bitsensing

Design Future Safety

OUR SOLUTION

multi identification no image
mini Radar

CONTACT FREE

PRIVACY FREE

MULTI-FUNCTIONAL

SMALL

KEY FEATURES

- Presence Detection
- Fall Detection
- **Vital Sign Detection**
  Heart Beats & Breathing
- Movement
  Detection & Tracking
- Gesture Control
- Facial Recognition
- People Counting
- Imaging Radar

SMART HOME/BUILDING AUTOMATION

Home automation
Gesture control
Emergency rescue

Precise object & people identification, gesture, movement, vital sign recognition

APPLICATION

AUTOMATION

Reliable sensing of unexpressed intentions such as nap or sleep for efficient control of light or HVAC system

GESTURE CONTROL

Gesture based sensing for expressed intentions for safer and more efficient home automation

SAFETY & RESCUE

Identify and protect against abnormal activities, fall, fire, earthquake, break-in in any rooms including bathroom

DIGITAL HEALTHCARE

Remote medical diagnosis
Elderly monitor
baby monitor
Sleep quality monitor

Precise & sophisticated algorithms for breathing, heartbeat & movement

APPLICATION

TELEHEALTH

Remote detection of patient' vital signs & movements for remote diagnosis

ELDERLY MONITOR

Non-contact monitoring system for elderly without invading their privacy for better quality of life, better control of people in need such as dementia

BABY MONITOR

Safer and reliable child monitor for presence, movement, position and vital signs at home, hospital or inside a car

SLEEP MONITOR

Sleep stage classification and quality assessment

INSIDE CAR

Child protection system
Driver monitor system
Gesture based Infotainment

Automotive quality high resolution radar for driver and passenger safety & comfort

APPLICATION

CHILD PROTECTION

Reliable presence detection system for effective rear occupant alert (ROA) for automakers to earn 5-star safety standard set by Euro NCAP from 2022.

DRIVER MONITOR

Position, vital sign information for effective driver monitoring system (DMS) for safer driving

GESTURE BASED INFOTAINMENT

Safer and more convenient driving experience whilst keeping the driver’s eyes on the road

VISION

Business model

B2C → **Homes**
(Smart home & digital healthcare)

B2B

- **Health Care** → **Hospital & Care home**, **New-born Baby Care Center**
- **Insurance** — *Liaison*
- **Automotive** → **Car Manufacturers**, **Tier 1, 2**
  Reliable in-Cabin sensing

Specification

Hardware	Size	60 x 60 x 20mm (inc. housing)
	Weight	Below 100g
Sensor	Center Frequency	60GHz
	Bandwidth	5GHz
	Range	0.1~5m (Industry), 0.1~2.5m (Automotive)
	Field of View	Azimuth: 120deg / Elevation: 120deg
	Range resolution	0.03m
	Range accuracy	±0.03m
	Angle accuracy	±1deg@0deg, ±5deg@±60deg
Communication	External interface	Wifi
Power	DC	5~12V

Future for radar

- Imaging radar
- Vital sign
- Gesture
- Face recognition

Team

LG

Mando

unity

ETRI
Electronics and Telecommunications Research Institute

VERI LUX MEA

POSTECH

Morgan Stanley

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