

# AS7150 EVM

## Quick Start Guide

Proximity and optical force sensor

Published by **ams-OSRAM AG**

Tobelbader Strasse 30, 8141 Premstaetten, Austria

Phone +43 3136 500-0

[ams-osram.com](http://ams-osram.com)

© All rights reserved



# Table of contents

<b>1</b>	<b>Out of the box .....</b>	<b>3</b>
<b>2</b>	<b>Software installation .....</b>	<b>4</b>
<b>3</b>	<b>Hardware connection .....</b>	<b>4</b>
<b>4</b>	<b>Start the application .....</b>	<b>5</b>
<b>5</b>	<b>First measurement.....</b>	<b>5</b>
<b>6</b>	<b>Uninstall application .....</b>	<b>8</b>
<b>7</b>	<b>Revision information .....</b>	<b>9</b>
<b>8</b>	<b>Legal information.....</b>	<b>10</b>

# 1 Out of the box



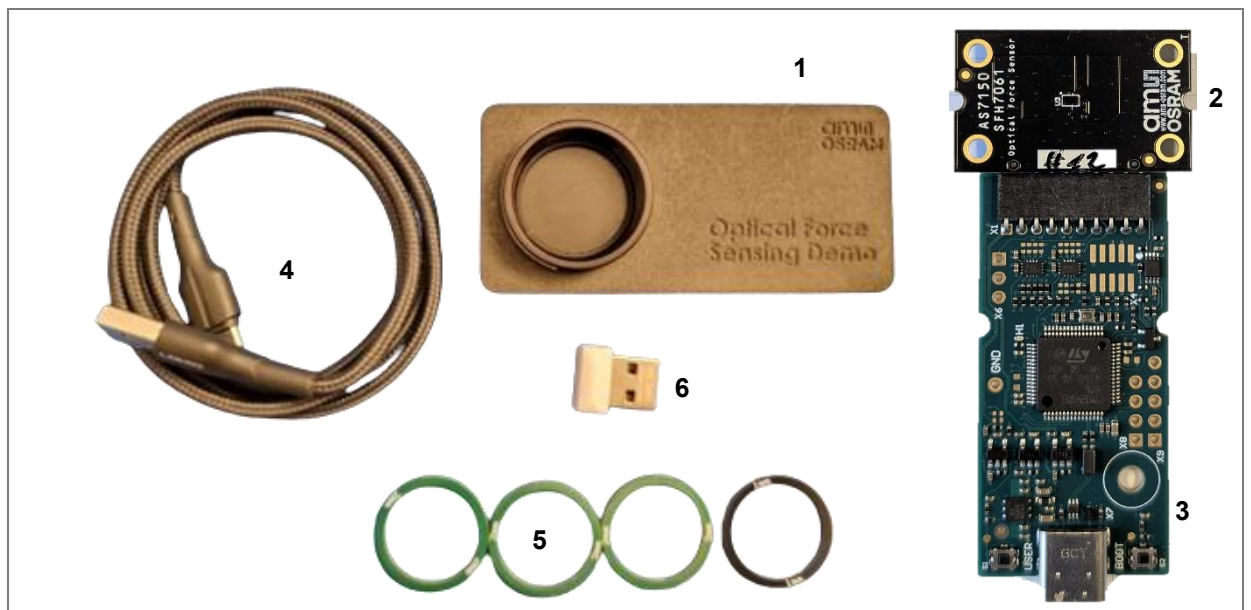
## Referring documents:

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 I <sup>2</sup> C.
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.

---

## 2 Software installation

1. Download the GUI software installer from [ams-osram.com](https://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.

## 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:

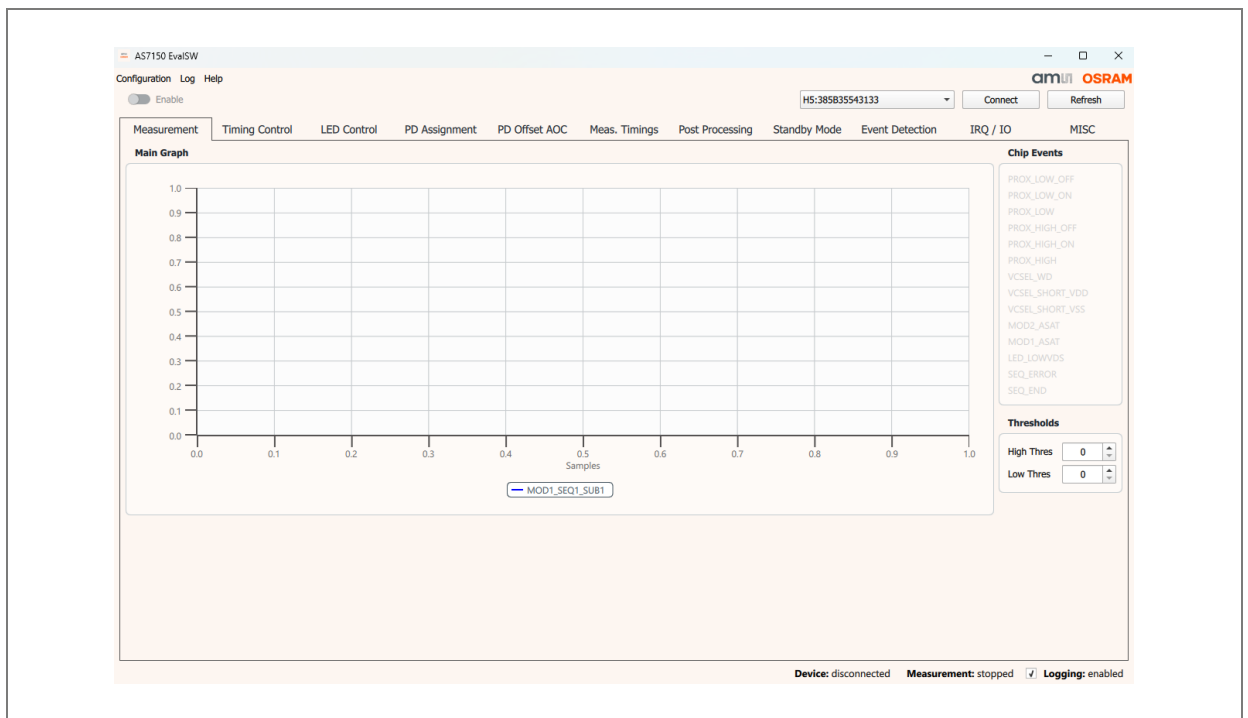
- C:\Users\USERNAME\AppData\Local\Programs\ams-OSRAM\AS71xx\_EvalSW

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

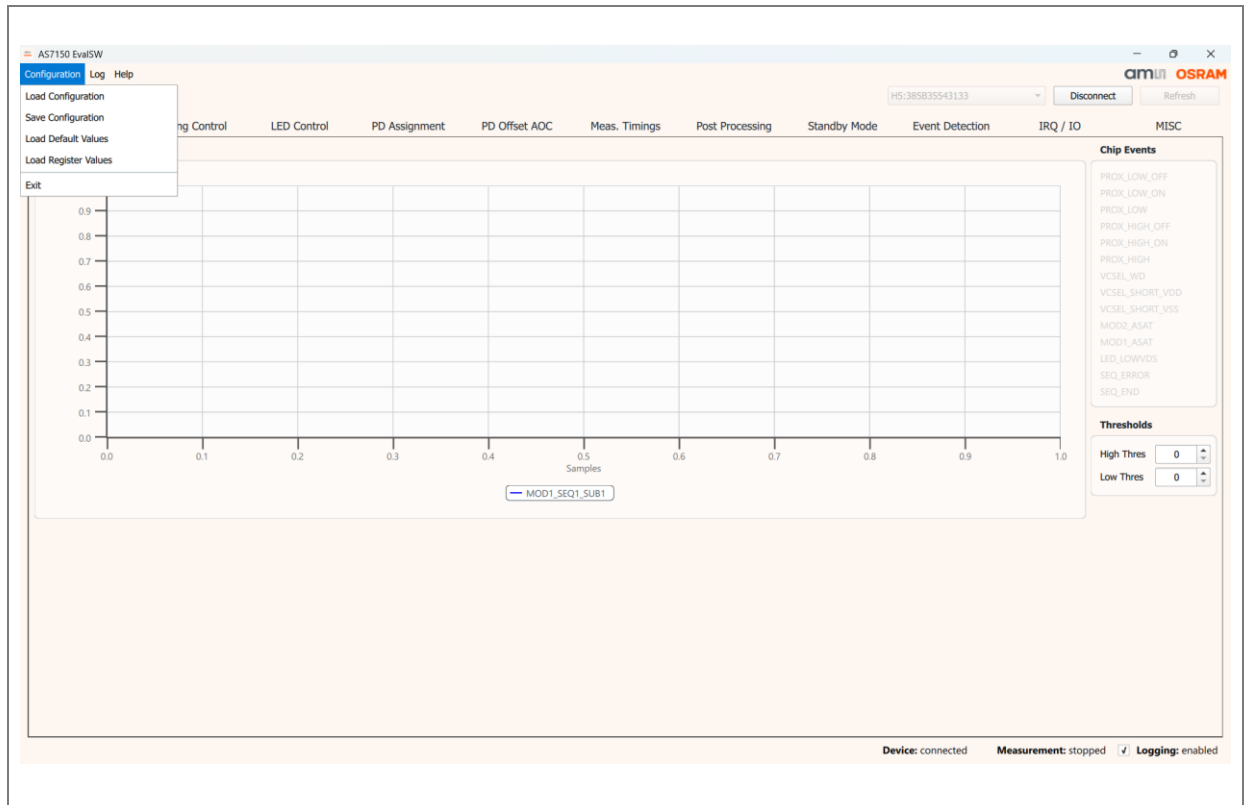
1. Connect the AS7150 EVM to the PC using the USB cable provided.
2. Launch the application as described in Chapter 4.
3. In the GUI, as shown in Figure 2, select the device from the drop-down button at the top right-hand side, then click **Connect**. If the device is not visible, click the **Refresh**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

Figure 2: AS7150 EVM GUI connection page



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



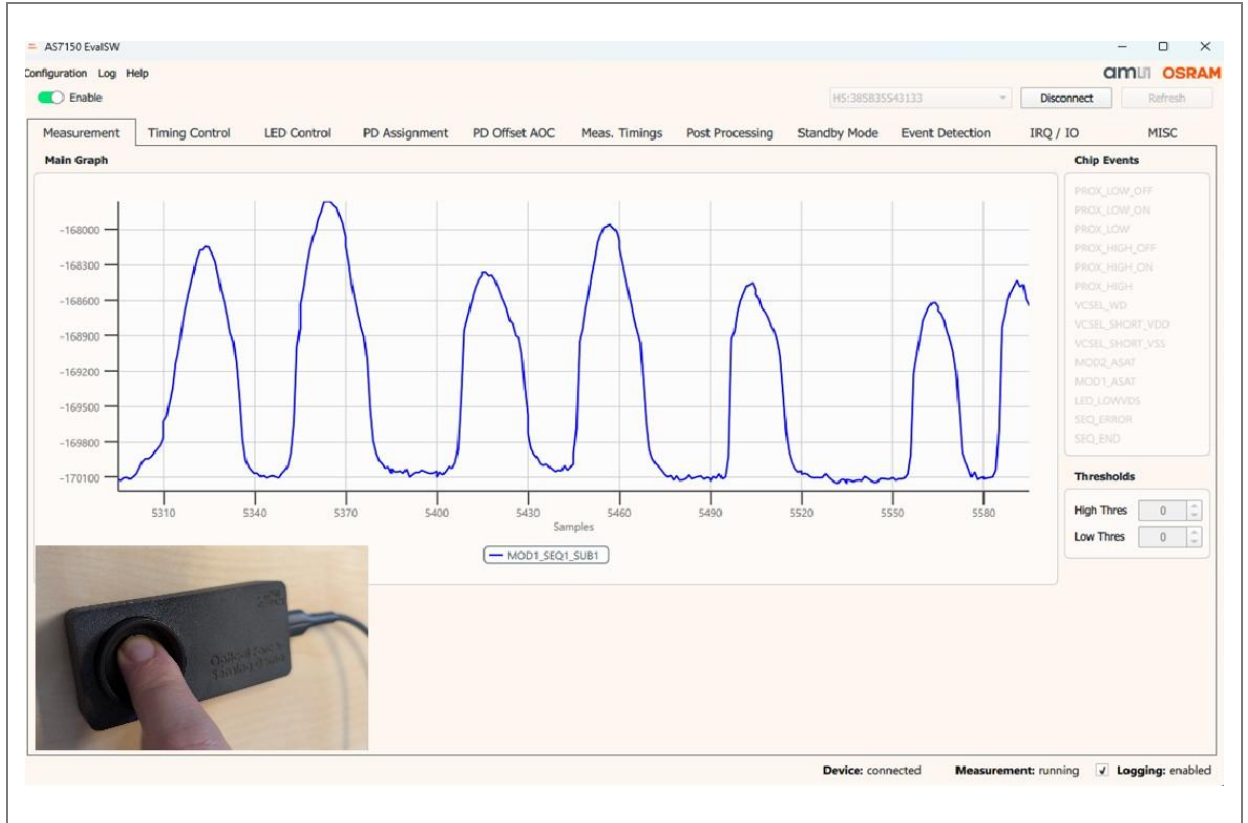
5. Click the **Enable** toggle button on the left-hand side of the window to start the measurement.

Figure 4: AS7150 EVM GUI measurement page



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

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.

## 7 Revision information

### Definitions

#### Draft / Preliminary:

The draft / preliminary status of a document indicates that the content is still under internal review and subject to change without notice. ams-OSRAM AG does not give any warranties as to the accuracy or completeness of information included in a draft / preliminary version of a document and shall have no liability for the consequences of use of such information.

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.

## 8 Legal information

### Copyright & disclaimer

Copyright ams-OSRAM AG, Tobelbader Strasse 30, 8141 Premstaetten, Austria-Europe. Trademarks Registered. All rights reserved. The material herein may not be reproduced, adapted, merged, translated, stored, or used without the prior written consent of the copyright owner.

Demo Kits, Evaluation Kits and Reference Designs are provided to recipient on an “as is” basis for demonstration and evaluation purposes only and are not considered to be finished end-products intended and fit for general consumer use, commercial applications and applications with special requirements such as but not limited to medical equipment or automotive applications. Demo Kits, Evaluation Kits and Reference Designs have not been tested for compliance with electromagnetic compatibility (EMC) standards and directives, unless otherwise specified. Demo Kits, Evaluation Kits and Reference Designs are not prepared or tested for eye safety. Unless specified otherwise, the user is solely responsible for all required safety measures and for complying with the applicable statutory requirements and standards. Demo Kits, Evaluation Kits and Reference Designs shall be used by qualified personnel only.

ams-OSRAM AG reserves the right to change functionality and price of Demo Kits, Evaluation Kits and Reference Designs at any time and without notice.

Any express or implied warranties, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose are disclaimed. Any claims and demands and any direct, indirect, incidental, special, exemplary or consequential damages arising from the inadequacy of the provided Demo Kits, Evaluation Kits and Reference Designs or incurred losses of any kind (e.g. loss of use, data or profits or business interruption however caused) as a consequence of their use are excluded.

ams-OSRAM AG shall not be liable to recipient or any third party for any damages, including but not limited to personal injury, property damage, loss of profits, loss of use, interruption of business or indirect, special, incidental or consequential damages, of any kind, in connection with or arising out of the furnishing, performance or use of the technical data herein. No obligation or liability to recipient or any third party shall arise or flow out of ams-OSRAM AG rendering of technical or other services.

### Headquarters

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

Please visit our website at [ams-osram.com](https://ams-osram.com)

For information about our products go to [Products](#)

For technical support use our [Technical Support Form](#)

For feedback about this document use [Document Feedback](#)

For sales offices and branches go to [Sales Offices / Branches](#)

For distributors and sales representatives go to [Channel Partners](#)