SensorTile
An IoT design lab on the tip of a pencil

SensorTile is a tiny, square-shaped IoT module that packs powerful processing capabilities leveraging an 80 MHz STM32L476 ultra-low power microcontroller and Bluetooth Low Energy connectivity based on our BlueNRG network processor as well as a wide spectrum of motion and environmental MEMS sensors, including a microphone. SensorTile can snugly fit into your IoT hub or sensor network node and be at the core of your own solution. The STEVAL-STLKT01V1 development kit comes with a set of cradle boards enabling hardware scalability as well as software and firmware libraries and tools. Alongside its ready-to-use app, SensorTile is a real IoT design lab.

KEY FEATURES & BENEFITS
• Integrated sensor node that is ready out-of-the-box for fast and effective prototyping
• FCC (ID: S9NSTILE01) and IC (IC: 8976C-STILE01) certified
• Very small 13.5 x 13.5 mm footprint can be soldered or plugged onto a PCB to add remote sensor and connectivity capability to any IoT design right away
• Rich set of motion and environmental sensors provides a universal platform that can be easily scaled up or down
• Ultra-low-power yet powerful STM32L4 microcontroller enables highly demanding applications
• Comprehensive set of firmware and software libraries and tools enables the easiest path to product development
• Supports OTA firmware upgrades
• Apps and SDK for easy iOS and Android development

KEY APPLICATIONS
Internet of Things
• Smart Industry
• Smart City
• Smart Home
• Smart Things
**SENSORTILE BLOCK DIAGRAM**

- SensorTile module
- SensorTile cradle expansion board with audio DAC, USB port, STM32-Nucleo and Arduino UNO R3 connectors. Quickly expand its capabilities or tap into a wide selection of STM32 Nucleo development and expansion boards. Can also be used for programming via the on-board SWD connector.
- 100 mAh Li-Ion battery
- Plastic box for housing SensorTile, cradle and battery

**SENSORTILE DEVELOPMENT KIT**

- SWD programming cable
- SensorTile cradle with battery charger, humidity and temperature sensor, SD memory card slot and USB port. Provides storage, power management and wire connectivity capabilities to enable stand-alone use of a SensorTile soldered on it. Can also be used for programming via a break-away SWD connector.

**HARDWARE AND SOFTWARE RESOURCES**

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For more information on ST products and solutions, visit www.st.com/SensorTile