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TrueFlex® FS Optical Channel Monitor (OCM)

The TrueFlex FS OCM is designed for high-performance, flexible-spectrum WDM network applications that support ultra-high capacity (100 G and beyond) and mixed channels routed through sophisticated optical mesh networks. Available in single and multiport configurations, it delivers the fast scan times required in advanced WSS and amplifier control systems. All ports are scanned simultaneously for ultra-accurate network channel power control applications. High-resolution filter design and proprietary de-convolution algorithms deliver high adjacent-channel accuracy and superchannel carrier discrimination, similar to an optical spectrum analyzer. Its compact and low-power design enables high-density system designs with minimal footprint.

For fully flexible spectrum monitoring, the TrueFlex FS OCM reports spectral power over any user-specified spectral range and continuous spectral density across the full C-band spectrum. Able to “dwell” on a single spectral slice, the device is ideal not only for long-term control but also for tracking single-channel performance during ramp-up or for troubleshooting.

The FS OCM complements other products in the TrueFlex portfolio with a combination of colorless, directionless, and contentionless (CD/CDC) node attributes that drive flexibility and scalability while minimizing CapEx/OpEx for network providers.

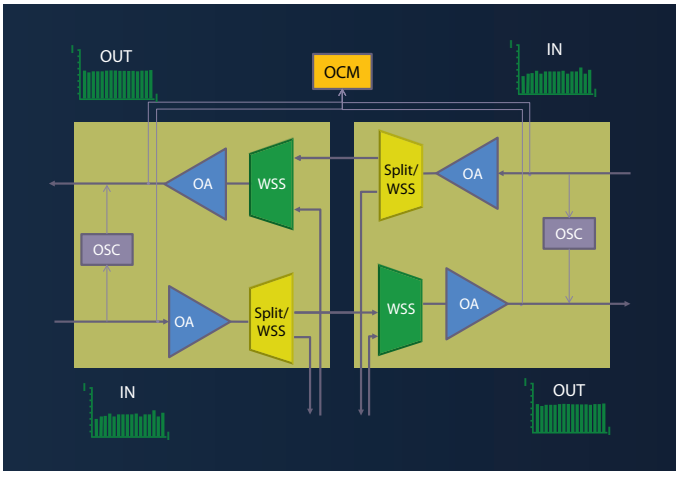
Key Benefits

- Scale monitoring with configurable frequency ranges for conventional or mixed modulation formats and super channels
- Maximize network performance with fast, ultra-fine visibility of channel power
- Reduce cost, footprint, and power consumption for simultaneous monitoring and control of multiple points within a mesh node
- Shorten provisioning and maintenance cycles

ROADM Node Control

High-speed simultaneous port scanning over arbitrary channel bandwidths allows time-synchronized input and output power readings for highly-accurate gain control loops.

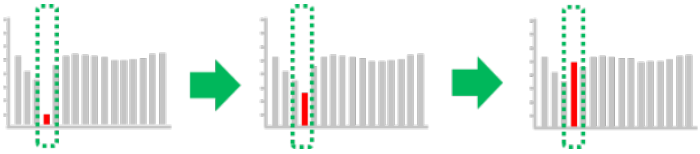
- Optimize system performance to reduce total cost
- Support mixed modulation formats for reach-optimized transport
- Reduce risk of traffic impact during system operation, with fast response



Channel Dwell

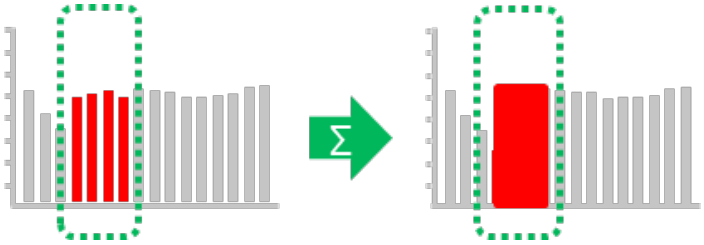
Lock onto an arbitrary channel bandwidth for detailed real-time measurement during operations.

- Optical spectrum analyzer capabilities
- Reduce risk during commissioning
- Accelerate test and troubleshooting



Superchannel Monitoring

High accuracy and high resolution scanning provides OSA-like capabilities for detecting and monitoring individual carriers within super channels.



Specifications

Parameter	Values
Frequency accuracy	±4 GHz
Wavelength spectrum	191.15 – 196.25 THz
Power accuracy	±1 dB
Scan speed	250 ms (all ports)
Channel grid	ITU 100/50 GHz grid compatible or mixed TrueFlex gridless resolution to less than 6.25 GHz
Port count	1, 2, 4
Interfaces	SPI and serial (SCI)
Power consumption	3 W
Dimensions	95 x 44 x 13 mm

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