

**NOW
10 kHz**



ILRIS

LASER SCANNER

10 kHz
Repetition Rate
High Precision
Mode
Rapid Survey
Method
Class 1
Eye Safe



CAPTURE EVERY DIMENSION

Optech's ILRIS Laser Scanner is a fully portable, laser based ranging and imaging system for the commercial survey, engineering, mining and industrial markets. A compact and highly integrated instrument with digital image capture and sophisticated software tools, ILRIS is an industry leading solution that addresses the needs of commercial users.

Optech
The Lidar Company™

ILRIS LASER SCANNER

Instrument Type: Dual-Mirror Pulsed Time of Flight

ILRIS	ILRIS-3D	ILRIS-3D-ER	ILRIS-HD	ILRIS-HD-ER
Scanner Performance				
Range 80% Reflectivity	1200 m	1700 m	1200 m	1700 m
Range 10% Reflectivity	400 m	650 m	400 m	650 m
Minimum Range	3 m			
Laser Repetition Rate (Hz)	2500 to 3500 Hz		10,000 Hz	
Raw Range Accuracy ¹	7 mm @ 100 m			
Raw Range Accuracy (Averaged) ^{1,2}	n/a		3-4 mm @ 100 m	
Raw Angular Accuracy	8 mm @ 100 m			
Raw Angular Accuracy	80 µrad			
Scanner Properties				
Field of View, ILRIS-3D/HD	40° x 40°			
Field of View, ILRIS-36D Option	-20° through 90° -90° through 20°			
Minimum Step Size ³	0.001146° (20 µrad)		0.000745° (13 µrad)	
Maximum Sample Density (Point-to-Point Spacing)	2 mm @ 100 m		1.3 mm @ 100 m	
Rotational Speed	0.001 to 20 deg/sec			
Rotational Step Size, Minimum	0.001146° (20 µrad)			
Beam Diameter (1/e)	22 mm @ 100 m		19 mm @ 100 m	
Beam Divergence	0.009740° (170 µrad)		0.008594° (150 µrad)	
Laser Wavelength	1535 nm			
Laser Class ⁴	1	1M	1M	
Integrated Camera	High-Res Digital, 3.1 Mpixel			
Physical and Environmental				
Size (L x W x H)	320 x 320 x 220 mm		320 x 320 x 240 mm	
Weight	13 kg		14 kg	
Weight, ILRIS-36D Base	7 kg			
Operating Temperature	0 to 40°C			
Storage Temperature	-20°C to +50°C			
Power Consumption	75 Watts			
Battery Operation (Standard Battery Pack, Hot-Swappable)	5 hours operation			
Data Storage	Removable USB drive			
Standard Accessories				
Scanner control software for Windows and Window CE-based computers		Data extraction software to generate user-selectable file formats		
Automated alignment software		2.0 GB USB memory drive		
User manuals		Universal AC voltage power supply		
Interconnect power/battery cables		Rugged carrying case		
Optional Accessories				
Automated and manual pan/tilt bases		GPS/external camera mounting kit		
PDA, UMPC, notebook PCs		Batteries and chargers		
ILRIS backpack		ILRIS cold-weather jacket		

¹All accuracies are 1 sigma, as performed under Optech test conditions. Details available on request.

²Average of 4 shots minimum.

³Independent fully-selectable vertical and horizontal step size selection.

⁴Laser class in accordance with IEC 60825-1 and US FDA 21 CFR 1040.

All information is subject to change without notice.

Data output to a variety of user-selectable formats and XYZ coordinates, including return intensity and digital photograph.

User interface: PDA, UMPC, tablet or notebook via wireless/wired connection.

Digital imaging: Internal 3.1-Megapixel camera with calibration file for creating true color RGB point clouds.

Display: On-board 6.5" XGA color LCD panel for image, system status, and data display.