

# 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](http://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  $\mu$ " [1.27  $\mu$ m] Nickel  
Wiping Area: See Ordering Information  
Solder Tails: See Ordering Information

## Electrical

**Current Rating:** Signal: 1.5 A – All contacts simultaneously

**Insulation Resistance:** 10<sup>3</sup> M $\Omega$

**Withstanding Voltage:** 1000 V<sub>AC</sub>

## 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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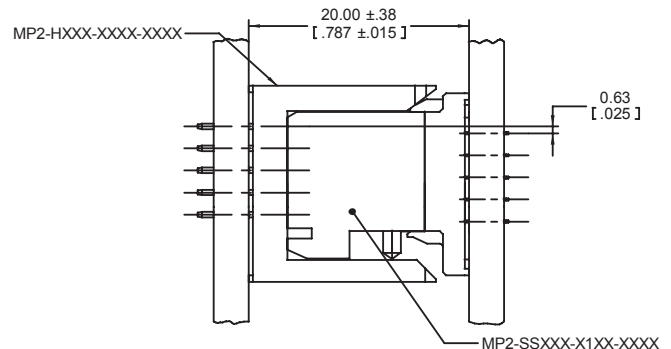
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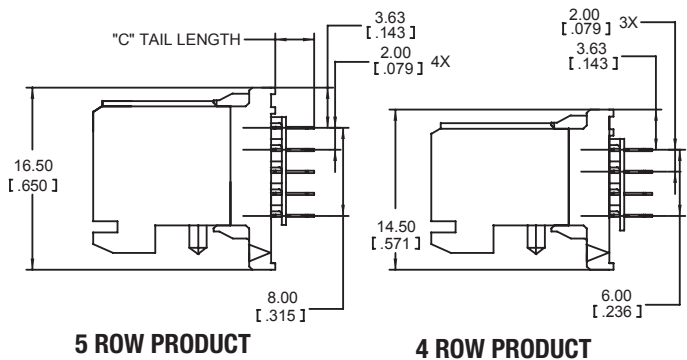
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MATED WITH MP2-HXXX-XXXX-XXXX



5 ROW PRODUCT

4 ROW PRODUCT

Tolerance Unless Noted		
	mm	[inch]
	0	0.00
mm	±3	±0.3
	±0.3	±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 µm] Min. Au Contact Area 2.54 µm [100 µm] Min. SnPb Tail Area 1.27 µm [50 µm] Min. Ni all over
TR30	RIA E2 & C2 apply	RIA E3 & C2 apply	0.08 µm [3 µm] Min. Au Contact Area 0.67 µm [27 µm] Min. PdNi Contact Area 2.54 µm [100 µm] Min. SnPb Tail Area 1.27 µm [50 µm] Min. Ni all over
KR	RIA E1 & C1 apply	RIA E1 & C1 apply	0.76 µm [30 µm] Min. Au Contact Area 2.54 µm [100 µm] Min. Matt Whisker Mitigating Sn Tail Area 1.27 µm [50 µm] Min. Ni all over
LR	RIA E1 & C1 apply	RIA E1 & C1 apply	0.08 µm [3 µm] Min. Au Contact Area 0.67 µm [27 µm] Min. PdNi Contact Area 2.54 µm [100 µm] Min. Matt Whisker Mitigating Sn Tail Area 1.27 µm [50 µm] Min. Ni all over

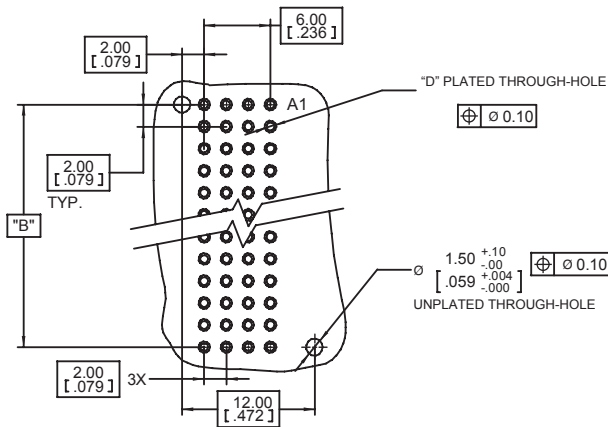
\*Compliant-Pin Tail

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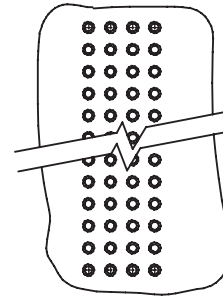
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**RECOMMENDED 4 ROW SOLDER  
TAIL PCB HOLE MOUNTING PATTERN**



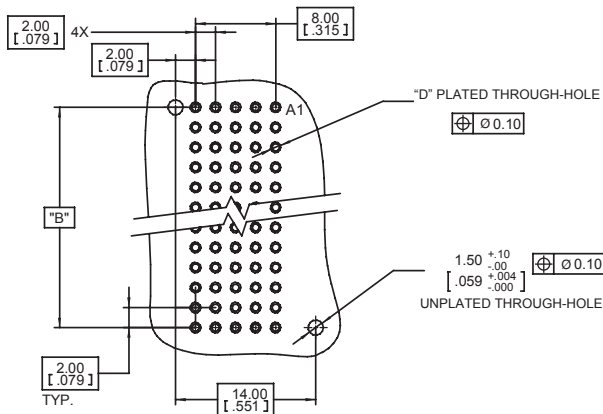
**RECOMMENDED 4 ROW PRESS-FIT  
PCB HOLE MOUNTING PATTERN**

**Table 4 – HOLE PLATING For TG30 and TR30 FINISHES ONLY**

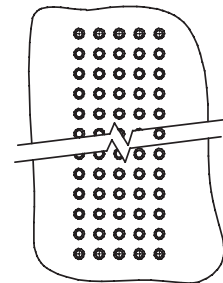
HOLE	Finished Dia. MM [in]	Cu Thickness [mm [in]]	SnPb Thickness microns [ $\mu$ "]	Drilled Hole Dia. mm [in]
"D"	0.65-0.80 [.0256-.0315]	0.025 [.001] min.	15 [600] max.	0.81-0.86 [.0319-.0339]

**Table 5 – HOLE PLATING For KR and LR FINISHES ONLY**

HOLE	Finished Dia. MM [in]	Cu Thickness [mm [in]]	Immersion Matte Sn Thickness microns [ $\mu$ "]	Electrolytic Au Thickness microns [ $\mu$ "]	OSP ENTEK Thickness microns [ $\mu$ "]	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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