

# IES-M242H

## Industrial Managed Hardened Switch

26-port: 24\*10/100TX + 2\* Giga SFP (-40 to +85C)



### Benefits

<ul style="list-style-type: none"> <li>■ System Interface/Performance               <ul style="list-style-type: none"> <li>➢ RJ-45 port support Auto MDI/MDI-X Function</li> <li>➢ Store-and-Forward Switching Architecture</li> <li>➢ Back-plane (Switching Fabric): 8.8Gbps</li> <li>➢ 4Mbits Packet Buffer</li> <li>➢ 8K MAC Address Table</li> <li>➢ Redundant Power Supply Design</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Spanning Tree               <ul style="list-style-type: none"> <li>➢ Support IEEE802.1d Spanning Tree</li> <li>➢ Support IEEE802.1w Rapid Spanning Tree</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>■ VLAN               <ul style="list-style-type: none"> <li>➢ Port Based VLAN</li> <li>➢ Support 802.1 Q Tag VLAN</li> <li>➢ GVRP</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Support up to 256 Policy ACL (Access Control List)</li> </ul>
<ul style="list-style-type: none"> <li>■ Port Trunk with LACP</li> </ul>	<ul style="list-style-type: none"> <li>■ Support IEEE802.1ab LLDP</li> </ul>
<ul style="list-style-type: none"> <li>■ QoS (Quality of Service)               <ul style="list-style-type: none"> <li>➢ Support IEEE 802.1p Class of Service,</li> <li>➢ Per port provides 4 priority queues</li> <li>➢ Port Base, Tag Base and Type of Service Priority</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Bandwidth Control               <ul style="list-style-type: none"> <li>➢ Ingress Packet Filter and Egress Rate Limit</li> <li>➢ Flooded Unicast/Multicast Packets/Control Packets/IP Multicast Packets/Broadcast Packet Filter Control</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>■ Port Mirror: Monitor traffic in switched networks               <ul style="list-style-type: none"> <li>➢ TX Packet only</li> <li>➢ RX Packet only</li> <li>➢ Both of TX and RX Packet</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ System Event Log               <ul style="list-style-type: none"> <li>➢ System Log Server/Client</li> <li>➢ SMTP e-mail Alert</li> <li>➢ Relay Alarm Output System Events</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>■ Security               <ul style="list-style-type: none"> <li>➢ Port Security : MAC address entries/filter</li> <li>➢ IP Security : IP address security management to prevent unauthorized intruder.</li> <li>➢ Login Security: IEEE802.1X/RADIUS</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ SNMP Trap               <ul style="list-style-type: none"> <li>➢ Device cold start</li> <li>➢ Device warm start</li> <li>➢ Power status</li> <li>➢ Authentication failure</li> <li>➢ X-Ring topology change</li> <li>➢ Port Link up/Link down</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>■ IGMP with Query mode for Multi Media Application</li> <li>■ Support multicast Filtering</li> </ul>	<ul style="list-style-type: none"> <li>■ TFTP Firmware Update and System Configure Restore and Backup</li> </ul>
<ul style="list-style-type: none"> <li>■ X-Ring               <ul style="list-style-type: none"> <li>➢ X-Ring, Dual Homing, Couple Ring</li> <li>➢ Provide redundant backup feature and the recovery time below 20ms</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Case/Installation               <ul style="list-style-type: none"> <li>➢ IP-30 Protection</li> <li>➢ 19" Rack Design</li> </ul> </li> </ul>

### Standard Compliance

IEEE 802.3 10Base-T Ethernet  
 IEEE 802.3u 100Base-TX / 100Base-FX  
 IEEE802.3z Gigabit fiber  
 IEEE802.3ab 1000Base-T  
 IEEE802.3x Flow Control and Back Pressure  
 IEEE802.3ad Port trunk with LACP  
 IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree  
 IEEE802.1p Class of Service  
 IEEE802.1Q VLAN Tag  
 IEEE 802.1x User Authentication (Radius)  
 IEEE802.1ab LLDP

## Hardware Specification

Switch Architecture	Back-plane (Switching Fabric): 8.8Gbps Packet throughput ability(Full-Duplex): 13.1Mpps @64bytes
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Fiber Ethernet port
Packet Buffer	4Mbits
Mac Address	8K MAC address table
Flash ROM	4Mbytes
DRAM	64Mbytes
Jumbo frame	9K (for Gigabit Ports)
Connector	RS-232 console: 1 X RJ-45 10/100TX: 24 x RJ-45 Giga uplink: 2 x SFP sockets
LED	Per unit: Power 1 (Green), Power 2 (Green), Alarm (Red), R.M (Green) Front Panel: 10/100TX: Link/Activity (Green), Speed (Green), Mini-GBIC: Link/Activity (Green) Rear Panel: 10/100TX: Link/Activity (Green), Full duplex(Amber), Mini-GBIC: Link/Activity (Green)
Power Supply	2 X VAC/VDC 100V~240V Redundancy, 60w/max
Relay Alarm	Provides one relay output for port breakdown, power fail and alarm. Alarm Relay current carry ability: 1A @ DC24V
Power Consumption	17.5W @ 110VDC; 21.5W @ 110VAC 50Hz
Operating Humidity	5% to 95% (Non-condensing)
Operating Temperature	-40°C to 85°C;
Storage Temperature	-40°C to 85°C
Case Dimension	440mm(W) x 280mm(D) x 44mm(H)
Installation	19" Rack mount
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, EN61000-3-2, EN61000-3-3
Safety	UL, cUL, CE/EN60950-1
Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration) IEC61850-3, EEE1613 Class 2, IEC60870-2-2, IEC60068-2-30

## Software Feature

Management	SNMP v1 v2c, v3/ Web/Telnet/CLI Management
SNMP MIB	RFC 3418 SNMP MIB,RFC 1213 MIBII,RFC 2011 MIB,RFC 1493 Bridge MIB,RFC 2674 VLAN MIB,RFC 1215 Trap MIB,RFC 1643 Ethernet like,RFC 1757 RMON1(1,2,3,9),RSTP MIB,LLDP MIB,Private MIB,
VLAN	Port based VLAN, IEEE802.1Q Tag VLAN, Static VLAN groups up to 256, Dynamic VLAN group up to 256, VLAN ID from 1 to 4094. GVRP up to 256 groups.
Port Trunk with LACP	LACP Port Trunk: 13 Trunk groups/Maximum 4 trunk members
LLDP	Support LLDP to allow switch to advise its identification and capability on the LAN
X-Ring	Support X-Ring, Dual Homing, and Couple Ring Provide redundant backup feature and the recovery time below 20ms
Spanning Tree	Support IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree
Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4 Different Service
Class of Service	Support IEEE802.1p class of service, per port provides 4 priority queues
Port Security	Support 50 entries of MAC address for static MAC and another 50 for MAC filter
Port Mirror	Support 3 mirroring types: "RX, TX and Both packet"
IGMP	Support IGMP snooping v1,v2 256 multicast groups and IGMP query Support multicast Filtering up to 50 entries
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
Access Control List(ACL)	Support up to 256 Policy

Bandwidth Control	Support ingress packet filter and egress packet limit The egress rate control supports all of packet type and the limit rates are 0~100Mbps (10/100TX), 0 ~ 1000Mbps (Giga port). Broadcast Strom rate: Packets types include Flooded Unicast/Multicast Packets/Control Packets/IP Multicast Packets/Broadcast Packets. The packet filter rate can be set to be 1/2, 1/4, 1/8 or 1/16 of ingress rate.
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 1 SMTP Server and 6 e-mail accounts for receiving event alert
SNMP Trap	Up to 3 Trap stations Cold start, Warm start, Port link up, Port link down, Authentication Failure, Private Trap for power status, X-Ring topology change,
DHCP	Provide DHCP Client/ DHCP Server/ Port and IP binding 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.
Configuration backup and restore	Support TFTP backup and restore

## ORDER INFORMATION

Product Name	Description
IES-M242H	24 10/100TX+2 Giga SFP w/ X-Ring Managed Industrial Switch, Rear Cable Connection, Redundant AC Power -40°C to 85°C;