READER DEMO TOOL

1 Install the Reader Demo Tool

To install the Reader Demo Tool execute the “Reader Demo Tool”:



Step through the installation and select the options you like:



2 Install Driver for UHF Reader

After the installation of the Reader Demo Tool plug in the reader at an USB port. If the reader is plugged in the first time, Windows will ask you for the driver.

The driver for the reader was copied into the installation directory of the Reader Demo Tool.

To install the driver please follow these steps:



Select that windows should NOT connect to Windows Update.

Select the option to install the driver from a specific source.

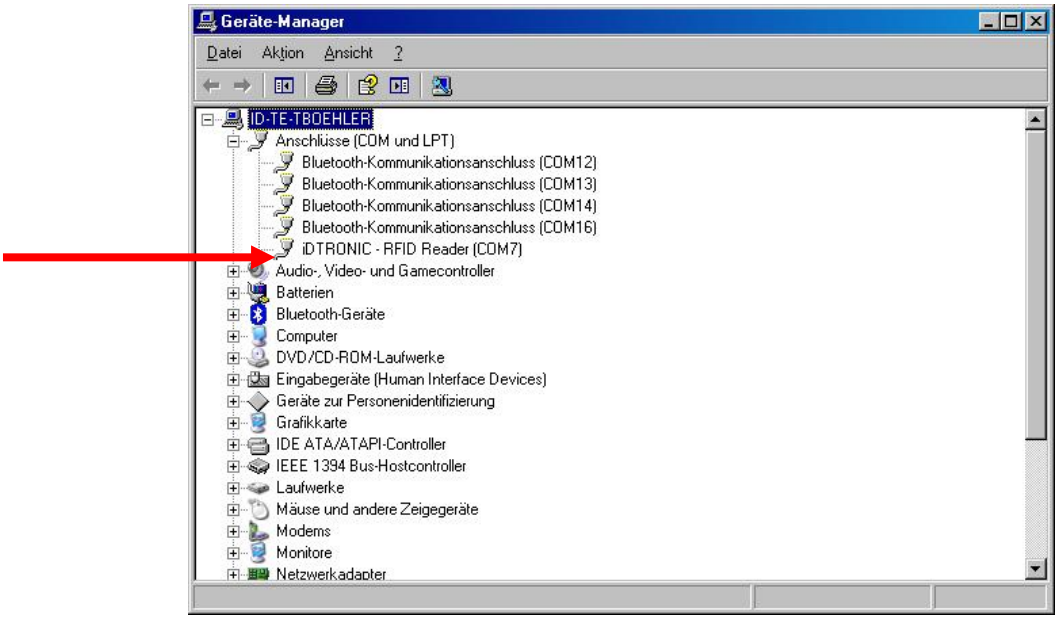
Specify the sub-folder of the installation directory with the name “driver”. This should usually be: **C:\...\Reader Demo Tool\driver**



Select to continue the installation.



The driver was successfully installed. To see at which serial port the reader was installed, open the Device Manager (Gerätemanager) and select the item with the serial ports:

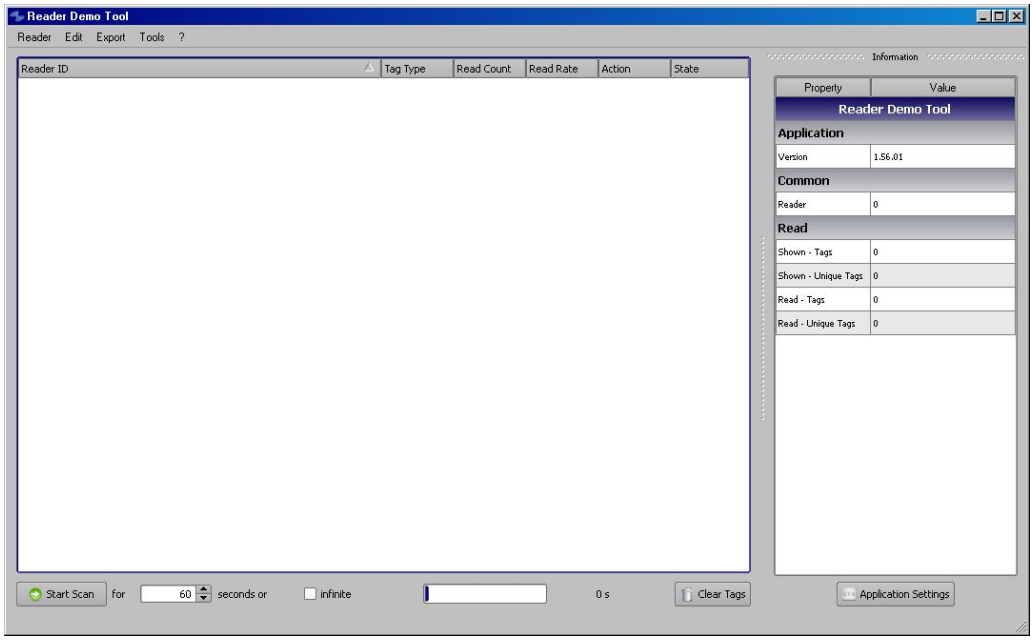


Here you can see that the reader was installed at the COM port 7.

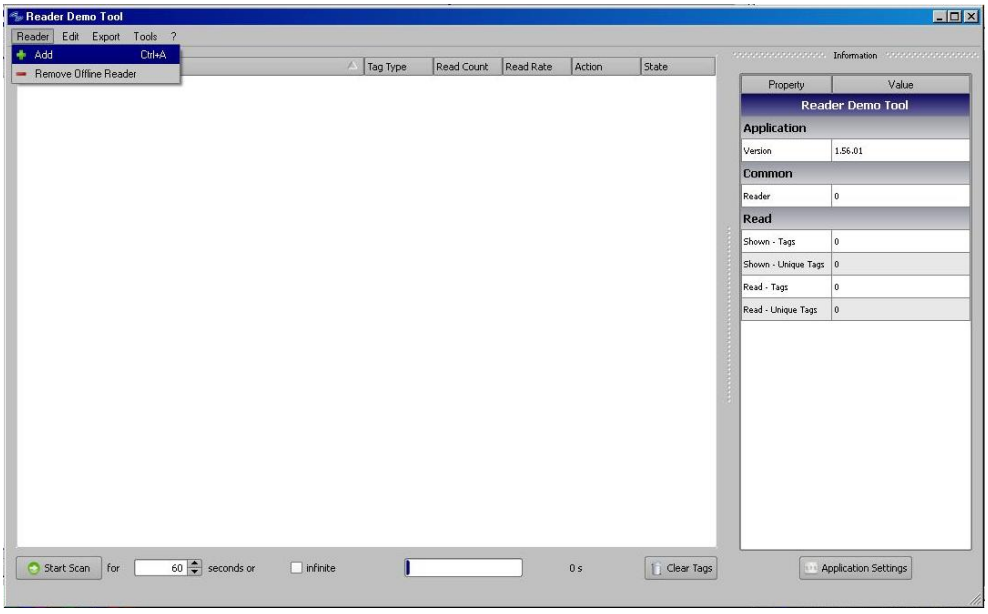
(To open the Device Manager go to Control Panel; Double-Click “System”; Select the tab “Hardware”; Click on the Button “Device Manager”)

3 Add the reader to the Reader Demo Tool

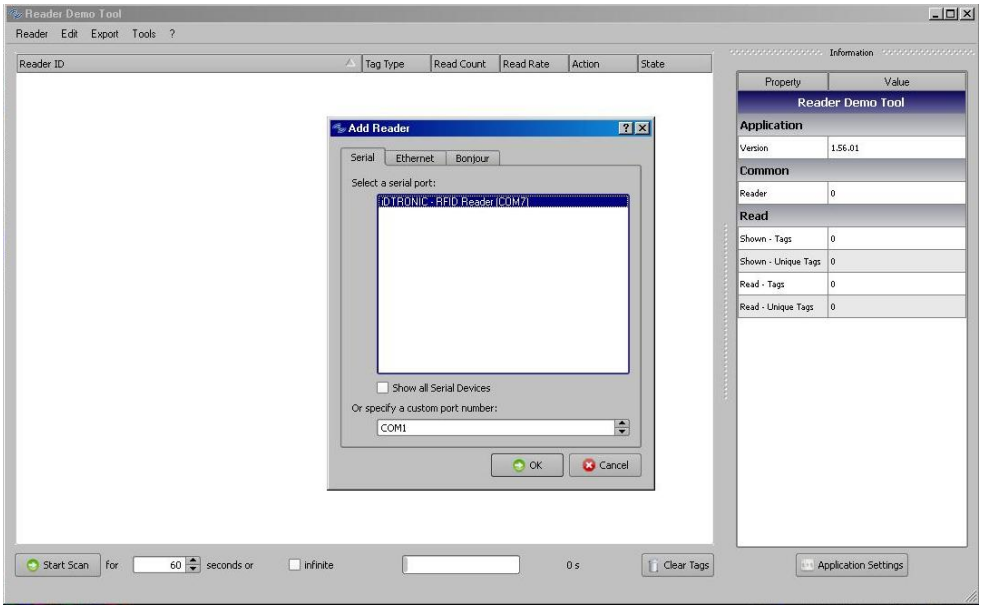
After the installation start the Reader Suite.



To add the reader to the Reader Suite, select in the Menu -> Reader -> Add

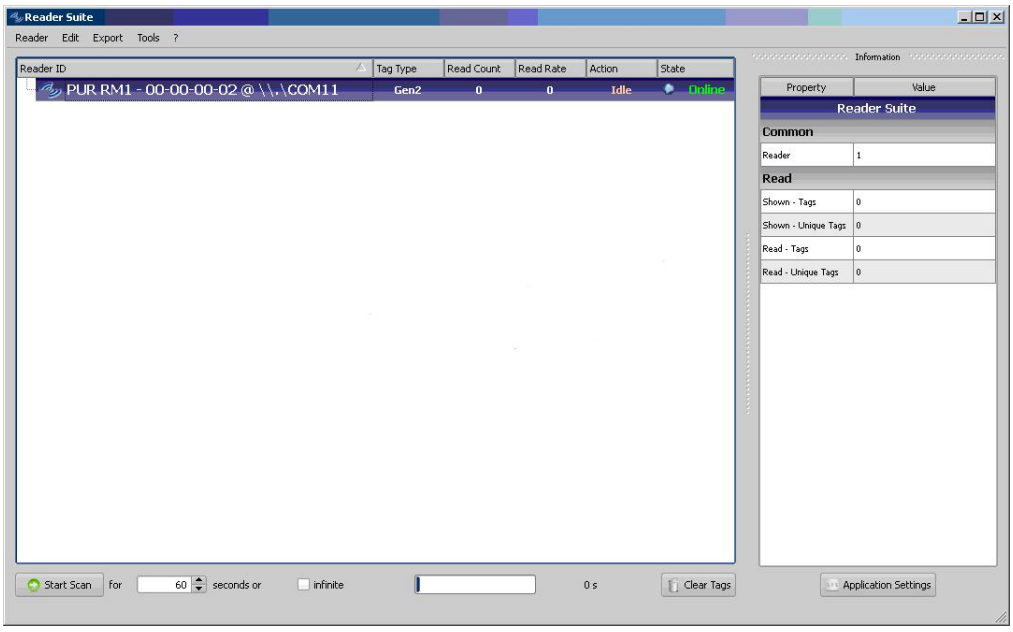


After this, a dialog appears where a must specify the COM port, where the reader was installed. (In this document we use COM7).

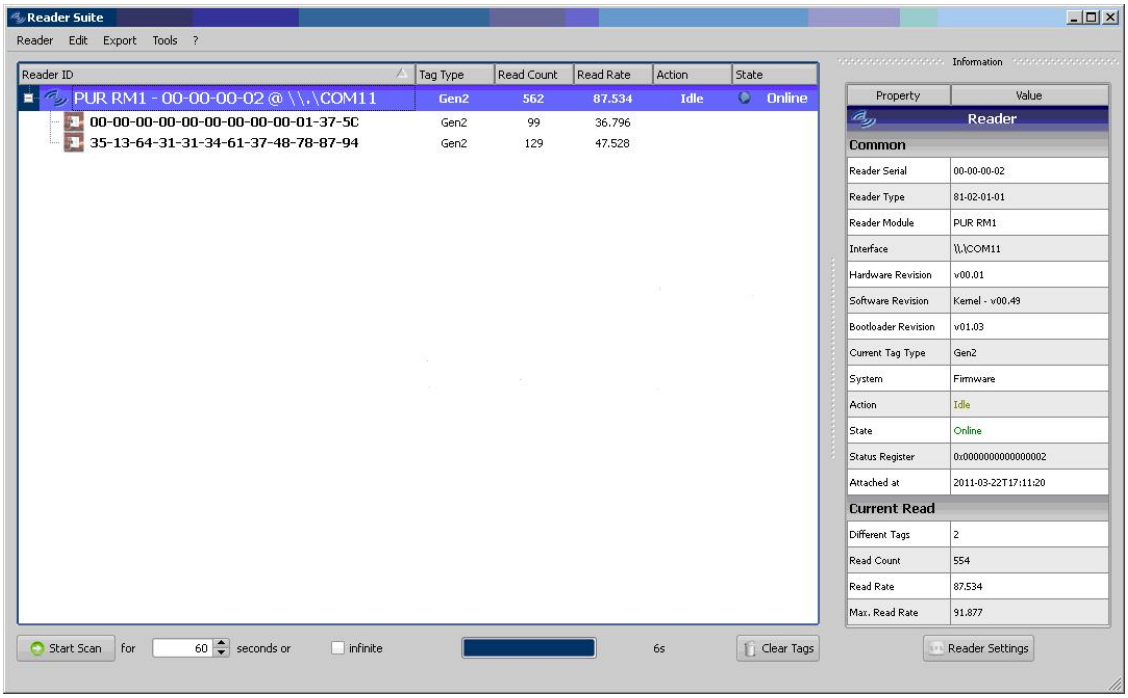


Double click the COM port and the Reader Suite tries to add the reader.

If this was successful, the reader will appear in the main view of the Reader Suite:

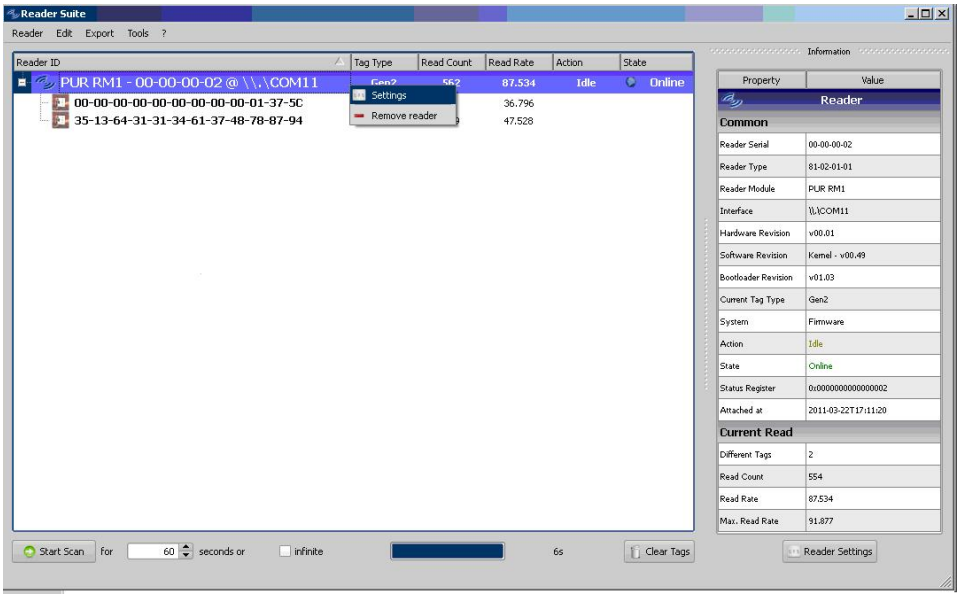


Now you can scan with the reader using the “Start Scan” Button at the bottom left of the application. If a tag is detected, it is shown below the reader:

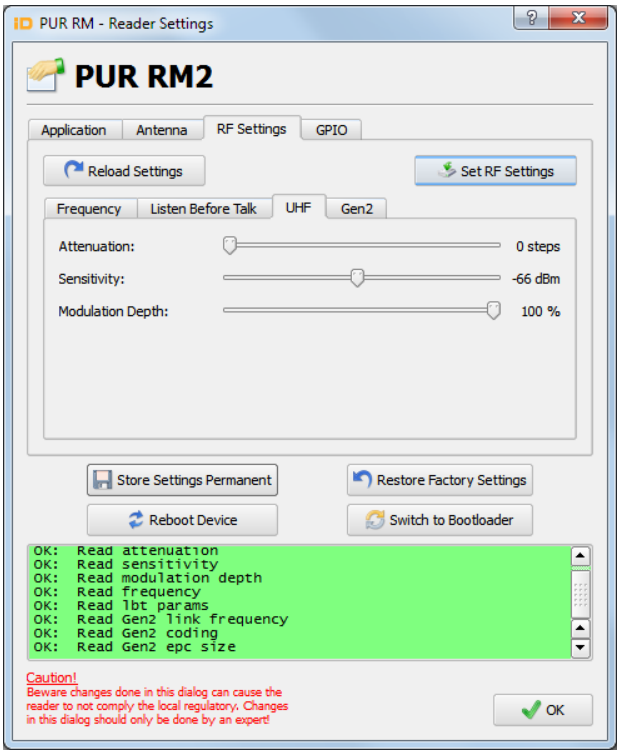


4 Configure the Reader

To configure the reader, just right click on the reader and select “Settings”:



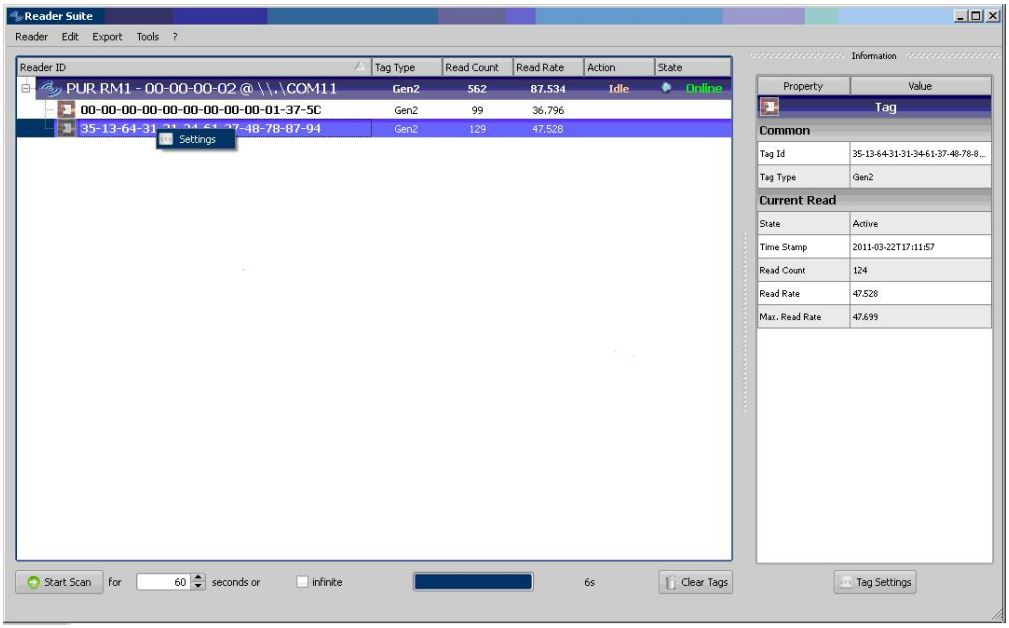
After this, a dialog with the reader settings appears:



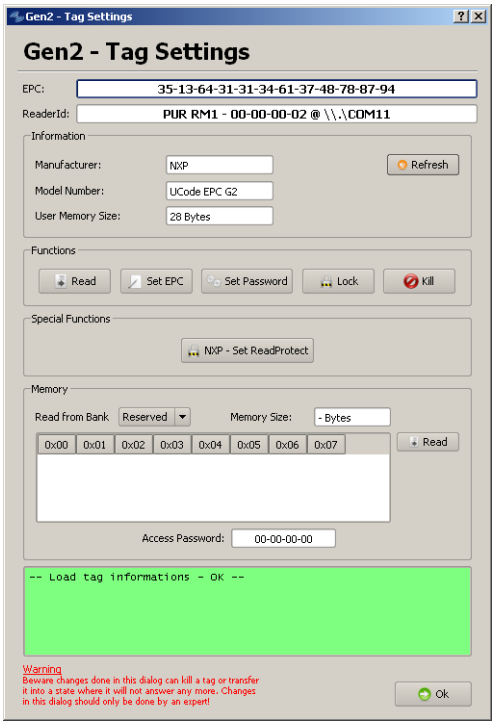
Here you can configure the reader. The status of each operation is shown in the text view at the bottom of the dialog.

5 Configure a Tag

To configure a tag, just right click on the reader and select “Settings”:



After this, a dialog with the tag settings appears:



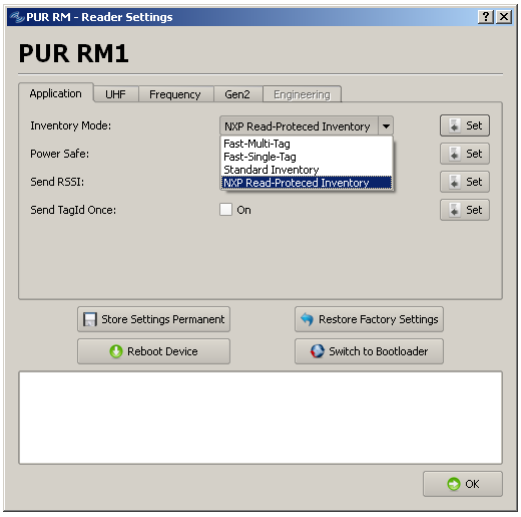
Here you can change the configuration of the tag.

6 Set and Clear NXP ReadProtect

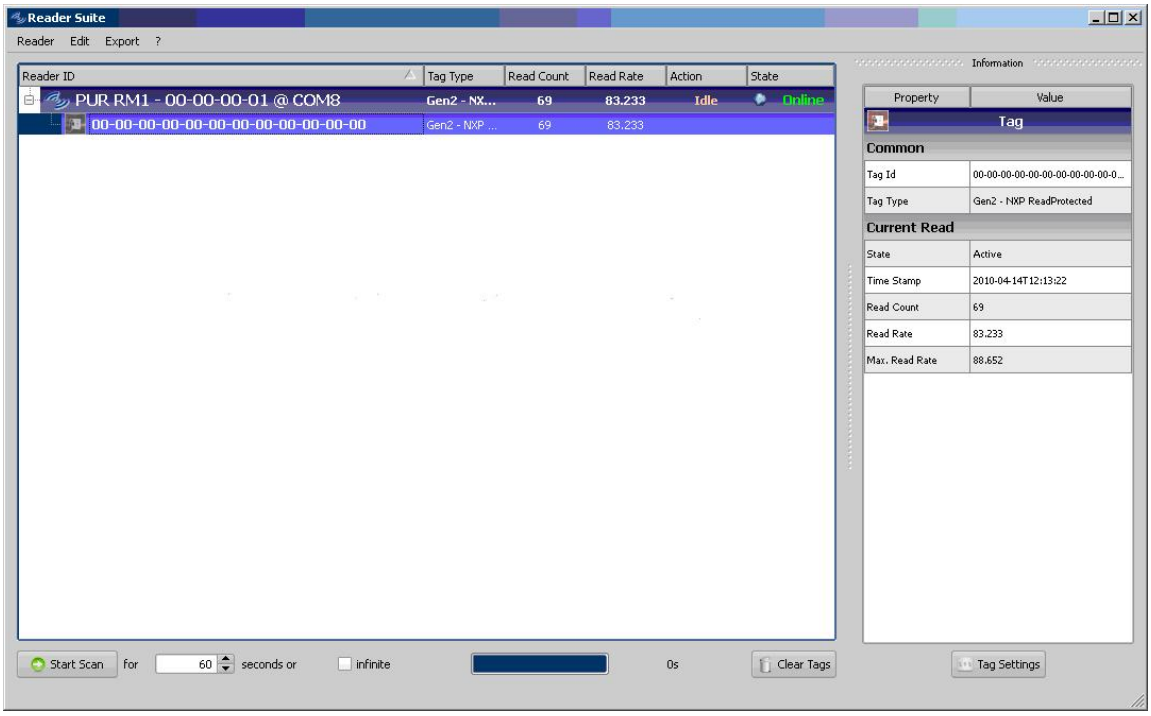
To set the ReadProtect for a tag, open the tag settings and click on the "NXP – Set ReadProtect" button. To set the ReadProtect you must enter the Access Password of the tag in the dialog:



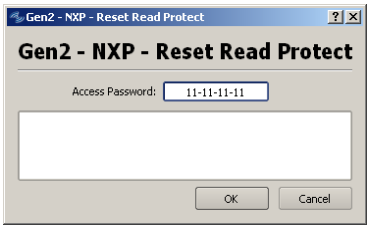
If the operation did succeed, you will not be able to detect the tag in the "Standard Inventory" mode. So you have to change the used inventory mode of the reader. To do this, open the reader settings and select the "NXP Read-Protected Inventory" as Inventory Mode:



After this, press "Set" for Inventory Mode and the reader will now only detect tags, which are read-protected. So if you now scan again, you can see the read-protected tag with an EPC that consists only of zeros:

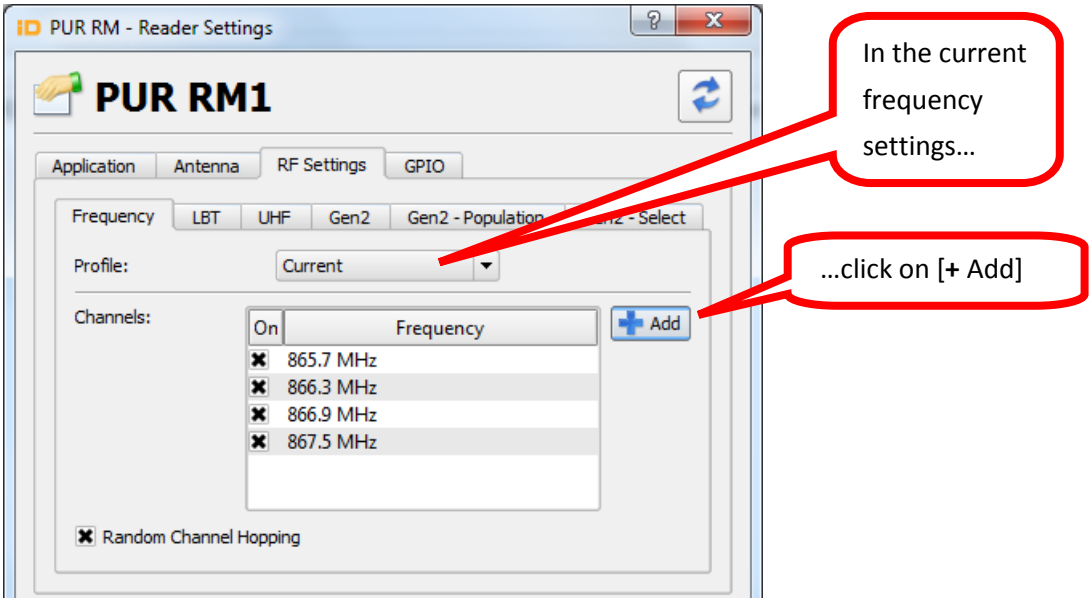


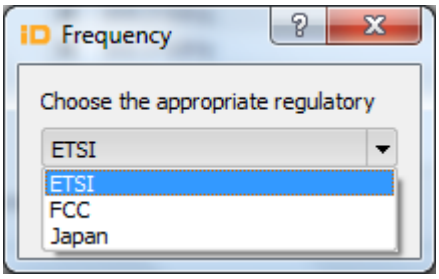
To reset the ReadProtect of the tag, open the tag settings. This time there will only appear a simple dialog, where you must insert the Access Password.



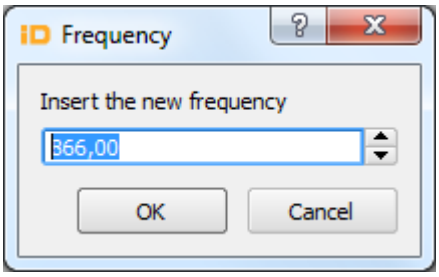
After this press OK and the reader tries to reset the ReadProtect. If the operation did succeed, you will not be able to detect the tag in the “NXP Read-Protected Inventory” mode. So switch back to the “Standard Inventory” mode and you can see the tag again with the origin EPC.

7 Select Frequency Range or Enter Dedicated Frequency





This dialog appears. Please choose the correct regulation that applies for the region in which the device is used.



Now you can enter a desired frequency. Use the up/down arrows or type in the desired value. The value is restricted to the allowed frequency range of the previously selected regulatory.

Do not forget to store these settings!



Important Note

Operating the devices with RF settings not allowed in your country is a violation of applicable law.

8 Appendix: Tx Power Table

Attenuation	dBm	mW
0	+27	500
1	+26.5	450
2	+26	400
3	+25.5	350
4	+25	320
5	+24	250
6	+23	200
7	+22	160
8	+21	130
9	+20	100
10	+19	79
11	+18	63
12	+17	50
13	+16	40
14	+15	32
15	+14	25
16	+13	20
17	+12	16
18	+11	13
19	+10	10

9 Appendix: Frequency List

ETSI

Presets:

- 865.7 MHz
- 866.3 MHz
- 866.9 MHz
- 867.5 MHz

Possible Range:

865–868 MHz

FCC 25 Channels

Presets:

- 903 MHz
- 904 MHz
- 905 MHz
- 906 MHz
- 907 MHz
- 908 MHz
- 909 MHz
- 910 MHz
- 911 MHz
- 912 MHz
- 913 MHz
- 914 MHz
- 915 MHz
- 916 MHz
- 917 MHz
- 918 MHz
- 919 MHz
- 920 MHz
- 921 MHz
- 922 MHz
- 923 MHz
- 924 MHz
- 925 MHz
- 926 MHz
- 927 MHz

FCC 50 Channels

Presets:

- 902.75 MHz
- 903.25 MHz
- 903.75 MHz
- 904.25 MHz
- 904.75 MHz
- 905.25 MHz
- 905.75 MHz
- 906.25 MHz
- 906.75 MHz
- 907.25 MHz
- 907.75 MHz
- 908.25 MHz
- 908.75 MHz
- 909.25 MHz
- 909.75 MHz
- 910.25 MHz
- 910.75 MHz
- 911.25 MHz
- 911.75 MHz
- 912.25 MHz
- 912.75 MHz
- 913.25 MHz
- 913.75 MHz
- 914.25 MHz
- 914.75 MHz
- 915.25 MHz
- 915.75 MHz
- 916.25 MHz
- 916.75 MHz
- 917.25 MHz
- 917.75 MHz
- 918.25 MHz
- 918.75 MHz
- 919.25 MHz
- 919.75 MHz
- 920.25 MHz
- 920.75 MHz
- 921.25 MHz
- 921.75 MHz
- 922.25 MHz
- 922.75 MHz
- 923.25 MHz
- 923.75 MHz
- 924.25 MHz
- 924.75 MHz
- 925.25 MHz
- 925.75 MHz
- 926.25 MHz
- 926.75 MHz
- 927.25 MHz

Possible Range:

902–928 MHz

Japan

- 916.8 MHz
- 918 MHz
- 919.2 MHz
- 920.4 MHz

Possible Range:

916–923.40 MHz