



EMBT20



BLE V5.0

Wrist-worn

Tracking Beacon

General Description

The EMBT20 extends EM Microelectronics family of low power, high performance BT BLE V5.0 beacons with a new small, light, and low-cost device for people tracking.

Target applications include hospital patient tracking, tradeshow and conferences, and hospitality – cruises, concerts, amusement parks, and sporting events.

Designed to be wrist worn, it has a slot for a wrist strap (not included), for easy attachment. It has a button for activation, and an LED to confirm operation. Each device has a unique ID embedded in the QR code on top for easy registration and provisioning in a Real Time Location System (RTLS).

The beacon will operate for up to two weeks after ten months of storage. It features EM's True Ultra Low Power (TULP) design philosophy, enabling it to operate on a single 1.5V alkaline coin cell battery to simplify disposal requirements.

Built around EM's EM9304 BT BLE SoC, the EMBT20 is fully programmable and configurable and can be updated securely with Firmware-Over-The-Air (FOTA) programming from a PC or mobile device. Standard packet format options include iBeacon™ and Eddystone™. The EM9304 can also implement proprietary packet formats, and support modification of all packet parameters.

Like all of EM's beacons, the EMBT20 is designed and manufactured with Swiss engineering principles – a keen eye to quality, manufacturability, and sustainability.

EMBT20, together with EMBC20/22, EMBP01, and the rest of EM's beacon products, enable one-stop shopping for implementing an RTLS solution – devices for asset tracking, people tracking, duress, etc.

The EMBT20 has an IP67 rating, and 10m line-of-site range.

It is FCC & IC compliant (CE forthcoming). It is RoHS, REACH, and Halogen Free compliant.

Features

- Low-cost
- Small and light for comfortable wearing
- Wrist strap slot for easy attachment
- Alkaline battery for easy disposal
- Integrated push button for activation and LED to confirm operation.
- Unique ID and scannable QR-code standard
- Supports popular standard beacon formats such as iBeacon™ and Eddystone™
- Programmable for proprietary beacon formats.
- Configurable for advertising interval and power.
- Two-week active life after up to ten months of storage
- 10m range line-of-sight (LOS) at maximum output power
- Manufactured with Swiss quality and including the **EM9304** state-of-the-art Bluetooth V5.0 system- on-chip.
- Weatherproof Enclosure with IP67 rating
- Operating temperature range: 0° - 40° C
- Bluetooth V5.0, FCC, and CE certified

Product Dimensions

The EMBT20 finished product outline dimensions are shown in Figure 1. The product is a compact design intended to be threaded onto a wristband 12.7 ± 0.1 mm wide with a material thickness no more than 0.25mm and worn on the human body.

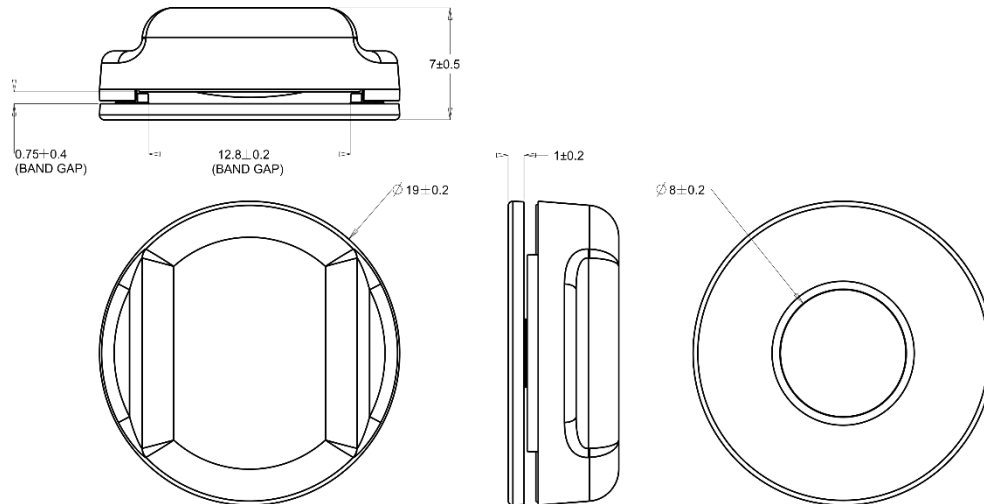


Figure 1: Finished Product Dimensions

Ordering Information

The EMBT20 is available as a finished product with full FCC and IC certification. Ordering information is shown in Figure 2 and the order numbers are shown in Table 1.

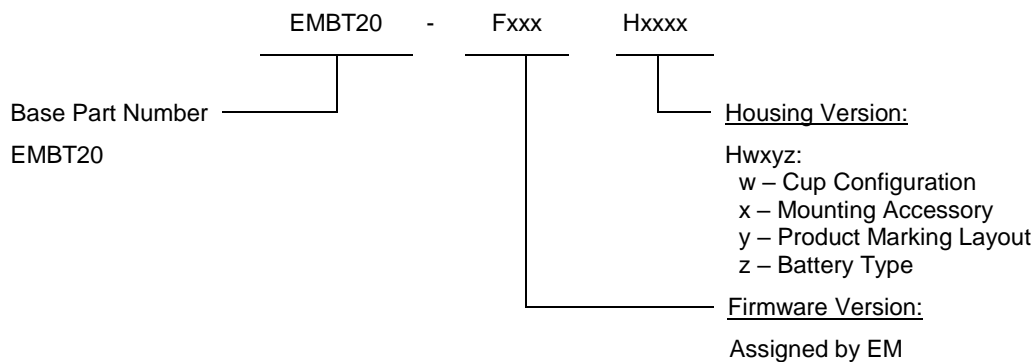


Figure 2: Ordering Information

Order Number	Description	Container	Units per Container	Minimum Order Quantity
EMBT20-F381-H1111	EMBT20 – White, mounts on 1/2" wristband	Box	2000	2000

Table 1: Ordering Information

Contact Information

Inquiries for lead-times, quotes, orders: EMDirect@emmicroelectronic.com