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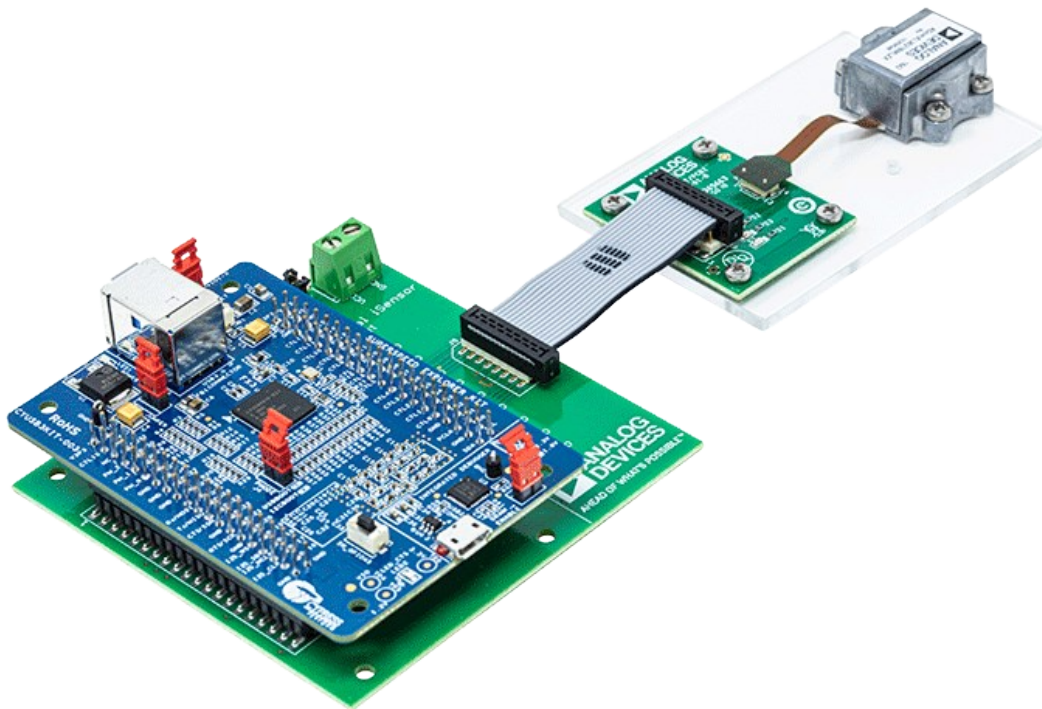Resources and Tools ⌄ | Education Content ⌄ | Wiki Help ⌄ | Wiki Tools ⌄ | search wiki

✅ This version (29 Jan 2020 23:01) was *approved* by Mahdi.Sadeghi.
The Previously approved version (24 Jan 2020 19:31) is available. 🖼️

Evaluation of ADcmXL1021-1 (or ADcmXL3021) ON A PC

The **ADCMXL Evaluation Software** enables PC-based evaluation of the ADcmXL1021-1 and/or ADcmXL3021, using the following hardware: an ADcmXL interface board (ADCMXL_BRKOUT/PCBZ), FX3 Eval iSensor breakout board and a Cypress FX3™ SuperSpeed Explorer Kit. See the picture below for the evaluation kit.

ADcmXL3021 is a 3-axis version of z-axis **ADcmXL1021-1**.

Installation and User Guide can be downloaded here: 📄Evaluation Kit Installation and User Guide

Picture of ADCMXL Evaluation System: FX3 Board + ADCMXL_BRKOUT/PCBZ + ADcmXL3021 (or ADcmXL1021-1) Module. The picture above shows how to connect the evaluation kit.

EVALUATION OPTION PART NUMBERS TO ORDER

The following options are available to be used to evaluate the ADcmXL family and can be ordered by contacting an ADI distributor to place the order.

ADCMXL_BRKOUT/PCBZ
For simple breakout of the ADcmXL1021-1 or ADcmXL3021 flex tail connector to header pins.
NOTE: The ADcmXL1021-1 (or ADcmXL3021) module is required to be ordered separately.

EVAL-ADCM
Evaluation kit for ADcmXL3021, which includes ADCMXL_BRKOUT/PCBZ, the module and additional hardware to use ADI's ADCMXL Evaluation Software.

EVAL-ADCM-1

Evaluation kit for ADcmXL1021-1, which includes ADCMXL_BRKOUT/PCBZ, the module and additional hardware to use ADI's ADCMXL Evaluation Software.

EVALUATION OPTIONS DESCRIPTION

The **ADCMXL_BRKOUT/PCBZ** is a breakout board that has a Hirose DF12(3.0)-14DP-05V(86) receptor which accepts the mating connector on the flex tail of the either ADcmXL1021-1 or ADcmXL3021 Module. This breaks out the connections from the ADcmXL1021-1 (or ADcmXL3021) module to a 16 pin 2mm header connector. This is available as an option in the case that the user has an existing backend available to power, configure and capture directly to the ADcmXL1021-1 or ADcmXL3021 and needs an interface option to connect to the Hirose header without soldering to the module. The 14 pin, 0.5 mm pitch Hirose connector has the pin configuration shown in Figure below. The ADCMXL_BRKOUT/PCBZ silk screen and schematic are available for download using the links below.

	P1 Connector		
RESET_n	1	2	SCLK
CS_n	3	4	DOUT
OUT_VDDM	5	6	DIN
GND	7	8	GND
GND	9	10	VDD
VDD	11	12	VDD
SYNC	13	14	BUSY
ALM1	15	16	ALM2

ADcmXL3021 Hirose connector pinout

📄 ADCMXL_BRKOUT/PCBZ Top Silk Screen
📄 ADCMXL_BRKOUT/PCBZ Schematic

The **EVAL-ADCM** is an orderable kit that includes the evaluation hardware. It includes the following:

- ADcmXL3021 module
- ADCMXL_BRKOUT/PCBZ (more details above)
- ADcmXL FX3 Interface board
- Cypress FX3 Evaluation Kit
- Acrylic mounting plate (2"x3")
- 8 Mounting screws (SCREW, PAN HEAD PHILLIPS, M2.5X6MM)
- 2" long Ribbon cable, 16 pin conductor, 2mm connector pitch (required for RTS Mode communications link)
- 12" long Ribbon cable, 16 pin conductor, 2mm connector pitch

The **EVAL-ADCM-1** is an orderable kit that includes the evaluation hardware. It includes the following:

- ADcmXL1021-1 module
- ADCMXL_BRKOUT/PCBZ (more details above)
- ADcmXL FX3 Interface board
- Cypress FX3 Evaluation Kit
- Acrylic mounting plate (2"x3")
- 8 Mounting screws (SCREW, PAN HEAD PHILLIPS, M2.5X6MM)
- 2" long Ribbon cable, 16 pin conductor, 2mm connector pitch (required for RTS Mode communications link)
- 12" long Ribbon cable, 16 pin conductor, 2mm connector pitch

NOTE: Both ADcmXL1021-1 and ADcmXL3021 use the following Hirose connector and would require the following mating plug: DF12(3.0)–14DS–0.5V(86) – Hirose Receptacle – will be used on flex tail of product DF12(3.0)–14DP–0.5V(86) – Hirose Plug – to be used on customer boards, test, eval boards, etc.

SOFTWARE TO DOWNLOAD

ADCMXL Evaluation Software installation requires two downloads:

1. Download and unzip the file called FX3Driver.zip (click here to see the download link)
📦 (click here to download fx3driver.zip)
2. Run DriverSetup.exe
3. Download and unzip the file called "ADCMXL_Evaluation_revision.zip", where revision is currently identified as "2_1_8_7". This version supports both ADcmXL1021-1 and ADcmXL3021 modules.
📦 (click here to download ADCMXL_Evaluation_2_1_8_7.zip)
(NOTE: ADCMXL Evaluation Software revisions 2.1.8.6 and higher, need the most recent 📦 FX3Driver to operate.)
4. Connect the evaluation setup to the computer

PC SYSTEM REQUIREMENTS

- Windows XP, Vista, 7, 10
- .NET Framework 3.5

resources/eval/user-guides/inertial-mems/imu/adcmxl-pc-eval.txt · Last modified: 29 Jan 2020 23:01 by Mahdi.Sadeghi

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