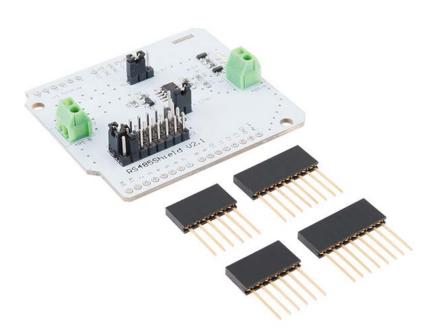
It is that time again! SparkFun Electronics will be closed Friday, January 13th for our annual inventory day. Please keep in mind that any orders placed after 2PM (Mountain Time) on Thursday, January 12th will not ship or be prepared for local pickup until we open for normal operations on Monday, January 16th. In addition, tours will resume on Friday, January 20th. Thank you for your patience!



# RS485 Shield V2

DEV-12965 ROHS✔

★★★☆☆4



€ images are CC BY-NC-SA 3.0

**Description:** Our friends over at LinkSprite have made this nifty little RS485 Shield, now you will be able to have a communication port for your field bus directly connected to your Arduino! Even though the RS485 is sometimes thought as an "archaic" protocol, it will allow up to 32 devices to communicate through the same data line over a cable length of up to 4000ft with a maximum data rate of 10Mbit/s. Those aren't bad numbers!

This version of the RS485 shield removes the optional DB9 connector bay and adds a second 2-pin screw terminal and the ability to choose two pins from your Arduino's D0 to D7 as Software Serial Ports to communicate with the shield.

This shield does come without its headers separate so a small amount of soldering will be required before attaching it to your Arduino device.

### Documents:

- Schematic
- Datasheet (MAX481CSA)
- RS485 Shield V2 Tutorial
- Product Wiki

#### Recommended Products



► SPARKFUN RECOMMENDED
SparkFun RedBoard - Programmed with Arduino
■ DEV-12757

\$19.95

★★★★☆ 117



SPARKFUN RECOMMENDED Arduino Uno - R3

Dev-11021

\$24.95

★★★☆ \$85





P SPARKFUN RECOMMENDED
SparkFun Transceiver Breakout - RS-485
BOB-10124
\$9.95
★★☆☆☆ 5



▶ SPARKFUN RECOMMENDED
SparkFun USB to RS-485 Converter
❷ BOB-09822
\$19.95
★★☆☆☆4

COMMENTS 4

REVIEWS ★★★☆☆ 4

### **Customer Reviews**

## ★★★☆ 3.5 out of 5

Based on 4 ratings:

| 5 star | 1 |
|--------|---|
| 4 star | 2 |
| 3 star | 0 |
| 2 star | 0 |
| 1 star | 1 |

### ★☆☆☆ Didn't Work

about a year ago by Member #723920 ✓ verified purchaser

I wanted to use this to make a Modbus RTU RS485 network so I bought two of them. I tried every possible jumper combination on this shield and it doesn't work. Every Modbus read (function 3) command gets check sum errors. I removed the shield and wired my Arduinio Uno TX/RX (and transmit pin 9) to a bread board with a Maxim MAX485-CPA IC and the communications work perfectly. Waste of money.

Single T replied on October 13, 2015:

Hi, Please contact us about your issue. We may be able to help you with a return. https://www.sparkfun.com/returns

### ★★★☆ Up and running for ModBus to a temperature controller

about 4 months ago by Member #349652 ✓ verified purchaser

I bought this to connect to a Love Controls temperature controller ModBus interface and had it up and running within less than an hour. The documentation on their website (linksprite's) leaves a little to be desired though. Lackluster documentation is the only reason I'm not giving it a five. The board is beautiful and the quality is too notch.

### ★ ★ ★ ★ works great,

about a year ago by Member #426978 ✓ verified purchaser

It works great and does exactly as i expected.

### ★★★☆ Did the Job with Mimimum Effort

about a year ago by Member #576729 ✓ verified purchaser

I had to connect two Arduinos to two legacy motor controllers that used MODBUS protocol on RS485. This worked well only after a few learning pains on getting the serial settings correct (this was the fault of the motor controller not this great device). I have two of these running in the field. Using these saved me \$280. over buying special RS485 to RS232 converters for the legacy motor controllers.