



5G SENS

Powerful Tracking & Monitoring Solution

Tracking of assets and their conditions with a compact flat device

Whether you work in manufacturing, security, health or logistics and have valuable mobile assets such as machinery, pallets, containers or even electric vehicles, it is essential to track & monitor them in order to reduce loss. Optimize your costs and increase your efficiency while gaining peace of mind that your freight is safe and secure during its journey.

Sensors



- Up to six sensors on board
 - Outdoor Location
 - Indoor Location via BLE
 - Temperature
 - Humidity
 - Air Pressure
 - 6D-Acceleration
 - Light
- External sensors can be connected via Bluetooth Low Energy (BLE)

Long Battery Lifetime

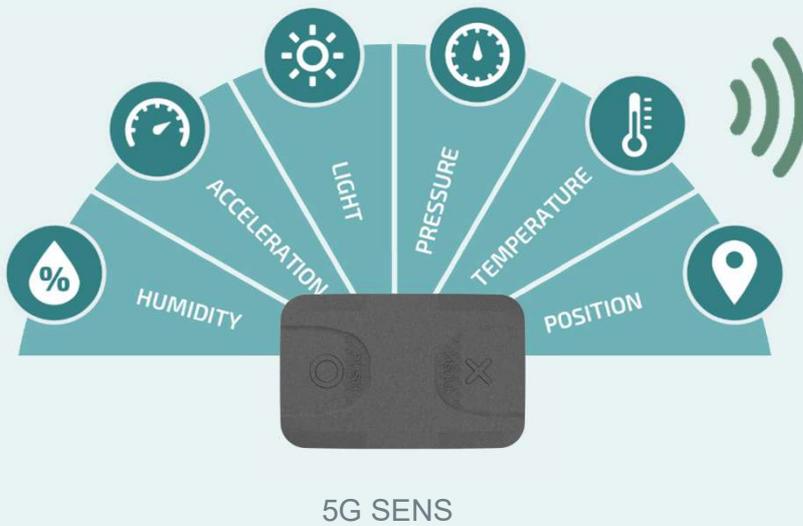


- Two power supplies options
 - Rechargeable battery
 - 3AA Primary batteries
- Low Power wireless technology
- Appr. 2000 position messages (per battery capacity)
- Up to 5 years of operation

Flexibility



- Various parameter can be adapted
 - Time between periodic messages
 - Time between motion triggered messages
 - Daily tracking schedule
- Remote device management service
 - Parameter Update
 - Firmware update
 - Battery monitoring
 - Coverage monitoring



Cloud Backend



Clip Holder*



USB-C Charger

Connectivity:

3GPP Release 14 LTE Cat NB2
 3GPP Release 13 LTE Cat M1
 Bands: B3/B8/B20
 GPRS Bands: 900/1800MHz
 SIM-Card: 3FF (Micro SIM)



Location Services

GNSS (GPS, Galileo)
 QuecLocator* (positioning via cellular base stations)
 Quappa Support (BLE indoor Tracking)

Local Connectivity:

Bluetooth Low Energy Rx
 Bluetooth Low Energy Rx/TX



Chipset

Qualcomm MDM9205

Data Transfer Protocols

TCP/ SSL/ TLS/ HTTPS

Security Features

Protected device memory
 Secure communication via transport level security (TLS)
 Device authentication via ECDSA signatures

Certifications

CE-RED, GCF, Vodafone
 RoHS, REACH, WEEE
 Battery: EC 62368-1, UN38.3, 2006/66/EC, UL1642,
 IEC62133 -2, IEC 62321-4, IEC 62321-5

Sensors

Acceleration & Gyrosensor: 6 – axis
 Temperature: -10 °C ... 70 °C ± 1 °C
 Humidity: 5% - 95% RH ± 5%
 Barometer: 260 to 1260 hPa ± 1 hPa
 Real-Time Clock: max. 20ppm at 25°C
 Light sensor: approx. 0,2 Lux and above

Interfaces

4 I/O Ports (via USB-C)

Indicator/Buttons

3 LEDs
 2 Buttons

Electrical data

Power Supply via USB-C
 Rechargeable LiPo battery 3.7V, 2.750 mAh
 Primary Cells: 3AA ENERGIZER L91 batteries

Housing:

Housing: IP40
 Dimension:
 • 90x58x25 mm 120g (with LiPo battery)
 • 90x58x34 mm 130g (with 3 AA-Type battery)

Environmental Conditions

Min/Max. Temperature:
 • Rechargeable -10 °C to +55 °C
 • 3AA Battery -40° C to +60 °C
 (with ENERGIZER L91 batteries)

Online resources:

<https://www.exelonix.com/produkte/5g-sens-plattform>

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