

# RFID Integrated Reader CER502

CER502 is an advanced, high-performance UHF RFID reader, seamlessly integrating both antenna and reader functionalities. Powered by IMPINJ's cutting-edge E710/E510/E310 RFID chips, it ensures reliable and efficient performance, fully supporting EPCglobal C1 Gen 2 and ISO 18000-6C standards. Designed for a broad range of applications, the CER502 excels in industries such as logistics, access control, retail, apparel, warehousing, anti-counterfeiting, and smart manufacturing, providing scalable, real-time tracking and enhanced data accuracy.



## Features

- ▶ Built-in Linux operating system paired with advanced middleware for edge computing, significantly reducing system complexity and simplifying deployment and maintenance.
- ▶ Superior multi-tag reading capabilities, delivers exceptional multi-tag reading accuracy, supporting dense tag environments, large-scale data write/read operations, and real-time signal strength (RSSI) detection.
- ▶ Robust network adaptability, supports for multiple communication protocols. Compatible with Web Service development for seamless integration and easy large-scale deployment.

## Physical Specification

Dimension (mm)	133(L)*133(W)*52(H) (±2)
Weight (kg)	0.75 (±0.01)
Housing Materials	PC+ABS+ADC12 aluminum alloy
Antenna	5dBic circular polarization
Operating Temperature	-20~+55℃
Storage Temperature	-20~+85℃
Environment Humidity	5% to 95%RH, no condensation

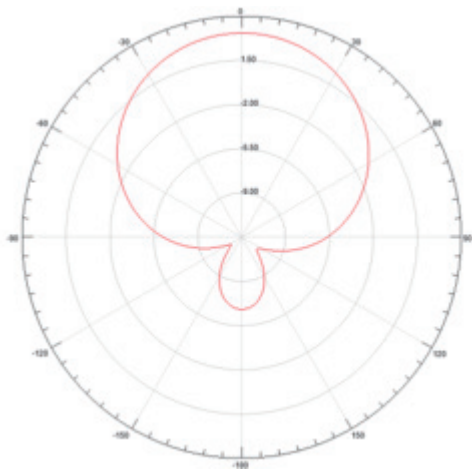
## Technical Specification

RFID Protocol	EPC global Class1 Gen 2/ISO 18000-6C
Operating System	Linux
Frequency	865~868MHz/902~928MHz (adjustable by country or region)
Chip	IMPINJ E710/E510/E310
Receiving Sensitivity	E710: -87dBm; E510: -81dBm; E310: -74dBm
RFID Power	0dBm-33dBm adjustable, +/-1.0dBm
RFID Read Range	E710: Range > 8m (tag 9662); E510: Range > 6m (tag 9662); E310: Range > 5m (tag 9662);
RFID Read Speed	E710: Maximum label reading speed > 900pcs/s; E510: Maximum label reading speed > 600pcs/s; E310: Maximum label reading speed > 350pcs/s;
Tag Buffer	> 10W pcs @ 96bit EPC
RSSI Strength Detection	Support
Automatic Antenna Detection	Support
Reader Operating Mode	Master/slave mode, single-machine mode, or trigger mode
Power Supply	Power adapter: AC input 100~240V/50-60Hz, DC output 12V/4A. DC power supply: 12V to 24V/4A, POE optional
Power	5W~24W
GPIO	1 inputs, 3 outputs
Communication Protocol	RS-232, TCP/IP, Modbus, HTTP/HTTPS, MQTT, RabbitMQ
Hardware Interface	RS232, RJ45
Programming Language	C#, JAVA
Development Environment	Linux, Android, Windows, PLC, Web

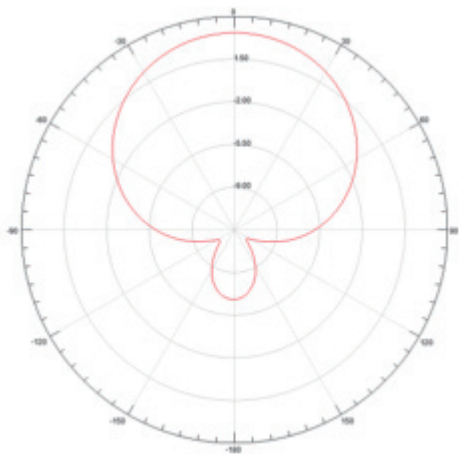
## Package Information

Package Size (mm)	385(L)*210(W)*100(H) (±5)
Package Weight (kg)	1.6 (±0.01)

## Internal Antenna Direction



Horizontal plane



Vertical plane

## Product Dimension (mm)

