

DOLPHIN CONNECT IN-CABIN RADAR

Dolphin Connect iCAR employs a single-chip radar to cover the automotive cabin. Thanks to its agile design, this contactless sensor enables several functionalities, including vital sign monitoring, presence detection, occupancy localization, and intrusion alarms. These functionalities are available through novel and state-of-the-art processing methods. The system can be used for child presence detection (CPD) to avoid leaving babies unattended in cars. Monitoring the driver's respiratory rate can be used for health monitoring and integrated with Driver Monitoring Systems (DMS) for better safety. The presence detection identifies both humans & pets in the cabin. Furthermore, localization of the occupant provides seat occupancy information for occupant monitoring systems (OMS), and, for example, can be used for optimized airbag deployment.



DEVICE FEATURES:

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|  | Covers the entire cabin with one sensor |  | Single sensor with multiple functionalities |
|  | Ultra high-resolution |  | Several mounting positions |
|  | Ensures privacy for driver and passengers |  | Reliable operation and robustness in varying lighting conditions |
|  | Low power consumption | | |

TECHNICAL SPECIFICATIONS

Technology	60GHz FMCW single-chip radar
Interface	CAN-FD, RS-232, Bluetooth
Power	Less than 1 Watt (the exact value depends on the working mode)
Operating Conditions	Compliant with automotive in-cabin use, for example, temperature range -40 to 100 degrees Celsius

Features	60 GHz Radar	PIR	Ultra-Sonic	Laser
Micro motion	Best	Impossible	Good	Impossible
Dynamic distance configuration	Best	Impossible	Impossible	Impossible
Accuracy sensitivity	Best	Weak	Good	Good
Suitability for indoor (Wall penetration)	Best	Weak	Weak	Weak
Resistance to moisture, dirt and temperature	Best	Weak	Weak	Weak
Size of solution	Best	Best	Best	Weak
Cost of solution	Good	Best	Best	Weak
Key	Best	Good	Weak	Impossible