

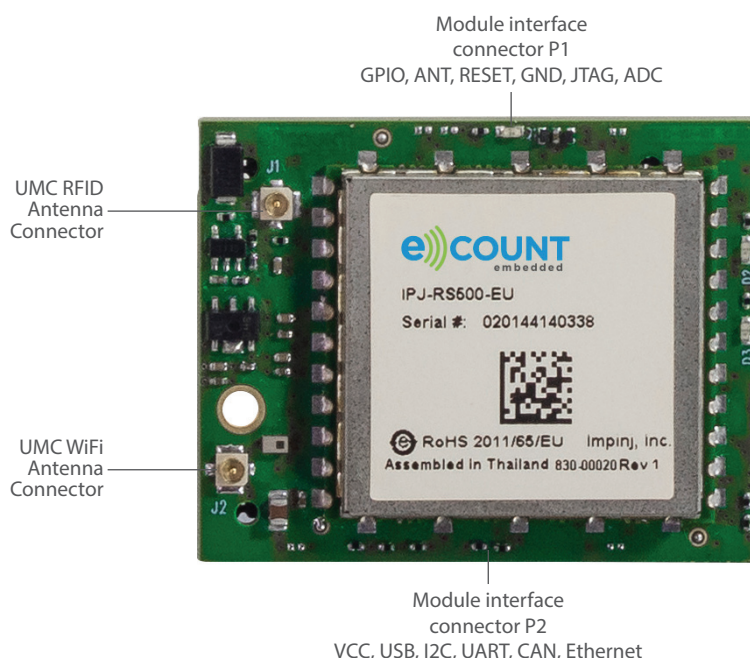


RFID UHF-Reader module with WiFi and Ethernet connectivity

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	- EPCglobal UHF Class 1 Gen 2 / ISO 18000-63 (formerly 18000-6C) - Supports dense reader mode (DRM)
Antenna	External: UMC antenna connector
Transmitting Power	+10 to +23 dBm (20 dBm in Japan), Software configurable
Operating Frequency	- IPJ-RS500-GX (902-928MHz) supports all 900MHz bands worldwide - IPJ-RS500-EU (865-868MHz) supports current EU operating band
Read Distance	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	Approx. 100% of reading distance
I/O Pins	- 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	- arm mbed OS powered - SDK & libraries for Windows & Linux
Host Interface	- WiFi - I²C, UART, USB HID, USB CDC (Virtual Serial Port), Default: 115200 Baud - Optional: SPI, CAN, Ethernet
Connectivity	- CAN-Bus, 10/100 Mbit Ethernet (optional) - WiFi Transceiver according 802.11b/g/n - Radio Frequency Regulations - ETSI (Europe) - IC (Canada) - FCC (USA) - ARIB STD-T66 (Japan) - JATE (Japan)WiFi IEEE 802.X
Cloud Platform Connectors	- eCOUNT eCLOUD - Microsoft Azure - Amazon AWS
Voltage Input	+5 V DC ± 5 %, Reverse and Overvoltage protection - Power consumption measurement
Form Factor	- 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	- Commercial: 0 °C to +60 °C - Industrial: -20 °C to +70 °C
Compliance	RFID: Certified FCC and Canada modular operation, RoHS compliant

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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