STSW-IMG029

Data brief

VL53L4CX Time-of-Flight sensor with extended range measurement application programming interface (API)

Features

- VL53L4CX API is source code written in C language
- API provides control over full range of features
- API can be easily ported/compiled on any microcontroller platform
- A simple code example is provided which shows how to use the API to perform ranging measurements with NUCLEO F401RE and X-NUCLEO-53L4A2 expansion boards
- API documentation (.chm and .html) provided

Description

The VL53L4CX API is a set of C functions controlling the VL53L4CX device (for example, init and ranging) to enable the development of end-user applications. The API is structured in a way that it can be compiled on any kind of platform through a well isolated platform layer (mainly for low-level I2C access). One example code is provided to show how to use the API and perform ranging measurements.

Specifically designed for long-range, multitarget measurements, the VL53L4CX provides very accurate distance measurements up to 6 m with excellent results over short distances. A new generation laser emitter with 18° FoV improves performances under ambient light.

Thanks to ST's patented algorithms and innovative module construction, the VL53L4CX is also able to detect multiple objects within the FoV with depth understanding. ST histogram algorithms ensure cover glass crosstalk immunity beyond 80 cm, as well as dynamic smudge compensation.

Product status link
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Revision history

Table 1. **Document revision history**

Date	Version	Changes
15-Oct-2021	1	Initial release