

Leica BLK3D

LEAVE NO DETAIL BEHIND.

Take a picture. Measure anything.

The BLK3D captures images and places precise measurements at your fingertips. 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:

www.BLK3D.com

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

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

COMMUNICATION

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|------------------|---|
| 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

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|------------------|--|
| Battery | Rechargeable 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

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|--|--------|
| 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

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|---------------|-------------------------------------|---|
| 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

