



MES Series Ethernet Access Switches

- Advanced L2 features
- Support for Multicast (IGMP Snooping, MVR)
- Advanced security functions (L2-L4 ACL, IP Source Guard, Dynamic ARP Inspection, etc.)
- Uninterruptible power supply from rechargeable battery

The Ethernet access switches provide end users connection to networks of large enterprises, small and mid-sized businesses and service providers via 1G/10G interfaces.

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

Uninterruptible Power

MES2424B, MES2448B and MES2448E switches can be equipped with a rechargeable battery to ensure power supply in case of the 220 V primary network connection loss. The switch is also equipped with a power supply unit which allows the battery to be charged when 220 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

	MES2424AC	MES2424 DC	MES2424B	MES2448 DC	MES2448B	MES2448E
Interfaces						
10/100/1000BASE-T (RJ-45)	24	24	24	48	48	48
1000BASE-X (SFP)/ 10GBASE-R (SFP+)	4	4	4	4	4	6
Console port RS-232	1					
Bandwidth	128 Gbps	128 Gbps	128 Gbps	176 Gbps	176 Gbps	216 Gbps
Throughput for 64-byte packets	95.2 MPPS	95.2 MPPS	95.2MPPS	130.9 MPPS	130.9 MPPS	160.7 MPPS
Buffer memory	1.5 MB	1.5 MB	1.5 MB	2 MB	2 MB	2 MB
RAM (DDR3)	512 MB					
ROM (SPI Flash)	64 MB					
MAC table	16384	16384	16384	32768	32768	32768
ARP table	1000					
VLAN table	4094					
L2 Multicast groups	1023	1023	1023	4094	4094	4094
L3 Multicast groups	512	512	512	2048	2048	2048
L3 interfaces	8 VLANs, up to 5 of IPv4 addresses for each VLAN, up to 300 of IPv6 GUA for all VLANs					
Quality of Service (QoS)	8 egress queues per port					
Power supply	100–240 V AC, 50–60 Hz	18–72 V DC	100–240 V AC, 50–60 Hz; 12 V DC	36–72 V DC	110–250 V AC, 50–60 Hz; 12 V DC	110–250 V AC, 50–60 Hz; 12 V DC
Maximum power consumption	25 W	26 W	49 W	48 W	66 W	68W
Dimensions (W × H × D)	430 × 44 × 203 mm	430 × 44 × 203 mm	430 × 44 × 203 mm	440 × 44 × 280 mm	440 × 44 × 280 mm	440 × 44 × 280 mm

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

- 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 reporting
- IGMP authorization via RADIUS
- MLD Snooping v1,21
- MLD Snooping fast-leave1
- 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
- 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

Link Aggregation Functions

- Static LAG
- Dynamic LAG
- LAG Balancing Algorithm

Service Functions

- Virtual Cable Test (VCT)
- Optical transceiver diagnostics

IPv6 Functions

- IPv6 Host
- Dual-stack IPv4, IPv6

Security Functions

- DHCP Snooping
- DHCP option 82
- MAC-based authentication, Port Security, static MAC addresses
- IEEE 802.1x port-based authentication
- 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 List)

- 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 according to srTCM and trTCM policing algorithms
- IEEE 802.1p Class of Service (CoS)
- Queue scheduling algorithms: Strict Priority/Weighted Round Robin (WRR)
- IEEE 802.1p priority tagging for VLAN management
- ACL-based traffic classification
- ACL-based CoS/DSCP marking
- DSCP to CoS remarking
- CoS to DSCP remarking
- ACL-based VLAN assignment