NAO BlueSpot V3 series datasheet

Bluetooth 4.0 Low Energy Beacon with iBeacon technology[1]

◆ POLE STAR
TRACING THE WAY

Key features

- Broadcasts Bluetooth 4.0 "Low Energy" signals for indoor location purpose
- Compatible with Apple® iBeacon technology[1]
- Compatible with all Bluetooth Smart 4.0 devices
- Over 5 years of battery lifetime[3]
- Both for indoor and outdoor use
- Configurable and upgradable "Over The Air"
- Monitoring and management with the NAO® Cloud platform

At a glance...

Plug& Play. Compliant with the Apple iBeacon technology[2], NAO® BlueSpot comes with factory set identifiers for instant operation: just insert the batteries, simply clip the cap, and stick the unit on the indoor wall using the provided adhesive tape. That's it! you are ready to experience accurate indoor location, proximity detection and interactions with Pole Star's NAO platform and SDKs. Various fastening options such as screwing, strapping are also available for even more sustainable installations.

Long lifetime. With our long time experience in power control, we make the best out of industrial grade Lithium batteries, thus ensuring best-in class 5 years continuous operation[3] under a broad temperature range.

Designed to run in harsh environments. Meets IP54 requirements: dustproof, resists to water projections. An optional housing [4] is available to extend the protection (IP65 grade) for outdoor usage with even more serenity.

Activation and maintenance. Correct operation and Health Status are visually confirmed when inserting the batteries. Thanks to the clippable body / cap system, battery replacement is easy, quick, and do not require to uninstall the beacon. After installation, Health Status and Battery life are remotely monitored through our SDK and centralized on the NAO® Cloud platform.

Remote configuration. Relying on a secured remote access, your beacon identifiers, RF parameters such as the advertising rate and transmit power can be configured "Over The Air" to best fit both your application requirements and lifetime expectations. For even more flexibility, you can reconfigure your NAO® BlueSpot to comply with other protocols such as Google Eddystone.

Upgradability. The beacon firmware can also be upgraded "Over-The-Air" to benefit from upcoming features. Configuration and Firmware upgrade are secured to prevent from hacking; Update and upgrades are managed on NAO® Cloud platform and deployed on compatible devices using NAO® Logger app[4].

RF performance. 3+ years' field proven experience, providing an industrialized solution, with best-in-class RF performance, sustainability and optimal scan performance on the device side. More than 200 customers and partners worldwide have selected Pole Star beacons, representing several tens of thousands currently running units.

Quality, at first. Designed and assembled In France, 100% units are fully tested before delivery and benefit from a 1 year warranty. CE and FCC certified.

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[1] iBeacon technology creates a small area of detection where customized notifications can be sent to iBeacon-enabled apps on iPhone, iPad, or iPod touch devices that support Bluetooth 4.0 technology.

[2] See https://developer.apple.com/ibeacon/

[3] Running with two 2500 mAh batteries, 24/7/365, 20°C, with the standard configuration profile (1s interval advertising, full RF power).

[4] Availability on Q1-2016.

Main specifications

Dimensions and weight	Height	20 mm
	Width	45 mm
	Depth	60 mm
	Weight	25 grams 60 grams (2 batteries included)
Casing	Material	ABS (UV resistant)
	Color	White (RAL9003)
	Fastening options	Adhesive tape (included): 28 mm x 48 mm Screws: x2, ⌀ 3 mm, countersunk, cross type
	Device identification	6 digits unique gencode identifier.
Power supply	Format	AA Size (x2), Replaceable
	Technology	Li-SoCl2 Primary cells
	Voltage and capacity	3.6V, 2500 mAh
Battery life	Standard NAO profile (iBeacon)	5+ years (1s interval, + 3 dBM, 20°C)
	Apple iBeacon profile	1.5+ year (0.1s interval, -10 dBM, 20°C)
Advertising	Default advertising mode	Apple® iBeacon mode Serialized major/minor's (factory set)
	Default iBeacon UUID	504F4C45-5354-4152-0000-0[0...]00
	Advertising customization	Custom iBeacon UUID, Major, Minor. Custom static advertising frames.
	Additional data broadcast	Secured AD identifier (proprietary) Health monitoring data (proprietary) including remaining lifetime, system flags) RF Transmit power
RF performance	Range (typical)	100m+ (outdoors, free spaces) 25m (indoors), variable.
	Transmitted RF power	-27 dBm to +3 dBm max.
	RSSI readings	-51 dBm measured at 1meter [5]
Peripherals	Operating Light (LED)	Missing / Failing battery detection Hardware / Software issue detection Remote visual identification
	Temperature sensor	+/- 5°C
Environmental requirements	Temperature	-20°C / + 60°C [6]
	Humidity	0 to 99 %
	Flame resistance	V0 flammability class
	Protection	IP54 IP65 using the optional housing
Certifications	RoHS/REACH	Compliant
	European Certifications	EN301489-1/-17, EN300328, EN62479, EN60950-1.
	US Certifications	FCC Part 15, Subpart C (FCC ID: QOQBLE112) FCC Part 15, Subpart B, Class B
	Canada Certifications	ICES-003:2012 Issue 5, Class B

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[5] Measured as specified and described in the Apple iBeacon Proximity Beacon Specification – Release R1 (2015/09/04).
[6] Expected battery life should be reduced of about 30% when continuously operating at extreme temperatures.