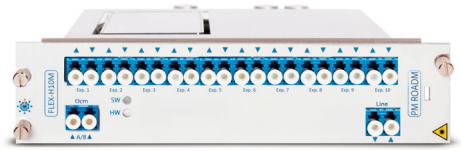


EKINOPS PM ROADM FLEX-H10M

Flexgrid Ten-Degree Pluggable ROADM

DATA SHEET 05 | 2020

KEY FEATURES & BENEFITS

- WSS-based ROADM module
- Colorless, Directionless, Contentionless (CDC)
- Flexgrid channel spacing
- Scalable from 2 to 10 degrees
- Bi-directional OCM monitors channel power at ingress and egress

APPLICATIONS

- Inter-network connectivity
- Optical mesh networks
- Automatic power balanced networks
- Flexgrid networks

OVERVIEW

EKINOPS PM ROADM-FLEX-H10M provides advanced Reconfigurable Optical Add Drop Multiplexer (ROADM) functionality in a pluggable module for the EKINOPS 360 platform. Using a Wavelength Selective Switch (WSS)-based optical switch and Optical Channel Monitor (OCM), it delivers multifunction capability in minimal shelf space. Functionally aligned with EKINOPS PM OA-HCS amplifiers (see separate data sheet), the PM ROADM-FLEX-H10M helps enable network automation capabilities such as automatic topology discovery and end-to-end service creation.

The PM ROADM-FLEX-H10M adds multi-degree wavelength switching and add/drop capabilities to any optical transport network. It can be combined with either EKINOPS optical multiplexers/de-multiplexers or splitters/combiners to support full colorless, directionless and contentionless (CDC) system configurations. Flexgrid compatibility enables gridless, multirate designs by accommodating channels with different spectral widths and spacing requirements. Automatic per-channel power balancing optimizes performance to achieve the highest Optical Signal-to-Noise Ratio (OSNR) possible.

Having a compact and flexible form factor means "plug-and-play" scalability that allows the operator to add degrees when and where necessary without disrupting traffic on the existing degrees. Scalable from two to ten degrees, the PM ROADM-FLEX-H10M extends the network beyond simple point-to-point and ring configurations to spurs and even optical mesh. It also eliminates the need for back-to-back transponders normally required for inter-network connectivity by providing an optical layer junction point for pure wavelength traffic.

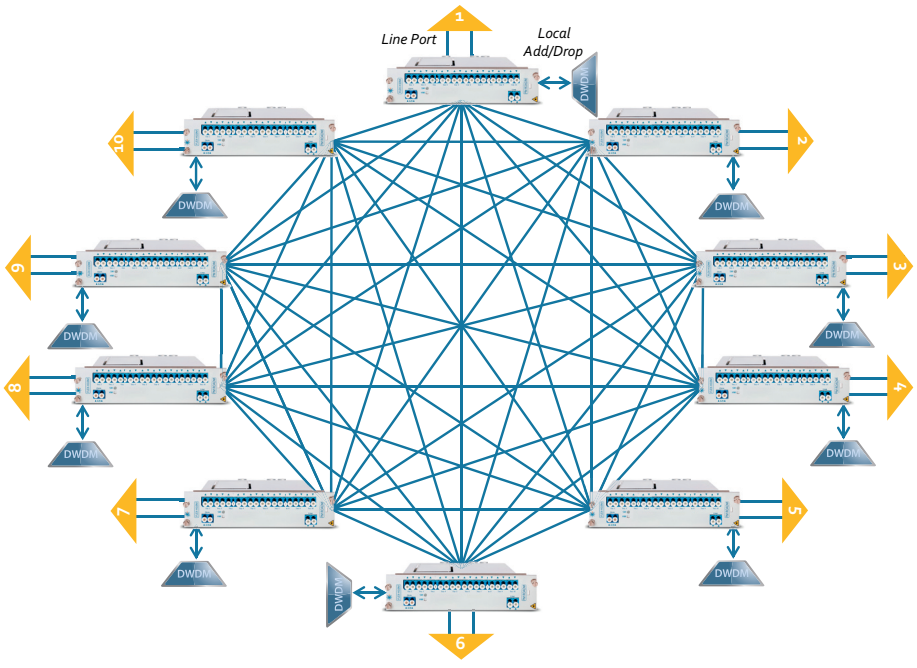
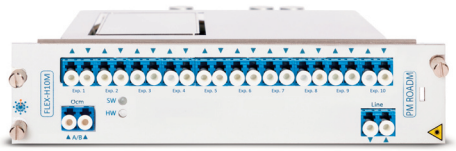


Figure 1: Ten degree network architecture using PM ROADM FLEX-H10M



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MANAGEMENT

The EKINOPS PM ROADM FLEX-H10M can be managed through SNMP or via the EKINOPS standard element level management interfaces, which include a Command Line Interface (CLI) and an EKINOPS Graphical User Interface (GUI). The CLI is accessible via Secure Socket Shell (SSH) and Telnet remotely or via a local serial port on the management board.

Complete performance monitoring and management are provided, including laser shutdown status, amplifier configuration parameters, input power, and output power. The EKINOPS PM ROADM FLEX-H10M is also supported by Celestis**NMS**, the EKINOPS advanced Network Management System.

SPECIFICATIONS

• WSS CHARACTERISTICS

Degrees	1-10
Operating bandwidth range	191.25-196.125 THz
Channels spacing	Flexgrid
Insertion loss (max)	8 dB
Optical Channel Monitor	Integrated, bi-directional

• PHYSICAL SPECIFICATIONS

Optical connectors	Dual LC
Typical power consumption	16W
Max. power consumption	45W
Size	2 slots
Operating temperature	0°C to +50°C / +32°F to +122°F
Storage temperature	-40°C to +85°C / -40°F to +185°F

• MANAGEMENT

MIB	SNMP V2c Private MIB

• REFERENCE STANDARD

ITU-T G.691, ITU-T G959.1, ITU-T G694.1

ORDERING INFORMATION

PLUGGABLE UNIT (PM)

PRODUCT CODE	DESCRIPTION
PM_ROADM_FLEX-H10M	Flexgrid single sided 10 degrees Reconfigurable Add & Drop Unit with integrated bidirectional Optical Channel Monitoring

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