

## Get moving with ILRIS

Motion Compensation Option  
Enables GPS Time-Stamping

### Marine Applications



Optech's ILRIS laser scanner enables the collection of precise dynamic motion-compensated 3D data sets from a moving platform. When integrated with a GPS/IMU, the resulting georeferenced data sets serve a multitude of applications. Use a boat, truck or even an airship to reach what you have never been able to scan before – quickly and efficiently.

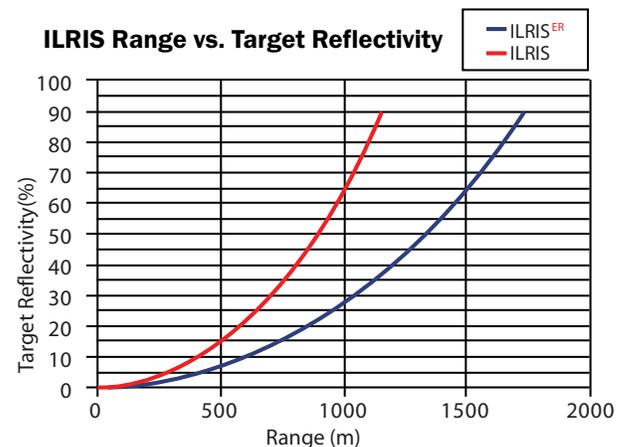
Get the great ILRIS features that countless surveyors have come to rely on and trust day after day:

- Dynamic scanning at ranges from 3 m to beyond 1500 m
- Complete metrically accurate surveying solutions
- Class 1 eye-safety rating
- Rugged design and packaging
- Easily portable and deployed by a single operator
- Quick scanning and processing times for maximum efficiency.

Whatever your mobile survey need, ILRIS has the answer:

- “Stop and Stare” Scans – Move into position and start data acquisition. Ideal for all those hard-to-reach places and applications such as marine surveys of oil rigs, ports and in-land waterways.

- Mobile Platform Horizontal Scans – Do what traditional survey equipment cannot - survey flat surfaces such as roadways while on the move, or get into hard-to-survey areas such as bridge substructures and acquire data from a moving vehicle.
- Mobile Platform Vertical Scans – Reach hard-to-scan areas where the location or height of the object inhibits traditional scanning methodology. Ideal for shoreline scans and cliff-side assessments where vertical challenges render all other surveying methods impossible.



## ILRIS Specifications

Data sampling rate (actual measurement rate)	10,000 points per second
Raw range accuracy*	7 mm @ 100 m
Raw positional accuracy*	8 mm @ 100 m
Scanner field of view (ILRIS)	40° x 40°
Laser wavelength	1,500 nm
Digital camera	Integrated digital camera (3.1 MP) Optional external camera

### Eye-safety

Laser class	Class 1 laser product
	IEC 60825-1, US FDA 21 CFR 1040
	Eye-safe in all modes of operation

**CLASS 1 LASER PRODUCT**

### Typical Position Orientation System Performance Specifications

#### Data based on Applanix POS LV 420 - Land Vehicle

	Post-processed data
X,Y position (m)	0.020
Z vertical position (m)	0.030
Roll and pitch (deg)	0.005
True heading (deg)	0.002

#### Data based on Applanix POS MV - Marine Vehicle

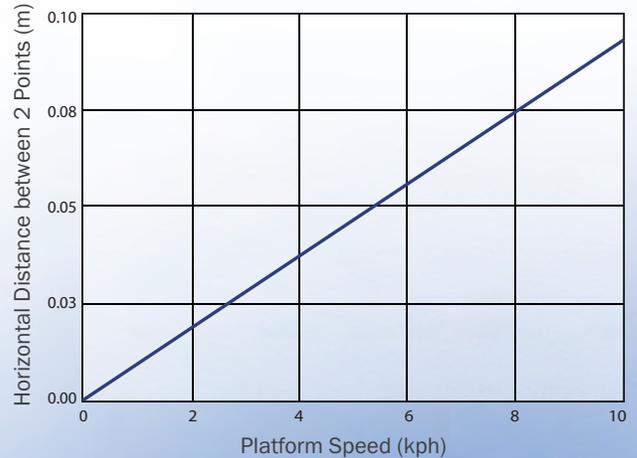
	Post-processed data
X,Y position (m)	0.025
Z vertical position (m)	0.050
Roll and pitch (deg)	0.005
True heading (deg)	0.010
Heave (m)	0.050

All position data is post-processed and assumes 0-second GPS outage.

\*All quoted accuracies are 1 sigma, single shot, as performed under Optech test conditions.

### ILRIS Motion Compensation Spot Spacing

Vertical line scan mode - 0.1 m spot spacing at 100 m range



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**Optech**  
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