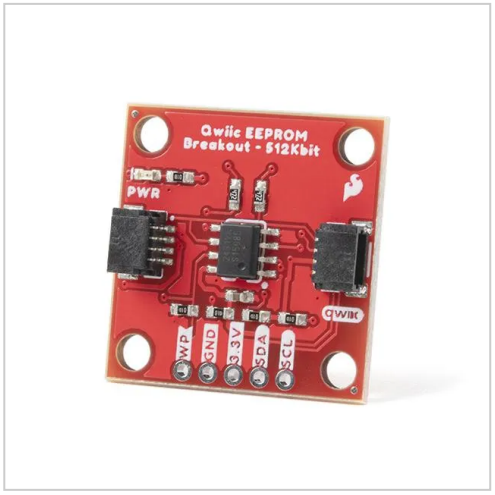
SparkFun Qwiic - EEPROM Breakout, 512Kbit



The SparkFun Qwiic EEPROM Breakout is a simple and cost-effective option for adding extra memory to any project. With 512 kilobits (or 64 kilobytes) of memory, this product is ideal for any microcontroller

Product number	COM-18355
Weight	0.003kg

Product description

The SparkFun Qwiic EEPROM Breakout is a simple and inexpensive option for adding extra memory to any project. With 512 kilobits (or 64 kilobytes) of memory, this product is ideal for any microcontroller that does not have EEPROM space, such as the SAMD21. You can use the Qwiic EEPROM to store data such as GPS waypoints and other user settings that need to be retained between sketch uploads. The SparkFun Qwiic EEPROM has three address jumpers that allow up to eight EEPROMs to be connected to one bus. All communication is done exclusively via I2C, using our handy Qwiic system (as the name suggests). Nevertheless, we have broken out the pins at 0.1" spacing in case you prefer to use a breadboard.

The integrated CAT24C512 IC is a 512Kb EEPROM flash memory organised as 65,536 words of 8 bits each with a 128-byte page write buffer. With an integrated ECC (Error Correction Code), this EEPROM is suitable for high reliability applications. The IC also offers write protection, which prevents write operations by pulling the WP pin high (protects the entire memory). The external address pins allow up to eight CAT24C512 EEPROM chips to be connected to the same I2C bus.

We have also taken care to write an Arduino library to make it easy to use this and any other EEPROM. Try it out by searching for 'SparkFun EEPROM' in the Arduino library manager or download the repo directly.

Note: The I2C address of the EEPROM - 512Kbit is 0x50 and can be changed by jumper to 0x51, 0x52, 0x53, 0x54, 0x55, 0x56, or 0x57. A multiplexer/mux is required to communicate with several EEPROM - 512Kbit sensors on a single bus. If you need to use more than one EEPROM breakout, you should use the Qwiic Mux Breakout.

The SparkFun Qwiic Connect System is an ecosystem of I2C sensors, actuators, shields, and cables that make prototyping faster and less error-prone. All Qwiic-enabled boards use a common 4-pin JST connector with 1 mm spacing. This takes up less space on the PCB and the polarised connectors mean you can't connect anything incorrectly.

Features:

- Voltage: 3.3V
- CAT24C512 EEPROM
  - Supply Current
    - Read Current: 1mA
    - Write Current: 1.8mA - 2.5mA
  - Memory: 512-Kb (kilobit)
  - Page Write Buffer: 128 bytes
  - Reliability
    - Endurance: 1,000,000 Program/Erase Cycles
    - Data Retention: 100 Years
  - Write Protection
  - I2C Address (7-bit):
    - **0x50 (default)**, 0x51, 0x52, 0x53, 0x54, 0x55, 0x56, 0x57
- 2x Qwiic Connectors

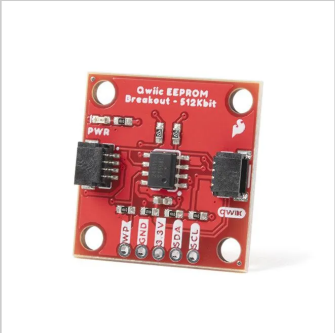
Documents:

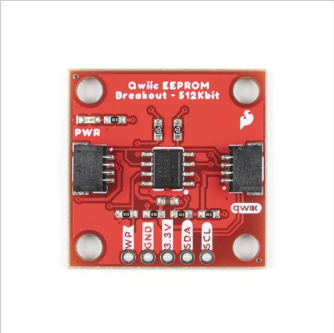
- Get Started with the Qwiic EEPROM Breakout Guide
- Schematic
- Eagle Files
- Board Dimensions
- Connection Instructions
- Datasheet (CAT24C512)
- Qwiic Information Page
- SparkFun External EEPROM Arduino Library
- SparkFun Qwiic EEPROM Python Package
  - ReadtheDocs
- GitHub Hardware Repository

Product properties

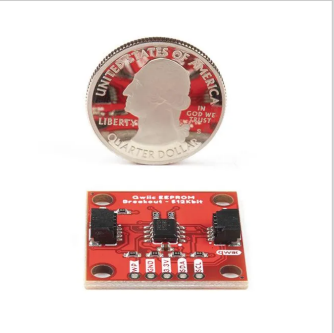
Gross Weight (kg)	0.003
Country of Origin	USA
Brand	SparkFun
Product ID	COM-18355
Manufacturer ID	COM-18355
EAN	4060137072383
Zolltarifnummer	85423231

More images


Qwiic EEPROM
Breakout - 512Kbit
PWR
QWIIC
WP
GND
3V3
SDA
SCL


Qwiic EEPROM
Breakout - 512Kbit
PWR
QWIIC
WP
GND
3V3
SDA
SCL


Qwiic EEPROM
Breakout - 512Kbit
I²C
LED
sparkfun
Default ADDR: 0x50
E2
E1
E0
WP
SCL
SDA
3V3
GND
WP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