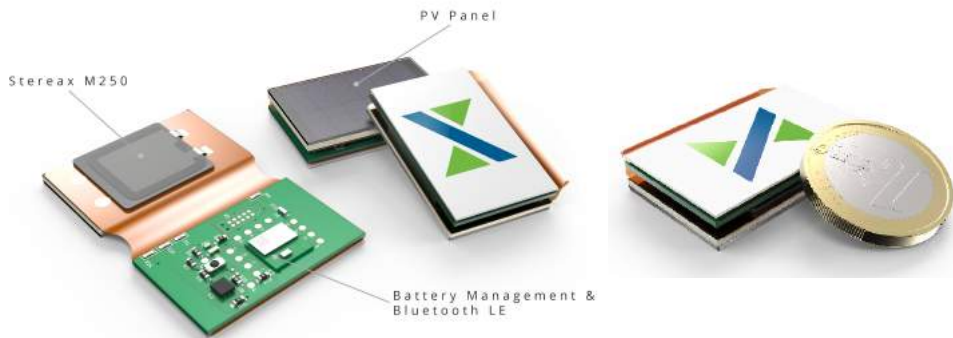


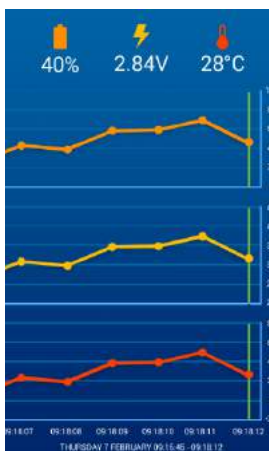
Perpetual Beacon for Smart Homes powered by Stereax™ M250

Ilika demonstrates the ability of its Stereax M250 solid state battery to power a real device within the Internet of Things. This device is a Perpetual Beacon for Smart Homes, in other words, an autonomous sensing device of minimal size which, fixed on a wall, measures temperature data at regular interval and transmit the data using Bluetooth Low Energy to an app. The app displays temperature information as well as the battery' state of charge and indicates if heating needs to be started or stopped. This device replicates sensors for Smart Homes, where the data could also be sent to a hub for automated control, but is so small as being easily forgotten.



Component	Model	Comment
Battery	Stereax M250	250 µAh solid state battery
PV panel	IXYS SLMD600	35 mm x 22 mm
Battery Management	Texas Instruments	BQ25504
Bluetooth LE	RICADO BMD-300	Nordic nRF52832 SoC with ARM Cortex M4F CPU

Transmission regime: 3 peaks at 5 mA for 0.5 ms every second



App Snapshot



The Perpetual Beacon can be placed and forgotten on the wall of a Smart Home

accelerated materials innovation

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