

VL6180X satellite boards compatible with VL6180X boards

Data brief



- Full system SW supplied, download from www.st.com/vl6180x

Description

VL6180X proximity sensor, based on ST's FlightSense™ Time-of-Flight technology, providing very accurate ranging information, as well as ambient light sensing (ALS) information. The range measurements are independent of the target reflectance.

Thanks to the 2.8V regulator on the back side of the PCB, VL6180X satellite board can be used in all 3.3V up to 10V supply applications.

The PCB part supporting the 2.54 mm connector and the regulator can be removed, allowing the use, in a 2.8V supply application, of the mini PCB through wires connections.

Table 1. Ordering information

Order code	Description
VL6180X-SATEL	Two VL6180X satellite boards

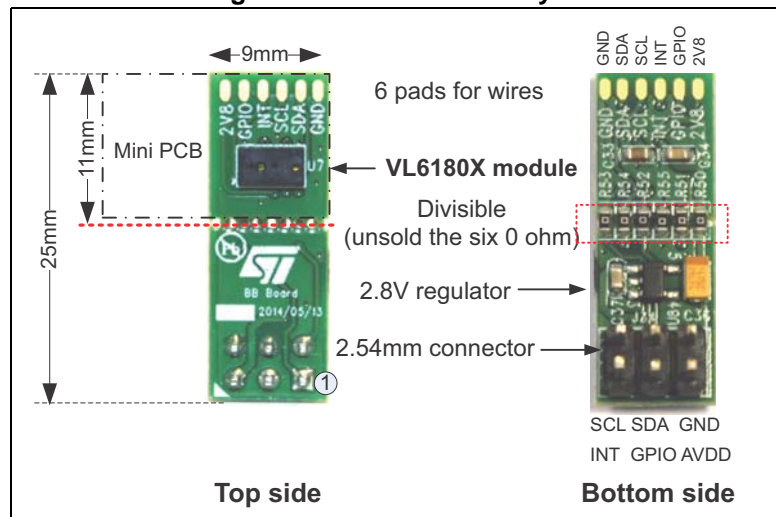
Features

- Each board integrates:
 - VL6180X 3-in-1 module (proximity, gesture and ambient light sensor).
 - 2.8V output regulator.
- Thanks to its small form factor, VL6180X satellite board can be easily integrated in the customer device.
- Compatible with X-NUCLEO-6180XA1
 - Through the 2.54mm connector, up to 3 satellite VL6180X boards can be plugged into the expansion board.
- VL6180X satellite can be connected as well through flying wires to the VL6180X plug-in board of the explorer kit EVALKIT-VL6180X.
- Divisible PCB allowing to use mini-PCB size.

Divisible board

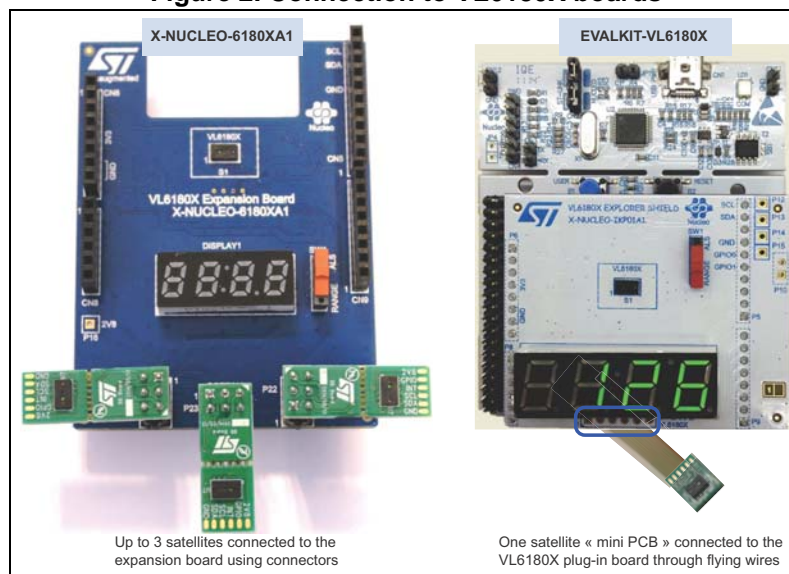
For 2.8V supply application, the satellite board can be divided along the red dotted line as shown in [Figure 1](#), in order to only use the “mini PCB”, easier to integrate into a customer device due to its small form factor.

Figure 1. Satellite board layout



Connection to VL6180X boards

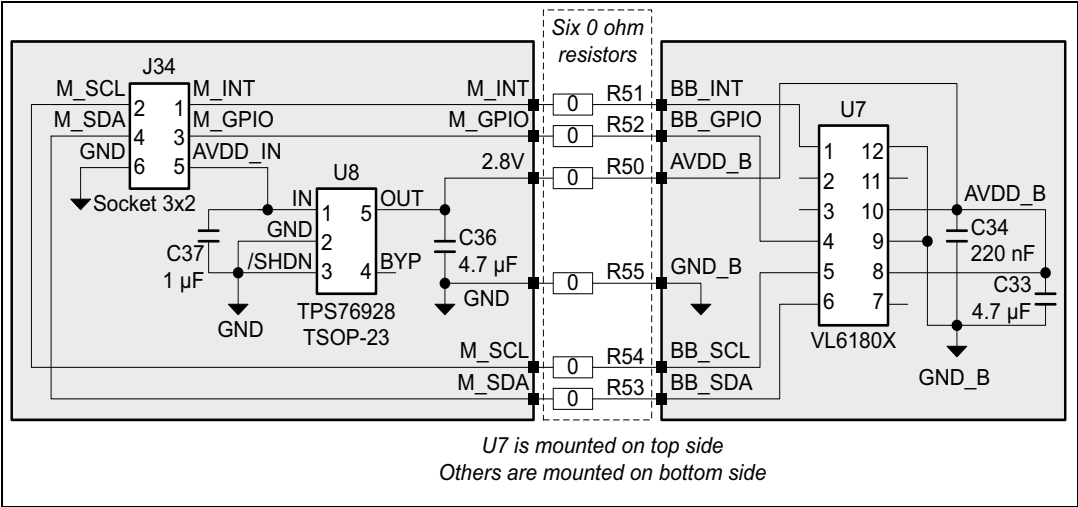
Figure 2. Connection to VL6180X boards



- EVALKIT-VL6180X is the first generation of evaluation kit.
- X-NUCLEO-6180XA1 is the new generation of expansion board, it can be used with all STM32 Nucleo family and can be plugged / superposed with ST expansion boards (e.g.: Bluetooth, WIFI, etc...).
- Both VL6180X boards support the same GUI (Graphical User Interface) and API.

Schematic and list of material

Figure 3. Satellite schematic and list of material



Revision history

Table 2. Document revision history

Date	Revision	Changes
15-Jan-2015	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. 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.

© 2015 STMicroelectronics – All rights reserved