

Combining **Biometry** and Topography for
Greater Accuracy



Innovative
Ophthalmology
Solutions

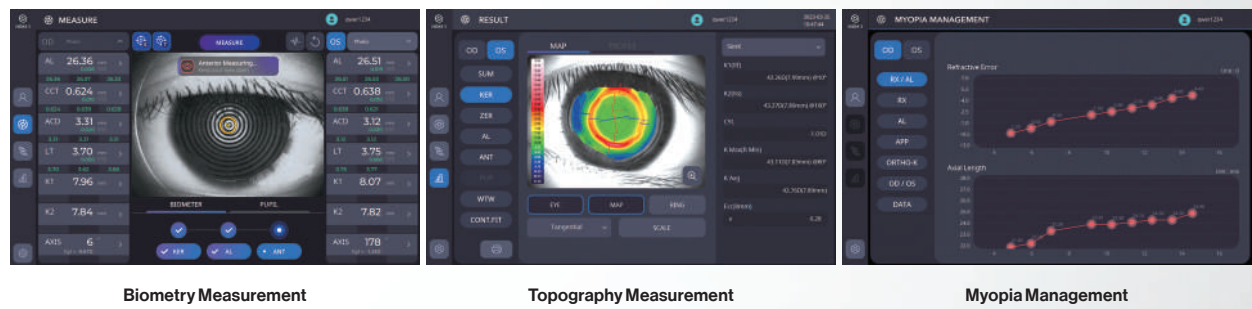
Optical **Biometry** with Full Corneal Topography System

HBM-1

Huvitz Re:define, Re+create

Amico Yasna Pars (Pr.J.S.Co)

The HBM-1 provides reliable data and cornea information to provide an accurate IOL Power calculation.



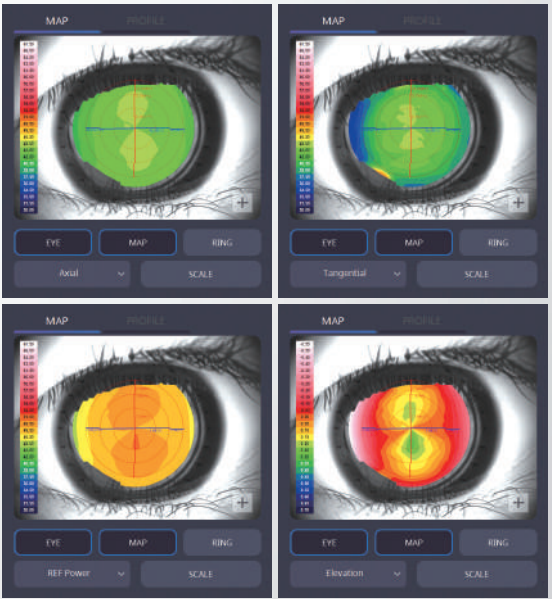
Precise Corneal Information and K Values

The HBM-1 provides accurate analysis and measurement data regarding the overall Cornea Axial, Tangential, Refractive Power, Elevation Map.

Data Measurement:
Keratometry, Topography, Keratoconus, Zernike Coefficients, Pupillometry, White to white

DCM(Dense Cataract Mode) for Dense Cataract Measurement

The DCM functionality is designed for patients with dense cataracts, enabling the measurement of the AL value through sophisticated algorithm-driven technology, ensuring accuracy even in challenging cases.



Map : Axial, Tangential, Refractive Power, Elevation

Measuring the highly reliable Biometry value of a Cataract patient

Accurately assess the critical biometry values in cataract patients, leveraging Verified Light Interference Technology. This technology ensures the acquisition of reliable data, undeterred by the varying capabilities of individual users.

Data Measurement:
Axial Length(AL), Central Corneal Thickness(CCT), Anterior Chamber Depth(ACD), Lens Thickness(LT)



CCT, ACD, LT Measurement



Superior Optical Biometer 'HBM-1'

Optimized workflow for Cataract surgery

IOL Power value with the various Formula

The measured result value suggests the IOL Power value after calculation through the various Formulas & IOL.

Installed Formula:

Barrett(Universal II, Universal II Toric, True-K, True-K Toric, Rx), Holladay, SRK2, SRK/T, HofferQ, Haigis, Camellin Calossi, Shammas No History

Premium Lens Prescription

Prescribes premium lenses that can correct astigmatism, myopia, and presbyopia at the same time while improving cataracts.

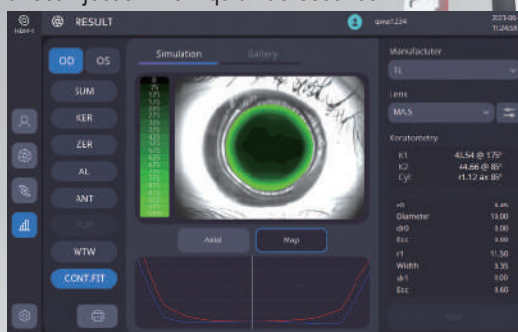
Toric IOL for astigmatism, correction of presbyopia for multifocal IOL, Spherical IOL for clear visibility, etc, It guides the user in selecting the optimal IOL to correct refractive errors.



Toric IOL Prescription

Check the Contact Lens Fitting

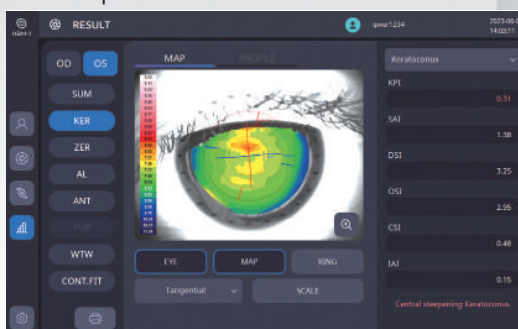
apture a Fluorescein Image without a direct injection with liquid fluorescence.



Contact Lens Fitting

Predict early detection of Keratoconus

Calculates KPI(Keratoconus Prediction Index) values to predict Keratoconus



Keratoconus

All 10 examinations at once

10 types of data for IOL Power calculation;

All accurate result values are based on the NO.6th AL, NO.8th ANT measurement data Standard Deviation(STD).

Fast measurement speed minimizes patient discomfort.

10 methods data measurement:

Axial Length(AL), Anterior Chamber Depth(ACD), Central Corneal Thickness(CCT), Lens Thickness(LT), Keratometry, Topography, Keratoconus, Zernike Coefficients, Pupillometry, White to white



10 Examinations to Measure the Data



Specifications

Biometry		
Parameter	Measuring range	SD of Repeatability
Axial length	14–40 mm	±0.025 mm
Anterior chamber depth	1.5–6.5 mm	±0.04 mm
Central corneal thickness	0.25–1.3 mm	±0.02 mm
Crystalline lens thickness	1.5–6.5 mm (phakic) 0.5–3.5 mm (pseudo-phakic)	±0.06 mm
Wavelength	835 nm	-
White-to-white distance	7–14 mm	±0.05 mm
Pupil diameter	0.5–10 mm	±0.05 mm
Keratometry		
Parameter	Measuring range	SD of Repeatability
Corneal curvature radius	5–13 mm	±0.03 mm
Cornea refractive power	25.96 D–67.50 D (Cornea equivalence's refractive index: 1.3375)	-
Direction of principal meridians	Measuring range: 1°–180° Accuracy: according to the ISO 10343:2014	-
Corneal Topography		
Working distance	80 mm	
Placido disc	24 rings	
Points Analyzed	Over 100,000 (Measured points: Over 6,220)	
Measuring accuracy	Type A according to the ISO 19980:2012	
Cornea coverage	up to Ø 9,8 mm (on a 8 mm sphere) 42,20D with n=1.3375	
Common		
Biometry light source	835 nm	
Display	Tilttable 10.1 inch, Touch panel color LCD	
Horizontal movement	45 mm (back and forth), 100 mm (left and right)	
Vertical movement	30 mm	
Chinrest movement	62 mm (up and down), motorized	
Auto tracking	X, Y for positioning, Z for working distance	
Power supply	AC 100–240 V, 50/60 Hz, 1.6–0.7 A	
PC	Built in computer	
Dimensions	302(W) x 506(D) x 510(H) mm	
Mass	22 kg	
Software Features		
IOL	IOL calculator, IOL editor	
Keratoconus	KPI	
Contact lens fitting	Fluorescein simulation	
Zernike Analysis		
Myopia Management		

Specification and design are subject to change without notice.

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Amico Yasna Pars (Pr.J.S.Co)

Tel: +9821-71137000

Fax: +9821-71137300

2nd Floor, No. 1698, Shariati Ave., Tehran, Iran

Postal Code: 1914744755

www.aypmedical.com

info@aypmedical.com

