

CAN-Bluetooth Converter

*Transfers Wireless Data to a PC, Smartphone, Display, or Tablet
Apple iOS and Android Interface*

P/N: AX141155

Features

- CAN SAE J1939 in Interface Mode or CAN (protocol independent) in Bridge Mode
- Bluetooth® (Low Energy V5.2)
- Connection range up to 50 m (164 ft.) (May vary. See details below.)
- 6 to 80Vdc (12V, 24V or 48Vdc nominal) with load dump
- 6-pin TE Deutsch equivalent connector
- Operating temperature: -30 to +85°C
- Compact, laser-welded, IP67 enclosure
- FCC, ICES, RED compliance
- CE / UKCA marking
- Vibration and shock compliance for off-highway applications
- Configurable via Axiomatic CAN2BLE Configuration application on compatible Apple iOS or Android devices using Bluetooth® Low Energy (BLE).



Ordering Part Numbers

CAN-Bluetooth Converter, Apple iOS & Android Interface, SAE J1939 with Auto-Baud-Rate Detection, P/N: **AX141155**

Accessories:

- **AX070119** Mating Plug Kit
- **CAN2BLE Configuration** application available for Android and iOS devices (see User Interface below).

Description

The CAN-Bluetooth Converter transfers wireless data to a PC, smartphone, display, or tablet. The setpoints are configurable using the CAN2BLE Configuration application on an Apple iOS or Android smartphone or tablet.

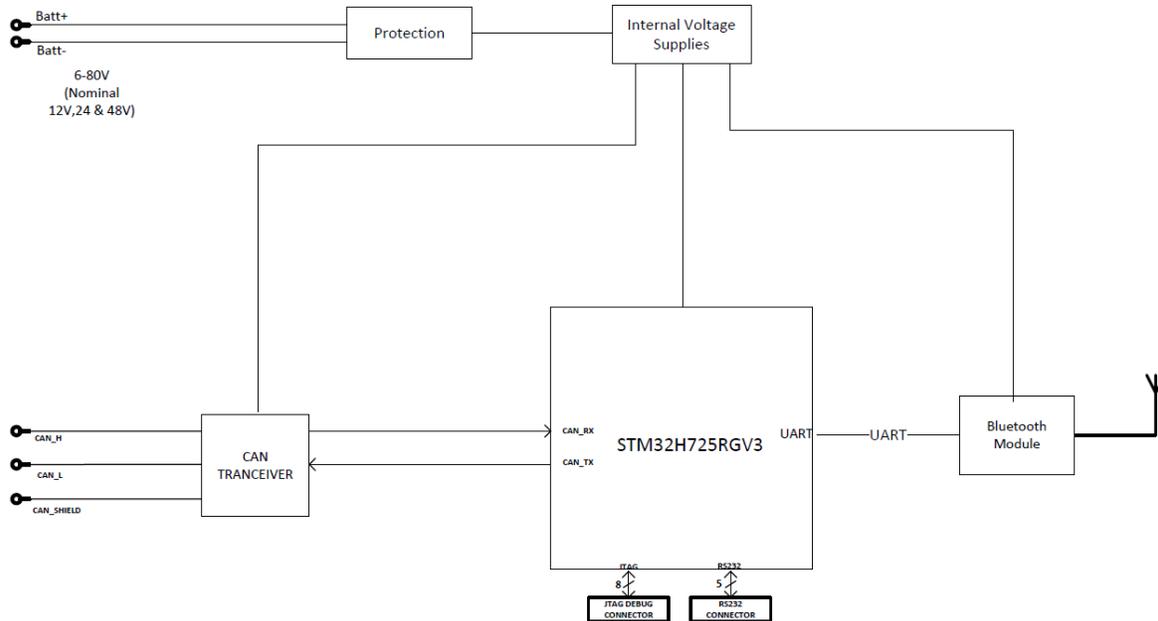
It has rugged packaging and performance for IP67, high vibration and off-highway machine environments.

SAE J1939 is the CAN bus protocol for operation in interface mode. However, the CAN-Bluetooth Converter also handles CAN frames with standard IDs for operation in bridge mode. It features auto-baud-rate detection.

The device supports Bluetooth® Low Energy (BLE) standards. These CAN-Bluetooth devices can be used as a pair for creating a bridge for CAN data.



Block Diagram



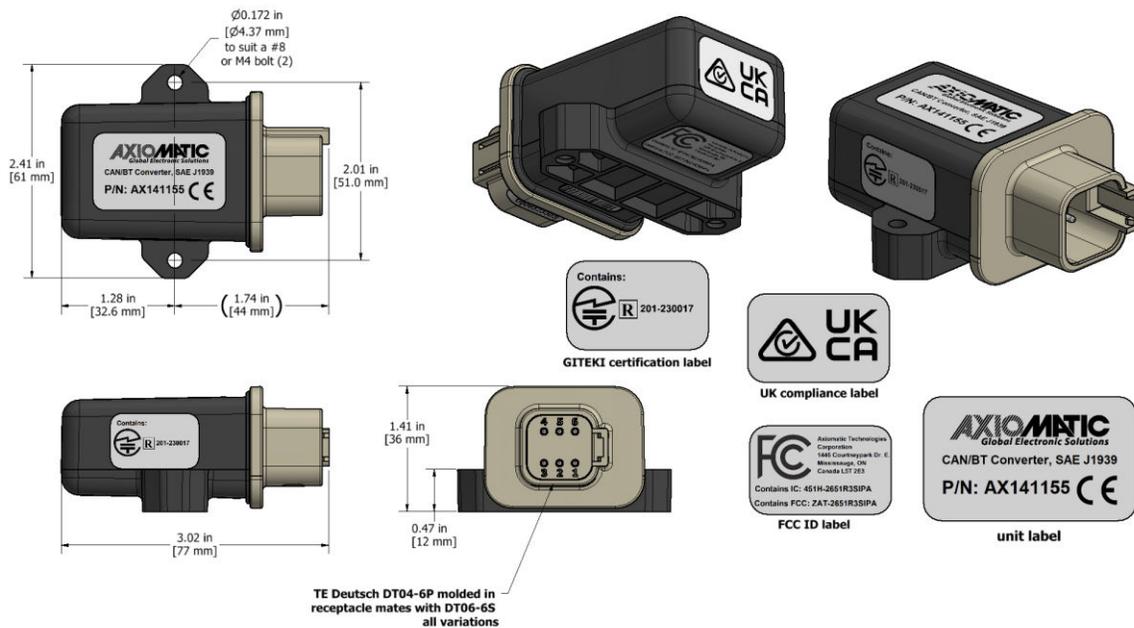
Technical Specifications

Specifications are indicative and subject to change. Actual performance will vary depending on the application and operating conditions. Users should satisfy themselves that the product is suitable for use in the intended application. All our products carry a limited warranty against defects in material and workmanship. Please refer to our Warranty, Application Limitations & Return Materials Process as described on <https://www.axiomatic.com/service/>.

Power Supply Input	12Vdc, 24Vdc, or 48Vdc nominal (6 to 80 VDC power supply range) Load dump protection is provided.
Quiescent Current	47 mA @ 12 Vdc; 37 mA @ 24 Vdc; 20 mA @ 48 Vdc (Typical)
Protection	Reverse polarity protection is provided. Undervoltage protection down to 6.3 V is provided. Overvoltage protection up to 87.4 V is provided.
Microcontroller	STM32H725RGV3 32-bit, 1024 Kbit program flash
CAN	1 CAN port (SAE J1939) CAN SAE J1939 in Interface Mode or CAN (protocol independent) in Bridge Mode CAN bus configuration allows changing the CAN interface baud-rate. Supported baud-rates include 50k, 100k, 125k, 250kbps (default), 500k, and 1Mbps with auto-baud-rate detection.
Bluetooth®	TI CC2651R3SIPA Bluetooth® LE V5.2 compliant Serial Port Profile (SPP) Internal antenna Connection Range*: Up to 50 m (164 ft.) Operating Range*: Up to 150 m (492 ft.) @ 13 dbm (Class 1) *Range depends on the operating environment and actual results may vary. Average Latency: <ul style="list-style-type: none"> AX141155 - AX141155 (Bridge): 8 ms to 20 ms AX141155 - Smart Device: 14 ms to 16 ms
Control Logic	User programmable functionality. Refer to the User Manual.
User Interface	CAN2BLE Configuration Application is available for a fee from Google Play for Android devices. It uses Bluetooth® Low Energy (BLE) standard. (https://play.google.com/store/apps/details?id=com.axiomatic.can2bt) CAN2BLE Configuration Application can be downloaded for a fee from Apple's App Store for iOS devices. It uses Bluetooth® Low Energy (BLE) standard. (https://apps.apple.com/us/app/can2ble-configuration/id6478509202). In addition to the above, Axiomatic Electronic Assistant KIT (P/Ns: AX070502 or AX070506K) may also be used to configure baud-rate
Operating Temperature	-30 to 85 °C (-22 to 185 °F)
Storage Temperature	-50 to 125 °C (-58 to 257 °F)

Protection	IP67														
Approvals	CE / UKCA marking TI CC2651R3SIPAT0MOUR Bluetooth® SIG Contains: CE-RED (Europe) Contains: FCC (US) ZAT-2651R3SIPA Contains: ICES (Canada) 451H-2651R3SIPA Contains: Japan (Telec) R201-230017 RoHS														
Enclosure	Molded enclosure, integral connector Nylon 6/6, 30% glass, laser welded 3.02 in x 2.41 in x 1.41 in (77 mm x 61 mm x 36 mm) L x W x H includes the integral connector. Refer to Dimensional Drawing. Flammability rating: UL 94 HB														
Weight	0.1 lb. (0.045 kg)														
Electrical Connections	6-pin connector (equivalent TE Deutsch P/N: DT04-6P) <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Pin #</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CAN_Shield</td> </tr> <tr> <td>2</td> <td>CAN_H</td> </tr> <tr> <td>3</td> <td>CAN_L</td> </tr> <tr> <td>4</td> <td>Power -</td> </tr> <tr> <td>5</td> <td>Power +</td> </tr> <tr> <td>6</td> <td>Not Used</td> </tr> </tbody> </table>	Pin #	Description	1	CAN_Shield	2	CAN_H	3	CAN_L	4	Power -	5	Power +	6	Not Used
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Mating Plug Kit	Axiomatic P/N: AX070119 (includes 1 plug DT06-6S, 1 wedgelock W6S, and 6 sockets 0462-201-16141)														
Network Termination	It is necessary to terminate the network with external termination resistors. The resistors are 120 Ohm, 0.25W minimum, metal film or similar type. They should be placed between CAN_H and CAN_L terminals at both ends of the network.														
Mounting	Mounting holes are sized for #8 or M4 bolts. The bolt length will be determined by the end-user's mounting plate thickness. The mounting flange of the controller is 0.425 inches (10.8 mm) thick. It should be mounted with connectors facing left or right to reduce the likelihood of moisture entry. All field wiring should be suitable for the operating temperature range. Install the unit with appropriate space available for servicing and for adequate wire harness access (6 inches or 15 cm) and strain relief (12 inches or 30 cm).														

Dimensional Drawing



Note: Bluetooth® is a registered trademark of Bluetooth SIG.

Form: TDAX141155-04/14/2025