

# Open Frame 8-port managed Gigabit Switch with copper and fiber

## General Description

The MAGBES-20 Family (3rd Gen. of the MPL Switches) consist of models matching your application needs. The eight RJ45 ports can alternatively come with lockable headers, up to four of them can be fiber. All ports have status LEDs, indicating the activity and speed of each port, and can also be accessed remote, same applies for reset and default setting.

The Open Frame MAGBES solution is extremely compact and in addition, it can be used in a boxed version with RJ45 or M12 connectors, or in a MIL housing with MIL 38999 connectors of your choice. Supply power is 5–36VDC and uses under any condition less than 8W. Optional, it can be supplied with redundant power or different input voltage. The product can be operated at -20°C to 60°C and optionally even -40°C to 85°C.

For the fiber ports, most Ethernet compatible transceivers (acc. MSA) can be used. It allows the users to select the appropriate transceiver for each link.

As managed switch, the product gives access to various switch settings to configure features like: Quality of Service, VLAN, Rapid Spanning Tree, etc.. To adjust these switch settings, MPL provides an easy to use web interface.

## MAGBES-20 Family Highlights

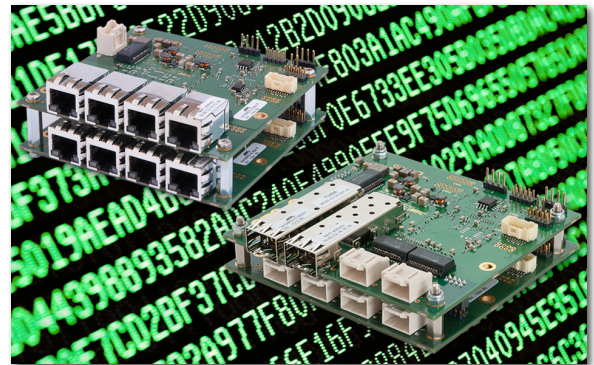
- Lockable headers for copper ports
- Wide input 5 - 36VDC
- Fully manageable over Web Interface or Telnet
- Copper or mixed Copper/Fiber versions
- Fanless operation
- Versions for -40°C to +85°C environment
- 1588 PTP support

### These features make

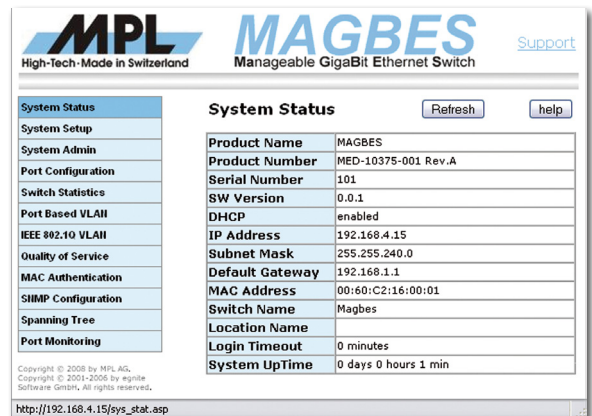
the Open Frame MAGBES switch ideally suited for any rugged or industrial network applications. Due to the low power consumption, robust and flexible design, the products are well suited for any embedded system. The MAGBES makes it easy to set up a challenging network!

MPL products are 100% designed and manufactured in Switzerland. All products are fanless, shock and vibration proof, low power, rugged, and long-term\* available. The perfect solution for a system to be used in rugged environments.

\* Typically 10 years or more, 20+ years repair-ability



Open Frame 8-port switch solution



Web Interface of MPL MAGBES Management Software



MIL Version of the 8-port switch

## Technical Features

<b>Board Key Data</b>	
Switch lookup Engine	support up to 1024 MAC entries with automatic learning and aging supports auto crossover (Auto MDI/MDIX) support polarity correction
Jumbo Frame support	up to 10k Byte
Status LED	2 LEDs for each copper port (Link/Activity and Speed indicators) 1 LED for each SFP (Link/Activity indicators)
<b>Interfaces</b>	
Up to 8 Ports	2mm lockable header or high quality RJ45 connectors
Up to 4 Fiber Ports	Supports standard SFP Modules (Single and Multimode) at a data rate 100Mbit and 1Gbit
<b>Management Software</b>	
MPL developed and maintains a management SW with easy to use web interface.	
Management supports:	<ul style="list-style-type: none"> <li>• Port Based VLAN</li> <li>• Quality of Service</li> <li>• IEEE 802.1D RSTP support</li> <li>• SNMP V1, V2c, V3 support</li> <li>• Telnet</li> <li>• IGMPv3 snooping</li> <li>• IEEE 802.1Q VLAN</li> <li>• IEEE 802.1X MAC Address Checking</li> <li>• Port monitoring</li> <li>• Firmware Update via HTTP or TFTP</li> <li>• TLS (HTTPS)</li> <li>• gPTP (1588 PTP support)</li> </ul>
<b>Power</b>	
Input voltage	5VDC- 36VDC Input range, input over 4-pin power connector
Power consumption	Typically 8W
<b>Environment</b>	
Storage Temperature	-45°C to 85°C (-49°F to 185°F)
Operating Temperature	-20°C to 60°C (-4°F to 140°F) at full operation optionally -40°C to 85°C (-40°F to 185°F) at full operation
Relative Humidity	5% to 95% none condensing
<b>Standard Compliance</b>	
The MAGBES is designed to meet or even exceed the most common standard Particular references are:	
EMC	EN 55022, EN 55024, EN 61000, MIL-STD-461E
Shock & Vibration	EN 60068
Environmental & Safety	EN 50155, MIL-STD-810-F, EN 60601, EN 60950
Approval List	CE, IEC 60945, IACS E10
The MAGBES Family has been successfully tested according EN50155, MIL-STD-810-G as well as CE marking	

## Packaging

Chassis version	length	width	heights	weight	
8-port Open Frame RJ45	90.2 x	95.9 x	30.8 mm	180g	PC/104 size
8-port Open Frame Header	90.2 x	95.9 x	22.5 mm	180g	PC/104 size

MAGBES 8-port Open Frame Versions		MAGBES	211H	Port Config	copper	SFP
Product	Description			211H	8 x header	0
MAGBES	Manageable Ethernet Switch			212H	6 x header	2
				222H	4 x header	4

## Options

• Redundant power input	• Different power input range
• Galvanic isolation	• Coating and bonding

MPL AG is an ISO9001 certified company



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