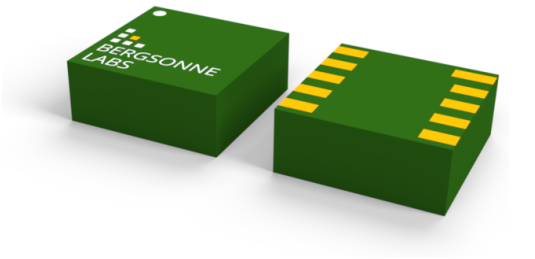




Sense.M.3G

triaxial geomagnetic magnetometer

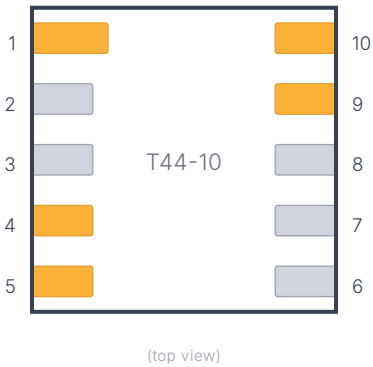
The Sense.M.3G is a three-axis geomagnetic sensor built on the Bosch Sensortec BMM350. It measures fields up to $\pm 2000\text{ }\mu\text{T}$ per axis with about 190 nT rms noise, which resolves the Earth's 25-65 μT field for compass headings, and reads nearby magnets well beyond it. Output rates run from 1.56 Hz to 400 Hz, with averaging to trade current for noise, and the part keeps a factory trim for offset, sensitivity, temperature drift and cross-axis coupling that the driver applies. A single measurement on demand, a data-ready interrupt and a 1.8 μA suspend mode suit battery-powered projects.



Overview

Revision	a
Package	T44-10
Packaging	12 mm tape and reel, 500 per 7 in reel
Power	1.72–3.6V (V+ is the BMM350 I/O supply (VDDIO) and feeds its 1.8 V core supply through an on-tile TPS7A2018 LDO. About 100 μA at 25 Hz with 4x averaging, 1.8 μA in suspend, up to ~0.46 mA at 400 Hz; the LDO adds 6.5 μA .)
Component	BMM350
Component	TPS7A2018PYCKR
Interfaces	I2C

Pad Assignments



PAD	TYPE	FUNCTION	NOTE
1	power	GND	
4	digital	I2C.CLK	
5	digital	I2C.DAT	
9	digital	INT	data-ready interrupt, push-pull at V+ levels, active low by default
10	power	V+	1.72–3.6V



Interfaces

I2C

Mode

slave

Max Clock

1MHz

Address

0x14 (default)

FUNCTION	REQ	PAD(S)
I2C.CLK	Yes	4
I2C.DAT	Yes	5

Packaging

- Method

Tape and reel, EIA-481
- Carrier tape

12 mm embossed, cold seal cover tape
- Pocket

4.3 × 4.3 × 1.8 mm (A0 × B0 × K0)
- Pocket pitch

8 mm (P1)
- Reel

7 in (178 mm)
- Quantity

500 per reel
- Pin 1

Quadrant 1 per EIA-481: keyed land toward the sprocket holes, tile face up
- [Tape and reel drawing \(PDF\)](#)

