RUCKUS ICX 7550 Switch Quick Setup Guide

The *RUCKUS ICX 7550 Quick Setup Guide* provides instructions for a user to get started with ICX 7550-24, ICX 7550-24F, ICX 7550-24P, ICX 7550-24XZP, ICX 7550-24ZP, ICX 7550-48, ICX 7550-48F, ICX 7550-48P, and ICX 7550-48ZP models.

The ICX 7550-24, ICX 7550-24P, ICX 7550-48, ICX 7550-48P, ICX 7550-24ZP, ICX 7550-48ZP, ICX 7550-24F, and ICX 7550-48F models are supported from FastIron Release 8.0.95 onwards and the ICX 7550-24XZP model is supported in FastIron Release 10.0.20b onwards.

For more information on advanced configurations and management options, refer to RUCKUS ICX FastIron user documentation available at: https://support.ruckuswireless.com/documents.

Package Contents

The RUCKUS ICX 7550 shipping box includes all of the following items:

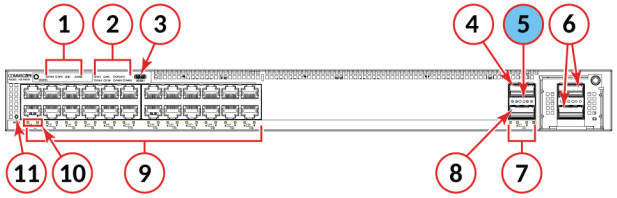
- The RUCKUS ICX 7550 device.
- An accessory kit containing the following items:
  - Rack mounting kit containing two L-shaped mounting brackets and one set of eight sink-head screws
  - Two-post rack kit containing four rack-mounting screws and four cage nuts
  - One grounding kit, containing one grounding lug and one grounding screw
  - Power:
    - "W" SKUs: No power cords. An example of a "W" SKU is "ICX7550W48ZP-E2".
    - Non-"W" SKUs: Two US power cords and two cord retaining clamps. An example of a "non-W" SKU is "ICX7550-48ZP-E2".
  - One RJ45-to-RJ45 console cable
  - One RJ45-to-DB9 adapter
  - Installed filler panels for the power supply slot, expansion module slots, or fan tray slot where such modules are not supplied for the switch
  - China-RoHS Hazardous/Toxic Substance statement
  - Read Me First document

NOTE: A stacking cable is not included in the shipping carton and it must be ordered separately.

Device Overview

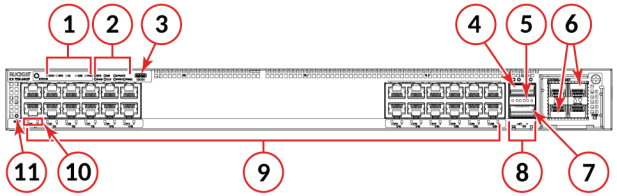
The ICX 7550 switch models feature RJ-45 ports with 1000BASE-T/Multi-GiG Ethernet and SFP/SFP+ ports for downlink connections, two stacking ports supporting 40 Gbps or 100 Gbps, a dedicated 1-GbE out-of-band management Ethernet port, and QSFP28 ports for 100-GbE and 40-GbE transceivers with 4x25-GbE and 4x10-GbE breakout support (from FastIron release 09.0.00). It also includes swappable redundant power supplies and fan assemblies, supports uplink port slot modules, and has a standard 1U chassis height with 17-inch rack mountability.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.

FIGURE 1 Port-side View of ICX 7550-24 and ICX 7550-24P



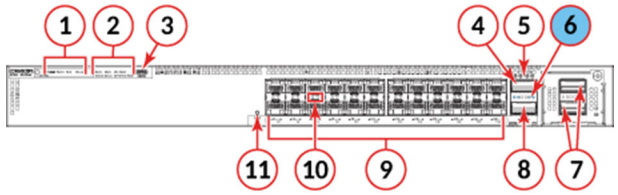
1. Mode status LEDs: STAT, SPD, ID, USB
2. System LEDs
3. Type-C USB console port
4. 40 Gbps stacking port 2/1
5. 40 Gbps link/activity LEDs (blue) for stacking port 2/1
6. Expansion module ports (optional)
7. 40 Gbps link/activity LEDs for stacking port 2/2
8. 40 Gbps stacking port 2/2
9. 24x10/100/1000 Mbps RJ-45 ports
10. RJ-45 port status LEDs (odd numbers are for upper ports; even numbers are for lower ports)
11. Reset button

FIGURE 2 Port-side View of ICX 7550-24XZP and ICX 7550-24ZP



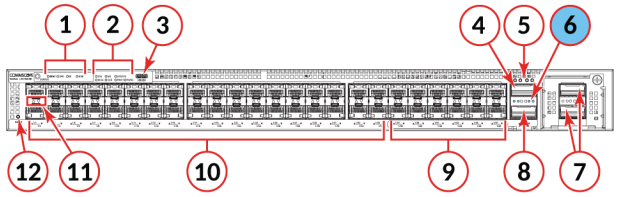
1. Mode status LEDs: STAT, SPD, ID, USB, PoE
2. System LEDs
3. Type-C USB console port
4. 40/100 GbE uplink/stacking port 2/1
5. 40 Gbps link/activity LEDs for stacking port 2/1
6. Expansion module ports (optional)
7. 40/100 GbE uplink/stacking port 2/2
8. 40 Gbps link/activity LEDs for stacking port 2/2
9. 24X10G GbE copper ports
10. RJ-45 port status LEDs (odd numbers are for upper ports; even numbers are for lower ports)
11. Reset Button

FIGURE 3 Port-side View of ICX 7550-24F



1. Mode status LEDs: STAT, SPD, ID, USB
2. System LEDs
3. Type-C USB console port
4. 40/100 GbE uplink/stacking port 2/1
5. 40/100 Gbps link/activity LEDs for stacking port 2/1
6. 40/100 Gbps stacking port 2/2 LEDs (blue)
7. Expansion module ports (optional)
8. 40/100 GbE uplink/stacking port 2/2
9. 24x10 GbE SFP ports
10. SFP port status LEDs (upper-pointing triangles are for upper ports; lower-pointing triangles are for lower ports)
11. Reset button

FIGURE 4 Port-side View of ICX 7550-48F



1. Mode status LEDs: STAT, SPD, ID, USB
2. System LEDs
3. Type-C USB console port
4. 40/100 GbE Uplink/Stacking port 2/1
5. 40/100 Gbps link/activity LEDs for stacking port 2/1
6. 40/100 Gbps stacking port 2/2 LEDs (blue)
7. Expansion module ports (optional)
8. 40/100 GbE uplink/stacking port 2/2
9. 12x10 GbE SFP ports

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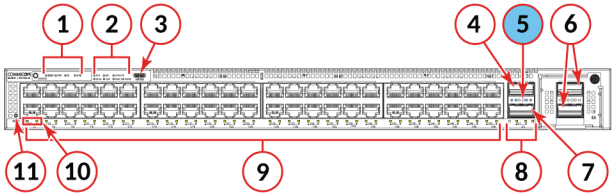
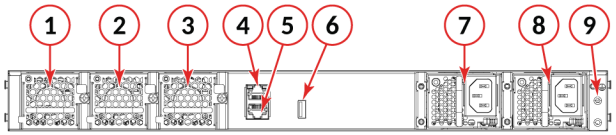
10. 36x1 GbE SFP ports
11. SFP port status LEDs (upper-pointing triangles are for upper ports; lower-pointing triangles are for lower ports)
12. Reset button

FIGURE 5 Port-side View of ICX 7550-48, ICX 7550-48P, and ICX 7550-48ZP



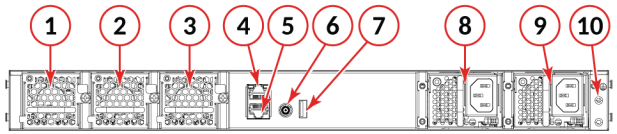
1. Mode status LEDs: STAT, SPD, ID, USB
2. System LEDs
3. Type-C USB console port
4. 40 Gbps stacking port 2/1
5. 40 Gbps link/activity LEDs for stacking port 2/1 (blue)
6. Expansion module ports (optional)
7. 40 Gbps link/activity LEDs for stacking port 2/2
8. 40 Gbps stacking port 2/2
9. 48x10/100/1000 Mbps RJ-45 ports
10. RJ-45 port status LEDs (odd numbers are for upper ports; even numbers are for lower ports)
11. Reset button

FIGURE 6 Nonport-side View of ICX 7550-24 and ICX 7550-48 (with 400W AC Power)



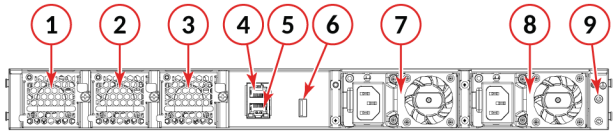
1. Fan assembly 3
2. Fan assembly 2
3. Fan assembly 1
4. RJ-45 console port
5. Out-of-band management port
6. USB port (for flash drive)
7. Power supply unit 2
8. Power supply unit 1
9. Grounding terminal

FIGURE 7 Nonport-side View of ICX 7550-24F and ICX 7550-48F (with 400W AC Power)



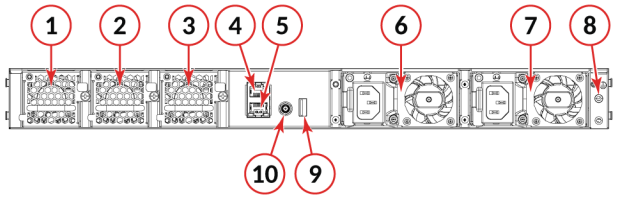
1. Fan assembly 3
2. Fan assembly 2
3. Fan assembly 1
4. RJ-45 console port
5. Out-of-band management port
6. External reference clock input
7. USB port (for flash drive)
8. Power supply unit 2
9. Power supply unit 1
10. Grounding terminal

FIGURE 8 Nonport-Side View of ICX 7550-24P and ICX 7550-48P (with 1200W AC Power)



1. Fan assembly 3
2. Fan assembly 2
3. Fan assembly 1
4. RJ-45 console port
5. Out-of-band management port
6. USB port (for flash drive)
7. Power supply unit 2
8. Power supply unit 1
9. Grounding terminal

FIGURE 9 Nonport-side View of , ICX 7550-24XZP, ICX 7550-24ZP, and ICX 7550-48P (with 1200W AC Power)



1. Fan assembly 1
2. Fan assembly 2
3. Fan assembly 3
4. RJ-45 console port
5. Out-of-band management port
6. Power supply unit 2
7. Power supply unit 1
8. Grounding terminal
9. USB port (for flash drive)
10. External reference clock input

Installing an ICX 7550 Device

Complete the following steps to install an ICX 7550 device.

1. Unbox the ICX 7550 device, remove the port covers, and secure the switch in the rack, aligning it with the desired rack units.
2. Attach alternating-current (AC) or direct-current (DC) power cables to the power supply connectors on the rear panel and connect the power cables to the 100-240 VAC or 40-72 VDC power source.
3. Complete one of the following to establish a first-time connection to the console port:
   a) Connect a standard USB Type-C–to–Type-A cable in the USB Type-C console port of the ICX switch and to the USB port on your computer.
   b) Connect the RJ45–to–RJ45 console cable to the RJ45–to–DB9 Adapter (both included in the shipping box); plug the unattached RJ-45 connector into the serial console port on the ICX switch, and connect the DB9 connector into the DB9 port on your compute.
4. Open a terminal emulator application, such as HyperTerminal on a Windows PC, or TERM, TIP, or Kermit in a UNIX environment, and configure the sessions parameters as follows.

- In a Windows environment, use the following values (and only these values):

Parameter	Value
Baud: Bits per second	9600
Data bits	8
Parity	None
Stop bits	1
Flow control	None

- In a UNIX environment using TIP, enter the following string at the prompt:

```
tip /dev/ttyb -9600
```

If ttyb is already in use, use ttya instead and enter the following string at the prompt:

```
tip /dev/ttya -9600
```

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Depending on the device you purchased, and the code (Layer 2 or Layer 3) loaded on your system, the device prompt is displayed accordingly.

```
device>
```

When the device prompt is displayed, you are connected to the device. You can customize the prompt by changing the device name. If you do not see this prompt, make sure the cable is securely connected to your workstation and to the device, and check the settings in your terminal emulation program. The ICX 7550 device CLI prompt has three access levels: **User EXEC** (default mode) allows viewing system info, **Privileged EXEC** (accessible from **User EXEC** mode) allows file management, config saving, and cache clearing, and **Global configuration** (accessible by from **Privileged EXEC** mode) allows system and feature configuration.

5. At the opening CLI prompt, enter the following command to change to the Privileged EXEC mode:

```
device> enable
device#
```

By default, the CLI is not protected by passwords. To secure CLI access, RUCKUS strongly recommends assigning passwords. Password levels include Super User (full access, required to set other passwords), Port Configuration (read/write access to specific ports), and Read-Only (read-only access to privileged EXEC and CONFIG modes).

Passwords can be up to 32 characters long, must begin with an alphabetic character, can include numeric characters, the period (.), the underscore (_), and are case-sensitive, and not displayed when entered on the command line.

6. Access the configuration mode of the CLI by entering the following command:

```
device# configure terminal
device(config)#
```

7. Enter the following command to set the Super User password:

```
device(config)# enable super-user-
password joe
```

8. Enter the following commands to set the port configuration and read-only passwords.

```
device(config)# enable port-config-
password john
device(config)# enable read-only-
password sam
```

9. Enter the following commands to assign an IP address.
   - If the device is running Layer 2 software.

```
device(config)# ip address 10.22.3.44
255.255.255.0
device(config)# ip default-gateway
10.22.3.1
device(config)# write memory
```

NOTE: You do not need to assign a default gateway address for single subnet networks.

   - If the device is running Layer 3 software.

```
device(config)# interface ethernet
1/1/1
device(config-if-e1000-1/1/1)# ip
address 10.10.10.20 255.255.255.0
```

NOTE: Before attaching any equipment to a device running Layer 3 software, you must assign an interface IP address to the subnet on which the device will be located. You must use the serial connection to assign the first IP address. For subsequent addresses, you can use the CLI through Telnet.

   - Assign an IP address to the out-of-band management Ethernet port.

```
device(config)# interface management 1
device(config-if-mgmt-1)# ip address
10.22.3.44 255.255.255.0
```

NOTE: The management port number is always 1.

After you assign an IP address, you can access the RUCKUS ICX 7550 from anywhere in the attached network using Telnet, a web browser, or other network management tools. For more information on getting in-band access and establishing a connection to the out-of-band management port, refer to the *RUCKUS FastIron Management Configuration Guide*.

10. Customize the host name, using the following command. When you configure a host name, the name replaces the default system name in the device CLI prompt.

```
device(config)# hostname sj_device1
device(config)# end
```

11. Use the following command to set the current time and date for the device.

```
sj_device1# clock set 10:05:45 12-01-16
```

NOTE: After a power cycle, the date and time settings are not retained because the device does not have an RTC battery.

12. Verify the switch operation.
    a) Check the LEDs to verify operation of functional parts.
    b) Enter the following commands to establish an operational baseline for the device. Refer to the *RUCKUS FastIron Command Reference* for more information on these commands.

- **show chassis**
- **show version**
- **show cpu**
- **show flash**
- **show files**
- **show run**
- **show boot-preference**
- **show configuration**
- **show running-config**
- **show logging**

13. Use the **write memory** command to replace the startup configuration with the running configuration every time you make changes to the device configuration. To back up the device configuration to an external TFTP server, use the **copy running-config tftp** command

```
sj_device1# write memory
sj_device1# copy running-config tftp
2001:DB8:e0ff:7837::3 newrun.cfg
```

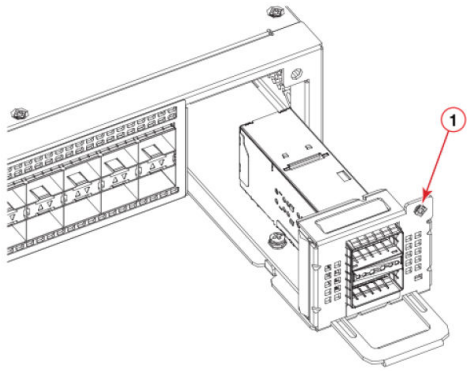
Installing an Expansion Module

Complete the following steps to install or replace an expansion module in the RUCKUS ICX 7550.

1. Power off the switch.
2. Using a Phillips screwdriver, unscrew the captive screw on the filler panel and remove it.
3. Before opening the package that contains the new expansion module, touch the bag to the switch casing to discharge any potential static electricity. It is recommended that you wear an ESD wrist strap during installation.
4. Remove the expansion module from the anti-static shielded bag.
5. Holding the expansion module level, guide it into the carrier rails on each side and gently push it all the way into the slot, ensuring that it firmly engages with the connector.

CAUTION! Do not force the installation. If the expansion module does not slide in easily, ensure that it is correctly oriented before continuing.

FIGURE 10 Installing an Expansion Module



1. Captive screw

6. When you are sure the expansion module has properly engaged the connector, tighten the captive screw to secure the expansion module in the slot.
7. Power on the switch.
8. Verify correct installation by running the **show module** command.

CAUTION! If you do not install a module or a power supply in a slot, you must keep the slot filler panel in place. If you run the chassis with an uncovered slot, the system will overheat.

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ICX 7550 LED Behavior

LEDs

System Component	Description
Switch Status and Management	The following LED types indicate switch status: • PWR1 and PWR2 (power supply units) • DIAG (diagnostics) • SYS (system status) • MS (stacking configuration) • CLD (Cloud/On-premises-SmartZone management status) • UPDATE (software update) • STAT, SPD, ID, USB, and PoE status mode
Ports	LEDs indicate port status or switch ID based on the status mode selection.

For More Information

For information on how to install, configure, and manage your ICX 7550 device, refer to the *RUCKUS ICX 7550 Switch Hardware Installation Guide*.

For the product data sheet, refer to RUCKUS ICX 7550 Data Sheet.

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