EMCORE is a leading provider of advanced Mixed-Signal Optics products that provide the foundation for today's high-speed communications networks. We are a leader in optical chips, components, subsystems and systems, and one of the few suppliers offering truly vertically-integrated solutions for the broadband network infrastructure. Our long history of innovation and leadership in RF over fiber technology for HFC networks has enabled cable MSOs to enhance bandwidth to meet growing demand for ultra high-speed Internet, HDTV and 4K UHD, video on-demand, streaming, and other advanced services. With our expertise in Indium Phosphide (InP) wafer manufacturing, we develop chip level solutions for the Telecom market, FTTx and Data Center, and our latest products for Wireless systems support emerging Distributed Antenna Systems (DAS) and 5G, enhancing bandwidth and linearity to enable delivery of reliable signals in areas where interference is high, or signals are normally weak.
EMCORE owns and operates its world-class 7,000 square foot InP semiconductor wafer fabrication plant at our corporate headquarters in Alhambra, California. The plant supports development of best-in-class Telecom, Data Center and Wireless application devices, as well as EMCORE’s vertically-integrated manufacturing for its laser, transmitter and receiver products.

EMCORE’s semiconductor wafer fabrication facility supports 2” and 3” wafer process for InP-based devices including laser, APD & PIN photodetectors. The plant features MOCVD reactors for 3x3” or 6x2” wafers, plus stepper, wafer track, ICP, RIE, diffusion, metal and dielectric deposition, and cleaving/dicing. Our strong, highly-experienced technical team has expertise in device design, epitaxial growth, wafer processing, device characterization and COB/TO/OSA sub-assembly from development through manufacturing.

**2.5G & 10G PON DFB Laser Chips**

EMCORE’s G1033 series of GPON DFB laser diode chips are designed to provide the source laser for uncooled PON applications for triple-play voice, video and data applications. A variety of wavelengths are supported. They are designed to perform the E/O conversion in a PON system.

**2.5G & 10G Avalanche Photodiode, Top & Bottom Illuminated Chips and COB**

EMCORE’s latest series 10G APD chips are designed for high-speed, Next-Gen PON applications. They have high-responsivity, low-capacitance and low noise equivalent power. Bottom illuminated APDs are mounted on Chip-On-Block (COB) for ease of assembly into receiver modules. The G1013 series 2.5G APD top illuminated chip are designed for GPON ONU and 2.6 Gb/s applications and also have high-responsivity, low-capacitance. Both designs are ideally suited high-speed data communications.

**12.5G 1310 nm Fabry-Perot Laser Chips**

EMCORE’s G1033-201, 12.5G 1310 nm Fabry-Perot (FP) laser chip is designed for uncooled digital applications. This laser is ideally suited for low-cost, high-speed data communications and wireless designs.
EMCORE designs and manufactures the most complete and advanced line of optical components, subsystems and systems for CATV-HFC broadband distribution networks. EMCORE’s CATV products support various network architectures and address the needs of transmitting and receiving signals in short- to long-haul, forward- and return-path, and headend-to-hub-to-node configurations over 1310 nm and 1550 nm wavelengths.

EMCORE, through its Ortel heritage, was the first to implement linear fiber optic transmission for cable TV and we continue to be a leader in RF over fiber products for HFC networks in the CATV industry. Our products enable increased data transmission distance, speed and bandwidth, with lower noise and power consumption. This empowers cable service operators to meet the growing demand for ultra high-speed Internet, HDTV and 4K UHD, video-on-demand, streaming, interactive video and Voice over IP (VoIP). EMCORE’s product portfolio includes forward and return-path analog lasers, photodetectors and subassembly components, analog fiber optic transmitters, Quadrature Amplitude Modulation (QAM) transmitters, high-power EDFAs, RFOG ONU transceivers, lasers, photodiodes and optical receivers.

CATV Broadband Highlights
- Most complete line of RF over fiber products for CATV networks
- Revolutionary Linear Externally Modulated Laser (L-EML™) technology
- Vertically-integrated solutions
- High-quality volume manufacturing
- CWDM and DWDM wavelengths
- DOCSIS 3.1 compliant

CATV Broadband Distribution Network

**SATELLITE & MICROWAVE OPTICAL LINKS**

- **Optiva Platform**
  - RF Fiber Optic Links
  - Satellite Antenna Remoting

**CATV BROADBAND TRANSPORT**

- **DOCSIS 3.1, CWDM and DWDM, 1550 and 1310 nm Lasers**

- **MEDALLION Series 1550 nm Fiber Optic Transport**
  - Analog/QAM/SAT-IF/OFDM Transmitters
  - DOCSIS 3.1 Transmitters
  - CATV Fiber Amplifiers/EDFA
  - Optical Switch

- **HYBRID FIBER COAX (HFC), RFOG-FTTx**
  - Optical Receivers
  - RFOG Transceivers

**CATV Headends**

- **RFOG-FTTx**
- **Central Office**
- **Residential & Commercial Premises RFOG-FTTx**
- **EDFA**
- **Hub**
- **Node**
- **HFC**
- **Earth Stations**
- **MDU**

**Fiber Optic Interface**

| Copper/Coax Interface | www.emcore.com | 3 |
CATV 1550 nm Fiber Optic Transmitters
EXTERNALLY-MODULATED FIBER OPTIC TRANSMITTERS

MEDALLION 8100 Series DOCSIS 3.1 L-EML™ Externally-Modulated CATV Transmitters

C-Type/J-Type/F-Type/S-Type Transmitters

The MEDALLION 8100 series is a family of state-of-the-art, high-performance DOCSIS 3.1 compliant 1550 nm externally-modulated CATV transmitters that leverage a breakthrough optical device innovation at their core. The Linear Externally Modulated Laser (L-EML™), invented, developed and manufactured exclusively at EMCORE. The L-EML™ device consists of a high power, low-noise, narrow linewidth laser combined with a proprietary highly-linearized modulator in a monolithic assembly. It enables long distance optical link performance approaching traditional lithium niobate-based externally-modulated transmitters.

The 8100 series couples high optical output powers, up to 12.0 dBm, with low optical linewidth resulting in unmatched performance. The unique EMCORE optical modulator, combined with proprietary predistortion circuitry, provides superior CTB and CSO performance with SBS suppression levels of greater than 21 dBm.

MEDALLION 6100 Series DOCSIS 3.1 Externally-Modulated CATV Transmitters

J-Type/S-Type/F-Type Transmitters

The MEDALLION 6100 series is a family of state-of-the-art, high-performance DOCSIS 3.1 compliant 1550 nm externally-modulated CATV fiber optic transmitters optimized for varying network applications. The 6100 series couples high optical output powers, up to 11.0 dBm, with low optical linewidth resulting in unmatched performance. The optical modulator, combined with proprietary pre-distortion circuitry, provides superior CTB and CSO performance with SBS suppression levels of greater than 21 dBm.

The J-Type series are designed as a high-performance solution for applications where the simultaneous transport of CATV and SAT-IF FM signals is required. The S-Type series transmitters are designed to be the most versatile models within the MEDALLION 6100 series family. They can easily be configured to meet most HFC network solutions requiring link lengths in the range of 50 to 70 kilometers with one EDFA, as well as links utilizing multiple EDFA’s. The F-Type series transmitters are intended for use in FTTx and RFoG architectures requiring high-quality transmission over varying transmission lengths.

The Medallion Advantage

Advanced features of both the 8100 and 6100 series includes built-in field adjustable SBS control that allows these transmitters to be quickly optimized in the field for any link or application without the need to procure specifically tuned transmitters. This affords the system designer a level of flexibility previously unknown in the CATV market place.
CATV 1550 nm Fiber Optic Transmitters
EXTERNALLY-MODULATED FIBER OPTIC TRANSMITTERS

3644 Mini-Tx 1.2 GHz, 1550 nm DOCSIS 3.1 L-EML™ CATV Transmitter Subassembly

EMCORE’s Model 3644 mini-transmitter card is a linear externally-modulated 1550 nm transmitter subassembly optimized for the 190CW channel plan with an operation bandwidth to 1.2 GHz. The source laser utilizes EMCORE’s industry-leading 1550 nm, high-power, low-noise, narrow linewidth Linear Externally Modulated Laser (L-EML™). The 3644 is designed to support traditional HFC, multi-wavelength node splitting, RFoG and RF overlay for FTTP applications. The platform supports RF loads of analog, QAM and OFDM to 1218 MHz. Integrated within the design is EMCORE’s patented predistortion technology to provide outstanding noise and distortion performance. The 3644 Mini-Tx achieves an exceptional MER of 44 dB across the entire operating band under full QAM load conditions. There is an RF test port on-board with monitor and control via an RS-232 interface.

MEDALLION 6000 Series Externally-Modulated CATV Transmitters

L-Type/D-Type/S-Type/F-Type/N-Type Transmitters
The MEDALLION 6000 series is a family of state-of-the-art high-performance 1550 nm externally-modulated CATV fiber optic transmitters optimized for varying network applications. Packaged in a convenient 1 RU housing, this line of optical transmitters couples high optical output power, up to 11.0 dBm, with low optical linewidth resulting in unmatched performance. The optical modulator, combined with proprietary pre-distortion circuitry, provides superior CTB and CSO performance with SBS suppression levels of greater than 21 dBm through 40 km of fiber. Advanced features such as built-in field adjustable SBS control allow these transmitters to be quickly optimized in the field for any link or application without the need to procure specifically tuned transmitters.

J-Type and I-Type Transmitters for Japanese & International Markets
Providing all the core capabilities of the MEDALLION 6000 series, J-Type MEDALLION transmitters are specially optimized to support fiber optic links of up to 150 km for the Japanese market place and other markets with similar requirements. The J-Type series is designed as a high-performance solution for CATV applications, or where the simultaneous transport of CATV and SAT-IF FM signals is required. The SAT-IF signals can be applied anywhere in the 950 to 2800 MHz band.

I-Type MEDALLION transmitters are optimized for international network applications that employ an 85 MHz forward / reverse path split frequency. This line of optical transmitters couples high optical output power, up to two ports 10.0 dBm, with low optical linewidth resulting in unmatched performance. I-Type transmitters are specially designed and optimized to support fiber optic links of up to 150 km for the international marketplace.

1550 nm Transmitter Highlights
Mini-Tx
- Breakthrough Linear Externally Modulated Laser (L-EML™) technology
- Supports long distance links up to 100 km
- Optimized RF integration of predistorter, amplifiers and laser
- Exceptional Modulation Error Ratio (MER) of 44 dB
- Compact shape fits into a variety of transmitter platforms
- “Plug and Play” assembly reduces manufacturing costs
- DOCSIS 3.1 compatible

Medallion 6000
- Single or dual optical outputs
- QAM Loading to 1003 MHz
- Dual power supplies, redundant & hot-swappable
- SNMP control interface and WEB GUI
- Vacuum fluorescent status display
- OMI/RF gain adjustment
- AGC select: CW, video, manual (No AGC)
- Industry-leading field adjustable SBS suppression

Applications
- High power distribution networks
- Redundant ring architectures
- FTx networks
- RFoG applications
- DWDM node splitting
- SAT-IF transport
- High-performance supertrunking links
CATV 1550 nm Optical Amplification, Switching
ERBIUM DOPED CATV FIBER AMPLIFIERS, OPTICAL A/B SWITCH

Medallion Series CATV Fiber Amplifiers

The Medallion series are high-performance CATV fiber amplifiers optimized for the superior output power stability and exceptionally low noise figures demanded by CATV applications.

The Medallion 7110 and 7200 series are both Erbium-Ytterbium Doped Fiber Amplifiers (EYDFA) while the Medallion 7100 series are Erbium-Doped Fiber Amplifiers (EDFA). The 7100 and 7110 are packaged in a convenient 1 RU housing and the 7200 is packaged in a convenient 2 RU housing. Medallion series CATV amplifiers provide very stable optical outputs over a wide operating temperature range. Internally they are supported with input and output isolators for enhanced system stability and performance. Optical power is continuously monitored at the input and output for automatic power control during operation over a wide operating temperature range.

Medallion 2100 Optical A/B Switch

The Medallion 2100 Optical A/B Switch is a high-performance solution for network protection and optical redundancy. It provides an automatic or manual fiber switching function to protect the network from inadvertent service outages due to upstream optical signal degradation. If the primary fiber’s optical signal power level falls below the desired optical trip threshold, the unit automatically switches to the secondary fiber, thus eliminating the need for intervention of a system operator. The Medallion 2100 is capable of manual switching or can be switched remotely via SNMP, Telnet or through a web browser, adding optical protection to many system applications.

The Medallion 2100 series is designed as a low power, cost effective, high performance switching solution for applications that demand reliable and rapid response to changing network conditions.

1550 nm EDFA Highlights

- High saturation output power
  - Up to 27 dBm – Medallion 7100
  - Up to 31.5 dBm – Medallion 7110
  - Up to 43 dBm – Medallion 7200
- Dual power supplies & fans, redundant & hot-swappable
- Front panel optical input & output monitor ports
- SNMP control interface
- Low noise figure for CATV
- Wide input dynamic range
- Very stable output power over a wide operating temperature range

Applications

- CATV supertrunking
- Redundant ring architectures
- High power distribution networks
- FTTx networks

Switching Highlights

- Automatic, manual and remote switching
- Auto-switching time less than 25ms
- SNMP control interface
- 1 RU rack-mount enclosure with choice of single- or dual-redundant AC or DC power supplies

Applications

- Fiber optical protection switching
- Redundant ring architectures
- FTTx networks

Medallion Series CATV Fiber Amplifiers

Medallion 2100 Optical A/B Switch
EMCORE is a leading provider of fiber optic components for the transmission of analog video, voice and data signals over high-speed fiber optics. Our products, including CWDM and DWDM DFB lasers, DOCSIS 3.1 lasers and low noise optical receivers, support a wide variety of broadband, CATV, satellite and wireless applications.

EMCORE lasers utilize “Genuine Ortel Technology” which has symbolized the highest quality in linear high-speed photonics. EMCORE leverages our vertically-integrated infrastructure and high-volume manufacturing to deliver the highest quality fiber optic components available today.

**DOCSIS 3.1 1550 & 1310 nm Laser Modules**

EMCORE's 1752A, 1550 nm and 1616A, 1310 nm DOCSIS 3.1 lasers are designed specifically for CATV applications and are compliant with the new DOCSIS 3.1 standard. These lasers support operational bandwidth up to 1.2 GHz and feature low adiabatic chirp to maximize signal quality in short and long lengths of fiber. The lasers operate over an industrial temperature range with excellent inherent linearity to minimize degradation of broadcast signals.

**1900 Series Coaxial TO-56 DFB Lasers**

EMCORE's 1933, 1935 and 1955 coaxial TO-56 DFB lasers offer a low cost solution for linear fiber optic links. They can be cooled with external thermo-electric coolers for high stability, or run without TEC's to reduce power consumption. These DFB lasers are packaged in a compact, hermetic assembly with monitor photodiode and isolator for flexible integration into various transmitter designs.

**1600 Series 1310 nm 14-pin Butterfly DFB Lasers**

EMCORE's 1612, 1615 and 1622, 1310 nm forward path DFB laser modules are designed for both broadcast and narrowcast analog applications. These highly linear devices feature optical output power options up to 100 mW with superior distortion performance over an enhanced temperature range of -40° C to +85° C.

**1700 Series 1550 nm DWDM 14-pin Butterfly DFB Lasers**

EMCORE's 1751, 1754 and 1782, 1550 nm laser modules feature a distributed feedback chip that has been designed specifically for RF QAM and CATV applications. They feature low adiabatic chirp to maximize signal quality in short and long lengths of fiber. The laser's excellent inherent linearity minimizes degradation of broadcast signals caused by QAM channels.

**7840A DOCSIS 3.1 Low Noise Optical Receiver**

The 7840A DOCSIS 3.1 Low Noise Optical Receiver is a best-in-class single-mode fiber pigtailed module featuring a low noise, impedance-matched broadband photodiode and RF amplification. The device receives optical analog and/or digital signals for a range of video broadcast options and delivers the corresponding RF electrical output. The wide bandwidth supports the delivery of any combination of analog and digital channels up to 1.2 GHz of spectrum.
Increasing dependence on wireless networks for social media, text, email, uploading and downloading of apps, music, videos and photos has created greater demand for deployment of integrated wireless Distributed Antenna Systems (DAS). DAS systems are being built in subway tunnels, stadiums, high-speed trains and cruise ships. EMCORE’s linear DFB Lasers, Optical Receivers and Fiber Optic Links integrate extremely well into these systems, enhancing bandwidth and linearity to enable the delivery of consistent, reliable signals in areas where interference is high, or signals are weak.

1998 Cooled, Coaxial DFB Laser Module with Flex Circuit


1615A 1310 nm 2.7 GHz DFB Laser

EMCORE’s 1615A 1310 nm DFB laser module is designed for both wireless and DAS applications. This highly-linear OC-48 pinout compatible device delivers superior distortion performance over an enhanced temperature range of -40 °C to +85 °C.

1764 1550 nm C-Band DWDM DFB Laser

EMCORE’s 1764 laser module is a DWDM laser for analog wireless and DAS applications. It features a distributed-feedback (DFB) device designed specifically for RF and wireless applications. The 1764 laser has a wide temperature range for reliable performance in harsh node environments and narrow transmitter designs. It also features low adiabatic chirp to maximize signal quality in short and long lengths of fiber.

7830W 3 GHz Optical Receiver

EMCORE’s 7830W 3 GHz optical receiver is a singlemode fiber pigtailed module featuring a low-noise, impedance-matched broadband photodiode and RF amplification. The device receives optical analog and/or digital signals for a range of video broadcast options, and delivers the corresponding RF electrical output.

5200 Series 3 GHz and 6.5 GHz High-Performance Fiber Optic Inter-Facility Links

EMCORE’s 5200 Series, 3 and 6.5 GHz Fiber Optic Inter-Facility Links (IFLs) are a high-performance, cost-effective alternative to coaxial cable for 50 MHz to 6500 MHz communications applications. They are a compact, weatherproof fiber optic transmitter and receiver pair for applications where high-performance under demanding conditions is critical.

EMCORE’s fiber optic IFLs function as transparent RF fiber links. These IFLs eliminate the limitations of copper systems by enabling longer transmission distance while retaining the highest level of signal quality. In addition, EMCORE’s fiber optics provide several other significant network advantages, including simplified network design, ease of installation, and immunity from EMI/RFI and lightning.
EMCORE has developed customer qualified FTTx and RFOG chips, components and subsystems to support deployments of fiber optic-based access networks for homes and businesses worldwide. Our FTTx and RFOG products include optical chips for next-gen PON, fiber optic transmitters, high-power EDFAs, and RFOG ONU transceivers, lasers, photodiodes and optical receivers.

**9934 L-EML™ RFOG Optical Networking Unit (ONU) Transceiver**

EMCORE’s 9934 RFOG ONU Transceiver is an OBI mitigated design utilizing Linear Externally Modulated Laser (L-EML™) technology. The extremely narrow linewidth of the L-EML laser decreases the probability of OBI events significantly compared to traditional DFB-based products. EMCORE’s 9934 RFOG ONU extends HFC networks deeper into neighborhoods to handle increasing user bandwidth demand. It supports standard CATV downstream and upstream transmission bands for “triple-play” voice, video and data signals in single family and multiple-dwelling unit applications. Downstream it receives a 1550 nm forward path optical signal carrying an RF cable TV spectrum up to 1.2 GHz. For return path, it supports digital upstream at 1610 nm with 5-42/65/85 or 204 MHz spectrum options.

**RFOG ONU Highlights**
- OBI mitigation through inherent narrow spectral width L-EML™ laser and proprietary wavelength management
- 1.2 GHz, 1550 nm downstream
- 5-42/65/85 or 204 MHz, 1610 nm upstream
- Supports digital upstream
- SCTE RFOG specification compliant
- Designed for DOCSIS 3.1

**Applications**
- Fiber-To-The-Node
- Fiber-To-The-Premise
- SFU and MDU
- PON and RFOG networks

EMCORE End-to-End FTTx with RFOG
Optiva Platform Satellite & Microwave Fiber Optic Transport System

Platform Overview
EMCORE's Optiva platform includes a wide range of SNMP managed fiber optic transmitters, receivers, optical amplifiers, RF and optical switches and passive devices, video, audio, data and Ethernet products that provide high-performance fiber optic transmission from 1 MHz to 40 GHz. These units can be used to construct transparent inter- and intra-facility links for short- and long-haul RF and microwave signal transport, antenna remoting, electronic warfare systems and other high-dynamic-range applications.

Optiva is a completely modular, hot-swappable platform with a variety of rack-mount and compact tabletop, or wall-mountable enclosure options. EMCORE's complete line of Optiva insert cards removes the distance limitations of copper-based coaxial systems at cost and performance levels suited for headends, satellite earth stations, military operations centers, and much more.

IF, L- AND S-BAND FIBER OPTIC TRANSPORT

Optiva OTS-1L Series IF, L and S-Band Fiber Optic Links
The Optiva OTS-1L series is optimized to provide transparent IF, L- and S-Band signal transport for a variety of satellite antenna and interfacility link applications. Series options include CWDM, DWDM and 1310/1550 nm models. The unique features of the OTS-1L series include simple push button peaking for optimum performance and our patented SmartGain Control, which ensures consistent performance over varied signal level conditions.

Optiva OTS-1L2, 3 GHz Dual Wideband Fiber Optic Links
The Optiva OTS-1L2 is a dual RF fiber optic link that accepts two RF inputs and provides two RF outputs with a single plug-in pair. This dual-density card increases the chassis capacity by a factor of two. OTS-1L2 transmitters and receivers are optimized to perform in the 50 MHz to 3 GHz frequency range providing transparent signal transportation for satellite antenna applications.

C, X, DBS, KU & KA-BAND FIBER OPTIC TRANSPORT

Optiva OTS-2 Series Satcom Band Fiber Optic Links
The OTS-2 Series Satcom Band Fiber Optic Links are a family of SNMP managed fiber optic transmitters and receivers that provide high-performance downlink and uplink transport. C, X, DBS, Ku- and Ka-Band modules are available. These modules utilize EMCORE's high-performance ultra-low Relative Intensity Noise (RIN) source laser with high optical input power capable photodiodes, and feature microprocessor-based transmitter and receiver control for laser and modulator bias.

Applications

Satellite antenna signal transport
DBS antenna signal distribution
Interfacility signal transport
Ground terminal & intra-facility links
Site diversity systems
Electronic Warfare (EW) systems
Broadband delay line and signal processing systems

Optiva Platform Highlights

- 3 RU 19” 16-slot rack-mount enclosure - Holds up to 16 hot-swappable cards
- 1 RU 19” 6-slot and 1- or 2-slot compact enclosures available
- Dual-redundant hot-swappable power supplies
- Short- and long-haul signal transport
- SNMP monitoring and control

Optiva Card Module Options

- IF, L, C, X, DBS, Ku, K, Ka and Ultra-Wideband
- 1310 nm, 1550 nm, CWDM, DWDM
- Redundancy switching units & RF splitters
- RF & optical switches and passive devices
- Optical amplifiers (EDFA)
- Ethernet 10/100/1000
50 MHz-40 GHz ULTRA-WIDEBAND FIBER OPTIC TRANSPORT

OTS-2 Series Microwave Band Fiber Optic Links

The OTS-2 Series Unamplified or Amplified (Tx, Rx Fixed Gain) Microwave Band Fiber Optic Links are a family of SNMP managed fiber optic transmitters and receivers that provide high-performance 50 MHz – 40 GHz transport within the Optiva modular platform. 18, 22 and 40 GHz options are available.

Optiva microwave units are tailored to the requirements of higher frequency applications such as microwave antenna signal distribution, electronic warfare systems, broadband delay lines, signal processing, and phased array antennas. Utilizing EMCORE’s high-performance, ultra-low Relative Intensity Noise (RIN) source laser and high optical input power capable photodiodes, these modules provide high-dynamic-range. The system operates at a nominal wavelength of 1550 nm. Wavelength selected lasers on the ITU grid are also available to support multichannel DWDM applications.

RF & FIBER OPTIC SWITCHING AND SIGNAL DISTRIBUTION

Optiva OTS-RFS Series Wideband RF Splitters

Optiva OTS-RFS Wideband RF Splitters (RFS) are designed to provide RF signal distribution for satellite antenna applications from 5 MHz to 22 GHz. Band-specific 2.3, 3, 18 and 22 GHz optimized versions are available. The OTS-RFS series provides RF signal distribution to support 1x1 RF fiber link redundancy applications.

Optiva OTS-RSU Series Wideband RF Redundancy Switch Units

Optiva OTS-RSU Wideband RF Redundancy Switch Units (RSU) support satellite signal transport link redundancy applications for 1x1 and 1x4 redundant switch configurations when integrated with Optiva RF fiber optic transmitters and receivers. Band-specific 2.3, 3, 18 and 22 GHz optimized versions are available.

Optiva OTS-1-OSU / OTS-2-OSU 2x2 Dual-Band Optical Switch Units

The Optiva OTS-1-OSU (single switch) and OTS-2-OSU (double switch) units are optimized to perform in the 1310 nm/1550 nm (dual-band) operating wavelengths. The OSU integrated with EMCORE’s family of fiber delay line units provides a wide range of configurable microwave system delay line links for satellite, radar and calibration applications, plus general optical switching for fiber line applications.

Microwave Transport

Highlights
- Low RIN source laser
- High-dynamic-range of >110 dB-Hz^2/3
- Microprocessor-based control for laser bias, modulator bias and link gain
- DWDM cooled DFB laser, 10 dBm output
- SNMP & RS-232 monitoring and control

Microwave Band Applications
- Microwave antenna signal distribution
- Electronic Warfare (EW) systems
- Broadband delay line and signal processing systems
- Frequency distribution & radar systems

Splitter & Switching Unit

Highlights
- Switching, splitting options to 22 GHz
- 50 & 75 Ohm BNC or 50 Ohm SMA
- 1x1 and 1x4 redundant switch configurations (OTS-RSU)
- Automatic and manual redundancy modes (OTS-RSU)
- Dedicated Comm-link for rapid switch response (OTS-RSU-1 models)
- Single or double 2x2 optical switch units (OTS-OSU)
- SNMP monitoring & control (OTS-RSU, OTS-OSU)

Switch & Splitter Applications
- RF redundant link (OTS-RFS, OTS-RSU)
- Configurable delay system (OTS-1-OSU)
- Optical link switch (OTS-1-OSU)
EMCORE’s Innovation & Technology Leadership

EMCORE is a vertically-integrated manufacturer that pioneered the MOCVD (Metal-Organic Chemical Vapor Deposition) process for both development and production of many of the compound semiconductor-based materials and devices in use today. EMCORE owns and operates a world-class 7,000 square foot Indium Phosphide (InP) semiconductor wafer fabrication plant at our corporate headquarters in Alhambra, California.

EMCORE’s vertical integration and highly-linear fiber optics capability based on “Genuine Ortel Technology” positions us for leadership in the development of enabling technologies for current and future high-speed, broadband CATV and telecommunications networks. EMCORE’s latest innovations are realized in our newest series of CATV transmitters that are ushering in a new era of transmission technology for the Cable TV industry. These new transmitters leverage a breakthrough optical device innovation at their core, the Linear Externally Modulated Laser (L-EML™), invented, developed and manufactured exclusively at EMCORE. EMCORE’s combination of semiconductor manufacturing expertise and advanced photonics design capability has enabled us to achieve strong market presence in the CATV-HFC, RFoG, Telecommunications, FTTx and Satellite Communications markets.

Quality Management - ISO 9001 Certified

EMCORE’s various manufacturing processes involve extensive quality assurance systems and performance testing. Our manufacturing facilities have all acquired and maintain ISO 9001 certification.

How To Contact
For more information about EMCORE’s broadband fiber optic solutions for CATV-HFC, Telecom, FTTx, Wireless and Satellite networks, please visit www.emcore.com, or contact us below.

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