SOCT Copernicus HR Specification

Light Source:	SLED	
Central Wavelength:	850 nm	
Axial Resolution:	3 μm	
Transversal Resolution:	12-18 μm	
Scanning Speed:	52000 A-Scan per second	
A-Scan Resolution:	1024 points	
B-Scan Resolution:	20000 A-Scans	
Max. B-Scan width:	10 mm	
Scanning Density:	2000 A-Scans per mm	
Scan Patterns:	3D, Cross, B-Scan, Asterisk, Circle, Animation, Doppler	
Analysis:	Retina:	Retina thickness, Retina volume, RNFL thickness, RNFL volume, RPE deformation, IS/OS thickness
	Glaucoma:	RNFL, ONH morphology, DDLS
	Anterior:	Pachymetry, LASIK flap, Angle Assesment, AIOP
Dimensions:	640 x 680 x 520 H x W x D	
Power supply:	100-250V 50/60Hz	

www.optopol.com

SOCT Copernicus HR

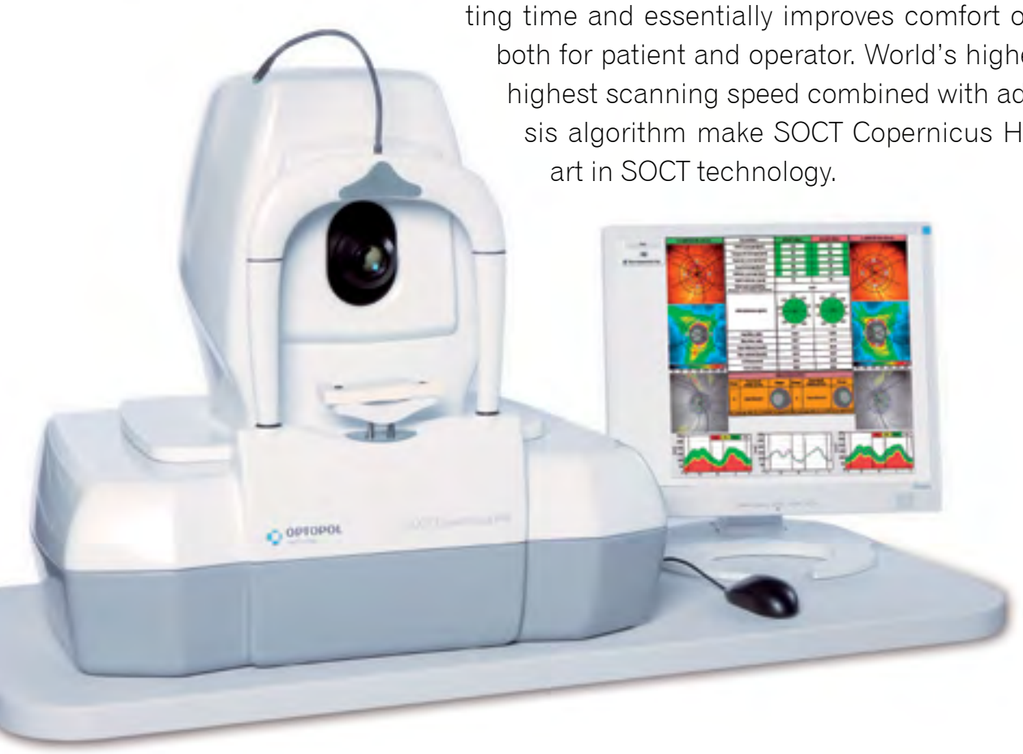
OPTOPOL technology

Local Distributor:

OPTOPOL technology

SOCT Copernicus HR

Ultrahigh resolution gives doctor comfort of confidence in diagnosis.At the same time sharp details give no chance to make a mistake. Ultrahigh scanning speed shortens data collecting time and essentially improves comfort of examination both for patient and operator. World's highest resolution, highest scanning speed combined with advanced analysis algorithm make SOCT Copernicus HR state of the art in SOCT technology.

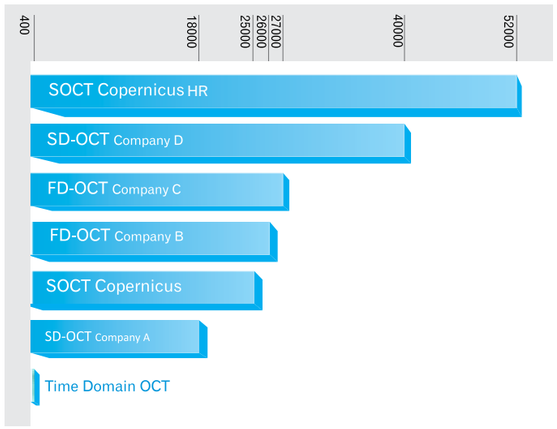


Features

- Highest optical resolution – more focused details – more reliable diagnosis
- Easy operation
- Shorter time of examination – less fatigue to patient – easier operation
- Comprehensive analysis tools for fovea, disc, anterior chamber

The Need for Speed

SOCT Copernicus HR scan speed minimizes the motion artifacts.



Software Features

- Retina and RNFL volume maps
- Optic nerve head analysis
- Progression module
- Symmetry module
- User customized printouts
- Multi – lingual interface
- 3D visualization – traction visualization, enhanced, preview, peeling, slicing, C-SCANS
- Advanced image recognition mechanisms
- Short calculation time
- Positioning tomograms on the picture of the surface of retina
- Retina tracking system

SOCT Copernicus HR Glaucoma Module

A Powerful Predictor of Change

- Validated by ophthalmologists to predict structural change
- Optic disc analysis outperforms expert interpretation
- Large normative database
- Progression analysis
- Symmetry analysis
- Network ready
- DICOM connectivity
- Pachymetry
- Angle assessment

The SOCT Copernicus HR Glaucoma Module is an essential tool for the detection and management of Glaucoma. Essentially, the tool allows detection on pupillary defect and tracks progression with time. The essential components of the Glaucoma Module are:

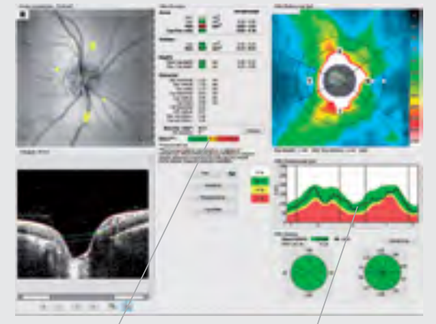
» Disk Damage Likelihood Scale (DDLS)

The DDLS is a new way to analyze the optic nerve. Instead of a cup/disc (c/d) ratio, a rim/disc (r/d) ratio and the nerve size is measured. This methodology is superior than any other reporting measure for two reasons:

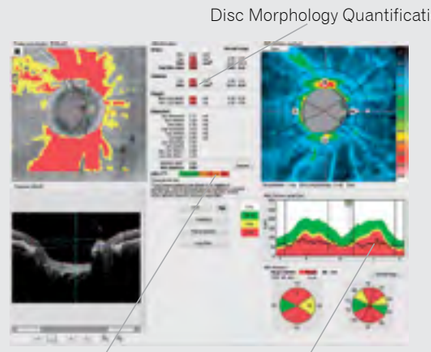
a. DDLS eliminates the effects of disc size, which is so variable in people.

b. DDLS measure provides more weightage to the rim, which is the actual part that is damaged in Glaucoma.

Healthy Disc



Glaucomatous Disc



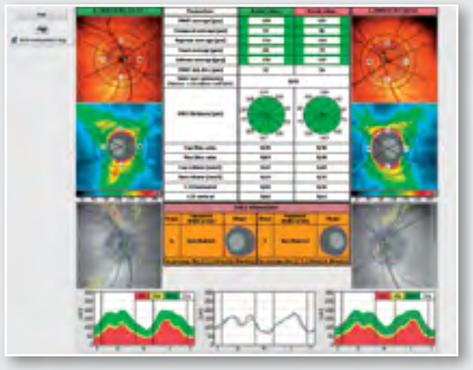
» Symmetry Analysis

Correctly identifies patients with glaucomatous field loss and shows abnormalities in many patients considered at high risk for glaucoma who still have normal fields. Asymmetry analysis is also able to identify objectively the extent of glaucomatous damage and detects changes before subjective field lossoccurs.

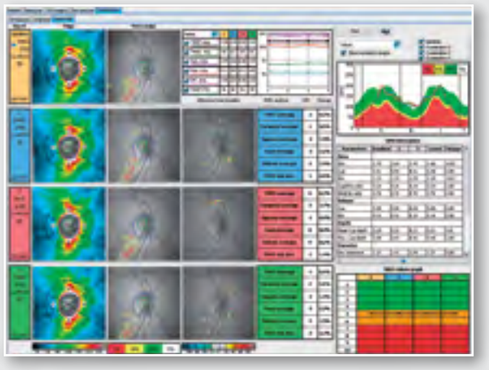
» Progression Analysis

Glaucoma module allows complete and detailed progression analysis of the RNFL thickness, comparison to the normal population, DDLS scale and difference from baseline plots to highlight progression and/or comparison of disc scans at various stages of time.

Symetry Analysis

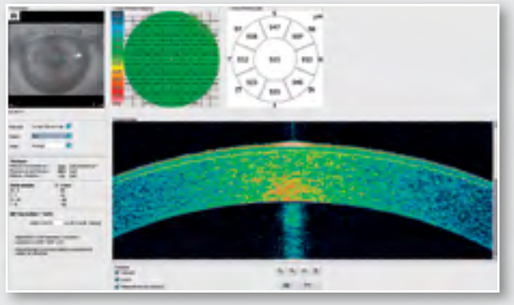


Progression Analysis



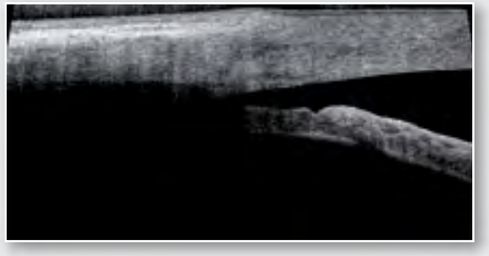
Anterior Segment Module

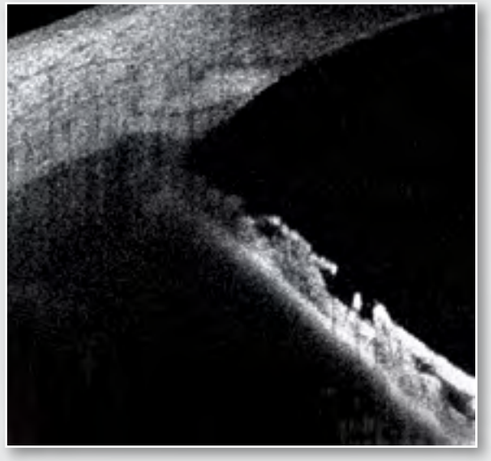
The anterior segment module allows cornea and anterior imaging with a resolution of 3 micron.



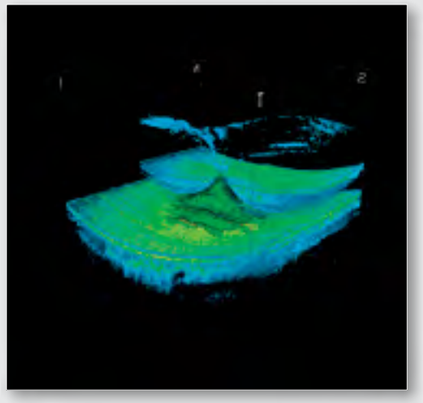
SOCT Copernicus HR software allows:

1. Pachymetry map.
2. Epithelium thickness measurement
3. AOD, TISA
4. LASIK Flap
5. Anterior lens measurement
6. IOP correction

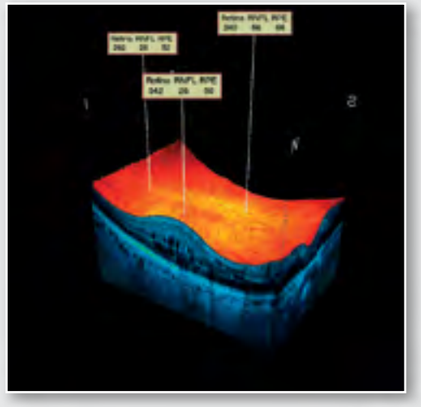




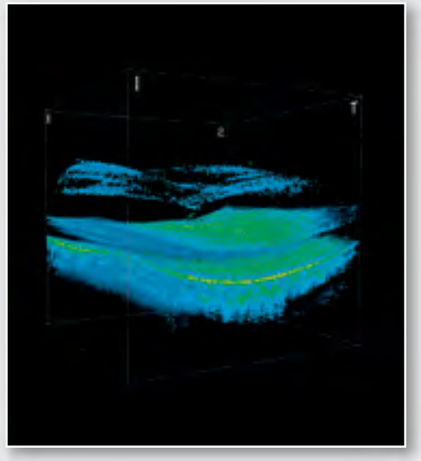
3D and Fovea



The new advanced 3D module allows visualiation of the 3D reconstruction. Peeling facilitates localization and review of the pathology for detailed analyzis.



Thickness of the retina, RNFL and RPE can be seen for any spot on the 3D picture - enabling quick and easy study of the structures.

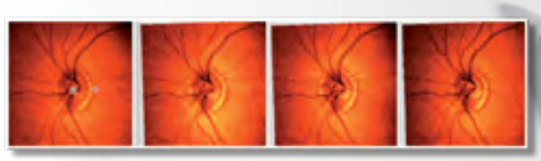


Vitreomacular tractions can be vislualized, highlighted and removed for easy patient understanding.

Progression Module

Wide range of comprehensive tools in SOCT Copernicus HR progression module allows doctors to observe pathology progression during follow up visits.

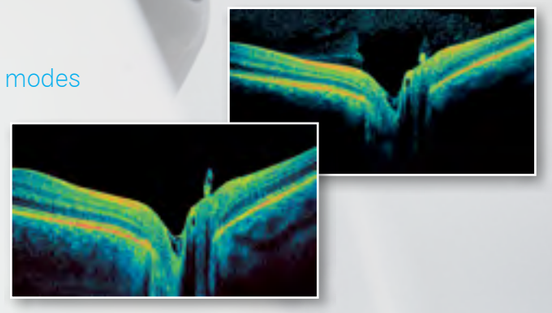
New blood vessels recognition system



High reliability and repeatability thanks to our new blood vessels recognition system. This system allows excellent accuracy in scans overlay.

Chorioretinal and Vitreoretinal scanning modes

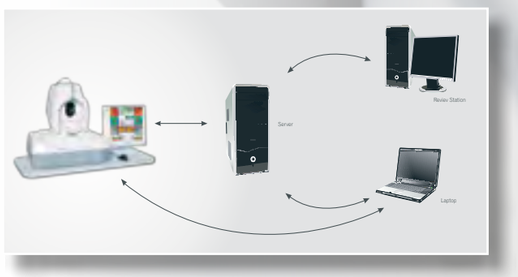
Depending on exam requirements SOCT Copernicus HR software gives you an option to highlight structural changes and to make them more visible in the relevant part of the retina.



One Click – fast and easy examination

Examination Module has been redesigned, now taking an exam is much easier and faster than ever before. With just one click of your mouse system tracks retina and is ready for data acquisition.

Network Solutions

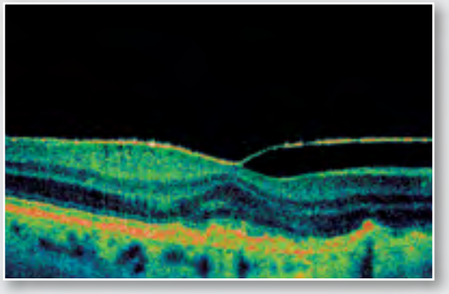


SOCT images can be stored in the central location and be accessible from viewing stations located in many different places. There is no additional charge for the server module.

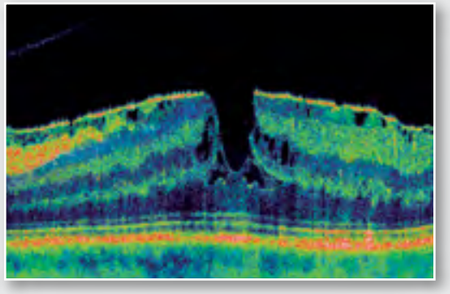
- Normative Database
- Powerful tool for exam reports preparation
- Tools for anterior angle assessment

SOCT Copernicus HR

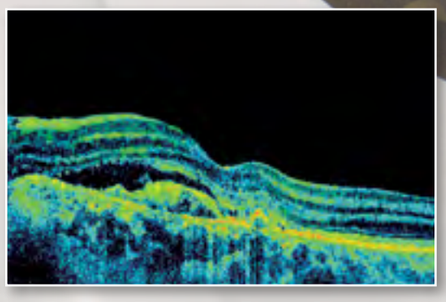
SOCT Copernicus HR Image



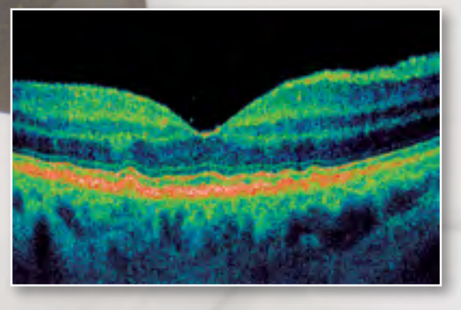
Drusen



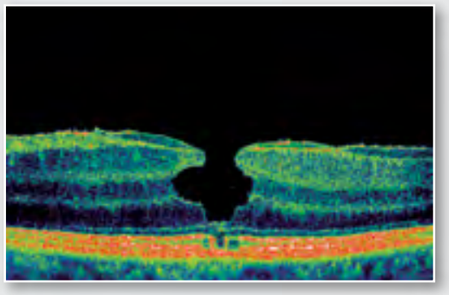
Epiretinal Membranes



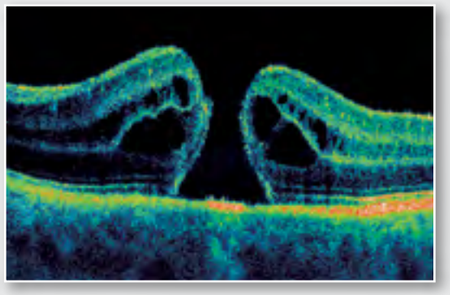
Age-related Macula Degeneration (AMD)
Subfoveal Choroidal NeovascularMembrane



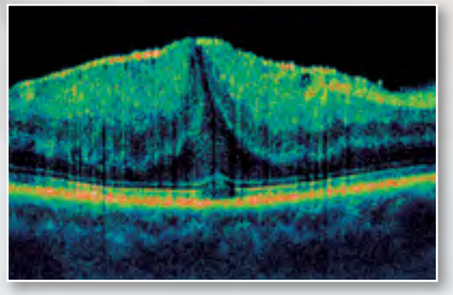
Age-related Macula Degeneration (AMD)



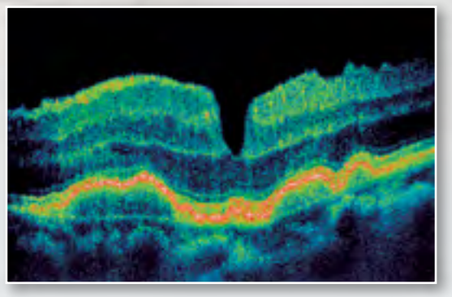
Lamellar Macular Hole (LMH)



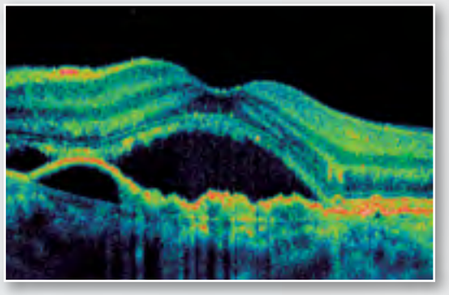
Idiopathic Macular Hole (IMH)



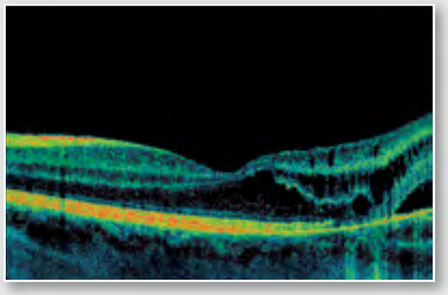
Epiretinal Membranes



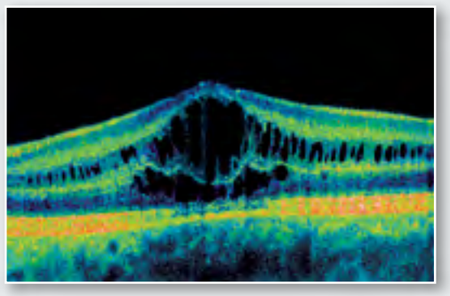
Macular Pseudohole



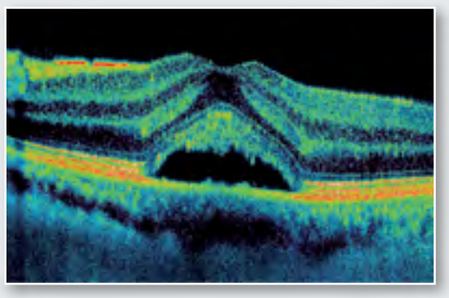
Wet AMD



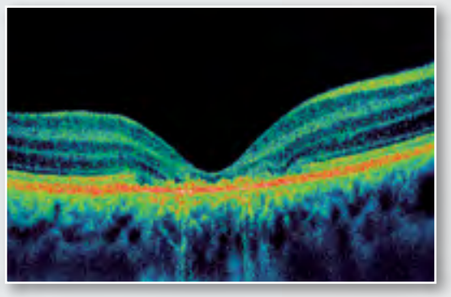
Retina Schizis



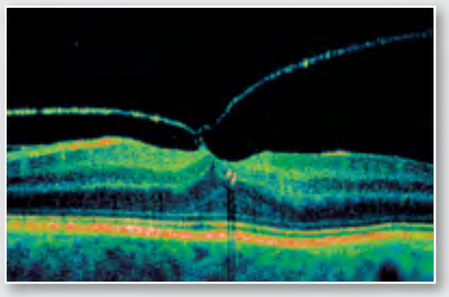
Cystoid Macular Edema (CME)



Central Serous Chorioretinopathy (CSR)



Stargardt Disease



Vitreomacular Tracion Syndrome (VTS)

Image courtessy of prof. J. Nawrocki, Jasne Blonia

SOCT Copernicus HR