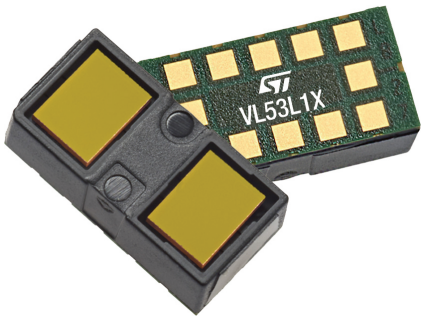
STSW-IMG009

Data brief

Ultra lite driver (ULD) application programming interface (API) for the VL53L1X long distance ranging sensor



Product status link
STSW-IMG009

Features

- VL53L1X_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
- Two example codes showing how to use the API are available on st.com under the X-CUBE-53L1A1 software section
- API documentation VL53L1X_ULD_API.chm and VL53L1X_ULD API user manual (UM2510) included

Description

The VL53L1X_ULD API is a set of C functions controlling the VL53L1X device (e.g. init and ranging) to enable the development of end-user applications. The VL53L1X ULD is an optimized version of the initial VL53L1X driver. For example, in the VL53L1X ULD, the API contains only four files instead of 35, and the code footprint is much smaller (2.3 KB vs. 9 KB in Flash). 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.

The VL53L1X is the latest product based on ST's patented FlightSense™ technology. This is a ground-breaking technology allowing absolute long-distance to be measured independently of target reflectance. Instead of estimating the distance by measuring the amount of light reflected back from the object (which is significantly influenced by color and surface), the VL53L1X precisely measures the time the light takes to travel to the nearest object and reflect back to the sensor (Time-of-Flight).

The VL53L1X combines an IR emitter and a range sensor in a two-in-one, ready-to-use reflowable package.

Revision history

Table 1. **Document revision history**

Date	Version	Changes
11-Dec-2018	1	Initial release

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