

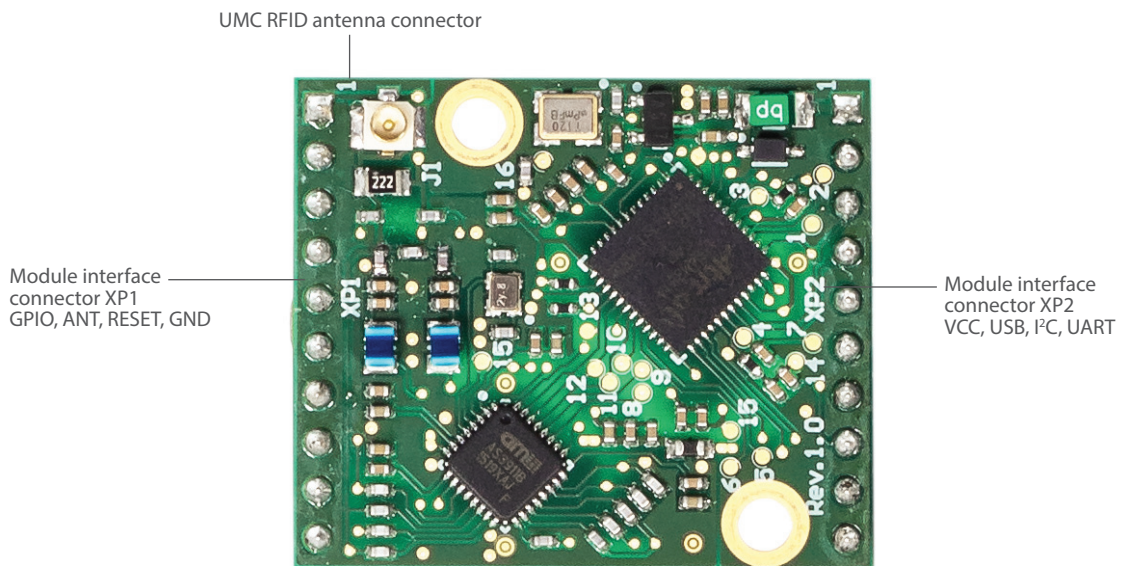
RFID HF-Reader Module

## iRFID-M

- Very small form factor
- Industry leading read / write distance
- Ultra low standby current
- Up to 5 GPIOs
- Supports USB, I<sup>2</sup>C and UART interfaces
- Powerful software tools, incl. APIs and SDKs
- Designed, Engineered and Manufactured in Germany



## RFID HF-Reader Module iRFID-M



### Description

The iRFID-M is a highly integrated RFID HF-reader module which includes all necessary functionalities to design fully featured RFID applications.

Standard firmware supports all major industry standard protocols and interfaces.

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):       | Ticketing, Inventory Control   |
| Point of Information (POI): | Portable Readers               |
| Industrial Automation:      | Access Control                 |
| Medical & Healthcare:       | Authorization & Identification |
| Transportation:             | Supply Chain Management        |

## RFID HF-Reader Module

### iRFID-M

#### Technical Information

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protocols            | • ISO15693, ISO14443A/B, ISO18092, DES-Fire, Felica, EMVCo                                                                                                                                                                                                                                                                                                                                                                                                |
| Antenna              | • External: Short - up to 9 cm,<br>Medium - up to 15 cm,<br>Long - up to 18 cm                                                                                                                                                                                                                                                                                                                                                                            |
| Transmitting Power   | • Up to 1000 mW, Software configurable                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Operating Frequency  | • 13.56 Mhz                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Read Distance        | • Up to 18 cm (controlled by antenna type and environmental conditions)                                                                                                                                                                                                                                                                                                                                                                                   |
| Write Distance       | • Approx. 100 % of reading distance                                                                                                                                                                                                                                                                                                                                                                                                                       |
| I/O Pins             | • 5 software controllable and configurable GPIO pins                                                                                                                                                                                                                                                                                                                                                                                                      |
| On-Board Diagnostics | • Temperature sensor, Power consumption measurement                                                                                                                                                                                                                                                                                                                                                                                                       |
| Software Support     | • SDK & libraries for Windows and Linux                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Host Interface       | • I <sup>2</sup> C, UART, USB HID, USB CDC (Virtual Serial Port),<br>Default: 115200 Baud                                                                                                                                                                                                                                                                                                                                                                 |
| Specifications       | <ul style="list-style-type: none"> <li>• Physical (W x L x H)<br/>Weight 20 g,<br/>32 mm x 27.5 mm x 3 mm (8.5 mm incl. pin headers)</li> <li>• Electrical<br/>Voltage Input: +5 V DC +-5 %, Reverse &amp; Overvoltage protection<br/>Input current: Operating = 100 mA, Idle = 31 mA,<br/>Sleep = 180 µA</li> <li>• Environmental<br/>Operating Temperature 0 °C to +60 °C (Commercial)<br/>Operating Temperature -40 °C to +85 °C (Extended)</li> </ul> |

#### Ordering Information

| Article    | Part.-No.       | Description                                                                                |
|------------|-----------------|--------------------------------------------------------------------------------------------|
| iRFID-M-CT | 10020E-00-01-01 | RFID HF-reader module, Commercial Temperature 0 °C to +60 °C, male pin headers bottom side |
| iRFID-M-ET | 10021E-02-01-01 | RFID HF-reader module, Extended Temperature -40 °C to +85 °C, male pin headers bottom side |