drivers.

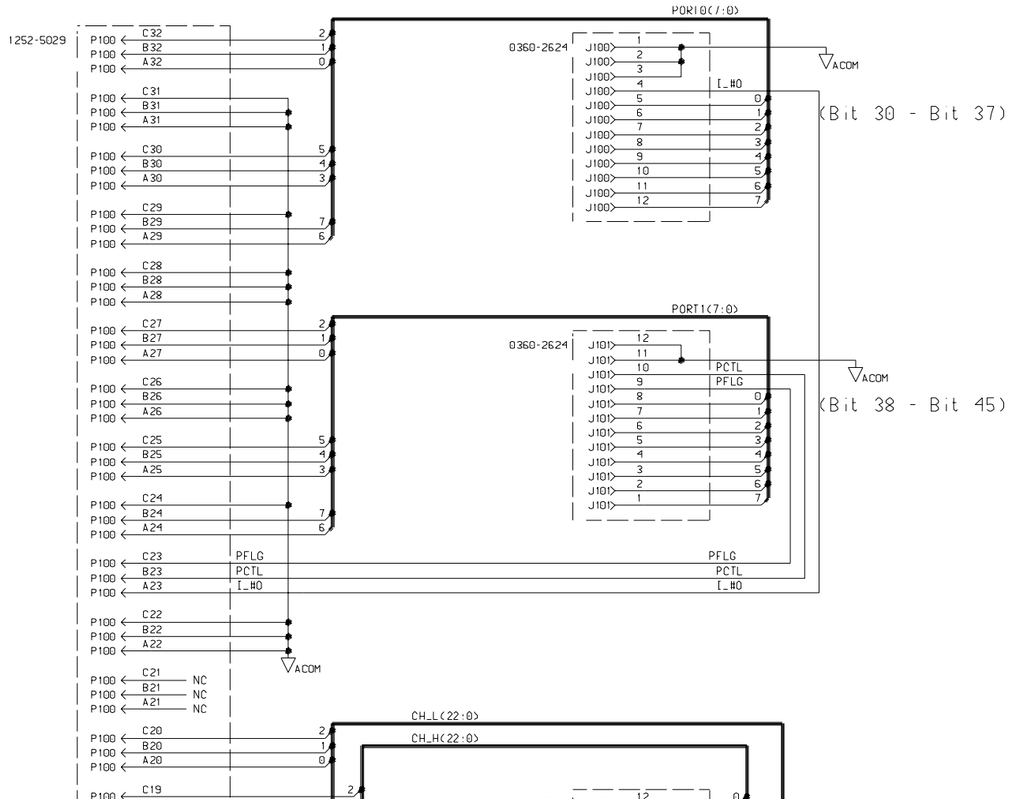
Customer Connector

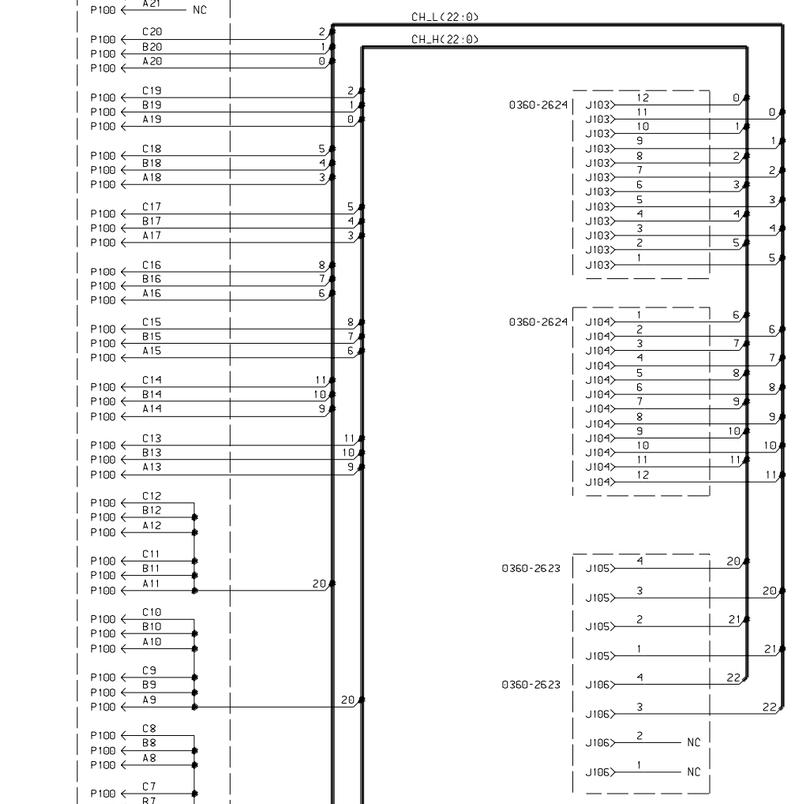


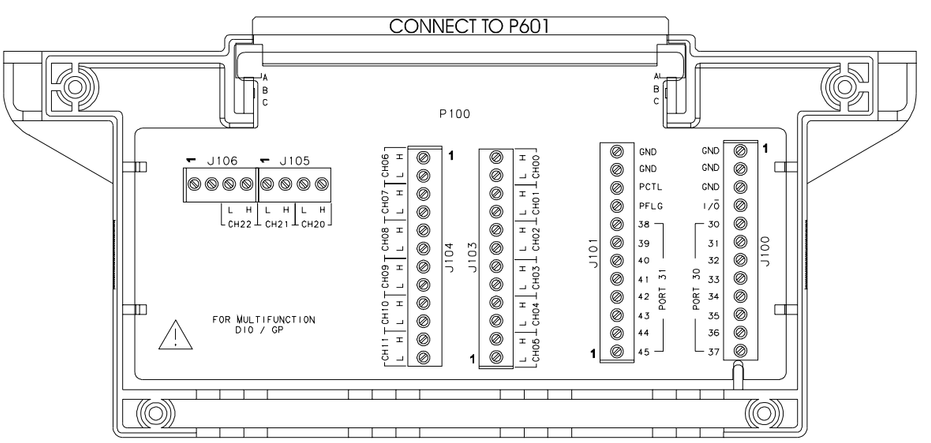
Backplane Connector

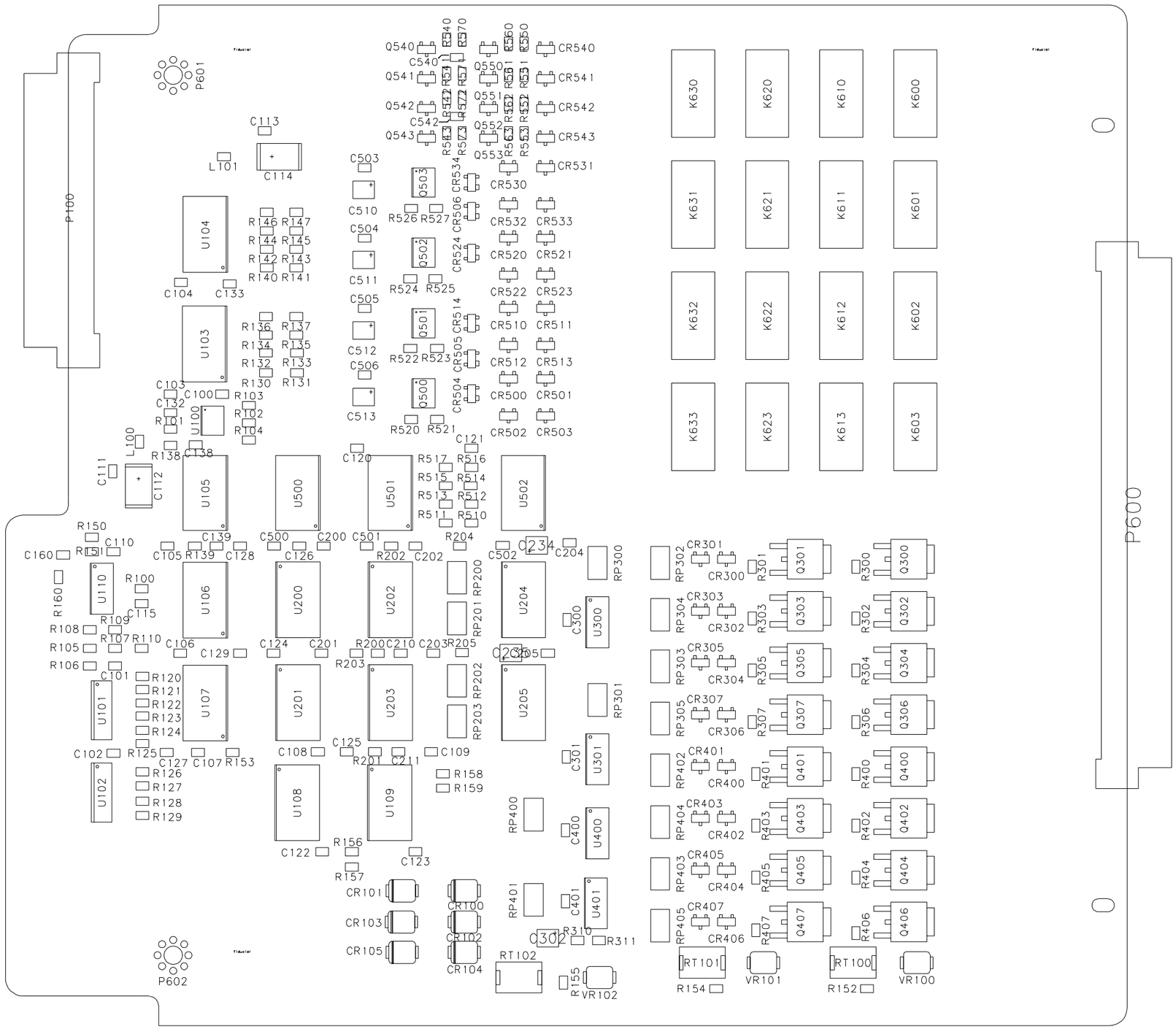
5184-0582

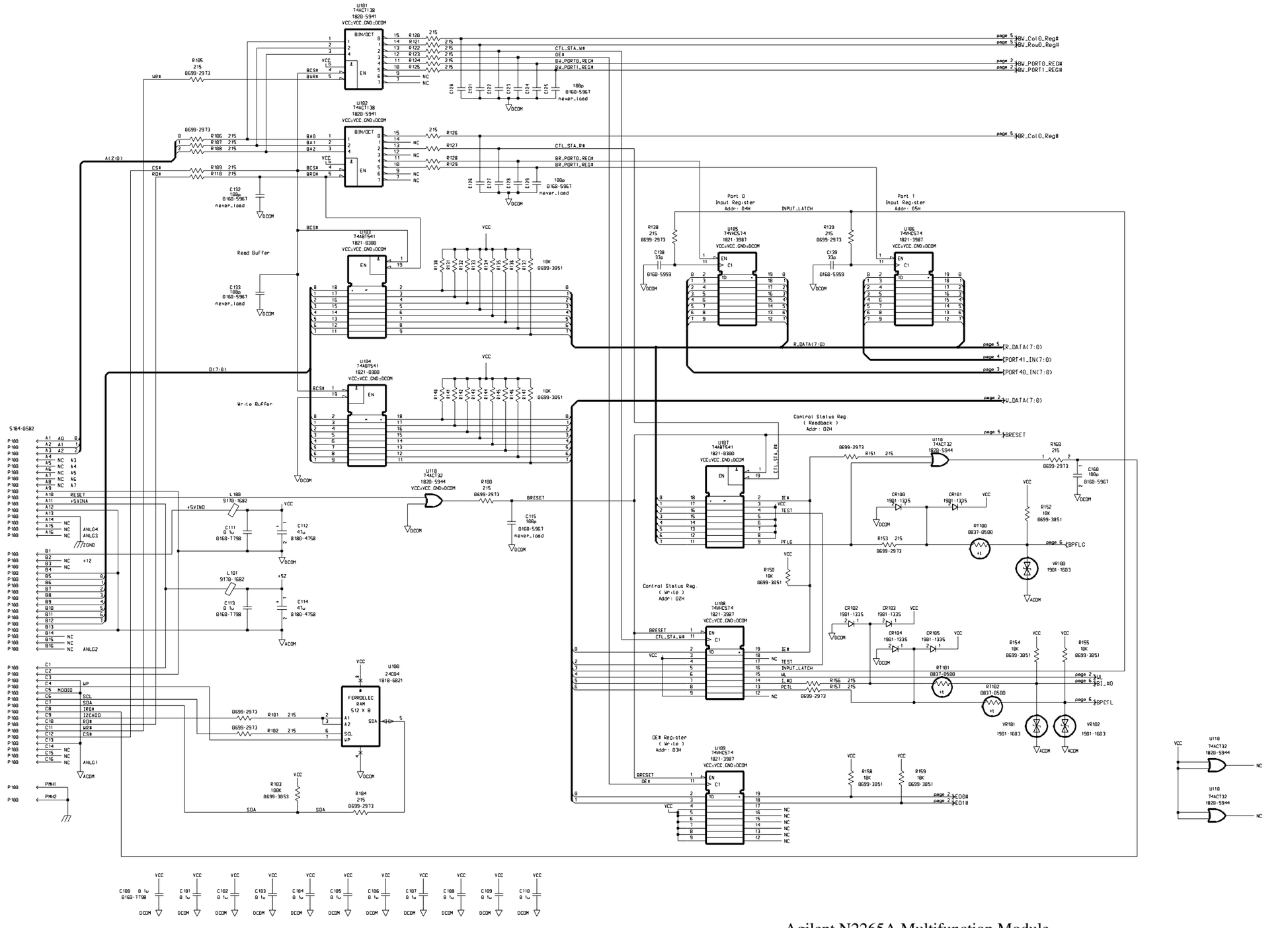



PORT0(7:0)
1252-5029
0360-2624
ACOM
(Bit 30 - Bit 37)
PORT1(7:0)
0360-2624
ACOM
(Bit 38 - Bit 45)
PFLG
PCTL
[_#0
ACOM

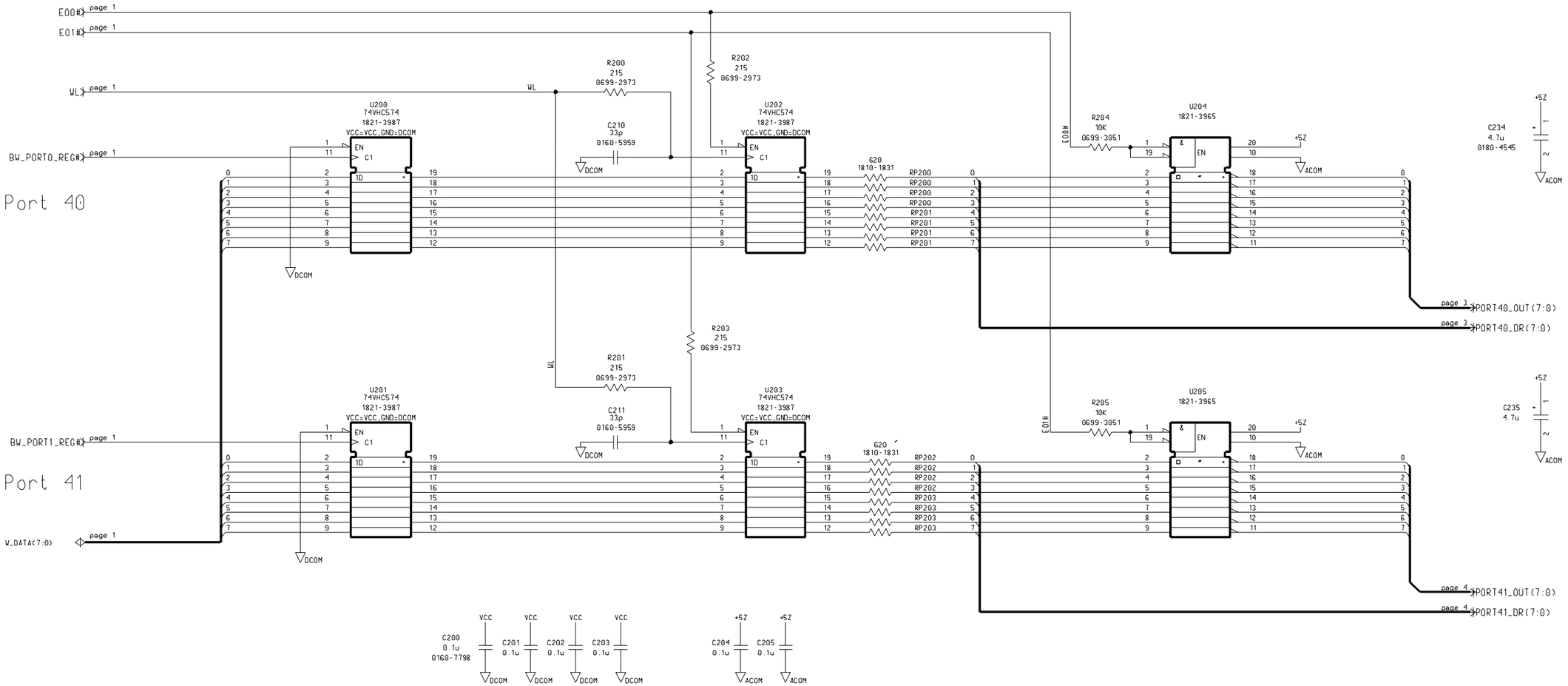

CH_L(22:0)
CH_H(22:0)
0360-2624
0360-2624
0360-2623
0360-2623
NC

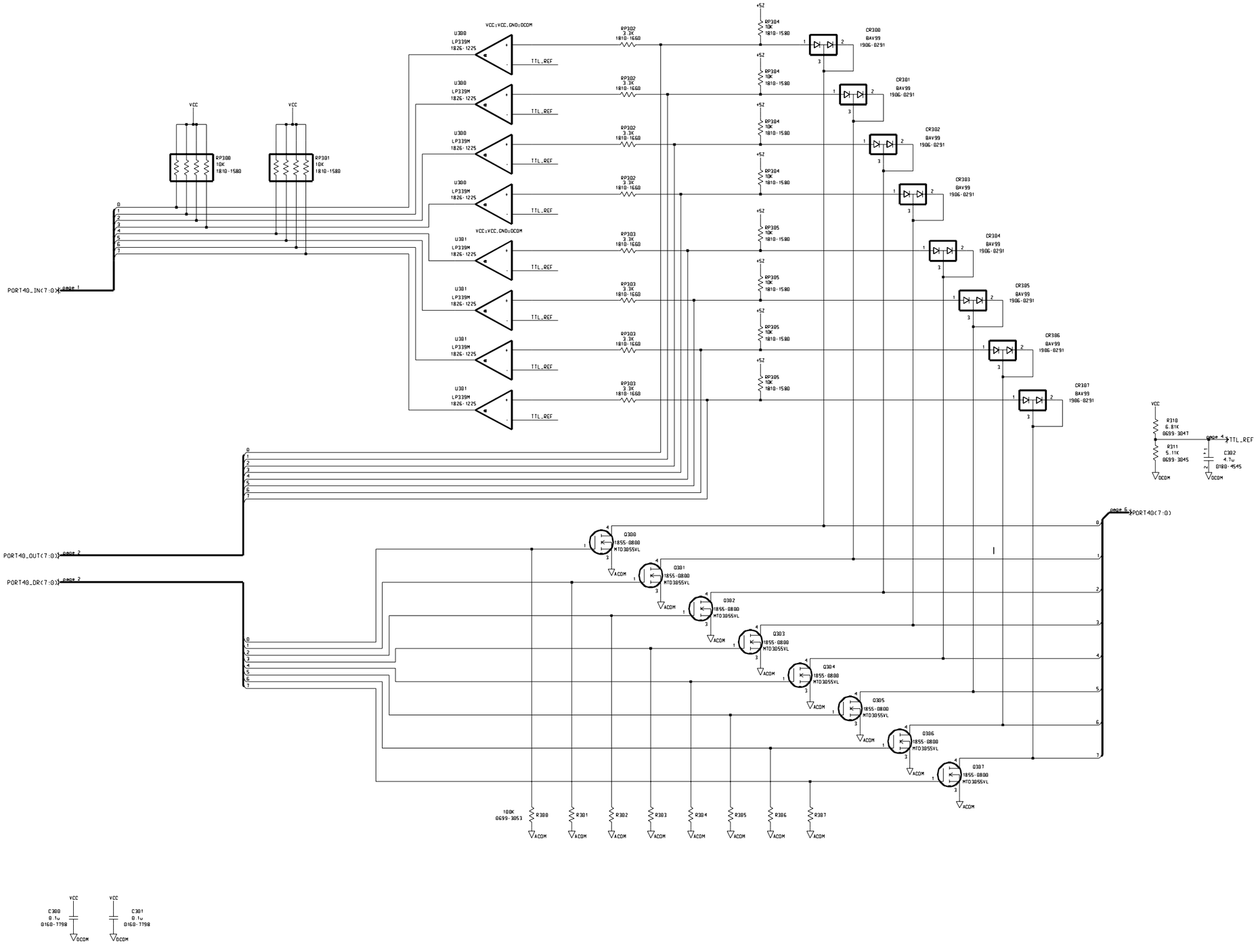

CONNECT TO P601
P100
J106
J105
CH22
CH21
CH20
J104
J103
J101
J100
GND
PCTL
PFLG
PORT 31
PORT 30
FOR MULTIFUNCTION
DIO / GP

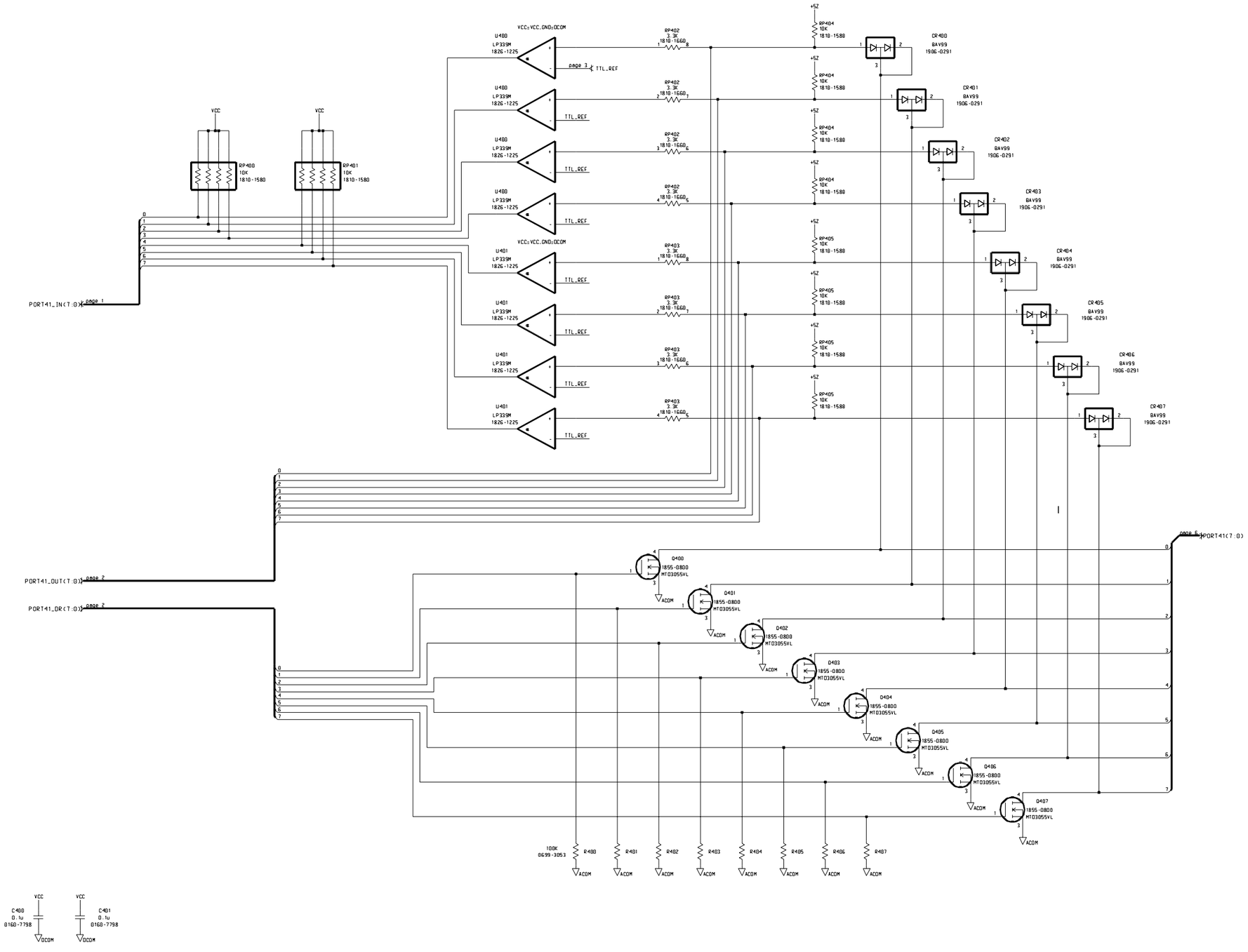

P100
P600
P601
P602
U104
U103
U105
U500
U501
U502
U106
U200
U202
U204
U107
U201
U203
U205
U108
U109
U300
U301
U400
U401
U101
U102
U110
Q500
Q501
Q502
Q503
Q540
Q541
Q542
Q543
Q550
Q551
Q552
Q553
Q300
Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q400
Q401
Q402
Q403
Q404
Q405
Q406
Q407
K600
K601
K602
K603
K610
K611
K612
K613
K620
K621
K622
K623
K630
K631
K632
K633
CR500
CR501
CR502
CR503
CR504
CR505
CR506
CR510
CR511
CR512
CR513
CR514
CR520
CR521
CR522
CR523
CR524
CR530
CR531
CR532
CR533
CR534
CR540
CR541
CR542
CR543
CR300
CR301
CR302
CR303
CR304
CR305
CR306
CR307
CR400
CR401
CR402
CR403
CR404
CR405
CR406
CR407
CR100
CR101
CR102
CR103
CR104
CR105
RT100
RT101
RT102
VR100
VR101
VR102
RP100
RP200
RP201
RP202
RP203
RP300
RP301
RP400
RP401
RP402
RP403
RP404
RP405

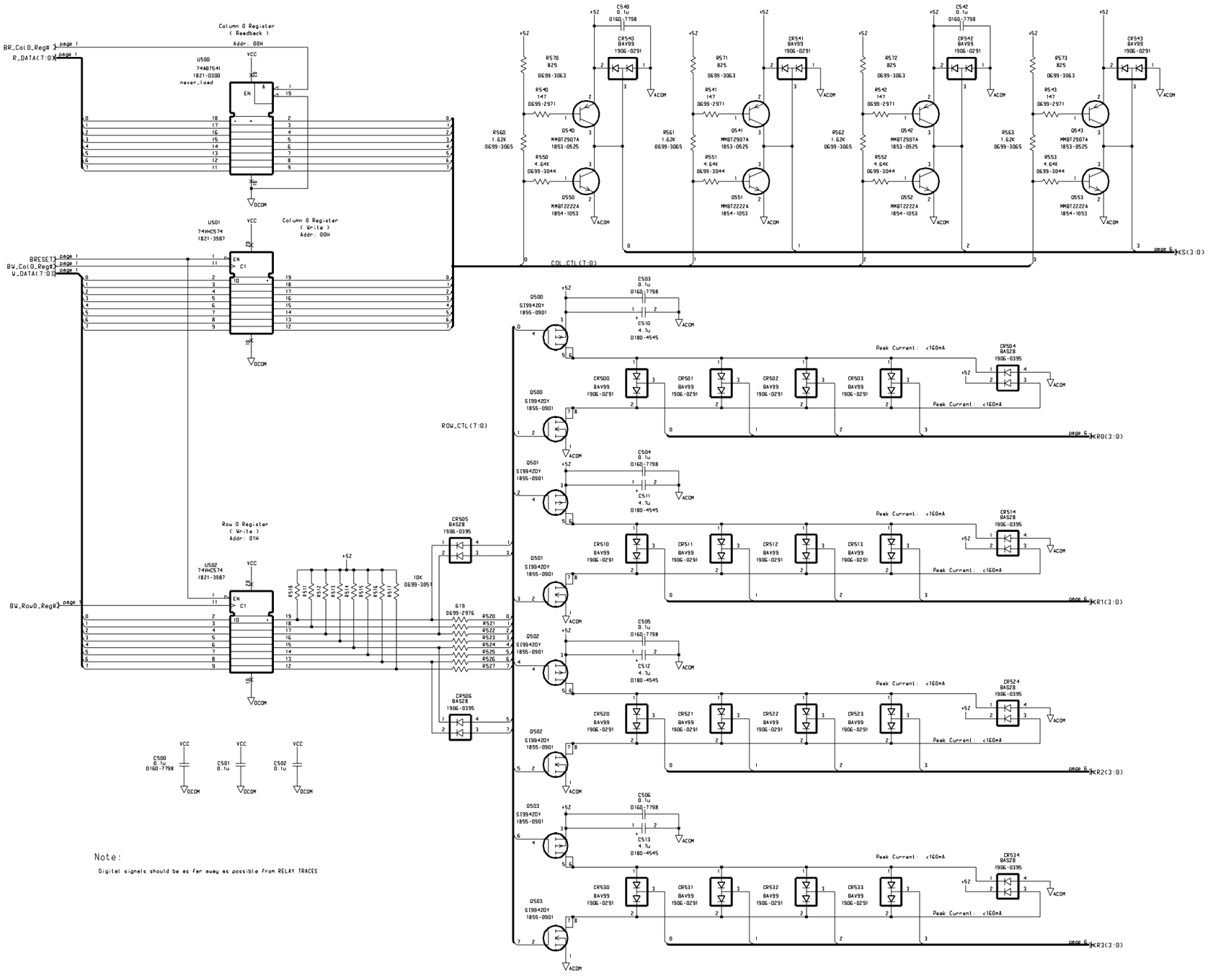


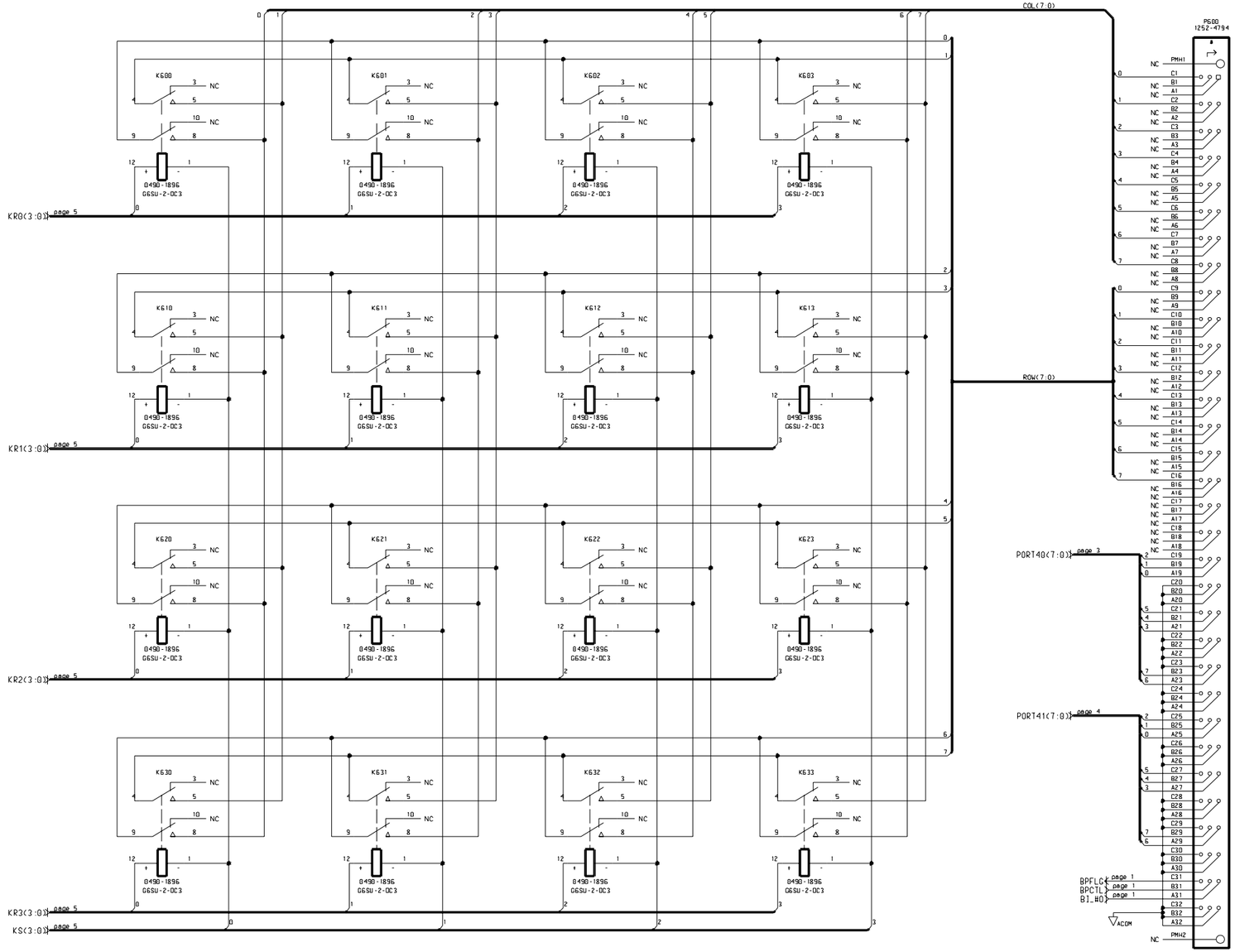
Agilent N2265A Multifunction Module
Schematic (Sheet 1 of 6)
Page 184


E00#
E01#
WL
BW_PORT0_REG#
BW_PORT1_REG#
W_DATA(7:0)
page 1
Port 40
Port 41
U200
74VHC574
1821-3987
VCC=VCC,GND=DCOM
U201
U202
U203
U204
1821-3965
U205
R200
215
0699-2973
R201
R202
R203
C210
33p
0160-5959
C211
620
1810-1831
RP200
RP201
RP202
RP203
R204
10K
0699-3051
R205
C234
4.7u
0180-4545
C235
+5Z
DCOM
ACOM
VCC
C200
0.1u
0160-7798
C201
C202
C203
C204
C205
page 3
PORT40_OUT(7:0)
PORT40_DR(7:0)
page 4
PORT41_OUT(7:0)
PORT41_DR(7:0)


PORT40_IN<7:0>
PORT40_OUT<7:0>
PORT40_DR<7:0>
VCC
RP300 10K 1810-1580
RP301 10K 1810-1580
U300 LP339M 1826-1225
U301 LP339M 1826-1225
VCC=VCC, GND=DCOM
TTL_REF
RP302 3.3K 1810-1660
RP303 3.3K 1810-1660
+5Z
RP304 10K 1810-1580
RP305 10K 1810-1580
CR300 BAV99 1906-0291
CR301 BAV99 1906-0291
CR302 BAV99 1906-0291
CR303 BAV99 1906-0291
CR304 BAV99 1906-0291
CR305 BAV99 1906-0291
CR306 BAV99 1906-0291
CR307 BAV99 1906-0291
Q300 1855-0800 MTD3055VL
Q301 1855-0800 MTD3055VL
Q302 1855-0800 MTD3055VL
Q303 1855-0800 MTD3055VL
Q304 1855-0800 MTD3055VL
Q305 1855-0800 MTD3055VL
Q306 1855-0800 MTD3055VL
Q307 1855-0800 MTD3055VL
ACOM
DCOM
R310 5.81K 8699-3047
R311 5.11K 8699-3045
C302 4.7u 0180-4545
100K 0699-3053
R300 R301 R302 R303 R304 R305 R306 R307
C300 0.1u 0160-7798
C301 0.1u 0160-7798
page 4
page 6
page 2


PORT41_IN(7:0)
PORT41_OUT(7:0)
PORT41_DR(7:0)
PORT41(7:0)
VCC
VCC
RP400 10K 1810-1580
RP401 10K 1810-1580
VCC=VCC,GND=DCOM
U400 LP339M 1826-1225
U401 LP339M 1826-1225
TTL_REF
RP402 3.3K 1810-1660
RP403 3.3K 1810-1660
RP404 10K 1810-1580
RP405 10K 1810-1580
+5Z
CR400 BAV99 1906-0291
CR401 BAV99 1906-0291
CR402 BAV99 1906-0291
CR403 BAV99 1906-0291
CR404 BAV99 1906-0291
CR405 BAV99 1906-0291
CR406 BAV99 1906-0291
CR407 BAV99 1906-0291
Q400 1855-0800 MT03055VL
Q401 1855-0800 MT03055VL
Q402 1855-0800 MT03055VL
Q403 1855-0800 MT03055VL
Q404 1855-0800 MT03055VL
Q405 1855-0800 MT03055VL
Q406 1855-0800 MT03055VL
Q407 1855-0800 MT03055VL
ACOM
10K 0699-3053
R400
R401
R402
R403
R404
R405
R406
R407
C400 0.1u 0160-7798
C401 0.1u 0160-7798
DCOM

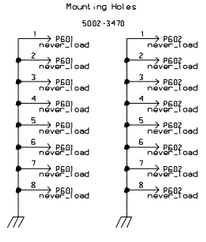

Column 0 Register
(Readback)
Addr: 00H
BR_Col0_Reg#
R_DATA(7:0)
U500
74ABT541
1821-0300
never_load
VCC
EN
DCOM
U501
74VHC574
1821-3987
Column 0 Register
(Write)
Addr: 00H
BRESET
BW_Col0_Reg#
W_DATA(7:0)
C1
Row 0 Register
(Write)
Addr: 01H
U502
74VHC574
1821-3987
BW_Row0_Reg#
10K
0699-3051
R619
0699-2976
C500
0.1u
0160-7798
C501
0.1u
C502
0.1u
Note:
Digital signals should be as far away as possible from RELAY TRACES
C540
0.1u
0160-7798
+5Z
CR540
BAV99
1906-0291
R570
825
0699-3063
R540
147
0699-2971
Q540
MMBT2907A
1853-0525
R550
4.64K
0699-3044
Q550
MMBT2222A
1854-1053
ACOM
R560
1.62K
0699-3065
CR541
BAV99
1906-0291
R571
825
0699-3063
R541
147
0699-2971
Q541
MMBT2907A
1853-0525
R551
4.64K
0699-3044
Q551
MMBT2222A
1854-1053
R561
1.62K
0699-3065
C542
0.1u
0160-7798
CR542
BAV99
1906-0291
R572
825
0699-3063
R542
147
0699-2971
Q542
MMBT2907A
1853-0525
R552
4.64K
0699-3044
Q552
MMBT2222A
1854-1053
R562
1.62K
0699-3065
CR543
BAV99
1906-0291
R573
825
0699-3063
R543
147
0699-2971
Q543
MMBT2907A
1853-0525
R553
4.64K
0699-3044
Q553
MMBT2222A
1854-1053
R563
1.62K
0699-3065
COL_CTL(7:0)
page 6
KS(3:0)
C503
0.1u
0160-7798
Q500
SI9942DY
1855-0901
C510
4.7u
0180-4545
Peak Current: <160mA
CR500
BAV99
1906-0291
CR501
CR502
CR503
CR504
BAS28
1906-0395
ROW_CTL(7:0)
KR0(3:0)
C504
0.1u
0160-7798
Q501
SI9942DY
1855-0901
C511
4.7u
0180-4545
CR510
CR511
CR512
CR513
CR514
KR1(3:0)
C505
0.1u
0160-7798
Q502
SI9942DY
1855-0901
C512
4.7u
0180-4545
CR520
CR521
CR522
CR523
CR524
KR2(3:0)
C506
0.1u
0160-7798
Q503
SI9942DY
1855-0901
C513
4.7u
0180-4545
CR530
CR531
CR532
CR533
CR534
KR3(3:0)
CR505
BAS28
1906-0395
CR506
BAS28
1906-0395
R520
R521
R522
R523
R524
R525
R526
R527
R510
R511
R512
R513
R514
R515
R516
R517

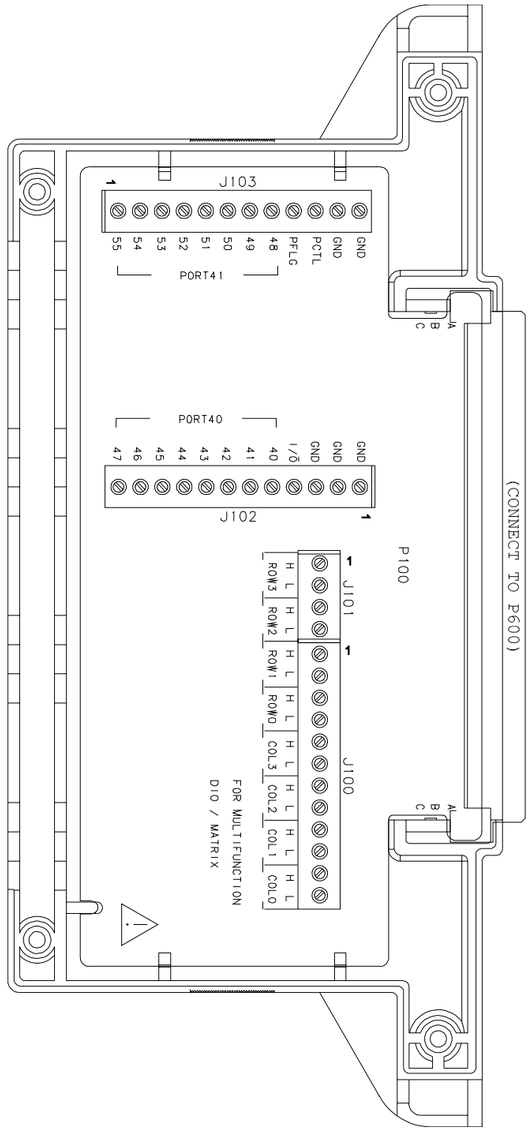


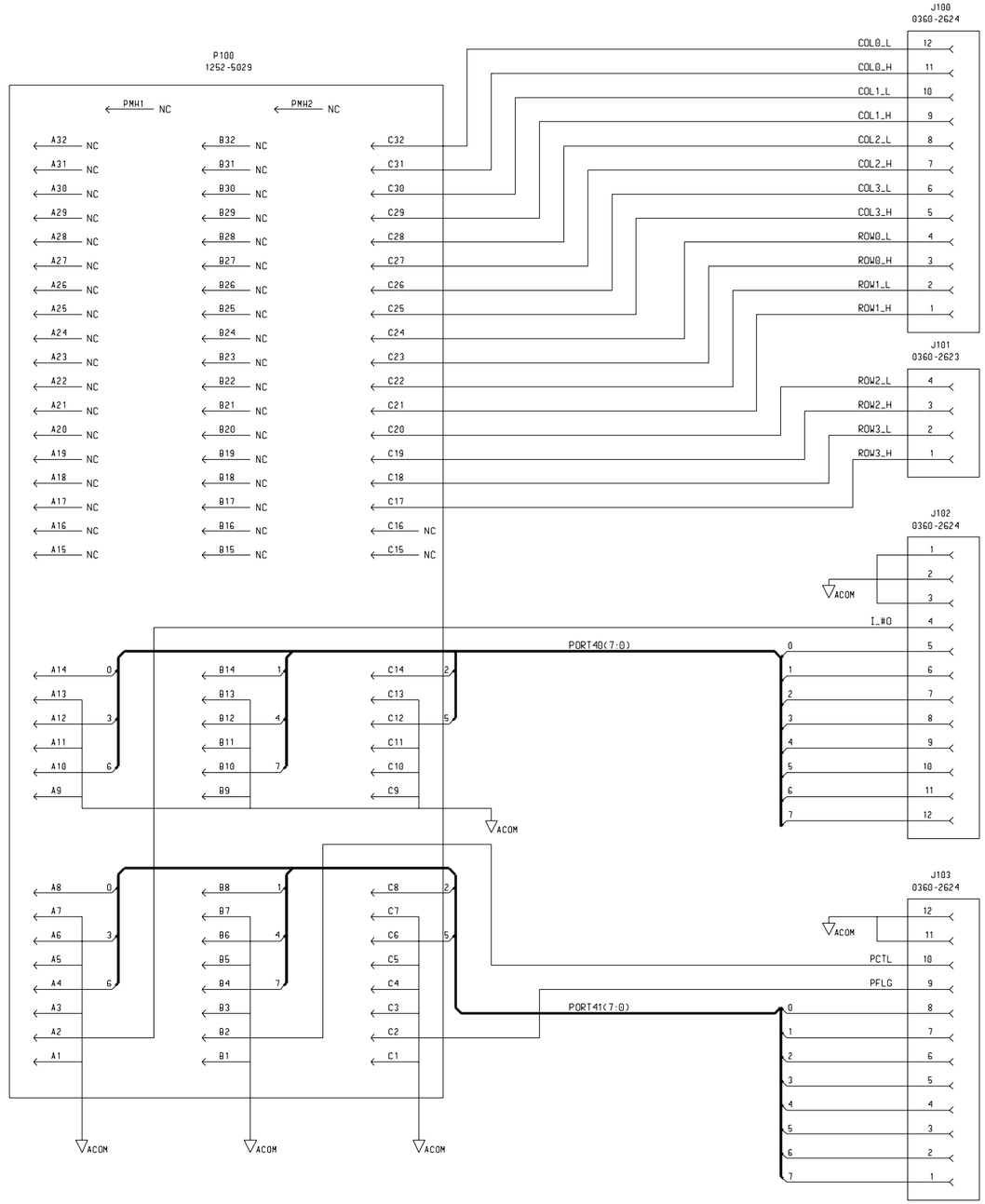
Relay Specification : 1A/200V

Mounting Holes

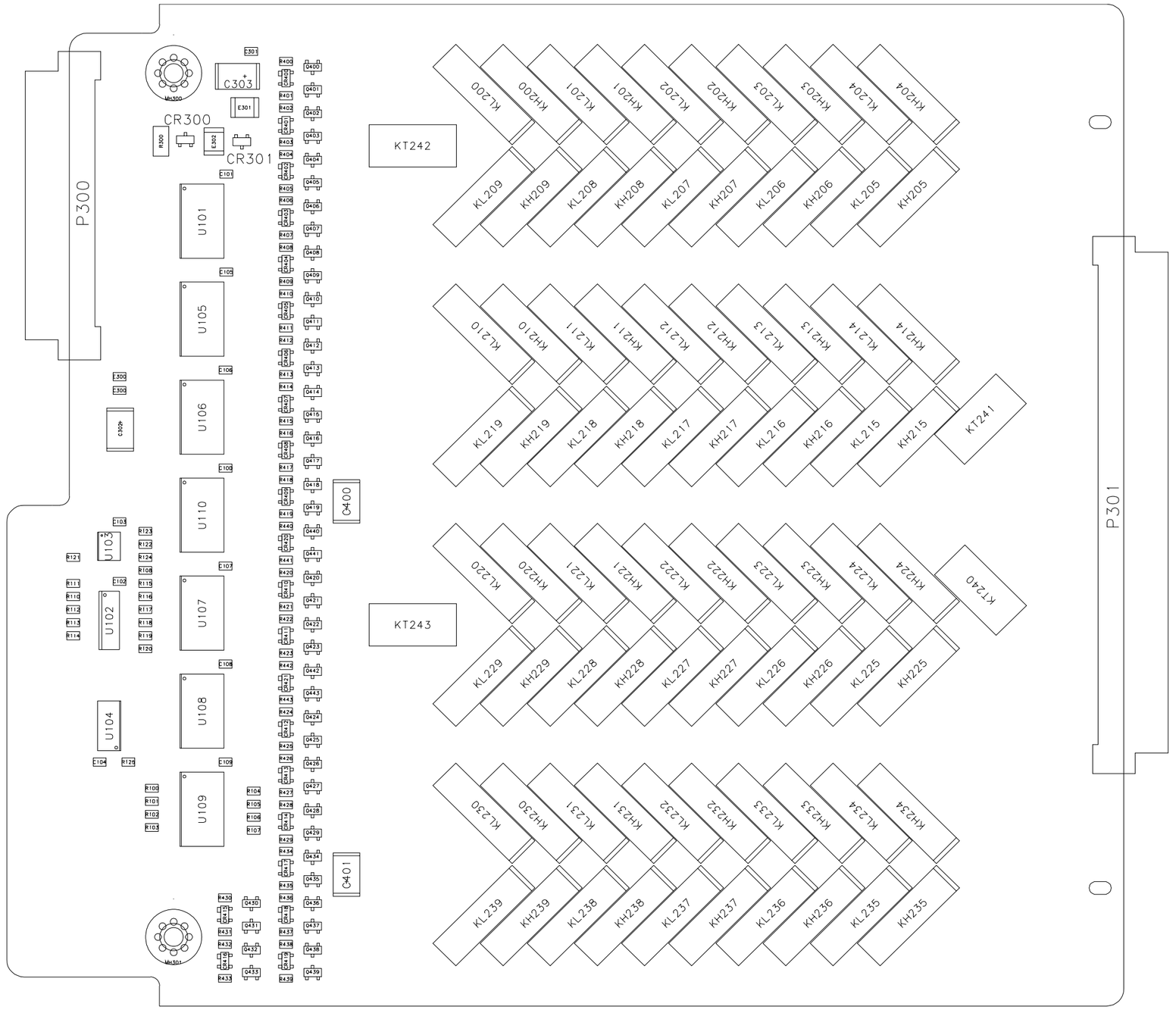
5002-3470







Agilent N2295A Screw Terminal Block Component Locator and Schematic


P300
P301
U101
U102
U103
U104
U105
U106
U107
U108
U109
U110
C303
CR300
CR301
E301
R300
E302
C302
C400
C401
KT240
KT241
KT242
KT243
KL200
KH200
KL201
KH201
KL202
KH202
KL203
KH203
KL204
KH204
KL205
KH205
KL206
KH206
KL207
KH207
KL208
KH208
KL209
KH209
KL210
KH210
KL211
KH211
KL212
KH212
KL213
KH213
KL214
KH214
KL215
KH215
KL216
KH216
KL217
KH217
KL218
KH218
KL219
KH219
KL220
KH220
KL221
KH221
KL222
KH222
KL223
KH223
KL224
KH224
KL225
KH225
KL226
KH226
KL227
KH227
KL228
KH228
KL229
KH229
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KH230
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KH231
KL232
KH232
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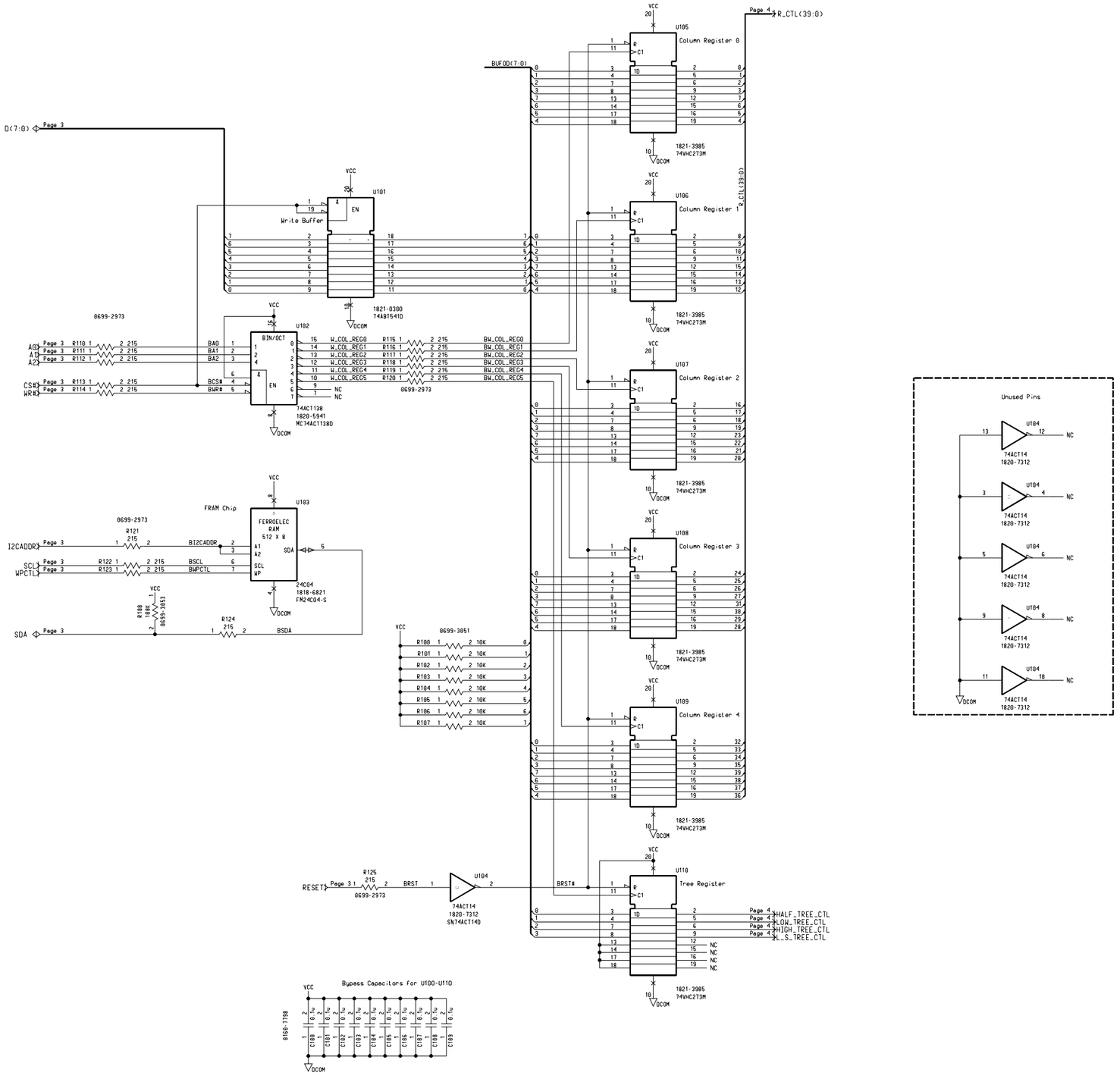
KL237
KH237
KL238
KH238
KL239
KH239



Agilent N2266A 40-Channel MUX Module
Schematic (Sheet 1 of 4)
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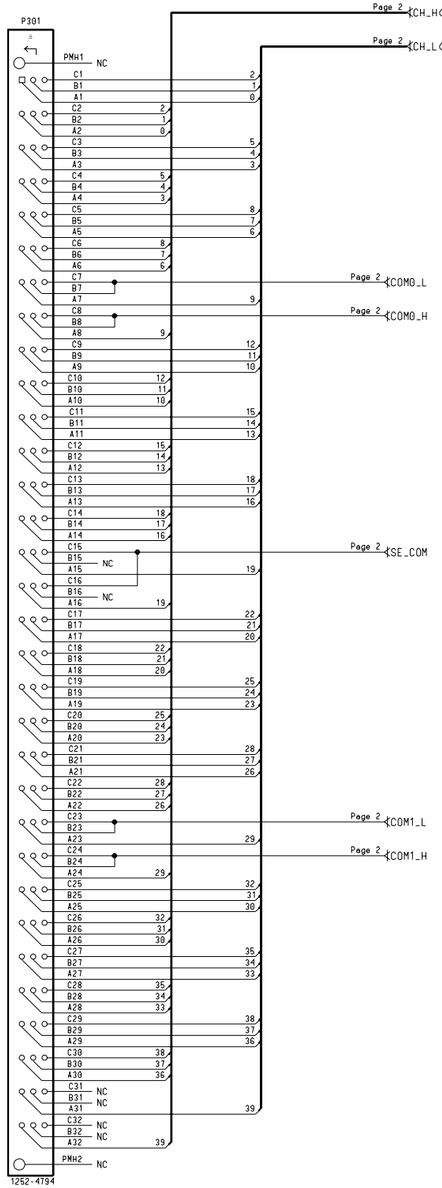
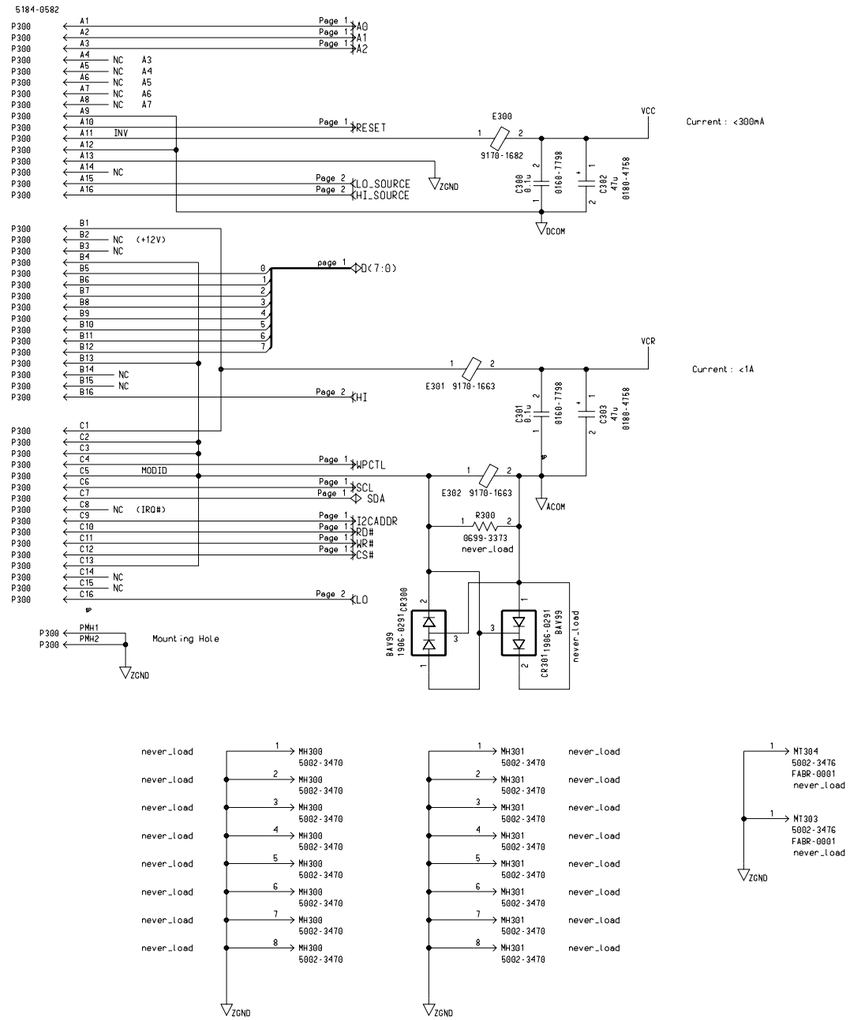
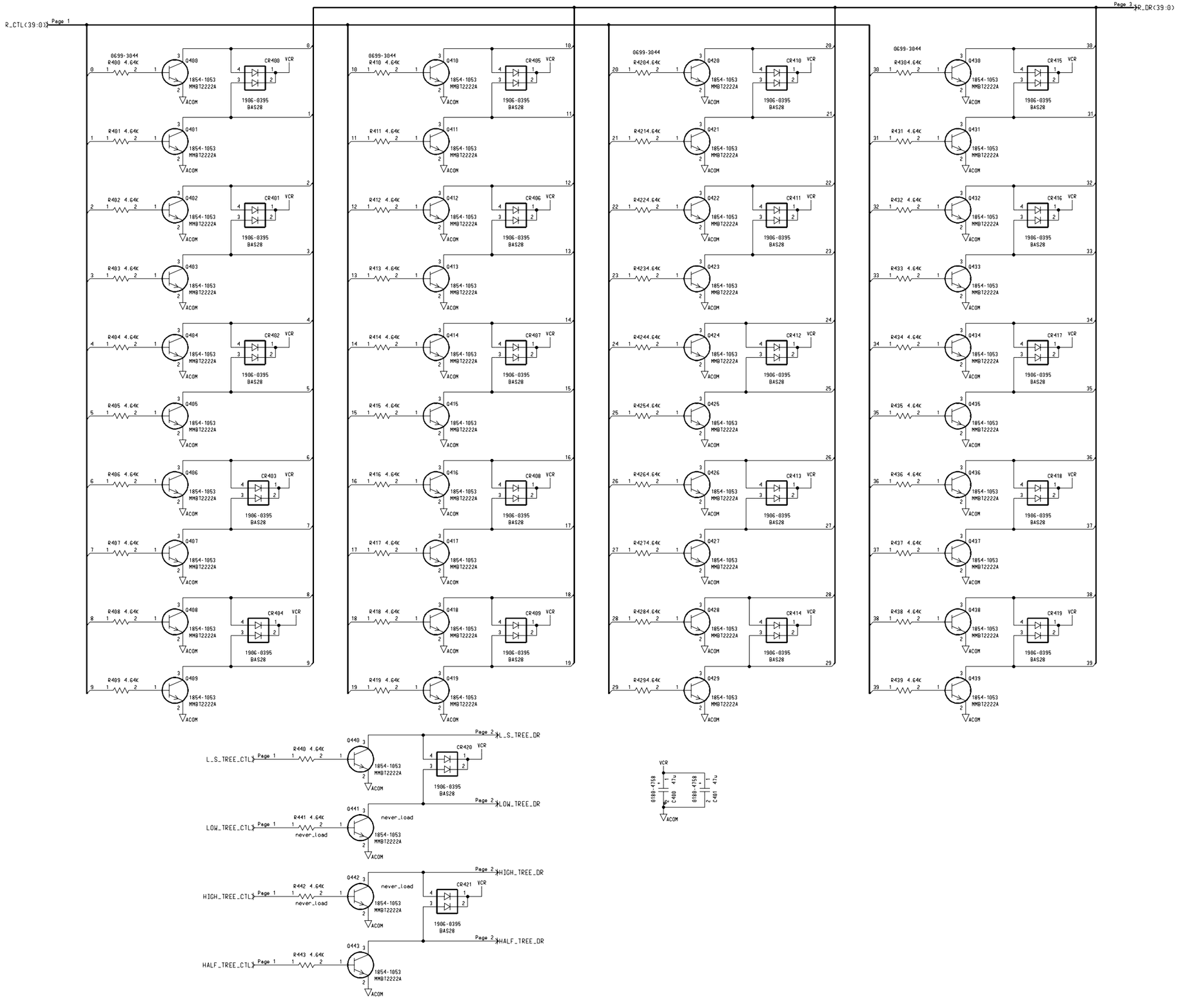
Layout Notes:

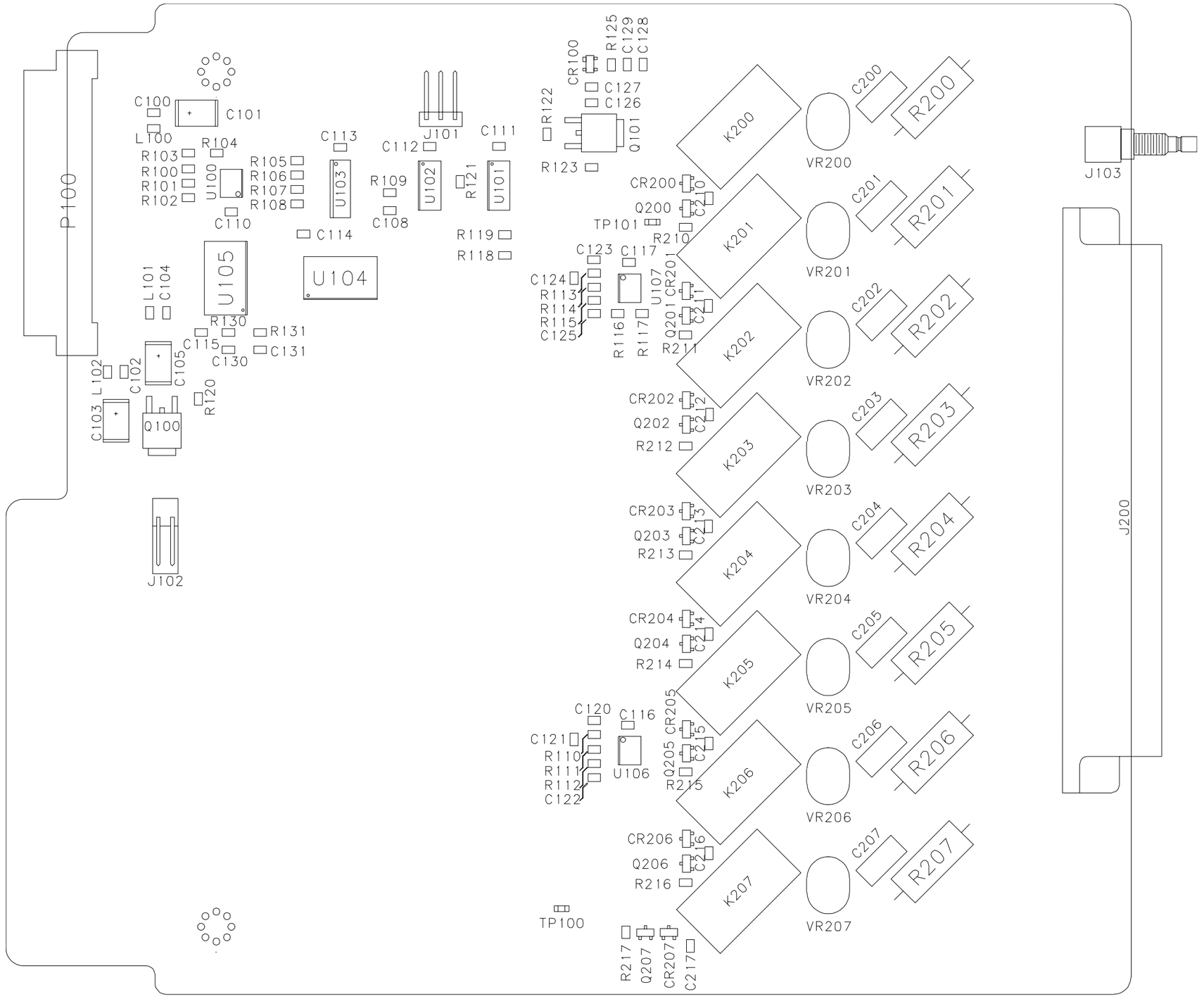
1. If spece allowed, enlarge the trace wiidth of relay control lines.
2. Relay specification: 0.5A/200V



A13 is used as ZGND!
(Isolation between AB and System




R_CTL(39:0)
Page 1
R_DR(39:0)
Page 3
0699-3044
R400 4.64K
Q400
1854-1053
MMBT2222A
ACOM
CR400
VCR
1906-0395
BAS28
R401 4.64K
Q401
CR401
R402 4.64K
Q402
CR402
R403 4.64K
Q403
R404 4.64K
Q404
CR403
R405 4.64K
Q405
R406 4.64K
Q406
CR404
R407 4.64K
Q407
R408 4.64K
Q408
CR405
R409 4.64K
Q409
R410 4.64K
Q410
CR406
R411 4.64K
Q411
R412 4.64K
Q412
CR407
R413 4.64K
Q413
R414 4.64K
Q414
CR408
R415 4.64K
Q415
R416 4.64K
Q416
CR409
R417 4.64K
Q417
R418 4.64K
Q418
R419 4.64K
Q419
R4204.64K
Q420
CR410
R4214.64K
Q421
R4224.64K
Q422
CR411
R4234.64K
Q423
R4244.64K
Q424
CR412
R4254.64K
Q425
R4264.64K
Q426
CR413
R4274.64K
Q427
R4284.64K
Q428
CR414
R4294.64K
Q429
R4304.64K
Q430
CR415
R431 4.64K
Q431
R432 4.64K
Q432
CR416
R433 4.64K
Q433
R434 4.64K
Q434
CR417
R435 4.64K
Q435
R436 4.64K
Q436
CR418
R437 4.64K
Q437
R438 4.64K
Q438
CR419
R439 4.64K
Q439
L_S_TREE_CTL
R440 4.64K
Q440
CR420
L_S_TREE_DR
LOW_TREE_CTL
R441 4.64K
never_load
Q441
LOW_TREE_DR
HIGH_TREE_CTL
R442 4.64K
Q442
CR421
HIGH_TREE_DR
HALF_TREE_CTL
R443 4.64K
Q443
HALF_TREE_DR
0180-4758
C400 47u
C401 47u


P100
J102
J101
J103
J200
C100
C101
L100
R103
R100
R101
R102
R104
U100
C110
R105
R106
R107
R108
C113
U103
C114
C112
U102
C108
R109
R121
U101
C111
R119
R118
U104
U105
L101
C104
R130
C115
C130
R131
C131
L102
C102
C105
C103
Q100
R120
R122
CR100
R125
C129
C128
C127
C126
Q101
R123
K200
VR200
C200
R200
CR200
C210
Q200
TP101
R210
K201
VR201
C201
R201
C123
C117
C124
R113
R114
R115
C125
R116
U107
R117
CR201
C211
Q201
R211
K202
VR202
C202
R202
CR202
C212
Q202
R212
K203
VR203
C203
R203
CR203
C213
Q203
R213
K204
VR204
C204
R204
CR204
C214
Q204
R214
K205
VR205
C205
R205
C120
C116
C121
R110
R111
R112
C122
U106
CR205
C215
Q205
R215
K206
VR206
C206
R206
CR206
C216
Q206
R216
K207
VR207
C207
R207
TP100
R217
Q207
CR207
C217

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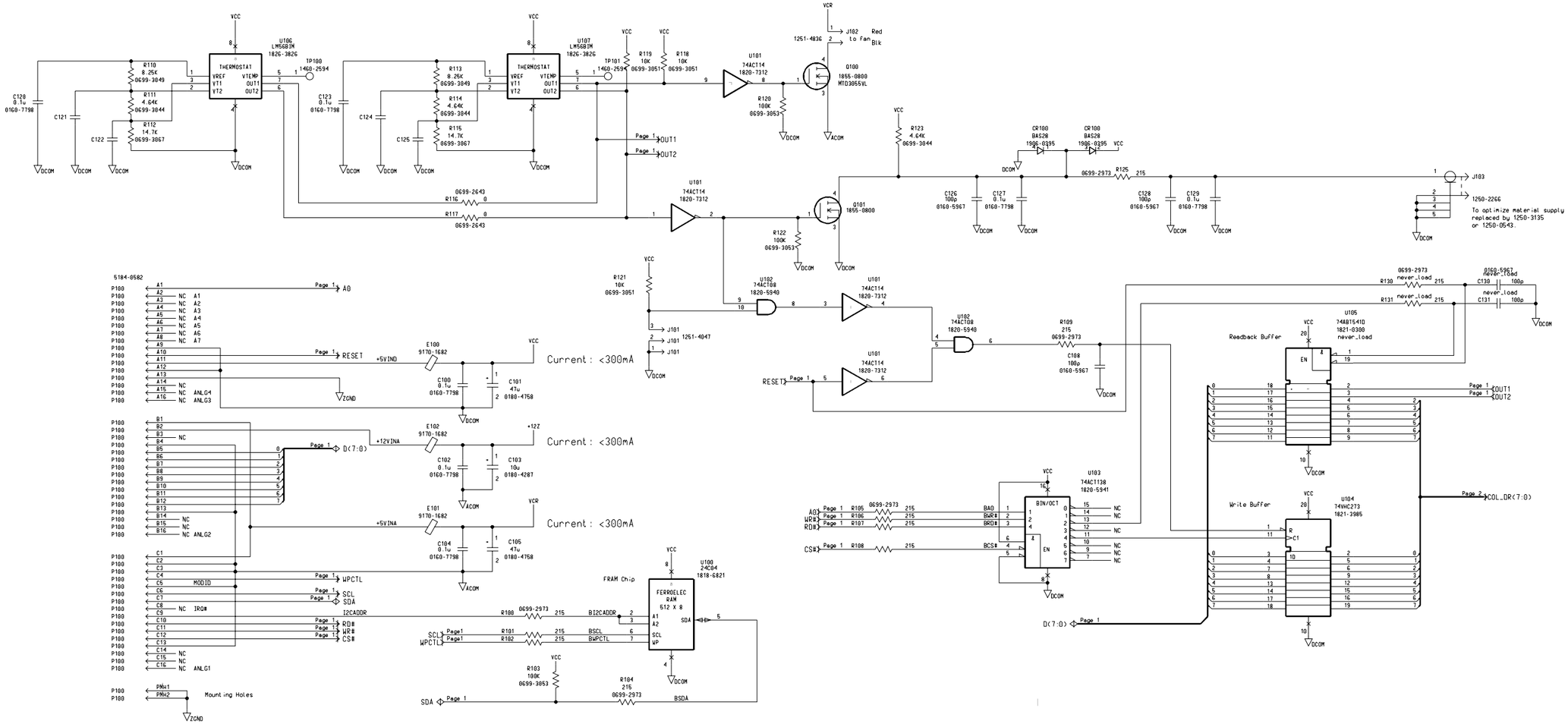

Agilent N2267A 8-Channel High Current GP Module Schematic (Sheet 1 of 2)
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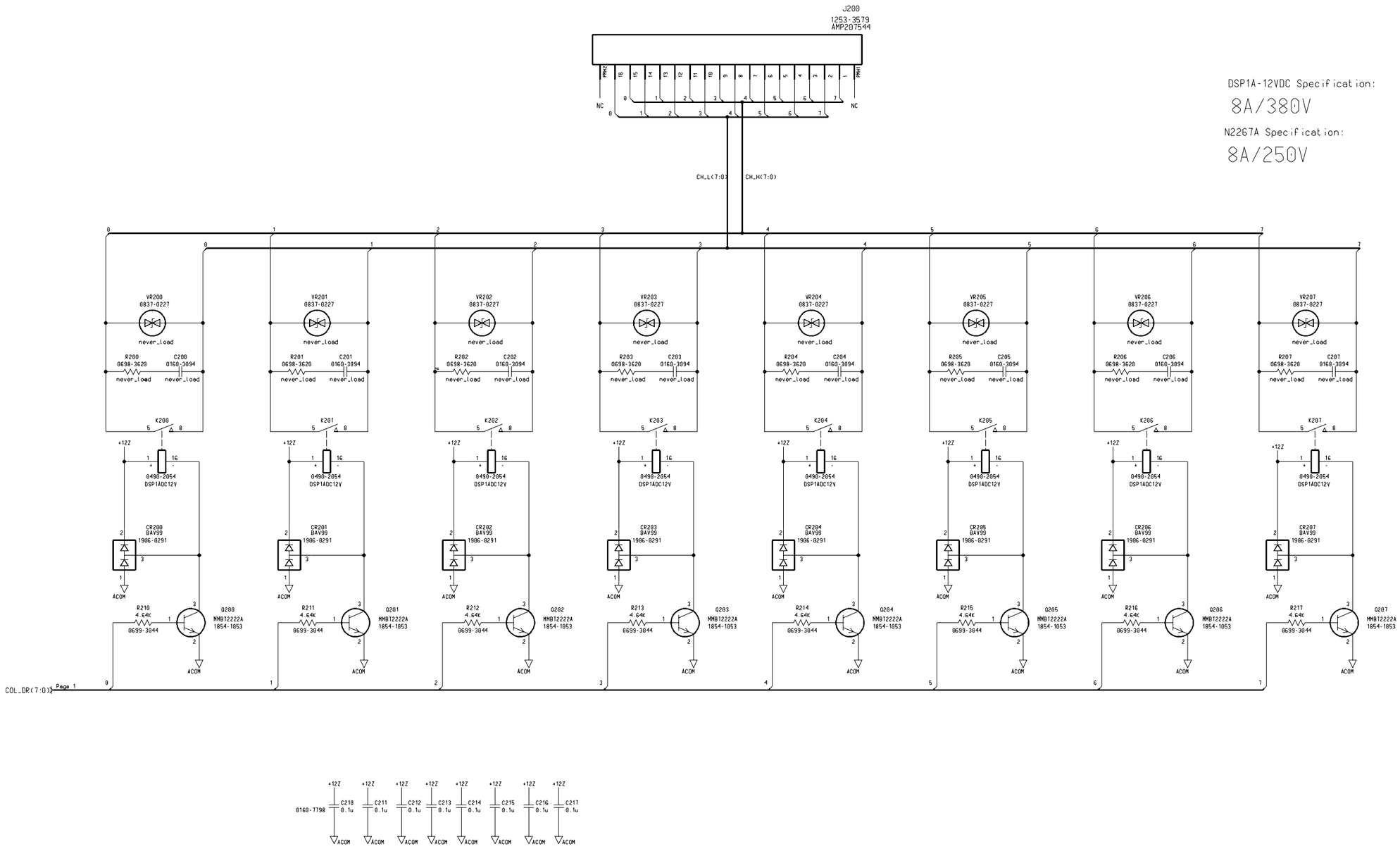
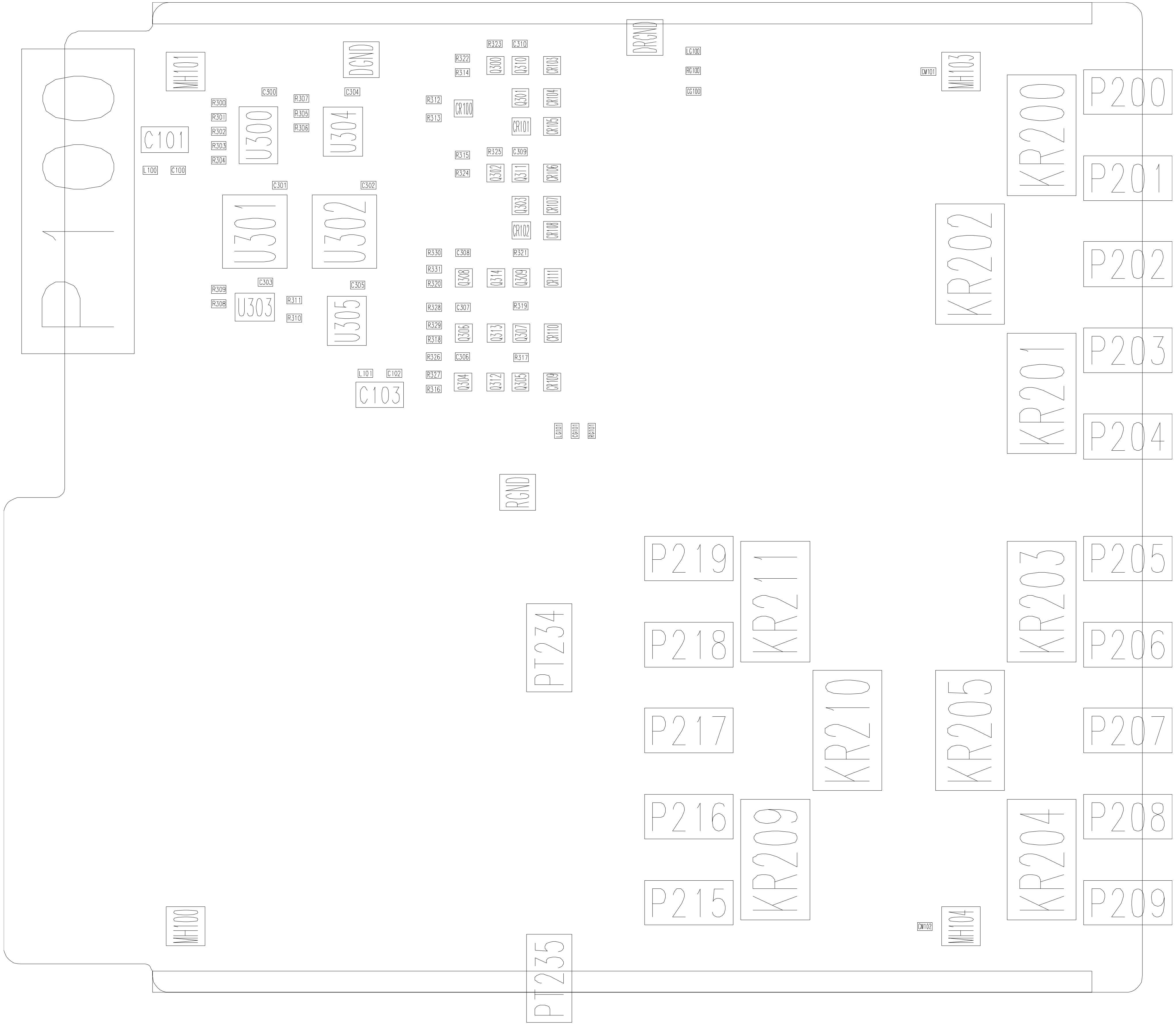


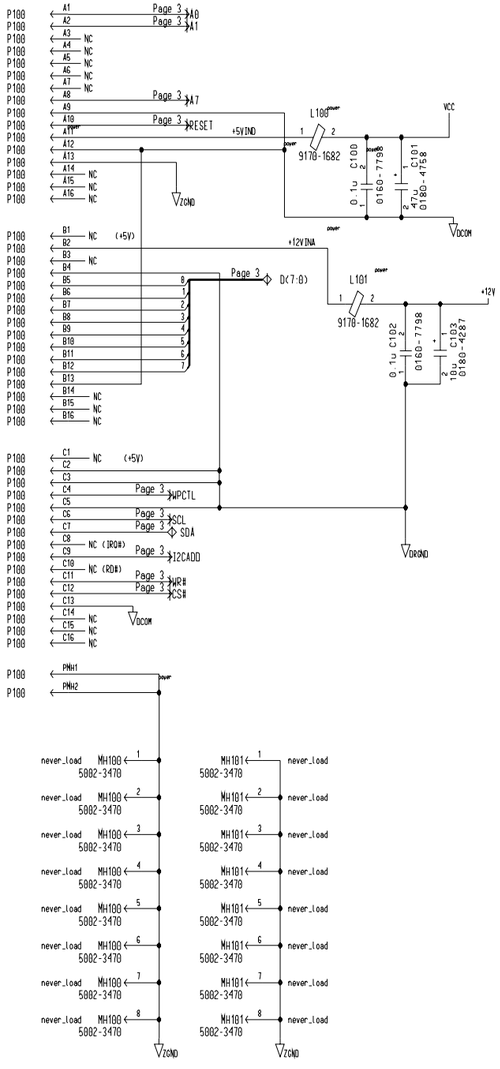
Agilent N2267A 8-Channel High Current
GP Module Schematic (Sheet 2 of 2)



Agilent N2268A 50Ω 3.5GHz Dual 1-to-4 MUX
Module Component Locator
Page 199

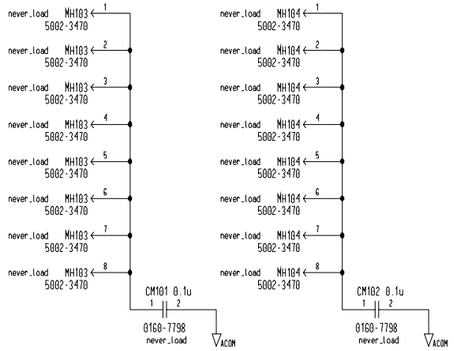
Backplane Connector

5184-0582

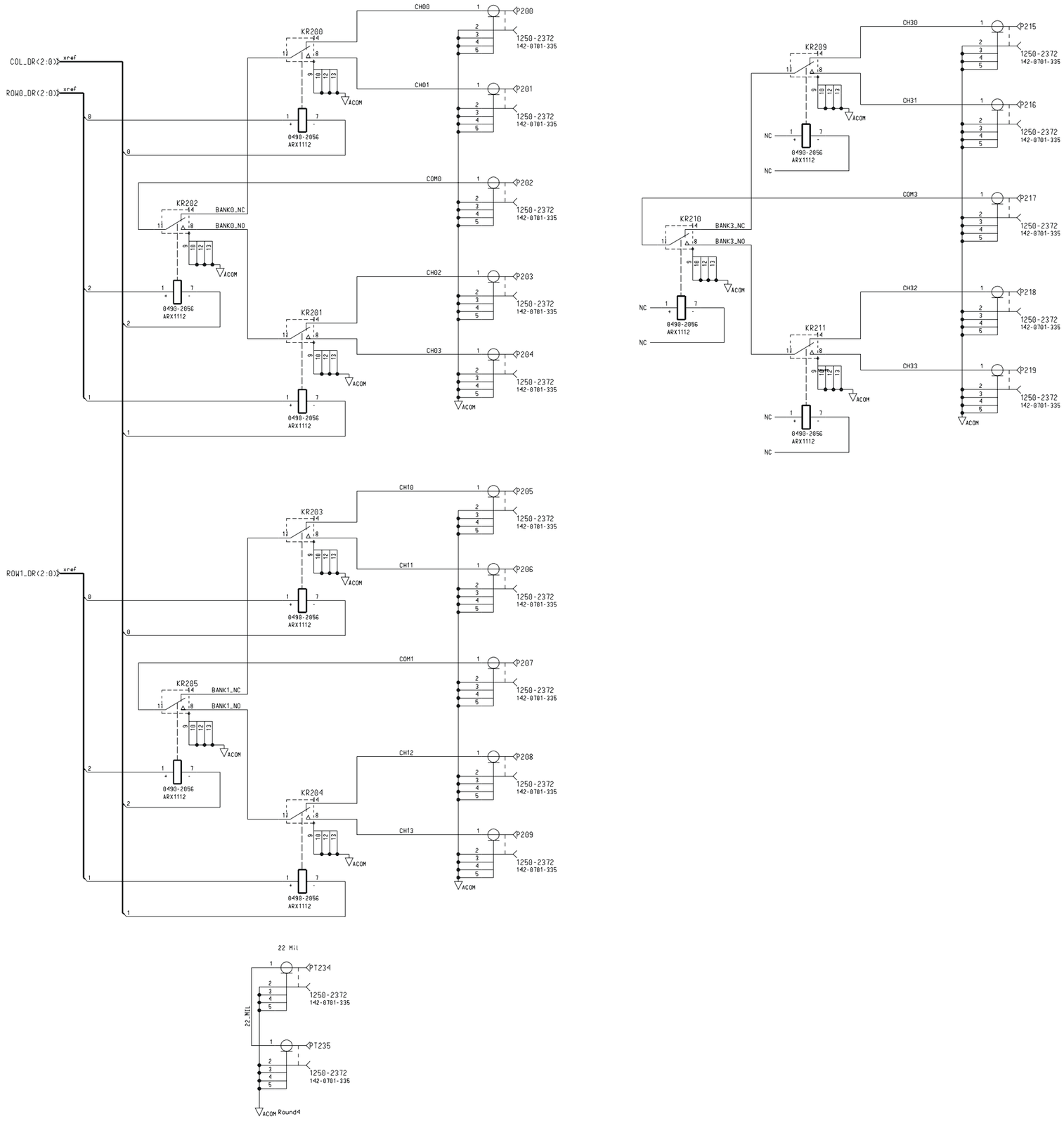


Current : <300mA

Current : <200mA



Agilent N2268A 50Ω 3.5GHz Dual 1-to-4 MUX
Module Schematic (Sheet 1 of 3)



Agilent N2268A 50Ω 3.5GHz Dual 1-to-4 MUX
Module Schematic (Sheet 2 of 3)
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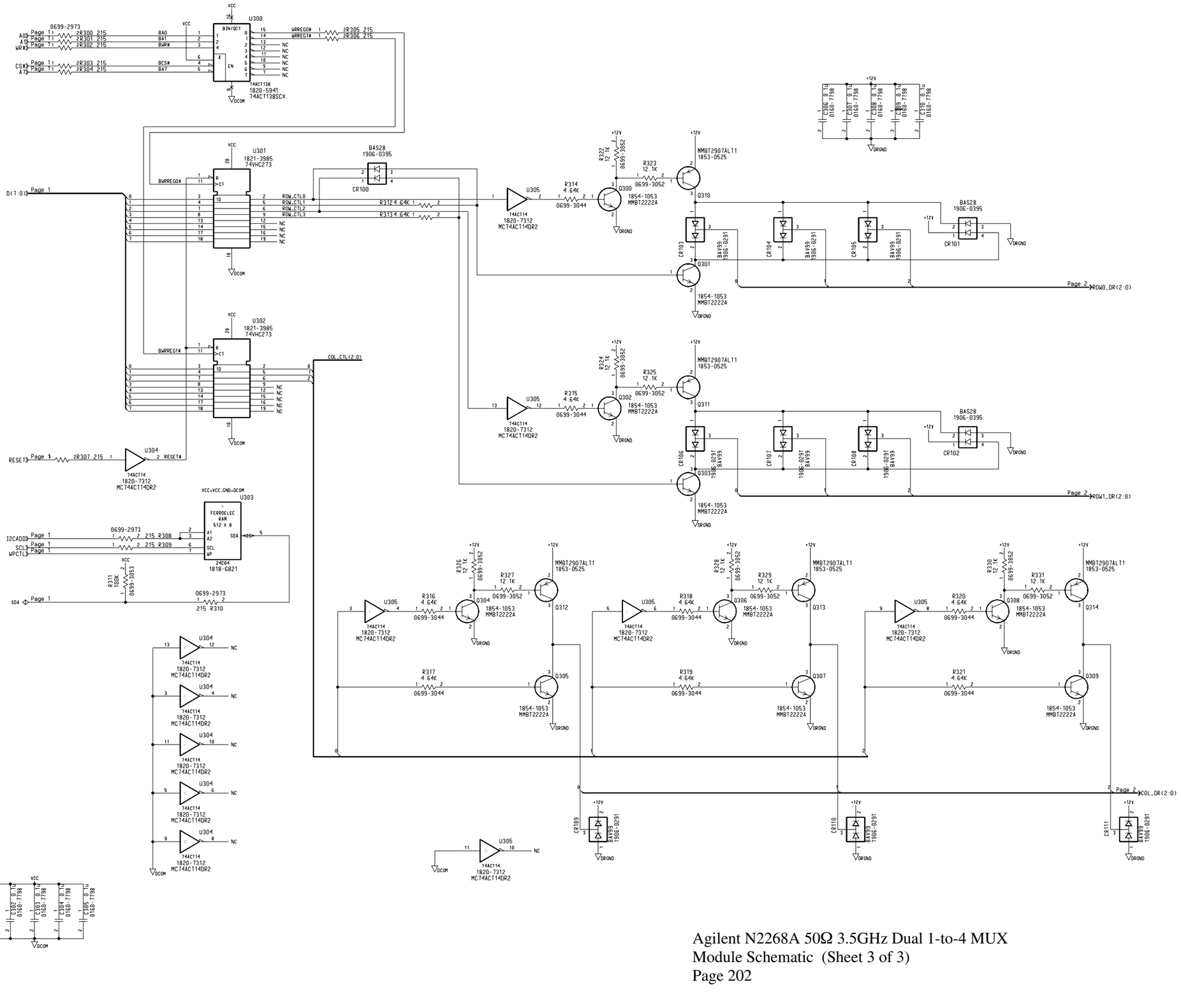
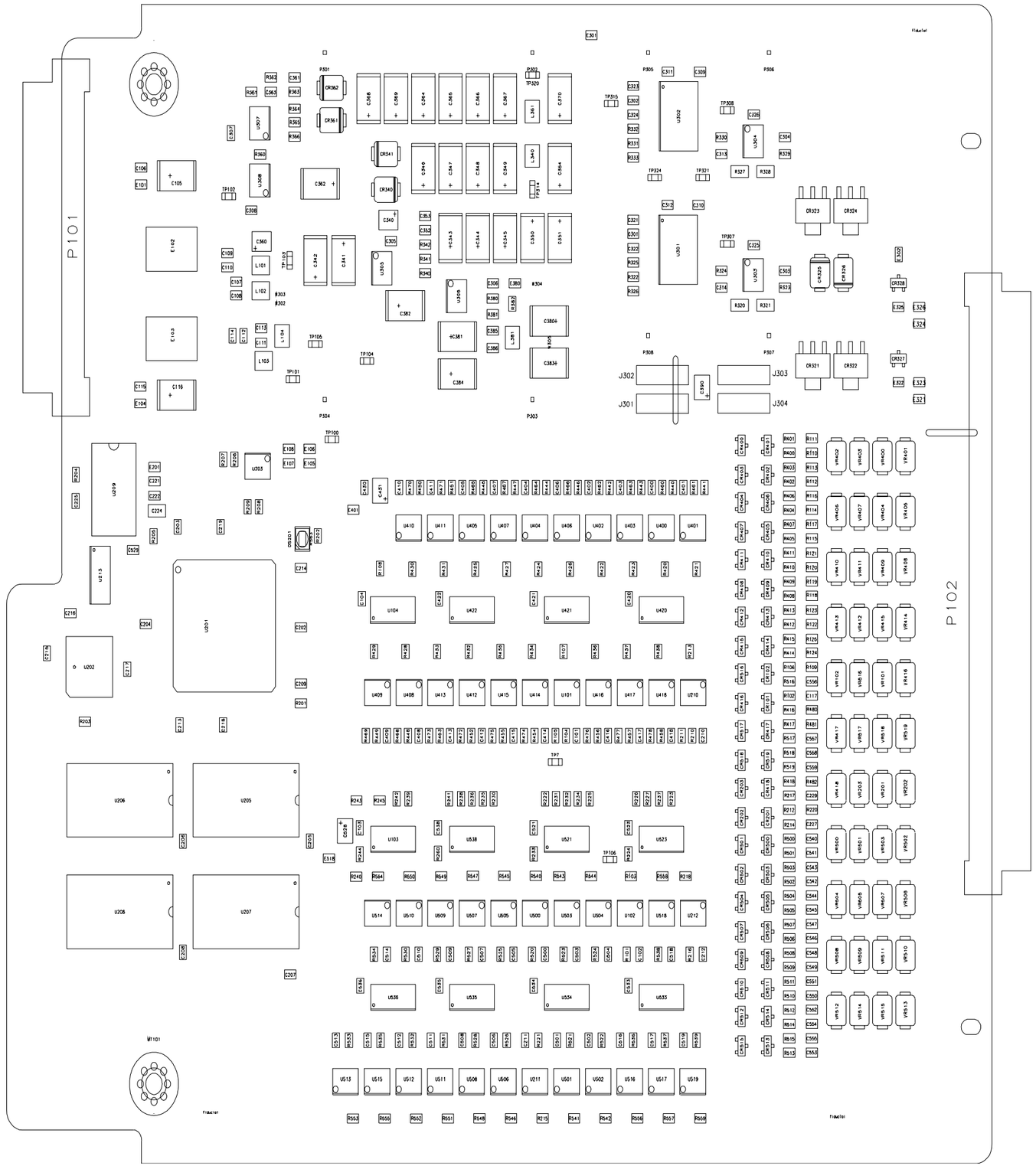
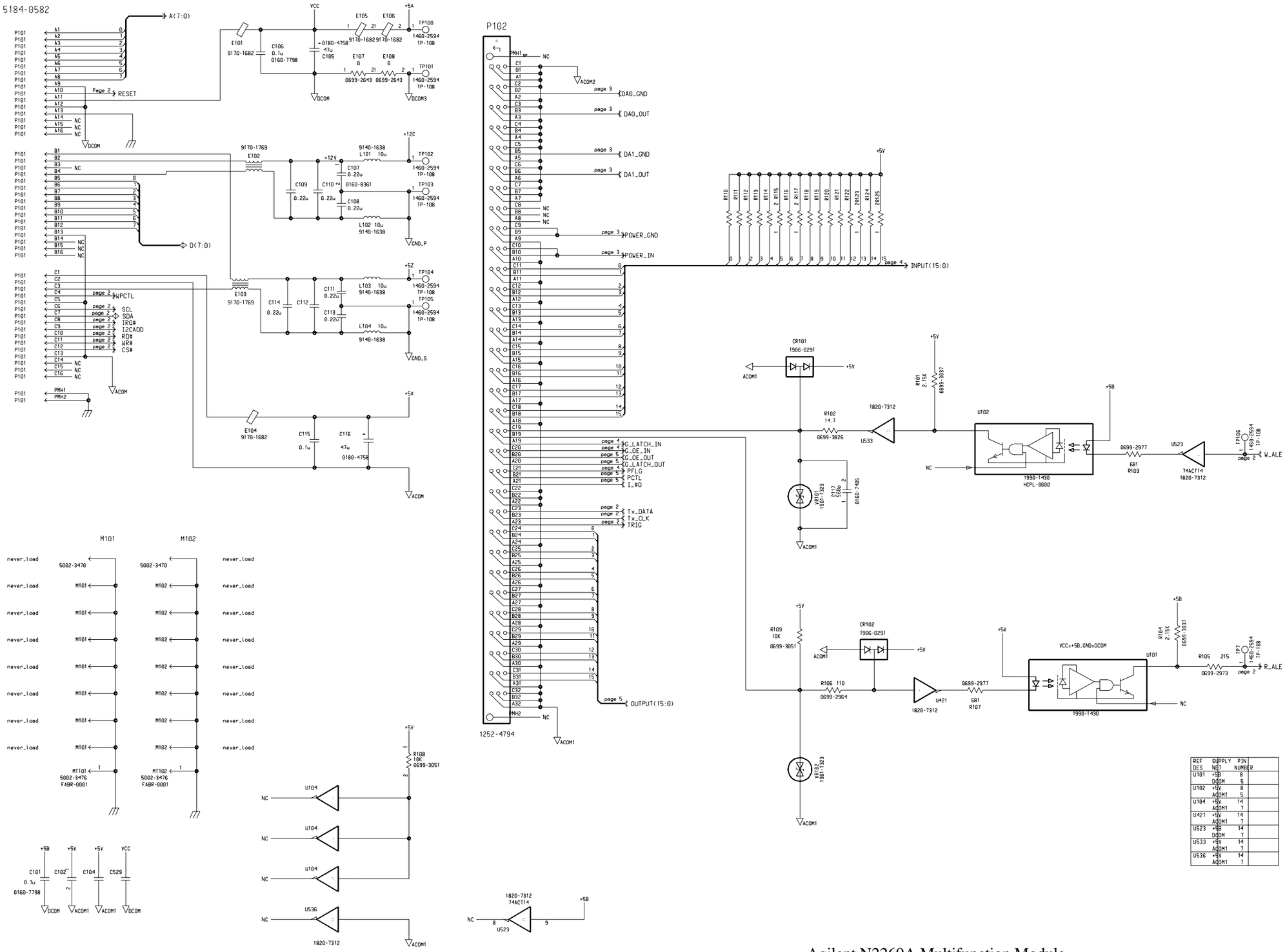


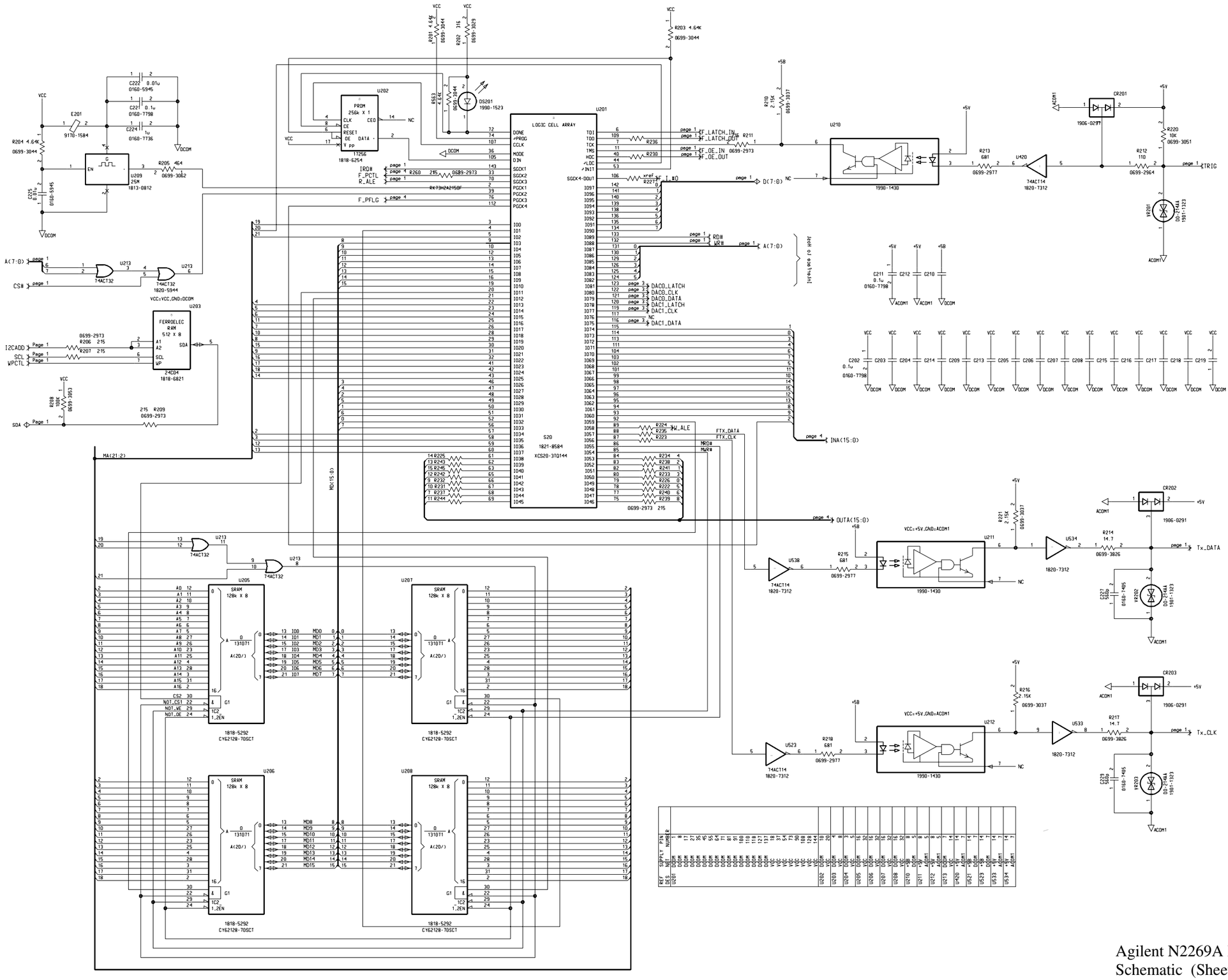
Agilent N2268A 50Ω 3.5GHz Dual 1-to-4 MUX
Module Schematic (Sheet 3 of 3)
Page 202



Agilent N2269A Multifunction Module
Component Locator
Page 203



REF DES	SUPPLY NET	PIN NUMBER	
U101	+5B	8	
	DCOM	5	
U102	+5V	8	
	ACOM1	5	
U104	+5V	14	
	ACOM1	7	
U421	+5V	14	
	ACOM1	7	
U523	+5B	14	
	DCOM	7	
U533	+5V	14	
	ACOM1	7	
U536	+5V	14	
	ACOM1	7	


U201
LOGIC CELL ARRAY
S20
1821-8584
XCS20-3TQ144
U202
PROM
256k X 1
17256
1818-6254
DS201
1990-1523
U203
FERROELEC
RAM
512 X 8
24C04
1818-6821
U205
U206
U207
U208
SRAM
128k X 8
1818-5292
CY62128-70SCT
U209
25M
1813-0812
E201
9170-1584
U210
1990-1430
U211
1990-1430
U212
1990-1430
U213
74ACT32
1820-5944
U420
74ACT14
1820-7312
U523
U533
U534
U538
CR201
CR202
CR203
1906-0291
VCC
+5V
+5B
DCOM
ACOM1
MA(21:2)
MD(15:0)
A(7:0)
D(7:0)
INA(15:0)
OUTA(15:0)
DAC0_LATCH
DAC0_CLK
DAC0_DATA
DAC1_LATCH
DAC1_CLK
DAC1_DATA
F_LATCH_IN
F_LATCH_OUT
F_OE_IN
F_OE_OUT
F_PCTL
F_ALE
F_PFLG
RD#
WR#
MRD#
MWR#
FTX_DATA
FTX_CLK
TRIG
Tx_DATA
Tx_CLK
I2CADD
SCL
WPCTL
SDA
CS#
IRQ#

#32 & #33

2 DAC

REF DES	SUPPLY NET	PIN NUMBER
U301	+5A	3
	+5C	16
	-5C	1
	AGND1	12
	DCOM3	2
U302	+5A	3
	+5C	16
	-5C	1
	AGND0	12
	DCOM3	2
U303	+15C	7
	-15C	4
U304	+15C	7
	-15C	4
U306	+5Z	8
	GND_S	6
U307	+12C	7
	GND_P	4

#30 & #31

Holes for shield over power area

Holes for shield over DA area

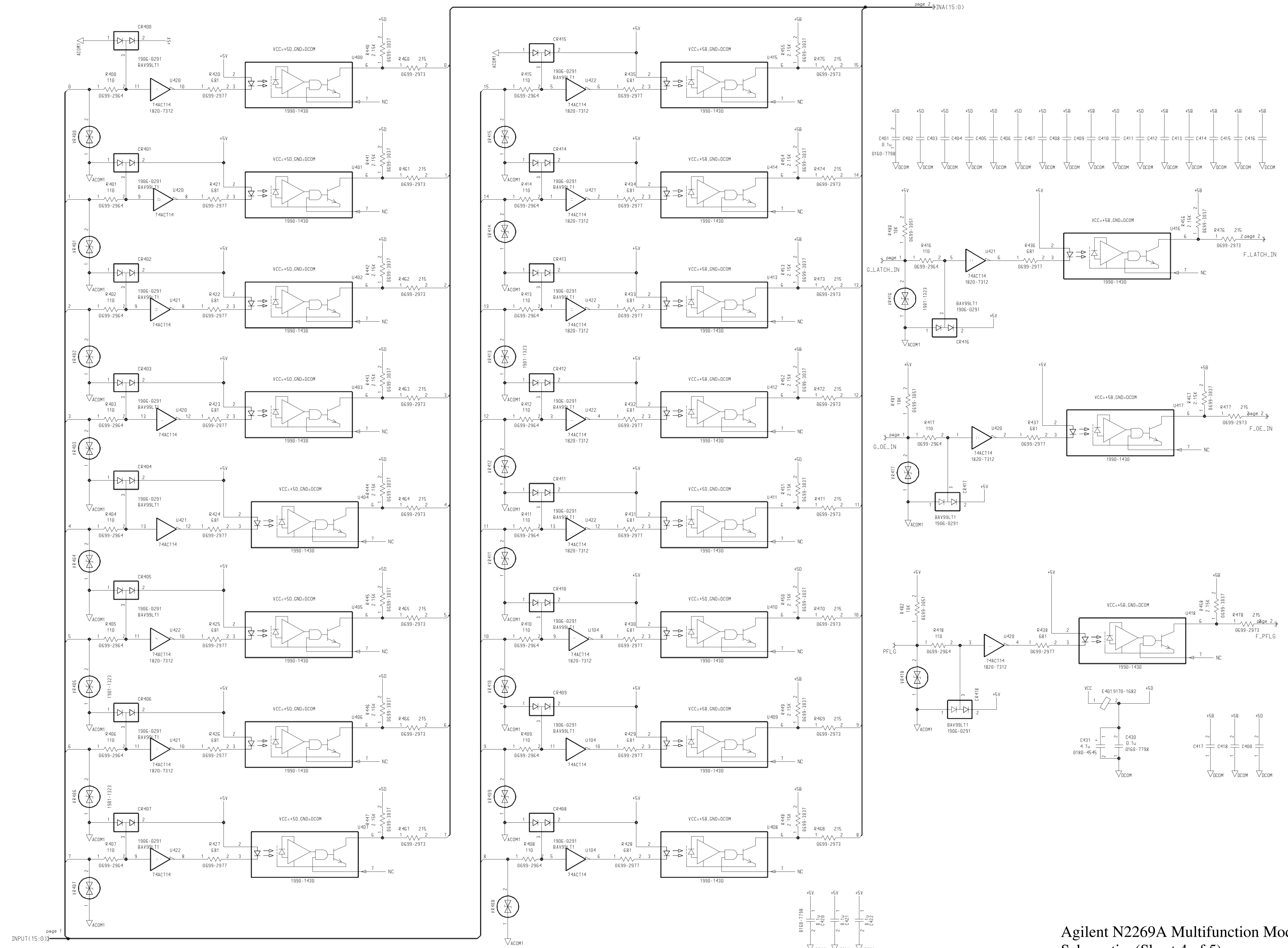
All this grounds should be connected after layout done.

#34 & #35

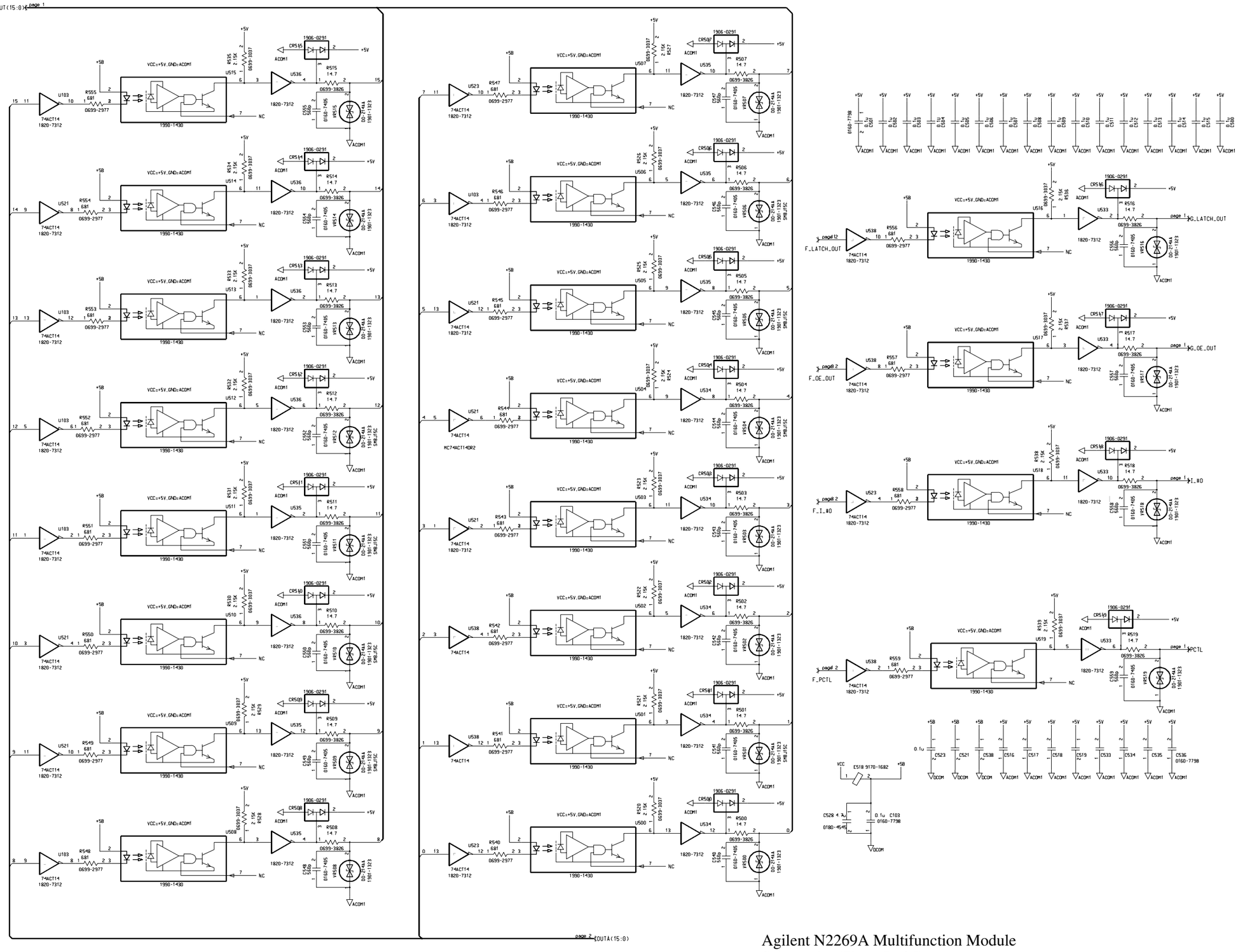
#36 & #37

#38

#39



Agilent N2269A Multifunction Module
Schematic (Sheet 4 of 5)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page 1
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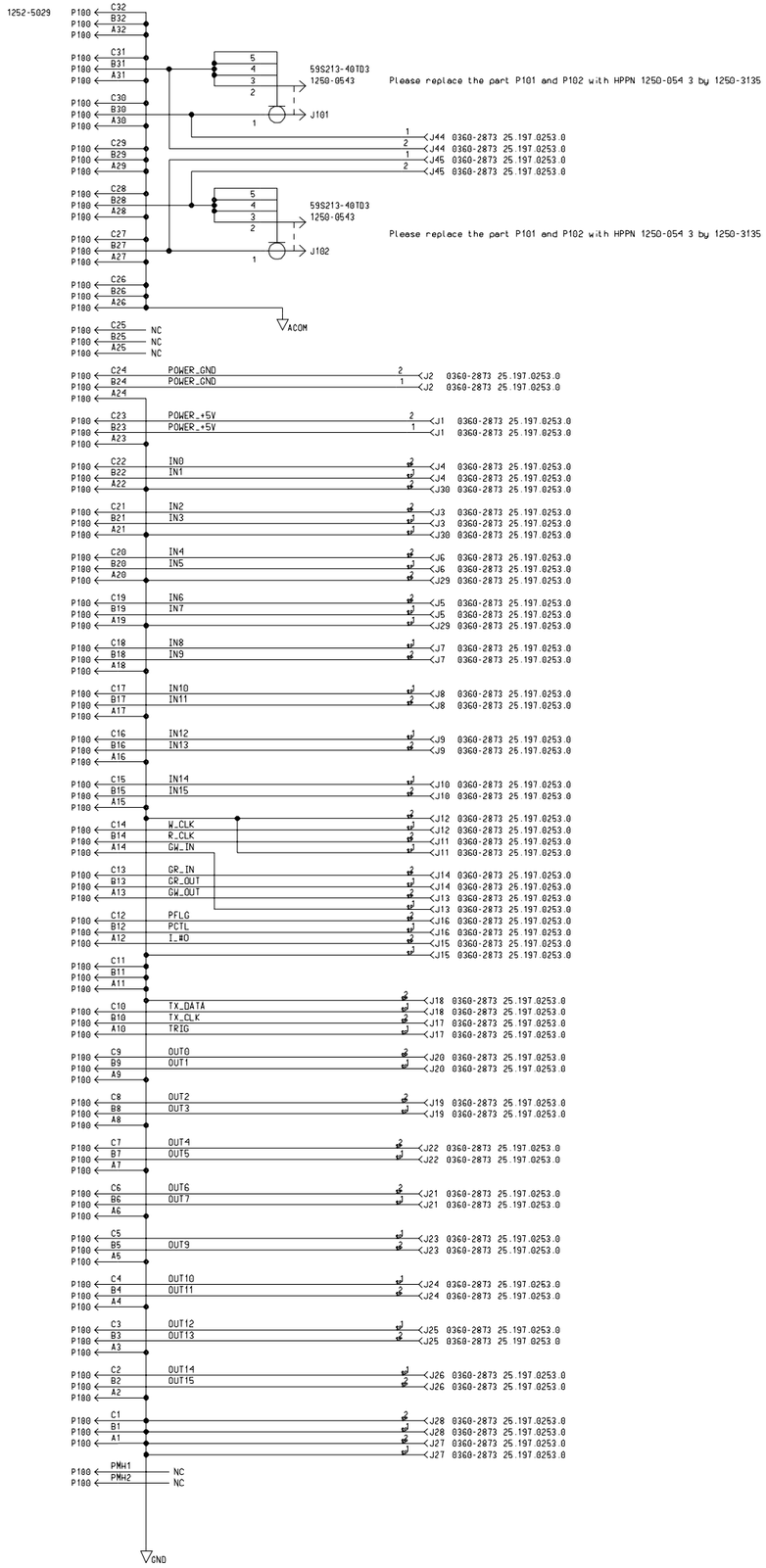
74ACT14
1820-7312
1990-1438
1820-7312
0699-2977
0699-3826
0699-3837
1906-0291
0160-7405
1901-1323
5082-2144
+5V
+5B
ACOM1
NC
U103
U521
U523
U538
U507
U506
U505
U504
U503
U502
U501
U500
U515
U514
U513
U512
U511
U510
U509
U508
U516
U517
U518
U519
U533
U534
U535
U536
R555
R554
R553
R552
R551
R550
R549
R548
R547
R546
R545
R544
R543
R542
R541
R540
R556
R557
R558
R559
R535
R534
R533
R532
R531
R530
R529
R528
R527
R526
R525
R524
R523
R522
R521
R520
R515
R514
R513
R512
R511
R510
R509
R508
R507
R506
R505
R504
R503
R502
R501
R500
R516
R517
R518
R519
C556
C555
C554
C553
C552
C551
C550
C549
C548
C547
C546
C545
C544
C543
C542
C541
C540
C557
C558
C559
C560
VR515
VR514
VR513
VR512
VR511
VR510
VR509
VR508
VR507
VR506
VR505
VR504
VR503
VR502
VR501
VR500
VR516
VR517
VR518
VR519
CR515
CR514
CR513
CR512
CR511
CR510
CR509
CR508
CR507
CR506
CR505
CR504
CR503
CR502
CR501
CR500
CR516
CR517
CR518
CR519
MC74ACT14DR2
page 12
F_LATCH_OUT
G_LATCH_OUT
page 2
F_OE_OUT
G_OE_OUT
F_I_#0
I_#0
F_PCTL
PCTL
0.1u
C523
C521
C538
C516
C517
C518
C519
C533
C534
C535
C536
C528 4.7u
C103
0160-7798
VCC
E518 9170-1682
DCOM
page 2
COUTA(15:0)


1252-5029
P100 C32
P100 B32
P100 A32
P100 C31
P100 B31
P100 A31
5
4
3
2
59S213-40TD3
1250-0543
Please replace the part P101 and P102 with HPPN 1250-054 3 by 1250-3135
J101
P100 C30
P100 B30
P100 A30
1
1
J44 03G0-2873 25.197.0253.0
P100 C29
P100 B29
P100 A29
2
J44 03G0-2873 25.197.0253.0
1
J45 03G0-2873 25.197.0253.0
2
J45 03G0-2873 25.197.0253.0
P100 C28
P100 B28
P100 A28
5
4
3
2
59S213-40TD3
1250-0543
Please replace the part P101 and P102 with HPPN 1250-054 3 by 1250-3135
J102
P100 C27
P100 B27
P100 A27
1
P100 C26
P100 B26
P100 A26
ACOM
P100 C25 NC
P100 B25 NC
P100 A25 NC
P100 C24 POWER_GND
2
J2 03G0-2873 25.197.0253.0
P100 B24 POWER_GND
1
J2 03G0-2873 25.197.0253.0
P100 A24
P100 C23 POWER_+5V
2
J1 03G0-2873 25.197.0253.0
P100 B23 POWER_+5V
1
J1 03G0-2873 25.197.0253.0
P100 A23
P100 C22 IN0
J4 03G0-2873 25.197.0253.0
P100 B22 IN1
J4 03G0-2873 25.197.0253.0
P100 A22
J30 03G0-2873 25.197.0253.0
P100 C21 IN2
J3 03G0-2873 25.197.0253.0
P100 B21 IN3
J3 03G0-2873 25.197.0253.0
P100 A21
J30 03G0-2873 25.197.0253.0
P100 C20 IN4
J6 03G0-2873 25.197.0253.0
P100 B20 IN5
J6 03G0-2873 25.197.0253.0
P100 A20
J29 03G0-2873 25.197.0253.0
P100 C19 IN6
J5 03G0-2873 25.197.0253.0
P100 B19 IN7
J5 03G0-2873 25.197.0253.0
P100 A19
J29 03G0-2873 25.197.0253.0
P100 C18 IN8
J7 03G0-2873 25.197.0253.0
P100 B18 IN9
J7 03G0-2873 25.197.0253.0
P100 A18
P100 C17 IN10
J8 03G0-2873 25.197.0253.0
P100 B17 IN11
J8 03G0-2873 25.197.0253.0
P100 A17
P100 C16 IN12
J9 03G0-2873 25.197.0253.0
P100 B16 IN13
J9 03G0-2873 25.197.0253.0
P100 A16
P100 C15 IN14
J10 03G0-2873 25.197.0253.0
P100 B15 IN15
J10 03G0-2873 25.197.0253.0
P100 A15
J12 03G0-2873 25.197.0253.0
P100 C14 W_CLK
J12 03G0-2873 25.197.0253.0
P100 B14 R_CLK
J11 03G0-2873 25.197.0253.0
P100 A14 GW_IN
J11 03G0-2873 25.197.0253.0
P100 C13 GR_IN
J14 03G0-2873 25.197.0253.0
P100 B13 GR_OUT
J14 03G0-2873 25.197.0253.0
P100 A13 GW_OUT
J13 03G0-2873 25.197.0253.0
J13 03G0-2873 25.197.0253.0
P100 C12 PFLG
J16 03G0-2873 25.197.0253.0
P100 B12 PCTL
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J15 03G0-2873 25.197.0253.0
P100 C11
P100 B11
P100 A11
J18 03G0-2873 25.197.0253.0
P100 C10 TX_DATA
J18 03G0-2873 25.197.0253.0
P100 B10 TX_CLK
J17 03G0-2873 25.197.0253.0
P100 A10 TRIG
J17 03G0-2873 25.197.0253.0
P100 C9 OUT0
J20 03G0-2873 25.197.0253.0
P100 B9 OUT1
J20 03G0-2873 25.197.0253.0
P100 A9
P100 C8 OUT2
J19 03G0-2873 25.197.0253.0
P100 B8 OUT3
J19 03G0-2873 25.197.0253.0
P100 A8
P100 C7 OUT4
J22 03G0-2873 25.197.0253.0
P100 B7 OUT5
J22 03G0-2873 25.197.0253.0
P100 A7
P100 C6 OUT6
J21 03G0-2873 25.197.0253.0
P100 B6 OUT7
J21 03G0-2873 25.197.0253.0
P100 A6
P100 C5
J23 03G0-2873 25.197.0253.0
P100 B5 OUT9
J23 03G0-2873 25.197.0253.0
P100 A5
P100 C4 OUT10
J24 03G0-2873 25.197.0253.0
P100 B4 OUT11
J24 03G0-2873 25.197.0253.0
P100 A4
P100 C3 OUT12
J25 03G0-2873 25.197.0253.0
P100 B3 OUT13
J25 03G0-2873 25.197.0253.0
P100 A3
P100 C2 OUT14
J26 03G0-2873 25.197.0253.0
P100 B2 OUT15
J26 03G0-2873 25.197.0253.0
P100 A2
P100 C1
J28 03G0-2873 25.197.0253.0
P100 B1
J28 03G0-2873 25.197.0253.0
P100 A1
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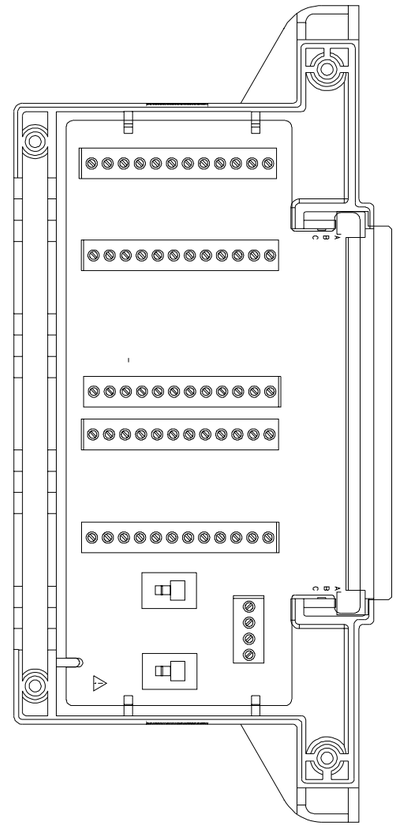
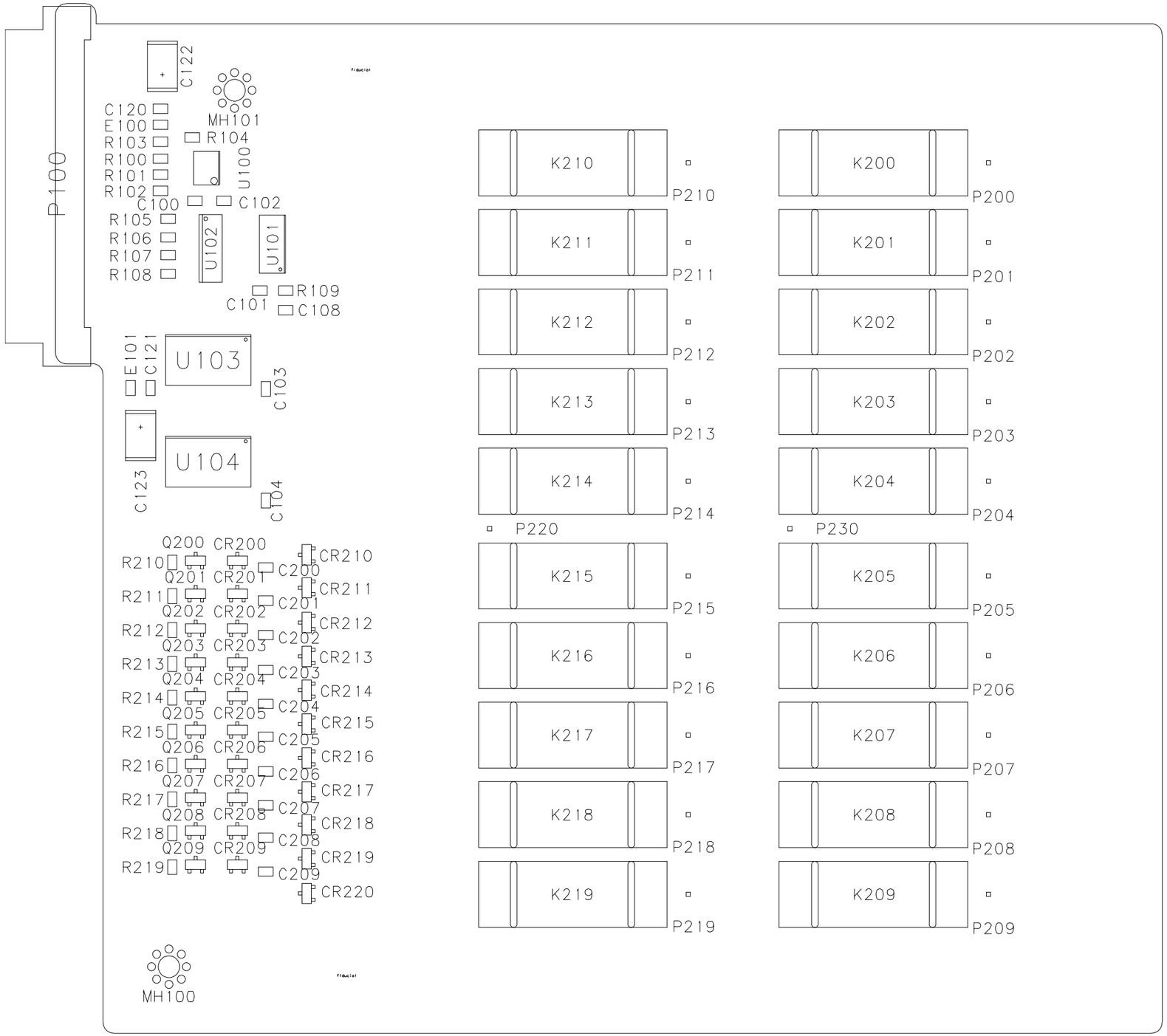
J27 03G0-2873 25.197.0253.0
PMH1 NC
PMH2 NC
GND


C
B
A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C122
MH101
C120
E100
R103
R100
R101
R102
R104
U100
C100
C102
R105
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R108
U102
U101
C101
R109
C108
E101
C121
U103
C103
C123
U104
C104
Q200 CR200
R210
CR210
C200
Q201 CR201
R211
CR211
C201
Q202 CR202
R212
CR212
C202
Q203 CR203
R213
CR213
C203
Q204 CR204
R214
CR214
C204
Q205 CR205
R215
CR215
C205
Q206 CR206
R216
CR216
C206
Q207 CR207
R217
CR217
C207
Q208 CR208
R218
CR218
C208
Q209 CR209
R219
CR219
C209
CR220
MH100
K210
P210
K211
P211
K212
P212
K213
P213
K214
P214
P220
K215
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K216
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K202
P202
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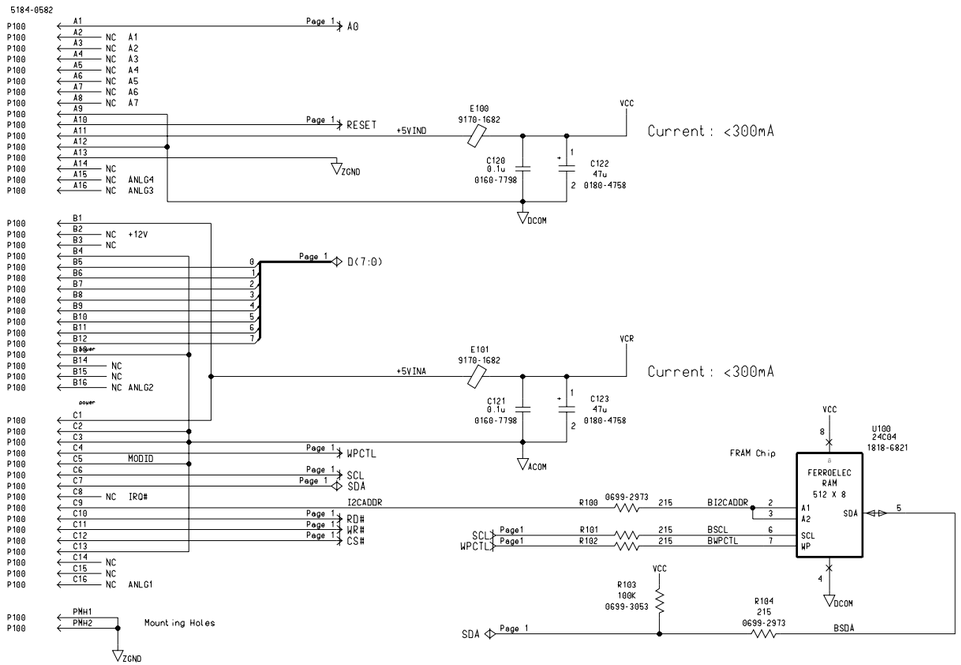
P206
K207
P207
K208
P208
K209
P209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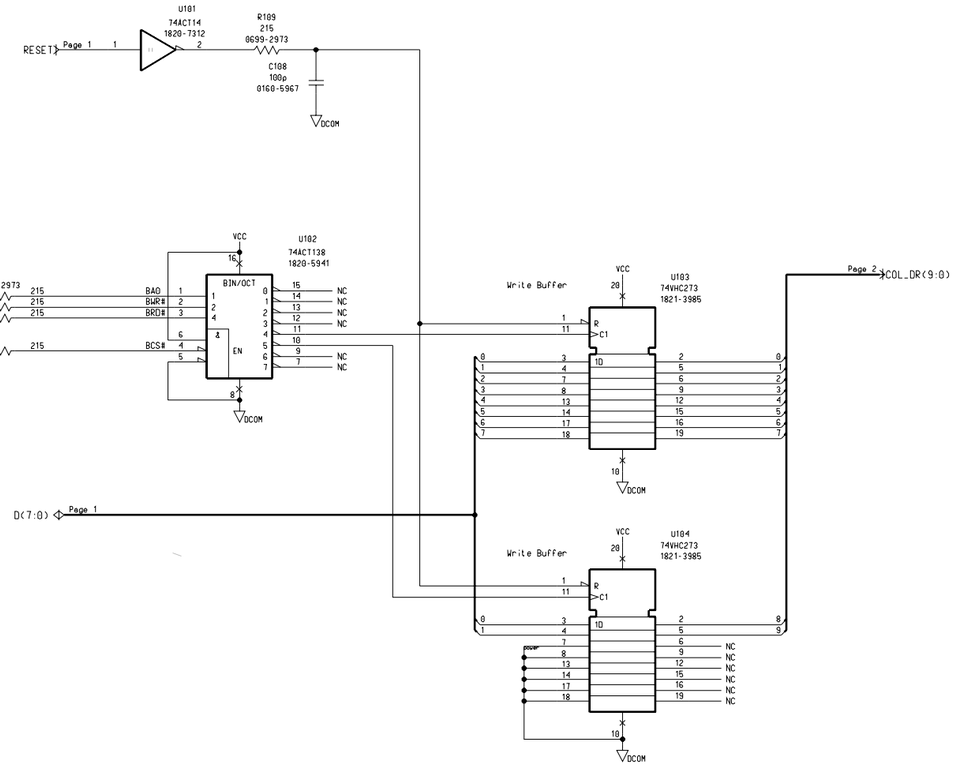
P100 A4 NC A3
P100 A5 NC A4
P100 A6 NC A5
P100 A7 NC A6
P100 A8 NC A7
P100 A9
P100 A10 Page 1 RESET
P100 A11 +5VIND
P100 A12
P100 A13 ZGND
P100 A14 NC
P100 A15 NC ANLG4
P100 A16 NC ANLG3
E100 9170-1682
VCC
Current: <300mA
C120 0.1u 0160-7798
C122 47u 0180-4758
DCOM
P100 B1
P100 B2 NC +12V
P100 B3 NC
P100 B4
P100 B5 Page 1 D(7:0)
P100 B6
P100 B7
P100 B8
P100 B9
P100 B10
P100 B11
P100 B12
P100 B13
P100 B14 NC
P100 B15 NC
P100 B16 NC ANLG2
E101 9170-1682
VCR
+5VINA
Current: <300mA
C121 0.1u 0160-7798
C123 47u 0180-4758
ACOM
P100 C1
P100 C2
P100 C3
P100 C4 Page 1 WPCTL
P100 C5 MODID
P100 C6 Page 1 SCL
P100 C7 Page 1 SDA
P100 C8
P100 C9 NC IRQ#
P100 C10 I2CADDR
P100 C11 Page 1 RD#
P100 C12 Page 1 WR#
P100 C13 Page 1 CS#
P100 C14 NC
P100 C15 NC
P100 C16 NC ANLG1
FRAM Chip
U100 24C04 1818-6821
FERROELEC RAM 512 X 8
A1
A2
SCL
WP
SDA
R100 0699-2973 215 BI2CADDR
SCL Page1 R101 215 BSCL
WPCTL Page1 R102 215 BWPCTL
R103 100K 0699-3053
R104 215 0699-2973 BSDA
SDA Page 1
PMH1
PMH2
Mounting Holes
ZGND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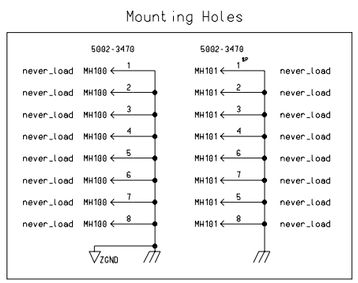
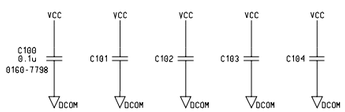
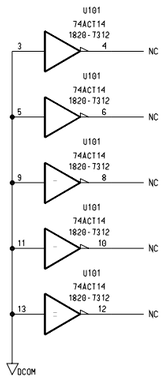
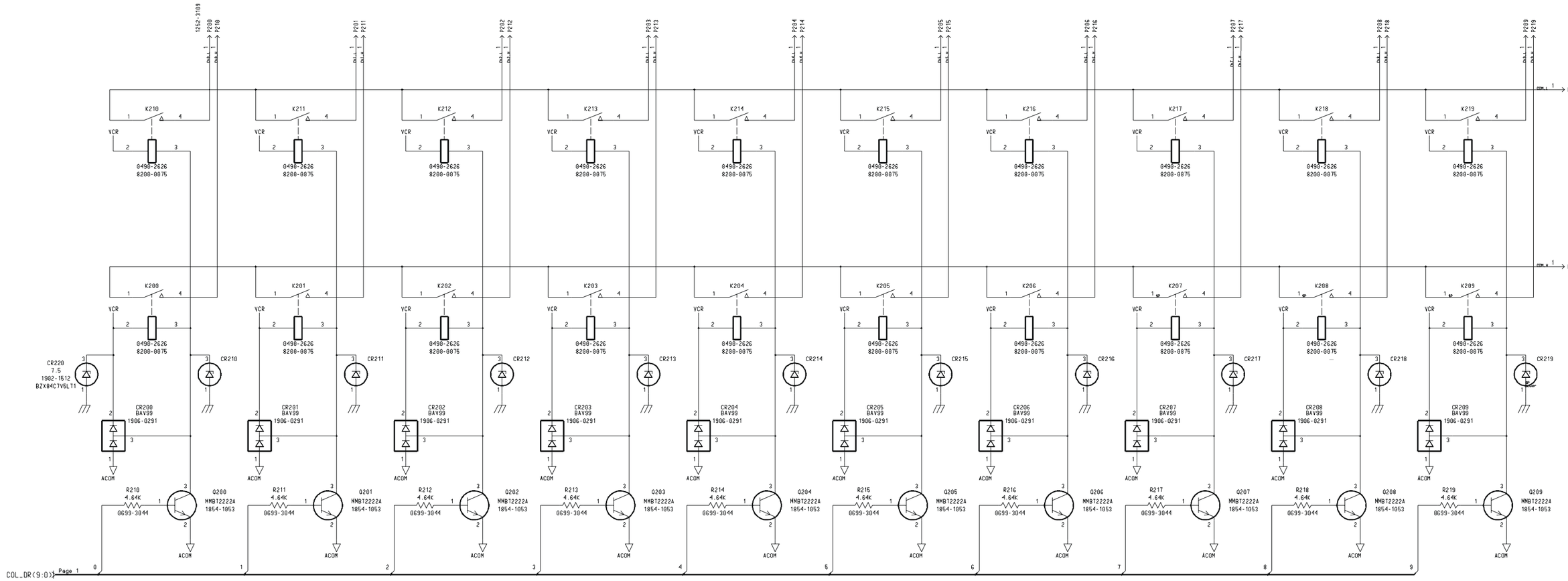
R109 215 0699-2973
C108 100p 0160-5967
DCOM
U102 74ACT138 1820-5941
VCC
BIN/OCT
EN
A0 Page 1 R105 0699-2973 215 BA0
WR# Page 1 R106 215 BWR#
RD# Page 1 R107 215 BRD#
CS# Page 1 R108 215 BCS#
NC
Write Buffer
U103 74VHC273 1821-3985
U104 74VHC273 1821-3985
D(7:0) Page 1
Page 2 COL_DR(9:0)

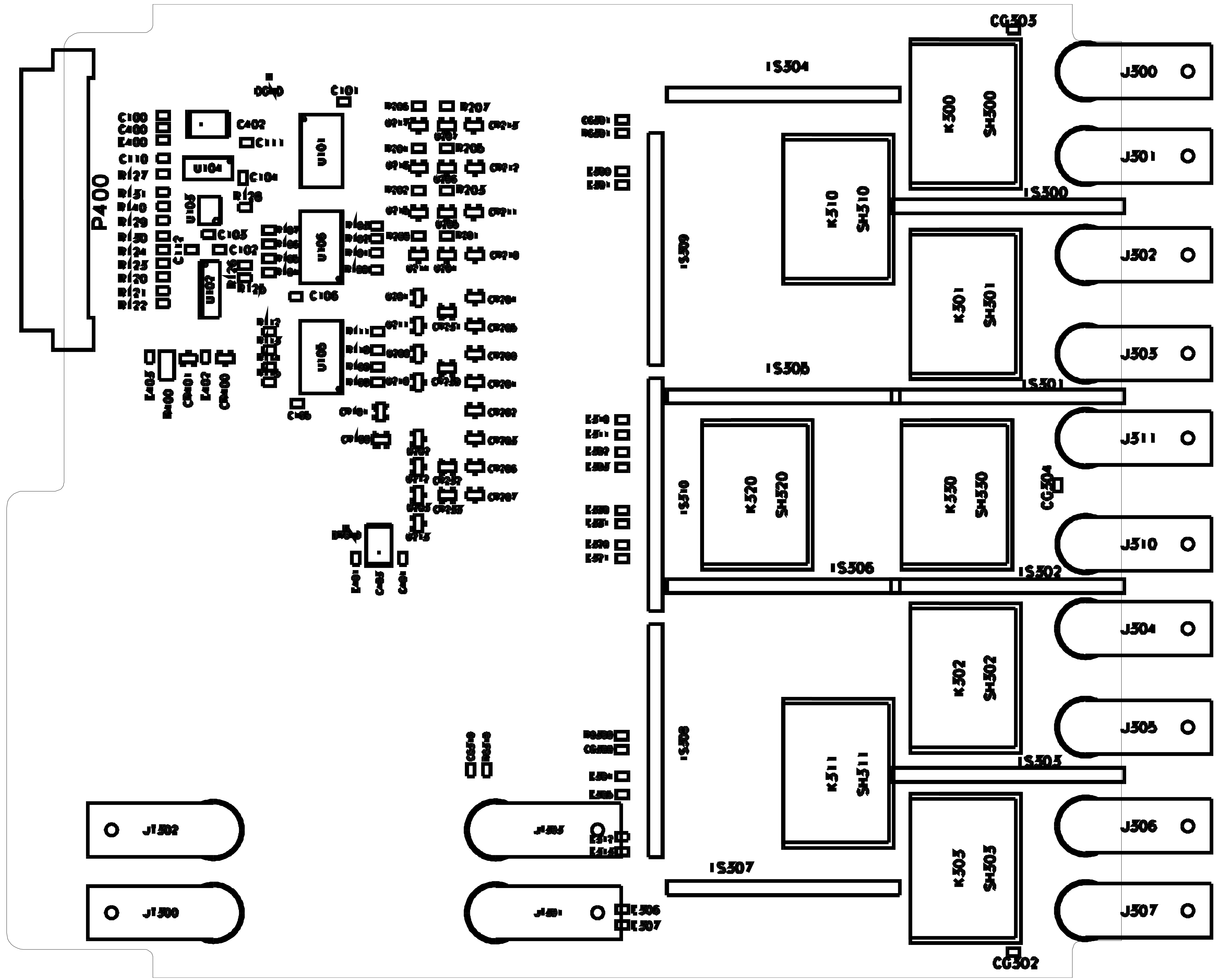

Mounting Holes
5002-3470
MH100
MH101
never_load
ZGND


VCC
C100 0.1u 0160-7798
C101
C102
C103
C104
DCOM


U101 74ACT14 1820-7312
NC
DCOM



Agilent N2270A 10-Channel High Voltage MUX
Module Schematic (Sheet 2 of 2)


P400
U101
U104
U106
U105
C106
R126
R128
C101
C402
C111
C104
C103
C102
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E400
C110
R127
R131
R140
R129
R130
R124
R125
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J303
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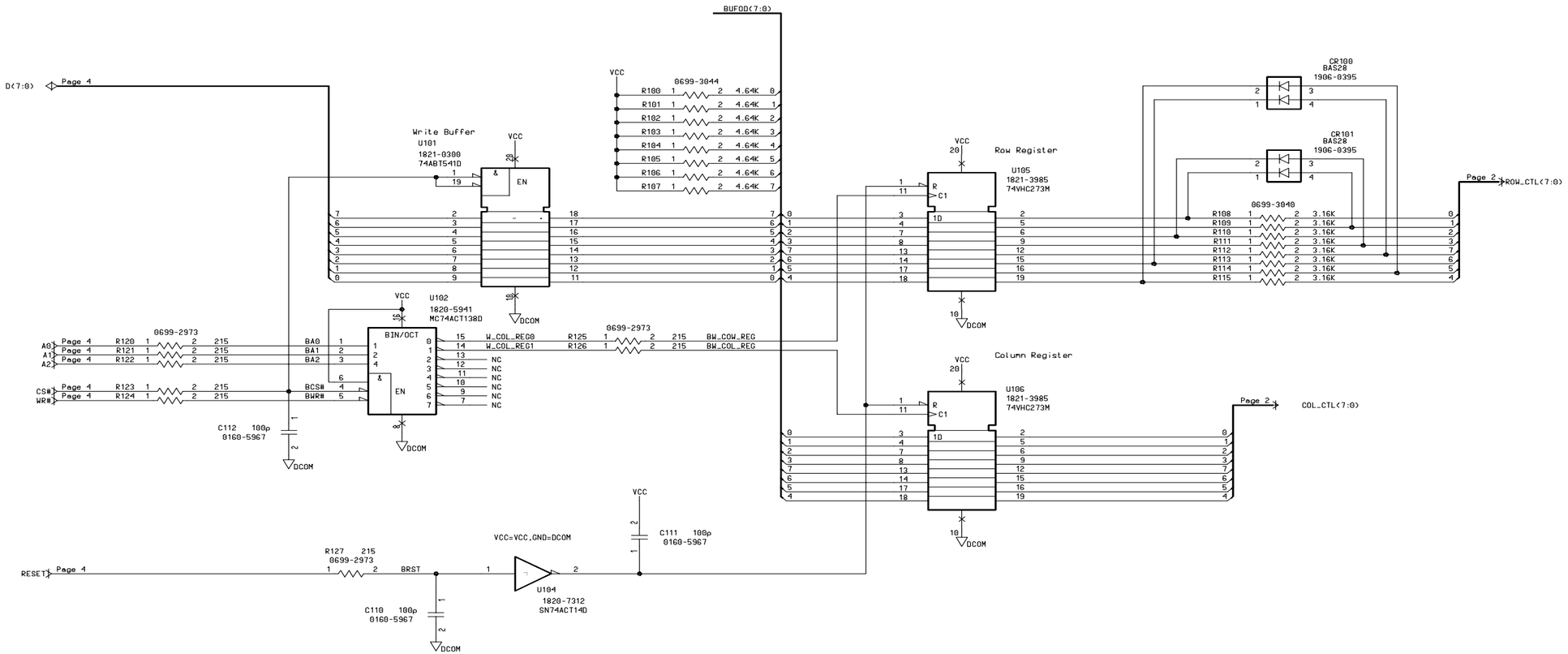
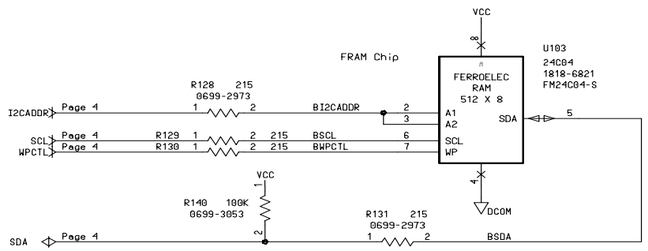
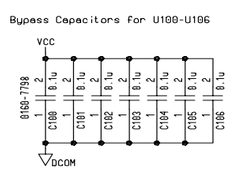
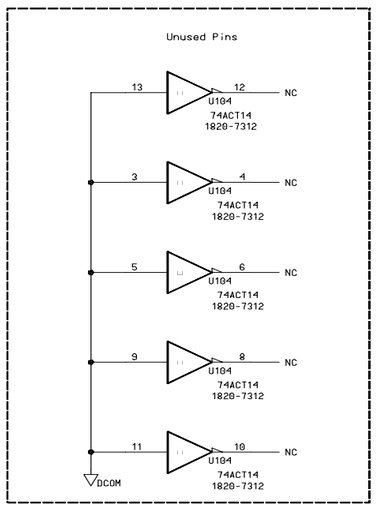
J305
J306
J307
J1502
J1500
E306
E307
CG302
CG303
CG304

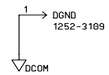
Agilent N2272A 1GHz RF 1-to-9 MUX Module
Component Locator
Page 213



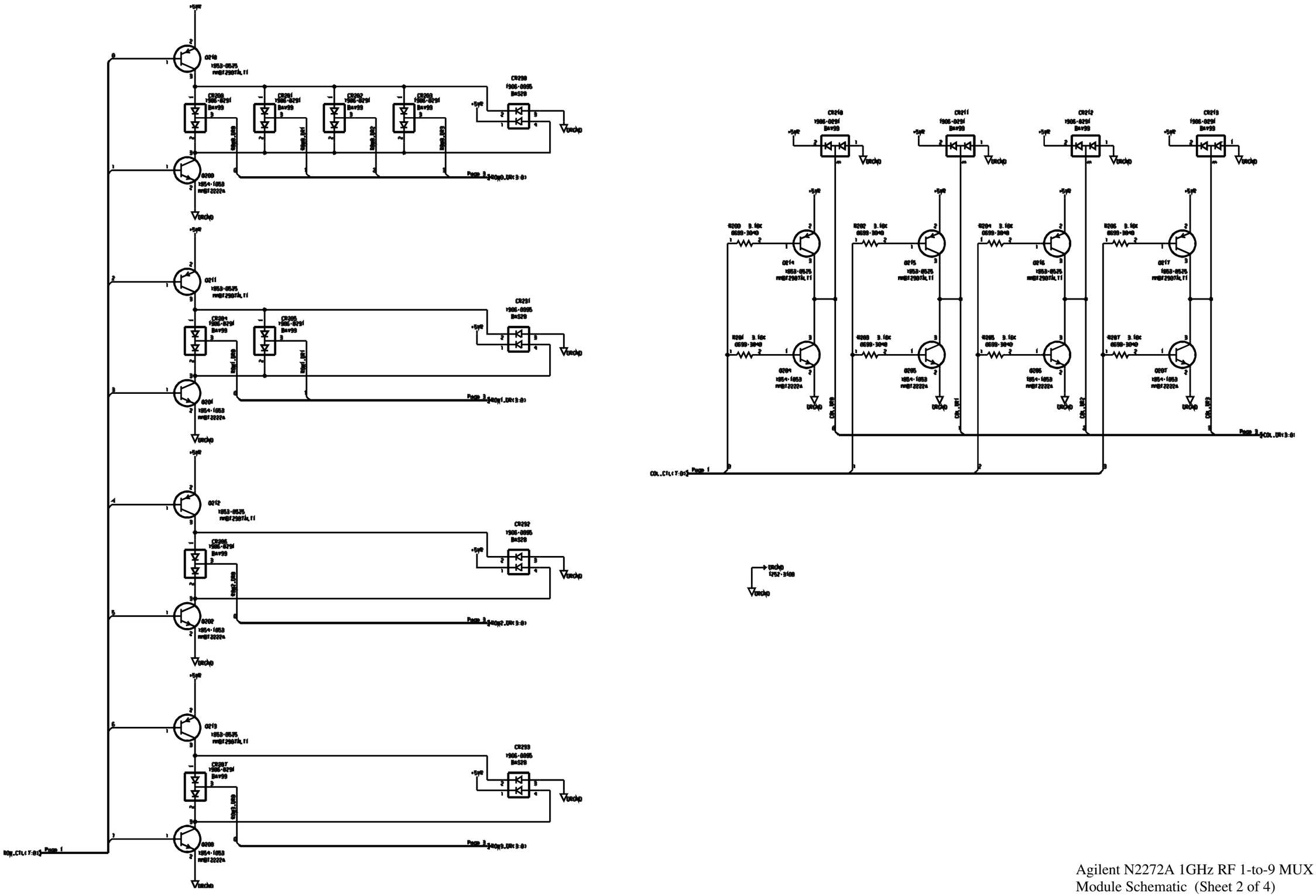




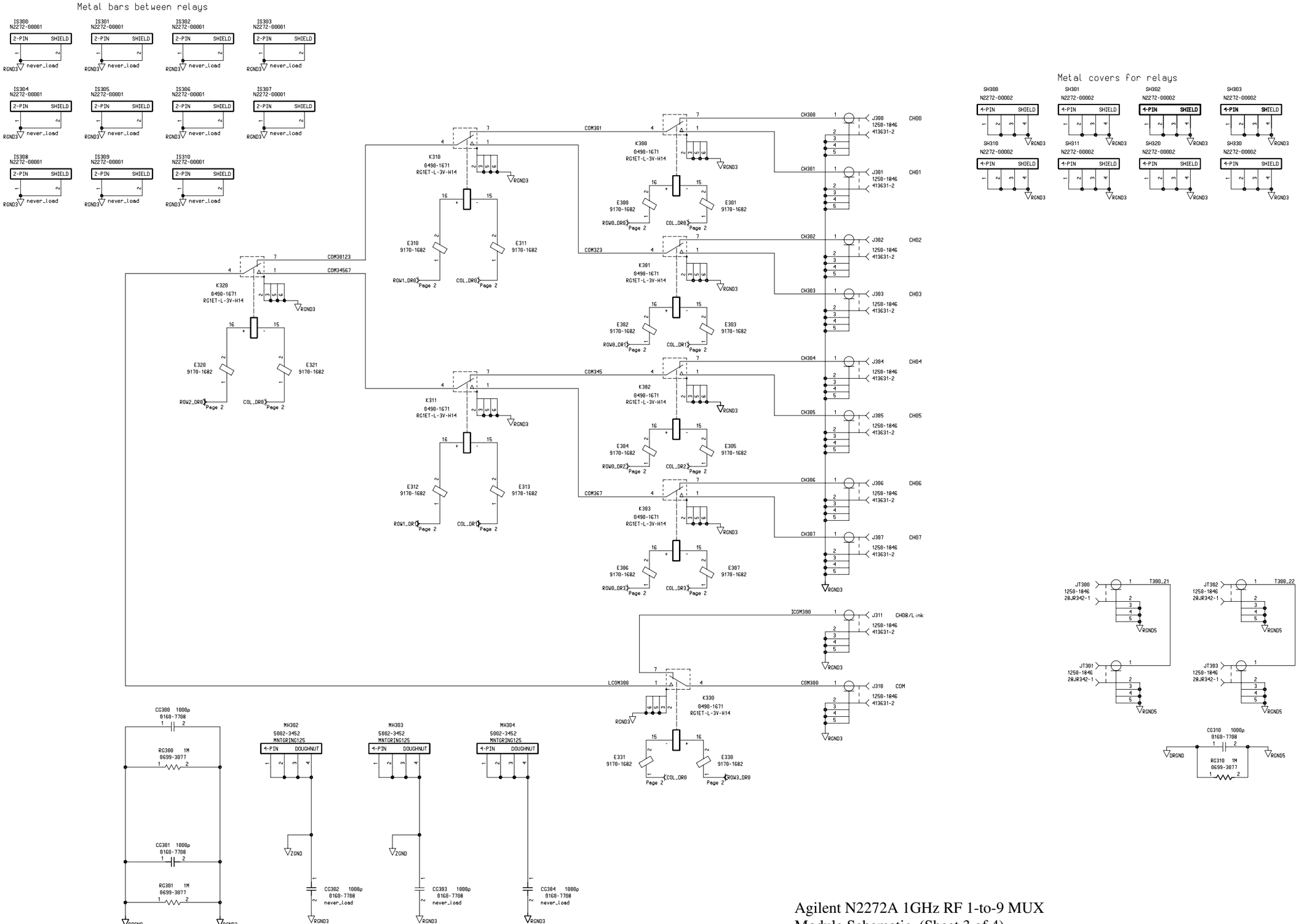




Agilent N2272A 1GHz RF 1-to-9 MUX
Module Schematic (Sheet 1 of 4)

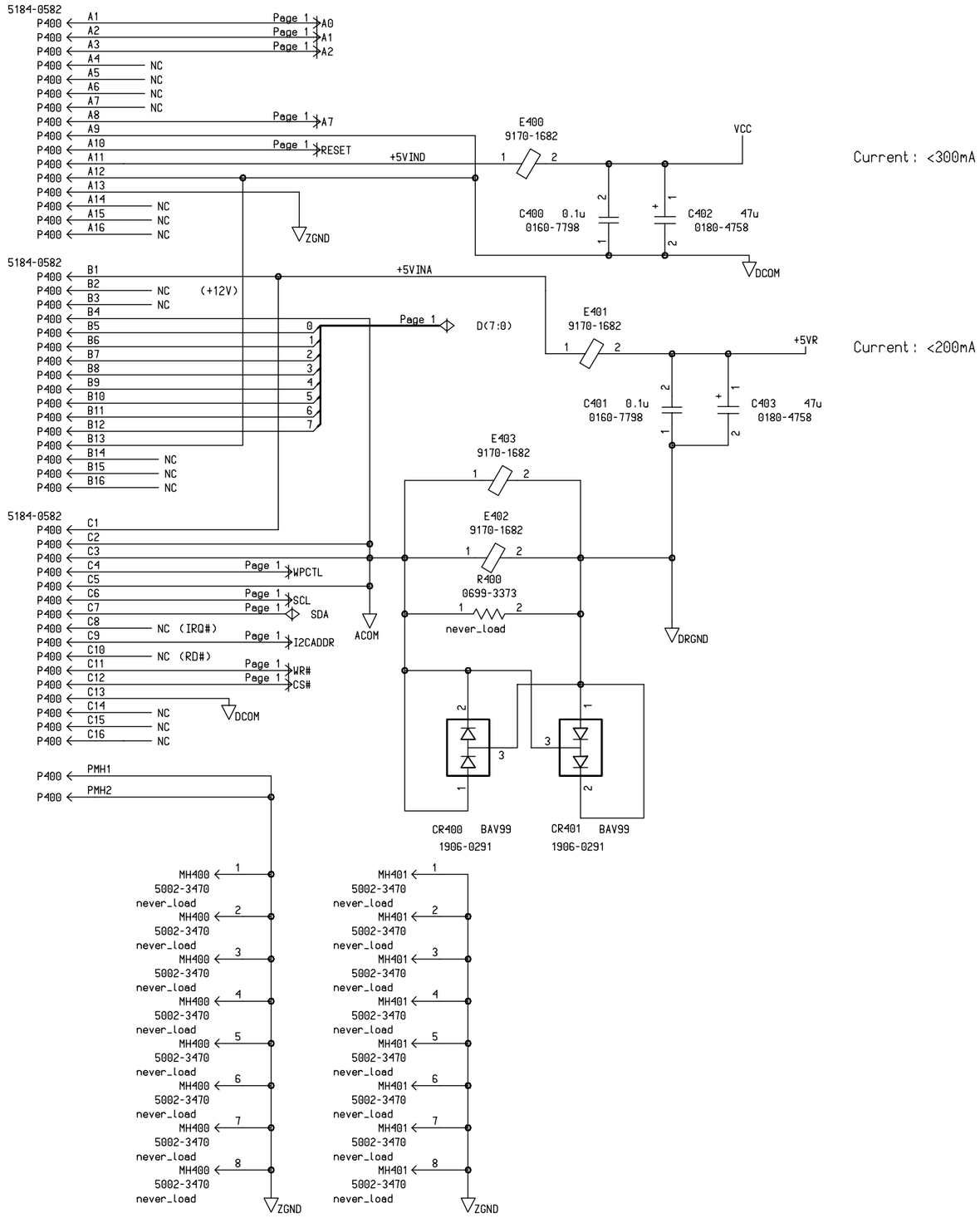


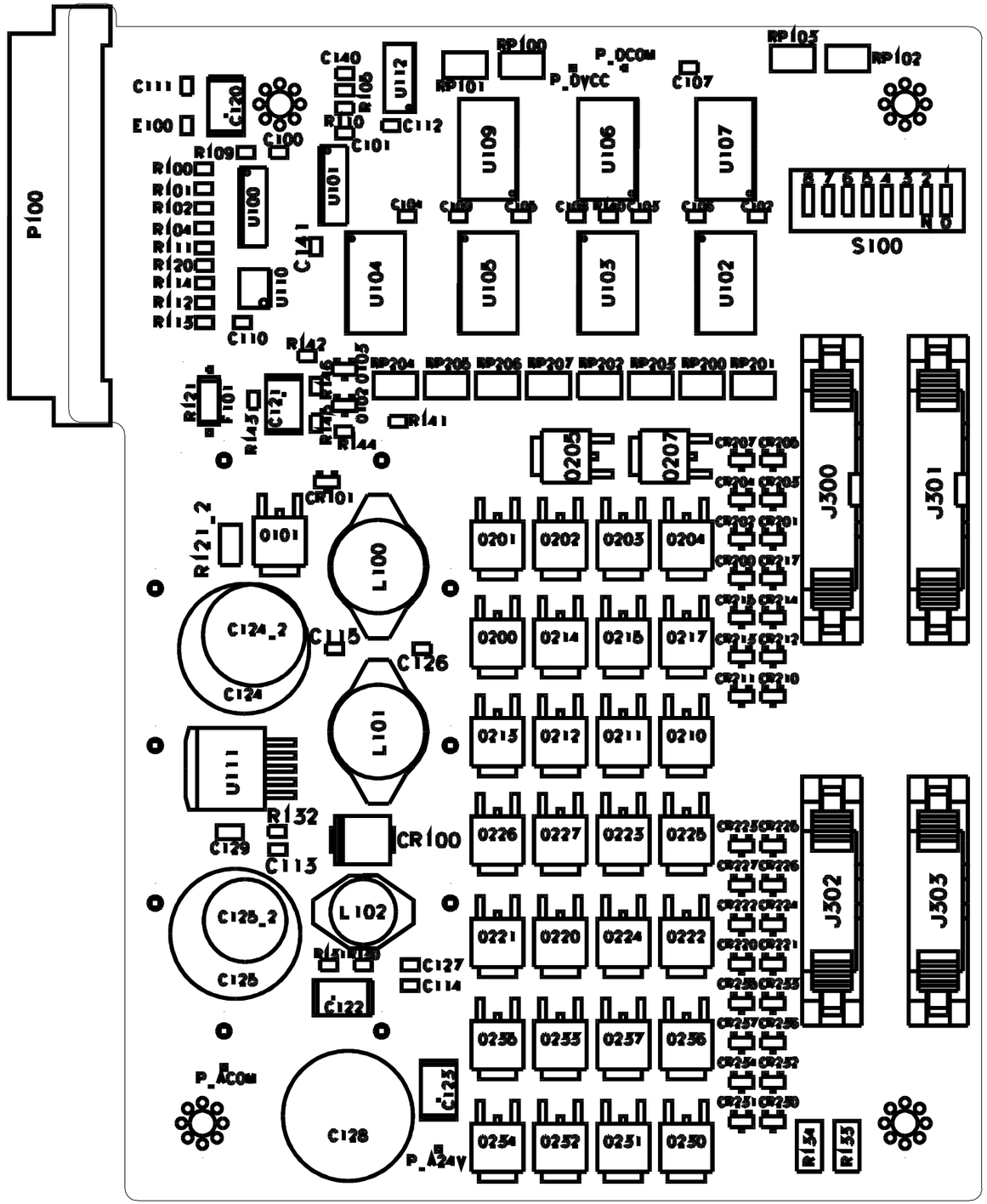
Agilent N2272A 1GHz RF 1-to-9 MUX
Module Schematic (Sheet 2 of 4)
Page 215



Agilent N2272A 1GHz RF 1-to-9 MUX
Module Schematic (Sheet 3 of 4)
Page 216

Backplane Connector




P100
C111
E100
C120
C140
R108
U112
RP100
RP101
P_DCOM
P_DVCC
C107
RP103
RP102
C112
C101
R109
R100
R101
R102
R104
R120
R114
R112
R113
U100
U101
U109
U106
U107
C104
C103
C105
C106
C102
S100
C141
U110
C110
U104
U105
U103
U102
R142
RP204
RP205
RP206
RP207
RP202
RP203
RP200
RP201
R121
F101
R143
C121
R141
R144
D205
D207
CR207
CR206
CR204
CR205
CR202
CR201
CR200
CR217
CR213
CR214
CR215
CR212
CR211
CR210
J300
J301
CR101
R121_2
D101
L100
D201
D202
D203
D204
D200
D214
D215
D217
C124_2
C124
C125
C126
L101
D215
D212
D211
D210
U111
R132
C129
C113
CR100
D226
D227
D223
D225
CR225
CR226
CR227
CR223
CR222
CR224
CR220
CR221
CR256
CR255
CR257
CR253
CR254
CR252
CR251
CR250
J302
J303
C125_2
L102
R151
R150
C127
C114
C122
D221
D220
D224
D222
D256
D255
D257
D253
D254
D252
D251
D250
R154
R153
P_ACOM
C123
C128
P_A24V

Current : < 300mA

Current < 3A

Current < 0.5A

Seperate Path

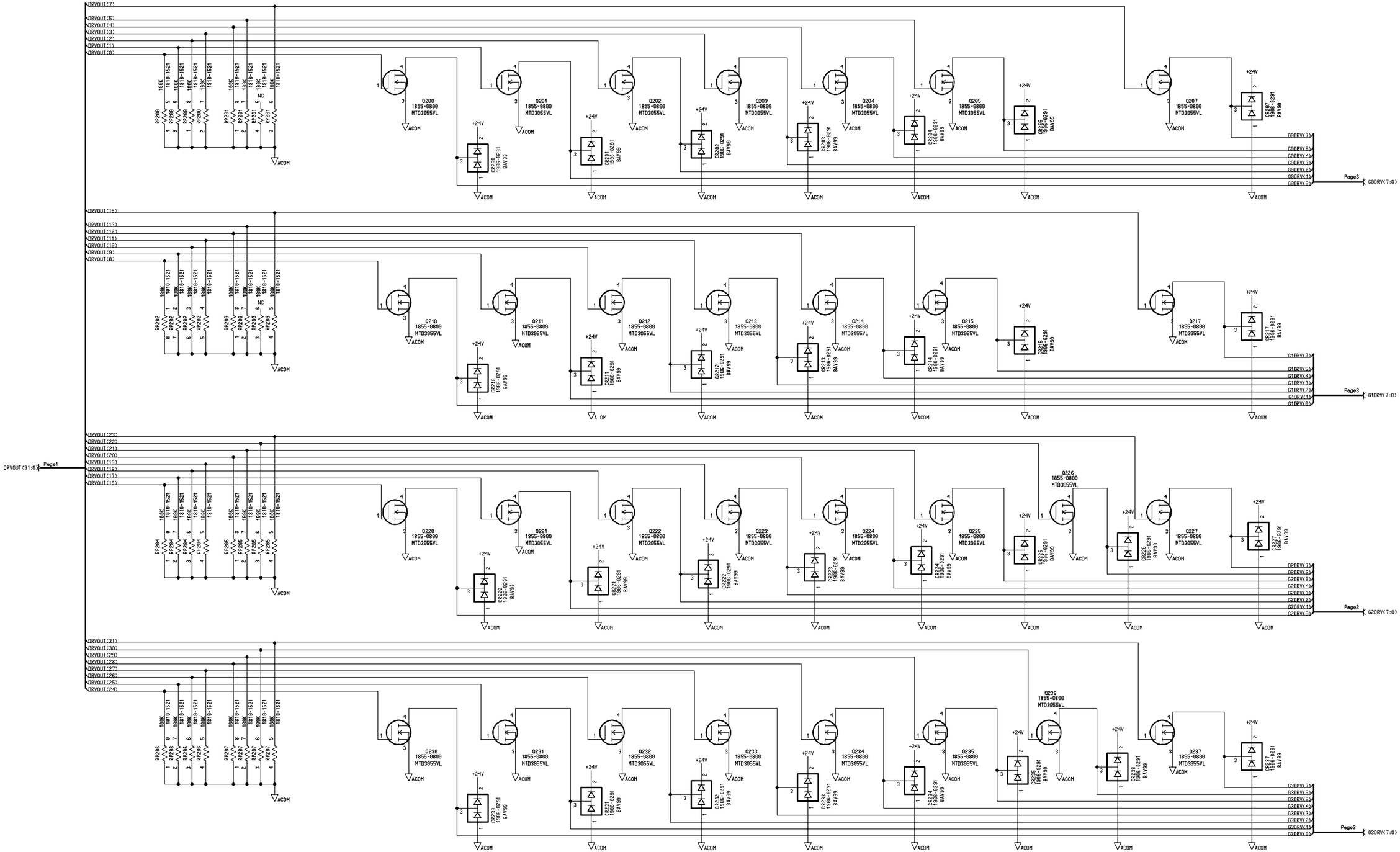
Mounting Holes

Bypass Caps Put as Close as the Same Number of ICs

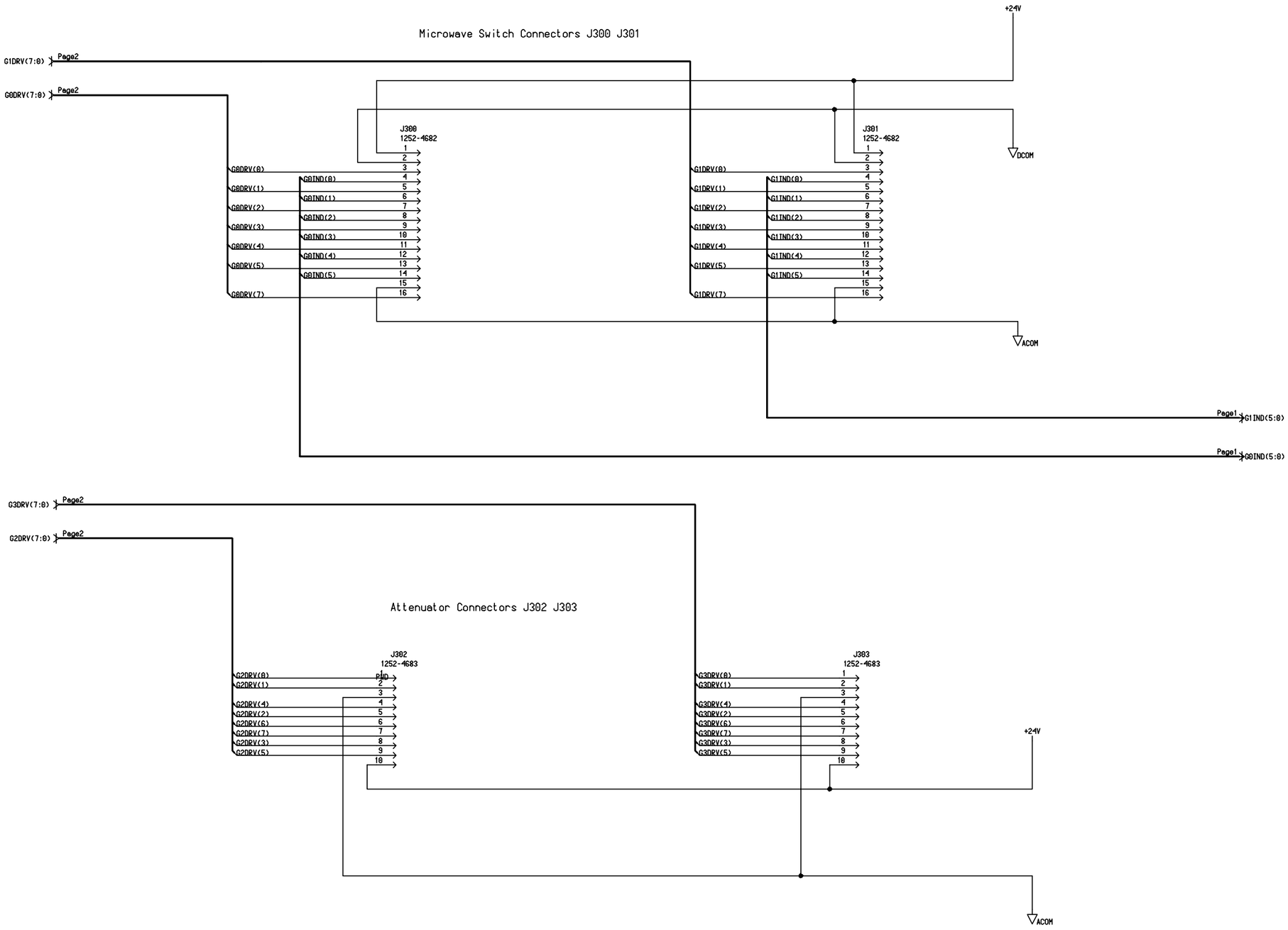
Note: These mounting holes are used to mount metal cover on DC-DC circuit if EMC failed

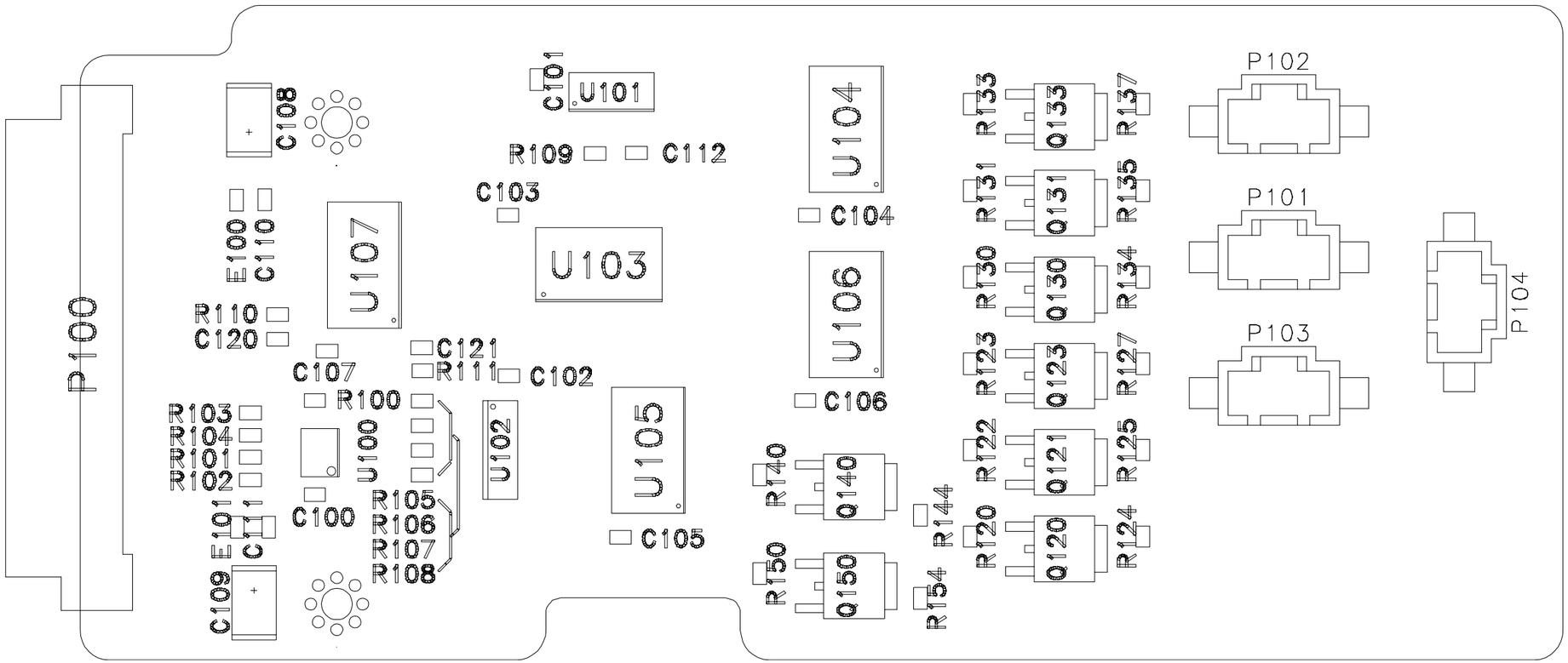
Unused Gates

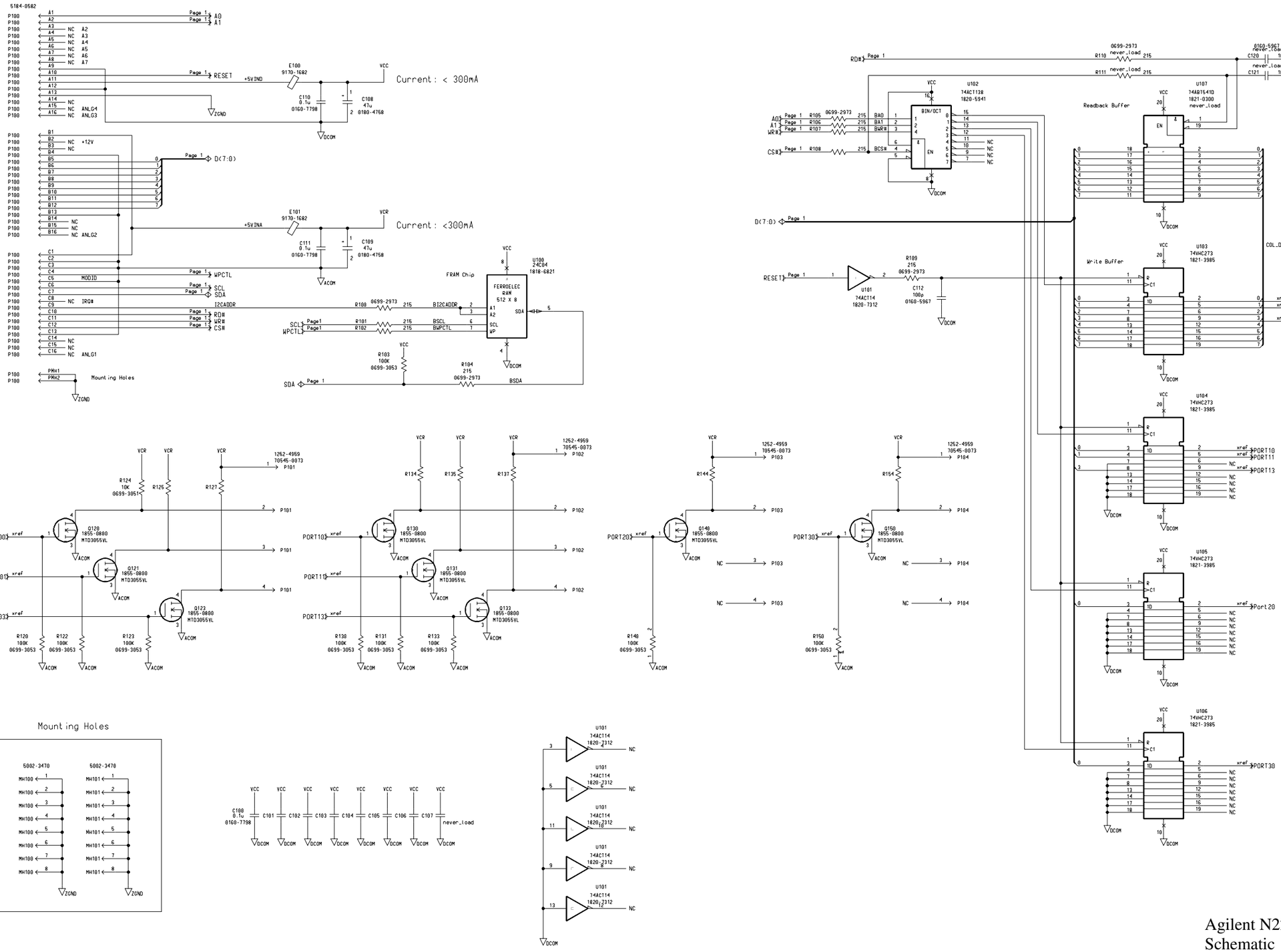
Test Pins

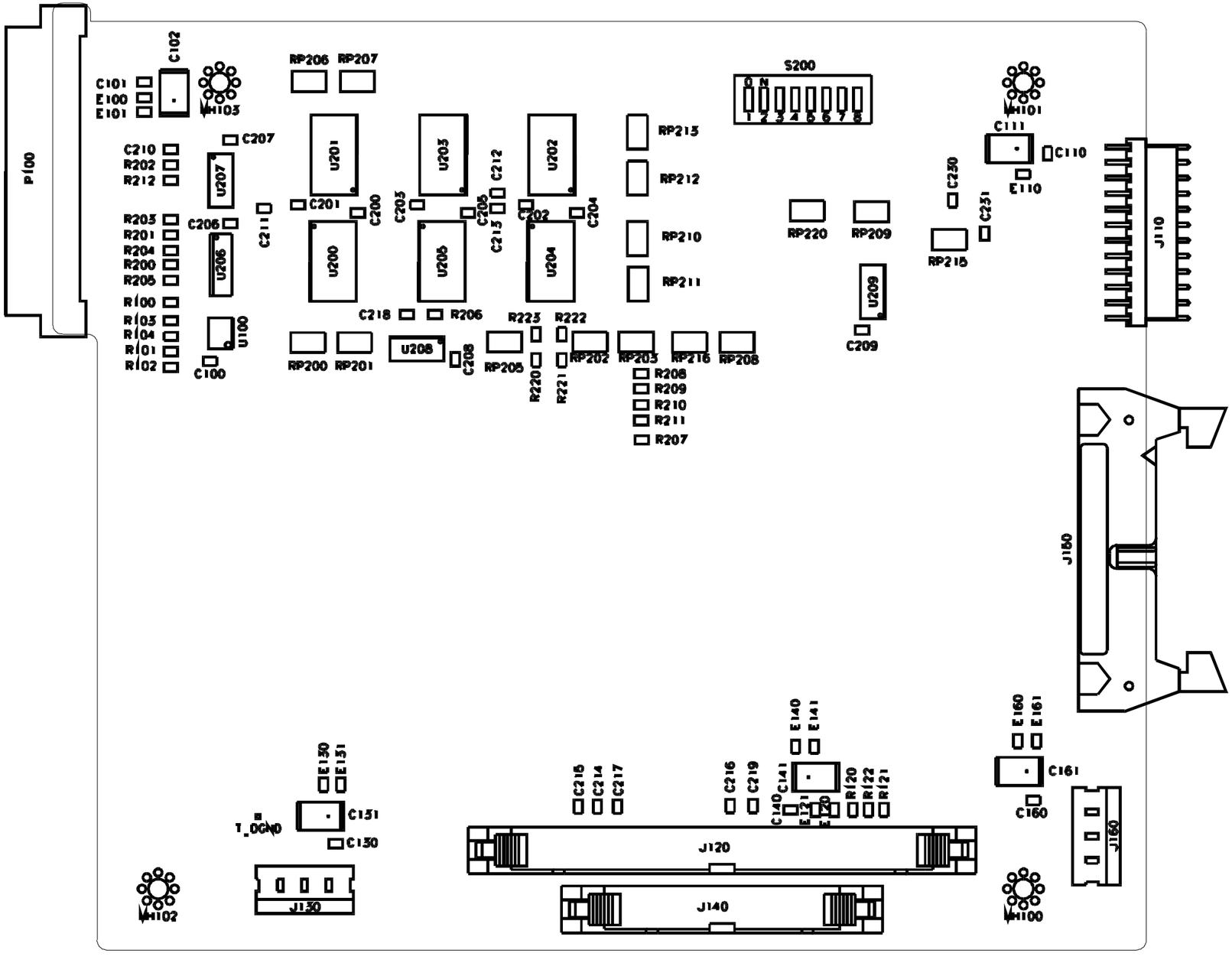


Agilent N2276A/B Dual 1-to-6(4) Microwave
MUX/Attenuator Module Schematic (Sheet 2 of 3)

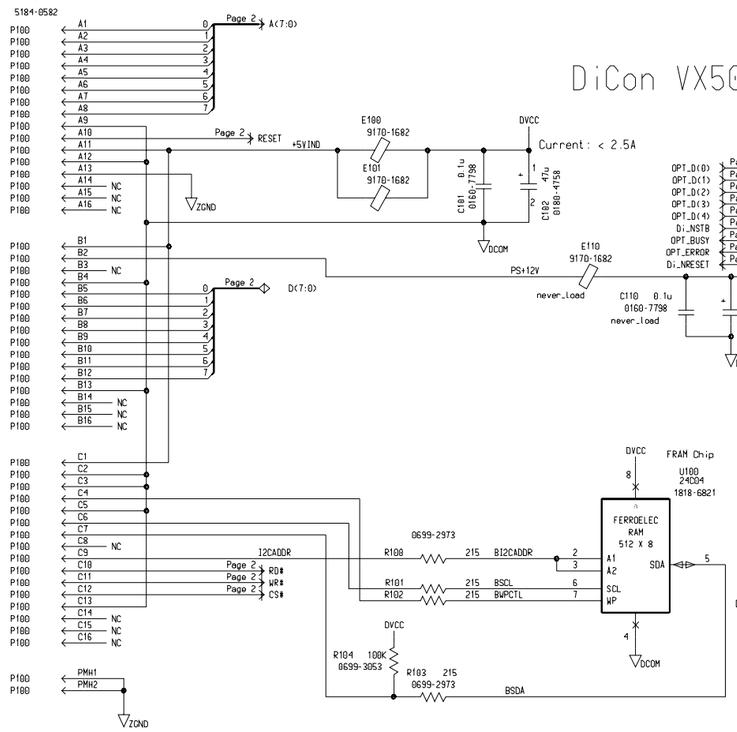

Microwave Switch Connectors J300 J301
G1DRV(7:0)
Page2
G0DRV(7:0)
Page2
J300
1252-4682
J301
1252-4682
+24V
DCOM
ACOM
G0DRV(0)
G0DRV(1)
G0DRV(2)
G0DRV(3)
G0DRV(4)
G0DRV(5)
G0DRV(7)
G0IND(0)
G0IND(1)
G0IND(2)
G0IND(3)
G0IND(4)
G0IND(5)
G1DRV(0)
G1DRV(1)
G1DRV(2)
G1DRV(3)
G1DRV(4)
G1DRV(5)
G1DRV(7)
G1IND(0)
G1IND(1)
G1IND(2)
G1IND(3)
G1IND(4)
G1IND(5)
Page1
G1IND(5:0)
Page1
G0IND(5:0)
G3DRV(7:0)
Page2
G2DRV(7:0)
Page2
Attenuator Connectors J302 J303
J302
1252-4683
J303
1252-4683
G2DRV(0)
G2DRV(1)
G2DRV(4)
G2DRV(2)
G2DRV(6)
G2DRV(7)
G2DRV(3)
G2DRV(5)
G3DRV(0)
G3DRV(1)
G3DRV(4)
G3DRV(2)
G3DRV(6)
G3DRV(7)
G3DRV(3)
G3DRV(5)
+24V
ACOM


P100
C108
C101
U101
R109
C112
C103
U104
C104
U103
E108
C110
U107
R110
C120
C121
R111
C102
C107
R100
U106
C106
R103
R104
R101
R102
U108
U102
U105
R105
R106
R107
R108
C100
E109
C111
C109
C105
R140
Q140
R144
R150
Q150
R154
R133
Q133
R137
R131
Q131
R135
R130
Q130
R134
R123
Q123
R127
R122
Q121
R125
R120
Q120
R124
P102
P101
P103
P104

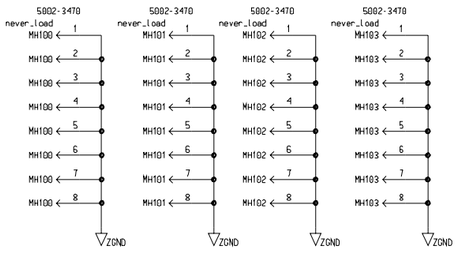

5184-0582
Current : < 300mA
Current : <300mA
MODID
Mounting Holes
FRAM Chip
FERROELEC RAM 512 X 8
Readback Buffer
Write Buffer
COL_DRO(7:0)
Mounting Holes
5002-3470
5002-3478


P100
C102
C101
E100
E101
MH103
RP206
RP207
C210
R202
R212
C207
U207
C206
U206
R203
R201
R204
R200
R205
C211
R100
R103
R104
R101
R102
U100
C100
U201
C201
C200
U200
U203
C205
C218
R206
U205
C212
C215
U202
C202
C204
U204
R223
R222
RP200
RP201
U208
C208
RP205
R220
R221
RP202
RP203
RP216
RP208
R208
R209
R210
R211
R207
RP215
RP212
RP210
RP211
S200
ON
1 2 3 4 5 6 7 8
RP220
RP209
U209
C209
MH101
C111
C110
E110
C230
C231
RP215
J110
J150
E130
E131
C131
C130
T_OGND
J130
MH102
C215
C214
C217
C216
C219
C140
E140
E141
C141
E121
E120
R120
R122
R121
J120
J140
E160
E161
C161
C160
J160
MH100

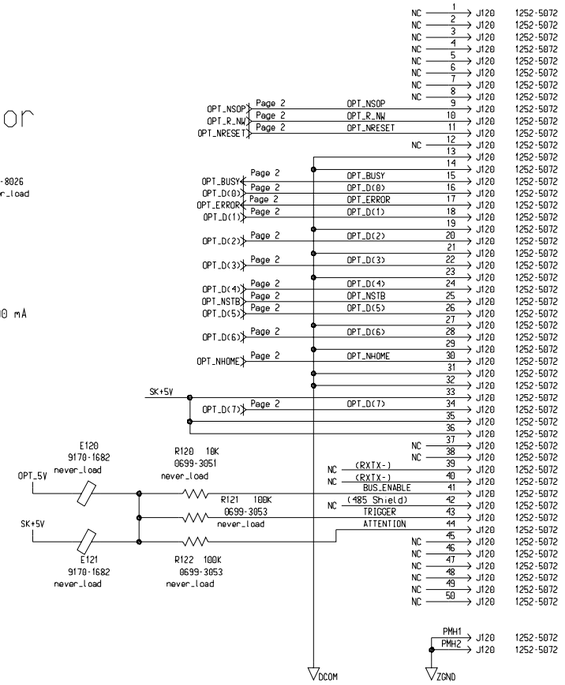
Backplane Connector



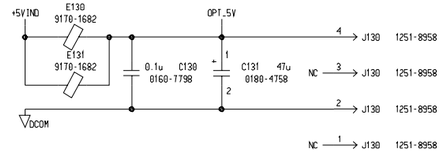
Mounting Holes



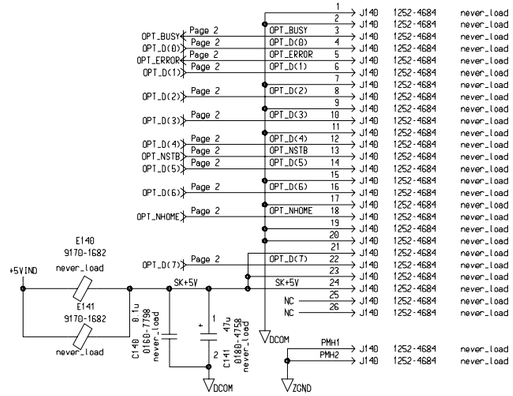
Parallel SKB Connector (IDE50)



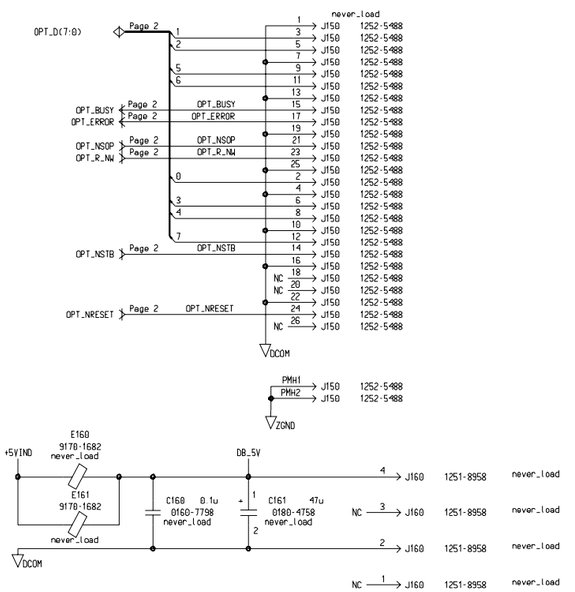
Power for Switch (Twisted for SKB)



Parallel SK Connector (IDE26)

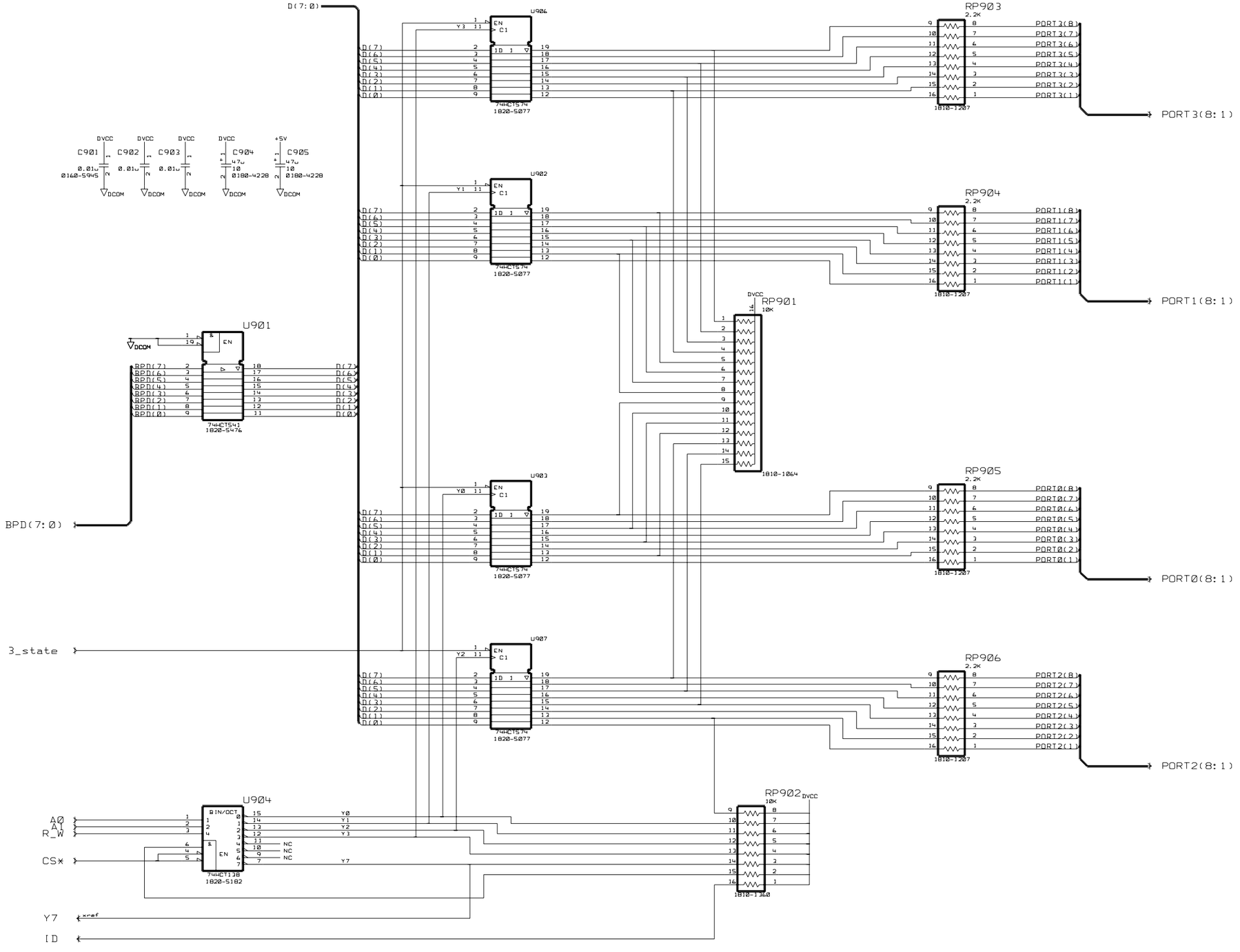


Parallel Interface (For SKB to D25)

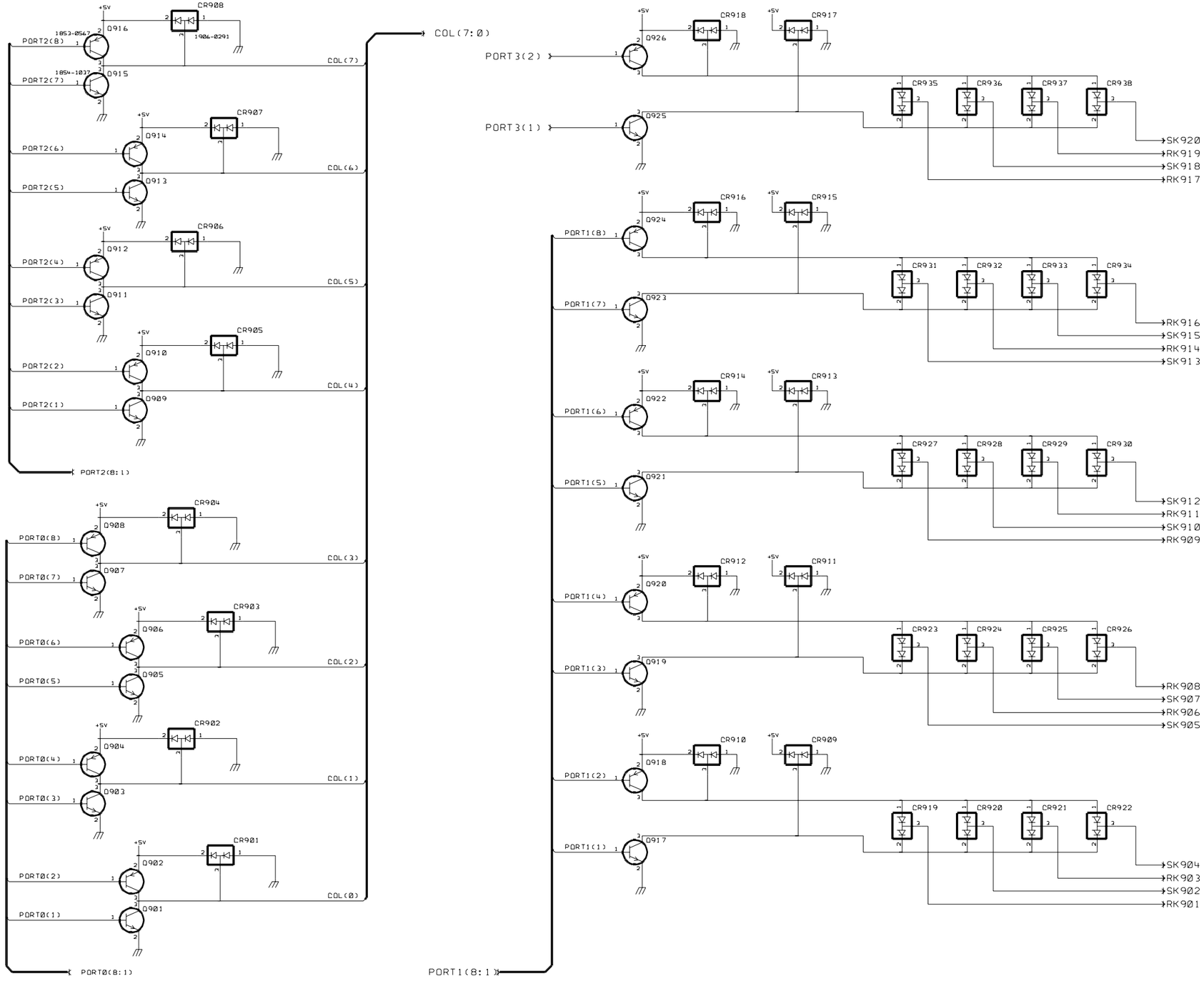


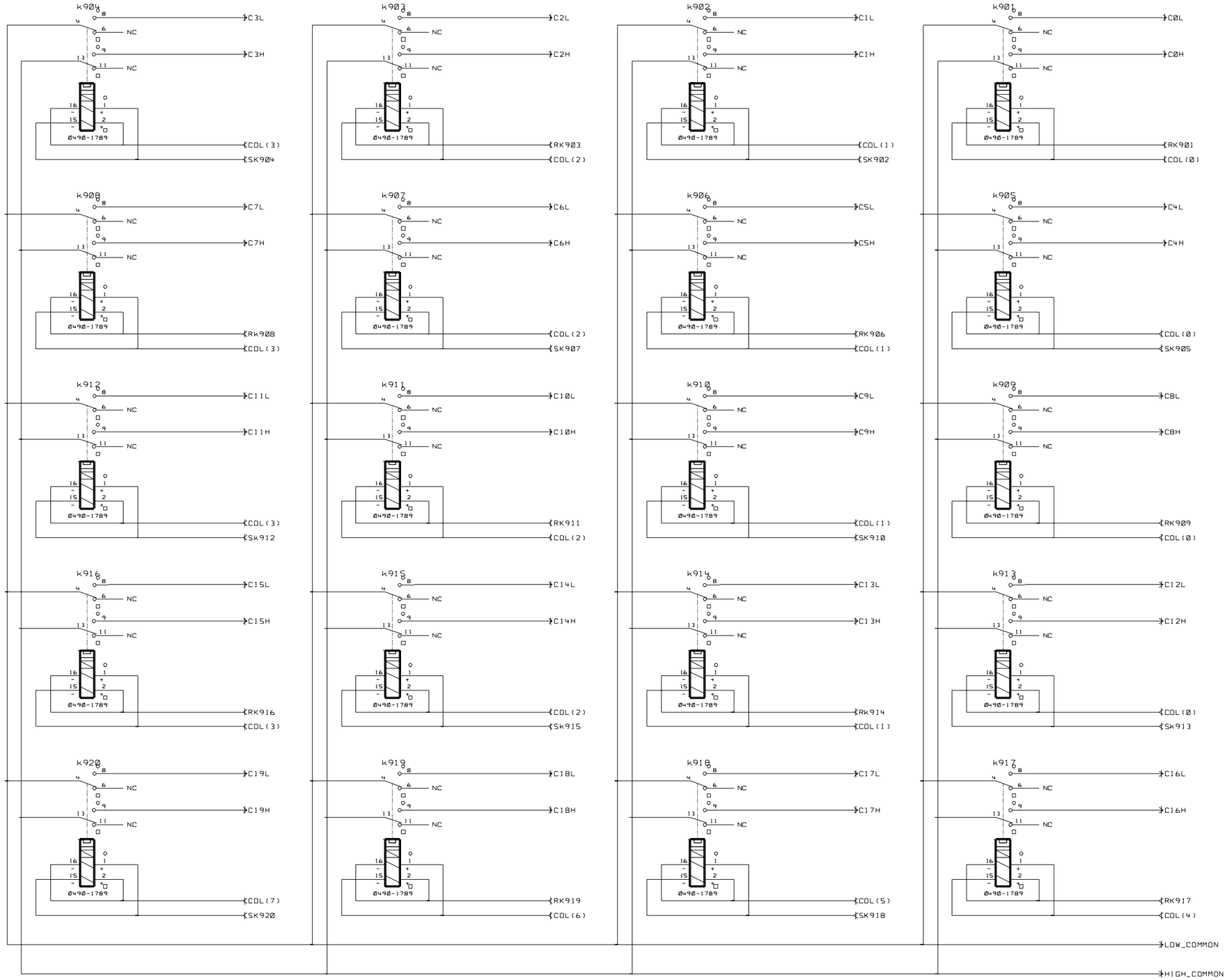
Agilent N2282A 1-to-8 Optical Switch MUX
Module Schematic (Sheet 2 of 2)

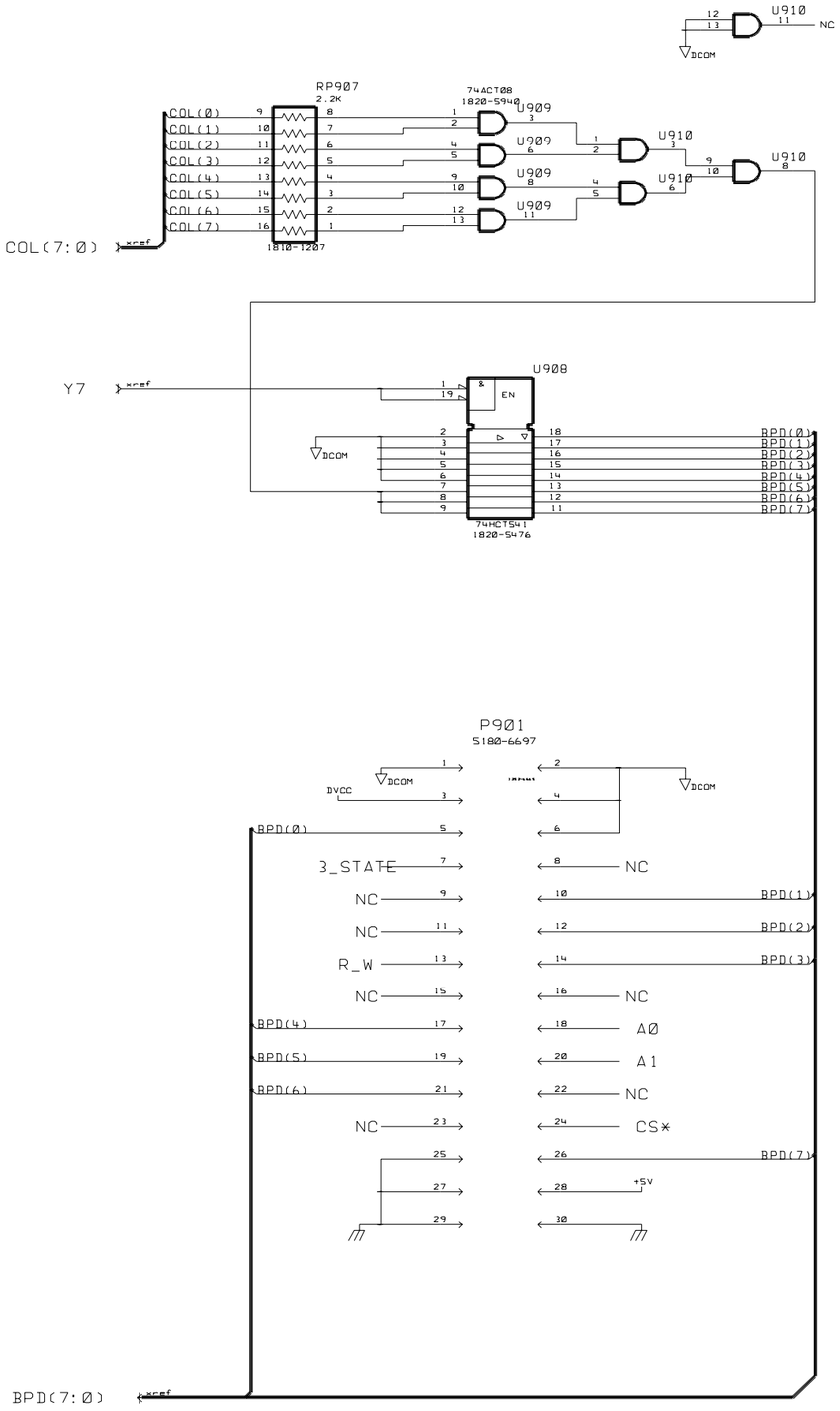
PMT2
Q901 Q903 Q905 Q907 Q909 Q911 Q913 Q915
Q902 Q904 Q906 Q908 Q910 Q912 Q914 Q916
CR901 CR903 CR905 CR907
CR902 CR904 CR906 CR908
RP907
RP905
RP906
C904
U910
U909
U903
U907
C903
U908
U901
RP901
C901
C902
U904
U902
RP904
P901
RP902
U906
RP903
PMT1
Q917 CR909
Q918 CR910
Q919 CR911
Q920 CR912
Q921 CR913
Q922 CR914
Q923 CR915
Q924 CR916
Q925 CR917
Q926 CR918
C905
CR922 CR921 CR920 CR919
CR926 CR925 CR924 CR923
CR930 CR929 CR928 CR927
CR934 CR933 CR932 CR931
CR938 CR937 CR936 CR935
K904 K903 K902 K901
K908 K907 K906 K905
K912 K911 K910 K909
K916 K915 K914 K913
K920 K919 K918 K917
J901

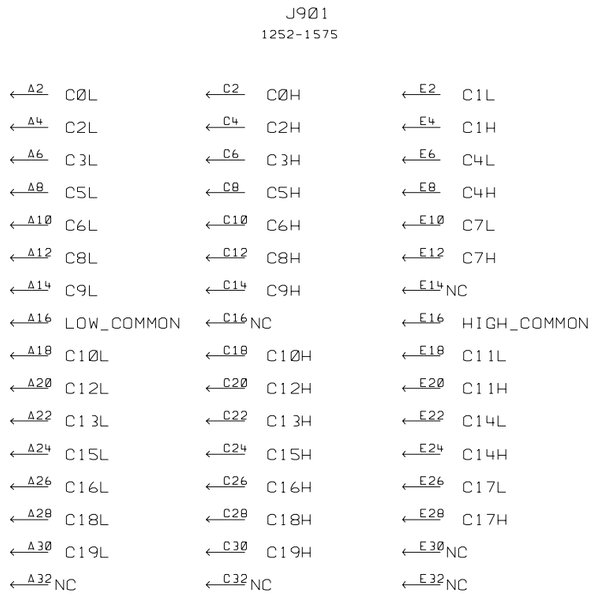


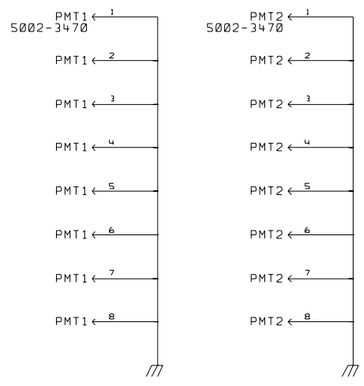
Agilent 44470D 20-Channel MUX Module
Schematic (Sheet 1 of 4)
Page 228

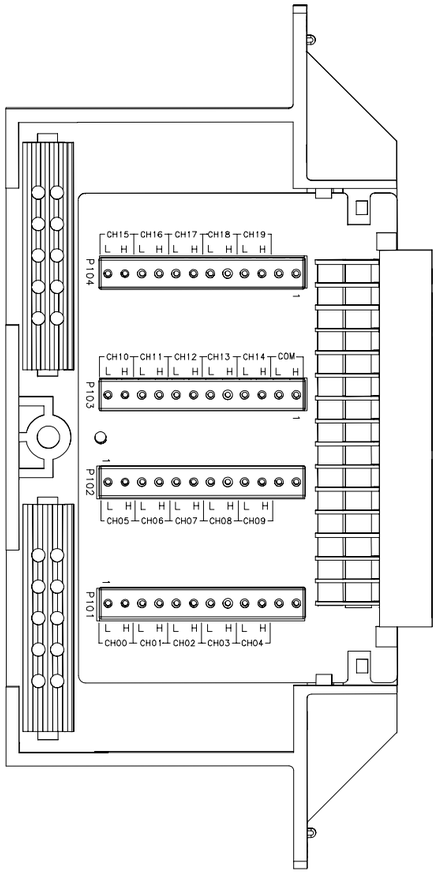

COL(7:0)
PORT2(8:1)
PORT0(8:1)
PORT3(2)
PORT3(1)
PORT1(8)
PORT1(7)
PORT1(6)
PORT1(5)
PORT1(4)
PORT1(3)
PORT1(2)
PORT1(1)
+5V
Q916
Q915
Q914
Q913
Q912
Q911
Q910
Q909
Q908
Q907
Q906
Q905
Q904
Q903
Q902
Q901
Q926
Q925
Q924
Q923
Q922
Q921
Q920
Q919
Q918
Q917
1852-0547
1854-1037
1906-0291
PORT2(8)
PORT2(7)
PORT2(6)
PORT2(5)
PORT2(4)
PORT2(3)
PORT2(2)
PORT2(1)
PORT0(8)
PORT0(7)
PORT0(6)
PORT0(5)
PORT0(4)
PORT0(3)
PORT0(2)
PORT0(1)
COL(7)
COL(6)
COL(5)
COL(4)
COL(3)
COL(2)
COL(1)
COL(0)
CR908
CR907
CR906
CR905
CR904
CR903
CR902
CR901
CR918
CR917
CR916
CR915
CR914
CR913
CR912
CR911
CR910
CR909
CR935
CR936
CR937
CR938
CR931
CR932
CR933
CR934
CR927
CR928
CR929
CR930
CR923
CR924
CR925
CR926
CR919
CR920
CR921
CR922
SK920
RK919
SK918
RK917
RK916
SK915
RK914
SK913
SK912
RK911
SK910
RK909
RK908
SK907
RK906
SK905
SK904
RK903
SK902
RK901


k904
C3L
NC
C3H
NC
0490-1789
COL(3)
SK904
k903
C2L
NC
C2H
NC
0490-1789
RK903
COL(2)
k902
C1L
NC
C1H
NC
0490-1789
COL(1)
SK902
k901
C0L
NC
C0H
NC
0490-1789
RK901
COL(0)
k908
C7L
NC
C7H
NC
0490-1789
RK908
COL(3)
k907
C6L
NC
C6H
NC
0490-1789
COL(2)
SK907
k906
C5L
NC
C5H
NC
0490-1789
RK906
COL(1)
k905
C4L
NC
C4H
NC
0490-1789
COL(0)
SK905
k912
C11L
NC
C11H
NC
0490-1789
COL(3)
Sk912
k911
C10L
NC
C10H
NC
0490-1789
RK911
COL(2)
k910
C9L
NC
C9H
NC
0490-1789
COL(1)
SK910
k909
C8L
NC
C8H
NC
0490-1789
RK909
COL(0)
k916
C15L
NC
C15H
NC
0490-1789
RK916
COL(3)
k915
C14L
NC
C14H
NC
0490-1789
COL(2)
Sk915
k914
C13L
NC
C13H
NC
0490-1789
RK914
COL(1)
k913
C12L
NC
C12H
NC
0490-1789
COL(0)
SK913
k920
C19L
NC
C19H
NC
0490-1789
COL(7)
SK920
k919
C18L
NC
C18H
NC
0490-1789
RK919
COL(6)
k918
C17L
NC
C17H
NC
0490-1789
COL(5)
SK918
k917
C16L
NC
C16H
NC
0490-1789
RK917
COL(4)
LOW_COMMON
HIGH_COMMON


U910
NC
DCOM
RP907
2.2K
74ACT08
1820-5948
COL(0)
COL(1)
COL(2)
COL(3)
COL(4)
COL(5)
COL(6)
COL(7)
COL(7:0)
xref
1810-1207
U909
U910
U908
Y7
EN
DCOM
74HCT541
1820-5476
BPD(0)
BPD(1)
BPD(2)
BPD(3)
BPD(4)
BPD(5)
BPD(6)
BPD(7)
P901
S180-6697
DVCC
3_STATE
NC
R_W
A0
A1
CS*
+5V
BPD(7:0)


J901
1252-1575
C0L
C0H
C1L
C2L
C2H
C1H
C3L
C3H
C4L
C5L
C5H
C4H
C6L
C6H
C7L
C8L
C8H
C7H
C9L
C9H
NC
LOW_COMMON
NC
HIGH_COMMON
C10L
C10H
C11L
C12L
C12H
C11H
C13L
C13H
C14L
C15L
C15H
C14H
C16L
C16H
C17L
C18L
C18H
C17H
C19L
C19H
NC
NC
NC
NC


PMT1
5002-3470
PMT2
5002-3470



J101
1252-1577

A2	C0L	1	P101	
C2	C0H	2	P101	
E2	C1L	3	P101	
E4	C1H	4	P101	
A4	C2L	5	P101	
C4	C2H	6	P101	
A6	C3L	7	P101	
C6	C3H	8	P101	
E6	C4L	9	P101	
E8	C4H	10	P101	
NC		11	P101	
NC		12	P101	

Ø360-2624

A8	C5L	1	P102	
C8	C5H	2	P102	
A10	C6L	3	P102	
C10	C6H	4	P102	
E10	C7L	5	P102	
E12	C7H	6	P102	
A12	C8L	7	P102	
C12	C8H	8	P102	
A14	C9L	9	P102	
C14	C9H	10	P102	
NC		11	P102	
NC		12	P102	

Ø360-2624

A18	C10L	12	P103	
C18	C10H	11	P103	
E18	C11L	10	P103	
E20	C11H	9	P103	
A20	C12L	8	P103	
C20	C12H	7	P103	
A22	C13L	6	P103	
C22	C13H	5	P103	
E22	C14L	4	P103	
E24	C14H	3	P103	
A16	LOW_COMMON	2	P103	
E16	HIGH_COMMON	1	P103	

Ø360-2624

A24	C15L	12	P104	
C24	C15H	11	P104	
A26	C16L	10	P104	
C26	C16H	9	P104	
E26	C17L	8	P104	
E28	C17H	7	P104	
A28	C18L	6	P104	
C28	C18H	5	P104	
A30	C19L	4	P104	
C30	C19H	3	P104	
NC		2	P104	
NC		1	P104	

A32 NC	C16 NC	E14 NC
	C32 NC	E30 NC
		E32 NC

PMT2
Q901 Q903 Q905 Q907 Q909 Q911 Q913 Q915
Q902 Q904 Q906 Q908 Q910 Q912 Q914 Q916
CR901 CR902 CR903 CR904 CR905 CR906 CR907 CR908
Q917 CR909
Q918 CR910
Q919 CR911
Q920 CR912
Q921 CR913
Q922 CR914
Q923 CR915
Q924 CR916
Q925 CR917
Q926 CR918
CR922 CR921 CR920 CR919
CR926 CR925 CR924 CR923
CR930 CR929 CR928 CR927
CR934 CR933 CR932 CR931
CR938 CR937 CR936 CR935
K904 K903 K902 K901
K908 K907 K906 K905
K912 K911 K910 K909
K916 K915 K914 K913
K920 K919 K918 K917
J901
RP907
RP905
RP906
C904
U910
U909
U903
U907
C903
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C901
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U902
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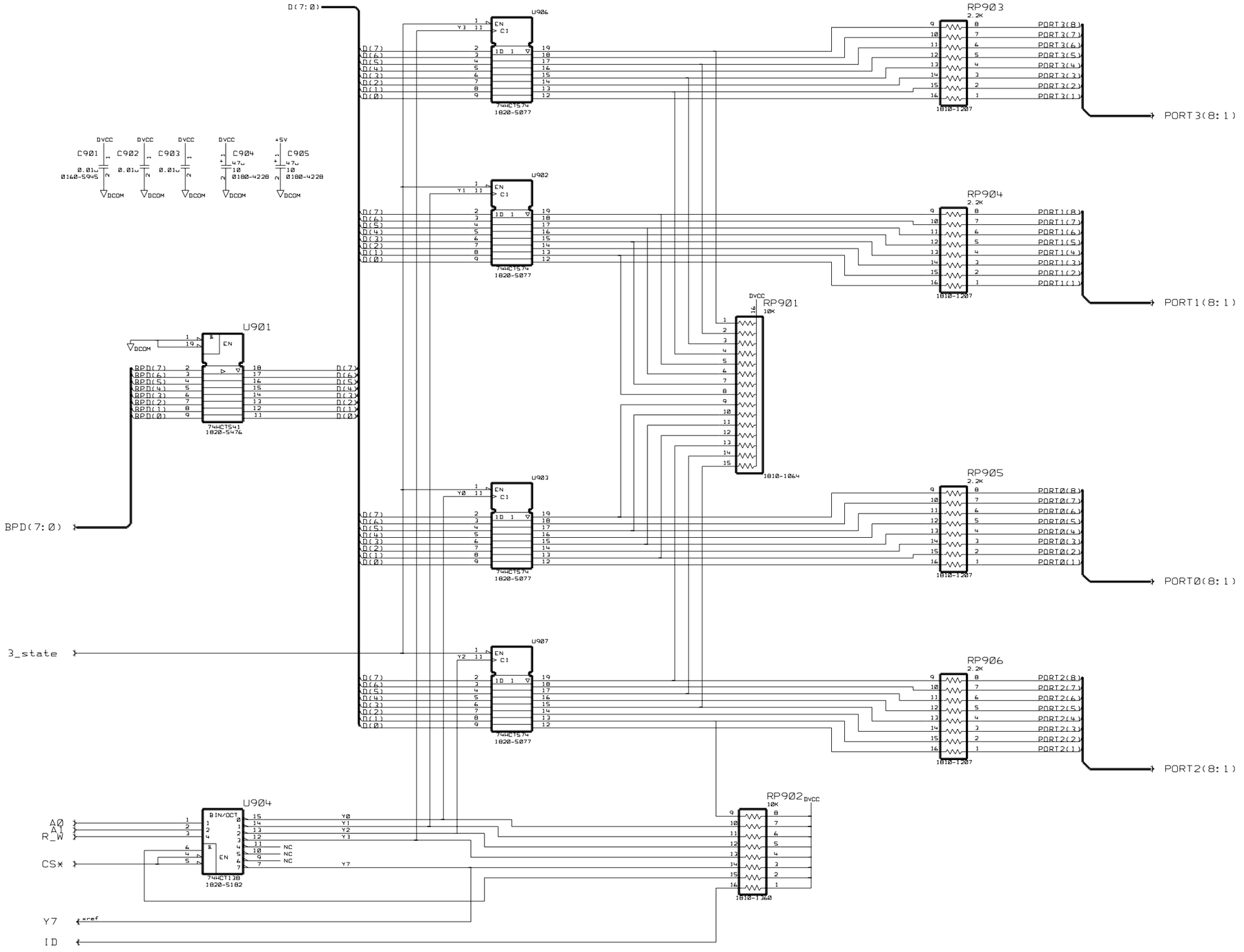
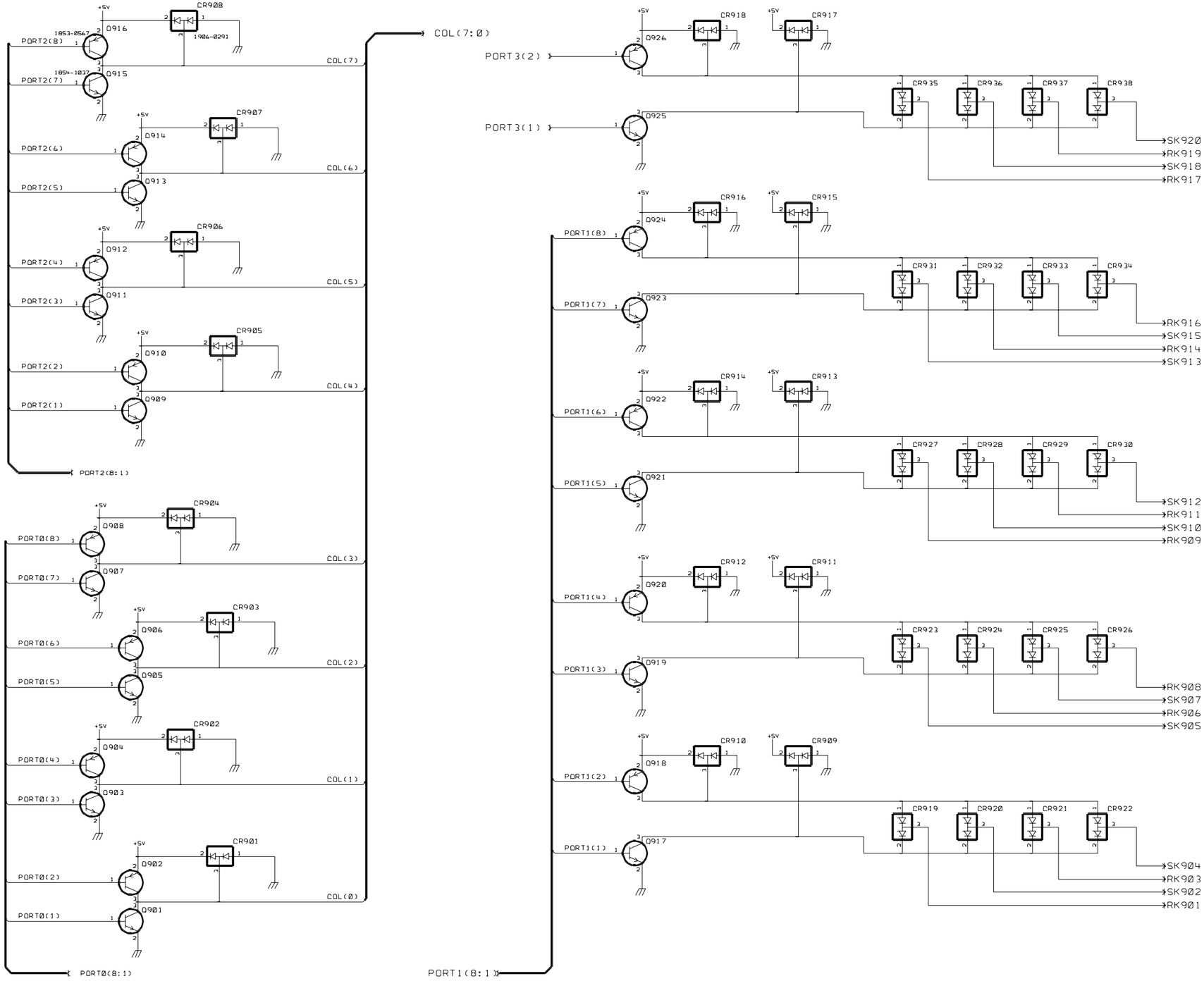
PMT1



Agilent 44471D 20-Channel GP Relay
Module Schematic (Sheet 1 of 4)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PORT1(8:1)
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CR907
CR906
CR905
CR904
CR903
CR902
CR901
1853-0567
1854-1077
1906-0291
Q916
Q915
Q914
Q913
Q912
Q911
Q910
Q909
Q908
Q907
Q906
Q905
Q904
Q903
Q902
Q901
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PORT2(7)
PORT2(6)
PORT2(5)
PORT2(4)
PORT2(3)
PORT2(2)
PORT2(1)
PORT0(8)
PORT0(7)
PORT0(6)
PORT0(5)
PORT0(4)
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PORT0(2)
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COL(5)
COL(4)
COL(3)
COL(2)
COL(1)
COL(0)
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CR916
CR915
CR914
CR913
CR912
CR911
CR910
CR909
Q926
Q925
Q924
Q923
Q922
Q921
Q920
Q919
Q918
Q917
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PORT3(1)
PORT1(8)
PORT1(7)
PORT1(6)
PORT1(5)
PORT1(4)
PORT1(3)
PORT1(2)
PORT1(1)
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CR938
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CR932
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CR928
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CR924
CR925
CR926
CR919
CR920
CR921
CR922
SK920
RK919
SK918
RK917
RK916
SK915
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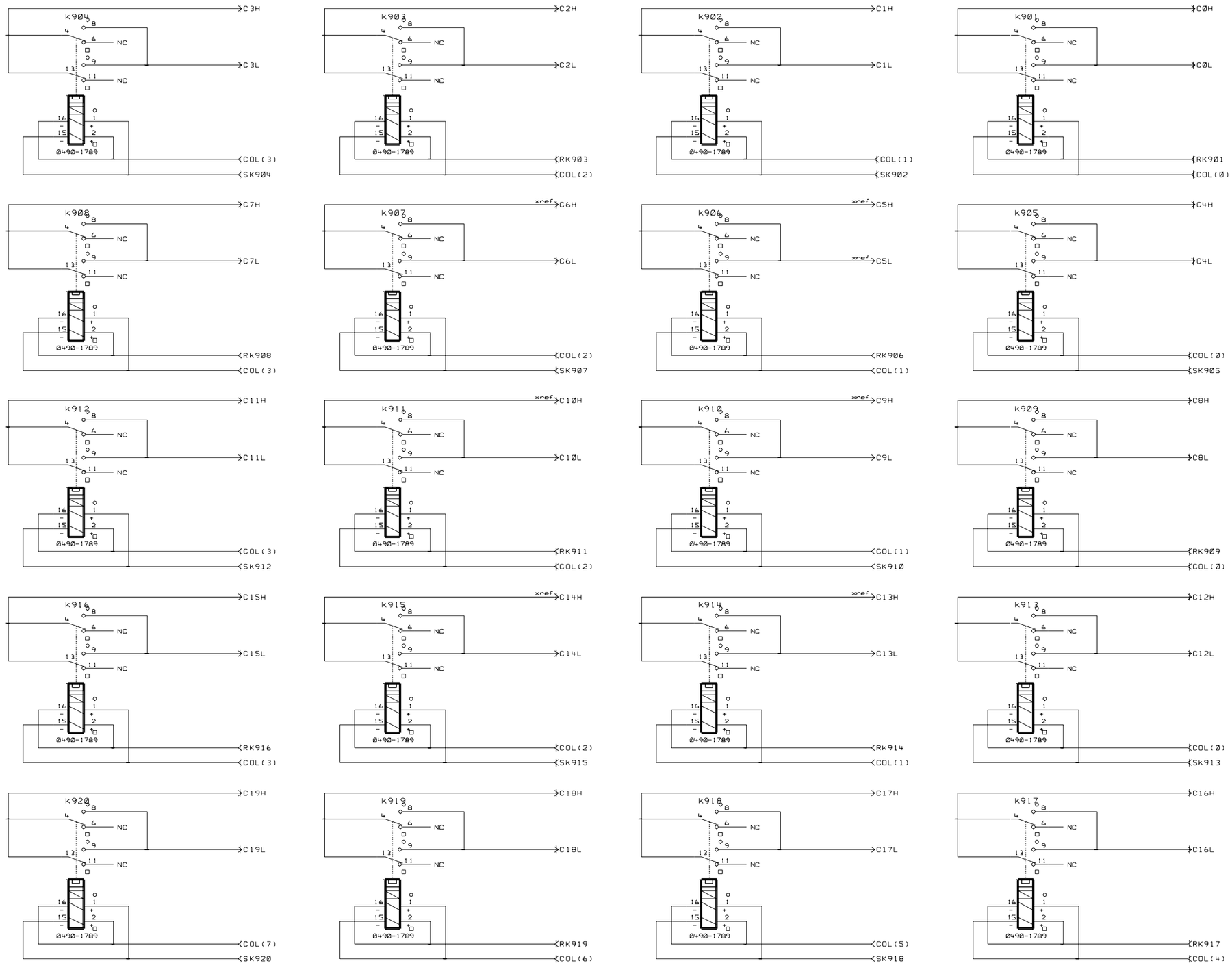
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k903
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C2L
RK903
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C1H
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COL(1)
SK902
k901
C0H
C0L
RK901
COL(0)
k908
C7H
C7L
Rk908
COL(3)
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xref
C6H
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COL(2)
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C5L
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C4L
COL(0)
SK905
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C11L
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C10L
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C15L
RK916
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C14L
COL(2)
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C12L
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C18L
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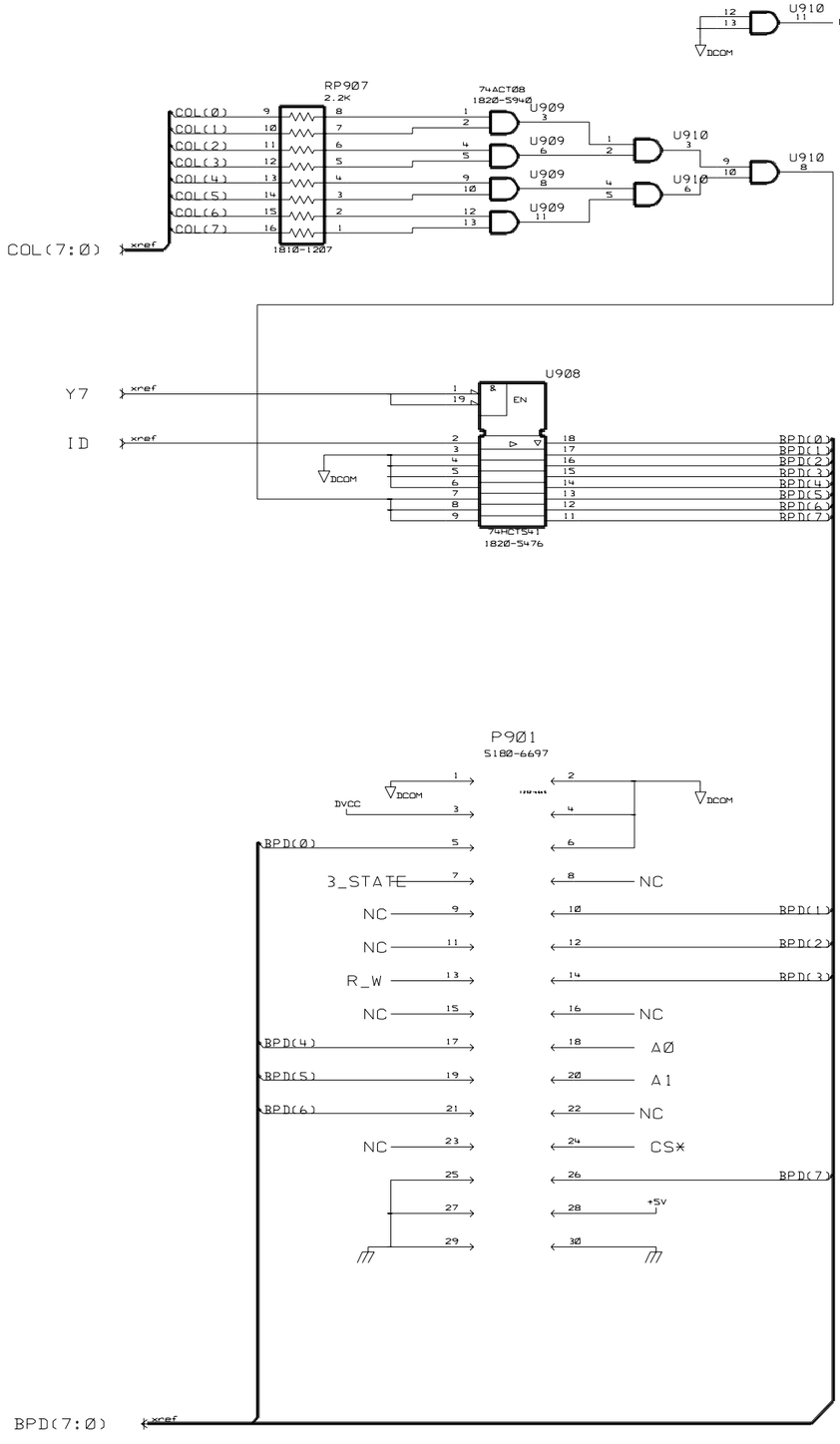
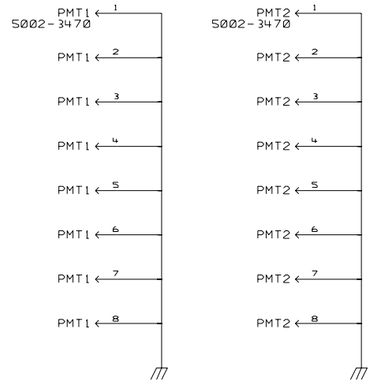
0490-1789

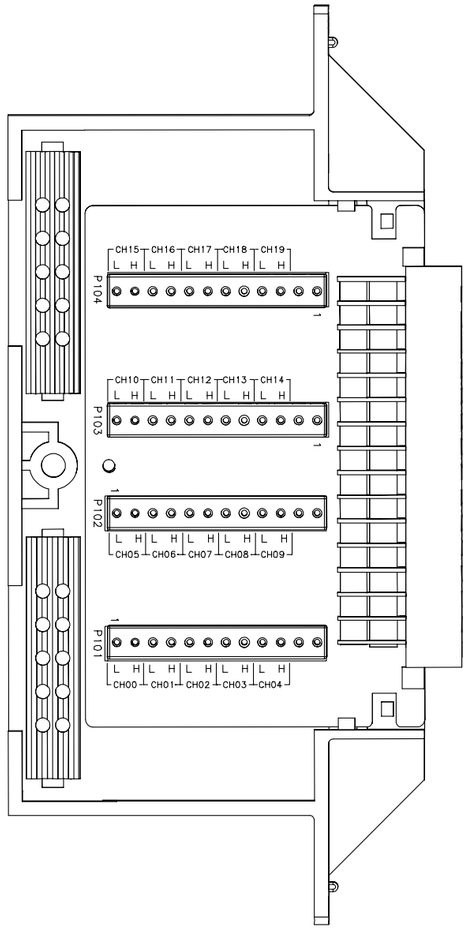


J901

1252-1575

A2 C0L	C2 C0H	E2 C1L
A4 C2L	C4 C2H	E4 C1H
A6 C3L	C6 C3H	E6 C4L
A8 C5L	C8 C5H	E8 C4H
A10 C6L	C10 C6H	E10 C7L
A12 C8L	C12 C8H	E12 C7H
A14 C9L	C14 C9H	E14 NC
A16 NC	C16 NC	E16 NC
A18 C10L	C18 C10H	E18 C11L
A20 C12L	C20 C12H	E20 C11H
A22 C13L	C22 C13H	E22 C14L
A24 C15L	C24 C15H	E24 C14H
A26 C16L	C26 C16H	E26 C17L
A28 C18L	C28 C18H	E28 C17H
A30 C19L	C30 C19H	E30 NC
A32 NC	C32 NC	E32 NC





J101
1252-1577

A2	C0L	1	P101		
C2	C0H	2	P101		
E2	C1L	3	P101		
E4	C1H	4	P101		
A4	C2L	5	P101		
C4	C2H	6	P101		
A6	C3L	7	P101		
C6	C3H	8	P101		
E6	C4L	9	P101		
E8	C4H	10	P101		
NC		11	P101		
NC		12	P101		

Ø360-2624

A8	C5L	1	P102		
C8	C5H	2	P102		
A10	C6L	3	P102		
C10	C6H	4	P102		
E10	C7L	5	P102		
E12	C7H	6	P102		
A12	C8L	7	P102		
C12	C8H	8	P102		
A14	C9L	9	P102		
C14	C9H	10	P102		
NC		11	P102		
NC		12	P102		

Ø360-2624

A18	C10L	12	P103		
C18	C10H	11	P103		
E18	C11L	10	P103		
E20	C11H	9	P103		
A20	C12L	8	P103		
C20	C12H	7	P103		
A22	C13L	6	P103		
C22	C13H	5	P103		
E22	C14L	4	P103		
E24	C14H	3	P103		
NC		2	P103		
NC		1	P103		

Ø360-2624

A24	C15L	12	P104		
C24	C15H	11	P104		
A26	C16L	10	P104		
C26	C16H	9	P104		
E26	C17L	8	P104		
E28	C17H	7	P104		
A28	C18L	6	P104		
C28	C18H	5	P104		
A30	C19L	4	P104		
C30	C19H	3	P104		
NC		2	P104		
NC		1	P104		

A16 NC	C16 NC	E14 NC
A32 NC	C32 NC	E16 NC
		E30 NC
		E32 NC