

**High-density Circular MT Cable Assemblies are designed for critical, high-reliability applications**

Molex's rugged, high-density circular MT cable assemblies are designed to meet requirements mandated by telecommunication, military, medical and many other industries. Utilizing the low-profile Circular MT connector, these cable assemblies are designed to meet or exceed the mechanical specifications of traditional datacommunication and telecommunication inter-chassis connections.

The Circular MT assemblies use a single MT ferrule housed in a nickel-plated, metal-connector shell. Fiber counts range from 12 to 72 fibers. The metal housing and stainless steel push-pull locking ring provide a more robust design than the current industry standard MPO connector polymer housings and latches. The MT ferrule is recessed in both the circular connector and receptacle housings, providing an additional improvement over traditional MT connectors. Recessing the ferrule ensures it is scoop-proof, preventing damage to the precise MT alignment pins and ferrule endface during handling and mating of the connector. The circular MT receptacle housing features a deep,



polarized mating cavity which will reduce alignment-pin hole damage that may occur during the mating process with traditional MT connector systems.

Molex's circular MT cable assemblies offer a more robust MT ferrule-based interface versus ribbon-based optical interfaces, which have traditionally been rectangular. This new design ensures improved alignment benefits, increased pull strength and the use of new round, ribbon-cable constructions. Circular

MT connectors will be sold only as terminated cable assemblies.

Circular MT Cable Assemblies complement Molex's existing line of MT products. For more information on Molex's extensive optical product offering, please visit: [www.molex.com/fiber](http://www.molex.com/fiber).

**Features and Benefits**

- MT ferrules are recessed in the connector and receptacle housings ensuring scoop-proof mating which prevents damage to alignment pins and ferrule endface
- Aluminum connector and receptacle housings provide a robust interconnect with exceptional pull strength
- O-ring and Electro Magnetic Interference (EMI) gasket provide environmental seals that isolate dust, moisture and EMI
- Designed for round, multi-fiber jackets providing improved fiber management
- Standard MT ferrules which provide an industry-standard interface with high density and reliable performance
- 19.05mm (.750") diameter receptacle features a small footprint and similar size to industry standard MPO connector

**SPECIFICATIONS**

**Reference Information**

Packaging: Custom per assembly

**Optical**

Ferrule Type: MT Ferrule

Fiber Density: 12 to 72 fibers

Fiber Type:

Single mode: 9/125µm

Multimode: 50/125µm or 62.5/125µm

Insertion Loss:

Single mode:

8 Fiber: 0.12 dB typical <0.5dB max.

12 Fiber: 0.15 dB typical <0.75dB max.

24 Fiber: 0.20 dB typical <0.75dB max.

Multimode

12 Fiber: 0.15 dB typical <0.5dB max.

24 Fiber: 0.22 dB typical <0.75dB max.

36 Fiber: 0.30 dB typical <1.0dB max.

72 Fiber: 0.35 dB typical <1.0dB max.

**Mechanical**

Operating Temperature Range: -5 to +75°C

Durability: 200 matings

**Physical**

Housing: Nickel-plated aluminum

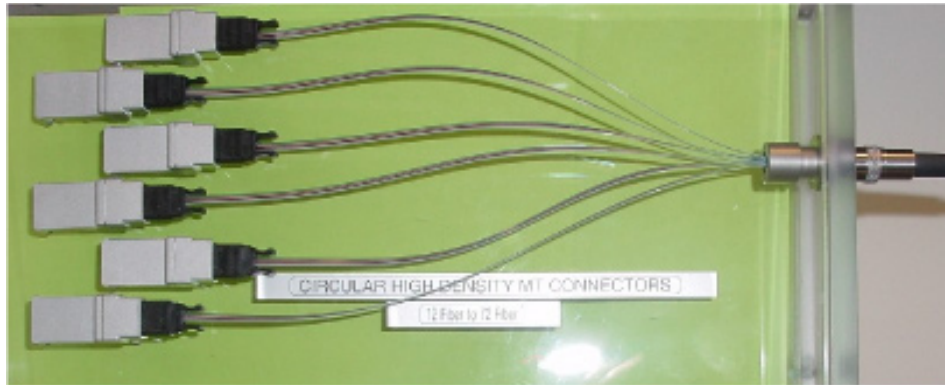


Circular MT connector



Circular MT receptacle

- Telecommunication Equipment
  - Hubs, routers, data centers
- Instrumentation and Medical Equipment
  - Test equipment, switches, video systems



ORDERING INFORMATION



**Order Numbers Supplied as Example Only**

Order No.	Component	Component Width	Component Length	Cable Length <sup>1</sup>	Fiber Density <sup>2</sup>
106277-0001*	Connector, Double-Ended Assembly	12.70mm (.500")	36.30mm (1.429")	3.00m (9.840')	24 Fiber
106277-1001*	Receptacle, Single-Ended Assembly	19.05mm (.750")	28.70mm (1.130")	3.00m (9.840')	24 Fiber
106277-0000*	Connector and Receptacle System Cable Assembly	N/A	N/A	3.00m (9.840')	24 Fiber

\*Only sold as terminated cable assemblies. Circular connector and receptacle components will not be sold separately. Part numbers and sales drawings will be established based on specific customer design requirements.

<sup>1</sup>Cable Length: Dependent upon customer design requirement

<sup>2</sup>Fiber Density: Fiber counts range from 12 to 72 fibers, dependent upon customer design requirement

**Americas Headquarters**  
Lisle, Illinois 60532 U.S.A.  
1-800-78MOLEX  
amerinfo@molex.com

**Far East North Headquarters**  
Yamato, Kanagawa, Japan  
81-462-65-2324  
feninfo@molex.com

**Far East South Headquarters**  
Jurong, Singapore  
65-6-268-6868  
fesinfo@molex.com

**European Headquarters**  
Munich, Germany  
49-89-413092-0  
eurinfo@molex.com

**Corporate Headquarters**  
2222 Wellington Ct.  
Lisle, IL 60532 U.S.A.  
630-969-4550  
Fax: 630-969-1352

Visit our website at [www.molex.com/product/circularmt.html](http://www.molex.com/product/circularmt.html)