EKINOPS**360**

EKINOPS RM_ETSc2

Two-Slot Compact OTN Transport Switch

KEY FEATURES & BENEFITS

- 1Tbps switching capacity in 3RU form factor
- Up to 500G card slot capacity, HW ready
- Configurable as an OTN switch
- Through-backplane switching between line cards
- Point-and click service provisioning
- Automatic discovery
- Common software management and feature set shared across ETS platform
- Redundant management, timing and power
- ASON-based control plane
- Multiple protection and restoration schemes
- Service SNCP protection (1+1) with TCM level
- SDN Ready Platform—NETCONF (YANG model) and ConfD

APPLICATIONS

- Edge service aggregation over OTN networks
- Multiprotocol service delivery
- Low density OTN switching and WDM transport
- Network demarcation and interconnection

OVERVIEW

The Ekinops ETSc2 is an OTN access switch that provides up to 1Tbps of blade-based switching and transport in a small 3RU form factor along with 1+1 protection for both ring and linear configurations. Designed as a highly cost effective solution for low bitrate services up to 100G, the ETSc2 is ideal for larger edge and small aggregation sites. The ETSc2 increases network agility and bandwidth optimization by mapping up to 10G, 100G, 200G interfaces into ODUk payloads for aggregation to OTU4 uplinks to the network core while providing service-level fan out to client devices. It supports one or two line cards along with redundant management, timing and power modules in 1+1 configuration for carrier class reliability and through-backplane switching between the cards.

The ETSc2 is part of the Ekinops Transport Switch (ETS) product family, a G.709 standards-based OTN switch platform that can be seamlessly integrated into any transport network. The ETS platform improves the efficiency, flexibility and reliability of your transport network by "virtualizing" valuable optical resources allowing you to right-size capacity to meet demand.

The ETSc2 uses a distributed ASON-based software control plane that enables service configuration and performance monitoring. It also provides link verification, discovery of network elements and trails, as well as multilayer resource availability functions providing all nodes full knowledge of the network state in real time. The software also abstracts and simplifies the underlying switch complexity using an interface adaptation layer that allows the operator to configure the OTN switch using simple commands from the management system or via a SDN environment. The control plane, in combination with the Celestis NMS network management system, supports multiple line protection schemes including 1+1 to maximize the availability of high priority traffic.

MANAGEMENT

Ekinops Celestis NMS provides standards-based Telecommunications Management Network *(TMN)* 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. It can also create management clusters in which it can manage multiple chassis as a single network element using a single IP address.

SDN-ready, Celestis **NMS** connects to the network elements via NETCONF while the Northbound interface (NBI) is based on REST/JSON and SNMP.

EKINOPS
Empowering Networks

SPECIFICATIONS

• PHYSICAL SPECIFICATIONS

Switch & Transport Capacity

OTN Switch Mode:	1Tbps
Wavelength support:	88 wavelengths in C-band
Switch Matrix:	ODUk (k=2, 2e, 4)

Line Cards Supported *(see separate data sheet)*

200Gbps	LC4-MP2-A
500Gbps	LC5-MP4-D

Client Interfaces

Ethernet:	10GbE/100GbE
OTN:	OTU2/OTU2e/OTU4

Line Interfaces

200G/100G
DWDM coherent or gray optics

System Configurations

1+0 *(unprotected)*
1+1
SNC/S 1+1 protection with TCM

System Management

In-band:	GCC0 channel and Monitoring BIP-8, BEI, BDI, STAT

Environmental Characteristics

Power consumption (typical)	177W
Power consumption (max.)	190W
Operating temperature:	0°C to +50°C / +32°F to +122°F
Storage temperature	-20°C to +85°C / -4°F to +185°F

Physical Characteristics

Height:	3RU
Width:	19"/475mm
Depth:	9.6" / 240mm

ORDERING INFORMATION

RACK MOUNTABLE UNIT (RM)

PRODUCT CODE	DESCRIPTION
RM_ETSc2	3RU empty chassis OTN switching
PM_MNGT_ETSc	Management Card for ETSc6 OTN switch compact chassis
PM_FAN_ETSc2	FAN modules, ETSc2 compact chassis *(with redundancy)*
PM_PU_ETSc6	Power Unit blade for RM_ETSc6 and RM_ETSc2 chassis, compact OTN switch platform, -48 VDC, 0 VDC and Frame Ground *(DGND)*

CONTACT

www.ekinops.com

Ekinops EMEA
sales.eu@ekinops.com

Ekinops APAC
sales.asia@ekinops.com

Ekinops Americas
sales.us@ekinops.com