

MRV Fiber Driver

Product Brief

Who is MRV Communications?

MRV Communications is a supplier of leading edge optical networking solutions with worldwide operations.

What is the Fiber Driver Platform?

The Fiber Driver optical multi-service platform is a fiber optic networking solution in a unified and adaptable modular design. With a substantial installed base in diverse industries and applications, the Fiber Driver meets the high quality standards and rapid delivery requirements of the most demanding customers. The incremental modularity of this common platform also enables flexible network scalability as business grows.

The Fiber Driver has enormous capital and operating expense benefits. It can simplify installation of new networks and breathe new life into legacy infrastructures. It provides managed, feature rich, optical transport solutions with fiber optimization from Time Division Multiplexing (TDM), to single fiber, to CWDM and DWDM for practically any digital communication environment. The platform includes several chassis options including AC, DC, and non-powered versions for passive solutions. Module combinations within the chassis allow customized solutions for any media, protocol, and application. A single management module provides local or remote administrative access for operators to any Fiber Driver chassis system.

Optical applications overlap within most networks. Fiber Driver modularity can mix applications within any solution using hot-swappable building block devices. Most Fiber Driver module designs are multifunctional with pluggable (SFP/XFP) sockets that enable chameleon-like application transformations through simple transceiver selection, including some unique MRV options.

What applications does the Fiber Driver support?

- **Fiber Grooming** addresses the basic elements of optical networks with leading edge technology. The many Fiber Driver optical media converters, signal repeaters, and switches are the building blocks for customized network solutions for any optical application. The converters also interface modern optical transport with legacy electrical networks and devices, and single fiber pluggable optics can increase network capacity before more extensive WDM optimization is needed. The Fiber Driver can enable service providers to offer and enforce Service Level Agreements through advanced performance monitoring capabilities.
- **Converter-Based Service Demarcation** intelligently connects networks that often have different owners, operators, and media. Fiber Driver service demarcation modules provide intelligent interfaces for division of responsibility and administrative access at these transition points. Some modules use intelligent loopback with sophisticated traffic generation and analysis for service level assurance to further reduce operating expenses.
- **Wave Division Multiplexing (WDM)** modules separate and filter optical signals to share a fiber for multiple communication paths. Individual signals are multiplexed, de-multiplexed, added, or dropped from a common optical link to multiply the usable capacity of the physical media. Fiber Driver also adds leading edge monitoring, provisioning, and management features in the full WDM solution for enterprise and metro networks. It includes transponders from T1/E1 to 10Gbps and a wide range of optical modules for passive OADM, MUX, DeMUX, optical amplification, and for active dispersion compensation. Fiber Driver WDM can extend the life of an optical infrastructure or drastically cut the CapEx and OpEx of new or growing networks.

Fiber Driver Optical Applications

Fiber Grooming

Basic optical network topology building blocks

Service Demarcation

Converter-based service demarcation and administration

Wave Division Multiplexing

Advanced fiber optimization and topologies

One Platform = All Solutions



Typical Applications

Fiber Grooming

Basic to Complex Optical Network Infrastructure

Used by: Service Providers, Telcos, MSOs, Administrators, Enterprise Organizations, Municipalities, Governments, Universities, School Districts, Media Networks

Applications: Media Conversion, Distance Extension, Signal Boosting, Enterprise Network Topologies, Hi-Availability, Redundancy, Single Fiber Optimization, Digital Video, WDM Upgrade Path

Think about: What services are provided? What media and protocols are currently used? Is the current fiber plant old or reaching capacity? What distances are spanned between sites?

Benefits: Protocol-specific or simple transparent modules with pluggable SFP or XFP support for greater flexibility.

Converter-Based Service Demarcation

Network Interface and Intelligent Administration

Used by: Service Providers, Telcos, MSOs, Network Administrators, Enterprise Organizations, Municipalities, Governments, Universities, School Districts, Media Networks

Applications: Ethernet and Carrier Demarcation, Ethernet in the First Mile (EFM), Peer-to-Peer Demarcation, Hi-Availability, Redundancy, Intelligent Network Administration with IEEE, ITU-T Link and Service Level Assurance OAM Tools, WDM Support

Think about: What services must be provided? How is the current network managed, provisioned, and monitored? How is the network connected to upstream providers? How is the network connected to downstream dependent users?

Benefits: Cost-effective and intelligent solutions centralizing all aspects of operation, administration, and management of modules to reduce truck rolls and other operating expenses (OpEx).

Wavelength Division Multiplexing (WDM)

Fiber Usage Optimization

Used by: Service Providers, Telcos, MSOs, Network Administrators, Enterprise Organizations, Municipalities, Governments, Universities, School Districts, Media Networks

Applications: Optical Add/Drop (OADM), Coarse or Dense WDM (CWDM / DWDM), Sub-rate Multiplexing, Advanced Optical Fiber Optimization, Advanced and Complex Topologies, Hi-Availability, Redundancy, EDFA Amplification and Dispersion Management, Economical scalable growth

Think about: What is the current peak and average fiber bandwidths? What is the maximum projected network growth? What are the current network limitations and bottlenecks? What are the target speed and protocol requirements?

Benefits: CWDM, DWDM, and OADM passive modules, and multi-service WDM transponder modules that support SFPs and XFPs

The MRV Difference

Fiber Driver Advantages

- Leading edge technology and innovation
- Modular platform flexibility for media, customization, and density
- Expansion and modular growth in same platform
- Extremely CapEx and OpEx friendly
- Advanced management, provisioning, and monitoring

Contact Us

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