



# SIGFOX

One network A billion dreams



## The world's first cellular network operator dedicated to M2M and IoT

Leveraging its unique radio technology, SIGFOX offers **the most cost-effective and low throughput M2M communications on the market.**

Thanks to its patented UNB (Ultra Narrow Band) wireless communication technology and a cellular data transfer network optimised for low bandwidth M2M/ IoT applications, SIGFOX enables the remote management of your equipment and connected devices at the lowest possible price. As the operator of its own network, SIGFOX is revolutionising the price of Machine-to-Machine communications and paving the way for completely new applications for communicating objects.



## Connect all your machines and objects to the Internet

The SIGFOX solution has been specifically developed to **connect any equipment, sensor but also any object, to the Internet, at low-cost, low energy and with maximum efficiency.**

The SIGFOX solution is especially suited for applications like:

**Smart Metering, e-Health, Building Security and Building Intelligence, Smart City, Asset Tracking, Equipment and Infrastructure Control, Environmental and Agricultural Control,** and, of course, **the Internet of Things...**



## An ultra-efficient technology at your service

With its patented **UNB technology** and low throughput network, SIGFOX has overcome an incredible challenge: transmitting the billions of data of the Internet of Things in a **cost-effective, eco-responsible, efficient and reliable** way.

One of the keys to SIGFOX's incredibly competitive low throughput Machine-to-Machine and Internet of Things communication technology ultimately lies in its radio technology. UNB, which stands for Ultra Narrow Band, technology uses free frequency radio bands (no license needed) to transmit data over a very narrow spectrum to and from connected objects.

Designed for low throughput transmission (10b/s and 1kb/s typical range), the UNB Wireless technology benefits from a high level of sensitivity. Data transportation becomes very long range (distances up to 40km in open space) and communication with buried, underground equipment becomes possible, all this being achieved with high reliability and minimal power consumption. Furthermore, the narrow throughput transmission combined with sophisticated signal processing provides effective protection against interference. This also ensures that all the data are fully transmitted. These are just a few of the technology secrets that empower the SIGFOX solution. Discover more at [sigfox.com](http://sigfox.com).



## SIGFOX technology in a nutshell

**Data rate:**

from 10b/s to 1kb/s

**Frequency bands:**

any license-free frequency bands (such as ISM bands. 433 MHz, 868 MHz, 2.4 Ghz, etc)

**Signal range:**

40km in open space

**Typical power consumption (modem):**

50µW in mono-directional mode

**Typical standby time:**

20 years (with 2.5Ah battery)

**Density of antennas needed to cover a city:**

3 base stations for a city with 1 million inhabitants

**UNB modem cost:**

<1€ in volume











## Reliable M2M communications now available at ultra low-cost

For only **a couple of Euros per connected object per year**, SIGFOX delivers **a highly reliable cellular communication service** to support your M2M and Internet of Things applications.

The **SIGFOX wireless communication pack** includes:

- +** **A dedicated M2M/IoT network access** across SIGFOX coverage areas (see coverage map on sigfox.com)
- +** **A volume of data** to be exchanged set for each equipment specified requirements
- +** **Data flows delivered in IP format** ready for direct integration into your information system (no additional fees), enabling you to manage your equipment and service quality
- +** **An access to a service management interface**, enabling you to control key parameters in the communication chain: signal quality, battery and temperature settings on the deployed modems, user statistics (such as number of active connections, volume of exchanged data, etc.)
- +** **The SIGFOX Service policy.**  
As an operator 100% dedicated to low throughput Machine-to-Machine and Internet of Things, SIGFOX guarantees a high level of availability, reliability and security for your data.

## Why choose SIGFOX ?

-  **A specialist at your service:**  
SIGFOX is 100% focused on M2M and IoT.
-  **The lowest prices on the market:**  
SIGFOX offers the most price-competitive cellular communication service for Machine-to-Machine and Internet of Things applications - **at least 20x lower than other cellular solutions.**
-  **Reliable, long-term connection:**  
Targeting M2M applications with a very long-life span, the SIGFOX solution uses so little energy that it will provide your equipment with reliable connectivity on a simple battery, for up to 20 years.
-  **An eco-friendly M2M solution:**  
The SIGFOX solution has been designed to minimise its ecological footprint, with very few antennas across the field, ultra-low energy consumption (at both network and modem level) and ultra-low EM pollution.
-  **Easy, all the way:**
  - Easy-to-integrate, compact and low-cost modem solutions available from SIGFOX partners.
  - Internet-ready data streams: your data are directly delivered to your IT using standardised W3C web service.
-  **Connected everywhere, securely**
  - Although operating with very low energy, SIGFOX's unique radio technology enables buried, under ground equipment to be efficiently connected.
  - The SIGFOX network has already been tested and adopted for critical applications, and it has been designed to offer robust and secure communications while delivering a high level of QoS.
  - Check the status of your devices and communications everywhere, anytime through the SIGFOX supervision interface.
-  **Built for your success:**  
From pilot to large-scale deployment, and whatever your volumes are, the SIGFOX solution is highly scalable and our network is designed to support billions of connections.
-  **Ready for the Internet of Things:**  
The SIGFOX ultra low-cost, low energy solution has already been approved and successfully deployed for industrial M2M applications, paving the way to the Internet of Things. Just imagine the future, and SIGFOX will give it a voice...