

The Hi-Cloud PM-1500 Airborne Lidar System

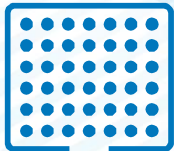
The Hi-Cloud PM-1500 Airborne Lidar System is a state-of-the-art laser mapping system equipped with a new generation of laser scanners that provide a long-range, high pulse repetition rate (PRR) and high-precision measurement product. The laser scanner, which is the core component of the PM-1500, was independently developed by Hi-Cloud. The PM-1500 is also equipped with a high-precision Position and Orientation System (POS) and a professional airborne camera. These, together with the laser scanner, still form a very lightweight and compact airborne Lidar system.

Installed to UAV drones or into aircraft, the PM-1500 can be used to perform fast and high-precision 3D reconstruction of the terrain. Through its ability to obtain high-precision point cloud data, the PM-1500 can map and collect measurement data that can be widely used in applications such as (and not limited to): Topographic mapping, Cadastral Surveying, Power Line Inspection, Traffic Surveying, Forestry mapping, Mine Monitoring, Disaster Monitoring, Shallows Surveying, Urban Environmental Surveying.



● Features ●

With such performance, the PM-1500 can obtain dense point cloud data even when mounted on a high-speed flying platform. With the PM-1500, 3D terrain can be measured more realistically and accurately - greatly improving the efficiency of measurement operations. In addition, the laser scanner has a built-in 1TB Solid-state drive (SSD) and provides a standard external interface for users to customize data input and/or output according to their specific needs.



A Laser Pulse Repetition rate (PRR) of up to 2,000 kHz



A Scanning Speed of up to 400 scans/second



A Measuring Range capability of up to 1,500 meters



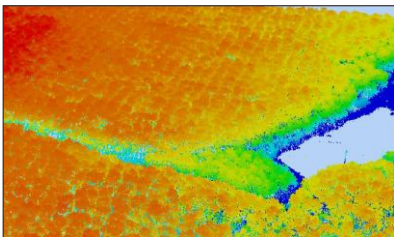
A wide Field of View (FoV) of 75 degrees

● Technical specifications

The Hi-Cloud PM-1500 Airborne Lidar System

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|----------------------------------|------------------------------|------------------------|
| Laser Scanner | Laser Wavelength | Near Infrared (NIR) |
| | Laser product classification | Class 1 |
| | PRR | 100-2000 kHz |
| | Maximal range measurement | 1500 m |
| | Range accuracy | 5 mm |
| | Angle measurement resolution | 0.001° |
| | Scanning speed | 40 – 400 scans/sec |
| | FoV | 75° |
| POS (Post-Processing) | Positioning Accuracy | 0.01m horizontal |
| | | 0.02m vertical |
| | Orientation Accuracy | 0.009° heading |
| | | 0.005° pitch/roll |
| Camera | Resolution | 42.4M pixels |
| | Focal length | 28/35 mm |
| System performance | Accuracy | ≤5cm |
| | Weight | 4.2 kg |
| | Multi-echo technology | 4 times |
| | Temperature range | -40 - 60°C (operation) |
| -45 - 70°C (storage) | | |

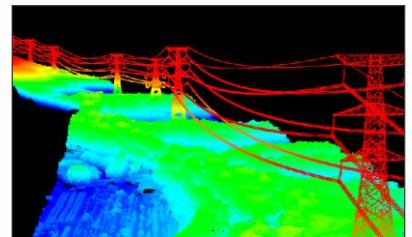
● Application



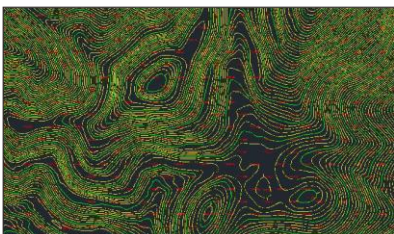
Forestry Surveying



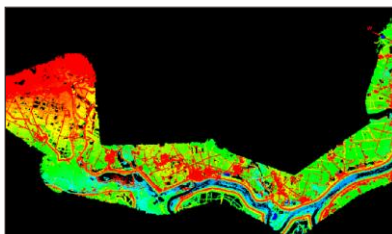
Disaster Monitoring



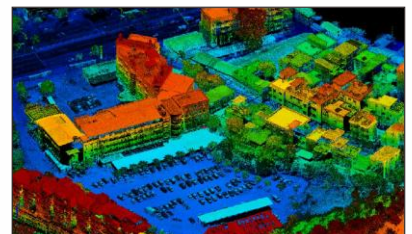
Power Line Inspection



Topographic Surveying



Hydrographic Surveying



Cadastral Surveying

