



15 Technical specifications

System requirements

- Internet access. Recommended download speed: 2 Mbit
- Included dedicated laptop with the following minimum specifications:

Operating system	Windows 10 Professional
Graphics processor	Discrete graphics card with min. 2 GB memory
Processor	Min. Quad Core, 8 logic cores (hardware threads)
Total memory	Min. 8 GB
Display	Min. 13" Max. 15" full HD (1920x1080) Non-Touch
Wi-Fi adapters	Dual Band Wireless- b/g/n/ac
Hard drive	Min. 156 GB Solid State Drive

Type identification

The Otoscan scanner is type 1093 from Natus Medical Denmark ApS.

Scanning system

Scanning modes	- Canal Ring, using 360° blue LED light - Pinna Line, using blue line laser - Concha Ring, using 360° blue LED light
Probe distal diameter	3.20 mm (0.13 inches)
Probe length	30 mm (1.18 inches)
Accuracy	Min 80% of the surface area is within a three dimensional rendering tolerance of $\pm 200 \mu\text{m}$, when scanning the surface of a CMM verified mechanical artifact with curvatures similar to an ear.

Device display

Size	4 inches
Type	Color TFT with LED backlight
Resolution	480 x 800 dots
User input	Capacitive touch

Scanner power supply

Input Power	5 V USB 3.0
USB Plug	USB 3.0, Type A

Storage and handling

Storage temperature	-20°C to +60°C (-4°F to +140°F)
Relative humidity	<90%, non-condensing
Air pressure	500 hPa to 1060 hPa

Operating environment

Temperature	+10°C to +30°C (+50°F to +86°F)
Relative humidity	30% to 75%, non-condensing
Air pressure	600 hPa to 1060 hPa

Essential performance

Otoscan has no essential performance.

Standards

Patient Safety	IEC 60601-1:2005+A1:2012, Type BF. Applied parts are Scanner Probe and Housing.
Laser safety	Complies with class 2 requirements of the IEC 60825-1:2014 standard.
Lamp safety	IEC 62471:2006 Photobiological safety of lamps and lamp systems
EMC	IEC 60601-1-2:2007 IEC 60601-1-2:2014

15.1 Accessories

Standard accessories and optional accessories may vary from country to country - please consult your local distributor.

Accessory name	Part number
1093, Training Kit complete	8-61-20000
1093, Desktop Cradle Accessory	8-61-20100
1093, HS3 Headset Accessory	8-61-22000
1093, Laptop PC with pre-installed SW	8-35-49800-XX
1093, Alcohol swaps, 70% isopropyl	8-62-48100
User Guide	7-50-14200-XX

15.2 Notes on EMC (Electromagnetic Compatibility)

- Otoscan is part of a medical electrical system and is thus subject to special safety precautions. For this reason, the installation and operating instructions provided in this document should be followed closely.
- Portable and mobile high-frequency communication devices, such as mobile phones, may interfere with the functioning of Otoscan.