

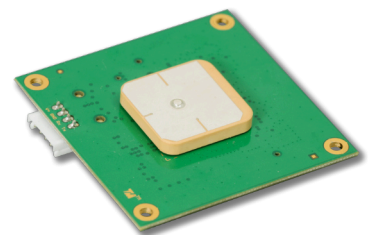
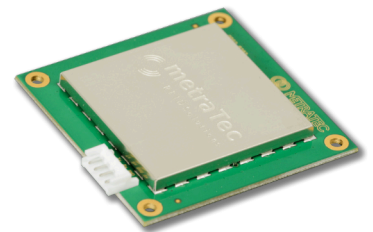
QRG2 UHF RFID Embedded Module

Art. No.: 22003242 (ETSI) / 22003361 (FCC)

The QRG2 is the first UHF RFID module that integrates all necessary components (reader module and antenna) into a single product. Just place the module in your machine and start using UHF RFID. This enables you to add contactless identification to your product with minimum time and cost. At the same time the reading distance is superior to NFC technology at lower cost for the labels.

By combining the components into a single product you don't have to think about UHF antenna designs and can start with UHF RFID in the shortest time possible. Thanks to the new Impinj E310 reader IC at the heart of the product, the module has great RF sensitivity and can detect modern UHF transponders at up to 50 cm range with minimal power consumption. At the same time, all features of the EPC Gen 2 Protocol Version 2 are supported as well as Impinj-specific features like FastID and TagFocus.

To make your integration task easier, we supply a C library with examples for embedded Linux, Zephyr RTOS and bare metal programming. For use with PC-based systems, there is also a Java, Python, and .NET SDK. They all can be found on our Github Page.



- Integrated Antenna
- Based on Impinj E310
- Quick Integration
- Low Cost

Technical Specification

Operating Principle	UHF Embedded RFID Module
Operating Frequency	868 MHz (ETSI) / 902 – 928 MHz (FCC)
Antenna Connector	integrated circular patch antenna
Output Power	0 – 9 dBm (1 – 8 mW)
Read Range	up to 30 cm with typical UHF transponder, up to 50 cm with Impinj M730
Supported Protocols	EPC Class 1 Gen 2 v2
Connectivity	3V3 UART (115,200 Baud)
Operating Voltage	5V DC
Power Consumption	idle: 50 mA, RF on: max. 350 mA
Temperature Range	-20 °C to +70 °C
Dimensions	60 x 60 x 12 mm

For an easy start, also have a look at our QRG2 Starter Kit which includes one QRG2 module, a UART to USB converter and some UHF transponders for testing.

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About Metrattec

Metrattec is a manufacturer of RF electronics specialized in wireless “Identification” (RFID) and “Localization” (RTLS). We serve a variety of markets from the manufacturing industry and logistics to vending machines and medical devices. Our customers include OEM customers, IoT system integrators and research facilities worldwide.

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