

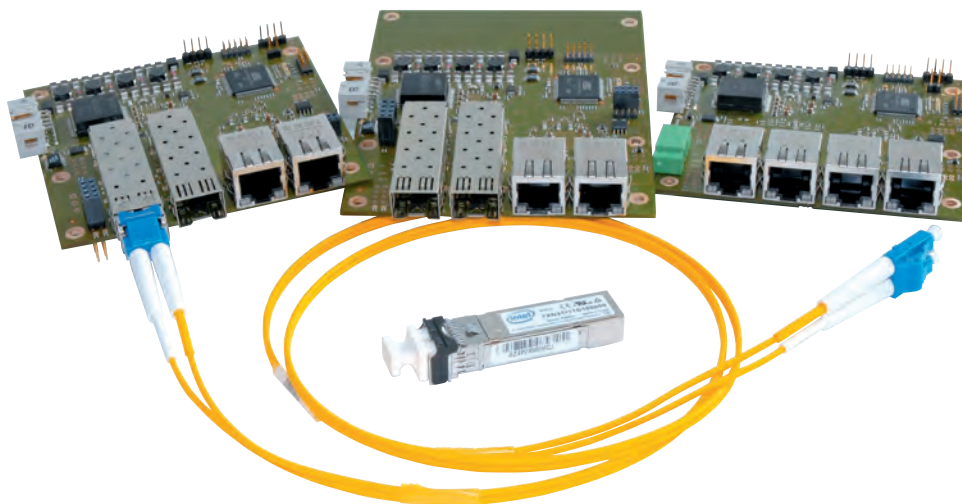
# MAGBES

## 5 Port Manageable GigaBit Ethernet Switch

### General Description

The MAGBES-Family consists of 6 different manageable Gigabit Ethernet Switch models. The boards are PC/104 sized and offered as stand-alone, PC/104 stacked and special PIP built-in mechanical versions. They are available with different port configurations, either with 5 copper ports, or with 3 copper and 2 SFP optical transceiver ports.

Small form-factor pluggable (SFP) transceivers are available with a variety of different transmitter and receiver types. It allows the users to select the appropriate transceiver for each link to provide the required fiber optical interface. 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 a easy to use web interface together with the MAGBES.



Different MAGBES models

### MAGBES specialties

- 5 port Gigabit Ethernet switch
- Fully manageable over web interface
- Copper and Fiber optic versions
- Stand alone and PC/104 stacked versions
- Low power – fanless operation
- Extended temperature option  
–40°C to +85°C

### Those features make

MAGBES 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. It is the perfect fit, whether they are used in a rugged, hot or other harsh environment. MAGBES makes it easy to set up a challenging network!

The screenshot displays the web interface for the MAGBES switch. At the top, there are logos for MPL (High-Tech - Made in Switzerland) and MAGBES (Manageable GigaBit Ethernet Switch), along with a 'Support' link. The main content area is divided into two sections: a left-hand navigation menu and a right-hand 'System Status' panel. The navigation menu includes links for System Status, System Setup, System Admin, Port Configuration, Switch Statistics, Port Based VLAN, IEEE 802.1Q VLAN, Quality of Service, MAC Authentication, SIIMP Configuration, Spanning Tree, and Port Monitoring. The 'System Status' panel has 'Refresh' and 'help' buttons and displays the following information:

|                 |                      |
|-----------------|----------------------|
| Product Name    | MAGBES               |
| Product Number  | MED-10375-001 Rev.A  |
| Serial Number   | 101                  |
| SW Version      | 0.0.1                |
| DHCP            | enabled              |
| IP Address      | 192.168.4.15         |
| Subnet Mask     | 255.255.240.0        |
| Default Gateway | 192.168.1.1          |
| MAC Address     | 00:60:C2:16:00:01    |
| Switch Name     | Magbes               |
| Location Name   |                      |
| Login Timeout   | 0 minutes            |
| System UpTime   | 0 days 0 hours 1 min |

At the bottom of the interface, there is a copyright notice: 'Copyright © 2008 by MPL AG, Copyright © 2001-2006 by egnite Software GmbH. All rights reserved.' and a URL: 'http://192.168.4.15/sys\_stat.asp'.

Web interface of MPL MAGBES Management Software

# Technical Features MAGBES

## Board Key Data

|                 |   |   |
|-----------------|---|---|
| Ethernet Switch | 5-port manageable Gigabit Switch                  | lookup engine support up to 1024 MAC entries with automatic learning, aging |
| Copper Ports    | on RJ45 and 2.54mm header                         | supports auto crossover, polarity correction                                |
| Fiber Ports     | over standard SFP transceivers                    | supports Single and Multimode data rate up to 1 GBit                        |
| Status LEDs     | 2 LEDs for each copper port<br>1 LED for each SFP | Link/Activity and Speed<br>Link indicator                                   |

## Physical / power

|                                |  |   |
|--------------------------------|--|---|
| Size (length x width x height) | 90.2 x 95.9 x 13.8 mm<br>120.0 x 95.9 x 13.8mm | PC/104 size (versions -xS and -xP)<br>specific PIP built-in (version -xM) |
| Weight                         | 100g / 0.22 lbs                                | fully equipped MAGBES-1S  |
| Power                          | +5VDC ± 5%                                     | input over 3-pin power connector or over PC/104 bus interface             |
| Power consumption              | Typically 3.5W<br>Typically 7.5W               | 5 x 100Mbit copper links<br>5 x 1Gbit copper links                        |
| Temperature Range              | -20°C up to 60°C                               | optional -40°C up to 85°C   |
| Humidity                       | 5% - 95% non condensing                        | optional bonding & coating available                                      |

## MAGBES versions

| Product number | Mechanical Version | Ethernet Ports Configuration |                     |                          |
|----------------|--------------------|------------------------------|---------------------|--------------------------|
|                |                    | Copper on RJ45               | SFP for Fiber optic | Copper on 2.54 mm header |
| MAGBES-1S      | Stand alone        | 4                            |                     | 1                        |
| MAGBES-2S      | Stand alone        | 2                            | 2                   | 1                        |
| MAGBES-1P      | PC/104 stacked     | 4                            |                     | 1                        |
| MAGBES-2P      | PC/104 stacked     | 2                            | 2                   | 1                        |
| MAGBES-1M      | PIP built-in       | 4                            |                     | 1                        |
| MAGBES-2M      | PIP built-in       | 2                            | 2                   | 1                        |

Please note, not always all versions are available from stock.

## Management Software

MPL provides together with the MAGBES a management SW with easy to use web interface.

This firmware is based on the Ethernet Operating system.

The MAGBES HW and SW is fully developed, designed and produced by MPL AG in Switzerland.

## Other MPL PC/104 Peripherals

| Product Family   | Function                                      | Form Factor |
|------------------|---|-------------|
| LAN104           | Single & dual 10/100 Mbit Ethernet modules    | PC/104-Plus |
| SPIDERLAN        | Ethernet-Switch modules with up to 8 ports    | PC/104-Plus |
| OSCI             | Four or eight RS232/RS485/RS422 serial lines  | PC/104-Plus |
| PCCARD           | PCMCIA PC Card adapter with two slots         | PC/104-Plus |
| IDE2CF / IDE2PCC | IDE to CompactFlash or IDE to PC Card adapter | PC/104      |

## Other MPL Products

|                       |  |
|-----------------------|--|
| Embedded CPU Boards   | Embedded, rugged Industrial CPU boards with PowerPC, x86 and ARM CPUs.<br>Products with lowest power consumption, long-term availability and highest reliability.                          |
| Industrial PCs        | Fanless, rugged Packed Industrial PCs with Intel CPUs in various housings and with many accessories. Products for extended temperature (-40° up to +75°C) and with long-term availability. |
| Panel PCs             | Fanless, IP65/NEMA4 protected Panel PCs (all around). Solutions with 6" - 19" LCDs and Touch in special aluminum or stainless steel case.  |
| Engineering & Support | Professional engineering, support and consulting by MPL engineers on Hardware and Software.  |

MPL AG is an ISO9001 certified company

This product includes software developed by egnite Software GmbH and its contributors.