



Sensing Reality!

## LR-16F 3D LiDAR Sensor



Robotics

Security

Intelligent  
logistics

Automotive

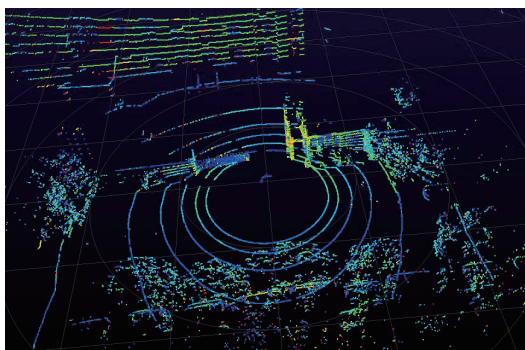
Mapping

### Introduction

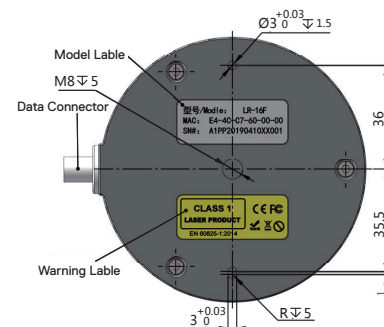
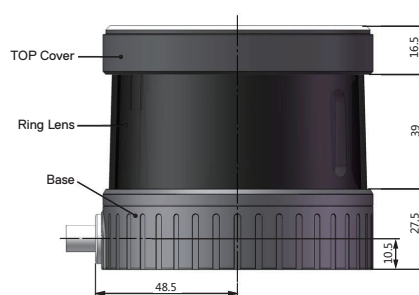
- ▶ LR-16F is a small size and multi-channel LiDAR developed by OLEI-Systems with proprietary technologies. LR-16F has  $360^{\circ}$  (Horizontal) and  $\pm 15^{\circ}$  (Vertical) scanning angles, 100m detection range. It is primarily designed for a variety of industrial autonomous applications such as AGV, Automatic Forklift, Patrol Robots, and Inspection Robots. It can also be used for other applications such as mobile mapping, 3D measurement etc.
- ▶ LR-16F LiDAR has undergone rigorous calibration, inspection and verification processes performed by professional laboratories. OLEI strives to provide reliable, high quality, rugged and robust sensor products to customers.



### Sample Data



### Outline and Mounting



### Applications



Automotive



Mapping

# LR-16F 3D LiDAR Sensor



## Specification Table

### Laser:

Item	Unit	Specification	
		LR-16FM4L4B1	LR-16FM4L4A1
Laser Wavelength	nm	905	
Laser Class		1	
Beam Divergence	mrad	3	

### Sensor :

Item	Unit	Specification	
Returns		Single(Strongest,Last)	
Channels		16	
Scanning Angle (Horizontal)	°	360	
Scanning Frequency	Hz	5~20	
Field of View(Vertical)	°	-15°~+15°	-10°~+10°
Angular Resolution (Vertical)		2°(0° Position Version available)	1.33° (0° Position Version available)
Angular Resolution (Horizontal)	°	0.18°±10%@10Hz	
Measurement range	m	100m @80% wb	
Distance Resolution	mm	2	

### Output:

Item	Unit	Specification
Accuracy	cm	≤±3
Date Points Generated	pts	320000
Ethernet Connection		100M
UDP Packets Containing		Time of Flight Distance Measurement Calibrated Reflectivity Measurement Rotation Angles Synchronized Time Stamps(μs resolution)
GPS Connection		Support
Reflection Data		5-100%
Identification of		Yes
Connection		12 pin A-Coded Socket(With Interface Box)

### Mechanical / Electrical / Operational:

Item	Unit	Specification
Dimensions	mm	114 (D)*100.6(H)
Operating Voltage	VDC	9~30
Power Consumption	W	≤8
Weight	g	~800g
Degree of Protection		IP66
Operating Temperature	°C	-10~50
Storage Temperature	°C	-30~70
Ambient Light Limit	LUX	>120000
Air Humidity	RH	<95%
Mounting		Bottom
EMC		IEC 61000-6-2:2016-08 / IEC 61000-6-3:2006-07
Vibration Resistance		IEC 60068-2-6:2007
Shock Resistance		IEC 60068-2-27:2008