

# PandarXT

## 32-Channel Mid-Range LiDAR

- Minimum range of zero
- High precision
- Proprietary LiDAR ASICs



### PandarXT Key Specifications

#### Range

0 m ~ 120 m  
(0 m, calculated from LiDAR's enclosure)

#### Range Capability

80 m@10% reflectivity  
(Under 100 klux, POD>90%)

#### Accuracy

±1 cm (typical)

#### Precision

0.5 cm (1 $\sigma$ , typical)

#### Vertical FOV

31° (-16°~15°)

#### Vertical Resolution

1°

#### Frame Rate

5 Hz, 10 Hz, 20 Hz

#### Horizontal Resolution

0.18° @10 Hz

#### Ingress Protection

IP6K7

#### Operating Temperature

-20°C ~ 65°C

#### Weight

0.8 kg

#### Dimensions

Hight: 76.00 mm  
Diameter: 103.0 mm

#### Power Consumption

10 W

#### Operating Voltage

DC 9 ~ 36 V

#### Clock Source

GPS / PTP

#### Data Points Generated

Single Return: 640,000 points/sec  
Dual Returns: 1,280,000 points/sec

### PandarXT Applications



Unmanned  
Logistics



Autonomous  
Shuttles



Factory AGV



Mapping

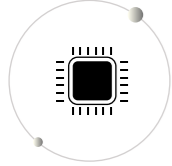


Security



# PandarXT

## Product Superiority



### Dedicated Chipsets

The lasers' transmitting and receiving systems are based on Hesai's self-developed ASICs, greatly improving LiDAR performance and reducing costs and production complexity.



### Minimum Range of Zero

PandarXT continuously outputs valid point cloud even when objects directly touch the LiDAR's enclosure. This enables the self-detection of enclosure smear and occlusion



### Strong Range Capability

Range detection up to 120 m, POD>90% when detecting 10% reflectivity targets at 80 m (middle 16 channels)



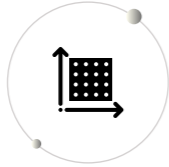
### High-Quality Reflectivity Information

High accuracy and consistency, greater dynamic range. PandarXT provides more accurate reflectivity information for algorithms



### Outstanding Precision

PandarXT precision ( $1\sigma$ ) is up to 0.5 cm; greater precision performance than comparable products on the market



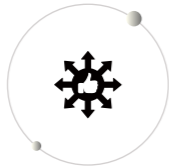
### Higher Resolution

Double the number of lasers and resolution compared with typical mid-range LiDARs (16 channels)



### Interference Rejection

Every pulse has its own 'fingerprint', rejecting noise when multiple LiDARs operate closely together

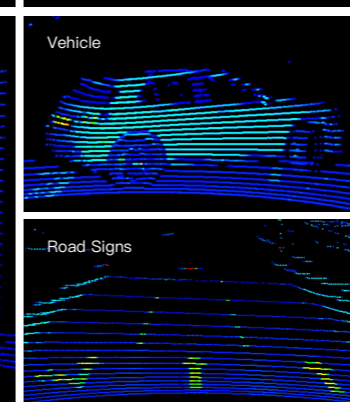
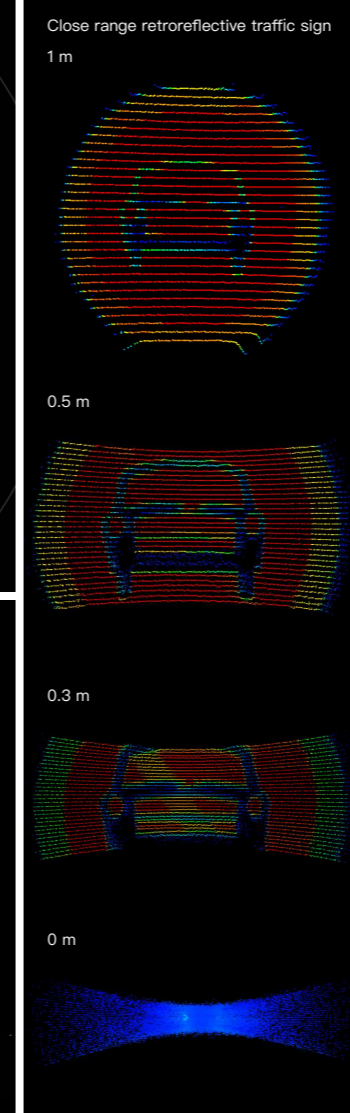
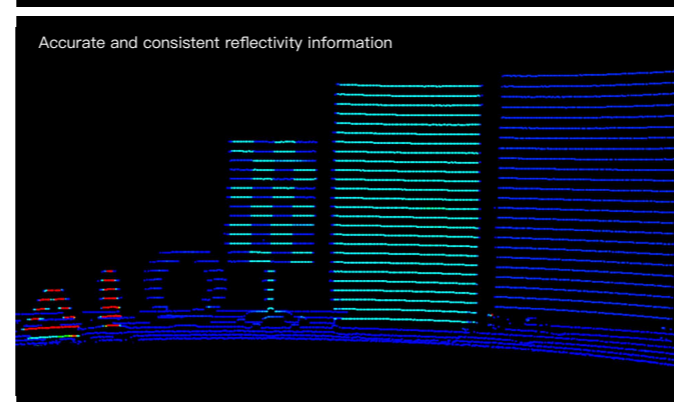
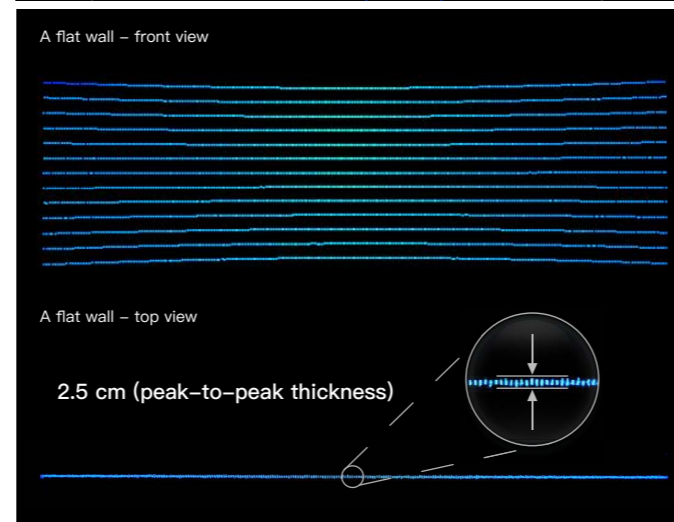
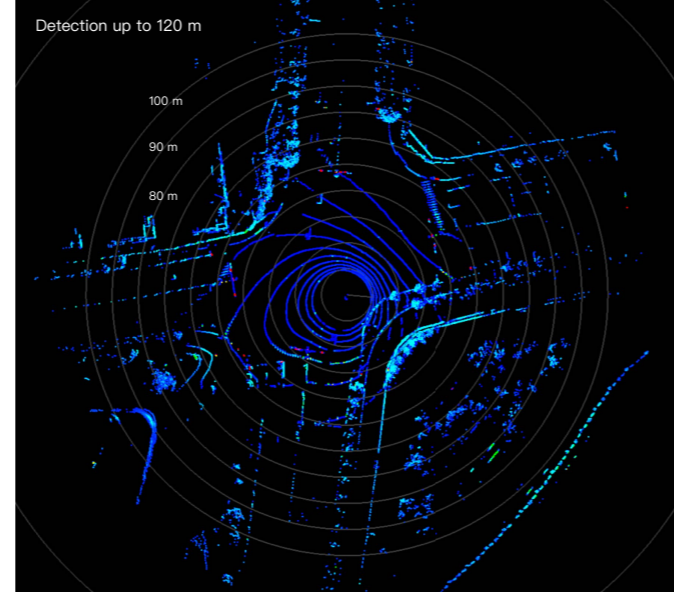


### Reliability

PandarXT has passed strict reliability tests including High temperature operation, Low temperature wakeup+operation, Thermal Shock/Air-to-Air, Vibration with Thermal Cycling, Mechanical Shock, Humid Heat Cyclic, Frost, Water and Dust Proof, and Shipping Vibration. Robust and reliable in any operational environment.

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## Point Cloud



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