SPS-X - Wireless Smart Parking Sensor

POWERFUL PARKING PERFORMANCE DATA

Accurate, Real-Time Stall Occupancy Monitoring, Usage Data Collection, Actionable Analytics

True smart parking starts at the stall and eleven-x's patented, award-winning wireless SPS-X™ sensor accurately detects and monitors stall occupancy in real-time and provides data and actionable insights that enables evidence-driven planning and programs.

The SPS-X smart parking sensor is an innovative LoRaWAN®-based device that utilizes multiple technologies including magnetic sensing, radar, Bluetooth and AI that provides:

- Real-time stall occupancy status and monitoring
- 99.7% accuracy based on multiple sensing technologies backed by advanced AI
- Ultra-long battery life
- Maximum reliability and robustness
- Enabling of a variety of key analytics and insights
- Cost-effective sensor

Industry-Leading Battery Life and Sensor Accuracy

With a 10-year battery life at 30 car changes per day, the SPS-X easily outlasts all other parking sensors on the market. This is made possible using large, high-capacity lithium thionyl chloride batteries, which are known for their durability and low discharge rate. On top of this, the SPS-X boasts a 99.7% accuracy rate based on 40,000 manually audited occupancy checks.

Thinking of deploying in harsh outdoor environments? No problem, as the only fully embedded subsurface parking sensor currently available, the SPS-X utilizes multiple technologies to maintain its industry leading accuracy and reliability even in harsh weather conditions. It also filters out negative influencers such as buried metal, electromagnetic interference and other factors for the most reliable and accurate stall monitoring available today.

The SPS-X comes with an easy-to-use web app that enables easy deployment, sensor calibration and insights, making installation and daily management stress-free. Add additional sensors at any time in minutes. The eleven-x phone app is available for download on Google Play.

Two Designs, Same Great Tech

SPS-X Technical Advantages:

- Ultra-long battery life (think up to 10 years, not 3)
- Replaceable Battery – for the surface - mount version only
- Industry-leading accuracy – 99.7%
- Unsurpassed reliability
- Multi vehicle type sensing capabilities (including cars, motorcycles, transport trucks)
- Based on low power LoRaWAN® technology for always on detection and power saving communications
- Near-zero maintenance
- Easy sensor management
- Simple installation process
- Easy integration with other technologies
- Low profile design

FOR MORE INFORMATION: web: www.eleven-x.com | email: collaborate@eleven-x.com

SPECIFICATIONS – Subsurface Sensor

Communications

Communication Protocols	LoRaWAN® 1.02 | BLE (Bluetooth Low Energy)
Device Class	Class A
Frequency	North American Standard: 902-928 MHz AS923, AU915, EU868
Transmit Power	Up to 20dBm

Mechanical

Enclosure	Ruggedized enclosure
Antenna	Internal
Ingress Rating	Better than IP67 – waterproof | dustproof
Mounting	Indoor or outdoor, above or below ground
Weight	576g

Security

AES-128 encryption (end-to-end)

Provisioning

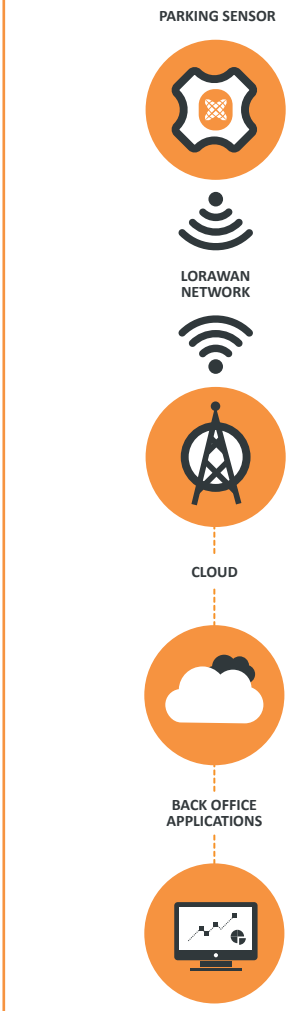
Secured key injection and key exchange
Key management with join server
Infield or back office secure provisioning
Smartphone app for rapid provisioning

Environments

Operating Temperature	-40°C to +85°C
Battery Life	Up to 10 years
Battery Parameters	3.6V, 19,000mAh
Humidity	0% - 98%

Provisioning

FCC Part 15.24
ISED RSS-247
ETSI EN 300 220
ETSI EN 300 489
IEC 62368-1



Subsurface Sensor

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SPECIFICATIONS – Surface Mount Sensor

Communications

Communication Protocols	LoRaWAN® 1.02 | BLE (Bluetooth Low Energy
Device Class	Class A
Frequency	North American Standard: 902-928 MHz AS923
Transmit Power	Up to 20dBm

Mechanical

Enclosure	Ruggedized enclosure
Antenna	Internal
Ingress Rating	Better than IP67 – waterproof | dustproof
Mounting	Indoor or outdoor
Weight	575g
Load Rating	37,000 lbs. / 16.8 tonnes (metric tons)

Security

AES-128 encryption (end-to-end)

Provisioning

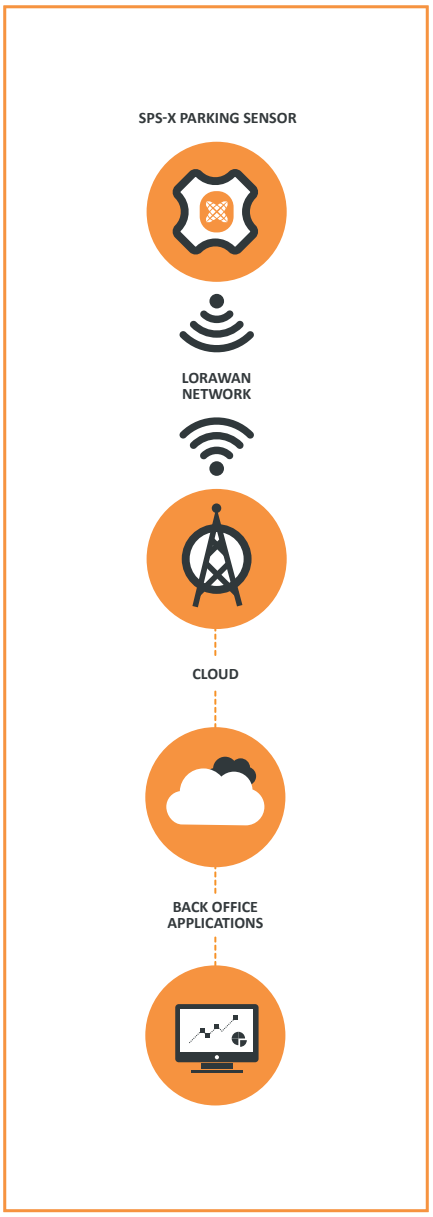
Secured key injection and key exchange
Key management with join server
Infield or back office secure provisioning
Smartphone app for rapid provisioning

Environments

Operating Temperature	-40°C to +85°C
Battery Life	Up to 10 years
Battery Parameters	5x3600 mAh batteries or 17500 mAh replaceable batteries
Humidity	0% - 98%

Provisioning

FCC Part 15
ISED RSS-247



Surface Mount Sensor

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