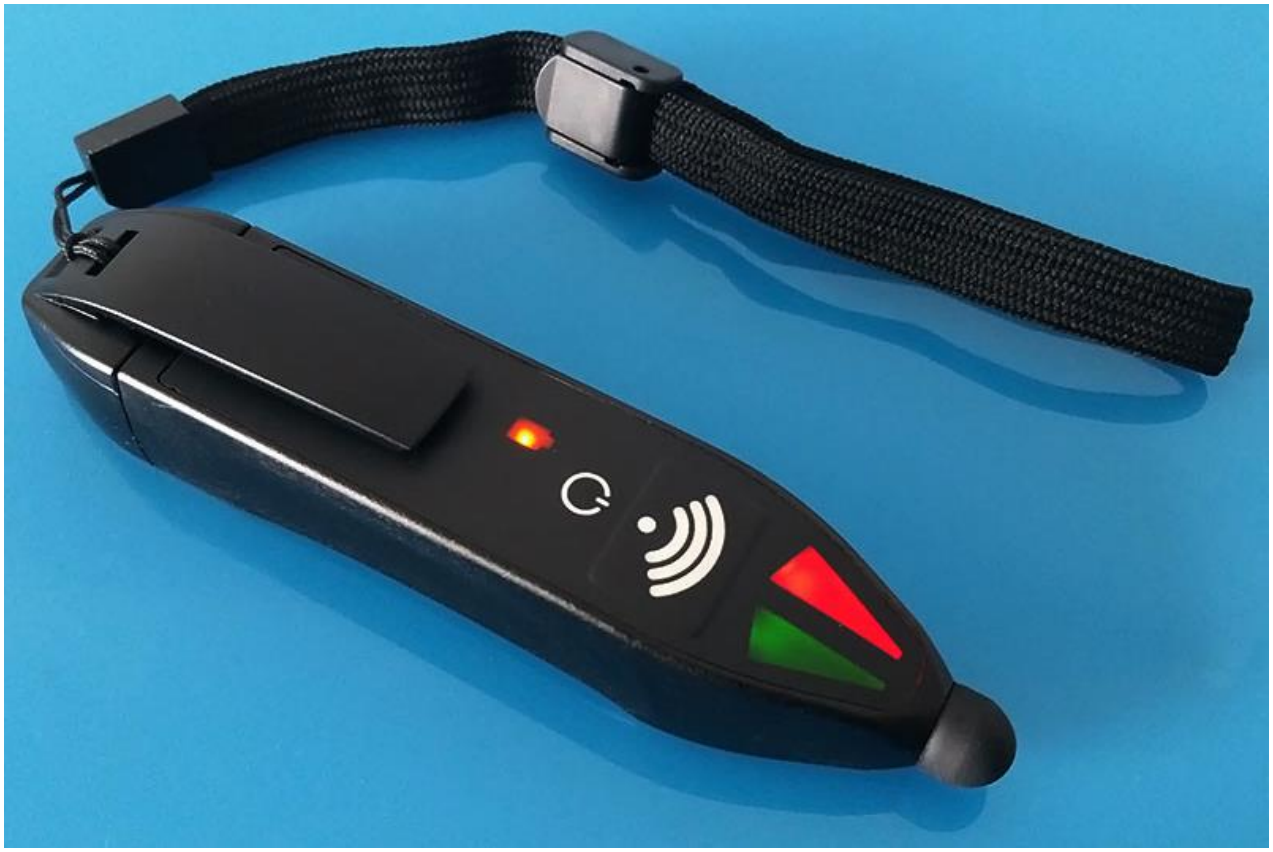
iID® PENsolid UHF

User Manual



RFID Read/Write Device for mobile scan applications

iID® PENsolid is a mobile RFID device suitable as Bluetooth™ enabled RFID read/write unit for UHF (868/915 MHz) frequency applications.

Based on it's PEN style form and the implemented touch tip it can be used as input device for tablets and smartphones with touch and capacitive screens. iID® PENsolid can be configured in Bluetooth™ HID mode. In this operation mode it emulates a Bluetooth™ keyboard.

Depending on operation mode, iID® PENsolid works together with Windows, Android and iOS devices.

Product Short Description & available Versions:

iID PENsolid UHFcc System: iID-4000 EU **Product Code: 43.72.850.xx**
RFID Pen Style Read/Write Unit v1.00 with RTC, MEM, BT, USB, Li accu
Display: LEDs for power, BT, status Buttons: SCAN, F1, F2
System: iID4000 EU, ISO 18000-6c, EPC G2, all customized
Antenna: P3U Operation Mode: DOC / SPC Bluetooth: SPP / HID
Dimensions: 120x26x20 mm³, Li Ion Battery 450mAh
Including: micro USB cable, hand strap

iID PENsolid UHFcc System: iID-4000 US **Product Code: 43.72.851.xx**
RFID Pen Style Read/Write Unit v1.00 US frequency with RTC, MEM, BT, USB, Li accu
Display: LEDs for power, BT, status Buttons: SCAN, F1, F2
System: iID4000 US, ISO 18000-6c, EPC G2, all customized, FCC
Antenna: P3U Operation Mode: DOC / SPC Bluetooth: SPP / HID
Package: 120x26x20 mm³, Li Ion Battery 450mAh

An additional product version of iID® PENsolid is available for HF (13.56 MHz) RFID applications. Please contact microsensys for further information.

FCC compliance statement

These devices comply with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. These devices may not cause harmful interferences;
2. These devices must accept any interference received, including interference that may cause undesired operation.

The following figures list the Grant by FCC ID Number for each of the following devices:

FCC ID: ZLCPENSOLIDUFX

Please refer to the FCC's website (http://www.fcc.gov/) to view the grant and related documentation.

CAUTION !

Exposure to Radio Frequency Radiation. The radiated output of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such a manner that the potential for human contact during normal operation is minimized. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8inches) during normal operation. These devices may not be co-located with any other transmitter or transmitter antenna.

NOTE:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interferences 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.

Changes or modifications not expressly approved by Microsensys GmbH could void the user's authority to operate the equipment described in the manual. This device contains Bluetooth™ module FCC ID: QOQWT12.

IC compliance statement

Industry Canada ID: 21228-PENSOLIDUFX, contains Bluetooth™ module IC: 5123A-BGTWT12A

This device complies with Industry Canada RSS-210. Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio RSS-210. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Performance description

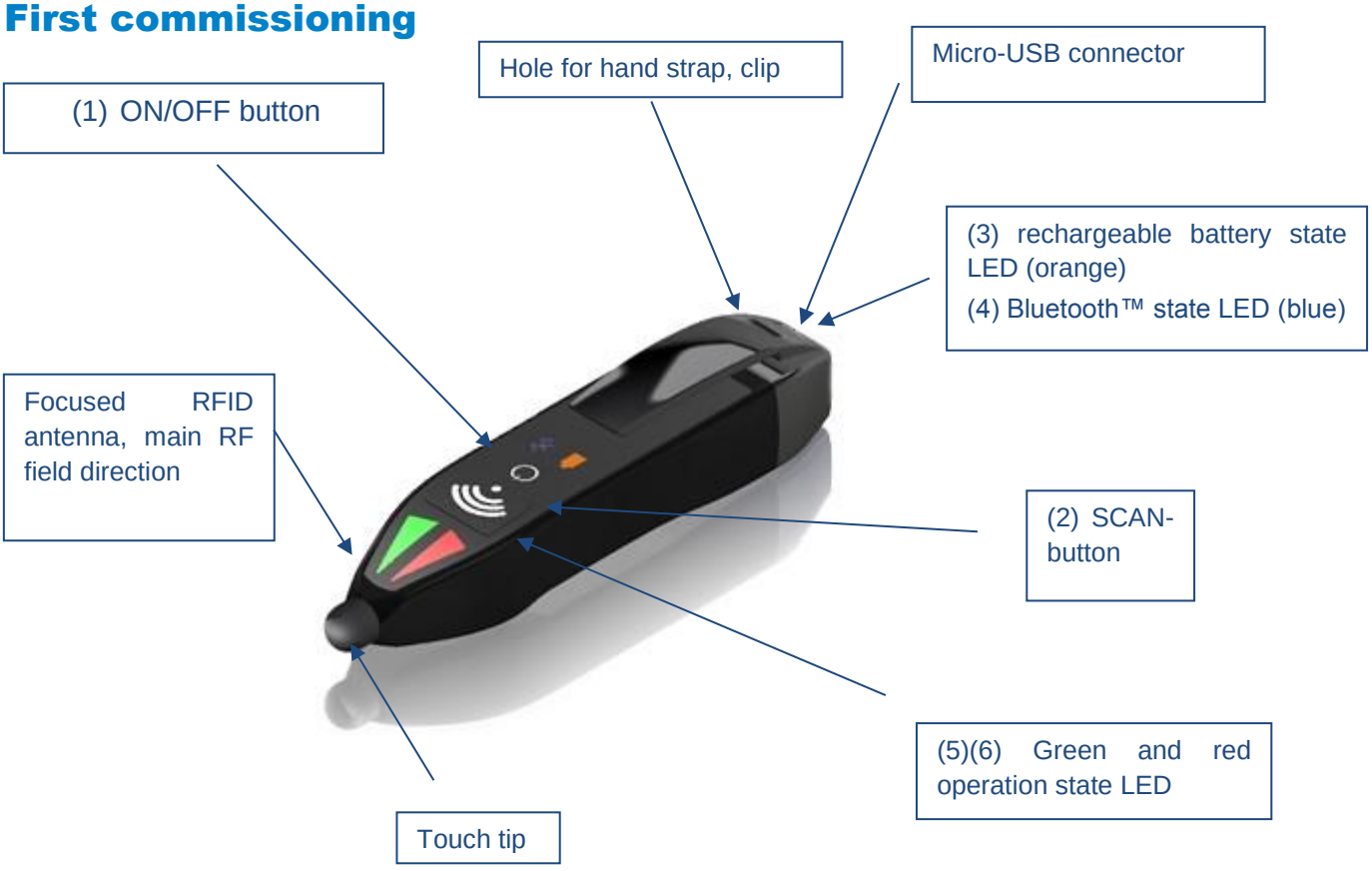
iID® PENsolid is suitable for mobile data capture and wireless RFID read / write applications, which can be connected via its integrated USB interface to PCs. The Bluetooth™-Interface is suitable to connect to smart phones, tablet computers or laptops.

Based on iID® SPC functionality, scripts can be used for definition of LED, buzzer and button support as well as communication functionalities as RF, USB and Bluetooth™.

iID® PENsolid is a battery powered device, which can be recharged using the micro USB interface. Battery cycles may vary from some hours to several days depending on the device configuration. When the device is connected via it's USB interface, the device is powered by USB power.

The device is available in several types supporting HF as well as UHF systems suitable for closed coupling communication with very small sized up to large RFID transponders. Additionally all devices support TELID® sensor transponder applications.

First commissioning



Before using your device the first time, please charge the internal rechargeable battery using included micro USB cable.

Manner of functioning

iID® PENsolid may be used as RFID read/write device with USB- or Bluetooth™ interface or RFID scanner using the integrated scan button. See following table for available configurations, for further information see iID® SPC/MPC related documents.

Functionality	Operation mode configuration	Interface	Remark
Read/write interface	DOC	USB	Bi-directional USB communication, based on iID® driver engine, device configuration
Bluetooth™ HID (human interface device / key-board mode)	SPC	Bluetooth™ HID	Uni-directional communication, script with output functionality on device

iID® PENsolid is delivered in SPC/HID mode. Please adjust operation mode connecting to a PC via USB interface. Using iID® interface configuration tool you may configure the device according your requirements before first usage. Microsensys provides sample scripts for device usage in SPC mode, which are available for download in iID® interface configuration tool.

iID® PENsolid buttons support following functionalities:

Button	Functionality
(1) ON/OFF	Power on device, power off device when pressed for 3 seconds
(2) SCAN button	Perform scan (while device in SPC mode)
(1) and (2)	Keep holding (1) and (2) while device is off until lights come up will switch on device and perform Bluetooth™ reset.

Software to be installed

Please download and install iID® software package including iID® DEMOsoft 2013, iID® interface config tool and iID® connection tool as well as iID® driver engine from:

http://www.microsensys.de/downloads/CDContent/Install/Setup%20iID%c2%ae%20software%20package.exe

Device configuration is possible using iID® interface configuration tool running on Windows PC environment - via BT connection as well as USB interface. For using USB interface you may also need to install the USB driver, which is available at

http://www.microsensys.de/downloads/CDContent/USBDriver/Microsensys%20USB%20devices%20driver%20CDM%20v2.12.16%20WHQL%20Certified.zip

Depending on operation mode (see “manner of functioning”) and platform installation of further software may be required:

Operation mode	Platform	Software
DOC	Windows 32/64 (without RT)	iID® software package including iID® driver engine, optional iID® tray application (http://www.microsensys.de/downloads/CDContent/Install/iID%c2%ae%20tray%20application.zip)
	Windows Mobile, Windows embedded handheld	iID® driver engine, iID® DEMOsoft (http://www.microsensys.de/downloads/CDContent/Install/RFIDDriver/Windows/iID3000PRO/, http://www.microsensys.de/downloads/CDContent/Install/iID%c2%ae%20DEMOsoft/Windows/Mobile/RFID-Demo%20iID%20driver%20engine.CAB) , optional iID® trigger scan (http://www.microsensys.de/downloads/CDContent/Install/iID%c2%ae%20tray%20application/iID%c2%ae%20TriggerScan%20Mobile/iID%20TriggerScan.CAB)
	Android	iID® Android DEMOsoft (http://www.microsensys.de/downloads/CDContent/Install/iID%c2%ae%20DEMOsoft/Android/)
SPC (Bluetooth™ HID)	All platforms (Windows, Android, iOS)	No further software required

Further microsensys product related software is located here: http:// microsensys.de/downloads/CDContent/.

Signs & their meaning

iID® PENsolid LEDs are used to show operation state. Additionally there are device states shown as described below.

Symbol	Description
 (3=ORANGE)	OFF = battery good, BLINK = low charge, ON = USB charging
 (4=BLUE)	BLINK = Bluetooth™ connection not established, ON = Bluetooth™ connection established
(5) operation state LED (GREEN)	In DOC mode automatic RF state visualization, in SPC mode free programmable
(6) operation state LED (RED)	In DOC mode automatic RF state visualization, in SPC mode free programmable
(5) & (6)	Blinking while POWER_ON or POWER_OFF

Safety instructions

- The device may only be used for the intended purpose designed by for the manufacturer.
- Unauthorized changes and the use of spare parts and additional devices which have not been sold or recommended by the manufacturer may cause fire, electric shocks or injuries. Such unauthorized measures shall exclude any liability by the manufacturer.
- The liability-prescriptions of the manufacturer in the issue valid at the time of purchase are valid for the device. The manufacturer shall not be held legally responsible for inaccuracies, errors, or omissions in the manual or automatically set parameters for a device or for an incorrect application of a device.
- Repairs may only be executed by the manufacturer.
- Installation, operation, and maintenance procedures should only be carried out by qualified personnel.
- Use of the device and its installation must be in accordance with national legal requirements and local electrical codes.
- When working on devices the valid safety regulations must be observed.

Technical data

Following table contains general technical data.

Parameter	Description
Housing	
Material	Plastic case
Dimension	117mm x 27mm x 19(23)mm
	2 buttons
Power supply	
USB (power supply)	micro USB female, 5V +/- 5%, ripple <50mV
Battery	Lithium polymer battery, 3.7V, 420mAh
Current consumption	
Sleep mode	typ. 5µA
Idle mode	typ. 60mA
Active mode	max. 400mA
RFID Interface	
Carrier frequency	EU 868 / US 915MHz
Implemented standards	ISO18000-6c
RF output power	24dBm
Antenna	P3U
Operating distance	0 ... 30cm (depending on transponder type and environmental conditions)
Additional interfaces	
Bluetooth interface	Bluetooth™ 2.0
USB interface	USB 2.0
Operation modes	
DOC	Direct online communication, serial communication or iID® driver engine or iID® Android driver engine
SPC	Script programmed communication, HID communication or serial communication or iID® driver engine or iID® Android driver engine

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Equipment delivered:

1 x iID® PENsolid

Including following Accessories:

1 x Hand strap

1 x USB cable

1 x CD-ROM (Software & Documents)

Standard accessories:

USB cable

Hand strap

Complementary microsensys Documents

Technical Datasheets:	PENsolid-HF xxx.pdf, PENsolid-UHF xxx.pdf
Product or System Documentation:	DOC-iID SPC 01D.pdf, Quick-iID MPC 01D.pdf

Contact/Copyright

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