



## AUTOMOTIVE RADAR SENSOR

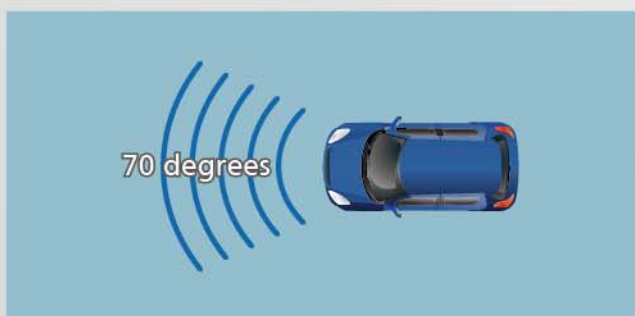
Forward collision warning Radar for Long Range Detection

### FEATURES

- Radar-based motion detector working in the 24-GHz ISM band
- Automotive-grade with a proven track record by multiple car makers
- Software especially tuned for all driving conditions, heavy bicycles, motorcycles, and pedestrians
- Multiple tracking of up to 32 objects
- Detection of objects from 5 m to 150 m (depending on the RCS of the detected object)
- Detectable speed: 1 km/h up to 250 km/h (approaching/receding/both)
- Protection class IP67 for outdoor use
- Complies with warning coverage per ISO 15623 definitions

### CERTIFICATIONS

WNC has established and applies a quality system for the development, production, and sales of radar sensors for industrial and automotive sensors.



The driver feedback HMI sign shows in real time the collision warning of forward-approaching vehicles.



Detection of up to 150 m for the forward collision warning application.

## ADVANTAGES

- Low-cost SoC technology available in the 24-GHz frequency band
- Moderate radar sensor size for car integration
- Detection range and beam characteristics with radar antenna area to match application demands
- Low attenuation of microwaves by bumper materials
- Mature mass-production and packaging processes
- Best cost and performance competitiveness compared to other radar technologies

## AUTOMOTIVE RADAR SENSOR SPECIFICATIONS

System	Configuration	1 sensor
	Regulatory Compliance	Complies with SRRC, NCC, FCC, ETSI
	Active Speed	10 km/h and above, programmable
	Relative Detection Speed (Approaching/Receding/Both)	100 km/h
	Relative Detection Speed Accuracy	0.25 km/h (typical)
	Detected Range Accuracy	± 0.25 m (typical)
	Maximum Detection Range (Depending On Antenna Pattern)	Truck: 180 m Passenger car: 100 m Motorcycle/bicycle: 40 m
	Alert Setting	By TTC* & PET* & distance; can be programmable
	Tracking Of Multiple Objects	Up to 32
	HMI (Human-Machine Interface)	Multi-level warning Up to 4 levels
	Operating Temperature	-40 °C to +85 °C
	Dimensions	122 mm × 87 mm × 36 mm (L × W × H)
	RF	Configuration
Antenna Angle - Horizontal		± 35°
Transmit EIRP		20 dBm (maximum)
Rx SNR		10 dB (minimum)

**\*Remarks:**

1. TTC: Distance between subject and target car/relative speed between subject and target car.
2. PET: Distance between subject and target car/speed of subject car.



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