

Complex CMX-X1Q Multimode Datasheet

These tactical Complex assemblies feature QPC's QMini Expanded Beam Fiber Optic Connectors, designed to meet the requirements of MIL-DTL-83526/20 Military Specifications. Designed for harsh environments, Expanded Beam fiber optic connectors use non-physical contact fiber optic termini that are fully sealed behind an anti-reflective coated ball lens. By expanding the beam to a large size, this lens enhances optical alignment and minimizes dust, debris, vibration, and other environmental effects. Since the optical surfaces/end faces of the termini do not wear during use, the QMini connector is incredibly durable, with more than 3,000 mating cycles. Available in 2 or 4 Channels, and a variety of lengths.

Features:

- 2 Channel/4 Channel Multimode Hermaphroditic Expanded Beam Connector System
- Rubber Grip Plugs
- Intermateability: Neutrik FIBERFOX, Tyco Pro Beam Jr., Amphenol TACBeam, Glenair GMA, Stratos HMA, Fibreco Junior, DiGiCo Compatible
- Sealed to IP68 Rating
- Lightweight MIL-Tactical Cable Ideal for use in Harsh Environments Where Deployment and Retrieval for Reuse are Required



CMX-X1Q02M



CMX-X1Q02MR



CMX-X1Q04M



CMX-X1Q04MR

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Specifications:

Camplex Multimode Fiber:

- **Fiber Type:**
 - 2 Channel Laser Optimized OM4
 - 4 Channel Laser Optimized Bend Insensitive OM4
- **Core/Cladding Diameter (μm):** 50/125
- **Numeric Aperture:** 0.20
- **Wavelength (nm):** 850/1310
- **Gigabit Ethernet Distance (m):** 1040/600
- **10-Gigabit Ethernet Distance (m):** 550/300
- **Maximum Cabled Attenuation (dB/km):** 3.0/1.0
- **Minimum Laser EMB Bandwidth (MHz-km):** 4700/500
- **Minimum OFL LED Bandwidth (MHz-km):** 3500/500
- **Primary Coating Diameter (μm):**
 - 2 Channel: 500
 - 4 Channel: 245
- **Secondary Coating Diameter (μm):** 900
- **Proof Test Level (kpsi):** 100
- **Jacket Material:** Polyurethane
- **Buffer Material:** Hard Elastomeric
- **Cable Diameter:**
 - 2 Channel: 0.20in (5.0mm)
 - 4 Channel: 0.22in (5.5mm)
- **Impact Resistance:** 1500 impacts
- **Crush Resistance:** 1800 N/cm
- **Flex Resistance:** 2000 cycles
- **Max Tensile Load:**
 - Installation: 1,800 N (400 lbs)
 - Operating: 600 N (130 lbs)
- **Min Bend Radius:**
 - Installation:
 - 2 Channel: 2.0in (5.0cm)
 - 4 Channel: 2.2in (5.5cm)
 - Operating:
 - 2 Channel: 1.0in (2.5cm)
 - 4 Channel: 1.1in (2.8cm)
- **Temperature:**
 - Operating:
 - 2 Channel: -67°F to 185°F (-55°C to +85°C)
 - 4 Channel: -40°F to 185°F (-40°C to +85°C)
 - Storage: -94°F to 185°F (-70°C to +85°C)



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Specifications:

QMini Connector:

- **Insertion Loss:** 0.50-1.5dB Max
- **Operating Temperature:** -50°F to 185°F (-46°C to +85°C)
- **Vibration:** 10 to 2000Hz / 10g, EIA/TIA-455-11, Condition III and 10 to 2000Hz / 20g / 9g RMS Avg, EIA/TIA-455-11, Condition IV
- **Mating Durability:** 3000 Cycles
- **Impact:** 8 Impacts @ 8FT (2.5MT), EIA/TIA-455-2
- **Shock:** 50g for 11ms, EIA/TIA-455-14, Condition A
- **IP Rating:** QMini, QMini45S, QMini90S Plugs and Receptacles with Backshells: IP68 - Dust Tight, No ingress of dust; complete protection against contact, Water Immersion, 1m | Testing Conditions & Duration - Plug with Dust Cover and Mated Plug / Receptacle, 3 Meters for 24 Hours