

# **RSK-FIDONFC snap-on module reader user manual**

**Version 1.0**

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Information in this manual is subject to change without notice.

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## About This Manual

The RSK-FIDONFC snap-on module User's Manual provides instructions for qualified personnel to follow when setting up a new RSK-FIDONFC snap-on module device.

This document is intended for use by qualified personnel to compliment the training and expertise, not to replace it.

### Related Information

Current information and manuals are available for download at the following website:

<https://www.ruggon.com>

### Conventions

Bolded or underlined text is used to emphasize the designated information.



A Note is used to provide additional information for the device or settings.



A Caution is used to warn against potential hazards or to caution against unsafe practices.



A Warning is used to identify immediate hazards for property damage, injury or death.

## Regulatory and Certification

### *FCC*

FCC ID: 2ABTU-RSKNFC01

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

### *RF Exposure warning*

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

### *Labeling Requirements*

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **CAUTION:**

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

### ***CE Marking***

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. Please contact your local representative for ordering information.

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

## 1. Introduction

RSK-FIDONFC snap-on module (RSK-FIDONFC) is the NFC Reader developed based on 13.56Mhz contactless technology. It is a contactless reader that can access contactless smart cards following the ISO 14443, ISO 15693 & ISO 18092 standards, MIFARE® (T=CL), FeliCa, NFC Tags, SRI/SRIX, CTS, Innovatron, Picopass and Topaz Card are also supported.

RSK-FIDONFC is capable of the three modes of NFC, namely: card reader/writer, card emulation and keyboard emulation. It also has a built-in SAM slot for added security in both contact and contactless applications. Compliant with both CCID and PC/SC, this plug-and-play USB NFC device allows interoperability with different devices and applications. It is thus ideal for unconventional marketing and advertising applications like smart posters. With additional features such as Keyboard Emulation, RSK-FIDONFC is a highly cost-effective, powerful all-in-one device that offers convenience and flexibility to many smart card applications.

## 2. Specifications

- USB Full Speed Interface
- CCID-compliant
- Interface:
  - Read/Write speed of up to 26kbps ISO 15693 & 848 kbps (ISO 14443) card types
  - Built-in antenna for contactless tag access, with card reading distance of up to 70 mm (depending on tag type)
  - Supports ISO 15693 card types
  - Supports ISO 14443 Part 4 Type A and B cards and MIFARE series
  - Built-in anti-collision feature
  - Supports extended APDU (max. 64 KB)
- Application Programming Interface:
  - Supports PC/SC
  - Supports CT-API (through wrapper on top of PC/SC)
- USB Firmware Upgradability
- Supports Android™ 3.1 and later<sup>1</sup>
- Compliant with the following standards:
  - ISO 14443
  - ISO 15693
  - ISO 7816
  - PC/SC
  - CCID
  - CE
  - FCC
  - RoHS
  - REACH
  - Microsoft® WHQL