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Crystal Group RCS7850-24/38/48 Rugged Switch

48 ports

Up to 8 of the rightmost QSFP28 ports for stacking

Advanced Layer 3 routing capable

40/100GbE QSFP28 ports

AC or DC power supply options

MACsec 128/256bit encryption capable

Bring powerful network speed to edge applications

Equipped with 24-48 QSFP-28 ports, this unit uses fiber optics to deliver transmission speeds of 100Gb. When needed, up to 12 of these switches can be stacked for easy management and an aggregated bandwidth of up to 9.6Tb per second.

This 19" deep switch—based on the CommScope ICX-7850 series—provides enterprise-class solutions for small or medium-size applications, such as field radar systems, that depend on a reliable digital backbone to meet interface and bus speeds.

Housed in a rugged, lightweight, and compact enclosure, the RCS7850-24/32Q/48 provides intelligent, scalable, edge technology with plug-and-play functionality and MIL-SPEC environmental performance to survive harsh environments, extreme temperatures, and brutal shock and vibration.

Use cases

- Cybersecurity protection
- Sensor data aggregation
- Edge client uplink
- Intelligence forwarding
- Enterprise routing

Designed to MIL-STD-810

Humidity   Shock   Operational Temperature   Vibration   Altitude
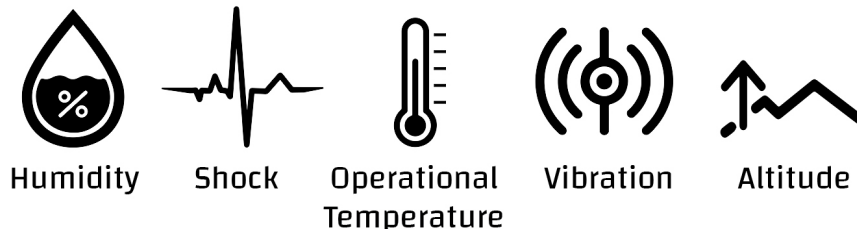
Crystal Group RCS7850 Technical Specifications

Height	1U
Width	17.32" (43.99 cm)
Depth	19"-21.8" (48.3-55.2 cm); power supply dependent
Weight	18-21 lbs (8.2-9.5 kg)
Cooling	Forced air convection via internal, high-reliability fans
Mounting	Glides or fixed; mounts in standard EIA-310 rack
Power Supply	**AC:** 100-240 VAC **DC:** 113-36 VDC

Environmental testing standards [1]

MIL-STD-810: Environmental Engineering Considerations and Laboratory Tests	MIL-STD-810, Operational Temperature, Method 501/502 Procedure I/II: -40°C to +50°C MIL-STD-810, Vibration, Method 514, Procedure I: 3 GRMS, 5-2000Hz, 60 min/axis MIL-STD-810, Shock, Method 516, Procedures I/V: 20g, 11msec functional shock; 40g, 11msec crash hazard shock MIL-STD-810, Humidity, Method 507 with kit MIL-STD-810, Altitude, Method 500: 12,500ft operation, 40,000ft transport

Switch features

Fixed Ports: 40/100 GbE QSFP28	**24/38/42**
Console Port	1
Out of Band Management Port	1
Aggregated Stacking Bandwidth	9.6 Tbps
Maximum Units per Stack	12
Maximum Stacking Distance	10 KM
Average Latency	0.8 microseconds
Base software	Layer 3 with static routes; upgradeable to full L3 with license
Security	MACsec 128/256 encryption with license
Switching capacity (full duplex)	6.4 Tbps
Forwarding capacity (full duplex)	2 Bpps

In-house test reports provided for baseline units; customer-specific test options available upon request.
1: Testing in progress

AS9100D CERTIFIED ISO 9001

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