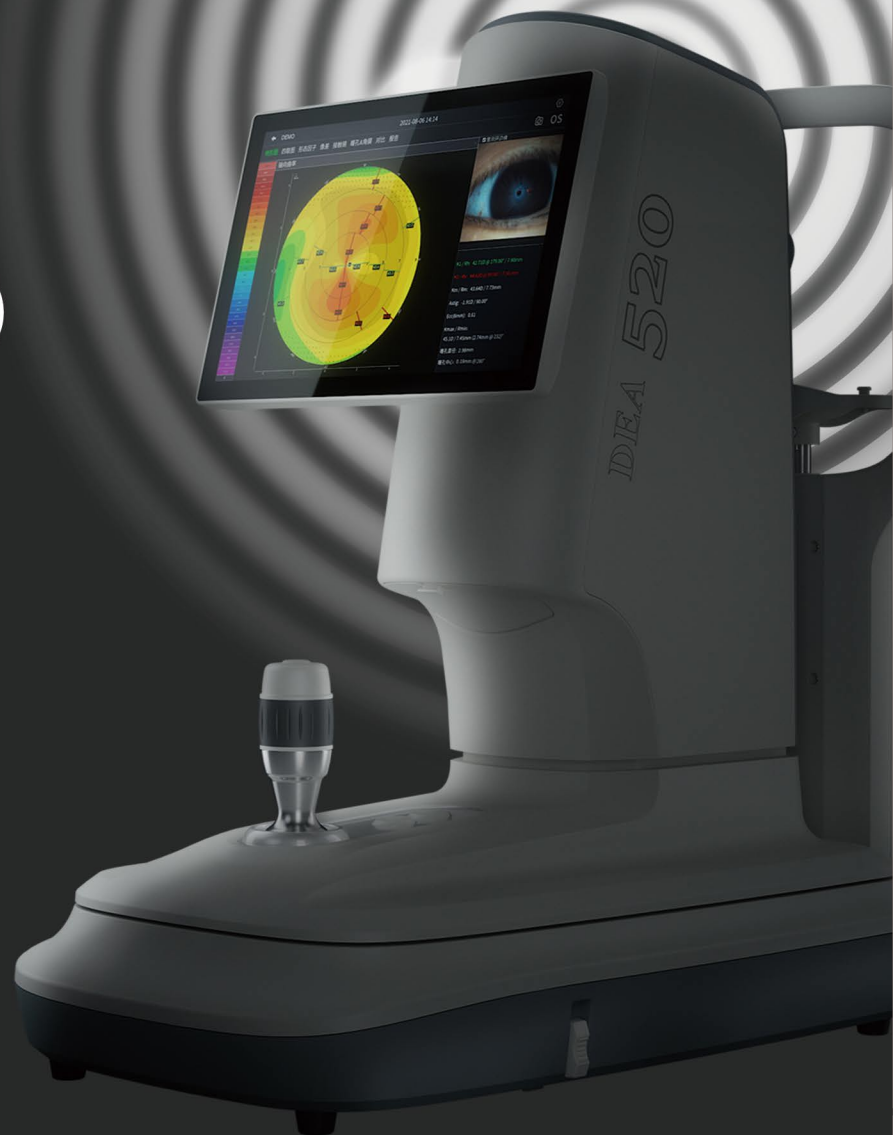


IDEA 520

2 in 1

Ocular Diagnostic Master

Corneal Topographer



DEA
520

1 Ring 3 Illuminations 9 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

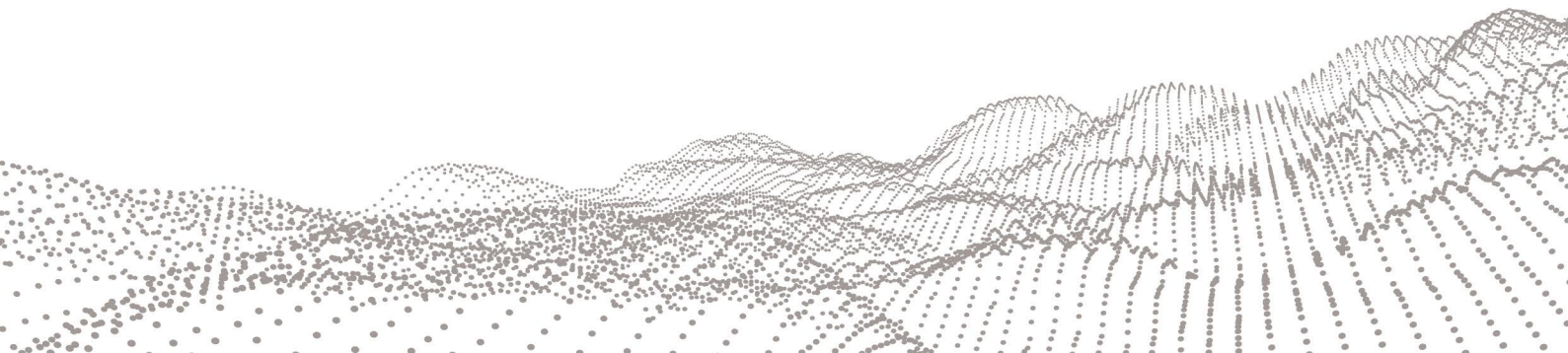
9 Functions

Dry Eye Diagnosis

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

Topography

- Topography Analysis
- Pupil & Corneal Diameter Measurement



Built-in computer

Integration design enables maximum treatment room utilization
Dry eye diagnosis and Topography analysis integrated
10.1" touchscreen, ease of operation



Doctor-Patient Communication

Visualized diagnosis report, easy to understand
External display connection enables real-time observation

Ergonomic Design

Switch illumination and magnification intelligently under various function modes
Compact cone, specially designed for various orbits
50°adjustable display
Auto OD/OS recognition

Clinical Application

- ▮ Dry Eye Analysis
- ▮ Lens Fitting
- ▮ Cornea Morphology Diagnosis



Dry Eye Diagnosis

Make dry eye visualized

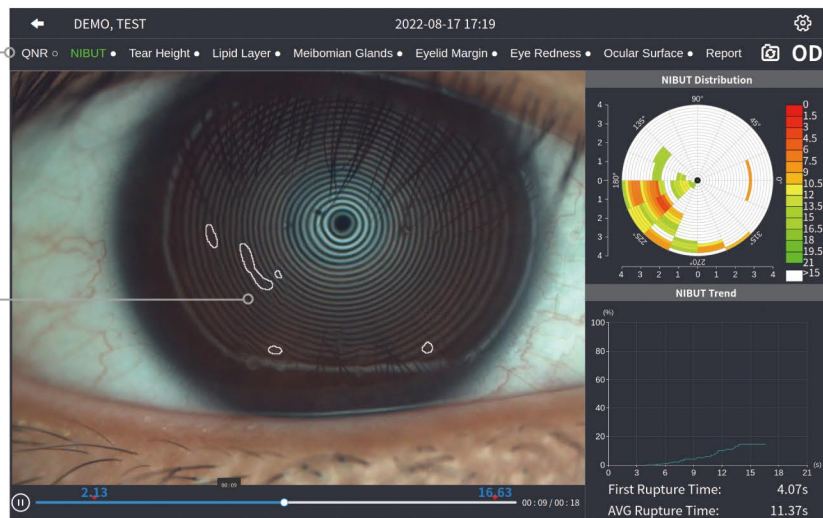
Non-Invasive Breakup Time

Interface

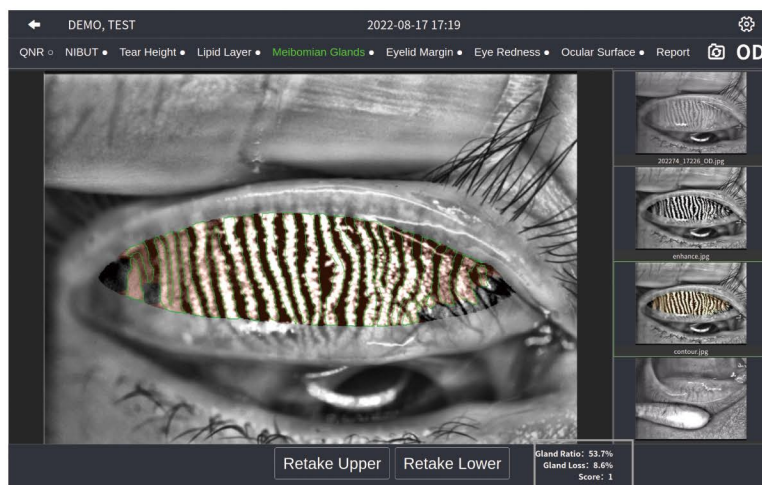
Comprehensive 7 dry eye examinations.

NIBUT

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



Meibomian Glands Function Evaluation



Original Image



Enhanced Image

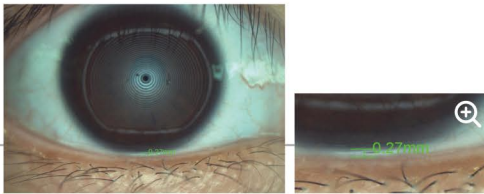


Result Image

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

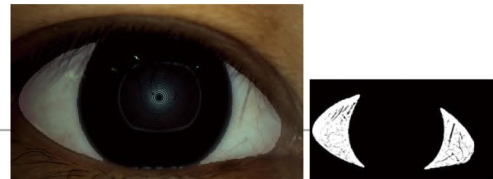
Auto identify and auto enhance of meibomian glands area

Non-Invasive Tear Meniscus Height

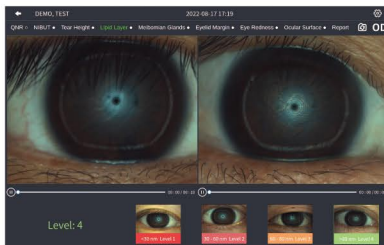


Automatic identification system depicts tear meniscus area and measures the tear height intelligently.

Conjunctival Redness Analysis



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



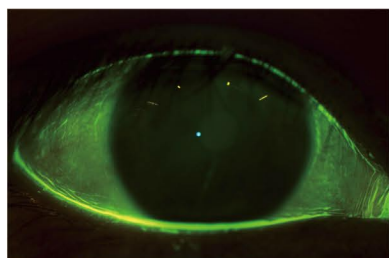
Lipid Layer Thickness

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.

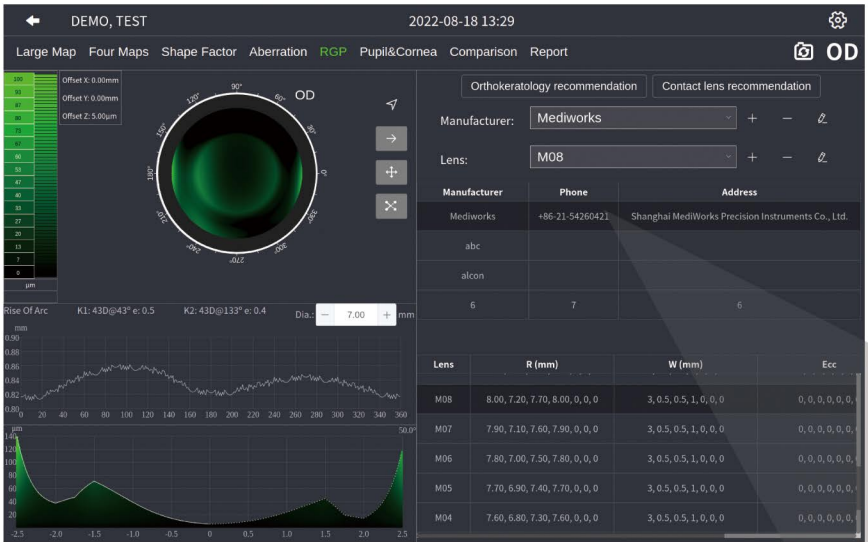


Cornea Sodium Fluorescein Staining

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

Corneal Topography

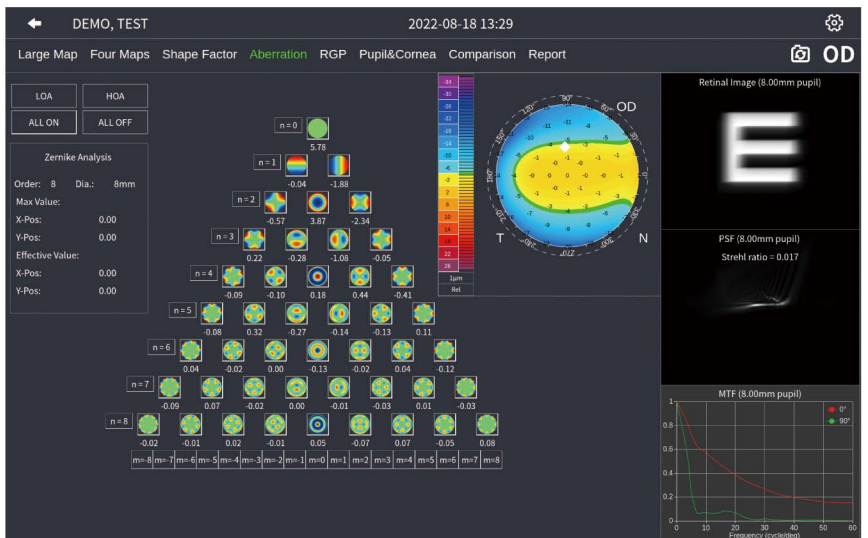
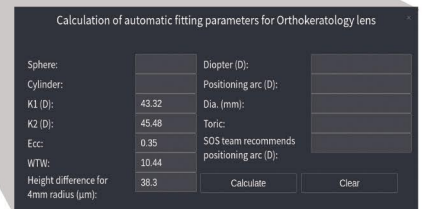
Sketch the contours of corneal



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

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.



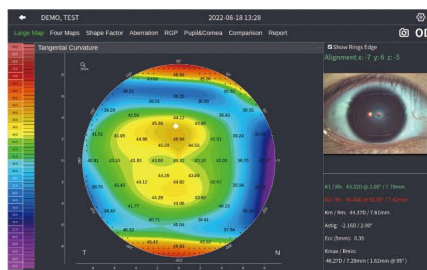
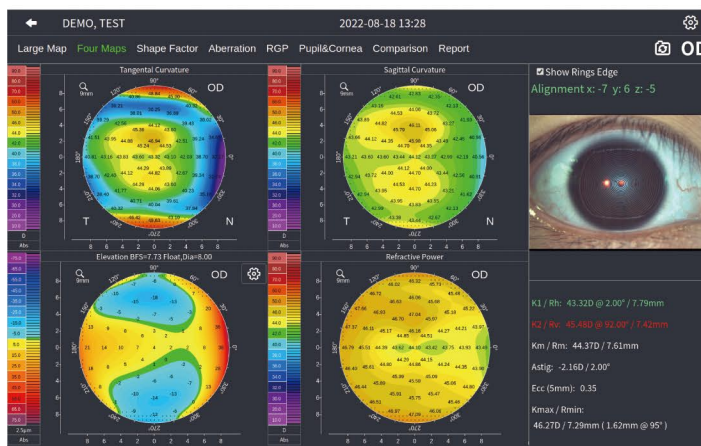
Aberration & Simulation

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



4 Maps

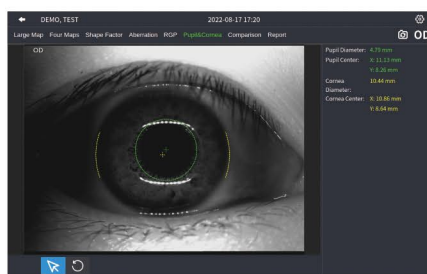
4 maps provide Sagittal Curvature, Tangential Curvature, Elevation Map, Refractive Power, and K1/K2/Km/Astig/Ecc value.



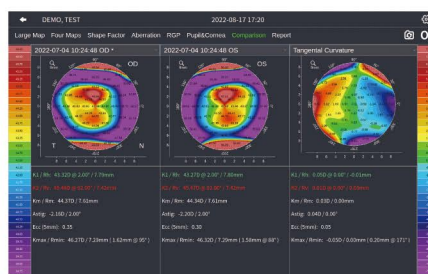
Topography



Shape Factor



Pupil & Corneal Diameter Measurement



Cases Comparison

Specifications

Hardware

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

Topography

| | |
|-------------------------------|---|
| Numbers of Rings | 50 Rings |
| Diameter of Project Area | 8.8mm (43D) 11mm (43D) |
| Radius of Curvature | 32.14 dpt~ 61.36 dpt (5.5mm~10.5mm) Accuracy: ±0.1 dpt (±0.02mm) |
| Astigmatism Axis | 0~180° |
| White To White | 6~17mm |
| Pupil Diameter | 1~13mm |
| Topography Function | Sagittal Curvature Tangential Curvature Elevation Map Refractive Power |
| 4 Maps | Four Maps display |
| Shape Factor | E, ecc, 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 | 0.01~2mm |
| Meibomian Glands | Meibomian glands loss rate and grade |
| Lipid Layer | Template match |
| Eye Redness | Conjunctival congestion percentage |
| Eyelid Margin | Support digital images zoom in |
| Ocular Surface | Built-in yellow filter |



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