

## ArgonKey mezzanine board based on different ST sensors

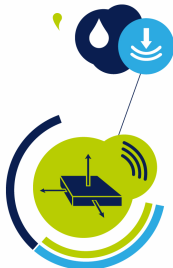


### Features

- The following ST MEMS sensors are mounted:
  - LSM6DSL 6-axis inertial module
  - LIS2MDL Magnetic sensor
  - LPS22HB Pressure sensor
  - HTS221 Humidity and Temperature sensor
  - MP34DT05-AMicrophone
- VL53L0X gesture detector
- Based on STM32F412C microcontroller

### Description

The STEVAL-MKI187V1 is a mezzanine board (also referred to as 96Boards Argonkey) designed according to the Linaro specification. The board acts as a sensor hub platform for all 96Boards compliant products. The board can be used as a standalone board or connected to the HiKey (LeMaker) board from 96Boards. The board has two buttons (Reset and user) and several LEDs that are appropriately positioned for IoT hardware applications.



#### Product summary

ArgonKey mezzanine board based on different ST sensors [STEVAL-MKI187V1](#)

iNEMO inertial module, 3-axis accelerometer, 3-axis gyroscope, always-on, smart FIFO buffer, free-fall, wakeup, 6D/4D orientation, I2C, SPI [LSM6DSL](#)

Magnetic sensor, digital output, 50 gauss magnetic field dynamic range, ultra-low power high performance 3-axis magnetometer [LIS2MDL](#)

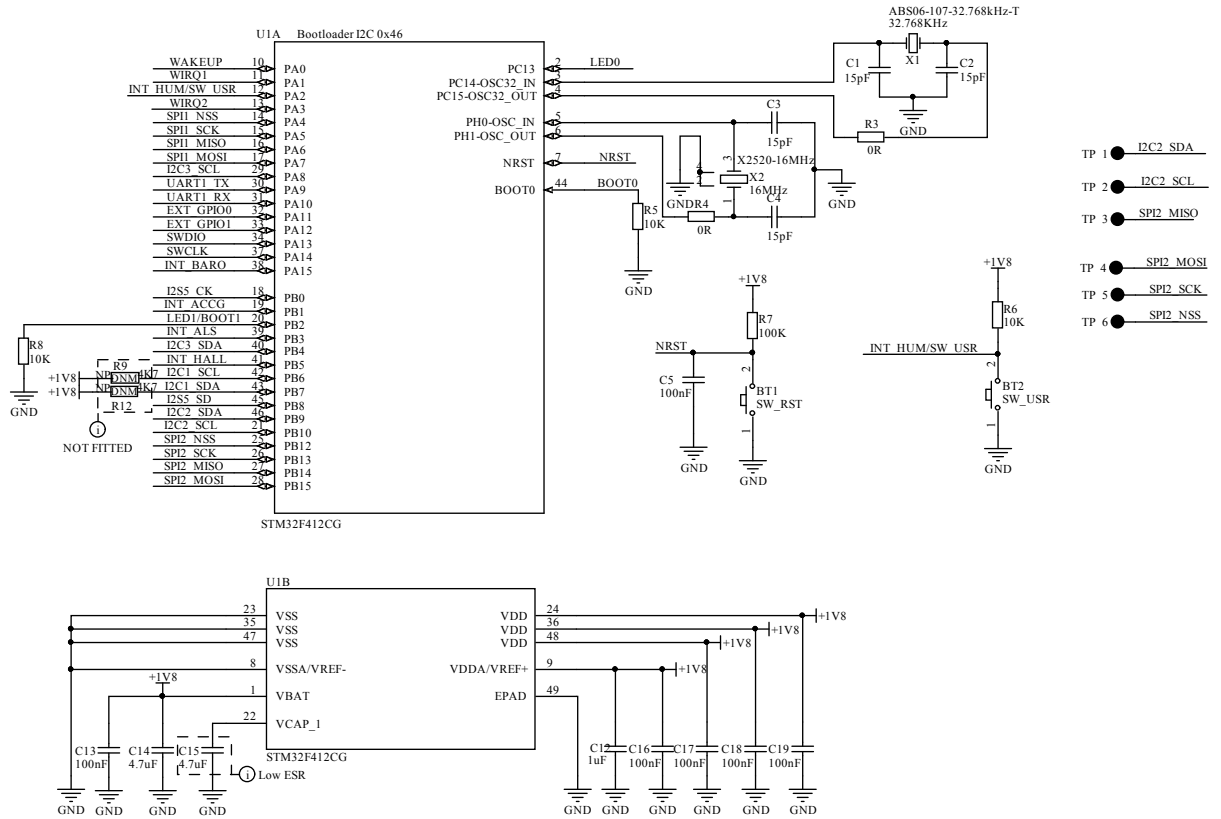
Magnetic sensor, digital output, 50 gauss magnetic field dynamic range, ultra-low power high performance 3-axis magnetometer [LPS22HB](#)

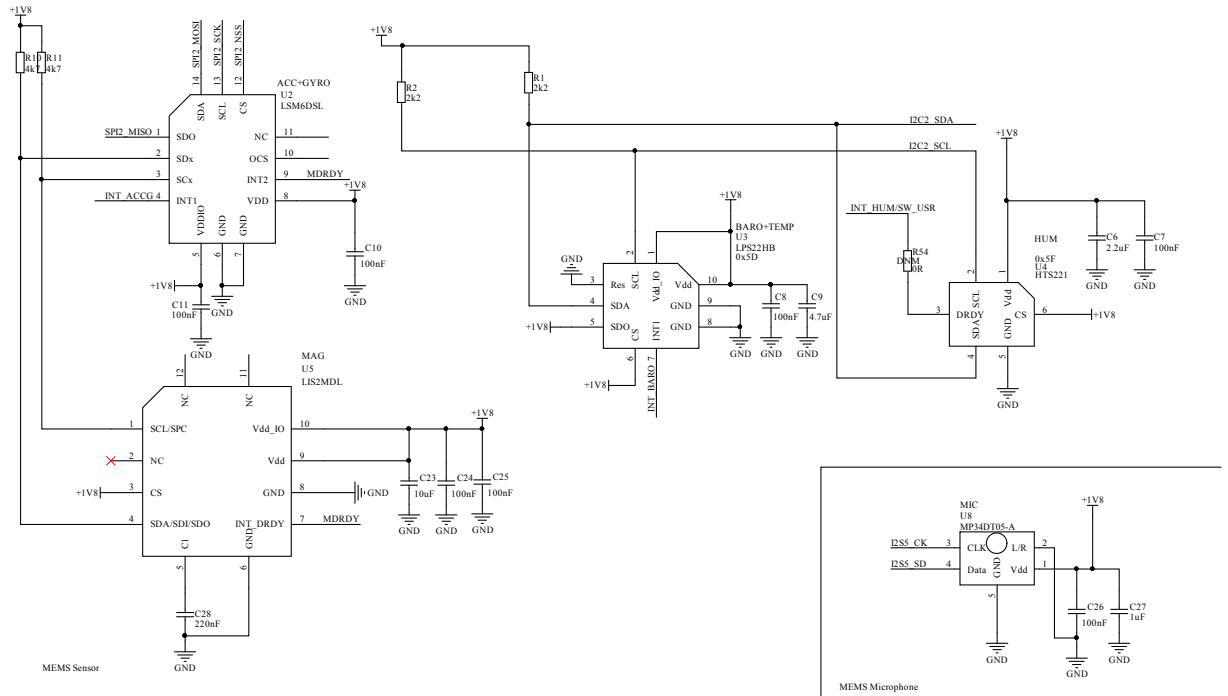
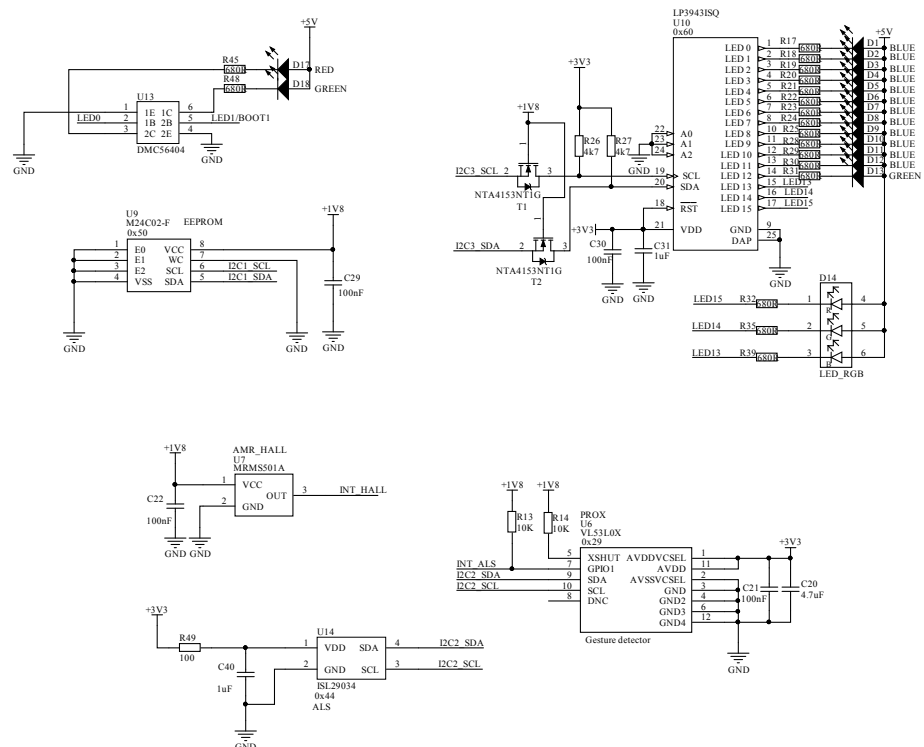
Capacitive digital sensor for relative humidity and temperature [HTS221](#)

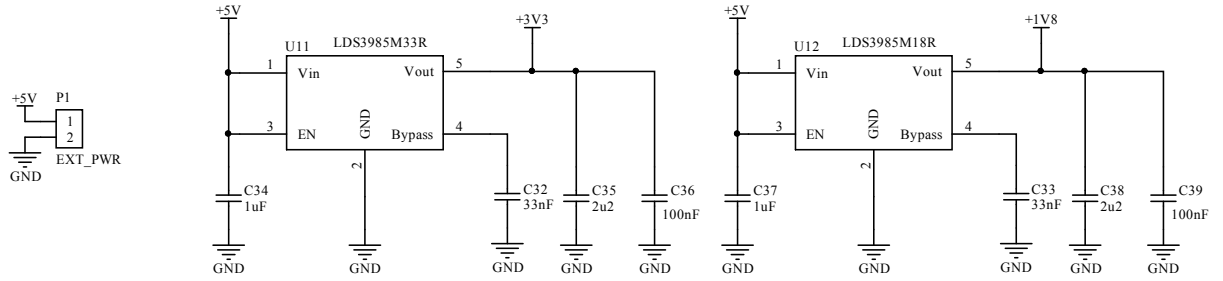
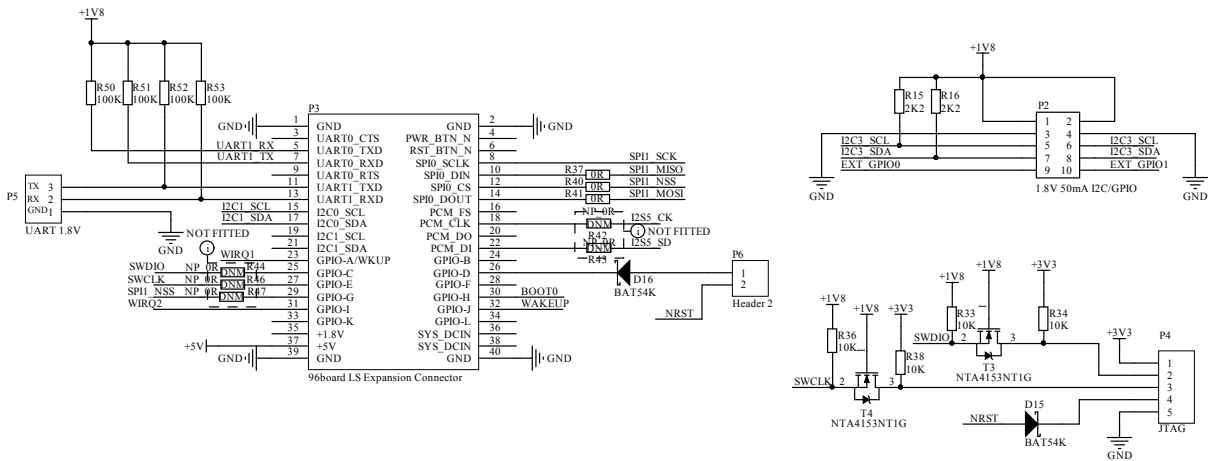
MEMS audio sensor omnidirectional digital microphone, 64 dB SNR, -26 dBFS sensitivity, top-port, 122.5 dB SPL AOP [MP34DT05-A](#)

World smallest Time-of-Flight (ToF) ranging sensor [VL53L0X](#)

# 1 Schematic diagrams

**Figure 1. STEVAL-MKI187V1 - STM32 section**


**Figure 2. STEVAL-MKI187V1 - MEMS sensor and microphone**

**Figure 3. STEVAL-MKI187V1 - board schematic**


**Figure 4. STEVAL-MKI187V1 - power supply section**

**Figure 5. STEVAL-MKI187V1 - connector section**


## Revision history

**Table 1. Document revision history**

Date	Version	Changes
13-Feb-2019	1	Initial release.

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