



Speedway® Revolution (R420 / R220) and Speedway® xPortal (R640) Octane 4.8.3 Release Notes



About this Release

This is the Octane 4.8.3 firmware release for the Impinj UHF Gen 2 Speedway® Revolution family of readers including Speedway R420, Speedway R220 and Speedway xPortal (R640). Octane 4.8.3 is not supported on Speedway IPJ-R1000 readers. Separate release notes are available for STP source tagging platform.

For technical support contact Impinj:

Telephone: 866-IMPINJ-0 (866-467-4650)

Web: <http://support.impinj.com>

Supported Regions of Operation

Impinj has been certified or is in the process of gaining regulatory certification in all of the listed regions. Please contact your Impinj account executive or reseller for the latest certification status and availability.

Model / SKU	Region
IPJ-REV-R420-USA1M1 IPJ-REV-R220-USA1M1 IPJ-REV-R640-FCC	FCC, Canada, Mexico
IPJ-REV-R420-EU11M1 IPJ-REV-R220-EU11M1 IPJ-REV-R640-EU1	ETSI, India, New Zealand
IPJ-REV-R420-GX11M1 IPJ-REV-R220-GX11M1 IPJ-REV-R640-GX11M1	Australia, Brazil, Hong Kong, Indonesia, Malaysia, New Zealand, Philippines, Singapore, Taiwan, Thailand, Uruguay, Vietnam
IPJ-REV-R420-GX21M1 IPJ-REV-R220-GX21M1 IPJ-REV-R640-GX21M1	China, Korea, South Africa
IPJ-REV-R420-JPN1M1	Japan

Application Support

Application	Version
LLRP Toolkit libraries (C, C++, .NET, Java)	10.14.1
Octane SDK libraries (C, C++, .NET)	1.0.0
Speedway Revolution EDK	2.0.2
Impinj LLRP Vendor Extension Definitions for LLRP Toolkit	1.12.1
Impinj MultiReader	6.6.2

New Features

You can find additional information about the features listed below in the supporting documentation.

Octane 4.8.3

- Increased number of Access Spec Operations to 1500 – LLRP message limitations may impact the ability to return or display more than 500 -700 access specs.

Octane 4.8.0

- Next generation Autopilot capability providing fast, reliable reads across changing RF environments using a single Autoset configuration.
- Availability of STP 1.0 features for high-speed inline and bulk encoding. Requires license key.
- Enhanced low level data capabilities
 - RF carrier Doppler frequency shift with a single tag read
 - Max Throughput (FM0) optimization for increased RF phase accuracy
- Native support for USB WiFi adapters using Realtek 8187 chipset
- New geographical support for Indonesia & New Zealand (certification pending)
- Regional configuration available with WebUI and Rshell for GX1 and GX2 readers.
- New GPOMode options for network connectivity state and reading tags state
- Custom Application Partition (CAP) reset/removal through RShell
- Disable HTTP service from CAP reader.conf

Resolved Issues

Octane 4.8.3

- AIStopTrigger causes reader to discontinue operating on ETSI readers.
- Wifi adapter does not reconnect after AP availability returns (eg adapter returns from out-of-range)
- Antenna 4 fails to read tags at 32.5dBm – first seen in Octane 4.8.0.
- Added LLRP mode 5, labeled Dense Reader (M=4) 2 mode, support for ETSI, China, India, Japan, Korea, and South Africa regions. Mode 5 has a faster R->T data rate than LLRP mode 4 (Max Miller), and matches the LLRP mode 1 (Hybrid mode) used in Octane 4.6.

Octane 4.8.0

- Misleading status message displayed during firmware upgrade using WebUI.

- Stability issue while inventorying very large tag populations.

Known Issues

Octane 4.8.0

- Manually applying a VAR region upgrade (.upg) using the WebUI causes the browser to lose HTTP connectivity. Workaround – use region dropdowns in WebUI or Rshell for region upgrades with .upg file.
- Firmware downgrades to a version earlier than region is supported will cause the reader to revert to a state with no region assigned and the reader does not operate.
- If a reader is assigned a hostname from DHCP and then not assigned a host name when the DHCP lease is renewed the assigned hostname will be used until the reader is rebooted and the original default hostname (e.g. speedwayr-xx-xx-xx) is used.

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