



Ultra-Short Range Radar Sensor

Seat Occupancy Radar Sensor

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Product Overview

SAYKAL Ultra-Short Range Radar Sensor is suitable for automotive applications, especially for Occupancy Detection on the seats. The Seat Occupancy radar sensor operates in the millimeter wave frequency band, effectively detecting living objects on the seat. Unlike capacitive weight-measuring occupancy pads, it distinguishes between living and inanimate objects, reducing false alarms from non-human objects placed on the seat.



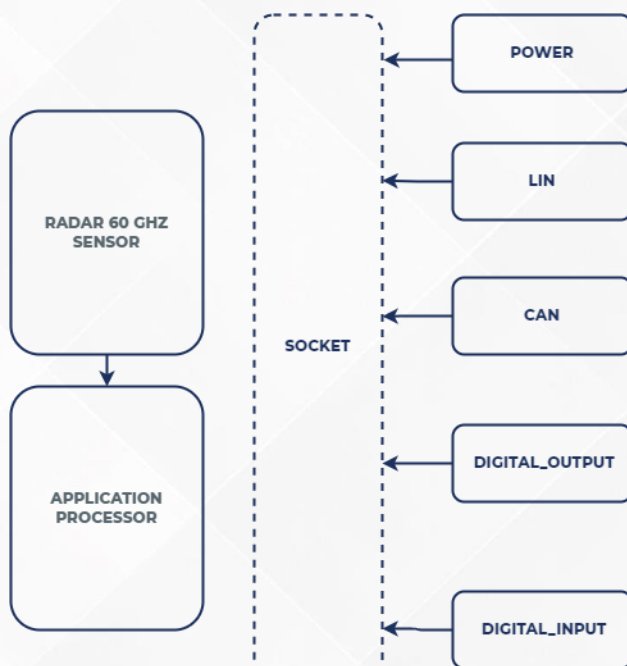
Applications

- Automotive Seat Occupancy Sensor

Hardware Features

- 3.3V – 38V DC Input
- Automotive Reverse Polarity Protection
- LIN or CAN
- 1 x Digital Output with OCP
- 1 x Digital Input

Functional Block Diagram



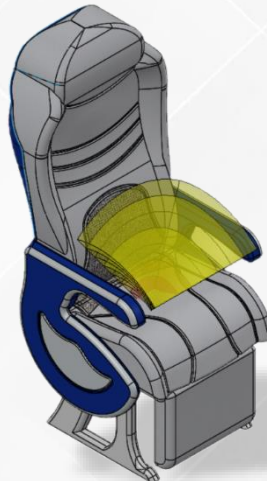
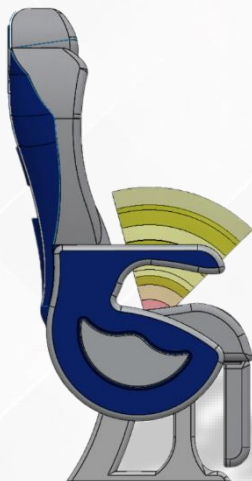
Software Features

- High Precision
- Dynamic/Static object detection
- Configurable FoV up to 60°
- Configurable sensor position and tilt
- Configurable sensing distance
- Configurable sensitivity
- Using machine learning algorithms to classification of the objects

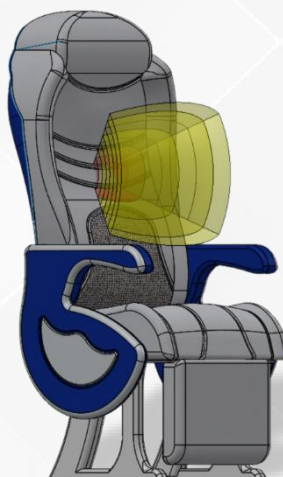
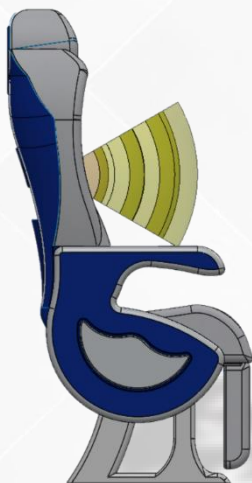


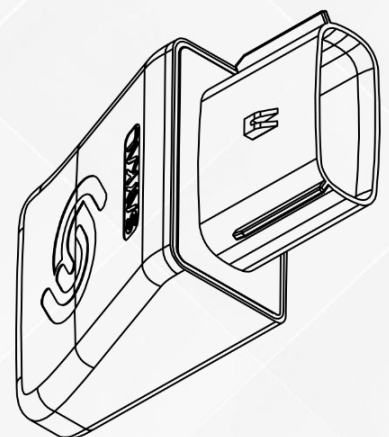
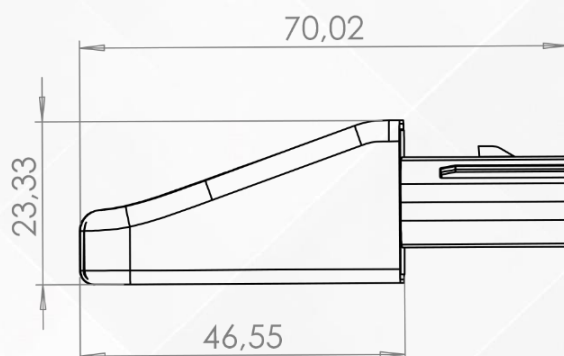
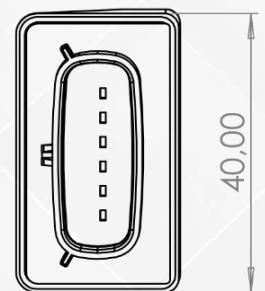
Application Example on Seat

- Can be easily mounted under the seat.



- Can be easily mounted behind the seat.





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