– **Bandwidth up to 128 Gbps**
– **Non-blocking architecture**
– **4 × 10G ports in basic configuration**
– **Stacking up to 8 devices**
– **Hot-swappable redundant power supplies**
– **Front-to-back cooling**



The new generation switches can be used in service provider networks as aggregation or transport switches. They ensure high performance due to the interfaces operating at speeds of 10 Gbps or 1 Gbps. MES aggregation switches feature set includes L2 functions, static routing, dynamic routing, stacking of up to 8 devices, redundant and hot-swappable power supplies.

Technical features

	MES3300-24	MES3300-24F
Interfaces		
1000BASE-X/100BASE-FX (SFP)	—	20
10/100/1000BASE-T	24	—
10/100/1000BASE-T/1000BASE-X/100BASE-FX Combo	—	4
10GBASE-R (SFP+)/1000BASE-X (SFP)	4	
10/100/1000BASE-T (OOB)	1	
Console port RS-232 (RJ-45)	1	
Performance		
Bandwidth	128 Gbps	
Throughput for 64 bytes[1]	95.2 MPPS	
Buffer memory	1.5 MB	
RAM (DDR4)	2 GB	
ROM (RAW NAND)	512 MB	
MAC table	16384	
ARP table[2]	4029	
VLAN table	4094	
L2 Multicast groups	4092	
SQinQ rules	1320 (ingress), 1320 (egress)	
Link Aggregation Groups (LAG)	32, up to 8 ports per LAG	
Quality of Service (QoS)	8 egress queues per port	
Jumbo frames size	10240 bytes	
Stacking	8 devices	

[1] Values are given for one-way transmission.

Features and capabilities

Interface features
– Head-of-line blocking (HOL) protection
– Back pressure
– Auto MDI/MDIX
– Jumbo frames
– Flow Control (IEEE 802.3X)
– Port Mirroring (SPAN, RSPAN)
– Stacking

MAC address functions
– Independent learning mode per VLAN
– MAC Multicast Support
– Configurable aging time of MAC addresses
– Static MAC Entries
– MAC Flapping logging

VLAN functions
– Voice VLAN
– 802.1Q
– Q-in-Q
– Selective Q-in-Q
– GVRP
– Subnet-based VLAN

L2 Multicast functions
– Multicast groups
– Static Multicast groups
– IGMP Snooping v1,2,3
– Host/port-based IGMP Snooping Fast Leave
– PIM-Snooping
– IGMP proxy-report
– IGMP authorization via RADIUS
– MLD Snooping v1,2
– IGMP Querier
– MVR

L2 functions
– STP (Spanning Tree Protocol, IEEE 802.1d)
– RSTP (Rapid Spanning Tree Protocol, IEEE 802.1w)
– MSTP (Multiple Spanning Tree Protocol, IEEE802.1s)
– PVSTP+
– RPVSTP+
– Spanning Tree Fast Link option
– STP Root Guard
– BPDU Filtering
– STP BPDU Guard
– Loopback Detection
– ERPS (G.8032v2)
– Flex-link
– Private VLAN
– L2PT (Layer 2 Protocol Tunneling)

Link Aggregation functions
– LAG (Link Aggregation Groups)
– LACP
– LAG Balancing Algorithm
– MLAG (Multi-Switch Link Aggregation Group)

IPv6 functions
– IPv6 Host
– Dual-stack IPv4, IPv6

Service functions
– VCT (Virtual Cable Tester)
– Optical transceiver diagnostics
– Green Ethernet

Quality of Service (QoS)
– QoS statistics
– Shaping, Policing
– IEEE 802.1p Class of Service
– Storm control for different traffics (broadcast, multicast, unknown unicast)
– Bandwidth management
– Strict Priority and Weighted Round Robin (WRR) scheduling algorithms
– Three marking colors
– ACL-based CoS/DSCP assignment
– ACL-based VLAN assignment
– Setting the IEEE 802.1p priority for management VLAN
– DSCP to CoS, CoS to DSCP remarking
– 802.1p DSCP mark assignment for IGMP

OAM
– 802.3ah Ethernet Link OAM
– 802.3ah Unidirectional Link Detection

Management functions
– Configuration file download and upload via TFTP/SCP/SFTP
– SNMP
– CLI (Command Line Interface)
– Web interface
– Syslog
– SNTP (Simple Network Time Protocol)
– NTP (Network Time Protocol), NTP server, NTP peer-to-peer
– Traceroute
– LLDP (802.1ab) + LLDP MED
– LLDP (802.1ab)
– Access control — privilege levels for users

Features and capabilities (continued)

– Management interface blocking
– Local authentication
– IP addresses filtering for SNMP
– Macrocommands
– CLI command logging
– System log
– DHCP autoprovision
– DHCP Relay (Option 82)
– DHCP Option 12
– DHCP server
– Debbugging commands
– Rate limit of traffic to CPU
– Password encryption
– Password recovery
– Ping (IPv4/IPv6)

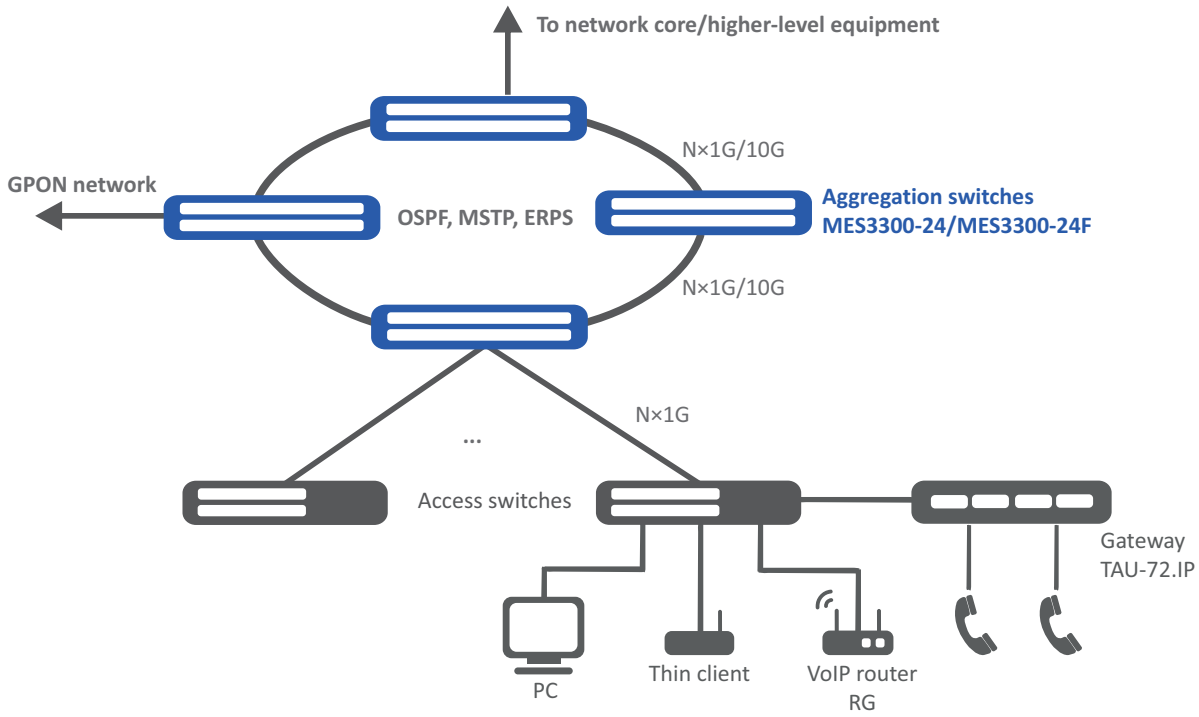
Monitoring functions

– Interface statistics
– RMON remote monitoring
– IP SLA
– Task and traffic type-based CPU utilization monitoring
– RAM monitoring
– Temperature monitoring
– TCAM monitoring

MIB/IETF

– RFC 1065, 1066, 1155, 1156, 2578 MIB Structure
– RFC 1212 Concise MIB Definitions
– RFC 1213 MIB II
– RFC 1215 MIB Traps Convention
– RFC 1493, 4188 Bridge MIB
– RFC 1157, 2571-2576 SNMP MIB
– RFC 1901-1908, 3418, 3636, 1442, 2578 SNMPv2 MIB
– RFC 1271, 1757, 2819 RMON MIB
– RFC 2465 IPv6 MIB
– RFC 2466 ICMPv6 MIB
– RFC 2737 Entity MIB
– RFC 4293 IPv6 SNMP Mgmt Interface MIB
– Private MIB
– RFC 3289 DIFFSERV MIB
– RFC 2021 RMONv2 MIB
– RFC 1398, 1643, 1650, 2358, 2665, 3635 Ether-like MIB
– RFC 2668 802.3 MAU MIB
– RFC 2674, 4363 802.1p MIB
– RFC 2233, 2863 IF MIB
– RFC 2618 RADIUS Authentication Client MIB
– RFC 4022 MIB for TCP
– RFC 4113 MIB for UDP
– RFC 2620 RADIUS Accounting Client MIB
– RFC 2925 Ping & Traceroute MIB
– RFC 768 UDP
– RFC 791 IP
– RFC 792 ICMPv4
– RFC 2463, 4443 ICMPv6
– RFC 4884 Extended ICMP for Multi-Part messages support
– RFC 793 TCP
– RFC 2474, 3260 Definition of the DS field in the IPv4 and IPv6
– RFC 1321, 2284, 2865, 3580, 3748 Extensible Authentication Protocol (EAP)
– RFC 2571, RFC2572, RFC2573, RFC2574 SNMP
– RFC 826 ARP
– RFC 854 Telnet
– IEC 61850

Use case



Physical parameters

	MES3300-24	MES3300-24F
Power supply	100–240 V AC, 50–60 Hz; 36–72 V DC Power supply options: • 1 AC/DC power supply • 2 hot-swappable AC/DC power supplies	
Input current	0.2–0.35 A for AC 0.4–0.8 A for DC	0.3–0.5 A for AC 0.5–1.1 A for DC
Maximum power consumption	33 W	45 W
Heat dissipation	33 W	45 W
Dying Gasp support	no	
Operating temperature	from -10 to +45 °C	
Storage temperature	from -50 to +70 °C	
Operating humidity	no more than 80 % (without condensing)	
Cooling	Front-to-Back, 4 fans	
Maximum acoustic noise level	from the front panel, max < 53.9 dB from the rear panel, max < 54.2 dB	
Form factor	19", 1U	
Dimensions (W × H × D)	430 × 44 × 330 mm	430 × 44 × 305 mm
Weight	5.13 kg	5.04 kg

Ordering information

Name	Description
MES3300-24	MES3300-24 Ethernet switch, 1 port of 10/100/1000BASE-T (OOB), 24 ports of 10/100/1000BASE-T, 4 ports of 10GBASE-R (SFP+)/1000BASE-X (SFP)
MES3300-24F	MES3300-24F Ethernet switch, 1 port of 10/100/1000BASE-T (OOB), 20 ports of 1000BASE-X/100BASE-FX (SFP), 4 ports of 10/100/1000BASE-T/1000BASE-X/100BASE-FX, 4 ports of 10GBASE-R (SFP+)/1000BASE-X (SFP)
Related products	
PM160-220/12	PM160-220/12 power module, 100–240 V AC, 160 W
PM100-48/12	PM100-48/12 power module, 36–72 V DC, 100 W
PM65-220/12	PM65-220/12 power module, 12 V AC/DC, 65 W
Related software	
ECCM-MES3300-24	ECCM-MES3300-24 option of Eltex ECCM management system for ELTEX network elements management and monitoring: 1 network element MES3300-24
ECCM-MES3300-24F	ECCM-MES3300-24F option of Eltex ECCM management system for ELTEX network elements management and monitoring: 1 network element MES3300-24F

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About Eltex

Eltex Enterprise is a leading Russian developer and manufacturer of communication equipment with 30 years of history. Complete solutions and their seamless integrability into the Customer's infrastructure are the priority growth areas of the company.