

EKINOPS PM OAC20-ETR

Pluggable C-band Amplifier with Extended Temperature Range Operation



DATA SHEET 02 | 2022

KEY FEATURES & BENEFITS

- Pluggable, bi-directional cost-optimized EDFA suitable for use as booster, pre-amp and inline amplifier
- Independent monitoring point for each direction
- Dynamic gain range
- Variable output power—supports 64- and 80-channel designs
- Integrated optical supervisory channel
- Automatically adjusts for fiber aging
- Interoperable with Ekinops RM ROADM-WB and RM OAC17-WB White Box solutions
- Extended temperature range operation

APPLICATIONS

- C-band based coherent, non-dispersion compensated DWDM networks
- EKINOPS RM ROADM-H4-WB and RM ROADM-H10-WB-based networks
- Extended reach and extended single-span
- High loss networks
- Non-environmentally controlled location

OVERVIEW

EKINOPS PM OAC20-ETR is a pluggable, EDFA-based amplifier that simplifies the process of commissioning and expanding ROADM networks. Part of the Ekinops360 optical transport platform, the PM OAC20-ETR is designed for inline sites that lack adequate environmental controls. Providing settable output power levels and a wide variable gain range from 15dB to 25dB, the PM OAC20-ETR supports all channels across the C-band and has been architected to deliver high performance in a highly cost-effective package even under the most challenging conditions.

The PM OAC20-ETR is a two-slot module compatible with any existing C200HC-ETR chassis. It has bi-directional capability with monitoring points at both egress points for full power monitoring and alarming capability in each direction. Operating in constant gain mode with LLDP based fiber aging compensation, the PM OAC20-ETR automatically adjusts the gain settings for both degradation over time due to aging or splicing, as well as for fast transient power fluctuations caused when channels are added and removed. This automated power adjustment capability eliminates the need to manually re-balance the network as it evolves, avoiding OSNR impact on any of the channels and extending the life of your system.

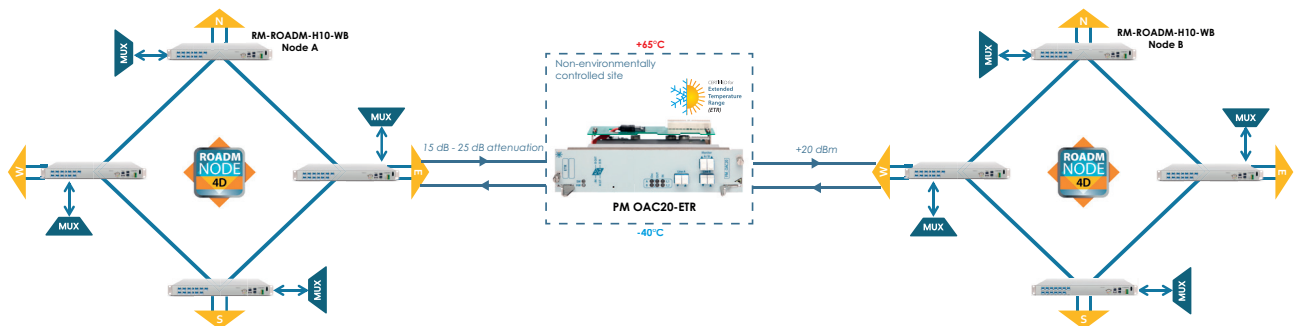


Figure 1: PM OAC20-ETR extends transport distance of a ROADM network in non-environmentally controlled locations

EKINOPS PM OAC20-ETR

Pluggable C-band Amplifier with Extended Temperature Range Operation



MANAGEMENT

The EKINOPS PM OAC20-ETR amplifier module 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 OAC20-ETR module is also supported by **Celestis NMS**, the Ekinops advanced Network Management System.

SPECIFICATIONS

• AMPLIFIER CHARACTERISTICS

Output power	20 dBm
Gain	Variable from 15 dB to 25 dB
Noise figure (@ max. gain)	5.5 dB

• PHYSICAL SPECIFICATIONS

Optical connectors	Dual LC
Power Consumption (+25°C)	12W
Power Consumption (+65°C)	15W
Power Consumption (-40°C)	40W
Size	2 slots
Operating temperature	-40°C to +65°C -40°F to +149°F
Storage temperature	-40°C to +85°C -40°F to +185°F

• MANAGEMENT

MIB	SNMP V2c Private MIB
Remote Management	1510 nm OSC channel

• REFERENCE STANDARD

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

ORDERING INFORMATION

PLUGGABLE MODULE (PM)

PRODUCT CODE	DESCRIPTION
PM_OAC20-ETR	Variable Gain Optical Amplifier compatible with extended temperature range (ETR), 15 to 25db gain, +20dBm output power, for WDM application over the C band. Includes 1510 nm Optical Supervisory channel.

EKINOPS CHASSIS

PRODUCT CODE	DESCRIPTION
C200HC-ETR	High capacity Modular Chassis 2RU compatible with extended temperature
PM_MNGT4-ETR	Management card compatible with extended temperature range (ETR)
400EEM	Ekinops Craft interface software

CONTACT



www.ekinops.com

Ekinops EMEA
sales.eu@ekinops.com

Ekinops APAC
sales.asia@ekinops.com

Ekinops Americas
sales.us@ekinops.com