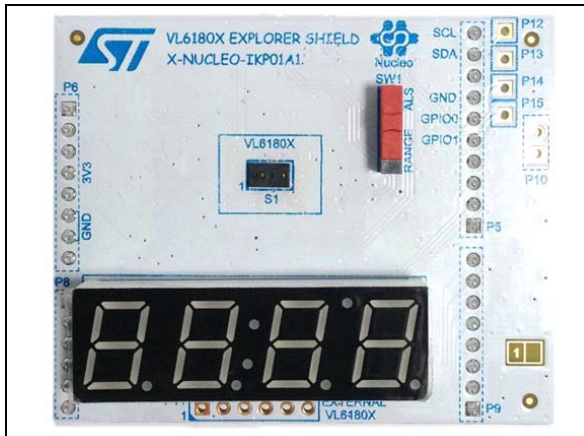


VL6180X explorer expansion board, compatible with STM32 nucleo

Data brief



Description

The X-NUCLEO-IKP01A is an evaluation board that provides an introduction to the proximity, ranging and light sensing capabilities of the VL6180X module. It is the ideal companion to the STM32 F401RE Nucleo board, and it is also compatible with the Arduino UNO R3 connector layout.

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

Features

- 1 VL6180X Gesture, ALS and proximity sensor module.
- Slider switch controlling 2 functions:
 - Ranging measurement, beyond 100mm.
 - Ambient light sensing, up to 9999 Lux.
- 4-digit display, displaying either the lux value from the ambient light sensing (ALS) or the target distance from the proximity sensor.
- Excellent ranging accuracy, whatever the reflectance of the target.
- External small PCB with VL6180X can be soldered to the expansion board through flying wires, in order to integrate the VL6180X in customer's application.
- Basic gesture recognition, or 2x VL6180X application can be featured, using together the proximity sensor on the expansion board and an external proximity sensor.
- Compatible with STM32 F401RE Nucleo board.
- Equipped with Arduino™ UNO R3 connector.
- RoHS compliant.
- Full system SW supplied, download from www.st.com/vl6180x.

Table 1. Ordering information

Order code	Description
X-NUCLEO-IKP01A	VL6180X explorer expansion board

Revision history

Table 2. Document revision history

Date	Revision	Changes
24-Jun-2014	1	Initial release.
14-Aug-2014	2	Replace "shield" by "expansion board"

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.

© 2014 STMicroelectronics – All rights reserved

