




Homologação
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The R700 reader provides industry-leading performance, enterprise reliability and security, and modern developer tools. IoT developers can easily build and deploy custom enterprise applications with a Linux OS, REST API, and native support for industry-standard data formats and protocols, such as MQTT. The R700 delivers increased support for on-reader applications - including 10x the processing power. Plus, when combined with tags based on Impinj M700 series tag chips, the Impinj R700 advances RAIN RFID performance at dock doors, conveyors, and store exits. The R700 reader builds on the heritage of the Impinj Speedway reader family, which has been proven reliable for 15 years in the field.

Powerful processing:

Enables the intelligent RAIN RFID tag processing algorithms within the reader;

Secure and upgradable Linux operating system:

Provides security, reliability, and flexibility for customizing applications on the reader;

Simple IoT device interface:

Easily connects IoT applications to configure, control devices, and consume RAIN data, with native support for MQTT;

Improved reception sensitivity:

Enables longer and faster tag readings;

Optimized design for inventory:

Allows for faster and more accurate readings with lower transmission power for better control of the reading zone;

Advanced peripheral and accessory support:

Offers versatility with support for USB flash drives, Wi-Fi adapters, and up to 32 antennas via an optional antenna hub.



Processor	Dual-Core 1 GHz Cortex A7
Memory	1 GB Flash, 1 GB RAM
Operating System	Linux, 5.4 kernel
Firmware	Impinj R700 Firmware
Firmware Upgrade	Web-based and remote capable
Network Stack	IPv4, IPv6
Network Services	SSH, HTTP, HTTPS, NTP, DHCP, SFTP, mDNS
Network Security	802.1x port security
Network Management	Event logs with syslog forwarding
Air Protocol	EPCglobal UHF Gen 2 V2 / ISO 18000-63 RFID
Transmit Power	10 - 30 dBm (PoE All Models, Japan) 10 - 31.5 dBm (PoE+, ETSI Lower Band) 10 - 33 dBm (PoE+, FCC / ETSI Upper Band)
Transmit Power Resolution	0.25 dB
Transmit Power Accuracy	± 0.5 dB
Frequency Range	IPJ-R700-341 Global Reader: 902 - 928 MHz ETSI: 865 - 868 MHz, 915 - 921 MHz
Return Loss	10 dB min
Read Rate	Up to 1100 reads per second
Antenna Impedance	50 ohms
Max Receive Sensitivity	-92 dBm at 10-3-bit error rate, Dense Reader M8 reader mode
Gen 2 Reader Modes	Static and Dynamic RF Modes various per region
Electrical	
Power	PoE (802.3af), PoE + (802.3at) with LLDP for power negotiation

Connectivity	
Network	10/100/1000 Base-T Ethernet (RJ45)
Antenna Ports	4 mono-static ports (RP-TNC)
USB	3 Type A host, 1 micro device
General Purpose I/O	3 outputs, 2 optically isolated inputs
General Purpose I/O Header	Phoenix Contact 9 pin 3.81 mm pitch
Environmental	
Operating temperature	-20 °C to 50 °C
Storage temperature	-20 °C to 70 °C
Humidity	5% - 95% non-condensing
IP Rating / Sealing	Ingress Protection (IP) 50 rating
Shock and Vibration	United States Military Standard MIL-STD-810G
Physical	
Dimensions	With brackets: 215 x 187 x 30 mm Without brackets: 214 x 149 x 30 mm
Mounting	VESA 100 x 100 mm on bottom of the enclosure. Two removable brackets compatible with Impinj Speedway mounting system
Weight	0.96 kg
Housing Material	Die-cast Aluminum
Factory Reset Button	Restores reader to known factory state
LED Indicators	System status, inventory, firmware upgrade, antenna activity, network activity

Purchase Code:

501.223: Acura's R-700 RFID Reader

Accessory Purchase Codes:

600.246: Injector POE+ 802.3AF and 802.3AT 51V/0,6A 30W Full Range | 501.258: Antenna HUB R700