rf IDEAS WAVE ID Mobile Configurator Installation Guide

Contents

WAVE ID Mobile Configurator

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Product Information

The WAVE ID Mobile Configurator application is used in conjunction with the WAVE ID Mobile reader. It provides functionality for configuring various settings related to the reader's Bluetooth capabilities and Pack ID features.

1. Common Control

- **File Tab:** Allows opening and saving device data, as well as managing key files.
- **Connect Tab:** Provides options to connect and disconnect from the reader.
- **Device Tab:** Allows resetting Bluetooth settings, reading current settings, and writing new settings.
- **Navigation Tab:** Selects different tabs for configuring Orange Pack ID, Mobile Credential, Bluetooth Beacon, and Mobile Access.
- **Help Tab:** Provides information about the application version and firmware version numbers of the reader's microprocessors.
- **VID/PID:** Sets the VID/PID setting.
- **Connect Button:** Connects to the reader.
- **Disconnect Button:** Disconnects from the reader.
- **Beep Test Button:** Performs a beep test to verify connection.

2. Orange Pack ID Tab

- **Zone Master Key:** A 128-bit AES key used for ensuring confidentiality during contactless exchanges.
    - **Write Key Button:** Stores the value entered in the edit box above this button as the Zone Master Key.
    - **Write Default Key Button:** Restores the factory default Zone Master Key value.
- **Configuration:**
    - **Tx Power:** Sets the transmit power in the range of -26dBm to +3dBm.
    - **Contactless ID:** Sets the four-byte contactless ID identifier for the Pack ID client.
    - **Zone ID:** Sets the six-byte zone ID identifier for the Pack ID client's administrated zones.
    - **Result Message:** Sets the message displayed on the icon and mobile device at the end of a BLE exchange.
    - **Read Config Button:** Reads all Bluetooth configurations from the reader and updates the displayed values.
    - **Write Config Button:** Writes all Bluetooth configurations from the WAVE ID Mobile Configurator to the reader (except for the Zone Master Key).
    - **Write Default Config Button:** Writes the factory default Bluetooth configuration to the reader (except for the Zone Master Key).

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WAVE ID®
Mobile Configurator

Revision: 1.5
Date: 5/31/2023

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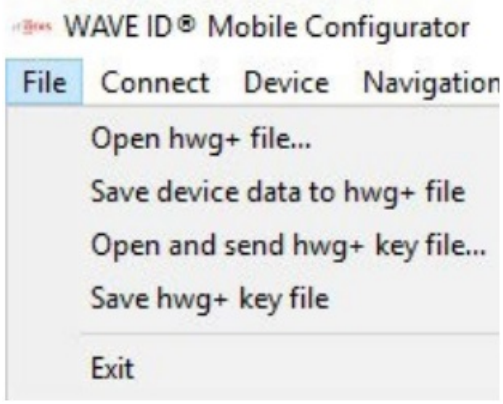
1. Scope

The document covers the functionality of the WAVE ID Mobile Configurator application used in conjunction with the WAVE ID Mobile reader.

2. Common Control

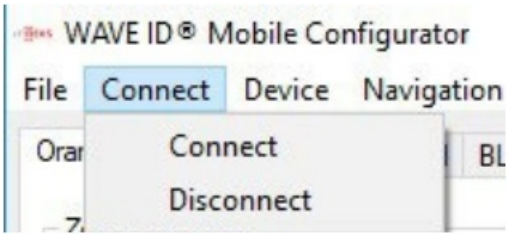
2.1 File Tab

This tab contains selection to open hwg+ files, save device data to hwg+ files, open and send as well as save a hwg+ key file, and exit the application.



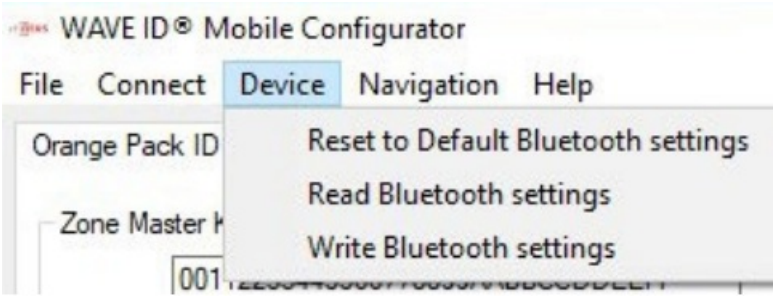
2.2 Connect Tab

This tab contains selections to connect and disconnect from the reader.



2.3 Device Tab

This tab contains selections to reset to default Bluetooth settings (does not affect non-Bluetooth settings), read Bluetooth settings and write Bluetooth settings.

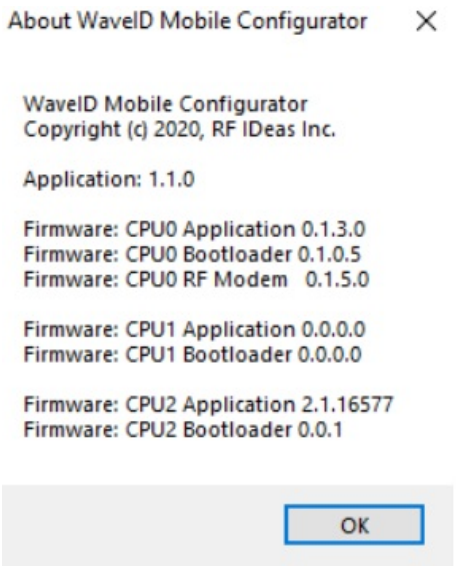


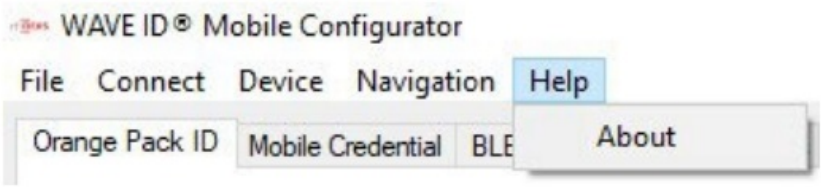
2.4 Navigation Tab

This tab selects between the Orange Pack ID, Mobile Credential, Bluetooth Beacon, and Mobile Access tabs.

2.5 Help Tab

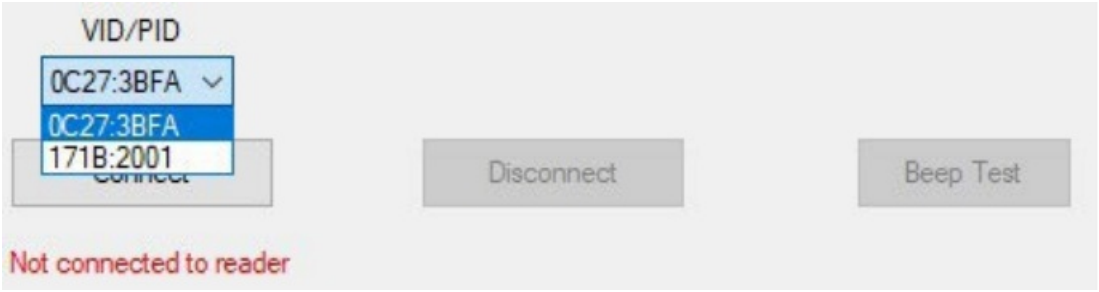
This tab selects the About box which contains the application version number and firmware version numbers of the three reader microprocessors. CPU0 is the control microprocessor, CPU1 is the radio microprocessor and CPU2 is the Bluetooth microprocessor.





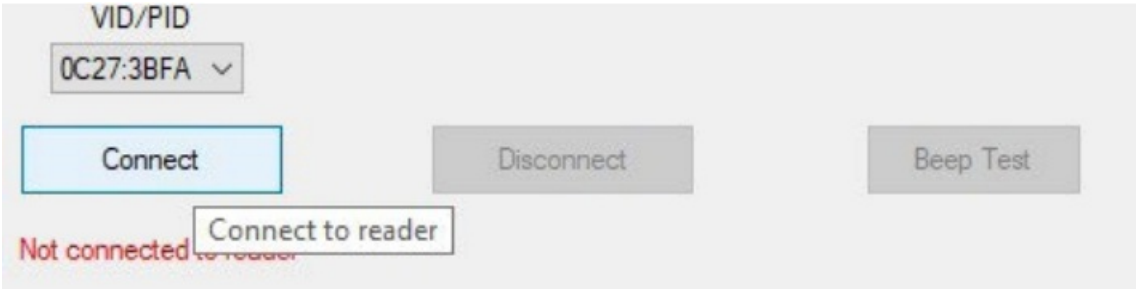
2.6 VID/PID

This drop down box sets the VID/PID setting



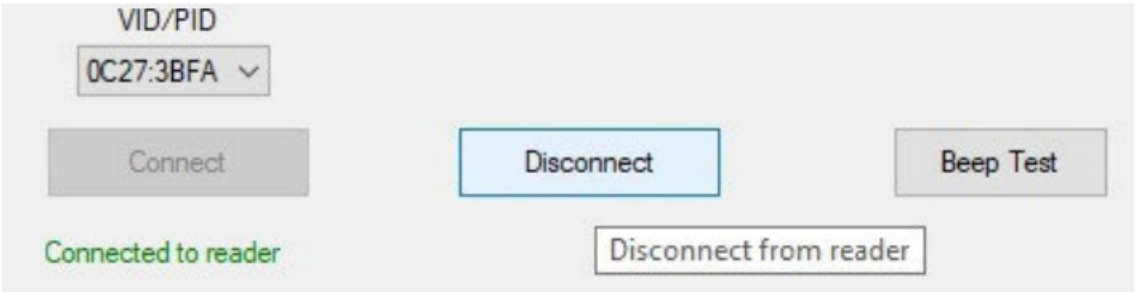
2.7 Connect Button

Connects to the reader.



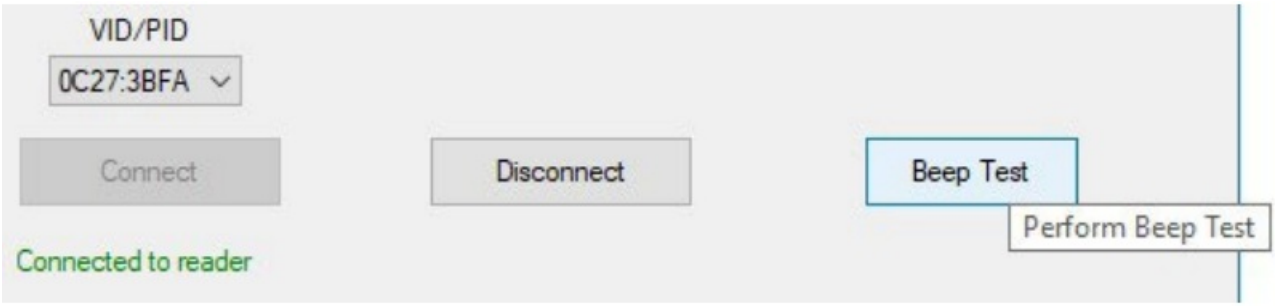
2.8 Disconnect Button

Disconnects from the reader.

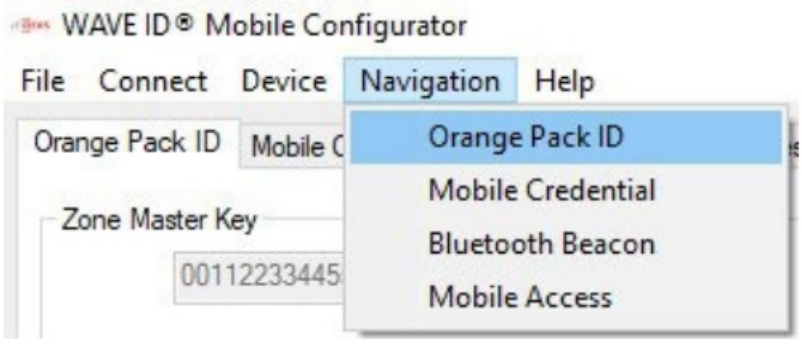


2.9 Beep Test Button

If the reader is connected, perform a beep test to verify connection.



3. Orange Pack ID Tab



3.1 Zone Master Key

3.1.1 Write Key Button

The Zone Master Key is set by each client to ensure confidentiality during contactless exchanges. This 128-bit AES keywill match the value configured when the Pack ID web application is set up. The Write Key button will store the value entered in the edit box above this button.

3.1.2 Write Default Key Button

The Write Default Key button will restore the factory default rf IDEAS Zone Master Key value. The Zone Master Key is unique in that it cannot be read and is unaffected by the other Write Default buttons.

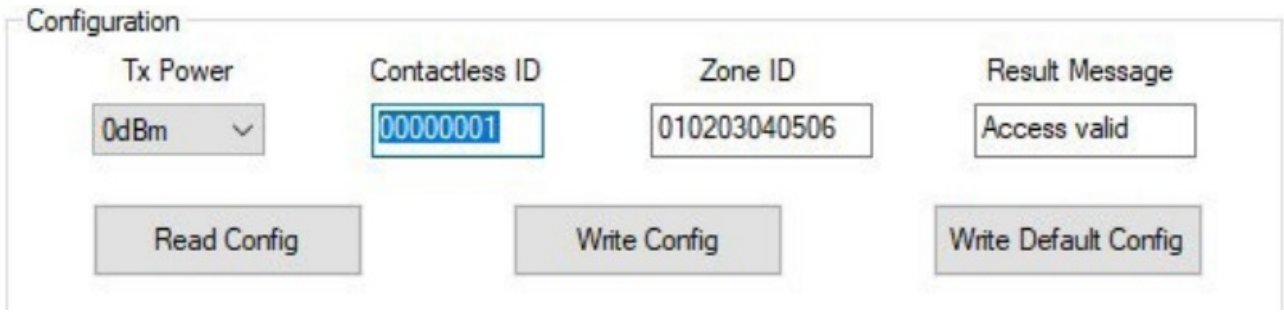
3.2 Configuration

3.2.1 Tx Power

This drop down box sets the transmit power in the range of -26dBm to +3dBm.

3.2.2 Contactless ID

Each Pack ID client is assigned a contactless ID. This edit box allows setting the four byte contactless ID identifier.



3.2.3 Zone ID

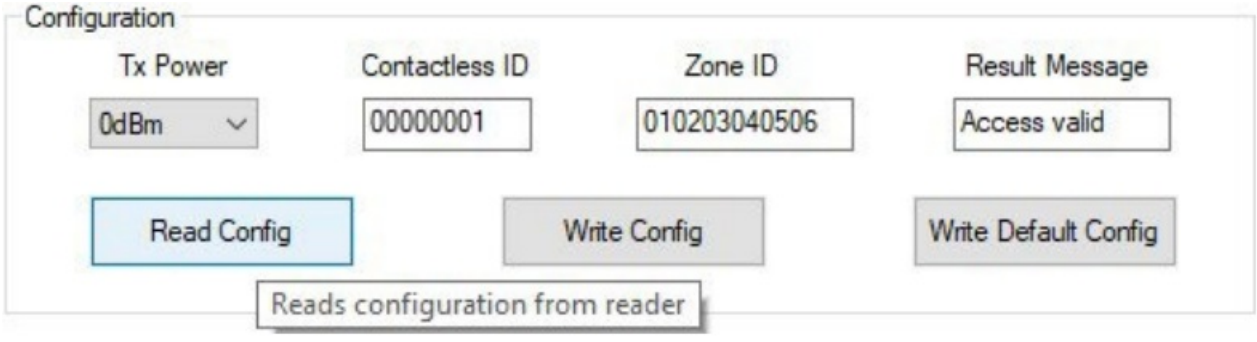
Each Pack ID client can administrate zones (groups of readers such as Credential rf IDEAS, Parking or Printing) identified by a zone ID. This edit box allows setting the six byte zone ID identifier.

3.2.4 Result Message

A client can set the message that is displayed on the icon and the mobile device at the end of a BLE exchange. The default value is “Access valid”. This edit box allows setting a message up to sixteen characters long.

3.2.5 Read Config Button

This button reads all Bluetooth configurations from the reader and updates the values displayed by the WAVE ID Mobile Configurator.

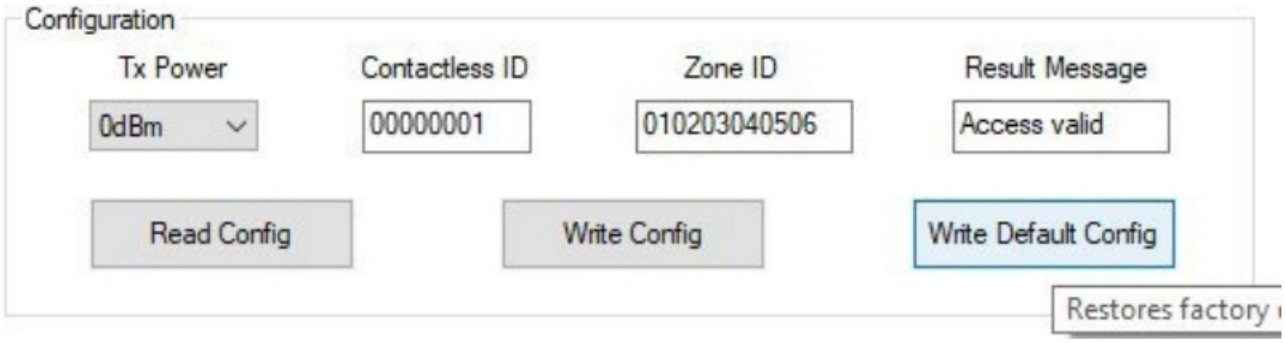


3.2.6 Write Config Button

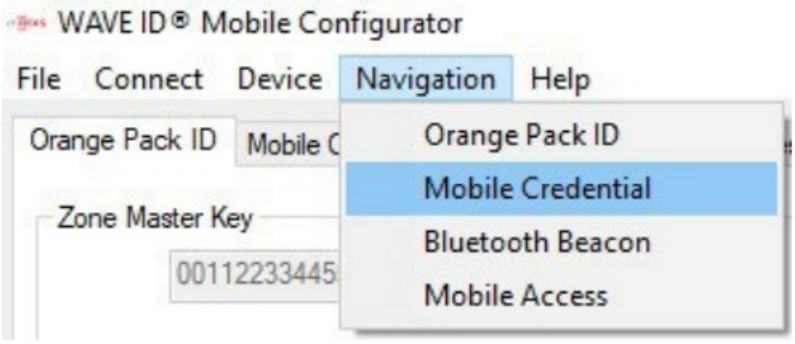
This button writes all Bluetooth configurations from the WAVE ID Mobile Configurator to the reader with the exception of the Zone Master Key.

3.2.7 Write Default Config Button

This button writes the factory default Bluetooth configuration to the reader with the exception of the Zone Master Key.



4. Mobile Credential Tab



4.1 128-bit ID

The 128-bit ID is used to identify the reader of a specific client. The 128-bit ID is part of the Bluetooth advertisement and is used by a mobile application to filter the reader of a specific client from other clients using rf IDEAS readers.

4.2 Major

The major number identifies a subset of a clients' readers within a large group, such as printers in a department of a company. This edit box allows setting the one byte major number.

4.3 Minor

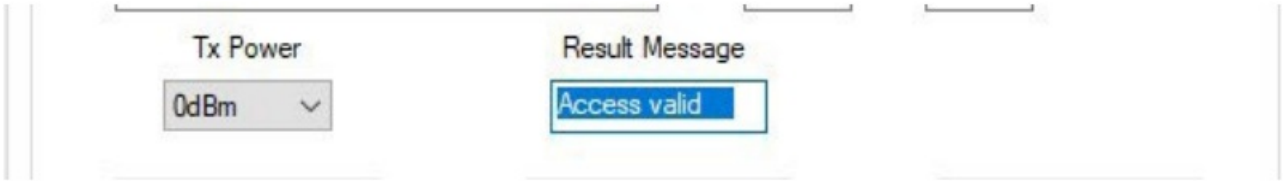
The minor number identifies a specific client's reader, such a specific printer in a department of a company. This edit box allows setting the one byte minor number.

4.4 Tx Power

This drop down box sets the transmit power in the range of -26dBm to +3dBm.

4.5 Result Message

A client can set the message that is displayed on the mobile device at the end of a BLE exchange. The default value is "Access valid". This edit box allows setting a message up to sixteen characters long.



4.6 Read Config Button

This button reads all Bluetooth configurations from the reader and updates the values displayed by the WAVE ID Mobile Configurator.

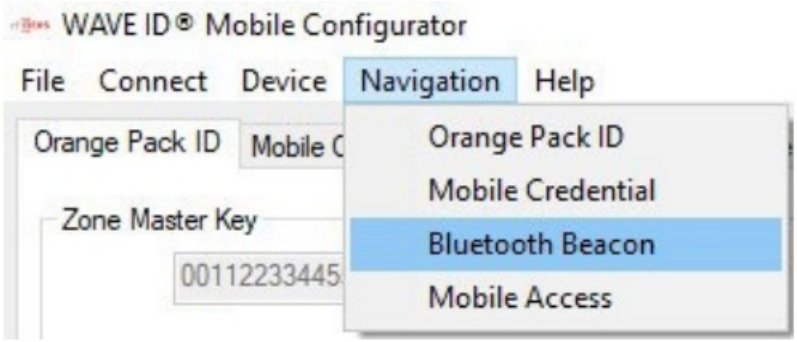
4.7 Write Config Button

This button writes all Bluetooth configurations from the WAVE ID Mobile Configurator to the reader with the exception of the Zone Master Key.

4.8 Write Default Config Button

This button writes factory default Bluetooth configuration to the reader with the exception of the Zone Master Key.

5. BLE Beacon Tab



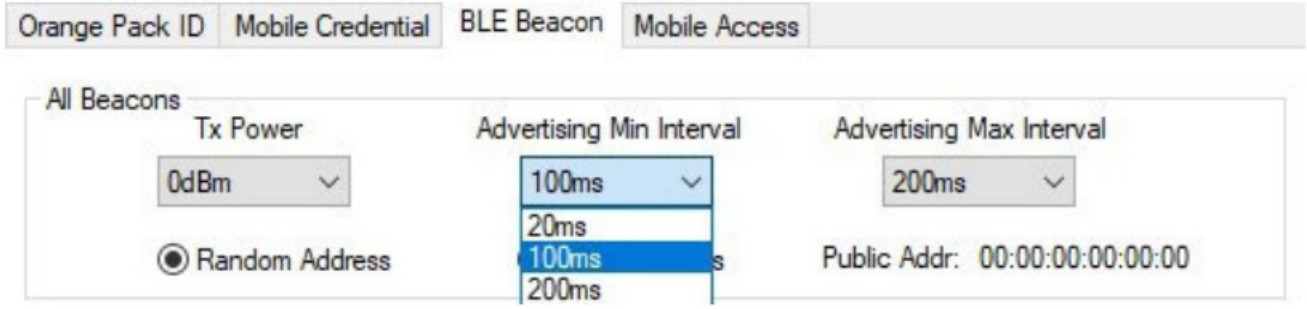
5.1 All Beacons

5.1.1 Tx Power

This drop down box sets the transmit power in the range of -26dBm to +3dBm.

5.1.2 Advertising Min Interval

This drop down box sets the Advertising Min interval in the range of 20ms to 10 seconds.

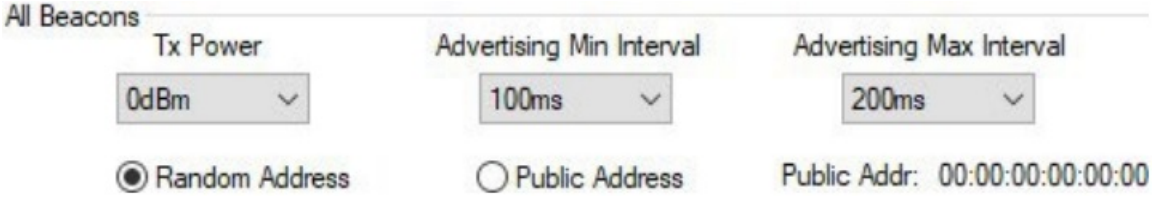


5.1.3 Advertising Max Interval

This drop down box sets the Advertising Max Interval in the range of 20ms to 10 seconds.

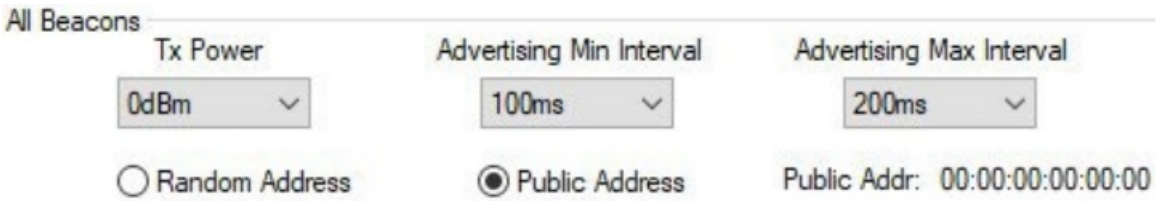
5.1.4 Random Address

This selection sets the beacon address to a randomly generated value. This value will be different each time the reader is powered.



5.1.5 Public Address

This selection sets the beacon address to a fixed value assigned at the factory to each Bluetooth reader. Each reader has a different address.



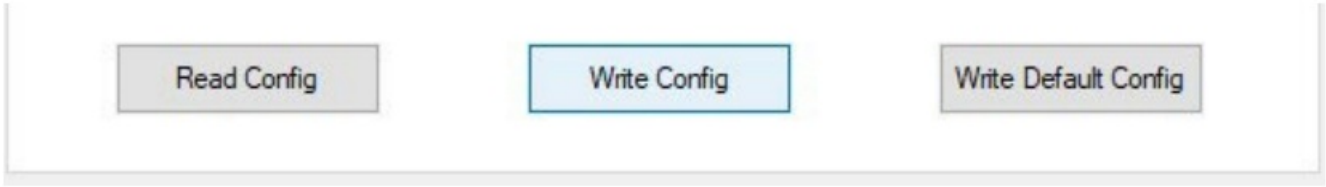
Note: This feature is not available in RDR-30xx1EKU and RDR-30xx2EKU model readers.

5.1.6 Read Config Button

This button reads all Bluetooth configurations from the reader and updates the values displayed by the WAVE ID Mobile Configurator.

5.1.7 Write Config Button

This button writes all Bluetooth configurations from the WAVE ID Mobile Configurator to the reader with the exception of the Zone Master Key.



5.1.8 Write Default Config Button

This button writes factory default Bluetooth configuration to the reader with the exception of the Zone Master Key.

5.2 iBeacon

5.2.1 128-bit UUID

This edit box allows setting the iBeacon 128-bit UUID that identifies a specific beacon.

5.2.2 Major

This edit box allows setting the iBeacon two-byte major number that allows identification of a subset of beacons within a large group.

5.2.3 Minor

This edit box allows setting the iBeacon two-byte minor number that allows identification of a specific beacon.

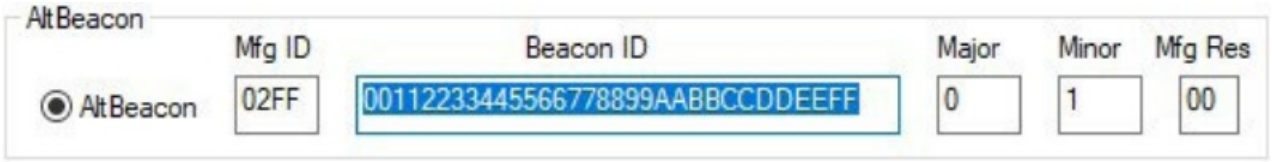
5.3 AltBeacon

5.3.1 Mfg ID

This edit box allows setting the two-byte manufacturer's company code from the Bluetooth SIG assigned numbers database. The default value is the Silicon Labs code of 02FF.

5.3.2 Beacon ID

This edit box allows setting the first sixteen bytes of the beacon identifier. The sixteen bytes should be unique to the advertiser's organizational unit.



5.3.3 Major

This edit box allows setting a two-byte major number to identify a subset of beacons within a large group. The major value is bytes seventeen and eighteen of the beacon identifier.

5.3.4 Minor

This edit box allows setting a two-byte minor number to identify a specific beacon. The minor value is bytes nineteen and twenty of the beacon identifier.

5.3.5 Mfg Res

This edit box allows setting the one-byte manufacturing reserved value. This value is defined by the manufacturer for special features.

5.4 Eddystone UID Beacon

5.4.1 Namespace

This edit box allows setting the ten-byte namespace value. The namespace may be used to group a particular set of beacons.

5.4.2 Instance

This edit box allows setting a six-byte instance value. The instance may be used to identify individual devices in a group.

5.5 Eddystone URL Beacon

The Eddystone-URL frame broadcasts a URL using a compressed encoding format in order to fit more within the limited advertisement packet.

Once decoded, the URL can be used by any client with access to the internet. For example, if an Eddystone-URL beacon were to broadcast the URL **http://www.rfideas.com**, then any client that received this packet could choose to visit that URL. The Eddystone-URL frame forms the backbone of the Physical Web an effort to enable frictionless discovery of web content relating to one's surroundings.

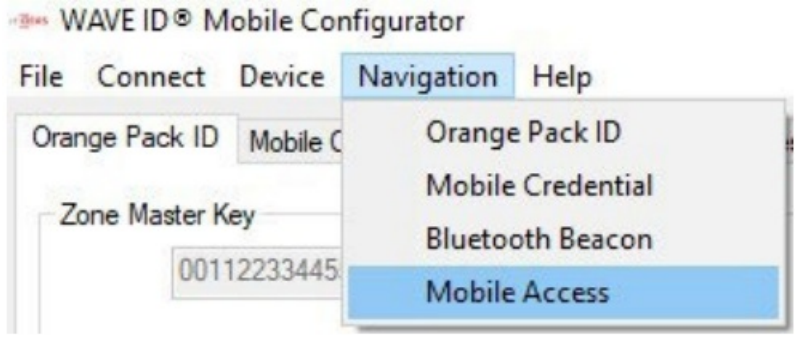
5.5.1 URL Prefix

This drop down box allows selecting four different URL prefixes. They are: (1) http://www. (2) https://www. (3) http:// and (4) https://.

5.5.2 Encoded URL

This edit box allows setting the remainder of the URL address after the prefix, such as "rfideas.com".

6. Mobile Access



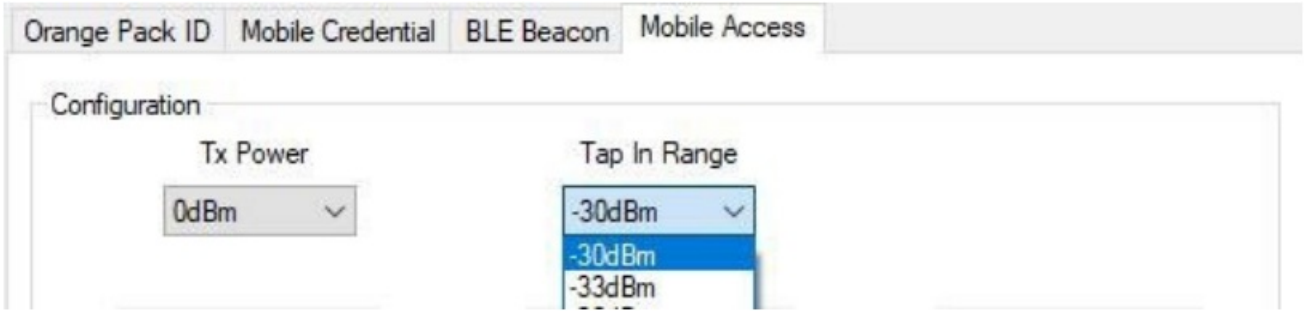
6.1 Configuration

6.1.1 Tx Power Configuration

This drop down box sets the transmit power in the range of -30dBm to +4dBm

6.1.2 Tap In Range

This drop down box has a range of -30dBm to -63dBm which sets the RSSI threshold to determine the reader's distance to recognize a smartphone running the HID Mobile Access App and transmit its UID.

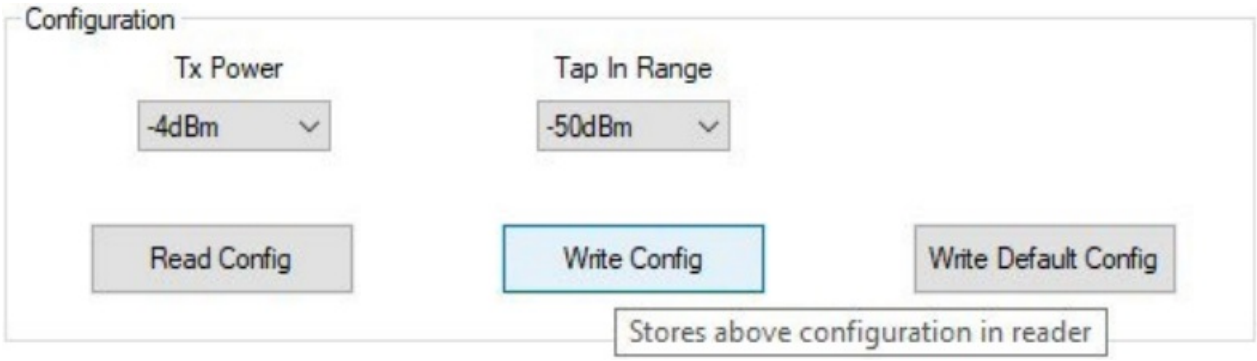


6.1.3 Read Config Button

This button reads the Bluetooth configuration from the reader.

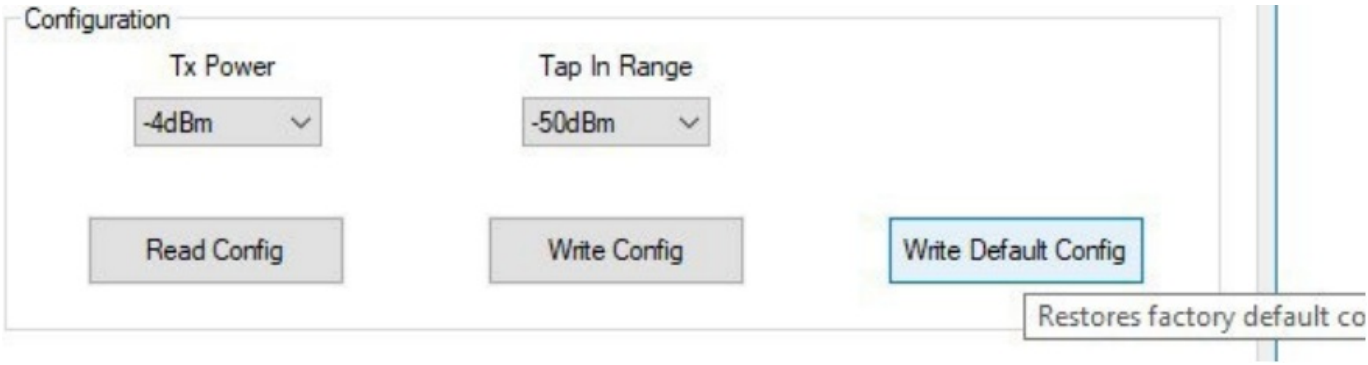
6.1.4 Write Config Button

This button writes the Bluetooth configuration from the WAVE ID Mobile Configurator to the reader.

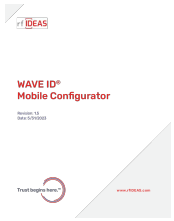


6.1.5 Write Default Button

This button writes the default Bluetooth configuration to the reader.



Documents / Resources

	rf IDEAS WAVE ID Mobile Configurator [pdf] Installation Guide WAVE ID Mobile Configurator, ID Mobile Configurator, Mobile Configurator, Configurator

References

- Homepage | rf IDEAS