

## 77 GHz Automotive Safety Millimeter Wave Radar



*77G mmWave Radar Sensor*

## 1. Product introduce

### Model No.: CAR-A60-1

CAR-A60 obstacle avoidance radar is a 77GHz on-board millimeter-wave radar designed to detect obstacles in front of you when you are driving at medium and low speeds. CAR-A60 millimeter wave radar size: 92.4\*76.1\*22.3mm, detection range of 40 meters, integrated CAN interface, CAN interface default baud rate 500k, target refresh rate 33Hz.

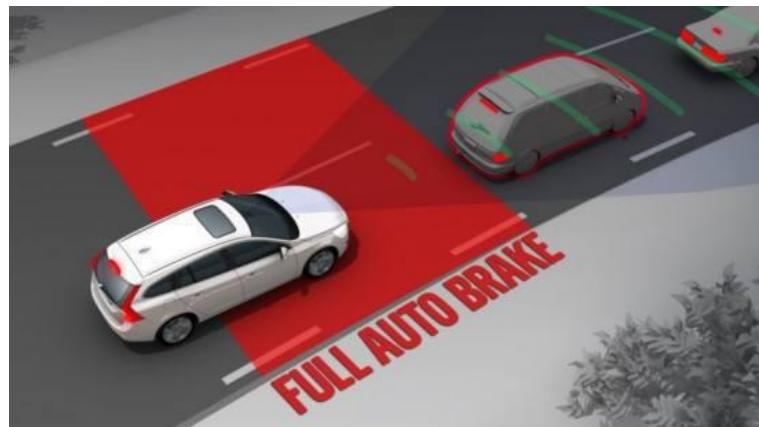
### Application Scenarios

CAR-A60 millimeter-wave radar transmits double-beam fan-shaped electromagnetic waves to the front to receive the reflection of target echo, judge whether there are obstacles ahead, and feedback the relative distance, relative speed and Angle between obstacles and radar. The main parameters are: target ID, speed, distance, direction, Angle and other data.

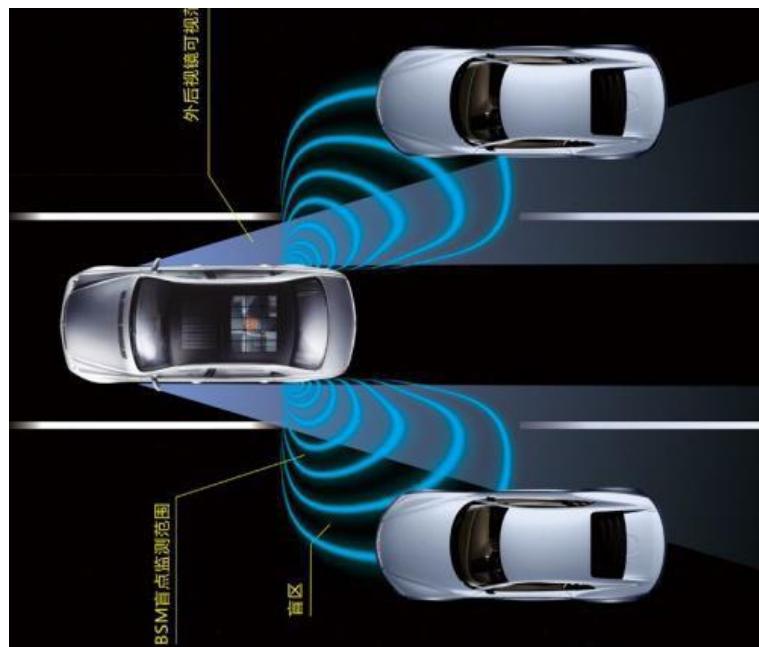
### Applications Case:

- Patrol robot collision proof
- The driving school coach is collision proof
- Special construction machinery/vehicle obstacle avoidance
- Collision proof unmanned ship
- Agricultural machinery
- Airport shuttle bus

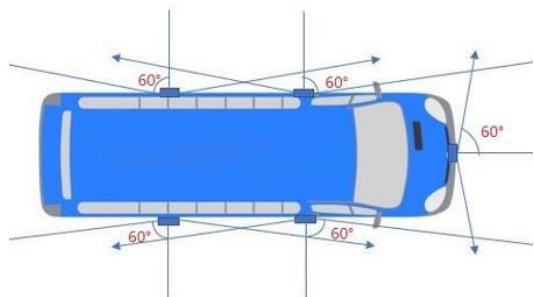
*-Forward collision warning*



*-Passenger car blind spot detection*



*-Commercial vehicle blind spot detection*



*-Gate control*



*-Large vehicle survey radar ranging anti-collision*



## 2. SPECIFICATIONS

### 2.1. Data Sheet:

FEATURES	ITEMS	TECHNICAL DATA
System property	Working voltage	8-26VDC
	Working temperature	-40~85 °C
	Power consumption	less than 2.5W
	Waterproof rating	IP68
	Working band	77-81GHz
	Refresh rate	33Hz
	Communication interface	CAN /500kbps
	Size	66mm x 62mm x 23.3mm
	Weight	110g
Antenna performance	Transceiver channels	2TX / 4RX
	Pitch beam width	-1~ +2°
	Horizontal beam width	-60° ~ +60°
Detection performance	Distance resolution	0.2m
	Speed resolution	1.9km/h
	Speed range	+/- 180KM/H
	Ranging accuracy	Better than 0.18m
	Speed measurement accuracy	0.1m/s
	Angle measurement accuracy	0.1°
	Detect distance	<b>40M/80M</b>
Upgrade/Debug	Firmware Upgrade	CAN
	Data Calibration	CAN

## 2.2. Pin definition and interface cable description



Pins	Labels	Cable Color	Definition
1	VCC	Red	Positive power supply
2	GND	Black	Negative power supply
3	CAN_L	White	CAN1_Low
4	CAN_H	Yellow	CAN1_High

2.3. Dimensions(mm):

