PEGASUS HD500

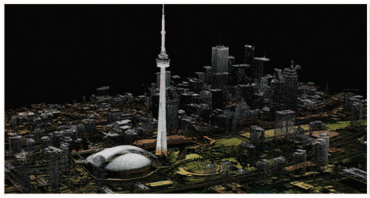
Summary Specification Sheet

NEW!

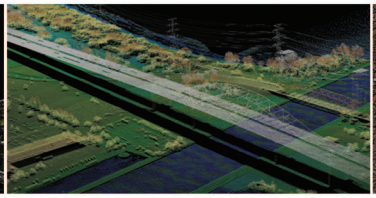
ALTM Pegasus

A new benchmark in airborne lidar mapping and active imaging technology.

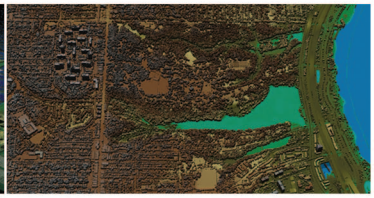
HIGH DENSITY 500 kHz



Urban Modeling



Asset Management



Topographic Mapping

www.optech.ca

Optech
Lidar Imaging Solutions

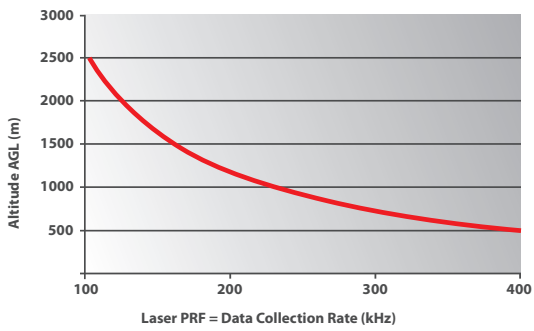
PEGASUS HD 400

The ALTM Pegasus Advantage

Pegasus is ideally suited for applications that require maximum collection efficiency in a wide FOV design, while maintaining enhanced target detail and maximum ground density with high range accuracy and precision.

- Industry's highest data sampling rate for maximum density capability
- Industry's highest scan rate for enhanced efficiency in XY point distribution
- Large operating envelope
- Multiple look-angle configuration enabling improved canopy penetration
- "Drop-in" sensor design for unrestricted use of advertised FOV in deep portal installations
- High accuracy and precision independent of pulse rate, enabled by Optech's iFLEX™ technology
- The latest in tightly-coupled inertial and Virtual Reference System processing technology, enabling steep turns, extended GPS baselines, and the elimination of remote base stations

ALTM Pegasus Operating Envelope



Parameter	Specification
Operational envelope[1,2]	300 - 2500 m AGL, nominal
Horizontal accuracy[2]	1/5,500 x altitude; 1 σ
Elevation accuracy[2]	< 5-15 cm; 1 σ
Effective laser repetition rate	Programmable; 100 – 500 kHz
Scan width (FOV)	Programmable; 65° max.
Scan frequency[3]	Programmable; 140 Hz max.
Roll compensation	Programmable; ±5° min.
Position and orientation system	POS AV™ 510 (OEM) 72-channel dual frequency GPS/GNSS/L-Band receiver
Minimum target separation distance	< 1.0 m
Range capture	Up to 4 range measurements for each pulse, including last
Beam divergence	0.20 mrad (1/e)
Laser classification	1064 nm; Class IV (US FDA 21 CFR 1040.10 and 1040.11; IEC/EN 60825-1)
Intensity capture	12-bit dynamic measurement and data range
Data storage	Removable solid state disk SSD (SATA II)
Image capture	Small format progressive scan digital camera (standard) Embedded 60 MP medium format camera (optional)
Full waveform capture system	Optional
Power requirements	28 V; 600 W; 21A
Dimensions and weight	Control rack: 650 x 590 x 490 mm, 46 kg Sensor head: 630 x 540 x 450 mm, 49 kg
Humidity	0 – 95% non-condensing

1 10% reflective target
2 Dependent on selected operational parameters using nominal 50° FOV in standard atmospheric conditions
3 Dependent on system configuration

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