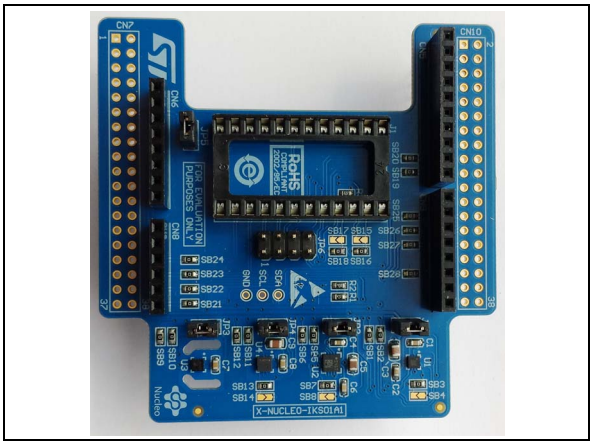
X-NUCLEO-IKS01A1

MEMS inertial and environmental sensor expansion board for STM32 Nucleo

Data brief



Features

- LSM6DS0: MEMS 3D accelerometer (±2/±4/±8 g) + 3D gyroscope (±245/±500/±2000 dps)
- LIS3MDL: MEMS 3D magnetometer (±4/ ±8/ ±12/ 16 gauss)
- LPS25H: MEMS pressure sensor, 260-1260 hPa absolute digital output barometer
- HTS221: capacitive digital relative humidity and temperature
- DIL 24-pin socket available for additional MEMS adapters and other sensors (UV index)
- Free comprehensive development firmware library and example for all sensors compatible with STM32Cube firmware
- Compatible with STM32 Nucleo boards
- Equipped with Arduino UNO R3 connector
- RoHS compliant

Description

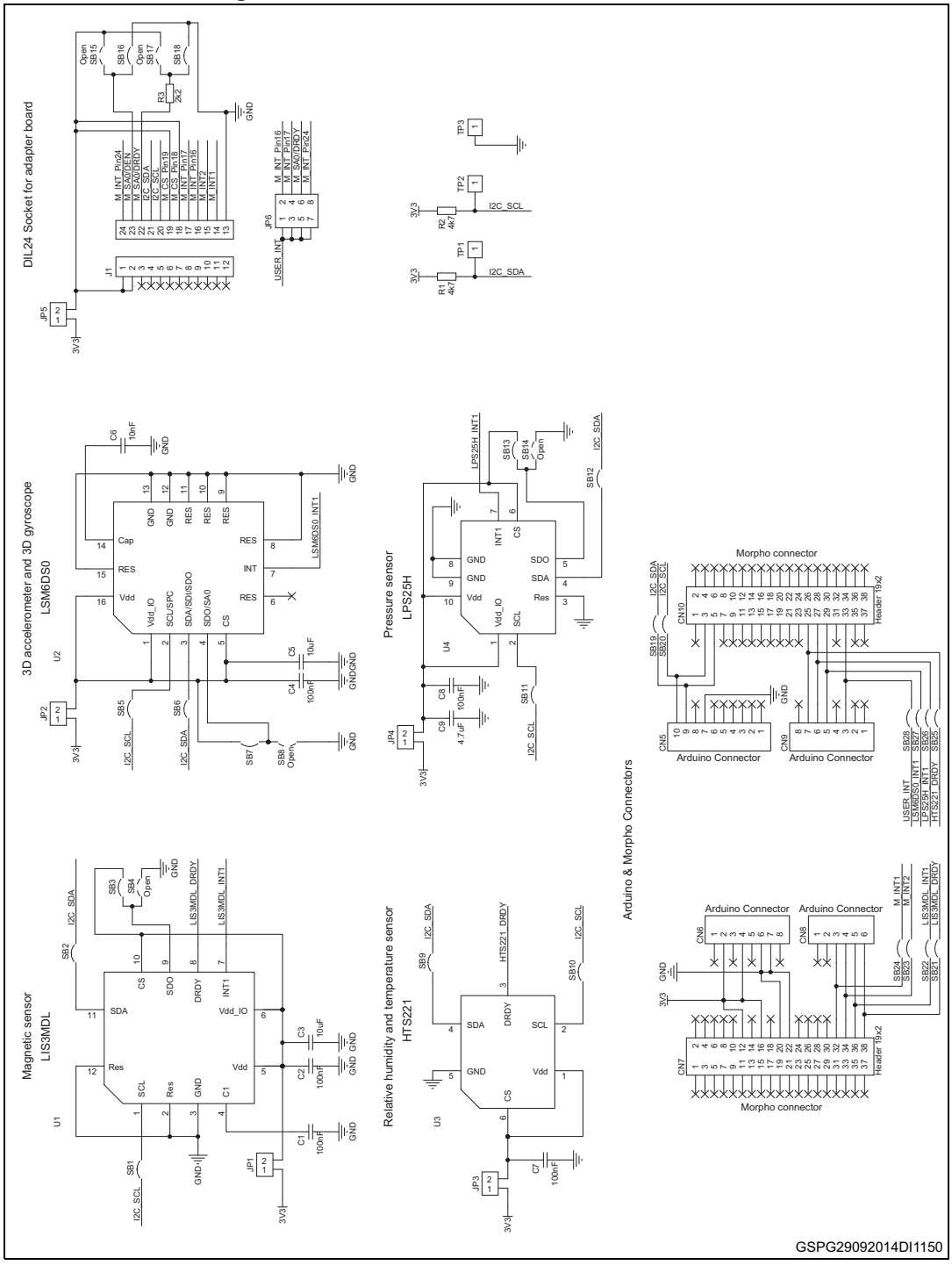
The X-NUCLEO-IKS01A1 is a MEMS inertial and environmental sensor evaluation board system.

It is compatible with the Arduino UNO R3 connector layout, and is designed around STMicroelectronics' LSM6DS0 3-axis accelerometer + 3-axis gyroscope, the LIS3MDL 3-axis magnetometer, the HTS221 humidity sensor and the LPS25H pressure sensor.

The X-NUCLEO-IKS01A1 interfaces with the STM32 microcontroller via the I^2C pin, and it is possible to change the default I^2C port.

1 Schematic diagram

Figure 1. X-NUCLEO-IKS01A1 circuit schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
20-Oct-2014	1	Initial release.
22-Oct-2014	2	Minor text and formatting updates to *Figure 1*.