



Quick Start Guide

AX-SIGFOX-1 Evaluation Kit Quick Start Guide

Version 1.0

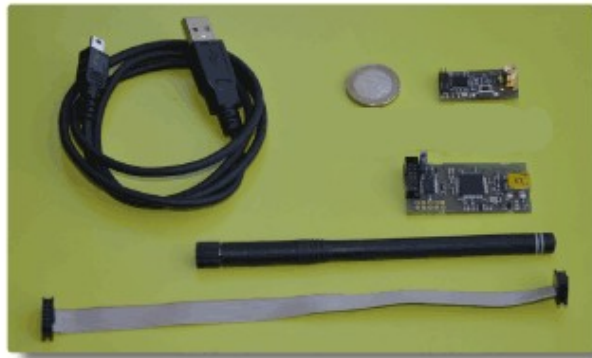
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1. INTRODUCTION

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



The evaluation 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)

2. 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.

3. 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+SI=10↵

IIIIIIII

AT+SI=11↵

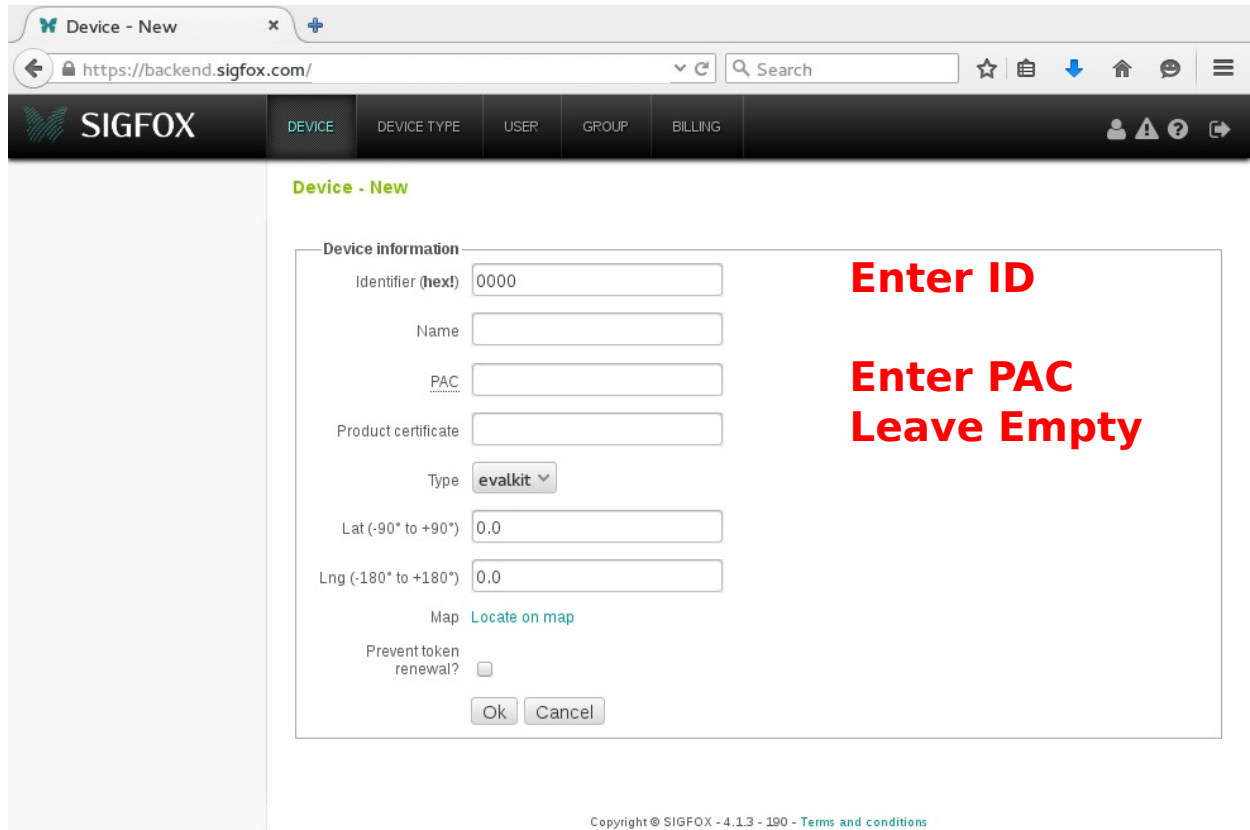
PPPPPPPPPPPPPPPP

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

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

4. 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”.



Device - New

https://backend.sigfox.com/

SIGFOX

DEVICE DEVICE TYPE USER GROUP BILLING

Device - New

Device information

Identifier (hex) 0000

Name

PAC

Product certificate

Type evalkit

Lat (-90° to +90°) 0.0

Lng (-180° to +180°) 0.0

Map [Locate on map](#)

Prevent token renewal?

Ok Cancel

Enter ID

Enter PAC
Leave Empty

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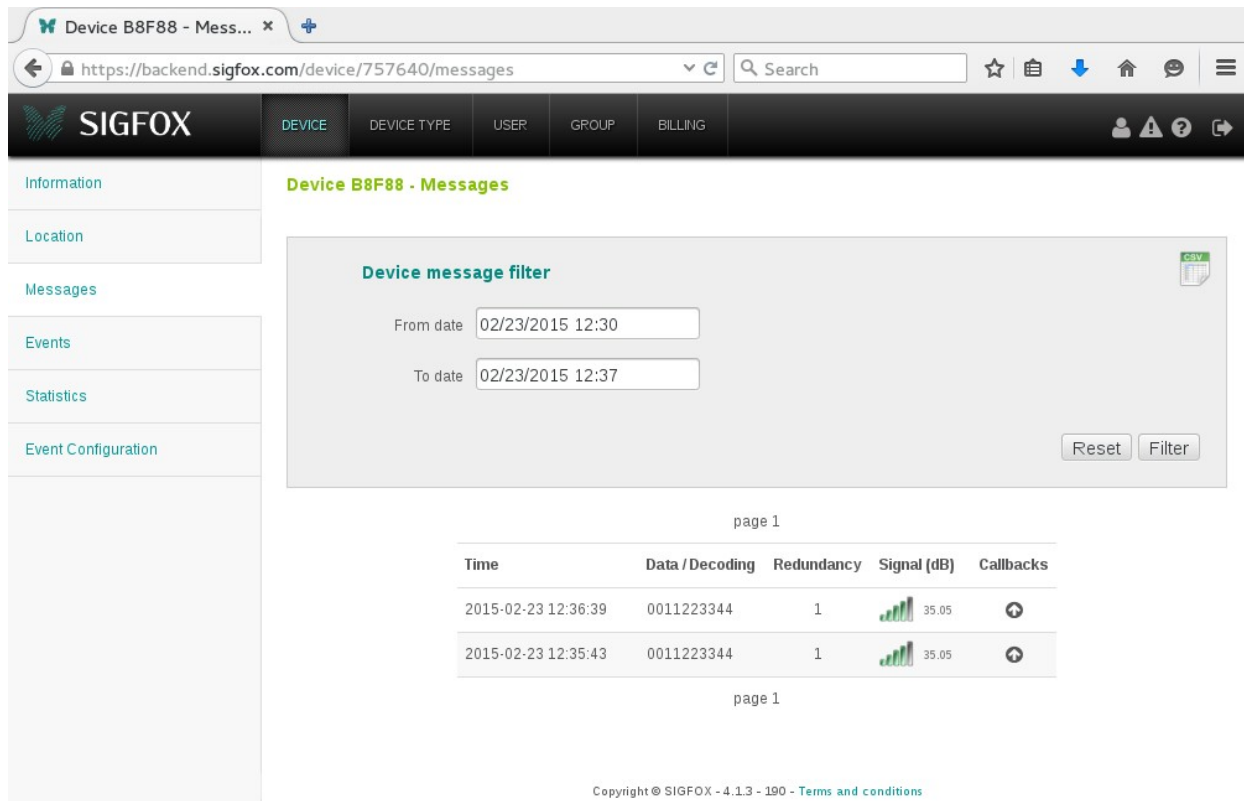
Clicking again on “DEVICE”, the modem ID should now be listed in the device list.

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:



The screenshot shows the Sigfox backend interface for device B8F88. The left sidebar contains navigation links: Information, Location, Messages, Events, Statistics, and Event Configuration. The main content area is titled "Device B8F88 - Messages" and includes a "Device message filter" section with date pickers for "From date" (02/23/2015 12:30) and "To date" (02/23/2015 12:37), along with "Reset" and "Filter" buttons. Below the filter is a table of messages.

Time	Data / Decoding	Redundancy	Signal (dB)	Callbacks
2015-02-23 12:36:39	0011223344	1	35.05	
2015-02-23 12:35:43	0011223344	1	35.05	

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5. CONTACT INFORMATION

AXSEM AG
Oskar-Bider-Strasse 1
8600 Dübendorf
Switzerland

Phone
Fax

+41 44 882 17 07
+41 44 882 17 09

www.axsem.com

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