




Learn more about
this product





Your Gateway to Efficient Connectivity

Kvaser Air Bridge M12 is a small, yet advanced, single wireless CAN device that can be used to form a CAN system bridge between two CAN networks. This radio solution can be used to connect CAN based control systems and test equipment in scenarios and situations where it is desirable to replace cabling and related parts.

The Kvaser Air Bridge M12 is designed for ease of use, while retaining a certain flexibility for the user by means of configuration; choose between 'one to one', or 'one to any'. The Kvaser Air Bridge Utility CLI enables a user to commission Kvaser Air Bridge M12 devices in a simple and straight-forward fashion.

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

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

 **EAN**
73-30130-01494-7

Major Features

- Forms a wireless CAN bridge between two Kvaser Air Bridge devices.
- Can be paired with any other Kvaser Air Bridge M12 device to form a point-to-point radio link.
- High-speed CAN connection (compliant with ISO 11898-2), up to 1 Mbit/s.
- Driver-free and only limited configuration required.
- Provides configuration flexibility to support a wide variety of application requirements.
- Pairing, configuration and link status via management protocol over the CAN bus.
- Active discovery feature that detects available Kvaser Air Bridge M12 devices for pairing.
- Proprietary wireless protocol for high robustness, very low latency and to enable link establishment and connection in an instant.
- Internal antenna design with polarization diversity.
- Automatic bit rate detection or user configured.
- Bit rate conversion between CAN bus systems with different bit rates.
- IP65-rated, dust- and water-resistant housing.
- IP67-rated M12 connector for cabling with extra dust- and water-tightness, suitable for outdoor installation.
- Extended operating temperature range.
- Compatible with J1939, CANopen, NMEA 2000® and DeviceNet. Higher layer protocol translation handled by the user's application. For software support please see our Technical Associates products and our Software Download page (www.kvaser.com).

Support

Documentation, Kvaser CANlib SDK and drivers can be downloaded for free at www.kvaser.com/downloads.

Kvaser CANlib 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 programming language.

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

Antenna Output Power	Max 18 dBm
CAN Bit Rate	1 Mbit/s, 500 kbit/s, 250 kbit/s and 125 kbit/s
CAN Channels	1
CAN Transceivers	TJA1051T (compliant with ISO 11898-2)
Certifications	CE, FCC, RoHS
Connector	M12 5-pin, A-code
Dimensions	30 x 151 x 17 mm
Frequency Range	2400 - 2483.5 MHz
Housing Material	Aluminum, PA6
Message Latency	Typically 2.5 - 7.5 ms
Message Rate, CAN 2.0A (11-bit ID)¹	2 x 2100 messages/s
Message Rate, CAN 2.0B (29-bit ID)¹	2 x 1680 messages/s
Message Transfer Capacity²	Corresponding to 100% bus load for both directions at 250 kbit/s bit rate
Power Consumption	Typically 2 W
Power Supply	9 - 36 VDC
Temperature Range	-40 to +70 °C
Timestamp Resolution	1 µs
Wireless Communication	Frequency Hopping Spread Spectrum (FHSS) with Gaussian Frequency-Shift Keying (GFSK)
Weight	85 g

¹ Maximum message rate in both directions for eight byte payload. Refer to "Kvaser Air Bridge System Integration Guide" for more information.

² Recommended maximum load is 80%. Refer to "Kvaser Air Bridge System Integration Guide" for more information.