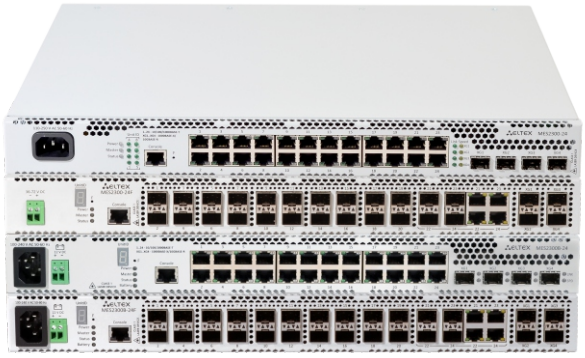
– **Bandwidth up to 128 Gbps**
– **Non-blocking architecture**
– **Up to 4 ports of 10G**
– **Stacking up to 8 devices**
– **Uninterrupted power from battery**[1]



The new generation of MES access switches connects end users to the network of large enterprises, small and medium-sized businesses and service provider networks using 1G/10G interfaces.

MES2300-24F and MES2300B-24F can be also used in service provider networks as the aggregation transport switches.

The device ports support both 1 Gbps and 10 Gbps speeds, providing flexibility in use and the ability to gradually upgrade to higher data rates. The non-blocking architecture allows correct processing of packets under maximum loads, while maintaining minimal and predictable delays on all types of traffic.

The switch functionality provides physical stacking, support for VLANs, multicast groups, and advanced security features.

Uninterrupted power[1]

MES2300B-24 and MES2300B-24F switches have the ability to connect a rechargeable battery to ensure guaranteed power supply in case of the 220 V primary network failure. The switch is equipped with a power module that allows charging the battery when 220 V is available. The backup power system makes it possible to monitor the state of the primary network and notify of a power type switching.

Technical features

	MES2300-24	MES2300B-24	MES2300-24F	MES2300B-24F
Interfaces				
10/100/1000BASE-T (RJ-45)	24	24	—	—
1000BASE-X/100BASE-FX (SFP)	—	—	20	20
10/100/1000BASE-T/1000BASE-X/100BASE-FX Combo	—	—	4	4
10GBASE-R (SFP+)/1000BASE-X (SFP)	4			
Console port RS-232 (RJ-45)	1			
Performance				
Bandwidth	128 Gbps			
Throughput for 64 bytes[2]	95.2 MPPS			
Buffer memory	1.5 MB			
RAM (DDR4)	2 GB			
ROM (RAW NAND)	512 MB			
MAC table	16384			
ARP table[3]	2039			
VLAN table	4094			
L2 Multicast groups	2048			
SQinQ rules	988 (ingress), 988 (egress)			

[1] Only for MES2300B-24, MES2300B-24F.
[2] Values are given for one-way transmission.
[3] For each host in the ARP table, an additional entry is created in the switching table.

Technical features (continued)

	MES2300-24	MES2300B-24	MES2300-24F	MES2300B-24F
L2 IPv4 Unicast routes[1]	4066			
L2 IPv6 Unicast routes[1]	1015			
L2 IPv4 Multicast (IGMP Proxy, PIM)[1] routes	2029			
L2 IPv6 Multicast (IGMP Proxy, PIM)[1] routes	505			
VRRP routers	255			
Maximum size of ECMP groups	8			
VRF number	16 (including default VRF)			
Link Aggregation Groups (LAG)	32, up to 8 ports per LAG			
Quality of Sevice (QoS)	8 egress queues per port			
Jumbo frames	10240 bytes			
Stacking	8 devices			

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

VLAN functions
– Voice VLAN
– IEEE 802.1Q
– Q-in-Q
– Selective Q-in-Q
– GVRP

L2 Multicast functions
– Multicast groups
– Static Multicast groups
– IGMP Snooping v1,2,3
– Host/port-based IGMP Snooping Fast Leave
– IGMP proxy-report
– IGMP authorization through 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, IEEE 802.1s)

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

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

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

Quality of Service (QoS) and rate limiting
– 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 traffic classification
– ACL-based CoS/DSCP assignment
– Setting the IEEE 802.1p priority for management VLAN
– DSCP to CoS, CoS to DSCP remarking
– ACL-based VLAN assignment
– 802.1p, DSCP mark assignment for IGMP

OAM
— 802.3ah Ethernet Link OAM
— 802.3ah Unidirectional Link Detection

[1] IPv4/IPv6 Unicast/Multicast routes share hardware resources.
[2] BGP protocol support is provided under the license.

Features and capabilities (continued)

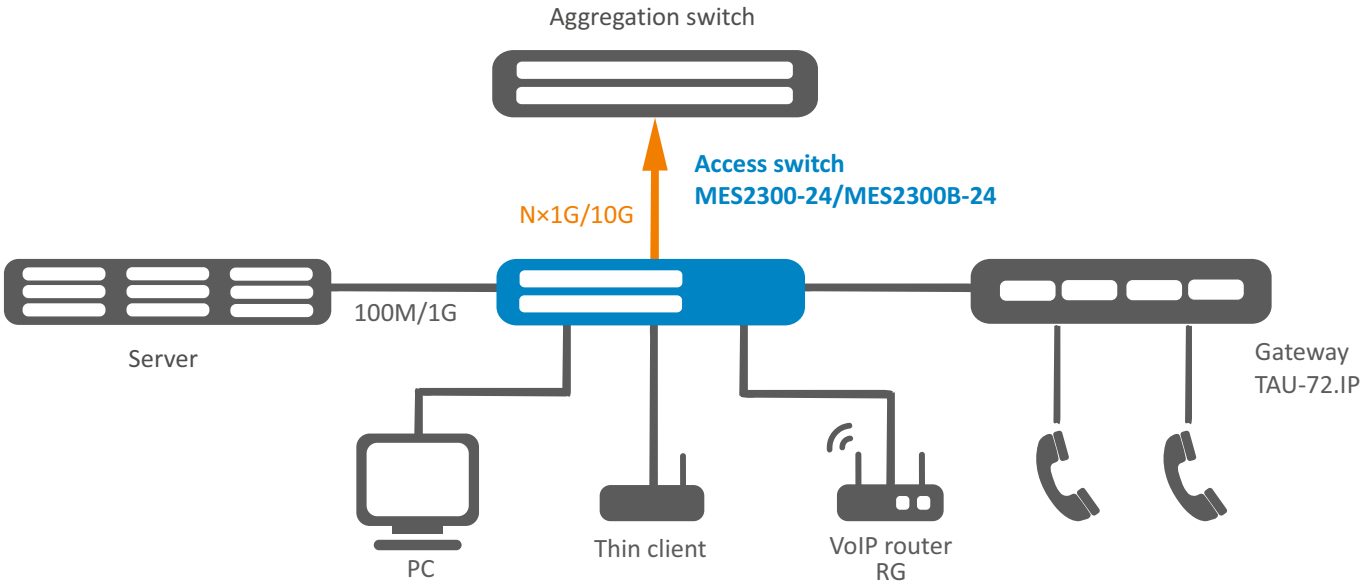
Management functions

– Configuration file download and upload via TFTP
– SNMP
– CLI (Command Line Interface)
– Web interface
– Syslog
– SNTP (Simple Network Time Protocol)
– Traceroute
– LLDP (802.1ab) + LLDP MED
– LLDP (IEEE 802.1ab)
– Access control – privilege levels for users
– Management ACL
– Management interface blocking
– Local authentication
– IP addresses filtering for SNMP
– RADIUS/TACACS+ client (Terminal Access Controller Access Control System)
– Telnet server, SSH server
– Telnet client, SSH client
– SSL
– Macrocommands
– CLI commands logging
– System log
– DHCP autoprovision
– DHCP Relay (IPv4 support)
– DHCP Option 12
– Debugging commands
– Traffic to CPU rate limiting
– Password encryption
– Password recovery
– Ping (IPv4/IPv6)

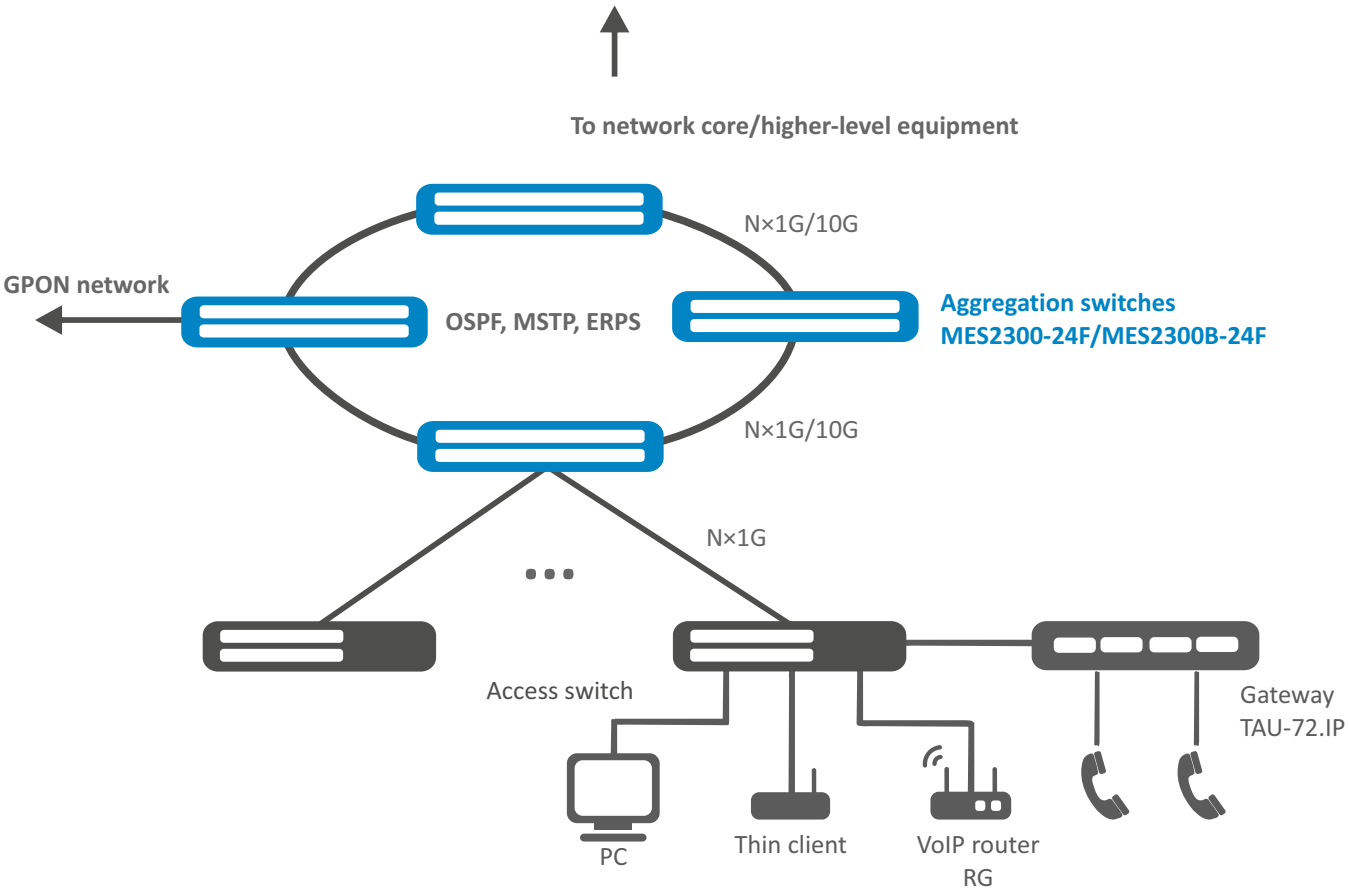
Monitoring functions

– Interface statistics
– RMON/SMON remote monitoring
– IP SLA
– CPU utilization monitoring per task and per traffic type
– RAM monitoring
– Temperature monitoring
– TCAM monitoring

Use case



Use case for aggregation switches



Physical parameters

	MES2300-24	MES2300B-24	MES2300-24F	MES2300B-24F
Physical parameters and environmental features				
Power supply	100–240 V AC, 50–60 Hz 36–72 V DC	100–240 V AC, 50–60 Hz; 12 V DC	36–72 V DC	100–240 V AC, 50–60 Hz; 12 V DC
Input current	0.15–0.3 A	including battery: 0.2–0.7 A excluding battery: 0.15–0.4 A	0.4–1 A	including battery: 0.3–0.8 A excluding battery: 0.2–0.6 A
Maximum power consumption	20 W	50 W	35 W	55 W
Maximum power consumption excluding battery charge	—	24 W	—	40 W
Heat dissipation	20 W	27 W	35 W	43 W
Dying Gasp support	yes	no	no	yes
Operating temperature	from -20 to +50 °C	from -20 to +50 °C	from -20 to +65 °C	from -20 to +65 °C
Storage temperature	from -50 to +70 °C			
Operating humidity	no more than 80 %			
Cooling	passive	passive	Front-to-Back, 4 fans	Front-to-Back, 4 fans
Form factor	19", 1U			
Dimensions (W × H × D)	430 × 44 × 204 mm	430 × 44 × 158 mm	430 × 44 × 305 mm	430 × 44 × 305 mm
Weight	2.94 kg	2.79 kg	4.03 kg	4.08 kg

Ordering information

Name	Description
MES2300-24 AC	MES2300-24 AC Ethernet switch, 24×10/100/1000BASE-T, 4×10GBASE-R (SFP+)/1000BASE-X (SFP), 100–240 V AC
MES2300-24 DC	MES2300-24 DC Ethernet switch, 24×10/100/1000BASE-T, 4×10GBASE-R (SFP+)/1000BASE-X (SFP), 36–72 V DC
MES2300B-24 AC	MES2300B-24 AC Ethernet switch, 24×10/100/1000BASE-T, 4×10GBASE-R (SFP+)/1000BASE-X (SFP), 100–240 V AC, 12 V DC
MES2300-24F DC	MES2300-24F DC Ethernet switch, 20×1000BASE-X/100BASE-FX (SFP), 4×10/100/1000BASE-T/1000BASE-X/ 100BASE-FX Combo, 4×10GBASE-R (SFP+)/1000BASE-X (SFP), 36–72 V DC
MES2300B-24F AC	MES2300B-24F AC Ethernet switch, 20×1000BASE-X/100BASE-FX (SFP), 4×10/100/1000BASE-T/1000BASE-X/ 100BASE-FX Combo, 4×10GBASE-R (SFP+)/1000BASE-X (SFP), 100–240 V AC, 12 V DC

Contact us

+7 (383) 274 10 01
+7 (383) 274 48 48

eltex@eltex.ru

www.eltex-co.com

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.