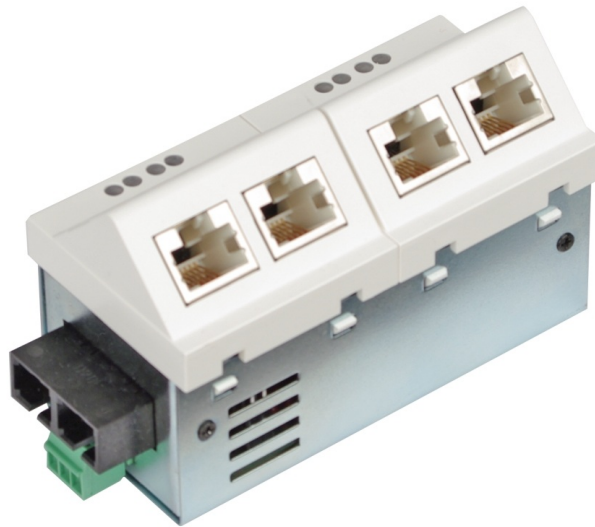


Product Overview

Fast Ethernet Micro Switch 6 Port with PoE



Description

To meet the requirement for additional network ports in FTTO applications MICROSENS presents an extended version of the Fast Ethernet Installation Switch with one additional twisted pair port at the autumn exhibitions. The main feature is the Power-over-Ethernet (PoE) functionality according IEEE802.3af, which is possible on all five twisted pair ports (10/100Base-TX auto negotiation) simultaneous.

Thus all connected devices can be supplied with data and electrical power (PSE = Power Source Equipment). Network extensions with a Wireless Access Point or cascading additional switches are easily possible. The maximum power of 15.4 W for each port allows the powering of the end devices such as IP telephones, Access Points, IP cameras and so on.

For the connection to the central network node the installation switch has an integrated fiber port (100Base-FX), optionally with multimode or single mode fiber interface. With an extended version it is possible to have this uplink port also with twisted pair interface (10/100Base-TX). Then it is possible to supply the switch over this twisted pair port with power (PD = Powered Device).

Properties

- 6 Port Fast Ethernet Installation-Switch with integrated management
- FX-Uplink and TX-Downlink with PoE
- Power-over-Ethernet according to IEEE 802.3af on five TP-Ports, integrated PoE-Controller
- Extensive configuration options by PC based management tool
- Data-Prioritisation (Class of Service) according 802.1p
- VLANs, data prioritisation (QoS)
- Port based VLANs (traffic segmentation)
- Full VLAN support according to IEEE 802.1Q
- Multimode und single mode versions

Specifications

General

Type	Fast Ethernet Switch Layer 2+, IEEE 802.3 compliant
Performance	Store-and-forward, Full wire-speed, non-blocking on all ports
MAC-Addresses	2,048 addresses, automatic learning and aging
VLANs	Tagging IEEE 802.3ac Priorisation IEEE 802.1p VLAN IDs 0..4095 Static and dynamic VLAN table
Quality of Service	4 hardware-queues per port prioritisation according to: * IPv4/IPv6 * VLAN priority IEEE 802.1p * port queue weighting strict or weighted, configurable

Uplink (Fixed Optical Transceiver)

Number of Ports	1
Type	Fast Ethernet Multimode: 100Base-FX Single Mode: 100Base-FX
Connector	Multimode: 50 or 62.5/125 µm fiber Single Mode: 9/125 µm fiber
Fiber Cable Type	Multimode: 550 m Single Mode: 10 km, 20 km (optional) actual distance may depend on fiber performance
Distance	Multimode 1300nm: -19 dBm Single Mode 1300nm 15 km: -15 dBm
Output Optical Power	Multimode 1300nm: -19 dBm Single Mode 1300nm 15 km: -15 dBm
Receiver Sensitivity	Multimode 1300nm: -31 dBm Single Mode 1300nm 15 km: -31 dB
Flow Control	Pause frames (IEEE 802.3x), configurable

Local Ports (Twisted-Pair)

Number of Ports	4
Type	Fast Ethernet, dual speed 10/100Base-TX
Connector	RJ-45 jack, shielded
Cable Type	Twisted-Pair cable, category 5e, impedance 100 Ohm, length max. 100 m
Flow Control	Pause frames (IEEE 802.3x), configurable
Pinout	Auto MDI/MDI-X, auto polarity
Power-over-Ethernet	Power Sourcing Equipment (PSE) IEEE 802.3af class 0, max. 15.4 W, forced-mode (legacy-devices), pinout wires 1/2 (+), 3/6 (-)

Downlink (Twisted-Pair)

Number of Ports	1
Type	Fast Ethernet, dual speed 10/100Base-TX
Connector	RJ-45 jack, shielded
Cable Type	Twisted-Pair cable, category 5e, impedance 100 Ohm, length max. 100 m
Flow Control	Pause frames (IEEE 802.3x), configurable
Pinout	Auto MDI/MDI-X, auto polarity
Power-over-Ethernet	Power Sourcing Equipment (PSE) IEEE 802.3af class 0, max. 15.4 W, forced-mode (legacy-devices), pinout wires 1/2 (+), 3/6 (-)

Display

Power	Local ports 1 to 4: green: PoE sourcing orange: PoE standby red: PoE error
Link	Local ports 1 to 4: blinking: activity green: authorized/forwarding orange: blocked red: unauthorized
Status	Switch Status (S) green: device ready Link status uplink (5) blinking: activity green: authorized/forwarding orange: blocked red: unauthorized Link status downlink (6) blinking: activity green: authorized/forwarding orange: blocked red: unauthorized

Power Supply (DC)

Input Voltage	44..57 VDC (48 VDC typ.)
Power Consumption	Typ. 4 W (device only), max. 65 W (incl. PoE)
Connector	3 pin screw clamp, PE/-/+
Ground Terminal (PE)	6.3 mm flat-pin plug

Mechanical

Dimensions	90 mm x 45 mm x 57 mm (l x d x h, without connectors)
Mounting depth	33 mm
Weight	200g
Housing Color	Standard color: pure white (alternative colors on request)

Reliability

MTBF	100,000 h
Method	calculated, MIL-HDBK-217F

Control Panel

Reset Button	Reset of device, last saved configuration is reloaded
Config Button	Pressed separately: Request IP-configuration for management agent. Pressed together with reset- button: Reset to factory default settings, can be disabled

Environment

Operating Temperature	0..40 °C
Storage Temperature	-20..85 °C
Relative Humidity	10..90%, non condensing

Standards Compliance

CE Mark	2004/108/EC (EMC) 2006/95/EG (Low Voltage)
Safety	EN 60950-1:2006
Electromagnetic Emission	EN 55022:2006
Electromagnetic Immunity	EN 55024:1998
IEEE (Ethernet)	802.3i 10Base-T 802.3u 100Base-T 802.3x Flow Control 802.3ac VLAN Tagging 802.3af Power-over-Ethernet 802.1D Spanning Tree 802.1Q Tagged VLANs 802.1p Packet Prioritisation 802.1w Rapid Spanning Tree 802.1X Network Access Control
RFC	IPv4: - RFC 791 (IPv4) - RFC 826 (ARP) - RFC 792 (ICMP) - RFC 2131 (DHCP) - RFC 2474/3260 (IPv4)

- DiffServ/IPv6 Traffic Class)
- RFC 4541 (IGMP)

- RFC 1769 (SNTP)
- RFC 1155/1156/1157 (SNMPv1)
- RFC 1901/1905/1906 (SNMPv2)
- RFC 3411/3412/3584 (SNMPv3)
- RFC 2574/3414 (USM)
- RFC 2575/3415 (VACM)
- RFC 2865 (RADIUS)
- RFC 2866 (Accounting)
- RFC 2868 (Tunnel Attributes)
- RFC 5424 (Syslog)

Additional Features

Software

- Port Monitor
- CDP v1, v2
- Port based VLANs (traffic segmentation)

Order Information

Description	Article Number
Horizontal Installation	
6 Port Installations-Switch, horizontal installation, 1x 100Base-FX, Multimode 1310 nm ST, SNMP/Web/CLI Management, VLAN, QoS, PoE, 48V	MS450330PM-48
6 Port Installations-Switch, horizontal installation 1x 100Base-FX, Multimode 1310 nm SC, SNMP/Web/CLI Management, VLAN, QoS, PoE, 48V	MS450331PM-48
6 Port Installations-Switch, horizontal installation 1x 100Base-FX, single mode 1310 nm ST, SNMP/Web/CLI Management, VLAN, QoS, PoE, 48V	MS450332PM-48
6 Port Installations-Switch, horizontal installation 1x 100Base-FX, single mode 1310 nm SC, SNMP/Web/CLI Management, VLAN, QoS, PoE, 48V	MS450333PM-48
Vertical Installation	
6 Port Installations-Switch, vertical installation 1x 100Base-FX, Multimode 1310 nm ST, SNMP/Web/CLI Management, VLAN, QoS, PoE, 48V	MS450340PM-48
6 Port Installations-Switch, vertical installation 1x 100Base-FX, Multimode 1310 nm SC, SNMP/Web/CLI Management, VLAN, QoS, PoE, 48V	MS450341PM-48
6 Port Installations-Switch, vertical installation 1x 100Base-FX, single mode 1310 nm ST, SNMP/Web/CLI Management, VLAN, QoS, PoE, 48V	MS450342PM-48
6 Port Installations-Switch, vertical installation 1x 100Base-FX, single mode 1310 nm SC, SNMP/Web/CLI Management, VLAN, QoS, PoE, 48V	MS450343PM-48

Accessories

Description	Article Number
Universal installation set for E2 mounting boxes consisting of adapter plate and cover frame (pure white)	MS140029
Universal installation kit for cable ducts with C-profile, incl. masking frame	MS140040BR
Ackermann Installation set consisting of socket (165 mm length), device support and 1x 45 mm blind cover Scope of delivery: parts pre-assembled	MS140026
Ackermann Installation set consisting of socket (208 mm length), device support, 1x 45 mm blind cover, 1x socket cover Scope of delivery: parts pre-assembled	MS140027
Power supply 100-230 VAC / 48 VDC, 1.35 A, 65 W	MS700675
Switching power supply 48V/1.35A 65W for Power-over-Ethernet devices	MS700680

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