AS7150 EVM

Quick Start Guide

Proximity and optical force sensor

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Tobelbader Strasse 30, 8141 Premstaetten, Austria
Phone +43 3136 500-0
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1 Out of the box

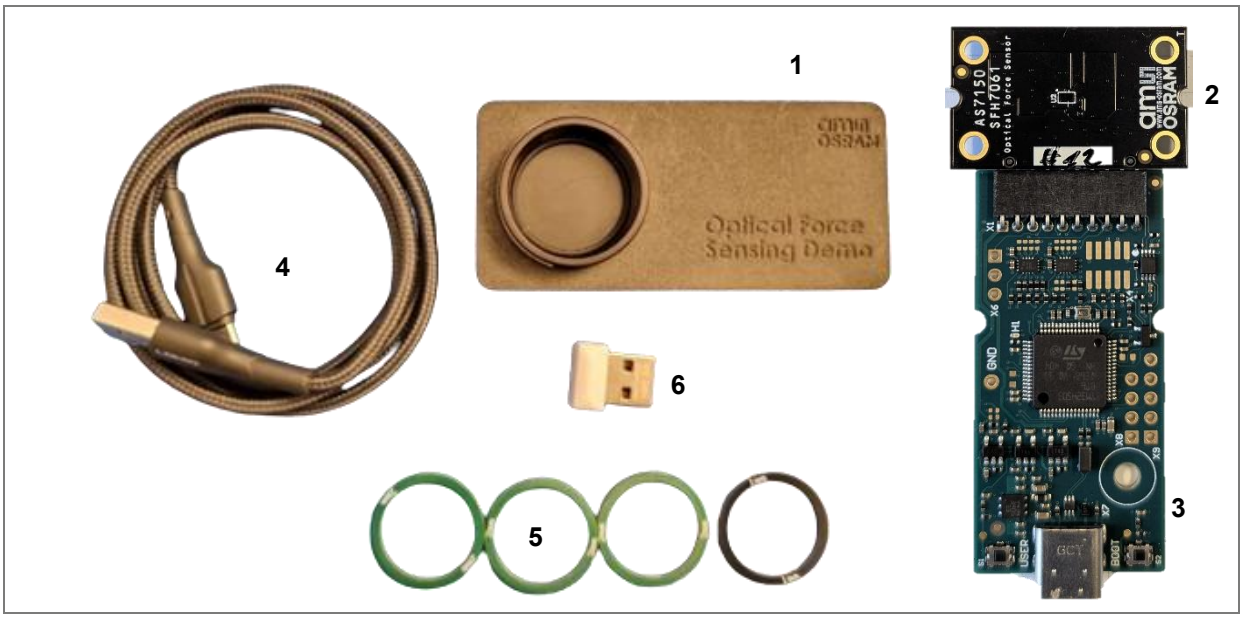
Referring documents:

For a detailed description of hardware and software, please refer to User Guide:

- UG001072

Each AS7150 Evaluation Kit comes with the following components:

Figure 1: Evaluation kit contents



No.	Item	Description
1	EVM housing	Contains electronics and a button with height adjustment.
2	AS7150 EVM daughter board	PCB with AS7150 EVM sensor installed.
3	EVM controller board	Used to communicate from the USB to I²C.
4	USB cable (A to USB-C)	Connects EVM controller to the PC.
5	Distance spacers	Used to change the distance between the surface and sensor.
6	USB stick	It contains software and documents.

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2 Software installation

1. Download the GUI software installer from ams-osram.com website.
2. Run the **Setup.exe** file from the downloaded media.
3. The Setup Wizard will open and guide you through the installation of the AS7150 host software. For most cases, all the default settings are appropriate.
4. At the end of the installation, click Finish to exit the setup.

3 Hardware connection

1. Plug the AS7150 Daughterboard into the Controller board. Always use ESD procedures when handling the EVM without the housing.
2. Using the enclosed USB cable, plug the USB-C connector into the EVM module. With the other end of the cable, plug the USB A-connector into a USB port on the computer.

Attention:

The AS7150 includes a VCSEL. In the case of an unmounted button surface as in the proximity use case, ensure that the eye safety regulations of your country (i.e. safety goggles, using cover housing, behind a display, etc.) are fulfilled while using the device.

When the USB cable is connected, the green LED should light up, indicating that the USB interface is receiving power and the controller board processor is running. If the green LED does not light up, check the USB cable connections, unplug the USB cable and try again.

If the green LED still does not light up, change the USB cable or check the PC for USB error messages.

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4 Start the application

To start the application, select “ams-OSRAM > AS7150 EvalSW” on the “All Programs” menu. The default installation directory, depending on the device and the operating system you are using is:

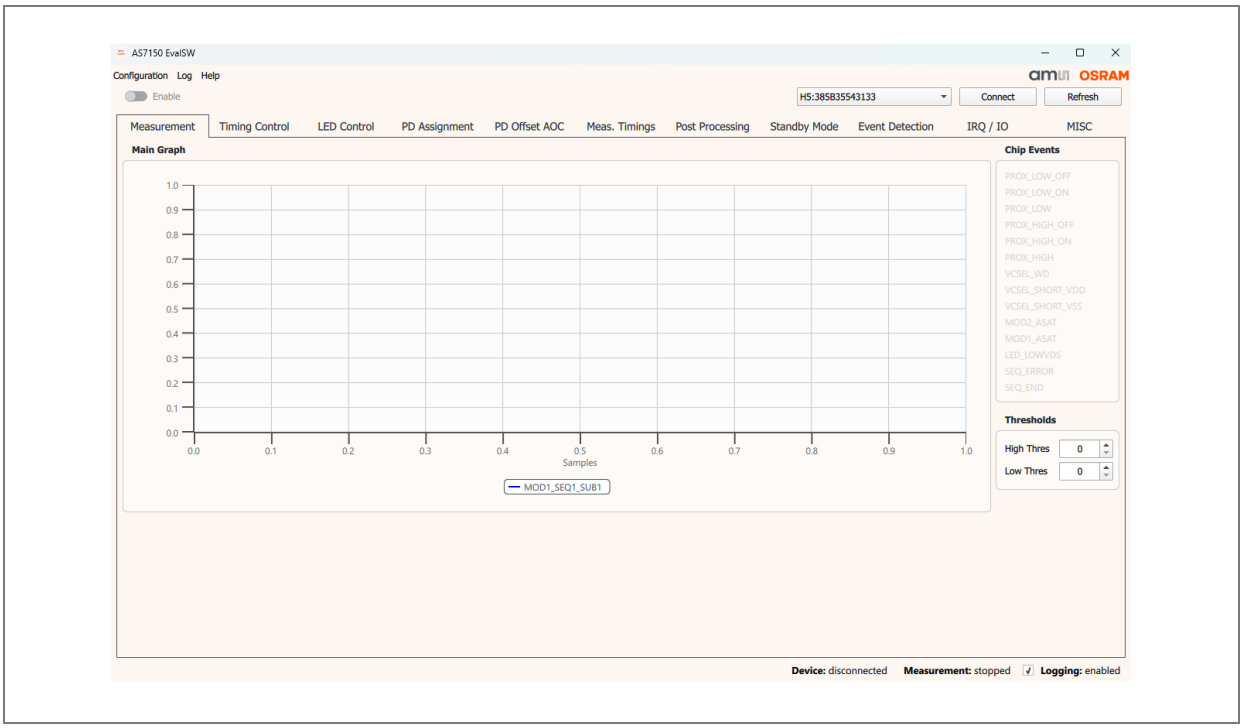
- C:\Users\USERNAME\AppData\Local\Programs\ams-OSRAM\AS71xx_EvalSW

The user can select a different install path during installation. When the application starts, the AS7150 window will open on the PC and automatically connect to the hardware.

5 First measurement

1. Connect the AS7150 EVM to the PC using the USB cable provided.
2. Launch the application as described in Chapter 4.
3. In the GUI, as shown in Figure 2, select the device from the drop-down button at the top right-hand side, then click **Connect**. If the device is not visible, click the **Refresh** button (Figure 2). See Chapter 3 for more debugging steps.

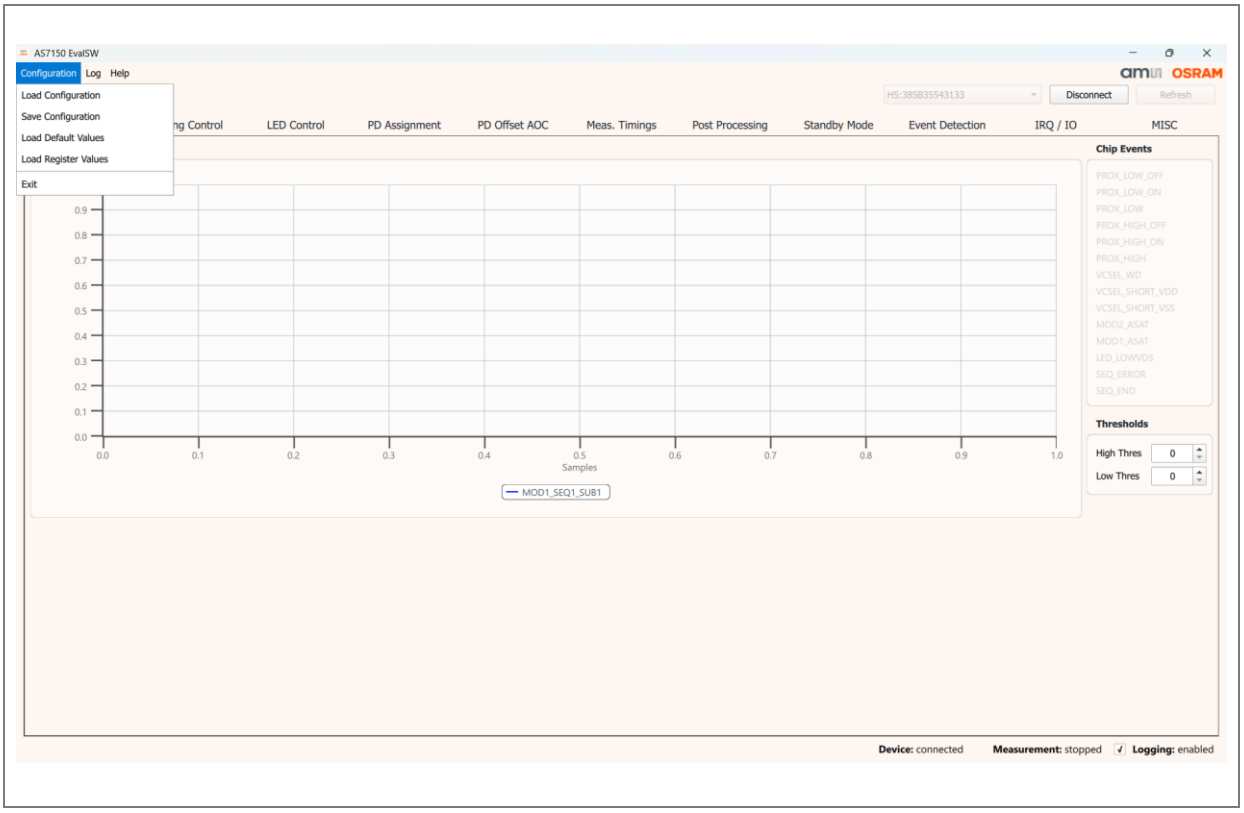
Figure 2: AS7150 EVM GUI connection page



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4. Click the **Configuration** menu and load one of the configuration presets provided by clicking the **Load Configuration** button.

Figure 3: AS7150 EVM GUI configuration presets page



5. Click the **Enable** toggle button on the left-hand side of the window to start the measurement.

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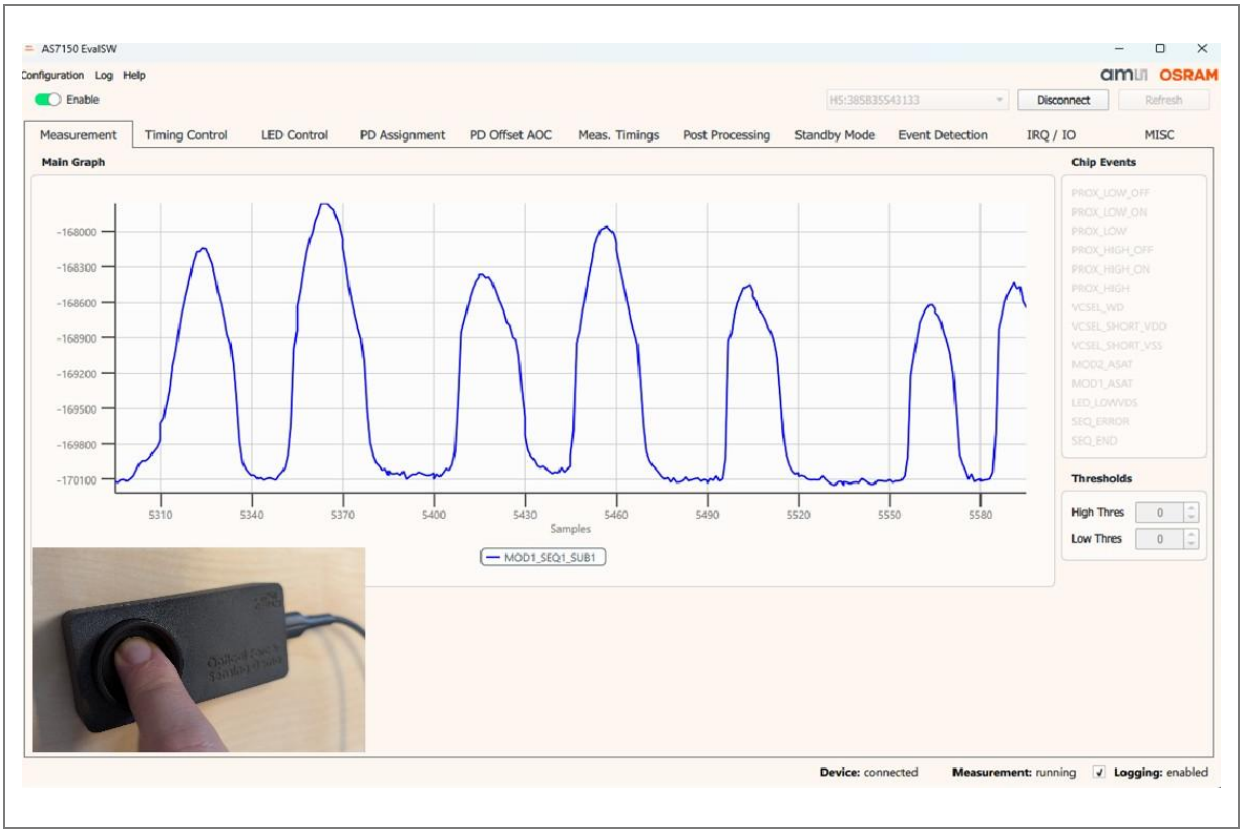
Figure 4: AS7150 EVM GUI measurement page



6. Press the EVM button to observe the measurements in the graphs.

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Figure 5: AS7150 EVM GUI active measurement graph



7. Click the “Stop Measurement" button to stop the measurement.

6 Uninstall application

To remove the software from your computer, right-click on “ams-OSRAM > AS7150 EvalSW” and select Uninstall or use the Windows Control Panel.

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7 Revision information

Definitions

Draft / Preliminary:
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Changes from previous version to current revision v1-00	Page
Initial production version	all

- Page and figure numbers for the previous version may differ from page and figure numbers in the current revision.
- Correction of typographical errors is not explicitly mentioned.

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Headquarters
ams-OSRAM AG
Tobelbader Strasse 30
8141 Premstaetten
Austria, Europe
Tel: +43 (0) 3136 500 0

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