ELTEXALATAU

Integrated networking solutions

- **L2+ switches**
- **Stacking support**
- **Multicast support (IGMP Snooping, MVR)**
- **Advanced security functions (L2-L4 ACL, IP Source Guard, Dynamic ARP Inspection, etc.)**

MES2308

MES2308P

MES2308R

MES2308x series access switches - managed L2+ switches. MES2308, MES2308P have 10 ports of 10/100/1000BASE-T (MES2308P has 8 ports supporting PoE/PoE+) and 2 ports of 1000BASE-X (SFP). MES2308R has 8 ports of 10/100/1000BASE-T and 2 Combo ports of 10/100/1000BASE-T/1000BASE-X/100BASE-FX.

The switches provide end users connection to a large-scale corporate network, small and medium business networks and to a service provider networks using Gigabit Ethernet interfaces.

The switches support physical stacking, VLANs, multicast groups and advanced security functions.

Technical features

	MES2308	MES2308P AC	MES2308P DC	MES2308R
Common parameters				
Packet processor	Marvell 98DX3233			
Interfaces				
10/100/1000BASE-T (RJ-45) PoE/PoE+	—	8		—
10/100/1000BASE-T (RJ-45)	10	2		8
1000BASE-X (SFP)	2	2		—
10/100/1000BASE-T/1000BASE-X/100BASE-FX Combo	—	—		2
Console port	RS-232/RJ-45			
Performance				
Bandwidth	24 Gbps			20 Gbps
Throughput for 64 bytes	17.7 MPPS			14.7 MPPS
Buffer memory	12 Mb			
RAM (DDR3)	512 MB			
ROM (RAW NAND)	512 MB			
MAC table	16K			
Quality of Service (QoS)	8 egress queues per port			
TCAM	For routing: 1024 For traffic processing: 1024x24B			
ARP table[1]	1K			
Link Aggregation Groups (LAG)	16, up to 8 ports per LAG			
Maximum size of ECMP groups	8			

[1] For each host in the ARP table, an entry is created in the routing table

ELTEXALATAU

Integrated networking solutions

Technical features

	MES2308	MES2308P AC	MES2308P DC	MES2308R
L2 Multicast groups	2K			
VLAN table	4K			
Jumbo frames size	10240 bytes			
Stacking	8 devices			

Features and capabilities

Interfaces functions
– Head-of-line blocking (HOL) protection
– Back Pressure
– Auto MDI/MDIX
– Jumbo Frames
– Flow control (IEEE 802.3X)
– Port mirroring

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

VLAN functions
– Voice VLAN
– IEEE 802.1Q
– Q-in-Q
– Selective Q-in-Q
– GVRP

L2 Multicast functions
– Multicast profiles
– Static Multicast groups
– IGMP Snooping v1,2,3
– Port/host based IGMP Snooping Fast Leave
– IGMP proxy-report
– IGMP autorization via RADIUS
– MLD Snooping v1,2
– IGMP Querier
– MVR

L2 functions
– STP (Spanning Tree Protocol, IEEE 802.1d)
– RSTP(Rapid Spanning Tree Protocol, IEEE8021w)
– MSTP (Multiple Spanning Tree Protocol, IEEE802.1s)
– STP Multiprocess
– PVSTP+
– Spanning Tree Fast Link option
– EAPS[1]
– STP Root Guard
– STP Loop Guard
– BPDU Filtering
– STP BPDU Guard
– VLAN-based Loopback Detection (LBD)
– ERPS (G.8032v2)
– Private VLAN
– Layer 2 Protocol Tunneling

L3 functions
– Static IP routes
– Dynamic routing protocols RIPv2, OSPFv2, OSPFv3
– Address Resolution Protocol (ARP)
– VRRP
– PIM SM, PIM DM, IGMP Proxy
– ECMP Load Balancing
– IP Unnumbered

Link Aggregation functions
– Static LAG
– Dynamic LAG (LACP)
– LAG Balancing Algorithm

IPv6 functions
– IPv6 Host
– Dual-stack

Service functions
– Virtual Cable Testing (VCT)
– Optical transceiver diagnostics
– Green Ethernet

Security functions
– DHCP Snooping
– DHCP Option 82
– IP Source Guard
– Dynamic ARP Inspection
– sFlow
– MAC-based authentication, Port Security, Static MAC entries
– Port-based authentication IEEE 802.1x
– Guest VLAN[1]
– DoS attack prevention
– Traffic segmentation
– Protection against non-authorized DHCP servers
– DHCP client filtering
– BPDU attack prevention
– NetBIOS/NetBEUI filtering
– PPPoE Intermediate Agent

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

[1] *Not supported in the current firmware version 4.0.10.1*

ELTEXALATAU

Integrated networking solutions

Features and capabilities

Quality of service (QoS) and rate limiting
– QoS statistics
– Shaping, policing
– IEEE 802.1p Class of Service (CoS)
– Storm Control
– Bandwidth management
– Scheduling algorithms: Strict Priority/Weighted Round Robin (WRR)
– Three marking colors
– ACL-based traffic classification
– Setting the IEEE 802.1p priority for VLAN management
– DSCP to CoS/CoS to DSCP remarking
– ACL-based VLAN assignment
– 802.1p, DSCP mark assignment for IGMP

OAM/CFM
– IEEE 802.3ah Ethernet Link OAM
– Dying Gasp
– IEEE 802.1ag Connectivity Fault Management (CFM)[1]
– IEEE 802.3ah Unidirectional Link Detection (UDLD)

Management functions
– Download and upload of configuration file via TFTP/SCP
– Redirecting the output of CLI commands to an arbitrary file on ROM
– SNMP
– Command line interface (CLI)
– Web interface
– Syslog
– SNTP (Simple Network Time Protocol)
– Traceroute
– LLDP (802.1ab) + LLDP MED
– Access control - privilege levels
– Management interface blocking
– Local authentication
– IP addresses filtering for SNMP
– RADIUS and TACACS+ (Terminal Access Controller Access Control System) clients
– SSH server
– SSL
– Macrocommands
– CLI commands logging
– System log
– DHCP autoprovision
– DHCP Relay (IPv4 support)
– DHCP Option 12
– DHCP Relay Option 82
– PPPoE Circuit ID tag
– Flash File System
– Debugging commands
– Rate limit of traffic to CPU

– Password encryption
– Password recovery
– Ping (IPv4/IPv6)
– FTP server[1]
– DNS server

Monitoring functions
– Statistics on interfaces
– RMON/SMON
– CPU utilization monitoring per task and per traffic
– RAM utilization monitoring
– Temperature monitoring
– TCAM utilization monitoring

MIB
– 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 271,1757, 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 3298 MIB for Diffserv
– 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 or Multi-Part messages support
– RFC 793 TCP
– RFC 2474, 3260 DS field in the IPv4 and IPv6 header
– RFC 1321, 2284, 2865, 3580, 3748 Extensible Authentication Protocol (EAP)
– RFC 2571, RFC2572, RFC2573, RFC2574 SNMP
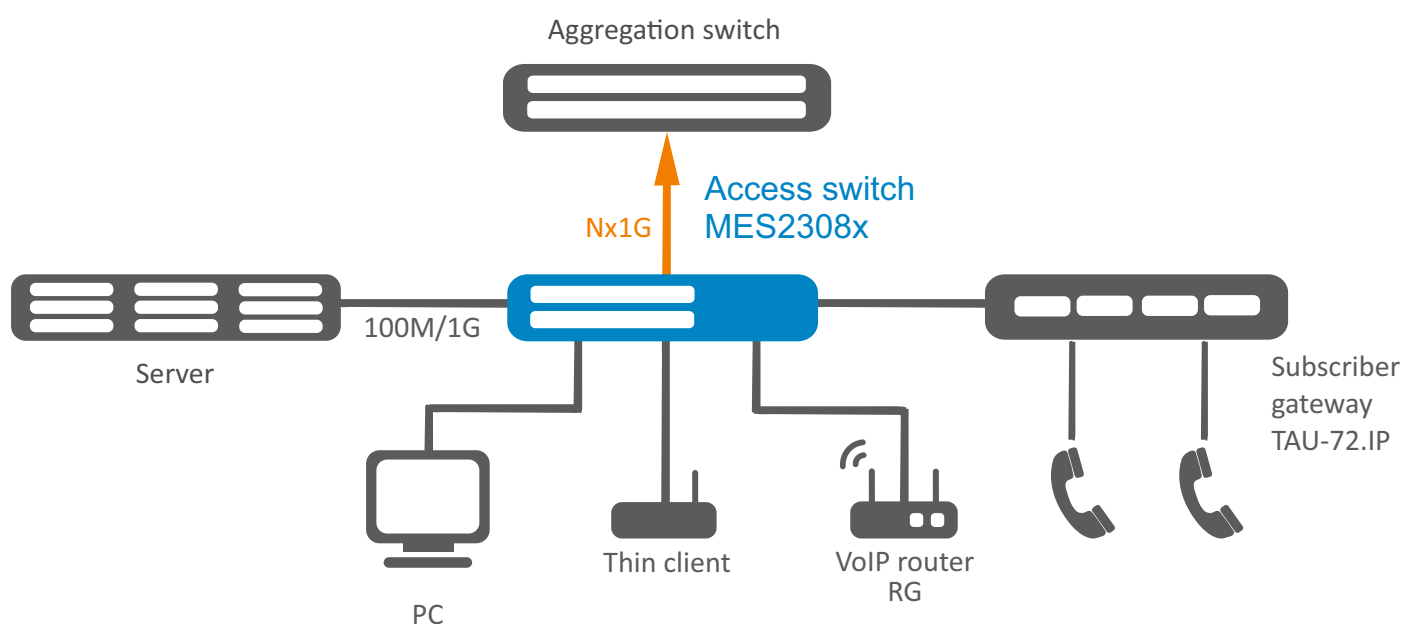– RFC 826 ARP

Physical parameters

	MES2308	MES2308P AC	MES2308P DC	MES2308R
Physical parameters and parameters of environment				
Max. power consumption (including PoE)	20 W	270 W		15 W
PoE budget	—	240 W		—
Power supply	220 V AC, 50 Hz	220 V AC, 50 Hz	48V DC	220 V AC, 50 Hz
Dying Gasp hardware support	—	—		•

[1] *Not supported in the current firmware version 4.0.10.1*

ELTEXALATAU

Integrated networking solutions

Physical parameters

	MES2308	MES2308P AC	MES2308P DC	MES2308R
Operating temperature	from -20 to +45°C	from -20 to +50°C	from -20 to +45°C	from -20 to +50°C
Storage temperature	from -40 to +70°C			
Operating humidity	80% max			
Cooling	Passive cooling			
Form factor	19", 1U			
Dimensions, mm	310 x 158 x 44	430 x 158 x 44		310 x 158 x 44
Weight	1.45 kg	2.55 kg	2.35 kg	1.45 kg

Use Case

Aggregation switch

Access switch
MES2308x

Nx1G

100M/1G

Server

PC

Thin client

VoIP router
RG

Subscriber
gateway
TAU-72.IP

Ordering information

Name	Description	Image
MES2308 AC	MES2308 Ethernet switch, 10 ports of 10/100/1000BASE-T, 2 ports of 1000BASE-X, L2+, 220V AC	
MES2308P AC	MES2308P Ethernet switch, 8 ports of 10/100/1000BASE-T (PoE/PoE+), 2 ports of 1000BASE-X, 2 ports of 10/100/1000BASE-T, L2+, 220V AC	
MES2308P DC	MES2308P Ethernet switch, 8 ports of 10/100/1000BASE-T (PoE/PoE+), 2 ports of 1000BASE-X, 2 ports of 10/100/1000BASE-T, L2+, 48V DC	
MES2308R AC	MES2308R Ethernet switch, 8 ports of 10/100/1000BASE-T, 2 ports of 10/100/1000BASE-T/1000BASE-X/100BASE-FX Combo, L2+, 220V AC	
Related software		
EMS-MES-access	EMS-MES-access option of Eltex.EMS system for managing and monitoring of Eltex network elements: 1 access switch network element	

Contact Us

About EltexAlatau

+7 (727) 220 76 10

post@eltexalatau.kz

www.eltexalatau.kz

EltexAlatau company is one of the first communication equipment manufacturers in Kazakhstan established in 2012. The main focus of the enterprise is a set of solutions and the opportunity of their seamless connection to the customer's infrastructure.