– **Bandwidth up to 176 Gbps**
– **Non-blocking architecture**
– **4 ports of 10G**
– **Stacking up to 8 devices**
– **Multicast support (IGMP Snooping, MVR)**



MES2300-48P

MES2300-24P, MES2300D-24P and MES2300-48P switches with PoE support provide end users connection to networks of large enterprises, small and middle-sized business and service providers via 1G/10G.

The switches functionality includes physical stacking, VLAN support, multicast groups, and advanced security features.

Technical features

	MES2300-24P AC	MES2300-24P DC	MES2300D-24P	MES2300-48P
Interfaces				
10/100/1000BASE-T (RJ-45) PoE/PoE+	24	24	24	48
10GBASE-R (SFP+)/1000BASE-X (SFP)	4			
Console port RS-232 (RJ-45)	1			
Performance				
Bandwidth	128 Gbps			176 Gbps
Throughoutput for 64 bytes[1]	94.49 MPPS	94.49 MPPS	95.2 MPPS	130.95 MPPS
Buffer memory	1.5 MB			3 MB
RAM (DDR4)	2 GB			
ROM (RAW NAND)	512 MB			
MAC table	16384			
ARP table	1981			
VLAN table	4094			
L2 Multicast groups	2048			
SQinQ rules	1320 (ingress), 654 (egress) / 654 (ingress), 1320 (egress)			
MAC ACL rules	1974			

[1] Values are given for one-way transmission.

Features and capabilities

Interface features
– Head-of-line blocking (HOL) protection
– Back Pressure
– Auto MDI/MDIX
– Jumbo Frames
– Flow Control (IEEE 802.3X)
– Port Mirroring (SPAN, RSPAN)
– Stacking

MAC address functions
– Independent learning mode per VLAN
– MAC Multicast Support
– Configurable aging time of MAC addresses
– Static MAC Entries
– MAC Flapping

VLAN support
– Voice VLAN
– 802.1Q
– Q-in-Q
– Selective Q-in-Q
– GVRP
– Subnet-based VLAN

L2 Multicast functions
– Multicast profiles
– Static Multicast groups
– IGMP Snooping v1,2,3
– Host/port-based IGMP Snooping Fast Leave
– Pim-Snooping
– IGMP proxy-report
– IGMP authorization through RADIUS
– MLD Snooping v1,2
– IGMP Querier
– MVR

L2 functions
– STP (Spanning Tree Protocol, IEEE 802.1d)
– RSTP (Rapid Spanning Tree Protocol, IEEE 802.1w)
– MSTP (Multiple Spanning Tree Protocol, IEEE802.1s)
– PVSTP+
– RPVSTP+
– Spanning Tree Fast Link option
– STP Root Guard
– BPDU Filtering
– STP BPDU Guard
– Loopback Detection
– ERPS (G.8032v2)
– Flex-link
– Private VLAN
– L2PT (Layer 2 Protocol Tunneling)

Link Aggregation functions
– LAG group creation
– LACP
– LAG Balancing Algorithm
– MLAG (Multi-Switch Link Aggregation Group)

IPv6 support
– IPv6 Host
– Dual-stack IPv4, IPv6

Service functions
– VCT (Virtual Cable Testing)
– Optical transceiver diagnostics
– Green Ethernet
– Protection against unauthorized DHCP servers (DHCP Snooping)
– DHCP option 82
– IP Source Guard
– Dynamic ARP Inspection
– sFlow
– Port-based authentication IEEE 802.1x
– Guest VLAN
– Traffic segmentation
– DHCP clients filtering
– NetBIOS/NetBEUI filtering

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

Quality of Service (QoS)
– QoS statistics
– Shaping, policing
– IEEE 802.1p Class of Service
– Storm Control for different traffics (broadcast, multicast, unknown unicast)
– Bandwidth management
– Strict priority/Weighted Round Robin (WRR) scheduling algorithms
– Three marking colors
– ACL-based CoS/DSCP mark assignment
– ACL-based VLAN mark assignment
– Setting the IEEE 802.1p priority for management VLAN
– DSCP to CoS, CoS to DSCP remarking
– 802.1p DSCP mark assignment for IGMP

OAM
– 802.3ah Ethernet Link OAM
– 802.3ah Unidirectional Link Detection

Features and capabilities (continued)

Management functions

– Upload/download of configuration file and firmware via TFTP/SCP
– SNMP (Simple Network Management Protocol)
– CLI (Command Line Interface)
– Web interface
– Syslog
– SNTP (Simple Network Time Protocol)
– NTP (Network Time Protocol), NTP server, NTP peer-to-peer
– Traceroute
– LLDP (802.1ab) + LLDP MED
– LLDP (IEEE 802.1ab)
– TACACS+
– Switch access control — Privilege levels for users
– Management interface blocking
– Local authentication
– IP addresses filtering for SNMP
– SSH, Telnet server
– SSH, Telnet client
– SSL
– Macrocommands support
– CLI commands logging
– System log
– DHCP autoprovision
– DHCP Relay (Option 82)
– DHCP Option 12
– DHCP server
– Debugging commands
– Rate limit of traffic to CPU
– Password encryption
– Password recovery
– Ping (IPv4/IPv6)

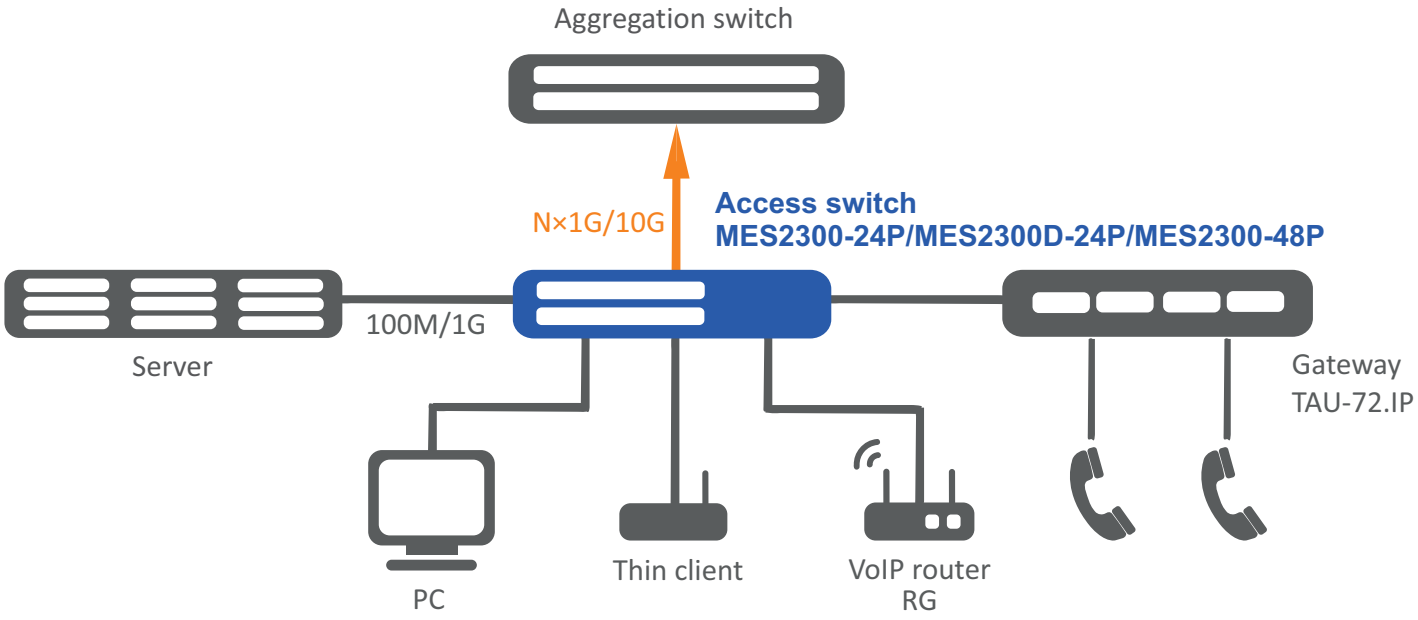
Monitoring functions

– Interface statistics
– RMON/SMON
– IP SLA
– CPU utilization monitoring per task and traffic type
– RAM (Random Access Memory)
– Temperature monitoring
– TCAM monitoring

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 1271, 1757, 2819 RMON MIB
– RFC 2465 IPv6 MIB
– RFC 2466 ICMPv6 MIB
– RFC 2737 Entity MIB
– RFC 4293 IPv6 SNMP Mgmt Interface MIB
– Private MIB
– RFC 3289 DIFFSERV MIB
– RFC 2021 RMONv2 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 for TCP
– RFC 4113 MIB for UDP
– RFC 2620 RADIUS Accounting Client MIB
– RFC 2925 Ping & Traceroute MIB
– RFC 768 UDP
– RFC 791 IP
– RFC 792 ICMPv4
– RFC 2463, 4443 ICMPv6
– RFC 4884 Extended ICMP to support Multi-Part Messages
– RFC 793 TCP
– RFC 2474, 3260 Definition of the DS field in the IPv4 and IPv6
– RFC 1321, 2284, 2865, 3580, 3748 Extensible Authentication Protocol (EAP)
– RFC 2571, RFC2572, RFC2573, RFC2574 SNMP
– RFC 826 ARP
– RFC 854 Telnet
– IEC 61850

Use case



Physical parameters

	MES2300-24P AC	MES2300-24P DC	MES2300D-24P	MES2300-48P
Physical parameters and environmental features				
Power supply	200–240 V AC, 50–60 Hz	36–72 V DC	200–240 V AC, 50–60 Hz Power supply options: • one AC power supply • two AC hot-swappable power supplies	100–240 V AC, 50–60 Hz; 36–72 V DC (up to 2 hot-swappable power supplies)
Input current	including PoE: 1.5–2.8 A excluding PoE: 0.2–0.3 A	14–6 A	3.0–5.5 A for AC	5–10 A for AC
Maximum power consumption (including PoE)	445 W	480 W	850 W	1600 W
PoE budget	380 W	380 W	720 W	1450 W
Heat dissipation	70 W	100 W	130 W	150 W
Dying Gasp support	no			
Operating temperature	from -20 to +50 °C			from -10 to +50 °C
Storage temperature	from -50 to +70 °C			
Operating humidity	no more than 80 %			
Cooling	2 fans	2 fans	4 fans	4 fans
Maximum acoustic noise level	from the front panel, max < 33 dB from the rear panel, max < 33 dB			
Form factor	19", 1U			
Dimensions (W × H × D)	430 × 44 × 203 mm	430 × 44 × 203 mm	440 × 44 × 425 mm	440 × 44 × 490 mm
Weight	3.2 kg	3.2 kg	6.85 kg	9.98 kg

Ordering information

Name	Description
MES2300-24P AC	MES2300-24P AC Ethernet switch, 24×10/100/1000BASE-T (RJ-45) PoE/PoE+, 4×10GBASE-R (SFP+)/1000BASE-X (SFP)
MES2300-24P DC	MES2300-24P DC Ethernet switch, 24×10/100/1000BASE-T (RJ-45) PoE/PoE+, 4×10GBASE-R (SFP+)/1000BASE-X (SFP),
MES2300D-24P	MES2300D-24P Ethernet switch, 24×10/100/1000BASE-T (RJ-45) PoE/PoE+, 4×10GBASE-R (SFP+)/1000BASE-X(SFP)
MES2300-48P	MES2300-48P Ethernet switch, 48×10/100/1000BASE-T (RJ-45) PoE/PoE+, 4×10GBASE-R (SFP+)/1000BASE-X (SFP)
Related products	
PM380-220/56	PM380-220/56 power module, 176–264 V AC, 380 W, used in MES2300D-24P
PM950-220/56	PM950-220/56 power module, 100–240 V AC, 950 W, used in MES2300-48P
PM950-48/56	PM950-48/56 power module, 36–72 V DC, 950 W, used in MES2300-48P
Related software	
ECCM-MES2300-24P	ECCM-MES2300-24P option of Eltex ECCM management system for Eltex network elements management and monitoring: 1 network element MES2300-24P
ECCM-MES2300D-24P	ECCM-MES2300D-24P option of Eltex ECCM management system for Eltex network elements management and monitoring: 1 network element MES2300D-24P
ECCM-MES2300-48P	ECCM-MES2300-48P option of Eltex ECCM management system for Eltex network elements management and monitoring: 1 network element MES2300-48P

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About Eltex

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.