



MT Ferrule Fiber Optic



Ruggedized, high-density MT ferrule fiber optics in Glenair signature SuperNine® D38999 circular and Series 79 rectangular connectors bring together the high density of proven-performance MT fiber optic ferrules with the durable mating and harsh-environment performance of Glenair aerospace-grade connectors. SuperNine® “better than QPL” MIL-DTL-38999 connectors feature advanced mating and anti-vibration / shock performance. Series 79 miniature connectors optimize SWaP as the world’s smallest ruggedized MT connector solution.

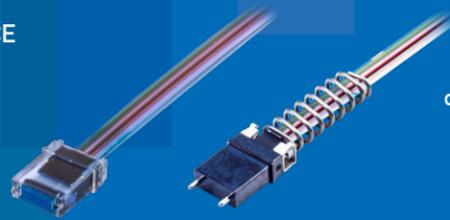
- LOW MASS
- HIGH FIBER DENSITY
- DYNAMIC VIBRATION AND SHOCK RESISTANCE
- RADIATION HARDENED / TESTED
- HIGH RELIABILITY

THE MT FERRULE HIGH-DENSITY ADVANTAGE



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

SuperNine MT and Series 79 MT connectors are compatible with both standard and expanded-beam MT ferrules



Designing for Performance



SuperNine® MT Select Mechanical Performance Specifications	
Test Description	Performance Requirements/Specifications
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

Series 79 MT Select Mechanical Performance Specifications per QTP-773 and Test Report GT-19-111	
Test Description	Test Results per QTP-773 and Test Report GT-19-111
Temperature Cycling: per TIA/EIA-455-3, Test Condition C-2	- 40°C to +85°C, 5 Cycles, 56 hours Max. CIT = .25 dB; Max. IL post-test = .30 dB
Mating Durability	First 100 cycles with CIT measured every 10 cycles Max. CIT = 0.12 dB; Max. IL post-test = 0.20 dB
Mating Durability, Extended	From 101st cycle to 500th cycle with CIT measured every 25 cycles Max. CIT = 0.21 dB; Max. IL post-test = 0.30 dB
Physical Shock 1: 50g Peak, 11 ms duration, per TIA/EIA-455-14, Test Condition E	Max. CIT = 0.14 dB; Max. IL post-test = 0.42 dB; discontinuity ≤0.5 dB @ <1 us.
Physical Shock 2: 160g Peak, 4 ms duration, per MIL-STD-202, Method 213	Max. CIT = 0.04 dB; Max. IL post-test = 0.40 dB; discontinuity ≤0.5 dB @ <1 us.
Additional Physical Shock: 300g Peak, 0.5 ms duration, per MIL-STD-833E, Method 2002.4 (30 shocks total)	Max. CIT = .15 dB; Max. IL post-test = 0.20 dB; discontinuity ≤0.5 dB @ <1 us.
Vibration 1: 5-15 Hz, .12" double amplitude, 2 hours/axis (6 hours total) per MIL-STD-202, test condition 201, Sinusoidal	Max. CIT (Change In Transmission) = 0.06 dB; Max. IL post-test = 0.37 dB
Vibration 2: 20g Peak, 10-2,000 Hz, 4 hours/axis (12 hours total) per TIA-455-11, Test Condition IV, Sinusoidal	Max. CIT (Change In Transmission) = 0.08 dB; Max. IL post-test = 0.43 dB

ALSO-AVAILABLE SPACE-GRADE TECHNOLOGY: Parallel Optic Photonic Transceiver Modules



Conduction-cooled design for space applications

- 4 X 14 to 4 X 25 Gbps per fiber (up to 100 Gbps)
- 12-channel Tx and Rx with 10Gbps/channel
- SiGe and GaAs optoelectronic ICs
- Hermetic opto-electronic hybrid
- 46 Grms, 650G shock
- -40°C to +85°C case temp
- Heavy ion radiation-tested