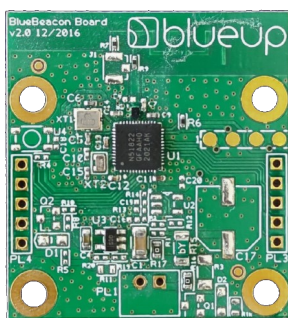


Board/S BLE

Bluetooth Low Energy beacon

Data sheet



Key features

- Single board format
- Simultaneous support of iBeacon and Eddystone
- Designed for industrial and automation applications
- Two alternative antenna options:
 - integrated antenna;
 - UFL connector for external antenna

GATT and advertising

Full support for specifications Eddystone Configuration GATT Service by Google

Up to 4 slots configurable for Eddystone frame types: UID, URL, TLM, EID

Up to 4 slots configurable for the following frame types: iBeacon, Quuppa (emulation mode), Sensors

TX power	-40, -30, -20 to 4 dBm (with 4 dBm steps). Programmable for each slot
Advertising interval	0.1 to 60 secs. Programmable for each slot
Global configuration options	non-connectable mode, anonymous mode, programmable time period, locked/unlocked mode, change password

Device specifications

Electrical specifications

Core module	Nordic nRF51822 SoC (MCU and radio transceiver)
MCU core	ARM Cortex-M0 32-bit CPU
Current consumption (25°C)	Radio TX: 8 mA (0 dBm) Radio RX: 9.7 mA Idle mode: 3 µA Sleep mode: 1.5 µA

Radio specifications

Standard	Bluetooth 4.1 Bluetooth Low Energy
Frequency band	2.402 to 2.480 GHz (according to Bluetooth 4.0 specifications)
Advertising channels	CH37 (2.402 GHz), CH38 (2.426 GHz), CH39 (2.480 GHz) (according to Bluetooth 4.0 specifications)
Channel spacing	2 MHz (according to Bluetooth 4.0 specifications)
TX power	Conducted: +4 dBm (max)

Antenna		
Version	Integrated antenna	UFL connector for external antenna
Type	Integrated meandered planar inverted F-antenna (PIFA)	External (UFL connector)
Gain	2 dB (max)	depends on selected antenna
Radiation diagram	Omnidirectional	depends on selected antenna
Power		
Power supply	External DC voltage	
Connector	2-pole 2.54 mm connector header (customizable)	
Voltage	2.7 – 30 VDC	
Current	10 mA (peak) 0.2 mA (average, at PTX = 0 dBm and ADV = 100 msec)	
Mechanical specifications		
Aspect	Single-board PCB	
Size	37 x 40 mm	
Weight	2.5 gr	
Fastening	4x M3 screws (plastic screws are suggested)	
Protection	none	
Flammability	UL 94 HB	
Environmental specifications		
Operating temperature	-30°C to +75°C	
Storage temperature	-40°C to +85°C	
Certifications		
CE (RED)		

Versions



BlueBeacon Board OEM: integrated antenna



BlueBeacon Board OEM: UFL connector for external antenna

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