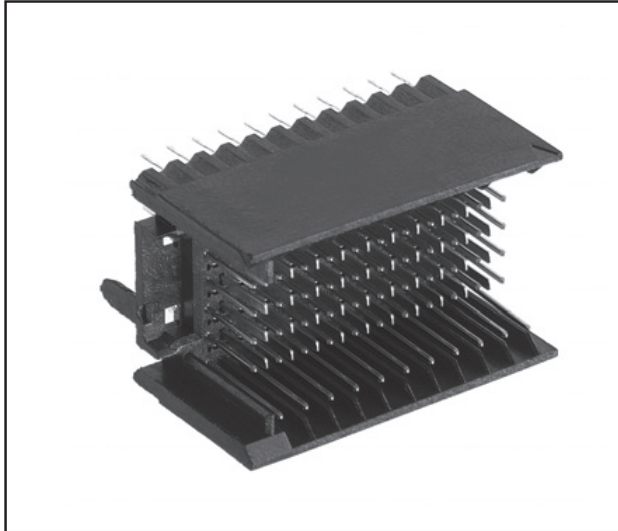


3M™ MetPak™ HSHM Press-Fit Header

2 mm Type CR, 55 Signal Contacts, 5 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
- 63 mated lines per linear inch
- 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: November 9, 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 Ω Single-ended, 100 Ω Differential

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

Insulation Resistance: 10^4 M Ω @ 100 V_{DC}

Withstanding Voltage: 750 V_{rms}

Environmental

Temperature Rating: -55° C to 125° C

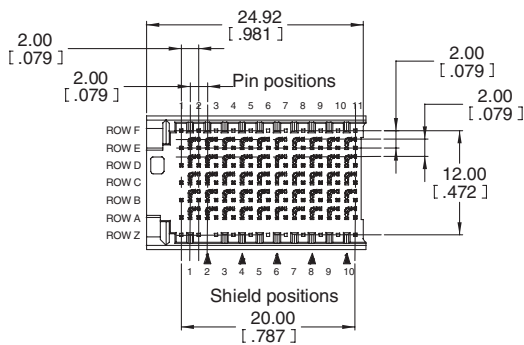
UL File No.: E68080

MetPak is a trademark of 3M Company.

3M™ MetPak™ HSHM Press-Fit Header

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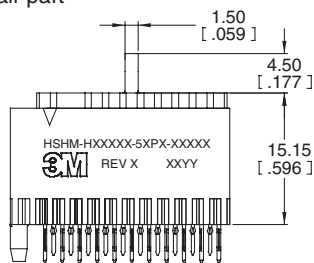


mm (Inch)

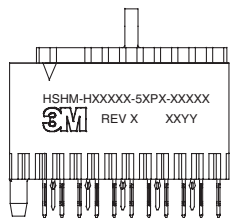
| Tolerance Unless Noted | | |
|------------------------|------|-------|
| | 0 | 0.0 |
| mm | ±3 | ±0.3 |
| | 0.00 | ±0.13 |

[] Dimensions for Reference Only

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

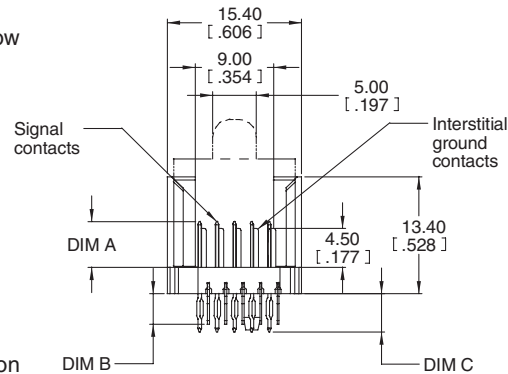


Coaxial, column differential and stripline configuration shown with protective caps*



Row differential configuration shown with protective caps*

* Caps to be removed after press-fit installation process



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

Standard Configuration
DIM A = 5.3 mm for rows A through E
For non-standard configurations, contact sales representative

Ordering Information

HSHM-H055CRX - 5CPX-XXXXX (rows F 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"]:

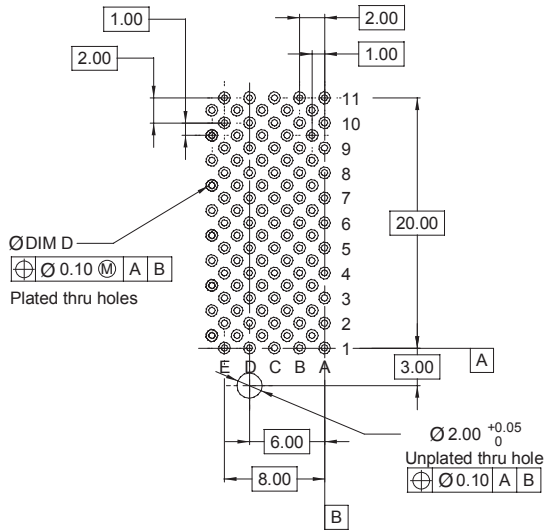
- TG30 = 0.76 [30] Min. Au Contact Area
2.54 [100] Min. SnPb Terminal Area (RIA C2 & E2 apply)
1.27 [50] Min. Ni All over
Standard Option
- TG30L = 0.76 [30] Min. Au Contact Area, Lubricated
2.54 [100] Min. SnPb Terminal Area (RIA C2 & E2 apply)
1.27 [50] Min. Ni All over
Typically higher make order 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)

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Sheet 2 of 3

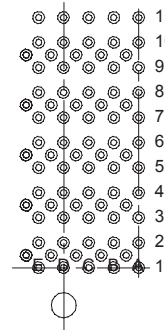
3M™ MetPak™ HSHM Press-Fit Header

2 mm Type CR, 55 Signal Contacts, 5 Rows, Straight

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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 left view 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

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- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru