

ITEN presents an autonomous asset monitoring solution based on a 100µA.h micro-battery

The French solid-state battery manufacturer demonstrates that replacing polluting coin cells by tiny ecofriendly SMD micro-batteries is possible.

LYON, FRANCE, November 14, 2022 /EINPresswire.com/ -- ITEN, the deep tech company, which just closed a financing round of 80M€ to become a key player in the manufacture of solid-state lithium-ion micro-batteries, shall take the opportunity of next ELECTRONICA exhibition to present a breakthrough in the way of powering autonomous embedded systems.

When observing the battery-powered electronic solutions, ITEN came indeed to the following conclusions:

- A lot of electronic designs rely on very polluting coin cells, difficult to assemble on Printed Circuit Boards, costly to recycle, and requiring periodic maintenance to replace the battery once empty.
- Depending on the countries, only 30 to 50% of such coin cells are effectively recycled.
- Autonomous embedded systems require less and less energy to operate; however, from time to time, the power supply must deliver high current pulses for instance to drive RF transceivers or actuators; therefore, most electronic designers must use oversized coin cells because such batteries are known to deliver only small currents.

From a battery standpoint, this means that a lower battery capacity could be used if the battery would be able to deliver the required power and could be recharged regularly.



This is precisely what ITEN shall demonstrate during ELECTRONICA: ITEN shall indeed present an autonomous asset monitoring solution, including sensors and a Bluetooth Low Energy (BLE) System-on-a-chip, and powered by the combination of an indoor photovoltaic cell from DRACULA Technologies (LAYERR Technology) and ITEN's powerful rechargeable SMD micro-battery of only 100µA.h. The solution operating 24/7 can send data every 10 seconds during the day and every 4 to 5 minutes during the night (this frequency could be increased if using a 250µA.h micro-battery instead). By comparison, a coin cell of at least 100mA.h would be required to get the same operating conditions but with a limited lifetime.

By extension, similar designs could be used in applications like BLE asset tracking, BLE tags, beacons, and sensor data loggers.

On stand B4-120, ITEN shall also demo micro-batteries used as a back-up power supply to keep some clocks or microcontrollers active or to send maintenance alerts in case of failure of the main power source.

By doing so, ITEN clearly reassert their strategy to progressively replace most of the coin cells used worldwide by ecofriendly rechargeable SMD micro-batteries containing neither heavy metals, nor toxic materials, nor organic solvents and showing a carbon footprint 200 to 1000 times less compared to coin cells.

After 8 years of R&D, ITEN have been granted more than 200 patents worldwide. ITEN are an integrated device manufacturer, controlling the complete production chain from nanomaterial synthesis up to the battery packaging and test. Even with low capacities, ITEN micro-batteries can deliver power and high current pulses. They are a concrete response to electronics designers looking for ecofriendly alternatives to coin cells. In this respect, ITEN solutions fit in with the European Directive recommending getting rid of non-rechargeable batteries in all electronic system designs from the year 2030.

About ITEN:

ITEN is the leading company developing and manufacturing ecofriendly solid-state lithium-ion SMD micro batteries. Such micro batteries are rechargeable in a few minutes and can deliver power over a wide operating temperature range. They are used in many applications as back-up power supply, or to power autonomous sensor nodes or in applications like tracking and monitoring, smartphone peripherals, smart cards, medical devices, home and building automation, smart cities, wearables, and e-textiles.

Contact : sales@iten.com

Alain JUTANT

ITEN

+33 6 31 27 95 48

[email us here](#)

Visit us on social media:

[Twitter](#)

[LinkedIn](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/601111744>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2022 Newsmatics Inc. All Right Reserved.