

TELCO SYSTEMS

TM-3312



Ethernet/MPLS/IP and TDM CES Multi-Service NID

The Telco Systems TM-3312 is a compact, high-performance Network Interface Device that bridges legacy and modern networks. It combines Carrier Ethernet, MPLS, IP, and TDM Circuit Emulation Services (CES) on a single platform—ideal for business, mobile backhaul, and wholesale applications.

With precise synchronization, advanced OAM, and sub-50 ms resiliency, the TM-3312 delivers SLA-assured connectivity and enables a smooth migration from TDM to packet networks.

Highlights

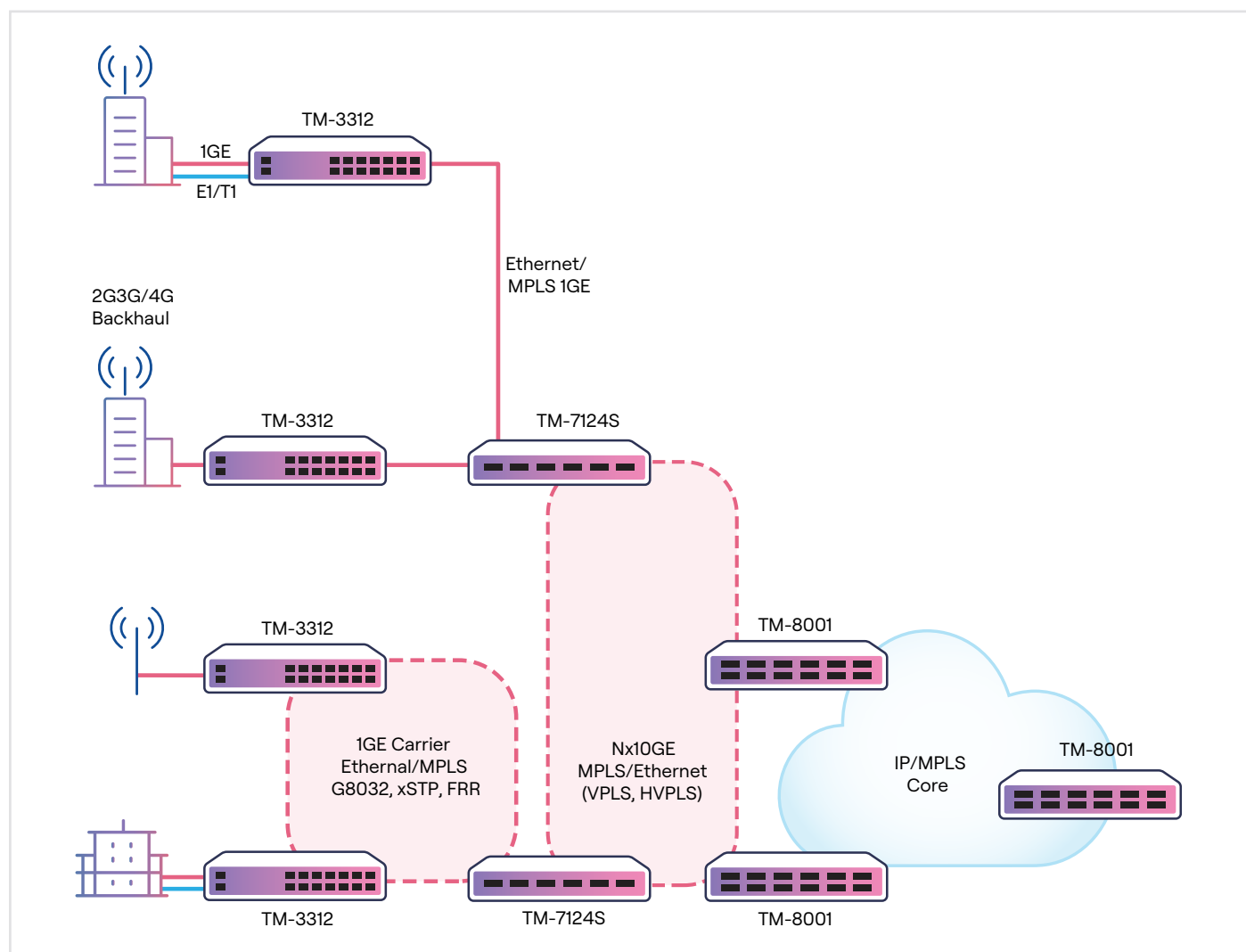
Circuit Emulation & Synchronization	Delivers reliable TDM over packet networks with CES, SyncE, and adaptive clocking, meeting precise timing needs for 2G/3G/4G deployments.
Flexible Traffic & Service Control	Supports Ethernet and MPLS with advanced QoS, LDP, and RSVP-TE, ensuring traffic engineering, protection, and minimal service interruption.
Advanced OAM & SLA Assurance	Integrated IEEE 802.1ag, ITU-T Y.1731, and MEF tools provide end-to-end visibility, performance monitoring, and proactive service assurance.
SDN-Ready Design	Full NETCONF/YANG support for automation, remote configuration, and seamless integration into SDN environments.

General Specifications

Dimensions (H x W x D)	1.75" (1RU) × 8.7" × 9.25" (44 mm × 221 mm × 235 mm)
Weight	1.1 kg
Power Supply	100–240 VAC, 50/60 Hz / -24VDC to -72VDC
Operating Temperature	0°C to 50°C (32°F to 122°F) and -40°C to 65°C (-40°F to 149°F) for the TMC-3312SCH Storage Temperature: -25°C to 70°C (-13°F to 158°F)
Humidity	5% to 95% non-condensing
Management	Console, Telnet, SSHv2, RADIUS, TACACS+, SNMP v1/2/3, xFTP, NTP, SD card, DHCP client/server, Zero Touch Provisioning

Capabilities

- Mobile backhaul-optimized demarcation for 2G/3G/4G networks.
- Carrier-grade Ethernet, MPLS & IP L2/L3 VPN service demarcation.
- Non-blocking wire-speed switching performance.
- Hierarchical QoS (HQoS) for multi-service scalability and traffic control.
- Sub-50 ms recovery with FRR, MSTP, and G.8032 ring protection.
- Circuit Emulation Services (CES) for legacy TDM over packet.
- MEF, IEEE, ITU-T and IETF standards compliance for interoperability.
- Seamless integration with EdgeGenie for centralized management.
- Optional BITS in/out interfaces and hardened temperature (SCH version).



Key Applications

- Business L2/L3 VPN and TDM circuit emulation services
- MPLS/Ethernet cell site gateway for mobile backhaul
- Converged TDM and IP demarcation for multi-generation networks
- Multi-service aggregation with HQoS and traffic separation
- SLA-based service assurance for wholesale and enterprise customers
- High-resiliency networks with sub-50 ms recovery

Technical Specifications

Hardware Characteristics	8 × 100FX/1000BaseX SFP ports 4 × 10/100/1000BaseT RJ45 ports 8 × T1/E1 ports using TDM CES 1 × Console RJ45 port Non-blocking 13Gbps Full-Duplex platform 19" rack and wall-mounting options
Services	MEF Services: E-LINE, E-LAN, E-TREE, & E-ACCESS (MEF CE 2.0) L2 Services: IEEE 802.1Q bridging, IEEE 802.1ad Q-in-Q and TLS MPLS Services: VPWS, VPLS and HVPLS MPLS Signaling: RSVP-TE, BGP, LDP/T-LDP and Static MPLS L3 Services: VRF, VRF-Lite, DHCP client/server, VRRP, L3 VPN IP Routing: Static routing, OSPF, IS-IS and BGP CES: CESoPSN, CESoMPLS, SAToP
Resiliency	Sub-50ms ITU-T G.8032, R-APS, STP/RSTP/MSTP, Sub-50ms Fast Ring, Sub-50ms FRR, HVPLS dual homing, secondary LSP, Resilient Link, LAG (static/IEEE 802.3ad LACP/MC-LAG), BFD, redundant AC/DC power supply
Quality of Service	Service classification per port/EVC/flow single/dual rate limiting, hierarchical rate limit per EVC. Hierarchical QoS. Support multi-level SP, WRR and hybrid frames scheduling, COS marking and mapping per EVC, flow control for congestion handling
Multicast Management	IGMP snooping v1/v2/v3, IGMP Proxy, Multicast VLAN registration (MVR)
OAM	IEEE 802.3ah EFM, Hardware-based IEEE 802.1ag CFM, OAM over VPLS, MPLS Ping
Testing & Monitoring	Hardware-based ITU-T Y.1564 and RFC 2544 test head, loopback and service performance analyzer, MEF46 Latching Loopback controller and responder, ITU-T Y.1731 PM, SM and Part Number Description SLM support, per-port/EVC/VLAN/COS, hardware-based MACSwap loopbacks, TWAMP w/auto-testing
Timing	SyncE, adaptive clocking, and BITS in/out interfaces*
Security	ACLs, RADIUS, SSHv2, SNMPv3, SFTP, port security, broadcast storm prevention, secured access, ARP protection
Regulatory compliance	Europe: EMC DIRECTIVE 2014/30/EU, including EN 300386 NA: FCC 47 CFR Part 15B Class A (USA), ICES-003 Class A (Canada) Japan: VCCI Class A Australia/NZ: AS/NZS-CISPR 32 Class A
Environmental and Safety	Europe: LVD DIRECTIVE 2014/35/EU – EN 62368-1 RoHS DIRECTIVE 2011/65/EU, Directive (EU) 2015/863 NA: UL 62368-1/CAN.CSA 22.2 No. 62368-1 Class 1 Laser product safety (eye safety) IEC 60825-1

Ordering Information

Part Number	Description
TMC-3312SC-2AC-x	NextGen Ethernet/MPLS/IP Mobile Backhaul Demarcation: 4×10/100/1000Base-T UNI/NNI, 8×100Base-FX/1000Base-X UNI/NNI, 8×T1/E1 CES (RJ-45), 1×RJ-45 ASCII management console port; 2×internal AC power supplies; SyncE support.
TMC-3312SC-2DC	NextGen Ethernet/MPLS/IP Mobile Backhaul Demarcation: 4×10/100/1000Base-T UNI/NNI, 8×100Base-FX/1000Base-X UNI/NNI, 8×T1/E1 CES (RJ-45), 1×RJ-45 ASCII management console port; 2×internal DC wide-range (-24 VDC ~-72 VDC) power supplies; SyncE support.
TMC-3312SH-2DC	NextGen Ethernet/MPLS/IP Mobile Backhaul Demarcation: 4×10/100/1000Base-T UNI/NNI, 8×100Base-FX/1000Base-X UNI/NNI, 8×T1/E1 CES (RJ-45), 1×RJ-45 ASCII management console port; 2×internal DC wide-range (-24 VDC ~-72 VDC) power supplies; SyncE support, with the addition of BITS in/out interfaces, support clock, and hardened temperature range (-40°C to 65°C / -40°F to 149°F).

Experience the Power of Telco Systems T-Series: Invest in **TM-3312** to boost your network.

Contact us at salesnetworks@batm.com or visit our website www.telco.com.