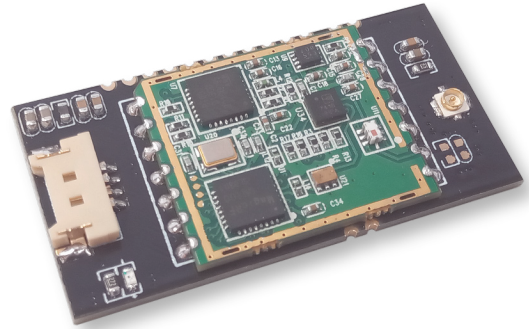


UHF EMBEDDED MODULE

M802



PRODUCT DESCRIPTION

The UHF Embedded Module M802 is a tiny read and write module. It is designed for embedding in various applications and devices and can be used for a wide variety of applications such as warehouse applications, industrial automation or logistics.

It is equipped with the UHF Technology EPC C1 GEN2 | ISO 18000-6C and is global applicable with the frequency band 840 – 960 MHz. With its +20 dBm Power Output, the RFID UHF Embedded Module M802 achieves reading ranges of up to 2 meters. The M802 Module is available with an TTL interface.

The RFID UHF Embedded Module M802 features 1 external U.FL antenna port. We offer a wide choice of OEM antennas suitable for any purpose.

Commands can be sent to Monza 4QT RFID chips or sensor data can be retrieved from the Magnus S2/S3 chip. The transmission power of the RFID embedded UHF modules is adjustable adaptively.

The hardware comes with an useful SDK for the development of controller, Windows based applications. Beside the documentation, command protocols and source codes, the SDK includes a Windows based demo application with full functionality over all supported UHF RFID standards.

► APPLICATIONS

- Logistics & Supply Chain
- Warehouse Applications
- Industrial Automation
- Parking Automation

► FEATURES

- TTL Interface
- Up to 2 m Reading Range
- Supports ETSI & FCC
- Max +20 dBm Power
- External U.FL Antenna

► RFID OPTIONS

- UHF (EPC C1 GEN2 | ISO18000-6C)

TECHNICAL DATA

*READING DISTANCE DEPENDS ON TAG, ANTENNA AND ENVIRONMENTAL CONDITIONS.

ELECTRICAL SPECIFICATIONS

Power Supply	+3.6...5.5 Vdc
Power Consumption	Sleep mode: < 300 µA Idle mode: < 10 mA Peak @ +20 dBm CW: 160 mA
RF TX Power	+12.5...+20 dBm, configurable in steps of 1.5 dBm
Operating Frequency	840 – 960 MHz, selectable frequency bands for operation in EU (ETSI) and USA (FCC)
Reading Distance	up to 2 meters*
Antenna	External*
Baudrate	9600 ... 115200 bit/s
Antenna Connector	U.FL Connector
Interfaces	TTL, 115200 bps, 8 data bits, 1 stop bit, no parity, no flow control
Connector	Molex PanelMate Series, 53780 PCB connector, 51146 cable connector

MECHANICAL SPECIFICATIONS

Dimensions	42.5 × 22.1 × 3.3 mm (without U.F.L antenna connector)
Weight	3 g
Material	FR-4
Mounting Options	Soldering

ENVIRONMENTAL CONDITIONS

Operating Temperature	–25 °C ... +80 °C
Storage Temperature	–40 °C ... +85 °C
Humidity	up to 95 %, non condensing
MTBF	200'000 h

SUPPORTED STANDARDS | TAGS

ISO Standard	Standard ISO 18000-6C (EPC Class 1 Generation 2) E.g.: Alien Higgs 2/3/4, Impinj Monza, NXP UCODE, etc.
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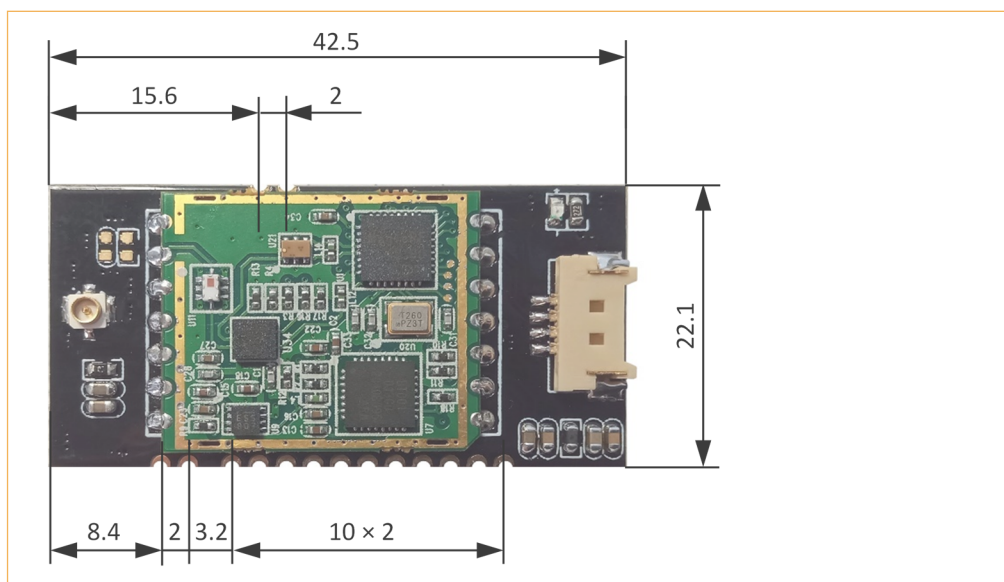
SDK INFORMATION

Supported OS	Windows XP, Vista, 7, 8, 8.1, 10
Supported Languages	Binary command protocol
Demo Software	Windows

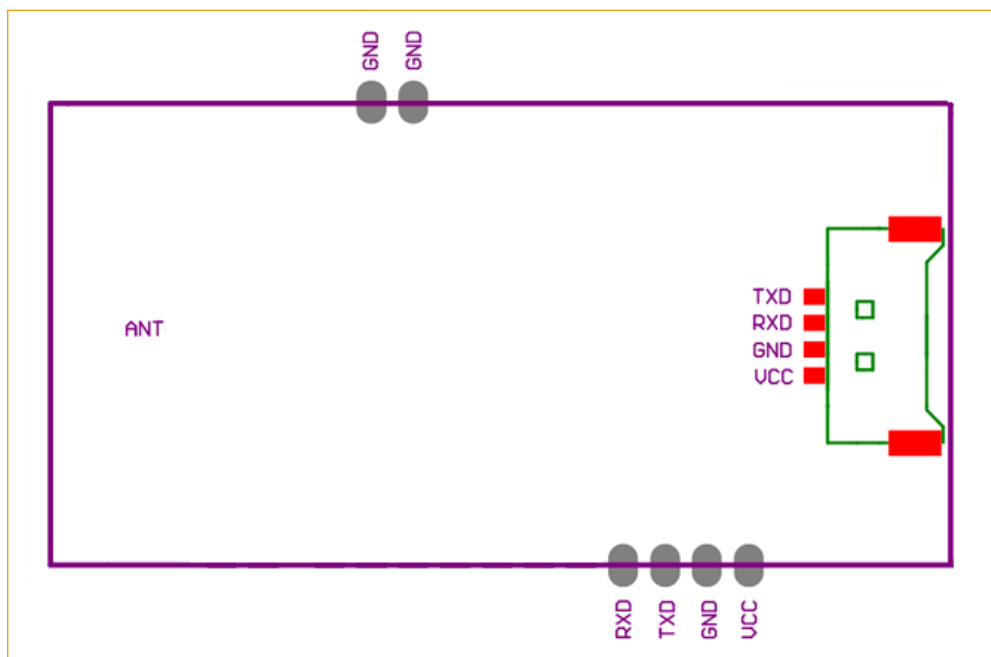
APPLICABLE STANDARDS

EMC	EN 301489-1:2012-04 (v1.9.21) EN 301489-3:2013-12 (V1.6.1)
Radio Regulation	EN 300330-1:2015-08 (V1.8.1) EN 300330-2:2015-08 (V1.6.1)
Safety	EN 60950-1:2014-08 EN 62369-1:2010-03 EN 50364:2010-11
RED	2014/53/EU
RoHS 3	2015/863/EU
REACH	1907/2006
Certificates	FCC, CE

PRODUCT DIMENSIONS



PIN HEADER



PIN LAYOUT

SIGNAL	IO TYPE	DESCRIPTION
MOLEX CONNECTOR		
TXD	Output	UART TX (TTL Level)
RXD	Input	UART RX (TTL Level)
VCC	Power	DC 3.3 V ~ 5 V
GND	GND/Power	GND
ANT	/	External antenna
STAMP HOLES		
RXD	Input	UART RX (TTL Level)
TXD	Output	UART TX (TTL Level)
GND	GND/Power	GND
VCC	Power	DC 3.3 V ~ 5 V

ORDER CODES

VERSIONS	ORDER CODES
UHF Embedded Module M802 - TTL	S021074UT0