



TELEDYNE OPTECH
Everywhere you look™

Part of the Teledyne Imaging Group



CL-90 Compact Lidar Scanner

Survey-grade OEM lidar sensor that employs proven technology in a compact sensor design for integration with UAV platforms.



CL-90 Compact Lidar Scanner

Technical Specifications

NEW

The CL-90 is the first of a new line of survey-grade OEM lidar sensors from Teledyne Optech that employ proven technology in a compact sensor design for UAV platforms.

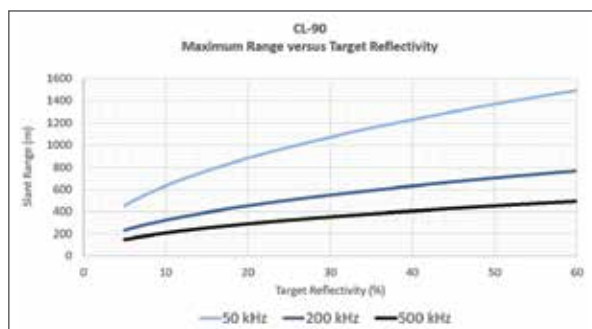
Available as a transceiver for system integration, the CL-90 enables high-quality data in complex environments for discriminating surveyors. Whether it is a deep open-pit mine, or an obscured ruin in dense jungle, or an electrical sub-station, the CL-90 delivers maximum resolution with high measurement precision and accuracy for uncompromising data quality.

The CL-90 is available as a kit for authorized re-sellers for integration with 3rd party INS solutions, imaging sensors and UAV platforms.



FEATURE BENEFITS

- » Superior vegetation penetration for excellent ground coverage
- » Long range performance for UAS and/or manned platform options
- » Best-in-class data precision for tight-tolerance applications
- » Programmable FOV for maximum point density and application flexibility



Ordering Information

Contact your local Teledyne Optech representative or an authorized Teledyne Optech dealer.

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Canadian Space Agency / Agence spatiale canadienne

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www.teledyneoptech.com

ITEM	SPECIFICATION
Laser	
Range measurement principle	Time of Flight
Range Performance ¹	176 m (500 kHz) to 633 m (50 kHz)
Pulse Repetition Frequency	500, 200, 50 kHz (Programmable)
Beam Divergence (1/e ²)	0.3 mrad
Wavelength	1550 nm
Laser safety classification	1
Range resolution	2 mm
Intensity recording	12 bits
Maximum number of returns	4
Minimum range	1.5 m
Range accuracy 1 sigma ²	10 mm
Precision single shot ²	5 mm
Scanning Characteristics	
Angular measurement resolution	12 urad
Scan angle [FOV]	64-90°
Lines per second [Scan Frequency]	20 – 52 lines/sec (10-26 Hz)
Scan Product	860 maximum
Scan Pattern	Sawtooth
Power	
Power Supply Input Voltage	18 – 36V
Power Consumption	60W
Environmental	
Operating Temperature (min / max)	-10°/+40° C
Storage Temperature (min / max)	-20°/+50° C
Vibration	DO-160H Section 8, Category S, Curve M
Shock	DO-160H Section 7, Category A, Standard Shock
Dimensions	300 L x 213 W x 209 H mm
Weight ³	4.1 kg
Protection Class	IP64 (Dust and splash proof)
Interfaces	
Connector 1	Power, RS232, PPS
Connector 2	1000 Mbit/sec Ethernet
Data Storage	240 GB SSD
Post-Processing Software	Windows
Realtime API Library	Windows, Linux

- 99% detection probability; 10% reflective target; 23 km visibility; full footprint interception
- Under Optech Test Conditions, contact for details
- Nominal Value. Contact for details

Complies with 21 CFG 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007. Max range tested on flat targets, larger than the laser beam diameter, perpendicular angle of incidence and STD Clear visibility (23 km).

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