

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

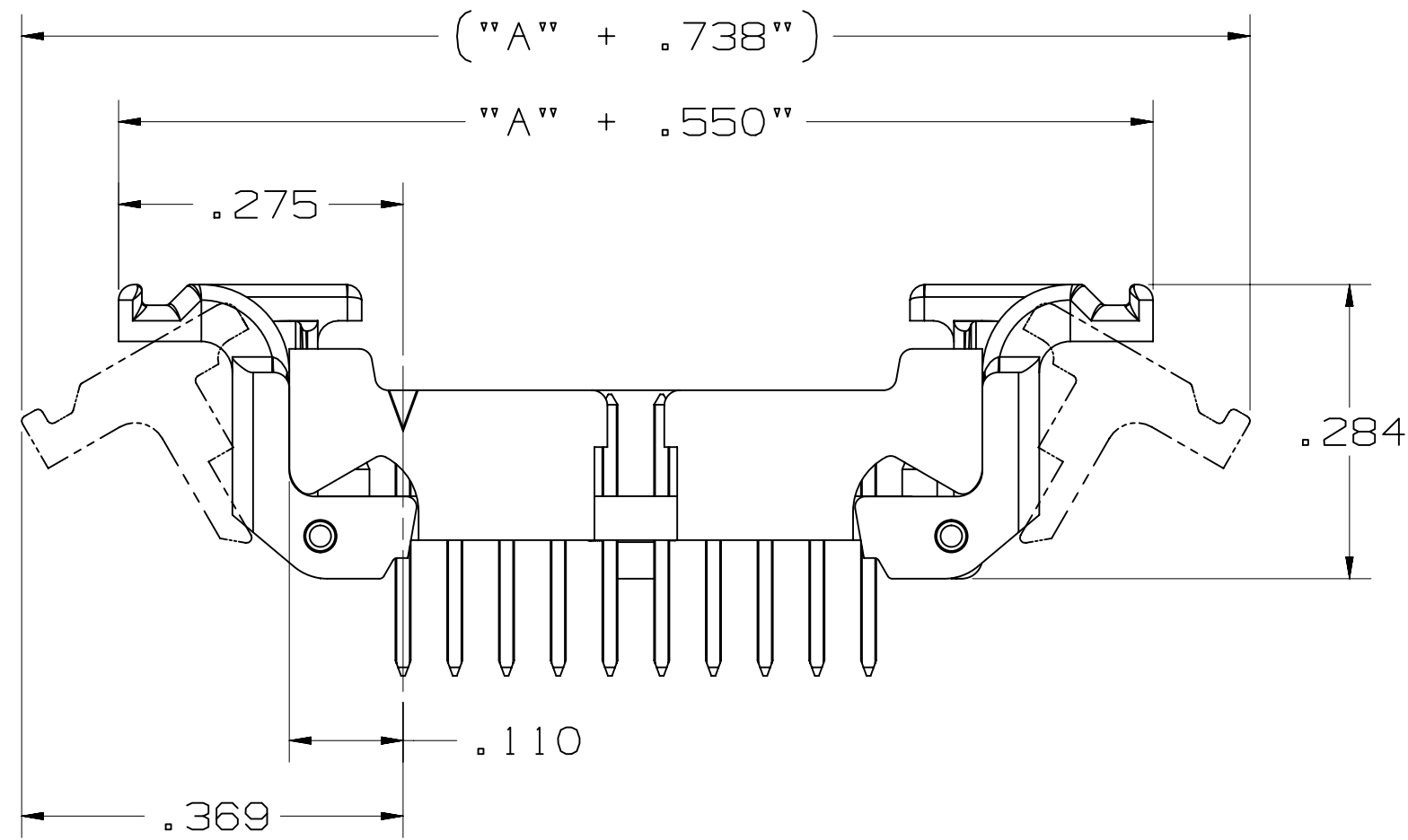
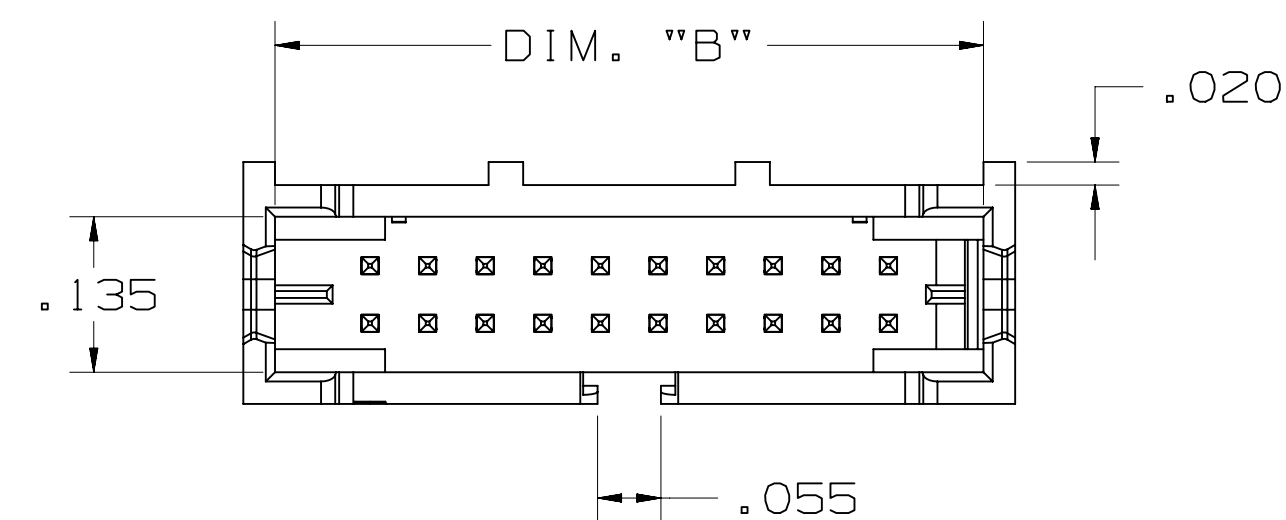
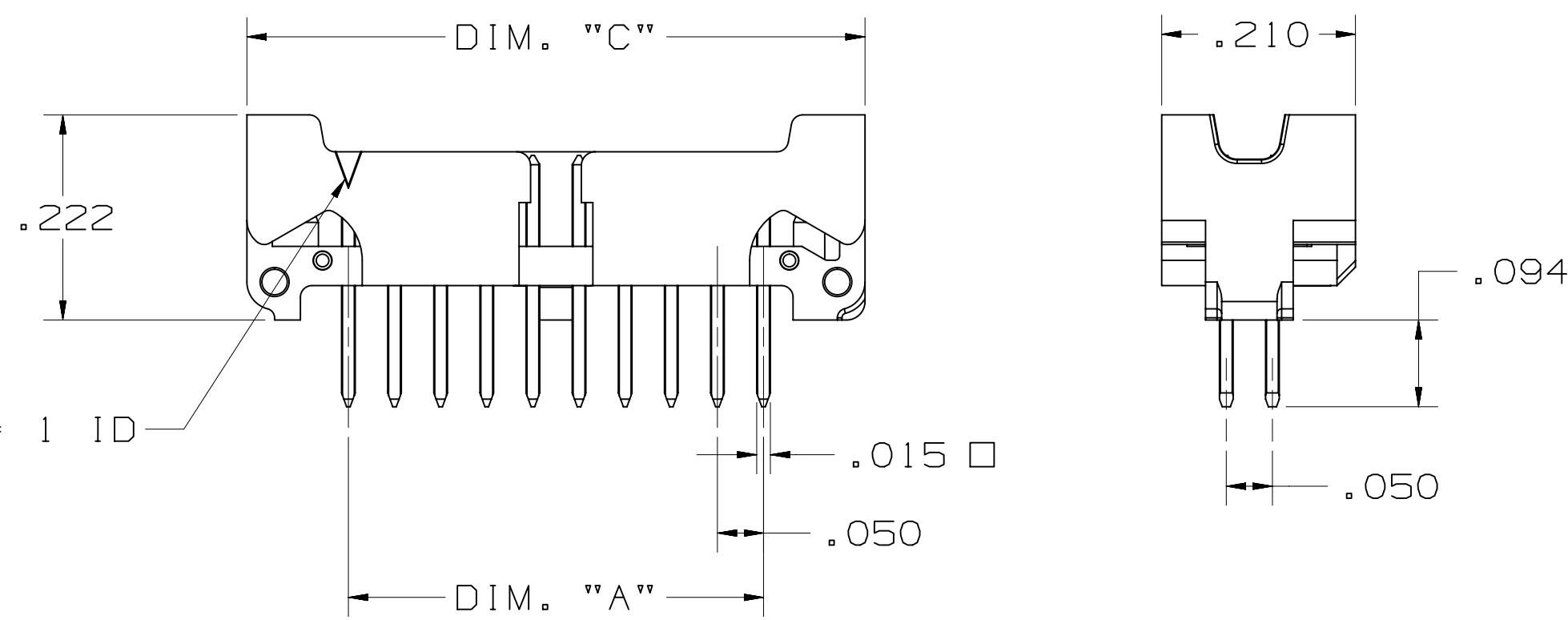


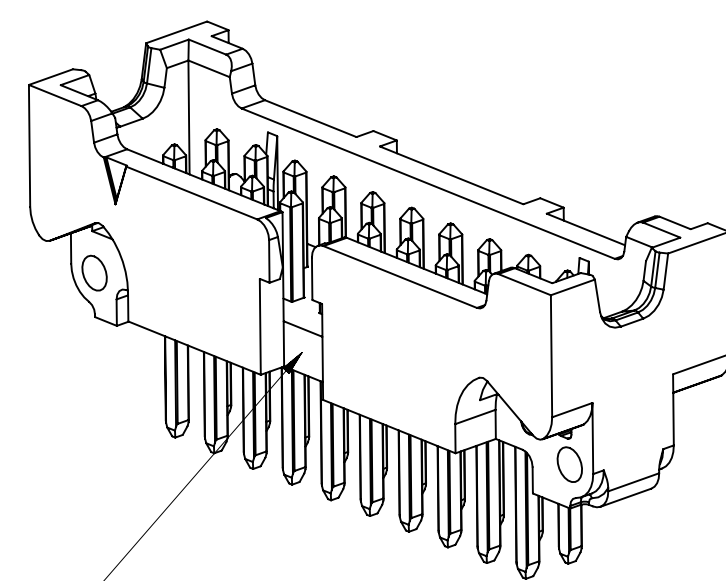
TABLE 1: VERTICAL THRU

| 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    |

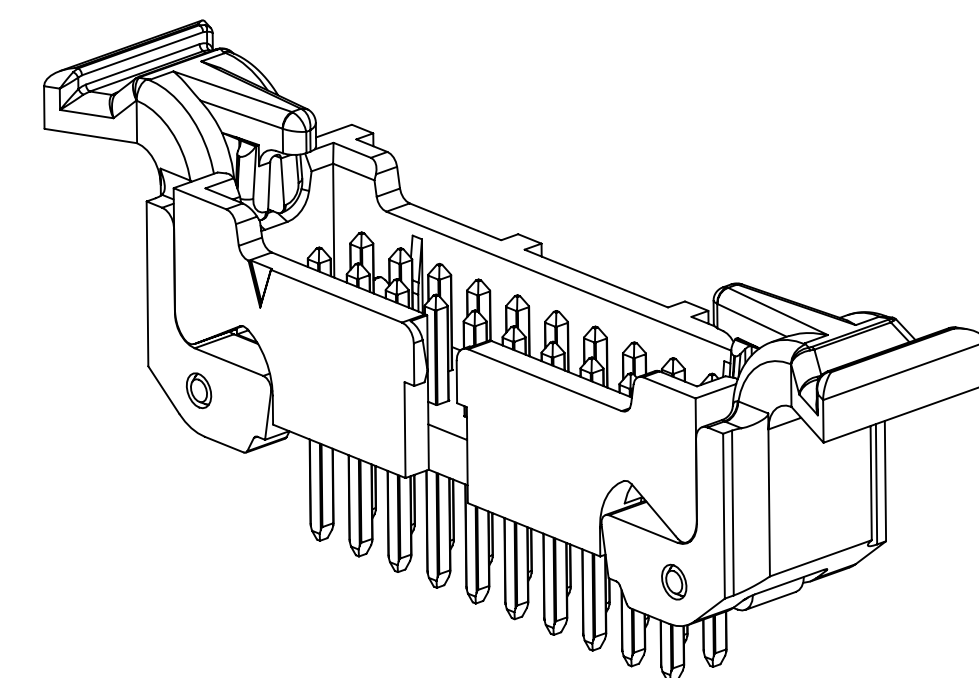
THRU BOARD, VERTICAL WITH LOW PROFILE LATCH/EJECT OPTION



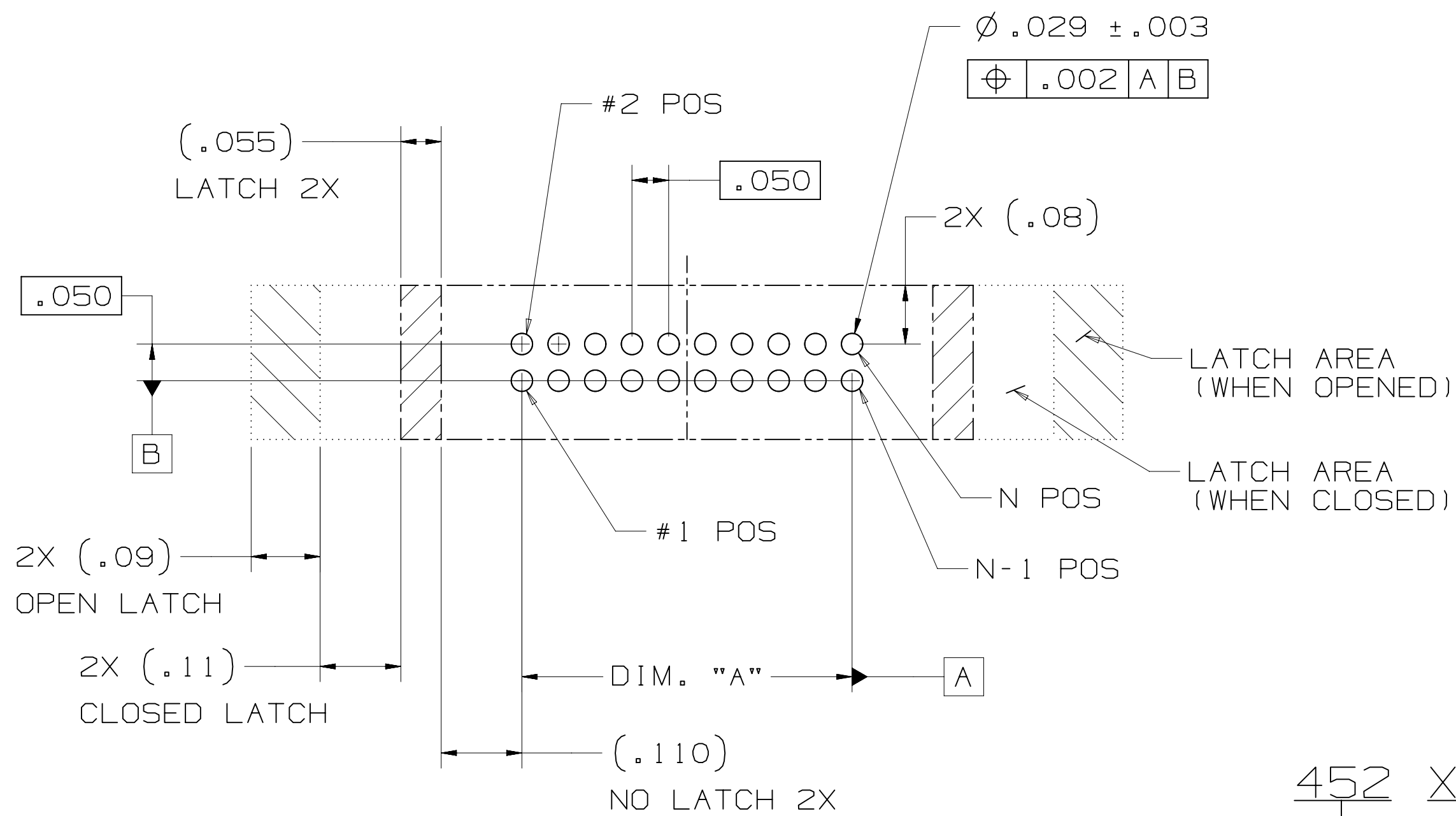
THRU BOARD, VERTICAL



POLARIZATION AND FRICTION LATCHING POSITIONS 8-30 ONLY



WITH LATCH/EJECT



RECOMMENDED BOARD LAYOUT

| PERFORMANCE:                    |   |
|---------------------------------|---|
| CURRENT RATING:                 | 1.0 A, ALL LINES ENERGIZED, 30°C TEMP RISE PER EIA 364-70 |
|                                 | 1.5 A, 6 LINES ENERGIZED, 30°C TEMP RISE PER EIA 364-70   |
|                                 | 2.5 A, 1 LINE ENERGIZED, 30°C TEMP RISE PER EIA 364-70    |
| 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 TEMPERATURE: | +125°C  |
| PROCESSING TEMPERATURE:         | 260°C   |
| LEAD-FREE SOLDERABLE:           | YES   |
| MOISTURE SENSITIVITY LEVEL:     | MSL1 PER J-STD-020  |

452 XX - X X 0 2 XX  
 SERIES      POSITION COUNT  
 04 - 30      SEE TABLE 1

PLATING  
 00 = AU FLASH  
 30 = 30µ" GOLD

CONTACT TAIL  
 2 = STANDARD (.094")

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

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

- NOTES
1. MATERIAL: BODY: LCP, UL94V-0  
LATCH: PPA, UL94V-0  
CONTACTS: COPPER ALLOY.
  2. 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.
  3. MATING COMPATIBILITY: 3M 1.27mm (0.050"), 451 SERIES RIBBON CABLE SOCKET. TECH SHEET 2436
  4. 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)
  5. IN THE EVENT OF CONFLICT BETWEEN THIS DATA AND THAT CONTAINED IN THE PRODUCT SPECIFICATION, THE PRODUCT SPECIFICATION TAKES PRECEDENT.
  6. REFERENCE PRODUCT SPEC: 3M DOC ID# 78-5102-0091-4
  7. OTHER PIN COUNTS AVAILABLE UPON REQUEST. CONTACT 3M.
  8. 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.
  9. PACKAGING: VERTICAL THRU: TRAY  
RIGHT ANGLE THRU: TRAY  
VERTICAL SMT: TAPE AND REEL.

| DESIGN REFERENCE | NEXT ASSEMBLY | REV | ECO | ISSUE DATE AND DESCRIPTION | DRFT | CHKD        |
|------------------|---------------|-----|-----|----------------------------|------|-------------|
| 78-5100-2436-3   |               |     |     |                            |      |             |
| 78-5100-2396-9   |               |     |     |                            |      |             |
|                  |               | ARM |     | NOV 29,2012 PRC            |      | NOV 29,2012 |
|                  |               | SAN |     | NOV 29,2012 SAN            |      | NOV 29,2012 |

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

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

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**3M** 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 F  
 MODEL:  YES  NO SHT 1 OF 4

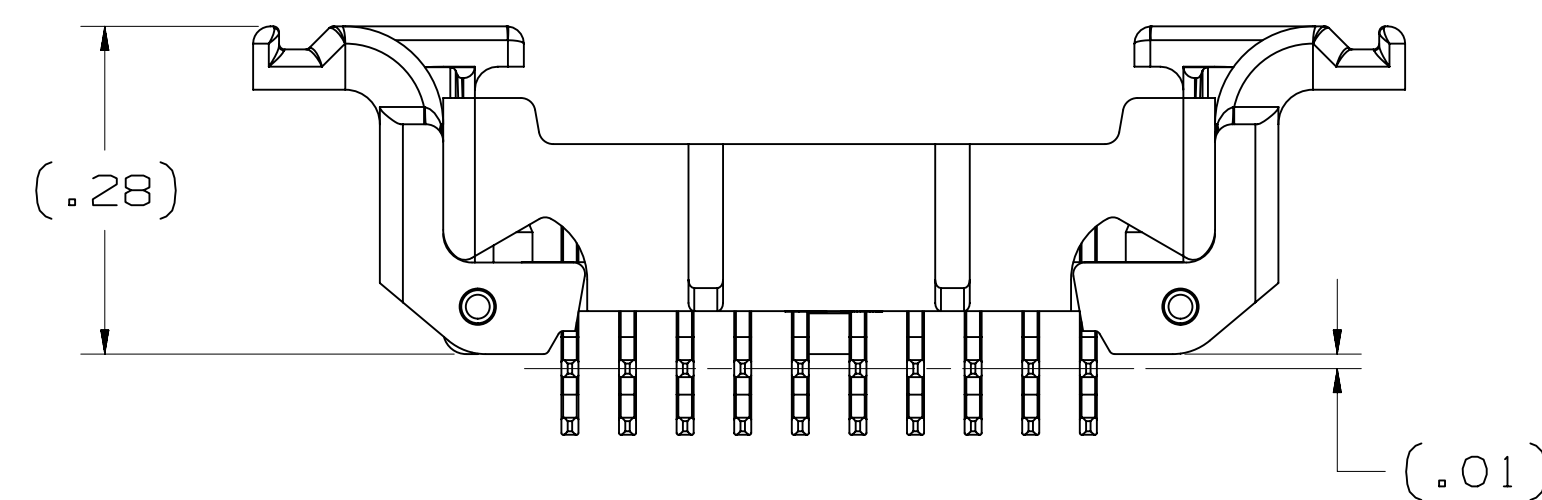
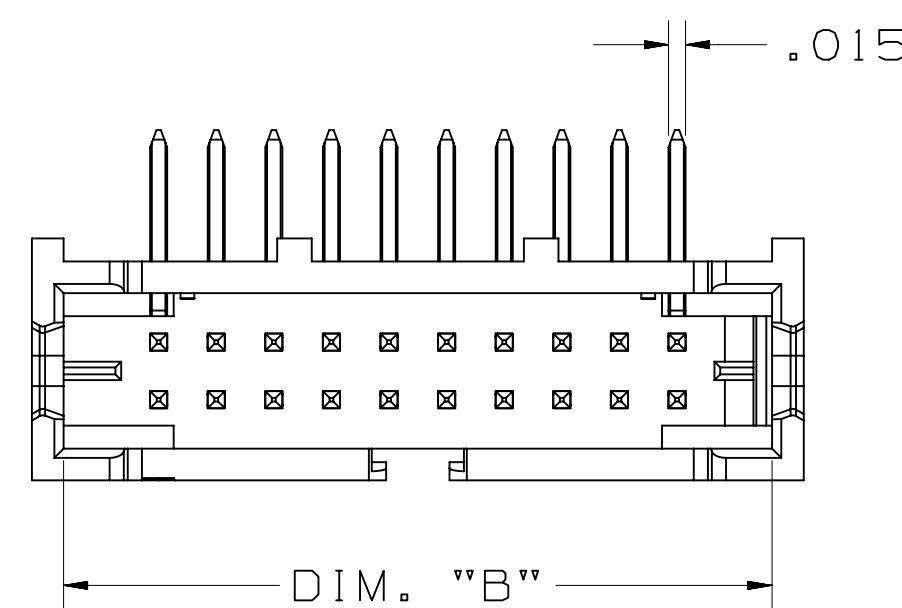
**cru** us  
 UL FILE NO: E68080

REVISED: 78-5100-2437-1 F  
 DRAWING NUMBER: 78-5100-2437-1  
 AM UTC-05:00  
 Imaged: F.1 9/24/2014 9:06 AM

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

TABLE 1: RIGHT ANGLE THRU

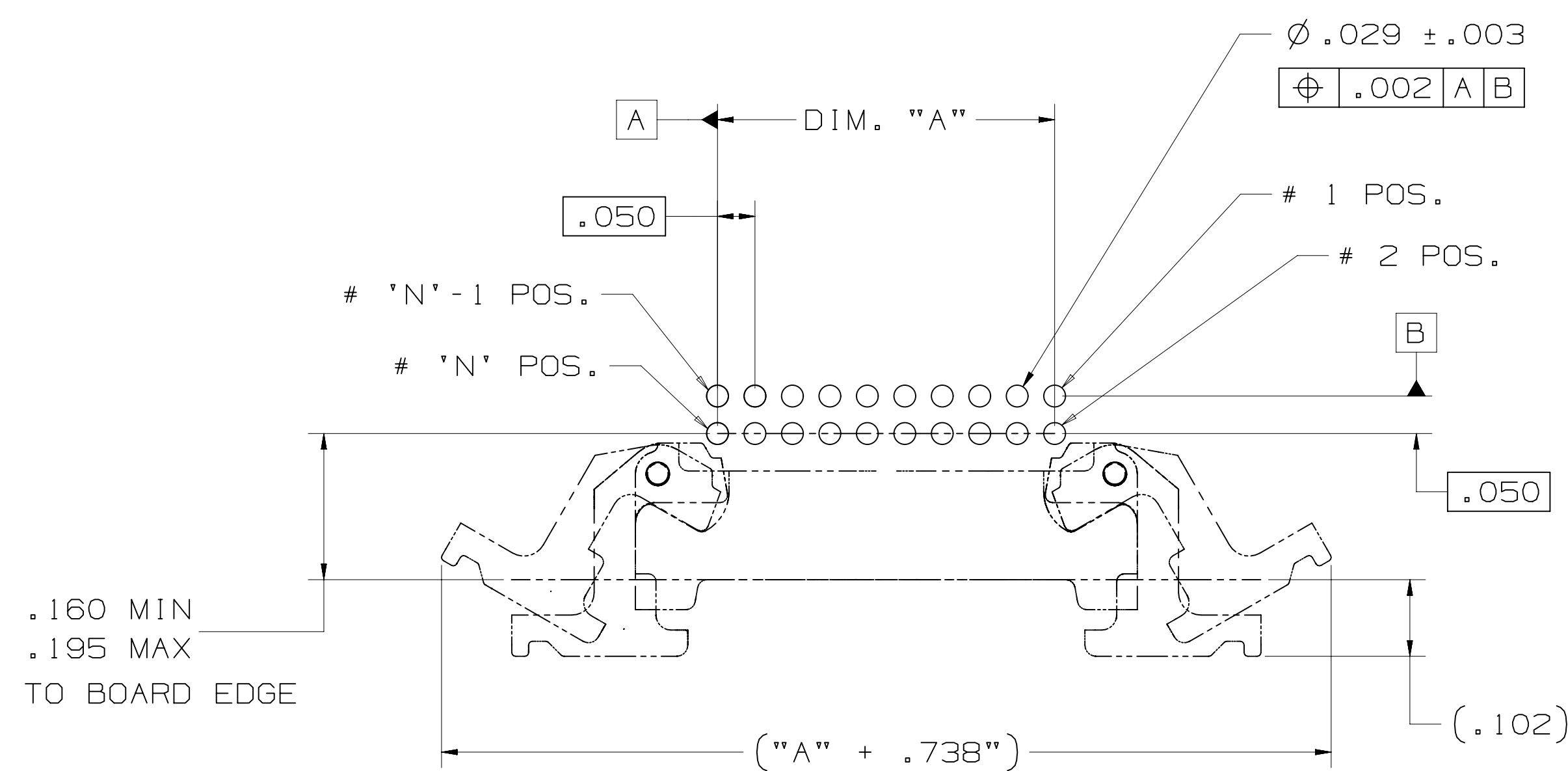
| No. Positions | Dim "A" | Dim "B" | Dim "C" |
|---------------|---------|---------|---------|
| 4             | .050    | .215    | .270    |
| 6             | .100    | .265    | .320    |
| 8             | .150    | .315    | .370    |
| 10            | .200    | .365    | .420    |
| 12        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



THRU BOARD, RIGHT ANGLE



WITH LATCH/EJECT



RECOMMENDED BOARD LAYOUT

|                                  |  |  |                            |   |     |   |              |   |  |
|----------------------------------|--|--|----------------------------|---|-----|---|--------------|---|--|
| 78-5100-2436-3<br>78-5100-2396-9 |  | DESIGN REFERENCE                                       | NEXT ASSEMBLY              | REV                                       | ECO | ISSUE DATE AND DESCRIPTION                | DRFT         | CHKD                                      |  |
| Interconnect Solutions           |  | ISD  |                            | DRFT                                      | ARM | NOV 29, 2012 PRC                          | NOV 29, 2012 | NOV 29, 2012                              |  |
| DO NOT SCALE DRAWING             |  | SCALE 6/1  | TOLERANCES EXCEPT AS NOTED | DRFT                                      | SAN | NOV 29, 2012 SAN                          | NOV 29, 2012 | NOV 29, 2012                              |  |
| THIRD ANGLE PROJECTION           |  | INCHES: .0 ± .1, .00 ± .02, .000 ± .010, .0000 ± .0050 |                            | MILLIMETERS: 0 ± .1, .00 ± .01, .00 ± .01 |     | MILLIMETERS: 0 ± .1, .00 ± .01, .00 ± .01 |              | MILLIMETERS: 0 ± .1, .00 ± .01, .00 ± .01 |  |
| MAX SURFACE ROUGHNESS            |  | SURFACES   |                            | CAGE NUMBER                               |     | DRAWING NO.                               |              | REV.                                      |  |
| MARKED ONLY                      |  | ANGLES   |                            | D 78-5100-2437-1                          |     | F 1                                       |              | SHT 2 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 |

78-5100-2437-1 F REVISION  
DRAWING NUMBER  
AM UTC-05:00  
9:06 AM 9/24/2014  
F.1

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



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



WITH VACUUM CAP



WITH LATCH/EJECT



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

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

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

DESIGN REFERENCE NEXT ASSEMBLY

| DRFT | DATE         | DRFT | DATE         |
|------|--------------|------|--------------|
| ARM  | NOV 29, 2012 | PRC  | NOV 29, 2012 |
| SAN  | NOV 29, 2012 | SAN  | NOV 29, 2012 |

DIVISION: Interconnect Solutions

SCALE: 6/1

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2009

MAX SURFACE ROUGHNESS

MARKED ONLY

DIVISION CODE: ISD

TOLERANCES EXCEPT AS NOTED

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

MILLIMETERS: 0 ± .1, .00 ± .005, .000 ± .0025

ANGLES: 0 ± .1

MODEL: DET: [ ] YES [X] NO SHT 3 OF 4

**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

REV. NUMBER: F

78-5100-2437-1 F REVISION  
AM UTC-05:00  
Imaged: F.1 9/24/2014 9:06

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



TABLE 2  
TAPE AND REEL PACKAGING FOR SURFACEMOUNT HEADERS

| POS | LATCHES | DIM. "F" | DIM. K <sub>0</sub> | DIM. S <sub>0</sub> | DIM. "W"       |
|-----|---------|----------|---------------------|---------------------|----------------|
| 4   | NO      | .453     | .263                | .876                | .945 [ 24MM ]  |
| 4   | YES     | .453     | .300                | .876                | 1.260 [ 32MM ] |
| 6   | NO      | .453     | .238                | .876                | .945 [ 24MM ]  |
| 6   | YES     | .559     | .300                | 1.118               | 1.260 [ 32MM ] |
| 8   | NO      | .453     | .238                | .876                | .945 [ 24MM ]  |
| 8   | YES     | .559     | .300                | 1.118               | 1.732 [ 44MM ] |
| 10  | NO      | .453     | .238                | .876                | .945 [ 24MM ]  |
| 10  | YES     | .559     | .300                | 1.118               | 1.732 [ 44MM ] |
| 12  | NO      | .453     | .238                | .876                | .945 [ 24MM ]  |
| 12  | YES     | .559     | .300                | 1.118               | 1.732 [ 44MM ] |
| 14  | NO      | .453     | .238                | .876                | .945 [ 24MM ]  |
| 14  | YES     | .795     | .300                | 1.591               | 1.732 [ 44MM ] |
| 16  | NO      | .453     | .238                | .876                | .945 [ 24MM ]  |
| 16  | YES     | .795     | .300                | 1.591               | 1.732 [ 44MM ] |
| 20  | NO      | .559     | .238                | 1.118               | 1.260 [ 32MM ] |
| 20  | YES     | .795     | .300                | 1.591               | 1.732 [ 44MM ] |
| 30  | NO      | .795     | .238                | 1.591               | 1.732 [ 44MM ] |
| 30  | YES     | .795     | .300                | 1.591               | 2.205 [ 56MM ] |

NOTE:  
LATCH EJECT HEADERS ARE PACKAGED WITH THE LATCHES  
IN AN OPEN POSITION.



24MM WIDE POCKET TAPE



32MM, 44MM AND 56MM WIDE POCKET TAPE

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

|                                 |                            |
|---------------------------------|----------------------------|
| DESIGN REFERENCE                | NEXT ASSEMBLY              |
| ISSUE CODES                     | ISSUE DATE AND DESCRIPTION |
| DIVISION                        | DIVISION CODE              |
| Interconnect Solutions          | ISD                        |
| DO NOT SCALE DRAWING            | TOLERANCES EXCEPT AS NOTED |
| THIRD ANGLE PROJECTION          | INCHES                     |
| INTERPRET PER ASME Y14.5 - 2009 | MILLIMETERS                |
| MAX SURFACE ROUGHNESS           | ANGLES                     |
| MARKED ONLY                     |                            |

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

|              |      |              |              |
|--------------|------|--------------|--------------|
| DATE         | TIME | DATE         | DATE         |
| NOV 29, 2012 | PRC  | NOV 29, 2012 | NOV 29, 2012 |
| DATE         | APPR | DATE         | DATE         |
| NOV 29, 2012 | SAN  | NOV 29, 2012 | NOV 29, 2012 |

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**3M** Center St. Paul, MN 55144

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

CAGE NUMBER  
**D** 78-5100-2437-1

REV. NUMBER  
F

MODEL  
SHT 4 OF 4

78-5100-2437-1  
DRAWING NUMBER  
F  
REVISION  
AM UTC-05:00  
9:06 AM 9/24/2014  
F.1



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.