

Pandar64

64-Channel Mechanical

LiDAR



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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 1 + 15°

Channel 5 + 3° Channel 6 Channel 18

Channel 54 - 6°

Channel 62 - 14

Channel 64 - 25°

Unique Advantages of Pandar Series











Pandar64 Channel Distribution

Interference Rejection

Auto-Grade Connector

Extended Measurement Range

Optimized Angular Resolution

Wide Field of View

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: 116.70 mm, Top Diameter: 116.00 mm, Bottom Diameter: 115.00 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

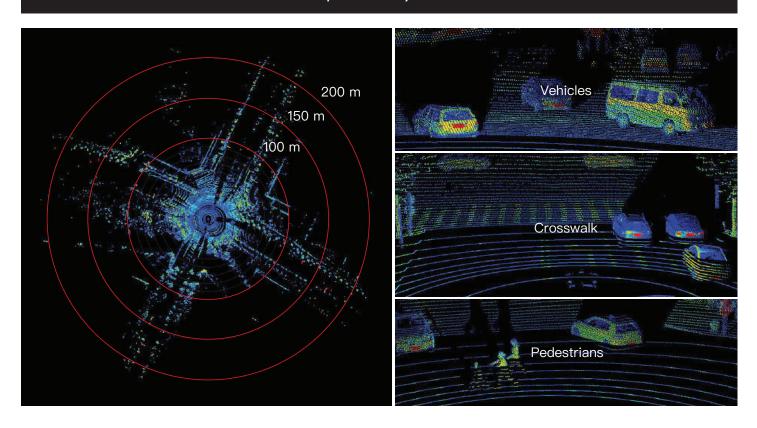
Autonomous Driving



Autonomous Logistics Autonomous Logistics



Data Captured by Pandar64



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