

# I160 INTEGRATED RAIN RFID READER



## About the I160 Integrated Reader

The I160 is a RAIN RFID (UHF) RFID reader with a built-in high-performance circular polarization antenna. With excellent sensitivity, outstanding inventory ability and high stability, this reader is small in size as well. Those features enable it to meet the requirement of complex environment such as warehousing logistics, production and manufacturing and etc. Especially, it's suitable for those applications with special requirements on body size and performance.



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

- Equipped with high performance circular polarization antenna
- Compact in size, convenient in application
- Superior reading sensitivity, up to -88dBm
- Long reading distance
- Anti-collision algorithm, with high tag inventory speed
- Extensive communication interface options
- GPIO to meet different needs of users;
- High output power, up to 33dBm.

*All features and specifications described are subject to change without notice.*

# Product Specifications

## Physical Parameters

|                      |                                           |
|----------------------|-------------------------------------------|
| <b>Dimensions</b>    | 129 x 129 x 53 mm<br>(5.1 x 5.1 x 2.1 in) |
| <b>Weight</b>        | 0,52 kg (1.15 Lbs)                        |
| <b>Case Material</b> | Aluminum Alloy + PC                       |

## Environmental

|                              |                                |
|------------------------------|--------------------------------|
| <b>Operating Temperature</b> | -30°C to 60°C (-22°F to 140°F) |
| <b>Storage Temperature</b>   | -30°C to 85°C (-22°F to 185°F) |
| <b>Working Humidity</b>      | 5% to 95%, non-condensing      |
| <b>Application</b>           | Indoor                         |

## Power Source

|                      |                                                                   |
|----------------------|-------------------------------------------------------------------|
| <b>Input Voltage</b> | 12~24 VDC (Recommend configured 12V power supply ) or 802.3af POE |
|----------------------|-------------------------------------------------------------------|

## Communication/Network

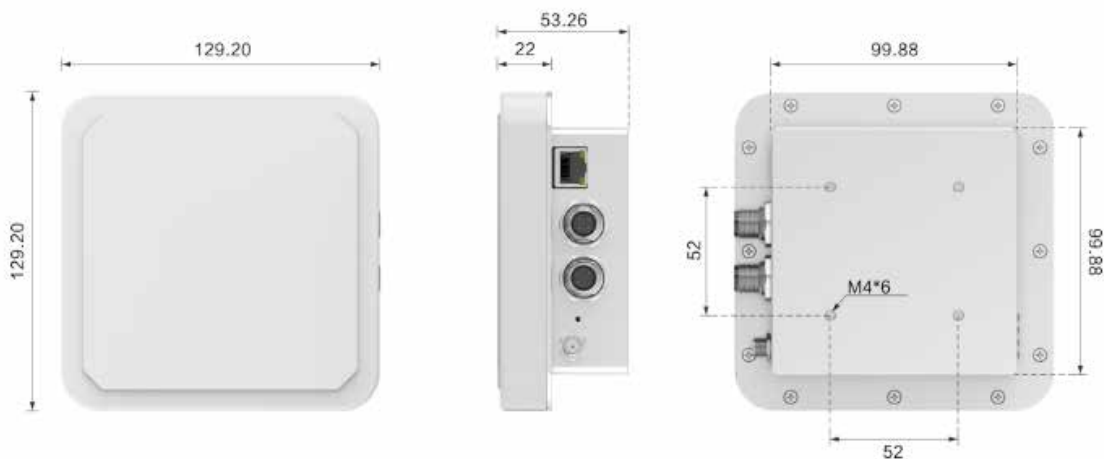
|                                |                                                                                   |
|--------------------------------|-----------------------------------------------------------------------------------|
| <b>Communication Interface</b> | TCP/IP (RJ-45), Isolated RS232 and RS485 (M12-5 aviation connector, customizable) |
|--------------------------------|-----------------------------------------------------------------------------------|

## UHF RFID

|                            |                                                                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Supported Protocols</b> | EPC global UHF Class 1Gen2, ISO/IEC 18000-6C                                                                                                   |
| <b>Frequency</b>           | 840~960 MHz Support frequency band of China, Europe, The US, India, Korean, Australia, New Zealand), Default frequency band: 902~928 MHz (USA) |

## Performance Parameter

|                        |                                                                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inventory Speed</b> | >400 tag/s                                                                                                                                          |
| <b>Reading Range</b>   | >15m, with 6dBi antenna                                                                                                                             |
| <b>GPIO</b>            | M12-5 aviation connector, 1 input, 1output (compatible with 5-24v level) optocoupler isolation, low level current tolerance of the output Max.500mA |
| <b>RF Output Power</b> | 5-33 dBm adjustable (Step Interval 1 dB, precision ±1dB)                                                                                            |
| <b>Tag RSSI</b>        | Supported                                                                                                                                           |



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