

High-Density MT Ferrule Optical Cable Assemblies Extend Space and Cost Savings Up to 72 Fibers

With the addition of the High Density MT (HDMT) ferrule optical cable assembly line, Molex further strengthens its position as a leader in optical backplane and front panel interconnect solutions. These cable assemblies offer multiple space-saving options on the front panel by using the 72-fiber MT ferrule in the industry standard MTP* connector, as well as high-density panel-mount Array connectors. In addition, by incorporating the HDMT ferrule in the HBMT™ backplane interconnect, customers can benefit from the highest-density blind-mate interface in the industry.

These HDMT ferrules extend the capabilities of traditional MT-style connectors beyond 12 and 24 fibers, making configurations up to 72 fibers possible. Molex has developed termination and polishing capabilities achieving insertion-loss levels that are comparable to those of 24-fiber terminations.

This significant increase in fibers in a single connector offers considerable space savings, along with reduced installation time and cost. Molex is developing flexible ruggedized trunk cabling solutions that utilize the HDMT ferrules, which are designed to reduce fiber installation costs in central offices and data center applications. Low profile, high fiber count trunk cables streamline the routing of the trunk cables and reduce the number of fiber pulls.

Features and Benefits

- Up to 72 fibers in the traditional MT Ferrule footprint increases density without increasing front panel real-estate
- Standard MPO/MTP connector interface ensures industry compatibility
- Optical Insertion Loss below 1.0dB across all 72 channels meets industry expectations
- Bare ribbon breakouts ensure smooth transition from 12-fiber transceivers to 72-fiber MTP on the front panel
- Jacketed 72-fiber cable assemblies are capable of rugged chassis-to-chassis interconnects



SPECIFICATIONS

High Density MT Connector Comparison

Connector Type	Maximum No. of Fibers	No. of Ports	Density Per Connector
MTP	72	1	72
HBMT	36	4	144
Array	36	8	288

Reference Information

Packaging: Custom per assembly

Mates with: MPO/MTP connectors and MPO transceiver interfaces

Optical

Insertion Loss (IL):

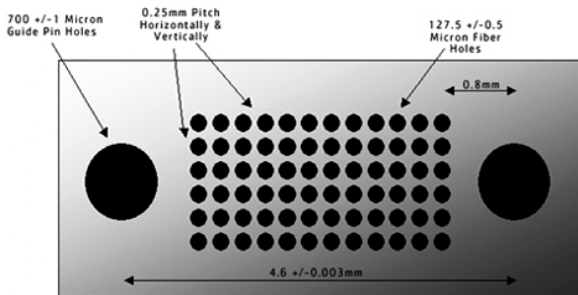
Multimode 50/125µm 0.35dB Typ, <1.0dB Max
 Multimode 62.5/125µm 0.40dB Typ, <1.0dB Max
 Singlemode is not available

Mechanical

Durability: <0.3dB over 200 cycles

Physical

Connector Housing: PBT (V0)
 Spring Push: PEI (V0)
 Pin Holder: SS 400
 Spring: SS 304
 Crimp Ring: Brass
 Boot: TPE (V0)
 Dust Cap: TPE (V0)
 Ferrule: MM is Thermoset
 Operating Temperature: -40°C to +85°C



High Density MT Interface Details

*MTP is a registered trademark of US Conec Ltd.

APPLICATIONS

- Parallel optic transceiver interconnection including Xanoptix* transceivers
- High Density interconnects for:
 - OE modules
 - PC cards and patch panels
 - Optical backplanes
 - Optical switch and routers
 - Data communication centers

molex® High Density MT Cable Assemblies

86275

High Density MT cable assembly panel-mounted with 6 by 12-fiber ribbons to six optical transceivers



The 72-fiber MT ferrule offers the highest density front-panel interface in the industry

ORDERING INFORMATION

Order No.	Description	Description
86275-0008	Generic Drawing of 72-Fiber Bare Ribbon Cable Assembly	50/125 or 62.5/125µm
86275-0009	Generic Drawing of 72-Fiber Jacketed Cable Assembly	50/125 or 62.5/125µm

Notes:

Only sold as terminated jumpers or pigtails
 The cable construction will be customer and system specific
 All new opportunities should be reviewed with the product manager; contact Molex for details
 *Xanoptix is a trademark of Xanoptix, Inc.

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