

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

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  |



RECOMMENDED BOARD LAYOUT

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

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

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INFORMATION CALL 800-225-5373

**UL** FILE NO: E68080

|  |                                 |  |   |       |                            |      |              |
|--|---------------------------------|--|---|-------|----------------------------|------|--------------|
| 78-5100-2436-3<br>78-5100-2396-9       | DESIGN REFERENCE                | NEXT ASSEMBLY  | REV   | ECO   | ISSUE DATE AND DESCRIPTION | DRFT | CHKD         |
| Interconnect Solutions                 | ISD                             |  | ARM   |       | NOV 29, 2012 PRC           |      | NOV 29, 2012 |
| DO NOT SCALE DRAWING                   | SCALE 6-1                       | TOLERANCES EXCEPT AS NOTED                           | SAN   |       | NOV 29, 2012 SAN           |      | NOV 29, 2012 |
| THIRD ANGLE PROJECTION                 | INTERPRET PER ASME Y14.5 - 2009 | INCHES: .00 ±.01, .00 ±.02, .000 ±.010, .0000 ±.0050 | <p>3M</p> <p>© 3M COPYRIGHT 2014<br/>This document and the information it contains are 3M property and may not be reproduced or further distributed without 3M permission, or used or disclosed other than for 3M authorized purposes. All rights reserved.</p> |       |                            |      |              |
| MAX SURFACE ROUGHNESS: 1.6 µm SURFACES | MARKED ONLY                     | MILLIMETERS: 0, .00 ±, .00 ±, .00 ±                  | <p>BOARDMOUNT HEADER, .05 X .05 PITCH, L/E, 452 SERIES</p>  |       |                            |      |              |
|  |                                 |  | CAGE NUMBER   | SIZE  | DRAWING NO.                | REV. |              |
|  |                                 |  | D   |       | 78-5100-2437-1             | F    |              |
|  |                                 |  | MODEL   | LISTS | YES                        | NO   | SHT 1 OF 4   |

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 DIVISION CODE

Interconnect Solutions ISD

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

MAX SURFACE ROUGHNESS

MARKED ONLY

| 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

MODEL

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



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 ±

DEF: [ ] 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   | TIME | DATE           | DATE   |
| NOV 29, 2012   | SAN  | NOV 29, 2012   | NOV 29, 2012   |
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| TITLE<br>BOARDMOUNT HEADER,<br>.05 X .05 PITCH, L/E,<br>452 SERIES   |      |                |  |
| CAGE NUMBER  | SIZE | DRAWING NO.    | REV.   |
| D  |      | 78-5100-2437-1 | F  |
| MODEL  | DET  | LISTS          | YES <input type="checkbox"/> NO <input type="checkbox"/> |
|  |      | SHT            | 4 OF 4   |

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

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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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