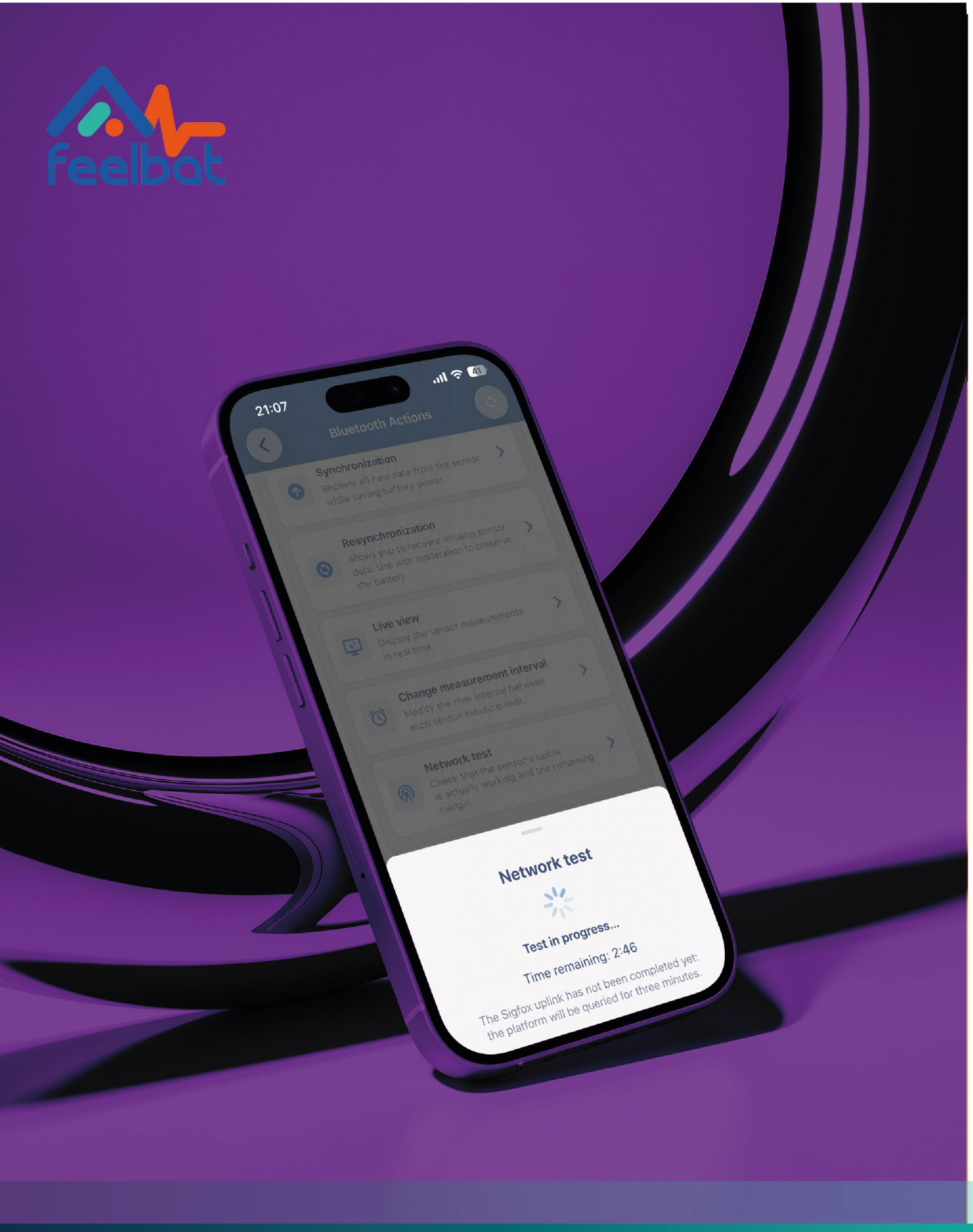


INFORMATION SHEET

Test the Sigfox network

introduction

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How can I check if I have good Sigfox coverage before instrumentation?

02 **Network test**
How can I check if I have good Sigfox coverage during instrumentation?

03 **Repeater and micro-station**
I have little or no Sigfox coverage, what can I do?

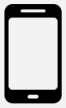
Definition of the Sigfox network

Sigfox is a low-bandwidth wireless network designed to connect devices to the Internet with very low energy consumption. It enables the transmission of small amounts of data over long distances using unlicensed radio frequencies. This network is ideal for IoT applications such as asset tracking or remote monitoring.

Network tests:
Several tests can be carried out before, during and after instrumentation to verify the presence of the Sigfox network and assess signal strength. These tests consist of forcing the transmission of data: if it is received by the network, the test is considered positive. Conversely, if no response is received within 3 minutes, this indicates a lack of radio coverage at the tested location.



Tester button
This “essential” button allows you to determine the Sigfox signal strength and anticipate a suitable cost estimate for your instrumentation site.



Test via the mobile application
Once you have activated a LinkFeel token and associated it with your sensor, you can perform network tests.

The Sigfox signal is completely different from 3G/4G mobile networks. Many areas are covered by Sigfox radio but not by 3G/4G, and vice versa.

Note: Although many online maps partially indicate Sigfox coverage, they do not guarantee actual network availability at the exact location of your sensor. The most reliable method to assess network quality is to use a tester during site visits, based on defined signal levels.

Different ways to amplify or recreate a Sigfox signal

It is also possible to amplify or recreate the Sigfox signal using specific equipment, such as repeaters or micro base stations.



Micro base stations
Once powered with 220V and connected via Ethernet or a 3G/4G SIM card (optional), they create a local radio network to transmit sensor data in real time.



Repeaters
They optimize data transmission when the network is insufficient by relaying messages from up to 15 nearby sensors (up to 140 messages/day).

Prerequisites



Have an active network tester and download the application indicated in the manual.

Have Bluetooth® enabled on your phone and be close to the sensor to connect via Bluetooth.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc.

Make sure to carry out several on-site tests to obtain an average Sigfox signal reception level. This will allow you, if necessary, to adapt your additional setup choices to ensure proper data transmission.



Switch to 4G!

The Feelbox is a connected gateway designed to centralize data from multiple remote sensors via the 4G network.

Compact, robust and easy to install, it ensures reliable and continuous monitoring, even on isolated or hard-to-access sites.

The FEELBOX, our new 4G gateway, provides optimal network coverage for your FEELBAT sensors, relying on major operators such as Bouygues, SFR and Orange.

01. Network test

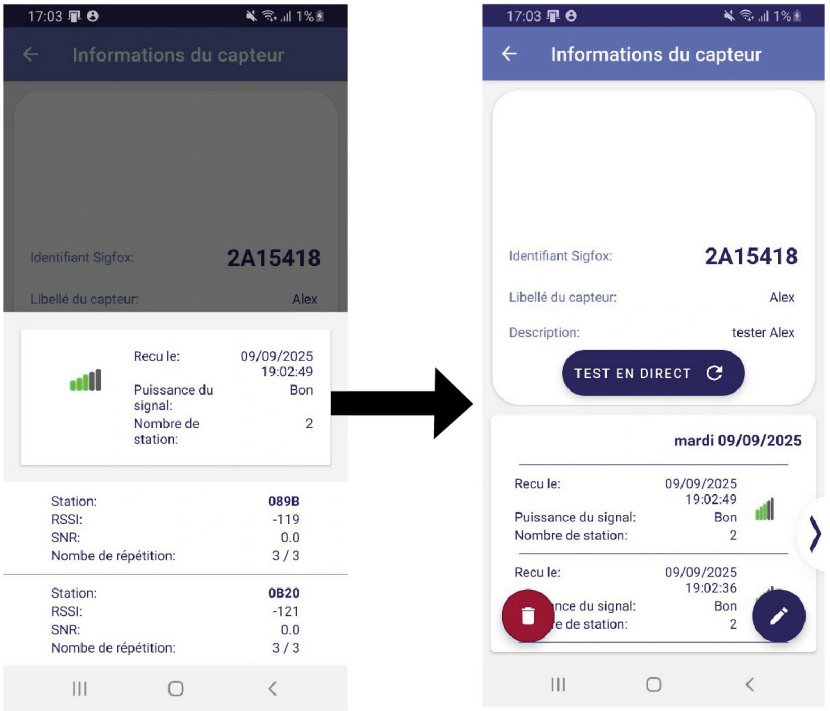
How can I check
if I have good Sigfox coverage before instrumentation?

Sigfox network test BEFORE instrumentation

Connected to a mobile application, the tester allows you to analyze the Sigfox radio reception level on your site. A simple press on the tester button sends a message indicating the signal strength in RSSI (reception level).

The tester also allows, directly on-site, to verify through mapping and site analysis the areas with good reception and identify those where the Sigfox network is weak or unavailable.

Example of a good signal analysis:



Refer to the tester button manual for more details.

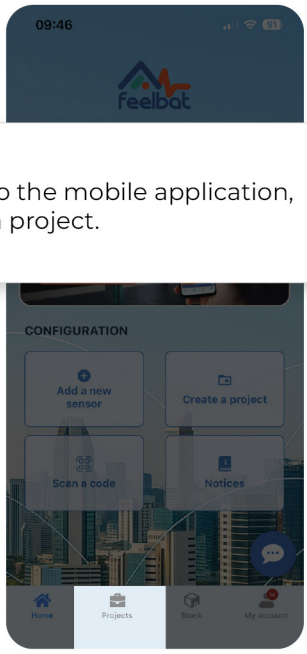
View the tester button manual

02. Network test

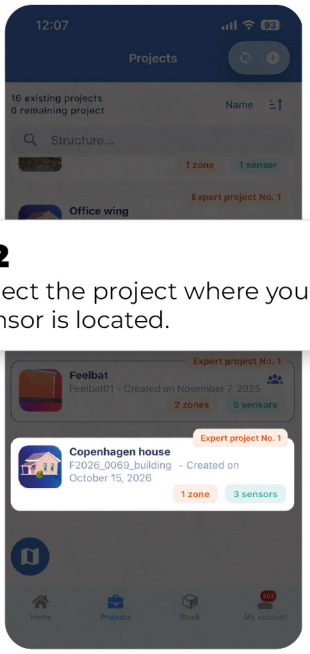
How can I check if I have good Sigfox coverage during instrumentation?

Sigfox network test DURING instrumentation

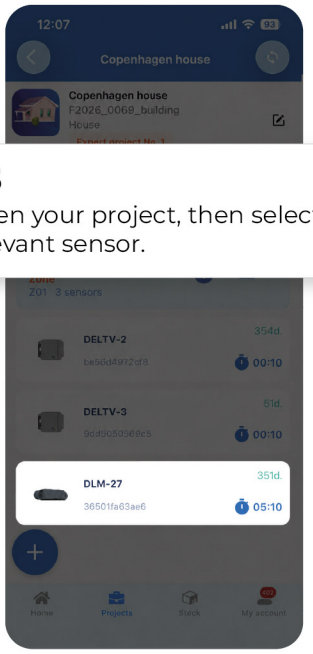
WITH LinkFeel token activation



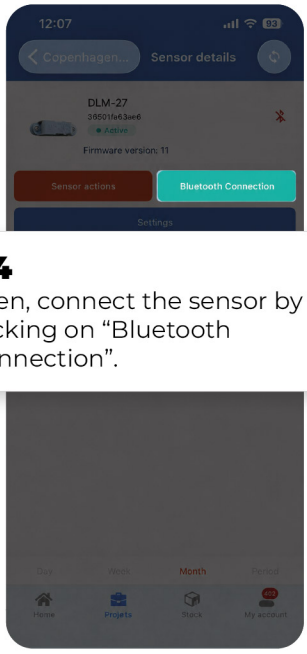
01
Go to the mobile application, then project.



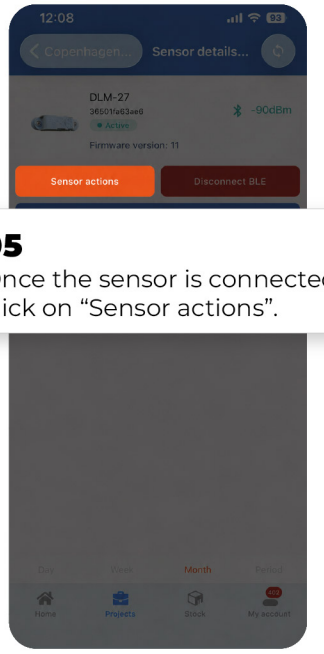
02
Select the project where your sensor is located.



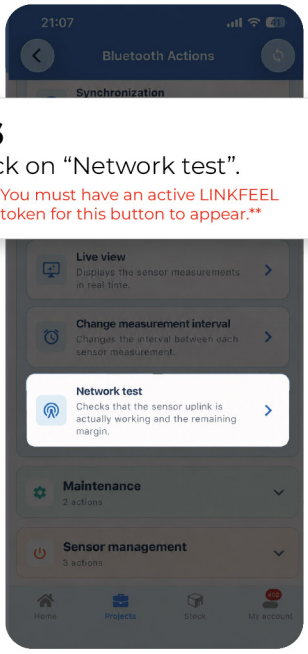
03
Open your project, then select the relevant sensor.



04
Then, connect the sensor by clicking on “Bluetooth Connection”.

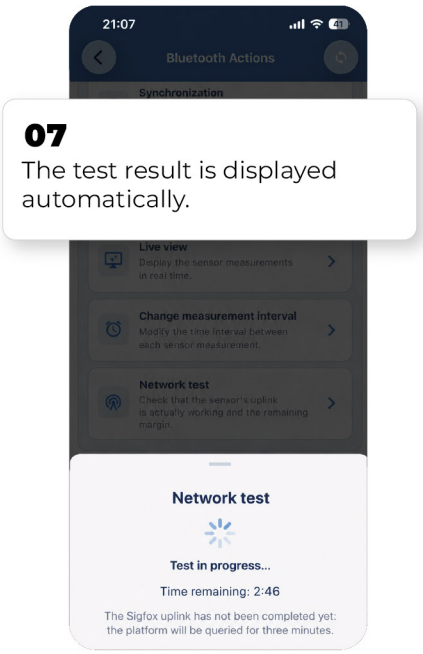


05
Once the sensor is connected, click on “Sensor actions”.



06
Click on “Network test”.
⚠ You must have an active LINKFEEL token for this button to appear.**

A minimum of 10 credits is required to activate a LinkFeel token. Learn more here.



Note: when you press “test Sigfox network”, a **3-minute countdown starts**. **If after one minute the test is not marked “Sigfox working correctly”**, your sensor is in an area with weak or no Sigfox radio coverage.

In this case, to ensure remote data transmission, it is necessary to map your site using the network tester in order to determine whether a repeater (relay) or a micro base station is required.

TIP

When mapping, test the network at different locations:

- on several floors,
- near windows,
- indoors and outdoors.

03. Network test

I have little or no Sigfox coverage, what should I do?

Relay or create a Sigfox signal

If your sensors are equipped with a LinkFeel token valid for one year and you want to enable remote data transmission despite a weak or non-existent Sigfox signal, here are the available solutions:



Repeater
The device acts as a relay within the Sigfox radio network coverage.
It must be placed 15 to 20 meters from the sensor in open field conditions to ensure proper transmission.

The repeater must be configured before installation on site, according to the manual, and requires knowledge of the sensors' LinkFeel IDs.
This means that all sensors' LinkFeel tokens must have been activated beforehand.

View manual



Microstation
Powered via a standard 220V/230V outlet and connected to the internet via Ethernet cable or a 3G/4G dongle + SIM card.

Once powered, it becomes an antenna creating a local Sigfox radio network around it, either outdoors or within a building, covering an area of approximately 150 to 200 meters in open field conditions.

Inside a building, each wall, slab, or floor can slightly attenuate the signal.

View manual

TIP

For the repeater, during configuration you can enter your network tester to validate on-site tests.

For the micro base station, once powered and the green indicator light is on, you can test its range using the network tester button.

Got a crack
Get FEELBAT

A question? Need help?
Contact us!

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