



# OS6212F

## 12-Port 10G SFP+ L3 Managed Switch

12x10G SFP+, 1xConsole RJ-45, 19" rack-mounting



The ORIGO OS6212F is an all fiber L3 managed switch with 12x10G SFP+ ports.

The OS6212F switch offers high performance, enterprise-class QoS, advanced security policies and rich Layer 3 management features. With all these advanced features, the switch is ideal for deployment at the aggregation layer of enterprise networks and for high-speed switching between servers in data centers.

The switch features L3 routing support (RIP, OSPF, BGP), advanced security, Quality of Service (QoS), and VLAN management. For improved performance and fault tolerance, it supports link aggregation (LACP), link redundancy with STP/RSTP/MSTP, and ERPS for rapid recovery in case of link failure. Management is available via CLI, SNMP, and Web-based interface.

### Key Features

- 12 x 10G SFP+ ports
- Switching capacity: 240 Gbps
- L3 routing: RIP, OSPF, BGP
- Static IPv4/IPv6 routing
- 802.1Q VLAN, Selective Q-in-Q, Multicast VLAN
- 802.1X authentication, ACL, Port Security
- Comprehensive QoS for traffic prioritization
- ERPS, STP/MSTP/RSTP, LACP for high availability
- Management via Web GUI, CLI (Telnet, SSH, Console), and SNMP



## Specifications

### Hardware

CPU and memory	<ul style="list-style-type: none"><li>• CPU: RTL9313</li><li>• RAM: 512 MB</li><li>• Flash: 32 MB</li></ul>
Interfaces	<ul style="list-style-type: none"><li>• 12 x 10GBase-X SFP+ ports</li><li>• 1 x RJ-45 console port</li></ul>
Standards and Functions	<ul style="list-style-type: none"><li>• IEEE 802.3z 1000Base-X</li><li>• IEEE 802.3ae 10GBase-X</li></ul>
LEDs	<ul style="list-style-type: none"><li>• PWR<ul style="list-style-type: none"><li>- ON – power on state</li><li>- OFF – power off state</li></ul></li><li>• Link/ACT (per port)<ul style="list-style-type: none"><li>- Always bright – terminal device connected</li><li>- Flicker – data pass</li><li>- OFF – no connection</li></ul></li><li>• SYS<ul style="list-style-type: none"><li>- Flicker – the system is working properly</li><li>- OFF – the system is being started or is abnormal</li></ul></li></ul>
Button	<ul style="list-style-type: none"><li>• Reset</li></ul>
Power	<ul style="list-style-type: none"><li>• Power connector (AC)</li></ul>
Ventilation	<ul style="list-style-type: none"><li>• 2 fans</li></ul>
Casing	<ul style="list-style-type: none"><li>• Metal</li></ul>
Mounting	<ul style="list-style-type: none"><li>• Desktop</li><li>• 19" rackmount</li></ul>

### Performance

Switching Capacity	<ul style="list-style-type: none"><li>• 240 Gbps</li></ul>
Packet Forwarding Rate	<ul style="list-style-type: none"><li>• 178.56 Mpps</li></ul>
Packet Buffer	<ul style="list-style-type: none"><li>• 2 MB</li></ul>
Transfer Mode	<ul style="list-style-type: none"><li>• Store-and-forward</li></ul>
MAC Address Table	<ul style="list-style-type: none"><li>• 32K entries</li></ul>
Jumbo Frame	<ul style="list-style-type: none"><li>• 12 KB</li></ul>

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**Software**

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L2 Features	<ul style="list-style-type: none"><li>• Flow Control</li><li>• Link Aggregation<ul style="list-style-type: none"><li>- Static</li><li>- 802.3ad</li><li>- Up to 64 groups per device / up to 8 ports per group</li></ul></li><li>• Load Balance<ul style="list-style-type: none"><li>- src-mac</li><li>- dst-mac</li><li>- src-ip</li><li>- dst-ip</li></ul></li><li>• Loopback Detection</li><li>• ERPS</li><li>• MRPP</li><li>• ULPP</li><li>• ULSM</li><li>• Spanning Tree Protocol<ul style="list-style-type: none"><li>- 802.1D STP</li><li>- 802.1w RSTP</li><li>- 802.1s MSTP (64 instances)</li><li>- Root Guard (Restriction)</li><li>- BPDU Guard (Restriction)</li></ul></li><li>• LLDP</li><li>• LLDP-MED</li><li>• Port Mirroring<ul style="list-style-type: none"><li>- One-to-One</li><li>- Many-to-One</li><li>- Flow-based</li><li>- CPU-based</li><li>- Ingress/egress/both</li><li>- RSPAN</li></ul></li></ul>
VLAN	<ul style="list-style-type: none"><li>• 802.1Q, max. 4094 VLAN groups</li><li>• Port-based VLAN</li><li>• MAC-based VLAN</li><li>• Protocol-based VLAN (802.1v)</li><li>• Subnet-based VLAN</li><li>• Private VLAN</li><li>• VLAN Filtering</li></ul>

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	<ul style="list-style-type: none"> <li>• Voice VLAN</li> <li>• GVRP</li> <li>• GMRP</li> <li>• Double VLAN (Q-in-Q)             <ul style="list-style-type: none"> <li>- Selective Q-in-Q</li> <li>- Port-based Q-in-Q</li> </ul> </li> <li>• VLAN Translation</li> <li>• Multicast VLAN</li> </ul>
L2 Multicast	<ul style="list-style-type: none"> <li>• IGMP Snooping             <ul style="list-style-type: none"> <li>- IGMP v1/v2/v3</li> <li>- Supports up to 4K groups</li> <li>- IGMP Snooping Fast Leave</li> <li>- IGMP Proxy</li> <li>- IGMP Authentication (RADIUS)</li> </ul> </li> <li>• MLD Snooping             <ul style="list-style-type: none"> <li>- MLD v1/v2</li> <li>- Supports up to 4K groups</li> </ul> </li> <li>• Multicast Source/Destination (DCSCM)</li> </ul>
L3 Features	<ul style="list-style-type: none"> <li>• Maximum number of IP interfaces: 32</li> <li>• 8K ARP entries</li> <li>• Static routing for IPv4/IPv6             <ul style="list-style-type: none"> <li>- 12K IPv4 routes</li> <li>- 12K IPv6 routes</li> </ul> </li> <li>• Gratuitous ARP</li> <li>• RIPv1/v2</li> <li>• OSPFv2</li> <li>• BGPv4</li> </ul>
QoS	<ul style="list-style-type: none"> <li>• 802.1p Quality of Service</li> <li>• CoS based on:             <ul style="list-style-type: none"> <li>- DSCP</li> <li>- VLAN ID</li> <li>- IP Precedence</li> <li>- IP ACL/ MAC ACL/ IPv6 ACL</li> <li>- IPv6 Flow Labels</li> </ul> </li> <li>• Queue Handling             <ul style="list-style-type: none"> <li>- Strict Priority (SP)</li> <li>- Weighted Round Robin (WRR)</li> <li>- Weighted Deficit Round Robin (WDRR)</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Port-based bandwidth control</li> <li>• Supports up to 8 egress queues per port</li> </ul>
Security	<ul style="list-style-type: none"> <li>• Port Security             <ul style="list-style-type: none"> <li>- Supports up to 32K MAC addresses per port</li> </ul> </li> <li>• Port Isolation</li> <li>• Storm Control</li> <li>• Dynamic ARP Inspection</li> <li>• ARP Spoofing Protection</li> <li>• ARP Scanning Prevention</li> <li>• ARP Guard</li> <li>• DoS Attack Prevention</li> <li>• DHCP Snooping</li> <li>• DHCPv6 Snooping</li> <li>• IPv6 SAVI</li> <li>• Security RA</li> <li>• CPU Protection</li> </ul>
AAA	<ul style="list-style-type: none"> <li>• 802.1X Authentication:             <ul style="list-style-type: none"> <li>- Port-Based</li> <li>- MAC-Based</li> </ul> </li> <li>• Guest VLAN</li> <li>• IPv6 RADIUS Server</li> <li>• RADIUS/TACACS+ Authentication</li> </ul>
Access Control Lists (ACL)	<ul style="list-style-type: none"> <li>• Up to 4K ACL entries</li> <li>• ACL based on:             <ul style="list-style-type: none"> <li>- VLAN</li> <li>- MAC address</li> <li>- IPv4 address</li> <li>- DSCP</li> <li>- ToS</li> <li>- TCP/UDP port number</li> <li>- User-defined ACL</li> </ul> </li> <li>• Time-based ACL</li> </ul>
OAM	<ul style="list-style-type: none"> <li>• Cable Diagnostics</li> <li>• ULDP (Unidirectional Link Detection Protocol)</li> <li>• 802.3ah Ethernet Link OAM</li> <li>• 802.1ag Connectivity Fault Management (CFM)</li> <li>• DDM (Digital Diagnostics Monitoring)</li> </ul>

Management	<ul style="list-style-type: none"> <li>• Web-based UI</li> <li>• CLI</li> <li>• Telnet</li> <li>• SSH</li> <li>• FTP</li> <li>• TFTP</li> <li>• System Log</li> <li>• SNMP v1/v2c/v3</li> <li>• SNMP Traps</li> <li>• Sntp</li> <li>• NTP</li> <li>• Firmware Backup/Upgrade</li> <li>• Ping/Traceroute (IPv4/IPv6)</li> <li>• DHCP Server</li> <li>• DHCPv6 Server</li> <li>• BootP/DHCP Client</li> <li>• DHCP Relay</li> <li>• DHCPv6 Relay</li> <li>• DHCP Option 82, 43, 60, 61, 67</li> <li>• IPv4/IPv6 DNS Client</li> </ul>
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### Physical Parameters

Dimensions (W × D × H)	• 440 x 207 x 44 mm
Weight	• 2.66 kg
Package Dimensions	• 49.7 x 31.8 x 7.3 cm
Gross Weight	• 3.28 kg

### Operating Conditions

Power Input	• 100-240V AC, 50/60 Hz
Max Power Consumption	• 27.3W
MTBF (hours)	• >50 000
Temperature	<ul style="list-style-type: none"> <li>• Operating: 0 to 40 °C</li> <li>• Storage: -40 to 70 °C</li> </ul>
Humidity	<ul style="list-style-type: none"> <li>• Operating: 10% to 90% (non-condensing)</li> <li>• Storage: 5% to 90% (non-condensing)</li> </ul>



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**Package Contents**

Package Contents	<ul style="list-style-type: none"><li>• OS6212F Switch</li><li>• Power Cord</li><li>• RJ-45 Console Cable</li><li>• Rack-Mount Kit</li><li>• Quick Installation Guide</li></ul>
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**Order Info**

OS6212F	Managed L3 Switch, 12x10GBase-X SFP+
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