



# NFC Temperature data loggers



**blu**log



# Temperature : a key parameter for pharmaceutical products



- **Between 2 and 8°C** : 5 out of 10 of most sold products
- **Between 15 and 25°C** : 4 out of 10 of most sold products
- Yet, temperature breaches are **frequent** during transport (transit in Dubai, freezing in Moscow, customs)

# Current solutions : either low cost and limited, or wireless but expensive



- **USB single-use dataloggers** : low cost but need to extract PDF report manually with a computer for each datalogger. Not much customization available
- **RFID / NFC single-use tags** : low cost but very limited memory (less than 1,000 measurements), average precision and limited in terms of functionalities
- **Wireless systems** : real-time alerts, automatic upload to cloud, but expensive, cumbersome and need for hubs / repeaters

# Blulog NFC data loggers : Credit-card size, very precise and affordable

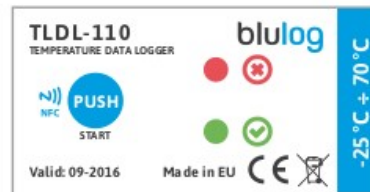
blulog

Instructions



written instructions on the back

## Temperature controlled shipment



**Green:** Shipment was kept in the right temperature conditions  
**Red:** Temperature problem during transport

Logistics information:

Destination:

.....

Sender:

.....

Shipper/Carrier:

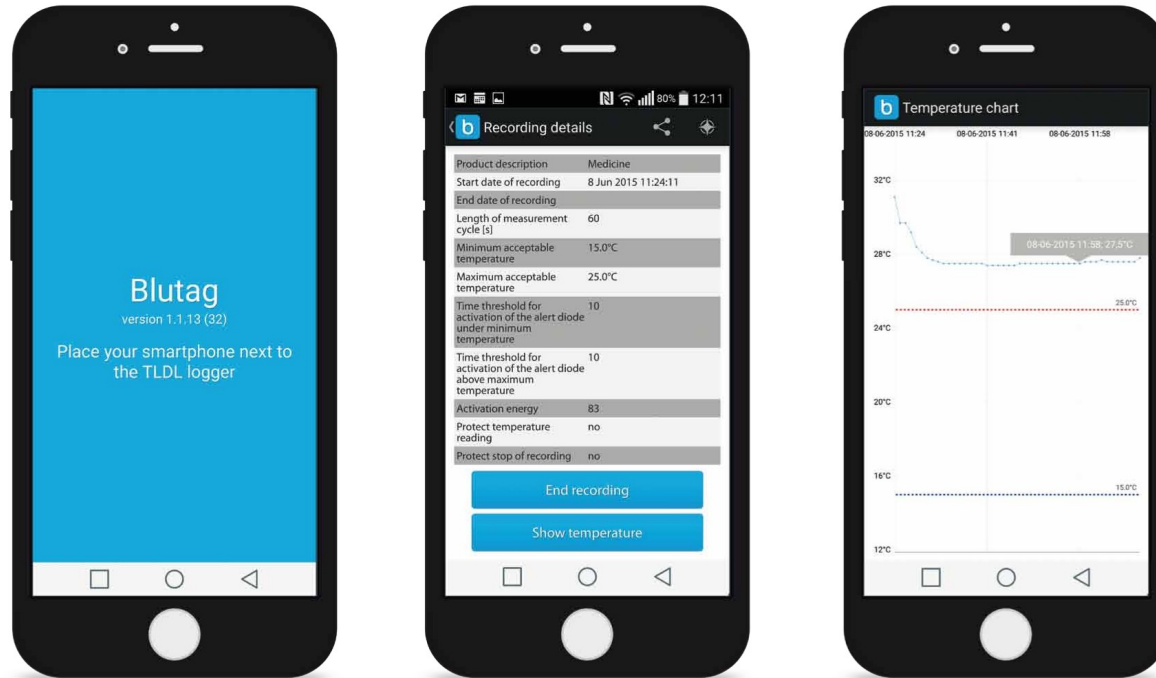
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Product monitored:

.....

- **Fully calibrated** with  $\pm 0.3^{\circ}\text{C}$  precision and real-time calibrated clock
- Single-use or reusable, prices starting at **€8** and fully **waterproof**
- Large memory of up to **48,000** measurement capacity + logistics data
- **Geolocalization** at each scan and **automatic upload to cloud**
- **Alert diodes** in case of temperature excursions

# Monitor directly from your smartphone



- **Preprogram** your data logger (we can do it for you) and **manually start** recording using the « Start » button
- Add any kind of **logistics information** like tracking number, product name, etc
- Access temperature data and graph from your **smartphone** or **NFC reader**
- Share the full temperature report via email, dropbox, or **upload data to cloud**

# Background about company blulog

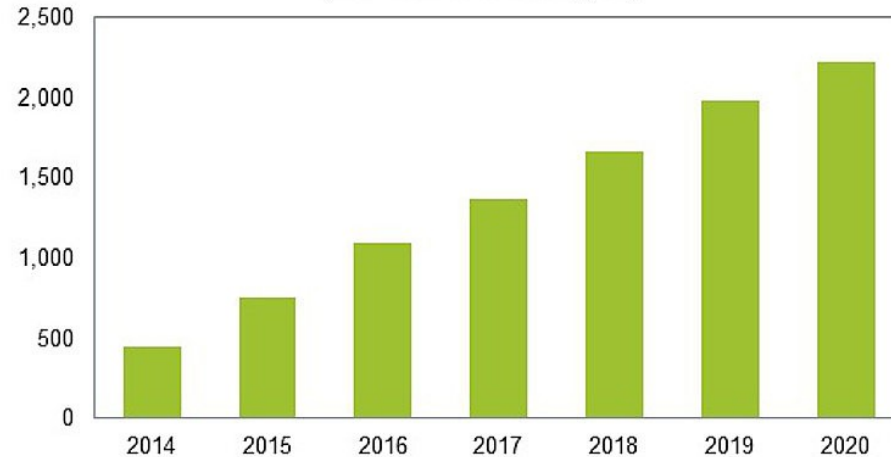


- French-Polish fast-growing company based in Poznan
- Founded in 2014 following **10 years of R&D** on a revolutionary M2M technology
- Strong engineering team with more than **30 years of experience**

# Background about NFC technology



World Shipment of NFC-enabled Cellular Handsets  
(in Millions of Units Shipped)



Source: IHS Inc., June 2015

- Created in the late 90s and established as a **standard** in 2003
- Used for mobile payment (Apple Pay, Android Pay)
- Technology now present in **most recent smartphones**
- **Fast data transmission**, 4cm range and **high security**

# Technical data sheet

Temperature scale	°C (°F optional)
Temperature range	-30°C to +70°C (-22°F to +158°F)
Measurement interval	From 10 sec to 2 hours
Memory capacity	From 5,000 to 48,000 measurements
Autonomy of battery	From 36 days to 1 year
Resolution	0.1°C (0.2°F)
Accuracy between 0 and 30°C	± 0.2°C (0.4°F)
Accuracy on the rest of the range	± 0.4°C (0.8°F)
Dimensions	80 x 50 x 2.5 mm (3.15" x 2.0" x 0.09")
Weight	10g (0.35 oz.)
Protection class	IP 67
Time	UTC
Equipment needed	NFC / Android
Shelf life	1 year
Data reading period post end of rec	2 years