



# Technical specification of Estimote Beacons and Stickers

Below you'll find technical specification for Estimote Proximity Beacons, Location Beacons, Location Beacons with UWB and Stickers. If you encounter problems with customs clearance and need to provide more in-depth documentation, please contact our [Community Team](#).

## Proximity Beacons

Identification (Hardware revision)	G1.8, G1.10, G1.12
MCU	Bluetooth® SoC ARM® Cortex®-M4 32-bit processor with FPU 64 MHz Core speed 512 kB Flash memory 64 kB RAM memory
Radio: 2.4 GHz transceiver	Bluetooth® 4.2 LE standard Range: up to 70 meters (230 feet) Output Power: -20 to +4 dBm in 4 dB steps, "Whisper mode" -40 dBm Sensitivity: -96 dBm Frequency range: 2400 MHz to 2483.5 MHz No. of channels: 40 Adjacent channel separation: 2 MHz Modulation: GFSK (FHSS) Antenna: PCB Meander, Monopole Antenna Gain: 0 dBi Over-the-air data rate: 1 Mbps (2 Mbps supported)
Sensors	Motion sensor (Ultra-low-power, high-performance, 3-axis "femto" accelerometer) Temperature sensor
Additional features	NFC
Power Supply	1 x CR2477 – 3.0V lithium primary cell battery (replaceable)

Environmental Specification	Operating Temperature: 0°C to 60°C (32°F to 140°F) Storage Temperature (recommended): 15°C to 30°C (59°F to 86°F) Relative Humidity (operating): 20% to 80% relative humidity Relative Humidity (storage): 10% to 90% relative humidity, non-condensing Splash-proof
Materials	non-flammable enclosure: silicone adhesive layer: double-sided adhesive tape
Size and Weight	Length 55mm (2.16 inches) Width: 38 mm (1.49 inches) Height: 18 mm (0.71 inches) Weight: 30g (1.06 ounces)

## Location Beacons

Identification (Hardware revision)	F3.3
MCU	Bluetooth® SoC ARM® Cortex®-M4 32-bit processor with FPU 64 MHz Core speed 512 kB Flash memory 64 kB RAM memory
Radio: 2.4 GHz transceiver	Bluetooth® 4.2 LE standard Range: up to 200 meters (650 feet) Output Power: -20 to +4 dBm in 4 dB steps, “Whisper mode” -40 dBm, “Long range mode” +10 dBm Sensitivity: -96 dBm Frequency range: 2400 MHz to 2483.5 MHz No. of channels: 40 Adjacent channel separation: 2 MHz Modulation: GFSK (FHSS) Antenna: PCB Meander, Monopole Antenna Gain: 0 dBi Over-the-air data rate: 1 Mbps (2 Mbps supported)

Sensors	Motion sensor (3-axis) Temperature sensor Ambient Light sensor Magnetometer (3-axis) Pressure sensor EEPROM Memory 1 Mb RTC clock
Additional features	GPIO NFC
Power Supply	4 x CR2477 – 3.0V lithium primary cell battery (replaceable) High efficient Step-Down DC-DC converter
Environmental Specification	Operating Temperature: 0°C to 60°C (32°F to 140°F) Storage Temperature (recommended): 15°C to 30°C (59°F to 86°F) Relative Humidity (operating): 20% to 80% relative humidity Relative Humidity (storage): 10% to 90% relative humidity, non-condensing Splash-proof
Materials	non-flammable enclosure: silicone adhesive layer: double-sided adhesive tape
Size and Weight	Length: 62.7 mm (2.47 inches) Width: 41.2 mm (1.62 inches) Height: 23.6 mm (0.93 inches) Weight: 67g (2.36 ounces)

## Location Beacons with UWB

Identification (Hardware revision)	11.2
MCU	Bluetooth® SoC ARM® Cortex®-M4 32-bit processor with FPU

	64 MHz Core speed 512 kB Flash memory 64 kB RAM memory
Radio: 2.4 GHz transceiver	Bluetooth® 4.2 LE standard Range: up to 200 meters (650 feet) Output Power: -20 to +4 dBm in 4 dB steps, "Whisper mode" -40 dBm, "Long range mode" +10 dBm Sensitivity: -96 dBm Frequency range: 2400 MHz to 2483.5 MHz No. of channels: 40 Adjacent channel separation: 2 MHz Modulation: GFSK (FHSS) Antenna: PCB Meander, Monopole Antenna Gain: 0 dBi Over-the-air data rate: 1 Mbps (2 Mbps supported)
Ultra Wideband (UWB)	IEEE802.15.4-2011 UWB compliant Precision real time location systems (RTLS) using two-way ranging Ranging accuracy (using two-ranging scheme) up to 25cm Usable ranging distance indoors- up to 30m (in real world conditions between 2 UWB beacons) Support for 6 RF bands from 3.5 GHz to 10.5 GHz
Sensors	Motion sensor: ultra-low-power, high-performance, 3-axis "femto" accelerometer Temperature sensor Ambient Light sensor Pressure sensor EEPROM Memory 1 Mb RTC clock
Additional features	GPIO NFC
Power Supply	3 x CR123A – 3.0V lithium primary cell battery (replaceable) High efficient Step-Down DC-DC converter
Environmental Specification	Operating Temperature: 0°C to 60°C (32°F to 140°F) Storage Temperature (recommended): 15°C to 30°C (59°F to 86°F) Relative Humidity (operating): 20% to 80% relative humidity Relative Humidity (storage): 10% to 90% relative humidity, non-condensing Splash-proof

Materials	non-flammable enclosure: silicone adhesive layer: double-sided adhesive tape
Size and Weight	Length: 75.25 mm (2.96 inches) Width: 49.63 mm (1.95 inches) Height: 27.1 mm (1 inch) Weight: 98g (3.45 ounces)

## Stickers

Identification (model number)	SB0
MCU	Bluetooth® SoC ARM® Cortex®-M0 32-bit processor 16 MHz Core speed 256 kB Flash memory 16 kB RAM memory
Radio: 2.4 GHz transceiver	Bluetooth® 4.2 LE standard Range: up to 15 meters (50 feet) Output Power: -20 to +4 dBm in 4 dB steps, “Whisper mode” -30 dBm Sensitivity: -93 dBm Frequency range: 2400 MHz to 2483.5 MHz No. of channels: 40 Adjacent channel separation: 2 MHz Modulation: GFSK (FHSS) Antenna: Omnidirectional chip antenna Antenna Gain: 0 dBi Over-the-air data rate: 1 Mbps (2 Mbps supported)
Sensors	Motion sensor (Ultra-low-power, high-performance, 3-axis "femto" accelerometer) Temperature
Power Supply	1 x CR2020 – 3.0V lithium primary cell battery (not replaceable)
Environmental Specification	Operating Temperature: 0°C to 60°C (32°F to 140°F) Storage Temperature (recommended): 15°C to 30°C (59°F to 86°F) Relative Humidity (operating): 20% to 80% relative humidity

	Relative Humidity (storage): 10% to 90% relative humidity, non-condensing
Materials	non-flammable enclosure: polyurethane with an intrinsic adhesive layer
Size and Weight	Variable