

Firmware Features

12-Port 10G Desktop FTTO Switch PoE++



Feature Specifications

Management

- Support of common management standards
- Software integration with MICROSENS NMP as central management solution for network and device configuration
- Firmware update via Web, FTP, FTPS, NMP
- Firmware Configuration upload/download
- Factory Default Reset
- System reboot
- System status and traffic statistics
- Optional industrial microSD memory card for configuration, CLI scripts, firmware

Provision of Inventory Information

- Factory and inventory data
- Custom defined device info

System

- Integrated thermal protection
- Energy Efficient Ethernet EEE (IEEE 802.3az)
- Alternative MAC address
- LED mode

SFP / SFP+

- SFP/SFP+ DDM (Digital Diagnostic Man.)

Switch / MAC

- MAC table
- MAC filter
- SNMP access
- MAC limit per port
- Configurable MAC aging time

IP Stack

- Dual stack (IPv4, IPv6)
- DHCP Option 66/67
- Ping, trace route
- Secondary IPv4 address
- Hostname
- DNS

Virtual LANs (VLANs)

- Port VLANs, tagged VLANs
- Up to 256 VLANs
- VLAN filter
- Configurable port modes:
 - access, hybrid, trunk
- Stacked VLANs (Q-in-Q)
- Priority override
- Voice VLAN
- STP/RSTP VLAN
- Unauthorized VLAN
- Management VLAN
- Force Port default VID
- Private VLANs
- Fabric Attach Client

Feature Specifications (continued)

Redundancy

- Spanning Tree (STP) according to IEEE 802.1D
- Rapid Spanning Tree (RSTP) according to IEEE 802.1w
- BPDU Guard
- Ethernet Ring Protection Switching (ERPS), G.8032 v2
- MICROSENS Redundant Ring Protocol

Ethernet Port Features

- Cable tester
- Loop protection
- Port enable/disable
- Port alias
- Port roles: local, uplink
- Speed negotiation
- Jumbo frame support
- Port mirroring
- Half or full duplex
- Flow Control
- Port isolation

Link Layer Discovery Protocols (LLDP, CDP)

- LLDP operation
- LLDP-MED
- CDP operation
- CDP voice VLAN

Port Access Control

- IEEE 802.1X Authentication
- IEEE 802.1X Supplicant
- RADIUS MAC Authentication
- MAC locking
- MAC learning
- Limited number of MACs
- Learned MAC time out
- Dynamic VLAN
- Wake-on-LAN support
- Network edge authentication
- Authentication fail retry timer

Multicast (IGMP-/MLD-Snooping)

- IGMP snooping per VLAN
- MLD snooping per VLAN
- IGMP querier
- Static multicast router port

DHCP

- DHCP snooping
- IP-MAC binding table
- DHCP filtering
- DHCP flooding detection
- DHCP relay agent incl. support of option 82
- Dynamic ARP inspection

Network Time Protocol (NTP)

- NTP client
- SNTP

Feature Specifications (continued)

RMON Statistics

- RMON counters
- Port utilization

Command Line Interface (CLI)

- Context sensitive help
- Show config of device
- Show status of device
- Create snapshot
- Live syslog
- Telnet
- Secure Shell (SSH)
- Welcome message

Web Interface (WEB)

- User authentication
- http(s)
- Custom TLS certificates
- Animated device visualization
- Firmware update
- Online documentation
- SNMP MIB download
- Event display
- RESTful API
- Supported browsers:
 - Chrome, Mozilla Firefox, Microsoft Edge

Diagnostic Functions

- Ping, trace route
- Port mirroring
- Test event
- DNS_lookup
- LED test
- ARP cache

Access Control Lists (ACL)

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Simple Network Management Protocol (SNMP)

- SNMPv1/v2c
- SNMPv3
- Trap/Inform (SNMPv1/v2c/v3)
- Enterprise specific notifications
- Enterprise and standard MIBs

File Management

- File Transfer Protocol (FTP)
- Secure File Transfer Protocol (FTPS)
- FTP server support
- Secure firmware update
- Configuration export and import
- Compare configuration
- Temporary configuration
- Save configuration

Event Logging

- Syslog to CLI
- Local logfile
- Log filters
- Recent logs

Automation

- Docker virtualization environment for custom applications

Miscellaneous

- Broadcast storm control

Feature Specifications (continued)

Login Access Protection

- 100+ number of Users
- General access rights
- Disable insecure interfaces
- User permissions
- Public key encrypted passwords
- View model for SNMP V1, V2c
- Firewall with black and whitelist
- Authentication, Authorization
 - TACACS+
 - RADIUS

Power-over-Ethernet PoE/PoE+

- 8x IEEE 802.3af/at PoE+ PSE (max. 30 W)
- PoE available max power configuration
- PoE enable/disable
- PoE+ PSE enable
- Emergency port

Link Aggregation Control Protocol (LACP)

- Link Aggregation
- Load balancing and trunking

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