PCR91505

EDGE Hub: RAIN UHF RFID Reader Datasheet

DESCRIPTION

The Powercast® PCR91505 is a RAIN UHF RFID reader EDGE Hub. The device contains the PCR91505-M UHF RFID reader module, an integrated directional linear polarized patch antenna, a status LED and a USB-C port. The RFID module's air interface protocol adheres to EPCglobal® UHF Class 1 Gen 2/ISO 18000-63 RFID.

The hub is designed to interface to other host systems via USB communication. The hub is intended to be powered and operated via PC/laptop (5VDC/1A).

The RFID module communicates with and powers RFID tag devices. The RFID reader operates in the 902 MHz – 928 MHz ISM frequency band.

ORDERING OPTIONS

Part Number
PCR91505

PRODUCT CONTENTS

The following items are included:

Quantity	Description
1	PCR91505 RAIN RFID Reader
1	USB-C to 90° USB-C Cable

FEATURES

- ISO/IEC 18000-63 compliant
- Impinj E310 RFID Chip
- Frequency Range: 902 MHz to 928 MHz
- Maximum EIRP: +36 dBm (4W)
- UHF Module soldered down with integrated antenna
- Status LED
- Compact hard case packaging with a swivel stand and wall mounting option

APPLICATIONS

- Automated Inventory Management
- Industrial Asset Tracking
- Supply Chain & Logistics Automation
- Secure Access Control
- Fleet & Vehicle Tracking
- Data Center & IT Asset Management
- Cold Chain Monitoring
- Environmental Monitoring



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+1 (412) 455-5800

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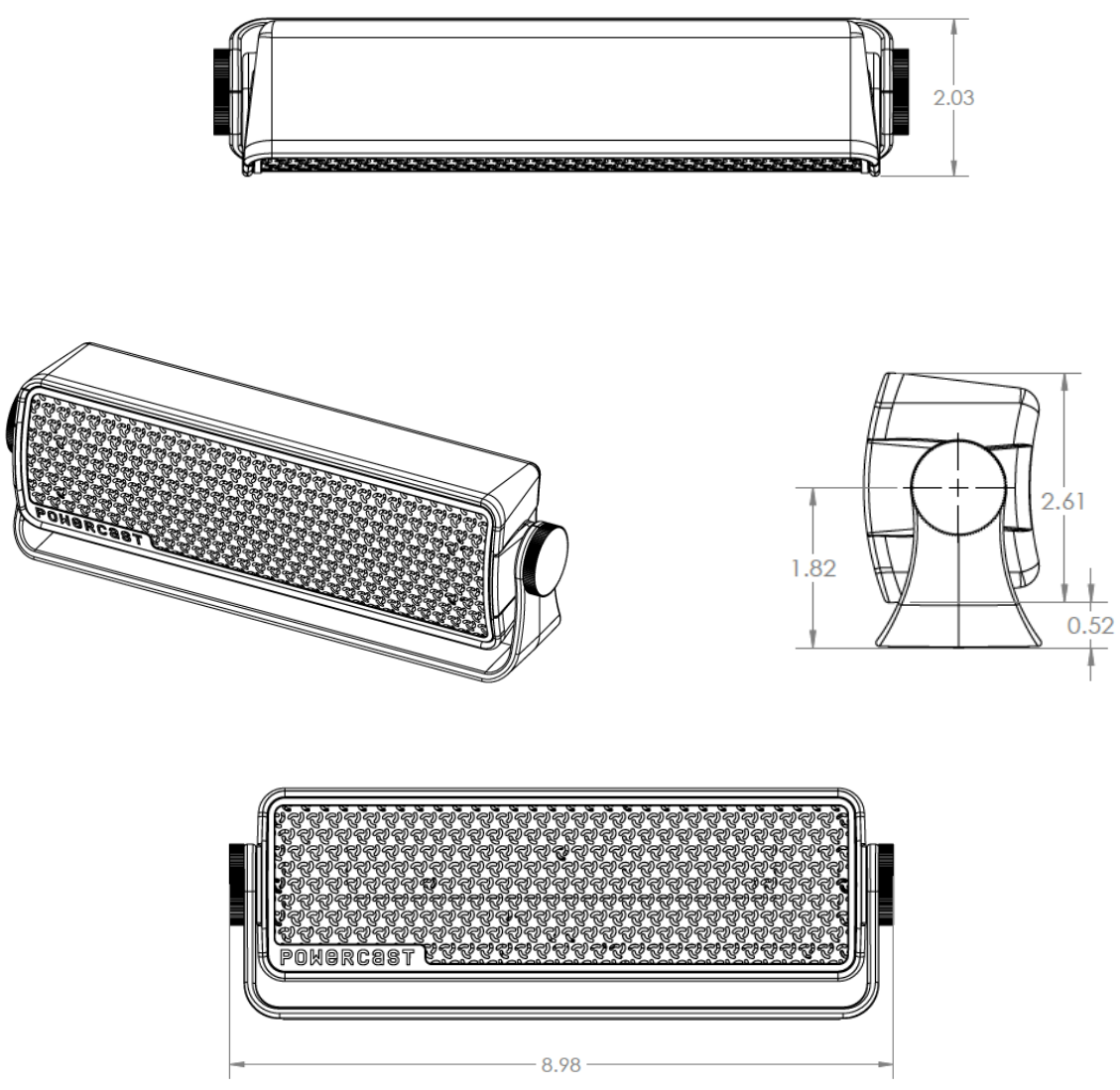
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SPECIFICATIONS

Parameters		Description
RF Performance	Frequency	FCC: 902 MHz – 928 MHz
	Sensitivity	-80 dBm
	Tags Per second	Greater than 50 tags/sec
	Tag Read Distance	Up to 20 feet (6.1m) depending on tag sensitivity and orientation with internal antenna.
	RF Communication	EPCglobal® UHF Class 1 Gen 2/ISO 18000-63 RFID
	Power Output (conducted power output at the antenna connection)	+30 dBm (1W) max (adjustable)
	Power Output (radiated with antenna gain)	+36 dBm EIRP (4W) max
Antenna	Antenna Gain	6 dBi (4 linear)
	Antenna Return Loss	< -10 dB (902 MHz - 928 MHz)
	Antenna Radiation Pattern	Directional Horizontal Beamwidth: 60° Vertical Beamwidth: 120°
	Antenna Polarization	Linear - lengthwise
Compliance	Regulatory	Contains Transmitter Module: FCC 47 CFR Ch. 1 Part 15, Industrie Canada RSS-21 0
Interface	Digital Communication Interface	USB-C, 921600 bps, custom JSON protocol
Environmental	Operating Temperature	-40°C to +50°C
	Storage Temperature	-55°C to +60°C
	Environment	Indoor use
Electrical	Power	5VDC/1A
Mechanical	Mounting	Swivel stand used for tabletop or wall mounting
	Weight	281g (approximately)
	Dimensions	8.98" x 2.03" x 3.13"

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DIMENSIONS



Please Note: All dimensions in the figure above are presented in inches (in).

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Powercast Corporation
620 Alpha Drive, Suite 1
Pittsburgh, PA, USA 15238
www.powercastco.com
contact@powercastco.com
+1 (412)-455-5800

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