



THE KINEXON ANCHOR

Reference infrastructure for real-time locating and IoT data transmission gateway.

The KINEXON Anchors are the reference points for all KINEXON tags deployed at the facility.

They send and receive signals to/from the sensors and transmit the information to the edge server in real time.

The KINEXON Anchors are part of the KINEXON Sensor Network. For a reliable tracking, a distance of 20-50 meters from anchor to anchor is required. A higher density of anchors renders more robust positioning results.

There are different possibilities how the KINEXON Anchors can be connected to a power supply: connection to network and edge server via Power over Ethernet (PoE), DC power supply or internal battery.

ANCHOR DEPLOYMENT

- Depending on accuracy requirements and characteristics of the facility

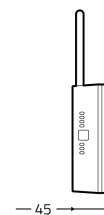
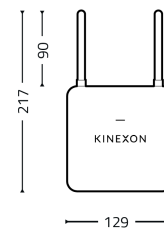


Typical anchor deployment every 20-50 m



Increased anchor density in non-Line-of-Sight conditions required

DIMENSIONS IN [mm]



KEYFACTS

RF SPECIFICATIONS

Positioning Principle	Real Time Location System (RTLS), Radio-based, Ultra-Wideband (UWB)
Positioning Methods	Two-Way Ranging, Time Difference of Arrival (TDoA), Angle of Arrival (AoA)
Frequency range	UWB (IEEE 802.15.4a): 3 - 5 GHz, 6 - 7 GHz Wi-Fi (IEEE 802.11 ac/g/n): 2.4 GHz and 5 GHz Bluetooth/BLE (4.2/5.0): 2.4 GHz

INTERFACES & POWER SUPPLY

Data interface	Ethernet (IEEE 802.3, 100BASE-T), Wi-Fi
Power supply PoE	PoE (IEEE 802.3af Class 2: 48 V, 6.49 W) RJ45 (Ethernet & PoE)
Power supply DC	External, no battery (12 - 24 VDC, 6.0 W) External, with battery charging (12 - 24 VDC, 12.0 W) Barrel jack (2.1/5.5 mm diameter)
Battery power	Internal battery (Li-Polymer 18650, 1S1P, 3400 mAh) (optional) Battery lifetime: 4 hours Side contacts for battery charging cradle

PHYSICAL SPECIFICATIONS

Button	On and Off
Indicators	Front LED, system activity indication side LEDs
Material	ABS-PC blend
Weight	270-290 g (depending on the configuration)
Dimensions	140 x 129 x 45 mm (without antennas)
Mounting options	Tripod, pipe clip, wall-mounted

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25 °C to + 85 °C without battery 0 °C to + 30 °C incl. battery (charging)
Storage Temperature	-25 °C to +85 °C without battery
Protection Class (cert. ongoing)	IP65
Regulatory Compliance	US: FCC Part 15 subpart F 15.517 (for indoor use only) 15.519 (for outdoor use only) European Union: ETSI EN 302065-1 (HF) ETSI EN 303883 (HF) ETSI TS 103361 (HF) Draft EN 301 489 -1, -17, -33 (EMC) EN 55032 Class B (EMC) EN 61000 -3-2, -3-3, -4-2, -4-4, --4-5, -4-6, -4-11 (EMC) EN 62311 (Human Exposure) 1999/519/EC (Human Exposure)