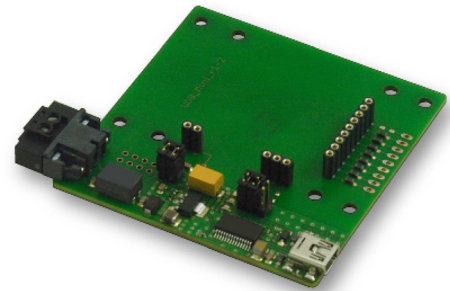## metraTec® Embedded RFID Starter Kits

RFID technology offers OEM manufacturers a variety of useful and innovative additional features for their products: Verification of consumables, automatic user identification, access control, certification of product authenticity and much more.

These and many other applications can be realized easily with the RFID modules offered by metraTec. To give you an effortless start into this exciting new technolgy we offer a variety of Embedded Starter Kits - one for each module type. The main component of each kit are one of the seven different metraTec RFID modules and the UDB Mini or UDB1 Evaluation Board. This allows you to connect the OEM module to your normal PC and start testing features just minutes after opening the box.
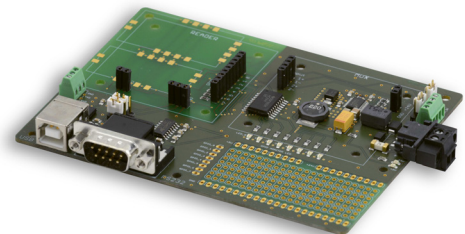
Also included are some RFID labels, an antenna where necessary as well as all the documentation and software. Our ReaderControl demo software and a low level command tool can be downloaded from our website. There you even find our free Eagle library for quickest integration of the module into your PCB.

UDB Mini Evaluation Board

UDB1 Evaluation Board

Matching RFID Modules

- QR15 Plugin Module for ISO15693 Protocol
- QR14 Plugin Module for MIFARE® Protocol
- Dwarf15 SMD Module for ISO15693 Protocol
- Dwarf14 SMD Module for MIFARE® Protocol
- DwarfG2 SMD Module for UHF EPC Gen 2 Protocol
- DwarfG2-Mini SMD Module for UHF EPC Gen 2 Protocol
- DwarfG2-XR SMD Module for UHF EPC Gen 2 Protocol

Technical Specification

UDB Evaluation Boards	
Operating Principle	RFID Evaluation Board
Operating Voltage	9 V - 12 V DC (Mini), 12 V - 26 V DC (UDB1)
Communication	USB, UART (115,200 Baud), RS232 (UDB1 only)
Digital Inputs/Outputs	8 x Input/Output (configurable)
Plugin Slot	1 x metraTec RFID Module (SMD with Adapter)
Operating Temperature	-20 °C to +70 °C
Dimensions	67 x 71 mm (Mini), 95 x 125 mm (UDB1)

Available Embedded RFID Starter Kits

Software, drivers and documentation available for all Starter Kits on our website.

QR15 Starter Kit (ISO15693), Art.-No.: 2200 1358, including:
- QR15 HF RFID Plugin Module
- UDB Mini Evaluation Board
- 3 RFID Tags, HF Field-Detector, USB Cable

QR14 Starter Kit (MIFARE®), Art.-No.: 2200 1360, including:
- *QR14* HF RFID Plugin Module
- UDB Mini Evaluation Board
- 3 RFID Tags, HF Field-Detector, USB Cable

Dwarf15 Starter Kit (ISO15693), Art.-No.: 2200 1359, including:
- *Dwarf15* HF RFID SMD Module incl. Adapter for UDB Mini
- UDB Mini Evaluation Board
- TinyPCB Antenna, 3 RFID Tags, HF Field-Detector, USB Cable

Dwarf14 Starter Kit (MIFARE®), Art.-No.: 2200 1361, including:
- *Dwarf14* HF RFID SMD Module incl. Adapter for UDB Mini
- UDB Mini Evaluation Board
- TinyPCB Antenna, 3 RFID Tags, HF Field-Detector, USB Cable

DwarfG2-Mini Starter Kit (UHF EPC Gen 2), Art.-No.: 2200 1985, including:
- *DwarfG2-Mini* UHF RFID SMD Module (25 mW) incl. Adapter for UDB Mini
- UDB Mini Evaluation Board
- Echo-3 Antenna, 3 UHF RFID Tags, USB Cable

DwarfG2 Starter Kit (UHF EPC Gen 2), Art.-No.: 2200 1362, including:
- *DwarfG2* UHF RFID SMD Module (50 mW) incl. Adapter for UDB Mini
- UDB Mini Evaluation Board
- Echo-3 Antenna, 3 UHF RFID Tags, USB Cable

DwarfG2-XR Starter Kit (UHF EPC Gen 2), Art.-No.: 2200 1612 including:
- *DwarfG2-XR* UHF RFID SMD Module (500 mW) incl. Adapter for UDB1
- UDB1 Evaluation Board
- Echo-3 Antenna, 3 UHF RFID Tags, USB Cable

Option: pre-soldered Dwarf as a service, Art.-No.: 9500 0312

Optional power supply unit, Art.-No.: 2200 0089

At a Glance

- All parts to start with embedded RFID
- Try out RFID modules in no time
- Use with any PC, Software included

About metraTec

metraTec develops, manufactures and sells electronics for the product segments „Identification", „Localization", "Communication" and „Wireless Power". It serves a variety of industries, both with standard products as well as custom solutions. Our customers are system integrators, OEM customers as well as research institutes world wide.

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