Attracting Tomorrow

100 200

CeraCharge™

Battery in energy harvesting applications (Beacon)

TDK Electronics AG

Piezo & Protection Devices Business Group Multilayer Technology Munich, Germany May 1, 2020

CeraCharge[™] as battery in energy harvesting applications (Beacon)

- Beacon: Stand alone systems that collect and broadcast data using for that, harvested energy
- CeraCharge[™] is the ideal storage media to support the modern IC technology (MPUs, sensors) Those ICs are extremely low energy demanding and require long operation lifetime
- Smart home, medical and Industry 4.0 are driving the demand on Beacon systems

Features and benefits

- **Miniaturized** (SMD EIA1812) and maintenance free battery
- High number of cycles >1000
- Compatible with BLE 4.0 ICs
- Easy SMD mounting
- RoHs-conform

Key questions

- Number of pulses between charges?
- Pulse current and pulse duration?
- Lifetime?

(

Specifications	
Nominal voltage Operating voltage	1.5 V 0 to 1.6 V _{op}
Nominal capacity Max. pulse capability	100 µAh 5 mA
Operating temperature	-20 to +80 °C





CeraCharge[™] • Battery in energy harvesting applications (Beacon)

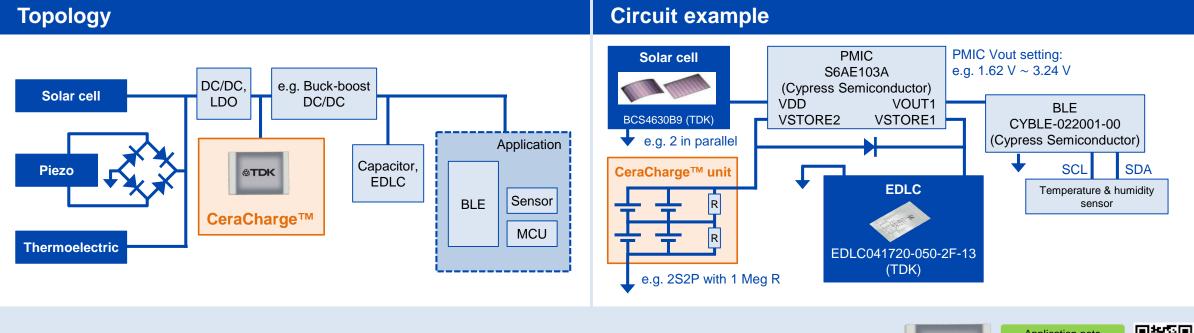
Attracting Tomorrow



CeraCharge[™] as battery in energy harvesting applications (Beacon)

Beacon: Stand alone systems that collect and broadcast data using for that, harvested energy

- CeraCharge[™] is the ideal storage media to support the modern IC technology (MPUs, sensors) Those ICs are extremely low energy demanding and require long operation lifetime
- Smart home, medical and Industry 4.0 are driving the demand on Beacon systems





CeraCharge[™] • Battery in energy harvesting applications (Beacon)

Attracting Tomorrow





www.tdk-electronics.tdk.com