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OS3254

48-Port Gigabit L3 Managed Switch with 6x10G SFP+ Ports

48x1000Base-T (RJ-45), 6x10G SFP+,1xConsole RJ-45, 19'' rack mounting

The ORIGO OS3254 is a managed L3 switch with 48 x Gigabit RJ-45 ports and 6x10G SFP+ uplinks.

The OS3254 switch is designed for deployment at the access and aggregation layers of SMB and enterprise networks, delivering a reliable high-performance switching solution with 10G connectivity and high density of gigabit ports.

The switch combines powerful L3 routing (BGP, OSPF, RIP) with advanced security, QoS, and flexible VLAN features. Designed for reliable performance, it supports link aggregation, Loopback Detection, and redundancy protocols (STP/RSTP/MSTP, ERPS) to keep networks stable even in demanding environments. Built-in OAM tools provide comprehensive monitoring and troubleshooting, making network management simple and efficient.

Key Features

- 48 x 10/100/1000Base-T (RJ-45) ports

- 6 x 10G SFP+

- L3 routing: RIP, OSPF, BGP

- IPv4/IPv6 static routing

- 802.1Q VLAN, Selective Q-in-Q, Multicast VLAN

- 802.1X authentication, ACL, Port Security

- Comprehensive QoS for traffic prioritization

- IGMP/MLD Snooping for multicast traffic management

- ERPS, STP/RSTP/MSTP, LoopBack Detection for high availability

- Management via Web UI, CLI (Telnet, SSH, Console), and SNMP

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Specifications

Hardware

CPU and memory	• CPU: RTL9311 • RAM: 512 MB • Flash: 32 MB
Interfaces	• 48x10/100/1000Base-T (RJ-45) • 6x10GBase-X SFP+ • 1xRJ-45 console port
Standards and Functions	• IEEE 802.3 10Base-T • IEEE 802.3u 100Base-TX • IEEE 802.3ab 1000Base-T • IEEE 802.3z 1000Base-X • IEEE 802.3ae 10GBase-X • IEEE 802.3az Energy-Efficient Ethernet • IEEE 802.3x Full Duplex Flow Control • Auto MDI/MDIX on all copper ports

LEDs	• PWR
	  - ON – power on state
	  - OFF – power off state
	• Link/Act (Ports 1 – 54)
	  - Always bright – terminal device connected
	  - Flicker – data pass
	  - OFF – no connection
	• SYS
	  - Flicker – the system is working properly
	  - OFF – the system is being started or is abnormal

Button	• Reset
Power	• Power connector (AC)
Ventilation	• 1 fan
Housing	• Metal
Mounting	• Desktop • 19" rackmount

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Performance

Switching Capacity	• 216 Gbps
Packet Forwarding Rate	• 160.71 Mpps
Packet Buffer	• 2 MB
Transfer Mode	• Store-and-forward
MAC Address Table	• 32K entries
Jumbo Frame	• 12 KB

Software

L2 Features	• Flow Control
	• Link Aggregation
	- Static
	- 802.3ad
	- Up to 64 groups per device / up to 8 ports per group
	• Load Balance
	- src-mac
	- dst-mac
	- src-ip
	- dst-ip
	• Loopback Detection
	• ERPS
	• MRPP
	• ULPP
	• ULSM
	• Spanning Tree Protocol
	- 802.1D STP
	- 802.1w RSTP
	- 802.1s MSTP (64 instances)
	- Root Guard (Restriction)
	- BPDU Guard (Restriction)
	• LLDP
	• LLDP-MED
	• Port Mirroring
	- One-to-One
	- Many-to-One
	- Flow-based

	- CPU-based - Ingress/egress/both - RSPAN

VLAN	• 802.1Q, 4094 VLAN
	• Port-based VLAN
	• MAC-based VLAN
	• Protocol-based VLAN (802.1v)
	• Subnet-based VLAN
	• Private VLAN
	• VLAN Filtering
	• Voice VLAN
	• GVRP
	   - Supports up to 4K groups
	• GMRP
	• Double VLAN (Q-in-Q)
	   - Selective Q-in-Q
	   - Port-based Q-in-Q
	• VLAN Translation
	• Multicast VLAN

L2 Multicast	• IGMP Snooping
	   - IGMP v1/v2/v3
	   - Supports up to 4K groups
	   - IGMP Snooping Fast Leave
	   - IGMP Proxy
	   - IGMP Authentication (RADIUS)
	• MLD Snooping
	   - MLD v1/v2
	   - Supports up to 4K groups
	• Multicast Source/Destination (DCSCM)

L3 Features	• Maximum number of IP interfaces: 32
	• 8K ARP entries
	• Static routing for IPv4/IPv6
	   - 12K IPv4 routes
	   - 12K IPv6 routes
	• Gratuitous ARP
	• RIPv1/v2
	• OSPFv2
	• BGPv4

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QoS	• 802.1p
	• CoS based on:
	- DSCP
	- VLAN ID
	- IP Precedence
	- IP ACL/ MAC ACL/ IPv6 ACL
	- IPv6 Flow Labels
	• Queue Handling
	- Strict Priority (SP)
	- Weighted Round Robin (WRR)
	- Weighted Deficit Round Robin (WDRR)
	• Port-based bandwidth control
	• Supports up to 8 egress queues per port
Security	• Port Security
	• Port Isolation
	• Storm Control
	• Dynamic ARP Inspection
	• ARP Spoofing Protection
	- Max. 1K entries
	• ARP Scanning Prevention
	• ARP Guard
	• DoS Attack Prevention
	• DHCP Snooping
	• DHCPv6 Snooping
	• IPv6 SAVI
	• Security RA
	• CPU Protection
AAA	• 802.1X Authentication:
	- Port-Based
	- MAC-Based
	• Guest VLAN
	• IPv6 RADIUS Server
	• RADIUS/TACACS+ Authentication
Access Control Lists (ACL)	• Up to 4K ACL entries
	• ACL based on:
	- VLAN
	- MAC address
	- IPv4 address

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	- DSCP - ToS - TCP/UDP port number - User-defined ACL • Time-based ACL
OAM	• Cable Diagnostics • ULDP (Unidirectional Link Detection Protocol) • 802.3ah Ethernet Link OAM • 802.1ag Connectivity Fault Management (CFM) • DDM (Digital Diagnostics Monitoring) • Watchdog
Management	• Web-based UI • CLI • Telnet • SSH • FTP • TFTP • System Log • SNMP v1/v2c/v3 • SNMP Traps • SNTP • NTP • Firmware Backup/Upgrade • Ping/Traceroute (IPv4/IPv6) • DHCP Server • DHCPv6 Server • BootP/DHCP Client • DHCP Relay • DHCPv6 Relay • DHCP Option 82, 43, 60, 61, 67 • IPv4/IPv6 DNS Client

Physical Parameters

Dimensions (W × D× H)	• 440 x 260 x 44 mm
Weight	• 3.7 kg
Package Dimensions	• 50.4 x 34.8 x 9 cm
Gross Weight	• 4.42 kg

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Operating Conditions

Power Input	• 100-240V AC, 50/60 Hz
Max Power Consumption	• 53.7W
Standby Power Consumption	• 22.7W
Surge Protection	• ±2kV (common mode) • ±1kV (differential mode)
Electrostatic Discharge (ESD) Protection	• Contact discharge: ± 4kV • Air discharge: ± 6kV
MTBF (hours)	• > 50 000
Temperature	• Operating: 0 to 40 °C • Storage: -40 to 70 °C
Humidity	• Operating: 10% to 90% (non-condensing) • Storage: 5% to 90% (non-condensing)

Package Contents

Package Contents	• OS3254 Switch • Power Cord • RJ-45 Console Cable • Rack-Mount Kit • Quick Installation Guide

Order Info

OS3254	Managed L3 Switch, 48×1000Base-T, 6×10GBase-X SFP+