

# LA-IS7M3-10G0424PB-UR-L

L3 Managed Industrial Din-Rail PoE Switch 24xGE RJ45, 4x10G SFP+

Support DI/DO and RS485, Port 1-4 Support BT 90w



## Overview

LA-IS7M3-10G0424PB-UR-L is the highly reliable L3 managed industrial PoE switch with 24-port 10/100/1000-T RJ45, 4-port 1G/2.5G/10GBase-X SFP+ interfaces. They comply with IEEE802.3af PoE, IEEE802.3at PoE+, IEEE802.3bt PoE++ standard protocol, the Max power output consumption per port can reach 90W (1-4 ports). It supports ERPS redundant network and the self-recovery mechanism is less than 20ms on full load which allows you to scheme a reliable Ethernet network by building a redundant ring topology as your back-up solution. LT-IS6528XGP-4XS24GT also supports Layer 3 static routing & dynamic routing features, powerful Layer 2 management and secure function, which all making them ideal for large-scale industrial networks.

It is a high cost-effective easy-to-use device, which provides essential industrial Ethernet networking function, including wide range power input 44-57VDC, redundant power design with polarity reverse/over-voltage/over-current protection, robust IP40 fan-less housing with Din-rail installation, wide operation temperature from -40°C to 75°C as well as high-level EMI/EMC capability. It is the best choice for heavy industrial factory, transportation, oil & gas, chemical, IP Surveillance and processing automation area where environmental conditions are harsh and critical.

## Features

- 24\*10/100/1000Base-T RJ45 PoE, 4\*1G/2.5G/10GBase-X SFP+
- DC/DC redundant power 44-57V supply with polarity reverse/over-voltage/over-current protection
- Complies with IEEE802.3af PoE and IEEE802.3at PoE+ standard
- Layer 3 features: Support IPv4/IPv6 static routing, DHCP server
- Support USB one key configuration and upgrading
- DI/DO/RS485 are optional
- Layer 2 features: VLAN; ERPS, STP/RSTP/MSTP; Link aggregation, IGMP snooping, port mirroring, QinQ, 802.1X, port isolation, RMON, NTP client, DHCP snooping/client, Ping/Tracert test, ACL, QoS and SFP DDM function
- Management and maintenance: IPv4 and IPv6 management; PoE management; Support Web, SNMP, CLI, Telnet/SSH management method; Support user management, system log, configuration upload/download through web interface, firmware upgrade via HTTP/TFTP/USB
- Support G.8032 ERPS protocol, recovery time  $\leq 20\text{ms}$
- Support 6KV surge protection and ESD: Air-15kV, Contact-8kV Protection
- IP40 fan-less and rack-mount hardware design
- Operation temperature:  $-40\text{ }^{\circ}\text{C} \sim +70\text{ }^{\circ}\text{C}$

## Specifications

Fixed Port	24x10/100/1000Base-T RJ45 PoE, 4x1G/2.5G/10GBase-X SFP+
Management Port	1xRJ45 Console port (115200,8,N,1) 1xUSB 2.0 for configuration and firmware update
Data & Alarm Channel(optional)	1 channel RS485 1 channel DI(digital input) 1 channel DO(digital output)
Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Ethernet IEEE 802.3ab 1000Base-T Ethernet IEEE 802.3z 1000Base-X Ethernet IEEE802.3x Flow Control and Back Pressure IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1Q VLAN ITU-T G.8032 ERPS IEEE 802.1X Port Authentication Network Control IEEE 802.1ab LLDP IEEE 802.3ad LACP IEEE802.3af PoE IEEE802.3at PoE+
<b>LED Indicators</b>	

P1/P2 (Power indicator)	Off: device is power off or failed	On: device power on is normal
SYS (System status indicator)	Blinking: device initialization	On: device on normal operation
USB (USB status indicator)	Off: USB flash drive not insert or not detected by device	
	On: USB flash drive is detected by device	
	Blinking: device is reading and writing the data from USB flash drive	
ALM (Fault status indicator) Red	Off: Device on normal working state	On: Fault alarm
Ring (Ring network indicator)	Off: Ring network disable	On: Ring network enable
1-24 (Copper ports indicators) Green	Off: ports link down	
	On: ports link up	
	Blinking: data on TX/RX	
1-24 (PoE status indicators) Yellow	Off: PoE not working	
	On: PoE working	
25-28 (Fiber ports indicators) Green	Off: ports link down	
	On: ports link up	
	Blinking: data on TX/RX	
<b>Power Parameter</b>		
Input Voltage	DC 44~57V(802.3af) DC 52~57V(802.3at) redundant power input	
Input Current	6.2A DC/DC input Max	
Total Power Consumption	Full loading without PoE≤26W Single power input: PoE power budget ≤240W (-40°C~+ 70°C) Dual power input: PoE power budget ≤370W (-40°C~+ 60°C) *Dual power input must be the same as DC voltage	
Connector	Removable 2-pin terminal block	
Reverse Polarity Protection	Support	
Over-Voltage Protection	Support	
Over-Current Protection	Support	
<b>Layer 2 Functions</b>		

Port Aggregation	<ul style="list-style-type: none"> <li>Support GE port aggregation</li> <li>Support 2.5GE aggregation</li> <li>Support 10GE aggregation</li> <li>Support static aggregation</li> <li>Support LACP dynamic aggregation</li> <li>Up to 64 aggregation groups and up to 8 ports per group</li> </ul>
Port Features	<ul style="list-style-type: none"> <li>Support IEEE802.3x flow control</li> <li>Support interface counters</li> <li>Support port isolation</li> <li>Port mirroring ( One-to-One, Many-to-One)</li> <li>Support loop detection(Port-based; VLAN-based)</li> <li>Support broadcast storm suppression (broadcast; unknown multicast; unknown unicast)</li> </ul>
Mac-Address Table Management	<ul style="list-style-type: none"> <li>Support static Mac-address management</li> <li>Support dynamic Mac-address Management</li> <li>Support filtering Mac-address</li> <li>Support MAC limit based on port and VLAN</li> <li>Support MAC flapping based on port and VLAN</li> </ul>
VLAN	<ul style="list-style-type: none"> <li>Support access mode</li> <li>Support trunk mode</li> <li>Support hybrid mode</li> </ul>
VLAN Classification	<ul style="list-style-type: none"> <li>Mac Based VLAN</li> <li>IP Based VLAN</li> <li>Protocol Based VLAN</li> </ul>
GVRP	<ul style="list-style-type: none"> <li>Normal mode</li> <li>Fixed mode</li> <li>Forbidden mode</li> </ul>
QinQ	<ul style="list-style-type: none"> <li>Port-based QinQ</li> <li>VLAN-based QinQ (VLAN-stacking; VLAN-mapping)</li> <li>Flow-based QinQ</li> </ul>
LLDP	LLDP (Link Layer Discovery Protocol)
Ring Network Protocol	<ul style="list-style-type: none"> <li>Support IEEE802.1D-STP</li> <li>Support IEEE802.1W-RSTP</li> <li>Support IEEE802.1S-MSTP</li> <li>Support G.8032 ERPS protocol, single ring, sub Ring and major ring</li> <li>Recovery time <math>\leq 20\text{ms}</math></li> </ul>
<b>L2 Multicast</b>	
IGMP Snooping	Support IGMP snooping
Group Address	Support group address

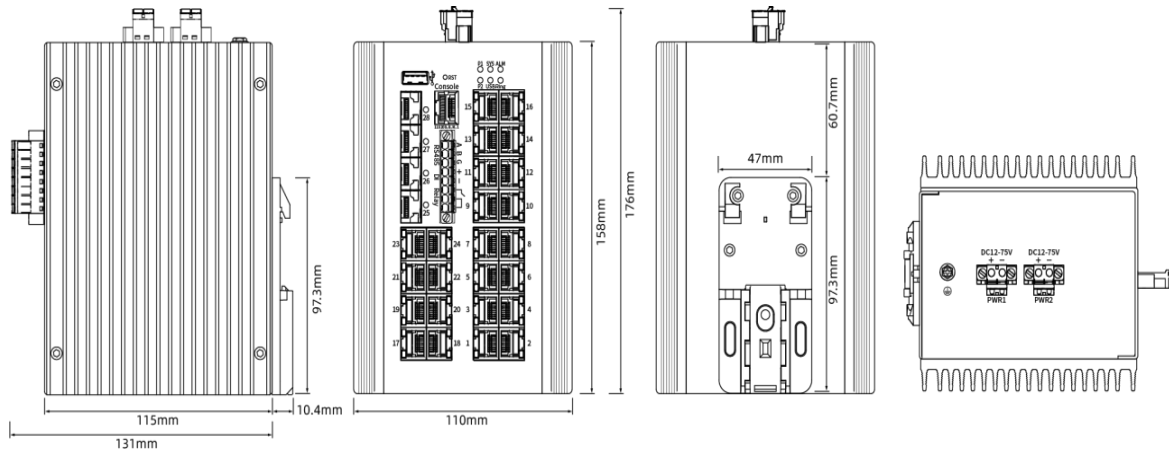
Security Functions	
ACL	IP Standard ACL MAC extend ACL IP extend ACL IPv6 ACL
QoS	Support QoS Class, remarking Support SP, WRR queue scheduling Ingress port-based rate-limit Egress port-based rate-limit Support policy-based QoS
802.1x	Port access control Mac-address access control RADIUS server
Port-Security	Port-security
IP Source Guard	IP Port/MAC binding
ARP-check	Support ARP-check and ARP packet filtering for illegal users
Access Control	Support Telnet/SSH/HTTP/HTTPS user access control
Management & Maintenance functions	
User Management	Support password protection Support user authorization management
SNMP	Supporting SNMP V1/V2C/V3 version
Web Management	Web Management Support HTTP V1.1 Support HTTPS
CLI Management	Console/Telnet command line management
RMON	Support RMON(Remote Monitoring) alarm
Firmware Upgrade	Firmware upgrade
Fault Detection	Ping/Traceroute Dying gasp Support optical transceiver DDM function
Cable Detection	Support copper port cable detection
PoE management	Support 802.3af/802.3at
	Support PD watchdog
	Support PoE priority management
	Support Max PoE power configuration for each port
	Support alarm waterline configuration

	Support reserved power configuration
NTP	Network Time Protocol
Syslog/Debug	Syslog/Debug Syslog send to three servers
Configuration Import/Export	Support FTP/TFTP remote import/export Support USB import/export
Dual Partition Management	Support dual partition switching
<b>Application Protocol Functions</b>	
DHCP Snooping	DHCP snooping trust port Support remote-id/circuit-id configuration DHCP option-82
DHCP Client	Support DHCP client
Telnet Server	Support telnet server
Telnet Client	Support telnet client
SSH Server	Support SSH server
TACACS	Support TACACS(the terminal access controller accesses the control system)
Sflow	Support network traffic analysis
TFTP	Support TFTP Client
<b>Layer 3 Functions</b>	
ARP	ARP table aging
<b>DHCP Server</b>	
IPv4 / IPv6	Static routing
ECMP	Support ECMP (Equal-cost multi-path routing)
	Support the configuration of ECMP Max next-hop
	Support capacity balanced configuration
Route policy	IPv4 prefix-list
VRRP	Virtual Router Redundancy Protocol
<b>Routing Protocol Specification</b>	
RIP	RIPv1/v2
OSPFv2	OSPFv2
BGP4	BGP4
	BGP Support Routing Recursive ECMP
	Support to view the number of neighbors and up/down state

IS-IS	IS-ISv4
Routing entry	13K
<b>Switching features</b>	
Switching Capacity	128Gbps
Packet Forwarding Rate	190.4Mpps
MAC Address Table	16K
VLAN	4K
Buffer	12M bit
Forwarding Delay	<5us
Jumbo Frame	Support 10Kbytes
MDX/MIDX	Support
Watchdog	Support
<b>Mechanical Structure</b>	
Case Protection	IP40
Installation Method	Din-rail
Dimension(W*D*H)mm	110*115*158mm
Weight	LA-IS8M3-10G0424PB-L: 2.3kg; LA-IS8M3-10G0424PB-UR-L: 2.4kg
<b>Operating Environment</b>	
Operating Temperature	-40°C~+ 75°C
Storage/Transportation Temperature	-40°C~+ 85°C
Relative Humidity	Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH
<b>Industrial Standard</b>	
EMS	Surge protection of power: IEC 61000-4-5 DC:6KV/6KV (8/20us) Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV (10/700us) RS: IEC 61000-4-3 80 MHz-1 GHz: 10 V/m EFT: IEC 61000-4-4 power 4K, signal 2K CS: IEC 61000-4-6 10V ESD: IEC 61000-4-2 Contact: 8K; Air: 15K
EMI	FCC Part 15B Class A
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32

Vibration	IEC 60068-2-6
Certification	CCC/CE/UKCA/RoHS/REACH/FCC
MTBF	>200,000 hours

### Dimension



### Ordering Information

PART NO	DESCRIPTION
LA-IS7M3-10G0424PB-UR-L	L3 Managed Industrial Din-Rail PoE switch 24xGE RJ45, 4x10G SFP+ Port 1-4 Support BT 90w Redundant dual power supply DC44-57V input Support DI/DO and RS485
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Specifications & design are subject to change without prior notice.

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