



# OS3110P/135W

## 10-Port Gigabit L2 Managed PoE Switch

8x1000Base-T PoE+, 2x100/1000Base-X SFP, 1xConsole RJ-45, 135W PoE Budget, PoE up to 250 m, 19" rack mounting



The ORIGO OS3110P/135W is a managed L2 switch with 8xGigabit PoE+ ports and 2x100/1000Base-X SFP ports.

The ORIGO OS3110P/135W is recommended for building of the networks of small, medium, and large enterprises, retail business, and education institutions that require managed gigabit solution to connect the workplaces and provide remote power supply for IP cameras, wireless access points, IP phones, and other PoE-enabled devices.

The OS3110P/135W supports IEEE 802.3af/at PoE standards, providing up to 30W per port with a total PoE power budget of 135W. Built-in ESD protection meets industry surge standards, guarding the switch and connected devices from damage and network instability caused by ESD and lightning-induced surges.

The switch is suitable for use in video surveillance systems (CCTV). The Extend PoE mode allows to overcome the standard Ethernet limit of 100 m and connect IP cameras at a distance of up to 250 m at speeds up to 10 Mbit/s, simplifying installation and reducing costs when building CCTV networks. Support for PD Alive and PoE Scheduling ensures automatic restart of unresponsive devices and optimization of power consumption.

The switch supports static routing, advanced VLAN functionality, Port Security, 802.1X authentication and ACL. IGMP/MLD Snooping function allows to operate with multicasting applications effectively, and QoS is used to provide a priority transmission of multimedia traffic.

To increase performance and resiliency, the OS3126 supports Link Aggregation Control Protocol (LACP), the redundant connections by means of STP/RSTP/MSTP, Loopback Detection and ERPS, providing fast network recovery if one of the ring links fails.

### Key Features

- 8x10/100/1000Base-T 802.3af/at PoE ports
- 2x100/1000Base-X SFP ports
- PoE Budget: 135W
- Adapted for CCTV: PoE up to 250m, PD Alive and PoE Scheduling
- Static routing
- 802.1X, ACL, Port Security
- 802.1Q VLAN, Voice VLAN, Surveillance VLAN
- ERPS, STP/RSTP/MSTP, Loopback Detection for enhanced network reliability
- Management via Web, Console, Telnet, SSH, SNMP



## Specifications

### Hardware

CPU and memory	<ul style="list-style-type: none"><li>• CPU: RTL8380M</li><li>• RAM: 128 MB</li><li>• Flash: 32 MB</li></ul>
Interfaces	<ul style="list-style-type: none"><li>• 8x10/100/1000Base-T (RJ-45) PoE</li><li>• 2x100/1000Base-X SFP</li><li>• RJ-45 console port</li></ul>
Standards and Functions	<ul style="list-style-type: none"><li>• IEEE 802.3 10Base-T</li><li>• IEEE 802.3u 100Base-TX</li><li>• IEEE 802.3ab 1000Base-T</li><li>• IEEE 802.3u 100Base-FX</li><li>• IEEE 802.3z 1000Base-X</li><li>• IEEE 802.3af PoE</li><li>• IEEE 802.3at PoE</li><li>• IEEE 802.3x (Full Duplex Flow Control)</li><li>• IEEE 802.3az Energy-Efficient Ethernet</li><li>• Auto MDI/MDIX on all copper ports</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 (ports 1 – 10)<ul style="list-style-type: none"><li>- Always bright– terminal device is connected</li><li>- Flicker green – data pass</li><li>- Off – no connection</li></ul></li><li>• SYS<ul style="list-style-type: none"><li>- Blinking: System operating normally</li><li>- Off: System is booting or a fault has occurred</li></ul></li></ul>



	<ul style="list-style-type: none"><li>• PoE (ports 1 – 8)<ul style="list-style-type: none"><li>- On: PoE device is connected</li></ul></li><li>• - Off: No PoE device connected</li></ul>
Button	<ul style="list-style-type: none"><li>• Reset</li></ul>
Power	<ul style="list-style-type: none"><li>• Power input (AC)</li></ul>
Ventilation	<ul style="list-style-type: none"><li>• Fanless</li></ul>
Housing	<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>• 20 Gbps</li></ul>
Packet Forwarding Rate	<ul style="list-style-type: none"><li>• 14.88 Mpps</li></ul>
Packet Buffer	<ul style="list-style-type: none"><li>• 512KB</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>• 8K entries</li></ul>
Routing Table Size	<ul style="list-style-type: none"><li>• 512 entries (IPv4/IPv6)</li></ul>
Routing Table Size L3	<ul style="list-style-type: none"><li>• 512 entries (IPv4/IPv6)</li></ul>
Jumbo Frame	<ul style="list-style-type: none"><li>• 9 216 bytes</li></ul>

### **PoE**

PoE Standard	<ul style="list-style-type: none"><li>• IEEE 802.3af</li><li>• IEEE 802.3at</li></ul>
PoE Ports	<ul style="list-style-type: none"><li>• 1-8</li></ul>
Max. Power per Port:	<ul style="list-style-type: none"><li>• 30W</li></ul>
PoE Power Budget	<ul style="list-style-type: none"><li>• 135W</li></ul>
PoE Mode	<ul style="list-style-type: none"><li>• Type A</li></ul>
PoE Transmission Distance	<ul style="list-style-type: none"><li>• 100 m</li><li>- Data rate: up to 1000 Mbps</li></ul>

	<ul style="list-style-type: none"><li>• 250 m<sup>1</sup><ul style="list-style-type: none"><li>- Data rate – up to 10 Mbps</li></ul></li></ul>
Management and Monitoring	<ul style="list-style-type: none"><li>• PoE Scheduling: Allows scheduled enabling/disabling of PoE on specific ports</li><li>• PD Alive: Continuously monitors PoE-powered devices (PDs) and automatically restarts unresponsive devices</li></ul>

## Software

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 8 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></ul>
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<sup>1</sup>Data and power transmission over distances of up to 250 m is possible with a switch port speed limited to 10 Mbps. The connected device should also support speeds of up to 10 Mbps.

	<ul style="list-style-type: none"><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, 4094 VLAN</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><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 512 groups</li><li>- IGMP Snooping Fast Leave</li><li>- IGMP Proxy</li></ul></li></ul>

	<ul style="list-style-type: none"><li>• MLD Snooping<ul style="list-style-type: none"><li>- MLD v1/v2</li><li>- Supports up to 512 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: 16</li><li>• 8K ARP entries</li><li>• Static routing<ul style="list-style-type: none"><li>- 512 IPv4 routes</li><li>- 512 IPv6 routes</li></ul></li><li>• Gratuitous ARP</li></ul>
QoS	<ul style="list-style-type: none"><li>• 802.1p</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><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>• SSH v1/v2</li><li>• SSL<ul style="list-style-type: none"><li>- TLS 1.0/1.1/1.2 support</li><li>- IPv4/IPv6 support</li></ul></li><li>• Port Security<ul style="list-style-type: none"><li>- Supports up to 8K MAC addresses per port</li></ul></li></ul>

	<ul style="list-style-type: none"><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 1.5K 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>

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OAM	<ul style="list-style-type: none"><li>• Cable Diagnostics</li><li>• ULDP (Unidirectional Link Detection Protocol)</li><li>• Dying Gasp</li><li>• 802.3ah Ethernet Link OAM</li><li>• 802.1ag Connectivity Fault Management (CFM)</li><li>• DDM (Digital Diagnostics Monitoring)</li><li>• Watchdog</li></ul>
Management	<ul style="list-style-type: none"><li>• Web-based UI</li><li>• CLI</li><li>• Telnet</li><li>• SSH v1/v2</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 x D x H)	<ul style="list-style-type: none"><li>• 280 x 180 x 44 mm</li></ul>
Weight	<ul style="list-style-type: none"><li>• 1.76 kg</li></ul>
Package Dimensions	<ul style="list-style-type: none"><li>• 37 x 23 x 8 cm</li></ul>
Gross Weight	<ul style="list-style-type: none"><li>• 2.28 kg</li></ul>

## Operating Conditions

Power Input	<ul style="list-style-type: none"><li>• 100-240V AC, 50/60 Hz</li></ul>
Max Power Consumption	<ul style="list-style-type: none"><li>• 160.9W</li></ul>
Heat Dissipation	<ul style="list-style-type: none"><li>• 154.28W (526.81 BTU/h) (PoE ON)</li><li>• 14.38W (49.13 BTU/h) (PoE OFF)</li></ul>
MTBF (hours)	<ul style="list-style-type: none"><li>• &gt; 50 000</li></ul>
Surge Protection	<ul style="list-style-type: none"><li>• ±4 kV (common mode)</li><li>• ±2 kV (differential mode)</li></ul>
Electrostatic Discharge (ESD) Protection	<ul style="list-style-type: none"><li>• Contact discharge: ± 6 kV</li><li>• Air discharge: ± 8 kV</li></ul>
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>

## Package Contents

Package Contents	<ul style="list-style-type: none"><li>• OS3110P 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

OS3110P/135W	Managed L2 PoE Switch, 8x1000Base-T, 2x1000Base-X SFP, PoE up to 250m
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