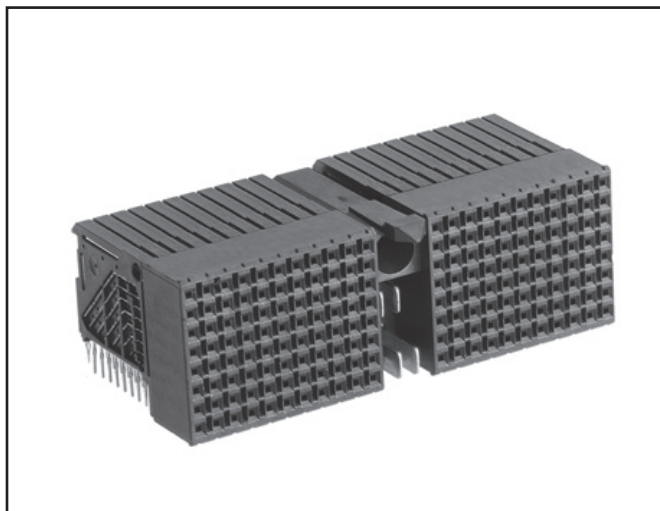


3M™ MetPak™ HSHM Press-Fit Power Socket

2 mm Type D, 176 Signal/4 Power Contacts, 8 Rows, Right Angle

HSHM Series



- Up to 5 Gb/s data rates
- Low crosstalk at high frequencies
- 50/100 Ω (single-ended /differential) impedance
- Modular/scalable format IEC 61076-4-101
- 101 mated lines per linear inch
- Dual beam contact construction for high reliability
- Four integrated 8.25 A power blades
- End-to-end stackable with 8 row 3M™ MetPak™ HM and HSHM sockets
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of www.3mconnector.com for compliance information

Date Modified: November 16, 2010

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Sheet 1 of 3

Physical

Insulation:

Material: High Temperature Thermoplastic (LCP)

Flammability: UL 94V-0

Color:

Material: Copper Alloy

Plating: See Ordering information

Performance

Mechanical:

Normal Force (Nominal): 0.57 N [58 g] Signal, 0.74 N [75 g] Shield, 0.98 N [100 g] Power

Engagement Force (Nominal): 0.32 N [33 g] Signal, 0.22 N [22 g] Shield, 1.42 N [145 g] Power

Separation Force (Nominal): 0.20 N [20 g] Signal, 0.20 N [20 g] Shield, 0.89 N [91 g] Power

Wipe (Nominal, Shortest Contact): 2.67 mm [0.105 in] Signal, 1.57 mm [0.062 in] Shield, 1.93 N [0.076 in.] Power

Mate/Unmate Cycles: 250

Application: This module is suitable for stand-alone use. (Refer to IEC-61076-4-101)

Electrical:

Data Rate: 5 Gb/s

Characteristic Impedance: 50 Ω Single-ended, 100 Ω Differential

Current Rating (Fully Loaded): 1 A @ 70° C Signal, 8.25 A at 70°C Power

Insulation Resistance: 10⁴ M Ω @ 100 V_{DC}

Withstanding Voltage: 750 V_{rms}

Environmental

Temperature Rating: -55° C to 125° C

UL File No.: E68080

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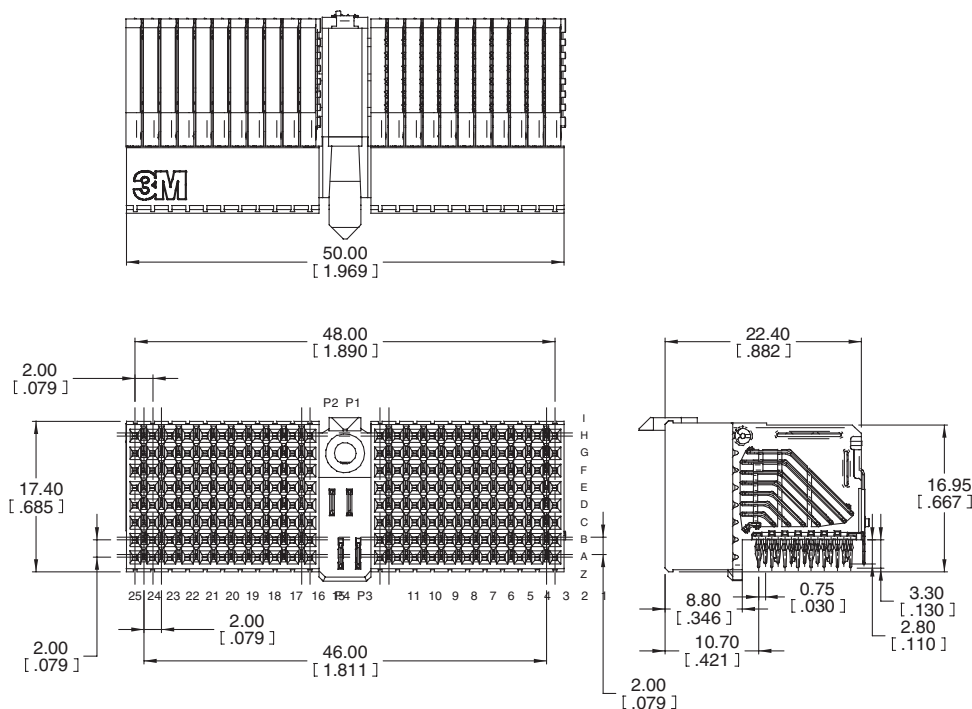
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mm
(Inch)

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

[] Dimensions for
Reference Only

Ordering Information

HSHM-S176DPWRX - 8AP1 - XXXXX

High Speed Option:

1 =Row differential applications

4 =Coaxial and column differential applications

Standard configuration (power blade mate length)

P1 and P2 = 5.0 mm

P3 and P4 = 6.50 mm

For non-standard configurations contact sales representative

Plating μm [μin]:

TG30 = 0.76 [30] Min. Au Contact Area

2.54 [100] Min. SnPb Terminal Area (RIA C2 & E2 apply)

1.27 [50] Min. Ni All over

Standard Option

TG30L = 0.76 [30] Min. Au Contact Area, Lubricated

2.54 [100] Min. SnPb Terminal Area (RIA C2 & E2 apply)

1.27 [50] Min. Ni All over

Typically higher make order quantities as compared to TG30.

TG50 = 1.27 [50] Min. Au Contact Area, Lubricated

2.54 [100] Min. SnPb Terminal Area (RIA C2 & E2 apply)

1.27 [50] Min. Ni All over

Non-Standard Option (Available with longer lead times and higher
make order quantities, MOQ)

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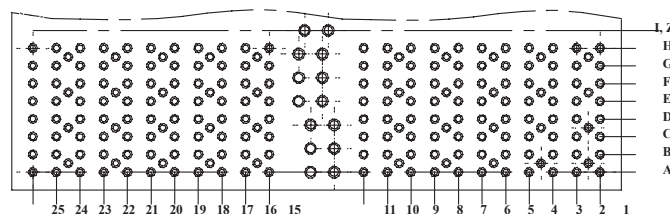
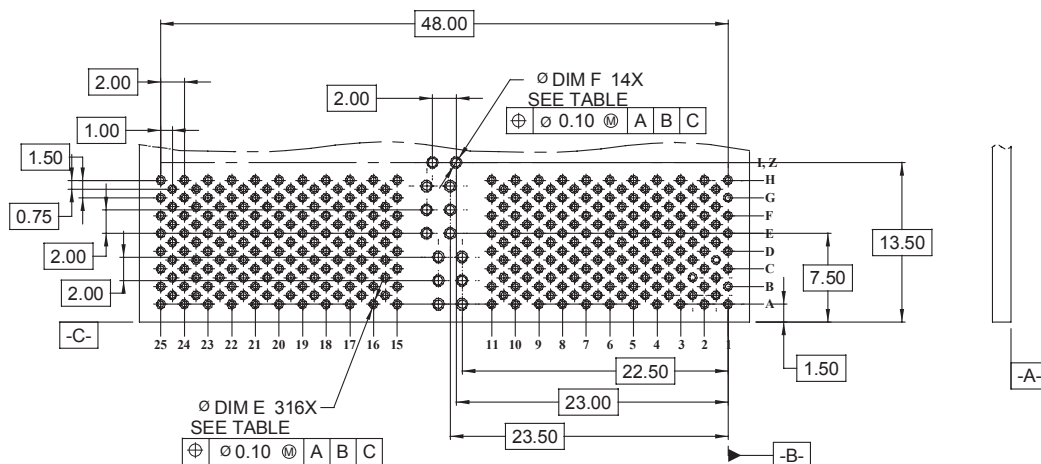
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Hole Plating Table

Hole	Finished Hole Dia. "D"	Cu. Thickness	SnPb Thickness	Drilled Hole Dia.
"E"	0.457 - 0.559 [.0180 - .0220]	0.025 - 0.045 [.0010 - .0018]	0.008 - 0.018 [.0003 - .0007]	0.584 - 0.625 [.0230 - .0246]
"F"	0.690 - 0.790 [.0270 - .0310]	0.025 - 0.045 [.0010 - .0018]	0.008 - 0.018 [.0003 - .0007]	0.810 - 0.860 [.0320 - .0340]

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