



## **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



The **CL-90** is the first of a new line of survey-grade OEM lidar sensor from **Teledyne Optech** that employs 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



#### **APPLICATIONS**

- » Forestry and Agriculture
- » Topo and Right of Way Mapping
- » Geomorphic Hazards Mapping
- » Stockpile and Open Pit Mining
- » Construction Site Monitoring
- » Asset Mapping, Inspection and Monitoring
- » Archeological Exploration and Heritage Site Documentation

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ITEM	SPECIFICATION
Laser	
Range measurement principle	Time of Flight
Pulse Repetition Frequency [kHz]	50, 200, 500 (Programmable)
Beam Divergence, 1/e <sup>2</sup>	0.3mrad
Wavelength [nm]	1550
Laser safety classification	1
Range resolution [mm]	2
Intensity recording [bits]	12
Maximum number of returns	4
Minimum range [m]	1.5
Range accuracy 1 sigma	10 mm @ 100 m
Precision single shot	5 mm @ 100 m
Scanning Characteristics	
Angular measurement resolution [urad]	12
Scan angle [FOV]	64-90°
Lines per second [Scan Frequency]	20 – 50 lines/sec (10-25 Hz)
Scan Product	860 maximum
Scan Pattern	Sawtooth
Power	
Power Supply Input Voltage	18 – 36V
Power Consumption	60W
Environmental	
Operating Temperature [deg C] min / max	-10°/+40°
Dimensions [mm]	300 L x 213 W x 209 H
Weight [kg]	3.85 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

### THANK YOU FOR DOWNLOADING OUR CL-90 SPECIFICATIONS SHEET!

We will send you advanced information as we move forward.

