IET8122M/IET8222M Series

Hardened / Industrial Managed 8-port 10/100Base-TX or 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP Ethernet Switch

Features

► Provide 8-ports 10/100Base-TX (IET8122M Series) or 8-ports 10/100/1000Base-T (IET8222M Series) plus 2-port 100Base-FX/1000Base-X SFP (SX/LX/LHX/ZX/EZX)

► 9K Jumbo frames

► L2 wire-speed switching

► 8K MAC forwarding addresses

► Network redundant Port Trunking, Spanning tree STP, RSTP & MSTP, and quick 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

► Dual power input (12~58VDC) & Reverse power protection

► Alarm Relay dry contact

► Hi-POT 1.5KV

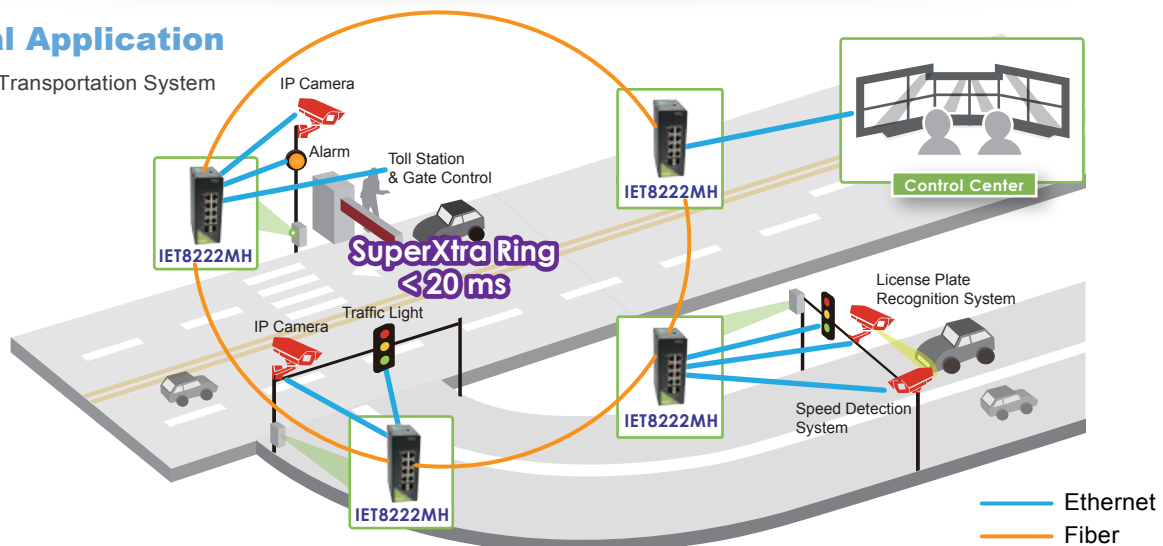► DIN-Rail and Wall mounting options

Warranty

► 5-Year Warranty

Overview

The IET8122M/IET8222M Series are designed for high speed data communication for local and remote far end connections. The IET8122M series are fully managed switches offering eight 10/100Mbps copper twisted-pair ports plus two 10/100/1000Mbps or 100/1000Mbps SFP combo ports. The IET8222M Series offering eight 10/100/1000Mbps copper twisted-pair ports plus two 10/100/1000Mbps or 100/1000Mbps SFP combo ports. They all support single/multi-mode, 1/2 fiber connections for distance up to 20Km. Both Series 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), thereby significantly increase the systems reliability and availability for non-stopped applications. 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 climatically demanding environments. They are ideal for reliable, secure and affordable transmission network working in severe and mission-critical environments for applications of surveillance systems, factory automation, intelligent transportation systems and industrial Ethernet.

Typical Application

Intelligent Transportation System

IP Camera

Alarm

Toll Station & Gate Control

IET8222MH

IET8222MH

SuperXtra Ring <20 ms

IP Camera

Traffic Light

Control Center

IET8222MH

License Plate Recognition System

IET8222MH

Speed Detection System

IET8222MH

— Ethernet
— Fiber

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	IET8122M Series: 5.6 Gbps, IET8222M Series: 20 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	IET8122M Series: 8 x 10/100Mbps, Auto-MDI/MDI-X, Auto-negotiation, Full/Half-Duplex
	IET8222M Series: 8 x 10/100/1000Mbps, Auto-MDI/MDI-X, Auto-negotiation, Full/Half-Duplex
SFP Port	2 x 100Base-FX or 1000Base-X SFP slot (SX/LX/LHX/ZX/EZX), LC

Electrical and Mechanical

Input Power	12~58VDC, Redundant Power Input
	(6-pin Terminal Block)
Power Consumption	12.5W
LED Indicators	
Power	Power Status
Ethernet (Per Port)	Link/Activity, Speed
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, Virtual Local Area Networks (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) Private VLAN
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; Policy-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

Managed Ethernet Switches

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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
Certificate 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 & freefail	IEC60068-2-6, -27, -32 (pending)
Electrical Safety	CE (pending)
RoHS and WEEE	RoHS (Pb Free) and WEEE compliant

Ordering Information

Available Model	Description
IET8122M-S-DR	Industrial Managed 8-port 10/100Base-TX + 2-port 100/1000Base-FX SFP Ethernet Switch
IET8122MH-S-DR	Hardened Managed 8-port 10/100Base-TX + 2-port 100/1000Base-FX SFP Ethernet Switch
IET8222M-S-DR	Industrial Managed 8-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP Ethernet Switch
IET8222MH-S-DR	Hardened Managed 8-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP Ethernet Switch

Optional Accessories (to be purchased separately)

SFP	(S) = SFP Option. Please select your SFP on our SFP Modules page at the back of the catalogue or our website www.ot-systems.com for details.
Power Supply	Please refer to the power supply information at the back of the catalogue,our website www.ot-systems.com, or consult OTS sales at sales@ot-systems.com 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 2
■ Quick Installation Guide	x 1

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Due to continuous improvement, all product specifications are subject to change without further notice.