

Leica RTC360 3D Reality Capture Solution

Fast. Agile. Precise.



Fast

The Leica RTC360 laser scanner makes 3D reality capture faster than ever before. With a measuring rate of up to 2 million points per second and advanced HDR imaging system, the creation of colored 3D point clouds can be completed in under 2 minutes. Plus, automated targetless field registration (based on VIS technology) and the seamless, automated transfer of data from site to office reduce time spent in the field and



Agile

Small and lightweight, the Leica RTC360 scanner's portable design and collapsible tripod mean it's compact enough to fit into most backpacks, ready to be taken anywhere. Once on-site, easy-to-use one-button operation makes for fast, hassle-free scanning.



Precise

Low noise data allows for better images, resulting in crisp, high-quality scans that are rich in detail and ready for use in a range of applications. Combined with Cyclone FIELD 360 software for automated registration in the field, the Leica RTC360 scanner offers outstanding precision that can be checked on-site.



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Leica RTC360 Product Specifications

GENERAL		Additional sensors		Altimeter, Compass, GNSS	
3D laser scanner	High-speed 3D laser scanner with integrated HDR spherical imaging system and Visual Inertial System (VIS) for real time registration	OPERATION		On scanner	
PERFORMANCE		Mobile devices		Touch-screen control with finger touch, full color WVGA graphic display 480 x 900 pixels	
Data acquisition	< 2 min for complete full dome scan and spherical HDR image at 6 mm @ 10 m resolution	Wireless		Integrated wireless LAN (802.11 b/g/n)	
Real time registration	Automatic point cloud alignment based on real time tracking of scanner movement between setups based on Visual Inertial System (VIS) by video-enhanced inertial measurement unit	Data storage		Leica MS256, 256GB exchangeable USB 3.0 flash drive	
Double scan	Automatic removal of moving objects	DESIGN & PHYSICAL		Housing	
Check & Adjust	Field procedure for targetless checking of angular parameters	Dimensions		Aluminium frame and sidecovers	
SCANNING		Weight		120 mm x 240 mm x 230 mm / 4.7" x 9.4" x 9.1"	
Distance measurement	High-speed, high dynamic time of flight enhanced by Waveform Digitizing (WFD) technology	Mounting mechanism		5.35 kg / 11.7 lbs, nominal (without batteries)	
Laser class	1 (in accordance with IEC 60825-1:2014), 1550nm (invisible)	POWER		Internal battery	
Field of view	360° (horizontal) / 300° (vertical)	External		2 x Leica GEB461 internal, rechargeable Li-Ion batteries. Duration: Typically up to 4 hours Weight: 340 g per battery	
Range	Min. 0.5 - up to 130 m	ENVIRONMENTAL		Operating temperature	
Speed	Up to 2,000,000 pts / sec	Storage temperature		-5° to +40°C	
Resolution	3 user selectable settings (3 / 6 / 12 mm @ 10 m)	Operating low temperatures****		-40° to +70°C	
Accuracy*	Angular accuracy 18" Range accuracy 1.0 mm + 10 ppm 3D point accuracy 1.9 mm @ 10 m 2.9 mm @ 20 m 5.3 mm @ 40 m	Dust/Humidity***		-10° to +40°C	
Range noise* **	0.4 mm @ 10 m, 0.5 mm @ 20 m	Solid particle / liquid ingress protection IP54 (IEC 60529)		Leica Cyclone FIELD 360	
IMAGING		Leica Cyclone REGISTER 360 PLUS		Leica ScanStation P50	
Camera	36 MP 3-camera system captures 432 MPx raw data for calibrated 360° x 300° spherical image	Leica Cyclone FIELD 360		Leica Cyclone REGISTER 360 PLUS	
Speed	1 minute for full spherical HDR image at any light condition	Leica Cyclone REGISTER 360 PLUS		Leica ScanStation P50	
HDR	Automatic, 5 brackets	Leica ScanStation P50			
NAVIGATION SENSORS					
Visual Inertial System	Video enhanced inertial measuring system to track movement of the scanner position relative to the previous setup in real time				
Tilt	IMU based, Accuracy: 18" (for upright and upside down setups with +/- 10° inclination)				



Your Trusted Active Customer Care

Active Customer care is a true partnership between Leica Geosystems and its customers. Customer Care Packages (CCPs) ensure optimally maintained equipment and the most up-to-date software to deliver the best results for your business. The myWorld @ Leica Geosystems customer portal provides a wealth of information 24/7.

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All specifications are subject to change without notice.

All accuracy specifications are on a level of confidence of 68% according to the Guide of the Expression of Uncertainty in Measurement (JCGM100:2008) unless otherwise noted.

* At 89% albedo.

** For single shot measurements

*** For upright and upside down setups with a +/- 15° inclination

**** Extended low temperature operation is possible to -10°C if internal temperature is at or above -5°C when powered on. For extended low temperature measurement, it is recommended that QA procedures are followed.

Scanner: Laser class 1 in accordance with IEC60825:2014

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