### 16\*10/100/1000Base-T + 8\*1G SFP/RJ45 Combo + 4\*1G/2.5G/10G

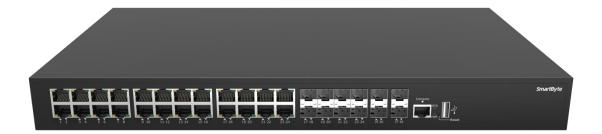
### SFP+ Layer 3 Managed PoE Switch

#### LT-S8528XGP-4XS16GT8GC

#### Overview

SmartByte LT-S8528XGP-4XS16GT8GC is the Layer 3 Managed PoE Switch that provides high-density performance, Layer 3 static and dynamic routing, RIP (Routing Information Protocol) and OSPF (Open Shortest Path First). With 128 Gbps switching capacity and 4 \*1G/2.5G/10Gbps flexible and high performance uplink capability . The LT-S8528XGP-4XS16GT8GC provides comprehensive end to end QoS as well as flexible and rich management , security settings, which can meet the high speed, secure and smart requirement for small and medium-size enterprise networks based on cost effective price. With total power consumption up to **440W** (**850w optional**), they offer a rack-mountable, affordable, safe and reliable power solution for SMBs deploying Power over Ethernet networks, or requiring enhanced data security and network traffic management

#### Picture



#### Features

- > 4\*1G/2.5G/10G SFP+ slots, 16\*10/100/1000M RJ45 PoE ports, 8\*1G SFP/RJ45 Combo ports
- Complies with IEEE 802.3at, IEEE802.3af standard. Max output power consumption per port can reach 30W(PoE+)

Smart and standard PoE chipset to detect the PD equipments automatically, never burn the PD equipments

> Layer 3 routing features: Supports static and dynamic routing, RIP, OSPF, BGP4, ECMP, VRRP

Port aggregation: Supports GE ports, 2.5GE and 10GE port aggregation, static and dynamic aggregation

- VLAN : Supports access, truck , hybrid mode and VLAN classification, including the Mac based
   VLAN, IP based VLAN and protocol based VLAN
- > QinQ: Supports port-based, VLAN-based and flow-based QinQ
- > Port Mirroring: Many to one port mirroring
- Layer 2 ring network protocol: Supports STP, RSTP, MSTP, G.8032 ERPS protocol, single ring, sub ring
- Multicast: Supports IGMP snooping
- QoS: QoS class, remarking, Supports SP, WRR queue scheduling, Ingress/Engress port-based rate-limit and policy-based QoS
- Security: Support Dot1x, port authentication, mac authentication, RADIUS service; Support port-security, ip source guard, IP/Port/MAC binding, arp-check and ARP packet filtering for illegal users and port isolation
- Management : Supports LLDP, user management and login authentication; SNMPV1/V2C/V3; web management, HTTP1.1, HTTPS; Syslog; RMON (Remote Monitoring) alarm, event and history record; NTP, temperature monitoring; Ping、 Tracert and optical transceiver DDM function; Supports TFTP Client, Telnet Server, SSH Server and IPv6 management; PoE management
- > Firmware update, configure backup/restore through Web GUI, FTP and TFTP

### **Technical Specification**

Model No.	LT-S8528XGP-4XS16GT8GC			
Interface	Fiber ports	Copper RJ4	45 ports	Gigabit Combo
	4	16		8
Ethernet	16*10/100/1000Base-T RJ45 PoE 8*COMBO SFP/RJ45 4*1G/2.5G/10GBase-X SFP+			
Management port	1*RJ45 Console port (115200,8,N,1) , 1*USB 2.0 for configuration and firmware update			
Standard	IEEE 802.3 10Base-T EthernetIEEE 802.3 100Base-T EthernetIEEE 802.3ab 1000Base-T EthernetIEEE 802.3z 1000Base-T EthernetIEEE 802.3z 1000Base-X EthernetIEEE 802.3x Flow Control and Back PressureIEEE 802.1D Spanning Tree ProtocolIEEE 802.1W Rapid Spanning Tree ProtocolIEEE 802.1Q VLANITU-T G.8032 ERPSIEEE 802.1X Port Authentication Network ControlIEEE 802.3ad LACPIEEE 802.3afIEEE 802.3at			
LED Indicators				
PWR (Power indicator)	Off: the device is power	off or failed	On: the devic	e power on is normal
SYS (System status indicator)	Blinking: device initializa	ition	On: device on	normal operation
	Off: USB flash drive not insert or not detected by device			
<b>USB</b> (USB status indicator)	On: USB flash drive is detected by device			
	Blinking: the device is reading and writing the data from USB flash drive			
	Off: ports link down			
<b>1-16</b> (Copper ports indicators) Green	On: ports link up			
	Blinking: data on TX/RX			

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<b>1-16</b> (PoE status indicators) Yellow	Off: PoE not working	
	On: PoE working	
<ul> <li>17-24 (Copper ports indicators) Green</li> <li>17-24(PoE status indicators) Yellow</li> </ul>	Off: ports link down	
	On: ports link up	
	Blinking: data on TX/RX	
	Off: PoE not working	
	On: PoE working	
	Off: ports link down	
<b>17-24</b> (Fiber ports indicators) Green	On: ports link up	
Green	Blinking: data on TX/RX	
	Off: ports link down	
<b>25-28</b> (Fiber ports indicators) Green	On: ports link up	
Green	Blinking: data on TX/RX	
Power parameter		
Input voltage	AC 100-240V	
Total power consumption	Full loading ≤ 440W (850W optional)	
Over-current protection	Support	
Layer 2 functions		
	Support GE port aggregation	
	Support 2.5GE aggregation	
Port 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	Support static Mac-address management	

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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
	Support access mode
VLAN	Support trunk mode
	Support hybrid mode
	Mac Based VLAN
VLAN classification	IP Based VLAN
	Protocol Based VLAN
	Normal mode
GVRP	Fixed mode
	Forbidden mode
	Port-based QinQ
QinQ	VLAN-based QinQ (VLAN-stacking; VLAN-mapping)
	Flow-based QinQ
LLDP	LLDP (Link Layer Discovery Protocol)
	Support IEEE802.1D-STP
	Support IEEE802.1W-RSTP
Ring network protocol	Support IEEE802.1S-MSTP
	Support G.8032 ERPS protocol, single ring, sub Ring and major ring
	Recovery time ≤20ms
L2 Multicast	
IGMP snooping	Support IGMP snooping
Group address	Support group address
Security functions	
	IP Standard ACL
ACL	MAC extend ACL
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
	Port access control
802.1x	Mac-address access control
	RADIUS server
	1

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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 Support optical transceiver DDM function
Cable detection	Support copper port cable detection
	Support 802.3af/802.3at
	Support PD watchdog
	Support PoE priority management
PoE 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
Application Protocol Function	S
DHCP Snooping	DHCP snooping trust port Support remote-id/circuit-id configuration DHCP option-82

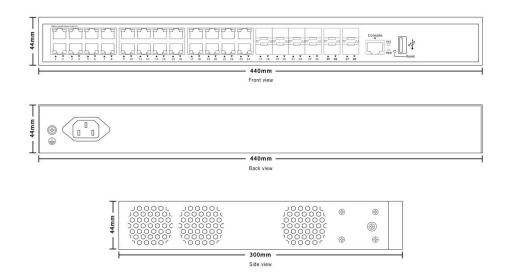
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DHCP client	Support DHCP client
Telnet server	Support telnet server
Telnet client	Support telnet client
SSH server	Support SSH server
TACACS	Support TACACS(the terminal access controller accesses the control system)
sflow	Support network traffic analysis
TFTP	Support TFTP Client
Layer 3 functions	
ARP	ARP table aging
DHCP server	
IPv4 / IPv6	static routing
	Support ECMP (Equal-cost multi-path routing)
ECMP	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
	BGP4
BGP4	BGP Support Routing Recursive ECMP
	Support to view the number of neighbors and up/down state
IS-IS	IS-ISv4
Routing entry	13К
Switching features	
Switching capacity	128Gbps
Packet forwarding rate	190.4Mpps

MAC address table16KVLAN4KBuffer12MbitForwarding delay<5usJumbo FrameSupport 10KbytesMDX/MIDXSupportWatchdogSupportWatchdogSupportMechanical structureInstallation methodDesktop; Rack-mountDimension(W*D*H)mm440*245*44mmWeight4.1kgOperating environment-0°C~+50°CStorage/transportation temperature-10°C~+70°CRelative humidityOperation humidity: 10%-90%RH Storage humidity: 5%-95%RHCertificationCCC/CE/UKCA/RoHS/REACH/FCCMTBF> 100,000 hours		
Buffer12MbitForwarding delay<5us	MAC address table	16К
Forwarding delay       <5us	VLAN	4К
Jumbo Frame       Support 10Kbytes         MDX/MIDX       Support         Watchdog       Support         Mechanical structure       Installation method         Installation method       Desktop; Rack-mount         Dimension(W*D*H)mm       440*245*44mm         Weight       4.1kg         Operating environment       Operating temperature         Operating temperature       -0°C~+50°C         Storage/transportation       -10°C~+70°C         Relative humidity       Operation humidity: 10%-90%RH         Storage humidity: 5%-95%RH       Certification         CCC/CE/UKCA/RoHS/REACH/FCC       Operating temperature	Buffer	12Mbit
MDX/MIDX       Support         Watchdog       Support         Mechanical structure       Installation method         Installation method       Desktop; Rack-mount         Dimension(W*D*H)mm       440*245*44mm         Weight       4.1kg         Operating environment       -0°C~+50°C         Storage/transportation       -10°C~+70°C         Relative humidity       Operation humidity: 10%-90%RH         Storage humidity: 5%-95%RH       CCC/CE/UKCA/RoHS/REACH/FCC	Forwarding delay	<5us
WatchdogSupportMechanical structureInstallation methodDesktop; Rack-mountDimension(W*D*H)mm440*245*44mmWeight4.1kgOperating environmentOperating temperature-0°C~+50°CStorage/transportation temperature-10°C~+70°CRelative humidityOperation humidity: 10%-90%RH Storage humidity: 5%-95%RHCertificationCCC/CE/UKCA/RoHS/REACH/FCC	Jumbo Frame	Support 10Kbytes
Mechanical structure         Installation method       Desktop; Rack-mount         Dimension(W*D*H)mm       440*245*44mm         Weight       4.1kg         Operating environment       0°C~+50°C         Storage/transportation temperature       -0°C~+70°C         Relative humidity       Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH         Certification       CCC/CE/UKCA/ROHS/REACH/FCC	MDX/MIDX	Support
Installation method     Desktop; Rack-mount       Dimension(W*D*H)mm     440*245*44mm       Weight     4.1kg       Operating environment     0       Operating temperature     -0°C~+50°C       Storage/transportation temperature     -10°C~+70°C       Relative humidity     Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH       Certification     CCC/CE/UKCA/ROHS/REACH/FCC	Watchdog	Support
Dimension(W*D*H)mm440*245*44mmWeight4.1kgOperating environment-0°C~+50°COperating temperature-0°C~+50°CStorage/transportation temperature-10°C~+70°CRelative humidityOperation humidity: 10%-90%RH Storage humidity: 5%-95%RHCertificationCCC/CE/UKCA/RoHS/REACH/FCC	Mechanical structure	
Weight       4.1kg         Operating environment       -0°C~+50°C         Storage/transportation temperature       -0°C~+70°C         Relative humidity       Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH         Certification       CCC/CE/UKCA/RoHS/REACH/FCC	Installation method	Desktop; Rack-mount
Operating environment         Operating temperature         -0°C~+50°C         Storage/transportation         temperature         -10°C~+70°C         Relative humidity         Operation humidity: 10%-90%RH         Storage humidity: 5%-95%RH         Certification         CCC/CE/UKCA/RoHS/REACH/FCC	Dimension(W*D*H)mm	440*245*44mm
Operating temperature       -0°C~+50°C         Storage/transportation       -10°C~+70°C         temperature       Operation humidity: 10%-90%RH         Relative humidity       Operation humidity: 5%-95%RH         Certification       CCC/CE/UKCA/RoHS/REACH/FCC	Weight	4.1kg
Storage/transportation temperature     -10°C~+70°C       Relative humidity     Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH       Certification     CCC/CE/UKCA/RoHS/REACH/FCC	Operating environment	
temperature     -10 C*+70 C       Relative humidity     Operation humidity: 10%-90%RH       Storage humidity: 5%-95%RH       Certification     CCC/CE/UKCA/RoHS/REACH/FCC	Operating temperature	-0℃~+50℃
Relative humidity     Storage humidity: 5%-95%RH       Certification     CCC/CE/UKCA/RoHS/REACH/FCC		-10℃~+70℃
Certification CCC/CE/UKCA/RoHS/REACH/FCC	Relative humidity	
MTBF > 100,000 hours	Certification	
	МТВF	> 100,000 hours



#### Structure diagram



#### Order information

Model	Description	
	Layer 3 managed PoE switch with 4*1G/2.5G/10G SFP+ ports	
LT-S8528XGP-4XS16GT8GC	+16*10/100/1000M RJ45 PoE ports,8*1G SFP/RJ45 Combo ports,AC	
	100-240V 50/60Hz, total power consumption 440W (850W optional)	