Innovative Datacenter Switch
48 x 10GE SFP+ & 6 x 40GE QSFP+ Ports

High-density, datacenter optimized server switching.

The demand for bandwidth is ever increasing, requiring datacenters to continually enhance the density of their networking environments. The S7810-54QS switch is a datacenter-class 10GE/40GE switch product designed to meet customers' large capacity data switching needs with superior performance and unsurpassed reliability. By providing a high number of 10GE and 40GE ports in a single compact switch, the S7810-54QS 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 S7810-54QS makes scale-out easy, giving datacenters unmatched flexibility to meet whatever demands the future may bring . Flexible, reliable, powerful – maximize your return on investment with the next-generation S7810-54QS.

Key applications

- High-density 10/40GE ToR server aggregation for high-performance datacenter environments.

- Enables cost-effective application of 10/40GE uplinks through small-scale implementation in Spine-Leaf networks.

- 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 10GE SFP+ & 6 x 40GE QSFP+ 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.

- CPU: Intel® Rangeley C2558 2.4G 4-Core.

- 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.

Specifications

Physical

- Compact full featured modular 10GE/40GE datacenter switch
- 1 Mini USB serial console port with mini-USB to RJ45 converter cable
- 1 10/100/1000 Base-T Ethernet for Out-of-Band management
- 1 USB 2.0 Type-A port

Processor	Intel® Rangeley C2558 2.4G 4-Core
Memory	DDR3 8GB w/ ECC SODIMM
Storage	M.2 SSD 64GB
ASIC	Broadcom BCM56854 (Trident 2)
Built-in Interfaces	Total 10GE: 48 Total 40GE: 6
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 & 4 x fans): 9.68 kg (21.34 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-240V, 7-3.5A 60/50Hz DC input: 240V, 2.75A (240Vdc China only) Typical/Max power draw: 285/370 Watts
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	1440Gbps
Packet throughput	1070Mpps

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)

S7810-54QS Views

S7810-54QS front view

S7810-54QS rear view

Supported Accessories

Transceiver	10GE, SR SFP+	10GE, LR SFP+ 40GE, SR4 QSFP+	40GE, LR4 QSFP+
Cable types	10GE, SFP+ to SFP+, AOC	10GE, SFP+ to SFP+, DAC 40GE, QSFP+ to QSFP+, AOC	40GE, QSFP+ to QSFP+, DAC 40GE, MTP to 4 x LC optical breakout	40GE, 4 x 10GE, QSFP+ to 4 x SFP+, DAC
Power supply types	CRPS550W-AC-FTB, 550W AC/DC PSU, airflow from panel to rear side (front to rear) CRPS550W-AC-BTF, 550W AC/DC 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