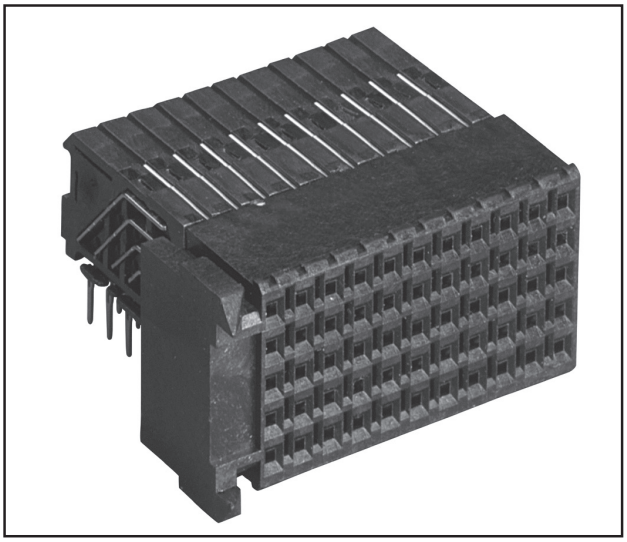
3M™ MetPak™ HSHM Press-Fit Socket

2 mm Type CL, 55 Signal Contacts, 5 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
- 63 mated lines per linear inch
- Mates with 3M™ MetPak™ HSHM headers
- Dual beam contact construction for high reliability
- End-to-end stackable with 5 row 3M™ MetPak™ CP2, HM and HSHM sockets
- See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of www.3mconnector.com for compliance information

Date Modified: May 25, 2011

Physical

Insulation Material:	High Temperature Thermoplastic (LCP)
Flammability:	UL 94V-0
Contact Material:	Copper Alloy
Plating:	See Ordering Information

Performance

Mechanical:	
Normal Force (Nominal):	0.57 N [58 g] Signal, 0.74 N [75 g] Shield
Engagement Force (Nominal):	0.32 N [33 g] Signal, 0.22 N [22 g] Shield
Separation Force (Nominal):	0.20 N [20 g] Signal, 0.20 N [20 g] Shield
Wipe (Nominal, Shortest Contact):	2.67 mm [0.105 in] Signal, 1.57 mm [0.062 in] Shield
Mate/Unmate Cycles:	250
Application:	This module is not 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
Insulation Resistance:	10^4 MΩ @ 100 V_{DC}
Withstanding Voltage:	750 V_{RMS}

Environmental

Temperature Rating:	-55° C to 125° C

UL File No.: E68080

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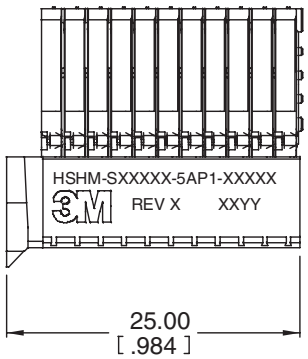

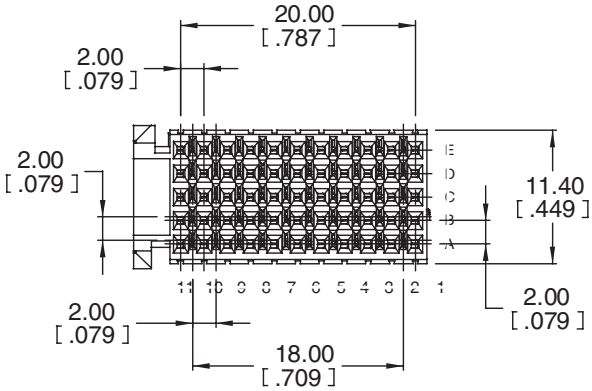

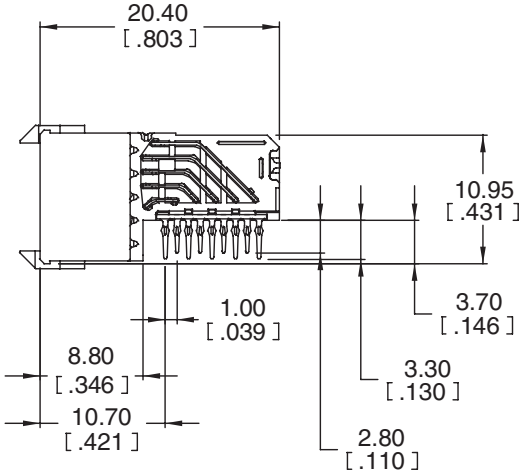

mm
(Inch)

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

[ ] Dimensions for Reference Only

Ordering Information

HSHM-S055CL X-5AP1- XXXXX

High Speed Option:
1 = Row differential applications
4 = Coaxial and column differential applications

Plating µm [µ"]:

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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Electronic Solutions Division
Interconnect Solutions
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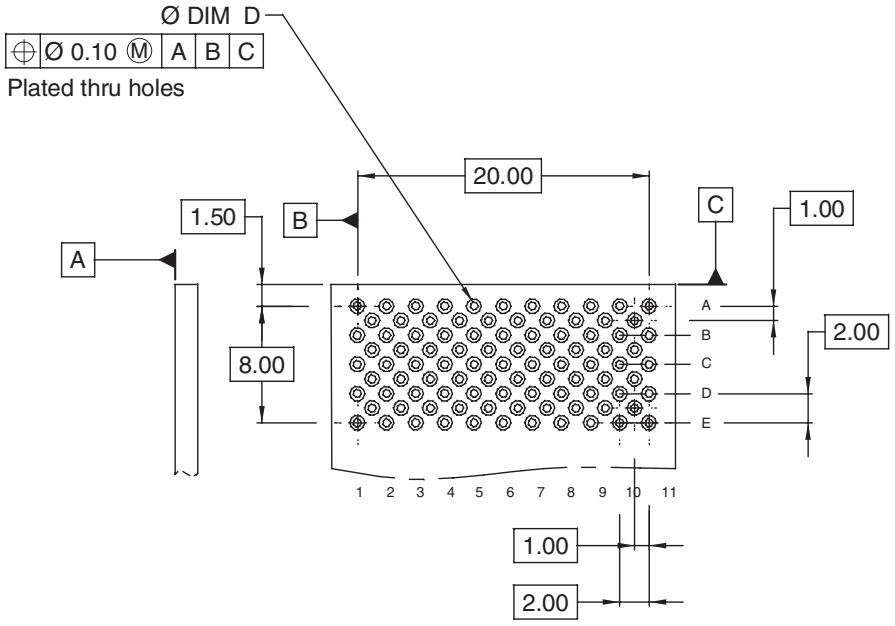
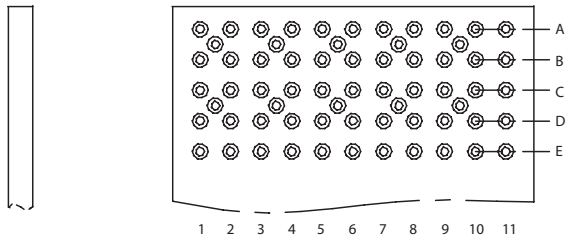


Recommended PCB hole mounting pattern for coaxial, column differential and stripline applications.



Recommended PCB hole mounting pattern for row differential applications.
(Same geometry as above without the ground vias.)

Hole Plating Table mm [in.]			
Finsihed Hole Dia. "D"	**Cu. Thickness**	**SnPb Thickness**	**Drilled Hole Dia.**
0.457 - 0.559 [.0180 - .0220]	0.025 - 0.045 [.0010 - .0018]	0.008 -0.018 [.0003 - .0007]	0.584 - 0.625 [.0230 - .0246]

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