

79Ghz Millimeter Wave Radar

Monitoring and Warning System for Right Blind Area in Commercial Vehicle

I. Production Introduction

Thank you for choosing the monitoring and warning system for right blind area in commercial vehicle produced by our company. The product consists of a 79Ghz millimeter wave radar, an indicator light, a buzzer and the connecting harness.

This system product provides early warning of dangerous targets in the adjacent lane on the right. The unique ability of 79Ghz millimeter wave radar to penetrate smoke, fog, and dust can realize all-weather and all-day service, real-time detection of objects in the signal area, and output alarm signals corresponding to the warning strategy.

In terms of the large vehicles such as vans, there is a large blind areas on the right side, which may cause endless traffic accidents. ZR79-01R radar is used for 79GHz FMCW radar for side safety protection of large cars and trucks. The radar can detect and warn obstacles on the side of the vehicle, and effectively remove fixed obstacles such as fences and green belts, which can greatly improve the driving safety of heavy vehicles such as large trucks.

II. Product List

Name	Quantity
79Ghz millimeter wave radar	One piece
Warning lights in the car	One piece
Buzzer and wire	One set
Manual	One piece
Bracket and accessories package	One set

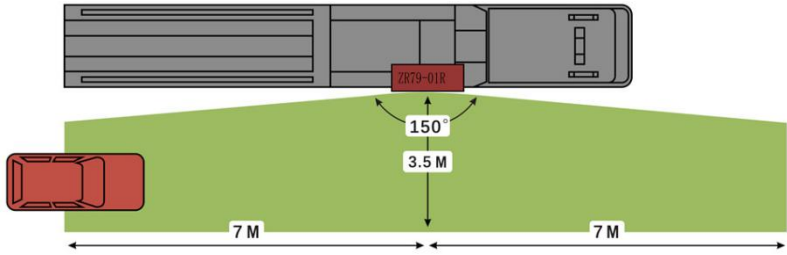
III. Technical Parameter

S/N	Item	Specification
01	Operating Voltage	12—24V
02	Operating Frequency	76-81Ghz
03	Operating Temperature	-40℃ ~ +85℃
04	Power Consumption	< 5W
05	Waterproof Level	Ip67
06	Distance Resolution	0.5m
07	Measuring Accuracy	0.1 m
08	Detection Range	High-speed mode: 0.2 ~ 3.5 meters in horizontal direction, -7 ~ 7 meters in vertical direction; Low speed mode: 0.2 ~ 1.5 meters in horizontal direction, -7 ~ 7 meters in vertical direction;

IV. Product Function and Alarm Mode

The radar is on after powering, and the self-inspection light turns on for 1 second and then goes out.

As shown in the figure, when a target vehicle enters the side radar detection area, the vehicle's radar can detect the target and warns it with LED lights. In this state, the driver should stop dangerous driving behaviors such as turning right and changing lanes.



ZR79-01R radar has two working modes: low-speed mode and high-speed mode.

Low speed mode: When the driving speed of the vehicle is 0-18km/h, it will alarm all targets within the detection range no matter it is stationary or in motion;

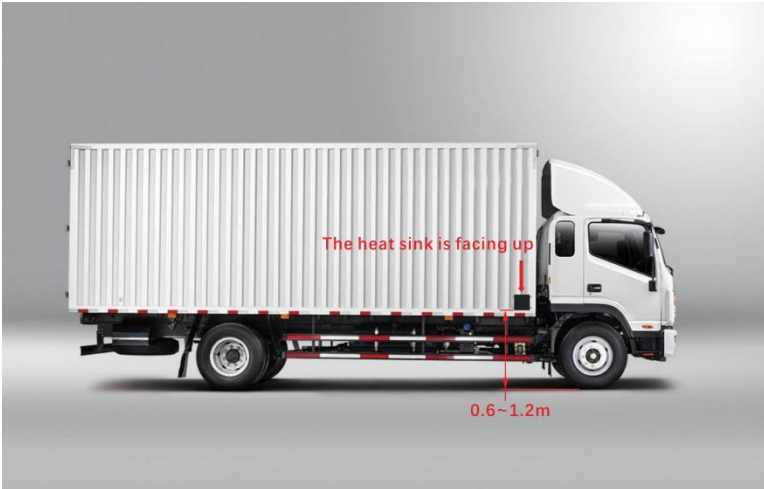
High-speed mode: When the driving speed of the vehicle is greater than 18km/h, it only alarms the moving targets with a moving speed of greater than 10km/h.

Alarm mode:

1. If there is no right turn signal: the indicator light will always be on

2. If there is a right turn signal: the indicator light will be flashing, and the buzzer beeps once (only beeps once for a single induction)

V. Installation Notes



1. Radar installation height: 0.6-1.2 meters from the ground;

2. Radar installation angle: horizontal and vertical to the ground; parallel to the vehicle body (it can be tilted 0-5 degrees toward the rear of the vehicle, which does not affect the forward detection distance, but will increase the backward detection distance);

3. The radar outlet is facing downwards;

4. The radar is installed on the outer right side of the vehicle body, and the surface of radar signal cannot be covered by metal materials;

VI. Line Connection Legend

