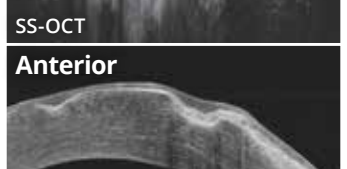
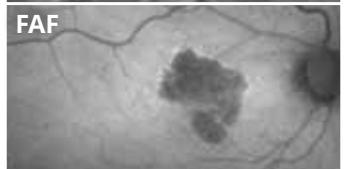
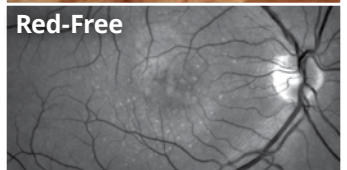


DRI OCT Triton™ Series

A Multimodal
Swept Source OCT



SEE WHAT OTHERS *CAN'T SEE.*

A MULTIMODAL SWEEP 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 Next 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 optimum diagnostic capability to you and your patients.

Unprecedented Image Detail

Triton's Swept Source OCT, with a scanning speed of 100,000 A-scans/sec and 1,050nm wavelength light source, results in stunningly 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 features such as Spaide Autofluorescence filters, Fluorescein Angiography and Enface imaging,¹ Triton empowers you to take proactive steps to preserve your patients' eye health.

A Trusted Brand

Topcon is a trusted brand and recognised leader in Swept Source OCT around the globe. With thousands of units sold, doctors are choosing the Triton for its excellent 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, colour fundus imaging, red-free, and optional anterior segment OCT imaging. There is also a DRI OCT Triton FAF model, which incorporates all of the above plus fundus autofluorescence (FAF) imaging and a DRI OCT Triton Plus model, which incorporates all of the above plus FAF and fluorescein angiography.

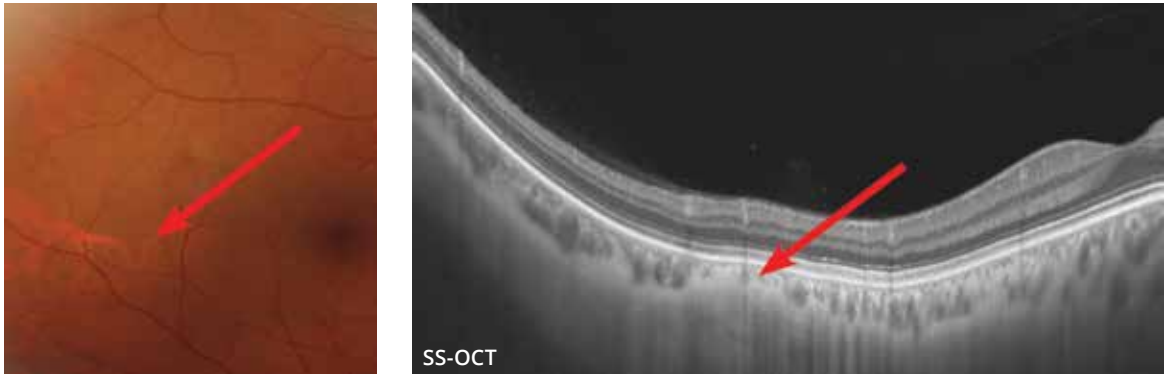
	SS-OCT	Colour	Digital Red-free	FA	FAF	Optional Anterior OCT
Triton	•	•	•	—	—	•
Triton FAF	•	•	•	—	•	•
Triton Plus	•	•	•	•	•	•

1. Requires IMAGEnet® 6 software.

DRI meets Multimodal Fundus Imaging: see the whole picture

Swept Source OCT incorporates multimodal fundus imaging

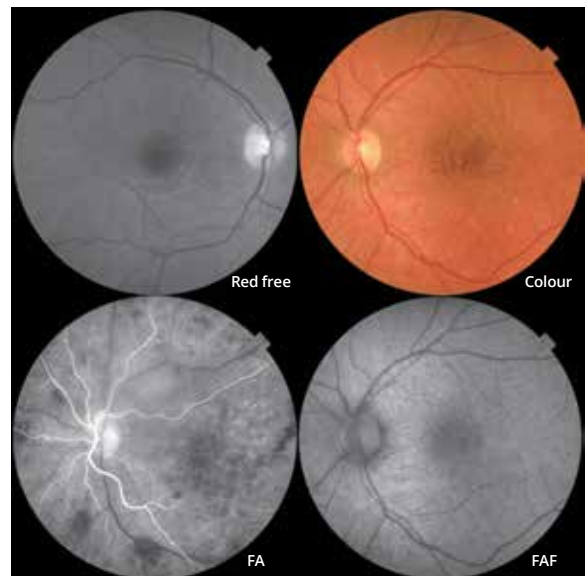
DRI OCT Triton acquires the OCT and fundus image in a single capture. Pin-Point™ Registration correlates the location of the B-scan on the fundus image. A clear comparison between the B-scan and fundus image supports clinical efficiency.



High-quality fundus images

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

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



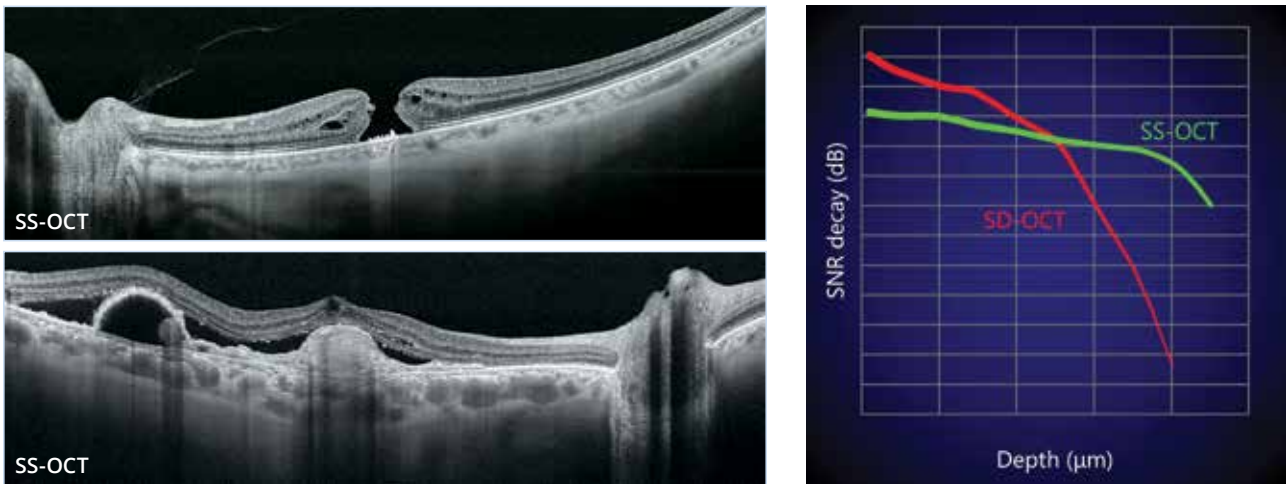
Exclusive Spaide Autofluorescence filters¹

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.



Optimised wavelength: 1,050nm

The longer wavelength light source provides better tissue penetration and more OCT data deeper in the retina¹ compared with conventional Spectral Domain OCT technology, allowing visualisation into the deepest layers of the eye — even through cataracts, hemorrhages, and gas bubbles.

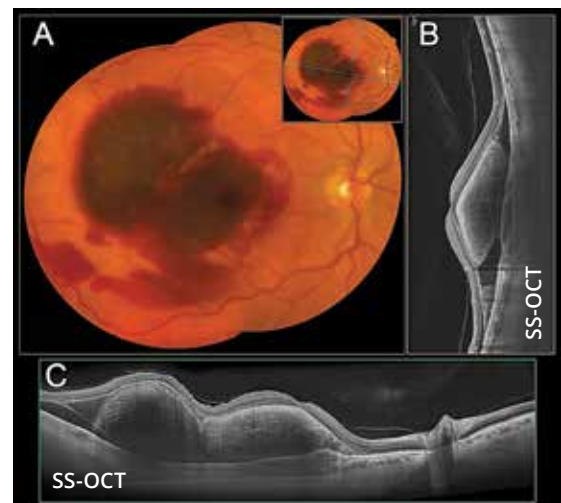


Courtesy: Professor Jose Maria Ruiz Moreno, University of Albacete, Spain.

OCT images through media opacities²

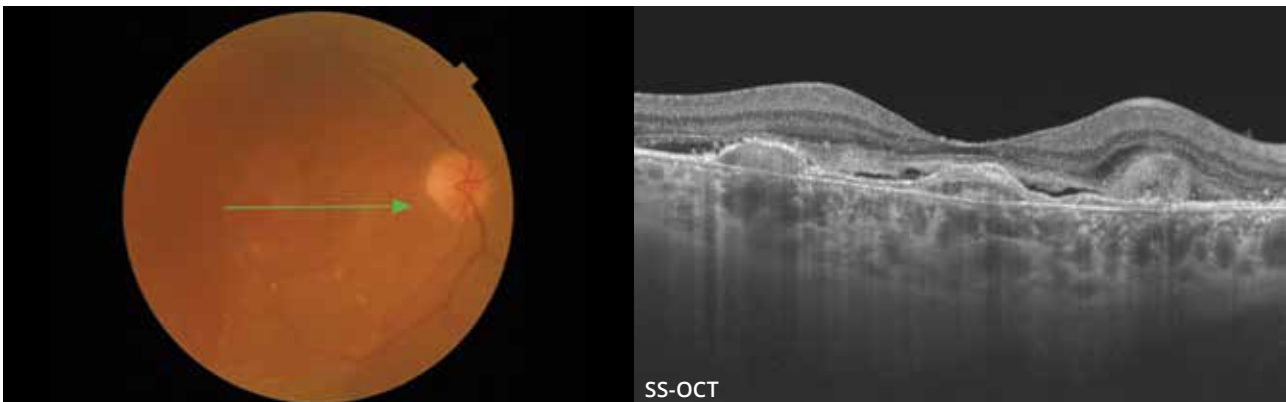
The 1,050nm light source on the Triton allows the OCT scan to penetrate through media opacities, including cataracts and hemorrhages, making it possible for more patients to be imaged.

SS-OCT imaging through hemorrhage



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

SS-OCT imaging through cataract



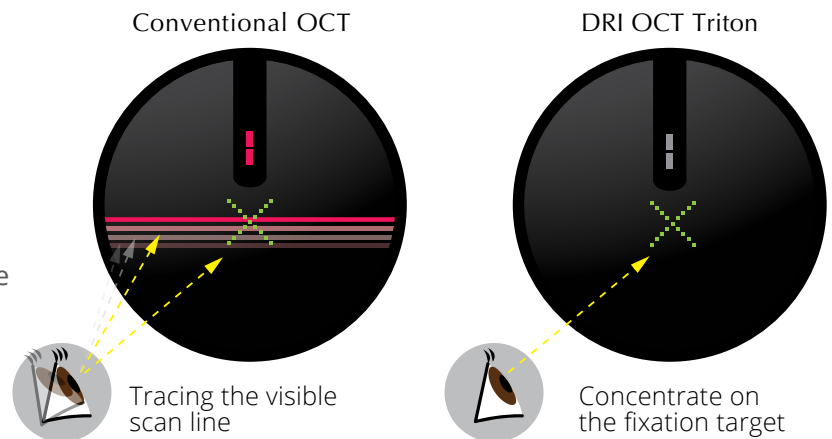
2. Huang et al. Signal-to-Noise Ratio Comparisons Between Spectral Domain and Swept-Source OCTs. Association for Research in Vision and Ophthalmology (ARVO) 2016.

Swept Source OCT Imaging

Superb visualisation

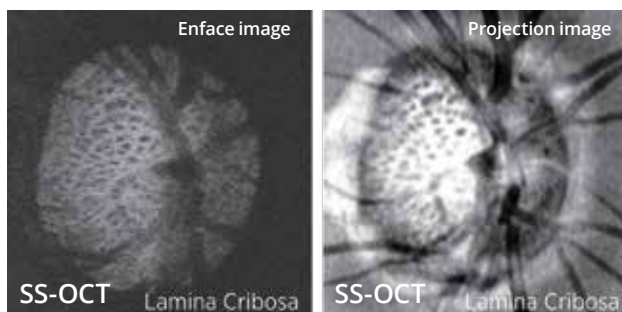
Invisible OCT Capture

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.

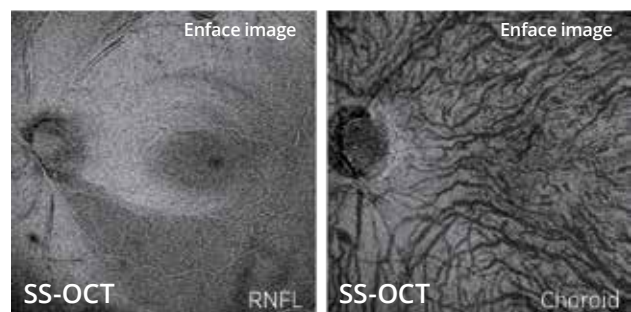


Enface OCT imaging¹

Enface 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.



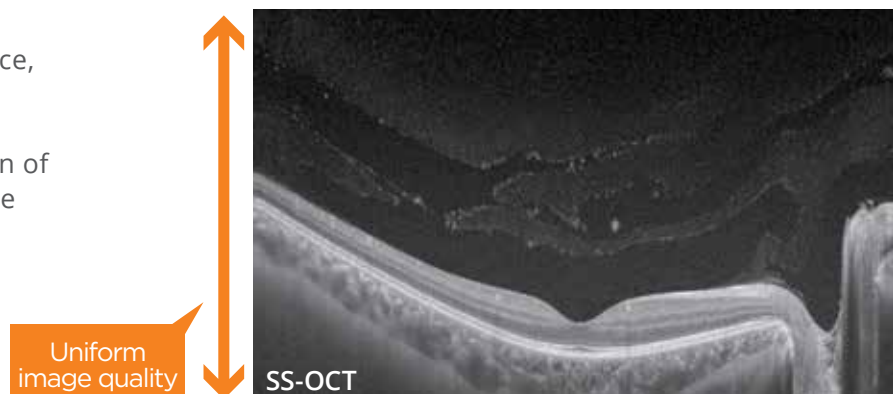
Courtesy: Prof. T. Nakazawa, Tohoku University, Japan



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

Visualise the vitreous

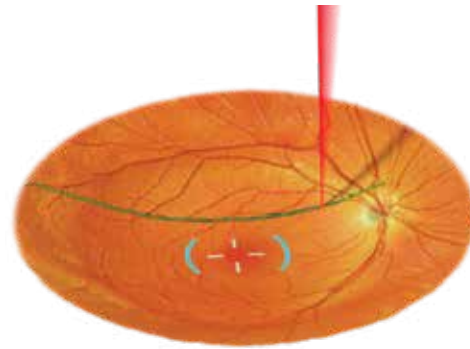
Utilising a 1,050 nm light source, the DRI OCT Triton provides uniform scanning sensitivity allowing excellent visualisation of the vitreous and choroid in the same scan.



1. Requires IMAGEnet® 6 software.

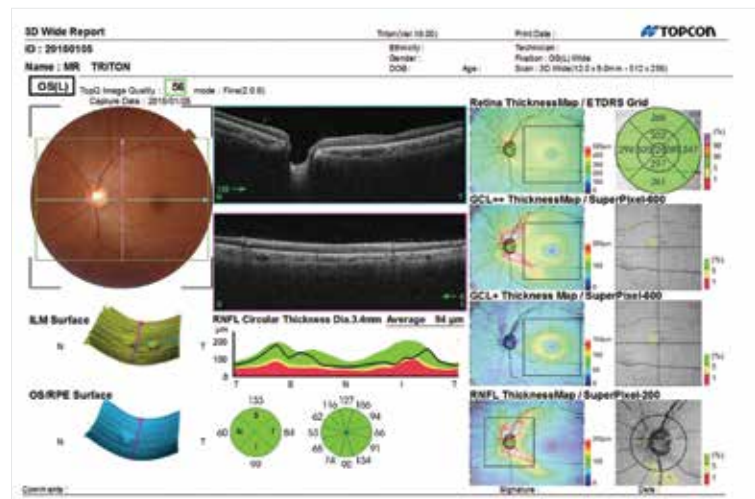
Eye Tracking

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.



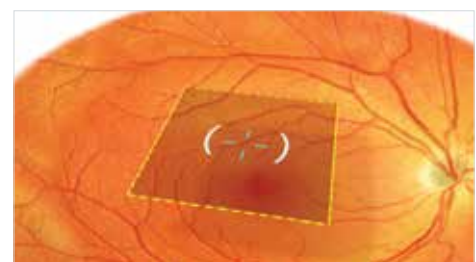
Widefield OCT

The Triton incorporates a 12 mm x 9 mm 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

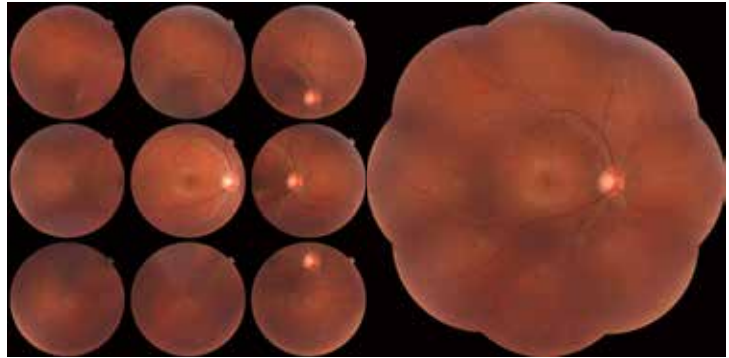
512 x 256 OCT scan patterns capture twice the OCT data than conventional 512 x 128 scanning patterns, significantly increasing the available data for diagnosis.



Discover from Anterior through the Choroid

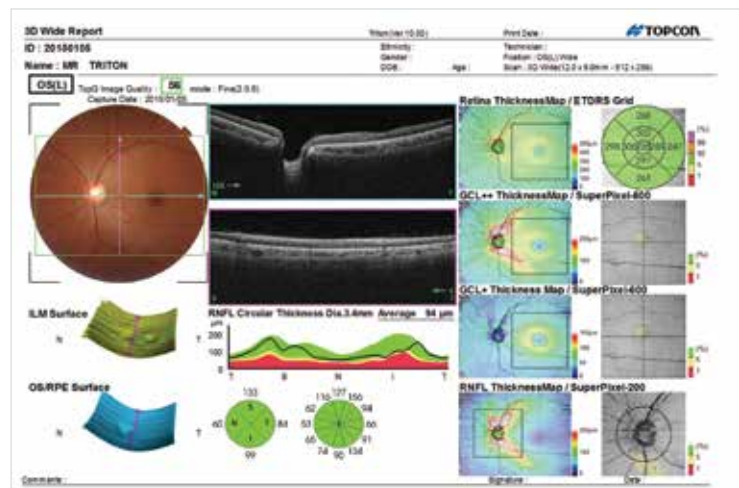
Panoramic widefield photography¹

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



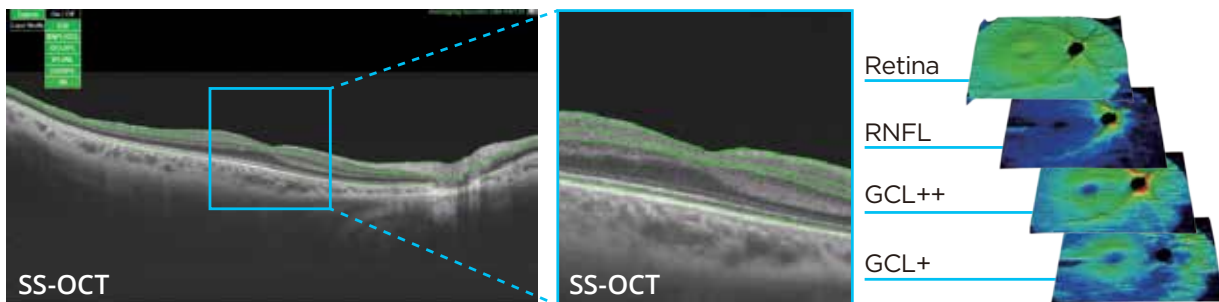
Reference database with Swept Source oct

DRI OCT Triton includes a 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.



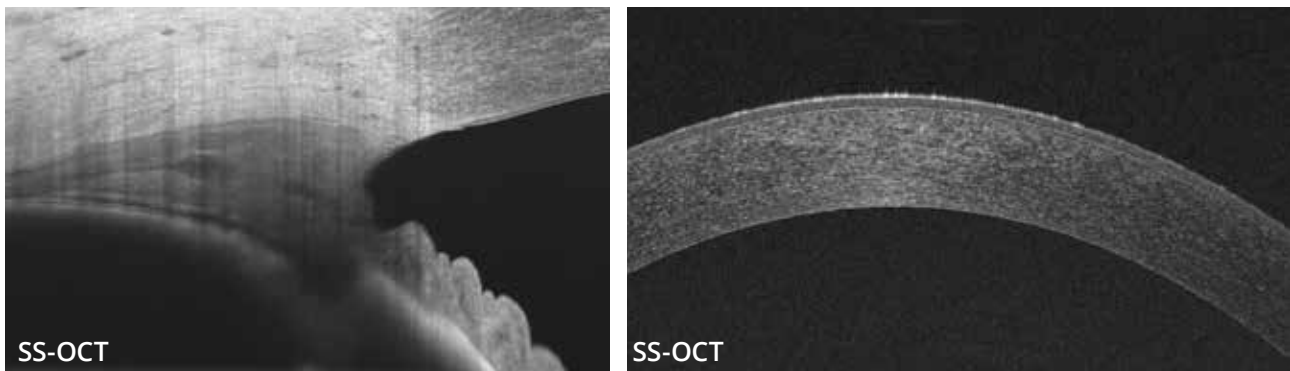
Automatic layer segmentation

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



Anterior segment imaging²

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

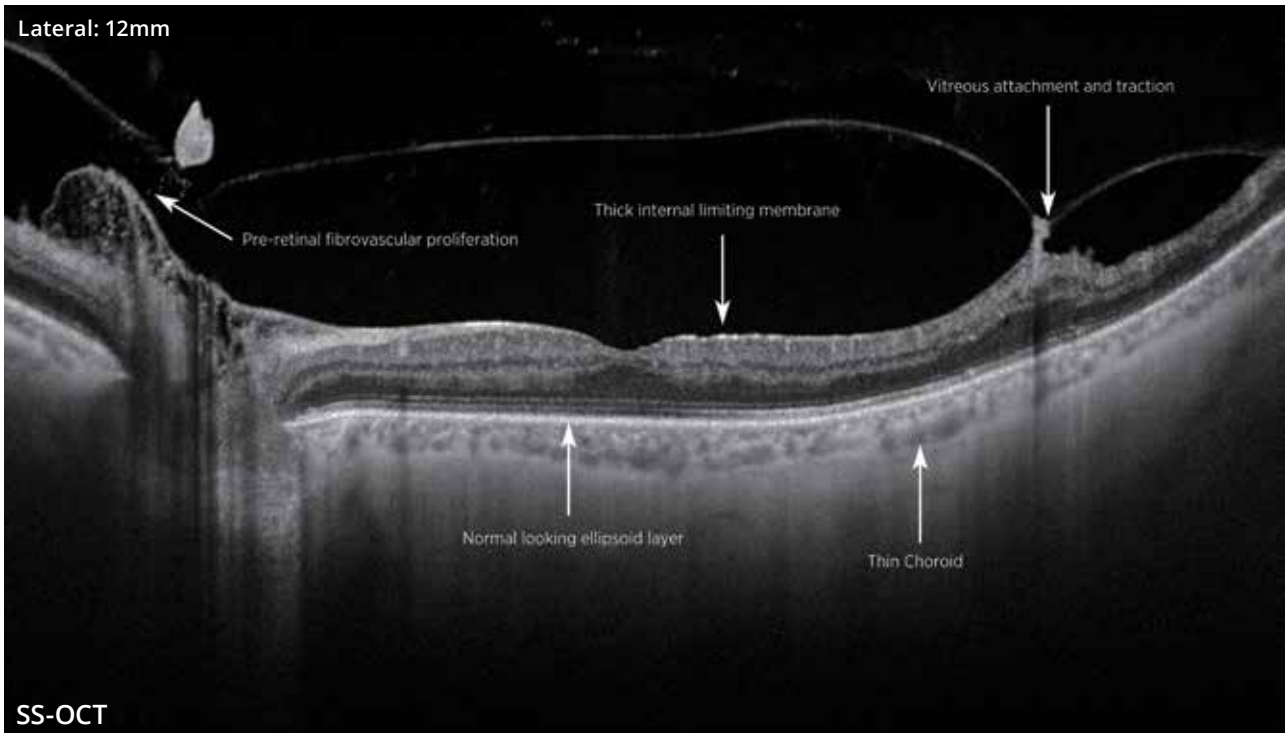


OCT image B-scan length 16mm



Case Reports

Proliferative Diabetic Retinopathy

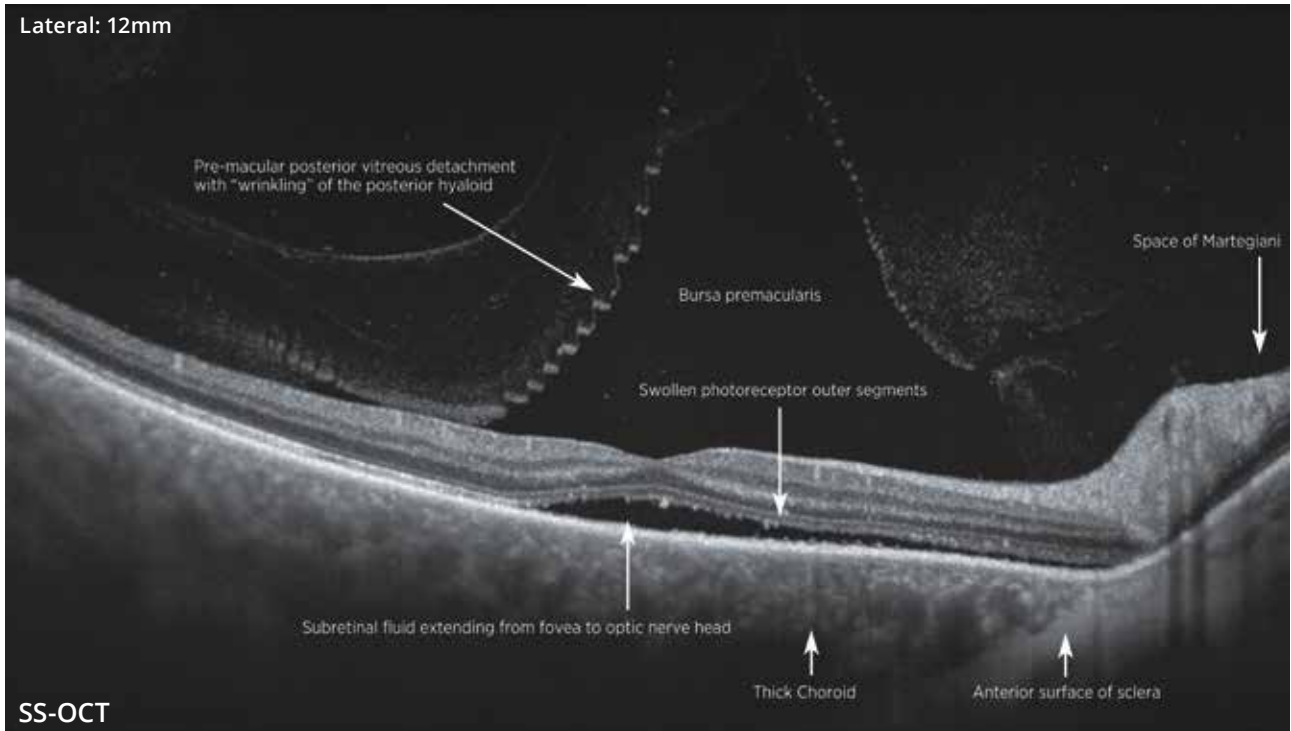


Courtesy: Prof. P. E. Stanga, Manchester Royal Eye Hospital, Manchester Vision Regeneration (MVR) Lab at N IHR/ Wellcome Trust Manchester CRF & University of Manchester



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

Central Serous Retinopathy



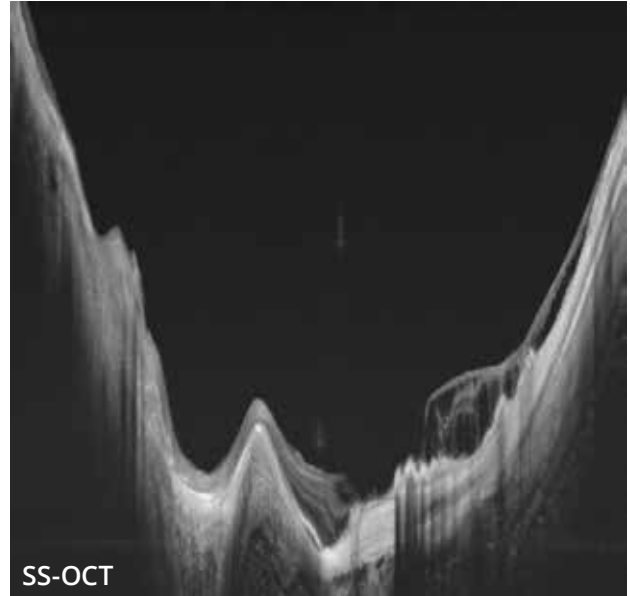
Courtesy: Prof. P. E. Stanga, Manchester Royal Eye Hospital, Manchester Vision Regeneration (MVR) Lab at N IHR/ Wellcome Trust Manchester CRF & University of Manchester



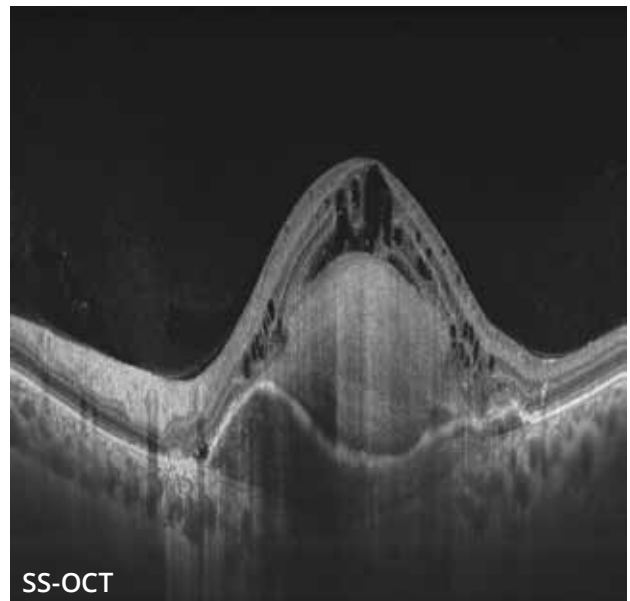
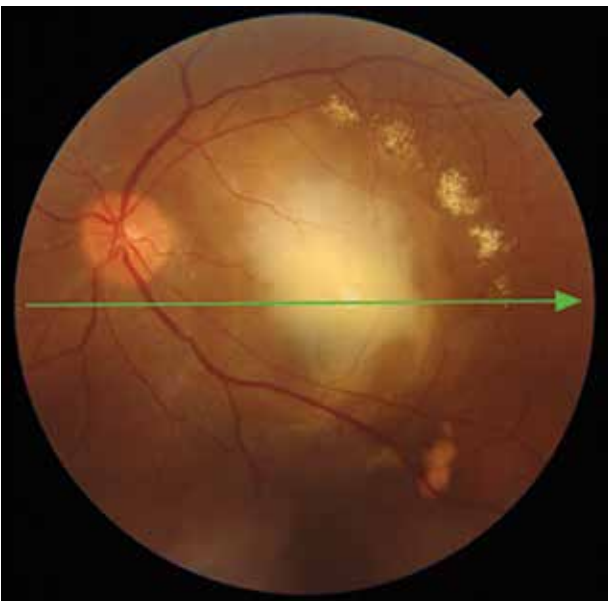
Courtesy: Prof. P. E. Stanga, Manchester Royal Eye Hospital, Manchester Vision Regeneration (MVR) Lab at N IHR/ Wellcome Trust Manchester CRF & University of Manchester

Case Reports

Myopic Degeneration



Macular Fibrosis



Specifications

OCT Imaging	
Methodology	Swept Source OCT
Optical Light Source	Swept Source tunable laser at 1,050 nm
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	Colour, FA,* FAF,* Red-free,** Filtered (IR)
Picture Angle	45° Equivalent 30° (Digital Zoom)
Operating Distance	34.8mm
Minimum Pupil Diameter	Ø2.5 mm OCT, 3.3 mm fundus photo
Observation & Photography of Fundus Tomogram	
Scanning Range (on fundus)	Horizontal Within 3 to 12 mm Vertical Within 3 to 12 mm
Scan Patterns	3D scan (12x9 mm, 7x7 mm, 3x3 mm) 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 16 mm Vertical Within 3 to 16 mm
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	320-359 mm (W) X 523-554 mm (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 colour 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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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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AUS 1800 806 006
customers@device.com.au
www.device.com.au

NZ 0508 DEVICE (338 423)
customers@device.co.nz
www.device.co.nz