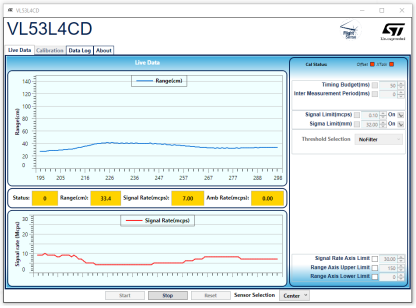
P-NUCLEO-53L4A1 pack graphical user interface (GUI)



Features

- Live display of:
  - ranging distance in centimeters
  - signal strength
- Calibration procedure
- Maximum and minimum ranging threshold controls
- Data log outputs
- I2C transaction recording

Description

The STSW-IMG027 is a GUI for Windows 10. The GUI controls the P-NUCLEO-53L4A1 pack, which consists of the X-NUCLEO-53L4A1 expansion board connected to the STM32F401RE Nucleo board.

It is possible to control one VL53L4CD external breakout board when it is connected to the X-NUCLEO-53L4A1 expansion board through one of the dedicated connectors.

Specifically designed for proximity and short-range measurements, the VL53L4CD provides very accurate distance measurements from 1 mm up to 1200 mm. A new generation laser emitter with 18° FoV improves performances under ambient light, with ranging speed up to 100 Hz.

With very low power consumption, thanks to an Autonomous mode with programmable distance threshold, the VL53L4CD is ideal for use in battery powered devices. Its fully embedded on-chip processing helps to reduce design complexity as well as BOM cost since less powerful and less expensive microcontrollers can be used.

To install the STSW-IMG027 GUI, refer to the X-NUCLEO-53L4A1 quick start guide.

Product status link
STSW-IMG027

Revision history

Table 1. **Document revision history**

Date	Version	Changes
15-Oct-2021	1	Initial release

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