

RESOURCES & NEXT STEPS

Develop business applications using the Impinj IoT Device Interface, Impinj Octane SDK, the Impinj Octane LLRP toolkit, or Impinj Octane ETK. For more information, contact Impinj using the resources listed below.

- Sales: www.impinj.com/contact-us
- Support: support.impinj.com
- Developer site: developer.impinj.com
- Postal Address: 400 Fairview Avenue North, Suite 1200, Seattle, WA 98109

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Quick Start Guide

Impinj R700 Series RAIN RFID Readers

OVERVIEW

This guide provides simple steps to quickly start using your new Impinj R700 or R720 RAIN RFID reader. Please consult the reader specific Installation and Operations manual for a full description of mounting choices, antenna types, power and network connection methods and reader configuration options. To view this guide in another language visit www.impinj.com/R700-QSG.



Box Contents

- 1 x Impinj R700 Series RAIN RFID reader
- 1 x Quick Start Guide

Accessories Sold Separately

- PoE Injector
- PoE Injector AC power cords
- Reader antennas
- Antenna cables

Connections and Ports

- 4 x RP-TNC antenna ports
- RJ-45 10/100/1000BASE-T Ethernet port
- 3 x USB Type-A host ports
- GPIO terminal block
- Factory reset button
- Micro USB device port

Download Impinj ItemTest software

1. Open a browser on your Microsoft Windows PC and go to <https://support.impinj.com>.
2. Type "Impinj ItemTest software" into Search Support and click the "Impinj ItemTest Software" link and download the latest version

NOTE: The Impinj R700 is only supported in Impinj ItemTest version 2.0 and newer. The Impinj R720 is only supported in Impinj ItemTest version 2.10 and newer.

3. Extract the files and run the executable to install Impinj ItemTest

Connect antenna

1. Securely mount one or more Impinj-approved antennas in accordance with the antenna manufacturer's instructions
2. Securely connect the antenna to a reader antenna port



Warning: You must use Impinj-approved antennas with the reader. See the device's Installation and Operations Guide for a detailed list of approved antennas. Using any other antenna may adversely affect performance or cause damage. The reader requires professional installation to correctly set the TX power for the selected RF cables and antennas.

Power the reader using PoE+ and connect it to the network

1. Route an Ethernet cable from the reader's RJ45 Ethernet port to a Power over Ethernet (PoE) power source.
 - An IEEE 802.3at PoE+ source is recommended. A POE+ source enables full reader functionality, including maximum reader transmit power.
 - An IEEE 803.af PoE source can be used. Reader transmit power and certain features will be constrained. See the reader's Installation and Operations Guide for additional detail.
 - Typical PoE power sourcing equipment (PSE) includes the Impinj midspan injector (sold separately) or an endspan network switch. A midspan injector requires an additional Ethernet cable and an AC line cord.

NOTE: The Impinj R720 requires a PoE+ source to transmit at powers exceeding 20 dBm. PoE sources are only recommended for applications running at low power.








Sign into the reader and update firmware if necessary


1. Determine the reader hostname to connect to a network with a DHCP server.
 - **Impinj R700 series reader hostname:** impinj-XX-XX-XX (where XX-XX-XX is the last 3 hex couplets of the reader MAC address, e.g., impinj-89-AB-CD)
 - The MAC address is printed on labels affixed to the reader and shipping box
2. In a new browser tab, connect to the Impinj R700 series reader using the URL `https://<Hostname or Static IP>`.

NOTE: If you are connecting your Impinj R700 series reader to a network with static IP addressing, refer to the device's Installation and Operations Guide on the Support Portal for instructions.

3. Starting with Octane Firmware 9.0, on the first login to the reader's web interface, you will be required to update the reader's password. Opening the URL in Step 2 will show an interface requiring the following fields:
 - **Current Password** - default/initial password is 'impinj'
 - **New Password** - must be at least 8 characters in length
 - **Confirm New Password** - must be identical to password in 'New Password' field
4. After configuring a new password, the browser will prompt for logging in with the new credentials:
 - Username: **root**
 - Password: **New password configured in Step 3**
5. Once the reader's web configuration page opens, note the firmware version under Firmware and CAP header on Home tab.
6. Navigate to `https://support.impinj.com` and type "Impinj R700 Firmware" into the support search toolbar.
7. Click the "Impinj R700 Series Reader Documents and Downloads" link.
 - Note the available firmware version listed on the page via Current Firmware link, compare firmware version in the Web UI to device firmware in step 4.
8. If newer reader firmware is available, proceed with following steps:
 - Download the firmware upgrade file from the support portal or contact an authorized Impinj partner.
 - Drag and drop downloaded .upgx file to dashed box under Firmware Version in device's Web UI.
 - Firmware will install and prompt a device reboot.
 - Click Reboot button in Web UI.

Read tags with Impinj ItemTest software

1. Open the Impinj ItemTest software application
2. Add a new data source by clicking: 
 - Enter the reader host name (impinj-XX-XX-XX) or static IP address
 - Select the Data Source Interface - reader default is the Impinj IoT Device Interface
 - Click Add Data Source
 - Ensure the reader data source is enabled: 
3. Select the Inventory showcase (default)
4. Place tags in the antenna field of view
5. Start tag inventory operation by clicking: 
 - Click a column header to sort by a specific attribute
 - Right-click any column header to select which attributes are displayed
6. Stop tag inventory operation by clicking: 
 - Click the Settings button  to change how inventory runs are configured
 - Click Save to apply the configuration (Cancel to revert changes)

7. Click the reader name (under DATA SOURCES ) to change reader settings
 - Update reader settings as desired
 - Click SAVE to apply updated reader settings (Cancel to revert changes)