ALTM
PEGASUS

PEGASUS HD400

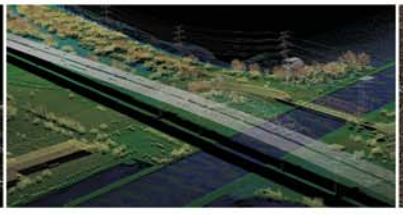
Summary Specification Sheet

A new benchmark in lidar mapping and active imaging technology.

HIGH DENSITY 400 kHz

ALTM Pegasus

Urban Modeling



Asset Management

Topographic Mapping

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PEGASUS HD400

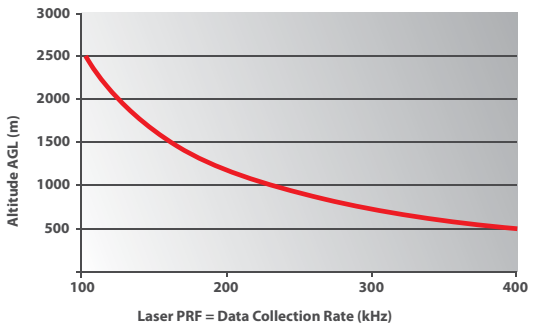
The ALTM Pegasus Advantage

The new ALTM Pegasus represents an open-concept technology platform enabling a variety of configuration options for specific applications and workflows, depending on user requirements. The first of these configuration options is the Pegasus HD400. Built specifically for high-definition mapping applications requiring high-density point sampling, Pegasus HD400 incorporates a wide field of view (FOV) with high range accuracy and precision.

- Industry's first multi-channel airborne laser terrain mapper
- A technology alternative to multipulse, enabling a large operating envelope
- Industry's highest data sampling rate for high-definition mapping applications requiring maximum point density
- A 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
- Fully embedded digital camera options ranging from 5 to 60 MP
- The latest in tightly-coupled inertial and Virtual Reference System processing technology, enabling steep turns and an extended GPS baseline

Parameter	Specification
Operational envelope[1,2]	300-2500 m AGL, nominal
Horizontal accuracy[2]	1/5,500 x altitude; 1σ
Elevation accuracy[2]	<5-15 cm; 1σ
Effective laser repetition rate	Programmable; 100–400 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 wavelength	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	5-MP 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

ALTM Pegasus Operating Envelope



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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