GLENAIR SIGNATURE FIBER OPTIC CONNECTION SYSTEMS



SuperNine[®]: Fiber Optic Aerospace-Grade High-Density **MT Ferrule** Fiber **Optic Connection System**



PRIZM MT expanded beam cable assemblies and PC MT Elite connectors and ferrule kits for use with Glenair Signature SuperNine® connectors

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

SUPERNINE MT CONNECTOR CONFIGURATIONS



Cable Plug



In-Line Receptacle







Jam-Nut Receptacle

Panel-Mount Receptacles

© 2024 Glenair, Inc • 1211 Air Way, Glendale, CA 91201 • 818-247-6000 • www.glenair.com • U.S. CAGE code 06324 • Fiber Optics

ULTRA HIGH DENSITY PRIZM[®] MT and MT Elite[®]



SuperNine[®] "Better than QPL" MIL-DTL-38999 Series III 183-002 MT Series overview

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)
*Depending on ferrule type. MT Elite = 12 or 24 fibers per ferrule; PRIZM MT= 16 or 32 fibers per ferrule			

SUPERNINE® MT PERFORMANCE SPECIFICATIONS			
Test Description	Performance Requirements/Specifications		
Optical Insertion Loss, Multimode Expanded Beam	0.65dB (50/125 μm) typical		
Optical Insertion Loss, Multimode PC	0.35dB (50/125 μm) typical		
Optical Insertion Loss, Singlemode APC	0.45dB (9/125 μm) typical		
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 1,000 hours per TIA-455-4C		
* 11 1 1 1 .			

*cable and epoxy dependent

- Optical Insertion Loss test setup per TIA-455-171, Method A1

- All optical measurements for singlemode tests conducted using launch conditions as defined in TIA-455-78, paragraph A.1.2.

- All optical measurements for multimode tests conducted using restricted launch conditions.

- The restricted launch condition for multimode is defined in MIL-STD-1678 Part 2 Measurement Support Process 2203 produces a launch that is more conservative than 70/70 and encircled flux.

CUSTOM 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 PRIZM MT-equipped receptacles may be terminated to

standard fiber optic interconnects for termination to board-level transceivers. PRIZM MT plug and in-line receptacle assemblies are available with environmental media protection including conduit, jacketed cable, and overmolding. Low-profile cable overmolds provide fiber media organization and ribbon-to-wire strain relief. Consult factory for design assistance.



CATALOG FAST-TURNAROUND "ASAP" MT OPTICAL FLEX JUMPERS AND CABLE ASSEMBLIES

Glenair supplies—as a commercial off-the-shelf product—point-to-point optical flex jumpers with MT Elite and PRIZM MT optical ferrules. Available configurations include simple MT-to-MTP jumpers in straight or curved profiles, circular and rectangular I/O connectors with MT optical fiber pigtails, as well as special optical loop assemblies. A complete range of multimode and singlemode fiber in popular sizes, plus radiation-hardened fiber for earth orbit applications. Series 79- and SuperNine-to-MT ribbon fiber breakout cable assemblies are also available.

