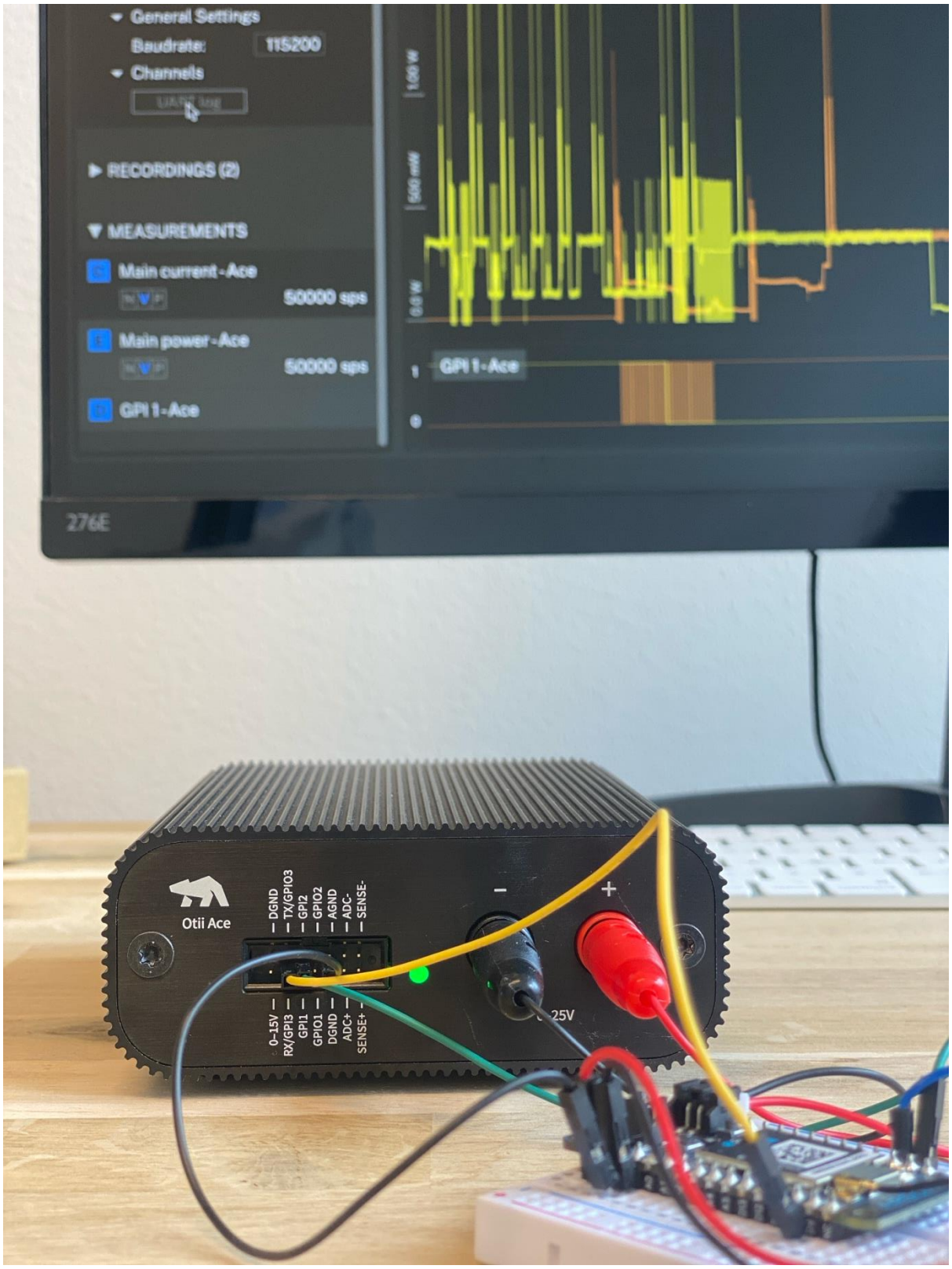
Otii Ace Pro

Qoitech’s all-in-one power analyzer, power supply, and UART debug log sync helps optimize energy and extend the battery life of products.



Qoitech's Otii Ace Pro is a development tool for energy optimization of battery-driven and energy-harvesting devices. It is an isolated power supply and a measurement unit that can precisely source voltage (up to 25 V) or current (up to 5 A) and simultaneously measure voltage and current with a high sample rate (up to 50 ksps) and low step size. It computes power and energy that enables engineers and developers to easily see and optimize their devices' energy consumption and battery life under test. Otii Ace Pro can be upgraded with Otii Toolboxes, software licenses that elevate the instrument into specialized tools such as battery profiler and simulator, or automation tools. It can be used in product development, test and verification, quality assurance and maintenance (for example as part of continuous integration set-up), and in technical sales.

The Otii Ace Pro measures 10.9 cm x 14.4 cm x 4.4 cm (W x L x H) and weighs 450 grams. It is designed for the office, lab, usage at home, and field measurements. The innovative mechanical design allows for efficient heat dissipation, so no fan is needed resulting in low noise.

A USB-C cable and a USB-A to USB-C adapter are included in the package.

Resources
Use casesDocumentation
Connect Otii Arc/Ace
Forum and Support

Features

- The Otii software, an easy-to-use desktop application for Ubuntu, Windows, and macOS
- Quick install, plug-and-play setup, and start measuring in less than a minute
- The isolated power supply enables diverse use cases and power configurations, 0 V to 25 V
- Connect several devices in series and parallel to increase voltage and current capabilities
- Providing 0.4 nA resolution current measurements with an adjustable sample rate of up to 50 ksps
- Wide dynamic range: 0.4 nA to 5 A
- Current measurement accuracy: ±(0.05% + 25 nA)
- Active voltage regulation, no burden voltage
- Measure systems where the battery negative terminal is not the system ground
- Measurements continuously synchronized with debug logs from the device under test, collected via UART in the expansion port
- Real-time analysis; scroll, zoom, and select parts of the current consumption and debug logs while measuring
- Record and compare multiple recordings
- Battery life calculator
- Support for in-line measurementsShare the Otii project and recordings for measurements or view by colleagues
- Undo/redo functionality
- Support for multiple Otii hardware in one Otii project
- Configurable UI
- Fully responsive UI during heavy data measurement load (multiple streams, long recordings)
- Offline license mode
- Made in Sweden

Applications

- Powering devices under development
- Energy profiling of microcontrollers, sensors, devices, and electronics up to 25 V in real-time and over time
- Optimizing sleep currents, extends battery life
- Measuring inrush currents
- Measuring component leakage currents over time
- Designing power-efficient hardware, firmware, and software through regression testing
- Troubleshooting of hardware and software

For:

- IoT sensors and hubs
- Mobile phones
- Wearables
- Development boards
- Consumer electronics