

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

## VL53L4CD

### Breakout Boards



- Time-of-Flight proximity sensor with high accuracy based on **FlightSense™** technology
- Breakout boards for easy and fast prototyping
- Compatible with X-NUCLEO-53L4A1



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ST part number: SATEL-VL53L4CD
[www.st.com](http://www.st.com)

## 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.

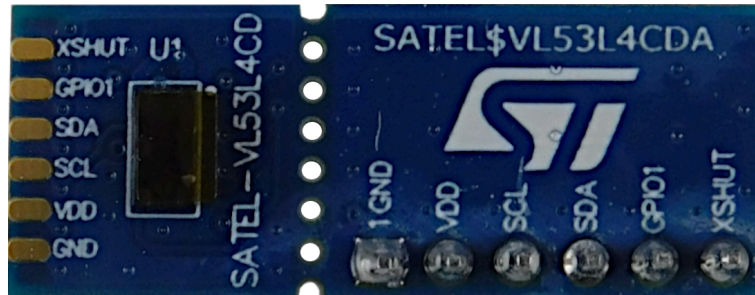
This makes it easier to integrate the **SATEL-VL53L4CD** breakout boards into the development and evaluation devices thanks to their small size.

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 Gaming and Drones Virtual - Augmented Reality 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

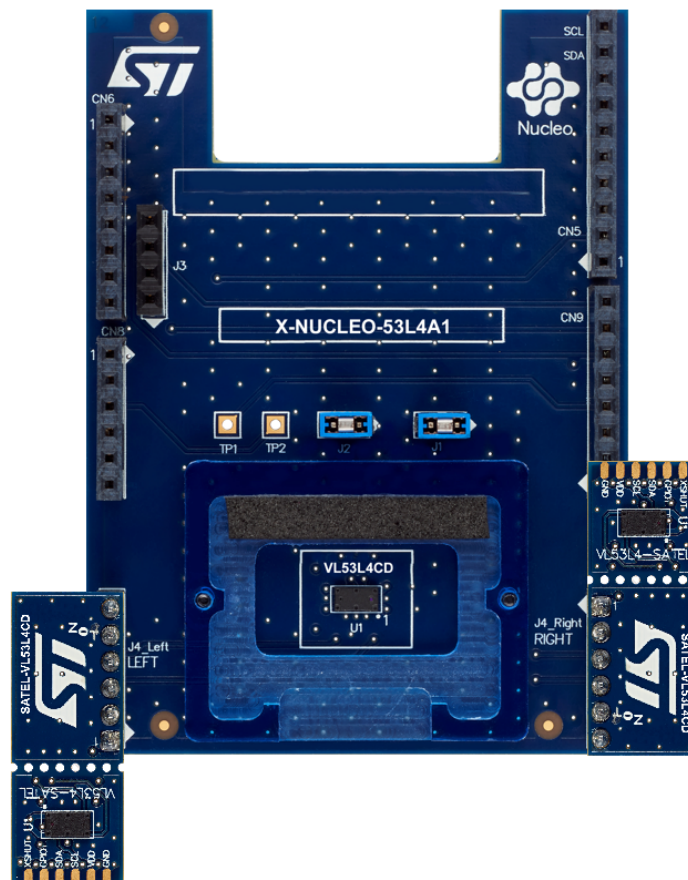
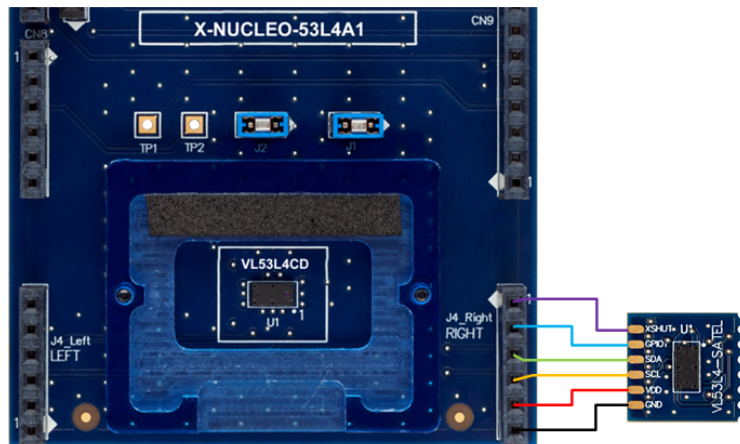
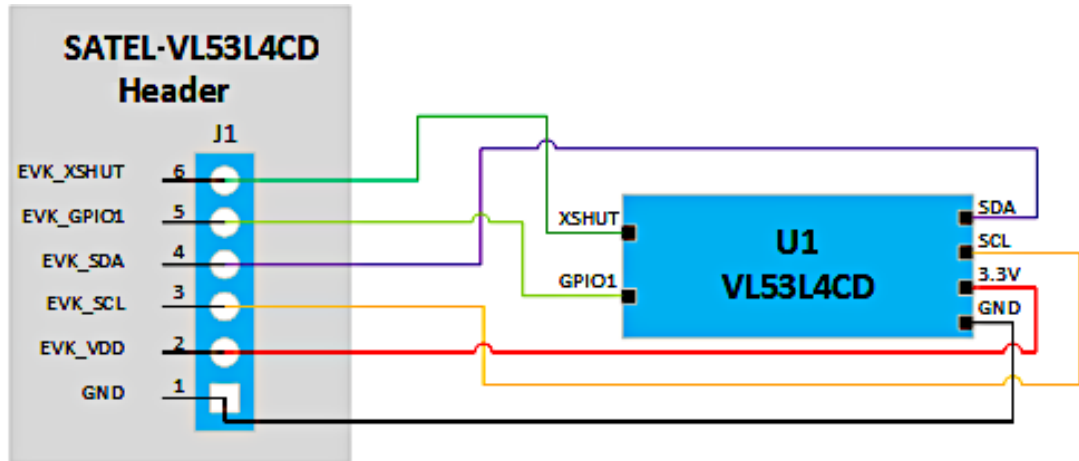


Figure 3. SATEL-VL53L4CD mini-PCB flying wire connection to the X-NUCLEO-53L4A1 expansion board



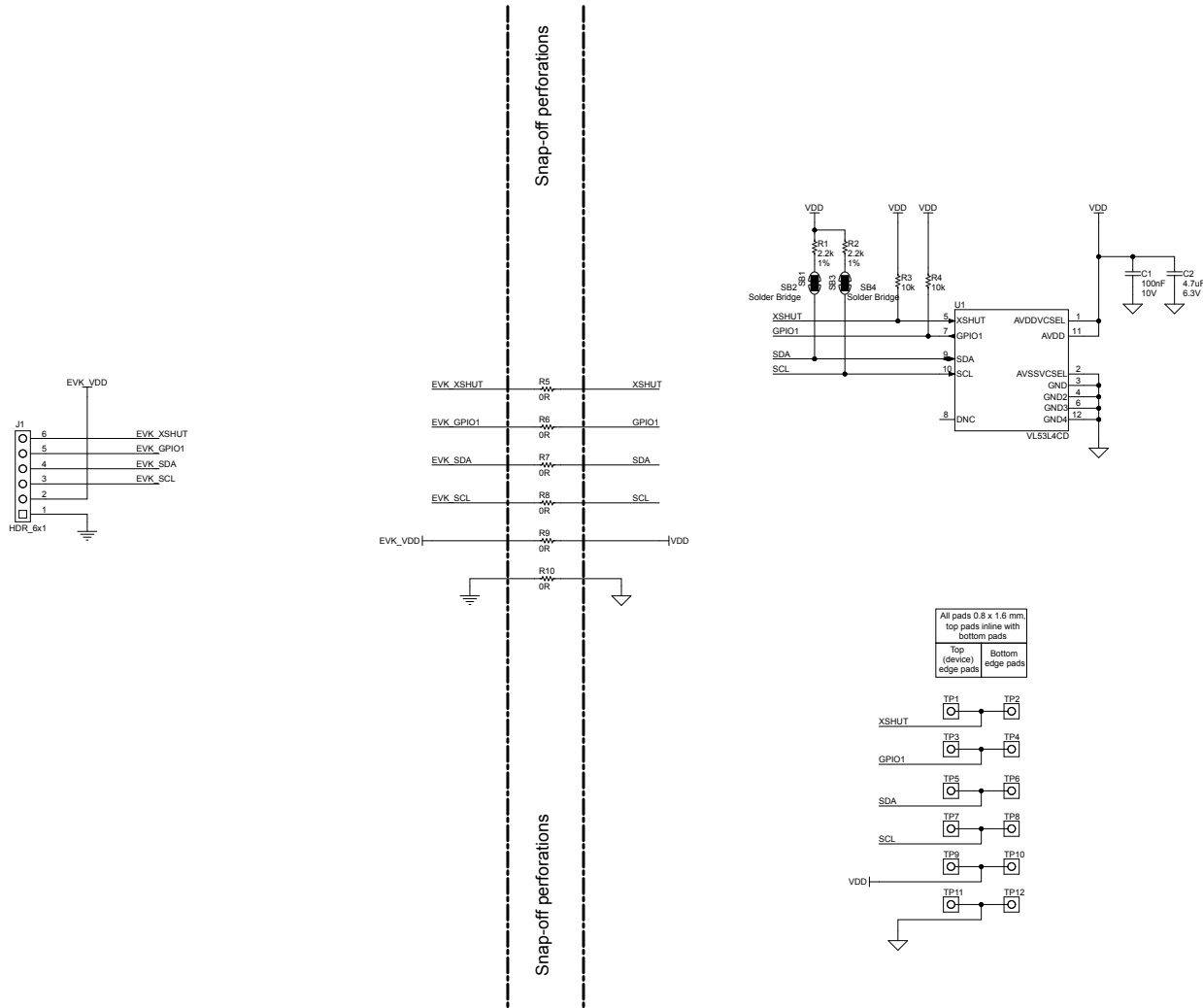
## 2 Simplified schematic

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 <sup>(1)</sup>	SATEL\$VL53L4CDA schematic diagrams	SATEL\$VL53L4CDA bill 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.

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