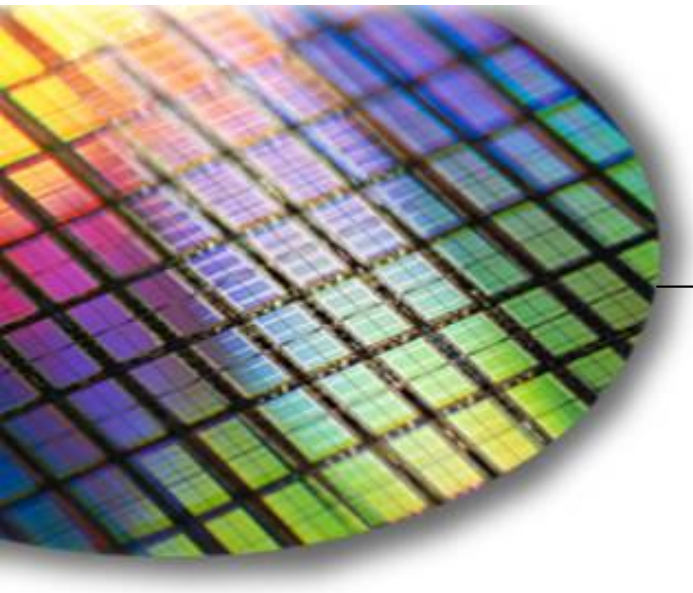
WINSOURCE ELECTRONICS

THE DATASHEET OF

ADIS16365/PCBZ



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Demo/Evaluation Tips for the ADIS163

Mark Looney
iSensor Application Engineer
February 19, 2009

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Evaluation Tool Overview

1. **Interface Connector for those that need to integrate this on a new PCB**
   - The ADIS1636xBMLZ use the FTMH-112-03 series of connectors from Samtec. www.samtec.com/FTMH
   - The evaluation tools use the CLM-112-02-LM-D-A connector from Samtec
   - Acquire mating connector from Samtec, not ADI. www.samtec.com/samples
   - Alternate mating connector: www.samtec.com/MLE

2. **Evaluation/Interface Board (ADIS1636x/PCBZ) for simpler connection to an existing processor/system PCB.**
   - These boards provide a simple connector translation from the 1mm pitch on the ADIS1636xBMLZ products to a 2mm pitch, which is easier to use in common prototyping environments such as hand-soldering and ribbon cabling.
   - NOTE: PCB not sold separately.
   - Part numbers for ordering:
     ADIS16360/PCBZ, ADIS16364/PCBZ, ADIS16365/PCBZ

3. **Evaluation System (ADISUSBZ) for those that prefer a simple PC interface**
   - This system provides a simple USB interface, along with software for simple data collection and evaluating most of the ADIS1636x functions and performance.
   - Supports approximately 150-200SPS sample rate.
   - CAUTION: This system DOES NOT provide an appropriate framework for developing a system around the ADIS1636xBMLZ. NO source code or code development support is included with this kit.
   - Part number for ordering: **ADISUSBZ**

ADIS1

ADISUSB

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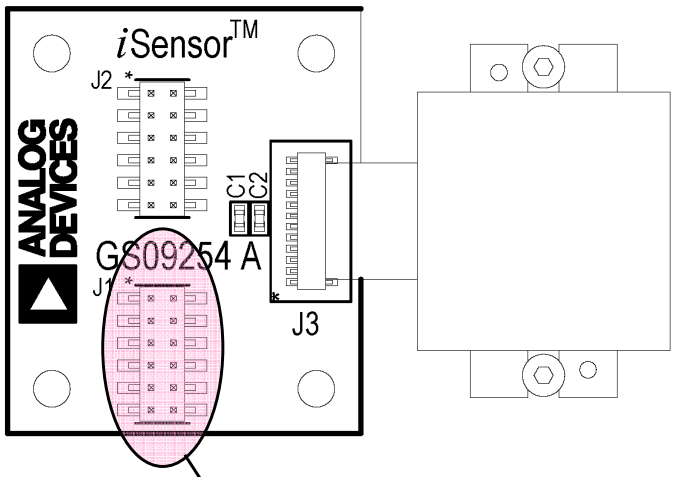
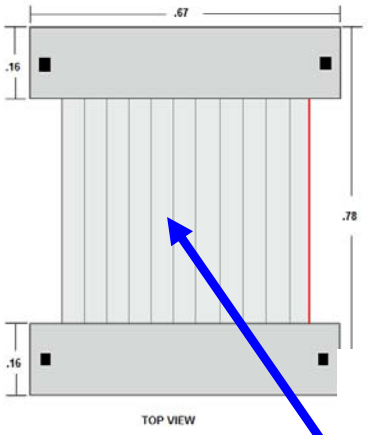
Hooking up to the ADIS1636x/PCBZ

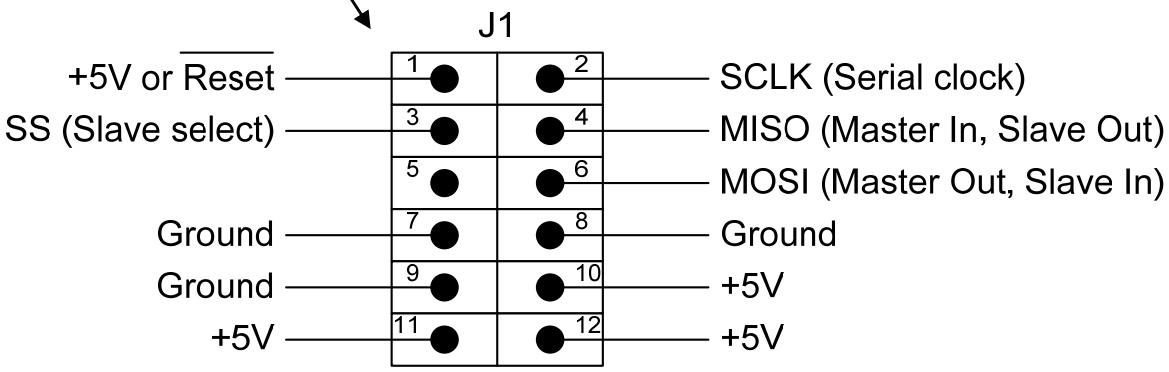


J1 Ribbon Cable Int



3M

Suggested connections with a Master Processor



3M

ADISUSBZ
cable asse

ASP-

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ADISUSBZ-based Evaluation

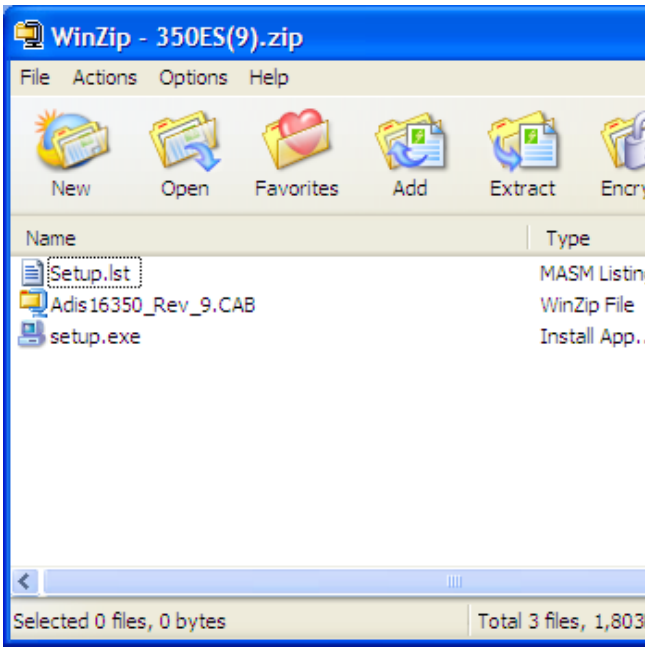
All ADIS1636x parts use the ADIS16350 evaluation software package.

1. **Download 350ES.zip into a temporary directory and unpack its con**
   http://www.analog.com/static/imported-files/eval_boards/350ES.zip

   OR GO TO:

   www.analog.com/isensor-evaluation,
   then click on EVALUATION SOFTWARE DOWNLOADS
   then click on 350ES.zip option

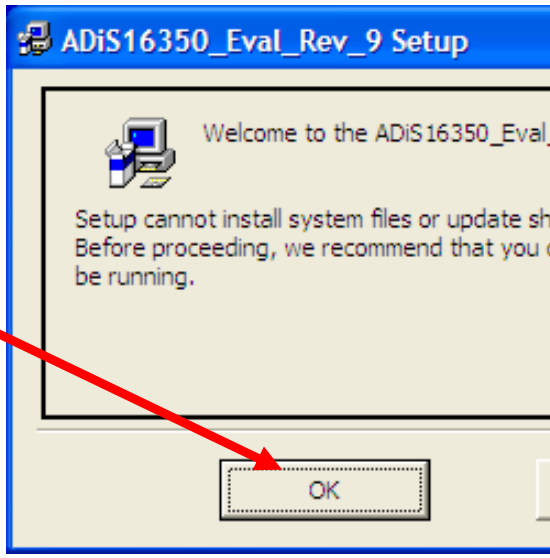
2. **Double-click on "setup.exe"**

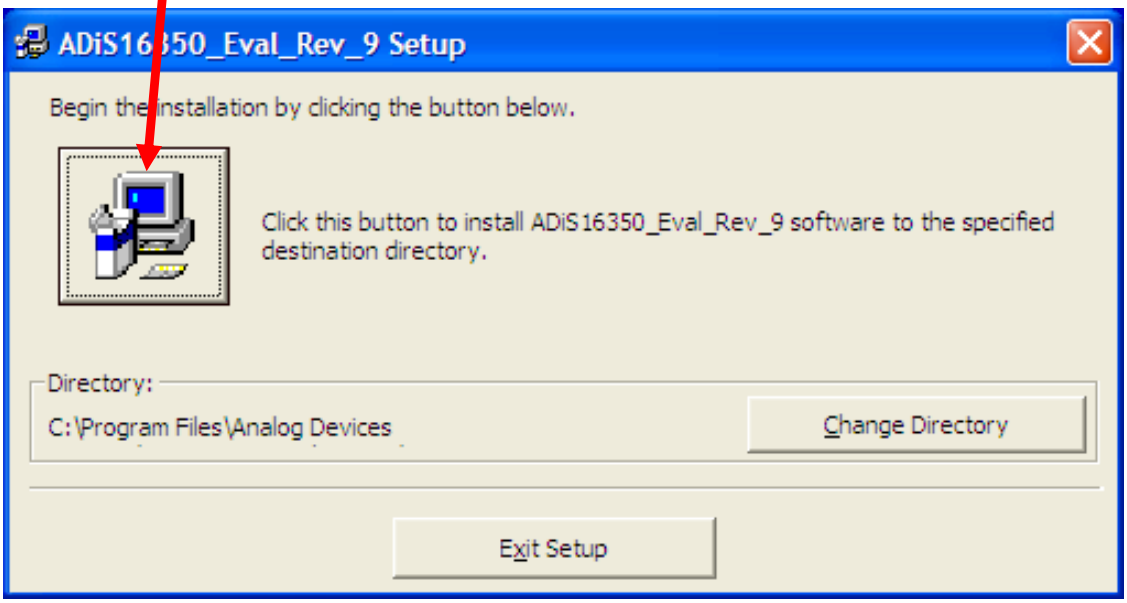


ADIS16350 Demonstration Software Installation

Installation Steps (continued)

3. **Click OK on next screen**
4. **Click here to start installation**



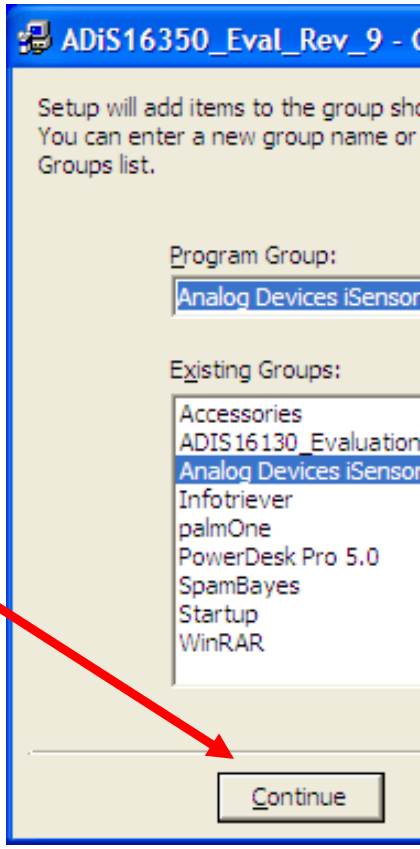


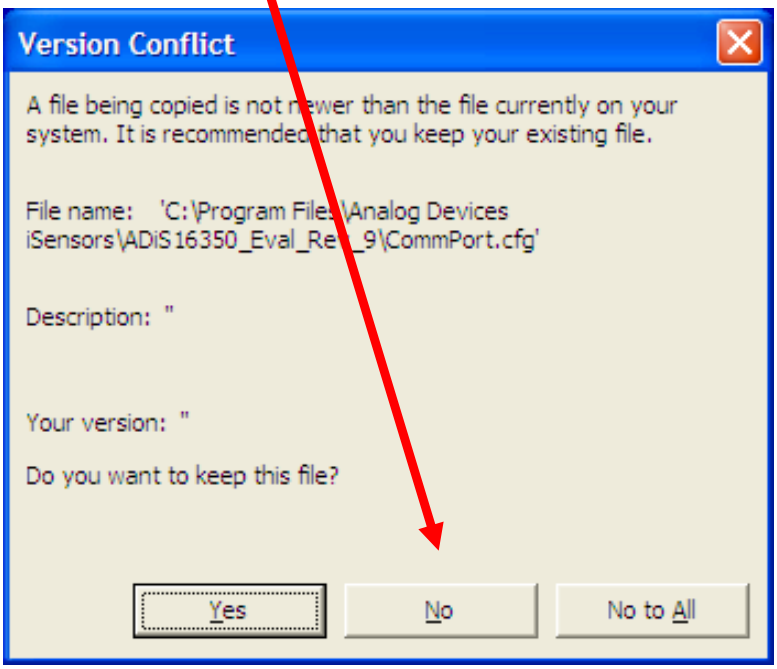
ADIS16350 Demonstration Software Installation

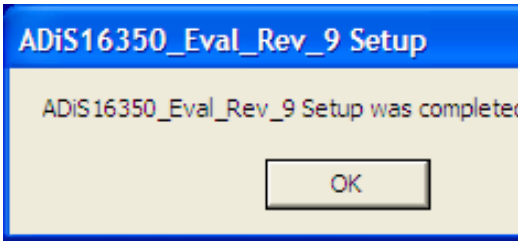
Installation Steps (continued)

5. **Click Continue**

6. **If this message comes up, click on "No"**







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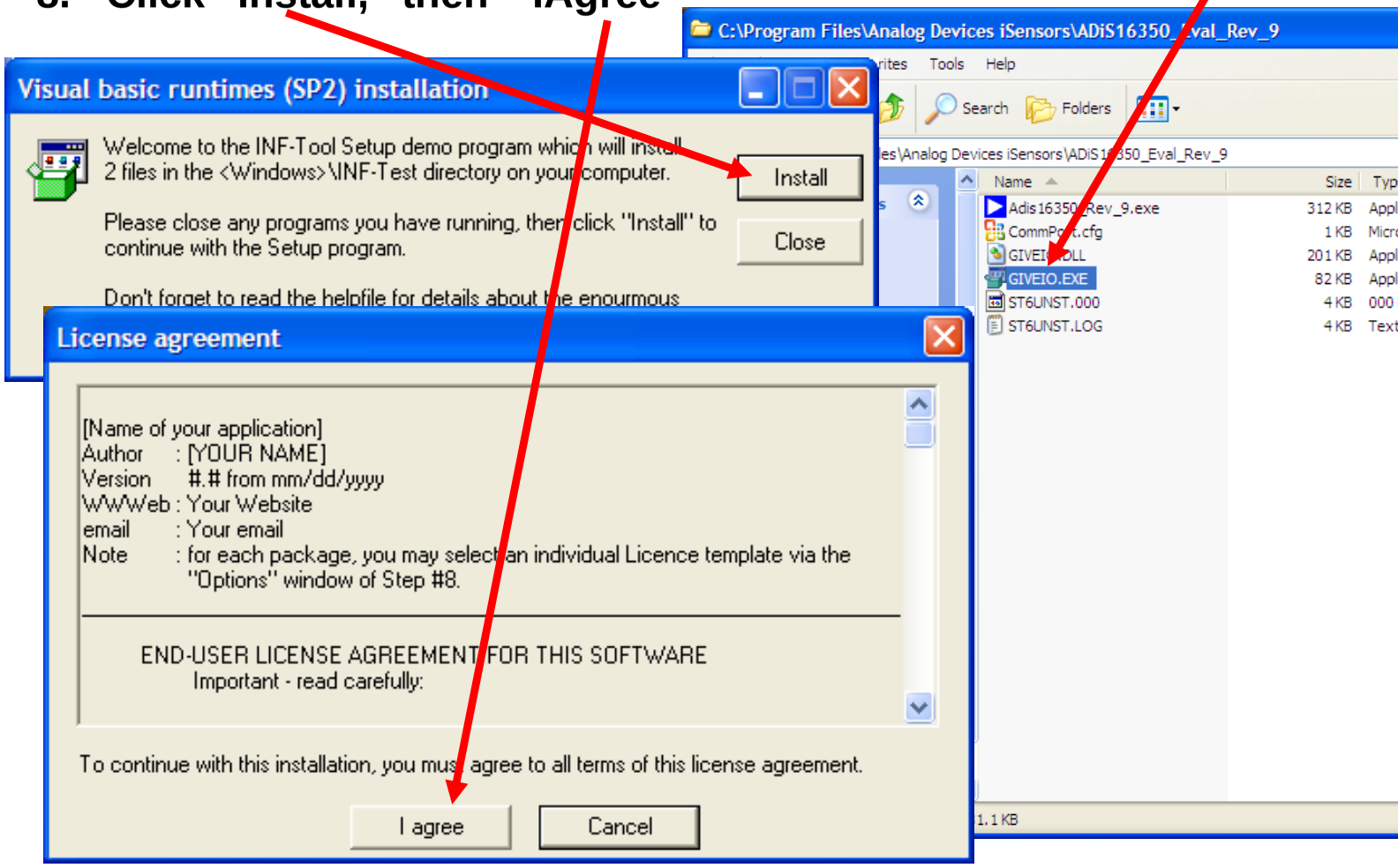
ADIS16350 Demonstration Software Installation

Installation Steps (continued)

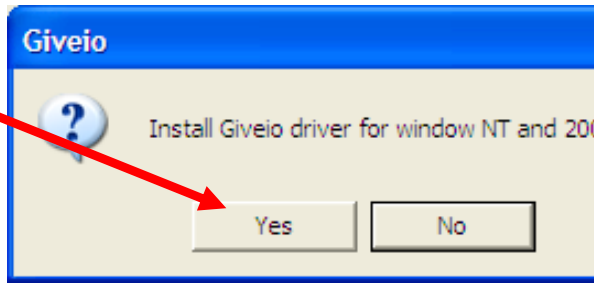
7. **Open the newly created directory and double-click onto “giveio.ex**
8. **Click “Install,” then “ IAgree”**



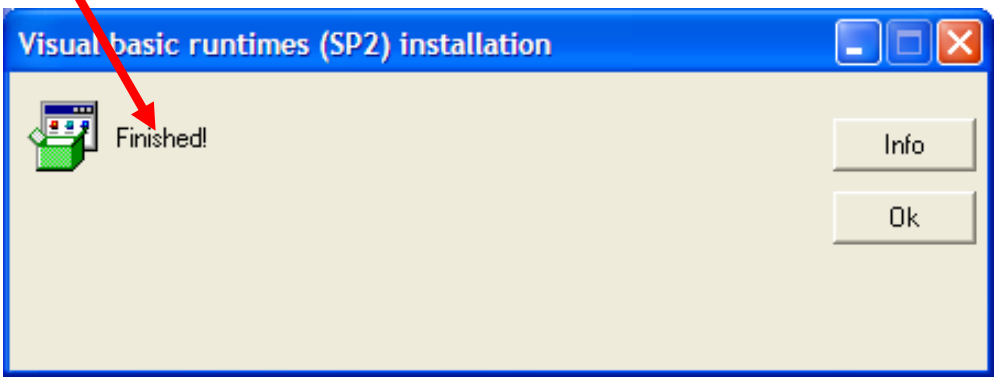
ADIS16350 Demonstration Software Installation

Installation Steps (continued)

9. Click “yes”



10. Giveio Driver complete



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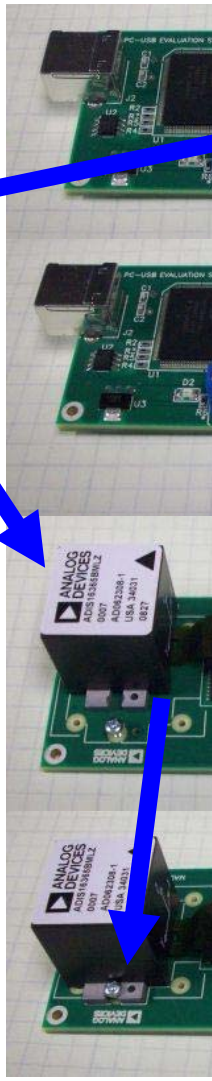
ADIS1636x Installation on ADISUSBZ

Installation Steps (continued)

11. Install ADIS1636xBMLZ on ADISUSBZ

1. Remove ribbon cable & (1) 2mm screw
2. Place ADIS1636xBMLZ using silk on ADISUSBZ
3. Slide ADIS1636xBMLZ onto screw head. Screw may need loosening
4. Secure ADIS1636xBMLZ using 2 M6x2mm pan head screws (provided) between two tabs
5. Align ADIS1636xBMLZ connector over J4 on ADISUSBZ and press it down to make connection
6. Change JP1 from “+3.3V” option to “+5V” option



12. Plug in USB cable

CAUTION

DO NOT PULL ON THE ADIS1636x BODY TO BREAK THE CONNECTION WITH THE MATING CONNECTOR. WHEN DISCONNECTING, BREAK THE CONNECTION BY USING A SMALL SLOTTED SCREWDRIVER TO PRY THE CONNECTOR UP BEFORE REMOVING SCREWS

The flex circuit can break when mishandled and in most cases, repair is impossible. ADI does not offer repair or replacement service for broken flex and encourages appropriate care when handling the flex.

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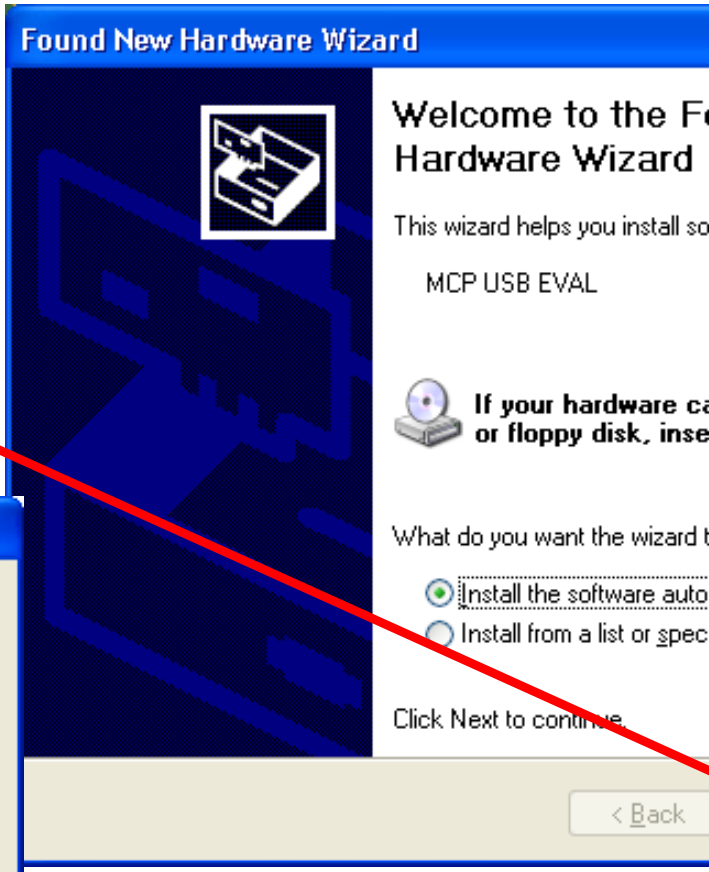
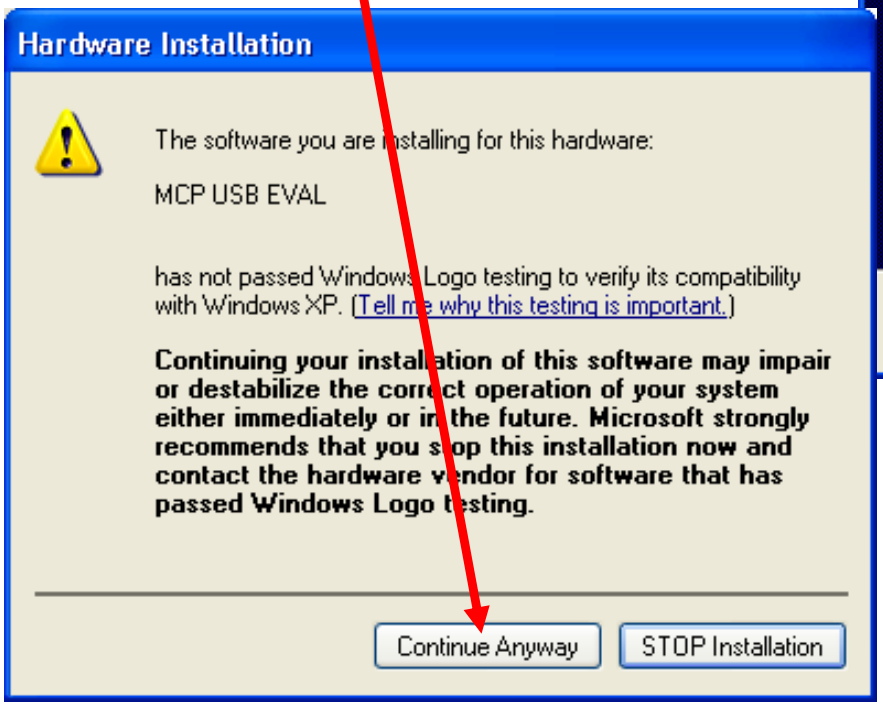
MCP USB Driver Installation

Installation Steps (continued)

13. **USB Driver screen will pop-up**
    Click "Next" to start this process

14. **Then click on**
    "Continue Anyway"





This process may repeat. Just
instructions and allow it to go t
time. After completing this, the
ready for test.

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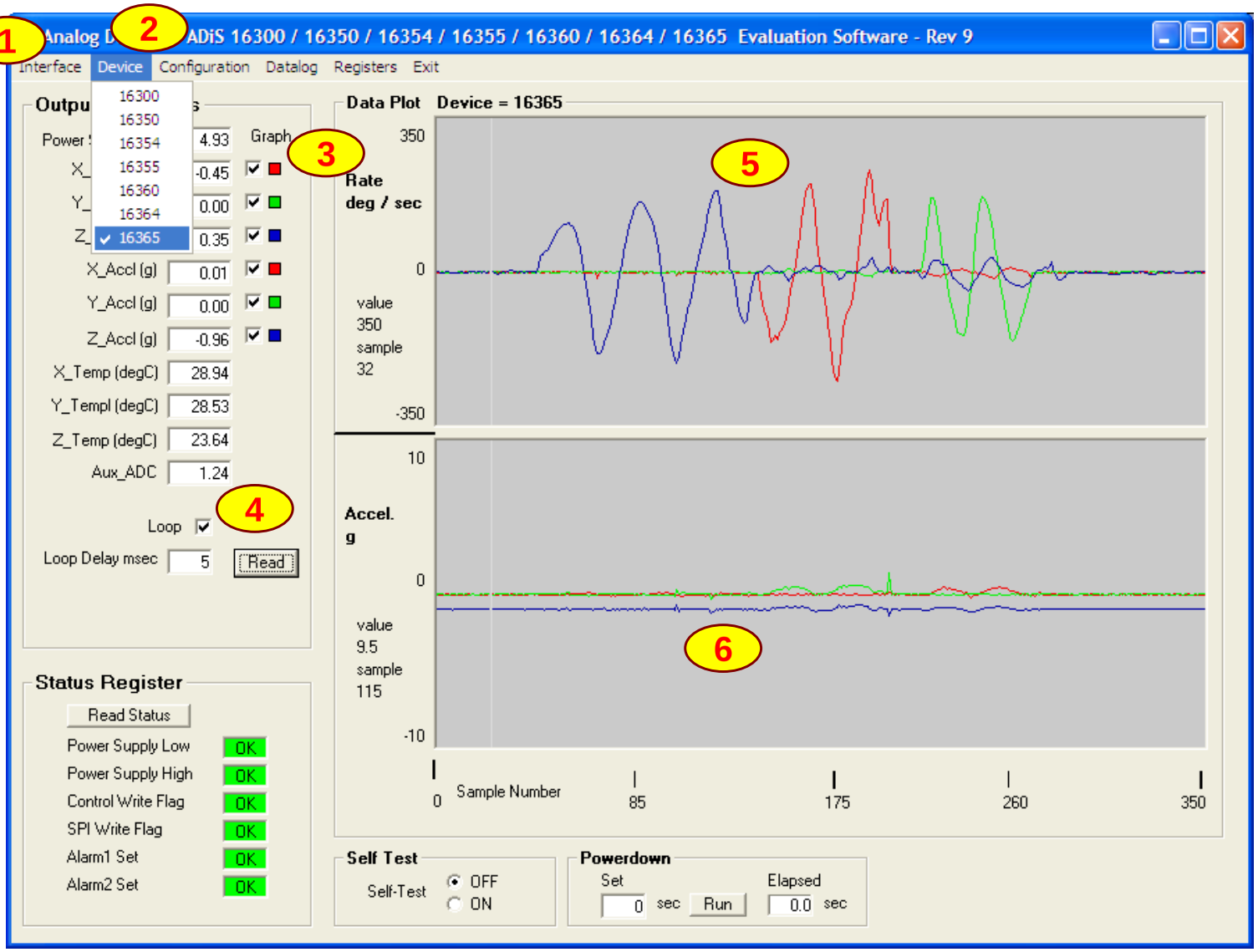
ADIS16350 Software Tips



1.

2.

3.

4.

5.

6.

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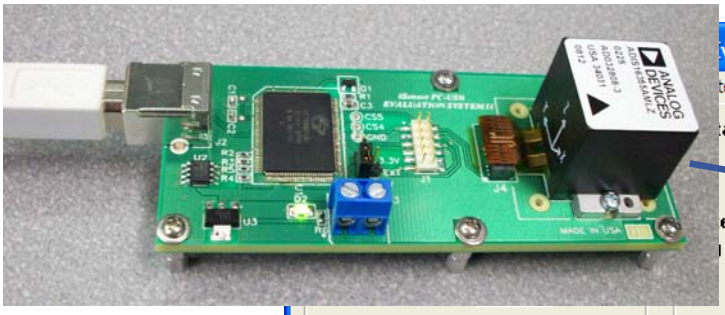
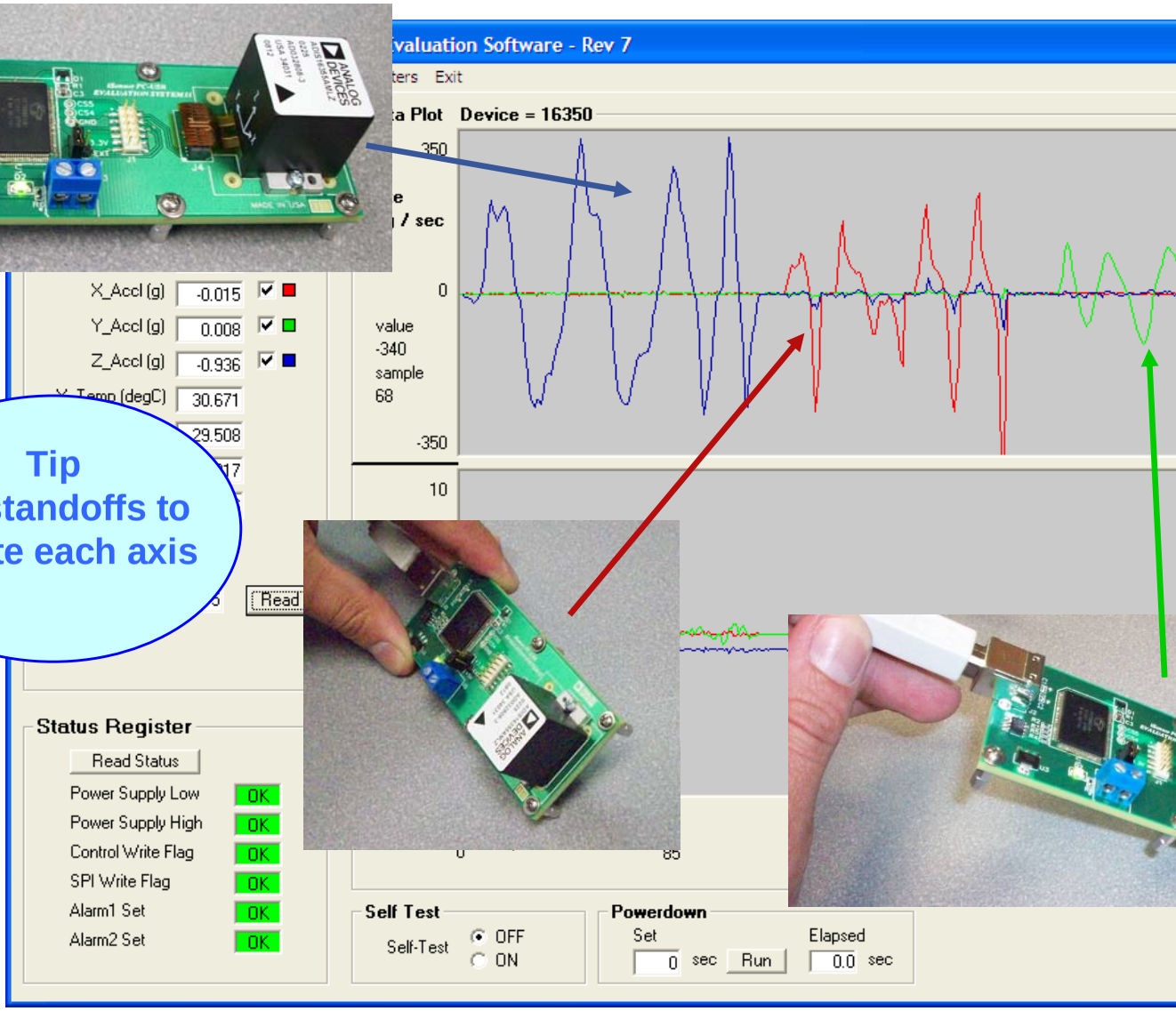
ADIS16350 Demonstration Tips – Look at each ax





Tip
Use standoffs to isolate each axis

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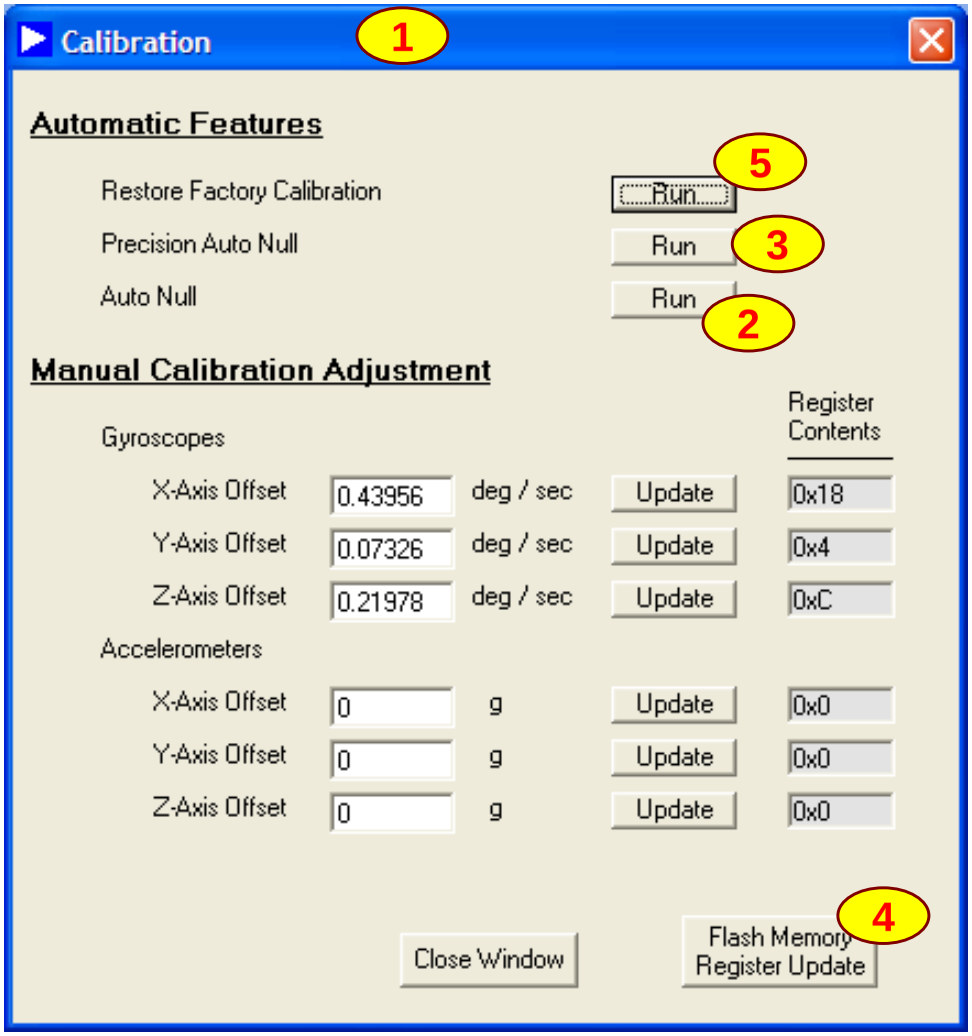
ADIS16350 Evaluation Software, Calibration Menu



1. From the main m Configuration, th to reach this me
2. Use Auto Null Ru quick offset calib
3. Use Precision Au this option inside which takes a 30 produce these nu device still and a and thermal varia second period.
4. Use the Flash Me Update to store s volatile flash.
5. Use the Restore to return all of th

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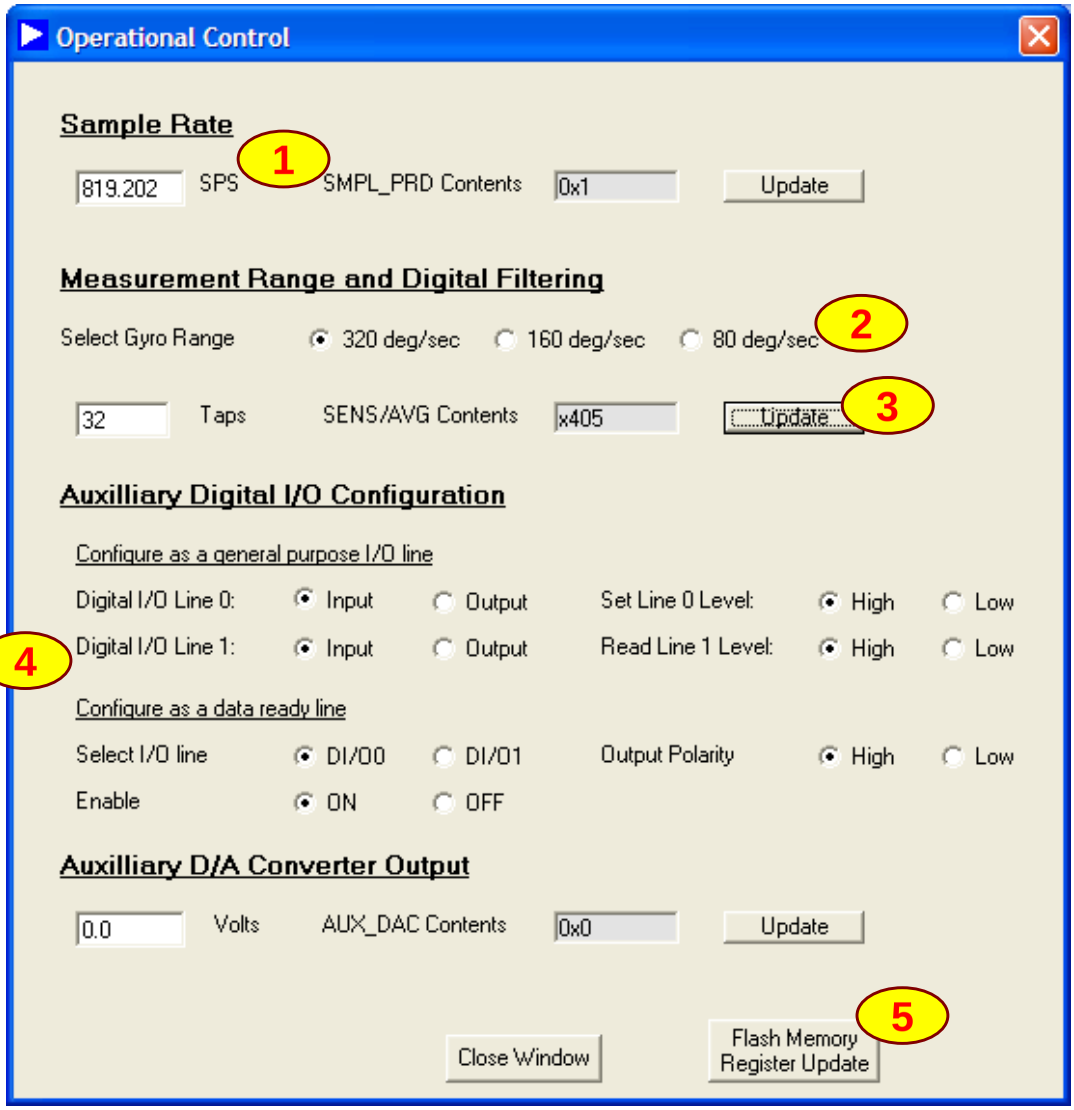
ADIS16350 Evaluation Software, Operation Menu



1. From the main m
   Configuration, th
   to reach this men
2. Bias stability per
   typically best wh
   maximum sampl
3. Use the on-board
   Filter to reduce n
   number of taps (
   sizes), then click
   the ADISUSBZ su
   rates of 150-200S
   least 8 taps.
4. Digital and analo
   configuration op
5. Use the Flash Me
   Update to store s
   volatile flash.

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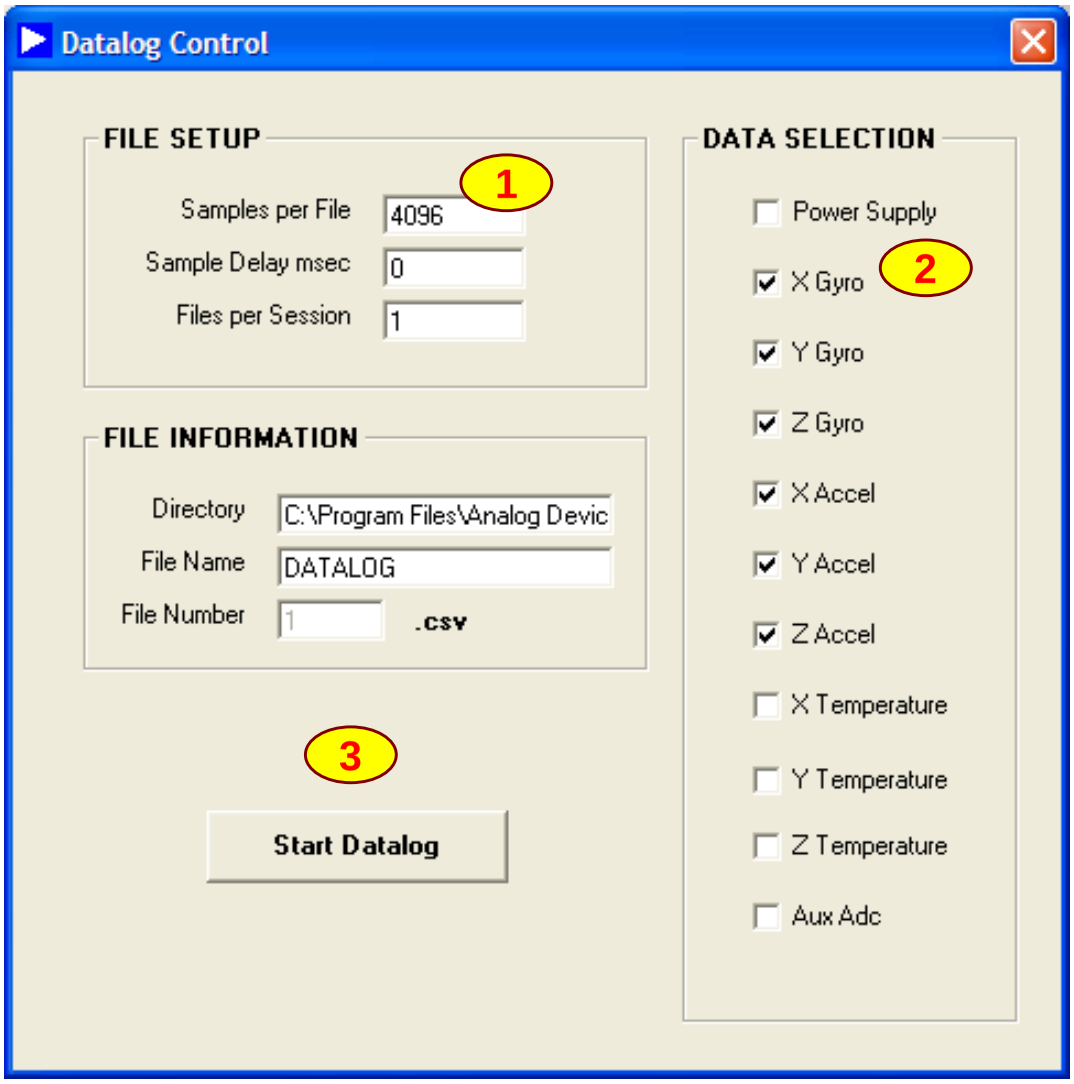
ADIS16350 Evaluation Software, Data log Menu



1. **Set the total num**
2. **Set the inertial s monitor.**
3. **When the data lo message will ap until the data col completed.**

- **CONTACTS:**
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    1-336-605-4139
  - **MARKETING:** Bob Scannell
    bob.scannell@anal
    1-336-605-4031

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- www.analog.com/isensor-evaluation

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