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

MES24xxP series switches with PoE support 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.

	MES2408CP	MES2408P	MES2408PL	MES2428P
Packet processor	Realtek RTL8382M	Realtek RTL8380M		Realtek RTL8382M
Interfaces				
10/100/1000BASE-T PoE/PoE+	8	8	8	24
100BASE-FX/1000BASE-X (SFP)	–	2	2	–
Combo 10/100/1000BASE-T/100BASE-FX/1000BASE-X	2	–	–	4
Console port RS-232 (RJ-45)	1			
Performance				
Bandwidth	20 Gbps	20 Gbps	20 Gbps	56 Gbps
Throughput for 64-byte packets	14.88 MPPS	14.88 MPPS	14.88 MPPS	41.658 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

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

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

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)
– ACL-based traffic classification
– ACL-based CoS/DSCP mark assignment
– CoS to DSCP remarking
– DSCP to CoS remarking
– ACL-based VLAN assignment

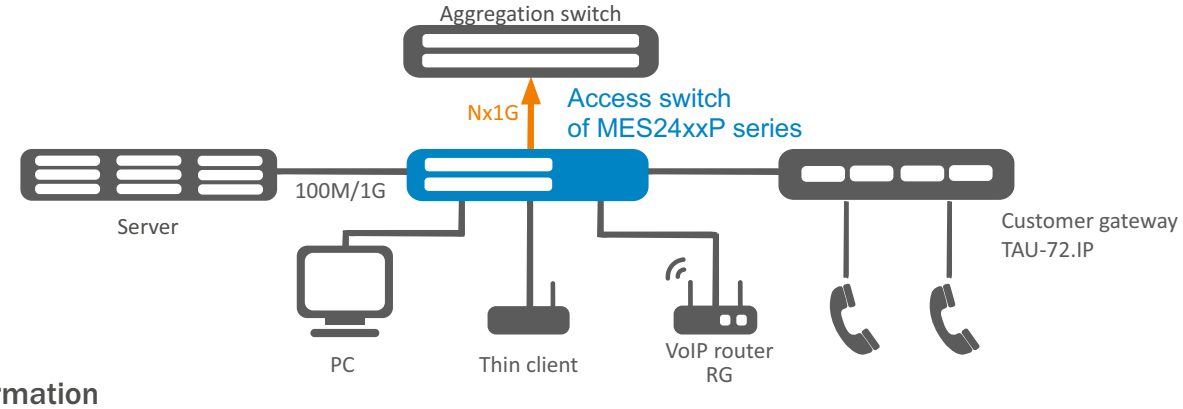
Main management functions
– Download and upload of configuration file via TFTP/SFTP
– Automated backup of configuration file via TFTP/SFTP
– Simple Network Management Protocol (SNMP)
– Command Line Interface (CLI)
– Syslog
– Simple Network Time Protocol (SNTP)
– Traceroute
– LLDP (IEEE 802.1ab) + LLDP 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 features
– Interface statistics
– CPU utilization monitoring per task and per queue
– RAM utilization monitoring
– Temperature monitoring
– TCAM monitoring

	MES2408CP	MES2408P	MES2408PL	MES2428P AC	MES2428P DC
Physical specifications and ambient parameters					
Power supply	110–250 V AC, 60/50 Hz	176–250 V AC, 60/50 Hz; 36–72 V DC	110–250 V AC, 60/50 Hz	170–264 V AC, 60/50 Hz	36–72 V DC
Input current	1.45–0.64 A	1.59–1.12 A	0.85–0.37 A	2.59–1.67 A	12.22–6.11 A
Maximum power consumption (including PoE)	160 W	280 W	93 W	440 W	440 W
PoE budget	120 W	256 W	65 W	370 W	370 W
Hardware support for Dying Gasp	yes	no	no	yes	no
Operating temperature[1]	from -20 to +50 °C				
Storage temperature	from -40 to +70 °C				
Operating humidity	no more than 80%				
Cooling	passive			active, 2 fans	
Dimensions (WxHxD), mm	310x44x177	430x44x178	310x44x177	430x44x204	430x44x305
Weight	2.16 kg	2.69 kg	1.9 kg	3.27 kg	

Use case



Ordering information

Name	Description
MES2408CP	Ethernet switch MES2408CP, 8 ports 10/100/1000BASE-T (PoE/PoE+), 2 Combo ports 10/100/1000BASE-T/100BASE-FX/1000BASE-X, L2, 110–250 V AC
MES2408P AC	Ethernet switch MES2408P AC, 8 ports 10/100/1000BASE-T (PoE/PoE+), 2 ports 100BASE-FX/1000BASE-X, L2, 176–220 V AC
MES2408P DC	Ethernet switch MES2408P DC, 8 ports 10/100/1000BASE-T (PoE/PoE+), 2 ports 100BASE-FX/1000BASE-X, L2, 36–72 V DC
MES2408PL	Ethernet switch MES2408PL, 8 ports 10/100/1000BASE-T (PoE/PoE+), 2 ports 100BASE-FX/1000BASE-X, L2, 110–250 V AC
MES2428P AC	Ethernet switch MES2428P AC, 24 ports 10/100/1000BASE-T (PoE/PoE+), 4 Combo ports 10/100/1000BASE-T/100BASE-FX/1000BASE-X, L2, 170–264 V AC
MES2428P DC	Ethernet switch MES2428P DC, 24 ports 10/100/1000BASE-T (PoE/PoE+), 4 Combo ports 10/100/1000BASE-T/100BASE-FX/1000BASE-X, L2, 36–72 V DC

[1] For MES2408CP and MES2408P DC: in case of using SFP transceivers of commercial implementation, operating temperature must not exceed +45 °C

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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.