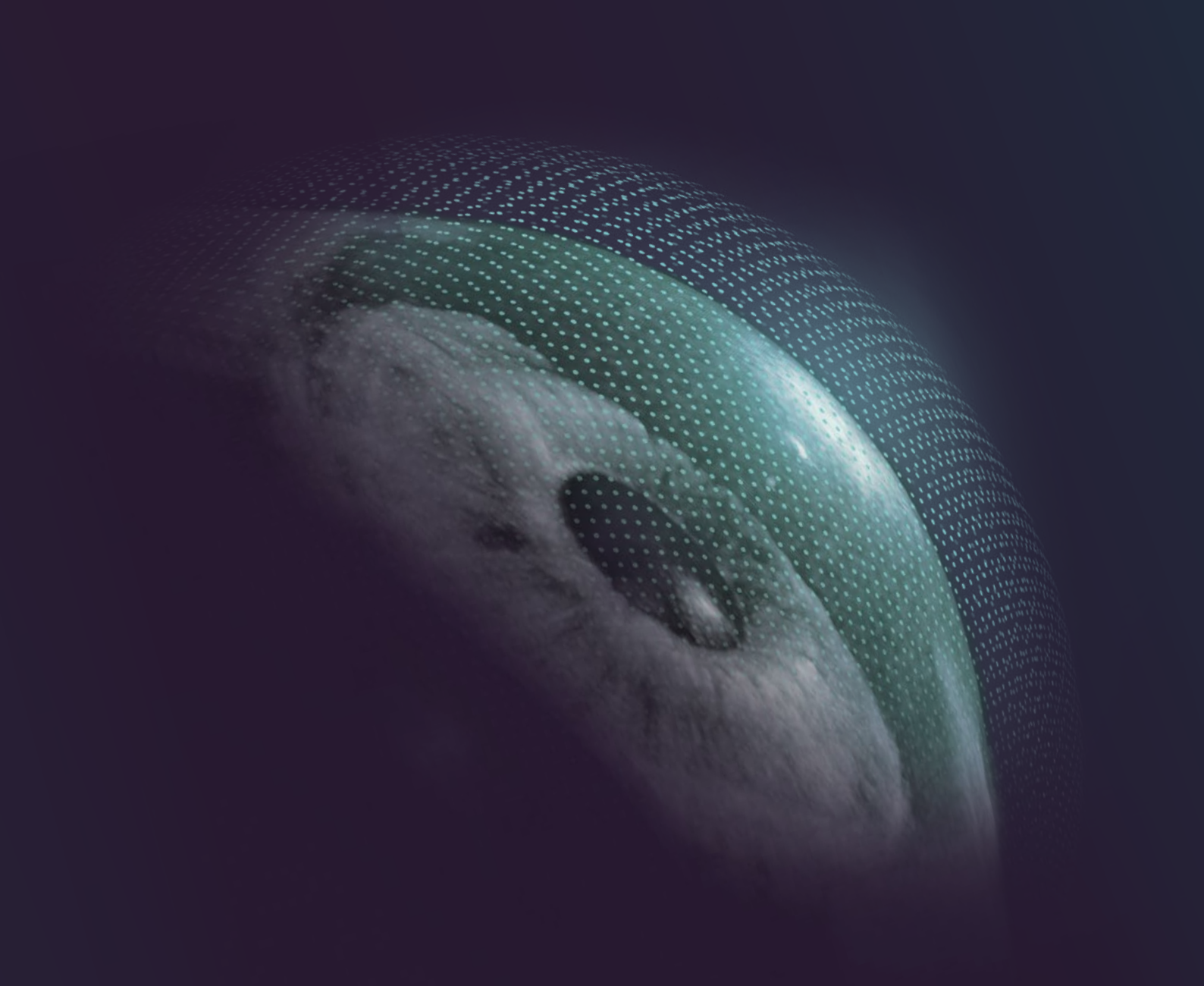


HP-OCT™
by cylite

Redefine your perspective

cylite

The next generation of OCT

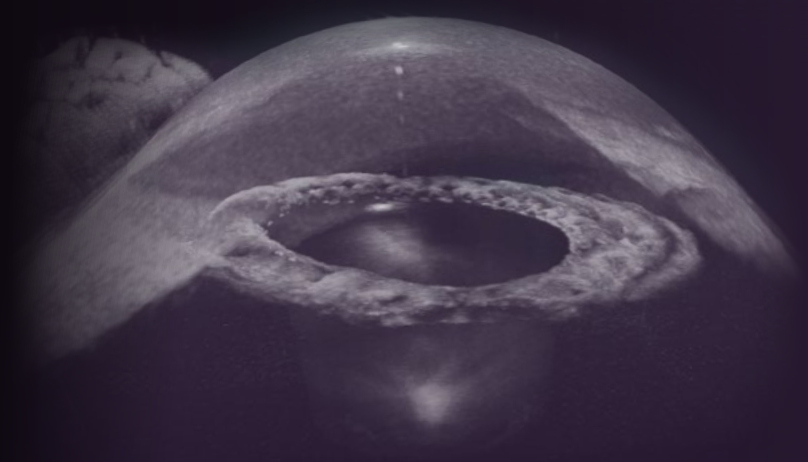
HP-OCT™ is redefining whole eye imaging and measurements with its patented technology.

By producing true-volume 3D images of the eye, the HP-OCT™ delivers additional insights that help you make more informed decisions for your patients.

See what you've never seen before

HP-OCT™ simultaneously images across a wide area of the eye in a series of snapshot captures to avoid motion artefacts, producing highly accurate and repeatable elevation and curvature maps, as well as tomographic images and detailed analytics.

This unique snapshot imaging technology has compelling advantages for both anterior and posterior segment imaging.



Above: 3D capture of an eye affected by cataract

Measure with accuracy and confidence

Save space, time, and money by replacing multiple clinical instruments with one. HP-OCT™ allows you to accurately measure and capture much of the patient data you need in the one device.

>300,000 a-scans per second

Full volumetric anterior and posterior imaging

Complete biometry - including axial length

High speed, high-definition OCT

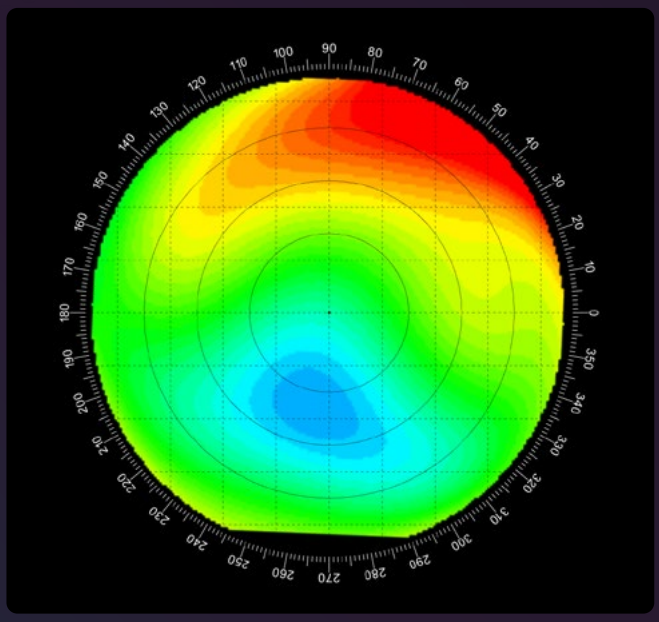
True 3D visualisation

Corneal and scleral topography

The Hyperparallel difference

HP-OCT™ uses the same core principles as traditional spectral domain OCT but takes it to a new level with some key advances.

- HP-OCT™ incorporates a micro-lens array to split the 840nm light source into 1,008 simultaneous, parallel beamlets.
- This allows it to capture a series of snapshot frames, with eye motion artefacts effectively neutralised for each frame.
- Once registered, the resulting true-volume image can be used to not only generate superb 3D images of the anterior and posterior segments, but also highly accurate topography maps of the cornea and sclera. Additionally, a full set of biometry parameters, including axial length can be produced.



Above: Epithelial thickness map

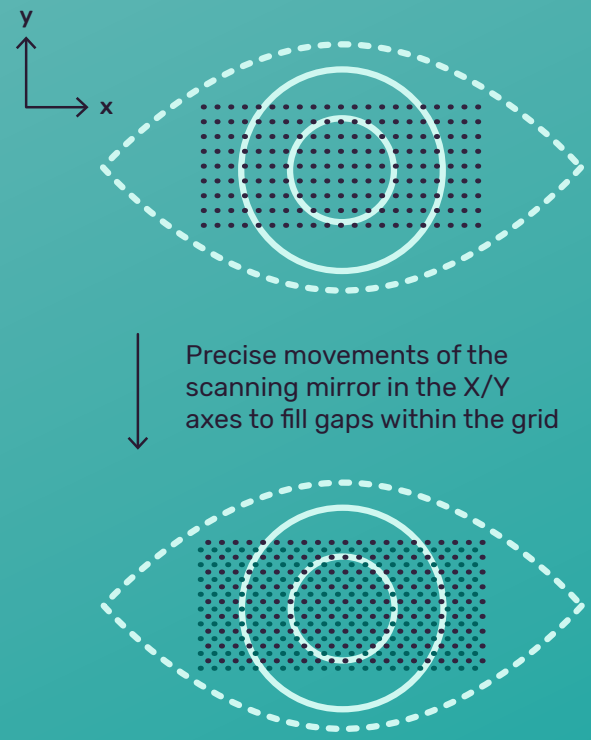
Below: Biometry report

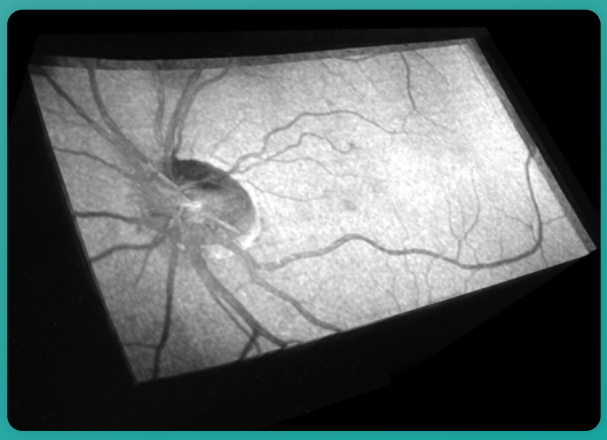
How beamlet technology works

While conventional spectral domain OCTs rely on a single beam scanning in a series of sequential B-scans, the HP-OCT™ images the eye using numerous simultaneous, parallel beamlets.

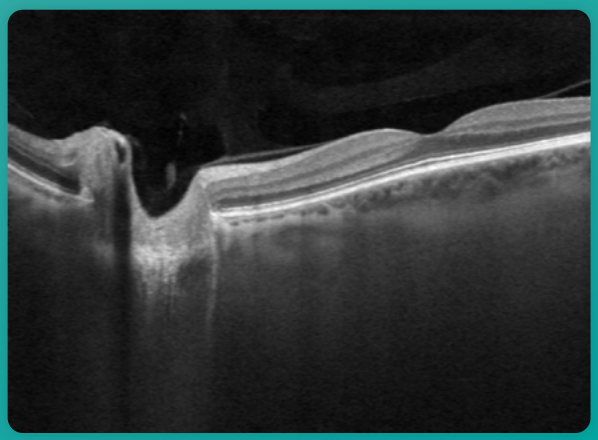
These simultaneous beamlets are made possible by the insertion into the main beam path of a micro-lens array, which consists of tiny lenslets arranged in a 24 x 42 grid. These lenslets split the light source into 1,008 individual parallel beamlets, so that a single exposure creates a motion-free snapshot capture (or frame) of the entire region of interest.

The entire grid of simultaneous beamlets is then scanned at 300 frames per second to fill in the gaps in the scanned area, thus creating a scan rate of over 300,000 scans per second and an exceptionally dense true-volume 3D image of the eye.





Above: 3D capture of retinal view



Above: Retinal B-scan taken from 9.4mm (h) x 5.4mm (w) x 8.3mm (d) cube

Specifications

Acquisition Rate	302,400 A-scans per second
Axial Imaging Resolution[1]	9.0 µm
Lateral Imaging Resolution[1]	
Anterior Segment Lens	33 µm
Retinal Lens[3]	19 µm
Imaging Volume	
Anterior Imaging Lens[2]	Width: 16.6mm Height: 9.4mm Depth: 11mm
Retinal Imaging Lens[1,3]	Width: 9.4mm Height: 5.4mm Depth: 8.3mm
Axial Length Range	14 mm – 35 mm
Operating Distance	
Anterior Lens	66 mm
Retinal Lens	32 mm

In-vivo Repeatability[4]	
Corneal Curvature (SimK)	0.06D (flat axis) 0.08D (steep axis)
Axial Length	8.7 µm
Corneal Thickness	1.4 µm
Corneal Height	0.53 µm
Anterior Chamber Depth	12 µm
Lens Thickness	14 µm
White-to-White Distance	120 µm
Fixation Target	Internal (focusable) and external
Light Source	Superluminescent diode (840 nm)
Power Source	100-240 V 50-60 Hz
Dimensions	Width: 370 mm Depth: 540 mm Height: 530 mm
Weight	27kg

1. Measured in Tissue
2. Measured in Air
3. Optional Lens attachment
4. Data on file

Not all products, services or offers appearing in this brochure are available in every market and their approval status might be different, including labelling and instructions. Please contact your local Cylite representative for more information. Additionally, the content found within this brochure is subject to change.

All imagery shown is for illustration purposes only. Actual product may vary.

This device is only available for sale to health professionals.

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