



Dual Desktop Reader

NEO 2 HF + LF



PRODUCT DESCRIPTION

The Dual HF + LF Desktop Reader NEO 2 by iDTRONIC GmbH is a high-performance RFID reader and writer with USB connectivity, designed for applications such as PC log-on, document management, retail, fitness, and healthcare.

This Dual HF + LF RFID desktop reader operates at 13.56 MHz (HF) and 125 kHz (LF), supporting a wide range of RFID technologies. It is compatible with ISO 14443 A/B, ISO 15693, ISO 18000-3M3 (HF), and various LF transponders, including EM4200 (read-only) and Hitag-1 / Hitag-S (read/write). This dual-frequency capability allows flexible and secure RFID authentication across multiple applications.

The device features VCOM (read/write) and HID (keyboard emulation) functionality, enabling seamless data retrieval and flexible integration into various system environments. Additionally, the HF model includes a PC/SC interface, providing enhanced security and compatibility for smart card applications.

A software development kit (SDK) for Windows and a binary command protocol ensure easy integration into other operating systems and microcontroller-based applications. The device is CE (RED) and FCC certified and complies with RoHS 2 and REACH standards.

The Dual HF + LF Desktop Reader NEO 2 is a versatile and robust RFID solution, delivering high performance and seamless integration, making it ideal for industrial, commercial, and IoT applications.

APPLICATIONS

- PC log-on
- Document Management
- Retail
- Fitness
- Healthcare

FEATURES

- USB Interface
- HID, VCOM or PC/SC
- Integrated Antenna
- LED and Buzzer Signal

RFID OPTIONS

- HF | NFC
 - ISO 14443A/B
 - ISO 15693
 - ISO 18000-3M3
- LF
(EM4200, Hitag-1, Hitag-S)



TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

| | |
|---------------------|--|
| Power Supply | USB |
| Power Consumption | <200 mA |
| Operating Frequency | HF NFC: 13.56 MHz LF: 125 kHz |
| Operating Distances | HF NFC: 5cm LF: 5cm |
| Antenna | integrated |
| Status | 1x Bi-color LED 1x Buzzer |
| Interface | USB - Virtual ComPort USB - Virtual ComPort + HID USB - HID USB - PC/SC |
| Connections | 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 up to +70 °C |
| Storage Temperature | -20 °C up to +80 °C |
| Humidity | up to 95%, non condensing |

STANDARD UID OUTPUT

| | |
|------------------------------------|--------|
| Desktop Reader EVO HF + LF 2.0 | HexLSB |
| Desktop Reader EVO HF + LF 2.0 HID | HexLSB |

SUPPORTED FEATURES

| | |
|--|-----|
| UID capturing | Yes |
| Memory Read | Yes |
| Memory Write | Yes |
| Anti Collision | Yes |
| All commands available (transparent command) | Yes |

ORDER CODES

VERSIONS

| |
|---|
| Desktop Reader NEO 2 - Dual Frequency HF + LF Version |
| Desktop Reader NEO 2 - Dual Frequency HF + LF Version, preconfigured to HID |

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SDK INFORMATION

| | |
|---------------------|-------------------------------------|
| Supported OS | Windows 10, 11 |
| Supported Languages | Binary command protocol, VS2005 C++ |
| Demo Software | Windows |

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 |

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®EV1/3, MIFARE® Smart MX, MIFARE® Plus S / X, MIFARE® Pro X, NTAG 213, 215, 216, 196, DNA Read UID only: 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, I-Code SLI-2, M24LR16/64, TI Tag-it HF-1, SRF55Vxx (my-d vicinity) |
| ISO 18000-3M3 | I-Code ILT-M |

RFID LF: 125 kHz

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

**READING DISTANCE DEPENDS ON TAG, ANTENNA AND ENVIRONMENTAL CONDITIONS.*

ORDER CODES

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|---------------------|
| R-DT-NEO2-HF/LF |
| R-DT-NEO2-HF/LF-HID |

Subject to change without notice.
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