



STICK READER EVO NFC

APPLICATIONS

- E-Banking | E-Shopping
- Internet Security
- Software Lock
- Telecom & Postal
- E-Wallet Charging & Check

FEATURES

- HID + VCP Mode
- USB 2.0 Interface
- Integrated Antenna
- Read & Write Mode
- LED and Buzzer Signal
- USB Plug & Play Mode

RFID OPTIONS

- **HF | NFC** (ISO 14443A/B, ISO 15693, ISO 18000-3M3)

PRODUCT DESCRIPTION

The Stick Reader EVO NFC is a modern and slight plug-and-play RFID read and write device with integrated HID and VCP mode and USB 2.0 interface. It is the perfect RFID reader for latest IoT applications in companies and really suitable for a wide variety of applications in ecommerce, telecom, postal, banking or health care.

This new versatile RFID reader supports two modes of operation via USB: a virtual comport (VCP) or a Human Interface Device (HID).

The VCP mode has a complete read and write access. It is designed for IoT applications and can be easily integrated into any operating system.

The HID mode is a keyboard emulation mode. Beside different UID (Serial Numbers) formats, the reader can be set to read out different parts of the user memory as well. The HID mode is perfectly suited for web applications in heterogeneous IT cloud environments.

Stick Reader EVO NFC supports ISO Standard ISO/IEC 14443A/B, ISO 15693 and ISO 18000-3M3. It reads transponder and tags with MIFARE® Classic, MIFARE® DESFire, NTAG, EMxxxx and I-Code ILT-M chip.

The Stick Reader EVO NFC is certified according to RoHS 2 and REACH. It is supplied with a software development kit for Windows systems. This supports the programming languages: Binary command protocol, VS2005 C++ Library. With the help of our demo software introduction, the SDK simplifies the connection to your existing systems.

TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

Power Supply	USB VCP + HID
Power Consumption	<200 mA
Operating Frequencies	HF NFC: 13.56 MHz
Operating Distances	3 cm*
Standard UID Output	HF: ISO 14443A UID LSB
Antenna	integrated
Status	1x Bi-color LED 1x Buzzer
Interfaces	USB 2.0 (Plug-and-play)

MECHANICAL SPECIFICATIONS

Dimensions	75 × 20 × 10 mm
Weight	15 g
Housing	ABS (white)

ENVIRONMENTAL CONDITIONS

Operating Temperature	-20 °C ... +70 °C
Storage Temperature	-20 °C ... +80 °C
Humidity	up to 95%, non condensing

SDK INFORMATION

Supported OS	Windows XP, Vista, 7, 8, 8.1, 10
Supported Languages	Binary command protocol, VS2005 C++
Demo Software	Windows

SUPPORTED STANDARDS | TAGS

RFID HF NFC: 13.56 MHz	
ISO 14443 A and compatible	Read/write: MIFARE® Classic/1K/4K, MIFARE Ultralight®/C, MIFARE® DESFire® EV1/2, MIFARE® Smart MX, MIFARE® Plus S / X, MIFARE® Pro X, NTAG 21x, Read UID only of all other ISO14443A RFID tags
ISO 14443 B and compatible	SRI4K, SR1X4K, AT88RF020, 66CL160S, SR176
ISO 15693 and compatible	EM4135, EM4043, EM4x33, EM4x35, I-Code SLI / SLIX, M24LR16/64, TI Tag-it HF-I, SRF55Vxx (my-d vicinity)
ISO 18000-3M3	I-Code ILT-M

APPLICABLE STANDARDS

EMC	EN 301489-1:2019-11 (v2.2.3) EN 301489-3:2019-03 (V2.1.1)
Radio Regulation	EN 300330-1:2015-03 (V1.8.1) EN 300330-2:2015-03 (V1.6.1)
Safety	EC 62368-1:2018-10 (V3.0, valid as of 2020-12-20)
RoHS 2	EC Guideline 2011/65/EU and amendment 2015/863/EU, updated by 2017/2102/EU EN 50581:2012 (valid till 2024-07-07) EN 63000:2018
REACH	EU Guideline 1907/2006, updated by 2020/171/EU
Certificates	FCC, CE

*Reading distance depends on tag and environmental conditions

SOFTWARE SETTINGS TO CONFIGURE OUTPUT FORMAT

Operating Modes:

There are two working modes available on the Stick Reader EVO NFC:

HID Mode = Keyboard emulation (Read Only)

VCP Mode = Virtual ComPort (Read & Write)

With the HID mode, that the device automatically retrieves the data from the transponders as keyboard emulation. The output can be configured from various ways. Beside different UID (Serial Numbers) formats, the reader may be set to read out different parts of the user memory in various formats. The configuration can be done via a configuration tool which is compatible with Windows OS.

The screenshot shows the 'KEMU SETTINGS' window. It is divided into four sections: 'CONNECTIVITY', 'DISCOVER TAG TYPE', 'SETTINGS', and 'PROTOCOL SCREEN'.
- **CONNECTIVITY:** Includes a checked 'CONNECTION' checkbox, a 'COMPORT' dropdown set to 'COM4', a 'BAUDRATE' dropdown set to '9600', an 'ADDRESS' dropdown set to '0', and a 'CONNECT' button.
- **DISCOVER TAG TYPE:** Features a 'START DISCOVERY' button and a 'RESULT' input field.
- **SETTINGS:** Contains a 'SET READER TO KEYBOARD MODE' toggle switch (currently turned on), a 'TAG DATA' dropdown set to '14443A UID - LSB', a 'DATA POSITION' dropdown set to '0', a 'DATA LENGTH' dropdown set to '16', a 'MEMORY POSITION' dropdown set to '0', a 'MEMORY KEY' dropdown set to 'KEYA', a 'KEY' input field containing 'FF FF FF FF FF FF', an 'OUTPUT FORMAT' dropdown set to 'HEX', and a 'SET READER' button.
- **PROTOCOL SCREEN:** A large empty area for displaying protocol data.

The VCP mode offers fully read and write access to all supported transponder types. The device can be operated via demo software, sample source codes, and a USB driver on Windows OS. Other operating systems are supported via a serial command protocol and a virtual ComPort interface based on a CH340E chip.

ORDER CODES

VERSIONS	ORDER CODES
Stick Reader EVO NFC	R-STICK-EVO-NFC

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