

General specifications

- **Name:** Industrial Super-Beacon Metal-25kHz
- **Size:** 108x85x59mm
- **Weight:** - 223g
- **Power:** 12V, supplied via power connector
- **Radio frequency band:** 868/915MHz
- **Ports:** 4-pin power connector, 7-pin interfaces connector



Tracking performance

	IA	NIA	MF NIA
Stationary beacon	✓*	✓	✓
Automatic map building	✓	✓	✓
Mobile beacon	✓	✓	✓*

- **TX frequency:** 25kHz*
- **RX frequency:** Any of: 19, 25, 31, 37, 45kHz**
- **Distance measurement:** Up to 50m 1D
- **Coverage area:** Range of stable tracking of Industrial Super-Beacon + Industrial Super-Beacon is 20-50% bigger, than the range of Beacon HW v4.9 + Beacon HW v4.9 in the same conditions
- **Precision:** Differential: $\pm 2\text{cm}$, Absolute: 1–3% of the distance to the beacons
- **Additional sensors:** IMU - Accelerometer + gyroscope with up to 100Hz update rate

Interfaces

- UART
- SPI
- Virtual UART via USB
- NMEA

Supported Accessories

- Antenna Full-Size
- Battery-12V-5Ah-Outdoor
- Cable-USB-Industrial
- Converter-220V-12V-IP67

Overview

The Industrial Super-Beacon Metal-25kHz is a beacon for Marvelmind precise Indoor positioning and navigation system. It has a digital microphone which allows it to receive any frequency used in the Marvelmind system. Industrial Super-Beacon Metal-25kHz can be used in any Architecture, but first of all it was designed to work in NIA and MF NIA. If you want to get the same protection and performance in IA - choose Industrial Super-Beacon-Plastic. Has an IMU on board which allows users to get information from gyroscope and accelerometer.

The system is used for autonomous robots, vehicles, drones, and people as well as for industrial applications requiring precise positioning and localization indoors.

Applications

- Industrial (Forklift/people tracking, factory automation)
- Healthcare (locate assets, patients & staff)
- Retail (security, navigation, customer analytics)
- Consumer (connected home, sports analytics)
- Distance measurement indoors

*Industrial Super-Beacon Metal-25kHz can have only 25kHz metal sensors by design, it developed to work mostly in NIA and MF NIA. For IA - check our [Industrial Super-Beacon-Plastic](#)

**digital microphone can receive any of frequencies we use in Marvelmind products, it can be switched automatically (IA/MF NIA) or manually (NIA)