EKINOPS PM_LC1-MP1-C

200G Line Module for ETS Compact Chassis

DATA SHEET 05 | 2024

KEY FEATURES & BENEFITS

- 200G OTN switching and transport capacity in a single-slot
- Multi-rate support from 1Gbps to 100Gbps
- Transparent client support
- Pluggable optics for both client and line
- Embedded management & timing functions
- Standard G.709 mapping & FEC

APPLICATIONS

- 1GbE and 10GbE service aggregation over OTN networks
- Ring application with 1+1 service protection
- Multiprotocol service delivery
- Edge OTN switching and WDM transport
- Network demarcation and interconnection

OVERVIEW

EKINOPS PM_LC1-MP1-C is a multi-rate, service aggregation module for the Ekinops Transport Switch 1RU Compact Chassis, the ETSc1 (see separate data sheet). It consists of SFP/SFP+ and QSFP28 pluggable interfaces with 200Gbps of total line card capacity. As a single-slot, pluggable module for the ETSc1, the PM_LC1-MP1-C provides support for a wide range of service types and speeds. It also provides blade-based ODUk switching capability compatible with the switch fabric feature found on the centralized switch cards of the larger ETS chassis for seamless operation from edge to core.

The PM_LC1-MP1-C provides switching capability from ODU0 to ODU4 meaning any service, regardless of protocol or speed, can be managed individually across any OTN-based network, and even across multiple network boundaries. It supports up to ten SFP/SFP+ interfaces that can accommodate both 1GbE and 10GbE services or OTU2 10G uplink, while the QSFP28 provides an OTU4 B&W interface with LR optics for up to 40Km reach.

APPLICATIONS

Designed for the network edge, the PM_LC1-MP1-C increases network agility and bandwidth optimization by efficiently mapping up to eight Gigabit Ethernet interfaces into ODU0 payloads or ten 10GbE interfaces into ODU2e for further aggregation to OTU2 or OTU4 uplinks to the network core while providing service-level fan out to client devices.

The PM_LC1-MP1-C can also be used for mobile fronthaul applications to deliver both 10G and 100G links between antenna sites and node sites to both aggregate small-cells and provide the capacity required as the mobile network migrates from 4G to 5G. Its transport capabilities support 5G network slicing with the low latency connectivity that the various network functions require to maintain performance.
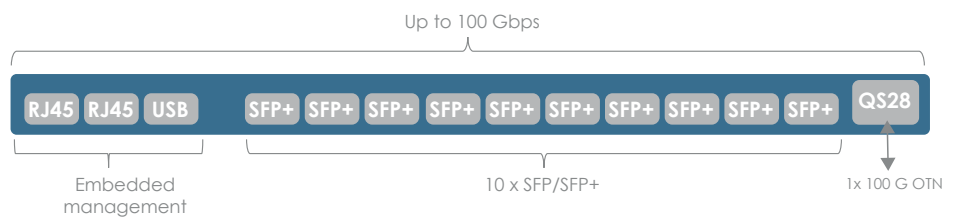

Figure 1: PM_LC1-MP1-C Interfaces

EKINOPS
Empowering Networks

EKINOPS PM_LC1-MP1-C

200G Line Module for ETS Compact Chassis

MANAGEMENT

The PM_LC1-MP1-C contains embedded management and timing functions. Redundant management and timing can be achieved on the Ekinops RM_ETSc1 by populating the chassis with two PM_LC1-MP1-C cards.

Ekinops Celestis NMS provides standards-based Telecommunications Management Network *(TMN)* management functions for the OTN Switch Equipment, Networks and Services. Celestis NMS has a distributed architecture in order to ensure flexibility for managing a variety of network technologies, high availability, high performance and scalability. Celestis NMS applications can be installed in a single standalone server for managing small networks or in multi-server clusters to ensure high availability and scalability when managing large networks.

SDN-ready, Celestis **NMS** connects to the PM_LC1-MP1-C via NETCONF while the northbound interface (NBI) is based on REST/JSON and SNMP.

SPECIFICATIONS

• OPTICAL INTERFACES

Type	No. Ports	Tributary	OTN Line
SFP/SFP+	10	1GbE; 10 GbE	OTU2; WDM or B&W
QSFP28	1	N/A	OTU4; B&W

• MANAGEMENT

Protocol	NETCONF (YANG model); SNMP
Remote management	GCC

• PHYSICAL SPECIFICATIONS

Module size	1 slot in ETSc1
Power consumption (typical)	80W
Power consumption (max.)	85W
Operating temperature	0°C to +50°C / +32°F to +122°F
Storage temperature	-20°C to +85°C / -4°F to +185°F

ORDERING INFORMATION

PLUGGABLE MODULE (PM)

PRODUCT CODE	DESCRIPTION
PM_LC1-MP1-C	Line Card 100G, 1xQSFP28 100G interface + 10xSFP/SFP+ GbE/10GbE B/W interfaces. Add/Drop capacity for GbE traffic multiplexed into ODU0 level to OTU2 or 10GbE multiplexed into ODU2e to OTU4 100G interfaces. Allows protection 1+1 via back-plane for two direction (ring application). Pluggable optics not included.

EKINOPS CHASSIS

PRODUCT CODE	DESCRIPTION
RM_ETSc1	1RU empty chassis OTN Switching

CONTACT

www.ekinops.com

Ekinops EMEA
sales.eu@ekinops.com

Ekinops APAC
sales.asia@ekinops.com

Ekinops Americas
sales.us@ekinops.com