

# Industrial Layer 3 5-Slot Modular Managed Ethernet Switch



The IMS-4S and IMS-4T shown in the photo are not included and must be purchased separately.

## Industrial-grade Modular Switch for Versatile and Demanding Networks

PLANET **IMS-6325-5 L3 DIN-rail Industrial Modular Ethernet Switch** is a cutting-edge solution combining flexibility with high-performance capabilities. With a modular design that supports up to **5 interchangeable modules**, it accommodates various networking needs with **options like 10/100/1000BASE-T and Gigabit SFP fiber**. Additionally, **two fixed modules** provide **4 Gigabit copper ports** and **4 10G SFP+ ports**, while the other offers digital input and output for control and a power terminal block for **12-48V power redundancy**.

The IMS-6325-5 includes advanced **Layer 3 features**, such as dynamic **IPv6/IPv4 routing protocols (OSPFv2/v3 and RIPv2)**, optimizing network traffic management across complex environments. Equipped with **ITU-T G.8032 ERPS Ring technology** for **sub-10ms recovery**, this switch ensures a resilient network backbone. Additionally, with precision timing support and **robust cybersecurity features**, the IMS-6325-5 is designed for reliable, secure operation in temperatures ranging from **-40 to 75 degrees Celsius**, making it an ideal solution for industrial automation and mission-critical applications.

## Seamless Network Expansion with Modular Flexibility

The IMS-6325-5's modular design offers unmatched flexibility, allowing you to customize and **expand your network as your needs evolve**. With support for up to five modules, you can seamlessly integrate various port types, including copper and fiber, all within a single chassis. This adaptability minimizes the need for additional switches, **reducing both equipment costs and installation complexity**. Modules are easy to install, allowing users to quickly reconfigure their network by powering down the switch, swapping out modules, and powering it back on. Ideal for industrial environments, this modular switch **future-proofs your network** with lasting value and performance.

## Physical Port

- 4 10/100/1000BASE-T Gigabit Ethernet RJ45 ports
- 4 10GBASE-SR/LR SFP+ slots, backward compatible with 1G/2.5GBASE-X SFP
- Expandable with up to 5 modules, supporting various interface types:
  - IMS-4T: 4-port 10/100/1000BASE-T RJ45 module
  - IMS-4S: 4-port 100/1G/2.5G SFP slot module
- One RJ45-to-RS232 console interface for basic management and setup

## Industrial Protocol

- Modbus TCP for real-time monitoring in the SCADA system
- Supports IEEE 1588v2 PTP (Precision Time Protocol) with boundary and transparent clock modes

## Industrial Design and Installation

- DIN-rail or wall-mountable IP30 metal housing
- Fanless design ensures quiet operation with efficient heat dissipation
- Dual 12~48V DC power input with reverse polarity protection
- Operating temperature range: -40°C to 75°C, suitable for harsh environments

## Digital Input and Digital Output

- 2 digital inputs
- 2 digital outputs
- Integrates sensors into auto-alarm system
- Transfer alarms to IP networks via email and SNMP trap

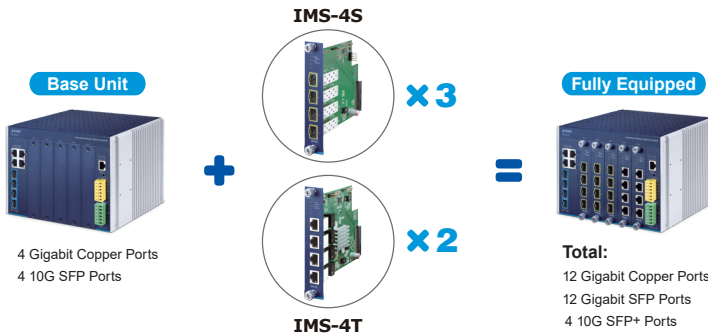
## Layer 3 IP Routing Features

- IPv4 dynamic routing protocol supports RIPv1/v2 and OSPFv2
- IPv6 dynamic routing protocol supports OSPFv3.
- IPv4/IPv6 hardware static routing
- Routing interface provides per VLAN routing mode

## Layer 2 Features

- High-performance Store-and-Forward architecture, with runt/CRC filtering to optimize network bandwidth
- Storm Control support
  - Broadcast/Multicast/Unicast

**Free to choose and install the exact expansion cards**



**Compact and Resilient Design for Extreme Industrial Environments**

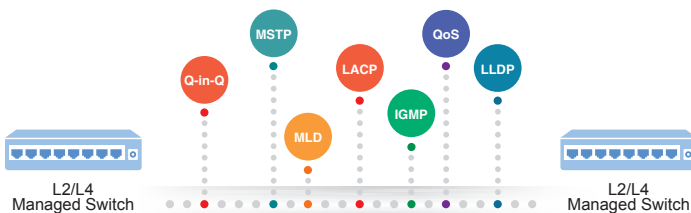
Featuring a ruggedized chassis that supports both DIN-rail and wall-mount installation, the switch can be securely positioned in various industrial settings. Its compact form factor is built to withstand extreme temperatures, from -40 to 75 degrees Celsius, making it suitable for harsh environments. The IP30-rated enclosure provides robust protection against dust and debris, ensuring long-lasting performance in demanding conditions.

**High-speed 10G SFP+ Ports for Advanced Connectivity**

The IMS-6325-5 includes four 10G SFP+ slots on its fixed module, supporting 10GBASE-SR/LR, 2500BASE-X, and 1000BASE-SX/LX transceivers. This flexibility allows users to choose the right transceiver for specific speeds and distances, delivering broad bandwidth and high-performance connectivity. Ideal for data-intensive applications such as video surveillance and data centers, these ports enable efficient network scaling and ensure a robust, adaptable infrastructure for demanding environments.

**Robust Layer 2 Features**

The IMS-6325-5 offers a robust suite of Layer 2 features designed to enhance network efficiency and control. It supports VLAN tagging with 802.1Q, allowing for secure and segmented traffic within the network, along with advanced VLAN types like Q-in-Q tunneling and MAC-based VLAN. For traffic management, the switch provides Link Aggregation for increased bandwidth and reliability, as well as advanced Quality of Service (QoS) capabilities, including traffic prioritization and rate limiting on a per-port basis. Additionally, it includes Spanning Tree Protocols (STP, RSTP, and MSTP) to prevent network loops and ensure stability, making it ideal for complex industrial networks.



- VLAN support
  - IEEE 802.1Q tagged VLAN
  - Provider Bridging (VLAN Q-in-Q IEEE 802.1ad)
  - Private VLAN Edge (PVE)
  - Protocol-based VLAN
  - MAC-based VLAN
  - Voice VLAN
  - GVRP (GARP VLAN Registration Protocol)
- Spanning Tree Protocols
  - IEEE 802.1D Spanning Tree Protocol (STP)
  - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
  - IEEE 802.1s Multiple Spanning Tree Protocol (MSTP), spanning tree by VLAN
  - BPDU Guard
- Link Aggregation
  - IEEE 802.3ad Link Aggregation Control Protocol (LACP)
  - Static trunk groups with up to 10 groups and 12 ports per group
- Supports port mirroring for many-to-one connections.
- Port mirroring to monitor the incoming or outgoing traffic on a particular port
- Loop protection to avoid broadcast loops
- Link Layer Discovery Protocol (LLDP)
- Supports ITU-T G.8032 ERPS Ring for fast network recovery in ring topologies

**Quality of Service**

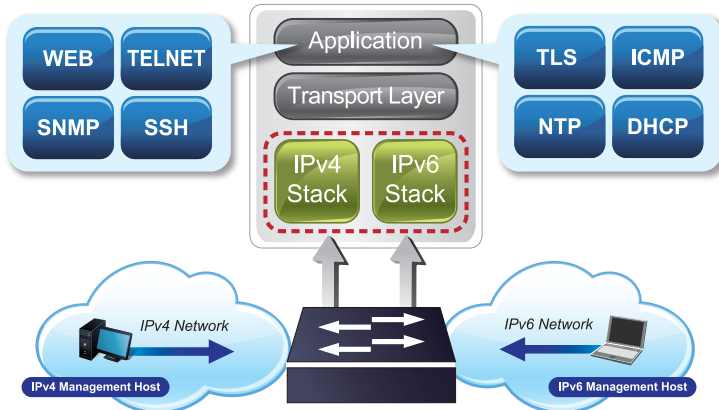
- Ingress shaper and egress rate limit per port bandwidth control
- 8 priority queues on all switch ports
- Traffic classification
  - IEEE 802.1p CoS
  - ToS/DSCP/IP Precedence of IPv4/IPv6 packets
  - IP TCP/UDP port number
  - Typical network application
- Strict priority and Weighted Round Robin (WRR) CoS policies
- Supports QoS and In/Out bandwidth control on each port
- Traffic-policing on the switch port
- DSCP remarking
- Voice VLAN for prioritizing VoIP traffic

**Multicast**

- Supports IPv4 IGMP snooping v1, v2 and v3
- Supports IPv6 MLD snooping v1 and v2
- Querier mode support

### IPv6/IPv4 Dual Stack

The IMS-6325-5's IPv6/IPv4 dual stack support ensures compatibility with both legacy and modern IP networks, providing a future-proof solution for evolving network infrastructures. By supporting IPv6 alongside IPv4, it enables smooth transitions and robust network performance, adapting easily to diverse protocol requirements and facilitating long-term scalability.

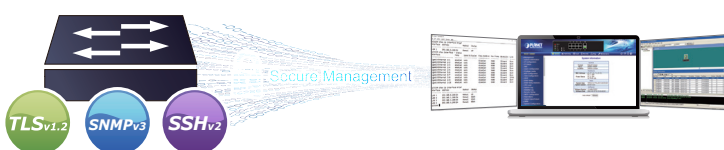


### Advanced Layer 3 Routing Support

The IMS-6325-5 includes comprehensive Layer 3 features, supporting both IPv4 OSPFv2 and RIPv1/v2, as well as IPv6 OSPFv3 dynamic routing protocols. This enables efficient traffic management and flexible network routing across diverse environments. With the capability for up to 128 VLAN interfaces and 4K routing entries, the switch supports seamless inter-network communication and optimized data flow. These features make it well-suited for industrial networks requiring advanced routing capabilities, accommodating both IPv4 and IPv6 protocols for long-term scalability and adaptability.

### Comprehensive Cybersecurity for Secure and Controlled Network Access

The IMS-6325-5's cybersecurity features are designed to ensure comprehensive network protection and secure management. It includes advanced Access Control Lists (ACLs) supporting Layers 2, 3, and 4, allowing for precise traffic filtering based on MAC addresses, IP addresses, and protocols. The switch also supports IEEE 802.1X port-based authentication, IP-MAC port binding, and MAC filtering for enhanced access control. Additionally, with secure management interfaces such as SSHv2, TLSv1.2, and SNMPv3, the switch provides encrypted communication and robust management security. These features make the IMS-6325-5 a reliable choice for safeguarding industrial networks.



- IPv4 IGMP snooping port filtering
- IPv6 MLD snooping port filtering
- MVR (Multicast VLAN Registration)

### Security

- Authentication
  - IEEE 802.1x port-based / MAC-based network access authentication
  - IEEE 802.1x authentication with guest VLAN
  - Guest VLAN assigns clients to a restricted VLAN with limited services.
  - Built-in RADIUS client for centralized authentication
  - TACACS+ login users access authentication
- Access Control List
  - IP-based Access Control List (ACL)
  - MAC-based Access Control List
- Source MAC/IP address binding
- DHCP Snooping to filter untrusted DHCP messages
- Dynamic ARP Inspection to discard invalid ARP packets
- IP Source Guard prevents IP spoofing attacks
- IP address access management to prevent unauthorized intruder

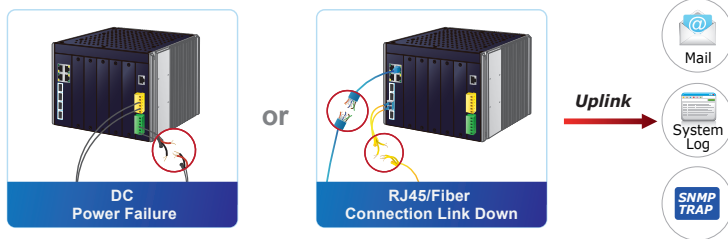
### Management

- IPv4 and IPv6 dual stack management
- Switch Management Interfaces
  - Console/Telnet Command Line Interface
  - HTTP/HTTPS Web management
  - SNMP v1 and v2c switch management
  - SSHv2, TLSv1.2 and SNMP v3 secure access
- SNMP Management
  - Four RMON groups (history, statistics, alarms, and events)
  - SNMP trap for interface Link Up and Link Down notifications
- IPv6 IP address/NTP/DNS management
- Built-in Trivial File Transfer Protocol (TFTP) client
- BOOTP and DHCP for IP address assignment
- System Maintenance
  - Firmware upload/download via HTTP/TFTP
  - Reset button for system reboot or reset to factory default
  - Dual images for firmware redundancy
- DHCP Functions:
  - DHCP Relay
  - DHCP Option82
  - DHCP Server capabilities

**Proactive Fault Alarm for Enhanced Network Reliability**

The IMS-6325-5's Fault Alarm feature enhances reliability by monitoring power and port failures. This relay alarm system triggers alerts when issues occur, enabling swift troubleshooting and minimizing downtime. Configurable through software, the Fault Alarm ensures timely notifications, making the IMS-6325-5 ideal for mission-critical environments requiring continuous operation.

**Fault Alarm Feature**



- User Privilege levels control
- Network Time Protocol (NTP)
- Network Diagnostic
  - SFP-DDM (Digital Diagnostic Monitor)
  - ICMPv6/ICMPv4 Remote Ping
  - Cable diagnostic technology to detect and report cabling issues
- SMTP/Syslog remote alarm
- System Log
- PLANET Smart Discovery Utility for quick deployment
- PLANET UNI-NMS (Universal Network Management), NMSViewerPro and CloudViewerPro app for network monitoring and management

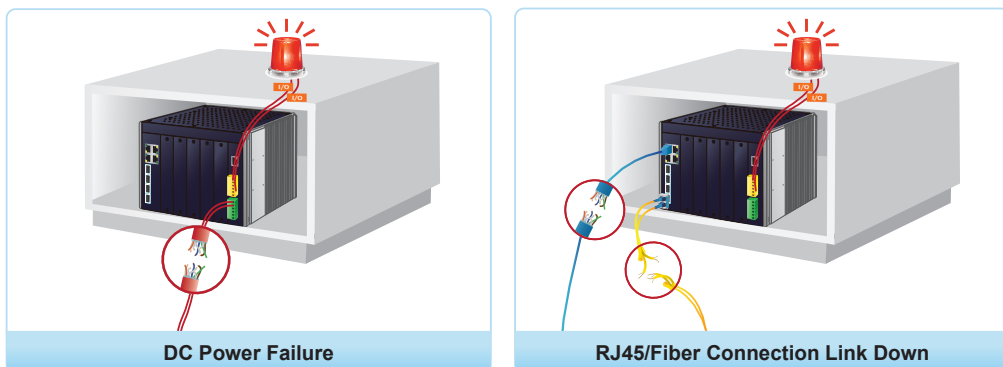
**Integrated DI and DO for Enhanced Monitoring and Automation**

The IMS-6325-5 features DI and DO capabilities, which enable seamless integration with external devices for enhanced monitoring and control. The two DI ports can connect to sensors or other equipment to monitor external conditions, such as door status or alarm systems. The two DO ports allow the switch to send control signals to external devices, such as activating alarms or signaling other equipment in response to specific events. The DI and DO functionalities make the IMS-6325-5 highly adaptable for industrial applications, enabling automated responses and improved overall system management.

**Digital Input**



**Digital Output**



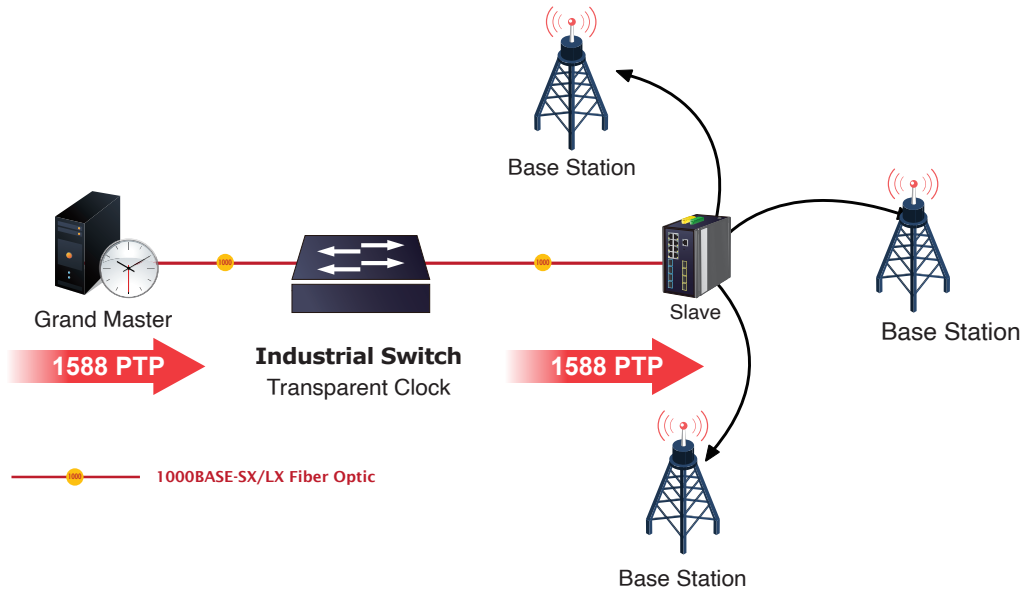
**Modbus TCP Provides Flexible Network Connectivity for Factory Automation**

With the supported **Modbus TCP/IP** protocol, the IMS-6325-5 can easily integrate with **SCADA** systems, **HMI** systems and other data acquisition systems in factory floors. It enables administrators to remotely monitor the industrial Ethernet switch's **operating information**, **port information** and **communication status**, thus easily achieving enhanced monitoring and maintenance of the entire factory.

*Accurate Time Synchronization with IEEE 1588v2 PTP Support*

The IMS-6325-5 supports IEEE 1588v2 Precision Time Protocol (PTP) for precise time synchronization, essential in industries like automation and telecom. It operates as a boundary clock, transparent clock, PTP master, or slave, ensuring accurate timing across devices. This capability enhances efficiency and supports real-time applications that rely on synchronized data.

### Time Synchronization in Network



*Comprehensive and Secure Management Interface Options*

For efficient management, the IMS-6325-5 is equipped with console, web, and SNMP management interfaces.

- With a **built-in web-based management interface**, the IMS-6325-5 provides an intuitive, platform-independent facility for easy configuration and monitoring.
- For **text-based management**, it can be accessed via Telnet and the console port.
- For **secure, standards-based monitoring and management**, it supports **SNMPv1**, **v2c**, and **SNMPv3**, with **SNMPv3** providing encrypted sessions for safe remote management.
- **Secure access is further enhanced with support for SSHv2 and TLSv1.2**, protecting against unauthorized access and ensuring data integrity.

*Centralized Remote Management*

The IMS-6325-5 leverages PLANET's **Universal Network Management System (UNI-NMS)** and **CloudViewerPro** app for a centralized, remote management of network devices. These tools allow IT teams to monitor operational statuses and manage networks from a single, unified platform, eliminating the need for on-site visits when issues arise. Designed for both enterprise and industrial environments, **UNI-NMS** and **CloudViewerPro** offer a centralized solution that streamlines network oversight, enabling businesses to efficiently address issues and maintain network performance across diverse and remote deployments.

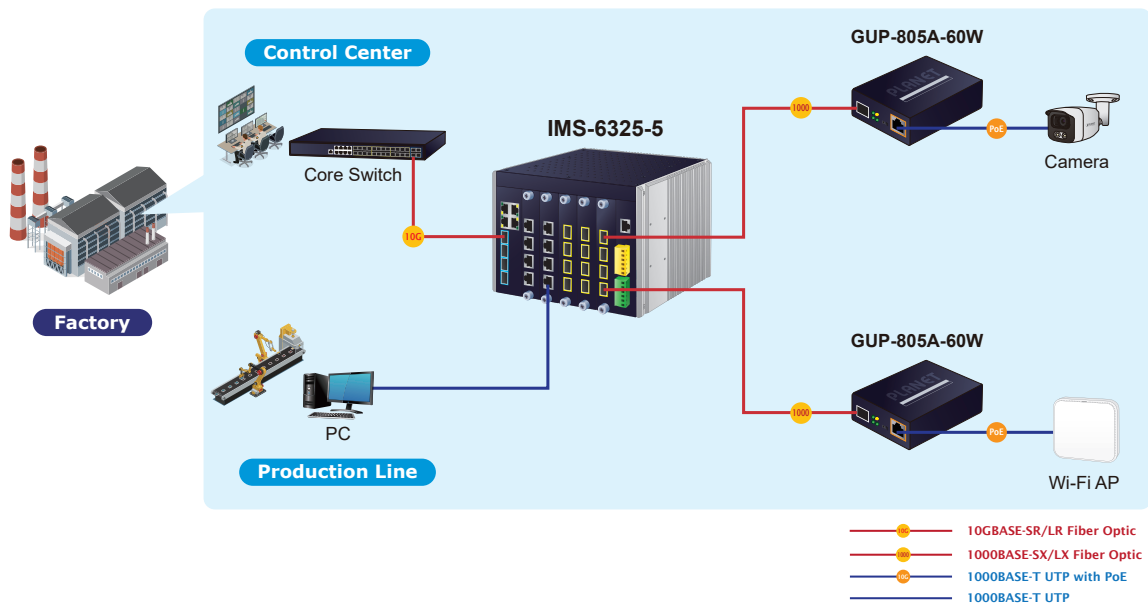


## Applications

### Industrial Network Solution for Factory Automation

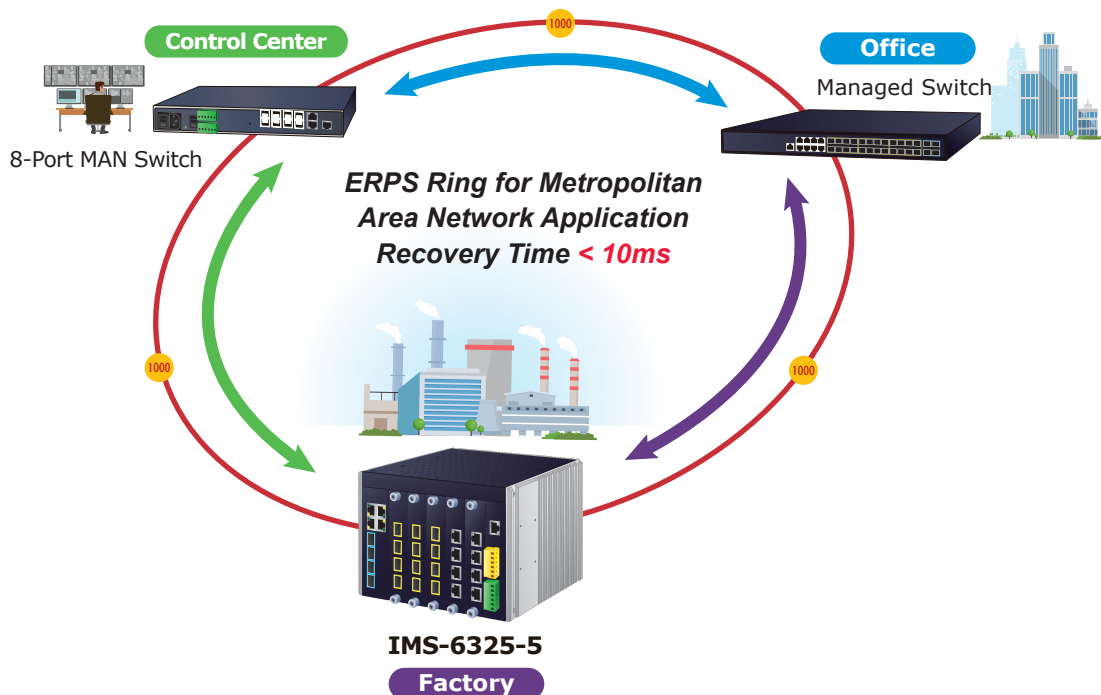
The **IMS-6325-5** Industrial Modular Switch serves as a high-performance, reliable backbone for factory automation. This setup ensures efficient data exchange between critical devices on the factory floor.

Paired with **GUP-805A-60W** media converters, which provide Power over Ethernet (PoE), the network simplifies installation by powering devices like **IP cameras and wireless APs**, eliminating the need for separate power sources.

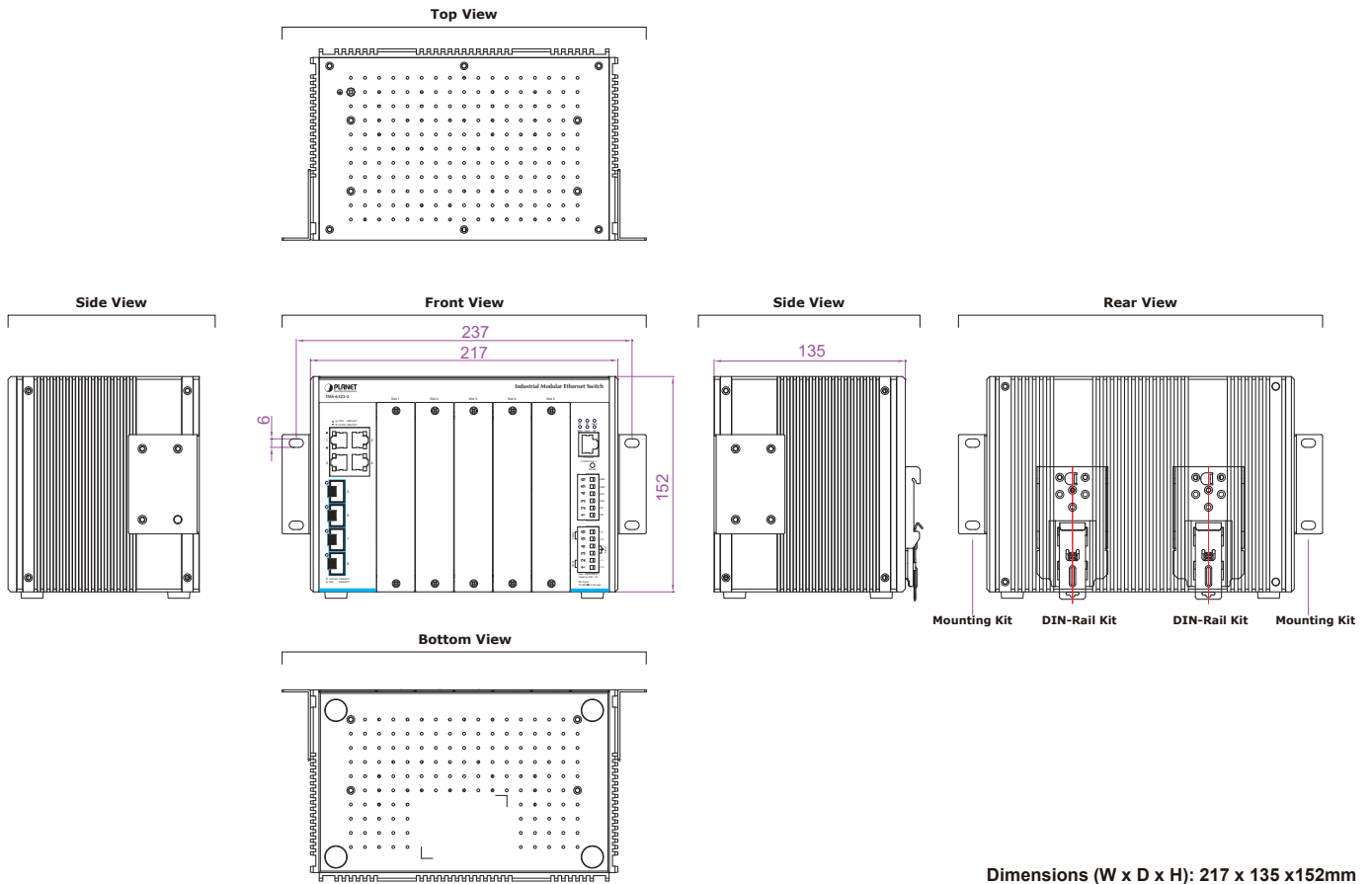


### Redundant Ring, Fast Recovery for Critical Network Applications

The IMS-6325-5 supports redundant ring technology and features strong, rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates advanced **ITU-T G.8032 ERPS (Ethernet Ring Protection Switching)** technology, Spanning Tree Protocol (802.1s MSTP), and **dual power** input system into customer's industrial automation network to enhance system reliability and uptime in harsh factory environments. In a simple Ring network, the recovery time of data link can be as fast as **10ms**.



## Dimensions



Dimensions (W x D x H): 217 x 135 x 152mm

## Specifications

Product	IMS-6325-5
<b>Hardware Specifications</b>	
Copper Ports	4 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports
SFP+ Slots	4 10GBASE-SR/LR SFP+ interfaces (Ports 9-12); backward compatible with 1G/2.5GBASE-X SFP transceivers
Expansion Slots	Supports up to 5 modules for flexible port configuration, including: <ul style="list-style-type: none"> <li>- IMS-4T: 4-port 10/100/1000BASE-T RJ45</li> <li>- IMS-4S: 4-port 100/1G/2.5G SFP slot</li> </ul>
Console	1 x RJ45-to-RS232 serial port (115200, 8, N, 1)
Reset Button	< 5 sec: reboot > 5 sec: factory default reset
ESD Protection	Contact: 6KV DC; Air: 8KV DC
Connector	6-pin terminal block for power input (DC1 & DC2), and 6-pin terminal block for DI/DO interfaces
Alarm	2-pin relay alarm for power failure; alarm relay current carry ability: 1A @ 24V DC
Digital Input (DI)	2 digital input (DI): Level 0: -24V~2.1V (±0.1V) Input load to 24VDC, 10mA max. Level 1: 2.1V~24V (±0.1V)
Digital Output (DO)	2 digital output (DO): Open collector to 24V DC, 100mA max.
Enclosure	IP30 metal case
Installation	DIN-rail or wall-mount kit
SDRAM	512MB x 4
Flash Memory	128MB
Dimensions (W x D x H)	217 x 135 x 152 mm
Weight	3,590g

Power Requirements	Dual 12~48V DC power inputs			
Power Consumption	DC 12V (Dual input)			
	Expansion Slots	No Loading	Full Loading	Max. Current
	No expansion cards	12.48W / 42.57 BTU	24.84W / 84.77 BTU	2.5A
	IMS-4T x 5	20.16W / 68.83 BTU	44.64W / 152.32 BTU	3.72A
	IMS-4S x 5	20.16W / 68.83 BTU	53.76W / 183.40 BTU	4.48A
	DC 48V (Dual Input)			
	Expansion Slots	No Loading	Full Loading	Max. Current
	No expansion cards	18.72W / 63.87 BTU	31.20W / 106.46 BTU	0.9A
	IMS-4T x 5	26.88W / 91.68 BTU	44.64W / 152.32 BTU	1.01A
	IMS-4S x 5	26.88W / 91.68 BTU	54.72W / 186.74 BTU	1.14A
LED Indicators	<b>System</b>			
	P1 (Green)			
	P2 (Green)			
	Alarm (Red)			
	Ring (Green)			
	R.O. (Green)			
	I/O (Red)			
	<b>RJ45 Ports (Ports 1 to 4)</b>			
	1000 LNK/ACT (Green); 10/100 LNK/ACT (Amber)			
	<b>10G SFP+ Slot (Ports 5 to 8)</b>			
10G LNK/ACT (Amber); 1G/2.5G LNK/ACT (Green)				
Switching Specifications	<b>IMS-4T</b>			
	Status: On (Green)			
	RJ45 port: 1000 LNK/ACT (Green); 10/100 LNK/ACT (Amber)			
	<b>IMS-4S</b>			
	Status: On (Green)			
	Gigabit SFP slot: 1000 LNK/ACT (Green); 100 LNK/ACT (Amber)			
	Switch Architecture	Store-and-Forward		
	Switch Fabric	88Gbps/non-blocking; 128Gbps/non-blocking with 5 switch modules		
	Throughput (packet per second)	95.2Mpps@ 64 bytes packet		
	Address Table	32K entries, automatic source address learning and aging		
Shared Data Buffer	32M bits			
Flow Control	IEEE 802.3x pause frame for full duplex Back pressure for half duplex			
Jumbo Frame	10K bytes			
<b>Layer 3 Function</b>				
IP Interfaces	Max. 128 VLAN interfaces			
Routing Table	Max. 4K routing table entries			
Routing Protocols	IPv4 RIPv1/v2 dynamic routing IPv4 OSPFv2 dynamic routing IPv6 OSPFv3 dynamic routing IPv4/IPv6 hardware static routing			
<b>Layer 2 Function</b>				
Port Configuration	Port disable/enable Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow control disable/enable Port link capability control			
Port Status	Display each port's speed duplex mode, link status, flow control status, auto negotiation status, trunk status			
Port Mirroring	TX / RX / Both Many-to-1 monitor RMirror – Remote Switched Port Analyzer (Cisco RSPAN) Supports up to 5 sessions			
VLAN	IEEE 802.1Q tag-based VLAN IEEE 802.1ad Q-in-Q tunneling Private VLAN Edge (PVE) MAC-based VLAN Protocol-based VLAN Voice VLAN MVR (Multicast VLAN Registration) GVRP (GARP VLAN Registration Protocol) Up to 4K VLAN groups, out of 4096 VLAN IDs			



Spanning Tree Protocol	<p>IEEE 802.1D Spanning Tree Protocol          IEEE 802.1w Rapid Spanning Tree Protocol          IEEE 802.1s Multiple Spanning Tree Protocol          Supports 7 MSTP instances          BPDU Guard, BPDU filtering and BPDU transparent          Root Guard</p>
IGMP Snooping	<p>IPv4 IGMP (v1/v2/v3) snooping          IPv4 IGMP querier mode support          Up to 2K multicast groups</p>
MLD Snooping	<p>IPv6 MLD (v1/v2) snooping          IPv6 MLD querier mode support          Up to 512 multicast groups</p>
Bandwidth Control	<p>Per port bandwidth control          Ingress: 10Kbps~13000Mbps          Egress: 100Kbps~13000Mbps</p>
Ring	<p>Supports ERPS, and complies with ITU-T G.8032          Recovery time &lt; 10ms @ 3 nodes          Recovery time &lt; 50ms @ 16 nodes          Supports Major ring and sub-ring</p>
Synchronization	<p>IEEE 1588v2 PTP (Precision Time Protocol)          Peer-to-peer transparent clock          End-to-end transparent clock</p>
QoS	<p>Traffic classification based, strict priority and WRR          8-level priority for switching          - Port number          - 802.1p priority          - 802.1Q VLAN tag          - DSCP/TOS field in IP packet</p>
<b>Security Functions</b>	
Access Control List	<p>IP-based ACL/MAC-based ACL          ACL based on:          MAC Address          IP Address          Ethertype          Protocol Type          VLAN ID          DSCP          802.1p Priority          Up to 512 entries</p>
Security	<p>Port security          IP source guard, up to 512 entries          Dynamic ARP inspection, up to 1K entries          Command line authority control based on user level          Static MAC address, up to 64 entries</p>
AAA	<p>RADIUS client          TACACS+ client</p>
Network Access Control	<p>IEEE 802.1x port-based network access control          MAC-based authentication          Local/RADIUS authentication</p>
<b>Management</b>	
Basic Management Interfaces	<p>Console; Telnet; Web browser; SNMP v1, v2c</p>
Secure Management Interfaces	<p>SSHv2, TLSv1.2, SNMP v3</p>
System Management	<p>Firmware upgrade by HTTP protocol through Ethernet network          Configuration upload/download through HTTP          Remote Syslog          System log          LLDP protocol          NTP          PLANET Smart Discovery Utility          PLANET CloudViewer app</p>

SNMP MIBs	<p>RFC 1213 MIB-II  RFC 1493 Bridge MIB  RFC 1643 Ethernet MIB  RFC 2863 Interface MIB  RFC 2665 Ether-Like MIB  RFC 2819 RMON MIB (Groups 1, 2, 3 and 9)  RFC 2737 Entity MIB  RFC 2618 RADIUS Client MIB  RFC 2863 IF-MIB  RFC 2933 IGMP-STD-MIB  RFC 3411 SNMP-Frameworks-MIB  RFC 4292 IP Forward MIB  IEEE 802.1X PAE  RFC 4293 IP MIB  RFC 4836 MAU-MIB  IEEE 802.1X PAE  LLDP  PowerEthernet MIB</p>
<b>Standards Conformance</b>	
Regulatory Compliance	<p>FCC Part 15 Class A  CE:  EN55032  EN55035</p>
Standards Compliance	<p>IEEE 802.3 10BASE-T  IEEE 802.3u 100BASE-TX/100BASE-FX  IEEE 802.3z Gigabit SX/LX  IEEE 802.3ab Gigabit 1000T  IEEE 802.3ae 10Gigabit Ethernet  IEEE 802.3x flow control and back pressure  IEEE 802.3ad port trunk with LACP  IEEE 802.1D Spanning Tree Protocol  IEEE 802.1w Rapid Spanning Tree Protocol  IEEE 802.1s Multiple Spanning Tree Protocol  IEEE 802.1p Class of Service  IEEE 802.1Q VLAN tagging  IEEE 802.1ad Q-in-Q VLAN stacking  IEEE 802.1X Port Authentication Network Control  IEEE 802.1ab LLDP  IEEE 802.3ah OAM  IEEE 1588 PTPv2  RFC 768 UDP  RFC 783 TFTP  RFC 791 IP  RFC 792 ICMP  RFC 2068 HTTP  RFC 1112 IGMP v1  RFC 2236 IGMP v2  RFC 3376 IGMP version 3  RFC 2710 MLD version 1  RFC 3810 MLD version 2  RFC 2328 OSPF v2  RFC 5340 OSPF v3  RFC 2453 RIP v2  ITU-T G.8032 ERPS Ring  Environment</p>
<b>Environment</b>	
Operating Temperature	-40 ~ 75 degrees C
Storage Temperature	-40 ~ 85 degrees C
Humidity	5 ~ 95% (non-condensing)

## Ordering Information

IMS-6325-5	Industrial Layer 3 5-Slot Modular Managed Ethernet Switch (-40~75 degrees C)
IMS-4T	4-Port 10/100/1000T Switch Module for IMS-6325-5 (-40~75 degrees C)
IMS-4S	4-Port 100/1000X SFP Switch Module for IMS-6325-5 (-40~75 degrees C)

## Related Products

IGS-6325-16T4X	Industrial L3 16-Port 10/100/1000BASE-T + 4-Port 10GBASE-X SFP+ Managed Switch (-40~75 degrees C)
IGS-6325-4UP2X	Industrial L3 4-Port 2.5GBASE-T 802.3bt PoE + 2-Port 10GBASE-X SFP+ Managed Ethernet Switch (-40~75 degrees C)
IGS-6325-16P4S	L3 Industrial 16-Port 10/100/1000T 802.3at PoE + 4-Port 100/1000X SFP Managed Ethernet Switch (-40~75 degrees C)
CB-DASFP-0.5/2M	10G SFP+ Directly-attached Copper Cable (0.5/2M in length)
MTB Series	Dual Band 802.11ax 1800Mbps Outdoor Wireless AP
Transceivers	10GBASE-LR/SR/BX/T Modules
MGB-2G Series	Enterprise 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T VPN Security Router
Transceivers	2500BASE-X SFP Transceiver
MGB Series Transceivers	1000BASE-SX/LX SFP Transceiver
MFB-Series Transceivers	100BASE-FX SFP Transceiver
PWR-120-48/PWR-240-48/ PWR-480-48/PWR-960-48	DC Single Output Industrial DIN-rail Power Supply Units