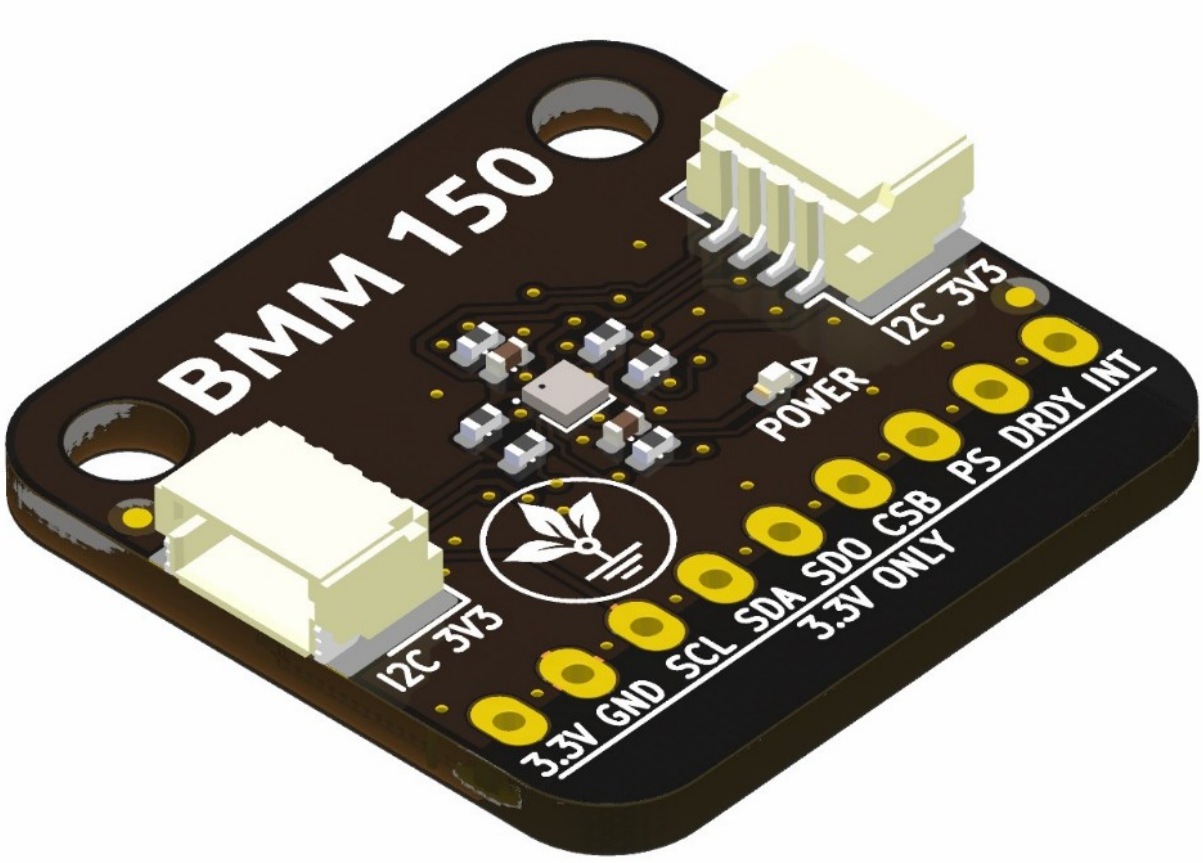
Groundstudio BMM150 module



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Module Circuit Schematic

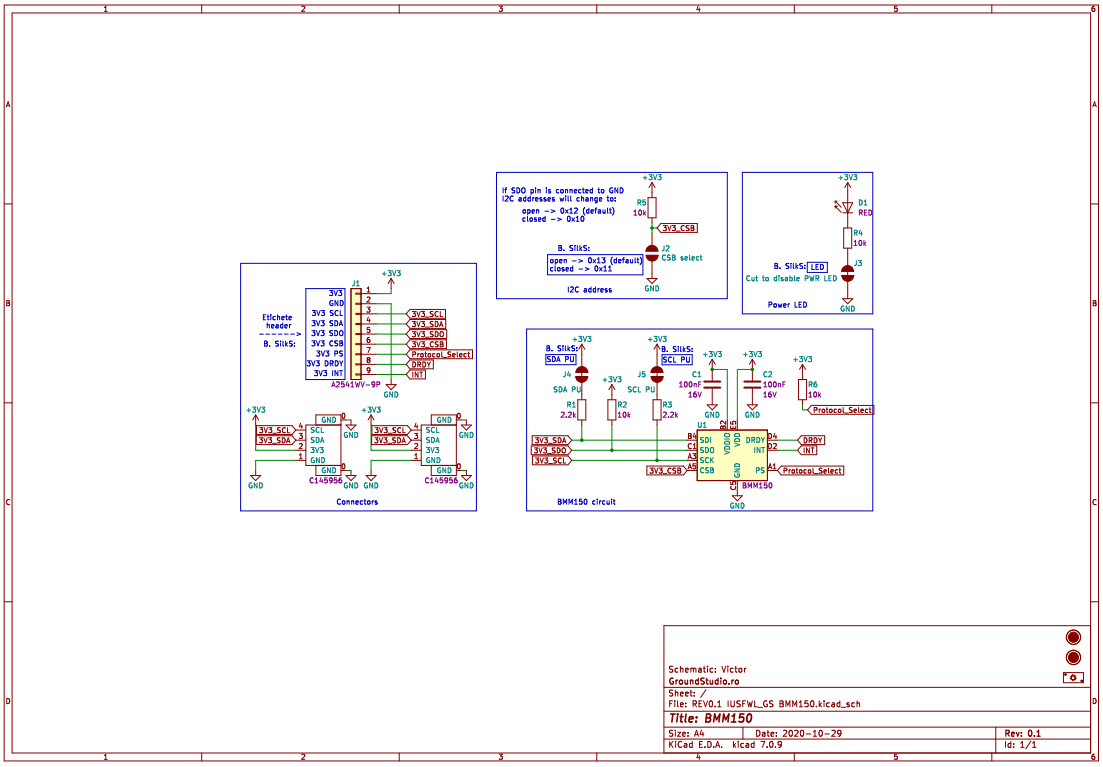

Figure 2: GroundStudio BMM150 module schematic circuit [Revision 0.1]

Open Source

This is an Open Source project, you can find all the technical documents online:

https://github.com/GroundStudio/GroundStudio_BMM150_module

License

Overview

The BMM150 is a 3-axis geomagnetic sensor module that can be used in projects that require a compass.

The presence of the supply voltage on the I²C 3V3 port is indicated by the "POWER" LED located on the module.
For cases where you want to minimize consumption, the "POWER" led can be disconnected using the "Disable PWR LED" jumper located on the back of the pcb.

The I²C address of the sensor can be changed using the jumper on the back of the pcb. The jumper is set by default to open (address 0x13) and can be closed (address 0x11).

I²C 3V3 connectors are compatible with Qwiic (SparkFun) and STEMMA QT (Adafruit) standards.

Technical specifications

Supply voltage: **3.3V**
Interface: I2C and SPI
I2C connector: **SH 4P** with **1mm** pitch
I2C address: **0x13** (default - jumper open) or **0x11** (jumper closed)
Zero-B Shift: ±40μT
Magnetic field (typ.): ±1300μT (x,y axis), ±2500μT (z axis)
Average current consumption (chip): 170 μA (reduced mode), 500 μA (normal mode)
Operating temperature range: -40°C - 85°C
PCB size: **23.4mm x 22.9mm**

Legal disclaimer notice

This development board is considered a subassembly in accordance with FCC CFR Title 47 §15.101(e):

https://www.ecfr.gov/current/title-47/chapter-I/subchapter-A/part-15/subpart-B/section-15.101#p-15.101(e)

The device does not have a standalone functionality and does not include an enclosure or power supply.

The device is mainly intended for development and prototyping but it can be integrated into a product. In this case it is the responsibility of the developer/manufacturer to obtain all the necessary certifications.

GroundStudio is a registered trademark of ARDUSHOP SRL:

https://www.tmdn.org/tmview/#/tmview/detail/EM500000018364087

Developer info

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Datasheet Revision History

[Revision 1] - Initial version release