

## BlueBeacon USB

### Bluetooth Low Energy proximity-beacon

#### Data sheet v. 2.1



BlueBeacon USB is an USB-powered Bluetooth Smart beacon, compliant with Apple iBeacon technology or Eddystone specifications.

BlueBeacon USB dongle is directly powered by the USB port: this ensures an endless operating life, with no maintenance operation for battery replacement. BlueBeacon USB can be powered by any electronic device with USB output or directly by the AC power mains through an AC/DC power supply with USB port.

BlueBeacon USB is particularly suitable for integration with PoS (Point-of-Sale) devices, embedded PCs, electronic kiosks.

<b>Advertising</b>	
<b><i>iBeacon version</i></b>	
User-configurable characteristics	UUID, major and minor numbers, advertising interval, TX power, connectable/not-connectable, on/off, access password
Advertising interval	0.1 to 1 sec (programmable, with 0.1 sec steps).
TX power	-24dBm to +4 dBm (with 4dB steps).
<b><i>Eddystone version</i></b>	
User-configurable characteristics	URL: all mandatory and optional parameters; UID: namespace and instance ID
Advertising interval	0.1 to 5 sec (programmable , with 0.1 sec steps).
TX power	lowest (-24dBm), low (-16dBm), medium (-8dBm), high (+4dBm)
<b>Device specifications</b>	
<b><i>Electrical specifications</i></b>	
Core module	Texas Instruments CC2540 (MCU and radio transceiver)
MCU core	Enhanced 8051 8-bit CPU
Current consumption	Radio TX: 44 mA (@ -6dBm) Radio RX: 33 mA Idle mode: 12 mA
<b><i>Radio specifications</i></b>	
Standard	Bluetooth 4. 0 (Bluetooth Low Energy or Bluetooth Smart)
Frequency band	2.402 to 2.480 GHz (according Bluetooth 4.0 specifications, worldwide ISM band)
Advertising channels	CH37 (2.402 GHz), CH38 (2.426 GHz), CH39 (2.480 GHz) (according Bluetooth 4.0 specifications)



<b>Radio specifications (cont'd)</b>	
Channel spacing	2 MHz (according Bluetooth 4.0 specifications)
TX power	Conducted: +4 dBm (max) EIRP (Equivalent Isotropic Radiated Power): -2 dBm (max)
<b>Antenna</b>	
Type	Integrated meandered planar inverted F-antenna (PIFA)
Gain	-6dB (typ.)
Radiation diagram	Omnidirectional
<b>Power</b>	
Power supply	USB
Voltage	5V (typ.)
<b>Mechanical specifications</b>	
Material	ABS moulded plastic
Color	Black
Size	18 x 13 x 6 mm (including USB plug)
Protection	IP40
<b>Environmental specifications</b>	
Operating temperature	-40°C to +85°C
Storage temperature	-40°C to +85°C
<b>Certifications</b>	
CE (Directive 1995/5/CE R&TTE, 2011/65/UE RoHS2) FCC (USA), IC (Canada), KCC (South Korea), MIC (Japan) iBeacon, Eddystone	

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