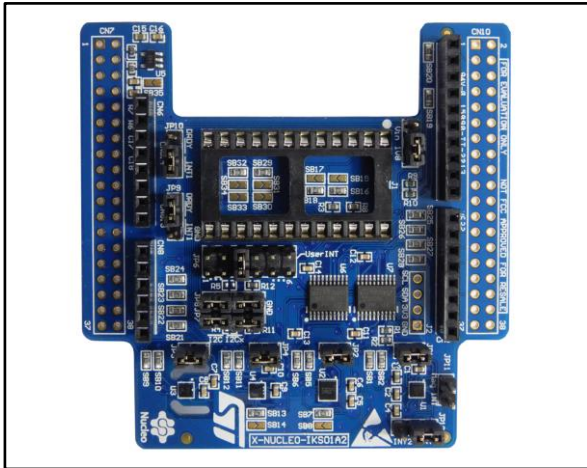


## Motion MEMS and environmental sensor expansion board for STM32 Nucleo

Data brief



### 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 I<sup>2</sup>C pin, and it is possible to change the default I<sup>2</sup>C port.

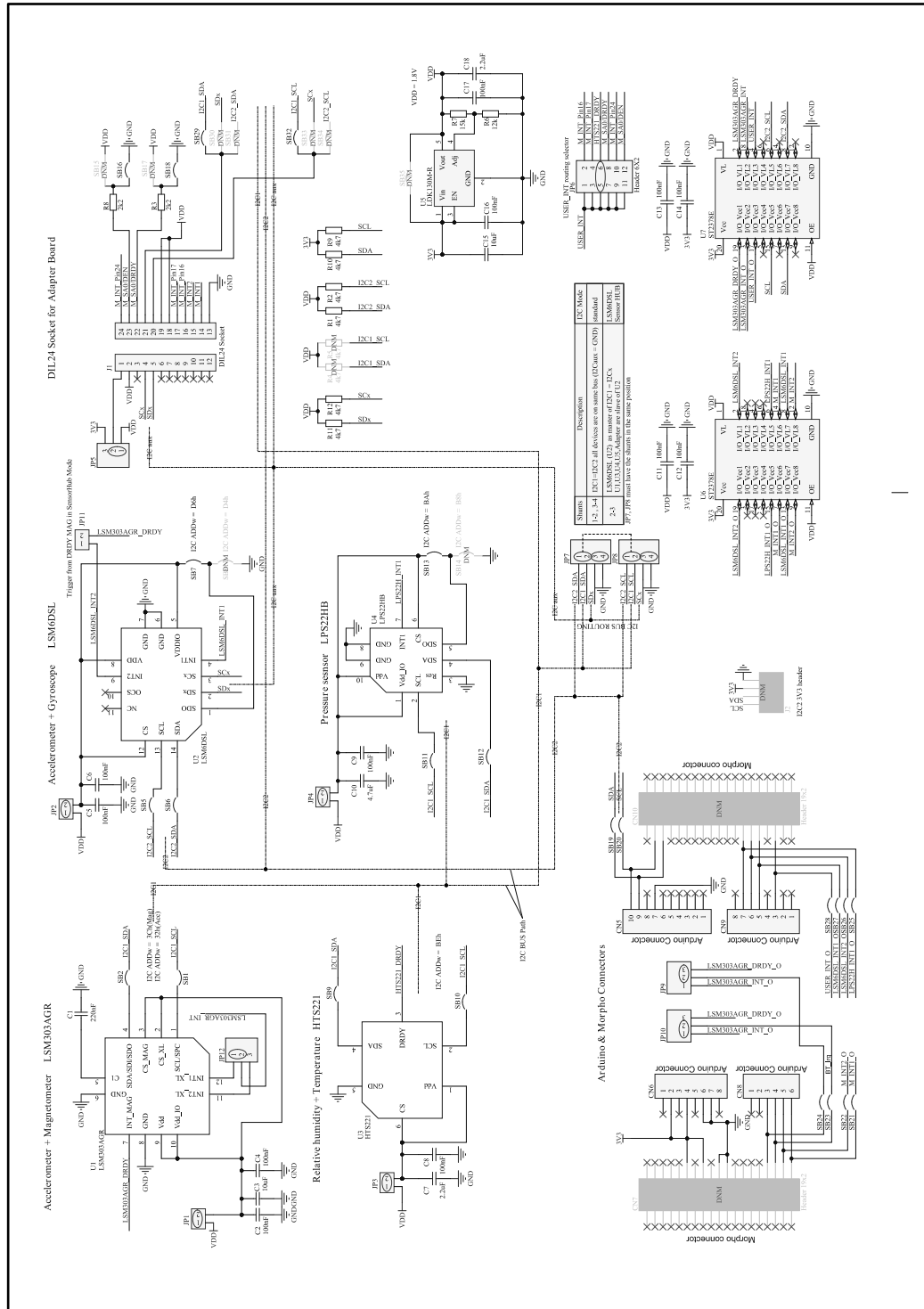
### Features

- 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 ( $\pm 50$  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
- I<sup>2</sup>C sensor hub features on LSM6DSL available
- Compatible with STM32 Nucleo boards
- Equipped with Arduino UNO R3 connector
- RoHS compliant



# 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.

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