NIDEK

Advanced OCT/SLO System

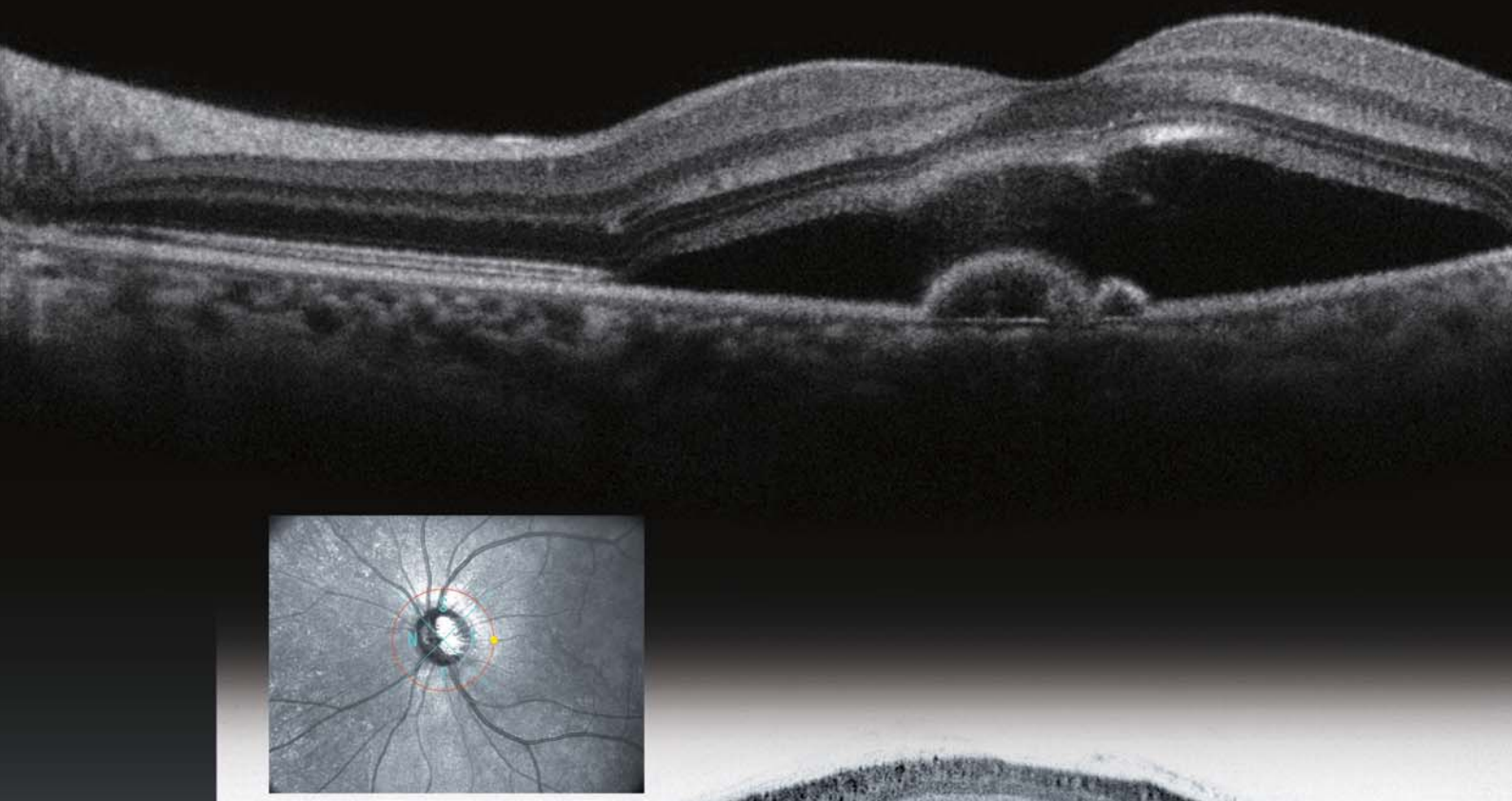
RS-3000

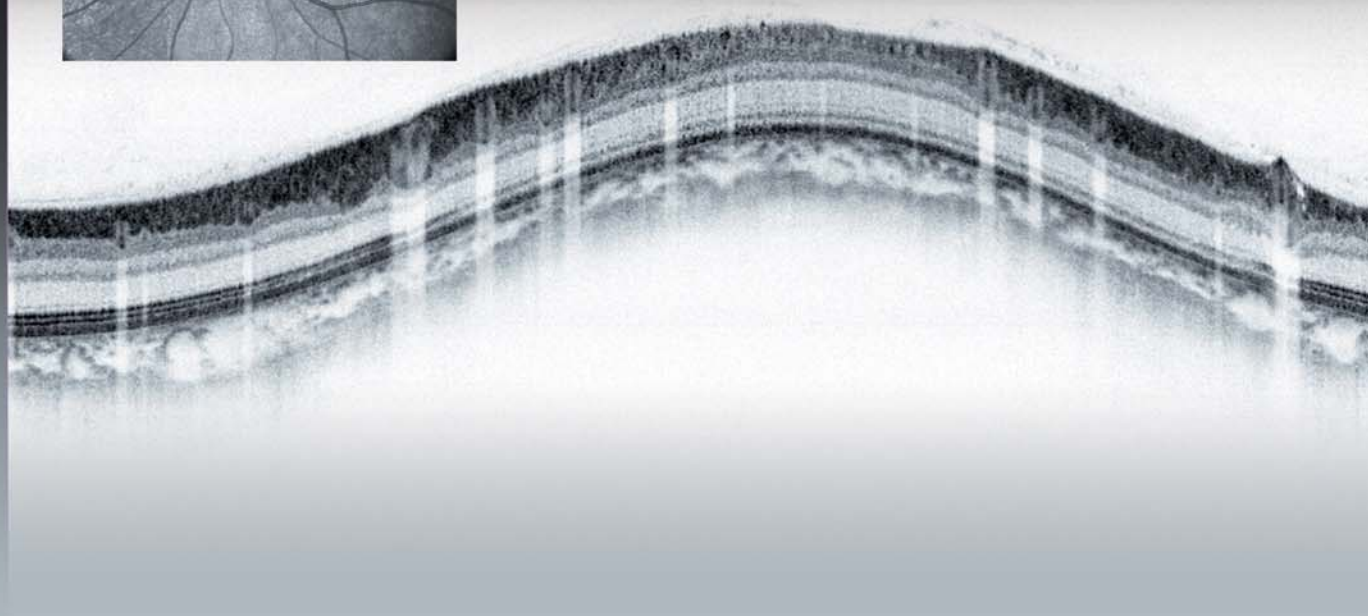
OCT RetinaScan

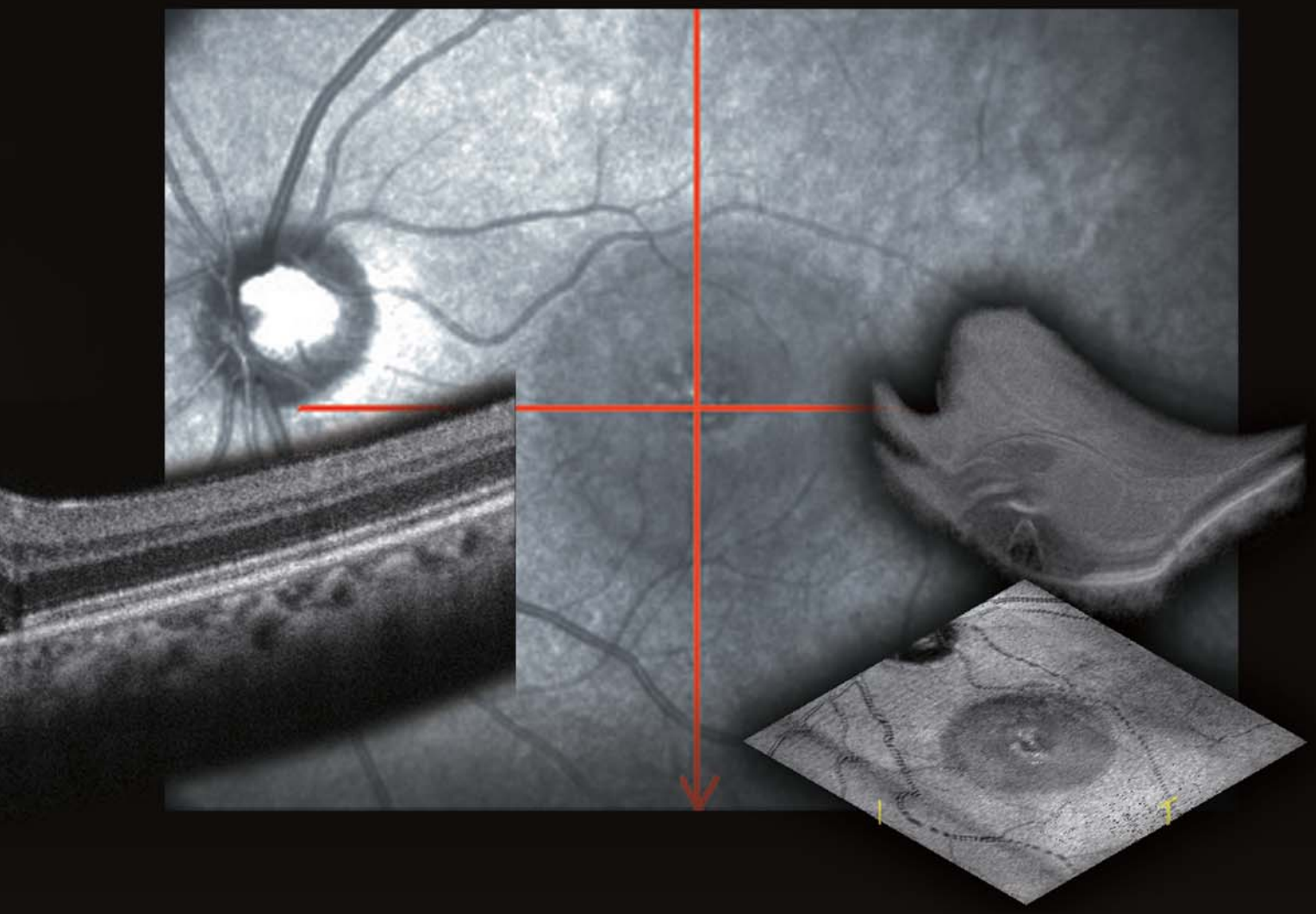
The Art of Eye Care

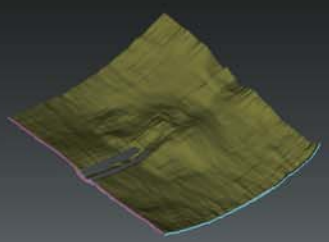
High-Speed Scan leads to High-Quality of image

- *High-speed scan (53,000 A-scans/sec.)*
- *High resolution image of OCT & SLO*
- *Extremely easy and fast operation with optimization*

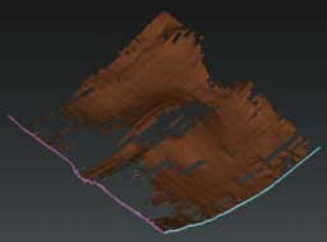




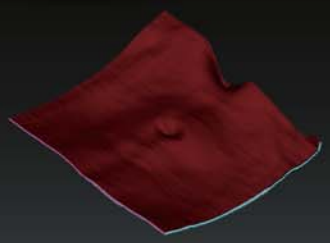




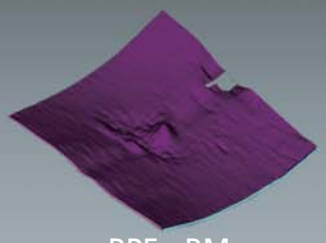
IPL - INL



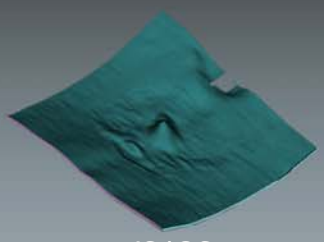
NFL / GCL



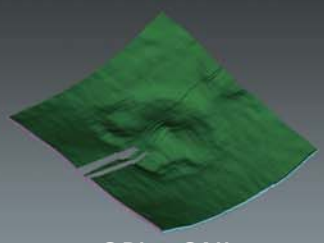
ILM



RPE - BM



IS / OS



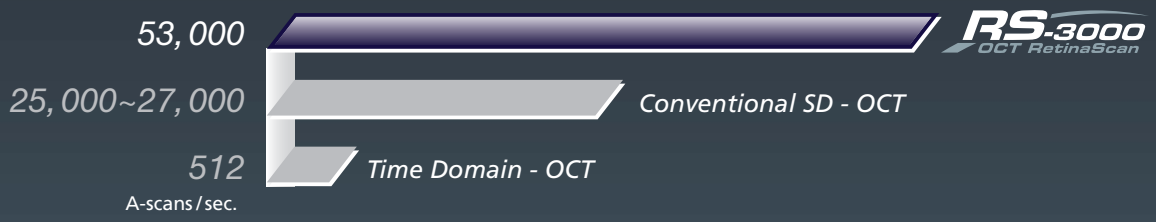
OPL - ONL

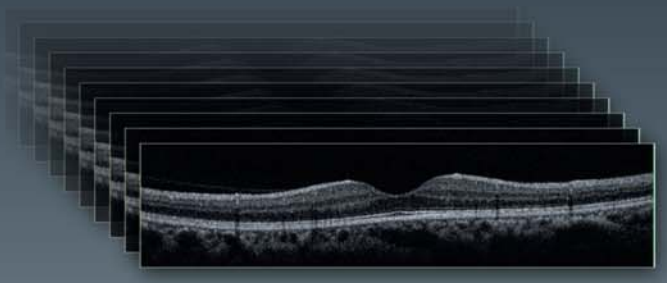
RS-3000 OCT RetinaScan

NIDEK is proud to announce its first release of advanced spectral domain OCT/confocal ophthalmoscope system, RS-3000 OCT "*RetinaScan*". The RS-3000 is the high-speed spectral domain OCT with the tradition of NIDEK, advanced auto-focus/auto Z alignment technology offers the combination of Precision and Ease-of-Use.

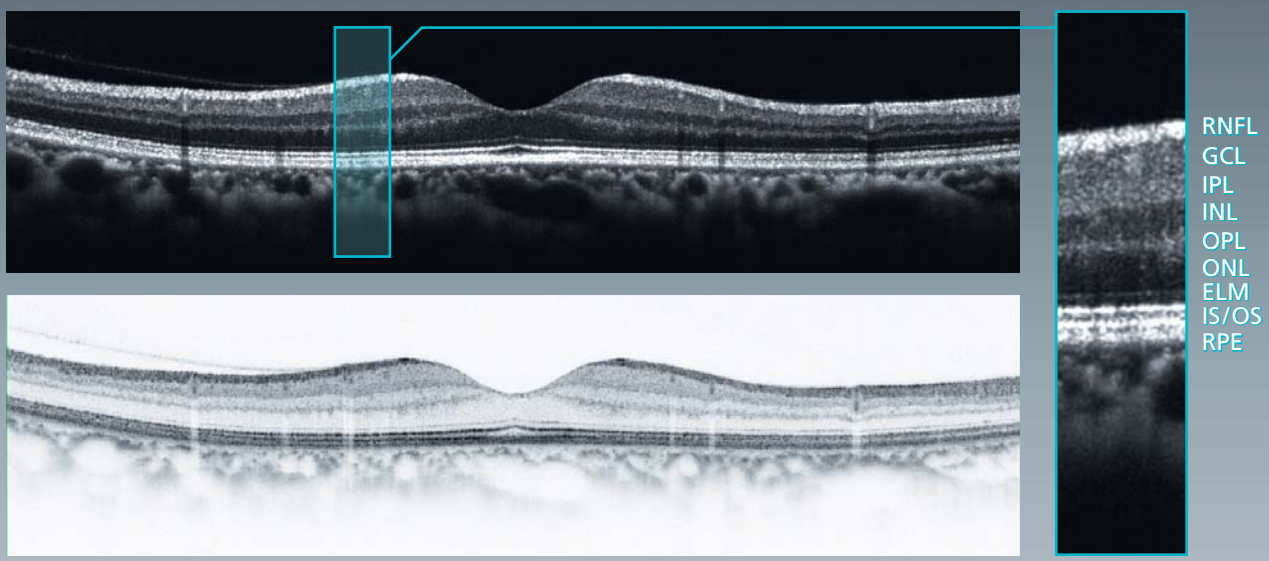
High-speed (53,000 A-scans/sec.) & High-quality of image (4 micron OCT digital resolution)

53,000 A-scans / sec. greatly helps to reduce the measurement time and minimize artifacts. The advanced speckle-noise-reduction system by averaging images provides 4 micron OCT digital resolution. High-resolution image shows the discrete retinal layers.



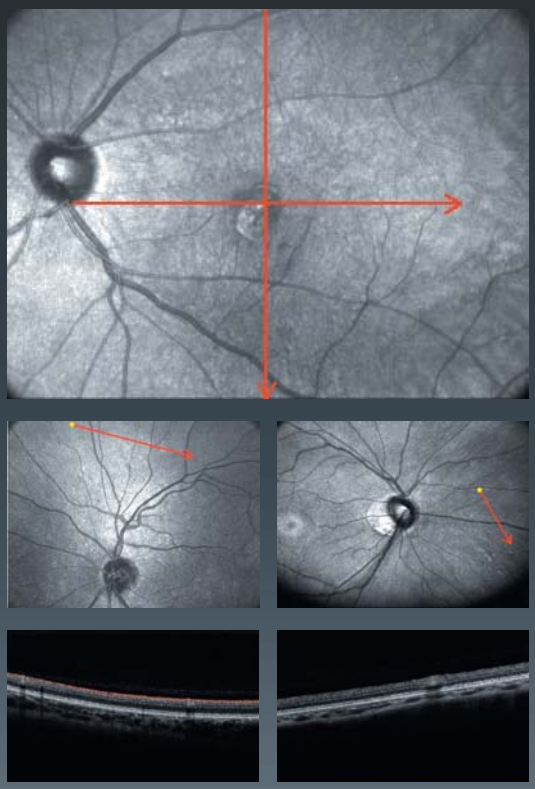


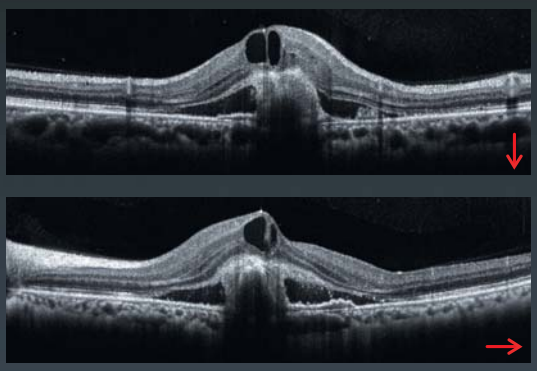
Max. 50 image averaging



Accurate localization of pathology with real-time SLO image

Real-time, high-contrast and wide view (40° x 30°) of confocal SLO imaging offers the accuracy for OCT scanning of the pathological target. OCT scanning position is precisely matched with SLO fundus image.





The position, length, angle of scanning line for target are easily and flexibly changed on real-time confocal SLO image.

Fast and simple operation with optimization

The operation of RS-3000 is as easy as Auto-Refractometer. The focus of SLO fundus image and the alignment of OCT depth are adjusted automatically by pressing optimization button.

Step 1 2 3

1 Start Scanning

2 Optimization

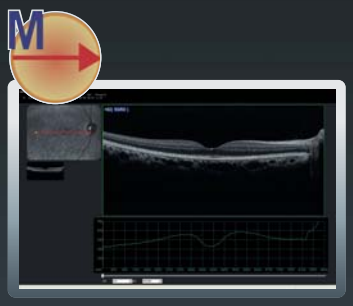
The focus of SLO fundus image and the alignment of OCT depth are adjusted automatically.

3 Release

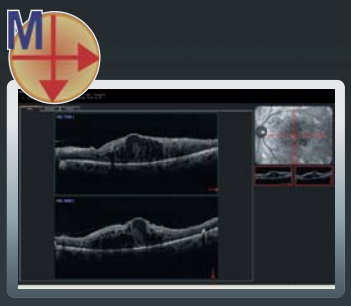
Capturing both image of SLO and OCT by one shot.

RS-3000 OCT RetinaScan

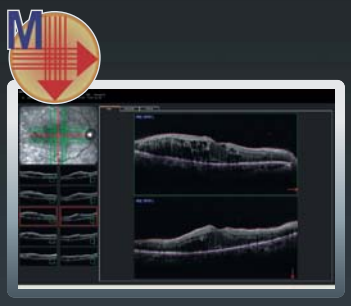
Useful 6 types of OCT scans are provided in RS-3000 to meeting clinical requirements.



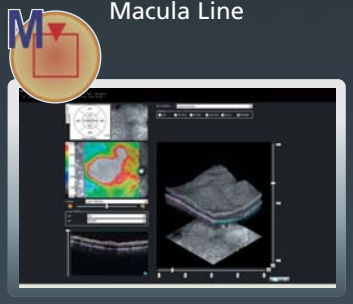
Macula Line



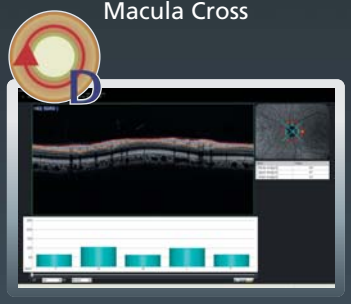
Macula Cross



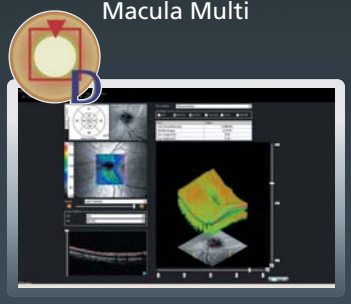
Macula Multi



Macula Map



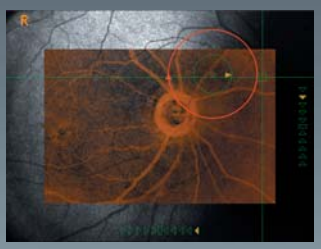
Disc Circle

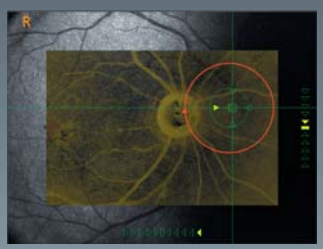


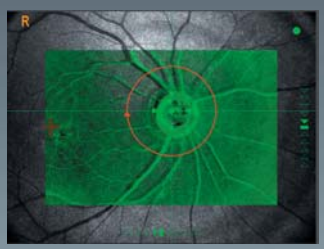
Disc Map

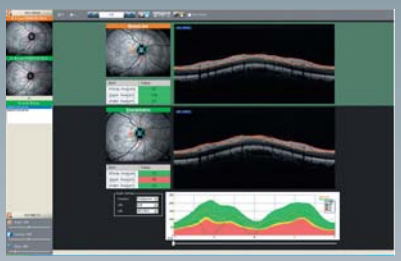
Highly reproducible follow-up examination with auto-tracking function

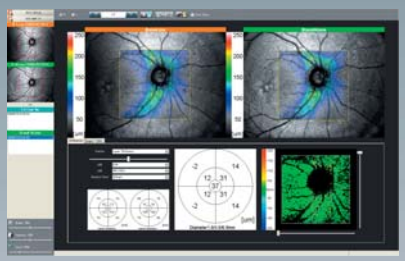
High contrast SLO fundus image and auto-tracking function achieve the excellent reproducibility in follow-up examination. Auto-tracking function tracks eye movement and guides to the OCT scanning position of previous examination (Baseline) by color indication. Time frame monitoring results of examinations including NFL defect, Optic nerve head and macular thickness can be conducted easily.

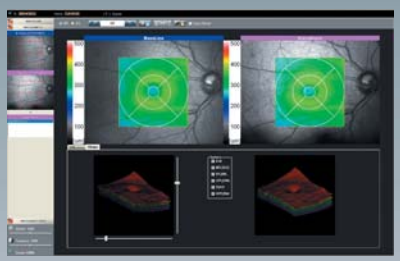

Not match with baseline


Relatively match with baseline


Match with baseline

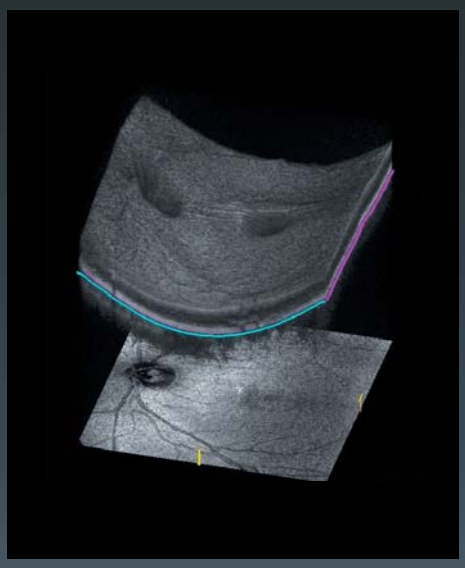

Disc Circle


Disc Map

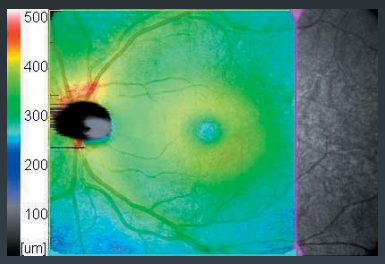

Macula Map

High-speed (1.6 sec.) and wide (9 mm x 9 mm) 3D mapping

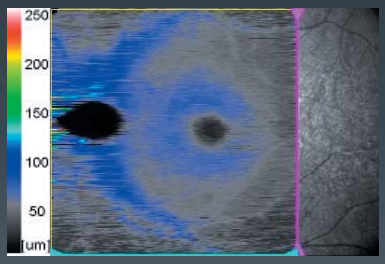
High-speed and wide 3D imaging help to understand retinal condition quickly and comprehensively. Thickness map between each layer from ILM to RPE can be available.



Layer thickness map



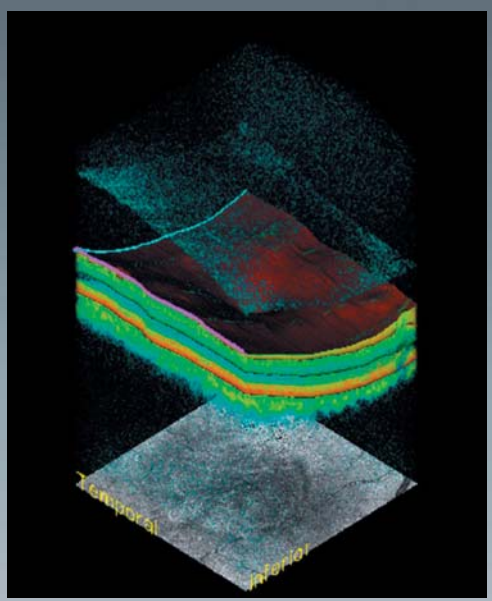
ILM-RPE



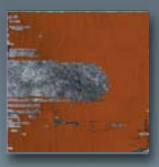
ILM + NFL+ GCL + IPL

6 Layer Segmentation

The morphological change on the surface of each layer is visually confirmed.



ILM



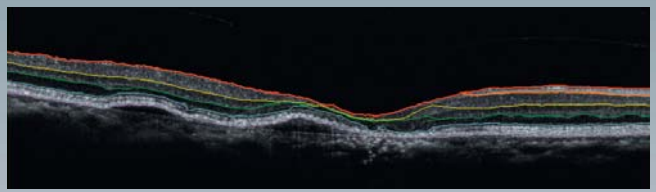
NFL / GCL

IPL - INL

IS / OS

OPL - ONL

RPE - BM

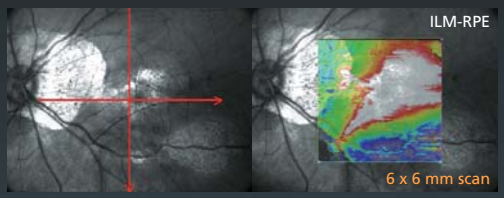


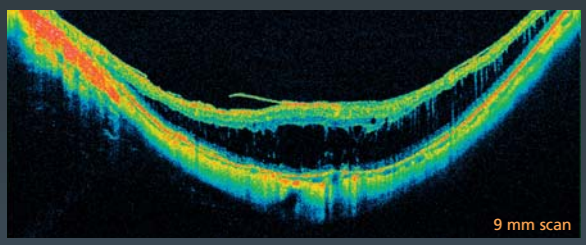
RS-3000 OCT RetinaScan

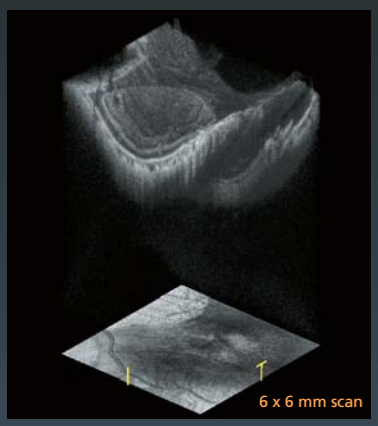
Clinical Images

High quality of images can be taken even in actual pathological cases.

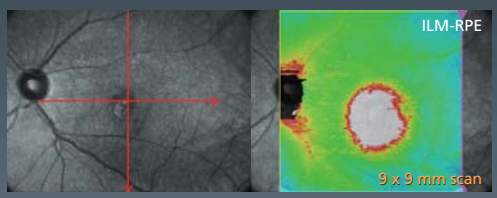
Myopic Retinoschisis

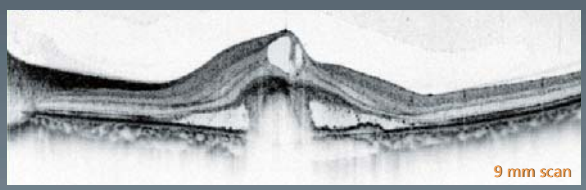


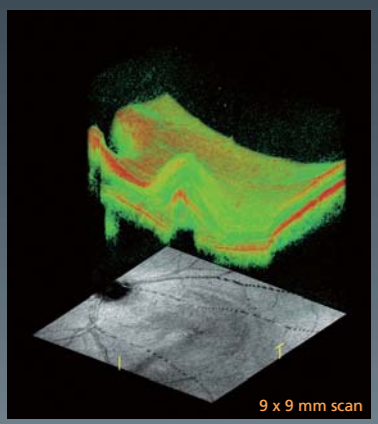




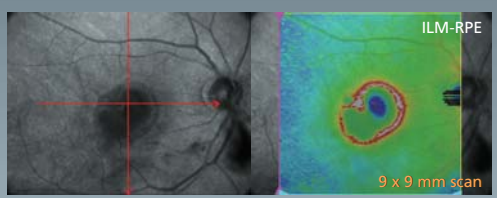
Age-related macular degeneration (AMD)

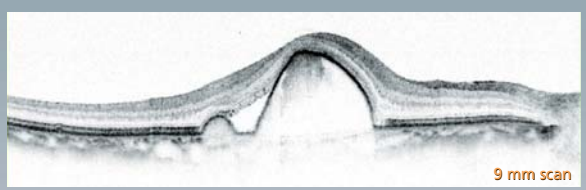


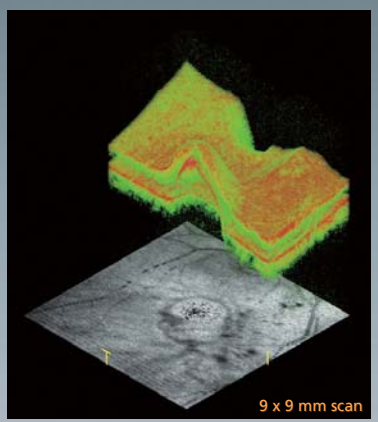




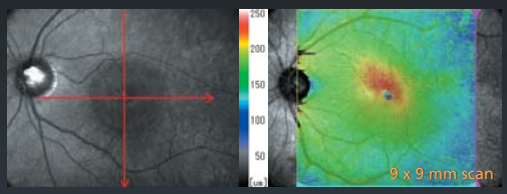
Polypoidal choroidal vasculopathy (PCV)

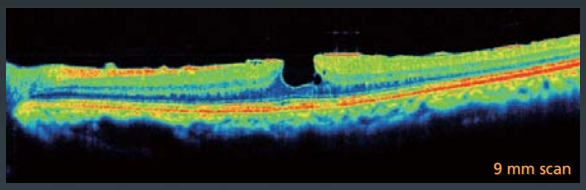




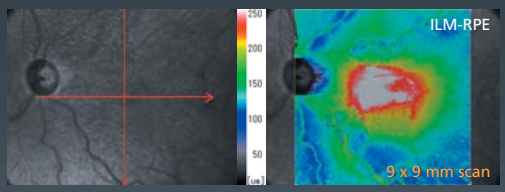


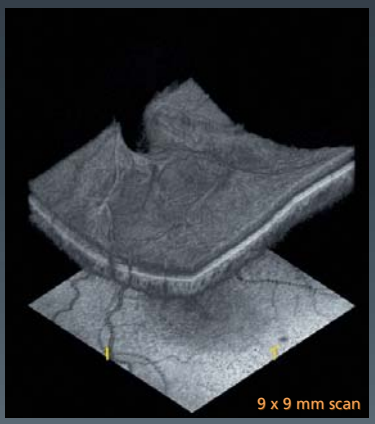
Pseudo macular hole



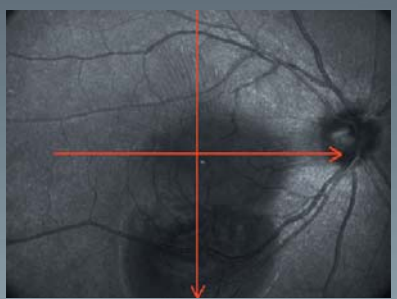


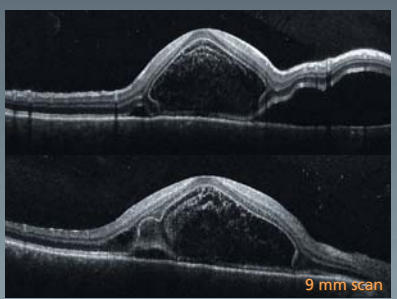
Epiretinal Membrane ERM



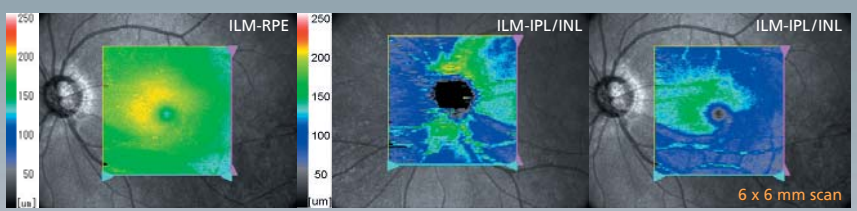


Vogt-Koyanagi-Harada Disease

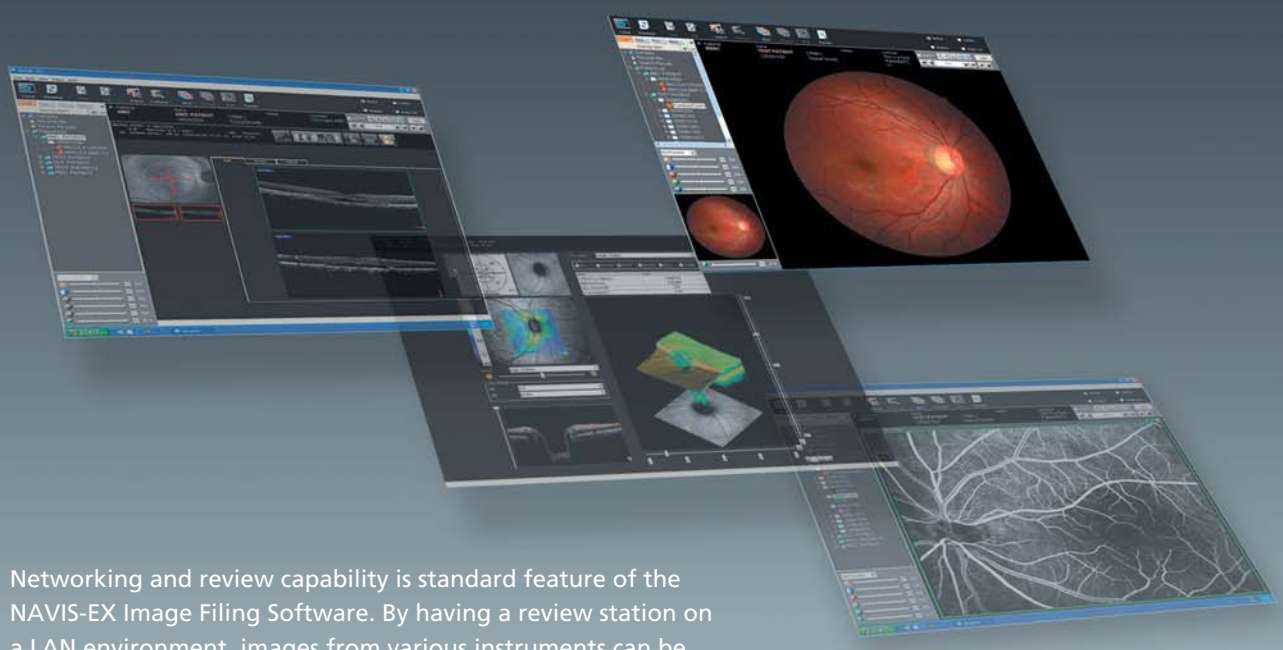




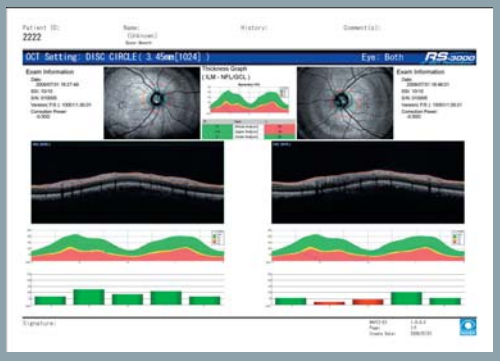
Glaucoma



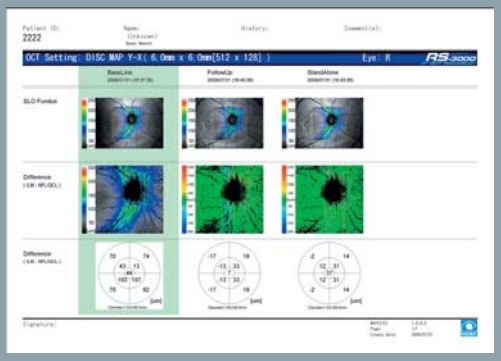
The NAVIS-EX Image Filing Software is included in any package of the RS-3000 OCT "*RetinaScan*" System.
As well as filing, manipulating and analyzing the images from the RS-3000, NAVIS-EX is able to import the images from various external instruments.



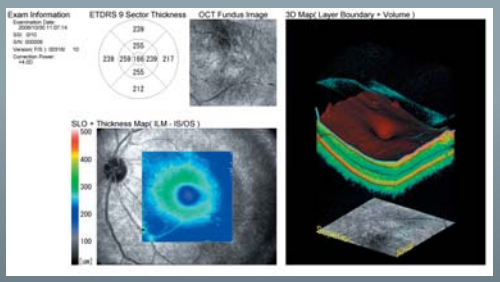
Networking and review capability is standard feature of the NAVIS-EX Image Filing Software. By having a review station on a LAN environment, images from various instruments can be managed within unified software environment on a single PC.



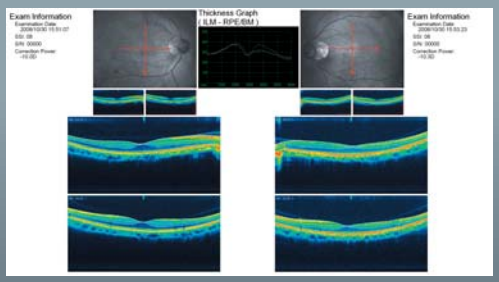
RNFL Thickness Analysis Report



Follow-up of RNFL Thickness Report



Macular Thickness (ILM - IS/OS) Report



Macular Thickness (ILM - RPE/BM) Analysis Report

Numerous kinds of reports can be printed from the NAVIS-EX Image Filing Software, including side-by-side comparison and follow up in comparison to baseline image.

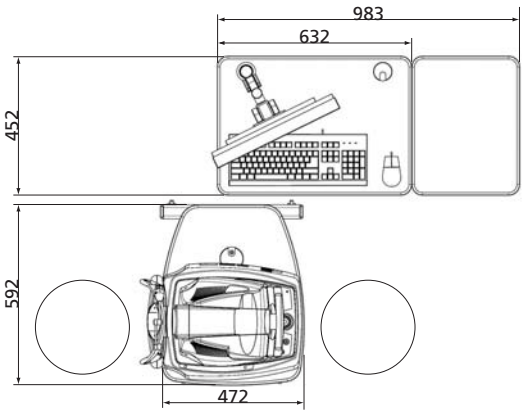
RS-3000 Specifications

OCT scanning	
Technology	Spectral domain OCT
OCT resolution	Optical Z: 7 µm, XY: 20 µm
	Digital Z: 4 µm, XY: 3 µm
Scanning range	Z: 2.1 mm
	XY: 3 to 9 mm
OCT light source	SLD, 880 nm
Scanning speed	53,000 A-scans / sec.
Acquisition time of 3D image	1.6 sec.
Internal fixation lamp / wavelength	Cross normal / Large / 635 nm
External fixation lamp	Red / Green
Auto alignment	Z direction
Minimum pupil diameter	ø2.5 mm
Focus adjustment range	-15 to +10 D (VD=12 mm)
Working distance	35.5 mm (from the objective lens to the pupil)
Scanning pattern	Macula line (scan angle changeable by 15°)
	Macula cross
	Macula map
	Macula multi (X - Y: 5 x 5)
	Disc circle
	Disc map
Software analysis	Segmentation of 6 retinal layers
	Macular thickness map
	RNFL thickness map
	Optic nerve analysis
	Follow-up examination of pathological progress
SLO imaging	
Technology	Confocal scanning laser ophthalmoscope
SLO light source	785 nm
Field of view	40° x 30° (Zoom: 20° x 15°)
Focusing method	Auto focus
PC networking	Available
Display	Tiltable 8.4-inch color LCD
Power supply	AC 100, 120, 230 V ±10%
	50 / 60 Hz
Power consumption	300 VA
Maximum power output (Transformer)	1000 VA
Dimensions / Weight	380 (W) x 524 (D) x 515 (H) mm / 34 kg

Motorized optical table (Optional)	
Dimensions / Weight	592 (W) x 472 (D) x 600 to 800 (H) mm / 27 kg
Power supply	AC 100 V
	50 / 60 Hz
Power consumption	200 VA

PC rack (Optional)	
Dimensions / Weight	632 (W) x 452 (D) x 703 (H) mm / 15 kg

Footprint



FDA 510(K) pending
Specifications and design are subject to change without notice.

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