

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    |

- 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.

THRU BOARD, VERTICAL WITH LOW PROFILE LATCH/EJECT OPTION



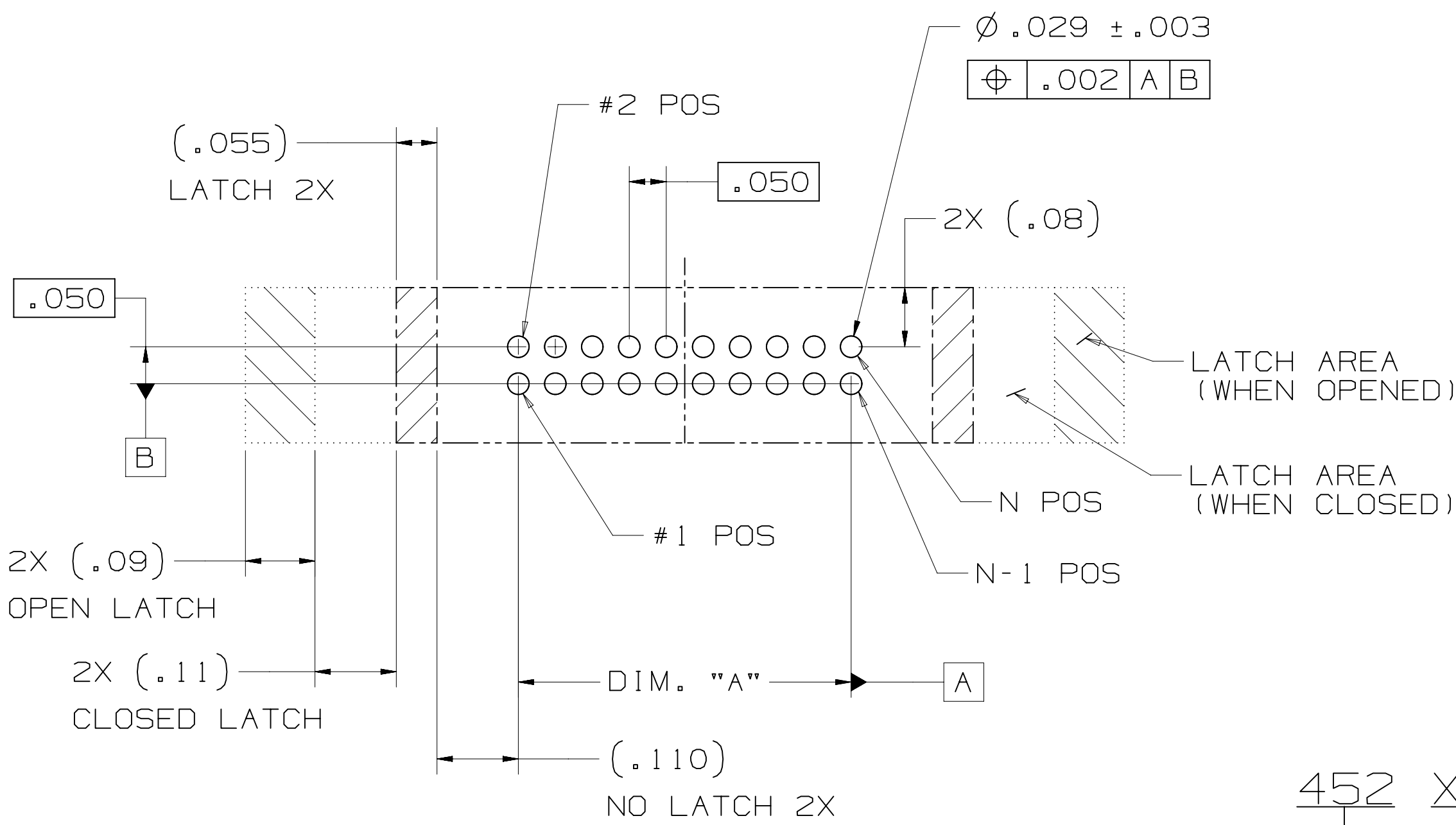
THRU BOARD, VERTICAL



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

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

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FOR TECHNICAL, SALES OR ORDERING  
INFORMATION CALL 800-225-5373

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

| REV | ECO | ISSUE DATE AND DESCRIPTION | DRFT | CHKD |
|-----|-----|----------------------------|------|------|
| A   |     | MAR 25, 2013               | JNC  | SAN  |
| B   |     | JUL 12, 2013               | JNC  | SAN  |
| C   |     | OCT 08, 2013               | JNC  | SAN  |
| D   |     | JAN 08, 2014               | SJS  | SAN  |
| E   |     | JUN 19, 2014               | SJS  | SAN  |
| F   |     | SEP 24, 2014               | JNC  | SAN  |

DESIGN REFERENCE: 78-5100-2396-9  
NEXT ASSEMBLY: [ ]

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

INTERPRET PER ASME Y14.5 - 2009

MAX SURFACE ROUGHNESS: 1.6 µm (63 µin) SURFACES MARKED ONLY

TOLERANCES EXCEPT AS NOTED

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

MILLIMETERS: 0 ±.05, .00 ±.05, .00 ±.05, .00 ±.05

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  
DRAWING NO.: 78-5100-2437-1  
REV. F

MODEL: [ ]  
SHT 1 OF 4

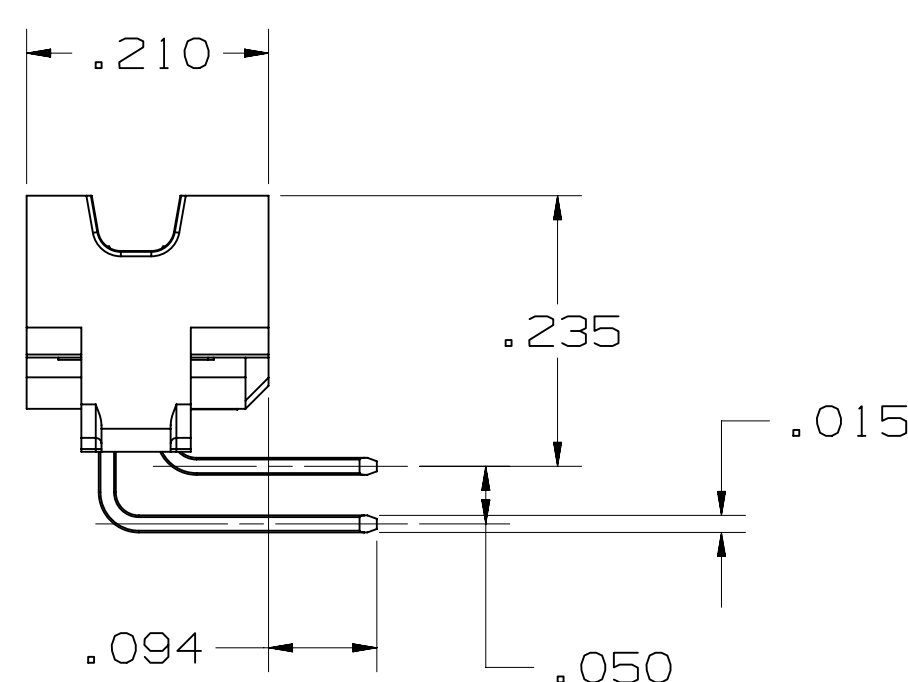
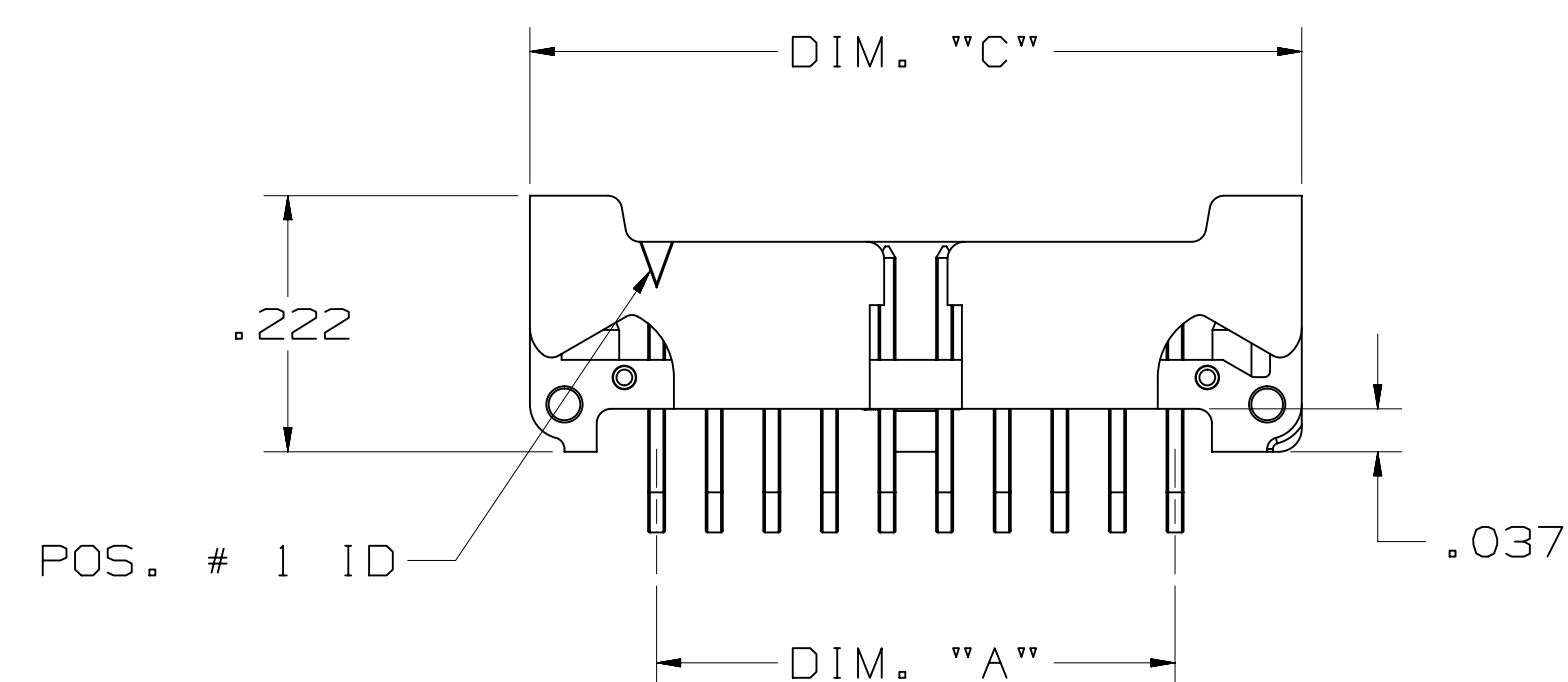
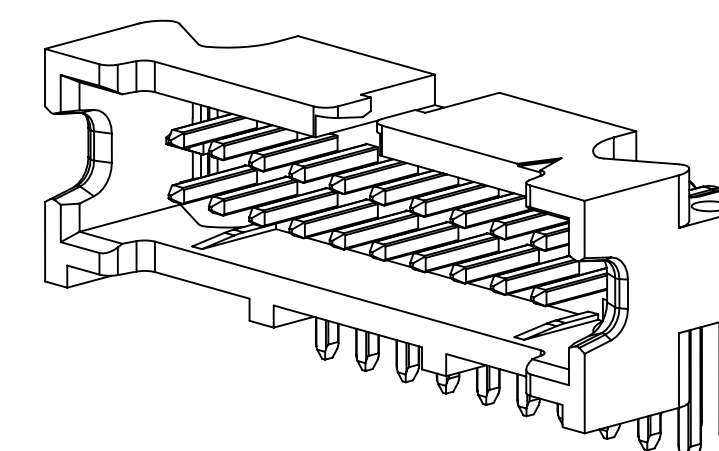
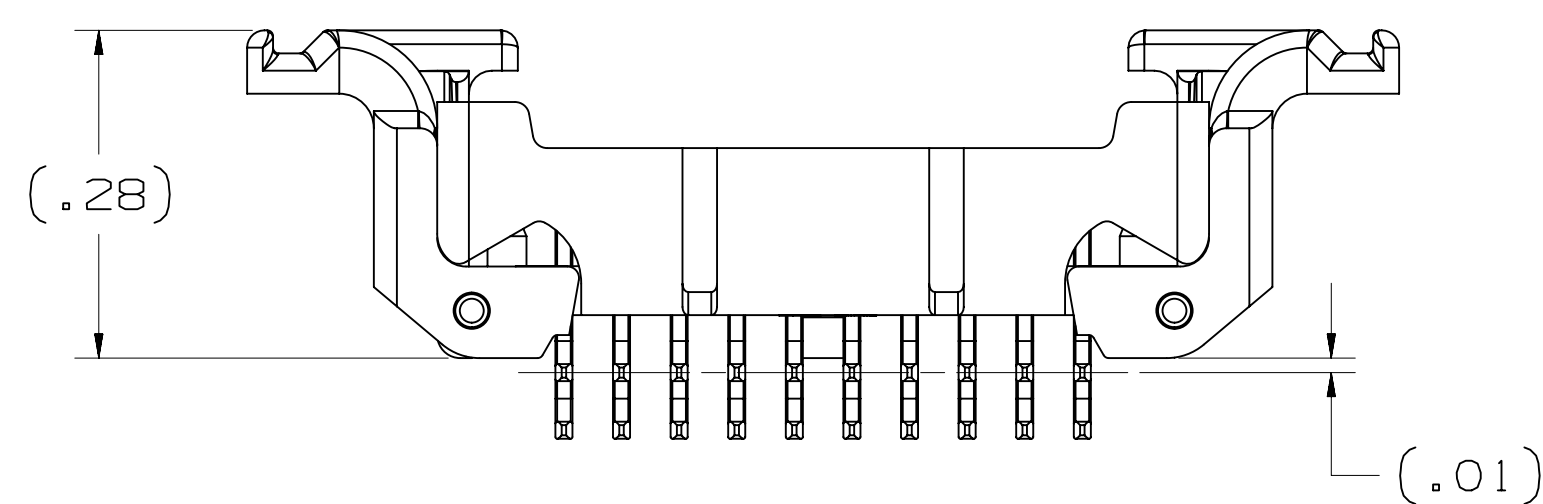
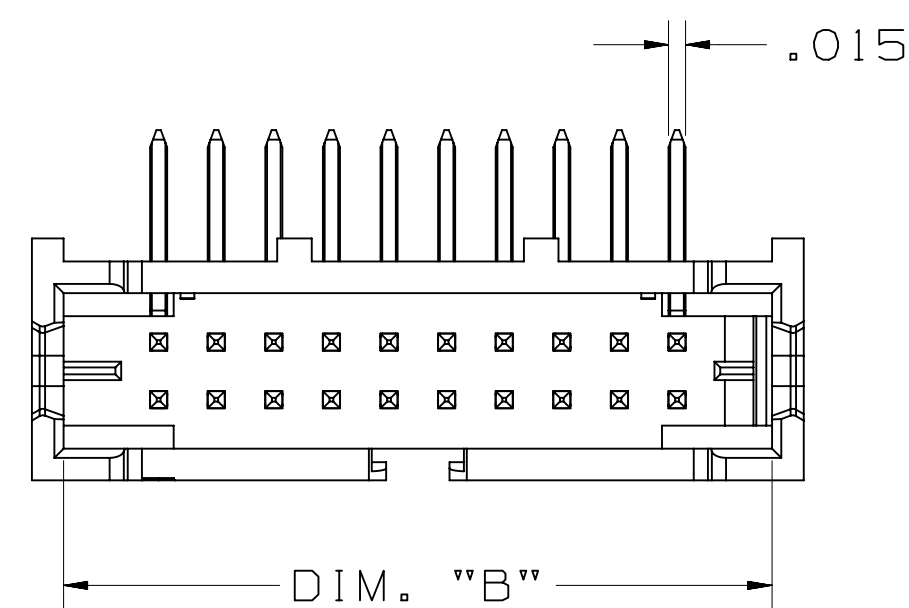
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Imaged: F.1 9/24/2014 9:06 AM UTC-05:00

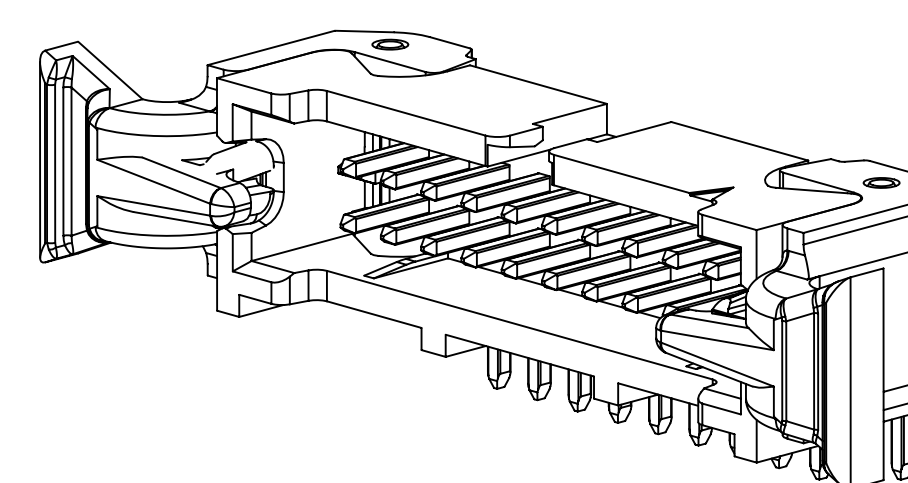
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH  
LATCH AND EJECT, 452 SERIES

TABLE 1: RIGHT ANGLE THRU

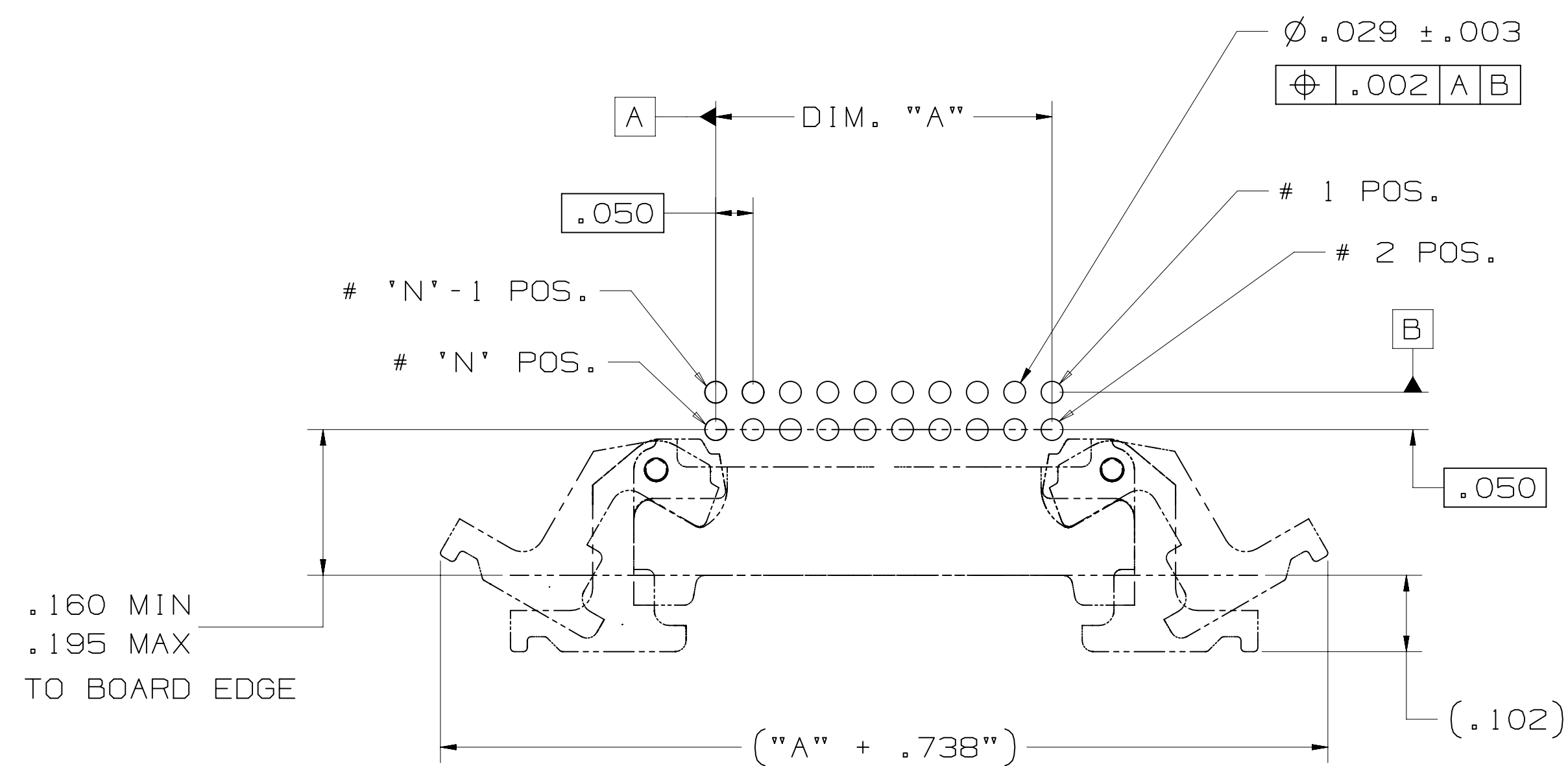
| No. Positions | Dim "A" | Dim "B" | Dim "C" |
|---------------|---------|---------|---------|
| 4             | .050    | .215    | .270    |
| 6             | .100    | .265    | .320    |
| 8             | .150    | .315    | .370    |
| 10            | .200    | .365    | .420    |
| 12            | .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  
78-5100-2396-9

DESIGN REFERENCE NEXT ASSEMBLY

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

DIVISION CODE

Interconnect Solutions ISD

DO NOT SCALE DRAWING

SCALE 6/1

TOLERANCES EXCEPT AS NOTED

INCHES .0 ± .1

.00 ± .02

.000 ± .010

.0000 ± .0050

MILLIMETERS 0 ±

.0 ±

.00 ±

.00 ±

MARKED ONLY ANGLES ±

| REV | ECO   | ISSUE DATE AND DESCRIPTION                      | DRFT | CHKD |
|-----|-------|---|------|------|
| 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  |

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

CAGE NUMBER D78-5100-2437-1

REV. F

MODEL

DET. [ ] IS1S [ ] YES [ ] NO [ ] SHT 2 OF 4

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

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 ±, .0 ±, .00 ±, .000 ±

ANGLES: 0 ±

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. F

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

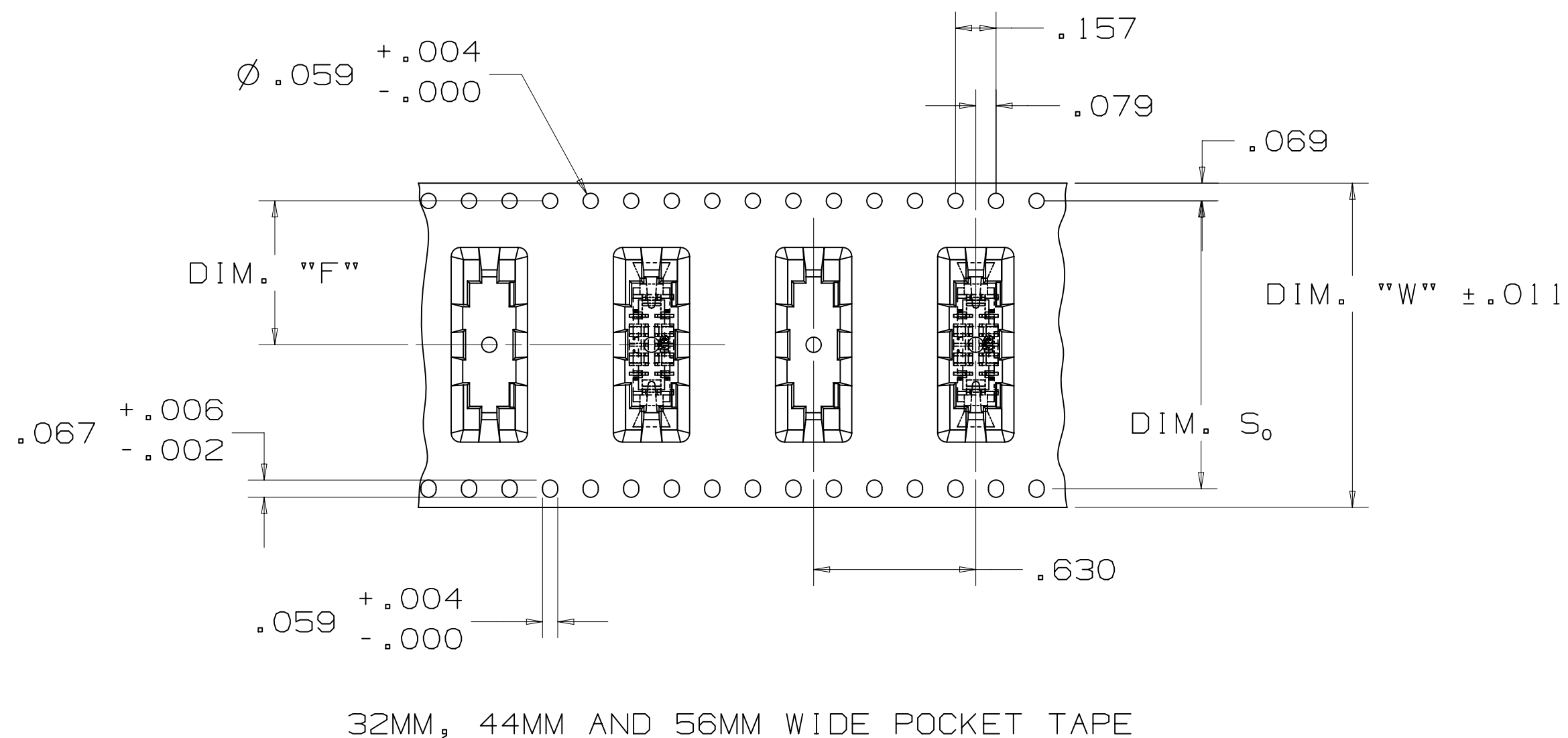
3M™ SHROUDED BOARDMOUNT HEADER, 1.27mm (0.050") PITCH  
LATCH AND EJECT, 452 SERIES



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.



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

|                   |                   |
|-------------------|-------------------|
| DESIGN REFERENCE  | NEXT ASSEMBLY     |
| ARM               | PRC               |
| DATE NOV 29, 2012 | DATE NOV 29, 2012 |
| DRW SAN           | APPR SAN          |
| DATE NOV 29, 2012 | DATE NOV 29, 2012 |

DIVISION: Interconnect Solutions  
SCALE: 1  
TOLERANCES EXCEPT AS NOTED:  
INCHES: .00 ±.01, .00 ±.02, .000 ±.010, .0000 ±.0050  
MILLIMETERS: 0 ±.05, .00 ±.01, .00 ±.02, .00 ±.05

THIRD ANGLE PROJECTION  
INTERPRET PER ASME Y14.5 - 2009  
MAX SURFACE ROUGHNESS: 0.40 ±, .00 ±, .00 ±  
DIM SURFACES: 0.40 ±, .00 ±  
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  |
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| B   | 48635 | JUL 12, 2013<br>MATCH TEXT FONTS & ADD NOTE 9      | JNC  | SN   |
| A   | 46797 | MAR 25, 2013<br>PRODUCTION RELEASE                 | JNC  | SAN  |

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

CAGE NUMBER: D78-5100-2437-1  
REV. F  
SHT 4 OF 4

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



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.