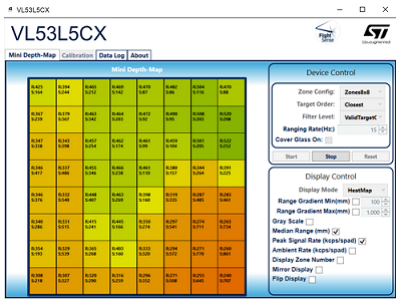
STSW-IMG024

Data brief

P-NUCLEO-53L5A1 pack graphical user interface (GUI)



Product status link
STSW-IMG024

Features

- Live display of:
  - ranging distance in mm
  - signal strenght in kcps/SPAD
  - ambient light in kcps/SPAD
  - status of the ranging
- Calibration procedure
- Data log outputs
- I2C transaction recording

Description

The STSW-IMG024 is a GUI for Windows 10. The GUI controls the P-NUCLEO-53L5A1 pack which consists of the X-NUCLEO-53L5A1 expansion board connected to the NUCLEO-F401RE nucleo board.

It is possible to control one VL53L5CX external breakout board when it is connected to the X-NUCLEO-53L5A1 expansion board through one of the dedicated connectors.

To install the STSW-IMG024 GUI, refer to the X-NUCLEO-53L5A1 quick start guide.

The VL53L5CX is a state of the art, Time-of-Flight (ToF) multizone ranging sensor enhancing the ST FlightSense product family. Housed in a miniature reflowable package, it integrates a SPAD array, physical infrared filters, and Diffractive Optics Elements (DOE) to achieve the best ranging performance in various ambient lighting conditions with a range of cover glass materials.

Multizone distance measurements are possible up to 8x8 zones with a wide 63 ° diagonal field of view (FoV) which can be reduced by software. Each zone of the VL53L5CX measures the distance of the target up to 4 meters, at maximum frequency of 60 Hz.

Thanks to ST Histogram patented algorithms, the VL53L5CX is able to detect different objects within the FoV. The Histogram also provides immunity to cover glass crosstalk beyond 60 cm.

Revision history

Table 1. **Document revision history**

Date	Version	Changes
21-Jun-2021	1	Initial release