OPTION

CloudGate

NB-IOT SPOT-ON PARKING SENSOR

- On-surface parking sensor to detect the presence of vehicles above the sensor.
- Compass sensor and radar sensor assure reliable operation with long autonomy.
- Low power NB-IoT communication to data backend.
- Open API allows to make link to Cloud Platform of preference and to connect parking sensor data to Smart City actuators like for example Street lights or EV-charging stations.
- Over-the-air changes of settings.
- Integrated NFC connection to allow local control and configuration.
- Battery lifetime minimum 3 years.

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Operation

After mounting, the sensor is activiated via NFC technology reader. The built-in compass sensor will continuously detect changes in the magnetic field that are caused by the movement of metal vehicles.

Next, the built-in radar sensor will detect if an object is positioned above the parking sensor. This sensor sequence will assure the most optimal use of the battery while maintaining a high level of accuracy. The battery level is periodically monitored and sent to the backend server at a configurable interval.

Use case scenarios

The sensor can:

- Detect when parking spots for electric vehicle charging are used by vehicles that are not using the EV charging infrastructure.

- Guide vehicles to the available parking spaces.

- Monitor the occupation of short-term parking spaces to detect parking duration violations., but it can also be used to detect e.g. a boat on a jetty.

Technical Specifications		
Physical information	Dimension	• 150 mm diameter x 25 mm
	Colour	• Black
	Mounting	• 4 mounting holes
Electrical information	Battery	• Triple-pack AA size LiSOCl23.6V - 8100 mAh
	Autonomy	Minimum 3 years when • Max 50 in/out movements per day • Good NB-IoT signal conditions (MCS6/SC1 or better)
Technology information	Cellular modem	NB-IoT • EU bands: B3/B8/B20 • International coverage (on demand): B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/B19/B20/B25/B28/B66/B70/B85
	Magnetic sensor	• Earth magnetic field (high-accuracy, 3-axis digital output magnetometer)
	Pulsed Coherent Radar	• 60 GHz
	Integrated NFC tag	
	Integrated PCB antenna	
Environmental information	Operating temperature	• - 30°C to 50°C
	Humidity	• 20% to 90% relative humidity (non-condensing)
	IP class	• IP67
Certification	CE Radio Equipment Directive (RED)	2014/53/EU, RoHS/REACH, WEEE
Commercial information	Article number	NB-IoT SE0203-12239

DISCLAIMER
All product specifications are subject to change without notice.