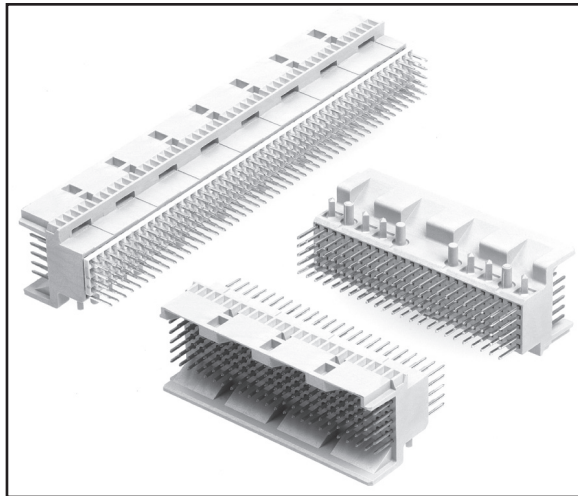


# 3M™ MetPak™ 2-FB Inverse Header

2 mm 5-Row, Stacking, Solder or Press-Fit Tail

MP2 Series



- 16 mm to 18.5 mm high-profile stacking
- Pin counts up to 300
- Footprint compatible with standard Futurebus+®
- Ideal for hot swapping applications
- End-to-end stackable
- Mates with MP2-R Series for parallel stacking applications
- 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 11, 2010

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## Physical

### Insulation:

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

### Contact:

Material: Copper Alloy

### 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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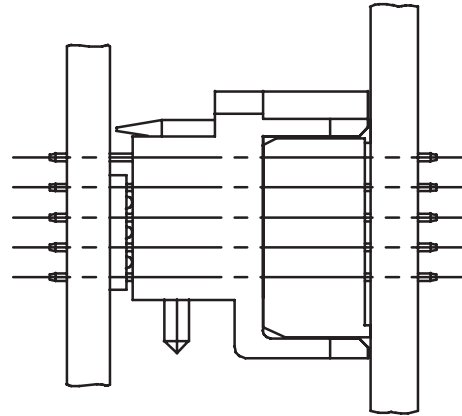
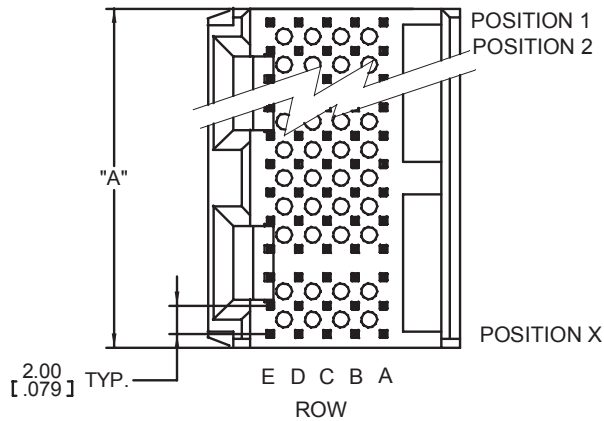
**3M**  
Electronic Solutions Division  
Interconnect Solutions  
<http://www.3Mconnector.com>

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For technical, sales or ordering information call  
**800-225-5373**

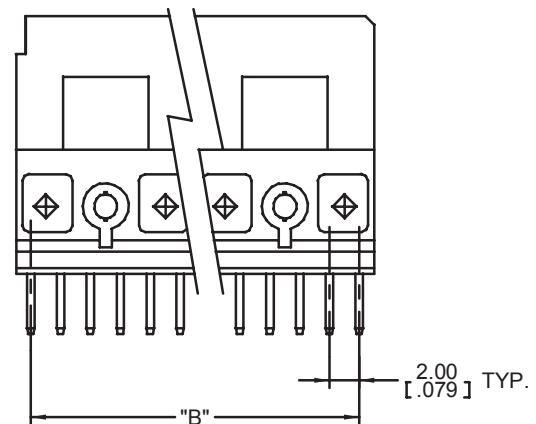
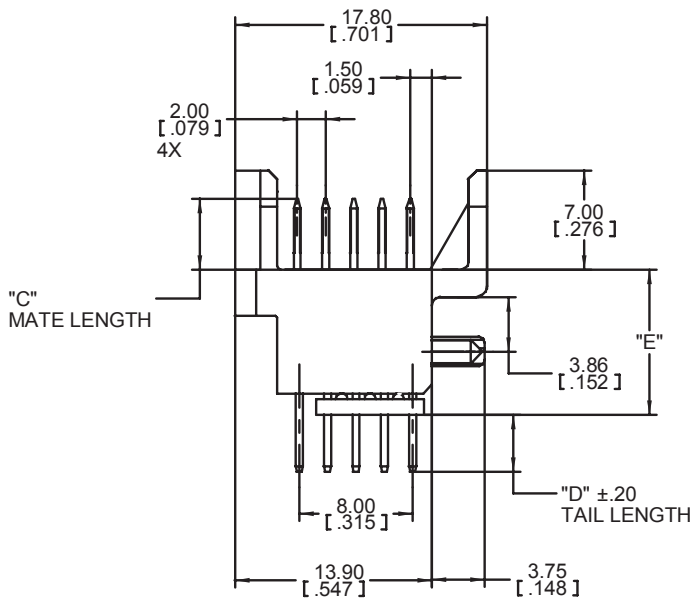
# 3M™ MetPak™ 2-FB Inverse Header

2 mm 5-Row, Stacking, Solder or Press-Fit Tail

MP2 Series



MATED WITH MP2-RXXX-5XXX-XXXX



mm  
[inch]

Tolerance Unless Noted			
	0	0.0	0.00
mm	±3	±0.3	±0.13

[ ] Dimensions for Reference Only

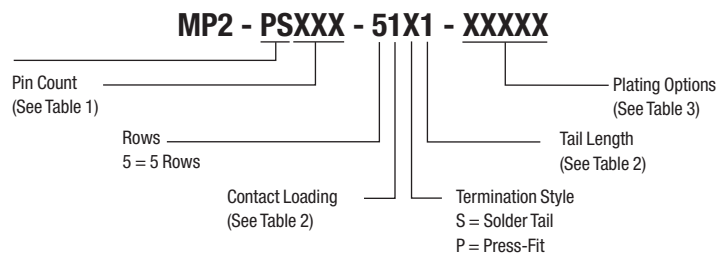


**Notes:**

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."
3. For special stack heights, tail lengths or pin arrangements, contact 3M.

## Ordering Information

PS = Header, Inversed Stacking



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# 3M™ MetPak™ 2-FB Inverse Header

2 mm 5-Row, Stacking, Solder or Press-Fit Tail

MP2 Series

Pin Count	Dim. "A" mm [inch]	Dim "B" mm [inch]	Rows
030	11.95 [0.471]	10.00 [0.394]	5
060	23.95 [0.943]	22.00 [0.866]	5
090	35.95 [1.415]	34.00 [1.339]	5
120	47.95 [1.889]	46.00 [1.811]	5
150	59.95 [2.36]	58.00 [2.283]	5
180	71.95 [2.833]	70.00 [2.756]	5
210	83.95 [3.305]	82.00 [3.228]	5
240	95.95 [3.778]	94.00 [3.701]	5
270	107.95 [4.251]	106.00 [4.173]	5
300	119.95 [4.722]	118.00 [4.646]	5

Contact-to-PC Board Tail Termination Option No.		Dim. "C"	Dim. "D"	Dim. "E"
Solder Tail	Press-Fit* Tail			
1		4.65 [0.183]	4.15 [0.163]	10.25 [0.404]
	1	5.00 [0.197]	3.95 [0.156]	10.25 [0.404]

Plating Suffix	Press-Fit Tails*	Solder Tails	Plating Composition
TG30	(RIA E2 & C2 apply)	(RIA E3 & C2 apply)	0.76 $\mu\text{m}$ [30 $\mu\text{m}$ ] Min. Au Contact Area 2.54 $\mu\text{m}$ [100 $\mu\text{m}$ ] Min. SnPb Tail Area 1.27 $\mu\text{m}$ [50 $\mu\text{m}$ ] Min. Ni all over
TR30	(RIA E2 & C2 apply)	(RIA E3 & C2 apply)	0.08 $\mu\text{m}$ [3 $\mu\text{m}$ ] Min. Au Contact Area 0.67 $\mu\text{m}$ [27 $\mu\text{m}$ ] Min. PdNi Contact Area 2.54 $\mu\text{m}$ [100 $\mu\text{m}$ ] Min. SnPb Tail Area 1.27 $\mu\text{m}$ [50 $\mu\text{m}$ ] Min. Ni all over
KR	(RIA E1 & C1 apply)	(RIA E1 & C1 apply)	0.76 $\mu\text{m}$ [30 $\mu\text{m}$ ] Min. Au Contact Area 2.54 $\mu\text{m}$ [100 $\mu\text{m}$ ] Min. Matt Whisker Mitigating Sn Tail Area 1.27 $\mu\text{m}$ [50 $\mu\text{m}$ ] Min. Ni all over
LR	(RIA E1 & C1 apply)	(RIA E1 & C1 apply)	0.08 $\mu\text{m}$ [3 $\mu\text{m}$ ] Min. Au Contact Area 0.67 $\mu\text{m}$ [27 $\mu\text{m}$ ] Min. PdNi Contact Area 2.54 $\mu\text{m}$ [100 $\mu\text{m}$ ] Min. Matt Whisker Mitigating Sn Tail Area 1.27 $\mu\text{m}$ [50 $\mu\text{m}$ ] Min. Ni all over

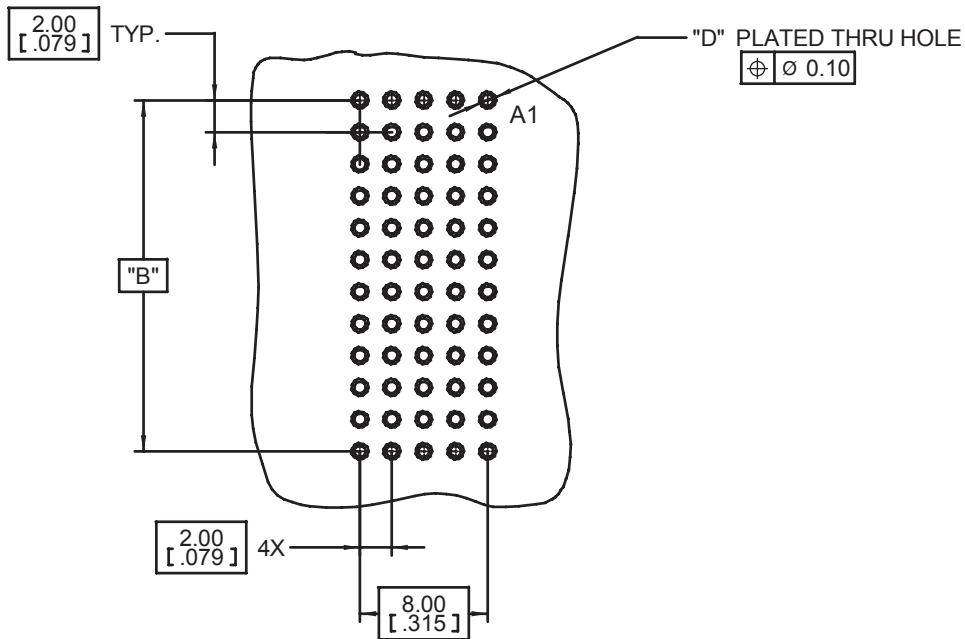
\*Compliant-Pin Tail

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# 3M™ MetPak™ 2-FB Inverse Header

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MP2 Series



**RECOMMENDED 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

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