KVASER
Advancing connectivity

Kvaser Air Bridge M12

Learn more about this product

Your Gateway to Efficient Connectivity

Kvaser Air Bridge M12 is a small, yet advanced, wireless CAN bridge device that can be used to form a CAN system bridge between any two Air Bridge M12 devices with uniquely low and predictable latency compared to other wireless technologies. It is designed for ease of use, while retaining a certain flexibility for the user including optimized CAN bus parameters and CAN message filtering.

The Kvaser Air Bridge M12 is ideal for more advanced systems which can benefit from built-in supervision and other unique features that support context based solutions for innovations related to autonomous systems, flexible pairing and much more.

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

Ref. No. 98301-4 v. 2.0

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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 SDK and drivers can be downloaded for free at www.kvaser.com/downloads.

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.

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)
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 Capacity[2]	Corresponding to 100% bus load for both directions at 250 kbit/s bit rate
Power Consumption	Typically 2 W
Power Supply	9 - 36 VDC
Regulatory Compliance	CE, FCC
Temperature Range	-40 to +70 °C
Weight	84 g
Wireless Communication	Frequency Hopping Spread Spectrum (FHSS) with Gaussion Frequency-Shift Keying (GFSK)

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.

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