

Optical Technology

Product Snapshot

Connectors



Mini/Junior/M83526/Senior/Maxi

- Standard Fibreco expanded beam connector ranges
- Various connector shell styles available depending on connector series (Plug, D-Hole, Sq.Flange, XLR)
- 1 to 16 channel depending on connector series
- Singlemode, multimode and mixed mode options
- Field terminable using standard termination tools & equipment
- M83526 is qualified to MIL-DTL-83526 /20 & /21 (QPL), and German Defense Standard VG 95319-100 & 102



J-Lite

- High performance composite shell
- Lightweight and cost effective
- Singlemode, multimode and mixed mode options
- + $2\,\&\,4$ channel plugs and bulkheads
- Low profile and forward flange options for bulkhead
- Field terminable using standard termination tools & equipment



D38999 Expanded Beam

- Expanded beam and hybrid optical/ electrical options
- Plug, D-hole and square flange mounting options, low profile versions also available
- 1 to 16 channels
- Size 16 AWG or 20 AWG electrical contacts
- Singlemode, multimode and mixed mode options
- Straight, 45° and 90° backshell options
- Field terminable using standard termination tools & equipment



MT38999

- Size 11 shell: 12 optical channels
- Singlemode and multimode fiber options
- Standard straight, low profile (BH)
- Low insertion loss / high return loss
- Aluminum, nickel aluminum bronze and stainless steel shell options



Geo-Beam EX

- ATEX certified for use in Zone 1 and Zone 2 hazardous areas
- Explosion proof certified for equipment used in hazardous environments
- Inline plug and box mount bulkhead
- Insert options: 8 expanded beam channels, 8 #16 electrical, or hybrid options
- Singlemode and multimode options
- Stainless Steel 316 (shotblast finish)



Geo-Beam BA

- Quick release 'Breakaway' design
- Lanyard release, break away disengage action
- Corrosion resistant stainless steel shells
- 2, 4, 6 & 8 channels
- Singlemode, multimode, mixed mode inserts
- Plug, in-line and jam nut receptacle

Fiber Flex Circuits



- Custom routed flexible fiber circuit
- Durable and reliable construction for use in demanding environments
- Eliminates complex fiber routing on host card PCBA (all routing and management functions are embedded in the flex circuit)
- Supports designs up to 48"x 48"
- Point to point or complex routing
- Supports a variety of fiber types (multi-mode, single mode or specialty fiber)
- 250 µm buffered standard core size, 9µm, 50µm, or 62.5µm
- Specialty fiber: 100/140 $\mu m,$ Rad-Hard, plastic, polyimide coated, bend-insensitive



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Product Snapshot

Transceivers



Low Rider RJ

- Miniature rugged optical transceiver
- Half the footprint of Small Form Factor (SFF)
- 20+ year history in Mil-Aero applications
- Data rate from 100 Mbps to 10 Gbps
- Multimode and singlemode options
- Solder mount or Screw Post mount
- Industrial temp. range -40°C to +85°C
- Vibration tolerant design
- · Fiber pigtail and conformal coating options



Front Pluggable RJ

- Designed for rugged pluggable applications
- Half the footprint of Small Form Pluggable (SFP)
- Data rate from 100 Mbps to 10 Gbps
- Multimode and singlemode options • SMT cage and I/O connector for high
- speed signal integrity • Industrial temp. range -40°C to +85°C
- Vibration tolerant design
- Digital diagnostics
- Conformal coating options



Ouad Hybrid

- Four channels TX and RX (8 fiber)
- 1 inch square footprint
- < 0.2 inches mated height
- 15+ year history in Mil-Aero applications
- Data rate 1, 2, 10, or 28 Gbps per channel
- Socket or solder mount options
- Routed fiber pigtail with MT12 optical connector

Rugged RJ

- · Complete transceiver module in RJ-45 package
- Multimode and singlemode options
- Wave solderable/aqueous washable
- Through hole I/O pins
- Data rates from 100 Mbps to 4 Gbps



Rugged SFF

- Ruggedized version of industry standard SFF transceiver
- 20+ year use in Mil-Aero platforms
- Multimode or singlemode options
- Standard SFF, 2x5 footprint and package
- Data rate 100 Mbps to 2 Gbps
- Temperature range -40°C to +85°C
- Vibration compliant
- Conformal coating options



OSPF28

- Hot-pluggable QSFP28 form factor
- 4 x CWDM uncooled DFB laser (1271/1291/1311/1331 nm)
- 4x PIN photo detector
- 0°C to 70°C case operating temperature range
- 2 km transmission with singlemode fiber
- 3.3 V power supply, < 3.5 W
- Clock data recovery (CDR)
- Rugged Mil-Aero version in development

Active Bulkhead Media Converters



- Two channel Ethernet media conversion
- 15+ year usage in Mobile Ground applications
- Two copper ports 10/100/1000BT
- Two fiber ports 100BFX, 1000BSX or BLX
- RJ45 or Mil Circular electrical connectors
- Expanded Beam or TFOCA-II® optical interface
- Singlemode and multimode versions
- Industrial temperature and vibration
- Vehicle power (9V-32V) or POE option