Quick Start Guide

Identix miniPad – rPad

identix

IMPINJ INTELLIGENCE

This guide provides simple steps to quickly start using your new Identix miniPad, miniPad SMA or rPad UHF RFID reader

Box Contents

- 1 Identix miniPad or miniPad SMA or rPad
- 1 mini USB cable
- 1 Quick Start Guide
- May include tag samples

Identix miniPad

USB 2.0 connector

RGB LED

Embedded antenna

Identix miniPad SMA

| USB 2.0 connector | RGB LED | External antenna ports |

Identix rPad

| RGB LED | USB 2.0 connector |

Embedded antenna
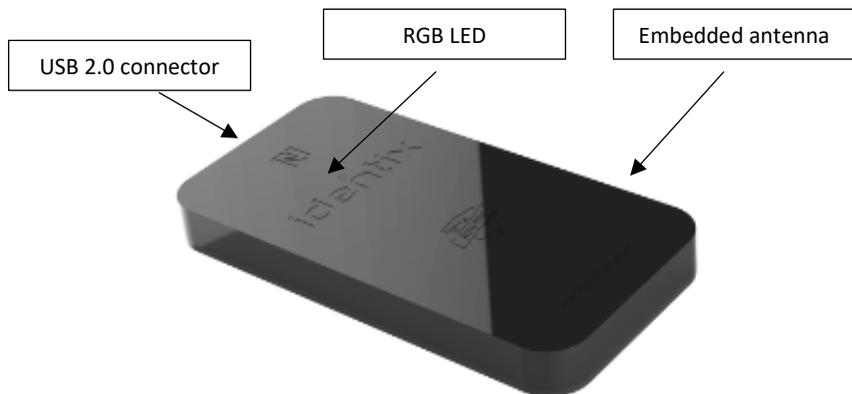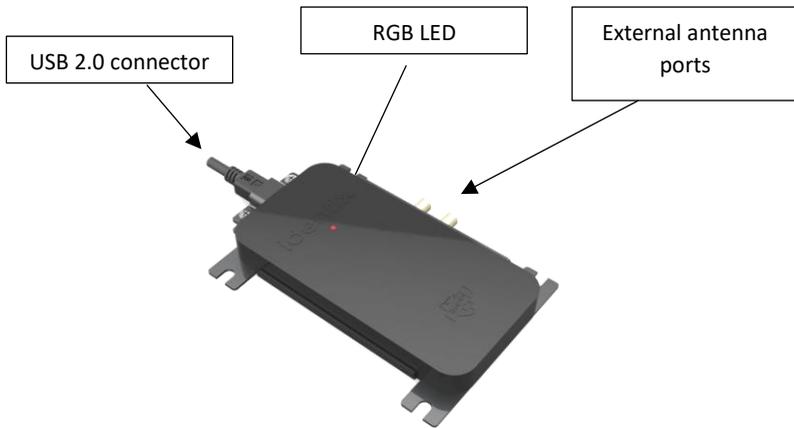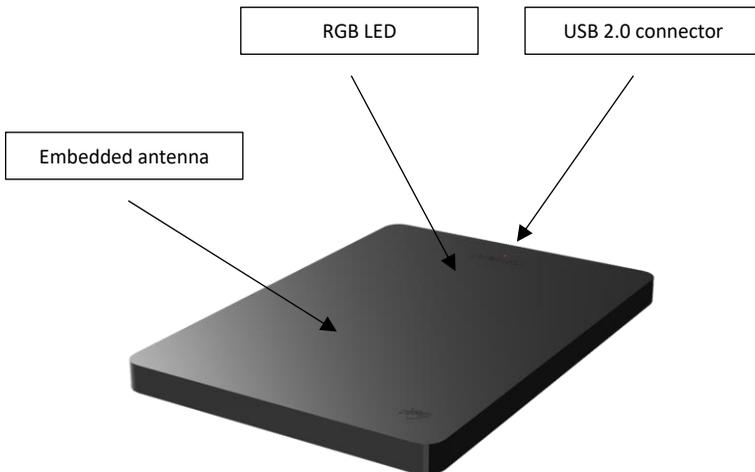
The devices ship from Identix with the following default configuration:

- *Operating mode – HID - Keyboard wedge emulation*
- *Transmission Power - 15dBm (may be increased further up to 23dBm)*
- *Presence sensor – this sensor works together with the RGB led and tags will be read only when the sensor activates*

*You don't need any special software or drivers
to start reading tags with
Identix miniPad, miniPad SMA or rPad*

If needed you may download the following documentation or software from the Identix support website.

https://idntx.zendesk.com

- Identix miniPad – miniPad SMA - rPad User Manual
- Identix miniPad – miniPad SMA - rPad USB Driver for Windows.
  - These drivers are only required for Windows 8, 7 or XP to operate the device on RAW or Transparent modes. No drivers are needed for Windows 10 or later
  - MAC and other Linux platforms do not require any special drivers
- PUTTY terminal emulation software
  - Only required if you want to play with the device in RAW operating mode
  - In Mac, there is a similar, built-in application called Terminal. To start Terminal, go to your Mac's Applications folder => click on the Utilities folder => then click on Terminal.
- The Software Developers Kit (SDK) for the miniPad – miniPad SMA and rPad is available for download in the same location. The SDK is available for Microsoft .NET C#. For other programming languages, please contact Identix.
- Impinj Indy Tool Software Utility.
  - This utility is available for Windows. You may use it to test the device advanced features.

Configuring the device operating mode

The miniPad – miniPad SMA - rPad device can operate in three different modes:

HID Keyboard Emulation In this mode of operation, the device emulates a keyboard wedge. When reading RFID tags, the device sends reading data to the host computer as if it were a keyboard. In this scenario, the device operates autonomously sending data through a virtual keyboard (HID) connected to the USB port. By default, miniPad – miniPad SMA - rPad operates in HID Mode.
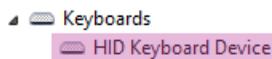
To start reading tags in HID mode

1) Configure the miniPad / rPad reader to operate in HID Keyboard Emulation mode.
2) Open an application like Excel or Notepad.
3) Place UHF RFID tags on top of the miniPad or rPad embedded antenna.
4) See the tags reading results in the opened application.

RAW Mode In this mode of operation, a simple host application controls the device. The host application communicates with the device using simple ASCII commands. The connection between the host and the device is via a virtual COM (serial) port over USB.

To start reading tags in RAW mode

1) Open a terminal emulation software. Putty for Windows and CoolTerm for Mac are available for download on the Identix support website.
2) Select the COM virtual port where the device is installed

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3) Set the Speed to 115.200 Bps
4) Set the Connection type to "Serial"
5) Open the connection
   a. Press "1" and hit "Enter", then inventory of tags will start immediately
   b. If you enter "0" and "Enter", inventory of tags will stop

Transparent Mode In this mode of operation, a host application controls the device. The host application communicates with the device using the IRI – Impinj Reader Interface - protocol. The connection between the host and the device is via a virtual COM (serial) port over USB.

To start reading tags in Transparent mode

1) Copy the Indy Demo Tool.exe file from **https://idntx.zendesk.com**
2) Connect the device to your PC using the miniUSB cable. At this point, the RGB LED, should go on with pink color
3) Place UHF RFID tags on top of the device's embedded antenna
4) Open software by double-clicking on the "Indy Demo Tool" file
5) Press the "Scan" button to detect the COM port corresponding to the hardware. Press the "Connect" button to connect to the hardware
6) Under the "Inventory" tab, start an inventory by pressing the "Start" button
7) At this point, the "Event Log" on the right-hand side of the GUI will show the stream of EPCs of the tags that are read by the device.

Modifying the Device Configuration A *configuration file* ("Identix-Pad.cfg") is stored inside a removable drive (labeled IDENTIX that mounts automatically when the device connects to the host computer), allows the user to switch between Transparent and HID Keyboard Emulation modes.
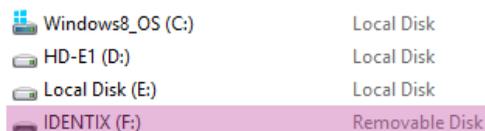
Name ▲	Date modified	Type	Size
Identix-Pad.cfg	04/02/2015 13:49	CFG File	2 KB

To change the operation mode between Transparent and HID, edit the entry "Opmode" on the configuration file. After saving the configuration file, the device will automatically switch to the appropriate operating mode. All remaining configuration file entries are applicable when operating in HID Keyboard emulation mode only. Below is an example of the device configuration file.

Opmode=T	; T for transparent mode, H for keyboard emulation (HID)
Region=0	; Set 0 for FCC (USA), 7 for ETSI (Europe), 13 for Anatel (Brasil) or consult Identix for other regions.
Inventory=D	; D for Dual Target, S for Single Target and SS for Single Target with Suppression
Session=1	; 0, 1, 2 or 3
TXPower=10	; Transmit power in dBm. The maximum accepted is 23dBm
HidReportFormat=0	; set 0 to report EPC data only or 1 to report EPC+TID
TIDlength=32	; defines the length of TID field (bits) to chips that are not Impinj Monza. Set to 0 for auto discovery (caution, very slow!)
HidReportSeparator=0x20	; ASCII character to be used as separator between EPC and TID in HID reports
HidReportCRcharacter=0xD	; ASCII character to be used as Carriage Return in HID reports
HidReportLFcharacter=0xA	; ASCII character to be used as Line Feed in HID reports
DecodeSGTIN96=False	; decodes encoded SGTIN96 EPC data into SGTIN13 (GTIN13 plus EPC serial number)
AddSerialToDecodedGTIN13=True	; includes the EPC serial number in GTIN13 decoded string
GTIN13SNseparator=0x2A	; ASCII character to be used as separator between decoded GTIN13 and serial number

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Installing the miniPad – miniPad SMA - rPad USB Driver on Windows XP, Windows 7 and 8.x

1) Download the *miniPad – miniPad SMA - rPad* Windows USB driver file from **https://idntx.zendesk.com**
2) Connect the device to your PC using the mini USB cable provided.
3) Once Microsoft Windows detects the new device, set the downloaded INF file as the device driver
4) Windows will map a new virtual COM port to the connected reader.
    1) Open Windows Device Manager, search for the device, right-click on the device and then select Update Driver Software.
    2) Browse your computer and find the location of the *miniPad-miniPad SMA-rPad.inf*, click Next
    3) You may get a warning. If so, click Install this driver anyway.
    4) You will get a success screen. Click Next.

Antenna Radiation Patterns. Below are the antenna patterns for minPad and rPad respectively. Antenna gains are -4dBi for miniPad and +8.5dBi for rPad.
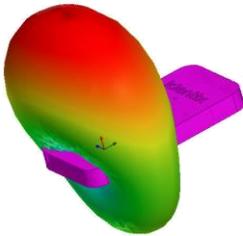
miniPad internal antenna radiation pattern
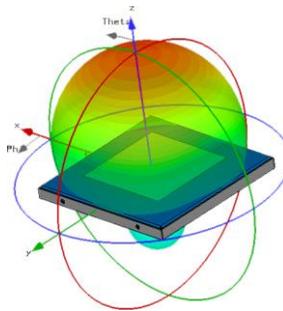
Identix rPad internal antenna radiation pattern

Contacts

Sales sales@idntx.com

Support https://idntx.zendesk.com

FCC Statement: §15.105 Digital Devices Statement. Class B Digital Devices.
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) reorient or relocate the receiving antenna, (2) increase the separation between the equipment and receiver, (3) connect the equipment into an outlet on a circuit different from that to which the receiver is connected or (4) consult the dealer or an experienced radio/TV technician for help.

FC Identix miniPad ID-MINIPAD-UHF-GX1 Contains FCC ID: TWY-IPJRS500 Canada IC: 6324A-IPJRS500	**FC** Identix rPad ID-RPAD-UHF-GX1 Contains FCC ID: TWY-IPJRS500 Canada IC: 6324A-IPJRS500
ANATEL Identix miniPad 1791–14–5697 7 898940 703104	**ANATEL** Identix rPad 1791–14–5697 7 898940 703111