

Brick Ex BLE

ATEX Bluetooth Low Energy beacon

Data sheet



Key features

- BLE beacon for hazardous areas
- Explosive atmosphere (ATEX Zone 2/22)
- Based on Nordic nRF52832
- Simultaneous support of iBeacon and Eddystone
- Rugged IP66 enclosure
- 2x replaceable 3.6V lithium batteries
- Ultra-long operating life

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, -20 to 4 dBm (with 4 dB 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
Firmware update	OTA (Over-the-Air) firmware update

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: 7.1 mA (0 dBm TX) Radio RX: 6.5 mA Idle mode: 4 µA Idle mode with accelerometer ON: 8 µA

Radio specifications

Standard	Bluetooth 4.2 Bluetooth Low Energy (compatible with BLE 5.2)
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) EIRP (Equivalent Isotropic Radiated Power): +6 dBm (max)



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Antenna	
Type	Integrated meandered planar inverted F-antenna (PIFA)
Gain	2 dB (max)
Radiation diagram	Omnidirectional
Battery	
Type	AA 3.6V Lithium Thionyl Chloride (LiSoCl ₂)
Model	EVE ER14505 (2700 mAh typ. capacity @ 25°C)
Quantity	2
Total capacity	5400 mAh
Replaceable	Yes
Sensors and interfaces	
Sensors	3-axis MEMS linear accelerometer Hall sensor
Interfaces	-
Mechanical specifications	
Material	Glass-Fiber Reinforced Polyester (Graphite added)
Color	Black (RAL 9011)
Size	80 x 75 x 55 mm
Weight	250 gr
Fastening	External mounting bracket (optional accessory) Silicone glue Double side tape
Opening	Front cover with four M4 captive screws
Protection	IP66
Flammability	UL94-V0
Environmental specifications	
Operating temperature	-20°C to +50°C
Storage temperature	+10°C to +30°C (with battery), -25°C to +75°C (without battery)
Certifications	
CE (RED) ATEX Zone 2/22 (Ex II 3G Ex ic IIC T6 Gc / 3D Ex ic IIIC T85°C Dc)	

Preliminary datasheet.

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