## HandySCAN BLACK<sup>TM</sup> | Elite

Accuracy<sup>(1)</sup>
0.025 mm
(0.0009 in)

Volumetric accuracy<sup>(2)</sup> 0.020 mm + 0.040 mm/m (based on part size) (0.0008 in + 0.0005 in/ft)

Volumetric accuracy with 0.020 mm + 0.015 mm/mMaxSHOT Next<sup>TM</sup> | Elite<sup>(3)</sup> (0.0008 in + 0.00018 in/ft)

Measurement resolution 0.025 mm (0.0009 in)

Mesh resolution 0.100 mm (0.0039 in)

Measurement rate 1,300,000 measurements/s

Light source

11 blue laser crosses
(+ 1 extra line)

Laser class 2M (eye-safe)

Scanning area 310 x 350 mm (12.2 x 13.8 in)

Stand-off distance 300 mm (11.8 in)

Depth of field

250 mm
(9.8 in)

Part size range (recommended) 0.05-4 m (0.15-13 ft)

**Software** VXelements

Output formats .dae, .fbx, .ma, .obj, .ply, .stl, .txt, .wrl, .x3d, .x3dz, .zpr, .3mf



## Compatible software<sup>4</sup>

3D Systems (Geomagic® Solutions), InnovMetric Software (PolyWorks), Metrologic Group (Metrolog X4), New River Kinematics (Spatial Analyzer), Verisurf, Dassault Systèmes (CATIA V5, SOLIDWORKS), PTC (Creo), Siemens (NX, Solid Edge), Autodesk (Inventor, PowerINSPECT)

Weight 0.94 kg (2.1 lb)

Dimensions 79 x 142 x 288 mm (LxWxH) (3.1 x 5.6 x 11.3 in)

Connection standard 1 X USB 3.0

Operating temperature 5-40 °C range (41-104 °F)

Operating humidity range (non-condensing) 10-90%

Certifications

EC Compliance (Electromagnetic Compatibility Directive, Low Voltage Directive), compatible with rechargeable batteries (when applicable), IP50, WEEE

Patents

CA 2,600,926, CN 200680014069.3, US 7,912,673, CA 2,656,163, EP (FR, UK, DE) 1,877,726, AU 2006222458, US 8,032,327, JP 4,871,352, US 8,140,295, EP (FR, UK, DE) 2,278,271, EP (FR, UK, DE) 2,230,482, IN 266,573, US 7,487,063, CA 2,529,044, EP (FR, UK, DE) 3,102,908, US 15/114,563, CN 201580007340X

## **Technical Specifications**

Innovating technology that provides *accuracy*, *simplicity*, *portability* as well as real speed to your metrology-grade applications.

- (1) HandySCAN BLACK and HandySCAN BLACK I Elite (ISO 17025 accredited): Based on VDI/VDE 2634 part 3 standard. Probing error performance is assessed with diameter measurements on traceable sphere artefacts (ISO 17025 accredited).
- <sup>(2)</sup> HandySCAN BLACK and HandySCAN BLACK I Elite (ISO 17025 accredited): Based on VDI/VDE 2634 part 3 standard. Sphere-spacing error is assessed with traceable length artefacts by measuring these at different locations and orientations within the working volume. Results are obtained using integrated photogrammetry with volumetric accuracy optimization.
- <sup>(3)</sup> The volumetric accuracy of the system when using a MaxSHOT 3D cannot be superior to the default accuracy of the chosen system and model.



(4) Also compatible with all major metrology, CAD, and computer graphic software through mesh and point cloud import.	

