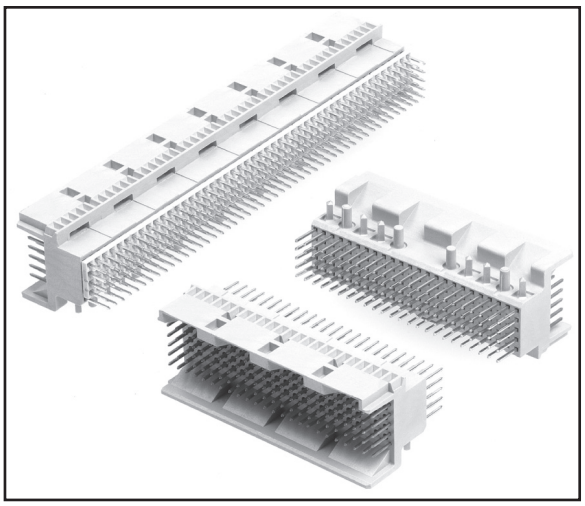
3M™ MetPak™ 2-FB Inverse Header

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 for compliance information (RIA E1 & C1 apply)

Date Modified: May 11, 2010

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 MΩ
Withstanding Voltage:	1000 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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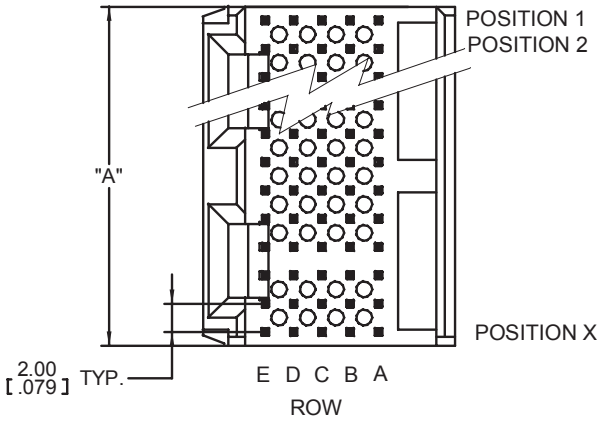
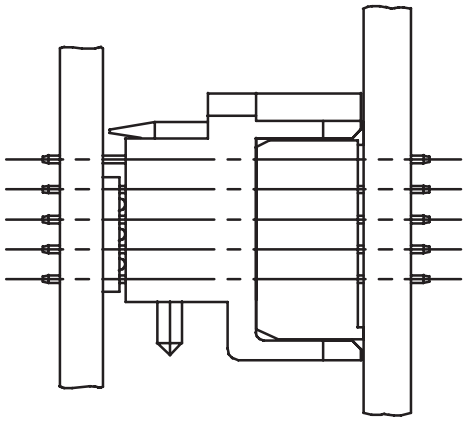
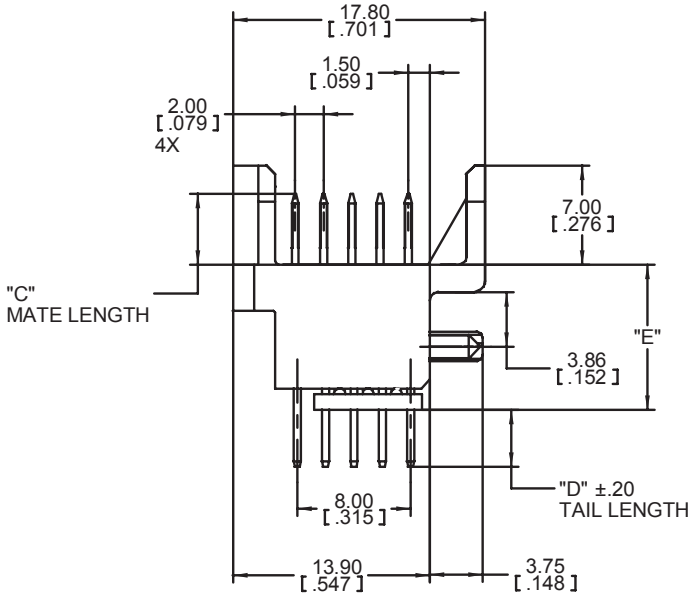
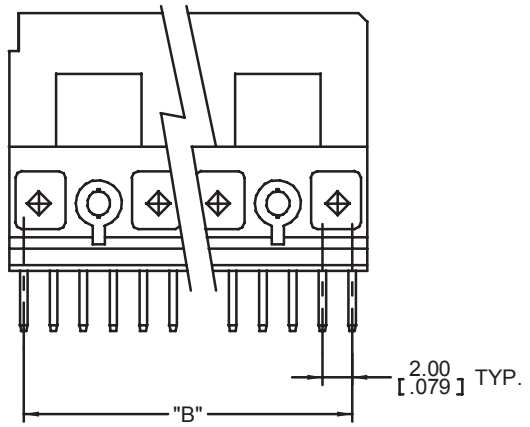
2 mm 5-Row, Stacking, Solder or Press-Fit Tail — MP2 Series





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

MP2 - PSXXX - 51X1 - XXXXX

- PS = Header, Inversed Stacking
- Pin Count (See Table 1)
- Rows: 5 = 5 Rows
- Contact Loading (See Table 2)
- Termination Style: S = Solder Tail, P = Press-Fit
- Tail Length (See Table 2)
- Plating Options (See Table 3)

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Table 1 - Connector & Row Lengths			
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

Table 2				
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]

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
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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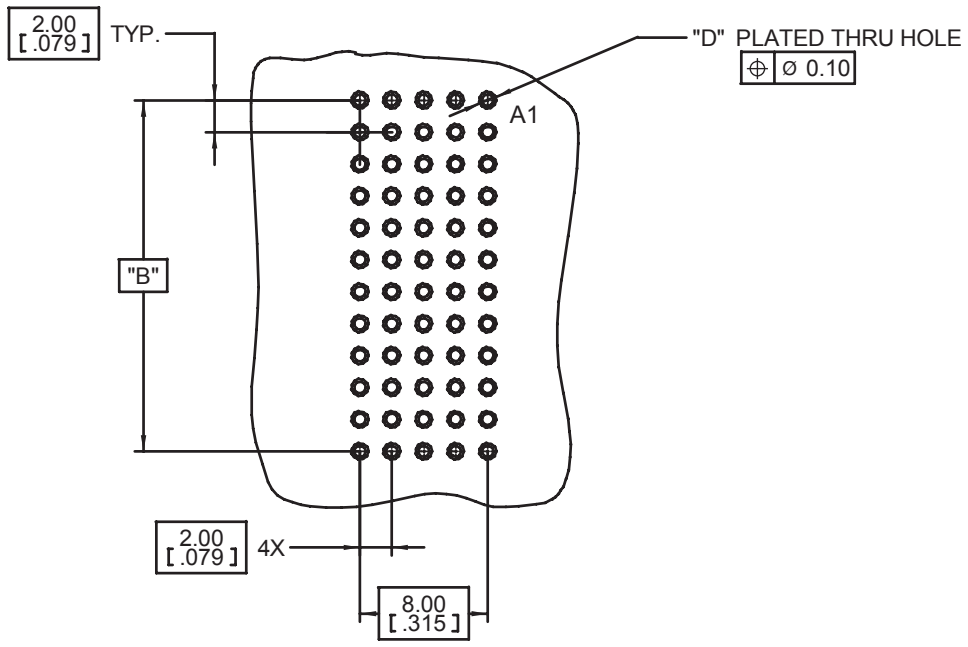

RECOMMENDED PCB HOLE MOUNTING PATTERN

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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