

DRI OCT Triton™ Series

A Multimodal Swept Source OCT



“ 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

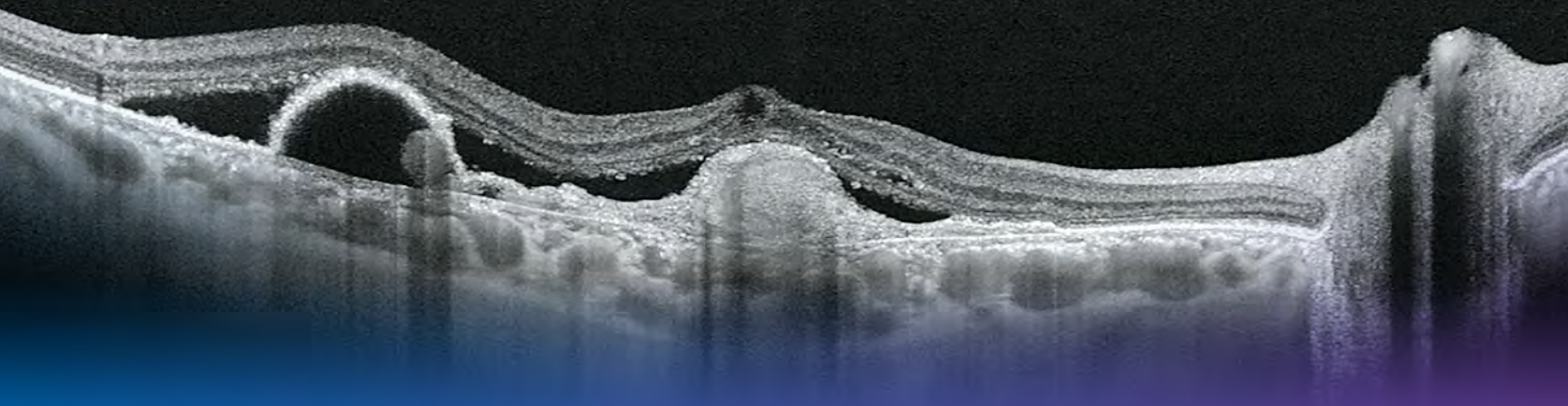
The fast, **100,000 A-scan/sec**, and invisible scan beam rapidly capture detailed images, resulting in fewer motion artifacts and stunning image quality. Decrease chair time and improve your clinical workflow with a fast, comfortable patient experience, fewer rescans, and multimodal imaging.



QUALITY

Experience Triton's high quality imaging, powered by swept source technology, high density scanning, and enhanced by the **PixelSmart® technology** on IMAGEnet® 6. From the front of the eye to the back, see the anterior chamber, vitreous, retina and choroid like never before.





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.*

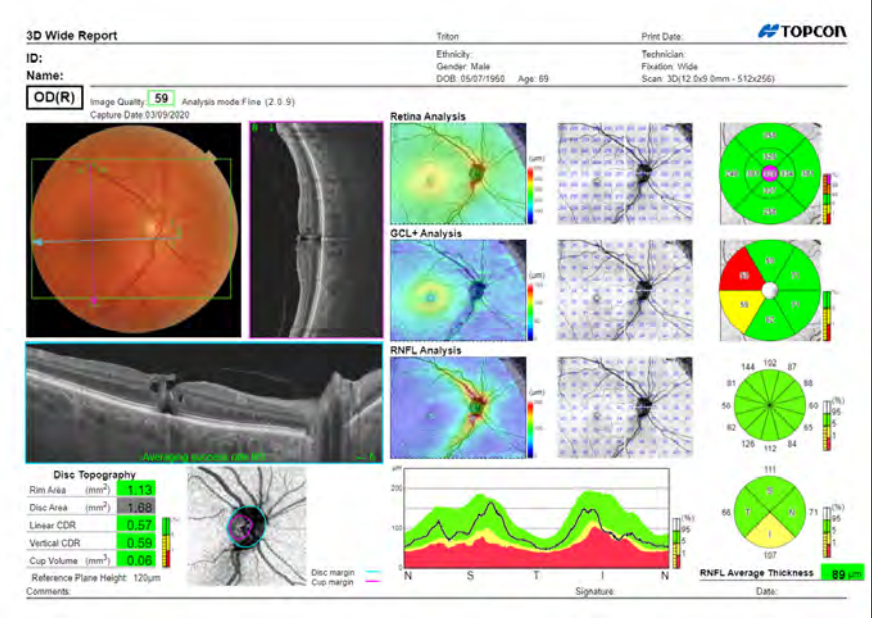
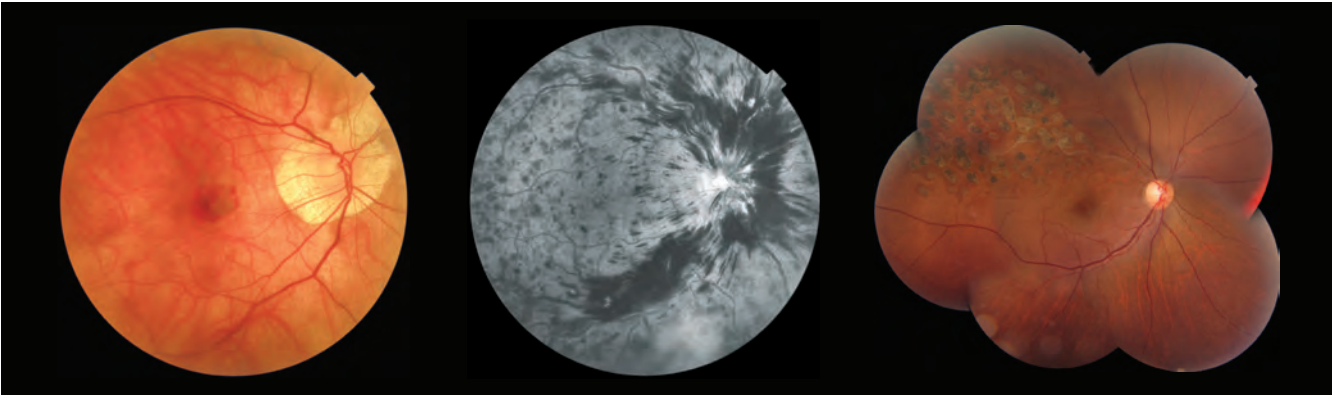


Image Courtesy of Prof. Jose Maria Ruiz Moreno (Universidad de Castilla-La Mancha, Spain)

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: Color fundus image(left)/Red-free image(center) and Mosaic color fundus image(right) was acquired from a different patient.

Remarkable Diagnostic Capability

FAF¹

Fundus autofluorescence is available, producing 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, 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.

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 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.

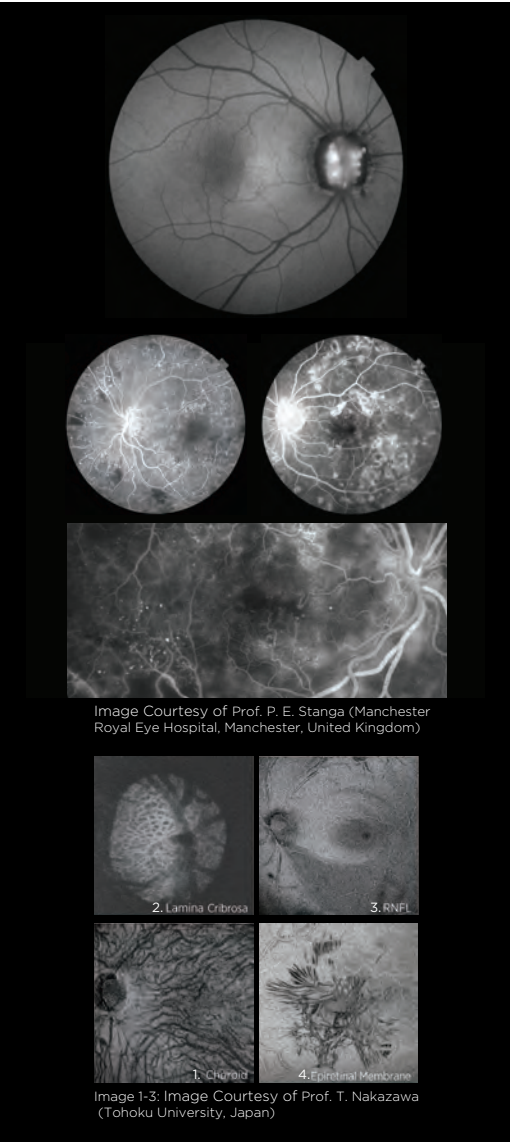
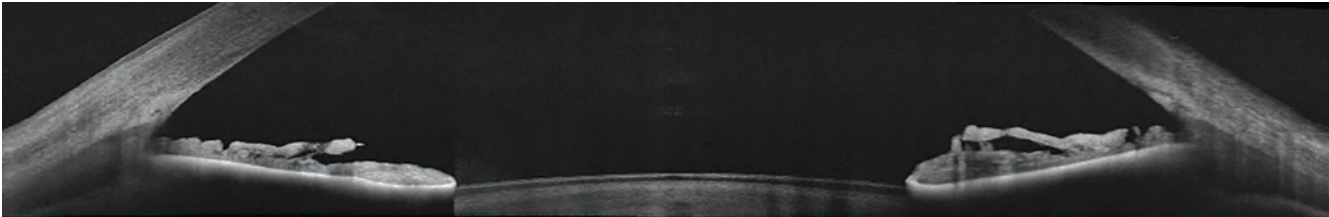


Image Courtesy of Prof. P. E. Stanga (Manchester Royal Eye Hospital, Manchester, United Kingdom)

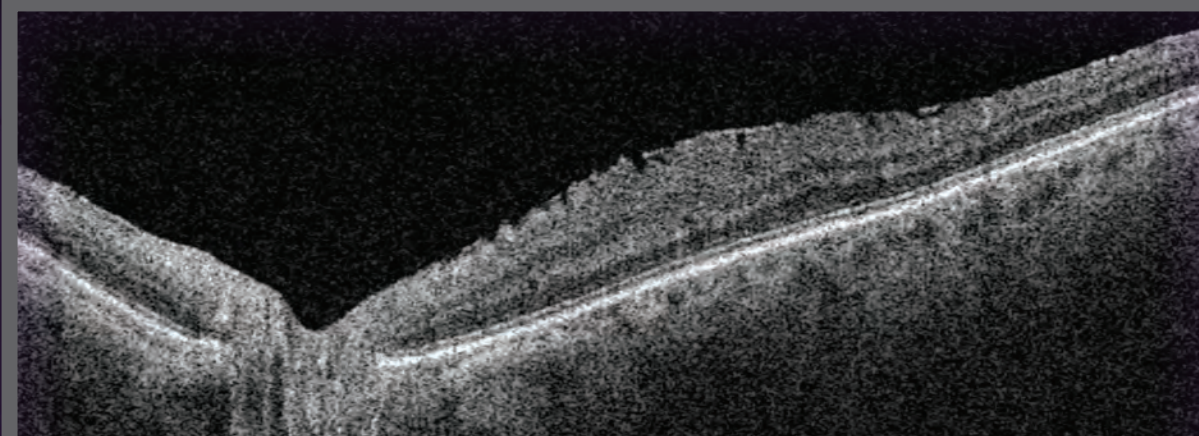
Image 1-3: Image Courtesy of Prof. T. Nakazawa (Tohoku University, Japan)

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

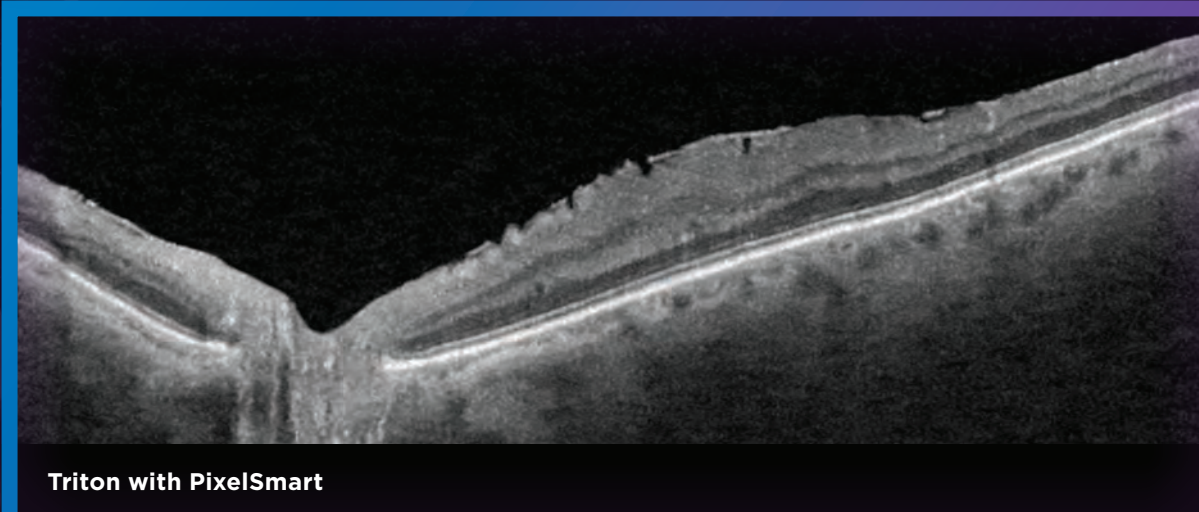
1. FA photography and FAF photography can be performed in only DRI OCT Triton (plus). 2. Requires an optional anterior attachment.

PixelSmart® Technology

PixelSmart on IMAGEnet®6 takes advantage of Triton™ and its 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

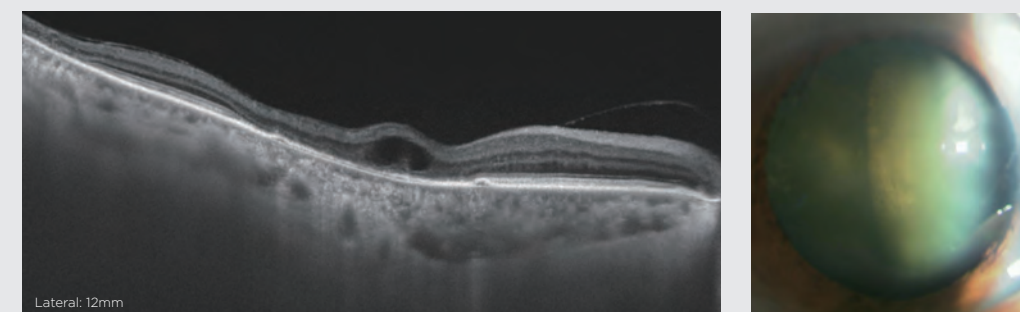


Triton with PixelSmart

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.

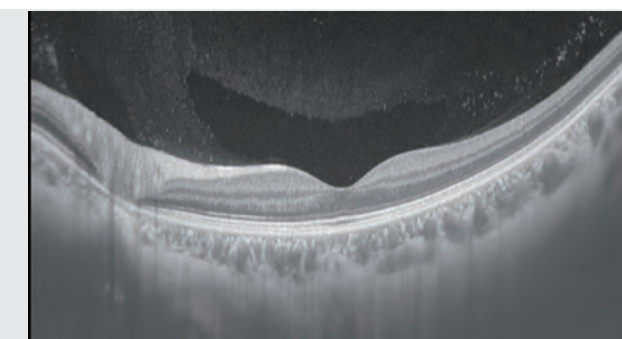


Lateral: 12mm

Image Courtesy of Kazuya Yamagishi, MD (Hirakata Yamagishi Eye Clinic, Japan).

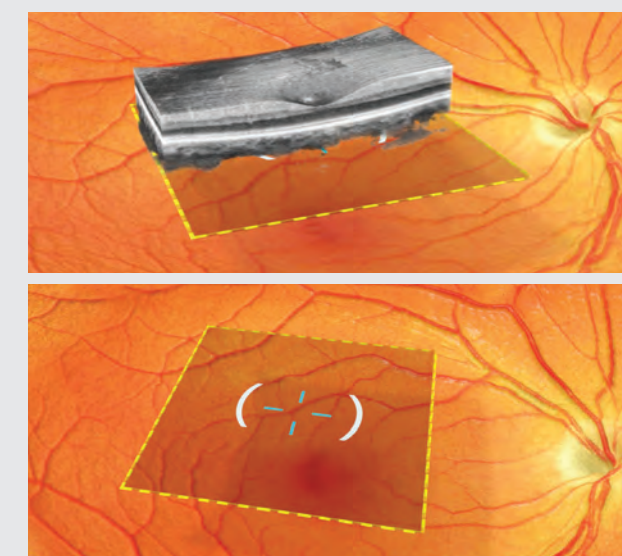
Visualization into the deepest layers of the B-scan image

The **1,050nm wavelength light source** provides better tissue penetration, allowing visualization into the deepest layers of the eye³.

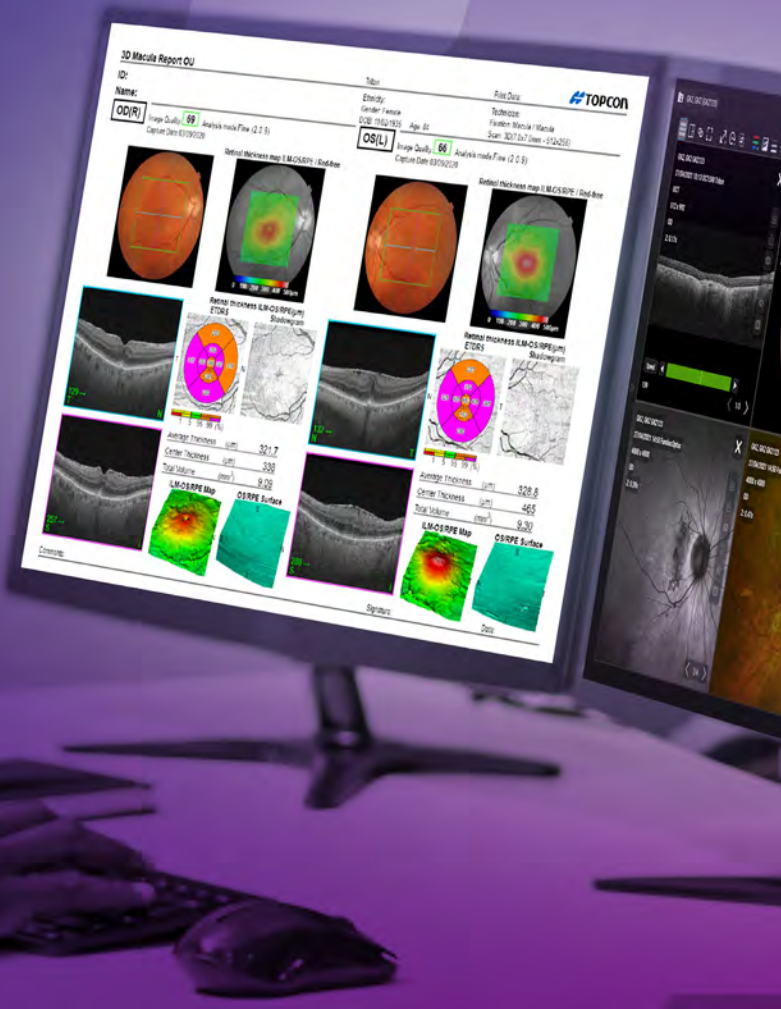


High Density Scanning

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.



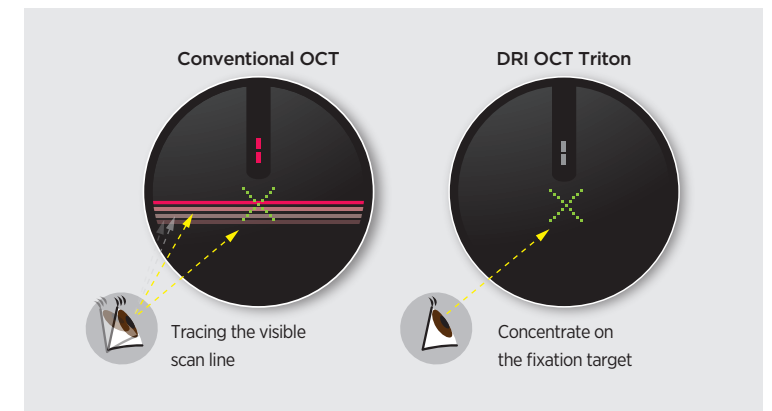
Optimize Your Clinical Workflow with Fast, High Quality Imaging



Exceptional Imaging Performance

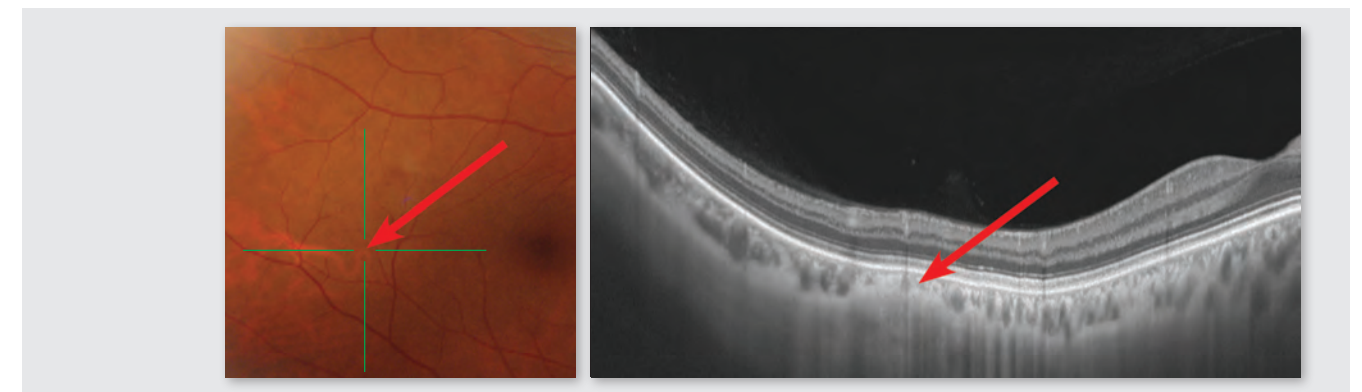
Invisible Scan Beam

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.



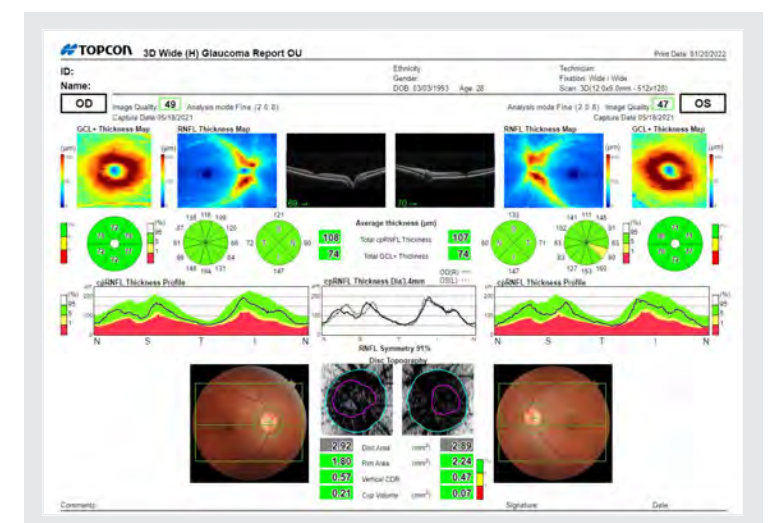
Instant Dual Capture with PinPoint Registration

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.

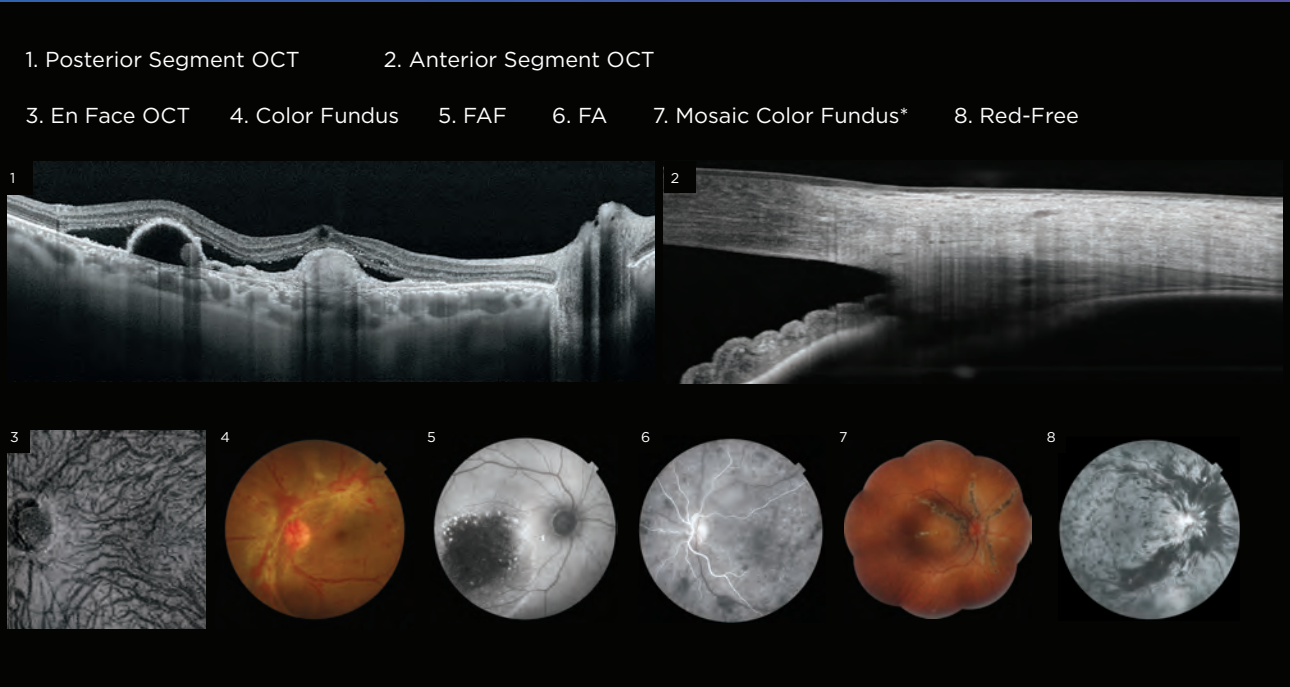


System Configurations

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

*Anterior segment OCT is optional.

Available Imaging Modalities



*Mosaic color fundus imaging requires IMAGENet® 6 software.
Image 1: Image Courtesy of Prof. Jose Maria Ruiz Moreno (Universidad de Castilla-La Mancha, Spain).

| | |
|------------------------|--|
| 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: 3-16mm / 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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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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