REVO2

OCT | Fundus Camera

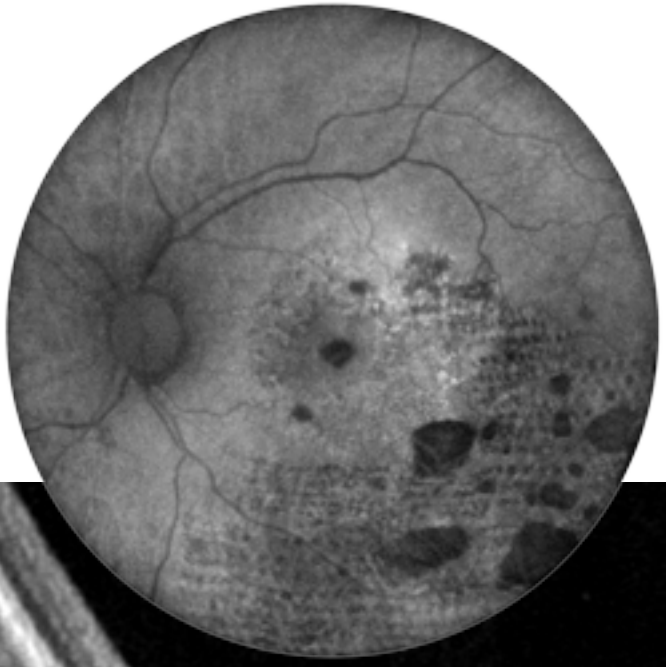
Next Generation

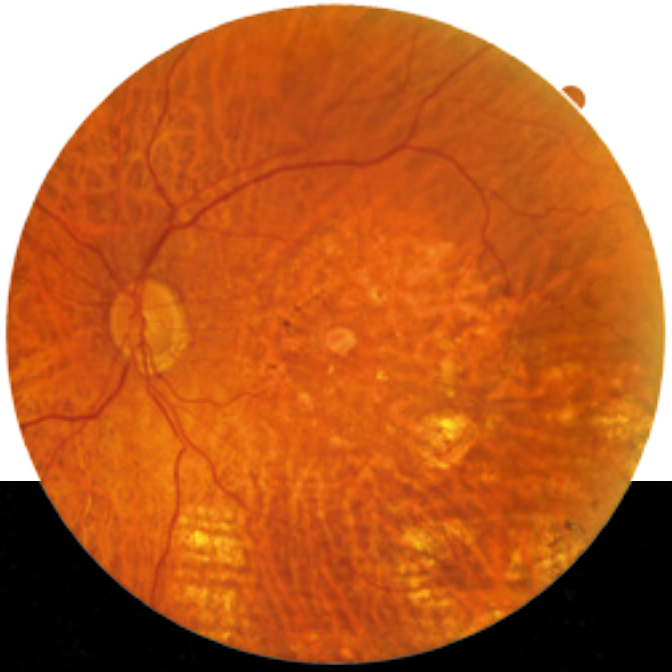
All-in-One OCT

Widefield OCT & Fundus Imaging

One Platform. Endless Possibilities

OPTOPOL
technology





REVO2 FC 130
OCT | Fundus Camera

REVO2 FC
OCT | Fundus Camera

Widefield OCT & Fundus Imaging
Next-Generation REVO 2 – A New Standard in OCT

REVO 2 represents the next generation of the proven REVO platform, bringing widefield retinal imaging to the forefront of ophthalmic diagnostics.
By combining widefield OCT imaging of up to approximately 115° with widefield color fundus imaging, the system enables wider visualization of central and peripheral retinal structures in a single examination.

This ultimate multimodal imaging platform supports anterior and posterior segment assessment, corneal curvature, biometry, precise measurements, quantitative analysis, and reliable monitoring of disease progression.

Proven REVO Technology. Expanded Multimodal Imaging

Building on the REVO All-in-One concept, the REVO 2 integrates a broad range of advanced fundus imaging modalities, including green and blue fundus autofluorescence (FAF), fluorescein angiography (FA), indocyanine green angiography (ICGA).

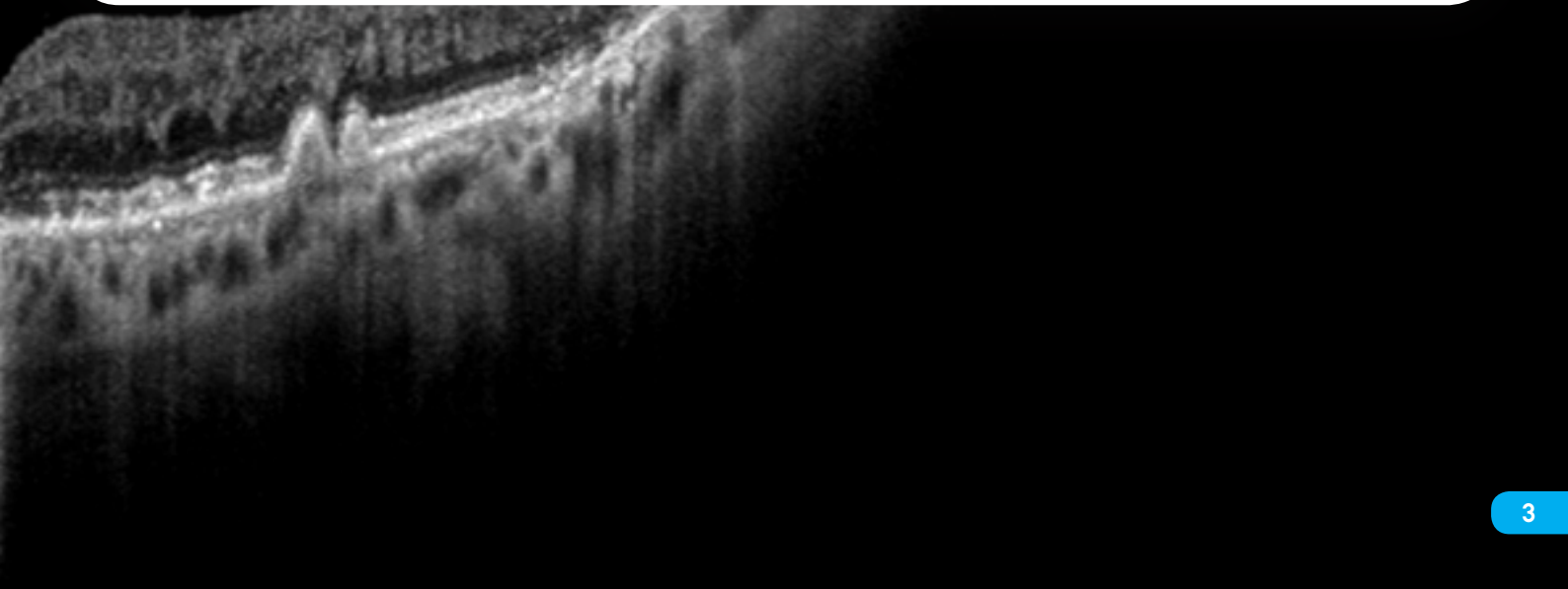
High-quality OCT scanning, OCT angiography, detailed retinal layer analysis, 3D imaging, and widefield fundus imaging support comprehensive, precise and efficient diagnostics in everyday clinical practice. Cataract Mode increases the success rate of retinal OCT scanning in patients with ocular media opacity, supporting reliable imaging in more challenging cases.

AI-Powered Diagnostic Support

Embedded AI technology supports both OCT and fundus imaging. It analyzes images, performs segmentation, detects anomalies, and supports result interpretation. These AI-based tools help clinicians gain clearer insights and make faster, more confident diagnostic decisions.

Designed for Everyday Clinical Practice

Compact, ergonomic, and easy to install, the REVO 2 is well suited to private practices, screening facilities, and advanced ophthalmic diagnostic centers. Automated bilateral examination, initiated with a single press of the START button, together with multilingual voice guidance, simplifies operation, streamlines clinical workflow and enhances patient comfort.



WIDEFIELD FUNDUS CAMERA

The integrated 20.3 MP fundus color camera captures detailed, high-quality retinal images with a wide view of the retina. Fully automated operation makes image acquisition fast, easy and consistent.

Imaging is possible even through small pupils. The device automatically adjusts imaging parameters based on the IR fundus preview and automatically selects the appropriate flash intensity level for non-mydriatic examination of both eyes.

FUNDUS ANALYSIS TOOLS

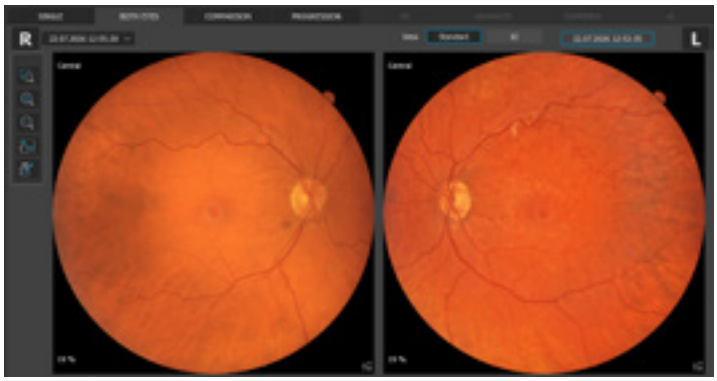
A comprehensive range of fundus views, analysis functions, and image-processing tools support efficient assessment, documentation, and follow-up of retinal conditions, enabling fast workflow in both routine clinical practice and retinal screening programs.

Available functions include:

- single-eye and bilateral imaging,
- chronological comparison of fundus photographs, including x4 and x8 progression views, for monitoring disease progression,
- image enhancement tools: Emboss+, Emboss-, Cobalt, Digital Cobalt, and Digital Red-Free,
- measurement functions for quantitative image assessment Area, Distance, and C/D,
- AI anomaly detection.

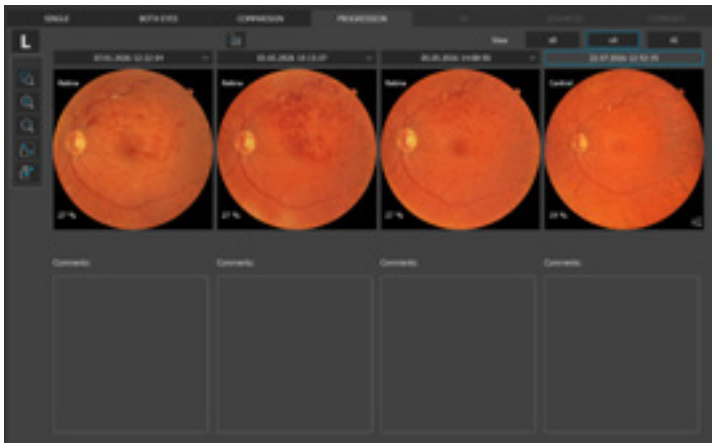
Fundus images can be linked to multiple REVO OCT scans and visual field test results (REVO 2, REVO, and FUNDO share a common patient database).

Fundus Photo Both Eyes View

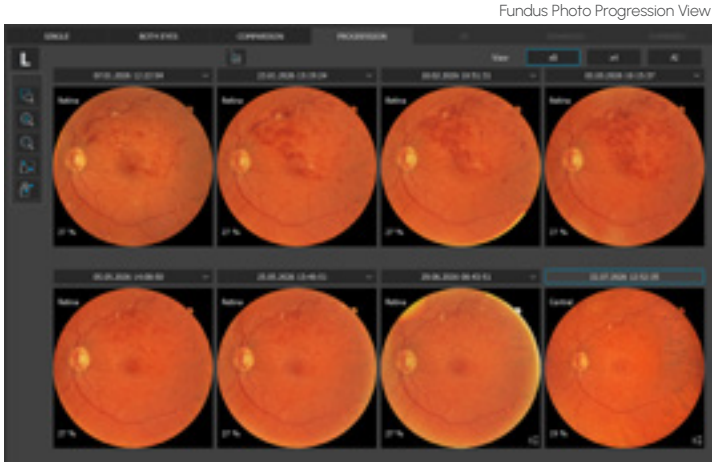


Fundus Photo Comparison View

Fundus Photo Progression View



Fundus Photo Progression View



MULTIMODAL FUNDUS IMAGING

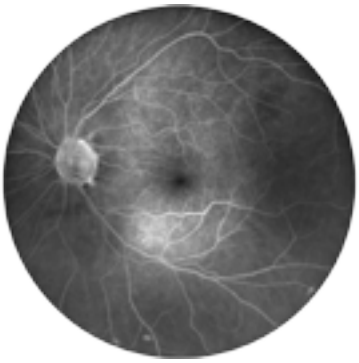
Choose the autofluorescence mode you need—or use both for a more complete assessment.

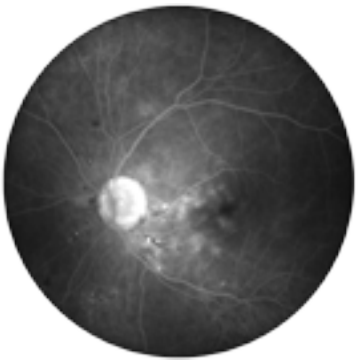
FAF GREEN – GREEN FUNDUS AUTOFLUORESCENCE

Green fundus autofluorescence supports the assessment of metabolic and structural changes in the retinal pigment epithelium (RPE) and outer retina, particularly in chorioretinal and degenerative retinal disorders.

FAF BLUE – BLUE FUNDUS AUTOFLUORESCENCE

Blue fundus autofluorescence provides complementary information on RPE integrity, lipofuscin-related changes, and outer retinal abnormalities.





FA – FLUORESCEIN ANGIOGRAPHY

Fluorescein angiography enables the assessment of retinal vascular perfusion, leakage, microaneurysms, neovascularization, inflammatory vascular changes, and areas of capillary non-perfusion or ischemia.

ICGA — INDOCYANINE GREEN ANGIOGRAPHY

Indocyanine green angiography supports the evaluation of choroidal circulation and vasculature, including polypoidal lesions, occult choroidal neovascularization, and deeper chorioretinal vascular abnormalities.

ULTRA-WIDEFIELD FUNDUS IMAGING

The REVO 2 enables ultra-widefield fundus imaging, providing retinal coverage of up to ~200° when measured from the spherical center of the eye and offering a broader perspective in fundus imaging.

Mosaic Photo mode uses multiple internal fixation positions to capture peripheral retinal areas and automatically generate high-quality, true-color ultra-widefield mosaic images. Pupil dilation is not required.

Five configurations are available:

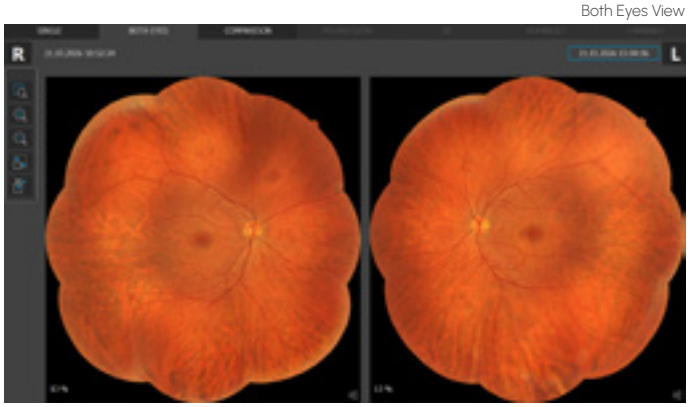
- Horizontal Mosaic ×3,
- Vertical Mosaic ×3,
- Mosaic ×5,
- Mosaic ×9,
- Custom Mosaic ×2-9.

KEY FEATURES

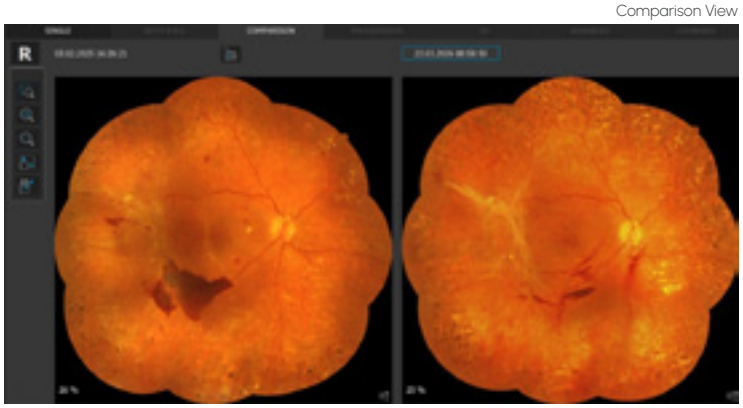
- ✓ Fully automatic mosaic capture process
- ✓ Intuitive voice guidance for faster fixation shifts and image acquisition
- ✓ Simple operation and minimal training – select the configuration and press Start
- ✓ Instant mosaic generation during image acquisition
- ✓ No delays caused by image transfer or by manual or automatic image superimposition.

A unique binocular view enables side-by-side analysis of ultra-widefield images from both eyes and longitudinal comparison across visits.

Both Eyes View



Comparison View

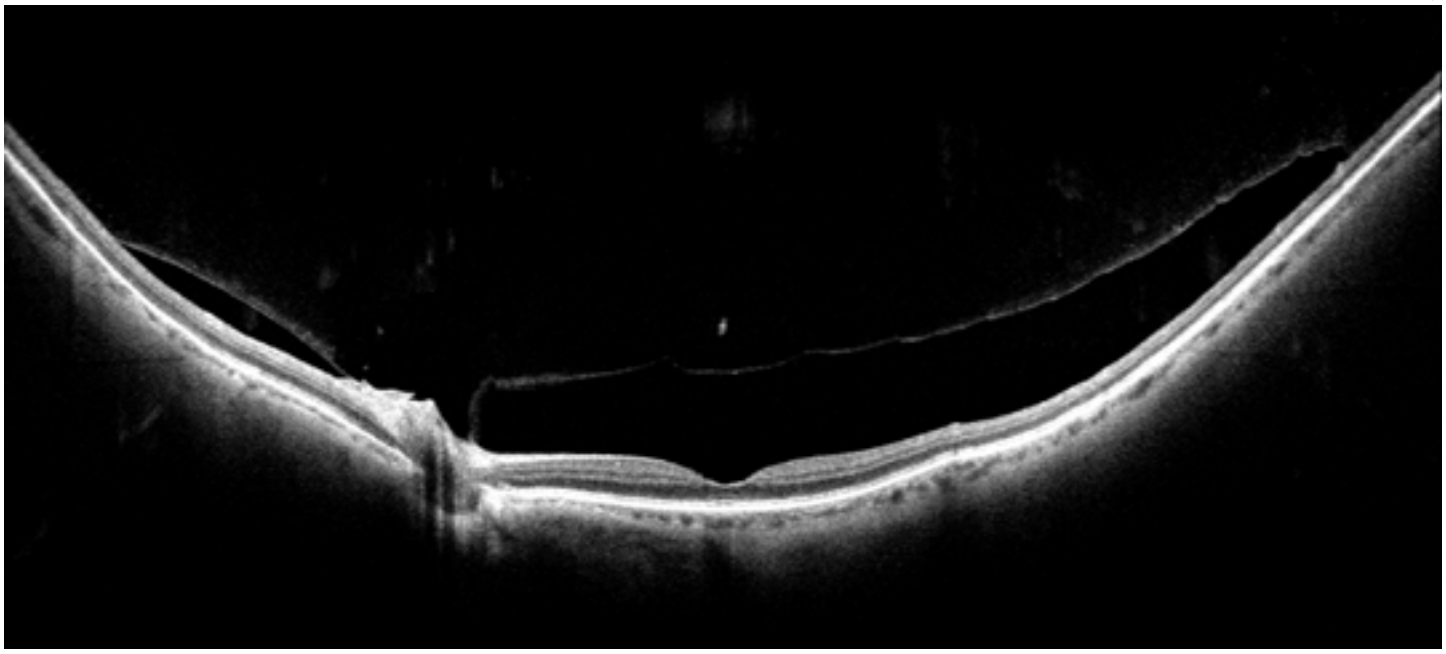


WIDEFIELD & ULTRA-WIDEFIELD IMAGING

23 mm Wide. 6 mm Deep. High-Resolution OCT.

REVO 2 delivers widefield OCT imaging of up to 90°, combining broad retinal coverage with high-resolution visualization of retinal structures. With the optional ultra-widefield module, the field of view can be extended up to approximately 115° in a single scan.

UWF FR Radial scan – 23 mm wide and 6 mm deep



Ultra-widefield imaging captures both the macula and far retinal periphery, supporting the detection and assessment of peripheral changes in the posterior segment. It also provides 3D analysis, image averaging in Enhancement Mode, and Angio OCT for visualization of peripheral perfusion abnormalities.

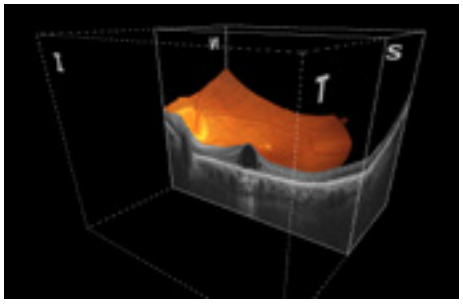
Combined with Extended Depth™ software and Full Range scanning technology, the system extends imaging capabilities for deeper and more challenging examinations.

UWF FR Line scan – 23 mm wide and 6 mm deep

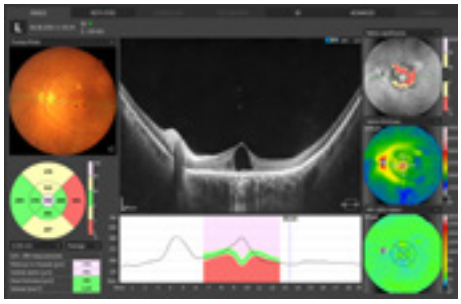
RETINA

AI-based posterior segment segmentation enables more accurate detection of retinal layer boundaries, improving clinical evaluation, pathology assessment, and routine screening. It also supports more precise follow-up monitoring over time. The ILM–BM retinal thickness definition further enhances sensitivity in monitoring subretinal disorders.

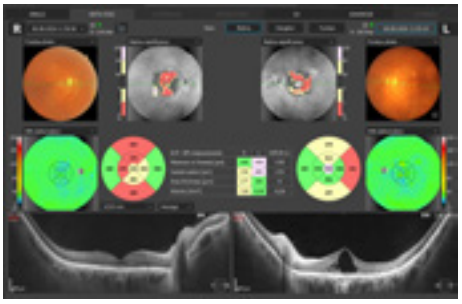
3D



Single View



Both View



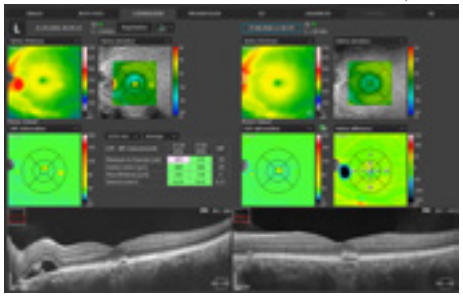
PROGRESSION MONITORING

Longitudinal imaging analysis with advanced analysis tools.

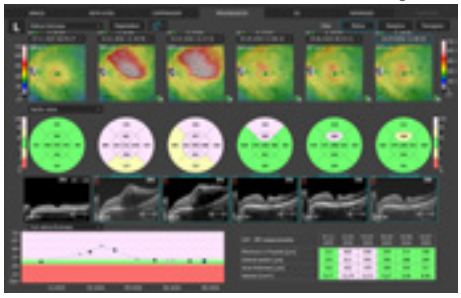
High-density 3D scans support precise assessment of disease progression, allowing clinicians to evaluate morphological changes and review quantified progression maps.

Follow-up 3D scans are accurately registered to the baseline OCT examination by recognizing retinal blood vessel patterns. Active tracking and point-to-point post-processing registration help identify subtle retinal changes in Comparison and Progression analyses.

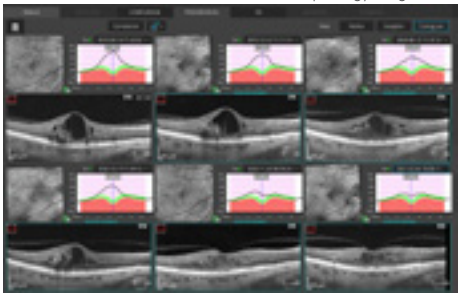
Comparison



Quantification Progression



Morphology Progression



EXTRACTED TOMOGRAMS

Advanced image correlation compensates for differences in scan alignment between visits, generating cross-sectional images of the same retinal area for more accurate progression assessment.

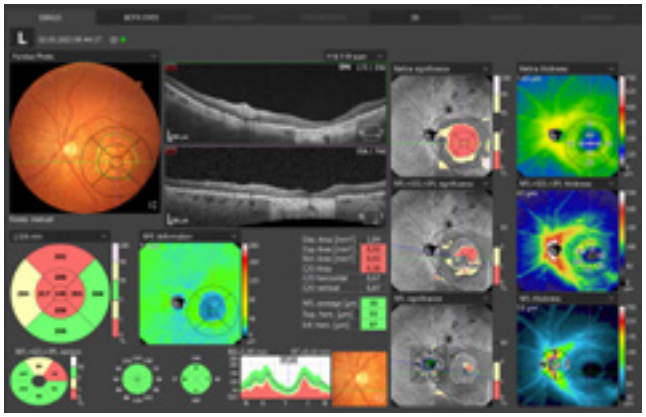
WIDEFIELD ANALYSIS

A single Widefield 3D examination supports rapid retinal and glaucoma assessment over an area of up to 15 × 15 mm.

The report presents Retinal, Ganglion Cell, NFL layers, and ONH quantification, together with horizontal and vertical tomograms and optic disc shape, supporting efficient evaluation and follow-up of retina and glaucoma disease.

The report presents Retinal, Ganglion Cell, NFL layers, and ONH quantification, together with horizontal and vertical tomograms and optic disc shape analysis, supporting efficient evaluation and follow-up of retinal diseases and glaucoma.

3 D Widefield



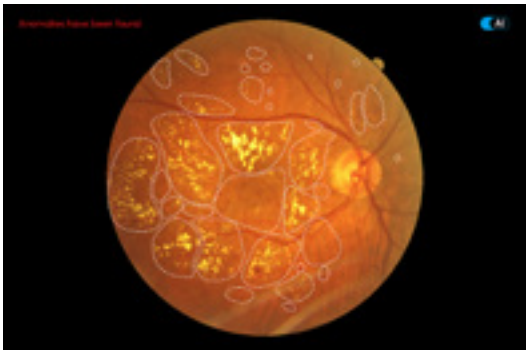
AI-POWERED ANALYSIS & IMAGING

Clearer images. Smarter analysis. Faster, more confident decision

Embedded AI technology supports OCT and fundus imaging across the diagnostic workflow, helping improve image quality, automate analysis and assist clinical interpretation.

AI FUNDUS ANOMALY DETECTION

The AI-powered algorithm automatically analyzes fundus images and highlights areas with potential abnormalities, drawing attention to subtle or suspicious changes and supporting faster image review.

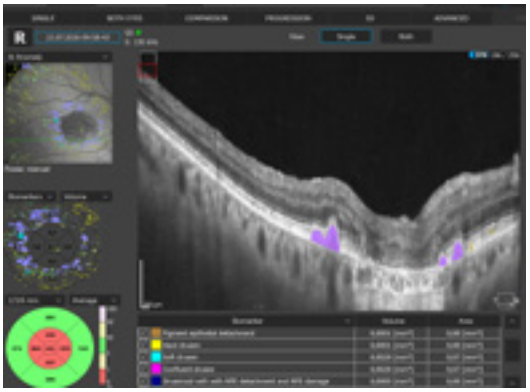


AI DRUSEN DETECTION & MONITORING

Automatic detection and quantification of different drusen types and associated RPE changes, including hard drusen, soft drusen, confluent drusen, pigment epithelial detachment, Drusenoid with RPE detachment and RPE damage.

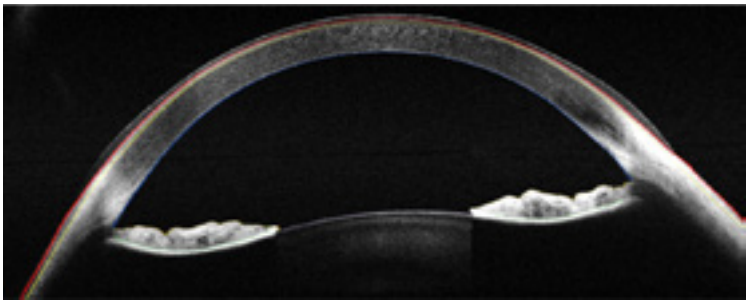
Drusen are automatically detected and quantified by number, area, and volume, enabling detailed assessment during a single visit and longitudinal monitoring of changes across follow-up visits.

AI Drusen Detection

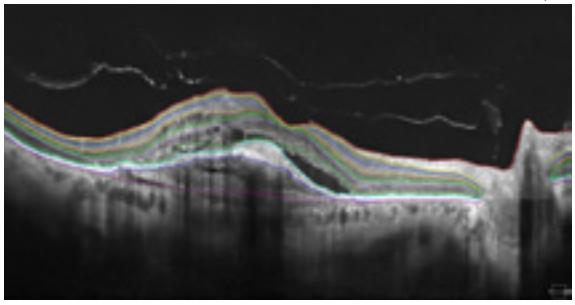


AI SEGMENTATION

AI-based segmentation of the posterior segment, anterior chamber, and cornea enables more accurate detection of anatomical layer boundaries. This improves clinical evaluation, supports reliable assessment of retinal, anterior chamber, and corneal pathologies, and provides more precise quantification in routine examinations. Enhanced segmentation is particularly valuable in follow-up examinations, allowing clinicians to monitor changes over time more precisely, including in patients already under observation.



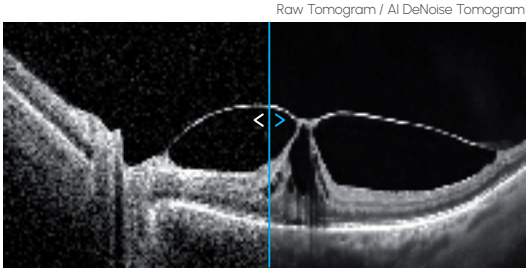
Automatic detection of 10 retinal layers



AI DENOISE™

AI DeNoise uses artificial intelligence to enhance a single tomogram to a quality comparable to that of an averaged image obtained from multiple scans. It automatically reduces noise, producing clearer and smoother images. The function is available for all tomograms and software views, including 3D.

Raw Tomogram / AI DeNoise Tomogram

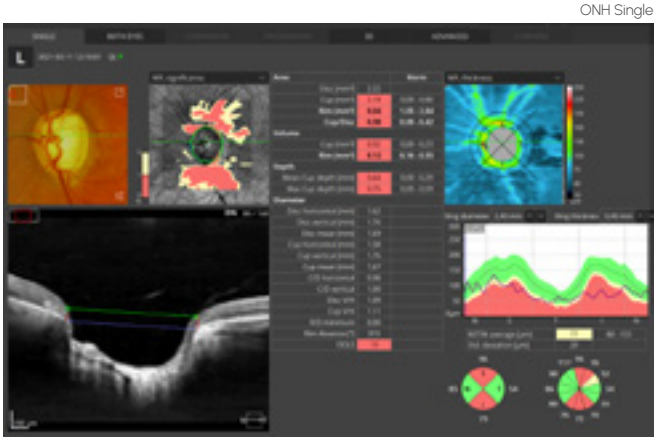


COMPLETE GLAUCOMA WORKFLOW

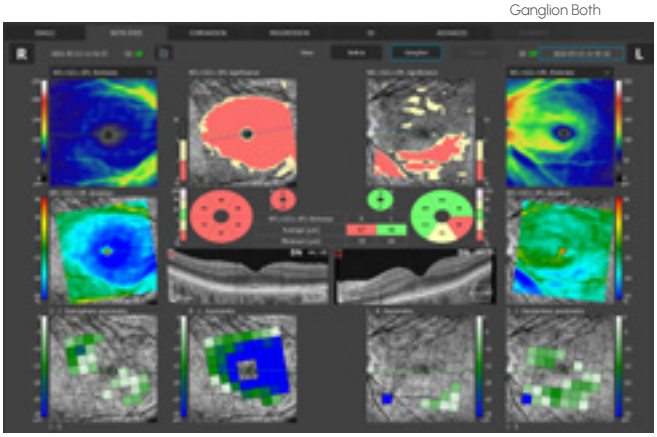
A comprehensive set of advanced OCT analysis tools supports glaucoma detection, assessment, and long-term monitoring—from early structural changes to integrated structure–function evaluation.

Advanced Retina & ONH

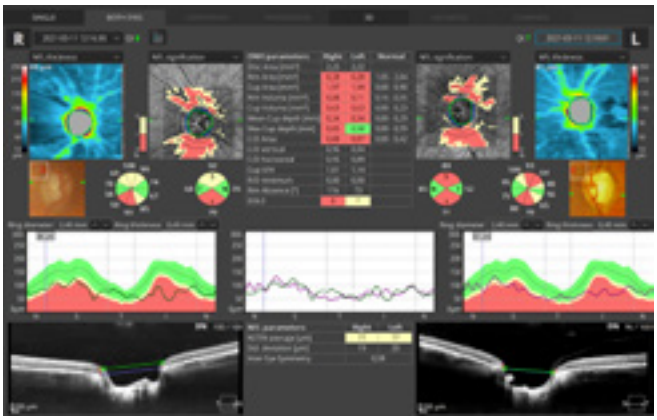
ONH Single



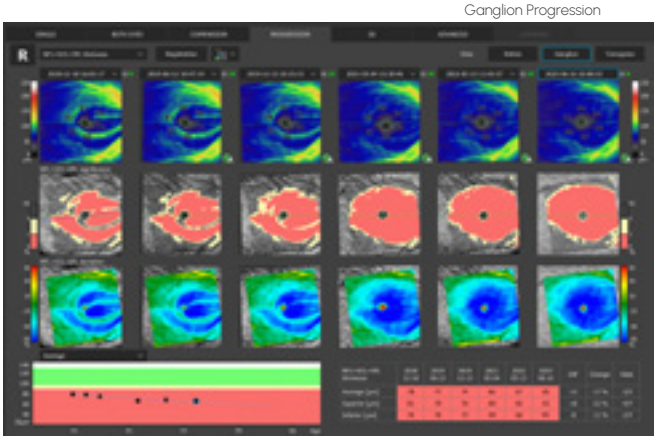
Ganglion Both



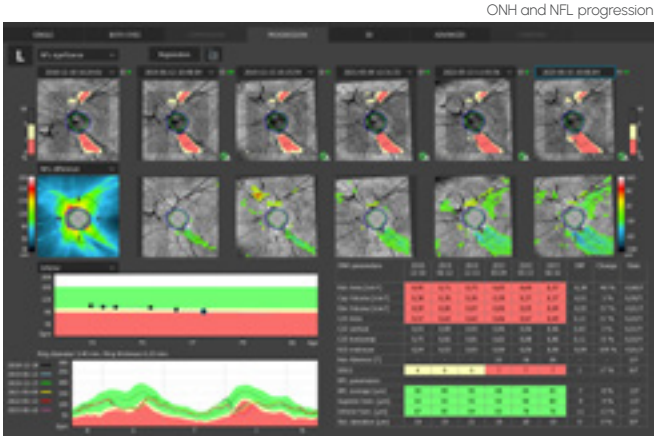
ONH Both



Ganglion Progression



ONH and NFL progression



Advanced View provides combined information from Retina and Disc scans, integrating Ganglion Cell Layer, RNFL and ONH data in a widefield perspective for comprehensive bilateral analysis.

REVO DDLS (Disc Damage Likelihood Scale) uses three separate classifications for small, average and large optic discs, supporting fast and precise assessment of glaucomatous disc damage.

Asymmetry analysis of the Ganglion Cell Layer between hemispheres and between eyes helps detect glaucoma at an early stage and in atypical cases.

Ganglion Progression analysis supports longitudinal assessment of Ganglion Cell Layer changes, helping clinicians identify subtle structural progression and monitor glaucomatous damage over time.

Precise registration and comprehensive glaucoma analysis tools for quantification of the Nerve Fiber Layer, Ganglion Cell Layer and Optic Nerve Head, together with DDLS, support accurate diagnosis and long-term follow-up.

STRUCTURE & FUNCTION

Combined OCT and Visual Field Analysis

Combined OCT and visual field analysis integrates structural and functional data for precise glaucoma assessment and follow-up.

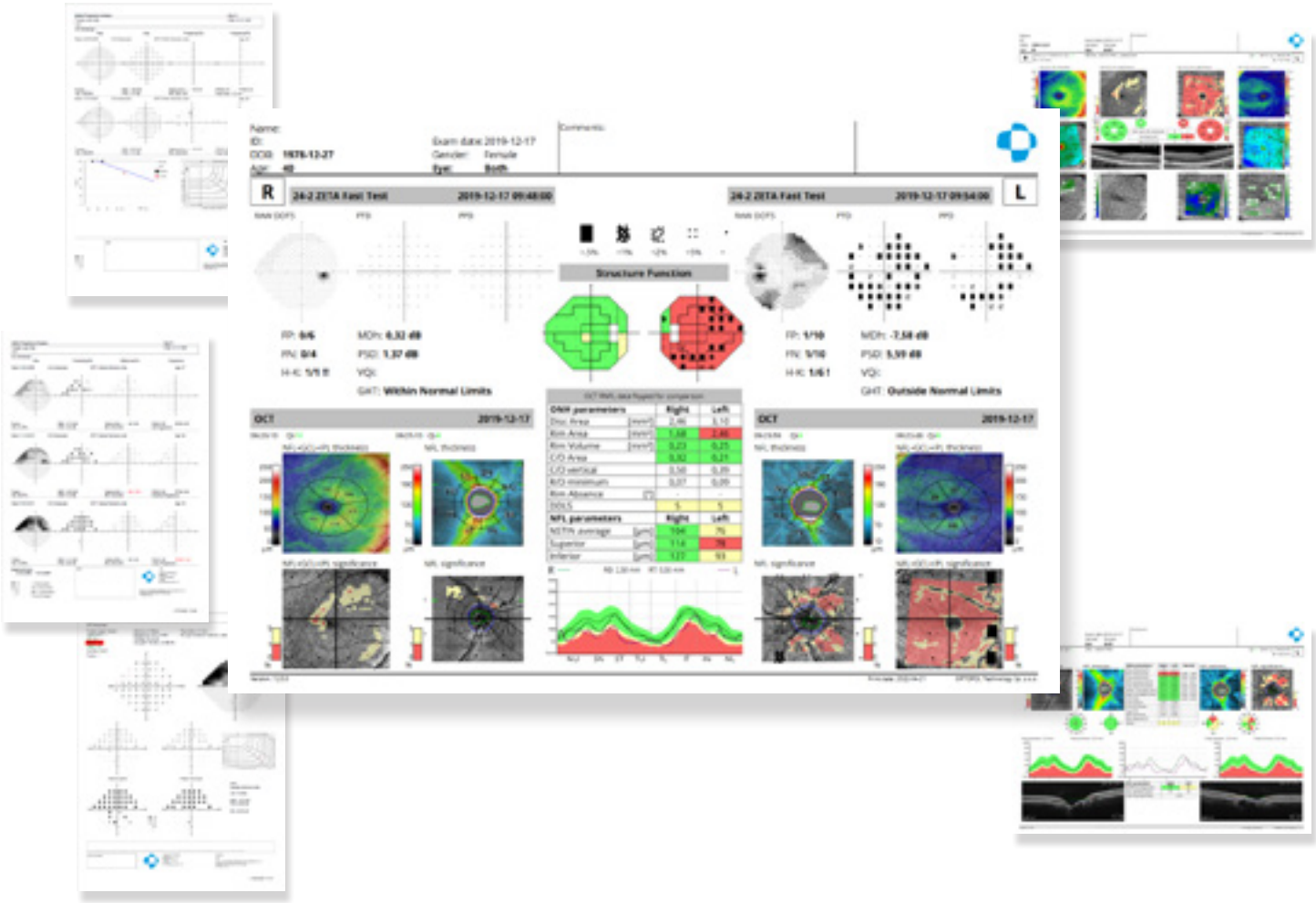
Fourteen established optic nerve parameters, together with Rim-to-Disc and Rim Absence measurements, support fast and detailed ONH evaluation.

THE STRUCTURE & FUNCTION REPORT INCLUDES:

- VF sensitivity results: 24-2/30-2 or 10-2
- Total and Pattern Deviation probability plots
- VF reliability and global indices
- Combined Structure & Function map
- Ganglion cell analysis: GCL+IPL or NFL+GCL+IPL
- ONH and RNFL analysis with charts and comparison tables
- RNFL asymmetry plot
- Separate nasal and temporal sectors
- Comparison of exact sensitivity values

SINGLE-PAGE REPORT[1]

The Structure & Function module provides a comprehensive single-page report for efficient glaucoma management.



[1] *Integrates with Optopol PTS perimeters running software version 3.8 or above.*

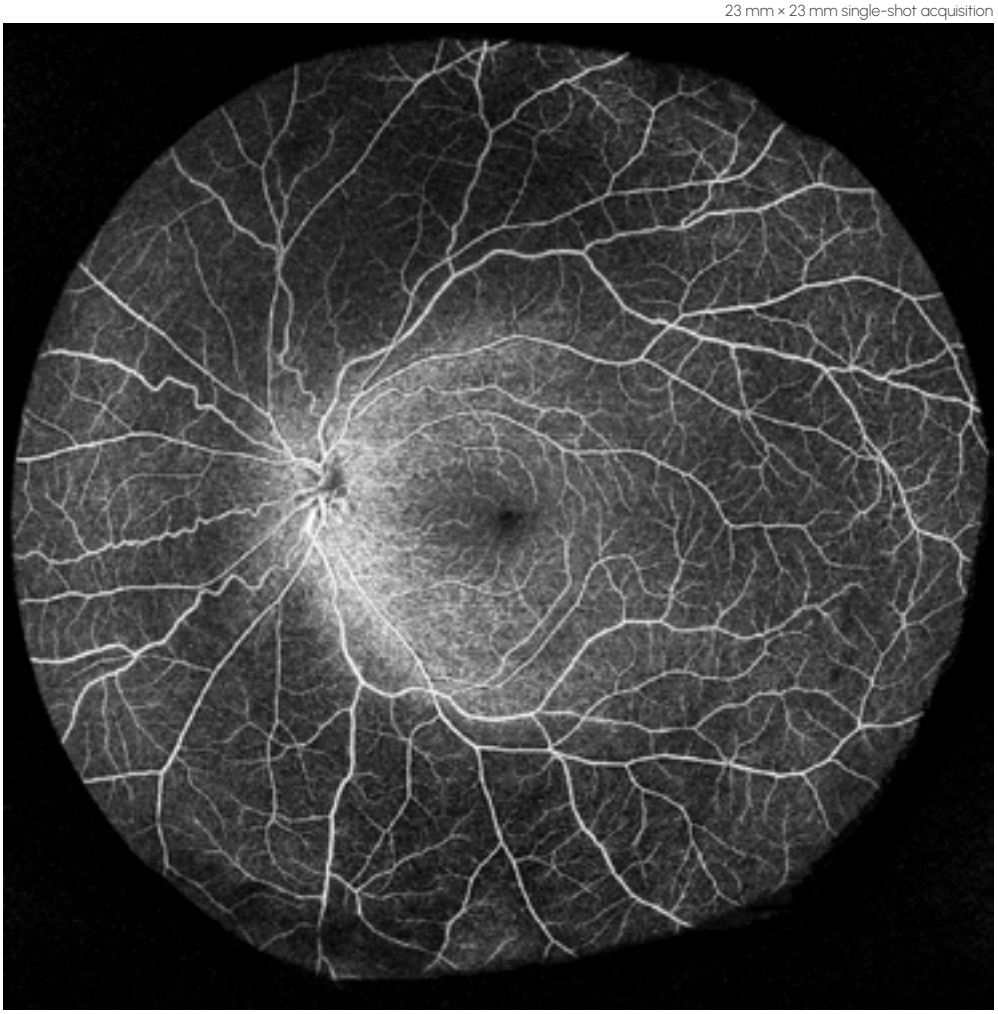
ULTRA-WIDEFIELD OCT ANGIOGRAPHY[1]

OCT Angiography is a non-invasive, dye-free technique for visualizing the retinal microvasculature, enabling detailed vascular imaging across a wide retinal field. Combined blood flow and structural imaging provide valuable diagnostic information for a wide range of retinal diseases.

Angiography scans enable detailed assessment of the vascular structure of the macula, retinal periphery, and optic disc. With acquisition times of just 1.6 seconds in standard resolution and 3 seconds in high resolution, OCT Angiography can be easily incorporated into routine diagnostic practice.

A comprehensive set of analysis views allows clinicians to observe, monitor, and compare changes in the retinal microvasculature of both eyes.

23 mm × 23 mm single-shot acquisition



[1] *Optional software module*

ANGIO ANALYSIS METHODS

QUANTIFICATION

The quantification tool measures retinal vasculature across the entire analyzed area, as well as within selected zones and sectors. A vascular heat map supports faster assessment of vessel distribution and condition.

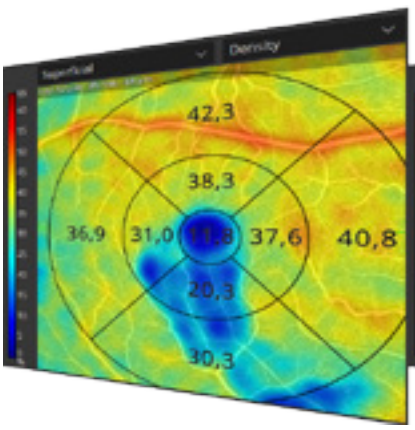
Multiple quantification methods improve the sensitivity of analysis for different retinal diseases:

- **Vessel Area Density** – the total area of perfused vasculature per unit area within the selected region.
- **Skeleton Area Density** – the total area of skeletonized vessels per unit area within the selected region.

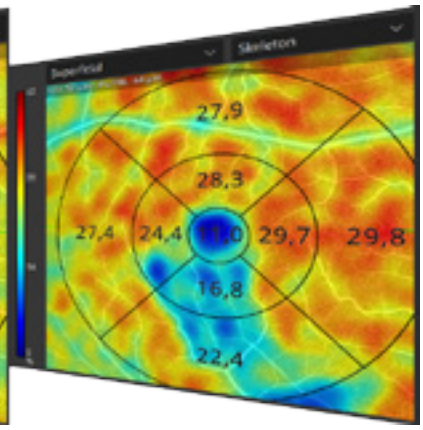
Quantification can be performed for specific layers in Angio OCT examinations:

- **Retina:** Superficial Plexus and Deep Plexus
- **Optic Disc:** RPC – Radial Peripapillary Capillary layer

Vessel Density Map

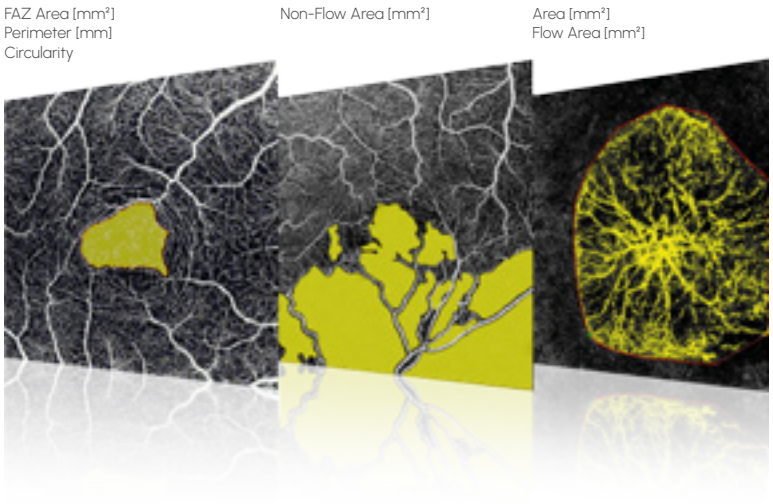


Skeleton Density Map



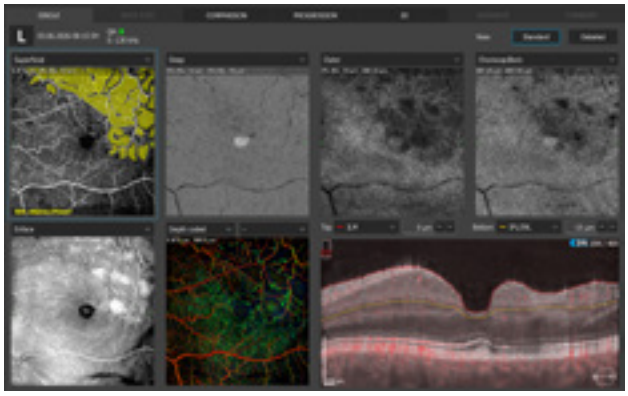
ANGIO ANALYTICAL TOOLS

- **FAZ – Foveal Avascular Zone**
  Enables measurement and monitoring of changes in the superficial and deep vascular plexuses. FAZ analysis is available for both narrow- and wide-field scans.
- **VFA – Vascular Flow Area**
  Measures the vascularized area within pathologically affected structures. The analysis can be performed on a predefined or user-selected vascular layer.
- **NFA – Non-Flow Area**
  Quantifies regions without detectable blood flow in Angio OCT examinations and calculates the total area of all selected regions.

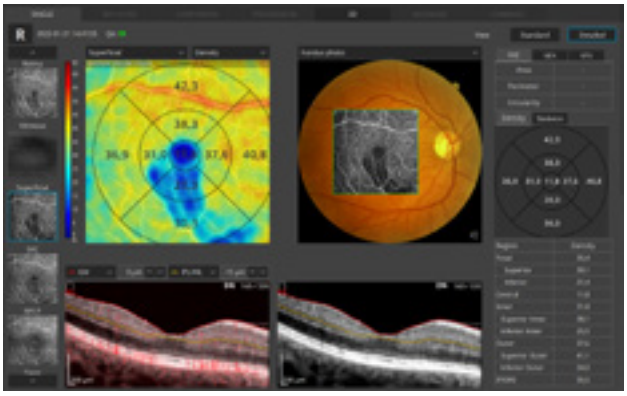


A COMPLETE SET OF ANGIO OCT ANALYSIS VIEWS

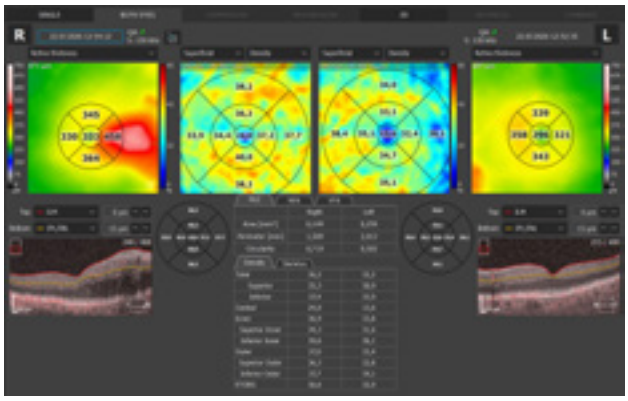
Single view



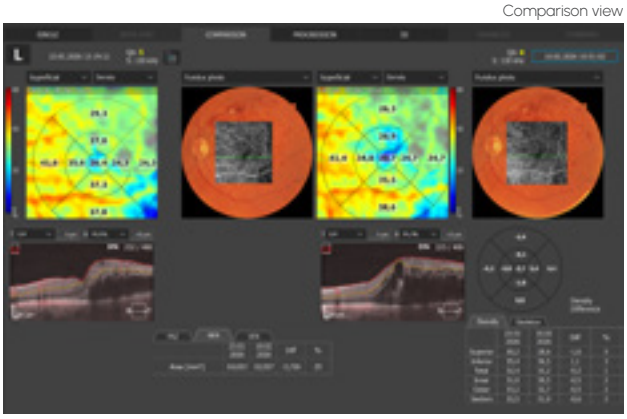
Detailed Single View



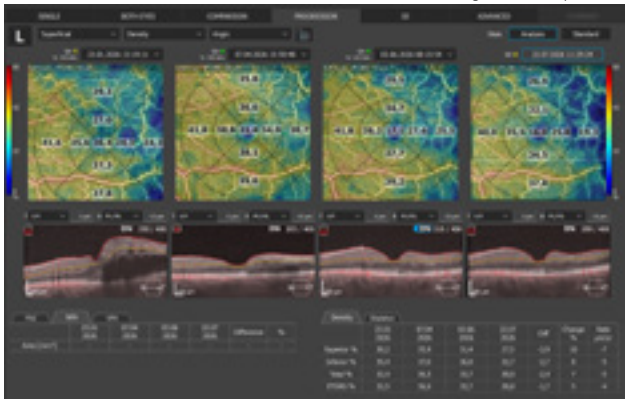
Both View



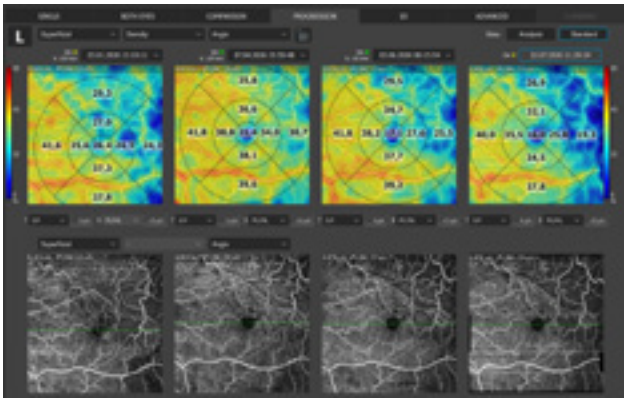
Comparison view



Progression Analysis View



Progression Standard View

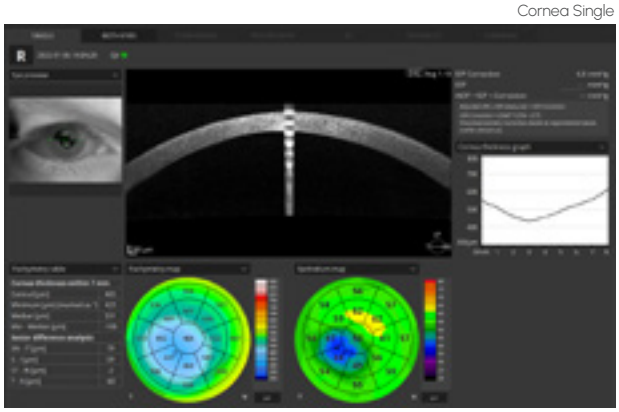


CORNEA AND EPITHELIUM

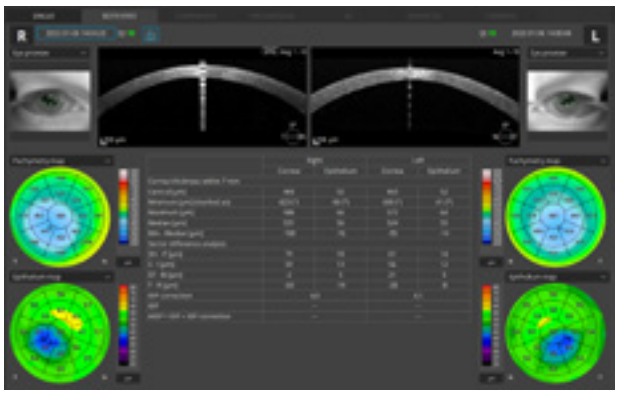
A combined view of both eyes enables fast and precise assessment of the anterior segment. Epithelium and Pachymetry maps are included as standard.

AI Segmentation

Cornea Single



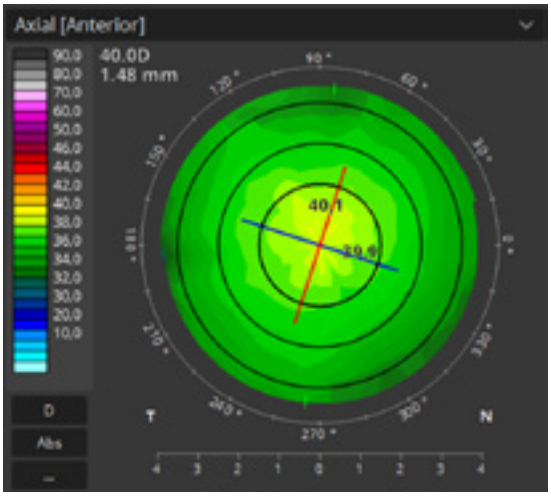
Both



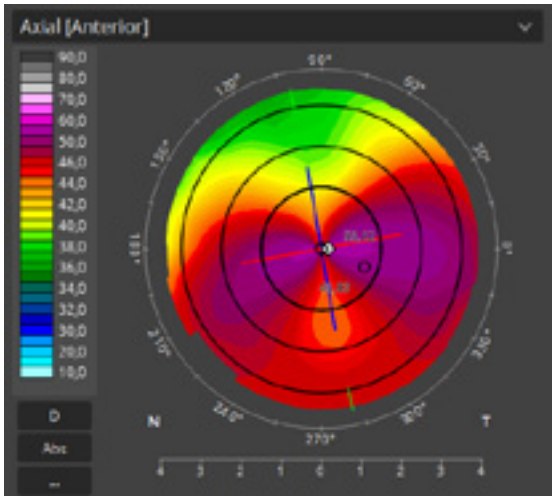
AI KERATOCONUS CLASSIFIER

The new AI-powered Keratoconus Classifier enables fast detection and classification based on epithelial thickness, pachymetry, and stromal thickness analysis. It helps identify early-stage keratoconus and monitor its progression over time.

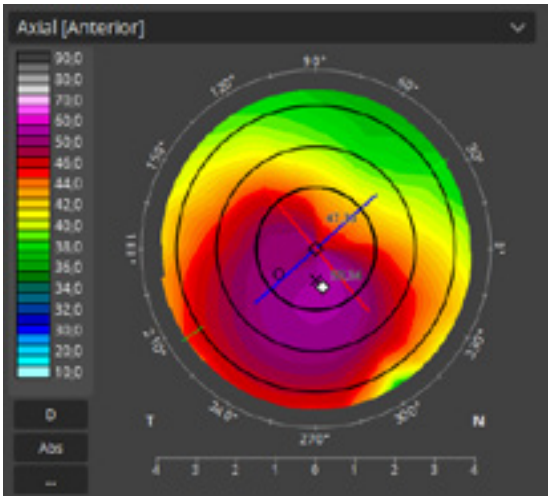
Normal



ATR Astigmatism



Keratoconus



T-OCT™ CORNEAL TOPOGRAPHY[1]

T-OCT™ is a pioneering way to provide detailed corneal curvature maps by using posterior dedicated OCT. Anterior, Posterior surfaces, and Corneal Thickness provide the True Net Curvature information. With the Net power, a precise understanding of the patient's corneal condition comes easily and is free of errors associated with modeling of posterior surface of the cornea. The REVO T-OCT module provides Axial maps, Tangential maps, Total Power map, Height maps, Epithelium and Corneal thickness maps.

The updated corneal topography module shows the changes in the cornea on the difference map view. Customize your preferred view by selecting from a variety of available maps and display options. Fully Automatic Capture with examination time of up to 0.2 sec makes testing quick and easy.

TOPOGRAPHY MODULE PROVIDES:

Full-featured Corneal mapping of Anterior, Posterior and real curvatures. Presentation of K's values of Anterior, Posterior and real power as Sim-K, Meridian and semi Meridian.

[1] *Optional software module*

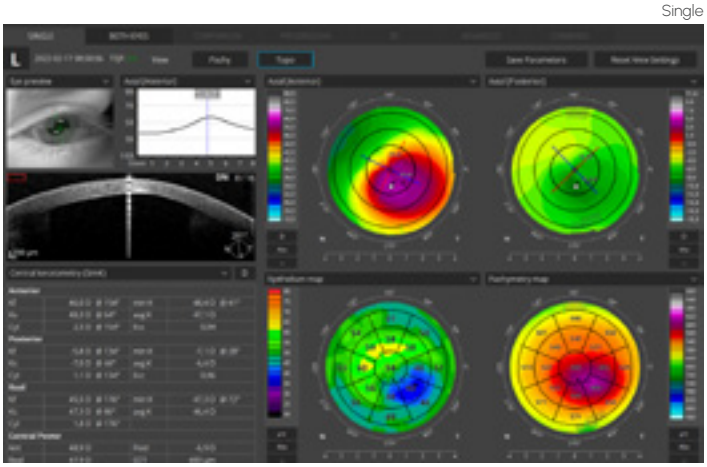
CORNEAL FOLLOW-UP

Comprehensive software features a range of selectable views: one or both eyes, comparison, and progression. See details on the standard single-eye view and easily see corneal asymmetry on the both-eyes view.

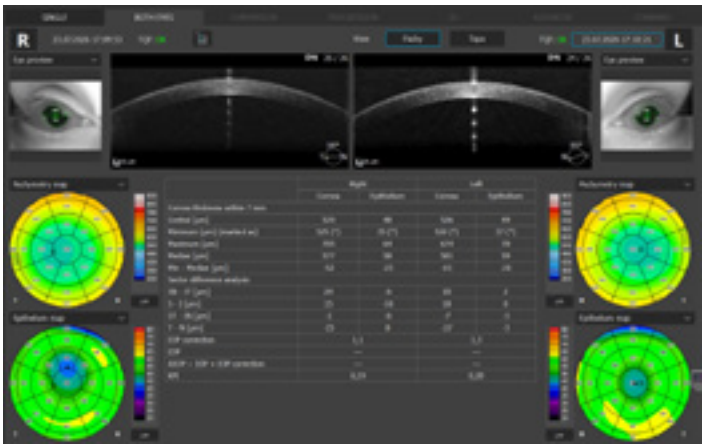
The follow-up feature in the T-OCT™ module allows you to fully compare the changes in the corneal topography over time for:

- LASIK patients
- Keratoconus patients
- Contact lens wearers

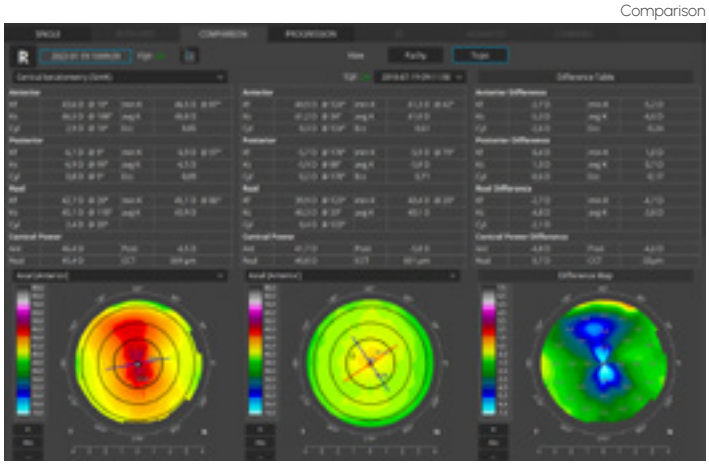
Single



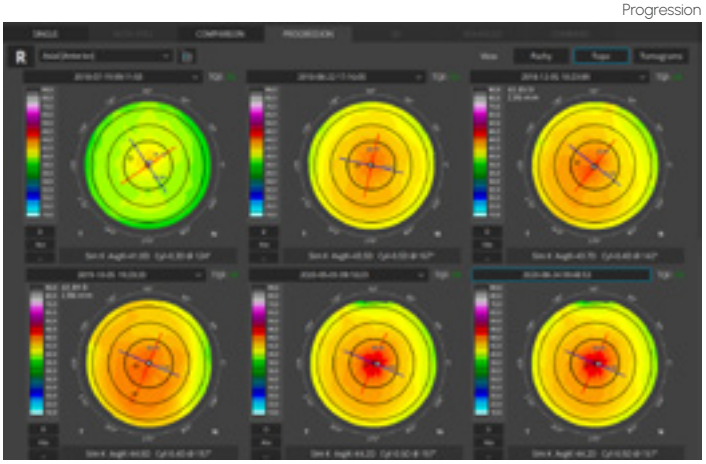
Both



Comparison



Progression



* Image courtesy of Prof. Edward Wylegała MD, PhD

AC

ANTERIOR CHAMBER IMAGING & ANGLE ANALYSIS

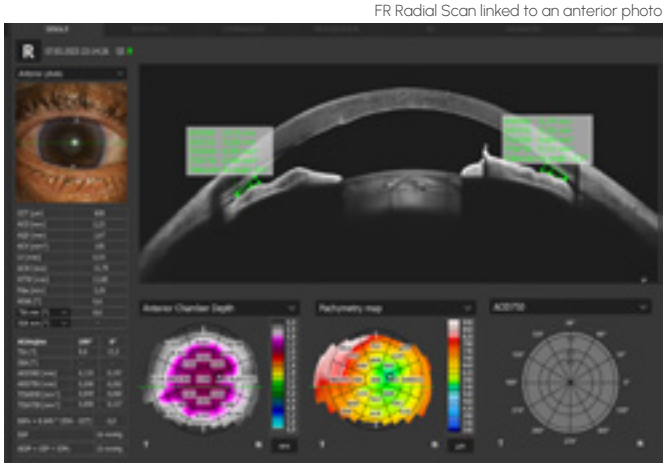
Integrated anterior segment optics enable imaging without the need for additional lenses or a forehead adapter. The operator can visualize and quantify the entire anterior segment or focus on a selected area for detailed evaluation.

Automated anterior chamber analysis enables fast and convenient assessment, providing a workflow experience comparable to that of dedicated anterior segment analysis devices, such as AS-OCT and Scheimpflug systems.

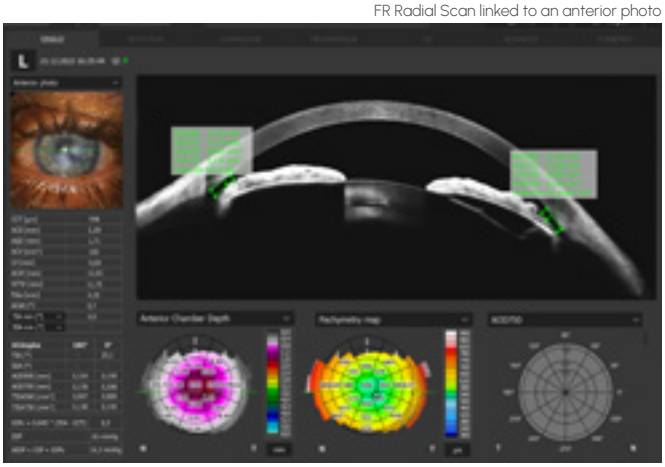
OCT gonioscopy enables visualization, measurement, and mapping of both iridocorneal angles and iris configuration in a single high-resolution 360° radial scan, supporting comprehensive glaucoma assessment.

Automated analysis provides anterior chamber parameters, including CCT, ACD, AQD, ACV, LV, ACW, WTW, Pdia, and AC tilt. It also provides semi-automated angle analysis with parameters such as TIA, SSA, AOD500, AOD750, TISA500, and TISA750, as well as pachymetry, anterior chamber depth, stromal thickness, and epithelial thickness maps.

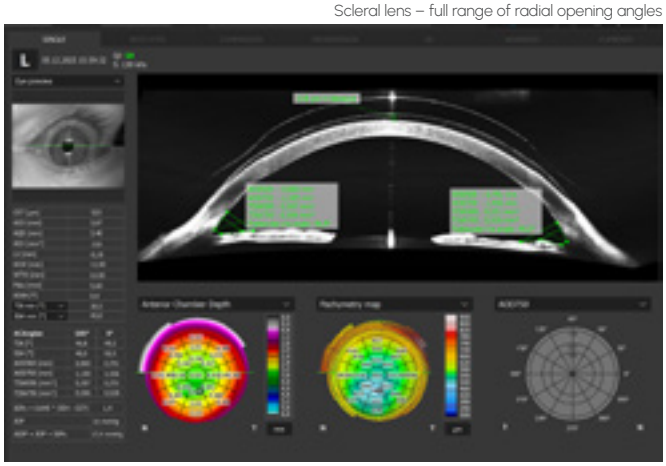
FR Radial Scan linked to an anterior photo



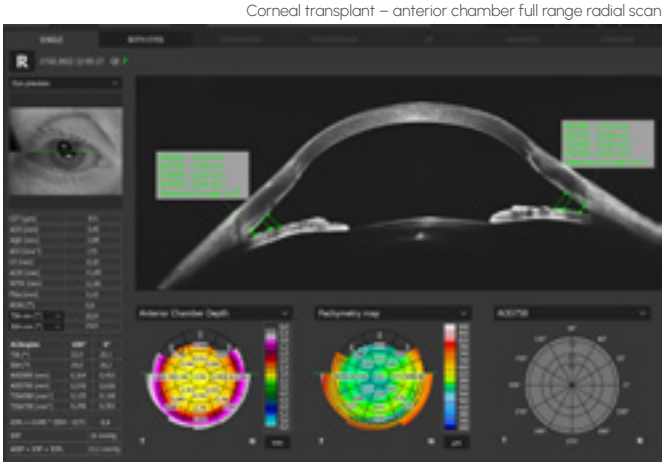
FR Radial Scan linked to an anterior photo



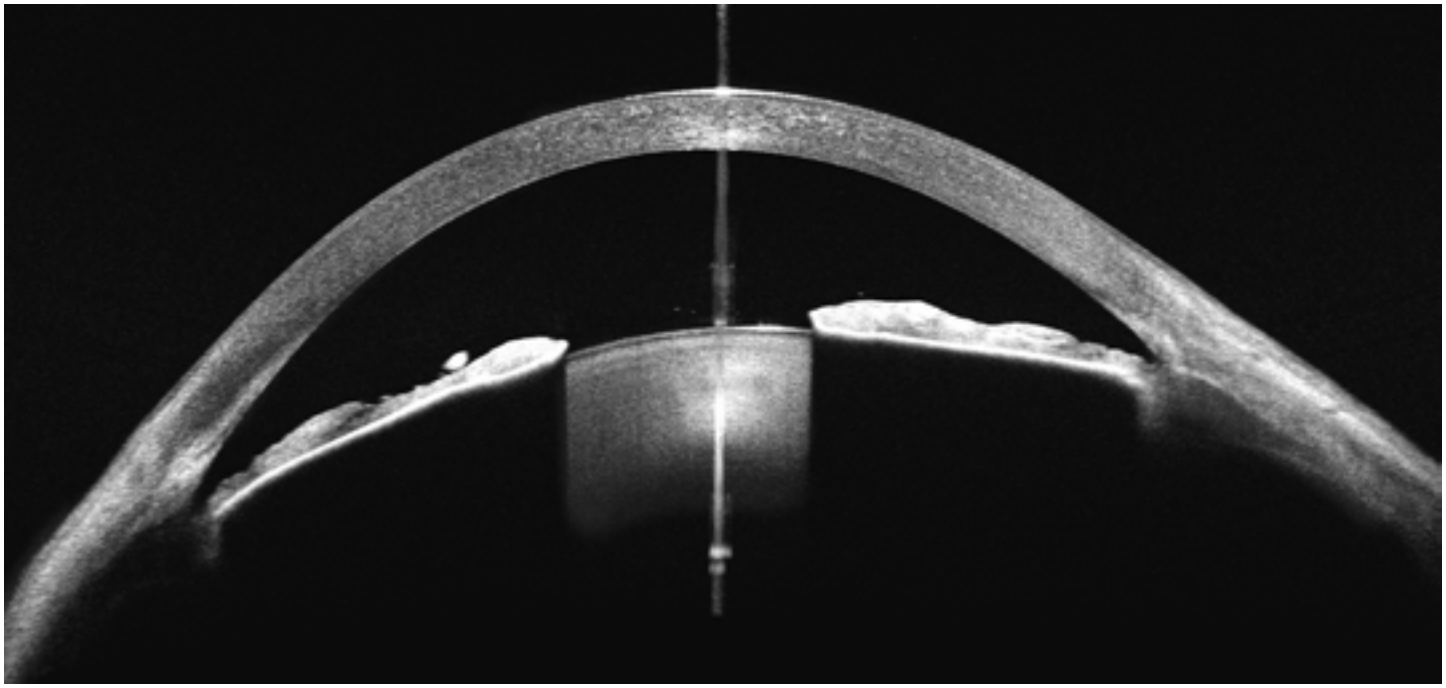
Scleral lens – full range of radial opening angles



Corneal transplant – anterior chamber full range radial scan



Narrowing angles - 16 mm Full Range Anterior Chamber scan

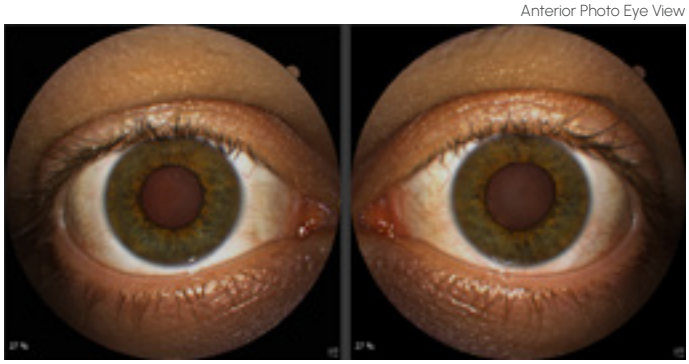


* Images courtesy of Prof. Edward Wylegała MD, PhD

ANTERIOR SEGMENT PHOTOGRAPHY

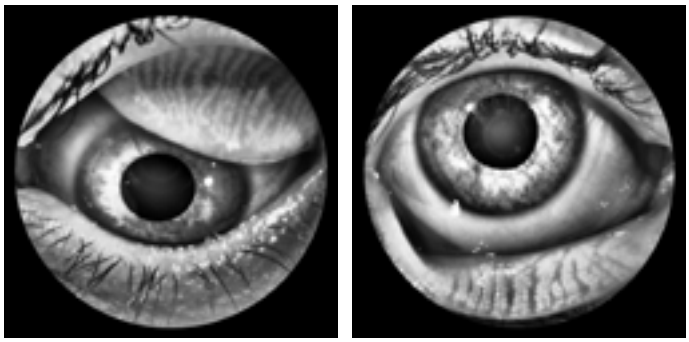
The Anterior Segment Photography mode captures detailed color images of the anterior segment, including the cornea, eyelids, pupil, and sclera.

Anterior Photo Eye View



MEIBOGRAPHY

Non-invasive infrared imaging enables assessment of Meibomian gland structure and condition. It supports the diagnosis of Meibomian Gland Dysfunction (MGD), a major cause of evaporative dry eye disease, and facilitates clear presentation of examination results to patients.



OCT BIOMETRY[1]

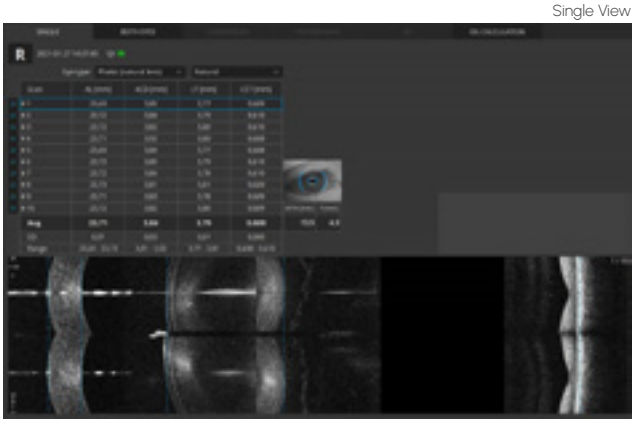
B-OCT® uses posterior-segment OCT technology to measure ocular structures along the ocular axis. It provides a complete set of biometric parameters: Axial Length (AL), Central Corneal Thickness (CCT), Anterior Chamber Depth (ACD), Lens Thickness (LT), Pupil Size (P), and White-to-White Distance (WTW).

The B-OCT® module is available in two configurations: **Standard**, with an integrated IOL calculator, and **Basic**, designed for high myopia management.

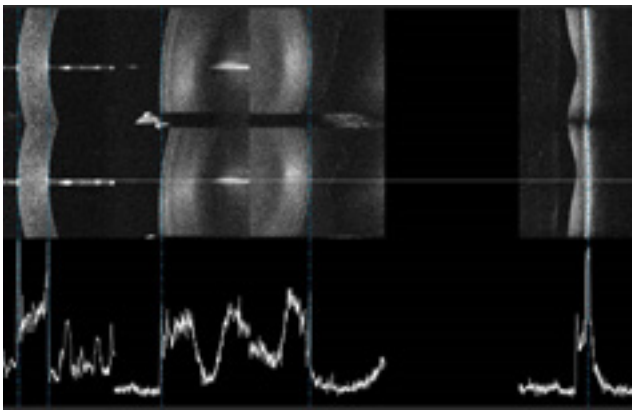
REVO 2 biometry images display measurement calipers at each anatomical boundary, enabling clinicians to verify measured structures and manually adjust the results when required. In challenging cases, boundaries can be corrected with 5 µm axial resolution, reducing uncertainty in the identification of ocular structures in atypical eyes.

[1] *Optional software module*

Single View



Result view



IOL CALCULATOR[1,2]

The integrated calculator uses established IOL formulas to determine intraocular lens parameters. Support for the IOLCon.org database standard helps keep the IOL library up to date.

[1] *Biometry module required*
[2] *IOL Calculator requires a separate licence*

IOL Calculation

HIGH MYOPIA MANAGEMENT[1]

The Myopia Forecast module monitors ocular growth by comparing axial length measurements with population-based growth trends. It combines published research data with environmental factors to support patient monitoring from childhood through adolescence.

The REVO 2 provides access to reference datasets from the NICER, San Diego, and Tideman studies. The module supports myopia risk assessment in children and enables monitoring of axial length, refractive error, and keratometry readings.

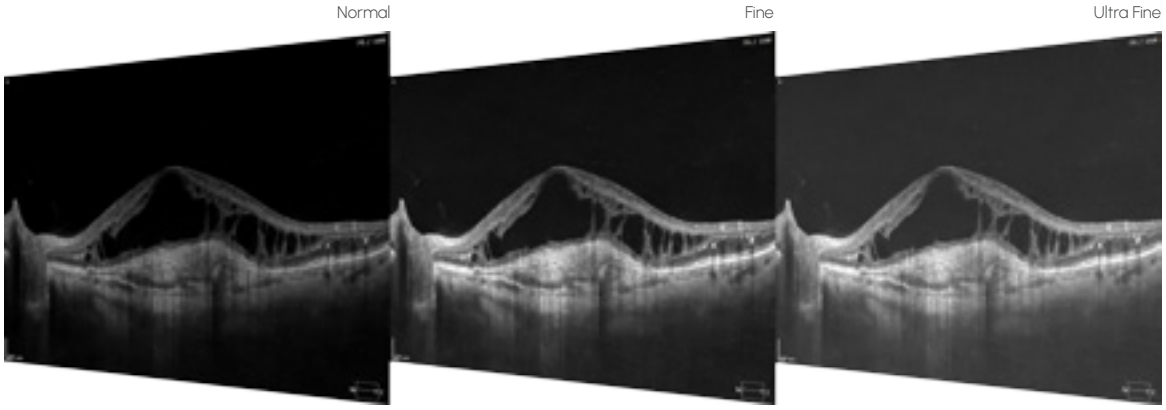
Treatment periods are highlighted on progression graphs, facilitating evaluation of treatment effectiveness and its impact on myopia progression.

[1] *Optional software module*

High myopia trend analysis

CATARACT MODE

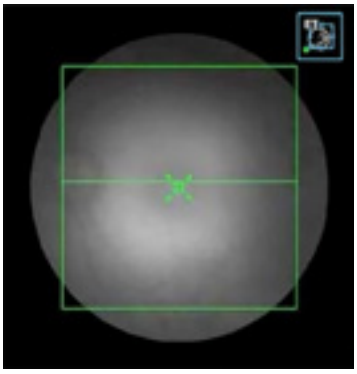
Cataract Mode in the REVO 2 series is designed to improve the success rate of retinal OCT scanning in patients with ocular media opacity. By adjusting OCT scanning speed and sensitivity, it enhances the visualization of retinal structures through opaque media and supports reliable imaging in challenging cases, including cataracts, corneal oedema and dense vitreous floaters.



AccuTrack™

Real-time hardware eye tracking

The REVO 2 features a real-time, hardware-based eye-tracking system that compensates for blinking, loss of fixation, and involuntary eye movements during OCT scanning.



DICOM, EMR & NETWORK INTEGRATION

Network integration supports efficient examination management across multiple review stations and allows results to be presented interactively to patients.

DICOM connectivity enables integration with hospital systems, including Modality Worklist (MWL), C-STORE transfer, and access to complete examinations from viewing stations. The CMDL interface supports integration with practice management and EMR systems.

Networking and DICOM functionalities are included at no additional cost.

	REVO2 FC 130 OCT | Fundus Camera	REVO2 FC OCT | Fundus Camera
OCT		
Technology	Spectral-Domain OCT	
Scanning speed	130 000 A-scans/s	80 000 A-scans/s
Axial resolution	In tissue 5.5 µm, Digital 2.8 µm	
Light Source	SLED	
Central wavelength	850 nm	
Bandwidth	50 nm	
Lateral range	Posterior (3 to 20) mm ± 5% , Angio OCT (3 to 20) mm ± 5% mm, Anterior (3 to 18) mm ± 5%	
Lateral resolution	12 µm	
Axial range	Standard 2.8 mm, Full range ~6.0 mm	
Minimum pupil size OCT	2.0 mm	
Focus adjustment range	-25 D to +25 D	
Fundus Tracking: Live / Interactive	ACCUtrack-active real time, iTracking	
Operating distance	31 mm	
Alignment method	Fully automatic, Automatic, Manual	
Glaucoma analysis	RNFL, ONH morphology, DDLS, OU/Hemisphere asymmetry, Ganglion analysis (RNFL+GCL+IPL, GCL+IPL), Structure + Function[2]	
Retinal analysis	Retinal thickness, Inner Retinal thickness, Outer Retinal thickness, RNFL+GCL+IPL thickness, GCL+IPL thickness, RNFL thickness, RPE deformation, MZ/EZ-RPE thickness	
Corneal Topography Map[1]	Axial maps (Anterior, Posterior), Refractive Power (Kerato, Anterior, Posterior, Total), Net Map, Axial True Net, Equivalent Keratometer, Elevation maps (Anterior, Posterior), Height maps, KPI (Keratoconus Prediction Index)	
Biometry[1]	AL, CCT, ACD, LT, P, WTW	
IOL Calculator[3]	Hoffer Q, Holladay I, Haigis, Theoretical T, Regression II	
Anterior (no adapter required)	Pachymetry map, Epithelium map, Stroma map, Anterior Chamber Depth map, Anterior Chamber Parameters: CCT, ACD, AQD, ACV, LV, ACW, WTW, Pdia, AC tilt. AOD 500/750 map, TISA 500/750 map	
Angiography OCT[1]	Vitreous, Retina, Choroid, Superficial Plexus, Deep Plexus, Outer Retina, Choriocapillaris, RPCP, SVC, DVC, ICP, DCP, Custom segmentation, Enface imaging, FAZ, VFA, NFA, Vessel Area Density quantification, Skeleton Area Density quantification, Thickness maps	
Angiography mosaic	Auto Mosaic modes: 10×10, 10×6, 12×5, 7×7 Manual up to 12 images	Auto Mosaic modes: 10x6 Manual up to 12 images
Voice support	Yes	
Focus adjustment range	(-25 to +25) D	
Internal fixation target	OLED display (the target shape, position, Steady light/Blinking light, Blinking speed can be changed)	
External fixation target	Yes	
Dimensions / Weight	490 mm (L) × 350 mm (W) × 530 mm (H) / 30 kg	
Power supply	(100 to 240) V, 50 / 60 Hz	
Power consumption	(90 to 110) VA	
UWF LENS[4]		
UWF Scan angle	~115°[5] ± 5%	
UWF Working distance	16 mm	
UWF Scan types	3D, Radial, Line, Angio[1], Full Range Radial, Full Range Line	
UWF Fundus tracking	iTracking	
UWF Lateral range	Standard 2.8 mm Full range ~6 mm	
FUNDUS CAMERA		
Type	Non-mydriatic automatic fundus camera	
Photography Mode	Color Fundus/Anterior, IR Fundus/Anterior, FAF - green*, FAF - blue*,FA*, ICGA*	
Angular field of view: eye angle – measured relative to the center of the eyeball itself, (visual angle - measured relative to Nodal point) Standard pupil Small pupil	 90° (60°) ± 5 % 67° (45°) ± 5 %	
Mosaic field of view: eye angle – measured relative to the center of the eyeball itself, (visual angle - measured relative to Nodal point) Standard pupil	 198° (132°) ± 5 %	
Resolving power on fundus camera	• Center: 60 lp/mm or more • Middle (r/2): 40 lp/mm or more • Periphery (r): 25 lp/mm or more	
Minimum pupil size	Small pupil 3.3 mm	
Camera	Built-in 20.3-megapixel CMOS Camera	
Flash adjustment, Gain, Exposure	Auto / Manual	
Intensity levels	High, Normal, Low	

** - Optional feature. Selectable at the time of order*

[1] *Optional software module*
[2] *Via connection with PTS software version 3.8 or higher*
[3] *The Biometry module and a separate license for the IOL Calculator are required*
[4] *Ultra-Wide Field imaging is available with the optional UWF lens*
[5] *Measured from the center of the eye*

The specification is for informational purposes only and may be subject to change during the conformity assessment process

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