MS-CH Series 120° 3D Mapping LiDAR
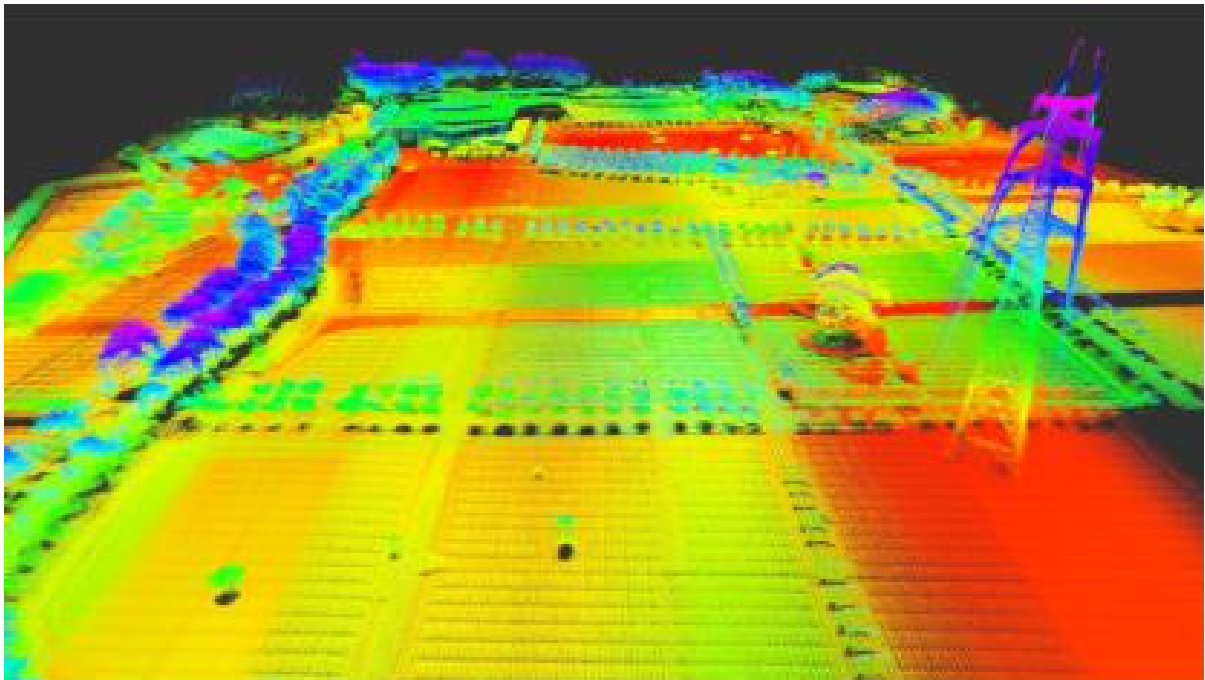

Abstract

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 ±2cm, 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℃ ~ 85℃
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