

BlueBeacon Wirepas TagX

Wirepas tag for personal safety

Data sheet



BlueBeacon Wirepas TagX is a battery-powered asset tag based on powerful nRF52832 SoC, with full support of Wirepas Massive (previously Mesh) network protocol.

BlueBeacon Wirepas TagX is designed as asset tag for identification and tracking in logistics, healthcare, building management.

BlueBeacon Wirepas TagX is powered by a replaceable long-life CR2477 coin battery and it includes accelerometer for motion, shock and free-fall detection and 2 Led for signaling. The compact robust enclosure (IP65 optional) has two flanges that allow maximum installation flexibility.

General features	
Software based on Wirepas Massive v5.x	
Firmware based on Wirepas Massive libraries	
Configuration and diagnostics	Wirepas Network Tool application
Operating modes	Non-router mode – Mobile tag (periodic or on-event transmission of identifier and location)
Mobile tag operating states	Default, Motion, Alarm (button, free-fall, man-down), Sleep
Mobile tag positioning interval	15 secs to 18 hours (configurable for each state)
Mobile tag state timeout	15 secs to 18 hours (configurable for each state)
Beaconing	Configurable (disable, iBeacon, Safety, Quuppa Emulation Mode)
Beaconing interval	100 msec to 1 hour (configurable for each state)
Beaconing TX power	-40, -20 to 4 dBm with 4 dB steps (configurable for each state)

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: 3 µA Idle mode with accelerometer ON: 7 µA
Radio specifications	
Standard	Wirepas Massive
Frequency band	2.402 to 2.480 GHz
Channel spacing	2 MHz



Device specifications	
TX power	Conducted: +4 dBm (max) EIRP (Equivalent Isotropic Radiated Power): +6 dBm (max)
RX sensitivity	-94 dBm
Device specifications	
Antenna	
Type	Integrated meandered planar inverted F-antenna (PIFA)
Gain	2 dB (max)
Radiation diagram	Omnidirectional
Power	
Power supply	Battery
Replaceable	Yes
Type	3V lithium coin battery
Model	1x CR2477 (typical capacity 1000 mAh @ 25°C)
Sensors	
Sensors	3-axis linear accelerometer
User interfaces	2x Led (Red, Yellow)
Mechanical specifications	
Material	ABS plastic
Color	White
Enclosure size	75 x 46 x 16 mm including flanges
Protection	IP65 optional, on demand
Environmental specifications	
Operating temperature	-20°C to +60°C (battery operating life sharply decreases under 0°C)
Storage temperature	10°C to +30°C (with battery)
Certifications	
CE	

Expected battery life-time (in months)						
TX power	Scan interval (frequency)					
	1 min	5 mins	10 mins	30 mins	1 hr	6 hrs
0 dBm	7	33	57	110	143	180

*Expected battery life-time is estimated assuming the following standard operating conditions:
 Nominal battery capacity, battery self-discharge, room operating temperature (about 20°C).*

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