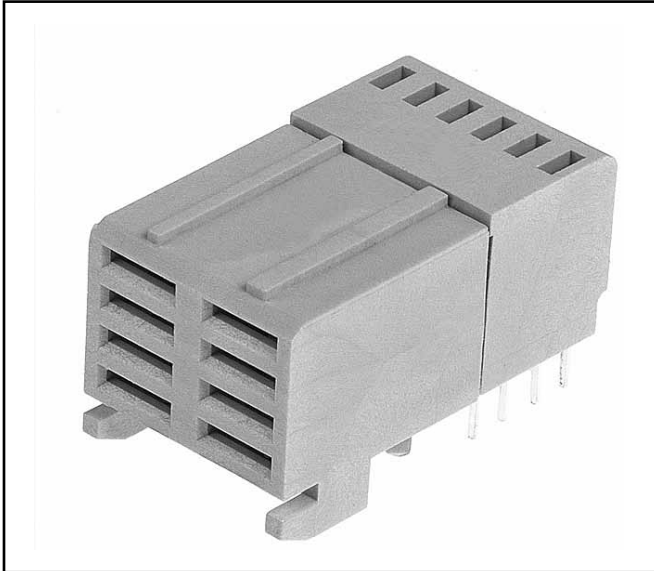


# 3M™ MetPak™ 2-FB Power Socket

2 mm 4/5-Row, Right Angle, Solder or Press-Fit Tail

MP2 Series



- 6.50 Amps per contact
- End-to-end stackable
- Press or heat stake peg (solder tail)
- 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

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## 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  
**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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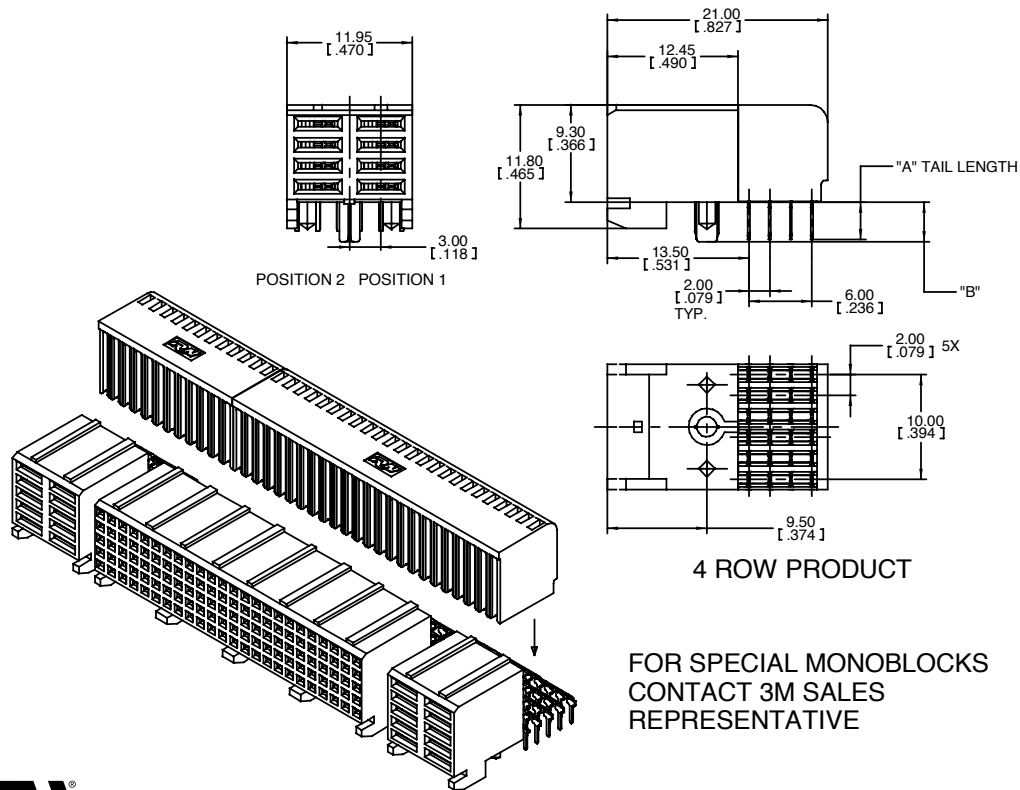
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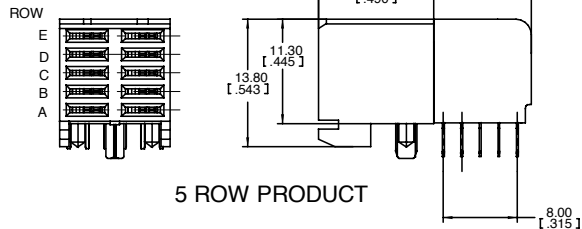
MP2 Series



mm  
(Inch)

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

( ) Dimensions used for Reference Only



**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

**MP2-SPXX-X1XX-XXXXX**

SP = Power Socket

Contact Count  
(See Table 1)

Rows  
4 = 4 Rows  
5 = 5 Rows

Plating Options:  
(See Table 3)

Tail Length  
(See Table 2)

Termination Style

- P = Press-Fit
- M = Solder Tail (Press Peg)
- S = Solder Tail (Heat Stake)

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# 3M™ MetPak™ 2-FB Power Socket

2 mm 4/5-Row, Right Angle, Solder or Press-Fit Tail

MP2 Series

Table 1	
Pin Count	No of Rows
08	4
10	5

Table 2 - Tail & Post Lengths			
Contact-to-PC Board Tail Termination Option No.		Dim. "A"	Dim. "B"
Solder	Press-Fit*		
S1		2.72 [0.107]	5.20 [0.205]
S2		3.53 [0.139]	6.00 [0.236]
M1		2.72 [0.107]	3.57 [0.141]
M2	P1	3.53 [0.139]	3.57 [0.141]

\*Compliant-Pin Tail

Table 3 - Plating			
Plating Suffix	Press-Fit Tails*	Solder Tails	Plating Composition
TG	(RIA E2 & C2 apply)	RIA E3 & C2 apply	0.25 μm [10 μm] Min. Au Contact Area 2.54 μm [100 μm] Min. SnPb Tail Area 1.27 μm [50 μm] Min. Ni all over
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
TR40B	(RIA E2 & C2 apply)	RIA E3 & C2 apply	0.13 μm [5 μm] Min. Hard Au Contact Area, Lubricated 1.02 μm [40 μm] Min. PdNi Contact Area 0.10 μm [4 μm] Min. Pd Contact Area 2.54 μm [100 μm] Min. SnPb Tail Area 1.27 μm [50 μm] Min. Ni all over
FJ	RIA E1 & C1 apply	RIA E1 & C1 apply	0.25 μm [10 μm] Min. Au Contact Area 5.08 μm [200 μm] Min. Matt Whisker Mitigating Sn 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 5.08 μm [200 μm] Min. Matt Whisker Mitigating Sn Tail Area 1.27 μm [50 μm] Min. Ni all over
RF	RIA E1 & C1 apply	RIA E1 & C1 apply	1.27 μm [50 μm] Min. Au Contact Area, Lubricated 5.08 μm [200 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 5.08 μm [200 μm] Min. Matt Whisker Mitigating Sn Tail Area 1.27 μm [50 μm] Min. Ni all over
PD	RIA E1 & C1 apply	RIA E1 & C1 apply	0.13 μm [5 μm] Min. Hard Au Contact Area, Lubricated 1.02 μm [40 μm] Min. PdNi Contact Area 0.10 μm [4 μm] Min. Pd Contact Area 5.08 μm [200 μm] Min. Matt Whisker Mitigating Sn Tail Area 1.27 μm [50 μm] Min. Ni all over

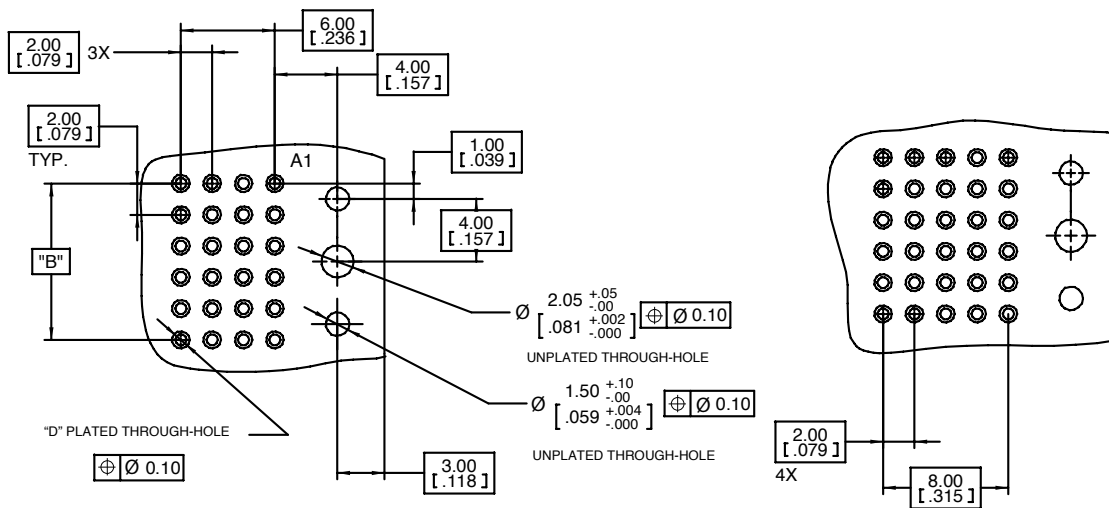
\*Compliant-Pin Tail

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**Recommended 4 Row PCB Hole Mounting Pattern**

**Recommended 5 Row PCB Hole Mounting Pattern**

**Table 4 -- HOLE PLATING for TG, TG30, TR30, TR40B 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 FJ, KR, RF, LR and PD 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 0.85mm [#66] TWIST DRILL

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### **3M Electronics Solutions Division**

6801 River Place Blvd.  
Austin, TX 78726-9000  
U.S.A.  
1-800-225-5373  
[www.3m.com/interconnects](http://www.3m.com/interconnects)

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