NOVELIC

SENSE | PROTECT | SECURE

HUMAN IN ZONE DETECTION SENSOR

Outstanding detection performance in harsh industrial environments

mm-wave radar short-range area monitoring

THE FIRST CHOICE FOR TOUGH ENVIRONMENTS

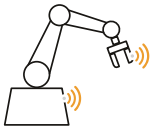**HUMIDITY**   **OIL AND DIRT**   **EXTREME TEMPERATURES**   **LIGHT INTERFERENCE**   **FOG AND DUST**

APPLICATIONS

Robotics	Safety Zones	Autonomous Vehicles	Security Systems	Gates, Barriers, Doors
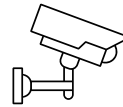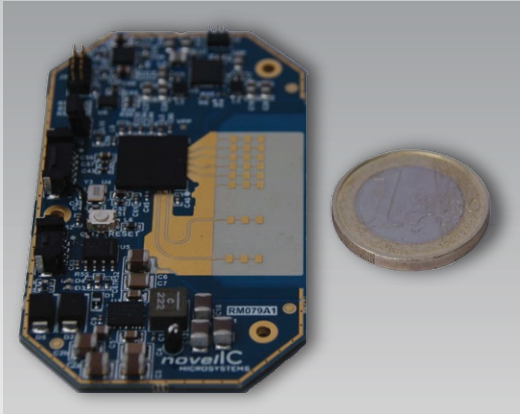
mmWave Zone Detection Radar

KEY FEATURES
- Volumetric detection
- Exact position of people and objects
- Filtering out non-living stationary objects
- Precisely definable area of interest
- Reliable performance in dust, fog & dirt
- Fully temperature independent
- Protecting privacy
- Maintenance free, easy installation

DETECTION CAPABILITIES

- ○ Human Presence
- ○ Human Tracking
- ○ Trajectory
- ○ Distance
- ○ Acceleration
- ○ Angle
- ○ Velocity

APPLICATION PARAMETERS			
	min	typ	max
Field of View		120°	
Detection distance	0.20m		8m
Position accuracy		0.1m	
Detectable object speed	0.01m/s		20m/s
Operating temperature	-40°C		125°C
Supply Voltage		12/48V	

Interfaces: CAN, UART, Bluetooth, WiFi

Advantages of mmWave Radar Sensors

VOLUMETRIC DETECTION
mmWave radar sensors have larger volumetric detection area in comparison to 2D laser sensors

FILTERING OUT STATIONARY OBJECTS
Radar sensor can detect humans in zones with a number of objects, even metal ones, such as machines.

TEMPERATURE INDEPENDENT
Radar sensor transmits radio waves for the detection of objects. This technology is fully independent of ambient temperatures and object temperatures.

SENSITIVITY
mmWave radar sensors are sensitive enough to detect slightest movements of a person, no matter if they are walking, standing still or even sitting in the area of interest.

ROBUSTNESS
Radar sensors can operate in harsh industrial environments. Moisture, humidity, dust, fog, dirt, such as oil residue on the sensor do not influence detection performance. In contrast to laser sensors, color absorbing objects can be easily detected. No need to clean lenses.

AFFORDABLE
For the similar type of application and with similar performance, mmWave radar sensors should be more price competitive in comparison to other sensor technologies.