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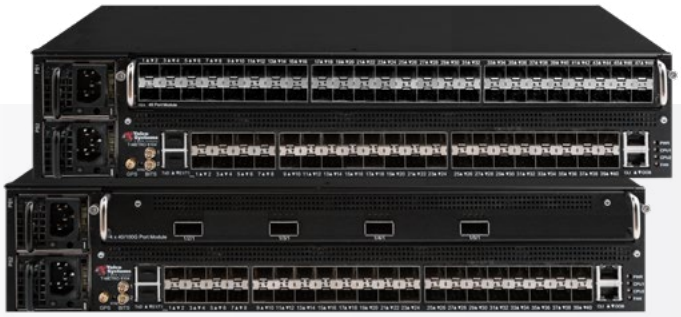
TELCO SYSTEMS
TM-8104



Modular 1.2Tb Multi-Service Aggregation Platform

Telco Systems TM-8104 is the Industry's leading MEF CE3.0-ready, modular, multipurpose, ultrahigh capacity 1.2Tb service aggregation platform. It enables L2/ L3 VPN services, aggregate impressive number of 1/10Ge interfaces and hence assure rapid adaptability to service providers' changing service offerings while staying in line with business strategy. The TM-8104 offers next-generation capabilities. It combines a high-density, standalone and SLA-enabling Carrier Ethernet platform with powerful switching capacity of up to 1.2Tb. Its service scalability, carrier-class resiliency, and advanced features include L2 & L3 VPN, QoS & OAM, for multiple use cases, including Off Net aggregation, Direct Internet Access (DIA), mobile backhaul (MBH), and optional testing diagnostics.

Highlights

Scalable High-Performance Design	2U rack unit with optional expansion cards, featuring 100GE OAM, hot-swappable fans, and dual AC/DC power.
Reliable Aggregation Platform	Built from the ground up to deliver a dependable and future-ready aggregation platform for telecom networks.
Business Agility and Growth	Rapidly deploy new services and scale at your own pace with a modular design that supports multiple use cases, reduces training, and lowers TCO.
Lower OPEX & CAPEX	Reduce deployment and management costs with a single, flexible platform that supports an impressive number of traffic sources across multi-service environments.

General Specifications

Dimensions (H x W x D)	2RU × 19" × 13.7" (133.35 mm × 482 mm × 350 mm)
Weight	9kg – 14.5kg
Power Supply	Dual redundant, hot-swappable AC or DC 24-48V DC
Operating Temperature	Max power consumption: 400W Operating temperature 0°C to 50°C / 32°F to 122°F
Humidity	Up to 95%, non-condensing
Fan	Load sharing, speed controlled, hot-swappable
Management	Console, Telnet, SSHv2, Radius, TACACS+, SNMP v1/2/3, xFTP, NTP, DNS resolver, NETCONF

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Business Services - L2/L3 VPN

- On-net/off-net with multi-tenancy support
- 100GE Hardware OAM
- Flexible SLA Management

E-Rate/Education

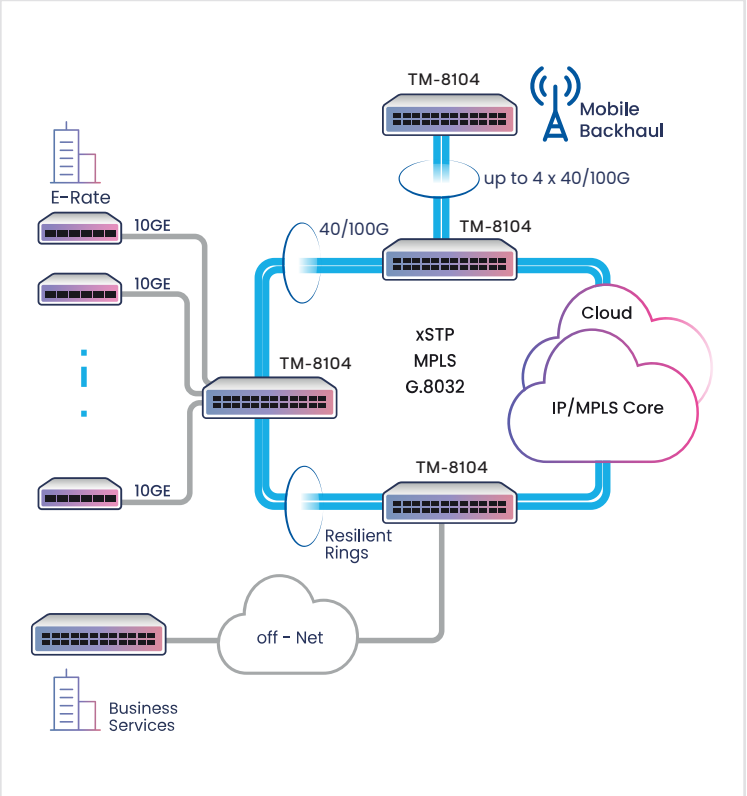
- Campus interconnectivity & aggregation
- 100GE Hardware OAM
- Flexible, software-configurable & modular SLA management
- Multi-tenancy support

Cloud & Data Center Connectivity

- Any cloud, high bandwidth & low latency
- Flexible SLA management with assured connectivity

Mobile Backhaul

- 100GE HW OAM & Segment Routing
- Flexible SLA management
- Low latency



Features and Capabilities

Interfaces	- Up to 40 × 1/10GE + 4 × 40/100GE - Up to 88 × 10GE
Service Assurance	- Hardware-based CFM - ITU-T Y.1564 and RFC2544 test head and service performance analyzer - In-service testing capabilities - ITU-T Y.1731 SLM/DMM per port/EVC/VLAN/COS - MEF 46,48,49 - SAT Power Play - TWAMP
Supported Services	- MPLS L3 VPN over BGP - IEEE 802.1Q bridging / IEEE 802.1ad Q-in-Q - 2-tag management (push / pop / swap) for c-tag and s-tag - MPLS L2VPN - Full VPLS PE, MTU, HVPLS, VPWS - BFD support
Resiliency	- Sub-50ms RSVP-TE FRR - Dual-homing VPLS/HVPLS - Secondary LSP - ITU-T G.8031 (1:1), G.8032, xSTP, resilient links - LAG (Static/IEEE 802.3ad LACP/Multi-chassis) - Up to 44 LAGs

Technical Specifications

Hardware Characteristics	40xSFP+ or 4xQSFP28 + 40xSFP+ or 88xSFP+ ports. Wire speed non-blocking up to 1.2Tbps full duplex switching capacity in 2RU
Services	IEEE 802.1Q bridging, IEEE 802.1ad Q-in-Q (TLS), MPLS L2VPN- Full VPLS PE, MTU HVPLS, VPWS, MPLS L3 VPN (BGP), can act as CE and PE
Resiliency	Sub-50ms RSVP-TE FRR, secondary LSP ITU-T G.8032, G.8031, xSTP, resilient link, dual homing VPLS/HVPLS LAG (Static/IEEE 802.3ad LACP/Multichassis)
Quality of Service	**Per port/EVC/flow single/dual rate limiting.** Hierarchical rate limit per port/EVC/flow SP,WRR and hybrid frames scheduling CoS marking and mapping per EVC
Multicast Management	IGMP v1/v2/v3
OAM	Hardware-based IEEE 802.1ag CFM, IEEE 802.3ah EFM
Testing & Monitoring	MEF 46, 48, 49 ITU-T Y.1564 and RFC2544 test head and service performance analyzer. In-service testing capabilities, ITU-T Y.1731 SLM/DMM Per port/EVC/VLAN/COS, hardware-based flexible MACbased loopbacks
Network Protocols	MPLS/L3: IS-IS, OSPF, BGP, RSVP-TE, LDP, Segment Routing L2: xSTP, G.8032, LACP, MC-LAG, L2-Tunneling
Security	RADIUS, SSHv2, SNMPv3, SFTP,port security, broadcast storm prevention, secure access
Regulatory compliance	**Europe:** EMC DIRECTIVE 2014/30/EU, including EN 300386 **NA:** FCC 47 CFR Part 15 Class A (USA) ICES-003:2020 Issue 7 Class A (Canada)
Environmental and Safety	**Europe:** LVD DIRECTIVE 2014/35/EU RoHS DIRECTIVE 2011/65/EU, Directive (EU) 2015/863 **NA:** UL 62368-1/CAN CSA-C22.2 NO.62368-1 Class 1 Laser product safety (eye safety) IEC 60825-1

Ordering Information

Part Number	Description
TM8104-BASE-2XX	TM-8104 Aggregation Platform High Capacity, 2RU Chassis includes: 40×1/10GE SFP+ ports, 48×1/10GE SFP+ Line Card, hot-swappable Fan Tray, Y = HW OAM module, hot-swappable redundant AC or DC PSU (XX= AC or DC)
TM8104-88S-Y-2XX	TM-8104 Aggregation Platform High Capacity, 2RU Chassis includes: 40×1/10GE SFP+ ports, 4×40/100GE QSFP28 Line Card, hot-swappable Fan Tray, Y = HW OAM module, hotswappable redundant AC or DC PSU (XX = AC or DC)
TM8104-4QS-Y-2XX	TM-8104 Aggregation Platform High Capacity, 2RU Chassis includes: 40×1/10GE SFP+ ports, 4×40/100GE QSFP28 Line Card, hot-swappable Fan Tray, Y = HW OAM module, hotswappable redundant AC or DC PSU (XX = AC or DC)
TM810x-48SFP+	TM810x Expansion Module With 48×1G/10G
TM810x-4QSFP28	TM810x Expansion Module With 4×100G
TM810x-OAM	TM810x Full FPGA Expansion Module for Base System Enables hardware OAM capabilities
TM810x-BRKT-XXIN	XXIN = 19IN or 23IN (inches) Ear Side TM810x Rack Mount Brackets
TM810x-FAN	Fan for TM-810x

Experience the Power of Telco Systems T-Series: Invest in **TM-8104** to boost your network.
Contact us at **salesnetworks@batm.com** or visit our website **www.telco.com.**