

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



Features

- VL53L4CD Time-of-Flight high-accuracy proximity sensor
- 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-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.

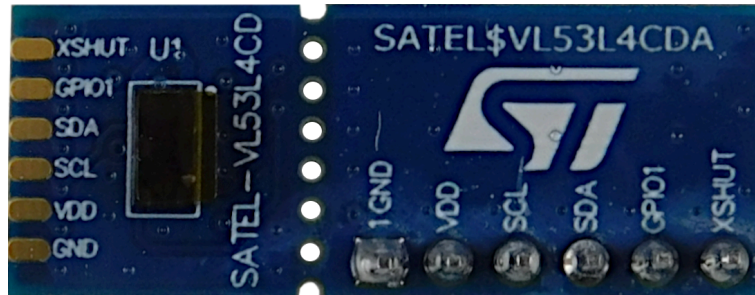
This makes it easier to integrate the SATEL-VL53L4CD breakout boards into the development and evaluation devices thanks to their small size.

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

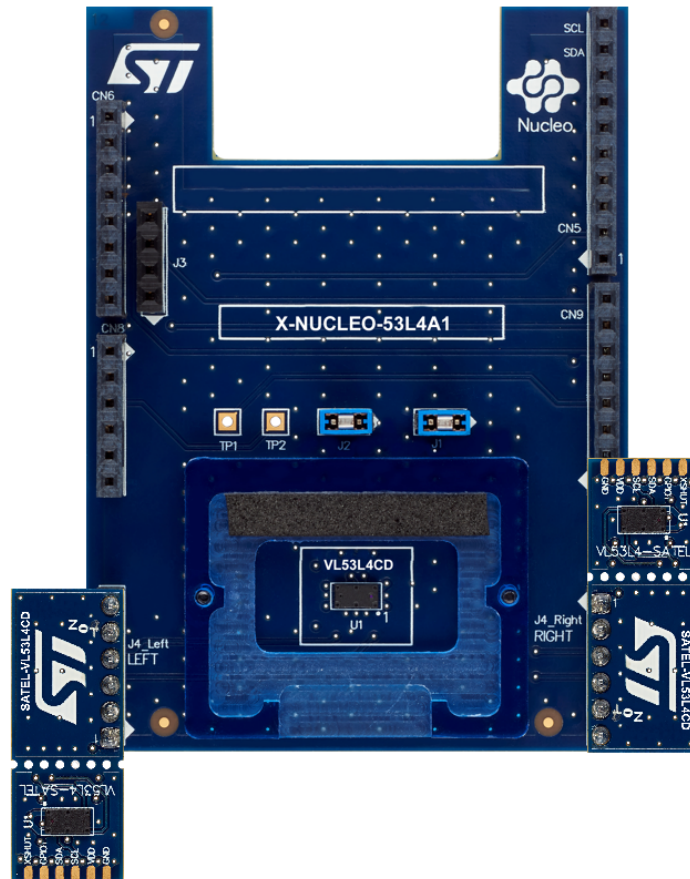
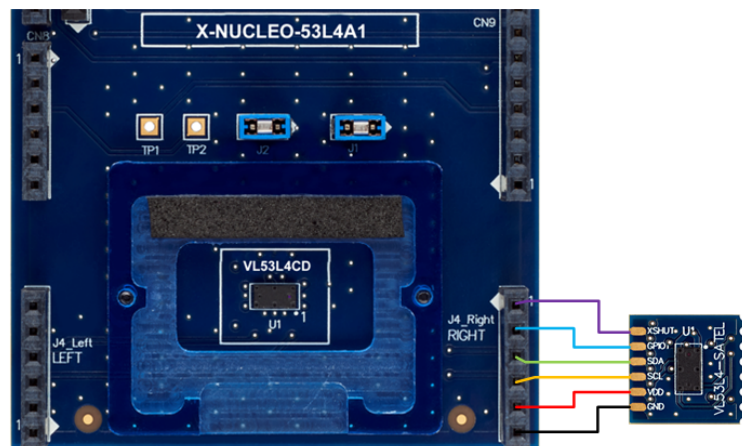
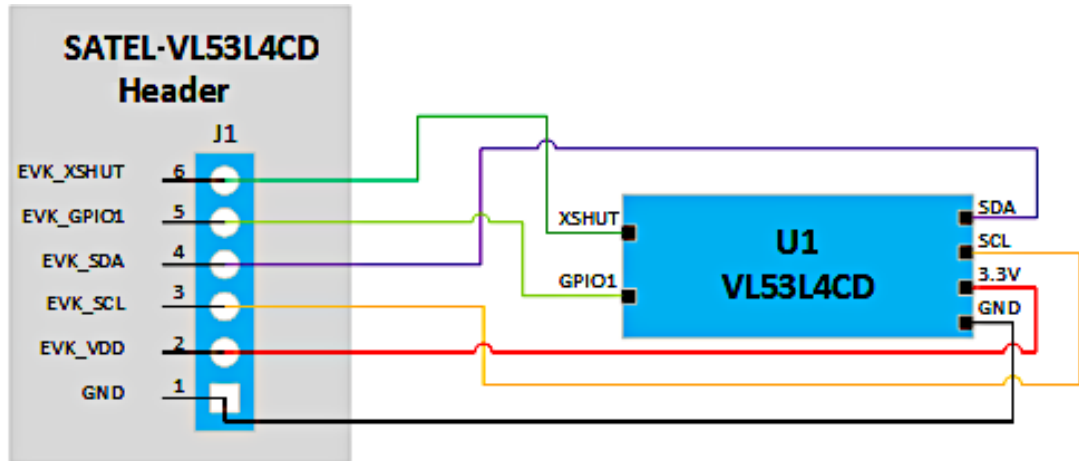


Figure 3. SATEL-VL53L4CD mini-PCB flying wire connection to the X-NUCLEO-53L4A1 expansion board



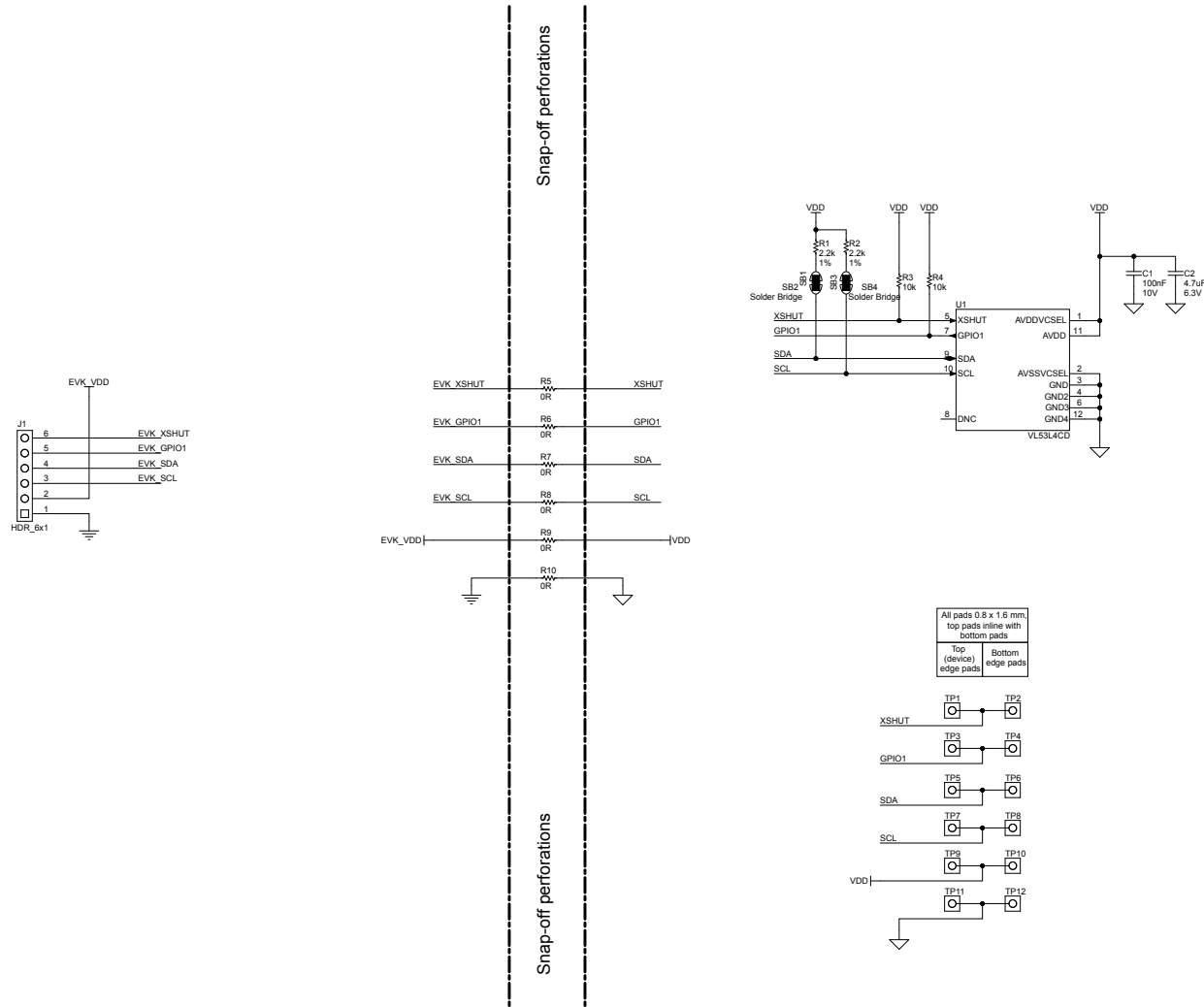
2 Simplified schematic

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 ⁽¹⁾	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.

IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, please refer to www.st.com/trademarks. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2022 STMicroelectronics – All rights reserved