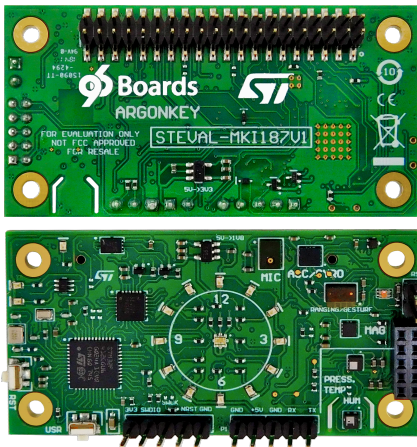


ArgonKey mezzanine board based on different ST sensors

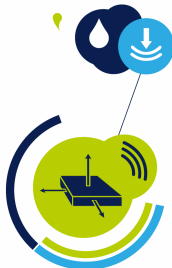


Features

- 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

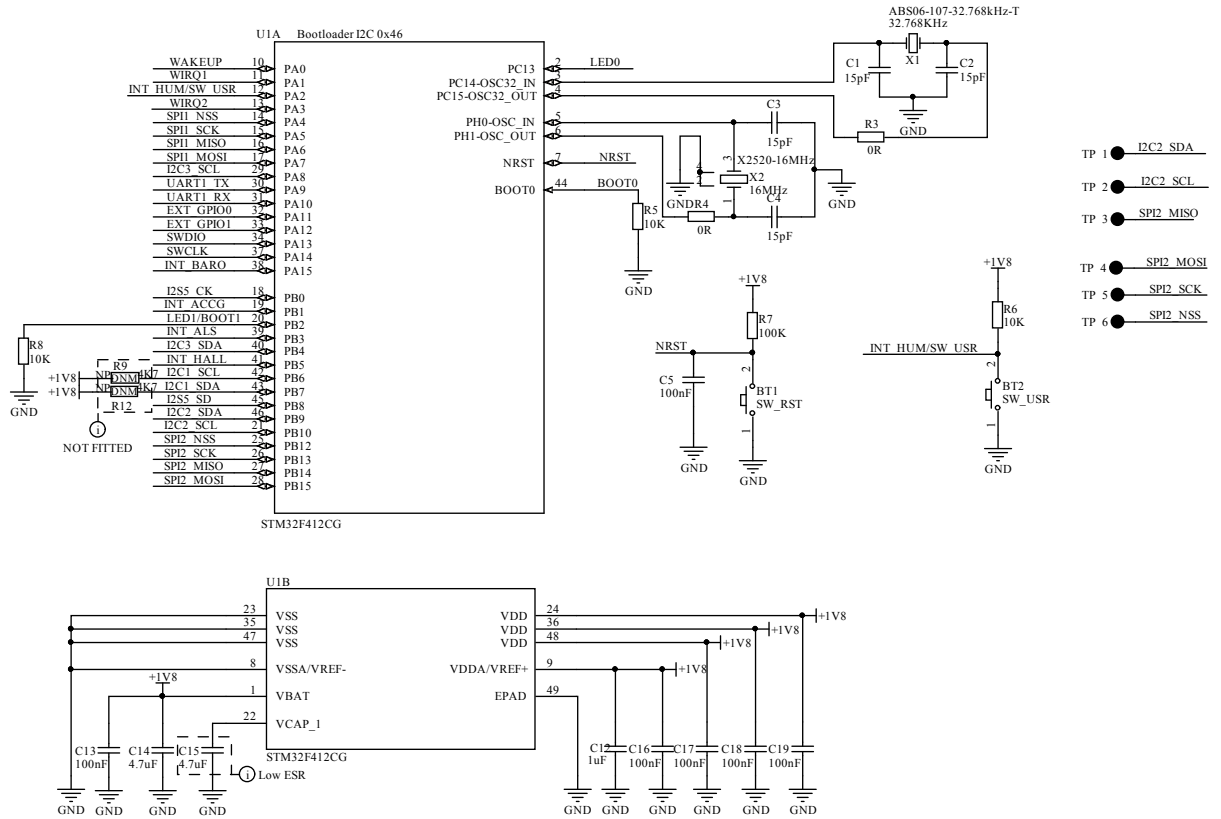
Figure 1. STEVAL-MKI187V1 - STM32 section


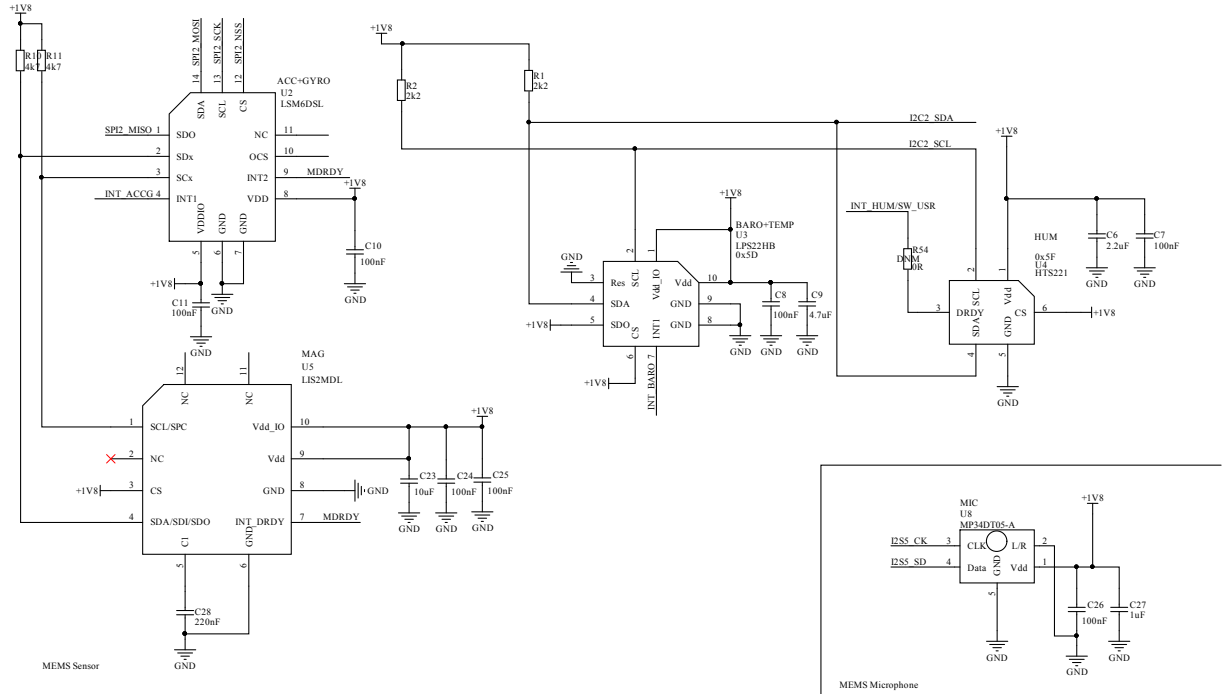
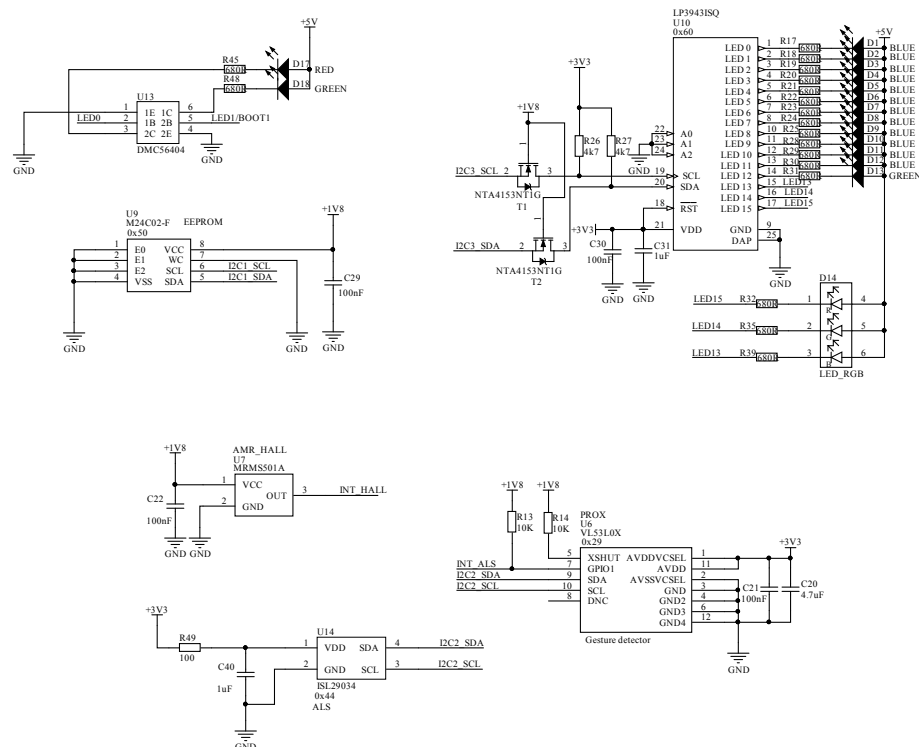
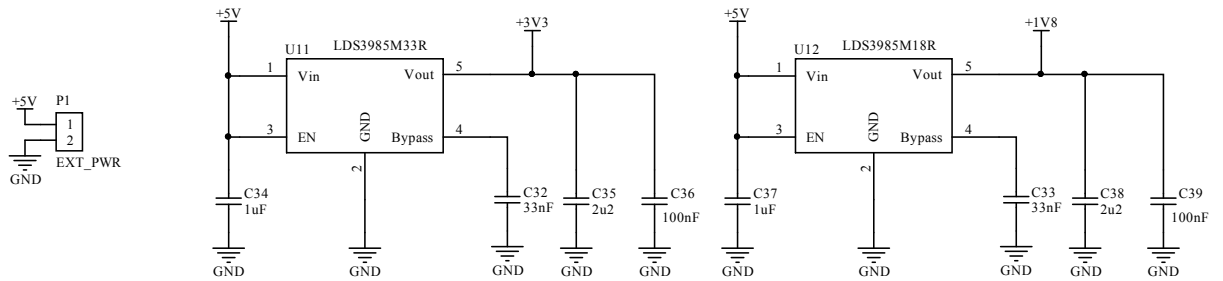
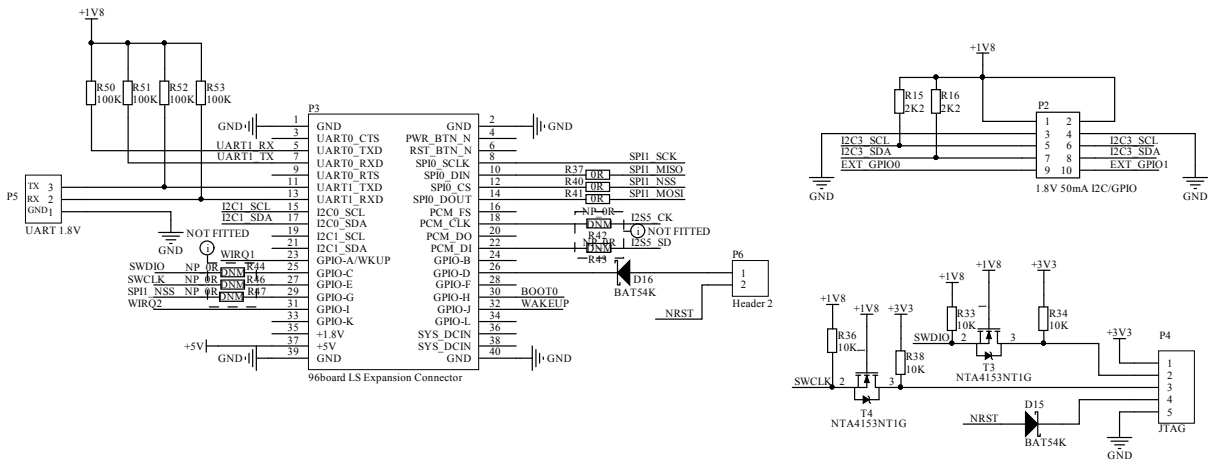
Figure 2. STEVAL-MKI187V1 - MEMS sensor and microphone

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. |