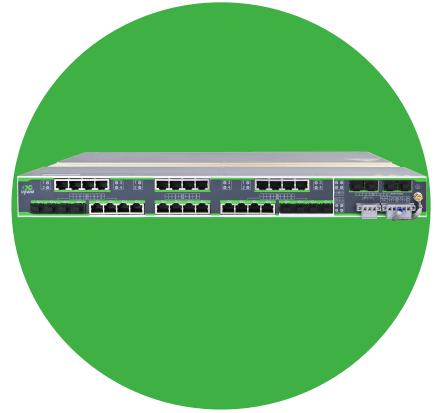


Build advanced and highly reliable industrial Ethernet communication system

# ISM7028U-P

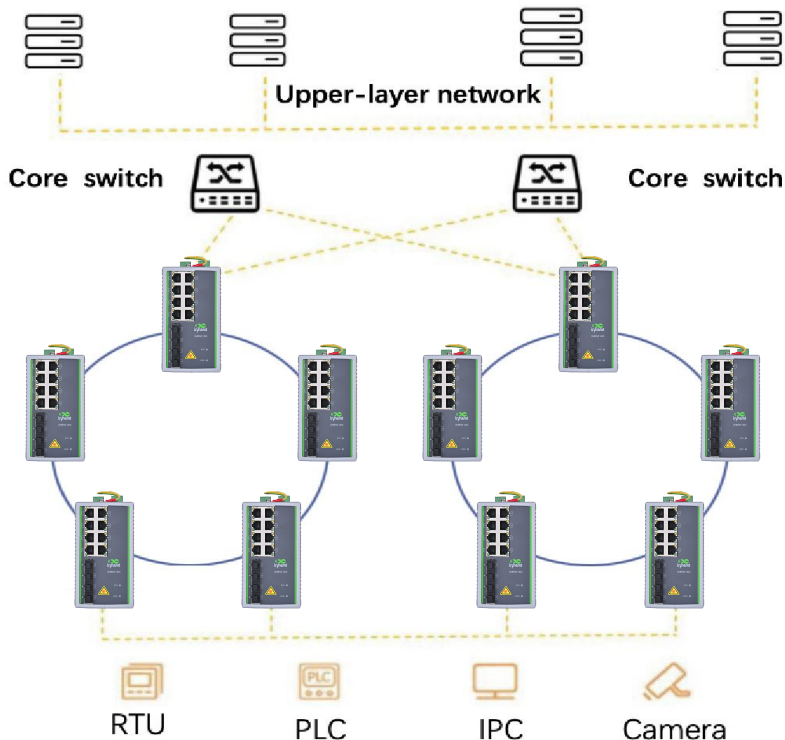
## Managed Industrial Ethernet Switch



The ISM series of managed industrial Ethernet switches is specifically designed to meet the demands of harsh industrial environments such as power, transportation, and industrial control applications. The rugged casing design and protected circuits among other industrial-grade features perform its remarkable adaption to rough environments. It can reliably operate in extreme temperature conditions, effectively addressing challenges posed by demanding environments.

Furthermore, the ISM7028U also owns advanced and comprehensive network functionalities, supporting STP/RSTP/MSTP ring redundancy protocols, offering users a flexible choice for constructing intricate industrial Ethernet communication systems. Whether faced with challenging production environments or stringent requirements for reliability and availability in industrial applications, InHand Networks' industrial Ethernet switches can meet your expectations.

### Solutions



## Advantages and Features

- + With functions of data packet dropout protection and quick recovery from network failure
- + Excellent EMC electromagnetic compatibility and radiation performance
- + Support various multicast protocols and strong safety protection mechanism
- + Adopting redundant dual input power design
- + Linear Industrial switches with high performance and flexible
- + Any two ports can establish a self-recovery ring and support multiple independent self-recovery rings

### ● Build advanced and highly reliable industrial Ethernet communication

ISM Managed Industrial Switch features a rugged metal casing and protective coating, providing pressure resistance and corrosion protection.

The product is fanless, with IP40 protection, dust and dirt resistance, and supports wide temperature operation.

Industrial-grade redundant power supply design, wide voltage input, ensuring stable communication in harsh industrial environments.

The product's MTBF (Mean Time Between Failures) is over 35 years.

### ● Efficient and effortless deployment and management

The ISM series supports SNMP for integrated network management with different network management systems.

Supports RMON to enable comprehensive and effective network monitoring and fault prediction, allowing users to quickly and efficiently deploy and manage network.

Features with Rack mounting, small size, plug-and-play, and quick deployment.

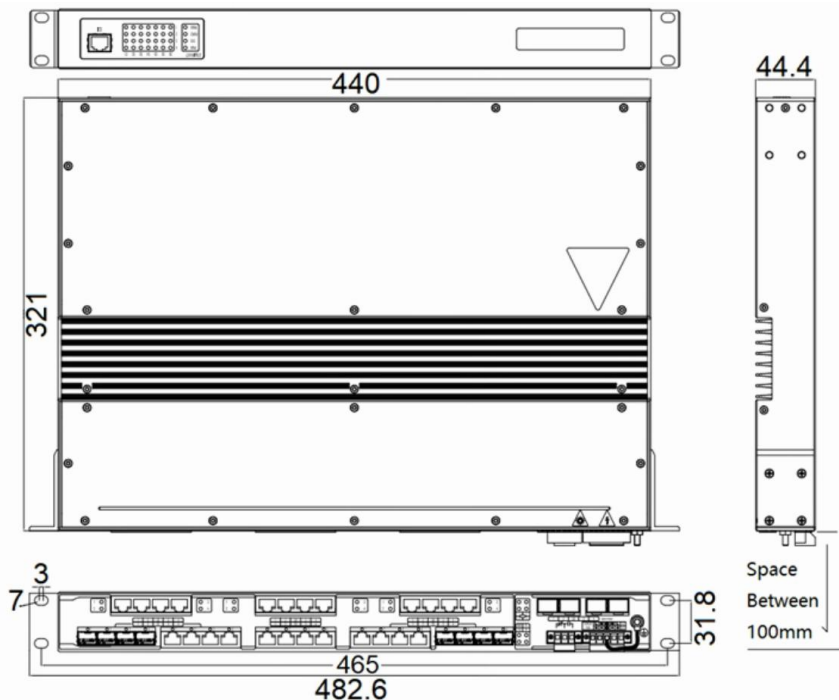
### ● Robust network security performance

IGMP Snooping.

Intelligent features such as VLAN network segmentation.

## Product dimensions(mm)

ISM7028U Dimensional diagram



72mm x 140mm x 110mm

## Technical Specifications

- IEEE 802.3 CSMA/CD method and physical Layer specifications
- IEEE 802.1p Priority Queuing
- IEEE 802.1q VLAN tagging
- IEEE 802.1d Spanning Tree Algorithm
- IEEE 802.1w Rapid Spanning Tree
- IEEE 802.1s Multiple Spanning Tree
- IEEE 802.3ac VLAN Tagging
- IEEE 802.1x Authentication
- IEEE 802.3ad Link Aggregation
- IEEE 802.3x Flow Control
- IEEE 802.3 Ethernet
- IEEE 802.3u Fast Ethernet
- IEEE 802.3z Gigabit Ethernet
- IEEE 802 Networks
- RFC 768 UDP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 854 Telnet Client & Server
- RFC 904 Exterior Gateway Protocol Formal Specification
- RFC 1027 Using ARP to Implement Transparent Subnet Gateways
- RFC 1058 RIP
- RFC 1059, 1119 NTPv1/2
- RFC 1112 IGMP
- RFC 1191 Path MTU Discovery
- RFC 1256 ICMP Router discovery protocol
- RFC 1267 A Border Gateway Protocol 3 (BGP-3)
- RFC 1388 RIP Version 2 Carrying Additional Information
- RFC 1403 BGP OSPF Interaction
- RFC 1519 CIDR (Classless Inter-domain Routing)
- RFC 1587 OSPF NSSA
- RFC 1765 OSPF Database Overflow
- RFC 1812 Requirements for IP Version 4 Routers
- RFC 1994 PPP Challenge Handshake Authentication Protocol (CHAP)
- RFC 2068 HTTP
- RFC 213 DHCP Server
- RFC 2138 RADIUS
- RFC 2139 RADIUS Accounting
- RFC 2236 IGMPv2
- RFC 2328 OSPF V2
- RFC 2338 VRRP
- RFC 2362 PIM-SM/DM
- RFC 2370 The OSPF Opaque LSA Option
- RFC 2474 DiffServ Precedence
- RFC 2475 DiffServ Core and Edge Router Functions
- RFC 2597 DiffServ Assured Forwarding,
- RFC 2598 DiffServ Expedited Forwarding
- RFC 2644 Directed Broadcasts
- RFC 2865 Remote Authentication Dial In User Service (RADIUS)
- RFC 3046 DHCP Relay Agent Information Option
- RFC 3222 Forwarding Information Base (FIB)
- GMRP GARP
- GVRP GARP
- SSH2 Secure Shell 2
- IGMP snooping
- SNMPv3

## Product specifications

ISM7028U Product specifications				ISM7028U Product specifications				
Project		ISM7028U-P-8GC-4GSFP-16GT-HV-HV		Project		ISM7028U-P-8GC-4GSFP-16GT-HV-HV		
<b>Physical Performance</b>				<b>Electromagnetic Characteristics</b>				
Dimensions	440mm × 44.4mm × 321mm			EMI	FCC 47 CFR Part 15 Class A EN55022 Class A			
Enclosure	Fully enclosed seamless metal enclosure				EMS	IEC(EN)61000-4-2, Class 4 IEC(EN)61000-4-3, Class 3 IEC(EN)61000-4-4, Class 4 IEC(EN)61000-4-5, Class 4 IEC(EN)61000-4-6, Class 3 IEC(EN)61000-4-9, Class 5		
Weight	4.1 kg	Protection Grade	IP40					
Cooling Method	Fanless cooling	Installation	Rack mounting					
Storage Temperature	-40 ~ +85°C	Operating Temperature	-40 ~ +85°C					
Ambient Humidity	5 ~ 95% (non-condensing)							
<b>Hardware performance</b>				<b>Mechanical Characteristics</b>				
Backplane Bandwidth	144 Gbps	Transmission mode	Parallel Storage forwarding	Shock	IEC60068-2-27	Freefall	IEC60068-2-31	
MAC Table Size	16 K	Packet Buffer Size	1.5 Mbits	Vibration	IEC60068-2-6			
Exchange Rate	148,800 pps/100M ports; 1,488,000 pps/1000M ports			<b>Power Parameters</b>				
<b>Software Functions</b>				Input Voltage				100-240V dual-isolated power input
Redundancy	STP, MSTP, RSTP, Port Trunking			<b>Certifications</b>				
Management Mode	Browser, Serial Port, STD-17 MIB-II, STD-58 SMiv2, STD-59 RMON, STD-62 SNMPv3, SNMPv2c, SNMPv1			IEC61850-3				
Time Synchronization	NTP							
Diagnostic Mode	Indicator light, Journal File, RMON, Port Mirroring, TRAP							
Others	IPv4/IPv6 multicast, storm control, MC/BC protection, support Jumbo Frame							
<b>Quality Assurance</b>								
Warranty Period	5 years	MTBF	35 years					

## Recommended Models

Model	Description
ISM7028U-P-8GC-4GSFP-16GT-HV-HV	28-port Layer 3 managed Industrial Switch. 16 * 10/100/1000BaseT Ports, 8 * 100/1000Base(X/T) COMBO Ports, and 4 * 1000/2500BaseX SFP Ports (SFP module not included), dual isolated 100-240V power inputs

### About Us

InHand Networks is a leading IoT solutions provider founded in 2001, dedicated to driving digital transformation across industries and empowering customers to unlock their full potential and achieve accelerated growth.

We specialize in delivering industrial-grade connectivity solutions for diverse sectors, such as enterprise networks, industrial and building IoT, digital energy, smart commerce, and mobility. Our comprehensive product portfolio and services cater to various applications worldwide, including smart manufacturing, smart grid, intelligent transportation, smart retail, etc. With a global footprint spanning over 60 countries, we serve customers in China, the United States, France, Germany, the United Kingdom, Italy, and beyond.



3650 Concorde Pkwy, Suite 200  
Chantilly, VA 20151, USA  
T: +1 (703) 348-2988  
E: info@inhandnetworks.com  
www.inhandnetworks.com