



SERIES 180-159

Ultra-Low dB Loss ARINC 801 Fiber Optic System

with removable alignment sleeve for easy cleaning, maintenance and inspection

The ARINC 801 (Series 180-159) fiber optic connection system is designed for use in RF-over-fiber applications, in-flight entertainment, avionics, and other high-speed data networking applications. The Glenair ARINC 801 system utilizes MIL-DTL-38999 Series III type connectors and is built in accordance with high-performance mil-aero mechanical and environmental standards.

Key features of the system include genderless contacts, a removable alignment sleeve retainer with guidepins to ensure low insertion loss and return loss values. Singlemode (UPC and APC) as well as multimode (PC) termini with familiar LC type termination and assembly for complete flexibility in cable choice and optical performance. The keyed size 16 genderless termini are equipped with ceramic ferrules and stainless steel springs. A complete range of insert arrangements is available in accordance with ARINC 801.



- Genderless terminus design eliminates pin and socket complexity
- Rear-release size #16 termini
- Singlemode (1310 and 1550 nm) as well as multimode (850 and 1300 nm)
- Mechanical and environmental performance IAW MIL-DTL-38999 Series III

ARINC 801 Type 1 Fiber Optic Connectors and Termini

MIL-DTL-38999 SERIES III PACKAGING

180-159



PRODUCT SELECTION GUIDE AND PERFORMANCE SPECIFICATIONS



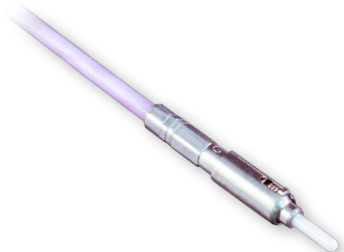
Proven-performance
MIL-DTL-38999 Series III packaging



Intermountable MIL-DTL-38999
Series III receptacle packaging



Removable alignment sleeve
retainer for optimal termini axial
alignment and ease of assembly /
maintenance



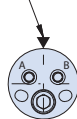
Genderless, keyed singlemode and
multimode termini

ARINC 801 Connectors and Termini Selection Guide	
180-159 (06)	Plug
180-159 (08)	Jam Nut Receptacle
180-159 (05)	In-Line Receptacle
180-159 (H7)	Wall-Mount Receptacle with round holes (standard)
180-159 (S7)	Wall-Mount Receptacle with slotted holes
180-159 (T7)	Wall-Mount Receptacle with threaded holes
180-159ASR	Alignment Sleeve Retainer
181-076	Genderless Termini

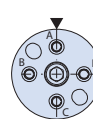
Series 180-159 ARINC 801 Performance Specifications	
Test Description	Performance Requirements/Specifications
Insertion Loss	Multimode (PC): 0.30 dB typical at 850/1300nm
	Singlemode (UPC): 0.30 dB typical at 1310/1550nm
Return Loss	Multimode (PC): Better than 20 dB
	Singlemode (UPC): Better than 40 dB
Operating Temperature	-55°C to +165°C (cable/epoxy dependent)
Storage Temperature	-40°C to +85°C (cable/epoxy dependent)
Mating Durability	500 cycles, per TIA/EIA-455-21
Vibration	23.1g RMS, 8 hrs/axis, per TIA/EIA-455-11, Test Condition VI-G
Mechanical Shock (half-sine pulse)	300g Peak for 3ms, 3 shocks/axis in each direction, per TIA/EIA-455-14, Test Condition D
Thermal Cycling	-55°C to +125°C, 50 cycles, per TIA/EIA-455-3, Test Condition C-4 (cable/epoxy dependent)
Temperature Life	+125°C for 1000 hrs, per TIA/EIA-455-4 (cable/epoxy dependent)
Humidity, Steady State	+40°C for 240 hrs, 90% RH, per TIA/EIA-455-5, Method A, Test Condition B
Humidity, Temperature Cycling	-25°C to +65°C, 10 cycles for 24 hrs, 90% RH, per TIA/EIA-455-5, Method B7a (cable/epoxy dependent)

ARINC 801 Insert Arrangements

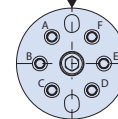
CONNECTOR
MASTER KEY



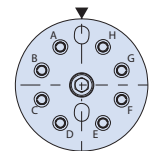
Shell Size 11
Arrangement 2



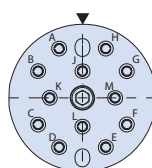
Shell Size 13
Arrangement 4



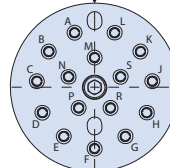
Shell Size 15
Arrangement 6



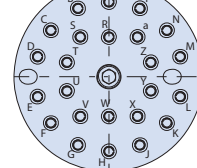
Shell Size 17
Arrangement 8



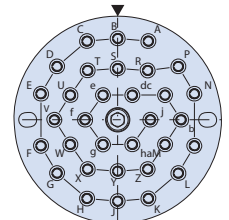
Shell Size 19
Arrangement 12



Shell Size 21
Arrangement 16



Shell Size 23
Arrangement 24



Shell Size 25
Arrangement 32