

KINEXON

USER MANUAL

KINEXON Receiver (Anchor)

Handheld Application

Version 1.7





KINEXON RECEIVER (ANCHOR)

The KINEXON Anchors are reference points for the tracking sensors that are positioned around a desired area. They send and receive signals from the sensors and transmit the information to the Edge server in real-time.

SPECIFICATIONS

Material	ABS+PC blend
Dimensions	130 x 130 x 45 mm
Weight	270 g (incl. antennas, without battery)
Power Supply	Battery
	PoE (48V, 6.5W)
	Cable/Side contacts (12-24 V, induces charging)
Battery Lifetime	5.0 hours (active, two channels)
	6.5 hours (active, one channel)
	15 days (sleep)
Charging	4 hours (100%), 2 hours (50%)
Temperature	-25 – 85 °C (no battery inserted)
Communication	2.4/5 GHz (Wifi)
	3.23738-6.81013 GHz (UWB)
	100Base-TX Ethernet

Please use only the following types of batteries (supplied by KINEXON). The respective temperature limits need to be respected:

Battery	Operational mode	Temperature range (A-08 with battery)
Keepower P1834J	Charging	0°C to +30°C
	Non-charging	-20°C to +50°C

RECEIVER MOUNTING

Generally, there are two possibilities concerning the environment in which the KINEXON receiver will be temporarily placed: Indoor or outdoor. The receiver can be powered on and off by pressing the power button. In indoor as well as outdoor environments, the receiver will be temporarily mounted on tripods.



REGULATORY AND LEGAL INFORMATION

The KINEXON Receiver has been designed to be in compliance with both the U.S. FCC Part 15 subpart F regulations, sections 15.519 and 15.521 and with the European Union ETSI EN 302 065 standards. Two different versions of the KINEXON Receiver are available, one version supports the FCC emissions mask (Region 1) and the second supports the ETSI standard mask (Region 2).

DISCLAIMER

The information in this document is subject to change without notice. KINEXON GmbH assumes no responsibility for inaccuracies or omissions and specifically disclaims any liabilities, losses, or risks, personal or otherwise, incurred as a consequence, directly or indirectly, of the use or application of any of the contents of this document. For the latest documentation, contact KINEXON GmbH.

INTENDED USE

This manual describes the setup and use of the KINEXON Receiver. Use this product only for the purpose it was designed for.

OPERATIONAL MODES

This product has two operational modes, non-charging and charging. Most functions (especially affecting localization) are available in both modes. Please respect the different allowed temperature ranges.

With no battery inserted, the device is always “non-charging” mode. This holds regardless if powered by coaxial power plug, side contacts or PoE (Power over Ethernet).

If the device has a battery inserted: The device is in “non-charging” mode if coaxial power plug and side contacts are unused. Connecting a supply to the coaxial power plug or the side contacts will put the device in “charging” mode. Connecting Ethernet or PoE (Power over Ethernet) does not affect the operational mode.

ANTENNA SELECTION

The KINEXON anchor has been approved by the FCC under FCC ID: 2ALC5-KNX-HREC2 to operate with the antenna types listed below with the maximum permissible gain for each antenna type indicated. Antenna types not included in this list or having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

CERTIFIED ANTENNA TYPES

Antenna	Gain
Omni	4,15 dBi
Directional	9 dBi

The KINEXON anchor comes preconfigured with the correct firmware for the antenna it has been shipped with which sets the appropriate output power and channel selection for that antenna. It is not possible to change that firmware configuration by the user. Exchanging the antenna to one with a higher gain is not permitted.

FCC COMPLIANCE

This device complies with 47 CFR Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device may not be employed for the operation of toys. Operation onboard an aircraft, a ship or a satellite is prohibited.

The use of this device mounted on outdoor structures, e.g., on the outside of a building or on a telephone pole, or any fixed outdoors infrastructure is prohibited.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

IMPORTANT NOTICE

This equipment may only be operated as a handheld device. Operation with fixed outdoor antennas is prohibited and could subject the operator to serious legal penalties.

At any time, a minimum separation of 7 cm must be maintained from the operating device and any person or persons.

The KINEXON Receiver will only operate (i.e. transmit UWB signals) when activated within a KINEXON network. The operator must be able to exercise control of the device at all times.

RF EXPOSURE NOTICE

This device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves adopted by the FCC. These limits include a substantial safety margin design to assure the safety of all persons, regardless of age and health. The radio wave exposure guidelines use a unit of measurement known as the Specific Absorption Rate, or SAR. SAR levels have been computed for the transmitters in this device and have been found to be below FCC limits.

SAFETY INFORMATION

- The device is intended to be supplied from a Limited Power Source (LPS) whose power consumption should not exceed 40 VA and current rating of overcurrent protective device should not exceed 2.5 A.
 - Read and follow all instructions before using the KINEXON Receiver.
 - Never open the case of the KINEXON Receiver except for the battery compartment and the cable compartment. There are no user serviceable parts or replaceable parts inside the case.
 - Do not use the KINEXON Receiver if it has been damaged.
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