



rs ruby lite

80 Laser Beams,
0.1° Vertical Angular Resolution



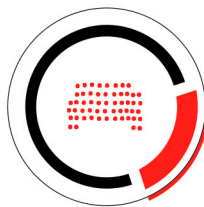
RS-Ruby Lite is an 80 laser-beam LiDAR specially designed for medium-and-high-speed autonomous driving applications, whose performance is close to the 128 laser-beam LiDAR RS-Ruby. With the vertical angular resolution of 0.1° and the ranging capability of 160m@10%, it perfectly fulfills environment sensing requirements of self-driving passenger cars, driverless mining cars, driverless trucks, V2I, etc.

RS-Ruby Lite also inherits the strong stability and reliability of RS-Ruby. It not only meets the requirement of working under low temperature (-30°C) but also achieves breakthrough in all-weather anti-interference against conditions of multiple-LiDAR jamming and various ambient lights.

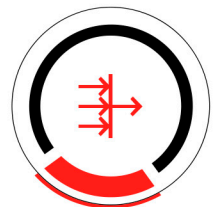
Product Advantages



The Most Affordable

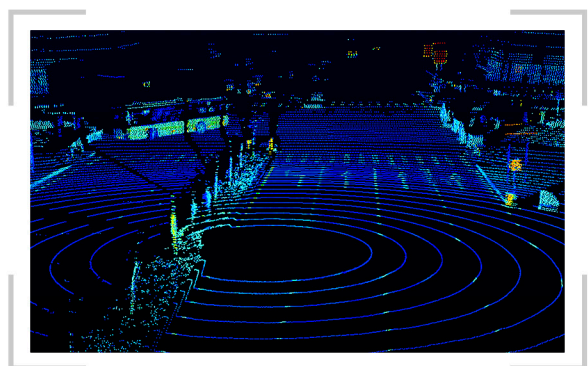


0.1° Vertical Angular Resolution



Resist Interference Of Other
LiDAR & Ambient Light

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



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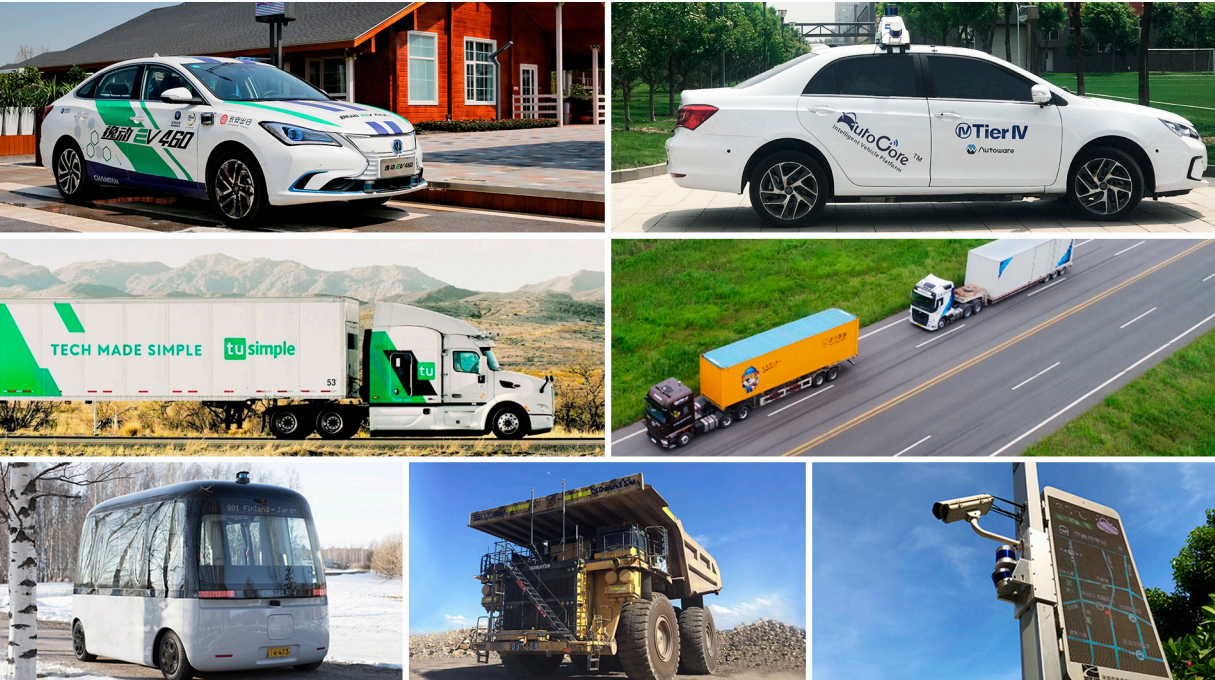


Q RoboSense LiDAR

www.robosense.ai

Sensor			
# of Lines	80	Horizontal FoV	360°
Laser Wavelength	905nm	Vertical FoV	40°
Laser Safety	Class 1 eye safe	Horizontal Resolution ²	0.1°/0.2°/0.4°
Range ¹	230m (160m@10% NIST)	Vertical Resolution	Up to 0.1°
Blind Spot	≤1m	Frame Rate	5Hz/10Hz/20Hz
Range Accuracy (Typical) ³	Up to ±3cm	Rotation Speed	300/600/1200rpm (5/10/20Hz)
Output			
Points Per Second	1,440,000pts/s (Single Return Mode) 2,880,000pts/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	19–32VDC	Dimension	φ166mm * H148.5 mm
Power Consumption ⁴	38W	Operating Temperature ⁵	–30°C ~ +60°C
Weight(without cabling)	~3.75 kg	Storage Temperature	–40°C ~ +85°C
Time Synchronization	\$GPRMC with 1PPS , 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.