

# IET8142M/IET8242M Series

Hardened / Industrial Managed 8-port 10/100Base-TX or 10/100/1000Base-TX + 4-port 100/1000Base-FX SFP Ethernet Switch

## Features

- ▶ Provide 8-ports 10/100Base-TX (IET8142M Series) or 8-ports 10/100/1000Base-T (IET8242M Series) plus 4-port 100Base-FX/1000Base-X SFP (SX/LX/LH)
- ▶ 9K Jumbo frames
- ▶ L2 wire-speed switching
- ▶ Network redundant LACP, Spanning tree STP, RSTP & MSTP, and quick Ring fail-over protection (<20ms)
- ▶ Port-based /tag-based VLAN, IEEE 802.1ad/QinQ VLAN, Protocol-based VLAN
- ▶ Multicasting support IGMP v1/v2/v3, proxy & snooping
- ▶ Multicast/Broadcast/Flooding Storm Control
- ▶ IEEE802.1x access control
- ▶ Per VLAN mirroring
- ▶ CLI/Web/SNMP management interfaces
- ▶ Dual power input(12~58VDC) &Reverse power protection
- ▶ Alarm Relay dry contact
- ▶ Hi-POT 1.5KV
- ▶ DIN-Rail and Wall mounting options



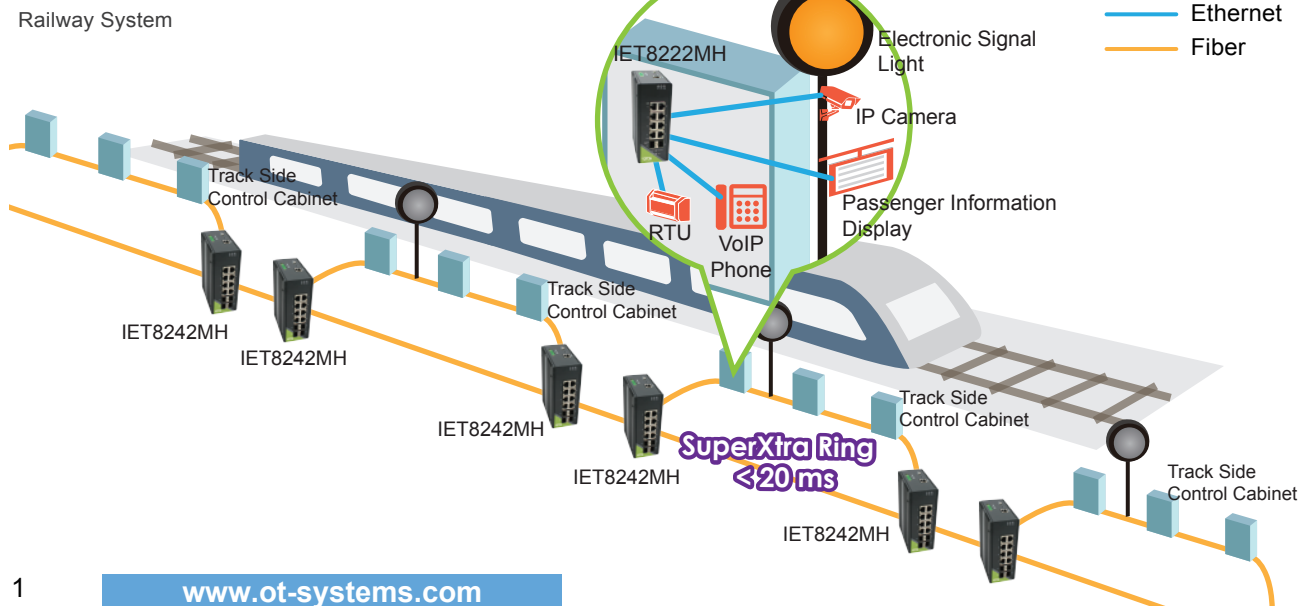
## Warranty

- ▶ 5-Year Warranty

## Overview

The IET8142M/IET8242M Series are designed for data communication for local and remote far end connections. The IET8122M series fully managed switches offer eight 10/100Mbps copper twisted-pair ports plus four 100/1000Mbps SFP combo ports. The IET8222M Series offer eight 10/100/1000Mbps copper twisted-pair ports plus four 100/1000Mbps SFP combo ports. They all support single/multi-mode, 1/2 fiber connections extend distance up to 20Km for long-distance connections. They support wide range dual DC power inputs (12 – 58VDC) for flexible power supply or system selection. In case of power supply failure, there is no service interruption. With OTS SuperXtra ring, the network recovery time can be reduced to less than 20ms (in 250 nodes). In addition, the products support different ring topology including single/dual ring to ensure excellent reliability and availability of the non-stopped systems. Rich of management interfaces (web, CLI, telnet and SNMP) allow for easy system configuration and monitoring. L2 features include Port/Tag-based VLAN, IGMP snooping, link aggregation, Port-based security and QoS. Housed in an IP30 rugged DIN-rail case (no fan) enable the switches to be placed in any locations and well-suited in the harsh and industrial environments. IET8122MH/IET8222MH switches operate from -40°C to +75°C allow them to work in extreme weather conditions. They are ideal products for reliable, secure and affordable transmission network working in severe and mission-critical environments for industrial applications including surveillance systems, factory automation, intelligent transportation and railway systems, energy and power systems.

## Typical Application



## Specifications

### Ethernet

Standards	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3u 100Base-FX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X
Processing Type	Store-and-Forward
Switch Fabric	IET8142M Series: 9.6 Gbps, IET8242M Series: 24 Gbps
Forward Filter Rate	14,880pps (10Mbps) 148,800pps (100Mbps) 1,488,000pps (1000Mbps)
Max Packet Length	9K Bytes
Address Table Size	8K MAC Addresses
Connector	8 x RJ45

### Interface

RJ45 Ports	IET8142M Series: 8 x 10/100Mbps, Auto-MDI/MDI-X, Auto-negotiation, Full/Half-Duplex IET8242M Series: 8 x 10/100/1000Mbps, Auto-MDI/MDI-X, Auto-negotiation, Full/Half-Duplex
SFP	4 x 100Base-FX or 1000Base-X SFP slot (SX/LX/LH), LC

### Electrical and Mechanical

Input Power	Redundant Input Terminals
Input voltage range	12-58 VDC
Power Consumption	15W
LED Indicators	
Power	Power Status
Ethernet (Per Port)	Link/Activity, Speed
PoE status	Indication of PoE Power applying
Dimensions (W x D x H)	60 x 109 x 154 mm
Weight	1.5 Kg
Casing	IP30 Metal Case
Mounting Options	DIN-Rail / Wall Mount

### Software Features

#### Network Redundancy

Fast failover protection rings	Link loss recovery <20ms Single & Multiple rings supported
Spanning Tree Protocol	IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP
Port Trunk with LACP	Static trunk or Dynamic via LACP (Link Aggregation Control Protocol)

#### Bridge, VLANs & Protocols

Flow control	IEEE 802.3x (Full Duplex) and Back-Pressure(Half Duplex)
Max VLANs	256
VLAN Types	Port-based VLANs, IEEE 802.1Q tag-based VLANs, IEEE 802.1ad Double Tagging (Q in Q)
Multicast protocols	IGMP v1, v2, v3 IGMP snooping and querying Immediate leave and leave proxy Throttling and filtering
LLDP	IEEE 802.1ab Link layer Discovery Protocol (LLDP)

#### Traffic Management & QoS

Priority	IEEE 802.1p QoS
Number of queues per port	8
Scheduling schemes	SPQ, WRR, SPQ+WRR
Traffic Shaper	Port-base shaping

#### Security

Port security	IP and MAC-based Access control IEEE 802.1X authentication Network Access Control
Storm Control	Multicast/Broadcast/Flooding Storm Control

#### Management

User Management interfaces	Cisco-like CLI (command line interface) WEB-based Management SNMP v1, v2c, v3 Telnet
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## Specifications

Management Security	HTTPs, SSH
Upgrade & Restore	Web for Configuration Import/Export, Web for Firmware Upgrade
Diagnostic	Syslog Per VLAN mirroring Ethernet Copper connection diagnostic tool SFP with DDM (Digital Diagnostic Monitoring)
MIBs	RFC 1757 RMON 1,2,3,9; RFC 2674 Q-Bridge MIB RFC-1213 MIB-II; RFC-1493 Bridge MIB; RFC 2233 IF MIB
DHCP	Client, Server, Relay, Snooping
NTP/SNTP	Yes
System status	Device info/status; Ethernet port status

## Environmental

Operating Temperature	
Hardened	-40°C to 75°C (-40°F to 167°F)
Industrial	-10°C to 60°C (14°F to 140°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	5% to 95% non-condensing
MTBF	> 300,000 hrs

## Compliance and Regulatory Approvals

ISO9001	Yes
Certification Compliance	CE/FCC, EN50121-4 (pending)
EMC	FCC Part 15, CISPR 22 (EN55022) Class A, IEC61000-4-2, -3, -4, -5, -6 (level 3)
Vibration, Shock & Freefall	IEC60068-2-6, -27, -32 (pending)
Electrical Safety	CE (pending)
RoHS and WEEE	RoHS (Pb free) and WEEE compliant

## Ordering Information

Available Model	Description
<b>IET8142M-S-DR</b>	Industrial Managed 8-port 10/100Base-TX + 4-port 100/1000Base-FX SFP Ethernet Switch
<b>IET8142MH-S-DR</b>	Hardened Managed 8-port 10/100Base-TX + 4-port 100/1000Base-FX SFP Ethernet Switch
<b>IET8242M-S-DR</b>	Industrial Managed 8-port 10/100/1000Base-TX + 4-port 100/1000Base-FX SFP Ethernet Switch
<b>IET8242MH-S-DR</b>	Hardened Managed 8-port 10/100/1000Base-TX + 4-port 100/1000Base-FX SFP Ethernet Switch

### Optional Accessories (to be purchased separately)

<b>SFP</b>	(S) = SFP Option. Please select your SFP on our SFP Modules page at the back of the catalogue or our website <a href="http://www.ot-systems.com">www.ot-systems.com</a> for details.
<b>Power Supply</b>	Please refer to the power supply information at the back of the catalogue, our website <a href="http://www.ot-systems.com">www.ot-systems.com</a> , or consult OTS sales at <a href="mailto:sales@ot-systems.com">sales@ot-systems.com</a> for your power system design properly.

### Package Checklist

■ Managed Ethernet Switch	x 1
■ Wall Mount Plates	x 2
■ DIN-Rail Clip	x 1
■ M3 Screws (for the Wall Mount Plates & DIN Clip)	x 4
■ DC Power Terminal Block	x 1
■ SFP Port Dust Covers	x 4
■ Quick Installation Guide	x 1

