Leica BLK3D

LEAVE NO DETAIL BEHIND.

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Take a picture. Measure anything.

The BLK3D captures images and places precise measurements at your fingerprints Share images and measurements in multiple formats.

The art of photogrammetry. Simplified.

Unmatched combination of a calibrated stereo-camera, advanced algorithms and real-time edge computing fused with leading Electronic Distance Measurement technology.

For more information, visit:

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All specifications are subject to change without notice.
All accuracy specifications are one sigma unless otherwise noted.
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PART OF HEXAGON

Leica BLK3D

GENERAL SPECIFICATIONS

Dimensions (H x W x D)	180.6 x 77.6 x 27.1 mm (7.11 x 3.06 x 1.07 in)
Weight (with rechargeable battery)	480 g (17 oz)
Temperature range	***Storage:*** -25 to 60 °C (-13 to 140 °F) ***Operation:*** -10 to 50 °C (14 to 122 °F) ***Charging:*** 0 to 40 °C (32 to 104 °F)
Tripod adapter	Supports 1/4-20 UNC screw adapters

TECHNOLOGY

Operating system	Android 7.1.2 (Nougat)
Processor (with integrated GPU)	Snapdragon 820E QuadCore (2.35 GHz)
RAM Memory	4 GB
Real-time Processor	STM32F446
Screen	5.0" IPS, HD 720x1280 LCD capacitive multi-touch screen, chemically strengthened, brightness: 450 cd/m²
Stereo camera	***Pixels:*** 2 x 10 MP (15.8 cm diagonal base line) / ***Field of view:*** 80° / ***Focal length:*** 4.0 mm (22 mm in 35 mm equiv. in 1:1) ***Aperture:*** F3.0
EDM camera	***Pixels:*** 2 MP / ***Field of view:*** 14°
I/O	USB Type-C 1.0 for data transfer and charging (water-resistant), integrated speaker and microphone
Keyboard	Three physical buttons (Power, Laser/Photo capture, Photo capture), four touch buttons (Back, Home, Recents, Laser/ Photo capture)
Additional sensors	Compass, 3D accelerometer and 3D gyroscope
Laser class	2
Laser type	655 nm, 0.95 mW

STORAGE

Internal storage	64 GB (equals 14000 single-shot or 5000 multi-shot 3D images)

COMMUNICATION

Bluetooth® Smart	***Bluetooth:*** v4.1 and v2.1 / ***Radiated power:*** 1.78 mW (BLE) / ***Radiated power:*** 10.00 mW (BT classic) / ***Frequency:*** 2402-2480 MHz
Wireless LAN	***Standard:*** 802.11 b/g/n / ***Radiated power:*** 6.31 mW / ***Frequency:*** 2412-2472 to 2412-2462 MHz
GPS	A-GPS and GLONASS

POWER MANAGEMENT

Battery	Rechargable battery pack Li-ion (3.80 V, 3880 mAh, 14.7 Wh)
Power management	AC adapter (input: 100-240 V AC) External charger (input: 100-240 V AC) (optional)
Charge time	< 3.5 h (with AC adaptor) < 5h (with optional external charger)
Operating time	***Typical capture:*** 4h / 220 multi-shot captures [1] ***Continuous capture:*** 2.5 h /1000 single-shot captures [1] ***Laser measurements:*** 6.5 h / 9500 laser measurements / ***Auto power off:*** after 3 h in sleep mode

1) Wi-Fi® off, Bluetooth® off, flash off, screen brightness 50%.
2) Applies to 100 % target reflectivity (white painted wall), low background illumination, 25 °C.
3) Applies to 10 to 100 % target reflectivity, high background illumination, - 10 °C to + 50 °C.
4) Tolerances apply to ranges from 0.05 m to 10 m with a confidence level of 95%. The maximum tolerance may deteriorate to 0.1 mm/m between 10 m to 30 m, to 0.20 mm/m between 30 m to 100 m and to 0.30 mm/m for distances above 100 m.
5) After user calibration. Additional angle related deviation of ±0.0.1° per degree up to ±45° in each quadrant.
6) Valid Autodesk BIM 360 subscription required.
7) Tolerances apply to 2D measurements up to 3m in length (<20° depth).
8) The maximum tolerance may deteriorate up to 0.5% for measured distances longer than 3m and 3D depth measurements (> 20° depth).
9) Multi-shot with recommended baseline length of 10% of the distance to the target object between all shots.
10) Measurement precision, accuracy, and reliability are dependent upon various factors including distance and position to object, baseline length, texture of object, light conditions, ambient temperature, calibration etc. The graph represents 1 Sigma. Figures quoted are subject to change.

LASER DISTANCE MEASUREMENT

Accuracy with favourable conditions [2]	± 1.0 mm (0.04 in) [4]
Accuracy with unfavourable conditions [3]	± 2.0 mm (0.08 in) [4]
Range with favourable conditions [2]	250 m (820 ft)
Range with unfavourable conditions [3]	120 m (394 ft)
Smallest unit displayed	0.1 mm (1/32 in)
X-Range Power Technology™	yes
Ø laser point at distances	6 / 30 / 60 mm (10 / 50 / 100 m)

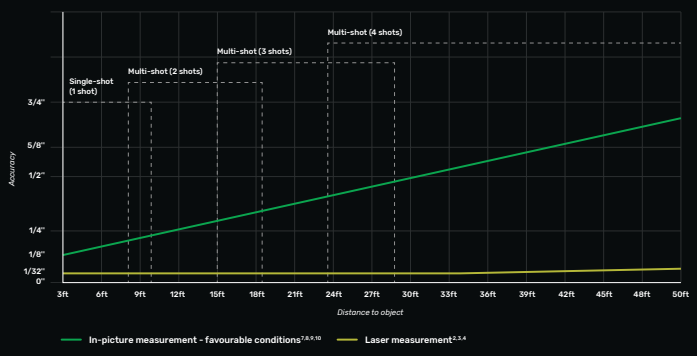
TILT MEASUREMENT

Measuring tolerance to laser beam [5]	± 0.2°
Measuring tolerance to housing [5]	± 0.2°
Range	360°

P2P MEASUREMENT WITH DST 360 (OPTIONAL)

Working range vertical sensor	-64° to > 90°
Accuracy vertical sensor up to	± 0.1°
Working range horizontal sensor	360°
Accuracy horizontal sensor up to	± 0.1°
Tolerance P2P function at distances (combination of sensors and distance measuring) approx.	± 2 mm / 2 m ± 5 mm / 5 m ± 10 mm /10 m
Levelling range	± 5°

SOFTWARE OPTIONS OVERVIEW

BLK3D Mobile	BLK3D Mobile (included)	Reality Capture, Laser, Organiser, 3D Image export to pdf and jpg
	Sketch & Document Option (optional)	Sketch Plan , P2P Measure, Smart Room, Plan export to pdf, jpg, DXF and DWG (2D/3D/raw)
	Publisher Option (optional)	Publish 3D Images to BLK3D Web
	Autodesk BIM 360 Option (optional)	Work with Autodesk BIM 360 Docs projects [6]
BLK3D Desktop	BLK3D Desktop Base (optional)	Organiser, Measure, working with plans
	3D Model Option (optional)	3D Modelling on 3D Images incl. export to DXF and DWG (3D)
	Publisher Option (optional)	Publish 3D Images to BLK3D Web
	Autodesk BIM 360 Option (optional)	Work with Autodesk BIM 360 Docs projects [6]
	Minimum system requirements	Windows 8.1, 10 with 64-bit; 6 GB RAM

IN-PICTURE MEASUREMENT ACCURACY TABLE