

- 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.)
- Up to 8 devices in a stack



MES2410-08DU



MES2420D-24DP

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 MES2420D-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 physical stacking, VLANs, multicast groups and have an advanced set of security features.

Uninterruptible power¹

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	MES2420D-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	148.80 MPPS	148.80 MPPS
Buffer memory	1.5 MB	1.5 MB	2 MB	2 MB
RAM (DDR3)	1 GB	1 GB	512 MB	512 MB
ROM (SPI Flash)	64 MB			
MAC table	16384	16384	32768	32768
ARP table	1000			
VLAN table	4094			
L2 Multicast groups (IGMP Snooping)	1023	1023	4094	4094
L3 Multicast groups (IGMP proxy)	512	512	2048	2048
SQinQ rules	1024 (ingress)/ 512 (egress)	1024 (ingress)/ 512 (egress)	2048 (ingress)/ 1024(egress)	2048 (ingress)/ 1024 (egress)
MAC ACL rules	509	509	765	765
IPv4/IPv6 ACL rules	384/192	384/192	640/320	640/320
L3 IPv4 Unicast routes	496	496	2048	2048
L3 IPv6 Unicast routes	124	124	512	512
VRRP routers	32			

¹ For MES2420B-24D switches only.

Technical features (continued)

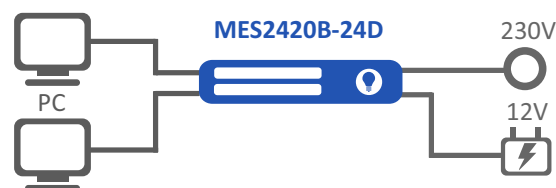
	MES2410-08DP	MES2410-08DU	MES2420B-24D	MES2420D-24DP
L3 interfaces	20 VLANs, up to 5 IPv4 addresses per VLAN, up to 124 IPv6 GUAs for all VLANs in summary		20 VLANs, up to 5 IPv4 addresses per VLAN, up to 512 IPv6 GUAs for all VLANs in summary	
Link Aggregation Groups (LAG)	24 groups, up to 8 ports in one LAG			
Quality of Service (QoS)	8 egress queues per port			
Jumbo frames	maximum packet size is 12288 bytes			
Stacking	up to 8 devices			

Technical features of redundant power supply*

	Battery capacity, Ah	Battery life, h	Battery charge time, h
MES2420B-24D	12	≈ 3	≈ 13
	17	≈ 5	≈ 19
	20	≈ 6	≈ 23

* Note:

— Parameters are given for environment temperature +25 °C



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)
- Stacking

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 v1,2¹
- MLD Snooping fast-leave¹
- IGMP Querier
- MVR

¹ Not supported for MES2420B-24D and MES2420D-24DP in the current firmware version.

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)
- Rapid-PVST+
- STP Root Guard
- STP Loop Guard
- STP BPDU Guard
- BPDU Filtering
- Spanning Tree Fast Link option
- Loopback Detection (LBD)
- Port isolation
- Storm Control for different traffic types (broadcast, multicast, unknown unicast)
- Layer 2 Protocol Tunneling (L2PT)
- 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

Features and capabilities (continued)

IPv6

- IPv6 Host
- IPv4, IPv6 dual stack

Security functions

- DHCP Snooping
- DHCP Option 82
- 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
- IP Source Guard
- Dynamic ARP Inspection
- DHCPv6 Snooping
- IPv6 Source Guard
- IPv6 ND Inspection
- IPv6 RA Guard

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)
- Rate limiting (policing) according to sr-TCM and tr-TCM
- IEEE 802.1p Class of Service (CoS)
- Queue scheduling algorithms: Strict Priority (SP)/Weighted Round Robin (WRR)
- Configuration of IEEE 802.1p priority for Management VLAN
- ACL-based traffic classification
- ACL-based CoS/DSCP mark assignment
- CoS to DSCP remarking
- DSCP to CoS remarking
- ACL-based VLAN assignment

OAM

- IEEE802.3ah, Ethernet OAM
- IEEE 802.3ah Unidirectional Link Detection (UDLD)

Time synchronization

- SNTP (Simple Network Time Protocol) client

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
- 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
- Telnet server and client
- SSH server and client
- 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)
- Traceroute
- 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 supply¹

- 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

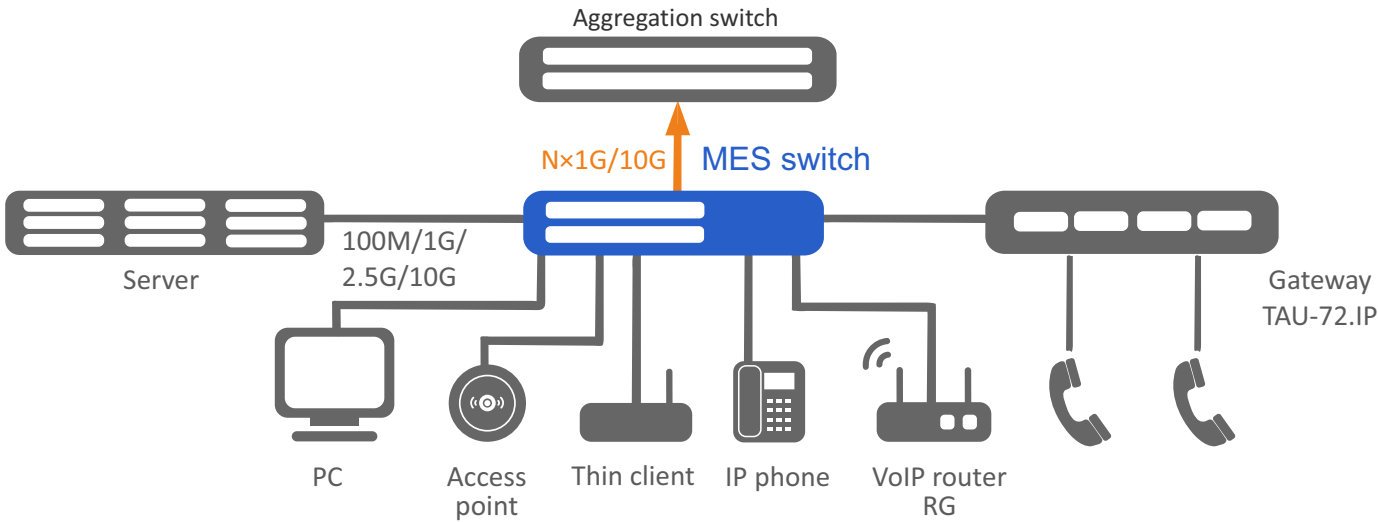
¹For MES2420B-24D switches only.

Features and capabilities (continued)

MIB/IETF (continued)

- 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

Use case



Physical parameters

	MES2410-08DP	MES2410-08DU	MES2420B-24D	MES2420D-24DP
Physical specifications and environmental parameters				
Power supply ¹	200–240 V AC, 50–60 Hz	200–240 V AC, 50–60 Hz	100–240 V AC, 50–60 Hz; 12 V DC	100–240 V AC, 47–63 Hz
Maximum power consumption (for switches without PoE support)	–	–	60 W	–
Maximum power consumption (including PoE load)	275 W	760 W	–	850 W
PoE budget	240 W	720 W	–	720 W
Maximum power consumption (without battery charge)	–	–	45 W	–

¹MES2420B-24D can use a DC power supply with a range of 120–370 V.

Physical parameters (continued)

	MES2410-08DP	MES2410-08DU	MES2420B-24D	MES2420D-24DP
Physical specifications and environmental parameters				
Input current	with PoE enabled: 1–1.6 A	with PoE enabled: 3–5 A	1.0–0.3 A 0.7–0.2 A (without battery)	with PoE enabled: 5.5–3.0 A
Heat dissipation	35 W	40 W	48 W	130 W
Hardware support for Dying Gasp	yes	yes	yes	no
Operating temperature	from -15 to +50 °C	from -15 to +50 °C	from -20 to +50 °C	from -20 to +50 °C
Storage temperature	from -40 to +70 °C			
Cooling	4 fans	4 fans	2 fans	4 fans
Maximum acoustic noise level from the front/rear panel	53.9 dB/54.2 dB	53.9 dB/54.2 dB	53.8 dB/54.2 dB	51.1 dB/54.1 dB
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 × 424 mm
Weight	3.48 kg	3.74 kg	3.16 kg	7 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, 200–240 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
MES2420D-24DP	Ethernet switch MES2420D-24DP, 24 × 10/100/1000/2500BASE-T (PoE/PoE+), 4 × 1000BASE-X/10GBASE-R, L3, 200–240 V AC

Related products

PM450-220/56	PM450-220/56 power supply module, 200–240 V AC, 450 W, used in MES2420D-24DP switches
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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-MES2420D-24DP	ECCM-MES2420-24DP option of Eltex.ECCM system to manage and monitor ELTEX network elements: 1 network element MES2420D-24DP

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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.