

# KAMAMI

## KAmoMMA8653FC



# KAMAMI



Rev. 2019/07/10113621

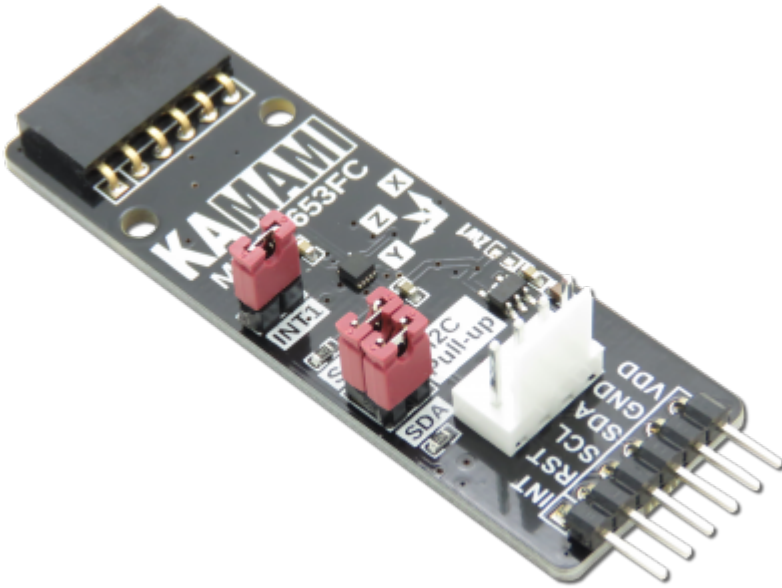
Zdrolo: <http://wiki.kamami.net.com/index.php/KAmoMMA8653FC>

## Spis treści

Basic features and parameters .....	1
Standard equipment .....	2
Electrical schematics .....	3
Output description - Pmod standard connector .....	4
Output description - KAMAMI standard connector .....	5
Dimensions .....	8
External links .....	9

## Description

[KAmoMMA8653FC](#) is a module with the NXP MMA8653FC triaxial accelerometer. The board is equipped with a Pmod I2C standard connector and a KAMAMI connector, that allows 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.



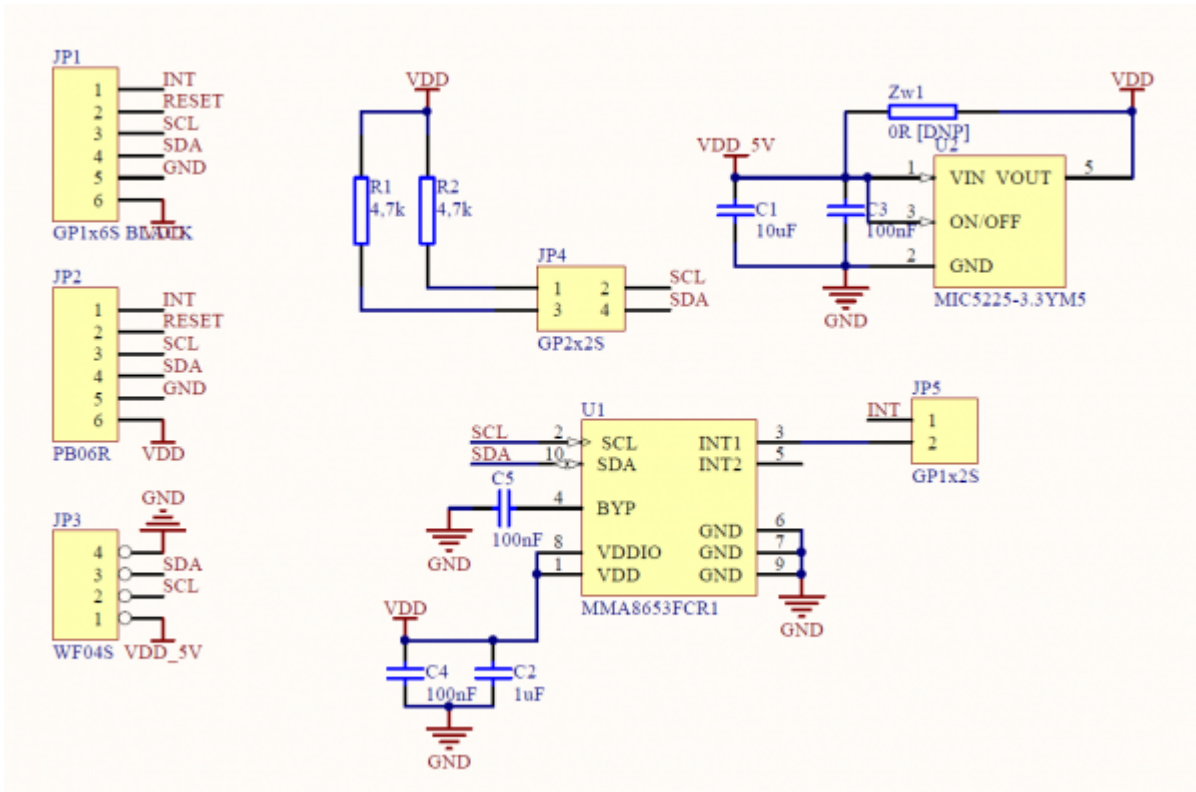
## Basic features and parameters

- MMA8653FC chip from NXP
  - Acceleration measurement in the range of  $\pm 2g/\pm 4g/\pm 8g$
  - Frequency of measurement: from 1.56Hz to 800Hz
  - Resolution 10 bits
  - Orientation detection with fixed hysteresis  $15^\circ$
  - Embedded self-test function
  - I2C bus
  - Programmable interrupt output
  - Chip address 0x1D
- 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 1.95...3.6V through Pmod connector and 1.95V...5.5V through KAMAMI connector
- Mounting holes with a diameter of 2.5mm
- Dimensions: 61.2mm x 20.3mm x 10mm

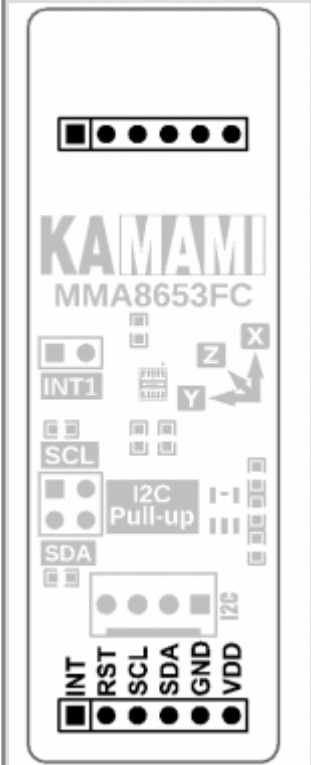
## Standard equipment

Code	Description
KAmoMMA8653FC	• Assembled and launched module

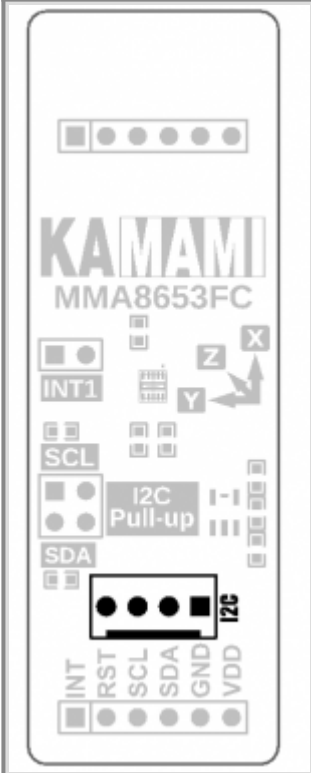
## Electrical schematics



## Output description - Pmod standard connector

	JP1 male connector)	JP2 (female connector)	Function
VDD	VDD	VDD	Power supply of module (max. 3,6 V)
GND	GND	GND	
SDA	SDA	SDA	Data line of I2C bus
SCL	SCL	SCL	Clock line of I2C bus
RST	RST	RST	-
INT	INT	INT	Interrupt line INT1

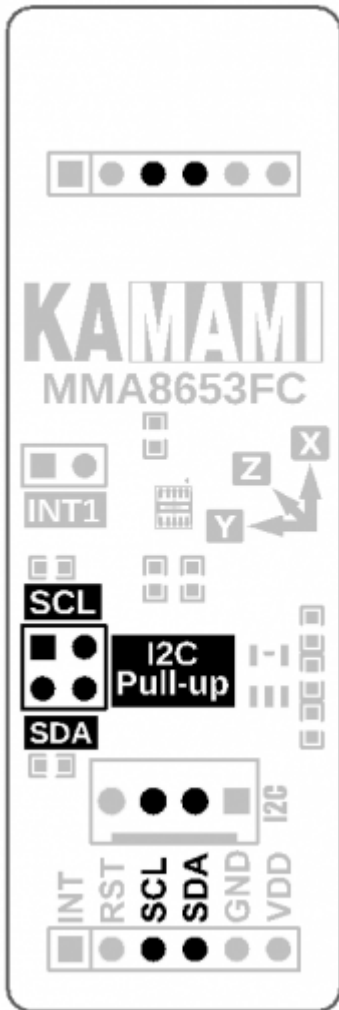
## Output description - KAMAMI standard connector

	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



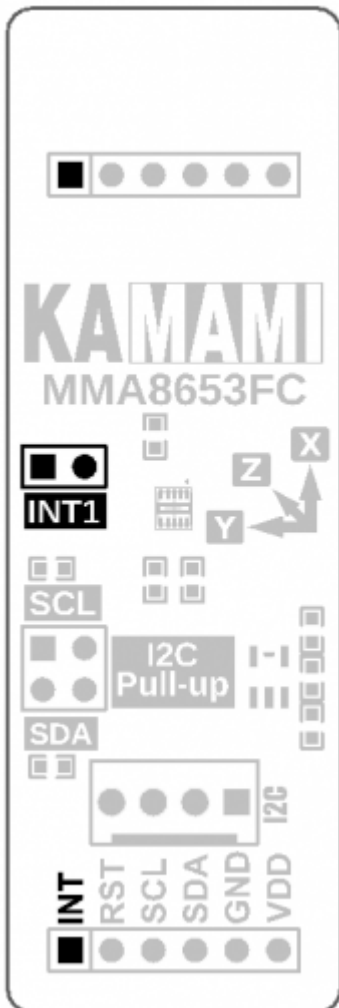
## I2C bus lines

The KAmoMMA8653FC 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.

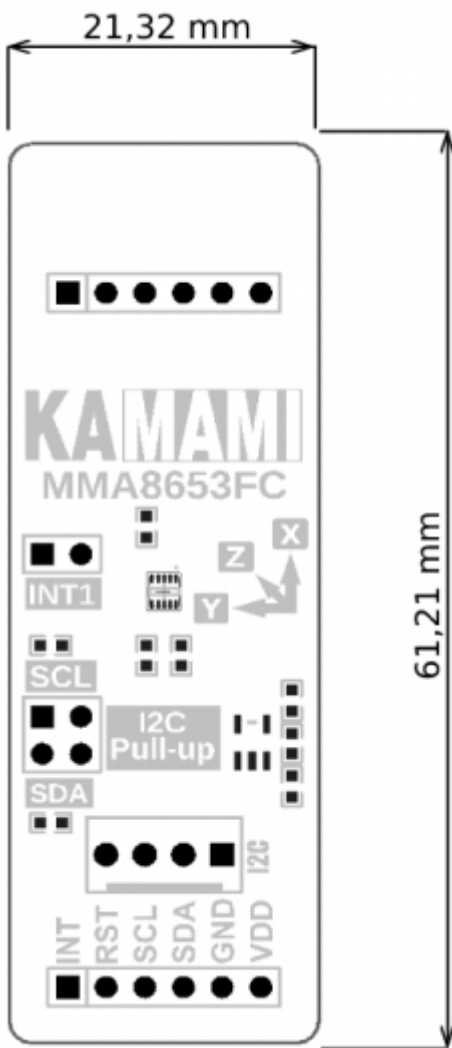


## Interrupt line INT1

The KAmoMMA8653FC module has been equipped with a jumper enabling connection of the INT1 interrupt output line to the Pmod compatible connector. Thanks to the possibility of disconnecting the MMA8653FC 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 MMA8653FC chip from NXP](#)
- [Library for MMA8653FC \(C language\)](#)



Zastrzegamy prawo do wprowadzania zmian bez uprzedzenia.

Oferowane przez nas płytki drukowane mogą się różnić od prezentowanej w dokumentacji, przy czym zmianom nie ulegają jej właściwości użytkowe.

BTC Korporacja gwarantuje zgodność produktu ze specyfikacją.

BTC Korporacja nie ponosi odpowiedzialności za jakiegokolwiek szkody powstałe bezpośrednio lub pośrednio w wyniku użycia lub nieprawidłowego działania produktu.

BTC Korporacja zastrzega sobie prawo do modyfikacji niniejszej dokumentacji bez uprzedzenia.