

Pressure Sensor

BM1383AGLV-EVK-001 Manual

BM1383AGLV-EVK-001 is an evaluation board for BM1383AGLV, which is a ROHM Pressure Sensor. This User's Guide is about how to use BM1383AGLV-EVK-001 together with SensorShield*¹. *1 SensorShield is sold as Shield-EVK-001.

Preparation

| • | Arduino Uno | | 1pc |
|---|---|---------------------------------------|-----|
| • | Personal Computer installed Arduino IDE | | 1pc |
| | ۶ | Requirement : Arduino 1.6.7 or higher | |
| | ۶ | Please use Arduino IDE which can be | |
| | | downloaded from the link below: | |
| | | http://www.arduino.cc/ | |
| • | USI | 3 cable for connecting Arduino and PC | 1pc |
| • | SensorShield | | 1pc |
| • | BM1383AGLV-EVK-001 1 | | |

Setting

1. Connect the Arduino and the SensorShield (Figure 1)



Figure 1. Connection between the Arduino and the SensorShield

- Connect BM1383AGLV-EVK-001 to the socket of I2C area on the SensorShield (Figure 2)
- 3. Set Voltage of the SensorShield to 1.8V or 3.0V (Figure 2)



Figure 2. Connection between BM1383AGLV-EVK-001 and the SensorShield

- 4. Connect the Arduino to the PC using a USB cable
- 5. Download BM1383AGLV.zip from the link below: http://www.rohm.com/web/global/sensor-shield-support
- 6. Launch Arduino IDE
- Select [Sketch]->[Include Library]->[Add.ZIP library...], install BM1383AGLV.zip
- Select [File]->[Examples]->[BM1383AGLV]->[example]-> [BM1383AGLV]

Measurement

 Select [Tools] and check the contents enclosed in the red frame. (Figure 3) Board should be "Arduino/Genuino Uno" and Port should be COMxx (Arduino/Genuino Uno). COM port number is different in each environment.



Figure 3. COM Port setting

- 2. Write the program by pressing right arrow button for upload (Figure 4)
- 3. Wait for the message "Done uploading" (Figure 4)



Figure 4. Uploading

4. Select [Tools]->[Serial Monitor] (Figure 5)



Figure 5. Tools Setting

5. Check log of Serial Monitor (Figure 6)





Board Information



Figure 7. Picture of the board

| Parts number | Function |
|--------------|-----------------------------------|
| C1 | Bypass capacitor for VDD(0.1uF) |
| C2 | Bypass capacitor for DREG(0.22uF) |
| R1 | Pull-up register for SDA(N.M.) |
| R2 | Pull-up register for SCL(N.M.) |
| | |

₩N.M. = No Mount

Table 1. Parts information

| Notes | | | | |
|-------|--|--|--|--|
| 1) | The information contained herein is subject to change without notice. | | | |
| 2) | Before you use our Products, please contact our sales representative and verify the latest specifications : | | | |
| 3) | Although ROHM is continuously working to improve product reliability and quality, semicon- ductors can break down and malfunction due to various factors. Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. ROHM shall have no responsibility for any damages arising out of the use of our Poducts beyond the rating specified by ROHM. | | | |
| 4) | Examples of application circuits, circuit constants and any other information contained herein are provided only to illustrate the standard usage and operations of the Products. The peripheral conditions must be taken into account when designing circuits for mass production. | | | |
| 5) | The technical information specified herein is intended only to show the typical functions of and examples of application circuits for the Products. ROHM does not grant you, explicitly or implicitly, any license to use or exercise intellectual property or other rights held by ROHM or any other parties. ROHM shall have no responsibility whatsoever for any dispute arising out of the use of such technical information. | | | |
| 6) | The Products specified in this document are not designed to be radiation tolerant. | | | |
| 7) | For use of our Products in applications requiring a high degree of reliability (as exemplified below), please contact and consult with a ROHM representative : transportation equipment (i.e. cars, ships, trains), primary communication equipment, traffic lights, fire/crime prevention, safety equipment, medical systems, servers, solar cells, and power transmission systems. | | | |
| 8) | Do not use our Products in applications requiring extremely high reliability, such as aerospace equipment, nuclear power control systems, and submarine repeaters. | | | |
| 9) | ROHM shall have no responsibility for any damages or injury arising from non-compliance with the recommended usage conditions and specifications contained herein. | | | |
| 10) | ROHM has used reasonable care to ensure the accuracy of the information contained in this document. However, ROHM does not warrants that such information is error-free, and ROHM shall have no responsibility for any damages arising from any inaccuracy or misprint of such information. | | | |
| 11) | Please use the Products in accordance with any applicable environmental laws and regulations, such as the RoHS Directive. For more details, including RoHS compatibility, please contact a ROHM sales office. ROHM shall have no responsibility for any damages or losses resulting non-compliance with any applicable laws or regulations. | | | |
| 12) | When providing our Products and technologies contained in this document to other countries, you must abide by the procedures and provisions stipulated in all applicable export laws and regulations, including without limitation the US Export Administration Regulations and the Foreign Exchange and Foreign Trade Act. | | | |
| 13) | This document, in part or in whole, may not be reprinted or reproduced without prior consent of ROHM. | | | |



Thank you for your accessing to ROHM product informations. More detail product informations and catalogs are available, please contact us.

ROHM Customer Support System

http://www.rohm.com/contact/

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ROHM Semiconductor: BM1383AGLV-EVK-001





Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001 Адрес: 105318, г.Москва, ул.Щербаковская д.З, офис 1107

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.З, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж: moschip.ru moschip.ru_4

moschip.ru_6 moschip.ru_9