Request for Proposal

Talbot County Public Schools 12 Magnolia St Easton, Maryland 21601 Phone 410-822-0330 Fax 410-820-4260

Data Switches for

Easton Elementary School Proposal Posting Date: January 24, 2025 Proposal Due Date: February 24, 2025 3:00 p.m.

> CONTACT: Steve Wilson PHONE: 410-822-0330, EXT 128 Email: swilson@talbotschools.org

Minority Business Enterprises (MBE's) are encouraged to participate.

The Talbot County Public Schools reserves the right to waive any informality in, or to reject, any or all proposals.

The Talbot County Public Schools does not discriminate in admissions, access, treatment, or employment in its programs and activities on the basis of race, sex, age, color, national origin, religion, disability, sexual orientation or other basis prohibited by law. Appropriate accommodations for individuals with disabilities will be provided upon request.

By order of Talbot County Public Schools

Sharon M. Pepukayi Ed.D. Superintendent of Schools

Talbot County Public Schools 12 Magnolia St. Easton, Maryland 21601 Phone 410-822-0330 Fax 410-820-4260

Request for Proposal

Data Switches for East	on Elementary School
RFP Number	25-0125
RFP Contact Information	Stephen Wilson, Director, Information Technology swilson@talbotschools.org
RFP Release Date	January 24, 2025
RFP Documents	Maryland e-Market place https://emaryland.buyspeed.com/bso/ Talbot County Public Schools http://www.tcps.k12.md.us/departments/Technolog v
Last date to email questions	February 18, 2025
Final question response	February 19, 2025 Email questions to Steve Wilson <u>swilson@talbotschools.org</u> Subject Line Q&A RFP 25- 0125
RFP closing Date – Time and Opening	February 24, 2025 3:00 PM E.S.T No RFPs will be accepted after this time
Submission Requirements	All submissions be will be e-filed to <u>TCPSfinance@talbotschools.org</u> or the eMaryland Marketplace (Emma) dropbox
RFP Selection	Prior to USAC form 471 filing date
Award of contract	Contingent upon Talbot County Board of Education approval and funding and on E-Rate funding approval
Contract Start date	July 1, 2025
Contract End Date	June 30, 2026

RFP Description:

This RFP is for new Data Switches and warranty service to be delivered between July 1, 2025 and June 30, 2026. Talbot County Public Schools has standardized on Ruckus (Formally Brocade) Products. TCPS will entertain proposed solutions from other manufacturers; it is the vendor's responsibility and obligation to

provide documentation and other evidence that a non-Ruckus product is the functionally equivalent or better. Equipment that is shown to be equivalent in function and warranty is acceptable. In the instance that the solution is non-Ruckus, proof of equal functionality must be shown. Failure to show equal functionality may result in the disqualification of the bid.

This project is subject to the approval of funds by the Talbot County Public Schools Board of Education, it's funding agency, the Talbot County Council, and approval by the Universal Service Administrative Company (USAC), Schools and Libraries Division (SLD). Any vendor to be considered for the award must be a Ruckus partner or equivalent status if offering a substitute product and meets all the criteria as required by USAC/SLD. In the event of partial funding of this project, TCPS reserves the right to prioritize and purchase a partial amount of bid prices.

Included in this RFP is a complete description of the proposed equipment, part numbers, extended warranties, and installation location. List all equipment and software proposed to include model numbers, version numbers, etc. All equipment should be priced FOB Talbot County Education Center, 12 Magnolia Street Easton MD 21601, and is subject to approval by TCPS.

In addition to the USAC/SLD websites, RFP notices will be posted in the Talbot County Public Schools' Website and available at the Talbot County Public Schools' Central Office, posted on the Maryland eMarketPlace and the TCPS website.

All questions or requests for RFP interpretation shall be submitted in writing via email to Steve Wilson swilson@talbotschools.org

All bidders shall be registered as a service provider with the Universal Service Administrative Company–School and Libraries Division (USAC-SLD) for the E-Rate Program. Bidders agree to comply with all requirements of the E-Rate Program for service providers. All bidders shall furnish their Service Provider Identification Number (SPIN) on their bid form. Minority Business Enterprises are encouraged to participate. SPIN Numbers may be obtained by submitting an FCC Form 498. See the USAC website for more information. http://www.usac.org/sl/service-providers/step01/default.aspx

Talbot County Public Schools reserves the right to waive any informality in, or to reject any and all bids.

Talbot County Public Schools reserves the right to award the contract (subject to funding) to the vendor who offers the best solution in the sole opinion of the school system. Price will be weighted most heavily when evaluating proposed solutions.

In accordance with FCC Rules, proposals that include equipment from Huawei, ZTE, or any other companies deemed a national security risk by the FCC will be disqualified. See the USAC website for more Information.

Talbot County Public Schools reserves the right to terminate a contract for failure to comply with the terms of the contract.

The Form 472 BEAR method of reimbursement will be utilized for reimbursement of eligible E-Rate funds. Service provider shall invoice the full amount and the Board of Education will apply for the E-Rate discount. <u>The service provider is responsible for stating the eligibility percentage of all products or services to be offered on the Bid Form</u>. These eligibility percentages will be used by the applicant on the Form 471.

Depending on the products and/or services offered the applicant may elect to use the Form 474 Service Provider Invoice (SPI) method. Using this method, the service provider will invoice the applicant for only

the non-discount portion of the cost as shown on the Funding Commitment Decision Letter (FCDL). The service provider may then file a Form 474 for reimbursement from USAC for the discount portion of the cost as also shown on the FCDL. <u>Whichever method is used, the service provider is responsible for stating the eligibility percentage of all products or services to be offered on the Bid Form</u>. These eligibility percentages will be used by the applicant on the Form 471. The service provider will be notified of the reimbursement method to be used when the purchase order is issued.

If the service provider intends for there to be a contract for the services being bid, then a copy of the contract signed by the bidder shall be submitted with the bid. The contract shall also include a signature line for approval by the bidding entity.

If your bid includes any item for which either the manufacturer or USAC have determined E-Rate funding eligibility, then you must list the part number/SKU of the item, its E-Rate eligibility percentage, and the source of the eligibility determination. Include this documentation with your bid submission.

Attach to the Bid a complete description of the proposed equipment including performance specifications, proposed technological solutions, equipment, warranties, etc. List all equipment and software proposed to include description, SKU, cost, model numbers, version numbers, etc. All equipment and services are subject to approval by TCPS. Service provider shall identify any specific services, components or costs that are not eligible for E-Rate funding. **Any components or services not eligible for E-Rate funding must be cost allocated separately on the Bid Form.**

Service provider shall identify on the Bid Form which products and/or services are eligible for E-Rate funding in either Category 2 <u>Internal Connections</u> or in Category 2 <u>Basic Maintenance of Internal</u> <u>Connections</u>, including their percentage of E-Rate eligibility. See the Bid Form.

On the bid form itemize all equipment/services including all accessories included in the bid if these are prices as separate items. For example: cables, optical receivers, fan units, configuration, licenses, installation, power supplies, etc.

A manufacturer's multi-year warranty for a period of up to three years that is provided as an integral part of an eligible component, without a separately identifiable cost, may be included in the cost of the component. If your bid includes any such warranty, provide a detailed description.

List separately support and service costs that are identified as E-Rate eligible Category 2 Basic Maintenance of Internal Connections. Contract term for eligible support services shall be for a minimum of one year to begin July 1, 2021. However, the Board will consider awarding the contract for multiple years up to a 5-year term.

Any bid containing pricing for Basic Maintenance of Internal Connections (BCIM) shall cross reference the specific equipment, building location, and term of service (beginning and end dates).

The Talbot County Public Schools does not discriminate in admissions, access, treatment, or employment in its programs and activities on the basis of race, sex, age, color, national origin, religion, disability, sexual orientation or other basis prohibited by law. Appropriate accommodations for individuals with disabilities will be provided upon request

Limited Lifetime Warranty: All proposed products and software will be covered by a lifetime warranty until the product support end date. Specify if this service is not available for this location. Software support: defect repairs and software maintenance upgrades will be available at no charge through the product end of support date.

Check one of the following:

() The warranty described above is normally provided to the products proposed at no additional charge and is available to this location; 12 Magnolia St., Easton Md 21601

() An equivalent warranty described above is normally offered at an additional charge. The charge is provided above at a rate to cover a five-year period and is available to this location; 12 Magnolia St., Easton MD 21601. A copy of that Service Level Agreement (SLA) and part number is enclosed.

My company, _______ is an Authorized Reseller of Ruckus products (or the alternative products proposed) and have a Service Provider Application Number (SPIN).

Authorized Signature		Date
	Email	
Name Printed		
	Phone	Ext
Name of Company		
Company Address		
USAC Service Provider Identification	Number (SPIN)	
Cost of E-Rate ineligible items or serv	vices, if any (attach detailed list): \$_	
Total project cost for all parts, materia	als, services, FOB 12 Magnolia St.,	Easton Md 21601 \$

Product Data Sheet Attached

Easton Elementary So	chool 104 Glenwood Ave Easton, MD 21601				
Part Number (or Equivalent)	Description	Qty	Unit	Ext	Percent E-Rate Eligible as IC BMIC
ICX8200-48ZP2-E2	RUCKUS ICX 8200 Switch, 32×10/100/1000 Mbps PoE+ ports, 16×100/1000/2500 Mbps RJ-45 PoE++ ports, 4×25 GbE SFP28 stacking/uplink-ports, 1480 W PoE budget, hot swap power supplies and fans, two power supplies and two fans included, three- year remote TAC support. Power cords not included.	20			
ICX8200-24FX	RUCKUS ICX 8200 Switch, 16×1/10GbE SFP+ ports, 8×25 GbE SFP28 stacking/uplink- ports, three-year remote TAC support. Power cord not included. TAA	1			
PCUSA2	Ruckus PCUSA2 IEC power cables	21			
E25G-SFP28-LR	Ruckus E25G-SFP28-LR 25GE SFP28 LR (LC) 10KM SMF fiber optic transceiver	15			
10G-SFPP-TWX-0501	Ruckus 10G-SFPP-TWX-0501 10GbE Direct Attach SFP+ to SFP+ Active copper cable,5m	1			

Total

Contract Affidavit

I HEREBY AFFIRM THAT: I,	(name of affiant) am the	(title) and duly	authorized
representative of	(Contractor name) and that I possess the legal authority to make this affidavit	on behalf of the b	usiness for
which I am acting.			

B. CERTIFICATION OF REGISTRATION OR QUALIFICATION WITH THE STATE DEPARTMENT OF ASSESSMENTS AND TAXATION

I FURTHER AFFIRM THAT:

A. AUTHORITY

The business named above is a (check applicable items):

(1) Corporation: _____ domestic or _____ foreign;

(2) Limited Liability Company: _____domestic or ____ foreign;

(3) Partnership: ____ domestic or ____ foreign;

(4) Statutory Trust: ____ domestic or ____ foreign;

(5) ____ Sole Proprietorship

and is registered or qualified as required under Maryland Law.

I further affirm that the above business is in good standing both in Maryland and (IF APPLICABLE) in the jurisdiction where it is presently organized, and has filed all its annual reports, together with filing fees, with the Maryland State Department of Assessments and Taxation. The name and address of its resident agent (IF APPLICABLE) filed with the State Department of Assessments and Taxation is:

Name and Department ID

Number:

_ Address:_

and that if it does business under a trade name, it has filed a certificate with the State Department of Assessments and Taxation that correctly identifies that true name and address of the principal or owner.

C. EMPLOYMENT OF SEX OFFENDERS AND OTHER CRIMINAL OFFENDERS

I further affirm that I am aware of, and the above business will comply with, the following requirements of Section 11-722 of the Criminal Procedure Article, and Section 6-113 of the Education Article, Annotated Code of Maryland:

Maryland Law requires sex offenders to register with the State and with the local law enforcement agency in the county in which they will reside, work, or attend school. A TCPS contractor may not knowingly employ an individual to work at a school if the individual is a registrant. A contractor violating this Law is guilty of a misdemeanor and may be subject to imprisonment not exceeding five years or a fine not exceeding \$5,000, or both.

See Section 11-722 of the Criminal Procedure Article, Annotated Code of Maryland.

A TCPS contractor or subcontractor may not knowingly assign an employee to work on school premises with direct, unsupervised, and uncontrolled access to children, if the employee has been convicted of:

- 1) Section 3-307 of the Criminal Law Article, Maryland Annotated Code, Sexual Offense in the Third Degree;
- 2) Section 3-308 of the Criminal Law Article, Maryland Annotated Code, Sexual Offense in the Fourth Degree;
- 3) An offense under the laws of another state that would constitute a violation of Sections 3-307 or 3-308 of the Criminal Law Article if committed in Maryland;
- 4) Child sexual abuse under Section 3-602 of the Criminal Law Article, Annotated Code of Maryland;
- 5) An offense under the laws of another state that would constitute child sexual abuse under Section 3-602 of the Criminal Law Article if committed in Maryland;

- 6) A crime of violence as defined in Section 14-101 of the Criminal Law Article, Annotated Code of Maryland; or
- 7) An offense under the laws of another state that would constitute a crime of violence under Section 14-101 of the Criminal Law Article if committed in Maryland.

See Section 6-113 of the Education Article, Annotated Code of Maryland

D. CONTRACTOR SCREENING OF EMPLOYMENT APPLICANTS HAVING DIRECT CONTACT WITH MINORS (if applicable)

In addition to the requirements of Section C above, Contractor shall comply with the requirements of Section 6-113.2 of the Education Article, Maryland Annotated Code, regarding screening of applicants for employment.

E. AFFIRMATION REGARDING BRIBERY CONVICTIONS

I further affirm, neither I or to the best of my knowledge, the above firm, nor any of its officers, directors, or partners, or any of its employees directly involved in obtaining contracts with the State or any County, bi-County, or multi-County agency, or subdivision of the State have been convicted of, or have pleaded nolo contendere to a charge of, or have during the course of any official investigation or other proceeding admitted in writing or under oath, acts or omissions committed after July 1, 1977 which constitute bribery, attempted bribery, or conspiracy to bribe under the provisions of Article 27 of the Annotated Code of Maryland or under the laws of any other State or the Federal government.

F. AFFIRMATION REGARDING COLLUSION

I further affirm that neither I nor, to the best of my knowledge, information and belief, the above business has:

- 1) Agreed, conspired, connived or colluded to produce a deceptive show of competition in the compilation of the accompanying bid or offer that is being submitted; or,
- 2) In any manner, directly or indirectly, entered into any agreement of any kind to fix the bid/ proposal price of the bidder/offeror of any competitor, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for which the accompanying bid or offer is submitted.

G. AFFIRMATION REGARDING DEBARMENT

I further affirm that neither I nor, to the best of my knowledge, information and belief, the above business, or any of its officers, directors, partners, or any of its employees directly involved in obtaining contracts with public bodies, has ever been suspended or debarred (including being issued a limited denial of participation) by any public entity, except as follows (use a separate sheet to list each debarment or suspension, providing the dates of the suspension or debarment, the name of the public entity, the status of the proceedings, the name(s) and position of the parties involved, and all pertinent details).

I further affirm that (1) the business was not established and it does not operate in a manner designed to evade the application of or defeat the purpose of debarment pursuant to Section 16-101, et seq, of the State Finance and Procurement Article of the Annotated Code of Maryland; and, (2) the business is not a successor, assignee, subsidiary, or affiliate of a suspended or debarred business, except as follows (indicate the reasons why the affirmations cannot be given without qualification):

Violations of any of these provisions may result in immediate termination for cause.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date:

(signature of Authorized Representative and affiant)



RUCKUS[®] ICX 8200

Enterprise-class stackable access switch with future-proof expandability

The RUCKUS ICX 8200 Switch series is purposely designed to handle next generation wireless first and IoT campus networks. These intelligent, scalable edge switches deliver enterprise-class functionality at an affordable price without compromising performance and reliability.

The RUCKUS ICX 8200 raises the bar with up to 8× 25 GbE ports for uplinks or stacking, PoE++ (802.3bt), VXLAN, advanced L2/L3 features and market-leading stacking density with up to 12 switches per stack. In addition, the RUCKUS ICX 8200 combines enterprise-class features, manageability, performance, and reliability with the flexibility, costeffectiveness, and "pay as you grow" scalability of stackable solution.



Benefits

Maximum flexibility: Gigabit, Multigigabit edge ports and Fiber to the Room

- Optimized for latest generation Wi-Fi 6/6E/7 AP deployments with multigigabit ports.
- 8, 24 and 48 Gigabit Ethernet ports
- Up to 24x 1/2.5G Multigigabit RJ45 ports
- Up to 4× 1/2.5/5/10 Gbps Multigigabit RJ-45 ports
- Up to 48x 1G SFP fiber ports
- Up to 24x 10G SFP+ fiber ports

Power next generation APs and PoE devices

- PoE+ 802.3at, 30W per port on all ports
- PoE++ 802.3bt, 60/90W on multigigabit ports
- Up to 1480W PoE budget with two power supplies

25 GbE uplinks/stacking for maximum performance and future-proofing

- Stacking comes standard with all ICX 8200
- Up to 8x 1/10/25GbE SFP28 fiber ports for uplink and/or stacking

Enhanced Security and data privacy

• VXLAN* support for advanced network segmentation and data confidentiality

Advanced L3 routing delivers network design flexibility

- · IPv4 and IPv6 L3 routing
- Static routes, RIP, OSPF, VRRP, VRF, GRE, PIM, PBR

Broad range of unified management options for maximum flexibility

- · On Premises: SmartZone
- Cloud Based: RUCKUS Cloud*
- Controllerless: RUCKUS Unleashed*
- RUCKUS Analytics

Enhanced availability

Redundant, load-sharing power supplies and fans on specific models

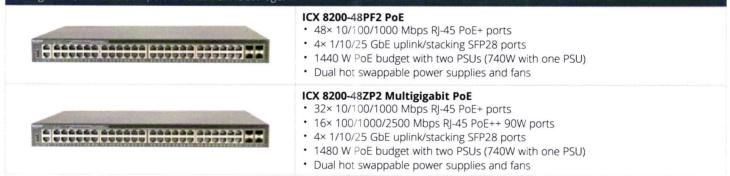
Services and Support Included

- 3 Years remote TAC support included with every ICX 8200 model
- · Limited lifetime warranty

nd fixed power supply and fans integrated power supply, one RJ-45 Ethernet port for out-of-band network management, 5 port for serial console management, and one USB port for external file storage.
ICX 8200-24 • 24× 10/100/1000 Mbps RJ-45 ports • 4× 1/10/25 GbE uplink/stacking SFP28 ports
ICX 8200-24P PoE • 24× 10/100/1000 Mbps RJ-45 PoE+ ports • 4× 1/10/25 GbE uplink/stacking SFP28 ports • 370 W PoE budget. PoE+ 802.3at
 ICX 8200-24ZP Multigigabit PoE 24× 100/1000/2500 Mbps RJ-45 PoE++ 90W ports 4× 1/10/25 GbE uplink/stacking SFP28 ports 740 W PoE budget.
ICX 8200-48 • 48× 10/100/1000 Mbps RJ-45 ports • 4× 1/10/25 GbE uplink/stacking SFP28 ports
ICX 8200-48P PoE • 48× 10/100/1000 Mbps RJ-45 PoE+ ports • 4× 1/10/25 GbE uplink/stacking SFP28 ports • 370 W PoE budget. PoE+ 802.3at
ICX 8200-48PF PoE • 48× 10/100/1000 Mbps RJ-45 PoE+ ports • 4× 1/10/25 GbE uplink/stacking SFP28 ports • 740 W PoE budget. PoE+ 802.3at

RUCKUS ICX 8200 with hot-swap power supplies and fans

These stackable RUCKUS ICX 8200 models offers 2 slots for redundant hot swappable load sharing power supplies, 2 slots for hot swappable fans, one RJ-45 Ethernet port for out-of-band network management, one USB Type-C port for console management, one RJ-45 port for serial console management, and one USB port for external file storage.



RUCKUS ICX 8200 compact These RUCKUS ICX 8200 compact switches offer a single integrated power supply, one USB Type-C port for console management, one RJ-45 Ethernet port for out-of-band network management, one RJ-45 port for serial console management, and one USB port for external file storage. ICX 8200-co8PF PoE • 8 × 10/100/1000 Mbps RJ-45 PoE+ ports • 2 × 1/10GbE uplink/stacking SFP+ ports • 124 W PoE budget PoE+ 802.3at ICX 8200-co82P Multigigabit PoE • 4 × 100/1000/2500 Mbps RJ-45 PoE+ 90W ports • 2 × 1/10/25 GbE uplink/stacking SFP28 ports • 2 × 1/10/25 GbE uplink/stacking SFP28 ports • 2 × 1/10/25 GbE uplink/stacking SFP28 ports

RUCKUS ICX 8200 Fiber

These stackable RUCKUS ICX 8200 models offer a single integrated power supply, one RJ-45 Ethernet port for out-of-band network management, one USB Type-C port for console management, one RJ-45 port for serial console management, and one USB port for external file storage

BrBH	ICX 8200-24F Fiber • 24× 1GbE SFP ports • 4× 1/10/25 GbE uplink/stacking SFP28 ports
	ICX 8200-48F Fiber • 48× 1GbE SFP ports • 4× 1/10/25 GbE uplink/stacking SFP28 ports
i 8 	ICX 8200-24FX 10G Fiber • 16× 1/10GbE SFP+ ports • 8× 1/10/25 GbE uplink/stacking SFP28 ports

	Gigabit Compact		abit -PoE	Gigabit PoE				
	RUCKUS ICX 8200-C08PF	RUCKUS ICX 8200-24	RUCKUS ICX 8200-48	RUCKUS ICX 8200-24P	RUCKUS ICX 8200-48P	RUCKUS ICX 8200-48PF	RUCKUS ICX 8200-48PF2	
Feature								
Switching capacity (data rate, full duplex)	56 Gbps	248 Gbps	296 Gbps	248 Gbps	296 Gbps	296 Gbps	296 Gbps	
Forwarding capacity (data rate, full duplex)	42 Mpps	184 Mpps	220 Mpps	184 Mpps	220 Mpps	220 Mpps	220 Mpps	
10/100/1000 Mbps RJ45	8	24	48	24	48	48	48	
100/1000 Mbps SFP uplinks								
1/10 Gbps SFP/SFP+ uplinks	2							
1/10/25 Gbps SFP/SFP+/SFP28 uplinks		4	4	4	4	4	4	
PoE/PoE+ 802.3at ports	8			24	48	48	48	
Dual hot-swap power supplies and fan modules							Yes	
Max PoE Class 3 ports (15.4 W per port)	8			24	48	48	48	
Max PoE+ Class 4 ports (30 W per port)	4			12	12	24	48 (2 PSU)	
Energy Efficient Ethernet (802.3az)				Yes	124		1800	
Base IPv4/v6 Layer 3 routing (static routing, RIP)				Yes				
Advanced IPv4/v6 Layer 3 (OSPF, VRRP, VRF, GRE, PIM, PBR)				With License				
Aggregated stacking bandwidth (data rate, full duplex)	240 Gbps 1.2 Tbps							
Stacking density (maximum switches in a stack)	12							
Stacking ports (maximum ports usable for stacking)	Up to 2×10 GbE SFP+	GbE Up to						
Maximum stacking distance (distance between stacked switches)				10 km				

	Gigabit Compact	A DESCRIPTION OF A DESC	jabit I-PoE			abit oE	
	RUCKUS ICX 8200-C08PF	RUCKUS ICX 8200-24	RUCKUS ICX 8200-48	RUCKUS ICX 8200-24P	RUCKUS ICX 8200-48P	RUCKUS ICX 8200-48PF	RUCKUS ICX 8200-48PF2
Features	and the second s		(Constant	POWER	and the second	A State of the second	and the second second
Power inlet (AC)				C14			
Input voltage/frequency	1.1		AC: 100	to 240 VAC @ 50	to 60 Hz	- 14 A	
Power Supply Hold Time	10ms	10ms	10ms	20ms	20ms	10ms	10ms
Power supply rated max (AC)	240 W	65 W	100 W	525 W	525 W	880 W	920W x 2
PoE power budget (AC)	124 W			370 W	370 W	740 W	740W (1 PSU) 1440W (2 PSU)
Switch power usage (25°C) 10% traffic* (no PoE load) 100% traffic** (full PoE load)	18 W 150 W	31 W 38 W	47 W 54 W	36 W 445 W	49 W 451 W	51W 854 W	86 W 1667 W
Airflow	Fanless		Mod e.*** side to back		Fanless Mode.*** ont and side to ba		Front to Back
Switch power dissipation (25°C) 10% traffic* (no PoE load) 100% traffic** (full PoE load)	61 BTU/hr 514 BTU/hr	106 BTU/hr 132 BTU/hr	160 BTU/hr. 184 BTU/hr	124 BTU/hr 256 BTU/hr	167 BTU/hr 276 BTU/hr	174 BTU/hr 389 BTU/hr	294 BTU/hr 775 BTU/hr
Features							
Net Weight	2.27 kg 5.00 lb	3.74 kg 8.24 lb	4.96 kg 10.93 lb	4.34 kg 9.57 lb	5.57 kg 12.28 lb	5.51kg 12.15 lb	6.39 kg 14.08 lb
Dimensions Height	4.40 cm 1.73 Inches	4.40 cm 1.73 Inches	4.40 cm 1.73 inches	4.40 cm 1.73 inches	4.40 cm 1.73 inches	4.40 cm 1.73 inches	4.40 cm 1.73 inches
Width	27.00 cm 10.63 inches	44.00 cm 17.32 inches	44.00 cm 17.32 inches	44.00 cm 17.32 inches	44.00 cm 17.32 inches	44.00 cm 17.32 inches	44.00 cm 17.32 inches
Depth	21.40 cm 8.42 inches	28.00 cm 11.02 inches	37.00 cm 14.57 inches	28.00 cm 11.02 inches	37.00 cm 14.57 inches	37.00 cm 14.57 inches	37.00 cm 14.57 inches
Acoustics (25°C, min fan speed)	Fanless	40.0 dBA	40.0 dBA	41.0 dBA	41.0 dBA	41.0 dBA	51.0 dBA
MTBF (25°C)	2,007,096hr	1,543,328hr	1,136,723hr	1,550,360hr	1,297,288hr	1,070,987hr	561,966hr
Features			M	ANAGEMENT POR	TS		
USB Type-C port (For console management)				Yes			
RJ45 serial port (For serial console management)				Yes			
USB Type-A port (For external file storage)		Yes					
RJ45 Ethernet port (For out of band network management)				Yes			

* All downlink ports, stacking ports, and uplink ports are linked up with 10% traffic rate. No PoE load on PoE models. Fans are at nominal speed.

** All downlink ports, stacking ports, and uplink ports are linked up with 100% traffic rate. 100% PoE load on PoE models. Fans are at high speed.

*** In Fanless Mode, 25GbE ports are restricted to 10GbE max speed and PoE budget is restricted to 150W max per switch.

	Multigigabit Ethernet PoE++				Fiber Ethernet	
	RUCKUS ICX 8200-C08ZP	RUCKUS ICX 8200-24ZP	RUCKUS ICX 8200-48ZP2	RUCKUS ICX 8200-24F	RUCKUS ICX 8200-24FX	RUCKUS ICX 8200-48F
Features						
Switching capacity (data rate, full duplex)	200 Gbps	320 Gbps	344 Gbps	248 Gbps	720 Gbps	296 Gbps
Forwarding capacity (data rate, full duplex)	148 Mpps	237 Mpps	254 Mpps	184 Mpps	533 Mpps	219 Mpps
10/100/1000 Mbps RJ45			32			
100/1000 Mbps/2.5 Gbps RJ45 downlinks (full duplex only)	4	24	16			
100Mbps/1/2.5/5/10 Gbps RJ45 downlinks	4					
100/1000 Mbps SFP				24		48
1/10 Gbps SFP+					16	
1/10/25 Gbps SFP/SFP+/SFP28 uplinks	2	4	4	4	8	4
PoE/PoE+ 802.3at ports			32			
PoH / PoE / PoE+ / PoE++ 802.3bt ports	8	24	16			
Dual hot-swap power supplies and fan modules			Yes			
Maximum PoE Class 3 ports (15.4 W per port)	8	24	48			
Maximum PoE+ Class 4 ports (30 W per port)	8	24	24 (1 PSU) 48 (2 PSU)			
Maximum PoE++ Class 6 ports (60 W per port)	4	12	12 (1PSU) 16 (2 PSU)			
Maximum PoE++ Class 8 Ports (90 W per port)	2	8	8(1PSU) 16 (2PSU			
Energy Efficient Ethernet (802.3az)		Yes				
Base IPv4/v6 Layer 3 routing (static routing, RIP)	Yes					
Advanced IPv4/v6 Layer 3 routing (OSPF, VRRP, VRF, GRE, PIM, PBR)		With License				
Aggregated stacking bandwidth (data rate, full duplex)	600 Gbps	1.2 Tbps				
Stacking density (maximum switches in a stack)		12				
Stacking ports (maximum ports usable for stacking)	Up to 2×25 GbE SFP28					
Maximum stacking distance (distance between stacked switches)			10	km		

	N	1ultigigabit Etherr PoE++	net		Fiber Ethernet	
	RUCKUS ICX 8200-C08ZP	RUCKUS ICX 8200-24ZP	RUCKUS ICX 8200-48ZP2	RUCKUS ICX 8200-24F	RUCKUS ICX 8200-24FX	RUCKUS ICX 8200-48F
Features			PO	VER		
Power inlet (AC)			C.	14		
Input voltage/frequency			AC: 100 to 240 V	AC @ 50 to 60 Hz		
Power supply hold time	20ms	10ms	10ms	10ms	10ms	10ms
Power supply rated max (AC)	305W	950W	920W x 2	100W	150W	180W
PoE power budget (AC)	240W	740W	740W (1 PSU) 1480W (2 PSU)			
Switch power usage (25°C) 10% traffic* (no PoE load) 100% traffic** (full PoE load)	41W 300W	69W 920W	90W 1839W	65W 78W	82W 93W	106W 118W
Airflow	Fanless	Front to s	ide & back		Front to side & back	A
Switch power dissipation (25°C) 10% traffic* (no PoE load) 100% traffic** (full PoE load)	140 BTU/hr. 1023 BTU/hr.	235 BTU/hr. 3139 BTU/hr.	305 BTU/hr. 6275 BTU/hr.	223 BTU/hr. 264 BTU/hr.	279 BTU/hr. 316 BTU/hr.	362 BTU/hr. 402 BTU/hr.
Features		The second second	And Part of the	The second second		The The
Net Weight	3.23 Kg	5.22 Kg	6.64 Kg (2 PSUs)	3.77 Kg	3.81 Kg	4.30 Kg
Dimensions						
Height	4.40 cm 1.73 Inches	4.40 cm 1.73 inches	4.40 cm 1.73 inches	4.40 cm 1.73 inches	4.40 cm 1.73 inches	4.40 cm 1.73 inches
Width	27.00 cm 10.63 inches	44.00 cm 17.32 inches	44.00 cm 17.32 inches	44.00 cm 17.32 inches	44.00 cm 17.32 inches	44.00 cm 17.32 inches
Depth	26.00 cm 10.24 inches	28.00 cm 11.02 inches	37.00 cm 14.57 inches	28.00 cm 11.02 inches	28.00 cm 11.02 inches	28.00 cm 11.02 inches
Acoustics (25°C, min fan speed)	Fanless	41.0 dBA	51.0 dBA	41.0 dBA	41.0 dBA	41.0 dBA
MTBF (25°C)	539,091hr	936,765hr	536,710hr	1,190,512hr	890,716hr	1,699,974hr
Features						
USB Type-C port (For console management)			Ye	25		
RJ45 serial port (For serial console management)	Yes					
USB Type-A port (For external file storage)			Ye	25		
RJ45 Ethernet port (For out of band network management)			Ye	25		

* All downlink ports, stacking ports, and uplink ports are linked up with 10% traffic rate. No PoE load on PoE models. Fans are at nominal speed.

** All downlink ports, stacking ports, and uplink ports are linked up with 100% traffic rate. 100% PoE load on PoE models. Fans are at high speed.

RUCKUS ICX 8200 Specifications

Features	SPECIFICATIONS	
Connector options	 10/100/1000 Mbps RJ-45 1/2.5 Gbps RJ-45 1/2.5/5/10 Gbps RJ-45 1 Gbps SFP ports 1/10 Gbps SFP+ ports 1/10/25 Gbps SFP28 ports 	 Out-of-band Ethernet management: 10/100/1000 Mbps RJ-45 Console management: RJ45 serial port and USB Type-C port with serial communication device class support File transfer: USB port, standard-A plug For the latest information about supported optics, please visit www.commscope.com/ruckus.
DRAM NVRAM (eMMC) Packet buffer size	• 4 GB • 8 GB • 4 MB	
Maximum MAC addresses	• 32K	
Maximum VLANs Maximum PVLANs	• 4,095 • 32	
Maximum STP (spanning trees instances)	• 253	
Maximum VEs	• 512	
Maximum ARP entries	• 8192	
Maximum routes (in hardware)	16k IPv4, 4k IPv6Next hop address: 8k	
Trunking	Maximum ports per LAG : 8Maximum Link Aggregation Groups : 128	
Maximum jumbo frame size	• 9,216 bytes	
QoS priority queues	• 8 per port	
Multicast groups	 4096 (Layer2 IGMP) 512 (Layer2 MLD) 4096 (IPv4 PIM) 512 (IPv6 PIM) 	
Quality of Service (QoS	 ACL Mapping and Marking of ToS/DSCP (CoS) ACL Mapping and Marking of 802.1p ACL Mapping to Priority Queue Classifying and Limiting Flows Based on TCP Flags DiffServ Support 	 Honoring DSCP and 802.1p (CoS) MAC Address Mapping to Priority Queue Priority Queue Management using Weighted Round Robin (WRR), Strict Priority (SP), and a combination of WRR and SP
Traffic management	 ACL-based inbound rate limiting and traffic policies Broadcast, multicast, and unknown unicast rate limiting Inbound rate limiting per port Outbound rate limiting per port and per queue 	
Security	 802.1X authentication MAC authentication Flexible authentication Web authentication DHCP snooping Dynamic ARP inspection Neighbor Discovery (ND) Inspection Bi-level Access Mode (Standard and EXEC Level) EAP pass-through support IEEE 802.1X username export in sFlow Protection against Denial of Service (DoS) attacks Authentication, Authorization, and Accounting (AAA) 	 MAC Address Locking MAC Port Security Advanced Encryption Standard (AES) with SSHv2 RADIUS/TACACS/TACACS+ Secure Copy (SCP) Secure Shell (SSHv2) Protected Ports Local Username/Password Change of Authorization (CoA) RFC 5176 Trusted Platform Module RADSEC (RFC 6614) Encrypted Syslog (RFC 5425
SDN features	 OpenFlow1 v1.0 and v1.3 Operates with OpenDayLight Controller OpenFlow hybrid port mode (Supports both OpenFlow traffi forwarding and regular traffic forwarding on the same port) 	

RUCKUS ICX 8200 Specifications

Features	SPECIFICATIONS					
High availability	 Layer 3 VRRP/VRRP-E protocol redundancy Real-time state synchronization across the stack Hitless failover and switchover from master to standby stack Hot insertion and removal of stacked units Layer 2 VSRP switch redundancy In Service Software Update (ISSU 	k controller				
Layer 2 feature set	 802.1s Multiple Spanning Tree 802.1x Authentication Auto MDI/MDIX BPDU Guard, Root Guard Dual-Mode VLANs MAC-based VLANs, Dynamic MAC-based VLAN activation Dynamic VLAN Assignment Dynamic Voice VLAN Assignment Fast Port Span GVRP : GARP VLAN Registration Protocol IGMP Snooping (v1/v2/v3) IGMP Proxy for Static Groups IGMP v2/v3 Fast Leave Inter-Packet Gap (IPG) adjustment Link Fault Signaling (LFS) MAC Address Filtering MAC Learning Disable 	 MLD Snooping (v1/v2) Multi-device Authentication Per-VLAN Spanning Tree (PVST/PVST+/PRST) Mirroring: Port-based, ACL-based, MAC Filter-based, and VLAN-based PIM-SM v2 Snooping Port Loop Detection Private VLAN Remote Fault Notification (RFN) Single-instance Spanning Tree Trunk Groups (static, LACP) Uni-Directional Link Detection (UDLD) Metro-Ring Protocol (MRP) (v1, v2) Virtual Switch Redundancy Protocol (VSRP) Q-in-Q and selective Q-in-Q VLAN Mapping Topology Groups 				
Base Layer 3 IP routing feature set	 IPv4 and IPv6 static routes RIP v1/v2, RIPng ECMP Port-based Access Control Lists Layer 3/Layer 4 ACLs 	 Host routes Virtual Interfaces Routed Interfaces Route-only Support Routing Between Directly Connected Subnets 				
Premium Layer 3 IP routing feature set with software license	 IPv4 and IPv6 dynamic routes OSPF v2, v3 PIM-SM, PIM-SSM, PIM-DM, PIM passive (IPv4, IPv6) PBR 	 Virtual Route Redundancy Protocol VRRP (IPv4) VRRP v3 (IPv6) VRRP-E(IPv4/IPv6) VRF (IPv4 and IPv6 GRE 				

Features	STANDAF	RD COMPLIANCE
IEEE standards compliance	 802.1AB LLDP/ LLDP-MED 802.1D MAC Bridging 802.1p Mapping to Priority Queue 802.1s Multiple Spanning Tree (MST) 802.1w Rapid Reconfiguration of Spanning Tree (RSTP) 802.1x Port-based Network Access Control (PNAC) 802.3 Carrier Sense Multiple Access/Collision Detection (CSMA/CD) 802.3ab 1000BASE-T 802.3ad Link Aggregation (Dynamic and Static) 802.1 AX-2008 Link Aggregation 	 802.3ae 10 Gigabit Ethernet 802.3af Power over Ethernet 802.3at Power over Ethernet Plus 802.3bz Multigigabit Ethernet 802.3bz Multigigabit Ethernet 802.3u 100Base-TX 802.3x Flow Control 802.3z 1000Base-SX/LX 802.3 MAU MIB (RFC 2239) 802.1Q VLAN Tagging 802.1BR Bridge Port Extension 802.3az Energy Efficient Ethernet 802.3bt PoE++
RFC standards compliance	For a complete list of RFCs supported by the ICX 8200 produce please visit www.commscope.com/ruckus.	ct family,

RUCKUS ICX 8200 Specifications

Features	FEATU	JRE SETS
Management	 DHCP Auto-Configuration Configuration Logging Digital Optical Monitoring Display Log Messages on Multiple Terminals Embedded Web Management (HTTP/HTTPS) Embedded DHCP Server Industry-standard Command Line Interface (CLI) RUCKUS SmartZone, RUCKUS Cloud*, RUCKUS Unleashed* CLI activation of optional software features USB file management and storage Macro for batch execution Out-of-band Ethernet Management RSPAN TFTP TELNET Client and Server SSH / SSH V2 	 Bootp SNMPv1/v2c DHCP Server and DHCP Relay SNMPv3 Intro to Framework Architecture for Describing SNMP Framework SNMP Message Processing and Dispatching SNMPv3 Applications SNMPv3 User-based Security Model SNMP View-based Access Control Model SNMP sFlow Network Time Protocol (NTP) Multiple Syslog Servers SCP Virtual Cable Tester (VCT) From management MIB, please see the ICX technical documentation at www.commscope.com/ruckus

Features ENVIRONMENT	
Ambient Temperature	 Operational: 0°C to 45°C (32°F to 113°F) at sea level Non-operational: 40°C to 70°C (-40°F to 158°F)
Relative Humidity (non-condensing)	 Operational: 10% to 90% at 50°C (122°F) Non-operational: 10% to 90% at 70°C (158°F)
Altitude (above sea level)	 Operational 0 to 3,048 m (10,000 ft) Non-operational: 0 to 12,000 m (39,370 ft)

Features	COMPLIANCE/CERTIFICATION	
Electromagnetic emissions	 FCC Part 15, Subpart B (Class A) EN 55032 (CE mark) (Class A) EN 55035 (CE mark) (Immunity) for Information Technology Equipment EN 55024 (CE mark) (Immunity) for Information Technology Equipment ICES-003 (Canada) (Class A) AS/NZ 55032 (Australia/New Zealand) (Class A) VCCI (Japan) (Class A) VCCI (Japan) (Class A) EN 300 386 CNS 15936-1 (BSMI) (Taiwan) (Class A) KN 32 (South Korea) (Class A) KN 35 (South Korea) (Class A) TCVN 7189 / TCVN 7317 (Vietnam) (Class A) EN 61000-3-2 EN 61000-3-3 	
Safety	 CAN/CSA-C22.2 No. 62368-1/UL 62368-1 - Safety of Information Technology Equipment EN 60825 Safety of Laser Products - Part 1: Equipment Classification, Requirements and User's Guide EN 60950-1/IEC 60950-1/EN 62368-1/EC 62368-1 Safety of Information Technology Equipment CNS 15598-1 (BSMI) (Taiwan) 	
Environmental regulatory compliance	 2014/35/EU and 2014/30/EU 2011/65/EU – Restriction of the use of certain hazardous substance in electrical and electronic equipment (EU RoHS) 2012/19/EU – Waste electrical and electronic equipment (EU WEEE) 94/62/EC – packaging and packaging waste (EU) 2006/66/EC – batteries and accumulators and waste batteries and accumulators (EU battery directive) 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (EU REACH) Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 – U.S. Conflict Minerals 30/2011/TT-BCT – Vietnam circular SJ/T 11363-2006 Requirements for Concentration Limits for Certain Hazardous Substances in EIPs (China) SJ/T 11364-2006 Marking for the Control of Pollution Caused by EIPs (China) CNS 15663 (BSMI) (Taiwan) 	
Vibration	• IEC 68-2-36, IEC 68-2-6	
Shock and drop	• IEC 68-2-27, IEC 68-2-32	
TAA (Trade Agreement Act)	All ICX 8200 SKUs are TAA compliant	

RUCKUS ICX 8200 Ordering Information

Part Number	RUCKUS ICX 8200 Switches with Three-Year Remote TAC support TAA-Compliant
ICX8200-C08PF	RUCKUS ICX 8200 Compact Switch, 8×10/100/1000 Mbps PoE+ ports, 2×10 GbE SFP+ stacking/uplink-ports, 124 W PoE budget, three-year remote TAC support. Power cord not included.
ICX8200-C08ZP	RUCKUS ICX 8200 Compact Switch, 4×100/1000/2500 Mbps PoE++ ports, 4× 1/2.5/5/10Gbps PoE++ ports, 2×25 GbE SFP28 stacking/uplink- ports, 240 W PoE budget, three-year remote TAC support. Power cord not included. Must use power cord with high temperature C15 connector.
ICX8200-24	RUCKUS ICX 8200 Switch, 24×10/100/1000 Mbps ports, 4×25 GbE SFP28 stacking/uplink-ports, three-year remote TAC support. Power cord not included.
ICX8200-24P	RUCKUS ICX 8200 Switch, 24×10/100/1000 Mbps PoE+ ports, 4×25 GbE SFP28 stacking/uplink-ports, 370 W PoE budget, three-year remote TAC support. Power cord not included.
ICX8200-24ZP	RUCKUS ICX 8200 Switch, 24×100/1000/2500 Mbps PoE++ ports, 4×25 GbE SFP28 stacking/uplink-ports, 740 W PoE budget, three-year remote TAC support. Power cord not included.
ICX8200-48	RUCKUS ICX 8200 Switch, 48×10/100/1000 Mbps ports, 4×25 GbE SFP28 stacking/uplink-ports, three-year remote TAC support. Power cord not included.
ICX8200-48P	RUCKUS ICX 8200 Switch, 48×10/100/1000 Mbps PoE+ ports, 4×25 GbE SFP28 stacking/uplink-ports, 370 W PoE budget, three-year remote TAC support. Power cord not included.
ICX8200-48PF	RUCKUS ICX 8200 Switch, 48×10/100/1000 Mbps PoE+ ports, 4×25 GbE SFP28 stacking/uplink-ports, 740 W PoE budget, three-year remote TAC support. Power cord not included.
ICX8200-48PF2-E	RUCKUS ICX 8200 Switch, 48×10/100/1000 Mbps PoE+ ports, 4×25 GbE SFP28 stacking/uplink-ports, 740 W PoE budget (with one PSU), hot swap power supplies and fans, one power supply and one fan included, three-year remote TAC support. Power cord not included.
ICX8200-48PF2-E2	RUCKUS ICX 8200 Switch, 48×10/100/1000 Mbps PoE+ ports, 4×25 GbE SFP28 stacking/uplink-ports, 1440 W PoE budget, hot swap power supplies and fans, two power supplies and two fans included, three-year remote TAC support. Power cords not included.
ICX8200-48ZP2-E	RUCKUS ICX 8200 Switch, 32×10/100/1000 Mbps PoE+ ports, 16×100/1000/2500 Mbps RJ-45 PoE++ ports, 4×25 GbE SFP28 stacking/ uplink-ports, 740 W PoE budget (with one PSU), hot swap power supplies and fans, one power supply and one fan included, three-year remote TAC support. Power cord not included.
ICX8200-48ZP2-E2	RUCKUS ICX 8200 Switch, 32×10/100/1000 Mbps PoE+ ports, 16×100/1000/2500 Mbps RJ-45 PoE++ ports, 4×25 GbE SFP28 stacking/ uplink-ports, 1480 W PoE budget, hot swap power supplies and fans, two power supplies and two fans included, three-year remote TAC support. Power cords not included.
ICX8200-24F	RUCKUS ICX 8200 Switch, 24×100/1000 Mbps SFP ports, 4×25 GbE SFP28 stacking/uplink-ports, three-year remote TAC support. Power cord not included.
ICX8200-48F	RUCKUS ICX 8200 Switch, 48×100/1000 Mbps SFP ports, 4×25 GbE SFP28 stacking/uplink-ports, three-year remote TAC support. Power cord not included.
ICX8200-24FX	RUCKUS ICX 8200 Switch, 16×1/10GbE SFP+ ports, 8×25 GbE SFP28 stacking/uplink-ports, three-year remote TAC support. Power cord not included.

Part Number	RUCKUS ICX 8200 Power Supplies, Fans and Accessories	
ICX8200-PREM-LIC	PREM-LIC ICX 8200 Layer 3 premium license. Enables advanced layer 3 features (OSPF, VRRP, PIM, PBR, VRF, GRE)	
RPS23-E	Hot-swap 920 W AC PoE power supply, front to back airflow. Only applicable to the ICX8200 models with hot swap power supplies (up to 2 per switch) Power cord not included	
ICX-FAN13-E	Hot-swap fan tray front to back airflow. Only applicable to the ICX8200 models with hot swap fans (up to 2 per switch)	
XBR-R000295	1U, 1.5U, and 2U Universal Kit for Four-Post Racks	
ICX7000-RMK	Two-post fixed rack mount kit	
ICX7000-C12-RMK	Rack mount kit for compact switches	
ICX7000-C12-WMK	Wall Mount Bracket Kit for compact switches	
ICX-DIN-MNT	DIN rail mount kit	
CC-USBC-USBA	USB 2.0 Cable, Type-C to Type-A, 1 meter (for USB Type-C console port)	
CC-RJ45-DB9	Console cable RJ45-RJ45 with RJ-45-DB9 Adapter (for RJ-45 console port)	

RUCKUS ICX 8200 | Enterprise-class stackable access switch with future-proof expandability

RUCKUS ICX 8200 Ordering Information

Part Number	er Power Cords for All ICX 8200 models except the ICX 8200-C08ZP	
PCUSA2	C13 POWER CORD for USA, NEMA5-15/C13, 13A, 125V	
PCEURO	C13 Power Cord for Europe	
PCAUS	C13 POWER CORD FOR AUSTRALIA	
PCCHINA2-IEC309	C13 Power Cord for China, 250V 10A	
PCINDIA	C13 6 FOOT AC POWER CORD FOR INDIA	
PCJAPAN	C13 Power Cord for Japan version	
PCSWISS-C1312G-HF	C13 POWER CORD for Switzerland, SEV1011 TO C13, 10A, 250V, HALOGEN-FREE	
PCUK	C13 Power Cord for United Kingdom	
PC-C13C14	C13/C14 15A Power Cord	

* Check RUCKUS accessory guide for high temperature C15 power cords SKUs for the ICX 8200 C08ZP

Warranty

RUCKUS ICX 8200 Switches are covered by the RUCKUS Assurance Limited Lifetime Warranty. For details, visit <u>www.ruckusnetworks.</u> <u>com/warranty</u>.

Best-in-Class Support

RUCKUS ICX 8200 switches are supported by next-business-day advance replacement where available, as well as software defect repairs and maintenance updates. 3 years remote TAC support is included with the product purchase (extends to 39 months from the original ship date). Many on-site and TAC support options are available and can be purchased bundled with the product or separately.

Legal Disclaimer

Product features, functionality and specifications may change or be discontinued without notice. Nothing in this document shall be deemed to create a warranty of any kind, either express or implied, statutory or otherwise, including but not limited to, any implied warranties of merchantability, fitness for a particular purpose, noninfringement of third-party rights or availability with respect to any products and services.

Refer to <u>www.commscope.com/ruckus</u> for the latest version of this document.

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About RUCKUS Networks

RUCKUS Networks builds and delivers purpose-driven networks that perform in the demanding environments of the industries we serve. Together with our network of trusted go-to-market partners, we empower our customers to deliver exceptional experiences to the guests, students, residents, citizens and employees who count on them.

www.ruckusnetworks.com

Visit our website or contact your local RUCKUS representative for more information.

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