Router 6671

The Router 6671 is an advanced cell site router, designed to enable high quality network service delivery and low power consumption.

Router 6671 provides high density 1GE, 10GE and 25GE ports with 100Gbps switching capacity in a compact, 250mm deep, and temperature hardened 1RU compact form factor. The Router 6671 switch processor has native support for SRv6 without performance degradations.

Low latency and precise synchronization are optimized to maximize the 5G enhancements such as Ericsson Spectrum Sharing (ESS), Coordinated Multipoint (CoMP) and Carrier Aggregation (CA) that enable high data speed and efficient use of spectrum.

Router 6671 supports VPN services over IP/MPLS/SRv6 networks, service provider SDN, service exposure using NETCONF/YANG, extensive quality of service and precise synchronization features. The strong security features such as vendor credential and vendor software authentication ensuring data security even in insecure environments. The Router 6671 is part of the Ericsson Router 6000 Series, a RAN integrated and service provider SDN enabled IP transport family of products. The Router 6000 offers a range of high-performance routers with switching capacities ranging from 30Gbps up to 4.8 Tbps resiliency features and form factors optimized for the various deployments.

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. It allows easy and cost-effective management of IP transport network allowing:
- service assurance, monitoring of performance against user-defined SLA-objectives and availability reporting
- synchronization health monitoring
- fast troubleshooting of service issues by pinpointing links on service route with suboptimal performance

High performance hardware

The native SRv6 supporting hardware provides a high 1/10/25GE density and 100Gbps switching capacity in an energy efficient, 1RU compact and temperature hardened form factor enabling flexible deployment scenarios and lower OPEX.

Advanced algorithms for real time fan speed adjustment and fan redundancy schemes result in minimized power consumption and significantly prolonged lifetime of the fan.

Precise and proven synchronization

5G enhancements such as advanced coordination and carrier aggregation that enable efficient use of spectrum have strict synchronization requirements. The Router 6671 can act as a boundary clock to provide resilient and robust frequency and time/phase synchronization to the basebands. It exceeds the stringent Class C timing requirements The Ericsson synchronization solution comes pre-verified to work with Ericsson RAN.

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.

Strong Security

Router 6671 provides secure boot, vendor credential, secure storage and vendor software authentication for superior product security which enables ubiquitous deployments.

Radio integrated Transport

Provides tight hardware and mechanical integration as part of Ericsson Radio System and allows for significantly easier deployment and lower overall TCO.

Router 6671 is using the same Ericsson Network Manager (ENM) as RAN and Core.

Technical specification for Router 6671

Connectivity

Interfaces:	12x25/10/1GE SFP28 + 4x10/1GE SFP+ + 4x1GE SFP/RJ45 combo ports 1x 100 / 1000 Base-T Ethernet for Out-of-Band Management 1x RJ45 console port 1x RJ45 Alarm ports for 3 input and 1 output alarms contacts 1x USB , type C, port for file uploads and downloads
Synchronization interfaces:	1x RJ45 ports 1PPS+TOD input/output

Mechanical

System weight:	4.1kg
Dimension (H x W x D):	44mm x 444mm x 250mm
Air flow:	Front to Back. N+2 redundant fan unit

Electrical

Power supply DC: Power supply AC:	-48 VDC, Dual Redundant Feed 200V/240V, 50-60Hz
Power consumption:	Typical 45 Watts, Max (with optics) 96 Watts

Environmental

Operating Temperature:	-40°C to +65°C
Relative Humidity:	5 - 95% non-condensing

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, SRv6, 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:	L3VPN, 6VPE/6PE, Inter-autonomous-system VPN (options A, B, C), VPWS for E-Line Services, VPLS/H-VPLS for E-LAN Services, Pseudowire redundancy, Ethernet VPN for E-Line & E-LAN Services
Multicast Protocols:	IPv4/IPv6 multicast, PIM-SM/SSM, IGMP v1/v2/v3, MLD v1/v2, MVPN, IGMP snooping
Timing and Synchronization:	Time/Phase Sync(G.8275.1 T-BC/GM & G.8275.2 T-BC/APTS), Exceed Class C performance, NTP, SyncE with ESMC, Enhanced SyncE, L1 Assist holdover, Adaptive time holdover, PTP quality measurement & monitoring, GNSS vulnerability management
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 Sender, TWAMP Reflector with control signalling, 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, CMPv2, CRL, TLS, Syslog/TLS, 802.1x port-based access control
Quality of Service:	Strict-queuing, WFQ, priority-WFQ, Hierarchical QoS, QoS(re)marking, Deep packet buffers, RED/Weighted RED, Ingress policing, Egress shaping, 802.1p, MPLS EXP bits, DiffServ/DSCP
Network Management:	Ericsson Network Manager (ENM), CLI, SNMP v2c/v3, NETCONF/YANG, Open Config, Syslog, RMON, PM Job XML, Zero Touch Provisioning, Telemetry Streaming, Event Manager

Standards and specifications

Safety:	LVD Directive 2014/35/EU, IEC/EN 62368-1, CFR 29 Part 1910, UL/CSA 62368-1
EMC:	EMC Directive 2014/30/EU, EN 300386, EN 301489-1, CISPR 32, EN 55032, CISPR 35, EN55035, EN 50121-1, EN 50121-4, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 300132-2, 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
NEBS:	GR-1089-CORE, GR-63-CORE, SR-3580 (NEBS Level 3), GR-3108-CORE, ATT-TP-76200, VZ.TPR.9203, VZ.TPR.9205, VZ.TPR.9305