

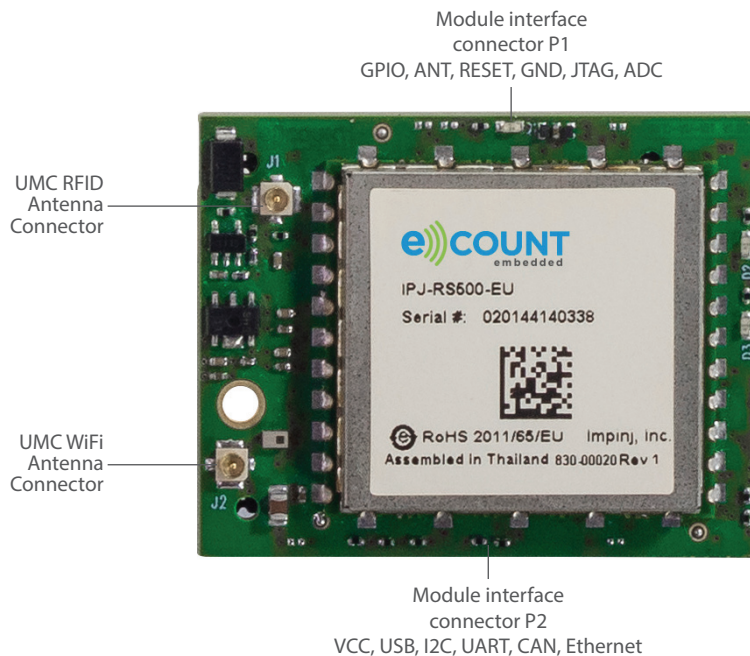


RFID UHF-Reader module with WiFi and Ethernet connectivity

iRFID-MU-IOT

- Very small form factor
- Greater 3m read/write distance
- eCOUNT eCLOUD, Microsoft Azure, Amazon AWS Cloud Platform Connectors
- Up to 5 GPIOs and up to 3 ADC channels
- Battery buffered RTC and 3-axis MEMS and Temperature sensor
- Supports USB, I²C, UART, CAN, SPI, WiFi and Ethernet interfaces
- Powerful software tools, incl. APIs and SDKs
- Designed, Engineered and Manufactured in Germany

RFID UHF-Reader module with WiFi and Ethernet connectivity iRFID-MU-IOT



Description

The iRFID-MU-IOT is a completely integrated RFID UHF-reader module with WiFi and/or Ethernet connectivity and IP-network or eCLOUD-interface to design fully featured cloud-based EPC Gen 2 / ISO18000-63 (formerly 18000-6C) applications.

The iRFID-MU-IOT was developed to make embedding UHF RFID reader capability easy, is fully tested, meets regulatory requirements and as a turnkey solution will enable quick and easy embedding of RFID with low development risk and fast time-to-market. To prevent unwanted radiation and provide noise immunity in embedded environments iRFID-MU-IOT comes shielded.

Ideal for moderate read range of small tag populations, the iRFID-MU-IOT small form factor enables a diverse range of applications that need a low-cost embedded UHF Gen 2 RFID reader capability. The iRFID-MU-IOT is capable of reading dozens of tags per second at distances greater than 3 meters when using a 6 dBi reader antenna and far field passive tags and it's peak inventory rate is 130 Tags/sec.

A Software Development Kit (SDK), Firmware compatibility and extensive documentation will allow smooth integration into a variety of software environments and ease migration of platforms over a long term product lifecycle.

Typical Verticals

Point of Sales (POS):	Access Control
Point of Information (POI):	Low-duty Handheld Reader
Industrial Automation:	Process Control Appliances
Medical & Healthcare:	Authorization & Identification
Logistics:	Consumables authentication

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Technical Information

Protocols	<ul style="list-style-type: none"> EPCglobal UHF Class 1 Gen 2 / ISO 18000-63 (formerly 18000-6C) Supports dense reader mode (DRM)
Antenna	<ul style="list-style-type: none"> External: UMC antenna connector
Transmitting Power	<ul style="list-style-type: none"> +10 to +23 dBm (20 dBm in Japan), Software configurable
Operating Frequency	<ul style="list-style-type: none"> IPJ-RS500-GX (902-928MHz) supports all 900MHz bands worldwide IPJ-RS500-EU (865-868MHz) supports current EU operating band
Read Distance	<ul style="list-style-type: none"> Greater than 3 meters when using a 6 dBi reader antenna and far field passive tags (controlled by antenna type and environmental conditions)
Write Distance	<ul style="list-style-type: none"> Approx. 100% of reading distance
I/O Pins	<ul style="list-style-type: none"> Up to 5 software controllable and configurable GPIO pins Up to 3 ADC channels Battery buffered RTC 3-axis MEMS and Temperature sensor
Software Support	<ul style="list-style-type: none"> arm mbed OS powered SDK & libraries for Windows & Linux
Host Interface	<ul style="list-style-type: none"> WiFi I²C, UART, USB HID, USB CDC (Virtual Serial Port), Default: 115200 Baud Optional: SPI, CAN, Ethernet
Connectivity	<ul style="list-style-type: none"> CAN-Bus, 10/100 Mbit Ethernet (optional) WiFi Transceiver according 802.11b/g/n <ul style="list-style-type: none"> - Radio Frequency Regulations - ETSI (Europe) - IC (Canada) - FCC (USA) - ARIB STD-T66 (Japan) - JATE (Japan)WiFi IEEE 802.X
Cloud Platform Connectors	<ul style="list-style-type: none"> eCOUNT eCLOUD Microsoft Azure Amazon AWS
Voltage Input	<ul style="list-style-type: none"> +5 V DC \pm 5 % , Reverse and Overvoltage protection Power consumption measurement
Form Factor	<ul style="list-style-type: none"> Dimension (Module) WxLxH: 36.0 mm x 46.0 mm x 3.0 mm , 8.5 mm incl. pin headers Mounting holes for rugged environments Industrial grade 2.54 mm pitch connectors
Temperature Range	<ul style="list-style-type: none"> Commercial: 0 °C to +60 °C Industrial: -20 °C to +70 °C
Compliance	<ul style="list-style-type: none"> RFID: Certified FCC and Canada modular operation, RoHS compliant

A large, light gray icon of an RFID signal, consisting of three concentric, curved lines on the left side of the page.

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Ordering Information

Article	Part.-No.	Description
iRFID-MU-IOT-W-CT	10018E-00-01-01	WiFi RFID UHF-reader module, Commercial Temperature: 0 °C to +60 °C, male pin headers bottom side
iRFID-MU-IOT-W-IT	10018E-01-01-01	WiFi RFID UHF-reader module, Industrial Temperature: -20 °C to +70 °C, male pin headers bottom side