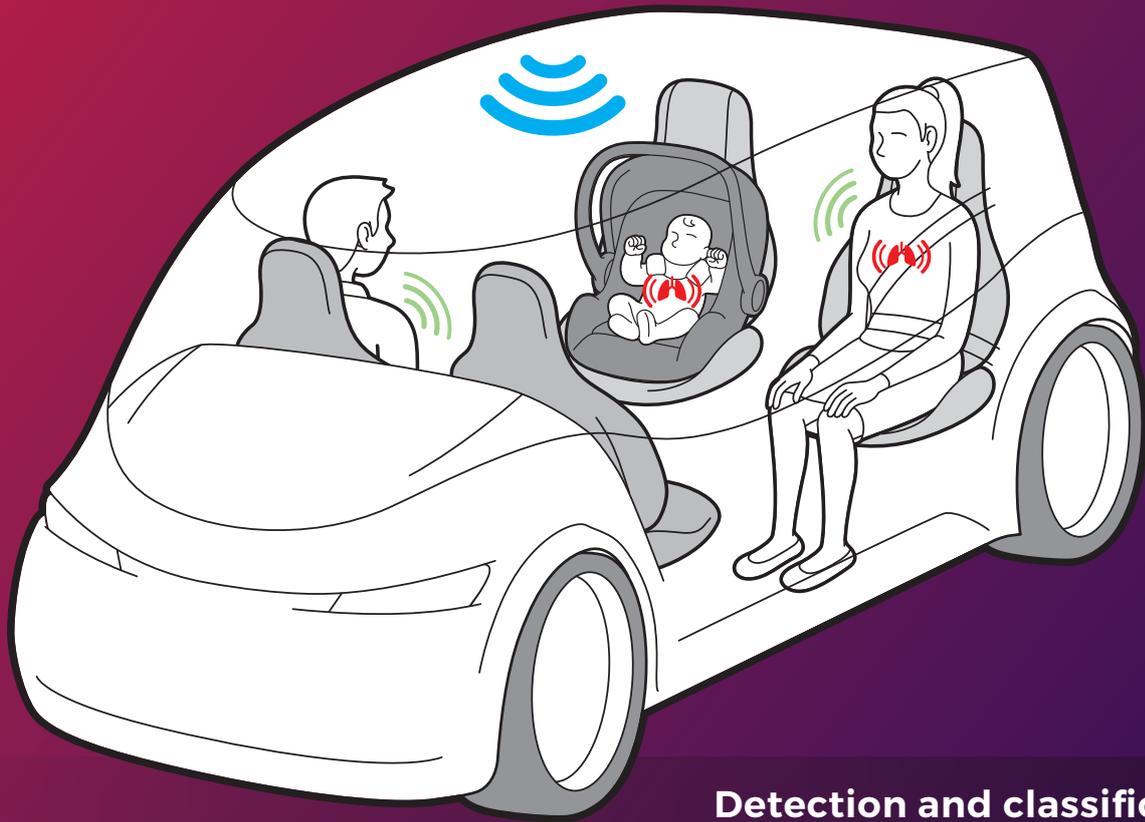# NOVELIC | SENSE LIFE
MAKE VEHICLES SAFER

AUTOMOTIVE IN-CABIN MONITORING
COVERING MANDATORY EURO NCAP SAFETY FEATURES

Detection and classification of living beings in an automotive cabin

Patented mm-Wave RADAR sensor for car interior monitoring, ready for automotive industrialization or aftermarket applications. The same solution can be applied in other means of transport such as trains, busses, or airplanes.

Child Presence Detection

Seatbelt Reminder

Classification

Respiration Monitoring

NOVELIC

KEY FEATURES

- All-in-one sensor for cabin monitoring
- Modular set of applications -> OEM's choice
- Different mounting positions possible
- CAN or LIN interface options

- Real-time detection
- Embedded ECU software -> no need for external processing
- AUTOSAR-compliant module
- 60GHz Frequency Band
- Ultra-low-power mode when idle

SENSOR PARAMETERS

Frequency Range:	60 – 64 GHz
Supply Voltage:	5V – 24V
Current Consumption:	Active <120 mA; Idle <60 mA; Sleep <100 µA
Operating Temperature:	-40˚C to +85˚C
Communication:	CAN-HS / CAN-FD
Mating Connector:	Molex 505565-0401 (other options available)
Dimensions:	B-Sample: 71mm x 40mm x 9mm │ Product: smaller than B-Sample
Weight:	30g

ADVANTAGES OF mm-WAVE RADAR SENSORS

SENSITIVITY

mmWave radar sensor can monitor the slightest micro-vibrations of a person anywhere in a cabin and detect both respiration and life. It distinguishes humans from objects on seats and thus avoids false occupancy indication when a bag is on the seat.

SEAMLESS INTEGRATION

Small size combined with the capability to easily integrate the sensor behind headliner, close to interior lighting on the roof or B-pillar.

FULLY-CUSTOMIZABLE MOUNTING

mmWave radar sensors can be customized to fit specific vehicle position and operational demands and accommodate specific contactless gesture control commands as well.

RELIABILITY & PERFORMANCE

Better performance compared to ultrasound and vision sensors. Detects life even in the footwell zone - wide field of view ensures full interior coverage. Passenger classification provides intelligent airbag deployment control.

ROBUSTNESS

Radar sensors operate reliably in all lighting conditions (darkness, bright light, and sun glare). Negligible impact of thick clothes/blankets/or any other obstructions on the detection of human life.

PROTECTS PRIVACY

Continuous monitoring of the vehicle's interior without breaching privacy.