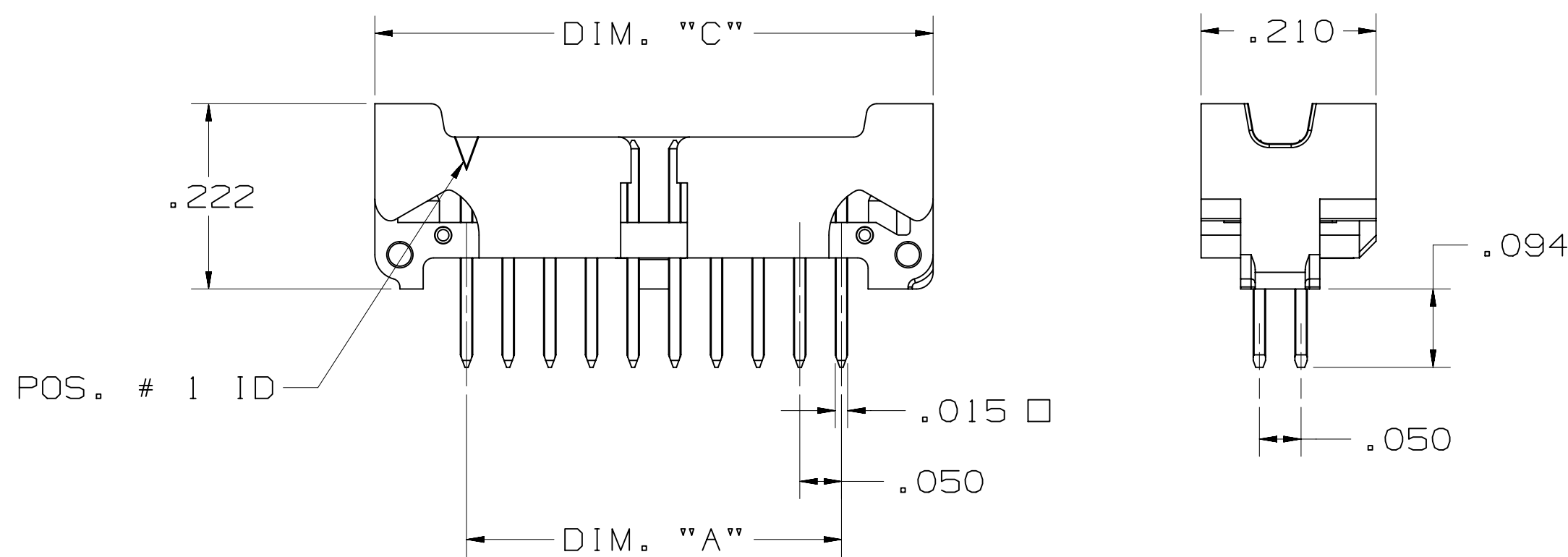
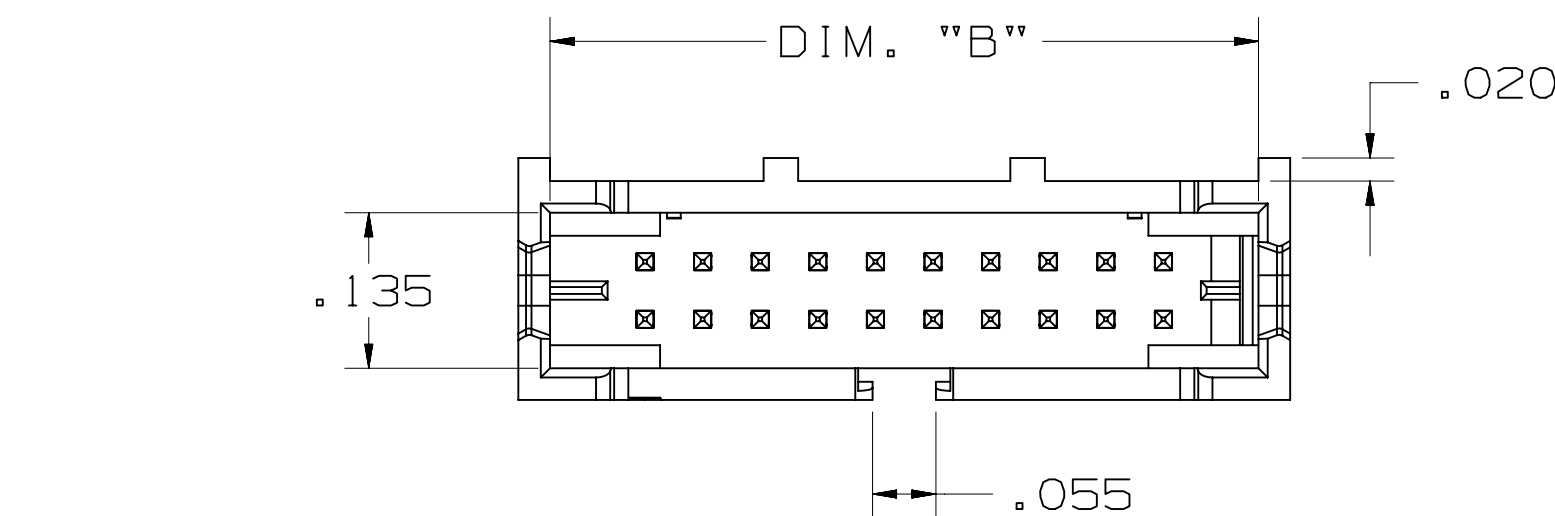
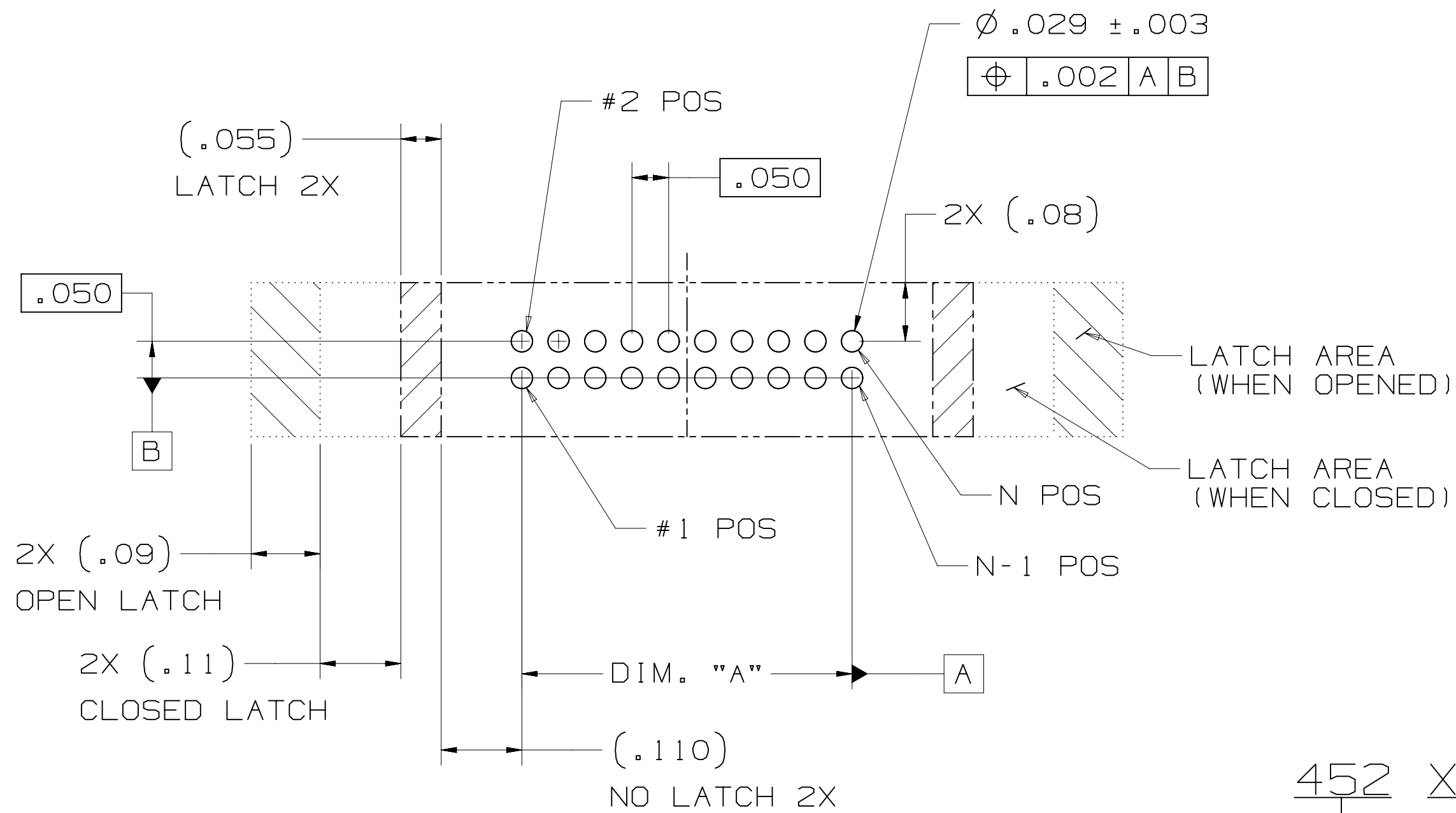


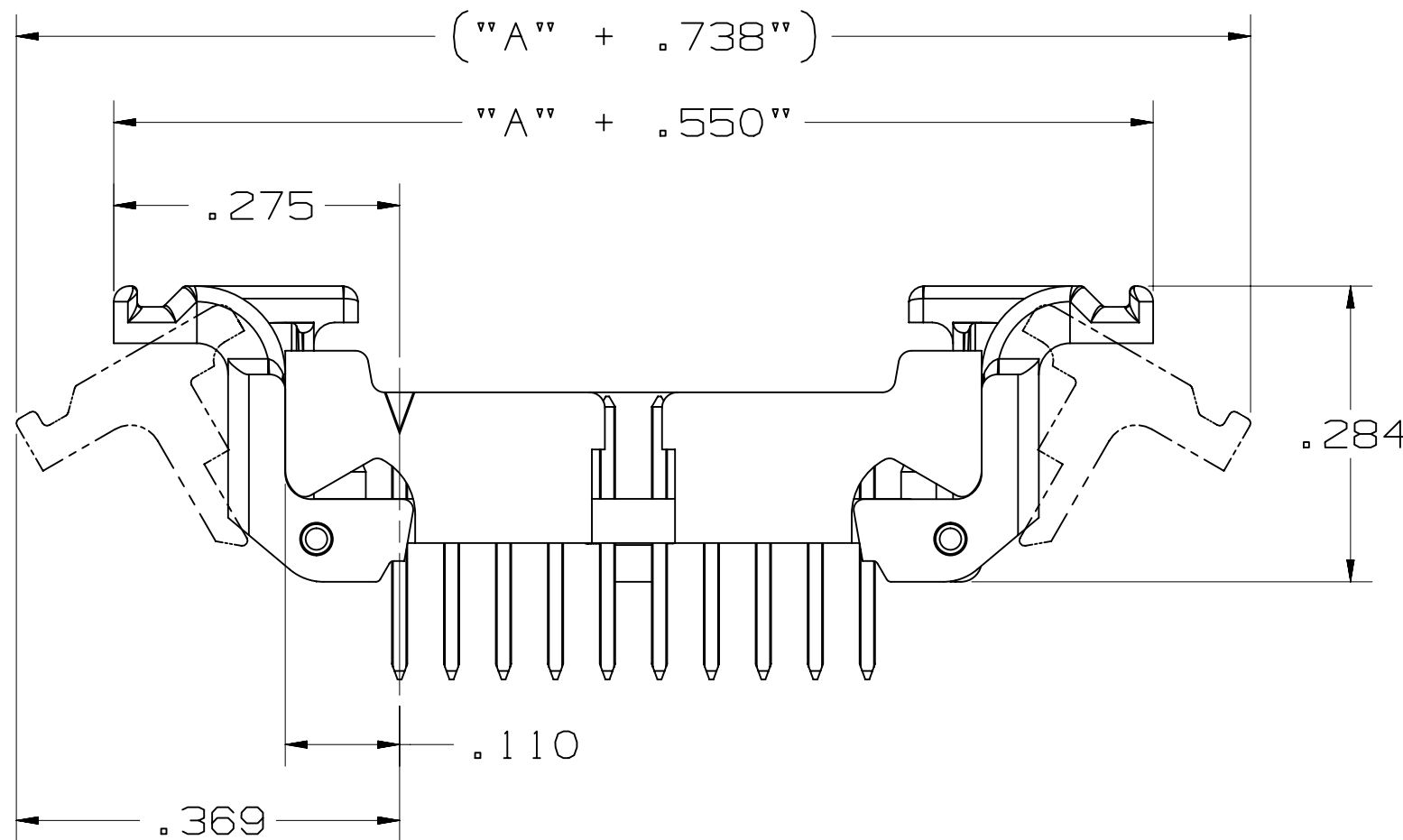
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH  
LATCH AND EJECT, 452 SERIES



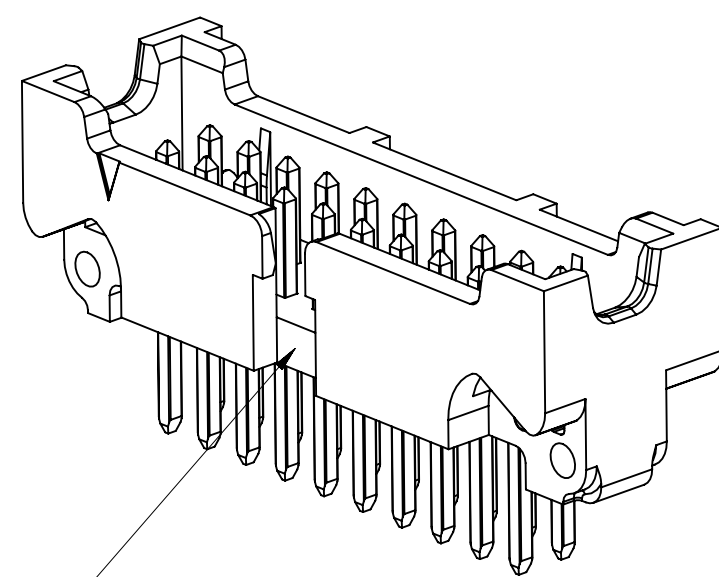
THRU BOARD, VERTICAL



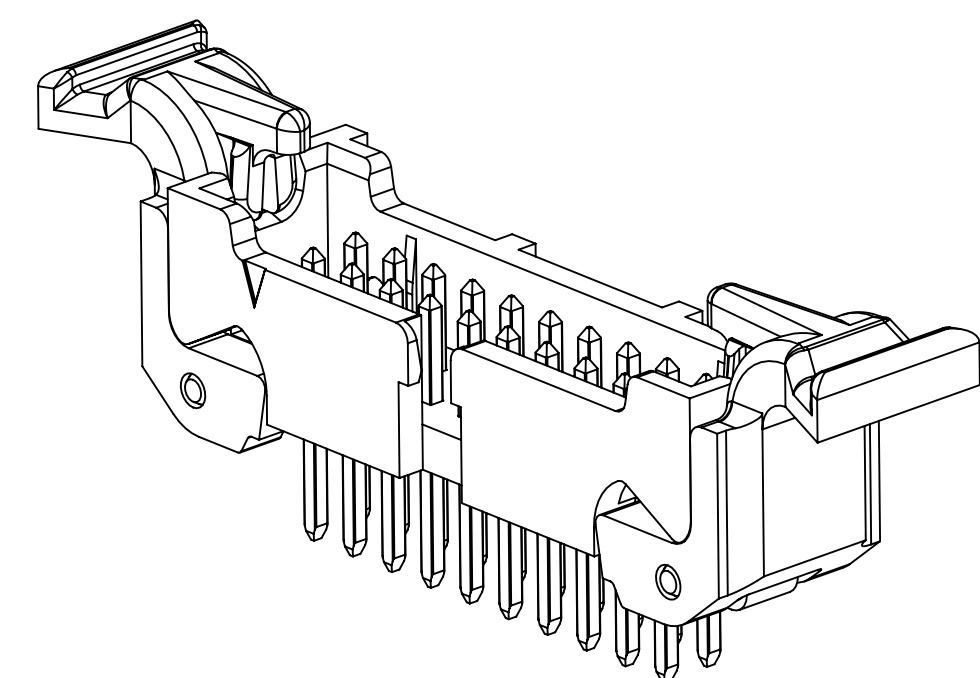
RECOMMENDED BOARD LAYOUT



THRU BOARD, VERTICAL WITH  
LOW PROFILE LATCH/EJECT OPTION



POLARIZATION AND  
FRICTION LATCHING  
POSITIONS 8-30 ONLY



WITH LATCH/EJECT

TABLE 1: VERTICAL THRU

| No.<br>Positions | Dim<br>"A" | Dim<br>"B" | Dim<br>"C" |
|------------------|------------|------------|------------|
| 4                | .050       | .215       | .270       |
| 6                | .100       | .265       | .320       |
| 8                | .150       | .315       | .370       |
| 10               | .200       | .365       | .420       |
| 12               | .250       | .415       | .470       |
| 14               | .300       | .465       | .520       |
| 16               | .350       | .515       | .570       |
| 20               | .450       | .615       | .670       |
| 30               | .700       | .865       | .920       |

- NOTES
- MATERIAL:  
BODY: LCP, UL94V-0  
LATCH: PPA, UL94V-0  
CONTACTS: COPPER ALLOY.
  - PLATING:  
50-150μ" NICKEL UNDERPLATE  
30 = 30μ" GOLD MIN. ON  
WIPING AREA WITH 200μ"  
MATTE TIN ON SOLDER TAIL  
00 = GOLD FLASH ON WIPING  
AREA WITH  
100-140μ" MATTE TIN ON  
SOLDER TAIL.
  - MATING COMPATIBILITY:  
3M 1.27mm (0.050"), 451  
SERIES RIBBON CABLE SOCKET.  
TECH SHEET 2436
  - REGULATORY INFORMATION:  
ROHS COMPLIANT. SEE THE  
REGULATORY INFORMATION  
APPENDIX (RIA) IN THE  
"ROHS COMPLIANCE" SECTION  
OF WWW.3MCONNECTORS.COM  
FOR COMPLIANCE INFORMATION  
(RIA E1 & C1 APPLY)
  - IN THE EVENT OF CONFLICT  
BETWEEN THIS DATA AND THAT  
CONTAINED IN THE PRODUCT  
SPECIFICATION, THE PRODUCT  
SPECIFICATION TAKES  
PRECEDENT.
  - REFERENCE PRODUCT SPEC:  
3M DOC ID# 78-5102-0091-4
  - OTHER PIN COUNTS AVAILABLE  
UPON REQUEST. CONTACT 3M.
  - UNLESS OTHERWISE NOTED,  
REFERENCES TO INDUSTRY  
SPECIFICATIONS ARE INTENDED  
TO INDICATE SUBSTANTIAL  
COMPLIANCE TO THE MATERIAL  
ELEMENTS OF THE SPECIFICATION.  
SUCH REFERENCES SHOULD NOT BE  
CONSTRUED AS A GUARANTEE OF  
COMPLIANCE TO ALL REQUIREMENTS  
IN A GIVEN SPECIFICATION.
  - PACKAGING:  
VERTICAL THRU: TRAY  
RIGHT ANGLE THRU: TRAY  
VERTICAL SMT: TAPE AND REEL.

| PERFORMANCE:                       |                                                                                                                                                                                                                                            |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CURRENT RATING:                    | 1.0 A, ALL LINES ENERGIZED,<br>30°C TEMP RISE PER EIA 364-70<br>1.5 A, 6 LINES ENERGIZED,<br>30°C TEMP RISE PER EIA 364-70<br>2.5 A, 1 LINE ENERGIZED,<br>30°C TEMP RISE PER EIA 364-70<br>1.0 A, UL & CUL NOT FOR<br>CURRENT INTERRUPTION |
| UL & CUL VOLTAGE RATING:           | 125V <sub>AC</sub>                                                                                                                                                                                                                         |
| INSULATION RESISTANCE:             | > 1 × 10 <sup>9</sup> Ohms AT 500 VDC                                                                                                                                                                                                      |
| WITHSTANDING VOLTAGE:              | 1250VACrms AT SEA LEVEL                                                                                                                                                                                                                    |
| OPERATING TEMPERATURE:             | -65°C to +125°C                                                                                                                                                                                                                            |
| UL & CUL OPERATING<br>TERMERATURE: | +125°C                                                                                                                                                                                                                                     |
| PROCESSING TEMPERATURE:            | 260°C                                                                                                                                                                                                                                      |
| LEAD-FREE SOLDERABLE:              | YES                                                                                                                                                                                                                                        |
| MOISTURE SENSITIVITY<br>LEVEL:     | MSL1 PER J-STD-020                                                                                                                                                                                                                         |

3M ELECTRONIC MATERIALS SOLUTIONS DIVISION  
INTERCONNECT SOLUTIONS  
<http://www.3mconnectors.com>

3M IS A TRADEMARK OF 3M COMPANY.  
FOR TECHNICAL, SALES OR ORDERING  
INFORMATION CALL 800-225-5373

PART CONFIG. AND PACKAGING  
6 = VERTICAL THRU HOLE, TRAY PACKAGING  
5 = RIGHT ANGLE THRU HOLE, TRAY PACKAGING  
2 = VERTICAL SMT, TAPE AND REEL WITH VAC CAP

SERIES

POSITION COUNT  
04 - 30  
SEE TABLE 1

PLATING  
00 = AU FLASH  
30 = 30μ" GOLD

CONTACT TAIL  
2 = STANDARD (.094")

LATCH/EJECT  
0 = NO LATCHES  
2 = WITH LOW PROFILE LATCHES

UL FILE NO: E68080

78-5100-2436-3  
78-5100-2396-9

DESIGN REFERENCE NEXT ASSEMBLY

REV ECO ISSUE DATE AND DESCRIPTION DRFT CHKD

DATE DATE DATE DATE DATE DATE

NOV 29,2012 PRC NOV 29,2012

NOV 29,2012 SAN NOV 29,2012

NOV 29,2012 SAN NOV 29,2012

NOV 29,2012 SAN NOV 29,2012

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NOV 29,2012 SAN NOV 29,2012

NOV 29,2012 SAN NOV 29,2012

NOV 29,2012 SAN NOV 29,2012

|   |       |             |     |     |
|---|-------|-------------|-----|-----|
| F | 56988 | SEP 24,2014 | JNC | SN  |
| E | 54514 | JUN 19,2014 | SJS | SAN |
| D | 51884 | JAN 08,2014 | SJS | SAN |
| C | 50290 | OCT 08,2013 | JNC | SN  |
| B | 48635 | JUL 12,2013 | JNC | SN  |
| A | 46797 | MAR 25,2013 | JNC | SAN |

REV ECO ISSUE DATE AND DESCRIPTION DRFT CHKD

DATE DATE DATE DATE DATE DATE

NOV 29,2012 PRC NOV 29,2012

NOV 29,2012 SAN NOV 29,2012

NOV 29,2012 SAN NOV 29,2012

NOV 29,2012 SAN NOV 29,2012

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NOV 29,2012 SAN NOV 29,2012

NOV 29,2012 SAN NOV 29,2012

NOV 29,2012 SAN NOV 29,2012

3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH  
LATCH AND EJECT, 452 SERIES

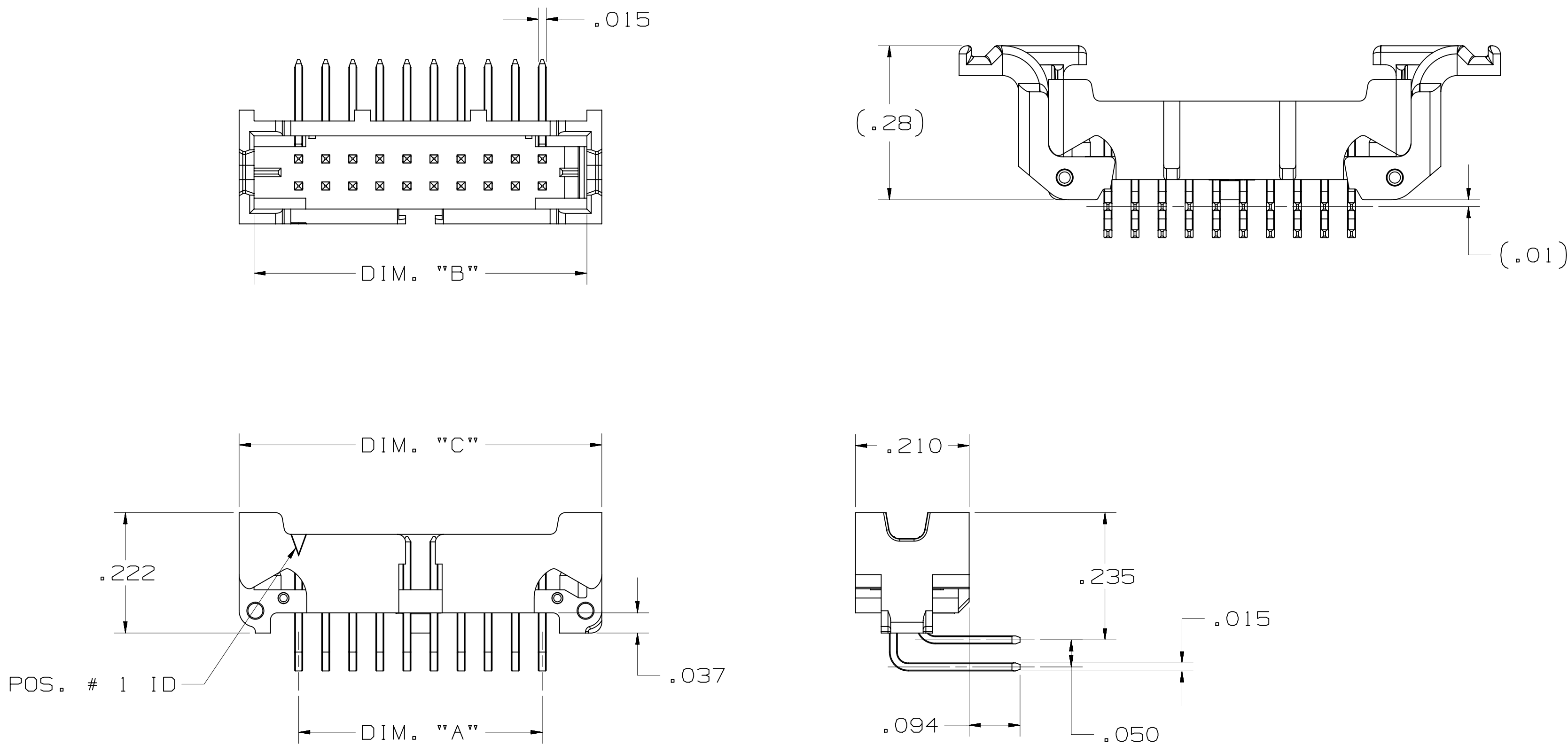
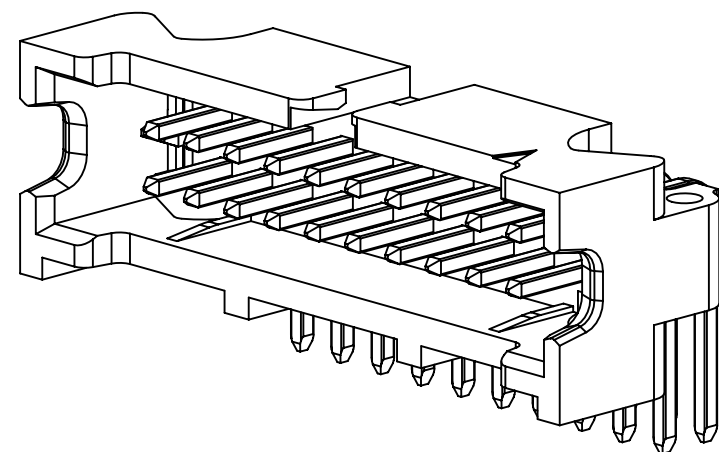
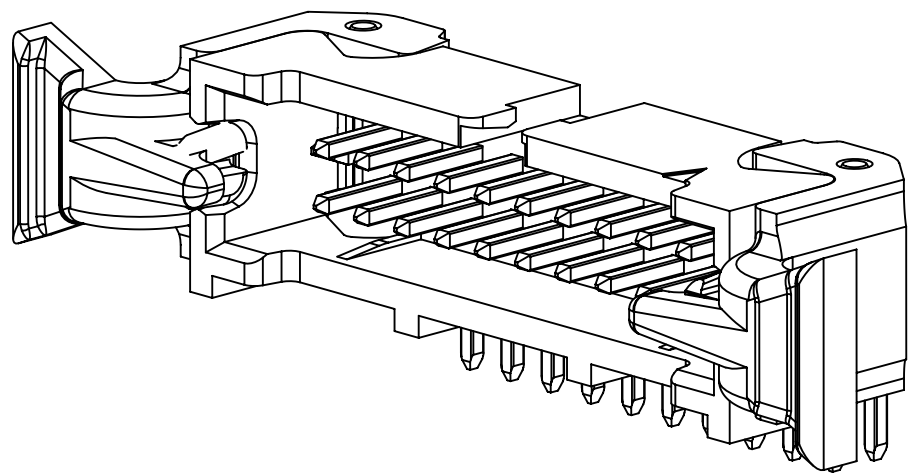


TABLE 1: RIGHT ANGLE THRU

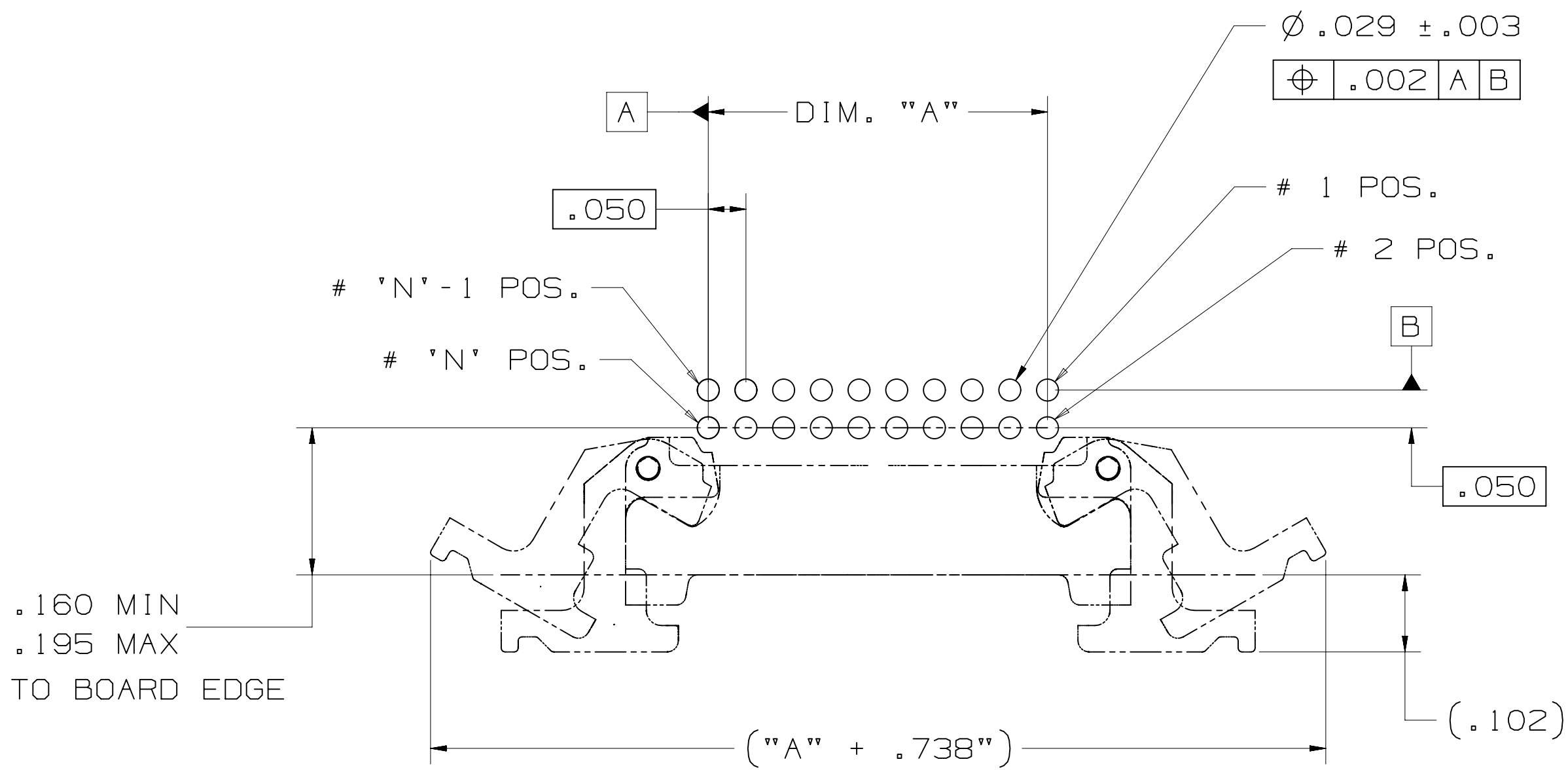
| No.<br>Positions | Dim<br>"A" | Dim<br>"B" | Dim<br>"C" |
|------------------|------------|------------|------------|
| 4                | .050       | .215       | .270       |
| 6                | .100       | .265       | .320       |
| 8                | .150       | .315       | .370       |
| 10               | .200       | .365       | .420       |
| 12               | .250       | .415       | .470       |
| 14               | .300       | .465       | .520       |
| 16               | .350       | .515       | .570       |
| 20               | .450       | .615       | .670       |
| 30               | .700       | .865       | .920       |



THRU BOARD, RIGHT ANGLE



WITH LATCH/EJECT



RECOMMENDED BOARD LAYOUT

78-5100-2436-3  
78-5100-2396-9

DESIGN REFERENCE

NEXT ASSEMBLY

DO NOT SCALE DRAWING

SCALE 6 1

TOLERANCES EXCEPT AS NOTED

INCHES .0 ± .1 .00 ± .02 .000 ± .010 .0000 ± .0050

MILLIMETERS 0 ± .1 .00 ± .01 .000 ± .005

INTERPRET PER ASME Y14.5 - 2009

MAX SURFACE ROUGHNESS 12.5 SURFACES

MARKED ONLY

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2009

MAX SURFACE ROUGHNESS 12.5 SURFACES

MARKED ONLY

REV. ECO. ISSUE DATE AND DESCRIPTION

DRFT. CHKD.

DATE NOV 29, 2012 PRC

DATE NOV 29, 2012

DATE NOV 29, 2012 SAN

DATE NOV 29, 2012

3M

3M Center St. Paul, MN 55144

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TITLE

BOARDMOUNT HEADER, .05 X .05 PITCH, L/E, 452 SERIES

CAGE NUMBER

SIZE

DRAWING NO.

REV.

MODEL

DET.

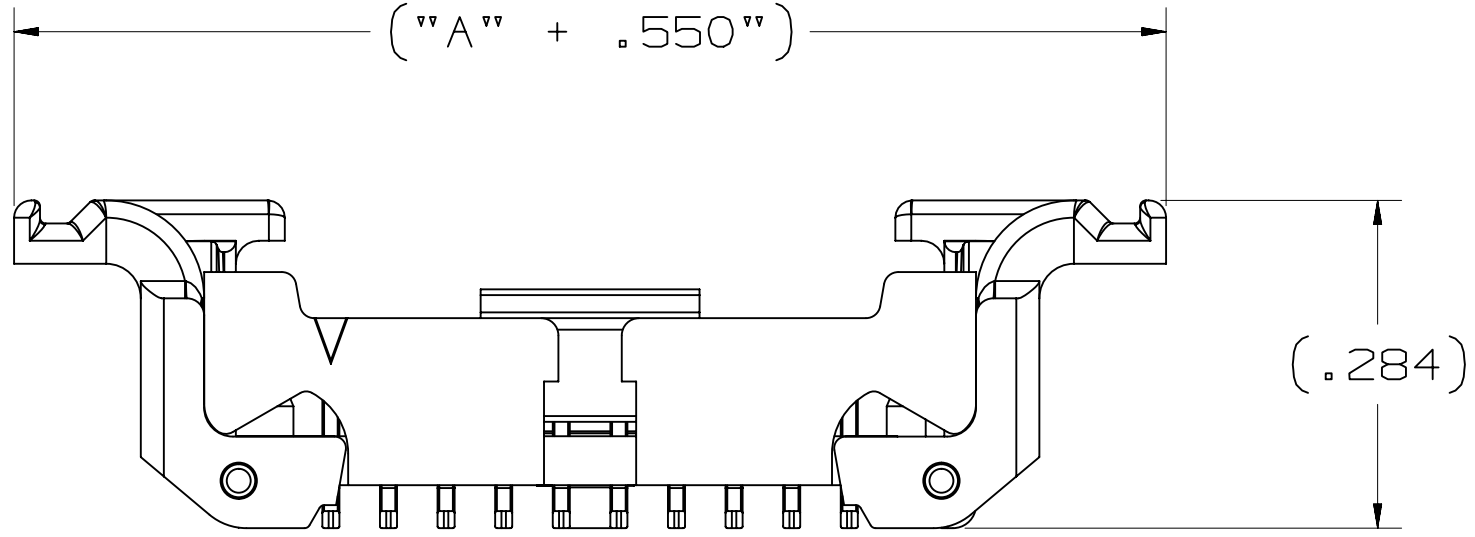
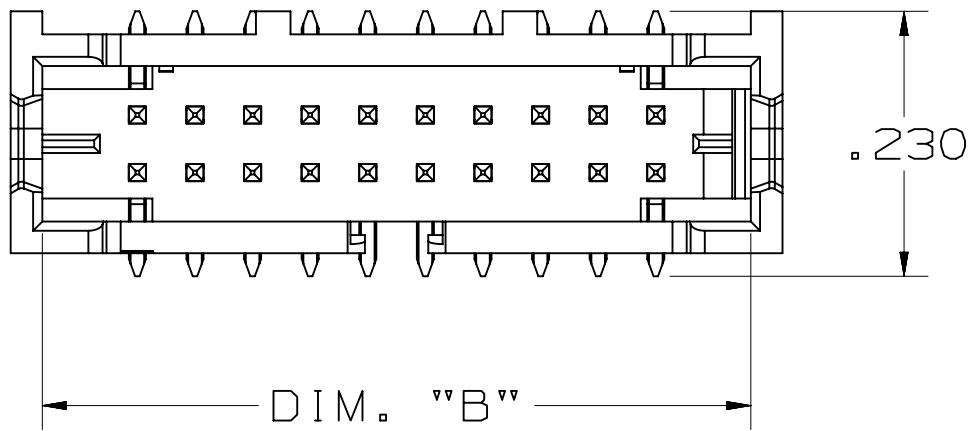
LISTS

YES

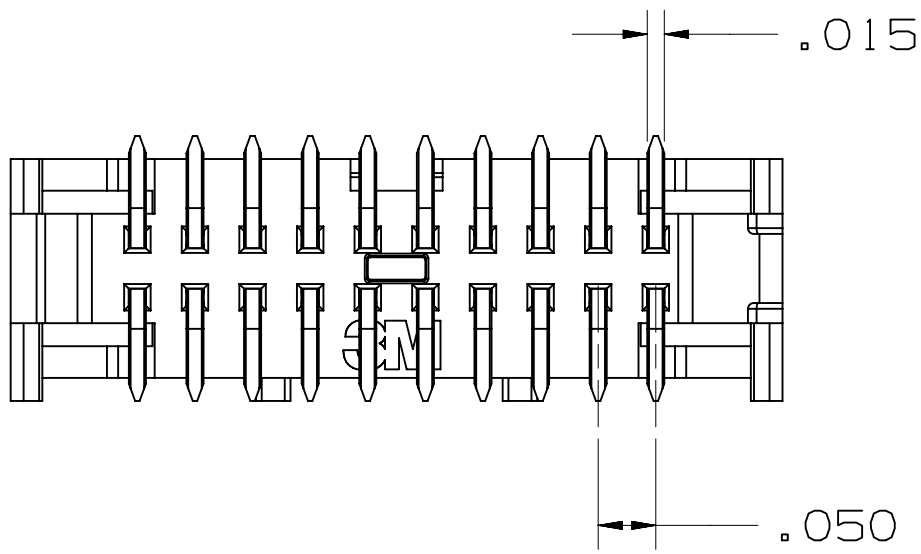
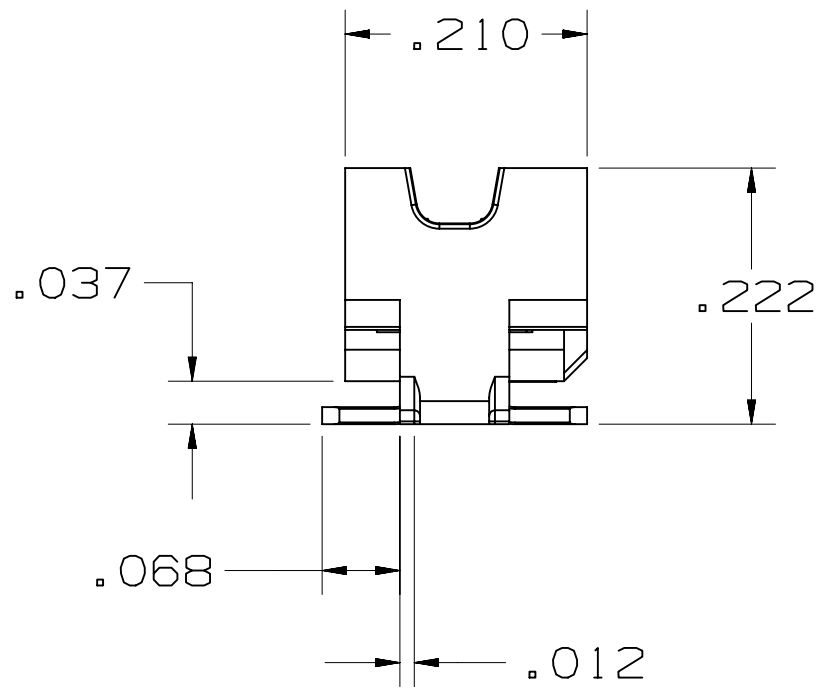
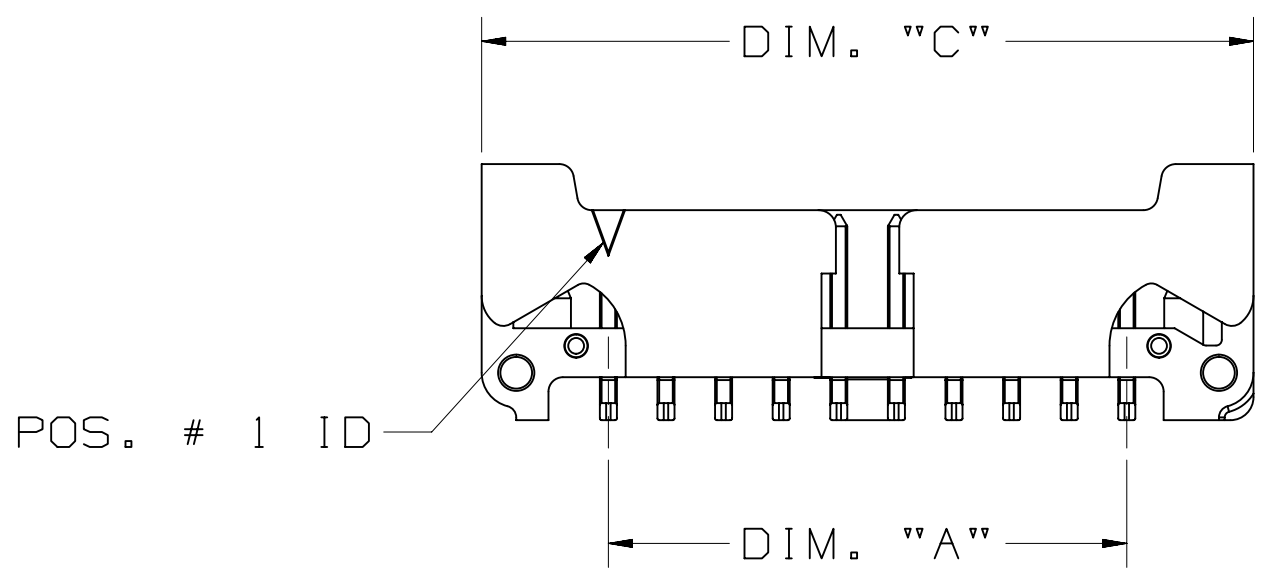
NO

SHT 2 OF 4

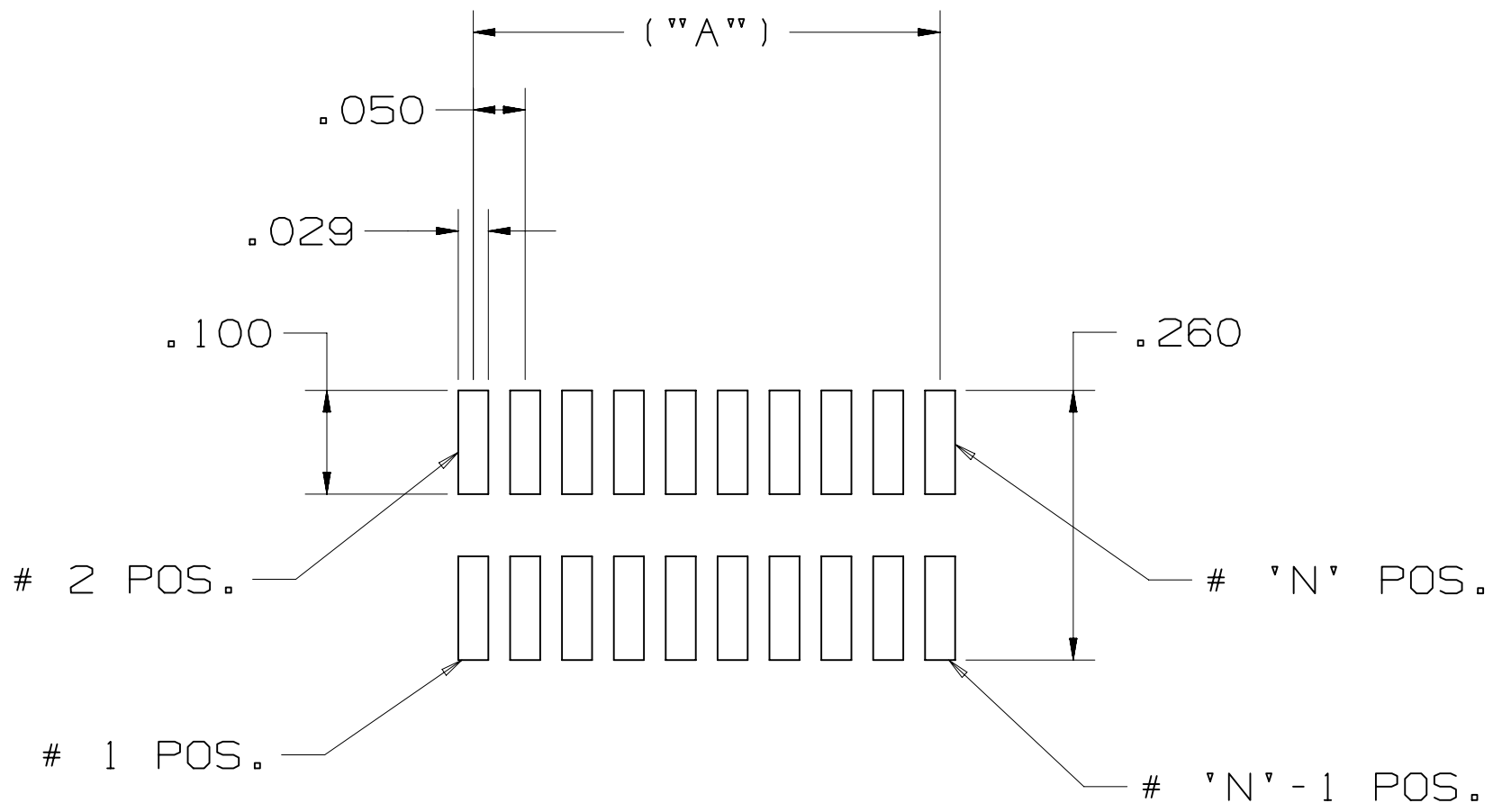
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH  
LATCH AND EJECT, 452 SERIES



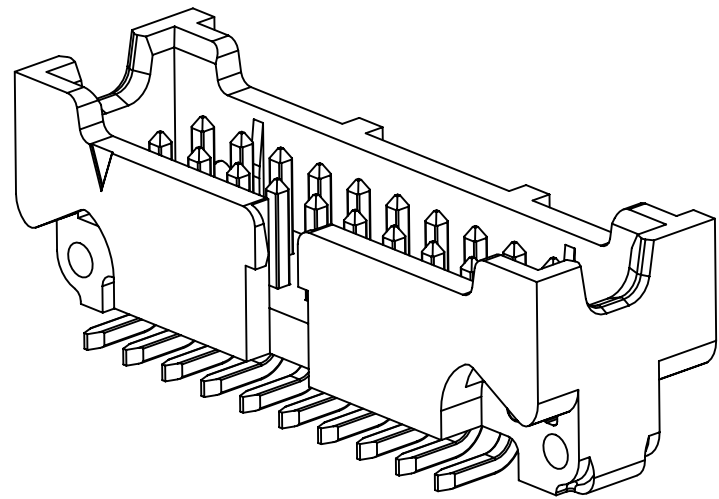
| TABLE 1: VERTICAL SMT |         |         |         |
|-----------------------|---------|---------|---------|
| No. Positions         | Dim "A" | Dim "B" | Dim "C" |
| 4                     | .050    | .215    | .270    |
| 6                     | .100    | .265    | .320    |
| 8                     | .150    | .315    | .370    |
| 10                    | .200    | .365    | .420    |
| 12                    | .250    | .415    | .470    |
| 14                    | .300    | .465    | .520    |
| 16                    | .350    | .515    | .570    |
| 20                    | .450    | .615    | .670    |
| 30                    | .700    | .865    | .920    |



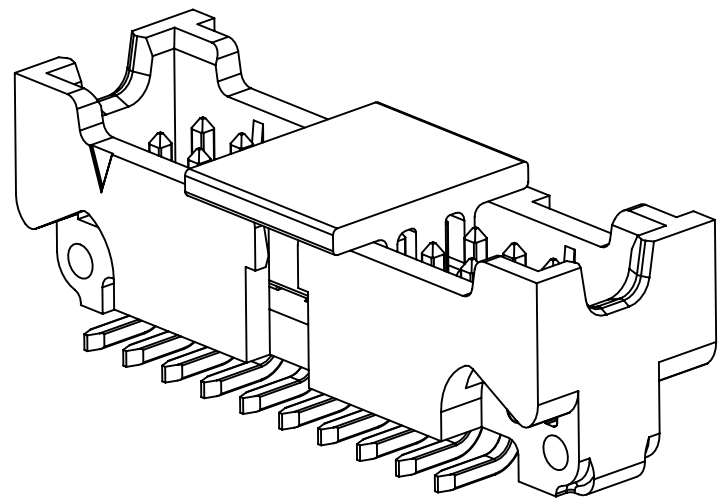
SURFACE MOUNT, VERTICAL



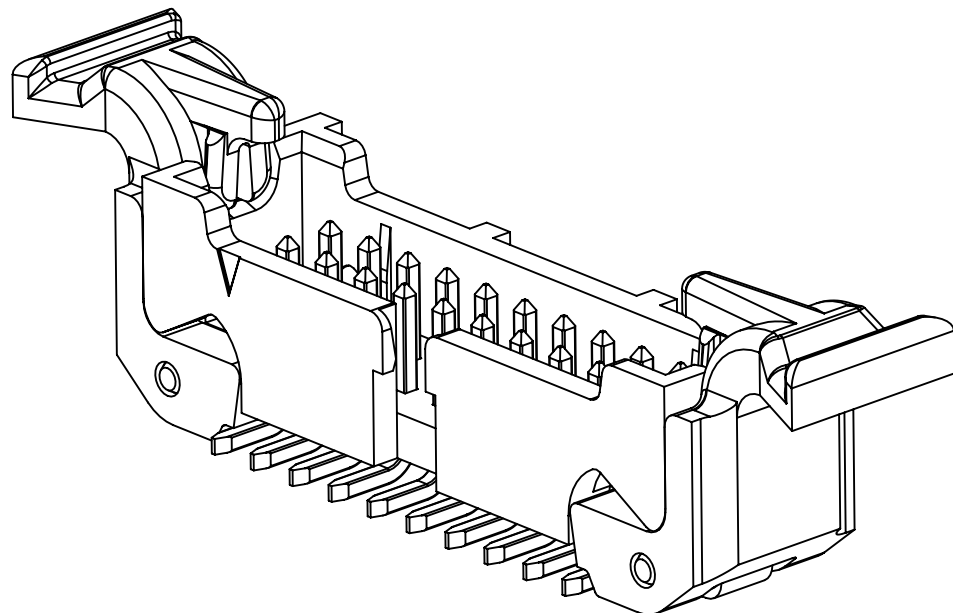
RECOMMENDED BOARD LAYOUT



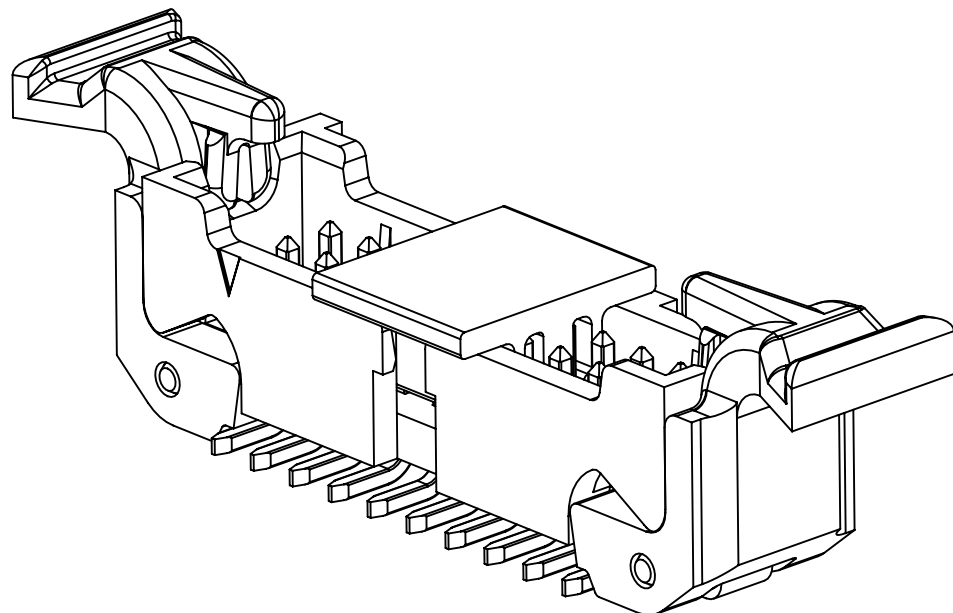
SHROUDED SMT HEADER



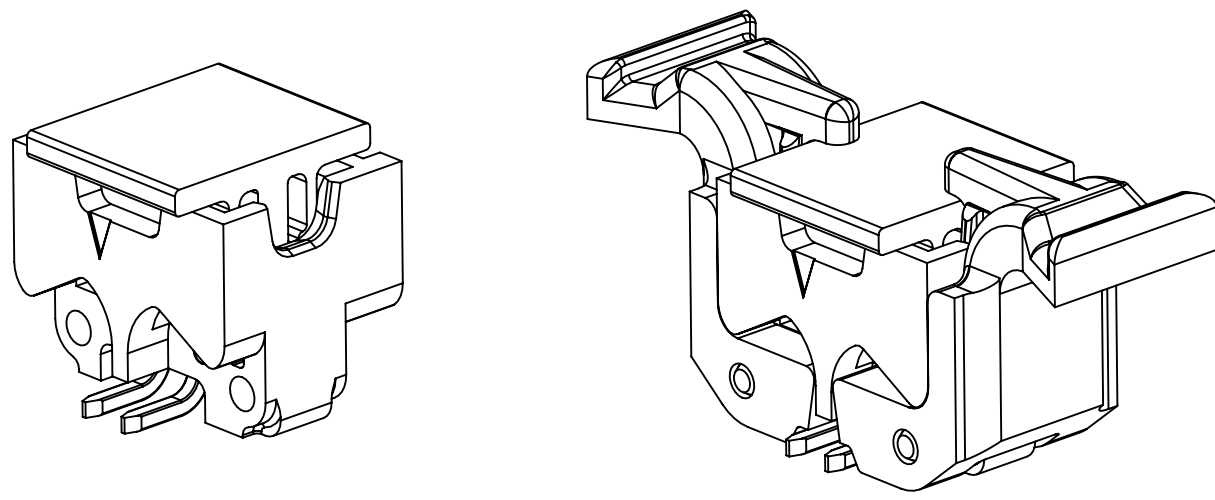
WITH VACUUM CAP



WITH LATCH/EJECT



WITH LATCH/EJECT  
AND VACUUM CAP  
VACUUM CAP IS FULLY SEATED  
ON POSITIONS 8 THRU 30



VACUUM CAP SEATED ON TOP  
EDGES OF END WALLS ON  
POSITIONS 4 AND 6

78-5100-2436-3  
78-5100-2396-9

DESIGN REFERENCE

NEXT ASSEMBLY

DO NOT SCALE DRAWING

SCALE 6 1

TOLERANCES EXCEPT AS NOTED

INCHES .00 ±.01 .00 ±.02 .000 ±.010 .0000 ±.0050

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2009

MAX SURFACE ROUGHNESS 125 SURFACES 3200 MARKED ONLY

INTERCONNECT SOLUTIONS

DIVISION CODE ISD

3M

3M Center St. Paul, MN 55144

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TITLE BOARDMOUNT HEADER, .05 X .05 PITCH, L/E, 452 SERIES

CAGE NUMBER D78-5100-2437-1

SIZE

DRAWING NO.

REV. F

MODEL

DET

LISTS

YES

NO

SHT 3 OF 4

|   |       |              |                                    |     |     |
|---|-------|--------------|------------------------------------|-----|-----|
| F | 56988 | SEP 24, 2014 | REVISE PERFORMANCE CHART           | JNC | SN  |
| E | 54514 | JUN 19, 2014 | ADD UL LOGO, ADD 56MM T&R          | SJS | SAN |
| D | 51884 | JAN 08, 2014 | ADD DESIGN REF, UPDATE TITLE,      | SJS | SAN |
| C | 50290 | OCT 08, 2013 | REVISE NOTE 1, 9 & OPERATING TEMP. | JNC | SN  |
| B | 48635 | JUL 12, 2013 | MATCH TEXT FONTS & ADD NOTE 9      | JNC | SN  |
| A | 46797 | MAR 25, 2013 | PRODUCTION RELEASE                 | JNC | SAN |

|     |              |                            |              |      |
|-----|--------------|----------------------------|--------------|------|
| REV | ECO          | ISSUE DATE AND DESCRIPTION | DRFT         | CHKD |
| ARM | NOV 29, 2012 | PRC                        | NOV 29, 2012 |      |
| SAN | NOV 29, 2012 | SAN                        | NOV 29, 2012 |      |

C

B



—



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1