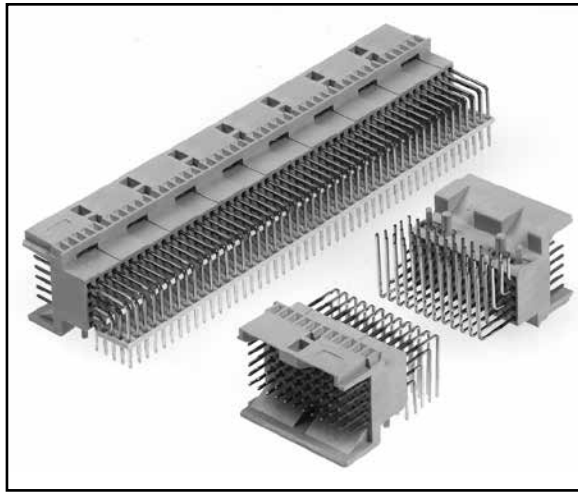


3M™ MetPak™ 2-FB Inverse Header

2 mm 5-Row, Right Angle, Solder Tail

MP2 Series



- Three levels of early mate, late break (EMLB)
- sequencing or selective loading options
- Footprint compatible with standard Futurebus+®
- Solder tail with true-position wafer
- Ideal for hot swapping applications
- End-to-end stackable
- Right angle male for daughter card
- Mates with MP2-R for backplane applications and MP2-SXXXG for coplanar applications
- RoHS Compliant. See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of www.3Mconnectors.com for compliance information (RIA E1 & C1 apply)

Date Modified: September 17, 2013

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Sheet 1 of 4

Physical

Insulation:

Material: High Temp LCP
Flammability: UL 94V-0
Color: Beige

Contact:

Material: Copper Alloy

Plating:

Underplating: 50 μ" [1.27 μm] Nickel
Wiping Area: See Ordering Information
Solder Tails: See Ordering Information

Electrical

Current Rating: Signal: 1.5 A – All contacts simultaneously

Insulation Resistance: 10³ MΩ

Withstanding Voltage: 1000 V_{AC}

Environmental

Temperature Rating: -55°C to +125°C

Process Temperature Rating: 260°C (Profile per J-STD-020C)

Moisture Sensitivity Level: 1 (per J-STD-020C)

UL File No.: E68080

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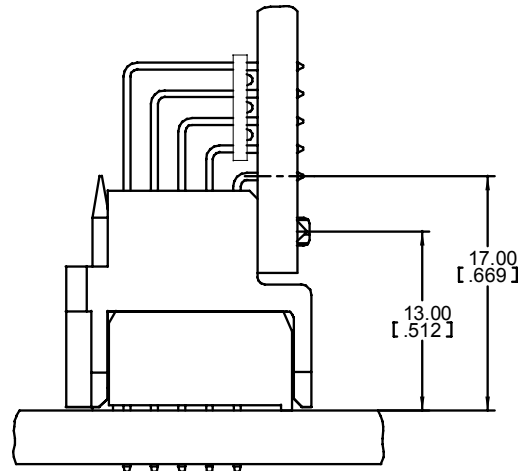
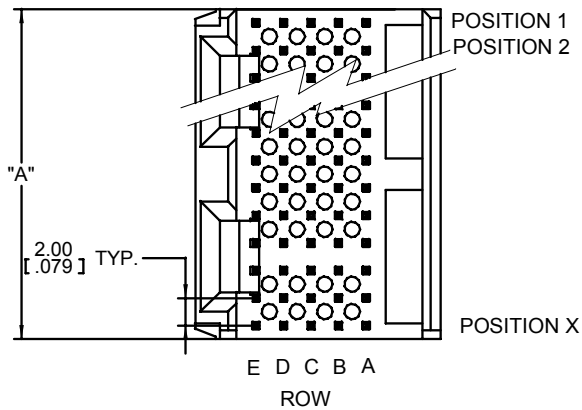
3M
Electronic Solutions Division
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<http://www.3Mconnectors.com>

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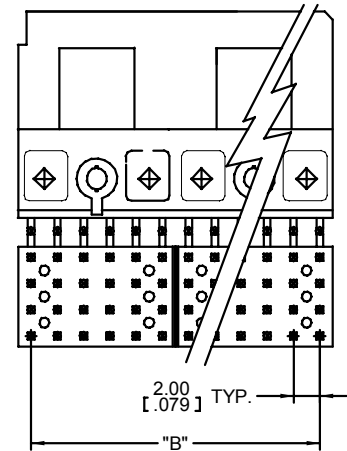
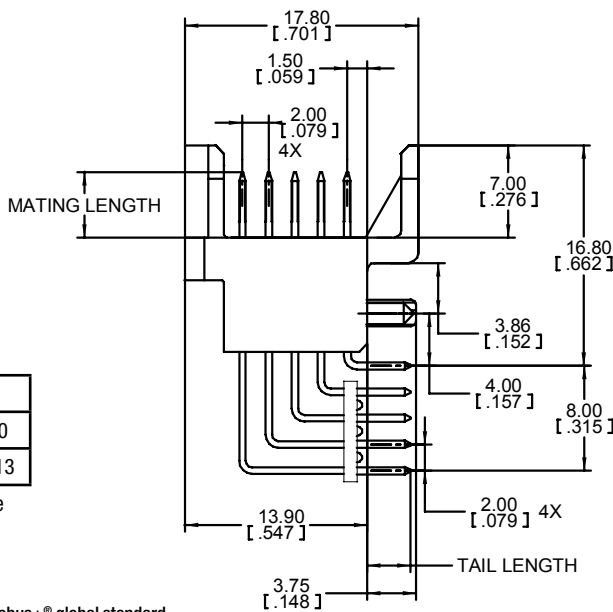
3M™ MetPak™ 2-FB Inverse Header

2 mm 5-Row, Right Angle, Solder Tail

MP2 Series



MATED WITH MP2-RXXX-5XXX-XXXX



mm
[inch]

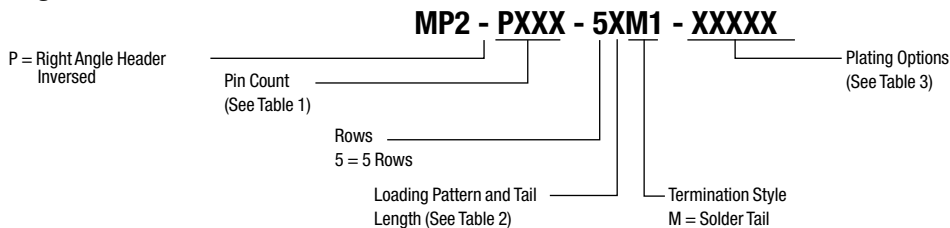
| Tolerance Unless Noted | | | |
|------------------------|----|------|-------|
| | 0 | 0.0 | 0.00 |
| mm | ±3 | ±0.3 | ±0.13 |

[] Dimensions for Reference Only

Notes:

1. Refer to IEC 61076-4-104 Futurebus+® global standard.
2. For special pin arrangements, contact 3M.

Ordering Information



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3M™ MetPak™ 2-FB Inverse Header

2 mm 5-Row, Right Angle, Solder Tail

MP2 Series

| Pin Count | Dim. "A" mm [inch] | Dim "B" mm [inch] | Rows |
|-----------|--------------------|-------------------|------|
| 030 | 11.95 [0.471] | 10.00 [0.394] | 5 |
| 060 | 23.95 [0.943] | 22.00 [0.866] | 5 |
| 090 | 35.95 [1.415] | 34.00 [1.339] | 5 |
| 120 | 47.95 [1.889] | 46.00 [1.811] | 5 |
| 150 | 59.95 [2.36] | 58.00 [2.283] | 5 |
| 180 | 71.95 [2.833] | 70.00 [2.756] | 5 |
| 210 | 83.95 [3.305] | 82.00 [3.228] | 5 |
| 240 | 95.95 [3.778] | 94.00 [3.701] | 5 |
| 270 | 107.95 [4.251] | 106.00 [4.173] | 5 |
| 300 | 119.95 [4.722] | 118.00 [4.646] | 5 |
| 420 | 167.95 [6.612] | 166.00 [6.535] | 5 |

| Loading Pattern Code | Description | Mate Length Row A | Mate Length Row B | Mate Length Row C | Mate Length Row D | Mate Length Row E | Tail Length Row A | Tail Length Row B | Tail Length Row C | Tail Length Row D | Tail Length Row E |
|----------------------|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1 | All Positions Filled | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 3.30 | 3.30 | 3.30 | 3.30 | 3.30 |
| 2 | All Positions Filled | 4.25 | 5.00 | 5.00 | 5.00 | 5.00 | 4.05 | 3.30 | 3.30 | 3.30 | 3.30 |
| 3 | All Positions Filled | 3.50 | 4.25 | 4.25 | 5.00 | 5.00 | 4.80 | 4.05 | 4.05 | 3.30 | 3.30 |
| 4 | All Positions Filled | 4.25 | 5.00 | 4.25 | 4.25 | 4.25 | 4.05 | 3.30 | 4.05 | 4.05 | 4.05 |
| 5 | Rows A, B, C and D Filled | 5.00 | 5.00 | 5.00 | 5.00 | NA | 3.30 | 3.30 | 3.30 | 3.30 | NA |
| 6 | Rows A, B, C and D Filled | 5.00 | 4.25 | 4.25 | 5.00 | NA | 3.30 | 4.05 | 4.05 | 3.30 | NA |
| 7 | All Positions Filled | 4.25 | 5.00 | 4.25 | 5.00 | 4.25 | 4.05 | 3.30 | 4.05 | 3.30 | 4.05 |
| 8 | All Positions Filled | 4.25 | 4.25 | 4.25 | 4.25 | 4.25 | 4.05 | 4.05 | 4.05 | 4.05 | 4.05 |
| 9 | All Positions Filled | 5.00 | 3.50 | 3.50 | 3.50 | 4.25 | 3.30 | 4.80 | 4.80 | 4.80 | 4.05 |
| A | All Positions Filled | 3.75 | 4.50 | 5.25 | 4.50 | 3.75 | 4.55 | 3.80 | 3.05 | 3.80 | 4.55 |
| B | All Positions Filled | 3.75 | 4.50 | 3.75 | 4.50 | 3.75 | 4.55 | 3.80 | 4.55 | 3.80 | 4.55 |
| C | All Positions Filled | 5.75 | 5.75 | 5.75 | 5.75 | 5.75 | 2.55 | 2.55 | 2.55 | 2.55 | 2.55 |
| D | All Positions Filled | 4.25 | 5.00 | 5.75 | 5.00 | 4.25 | 4.05 | 3.30 | 2.55 | 3.30 | 4.05 |
| E | All Positions Filled | 5.00 | 5.75 | 5.75 | 5.75 | 5.00 | 4.05 | 4.05 | 4.05 | 4.05 | 4.05 |
| G | Rows A, B, C and D Filled | 5.00 | 4.25 | 4.25 | 5.00 | NA | 3.30 | 4.05 | 4.05 | 3.30 | NA |

| Plating Suffix | Plating Composition |
|---------------------------|--|
| KR (RIA E1 & C1 apply) | 0.76 µm [30 µ"] Min. Au Contact Area |
| | 2.54 µm [100 µ"] Min. Matt Whisker Mitigating Sn Tail Area |
| | 1.27 µm [50 µ"] Min. Ni all over |
| LR (RIA E1 & C1 apply) | 0.08 µm [3 µ"] Min. Au Contact Area |
| | 0.67 µm [27 µ"] Min. PdNi Contact Area |
| | 2.54 µm [100 µ"] Min. Matt Whisker Mitigating Sn Tail Area |
| | 1.27 µm [50 µ"] Min. Ni all over |

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Sheet 3 of 4

3M™ MetPak™ 2-FB Inverse Header

2 mm 5-Row, Right Angle, Solder Tail

MP2 Series

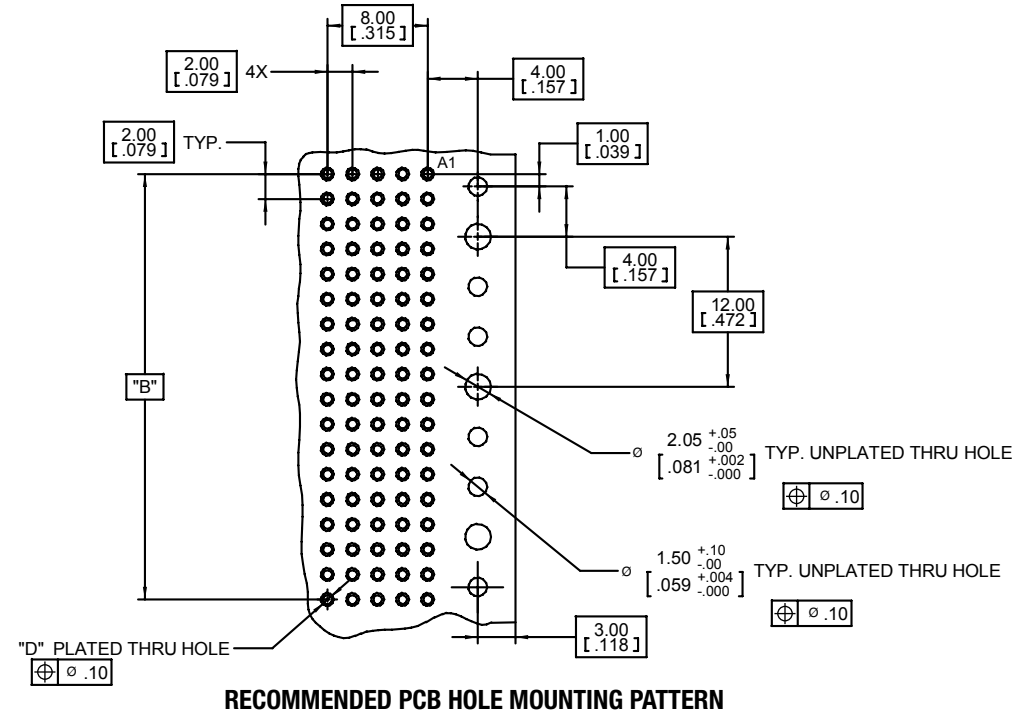
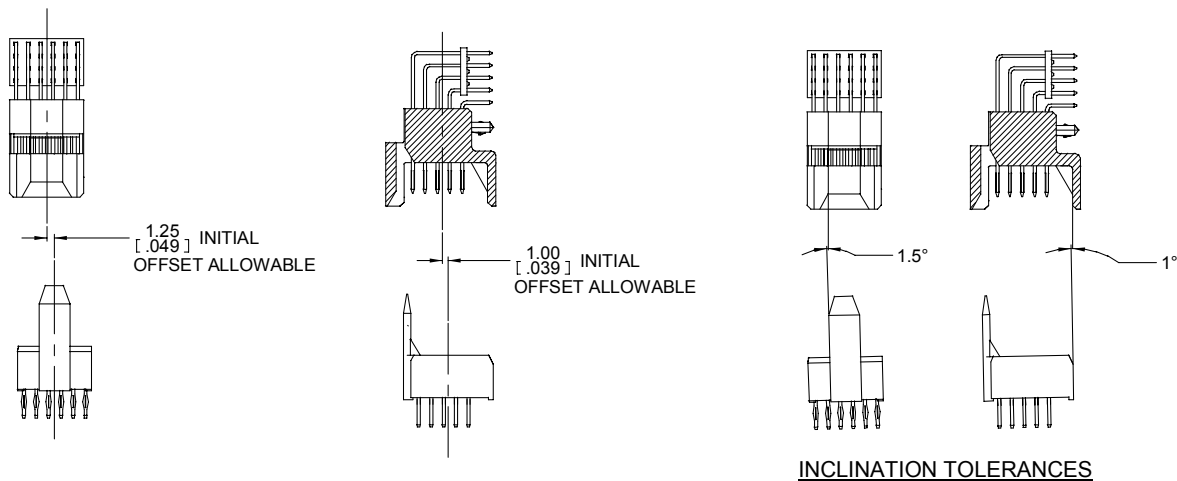


Table 4 - HOLE PLATING FINISHES

| HOLE | Finished Dia. MM [in] | Cu Thickness [mm [in] | Immersion Matte Sn Thickness microns [μ"] | Electrolytic Au Thickness microns [μ"] | OSP ENTEK Thickness microns [μ"] | Drilled Hole Dia. mm [in] |
|------|----------------------------|---------------------------|---|--|----------------------------------|---|
| "D" | 0.700-0.800 [0.0276-.0315] | 0.025-0.045 [0.001-0.002] | 0.5 - 2.5 [20 - 100] | 0.1 - 0.5 [4 - 20] | 0.2 - 0.5 [8 - 20] | 0.830-0.860 [0.0330-.0340] or 0.85 mm [#66] TWIST DRILL |



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[TG30](#) [MP2-P090-54M1-TR30](#) [MP2-P120-54M1-TR30](#) [MP2-P090-51M1-LR](#)