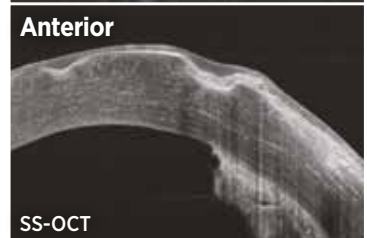
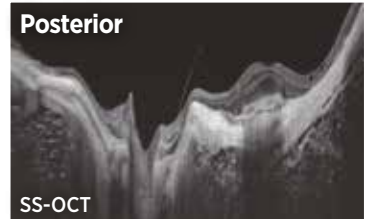
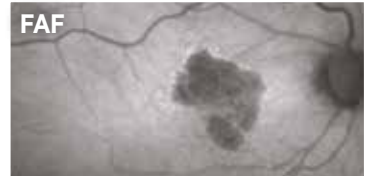


# DRI OCT Triton™ Series

A Multimodal Swept Source OCT



# See what others can't see.

## A Multimodal Swept Source OCT

**DEEP RANGE IMAGING**

“ Swept Source OCT imaging massively increases my diagnostic capabilities in practice. The Topcon DRI OCT Triton is simple to operate and provides uniform detailed information from the vitreous through to the sclera, and beyond. The ability of the Topcon Triton to provide so many imaging modalities in one machine is a great advantage to future system wide diagnostic approaches and directly enables multimodal imaging approaches. ”

*Richard Spaide, MD  
Vitreous Retina Macula Consultants of New York*

# Welcome to the New Frontier in OCT Imaging

The DRI OCT Triton combines Swept Source OCT and eye tracking with multimodal fundus imaging in an all-in-one state-of-the-art imaging tool. The Triton brings the next level of diagnostic capability to you and your patients.

## Unprecedented Image Quality

Triton's Swept Source OCT, with a scanning speed of 100,000 A-scans/sec and 1,050nm wavelength light source, results in stunningly clear and detailed images. You will not only see the retina and vitreous, but also the choroid and the sclera like never before!

## Remarkable Diagnostic Capability

Seeing deeper makes it possible to have a better understanding of many ocular pathologies. Combined with unique features such as Spaide autofluorescence filters, Fluorescein Angiography and en face imaging,<sup>1</sup> Triton empowers you to take proactive steps to preserve your patients' eye health.

## A Trusted Brand

The Triton has become a trusted brand and recognized leader in Swept Source OCT around the globe. With thousands of units in place, doctors are choosing the Triton for its unprecedented image quality, remarkable diagnostic capabilities, and clinical efficiencies.

## Triton Product Lineup

The Triton is available in the standard model, the DRI OCT Triton, which includes Swept Source OCT, color fundus imaging, red-free, and optional anterior segment OCT imaging. There is also a DRI OCT Triton Plus model, which incorporates all of the above plus fluorescein angiography (FA) and fundus autofluorescence (FAF) imaging.

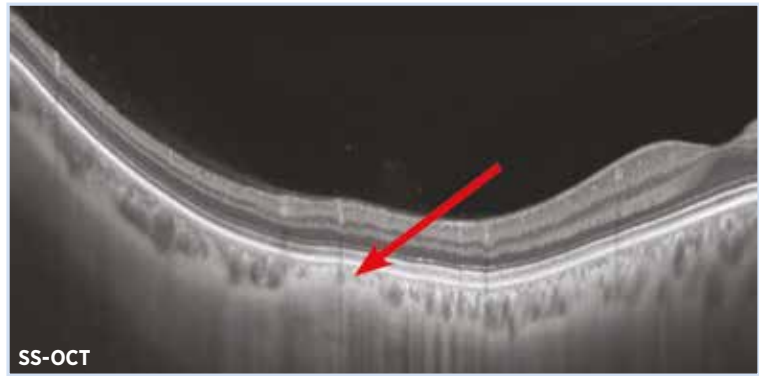
	SS-OCT	Color	Digital Red-free	FA	FAF	Optional Anterior OCT
<b>Triton</b>	●	●	●	—	—	●
<b>Triton plus</b>	●	●	●	●	●	●

1. Requires IMAGEnet® 6 software.

# DRI meets Multimodal Fundus Imaging: see the whole picture

## Swept Source OCT incorporates multimodal fundus imaging

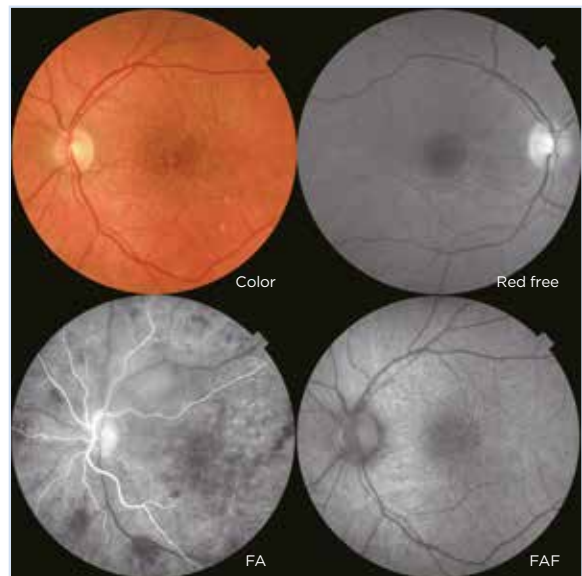
DRI OCT Triton acquires the OCT and fundus image in a single capture. Pin-Point™ Registration identifies the location of the B-scan on the fundus image. A clear comparison between the B-scan and fundus image supports clinical efficiency.



## 4 High-quality fundus images

The DRI OCT Triton offers non-mydratric color fundus imaging. Fluorescein Angiography (FA) and Fundus Autofluorescence (FAF) are also available.\*

\*DRI OCT Triton plus:  
OCT / Anterior OCT (Option) / Color / Red-Free / FA / FAF  
DRI OCT Triton:  
OCT / Anterior OCT (Option) / Color / Red-Free



## Exclusive Spaide autofluorescence filters<sup>1</sup>

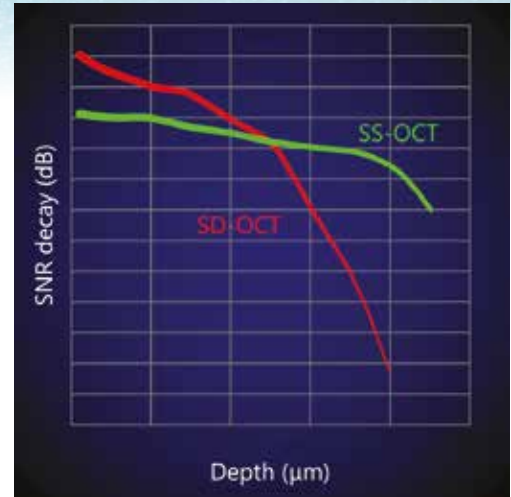
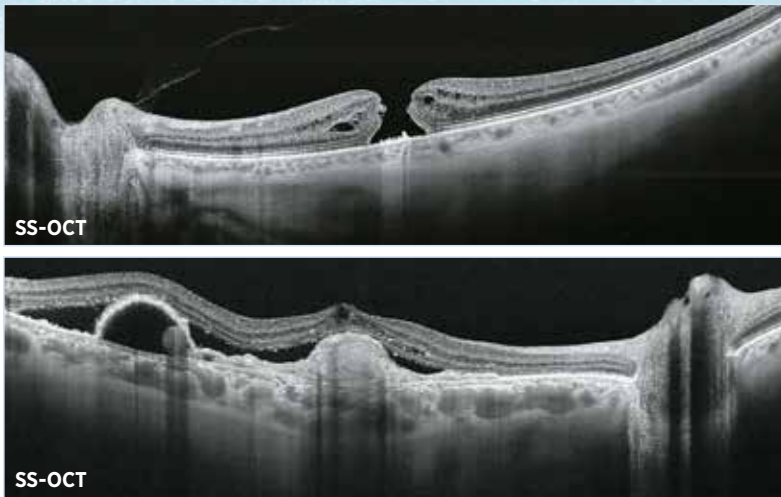
The Triton Plus comes with built-in Spaide autofluorescence filters. They were developed by Richard Spaide, MD of Vitreous Macula Retina Consultants of New York and are exclusive to Topcon. The Spaide filters allow for a much more vivid and detailed image of the Lipofuscin that accumulates in the RPE of the retina, which can be a key in the early detection of eye disease. The Spaide filters do not stimulate fluorescein or ICG so images can be taken post angiography without any wavelength overlap.



1. Available on DRI OCT Triton Plus model only.

## Optimized wavelength: 1,050nm

The longer wavelength light source provides better tissue penetration and more OCT data deeper in the retina<sup>1</sup> than conventional Spectral Domain OCT technology, allowing visualization into the deepest layers of the eye – even through cataracts, hemorrhages, and gas bubbles.

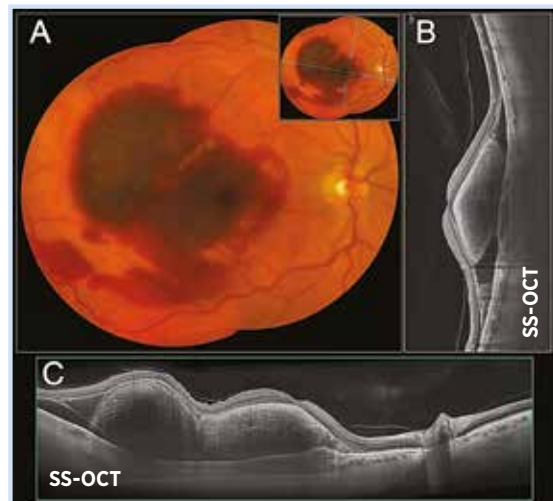


Courtesy: Professor Jose Maria Ruiz Moreno, University of Albacete, Spain.

## OCT images through media opacities<sup>2</sup>

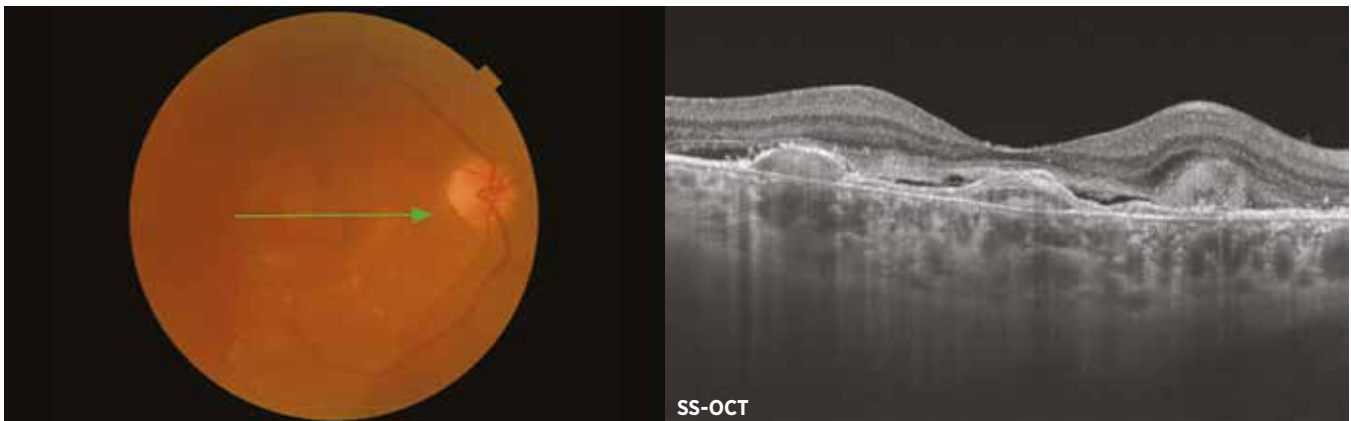
The 1,050nm light source on the Triton allows the OCT scan to penetrate through media opacities, including cataracts and hemorrhages, making it possible for more patients to be imaged.

### SS OCT imaging through hemorrhage



Courtesy: Dr. Netan Choudhry, Vitreous Retina Macula Specialists of Toronto, Canada

### SS OCT imaging through cataract



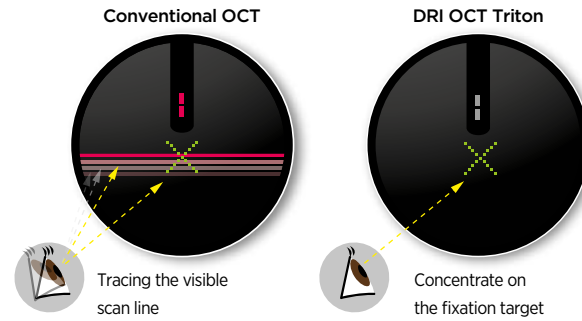
2. Huang et al. Signal-to-Noise Ratio Comparisons Between Spectral Domain and Swept-Source OCTs. Association for Research in Vision and Ophthalmology (ARVO) 2016.

# Swept Source OCT Imaging

## Superior visualization

### Invisible OCT Capture

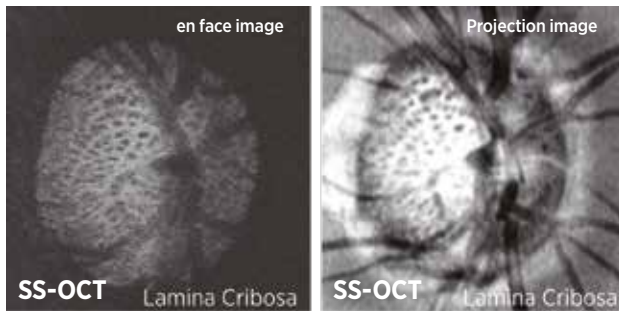
The 1,050nm light source is not visible to the human eye, enabling patients to concentrate on the fixation target during capture, which can reduce involuntary eye movement, eye fatigue and increase workflow.



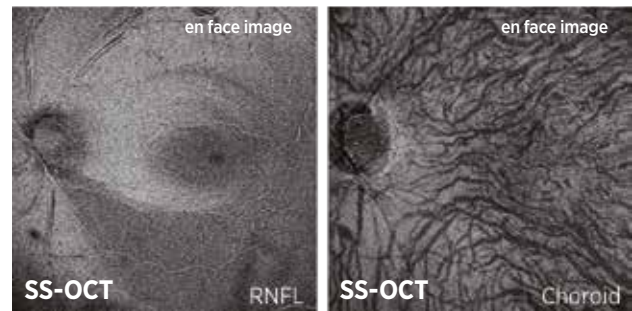
### En face OCT imaging<sup>1</sup>

En face imaging allows for independent dissection of the vitreoretinal interface, retina, retinal pigment epithelium (RPE), and choroid by flattening the B-scan image. Pathology throughout the posterior pole can be studied and correlated with a patient's symptoms and disease progression.

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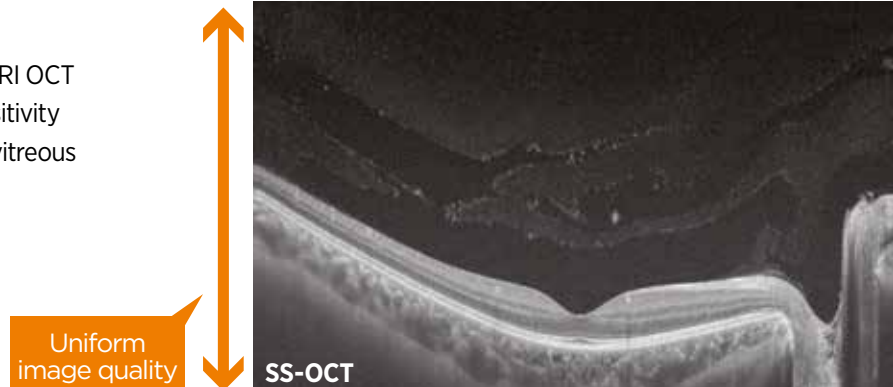
Courtesy: Prof. T. Nakazawa, Tohoku University, Japan



Courtesy: Prof. T. Nakazawa, Tohoku University, Japan

### Visualize the vitreous

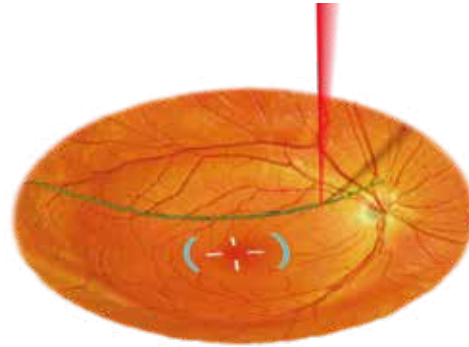
Utilizing a 1,050nm light source, the DRI OCT Triton provides uniform scanning sensitivity allowing superior visualization of the vitreous and choroid in the same scan.



1. Requires IMAGEnet® 6 software.

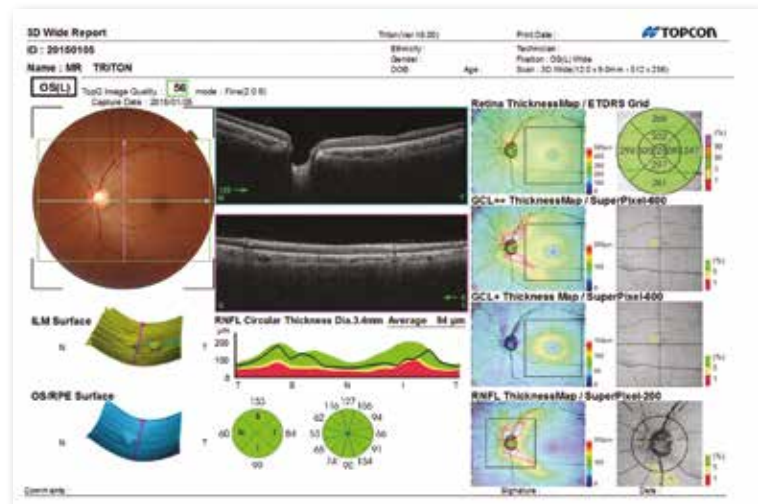
## Eye Tracking

Eye Tracking comes standard with the Triton. During capture of selected scans, Triton's eye tracking system ensures that you image the exact location of the retina that you want every time.



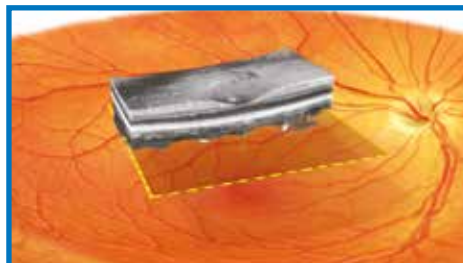
## Widefield OCT

The Triton incorporates a 12mm x 9mm widefield scan providing measurement of the optic nerve and macula in a single scan. Besides significantly reducing patient exam time, the widefield scan provides a comprehensive assessment with reference database in a single easy to read report.



## High Density HD OCT Scanning

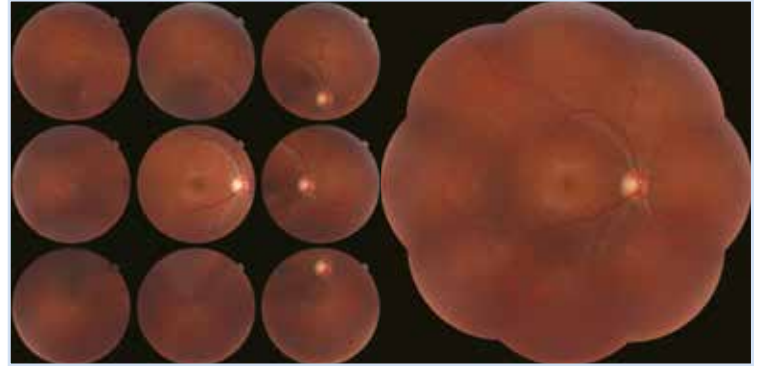
512 x 256 OCT scan patterns capture twice the OCT data than conventional 512 x 128 scanning patterns, significantly increasing the available data for diagnosis.



# Discover from Anterior through the Choroid

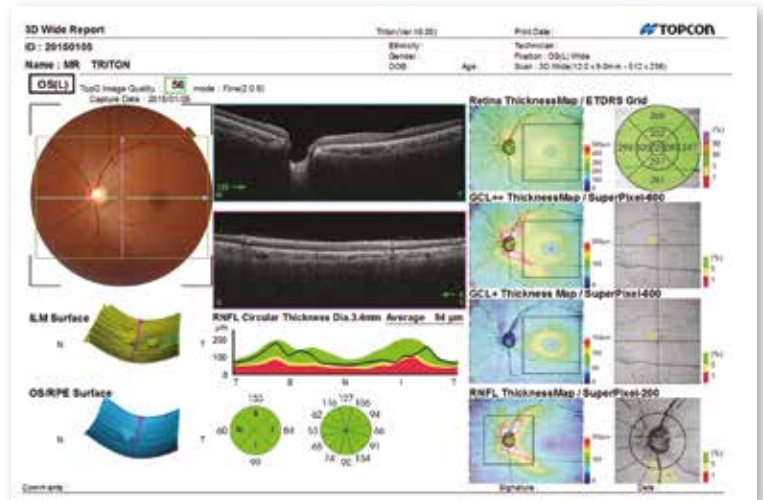
## Panoramic widefield photography<sup>1</sup>

Preset fixation targets enable you to easily acquire panoramic peripheral views of the retina.



## Reference database with Swept Source OCT

DRI OCT Triton includes an FDA-cleared reference database for statistical comparison of the thickness maps and optic disc parameters. By comparing individual measurement values with the corresponding reference database, the DRI OCT Triton provides you with a powerful tool.

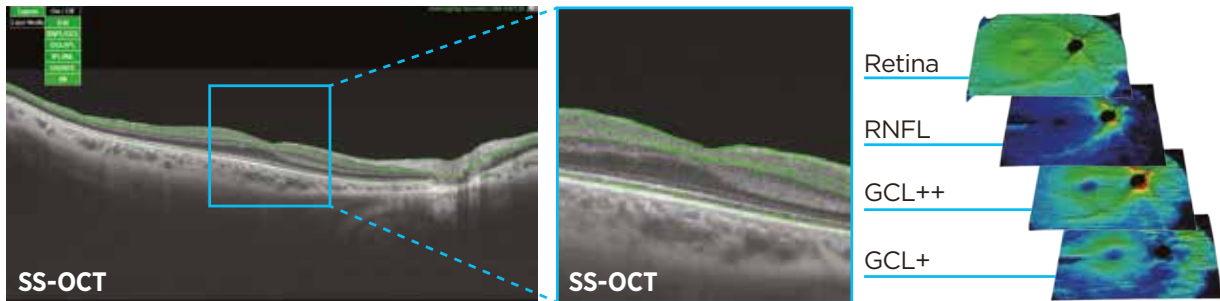


1. Requires IMAGENet® 6 software.



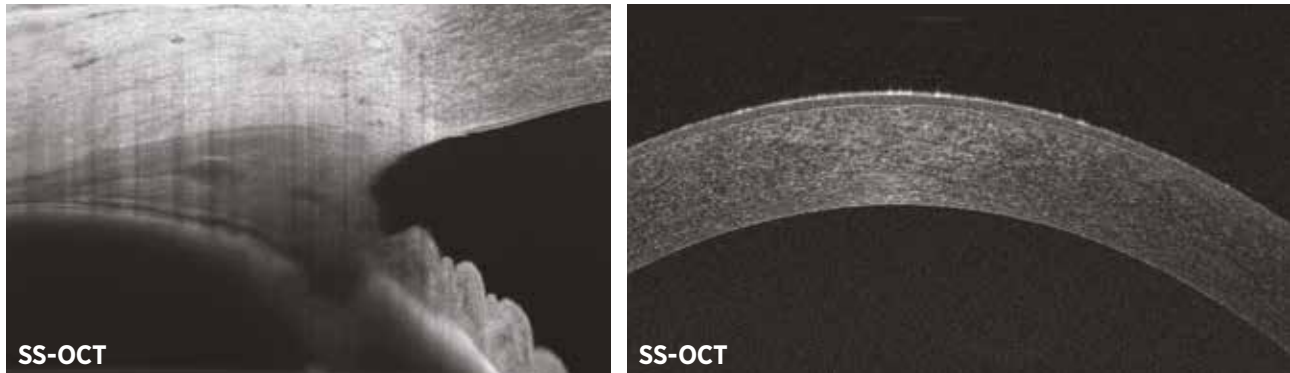
## Automatic layer segmentation

Retinal layers are automatically segmented by the Topcon Advanced Boundary Software (TABS™), enabling the quantification of layer thickness for change analysis.



## Anterior segment imaging<sup>2</sup>

Optional anterior imaging capabilities enhance the view of the anterior chamber and ciliary body. The unique anterior segment attachment ensures sharp images, even in the extreme periphery of the retina and anterior chamber.



## OCT image B-scan length 16mm



# Transform Your Ophthalmic Data and Images with IMAGEnet® and Synergy™

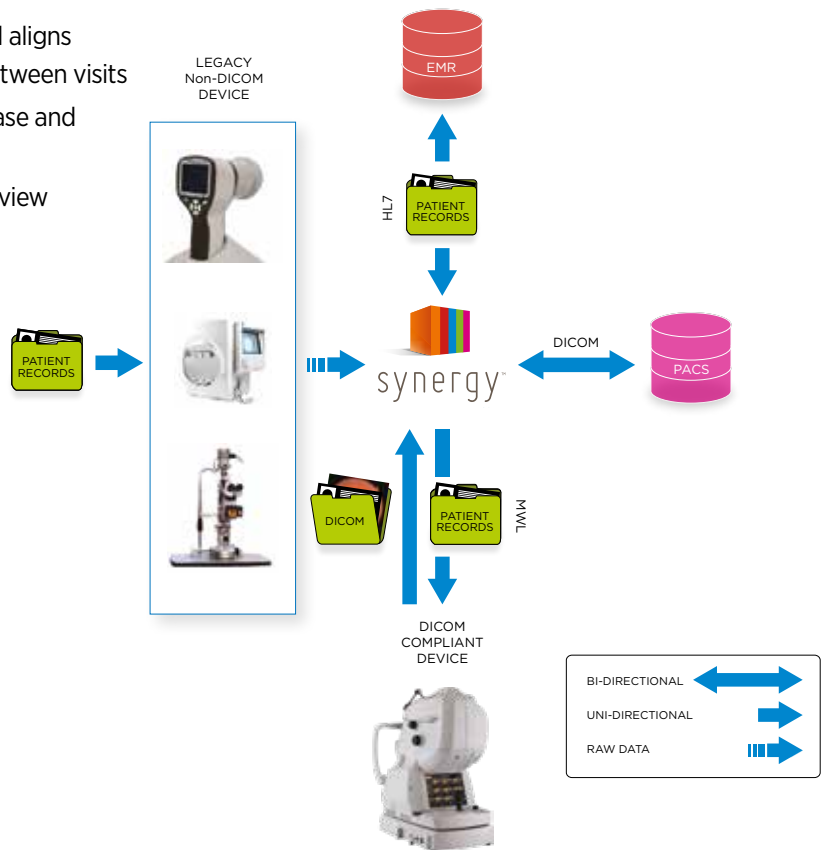
## Synergy

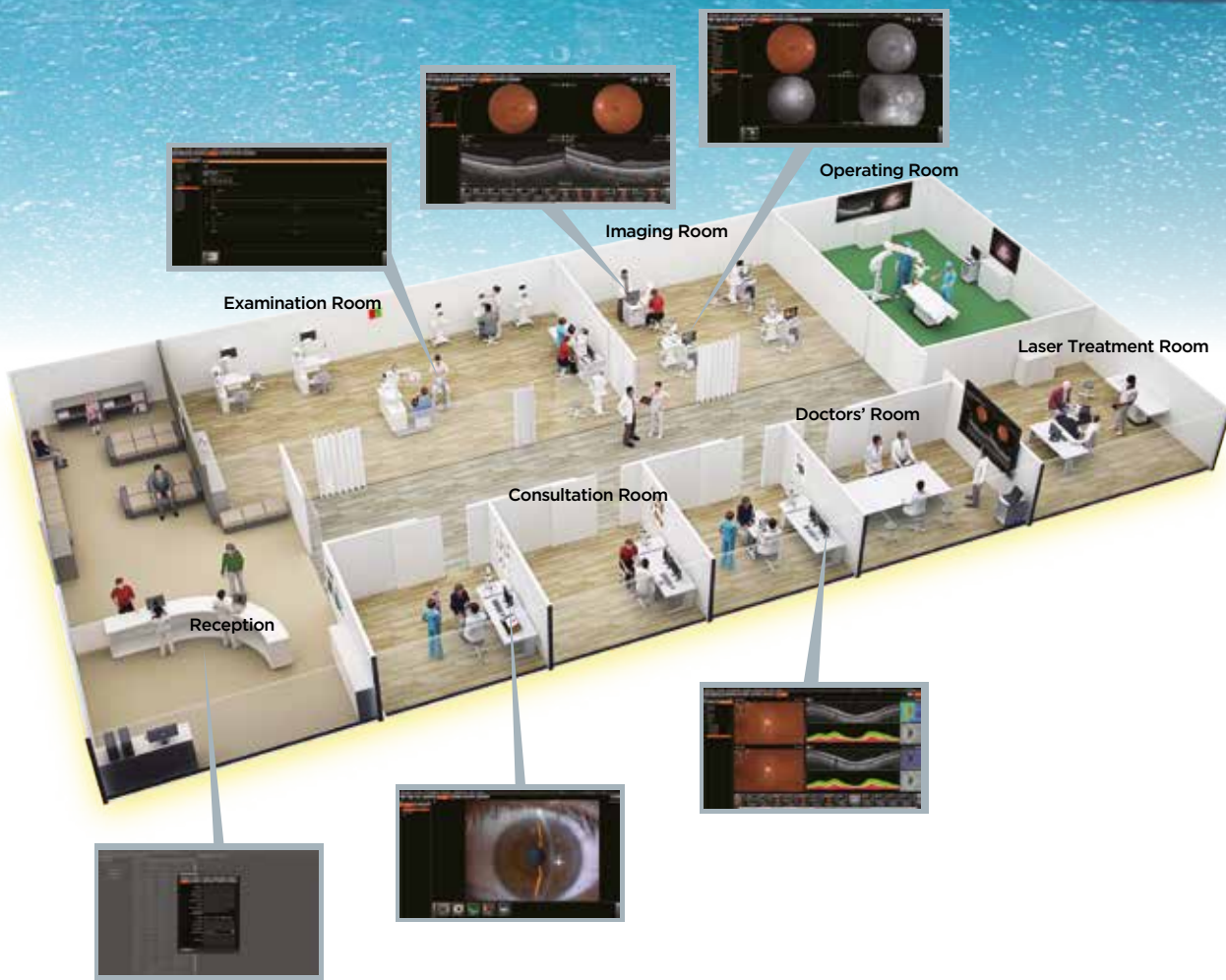
### Efficient, Scalable, Flexible

SYNERGY provides eye care professionals with the ability to efficiently collect, store and manage digitized ophthalmic data captured with both today's most advanced instruments and legacy devices. Data can be accessed securely and remotely at any time without the need for a VPN. As you add more devices, more clinics, more data, SYNERGY will grow with your demands.

### What's Unique About SYNERGY?

- » Offers both a cloud-based and on-premise solution.
- » Store, manage and review diagnostic data from over 200 different devices.
- » Review and share information in real-time with your colleagues
- » Multi-modal display with a single click
- » Enhanced OCT viewing
  - PinPoint™ Registration of OCT image with fundus photo
  - Advanced Comparison registers and aligns thickness maps to review change between visits
  - Reference database for Macula disease and Glaucoma diagnosis
  - Glaucoma prognostic management view
- » New workflow for ease of use and access to your data with fewer clicks
- » Seamless integration with your EMR and practice management systems
- » Bidirectional communication between EMR/PMS and ophthalmic devices
- » DICOM and Non-DICOM Compliance





## IMAGeNet® 6

### Universally Connected

IMAGeNet® 6 is a browser based application, Operating System and PC independent, that can access Topcon ophthalmic data, images and OCT data from Topcon devices<sup>1</sup> connected to your practice or hospital network.

### Comprehensive Data Management

Now you can review all data captured by any TOPCON device with one software application without the need to download and maintain review software.<sup>2</sup>

### Multimodal display

Dynamic viewing of OCT B Scans, 3D images, thickness maps, enface data along with registered fundus photos (color, red-free, FA and FAF) supports a deeper understanding of your patient's condition.

### Remarkably Easy

The data you need is just a click away.

IMAGeNet® 6 was developed to give you a simple and efficient way to review data. With an informative one-page Graphical User Interface (GUI), this browser-based application requires no installation.

### IMAGeNet® Applications and Image Management Tools

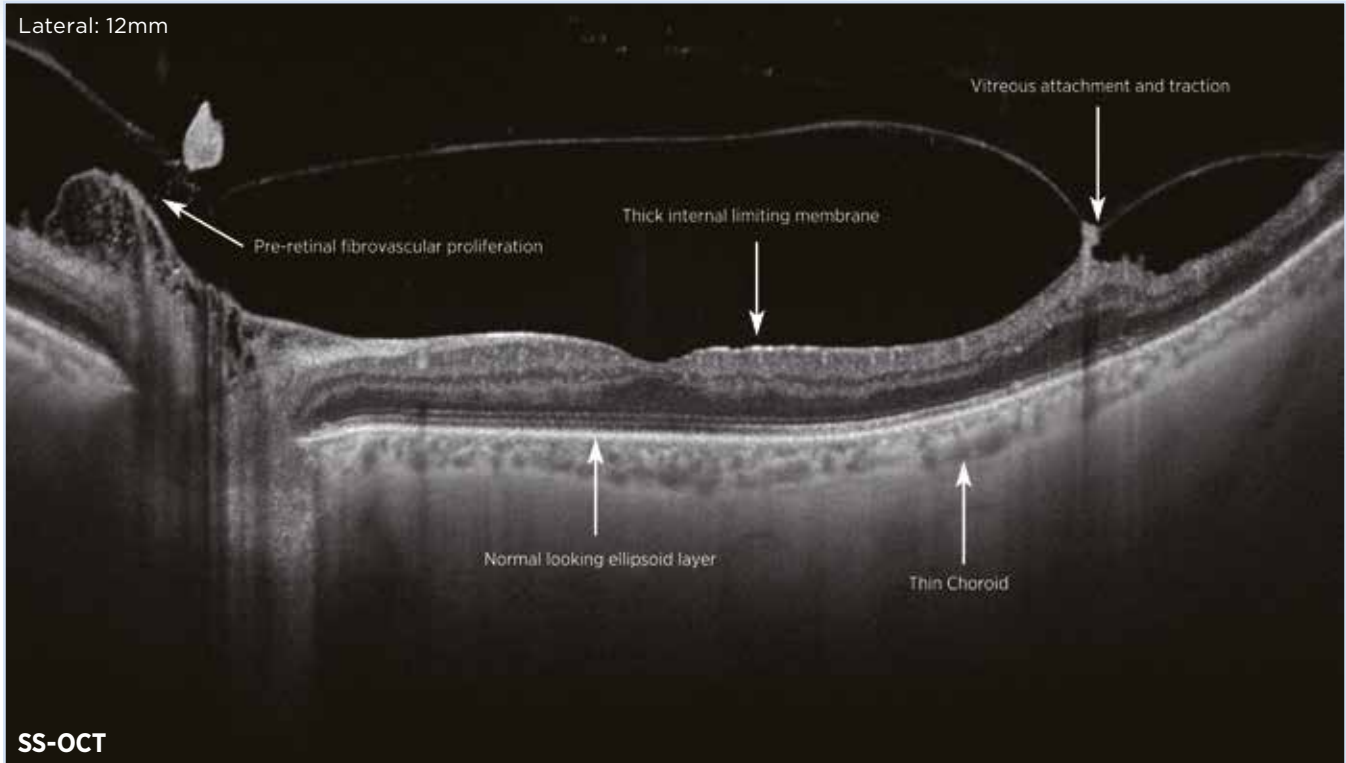
IMAGeNet® 6 includes a wide array of standard image management tools and application programs including:

- » Stereo Viewer
- » Disc and Cup measurement
- » Patient Education module
- » Auto-mosaic program
- » Quick Draw tool with image annotation
- » Brightness/Contrast
- » Area Enhancement
- » Image Sharpness
- » Magnifier
- » Image flip

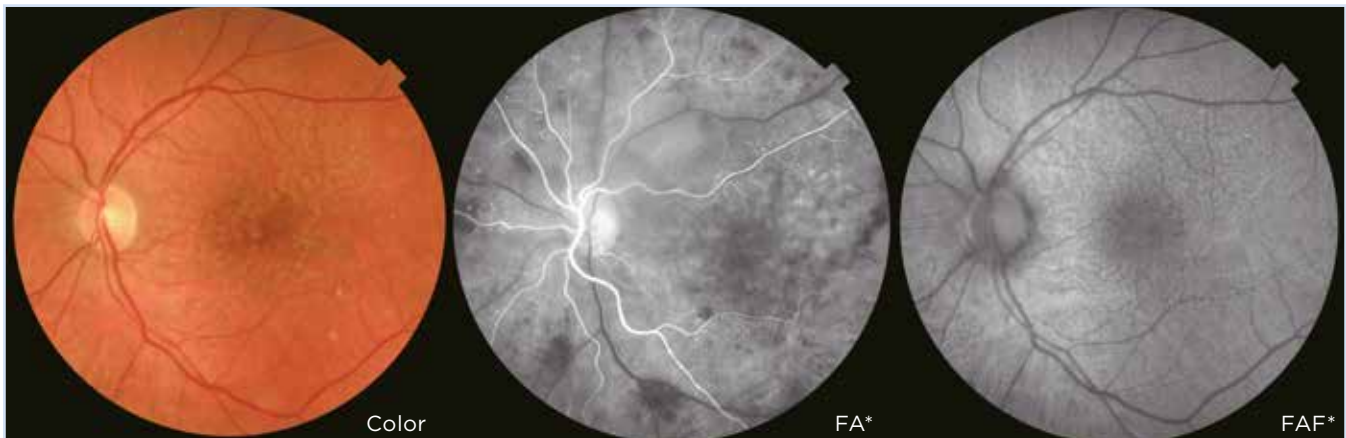
1. Reference for specific connections on file.  
2. Capture software is required.

# Case Reports

## Proliferative diabetic retinopathy



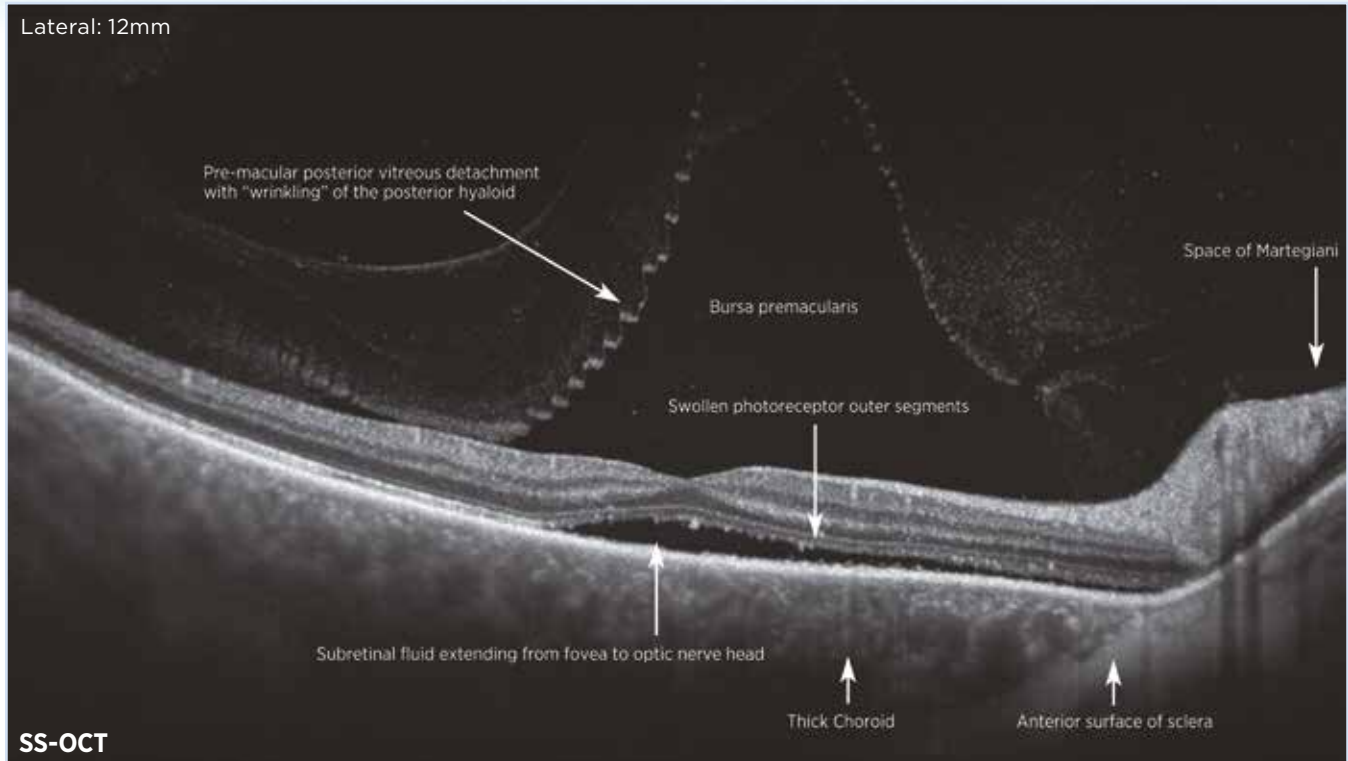
Courtesy: Prof. P. E. Stanga, Manchester Royal Eye Hospital, Manchester Vision Regeneration (MVR) Lab at N IHR/ Wellcome Trust Manchester CRF & University of Manchester



Courtesy: Prof. P. E. Stanga, Manchester Royal Eye Hospital, Manchester Vision Regeneration (MVR) Lab at N IHR/ Wellcome Trust Manchester CRF & University of Manchester

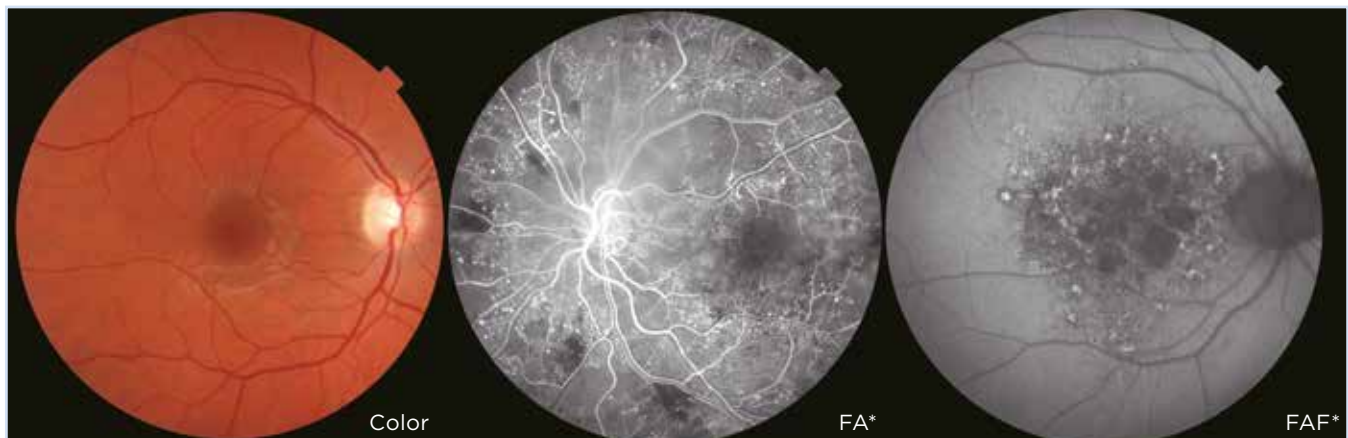
\*FA photography and FAF photography can only be performed on the DRI OCT Triton plus.

## Central serous retinopathy



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Courtesy: Prof. P. E. Stanga, Manchester Royal Eye Hospital, Manchester Vision Regeneration (MVR) Lab at N IHR/  
Wellcome Trust Manchester CRF & University of Manchester

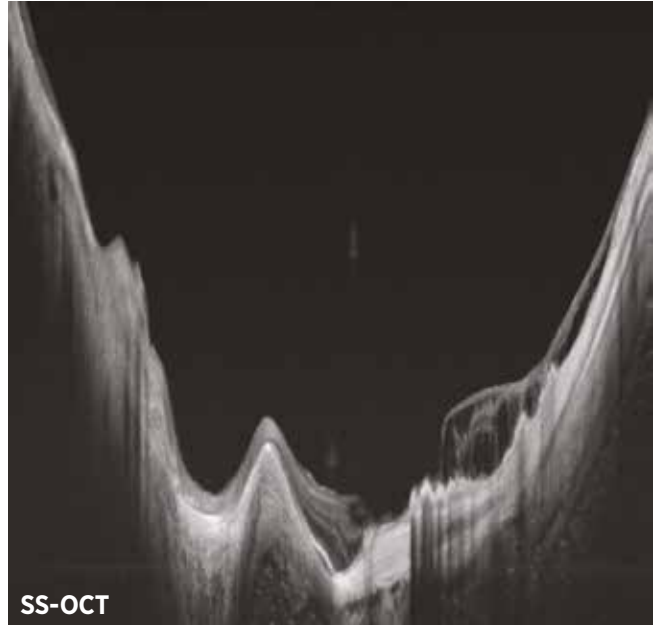
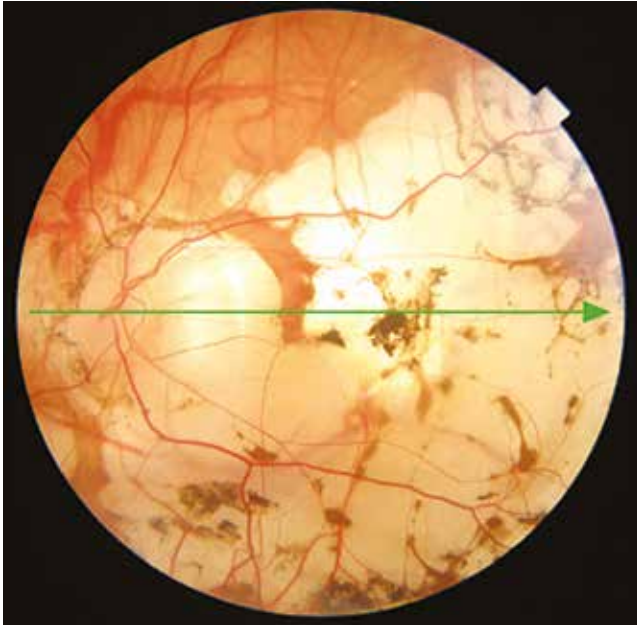


Courtesy: Prof. P. E. Stanga, Manchester Royal Eye Hospital, Manchester Vision Regeneration (MVR) Lab at N IHR/  
Wellcome Trust Manchester CRF & University of Manchester

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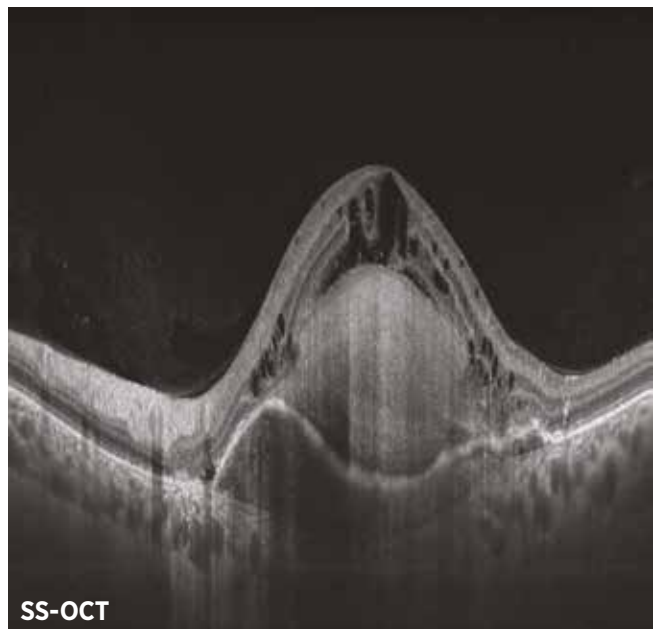
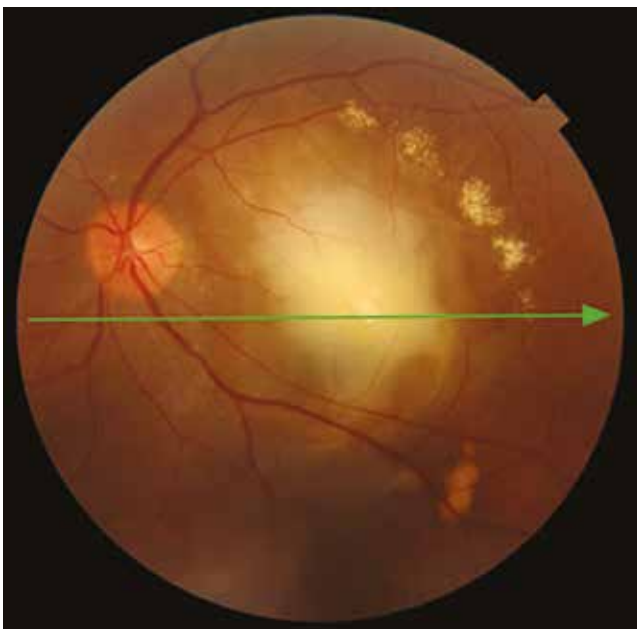
# Case Reports

## Myopia

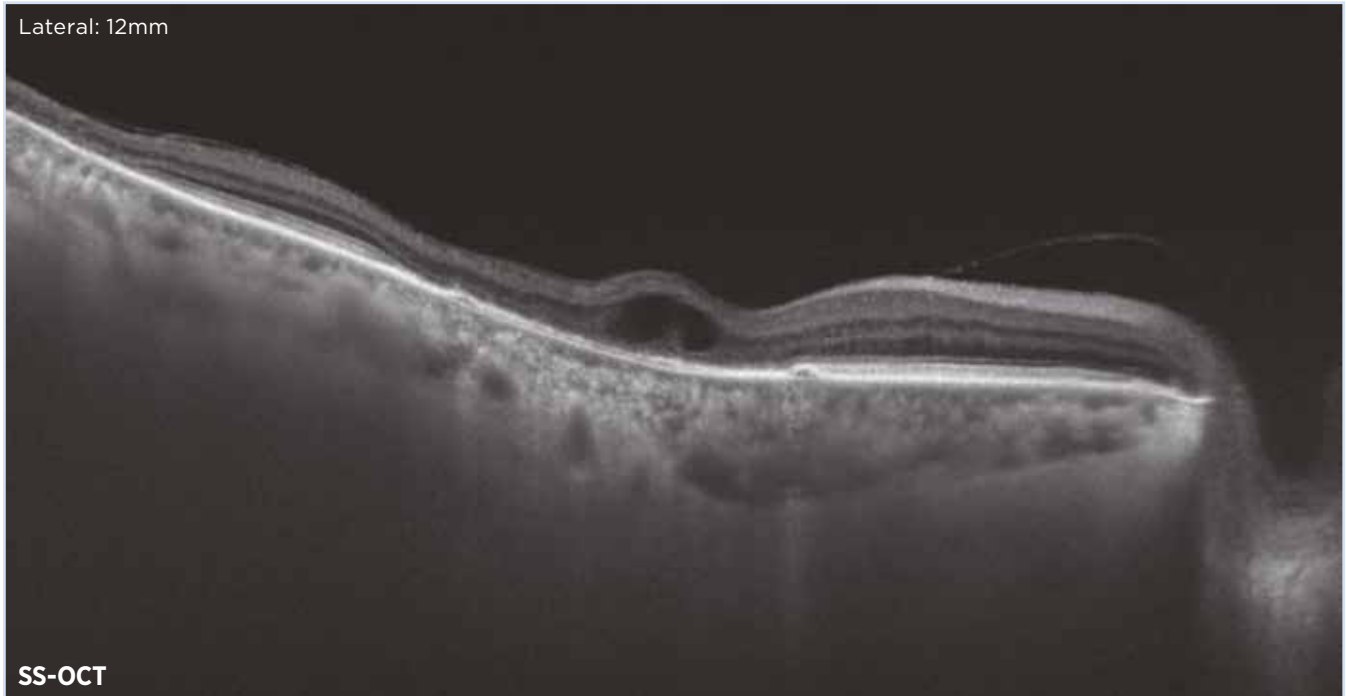


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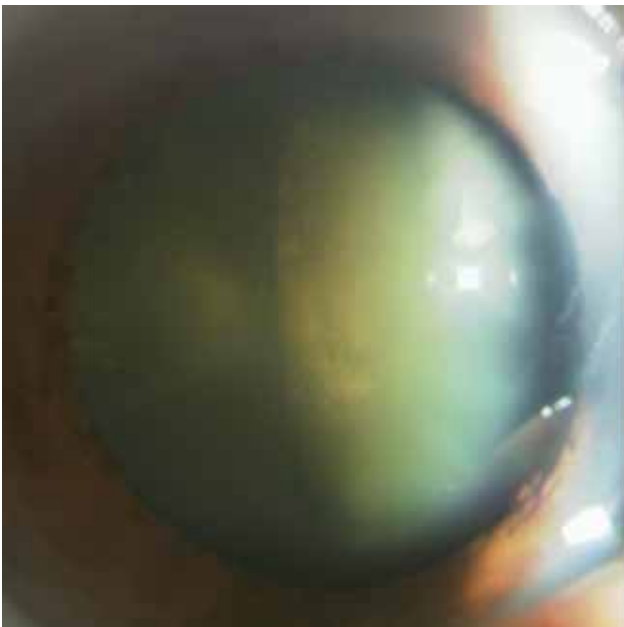
## Macular fibrosis



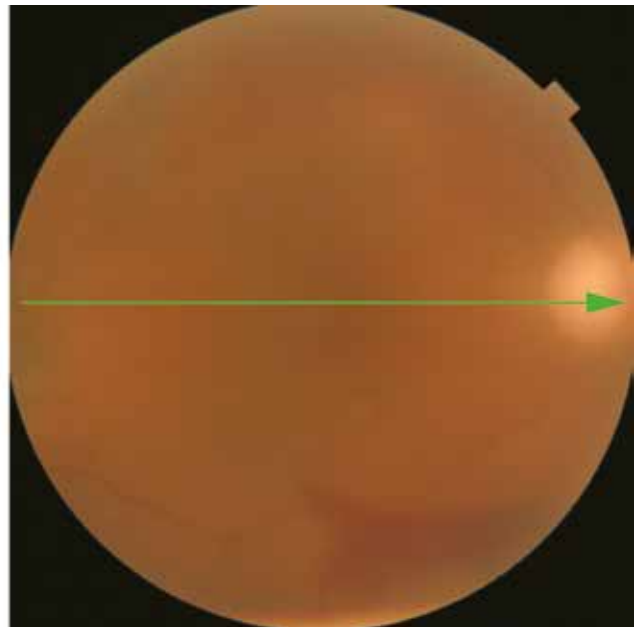
## Image through cataract



Courtesy: Kazuya Yamagishi, MD (Hirakata Yamagishi Eye Clinic, Japan)



Courtesy: Kazuya Yamagishi, MD (Hirakata Yamagishi Eye Clinic, Japan)



Courtesy: Kazuya Yamagishi, MD (Hirakata Yamagishi Eye Clinic, Japan)

# Specifications

## OCT Imaging

Methodology	Swept Source OCT
Optical Light Source	Swept Source tunable laser at 1,050nm
Scan Speed	100,000 A-Scans per second
Lateral Resolution	20 µm
In-depth Resolution	Optical resolution: 8 µm, 2.6 µm digital resolution
Photography Type	Color, FA,* FAF,* Red-free**
Picture Angle	45° Equivalent 30° (Digital Zoom)
Operating Distance	34.8mm
Minimum Pupil Diameter	Ø2.5mm OCT, 3.3mm fundus photo

## Observation & Photography of Fundus Tomogram

Scanning Range (on fundus)	Horizontal Within 3 to 12mm Vertical Within 3 to 12mm
Scan Patterns	3D scan (12x9mm, 7x7mm, 3x3mm) Linear scan (Line-scan/Cross-scan/Radial-scan)
Fixation target	Internal fixation target: Dot matrix type organic EL The display position can be changed and adjusted. The displaying method can be changed. Peripheral fixation target: This is displayed according to the internal fixation target displayed position. External fixation target

## Observation & photography of anterior segment\*\*\*

Photography type	IR
Operating distance	17mm
Scan range (on cornea)	Horizontal Within 3 to 16mm Vertical Within 3 to 16mm
Scan pattern	3D scan Linear scan (Line-scan/Radial-scan)
Fixation target	Internal fixation target External fixation target

## Electrical Rating

Power Source	Voltage: 100-240V Frequency: 50-60Hz
Power input	250VA
Dimensions	320-359mm(W) X 523-554mm(D) X 560-590mm(H)
Weight	21.8 kg (DRI OCT Triton) 23.8 kg (DRI OCT Triton plus)

\* FA photography and FAF photography can only be performed on the DRI OCT Triton plus.

\*\* The color image is processed and is displayed as a pseudo red-free photographed image.

\*\*\* Observation & photography of anterior segment can be performed only when the anterior segment attachment kit is used.

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topconmedical.com

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**IMPORTANT**

Subject to change in design and/or specifications without advanced notice.

In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.



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