



X-Metro 8424

Temp-Hardened High-Capacity 4x100G Carrier Ethernet Solution

The **X-Metro 8424**, a key member of the X-Series, is a **temp-hardened Carrier Ethernet solution** designed for high-capacity and high-performance network applications. Equipped with **4 x 100G/40G ports** and **24 x 25G/10G/1G ports**, it supports scalable, low-latency performance in even the harshest environments.

Notably, the **X-Metro 8424** is Telco Systems' first-ever product to feature SFP28/SFP+/SFP ports, offering flexible **25G, 10G, and 1G connectivity** for enhanced scalability and future-proofing your network infrastructure.

With comprehensive **Layer 2/3 support, MPLS, network slicing**, and advanced OAM capabilities, the **X-Metro 8424** provides exceptional flexibility across a wide range of networking environments. Whether your needs involve mobile backhaul, enterprise connectivity, or **high-speed broadband**, this solution delivers the resilience, scalability, and performance to keep your network ahead of evolving demands.

Highlights

High Capacity and Performance

Supports **2Tbps device capacity** with **4.8Tbps chip capacity**, delivering reliable, scalable high-speed connectivity for demanding network environments.

Temp-Hardened Design

Built for harsh environments, the **XM-8424** operates between **-40°C to +65°C**, ensuring performance in extreme conditions.

Advanced Synchronization

Equipped with **SyncE and 1588v2** for precise and reliable clock synchronization, ensuring mission-critical network operations.

Comprehensive OAM and QoS

Provides robust **hardware-based OAM** and advanced **QoS features** for traffic management, including hierarchical scheduling and WRED.



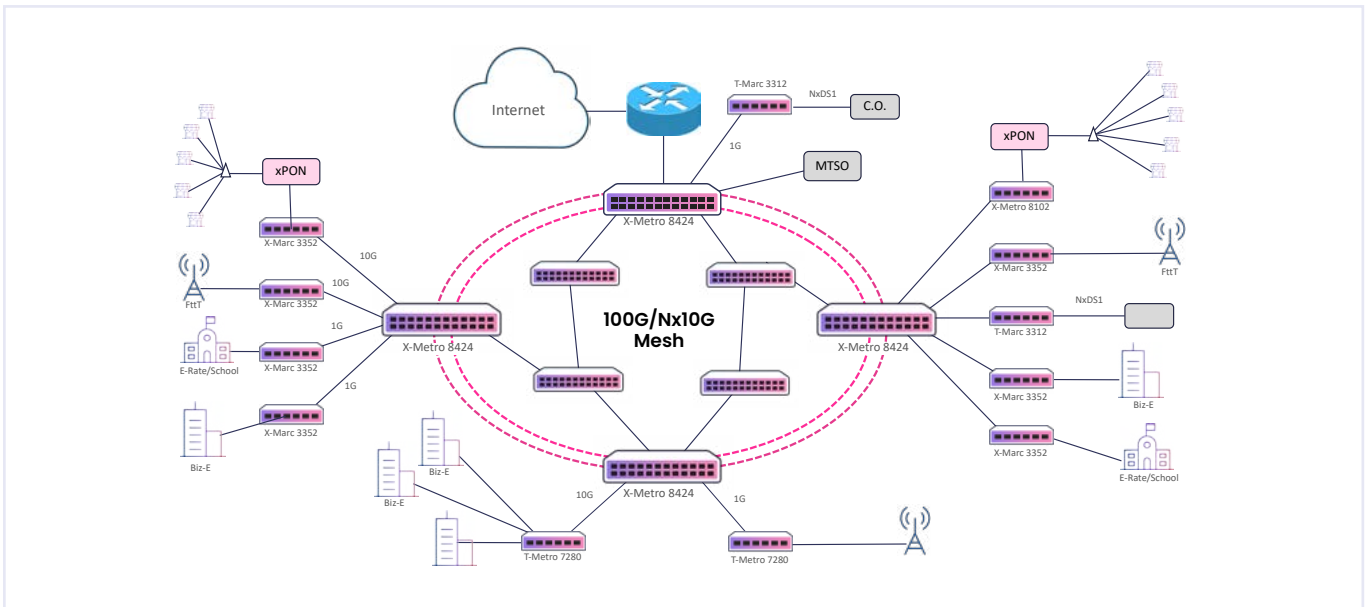
Technical Specifications

Interfaces	4 x 100G/40G QSFP28/QSFP+ & 24 x 25G/10G/1G SFP28/SFP+
Switching Capacity	2Tbps (Device), 4.8Tbps (Chip)
Latency	Sub-1 microsecond switching latency
Management	CLI, SNMP, Netconf, USB console, Telnet, SSHv2, Syslog, Web-based GUI
QoS Features	8 hardware queues per port, SP/WRR queue scheduling, traffic shaping
Security	802.1x, ACLs, RADIUS, TACACS, encryption (MACsec), CPU CAR
Redundancy	Dual redundant power supplies, failover, LAG (Static/LACP), MC-LAG
Power Supply	100-240V AC & 48-60V DC, redundant
Dimensions	1U, 19" rack-mountable (440 x 44 x 310 mm)
Operating Temperature	-40°C to +65°C (Temp-Hardened)
Certification	MEF 2.0, CE 2.0, RoHS, CE, FCC
Regulatory Compliance	European CE marking, EN 55022 Class A, CISPR 22 Class A, EN55024:1998+A1, EMC Immunity, Harmonics: EN 61000-3-2/ IEC 61000-3-2, Voltage fluctuations: EN 61000-3-3/ IEC 61000-3-3, ESD: EN 61000-4-2/ IEC 61000-4-2, RFI-AM: EN 61000-4-3/ IEC 61000-4-3, EFT: EN 61000-4-4/ IEC 61000-4-4, Surges: EN 61000-4-5/ IEC 61000-4-5, Conducted: EN61000-4-6/ IEC 61000-4-6, Voltage DIP: EN 61000-4-11/ IEC 61000-4-11, EMC Emissions, FCC 47 CFR Part 15 Class A, ICES-003 Issue 4 Class A (Canada), EN 300386, Telcordia GR-1089 issue 4

Features and Capabilities

Ethernet Services	<ul style="list-style-type: none"> - MAC address table (32k), Jumbo frame support (up to 12288 Bytes), 4094 VLANs, Super VLANs, Private VLANs - MEF 2.0 compliant services (E-LINE, E-LAN, E-TREE)
IP Services	IPv4/v6 routing (RIP, OSPFv2/v3, BGP, ISISv4/v6), VRF Lite, DHCP server/client/relay, snooping
MPLS Services	MPLS L2VPN (VPWS, VPLS, H-VPLS), L3VPN, EVPN, MPLS TE, RSVP-TE, MPLS Fast Reroute (FRR), LDP
QoS Capabilities	Classification based on MAC, IP, port, VLAN, CoS; Traffic shaping, WRED, SP/WRR queue scheduling
Reliability	IEEE 802.1ax Link Aggregation (LACP), ITU-T G.8031/G.8032 ERPS, VRRP, MPLS PW redundancy
OAM & SLA Assurance	Hardware-based IEEE 802.1ag/ITU-T Y.1731, performance monitoring (LM, DM), BFD, RFC2544, Y.1564
Synchronization	SyncE and IEEE 1588v2 (OC, BC, TC) for high-precision timing and synchronization

Applications



Mobile Backhaul

The XM-8424 supports **MPLS L2VPN/L3VPN services**, making it ideal for high-capacity mobile backhaul applications. Its temp-hardened design ensures performance in challenging conditions.

Enterprise Connectivity

Offers secure and high-speed **Ethernet and VPN services** with advanced traffic management and QoS, ensuring superior performance and reliability for enterprise networks.

High-Speed Broadband

Designed to meet the demands of service providers delivering **IPTV, VoIP**, and other high-bandwidth services, the XM-8424 ensures efficient, scalable broadband services.

Ordering Information

Part Number	Description
XM-8424-AC-x	1U, 4x100G/40G QSFP28/QSFP+24x25G/10G/1G SFP28/ SFP+/SFP, CE/MPLS, single swappable AC power supply
XM-8424-DC	1U, 4x100G/40G QSFP28/QSFP+24x25G/10G/1G SFP28/ SFP+/SFP, CE/MPLS, single swappable DC power supply
XM-8424-2AC-x	1U, 4x100G/40G QSFP28/QSFP+24x25G/10G/1G SFP28/ SFP+/SFP, CE/MPLS, dual hot-swappable AC power supply
XM-8424-2DC	1U, 4x100G/40G QSFP28/QSFP+24x25G/10G/1G SFP28/ SFP+/SFP, CE/MPLS, dual hot-swappable DC power supply
XM-8424-AC/DC	1U, 4x100G/40G QSFP28/QSFP+24x25G/10G/1G SFP28/ SFP+/SFP, CE/MPLS, one hot-swappable AC power supply and one hot-swappable DC power supply

Experience the Power of the X-Series: Invest in the **X-Metro 8424** to boost your network's performance, scalability, and reliability in the most challenging environments.

Contact Telco Systems at sales@telco.com to learn how the XM-8424 can transform your network.