

New generation fully automated artificial intelligence OCT

A new generation of fully automatic artificial intelligence OCT



OCT-1000

Optical coherence tomography scanner

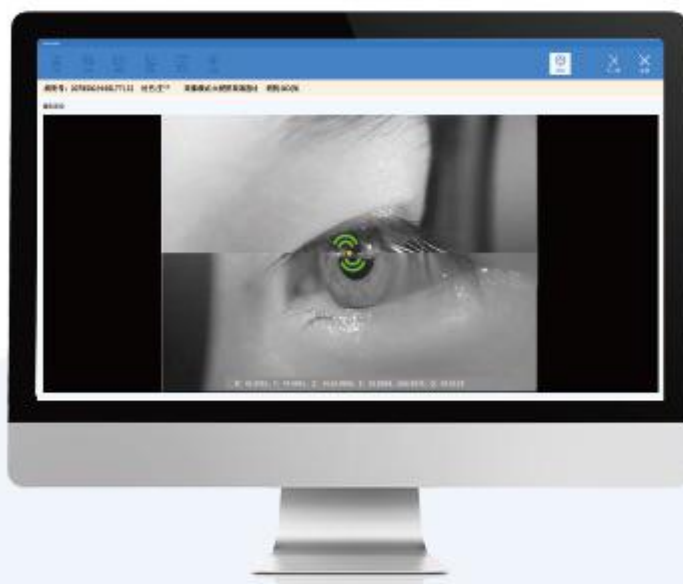
OCT-1000 ophthalmic optical coherence tomography (OCT) is a fully automatic artificial intelligence OCT with fully independent intellectual property rights. Combined with multi-image registration and image enhancement technology and industry-leading analysis technology, it provides a full-stack solution for clinical diagnosis and treatment, including automatic image capture, accurate image analysis, intelligent eye health record management, and real-time data sharing on the cloud.



Proficient in fundus imaging

Assist in improving the reliability and effectiveness of clinical diagnosis

Product Features

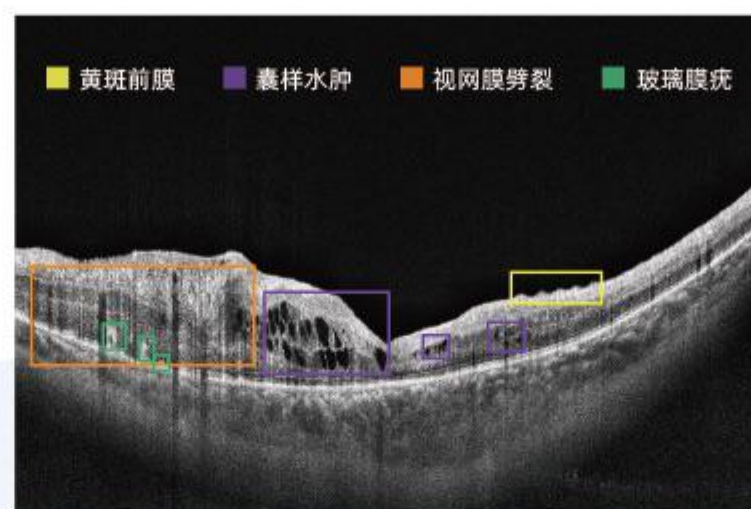


Fully automatic operation

High-resolution imaging

Fast pupil positioning and focusing; Full voice guidance; It takes an average of 2 minutes to complete the examination of both eyes of one patient.

12mm×9mm Large field scan; It covers both the macular area and the optic disc area. Retinal disorders can be comprehensively detected



AI Image Analysis

Industry-leading image algorithms

It can be used for auxiliary diagnosis of 16 main fundus lesions. The lesion area was accurately identified, segmented and automatically marked.

Provide reliable and accurate quantitative analysis (such as mean choroidal thickness, central macular thickness, etc.)



Intelligent eye health management

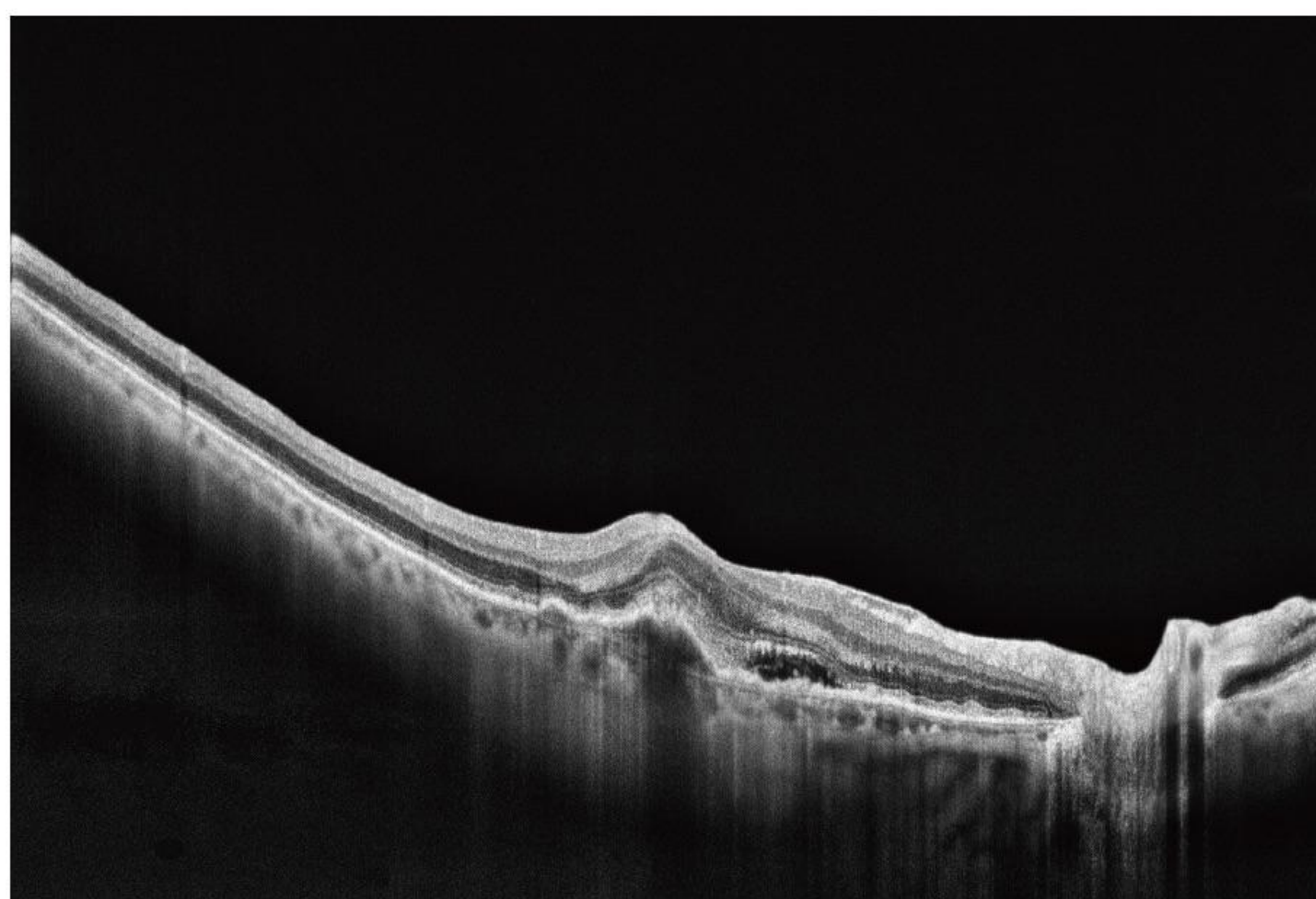
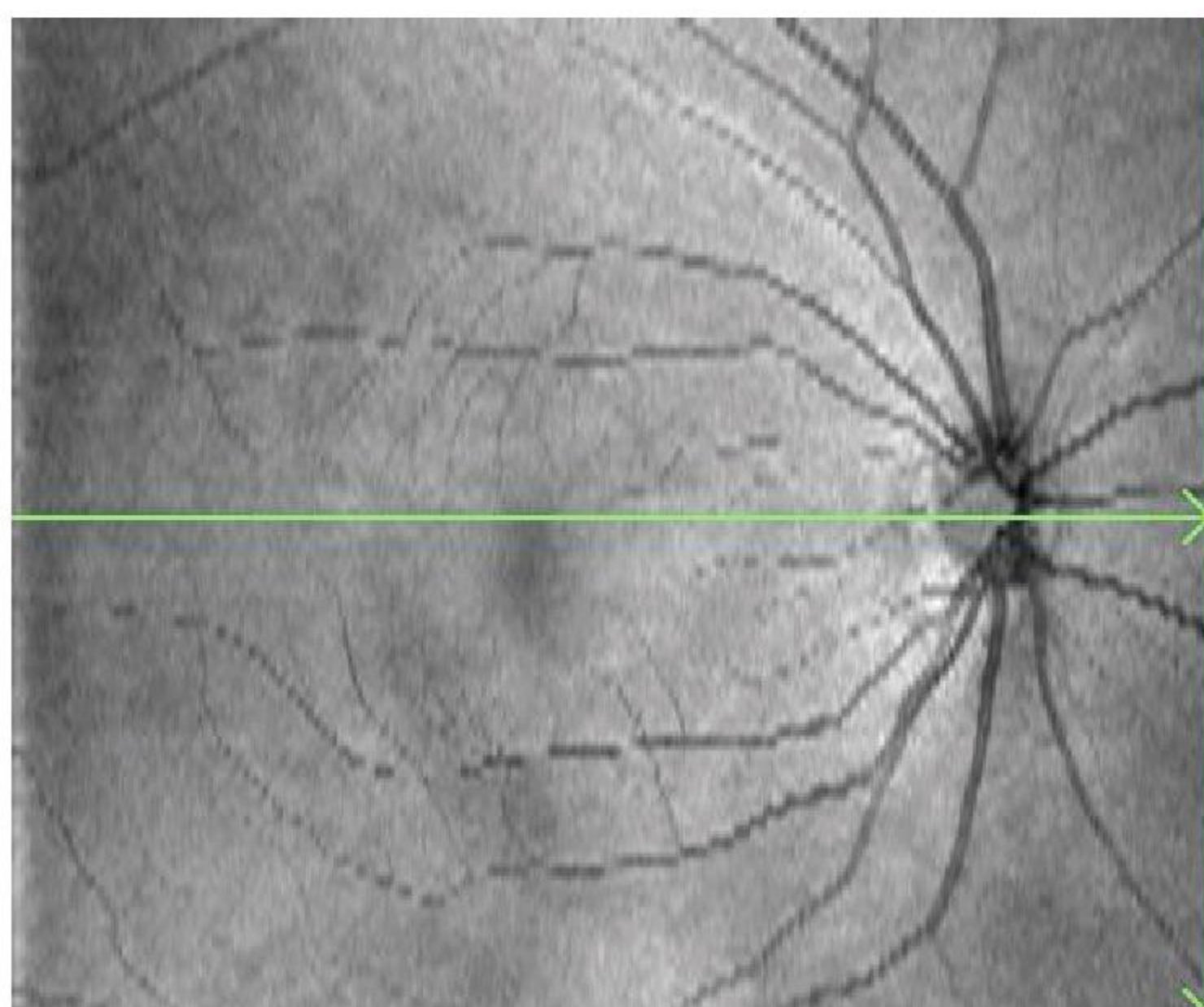
Perfect adaptation to all kinds of scenarios

Automatically establish eye health records for users; Mobile scanning code can quickly receive the inspection report.

Using cloud architecture; Real-time sharing of examination image data; To provide platform support for remote hierarchical medical alliance

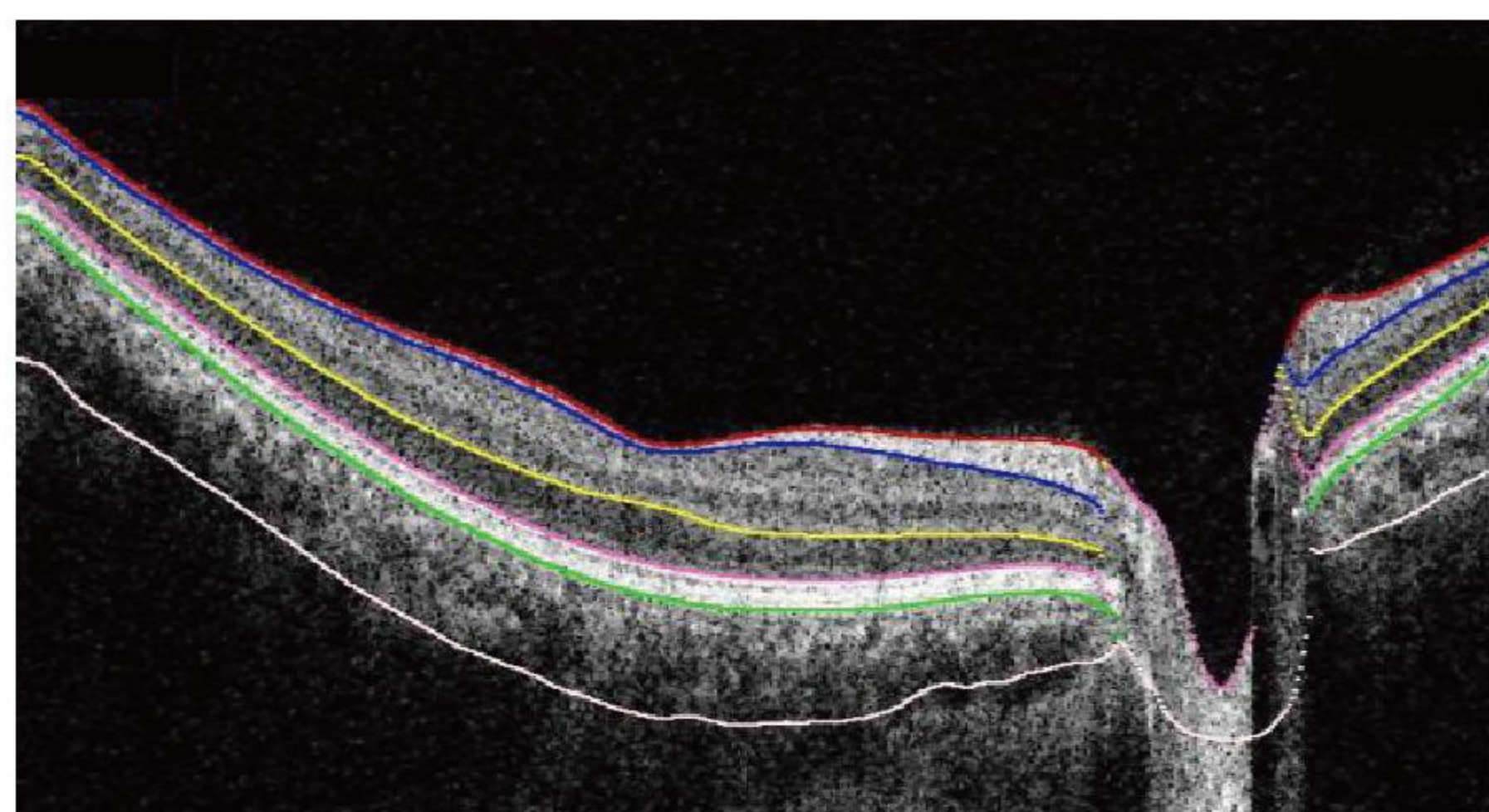
🔧 Ultra-fast fundus signal acquisition

80,000 times per second "second" acceleration technology, the scanning speed is greatly improved, helping to accurately capture different subdivision forms of fundus lesions in a shorter time and obtain high-quality images.



🔧 Hyperfine fundus structure imaging

The AI multimodal ophthalmic image analysis algorithm based on deep learning can more finely observe the subdivision morphology of various fundus diseases and the development of lesions in different structural layers of the retina, realize the hierarchical imaging of the retina and choroid, support the monitoring, diagnosis and hierarchical analysis of the disease, and help clinicians find more disease evidence for patients and guide treatment.



Layering imaging of the retina and choroid in automatic layering mode

Fundus retinal choroidal thickness can be quantified

🔧 Ultra-portable and humanized design

The ergonomic fully automatic soft and hard artificial intelligence OCT brings users a new fully automatic equipment experience.

It adopts the split design of optical host and display, combining excellent optical design, automatic algorithm, parallel high-speed computing framework and high ease of use human-computer interaction interface. The imaging quality, analysis accuracy, calculation speed and operation convenience are greatly improved.

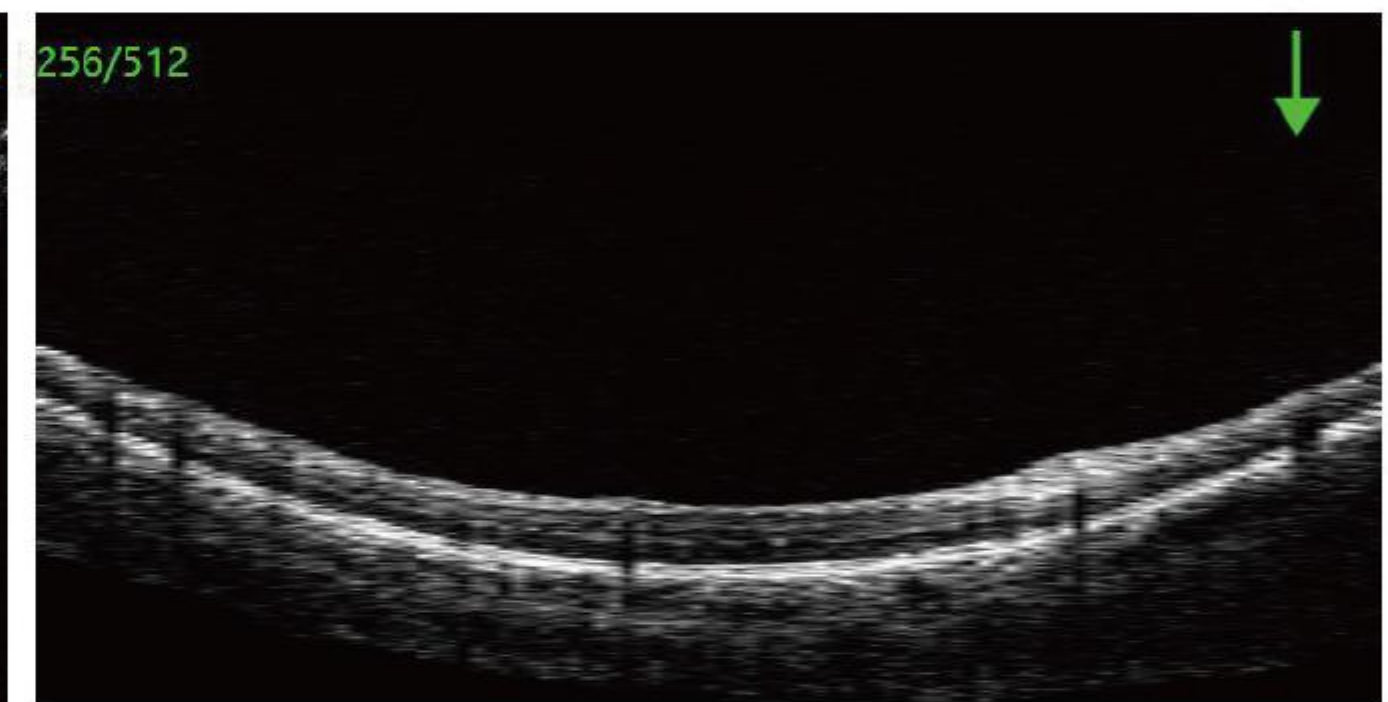
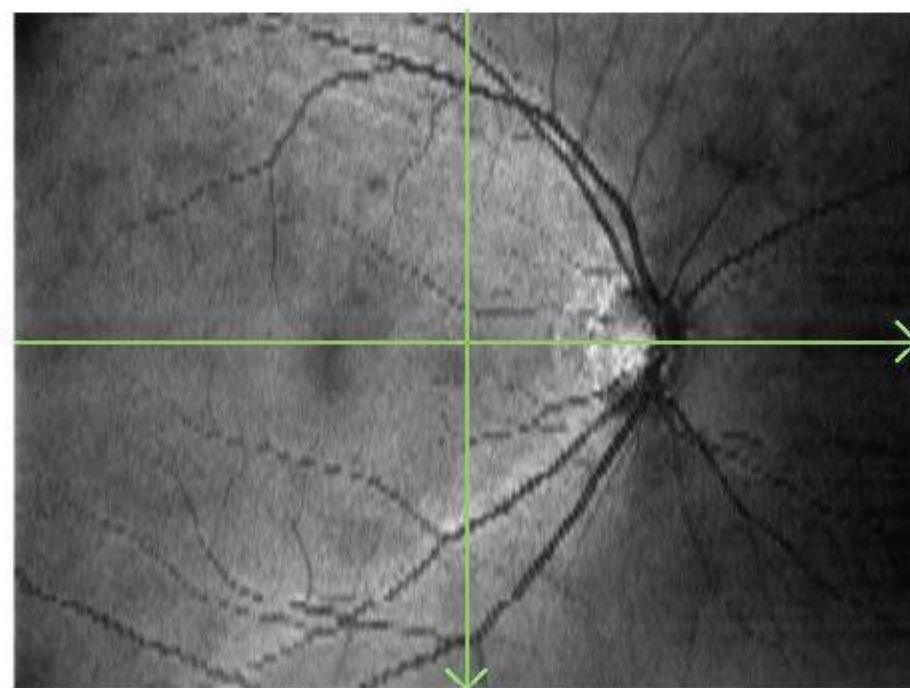


Large Field Analysis Function

Large field scan (12mm X 9mm)

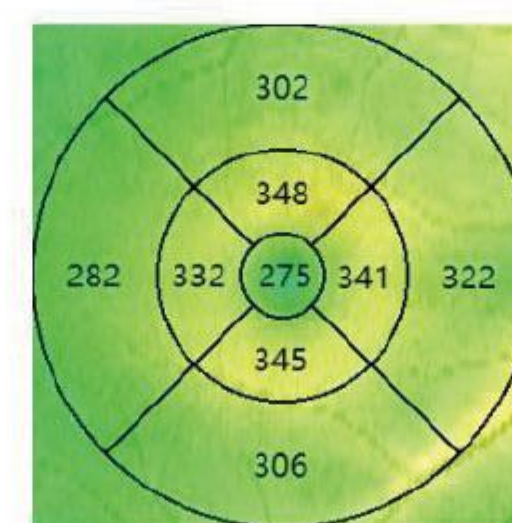
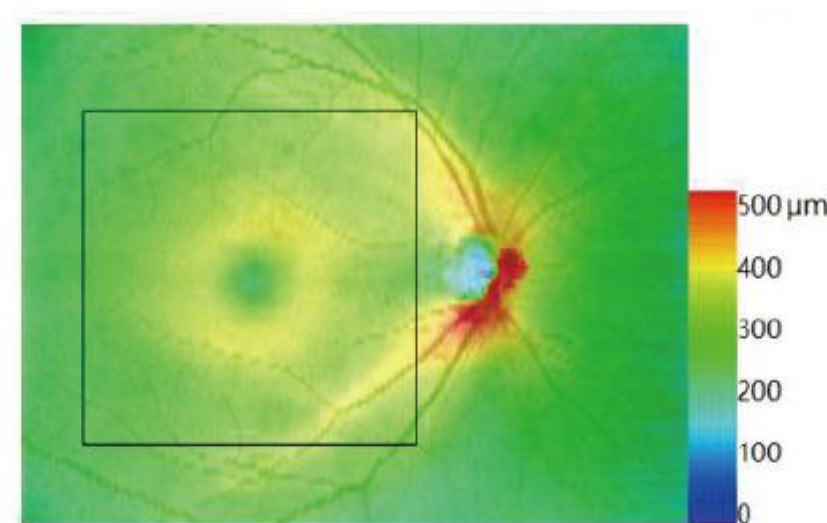
Covering the macular area and the optic disc area at the same time, can fully detect the retinal disease.

OD Signal 90

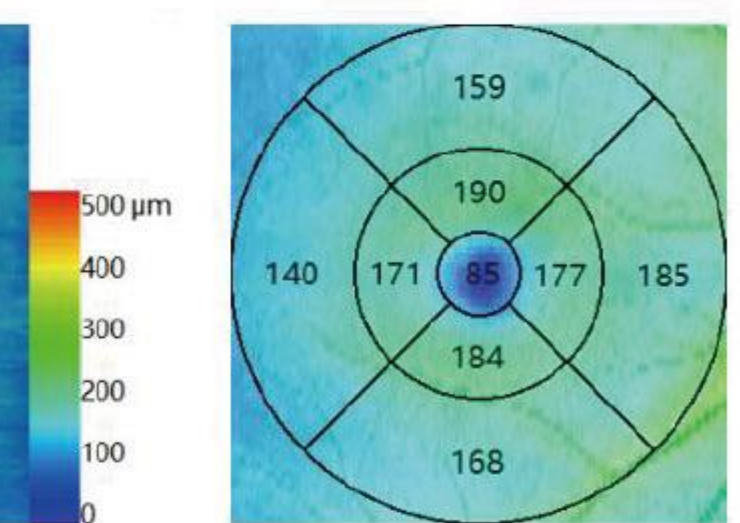
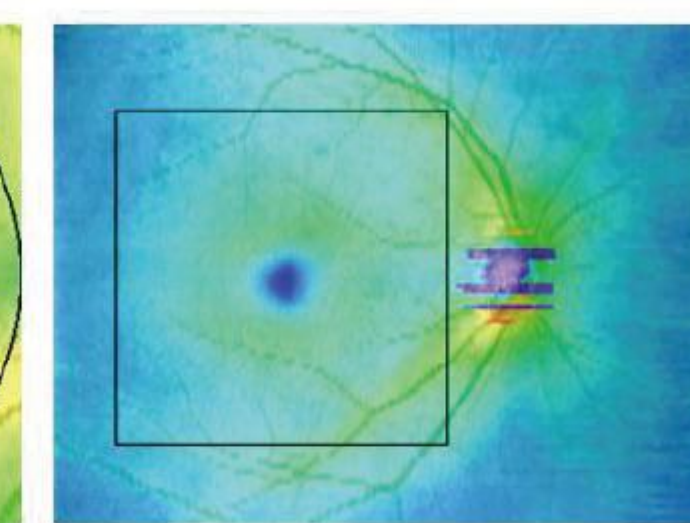


Average choroidal thickness(μm)(73~319)	254
Average retinal thickness(μm)(154~362)	286
Macular foveal thickness(μm)(142~300)	222
Total retinal volume(mm³)(4.00~12.00)	9.03
N/A indicates that it could not be analyzed	

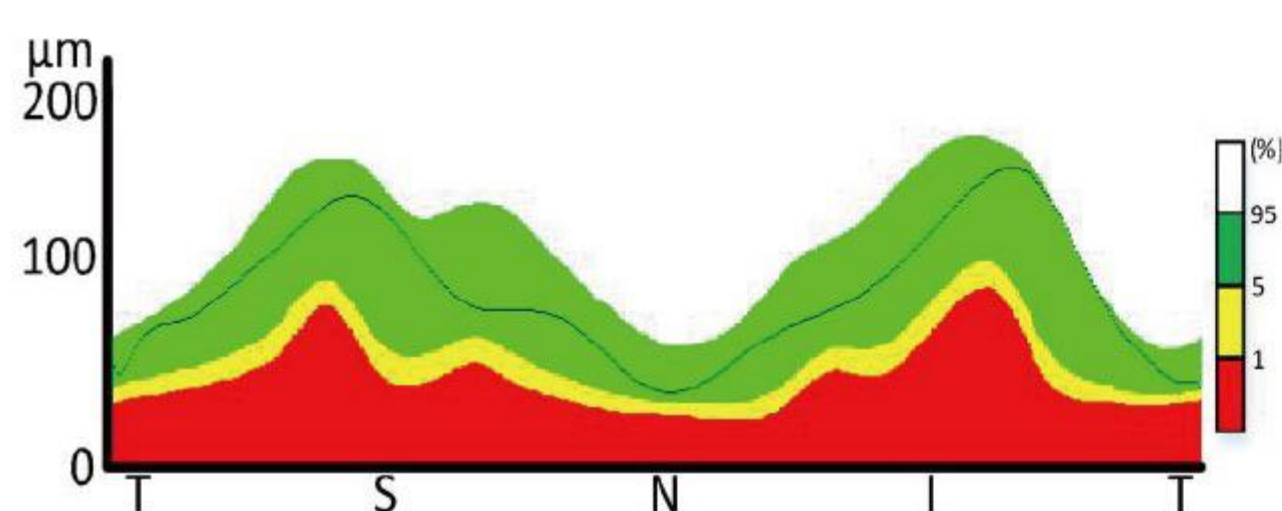
Retinal Thickness Map ILM-RPE/ETDRS



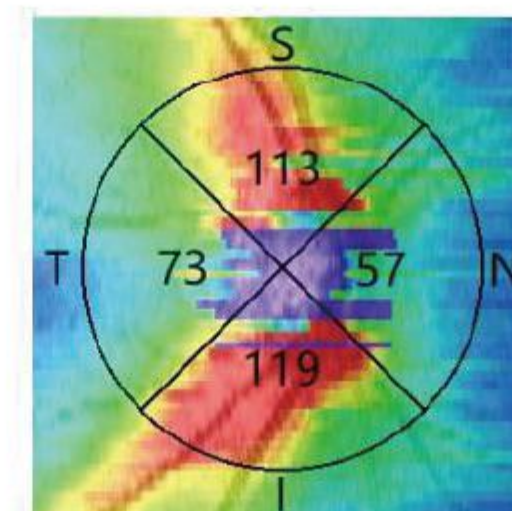
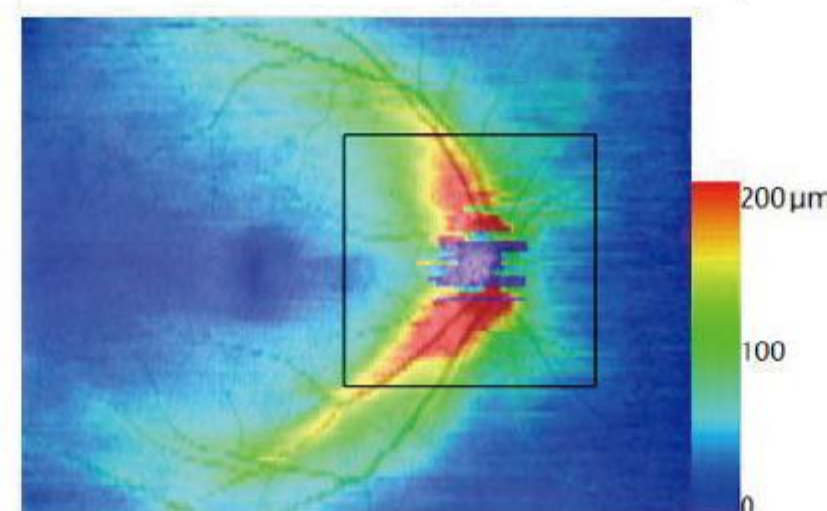
Inner retinal thickness map ILM-OPL/ETDRS (μm)



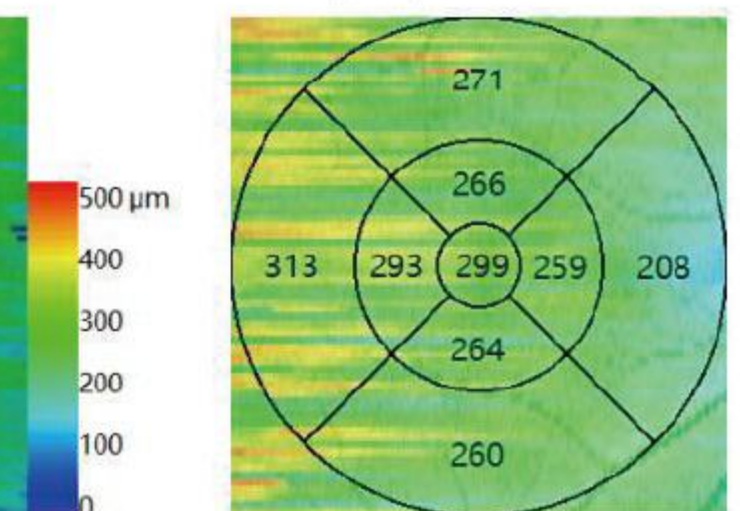
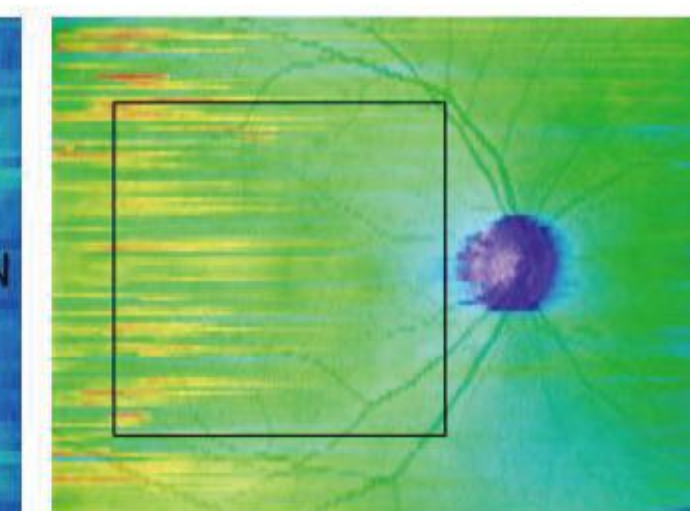
RNFL thickness diameter (3.4mm)



RNFL thickness map /TSNI (μm)



Choroidal thickness map BRM-SCL/ETDRS (μm)



Software analysis

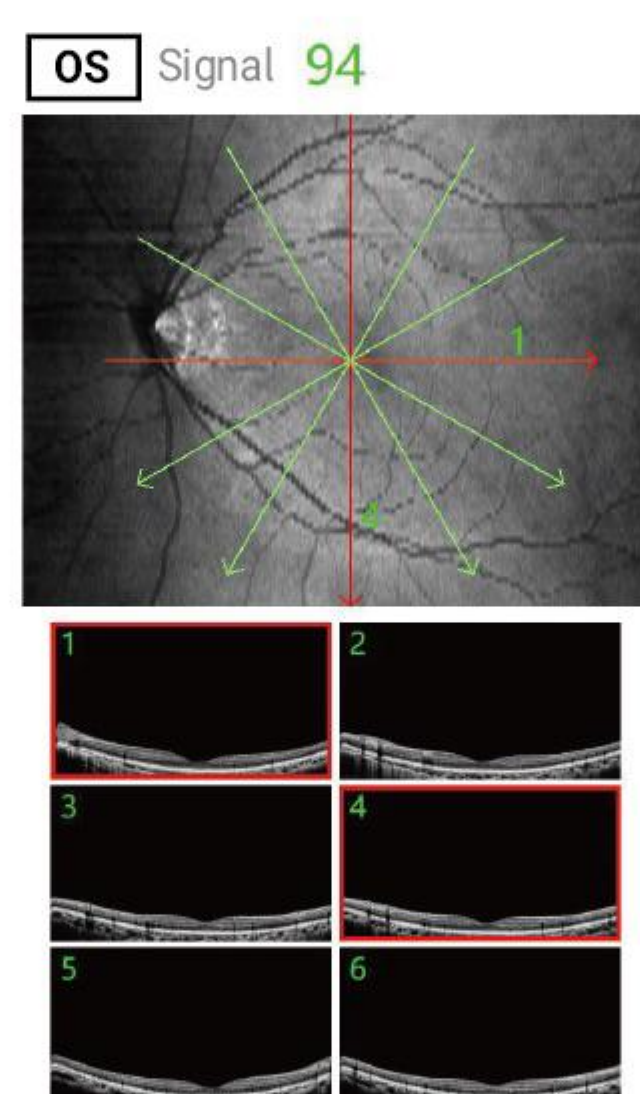
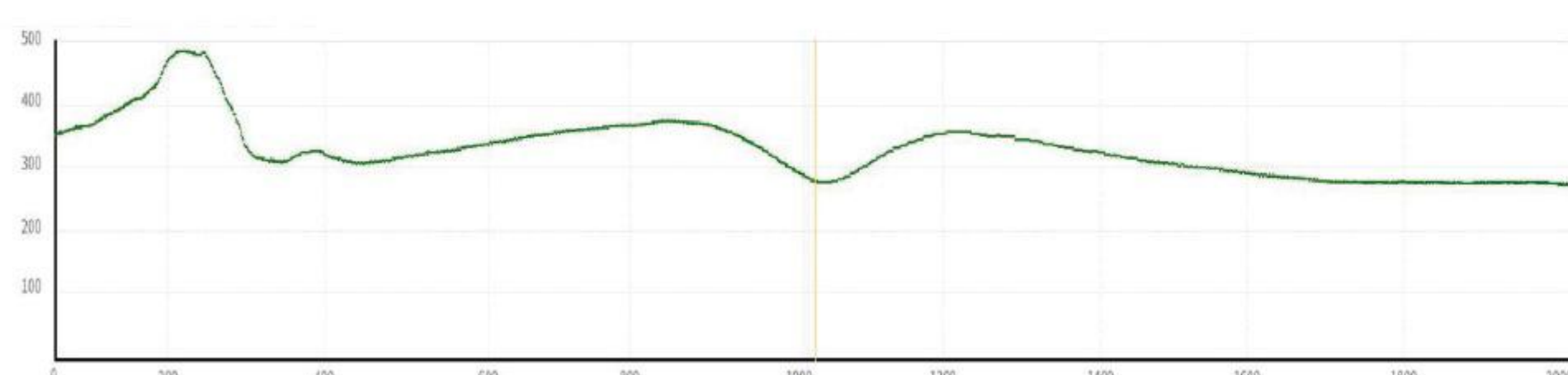
- 12*9mm fundus map
- Average choroidal thickness
- Macular foveal thickness
- Grid map of TSNI thickness of the nerve fiber layer
- Total retinal volume
- RNFL circular thickness
- Average retinal thickness
- Grid map of macular 6*6mm ILM-RPE thickness
- Topographic map of RNFL thickness
- ILM-RPE thickness topogram
- Grid map of macular 6*6mm ILM-OPL thickness
- BRM-SCL thickness topographic map
- ILM-OPL thickness topographic map
- Meshes of macular 6*6mm BRM-SCL thickness

High definition single line scan

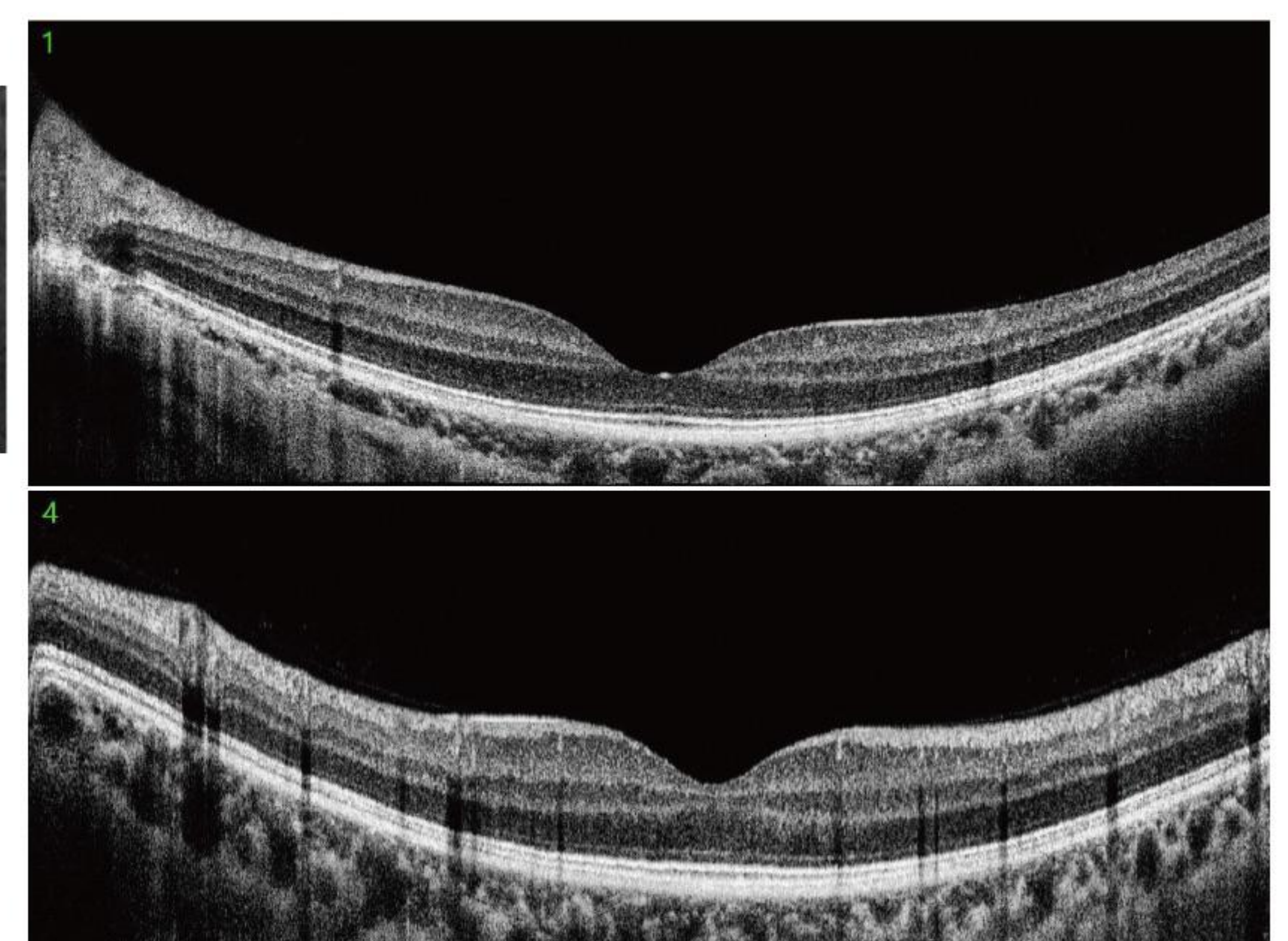
Six radial lines scan



Retinal thickness (ILM-RPE layer) (μm)



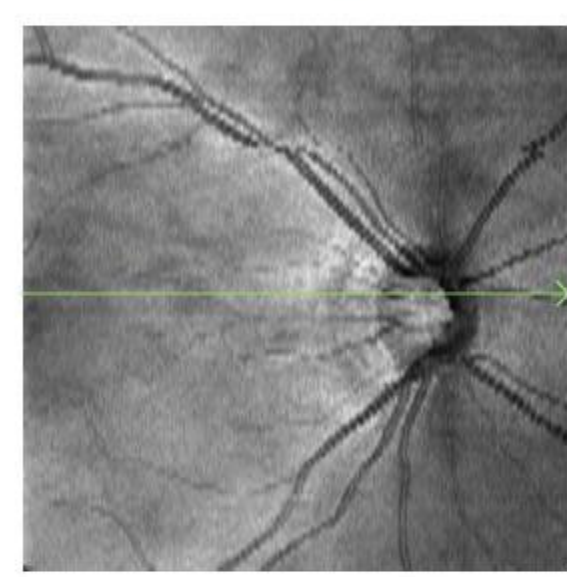
Average retinal thickness(μm)(154~362)	304
Macular foveal thickness(μm)(142~300)	196
N/A indicates that it could not be analyzed	



Glaucoma analysis function

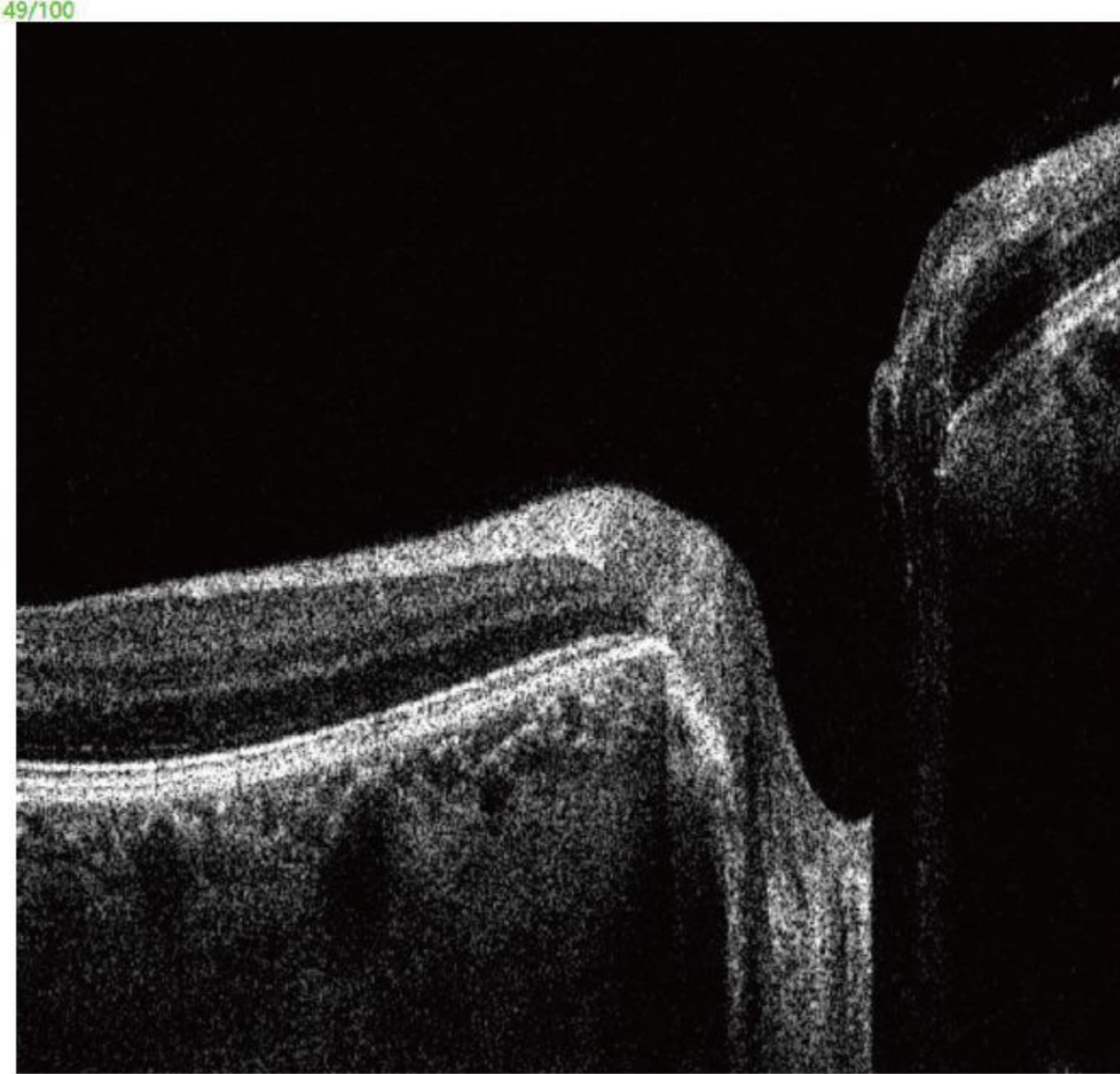
Disc area

OD Signal 84

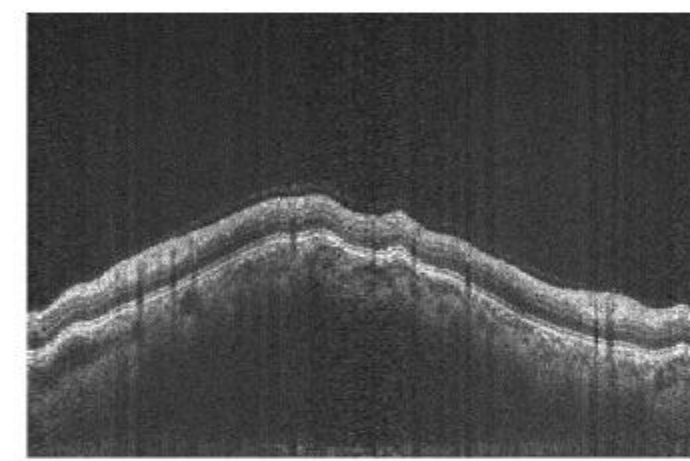


Cup to disc ratio (0.15~0.70)	0.61
Cup to disc ratio (0.28~0.90)	0.59
Vertical cup to plate ratio (0.28~0.90)	0.71
Optic cup area (mm ²) (0.05~4.30)	0.98

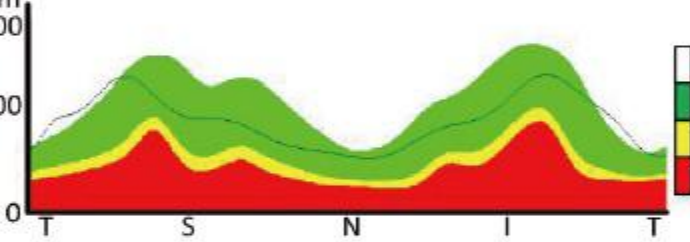
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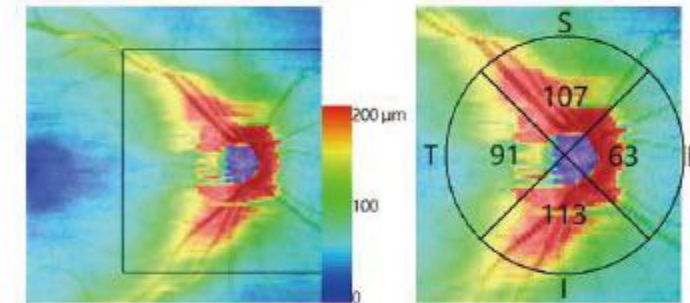
Circumferential section of the RNFL



RNFL thickness diameter (3.4mm)



RNFL thickness map /TSNI (μm)

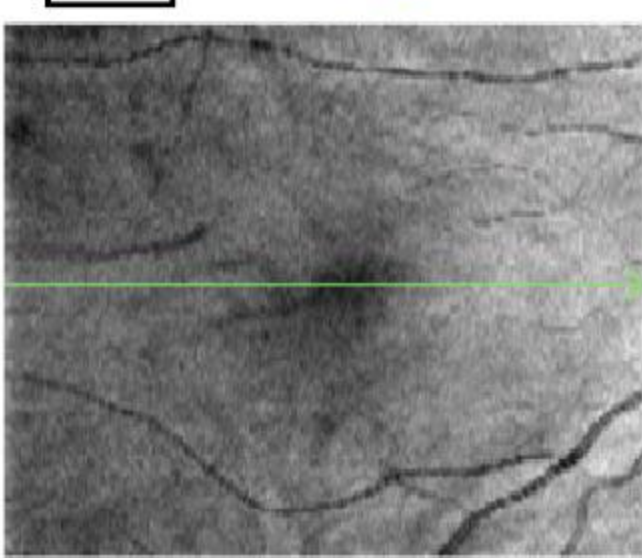


Software analysis

- ◆ 6*6mm fundus map of the optic disc
- ◆ Cup to disc ratio
- ◆ Horizontal cup to disc ratio
- ◆ Vertical cup to plate ratio
- ◆ Optic cup area
- ◆ RNFL rim sweep thickness curve
- ◆ Topographic map of RNFL thickness
- ◆ Grid map of TSNI thickness of the nerv fiber layer

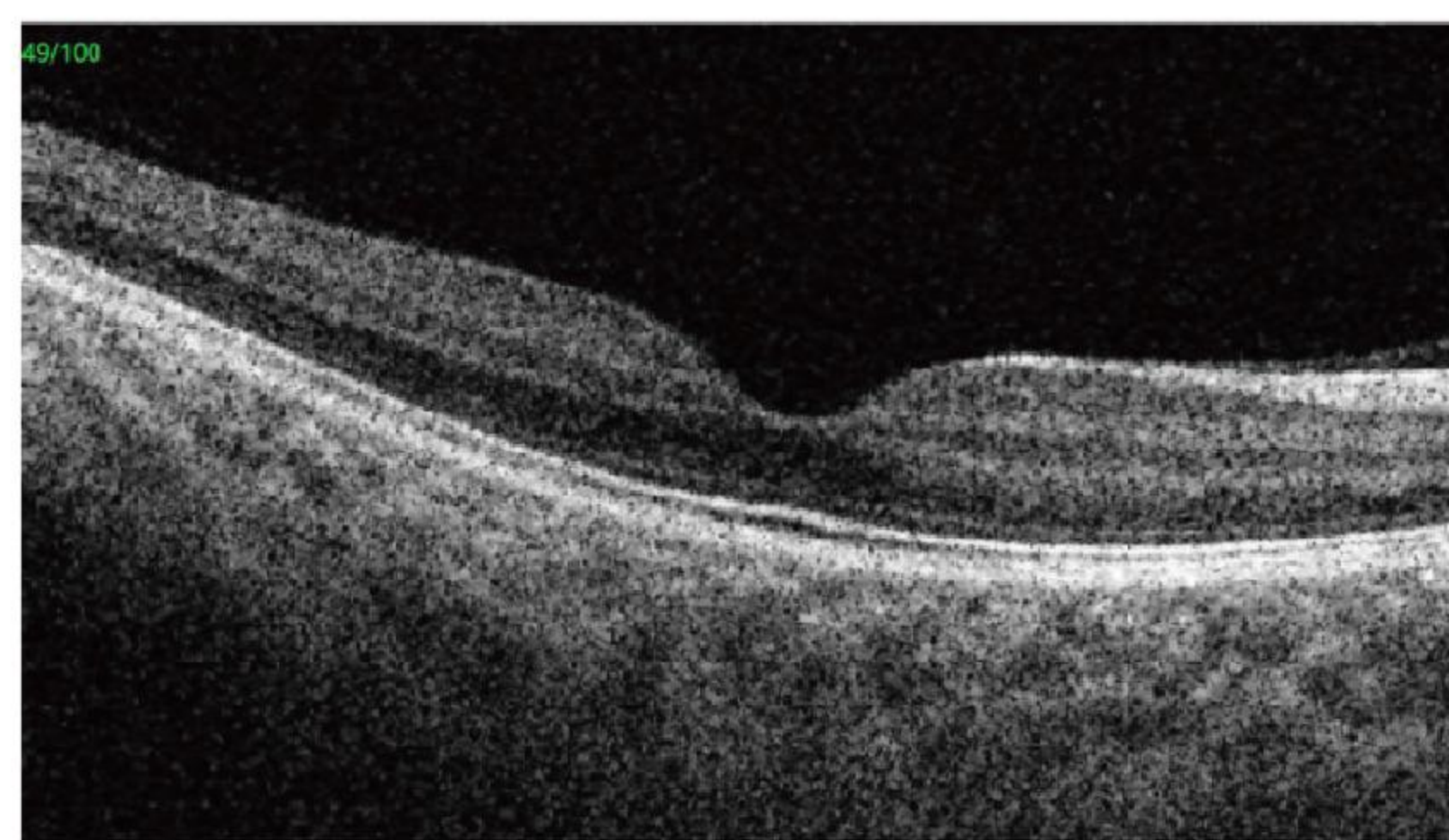
The macular area

OD Signal 73

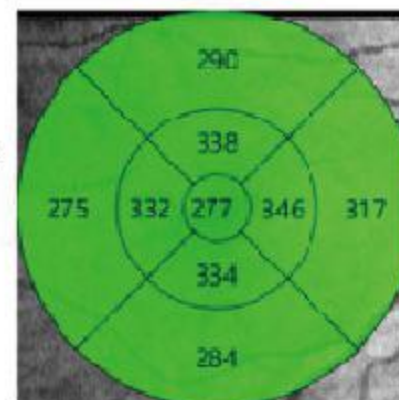
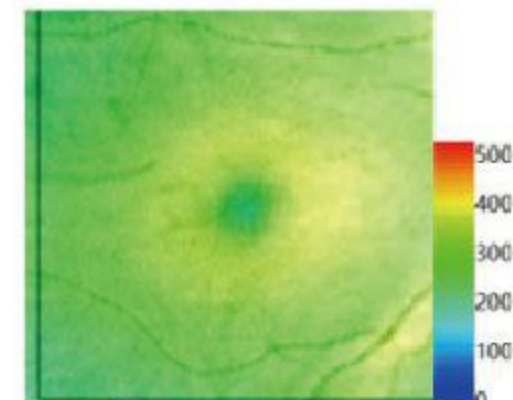


Average thickness of the inner retina(μm)(60~245)	158
Average retinal thickness(μm)(154~362)	296
Macular foveal thickness(μm)(142~300)	212

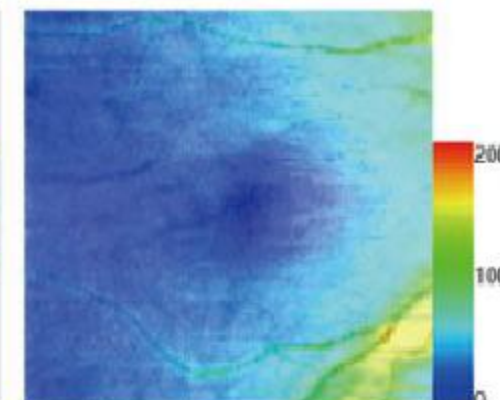
N/A indicates that it could not be analyzed



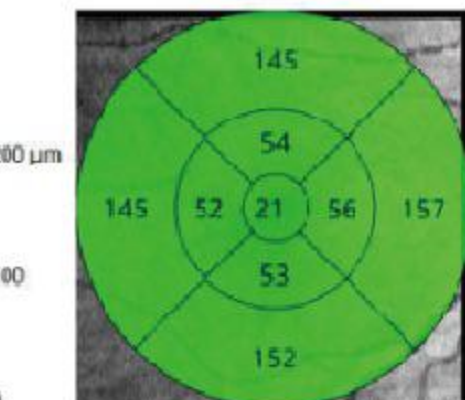
Retinal thickness map ILM-RPE/ETDRS (μm)



RNFL thickness map (μm)



Retinal volume ETDRS (0.01mm³)



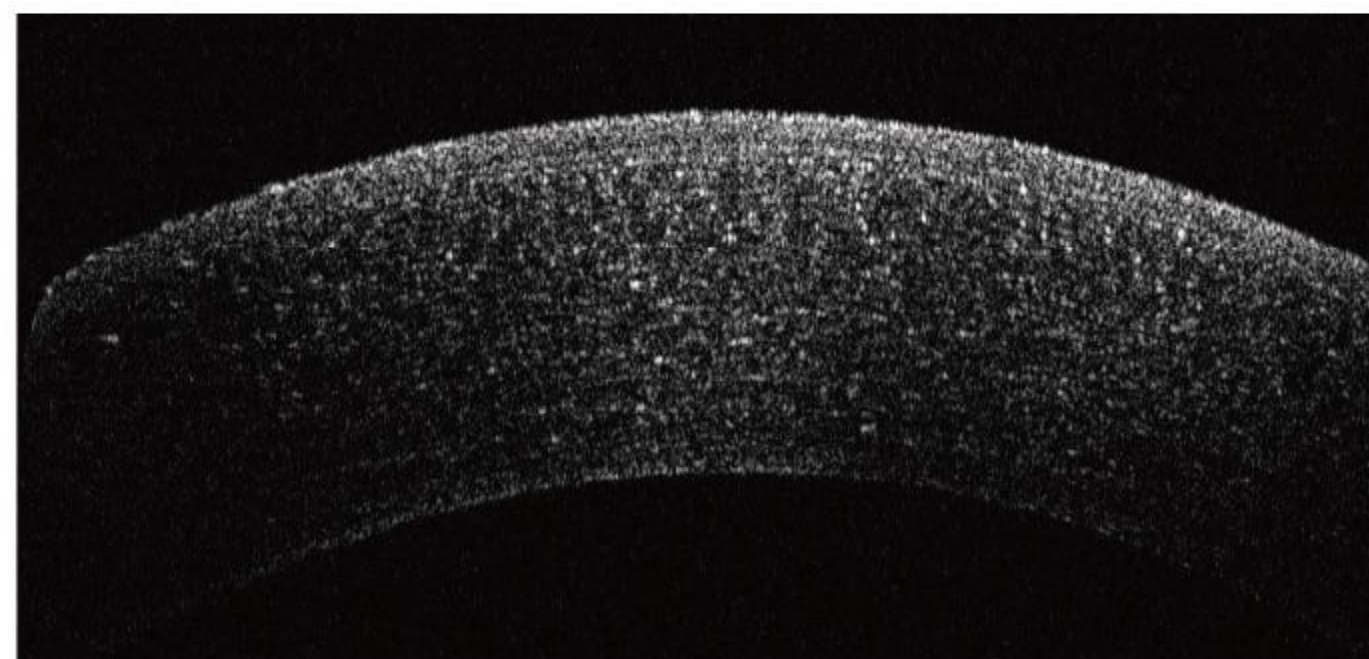
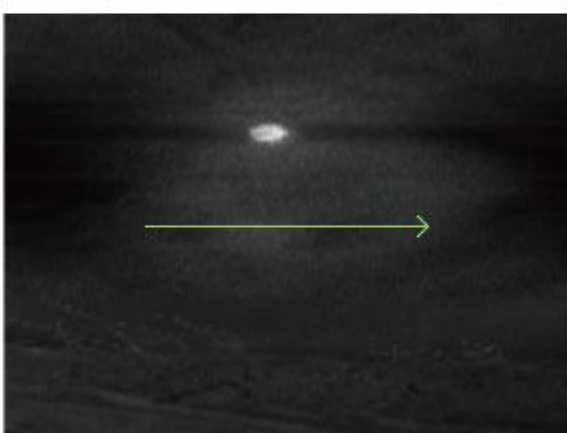
Software analysis

- ◆ 6*6mm fundus map of the macula
- ◆ Average thickness of the inner retina
- ◆ Average retinal thickness
- ◆ Macular foveal thickness
- ◆ ILM-RPE thickness topography
- ◆ Grid map of ILM-RPE thickness
- ◆ Topographic map of RNFL thickness
- ◆ Retinal volume grid map

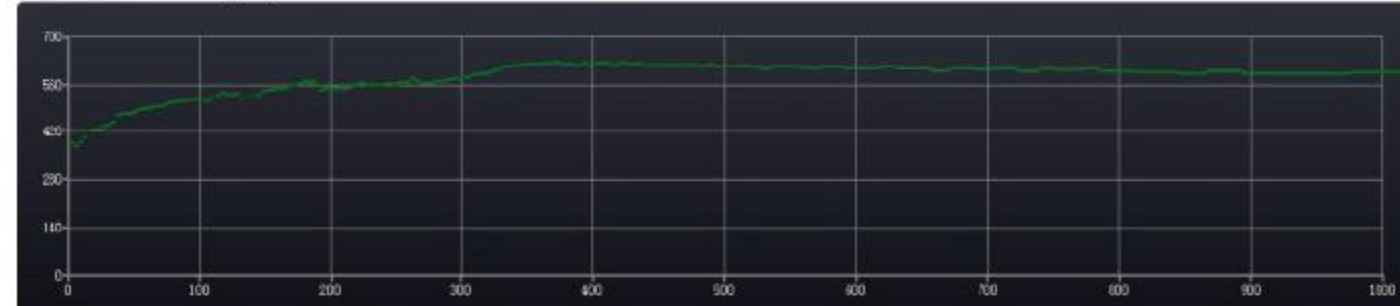
Anterior segment analysis function

High definition single line scan of anterior segment

OS Signal 63

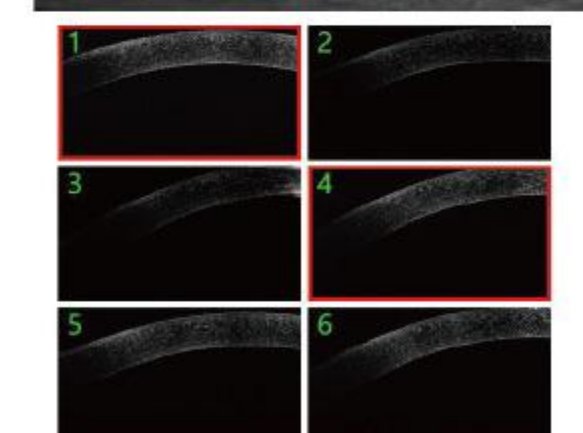
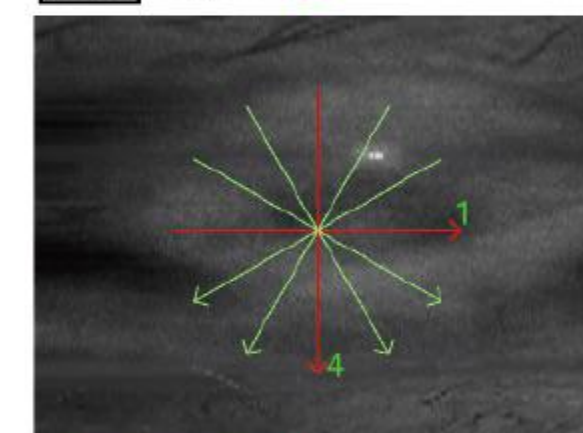


Corneal thickness (μm)



Six radial lines scan of anterior segment

OD Signal 60



Mean corneal thickness(μm)

779

N/A indicates that it could not be analyzed

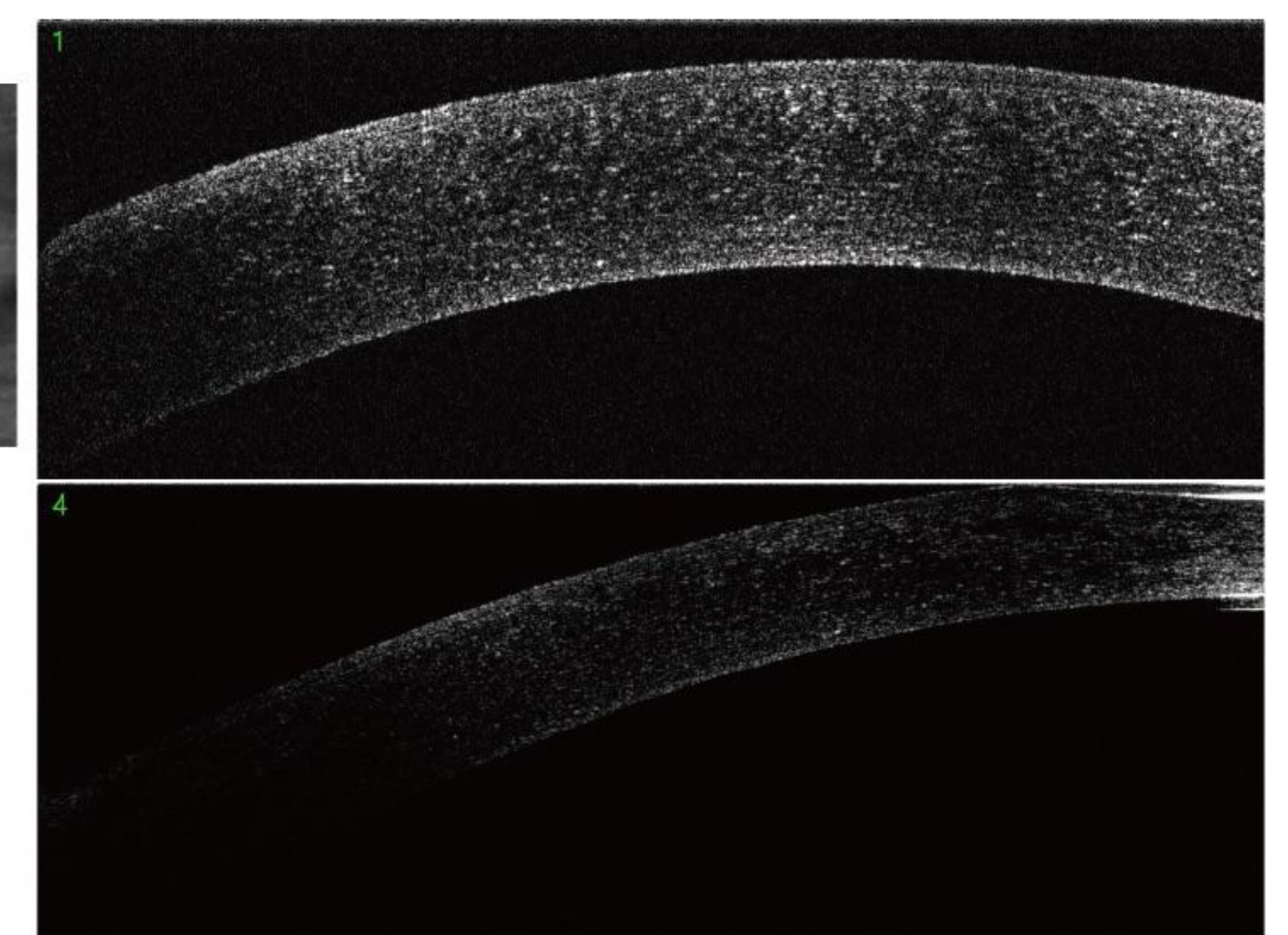


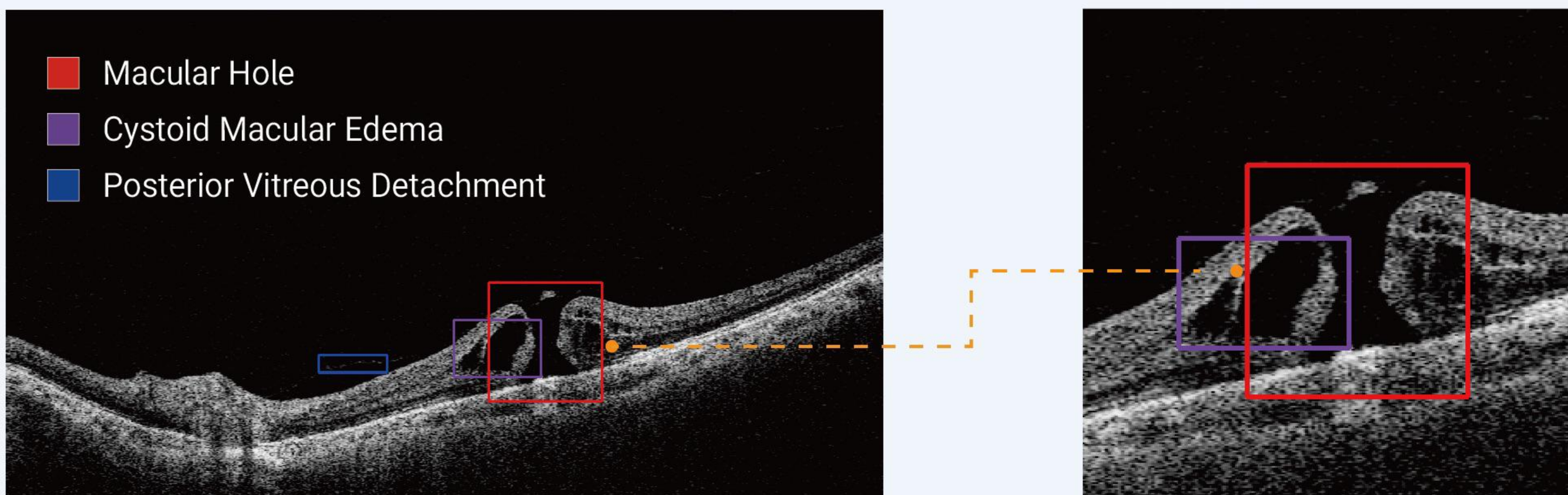
Diagram of the lesion

It can be used for auxiliary diagnosis of 16 main fundus diseases

label	Disease Name		label	Disease Name		label	Disease Name	
1	Retinal Pigment Epithelium Detachment		7	Retinoschisis		13	Elliptical Band Missing	
2	Posterior Vitreous Detachment		8	Cystoid Macular Edema		14	Choroidal Excavation	
3	Epiretinal Membrane		9	Exudation		15	Choroidal Atrophy	
4	Subretinal Fluid		10	Macular Hole		16	Retinal Hemorrhage	
5	Choroidal Neovascularization		11	Retinal Detachment				
6	Drusen		12	Ametropia				

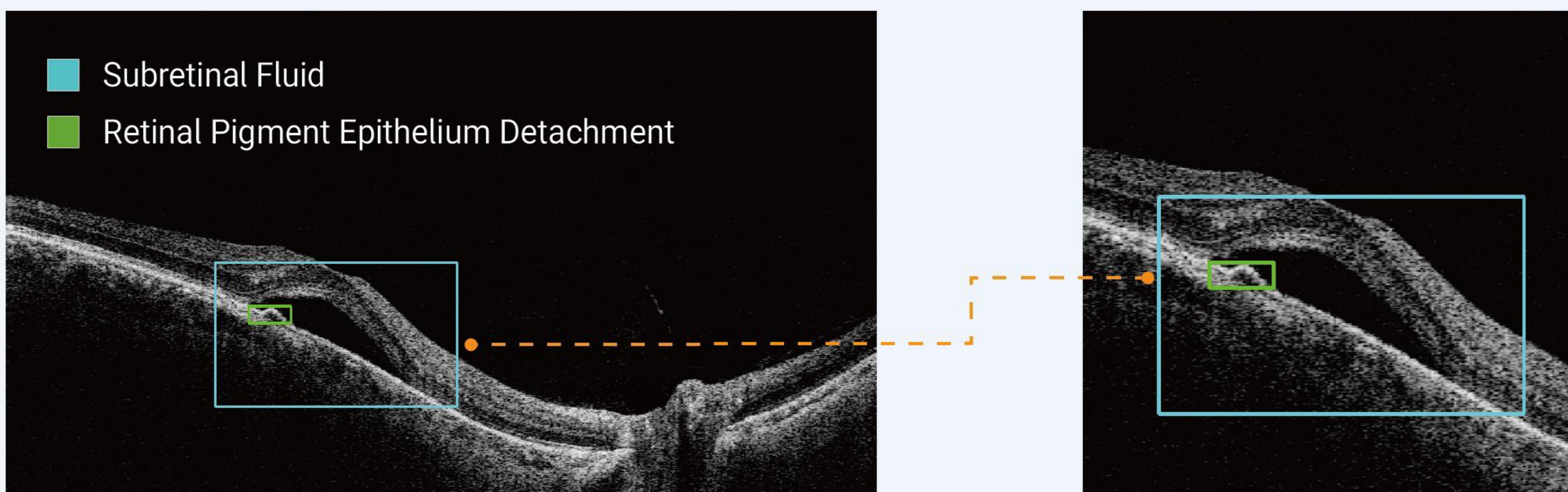
Macular Hole

Macular hole is a tissue loss of the entire layer or part of the macular nerve retina. Most of them are idiopathic and related to abnormal vitreomacular traction, and a few are related to trauma. Lamellar macular hole (LMHH) is a layer of tissue loss on the surface of the fovea and is often associated with the epiretinal membrane.

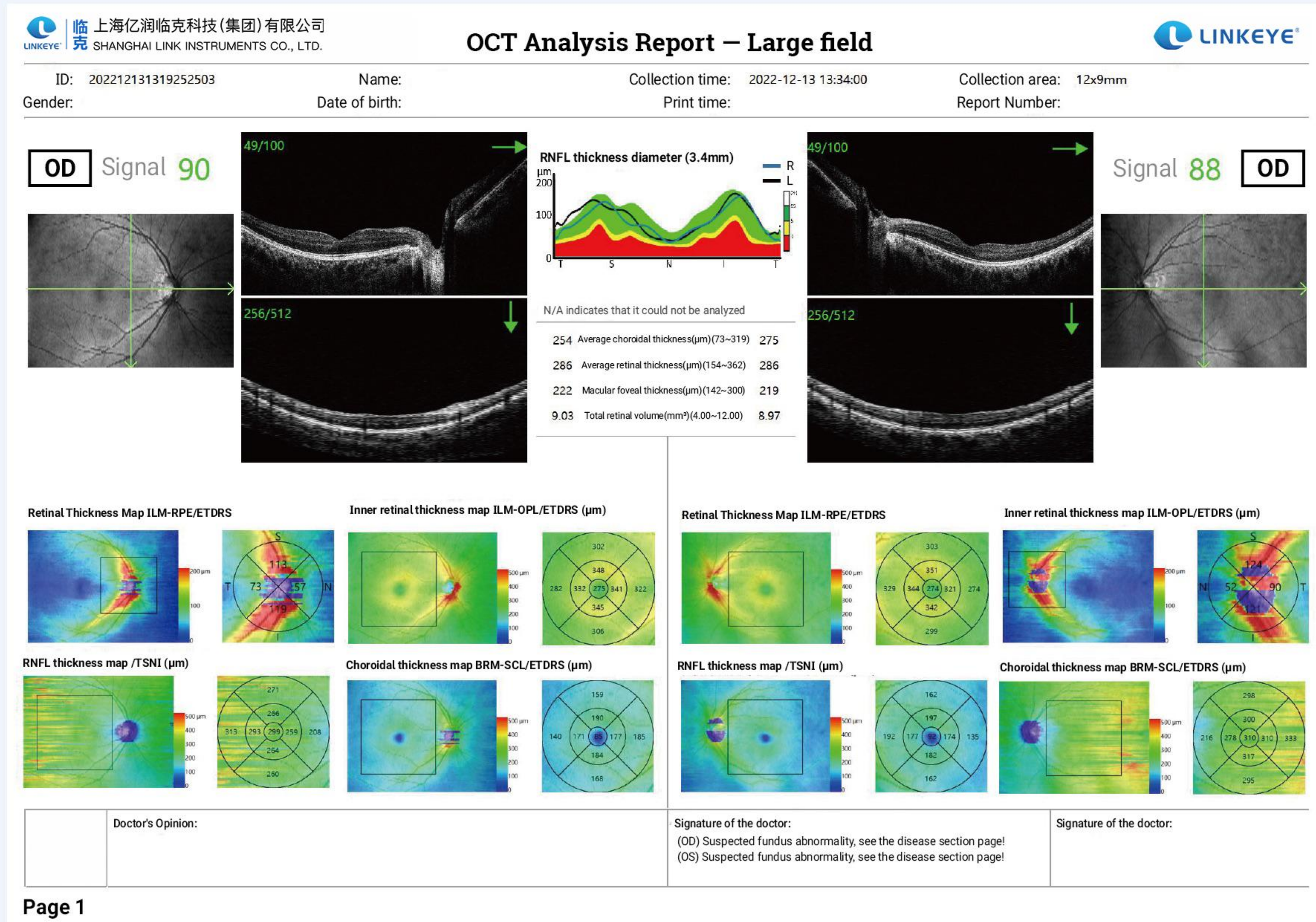


Subretinal Fluid

On OCT, there was a serous detachment under the retinal neuroepithelial layer, with uniform hyporeflection within the detachment area, and a continuous light reflection zone in the retinal pigment epithelial layer below.



Report of examination



OCT-1000 OCT binocular analysis report

AI-OCT was selected into the 8th batch of excellent Domestic medical equipment product list of China Medical Equipment Association

MIAS-3000 was awarded the winning unit of the artificial intelligence medical device Innovation task unveiled by the Ministry of Industry and Information Technology

AI-OCT was awarded the honorary title of "Scientific and Technological Progress in Ophthalmology of China Medical Equipment Association"

A cooperative research center for multimodal imaging AI in ophthalmology has been established with an authoritative eyehospital



100+
China Patent

14
Software Copyright

In 2020, he won the first prize of Wu Wenjun Artificial Intelligence Technology Invention Award

Technical parameters

Chinese NMPA: Jiangxi 20202160485

Measuring characteristics	Axial resolution (in the tissue) : 5 μ m
	Horizontal resolution (in the tissue): 20 μ m
Scanning characteristics	The highest scanning speed : \geq 20000/50000/80000 times/second
	Scan depth: 2.3mm
	Maximum scan range: 12mm * 9mm
Light source characteristics	Centre wavelength: 840nm
	Optical power: \leq 750 μ W
	Refractive compensation range: -20D ~ + 25D

Scanning modes

Mode	Scanning ways	Physical size	Slice Direction
Large field	Single-line	12mm	Horizontal
	Six radial lines	9mm	Per 30°
	Large field	12mm x 9mm	Horizontal or vertical
Glaucoma	Macular area	6mm x 6mm	Horizontal
	optic disc area	6mm x 6mm	Horizontal
Anterior segment	Single line	6mm	Horizontal
	Six radial lines	6mm	Per 30°

Note: When selecting the anterior segment mode, the peripheral devices of the anterior segment should be in place; the design and parameters are subject to change without prior notice.



Shanghai Link Instruments CO.,LTD.

Consultation cooperation

+86-021-6951-2871



Jiading District, Shanghai www.cnlink-group.com service@linkcsh.com