

THE KINEXON VEHICLE TAG 2.0

Precise real-time localization of transport vehicles.

The KINEXON Vehicle Tag is the robust and precise tracking solution for intra-logistics vehicles where a maximum of accuracy is required.

The KINEXON Vehicle Tag enables a precise, stable and global localization of transport and autonomous vehicles on the shop floor.

The Kinexon Vehicle Tag is ideal for use in industrial environments due to its resistance to mechanical shocks and waterproofness.

It offers industrial standard interfaces and works ideally with the KINEXON Real-Time IoT Platform (RIoT), the open IoT platform for real-time localization and analysis and the KINEXON Brain, the multimodal basis for effective navigation of autonomous transport vehicles.

USE CASES

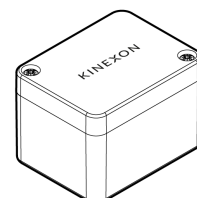
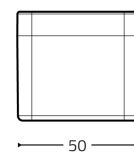
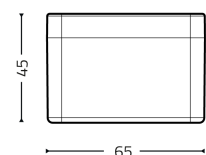
Vehicle Tracking:

- Precise & robust tracking of transport vehicles such as forklifts or tugger trains
- Standard interfaces for connecting external industrial sensors (e.g. height sensors for fork movements)
- Visualization of intralogistics routes in real-time

AGV Control:

- Accurate positioning down to the centimeter
- Suitable for different vehicle types and kinematics
- Integrated data communication: Transmit commands and localize a vehicle with one tag in one network
- Applicable to inhomogeneous fleets
- Integration of position data of manually controlled vehicles

DIMENSIONS IN [MM]



KEYFACTS

RF SPECIFICATIONS

Positioning Principle	Real Time Location System (RTLS), Radio-based, Ultra-Wideband (UWB)
Frequency range	UWB (IEEE 802.15.4a): 3 - 5 GHz, 6 - 7 GHz
Positioning update rate	0.01 - 200 Hz
Positioning data	3D (x, y, z)
Positioning accuracy	< 10 cm, MAE
Positioning precision	< 2 cm

INTERFACES & POWER SUPPLY

Data interface	Serial data interfaces (RS-232, RS-422, RS-485), CAN (ISO 11898)
Connectors	M8 [8-pin] male
Power supply	external (9 - 48 VDC, 1 W typ.)

PHYSICAL SPECIFICATIONS

Indicators	multicolor light indicator
Inertial Measurement	9-axis, +/- 16g, +/- 2000 °/s, up to 200 Hz and Magnetometer
Material	PC
Weight	77 g
Dimensions	77 x 45 x 50 mm (with the M8 connector)
Mounting options	M4 screws

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25 °C to +85 °C
Storage Temperature	-40 °C to +85 °C
Protection Class (cert. ongoing)	IP65
Regulatory Compliance (ongoing)	US: FCC Part 15 subpart F (15.519) – pending European Union: ETSI EN 302065-1 (HF) - pending ETSI EN 303883 (HF) - pending ETSI TS 103361 (HF) - pending Draft EN 301 489 - 1, -33 (EMC) - pending EN 61000-4-2, -4-3, (EMC) - pending EN 62479 (Human Exposure) - pending 1999/519/EC (Human Exposure) - pending