

Industrial Ethernet Switches

IFE 8T2GB-MXE

8 port + 2 x 10/100/100T/Mini-GBIC w/X-Ring,
L2 Managed Industrial Switch

Features

- 8 x 10 / 100Mbps Rj 45 Ports
- 2 x Gigabit via Combo Ports and SFP2
- Extended Operating Temp -40⁰C to +75⁰C
- Backplane 5.6Gbps
- Redundant Power Supply 12v – 48 vdc
- X-Ring Dual Homing and Rapid Healing



Benefits

- **System Interface/Performance**
 - RJ-45 port supports Auto MDI/MDI-X Function
 - SFP(Mini-GBIC) supports 100/1000 Dual Mode
 - Store-and-Forward Switching Architecture
 - Back-plane (Switching Fabric): 5.6Gbps
 - 1Mbits Packet Buffer
 - 8K MAC Address Table
 - Support Wide Operating Temperature (-40°C~75°C)
- **Power Supply**
 - Wide-range Redundant Power Design
 - Power Polarity Reverse Protect
- **VLAN**
 - Port Based VLAN
 - Support 802.1 Q Tag VLAN
 - GVRP
 - Double Tag VLAN (Q in Q)*
- **QoS (Quality of Service)**
 - Support IEEE 802.1p Class of Service,
 - Per port provides 4 priority queues
 - Port Base, Tag Base and Type of Service Priority
- **Port Trunk with LACP**
- **Port Mirror: Monitor traffic in switched networks.**
 - TX Packet only
 - RX Packet only
 - Both of TX and RX Packet
- **Security**
 - Port Security : MAC address entries/filter
 - IP Security: IP address security management to prevent unauthorized intruder.
 - Login Security: IEEE802.1X/RADIUS
- **IGMP with Query mode for Multi Media Application**
- **Case Installation**
 - IP-30 Protection
 - DIN Rail and Wall Mount Design
- **Spanning Tree**
 - Supports IEEE802.1d Spanning Tree
 - Supports IEEE802
- **X-Ring**
 - X-Ring, Dual Homing, Couple Ring and dual Ring Topology
 - Provide redundant backup feature and the recovery time below 300ms
- **Support IEEE802.1ab LLDP****
- **Bandwidth Control**
 - Ingress Packet Filter and Egress Rate Limit
 - Broadcast/Multicast Packet Filter Control
- **System Event Log**
 - System Log Server/Client
 - SMTP e-mail Alert
 - Relay Alarm Output System Events
- **SNMP Trap**
 - Device cold start
 - Power status
 - Authentication failure
 - X-Ring topology changed
 - Port Link up/Link down
- **TFTP Firmware Update and System Configure Restore and Backup**
- **Supports 4000 VDC Ethernet ESD protection**
- **Provides EFT protection 3000 VDC for power line**

Industrial Ethernet Switches

IFE 8T2GB-MXE

8 port + 2 x 10/100/100T/Mini-GBIC w/X-Ring,
L2 Managed Industrial Switch

Hardware Specifications

Switch Architecture	Back-plane (Switching Fabric): 5.6Gbps Packet throughput ability(Full-Duplex): 8.3Mpps @64bytes	
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Fibre Ethernet port	
Packet Buffer	1Mbits	
Mac Address	8K MAC address table	
Flash ROM	4Mbytes	
DRAM	32Mbytes	
Connector	10/100TX: 8 x RJ-45 10/100/1000T/ Mini-GBIC Combo: 2 x RJ-45 + 2 x 100/1000 SFP sockets RS-232 connector: RJ-45 type	
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5/5E cable EIA/TIA-568 100-ohm (100m)	
Optical Cable	Multi-mode: 50/125um~62.5/125um Single mode: 9/125um Available distance: 2km (Multi-mode)/30km (Single-mode) Wavelength: 1310nm (Multi-mode/Single -mode)	
Protocol	CSMA/CD	
LED	Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Red), Master (Green) 8 10/100TX : Link/Activity (Green), Full duplex/Collision (Yellow) Giga Copper: Link/Activity (Green), Speed (1000Mbps Green) SFP: Link/Activity (Green)	
Reverse polarity protection	Present	
Power Supply	DC 12~48V, Redundant power with polarity reverse protect function and removable terminal	
Power Consumption	9.5 Watts	
Operating Humidity	5% to 95% (Non-condensing)	
Operating Temperature	40°C~75°C	
Storage Temperature	-40 ⁰ C to 85 ⁰ C	
Case Dimension	Metal case. IP-30, 72mm (W) x 105mm (D) x 152mm (H)	
Installation	DIN Rail and Wall Mount Design	
EMI	FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN-61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), CE EN61000-4-8, CE EN61000-4-11, CE EN61000-4-12, CE EN61000-6-2, CE EN61000-6-4	
Safety	UL, cUL, CE/EN60950-1	
Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)	
IEEE Standards	IEEE 802.3 10Base-T Ethernet IEEE802.3ab 1000Base-T IEEE802.3x Flow Control and Back Pressure IEEE802.1d Spanning Tree/ IEEE802.1p Class of Service IEEE 802.1x User Authentication (Radius)	IEEE 802.3u 100Base-TX IEEE802.3z Gigabit fiber IEEE802.3ad Port trunk with LACP IEEE802.1w Rapid Spanning Tree IEEE802.1Q VLAN Tag IEEE802.1ab LLDP**

Industrial Ethernet Switches

IFE 8T2GB-MXE

**8 port + 2 x 10/100/100T/Mini-GBIC w/X-Ring,
L2 Managed Industrial Switch**

Software Features

Management	SNMP v1 v2c, v3/ Web/Telnet/CLI Management
SNMP MIB	RFC 1215 Trap, RFC1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 , RFC 1757, RSTP MIB, Private MIB, LLDP MIB**
VLAN	Port Based VLAN IEEE 802.1Q Tag VLAN (256 entries)/ VLAN ID (Up to 4K, VLAN ID can be assigned from 1 to 4096.) GVRP (256 Groups) Double Tag VLAN (Q in Q)*
Port Trunk with LACP	LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members
LLDP**	Support LLDP to allow switch to advise its identification and capability on the LAN
Spanning Tree	Support IEEE802.1w Rapid Spanning Tree
X-Ring	Support X-Ring, Dual Homing, Couple Ring and Dual Ring Provide redundant backup feature and the recovery time below 20ms;
Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/IPv6 Different Service
Class of Service	Support IEEE802.1p class of service, per port provides 4 priority queues
Port Security	Support 100 entries of MAC address for static MAC and another 100 for MAC filter
Port Mirror	Support 3 mirroring types: "RX, TX and Both packet".
IGMP	Support IGMP snooping v1,v2, v3 256 multicast groups and IGMP query
IP Security	Support 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.
Login Security	Support IEEE802.1X Authentication/RADIUS
Bandwidth Control	Support ingress packet filter and egress packet limit The egress rate control supports all of packet type and the limit rates are 100K~250Mbps Ingress filter packet type combination rules are Broadcast/Multicast/Unknown Unicast packet, Broadcast/Multicast packet, Broadcast packet only and all of packet. The packet filter rate can be set from 100k to 250Mbps
Flow Control	Support Flow Control for Full-duplex and Back Pressure for Half-duplex
System Log	Support System log record and remote system log server
SMTP	Support SMTP Server and 6 e-mail accounts for receiving event alert
Relay Alarm	Provides one relay output for port breakdown, power fail Alarm Relay current carry ability: 1A @ DC24V
SNMP Trap	Up to 3 Trap stations Cold start, Port link up, Port link down, Authentication Failure, Private Trap for power status, Port Alarm configuration, Fault alarm, X-Ring topology change
DHCP	Provide DHCP Client/ DHCP Server functions
DNS	Provide DNS client feature and support Primary and Secondary DNS server
SNTP	Support SNTP to synchronize system clock in Internet
Firmware Update	Support TFTP firmware update, TFTP backup and restore.
Configuration upload and download	Support binary configuration file for system quick installation

* Future release

** Optional

Typical applications Railways, Traffic Control, Highways, Utilities, Industrial, Manufacturing, Wireless Operators, Oil and Gas Industries.

Ordering Information

Part Number	Product Name	Description
8350-451	IFE 2GB8T-MX	8 10/100TX + 2 10/100/1000T/ Mini-GBIC Combo w/ X-Ring & Wide Operating Temperature (-40°C~75°C) Managed Industrial Switch