AND9327/D

DVK-SF-1 Development Kit Quick Start Guide

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APPLICATION NOTE

Introduction

The AX−SIGFOX−1 Development Kit is designed as a quick start solution for the development of applications using the AXSEM AX−SIGFOX−1 one−chip SIGFOX solution.

Figure 1.

The development kit comes with:

- 1 AX−SIGFOX−1 Mini Module with SMA Connector
- 1 SMA Antenna
- 1 AXSDB Debug Adapter
- 1 Mini USB Cable
- 1 AX Debug Cable (Ribbon Cable)

Preparation

In order to transmit your first packet over the SIGFOX network, you need to perform the following preparatory steps:

- Connect the Antenna to the SMA connector of the Mini Module
- Connect the Mini Module to the AXDBG debug adapter using the supplied ribbon cable
- Connect the AXSDB debug adapter to a PC using the supplied Mini USB cable

The operating system should now install the serial interface driver necessary to connect to the AX−SIGFOX−1 SoC.

Software Setup

Any terminal program, such as Hyperterm, can be used to communicate with the AX−SIGFOX−1 SoC. Connect to the serial port created when connecting the AXDBG debug adapter using the parameters 9600 Baud, 8 bit word length, no parity bit, and one stop bit (9600 8N1).

Type **AT**

The modem should respond with *OK*.

(Text sent by the user is printed in bold, responses by the modem in italics, means Enter)

Now type the following commands to find out the ID number and PAC code required to register the modem to the SIGFOX network:

AT$I=10

IIIIIIII

AT$I=11

PPPPPPPPPPPPPPP

The eight hexadecimal digits IIIIIIII are the ID of the modem, while the 16 hexadecimal digits PPPPPPPPPPPPPPP are the PAC (Portable Access Code) of the modem.

These values are needed to register the modem to the SIGFOX network.

Registering the Modem with the SIGFOX Network

In order to register the Modem with the SIGFOX Network, open an Internet Browser and enter http://backend.sigfox.com. Click on “DEVICE”, then “NEW”.

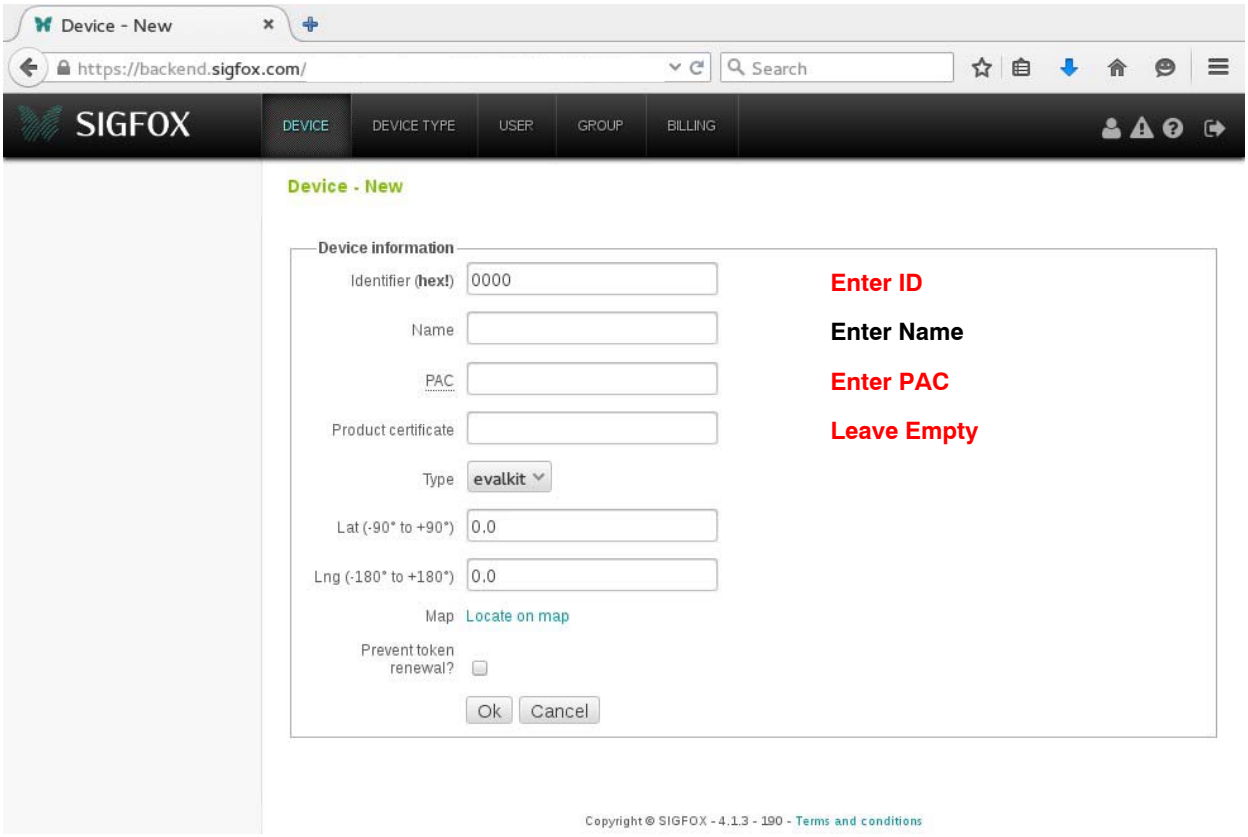

Figure 2.

Clicking again on “DEVICE”, the modem ID should now be listed in the device list.

You are now ready to send your first packet through the SIGFOX network. Type:

AT$SF=0011223344

OK

If you now click on the modem’s ID, and then “Messages”, you should see the packet just transmitted (Figure 3):

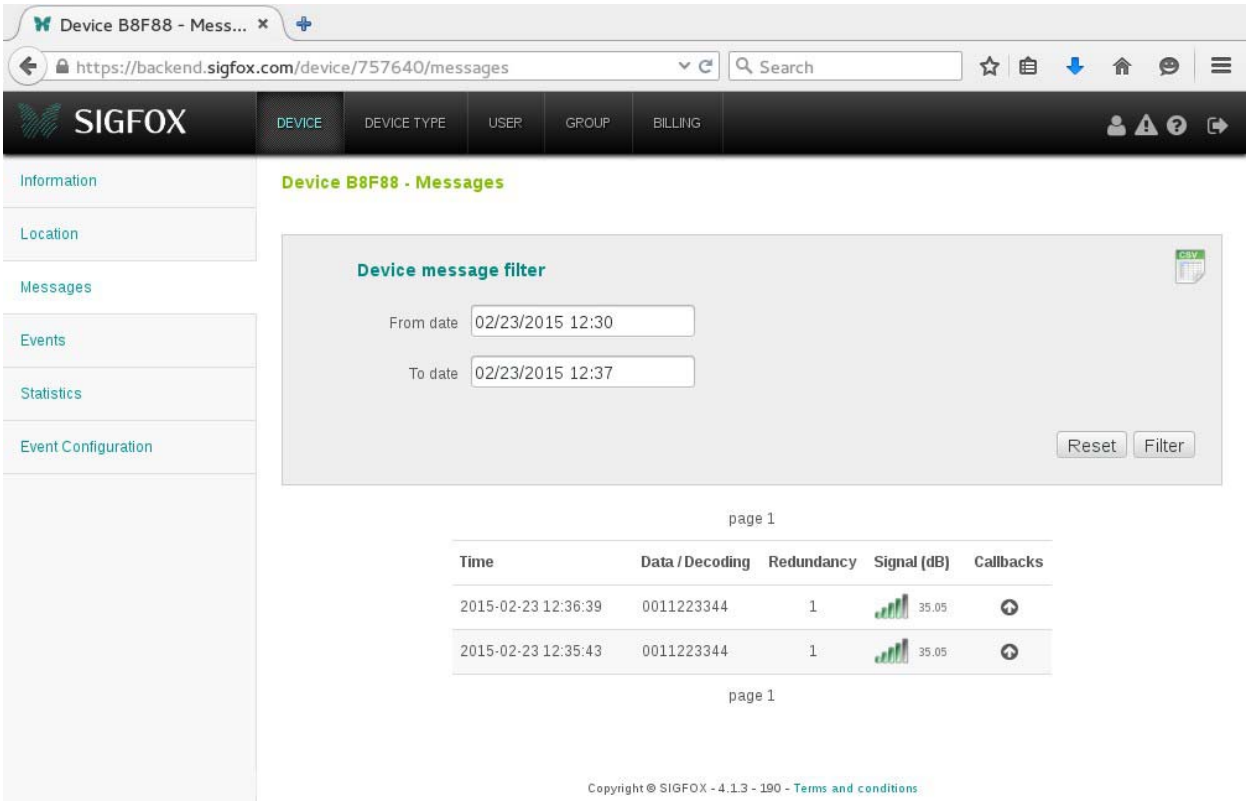

Figure 3.

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