RFID Four-channel Fixed Reader CER500

CER500 is a powerful and compact 4-channel UHF RFID reader designed for high-efficiency performance in modern RFID applications. Built on the advanced IMPINJ E710/E510/E310 reader, it ensures fast, accurate tag communication and full compliance with EPCglobal C1 Gen 2 and ISO 18000-6C standards. Supporting up to four external UHF antennas, the CER500 is ideal for deployment across logistics, access control, fashion retail, warehouse management, brand protection, and intelligent manufacturing environments.

Features

- Built-in Linux operating system integrated 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

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Dimension (mm)	215(L)*158(W)*38(H) (±1)
Weight(kg)	1.20 (±0.01)
Housing Materials	Gray sheet metal
Antenna Interface	TNC (Internal needle with external thread)
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
Receiver Sensitivity	E710: -87dBm; E510: -81dBm; E310: -74dBm
Frequency Hopping Technique	Broad-spectrum frequency hopping (FHSS) or fixed-frequency transmission mode
RFID Power	0dBm-33dBm adjustable, +/-1.0dBm
RFID Read Range	E710: Range > 13m (compatible with 9DB antenna and tag 9662); E510: Range > 11m (compatible with 9DB antenna and tag 9662); E310: Range > 10m (compatible with 9DB antenna and 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	3 inputs, 3 outputs; (4 inputs, 8 outputs optional)
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)	317(L)*255(W)*66(H) (±3)
Package Weight (kg)	1.75 (±0.01）

GPIO Definition

Below is the definition for 3 input and 3 output channels.
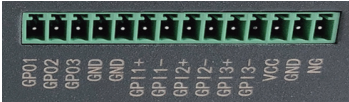
GPO1	Output Voltage: Same as DC adapter Max Output Current: 500 mA
GPO2	Output Voltage: Same as DC adapter Max Output Current: 500 mA
GPO3	Output Voltage: Same as DC adapter Max Output Current: 500 mA
GND	Ground connection
GND	Ground connection
GPI1+	Input voltage range: 9~24V
GPI1-	Common ground with trigger source
GPI2+	Input voltage range: 9~24V
GPI2-	Common ground with trigger source
GPI3+	Input voltage range: 9~24V
GPI3-	Common ground with trigger source
VCC	Can provide the same voltage as the DC power adapter
GND	Ground connection
NC	Reserve

Product Dimension (mm)

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