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# Kvaser Edge WL830S

The Kvaser Edge WL830S is a rugged, IP67-rated edge computer for real-time CAN data acquisition. Powered by a quad-core Cortex-A53 processor with NPU acceleration, it combines eight galvanically isolated CAN FD SIC channels, dual Gigabit Ethernet interfaces, Wi-Fi 6, 5G connectivity, Bluetooth 5.3, Multi-GNSS positioning, and digital I/O in a compact platform.

Running Kvaser Edge OS (KEOS), the WL830S provides a secure containerized Linux environment for flexible application deployment and full ownership of data and intellectual property.

**Warranty**
2-Year warranty. See our general conditions and policies for details.

**Support**
Free support for all products by contacting support@kvaser.com

**EAN**
73-30130-01738-2

KVASER
Advancing connectivity

# Kvaser Edge WL830S

## Major Features

- Running the scalable and secure system platform Kvaser Edge OS (KEOS) for a remote and flexible user environment.
- Designed for effortless execution of data logging and processing missions at the edge.
- Powerful embedded ARM-based Linux computer with "Secure Element", NXP SE051C2 faciliating CRA compliance with target software applications.
- Cellular connectivity for supporting 5G/LTE worldwide.
- Eight fully featured, time-synchronized, individually galvanically isolated CAN-FD channels utilizing Kvaser CAN-IP implemented in FPGA.
- WiFi6 and Gigabit Ethernet Interfaces enable remote connectivity.
- Ruggedized housing with IP67 ingress protection.
- Wired interfaces for durable flexible connections.
- Integrated positioning and inertial measurement units.
- Galvanic Isolated GPIO interfaces enables trigger-based logging.
- Separate galvanic isolated power supply with support of activiation by ignition signal.
- High-capacity battery ensures safe shutdown and supports intermediate operation.
- Multi-GNSS (Global Navigation Satellite System) support (GPS, Galileo, GLONASS, BeiDou) for enhanced positioning accuracy and reliability.
- Supplied with an eSIM. Contact Kvaser for setup assistance or alternative SIM options.

## Support

Documentation and Kvaser SDK can be downloaded for free at www.kvaser.com/downloads. Drivers are already included in the Kvaser Edge.

Kvaser SDK is a free resource that includes everything you need to develop software for the Kvaser CAN interfaces. Includes full documentation and many program samples, written in C, C++, C#, Delphi, Visual Basic, Python and t script language.

The Kvaser EDGE can be pre-configured with customer system image, setup of containers, installation of Kvaser SDK and customer-selected drivers to fit potential needs.

Kvaser CAN hardware is built around the same common software API. Applications developed using one device type will run without modification on other device types.

## Technical Data

| | |
|---|---|
| **Battery** | Lithium-ion 18650 |
| **Battery capacity** | 10 Wh |
| **Bluetooth** | Supporting mode BLE 5.3 |
| **CAN** | 8 x CAN FD SIC Galvanic Isolated, HD26 |
| **CAN FD Bit Rate** | Up to 8 Mbit/s |
| **Cellular connectivity** | 5G/LTE |
| **Ethernet** | 2 x Gigabit Ethernet 1000BASE-T, RJ45 Socket |
| **GPIO** | 4 x Digital Input<br>2 x Digital Output |
| **Housing** | Aluminum housing with plastic protective caps, approx. 200 x 110 x 58 mm |
| **IMU**<br>Acceleration sensitivity<br>Angular rate sensitivity | 6-axis (accelerometer + gyroscope)<br>+-2g range 0.061 mg/LSB (Typical)<br>+-125 dps range 4.375 mdps/LSB (Typical) |
| **Ingress Protection: Housing** | IP67 |
| **Operating Temperature** | -40 to 50 °C ambient (If handheld use is not a requirement, the device can operate at ambient temperatures up to +70 °C.) |
| **Operating System** | Kvaser Edge OS (KEOS), a Linux-based OS |
| **Positioning** | Multi-GNSS (GPS, Galileo, GLONASS, BeiDou) with external active antenna via FAKRA connector (Key Code-C) |
| **Power activation** | Galvanic Isolated |
| **Power consumption** | Up to 15 W in active mode<br>Standby mode, down to 200 mW |
| **Power supply** | 9-36 VDC, Galvanic Isolated |
| **Processor** | Multicore processing Quad Cortex®-A53 up to 1.6 GHz with NPU, ARM Cortex M7 |
| **RAM** | 2 GB LPDDR4 |
| **Regulatory Compliance** | CE, FCC |
| **Status display** | 12 Multicolor LED:s |
| **Storage** | 256 GB eMMC (embedded MultiMediaCard) |
| **USB** | USB 3.1 Host, Type-C (PD 400 mA) |
| **Weight** | 1100 g, cables excluded |
| **Wi-Fi** | Wi-Fi 6 IEEE 802.11ax, Dual Band, 2 x 2 MIMO (5GHz), Antenna Diversity, Integrated antennas |

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