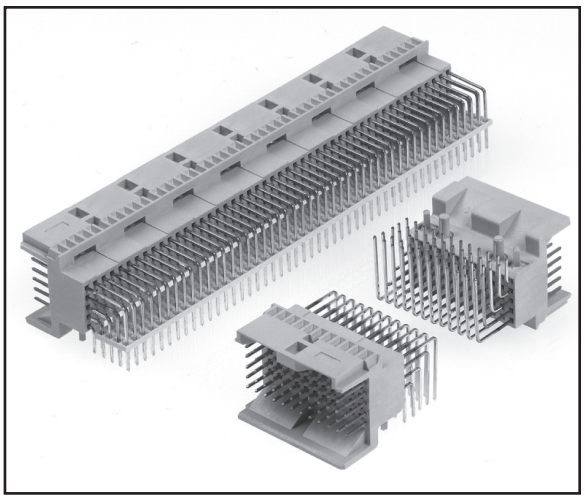
3M™ MetPak™ 2-FB Inverse Header

2 mm 5-Row, Right Angle, Solder Tail

MP2 Series



- Three levels of early mate, late break (EMLB)
- sequencing or selective loading options
- Footprint compatible with standard Futurebus+®
- Solder tail with true-position wafer
- Ideal for hot swapping applications
- End-to-end stackable
- Right angle male for daughter card
- Mates with MP2-R for backplane applications and MP2-SXXXG for coplanar applications
- RoHS Compliant. 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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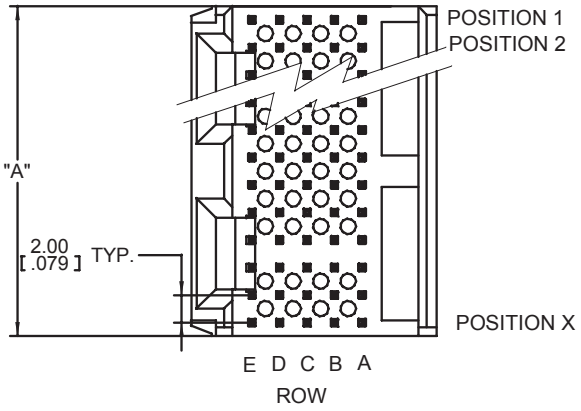
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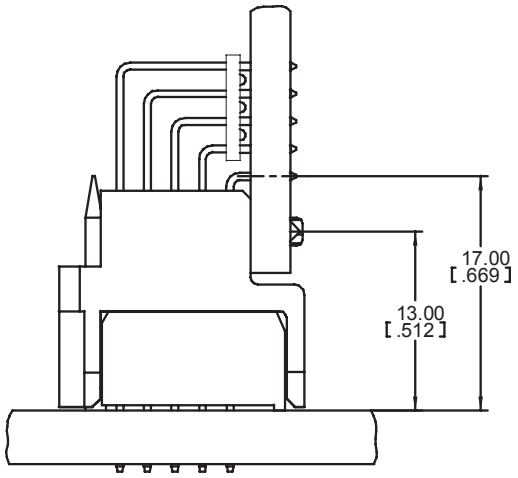
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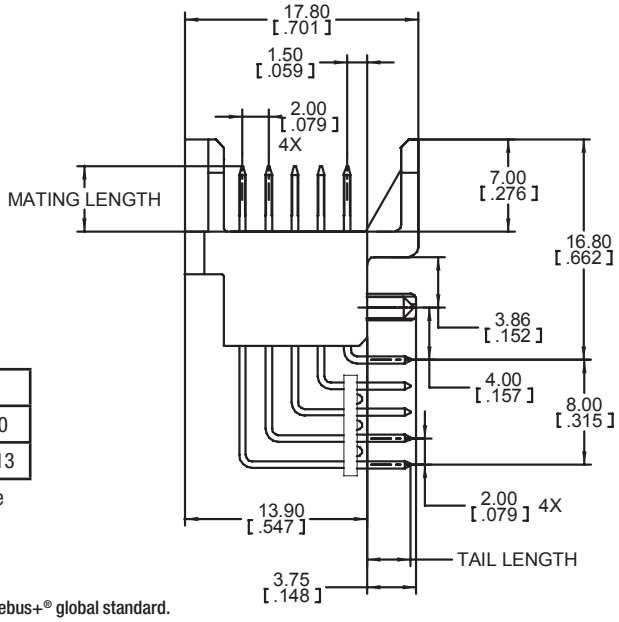
3M™ MetPak™ 2-FB Inverse Header

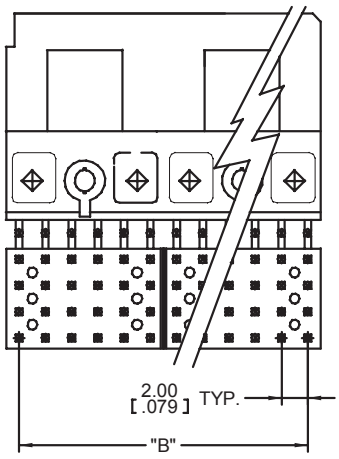
2 mm 5-Row, Right Angle, Solder Tail — MP2 Series





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. For special pin arrangements, contact 3M.

Ordering Information

MP2 - PXXX - 5XM1 - XXXXX

- P = Right Angle Header Inversed
- Pin Count (See Table 1)
- Rows: 5 = 5 Rows
- Loading Pattern and Tail Length (See Table 2)
- Termination Style: M = Solder Tail
- Plating Options (See Table 3)

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3M™ MetPak™ 2-FB Inverse Header

2 mm 5-Row, Right Angle, Solder Tail — MP2 Series

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
420	167.95 [6.612]	166.00 [6.535]	5

Table 2 - Mate & Tail Lengths, mm vs. Loading Pattern											
Loading Pattern Code	**Description**	**Mate Length Row A**	**Mate Length Row B**	**Mate Length Row C**	**Mate Length Row D**	**Mate Length Row E**	**Tail Length Row A**	**Tail Length Row B**	**Tail Length Row C**	**Tail Length Row D**	**Tail Length Row E**
1	All Positions Filled	5.00	5.00	5.00	5.00	5.00	3.30	3.30	3.30	3.30	3.30
2	All Positions Filled	4.25	5.00	5.00	5.00	5.00	4.05	3.30	3.30	3.30	3.30
3	All Positions Filled	3.50	4.25	4.25	5.00	5.00	4.80	4.05	4.05	3.30	3.30
4	All Positions Filled	4.25	5.00	4.25	4.25	4.25	4.05	3.30	4.05	4.05	4.05
5	Rows A, B, C and D Filled	5.00	5.00	5.00	5.00	NA	3.30	3.30	3.30	3.30	NA
6	Rows A, B, C and D Filled	5.00	4.25	4.25	5.00	NA	3.30	4.05	4.05	3.30	NA
7	All Positions Filled	4.25	5.00	4.25	5.00	4.25	4.05	3.30	4.05	3.30	4.05
8	All Positions Filled	4.25	4.25	4.25	4.25	4.25	4.05	4.05	4.05	4.05	4.05
9	All Positions Filled	5.00	3.50	3.50	3.50	4.25	3.30	4.80	4.80	4.80	4.05
A	All Positions Filled	3.75	4.50	5.25	4.50	3.75	4.55	3.80	3.05	3.80	4.55
B	All Positions Filled	3.75	4.50	3.75	4.50	3.75	4.55	3.80	4.55	3.80	4.55
C	All Positions Filled	5.75	5.75	5.75	5.75	5.75	2.55	2.55	2.55	2.55	2.55
D	All Positions Filled	4.25	5.00	5.75	5.00	4.25	4.05.	3.30	2.55	3.30	4.05
E	All Positions Filled	5.00	5.75	5.75	5.75	5.00	4.05	4.05	4.05	4.05	4.05
G	Rows A, B, C and D Filled	5.00	4.25	4.25	5.00	NA	3.30	4.05	4.05	3.30	NA

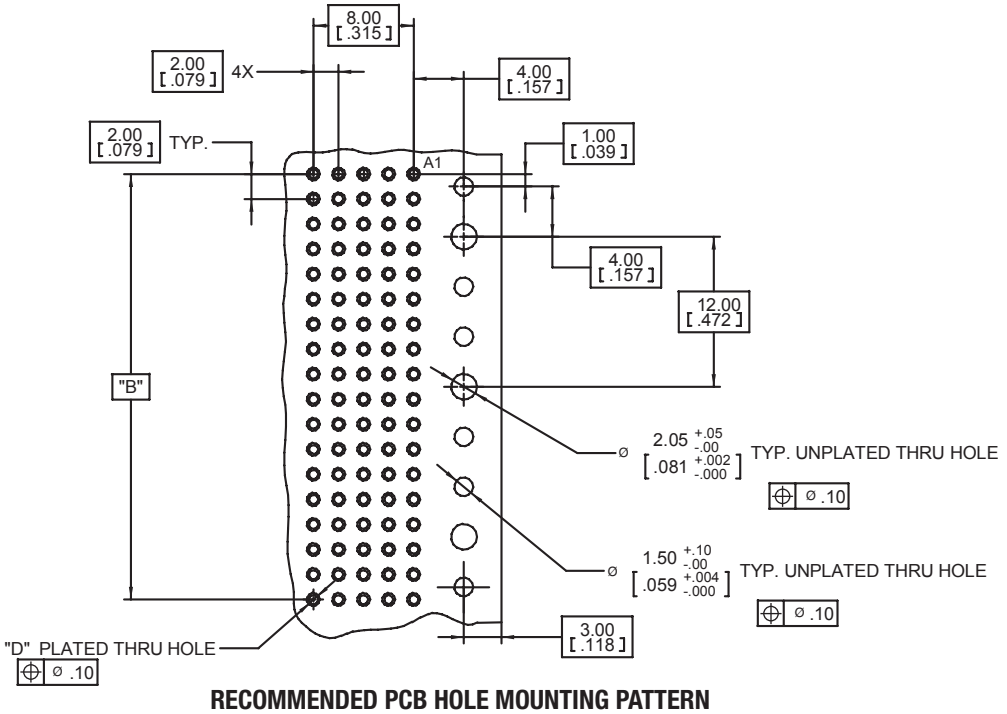
Table 3 - Plating			
Plating Suffix	**Plating Composition**	**Plating Suffix**	**Plating Composition**
TG30 (RIA E3 & C2 apply)	0.76 µm [30 µ"] Min. Au Contact Area	KR (RIA E1 & C1 apply)	0.76 µm [30 µ"] Min. Au Contact Area
	2.54 µm [100 µ"] Min. SnPb Tail Area		2.54 µm [100 µ"] Min. Matt Whisker Mitigating Sn Tail Area
	1.27 µm [50 µ"] Min. Ni all over		1.27 µm [50 µ"] Min. Ni all over
TR30 (RIA E3 & C2 apply)	0.08 µm [3 µ"] Min. Au Contact Area	LR (RIA E1 & C1 apply)	0.08 µm [3 µ"] Min. Au Contact Area
	0.67 µm [27 µ"] Min. PdNi Contact Area		0.67 µm [27 µ"] Min. PdNi Contact Area
	2.54 µm [100 µ"] Min. SnPb Tail Area		2.54 µm [100 µ"] Min. Matt Whisker Mitigating Sn Tail Area
	1.27 µm [50 µ"] Min. Ni all over		1.27 µm [50 µ"] Min. Ni all over

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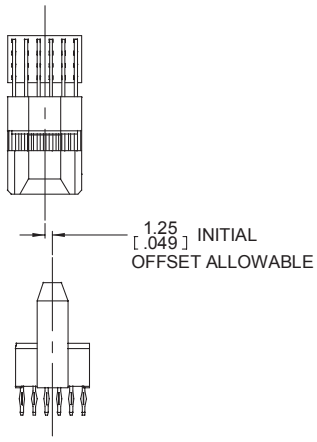
2 mm 5-Row, Right Angle, Solder Tail — MP2 Series

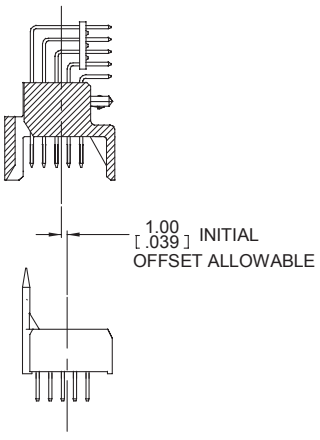


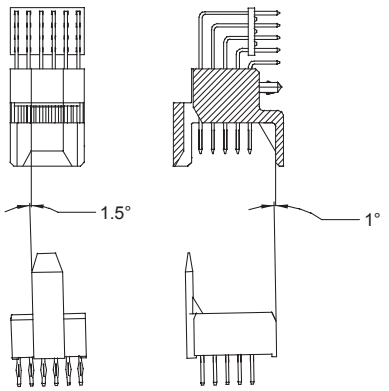
RECOMMENDED PCB HOLE MOUNTING PATTERN

Table 4 – HOLE PLATING For TG30, 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







INCLINATION TOLERANCES

TS-1122-B
Sheet 4 of 4

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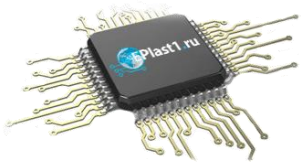
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