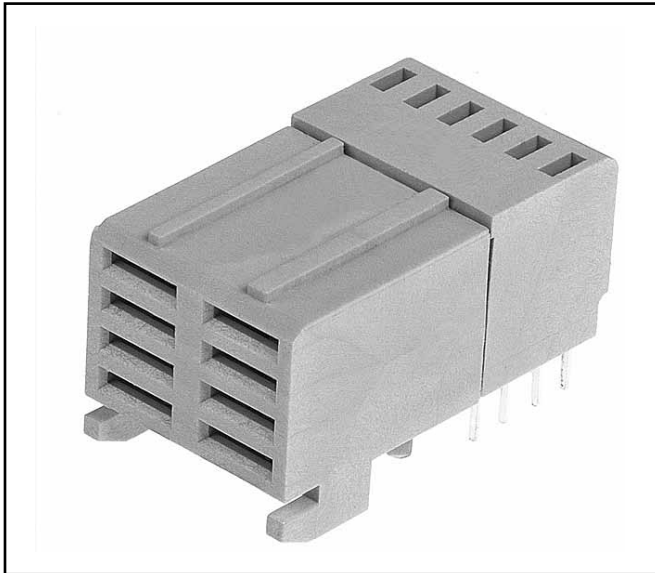


# 3M™ MetPak™ 2-FB Power Socket

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

TS-1125-B  
Sheet 1 of 4

## 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)

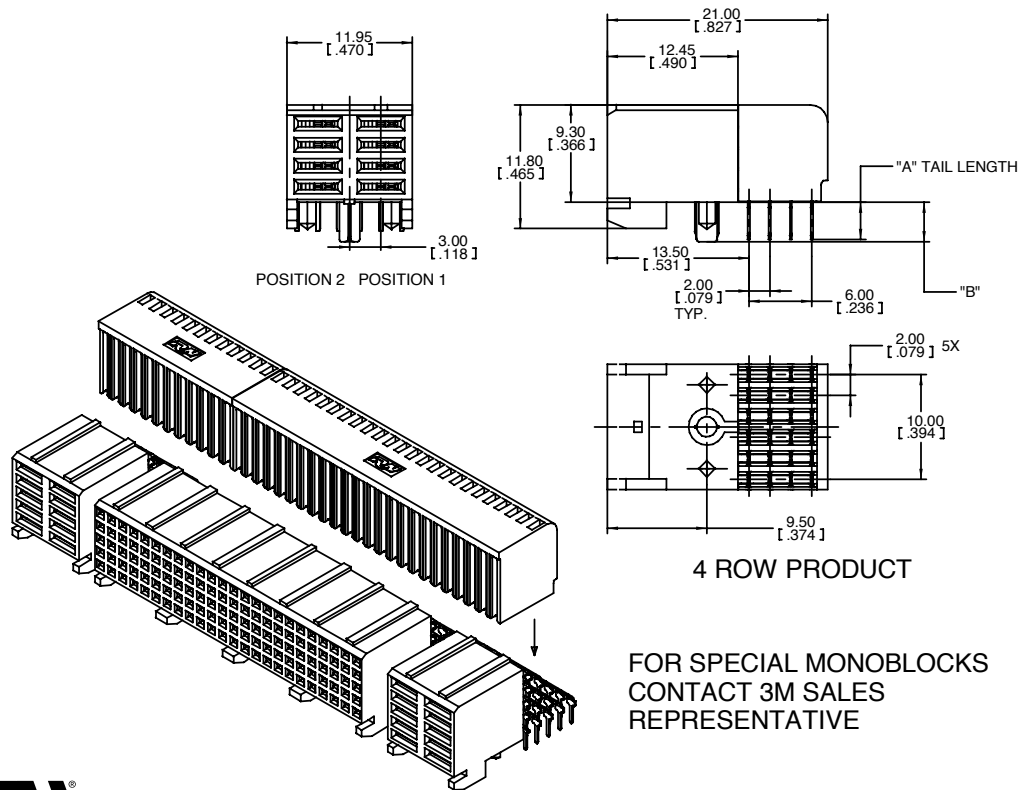
UL File No.: E68080

MetPak is a trademark of 3M Company.  
Futurebus+ is a registered trademark of the Institute of Electrical and Electronic Engineers, Inc. (IEEE)

# 3M™ MetPak™ 2-FB Power Socket

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

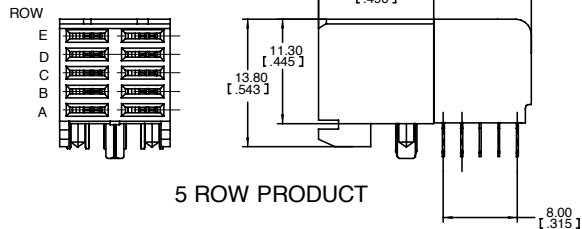
MP2 Series



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)

TS-1125-B  
Sheet 2 of 4



Electronic Solutions Division  
Interconnect Solutions  
<http://www.3M.com/interconnects>

3M is a trademark of 3M Company.  
For technical, sales or ordering information call  
**800-225-5373**

# 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

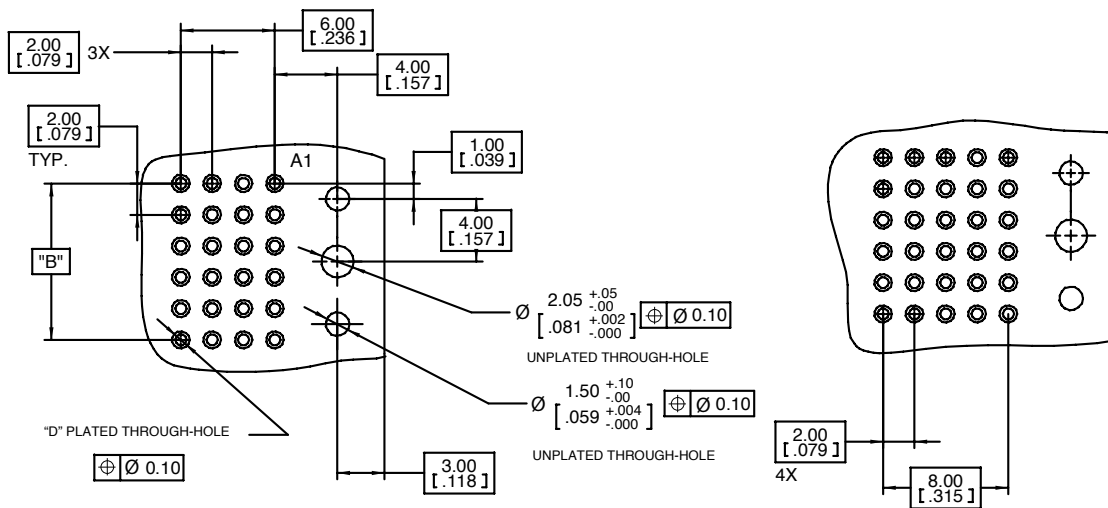
\*Compliant-Pin Tail

TS-1125-B  
Sheet 3 of 4

# 3M™ MetPak™ 2-FB Power Socket

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

MP2 Series



**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

TS-1125-B  
Sheet 4 of 4

**Important Notice**

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

**Warranty; Limited Remedy; Limited Liability.**

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

**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)

Please recycle. Printed in USA.  
© 3M 2008. All rights reserved.  
RIA-2217B-E

3M is a trademark of 3M Company.