Innovative Datacenter Switch
48 x 1GE Base-T & 8 x 10GE SFP+ Ports

High-density, datacenter optimized server switching.

The rapid growth in demand for bandwidth shows no signs of stopping, requiring datacenters to constantly build upon the existing density of their networking environments. The S6800-56ST switch is a datacenter-class switch product with 48 x 1GE Base-T and 8 x 10GE SFP+ ports designed to meet customers' large capacity data switching needs with superior performance and unsurpassed reliability. By providing a high number of ports in a single compact switch, the S6800-56ST makes automation and orchestration easier than ever, simplifying datacenter network infrastructure through its innovative architecture and extensive datacenter-ready features. With its low-latency, high-density ports, the S6800-56ST makes scale-out easy, giving datacenters unmatched capacity to meet whatever demands the future may bring. Flexible, reliable, powerful – maximize your return on investment and ensure compliance with environmental policies with the next-generation S6800-56ST.

Key applications

- High-density 1GE ToR server aggregation for high-performance datacenter environments.
- Hot/cold aisle airflow support, front to rear and rear to front.
- Enables cost-effective application of 10GE uplinks through small-scale implementation in Spine-Leaf networks.
- Serves as TOR switch to link with a server or as IPMI switch.
- VXLAN/NVGRE capable hardware supporting virtual machine mobility.
- Extensive transition technologies for IPv4, IPv6, and dual stack management functions.
- Superior management and security through console and out-of-band interface options.
- High-speed Layer 2 deployment support to connect nonvirtualized infrastructure with hyper visor-based overlay networks.

Key features

- 48 x 1GE Base-T & 8 x 10GE SFP+ ports for downlinking and uplinking capability.
- Modular dual power supply and fan assembly with overcurrent, overvoltage, and overheating protection.
- Next-generation Spine-Leaf network architecture, enhancing capacity and optimizing scaling.
- ARM Cortex A9@1GHz CPU with 256 Gbps switching capacity.
- Specifically designed for utilization in high-performance datacenter environments.
- Hot and cold backup switching without system reboot or reconfiguration ensuring uninterrupted data processing and operation.
- Non-blocking switching architecture.

Specifications

Physical

- Compact full featured modular 1GE/10GE datacenter switch
- 1 Mini USB console/management port with RS232 signaling
- 1 10/100/1000 Base-T Ethernet for Out-of-Band management
- 1 USB 2.0 Type-A port

Processor	ARM Cortex A9@1GHz
Memory	DDR3 2GB w/ ECC SODIMM
Storage	NAND Flash: 2GB
ASIC	Broadcom BCM56344 (Helix 4)
Built-in Interfaces	Total 1GE Base-T: 48 Total 10GE: 8
LED	Power, system, link & activity, fan & PSU status
Chassis	1 RU, 440w x 44h x 406d mm (17.32" x 1.73" x 15.98") Weight (including 2 x PSUs & 2 x fans): 7.92 kg (17.46 lb)
Redundancy	Two hot swappable power supplies with integrated fans and trays

Environmental

- Fresh air compliant to 45°C (113°F)
- Rack mounting kit

Power supply	AC input: 100V-127V, 5.8A, 50/60Hz AC input: 200V-240V, 2.9A, 50/60Hz Typical/Max power draw: 88/116Watts
Max. operating Specs.	Operating temperature: 0°C to 45°C (32°F to 113°F) Operating humidity: 10% to 90% (RH), noncondensing
Max. non-operating Specs.	Storage temperature: –40°C to 70°C (–40°F to 158°F) Storage humidity: 5% to 95% (RH), non-condensing

Performance

Switching Capacity	256Gbps
Packet throughput	190Mpps

Regulatory compliance

EMC	EN55032 Class A EN61000-3-2/EN61000-3-3 EN55024 FCC P15B Class A BSMI (CNS 13438) Class A CCC (GB9254) Class A RoHS: RoHS 6 UL
Safety	IEC/EN 60950-1/A2 BSMI (CNS 14336-1) CCC (GB4943)

S6800-56ST Views

S6800-56ST front view

S6800-56ST rear view

Supported Accessories

Transceiver	10GE, SR SFP+ 10GE, LR SFP+
Cable types	10GE, SFP+ to SFP+, Active Optical Cable 10GE, SFP+ to SFP+, Direct Attached Cable
Power supply types	DPS-460KBL-FTB, 460W AC PSU, airflow from panel to rear side (front to rear) DPS-460KBK-BTF, 460W AC PSU, airflow from rear to panel side (rear to front)
Fan types	Fan normal airflow from panel to rear side Fan reverse airflow from rear side to panel Fan spare supports normal and reverse airflow operations