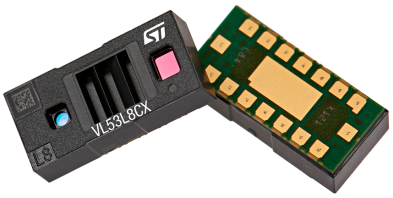
STSW-IMG042

Data brief

Linux® driver for the VL53L8CX, low-power, high-performance, 8x8 multizone Time-of-Flight sensor



Product status link
STSW-IMG042

Features

- Linux® driver
- Based on the VL53L8CX ultra lite driver (ULD)

Description

The STSW-IMG042 contains a driver running under Linux®. It is based on the VL53L8CX ULD. The user integrates the Linux® device driver as a specific implementation. Then, the Linux® device driver implements the sequencing of actions, execution/threading of models, platform adaptations, and device structure allocations, according to standard Linux® device driver models. The software is validated using Raspberry Pi 3. The driver can be used in User Space or Kernel thanks to compilation keys.

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 meta-surface 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.

Revision history

Table 1. **Document revision history**

Date	Version	Changes
17-Jan-2023	1	Initial release

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