

3M™ MetPak™ 2-FB Stacking Socket

2 mm 4/5-Row, Vertical, Solder or Press-Fit Tail

MP2 Series



- End-to-end stackable
- Offset dual-beam contact minimizes insertion force
- High-profile/high pin count
- Ideal for parallel stacking applications
- Vertical receptacle
- Eliminates internal cabling
- Meets IEC 61076-4-104 Futurebus+® global standard
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of www.3Mconnector.com for compliance information (RIA E1 & C1 apply)

Date Modified: May 13, 2010

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Physical

Insulation:

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

Contact:

Material: Phosphor Bronze

Plating:

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

Electrical

Current Rating: Signal: 1.5 A – All contacts simultaneously

Insulation Resistance: 10³ M Ω

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.3Mconnector.com>

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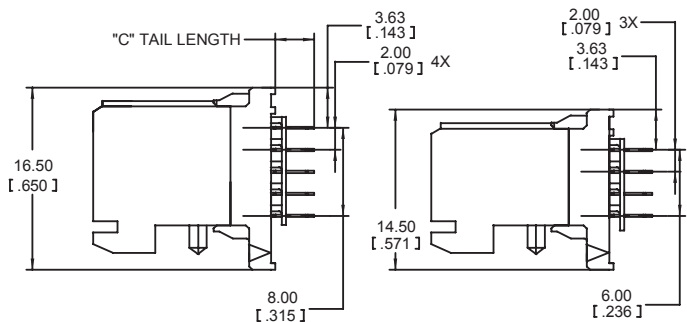
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MATED WITH MP2-HXXX-XXXX-XXXX



5 ROW PRODUCT

4 ROW PRODUCT

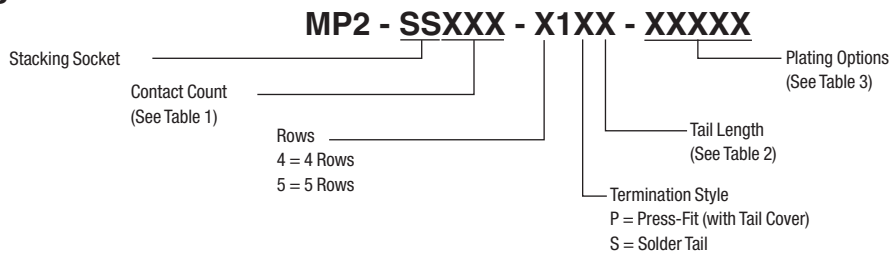
| Tolerance Unless Noted | | |
|------------------------|----|--------|
| | mm | [inch] |
| | 0 | 0.00 |
| mm | ±3 | ±0.13 |

[] Dimensions for Reference Only

Notes:

1. Refer to IEC 61076-4-104 Futurebus+® global standard.
2. "Press Fit" describes a contact tail having a compliant section designed to make a reliable electrical connection with a plated through-hole (PTH) in a printed circuit board, typically a "back plane."

Ordering Information



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| Pin Count | Dim. "A" mm [inch] | Dim "B" mm [inch] | Rows | Block Count |
|-----------|-----------------------|----------------------|------|----------------|
| 024 | 11.95 [0.471] | 10.00 [0.394] | 4 | 1 |
| 048 | 23.95 [0.943] | 22.00 [0.866] | 4 | 2 |
| 072 | 35.95 [1.415] | 34.00 [1.339] | 4 | 3 |
| 096 | 47.95 [1.889] | 46.00 [1.811] | 4 | 4 |
| 120 | 59.95 [2.36] | 58.00 [2.283] | 4 | 5 |
| 144 | 71.95 [2.833] | 70.00 [2.756] | 4 | 6 |
| 168 | 83.95 [3.305] | 82.00 [3.228] | 4 | 7 |
| 192 | 95.95 [3.778] | 94.00 [3.701] | 4 | 8 |
| 030 | 11.95 [0.471] | 10.00 [0.394] | 5 | 1 |
| 060 | 23.95 [0.943] | 22.00 [0.866] | 5 | 2 |
| 090 | 35.95 [1.415] | 34.00 [1.339] | 5 | 3 |
| 120 | 47.95 [1.888] | 46.00 [1.811] | 5 | 4 |
| 150 | 59.95 [2.361] | 58.00 [2.283] | 5 | 5 |
| 180 | 71.95 [2.833] | 70.00 [2.756] | 5 | 6 |
| 210 | 83.95 [3.305] | 82.00 [3.228] | 5 | 7 |
| 240 | 95.95 [3.778] | 94.00 [3.701] | 5 | 8 |

| Contact-to-PC Board Tail Termination Option No. | | | Dim. "C" |
|---|------------|--|--------------|
| Solder | Press-Fit* | | |
| 1 | 1 | | 3.53 [0.139] |

*Compliant-Pin Tail

| Plating Suffix | Press-Fit Tails* | Solder Tails | Plating Composition |
|----------------|-------------------|-------------------|---|
| TG30 | RIA E2 & C2 apply | RIA E3 & C2 apply | 0.76 µm [30 µ"] Min. Au Contact Area 2.54 µm [100 µ"] Min. SnPb Tail Area 1.27 µm [50 µ"] Min. Ni all over |
| TR30 | RIA E2 & C2 apply | RIA E3 & C2 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. SnPb Tail Area 1.27 µm [50 µ"] Min. Ni all over |
| KR | RIA E1 & C1 apply | 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 | 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 |

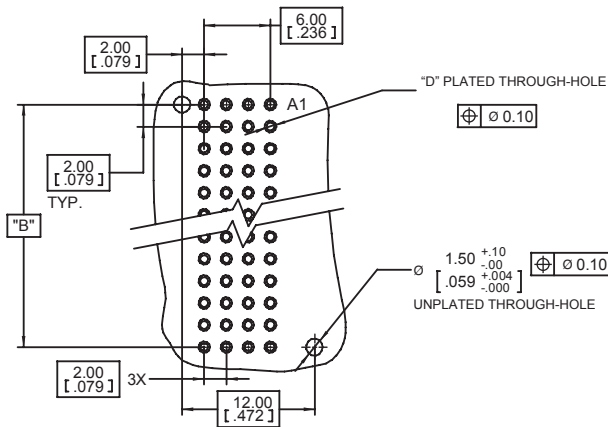
*Compliant-Pin Tail

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**RECOMMENDED 4 ROW SOLDER
TAIL PCB HOLE MOUNTING PATTERN**



**RECOMMENDED 4 ROW PRESS-FIT
PCB HOLE MOUNTING PATTERN**

Table 4 – HOLE PLATING For TG30 and TR30 FINISHES ONLY

| HOLE | Finished Dia. MM [in] | Cu Thickness [mm [in]] | SnPb Thickness microns [μ"] | Drilled Hole Dia. mm [in] |
|------|-------------------------|------------------------|-----------------------------|---------------------------|
| "D" | 0.65-0.80 [.0256-.0315] | 0.025 [.001] min. | 15 [600] max. | 0.81-0.86 [.0319-.0339] |

Table 5 – HOLE PLATING For KR and LR FINISHES ONLY

| 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 [.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 [.0330-.0340] or 0.85 mm [#66] TWIST DRILL |



**RECOMMENDED 5 ROW SOLDER
TAIL PCB HOLE MOUNTING PATTERN**



**RECOMMENDED 5 ROW PRESS-FIT
PCB HOLE MOUNTING PATTERN**

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