Product Overview

Gigabit Ethernet 6 Port Office Switch manageable with PoE or PoE+

Description

This Gigabit Office Switch is based on the Gigabit Ethernet Installation Switch Generation 6 and has the same features. The device is offering full Gigabit Performance on all ports. The connection to the central distribution room is done by the integrated 100/1000Base-X fiber port.

Furthermore the full Power-over-Ethernet functionality according to IEEE802.3af (MS453501PM-G6) and IEEE802.3at (MS453502PM-G6) is supported on 4 user ports. The intelligent power management is monitoring the power consumption of the connected end devices.

The use of memory-card shortens maintenance and service windows. The whole configuration of the Micro Switch can be moved to another system, just by changing the SD-card. A fault-tolerant journaling file-system is used. An encryption of the SD-Card is as option available.

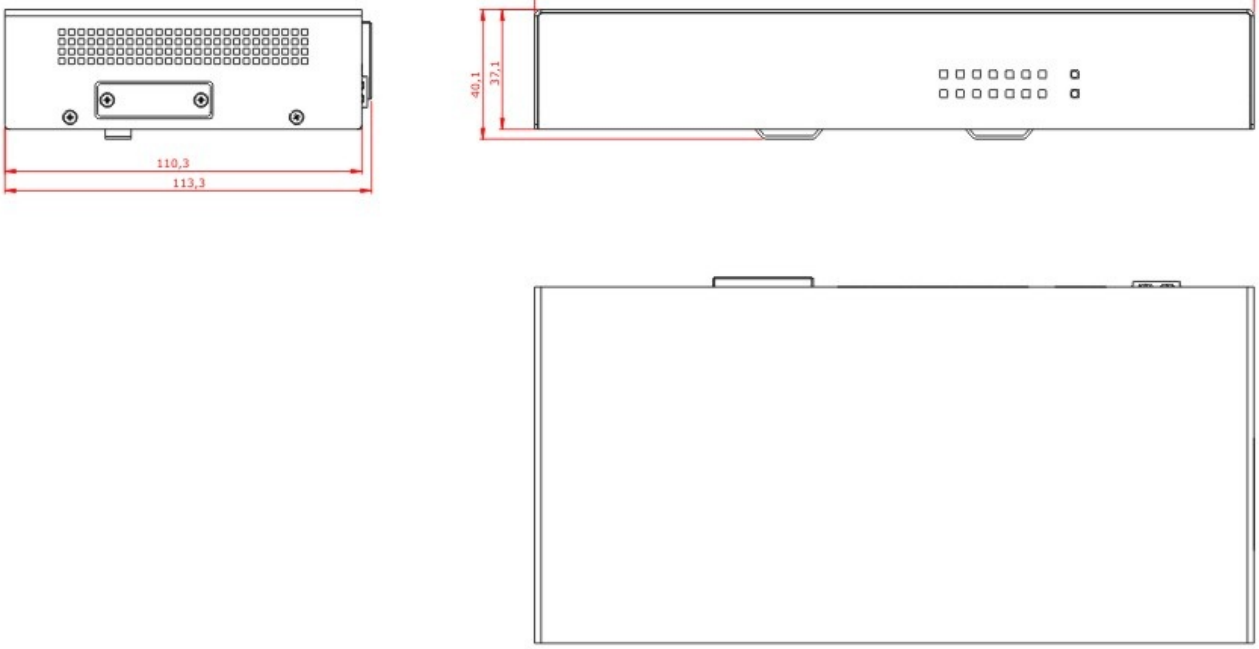
The switch has an integrated management agent and supports all standards like web based, Telnet and SNMP. Features like data prioritisation, VLAN and authentication according to IEEE Std. 802.1x are also integrated.

Intelligent power management monitors the active current consumption of connected end equipment.

Properties

- High performance, full Gigabit Ethernet design
- Energy efficiency by modern chipsets
- Well equipped, compact, fan-less Gigabit Ethernet switch
- 5x 10/100/1000Base-T autonegotiation with Power-over-Ethernet plus/Power-over-Ethernet plus at four RJ-45 ports
- Integrated management agent, SNMP/web/Telnet/nmp
- Port-Security (Authentication according to BSI, IEEE 802.1x, etc.)
- High security through VLANs, 802.1x, SSH, HTTPS, accounting etc.
- Extension-Port for future use
- MicroSD Memory-Card

Dimensions



Specifications

General

Type	Gigabit Ethernet Switch Layer 2+, IEEE 802.3 compliant
Performance	Store-and-forward, Full wire-speed, non-blocking on all ports
MAC-Adresses	8,192 addresses, automatic learning and aging
Jumbo Frames	max. 10,240 bytes
VLANs	Tagging IEEE 802.3ac Priorisation IEEE 802.1p VLAN IDs 0..4095 256 VLANs 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
Management	CLI: telnet, ssh Web: http, https SNMPv1, SNMPv2c, SNMPv3 Microsens NMP-Software

Local Ports (other)

Number of Ports	1 (covered)
Type	RS-232
Connector	Mini USB

Display

Power	Ports 1 to 4: green: PoE sourcing blue: PoE+ active orange: PoE standby red: PoE error
Link	Ports 1 to 5: blinking: activity green: authorized/forwarding orange: blocked red: unauthorized
Status	Switch Status (S) green: device ready Status blinking: activity green: authorized/forwarding orange: blocked red: unauthorized
Type	14 LEDs LED-Modes (generally): dynamic: LED display static states and blink when data is present on a port static: LED display static states

Local Ports (Twisted-Pair)

Number of Ports	5
Type	Gigabit Ethernet, triple speed 10/100/1000Base-T
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	MS453501PM-G6 Port 1..4: Power Sourcing Equipment (PSE) IEEE 802.3at class 0, max. 15.4 W, forced-mode (legacy-devices) MS453502PM-G6 Port 1..4: Power Sourcing Equipment (PSE) IEEE 802.3at, max. 30W, forced-mode (legacy-devices)

Uplink (Pluggable Transceiver)

Number of Ports	1
Type	Fast/Gigabit Ethernet, 100/1000Base-X
Connector	SFP-Slot
Flow Control	Pause frames (IEEE 802.3x), configurable

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

but do not blink with data
quiet: Display is reduced to sys and on LED. Port LEDs remain off
dark: All leds are off

Power Supply (AC)

Input Voltage	195..265 V AC (230 V AC typ.) 50..60 Hz (50 Hz typ.)
Power Consumption	Typ. 5.5 W (without PoE)

Mechanical

Dimensions	220 mm x 110 mm x 40 mm (l x w x d, without connectors)
Mounting	Wallmount-Kit (included) Magnetic foil (optional)

Reliability

MTBF	100.000 h
Method	calculated, MIL-HDBK-217F

Environment

Operating Temperature	0..40°C
Storage Temperature	-20..85 °C
Relative Humidity	5..80%, non condensing

Standards Compliance

CE Mark	2004/108/EC (EMC) 2006/95/EG (Low Voltage)
Safety	EN 60950-1:2011-1
Electromagnetic Emission	EN 55022:2011-12
Electromagnetic Immunity	EN 55024:2011-09
IEEE (Ethernet)	802.3i 10Base-T 802.3u 100Base-T 802.3z 1000Base-X 802.3ab 1000Base-T 802.3az Energy Efficient Ethernet 802.3x Flow Control 802.3ac VLAN Tagging 802.3af PoE 802.3at PoE+ 802.1AB LLDP 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) IPv6: - RFC 2460/2464/3484/3513 (IPv6) - RFC 2462 (Address Configuration) - RFC 2463 (ICMPv6) - RFC 2461 (Neighbor Discovery Protocol) - RFC 3315 (DHCPv6) - RFC 3810/4604 (MLD) - RFC 4330 (NTP) - 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)

Packaging

Standard

1x Desktop-Switch
1x MicroSD Card (extra part-no.)
1x Power-cable, 2m
1x Quick Installation Guide

Additional Features

Software

- Dual Stack IPv4/IPv6
- Port Monitor
- CDP v1, v2

Order Information

Description	Article Number
6 Port Gigabit Ethernet Switch, 5x10/100/1000T with 1000X SFP uplink port, int. 230VAC power supply, manageable, VLANs, Data priorisation (QoS), 4x PoE	**MS453501PM-G6**
6 Port Gigabit Ethernet Switch, 5x10/100/1000T with 1000X SFP uplink port, int. 230VAC power supply, manageable, VLANs, Data priorisation (QoS), 4x PoE+ (max. 30 W per Port)	**MS453502PM-G6**
6 Port Gigabit Ethernet Switch 5x 10/100/1000Base-T und 1x 100/1000Base-X SFP-Uplink, SNMP-managed 4x PoE (IEEE 802.3af)	**MS453501PM-48G6**
6 Port Gigabit Ethernet Switch 5x 10/100/1000 Base-T und 1x 100/1000Base-X SFP-Uplink, SNMP-managed, 4x PoE+ (IEEE 802.3at)	**MS453502PM-48G6**
pure white	
6 Port Gigabit Ethernet Switch 5x 10/100/1000Base-T und 1x 100/1000Base-X SFP-Uplink, SNMP-managed 4x PoE (IEEE 802.3af)	**MS453501PM-48G6RW**
6 Port Gigabit Ethernet Switch 5x 10/100/1000 Base-T und 1x 100/1000Base-X SFP-Uplink, SNMP-managed, 4x PoE+ (IEEE 802.3at)	**MS453502PM-48G6RW**

Accessories

Description	Article Number
Labeling-Sheet (DIN-A4) with 80 labels for G6-Switches, suitable for laser-printers, perforated, 10 sheets per sheet. Form generaotr by NMP-Software	**MS140005**
SFP Fast Ethernet Transceiver 100Base-FX, Multimode 1310nm, digital Diagnostics, -40..85°C	**MS100190DX**
SFP Fast Ethernet Transceiver 100Base-FX, Monomode 1310nm, digital Diagnostics, -40..85°C	**MS100191DX**
SFP Gigabit Ethernet Transceiver 1000Base-SX, Multimode 850nm, digital Diagnostics, exten. temp.-range: -40..85°C	**MS100200DX**
SFP Gigabit Ethernet Transceiver 1000Base-LX, Single Mode 1310nm, digital Diagnostics, -40..85°C	**MS100210DX**
nmp Professional - MICROSENS Network Management Platform - java software and one year update license	**MS200160-1**
nmp Standard - MICROSENS Network Management Platform - java software and one year update license	**MS200162-1**
NMP Server - management software with 1 year update licence, incl. 5 clients	**MS200164-1**