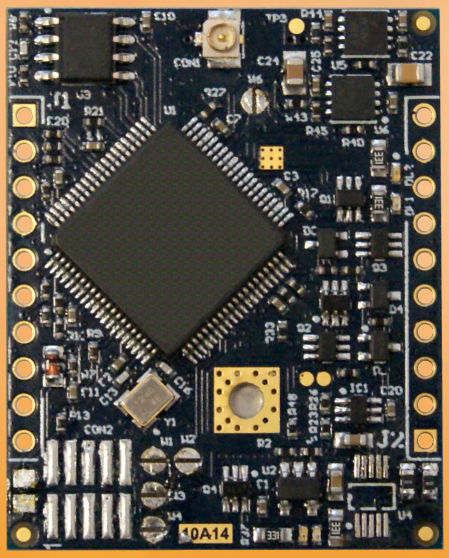
iDTRONIC
PROFESSIONAL RFID

UHF Module
M900



Applications

- Industrial Automation
- Mobile Computing
- Machine Control
- Self-Service Devices

Features

- Max 27 dBm power
- Up to 5.5 meters read range
- TTL or RS232 interface
- Supports ETSI & FCC frequencies

RFID Options

- **UHF** (EPC C1 GEN2 / ISO18000-6C)

Description

The M900 embedded UHF RFID Module is a tiny read/write device with up to 27 dBm power output and a reading distance of up to 5.5 meters*.

This 1 port reader Module is designed to perform with all ISO18000-6C tags including EPC Class1 Gen2 based on the UHF 840 – 960 MHz global frequency band (ETSI + FCC). It can be used for a wide variety of applications such as mobile computing, industrial automation or machine control systems.

iDTRONIC's M900 is a compact single board UHF RFID reader Module which provides RS232 or TTL interfaces and comes with a complete SDK & testing software for Windows based operating systems.

*Reading distance depends on tag, antenna and environmental conditions

Technical Data

Electrical Specifications	
Power Supply	5 Vdc (±5 % regulated)
Power Consumption	max. 800 mA
Operating Frequency	840–960 MHz, software programmable
Max. Power	max 27 dBm / 500 mW, software programmable in 1 dBm steps
Operating Distance	up to 5.5 meters*
Antenna Connector	U.FL connector
Inputs / Outputs	2 inputs / outputs software configurable
Status	4 LEDs
Interfaces	TTL (0–5V) RS232

Mechanical Specifications	
Dimensions	30.56 × 38.40 × 6.50 mm
Weight	16 g (maximal)

*Reading distance depends on tag, antenna and environmental conditions

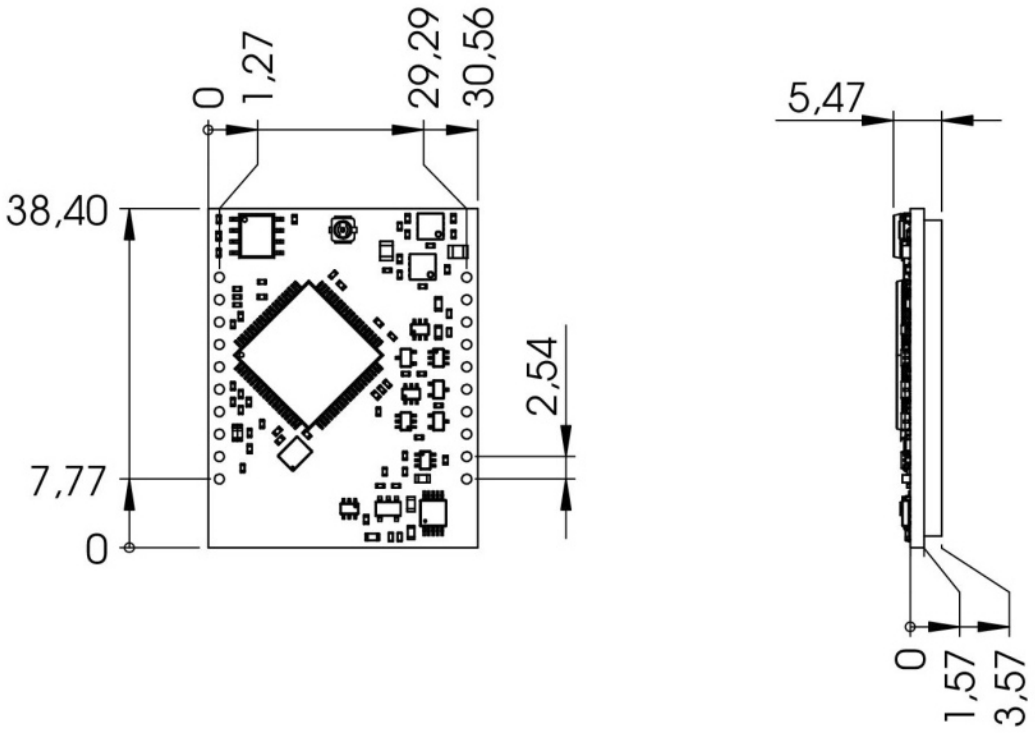
Environmental Conditions	
Operating Temperature	–10 °C ... +55 °C
Storage Temperature	–20 °C ... +85 °C
Humidity	up to 95 %, non condensing

Supported Standards / Tags
Standard ISO 18000-6C (EPC Class 1 Generation 2)

Applicable Standards	
Radio Regulation	Europe: EN 302 208 V1.4.1

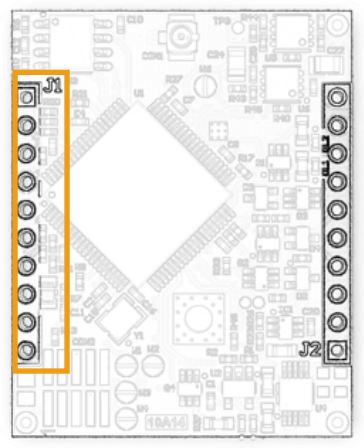
SDK Information	
Supported OS	Windows 7, 8
Supported Languages	C++, C# Command Protocol
Download Link	http://idtronic-rfid.com/support/sdks/

Mechanical View



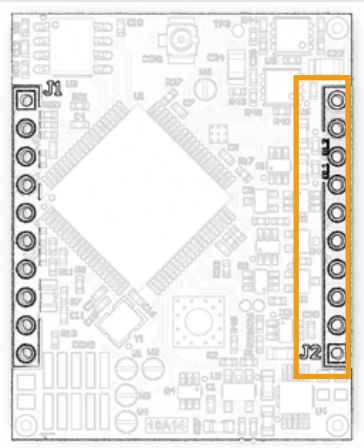
All Dimensions in millimeters (mm)

Pin Layout



Connections on J1

Pin	No	Description	
		TTL	RS232
n.c.	1	Not connected	Not connected
n.c.	2	Not connected	Not connected
n.c.	3	Not connected	Not connected
- Vin (Gnd)	4	DC power supply GND	DC power supply GND
n.c.	5	Not connected	Not connected
n.c.	6	Not connected	Not connected
n.c.	7	Not connected	Not connected
n.c.	8	Not connected	Not connected
n.c.	9	Not connected	Not connected
n.c.	10	Not connected	Not connected



Connections on J2

Pin	No	Description	
		TTL	RS232
+Vin	10	DC power supply 5 Vdc ±5 %	DC power supply 5 Vdc ±5 %
–Vin (GND)	9	DC power supply return	DC power supply return
LED 1	8	Green external LED	Green external LED
LED 2	7	Red external LED	Red external LED
I/O 2	6	Universal digital Input / Output	Universal digital Input / Output
n.c.	5	Not connected	Not connected
I/O 1	4	Universal digital Input / Output	Universal digital Input / Output
TEST	3	Do not connect	Do not connect
TxD	2	TTL serial line (to host)	RS232 serial line (to host)
RxD	1	TTL serial line (from host)	RS232 serial line (from host)

Order Codes

Version	Order Code
TTL	OEM-UHF-M900-TTL
RS232	OEM-UHF-M900-232

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