sparkfun

SparkFun Altitude/Pressure Sensor Breakout - MPL3115A2

SEN-11084 ROHS✔ ⚒

★ ★ ★ ★ ✭ 5
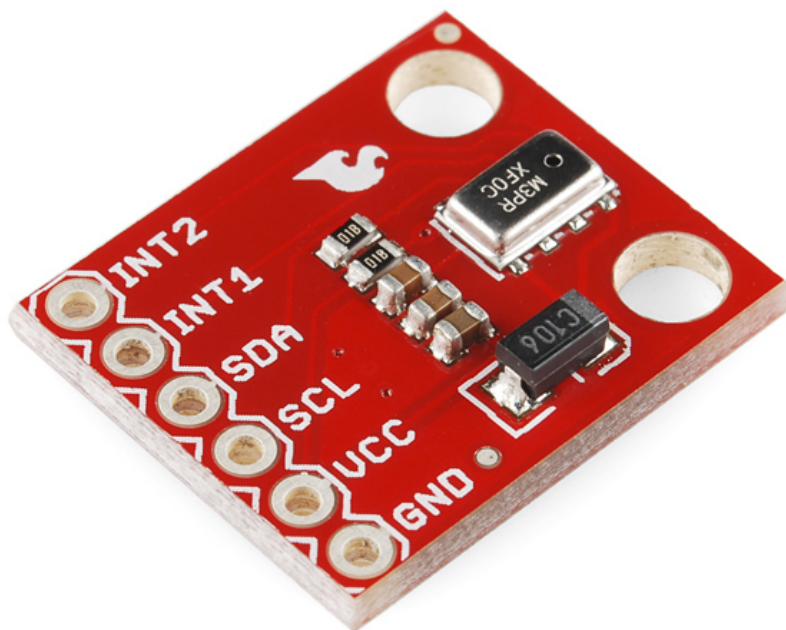
$14.95

1	quantity
◉	97 in stock
$14.95	1+ units
$14.20	10+ units
$13.46	25+ units
$12.71	100+ units

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Description: Life has its ups and downs, so why not measure them? The MPL3115A2 is a MEMS pressure sensor that provides Altitude data to within 30cm (with oversampling enabled). The sensor outputs are digitized by a high resolution 24-bit ADC and transmitted over I2C, meaning it's easy to interface with most controllers. Pressure output can be resolved with output in fractions of a Pascal, and Altitude can be resolved in fractions of a meter. The device also provides 12-bit temperature measurements in degrees Celsius.

This breakout board makes it easy to prototype using this tiny device by breaking out the necessary pins to a standard 0.1" spaced header. The board also has all of the passive components needed to get the device functioning, so you can simply connect it to something that talks I2C and get to work!

SparkFun Simple Sketches - Altitude, Pressure, Temperature ...

Features:

- 1.95V to 3.6V Supply Voltage, internally regulated by LDO
- 1.6V to 3.6V Digital Interface Supply Voltage
- Fully Compensated internally
- Direct Reading, Compensated
    - Pressure: 20-bit measurement (Pascals)
    - Altitude: 20-bit measurement (meters)
    - Temperature: 12-bit measurement (degrees Celsius)
- Programmable Events
- Autonomous Data Acquisition
- Resolution down to 1 ft. / 30 cm
- 32 Sample FIFO
- Ability to log data up to 12 days using the FIFO
- 1 second to 9 hour data acquisition rate
- I2C digital output interface (operates up to 400 kHz)

Documents:

- Schematic
- Eagle Files
- Hookup Guide
- Datasheet (MPL3115A2)
- GitHub (Design Files & Example Code)
- GitHub (Library)
- Product Video
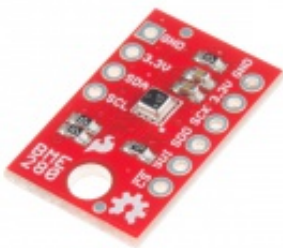

Recommended Products

🐍 SPARKFUN RECOMMENDED
SparkFun Sensor Kit
⊖ DEV-12797
$139.95

🐍 SPARKFUN RECOMMENDED
SparkFun 6 Degrees of Freedom IMU Digital Combo Board - ITG3200/ADXL345
◎ SEN-10121
$39.95
★ ★ ★ ⯨ ☆ 4

🐍 SPARKFUN RECOMMENDED
SparkFun Atmospheric Sensor Breakout - BME280
◎ SEN-13676
$19.95
★ ★ ★ ★ ⯨ 2

🐍 SPARKFUN RECOMMENDED
SparkFun Pressure Sensor Breakout - MS5803-14BA
◎ SEN-12909
$59.95
★ ★ ★ ★ ⯨ 3

COMMENTS **109** | **REVIEWS** ★ ★ ★ ★ ⯨ **5**

Customer Reviews

★ ★ ★ ★ ⯨ 4.2 out of 5

Based on 5 ratings:

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

2 of **2** found this helpful:

★ ★ ★ ☆ ☆ Doesn't work with the Raspberry Pi

last year by Member #642350   ✔ **verified purchaser**

Not a knock against this board, but it doesn't work with the Raspberry Pi. Wish I'd done my homework and figured that out first.

It's a limitation of the Pi itself, which doesn't support repeated start over the I2C bus. The BMP180 is the sensor you need if you want to use it with a Raspberry Pi.

★ ★ ★ ★ ★ Works Great!

last year by Member #649280   ✔ **verified purchaser**

Bought this for a small project and hooked it up to a Spark Fun Pro Micro, had to fiddle around with the example code before I got it to work for my needs but it outputs the correct temperature and altitude and is sensitive enough for my application. Would recommend to anyone looking for a relatively cheap and small pressure/altitude/temperature sensor.

★ ★ ★ ★ ☆ Good so far

about 5 days ago by glasspusher   ✔ **verified purchaser**

works fine, haven't hooked it up to my weather station yet. Stay tuned

0 of **1** found this helpful:

★ ★ ★ ★ ★

about 10 months ago by Member #677594   ✔ **verified purchaser**

Installed in project, seems to work well, still doing testing.

0 of **1** found this helpful:

★ ★ ★ ★ ☆ Works fine

about 5 months ago by Member #670692   ✔ **verified purchaser**

Exactly what it says on the tin.