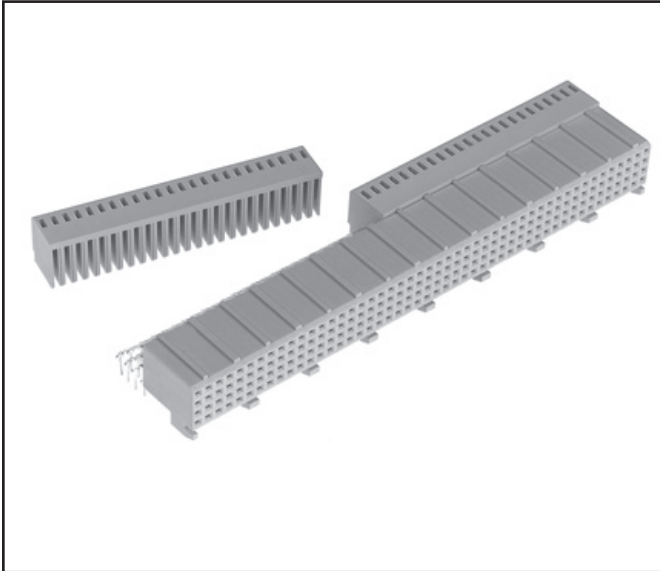


3M™ MetPak™ 2-FB Socket

2 mm 4/5-Row, Solder Tail or Press-Fit With Tail Cover, Right Angle

MP2 Series



- End-to-end stackable
- Offset dual-beam contact minimizes insertion force
- Expanded pin counts
- Protective Push-Cap
- Monoblockable
- Press or heat stake peg
- 12 mm modular units
- Meets global IEC 61076-4-104 Futurebus+® 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: May12, 2010

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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: 1,000 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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Futurebus+ is a registered trademark of the Institute of Electrical and Electronic Engineers, Inc. (IEEE)

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Electronic Solutions Division
Interconnect Solutions
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Note:

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

MP2 - SXXX - X1XX - X - XXXX

Contact Count (See Table 1) ————

Rows
4 = 4 Rows
5 = 5 Rows ————

Termination Style
M = Solder Tail (Press Peg)
(press peg requiring arbor press for PCB assembly)
(Contact 3M Sales Rep)
P = Press Fit (w/ Tail Cover) ————

Tail Length (See Table 2) ————

Plating Options:
(See Table 3)
C = Capped Solder Tail
Blank = Press-Fit ————

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| Table 1 - Connector & Row Lengths | | | | | | |
|-----------------------------------|-------------------|---------|-------------------|---------|------|-------------|
| 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 |

| Table 2 - Tail & Post Lengths | | | |
|---|------------|--------------|--------------|
| Contact-to-PC Board Tail Termination Option No. | | Dim "C" | Dim. "D" |
| Solder | Press-Fit* | | |
| M1 | | 2.72 [0.107] | 3.57 [0.141] |
| M2 | P1 | 3.53 [0.139] | 3.57 [0.141] |

*Compliant-Pin Tail

| Table 3 - Plating | | | |
|-------------------|---------------------|---------------------|---|
| 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 |
| FJ | (RIA E1 & C1 apply) | (RIA E1 & C1 apply) | 0.25 µm [10 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 |
| 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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MP2 Series



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 0.85mm [#66] TWIST DRILL |

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