

## CL-360HD2

OEM Lidar Scanner for Mobile Mapping Applications



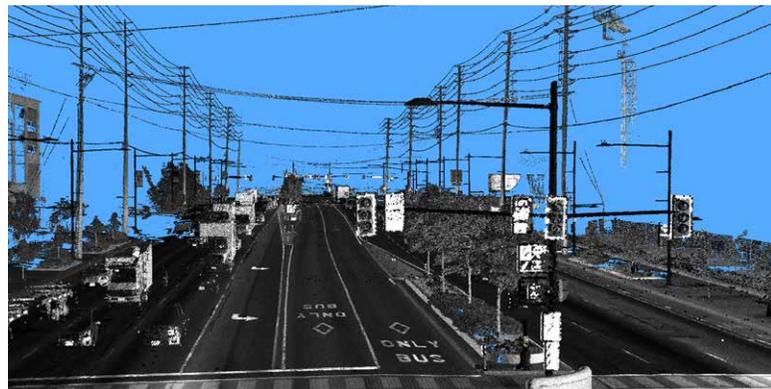
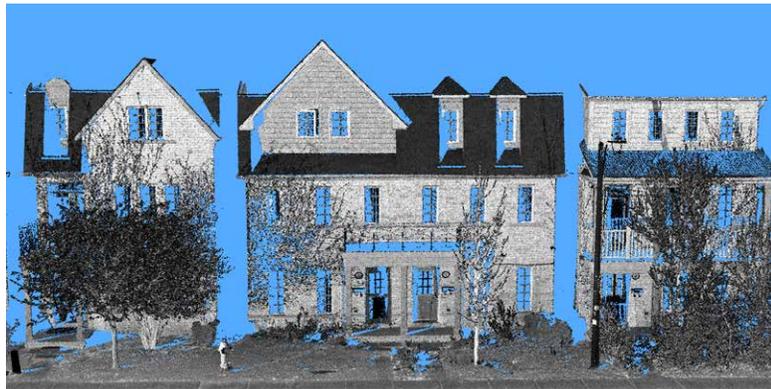
## OEM Lidar Scanner for Mobile Mapping Applications

The CL-360HD2 is a high-accuracy 2D lidar scanner that empowers system integrators to provide insightful, productive, and cost-effective mobile mapping solutions. The low noise, accurate and precise point clouds generated by the CL-360HD2 meet the needs of physical infrastructure surveys, utility modelling and inspection, asset inventories, and more.

### KEY BENEFITS

The CL-360HD2 is an evolution of the CL-360HD with key benefits of:

- Programmable laser pulse rate of up to 2,000,000 shots/sec and scan speed of up to 250 lines / sec to generate high-definition point clouds with camera like qualities
- 5mm accuracy and 4mm precision for survey-grade results
- Fully calibrated data streamed in real-time enabling immediately actionable applications
- Captures a wide dynamic range of surfaces including wires and catenary cables, wet surfaces, retroreflective signs
- Capable of multiple returns from each laser shot to capture surfaces hidden by vegetation
- IP67 rated assembly for all-weather reliability



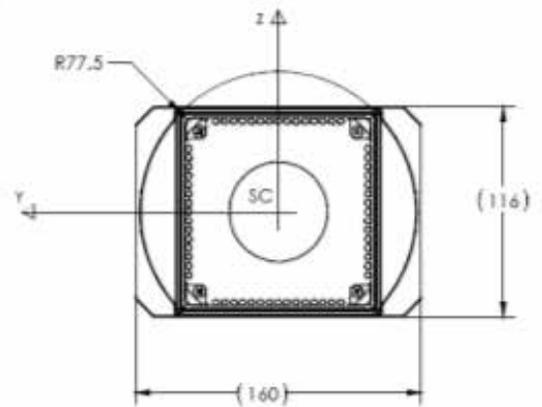
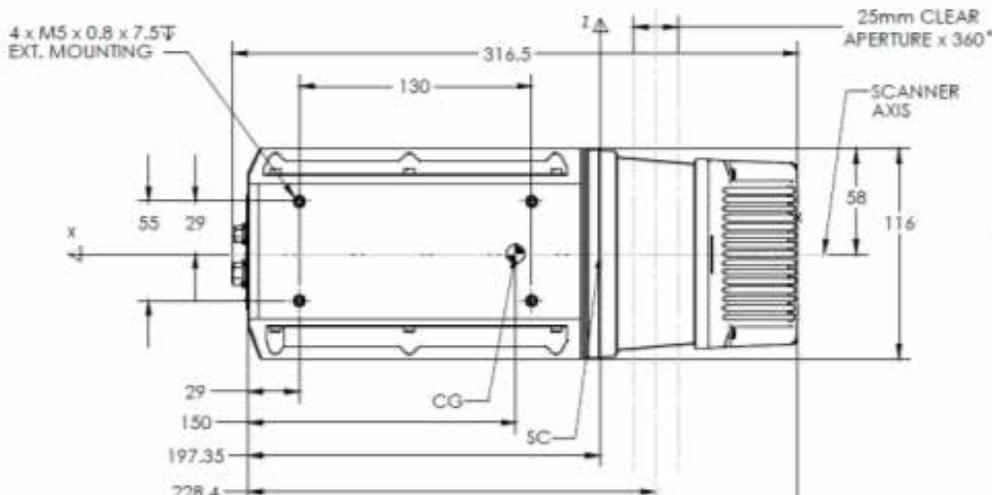
LASER PULSE REPETITION FREQUENCY (PRF) <sup>1</sup>	200 kHz	500 kHz	1000 kHz	1500 kHz	2000 kHz
MAXIMUM RANGE @ 10% TARGET REFLECTIVITY <sup>2</sup>	205m	130m	40m	40m	40m
MAXIMUM RANGE <sup>3</sup>	730m	280m	130m	85m	45m
MAXIMUM NUMBER OF RETURNS	4	4	4	3	2
RANGE ACCURACY, 1SIGMA	5 mm	5 mm	5 mm	5 mm	5 mm
RANGE PRECISION, 1SIGMA	4 mm	4 mm	4 mm	4 mm	4 mm

1. \* Specifications are subject to change without notice. Approximate. 2. Calculated for Target size >= laser footprint, perpendicular angle of incidence, 23km clear visibility, 99% probability of detection. 3. Maximum range of observed returns.

LASER	
WAVELENGTH	1550 nm
LASER SAFETY CLASSIFICATION	Class 1 (according to IEC60825-1 Ed.3)
BEAM DIVERGENCE (1/e <sup>2</sup> )	0.3 mrad
BEAM FOOTPRINT AT 1/e <sup>2</sup>	8.1 mm @ 5m, 8.5 mm @ 10m, 11 mm @ 25m, 17 mm @ 50m, 31 mm @ 100m
RETURNS	
RANGE MEASUREMENT PRINCIPLE	Time of Flight
INTENSITY MEASUREMENT	12 bits raw measurement, >16 bits normalized for range
MINIMUM RANGE	1.5 m
RANGE RESOLUTION	2 mm
MINIMUM TARGET SEPARATION	0.7 m (discrete)
SCANNER	
FIELD OF VIEW	360 deg
SCAN SPEED	50-250 lines/second
ANGULAR STEP WIDTH	0.009-0.45 deg
ANGULAR MEASUREMENT RESOLUTION	0.001 deg

INTERFACES	
CONNECTOR 1	Power, PPS, NMEA (\$GPZDA)
CONNECTOR 2	1GigE Ethernet for realtime data and control
DATA STORAGE	240GB
API	C++ Library (RTLiDAR), REST & UDP
OPERATING TEMPERATURE <sup>4</sup>	-10C to +40C
STORAGE TEMPERATURE	-20C to +50C
INGRESS PROTECTION	IP67
VIBRATION	DO-160H Section 8, Category S, Curve M
SHOCK	DO-160H Section 7, Category A, Standard Shock
WEIGHT	3.5 kg
DIMENSIONS	310 mm L x 160 mm W x 116 mm H
INPUT VOLTAGE	11-36V
POWER (TYPICAL, 250HZ)	50W
CERTIFICATIONS	CE, RohS, REACH

4. Maximum +50C case temperature. Airflow necessary over heatsink fins to ensure case temperature not exceeded.



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