NFC Passive UHF Converter

RFID UHF reader

Interfaces: NFC

Automatic reading of EPC

Data format: HEX string or GS1 Digital Link (if the tag is SGTIN-96 encoded)

Power supply: NFC

NFC Passive UHF Converter is a very minimalist RFID reader, capable of reading UHF tags - one at a time and up close - and transmitting the acquired data to any device equipped with a NFC interface, including Android or iOS smartphones and tablets.

Taking advantage of the integrated linear polarization antenna, the maximum reading distance is around 5 centimeters depending on the FF-type UHF tags used. Since it is a loop antenna, the reading of miniaturized NF-type UHF tags is also facilitated.

As an alternative to the integrated antenna, to achieve greater reading distances or to be used in special applications, it is possible to connect one external antenna to the NFC Passive UHF Converter via an optional SMA connector.

The use of the reader is easy and intuitive, thanks to the automatic reading of UHF tags combined with 4 multicolor LED that informs the operator about the status of the device and the result of the reading.

NFC Passive UHF Converter is a batteryless device. It doesn't need to be recharged. It works by harvesting energy from the NFC interface.

NFC Passive UHF Converter communicates with the smartphone via NFC interface. No Bluetooth or other wireless interface must be paired with the smartphone. You have simply to tap the device with the smartphone or temporarily maintain attached to it.

The device is really light, so it can be held in place by a finger of the hand holding the smartphone. Alternatively suction pad accessory is available to temporarily obtain the coupling.

NFC Passive UHF Converter is built with three components: the electronic board, the case and the sticker that hides the electronics. The sticker is customizable with any design or brand identification.

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MAN/MACHINE INTERFACE	4 multicolor LED to report the operating status of the reader and the outcome of the RFID scan
RFID ENGINE	Proprietary software defined radio Air Interface Protocol: EPC Global UHF Class1 Gen2 / ISO 18000-63 Operating Frequency: 868.300 MHz / 916.300 MHz Regulatory and Compliance: EMI/RFI EN 55032:2012 / AC:2013 (Class B) EN 5032:2015 / AC:2016 (Class B) EN 55024:2010 / A1:2015 EN 55035:2017 / 47 CFR Part 15, Subpart B, Class B RF Power: 3mW / 5dBm Integrated antenna with linear polarization
INTERFACES	NFC with rectangular antenna 52 x 52 mm
OS COMPATIBILITY	Android, iOS
MAIN PROCESSOR	STMicroelectronics STM32L0 series
POWER SUPPLY	NFC energy harvesting
WORKING TEMPERATURE	-20°C / 60°C
DIMENSIONS	Height 90mm, Width 58mm, Depth 3.5mm
WEIGHT	16g
PROTECTION DEGREE	IP54

TERTIUM technology