

PASSIVE OPTICAL PRODUCTS



Harsh Environments

Expanded Beam Connectors and Assemblies

HMA and HxMA



Features

- 2 and 4 channels, multimode or singlemode
- Rugged hermaphroditic construction
- Compatible with MIL-DTL-83526/20A/21A and mixedmode variants
- Optical performance – MM: IL < 1.0dB, 0.8dB Typ
SM: IL < 1.5dB, 1.0dB Typ; RL > 40dB
- Nickel aluminum bronze for marine environments
- Cable assemblies with bulkhead and plug

HMC

Features

- Miniature housing 21mm diameter
- 4 channel, multimode or singlemode
- Rugged hermaphroditic construction
- Optical performance – MM: IL < 1.5dB
SM: IL < 2.0dB
- Cable assemblies with bulkhead and plug



Expanded Beam ST



Features

- Available with standard and MIL-C-83522 connector bodies
- Multimode and singlemode
- Optical performance – MM: IL < 1.0dB, 0.8dB Typ
SM: IL < 1.5dB, 1.2dB Typ; RL > 30dB
- Simplex multimode and singlemode cable assemblies

CUSTOM EXPANDED BEAM

Features

- 2 channels, multimode
- Optical performance - MM: IL < 1.2dB
- Rugged hermaphroditic construction
- No insert alignment pin and receiving hole
- Single optical window, easy to clean in the field
- Nickel aluminum bronze (NAB) for marine environments
- Cable assemblies with bulkhead and plug connectors



S900



Features

- 2 and 4 channels, multimode or singlemode
- Optical performance – MM: IL < 1.2dB
SM: IL < 2.0dB; RL > 40dB
- Rugged hermaphroditic construction
- Nickel aluminum bronze for marine environments
- Cable assemblies with bulkhead and plug

Harsh Environments

Expanded Beam Connectors and Assemblies

S960

Features

- 2, 4, 8 and 12 channels, multimode
- Optical performance – MM: 2, 4, and 8 channel IL < 1.5dB, 12 channel IL < 2.0dB
- Rugged hermaphroditic construction
- Cable assemblies with bulkhead and plug



Hx1080

Features

- SMPTE compatible – 2 optical and 2 electrical
- Rugged hermaphroditic construction
- Field serviceable – easy to clean
- Optical performance – SM: IL < 1.5dB; RL > 40dB
- Cable assemblies with bulkhead and plug



HTC

Features

- 1 to 4 channels, multimode
- MIL-C-38999 Series III shell size 13 with shell 11 option
- Backshell options: straight, 90°, 130°
- Optical performance – MM: IL < 1.0dB
- Cable assemblies with bulkhead and plug



Harsh Environment Accessories

Bullet Adapters

- Eliminates hybrid jumper cables
- HMA to TFOCA
- HMA to TFOCA-II®
- TFOCA to ST, SC, LC, FC
- HMA to ST, SC, LC, FC



TFOCA II® is a registered trademark of Amphenol Fiber Systems International

Cable Reel

- Military, Industrial and AV reels
- Various sizes to accommodate a specified length



Loopback

- Facilitates burn-in and system testing
- Singlemode and multimode
- 2 and 4 channel
- Rugged hermaphroditic construction



Ruggedized In-Line Splice

- 2 and 4 channels, multimode and singlemode
- LC connector polish configuration
- Field termination in 30 minutes





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About Emerson Network Power Connectivity Solutions

Emerson Network Power Connectivity Solutions, an Emerson business, serves the needs of wireless communications, military, telephony and data networks, CATV security systems, health care and industrial facilities with a full spectrum of RF/microwave and fiber optic connectivity products. For more information, visit www.EmersonConnectivity.com

About Emerson

Emerson (NYSE: EMR), based in St. Louis, MO., is a global leader in bringing technology and engineering together to provide innovative solutions to customers through its network power, process management, industrial automation, climate technologies, and appliance and tools businesses. For more information, visit www.Emerson.com



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ACTIVE OPTICAL PRODUCTS



Military & Aerospace Products

Low Rider / Rough Rider Transceivers

Features

- Excellent thermal characteristics
- Exceptional EMI/RFI performance
- High tolerance to shock and vibration
- Low-profile, less than 9.8 mm high
- Industrial temperature rated (-40°C to 85°C)
- Surface mount pins
- Conformal coating available
- Optional pigtail optical fiber attachment for virtually any connector type such as MIL-T-29504, PHD, ST, etc.
- Singlemode and multimode versions



Protocols & Data Rates

- OC-3 / Fast Ethernet (155 MBaud)
- Gigabit Ethernet (1.25 GBaud)
- Fibre Channel (1X/2X/4X)
- Infiniband (2.5 GBaud)
- Custom data rates available
- Dual TX and Dual RX available

Quad Hybrid Transceiver

Features

- 2.5 Gbps per channel, 4 transmit and 4 receive channels
- Fiber flex pigtail with MT12 optical connector
- BGA socket for easy installation/removal
- Low height, less than 0.285 inch, socket mated with transceiver
- 1 inch square footprint



Rugged SFF

Features

- Ruggedized version of the MSA compliant 2x5 Small Form Factor transceiver
- Constructed to IPC Class 3 standards
- Guaranteed for operation over the industrial temp range (-40°C to +85°C ambient)
- Optional Parylene C conformal coating on the internal transceiver circuits
- Custom Designs for specific programs



Highly Miniaturized OEO Conversion

Features

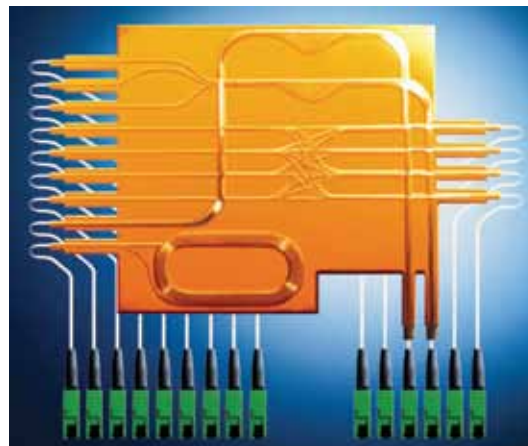
- Full optical / electrical physical layer solution
- Fully tested to customer specifications
- Industrial temperature ratings available
- Ethernet, Fiber Channel, or Customer data protocols
- Media conversion circuitry combined with OEO transceiver function for plug and play performance



Terminated Flex Circuit

Key Features & Benefits

- User definable routing and outline as well as user defined terminations (simplex, parallel)
- 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 of 3"x 3" to 48"x 48"
- Point to point or complex routing
- Supports a variety of fiber types (multi-mode and single mode fiber)
- 250µm buffered standard core size, 9µm, 50µm, or 62.5µm
- Specialty fiber: 100/140µm, Rad-Hard, plastic, polyimide coated, bend-insensitive



Media Converters

Rugged Media Converters

Features

- Integrated transceiver and media converter
- Available in Expanded Beam or TFOCA-II® compatible optical interfaces
- Industrial temperature and vibration
- Single or dual ports available
- Vehicle Power 9V-32V
- Power over Ethernet option

Protocols & Data Rates

- 10/100 Ethernet
- 10/100/1000 Ethernet
- T1 Telecom
- DS3 Telecom



Telecom Enterprise Products

SFP Transceivers

Features

- Hot-pluggable – add or remove modules during system operation
- 850nm, 1310nm, 1550nm, and CWDM wavelengths
- User-friendly bail actuators locks module securely in place
- Digital diagnostics monitoring interface available
- Dual TX or RX available

Protocols & Data Rates

- OC-3 / Fast Ethernet (155 MBaud)
- OC-12 (622 Mbaud)
- OC-48 (2.488 Gbaud)
- Gigabit Ethernet (1.25 GBaud)
- Fibre Channel (1X/2X/4X)
- Video SD/HD/3-G-SPF



Accessories

- Cages available in three styles
- EMI dust caps and plugs
- SFP loopbacks test SFP port operation in hubs and other systems

1 x 9 Transceivers

Features

- Wave solderable / aqueous washable
- 850nm and 1310nm wavelengths

Protocols & Data Rates

- Gigabit Ethernet (1.25 GBaud)
- Fibre Channel (1.0625 GBaud)



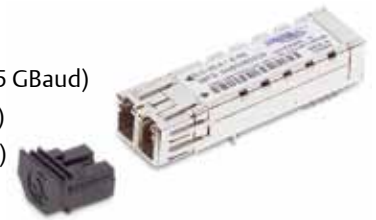
SFF Transceivers

Features

- Wave solderable / aqueous washable
- 850nm, 1310nm, and 1550nm wavelengths
- Dual transmitter and dual receiver option
- Custom data rates and wavelengths

Protocols & Data Rates

- OC-3 / Fast Ethernet (155 MBaud)
- OC-12 (622 MBaud)
- OC-48 (2.488 GBaud)
- Gigabit Ethernet (1.25 GBaud)
- Fibre Channel (1X/2X)
- Infiniband (2.5 GBaud)
- Video SD/HD



RJ Size Transceivers

Features

- Half the length of a standard MSA transceiver
- Complete transceiver module in RJ-45 package, plus a new compact version called the Stepped RJ
- 850nm and 1310nm wavelengths
- Wave solderable / aqueous washable
- Surface mount or through hole pins



Protocols & Data Rates

- Fast Ethernet (125 MBaud)
- OC-3 (155 Mbaud)
- Gigabit Ethernet (1.25 GBaud)
- Fibre Channel (1X/2X/4X)
- Infiniband 2.5G

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