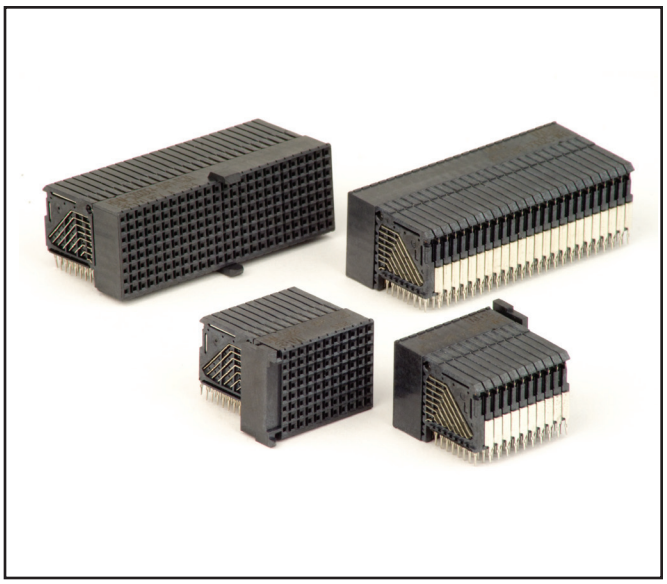
3M™ Ultra Hard Metric (UHM) Press-Fit Socket

2 mm, D, DPWR, DE, E, FL & FR Types: 176, 200 or 88 Signal Contacts, 8 Rows, Right Angle UHM Series



- 7+ Gbps data rates when mated to standard IEC 61076-4-101 headers.
- Low crosstalk at high frequencies
- 50/100 Ω (single-ended/differential) impedance
- Modular/scalable format IEC 61076-4-101
- Press-fit headers and receptacles
- 101 mated lines per linear inch
- Dual beam contact construction for high reliability
- End-to-end stackable with 8-Row 3M™ CP2, HM, UHM and HSHM Sockets
- Mates with 3M™ CP2, HM, UHM, HSHM Headers
- See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of www.3Mconnector.com for compliance information (RIA E1 & C1 apply)

Date Modified:February 15, 2010

Physical

Insulation:

Material: High Temperature Thermoplastic (LCP) - black or natural

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 with HSHM & UHM headers)

Engagement Force (Nominal): 0.32 N [33 g] Signal, (0.22 N [22 g] Shield with HSHM & UHM headers)

Separation Force (Nominal): 0.20 N [20 g] Signal, (0.20 N [20 g] Shield with HSHM & UHM headers)

Wipe (Nominal, Shortest Contact): 2.67 mm [0.105 in] Signal, 1.57 mm [0.062 in] Shield

Application: These modules are not suitable for stand-alone use, additional guide features recommended per IEC 61076-4-101

Electrical:

Data Rate: 7+ Gbps data rates (when mated to standard IEC 61076-4-101 headers)

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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Interconnect Solutions
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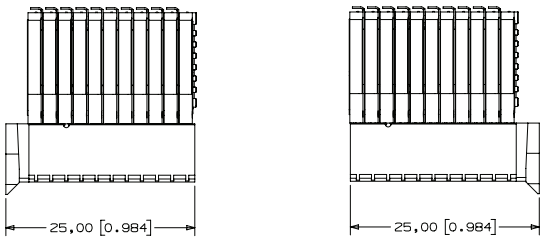

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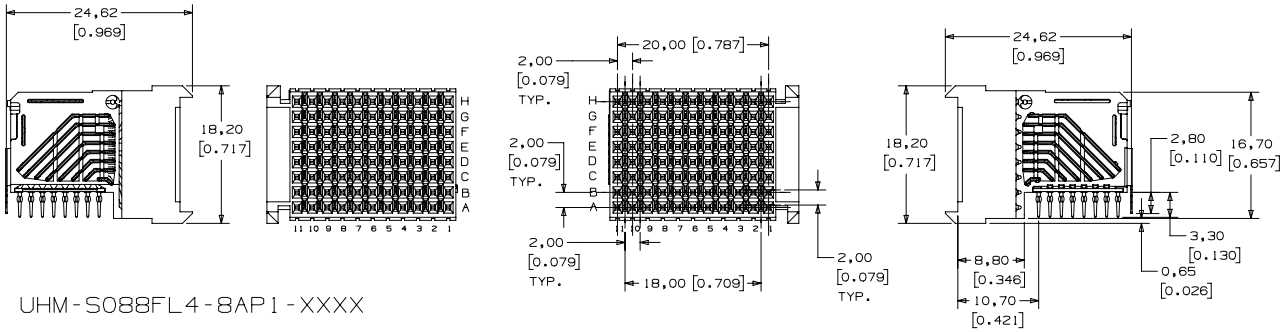

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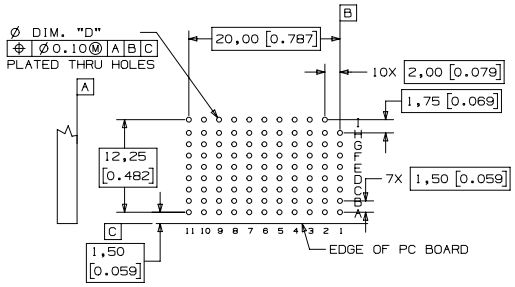

RECOMMENDED HOLE PATTERN

mm
[Inch]

Tolerance Unless Noted			
	0.	.0	.00
mm	1	0.3	0.13

[ ] Dimensions used for Reference Only

Hole Plating Table mm [in.]			
Finished Hole Dia. (D)	**Cu. Thickness**	**SnPb Thickness**	**Drilled Hole Dia.**
0.550 - 0.650 [.0217 - .0256]	0.025 - 0.045 [.0010 - .0018]	0.008 -0.018 [.0003 - .0007]	0.686 - 0.727 [.0270 - .0286]

Ordering Information

UHM-SXXXXX4-8AP1-XXXX

Number of Signal Contacts & Body Style:
088FL, 088FR, 176D, 176DPWR, 200DE, 200E

High Speed Option:
4 = 50 Ohm Coaxial single-ended and 100 Ohm Differential pair applications

Tail Length:
1 = 3.3 mm

Plating um [u"]:
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)

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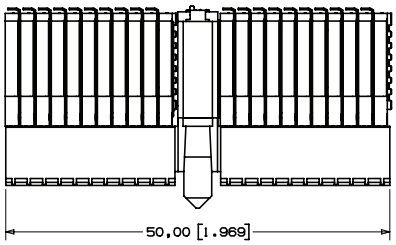

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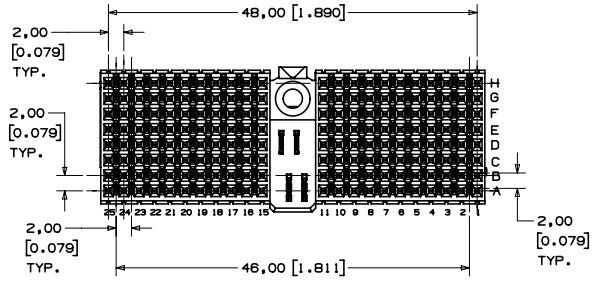

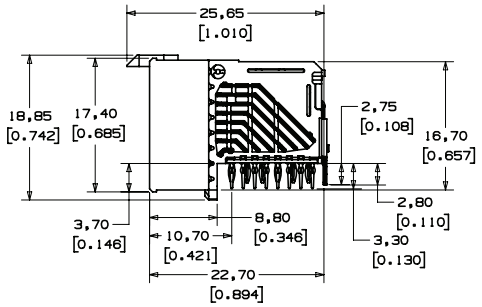

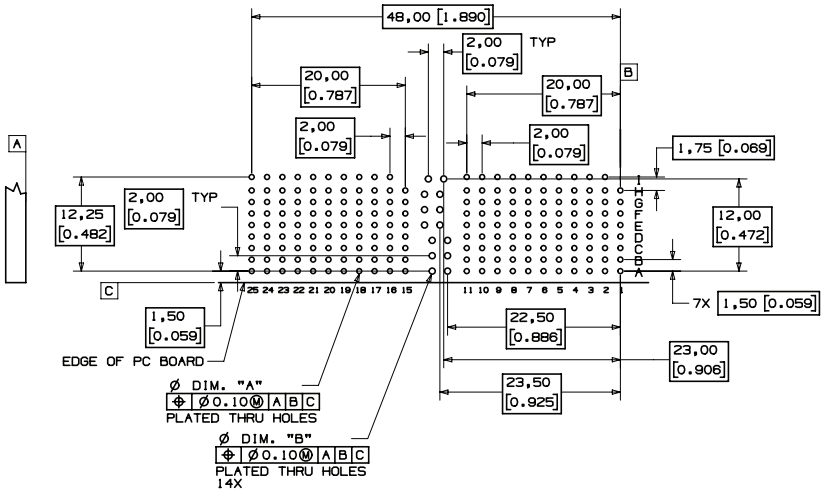

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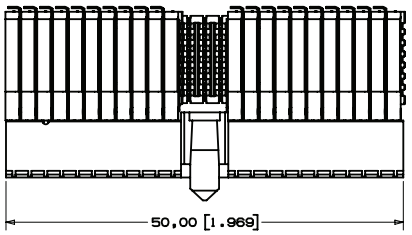

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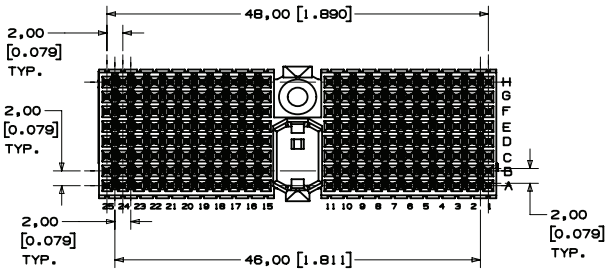

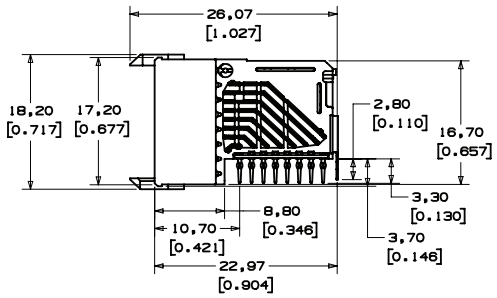

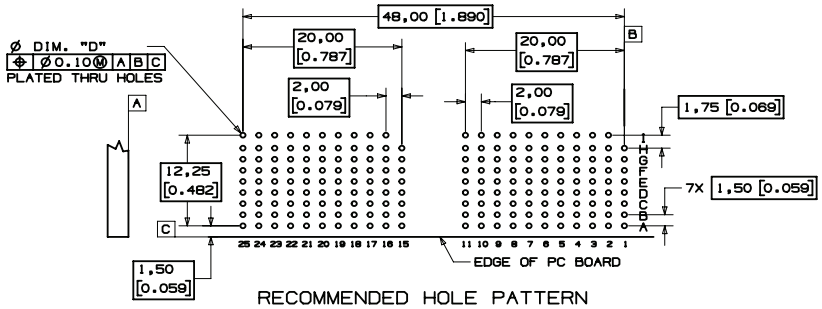

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mm
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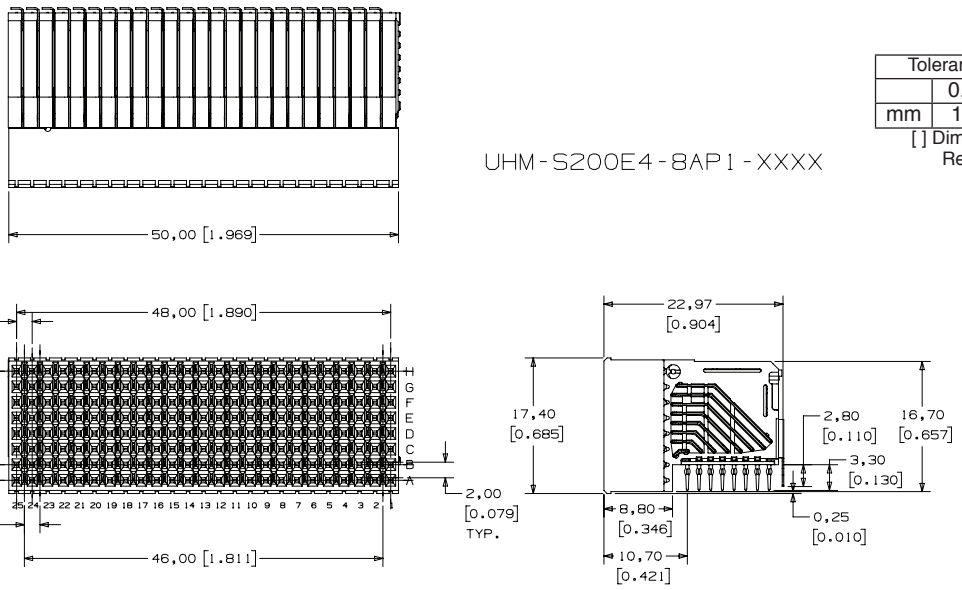

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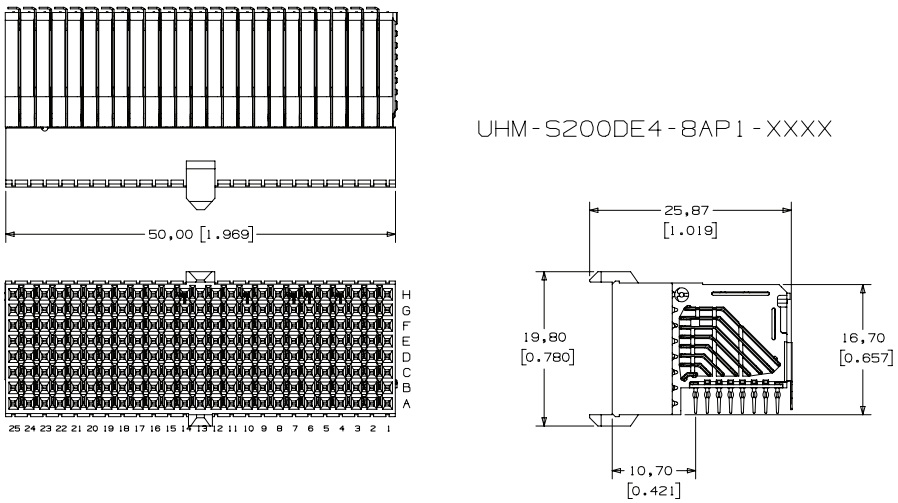

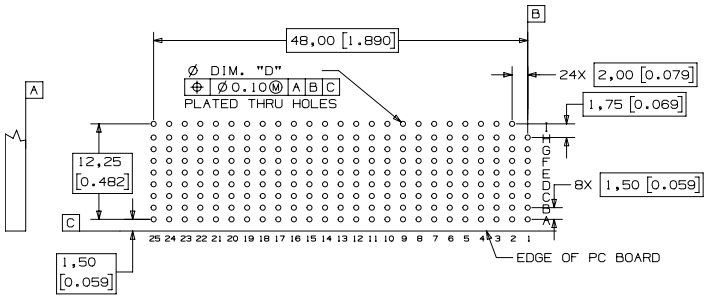

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