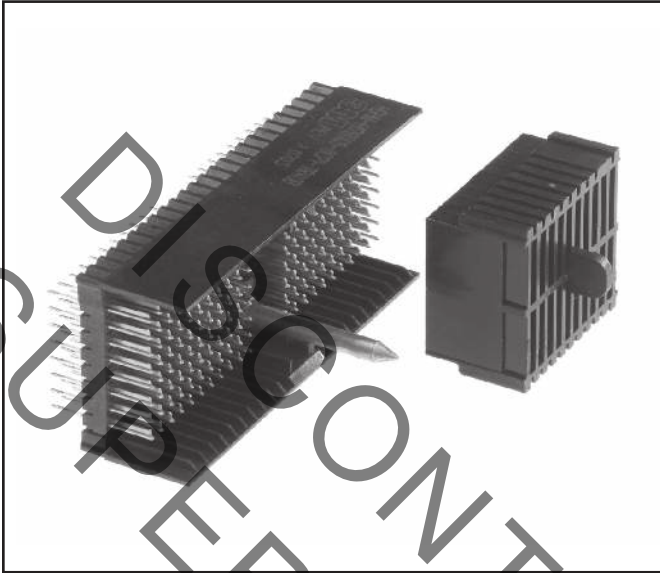


3M™ MetPak™ HSHM Press-Fit Header

2 mm Type DG, 176 Signal Contacts, 8 Rows, Straight

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
- Integrated guide pin
- End-to-end stackable with 8 row 3M™ MetPak™ CP2, HM and HSHM headers
- Mates with HSHM D sockets
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of www.3mconnector.com for compliance information

Date Modified: November 5, 2010

TS-2079-B
Sheet 1 of 3

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: 10⁴ M Ω @ 100 V_{DC}
Withstanding Voltage: 750 V_{rms}

Environmental

Temperature Rating: -55° C to 125° C

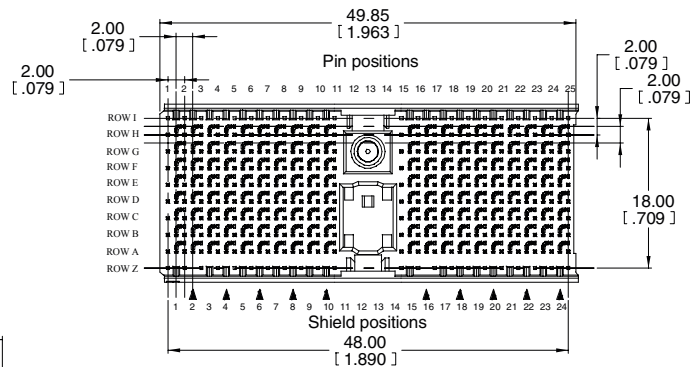
UL File No.: E68080

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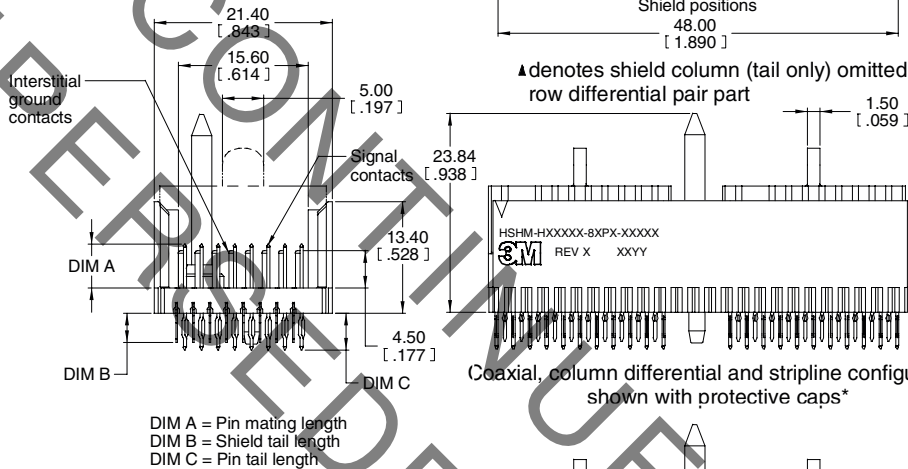
3M™ MetPak™ HSHM Press-Fit Header

2 mm Type DG, 176 Signal Contacts, 8 Rows, Straight

HSHM Series

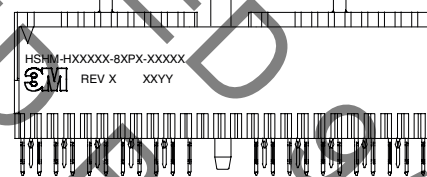


▲ denotes shield column (tail only) omitted for the row differential pair part



DIM A = Pin mating length
DIM B = Shield tail length
DIM C = Pin tail length

Coaxial, column differential and stripline configuration shown with protective caps*



Row differential configuration shown with protective caps*

* Caps to be removed after press-fit installation process

mm
(Inch)

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

() Dimensions used for Reference Only

Ordering Information

HSHM-H176DGX-8CPX-XXXXX (rows I and Z not loaded)

High Speed Option:

- 4 = Coaxial, column differential and stripline (75 Ω) applications
- 5 = Row differential applications

Tail Length:

- 1 = 4.4 mm pin and 3.5 mm shield
- 2 = 2 mm pin and 2 mm shield

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)

Standard Configuration

DIM A = 5.3 mm for rows A through H

For non--standard configurations contact sales representative

TS-2079-B
Sheet 2 of 3

3M

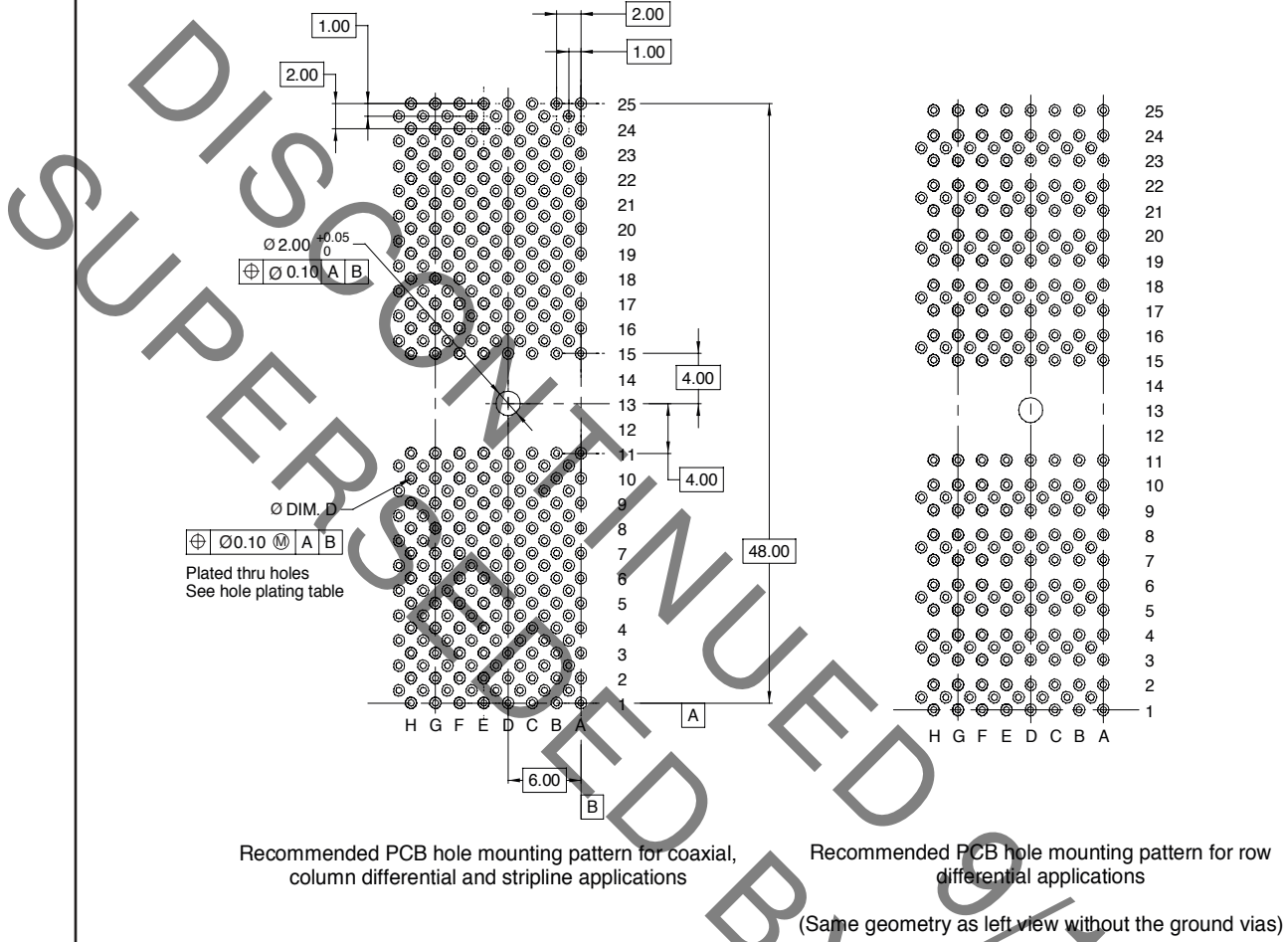
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Interconnect Solutions
<http://www.3Mconnector.com>

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For technical, sales or ordering information call
800-225-5373

3M™ MetPak™ HSHM Press-Fit Header

2 mm Type DG, 176 Signal Contacts, 8 Rows, Straight

HSHM Series



Hole Plating Table mm

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]

TS-2079-B
Sheet 3 of 3

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192506

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