

WIRELESS CAN BRIDGE

Achieving latency without sacrificing stability or range

Kvaser (Sweden) has introduced the Air Bridge Light HS, a high-performance wireless CAN bridge to connect CAN networks. The product enables exchanging raw CAN data.



(Photo: Kvaser)

Comprising a pre-configured pair of plug-and-play units, with integrated antennas and rugged housings, Kvaser Air Bridge Light HS provides a rapid way of exchanging raw CAN data. It is the first in the Air Bridge product line, which facilitates the job of the system integrator in situations that make wired connection unsuitable or challenging, such as between two moving parts that are connected by CAN. The product supports the CAN 11-bit and the 29-bit identifiers.

Employing a proprietary 2,4 G radio and frequency hopping mechanism, the product controls the data rate, radio packet format, output power and pairing method to achieve predictable latencies, without sacrificing stability or range. This makes it effective in infrastructure and control applications, where accurate message delivery times are essential. Transmission range is as much as 70 m, with a maximum data rate of 1200 messages per second and a packet latency of 4,8 ms.

“Cabling is convenient in most environments but in some, such as motion control, it is challenging to implement

and costly to maintain. Kvaser Air Bridge Light is a preconfigured CAN bridge that minimizes set-up time, whilst maximizing performance in line-of-sight CAN implementations, such as vehicle testing, motion control and in situations where CAN cables are exposed to harsh environments,” commented Lars-Berno Fredriksson, president of Kvaser AB.

A key feature of the gateway is ABR ([Automatic baud rate detection](#)), whereby the pair of devices automatically detects and connects to any of the following CAN network speeds: 1 Mbit/s, 500 Kbit/s, 250 Kbit/s, and 125 Kbit/s. Auto baud rate detection is carried out locally on the device, enabling the Kvaser Air Bridge Light HS to link two CAN networks that are operating at different bitrates.

The device comes in two variants: (00808-3) Kvaser Air Bridge Light HS is approved for the European Union, while (01008-6) Kvaser Air Bridge Light HS (FCC) is optimized for the US. Both models share the same functionality but have different radio transmission schemes due to regulatory differences.

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