

iSensor[™] Digital Gyroscope Evaluation Board

ADIS16060/PCB

Preliminary Technical Data

GENERAL DESCRIPTION

The ADIS16060/PCB are simple evaluation boards that provide convenient access to the ADIS16060 family of products, using a standard 2 mm, 2 × 6, connector interface. These connectors can be accessed using a variety of cable options, including standard 1 mm ribbon cables. The ADIS16060/PCB is designed to be evaluated in an existing digital platform (such as MCU, DSP, FPGA, PLD) or as part of the ADISEVAL system. Four mounting holes (sized for 2-56 or 2 mm screws) have been provided to secure the board during evaluation. Note: The ADIS16060/PCBZ will not work with the ADISEVAL/USBZ at this time.

CIRCUIT DESCRIPTION

The schematic, layout, and parts list for the ADIS16060/PCB can be found in

The ADIS16060's digitized outputs can be accessed using the 4-wire serial port interface (SPI) signals on J1: SCLK, CS, DOUT, and DIN. For specific information on using the ADIS16060 SPI interface, refer to the ADIS16060 data sheet. Auxiliary functions, such as the 12-bit ADC input, can be accessed using J2. C1 provides additional power supply filtering but is generally not required.

Table 1. Parts List

| 1 1010 17 1 11 10 2100 | |
|------------------------|---------------------------------------|
| Reference Designator | Part Description |
| U1 | ADIS16060BCCZ ¹ |
| J1, J2 | 12-pin, dual row, 2 mm connector |
| C1, C4 | Power supply filtering, not installed |
| C2 | Reference filtering, not installed |
| C3 | Bandwidth limiting, 0.015µF (80Hz) |

 $^{^{1}}$ x = 0, 1, 2, 3, 4 or 9, y = B or C

SPECIAL NOTES ON HANDLING

Note that the ADIS16060/PCB is not reverse-polarity protected. Reversing the power supply or applying inappropriate voltages (that is, voltages outside the Absolute Maximum Ratings in the ADIS16060 data sheet) to any pin may damage the ADIS16060/PCB.

Table 2. Power Supply Levels

| Parameter | Range |
|-----------|------------------|
| Vcc | 4.75 V to 5.25 V |

Rev. PrA

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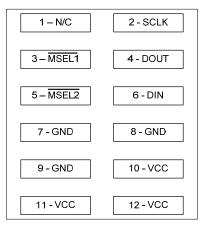


Figure 1. J1 Pin Assignments

NOTE: Pin 12 is not tied to pins 10 and 11, but is required for normal operation. Either connect them with a solder bridge or bring another wire to pin 12 from the power supply.

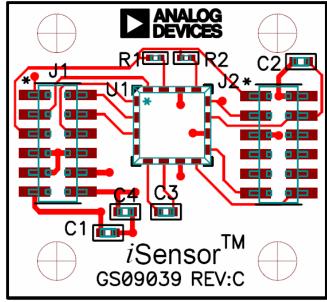


Figure 2. ADIS16060/PCB Layout (Top View)

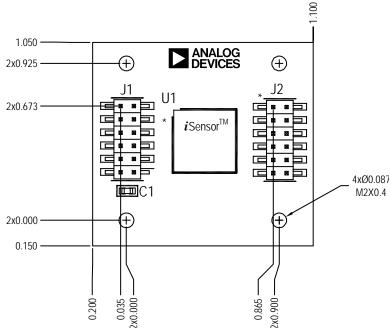


Figure 3. ADIS1620x/PCB Mechanical Drawing

ORDERING GUIDE

| 01.02.110 | |
|----------------|------------------|
| Model | Description |
| ADIS16060/PCBZ | Evaluation Board |

¹ Z = RoHS Compliant Part.

ESD CAUTION



ESD (electrostatic discharge) sensitive device.Charged devices and circuit boards can discharge without detection. Although this product features patented or proprietary protection circuitry, damage may occur on devices subjected to high energy ESD. Therefore, proper ESD precautions should be taken to avoid performance degradation or loss of functionality.