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 high-speed Internet, Ultra-HDTV, video-on-demand and other advanced services. With our expertise in Indium Phosphide (InP) wafer manufacturing, we develop chip level solutions for the Telecom market, and our latest products for wireless systems support emerging Distributed Antenna System (DAS) applications, 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 2.5 Gbps to 12.5 Gbps Telecom and Datacom 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.

10G 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 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 high-speed Internet, HDTV, video-on-demand, interactive video and Voice over IP (VoIP). EMCORE’s product portfolio includes forward and return-path analog lasers, photodetectors and subassembly components, analog and digital fiber optic transmitters, and Quadrature Amplitude Modulation (QAM) transmitters.

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
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
DIRECTLY- AND EXTERNALLY-MODULATED FIBER OPTIC TRANSMITTERS

Medallion 8000 Series Directly-Modulated CATV Transmitters

EMCORE’s Medallion 8000 is a rack-mount directly-modulated DWDM CATV optical transmitter specifically designed for CATV or wideband applications that require both CATV and DBS signals to be transmitted up to a 30 km length of fiber. The Medallion 8000 supports full 79-channel NTSC analog signals and/or a combination of QAM and DBS signals (with reduced channel analog CATV). It can be selected as a fixed fiber length option to support from 0 – 10 km, 5 – 15 km, 10 – 20 km or 15 – 25 km with 18 dBm SBS suppression maximum, or it can be ordered as a fiber length selectable option. This option allows the user to set the Medallion 8000 for best optimized CSO at any fiber length from 0 – 30 km with 1 km increments with up to 20 dBm SBS suppression.

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

Medallion 8000
- Available on 100 GHz spaced ITU DWDM C-Band channels
- Optimized RF integration of predistorter, amplifiers, and EMCORE laser
- Advanced SBS suppression technology
- Fixed or fiber length selectable options
- RoHS compliant

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
- High-performance supertrunking links
- Redundant ring architectures
- FTTx networks
- RfOg applications
- SAT-IF transport
- DWDM node splitting
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 series CATV amplifiers supports MIBs specified by SCTE (Society of Cable Telecommunications Engineers) for this product class.

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 up-stream 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
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.

**Laser & Receiver Highlights**

- Wide temperature range operation:
  -40° C – 85° C (Lasers)
  -30° C – 85° C (Receivers)

- 14-pin Butterfly

- DOCSIS 3.1 compliant models
- High optical output power options up to 100 mW
- OC-48 pinout compatible
- Cooled or uncooled operation

**Coaxial TO-56**

- 10 MHz to 6 GHz DFB lasers for broadband applications
- High-slope efficiency up to 0.3 mW/mA
- High optical output power available up to 10 dBm
- Low power consumption
- RoHS compliant

**Optical Receivers**

- Supports 1310 and 1550 nm forward- and return-path video transport
- Next-generation small form-factor (17.8 mm x 21.8 mm)
- Ultra-low noise

**DFB Laser Applications**

- Forward- and return-path commercial CATV networks
- Satellite earth stations
- Mobile phone antenna sites
- Wireless/Distributed Antenna Systems
- Military systems

**Optical Receiver Applications**

- Video signal distribution in HFC and FTTx nodes and PON video overlay
Wireless & Distributed Antenna Systems (DAS)
LASERS, OPTICAL RECEIVERS AND FIBER OPTIC LINKS

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). Wireless systems providers are building systems 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.

1718A 1550 nm 6.5 GHz DFB Laser
EMCORE’s 1718A 1550 nm laser module features a distributed-feedback (DFB) device that has been designed specifically for both wireless and DAS applications. The 1718A is a highly-linear cooled butterfly laser that delivers superior optical performance over an enhanced operating temperature range of -40°C to +85°C for reliable performance in harsh node environments and narrow transmitter designs.

1618A 1310 nm 6.5 GHz DFB Laser
Also designed for both wireless and distributed antenna system applications, the 1618A 1310 nm DFB Laser Module is a highly-linear device that delivers superior distortion performance over an enhanced temperature range of -40°C to +85°C.

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 20 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.

Wireless Highlights
DFB Lasers
- Standard ITU grid wavelengths
- Advanced analog chip design
- Wide industrial temperature range – stable even in harsh environments
- Telcordia® 468 compliant
- RoHS compliant

Optical Receivers
- Wide 40 MHz – 3000 MHz Bandwidth: Supports analog or a combination of analog and digital channels
- Case temperature range from -30°C to +85°C
- Excellent RF frequency and distortion characteristics for high linearity
- Internal proprietary impedance matched circuitry

Fiber Optic Links
- 20 MHz – 3000 MHz (Model 5200 3 GHz)
- 20 MHz – 6500 MHz (Model 5200 6.5 GHz)
- IP66 rated
- 50 Ohm SMA and 75 Ohm BNC options
- LNB Power Options 13 v /18 v / 22 kHz
- Variable RF gains

Laser & Receiver Applications
- Wireless networks
- Distributed Antenna Systems (DAS)
- Architectures using separate optical wavelengths to carry targeted services
- Long distances and high optical splits

Fiber Optic Link Applications
- 4G LTE and WiMAX
- Distributed Antenna Systems (DAS)
- Cellular backhaul
Fiber-To-The-Premise (FTTP) With RFoG

TRANSCIEVERS, LASERS & PHOTODIODES FOR VIDEO, VOICE AND DATA

EMCORE has developed customer qualified FTTP components and subsystems to support deployments of fiber optics-based access networks for homes and businesses. Our FTTP products include RFoG optical transceivers, analog fiber optic transmitters for video overlay with high-power Erbium Doped Fiber Amplifiers (EDFA), plus analog and digital lasers, photodiodes, and video receivers.

RFoG Optical Networking Unit (ONU) Transceiver, Lasers & Photodiodes

EMCORE’s RFoG ONU Transceiver is an OBI mitigated design utilizing Linear Externally Modulated Laser (L-EML™) technology to support 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, making it compatible with the cable industry’s DOCSIS 3.1 standard. For return path, it supports digital upstream at 1610 nm over a 5-85 MHz spectrum.

EMCORE RFoG lasers include 1310 nm, 1590 nm, 1610 nm DFB or Fabry-Perot (FP) lasers modules with integrated WDM (dual core module), plus a photodiode with WDM filter.

EMCORE End-to-End FTTx with RFoG

NEW!

EMCORE laser products are designed for an array of applications including:

- Fiber-To-The-Node
- Fiber-To-The-Premise
- SFU and MDU
- PON and RFoG networks
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.

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
- 1310 nm, 1550 nm, CWDM, DWDM
- Redundancy switching units & RF splitters
- RF & optical switches and passive devices
- Optical amplifiers (EDFA)
- Ethernet 10/100/1000

IF, L- AND S-BAND FIBER OPTIC TRANSPORT

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.

Optiva OTS-1L Series Satcom 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-2L10, 10 MHz / L-Band Fiber Optic Links

Optiva OTS-2L10, 10 MHz / L-Band Fiber Optic Links are optimized to provide transparent, simultaneous 10 MHz and L-Band signal transport for VSAT antenna applications. The Optiva OTS-2L10 provides excellent isolation of the 10 MHz reference signal from L-Band signals at the transmitter and receiver with very low phase noise, which facilitates greater flexibility to locate VSAT antennas for optimum performance. Connections is via 50 Ohm SMA and the OTS-2L10 includes receiver DC output for the BUC upconverter with transmitter and receiver RF power monitoring via LED, SMA & SNMP.

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
- 1310 nm, 1550 nm, CWDM, DWDM
- Redundancy switching units & RF splitters
- RF & optical switches and passive devices
- Optical amplifiers (EDFA)
- Ethernet 10/100/1000

IF, L- and S-Band Highlights
- Dual or single density card options
- 6 dBm (CWDM), 9 dBm (DWDM) output
- 30 dB Tx/Rx adjustable gain range
- Optically-isolated uncooled (CWDM), cooled (DWDM) DFB laser
- 50 & 75 Ohm BNC or 50 Ohm SMA
- Tx & Rx RF power monitors via LED, SMA & SNMP
- SNMP monitoring and control

IF, L- & S-Band Applications
- Satellite antenna signal transport
- DBS antenna signal distribution
- Interfacility signal transport

10 MHz / L-Band Highlights
- Simultaneous transport of 10 MHz and L-Band signals with excellent isolation
- High-dynamic-range links up to 10 km

10 MHz / L-Band Applications
- VSAT antenna signal transport
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.
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 will usher 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 broadband CATV, FTTP, Wireless, and Satellite networks, please visit www.emcore.com, or contact us below.

EMCORE Corporation

North America
2015 Chestnut Street
Alhambra, CA 91803 USA
☎ +1 626-293-3400
✉ +1 626-293-3428

Europe, Middle East, Africa, Russia
☎ +44 7775 560 677

Email

For EMCORE Chip, CATV, Lasers & Components, Wireless and PON products, email catv-sales@emcore.com.
For EMCORE Satellite & Microwave Communications products, email satcom-sales@emcore.com.

© 2018 EMCORE Corporation. All rights reserved.
Information contained herein is deemed to be reliable and accurate as of issue date. EMCORE reserves the right to change the design or specifications of our products at any time without notice. EMCORE is a trademark of EMCORE Corporation in the U.S. and other countries.