

# INVENGO XC-RF300 HF RFID READER DATASHEET



## About Invengo's XC-RF300 HF RFID Reader

Invengo's XC-RF300 is a high-performance, high-power, long-distance HF reader that supports ISO/IEC18000-3M1 protocol. It is completely in-house designed with independent IP, using advanced digital signal processing technology, combined with highly efficient anti-collision algorithms, it achieves fast read/write processing while maintaining high tag inventory speed. XC-RF300 can be widely used in smart shelves, unmanned retail, logistics, personnel identification, conference check-in, access control, anti-counterfeit, production process control and many other IoT system applications.



Invengo – the global RFID technology provider – is a leading developer and manufacturer of high quality, intelligent RAIN RFID and HF/NFC connectivity solutions and consumables (tags & inlays) utilized in the Internet of Things. With a focus on RFID innovation, Invengo has created a leading product line in retail, (industrial) laundry, library, (public) transportation, healthcare, and many other industries.

Invengo Technology Pte. Ltd. (SG) is the International Headquarters of Invengo Information Technology Co. Ltd, listed on Shenzhen Stock Exchange (SZSE: 002161.SZ). Employing over 600 people globally, Invengo is one of the largest publicly traded, RFID / IoT oriented companies in the world.

## Features

- Support ISO15693/ISO18000-3M1 protocol RFID label
- RF output power 0.5~5W adjustable
- 4 antenna ports with SMA connector, can be directly connected with a 50Ω standard HF RFID antenna, effective reading distance can reach more than 0.8m
- Advanced tag anti-collision processing algorithm, superior recognition rate
- Antenna status and device temperature monitoring
- Tag signal strength RSSI detection
- Built-in Linux operating system, manage and display tag data, reader status, configurations and firmware upgrade through the web app

# Product Specifications

## RF Specifications

<b>Operating Frequency</b>	13.56MHz $\pm$ 7kHz
<b>RF output power</b>	0.5W ~ 5W, 0.5~5W adjustable by 0.5W step
<b>Antenna port</b>	50 $\Omega$
<b>Modulation Mode</b>	ASK
<b>Modulation Index</b>	10% or 100%
<b>Air-interface Protocol</b>	ISO15693/ISO18000-3M1 Support ISO15693/ISO18000-3M1 protocol RFID label
<b>Anti-collision Capability</b>	$\geq$ 60tags/s
<b>Reading Distanc</b>	Not less than 0.8m (affected by antenna, label, working environment)

## Interface Parameters

<b>Power input</b>	DC+24V
<b>Antenna port</b>	4 port SMA
<b>TCP/IP</b>	10/100MHz 1x 10/100MHz Adaptive Ethernet
<b>Serial port</b>	1x RS485
<b>IO</b>	2x GPIO
<b>Multi-reader synchronization</b>	1x sync port
<b>Expansion</b>	1x counter board connection port

## Physical Parameters

<b>Dimension</b>	223mm $\times$ 166mm $\times$ 36mm
<b>Weight</b>	0.8 kg(1.8 lbs.)
<b>Shell material</b>	Aluminumy

## Environmental Parameters

<b>Operating temperature</b>	0 $^{\circ}$ C ~ +55 $^{\circ}$ C
<b>Storage Temperature</b>	-20 $^{\circ}$ C ~ +70 $^{\circ}$ C
<b>Power Supply</b>	DC24V, Power Consumption < 40W
<b>EMC Standard compliance</b>	CE & FCC

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