

KAMAMI

KAmoDMC3635



Rev. 20210226161730

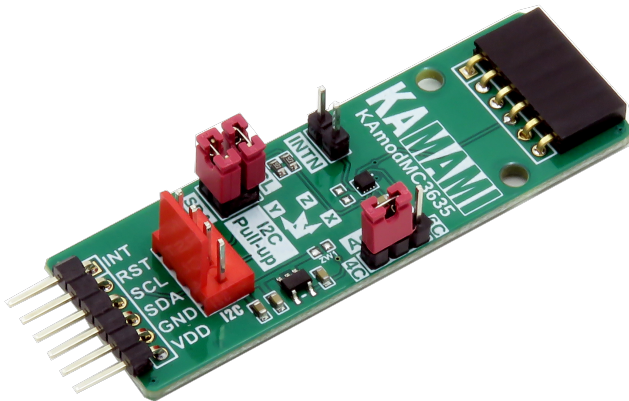
Źródło: <https://wiki.kamamilabs.com/index.php/KAmoDMC3635>

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Description

[KAmoMC3635](#) is a module with the MC3635 three-axis accelerometer from mCube. The sensor allows the measurement of acceleration in the range of $\pm 2g/\pm 4g/\pm 8g/\pm 12g/\pm 16g$, the measurement frequency is from 14 to 1300 Hz. Communication with the sensor is realized via the I2C interface. The board is equipped with the Pmod I2C standard connector and the KAMAMI connector, that allows 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.



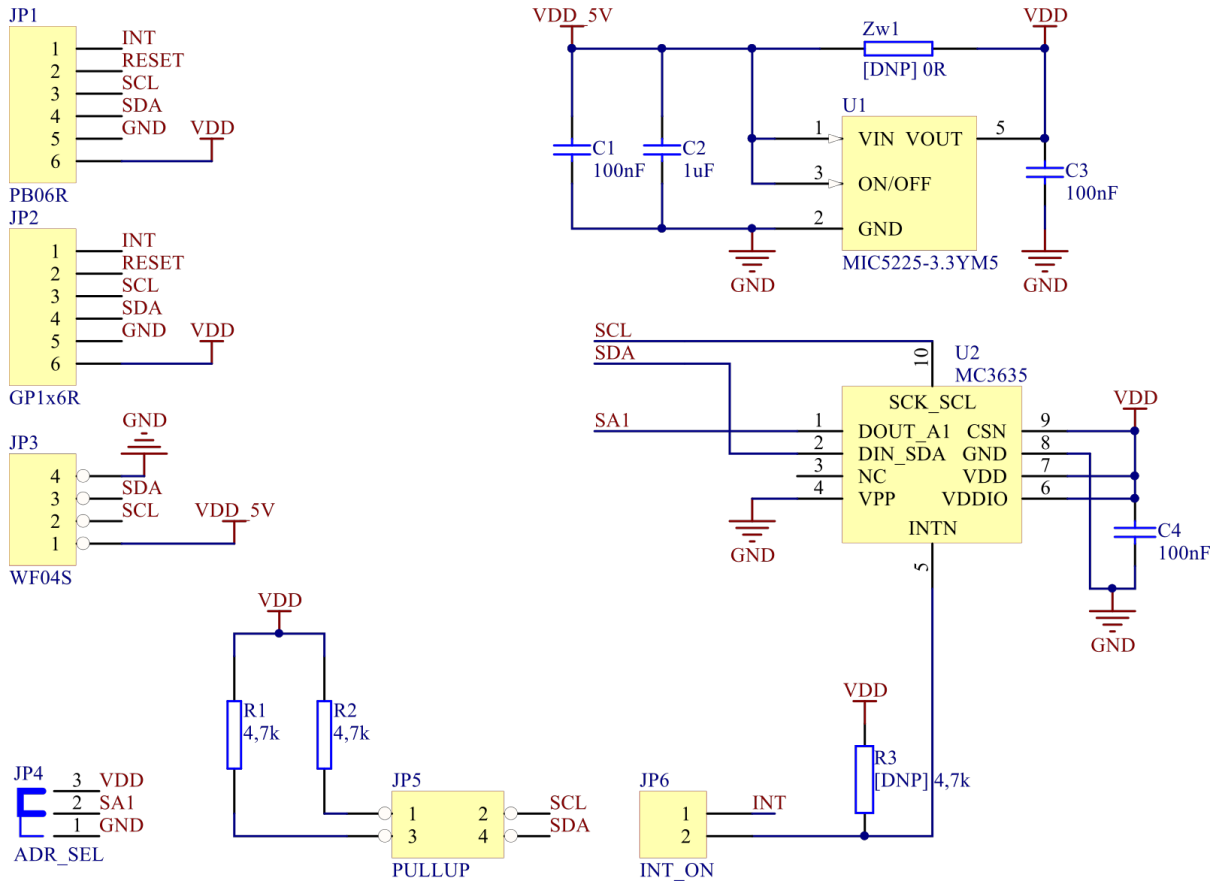
Basic features and parameters

- MC3635 chip from NXP
 - Acceleration measurement in the range of $\pm 2g/\pm 4g/\pm 8g/\pm 12g/\pm 16g$
 - Frequency of measurement: from 14Hz to 1300Hz
 - I2C bus
 - Programmable interrupt output
 - Possibility to choose the chip address (0x4C or 0x6D)
- 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
- Embedded I2C address selector
- Possibility to supply voltage from 2.1...3.6V through Pmod connector and 2.1V...5.5V through KAMAMI connector
- Mounting holes with a diameter of 2.5mm
- Dimensions: 61.2mm x 20.3mm x 10mm

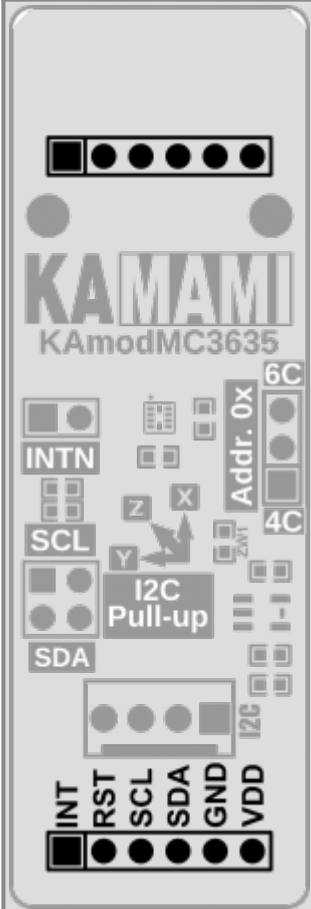
Standard equipment

Code	Description
KAmoMC3635	• Assembled and launched module

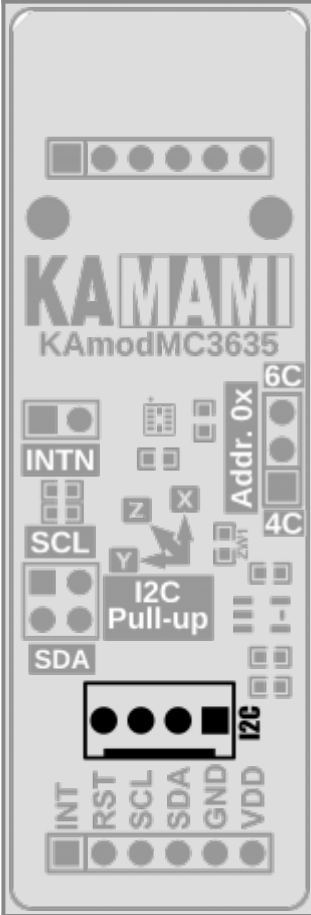
Electrical schematics



Output description - Pmod standard connector

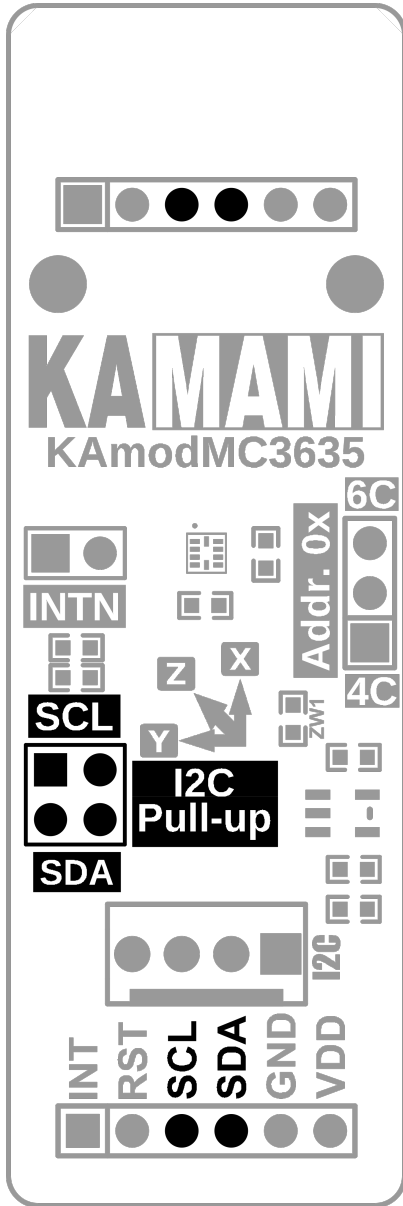
	JP1 male connector)	JP2 (female connector)	Function
	VDD	VDD	Power supply of module (max. 3,6 V)
	GND	GND	
	SDA	SDA	Data line of I2C bus
	SCL	SCL	Clock line of I2C bus
	RST	RST	-
	INTN	INTN	Interrupt line INTN

Output description - KAMAMI standard connector

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

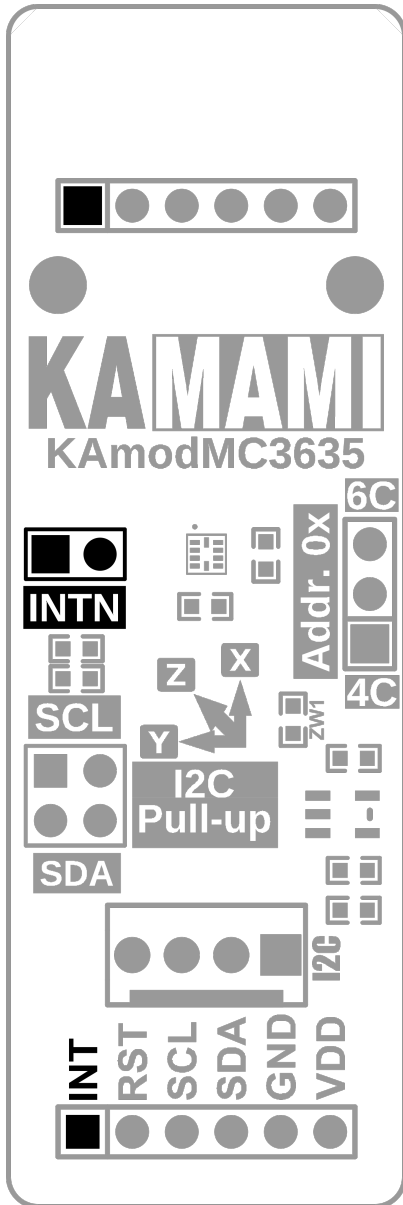
I2C bus lines

The KAmoMC3635 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.



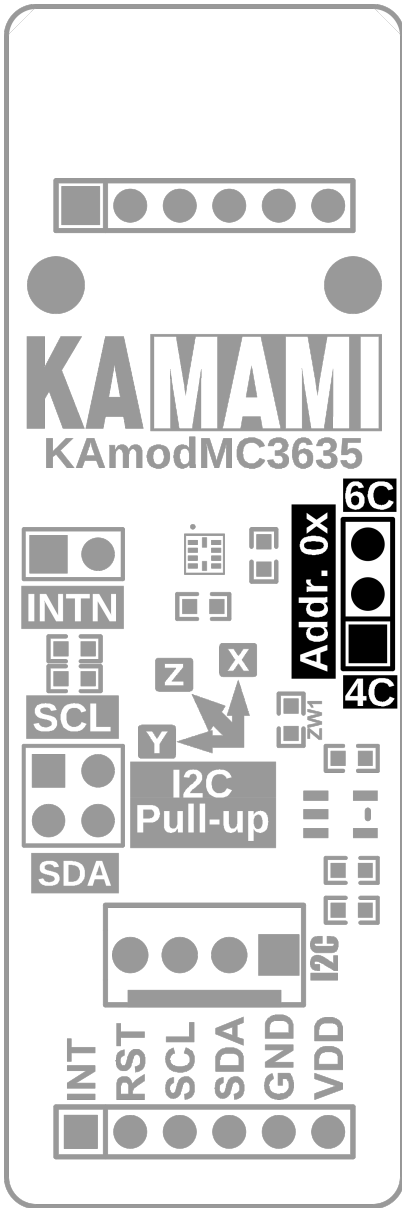
Interrupt line INTN

The KAmoMC3635 module has been equipped with a jumper enabling connection of the INTN interrupt output line to the Pmod compatible connector. Thanks to the possibility of disconnecting the MC3635 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.

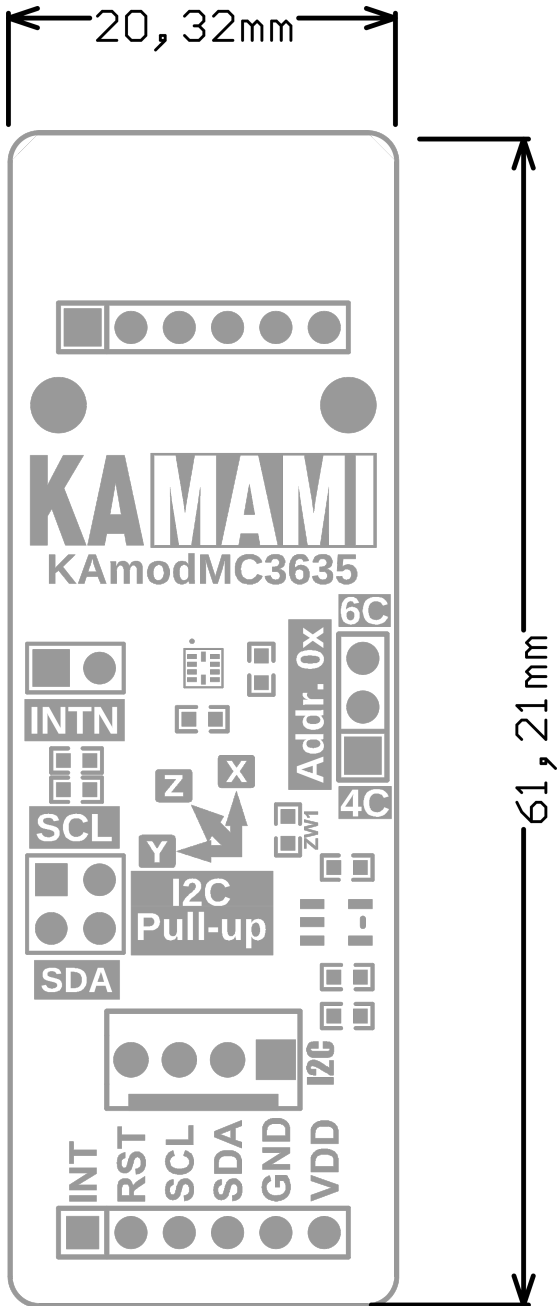


I2C address

The KAmoMC3635 module has been equipped with the function of selecting one of the two I2C bus addresses for the MC3635 chip. The jumper "Addr. 0x" in position "4C" causes that the integrated circuit will be represented by bus address 0x4C (HEX), and in position "6D" - 0x6D (HEX).



Dimensions



External links

- [Datasheet of MC3635 chip from mCube](#)



Zastrzegamy prawo do wprowadzania zmian bez uprzedzenia.

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