

## Overview

EH-ES201 is designed to support ultra-compact applications where size is at a premium, such as smart watches, wearable devices, trackers and digital cameras.

The ES201 is a fully-integrated, Bluetooth 5.0 module, with reliable high performance RF, low-power consumption and easy application development are key requirements. Measuring just 7\*7\*1.4mm.

The module supports the 2 Mbps bitrate of Bluetooth 5 giving increased application throughput and up to 50 % savings in energy usage.

Integrated antenna, no external processor needed, module also provides flexible hardware interfaces to connect sensors, simple user interfaces and even displays directly to the module.



## Key Features

- Bluetooth 5, Bluetooth mesh, 802.15.4 Thread, support high throughput and long range
- Powerful & ultra-efficient 64MHz 32-bit ARM® Cortex™ M4 CPU and 192 KB Flash + 24 KB RAM
- Highly flexible GPIO & a strong digital and analog peripheral set that can interact without the CPU
- 0.3  $\mu$ A in System OFF, no RAM retention; 1.5  $\mu$ A in System ON, full RAM retention and RTC

## Quick Specifications

- Supply: 1.7V – 3.6V
- +4dBm TX power
- -96dbm RX sensitivity
- Pins: 8 GPIO
- Interfaces: UART, I2C, SPI, GPIO, PWM, I2S
- Memory: 192 KB Flash + 24 KB RAM
- Dimensions: 7\*7\*1.4mm
- Operating Temp: -30° C to +85° C

## Applications

- Smart buildings, Smart cities
- Industry 4.0, including smart lighting systems
- Low-Power Sensor Networks
- Fitness / Sports / Health
- Smart Home
- iBeacons™ / Proximity
- BLE Mesh applications
- Smart Toys / accessories

