

**Forus** Health  
Technology delivering care

# 3nethra aberro

Handheld  
Autorefractometer



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## Handheld autorefractometer

The 3nethra aberro is a handheld autorefractometer equipped with the Shack-Hartmann wavefront sensor aberrometry technology to detect visual acuity and refractive errors. Using 3nethra aberro, single-vision and bi-focus lens refraction measurements can be recorded in just a few seconds.



# The Shack-Hartmann

## Wavefront Sensor Aberrometry Technology

The Shack-Hartmann wavefront sensor aberrometry technology is used in modern autorefractometers to measure refractive errors [spherical, cylinder, and axis] that help clinicians prescribe glasses or contact lens. The advantages of this technology include small size, ruggedness, accuracy, and vibration insensitivity. The technology compares very favourably with

existing conventional autorefractometers, and can precisely measure both higher and lower order wavefront aberrations. Zmethra aberro does not require periodic calibration due to the absence of any moving parts in the opto-mechanics and coupled with its portable handheld feature makes it an ideal tool for community and home eye screening programs.



- Myopia (near-sightedness)
- Hyperopia (far-sightedness)
- Astigmatism
- Anisometropia
- Anisocoria
- Cataract
- Keratoconus
- Supine position
- Other higher-order aberrations

Application

# Product Specifications

Parameters	Values
Spherical Measurement Range	-14D to +14D, increments (0.25D)
Cylindrical Measurement Range	-7D to 0D, increments (0.25D)
Axis Measurement Range	0 to 180 degrees, 1-degree step
Min Pupil Diameter	2.5 mm
Vertex Distance	19.5 mm
Patient Age Range	Above 5 years
Internal Fixation	Low spatial frequency sinusoidal grating with Gaussian envelope
Battery Life	8 hours usage / fully charged
Display / Connectivity	3.5" color touch screen / USB and Bluetooth
Technology	Wave-front sensing
Power Source	AC 100 to 240 V, 50 / 60 Hz
Measurement Time	<5 seconds per eye
Weight / Dimension	650 g / 8.9" X 7.2" X 2.9"
Internal Storage Memory	300 measurements
Working Environment Light	Ambient Light
Battery Pack	Lithium ion battery 3.6 V, 6400 mAH
Additional Feature	Telemedicine compatible
Optional Accessories	Bluetooth printer, portable stand



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