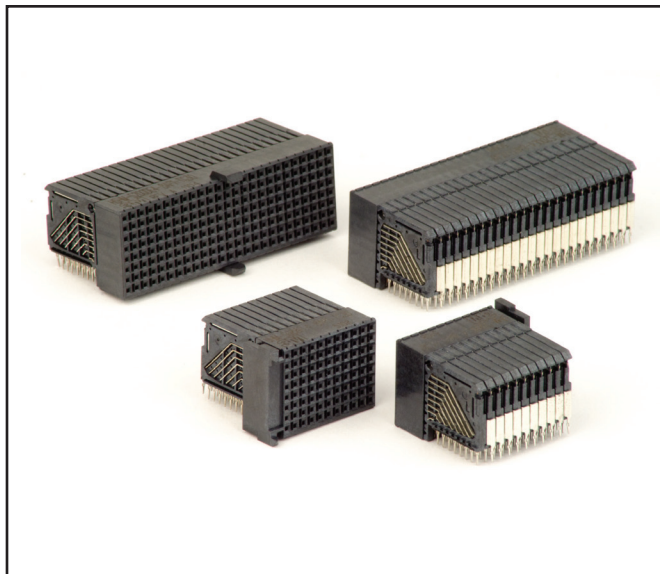


3M™ Ultra Hard Metric (UHM) Press-Fit Socket

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

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Sheet 1 of 5

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

Environmental

Temperature Rating: -55° C to 125° C

UL File No.: E68080

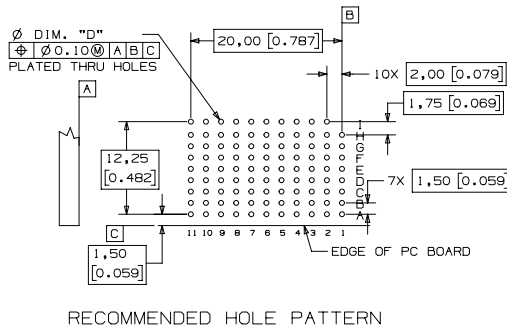
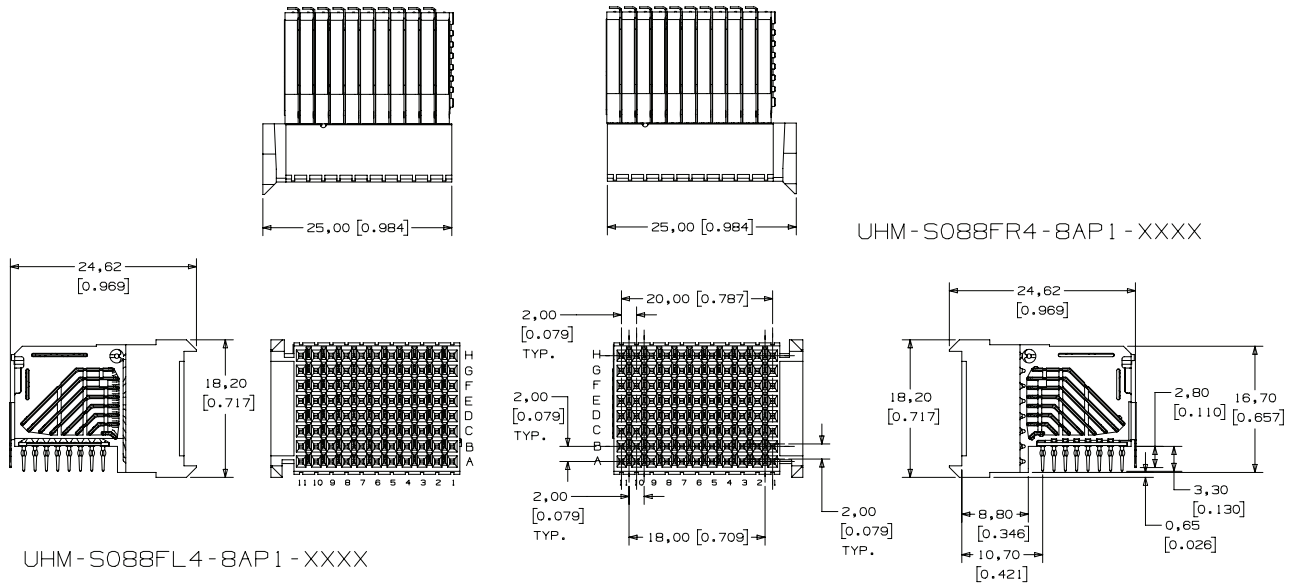
3M
Electronic Solutions Division
Interconnect Solutions
<http://www.3Mconnector.com>

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

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UHM Series



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

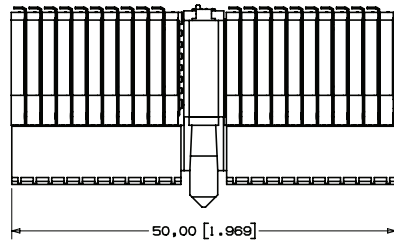
Tail Length: _____
 1 = 3.3 mm

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)

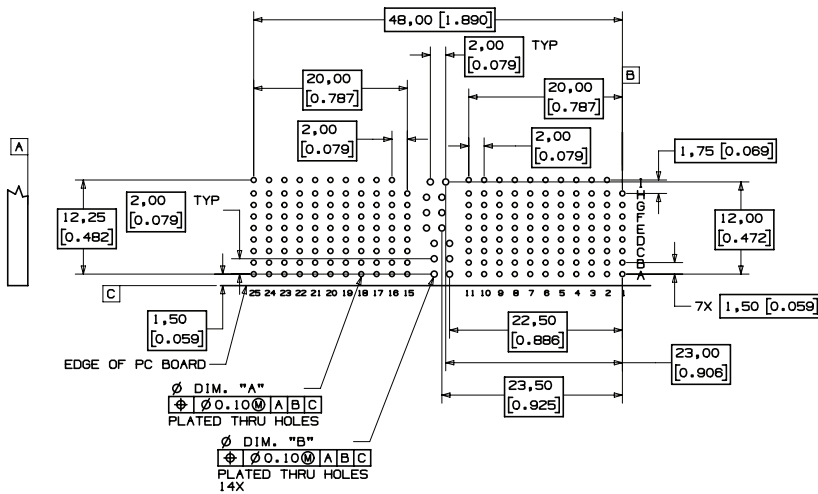
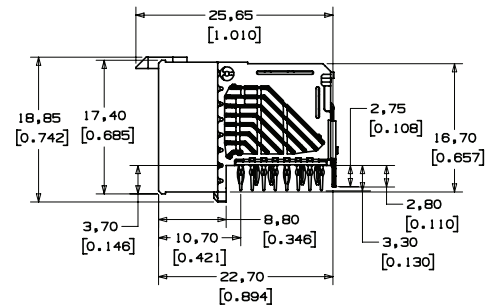
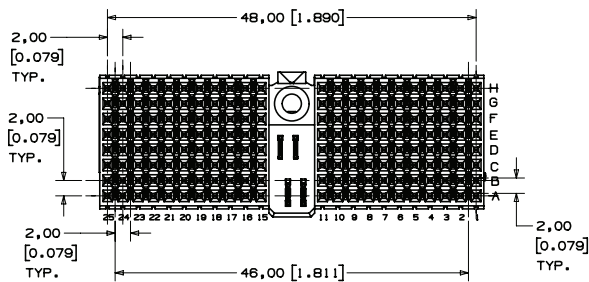
3M™ Ultra Hard Metric (UHM) Press-Fit Socket

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

UHM Series



UHM-S176DPWR4-8AP1-XXXX



RECOMMENDED HOLE PATTERN

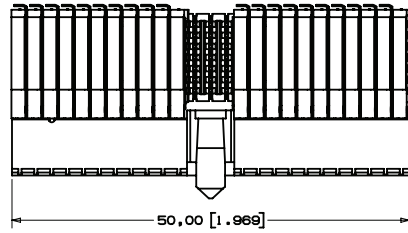
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		Tolerance Unless Noted		
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mm		1	0.3	0.13

[] Dimensions used for Reference Only

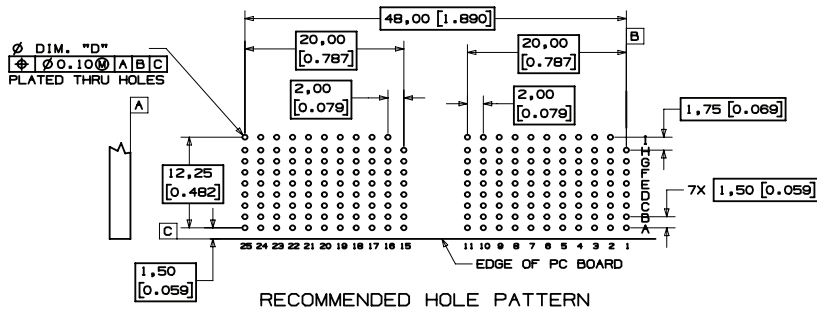
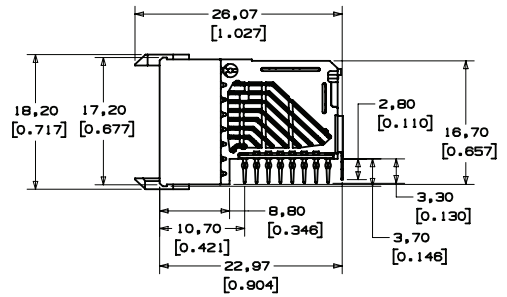
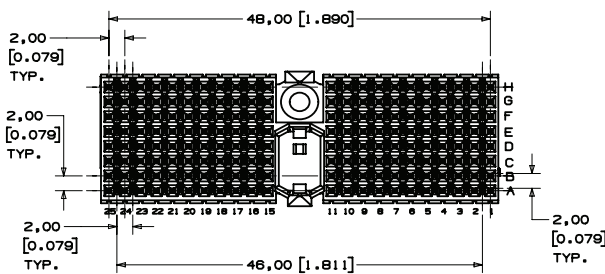
3M™ Ultra Hard Metric (UHM) Press-Fit Socket

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

UHM Series



UHM-S176D4-8AP1-XXXX



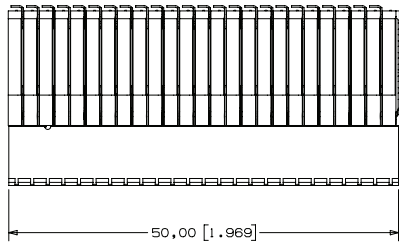
		mm [Inch]		
		Tolerance Unless Noted		
		0.	.0	.00
mm		1	0.3	0.13

[] Dimensions used for Reference Only

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

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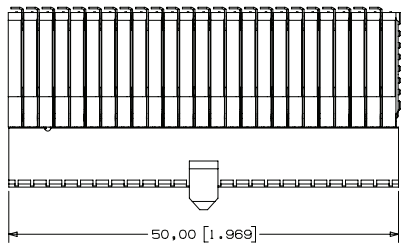
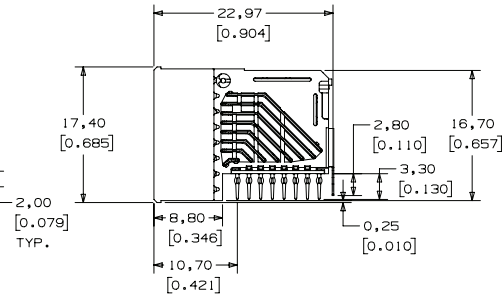
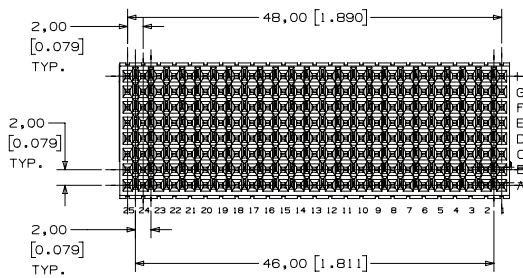
UHM Series



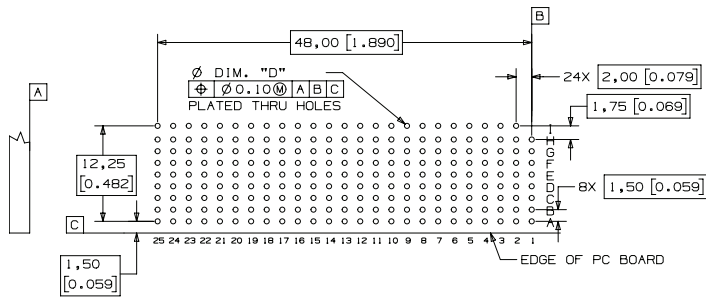
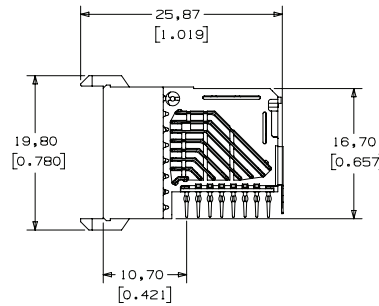
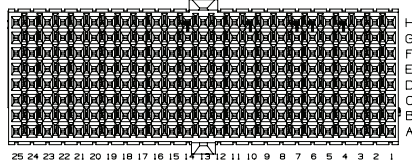
UHM-S200E4-8AP1-XXXX

mm [Inch]			
Tolerance Unless Noted			
0.	.0	.00	
mm	1	0.3	0.13

[] Dimensions used for Reference Only



UHM-S200DE4-8AP1-XXXX



RECOMMENDED HOLE PATTERN

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Sheet 5 of 5

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