RUCKUS® ICX 8100

Enterprise-class access switch with flexible AI driven management options

Enterprise-Class Connectivity With Cost Effective Simplicity

The RUCKUS ICX 8100 is designed to deliver enterprise-class connectivity to businesses of any size without additional complexity or cost. Whether you're managing a hotel, multi-dwelling residential property, or an educational institution, this family of switches provides the reliability and scalability needed to support modern connectivity demands—without paying for features you don't need.

Flexible AI driven, converged wired and wireless management options

With flexible management options, including on-premises controllers, AI-driven cloud- based management, command line interface (CLI), and a web-based standalone interface, IT teams of all sizes can easily configure, monitor, and optimize their network. Whether you need hands-on control or simple plug-and-play operation, the RUCKUS ICX 8100 adapts to your needs, making it an ideal solution for organizations with limited IT resources.

Reliable and efficient, fits any budget

Built for cost-conscious organizations, the RUCKUS ICX 8100 delivers enterprise-grade networking at an affordable price. Its optimized feature set ensures you're not overpaying for unnecessary capabilities, while still offering the performance, security, and scalability required to support today's demanding environments. Easy to deploy and manage, this switch provides the perfect balance of power, simplicity, and value, tailored to the needs of specific verticals like hospitality, multi-dwelling residential properties, and educational institutions.

Benefits

Complete range of access switches covering a wide array of deployment scenarios

- Gigabit, access ports with 10GbE uplinks
- 8, 16, 24 and 48 Gigabit Ethernet ports for maximum flexibility
- Up to 4x 10GbE SFP+ uplink fiber ports
- Optimized for latest generation Wi-Fi APs deployment

Power next generation APs and PoE devices

- PoE+ 802.3at, up to 30W per port on all ports
- Up to 740W PoE budget with integrated power supply

Silent Operation, no distracting noise

- Fanless compact switches and full size non-PoE switches
- Fanless mode config option for full size PoE switches
- Space-saving, clutter-free setup for deployment in any workspace

Broad range of enterprise-class converged wired + wireless management options for maximum flexibility

- Cloud Based: RUCKUS One, AI driven management & assurance
- On Premises: RUCKUS SmartZone, Network controller*
- Controllerless: RUCKUS Unleashed*
- Command Line Interface (CLI)
- Web based stand-alone management interface

* Available in a future software release

RUCKUS ICX 8100 One Rack Unit switches

RUCKUS ICX 8100 models offer a single integrated power supply, one USB Type-C port for console management.

	**ICX 8100-24** • 24× 10/100/1000 Mbps RJ-45 ports • Choice of 4× 1GbE SFP or 4× 1/10GbE SFP+ uplink ports* • Fanless
	**ICX 8100-24P PoE** • 24× 10/100/1000 Mbps RJ-45 PoE+ ports • Choice of 4× 1GbE SFP or 4× 1/10GbE SFP+ uplink ports* • 370W PoE budget. PoE+ 802.3at, up to 30W of PoE power per port
	**ICX 8100-48** • 48× 10/100/1000 Mbps RJ-45 ports • Choice of 4× 1GbE SFP or 4× 1/10GbE SFP+ uplink ports* • Fanless
	**ICX 8100-48P PoE** • 48× 10/100/1000 Mbps RJ-45 PoE+ ports • Choice of 4× 1GbE SFP or 4× 1/10GbE SFP+ uplink ports* • 370W PoE budget. PoE+ 802.3at, up to 30W of PoE power per port
	**ICX 8100-48PF PoE†** • 48× 10/100/1000 Mbps RJ-45 PoE+ ports • Choice of 4× 1GbE SFP or 4× 1/10GbE SFP+ uplink ports* • 740W PoE budget. PoE+ 802.3at, up to 30W of PoE power per port

RUCKUS ICX 8100 Compact Switches

RUCKUS ICX 8100 compact models offer a single integrated power supply, one USB Type-C port for console management.

	**ICX 8100-C08PF PoE** • 8× 10/100/1000 Mbps RJ-45 PoE+ ports • Choice of 2× 1GbE SFP or 2× 1/10GbE SFP+ uplink ports* • 124W PoE budget PoE+ 802.3at, up to 30W of PoE power per port • Fanless
	**ICX 8100-C16P PoE†** • 16× 10/100/1000 Mbps RJ-45 PoE+ ports • Choice of 2× 1GbE SFP or 2× 1/10GbE SFP+ uplink ports* • 124W PoE budget PoE+ 802.3at, up to 30W of PoE power per port • Fanless

* SFP+, 10Gbps speed available on "-X" SKUs only
† The ICX 8100-C16P and ICX 8100-48PF are planned for a later release. Specifications for these models are estimates and may be subject to change.

RUCKUS ICX 8100 Feature/Model Comparison

	Compact PoE		1RU Non-PoE		1RU PoE		
	RUCKUS ICX 8100-C08PF	RUCKUS ICX 8100-C16P	RUCKUS ICX 8100-24	RUCKUS ICX 8100-48	RUCKUS ICX 8100-24P	RUCKUS ICX 8100-48P	RUCKUS ICX 8100-48PF
Feature							
Switching capacity (data rate, full duplex)	56 Gbps	72 Gbps	128 Gbps	176 Gbps	128 Gbps	176 Gbps	176 Gbps
Forwarding capacity (data rate, full duplex)	42 Mpps	54 Mpps	96 Mpps	132 Mpps	96 Mpps	132 Mpps	132 Mpps
10/100/1000 Mbps RJ45	8	16	24	48	24	48	48
1/10 Gbps SFP/SFP+ uplinks	2*	2*	4*	4*	4*	4*	4*
PoE/PoE+ 802.3at ports	8	16			24	48	48
Max PoE Class 3 ports (15.4 W per port)	8	8			24	24	48
Max PoE+ Class 4 ports (30 W per port)	4	4			12	12	24
Energy Efficient Ethernet (802.3az)	Yes						
Layer 3 routing	No						
Stacking	No						

* SFP+, 10Gbps speed available on "-X" SKUs only

RUCKUS ICX 8100 Feature/Model Comparison

	Compact PoE		1RU Non-PoE		1RU PoE		
	RUCKUS ICX 8100-C08PF	RUCKUS ICX 8100-C16P†	RUCKUS ICX 8100-24	RUCKUS ICX 8100-48	RUCKUS ICX 8100-24P	RUCKUS ICX 8100-48P	RUCKUS ICX 8100-48PF†
Features	POWER						
Power inlet (AC)	C14						
Input voltage/frequency	AC: 100 to 240 VAC @ 50 to 60 Hz						
Power Supply Hold Time	16ms	16ms	20ms	20ms	10ms	10ms	10ms
Power supply rated max (AC)	154 W	154 W	65 W	65 W	550 W	550 W	920W
PoE power budget (AC)	124 W	124 W			370 W	370 W	740 W
Switch power usage (25°C) *10% traffic* (no PoE load)* *100% traffic** (full PoE load)*	 16.8 W 150 W	 20 W 152 W	 23 W 23 W	 35 W 35 W	 29 W 435 W	 42W 470 W	 49 W 848 W
Airflow	Fanless		Fanless		Fanless Mode.*** Front and side to back		
Switch power dissipation (25°C) *10% traffic* (no PoE load)* *100% traffic** (full PoE load)*	 57 BTU/hr 89 BTU/hr	 70 BTU/hr 95 BTU/hr	 80 BTU/hr. 80 BTU/hr	 120 BTU/hr 120 BTU/hr	 102 BTU/hr 222 BTU/hr	 146 BTU/hr 341 BTU/hr	 167 BTU/hr 369 BTU/hr
Features							
Net Weight	2.11 kg 5.00 lb	2.50 kg 8.24 lb	3.6 kg 10.93 lb	4.61 kg 9.57 lb	4.3 kg 12.28 lb	5.35kg 12.15 lb	6.39 kg 14.08 lb
Dimensions *Height* *Width* *Depth*	 4.40 cm 1.73 Inches 27.00 cm 10.63 inches 21.40 cm 8.42 inches	 4.40 cm 1.73 Inches 27.00 cm 10.63 inches 27.00 cm 10.63 inches	 4.40 cm 1.73 inches 44.00 cm 17.32 inches 28.00 cm 11.02 inches	 4.40 cm 1.73 inches 44.00 cm 17.32 inches 37.00 cm 14.57 inches	 4.40 cm 1.73 inches 44.00 cm 17.32 inches 28.00 cm 11.02 inches	 4.40 cm 1.73 inches 44.00 cm 17.32 inches 37.00 cm 14.57 inches	 4.40 cm 1.73 inches 44.00 cm 17.32 inches 37.00 cm 14.57 inches
Acoustics (25°C, min fan speed)	Fanless	Fanless	Fanless	Fanless	23.2 dBA	24.5 dBA	41.0 dBA
MTBF (25°C)	1,194,958hr	1,194,000hr	2,046,035hr	895,504hr	741,863hr	642,435hr	561,966hr
Features	MANAGEMENT PORTS						
USB Type-C port *(For console management)*	Yes						

† The ICX 8100-C16P and ICX 8100-48PF are planned for a later release. Specifications for these models are estimates and may be subject to change.

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

*** In Fanless Mode, PoE budget is restricted to 150W max per switch.

RUCKUS ICX 8100 Specifications

Features	SPECIFICATIONS	
Connector options	• 10/100/1000 Mbps RJ-45 • 1 Gbps SFP ports • 1/10 Gbps SFP+ ports	For the latest information about supported optics, please visit www.commscope.com/ruckus.
DRAM **NVRAM (eMMC)** **Packet buffer size**	• 2 GB • 8 GB • 4 MB	
Maximum MAC addresses	• 32K	
Maximum VLANs **Maximum PVLANs**	• 4,095 • 32	
Maximum STP (spanning trees instances)	• 254	
Maximum VEs	• 1	
Maximum ARP entries	• 8192	
Maximum routes (in hardware)	• Routing not supported	
Trunking	• Maximum ports per LAG: 8 • Maximum 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)	
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

RUCKUS ICX 8100 Specifications

Features	SPECIFICATIONS	
High availability	• Layer 2 VSRP switch redundancy	
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, PIMv4-SM snooping, PIMv6-SM 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	• Routing not supported	

Features	STANDARD 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 • 802.3 10Base-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 • 802.3u 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 8100 product family, please visit docs.commscope.com.	

Features	FEATURE 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 One, RUCKUS Unleashed • CLI activation of optional software features • Macro for batch execution • 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

RUCKUS ICX 8100 Specifications

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) • 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

RUCKUS ICX 8100 Ordering Information

Part Number	RUCKUS ICX 8100 Switches
ICX8100-C08PF	RUCKUS ICX 8100 Compact Switch, 8×10/100/1000 Mbps PoE+ 802.3at, 30W Class 4 ports, 2×1GbE SFP uplink-ports, 124W PoE budget. Power cord not included
ICX8100-C08PF-X	RUCKUS ICX 8100 Compact Switch, 8×10/100/1000 Mbps PoE+ 802.3at, 30W Class 4 ports, 2×10GbE SFP+ uplink-ports, 124W PoE budget. Power cord not included
ICX8100-C16P	RUCKUS ICX 8100 Compact Switch, 16×10/100/1000 Mbps PoE+ 802.3at, 30W Class 4 ports, 2×1GbE SFP uplink-ports, 124W PoE budget. Power cord not included
ICX8100-C16P-X	RUCKUS ICX 8100 Compact Switch, 16×10/100/1000 Mbps PoE+ 802.3at, 30W Class 4 ports, 2×10GbE SFP+ uplink-ports, 124W PoE budget. Power cord not included
ICX8100-24	RUCKUS ICX 8100 1RU Switch, 24×10/100/1000 Mbps ports, 4×1GbE SFP uplink-ports. Power cord not included
ICX8100-24-X	RUCKUS ICX 8100 1RU Switch, 24×10/100/1000 Mbps ports, 4×10 GbE SFP+ uplink-ports. Power cord not included
ICX8100-24P	RUCKUS ICX 8100 1RU Switch, 24×10/100/1000 Mbps PoE+ 802.3at, 30W Class 4 ports, 4×1GbE SFP uplink-ports, 370W PoE budget. Power cord not included
ICX8100-24P-X	RUCKUS ICX 8100 1RU Switch, 24×10/100/1000 Mbps PoE+ 802.3at, 30W Class 4 ports, 4×10GbE SFP+ uplink-ports, 370W PoE budget. Power cord not included
ICX8100-48	RUCKUS ICX 8100 1RU Switch, 48×10/100/1000 Mbps ports, 4×1GbE SFP uplink-ports. Power cord not included
ICX8100-48-X	RUCKUS ICX 8100 1RU Switch, 48×10/100/1000 Mbps ports, 4×10 GbE SFP+ uplink-ports. Power cord not included
ICX8100-48P	RUCKUS ICX 8100 1RU Switch, 48×10/100/1000 Mbps PoE+ 802.3at, 30W Class 4 ports, 4×1GbE SFP uplink-ports, 370W PoE budget. Power cord not included
ICX8100-48P-X	RUCKUS ICX 8100 1RU Switch, 48×10/100/1000 Mbps PoE+ 802.3at, 30W Class 4 ports, 4×10GbE SFP+ uplink-ports, 370W PoE budget. Power cord not included
ICX8100-48PF	RUCKUS ICX 8100 1RU Switch, 48×10/100/1000 Mbps PoE+ 802.3at, 30W Class 4 ports, 4×1GbE SFP uplink-ports, 740W PoE budget. Power cord not included
ICX8100-48PF-X	RUCKUS ICX 8100 1RU Switch, 48×10/100/1000 Mbps PoE+ 802.3at, 30W Class 4 ports, 4×10GbE SFP+ uplink-ports, 740W PoE budget. Power cord not included

Part Number	RUCKUS ICX 8100 Accessories
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
CC-USBC-USBA	USB 2.0 Cable, Type-C to Type-A, 1 meter (for USB Type-C console port)

Part Number	Power Cords for All ICX 8100 models
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 extension

* Check RUCKUS accessory guide for a comprehensive list of international power cords

Warranty

Limited Lifetime Warranty. For details, visit: support.ruckuswireless.com/programs-warranty_registration.

Best-in-Class Support

RUCKUS ICX 8100 switches are supported by next-business-day advance replacement where available, as well as software defect repairs and maintenance updates.

Many on-site and TAC support options are available and can be purchased 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, non- infringement of third-party rights or availability with respect to any products and services.

Refer to www.ruckusnetworks.com 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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