# 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



### 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.

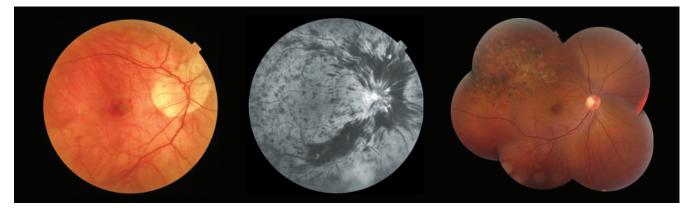


### **Posterior** #TOPCON **Segment OCT** OD(R) Triton™ is powered by swept source technology to deliver deep, wide and crystal-clear images of the retina and choroid. A 12mm x 9mm widefield scan covers the optic nerve and macula and can be acquired in 1.8 seconds to provide a comprehensive assessment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

nage 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

### FAF<sup>1</sup>

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.

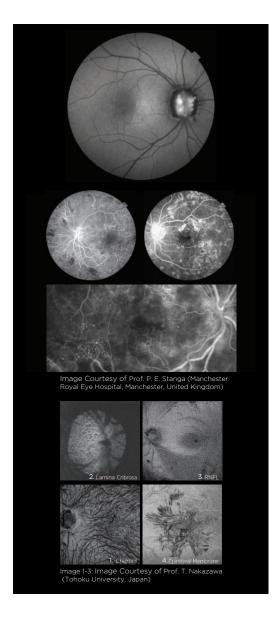
### FA<sup>1</sup>

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.

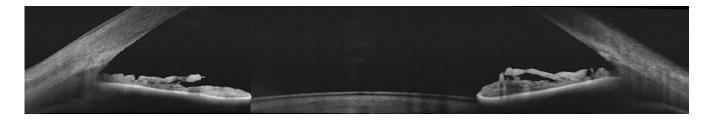
### **En Face OCT**

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 depthresolved evaluation of anatomy and disease. Triton's high scan density displays each layer with exquisite detail to expand diagnostic insights.



### **Anterior Segment OCT<sup>2</sup>**

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.



### 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.

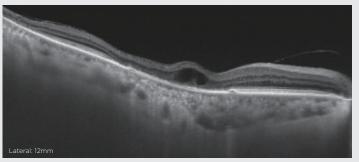




### **Exceptional Imaging Performance**

### **Imaging Through Opacities**

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

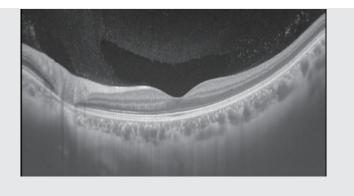




ge Courtesy of Kazuya Yamagishi, MD (Hirakata Yamagishi Eye

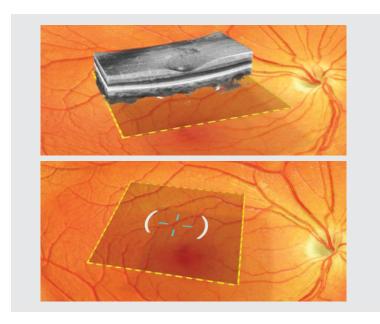
### Visualization into the deepest layers of the B-scan image

The 1,050nm wavelength light source provides better tissue penetration, allowing visualization into the deepest layers of the eye<sup>3</sup>.



### **High Density Scanning**

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

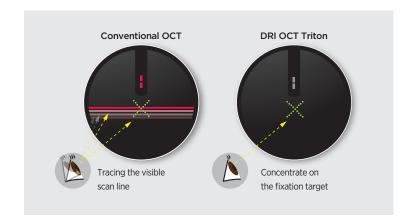


### Optimize Your Clinical Workflow with Fast, High Quality Imaging

### Exceptional Imaging Performance

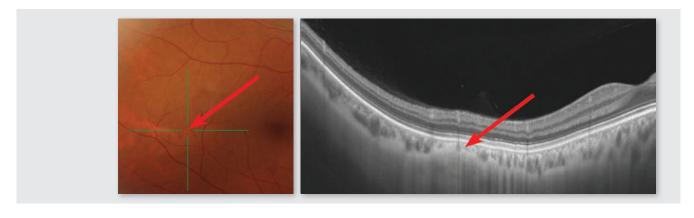
### **Invisible Scan Beam**

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.



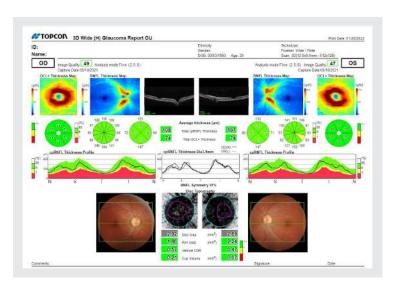
### **Instant Dual Capture with PinPoint Registration**

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**

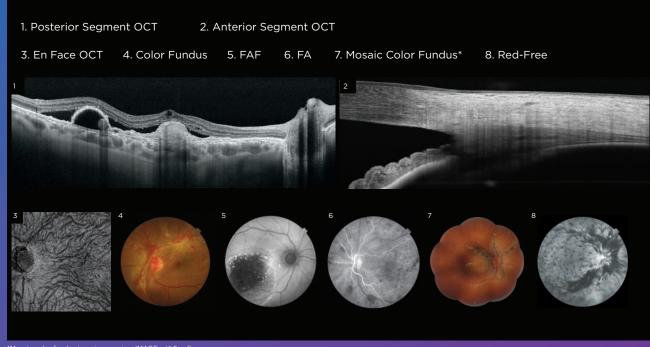
Gain a deeper understanding of the patient's ocular health with Triton's FDA-cleared reference database that compares thickness measurements and optic disc parameters to age-matched normative values; automatic segmentation provides in-depth analysis of thickness measurements of individual retinal layers; 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 <b>Triton (plus)</b>	•	•	•	•	•	•

### 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	
ОСТ		
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	

<sup>\*</sup> 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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**CAUTION:** Federal law restricts this device to sale by or on the order of a physician.

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.

Not all products, services or offers are approved or offered in every market, and products vary from one country to another. Contact your local distributor for country-specific information and availability.

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