

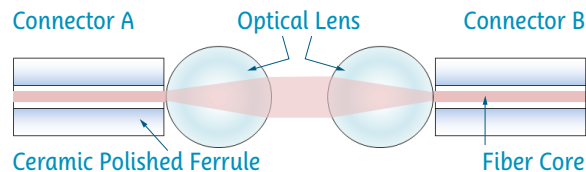


DEPLOYABLE EXPANDED BEAM INTERCONNECTS

ExoBeam connectors utilize expanded beam technology to provide a non-contact fiber optic connection that is easily cleaned and more durable than connectors utilizing physical contact technology. ExoBeam is ideal for deploying in highly contaminated environments.

TECHNOLOGY

Expanded beam technology uses precision lenses to expand, collimate, and then refocus the light between two fiber cores.



By expanding and collimating the signal:

- The mated fiber optic connection is contactless, significantly reducing wear of the optical fibers in high mating applications.
- The sealed optical interface can be easily cleaned when exposed to fluid, mud or dust. Should any debris remain on the lens, the expanded optical transmission is less sensitive to the contaminant.
- The design is less affected by lateral misalignment and therefore vibration.

ExoBeam CONNECTORS

Aside from the expanded beam technology, other features that make ExoBeam ideal for deployable applications include:

- The hermaphroditic coupling that is quick and easy to mate in the field
- The robust connector housing designed to MIL-DTL-83526/20 & /21 standards
- Singlemode (1310/1550nm) or multimode (850/1300nm) options
- Availability of 2 to 4 channel plugs and receptacles (jam nut or flange mount)





Deployable Expanded Beam Interconnects

When there is no time to waste, cable assemblies using ExoBeam connectors can be deployed and retrieved quickly in harsh conditions, as well as trusted to make a reliable connection with very little maintenance.

ExoBeam cable assemblies have been tested to ensure reliable optical and mechanical performance. ExoBeam connectors are intermateable with MIL-DTL-83526/20 and /21 style connectors.

Product Performance

OPTICAL CHARACTERISTICS		
Test	Single Mode	Multimode
Insertion Loss*	1.0 dB typ 2.5 dB max	1.0 dB typ 2.0 dB max
Return Loss	> 34 dB	-
MECHANICAL & ENVIRONMENTAL CHARACTERISTICS		
Test	Standard	Performance
Operating Temperature	-	-40°C to 85°C
Mating Durability	EIA/TIA-455-21	3000 cycles
Cable Retention	EIA/TIA-455-6	400 lbs
Physical Shock	EIA/TIA-455-14	50G, 11ms 5 shocks per axis
Vibration	EIA/TIA-455-11, Condition III & VI, Test C	10 Grms, 4 hours/plane
Impact	EIA/TIA-455-2, Method A	8 drops from 0.9m
Thermal Shock	EIA/TIA-455-71, Condition C	-57°C to 85°C
Salt Spray	EIA/TIA-455-16, Condition I	500 hours

*NOTE: Max dB per MIL-DTL-83526



Features & Benefits

- Expanded beam technology is easy to clean and reduces sensitivity to contaminants and misalignment
- Singlemode (1310/1550 nm) and Multimode (850/1300 nm) wavelengths
- Hermaphroditic coupling for quick mating in the field
- Robust design for high mating applications
- ROHS compliant - Hard black anodized aluminum with Teflon
- Cable assemblies available with simplex or tactical cable, reels and backpacks

Applications

- Military Tactical Communications
- Emergency Restoration Networks
- Outdoor Broadcast Systems
- Oil & Gas Surface Applications
- Aerospace Data Loader for IFE