

# RUCKUS ICX 7550 switch

Mid-range enterprise-class stackable access/aggregation switch

## Enterprise stackable switch delivers gigabit, multigigabit and fiber connectivity, to support next generation wireless access

The CommScope RUCKUS® ICX 7550 switch delivers the premium performance and scalability required for Wi-Fi 6 deployments and beyond with up to 48 ports of multigigabit connectivity and full 90 watts of 802.3bt PoE power per port with perpetual and fast-boot PoE support. It offers market-leading stacking density with up to 12 switches (up to 576 gigabit, multigigabit or fiber ports) per stack and combines chassis-level performance with “pay as you grow” scalability of a stackable solution. The mid-market stackable switch is one of the first in its class to offer 100 GbE uplinks, enabling enterprises to dramatically increase their network capacity while using their existing optical wire infrastructure.



### Benefits

#### Maximum flexibility with gigabit/multigigabit access and 1G/10G aggregation covers a broad range of deployment scenarios

##### Optimized for Wi-Fi 6 deployments and beyond

- Up to 12x 1/2.5/5/10G Multigigabit Ethernet ports
- Up to 36x 1/2.5G Multigigabit Ethernet ports

##### Power next generation PoE devices

- PoE+/802.3bt 60W/90W per port
- Up to 1666W PoE budget with two power supplies

##### 40 GbE and 100 GbE uplinks/stacking for maximum performance and future-proofing

- Up to 3x 100 GbE uplink
- Up to 2x 100 Gbps stacking ports

#### Advanced L3 routing delivers design flexibility

- IPv4 and IPv6
- RIP, BGP, OSPF, VRRP, PIM, PBR, VRF

#### Security and data privacy

- MACsec 128-bit and 256-bit data encryption ensures compliance and data confidentiality

#### Broad range of unified management options for maximum flexibility

- On Premises: SmartZone
- Cloud Based: RUCKUS Cloud
- Controllerless: RUCKUS Unleashed

#### Redundant, load-sharing power supplies enhance availability

The RUCKUS® ICX® 7550 series of mid-range stackable switches are purpose-built to provide wired connectivity at the edge of the network for the latest generation Wi-Fi 6 Access-Points. With high density multigigabit Ethernet ports and the latest 802.11bt 90W PoE power, the ICX 7550 delivers the performance, flexibility, and scalability required for the most demanding campus deployment scenarios.

The ICX 7550 comes in 8 different models that can all be seamlessly stacked together to cover a broad range of deployment scenarios including gigabit or multigigabit network edge and 1/10 gigabit fiber for network aggregation or fiber to the room as well as smart building network edge with a class leading 2000W PoE budget and up to 90W of power delivery per port.

## Multigigabit Network Edge



The RUCKUS ICX 7550 multigigabit models come in 24- and 48-port offering class leading multigigabit port density with a mix of 2.5G and 2.5/5/10G ports delivering the ultimate solution for Wi-Fi 6 access points Ethernet connectivity today while providing plenty of future proofing for deploying future generations of Wi-Fi APs.

ports while the 48 ports offers 36x 1GbE and 12 10GbE SFP/SFP+ ports. For maximum flexibility at the aggregation layer, the ICX 7550 support a broad range of L2/L3 protocols such as RIP, OSPF and BGP.

## Support for latest generation PoE standards

Latest generation of Wi-Fi access points comes with greater power requirements to support additional IoT radios and scale to a larger number of users. The ICX 7550 Multigigabit models all support 802.3bt with up to 90W power delivery per port as well as a class-leading 2000W PoE budget with two power supplies to maximize the supported number of powered devices. These PoE capabilities make the ICX 7550 ideally suited to provide connectivity and power delivery to the latest generation of smart buildings with PoE powered lighting and LED signage.

## Gigabit Ethernet Access



To complete the solution, The ICX 7550 Series includes four Gigabit Ethernet models, two with PoE support and two without. These models come in 24- and 48-port versions and can stack with the rest of the ICX 7550 series to offer traditional Gigabit ethernet connectivity for legacy Wi-Fi access points, VoIP phones, printers, laptop and desktop computers.

## Perpetual PoE and Fastboot PoE

All ICX 7550 PoE models support perpetual and fastboot PoE. Perpetual PoE keeps PoE devices powered without interruption when the switch is restarted, for example after a major SW upgrade or for any other reason. Fastboot PoE delivers power to PoE devices before the switch operating system has completed its boot sequence.

## 1/10 GbE Fiber Aggregation



The RUCKUS ICX 7550 fiber models come in 24- and 48-port versions with a mix of 1G and 10G SFP/SFP+ ports offering class leading port density as an entry level 10G aggregation solution for small to mid-size networks. The 24 ports model offers 24x 10GbE

## 100 Gigabit Ethernet support for uplink and stacking

To ensure maximum performance and eliminate any network bottleneck considering the class leading multigigabit and 10GbE port density, the 7550 offers up to 3x100 GbE ethernet ports depending on model. Just like the other members of the ICX switch portfolio, the ICX 7550 can use 2 of these 100 GbE ports for stacking over fiber links and over distance up to 10km to maximize deployment flexibility and simplify switch configuration and management.

## ICX 7550 series models

### RUCKUS ICX 7550 SERIES




The RUCKUS ICX 7550 Series switches support up to 2 redundant hot swappable load sharing power supplies (AC or DC), up to 3 hot swappable fans (exhaust or intake airflow), 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.

The ICX 7550 offers two 40GbE QSFP+ or two 40/100 GbE QSFP28 uplink/stacking ports (see below for details)

One optional uplink/stacking module may also be installed.

	<p><b>RUCKUS ICX 7550 24 Gigabit Ports</b></p> <ul style="list-style-type: none"> <li>• 24-port 10/100/1000 Mbps</li> <li>• 2-port 40 Gbps Uplink/Stack QSFP+, expansion module slot</li> </ul>
	<p><b>RUCKUS ICX 7550 48 Gigabit Ports</b></p> <ul style="list-style-type: none"> <li>• 48-port 10/100/1000 Mbps</li> <li>• 2-port 40 Gbps Uplink/Stack QSFP+, expansion module slot</li> </ul>
	<p><b>RUCKUS ICX 7550 24 Gigabit Ports with POE</b></p> <ul style="list-style-type: none"> <li>• 24-port 10/100/1000 Mbps 802.3at POE+</li> <li>• 2-port 40 Gbps Uplink/Stack QSFP+, expansion module slot</li> <li>• 24-PoE port 802.3at, up to 30W per port, up to 2000W PoE budget</li> <li>• Perpetual and Fast-boot POE on all ports</li> </ul>
	<p><b>RUCKUS ICX 7550 48 Gigabit Ports with POE</b></p> <ul style="list-style-type: none"> <li>• 48-port 10/100/1000 Mbps 802.3at POE+</li> <li>• 2-port 40 Gbps Uplink/Stack QSFP+, expansion module slot</li> <li>• 48-PoE port 802.3at, up to 30W per port, up to 2000W PoE budget</li> <li>• Perpetual and Fast-boot POE on all ports</li> </ul>
	<p><b>RUCKUS ICX 7550 24 Multi-Gigabit Ports with POE</b></p> <ul style="list-style-type: none"> <li>• 12-port 10/100/1000 Mbps/2.5 Gbps 802.3bt POE,</li> <li>• 12-port 100/1000 Mbps/2.5/5/10 Gbps 802.3bt POE</li> <li>• 2-port 40/100 Gbps Uplink/Stack QSFP28, expansion module slot</li> <li>• 24-PoE port 802.3bt, up to 90W per port, up to 2000W PoE budget</li> <li>• Perpetual and Fast-boot POE on all ports</li> </ul>
	<p><b>RUCKUS ICX 7550 48 Multi-Gigabit Ports with POE</b></p> <ul style="list-style-type: none"> <li>• 36-port 10/100/1000 Mbps/2.5 Gbps 802.3bt POE,</li> <li>• 12-port 100/1000 Mbps/2.5/5/10 Gbps 802.3bt POE</li> <li>• 2-ports 40/100 Gbps Uplink/Stack QSFP28, expansion module slot</li> <li>• 24-PoE port 802.3bt, up to 90W per port, up to 2000W PoE budget</li> <li>• Perpetual and Fast-boot POE on all ports</li> </ul>
	<p><b>RUCKUS ICX 7550 24 Fiber Ports</b></p> <ul style="list-style-type: none"> <li>• 24-port 1/10 Gbps</li> <li>• 2-ports 40/100 Gbps Uplink/Stack QSFP28, expansion module slot</li> </ul>
	<p><b>RUCKUS ICX 7550 48 Fiber Ports</b></p> <ul style="list-style-type: none"> <li>• 36-port 100/1000 Mbps SFP</li> <li>• 12-port 1/10 Gbps SFP+</li> <li>• 2-ports 40/100 Gbps Uplink/Stack QSFP28, expansion module slot</li> </ul>
	<p><b>RUCKUS ICX 7550 Rear View</b></p> <ul style="list-style-type: none"> <li>• 2 hot-swap load sharing power supplies (N+1, choice of AC/DC and standard/reversed airflow)</li> <li>• 3 hot-swap fans (N+1 redundancy)</li> <li>• USB storage, RJ45 serial port, RJ45 Ethernet management port</li> </ul>

## OPTIONAL UPLINK/STACKING MODULES

	<p><b>RUCKUS ICX 7650/7550 1X100GQ Module</b></p> <ul style="list-style-type: none"> <li>• 1x40/100GE QSFP28 uplink port</li> <li>• Delivers up to 100 Gbps of uplink bandwidth</li> <li>• Only available for -24ZP, -48ZP, -24F, 48F models</li> </ul>
	<p><b>RUCKUS ICX 7650/7550 2X40GQ Module</b></p> <ul style="list-style-type: none"> <li>• 2x40GE QSFP+ uplink port</li> <li>• Delivers up to 80 Gbps of uplink bandwidth</li> </ul>
	<p><b>RUCKUS ICX 7650/7550 4X10GF Module</b></p> <ul style="list-style-type: none"> <li>• 4x10GE SFP+ uplink port with MACsec 128-bit or 256-bit support</li> <li>• Delivers up to 40 Gbps of uplink bandwidth</li> </ul>

## PORT SUPPLIES OPTIONS

	<p><b>RUCKUS RPS22 AC PoE Power Supplies with standard or reversed airflow</b></p> <ul style="list-style-type: none"> <li>• Up to 1200W (@180-240V) power rating</li> <li>• Up to 1000W (@180-240V) PoE budget (2000W with 2 power supplies)</li> <li>• Supported on the RUCKUS ICX 7550-24/48P and ICX 7650-24/48ZP</li> <li>• Power supply side exhaust front-to-back (RPS22-E) or power supply side intake back-to-front (RPS22-I) airflow for maximum flexibility in DC deployment</li> </ul>
	<p><b>RUCKUS RPS21 AC No-PoE Power Supplies with standard or reversed airflow</b></p> <ul style="list-style-type: none"> <li>• 400W power rating</li> <li>• Supported on the ICX 7550-24/48 and ICX 7550-24/48F</li> <li>• Power supply side exhaust front-to-back (RPS21-E) or power supply side intake back-to-front (RPS21-I) airflow for maximum flexibility in DC deployment</li> </ul>
<p><b>DC, No-POE</b></p>	<p><b>RUCKUS RPS21DC DC No-PoE Power Supplies with standard or reversed airflow</b></p> <ul style="list-style-type: none"> <li>• 400W power rating</li> <li>• Supported on the ICX 7550-24/48 and ICX 7550-24/48F</li> <li>• Power supply side exhaust front-to-back (RPS21DC-E) or power supply side intake back-to-front (RPS21DC-I) airflow</li> </ul>

## Enterprise-class features across RUCKUS ICX switches

The RUCKUS ICX switch family delivers the enterprise class features for flexibility, scalability and simplified management.

RUCKUS technology delivers unmatched flexibility, scalability and simplified management for campus network deployments. RUCKUS ICX 7000 switches provide customers the benefits of a traditional chassis, with the flexibility of stackable switches at a dramatically reduced Total Cost of Ownership (TCO).

**Advanced stacking:** goes beyond traditional stacking with capabilities that take flexibility, ease of management and cost effectiveness to then next level, including

- Stacking on standard Ethernet ports
- Long-distance stacking
- No hardware module required for stacking
- In Service Software Upgrade (ISSU) to minimize downtime
- Superior scalability with the industry-leading number of switches per stack
- Stacking at the access, aggregation and core layers

**Enterprise-Class Availability:** improve resiliency and minimize downtime, including:

- Hitless stack failover
- Hot-insertion/removal of stack members
- Redundant power supplies
- In Service Software Upgrades for switch stacks

**Unified wired and wireless network management:** with RUCKUS SmartZone network controller or RUCKUS Cloud:

- Centralizes management of the entire family of RUCKUS switches and wireless Access Points with a single easy to deploy management platform
- Discovers, monitor, and deploys configurations to groups of switches and wireless APs

**Network Automation:** with RUCKUS SmartZone and RUCKUS Cloud delivering capability like zero touch provisioning and automated software upgrade as well as integration with open automation platform like Ansible.

**On-boarding and security policies:** across ICX switches and wireless networks.

OpenFlow 1.3 protocol support in hybrid mode: allows user to deploy traditional Layer 2/3 forwarding with OpenFlow on the same port for Software Defined Network (SDN) enabled programmatic control of the network

**Open Standards based management,** monitoring and authentication

- sFlow-based network monitoring to help analyze traffic statistics and trends on every link and overcome unexpected network congestion
- Open-standards management includes Command Line Interface (CLI), Secure Shell (SSHv2), Secure Copy (SCP), and SNMPv3
- Support for Access Controller Access Control System (TACACS/TACACS+) and RADIUS authentication helps ensure secure operator access
- LLDP and LLDP-MED protocol support for configuring, discovering, and managing network infrastructure such as QoS, security policies, VLAN assignments, PoE power levels, and service priorities



## RUCKUS ICX 7550 switch specifications

	Non-PoE Switches		Gigabit PoE		Multigigabit PoE		Fiber	
	RUCKUS ICX 7550-24	RUCKUS ICX 7550-48	RUCKUS ICX 7550-24P	RUCKUS ICX 7550-48P	RUCKUS ICX 7550-24ZP	RUCKUS ICX 7550-48ZP	RUCKUS ICX 7550-24F	RUCKUS ICX 7550-48F
<b>Switching capacity</b> (data rate, full duplex)	368 Gbps	416 Gbps	368 Gbps	416 Gbps	700 Gbps	1,020 Gbps	880 Gbps	912 Gbps
<b>Forwarding capacity</b> (data rate, full duplex)	274 Mpps	309 Mpps	274 Mpps	309 Mpps	521 Mpps	759 Mpps	655 Mpps	678 Mpps
<b>10/100/1000 Mbps RJ45</b>	24	48	24	48	24	48		
<b>10/100/1000 Mbps/2.5 Gbps RJ45</b> (full duplex only)					12	36		
<b>100/1000 Mbps/2.5/5/10 Gbps RJ45 downlinks</b> (full duplex only)					12	12		
<b>Fixed ports: 100/1000 Mbps SFP downlinks</b>								36
<b>Fixed ports: 1/10 Gbps SFP/SFP+ downlinks</b>							24	12
<b>Modular ports: 1/10 Gbps SFP/SFP+ uplinks</b>	4	4	4	4	4	4	4	4
<b>40 Gbps QSFP+ uplinks</b> (max)	4	4	4	4				
<b>40/100 Gbps QSFP28 uplinks</b> (max)					4 x 40 or 2 x 100	4 x 40 or 3 x 100	4 x 40 or 2 x 100	4 x 40 or 3 x 100
<b>PoE/PoE+ ports</b>			24	48	24	48		
<b>Perpetual / Fast boot Poe ports</b>			24	48	24	48		
<b>802.3bt (90W) ports</b>					24	48		
<b>Base IPv4/v6 L3 routing</b> (Static routing, RIP)	✓	✓	✓	✓	✓	✓	✓	✓
<b>Advanced IPv4/v6 L3 routing</b> (BGP, OSPF, RIP, VRRP, PIM, PBR features)	With license	With license	With license	With license	With license	With license	With license	With license
<b>Aggregated Stacking Bandwidth</b>	960 Gbps		960 Gbps		2.4 Tbps		2.4 Tbps	
<b>Stacking density</b> (Max switches in a stack)	12		12		12		12	
<b>Stacking ports</b> (Max ports usable for stacking)	Up to 2 x 40G QSFP+		Up to 2 x 40G QSFP+		Up to 2x 100G QSFP28		Up to 2x 100G QSFP28	
<b>Max stacking distance</b> (between stacked switches)	10 Km		10 Km		10 Km		10 Km	

## RUCKUS ICX 7550 switch specifications

	Non-PoE Switches		Gigabit PoE		Multigigabit PoE		Fiber	
	RUCKUS ICX 7550-24	RUCKUS ICX 7550-48	RUCKUS ICX 7550-24P	RUCKUS ICX 7550-48P	RUCKUS ICX 7550-24ZP	RUCKUS ICX 7550-48ZP	RUCKUS ICX 7550-24F	RUCKUS ICX 7550-48F

FEATURE	POWER							
<b>Power inlet</b>	C14 (AC), Dinkle 2EHDP-03P (DC)							
<b>Input voltage/frequency</b>	AC: 100 to 240 VAC @ 50 to 60 Hz   DC: 40 to 60 VDC							
<b>Power supply rated maximum output (AC)</b>	2 x 400W		2 x 1030W (100-180V) 2 x 1200W (180-240V)				2 x 400W	
<b>PoE power budget (AC) (two AC power supplies)</b>			1666 W (100-180V) 2000 W (180-240V)					
<b>Power supply rated maximum output (DC)</b>	2 x 400W		NA				2 x 400W	
<b>Switch power consumption<sup>1</sup> (25°C)</b>								
• 10% traffic <sup>2</sup> (no PoE load)	53.2 W	65 W	68.5 W	83.1 W	99.3 W	139.7 W	66.7 W	81.3 W
• 100% traffic <sup>2</sup> (full PoE load)	135 W	142.7 W	1123.7 W	1131.6W	1152 W	1183.7 W	142.7 W	166.8 W
<b>Airflow</b>	Front-to-back, or back-to-front (depending on power supplies and fans installed)							
<b>Switch heat dissipation<sup>1,3</sup> (25°C)</b>								
• 10% traffic <sup>2</sup> (no PoE load)	181.4 BTU/hr	221.6 BTU/hr	233.6 BTU/hr	283.3 BTU/hr	338.6 BTU/hr	476.4 BTU/hr	227.4 BTU/hr	277.2 BTU/hr

FEATURE	POWER							
<b>Weight</b>	6.11 kg 13.47 lb.	6.30 kg 13.89 lb.	6.74 kg 14.86 lb.	7.10 kg 15.65 lb.	6.98 kg 15.39 lb.	7.36 kg 16.23 lb.	6.04 kg 13.32 lb.	6.42 kg 14.15 lb.
<b>Dimensions</b>	Height: 4.4 cm, 1.73 inches		Width: 44.00 cm, 17.32 inches			Depth: 40.64 cm, 16 inches		
<b>Acoustics (at 35°C)</b>	51 dBA	51 dBA	51 dBA	51 dBA	51 dBA	56.7 dBA	51 dBA	51 dBA
<b>MTBF (25°C)</b>	717,487 hours	612,791 hours	319,662 hours	304,125 hours	287,828 hours	213,665 hours	853,073 hours	532,359 hours

<sup>1</sup> Switch includes one AC power supply, one fan, one 2x40 GbE QSFP+ uplink module

<sup>2</sup> Traffic load on all ports connected with maximum possible PoE/PoE+ loads (if equipped).

<sup>3</sup> PoE power not included in switch heat dissipation figures since the heat is not dissipated at the switch.

## RUCKUS ICX 7550 switch specifications

FEATURES	CAPABILITIES
<b>Connector options</b>	<ul style="list-style-type: none"> <li>• <b>RJ-45 ports:</b> 10/100/1000 Mbps, 2.5/5/10 Gbps ports</li> <li>• <b>SFP ports:</b> 100 Mbps, 1 Gbps</li> <li>• <b>SFP+ ports:</b> 10 Gbps</li> <li>• <b>QSFP+ ports:</b> 40 Gbps</li> <li>• <b>QSFP28 ports:</b> 100 Gbps</li> <li>• <b>RJ-45 port:</b> Out-of-band Ethernet management: 10/100/1000 Mbps RJ-45</li> <li>• Console management: <b>USB type C</b> (Type C plug) and <b>RJ45</b></li> <li>• File Transfer: <b>USB port, standard-A plug</b></li> </ul> <p>For the latest information about supported optics, please visit <a href="http://www.commscope.com/product-type/enterprise-networking/optical-transceivers">www.commscope.com/product-type/enterprise-networking/optical-transceivers</a></p>
<b>DRAM</b>	• 4 GB
<b>NVRAM (flash)</b>	• 4 GB
<b>Packet Buffer Size</b>	• 8 MB
<b>Maximum MAC addresses</b>	16,000 (profile1), 114,000 (profile2), 32,000 (profile3)
<b>Maximum VLANs</b>	• 4095
<b>Maximum PVLANS</b>	• 256
<b>Maximum STP (spanning trees)</b>	• 512
<b>Maximum VEs</b>	• 512
<b>Maximum routes (in hardware)</b>	<ul style="list-style-type: none"> <li>• IPv4: 97280 (profile1), 8192 (profile2), 21504 (profile 3)</li> <li>• IPv6: 8192 (profile1), 2048 (profile2), 17408 (profile 3)</li> </ul>
<b>Trunking</b>	<ul style="list-style-type: none"> <li>• Maximum ports per trunk: 32</li> <li>• Maximum trunk groups: 256</li> </ul>
<b>Maximum jumbo frame size</b>	• 12,288 bytes
<b>QoS priority queues</b>	• 48
<b>Multicast Groups</b>	• 8192
<b>VRF</b>	• 128 instances
<b>Layer 2 switching</b>	<ul style="list-style-type: none"> <li>• 802.1s Multiple Spanning Tree</li> <li>• 802.1x Authentication</li> <li>• Auto MDI/MDIX</li> <li>• BPDU Guard, Root Guard</li> <li>• Dual-Mode VLANs</li> <li>• MAC-based VLANs, Dynamic MAC-based VLAN activation</li> <li>• Dynamic Voice VLAN Assignment</li> <li>• Dynamic VLAN Assignment</li> <li>• Fast Port Span</li> <li>• MVRP: Multiple VLAN Registration Protocol</li> <li>• IGMP Snooping (v1/v2/v3)</li> <li>• IGMP Proxy for Static Groups</li> <li>• IGMP v2/v3 Fast Leave</li> <li>• Inter-Packet Gap (IPG) adjustment</li> <li>• Link Fault Signaling (LFS)</li> <li>• MAC Address Filtering</li> <li>• MAC Learning Disable</li> <li>• MLD Snooping (v1/v2)</li> <li>• Multi-device Authentication</li> <li>• Per-VLAN Spanning Tree (PVST/PVST+/PVRST)</li> <li>• Mirroring - Port-based, ACL-based, MAC Filter-based</li> <li>• PIM-SM v2 Snooping</li> <li>• Port Loop Detection</li> <li>• Private VLAN</li> <li>• Remote Fault Notification (RFN)</li> <li>• Single-instance Spanning Tree</li> <li>• Trunk Groups (static, LACP)</li> <li>• Uni-Directional Link Detection (UDLD)</li> <li>• Metro-Ring Protocol (MRP) (v1, v2)</li> <li>• Virtual Switch Redundancy Protocol (VSRP)</li> <li>• Q-in-Q and selective Q-in-Q</li> <li>• VLAN Mapping</li> <li>• Topology Groups</li> <li>• VXLAN*</li> </ul>

\* Supported in future software release.



## RUCKUS ICX 7550 switch specifications

FEATURES	CAPABILITIES	
<b>Base Layer 3 IP routing</b>	<ul style="list-style-type: none"> <li>IPv4 and IPv6 static routes</li> <li>RIP v1/v2, RIPng</li> <li>ECMP</li> <li>Port-based Access Control Lists</li> <li>Layer 3/Layer 4 ACLs</li> </ul>	<ul style="list-style-type: none"> <li>Host routes</li> <li>Virtual Interfaces</li> <li>Routed Interfaces</li> <li>Route-only Support</li> <li>Routing Between Directly Connected Subnets</li> </ul>
<b>Premium Layer 3 IP routing (with software license)</b>	<ul style="list-style-type: none"> <li>IPv4 and IPv6 dynamic routes</li> <li>OSPF v2, OSPF v3 (IPv6)</li> <li>PIM-SM, PIM-SSM, PIM-DM, PIM passive (IPv4/IPv6 multicast routing functionality)</li> <li>PBR</li> <li>Virtual Route Redundancy Protocol VRRP v3 (IPv6)</li> </ul>	<ul style="list-style-type: none"> <li>VRRP-E (IPv4, IPv6)</li> <li>BGP4, BGP4+ (IPv6)</li> <li>GRE</li> <li>IPv6 over IPv4 tunnels</li> <li>VRF-lite (IPv4 and IPv6)</li> <li>MSDP</li> </ul>
<b>Quality of Service (QoS)</b>	<ul style="list-style-type: none"> <li>ACL Mapping and Marking of ToS/DSCP (CoS)</li> <li>ACL Mapping and Marking of 802.1p</li> <li>ACL Mapping to Priority Queue</li> <li>Classifying and Limiting Flows Based on TCP Flags</li> <li>DiffServ Support</li> <li>Honoring DSCP and 802.1p (CoS)</li> </ul>	<ul style="list-style-type: none"> <li>MAC Address Mapping to Priority Queue</li> <li>Priority Queue Management using Weighted Round Robin (WRR), Strict Priority (SP), and a combination of WRR and SP</li> </ul>
<b>Traffic management</b>	<ul style="list-style-type: none"> <li>ACL-based inbound rate limiting and traffic policies</li> <li>Broadcast, multicast, and unknown unicast rate limiting</li> </ul>	<ul style="list-style-type: none"> <li>Inbound rate limiting per port</li> <li>Outbound rate limiting per port and per queue</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>MACsec</li> <li>802.1X authentication</li> <li>MAC authentication</li> <li>Flexible authentication</li> <li>Web authentication</li> <li>DHCP snooping</li> <li>Dynamic ARP inspection</li> <li>Neighbor Discovery (ND) Inspection</li> <li>Tri-level Access Mode (EXEC, Privileged EXEC and Global Configuration)</li> <li>EAP pass-through support</li> <li>EEE 802.1X username export in sFlow</li> </ul>	<ul style="list-style-type: none"> <li>Protection against Denial of Service (DoS) attacks</li> <li>Authentication, Authorization, and Accounting (AAA)</li> <li>MAC Address Locking MAC Port Security</li> <li>Advanced Encryption Standard (AES) with SSHv2</li> <li>RADIUS/TACACS/TACACS+</li> <li>Secure Copy (SCP)</li> <li>Secure Shell (SSHv2)</li> <li>Local Username/Password</li> <li>Change of Authorization (CoA) RFC 5176</li> <li>Trusted Platform Module</li> <li>Protected ports</li> <li>RADSEC (RFC 6614)</li> <li>Encrypted Syslog (RFC 5425)</li> </ul>
<b>SDN features</b>	<ul style="list-style-type: none"> <li>OpenFlow v1.0 and v1.3</li> <li>OpenFlow with hybrid port mode</li> </ul>	<ul style="list-style-type: none"> <li>Operates with OpenDaylight SDN Controllers and the applications running on the controller</li> </ul>
<b>IEEE standards compliance</b>	<ul style="list-style-type: none"> <li>802.1AB LLDP</li> <li>802.1D MAC Bridging</li> <li>802.1p Mapping to Priority Queue</li> <li>802.1s Multiple Spanning Tree (MST)</li> <li>802.1w Rapid Reconfiguration of Spanning Tree</li> <li>802.1x Port-based Network Access Control (PNAC)</li> <li>802.3 Carrier Sense Multiple Access/Collision Detection (CSMA/CD)</li> <li>802.3ab 1000BASE-T</li> <li>802.1 AX-2008 Link Aggregation</li> <li>802.3ae 10 Gigabit Ethernet</li> <li>802.3af Power over Ethernet</li> </ul>	<ul style="list-style-type: none"> <li>802.3at Power over Ethernet Plus</li> <li>802.3bt 4-Pair Power over Ethernet</li> <li>802.3u 100Base-TX</li> <li>802.3x Full duplex and Flow Control</li> <li>802.3z 1000Base-SX/LX</li> <li>802.3bz Multi-gigabit Ethernet</li> <li>802.3 MAU MIB (RFC 2239)</li> <li>802.3ba 40 and 100 Gbps Ethernet</li> <li>802.1AE-MACsec (with license)</li> <li>802.3az Energy Efficient Ethernet</li> <li>802.1Q VLAN Tagging</li> </ul>
<b>IETF RFC standards compliance</b>	<p>For a complete list of RFCs supported by the RUCKUS FastIron® software platform, please consult the “FastIron Features and Standards Support Matrix” document available from <a href="http://support.ruckuswireless.com/programs">support.ruckuswireless.com/programs</a>.</p>	

## RUCKUS ICX 7550 switch specifications

FEATURES	CAPABILITIES	
<b>High availability</b>	<ul style="list-style-type: none"> <li>Redundant hot-swappable power supplies</li> <li>Hot-swappable fan trays</li> <li>Layer 3 VRRP/VRRP-E protocol redundancy</li> <li>Real-time state synchronization across the stack</li> </ul>	<ul style="list-style-type: none"> <li>Hitless failover and switchover from master to standby stack controller</li> <li>Hot insertion and removal of stacked units</li> <li>Layer 2 VSRP switch redundancy</li> <li>In Service Software Update (ISSU)</li> </ul>
<b>Management</b>	<ul style="list-style-type: none"> <li>DHCP Auto Configuration</li> <li>Configuration Logging</li> <li>Digital Optical Monitoring</li> <li>Display Log Messages on Multiple Terminals</li> <li>Embedded Web Management (HTTP/HTTPS)</li> <li>Embedded DHCP Server</li> <li>Industry-standard Command Line Interface (CLI)</li> <li>RUCKUS SmartZone, RUCKUS Cloud, RUCKUS Unleashed</li> <li>Easy activation of optional software features</li> <li>USB file management and storage</li> <li>Boot from USB storage</li> <li>Macro for batch execution</li> <li>Out-of-band Ethernet Management</li> <li>ERSPAN support for remote traffic monitoring</li> <li>RSPAN</li> <li>TFTP</li> <li>TELNET Client and Server</li> </ul>	<ul style="list-style-type: none"> <li>Bootp · SNMPv1/v2c</li> <li>DHCP Server and DHCP Relay</li> <li>SNMPv3 Intro to Framework</li> <li>Architecture for Describing SNMP Framework</li> <li>SNMP Message Processing and Dispatching</li> <li>SNMPv3 Applications</li> <li>SNMPv3 User-based Security Model</li> <li>SNMP View-based Access Control Model SNMP</li> <li>sFlow</li> <li>Network Time Protocol (NTP)</li> <li>Multiple Syslog Servers</li> <li>SCP</li> <li>Virtual Cable Tester (VCT)</li> <li>PTP Transparent clock*</li> <li>For Management MIB, please consult the “FastIron MIB Reference” document available from <a href="http://support.ruckuswireless.com/programs">support.ruckuswireless.com/programs</a>.</li> </ul>

ENVIRONMENT	
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Operating: 0°C to 45°C (32°F to 113°F) at sea level</li> <li>Storage: -40°C to 70°C (-40°F to 158°F)</li> </ul>
<b>Humidity (noncondensing)</b>	<ul style="list-style-type: none"> <li>Operating: 10% to 90% at 50°C (122°F)</li> <li>Storage: 5% to 95% at 70°C (158°F)</li> </ul>
<b>Altitude (above sea level)</b>	<ul style="list-style-type: none"> <li>Operating: 0 to 3,048 m (10,000 feet)</li> <li>Storage: 0 to 12,000 m (39,370 feet)</li> </ul>

COMPLIANCE/CERTIFICATION	
<b>Electromagnetic emissions</b>	<ul style="list-style-type: none"> <li>FCC Class A (Part 15); EN 55022/CISPR-22 Class A; VCCI Class A; ICES-003 Electromagnetic Emission; AS/NZS 55022; EN 61000-3-2 Power Line Harmonics; EN 61000-3-3 Voltage Fluctuation and Flicker EN 61000-6-3 Emission Standard</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>CAN/CSA-C22.2 NO. 60950-1-07; UL 60950-1; IEC60950-1; EN 60950-1:2006 Safety of Information Technology Equipment; EN 60825-1 Safety of Laser Products</li> </ul>
<b>Immunity</b>	<ul style="list-style-type: none"> <li>EN 61000-6-1 Generic Immunity and Susceptibility; EN 55024 Immunity Characteristics; EN 61000-4-3 Radiated, Radio Frequency, Electromagnetic Field; EN 61000-4-4 Electrical Fast Transient; EN 61000-4-5 Surge; EN 61000-4-6 Conducted Disturbances Induced by Radio-Frequency Fields; EN 61000-4-8 Power Frequency Magnetic Field; EN 61000-4-11 Voltage Dips and Sags</li> </ul>
<b>Environmental regulatory compliance</b>	<ul style="list-style-type: none"> <li>RoHS-compliant (6 of 6); WEEE-compliant</li> </ul>
<b>Vibration</b>	<ul style="list-style-type: none"> <li>IEC 68-2-36, IEC 68-2-6</li> </ul>
<b>Shock and drop</b>	<ul style="list-style-type: none"> <li>IEC 68-2-27, IEC 68-2-32</li> </ul>
<b>Federal Certifications</b>	<ul style="list-style-type: none"> <li>CC*, FIPS*, USGv6*, JITC*</li> </ul>

\* Future software release.

## RUCKUS ICX 7550 ordering information

SWITCH BUNDLES	
<b>ICX7550-24-E2</b>	24-port 10/100/1000 Mbps, 2x 40Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 400W AC power supplies and 3x fans, front to back airflow, port modules sold separately.
<b>ICX7550-48-E2</b>	48-port 10/100/1000 Mbps, 2x 40Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 400W AC power supplies and 3x fans, front to back airflow, port modules sold separately.
<b>ICX7550-24P-E2</b>	24-port 10/100/1000 Mbps 802.3at POE+, 2x 40 Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 1200W AC power supplies and 3x fans, front to back airflow, port modules sold separately.
<b>ICX7550-48P-E2</b>	48-port 10/100/1000 Mbps 802.3at POE+, 2x 40 Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 1200W AC power supplies and 3x fans, front to back airflow, port modules sold separately.
<b>ICX7550-24ZP-E2</b>	24-port with 12-port 10/100/1000 Mbps/2.5 Gbps 802.3bt POE++, 12-port 10/100/1000 Mbps/2,5/5/10 Gbps 802.3bt POE++, 2x 40/100 Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 1200W AC power supplies and 3x fans, front to back airflow, port modules sold separately.
<b>ICX7550-48ZP-E2</b>	48-port with 36-port 10/100/1000 Mbps/2.5 Gbps 802.3bt POE++, 12-port 10/100/1000 Mbps/2,5/5/10 Gbps 802.3bt POE++, 2x 40/100Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 1200W power supplies and 3x fans, front to back airflow, port modules sold separately.
<b>ICX7550-24F-E2</b>	24-port 1/10 Gbps SFP+, 2x 40/100 Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 400W AC power supplies and 3x fans, front to back airflow, port modules sold separately.
<b>ICX7550-48F-E2</b>	48-port with 36-port 100/1000 Mbps SFP, 12-port 1/10 Gbps SFP+, 2x 40/100 Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 400W AC power supplies and 3x fans, front to back airflow, port modules sold separately.

SWITCH BUNDLES WITH 3 YEARS REMOTE SUPPORT	
<b>ICX7550-24P-E2-R3</b>	24-port 10/100/1000 Mbps 802.3at POE+, 2x 40Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 1200W AC power supplies and 3x fans, front to back airflow, port modules sold separately. 3-year remote support included.
<b>ICX7550-48P-E2-R3</b>	48-port 10/100/1000 Mbps 802.3at POE+, 2x 40Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 1200W AC power supplies and 3x fans, front to back airflow, port modules sold separately. 3-year remote support included.
<b>ICX7550-24ZP-E2-R3</b>	24-port with 12-port 10/100/1000 Mbps/2.5 Gbps 802.3bt POE++, 12-port 10/100/1000 Mbps/2,5/5/10 Gbps 802.3bt POE++, 2x 40/100Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 1200W AC power supplies and 3x fans, front to back airflow, port modules sold separately. 3-year remote support included.
<b>ICX7550-48ZP-E2-R3</b>	48-port with 36-port 10/100/1000 Mbps/2.5 Gbps 802.3bt POE++, 12-port 10/100/1000 Mbps/2,5/5/10 Gbps 802.3bt POE++, 2x 40/100Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 1200W AC power supplies and 3x fans, front to back airflow, port modules sold separately. 3-year remote support included.
<b>ICX7550-24F-E2-R3</b>	24-port 1/10 Gbps SFP+, 2x 40/100Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 400W AC power supplies and 3x fans, front to back airflow, port modules sold separately. 3-year remote support included.
<b>ICX7550-48F-E2-R3</b>	48-port with 36-port 100/1000 Mbps SFP, 12-port 1/10 Gbps SFP+, 2x 40/100Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Bundle includes 2x 400W AC power supplies and 3x fans, front to back airflow, port modules sold separately.

BARE SWITCHES	
<b>ICX7550-24</b>	24-port 10/100/1000 Mbps, 2x 40Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Power supplies, fans and port modules sold separately.
<b>ICX7550-48</b>	48-port 10/100/1000 Mbps, 2x 40Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Power supplies, fans and port modules sold separately.
<b>ICX7550-24P</b>	24-port 10/100/1000 Mbps 802.3at POE+, 2x 40Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Power supplies, fans and port modules sold separately.
<b>ICX7550-48P</b>	48-port 10/100/1000 Mbps 802.3at POE+, 2x 40Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Power supplies, fans and port modules sold separately.
<b>ICX7550-24ZP</b>	24-port with 12-port 10/100/1000 Mbps/2.5 Gbps 802.3bt POE++, 12-port 10/100/1000 Mbps/2,5/5/10 Gbps 802.3bt POE++, 2x 40/100Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Power supplies, fans and port modules sold separately.
<b>ICX7550-48ZP</b>	48-port with 36-port 10/100/1000 Mbps/2.5 Gbps 802.3bt POE++, 12-port 10/100/1000 Mbps/2,5/5/10 Gbps 802.3bt POE++, 2x 40/100Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Power supplies, fans and port modules sold separately.

## RUCKUS ICX 7550 ordering information

<b>ICX7550-24F</b>	24-port 1/10 Gbps SFP+, 2x 40/100Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Power supplies, fans and port modules sold separately.
<b>ICX7550-48F</b>	48-port with 36-port 100/1000 Mbps SFP, 12-port 1/10 Gbps SFP+, 2x 40/100Gbps QSFP+ dual-mode uplink/stacking ports, modular slot. Power supplies, fans and port modules sold separately.

PORT MODULES	
<b>ICX7650-1X100GQ</b>	ICX 7650/7550 1-port 100GbE QSFP28 Module
<b>ICX7650-2X40GQ</b>	ICX 7650/7550 2-port 40GbE QSFP+ Module
<b>ICX7650-4X10GF</b>	ICX 7650/7550 4-port 1/10GbE SFP+ Module

POWER SUPPLIES AND FANS	
<b>RPS22-E</b>	ICX 7550 POE Power Supply, 1000/1200W AC, exhaust front to back airflow
<b>RPS22-I</b>	ICX 7550 POE Power Supply, 1000/1200W AC, intake back to front airflow
<b>RPS21-E</b>	ICX 7550 NO-POE Power Supply, 400W AC exhaust front to back airflow
<b>RPS21-I</b>	ICX 7550 NO-POE Power Supply, 400W AC intake back to front airflow
<b>RPS21DC-E</b>	ICX 7550 NO-POE Power Supply, 400W DC exhaust front to back airflow
<b>RPS21DC-I</b>	ICX 7550 NO-POE Power Supply, 400W DC intake back to front airflow
<b>ICX-FAN12-E</b>	Fan, ICX 7550, 7650 and ICX 7850 exhaust front to back airflow, front to back airflow support
<b>ICX-FAN12-I</b>	Fan, ICX 7550, 7650 and ICX 7850 intake airflow, back to front airflow support

FEATURE LICENSE AND ACCESSORIES	
<b>ICX-MACSEC-LIC</b>	ICX MACSEC license
<b>ICX7550-PREM-LIC</b>	ICX 7550 Layer 3 premium license
<b>ICX-RMK-4POST-TL</b>	ICX Tool-less 4-Post Rack Mount Kit
<b>XBR-R000295</b>	FRU, universal rack mount kit, 4 post 24-32 depth RCK, ICX 7750/7650/7550/7450

OPTICS	
<b>See <a href="#">Optics Datasheet</a></b>	RUCKUS offers a unique set of high-performance, reliable, and cost-effective optical transceivers to help enterprises and service providers meet the challenges of diverse network topologies. To ensure maximum quality, RUCKUS selects and tests the most reliable, highest-performing optical transceivers on the market, and then warrants their availability, capacity, and performance in RUCKUS® product.” for the specific list of optics supported by each ICX product see the Optics Datasheet at <a href="http://www.commscope.com/product-type/enterprise-networking/optical-transceivers">www.commscope.com/product-type/enterprise-networking/optical-transceivers</a> .

MANAGEMENT SOFTWARE	
<b><a href="#">SmartZone</a></b>	SmartZone network controllers simplify network setup and management, enhance security, minimize troubleshooting and ease upgrades for networks built on RUCKUS switches and access points. Whether you’re building complex multi-geo networks or delivering multi-tier managed networking services, SmartZone network controllers deliver the scale, flexibility and openness to support the most sophisticated deployment scenarios.
<b><a href="#">RUCKUS Cloud</a></b>	RUCKUS Cloud takes the complexity of deploying and managing a distributed network out. It enables faster response to organizational needs while also reducing IT overhead. RUCKUS Cloud eliminates the need to deploy on-premises controllers and management software, moving network management to the cloud. Your multi-site network can be centrally managed through a single pane of glass web-based UI and full-featured mobile app.
<b><a href="#">Unleashed</a></b>	Unleashed is a simple-to-setup, easy-to-run management solution in a package designed and priced for small businesses. With builtin controller functionality, there’s no need to invest in a separate appliance for Wi-Fi control or in network management software. You can manage your entire network from your phone or web browser including all your APs and switches together.

## Warranty

RUCKUS ICX 7550 Switches are covered by the RUCKUS Assurance Limited Lifetime Warranty. For details, visit [www.commscope.com/globalassets/digizuite/1077-1067-ruckus-warranty-statement.pdf](http://www.commscope.com/globalassets/digizuite/1077-1067-ruckus-warranty-statement.pdf).

## Best-in-class support

RUCKUS ICX 7550 switches come with 90 days of free technical support from the RUCKUS Technical Assistance Center (TAC). For continued access to the TAC past the initial 90 days, customers must purchase a RUCKUS Technical Support contract. For details, visit [support.ruckuswireless.com/programs](http://support.ruckuswireless.com/programs).

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