

# UHF Module M950



#### Applications

- · Industrial Automation
- · Logistics
- · Tracking & Tracing
- · Parking Automation

#### **Features**

- · Max 30 dBm power
- $\cdot$  Up to 10 m/33ft. read range
- · TTL or RS232 interface
- · Antenna Auto Tuning Modus
- · ETSI & FCC frequencies

#### **RFID Options**

UHF (EPC C1 GEN2 / ISO18000-6C)

#### Description

M950 4 channel embedded UHF RFID Module offers state of the art performance with up to 30 dBm power output and a reading distance of up to 10 meters/33feet\*.

This reader Module with 4 U.FL antenna ports and auto impedance tuning is designed to perform with all ISO18000-6C tags including EPC Class1 Gen2 based on the UHF 840–960 MHz frequency band (ETSI & FCC).

The M950 is a compact powerful single board UHF RFID reader/writer which provides RS232 or TTL interfaces and comes with a complete SDK & testing software for Windows based operating systems.

It can be used for a wide variety of applications and offers time to market advantages to all OEM's, VAR and solution providers.

### **Technical Data**

Electrical Specifications		
Power Supply	5 VDC (±5 % regulated)	
Power Rating	max. 10W @RFOUT=30dBm	
Operating Frequency	840 – 960 MHz, software programmable	
Max. Power	max 30dBm / 1W, software programmable in 1dB steps	
Operating Distance	up to 10 meters / 33 feet*	
Antenna Connector	4 U.FL connector (50Ω)	
Inputs / Outputs	2 inputs / outputs software configurable	
Status	8 LEDs	
Interfaces	TTL (0-5V) RS232	

Mechanical Specifications	
Dimensions	66.00 x 45.00 x 6.50mm
Weight	27 g (maximal)

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

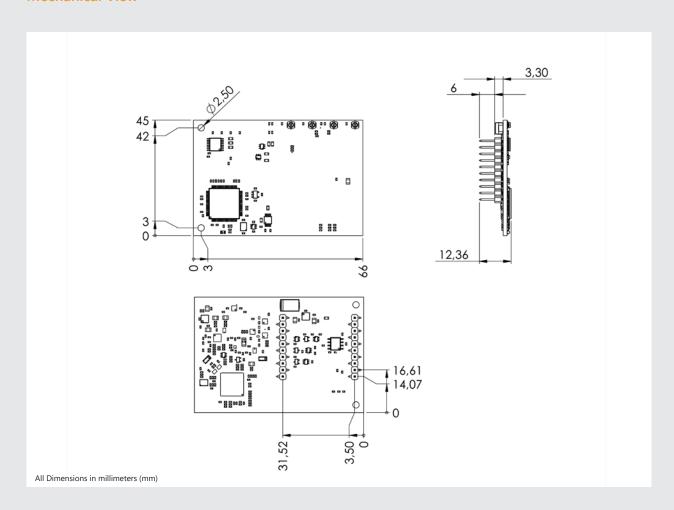
#### Supported Standards / Tags

Standard ISO 18000-6C (EPC Class 1 Generation 2)

SDK Information	
Supported OS	Windows 7, 8
Supported Languages	C++, C# Command Protocol
Download Link	

 $<sup>{}^{\</sup>ast}\textsc{Reading}$  distance depends on tag, antenna and environmental conditions

### **Mechanical View**



# **Pin Layout**



#### **Connections on J1**

Pin No	Na	Description	
	INO	TTL	RS232
n.c.	1	Not connected	Not connected
n.c.	2	Not connected	Not connected
+ Vin	3	DC power supply 5 Vdc ±5%	DC power supply 5 Vdc ±5%
- Vin (Gnd)	4	DC power supply return (GND)	DC power supply return (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





Pin	No	Description	
	INO	TTL	RS232
RX	1	TTL serial line (from host)	RS232 serial line (from host)
TX	2	TTL serial line (to host)	RS232 serial line (to host)
TEST	3	Do not connect	Do not connect
I/O 1	4	Universal digital Input / Output	Universal digital Input / Output
n.c.	5	Not connected	Not connected
1/0 2	6	Universal digital Input / Output	Universal digital Input / Output
LED 2	7	Red external LED	Red external LED
LED 1	8	Green external LED	Green external LED
- Vin (Gnd)	9	DC power supply return (GND)	DC power supply return (GND)
+ Vin	10	DC power supply 5 Vdc ±5%	DC power supply 5 Vdc ±5%

## **Order Codes**

Version	Order Code
ΠL	OEM-UHF-M950-TTL
RS232	OEM-UHF-M950-232

iDTRONIC GmbH Ludwig-Reichling-Straße 4 67059 Ludwigshafen GERMANY