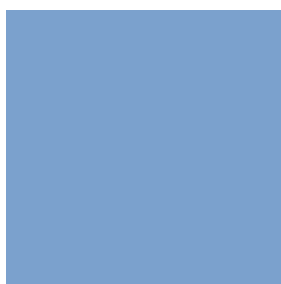


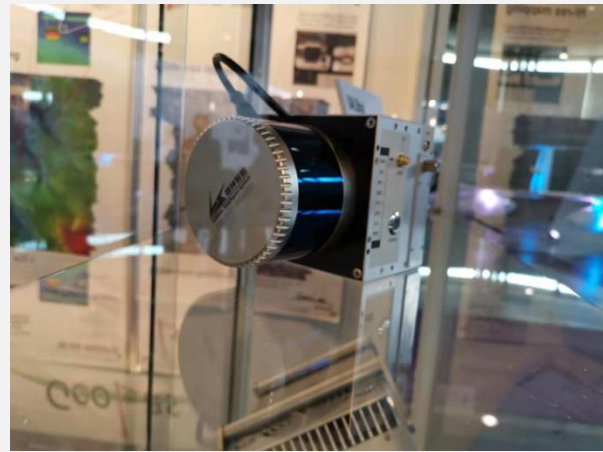
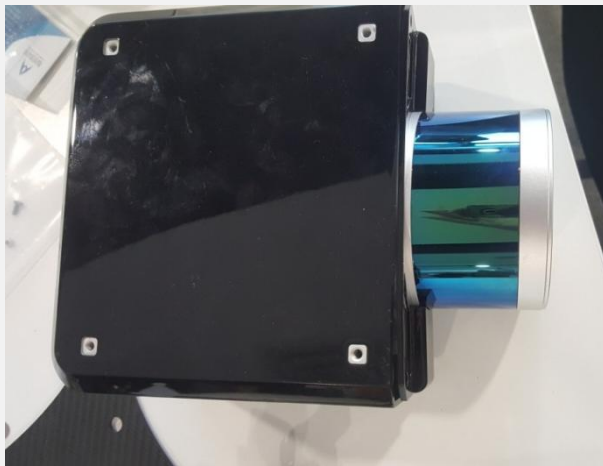
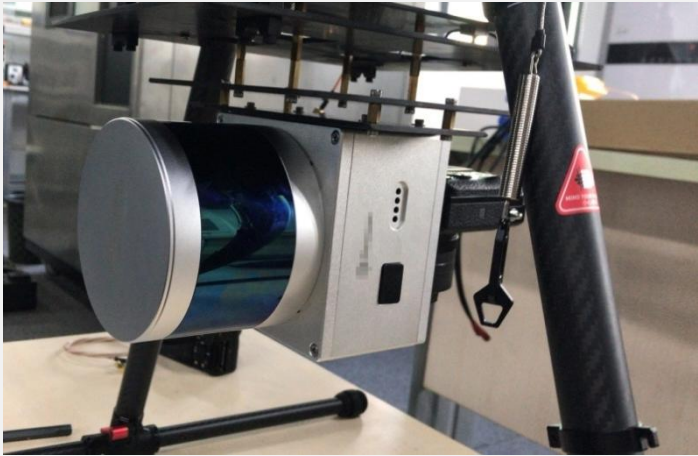
LS LIDAR MAPPING PRODUCT GUIDE



■ Surveying & mapping



■ Surveying & mapping



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MS-CH Series 120° 3D Mapping LiDAR



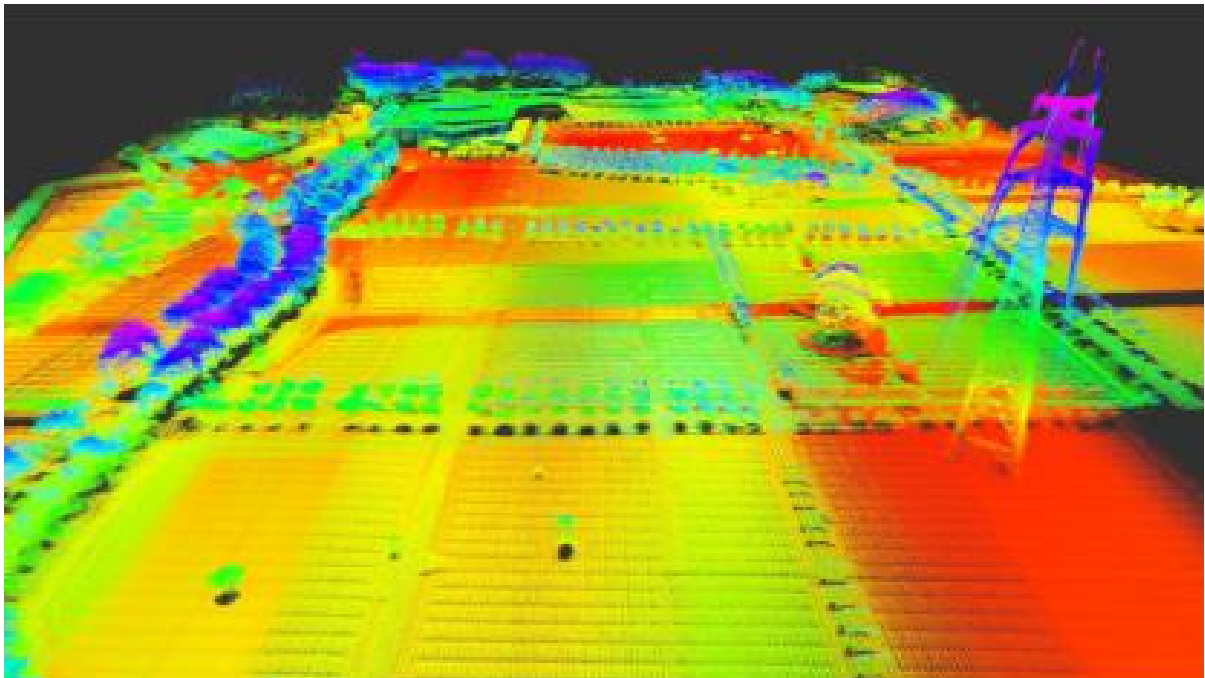
Abstract

MS-CH is a high-performance hybrid solid-state lidar. It has two types: 32-line & 16-line. The detection range up to 200m and the accuracy is $\pm 2\text{cm}$, with a 120° horizontal FOV, dual return is 852,000 points/s (32 lines) and 426,000 points/s (16 lines). It's widely used in high precision maps, smart cities, urban 3D modeling, land survey, fire emergency, power line inspection, mine/ tunnel/ forest detection and other fields.

Features

- Long measurement distance, high accuracy and high vertical resolution
- Compact design, stable structure and lower power consumption
- Multi-echo , rich scanning information

Demo



Specifications

Model		MS-CH32
Channel		32
Wavelength		905nm
Classification		Class 1 Eye-safe/ IEC 60825-1:2007 & 2014
Range		200m (Reflectivity 20%)
Accuracy		±2cm (0.5m~200m)
Rotation Rate		5 ~ 30Hz
Echo times		2 times
Pulse Repetition Rate	Single	426,000 points per second
	Dual	852,000 points per second
Field of View (FOV)	Horizontal	120°
	Vertical	-6.67°~ 4.58°
Angular Resolution	Horizontal	5Hz: 0.045°/ 10Hz: 0.09°/ 20Hz: 0.18°/ 30 Hz: 0.27°
	Vertical	Vertical angle resolution between 0 ~ 0.81 °, minimum 0.09 ° in the middle and a maximum of 0.47 °
Operating Voltage		9V~ 36VDC
Operating Temperature		-40°C ~ 85°C
Communication Interface		100M Ethernet , PPS
Power Consumption		10 W
Shock Test		500m/sec ² , last 11ms
Vibration		5Hz-2000Hz , 3G rms
IP		IP67
Weight		950g
Dimension (D·H)		155 * 107.5 * 90mm

MS-HS Series 120° Mapping LiDAR



Abstract

MS-HS Series 120° mapping LiDAR has excellent detection accuracy and anti-interference performance, Measurement range is up to 250 m, and distance accuracy is $\pm 2\text{cm}$. 160Hz high scan frequency can easily sense high-speed movement objects in time, and accurately capture vehicle contour information. Widely used in high-precision maps, smart cities, urban 3D modeling, land survey, fire emergency, power line inspection, track、mine、tunnel、forest detection and other fields.

Specifications

Model		HS1	HS4	HS8
Channel		1	4	8
Measurement Technique		Time of Flight (TOF)		
Wavelength		905nm		
Classification		Class 1 Eye-safe/ IEC 60825-1:2007 & 2014		
Range		250m		
Ranging Accuracy		$\pm 2\text{cm}$		
Data Points Generated		200,000point/s	320,000 point/s	320,000 point/s
Rotation Rate		80Hz、120Hz 、160Hz		
Field of View (FOV)	Horizontal	120°		
	Vertical	/	-4°~ 0°	-6.66°~ 2.66°
Angular Resolution	Horizontal	0.048° (80Hz)	0.12° (80Hz)	0.24° (80Hz)
	Vertical	/	1.33°	
Operating Voltage		9V~ 36VDC		
Communication Interface		Ethernet		
Operating Temperature		-40°C ~ 85°C		
Shock Test		500m/sec ² , last11ms		
Vibration		5Hz-2000Hz , 3G rms		
IP		IP 67		
Dimension (D·H)		155 * 107.5 * 90mm		
Weight		1600g		

MS-C Series 360° 3D Mapping LiDAR



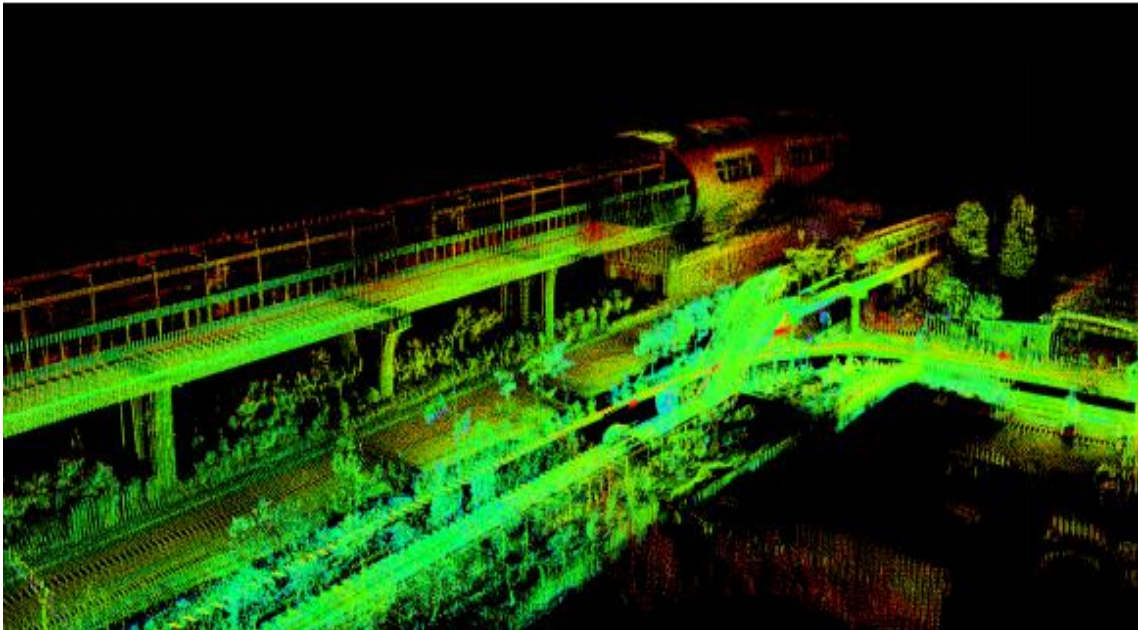
Abstract

MS-C is a high-performance 360° 3D mapping LiDAR. It has two types: 32-line & 16-line. Through the scan of 32-line & 16-line laser at 360° FOV to achieve 3D detection and imaging, accurately obtaining the surrounding environment information. Detection distance is up to 200m and measurement accuracy $\pm 3\text{cm}$. Widely used in high-precision maps, smart cities, 3D modeling of cities, land surveys, fire emergency, power line inspection, mine/ tunnel detection, etc.

Features

- High point density, dual echo generating about 1.28 million 3D point cloud coordinates per second
- Wide field of view, with 360° horizontal FOV and 32° vertical FOV
- Lightest weight only 840g for MS-C16

RTK-SLAM



Specifications

Model		MS-C32	MS-C16
Channel		32	16
Measurement Technique		Time of Flight (TOF)	
Wavelength		905nm	
Laser Product Classification		Class 1 Eye-safe/ IEC 60825-1:2007 & 2014	
Measurement Range		200m	
Ranging Accuracy		±3cm	
Data Points Generated	Single Return	640,000 point/s	320,000 point/s
	Dual return	1,280,000 point/s	640,000 point/s
Rotation Rate		5Hz , 10Hz , 20Hz	
Echo times		2	
Field of View (FOV)	Horizontal	360°	
	Vertical	-16°~ 15°	-15°~ 15°
Angular Resolution	Horizontal	5Hz: 0.09° / 10Hz: 0.18° / 20Hz: 0.36°	
	Vertical	1°	2°
Operating Voltage		9V~ 36VDC	
Operating Temperature		-20°C ~ 60°C (Customized up to -40°C)	
Communication Interface		1000M Ethernet , PPS	
Shock Test		500m/sec ² , last11ms	
Vibration		5Hz-2000Hz , 3G rms	
IP		IP 67	
Dimension (D-H)		Φ 120*110mm	Φ102*78mm
Weight		1200g	650g

MS01 Series 360° Mapping LiDAR



Abstract

MS01 LiDAR based on TOF principle. It uses Class I human eye-safe laser, scanning angle 360° and detection distance up to 500m, Measurement accuracy is $\pm 3\text{cm}$, and the minimum angular resolution is 0.0125° . Widely used in long range applications.

Specifications

Model	MS01
Measurement Technique	TOF
Wavelength	1550nm
Classification	Class 1 Eye-safe/ IEC 60825-1:2007 & 2014
Data content	Location, Distance, Reflectivity
Rotation Rate	5Hz , 10Hz , 20Hz
Measurement Range	500m
Ranging Accuracy	$\pm 3\text{cm}$
Field of View (FOV)	360°
Angular Resolution	5Hz: 0.0072° / 10Hz: 0.0144° / 20Hz: 0.0288°
Data Points Generated	250,000 points per second
Echo Times	3 ~ 4 times
Operating Voltage	14V~ 36VDC
Operating Temperature	-10°C ~ 60°C
Illumination intensity	100K lux
Communication Interface	Ethernet , PPS
IP	IP 65
Dimension (D·H)	$\Phi 120 \times 247\text{mm}$
Weight	1664g



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