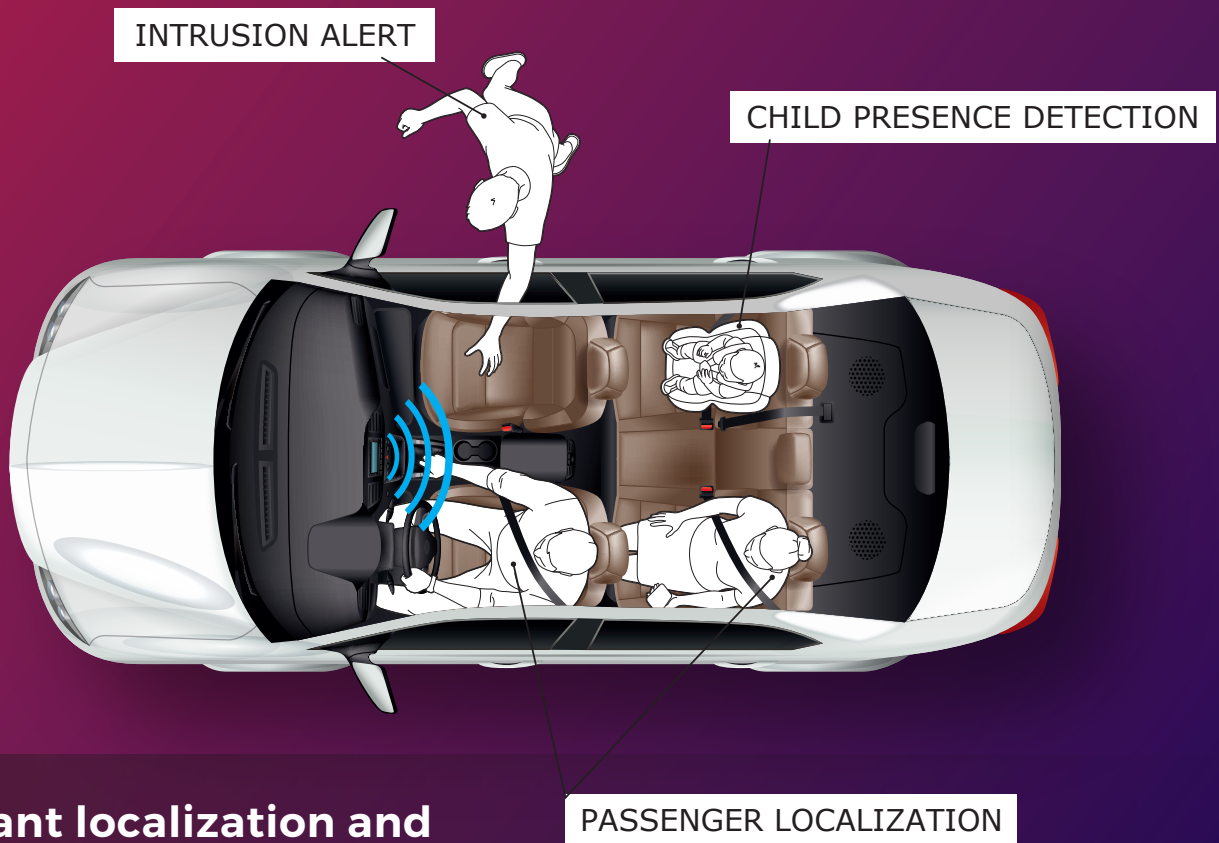


RADAR SOLUTION OF CHOICE FOR IN-CABIN MONITORING

COMPLIANT WITH EURO NCAP CPD 2025



Occupant localization and classification

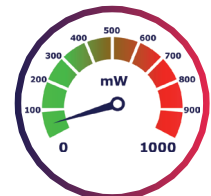
CPD ACCURACY



MAX CPD DETECTION TIME



LOW POWER CONSUMPTION



KEY SYSTEM FEATURES

- Full cabin coverage for all vehicle types
- A modular set of use cases -> OEM's choice
- Various mounting positions available
- Processing via radar module or vehicle computing unit
- Minimal memory consumption per use case
- Optimized duty cycling for low-power modes

SENSOR PLATFORM PARAMETERS

| | |
|------------------------|--|
| Technology: | 60-GHz FMCW |
| Interface: | CAN FD for embedded processing Ethernet for vehicle computing unit processing |
| Power consumption: | Child and occupant detection: <1 W Intrusion: <70 mW |
| Operating temperature: | Automotive grade |

ADVANTAGES OF mmWAVE RADAR SENSORS

SENSITIVITY

mmWave radar sensor can monitor the slightest micro-vibrations of a person anywhere in a cabin and distinguish humans from objects on seats.

SEAMLESS INTEGRATION

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

RELIABILITY & PERFORMANCE

Detects life even in the footwell zone - a wide field of view ensures full interior coverage.

FULLY CUSTOMIZABLE MOUNTING

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

ROBUSTNESS

Radar sensors operate reliably in all lighting conditions. Negligible impact of thick clothes/blankets on the detection of human life.

PRIVACY PROTECTION

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

Comparison of different in-cabin sensor technologies

| | 60 GHz FMCW Radar | UWB Radar | Camera | Ultrasonic |
|---|-------------------|-----------|--------|------------|
| Spatial resolution with a single sensor | ✓ | ✗ | ✗ | ✗ |
| Privacy protection | ✓ | ✓ | ✗ | ✓ |
| Non-line-of-sight sensing | ✓ | ✓ | ✗ | ✗ |
| Robustness (lighting, vibrations) | ✓ | ✓ | ✗ | ✗ |
| Micromotion resolution to detect vital signs, gestures, and living being behavior | ✓ | ✓ | ✗ | ✗ |