3D SWEPT SOURCE OCT

FOURIER DOMAIN OCT CASIA SS-1000

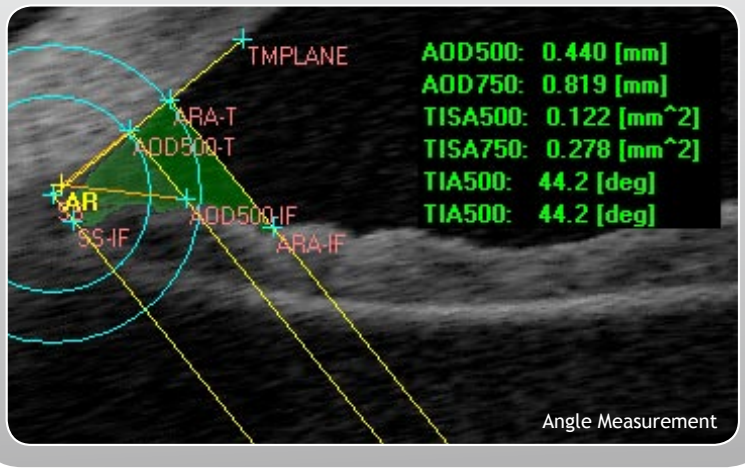
- Very high scanning speed: 30,000 A-Scans/sec.
- 130,800 A-Scans
- Cut plane 16 x 16 x 6 mm
- Topo/Pachy Map in 0.3 sec.
- Free adjustable display in 2D and 3D
- Individual correction based on the Cornea Power
- Total Hi-Res scanning time only 4.36 sec.

HS Optikmaschinen

QUALITY IN DETAIL

A picture is worth a thousand words

To see 3D videos and get more information please visit our homepage: www.tomey.de

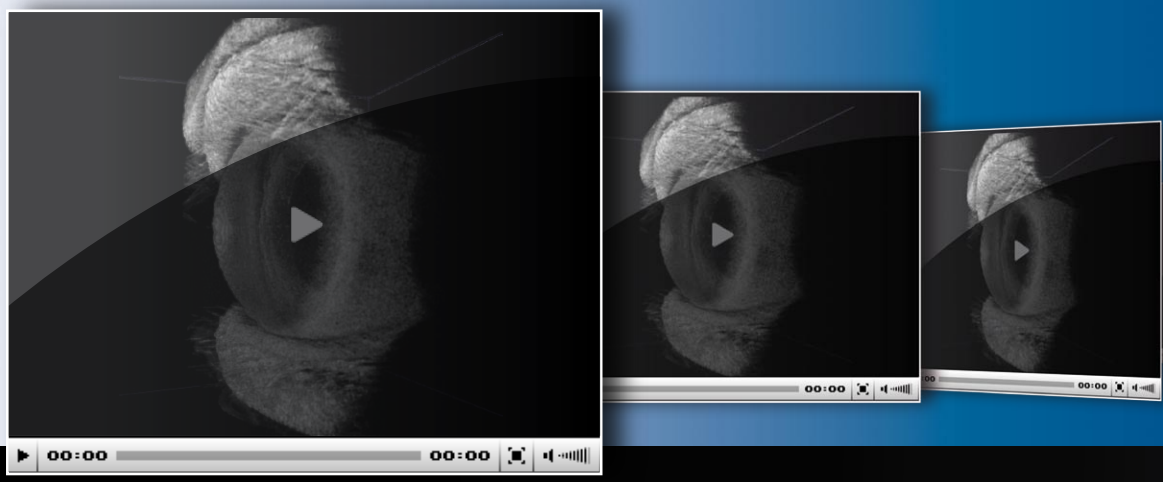


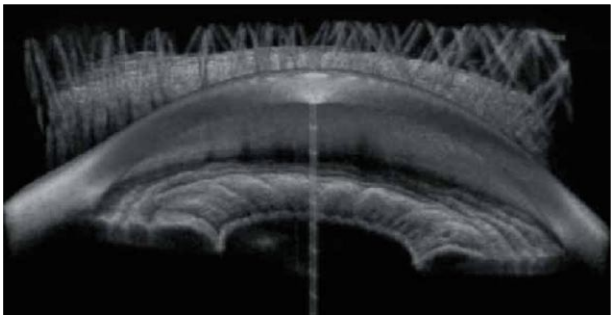
Angle Measurement

TOMEY

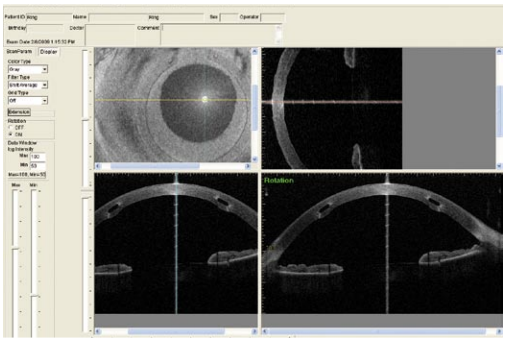
CASIA

HS Optikmaschinen

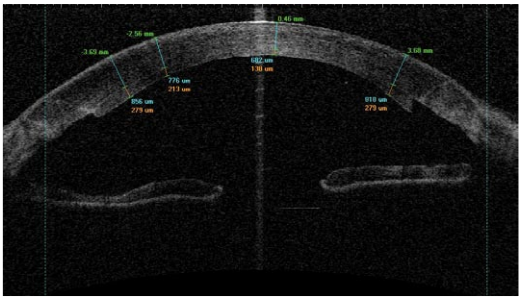




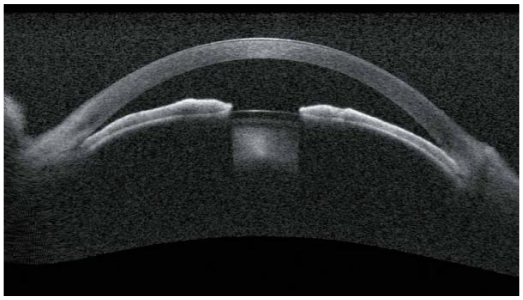
You can see the eye in any cut plane orientation. In the **Gonioscopic view** you see the image like with a goniolens even in rotation.



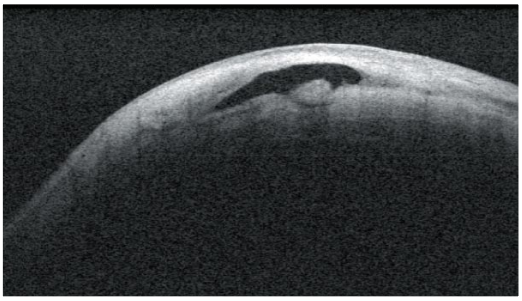
Exam Viewer



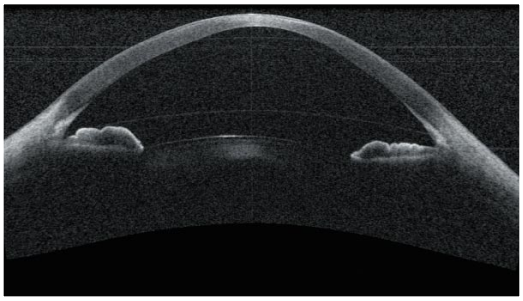
DSEK: You can see the centration and complete attachment of the transplanted cornea.



Angle-closure glaucoma: This image shows you that the angles are closed. Since a three dimensional image is captured you can obtain the gonioscopic data of 360°.

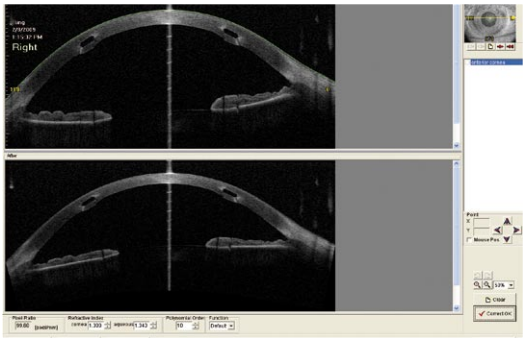


Bleb Segment: A water gap is shown in black. Since the SS-1000 is a non contact system you can take an image immediately after surgery.

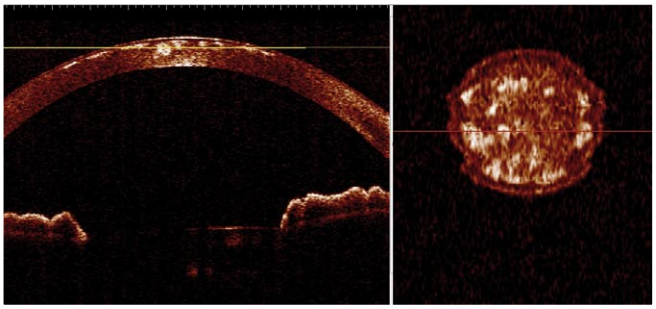


Keratoconus: You can view a Keratoconus at a very early stage and at any position of the cornea.

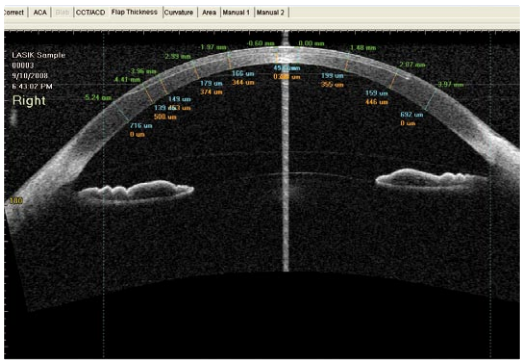
>> SS-1000 CASIA Quality in Detail <<



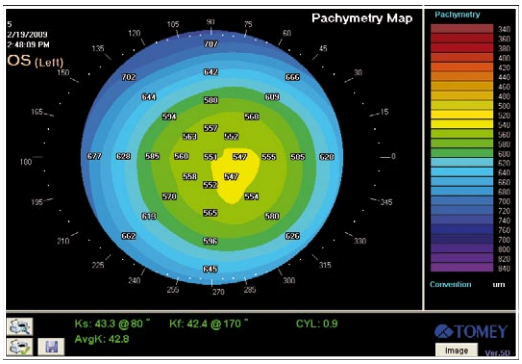
Precise and real values – The CASIA uses the curvature of each individual cornea for its correction algorithm and does not estimate the correction values based of a normative eye.



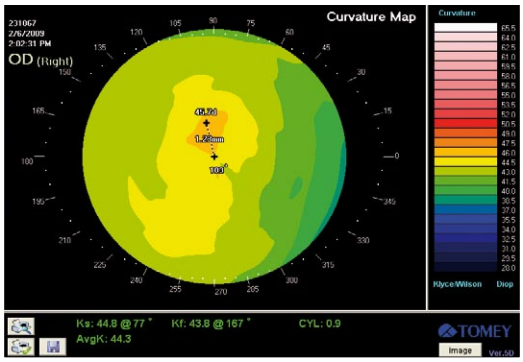
C-Scan View: The yellow bar shows condition of the dystrophy in different cuts.



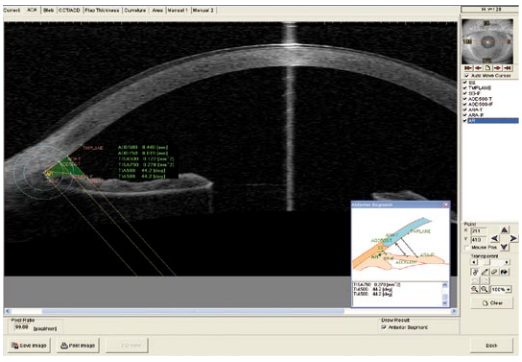
Measurement of corneal thickness and flap



Pachymetry Map



Topography Single Map



Anterior chamber angle analysis

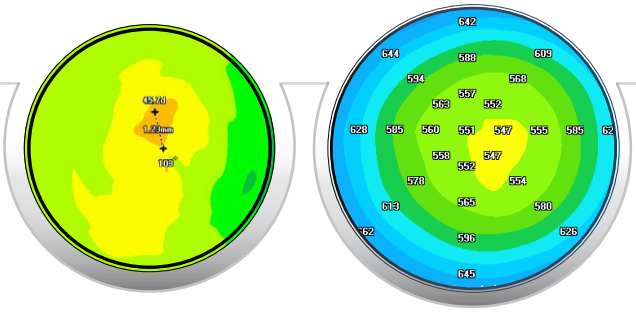
> CASIA SS-1000 Fourier Domain OCT

With the CASIA SS-1000 Fourier Domain OCT, you can take high-speed and high-resolution images for a variety of clinical situations. Due to the Swept Source Technology, three dimensional data can be captured at a speed of 0.3 to 2.4 seconds with minimal motion artifact.

The SS-1000 measures 256 B-Scans over the cornea which enables the real 3D view. The high density of the B-scans offers you an entire analysis of the anterior segment.

Since the SS-1000 is a non contact system, you can take the images immediately after surgery. Corneal curvature, anterior chamber angle analysis, bleb segment analysis, measurement of corneal thickness and anterior chamber depth and the anterior segment of an opaque cornea can be analyzed with various applications. Additional to the measurement values in the single B-Scans the SS-1000 provides you with a Topographic and Pachymetry Map of the surfaces of the cornea. The individual cornea power correction, considering all physical changes in the AC is guarantor of correct calculation and relocation of the same cornea spot.

Topography plus
Pachymetry



SPECIFICATIONS

SS-1000 MEASURING MODE

Anterior Segment (customized)
Scan Direction . . . Radial / Horizontal / Vertical
Scan Types. . . . . 16 - 256 Lines
Scan Resolution . . 256 - 512 A-Scans per Line Sampling
Scan Speed . . . . . min 0.2 sec / max 4.8
Scan Range . . . . . Adjustable 8 mm - 16 mm
Scan Depth . . . . . 6 mm
Scan Mode . . . . . Area / 2D Video
Fixation Targets . . 1 x Central / 4 x Peripheral 1 x Accommodation (+5 dpt to -10 dpt)

Cornea (Topo-/Pachy-Map)
Scan Direction . . . Radial Scan - 16 Lines
Scan Resolution . . 512 A-Scans per Line Sampling
Scan Speed . . . . . 0.3 sec
Scan Range . . . . . Transverse ø 10 mm, Depth 4 mm

Bleb Segment
Scan Direction . . . Raster Scan - Horizontal
Scan Resolution . . 256 (H) x 256 (V)
Scan Speed . . . . . 2.4 sec
Scan Range . . . . . 16 mm (H) x 16 mm (V) Depth 6 mm

Anterior Segment
(High-Resolution Scan)
Scan Direction . . . Radial Scan - 128 lines
Scan Resolution . . 512 A-Scans per Line Sampling
Scan Speed . . . . . 2.4 sec
Scan Range . . . . . Transverse ø 16 mm, Depth 6 mm

Anterior Chamber Angle
Scan Direction . . . Radial Scan - 64 Lines
Scan Resolution . . 512 A-scans per Line Sampling
Scan Speed . . . . . 1.2 sec
Scan Range . . . . . Transverse ø 16 mm, Depth 6 mm

SS-1000 ANALYSIS

3D/2D Analysis
3D Viewer . . . . . Gonioscopic Cutplanes Rotating
Maps. . . . . Topography (Absolut / Klysed / Wilson) Pachymetry (numerical / individual) Ks / Kf / AvgK
Measurement . . . . Personal Curvature Correction, Anterior Chamber Angle, Bleb Segment Analysis, CCT/ACD Measurement, CCT / Flap Thickness / Bias Curvature, Area Measurement
Video Export . . . . 2D Rotation View
2D C-Scan View
3D Video

Measuring Unit
Resolution . . . . . Axial (Depth) 10 µm or less (in Tissue) Transverse 30 µm or less (in Tissue)
Scan Speed . . . . . 30,000 A-Scans / Second
Scan Range . . . . . 6 mm x 16 mm x 16 mm

Stroke . . . . . 88 mm (X Axis)
40 mm (Y Axis)
45 mm (Z Axis)
Stroke
of Chin Rest . . . . . 70 mm
Touch Screen . . . . 8.4" Colour TFT
Dimension WDH . . 360 x 493 x 519 mm
Weight . . . . . Approx. 21 kg

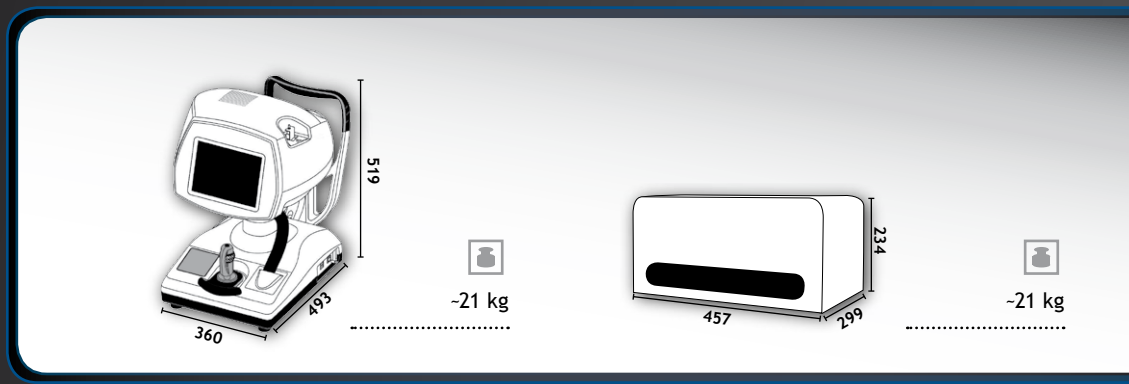
Alignment
Mode . . . . . Manual via Joystick or Touch Screen, Auto Alignment, Auto Shoot

Light-Source Unit
Type . . . . . Swept Source Laser
Wavelength . . . . . 1310 nm
Principal . . . . . Fourier-Domain
Output Power . . . Less than 5mW
Dimension WDH . . 457 x 299 x 234 mm
Weight . . . . . Approx. 21 kg

Power Source
Voltage . . . . . 100 V AC - 240 V AC
Frequency . . . . . 50/60 Hz
Consumption . . . . 250 VA - 300 VA

Workstation Computer
OS . . . . . Windows XP
CPU . . . . . Intel Core 2 Duo Processor
Memory. . . . . 4 GBytes
HDD RAID . . . . . 750 GB x 2 (Level1)
Data Output . . . . Printer (LAN / USB)
Display . . . . . 19 inch Colour TFT Display

Accessories
E-Lift Table . . . . . 1200 x 600 mm
. . . . . PC Holder
. . . . . Printer Holder
. . . . . Isolation Transformer
Data Export . . . . . LAN / USB
Documentation . . . MS / Printer (not included)
Video Printer (not included)



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