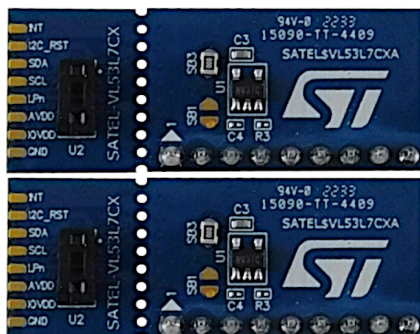


Breakout board based on the VL53L7CX Time-of-Flight 8x8 multizone ranging sensor with 90° FoV



Features

- VL53L7CX Time-of-Flight 8x8 multizone ranging sensor with 90° FoV
- Accurate absolute ranging distance, independent of the reflectance of the target
- Multizone ranging output with 4x4 or 8x8 separate zones
- 60° x 60° square FoV (90° diagonal)
- 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-53L7A1

Description

The SATEL-VL53L7CX package includes two breakout boards, which can be easily integrated into the customer's devices.

The PCB section that embeds the VL53L7CX 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.

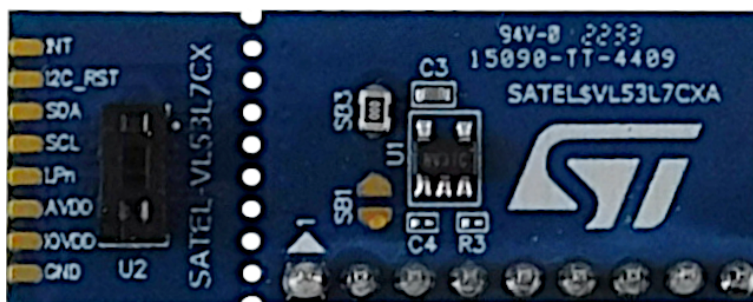
This makes it easier to integrate the SATEL-VL53L7CX breakout boards into the development and evaluation devices, thanks to their small size.

Product summary	
Breakout board based on the VL53L7CX Time-of-Flight 8x8 multizone ranging sensor with 90° FoV	SATEL-VL53L7CX
Time-of-Flight 8x8 multizone ranging sensor with 90° FoV expansion board based on the VL53L7CX for STM32 Nucleo	X-NUCLEO-53L7A1
Time-of-Flight 8x8 multizone ranging sensor with 90° FoV	VL53L7CXV0GC/1
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



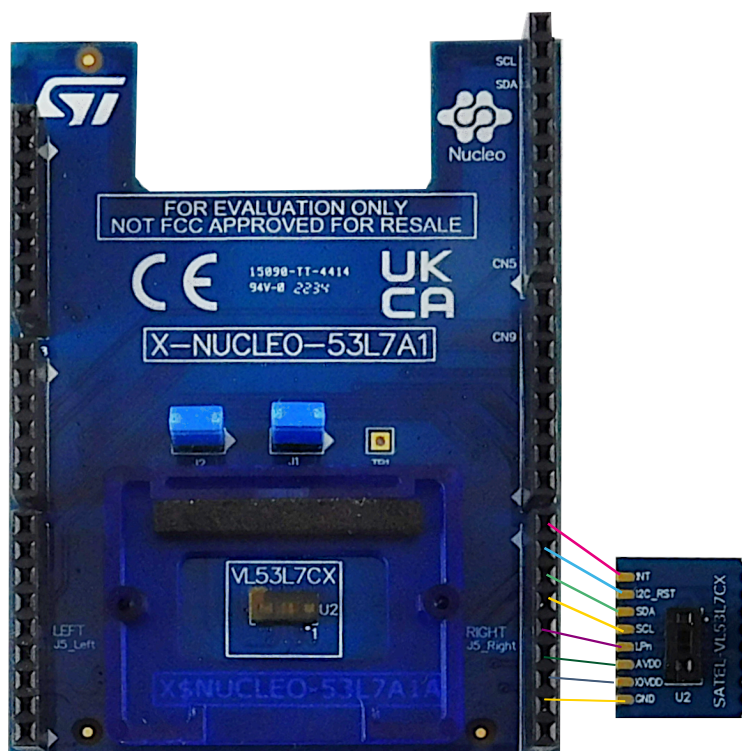
This setup is easier to integrate into a customer's device thanks to its small form factor.

You can plug the VL53L7CX breakout boards directly onto the X-NUCLEO-53L7A1 expansion board through two six-pin connectors (Figure 2), or connect them to the board through flying wires (Figure 3).

Figure 2. SATEL-VL53L7CX breakout boards connected to the X-NUCLEO-53L7A1 expansion board

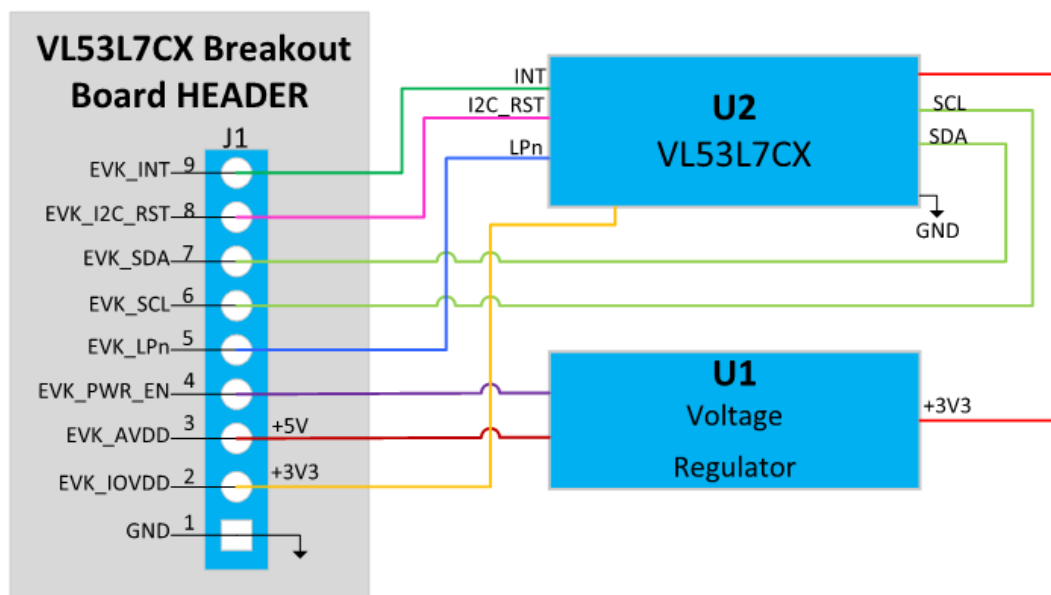


Figure 3. SATEL-VL53L7CX mini-PCB flying wire connection to the X-NUCLEO-53L7A1 expansion board



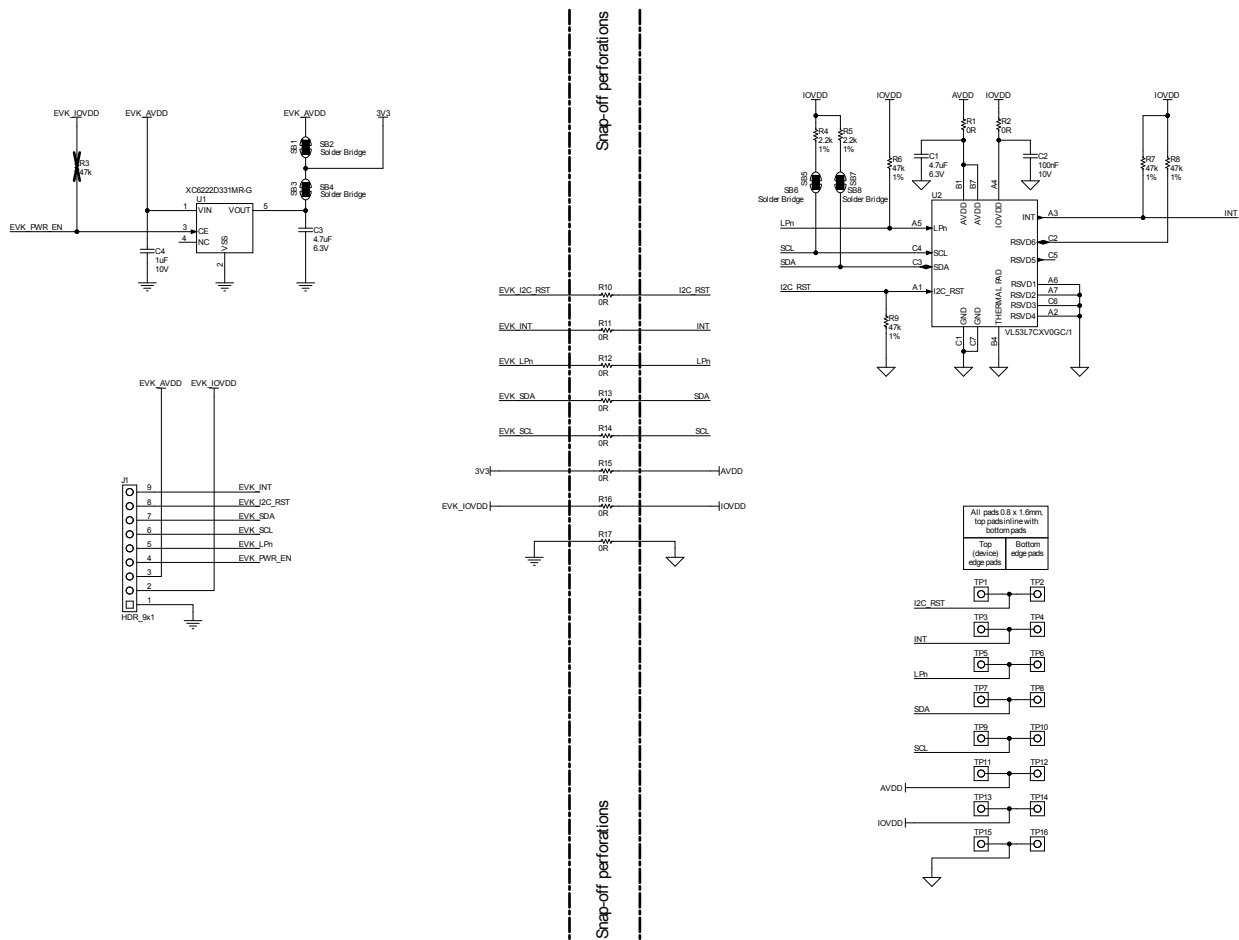
2 Simplified schematic

Figure 4. SATEL-53L7CX simplified schematic



3 Schematic diagrams

Figure 5. SATEL-VL53L7CX circuit schematic



4 Board versions

Table 1. SATEL-53L7CX versions

Finished good	Schematic diagrams	Bill of materials
SATEL\$VL53L7CXA ⁽¹⁾	SATEL\$VL53L7CXA schematic diagrams	SATEL\$VL53L7CXA bill of materials

1. This code identifies the SATEL-VL53L7CX expansion board first version.

Revision history

Table 2. Document revision history

Date	Revision	Changes
26-Sep-2022	1	Initial release.

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