

These are the three best options that Velodyne provided for utilization on a drone. Following will be information I could find surrounding the LiDAR and how they compare to Hesai's Pandar XT-32.

Option One: Hesai Pandar XT-32 LiDAR

Price: Around \$4,000
Range: 0 - 120 m
Range Capability: 80m at 10% Reflectivity
Accuracy: 1 cm
Precision: .5 cm
Vertical FOV: 31 Degrees
Vertical Resolution: 1 Degrees
Frame Rate: 5, 10, and 20 Hz
Horizontal Resolution: .18 degrees at 10 Hz
Ingress Protection: IP6K7
Operating Temperature: -20 to 65 degrees celsius
Weight: .8 kg
Dimensions: H76 mm x D103 mm
Power Consumption: 10 W
Operating Voltage: 9 to 36 V (DC)
Clock Source: GPS/PTP
Data Points Generated: 640,000 to 1,280,000 points/sec



Option Two: Puck LITE

Price: Around \$2,000
Channels: 16 Channels
Range: 0 - 100 m
Wavelength: 903 nm
Accuracy: 3 cm
Environmental Protection: IP67
Vertical FOV: 30 Degrees
Vertical Resolution: 2 Degrees
Rotation Rate: 5 to 20 Hz
Angular Resolution: .1 to .4 Degrees
Vibration: 5 Hz to 2,000 Hz
Operating Temperature: -10 to 60 degrees celsius
Storage Temperature: -40 to 105 degrees celsius
Weight: 590 g
Dimensions: H72 mm x D103 mm



Power Consumption: 80 W
Operating Voltage: 9 to 18 V
Data Points Generated: 300,000 to 600,000 points/sec

Option Three: Ultra Puck

Price: Around \$5,000
Channels: 32 Channels
Range: 0 - 200 m
Wavelength: 903 nm
Accuracy: 3 cm
Environmental Protection: IP67
Vertical FOV: 40 Degrees
Minimum Vertical Resolution: .33 Degrees
Rotation Rate: 5 to 20 Hz
Angular Resolution: .1 to .4 Degrees
Laser Product Classification: Class 1
Operating Temperature: -20 to 60 degrees celsius
Storage Temperature: -40 to 85 degrees celsius
Weight: 925 g
Dimensions: Subject to Change
Power Consumption: 10 W
Operating Voltage: 10.5 to 18 V
Data Points Generated: 600,000 to 1,200,000 points/sec



Option Four: Puck Hi-Res

Price: Around \$5,000 to \$7,000

Channels: 16 Channels

Range: 0 - 100 m

Wavelength: 903 nm

Accuracy: 3 cm

Environmental Protection: IP67

Vertical FOV: 20 Degrees

Vertical Resolution: 1.33 Degrees

Rotation Rate: 5 to 20 Hz

Angular Resolution: .1 to .4 Degrees

Laser Product Classification: Class 1

Operating Temperature: -10 to 60 degrees celsius

Storage Temperature: -40 to 105 degrees celsius

Weight: 830 g

Dimensions: Subject to Change

Power Consumption: 8 W

Operating Voltage: 9 to 18 V

Data Points Generated: 300,000 to 600,000 points/sec

