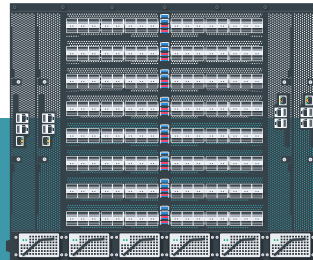


Cumulus Express CX-10256



Open modular switch designed to meet the most demanding web-scale data center requirements with highly scalable layer 2 and layer 3 features

Overview

The Cumulus Express CX-10256 brings unmatched speed and power to your web-scale data center network by delivering up to 25.6 Tbps of system throughput. It is designed for highly scalable layer 2 and layer 3 networks and has enough density to deliver outstanding network performance while simplifying designs and reducing OpEx.

Cumulus Express CX-10256 is a 8-slot, 10RU chassis that supports up to eight line cards. It supports up to 256 ports of 100GbE and 40GbE, and it offers up to 25.6 Tbps of front panel throughput. All components on CX-10256 are hot-swappable, including redundant fabric, power supplies and cooling fan modules.

Cumulus Linux

The Cumulus Express CX-10256 comes loaded with Cumulus Linux, the most flexible network operating system available. Cumulus Linux enables you to automate, customize and scale your data-center network using web-scale principles like the world's largest data centers.

Cumulus Linux is a networking-focused Linux distribution, based on Debian, which offers a completely open architecture and is built for the automation age. Existing open source and commercial Linux applications run natively on Cumulus Linux, which means you can simply and easily integrate your existing tools — improving efficiency and multiplying the number of switches per operator.

Customers can also leverage [NetQ](#), a telemetry-based fabric validation system that ensures the network is behaving as it was intended, or [Host Pack](#), host software essentials, to bring web-scale networking to the entire stack.

For details of features and functionality in Cumulus Linux, please see the [product page](#).

Benefits

SIMPLICITY

CX-10256 comes with 256 x 100G front panel ports in a 10RU form factor with a non-blocking fabric, which is equivalent to 24 x 1U 100G fixed-form factor leaf and spine switches.

OPENNESS

Traditional chassis use unknown ASICs within the system, undocumented counters and paths preventing administrators from troubleshooting, and proprietary fabric protocols between line cards and fabric cards. In contrast, Cumulus Express chassis are entirely open, with one industry-standard ASIC across all line cards and fabric cards. The communication channel between the cards is pure Ethernet, meaning you need just one troubleshooting method across the entire fabric, including outside of the chassis.

OPERATION EFFICIENCY

The line cards and fabric cards are interconnected to form into a non-blocking Clos architecture. This reduces sourcing, eases deployment and minimizes cabling errors by eliminating 256 cables and 512 optics. It also simplifies management complexities compared to a 24 x 1U 100G fixed-form factor Clos network.

SCALABILITY

CX-10256 follows web-scale principles that enable customers to maintain consistent, automated provisioning across all their switches, regardless of their form factors (fixed or chassis).

SPECIFICATIONS

Ports	256 QSFP28
Max 100 GbE	256 ports
Max 50 GbE	512 ports
Max 40 GbE	256 ports
Max 25 GbE	1024 ports
Max 10 GbE	1024 ports
Front Panel Throughput	25.6 Tbps
Switching Capacity	76.8 Tbps
Total Line Card Slots	8
Total Fabric Card Slots	4
Power	Up to 6 power supplies 3 + 3 redundancy 3000W, 220 - 240 VAC Max power consumption: 7000 W
Cooling	Front-to-back airflow 15 + 1 redundancy
Dimensions (W x H x D)	21 x 17.5 x 30" (532 x 444.5 x 762 mm) / 10RU Requires 21" rack
Weight	320 lbs (145 kg) / full chassis

ENVIRONMENTAL CHARACTERISTICS

	CX-10256
Operating Temperature	0 to 40°C (32 to 104°F)
Operating Humidity	5 - 95% non-condensing

REGULATORY COMPLIANCE

	CX-10256
EMC	EU (EN55022, EN55024, EN61000-3-2, EN61000-3-3), FCC, VCCI
Safety	UL/CUL, CB

Ordering Information

CX-10256 SKUS

PRODUCT NUMBER	PRODUCT DESCRIPTION
CX-10256-S-F-B	Cumulus Express CX-10256 256-port modular switch 100G optical front to back air, fully populated (eight line cards and four fabric cards)
CX-10256-S-F-A	Cumulus Express CX-10256 128-port modular switch 100G optical front to back air, half populated (four line cards and four fabric cards)
CX-10256-HWW-ADLYR	Cumulus Express CX-10256 extended HW warranty per year. Max 2 years purchase per chassis. Please contact your Cumulus sales rep if more than 2 years is required.

FIELD REPLACEABLE UNITS

PRODUCT NUMBER	PRODUCT DESCRIPTION
CX-10256-LC-B	Cumulus Express CX-10256 line card, 32-port 100GbE QSFP28
CX-10256-FC-B	Cumulus Express CX-10256 fabric card
CX-10256-FAN	Cumulus Express CX-10256 fan tray

FIELD REPLACEABLE UNITS (CONTINUED)

PRODUCT NUMBER	PRODUCT DESCRIPTION
CX-10256-PSU	Cumulus Express CX-10256 3000 watt power supply
CX-10256-PDU	Cumulus Express CX-10256 power distribution unit

CABLES AND OPTICS

PRODUCT NUMBER	PRODUCT DESCRIPTION
CX-DAC-100GQSFP28-1M	Cumulus Express DAC 100G 1m
CX-DAC-100GQSFP28-3M	Cumulus Express DAC 100G 3m
CX-DAC-4SFP25G-1M	Cumulus Express DAC 100G to 4x 25G 1m
CX-DAC-4SFP25G-3M	Cumulus Express DAC 100G to 4x 25G 3m
CX-AOC-100GQSFP28-10M	Cumulus Express AOC 100G 10m
CX-AOC-100GQSFP28-20M	Cumulus Express AOC 100G 20m
CX-T-100G-QSFP28-M-SR4	Cumulus Express transceiver 100G QSFP28 SR4 100m
CX-T-100G-QSFP28-CWDM4	Cumulus Express Transceiver 100G QSFP28 CWDM4 LC 2km
CX-T-100G-QSFP28-L-LR4	Cumulus Express Transceiver 100G QSFP28 LR4 LC 10km

POWER CORDS

PRODUCT NUMBER	PRODUCT DESCRIPTION
CX-PWRCORD-C19-AR	Cumulus Express C19 power cord (16A/250V, 3m, IRAM2073) Argentina
CX-PWRCORD-C19-AU	Cumulus Express C19 power cord (15A/250V, 3m, AS3112) Australia
CX-PWRCORD-C19-BR	Cumulus Express C19 power cord (16A/250V, 3m, NBR14136) Brazil
CX-PWRCORD-C19-C20	Cumulus Express C19 power cord (16A/250V, 3m, IEC 60320 C20) C20 PDU
CX-PWRCORD-C19-CN	Cumulus Express C19 power cord (16A/250V, 3m, GB2099) China
CX-PWRCORD-C19-SCHUKO	Cumulus Express C19 power cord (16A/250V, 3m, Schuko CEE7/7) Europe
CX-PWRCORD-C19-IL	Cumulus Express C19 power cord (16A/250V, 3m, SI32) Israel
CX-PWRCORD-C19-IN	Cumulus Express C19 power cord (16A/250V, 3m, IS1293 16A3) India

POWER CORDS (CONTINUED)

PRODUCT NUMBER	PRODUCT DESCRIPTION
CX-PWRCORD-C19-IT	Cumulus Express C19 power cord (16A/250V, 3m, CEI23-50) Italy
CX-PWRCORD-C19-LOCK	Cumulus Express C19 Power Cord (15A/250V, 3m, L6-20) US locking
CX-PWRCORD-C19-KR	Cumulus Express C19 power cord (16A/250V, 3m, KSC8305) Korea
CX-PWRCORD-C19-ZA	Cumulus Express C19 power cord (16A/250V, 3m, SANS164-1) South Africa
CX-PWRCORD-C19-CH	Cumulus Express C19 power cord (16A/250V, 3m, SEV1011) Switzerland
CX-PWRCORD-C19-US	Cumulus Express C19 power cord (16A/250V, 2.5m, NEMA 6-20) US
CX-PWRCORD-C19-GB	Cumulus Express C19 power cord (13A/250V, 3m, BS1363) UK

AIRFLOW DIRECTION

The airflow on Cumulus Express is either front-to-back (air intake through port side) or back-to-front (air intake through PSU side). Front is where the ports are and back is where the PSUs are. To ensure correct airflow and switch orientation, please make sure the air intake side is facing cold aisle and air exhaust side is facing hot aisle

WARRANTY

Three-year limited warranty covers repair or replacement.

TECHNICAL SUPPORT

Please visit the Cumulus Networks support [portal](#).

Contact Your Cumulus Networks Sales Team

Ready to purchase? Please contact us [here](#) or send an email to sales@cumulusnetworks.com.

ABOUT CUMULUS NETWORKS*

Cumulus Networks is leading the transformation of bringing web-scale networking to enterprise cloud. Its network switch, Cumulus Linux, is the only solution that allows you to affordably build and efficiently operate your network like the world's largest data center operators, unlocking vertical network stacks. By allowing operators to use standard hardware components, Cumulus Linux offers unprecedented operational speed and agility, at the industry's most competitive cost. Cumulus Networks has received venture funding from Andreessen Horowitz, Battery Ventures, Capital, Peter Wagner and four of the original VMware founders.

For more information visit cumulusnetworks.com or follow [@cumulusnetworks](https://twitter.com/cumulusnetworks).

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