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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

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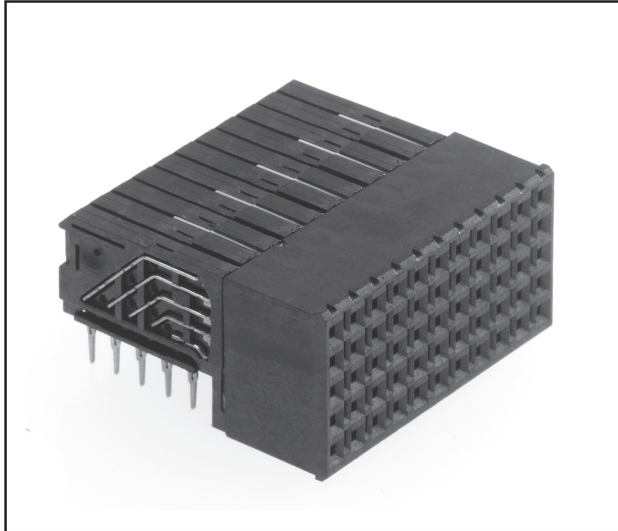
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# 3M™ MetPak™ HSHM Press-Fit Socket

2 mm Type B11, 55 Signal Contacts, 5 Rows, Right Angle

HSHM Series



- Up to 5 Gb/s data rates
- Low crosstalk at high frequencies
- 50/100  $\Omega$  (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](http://www.3mconnector.com) for compliance information

Date Modified: October 7, 2010

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## 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  $\Omega$  Single-ended, 100  $\Omega$  Differential

Current Rating (Fully Loaded): 1 A @ 70°C Signal

Insulation Resistance:  $10^4$  M $\Omega$  @ 100 V<sub>DC</sub>

Withstanding Voltage: 750 V<sub>RMS</sub>

## Environmental

Temperature Rating: -55° C to 125° C

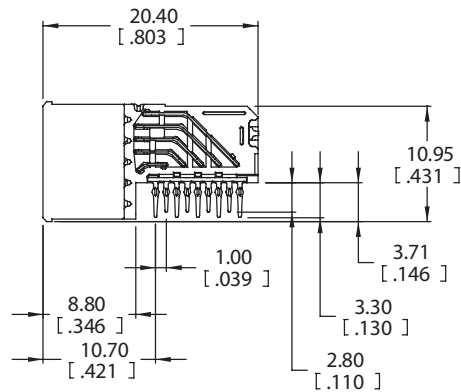
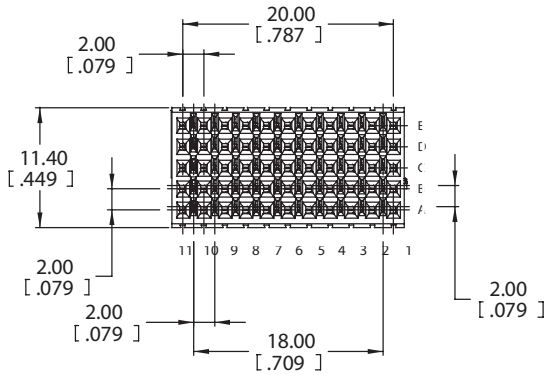
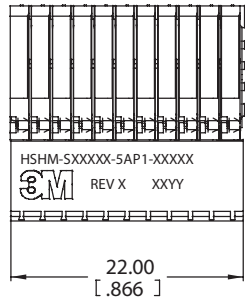
UL File No.: E68080

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| mm<br>(Inch)           |    |      |       |
|------------------------|----|------|-------|
| Tolerance Unless Noted |    |      |       |
|                        | 0  | 0.0  | 0.00  |
| mm                     | ±3 | ±0.3 | ±0.13 |

[ ] Dimensions for Reference Only

## Ordering Information

### HSHM-S055BX - 5AP1- XXXXX

High Speed Option: \_\_\_\_\_

1 = Row differential applications

4 = Coaxial and column differential applications

Plating  $\mu\text{m}$  [ $\mu\text{in}$ ]:

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.

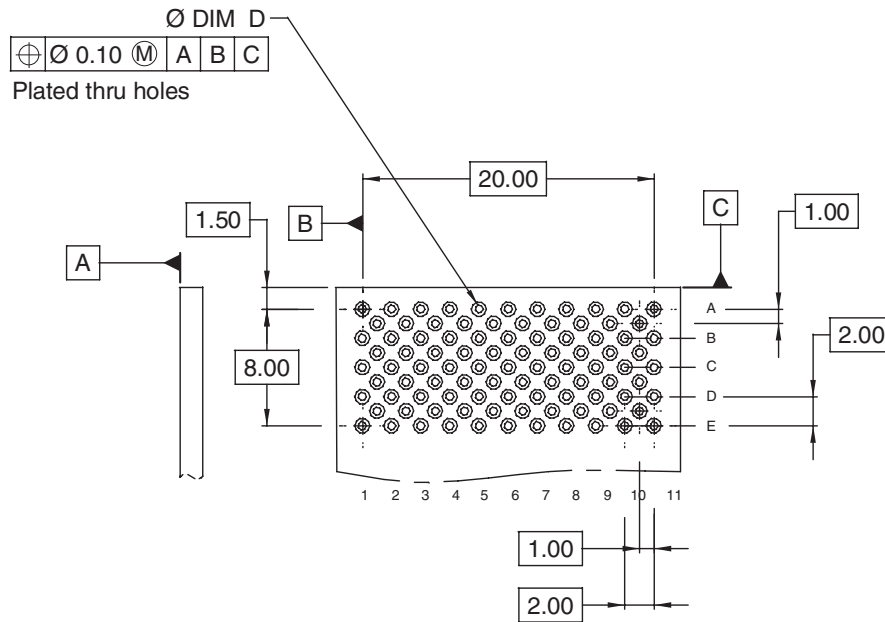
TG50 = 1.27 [50] Min. Au Contact Area, Lubricated  
 2.54 [100] Min. SnPb Terminal Area (RIA C2 & E2 apply)  
 1.27 [50] Min. Ni All over  
 Non-Standard Option (Available with longer lead times and higher make order quantities, MOQ)

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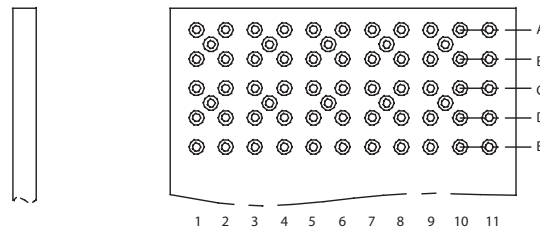
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Recommended PCB hole mounting pattern for coaxial, column differential and stripline applications..



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

| Hole Plating Table mm [in.]   |                               |                               |                               |
|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Finished 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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**3M Electronics Solutions Division**

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

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