STEVAL-MKI128V5
Smart MEMS Multi-sensor module

Smart multi-sensor module for flexible prototyping

Simplify your creativity.
The STEVAL-MKI128V5 MEMS sensor module, thanks to its enhanced embedded sensor topology, helps save time and effort when developing smart, creative prototypes for a wide range of applications.
The STEVAL-MKI128V5 integrates the LSM6DS3H iNEMO inertial module with 3D accelerometer and 3D gyroscope, LIS3MDL magnetometer, LPS22HB pressure sensor, HTS221 relative humidity and temperature sensor and UVIS25 digital UV index sensor.

KEY FEATURES

Motion MEMS sensors:

- 3D accelerometer sensor with selectable ±2/±4/±8/±16 full-scale acceleration range
- 3D gyroscope sensor with selectable ±125/±245/±500/±1000/±2000 dps full-scale angular rate range
- 3D magnetometer with selectable ±4/±8/±12/±16 gauss full-scale magnetic field range.
- LGA-14 package (2.5 x 3 x 0.83 mm)

Environmental sensors:

- High accuracy pressure sensor
  - Piezo-resistive pressure sensor
  - 260-1260 mbar absolute pressure range
  - Low power consumption
- Humidity and temperature sensor
  - 0 to 100% RH range
  - -40 to 120 °C temp. range
  - 16-bit ADC measurement
- Digital UV index sensor
  - 0 to 15 UV index output range
  - UVI/16 resolution
  - Selectable readout: 1 Hz ODR / one shot
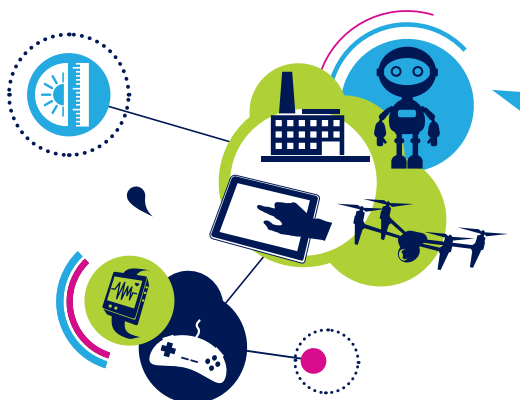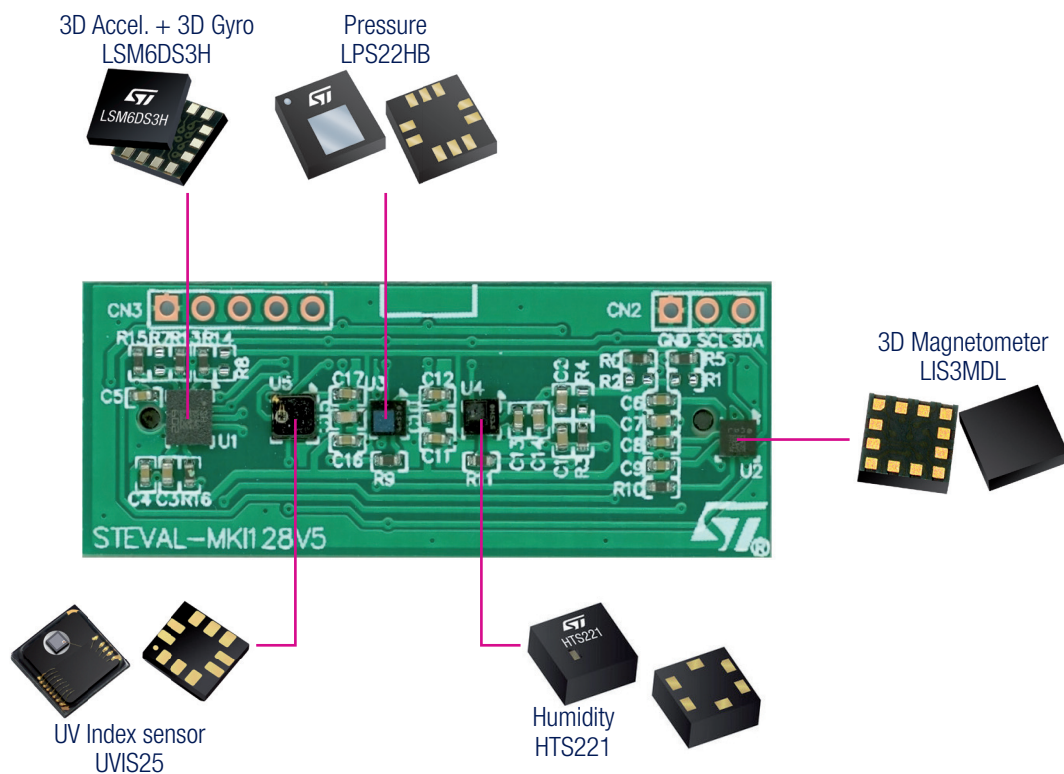
TARGETED APPLICATIONS

- Tablet and mobile phones
- Gaming and virtual reality input devices
- Wellness and wearable devices
- Drones and robotics
- IoT devices including industrial and factory automation systems

The STEVAL-MKI128V5 MEMS sensor module integrates a set of complementary motion and environmental sensors. It is a robust and easy-to-assemble building block for quick system prototyping and development.

The sensor module and its companion software brings a convenient and unique sensor subsystem solution for developing complete systems addressing smartphone and tablet applications, gaming, augmented reality, indoor navigation and localization-based services. Intrinsyc development platform offer SW and HW development tool to enable a fast evaluation and seamless product development.

EMBEDDED SENSORS

- **LSM6DS3H** (3D accelerometer with 3D gyroscope)
- **LIS3MDL** (3D magnetometer)
- **LPS22HB** (pressure sensor)
- **HTS221** (humidity and temperature sensor)
- **UVIS25** (UV index sensor)

3D Accel. + 3D Gyro
LSM6DS3H

Pressure
LPS22HB

3D Magnetometer
LIS3MDL

UV Index sensor
UVIS25

Humidity
HTS221

life.augmented