Going beyond the surface of your retina

OCT-HS100
OPTICAL COHERENCE TOMOGRAPHY

We Speak Image

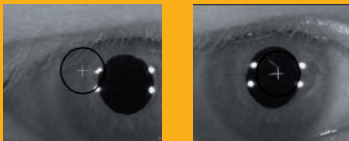you can

Canon

Automatic functions make examinations short and simple.
Perform the examination with only two simple mouse clicks!

1. START

- Auto alignment
- Auto focus
- Auto C-gate

2. CAPTURE

The Canon OCT-HS100 is the first Fully Automated Spectral Domain OCT. Operating an OCT has never been easier.

The OCT-HS100's extensive automatic functions simplify and optimize examinations. A single mouse click correctly aligns and focuses on the retina to maximize scan quality. The operator then decides with a second click when the scan itself will be initiated, allowing full control over the instrument. The high scan speed of 70,000 A-scans/sec results in very short examination times —typically under two seconds—improving efficiency and resulting in a very patient-friendly experience.

Canon's expertise in optics and innovative technology has resulted in a fantastic 3μm optical axial resolution for amazing scan quality. The built in Scanning Laser Ophthalmoscope (SLO) allows for high quality retinal observations and precise follow up examinations.

Full Auto OCT

High specifications in a very compact design

Full Auto
The OCT-HS100's Full Auto feature significantly simplifies operation; standard procedures can easily be delegated and results are operator independent.

High Image Quality.
3μm axial optical resolution

Auto anterior eye alignment and tracking
The OCT-HS100 will automatically maintain the exact alignment on the center of the eye .

Auto Fundus tracking by SLO
By detecting the amount of movement in fundus images, the unit can automatically compensate for small involuntary movements of the eye.

Auto C-gate control (Coherence Gate)
Scan depth is automatically adjusted.

Auto Focus
Automatic compensation of patient refraction.

10 mm scan width
Increased effectiveness of examinations by capturing large areas with just one scan.

Easy examinations
Five stored examination sets: Macula Disease, Glaucoma, Choroid, Anterior and General. Examinations for other retinal diseases can be easily created in the initial settings menu.
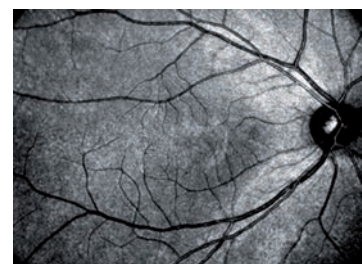
Extensive connectivity
The unit can be used stand-alone or in a network. Tomograms or reports can be output as JPEG, BMP or DICOM file.
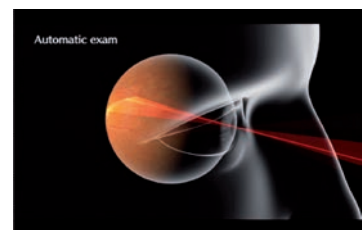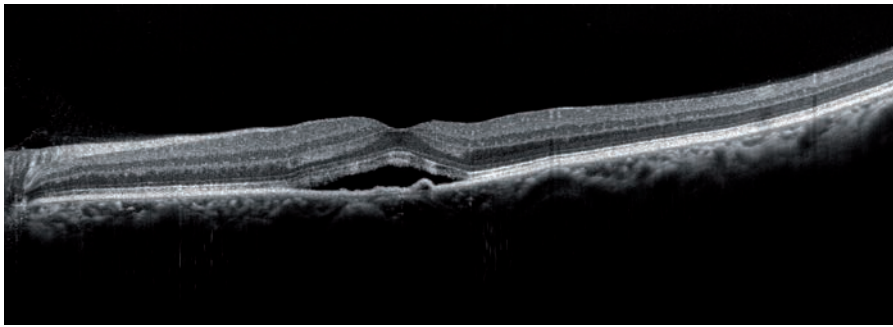
High scanning Speed
70,000 A-scans per second allow two-second examinations for reduced risk of motion artefacts and increased patient comfort.
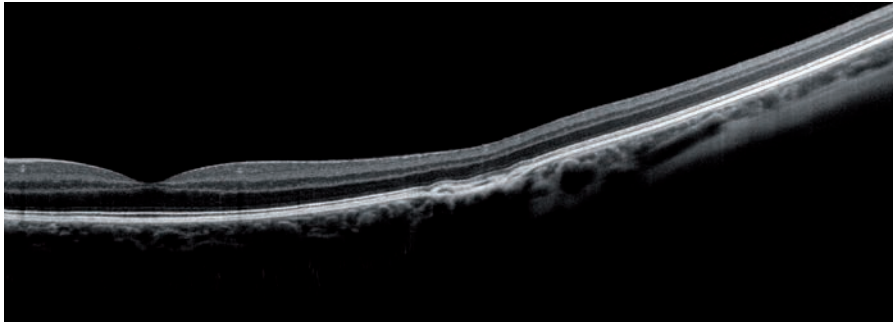
Built in SLO
For high quality retinal observation and precise follow up examinations
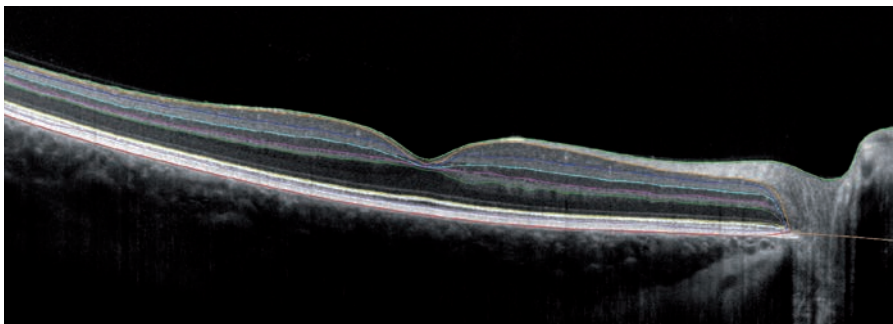
Main Features

3µm axial resolution
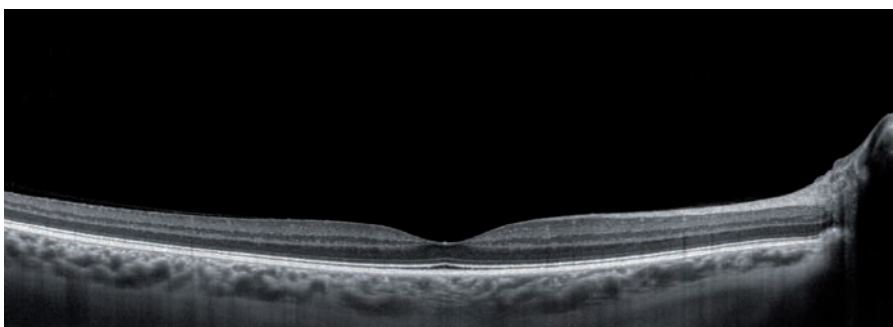3 micron resolution for unsur-passed image quality

Averaging
Up to 50 scans can be combined for the highest possible image quality

10 layer recognition
The OCT-HS100 can recognize ten boundaries of the retina; detection of Bruch's membrane (BM) is now possible

Choroid and Vitreous mode
Using Enhanced Depth Imaging, two modes can be selected based on the pathology: Choroid Mode (left) for detection of choroidal neovascularization. Vitreous Mode (below) for the detection of epiretinal membranes or vitreo macular traction;
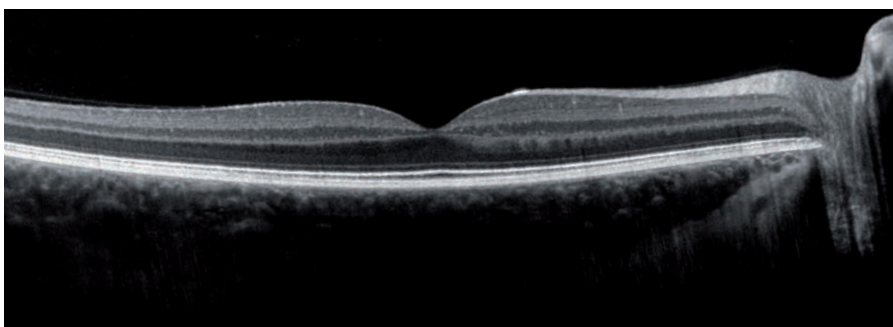
Extensive software

Capture Screen

The capture screen displays a clear image of the anterior eye segment and retina (by SLO) as well as the OCT preview. The capture screen allows full control of the OCT-HS100: examination sets, fixation target, alignment and focusing.

Macula analysis*

Full retinal significance map
Full retinal deviation map
Full retinal difference map
IS/OS - RPE thickness map
RPE deformation map
Inner retinal thickness map
Outer retinal thickness map
[NFL+GCL+IPL] thickness map

ETDRS sectors

Full retinal measurements table
Central sector thickness
Minimum fovea thickness
Total area average thickness
Total volume
Full retinal time-line graph
3D object

Macula glaucoma analysis*

RNFL thickness map
RNFL deviation map
RNFL significance map
ILM-RPE thickness map

NFL+GCL+IPL deviation map
NFL+GCL+IPL significance map
NFL+GCL+IPL sectors
NFL+GCL+IPL time-line graph
NFL+GCL+IPL measurement table
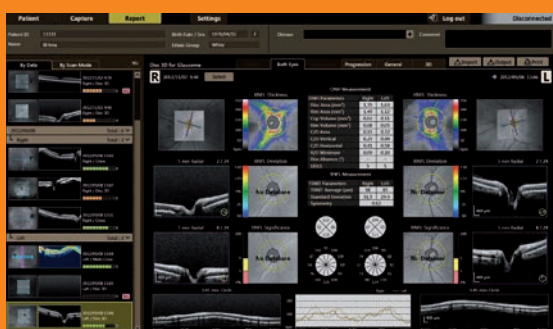
Disc analysis*

3.45mm circle reconstruction tomogram
RNFL thickness
RNFL deviation map
RNFL significance map
RNFL thickness profile
ONH measurement table
RNFL measurement table
RNFL sectors
RNFL time-line graph

SLO tracking follow-up

SLO tracking allows accurate follow up examinations using the same scan position and identical scan parameters: Scan mode, position and size, fixation target position and size.

* For these analyses a Normative Database will be available in a next version of the OCT-HS100 software

Extensive scan modes

Macula 3D
An area scan is done centering on the macula., for examination of the macula and the deeper layers
Scan size 10 x 10 mm

Cross
High resolution scan with up to 50 times averaging for highest image quality
Scan size 3 x 3 to 10 x 10 mm

Glaucoma 3D
A vertical area scan of the macula for extensive analysis of the NFL+GCL+IPL
Scan size 10 x 10mm

Multi Cross
Mult purpose high resolution scans with up to 10 times averaging.
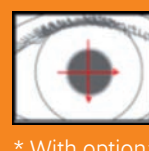Scan size 3 x 3 to 10 x 10 mm

Disc 3D
Area scan for disc analysis
Scan size 6 x 6 mm

Anterior 3D*
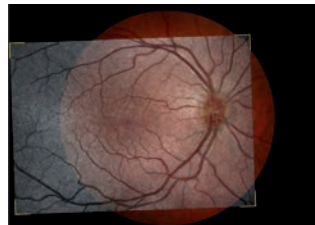Area scan is perfromed on the anterior segment.
Scan size 6 x 6 mm

Custom
General application, for analysis of any disease
Scan size 3 x 3 to 10 x 10 mm

Anterior cross*
High resolution cross scan, for imaging cornea and angle.
Scan size 3 x 3 to 10 x 10 mm

* With optional adapter

Retinal Image Import with automatic overlay

Imported retinal camera images are automatically aligned and overlaid on to the SLO image with precise position matching.

Flexible Layout

The OCT-HS100 takes up very little floor space and is flexible for use in most situations—even against a wall or in a corner.

Specifications

|				
A-scans/sec	Max 70,000		Fundus Preview	Fs SLO
Axial resolution	3 µm		Observation light source	780 ± 5nm
Transversal Resolution	20 µm		Internal Eye Fixation	2 mm or 6mm , 590nm (orange)
Pupil size requirement	Min 3.0 mm		Field of view	10 x 10 mm, OCT 33° x 33°, SLO 44°x 33°
Scanning width	2 ˜10 mm		Dimensions (WxDxH)	387 x 499 x 474 (mm)
Scan depth	2 mm		Weight	29 (kg)
OCT light source	855 nm ±5 nm		Optional Accessory	Anterior segment adapter (ASA-1)
Working Distance	35 mm			

Clinical images
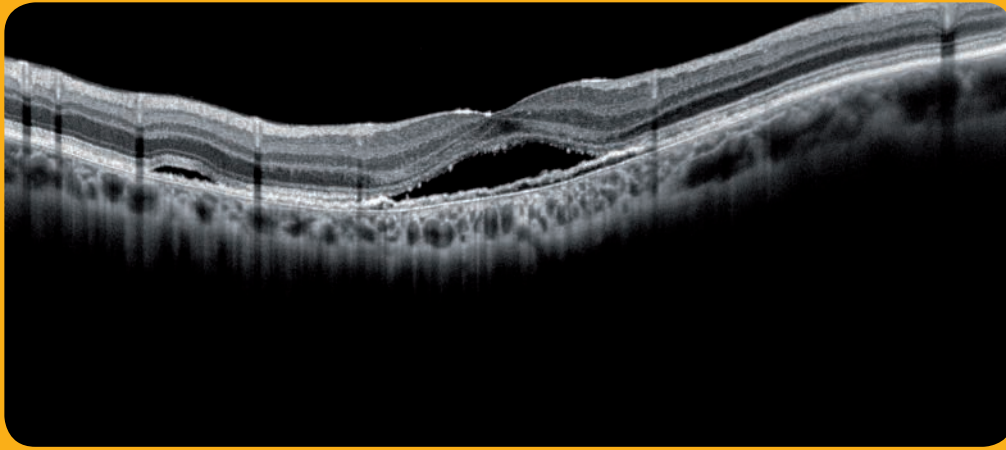
Macular Edema
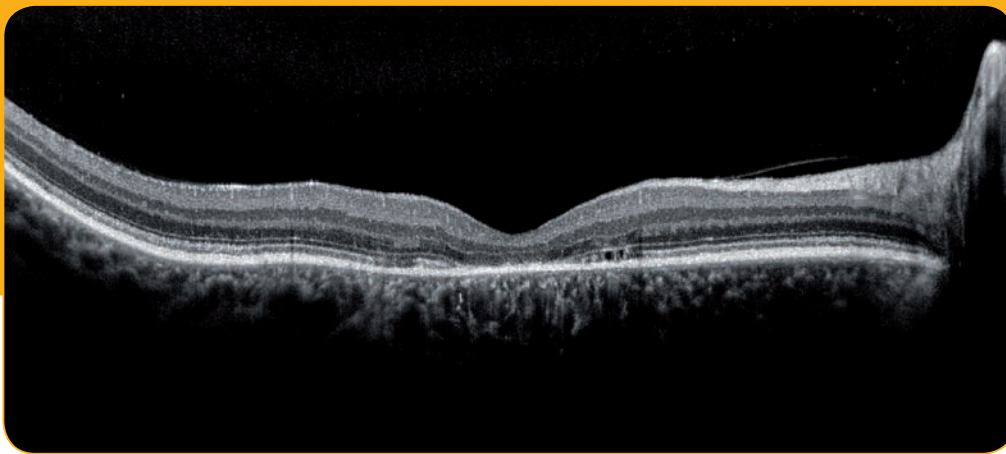
Macular Dystrophy
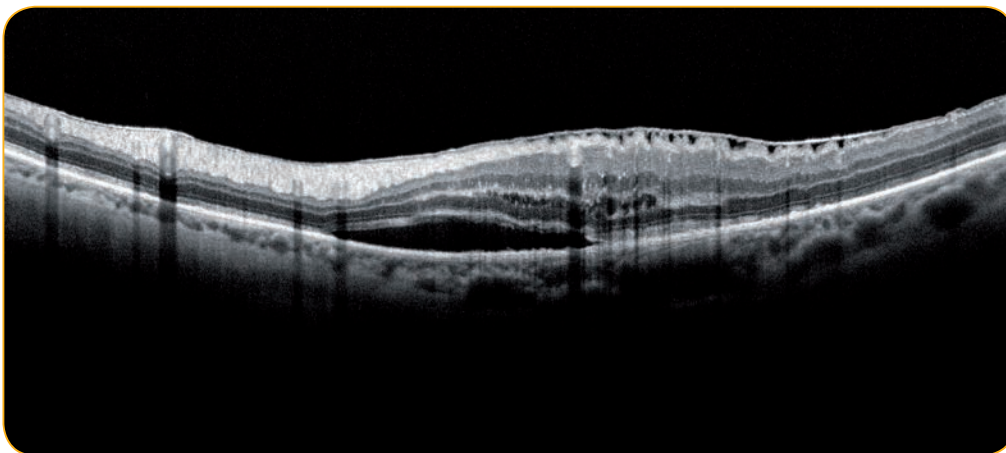
Posterior Epithelium Detachment
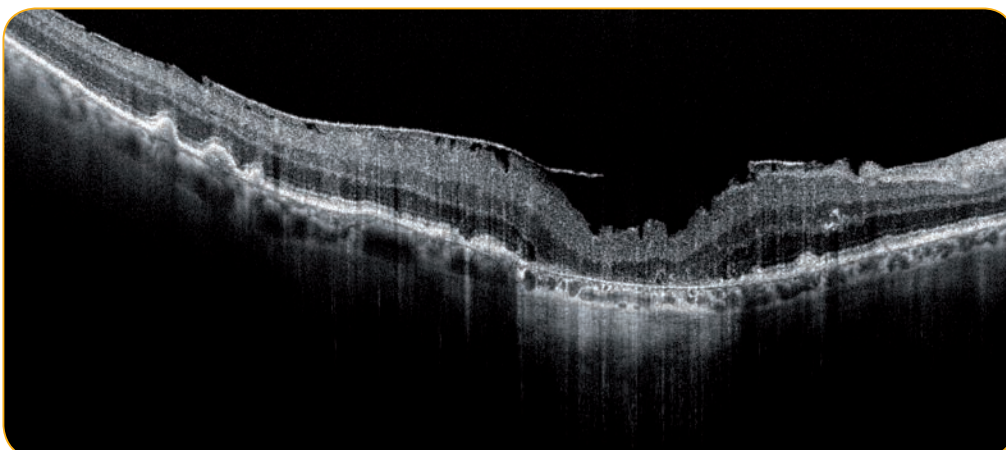
Age-related Macular Degeneration

Karolinska Institutet

Images courtesy of
Karolinska Institutet, Sweden

Canon has been defining the future with innovative solutions for more than 70 years. In all that time we've constantly strived to improve medical diagnostics in healthcare. Perhaps that's what made us a leading global provider of eye care solutions.

Canon Eco

Our actions are based on honesty and sustainability.

Canon Quality

Safety and quality are an integral component of our actions.

Canon Flexibility

Everything we do has to have a superior customer advantage.

Choose the eye care system of the future and let our local, authorized Canon dealer advise you: