

BlueBeacon Forte+

Bluetooth Low Energy beacon

Data sheet



BlueBeacon Forte+ is next-generation outdoor beacon, based on nRF52832 chipset with simultaneously supports of iBeacon, Eddystone (full support, with GATT and EID), Quuppa (emulation mode). It includes an accelerometer for motion detection

BlueBeacon Forte+ is available in two versions:

STD: standard version;

HVL: transparent lid and high-visibility led, for easy identification and pick-to-light applications;

Both versions will be available in enclosure with or without flanges, and in optional IP67 version.

BlueBeacon Forte+ is powered by one replaceable CR123A lithium battery, with extended operating temperature range.

Advertising	
Up to 4 slots configurable for Eddystone frame types: UID, URL, TLM, EID. Full support for specifications Eddystone Configuration GATT Service by Google	
Up to 4 slots configurable for the following frame types: iBeacon, Quuppa, Sensors	
TX power	-40, -30, -20 to 4 dBm (with 4dB steps). Programmable for each slot
Advertising interval	0.1 to 10 secs. Programmable for each slot
Global configuration options	non-connectable mode, anonymous mode, programmable time period, locked/unlocked mode, change password
Default settings	
Eddystone-URL: URL = https://www.blueupbeacons.com, ADV interval = 1000 msec, TX power = -8dBm	
iBeacon: UUID = ACFD065E-C3C0-11E3-9BBE-1A514932AC01, major = 4, minor = S/N, ADV interval = 400 msec, TX power = -8dBm	
Global configuration	connectable, locked
Device specifications	
Electrical specifications	
Core module	Nordic nRF52832 SoC (MCU and radio transceiver)
MCU core	ARM Cortex-M4 32-bit CPU
Current consumption (25°C)	Radio TX: 7.1mA (0dBm TX) Radio RX: 6.5 mA Idle mode: 3 uA Idle mode with accelerometer ON: 7 uA
Radio specifications	
Standard	Bluetooth 4.2 Bluetooth Low Energy (BT5-ready)
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)





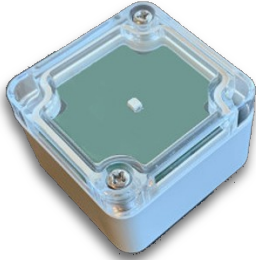
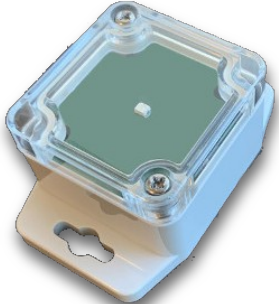
Radio specifications (cont'd)		
Channel spacing	2 MHz (according Bluetooth 4.0 specifications)	
TX power	Conducted: +4 dBm (max) EIRP (Equivalent Isotropic Radiated Power): +6 dBm (max)	
Antenna		
Type	Integrated meandered planar inverted F-antenna (PIFA)	
Gain	2dB (max.)	
Radiation diagram	Omnidirectional	
Power		
Power supply	Battery	
Replaceable	Yes	
Type	CR17345 (3V, lithium)	
Model	Panasonic Industrial CR123A (typical capacity 1500 mAh @ 25°C)	
Expected life	14 months to 10 years, 24/7 at ambient temperature 3 years with default settings	
Sensors and interfaces		
Version	STD	HVL
Sensors	3-axis linear accelerometer	3-axis linear accelerometer push button (optional)
Interfaces	-	RGB high-visibility LED
Mechanical specifications		
Material	Polycarbonate plastic	
Color	Light grey RAL7035	Light grey RAL7035 Transparent lid
Size	50 x 52 x 35 mm (non- flanged version) 50 x 80 x 35 mm (flanged version)	
Wall fastening	Screws, silicone glue, double side tape	
Opening	Front cover with screws	
Protection	IP65 / NEMA4 (IP67 / NEMA6 on demand)	
Flammability	UL 94 HB	
Environmental specifications		
Operating temperature	-30°C to +70°C (battery operating life sharply decreases under -10°C)	
Storage temperature	-40°C to +85°C (without battery)	
Certifications		
CE (Directive 2014/53/EU RED, 2011/65/UE RoHS2) [in progress] iBeacon, Eddystone		



BlueUp S.r.l.
Loc. Belvedere, Ingresso 2, 53034 Colle di Val d'Elsa (SI) - ITALY
Tel. +39 0577 043101 / +39 344 2030929, Fax +39 0577 043101
E-mail: info@blueupbeacons.com, Web: www.blueupbeacons.com
P.IVA/CF/N. iscr. CCIAA (SI). 01373980521, VAT n.: IT01373980521

Expected battery life-time (in months)						
<i>TX power</i>	<i>Advertising interval</i>					
	100 msec	300 msec	500 msec	700 msec	1000 msec	5000 msec
0 dBm	14	35	51	63	78	128
-8 dBm	15	37	53	66	81	131
-20 dBm	16	39	56	70	84	133

*Expected battery life-time is estimated assuming nominal battery capacity, self-discharge and ambient operating temperature.
Enabling Eddystone-EID and eTLM advertising reduce battery life-time of about 15/20%*

Versions	
STD/NF	
	<p>Standard version, without flanges Front cover allows for an easy battery replacement.</p> <p>Size: 50 x 52 x 35 mm</p>
STD/WF	
	<p>Standard version, with flanges For fast and robust wall installations. Front cover allows for an easy battery replacement.</p> <p>Size w/o flanges: 50 x 52 x 35 mm Size w flanges: 50 x 80 x 35 mm</p>
HVL/NF	
	<p>High-Visibility Led version, without flanges Front cover allows for an easy battery replacement. Transparent front lid for high-visibility led Optional push button</p> <p>Size: 50 x 52 x 35 mm</p>
HVL/WF	
	<p>High-Visibility Led version, with flanges Front cover allows for an easy battery replacement. Transparent front lid for high-visibility led Optional push button</p> <p>Size w/o flanges: 50 x 52 x 35 mm Size w flanges: 50 x 80 x 35 mm</p>

BlueUp reserves the right to change product specifications at any time without prior notice.
 iBeacon is a trademark of Apple Inc., Eddystone is a trademark of Google Inc., Quuppa is a trademark of Quuppa Oy,
 Bluetooth is a trademark of Bluetooth SIG, ARM and Cortex are trademarks of ARM Inc.