iDTRONIC

PROFESSIONAL RFID

RFID HF READER
EVO DESKTOP READER 2.0

APPLICATIONS

- Reading of ID and Member Cards
- Access / Time Logging Systems
- Payment, POS System, Loyalty
- R/W of Transponder at PC
- NFC & Mobile Applications
- PC Log-on; Online Payment
- Industry 4.0
- Cloud Solutions

FEATURES

- Two operating modes (HID & VCP)**
- HID with configurable output
- VCP with full r/w access
- HF RFID (13.56 MHz)
- Integrated Antenna
- USB 3.0 Interface
- LED illuminated Frame

RFID OPTIONS

- **HF** (ISO 14443A, ISO 15693, ISO 18000-3)

PRODUCT DESCRIPTION

iDTRONIC's EVO Desktop Reader HF 2.0 is now available in new markets. It is perfect for system integrators seeking simple reader development and integration.

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

The VC mode has a complete read and write access. It is designed for Industry 4.0 applications and may be easily integrated into any operating system.

The HID mode works with the keyboard emulation mode. Beside different UID (Serial Numbers) formats, the reader can 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.

The EVO Desktop Reader HF 2.0 is a successor to the compact EVO Desktop Reader HF RFID reader and writer device, with integrated antenna. The EVO Desktop Reader HF 2.0 allows reading ranges of up to 10 centimeters, depending on tag type and orientation.*

The 13.56 MHz HF Version supports ISO 14443A, ISO 15693 as well as ISO 18000-3, including NXP MIFARE Ultralight®, MIFARE® Classic 1K, MIFARE® Classic 4K, I-Code SLI, TI Tag-it HF-I and more.

The EVO Desktop Reader HF 2.0 is a versatile read and write device for various applications and work sites. A user friendly software development kit and configuration tool for Windows operating systems is provided, as well as an operating-system-independent command protocol.

*Reading distance depends on tag, antenna and environmental conditions **further information on the next page

SOFTWARE SETTINGS TO CONFIGURE OUTPUT FORMAT

Operating Modes:

There are two working modes available on the EVO Desktop Reader HF 2.0:

HID Mode = keyboard emulation (Read Only)
VC Mode = virtual ComPort (Read / Write Access)

With the HID mode, users can retrieve 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 VC mode offers fully read / 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 SiliconLabs chipset.

HID KEMU SETTINGS		
CONNECTIVITY		
CONNECTION ✓		
COMPORT COM4 ∨ BAUDRATE 9600 ∨ ADDRESS 0 ∨		CONNECT
DISCOVER TAG TYPE		
START DISCOVERY RESULT		
SETTINGS		
SET READER TO KEYBOARD MODE		
TAG DATA 14443A UID - LSB ∨ DATA POSITION 0 ↕ DATA LENGTH 16 ↕		
MEMORY POSITION 0 ∨		
MEMORY KEY KEYA ∨ KEY FF FF FF FF FF FF		
OUTPUT FORMAT HEX ∨		SET READER
PROTOCOL SCREEN		

SUPPORTED FEATURES	VCP MODE (READ/WRITE)	HID MODE (READ ONLY)
Windows 7/8/8.1/10 (v6.7.3) Windows XP/Server 2003/Vista/7/8/8.1 (v6.7) Windows 2K (v6.3a) WinCE (5.0, 6.0)	X	X
Apple MacOS X		X
Linux (3.x.x., 2.6.x)	X	X
Android (requires USB host)		X
UID capturing	X	X
Memory Read	X	X
Memory Write	X	
Anti Collision	X	
All commands available (transparent command)	X	

UID OUTPUT	UID (EPC)	SAMPLE TAG
Desktop Reader EVO HF 2.0	06ADBEC3 (LSB)	MIFARE
Desktop Reader EVO HF 2.0 HID	06ADBEC3 (LSB)	MIFARE

TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

Power Supply	USB (5 Vdc)
Current Consumption	< 90 mA
Operating Frequency	13.56 MHz
Operating Distance	up to 10 cm*
Antenna	integrated
Reader IC	NXP CLRC632
RF TX Speed	up to 424 kBd
Interfaces	USB 3.0 VCP HID** (Keyboard Layout: QWERTY)
Baudrate on VCP	9600...115200
HID Output Format	ISO 14443 A hexadecimal, lowercase, byte-reverse, LSB ISO 15693 hexadecimal, lowercase, MSB *HID Output of EPC Memory of UHF Tags will be displayed.* *The HID output format can be modified on request.*
Connector	USB Mini B Socket
Signals	Multi-colour LED illuminated frame. Colour change indicates successful tag communication.

MECHANICAL SPECIFICATIONS

Dimensions	126.5 × 69 × 27 mm
Material	ABS (Acrylonitrile butadiene styrene)
Protection Class	IP40
Housing Colour	Anthracite
Weight	130 g

ENVIRONMENTAL CONDITIONS

Operating Temperature	-20 °C ... +70 °C
Storage Temperature	-20 °C ... +80 °C

SUPPORTED STANDARDS / TAGS

ISO 14443 A and compatible	Read/Write: MIFARE® Classic Mini / 1K /4K, MIFARE Ultralight®, NTAG21x Read UID only: MIFARE Ultralight® C, MIFARE® Pro X, MI-FARE® Plus S / X, read UID only of all other ISO14443A RFID tags
ISO 15693 and compatible	EM4135, EM4043, EM4x33, EM4x35, I-Code SLI / SLIX, M24LR16/64, TI Tag-it HF-I, SRF-55Vxx (my-d vicinity)

APPLICABLE STANDARDS

EMC	EN 301489-1:2012-04 (v1.9.21) EN 301489-3:2013-12 (V1.6.1)
Radio Regulation	EN 300330-1:2015-08 (V1.8.1) EN 300330-2:2015-08 (V1.6.1)
Safety	EN 60950-1:2014-08 EN 62369-1:2010-03 EN 50364:2010-11
RoHS 3	EC Guideline 2015/863/EU
Certificates	FCC, CE, IC

SDK INFORMATION

Supported OS by Silabs USB VCP Driver	Windows 7/8/8.1/10 (v6.7.3) Windows XP/Server 2003/Vista/7/8/8.1 (v6.7) Windows 2K (v6.3a) WinCE (5.0, 6.0) Macintosh OSX (v4) Linux (3.x.x., 2.6.x) Android 4.2
Supported OS	Windows 7, 8, 8.1, 10
Supported Languages	C, ASCII command protocol
Demo Software	Windows

* Reading distance depends on tag type and orientation.
** Human Interface Device

ORDER CODES

VERSION	ORDER CODE
EVO Desktop Reader HF 2.0	R-DT-EVO-HF2
EVO Desktop Reader HF 2.0 (HID)	R-DT-EVO-HF2-HID

For further information & prices, please contact info@idtronic-rfid.com