MOPTIM

Optical Biometer

Colombo IOL / IOL II

Myopia version

Colombo IOL / IOL II Optical Biometer

THE NEW GOLD STANDARD OF **AXL MEASUREMENT**

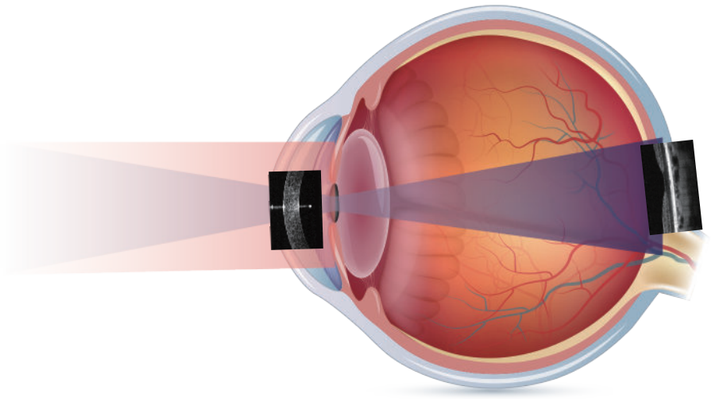
The Colombo IOL/IOL II is an innovative optical biometer based on spectral domain optical coherence tomography (SD-OCT) technology. It is the **first and only** optical biometer that provides 4mm real-time OCT imaging of the cornea and retina simultaneously during the acquisition, which allows real-time fixation check, retinal screening, and choroidal thickness analysis.
It measures up to 9 parameters in a single scan, including axial length, central corneal thickness, keratometry, anterior chamber depth, lens thickness*, white-to-white, pupil size, retinal thickness, and subfoveal choroidal thickness.

* Lens thickness is only available on Colombo IOL II.

THE TECHNOLOGY

B-scan Dual-path SD-OCT Biometry

The Colombo is a revolutionary B-scan optical biometer. Unlike the traditional A-scan optical biometer that only involves a one dimensional examination of the eye, the Colombo directs two independent optical paths to scan the cornea and retina separately, so the scans on cornea and retina could be optimized separately. As a result, it is possible to get 4mm corneal and retinal imaging during the acquistion.



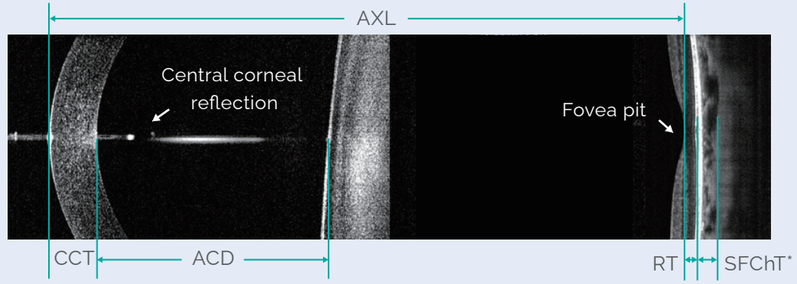
Watch introduction video

UNIQUE FEATURES

Automatic Real-time Fixation Check

1

Correct fixation is the key to accurate AXL measurement. However, since children are less cooperative, it is more likely to get fixation loss. The Colombo IOL provides **automatic real-time fixation check**, as a result, incorrect measurements caused by undetected poor fixation will be eliminated automatically to ensure the measurements are consistently repeatable.



Myopia Progression Analysis

2

The Colombo IOL provides trend analysis of important parameters in myopia management, such as axial length, AXL variation, AXL/CR ratio, etc. The software incorporates the **normative growth curves** of Asian school-aged children[1], making data interpretation and patient education easier.

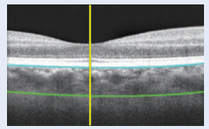
Progession Analysis

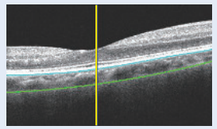
Comparison Analysis

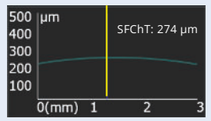
Choroidal Thickness Analysis*

3

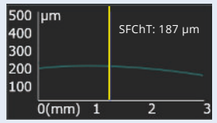
* optional







Normal eye (0.0D)



Myopic eye (-6.50D)

Studies have found that choroids are thinner in longer, more myopic young adult eyes[2]. The findings suggest that **choroidal thickness** should be evaluated in myopia management.
The Colombo IOL provides HD OCT images and measurement of SFChT for deep study in choroidal layer in myopic eyes.

[1]Public Health Ophthalmology Branch of Chinese Preventive Medicine Association. Zhonghua Yan Ke Za Zhi. 2022;58(2):96-102. doi:10.3760/cma.j.cn112142-20210603-00267
[2]Harb E, Hyman L, Gwiazda J, et al. Choroidal Thickness Profiles in Myopic Eyes of Young Adults in the Correction of Myopia Evaluation Trial Cohort. Am J Ophthalmol. 2015;160(1):62-71.e2. doi:10.1016/j.ajo.2015.04.018

SPECIFICATIONS

		Colombo IOL	Colombo IOL II
MEASUREMENT RANGE	Axial Length	12.1 mm – 38.0mm	12.1 mm – 38.0mm
	Corneal Thickness	0.2 mm – 1.4 mm	0.2 mm – 1.4 mm
	Corneal Radii	28.1 D – 84.3 D	28.1 D – 84.3 D
	Anterior Chamber Depth	0.7 mm – 6.0 mm	0.7 mm – 6.0 mm
	Pupil Size	0.5 mm – 13.5 mm	0.5 mm – 13.5 mm
	White-to-white	6mm – 16 mm	6mm – 16 mm
	Lens Thickness	Not available	1.3mm – 7.0 mm
DISPLAY SCALING	Axial Length	10 μm	10 μm
	Corneal Thickness	100 μm	100 μm
	Corneal radii	0.01 D	0.01 D
	Anterior Chamber Depth	10 μm	10 μm
	Pupil Size	10 μm	10 μm
	White-to-white	10 μm	10 μm
	Lens Thickness	Not available	10 μm
REPEATABILITY	Axial Length	±20 μm	±20 μm
	Corneal Thickness	±10 μm	±10 μm
	Corneal Radii	±0.25 D	±0.25 D
	Anterior Chamber Depth	±0.01 mm	±0.01 mm
	Pupil Size	±0.09 mm	±0.09 mm
	White-to-white	±0.1 mm	±0.1 mm
	Lens Thickness	Not available	±0.1 mm
OCT IMAGING	Light Source	SLD, 850 nm	
	Resolution	5 μm	
	Imaging Capability	Real-time, simultaneously corneal and retinal imaging	
	Scan Range	4 mm	
MACHINE SPECIFICATIONS	Power	220V~, 50Hz	
	Dimension	527 (L) x 345 (W) x 507 (H) mm	
	Weight	19.7 kg	
	LCD Screen	10.1 inch touch screen (HDMI output available)	

* Specifications are subject to change without notice.

MOPTIM®

Headquarters: **Shenzhen Certainn Technology Co., Ltd.**
Address: Bldg. 2-C, Section 2, GOTO Digital Technology Park,
Longgang District, No.137 Bulan Rd., Shenzhen 518112, China
www.moptim.com sales@moptim.cn
Tel: +86 0755 8408 4505 Fax: +86 0755 8406 4430

Distributed by