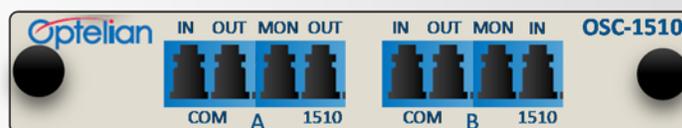




OSC-1510 Module

Optical Supervisory Channel MUX and DEMUX

The OSC-1510 mux and demux module is used to add and drop a 1510-nm optical supervisory channel (OSC) wavelength to/from a DWDM optical signal. It allows out-of-band management and control of network elements without the need for a separate data communication network. An integrated monitor tap is also provided for the composite input and output optical signal. Provided in a compact DMS module footprint, the OSC-1510 is a purely passive device that is able to operate over an extended temperature range.



Features

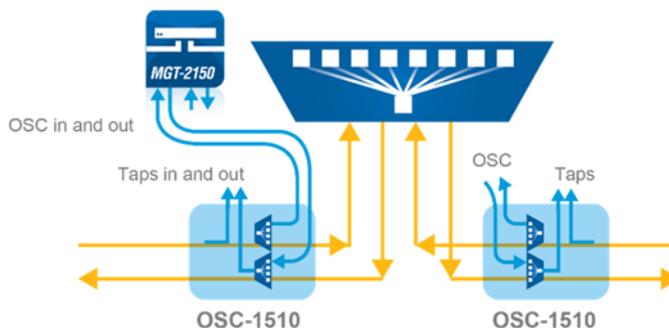
- Low insertion loss
- Negligible latency (<50 ns)
- High optical power handling with exceptional linearity
- Requires no power to operate
- Extended operating temperature range
- Compact DMS form factor
- OSC multiplexing and demultiplexing in a single module
- Integrated input and output monitor taps

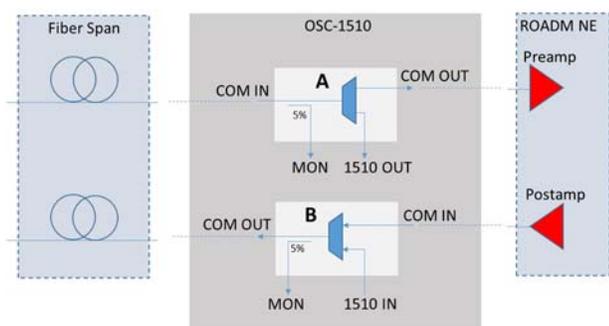
Compliance

- GR-63-CORE
- GR-3108-CORE
- RoHS

Overview

The OSC-1510 allows a 1510-nm OSC to be added and dropped from a DWDM composite signal. The OSC normally carries a 100-Mb/s Ethernet management and control channel, sourced from an OSC SFP inserted into the management card in an OMS shelf. It allows for data communications between network elements, thereby facilitating full network-wide reachability and visibility for network element management and control.





The OSC allows for an out-of-band data communication network (DCN) that does not rely on in-band management schemes, such as when using DCC or GCC overhead bytes in a SONET or OTN signal. An OSC-based DCN provides much higher bandwidth than an in-band DCC/GCC approach, and it allows DCN links to continue to operate during data plane failures, unlike a DCC/GCC approach. Moreover, OSC communication links continue to operate during an optical amplifier or ROADM failure, allowing for an extremely robust DCN.

The integrated input and output monitor taps can be used for fault diagnosis or in-service monitoring of wavelengths. They may also be connected to the OCM-8400 in ROADM implementations to facilitate automatic power balancing for transmitted wavelengths

Specifications

Parameter	Value
Module Type	DMS
Size (H x W x D)	1.5 x 10.7 x 16.5 cm (0.6 x 4.2 x 6.5 in.)
Optical Connectors	8 LC/UPC
OSC Wavelength	1511 nm \pm 6.5 nm
DWDM Wavelengths	1528 nm to 1565 nm
OSC Insertion Loss	1.2 dB maximum
DWDM Insertion Loss	1.0 dB maximum
Monitor Port Insertion Loss	15 dB typical (5% tap)
DWDM/OSC Isolation	40 dB minimum
Maximum Optical Input Power	27 dBm
Latency	<50 ns
Operating Temperature	-40°C to 65°C (-40°F to 149°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Certifications	GR-63/3108-CORE, RoHS

Ordering Information

Model Number	Part Number	Description
OSC-1510	1029-1100	OSC-1510, DMS 1/2-WIDE PASSIVE MODULE

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