# SATEL-VL53L4CD

Data brief

## Breakout board embedding the VL53L4CD Time-of-Flight high-accuracy proximity sensor


## Features

- VL53L4CD Time-of-Flight high-accuracy proximity sensor
- High-performance proximity ranging, independent of the target size and reflectance
- From 0 to 1300 mm with full field of view (FoW)
- Short distance linearity down to 1 mm
- Divisible board that can be used as a mini-PCB breakout board, easy to integrate into the customer's device
- Two breakout boards available in the package
- Compatible with X-NUCLEO-53L4A1

## Description

The SATEL-VL53L4CD package includes two breakout boards, which can be easily integrated into the customer's devices.

The PCB section that embeds the VL53L4CD module is perforated. The developers can then break off the mini-PCB and use it in a 3.3 V supply application via flying wires.

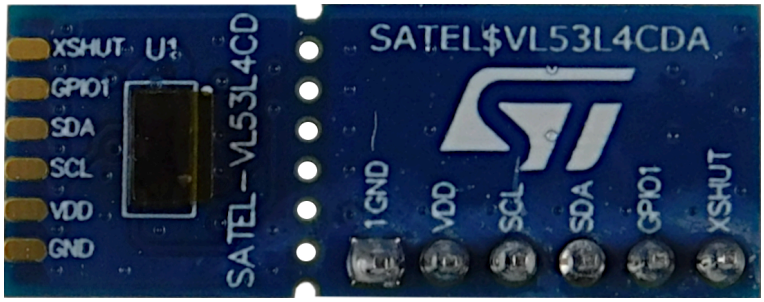
This makes it easier to integrate the SATEL-VL53L4CD breakout boards into the development and evaluation devices thanks to their small size.

| Product summary | |
|---|---|
| Breakout board embedding the VL53L4CD Time-of-Flight high-accuracy proximity sensor | SATEL-VL53L4CD |
| Time-of-Flight high-accuracy proximity sensor expansion board based on the VL53L4CD for STM32 Nucleo | X-NUCLEO-53L4A1 |
| Time-of-Flight high-accuracy proximity sensor | VL53L4CD |
| Applications | Personal Electronics - Audio and Video<br>Gaming and Drones<br>Virtual - Augmented Reality<br>Wearable |

# 1 Breakout boards

You can break the breakout boards along the perforations to use the mini-PCB.

**Figure 1. Breakout board**




This setup is easier to integrate into a customer's device thanks to its small form factor.

You can plug the VL53L4CD breakout boards directly onto the X-NUCLEO-53L4A1 expansion board through two six-pin connectors (Figure 2), or connect them to the board through flying wires (Figure 3).

**Figure 2. SATEL-VL53L4CD breakout boards connected to the X-NUCLEO-53L4A1 expansion board**

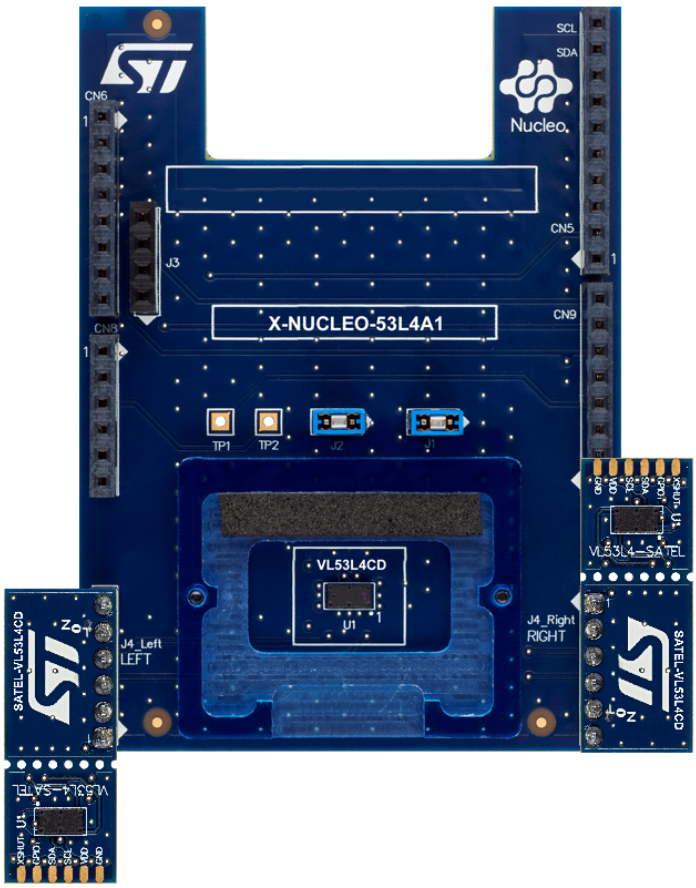
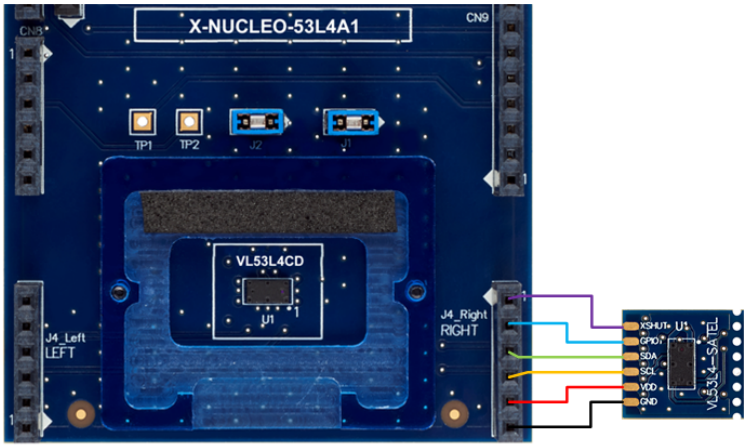
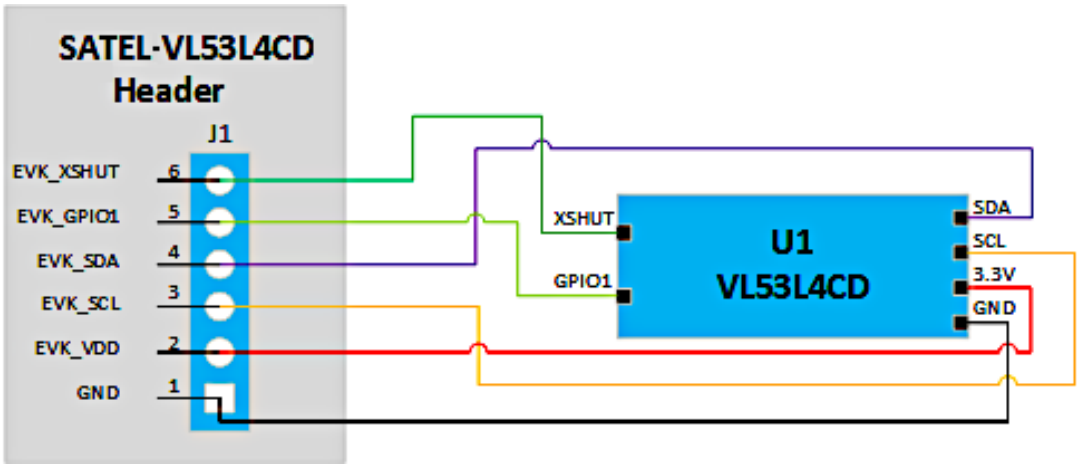


Figure 3. **SATEL-VL53L4CD mini-PCB flying wire connection to the X-NUCLEO-53L4A1 expansion board**



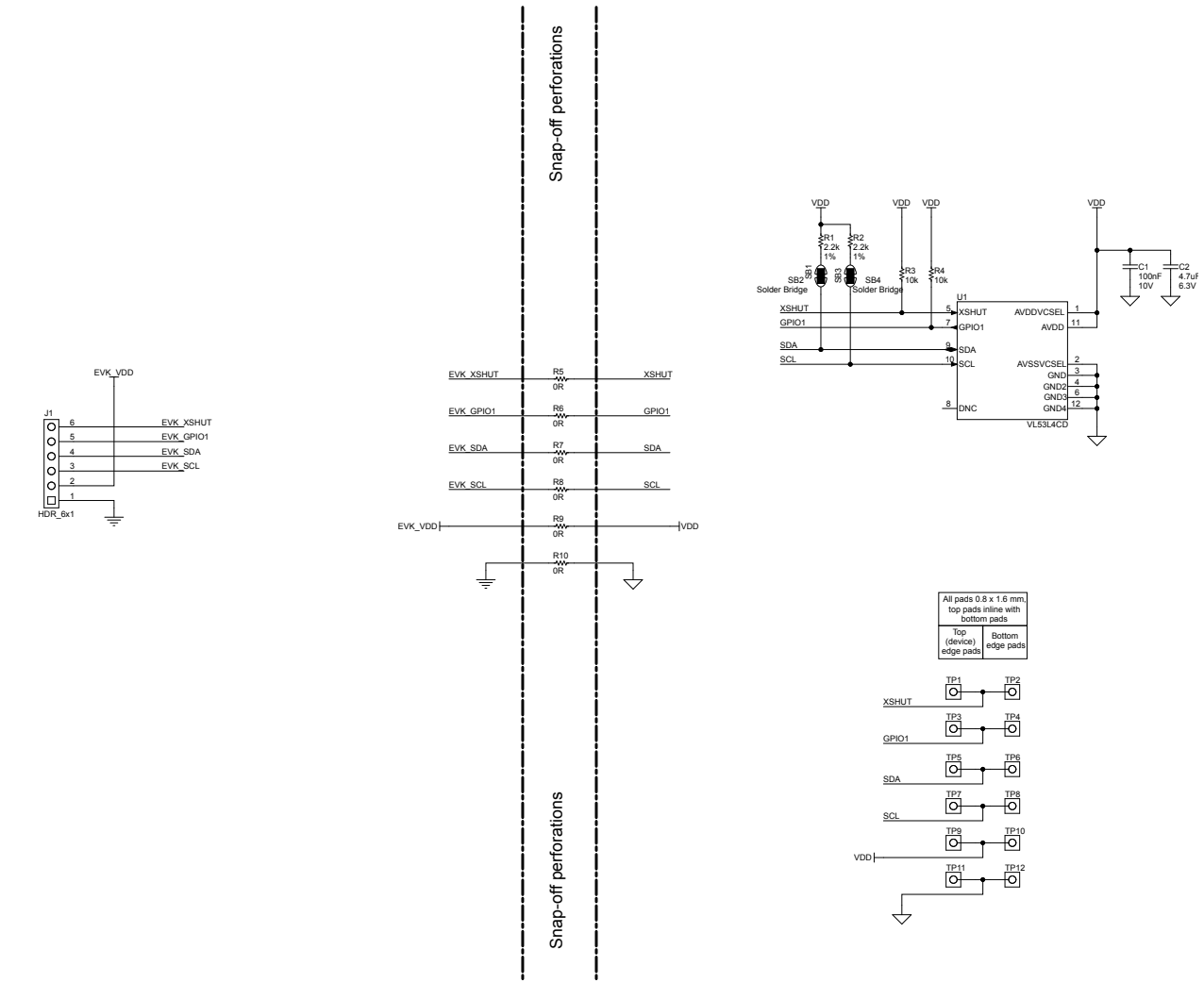
## 2 Simplified schematic

Figure 4. **SATEL-53L4CD simplified schematic**



# 3 Schematic diagrams

**Figure 5. SATEL-VL53L4CD circuit schematic**



# 4 Board versions

Table 1. **SATEL-53L4CD versions**

| Finished good | Schematic diagrams | Bill of materials |
|---|---|---|
| SATEL$VL53L4CDA (1) | SATEL$VL53L4CDA schematic diagrams | SATEL$VL53L4CDAbill of materials |

1. *This code identifies the SATEL-VL53L4CD expansion board first version.*

## Revision history

Table 2. **Document revision history**

| Date | Revision | Changes |
|---|---|---|
| 24-Jan-2022 | 1 | Initial release. |
| 08-Mar-2022 | 2 | Updated cover page features. |
| 09-May-2022 | 3 | Updated cover image. |