8*10/100/1000Base-T+ 4*100/1000Base-X SFP+

4*1G/2.5G/10GBase-X SFP+

L2+ Managed Industrial Ethernet Switch

LT-IS6316XG-4XS4GX8GT

Features:

➤ 8*10/100/1000Base-T RJ45, 4*100/1000Base-X SFP, 4*1G/2.5G/10GBase-X SFP+

➤ Redundant power 12-58V input with polarity reverse/over-voltage/over-current protection

➤ Support one digital output for relay alarm (terminal block Pin 5/6)

➤ Layer 3 features: Support IPv4/IPv6 static routing, DHCP server

➤ Support Layer 2 management function: VLAN/VLAN Classification/QinQ/STP, RSTP,

   MSTP/Port Mirroring/DHCP/Multicast/ACL/IGMP/QoS/LLDP/802.1X/Dying Gasp/SFP

   DDM/IPV6 management/Web/SNMP/Telnet/TFTP/Web upgrading

➤ Support G.8032 ERPS protocol, recovery time ≤20ms

➤ Support 6KV surge protection and ESD: Air-15kV, Contact-8kV Protection

➤ IP40 fan-less and Din-rail hardware design

➤ Operation temperature: -40 ℃ ~+75℃

Overview

The SmartByte LT-IS6316XG-4XS4GX8GT is the highly reliable managed industrial Ethernet switches with 8-port 10/100/1000-T RJ45, 4-port 100/1000Base-X SFP and 4-port 1G/2.5G/10GBase-X SFP+ interfaces. 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-IS6316XG-4XS4GX8GT supports IPv4/IPv6 static routing, DHCP server and robust layer 2 management function, which can fulfill the special needs of industrial automation applications.

LT-IS6316XG-4XS4GX8GT is also high cost-effective easy-to-use device, which provides essential industrial Ethernet networking function, including wide range power input 12-58VDC, 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.

Technical specification

Model No.	LT-IS6316XG-4XS4GX8GT	
Interface	Fiber ports	Copper RJ45 ports
	8	8
Ethernet	8*10/100/1000Base-T RJ45 4*100/1000Base-X SFP　　(13-16 ports) 4*1G/2.5G/10GBase-X SFP+　(9-12 ports)	
Management port	1*RJ45 Console port (115200,8,N,1)	
Alarm port	One digital output for relay alarm, alarm relay current carry ability: 1A@24VDC	
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	

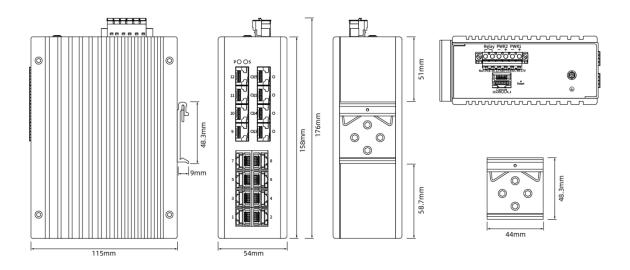|		
	IEEE 802.1Q VLAN	
	ITU-T G.8032 ERPS	
	IEEE 802.1X Port Authentication Network Control	
	IEEE 802.1ab LLDP	
	IEEE 802.3ad LACP	
LED Indicators		
P (Power indicator)	Off: the device is power off or failed	On: the device power on is normal
S (System status indicator)	Blinking: device initialization	On: device on normal operation
1-8 (Copper ports indicators) Green	Off: ports link down	
	On: ports link up	
	Blinking: data on TX/RX	
1-8 (Copper speed indicators) Yellow	Off: ports on 10/100M	
	On: ports on 1000M	
9-16 (Fiber ports indicators) Green	Off: ports link down	
	On: ports link up	
	Blinking: data on TX/RX	
Power parameter		
Input voltage	12-58VDC, redundant power input	
Input current	1.6A Max	
Total power consumption	Full loading ≤20W	
Connector	Removable 6-pin terminal block, Pin 5/6 for relay alarm output	
Reverse polarity protection	Support	
Over-voltage protection	Support	
Over-current protection	Support	
Layer 2 functions		
Port aggregation	Support GE port aggregation Support 2.5GE aggregation Support 10GE aggregation Support static aggregation Support LACP dynamic aggregation Up to 64 aggregation groups and up to 8 ports per group	

Port features	Support IEEE802.3x flow control, Support interface counters, Support port isolation, Port mirroring (One-to-One, Many-to-One) Support loop detection(Port-based; VLAN-based) Support broadcast storm suppression(broadcast; unknown multicast; unknown unicast)
Mac-address table management	Support static Mac-address management Support dynamic Mac-address Management Support filtering Mac-address Support MAC limit based on port and VLAN Support MAC flapping based on port and VLAN
VLAN	Support access mode Support trunk mode Support hybrid mode
VLAN classification	Mac Based VLAN IP Based VLAN Protocol Based VLAN
GVRP	Normal mode Fixed mode Forbidden mode
QinQ	Port-based QinQ VLAN-based QinQ(VLAN-stacking; VLAN-mapping) Flow-based QinQ
LLDP	LLDP (Link Layer Discovery Protocol)
Ring network protocol	Support IEEE802.1D-STP Support IEEE802.1W-RSTP Support IEEE802.1S-MSTP Support G.8032 ERPS protocol，single ring, sub Ring and major ring Recovery time ≤20ms
Multicast functions	
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/Tracerout Dying gasp Support optical transceiver DDM function
Cable detection	Support copper port cable detection
NTP	Network Time Protocol
Syslog/Debug	Syslog/Debug Syslog send to three servers
Configuration import/export	Support FTP/TFTP remote import/export
Dual partition management	Support dual partition switching
Application Protocol Functions	
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
Layer 3 functions	
ARP	ARP table aging
DHCP server	
IPv4 / IPv6	static routing
Switching features	
Switching capacity	104Gbps
Packet forwarding rate	154.7Mpps
MAC address table	16K
VLAN	4K
Buffer	12Mbit
Forwarding delay	<5us
Jumbo Frame	Support 10Kbytes
MDX/MIDX	Support
Watchdog	Support
Mechanical structure	
Case protection	IP40
Installation method	Din-rail
Dimension(W*D*H)mm	54*115*158mm
Weight	1.45 kg

Operating environment	
Operating temperature	-40℃~+75℃
Storage/transportation temperature	-40℃~+85℃
Relative humidity	Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH
Industrial Standard	
EMS	Surge protection of power: IEC 61000-4-5　6KV/4KV（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　4K/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
Warranty	5 years

Structure diagram

Order information

Model	Description
LT-IS6316XG-4XS4GX8GT	L2+ Managed industrial Ethernet switch with 8*10/100/1000Base-T RJ45 ports, 4*100/1000Base-X SFP and 4*1G/2.5G/10GBase-X SFP+ slots, DC12-58V input, redundant dual power supply, Din-rail installation. Operation temperature: -40℃～+75℃