

## Flexible Lithium-ion rechargeable battery for smartcards, wearables and IoT devices

*Panasonic presents innovative flexible batteries that withstand bending and twisting with no loss of function*

*Hamburg, xx Month 2016:* At electronica 2016 Panasonic will present innovative, highly flexible Lithium-ion batteries: they can withstand repeated bending with a radius of 25 mm or twisting with a maximum angle of 25 degrees, with no loss of function. The batteries are extremely thin with a height of only 0.55 millimetres, which makes them ideal for use in smartcards and wearable devices.

The durable construction allows use of the innovative rechargeable batteries in diverse applications: batteries in card devices, for example, must be able to withstand bending without becoming defective. Flexibility is also an advantage in wearable devices such as smart watches, since it allows them to be adjusted to the individual user. "Comparable Lithium-ion batteries cannot fulfil these requirements", according to Takuyuki Okano, Chief Engineer at Panasonic. "Repeated bending of the batteries not only reduces the charge capacity and the life of the battery, but also has a severe impact on their safety." The new flexible rechargeable battery from Panasonic features excellent quality and is designed for safe and long-lasting operation. In stress tests it retains 99 % of the original capacity even after one thousand bends and twists.

The battery features a stacked electrode construction. A newly designed internal structure and an innovative laminated outer layer ensure that the battery does not leak or overheat during repeated bending and twisting. This rugged construction makes the battery ideal for use in smartwatches and smart clothes in direct contact with the body.

The flexible Lithium-ion battery is currently still in the development phase; serial production is scheduled to start in 2018. The three models planned so far have charge capacities between 17.5 mAh and 60 mAh with a weight of only 0.7 to 1.9 grams.

(1.805 characters including blanks)

**Meta title:** Flexible Lithium-ion battery

**Meta description:** At electronica 2016 Panasonic will present innovative Lithium-ion batteries that can withstand bending or twisting with no loss of function.

Panasonic Automotive & Industrial  
Systems Europe GmbH  
Winsbergring 15  
22525 Hamburg Germany  
<http://eu.industrial.panasonic.com>

PR contact  
Carolin Böhme  
[Carolin.boehme@eu.panasonic.com](mailto:Carolin.boehme@eu.panasonic.com)  
Phone: +49 40 8549 6385  
<http://eu.industrial.panasonic.com>

PR office:  
Köhler + Partner GmbH  
Brauerstr. 42 - 21244 Buchholz i.d.N.  
Phone +49 4181 928928-0  
Fax +49 4181 928928-55  
[info@koehler-partner.de](mailto:info@koehler-partner.de)  
[www.koehler-partner.de](http://www.koehler-partner.de)

**Keywords:** flexible Lithium-ion rechargeable battery, flexible Lithium-ion battery, smartcards, wearables, smart clothing

**Deep link:**

<https://eu.industrial.panasonic.com/products/batteries-energy-products>

**About Panasonic**

Panasonic started manufacturing batteries back in 1931. Today, with numerous production sites around the globe, the corporation offers the widest selection of any battery manufacturer worldwide. The product spectrum includes batteries in diverse technologies, including primary batteries (lithium, carbon-zinc and alkaline) and rechargeable secondary batteries (lithium-ion, nickel-metal-hydrate, nickel-cadmium and sealed lead-acid batteries).

Panasonic batteries are distributed in Europe by Panasonic Automotive & Industrial Systems Europe GmbH (PAISEU). The subsidiary of the Panasonic Corporation offers its customers an extensive range of industrial products in the following sectors: Automotive, Industry, Factory Solutions and Energy.