HUVITZ
CORNEAL TOPOGRAPHER

Full Corneal Topography System

HTG-1

Huvitz Re:define, Re⁺create

Specialized for
Full Corneal Topography Analysis,

HTG-1

HTG-1 is your Specialized Solution
for Comprehensive Corneal Topography Analysis

The HTG-1 offers the most reliable choice for comprehensive and precise corneal information. High-accuracy corneal data offer the optimal solution for diagnosing and monitoring various corneal conditions, refractive power variations, irregular astigmatism, keratoconus, and more. After measuring the curvature, pupil, and corneal aberration data, the analysis results are presented in various maps and graphs. The HTG-1 provides dependable and precise measurements for assessing refractive status and guiding cataract surgery.

Reliable Measurement of Corneal Data Using Placido Disc Analysis Technology

## Accurate corneal data measurement

The utilization of Placido disc analysis technology allows us to precisely measure various corneal data, including Keratometry, Topography, Keratoconus, Zernike Coefficients, Pupillometry, and white–to–white measurements. The resulting data is presented in the form of Axial, Tangential, Refractive Power, and Elevation Maps. This information is invaluable for assessing the shape and health status of the cornea, determining vision correction lens prescriptions, and planning for cataract surgery.
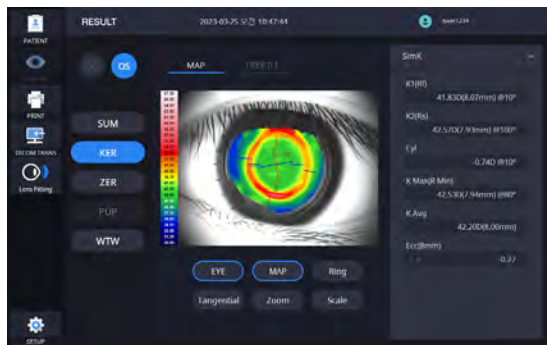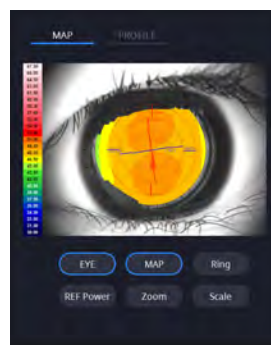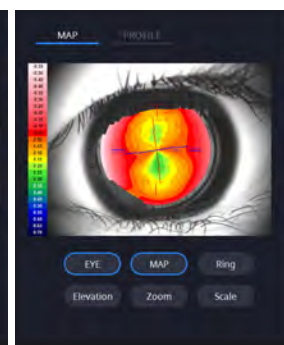

SimK
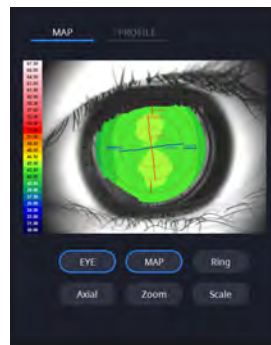
Map : Axial
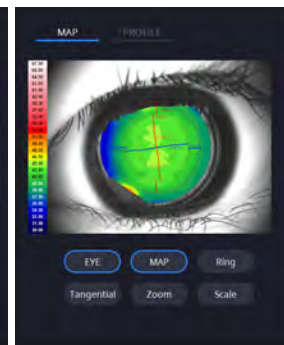
Map : Tangential

Meridian

Map : Refractive Power

Map : Elevation

Offering Comprehensive Corneal Data

## Early Detection of Keratoconus Prediction

By meticulously examining the cornea's front curvature, regional shape, convexity, and eccentricity, it calculates the KPI (Keratoconus Prediction Index) value to predict the likelihood of keratoconus. This information provides insights into potential keratoconus risks and predicts potential outcomes.
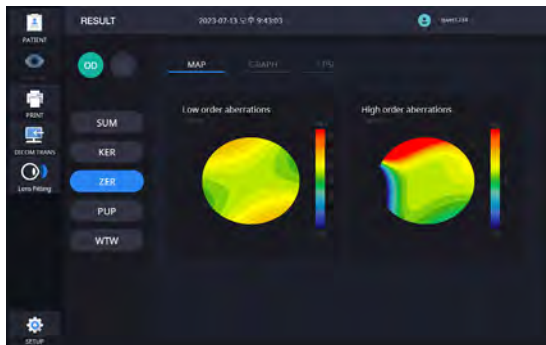

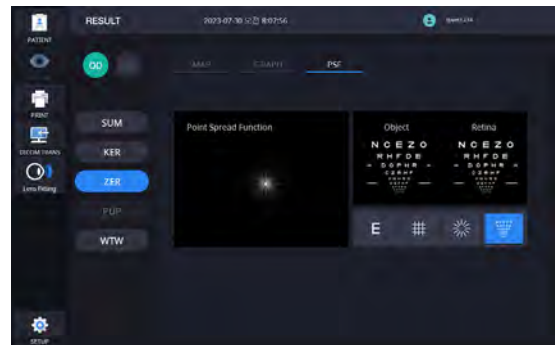Keratoconus

Zernike Analysis for a Range of parameters

Through the analysis of Zernike Coefficients/Map, it measures and provides analysis data for various parameters including refractive power variations, irregular astigmatism, and aberrations in the eye.
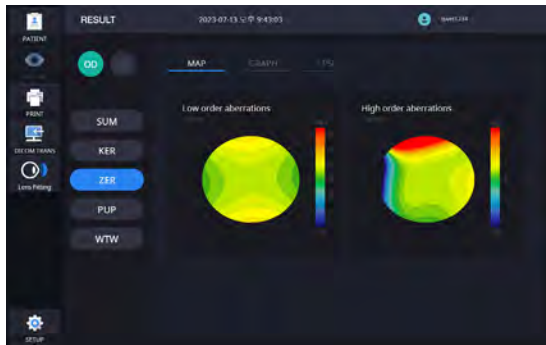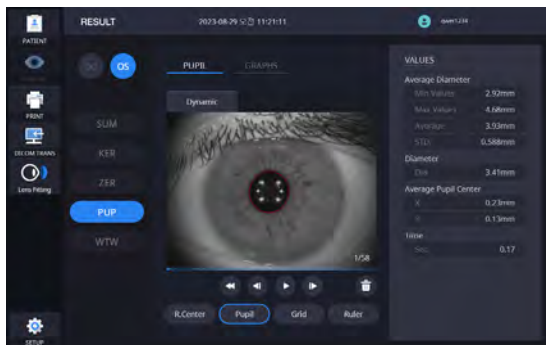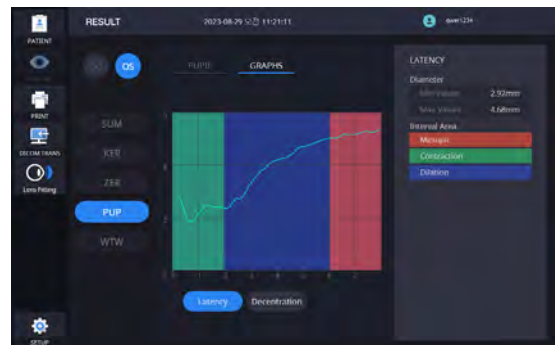

Graph

Map

PSF

Pupillometry for Gathering Pupil Data

Pupil size and responsiveness are evaluated under various lighting conditions, both during the day and at night. The results of these measurements are graphically displayed, including pupil diameter, maximum average pupil diameter, and average pupil diameter.

Pupillometry

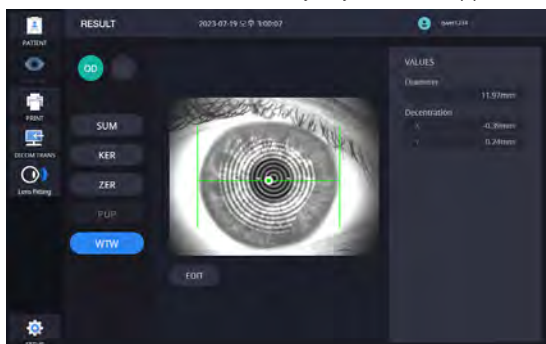
Graph

White to White Measurement

The HTG-1 performs automatic measurements of corneal size, essential for diagnosing and monitoring a range of eye conditions such as congenital glaucoma, cataract and refractive surgery planning, and selection and fitting of contact lenses. Measurement data can be easily adjusted and applied using the Edit function.
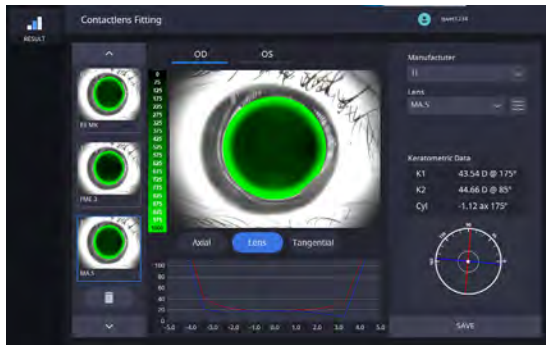

White to White
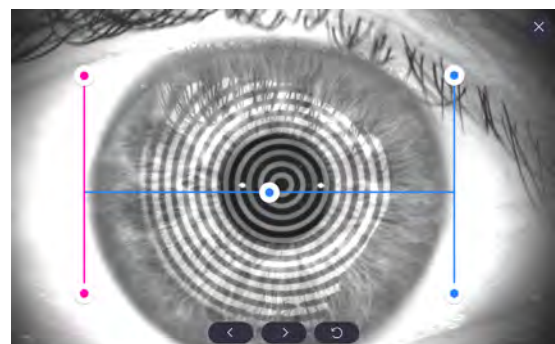
White to White Edit

Contact Lens Fitting Simulator

The simulator accurately replicates the fitting results for both Hard Contact Lenses and Soft Contact Lenses using the Fluorescein Image filter, all without the need for direct injection of fluorescent liquids.

Contact Lens Fitting

Specially Designed for Comprehensive Corneal Topography Analysis

Seamless Connectivity to Diverse Network

The system effortlessly integrates with various networks, supporting standard DICOM formats. Additionally, the data collected via Huvitz HIIS–1 can be conveniently accessed and reviewed on a PC.

Network in Huvitz Integrated Image Server (HIIS–1)

Delivering Comprehensive and Reliable Diagnostic Reports

It provides systematic reports for various parameters, including Topography, SimK, Meridian, Keratoconus, and White to White measurements, all derived from meticulously collected data.
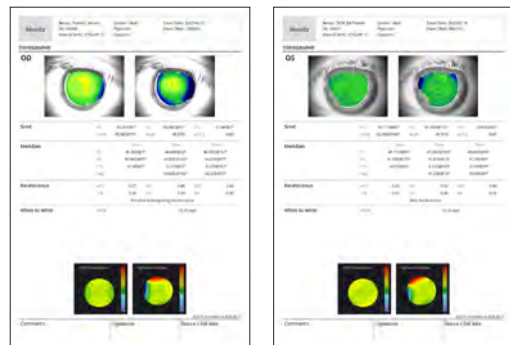
Report

Auto Tracking Mode

The auto–focus mechanism enables automatic tracking of measurement points, eliminating the need for manual focusing. This leads to faster and more accurate measurements, significantly reducing the hassle and difficulty.

Guided Start and Finish with Image and Sound Alerts

To minimize the strain on the patient's eyes, the system employs both visual and auditory cues. Patients are prompted to "open their eyes" with a single beep sound at the beginning of the measurement and alerted to "close their eyes" with two beep sounds at the end of the measurement.

- Beep sound (once) for the beginning of measurement : Informing to open the eyes
- Beep sounds (twice) for the ending of measurement : Informing to close the eyes

Efficient Space and Cost Savings with an Embedded PC

The system incorporates an embedded PC, eliminating the need for a separate PC installation. With the 10.1–inch touch LCD screen, you can view the entire process from measurement to analysis report, saving both space and costs

HTG-1

Specifications

Parameter	Measuring range	SD of Repeatability
Corneal curvature radius	3 – 38mm	±0.03 mm
Cornea refractive power	9D~110D (Cornea equivalence's refractive index: 1.3375)	
Direction of principal meridians	Measuring range: 1° – 180° Accuracy: according to the ISO 10343:2014	
White–to–white distance	7 – 14mm	±0.05 mm
Pupil diameter	0.5 – 10mm	±0.05 mm
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	
Measuring range	up to Ø 9.8 mm (on a 8 mm sphere) 42.20D with n=1.3375	
Common		
Display	Tiltable 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		
Keratoconus	KPI	
Contact lens fitting	Fluorescein simulation	
Zernike Analysis		

Specification and design are subject to change without notice.