

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

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

L3 Managed Industrial Ethernet Switch

LT-IS6520XG-4XS8GX8GT series



Features:

- 8*10/100/1000Base-T RJ45, 8*100/1000Base-X SFP, 4*1G/2.5G/10GBase-X SFP+
- 12-75V redundant DC power supply with polarity reverse/over-voltage/over-current protection
- Support USB one key configuration & upgrading
- DI/DO/RS485 are optional
- Layer 3 features: Supports static and dynamic routing, RIP, OSPF, BGP4, ECMP, VRRP
- 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; 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 Din-rail hardware design
- Operation temperature: $-40\text{ }^{\circ}\text{C} \sim +80\text{ }^{\circ}\text{C}$

Overview

The SmartByte LT-IS6520XG-4XS8GX8GT series are the highly reliable Layer 3 managed industrial Ethernet switches with 8-port 10/100/1000Base-T RJ45, 8-port 100/1000Base-X SFP and 4-port 1G/2.5G/10GBase-X SFP+. With full gigabit downlink and 10G uplink capability, they can provide high performance and the ability to quickly transfer large amounts of video, voice, and data across a network. They support DI/DO/RS485, G.8032 ERPS, MSTP/RSTP/STP redundancy technologies. LT-IS6520XG-4XS8GX8GT supports Layer 3 static routing & dynamic routing features and robust layer 2 management function, which all making them ideal for large-scale industrial networks.

LT-IS6520XG-4XS8GX8GT series are also high cost-effective easy-to-use devices, which provide essential industrial Ethernet networking function, including redundant power supply with DC12-75V input, robust IP40 fan-less housing with Din-rail installation, wide operation temperature from -40°C to 80 °C as well as high-level EMI/EMC capability. They are 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

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| Model No. | LT-IS6520XG-4XS8GX8GT/ LT-IS6520XG-4XS8GX8GT-D | | |
| Interface | 1G/2.5G/10G Fiber ports | 100/1000 fiber ports | 10/100/1000M RJ45 |
| | 4 | 8 | 8 |
| Ethernet | 8*10/100/1000Base-T RJ45 8*100/1000Base-X SFP (1-8 ports) 4*1G/2.5G/10GBase-X SFP+ (17-20 ports) | | |
| Management port | 1*RJ45 Console port (115200,8,N,1) , 1*USB 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 | | |

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| | 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 | | |
| P1/P2 (Power indicator) Green | Off: the device is power off or failed | On: the device power on is normal |
| SYS (System status indicator) | Blinking: device initialization | On: device on normal operation |
| USB (USB status indicator) Green | Off: USB flash drive not insert or not detected by device | |
| | On: USB flash drive is detected by device | |
| | Blinking: the 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 |
| 9-16 (Copper ports indicators) Green | Off: ports link down | |
| | On: ports link up | |
| | Blinking: data on TX/RX | |
| 9-16 (Copper speed indicators) Yellow | Off: ports on 10/100M | |
| | On: ports on 1000M | |
| 1-8/ 17-20 (Fiber ports indicators) Green | Off: ports link down | |
| | On: ports link up | |
| | Blinking: data on TX/RX | |
| Power parameter | | |
| Input voltage | 12-75V DC redundant power input | |
| Input current | 2.5A DC/DC input Max | |
| Total power consumption | Full loading ≤27W | |
| Connector | Removable 2*2-pin terminal block | |
| Reverse polarity protection | Support | |

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| 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 management table | 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 |

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| | Recovery time ≤20ms |
| L2 Multicast | |
| 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 |

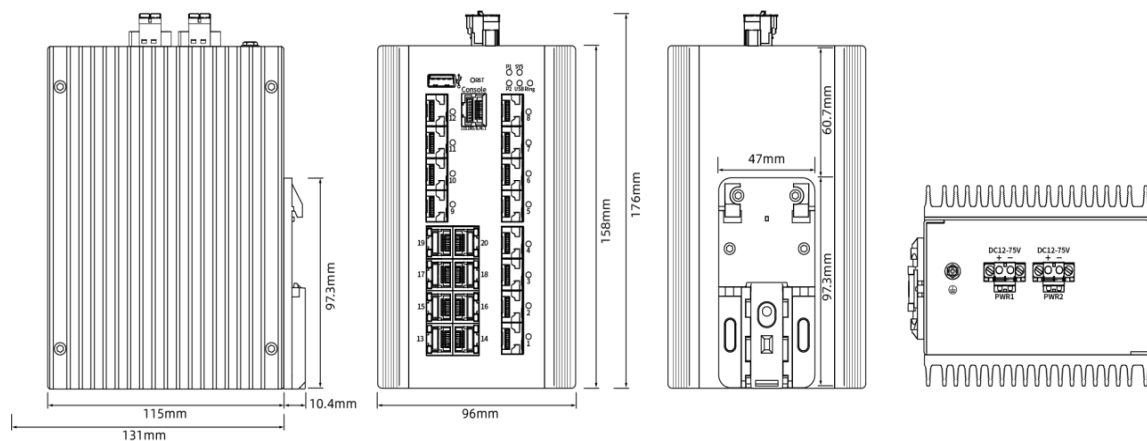
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| Cable detection | Support copper port cable detection |
| NTP | Network Time Protocol |
| Syslog/Debug | Syslog/Debug Syslog send to three servers |
| Configuration import/export | Support FTP/TFTP remote import/export Support USB import/export |
| 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 |
| 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 |
| Routing Protocol Specification | |
| RIP | RIPv1/v2 |
| OSPFv2 | OSPFv2 |

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| 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 |
| Switching features | |
| Switching capacity | 112 Gbps |
| Packet forwarding rate | 166.6Mpps |
| MAC address table | 16K |
| VLAN | 4K |
| Buffer | 12M bit |
| 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 | 96*115*158mm |
| Weight | LT-IS6520XG-4XS8GX8GT: 1.8kg; LT-IS6520XG-4XS8GX8GT-D: 1.9kg |
| Operating environment | |
| Operating temperature | -40℃~+ 80℃ |
| Storage/transportation temperature | -40℃~+ 85℃ |
| Relative humidity | Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH |
| Industrial Standard | |

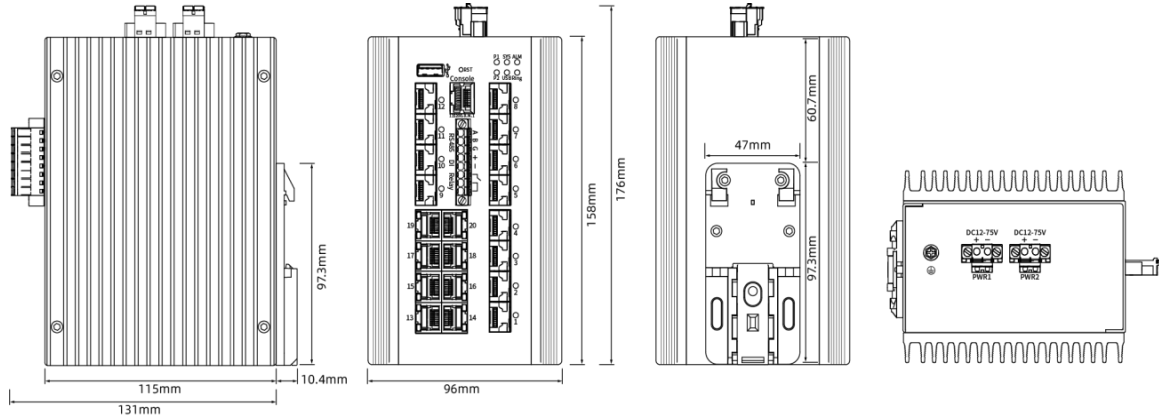
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| EMS | <p>Surge protection of power: IEC 61000-4-5 DC:6KV/6KV (8/20us)</p> <p>Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV (10/700us)</p> <p>RS: IEC 61000-4-3 80 MHz-1 GHz: 10 V/m</p> <p>EFT: IEC 61000-4-4 power 4K, signal 2K</p> <p>CS: IEC 61000-4-6 10V</p> <p>ESD: IEC 61000-4-2 Contact: 8K; Air: 15K</p> |
| 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

LT-IS6520XG-4XS8GX8GT



LT-IS6520XG-4XS8GX8GT-D



Order information

| Model | Description |
|-------------------------|--|
| LT-IS6520XG-4XS8GX8GT | L3 Managed industrial Ethernet switch with 4*1G/2.5G/10GBase-X SFP+ ports , 8*100/1000Base-X SFP and 8*10/100/1000Base-T RJ45 ports. Dual redundant DC 12-75V input , Din-rail installation; Operation temperature -40°C to 80 °C |
| LT-IS6520XG-4XS8GX8GT-D | L3 Managed industrial Ethernet switch with 4*1G/2.5G/10GBase-X SFP+ ports , 8*100/1000Base-X SFP and 8*10/100/1000Base-T RJ45 ports. Support DI/DO/RS485; Dual redundant DC 12-75V input , Din-rail installation; Operation temperature -40°C to 80 °C |