

ANALOG DEVICES $\pm 1.7g$ Dual-Axis Accelerometer, SPI Interface Evaluation Board

Preliminary Technical Data

ADIS16003/PCB

GENERAL DESCRIPTION

The ADIS16003/PCB is a simple evaluation board that provides convenient access to the ADIS16003 using a standard 2mm, 2x6, connector interface. These connectors can be accessed using a variety of cable options, including standard 1mm ribbon cables. The ADIS16003/PCB is designed to be evaluated in an existing digital platform (MCU, DSP, FPGA, PLD, etc) or as part of the ADISEVAL system. Four mounting holes (sized for 2-56 or 2mm screws) have been provided to secure the board during evaluation.

CIRCUIT DESCRIPTION

The schematic, layout and parts list for the ADIS16003/PCB can be found in Figure 1, Figure 2, and Table 1.

The ADIS16003'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 ADIS16003's SPI interface, refer to the ADIS16003 datasheet. C1 is not populated but provides opportunity to add a filtering capacitor for helping clean up noisy power supply inputs. C2 and C3 are not installed but provide the ability to reduce the bandwidth on each axis. See the ADIS16003 datasheet for more details.

Table 1 – ADIS16003/PCBZ Parts List

Reference Designator	Part Description
U1	ADIS16003CCCZ
J1,J2	Connector, 12-pin, dual row, 2mm Digikey P/N: H1785-ND
C1	Power supply filter. Not installed
C2, C3	Bandwidth control. Not Installed

Ribbon cable socket for J1/J2: Digikey P/N MSA12A-ND

SPECIAL NOTES ON HANDLING

Note that the ADIS16003/PCB is not reverse polarity protected. Reversing the power supply or applying inappropriate voltages to any pin (outside the Absolute Maximum Ratings in the ADIS16003 data sheet) may damage the ADIS16003/PCB.

Table 2 – Power Supply Levels

Vcc	+3.0V to +5.25V
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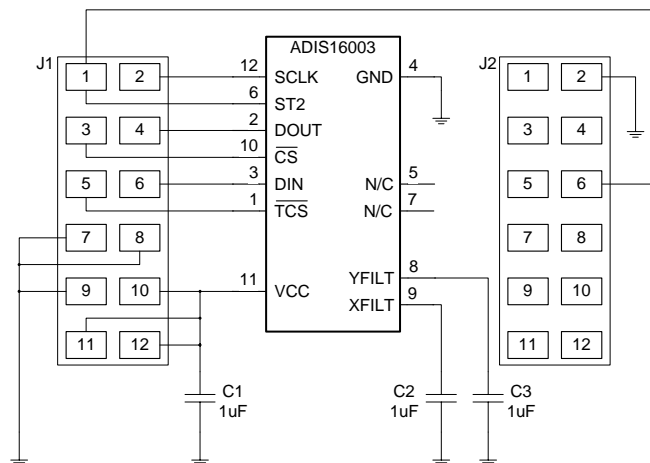


Figure 1 - ADIS16003/PCB Schematic

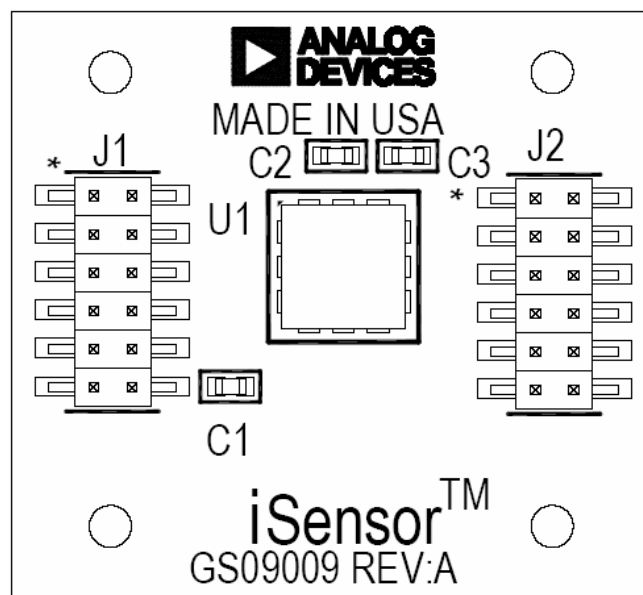


Figure 2 - ADIS16003/PCB Layout (Top View)

ORDERING GUIDE

Model	Package Description
ADIS16003/PCBZ	Evaluation Board, RoHS Compliant
ADISEVAL	iSensor™ PC Evaluation System

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