



Model: EIR510 Series

Ten Port Managed Industrial Ethernet Switches



Features

- ✓ **X-Ring Automatic Recovery**
- ✓ **Dual 24 to 48 VDC Power Inputs**
- ✓ **Wide Operating Temperature**
- ✓ **Relay Alarm Output**
- ✓ **IP30 DIN Rail or Panel Mount**
- ✓ **Automatic E-mail Notification for system events**
- ✓ **SNMP or Web GUI Management**

Functional Description

The Elinx EIR510 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. Another important feature is automatic e-mail notification for system events such as a cold start, change in network topology, power status or SNMP authentication failure.

Ordering Information

Model Number	Description
EIR510-2MC-T	Industrial Managed Ethernet Switch, 8 10/100 RJ-45 Ports, 2 MM FO (SC) Ports
EIR510-2MT-T	Industrial Managed Ethernet Switch, 8 10/100 RJ-45 Ports, 2 MM FO (ST) Ports
EIR510-2SC-T	Industrial Managed Ethernet Switch, 8 10/100 RJ-45 Ports, 2 SM FO (SC) Ports (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, 802.3ad Port Trunk with LACP, 802.1x RADIUS
Processing Type	Store and Forward
Flow Control	Flow control on full duplex, Back Pressure on half duplex
MAC Address Table Size	8 KB
Memory	4MB Flash ROM, 32MB DRAM
Protocol	CSMA/CD
Management	SNMP v1, v2c, v3, Web GUI, TELNET, CLI, Menu Driven Interface
Management Security	Up to 10 IP addresses can have permission to manage the switch. 802.1x (RADIUS) Authentication
Transfer Rate	14,880 bps for 10Base-T Ethernet ports, 14,8800 for 100Base-TX/FX Fast Ethernet ports
Packet throughput ability	2.976 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 256 VLAN groups
Port Trunk	LACP Port Trunk. 4 trunk groups / maximum of 4 trunk members.
Class of Service	4 priority queues per port
Quality of Service	Port based, Tag based, or IPv4 Type of Service, IPv4 Different Service
IGMP	IGMP Snooping v1 256 multicast groups and IGMP query
Clock Synchronization	SNTP
Management Security	IP Address
Port Mirror	TX packet only, RX packet only, or TX and RX packet
Firmware Update	TFTP, TFTP backup and restore
DHCP	DHCP Client / DHCP Server / IP Relay functions
Bandwidth Control	Ingress packet filter and Egress packet limit

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 Orange LED for Full Duplex / Collision
System Indicators	Green LEDs for Power, Power 1, Power 2, and Master. Orange 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	24 to 48 VDC, dual source
Current Consumption	0.45 A max.
Input Connection	Terminal Block
Relay Alarm	1A @ 24VDC

RFC Standards

RFC 2030 SNTP
RFC 2821 SMTP
RFC 1157 SNMP
RFC 1493 BRIDGE MIB
RFC 2674 VLAN MIB
RFC 2665
RFC 2819 RMON MIB
Private MIB

SNMP Trap

Up to 3 Trap Stations
Cold Start
Port link up
Port link down
Authentication Failure
Power status
Port Alarm
Fault Alarm
X-Ring

Mechanical

Enclosure	IP30 Aluminum Case
Mount	35 mm DIN or Panel
Dimensions	2.7 x 4.2 x 6.4 in (7.4 x 10.7 x 16.3 cm)

Environmental

Operating Temperature	-40 to 167 F (-40 to 75 C)
Storage Temperature	-40 to 185 F (-40 to 85 C)
Operating Humidity	0 to 95% NC
MTBF	193115

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	EIR510-2xx-T
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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