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.)**

MES2324P

The new generation of MES access switches are managed L2+ switches which have 24 or 48 10/100/1000BASE-T ports with PoE/PoE+ support and 4 10GBASE-R (SFP+)/1000BASE-X (SFP) ports.

The switches are designed to connect end users to large-scale, medium and small enterprise networks and to service provider networks using 1G/10G Ethernet interfaces.

The switches support physical stacking, VLANs and multicast groups, as well as advanced security features.

MES2348P

	MES2324P	MES2348P
Common parameters		
Packet processor	Marvell 98DX3236	Marvel 2x98DX3236
Interfaces		
10/100/1000BASE-T (RJ-45) PoE/PoE+	24	48
10GBASE-R (SFP+)/1000BASE-X (SFP)	4	4
Console port	RS-232/RJ-45	RS-232/RJ-45
Performance		
Bandwidth	128 Gbps	176 Gbps
Buffer memory	12 Mb	24 Mb
MAC table	16K	
VLAN table	4K	
Quality of Service (QoS)	8 egress queues per port	
TCAM	For routing: 1024xIPv4 For traffic processing: 1024x24 B	
Maximum Jumbo frames size	10240 B	
Stacking	Up to 8 units	

Features and capabilities

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

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

VLAN functions
– Voice VLAN
– 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 authorization via 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)
– STP Multiprocess
– Spanning Tree Fast Link option
– EAPS[1]
– STP Root Guard
– BPDU Filtering
– STP BPDU Guard
– Loopback Detection (LBD)
– ERPS (G.8032v2)

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
– DoS attack prevention
– Traffic segmentation
– Protection against non-authorized DHCP servers
– DHCP clients filtering
– BPDU attacks prevention
– NetBIOS/NetBEUI filtering
– PPPoE Intermediate Agent

ACL (Access Control Lists)
– 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

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 CoS/DSCP assignment

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

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[1] *Not supported in the current firmware version 4.0.6*

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Integrated networking solutions

Features and capabilities

Main management functions

– Download and upload of configuration file via TFTP/SCP
– 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
– 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 support)
– FTP server[1]

Monitoring functions

– Interface statistics
– RMON/SMON
– CPU utilization monitoring per tasks
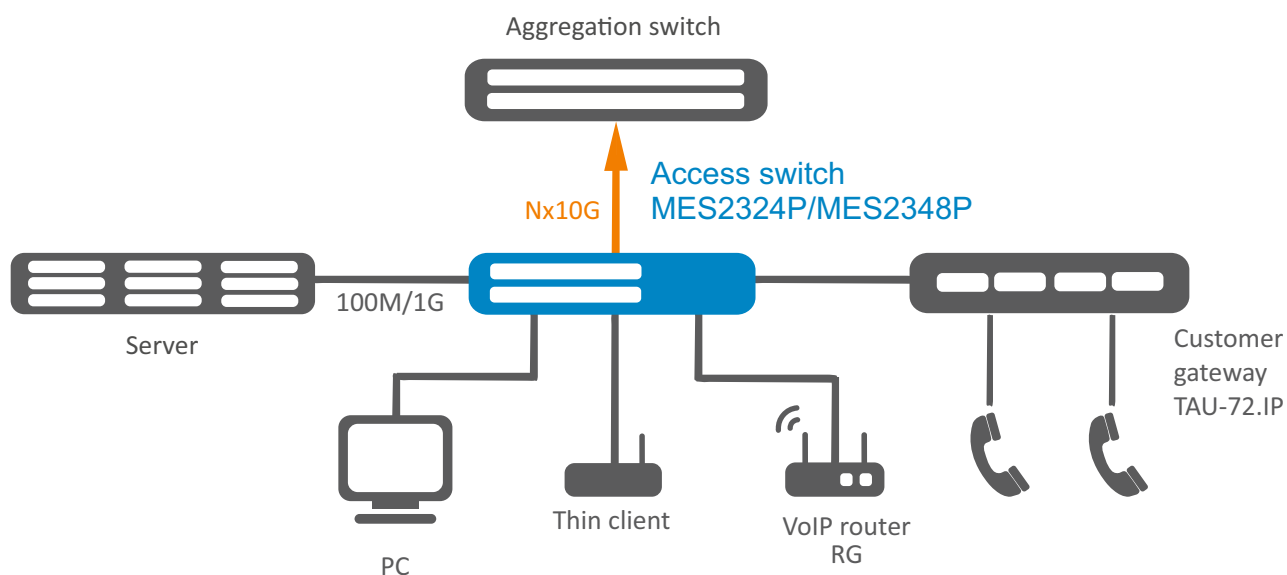– Temperature monitoring
– TCAM utilization monitoring

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 для TCP
– RFC 4113 MIB для UDP
– RFC 3298 MIB для 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 for 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

[1] *Not supported in the current firmware version 4.0.6*

	MES2324P	MES2348P
Technical features		
Maximum power consumption	410 W (including PoE)	1600 W (including PoE)
Power supply	220 VAC, 50 Hz	
Operating temperature	from -20 to +50°C	
Storage temperature	from -40 to +70°C	
Operating humidity	80% max.	
Cooling	active cooling	
Form factor	19", 1U	
Dimensions (WxDxH)	440 x 203 x 44	440 x 490 x 44

Application diagram

Aggregation switch

Access switch
MES2324P/MES2348P

Nx10G

100M/1G

Server

PC

Thin client

VoIP router
RG

Customer
gateway
TAU-72.IP

Name	Description	Image
MES2324P AC	Ethernet switch MES2324P, 24 10/100/1000BASE-T (RJ-45) ports with PoE/PoE+ support, 4 10GBASE-R (SFP+)/1000BASE-X (SFP) ports, L2+, 220 VAC	
MES2348P AC	Ethernet switch MES2348P, 48 10/100/1000BASE-T (RJ-45) ports with PoE/PoE+ support, 4 10GBASE-R(SFP+)/1000BASE-X (SFP) ports, L2+, 220 VAC	
Related products		
EMS-MES-access	Option EMS-MES-access of Eltex.EMS system for management and monitoring of Eltex network elements: 1 network element - access switch	

Contact Us

+7 (727) 320 18 38   info@eltexalatau.kz   www.eltexalatau.kz

About EltexAlatau

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.