

## PandarQT 64–Channel Short–Range Mechanical LiDAR



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PandarQT, a 64-channel short-range mechanical LiDAR, is designed to	
solve several pain points in LiDAR applications:	

1. Superior short-range performance: accurately detecting objects as near

as 0.1 m, making an ideal blind spot solution 2. Ultra-wide FOV: 360° (H) x 104.2° (V) coverage

3. Versatility: 30-meter detection (of 20% reflectivity objects) proves useful for blind-spot obstacle avoidance in self-driving cars, as well as environment perception for low-speed logistics vehicles

4. Optimized resolution: down to 1.45° vertically and 0.6° horizontally

5. Interference rejection: proprietary technology ensuring undisturbed performance near other working LiDARs

6. PTP (Precision Time Protocol) support: sub-µs time sync accuracy with simplified cabling

Channel 64 +52.19 Channel 58 +40.0 Channel 46 +20.0° Channel 32 +0.70 Channel 19 -20.0 Channel 7 -40.0 -52.1 Channel 1 PandarQT Channel Distribution

PandarQT 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.



Sensor						
Operational Principle	Time of Flight	Frame Rate	10 Hz			
Scanning Method	Mechanical Rotation	FOV (Vertical)	104.2° (-52.1° to +52.1°)			
Channel	64	Resolution (Vertical)	Finest at 1.45° (with min. gap 0.15°)			
Range	0.1 to 30 m (at 20% reflectivity)	FOV (Horizontal)	360°			
Range Accuracy	±2 cm (typical)	Resolution (Horizontal)	0.6° (with 0.15° gap)			
Returns Single Return (First)		Interference Rejection	Yes			
	PTP/GPS (GPS only available in 8–pin version)	PTP Clock Drift	≤1 µs/s (typical)			
Clock Source		PTP Clock Accuracy	≤1 µs			
Output						
Data Outputs	Distance, Azimuth Angle, Background Illumination		UDP/IP Ethernet			
Data Points Generated	Single Return Mode: 384,000 pts/s Dual Return Mode: 768,000 pts/s	Data Transmission	(Automotive 100BASE-11, Slave Mode)			





Mechanical/Electrical/Operational					
Dimensions	Height: 76.0 mm Diameter: 80.2 mm				
Weight	0.47 kg	Operating Voltage	9 to 36 VDC		
Power Consumption	8 W	Laser Class	Class 1 Eye Safe		
Operating Temperature	–20℃ to 65℃	Enviromental Protection	IP67 & IP69K		

## Application Scenarios

Blind Spot Detection for Autonomous Driving



Robotics/Logistics



## Data Captured by PandarQT



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Website QR Code