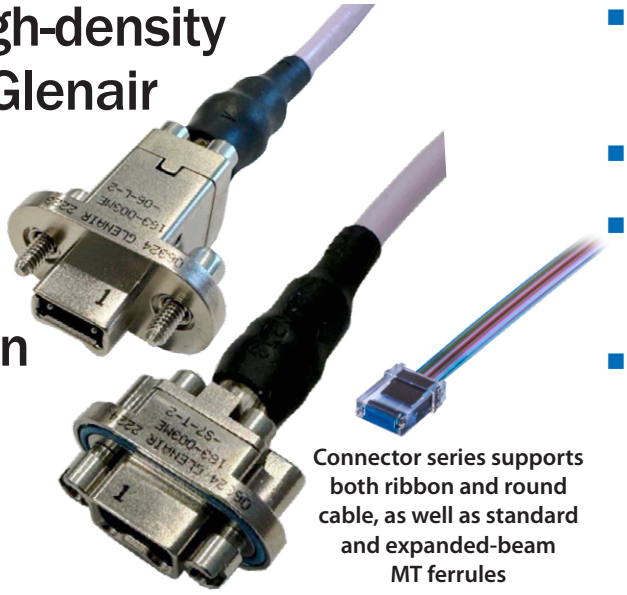
GLENAIR
SIGNATURE
FIBER OPTIC
CONNECTION
SYSTEMS

Rugged Fiber Optic CONNECTORS

Rugged High-Density **MT Ferrule** Fiber Optic Connection System—With Mil-Grade Miniature Series 79 Packaging

Glenair is qualified by US Conec to terminate 1 and 2 row PRIZM® MT ferrules for ribbon and round cable fiber.

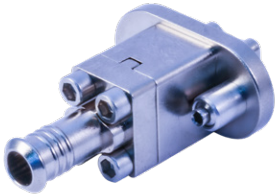
Single-ferrule high-density MT datalinks in Glenair Signature Series 79 rectangular packaging optimize SWaP in mission-critical mil-aero applications



Connector series supports both ribbon and round cable, as well as standard and expanded-beam MT ferrules

- **Small form-factor, high-density fiber optic solution for rugged mil-aero applications**
- **Temperature tolerance from -40°C to +85°C**
- **Optimized for use with parallel optic transceivers in ribbon or round cable applications**
- **Designed for optimal low insertion loss performance in high vibration and shock environments**

Series 79 Mil-Grade Miniature Rectangular Connectors
Series Overview and Performance



-06 plug, with retaining plate for EMI shield termination and strain relief of ribbon or round fiber cable

-S7 receptacle with standard retaining plate

-S7 receptacle with conductive EMI gasket

ABOUT SERIES 79 MT FIBER OPTIC CONNECTORS

Designed in accordance with rugged mil-aero industry specifications, the Glenair Series 79 MT fiber optic connector is the world's smallest ruggedized MT connector solution. High-density MT ferrules are packaged in precision-machined rectangular aluminum shells with electroless nickel finish, or passivated stainless steel shells for higher temperature applications. Receptacles may be equipped with optional EMI gaskets, and mate bottom-to-bottom with plug assemblies for robust resistance to vibration and shock. Designed for harsh-environment, inside-the-box use in parallel optics, fiber optic backplanes, missile systems, spacecraft and satellites, heads-up displays, and other ribbonized or flex-circuit fiber optic datalinks, the Series 79 MT delivers superior low insertion-loss performance (up to 500 mating cycles). Connectors are supplied with banding platform or ultra low-profile retaining plate options.

The MT Ferrule High-Density Advantage

Up to 24 fibers in a single compact, lightweight ferrule
(7mm x 3mm / .276" x .118") —**same real estate as three size #16 termini side by side**

SERIES 79 MT FERRULE FIBER OPTIC CONNECTOR PERFORMANCE SPECIFICATIONS SEE TEST REPORT GT-19 -111, GT-20 -812, GT-21 -255 (SM/APC), GT -21 -043, AND GT-21 -216 FOR MORE DETAILS	
Test Description	**Test Results**
Optical Insertion Loss for multimode, singlemode, and expanded beam	0.3 dB typical - for multimode (50/125 um fiber) and singlemode (9/125 nm fiber) 0.5 dB typical - for expanded beam (5 50/125 um fiber)
Temperature Cycling: per TIA/EIA-455-3, Test Condition C-2	Max. CIT during test = 0.3 dB Max. IL post-test = 0.45 dB Min. RL post-test >60 dB (singlemode only)
Mating Durability (500 cycles per TIA-455-21 with exception to how often CIT was measured)	First 100 cycles - CIT measured every 10 cycles. Next 400 cycles – CIT measured every 25 cycles. • Max. CIT during test = 0.48 dB • Max. IL post-test = 0.47 dB • Min. RL post-test >60 dB (singlemode only) Note: *Mating hardware torqued to spec. only when taking measurements*
Physical Shock 1: 50g Peak, 11 ms duration, per TIA/EIA-455-14, Test Condition E Physical Shock 2: 160g Peak, 4 ms duration, per MIL-STD-202, Method 213 Additional Physical Shock: 300g Peak, 0.5 ms duration, per MIL-STD-833E, Method 2002.4 (30 shocks total)	• Max. IL post-test = .50 dB • Min. RL post-test > 60 dB (singlemode only) • Discontinuity: none detected when monitored at 1 us max. and ±0.5 dB max.
Vibration, Random 27 Grms , 1 hr./axis, 3 hrs. total, per TIA-455-11, condition G	• Max. IL post-test = .44 dB ; Min. RL post-test > 60 dB (singlemode only) • No discontinuity detected when monitored at 1 us max. and ±0.5 dB max.
Vibration, Sine 20g Peak, 10-2,000 Hz., 4 hrs./axis (12 hours total), per TIA-455 -11, condition IV	Max. IL post-test = .44 dB.; Min. RL post-test > 60 dB (singlemode only) No discontinuity detected when monitored at 1 us max. and ±0.5 dB max.
Weight (approx.)	Plug: 7.5 grams with male MT ferrule kit - Receptacle: 5.5 grams with female MT ferrule kit)
Water Immersion per IP67 (Applicable to p/n 183-014 only)	No water present inside connector, and no optical degradation post-test
Hermeticity (Applicable to p/n 183-014 receptacle on ribbon cable only)	Max. Helium leak rate = 1 x 10^{-6} cc/sec