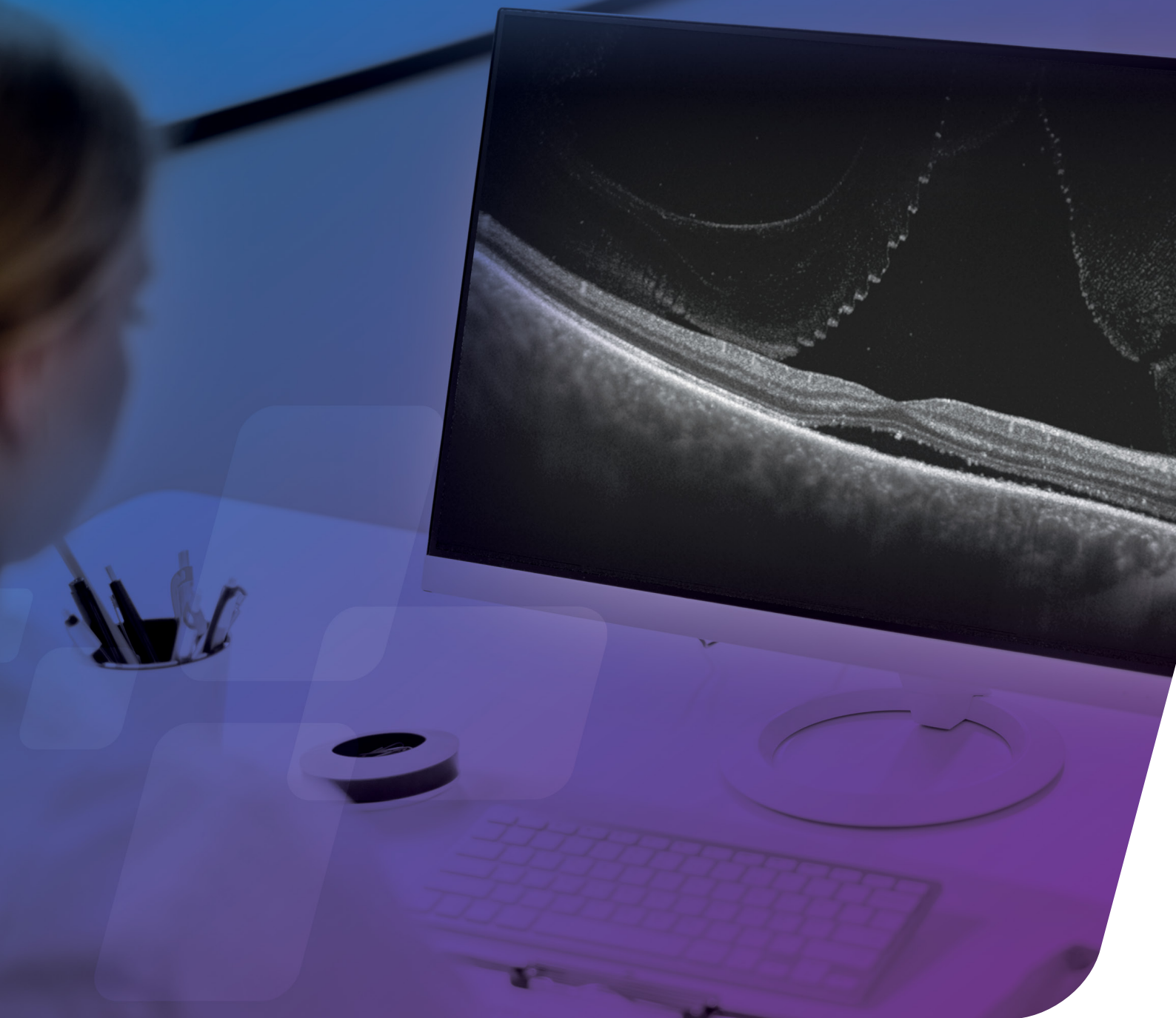


DRI OCT Triton™ Series

A Multimodal Swept Source OCT



With OCT Angiography

 **TOPCON** Healthcare

“
**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 F. Spaide, MD
Vitreous Retina Macula Consultants of New York

Deep range Imaging: DRI OCT Triton

Welcome To The New Frontier In OCT Imaging



DEPTH

Triton™ uses patented swept source technology to allow visualization into the deepest layers of the eye—even through cataracts, hemorrhages, gas bubbles and other media opacities, making it possible for more patients to be imaged.



SPEED

The fast, **100,000 A-scan/ sec**, and invisible scan beam rapidly capture detailed images, resulting in fewer motion artifacts and stunning image quality. Decrease chair time and improve your clinical workflow with a fast, comfortable patient experience, fewer rescans, and multimodal imaging.

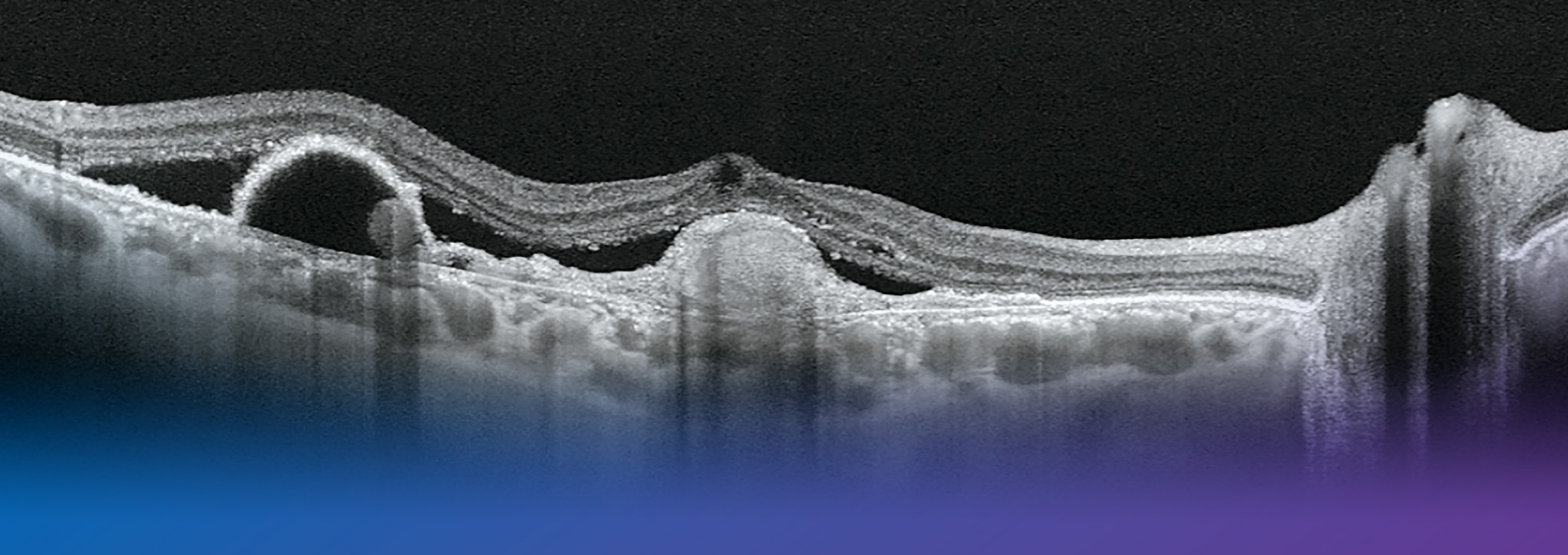


QUALITY

Experience Triton's high quality imaging, powered by swept source technology, high density scanning. From the front of the eye to the back, see the anterior chamber, vitreous, retina and choroid like never before.

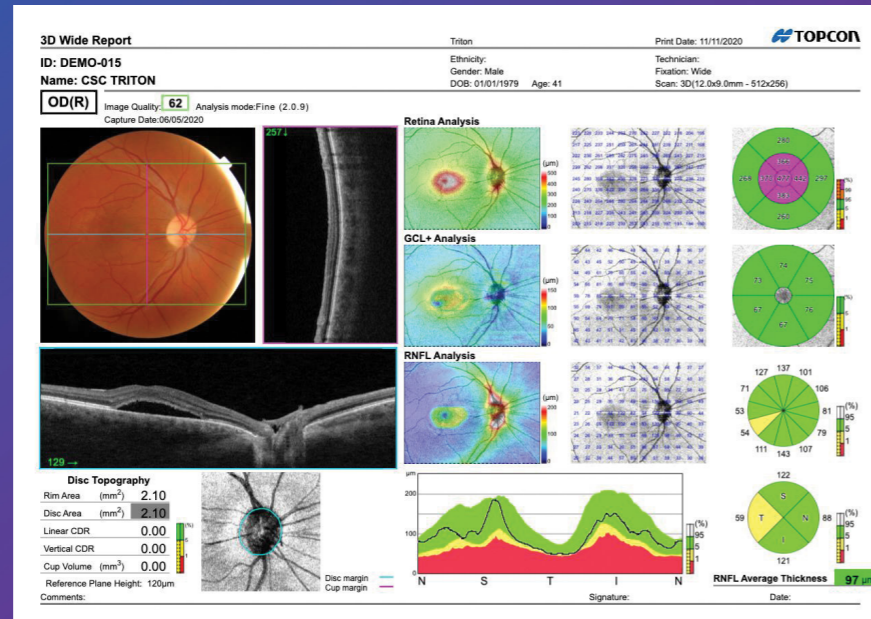


Remarkable Diagnostic Capability



Posterior Segment OCT

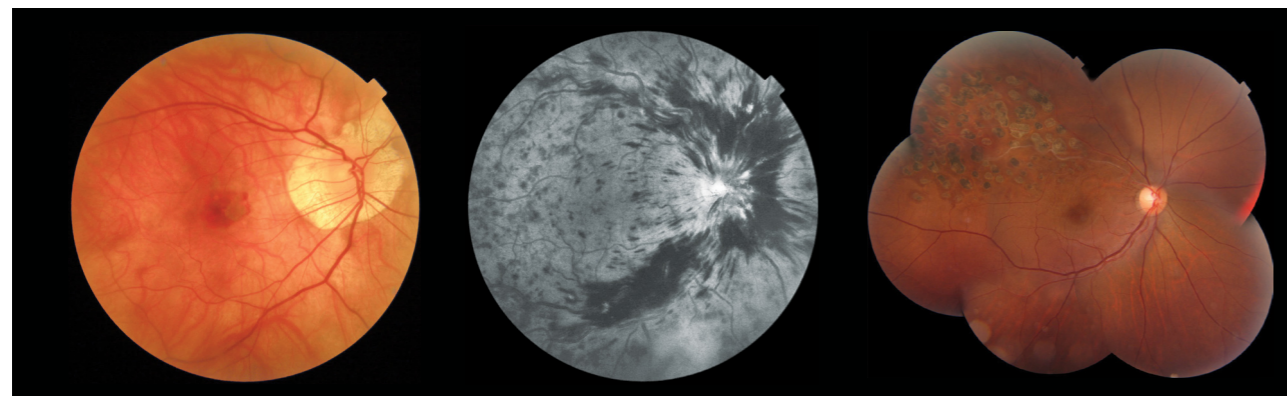
Triton™ is powered by swept source technology to deliver deep, wide and crystal-clear images of the retina and choroid. A 12mm x 9mm widefield scan covers the optic nerve and macula and can be acquired in 1.8 seconds to provide a comprehensive assessment of the posterior pole with reference database.*



Courtesy: Professor Jose Maria Ruiz Moreno, (Universidad de Castilla-La Mancha).

Color/Red-Free Photography

Color fundus photography comes standard on every Triton™. True color imaging allows assessment of the retina and optic nerve. Red-free images are also available for assessment of diabetic retinopathy and other diseases. Panoramic imaging expands the view of Triton to easily enable widefield imaging.



Note: Mosaic color fundus image (right) was acquired from a different patient.

1. Available on DRI OCT Triton Plus model only.

FAF¹

Triton's fundus autofluorescence option produces vivid and detailed images, allowing for the evaluation of lipofuscin and metabolic activity in the retina. The Spaide Autofluorescence filters were developed by Richard F. Spaide, M.D. and are exclusive to Topcon. They do not stimulate fluorescein or indocyanine green dye, so FAF images can be taken post angiography without any wavelength overlap.

FA¹

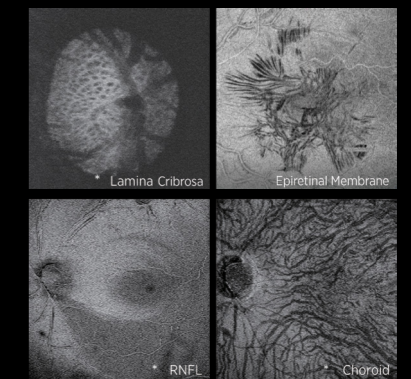
High resolution fluorescein angiography is available on Triton Plus, aiding in the detailed evaluation of retinal and choroidal vascular diseases. The intuitive user interface and infrared live view allows photographers to capture the angiogram easily and quickly, reducing the time needed for alignment and maximizing image quality.



Courtesy: Prof. P. E. Stanga (Manchester Royal Eye Hospital, Manchester, United Kingdom).

En Face OCT

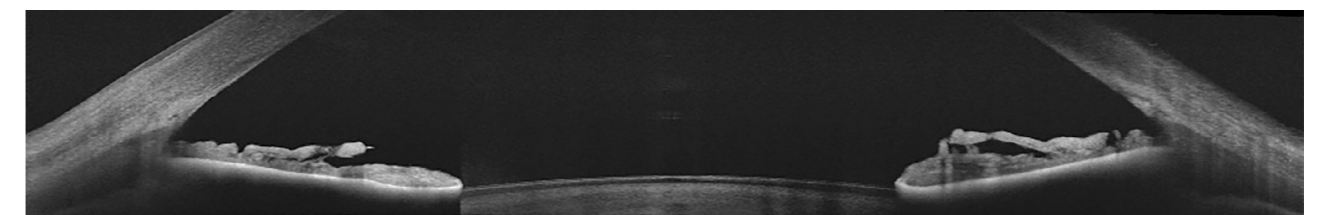
En face imaging allows for independent dissection of the vitreoretinal interface, retina, retinal pigment epithelium, and choroid by flattening the B-scan image to enable depth-resolved evaluation of anatomy and disease. Triton's high scan density displays each layer with exquisite detail to expand diagnostic insights.



*Courtesy: Prof. T. Nakazawa (Tohoku University, Japan).

Anterior Segment OCT²

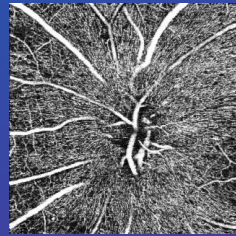
Triton's anterior segment imaging provides stunning views of the cornea, anterior chamber angle, iris and sclera. Swept source technology easily penetrates the sclera and pigment, allowing detailed visualization of anterior chamber structures. The unique anterior segment attachment uses telecentric scanning beams to ensure sharp images, even in the periphery of the cornea.



*CAUTION: Please note that the shooting/acquiring time will vary depending on the patient and usage environment.

2. An anterior attachment is necessary.

SS OCT Angio™ with OCTARA™



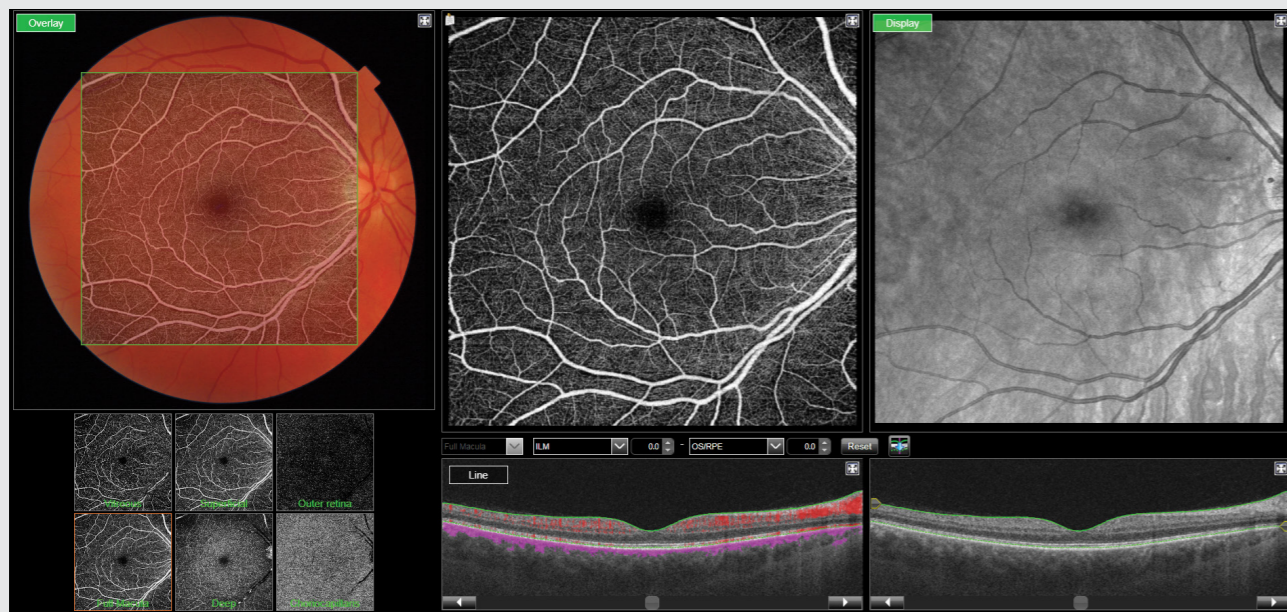
6x6mm - 320x320 A-Scans (shown)

High Density SS OCT Angiography Scans

SS OCT Angio includes various scan patterns of high-density 3D Swept Source OCT Angiography (OCTA). It can acquire 3x3mm, 4.5x4.5mm, 6x6mm and 9x9mm scans. All scans can be used for both the optic disc and the retina. Depending on the scan size, the density of the images is up to 512x512 A-scans.

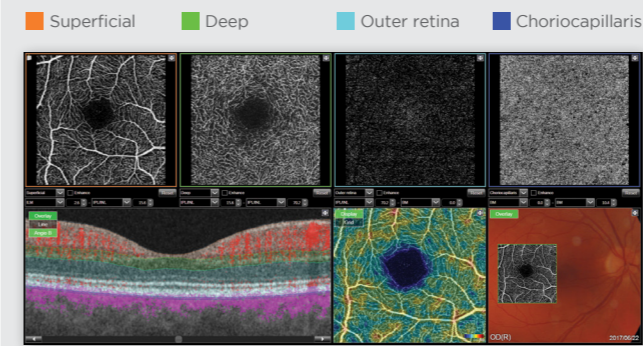
IMAGeNet 6

IMAGeNet 6 supports the viewing of all multimodal imaging capacities of DRI OCT Triton. In one single overview the physician can see the true color fundus images, en face images and Angio images. Selected layers can easily be customized to enhance the clarity of specific pathological features. A pathology can be visualized in different ways, for example inverting the B-scan and en face image. Results can be shown in a report.



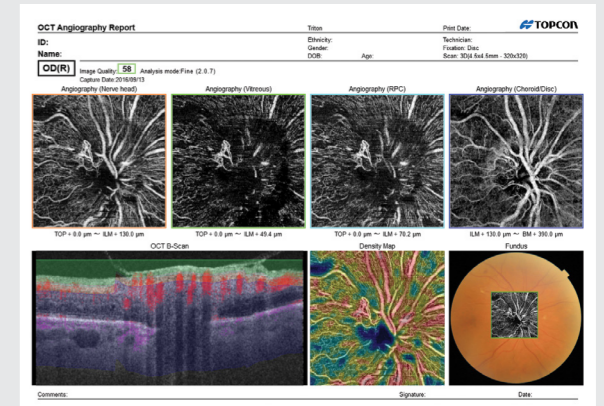
This is a 9x9mm scan. A true color fundus image with OCT Angio overlay for easy reference has been shown. Furthermore, a B-scan and en face are displayed.

Color Composite Map*



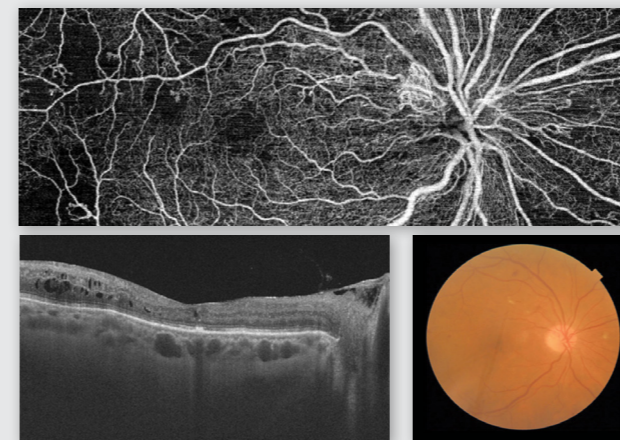
*Areas are identified by frame color. Color/FA/FAF/Red-Free/ICG images can be used; if images are not available they can be imported.

Sample Report



Widefield Mosaic

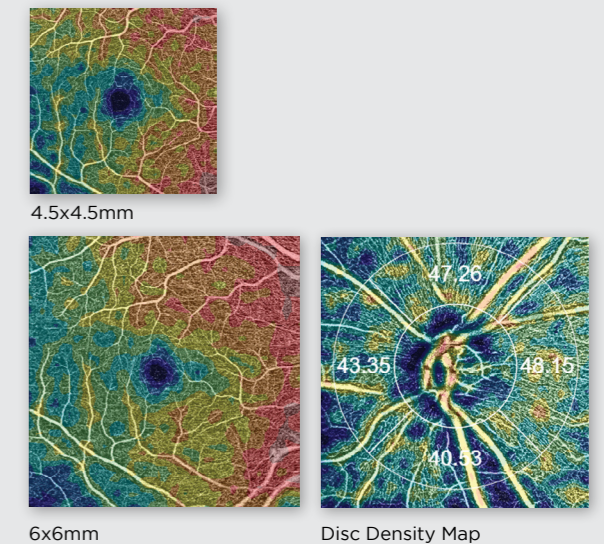
The mosaic function in SS OCT Angio can create a widefield view of the retinal microvasculature, covering an area of more than 20x20mm.



These images show a mosaic of Swept Source Angiography in a case of proliferative diabetic retinopathy with ischemia and neovascularization of the disc.

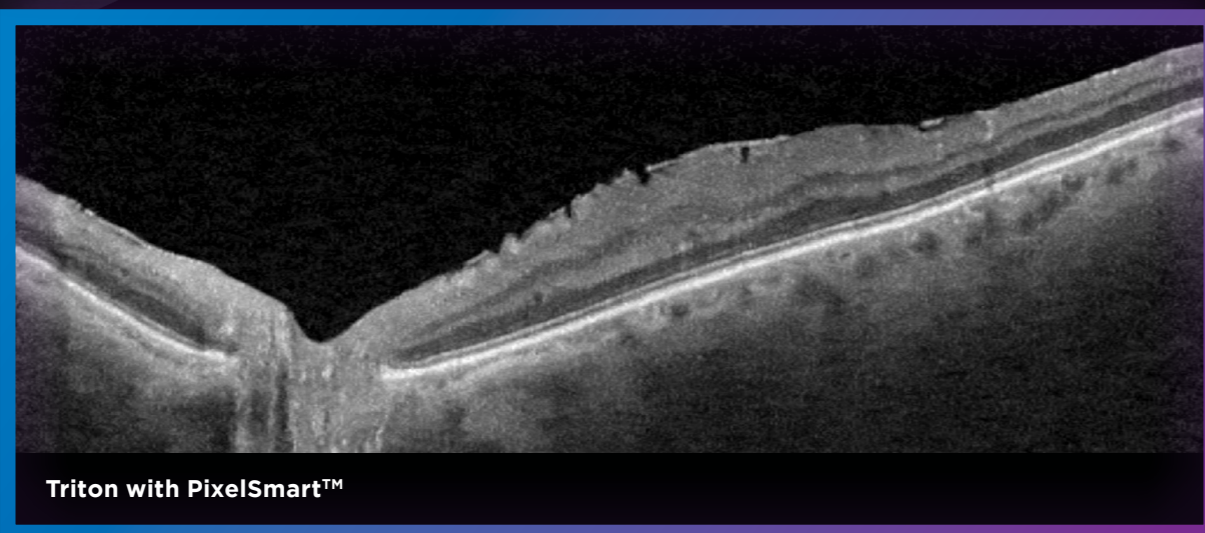
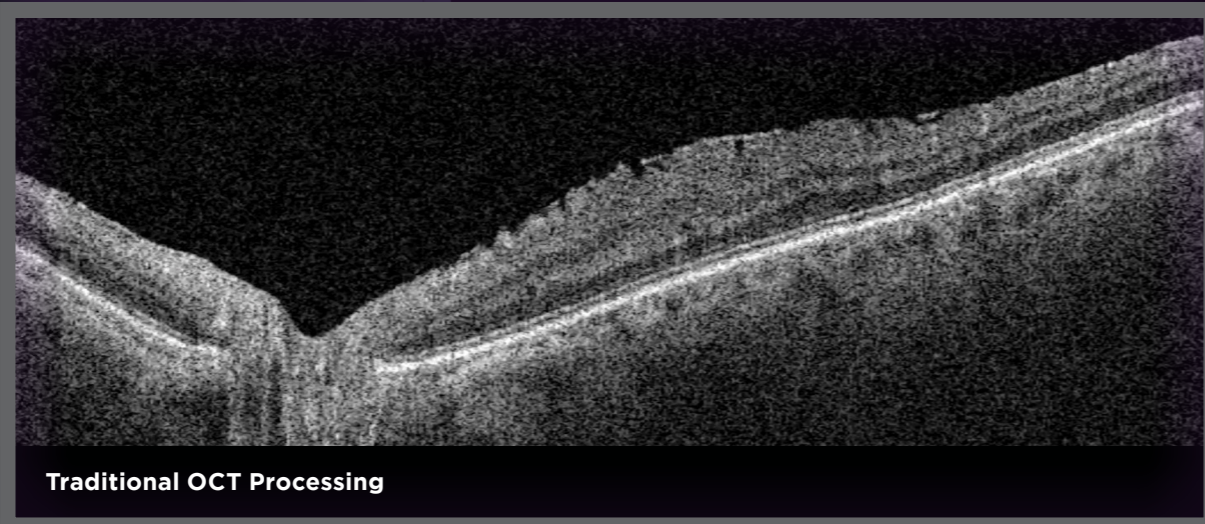
Vessel Density Map

The vessel density map shows the 3D density of the vascular network. In Topcon's IMAGeNet software the physician can scroll through the density map to visualize the different vessel densities in different layers.



PixelSmart™ Technology

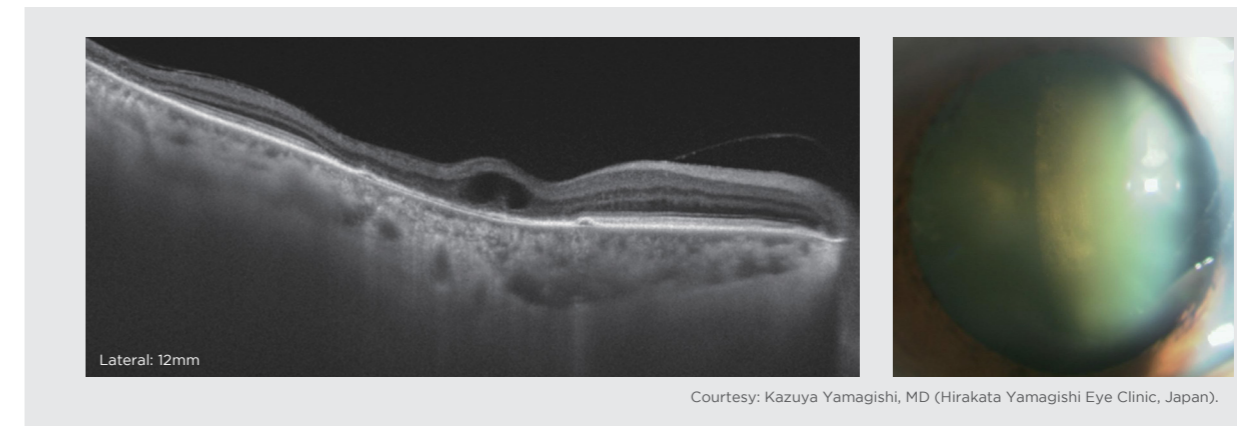
PixelSmart on IMAGEnet6 takes advantage of Triton's patented high-density, swept source OCT data to generate rich, detailed images without sacrificing scan area or speed, allowing every B-scan in the volume to have image quality typically only achievable through averaging. PixelSmart pushes the boundaries of OCT imaging by reducing speckle noise and improving contrast, for exceptional image quality.



Exceptional Imaging Performance

Imaging Through Opacities

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.



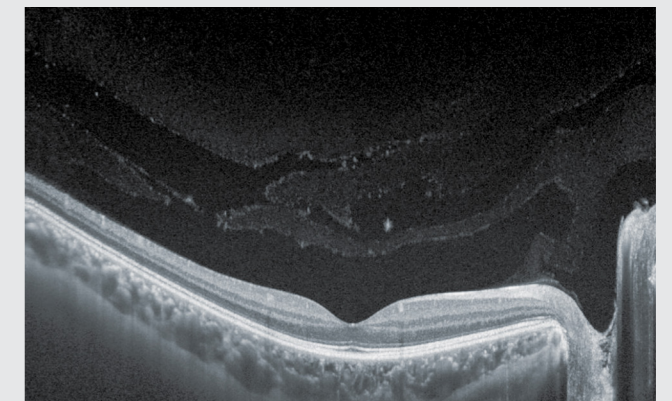
Swept Source Wavelength

The **1,050nm wavelength light source** allows visualization into the deepest layers of the eye. Uniform scanning sensitivity produces stunning image quality from vitreous to choroid in a single scan.

Dynamic Focus™

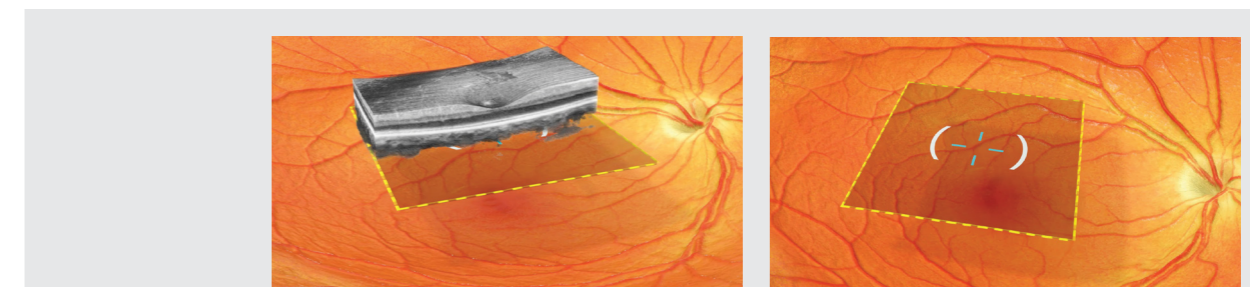
To enhance weak signal in vitreous part, DRI OCT Triton's advanced capturing technique, named

"Dynamic focus", enables the acquisition of high-quality and uniform image quality with a focus uniformly focused across the entire imaging range.



High Density Scanning

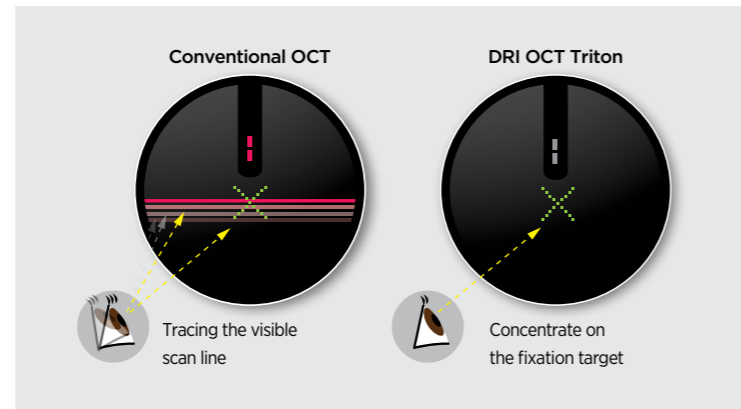
The 512 x 256 OCT scan pattern captures two times more OCT data than conventional 512 x 128 scan patterns, significantly increasing the available data for diagnosis.



Exceptional Imaging Performance

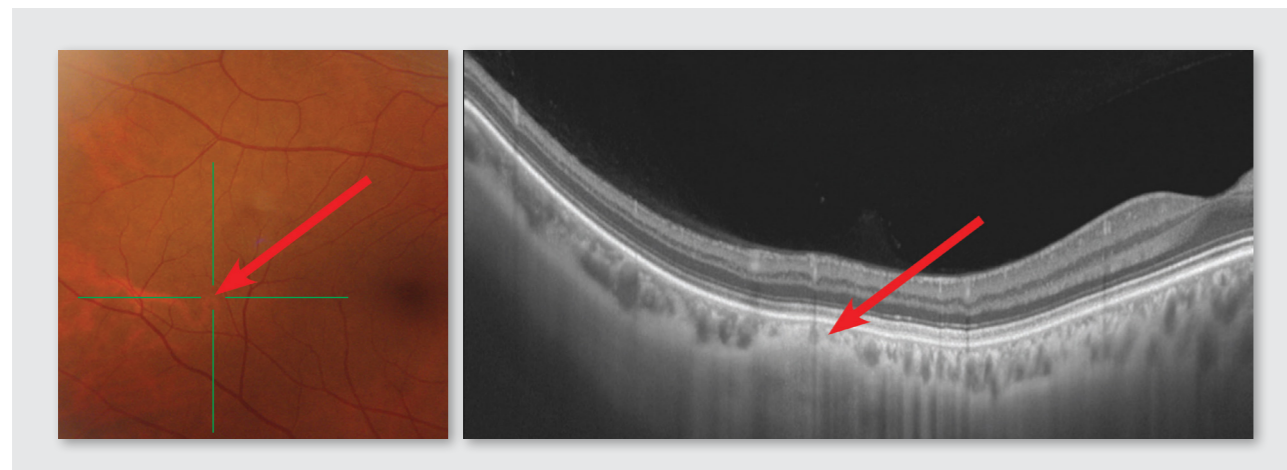
Invisible Scan Beam

Triton has a scan beam which is not visible to the human eye. This enables patients to concentrate on the fixation target during capture and not be distracted by the moving scan line which can reduce involuntary eye movement.



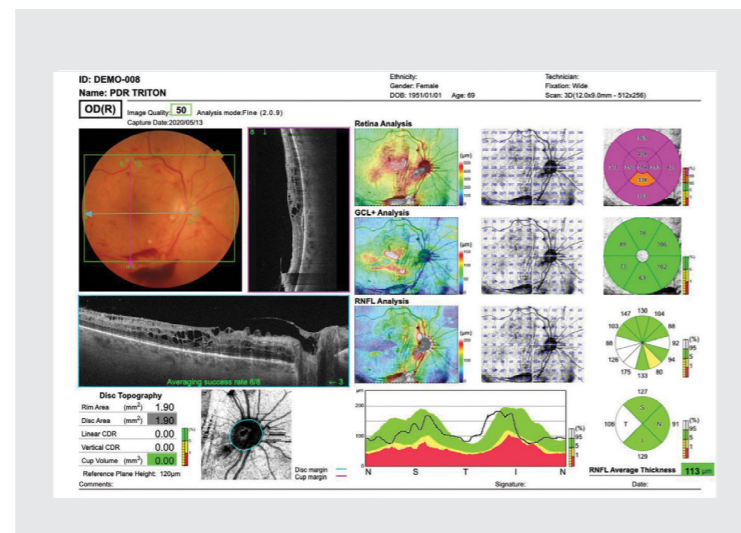
Instant Dual Capture with PinPoint Registration

Triton™ acquires the OCT scan and fundus photo in a single capture to maximize clinical efficiency. PinPoint registration directly correlates the two imaging modalities to allow for comprehensive assessment of pathology.



Advanced Analysis

Gain a deeper understanding of the patient's ocular health with Triton's FDA-cleared reference database that compares thickness measurements and optic disc parameters to age-matched normative values; automatic segmentation provides in-depth analysis of thickness measurements of individual retinal layers; change analysis and trending allows for efficient monitoring of long-term disease progression and treatment response.

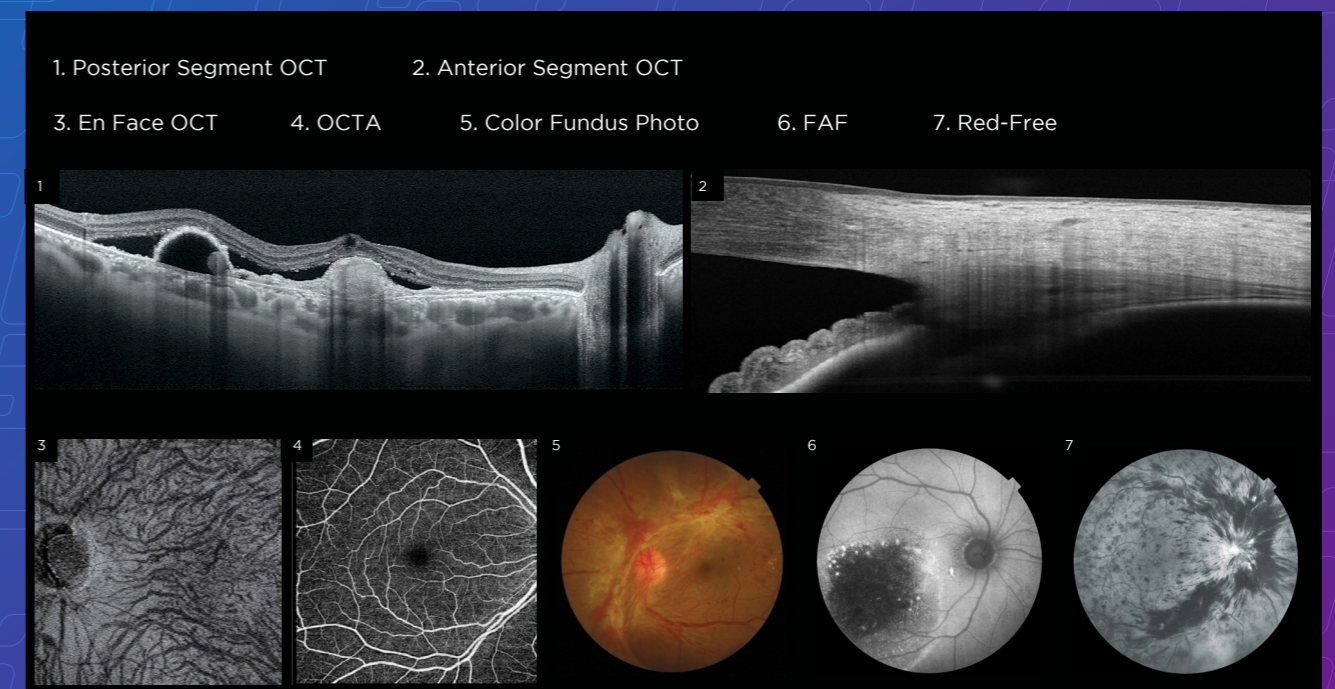


System Configurations

Triton™ Product Lineup	SS-OCT	OCTA	Color	Digital Red-Free	FAF	FA	Anterior Segment OCT
3D OPTICAL COHERENCE TOMOGRAPHY DRI OCT Triton	●	●	●	●	—	—	●
3D OPTICAL COHERENCE TOMOGRAPHY DRI OCT Triton (plus)	●	●	●	●	●	●	●

1. Requires IMAGENet® 6 software.

Available Imaging Modalities*



*Mosaic Color Fundus and Widefield Mosaic OCTA imaging modalities not shown. Courtesy (Image #1): Professor Jose Maria Ruiz Moreno (Universidad de Castilla-La Mancha).

Specifications

Fundus Imaging	
Imaging Modes	Color, FA,* FAF,* Red-Free,** IR
Field of View	45° / 30° (Digital Zoom)
Operating Distance	34.8mm
Minimum Pupil Diameter	Ø4.0mm / Small Pupil Mode: Ø3.3mm
Resolution (On Fundus)	Center: 60 Lines/mm or more, Middle (r/2): 40 Lines/mm or more, Periphery (r): 25 Lines/mm or more
OCT	
Scan Range (On Fundus)	6 to 12mm
Scan Patterns	3D Wide: 12x9mm 3D Macula: 7x7mm 3D Optic Disc: 6x6mm Combination Scan: 12x9mm + 5 Line Cross Line: 6-12mm 5 Line Cross: 6-12mm
Scan Speed	100,000 A-Scans Per Second
Lateral Resolution	20 µm
Axial Resolution	Optical: 8 µm Digital: 2.6 µm
Minimum Pupil Diameter	Ø2.5mm
Fixation Target	Internal Fixation Target/ Peripheral Fixation Target / External Fixation Target
Diopter Range	Without the diopter compensation lens: -13D to +12D When the concave compensation lens is used: -12D to -33D When the convex compensation lens is used: +11D to +40D
Anterior Segment***	
Photography Type	IR
Operating Distance	17mm
Scan Range (On Cornea)	3 to 16mm
Scan Patterns	Line Anterior Segment: 3-6mm / Radial Anterior Segment: 6-16mm
Fixation Target	Internal Fixation Target / External Fixation Target

* FA photography and FAF photography can be performed in only DRI OCT Triton (plus).

** Digital red-free

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

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Photos and images courtesy of Dr. N. Choudhry (Toronto, Canada), Prof. T. Nakazawa (Sendai, Japan), Prof. JM. Ruiz-Moreno (Castilla-La Mancha, Spain), Prof. Y. Ogura (Nagoya, Japan), Dr. R. F. Spaide (New York, USA) and Prof. PE. Stanga (Manchester, United Kingdom).

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IMPORTANT In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.
Not all products, services, or offers are available in all markets. Contact your local distributor for country-specific information and availability.



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