

Leica RTC360 3D Reality Capture Solution

Fast. Agile. Accurate.



3D Reality Capture



Fast

The survey-grade Leica RTC360 laser scanner makes evidence collection faster than ever before. Featuring a blistering scan rate of 2 million points per second combined with advanced HDR imaging, the capture of a realistic and scientifically accurate 3D point cloud takes less than 2 minutes. Automated scan alignment in the field using targetless registration further reduces time-on-scene, enhancing CSI safety and all but eliminating laborious stitching together of scans in the office.



Agile

Small and lightweight, the Leica RTC360's compact design and collapsible tripod make it extremely fast to set up and very simple to use. The enclosed mirror is protected from rain, dust and snow and allows you to keep working when you need to work. When used with Cyclone FIELD 360 tablet software the automatically pre-registered point cloud data enables users to quickly conduct on-site quality control checks.



Accurate

The Leica RTC360 is a scientific instrument that produces the National Institute of Justice recommended "survey-grade measurements using sound methodology that will stand up against Daubert or Frye hearings in court proceedings."* The low-noise scan data is crisp, clear and accurate even at long-range.

* January 26, 2016 report by the National Institute of Justice "Landscape Study on 3D Crime Scene Scanning Devices" [p. 41]

psg.leica-geosystems.us



- when it has to be **right**

Leica
Geosystems

PART OF
HEXAGON

Leica RTC360 Product Specifications

GENERAL

Survey-Grade Laser Scanner	High-speed, survey-grade laser scanner with integrated HDR spherical imaging systems and Visual Inertial System (VIS) for real-time registration
----------------------------	--

PERFORMANCE

Data acquisition	< 2 minutes for full dome laser scan and spherical HDR image with a resolution of 6mm @ 10 meters
Real-time registration	Automatic point cloud alignment based on real-time tracking of scanner movement between setups using the Visual Inertial System (VIS) by video-enhanced inertial measurements
Double scan	Automatic removal of moving objects

SCANNING

Distance measurement	High-speed, high dynamic time-of-flight enhanced by Waveform Digitizing (WFD) technology
Laser Class	Class 1 (in accordance with IEC 60825-1:2014), 1550nm (invisible)
Field of view	360° horizontal / 300° vertical
Range	Min. 0.5 - up to 130 m
Speed	Up to 2,000,000 points per second
Resolution	Three user selectable settings: 3mm, 6mm and 12 mm resolution at 10 meters from scanner
Accuracy*	Horizontal and vertical angle accuracy 18 arc seconds Range accuracy 1.0 mm + 10 ppm 3D point accuracy • 1.9 mm @ 10m • 2.9 mm @ 30m • 5.3 mm @ 40m
Range noise**	0.4 mm @ 10 m, 0.5 mm @ 20 m

IMAGING

Camera	36 MP 3-camera system captures 432 MPx raw data for a calibrated 360° x 300° spherical image
Speed	1 minute for full spherical HDR image in any lighting conditions
HDR	Automatic, 5 brackets

NAVIGATION SENSORS

Visual Inertial System (VIS)	Video enhanced inertial measuring system to track movement of the scanner position relative to the previous setup in real-time
------------------------------	--

active >>
Customer Care

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.

Illustrations, descriptions and technical specifications are not binding and may change. All rights reserved. Copyright Leica Geosystems AG, Heerbrugg, Switzerland - 06.18

Leica Geosystems AG

Leica Geosystems Inc.
5051 Peachtree Corners Circle,
Suite 250
Norcross, GA 30092
Ph. (816) 602-1035

Tilt Compensation	IMU based, Dual-axis, Accuracy: 3' for any tilt position
Additional sensors	Altimeter, Compass, GNSS Satellite Positioning

OPERATION

On scanner	Touch-screen control with finger touch, full color WVGA graphic display 480 x 800 pixels
Mobile devices	Leica Cyclone FIELD 360 app for iPad or Android tablets including: • Remote control of scan functions • 2D & 3D data viewing • Tagging • Automatic alignment of scans
Wireless	Integrated wireless LAN (802.11 b/g/n)
Data storage	Leica MS256, 256GB exchangeable USB 3.0 flash drive

DESIGN & PHYSICAL

Housing	Aluminum frame and sidecovers with enclosed mirror
Dimensions	4.7" x 9.4" x 9.1" or 120mm x 240mm x 230mm
Weight	11.7 lbs / 5.35 kg, without batteries
Mounting mechanism	Quick mounting on 5/8" stub on lightweight tripod / optional tribrach adapter / survey tribrach adapter available

POWER

Internal battery	2 X Leica GEB361 internal, rechargeable Li-Ion batteries. Duration: Typically up to four hours Weight: .75 lbs / 340 g per battery
External battery	Leica GEV282 AC adaptor

ENVIRONMENTAL

Operating temperature	+23° to +104°F / -5° to +40°C+
Storage temperature	-40° to +158°F / -40° to +70° C
Dust/Humidity***	Solid particle/liquid ingress protection IP54 (IEC 60529)
Available options	• N.I.S.T Traceable Target Kit for ISO Compliance • Factory training approved by IAI for CEU's



Leica Cyclone FIELD 360



Leica Cyclone REGISTER 360



Leica ScanStation P50

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

Scanner: Laser class 1 in accordance with IEC60825:2014

iPhone and iPad are trademarks of Apple Inc.

Android is a trademark of Google.

- when it has to be **right**

Leica
Geosystems