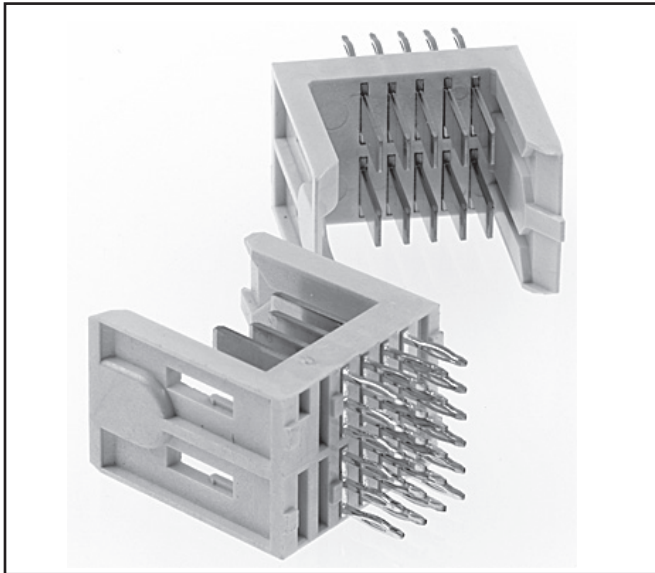


# 3M™ MetPak™ 2-FB Power Header

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

MP2 Series



- 6.50 Amps per contact
- Early mate late break (EMLB) for hot swap or selective loading options
- End-to-end stackable
- Optional feed-through tail (Press-Fit)
- Futurebus+® compatible
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of [www.3M.com/interconnects](http://www.3M.com/interconnects) for compliance information (RIA E1 & C1 apply)

Date Modified: August 21, 2009

TS-1126-C  
Sheet 1 of 4

## Physical

### Insulation:

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

### Contact:

Material: Copper Alloy

### Plating:

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

## Electrical

**Current Rating:** Power: 6.50 A per power socket contact at 70°C

**Insulation Resistance:** 10<sup>3</sup> MΩ

**Withstanding Voltage:** 1,500 V<sub>AC</sub> for 60 seconds

## Environmental

**Temperature Rating:** -55° C to 125° C

UL File No.: E68080

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



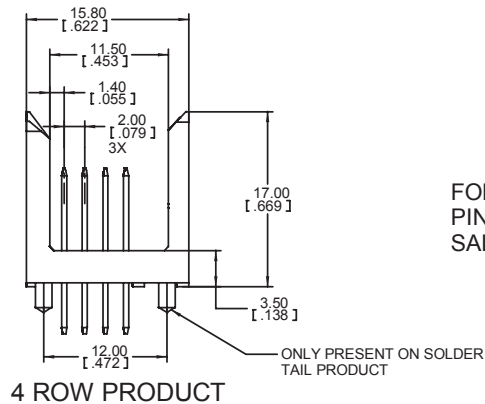
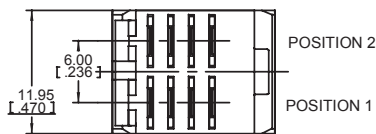
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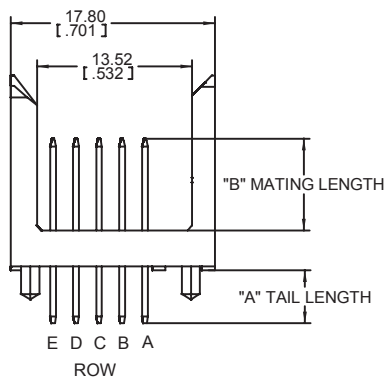
# 3M™ MetPak™ 2-FB Power Header

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

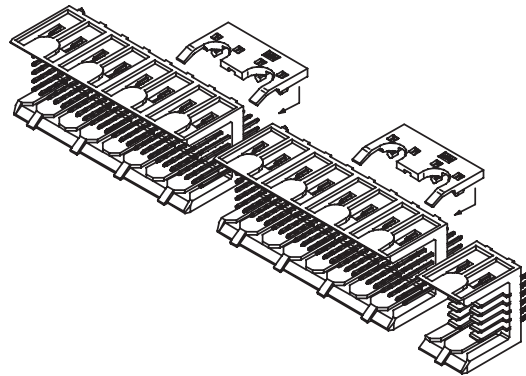
MP2 Series



4 ROW PRODUCT



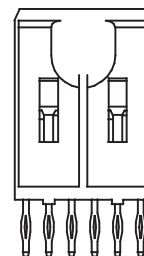
5 Row Product



FOR SPECIAL MONOBLOCKS AND  
PIN ARRANGEMENTS CONTACT 3M  
SALES REPRESENTATIVE

| mm<br>(Inch)           |    |      |       |
|------------------------|----|------|-------|
| Tolerance Unless Noted |    |      |       |
|                        | 0  | 0.0  | 0.00  |
| mm                     | ±3 | ±0.3 | ±0.13 |

( ) Dimensions used for Reference Only



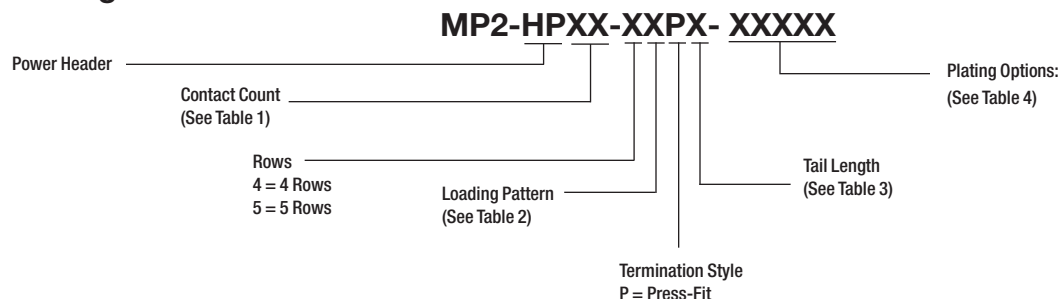
Press-Fit  
Product

## 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



TS-1126-C  
Sheet 2 of 4



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# 3M™ MetPak™ 2-FB Power Header

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

MP2 Series

| Table 1       |            |
|---------------|------------|
| Contact Count | No of Rows |
| 08            | 4          |
| 10            | 5          |

| Table 2 - Mate Length |                      |                   |                   |                   |                   |                                      |
|-----------------------|----------------------|-------------------|-------------------|-------------------|-------------------|--------------------------------------|
| Loading Pattern Code  | Description          | Mate length Row A | Mate length Row B | Mate length Row C | Mate length Row D | Mate length Row E (5-Row Prod. Only) |
| 1                     | All Positions Filled | 6.50 [0.256]      | 6.50 [0.256]      | 6.50 [0.256]      | 6.50 [0.256]      | 6.50 [0.256]                         |
| 2                     | All Positions Filled | 8.00 [0.315]      | 8.00 [0.315]      | 7.25 [0.285]      | 6.50 [0.256]      | 6.50 [0.256]                         |
| 3                     | All Positions Filled | 6.50 [0.256]      | 8.00 [0.315]      | 6.50 [0.256]      | 6.50 [0.256]      | 6.50 [0.256]                         |
| 4                     | All Positions Filled | 6.50 [0.256]      | 7.25 [0.285]      | 7.25 [0.285]      | 8.00 [0.315]      | 8.00 [0.315]                         |
| 5                     | All Positions Filled | 7.25 [0.285]      | 8.00 [0.315]      | 7.25 [0.285]      | 6.50 [0.256]      | 6.50 [0.256]                         |
| 6                     | All Positions Filled | 8.00 [0.315]      | 8.00 [0.315]      | 8.00 [0.315]      | 8.00 [0.315]      | 8.00 [0.315]                         |
| 7                     | All Positions Filled | 7.25 [0.285]      | 7.25 [0.285]      | 7.25 [0.285]      | 7.25 [0.285]      | 7.25 [0.285]                         |
| 8                     | All Positions Filled | 8.00 [0.315]      | 6.50 [0.256]      | 8.00 [0.315]      | 7.25 [0.285]      | 7.25 [0.285]                         |
| 9                     | All Positions Filled | 8.00 [0.315]      | 7.25 [0.285]      | 6.50 [0.256]      | 6.50 [0.256]      | 6.50 [0.256]                         |
| A                     | All Positions Filled | 8.00 [0.315]      | 8.00 [0.315]      | 7.25 [0.285]      | 7.25 [0.285]      | 7.25 [0.285]                         |
| C                     | All Positions Filled | 8.00 [0.315]      | 8.00 [0.315]      | 8.00 [0.315]      | 6.50 [0.256]      | 6.50 [0.256]                         |
| D                     | All Positions Filled | 8.00 [0.315]      | 6.50 [0.256]      | 6.50 [0.256]      | 6.50 [0.256]      | 6.50 [0.256]                         |
| G                     | All Positions Filled | 8.00 [0.315]      | 8.00 [0.315]      | 8.00 [0.315]      | 8.00 [0.315]      | 5.75 [0.226]                         |
| H                     | All Positions Filled | 8.00 [0.315]      | 8.00 [0.315]      | 7.25 [0.285]      | 8.00 [0.315]      | 8.00 [0.315]                         |

| Table 3                               |              |
|---------------------------------------|--------------|
| Press-Fit Tail Termination Option No. | Dim. "A"     |
| 1                                     | 4.60 [0.181] |
| 2                                     | 3.86 [0.152] |

\*Compliant-Pin Tail

| Table 4 - Plating            |                                                                                                                                                                                                                   |                           |                                                                                                                                                                                                                                         |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Plating Suffix               | Plating Composition                                                                                                                                                                                               | Plating Suffix            | Plating Composition                                                                                                                                                                                                                     |
| TG<br>(RIA E2 & C2 apply)    | 0.25 µm [10 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                                                                                                  | FJ<br>(RIA E1 & C1 apply) | 0.25 µm [10 µ"] Min. Au Contact Area<br>5.08 µm [200 µ"] Min. Matt Whisker Mitigating Sn Tail Area<br>1.27 µm [50 µ"] Min. Ni all over                                                                                                  |
| TG30<br>(RIA E2 & 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                                                                                                  | KR<br>(RIA E1 & C1 apply) | 0.76 µm [30 µ"] Min. Au Contact Area<br>5.08 µm [200 µ"] Min. Matt Whisker Mitigating Sn Tail Area<br>1.27 µm [50 µ"] Min. Ni all over                                                                                                  |
| TR30<br>(RIA E2 & 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                                                         | RF<br>(RIA E1 & C1 apply) | 1.27 µm [50 µ"] Min. Au Contact Area, Lubricated<br>5.08 µm [200 µ"] Min. Matt Whisker Mitigating Sn Tail Area<br>1.27 µm [50 µ"] Min. Ni all over                                                                                      |
| TR40B<br>(RIA E2 & C2 apply) | 0.13 µm [5 µ"] Min. Hard Au Contact Area, Lubricated<br>1.02 µm [40 µ"] Min. PdNi Contact Area<br>0.10 µm [4 µ"] Min. Pd Contact Area<br>2.54 µm [100 µ"] Min. SnPb Tail Area<br>1.27 µm [50 µ"] Min. Ni all over | LR<br>(RIA E1 & C1 apply) | 0.08 µm [3 µ"] Min. Au Contact Area<br>0.67 µm [27 µ"] Min. PdNi Contact Area<br>5.08 µm [200 µ"] Min. Matt Whisker Mitigating Sn Tail Area<br>1.27 µm [50 µ"] Min. Ni all over                                                         |
|                              |                                                                                                                                                                                                                   | PD<br>(RIA E1 & C1 apply) | 0.13 µm [5 µ"] Min. Hard Au Contact Area, Lubricated<br>1.02 µm [40 µ"] Min. PdNi Contact Area<br>0.10 µm [4 µ"] Min. Pd Contact Area<br>5.08 µm [200 µ"] Min. Matt Whisker Mitigating Sn Tail Area<br>1.27 µm [50 µ"] Min. Ni all over |

TS-1126-C  
Sheet 3 of 4

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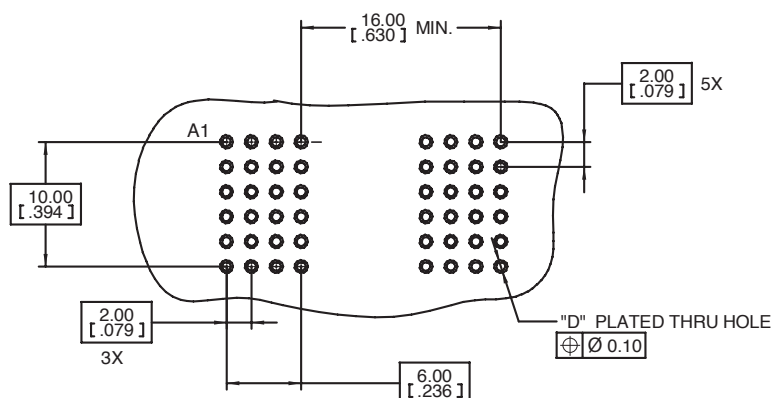
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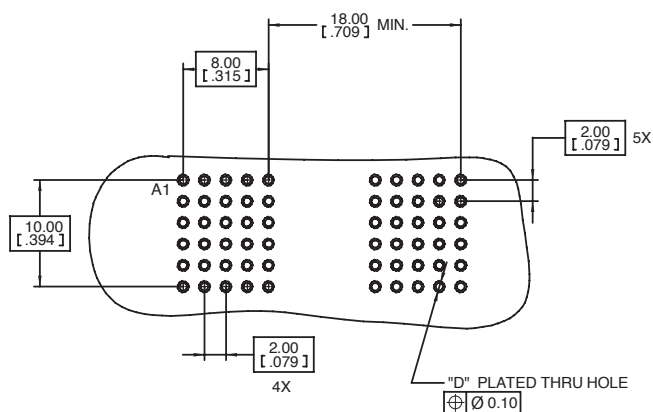
MP2 Series



## Recommended 4 Row Press-Fit PCB Hole Mounting Pattern

Table 5 -- HOLE PLATING SPECIFICATION

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



## Recommended 5 Row Press-Fit PCB Hole Mounting Pattern

TS-1126-C  
Sheet 4 of 4



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