



Model: EIR505 Series

Five Port Managed Industrial Ethernet Switches



Features

- ✓ **X-Ring Automatic Recovery**
- ✓ **Dual 12 to 48 VDC Power Inputs**
- ✓ **Relay Alarm Output**
- ✓ **IP30 DIN Rail or Panel Mount**

Functional Description

The Elinx EIR505 series of Industrial Managed Ethernet Switches provide powerful functionality in a small package. Designed for industrial applications, these switches contain all the standard features of other switches, such as IGMP Snooping, Port Based VLAN, 802.1Q Tag VLAN, RJ-45 automatic MDI/MDI-X, auto negotiation, store and forward switching, STP, RSTP, Web Based Management, Ingress Packet Filtering, and Egress Rate Control. These managed switches also come with important industrial features to ensure reliability in an industrial application. X-Ring technology with coupling ring and dual homing allows automatic recovery in less than 300 MS. Dual power inputs ensure reliability. A relay alarm output for port failure notification. DIN Rail and Panel Mounting options on the same IP30 case.

Ordering Information

Model Number	Description
EIR505	Industrial Managed Ethernet Switch, 5 10/100 RJ-45 Ports
EIR505-MC	Industrial Managed Ethernet Switch, 4 10/100 RJ-45 Ports, 1 MM FO (SC) Port
EIR505-SC	Industrial Managed Ethernet Switch, 4 10/100 RJ-45 Ports, 1 SM FO (SC) Port (30 KM)



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Specifications

Technology

IEEE Standards	802.3 10Base-T Ethernet, 802.3u 100Base-TX and 100Base-FX Fast Ethernet 802.3x Flow Control and Back Pressure, 802.1d Spanning Tree, 802.1w Rapid Spanning Tree 802.1p Class of Service, 802.1Q VLAN Tag
Processing Type	Store and Forward
Flow Control	Flow control on full duplex, Back Pressure on half duplex
MAC Address Table Size	2 KB
Memory Buffer	1 MB
Protocol	CSMA/CD
Management	Web GUI with reset to factory default button
Transfer Rate	14,880 bps for Ethernet ports, 14,8800 for Fast Ethernet ports
Transfer Packet Size	64 bytes to 1522 bytes (with VLAN tag)
Packet throughput ability	1.49 Mbps @ 64 bytes
X-Ring	2 ports for X-Ring provide redundant backup with a recovery time below 300 MS.
Packet Filter	4 Selection Rules to filter combinations of Broadcast, Multicast, Unicast, and Unknown packets.
VLAN	Port based and Tag. Up to 64 VLAN groups
Class of Service	4 priority queues per port
Quality of Service	Port based, Tag based, or IPv4 Type of Service
IGMP	IGMP v1 and Query mode. Up to 256 groups
Clock Synchronization	SNTP
Management Security	IP Address
Port Mirror	TX packet only or TX and RX packet
Firmware Update	TFTP
DHCP	DHCP Client Function to obtain addresses from DHCP server
Bandwidth Control	Ingress Packet Filter rules and Egress Rate Control

Interface

RJ-45 Ports	10/100BaseT with auto negotiation, Full/Half Duplex, MDI/MDI-X
Fiber Ports	100Base FX, single mode or multimode with ST or SC connectors
Port Indicators (each port)	Green LED for Link / Activity and Yellow LED for Full Duplex / Collision
System Indicators	Green LEDs for Power, Power 1, Power 2, and Master. Yellow LED for Fault.

Fiber Optics

Fiber Type	Distance	Wavelength	Cable	Output Optical Power	Input Power Min
Multimode	2 KM	1310 nm	62.5/125 um	-10 to 0 dBm	< -28 dBm
Single Mode	30 KM	1310 nm	9/125 um	-15 to -8 dBm	< -34 dBm

Power

Input Voltage	12 to 48 VDC, dual source
Current Consumption	0.8 A max.
Input Connection	Terminal Block and DC Jack
Relay Alarm	1A @ 24VDC

Environmental

Operating Temperature	14 to 140 F (-10 to 60 C)
Storage Temperature	-40 to 185 F (-40 to 85 C)
Operating Humidity	0 to 95% NC
MTBF EIR505	305482 hours
MTBF EIR505-xx	297077 hours

Mechanical

Enclosure	IP30 Aluminum Case
Mount	35 mm DIN or Panel
Dimensions	2.3 x 5.7 x 4.3 in (5.8 x 14.5 x 10.9 cm)

Regulatory Approvals

EMI	FCC Class A EN6100-4-2, -4-3, -4-4, EN6100-4-5, -4-6
Safety	EN60950
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	IEC60068-2-6

CE Declaration of Conformity

Manufacturer's Name	B&B Electronics Mfg CO
Manufacturer's Address	707 Dayton Road PO Box 1040 Ottawa, IL 61350 USA
Model Numbers	EIR505, EIR505-xx series
Description	Industrial Managed Switch
Type	Light Industrial ITE Equipment
Application of Council Directive	89/336/EEC
Standards	EN55022 EN61000-4-2, -4-3, -4-4, -4-5 EN61000-4-6, -4-8, -4-11, -4-12 EN61000-6-2, -6-4


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