

## CAN-Bluetooth® Converter

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

P/N: AX141150

### Features

- CAN SAE J1939 in Interface Mode or CAN (protocol independent) in Bridge Mode
- Configurable baud rate
- Bluetooth® (Classic & BLE)
- 164 ft. range (May vary. See details below)
- 6-80Vdc (12V, 24V or 48Vdc nominal) with load dump
- Operating temperature: -30 to +85°C
- IP67
- Compact, ultrasonic welded enclosure
- 6-pin TE Deutsch type connector
- CE / UKCA marking
- Vibration and shock compliance for off-highway applications
- Can be accessed and configured via Axiomatic's CAN2BT Configuration application on compatible Apple iOS or Android smartphone or tablet



### Ordering Part Numbers

CAN-Bluetooth® Converter for Apple iOS & Android, SAE J1939 with configurable baud rate, P/N: **AX141150**

#### Accessories:

- **AX070119** Mating Plug Kit
- **CAN2BT Configuration** Android smartphone application is available from Google Play. A configuration application for Apple iOS is also available.

### Description

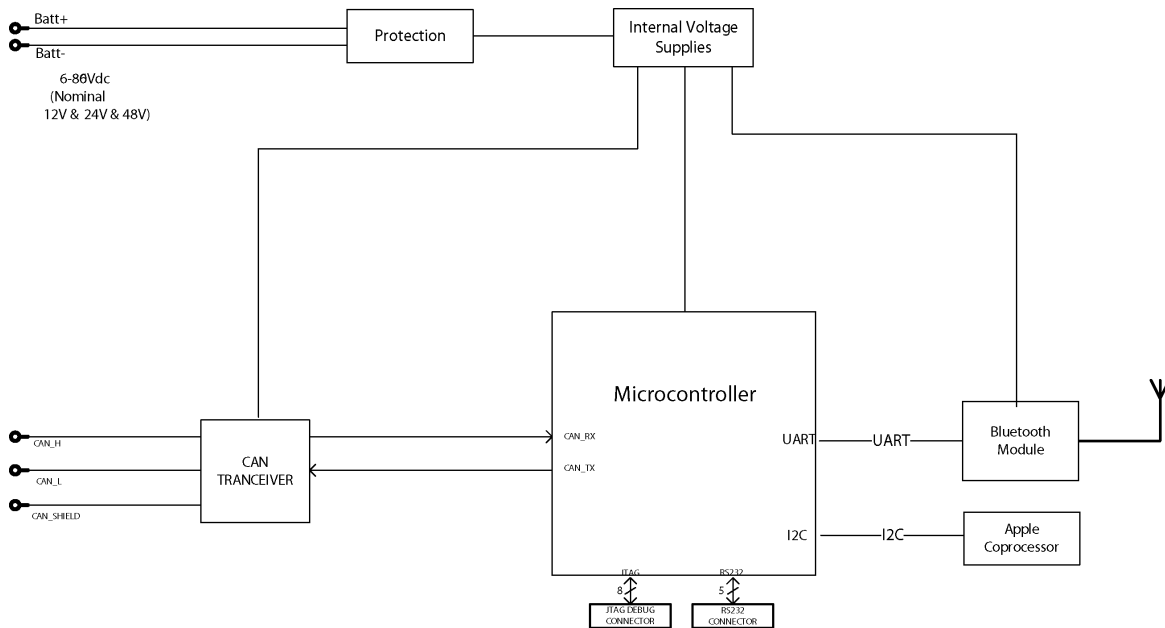
The CAN-Bluetooth® Converter transfers wireless data to a PC, smartphone, display, or tablet. The setpoints are configurable using the **CAN2BT Configuration** Android or Apple iOS application. SAE J1939 is the CAN bus protocol for operation in interface mode. However, the CAN-Bluetooth® Converter also handles CAN frames with standard IDs for operation in bridge mode. It features a configurable baud rate.

The device supports both Bluetooth® standards, Classic and Low Energy (BLE), However, the BLE access is targeted for configuration purposes only due to its limited bandwidth. The CAN-Bluetooth® devices can be used as a pair for creating a bridge for CAN data. The bridge is always created using Classic Bluetooth® for high data throughput.

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



## Block Diagram



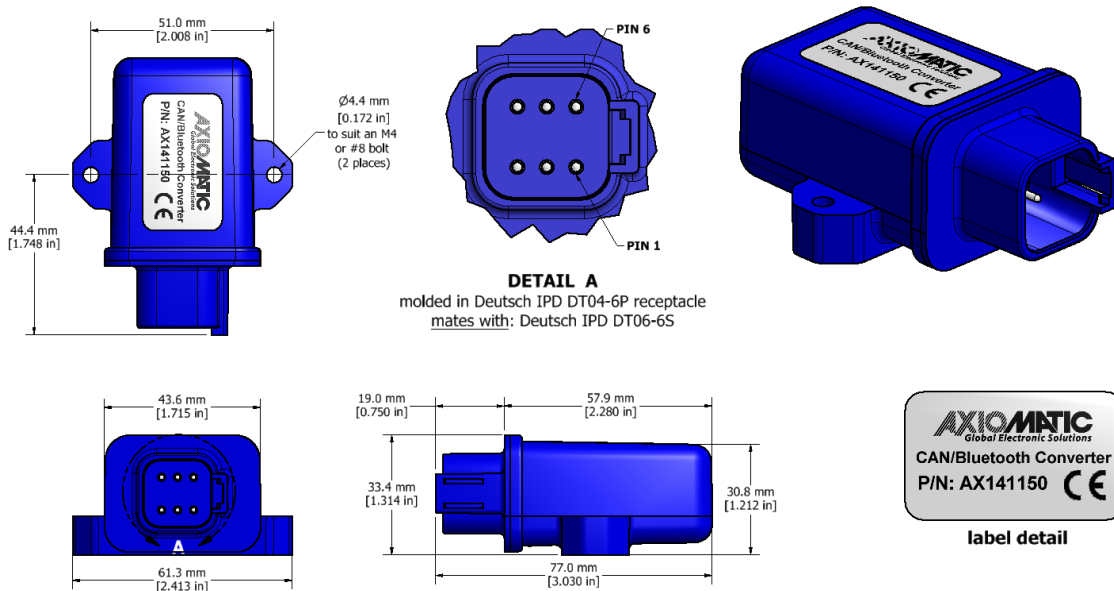
## Technical Specifications

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 - Nominal	12Vdc, 24Vdc or 48Vdc nominal (6...80 VDC power supply range) Load dump protection is provided.
Quiescent Current	15 mA @ 24Vdc Typical
Protection	Reverse polarity protection is provided. Overvoltage protection up to 88V is provided.
Microprocessor	STM32F405RGT7 32-bit, 1024 Kbit program flash
CAN	1 CAN port (SAE J1939) CAN bus - In Interface Mode- SAE J1939 or in Bridge Mode – CAN (protocol independent)  CAN bus configuration allows changing the CAN interface baud rate. The list of available baud rate options include 50k, 100k, 125k, 250kbps (default), 500k and 1Mbps.
Bluetooth®	TI CC2564MODA Bluetooth® Host Controller Interface Module Bluetooth LE V4.1 compliant Dual-Mode Bluetooth® V4.0 with classic Bluetooth® and BLE 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.  Serial Port Profile (SPP)
Control Logic	User programmable functionality. Refer to the User Manual.
User Interface	CAN2BT Configuration Application is available from Google Play. <a href="https://play.google.com/store/apps/details?id=com.axiomatic.can2btconfiguration">https://play.google.com/store/apps/details?id=com.axiomatic.can2btconfiguration</a> A configuration application for Apple iOS is also available.
Software Flashing	New software can be flashed over the CAN bus using the Axiomatic Electronic Assistant.
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.
Operating Temperature	-30°C to 85°C (-22°F to 185°F)
Protection	IP67

Weight	0.15 lb. (0.06 kg)																
Approvals	CE / UKCA marking																
Vibration	MIL-STD-202G, Method 204D test condition C (Sine) and Method 214A, test condition B (Random) 10 g peak (Sine) 7.68 Grms peak (Random)																
Shock	MIL-STD-202G, Method 213B, test condition A 50g (half sine pulse, 9ms long, 8 per axis)																
Enclosure	Molded Enclosure, Ultrasonic welded Nylon 6/6, 30% glass Integral 6-pin connector Refer to the dimensional drawing.																
Electrical Connections	6-pin connector (equivalent TE Deutsch P/N: DT04-6P) <table border="1" data-bbox="565 506 992 711"> <thead> <tr> <th colspan="2">CAN and I/O Connector</th> </tr> <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>BATT -</td> </tr> <tr> <td>5</td> <td>BATT +</td> </tr> <tr> <td>6</td> <td>Not Used</td> </tr> </tbody> </table>	CAN and I/O Connector		Pin #	Description	1	CAN_Shield	2	CAN_H	3	CAN_L	4	BATT -	5	BATT +	6	Not Used
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Mating Plug Kit	Axiomatic P/N: <b>AX070119</b> (includes 1 plug DT06-6S, 1 wedgelock W6S, and 6 sockets 0462-201-16141)																
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: TDAX141150-03/28/2024