

S5800 SERIES



Supports Maximum 48
10GE Ports and 4 100GE
QSFP28 Uplink Ports



Advanced Hardware
Architecture and
Industry-leading Port
Density



Carrier-Level High
Reliability
Data-center TOR
Switches
Full Layer-3 Functions



Varied Service
Characteristics
Versatile IPv6 Solution
Complete Security
Mechanism

Product Overview

BDCOM S5800 Series is a new generation of full-10GE TOR switches, oriented for high-performance computing, data center and high-end campuses. The S5800 Series adopts our most advanced hardware architecture designs.

S5800 Series (1U height) supports up to 2.56Tbps switching capacity and 48 10GE ports + 2 40GE ports + 4 100G full-duplex ports or 72 10GE ports.

S5800 Series supports BVSS, TRILL, SDN and FCoE/FC. By cooperating with S9500 Series, S5800 Series can converge data of 15000+ 10GE servers.

Developed on the basis of BDROS 6 - a software platform BDCOM with its own independent intellectual property rights, S5800 Series provides high-performance L2/L3/L4 wire speed switching capacity by integrating services such as IPv6, MPLS VPN, network security, flow analysis, virtualization, with high reliable techniques including continuous forwarding, graceful restarting and loop network protection, all which works efficiency withing the S5800 Series fabric for guaranteed maximum runtime.

S5800 Series supports the "GreenTouch" architecture and "Smart@CHIP". Its power consumption is lower than 200W.

S5800 Series has 4 models: S5828, S5832, S5864 and S5864H.

Carrier-Level Aggregation Layer-3 Ethernet Switch Innovative BVSS (BDCOM Virtual Switch System):

virtualize multiple physical devices into one. The performance, reliability and management capabilities of the virtual system combine to outperform that of individual physical devices;

Improved Performance: BVSS makes full use of each link in the physical device cluster, which avoids STP blocking on links and protects the original link to the maximum;

* Support 8 units stacking BVSS in roadmap 2020.

High Reliability: Based on the advanced distribution mechanism and efficient cross-physical link aggregation function, the logic control plane, service control plane and service data plane are separated. Thus, the device can support continuous layer3 routing forwarding, avoiding service interruption as a result of a single point of failure;

Easy Management : BVSS realizes single IP management, throughput up to 160Gbps stacking, greatly improving the networking efficiency and lowering operating costs.

Closed loop stacking Fast recover

Link data, power, sys

MDI/MDIX auto



Ordering Information

Item	Description
S5800 series switches	
S5832	Ethernet routing switch with 24 10GE ports, 2 40GE ports and 4 GE ports (1 console port, 1 out-band port, 24 10GE/GE SFP+ ports, 2 40GE QSFP+ ports (each 40GE port can expand to 4 10GE ports); 2 power slots with 2 hot-swap AC220V power supplies; 5 fan slots, including 5 fans; 1U, 19-inch rack-mounted installation)
S5864	Ethernet routing switch with 48 10GE ports, 4 40GE ports (1 console port, 1 out-band port, 1 USB2.0, 48 10GE/GE SFP+ ports, 4 40GE QSFP+ ports (each 40GE port can expand to 4 10GE ports); 2 power slots with 2 hot-swap AC220V power supplies; 5 fan slots, including 5 fans; 1U, 19-inch rack-mounted installation)
S5828	Ethernet routing switch with 24 10GE ports, 4 100GE ports (1 console port, 1 out-band port, 24 10GE/GE SFP+ ports, 4 100GE/40GE QSFP28 ports (can expand to 4 10GE ports); 2 power slots with 2 hot-swap AC220V power supplies; 4 fan slots, including 4 fans; 1U, 19-inch rack-mounted installation)
S5864H	Ethernet routing switch with 48 10GE ports, 2 40GE ports and 4 100GE ports (1 console port, 1 out-band port, 48 10GE/GE SFP+ ports, 2 40GE QSFP+ ports, 4 100GE (can expand to 4 10GE ports), 2 power slots with 2 hot-swap AC220V power supplies; 4 fan slots, including 4 fans; 1U, 19-inch rack-mounted installation)
Optical Modules	
40GE optical modules	
QSFP+40G-SR4-100m	40G QSFP+ optical module (100m, 850nm, MPO, DDM, supports 1 to 4)
QSFP+LR4-10	40G QSFP+ optical module (10Km, 1310nm, LC, DDM)
10GE optical modules	
SFP+TX	10GE SFP+-to-RJ45 module
SFP+SX	10GE SFP+ multi-mode (300m, 850nm, LC)
SFP+LX-10	10GE SFP+ single-mode (10Km, 1310nm, LC, DDM)
SFP+LX-20	10GE SFP+ single-mode (20Km, 1310nm, LC, DDM)
SFP+LX-40	10GE SFP+ single-mode (40Km, 1550nm, LC, DDM)
SFP+LX-80	10GE SFP+ single-mode (80Km, 1550nm, LC, DDM)
SFP+LX-SM-1270-10	10GE SFP+ single-mode, single-fiber (10Km, TX1270/RX1330, LC, DDM)
SFP+LX-SM-1330-10	10GE SFP+ single-mode, single-fiber (10Km, TX1330/RX1270, LC, DDM)
SFP+LX-SM-1270-20	10GE SFP+ single-mode, single-fiber (20Km, TX1270/RX1330, LC, DDM)
SFP+LX-SM-1330-20	10GE SFP+ single-mode, single-fiber (20Km, TX1330/RX1270, LC, DDM)
SFP+LX-SM-1270-40	10GE SFP+ single-mode, single-fiber (40Km, TX1270/RX1330, LC, DDM)
SFP+LX-SM-1330-40	10GE SFP+ single-mode, single-fiber (40Km, TX1330/RX1270, LC, DDM)
GE Optical Modules	
GSFP-TX-B	GE SFP-to- RJ45 module
GSFP-SX-D	GE SFP multi-mode (500m, 850nm, LC, DDM)
GSFP-LX-10-D	GE SFP single-mode (10Km, 1310nm, LC, DDM)
GSFP-LX-20-D	GE SFP single-mode (20Km, 1310nm, LC, DDM)
GSFP-LX-40-D	GE SFP single-mode (40Km, 1310nm, LC, DDM)
GSFP-ZX-80-D	GE SFP single-mode (80Km, 1550nm, LC, DDM)
GSFP-ZX-120-D	GE SFP single-mode (120Km, 1550nm, LC, DDM)
GSFP-LX-SM1310-10-BIDI	GE SFP single-mode, single core bidirectional (10Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-10-BIDI	GE SFP single-mode, single core bidirectional (10Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-20-BIDI	GE SFP single-mode, single core bidirectional (20Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-20-BIDI	GE SFP single-mode, single core bidirectional (20Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-40-BIDI	GE SFP single-mode, single core bidirectional (40Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-40-BIDI	GE SFP single-mode, single core bidirectional (40Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1490-80-BIDI	GE SFP single-mode, single core bidirectional (80Km, TX1490/RX1550, LC, DDM)
GSFP-LX-SM1550-80-BIDI	GE SFP single-mode, single core bidirectional (80Km, TX1550/RX1490, LC, DDM)
GSFP-LX-SM1490-120	GE SFP single-mode, single core bidirectional (120Km, TX1490/RX1550, LC, DDM)
GSFP-LX-SM1550-120	GE SFP single-mode, single core bidirectional (120Km, TX1550/RX1490, LC, DDM)

Product Specifications

Item	S5832	S5864	S5828	S5864H	
Interface	4 GE TX ports, 24 10GE/GE SFP+ ports, 240GE QSFP+ ports	48 10GE/GE SFP+ ports, 440GE QSFP+ ports	24 10GE/GE SFP+ ports, 4 100GE/40GE QSFP28 ports Latency 5 micro seconds in packets 64bytes	48 10GE/GE SFP+ ports, 240GE QSFP+ ports, 4 100GE/40GE QSFP28 ports Latency 5 micro seconds in packets 64bytes	
Console	1RJ45console,1MGMT	1RJ45 console,1MGMT	1RJ45 console,1MGMT	1 RJ45 console, 1 MGMT	
Backplane	648Gbps	1280Gbps	800Gbps	1920Gbps	
Forwarding rate	486Mpps	960Mpps	600 Mpps	1440 Mpps	
Chassis	Dimensions (WxDxH)(mm)	442x404x44	442x404x44	440x350x44	442x404x44
	Weight (KG)(empty)	8.5	8.6	7.1	8.8
Package	Dimensions (WxDxH)(mm)	596x468x114	616x488x140	576x448x94	616x488x140
	Weight(KG)	9.7	9.8	8.3	10
Power consumption	no-load	81.5W	94W	45W	102W
	full-load	92W	131.5W	70W	147W
Power supply (hot-swap)	AC: 100V-240V, 50Hz-60HZ	2	2	2	2
Power status monitoring	Support	Support	Support	Support	
Total output BTU (1000BTU/H=293W)	313.99	448.81	238.91	501.71	
Fan number	5	5	4	4	
Noise@25°C (dBA)	55	55	57	57	
MTBF(H)	>100,000	>100,000	>100,000	>100,000	
Forwarding mode	Store-forward	Store-forward	Store-forward	Store-forward	
Bvss member	4	4	4	4	
Bvss port	10G/40G	10G/40G	10G/40G/100G	10G/40G/100G	
Flash (MB)	32	32	32	64	
DRAM (MB)	2048	2048	1024	512	
MAC	128K	128K	32K	64K	
Jumbo frame	9K	9K	9K	9K	
Routing table	IPv4	16K	16K	16K	8K
	IPv6	8K	8K	12K	4K
VRF group	24	24	24	24	
Multicast group	1K	1K	1K	1K	
ARP table	IPv4	16K	16K	10K	4K
	IPv6	8K	8K	10K	4K
Link Aggregation	8 groups/8 ports	8 groups/8 ports	120 groups with 8 ports each group	120 groups with 8 ports each group	
Total SVI	1K	1K	1K	1K	
4K ACL	4K	4K	4K	4K	

Application Diagram

