

Configuring the BRKT-STBC-AGM01 board for SPI Bus interface

1 Introduction

BRKT-STBC-AGM01 is a breakout board for the Freescale FXAS21002C 3-axis gyroscope and the FXOS8700CQC integrated e-compass that includes both an accelerometer and a magnetometer. This breakout board enables 9-axis sensing and is supported by Freescale's Sensor Toolbox software as well as the Intelligent Sensing Framework ISF 2.1.

The BRKT-STBC-AGM01 board is, by default, configured for I²C communication, but can be reconfigured as a SPI bus interface. See Figure 1.

Contents

1	Introduction.....	1
2	Configuring the BRKT-STBC-AGM01 board for SPI Bus interface.....	2
3	References	4
4	Revision History.....	4

2 Configuring the BRKT-STBC-AGM01 board for SPI Bus interface

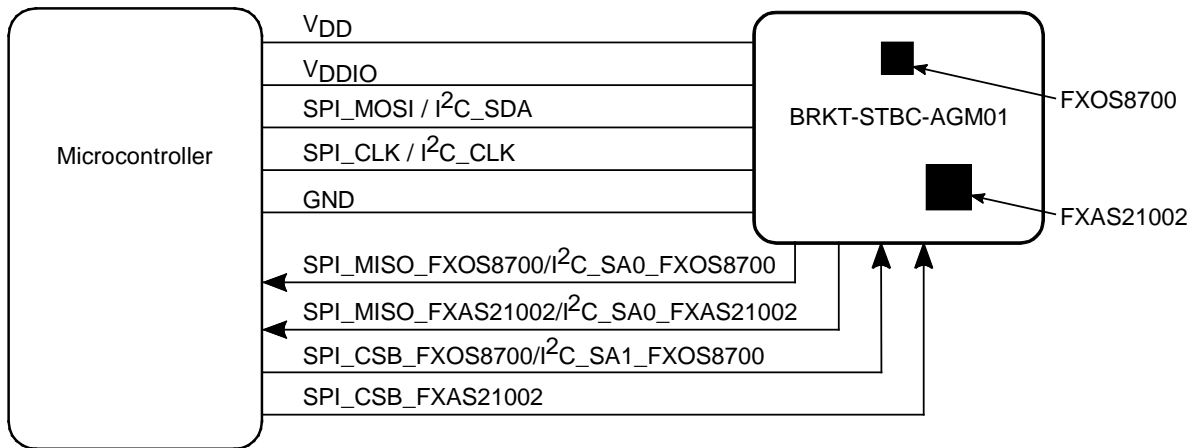


Figure 1. SPI bus interface configuration

As shown in Figures 2 and 3, for SPI configuration, the BRKT-STBC-AGM01 board has to be reconfigured by populating and unpopulating the pull-up/pull-down resistors as follows:

1. Remove resistors R2, R5, R7, R8, and R9.
2. Cut the trace between the SH5 pads.
3. Install resistors R1, R3, R4, and R6.

3 References

FXOS8700CQ Data Sheet	FXOS8700CQ, 6-Axis Sensor with Integrated Linear Accelerometer and Magnetometer
freescale.com/FRDM-STBC-AGM01	9-Axis Inertial Measurement Sensor Board

4 Revision History

Table 1. Revision History

Rev. No.	Date	Description
1.0	8/2015	Public Release



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Document Number: AN5167
Revision 1.0, 8/2015

