



EKINOPS PM 800FR04

Pluggable FlexRate™ Muxponder

DATA SHEET 03 | 2024

KEY FEATURES & BENEFITS

- Selectable line rate evolution from 200Gbps to 800Gbps on existing hardware
- Optimal performance for any capacity or reach requirement
- Tunable optical filter (TOF) for plug-and-play deployment in ROADM and coupler-based networks
- One module for all applications
- Easy capacity addition using pluggable QSFP28 and QSFP56-DD client optics
- Simple inventory management and reduced sparing requirements

APPLICATIONS

- Long Haul & ULH Transport
- Metro/Regional Transport
- Data Center Interconnection
- Submarine Transport
- Alien wavelength

OVERVIEW

In today's networking environment, service providers and other network operators require the ability to deliver a variety of applications and services. With a highly differentiated customer base that is demanding a broad set of services with guaranteed performance, they need a high capacity network that is capable of delivering any service to any point in the network. This means having flexibility at the transport layer that is equivalent to the services layer. EKINOPS PM 800FR04 delivers an unprecedented level of configurability and manageability that allows service providers to tune their optical transport network to match their service level needs. Capable of operating in multiple different modes, it supports any type of transport application from metro access to ultra-long haul including data center interconnectivity and even submarine transport.

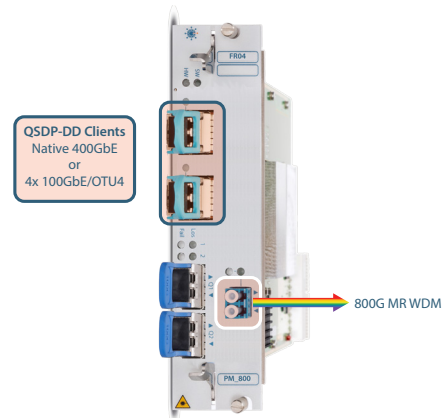


Figure 1: PM 800FR04 in 800G Metro/Regional Mode

The PM 800FR04 has multiple adjustable parameters including modulation scheme, Forward Error Correction (FEC) overhead and baud rate as well as tunable wavelengths that allow service providers to optimize the reach and capacity of their transport network.

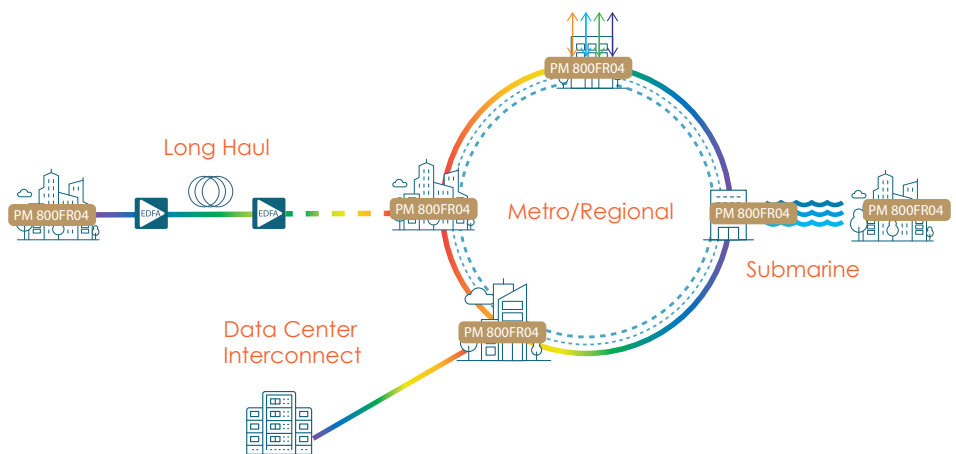


Figure 2: PM 800FR04 supports multiple different applications



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The PM 800FR04 fits seamlessly into existing Ekinops networks and can even be deployed as an alien wavelength over third party line systems. It is fully compatible with existing Ekinops360 C200HC chassis and runs using the same software. Designed as an evolutionary platform, users get access to new and improved features and functionality over time without having to replace hardware.

MANAGEMENT

The EKINOPS PM 800FR04 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 shutoff and local and remote loopback, which is useful for maintenance and fault isolation. Digital Diagnostics Management (DDM) is supported for QSFP28 and QSFP56-DD interfaces. Complete performance monitoring and management are provided by **Celestis NMS**, the Ekinops advanced Network Management System.

SPECIFICATIONS

• CLIENT INTERFACES

Protocols	100GbE; OTU4; 400GbE
Optical interface	2 xQSFP28 2x QSFP56-DD

• LINE INTERFACES

	400G-LH	800G-MR
Modulation	DP-QPSK	DP-16QAM
Baud Rate	135 Gbaud	135 Gbaud

• MANAGEMENT

MIB	SNMP V2c Private MIB
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• PHYSICAL SPECIFICATIONS

Module size	2 slots
Operating temperature	0°C to +50°C / +32°F to +122°F
Storage temperature	-20°C to +85°C / -4°F to +185°F
Typical power consumption	135W (varies according to modulation and baud rate used; includes client optics)
Max. power consumption	165W (varies according to modulation and baud rate used; includes client optics)

• INDICATORS

Status	HW ready, SW ready
Alarm	Port down (<i>Client & Line</i>)

• REFERENCE STANDARDS

ITU-T G707 12/2003 edition; ITU-T G709; IEEE 802.3-2002; IEEE 803.3ae-2002; IEEE 802.3ba; ISO/IEC 18033-3



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ORDERING INFORMATION

PLUGGABLE MODULE (PM)

EKINOPS CHASSIS

PRODUCT CODE	DESCRIPTION
PM_800FR04-A	400G/ 800G FlexRate muxponder, 4 client ports (2x QSFP28, 2x QSFP56-DD, support 100GbE, OTU4 & 400GbE), 1 tunable line interface with DCC (QSFP28/56/DD not included, tunable line interface included).
C200HC	High capacity modular chassis 2RU
PM_MNGT4-2	Management card
400EEM	Ekinops Craft interface software

CONTACT



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