

Now at  
**167 kHz**

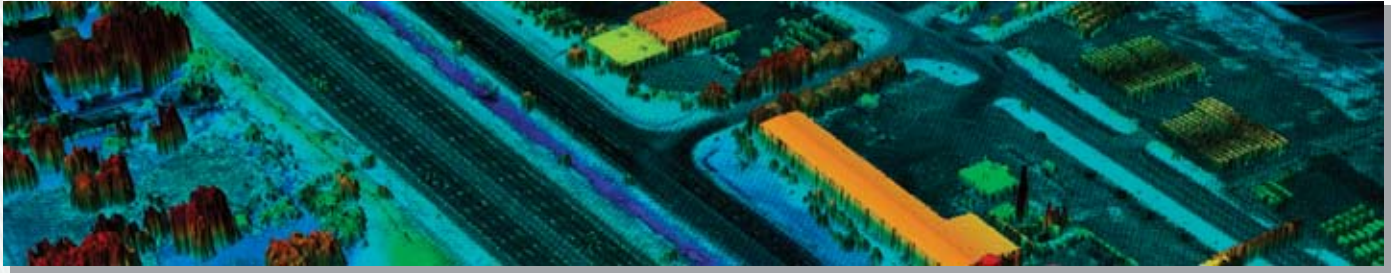


Multipulse - Maximizing Efficiency



**IT'S ALL ABOUT THE SCIENCE**

Optech 



### Airborne Module

Laser repetition rate	33 - 167 kHz
Operating altitude	80 to 4,000 m (higher altitude optional)
Horizontal accuracy	1/11,000 x altitude; $\pm 1$ -sigma*
Elevation accuracy	5 - 10 cm typical; $\pm 1$ -sigma
Range capture	Up to 4 range measurements for each pulse, including last
Intensity capture	4 intensity readings with 12-bit dynamic range for each measurement
Scan frequency	Variable to 100 Hz
Scan angle	Variable from 0 to $\pm 25^\circ$ , in increments of $\pm 1^\circ$
Spot distribution	Sawtooth, uniform spot spacing across 96% of scan
Scanner product	Scan angle x scan frequency $\leq 1,000$
Roll compensation	5 Hz update rate (Scan angle + roll comp. angle = $30^\circ$ , e.g., $\pm 20^\circ$ scan allows $\pm 10^\circ$ compensation)
Swath width	Variable from 0 to 0.93 x altitude (m)
Beam divergence nominal (1/e full angle)	Dual divergence 0.15/0.25 mrad or 0.80 mrad
Data storage	Ruggedized removable media
Position orientation system	Applanix - POS/AV including internal 12-channel dual-frequency 10 Hz GPS receiver
Laser classification	Class IV (FDA 21 CFR)

Power requirements	28 VDC, 35 A (maximum)
Operating temperature (ambient)	Control rack: $+10^\circ\text{C}$ to $+35^\circ\text{C}$ Sensor head: $-10^\circ\text{C}$ to $+35^\circ\text{C}$
Storage temperature	$-10^\circ\text{C}$ to $+50^\circ\text{C}$
Humidity	0 to 95% non-condensing

### Control Rack

Vibration-isolated case	
Dimensions	65 cm x 59 cm x 49 cm
Weight	53.2 kg
Cables/laptop	7.6 kg/3 kg

### Sensor Head

Fits standard camera mounts or mounts directly to floor	
Dimensions	26 cm x 19 cm x 57 cm
Weight	23.4 kg
Minimum opening	19.2 cm x 25.5 cm (flight direction)

### Processing Software

DASHMap Survey Suite	Differential kinematic GPS solution Trajectory optimization from multiple base stations. XYZ point calculations module. Windows XP compatible
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### GPS Ground Support

Multiple base stations	Any dual frequency receiver with Rinex output
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\* As per Optech test procedures



041206. Supersedes all previous and undated versions.

### CANADA:

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