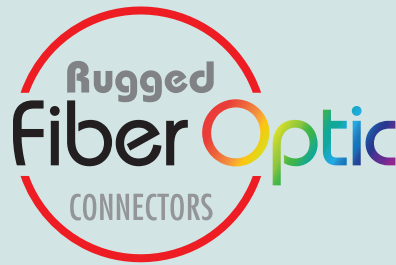


GLENAIR
SIGNATURE
FIBER OPTIC
CONNECTION
SYSTEMS



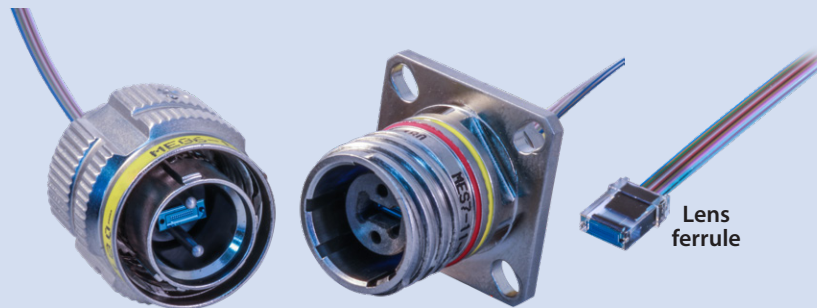
Rugged High-Density
MT Ferrule Fiber Optic
Connection System—with
Mil-Grade SuperNine®
Packaging



Ruggedized, high-density MT ferrule
fiber optics in Glenair Signature
SuperNine® aerospace-grade
MIL-DTL-38999 connectors

- Singlemode and multimode fiber
- Low insertion loss
- Environmental sealing: IP68 in the mated condition
- Physical contact and expanded beam
- Available in composite

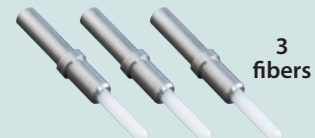
ALSO AVAILABLE: EXPANDED-BEAM MT SOLUTIONS



RUGGED, HIGH-DENSITY



24
fibers



3
fibers

Up to 24 fibers in a single compact,
lightweight ferrule (7mm x 3mm)

ULTRA HIGH-DENSITY MT Ferrule



Signature fiber optic connection system: SuperNine D38999

SuperNine® connectors with plug-and-play MT ferrule accommodation - Shell Size / Insert Arrangements			
Shell Size-Insert Arrangement 11-1 Up to 24 fibers (1 MT ferrule)	Shell Size-Insert Arrangement 13-2 Up to 48 fibers (2 MT ferrules)	Shell Size-Insert Arrangement 15-3 Up to 72 fibers (3 MT ferrules)	Shell Size-Insert Arrangement 17-4 Up to 96 fibers (4 MT ferrules)

SuperNine® MT Performance Specifications	
Test Description	Performance Requirements/Specifications
Optical Insertion Loss, Multimode Expanded Beam	-0.5 dB Typical (50/125)
Optical Insertion Loss, Multimode PC	-0.3 dB Typical (50/125)
Optical Insertion Loss, Singlemode PC	-0.3 dB Typical (9/125)
Optical Insertion Loss, Singlemode APC	-0.3 dB Typical (9/125)
Optical Back Reflection, Multimode Expanded Beam	Better than -28 dB
Optical Back Reflection, Singlemode PC	Better than -30 dB
Optical Back Reflection, Singlemode APC	Better than -60 dB
Mechanical Shock	300 G Half-sine Pulse, 3 ms Duration, 3 Times Both Direction Each Axis per TIA-455-14A
Vibration, Random	49.5 Grms at Ambient Temperature per MIL-STD-1678-3, Measurement 3201, Test Condition C, 5.3c, 8 hours exposure each axis
Mating Durability	500 Mating Cycles per TIA-455-21A
Humidity *	90%-95% RH, 96 hour Exposure per TIA-455-5C, Method A, Test Condition A
Thermal Cycle *	5 Cycles, -40°C to 85°C with 1 hour Exposure per EIA-364-32F, Condition VIII, Method A
Temperature Life *	85°C for 336 hours per TIA-455-4C

*cable and epoxy dependent

TURNKEY SUPERNINE® MT FIBER OPTIC CABLE SETS

Glenair can design, terminate, and test complex multibranch and point-to-point assemblies incorporating SuperNine® MT connectors. Panel mount MT receptacles may be terminated to standard commercial fiber optic interconnects for termination to board-level transceivers. MT plug assemblies are available with ruggedized backshells or environmental overmolding. Low-profile cable overmolds provide fiber media organization and ribbon-to-wire strain relief.

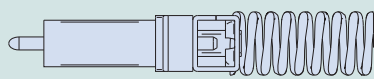
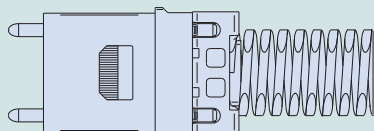


PARALLEL OPTICAL TRANSCIEVERS



The ideal solution for board-level optical-to-electrical conversion utilizing MT fiber optic ferrules.

HOW-TO-ORDER MT FERRULE KITS



MATERIAL/FINISH

- Ferrule: Polyphenylene Sulfide Resin
- Pin Clamp, Spring: Stainless Steel
- Boot: TPE

Sample Part Number		181-139	-1253	-12	M
Basic Part Number	MT Ferrule kit				
Fiber type	-126, -1253, -1253A (See Table I)				
Number of Fibers	-12, -24 (See Table I)				
Ferrule Style	M = Male (use with Plug) F = Female (use with Receptacle)				

Table I					
Dash No.	Fiber Type	End Face	Fiber Size Core/Cladding	No. of Fibers	Ferrule Identification
-126	MM	PC	50/125	12	M-ME12
			62.5/125	24	M-ME24
-1253	SM	PC	9/125	12	E-E12
-1253A	SM	APC	9/125	12	M-ME12
				24	M-ME24

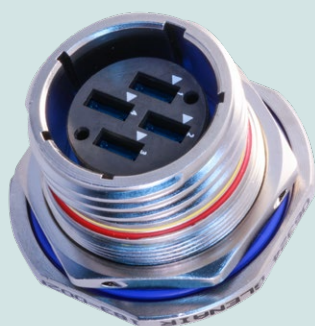
SERIES 183-002

SuperNine MT Fiber Optic Connectors

How to order connectors



SuperNine MT Cable Plug						
Sample Part Number	183-002	ME	G6	-17-4	N	1
Basic Part Number	MT Ferrule Fiber Optic Connector					
Material/Finish Code	See Table I					
Connector Style	G6 = Plug with EMI/RFI ground spring					
Shell Size / Insert Arrangement	11-1, 13-2, 15-3, 17-4 Order MT ferrule kit P/N 181-139					
Alternate Key Position	A, B, C, D, E, N = Normal U = Universal (per MIL-DTL-38999)					
Insert Cavity Clocking Orientation (see Table II)	1 = Standard position 2 = Cavity position rotated 45° to master key/keyway 3 = Cavity position rotated 90° to master key/keyway					

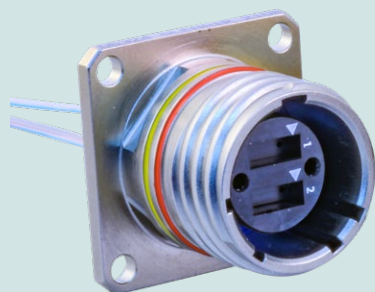


SuperNine MT Jam Nut Mount Receptacle						
Sample Part Number	183-002	ME	08	-17-4	N	1
Basic Part Number	MT Ferrule Fiber Optic Connector					
Material/Finish Code	See Table I					
Connector Style	08 = Jam nut receptacle					
Shell Size / Insert Arrangement	11-1, 13-2, 15-3, 17-4 Order MT ferrule kit P/N 181-139					
Alternate Key Position	A, B, C, D, E, N = Normal U = Universal (per MIL-DTL-38999)					
Insert Cavity Clocking Orientation (see Table II)	1 = Standard position 2 = Cavity position rotated 45° to master key/keyway 3 = Cavity position rotated 90° to master key/keyway					

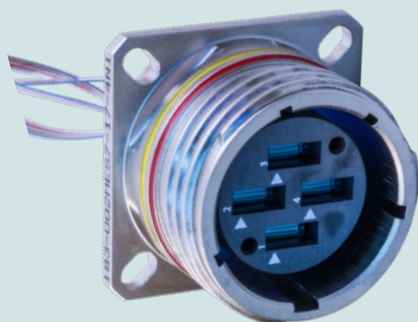


SuperNine MT In-Line Receptacle						
Sample Part Number	183-002	ME	05	-17-4	N	1
Basic Part Number	MT Ferrule Fiber Optic Connector					
Material/Finish Code	See Table I					
Connector Style	05 = In-line receptacle					
Shell Size / Insert Arrangement	11-1, 13-2, 15-3, 17-4 Order MT ferrule kit P/N 181-139					
Alternate Key Position	A, B, C, D, E, N = Normal U = Universal (per MIL-DTL-38999)					
Insert Cavity Clocking Orientation (see Table II)	1 = Standard position 2 = Cavity position rotated 45° to master key/keyway 3 = Cavity position rotated 90° to master key/keyway					

How to order connectors



SuperNine MT Wall-Mount Receptacle, Standard Holes						
Sample Part Number	183-002	ME	H7	-17-4	N	1
Basic Part Number	MT Ferrule Fiber Optic Connector					
Material/Finish Code	See Table I					
Connector Style	H7 = Wall-mount receptacle with round holes					
Shell Size / Insert Arrangement	11-1, 13-2, 15-3, 17-4 Order MT ferrule kit P/N 181-139					
Alternate Key Position	A, B, C, D, E, N = Normal U = Universal (per MIL-DTL-38999)					
Insert Cavity	1 = Standard position					
Clocking Orientation (see Table II)	2 = Cavity position rotated 45° to master key/keyway 3 = Cavity position rotated 90° to master key/keyway					



SuperNine MT Wall-Mount Receptacle, Slotted Holes, Clinch Nuts, Helicoils						
Sample Part Number	183-002	ME	S7	-17-4	N	1
Basic Part Number	MT Ferrule Fiber Optic Connector					
Material/Finish Code	See Table I					
Connector Style	S7 = Wall-mount receptacle with slotted holes CM = Wall-mount receptacle with metric clinch nuts CS = Wall-mount receptacle with standard clinch nuts HM = Wall-mount receptacle with metric helicoils HS = Wall-mount receptacle with standard helicoils					
Shell Size / Insert Arrangement	11-1, 13-2, 15-3, 17-4 Order MT ferrule kit P/N 181-139					
Alternate Key Position	A, B, C, D, E, N = Normal U = Universal (per MIL-DTL-38999)					
Insert Cavity	1 = Standard position					
Clocking Orientation (see Table II)	2 = Cavity position rotated 45° to master key/keyway 3 = Cavity position rotated 90° to master key/keyway					

Table I - Material and Finish

Code	Material	Finish Description
ME	Aluminum Alloy	Electroless Nickel
MT		Nickel-PTFE, Grey
NF		Cadmium, Olive Drab
ZR		Zinc-Nickel, Black
TZ		Tin-Zinc, Green/Gold
XM	Composite	Electroless Nickel
XW		Cadmium, Olive Drab
Z1	Stainless Steel	Passivate
ZL		Electro-Deposited Nickel

NOTES

- Pin (male) and socket (female) ferrule kits can be used in either plug or receptacle connectors. Preferred configuration is female ferrule in receptacle connector

Table II - Insert Cavity Clocking Orientation

Code	Shell Size-Arrangement 11-1	Shell Size-Arrangement 13-2	Shell Size-Arrangement 15-3	Shell Size-Arrangement 17-4
1				
2				
3				