iLD® contactless
wireless mobile RFID interfaces

identify • measure • collect • analyze
### iID® contactless mobile devices

for each kind of application

<table>
<thead>
<tr>
<th>iID® wearablel</th>
<th>iID® POCKETwork</th>
<th>iID® PENmotion</th>
<th>iID® PENsolid</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Wearable device" /></td>
<td><img src="image2.png" alt="Mobile device" /></td>
<td><img src="image3.png" alt="Mobile device" /></td>
<td><img src="image4.png" alt="Mobile device" /></td>
</tr>
</tbody>
</table>

- **iID® wearablel**: Wearable device with Bluetooth™ LE interface and QI charge, ON/OF button, motion and gesture sensors.
- **iID® POCKETwork**: Mobile device with Bluetooth™ and USB interface, OLED display, trigger buttons and clock/memory.
- **iID® PENmotion**: Mobile device with Bluetooth™ and USB interface, LEDs and trigger buttons.
- **iID® PENsolid**: EOL

All devices support contactless identification using iID® transponders as well as sensing using TELID® sensor transponders.

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Technical overview
## Technical overview – general parameters

<table>
<thead>
<tr>
<th>Feature</th>
<th>iID® POCKETwork</th>
<th>iID® PENsolid</th>
<th>iID® wearable</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF</td>
<td>HF, HFcc (stump)</td>
<td>UHFcc</td>
<td>UHFcc</td>
</tr>
<tr>
<td></td>
<td>UHF mid range</td>
<td>HFcc (mic3 up to chipcard)</td>
<td>UHF mid range</td>
</tr>
<tr>
<td>Ruggedness</td>
<td>medium (IP54, 1m)</td>
<td>high (IP65)</td>
<td>high (IP65)</td>
</tr>
<tr>
<td>Interface</td>
<td>Bluetooth 2.0 SPP/HID, micro USB</td>
<td>Bluetooth 2.0 SPP/HID, micro USB</td>
<td>Bluetooth low energy (BLE) 4.0, QI charge</td>
</tr>
<tr>
<td>Output</td>
<td>OLED display, Buzzer</td>
<td>4 x sign lights (LED), Buzzer</td>
<td>4 x sign lights (LED), vibration</td>
</tr>
<tr>
<td>Trigger</td>
<td>Trigger key, up/down keys</td>
<td>Scan button, ON/OFF button</td>
<td>ON/OFF button, motion sensor, gesture</td>
</tr>
<tr>
<td>WakeUp</td>
<td>Button, RF WakeUp</td>
<td>Button</td>
<td>Button</td>
</tr>
<tr>
<td>Operation Modes</td>
<td>DOC, SPC, MPC</td>
<td>DOC, SPC</td>
<td>DOC, SPC</td>
</tr>
<tr>
<td>Accesoires</td>
<td>micro USB cable</td>
<td>micro USB cable</td>
<td>QI charge device</td>
</tr>
<tr>
<td>Additionals</td>
<td>hand strap</td>
<td>hand strap, touch screen support</td>
<td>watch strap, clothing holder</td>
</tr>
<tr>
<td>Price</td>
<td>medium high</td>
<td>medium high</td>
<td>medium high</td>
</tr>
</tbody>
</table>
## Technical overview – electronic & platform

<table>
<thead>
<tr>
<th>Feature</th>
<th>iID® POCKETwork</th>
<th>iID® PENsolid</th>
<th>iID® wearable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic HF</td>
<td>.700</td>
<td>.700</td>
<td>-</td>
</tr>
<tr>
<td>Electronic UHF</td>
<td>T80 v2</td>
<td>T80 v2</td>
<td>T80 v2</td>
</tr>
<tr>
<td>Electronic LEGIC™</td>
<td>SM4500</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Windows 32/64 support</td>
<td>(iID® driver engine or keyboard mode)</td>
<td>(iID® driver engine or keyboard mode)</td>
<td>-</td>
</tr>
<tr>
<td>Windows Phone/RT support</td>
<td>(HID keyboard mode)</td>
<td>(HID keyboard mode)</td>
<td>-</td>
</tr>
<tr>
<td>Android platform support</td>
<td>(iID® Android package or keyboard mode)</td>
<td>(iID® Android package or keyboard mode)</td>
<td>iID® driver engine Android</td>
</tr>
<tr>
<td>iOS support</td>
<td>(HID keyboard mode)</td>
<td>(HID keyboard mode)</td>
<td>iID® driver engine iOS (on request)</td>
</tr>
<tr>
<td>Space line (firmware update, scripting support)</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>
## TAG compatibility

<table>
<thead>
<tr>
<th>Feature</th>
<th>iID® POCKETwork HF</th>
<th>iID® POCKETwork LEGIC™</th>
<th>iID® POCKETwork UHFcc</th>
<th>iID® POCKETwork UHF</th>
<th>iID® PENsolid HF</th>
<th>iID® PENsolid UHF</th>
</tr>
</thead>
<tbody>
<tr>
<td>HF - miniaturized transponders</td>
<td>(●) not recommended</td>
<td>(●) not recommended</td>
<td>-</td>
<td>-</td>
<td>●</td>
<td>-</td>
</tr>
<tr>
<td>UHF - miniaturized transponders</td>
<td>-</td>
<td>-</td>
<td>●</td>
<td>(●) not recommended</td>
<td>-</td>
<td>●</td>
</tr>
<tr>
<td>HF - ISO14443</td>
<td>●</td>
<td>●</td>
<td>-</td>
<td>-</td>
<td>●</td>
<td>-</td>
</tr>
<tr>
<td>(NFC, mifare), ISO15693</td>
<td>●</td>
<td>●</td>
<td>-</td>
<td>-</td>
<td>●</td>
<td>-</td>
</tr>
<tr>
<td>HF - TELID®</td>
<td>●</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>●</td>
<td>-</td>
</tr>
<tr>
<td>iID-L</td>
<td>●</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>●</td>
<td>-</td>
</tr>
<tr>
<td>HF – LEGIC™</td>
<td>-</td>
<td>●</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>UHF transponders</td>
<td>-</td>
<td>-</td>
<td>●</td>
<td>●</td>
<td>-</td>
<td>●</td>
</tr>
</tbody>
</table>

### Ordering information

<table>
<thead>
<tr>
<th>Product code</th>
<th>iID® POCKETwork HF</th>
<th>iID® POCKETwork LEGIC™</th>
<th>iID® POCKETwork UHFcc</th>
<th>iID® POCKETwork UHF</th>
<th>iID® PENsolid HF</th>
<th>iID® PENsolid UHF</th>
</tr>
</thead>
<tbody>
<tr>
<td>72.62.720.00</td>
<td>72.62.525.00</td>
<td>41.12.820.00</td>
<td>41.22.820.00</td>
<td>73.72.750.00</td>
<td>43.72.850.00</td>
<td></td>
</tr>
</tbody>
</table>
iLD® contactless mobile readers
Mobile RFID processes with *iID®PENsolid*

**Application / features**

- RFID read/write unit for mobile Data Capture
- Touch screen support for capacitive displays
- DOC or SPC mode supported
- Compact form factor
- Bluetooth™ class 2 SPP and HID interface
- USB micro interface (Data, configuration and charge)
- two programable buttons
- LED visualization of
  - *RFID communication*
  - *Bluetooth™ connectivity*
  - *Rechargeable battery state*
- Integrated buzzer
- support for Android, iOS* and Microsoft Windows/Windows Phone

*using Bluetooth HID keyboard profile*
iID® PENsolid – More than just a pen

**iID® PENsolid**

RFID Bluetooth reader device available as UHF* and HF** version

* supporting ISO 18000-6C and TELID® UHF sensor transponders

** supporting ISO14443, ISO15693 and TELID® HF sensor transponders

Communicates via a Bluetooth to a HOST (Smart Phone, Tablet …)

Sturdy, lightweight RFID reader with protection class IP65 and resistant plastic housing

For usage in harsh industrial environments with the latest mobile devices

---

**Integrated Bluetooth™ HID functionality:**

Easy connection as a wireless keyboard on any mobile device with the platforms Windows, Android or iOS

**4 different LEDs** show current status of the PEN:

- **bright blue LED** Bluetooth connection
- **orange LED** state of battery
- **red and green LEDs** RFID status ok or fail
- **buzzer** additional acoustic signal

**Specially completed tip allows it to be used as an input device for touch screens**

Forward RF antenna for targeted and selective communication with miniaturized UHF transponders (HF up from 06/2015)

**Press SCAN button to read transponder data**

**Internal battery** is rechargeable via the Micro-USB interface

**Integrated RTC and 2MB flash memory** for storing read data plus additional E²PROM memory for storing the configuration and execution scripts (on request)
Data Capture with *iID® POCKETwork v2*

Application / features

- POCKET reader for mobile Data Capture
- Stand alone (SPC) or in connection with an HOST (DOC)
- Casing Size appr. 86 x 54 x 10 mm³
- Bluetooth™ class 2 SPP and HID interface
- USB micro interface (Data, configuration, time sync and charge)
- three programable buttons
- OLED with 96 x 64 Matrix-Display
- Integrated 2 MB Flash-Memory for storage of collected data
  - *iID® MPC DATAload for PC data transfer*
- Buzzer with adjustable frequencies
- support for Android, iOS* and Microsoft Windows/Windows Phone

Programable Menu for choosing functions like:
- display/store Productcode / UID of transponders
- display/store temperature of TELID® sensor in °C
- display/store switch open / close using TELID® sensor functionality

*using Bluetooth HID keyboard*
**iID® POCKETwork** – for smart mobile data capture

- Directional RF antennae for targeted and selective communication with HF or UHF transponders
- Press SCAN button to read transponder/sensor data
- FUNCTION buttons to navigate through menus
- Integrated RTC and 2MB flash memory for RFID/sensor data storage plus additional E²PROM configuration memory
- Integrated BUZZER for user notification

**iID® POCKETwork**

- **RFID Bluetooth reader device** available as UHFcc*, UHF* and HF** version
  - *supporting ISO 18000-6C and TELID® UHF sensor transponders
  - **supporting ISO14443, ISO15693 and TELID® HF sensor transponders
- Communicates via a Bluetooth to a HOST (Smart Phone, Tablet …) and via USB to PC
- **Sturdy, lightweight** RFID data collector with protection class and resistant plastic housing
- For usage in **medium harsh industrial environments** with the latest mobile devices

**Integrated Bluetooth™ SPP and HID functionality**
- Easy connection as a wireless keyboard on any mobile device with the platforms: Windows, Android or iOS

**Internal battery** is rechargeable via the Micro-USB interface

**OLED display** to show current device status:
- Battery level
- Operation mode
- RFID activity
- Bluetooth connectivity
- And user notification
Smart logistic processes with *iID® wearable*

**Application / features**

- UHF RFID read/write unit for smart Data Capture
- TELID® sensor support
- DOC or SPC mode supported
- Compact form factor
- Bluetooth™ low energy with SPP communication
- Wireless battery charge (Qi standard)
- LED visualization of
  - RFID communication
  - Bluetooth™ connectivity
  - Rechargeable battery state
- Integrated vibration alarm
- Support for Android, WearOS, iOS and Microsoft Windows/Windows Phone
**iID® wearable – scanning while wearing**

**iID® wearable**
RFID Bluetooth reader device
available as UHF* version

*supporting ISO 18000-6C and TELID® UHF sensor transponders

communicates via Bluetooth Low energy to a HOST (Smart Phone, Tablet …)

sturdy, lightweight RFID reader with protection class IP65 and resistant plastic housing

for usage in harsh industrial environments with the latest mobile devices

---

4 different LEDs show device status:
- **bright blue LED** Bluetooth connection
- **orange LED** state of battery.
- **red and green LEDs** RFID status ok or fail
- **Vibration alarm** for additional feedback.

**internal battery** is rechargeable via wireless charging (Qi)

**Wrist band** (optional) for easy and secure operation

**directional RF antennae** for targeted and selective communication with UHF transponders

**ON/OFF key**

**integrated Bluetooth™ low energy**
easy connection on any mobile device with the platforms Windows, Android, WearOS or iOS

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iID® COLLECTit! mobile

Wireless RFID interface

Mobile device (smartphone or tablet)

Bluetooth™ connected or integrated iID® contactless RFID reader

Local area network (Wifi) or WAN (GSM)

iID® COLLECTit! Cloud

TAG or sensor (TELID®231 humiditytransponder)  iID® PENsolid, iID® contactless module  iID® driver engine for Windows / Android or HID interface, data transport by wide area networks  Data evaluation

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<table>
<thead>
<tr>
<th>TAG or sensor (TELID®243 pressure transponder)</th>
<th>iID® POCKETwork</th>
<th>iID® MPC software for PC</th>
<th>Data export to CSV or XML</th>
<th>Data evaluation</th>
</tr>
</thead>
</table>

### Wireless RFID interface
- iID® MPC data storage of ID, measurement data, time stamp

### USB or Bluetooth interface to personal computer
- iID® MPC data collector / iID® MPC data converter

### Local data storage
- Local storage
- XML data files

### Cloud or data evaluation
- Data evaluation

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Setup
**iID® software tools**

For **initial setup and reader configuration**

For **evaluation and simple transponder and sensor interaction**
## Reader operation modes

<table>
<thead>
<tr>
<th>Mode</th>
<th>Target</th>
<th>Host communication</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOC</strong>&lt;br&gt;Direct online communication</td>
<td>• read/write applications&lt;br&gt;• full host based reader &amp; transponder control</td>
<td>• bi-directional protocol based serial host communication&lt;br&gt;• iID® driver engine, iID® interface protocol</td>
<td>• host based transponder search&lt;br&gt;• limited reader trigger support</td>
</tr>
<tr>
<td><strong>SPC</strong>&lt;br&gt;Script programmed communication - SCANNER mode</td>
<td>• scan applications, reader based transponder control</td>
<td>• uni-directional serial communication&lt;br&gt;• keyboard / HID emulation</td>
<td>• script based trigger&lt;br&gt;• LED and display control&lt;br&gt;• mainly used for HID profile based scan applications</td>
</tr>
<tr>
<td><strong>MPC</strong>&lt;br&gt;Memory packet communication</td>
<td>• data collector applications</td>
<td>• iID® MPC library&lt;br&gt;• iID® MPC DataLoad for data download</td>
<td>• script based data collection on device for later PC download&lt;br&gt;• available for MPC enabled devices with RTC and non-volatile memory (iID® POCKETwork)</td>
</tr>
</tbody>
</table>
Operation –

iID® POCKETwork datacollector bundle
Introduction

iID® POCKETwork DATAcollector bundle

• is a system solution for mobile RFID based data capture

• may be used for
  ▪ Mobile maintenance processes
  ▪ Faster inventory control
  ▪ Inspection supervision

• can be extended by additional ID & sensor transponders

• comes with MPC DATAload software for data download and export to third party software
Application

• Visit object to be collected / inspected
• Scan object transponder / measure sensor transponder

COLLECT / INSPECT

• Data will be saved to POCKETwork internal memory including time stamp and status information

SAVE

• Select OKAY, MARK, UNKARK on POCKETwork menu

CAPTURE

CONNECT

Evaluate

• Connect device to PC, download data to PC for further evaluation

SIGN

Stick transponders / sensor transponders to objects to be collected / inspected

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**Setup**

iID® POCKETwork:
- Connect device to your PC/laptop using USB cable
- install USB driver if requested (provided by Windows update)
- See device quick start guide:
  [http://microsensys.de/downloads/Additional%20Content/QuickStartGuides_A4/QSG-iID%20POCKETwork%20v2-001E.pdf](http://microsensys.de/downloads/Additional%20Content/QuickStartGuides_A4/QSG-iID%20POCKETwork%20v2-001E.pdf)

iID® transponder sample package:
- Stick transponders to the objects to be collected/inspected
- Note, that transponders of type “special” are to be used in metal environment

iID® MPC software:
- install iID® MPC software:
  [http://microsensys.de/downloads/CDContent/Install/iID%c2%ae%20POCKET/Setup%20iID%c2%ae%20MPC%20Software.msi](http://microsensys.de/downloads/CDContent/Install/iID%c2%ae%20POCKET/Setup%20iID%c2%ae%20MPC%20Software.msi)
- See quick start guide:
  [http://microsensys.de/downloads/CDContent/Documents/iID%c2%ae%20SPC/Quick-iID%20MPC%2001D.pdf](http://microsensys.de/downloads/CDContent/Documents/iID%c2%ae%20SPC/Quick-iID%20MPC%2001D.pdf)
Questions?
Please contact info@microsensys.de
connecting the **REAL WORLD of THINGS**

with the **VIRTUAL WORLD of DATA**

RFID technology is our mission and passion.
We are continuously looking for stunning innovative solutions.