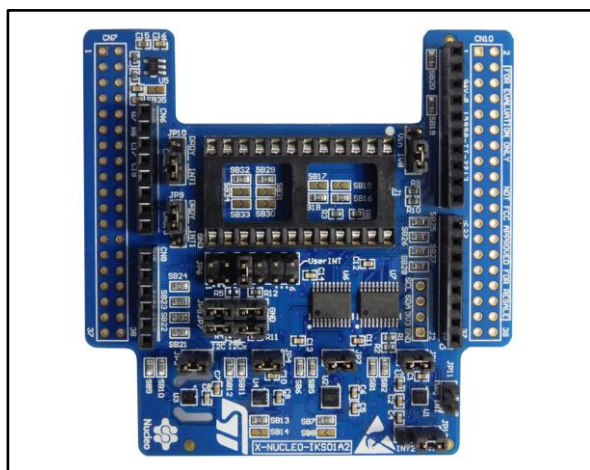


Motion MEMS and environmental sensor expansion board for STM32 Nucleo

Data brief



Features

- LSM6DSL MEMS 3D accelerometer ($\pm 2/\pm 4/\pm 8/\pm 16$ g) and 3D gyroscope ($\pm 125/\pm 245/\pm 500/\pm 1000/\pm 2000$ dps)
- LSM303AGR MEMS 3D accelerometer ($\pm 2/\pm 4/\pm 8/\pm 16$ g) and MEMS3D magnetometer (± 50 gauss)
- LPS22HB MEMS pressure sensor, 260-1260 hPa absolute digital output barometer
- HTS221: capacitive digital relative humidity and temperature
- DIL24 socket for additional MEMS adapters and other sensors
- Free comprehensive development firmware library and example for all sensors compatible with STM32Cube firmware
- I²C sensor hub features on LSM6DSL available
- Compatible with STM32 Nucleo boards
- Equipped with Arduino UNO R3 connector
- RoHS compliant

Description

The X-NUCLEO-IKS01A2 is a motion MEMS and environmental sensor expansion board for the STM32 Nucleo.

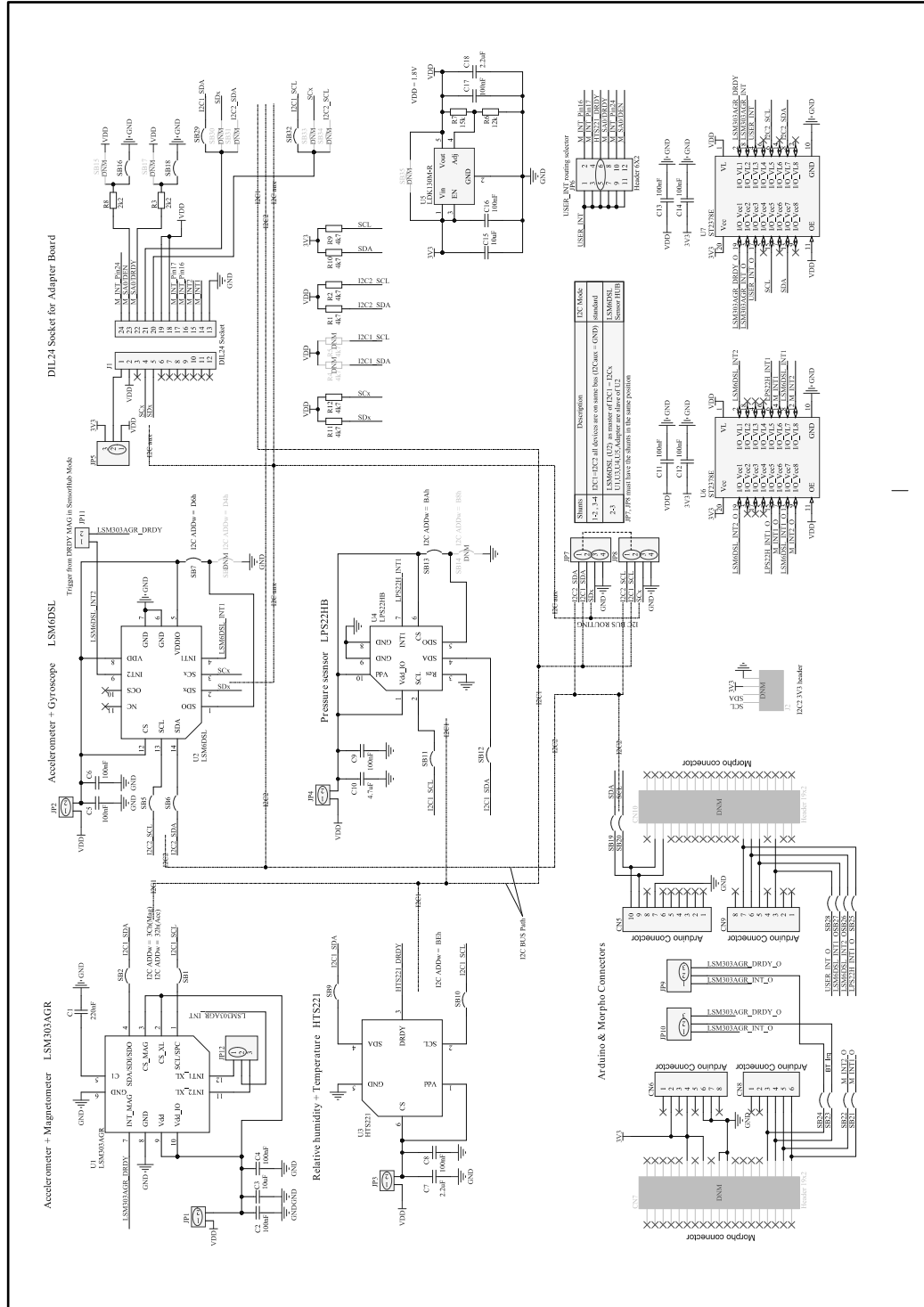
It is equipped with Arduino UNO R3 connector layout, and is designed around the LSM6DSL 3D accelerometer and 3D gyroscope, the LSM303AGR 3D accelerometer and 3D magnetometer, the HTS221 humidity and temperature sensor and the LPS22HB pressure sensor.

The X-NUCLEO-IKS01A2 interfaces with the STM32 microcontroller via the I²C pin, and it is possible to change the default I²C port.



1 Schematic diagram

Figure 1: X-NUCLEO-IKS01A2 schematic diagram



2 Revision history

Table 1: Document revision history

Date	Version	Changes
02-Nov-2016	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.

© 2016 STMicroelectronics – All rights reserved