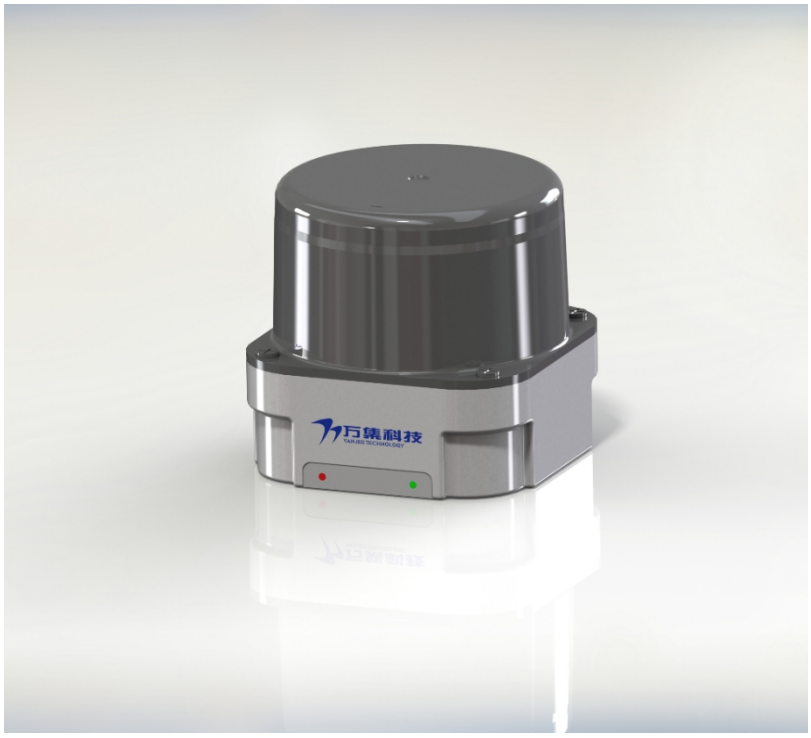
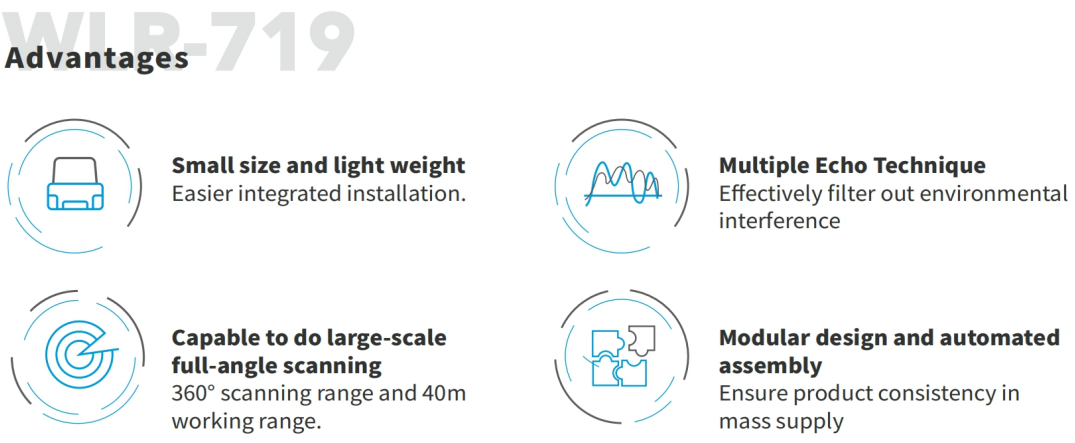
WLR-719 LiDAR Product Brochure



VanJee Technology Co. , Ltd.

Product Introduction

WLR-719 is a 2D measurement lidar independently developed by VanJee Technology Co., Ltd. It adopts the mature laser-time-of-flight (TOF) principle, combined with high-frequency laser pulse generation technology, efficient and precise optical system, reliable timing circuit and sophisticated structural design enable it to quickly and accurately measure distances within a range of 360 ° / 20m (reflecting surface with 10 % reflectivity). WLR-719 has high stability and strong anti-interference ability to ambient light. The unique small size makes WLR-719 suitable for scanning the surrounding environment on RGV/AGV and other types of industrial vehicles/robots. It is also suitable for logistics/security mobile robots, etc.



Technical Specifications

Product number	WLR-719
Application scenarios	indoor
The main function	natural navigation
size and weight	65*65*62 mm³/0.3kg
Detection distance	10% reflective surface 20m
The scope of work	40m
Ranging accuracy (maximum error)	±30mm (within 10m of 10% reflective surface) ±40mm (10% reflective surface 10m-20m)
Scan angle	MAX: 360°
Angular resolution	0.1°
scanning frequency	20Hz
Laser wavelength/safety level	905nm/Class 1 (safe for human eyes)
Protection class	IP65
Operating Voltage	DC12-28V (greater than 15W)
Power consumption	less than 10W
Operating temperature/Storage temperature	-10℃~50℃/-25℃~85℃
Reaction time	<67ms
Integrated application	Test data output
Communication Interface	Ethernet
Electromagnetic Compatibility	Electrostatic discharge GB/T17626.2-2006 Transient pulse group GB/T17626.4-2008
resistance to mechanical loads	Passenger car specifications GB/T28046.3-2011

Optical and Mechanical Properties

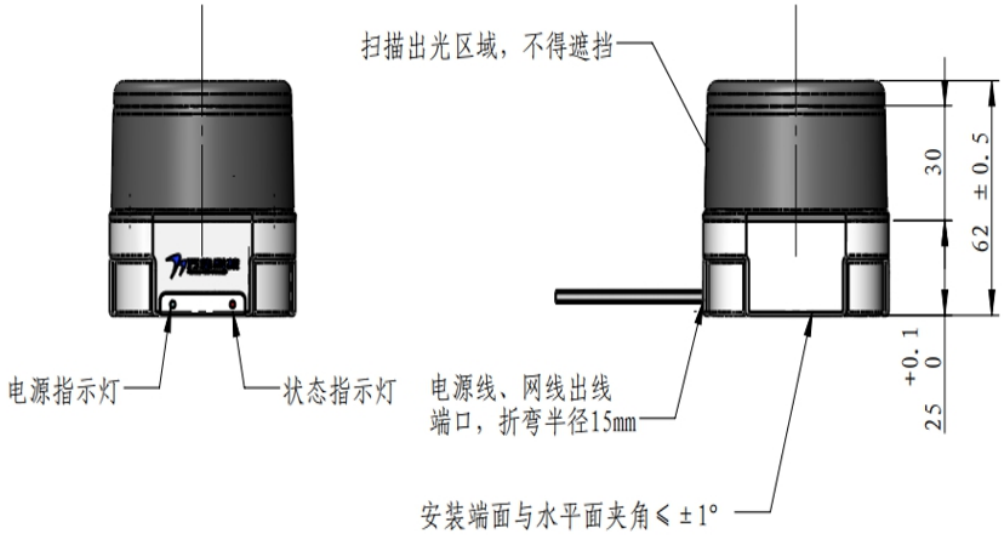


图1 光学及机械特性

Installation Interface

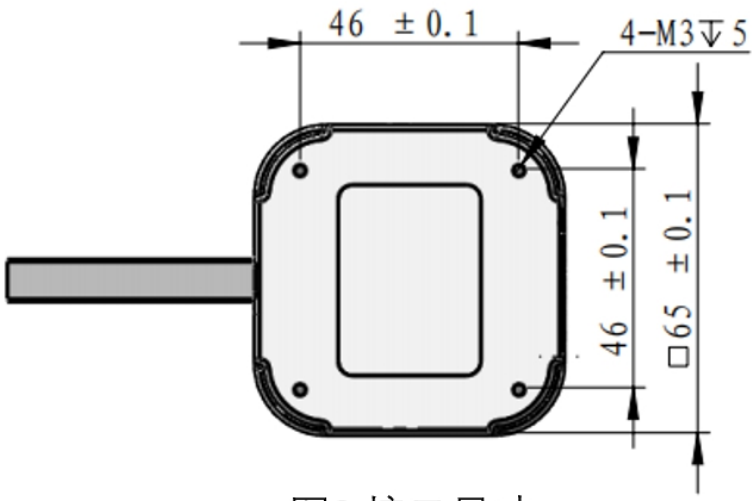


图2 接口尺寸

Interface Description

The WLR-719 product provides two kinds of interfaces: power interface and network interface. The corresponding positions are shown in Figure 1.

Power interface: 1. The negative pole of the power supply is red and black
2. The positive pole of the power supply is red
3. The chassis ground wire is yellow

Network interface: RJ45 crystal head

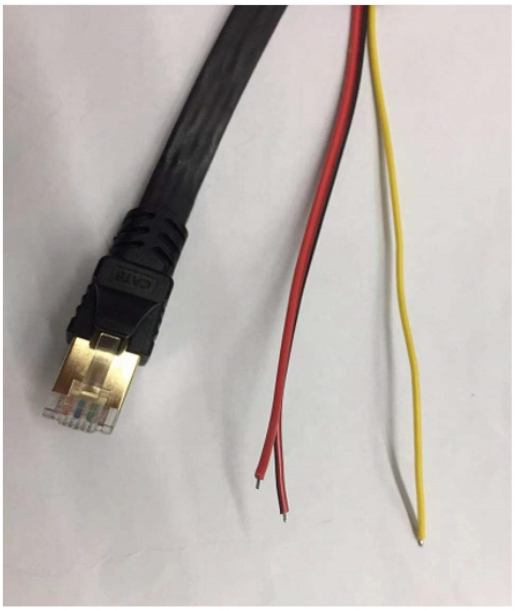
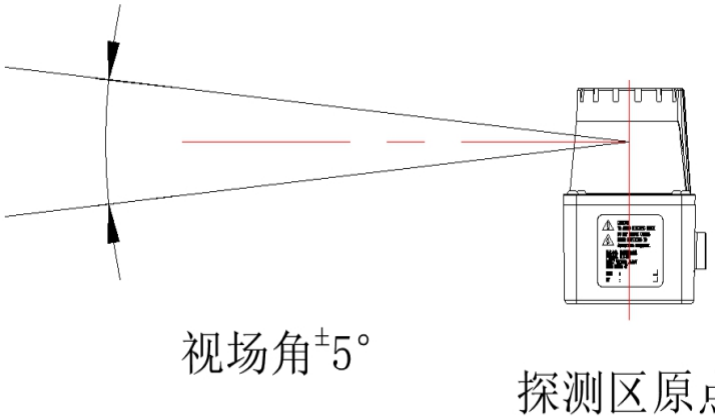


图3 接口图

Multiple Radar Installations

WLR-719 lidar uses light pulses for object detection, and its receiving field of view is ± 5 degrees from the horizontal receiving position, so if there is a light interference source within its receiving field of view, it may lead to false detection. Therefore, before installing the sensor, the user needs to detect the surrounding environment .

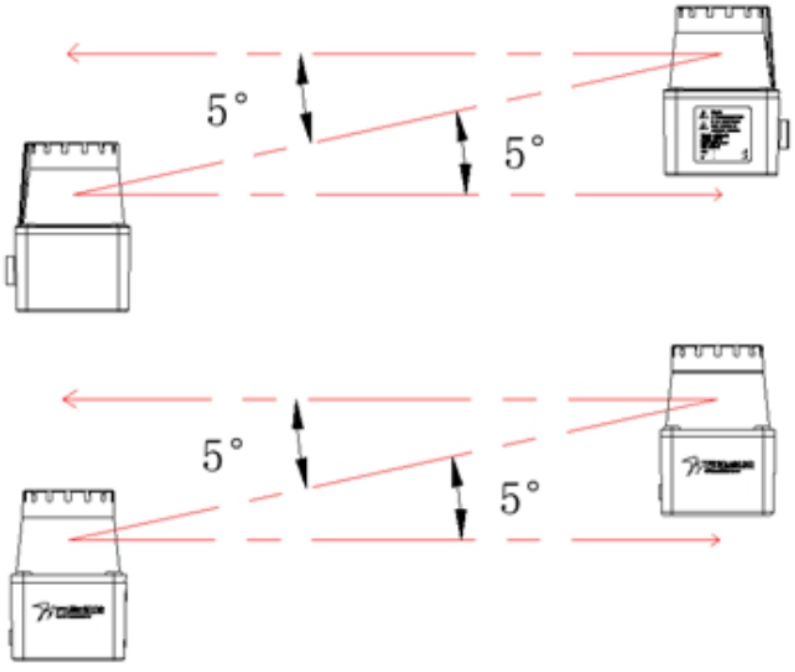


If light interference cannot be avoided, the field of view of the installed lidar should be guaranteed to be ±5 degrees or more to prevent interference.

When using two or more symmetric lidars, it is also possible that the pulsed laser signals from the symmetric lidars cause false detection. The figure below shows how to avoid mutual interference when using multiple lidars.

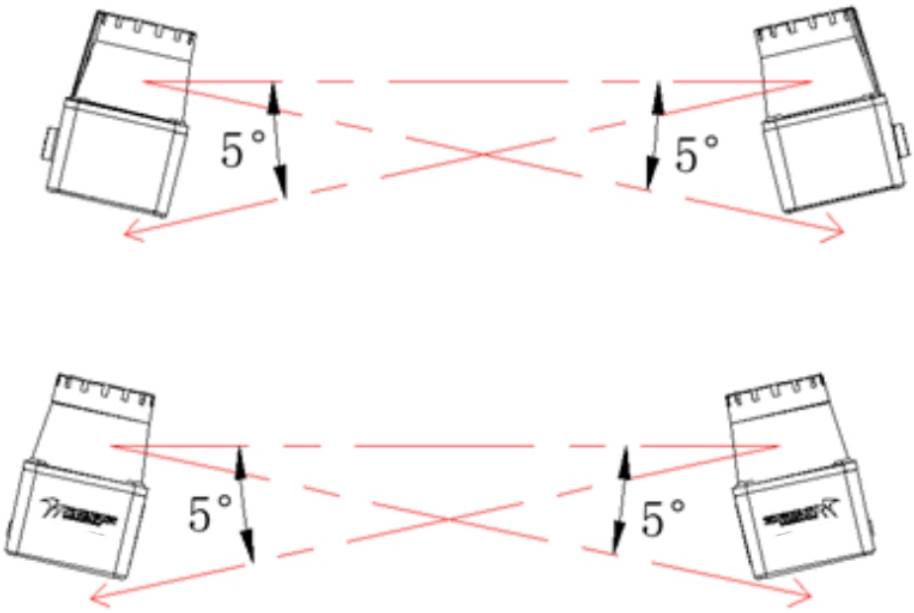
1) Change the installation height

Set the installation position higher or lower, and the original points of mutual detection of lidar should be separated from the detection plane by an angle of ±5° or more .



2) Change the installation angle

The installation angle of the laser can be set, and the original points detected by the lidars should be separated from the detection plane by an angle of ±5° or more.

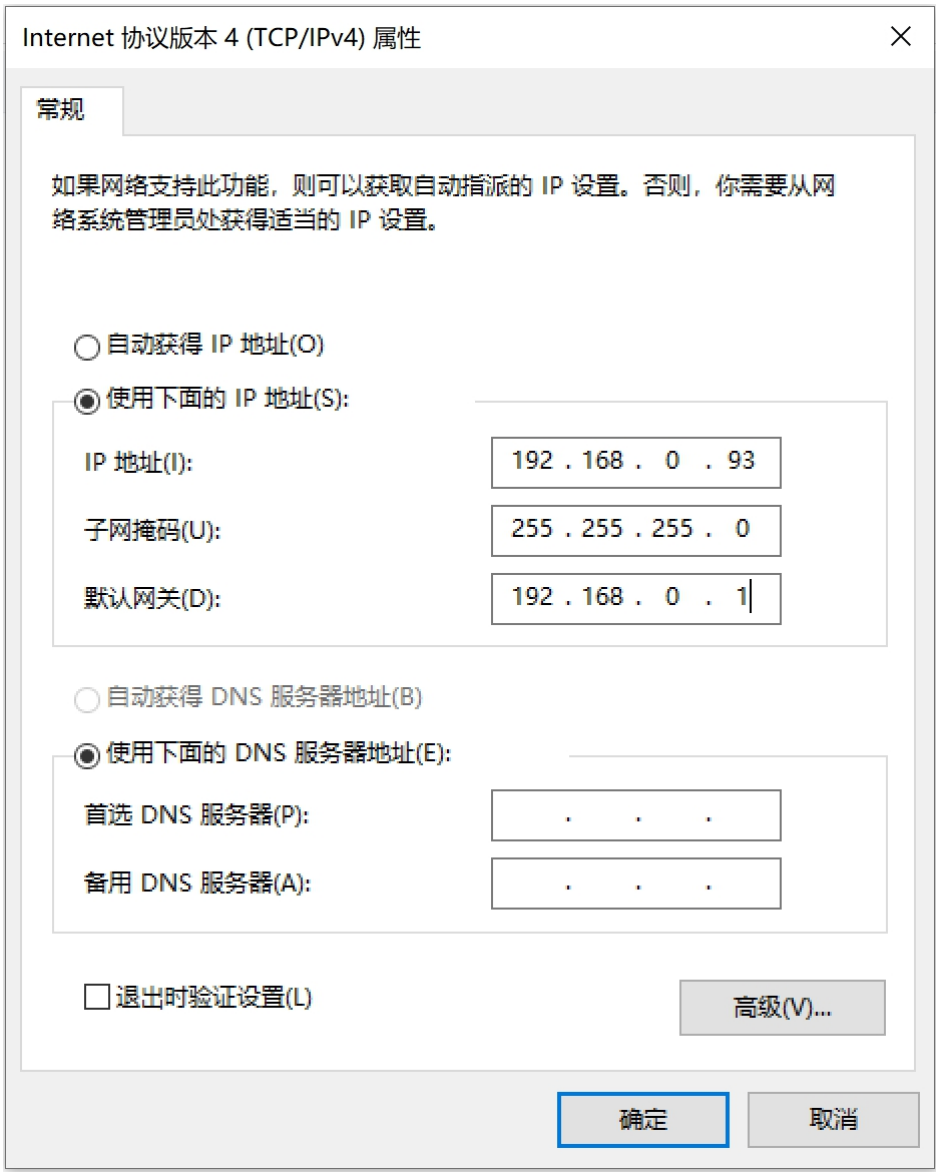


2) Add a baffle in the middle of the lidar

By setting a baffle in the middle of the lidar unit, the laser cannot reach the opposite sensor to avoid mutual interference.

Network Related Configuration

The network configuration used is shown in the following figure:



Product List

serial number	name	Product model	unit	quantity
1	Lidar	WLR -719	set	1
2	manual		set	1
3	certificate		set	1
4	cable assembly		set	1
5	installation kit		set	1

After-sales Service

- This product enjoys the stipulated free warranty service from the date of installation. During the warranty period, if the product is damaged or unusable due to non-human factors, or due to product quality problems, please contact VanJee Technology Co. , Ltd. or the local operator in time, and provide the purchase documents, and the relevant service personnel will repair your product.
- No maintenance will be given to products that are disassembled by the user .
- After expiration of the warranty period, the relevant service personnel of VanJee Technology are also responsible for the maintenance of product failure , damage and other problems, but the material cost of maintenance and replacement of components will be charged.
- After warranty period expires, the relevant service personnel of VanJee Technology will provide users with free service to answer questions, including consulting services such as purchase guidance, usage methods, and installation of products.

Head Office Service Hotline: (010) 59766766

Quality supervision and complaints: (010) 59766766

User Profile

Username			
User address			
contact number		contact	
Device model		Device number	

Maintenance Record

Maintenance times		delivery date	
Fault description			
Repair results			
Repair man		Maintenance date	

Address : Wanji Space, Building 12, Zhongguancun Software Park, Haidian District, Beijing

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