![MediWorks logo]

Scansys Anterior Segment Analyzer

TA 517

The Third Pole, From The East

NEW

Scansys

Anterior Segment Analyzer

Scansys provides a professional solution for anterior segment diagnosis. It applies Scheimpflug camera which can collect 107520 / 230400 data points and generates 28 / 60 cornea tomography images in high resolution. Scansys can provide a series of topography maps including cornea curvature maps, cornea thickness maps, cornea elevation maps, etc.

Clinical Application

Keratoconus Diagnosis NEW

Scansys can provide the prevalence of Keratoconus by using the AI algorithm, Further checking the topographic maps to accurately analyze amd diagnose the keratoconus.

ICL Surgery Examination NEW

Scansys supports in different angles to collect a high-resolution picture. It also provides White to White, AC depth for ICL surgery.
AI intelligence recommends the diameter of the ICL and gives elevation of the arch.

IOL Optimization NEW

Specially designed for cataract surgery. It supports clinicians to choose suitable Toric IOL, Aspheric IOL or Multifocal IOL for patients.

Refractive surgery

Total cornea aberration guides surgeons to evaluate preoperative and postoperative visual quality to ensure patients of best surgery effect.

| Basic			
	28 Cornea Tomography Images Anterior Chamber Depth Total Cornea Power	2D / 3D Data Collection True Net Refractive Power Refractive Power（Front）	Keratometric Power Deviation Cornea Thickness Maps Cornea Curvature/Elevation Maps
	Refractive 4 Maps Aberration Analysis Refractive Power Distribution	AI Keratoconus Analysis Pachymetric Distribution Lens Fitting	Chamber Angle Analysis Lens Density Analysis Shape Factor

| Professional	
	(Including basic functions) 60 Cornea Tomography Images
	IOL Calculation IOL Optimization

Functions

AI Keratoconus Analysis NEW
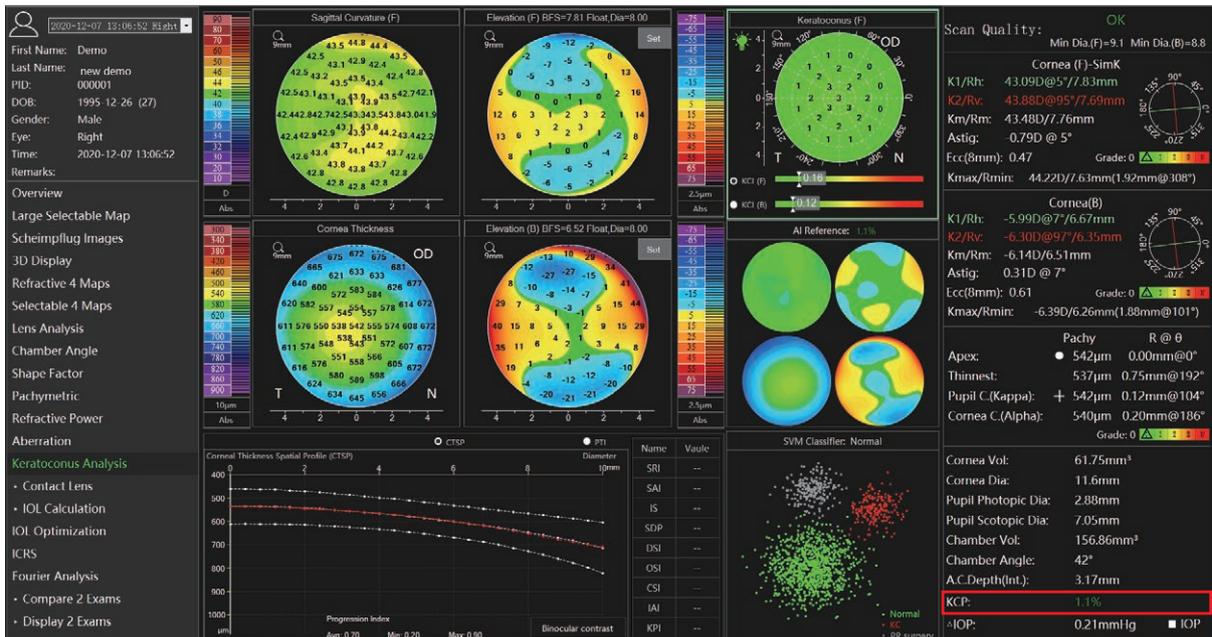
Scansys introduces AI algorithms to more intelligently give the possibility of Keratoconus (KCP) （Reference value：KCP, range 0% ~ 100%）The above figures contain the topographic maps of Refractive 4 Maps, and the axial curvature map of the back surface, and the trend distribution of the thickness map is also given. These are the key references for judging the keratoconus.
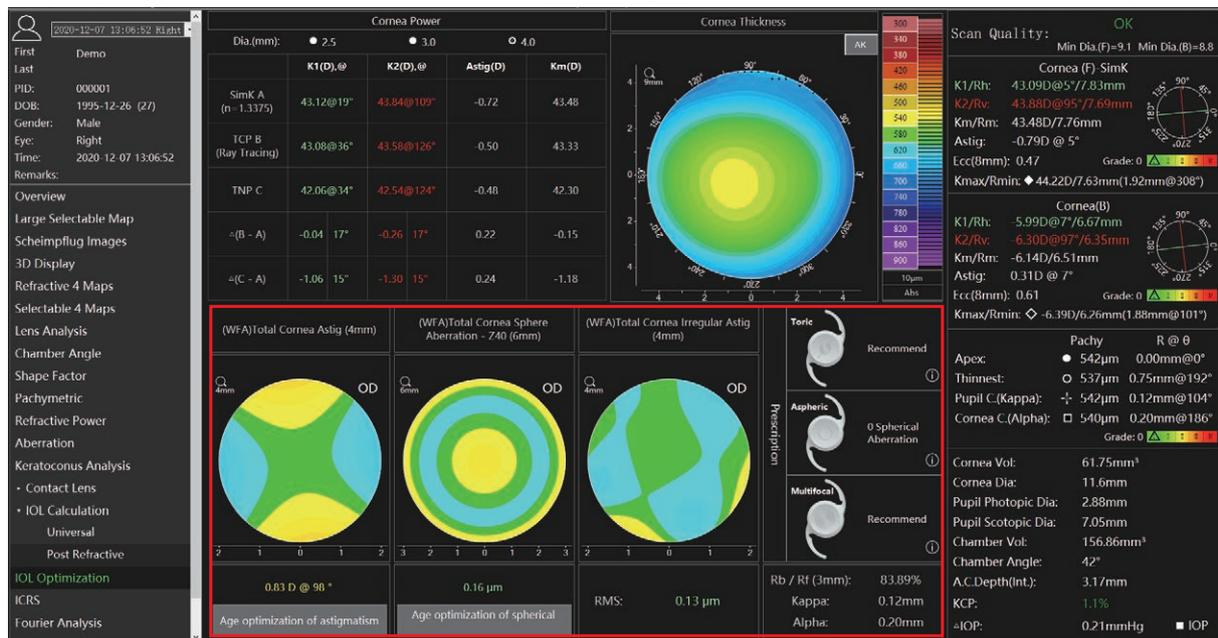
Selectable 4 Maps
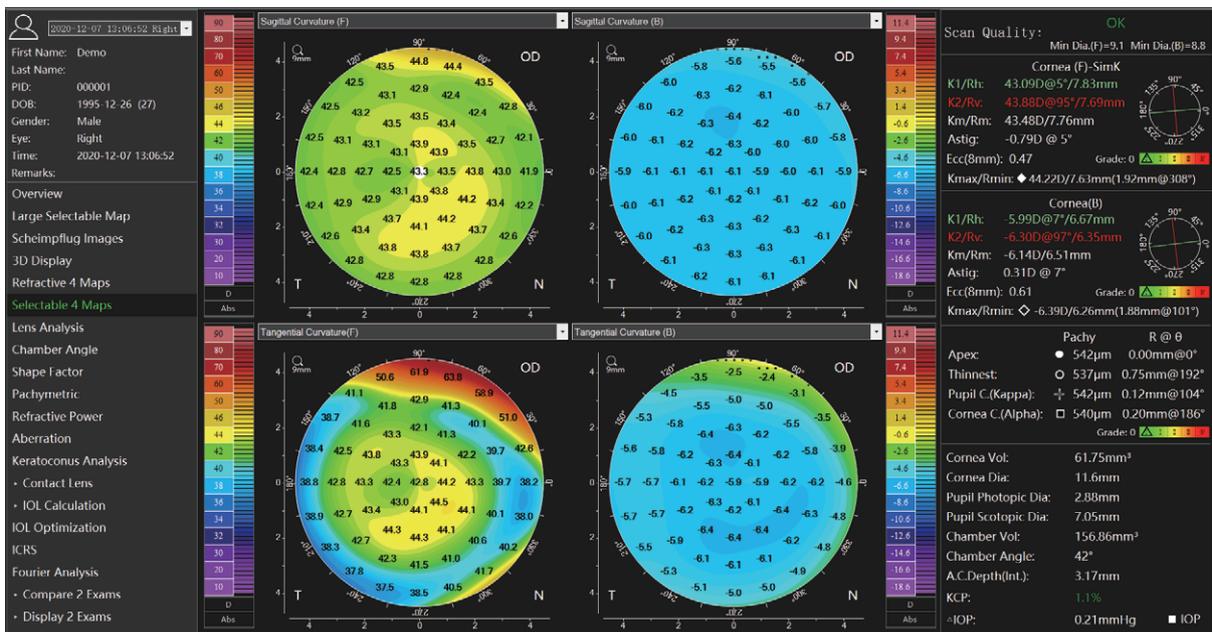
Click on the "Selectable 4 Maps" to open a window contains 4 optional color maps. Corneal thickness and elevation, etc. can be loaded into one of any 4 fields.

With this option, the user can view and print out important topographic maps needed for daily work in one interface.

Functions

IOL Optimization NEW

Specially designed for the "IOL Optimization" of refractive cataract surgery. Given the K1, K2, Km, and Astig values of the three types of corneal refractive power (Simk, total corneal power, true net refractive power), and Kappa & Alpha angle, respectively. It also provides professional data of the total corneal astigmatism aberration, total corneal spherical aberration and the total corneal irregular astigmatism, and analysis support for solving spherical refractive errors, astigmatism, spherical aberration, and presbyopia in cataract surgery.

Shape Factor
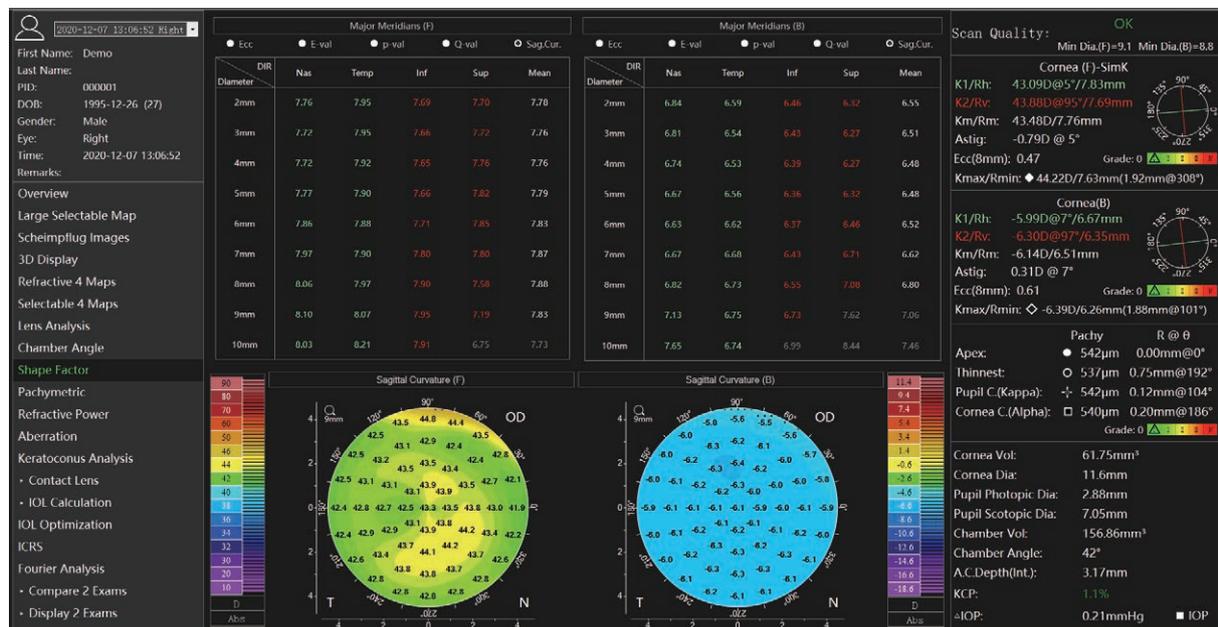
The chart upper depicts the corneal form factor and the curvature of the anterior and posterior surface of the cornea at the intersection of the radial axis and the four radial directions.

Corneal shape factors include Ecc, E, Q, and P, which can be changed in the "Map and Data Settings" -> "Form Factor Presentation" in the menu bar "Settings" options.

Functions

ICL Surgery Examination
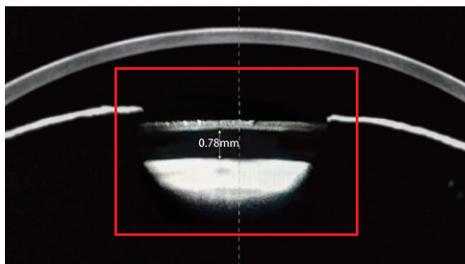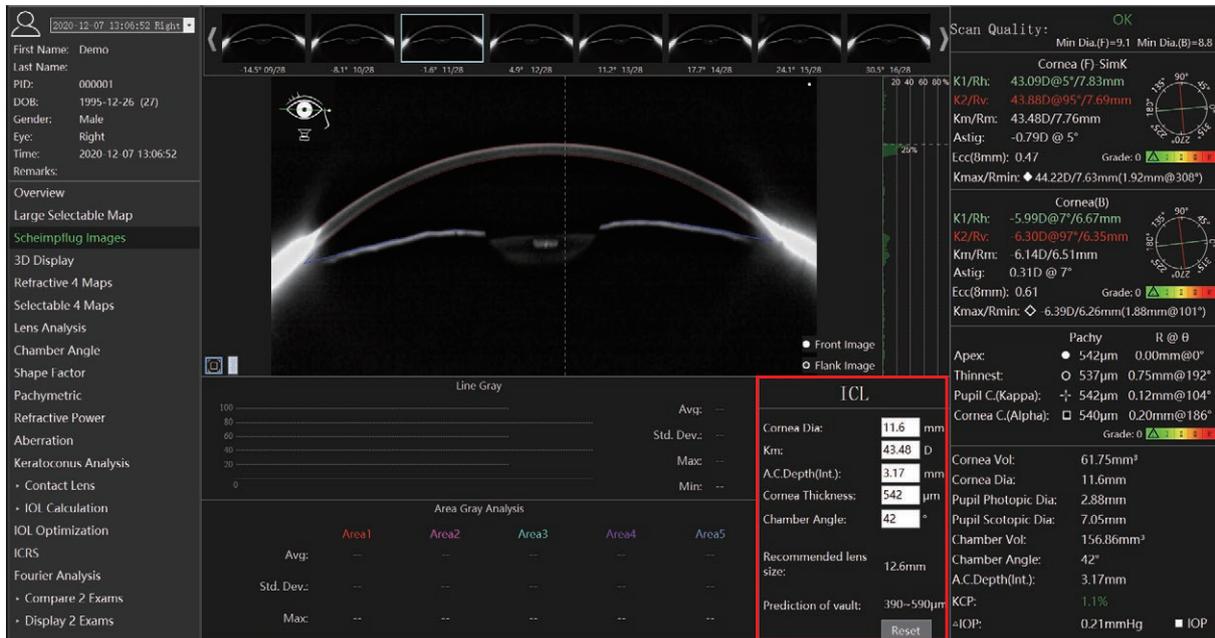
▲ Preoperative diagnosis & Postoperative arch evaluation

◀ Postoperative arch measurement

Scansys supports in any Angle to collect a high-definition picture, to provide effective data support for ICL surgery.

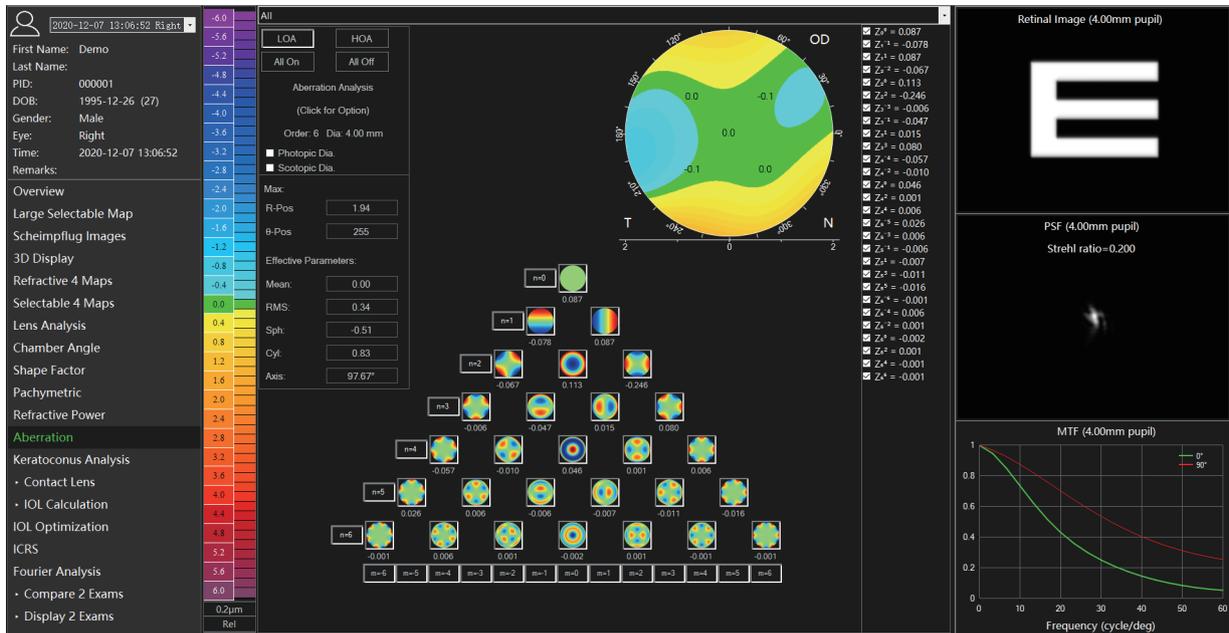AI intelligence recommends the diameter of the ICL and gives elevation of the arch.

Lens Analysis

Scansys calculates the lens density value for cross section and longitudinal section which is helpful in cataract diagnosis.
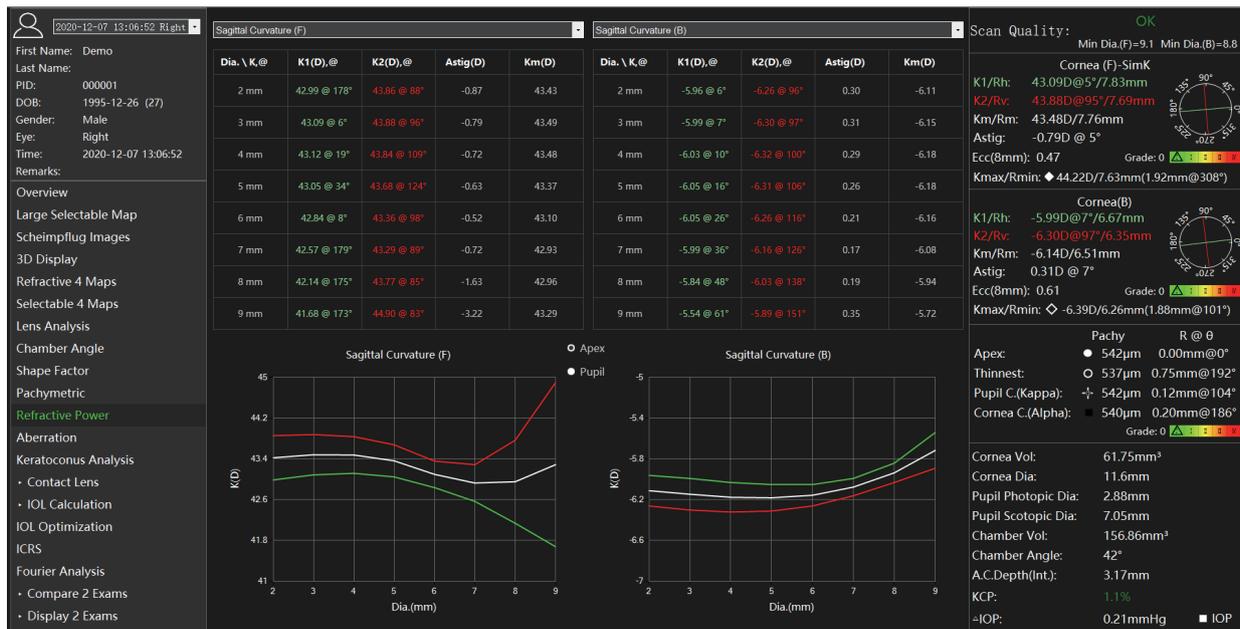
Functions

Aberration & Simulation

This view is a Zernike analysis of the measured corneal front, back and all surface height data, which calculates a factor for each Zernike polynomial term that describes the contribution of this polynomial to the height data.To guide the visual quality analysis of refractive surgery.

Refractive Power

In the key parameter column on the right, we give K1, K2, Km, Astig. These values are obtained in the range of 3mm in diameter of the membrane. In order to describe in more detail the difference of these values in each diameter range, We give K1, K2, Km, Astig of the axial curvature of the anterior and posterior corneal, anterior surface refractive power, true net refractive power, full corneal refractive power topographic map, the distribution table of various areas from 2mm to 9mm in diameter, and the distribution curve .The changes of these values in different topographic maps and different diameter ranges are described more intuitively and in detail.

Functions

Lens Fitting
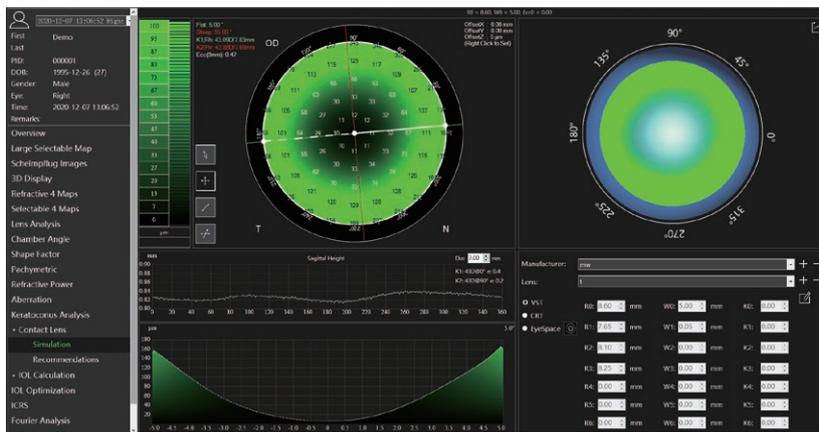
A simulated fluorescein image will be created based on the patient's topography maps generated by Scansys. This will accelerate the work flow of lens fitting and save the trouble for patient to accept multiple real fluorescein staining during lens fitting.
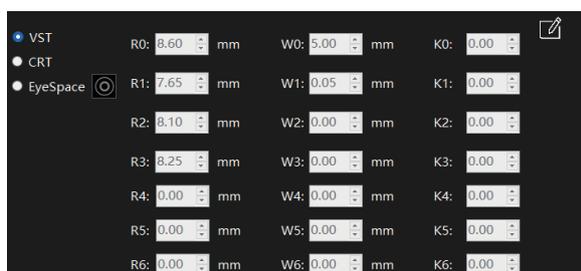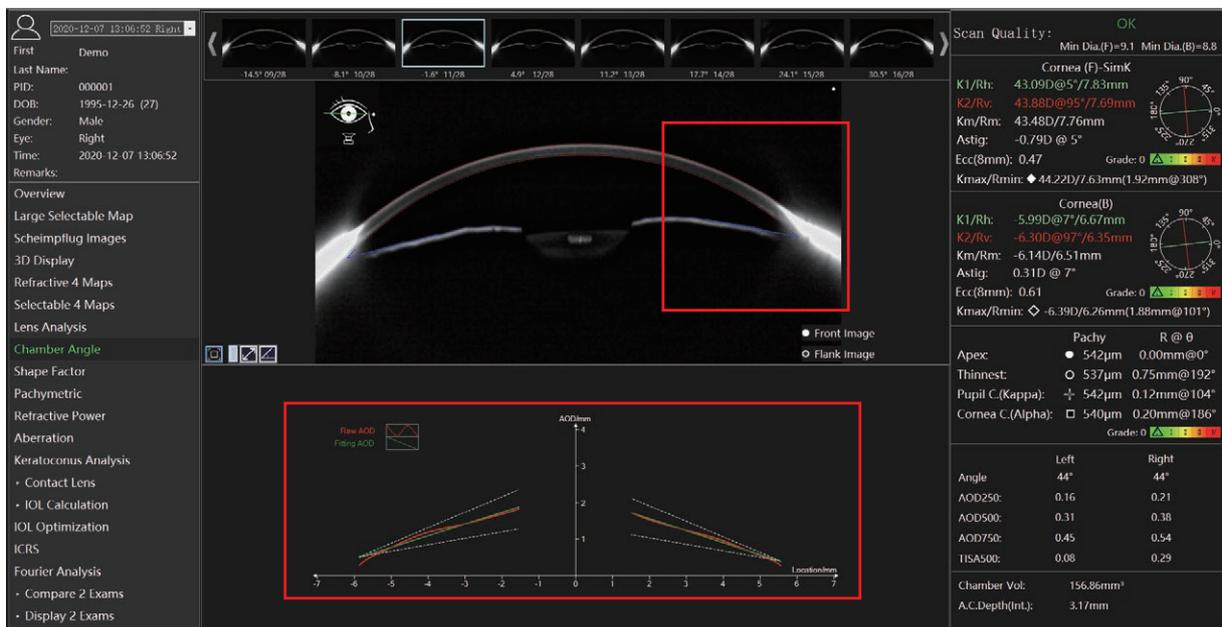

VST-Four arcs and above design
Input R value, W value and K value of each arc of VST lens.
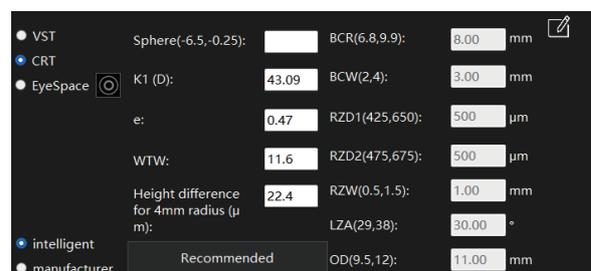
CRT-Three arcs design Input sphere
Intelligent and manufacturer recommendations are available.

Chamber Angle Analysis

Scansys can calculate a chamber angle value based on the tomography images and its exclusive AOD graph gives a trend analysis for the distance between cornea back surface to iris. It also provides cornea volume, anterior chamber volume and anterior chamber depth calculation. These analyses is helpful to glaucoma diagnosis.

Specifications

Camera	Digital infrared camera + Scheimpflug digital CCD camera
Light Source	LED slit
Scanning Speed	28 images within 1 second / 60 images within 2 second / single image
Data Points	107520 / 230400
Work distance	80 mm
Corneal topography	9 mm / 12 mm
Corneal thickness	300 ~ 900 μm
Anterior chamber depth	0.8 ~ 6 mm
Diopter	12 ~ 72 D
White to white	6 ~ 14 mm
Pupil diameter	1 ~ 10 mm
Anterior chamber volume	15 ~ 300 mm^3
Chamber angle	16 ~ 60°
Kappa/Alpha	R(0 ~ 3 mm) θ(0 ~ 360°)

Work Range

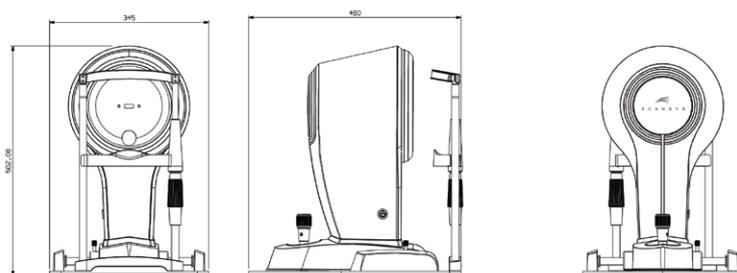|	
Front and back	115 mm
Left and right	100 mm
Up and down	30 mm

Power Supply

Input voltage	~100 V ~ 240 V
Input frequency	50 Hz / 60 Hz

Weight and Size

Device dimension	505 mm x 345 mm x 460 mm (L/W/H)
Device weight	12 kg
Package dimension	700 mm x 600 mm x 830 mm (L/W/H)
Package weigh	25 kg

System Specifications

PC configuration	i5 ~ 10500T 8G memory 256GB SSD + 1TB storage
Display	1920 × 1080 23.8 inch
PC system	Windows 10

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Details Make the **Difference**