



Open Source Long Range Bluetooth 5 Sensors

Bluetooth 5 sensors are implementation examples of achieving long range offered by BlueNor Bluetooth 5 modules.



Long Range Bluetooth 5 Sensor

Market Ready Enclosure, Just Add Your Firmware

Bluetooth sensors can be connected to your Android or iOS devices, or to a Windows PC through a [Bluetooth 5 dongle](#). Demonstration quality firmware, Android OS, iOS Windows app source codes are available to reduce your development time.

They can also be connected to a cloud server through Fanstel [BWG gateway](#) and WiFi router. Source codes are available for connecting to a Fanstel development server, or Google Cloud Platform.

These sensors are in market ready enclosure. Upon completion of firmware and apps development, you can begin marketing products.

Bluetooth 5 Environmental Sensors

SE832AF-210

- AMS ENS210, temperature and humidity sensors
- Fanstel BT832A BLE 5 module
- Cortex M4 MCU, 64 MHz with hardware DSP instructions.
- Flash/RAM: 192KB/24KB
- Range: 760 meters at 1Mbps, without enclosure, low multiple path interference.
- Uses 2 AAA batteries, not included



SE832AF-210, Open Source, secure, BLE 5 Sensor

Humidity and temperature sensor with AMS ENS210. Size is 60x60x22mm with a wall mount bracket. Uses 2AAA batteries (not included)

SE840F-210

- AMSB ENS210, temperature and humidity sensors
- Fanstel BT840F, Bluetooth 5, Thread, Zigbee module
- Cortex M4F MCU, 64 MHz with hardware DSP instructions and floating point unit.
- Flash/RAM: 1MB/256KB
- CryptoCell 310 co-processor
- Range: 2300 meters at 125 Kbp, without enclosure, low multiple path interference.
- Uses 2 AAA batteries, not included



SE840F-210, Open Source, secure, BLE 5, Thread, Zigbee Sensor

Humidity and temperature sensor with AMS ENS210. Size is 60x60x22mm with a wall mount bracket. Uses 2AAA batteries (not included)

SE840X-210

- AMS ENS210, temperature and humidity sensors
- Fanstel BT840X Bluetooth 5, Thread, Zigbee module with power amplifier
- Cortex M4F MCU, 64 MHz with hardware DSP instructions and floating point unit.
- Flash/RAM: 1MB/256KB
- CryptoCell 310 co-processor
- Range is 4500 meters or 2.8 miles at 125 Kbps.
- Supports Bluetooth SIG mesh Relay node operation
- Includes an AC adapter and USB cable



SE840X-210, Open Source, secure, BLE 5, Thread, Zigbee Sensor

Humidity and temperature sensor with AMS ENS210. Size is 60x60x22mm with a wall mount bracket. Includes AD adapter and USB cable.

Range between 2 modules is >4500 meters or 2.8 miles