X-NUCLEO-IKS01A1

Motion MEMS and environmental sensor expansion board for STM32 Nucleo

Data brief

Features

- LSM6DSO: MEMS 3D accelerometer (±2/±4/±8 g) + 3D gyroscope (±245/±500/±2000 dps)
- LIS3MDL: MEMS 3D magnetometer (±4/ ±8/ ±12/ 16 gauss)
- LPS25HB*: 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 motion MEMS 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 and temperature sensor and the LPS25HB* pressure sensor.

The X-NUCLEO-IKS01A1 interfaces with the STM32 microcontroller via the I²C pin, and it is possible to change the default I²C port.

For further information contact your local STMicroelectronics sales office.

www.st.com
1  Schematic diagram

Figure 1. X-NUCLEO-IKS01A1 circuit schematic

Note: * it is LPS25H in all the boards indicating 1439 near the CN10 connector.
## Revision history

Table 1. Document revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-Oct-2014</td>
<td>1</td>
<td>Initial release.</td>
</tr>
<tr>
<td>22-Oct-2014</td>
<td>2</td>
<td>Minor text and formatting updates to <em>Figure 1</em>.</td>
</tr>
<tr>
<td>08-May-2015</td>
<td>3</td>
<td>Updated title on the cover page.</td>
</tr>
<tr>
<td>29-May-2015</td>
<td>4</td>
<td>Updated board photo on the cover page.</td>
</tr>
</tbody>
</table>
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