

UHF SmartAntenna RE40

RFID UHF reader and writer

Interfaces: USB, Ethernet, Bluetooth® 5.1

Bluetooth® profiles: keyboard emulation and serial emulation

Automatic reading of EPC and/or TID

Data format HEX, ASCII or SGTIN-96 string with optional prefix and suffix



UHF SmartAntenna RE40 is an industrial fixed RFID reader, capable of reading UHF tags and transmitting the acquired data to any device equipped with a USB or Ethernet wired interface, including PCs and PLCs, or equipped with a Bluetooth radio interface, including Android or iOS smartphones and tablets.

Taking advantage of the integrated linear polarization antenna, the maximum reading distance is around 6 meters depending on the UHF tags used.

As an alternative to the integrated antenna, or together with it, to achieve greater reading distances or to obtain greater coverage, it is possible to connect up to 3 external antennas to the UHF SmartAntenna RE40 via 3 optional SMA connectors.

The use of UHF SmartAntenna RE40 is easy and intuitive, thanks to the automatic activation of UHF tags scanning and the use of one LED and a multi-tone beeper to alert the operator of the reading done.

UHF SmartAntenna RE40 is usually powered via the USB interface. This interface is also used for the communication with the device that manages the RFID reader. Bidirectional data transmission occurs in virtual serial mode. A simple serial protocol, named TT-RFID and available on all TERTIUM Technology products, allows the user to carry out all the classic operations of an RFID reader, including ID scanning and reading/writing of the UHF tag memory (specifications of TT-RFID protocol and API in Java language are available for developers).

Alternatively, UHF SmartAntenna RE40 can be powered with a continuous voltage from 7Vdc to 36Vdc and therefore use the Ethernet interface for the same purposes and with the same communication methods mentioned above (apart from the encapsulation of the TT-RFID serial protocol in the TCP/IP protocol).

UHF SmartAntenna RE40 integrates Bluetooth 5.1 radio transmission technology. There are two profiles available: keyboard emulation and serial emulation. In keyboard emulation, the reader is able to transmit data read from UHF tags to any pre-existing application, in any keyboard data input field. In serial emulation, through specially developed applications, the reader is able to carry out any reading or writing operation on UHF tags (API for Android or iOS are available for developers).

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MAN/MACHINE INTERFACE	1 LED and 1 multitone beeper to report the outcome of the RFID scan (optional) 3 LED to report the operating status of the reader (optional)
RFID ENGINE	ZEBRA RE40 RFID UHF module Air Interface Protocol: EPC Global UHF Class1 Gen2 / ISO 18000-63 Operating Frequency: 865- 928 MHz band for worldwide support Regulatory and Compliance: EMI/RFI EN 55032:2012 / AC:2013 (Class B) EN 5032:2015 /AC:2016 (ClassB) EN 55024:2010 EN 5024:2010 / A1:2015 EN 55035:2017 47 CFR Part 15, Subpart B, Class B RF Power: max 500mW / 27dBm worldwide, max 250mW / 24dBm Japan Integrated antenna with linear polarization (and external via 1 or 2 or 3 SMA connectors option available)
INTERFACES	USB cable terminated with type A male connector, Bluetooth 5.1 radio, Ethernet cable (optional), 2 digital inputs 12V/24V optocoupled (optional), 2 digital outputs 12V/24V optocoupled (optional)
OS COMPATIBILITY	Android, iOS, Windows, macOS, Linux
MAIN PROCESSOR	Nordic Semiconductor nRF52833
POWER SUPPLY	5Vdc from USB cable, 7-36Vdc from power+i/o cable (optional)
WORKING TEMPERATURE	-20°C / 70°C
DIMENSIONS	Height 20cm, Width 15cm, Depth 3.7cm
WEIGHT	275g
PROTECTION DEGREE	IP65

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