

- **Advanced L2 features**
- **Support for Multicast (IGMP Snooping, MVR)**
- **Advanced security functions (L2-L4 ACL, IP Source Guard, Dynamic ARP Inspection, etc.)**

MES2408x series switches provide end users connection to networks of large enterprises, small and mid-sized businesses and service providers via Gigabit Ethernet interfaces.

The switches support Virtual Local Area Networks (VLAN), multicast groups and advanced security functions.

### Uninterruptible power<sup>1</sup>

MES2408B switch can be equipped with a rechargeable battery to ensure power supply in case of the primary network connection loss. The switch is also equipped with a power supply unit which allows the battery to be charged when AC power is available. Power supply redundancy makes it possible to monitor the state of the primary network and notify of a power type switching.

## Technical features

	MES2408	MES2408B	MES2408C
Packet processor	Realtek RTL8380M	Realtek RTL8380M	Realtek RTL8382M
<b>Interfaces</b>			
10/100/1000BASE-T (RJ-45)	8	8	8
Combo 10/100/1000BASE-T/100BASE-FX/1000BASE-X	–	–	2
100BASE-FX/1000BASE-X (SFP)	2	2	–
Console port RS-232 (RJ-45)		1	
<b>Performance</b>			
Bandwidth	20 Gbps		
Throughput for 64-byte packets	14.88 MPPS		
Buffer memory	512 KB		
RAM (DDR3)	256 MB		
ROM (SPI Flash)	32 MB		
MAC table	8K		
TCAM table	1.5K		
L2 Multicast groups (IGMP Snooping)	509		
VLAN table	4094		
Quality of Service (QoS)	8 output queues per port		
Link Aggregation groups (LAG)	8 groups		
Jumbo frame size	the maximum packet size is 10 000 bytes		

## Features and capabilities

### Interface features

- Head-of-line blocking (HOL) protection
- Auto MDI/MDIX
- Jumbo frames
- Flow Control IEEE 802.3X
- Port mirroring
- 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

### VLAN features

- IEEE 802.1Q
- Q-in-Q
- Selective Q-in-Q (VLAN Translation)

### L2 Multicast features

- Multicast profiles
- Static Multicast groups
- IGMP Snooping v1,2,3
- Port-based IGMP Snooping Fast Leave
- IGMP proxy-report features
- MLD Snooping v1,2
- IGMP Querier
- MVR

<sup>1</sup>Only for MES2408B

## Features and capabilities

### L2 features

- STP (Spanning Tree Protocol, IEEE 802.1d)
- RSTP (Rapid Spanning Tree Protocol, IEEE 802.1d)
- 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
- Loopback Detection (LBD)
- Port isolation
- Storm Control for different types of traffic (broadcast, multicast, unknown unicast)

### Link Aggregation functions

- Static LAG
- Dynamic LAG (LACP)
- LAG Balancing Algorithm

### Service functions

- Virtual cable testing (VCT)
- Optical transceiver diagnostics

### IPv6

- IPv6 Host
- Dual-stack

### Quality of service (QoS) and rate limiting

- Shaping, policing
- Support for IEEE 802.1p Class of Service
- Scheduling algorithms: Strict Priority/Weighted Round Robin (WRR)
- 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

### Security functions

- DHCP Snooping
- DHCP Option 82
- IP Source Guard
- Dynamic ARP Inspection (Protection)
- MAC-based authentication, Port Security, static MAC entries
- DoS attacks prevention
- Traffic segmentation
- DHCP clients filtering
- BPDU attacks prevention
- PPPoE Intermediate agent

### Access control lists (ACL)

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

### 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)
- Syslog
- Simple Network Time Protocol (SNTP)
- Traceroute
- LLDP (IEEE 802.1ab) + LLDP MED
- Access management – privilege levels for users
- Management interface blocking
- Local authentication
- IP addresses filtering for SNMP
- RADIUS and TACACS+ clients
- Telnet client
- Telnet server, SSH server
- Macro commands
- Input commands logging via TACACS+
- DHCP autoprovision
- DHCP Relay (support for IPv4)
- DHCP Relay Option 82
- PPPoE Circuit-ID tag adding
- Flash File System
- Debugging commands
- Limiting of traffic to CPU
- Password encryption
- Ping (support for IPv4/IPv6)
- IPv4/IPv6 static routes support
- Support for several versions of configuration file

### OAM

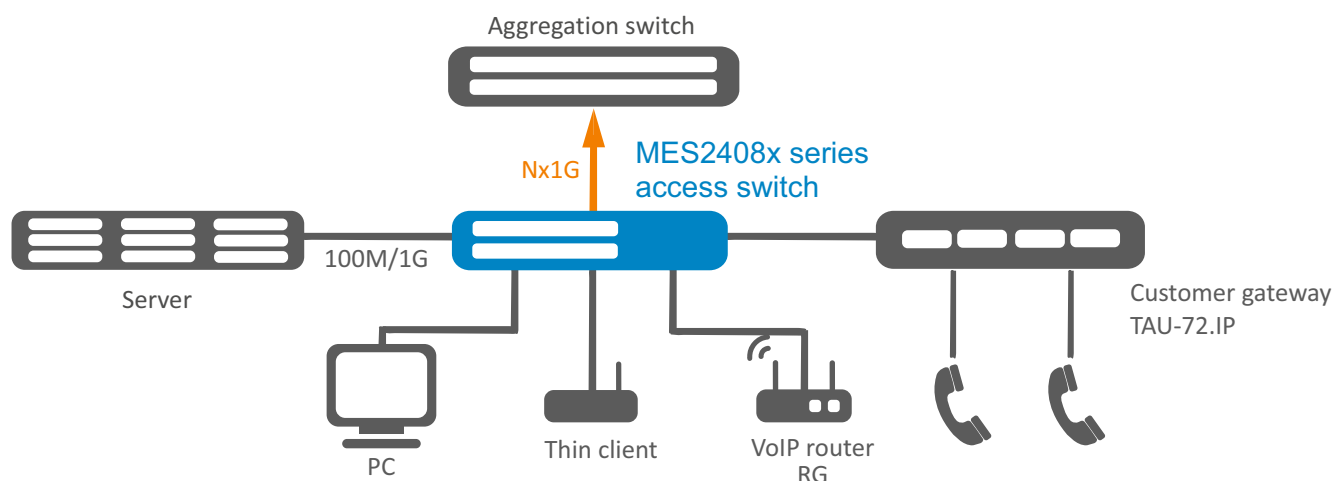
- IEEE 802.3ah, Ethernet OAM
- Dying Gasp
- IEEE 802.3ah Unidirectional Link Detection (UDLD)

### Monitoring functions

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

	MES2408 AC	MES2408 DC	MES2408B	MES2408C
<b>Physical specifications and environmental parameters</b>				
Maximum power consumption	10 W	10 W	37 W (with battery charge)	10 W
Power supply	110–250 V AC, 60/50 Hz	18–72 V DC	110–250 V AC, 60/50 Hz; 12 V DC	110–250 V AC, 60/50 Hz
Input current	0.09–0.04 A	0.56–0.14 A	0.34–0.15 A; 1 A	0.09–0.04 A
Output current	no	no	1.7 A	no
Hardware support for Dying Gasp	no	no	no	yes
Operating temperature	from -20 to +60°C	from -20 to +50°C		
Storage temperature	from -40 to +70°C			
Operating humidity	no more than 80%			
Cooling	passive			
Dimensions (WxHxD), mm	310x44x177			
Weight	1.72 kg		1.78 kg	1.77 kg

## Use case



## Ordering information

Name	Description
MES2408 AC	Ethernet switch MES2408, 8 ports of 10/100/1000BASE-T, 2 ports of 100BASE-FX/1000BASE-X, L2, 110–250 V AC
MES2408 DC	Ethernet switch MES2408, 8 ports of 10/100/1000BASE-T, 2 ports of 100BASE-FX/1000BASE-X, L2, 18–72 V DC
MES2408B	Ethernet switch MES2408B, 8 ports of 10/100/1000BASE-T, 2 ports of 100BASE-FX/1000BASE-X/, L2, 110–250 V AC, 12 V DC
MES2408C	Ethernet switch MES2408C, 8 ports of 10/100/1000BASE-T, 2 ports of 10/100/1000BASE-T / 100BASE-FX/1000BASE-X Combo, L2, 110–250 V AC

### Contact us

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

eltex@eltex-co.ru

www.eltex-co.com

### About Eltex

Eltex company is a leading Russian developer and manufacturer of telecommunication equipment with 25 years of history. Integrity of solutions and seamless integration capability into Customer infrastructure is a priority area of company development.