



Router 6273

The Router 6273 is a high performance modular and fully redundant aggregation router, designed to enable high quality network service delivery for RAN and fixed/mobile converged metro aggregation networks. In its category, it sets a new benchmark for port density and footprint by scaling up to 12x100G interfaces and offering up to 800Gbps switching capacity in a space efficient 3RU chassis with front access for all field replaceable units allowing an overall lower OPEX. It supports VPN services over IP/MPLS networks, service provider SDN, service exposure using NETCONF/YANG, extensive quality of service and precise synchronization features.

With up to 800Gbps of switching capacity in 300mm depth 3RU footprint, the Router 6273 delivers performance needed to fully support LTE, LTE Advanced, 5G, Fixed Mobile Convergence and Enterprise applications.

The Router 6273 can also support a lower cost 320Gbps configuration that offers a full redundant solution to complement existing Router 6000 family. This is especially important with the cases redundancy is mandatory closer to access of the operators' network. The Router 6273 is part of the Ericsson Router 6000 Series, a radio integrated and subscriber aware IP transport family of products. The Router 6000 offers a range of high-performance routers with resiliency features and form factors optimized for the various needs of metro and backhaul networks.

The Ericsson Router 6000 Series is an essential component of the Ericsson Radio System and is tightly integrated with Ericsson Radio and Microwave to provide high capacity mobile backhaul with unprecedented quality of experience.

Ericsson Network Manager (ENM) manages the complete end-to-end network for both Mobile and Fixed deployments: Radio, Metro and Backhaul, Mobile Core, and Data Center. This enables seamless plug and play capabilities for radio and router installation and network operation.

Ericsson Transport Automation Controller (ETAC) is an intelligent, cloud-native transport controller that uses AI and ML to analyze and automate microwave, IP and optical networks, allowing an easy and cost-effective management of IP transport network.

Meeting the strictest radio requirements

With its best-in-class 100G port density, 800Gbps switching capacity and high-scale queues with deep buffers, the Router 6273 enables high quality network service delivery at low rental costs.

Precise and proven synchronization

LTE-A enhancements such as COMP and e-ICIC that enable efficient use of spectrum have strict synchronization requirements. The Ericsson synchronization solution comes pre-verified to work with Radio.

SDN capabilities and programmability

Provides application aware traffic engineering with open and standardized interfaces, enabling network slicing and ability to tailor services for utmost agility.

Designed for low CAPEX and OPEX

The Router 6273 uses merchant silicon and designed to have cost optimized form factor to lower CAPEX. In-service upgrade of new software versions and patches with zero downtime and for all Ericsson Radio System products the simplified end-to-end management offered by Ericsson Network Manager (ENM) contributes to reduced OPEX.

Strong Security

Strong and complete security solution for Macro cell, Small Cell and Aggregation in trusted and untrusted environments enables ubiquitous deployments.

Radio integrated Transport

Provides Radio aware transport for mobile backhaul enabling improved Quality of Experience for end users. Tight hardware and mechanical integration as part of Ericsson Radio System allows significantly easier deployment and lower overall TCO.

Technical specification for Router 6273

Connectivity

Interfaces:	Line cards: Up to 7 Line card slots (6 LC slots for AC) that can take the following line card types -LC 2x100GE QSFP28 -LC 8x10GE/25GE SFP28 -LC 8xGE/10GE SFP+ QSFP28 ports each can be configured as 4x10GE, 4x25GE, 1x40GE or 1x100GE RPSW Card: 1x 100 / 1000 Base-T Ethernet for Out-of-Band Management 1x RJ-45 console port 1x RJ45 Alarm ports for 3 input and 1 output alarms contacts 2x USB port for file uploads and downloads
Synchronization interfaces:	1x RJ45 ports 1PPS+TOD input/output per RPSW

Mechanical

System weight:	Fully configured chassis: 14kg / 31lbs
Dimension (H x W x D):	132mm x 445mm x 230mm
Air flow:	Right to Left

Electrical

Power supply DC:	-48V redundant power supply units
Power supply AC:	100V ~ 240V, 50-60Hz, redundant power supply units

Environmental

Operating Temperature:	-40°C to +65°C
Relative Humidity:	5 - 95% Non-condensing
GR-63-CORE:	Central Offices (COs) and other environmentally controlled telecommunications equipment spaces
EN 300 019-1-3 Class 3.2:	Partly temperature-controlled locations

Key features

IP Routing MPLS:	IPv4, IPv6, BGP-4, MP-BGP, BGP FRR, BGP-LS, IS-IS, OSPFv2/v3, VRRPv2/v3, LFA/RLFA/TI-LFA, RSVP-TE including FRR, LDP, T-LDP, mLDP, Segment Routing, PCEP, Seamless MPLS, CSPF, Routing policy, Policy based routing, DHCP client/relay/Server, Segment Routing IPv6 (SRv6), SRv6 SID compression
Ethernet:	802.1Q virtual LAN (VLAN), 802.1ad Provider Bridge, IEEE 802.3ad Link Aggregation Control Protocol, BVI – Bridged Virtual Interface, QinQ, G.8032 Ethernet Ring Protection Switching, BUM storm protection, Jumbo Frame up to 9600 bytes
Layer-2/Layer-3 Virtual Private Networking:	L3 MPLS VPNs, 6VPE/6PE, Inter-autonomous-system MPLS VPN (options A, B, C), VPWS for E-Line Services, VPLS/H-VPLS for E-LAN Services, Pseudowire redundancy, MEF CE1.0/2.0 Compliant, Ethernet VPN for E-Line & E-LAN Services
Multicast Protocols:	IPv4/IPv6 multicast, PIM-SM/SSM, IGMP v1/v2/v3, MLDv2, MVPN, IGMP snooping*
Timing and Synchronization:	IEEE 1588-2008 Precision Time Protocol, ITU-T Profiles for Frequency (G.8265.1 SOOC) and Time/Phase (G.8275.1 T-BC/GM & G.8275.2 T-BC/GM), NTP, SyncE with ESMC, Enhanced SyncE, Stratum 3E clock, L1 Assist holdover, PTP quality measurement and monitoring
Operation and Maintenance:	IEEE 802.1ag Connectivity Fault Management, ITU-T Y.1731 (DM, SLM and Throughput), 802.3ah Ethernet OAM, Microwave Bandwidth Notification, MACSWAP, MPLS Ping /Traceroute, BFD IPv4 & IPv6 Single Hop, BFD IPv4 & IPv6 Multi Hop, Micro-BFD, Seamless BFD, TWAMP Reflector, TWAMP Initiator, Port Mirroring, LLDP, IPFIX (IP Flow Information Export)*
Security:	Secure boot, Vendor credential, secured storage, Access Control lists, RADIUS, TACACS+, LDAP, SSH v1/v2Reverse-path forwarding, IPsec*, IKEv2*, CMPv2, CRL, TLS, 802.1x port-based network access control, MACSec
Quality of Service:	Strict-queuing, WFQ, priority-WFQ, Hierarchical QoS, Deep packet buffers, RED/Weighted RED, Ingress policing, Egress shaping, 802.1p, MPLS EXP bits, DiffServ
Network Management:	Ericsson Network Manager (ENM), CLI, SNMP v2c/v3, NETCONF, YANG models, Syslog, RMON, PM Job, Telemetry Streaming

Standards and specifications

Safety:	LVD Directive 2014/35/EU, IEC/EN 60950-1 ; CFR 29 Part 1910, UL/CSA 60950-1
EMC:	EMC Directive 2014/30/EU, EN 300386, CISPR 32, EN 55032, CISPR 24, EN 55024, EN 50121-1, EN 50121-4, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 300132-2, EN 300132-1, ES 201468, DTAG 1 TR 9; CFR 47 Part 15, ICES-003; VCCI V-3
ENV:	RoHS Directive 2011/65/EU, WEEE Directive 2012/19/EU, EN 300 019-2-1, EN 300 019-2-2, EN 300 019-2-3, EN 300 753, ECE-C1.1
NEBS:	GR-1089-CORE, GR-63-CORE, SR-3580 (NEBS Level 3), ATT-TP-76200, VZ.TPR.9203, VZ.TPR.9305

*Future release