

Data brief

Ultra lite driver (ULD) API for the VL53L8CX low-power, high-performance, 8x8 multizone Time of-Flight sensor



Features

- VL53L8CX ULD API is source code written in C language
- API provides control over full range of features
- API is structured in a way it can be easily ported/compiled on any microcontroller platform
- · Several example codes showing how to use the API
- API documentation VL53L8CX ULD API user manual included

Description

The VL53L8CX_ULD API is a set of C functions that control the VL53L8CX device (for example, init and ranging) to enable the development of end-user applications. The VL53L8CX ULD is an optimized driver with only three files required for basic ranging. More features can be added with plug-in systems. The API structure allows it to be compiled on any kind of platform through a well isolated platform layer (mainly for low-level I²C access). An example code is provided to show how to use the API and perform ranging measurements.

The VL53L8CX is an 8x8 multizone, ToF ranging sensor, which enhances performance under ambient light with a reduced power consumption. Based on STMicroelectronics FlightSense technology, the sensor is designed to provide accurate ranging up to 400 cm with a 65° diagonal FoV.

This sensor integrates a powerful new generation VCSEL, and two advanced metasurface lenses. The hardware is housed in an innovative "all in one" module. This enables a wider variety of high-performance use-cases, such as low-power system activation, gesture recognition, SLAM for robotics, liquid level monitoring, and many more.

The VL53L8CX supports SPI and I²C interfaces for high frequency framerate and short boot time.

Product status link

STBW-IMG040



Revision history

Table 1. Document revision history

Date	Version	Changes
17-Jan-2023	1	Initial release

DB4909 - Rev 1 page 2/3



IMPORTANT NOTICE - READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgment.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, refer to www.st.com/trademarks. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2023 STMicroelectronics - All rights reserved

DB4909 - Rev 1 page 3/3