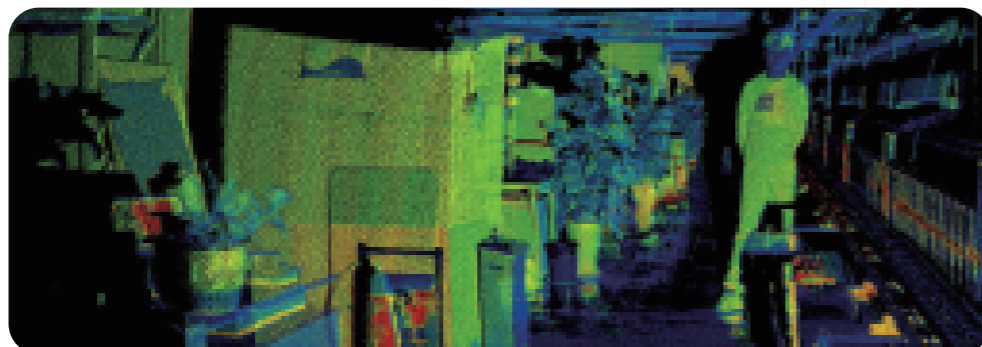# LSLIDAR

Image-grade Auto-grade LiDAR

1550nm
LS-S1 Series

LS-S1 series is a long range hybrid solid-state LiDAR based on auto-grade, using in-house's high-performance 1550nm fiber laser. LS-S1 series has better ranging performance and point cloud performance, the farthest ranging is 500m, the measurement accuracy is ±3cm, and the FOV is 120°(H)x25°(V). Minimum vertical angle resolution can be up to 0.1°(10Hz), and the measuring point rate can be up to 3,200,000 points/second. The ROI region and ROI form can be customized.

LS-S1 series is complete anti-interference function and serves autonomous driving with high reliability and design for mass production vehicles. LS-S1 series and the LS-S2 series have the same performance in parameters and performance, but different dimensions provide customers with more diverse choices.

		LS128S1	LS256S1
Laser	Wavelength	1550nm	1550nm
	Laser Class	Class I (IEC-60825)	Class I (IEC-60825)
SPEC	Channels	128	256
	Detection Method	TOF	TOF
	Detection Range	250m@10% (Max 500m)	250m@10% (Max 500m)
	Range Accuracy	±3cm	±3cm
FOV	Horizontal	120°	120°
	Vertical	25° (-12.5°~12.5°)	25° (-12.5°~12.5°)
Angular Resolution	Horizontal	0.09°	0.09°
	Vertical	0.2°	0.1°
	FPS	10Hz	10Hz
Point Cloud Export	Echo Times	1~2	1~2
	Data Point Generating Rate (pts/sec)	1,600,000	3,200,000
	Communication Interface	Automotive Ethernet	Automotive Ethernet
	Time Synchronization	gPTP	gPTP
Electric	Input Voltage	9V~36V DC	9V~36V DC
	Power Consumption	40W	40W
Environment	Anti-interference	Laser Code	Laser Code
	AUTOSAR	Support (A) / Not support (I)	Support (A) / Not support (I)
	IP Grade	IP6K9K	IP6K9K
	Operating Temperature	-45℃~85℃	-45℃~85℃
	Vibration Test	5Hz-2000Hz，3G rms	5Hz-2000Hz，3G rms
	Shock Test	500m/sec²，Lasting for 11ms	500m/sec²，Lasting for 11ms
Machine	Weight	1.5kg	1.5kg
	Dimensions (LxWxH)	220x220x45 mm	220x220x45 mm