— **Bandwidth up to 200 Gbps**
— **Up to 24 ports of 2.5GBASE-T**
— **Advanced L2 features**
— **L3 switches**
— **Support for Multicast (IGMP Snooping, MVR)**
— **Advanced security functions (L2-L4 ACL, IP Source Guard, Dynamic ARP Inspection and etc.)**

MES2410-08DP

MES2420B-24D

MES2410, MES2420 series switches provide end users connection to networks of large enterprises, small and mid-sized businesses and service providers via 2.5G/10G interfaces. MES2410-08DP and MES2420-24DP devices support PoE according to the IEEE 802.3bt/PoE+ standard (up to 30 W per port). MES2420-08DU supports PoE according to the IEEE 802.3bt/PoE++ standard, which provides PoE power up to 90 W per port. The switches support VLANs, multicast groups, and have an advanced set of security features.

Uninterruptible power[1]

MES2420B-24D switches can be equipped with a rechargeable battery to ensure power supply in case of the 230 V primary power supply loss. The switches are equipped with a power supply unit which allows the battery to be charged when 230 V power is available. Power supply redundancy system makes it possible to monitor the state of the primary network and notify of a power type switching.

Technical features

	MES2410-08DP	MES2410-08DU	MES2420B-24D	MES2420-24DP
Interfaces				
10/100/1000/2500BASE-T (RJ-45)	–	–	24	–
10/100/1000/2500BASE-T PoE/PoE+	8	–	–	24
10/100/1000/2500BASE-T PoE++	–	8	–	–
1000BASE-X (SFP)/10GBASE-R (SFP+)	2	2	4	4
Console port RS-232 (RJ-45)	1			
Performance				
Bandwidth	80 Gbps	80 Gbps	200 Gbps	200 Gbps
Throughput for 64-byte packets	59.52 MPPS	59.52 MPPS	148.8 MPPS	148.8 MPPS
Buffer memory	1.5 MB	1.5 MB	2 MB	2 MB
RAM (DDR3)	1 GB			
ROM (SPI Flash)	64 MB			
MAC table	16384	16384	32768	32768
ARP table	1000			
VLAN table	4094			
L2 Multicast groups (IGMP Snooping)	1023	1023	4093	4093
L3 Multicast groups (IGMP proxy)	512	512	2048	2048
SQinQ rules	384(ingress)/ 512(egress)	384 (ingress)/ 512 (egress)	768 (ingress)/ 1024(egress)	768 (ingress)/ 1024 (egress)
MAC ACL rules	509	509	766	766
IPv4/IPv6 ACL rules	384/192	384/192	640/320	640/320

[1] For MES2420B-24D switches only.

Technical features (continued)

	MES2410-08DP	MES2410-08DU	MES2420B-24D	MES2420-24DP
L3 IPv4 Unicast routes	406	406	1957	1957
L3 IPv6 Unicast routes	21			
VRRP routers	32			
L3 interfaces	8 VLANs, up to 5 IPv4 addresses per VLAN, up to 22 IPv6 GUAs for all VLANs in summary			
Link Aggregation Groups (LAG)	24 groups, up to 8 ports in one LAG			
Quality of Service (QoS)	8 egress queues per port			
Jumbo frames	maximum packet size is 12288 bytes			

Features and capabilities

Interface features
— Head-of-line blocking (HOL) protection
— Auto MDI/MDIX
— Jumbo frames
— Flow control (IEEE 802.3X)
— Port mirroring (SPAN, RSPAN)

MAC table
— Independent learning mode per VLAN
— MAC Multicast Support
— Configurable aging time of MAC addresses
— Static MAC Entries
— MAC change events monitoring per ports
— MAC Flapping

VLAN features
— Voice VLAN
— IEEE 802.1Q
— Q-in-Q
— Selective Q-in-Q
— GVRP
— MAC-based VLAN
— Protocol-based VLAN

L2 Multicast features
— Multicast profiles
— Static Multicast groups
— IGMP Snooping v1,2,3
— IGMP Snooping fast-leave
— IGMP proxy-report
— IGMP authorization via RADIUS
— MLD Snooping v1,2[1]
— MLD Snooping fast-leave[1]
— IGMP Querier
— MVR

L2 features
— STP (Spanning Tree Protocol, IEEE 802.1d)
— RSTP (Rapid Spanning Tree Protocol, IEEE 802.1w)
— MSTP (Multiple Spanning Tree Protocol, IEEE 802.1s)
— STP Root Guard
— STP Loop Guard
— STP BPDU Guard
— BPDU Filtering
— Spanning Tree Fast Link option
— Layer 2 Protocol Tunneling (L2PT)
— Loopback Detection (LBD)
— Port isolation
— Storm Control for different traffic types (broadcast, multicast, unknown unicast)
— ERPS (G.8032v2)

L3 Multicast features
— IGMP proxy (RFC 4605)
— IGMP proxy fast-leave

L3 features
— Static IPv4, IPv6 routes
— Dynamic routing protocols RIPv1/2, OSPFv2/3
— VRRP protocol

Link Aggregation functions
— Static LAG
— Dynamic LAG (LACP)
— LAG Balancing Algorithm

Service functions
— Virtual Cable Testing (VCT)
— Optical Transceiver Diagnostics

IPv6
— IPv6 Host
— IPv4, IPv6 dual stack

Security functions
— DHCP Snooping
— DHCP Option 82
— IP Source Guard
— Dynamic ARP Inspection (Protection)
— MAC-based authentication, Port Security, Static MAC entries
— Port-based authentication IEEE 802.1x
— Guest VLAN
— DoS attacks prevention
— Traffic segmentation
— DHCP clients filtering
— BPDU attacks prevention
— PPPoE Intermediate agent
— DHCPv6 Snooping
— IPv6 Source Guard
— IPv6 ND Inspection
— IPv6 RA Guard

[1] Not supported for MES2420B-24D and MES2420-24DP in the current firmware version.

Features and capabilities (continued)

ACL (Access Control Lists)
- L2-L3-L4 ACL (Access Control List)
- IPv6 ACL
- ACL based on:
  - Switch port
  - IEEE 802.1p priority
  - VLAN ID
  - EtherType
  - DSCP
  - IP protocol type
  - TCP/UDP port number
  - User Defined Bytes

Quality of Service (QoS) and rate limiting
- Port rate limiting (shaping, policing)
- IEEE 802.1p Class of Service (CoS)
- Queue scheduling algorithms: Strict Priority/Weighted Round Robin (WRR)
- ACL-based traffic classification
- ACL-based CoS/DSCP mark assignment
- CoS to DSCP remarking
- DSCP to CoS remarking
- ACL-based VLAN assignment

OAM
- IEEE 802.3ah, Ethernet OAM
- IEEE 802.3ah Unidirectional Link Detection (UDLD)

Main management functions
- Download and upload of configuration file via TFTP/SFTP
- Automated backup of configuration file via TFTP/SFTP
- Simple Network Management Protocol (SNMP)
- Command Line Interface (CLI)
- Web interface
- Syslog
- SNTP (Simple Network Time Protocol)
- Traceroute
- LLDP (IEEE 802.1ab) + LLDP MED
- Processing of management traffic with two IEEE 802.1Q headers
- Authorization of entered commands using TACACS+ server
- IPv4/IPv6 ACL support for device management
- Switch access management — privilege levels for users
- Management interface blocking
- Local authentication
- IP addresses filtering for SNMP
- RADIUS, TACACS+ (Terminal Access Controller Access Control System) clients
- SSH, Telnet client
- Telnet, SSH server
- Macrocommands
- Input commands logging via TACACS+
- DHCP autoprovision
- DHCP Relay (IPv4 support)
- DHCP Relay Option 82
- DHCP server
- PPPoE Circuit-ID tag
- Flash File System
- Debug commands
- CPU traffic limiting
- Password encryption
- Ping (IPv4/IPv6 support)
- IPv4/IPv6 static routes support
- Support for multiple versions of configuration file

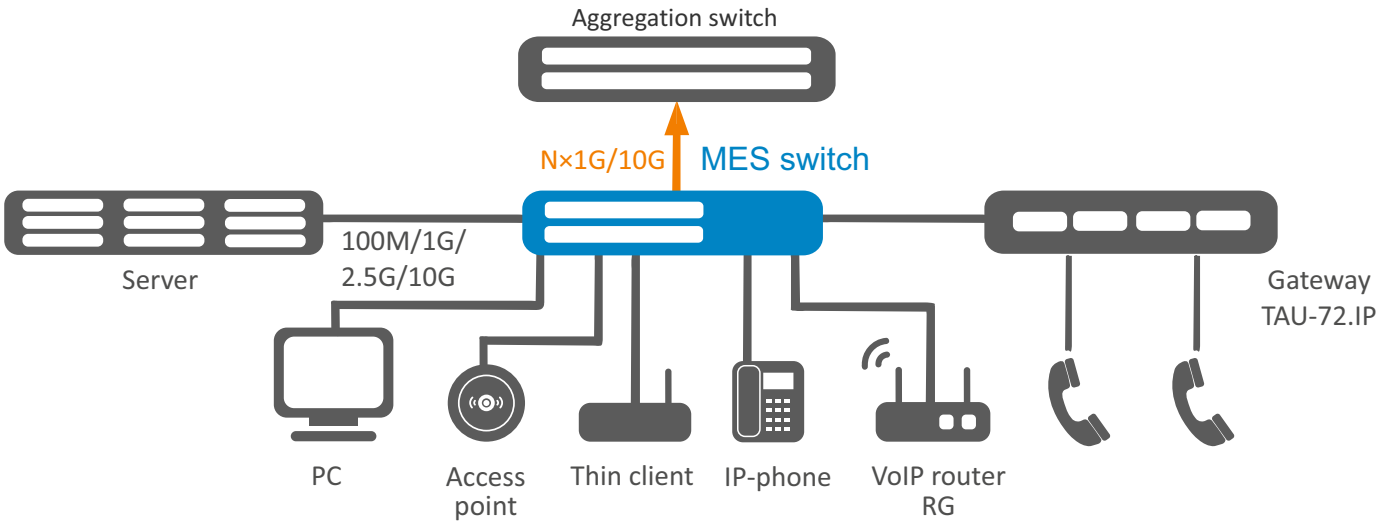
Monitoring functions
- Interface statistics
- CPU utilization monitoring per task and per queue
- RAM usage monitoring
- Temperature monitoring
- TCAM monitoring

Uninterruptible power supply[1]
- Automatic switching to 12 V rechargeable battery when the primary power supply (230 V) fails, and vice versa
- 12 V battery charging when operating from 230 V primary power supply
- Power supply type monitoring (SNMP)
- Notification of switching from one type of power to another
- Battery connection indication
- Low battery alarm
- Short circuit protection

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 2465 IPv6 MIB
- RFC 2737 Entity MIB
- RFC 4293 IPv6 SNMP Mgmt Interface MIB
- Private 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 для TCP
- RFC 4113 MIB для UDP
- RFC 3289 MIB для Diffserv
- RFC 2620 RADIUS Accounting Client MIB
- RFC 768 UDP
- RFC 791 IP
- RFC 792 ICMPv4
- RFC 2463, 4443 ICMPv6
- RFC 793 TCP
- RFC 2474, 3260 Definition of the DS field in the IPv4 and IPv6 Headers
- RFC 1321, 2284, 2865, 3580, 3748 Extensible Authentication Protocol (EAP)
- RFC 2571, RFC 2572, RFC 2573, RFC 2574 SNMP
- RFC 826 ARP
- RFC 854 Telnet
- IEC 61850

[1] For MES2420B-24D switches only.

Use case



Physical parameters

	MES2410-08DP	MES2410-08DU	MES2420B-24D	MES2420-24DP
Physical specifications and environmental parameters				
Power supply	100–240 V AC, 50–60 Hz	200–240 V AC, 50–60 Hz	100–240 V AC, 50–60 Hz; 12 V DC	200–240 V AC, 50–60 Hz
Maximum power consumption (for switches without PoE support)	–	–	60 W	–
Maximum power consumption (including PoE load)	275 W	810 W	–	420 W
PoE budget	240 W	720 W	–	370 W
Maximum power consumption (without battery charge)	–	–	45 W	–
Heat dissipation	35 W	90 W	48 W	50 W
Hardware support for Dying Gasp	yes	no	yes	no
Operating temperature	from -15 to +50 °C			
Storage temperature	from -40 to +70 °C			
Cooling	4 fans	4 fans	2 fans	4 fans
Operating humidity	no more than 80 %			
Form factor	19", 1U			
Dimensions (W × H × D)	430 × 44 × 243 mm	430 × 44 × 243 mm	430 × 44 × 225 mm	440 × 44 × 243 mm
Weight	3.48 kg	3.74 kg	3.16 kg	3.8 kg

Ordering information

Name	Description
MES2410-08DP	Ethernet switch MES2410-08DP, 8 × 10/100/1000/2500BASE-T (PoE/PoE+), 2 × 1000BASE-X/10GBASE-R, L3, 100–240 V AC
MES2410-08DU	Ethernet switch MES2410-08DU, 8 × 10/100/1000/2500BASE-T (PoE++), 2 × 1000BASE-X/ 10GBASE-R, L3, 200–240 V AC
MES2420B-24D	Ethernet switch MES2420B-24D, 24 × 10/100/1000/2500BASE-T, 4 × 1000BASE-X/10GBASE-R, L3, 100–240 V AC, 12 V DC
MES2420-24DP	Ethernet switch MES2420-24DP, 24 × 10/100/1000/2500BASE-T (PoE/PoE+), 4 × 1000BASE-X/10GBASE-R, L3, 200–240 V AC
Related software	
ECCM-MES2410-08DP	ECCM-MES2410-08DP option of Eltex.ECCM system to manage and monitor ELTEX network elements: 1 network element MES2410-08DP
ECCM-MES2410-08DU	ECCM-MES2410-08DU option of Eltex.ECCM system to manage and monitor ELTEX network elements: 1 network element MES2410-08DU
ECCM-MES2420B-24D	ECCM-MES2420B-24D option of Eltex.ECCM system to manage and monitor ELTEX network elements: 1 network element MES2420B-24D
ECCM-MES2420-24DP	ECCM-MES2420-24DP option of Eltex.ECCM system to manage and monitor ELTEX network elements: 1 network element MES2420-24DP

Contact us

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

eltex@eltex-co.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 integratibility into Customer's infrastructure are the priority growth areas of the company.