

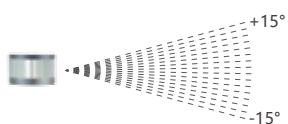
Product introduction

R-Fans navigation LiDAR features long-range, high accuracy and intensity resolution. It weighs 738 g. With 360 ° scanning, R-Fans acquires 3-D spatial images within its radius. There are two types for users to choose: R-Fans-16 with 16 beams and R-Fans-32 with 32 beams. Beams are evenly distributed or dense in the middle. Users are free to choose according to different application scenarios.

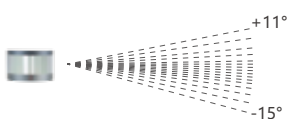
Strict tests on accuracy, range, temperature tolerance and vibration fully prove durability of R-Fans. R-Fans is certified as class 1 laser product and radiation safe by FDA of USA. R-Fans has been applied for autonomous driving, aircraft obstacle avoidance, smart robot, and SLAM. R-Fans offers SDK for users to develop their software package and align with various platforms.



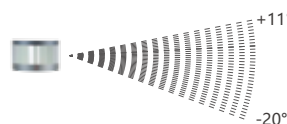
Angle distribution



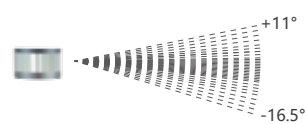
R-Fans-16 Angular Interval 2°



R-Fans-16M Angular Interval
1°/1.5°/2°/2.5°/3°



R-Fans-32 Angular Interval 1°



R-Fans-32M Angular Interval
0.5°/1°/1.5°

Product features



Long range

Maximum range >200 m



High precision

Range accuracy <2 cm



Ultralow-power

Power Consumption <8 W



Light weight

738 g

Easy integration



R-Fans navigation LiDAR is of compact size, simple structure and is easy to install. It is designed to be easily integrated with vehicles, drones, and other platforms.

High stability



R-Fans navigation LiDAR runs normally after a continuous 1000-hour operation.

R-Fans navigation LiDAR undergoes successful tests for vibration, temperature endurance, aging, electrical and electromagnetic compatibility.

Product specifications

	R-Fans-16	R-Fans-16M	R-Fans-32	R-Fans-32M
Wavelength	905 nm	905 nm	905 nm	905 nm
Laser class	Class 1	Class 1	Class 1	Class 1
Pulse frequency	320 kHz	320 kHz	640 kHz	640 kHz
Echo mode	2 echoes	2 echoes	2 echoes	2 echoes
Intensity	8 bit/12 bit	8 bit/12 bit	8 bit/12 bit	8 bit/12 bit
Vertical FOV	30° (15° ~ -15°)	26° (11° ~ -15°)	31° (11° ~ -20°)	27.5° (11° ~ -16.5°)
Vertical resolution	2°	1°/1.5°/2°/2.5°/3°	1°	0.5°/ 1°/1.5°
Horizontal FOV	360°	360°	360°	360°
Angular resolution	0.09° ~ 0.36° (5 ~ 20Hz)	0.09° ~ 0.36° (5 ~ 20Hz)	0.09° ~ 0.36° (5 ~ 20Hz)	0.09° ~ 0.36° (5 ~ 20Hz)
Max. range	200 m	200 m	200 m	200 m
Accuracy	2 cm	2 cm	2 cm	2 cm
Scan rate	5-20 Hz	5-20 Hz	5-20 Hz	5-20 Hz
Interface	Ethernet, PPS	Ethernet, PPS	Ethernet, PPS	Ethernet, PPS
Weight	738 g	738 g	738 g	738 g
Power supply	9 ~ 32 VDC	9 ~ 32 VDC	9 ~ 32 VDC	9 ~ 32 VDC
Operating temperature	-40° ~ +85°	-40° ~ +85°	-40° ~ +85°	-40° ~ +85°
Power consumption	≤ 8 W	≤ 8 W	≤ 8 W	≤ 8 W
Size (mm)	113 (D) ×70 (H)	113 (D) ×70 (H)	113 (D) ×70 (H)	113 (D) ×70 (H)

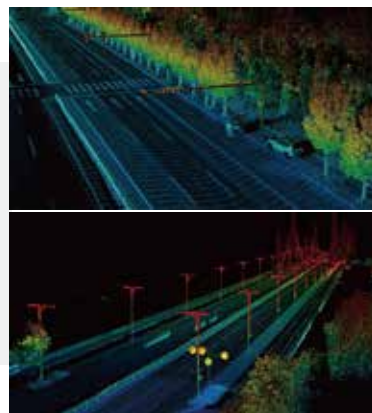
Autonomous driving



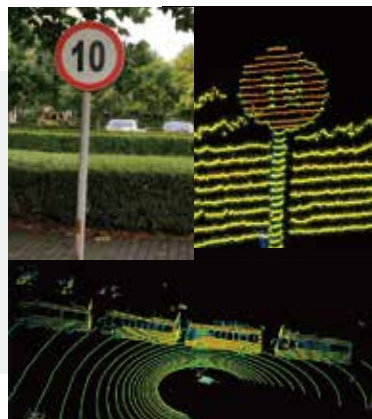
Unmanned delivery vehicle



High precision map



Point cloud data



Applications

R-Fans navigation LiDAR can precisely detect vehicles, pedestrians and other things in the scene.



SureStar Headquarter

5th Floor, building 1, No.5 YongFeng Road,
Haidian District, Beijing, China

Tel : +86 10-58717175

Email : bkth@isurestar.com

Website : www.isurestar.com

SureStar Suzhou

6th Floor, Building B1, Dongfang Chuangzhi
Garden, No. 18, Jinfang Road,
Suzhou Industrial Park, China

Tel : +86 512-62886015

SureStar Hefei

3rd -5th Floor, Building A2, Zhihui Industrial Park,
Baohe Economic Development Zone, Hefei, China

Tel : +86 0551-66167968



Surestar International Inc.

A: 28287 Beck Road, Unit D3, Wixom, MI 48393

T: +1-248-773-7768