

BLUEBOX UHF – Basic Controller 1CH



iDTRONIC's BLUEBOX Controller & Antenna family is well suited for industrial and enterprise applications, where reliable, robust and well performing products are needed. All components are designed as a powerful combination for an easy and cost efficient system installation.

The BLUEBOX UHF – Basic Controller 1CH is a Read/Write device with one antenna port. The device can achieve a reading distance of up to 1 m with SW adjustable RF power of up to +20 dBm. The combination of a modern RF module with the up to date BLUEBOX SDK enables an easy start for ambitious developers. This powerful device is available as an ETSI version for the European market or an FCC version for the North American market.

Applications:

- Industrial Automation
- Supply Chain
- Access Control



Features

- 865–867 MHz (ETSI) or 902–928 MHz (FCC)
- Supports ISO18000-6C & EPC C1G2
- Up to +20 dBm (Software adjustable)
- 1 Antenna port
- Solutions for Near Field & Short-Range applications
- Possibility of using different RFID standards parallel in one application
- Several Standard Read Modes like Scan Mode, Notification Mode
- Integrated I/O ports
- 4 LEDs for status information
- Ruggedized product design and enclosures
- Unique SDK for all BLUEBOX products
- BLUEBOX SHOW applications software
- CE & FCC approved

Technical Data

Mechanical Specifications

Housing-Material:	PC
Dimensions:	110 × 140 × 60 mm
Weight:	430 g
Protection Class:	IP65

Electrical Specifications

Power Supply:	24 VDC ± 10 %
Power Consumption:	3.5 W
Operating Frequencies:	865–867 MHz (ETSI) or 902–928 MHz (FCC)
Output Power:	+20 dBm
Operating Distance:	Up to 1 m
Connectors:	PG9
Antenna Connector:	1 × SMA (Internal)
Digital I/O:	2 (opto-isolated)
Interface:	RS232 + RS485

Environmental Conditions

Operating Temperature:	-20 °C to +55 °C
Humidity:	5 % to 95 %




Features

Supported Transponders:	ISO18000-6C, EPC Class 1 Gen 2
Working Modes:	Scan Mode, Notification Mode
Status Display:	4 LEDs

Applicable Standards

Radio Regulation:	CE & FCC
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Available Antennas

			
<i>Name</i>	Near-Field Antenna	Low-Range Antenna	Mid-Range Antenna
<i>Size</i>	90 × 63 × 31 mm	90 × 63 × 31 mm	154 × 126 × 36 mm
<i>Reading distance</i>	Up to 4 cm	Up to 5 cm	Up to 1 m
<i>Order codes</i>	ETSI: 9121U FCC: 9122U	9123U	ETSI: 9124U FCC: 9125U

Order Code

5131U

BLUEBOX optional Accessories

Mounting and connection kits are available for all BLUEBOX Controllers and Antennas, which guarantee easy installation.

Power Supplies

Version	Order Coder
Office Power Supply (for office usage) - 110-240V to 24V / 12W (with 2 meter Cable & M12 Connector)	0951A
Office Power Supply (for office usage) - 110-240V to 24V / 20W (with 2 meter Cable & M12 Connector)	0952A
Industrial Power Supply (for control cabinet) - 110-240V to 24V / 15W (without cable)	0953A
Industrial Power Supply (for control cabinet) - 110-240V to 24V / 15W (without cable)	0954A
IP65 Industrial Power Supply (for outdoor usage) - 110-240V to 24V / 50W (with PG9 cable glands & without cable)	0954A

Interface Cables

Version	Order Coder
Ethernet interface cable 3 meter with M12 & RJ45 connector	0902A
USB interface cable 1 meter with M12 Mini USB & USB A connector	0909A
RS232 interface cable 3 meter with M12 & Sub-D9 connector	0903A
RS232 / RS485 interface cable 3 meter with M12 connector & open ends	0904A
Profibus interface cable 3 meter with M12 connectors	0908A

Antenna Cables

Version	Order Coder
Antenna cable 3 meter RG58/U & Ω 50 with TNC-TNC connector	9903U
Antenna cable 3 meter RG58/U & Ω 50 with TNC-TNC connector	9904U
Antenna adapter Ω 50 TNC (Male) - SMA (Female)	0906U
Antenna adapter Ω 50 TNC - TNC	0951U
Antenna terminator Ω 50	0952U

Various Cables

Version	Order Coder
Power Supply cable 3 meter with M12 connector & open ends	0901A
I/O cable 3 meter with M12 connector & open ends	0905A

M12 Connectors

Version	Order Coder
Profibus M12 Y - connector	0907A
Profibus M12 T - connector	0956A
Profibus M12 terminator	0906A
Power Supply M12 connector	0910A
I/O M12 connector	0911A
Profibus M12 connector	0912A
Ethernet M12 connector	0913A
RS232 / RS485 M12 connector	0914A

Antenna Mounting Kits

Version	Order Coder
Antenna Mounting Kit for antenna 9124U, 9125U, 9126U & 9127U	9921U
Antenna Mounting Kit for antenna 9128U & 9129U	9922U
Antenna Mounting Kit for antenna 9130U & 9131U	9923U

The accessories are optional and not included by delivery