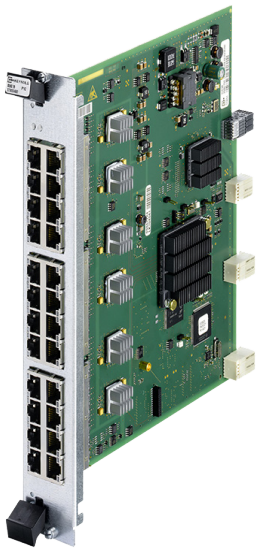
XMC20 ETE24

The high-density Ethernet unit provides 24 Gigabit Ethernet ports with advanced switching functionality for mission-critical applications



The ETE24 Ethernet unit provides 24 electrical Gigabit Ethernet interfaces with comprehensive features and high standards for applications that require a reliable data transmission. The ETE24 may be used for various services as including LAN interconnection or voice, and video transmission.

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01 XMC20 ETE24

XMC20 in conjunction with ETE24 is a modular Ethernet switch with powerful switching capacity. With it, you can start with a small installation and expand the switch flexibly from 24 up to 240 interfaces.

- 24 x 10/100/1000 Mbps Electrical Ethernet interfaces
- For Subracks XMC25, XMC23, and XMC22
- ERPS for Protection Switching in Ethernet rings (System Release R4 only)
- Synchronous Ethernet readiness
- Supports XMC20 chassis switch architecture
- For indoor and outdoor deployment
- Supports fanless operation
- All functions out of one network management system

Ethernet services
The ETE24 hardware has been prepared for Synchronous Ethernet (SyncE) to synchronize on NE clock and achieve accurate transmission times and reduce jitter/ wander as well as asymmetric delay.

ETE24 delivers advanced Ethernet functionalities such as VLAN tagging/ stacking, jumbo frames, VLAN QoS, RSTP, MSTP (R4), port security, ERPS (R4) and MPLS-TP AC (R6).

ETE24 provides high bandwidths of up to 1,000 Mbps via standard RJ45 connectors. Each of the electrical Ethernet interfaces can be configured individually.

With the unit high-density Ethernet access nodes can be realised. With its 10 Gbps (R8) backplane access, sufficient bandwidth can be delivered for each port. So a wide range of Ethernet applications can be realised, from standard LAN connections up to mission-critical Ethernet data transmission.

Ethernet data aggregated on ETE24 can also take advantage of the different XMC20 multiservice capabilities and the variety of interfaces and transport technologies, e.g. optical and electrical Ethernet, MPLS-TP AC, and the SDH uplink via Ethernet over SDH.

ERPS for protection switching
ETE24 supports Ethernet Ring Protection Switching (ERPS) for rapid restoration within Ethernet networks in ring topologies. ERPS compliance with ITU-T G.8032v2 allows ring interconnections supporting major/subring configurations and multiple ERP instances (or multiple logical rings).

Chassis switch architecture
ETE24 is part of XMC20 chassis switch architecture. This means, that XMC20 acts as one switch with one IP address and expandable number of ports. Every inserted Ethernet unit will expand the switch. With it you can adapt your access node to the local demands.

Safety concept
XMC20 offers highest reliability and quality. For this purpose all modules come with an onboard power supply and high MTBF values.

Management
The XMC20 management and the variety of services are administrated centrally by a variety of network management interfaces.Operators save costs and accelerate the provisioning process with only one element manager for all services.

Technical Data

Data Transmission	
Number of ports	24 x 10/100/1000 Mbps
Connector	RJ45

Synchronization	
SyncE	Synchronous Ethernet ready for downstream mode (with future firmware update)

Ethernet Functionality	
VLAN services	Customer bridging acc. to IEEE 802.1Q-2011, 4096 VLANs supported Port-based customer VLAN tunnelling (Q-in-Q) Port-/PCP-/DSCP-based classification (CoS) of ingress traffic with eight priority queues per port Maximum frame length of up to 9216 bytes (Jumbo frames)
Port Mirroring	Up to 32 source ports (RX/TX traffic) to a single mirror port
Port Security	Ingress Storm Control (flood control, flood rate limiting)
Spanning Tree Protocols	RSTP (Rapid Spanning Tree Protocol), acc. to IEEE 802.1D-2004 MSTP (Multiple Spanning Tree Protocol), acc. IEEE 802.1Q-2011
ERPS	Ethernet Ring Protection Switching (ERPS), acc. to ITU-T G.8032v2, supporting up to 12 ERP instances

Further Hardware Information	
MTBF	50 years at 35° C
Module width	2 Slots

Management	
ECST	For local management and offline configuration
UNEM	For central management

Power Supply	
Input voltage nominal (min/max)	–48/–60 V DC (–39.5 V DC ... –72 V DC)

Operation Environment	
Temperature range and humidity	According to XMC20 environmental specifications

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