

## EKINOPS PM ROADM-FLEX-H20M

Flexgrid Twenty Degree Pluggable ROADM

DATA SHEET 09 | 2022

### KEY FEATURES & BENEFITS

- WSS-based ROADM module
- Bi-directional OCM monitors channel power at ingress and egress
- Enables 2 to 20 degree ROADM node configurations
- Delivers colorless, directionless and contentionless (CDC) functionality
- Supports Flexgrid architecture
- Allows non-traffic affecting expansion
- Provides automatic power balancing per channel

### APPLICATIONS

- High-degree inter-network connectivity
- Optical mesh networks
- Automatic power balanced networks
- CDC and Flexgrid networks

### OVERVIEW

EKINOPS PM ROADM-FLEX-H20M 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 while improving overall flexibility and performance of your network. By integrating all of these functions, the PM ROADM-FLEX-H20M eliminates the external cabling between modules to more effectively scale to any size network up to twenty degrees.

The PM ROADM-FLEX-H20M adds advanced functionality to any optical transport network. It can be combined with either EKINOPS optical multiplexers or optical couplers to support full colorless, directionless and contentionless (CDC) system configuration. Automatic per-channel power balancing optimizes performance to achieve the highest Optical Signal-to-Noise Ratio (OSNR) possible and Flexgrid compatibility enables multi-rate designs by accommodating channels with different spectral widths and spacing requirements.

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 twenty degrees, the PM ROADM-FLEX-H20M 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.

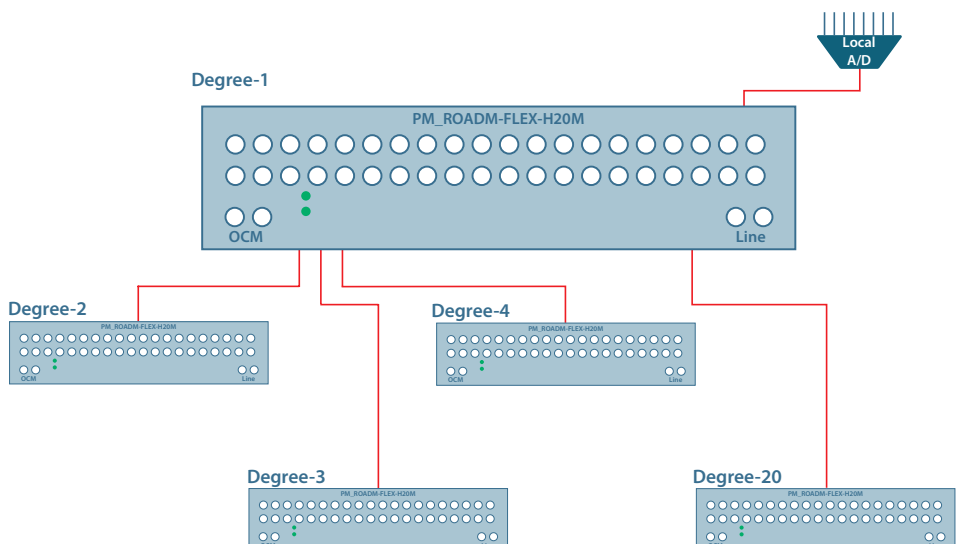
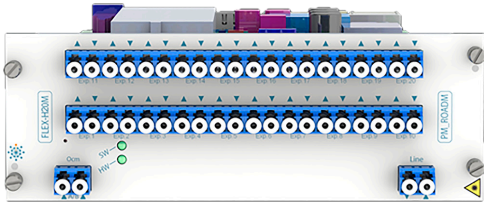


Figure 1: Twenty degree network architecture using PM ROADM-FLEX-H20M



## EKINOPS PM ROADM-FLEX-H20M

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### MANAGEMENT

The EKINOPS PM ROADM-FLEX-H20M 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-H20M is also supported by **Celestis NMS**, the Ekinops advanced Network Management System.

### SPECIFICATIONS

#### • WSS CHARACTERISTICS

Degrees	1-20
Operating bandwidth range	191.25-196.125 THz
Channels spacing	Flexgrid
Insertion loss ( <i>max</i> )	9 dB
Optical Channel Monitor	Integrated

#### • PHYSICAL SPECIFICATIONS

Size	3 slots
Optical connectors	Dual LC
Power consumption ( <i>typ.</i> )	20 W
Power consumption ( <i>max.</i> )	45 W
Operating temperature	0°C to +50°C / +32°F to +122°F
Storage temperature	-20°C to +85°C / -4°F to +185°F

#### • MANAGEMENT

MIB	SNMP V2c Private MIB
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#### • 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-H20M	Flexgrid single sided 20 degrees Reconfigurable Add & Drop Unit with integrated bidirectional Optical Channel Monitoring

#### EKINOPS CHASSIS

C600HC	High Capacity modular chassis 7RU
C200HC	High Capacity modular chassis 2RU
PM_MNGT4	Management card
400EEM	Ekinops Craft Interface Software

### CONTACT



[www.ekinops.com](http://www.ekinops.com)

Ekinops EMEA  
[sales.eu@ekinops.com](mailto:sales.eu@ekinops.com)

Ekinops APAC  
[sales.asia@ekinops.com](mailto:sales.asia@ekinops.com)

Ekinops Americas  
[sales.us@ekinops.com](mailto:sales.us@ekinops.com)