

FEATURES AND SPECIFICATIONS

Features and Benefits

- Utilizes standard MT ferrule as the optical interface providing up to 96 fiber interconnects
- Patented dual shutter design for dust and eye safety protection
- Generous mechanical float in the horizontal axis (X), vertical axis (Y), and depth axis (Z)
- Compatible with Molex's FlexPlane™ optical flex circuit technology
- Removable alignment pins allow complete cleaning of the male MT ferrule end face

Reference Information

Mounting Style: Rivet or Screw
Housing: UL V-0



HBMT™ MT High Density Backplane Interconnect System



With the versatility of an edge card connector, the HBMT™ MT High Density Backplane provides a smooth transition from pc board components to the backplane. Utilizing a standard MT ferrule as the optical interface, the HBMT provides up to 96 fiber interconnects. It is ideal for connecting backplanes and cross connect systems in computing equipment, telecommunication equipment including transmitters, switches, multiplexers and demultiplexers. Together with Molex's FlexPlane Optical Flex Circuitry System, the High Density

Backplane MT provides a total optical backplane solution. The Molex Backplane MT features a blind-mate interface for easy insertion, removal and exchange of the daughter card without disrupting the input/output ports or associated cabling. It is designed to meet the requirements of Telcordia GR-1435-CORE. This backplane system has a low-profile 6.00mm (.236") backplane fiber and a 14.80mm (.583") maximum height, ensuring compatibility with 20.00mm (.787") card spacing and European ETSI rack standards.

The HBMT uses a single housing that can contain up to four MT ferrules and can be configured for either multimode or single mode ribbon fiber. The system also supports the MT low loss and 24 fiber MT ferrule technology, offering improved performance and density. RJ-45 mechanical latching provides easy insertion of individual terminated MT ferrules. A patented dual shutter design offers dust and eye safety protection.

ORDERING INFORMATION

HBMT Daughtercard Connectors

Part No.	Mounting	Float	Plating	Dimensions			Mates With
				A	B	C	
86105-0100	Rivet	No	No	1.457" (37.00mm)	0.135" (3.43mm)	0.275" (6.98mm)	86105-0000, 86105-1000
86105-1100	Screw	No	No	1.457" (37.00mm)	0.135" (3.43mm)	0.275" (6.98mm)	86105-0000, 86105-1000
86105-2100	Screw	Yes	No	1.497" (38.00mm)	0.090" (2.29mm)	0.295" (7.49mm)	86105-0000, 86105-1000, 86105-2000
86105-2300	Screw	Yes	Yes	1.497" (38.00mm)	0.090" (2.29mm)	0.295" (7.49mm)	86105-2200

HBMT Backplane Adapters

Part No.	Mounting	Float	Plating	Dimensions					Mates With
				A	B	C	D When E < 0.158mm (4")	D When E ≥ 0.158mm (4")	
86105-0000	Rivet	Yes	No	1.263" (32.08mm)	0.570" (14.48mm)	0.095" (2.41mm)	0.367" (9.32mm)-E	0.209" (5.31mm)	86105-0100, 86105-1100, 86105-2100
86105-1000	Screw	Yes	No	1.263" (32.08mm)	0.570" (14.48mm)	0.090" (2.29mm)	0.417" (10.59mm)-E	0.259" (6.58mm)	86105-0100, 86105-1100, 86105-2100
86105-2000	Screw	No	No	1.233" (31.32mm)	0.540" (13.72mm)	0.090" (2.29mm)	0.417" (10.59mm)-E	0.259" (6.58mm)	86105-2100
86105-2200	Screw	No	Yes	1.233" (31.32mm)	0.540" (13.72mm)	0.090" (2.29mm)	0.417" (10.59mm)-E	0.259" (6.58mm)	86105-2300

OPTICAL PERFORMANCE SPECIFICATIONS

Characteristics	Units	Minimum	Average	Maximum	Comments
Insertion Loss:					
9/125μm Singlemode Fiber	dB		0.35	0.75	
62.5/125μm Multimode Fiber	dB		0.3	0.75	
9/125μm Enhanced Singlemode 8 Fiber	dB		0.14	0.45	
Return Loss: Singlemode	dB			<60	Angle Polish
Temperature Range	°C	-40		+80	40 Cycles, 0.05 dB Maximum Change
Durability	dB			<0.2	1000 Mate/Unmate Cycles

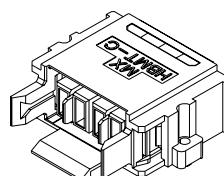
Technical drawing of the HBM-C MX sensor assembly, showing top and side views with dimensions.

Top View Dimensions:

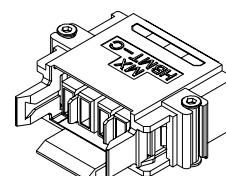
- Overall width: 1.663" (42.2 mm)
- Overall height: 1.444" (36.7 mm)
- Label positions: RED, GREEN, BLUE, YELLOW
- Label text: HBM-C MX
- DUST CAP

Side View Dimensions:

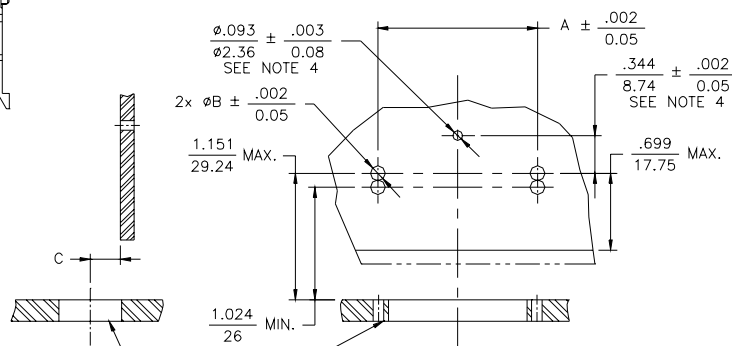
- Overall height: 1.444" (36.7 mm)
- Top flange thickness: .583" (14.81 mm)



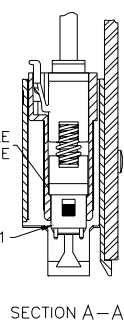
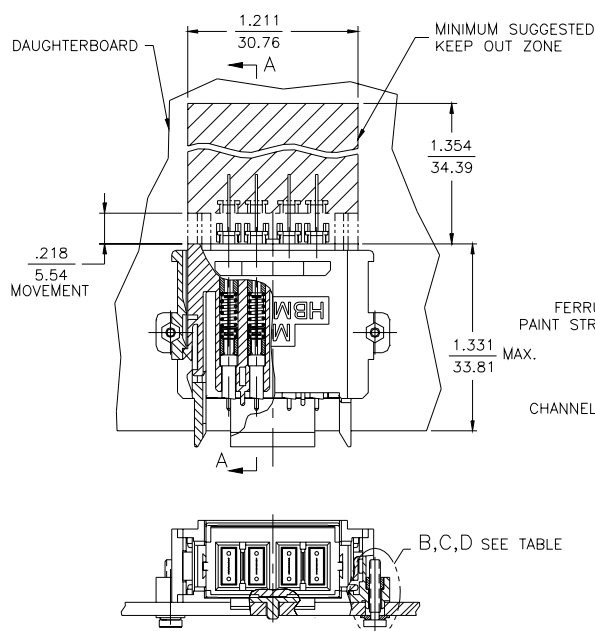
ISOMETRIC VIEW
RIVET MOUNTING



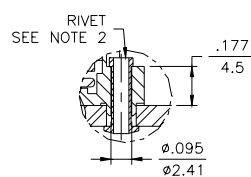
ISOMETRIC VIEW
SCREW MOUNTING WITH FLOAT



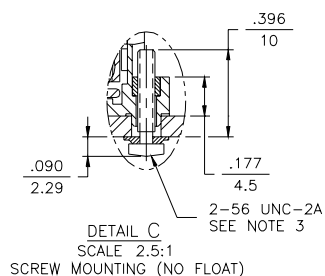
RECOMMENDED MOUNTING PATTERN
SCALE 1.25:1



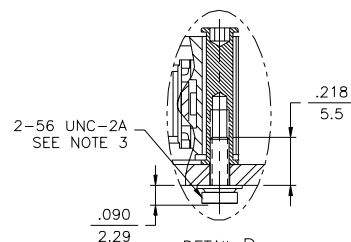
SECTION A-A



DETAIL B
SCALE 2.5:1
RIVET MOUNTING (NO FLOAT)



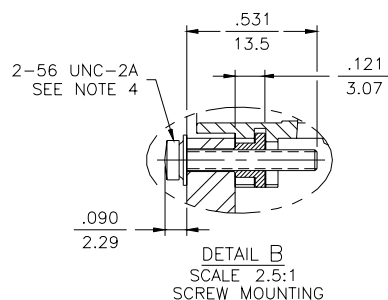
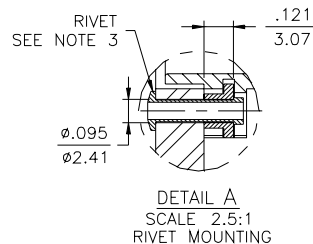
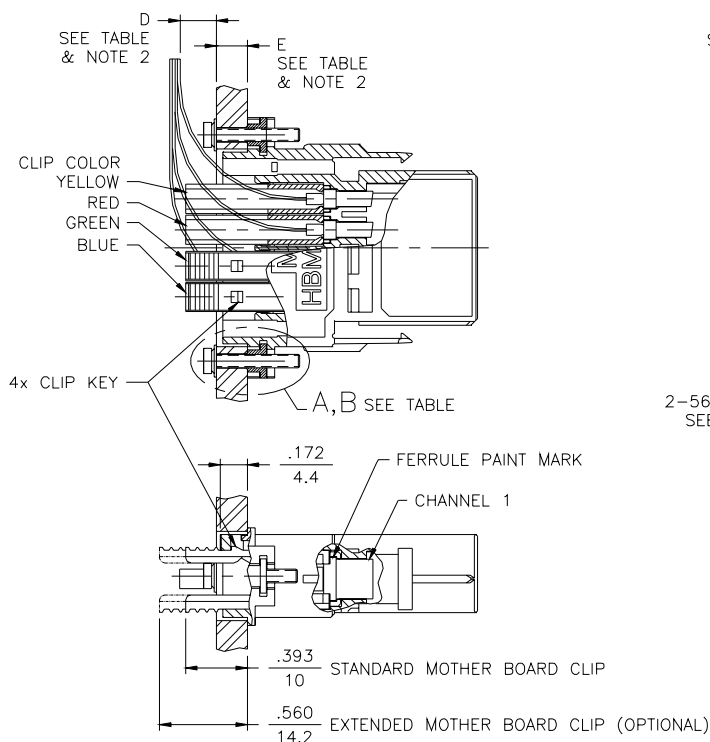
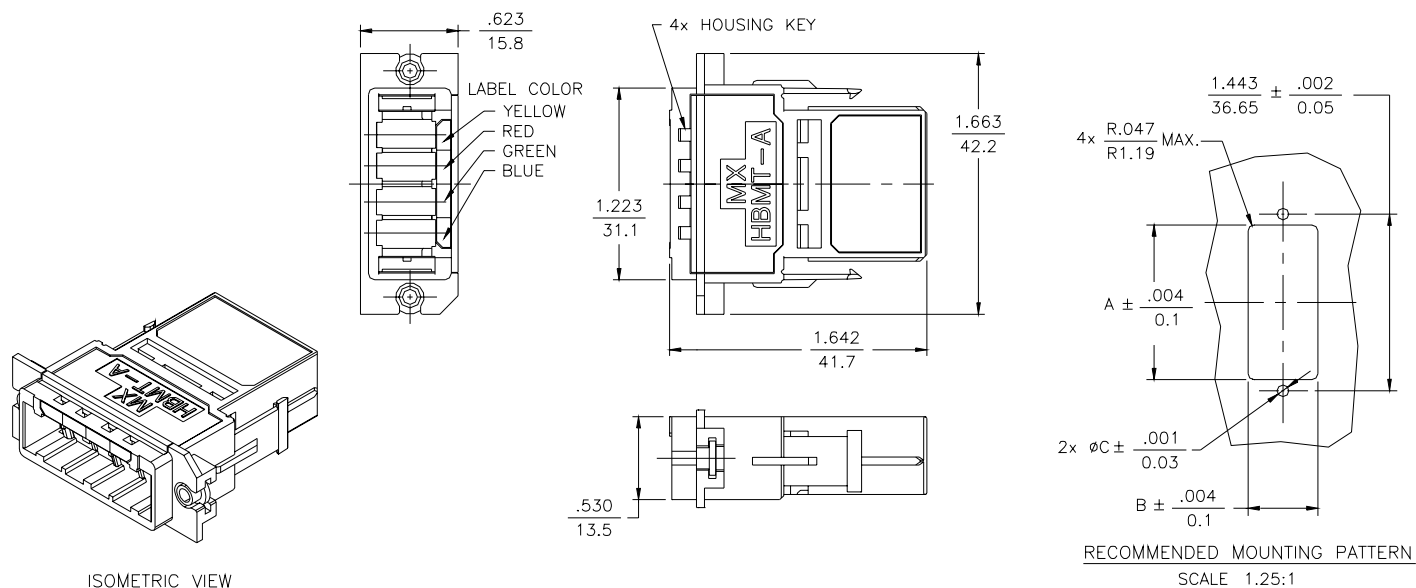
DETAIL C SEE NOTE 3
SCALE 2.5:1
SCREW MOUNTING (NO FLOAT)



2.29 DETAIL D
SCALE 2.5:1
SCREW MOUNTING (WITH FLOAT)

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HBMT MOTHERBOARD HOUSING

All Dimensions in **INCHES**
mm