Low Cost Tracker Plus

As an affordable all-rounder, the LCT Plus is not only varied in its application, but is also perfectly suited for tracking a large number of different objects (boxes, containers, pallets etc.) in demanding environments thanks to its extremely robust housing. The combination of different localization technologies (mobile radio as well as identification of WLAN networks) makes it possible to determine positions both indoors and outdoors. In addition to position determination, many other parameters can be recorded and monitored with the built-in sensors, such as temperature, magnetic fields and motion states.

Technical features
· Housing: IP 68, waterproof, shockproof
· Replaceable battery
· Connectivity within the EU given
· Plug & play solution; autarkic function
· Low costs (all-in-one package possible: device, portal, connectivity and service)

Technical features
· Positioning accuracy: 50m in WLAN networks; in radio networks according to radio cell size
· Motion detection; free fall detection; position monitoring; operating hours counter
· Log function for up to 100 data records
· 5,000 transmissions (GSM); 12,000 (NB-IoT)

Especially suitable for

· Forwarders,
· Logistics provider
· Food industry
· Pharmaceutical sector
· Mechanical engineering
· Construction industry
· Facility management

Your benefits

· **More transparency:** timely information about transport and movement processes as well as estimated arrival times
· **More security:** theft monitoring via geofences with alarm message possible
· **Simple implementation:** Plug & Play solution without intervention in the IT structure
· **Creation of added values:** additional information such as motion start and end of motion, recording of operating times and temperature, identification of magnetic fields
· **Cost transparency:** one-time acquisition costs over the full useful life, including costs for portal, connectivity and service

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Technical data

Localization:
· Mobile radio (2G and NB-IoT)
· WLAN-scanning (radio protocol 802.11)
  frequency = 2.4 GHz
· Advertising (radio protocol 802.15.1)
  frequency = 2.4 GHz

Radio module:
· Supports LTE bands NB1 and GSM
· Integrated antenna

CPU:
· ARM® 32-bit Cortex®-M0 CPU
· Storage: up to 100 data records can be
  stored
· Firmware update over the air (FOTA)

Sensor technology:
· Digital 3-axis accelerometer for motion
  detection
· Integrated temperature sensor
· Digital 3-axis magnetic sensor

Temperature range:
· Can be used at ambient temperatures from
  -20°C to +60°C

Housing characteristics
· Material: Acrylic ester-styrene-acrylonitrile
  (ASA)
· Dimensions: 171 mm / 69 mm / 39 mm
· Degree of protection: IP68
· Total weight: 250 g
· Installation options: screwing, bonding,
  riveting

Battery
· Lithium iron disulphide (Li FeS2)
  4.5 V / 5800 mAh
· Changeable

Runtime examples
The expected battery life depends on the
number of daily position reports, the ambient
temperature and the transmission and
reception conditions. With good transmission
and reception conditions and an ambient
temperature of 20°C, the following runtimes
can be achieved:

· GSM network: Typically 5,000 messages with
  2 messages per day (approx. 6 years)
· NB-IoT: Typically 12,000 messages with 5
  messages per day (approx. 6 years)