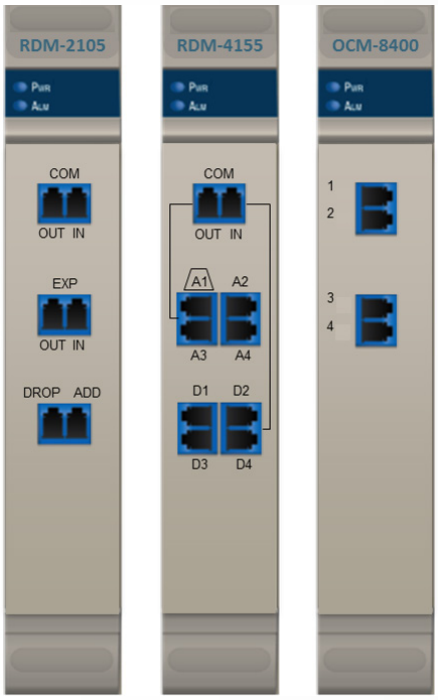


ROADM

RDM and OCM Cards

Demand for new and changing customer applications requires service providers to deploy networking services with scalable capacity to more destinations cost-effectively. Traditional fixed OADM products cannot provide the scalability or flexibility required, but reconfigurable OADMs (ROADMs) can; O-series ROADMs provide an essential capability that reduces total cost of ownership, simplifies operations and delivers rapid time to revenue.

Unrestricted flexibility

- Add, drop and pass-through DWDM wavelengths at network sites, and remotely reconfigure circuits at any time without visiting the site

Network monitoring

- Automatically monitor optical power levels on all wavelengths without requiring an optical spectrum analyzer

Power balancing

- Perform automatic, per-channel optical power balancing in real time

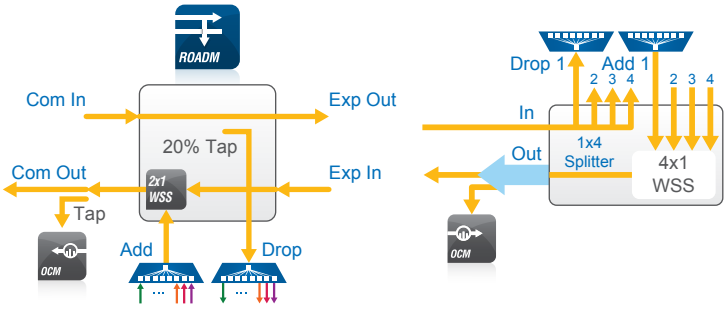
Scalable ROADM sites

- Two-degree and four-degree ROADMs are available to allow multi-degree site deployment
- 40-channel and 80-channel cards enable cost-effective deployment

Reliable infrastructure

- Leverages mature WSS technology for high reliability and low power utilization

ROADM network elements reduce the complexity of planning, provisioning, maintenance and growth. The stranded bandwidth associated with fixed and banded network architectures can be eliminated and replaced with all wavelengths available and configurable on demand at any ROADM site.



In addition to local add and drop capabilities, ROADMs provide channel pass-through capabilities that enable optical mesh networks and extend their reach. This minimizes the need to terminate wavelengths at each site and reduces the quantity of transponders in the network, thereby lowering equipment and operational costs.

Any network capacity and/or bandwidth design can be accommodated with O-series ROADM support of network fiber overlays and full-spectrum access to all DWDM wavelengths.

ROADM

RDM Specifications

Specifications		Minimum	Maximum
Number of channels	RDM-2100, RDM-4100 RDM-2150, RDM-4150		40 C-band, 100 GHz 80 C-band, 50 GHz
Attenuator range		15 dB	
Through insertion loss at 0 dB attenuation setting	RDM-2100, RDM-2150		7.5 dB
Drop port insertion loss	RDM-2100, RDM-2150 RDM-4100, RDM-4150		8 dB 8.1 dB
Add port insertion loss at 0 dB attenuation setting	RDM-2100, RDM-2150 RDM-4100, RDM-4150		6 dB 6.5 dB
Total optical input power	RDM-2100 RDM-2150		25 dBm 27 dBm
Per-channel optical input power	RDM-2100 RDM-2150		7 dBm 12 dBm
Channel clear passband	RDM-2100, RDM-4100 RDM-2150, RDM-4150	+/- 20 GHz +/- 14 GHz	
Return loss		40 dB	
Directivity		30 dB	
Power consumption	RDM-2100 RDM-2150, 4100, 4150		5.5W 4.5W

OCM Specifications

Specification	Value
Number of channels	40 C-band, 100 GHz 80 C-band, 50 GHz
Channel power measurement range	-40 to -10 dBm
Total power measurement range	-25 to 7 dBm
Absolute maximum total input power	17 dBm
Maximum per-channel input power	17 dBm
Power consumption	5.5 to 8.5W

RDM and OCM Common Specifications

Specification	Value
Operating temperature (GR-63-CORE)	-5°C to 55°C (23°F to 131°F)
Operating humidity (relative, non-condensing)	5% to 95%
Connector	LC/PC

Ordering Information

RDM-2100	1007-8710	RDM-2100, 2X1 ROADM, 40 channel, 100 GHz, East-West
RDM-2150	1011-7210	RDM-2150, 2X1 ROADM, 80 channel, 50 GHz, East-West
RDM-4100	1011-6210	RDM-4100, 4X1 ROADM, 40 channel, 100 GHz
RDM-4150	1011-6200	RDM-4150, 4X1 ROADM, 80 channel, 50 GHz
OCM-8400	1015-6500	Optical channel monitor, 4-port, 40/80 channel, 100/50 GHz