# Breakout board embedding the VL53L4CX Time-of-Flight sensor with extended range measurement

## Features

- VL53L4CX Time-of-Flight sensor with extended range measurement
- True distance measurement independent of the target size and reflectance
- 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

## Description

The SATEL-VL53L4CX package includes two breakout boards, which can be easily integrated into the customer's devices.

The PCB section that embeds the VL53L4CX 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-VL53L4CX breakout boards into the development and evaluation devices thanks to their small size.

| Product summary | |
|---|---|
| Breakout board embedding the VL53L4CX Time-of-Flight sensor with extended range measurement | SATEL-VL53L4CX |
| Time-of-Flight sensor with extended range measurement expansion board based on the VL53L4CX for STM32 Nucleo | X-NUCLEO-53L4A2 |
| Time-of-Flight sensor with extended range measurement | VL53L4CX |
| Applications | Personal Electronics - Audio and Video |
| | Gaming and Drones |
| | Virtual - Augmented Reality |
| | Wearable |

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# 1 Breakout boards

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

**Figure 1. Breakout board**
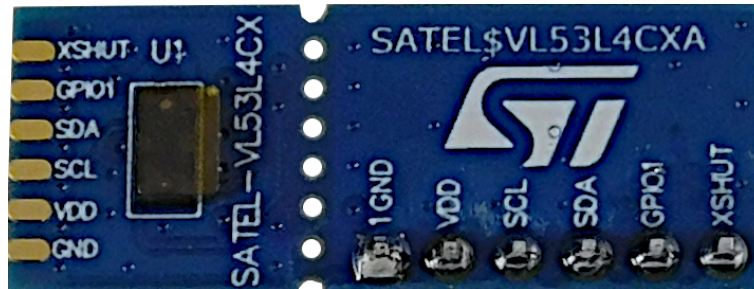


This setup is easier to integrate into a customer's device thanks to its small form factor.

You can plug the VL53L4CX breakout boards directly onto the X-NUCLEO-53L4A2 expansion board through two six-pin connectors (Figure 2), or connect them to the board through flying wires (Figure 3).

**Figure 2. SATEL-VL53L4CX breakout boards connected to the X-NUCLEO-53L4A2 expansion board**
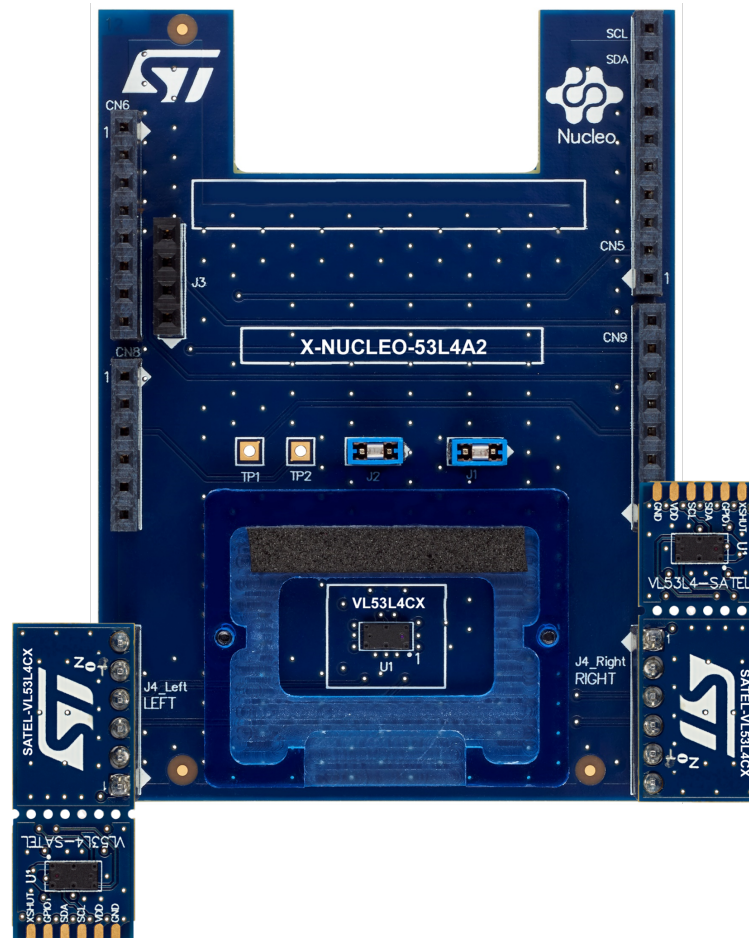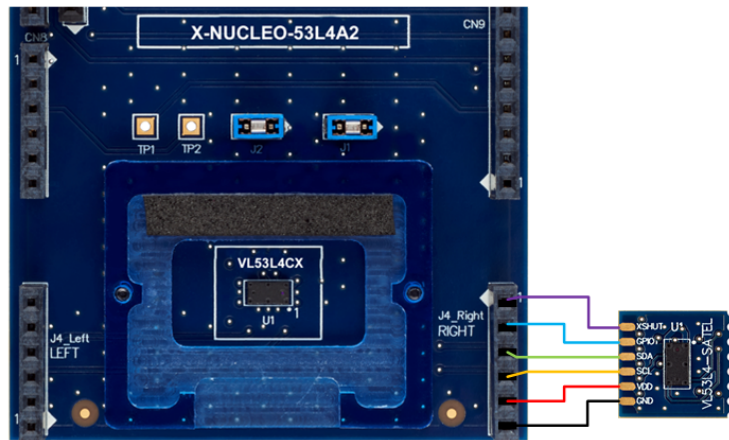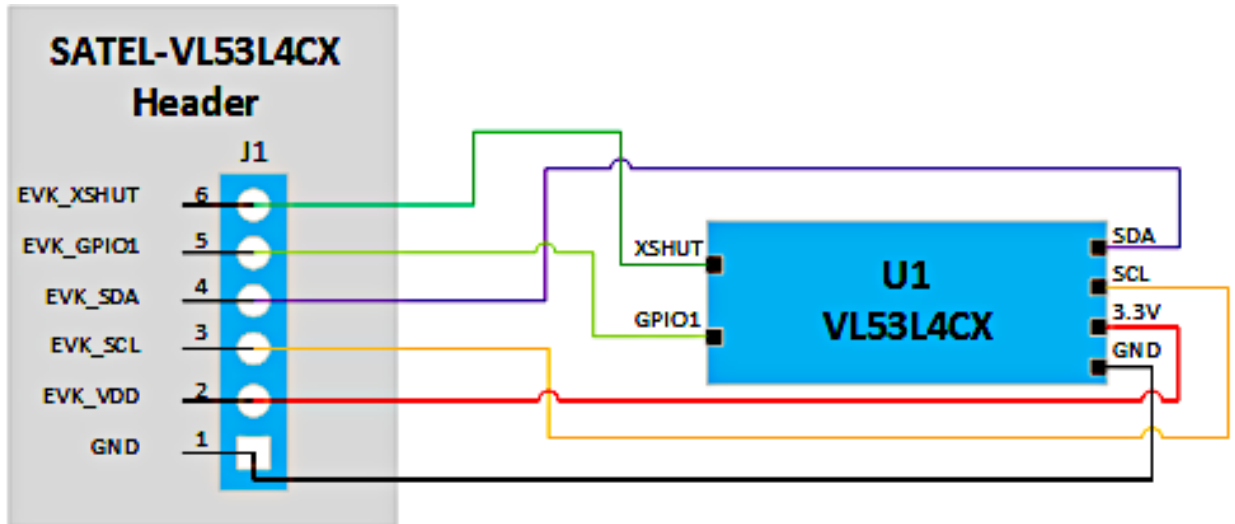
**Figure 3. SATEL-VL53L4CX mini-PCB flying wire connection to X-NUCLEO-53L4A2 expansion board**

# 2    Simplified schematics
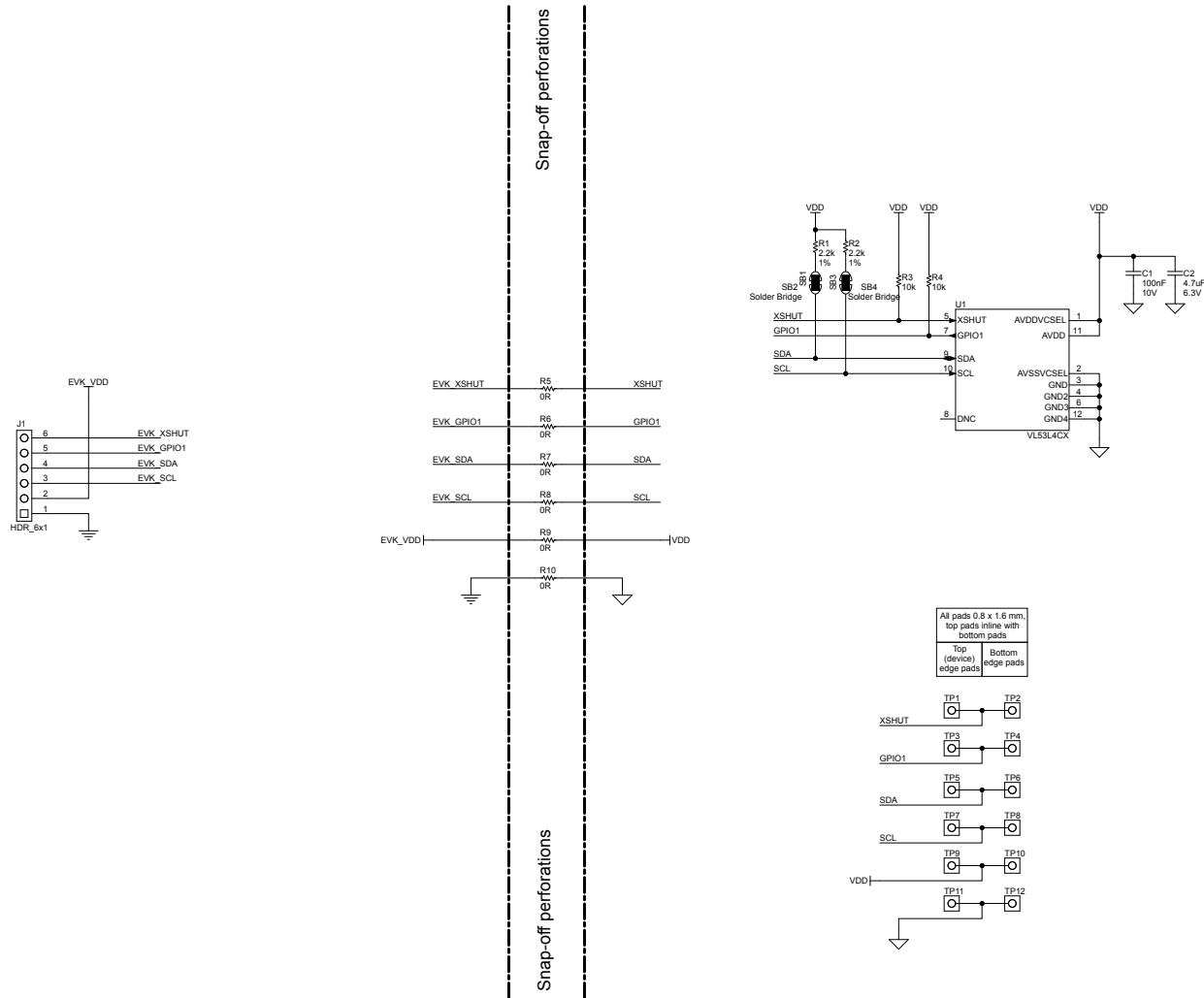
Figure 4. SATEL-53L4CX simplified schematic

Figure 5. **SATEL-VL53L4CX circuit schematic**

# 4 Board versions

**Table 1.** SATEL-53L4CX versions

| Finished good | Schematic diagrams | Bill of materials |
|---|---|---|
| SATEL$VL53L4CXA [1] | SATEL$VL53L4CXA schematic diagrams | SATEL$VL53L4CXAbill of materials |

1. This code identifies the SATEL-VL53L4CX expansion board first version.

# Revision history

Table 2. Document revision history

| Date | Revision | Changes |
|------|----------|---------|
| 24-Jan-2022 | 1 | Initial release. |

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