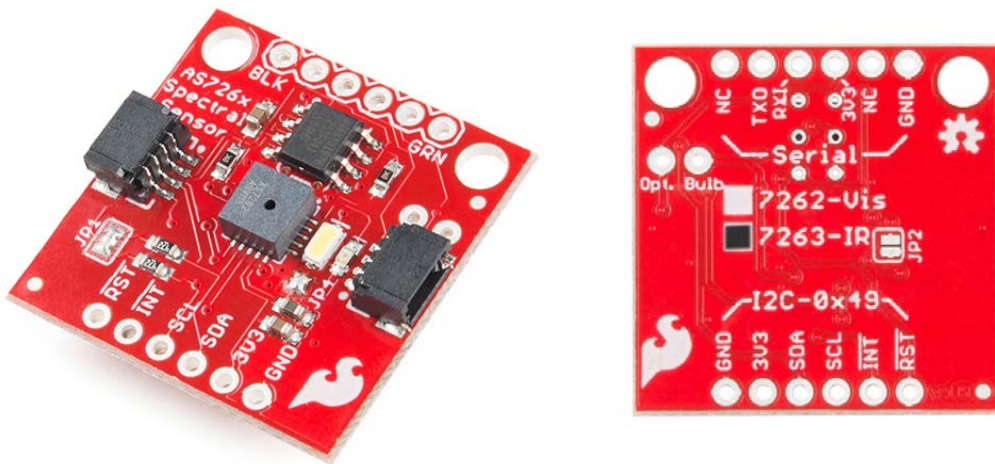




SparkFun Spectral Sensor Breakout - AS7263 NIR (Qwiic)

SEN-14351 [RoHS Open Source Hardware](#)



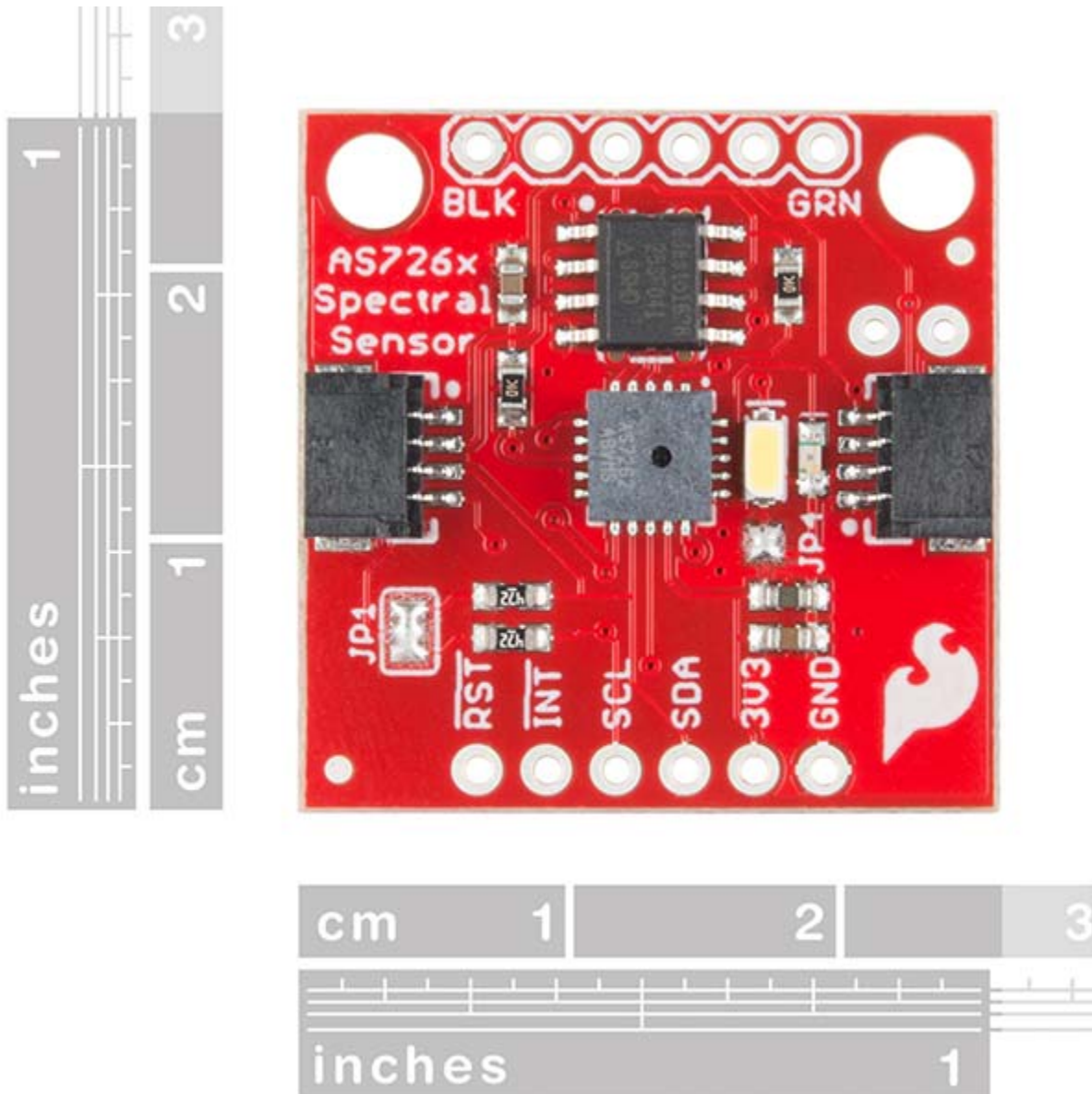
The SparkFun AS7263 Near Infrared (NIR) Spectral Sensor Breakout brings spectroscopy to the palm of your hand, making it easier than ever to measure and characterize how different materials absorb and reflect different wavelengths of light. The AS7263 Breakout is unique in its ability to communicate by both an I²C interface and serial interface using AT commands. Hookup is easy, thanks to the Qwiic connectors attached to the board — simply plug one end of the Qwiic cable into the breakout and the other into one of the Qwiic shields, then stack the board on a development board. You'll be ready to upload a sketch to start taking spectroscopy measurements in no time.

The AS7263 spectrometer detects wavelengths in the visible range at 610, 680, 730, 760, 810 and 860nm of light, each with 20nm of full-width half-max detection. The board also has multiple ways for you to illuminate objects that you will try to measure for a more accurate spectroscopy reading. There is an onboard LED that has been picked out specifically for this task, as well as two pins to solder your own LED into.

The SparkFun Qwiic Connect System is an ecosystem of I²C sensors, actuators, shields and cables that make prototyping faster and less prone to error. All Qwiic-enabled boards use a common 1mm pitch, 4-pin JST connector. This reduces the amount of required PCB space, and polarized connections mean you can't hook it up wrong.

FEATURES

- 6 near-IR channels: 610nm, 680nm, 730nm, 760nm, 810nm and 860nm, each with 20nm FWHM
- NIR filter set realized by silicon interference filters
- 16-bit ADC with digital access
- Programmable LED drivers
- 2.7V to 3.6V with I²C interface
- 2x Qwiic connectors



Notice. This product requires other products in order to function properly.
See [essential products](#).

Essentials
SparkFun OpenPIR
SEN-13968
Qwiic Cable - 100mm
PRT-14427
SparkFun Qwiic Shield for Arduino
DEV-14352
SparkFun RedBoard - Programmed with Arduino
DEV-13975