

IB2087
HEMERA

Manageable 4-port PoE+ Gigabit Ethernet switch including 2 PoE+ copper ports (PSE) and 2 optical ports on SFP

BENEFITS

- Digital I/O
- Space-saving box
- Each PSE (Power Supply Equipment) type PoE+ RJ45 port can provide up to 35W to PD-type (Powered Device) PoE equipment
- Disconnection of PoE+ power supply from PoE+ Ethernet ports by supervisory software
- VLAN configuration, QoS management and flow control
- Network loop management: Spanning Tree (STP / RSTP)
- IGMP Snooping V1/V2 for multicast stream management by VLAN
- Triggering of automatic configuration loading via DHCP options
- Supervision by web server and TELNET + monitoring functions via SNMP (data rates, link status, MAC address table, etc.)
- Configuration file management (by web page and TFTP)
- Professional software features (VLAN translation, Port mirroring, etc.)
- Energy efficiency Ethernet (802.3az) management
- Flat mounting or DIN rail mounting (optional)
- Power supply 48 to 60VDC (54VDC nominal)
- Product warranty: 3 years

APPLICATIONS

This Ethernet switch is composed of 2 PoE+ copper ports (802.3at standard) and 2 Gigabit Ethernet optical ports. It is used to build an optical chain or self-healing loop network to connect 1 to 2 IP devices on each switch.
These units are perfectly adapted for:

- Motorway networks
- Sensitive and industrial sites
- Telecommunications rooms

Each port can be controlled independently using Level 2 Ethernet (VLAN) functions. The different management interfaces make it easy to automate product monitoring. The initial configuration can be automatically downloaded when the power is turned on.
Operating indicators for the product’s main functions provide diagnostic support. This switch is presented in a mini individual case. An optional kit enables DIN rail mounting. Its DC power input provides power for both the switch and two PD (Powered Device) devices.
Possibility to link other Gigabit Ethernet switches from the range through the same supervisory utility.

Function

- Manageable 4-port Gigabit Ethernet switch:
    - 2 RJ45 ports, 10/100/1000 Mbps, PoE+ PSE
    - 2 SFP ports 100/1000Mbits
- Gigabit Ethernet transmission over fiber, even in electronically perturbed environments
- Harsh environments (-20°C to + 60°C)

GENERAL CHARACTERISTICS

GENERAL

Box	
Individual case in painted aluminum 48-60 VDC (L x W x H)	105 x 91 x 36 mm
DIN rail mounting with mounting kit	KIT-RD-007

Connectors	
Fiber connectors	According to inserted SFPs
Ethernet connectors	RJ45 x 2
Power connector	3-position 5.08 mm screw terminal block
Digital I/O connector	4-position 3.81 mm screw terminal block

Power supply	
Supply voltage	48 to 60VDC insulated
Max. power consumption	80 W (10 W internal + 2 x 35 W PoE)

ETHERNET

Ethernet Interfaces

10/100/1000BaseTx Ports	
Standard	IEEE 802.3:
Number of interfaces	2 ports
Half/Full duplex configuration	Manual or Auto-Negotiation
10/100/1000 Ethernet configuration	Manual or Auto-Negotiation
Crossover on port	Automatic MDI/MDIX
Length limit	100 m for CAT 5 cable
Connectors	RJ45
PoE+	Up to 35W

Fiber optic ports	
Number of ports	2 ports, interchangeable SFP modules.
Duplex configuration	Full duplex
Bitrate	100/1000 Mbit/s
Transmission protocol	According to SFP used
Fiber characteristics	According to SFP used

Ethernet Features

Strictly level 2 operation. Management of 32 VLANs according to 802.1Q standards.

- Network loop management via Spanning Tree Protocol (STP / RSTP)
- QoS management – 4 queues on all ports; traffic classification by port or VLAN or DSCP/802.1p field.
- Inbound/outbound rate limiting per port and inbound rate limiting per VLAN.
- IGMP snooping V1/V2 by VLAN.
- Port mirroring
- 802.1Q and 802.1ad VLAN stacking (QinQ) with priority management (802.1p fields): the VLAN tag 802.1p field (priority level) on the incoming frame is duplicated to the inserted VLAN tag (outer-tag) 802.1p field.
- Energy efficiency Ethernet (802.3az) management
- MTU management from 64 to 10240 bytes (fields: MAC addresses + VLAN tags + data + FCS).
- Product configuration via Telnet and web pages. Monitoring and alarm management functions via SNMP V1/V2 (Port status, MAC address table, etc.).
- Login/password management of the supervision interface
- "Configuration File" management (in text format) via Telnet and web page.
- Automatic loading of configuration file and firmware via TFTP at startup via DHCP options.
- Neutral transport of all types of Ethernet frames, especially frames with more than two levels of encapsulation.
- Transparency for Ethernet network control protocols (STP, LLDP, etc.).

DIGITAL I/O

Control input	
Signal type	Digital I/O
Open Voltage	3.3VDC
Activation	Contact closure
Max current	10mA
Insulation	Not insulated

Output relay	
Rest state	Open (no power and/or activation)
Contact resistance	< 200mW
Max. voltage (contact open)	48VDC
Max. current (contact closed)	200mA
Insulation	500VDC

OPERATIONAL INDICATORS

Operational indicators	
ETH (x2)	Ethernet connection indicator (Link / Act)
PoE (x2)	PoE operational state on each port
SFP (x2)	Ethernet connection indicator (Link / Act)
Power/Alarm (x1)	Power supply / Fault alarm
Digital/Status (x1)	Input contact indicator / Module status (start, update, etc.)

ENVIRONMENTAL

Environment	
Operating temperature	-20 / +60°C
Storage temperature	-40 / +85°C
Relative humidity	0-85 % (not condensed)
Tropicalization option, 0 to 95% contact us	

RANGE

Reference	Power supply	Application	Fiber connectors
IB2087	48 to 60VDC	Full Gigabit Ethernet switch for fiber networks	According to inserted SFPs