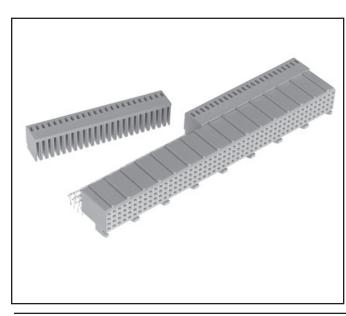
# 3M<sup>™</sup> MetPak<sup>™</sup> 2-FB Socket

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

TS-1115-C 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:**  $10^3 M\Omega$ **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)

MetPak is a trademark of 3M Company.

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

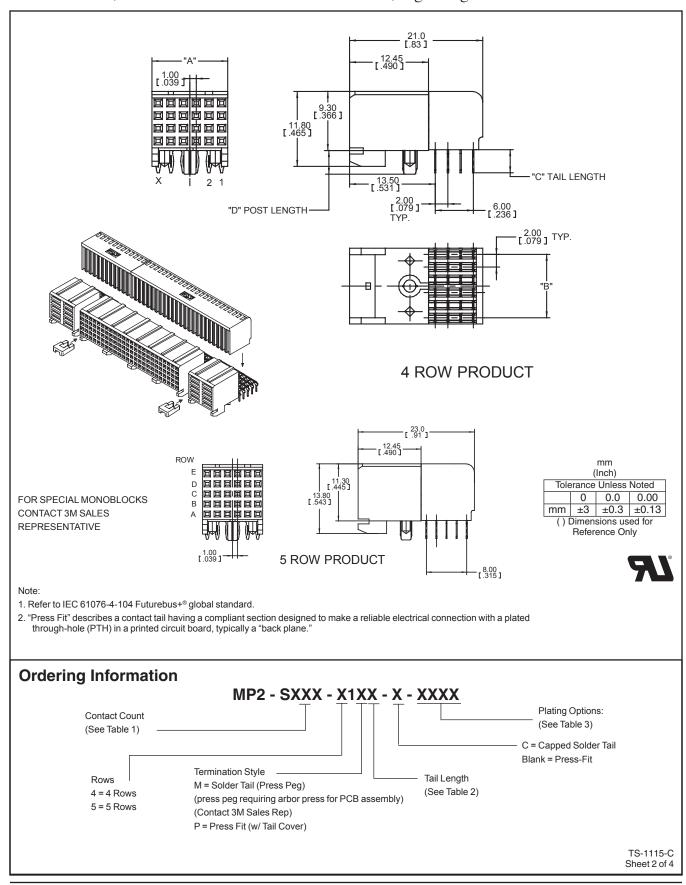
**3M** 

Electronic Solutions Division Interconnect Solutions http://www.3Mconnector.com

3M is a trademark of 3M Company. For technical, sales or ordering information call 800-225-5373

UL File No.: E68080

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



#### **3M**

Electronic Solutions Division Interconnect Solutions http://www.3Mconnector.com 3M is a trademark of 3M Company. For technical, sales or ordering information call 800-225-5373 2 mm 4/5-Row, Solder Tail or Press-Fit With Tail Cover, Right Angle

| Table 1 - Connector & Row Lengths |                      |         |                      |         |      |                |
|-----------------------------------|----------------------|---------|----------------------|---------|------|----------------|
| Pin<br>Count                      | Dim "A"<br>mm (Inch) |         | Dim "B"<br>mm (Inch) |         | Rows | Block<br>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              |

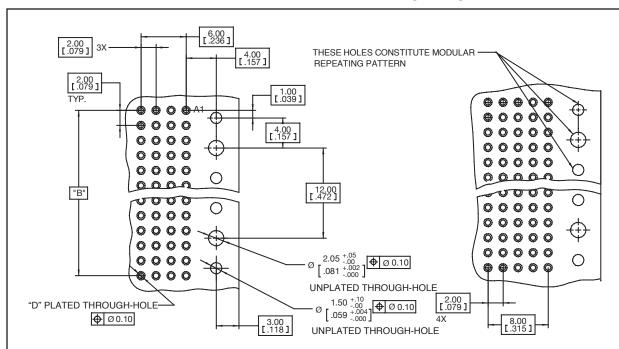
|   |   | Table 2 - Ta | il & Post Lengt | hs           |  |
|---|---|--------------|-----------------|--------------|--|
|   | Contact-to-PC<br>Board Tail Termina-<br>tion Option No. |              | Dim "C"         | Dim. "D"     |  |
| Ī | Solder  | Press-Fit*   |                 |              |  |
|   | M1  |              | 2.72 [0.107]    | 3.57 [0.141] |  |
| ĺ | M2  | P1           | 3.53 [0.139]    | 3.57 [0.141] |  |

<sup>\*</sup>Compliant-Pin Tail

| Table 3 - Plating |                                      |                     |   |  |  |
|-------------------|--------------------------------------|---------------------|---|--|--|
| Plating Suffix    | Plating Suffix Press-Fit Tails* Sold |                     | Plating Composition   |  |  |
| TG30              | (RIA E2 & C2 apply)                  | (RIA E3 & C2 apply) | 0.76 μm [30 μ"] Min. Au Contact Area<br>2.54 μm [100 μ"] Min. SnPb Tail Area<br>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<br>0.67 μm [27 μ"] Min. PdNi Contact Area<br>2.54 μm [100 μ"] Min. SnPb Tail Area<br>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<br>2.54 μm [100 μ"] Min. Matt Whisker Mitigating Sn Tail Area<br>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<br>2.54 μm [100 μ"] Min. Matt Whisker Mitigating Sn Tail Area<br>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<br>0.67 μm [27 μ"] Min. PdNi Contact Area<br>2.54 μm [100 μ"] Min. Matt Whisker Mitigating Sn Tail Area<br>1.27 μm [50 μ"] Min. Ni all over |  |  |

<sup>\*</sup>Compliant-Pin Tail

TS-1115-C Sheet 3 of 4 2 mm 4/5-Row, Solder Tail or Press-Fit With Tail Cover, Right Angle



RECOMMENDED 4 ROW PCB HOLE MOUNTING PATTERN

RECOMMENDED 5 ROW PCB HOLE MOUNTING PATTERN

| Table 4 HOLE PLATING For TG30 and TR30 FINISHES ONLY |                          |                         |                             |                              |  |
|--|--------------------------|-------------------------|-----------------------------|------------------------------|--|
| HOLE   | Finished Dia.<br>mm [in] | Cu Thickness<br>mm [in] | SnPb Thickness microns [µ"] | Drilled Hole Dia.<br>mm [in] |  |
| "D"  | 0.65-0.80 [.02560315]    | 0.025 [.001] min        | 15 [600] max                | 0.81-0.86 [.03190339]        |  |

|   | Table 5 HOLE PLATING For KR and LR FINISHES ONLY |                            |                              |   |  |  |  |
|---|--|----------------------------|------------------------------|---|--|--|--|
| Н | OLE  | Finished Dia.<br>mm [in]   | Cu Thickness<br>mm [in]      | Immersion Matte Sn<br>Thickness<br>microns [μ"] | Electrolitic Au<br>Thickness<br>microns [µ"] | OSP ENTEK<br>Thickness<br>microns [µ"] | Drilled Hole Dia.<br>mm [in]                             |
|   | "D"  | 0.700-0.800<br>[.02760315] | 0.025-0.045<br>[0.001-0.002] | 0.5 - 2.5<br>[20 - 100]                         | 0.1 - 0.5<br>[4 - 20]                        | 0.2 - 0.5<br>[8 - 20]                  | 0.830-0.860 [.03300340] or<br>0.85mm [ #66 ] TWIST DRILL |

TS-1115-C Sheet 4 of 4

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