Realize new Revenue Generating Opportunities

The FLASHWAVE® 7420 managed-wavelength platform is specifically optimized for metro service providers requiring a flexible, cost-effective system that will multiplex, transport and switch high-speed voice, video, data and storage applications. The carrier-class platform can be used to dramatically increase bandwidth and service flexibility, while supporting new revenue-generating opportunities for high-speed Local Area Network (LAN) and Storage Area Network (SAN) services.

The FLASHWAVE 7420 platform optimizes existing fiber infrastructures and gives carriers a competitive edge with state-of-the-art wavelength service solutions. The system conveniently accepts 10 Gbps interfaces without additional equipment – saving space, power and cost.

The feature-rich FLASHWAVE 7420 platform allows carriers to profitably deploy broadband optical services over a shared, survivable infrastructure. Individual wavelengths can be provisioned with or without protection to offer multiple Quality of Service (QoS) guarantees at highly competitive prices. Features include:

- Scalable to 32 protected or 64 unprotected wavelengths
- Directly supports all services between 100 Mbps and 10 Gbps
- Accommodates distances up to 300 km

On-Demand Deployment of Today’s New Services

The FLASHWAVE 7420 system is protocol independent to allow rapid response to service changes or network growth. The provisioning of any service at any speed is made more cost-effective by the system’s muxponder cards. By removing typical limitations that require dedicated wavelengths for each service, up to 128 services can be transported over a single fiber pair.

- 4:1 multiplexing for OC-3/STM-1, Fast Ethernet and ESCON
- 2:1 multiplexing for OC-12/STM-4, Gigabit Ethernet, FICON and Fibre Channel
- 4:1 multiplexing for OC-48/STM-16 into OC-192/STM-64

Simplified Operations for Complex Networks

The FLASHWAVE 7420 hardware design, coupled with the benefits of Dense Wavelength Division Multiplexing (DWDM) technology, enables the system to support point-to-point, linear add/drop and ring network topologies. With the addition of optional optical amplifiers, networks of up to 300 kilometers can be created. The Optical Supervisory Channel (OSC) support incorporated into the FLASHWAVE 7420 platform allows remote system operation and service provisioning from any node on the network.

The same NETSMART® 1500 element management system that manages the existing network elements can also be used to control and add services on demand. This seamless integration with legacy networks leverages existing infrastructure investments enabling a true end-to-end, network solution.

Telcordia™ OSMINE compliance allows the FLASHWAVE 7420 platform to support full interoperability with legacy and emerging operations systems. The FLASHWAVE 7420 platform maintains consistent and clear operations and does not require wholesale rework of existing buildings, operations centers, networks, inventory or Operations Support Systems (OSS).

Continue to Rely on Carrier-Class Standards

The modular architecture of the FLASHWAVE 7420 system comprises a rack-mountable shelf and hot-swappable modules, which perform specific network element functions such as conversion, multiplexing, protection and network management.

A sophisticated network-modeling tool is available to simplify traffic planning and engineering responsibilities. Complex networks can be configured rapidly, without the need for laborious manual analysis.
Features and Specifications

Architectures

• Point-to-point
• Linear add/drop
• Unidirectional Path Switched Ring (UPSR)

Service Modules

• 100-200 Mbps
  • OC-3, OC-3c, OC-3 UNI, STM-1, Fast Ethernet and ESCON
  • Four services per wavelength
• 622-1250 Mbps
  • OC-12, OC-12c, OC-12 UNI, STM-4, Gigabit Ethernet, Fibre Channel and FICON
  • Two services per wavelength
• 2.5 Gbps
  • OC-48, OC-48c, OC-48 UNI and STM-16
  • Four services per wavelength
  • Extended Reach & Performance Monitoring options
• 10 Gbps
  • OC-192, OC-192c, OC-192 UNI, STM-64 and 10 Gigabit Ethernet (LAN/WAN PHY)
  • One service per wavelength
  • Performance Monitoring option

Protection Modules

• Single-port Single-Mode Fiber
• Single-port Multi-Mode Fiber
• Quad-port Single-Mode Fiber
• Quad-port Multi-Mode Fiber

Unidirectional Inline Amplifiers

• 4 wavelengths, C band
• 8 wavelengths, C band
• 4 wavelengths, L band
• 8 wavelengths, L band
• 4 wavelengths, C band & 4 wavelengths, L band

Interfaces

• Local/Client Interfaces
  • 1310 nm Single-Mode Fiber for all modules
  • 850 nm Multi-Mode Fiber option for 622-1250 Mbps module
• Remote/Network Interface
  • 32 wavelength DWDM Single-Mode Fiber

Optical Span Length

• Point-to-point  Up to 200 km maximum
• Ring circumference  Up to 300 km maximum

Operations

• TL1 via 10Base-T
• SNMP via RS-232
• Software download and remote memory backup/restore
• FLEXR®7420 craft interface and NETSMART 1500 element management support
• Telcordia OSMINE compliant

Power Consumption / Heat Dissipation

• Service shelf (w/ fans)  <150W / <512 BTU
• Protection shelf  0W / 0 BTU

Operating Environment

• Temperature  -5° to 45° C (23° to 113° F)
• Humidity  5 to 95% (non-condensing)
• NEBS Level 3 compliant

Physical Characteristics

(HxWxD) (ANSI/ETSI Standards)

• Dimensions
  • Service shelf (w/ fans)  15.7 x 19.15 x 10.6"
    398 x 487 x 270 mm
  • Protection shelf  8.7 x 19.15 x 10.5"
    221 x 487 x 267 mm
• Weight
  • Service shelf (w/ fans)  <59.0 lbs (<27 kgs)
  • Protection shelf  <26.5 lbs (<12 kgs)
• Power Input
  • Service shelf (w/ fans)  -48 V DC

Features and Specifications subject to change without notice.