– performance up to 800 Gbit/s
– non-blocking switching matrix
– 24x10G ports , 4x40G ports
– L3 switch
– Front-to-Back ventilation
– stacking up to 8 devices
– power backup
– redundant ventilation system

MES5324 switches represent high-performance devices with 10GBASE-X and 40GBASE-X interfaces and are intended to be used as switching devices in operator networks and Top-of-Rack or End-of-Row switches in data centres.

The ports support data transfer at 1 Gbit/s (SFP), 10 Gbit/s (SPF+) and 40 Gbit/s (QSFP) that ensures flexibility and a capability to gradually switch to higher speeds of data transfer. The non-blocking switch matrix guarantees proper packet processing at maximum load with minimum and predictable delays for all types of traffic.

The front-to-back ventilation provides effective cooling in an environment of modern data centres.

The redundant fans and AC/DC power supply in addition to advanced system of hardware monitoring result in high reliability. The devices allow hot-swapping of power and ventilation modules that ensures uninterrupted operation of the operator's network.

Technical features

	MES5324
	Parameters
CPU	Marvell98CX8129
Interfaces	1x10/100/1000Base-T (OOB) 1x10/100/1000Base-T (Management) 24x(10G Base-X(SFP+)/1000Base-X (SFP)) 4x40G Base-SR4/LR4 (QSFP)
Console port	RS-232/RJ-45
Performance	800 Gbps
Buffer size	32 Mbit
MAC-addresses table	64K
VLAN table	4K
Quality of service (QoS)	traffic priorization, 8 levels; 8 output queues with different priorities for each port
TCAM	for routing: 8192 for traffic proccessing: 8192x24B
Jumbo-frames	maximal size of packet 10K
Stacking	up to 8 units
Physical parameters and environment features	
Power supply	circuit of alternative current: 220 V+-20%, 50 GHz circuit of direct current: -36..-72V Application: • one power supply source of direct or alternating current • two power supply sources of direct or alternating current with "hot" change
Max power consumption	less than 85 W
Ventillation	Front-to-Back, 4 ventilators
Working temperature of environment	from -20^0 to +50^0 C
Working humendity	less than 40%
Temperature for storage	от -40^0 до +70^0 C
Dimensions	430x298x44 mm

Functional capabilities

Interface functions
– Operating with SFP+, SFP, QSFP modules
– Operating with Copper Direct Attach cable
– Interface mode automatic installation 1 Gbps - 10 Gbps on 10G interfaces
– Jumbo frames Support
– Head-of-line blocking (HOL) protection
– Flow Control (IEEE 802.3X)
– Port mirroring
– Broadcast "storm" protection

MAC addresses functionality
– MAC-address table 64K
– Independent learning mode in every VLAN
– MAC Multicast Support
– MAC-addresses Adjustable storage time
– Static MAC Entries

L2 functions
– Spanning Tree Protocol, IEEE 802.1d
– IEEE802.1w Rapid Spanning Tree
– IEEE802.1s Multiple SpanningTree, up to 256 samples
– STP Multiprocess
– STP Root Guard
– BPDU filtering
– Loopback Detection
– IEEE802.3ad Link Aggregation/LACP (up to 8 ports per group, up to 32 groups)
– IEEE802.1AB Link Layer Discovery Protocol
– VLAN support, up to 4K, in accordance with 802.1Q
– Port-based VLANs
– Double tagging 802.1Q (QinQ) support
– Selective QinQ
– Port Isolation (Protected ports)
– Private VLAN Edge
– Dynamic VLAN (GVRP)
– IGMP v1,v2,v3 / MLD v1,v2 Snooping support
– Ring Protection support
    – EAPS (RFC3619)[1]
    – ERPS (G.8032v2)[1]

L3 functions
– 8K Ipv4/IPv6/IP routes
– IP Static addresses
– Protocols of dynamic routing RIP, OSPF
– Address Resolution Protocol (ARP)
– Up to 8K ARP records
– L2/3/4 ACL access lists - up to 8K
– VRRP protocol support[1]
– Equal Cost Multipath Routing (ECMP) up to 64 routes[1]

Security functions
– DHCP snooping
– DHCP Relay Intermediate Agent
– 82 of DHCP protocol Option
– Dynamic ARP Inspection (Protection)
– Authentication checking based on MAC addresses, limiting the number of MAC addresses, static MAC address
– Protected control (SSLv3, SSHv2)
– Authentication checking   based on 802.1x

L2 Multicast
– Up to 2K multicast groups
– IGMP Snooping
– IGMP Querier

AAA
– Port based Access control (Port-based ACL)
– MAC based Access Control (MAC-based ACL)
– Host Based Access Control (IP-based ACL)
– Dynamic VLAN Assignment
– Guest VLAN

Quality of service key functions (QoS)
– 8 priority queues per port
– Priorities support L2 level (802.1p Class of Service)
– Priorities support L3 level (DSCP)
– Processing Queues
    – Strict Priority (SP)
    – Weighted Round Robin (WRR)
    – SP + WRR
– CoS on the basis of:
    – Switch port
    – VLAN ID
    – MAC address
    – IPv4/v6- addresses
    – Type of protocol
    – IPv6 Traffic Class
    – IPv6 flow label
    – Number of TCP / UDP port
– Support for the following streams
    – 802.1p prioritization
    – TOS/DSCP assignment
    – Flows statistics
– Bandwidth management (Rate Limiting/Shaping)
        – Port-based
        – Flow-based

Data Center Bridging (DCB)
– IEEE 802.1Qau Congestion Notification (QCN)
– IEEE 802.1Qaz Enhanced Transmission Selection (ETS)
– IEEE 802.1Qbb Priority-Based Flow Control (PFC)
– Cut-through switching

---

[1] Not supported by current version of software

Functionality (continuation)

Main management functions

– RS-232 console
– Downloading and uploading of the configuration and software via TFTP, FTP (server)
– SNMP v2, v3 protocol support
– Command Line Interface (CLI)
– Syslog
– SNTP (Simple Network Time Protocol)
– Management access lists (Management ACL)
– Level of authorization and privilege access management
– Local authentication
– RADIUS/TACACS+ authentication
– SSH server
– Telnet server
– HTTP server[1]

Monitoring functions:

– Interface Statistics
– Remote monitoring RMON / SMON
– CPU utilization Monitoring
– TCAM monitoring
– Optical transceiver diagnostic   (DDM)
– Power supplies monitoring
– Ventilation system monitoring
– Temperature monitoring
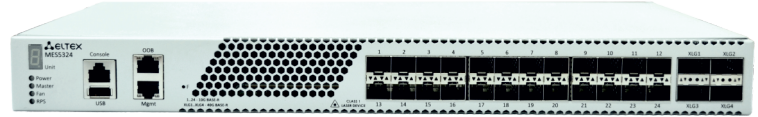
Ordering information

Name	Description	Image
MES5324	Ethernet-switch MES5324, 24 ports 10GBase-X, 4 ports 40GBase-X, L3 switch	
Complementary modules		
PM160-220/12	Power supply module PM160-220/12, 220V AC, 160W	
PM75-48/12	Power supply module PM75-48/12, 48V DC, 75W	

About company

Eltex company is leading Russian developer and manufacturer of telecommunications equipment with 20 years of history. Integrity of solutions and seamless integration capability into Customer infrastructure is priority area of company development.

Make an order

+7 (383) 274 48 48
+7 (383) 274 48 49

eltex@eltex.nsk.ru

www.eltex.nsk.ru