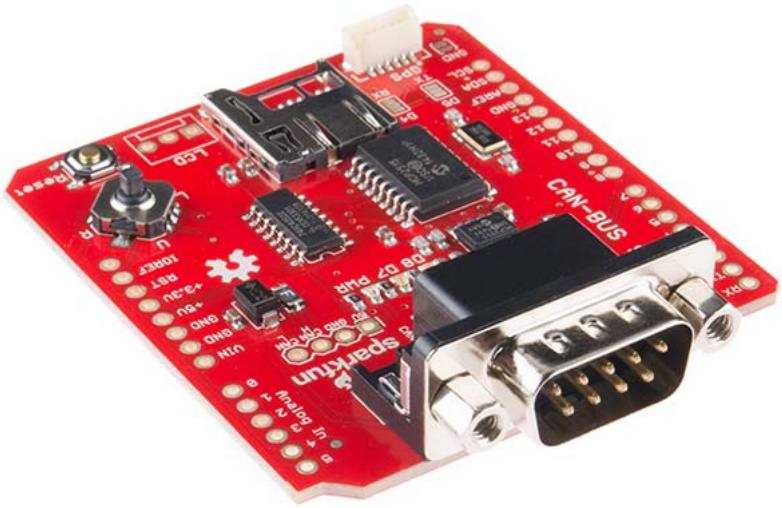
CAN-BUS Shield

DEV-13262 ROHS

★★★½☆ 9



$24.95

NOTIFY ME

1	quantity
O	out of stock
$24.95	1+ units
$23.70	10+ units
$22.46	25+ units
$21.21	100+ units

This product is produced in-house by SparkFun.
We are currently planning to build **320 units**.

Incoming stock values are estimates, and subject to change without warning.

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Description: The CAN-BUS Shield provides your Arduino or Redboard with CAN-BUS capabilities and allows you to hack your vehicle. This shield allows you to poll the ECU for information including coolant temperature, throttle position, vehicle speed, and engine rpms. You can also store this data or output it to a screen to make an in-dash project.

It uses the Microchip MCP2515 CAN controller with the MCP2551 CAN transceiver. CAN connection is via a standard 9-way sub-D for use with OBD-II cable. Ideal for automative CAN application. The shield also has a uSD card holder, serial LCD connector and connector for an EM506 GPS module. These features make this shield ideal for data logging application.

Note: A DB9 Cable is not included with this shield. Please be sure to check *Recommended Products* section below for a recommended cable to use with this board.

Note: This product is a collaboration with SK Pang Electronics. A portion of each sales goes back to them for product support and continued development.

Features

- CAN v2.0B up to 1 Mb/s
- High speed SPI Interface (10 MHz)
- Standard and extended data and remote frames
- CAN connection via standard 9-way sub-D connector
- Power can supply to Arduino by sub-D via resettable fuse and reverse polarity protection.
- Socket for EM506 GPS module
- Micro SD card holder
- Connector for serial LCD
- Reset button
- Joystick control menu navigation control
- Two LED indicator

Documents:

- Schematic
- Eagle Files
- Datasheet (MCP2515)
- Datasheet (MCP2551)
- Hookup Guide
- OBD-II Guide
- GitHub (Design Files)
- GitHub (Library & Example Code)
- Product Video

Recommended Products

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SPARKFUN RECOMMENDED
Arduino Uno - R3
DEV-11021
$24.95
★★★★½ 85

SPARKFUN RECOMMENDED
Arduino Mega 2560 R3
DEV-11061
$45.95
★★★★½ 37

SPARKFUN RECOMMENDED
Serial Enabled 16x2 LCD - White on Black 5V
LCD-09395
$24.95
★★★★☆ 6

SPARKFUN RECOMMENDED
SparkFun OBD-II UART
WIG-09555
$49.95
★★★★☆ 6

COMMENTS 39 | **REVIEWS** ★★★½☆ 9 | TUTORIALS 2

Customer Reviews

★★★½☆ 3.4 out of 5

Based on 9 ratings:

5 star	1
4 star	4
3 star	3
2 star	0
1 star	1

4 of **4** found this helpful:

★★★★☆ Great learning project for CAN interface

about 9 months ago by Member #792919 ✔ verified purchaser

I used it for interfacing with a 125k vehicle CAN bus. Soldering the headers were fairly easy, but I struggled with the 9-way OBD-II to CAN conversion. I'll agree with another review when it come to making pins 2 and 7 the standard Lo and Hi. Let the few who need OBD-II struggle with the conversion.

2 of **2** found this helpful:

★★★☆☆ kinda ok

about 6 months ago by Member #820513 ✔ verified purchaser

After fighting with the libraries for almost a week i finally got it right to retrieve some usable data from the car. I switched to another library to confirm the speed at which my car was sending data. i still couldn't see "human" readable data until i found a fork of the sparkfun library, after some modifications to the sketch i was able to use it. As for the shield itself, i would have preferred if it was shipped with headers. i only realized this after my delivery and needed to place a second order only for the headers.

2 of **2** found this helpful:

★★★★★ Connected great to my car's canbus

about 6 months ago by schnautzk ✔ verified purchaser

With the OBD2 accessory cable an an Uno, I was able to eavesdrop on my car's CAN-BUS.

7 of **7** found this helpful:

★★★★☆ Creat Shield for the price

about a year ago by Member #737534 ✔ verified purchaser

Ordered one to build a display to show MPH, RPM, Engine temperature and Throttle. I made some modifications to Canbus Library to show imperial measurements instead metric ones. Added a 4 line I2C LCD display and it worked great. Board also supplies 12 V to the un regulated input of the UNO. Don't forget to order the ODB to DB9 cable.

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2 of **2** found this helpful:

★☆☆☆☆ documentation poor

about 6 months ago by Member #786357 ✔ verified purchaser

Documentation for this device seems to be lacking. I ended up purchasing a pican shield for the pi2.

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5 of **6** found this helpful:

★★★☆☆ Nice features, missing some basics

about a year ago by Member #523592 ✔ verified purchaser

I like how many things are packed into it. Price is very fair. Really like the option to cut the board and make the DB9 connector use pins 2 and 7 like any professional CAN equipment uses. This option is why I bought the board. I really didn't like that the Seeed CAN shield didn't have this option.

Cons: Chip select pin can not be changed. The library doesn't look like it has a simple option for this either. Switched to the coryjfowler library. I really wish you would have at least done what the Seeed CAN shield did and give me one other pin as a choice. Had to add 120ohms to make it work on a bench. The Seeeeeed shield gave me screw terminals to do this, but not this board. Also, wish that I didn't have to modify the board to make it work with industry standard pins 2+7 on the DB9. Lastly, the ad doesn't mention that the shield is completely bare. Please at least update the listing notes to suggest that you buy headers for it.

This board is probably better for the person that wants all the extra features, but if you just want a CAN shield and use CAN regularly, I wouldn't buy it if you already have a Seeed shield. You're better off hacking up the Seeed board to support pins 2 + 7 if you already own one.

★★★★☆ A lot more than needed

about 4 months ago by Member #842432 ✔ verified purchaser

Packs a lot of great stuff into a small design. While it's great to have all the features, I think most of it is overkill, like the GPS, Memory card, joystick and reset button and all the supporting components for these items. This board could probably be 1/8 of its current size and stack only the couple of pins it needs, leaving the arduino board free to be used for other purposes. While it is great that it can be stacked on top of the arduino or red board, it would also be nice if there was an enclosure for it. Other than that it is a great board with a lot of nice features.

★★★★☆ DB9 <-> OBD II cable?

about 3 months ago by Member #34076 ✔ verified purchaser

Is there one of these commercially available? I can build one but am having trouble finding a pigtail for the automobile side. Thanks in advance for any help. mcb

BREAKING NEWS: Found them, they weren't in the recommended products list

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★★★☆☆ Functional, but not ideal

about 2 months ago by naimis ✔ verified purchaser

With the interface chip in between the CAN bus adapter and the arduino, I'm not completely convinced that I'm not losing CAN packets at the .5 Mbit rate. The micro SD card slot doesn't latch most of the time and I end up having to make a dozen or more attempts to insert a card before it finally latches. The spring-loaded slot is not good and a compression slot would be much better.
