Router 6672

The Router 6672 is a high capacity aggregation router, designed to enable high quality network service delivery while at the same time lowering operating costs through features such as a completely filter-less mechanical design. It provides a high density of 10G interfaces with right cost points in a compact and hardened 1RU form factor enabling lower rental costs and 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.

The Router 6672 has strong security features such as IPSec and vendor software authentication ensuring subscriber data security even in insecure environments.

With 100Gbps of switching capacity, the Router 6672 delivers wire-speed performance to fully support LTE, LTE Advanced, 5G, access sites for years to come.

The Router 6672 is part of the Ericsson Router 6000 Series, a radio integrated, service provider SDN enabled 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.

Service provider SDN capabilities in the Router 6000 Series bring a new dimension of application aware traffic engineering to access and aggregation networks.

All routers in the Ericsson Router 6000 Series run the IP Operating System (IPOS), enabling accelerated feature delivery and operational efficiencies.

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 allow an easy and cost-effective management of IP transport network.

High 10G port density and performance

Provides high 10GE density and 100GE switching capacity in a 1RU compact and hardened form factor enabling lower rental costs and lower OPEX.

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

Router 6000 series uses merchant silicon and a cost optimized design to lower CAPEX. Filter less design removes costly truck rolls every 3 months to inspect the filters, resulting in $1000 yearly OPEX savings/site.

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 cell site deployment and lower overall TCO.

Technical specification for Router 6672

Connectivity

Interfaces:	8x GE / 10GE SFP+ ports 8x GE SFP ports 4x 100 / 1000 Base-T RJ45 ports 1x 100 / 1000 Base-T Ethernet for Out-of-Band Management 1x RJ45 console port 1x RJ45 Alarm port for 3 input and 1 output alarm contacts 1x USB 2.0 port
Synchronization interfaces:	1x RJ45 port 1PPS+TOD (ITU-T G.703 Amd1) 1x RJ48C port for 2.048 MHz, E1/T1 (BITS) input/output

Mechanical

System weight:	6kg / 13.2lbs
Dimension (H x W x D):	1RU 43.6mm x 442.4mm x 250mm
Air flow:	Filter-less design, Front to Back with field swappable fan tray

Electrical

Power supply DC:	-48 V, dual feed
Power consumption:	Typical 72 Watts, Max (with optics) 165 Watts

Environmental

Operating Temperature:	-40°C to 65°C
Relative Humidity:	5 - 95% Non-condensing
GR-3108-CORE Class 1:	Controlled Protected Environments
GR-3108-CORE Class 2:	Protected Equipment in Outside Environments
EN 300 019-1-3 Class 3.3:	Not 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
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/v2, Reverse-path forwarding, IPSec, IKEv2, CMPv2, CRL, TLS, 802.1x port-based network access control,
Quality of Service:	Strict-queuing, weighted fair queuing, priority-weighted fair queuing, Multi-tier Hierarchical QoS, Deep packet buffers, RED/Weighted RED, Ingress policing, Egress shaping, 802.1p, MPLS EXP bits, Differentiated Services
Network Management:	Management by Ericsson Network Manager (ENM), Management by Ericsson OSS-RC, Management by Ericsson ServiceOn Element Manager (SoEM), CLI, SNMP v2c/v3, NETCONF, YANG models, Syslog, RMON, PM Job, Zero Touch Provisioning, Telemetry Streaming

Standards and specifications

Safety:	LVD Directive 2014/35/EU, IEC/EN 60950-1, IEC/EN 62368-1, CFR 29 Part 1910, UL/CSA 62368-1
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