



# 3100 EA

## ENHANCED ACCURACY

### Your Corridor Mapping Solution

The ALTM 3100EA is the ideal solution for engineering and corridor applications while maintaining the flexibility to collect higher altitude missions if demanded.



Designed specifically for enhanced accuracy, the ALTM 3100EA is the ideal solution for engineering and corridor applications that demand accuracy without compromise. Optional waveform and high resolution digital camera capabilities provide users flexibility in a fully integrated and supported package. With extremely low-altitude capability and a size and configuration ideally suited to helicopter installations, the 3100EA is *the solution* when maximum detail and accuracy is required.

**Optech**  
The Lidar Company™



# ALTM 3100EA

Parameter	Specification
Operational Altitudes <sup>1</sup>	80-3500 m AGL, nominal
Horizontal Accuracy <sup>2</sup>	1/5,500 x altitude (m AGL); 1 $\sigma$
Elevation Accuracy <sup>2</sup>	<5–20 cm; 1 $\sigma$ *
Effective Laser Repetition Rate	Programmable, 33 – 100 kHz
Range Capture	Up to 4 range measurements, including 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , last returns
Intensity Capture	12-bit dynamic range Measurements for all recorded returns, including last return
Scan FOV	0-50° Programmable in $\pm 1^\circ$ increments;
Scan Frequency <sup>3</sup>	0 to 70 Hz (>70 Hz optional) Programmable in 1 Hz increments
Roll Compensation	$\pm 5^\circ$ ; more compensation available if FOV reduced Programmable in $\pm 1^\circ$ increments
Position and Orientation System	POS AV 510 OEM Includes embedded BD960 GNSS receiver (GPS and GLONASS)
Data Storage	Ruggedized removable SCSI hard disks
Beam Divergence	Dual divergence: 0.25 mrad (1/e) and 0.8 mrad (1/e) , nominal
Laser Classification	Class IV (US FDA 21 CFR)
Power Requirements	28 V 35 A (peak)
Operating Temperature	Control rack: +10° to 35°C Sensor head: -10° to +35°C (with provided sensor insulating jacket)
Storage Temperature	Control rack: -10°C to 50°C Sensor head: 0°C to 50°C
Humidity	0-95% non-condensing
Dimensions and Weight	Control rack: 65 cm x 59 cm x 49 cm; 53.2 kg Sensor head: 26 cm x 19 cm x 57 cm; 23.4 kg
Video Camera	Internal video camera (NTSC or PAL)

<sup>1</sup> Operational eye-safe altitudes

<sup>2</sup> Accuracies dependant on selected operational parameters using nominal 50° FOV in standard atmospheric conditions.

<sup>3</sup> Customizations available to meet your specific requirements.

