iDTRONIC
PROFESSIONAL RFID

UHF Cylindrical Reader
M30

Applications

- · **Industrial Automation**
- · **Material Handling**
- · **Supply Chain**
- · **Asset Tracking**
- · **Production Control**

Features

- · **RS232, RS485 or CanBus**
- · **10 to 36V power supply**
- · **Up to 40 cm reading distance**
- · **Compact cylindrical housing**
- · **IP67 rated**

RFID Option

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

The BLUEBOX M30 UHF reader / writer is a fixed and compact all-in-one UHF RFID reader for industrial automation processes.

It has an power output of up to 27dBm / 500mW. The power setting can be set in 1dBm steps starting from 10dBm. In combination with the integrated circular antenna and a gain of -8dBi, M30 UHF Cylindrical Reader can achieve reading distances of up to 50 centimeters within industrial environments. Typically this device will be used for production control, material handling control and in tracking & tracing.

The device comes with a RS232, RS485 or CanBus interface and a power interface of 10 to 36V. This RFID device allows a flexible and fast integration into many existing applications with its easy to install cylindrical M30 housing and standardized M12 connectors.

iDTRONC is offering all necessary accessories to operate this device hassle free.

iDTRONIC's BLUEBOX M30 UHF Reader / Writer supports the well known BLUEBOX SDK with demo and setup tools. The Windows based tools support all operating systems starting from XP up to Windows 10. Combined with C++, C# and a ASCII command protocol the software development kit offers an easy option to integrate this UHF reader into any environment.

Further customization of firmware and hardware is possible on request and on a project basis.

Technical Data

Electrical Specifications

Power Supply	10...36 Vdc
Power Consumption	4 W @ +27 dBm
Operating Frequencies	865 - 868 MHz (ETSI) 902 - 928 MHz (FCC on request)
RF Output Power	max. 0.5 W (+27 dBm), software configurable
RF Input Sensitivity	−87...−51 dBm, software configurable
Antenna	Integrated
Operating Distance	up to 40 cm*
Communication Interfaces	RS232 (R-IN-UHF-5224U) RS485 (R-IN-UHF-5225U)
Status Display	1 bicolor LED
Connector	5 pin M12 A-coded male connector

Antenna Specifications

Antenna Gain	-8 dBic
Beam Width	100° / 170°
Axial Ratio	< 1.5 dB
Polarization	circular

Mechanical Specifications

Housing Material	Nickelled brass + PC
Overall Dimensions	M30 × 90.65 mm
Weight	115 g
Protection Class	IP67

Environmental Conditions

Operating Temperature	−20...+55 °C
Storage Temperature	-40...+65 °C
Humidity	up to 95 %, non-condensing

Supported Standards / Tags

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

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
RoHS	EC Guideline 2011/65/EU
Certificate	FCC, CE

SDK Information

Supported OS	Windows XP, Vista, 7, 8
Supported Languages	C#, C++, serial command protocol
Demo Software	Windows

*Reading distance depends on tag, antenna and environmental conditions

Order Codes

Version	Order Code
M30 (RS232)	R-IN-UHF-5224U
M30 (RS485)	R-IN-UHF-5225U

For further information & prices, please contact info@idtronic-rfid.com