# Product Document

Published by ams OSRAM Group





#### **User Guide**

UG000483

# AS8579-TS\_EK\_DB

#### User Manual (HW/SW)

#### DemoKit Capacitive Sensor

v1-01 • 2020-May-26



### **Content Guide**

1	Introduction	3
1.1	Ordering Information	3
2	First Steps	4
2.1 2.2	Demo Box Content How to Start	
3	Hardware	6
3.1 3.2	Schematic Layout	

4	Software	. 8
4.1	GUI Overview and Description	8
5	Revision Information	. 9
6	Legal Information	10

### **1** Introduction

This manual explains how to use the AS8579-TS\_EK\_DB hardware in combination with the included software GUI. Both (HW & SW) are designed to test and evaluate the features of AS8579 capacitive sensor. The AS8579 is a sensor, which measures the capacitive value by separately measuring the 10-bit Information (accumulated to 14-bit) of I and Q. This 14-bit information provides the capacitance of the application. The I and Q data can be read over an SPI interface.

#### 1.1 Ordering Information

Ordering Code	Description	
AS8579-TS_EK_DB	AS8579 Demokit	

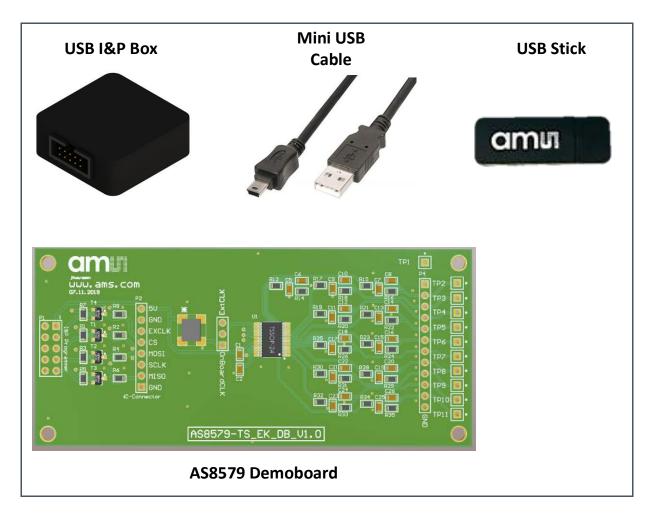
### 2 First Steps

#### 2.1 Demo Box Content

The AS8579-TS\_EK\_DB contains the following material:

- Mini USB Cable
- USB Stick (with Manual and Software)
- USB I&P Box
- AS8579 Demoboard (Hardware)

Figure 1: Box Content





#### 2.2 How to Start

Please use the following instructions to get the Demoboard and software running:

- 1. Open AS8579-TS\_EK\_DB user manual and read instructions carefully (from USB Stick)
- Run AS5xxx\_EvalSW\_USB-I&P-Box\_v1-6-0.exe on your PC to install the software (from USB Stick)
- 3. Connect USB I&P Box with AS8579 Demoboard
- Check if Jumper is set to ONBoardCLK (see Figure 3: Jumper Setting OnBoardCLK)
- 5. Connect the desired SEN lines of AS8579 Demoboard (use header or test pins) to your measurement circuit
- 6. Connect USB I&P Box with PC via Micro USB cable
- 7. Run USB I&P Box software on your PC and select AS8579 from dropdown menu
- 8. Select the right SEN line and start testing and evaluating.

Figure 2: Connection Diagram

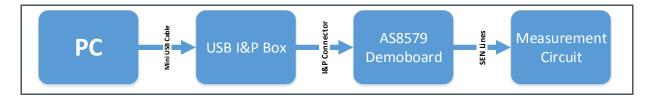
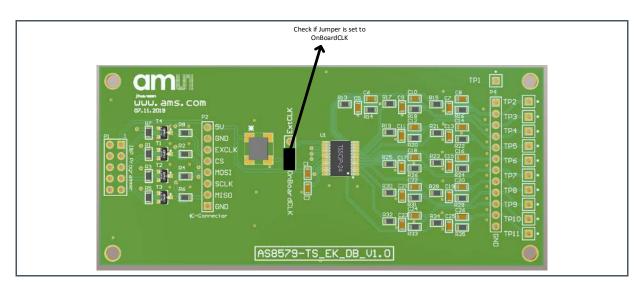


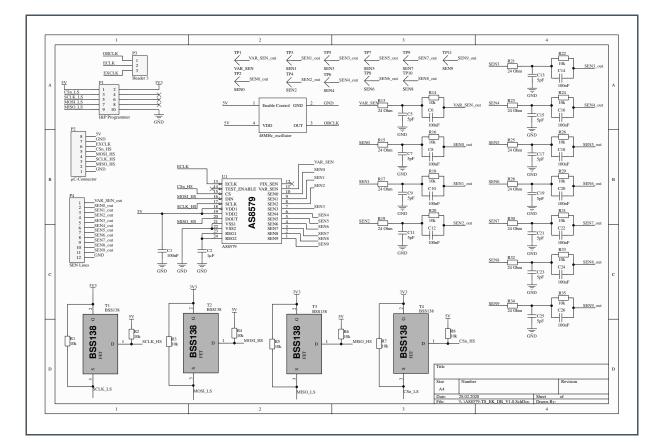
Figure 3: Jumper Setting OnBoardCLK



### 3 Hardware

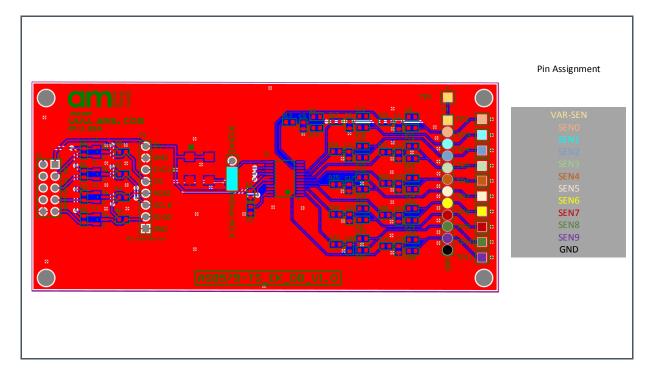
#### 3.1 Schematic

Figure 4: Schematic



#### 3.2 Layout

Figure 5: Layout

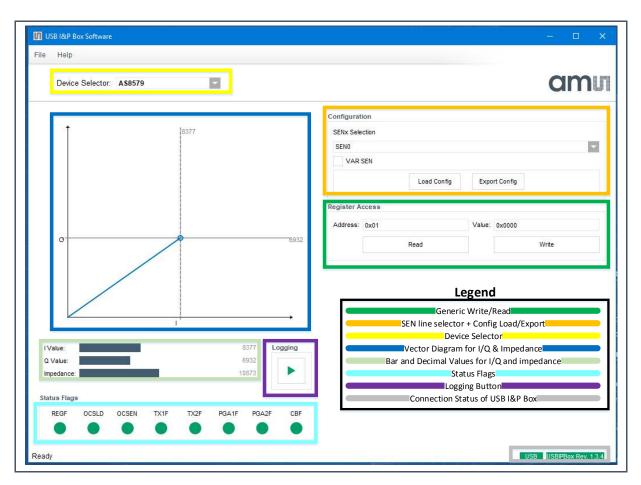


#### 4 Software

#### 4.1 GUI Overview and Description

Figure 6:

GUI Overview + Legend



### **5** Revision Information

Changes from previous version to current revision v1-01

Page

Initial version

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.

### 6 Legal Information

#### **Copyrights & Disclaimer**

Copyright ams 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 shall be used by qualified personnel only.

ams 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 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 AG rendering of technical or other services.

#### **RoHS Compliant & ams Green Statement**

**RoHS Compliant:** The term RoHS compliant means that ams AG products fully comply with current RoHS directives. Our semiconductor products do not contain any chemicals for all 6 substance categories plus additional 4 substance categories (per amendment EU 2015/863), including the requirement that lead not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, RoHS compliant products are suitable for use in specified lead-free processes.

ams Green (RoHS compliant and no Sb/Br/CI): ams Green defines that in addition to RoHS compliance, our products are free of Bromine (Br) and Antimony (Sb) based flame retardants (Br or Sb do not exceed 0.1% by weight in homogeneous material) and do not contain Chlorine (Cl not exceed 0.1% by weight in homogeneous material).

**Important Information:** The information provided in this statement represents ams AG knowledge and belief as of the date that it is provided. ams AG bases its knowledge and belief on information provided by third parties, and makes no representation or warranty as to the accuracy of such information. Efforts are underway to better integrate information from third parties. ams AG has taken and continues to take reasonable steps to provide representative and accurate information but may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. ams AG and ams AG suppliers consider certain information to be proprietary, and thus CAS numbers and other limited information may not be available for release.

Headquarters	Please visit our website at www.ams.com
ams AG	Buy our products or get free samples online at www.ams.com/Products
Tobelbader Strasse 30	Technical Support is available at www.ams.com/Technical-Support
8141 Premstaetten	Provide feedback about this document at www.ams.com/Document-Feedback
Austria, Europe	For sales offices, distributors and representatives go to www.ams.com/Contact
Tel: +43 (0) 3136 500 0	For further information and requests, e-mail us at ams_sales@ams.com