



rs ruby lite

80 Laser Beams,
0.1° Vertical Angular Resolution



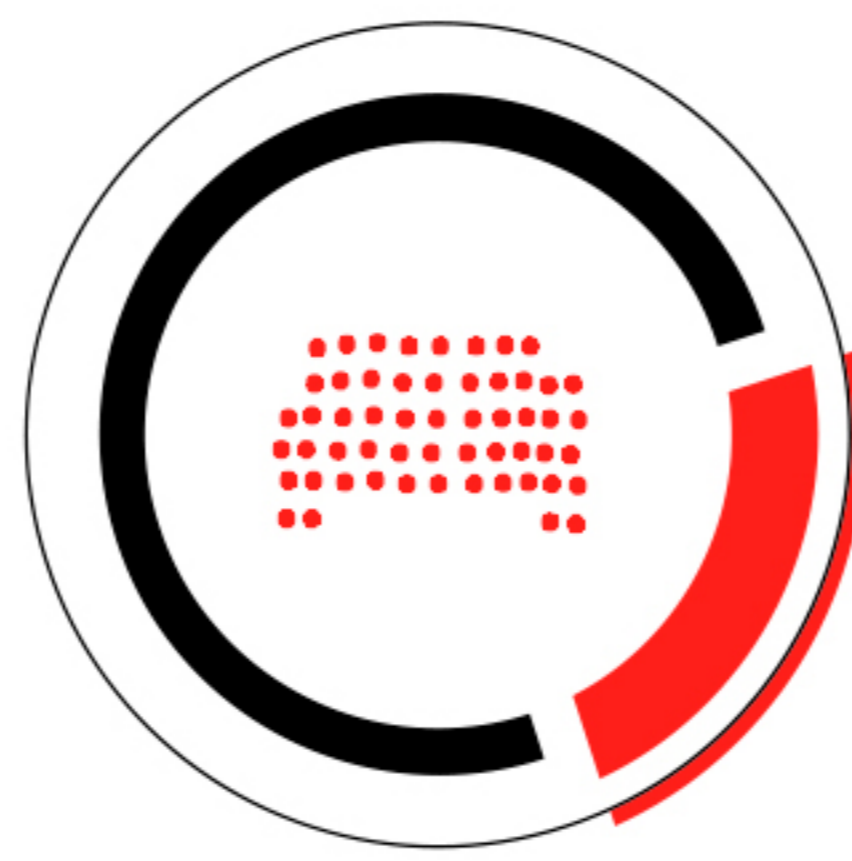
RS-Ruby Lite is an 80-beam LiDAR specially designed for medium and high-speed autonomous driving applications. Its incredible performance lands close to the 120-beam LiDAR RS-Ruby, with the vertical angular resolution of 0.1° and the ranging capability of 160 m at 10%. It seamlessly fulfils the environment-sensing requirements for self-driving passenger cars, driverless mining cars, driverless cars, V2X and more.

RS-Ruby Lite also inherits the robust stability and reliability of RS-Ruby. It meets the requirement of working under low temperature (-30°C), achieving a breakthrough in all-weather anti-interference in conditions of multiple-LiDAR jamming and various ambient light.

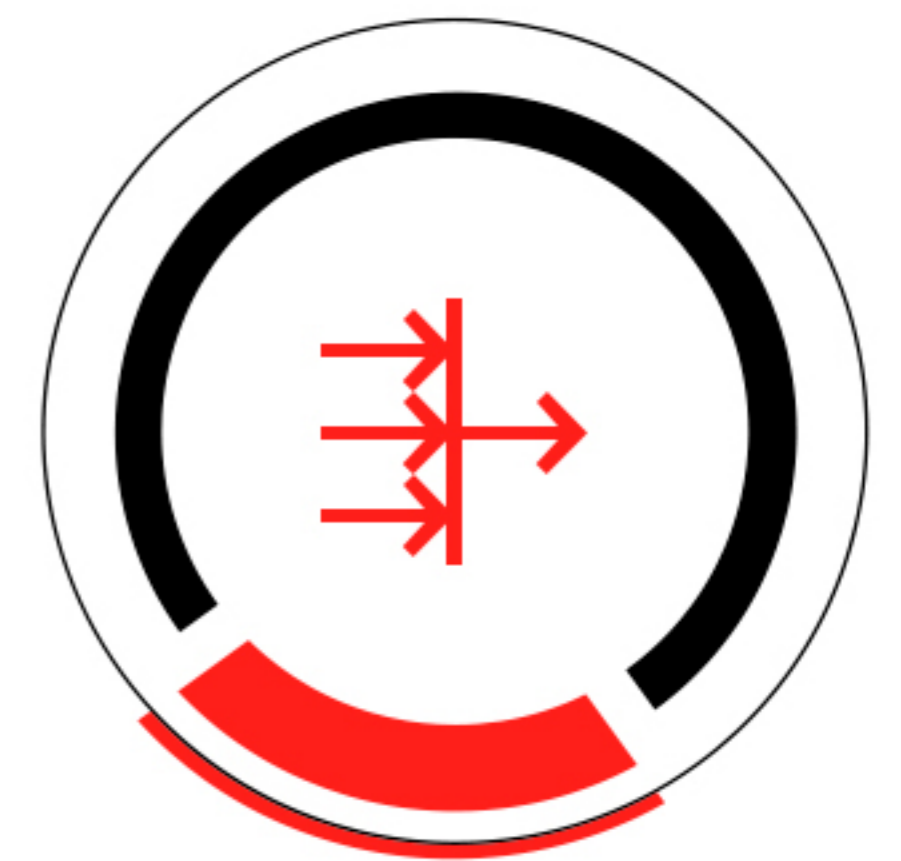
Product Advantages



Cost Efficient

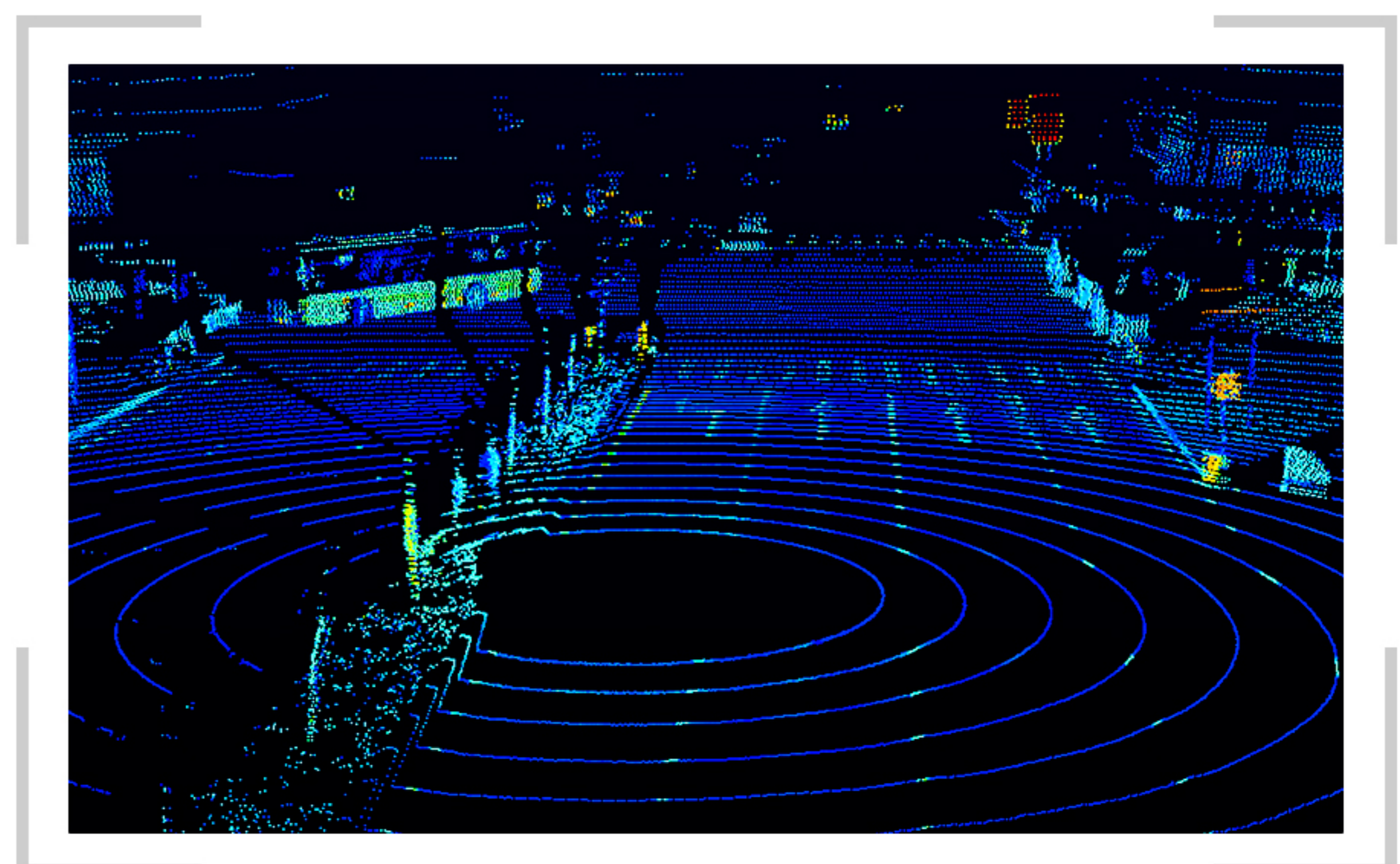
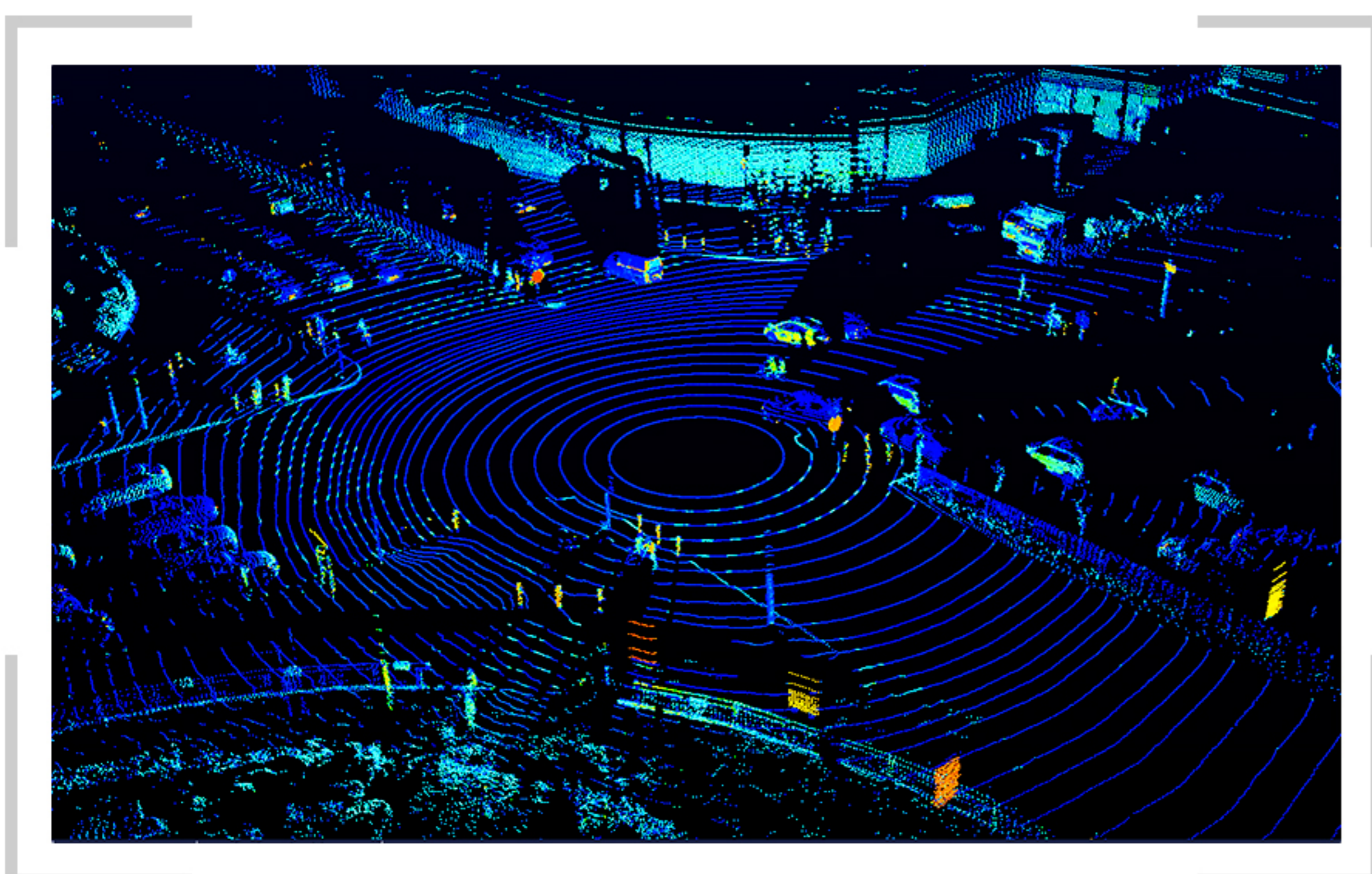


0.1° Vertical Angular Resolution



Resists Interference Of Other
LiDAR & Ambient Light

Road detection point cloud image of the 80 beam LiDAR RS-Ruby Lite



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RoboSense LiDAR

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Sensor

# of Lines	80	Horizontal FoV	360°
Laser Wavelength	905 nm	Vertical FoV	40°
Laser Safety	Class 1 eye safe	Horizontal Resolution ²	0.2°/0.4°
Range ¹	230 m (160 m@10% NIST)	Vertical Resolution	Up to 0.1°
Blind Spot	≤1.5m	Frame Rate	10 Hz/20 Hz
Range Accuracy (Typical) ³	Up to ±3 cm	Rotation Speed	600/1200 rpm (10/20 Hz)

Output

Points Per Second	1,440,000 pts/s (Single Return Mode) 2,880,000 pts/s (Dual Return Mode)		
Ethernet Connection	1000 Mbps		
Output	UDP packets over Ethernet		
UDP Packet include	Spatial Coordinates, Intensity, Timestamp, etc.		

Mechanical / Electrical / Operational

Operating Voltage	19–32 VDC	Dimension	φ166 mm * H148.5 mm
Power Consumption ⁴	38 W	Operating Temperature ⁵	-30° C ~ +60° C
Weight (without cabling)	~3.75 kg	Storage Temperature	-40° C ~ +85° C
Time Synchronization	\$GPRMC with 1PPS , g PTP	Ingress Protection	IP67

Applications



Autonomous driving passenger cars, unmanned mining vehicles, unmanned trucks, vehicle-to-infrastructure, unmanned buses

1 The range performance is depending on circumstance factors, not only temperature, range and target reflectivity but also including other uncontrollable factors.

2 The corresponding operating frequency of 0.1°/0.2°/0.4° is 5Hz/10Hz/20Hz.

3 The measurement target of accuracy is a 50% NIST diffuse reflectance target, the test performance is depending on circumstance factors, not only temperature, range and target reflectivity but also including other uncontrollable factors.

4 The power consumption is tested under 10Hz frame rate. The result is depending on circumstance factors, not only temperature, range and target reflectivity but also including other uncontrollable factors.

5 The operation temperature is depending on circumstance factors, not only sun load and air flow but also including other uncontrollable factors.