iDTRONIC
PROFESSIONAL RFID

HF | NFC | LEGIC | LF DESKTOP READER
NEO 2

PRODUCT DESCRIPTION

HF | NFC | LEGIC | LF Desktop Reader NEO 2 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 commerce, telecom, postal, banking or health care. Optionally, the Desktop Reader NEO 2 is available with PC/SC interface.

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

It is available as HF | NFC, LEGIC or LF version. The HF | NFC Version 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 LEGIC version supports all common LEGIC Advant + Prime chips. LF version reads tags of EM4200 and compatible, it can read and write Hitag-1 and Hitag-S chips. We also offer a hybrid version with integrated HF + LF reader (dual-frequency).

HF | NFC | LEGIC | LF Desktop Reader NEO 2 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.

▶ APPLICATIONS

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

▶ FEATURES

· HID + VCP Mode or PC/SC
· USB 2.0 Interface
· Integrated Antenna
· Read & Write Mode
· LED and Buzzer Signal
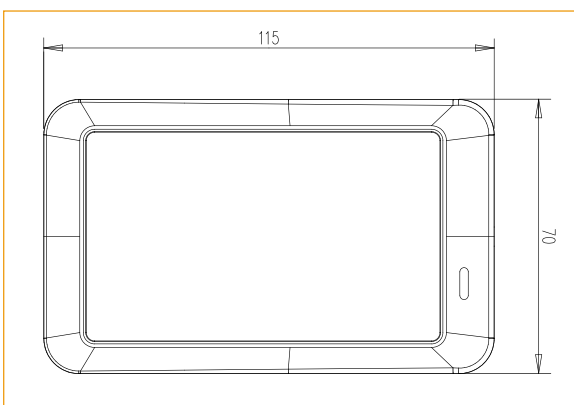· USB Plug & Play Mode

▶ RFID OPTIONS

· **HF | NFC** (ISO 14443A/B,
        ISO 15693,
        ISO 18000-3M3)
· **LEGIC (Prime + Advant)**
· **LF** (EM4200, Hitag-1, Hitag-S)

TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

Power Supply	USB
Power Consumption	<200 mA
Operating Frequencies	HF | NFC | LEGIC: 13.56 MHz LF: 125 kHz
Operating Distances	3 cm*
Standard UID Output	HF: ISO 14443A UID LSB LF: Read-only UID LSB
Antenna	integrated
Status	1x Bi-color LED 1x Buzzer
Interfaces	USB 2.0 VCP / HID, CH340E Chip PC/SC (only for HF)
Connection	120 cm long cable with USB- Type-A plug

MECHANICAL SPECIFICATIONS

Dimensions	115 × 70 × 17 mm without USB cable
Weight	90 g incl. USB cable
Housing	ABS (black)

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

*Reading distance depends on tag and environmental conditions

SUPPORTED STANDARDS | TAGS

RFID HF | NFC | LEGIC: 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, SRIX4K, 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
Legic RF-Standard	Full read/write operation: LEGIC Advant; LEGIC Prime Smart card cards with Card in Card (CIC) technology Legic Advant type AFS 4096-JP with loaded Legic

RFID LF: 125 kHz

Read-only	EM4200 and compatible
FDX-B	Read information
Read/write	Hitag-1, Hitag-S

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

PRODUCT DIMENSIONS
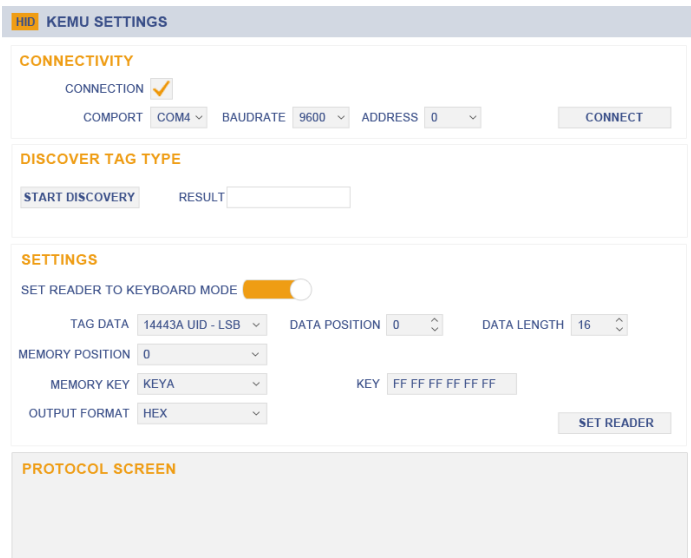
SOFTWARE SETTINGS TO CONFIGURE OUTPUT FORMAT

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 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

ORDER CODES

VERSIONS	ORDER CODES
Desktop Reader NEO 2 - HF | NFC Version	R-DT-NEO2-HF
Desktop Reader NEO 2 - HF | NFC Version, preconfigured to HID)	R-DT-NEO2-HF-HID
Desktop Reader NEO 2 - HF | NFC PC/SC Version	R-DT-NEO2-HF-PC/SC
Desktop Reader NEO 2 - LEGIC Version	R-DT-NEO2-LEGIC
Desktop Reader NEO 2 - LF Version	R-DT-NEO2-LF
Desktop Reader NEO 2 - LF Version, preconfigured to HID	R-DT-NEO2-LF-HID
Desktop Reader NEO 2 - Dual Frequency HF + LF Version	R-DT-NEO2-HF/LF