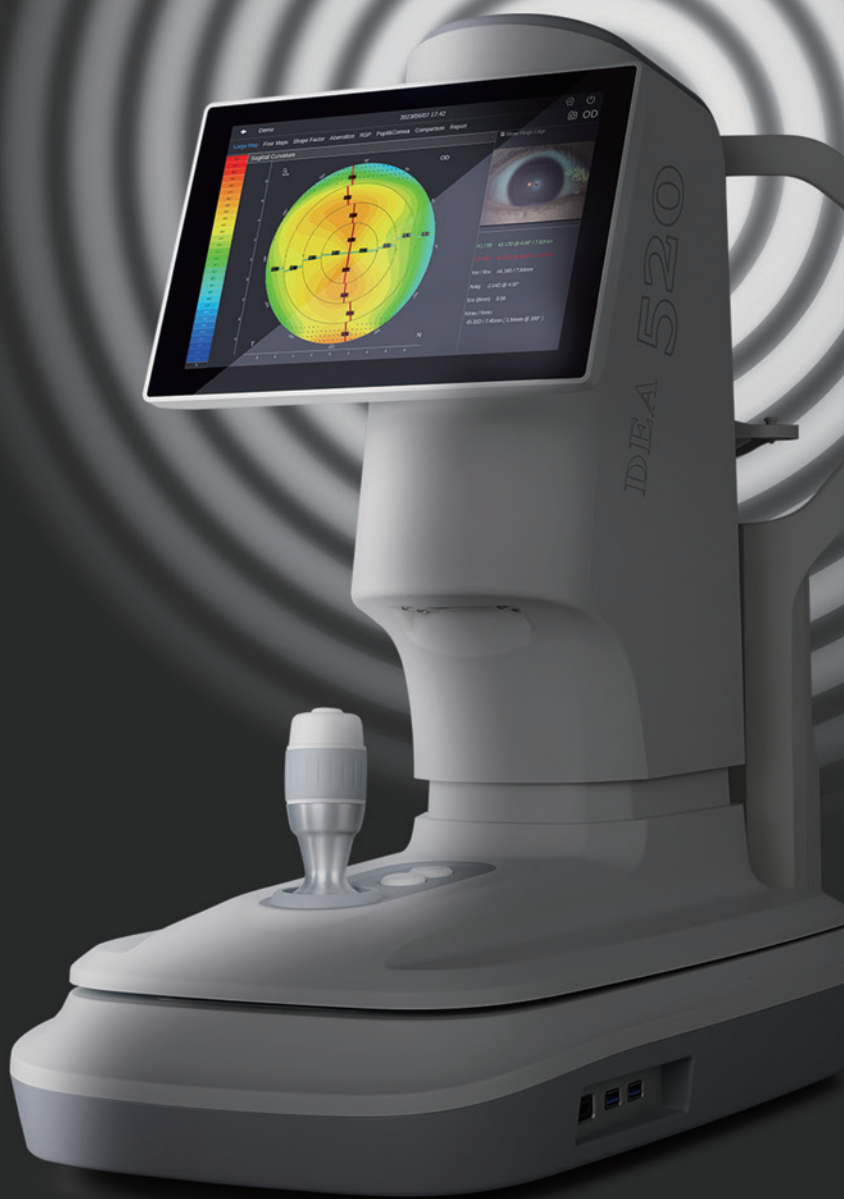
MediWorks

DEA 520

2 in 1
Ocular Diagnostic Master

Corneal Topographer



DEA 520

1 Ring 3 Illuminations 12 Functions

DEA 520 is a multi-purpose corneal topographer that integrated dry eye and corneal topography analysis.

Placido Ring

Thousands of measure points – ensure more data available and accurate analysis

Smaller cone design – bigger projection area

3 Illuminations – white illumination, infrared illumination, cobalt blue illumination

12 Functions

Dry Eye Diagnosis

- ☐ Dry Eye Questionnaire
- ☐ Meibomian Glands Function Evaluation
- ☐ Conjunctival Redness Analysis
- ☐ Lipid Layer Thickness
- ☐ Non-Invasive Tear Film Breakup Time
- ☐ Cornea Sodium Fluorescein Staining
- ☐ Non-Invasive Tear Meniscus Height
- ☐ Eyelid Margin

Topography

- ☐ Topography Analysis
- ☐ Aberration & Simulation
- ☐ Lens Fitting
- ☐ Pupil & Corneal Diameter Measurement

Built-in computer

Integration design enables maximum treatment room utilization

Dry eye diagnosis and topography analysis integrated

Doctor-Patient Communication

Visualized diagnosis report, easy to understand

External display connection enables real-time observation

Ergonomic Design

50° adjustable display, easier operation.

Auto eyes recognition, switch illumination and magnification intelligently under various function modes.

Compact cone, specially designed for various orbits.

Clinical Application

- Dry Eye Analysis
- Corneal Morphology Diagnosis
- Aberration & Simulation
- Lens Fitting

Dry Eye Diagnosis

Make dry eye visualized

Dry Eye Questionnaire

Ocular Surface Disease Index (OSDI)/McMonnies/SPEED/DEQ 5

The built-in dry eye questionnaire is designed according to the risk factors and clinical characteristics of dry eye, providing a simple preliminary assessment for dry eye, improving diagnosis and treatment efficiency and facilitating patient follow-up.

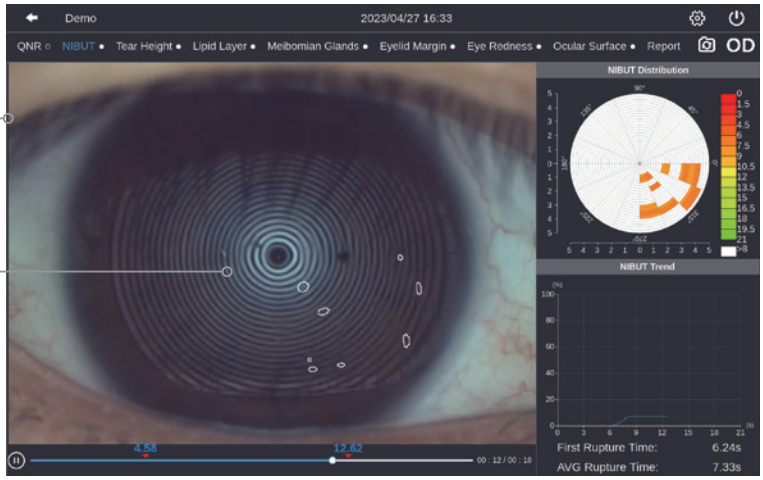
Non-Invasive Breakup Time

Interface

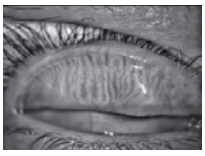
Comprehensive 7 dry eye examinations.

NIBUT

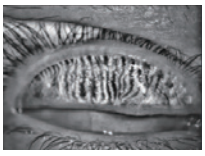
More than 9.6 mm diameter Placido ring projection. Auto identify breakup area and analyze NIBUT intelligently.



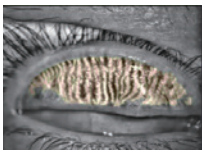
Meibomian Glands Function Evaluation



Original Image

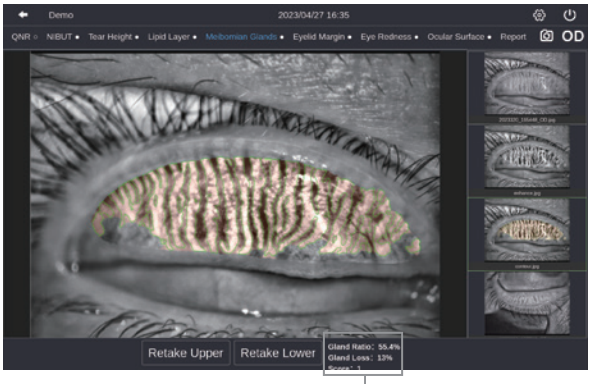


Enhanced Image



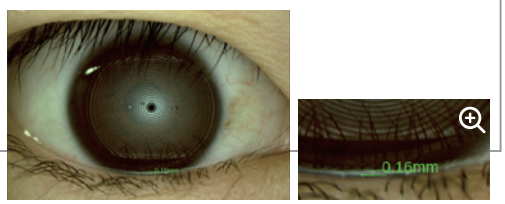
Result Image

Auto identify and auto enhance of meibomian glands area



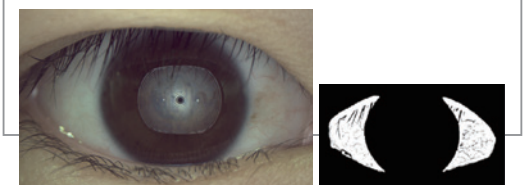
Automatically anlalyze meibomian glands loss caused by meibomian glands dysfunction with precise and quantified diagnosis results

Non-Invasive Tear Meniscus Height

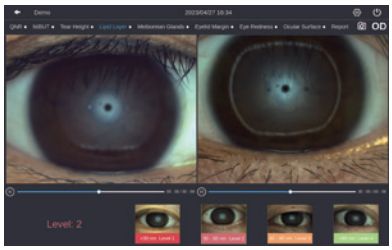


Automatic identification system depicts tear meniscus area and measures the tear height intelligently.

Conjuntival Redness Analysis

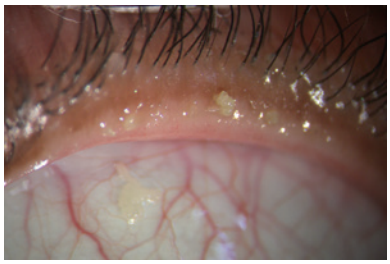


Identify and calculate percentages of conjunctival congestion and ciliary congestions and evaluate severity of eye congestion.



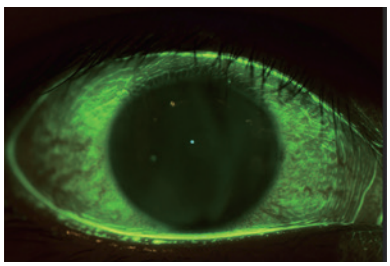
Lipid Layer Thickness

Observe dynamic lipid layer and distribution by video recording compared with standard templates. It's helpful for judging MGD.



Eyelid Margin

The high resolution image supports zoom in to meet examination requirements of overall shape of eyelid margin and its slight change.

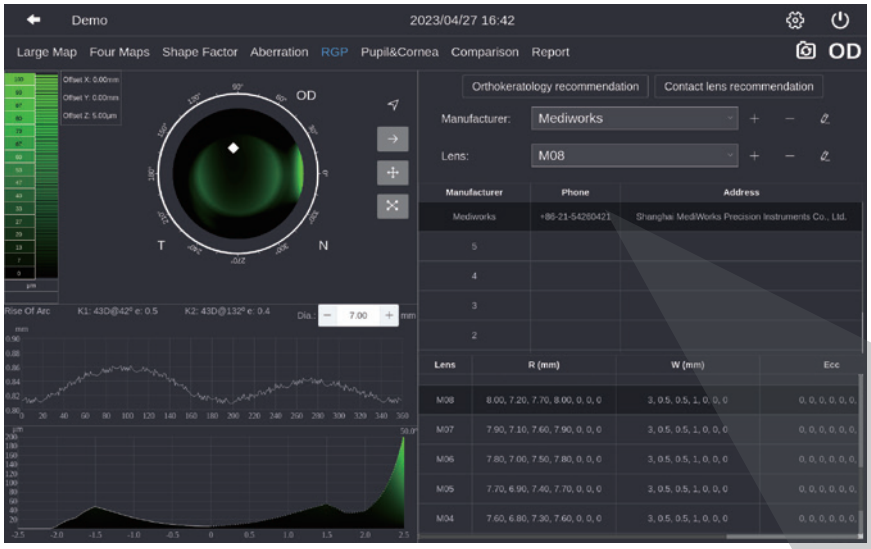


Corneal Fluorescein Staining

Specially designed built-in yellow filter, working with cobalt-blue illumination improves contrast of corneal fluorescein staining images. Effectively increases positive rate of early corneal epithelial staining.

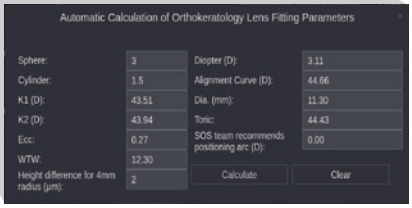
Corneal Topography

Sketch the contours of corneal

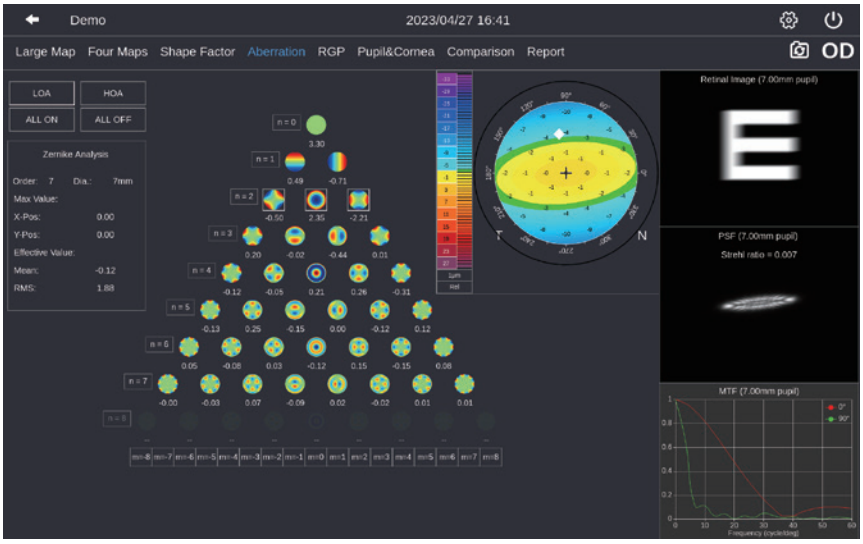


Lens Fitting

A simulated fluorescein image will be created based on patient's cornea. The system will recommend several suitable lens for choose, which accelerates work flow and excludes unfit lens to save the trouble for patient to do real several fluorescein staining.

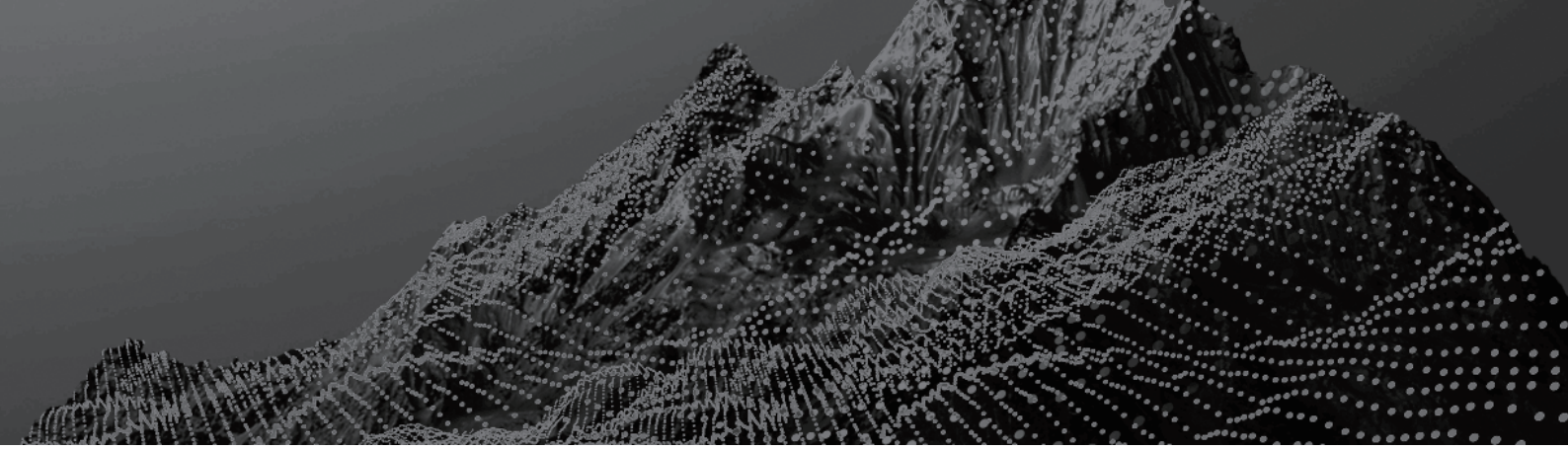


Research and develop with team SOS from EYE & ENT Hospital of Fudan University. Recommend the most precise lens based on the patient documentation.



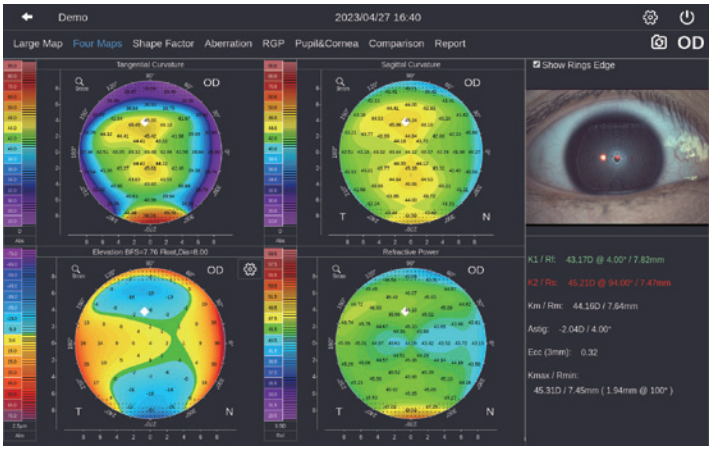
Aberration & Simulation

Zernike wavefront aberration analysis makes plan of cataract and refractive surgeries visualized and ensures patient's postoperative vision quality.

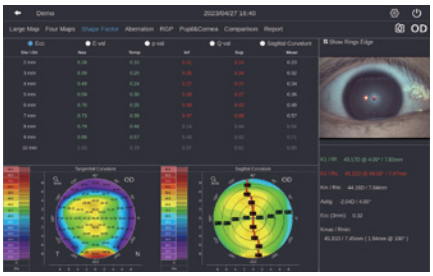


4 Maps

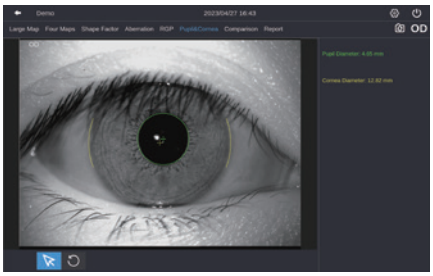
4 maps provide Sagittal Curvature,Tangential Curvature, Elevation Map, Refractive Power, and K1/K2/Km/Astig/Ecc value.



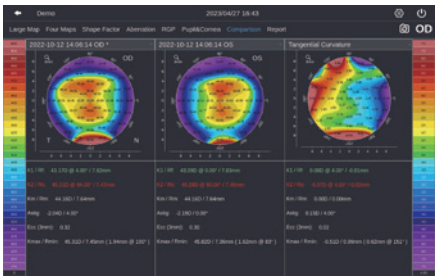
Topography



Shape Factor



Pupil & Corneal Diameter Measurement



Cases Comparison

Specifications

Hardware

Dimension	53 cm × 30 cm × 54 cm
Weight	12.7 kg
Built-in CPU	intel
Hard Disk	1 TB
Image Resolution	2048 × 1536
Display	10.1″ touchscreen
Illumination	White, Infrared, Cobalt-blue
Internet Connection	WIFI
Printer Connection	WIFI, USB
Power Supply	100 ~ 240 VAC, 50 / 60 HZ
Extension Display Interface	Display Port
OS/OD Recognition	Automatic
Chin Rest Control	Electrical
Left and Right	0 ~ 94 mm work range
Front and Back	0 ~ 64 mm work range
Up and Down	0 ~ 30 mm work range
Language	Chinese / English / Japanese
DICOM	Supported

Topography

Numbers of Rings	50 Rings
Diameter of Project Area	8.8 mm（43 D）
	11 mm（43 D）
Radius of Curvature	32.14 dpt ~ 61.36 dpt (5.5 mm ~ 10.5 mm)
	Accuracy：± 0.1 dpt（± 0.02 mm）
Astigmatism Axis	0 ~ 180°
White To White	6 ~ 17 mm
Pupil Diameter	1 ~ 13 mm
Topography Function	Sagittal Curvature
	Tangential Curvature
	Elevation Map
	Refractive Power
4 Maps	Four Maps display
Shape Factor	Ecc, E, p, Q
Zernike	Corneal wavefront aberration, PSF map, MTF curve and Simulated image in different pupil diameters
Examination Result Comparison	Support 2 results comparison and difference calculation

Dry Eye Analysis

NIBUT	Automatic analysis, tear film rupture area and trend, first break-up time and average break-up time
Tear Meniscus Height	0.01 ~ 2 mm
Meibomian Glands	Meibomian glands loss rate and grade
Lipid Layer	Template match
Eye Redness	Conjuntival congestion percentage
Eyelid Margin	Support digital images zoom in
Ocular Surface	Built-in yellow filter

CE NMPA FDA

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Details Make the **Difference**