

KAMAMI

KAmoMAG3110FC



Rev. 20200923090410

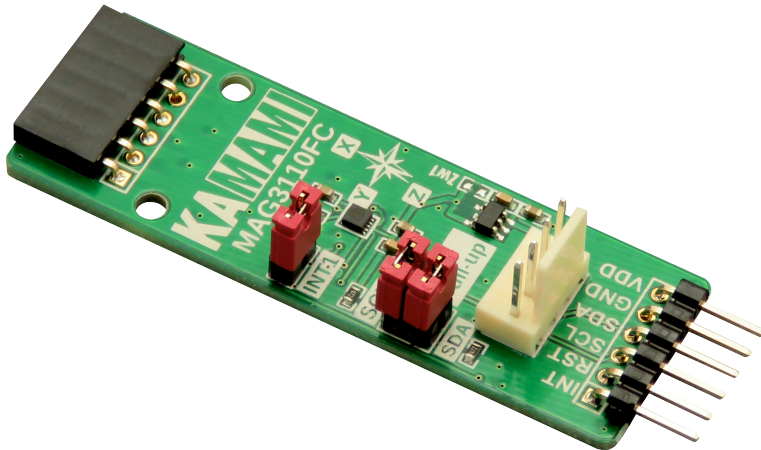
Źródło: <https://wiki.kamamilabs.com/index.php/KAmoMAG3110FC>

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Description

[KAmoMAG3110FC](#) is a module with magnetic field sensor MAG3110FC from NXP. The board is equipped with a Pmod I2C standard connector and a KAMAMI connector, that allow to easy connection of the module to the evaluation kits. Due to its small dimensions, the product can be used in many development projects, while the Pmod loop connector allows to connect the boards in the series.



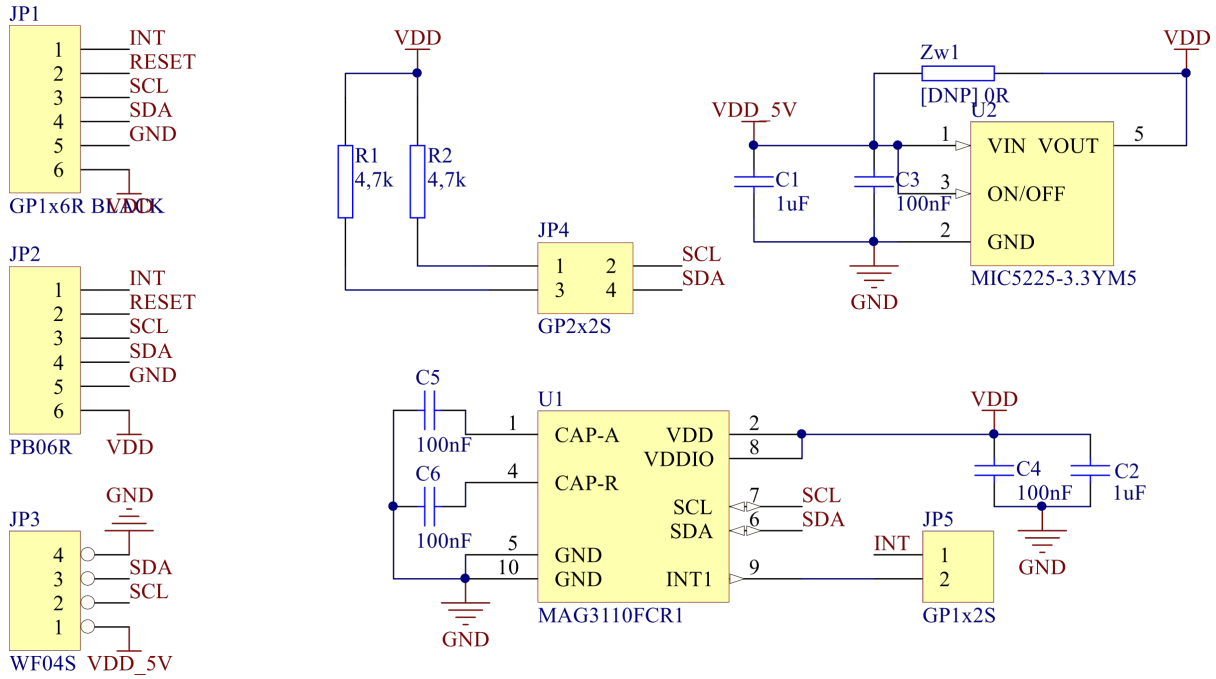
Basic features and parameters

- MAG3110FC chip from NXP
 - Magnetic field measurement in the range of $\pm 1000\mu\text{T}$
 - Sensitivity $0.1\mu\text{T}$
 - Noise level: $0.25\mu\text{T rms}$
 - I2C bus
 - Programmable interrupt output
 - Maximum measurement frequency: 80Hz
- Connector compatible with the Pmod standard, allows serial connection of Pmod I2C modules
- The connector complies with the KAMAMI standard
- Embedded jumpers activating pull-up on I2C bus lines
- Embedded jumper connecting the INT line of the chip to the INT line of Pmod connectors
- Possibility to supply voltage from 2.1...3.6V through Pmod connector and 2.1... 5.5V through KAMAMI connector
- Mounting holes with a diameter of 2.5mm
- Dimensions: 61.2mm x 20.3mm x 10mm


Standard equipment

Code	Description
KAmoMAG3110FC	• Assembled and launched module

Electrical schematics




Output description - Pmod standard connector



JP1 (male connector)	JP2 (female connector)	Function
VDD	VDD	Power supply of module (max. 3,6 V)
GND	GND	
SDA	SDA	Data line of I2C bus
SCL	SCL	Clock line of I2C bus
RST	RST	-
INT	INT	Interrupt line INT2

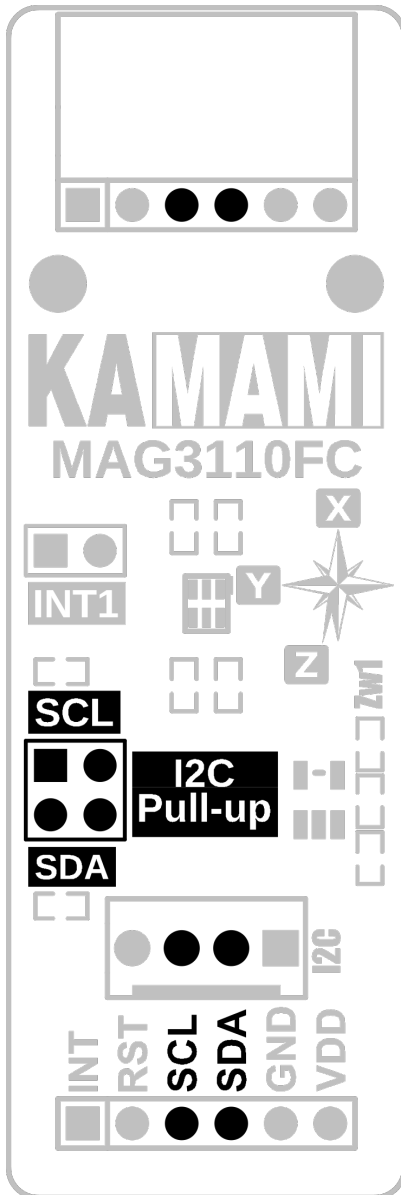
Output description - KAMAMI standard connector



Pin number	Function
1 (VDD_5V)	Power supply of module (max. 5,5 V)
2 (SCL)	Clock line of I2C bus
3 (SDA)	Data line of I2C bus
4 (GND)	Ground

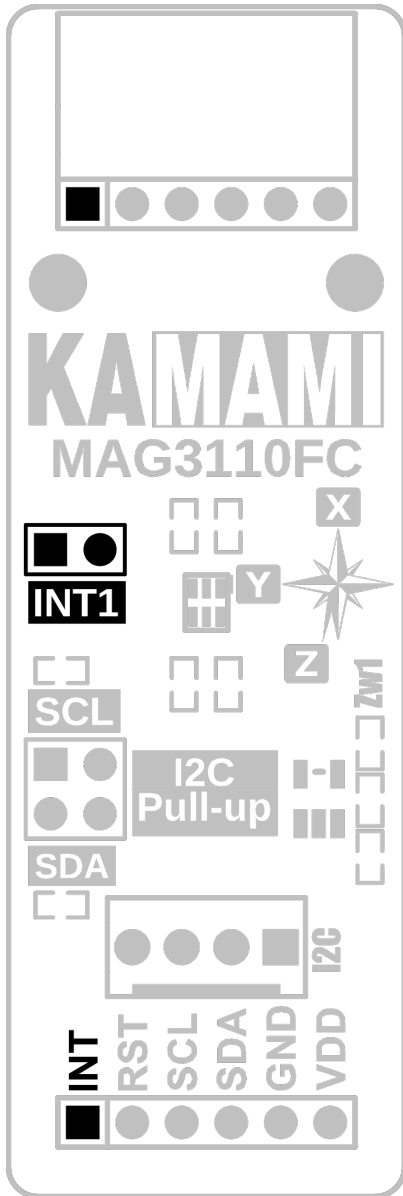
I2C bus lines

The KAmoMAG3110 module is equipped with jumpers allowing to connect pull-up resistors to the positive power pole to the I2C bus line. The jumpers give the possibility of independent enabled of the pull-up for the SDA and SCL lines.

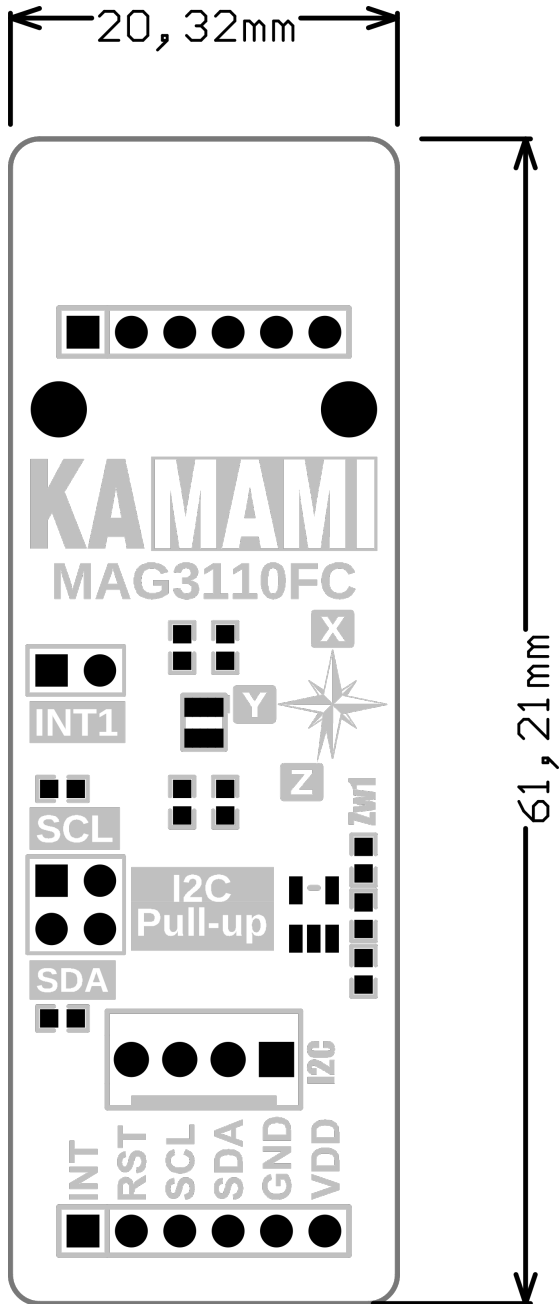


Interrupt line INT1

The KAmoMAG3110FC module has been equipped with a jumper enabling connection of the INT2 interrupt output line to the Pmod compatible connector. Thanks to the possibility of disconnecting the MAG3110FC interrupt line from Pmod connectors, the user does not have to worry about the consequences of possible conflicts resulting from the connection of Pmod-compatible module modules with different logic states.



Dimensions



External links

- [Datasheet of MAG3110 chip from NXP](#)



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