

**BDCOM**  
Professional Network Technology

**COMCAST** GROUP



**BDCOM**

**BDCOM S5600 Series  
L2 Full 10G Switches**

## BDCOM S5600 Switch Series

### Product Overview

BDCOM S5600 Switch Series is a new generation of full gigabit smart switches targeted at the operator IP metropolitan area networks, government and enterprise networks, Internet cafes and diskless working environments introduced by Shanghai Baud Data Communication co., LTD. S5600 is developed on the basis of high performance hardware and BDROS - a software platform with BDCOM own independent intellectual property rights. It also supports strong ACL, selective QinQ, 1:1 and N:1 VLAN switching, Ethernet OAM, carrier QoS, and the industrial 10G Ethernet ring network. These functions make the product meet the need of various complex situations.

BDCOM S5600 Switch Series has one model S5612. It meets the need of networks of different scales.

- S5612: 12 10G/gigabit auto-adaptive SFP+ optical ports, 8 gigabit RJ45 TX ports.

### Features

#### Industrial Ethernet Ring Network Function, Zero Delay and Zero Packet Loss

- The S5600 supports industrial Ethernet ring network protection protocol. The protection switching time is less than 50ms. The solution has been applied in power industry, rail transportation industry and military projects for decades. It can achieve zero packet loss.

#### Carrier Ethernet Switches

- The S5600 supports carrier Ethernet ring network protection protocol. The protection switching time is less than 50ms. It also supports simple and effective redundancy protection mechanism such as STP/RSTP/MSTP protocol and dual uplink standby link protection and LACP link aggregation. These functions meet the requirement of carrier grade high reliability.
- The S5600 has perfect Ethernet OAM, which can real time monitor the network operating state and rapidly detect and locate the malfunction.

- The S5600 supports strong ACL function. The solution supports L2~L7 data access and control based on the physical port, VLAN IDs, source MAC/IP addresses and protocol port, which provides flexible ways of policy control.
- The S5600 supports ISSU (In-Service Software Upgrade) , guaranteeing the user data non-stop forwarding when the system is upgrading.
- The S5600 supports various L2 multicast function, including user fast-leave mechanism and cross VLAN multicast replication function.

### Carrier QoS Policies

- The S5600 supports complex traffic classification based on VLAN IDs, source MAC/IP addresses, destination MAC/IP addresses, IP protocols, or priorities. It also supports priority remark. These functions provide an effective way for users to optimize their businesses.
- The S5600 provides selective bandwidth control policies and support a port base or flow-based Committed Access Rate (CAR) and guarantees Layer 3 wire-speed forwarding.
- Every port supports 8 priority queues.
- The S5600 also supports multiple queue grooming algorithms such as SP, WRR or SP+WRR.

### Comprehensive IPv6 Solutions

- The S5600 comprehensively supports IPv6 Neighbor Discovery, ICMPv6、 Path MTU Discovery.
- The S5600 supports IPv6 based Ping, Traceroute, Telnet, SSH, ACL. It meets the need of IPv6 network equipment management and service control.

### Complete Security Mechanisms

- The S5600 adopts advanced hardware architecture design, realizing the hierarchical scheduling and protection of the packet. It provides multiple security measures to defend against DOS or TCP attacks, and supports command line authority control based on user levels.
- Comprehensive Security Certification: The S5600 complies with IEEE 802.1x, Radius, BDTacacs+.

- The S5600 supports the suppression of broadcast, multicast and unknown unicast packet, ensuring the equipment can operate normally in harsh network conditions.
- The S5600 has the perfect loop detection mechanism.
- The S5600 supports the port isolation in a same VLAN and DHCP-Snooping, IP+MAC+ port binding.

## Convenient Management and Maintenance

- The S5600 supports multiple management styles such as Console, Telnet, SSH.
- The S5600 supports WEB based management. The management is more simple and effective.
- The S5600 supports upload and download of TFTP files.
- The S5600 supports ISSU (In-Service Software Upgrade).
- The S5600 supports SNMP. By cooperating with Baud's smart NMS, functions including the equipment auto-discovery, the topology management, the equipment configuration management, the performance data analysis, and the fault management can be realized. In this way, the network management is simple and creates a new product experience for the user.

## Product Specifications

Item	S5612
Backplane	240Gbps
Forwarding rate	180Mpps
MAC	32K
Ports	1 Mini USB Console port, 12 10GE/GE auto-adaptive SFP+ slots, 8 GE TX ports, support key Reset
Dimensions mm (W × D × H)	442.5×315×44
Power supply	AC: 100V-240V, 50Hz±10% DC: -36V~-72V
Environment	operating temperature/humidity: 0°C-50°C, 10%-90% non-condensation storage temperature/ humidity: -20°C-70°C; 5%-95% non-condensation

MAC switching function	<p>Support static configuration and dynamically learning of MAC address</p> <p>Support check and delete MAC address</p> <p>Configuring of MAC address aging time</p> <p>Support limit on MAC address learning number</p> <p>Support MAC address filtering function</p> <p>Support the black-hole MAC items</p>
VLAN	<p>Support 4K VLAN entries</p> <p>Support GVRP</p> <p>Support 1:1 and N:1 VLAN Mapping</p> <p>Support QinQ and selective QinQ</p> <p>Support Private VLAN</p>
STP	<p>Support 802.1D (STP), 802.1W (RSTP), 802.1S (MSTP)</p> <p>Support BPDU protection, root protection and ring protection</p>
Multicast	<p>Support IGMP v1/v2/v3</p> <p>Support IGMP Snooping</p> <p>Support IGMP Fast Leave</p> <p>Support multicast group policy and multicast number limit</p> <p>Support multicast traffic cross VLAN duplication</p>
IPv6	<p>Support ICMPv6, DHCPv6, ACLv6, IPv6 Telnet</p> <p>Support IPv6 Neighbor Discovery</p> <p>Support Path MTU Discovery</p> <p>Support MLD v1/v2</p> <p>Support MLD Snooping</p>
QoS	<p>Support the traffic classification of L2~4 protocol headers</p> <p>Support CAR traffic control</p> <p>Support 802.1P/DSCP priority remark</p> <p>Support multiple queuing algorithms such as SP, WRR or SP+WRR</p> <p>Support Tail-Drop, WRED</p> <p>Support traffic supervision and traffic shaping</p>
Security features	<p>Support the identification and filtering of L2/L3/L4 based ACL</p>

	<p>Defend against DOS or TCP attacks</p> <p>Support the suppression of broadcast, multicast and unknown unicast packet.</p> <p>Support the port isolation</p> <p>Support the port security, IP+MAC+port binding</p> <p>Support DHCP Snooping, DHCP Option 82</p> <p>Support IEEE 802.1x certification</p> <p>Support Radius, BDTacacs+</p> <p>Support command line authority control based on user levels</p>
Reliability	<p>Support static LACP link aggregation</p> <p>Support EAPS, ERPS</p> <p>Support ISSU</p>
Management	<p>Support Console, Telnet, SSH</p> <p>Support WEB based management</p> <p>Support SNMP v1/v2/v3</p> <p>Support upload and download of TFTP files</p> <p>Support RMON</p>

## Product Order Information

Item	Description
<b>S5600 Series</b>	
S5612	L2+ managed Ethernet switch with 12 10GE ports, 8 GE ports (1 Console port, 12 10GE/GE auto-adaptive SFP+ slots, 8 GE TX ports; 220V AC power supply, support dual power supplies; the cooling fan, height 1U, standard 19-inch rack-mounted installation)
<b>Optical Modules</b>	
<b>Gigabit Optical Modules</b>	
GSFP-TX-B	Gigabit SFP optical ports transfers to RJ45 TX port modules
GSFP-SX-D	Gigabit SFP multi-mode (500m, 850nm, LC, DDM)
GSFP-LX-10-D	Gigabit SFP single mode (10Km, 1310nm, LC, DDM)

GSFP-LX-20-D	Gigabit SFP single mode (20Km, 1310nm, LC, DDM)
GSFP-LX-40-D	Gigabit SFP single mode (40Km, 1310nm, LC, DDM)
GSFP-ZX-80-D	Gigabit SFP single mode (80Km, 1550nm, LC, DDM)
GSFP-LX-SM1310-10-BIDI	Gigabit SFP single mode, single-core bidirectional (10Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-10-BIDI	Gigabit SFP single mode, single-core bidirectional (10Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-20-BIDI	Gigabit SFP single mode, single-core bidirectional (20Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-20-BIDI	Gigabit SFP single mode, single-core bidirectional (20Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-40-BIDI	Gigabit SFP single mode, single-core bidirectional (40Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-40-BIDI-1310	gigabit SFP single mode, single-core bidirectional (40Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1490-80-BIDI	Gigabit SFP single mode, single-core bidirectional (80Km, TX1490/RX1550, LC, DDM)
GSFP-LX-SM1550-80-BIDI	Gigabit SFP single mode, single-core bidirectional (80Km, TX1550/RX1490, LC, DDM)

### 10G Optical Modules

SFP+SX	10G SFP multi-mode (300m, 850nm, LC)
SFP+LX-10	10G SFP single mode (10Km, 1310nm, LC, DDM)
SFP+LX-20	10G SFP single mode (20Km, 1310nm, LC, DDM)
SFP+LX-40	10G SFP single mode (40Km, 1550nm, LC, DDM)
SFP+LX-80	10G SFP single mode (80Km, 1550nm, LC, DDM)

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