

DRI OCT Triton™ Series

A Multimodal Swept Source OCT



 **TOPCON** Healthcare

SEEING EYE HEALTH DIFFERENTLY



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

The Next Level 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 kHz scanning speed 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

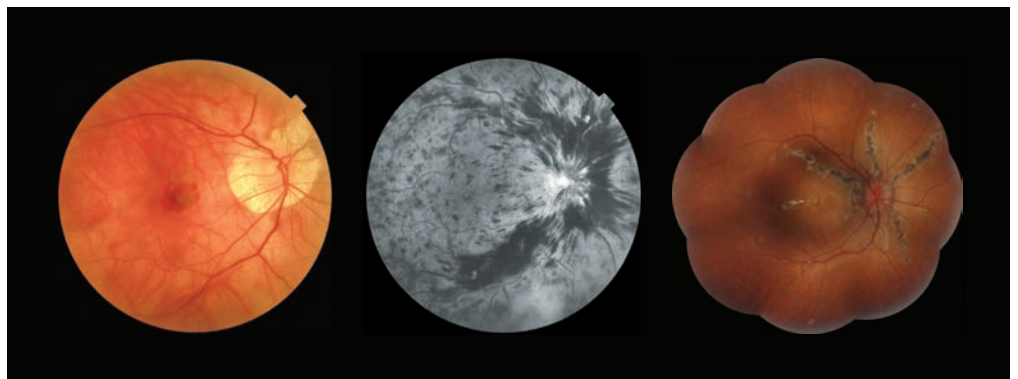
Experience Triton's unprecedented image quality, powered by swept source technology, high density scanning, and enhanced by PixelSmart™ technology. From the front of the eye to the back, see the anterior chamber, vitreous, retina and choroid like never before.



Remarkable Diagnostic Capability¹

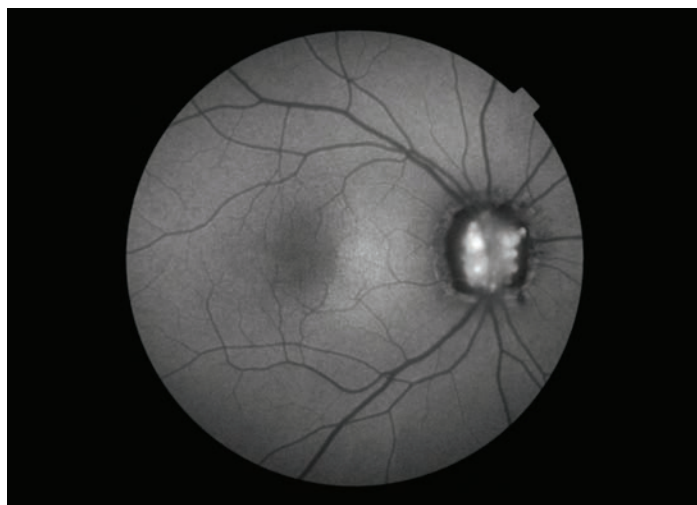
Color/Red-Free Photography

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



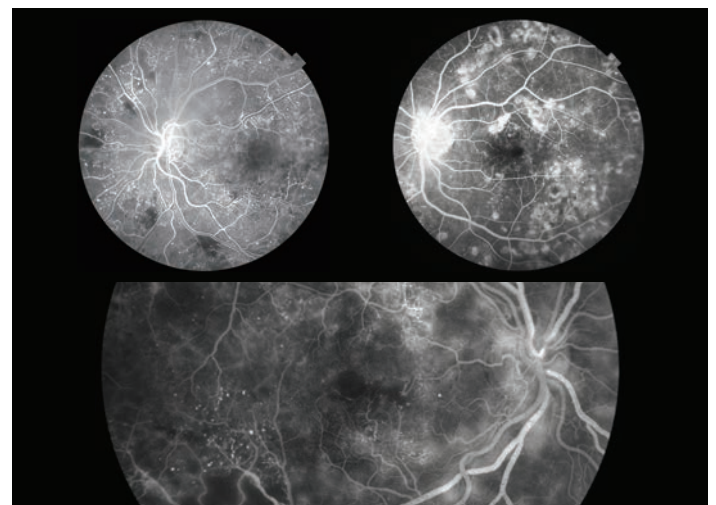
FAF

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.² They do not stimulate fluorescein or indocyanine green dye, so FAF images can be taken post angiography without any wavelength overlap.



FA²

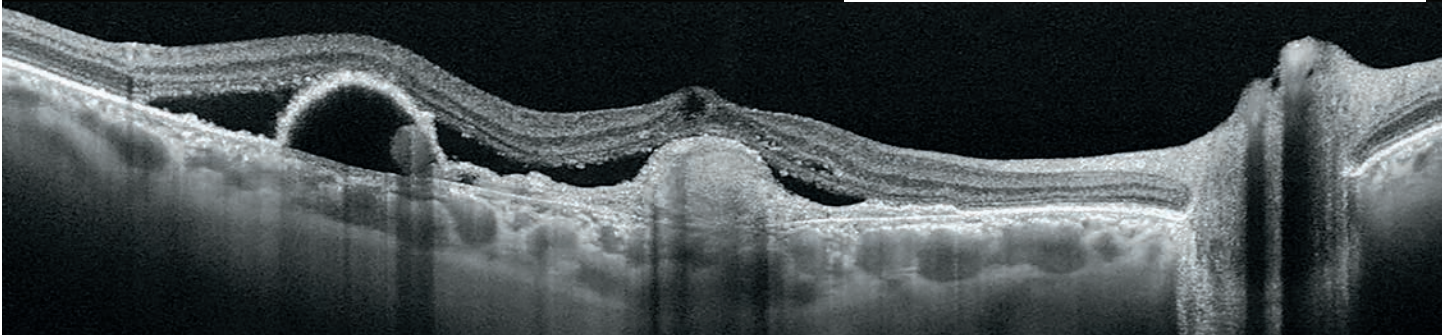
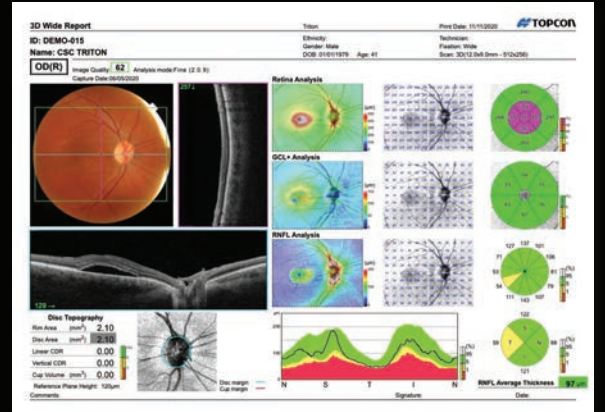
High resolution fluorescein angiography is available on Triton Plus, aiding in the detailed evaluation of retinal and choroidal vascular diseases. The intuitive user interface and infrared live view allows photographers to capture the angiogram easily and quickly, reducing the time needed for alignment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



1. Not all features are available on all models. See Product Lineup table on page 10 for details.
2. Available on DRI OCT Triton Plus model only.

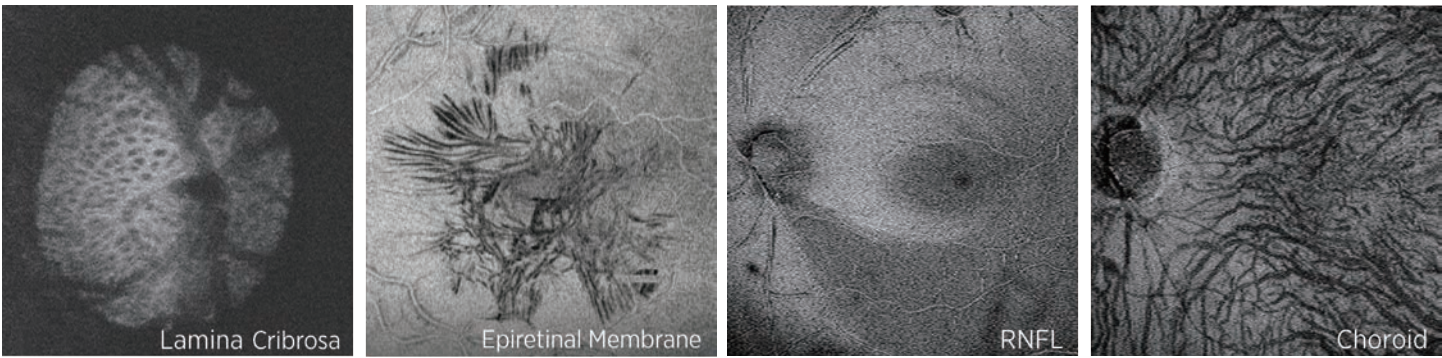
Posterior Segment OCT

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 in one scan to provide a comprehensive assessment of the posterior pole with reference database in 1.8 seconds.



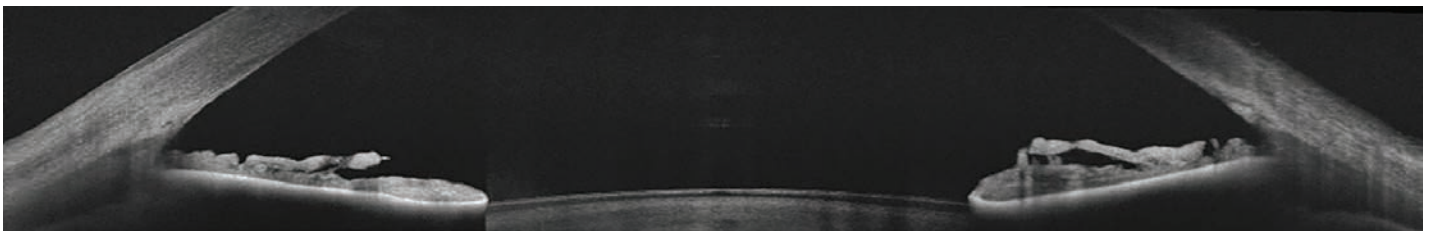
En Face OCT

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.



Anterior Segment OCT³

Triton's anterior segment imaging option 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 extreme periphery of the cornea.

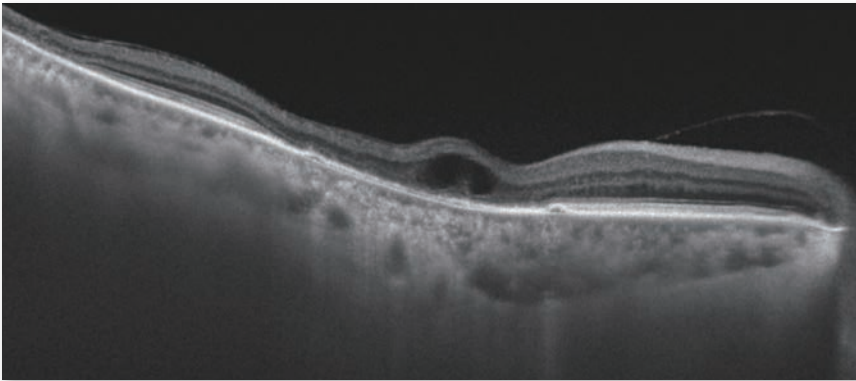


3. Optional accessory.

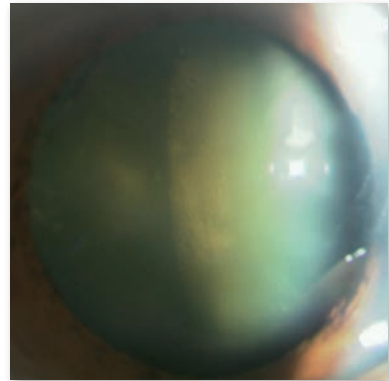
Exceptional Clinical Performance

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.



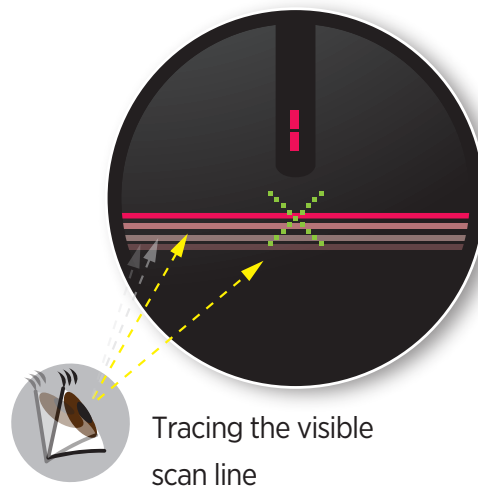
Lateral: 12mm



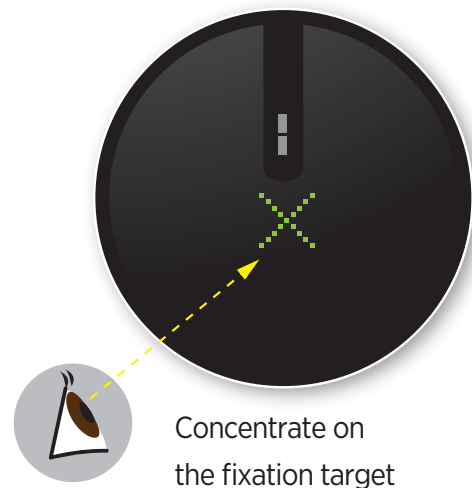
Invisible Scan Beam

Triton has a scan beam which is not visible to the human eye, enabling patients to concentrate on the fixation target during capture, which can reduce involuntary eye movement and eye fatigue to decrease acquisition time.

Conventional OCT

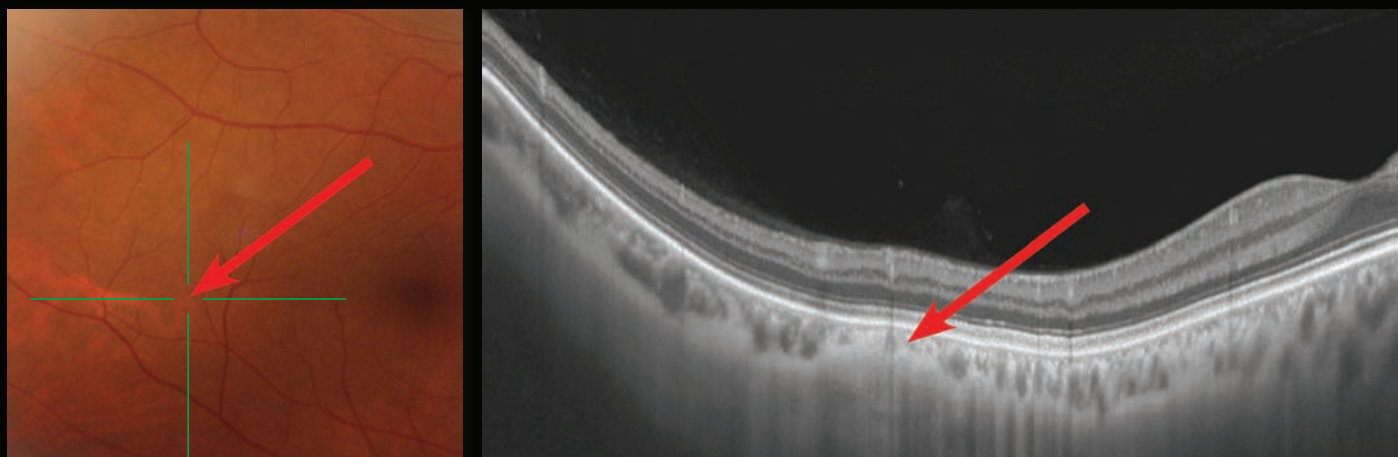


DRI OCT Triton



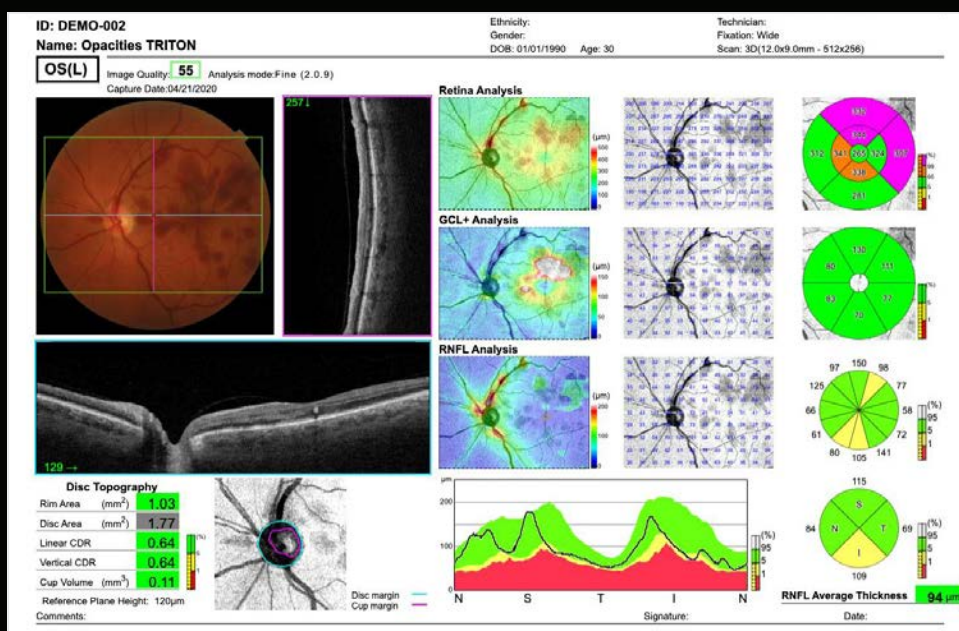
Instant Dual Capture with PinPoint™ Registration

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

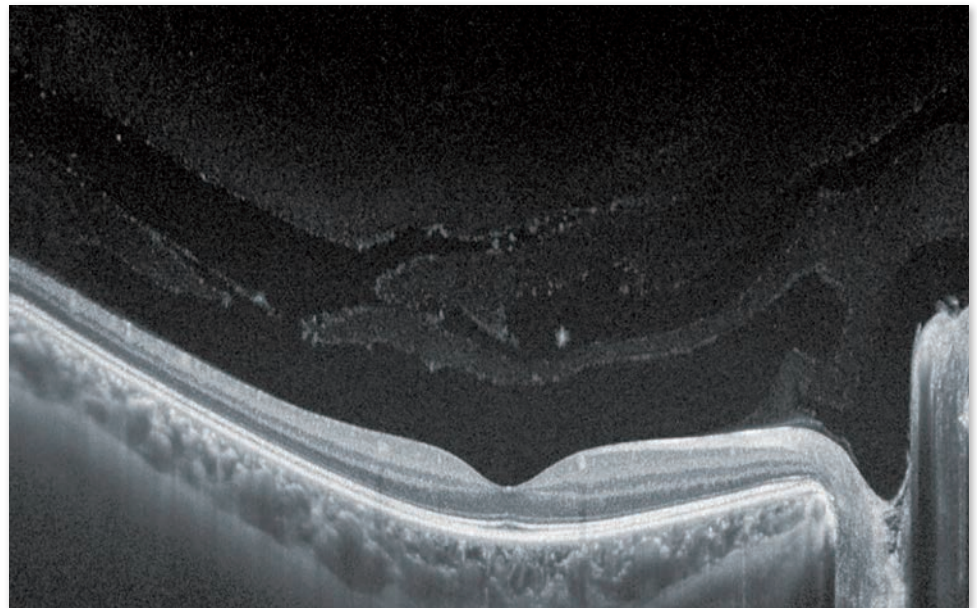
Gain a deeper understanding of the patient's ocular health with Triton's FDA-cleared **reference database** that compares thickness measurements and optic disc parameters to age-matched normative values; automatic segmentation provides in-depth analysis of thickness measurements of individual retinal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



Unprecedented Image Quality

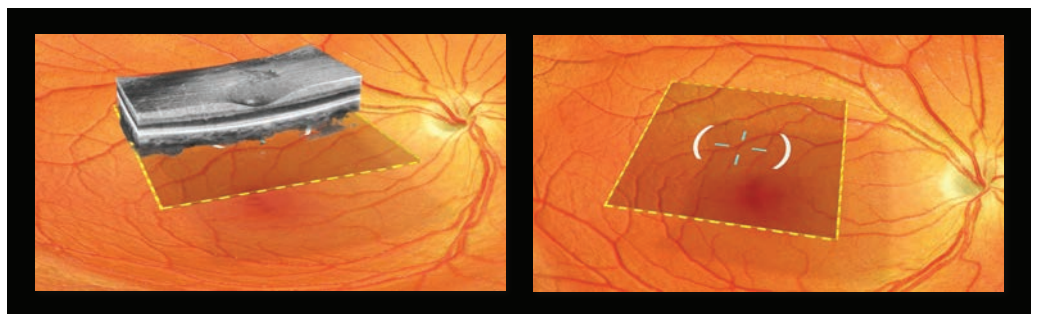
Swept Source Wavelength

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.



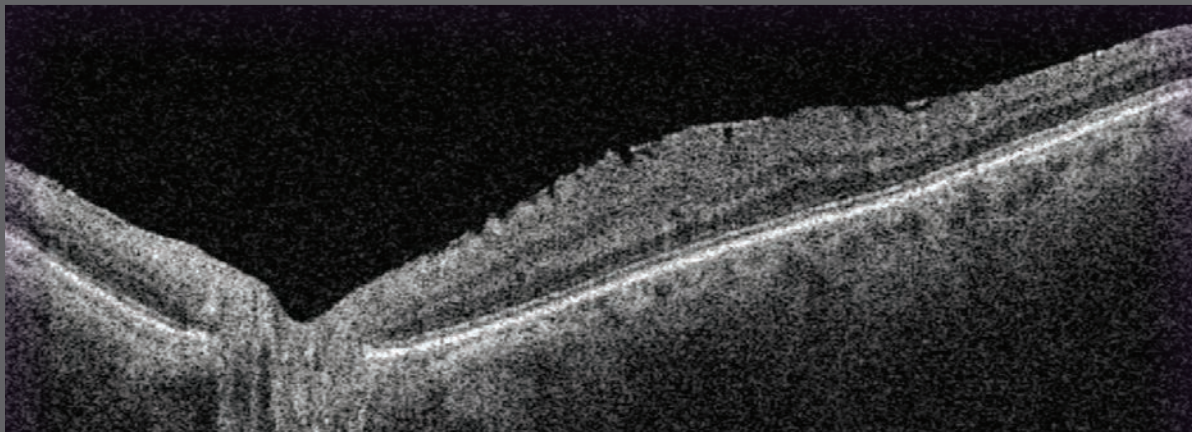
High Density Scanning

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.

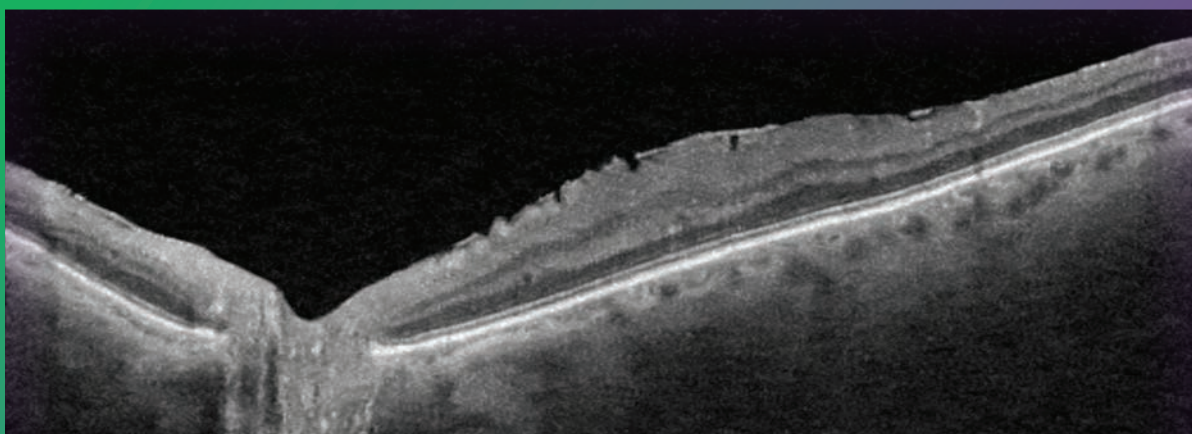


PixelSmart™ Technology

PixelSmart 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.



Traditional OCT Processing



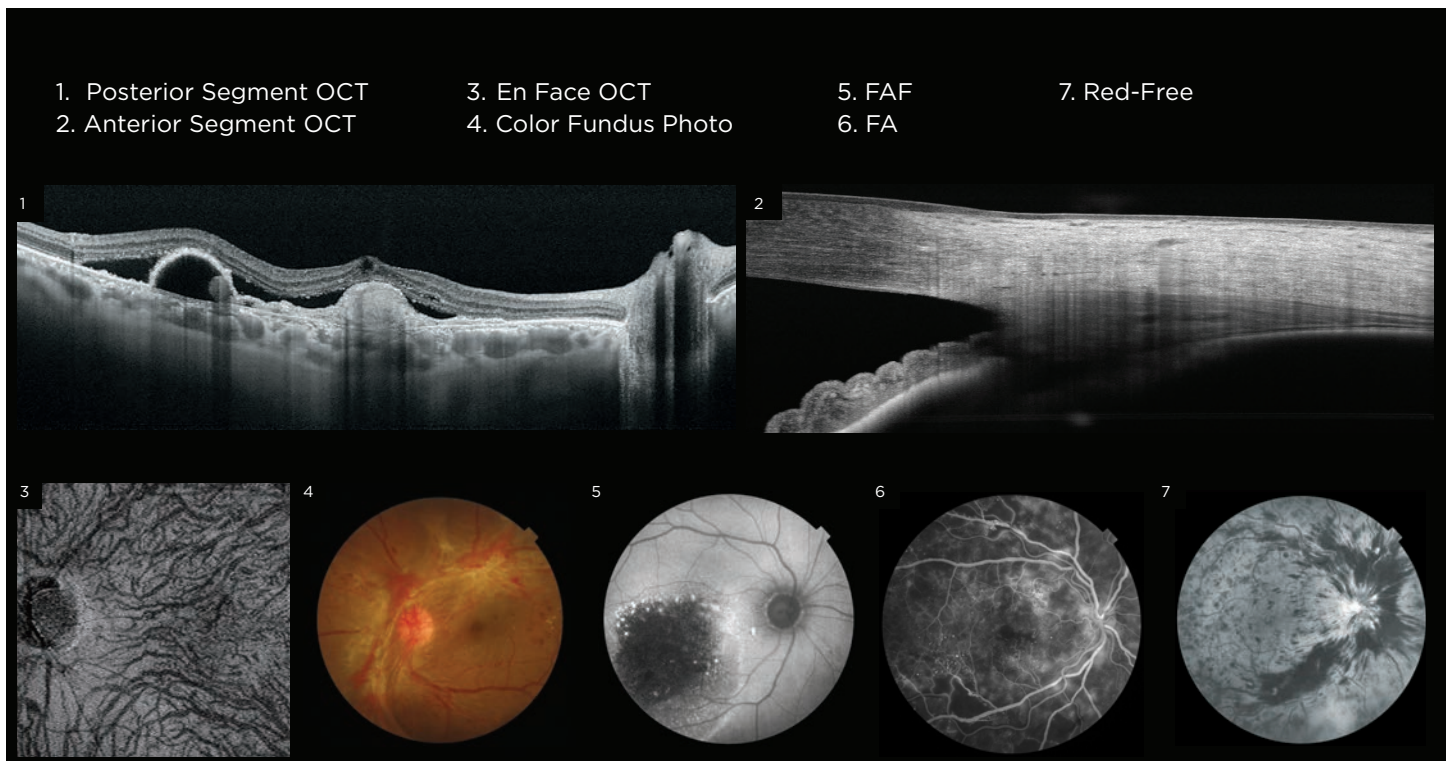
Triton with PixelSmart

System Configurations & Specifications¹

Triton™ Product Lineup	SS-OCT	Color	Digital Red-Free	FAF	FA	Anterior Segment OCT (Optional)
Triton	●	●	●	—	—	●
Triton Plus	●	●	●	●	●	●

1. Requires IMAGeNet® 6 software.

Available Imaging Modalities



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	-13D to +12D -33D to +40D (With Compensation Lenses)
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.



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

Not available for sale in all countries. Please check with your local distributor for availability in your country

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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), Dr. R. F. Spaide (New York, USA) and Prof. PE. Stanga (Manchester, United Kingdom).

