

EX65000 Series

Managed Industrial 8-port Gigabit Ethernet Switch



Overview



The 8-port Industrial Managed Gigabit Ethernet Switch EX65000 series is designed to operate in industrial environments. Whether on the factory floor or the control room, the EX65000 will provide flawless communications when you most need it.

The EX65000 is with eight Gigabit Ethernet ports that may be configured in various combinations of copper and fiber optic interfaces. Fully manageable via SNMP, Web Browser, Telnet or Console port, users may choose among SNMP/RMON, Web Browser, or Telnet for remote monitoring and configuration. The Hardened EX65000 series supports advanced features such as IEEE802.1Q VLAN, IEEE802.3ad Link Aggregation Trunking, IP Multicast IGMP Snooping, Multiple Spanning Tree for Redundancy, QoS for priority queuing, and port mirroring. It also supports rate control which allows users to set the maximum bandwidth on each port individually.

Features

- ▶ Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment
- ▶ IEEE802.1s MSTP, IEEE802.1w RSTP, and IEEE802.1D STP compatible
- ▶ EtherWAN proprietary "α-ring" support for network redundancy; recovery time <15ms
- ▶ IP Multicast Filtering through IGMP Snooping
- ▶ Supports port-based VLAN and IEEE802.1Q VLAN Tagging and GVRP
- ▶ IEEE802.1p QoS with four priority queues
- ▶ IEEE802.3ad Link Aggregation and MAC-based trunking with automatic link fail-over
- ▶ RS-232 console, Telnet, SSL/SSH, SNMP V1 & V2c & V3, RMON, Web Browser, and TFTP Management
- ▶ Supports Command Line Interface in RS-232 Console
- ▶ Bandwidth Rate Control
- ▶ Per-port programmable MAC address locking
- ▶ Port mirroring
- ▶ 1000Mbps-Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- ▶ Full wire-speed forwarding rate
- ▶ Alarms for power failure by relay output
- ▶ Redundant Power inputs with Terminal Block and DC Jack
- ▶ -20°C to 60°C (-4°F to 140°F) operating temperature range
- ▶ Supports NTP

Ordering Information

EX65080-00Z	8-Port 10/100/1000BASE-TX Industrial Managed Ethernet Switch
EX65071-0YZ	7-Port 10/100/1000BASE-TX + 1-Port Gigabit Industrial Managed Ethernet Switch
EX65062-0YZ	6-Port 10/100/1000BASE-TX + 2-Port Gigabit Industrial Managed Ethernet Switch

Gigabit Options:

- (Y) = 3:1000BASE-SX (SC)
A:1000BASE-LX (SC) -10Km
B:1000BASE-LX (SC) -20Km
R:1000BASE-BX (SC) WDM -TX:1310nm/RX:1550nm -20Km
S:1000BASE-BX (SC) WDM -TX:1550nm/RX:1310nm -20Km

Power Input Interface:

- (Z) = B : DC Jack & Terminal Block

Power Supply: (Optional)

*Options A - Terminal Block power supply(s), part numbers: DR-30-24, DR-60-24, DR-75-24, DR-120-24 or 41-136046-X X=1,2,3,4,5

**Options B - DC Jack power supplies kit(s), part numbers: 41-136044-X X=1,2,3,4,5

*See page 5-9 to 5-16 for more detailed information about optional accessories (Din-Rail Power supply, Power adapter)

Installation Type: DIN Rail (mounting kit is included), Optional Panel Mount kits are available for ordering.

Specifications

Technology

Standards:

- IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/100BASE-FX, IEEE802.3ab 1000BASE-T, IEEE802.3z 1000BASE-SX/1000BASE-LX, IEEE802.3x, IEEE802.1Q, IEEE802.1p, IEEE802.1s, IEEE802.1w, IEEE802.1D

Forward and Filtering Rate:

- 14,880pps for 10Mbps
- 148,810pps for 100Mbps
- 1,488,100pps for 1000Mbps

Packet Buffer Memory:

- 1M bits

Processing Type:

- Store-and-Forward
- Half-duplex back-pressure and IEEE802.3x full-duplex flow control

Address Table Size:

- 4096 MAC addresses

Power

Input:

- Input Voltage: 12 to 32VDC (Terminal Block); 12VDC (DC Jack)

Power Consumption:

- 22W Max. 1.83A@12VDC, 0.92A@24VDC

Overload Current Protection:

- Present

Reverse Polarity Protection:

- Present

Mechanical

Casing:

- Aluminum case
- IP30

Dimensions:

- 60mm (W) x 125mm (D) x 145mm (H)
(2.36" (W) x 4.92" (D) x 5.71" (H))

Weight:

- 1.1Kg (2.42lbs.)

Installation:

- DIN-Rail (Top hat type 35mm), Panel Mounting

Interface

Ethernet Port:

- 10/100/1000BASE-TX: 8, 7, or 6 ports
- 1000BASE-SX/LX: 0, 1, or 2 ports

Console Port:

- Port: One DB9 RS-232 port

LED Indicators:

- Per Unit: Power Status (Power 1, Power 2, Power 3), Reset, Alarm
- Per Port: Link/Activity, Speed

Alarm Contact:

- One relay output with current 1A@24VDC

Environment

Operating Temperature:

- -20°C to 60°C (-4°F to 140°F)
- Tested @ -30°C to 70°C (-22°F to 158°F)

Storage Temperature:

- -40°C to 85°C (-40°F to 185°F)

Ambient Relative Humidity:

- 5% to 95% (non-condensing)

Regulatory Approvals:

ISO:

- Manufactured in an ISO9001 facility

Safety:

- UL508

EMI:

- FCC Part 15, Class A
- EN61000-6-4
 - EN55022
 - EN61000-3-2
 - EN61000-3-3

EMS:

- EN61000-6-2
 - EN61000-4-2 (ESD Standards)
Contact: + / - 6KV; Criteria B
Air: + / - 8KV; Criteria B
 - EN61000-4-3 (Radiated RFI Standards)
10V/m, 80 to 1000MHz; 80% AM Criteria A
 - EN61000-4-4 (Burst Standards)
Signal Ports: + / - 4KV; Criteria B
D.C. Power Ports: + / - 4KV; Criteria B
 - EN61000-4-5 (Surge Standards)
Signal Ports: + / - 1KV; Line-to-Line; Criteria B
D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B
 - EN61000-4-6 (Induced RFI Standards)
Signal Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
D.C. Power Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
 - EN61000-4-8 (Magnetic Field Standards)
30A/m @ 50, 60Hz; Criteria A

Environmental Test Compliance:

- IEC60068-2-6 Fc (Vibration Resistance)
5g @ 10~150Hz, Amplitude 0.35mm (Operation/Storage/Transport)
- IEC60068-2-27 Ea (Shock)
25g @ 11ms (Half-Sine Shock Pulse; Operation)
50g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)
- IEC60068-2-32 Ed (Free Fall)
1M (3.281ft.)

Diagrams

