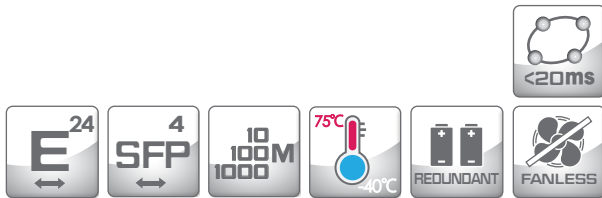


IET24242M Series

Hardened / Industrial L2+ Managed 24-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP + 2-port 1000Base-FX SFP Ethernet Switch

Features

- ▶ 24 Gigabit Copper ports plus 4 SFP ports 100FX or 1000BaseF (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)
- ▶ Support Single & multiple rings
- ▶ Advanced VLAN operations: IEEE802.1ad/QinQ VLAN, VLAN tag add/remove/replace
- ▶ Private VLAN, port-based/tag-based/protocol-based VLAN
- ▶ Multicasting support IGMP v1/v2/v3, proxy & snooping
- ▶ Policy-based traffic control engine for actions of Deny, Allow, Queue mapping, rate limit, mirror, or CoS remark on any combination of specific Layer -2 /Layer- 3/ Layer-4 patterns
- ▶ QoS (SPQ,WRR, SPQ+ WRR): Hierarchical per-port, per queue shaping & scheduling with bandwidth management



Warranty

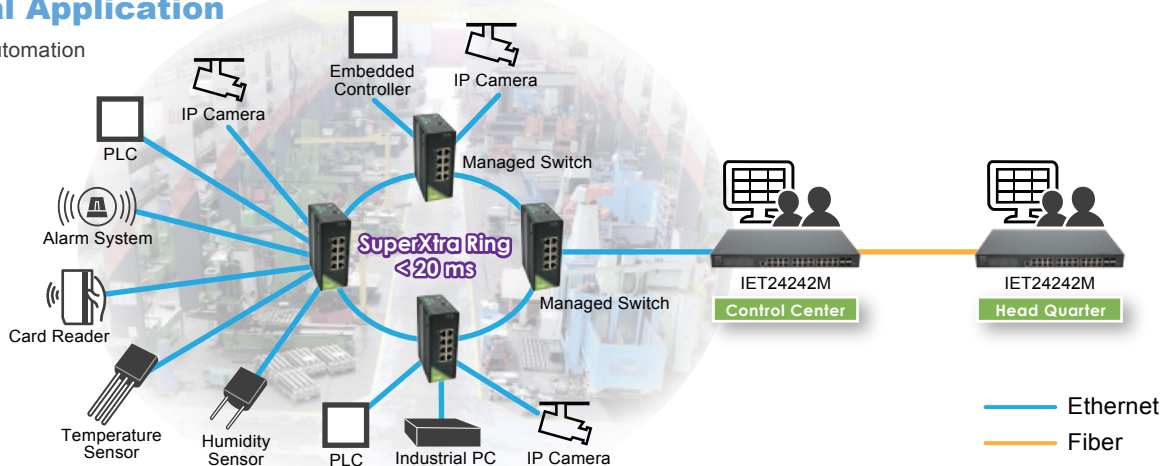
- ▶ 5-Year Warranty

Overview

The IET24242M Series are designed for high speed data communication for local and remote far end connections. The IET24242M series are L2+rack-mount managed switches offering twenty-four 10/100/1000Mbps copper twisted-pair ports plus four 100/1000Mbps SFP ports. They support single/multi-mode, 1/2 fiber connections to extend distance up to 20Km for long-distance connections. They support AC power inputs (100–240VAC). Some models support dual AC power inputs, there is no service interruption in case of a power supply failure. Multiple management interfaces (web, CLI, telnet and SNMP) allow user to configure and monitor the switch easily. The IET24242M series support spanning tree protocol, STP/RSTP/MSTP for network redundancy. With OTS SuperXtra ring, the network recovery time can be reduced to less than 20 ms (in 250 nodes) to minimize the impact to the systems. In addition, the products support different ring topology including single/dual ring to ensure excellent reliability and availability of the 24 hours operation system. L2 features include Port/Tag-based VLAN, IGMP snooping, link aggregation, Port-based security and QoS. The IGMP snooping allow for high bandwidth demand applications such as video surveillance system. The support of Link Aggregation Control Protocol allow to combine the bandwidth of the multiple ports together to form high speed trunk. The IET24242M series offer multiple Layer Access Control List (ACL) to allow/deny packets based on source/destination MAC addresses, source/destination IP addresses and UDP/TCP ports to enhance system security. Housed in rack-mount fan-less case enables the switches to be installed in the 19" cabinet with 1U space and well-suited in industrial environment. IET24242MH 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

Factory Automation



Specifications

Ethernet

Ethernet Interface	24 Gigabit Copper ports plus 4 SFP ports 100FX or 1000BaseF (SX / LX / LH)
Operating mode	Store and forward, L2 wire-speed/non-blocking switching engine
MAC addresses	8K
Jumbo frames	9K Bytes

Copper RJ45 Ports

Speed	10/100/1000 Mbps
MDI/MDIX Auto-crossover	Support straight or cross wired cables
Auto-negotiating	10/100/1000 Mbps speed auto-negotiation; Full and half duplex

SFP (pluggable) Ports

Port types supported	Gigabit fiber multimode, fiber single mode, fiber long-haul single mode 100/1000BaseF (SX/LX/LH)
Fiber port connector	LC typically for fiber (depends on module)

Power

Input Power	Redundant Input Terminals
Input voltage range	12-58 VDC or 100/240 VAC, 50Hz ~ 60Hz
Reverse power protection	Yes

Indicators

Power Status indication	Indication of power input status
Ethernet port indication	Link & Speed

Mechanical

Ingress protection	IP30
Dimensions (W x D x H)	440 x 44 x 253 mm
Net weight	3.2 Kg
Unit with packing	3.5 Kg (include accessories)
Installation option	19" rack mounting

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 BPDU forwarding and filtering
IEEE 802.3ad 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	2048
VLAN Types	Port-based VLANs, IEEE 802.1Q tag-based VLANs, IEEE 802.1v protocol-based VLANs, IEEE 802.1ad Double Tagging (Q in Q) Private VLAN
VLAN operations	Attach / Remove / Replacement VLAN tag
MVR (Multicast VLAN Registration)	Yes
Multicast protocols	IGMP v1, v2 and v3 with up to 512 multicast groups IGMP snooping and querying Immediate leave and leave proxy

Traffic Management engine & QoS

Policy-based access control engine	Policy/profile-based Access Control List (ACL) Multi-layer ACL support; Flexible combination of well-known fixed Layer 2/3/4 fields: - VLAN ID, Source/Destination MAC address, EtherType - Source/Destination IP address, IP protocol number - UDP or TCP, Source/Destination port number of TCP/UDP - DSCP or ToS value Actions per rule: Deny, Allow, Queue mapping, rate limit, mirror, CoS remark Max number of profiles per switch: 20 Max number of rules per profile: 32
Number of queues per port	8
Scheduling schemes	SPQ, WRR, SPQ + WRR
Traffic Shaper	Hierarchical per port and per queue shaping & scheduling with bandwidth management
Traffic Policer	Ingress rate limit in 1K bps granularity TrTCM (Two Rate Three Color Marker) policer engine

Specifications

Security	
Port security	IP and MAC-based Access control; Policy-based Access control IEEE 802.1X authentication Network Access Control RADIUS Client for IEEE 802.1X
Storm Control	Multicast / Broadcast / Flooding Storm Control on per port and per VLAN basis
Management	
User Management interfaces	Cisco-like CLI (command line interface) WEB-based Management SNMP v1, v2c, v3 Telnet (5 sessions)
Management Security	HTTPs, SSH Radius Client for Management (*pending) TACACS+ Client for Management (*pending)
Upgrade & Restore	TFTP/FTP for Configuration Import/Export, TFTP/FTP for Firmware Upgrade
Diagnostic	Syslog Policy-based stream mirroring Ethernet Copper connection diagnostic tool
NTP/SNTP	Yes

Environmental

Operating Temperature	
ET24242M-S, ET24242M-S-RP/RD/PD(Industrial)	-10°C to 60°C (14°F to 140°F)
ET24242MH-S, ET24242MH-S-RP/RD/PD(Hardened)	-40°C to 75°C (-40°F to 167°F) (cold startup at -40°C)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	5% to 95% non-condensing
MTBF	> 200,000 hrs

Compliance and Regulatory Approvals

ISO9001	Yes
Certification compliance	CE/FCC
EMC	FCC Part 15, CISPR 22 (EN55022) Class A, IEC61000-4-2, -3, -4, -5, -6
Vibration, shock & freefall	IEC60068-2-6, -27, -32 (pending)
RoHS and WEEE	RoHS (Pb free) and WEEE compliant

Ordering Information

Available Model	Description
IET24242M-S	Industrial L2+ Managed 24-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP + 2-port 1000Base-FX SFP Ethernet Switch
IET24242M-S-RP	Industrial L2+ Managed 24-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP + 2-port 1000Base-FX SFP Ethernet Switch, Redundant AC inputs
IET24242M-S-RD	Industrial L2+ Managed 24-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP + 2-port 1000Base-FX SFP Ethernet Switch, Redundant DC inputs
IET24242M-S-PD	Industrial L2+ Managed 24-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP + 2-port 1000Base-FX SFP Ethernet Switch, AC + DC inputs
IET24242MH-S	Hardened L2+ Managed 24-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP + 2-port 1000Base-FX SFP Ethernet Switch
IET24242MH-S-RP	Hardened L2+ Managed 24-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP + 2-port 1000Base-FX SFP Ethernet Switch, Redundant AC inputs
IET24242MH-S-RD	Hardened L2+ Managed 24-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP + 2-port 1000Base-FX SFP Ethernet Switch, Redundant DC inputs
IET24242MH-S-PD	Hardened L2+ Managed 24-port 10/100/1000Base-TX + 2-port 100/1000Base-FX SFP + 2-port 1000Base-FX SFP Ethernet Switch, AC + DC inputs

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.

Ordering Information

Package Checklist

■ Managed PoE 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

