

Rugged managed Gbit Switch with 16 ports built in robust IP67 housing

General Description

The μ MAGBES-A16MDX is a 16-port manageable Gigabit Ethernet 4th generation switch from MPL. The robust design, low power consumption, and the various mechanical configurations make the switch ideally suited for any application that needs a rugged and reliable solution.

Besides the long-term availability, manageable features like Quality of Service, Port Based VLAN, and IEEE 802.1Q VLAN, just to mention a few, are available. The μ MAGBES also supports Rapid Spanning Tree IEEE 802.1D 2004 and allows to use redundant Ethernet connections without introducing network loops. Unique is the fact, that it supports 1588 PTP as part of the standard Firmware.

The μ MAGBES-A16MDX solution is equipped with D38999 connectors of your choice. All ports have optional status LEDs, indicating the activity and speed of each port, including reset and default setting. Supply power is 24VDC (other voltages possible) and 16 ports use less than 9W. The solution can be operated at -20°C to 60°C and optionally even in extended temperature -40°C to 85°C .

Key features are:

- High-End D38999 connectors or M12
- Rugged IP67 housing
- Fully manageable over Web Interface or Telnet
- Fanless operation
- Can be used unmanaged
- Long-term availability (10+ years)
- 1588 PTP support

These features make

the μ MAGBES ideally suited for any rugged defense network application with long life cycle requirements. Due to the extreme low power consumption and the robust and flexible design, the μ MAGBES is well suited for tough environments.



All MPL products are 100% designed and manufactured in Switzerland.



μ MAGBES-A16MDX
in IP67 housing



Technical Features

Board Key Data

Switch lookup Engine	Supports up to 1024 MAC entries with automatic learning and aging Supports auto crossover (Auto MDI/MDIX) and polarity correction
Jumbo Frame support	up to 10k Byte
Status LED	2 LEDs for each copper port (Link/Activity and Speed indicators)

Interfaces

Copper Ports	16 x 1Gbit LAN ports
Over MIL connectors	16 x LAN over TVP00RW-9-9S
I/O Interfaces	1 x power over D38999/20WA98PA

Management Software

MPL developed and maintains a management SW with easy to use web interface.

Management supports:	<ul style="list-style-type: none"> • Port Based VLAN • Quality of Service • IEEE 802.1D RSTP support • SNMP V1, V2c, V3 support • IGMPv3 snooping • Trunking 	<ul style="list-style-type: none"> • IEEE 802.1Q VLAN • IEEE 802.1X MAC Address Checking • Port monitoring • Firmware Update via HTTP or TFTP • TLS (HTTPS) • Spanning tree • gPTP (1588 PTP support)
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Power

Input voltage	24 DC Input (any other supply voltage is possible)
Power consumption	Typically 9W

Mechanical

Dimension / Weight	330mm (W) x 250mm (H) x 50mm (D) / <5 Kg
Material	Aluminum HE30
Color	Power coated (RAL9005 or any other RAL color)

Environment

Operating Temperature	-20°C to 60°C (-4°F to 140°F) at full operation
Extended Temperature	Optional -40°C to 85°C (-40°F to 185°F) at full operation
Storage Temperature	-45°C to 85°C (-49°F to 185°F)
Relative Humidity	5% to 95% none condensing @ 45°C
Vibration	5-20Hz, 6dB/octave, 20-50Hz: 0.02g2/Hz & then rolling upto 0.001 g2/Hz at 50 to 500 Hz
Corrosion / Mould Growth	As per JSS55555
EMI/EMC	As per MIL-STD-461E / CE102, CS101, CS114, CS116, RE102, RS103, CS115 & HESD

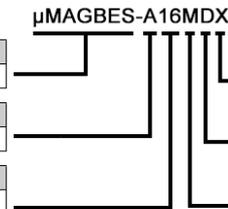
Standard Compliance

The μ MAGBES-A16MDX 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

Ordering Information

Product	Description
μ MAGBES	Managed Ethernet Switch
Version	Description
A	Standard
Ports	Description
8	Quantity of ports
12	Quantity of ports
16	Quantity of ports



Option	Description
X	-40°C to +85°C
Copper	Description
D	D38999 connector
Mount	Description
M	MIL housing