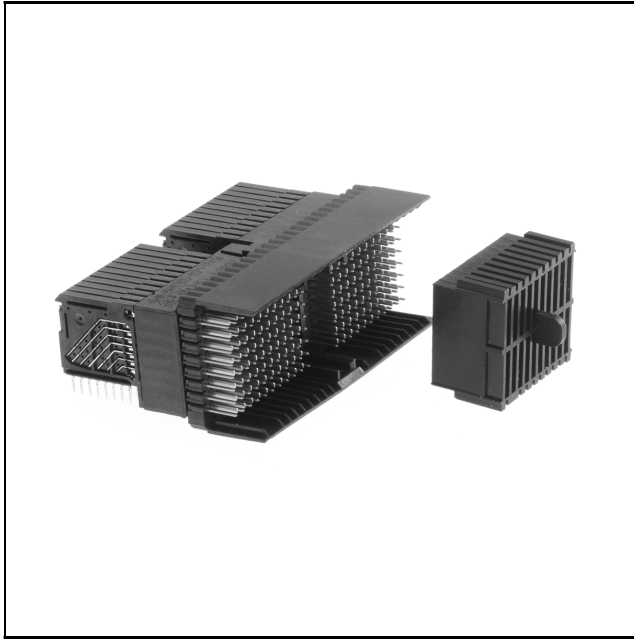


3M™ MetPak™ HSHM Press-Fit Header

2 mm Type RAH, 176 Signal 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
- For high speed coplanar applications
- Multi-purpose center (MPC) for keying and guidance
- Ships with protective caps which also serve as a termination tool
- Integrated guide pins
- Mates with HSHM D sockets
- See Regulatory Information Appendix (RIA) for chemical compliance information

Date Modified: March 13, 2007

TS-2081-02
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
Durability: 250 cycles with TR40B plating
Application: This module is suitable for stand-alone use. (Refer to IEC-61076-4-101.)

Electrical

Data Rate: 5 Gb/s
Characteristic Impedance: 50 W Single-ended, 100 W Differential
Current Rating (Fully Loaded): C1 A at 70 \times C Signal
Insulation Resistance: 10⁴ MW at 100 V_{DC}
Withstanding Voltage: 750 V_{RMS}

Environmental

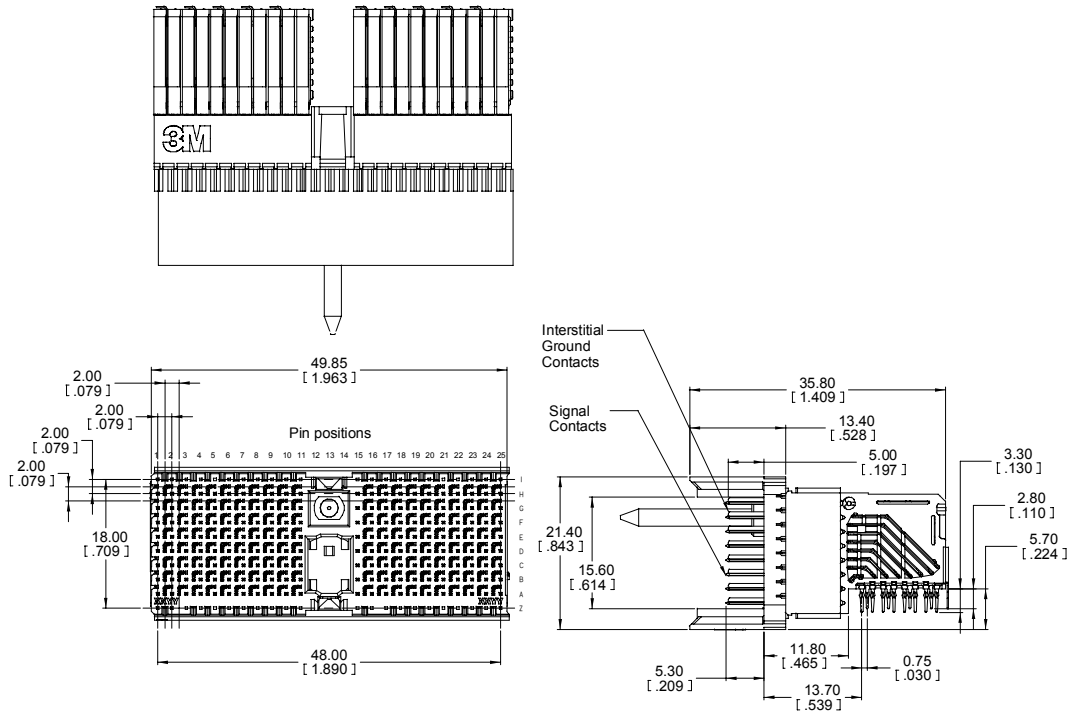
Temperature Rating: -55 \times C to +125 \times C

MetPak is a trademark of 3M Company.

3M™ MetPak™ HSHM Press-Fit Header

2 mm Type RAH, 176 Signal Contacts, 8 Rows, Right Angle

HSHM Series



mm
[inch]

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

[] Dimensions for Reference Only

Ordering Information

HSHM - RAH176DX - 8CP1 - XXXXX

High Speed Option: _____
 4 =Coaxial, column differential and stripline (75W) applications
 5 =Row differential applications

Plating μm [$\mu\text{''}$]:
 TG30 = 0.76 [30] Min. Au Contact Area
 2.54 [100] Min. SnPb Terminal Area
 1.27 [50] Min. Ni All over
 (RIA E2 & C2 apply)

TR40B = 0.127 [5] Min. Hard Au Contact Area, Lubricated
 1.02 [40] Min. PdNi Contact Area
 0.10 [4] Min. Pd Strike Contact Area
 2.54 [100] Min. SnPb Terminal Area
 1.27 [50] Min. Ni all over
 (RIA E2 & C2 apply)

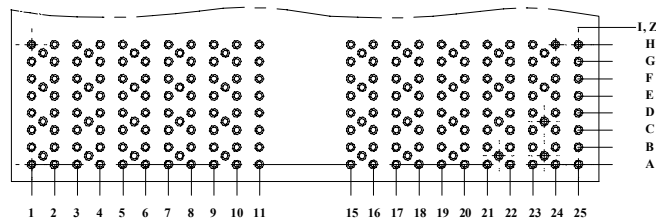
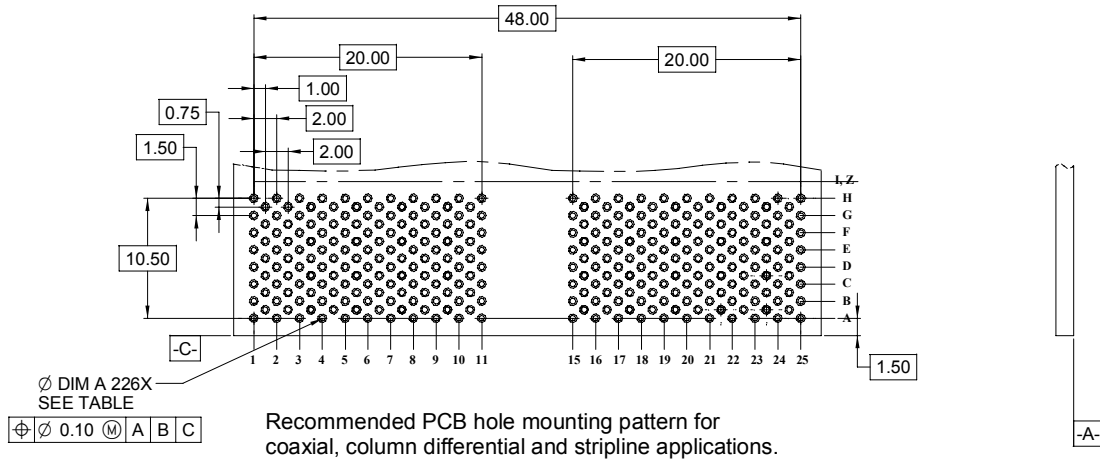
For non-standard configurations contact sales representative

TS-2081-02
 Sheet 2 of 3

3M™ MetPak™ HSHM Press-Fit Header

2 mm Type RAH, 176 Signal Contacts, 8 Rows, Right Angle

HSHM Series



HOLE PLATING TABLE mm [in.]

FINISHED HOLE DIA. "A"	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]

Regulatory Information Appendix

3M Electronic Solutions Division/Interconnect

EUROPE

Appendix E1: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

This product is RoHS Compliant 2005/95/EC.

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

Appendix E2: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC

This product contains lead in the compliant pin area in excess of the maximum concentration value allowed but is compliant by exemption under EU Commission Decision 2005/747/EC.

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

Appendix E3: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment as amended by Commission Decision 2005/618/EC.

This product contains lead in the solder tail area in excess of the maximum concentration value allowed.

Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

Appendix E4: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

This product contains decaBDE in the insulating material in excess of the maximum concentration value allowed but is compliant by exemption under EU Commission Decision 2005/17/EC.

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.