

Pandar64

64-Channel Mechanical

LiDAR



Pandar64

Channel 1 + 15°

Pandar64 is a 64-channel mechanical LiDAR. It creates 360° 3D images by rotating 64 laser diodes inside the housing. Its features include:

- 1. Unique channel distribution tailored for autonomous driving applications: vertical resolution reaches 0.167° in critical fields of view, offering optimal perception results
- 2. Extended measurement range: seeing 10%-reflectivity objects from 200 meters away
- 3. Interference rejection: undisturbed in the proximity of other working LiDARs
- 4. Supporting angle-trigger signal output: achieving multi-sensor hard synchronization with high sync accuracy
- 5. Option of PTP time sync simplifies vehicle cabling.

Pandar64 has gone through stringent reliability tests, including HALT (highly accelerated life test), vibration strength test and mechanical resonance test, ensuring excellent and stable performance in harsh environments. Pandar64 serves a wide range of industries, including autonomous driving, HD mapping and logistics.

Channel 5 + 3° Channel 6 + 2° Channel 18 0° Channel 54 - 6° Channel 62 - 14° Channel 64 - 25° Pandar64 Channel Distribution or hard synchronization with high sync accuracy

Advantages of Pandar64











Optimized Angular Resolution

Extended Measurement Range

Wide Field of View

Interference Rejection

Auto-Grade Connector

Specifications

Sensor					
Operational Principle	Time of Flight	Rotation Rate	10 Hz, 20 Hz		
Scanning Method	Mechanical Rotation	FOV (Vertical)	40° (-25° to +15°)		
Channel	64	Angular Resolution (Vertical)	Finest at 0.167°		
Measurement Range	0.3 m to 200 m (at 10% reflectivity)	FOV (Horizontal)	360°		
Measurement Accuracy	±5 cm (0.3 m to 0.5 m), ±2 cm (0.5 m to 200 m)	Angular Resolution (Horizontal)	0.2° (10 Hz), 0.4° (20 Hz)		
Returns (Configurable)	Single/Dual Return (Strongest, Last)	Interference Rejection	Yes		
Clock Source	GPS/PTP	PTP Clock Accuracy	≤1 μs		
PTP Clock Drift	≤1 µs/s				

Output						
Data Output	UDP: distance, azimuth angle, intensity	Data Transmission	UDP/IP Ethernet (100 Mbps)			
Data Points Generated	Single Return Mode: 1,152,000 points per second Dual Return Mode: 2,304,000 points per second					

Mechanical/Electrical/Operational						
Size	Height: 116.7 mm, Top Diameter: 118.0 mm, Bottom Diameter: 116.0 mm					
Weight	1.52 kg	Operating Voltage	9 V to 48 V			
Power Consumption	22 W	Laser Class	Class 1 Eye Safe			
Operating Temperature	-20°C to +65°C	Environmental Protection	IP6K7			

Application Scenarios

Autonomous Driving

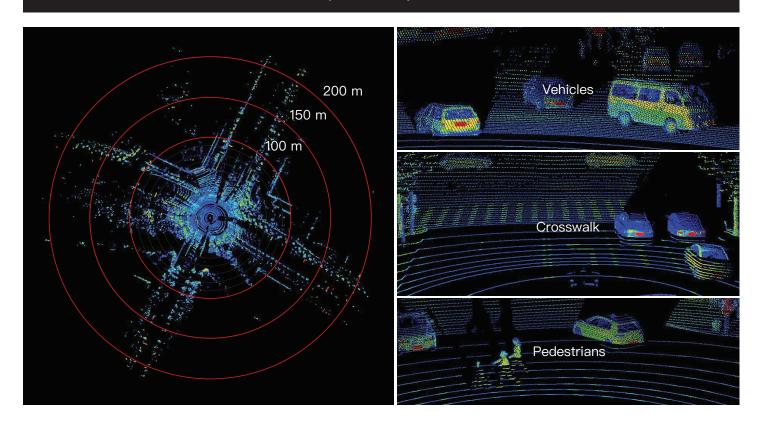


HD Mapping

Autonomous Logistics



Data Captured by Pandar64



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