



Advanced OCT/SLO System

RS-3000
OCT RetinaScan



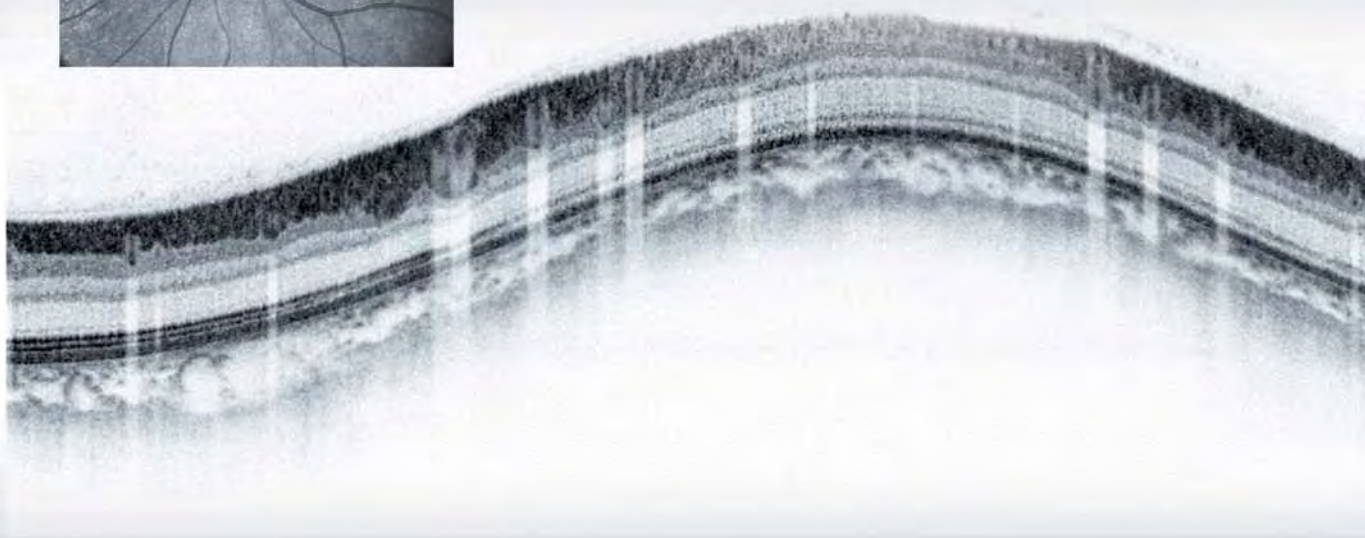
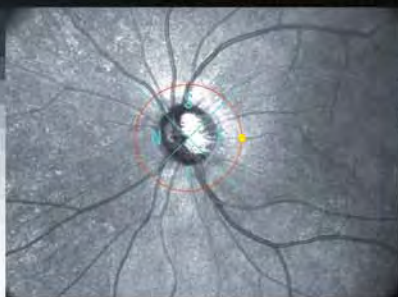
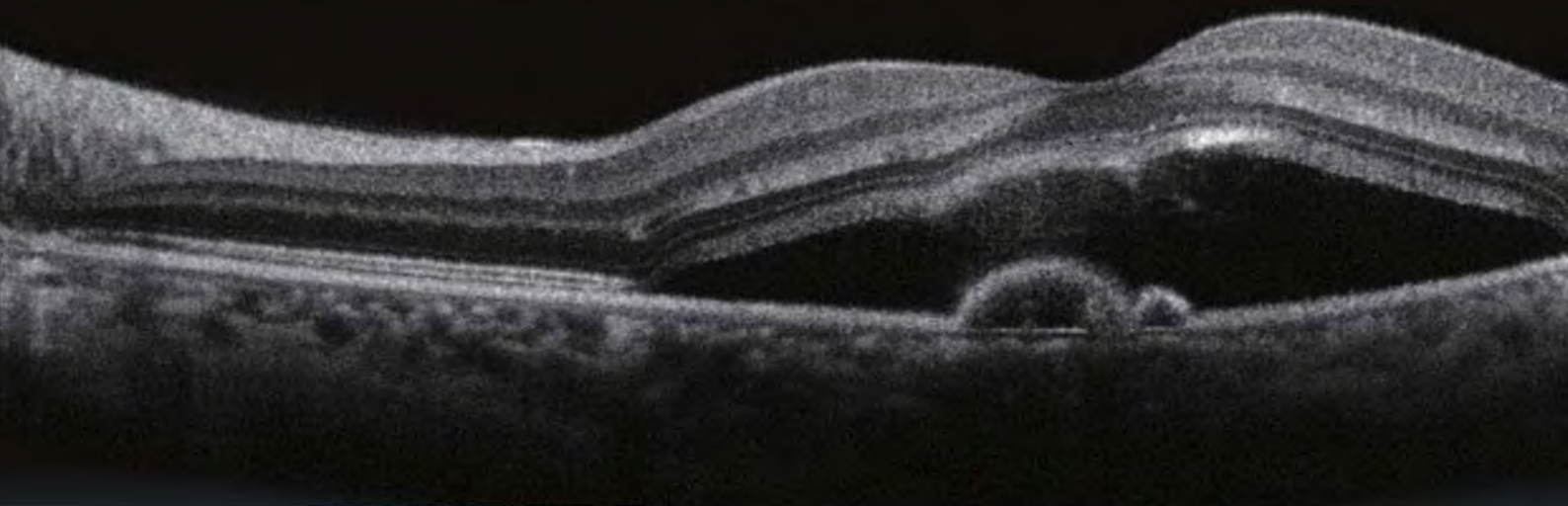
The Art of Eye Care

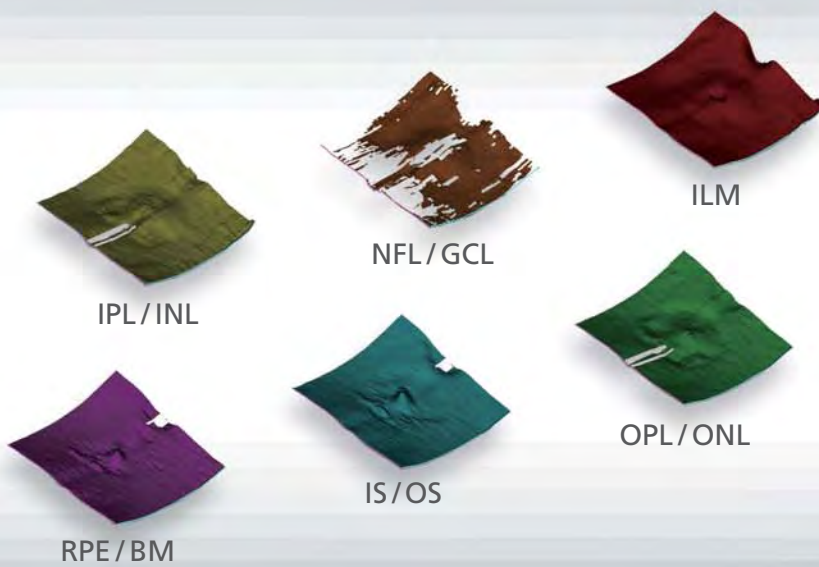
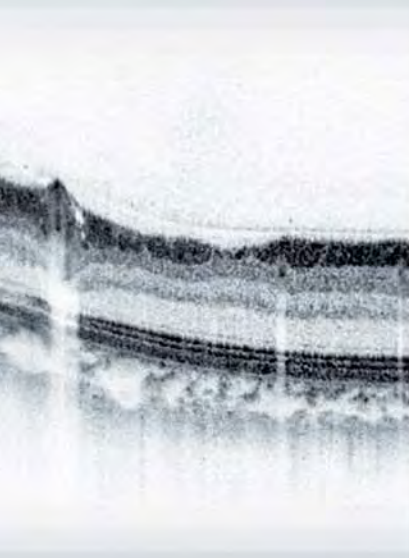
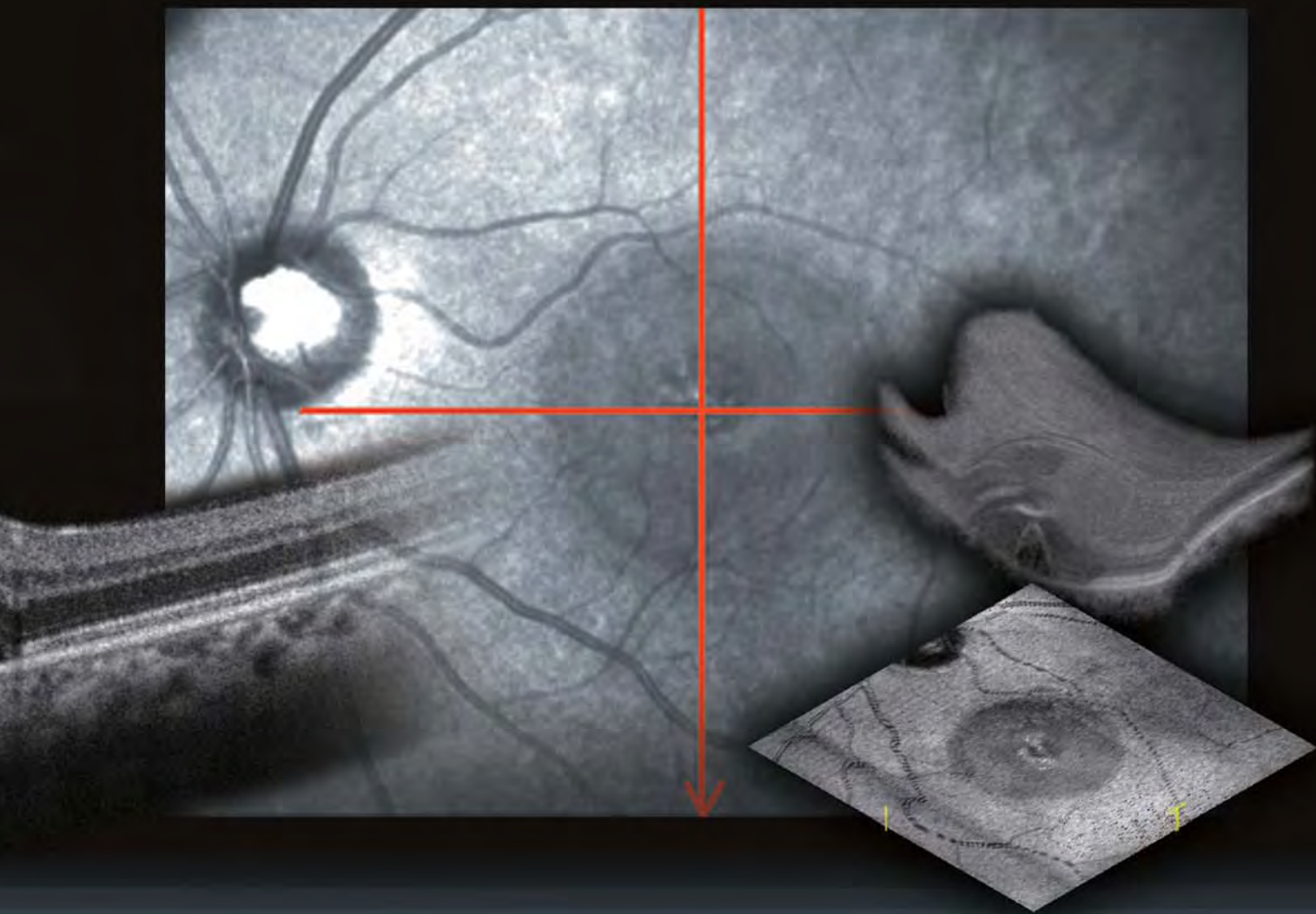
High-Speed Scan leads to High-Quality image

High-speed scan (53,000 A-scans/s)

High-resolution image of OCT & SLO

Extremely easy and fast operation with optimization





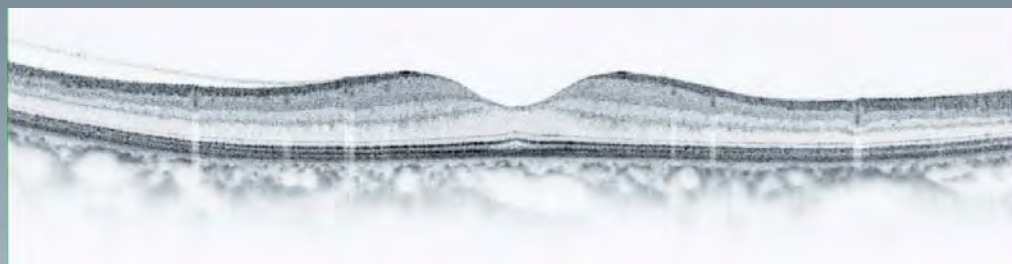
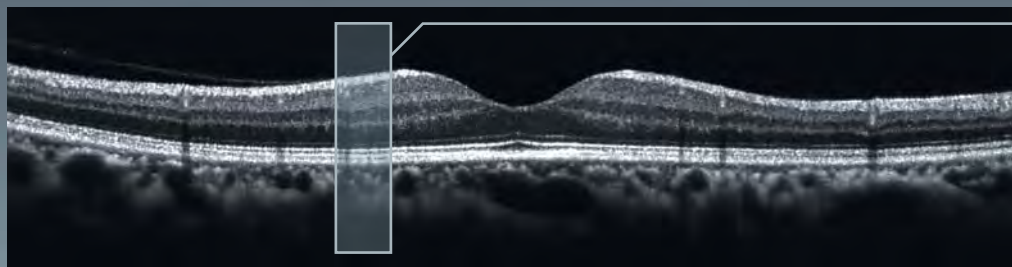
NIDEK is proud to announce its first release of advanced spectral domain OCT / confocal ophthalmoscope system, RS-3000 OCT "RetinaScan". The RS-3000 is a high-speed spectral domain OCT with the tradition of NIDEK, advanced auto-focus / auto Z alignment technology offering the combination of Precision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

High-speed (53,000 A-scans/s) & High-quality image (4 μm OCT digital resolution)

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



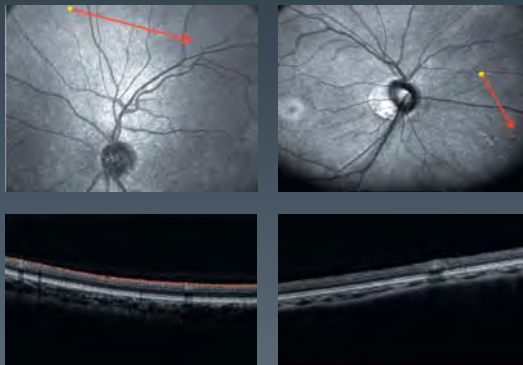
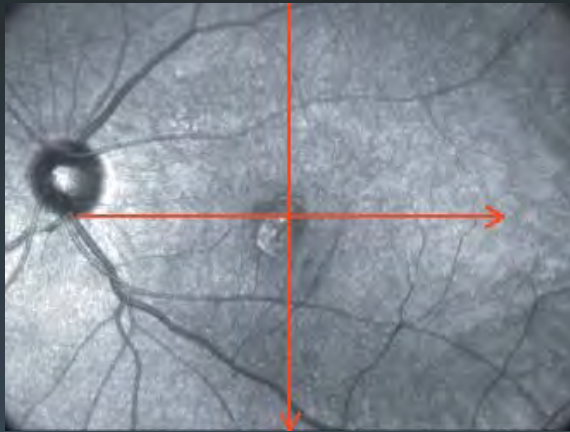
Max. 50 image averaging



- RNFL
- GCL
- IPL
- INL
- OPL
- ONL
- ELM
- IS/OS
- RPE

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 the 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.



1 Start Scanning

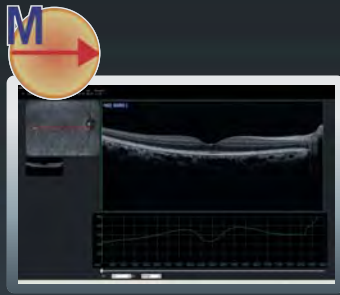
2 Optimization

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.

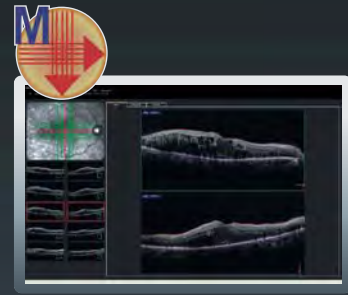
The RS-3000 provides 6 types of useful OCT scans to meet clinical requirements.



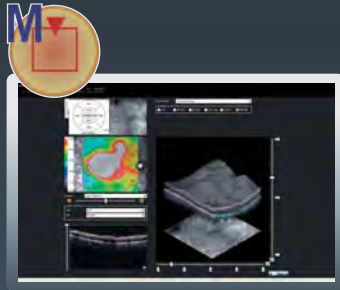
Macula line



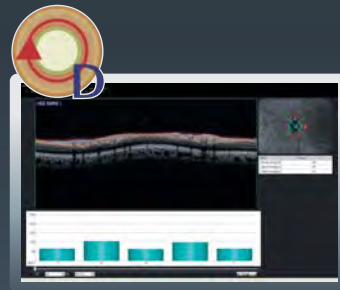
Macula cross



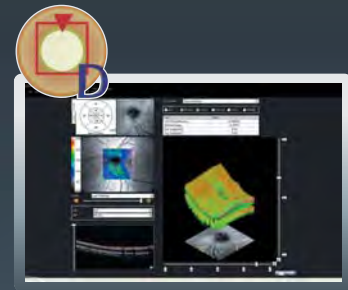
Macula multi



Macula map



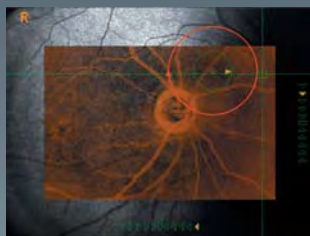
Disc circle



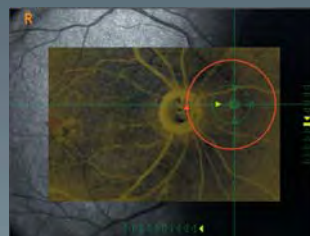
Disc map

Highly reproducible follow-up examination with auto-tracking function

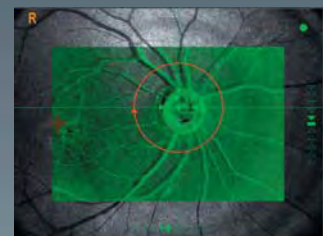
High contrast SLO fundus image and auto-tracking function achieve excellent reproducibility in follow-up examination. Auto-tracking function tracks eye movement and guides the OCT scanning to the previous examination position. Time frame monitoring results of examinations including NFL defect, Optic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



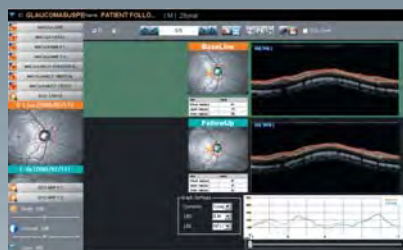
Not match with baseline



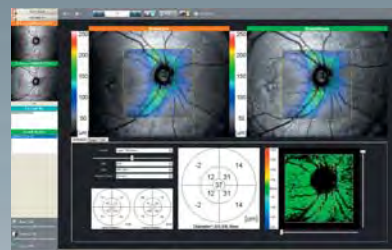
Relatively match with baseline



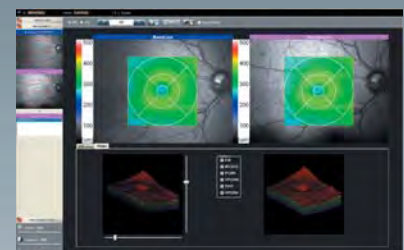
Match with baseline



Disc circle



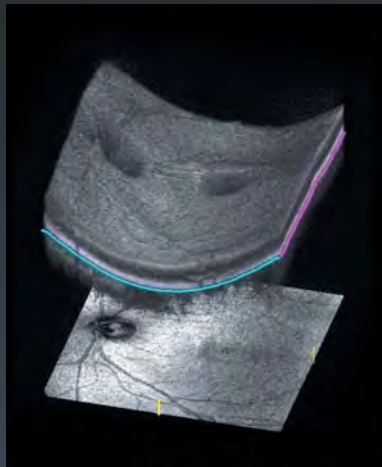
Disc map



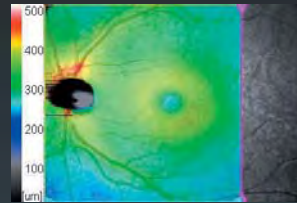
Macula map

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

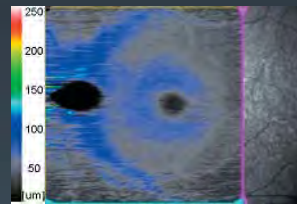
High-speed and wide 3D imaging help to understand retinal condition quickly and comprehensively. Thickness map between each layer from ILM to RPE can be available.



Layer thickness map



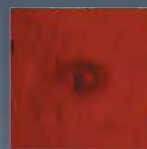
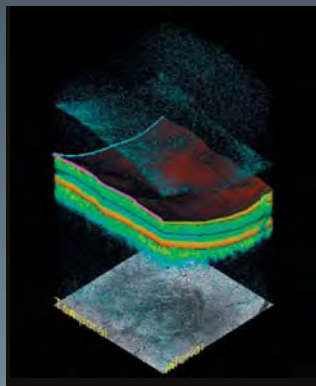
ILM - RPE/BM



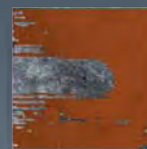
ILM + NFL + GCL + IPL

6 Layer Segmentation

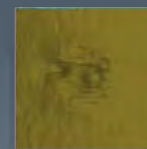
The morphological change on the surface of each layer is visually confirmed.



ILM



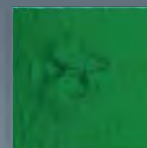
NFL / GCL



IPL / INL



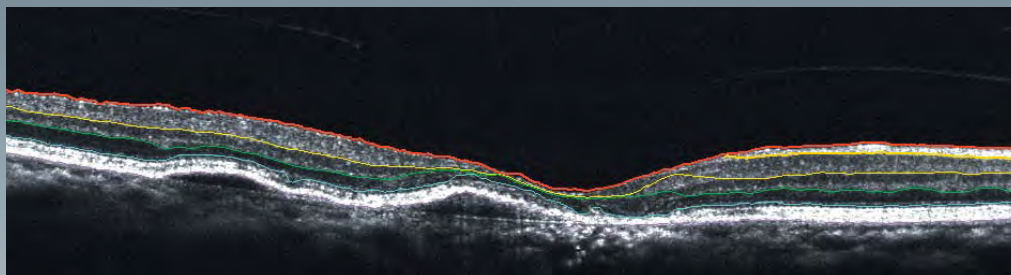
IS / OS



OPL / ONL



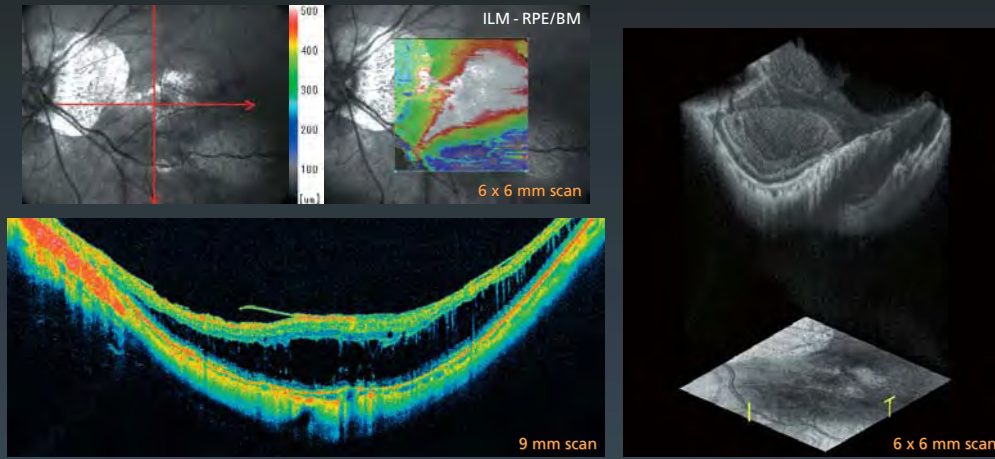
RPE / BM



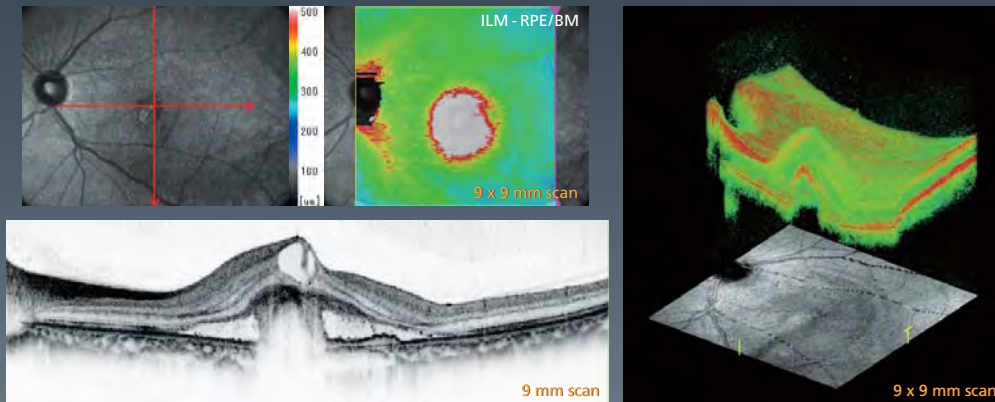
Clinical Images

High-quality images can be taken in actual pathological cases.

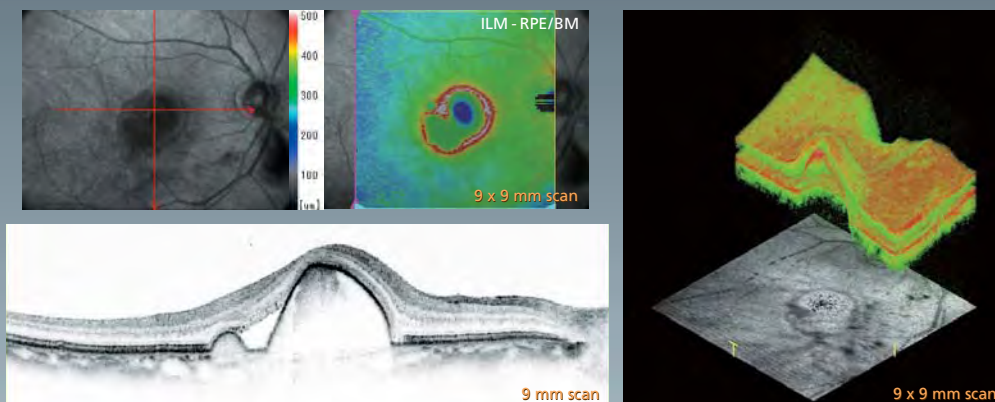
Myopic retinoschisis



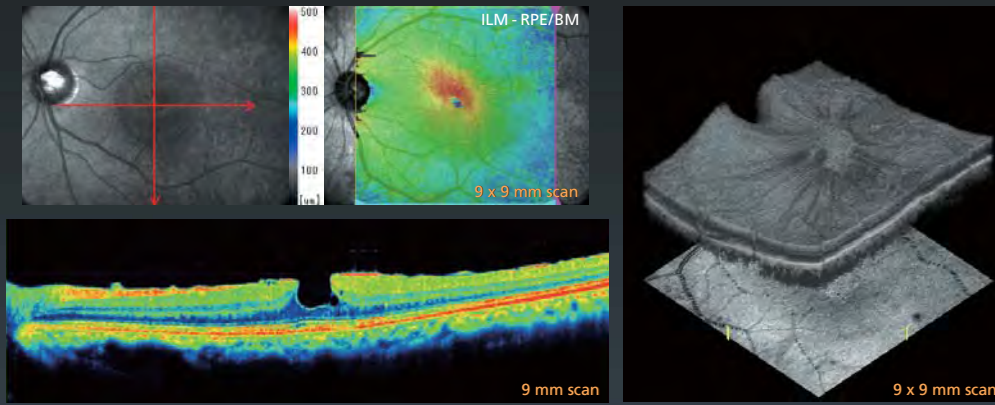
Age-related macular degeneration (AMD)



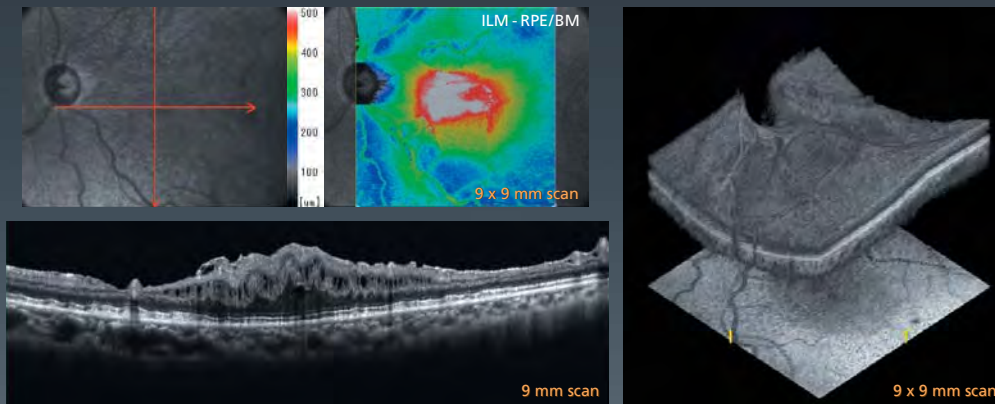
Polypoidal choroidal vasculopathy (PCV)



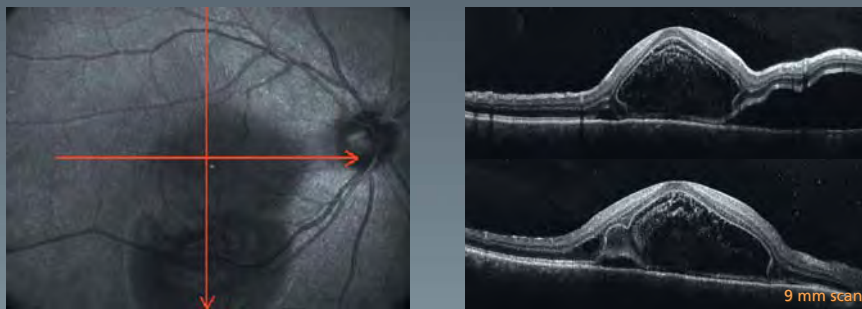
Pseudo macular hole



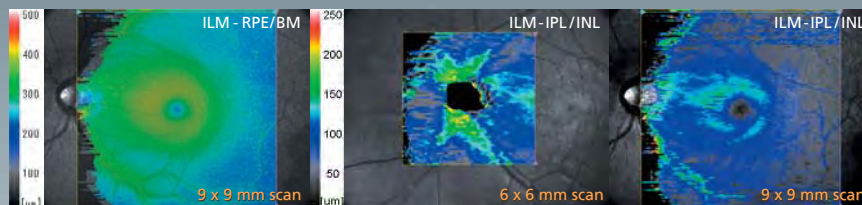
Epiretinal membrane (ERM)



Vogt-Koyanagi-Harada disease



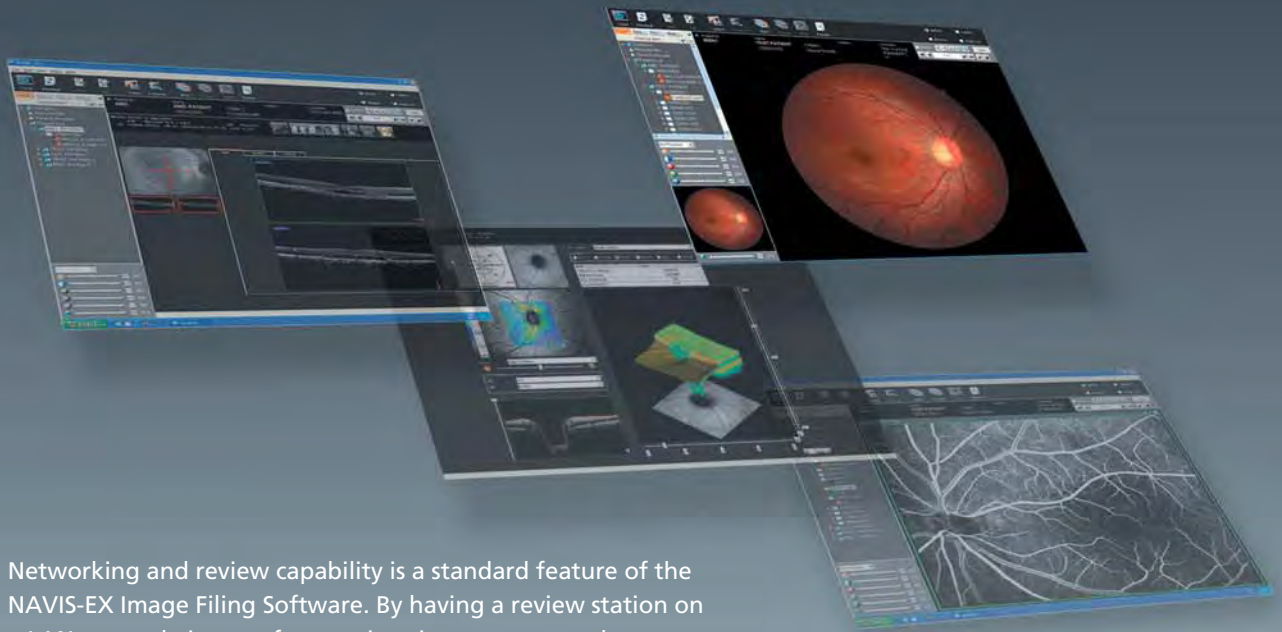
Glaucoma



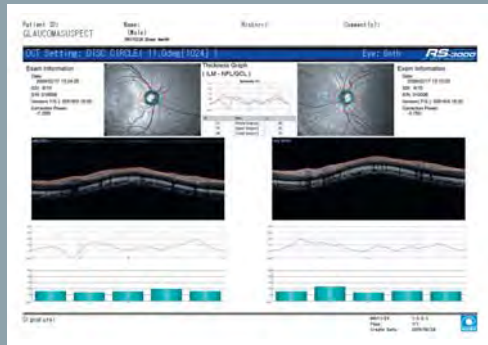


The NAVIS-EX Image Filing Software is included in any package of the RS-3000 OCT "RetinaScan" System.

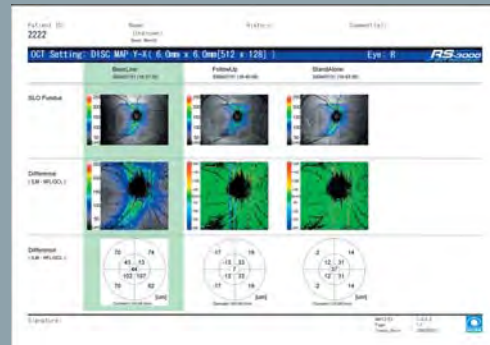
As well as filing, manipulating and analyzing the images from the RS-3000, NAVIS-EX is able to import the images from various external instruments.



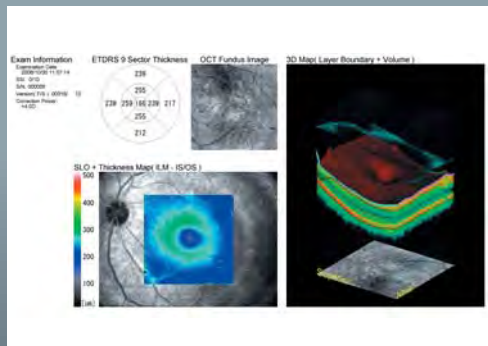
Networking and review capability is a standard feature of the NAVIS-EX Image Filing Software. By having a review station on a LAN network, images from various instruments can be managed within unified software network on a single PC.



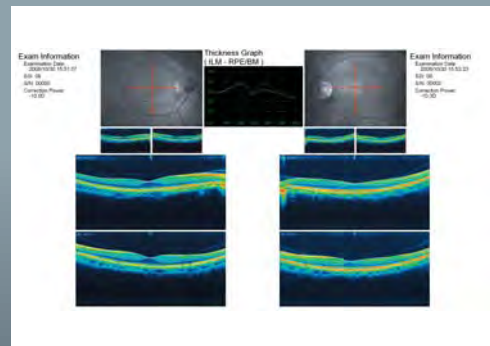
RNFL thickness analysis report



Follow-up examination 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 | Spectral domain OCT |
| Technology | Optical Z: 7 μ m, XY: 20 μ m |
| OCT resolution | Digital Z: 4 μ m, XY: 3 μ m |
| Scanning range | Z: 2.1 mm XY: 3 to 9 mm |
| OCT light source | SLD, 880 nm |
| Scanning speed | 53,000 A-scans / s |
| Acquisition time of 3D image | 1.6 s |
| Internal fixation lamp / Wavelength | Cross shape (normal or large) / 635 nm |
| External fixation lamp | Red / Green |
| Auto alignment | Z direction |
| Minimum pupil diameter | ϕ 2.5 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 | Confocal scanning laser ophthalmoscope |
| Technology | 785 nm |
| SLO light source | 40° x 30° (zoom: 20° x 15°) |
| Field of view | Auto focus |
| Focusing method | Available |
| PC networking | Tilttable 8.4-inch color LCD |
| Display | AC 100, 120, 230 V \pm 10% |
| Power supply | 50 / 60 Hz |
| Power consumption | 300 VA |
| Maximum power output (transformer) | 1000 VA |
| Dimensions / Weight | 380 (W) x 524 (D) x 499 to 531 (H) mm / 34 kg 14.96 (W) x 20.63 (D) x 19.65 to 20.91 (H)" / 75.0 lbs. |

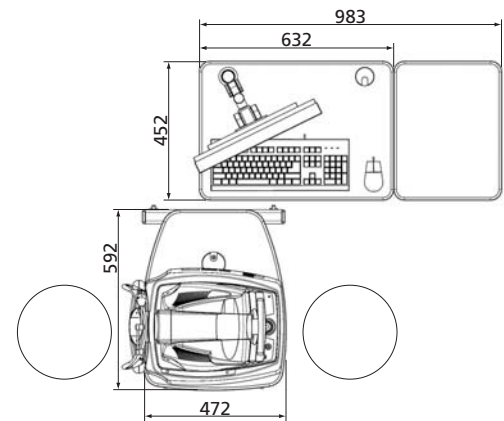
Motorized optical table (optional)

| | |
|---------------------|--|
| Dimensions / Weight | 592 (W) x 472 (D) x 596 to 794 (H) mm / 27 kg 23.31 (W) x 18.58 (D) x 23.46 to 31.26 (H)" / 59.5 lbs. |
| Power supply | AC 100 V 50 / 60 Hz |
| Power consumption | 150 W |

PC rack (optional)

| | |
|---------------------|--|
| Dimensions / Weight | 632 (W) x 452 (D) x 703 (H) mm / 34 kg 24.88 (W) x 17.80 (D) x 27.68 (H)" / 75.0 lbs. |
|---------------------|--|

Footprint (mm)



FDA 510(K) pending

Specifications and design are subject to change without notice.



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