

Flexible Interface Adapter Flexdapter



A brand new concept for fiber optic connector adapters, STRAN's Flexdapter (Patent pending) is designed to assist in the transition of legacy interconnect solutions to the latest technology available. In the pictured configuration, the Flexdapter is configured to support connection of a MIL-PRF-83526/20 Expanded Beam connector to a legacy physical contact TFOCA GenX tactical plug or receptacle. This flexible design solves a common issue found with solid adapters of excessive overall length in cramped quarters and/or resulting moment arm aggravated poor vibration and mechanical shock performance of connectors mounted on mobile platforms. By incorporating a multidirectional flexible section, the Flexdapter can be set to any desired angle and rotation. This all but eliminates the added length and moment arm concerns associated with solid adapters. Built to withstand the rigors of military tactical use, the Flexdapter provides tensile cable retention of up to 150 lbs. Some of the applications for STRAN's Flexdapter include:

- Cabinet mounted communication systems
- Deployable military tactical systems
- Harsh environment video/data transmission
- Outdoor fiber optic connectors
- Homeland security and surveillance
- Deployable broadcast networks
- Mobile command and control platforms



Fully compatible with legacy systems, some of the key features of this connector adapter include:

- Configurations to support a host of multi-channel connectors including: TFOCA, MIL-PRF-28876, MIL-DTL-38999, MIL-PRF-64266, MIL-DTL-83526, ARINC 801 and other circular harsh environment connectors.
- InfiniBeam™ expanded beam insert expands the signal 200x reducing the effect of dust, dirt and other contaminants on the optical path
- Standard hermaphroditic, or genderless dustcaps on both adapter ends
- Field demountable front insert on GenX connector for improved cleanability
- Standard hermaphroditic adapter, both InfiniBeam™ and TFOCA GenX connectors can be used as plug or receptacle
- Fully environmentally sealed for immersion in shallow water
- Bend angle can be set 0 to 90 degrees
- Rotation 0 to 360 degree relative to the connector end face
- PC polish on the zirconia ferrules (TFOCA GenX)
- TFOCA GenX connector is fully compliant to the draft MIL-PRF-83526/16 specification
- Other configurations available, such as: InfiniBeam™ to TFOCA I
TFOCA I to TFOCA GenX

MILITARY TACTICAL

MILITARY SHIPBOARD

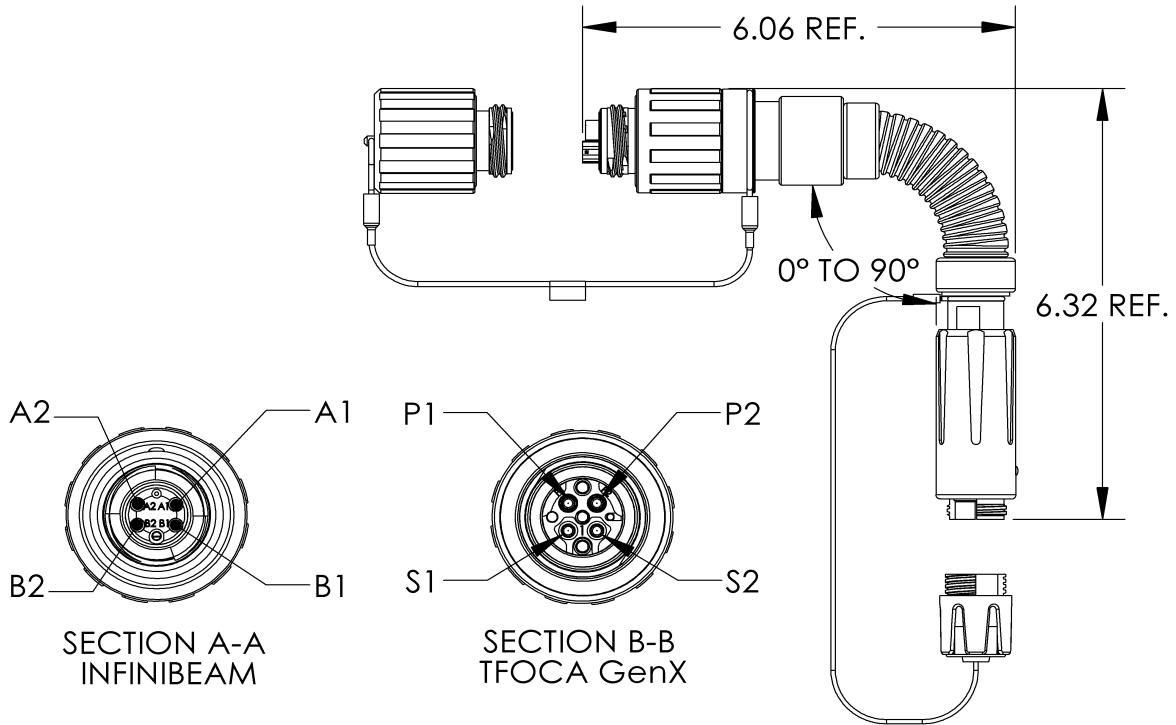
ENERGY

MINING

AEROSPACE

COMMERCIAL

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Flexdapter Design Criteria:

Optical Insertion Loss	62.5/125: 2.25 dB _{max}
Return Loss	>30 dB MMF
Mating Durability	2000 cycles per TIA / EIA-455-21
Vibration	10 g's per TIA / EIA-455-11
Mechanical Shock	Per TIA / EIA-455-14, test condition C
Thermal Shock	-55°C to +85°C per EIA-455-71
Temperature Life	250 hours at 70°C per EIA-455-4
Corrosion Resistance	Per EIA-455-16, test condition C
Humidity	10 cycles per EIA-455-5
Fluid Immersion	1 meter, per EIA-455-12
Crush Resistance	450 lbs, per EIA-455-26
Cable Retention	150 lbs, per EIA-455-6
Cable Seal Flexing	Per EIA-455-1
Impact	EIA-455-2