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Nowadays, Opto Hellas is an Official Representation Platform for manufacturers all around the world that seek for a well established and active distribution network to support their sales, marketing and service operations in the markets of Europe, Middle East, Africa, Latin America and Asia.

Through our international distribution network, we now Represent the brands SUOER, EYEΦOS, MAIN MEDITECH, OPTO SYSTEMS, TOWARD PI, APPASAMY ASSOCIATES, APPSMART, ALTRIS AI, SUPORE and SYSEYE for sales and service.

In this catalogue you will find in-depth information regarding the products of all our represented brands.





Introduction

Tianjin Suowei Electronic Technology Co. Ltd. is one of the world's leading manufacturers in producing innovative and highly advanced, ophthalmology and ophthalmic instruments. The company was established in the year 2001, with its headquarters located in Tianjin, China.

The manufacturer produces all instruments under the brand name SUOER and is now operating in more than 90 countries world-wide. For the past 20 years, SUOER has specialized in researching, developing and producing technologically advanced and of high specifications, ophthalmic ultrasound instruments and diagnostic equipment.

SUOER's product portfolio that is represented in more than 90 countries world-wide, consists of: Ophthalmic A/B Scan Biometer with Pachymetry and UBM, Rebound Tonometer, Non-Contact Tonometer, Corneal Topographer, Specular Microscope, ROP Fundus Camera, Optical Biometer, Fundus Camera, Vision Screener; SUOER has managed to become a well-recognized brand globally, for high end – high specification, quality medical instruments.





SW-500

Rebound Tonometer

The SW-500 Rebound Tonometer by SUOER, is used to measure intraocular pressure through its two (2) measuring modes: vertical (standing) and horizontal (laying). Each measurement (per patient) requires the use of one magnetic needle/probe, which meets the surface of the eye at a certain speed, while calculating the different rebound motion based on the hardness of the eye. This process is patient friendly and does not require any anesthesia. The device offers wireless data transfer to its dedicated thermal printer.

Technical Data	
Measurement Range	3mmHG~70mmHg
Precision	±1.5mmHG (3mmHG≤IOP≤25mmHg)
	±2.5mmHG (25mmHG≤IOP≤70mmHg)
Measurement Mode	Vertical (Standing) & Horizontal (Laying)
Output	Wireless Infrared Thermal Printer
Display	Analog Screen
Easy to Use \otimes Easy to Carry	
No Need For Anesthesia No Patient Discomfo	t





SW-800

Vision Screener

The SW-800 Vision Screener by SUOER, is a fast and accurate visual parameter screening instrument. The advanced sensor technology of the instrument allows the user to capture both eyes of the patient efficiently in under two (2) seconds, with no buttons to be pressed or alignment bars to be stabilized. This device is designed to detect vision issues from patients that are only 3 months old, all the way to adults. With every capture, the instrument offers to the user 8 different measurements.

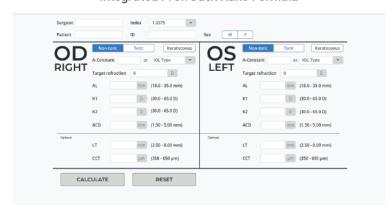
0° to 20°
1m ±5cm
~1s
Light Flash,
Attractive Sound For Kids
Wi-Fi, USB
Wi-Fi
Rechargeable Lithium,
Duration Of SIX (6) Hours
180mm x 130mm x 110mm
5-inch LCD Touchscreen
0.8kg

D.C.	
DS	
Range	-8.50D to +8.50D
Resolution	0.25D, 0.01D
Accuracy	±0.50D
DC	
Range	0.00D to +4.50D
Resolution	0.25D, 0.01D
Accuracy	±0.50D
Axis	
Range	1° to 180°
Resolution	1°
Accuracy	±5°

Pupil Size	
•	3.5 + . 0.0
Range	3.5mm to 9.0mm
Resolution	0.1mm
Accuracy	±0.1mm
Pupil Distance	
Range	35mm to 80mm
Resolution	1mm
Accuracy	±1mm



Integrated Prof. Jack Kane Formula



SUOEL

SW-1000

Ophthalmic A/P Scan

The SW-1000 Ophthalmic A/P Scan by SUOER, is a user friendly and reliable A and P scan. The device is highly accurate and offers fast measurements through its advanced software system. The SW-1000 can be selected between any combination of A Scan, P Scan or A/P Scan.

Technical Data

A Scan	
Probe	10MHz import small size probe, built-in luminotron
Measuring Range	15mm – 40mm
Measurement Precision	±0.05mm; with macula lutea trace
Measurement	Anterior Chamber Depth, Lens Thickness,
	Vitreous Body Length, Total Length and Average
Method of Measurement	Immersion and Contact
Eye Mode	Phakic / Aphakic / Dense / Various IOL
IOL Formula	SRK-II, SRK-T, BINKHORST-II, HOLLADAY,
	HOFFER-Q, HAIGIS
Enter the name \otimes ID	Easy to check archive
Storage	10 cases, 5 readings each case
Output	A Scan wavefront and IOL Calculation Sheet
Pachymeter	
Probe	20MHz, angle of 45° makes easier operation
Resolution	5um
Measuring Range	150um~1500um
Display	SINGLE mode and MAP mode
Can Display ultrasound waveform when measuring	ng
Each group is the average of 20 measurements	
Switch between IOP measured value and actual v	alue
Can input name, ID and Operator's name	
Others	
Large color liquid-crystal screen	
Touch screen input, easy operation	
Curve freezing: Manual/Auto mode, controlled by	pedal
Built-in Speed Thermal Printer	



Integrated Prof. Jack Kane Formula

20	Hon-taric	Toric	RATAFOCOTAIN	OS	Non-toric	Toric	Keratuconsa
OD	A-Constant	-	101 Type *	03	A-Constant	9	IOLType (6
RIGHT	Target refraction		00	LEFT	Target refraction	0	0
	AL.	1000	(16.0 - 35.0 men)		AL	(56)	(18.0 - 35.0 mm)
	K9.	(8)	(10.0 - 65.0 D)		ICI.	100	(20.0 - 65.6 D)
	10	(80)	(30.0 + 69.0 D)		12	(p)	(30.0+63.00)
	ACD	(600)	(1.50 - 3.00 mm)		ACD	100	(1.50 + 5.00 men)
Spinor				Spine		_	
	TAR I	HHI	(2.30 + 8.00 men)		LT.	(995)	(2:50 - 8.00 mm)
	OCT	(PT)	(250 - 650 µm)		CCT	(pt)	(350 - 650 µm)

Technical Data

A Scan	
Frequency	10Mhz, with LED
Depth	40mm
Precision	±0.05mm
Measurement	Anterior Chamber Depth, Lens Thickness, Vitreous Body Length, Total Length and Average
Eye Mode	Phakic/Aphakic/Dense/Various IOL
IOL Formula	SRK-II, SRK-T, BINKHORST-II, HOLLADAY, HOFFER-Q, HAIGIS
Stat. Calculation	Average and Standard Deviation
Store	10 Scanning Results for each eye
B Scan	
Frequency	10Mhz, Magnetic Driven, Noiseless
Scanning Mode	Sector Scanning
Magnify	Multi Continuous Magnification, Rear-time Magnification
Resolution	Lateral ≤ 0.3mm
	Vertical ≤ 0.2mm
Geometry Position Precision	Lateral ≤ 5%
	Vertical ≤ 3%
Depth	60mm
Gain of Probe	30dB – 105dB
Scanning Angle	53°
Gray Scale	256
False Color	Multi Colors

SUOEP

SW-21 DELTA

Ultrasound Scanner

The SW-21 DELTA Ultrasound Scanner by SUOER, is a modular, upgradable and portable ultrasound scanner, here to set new standards in ultrasound biometry market, worldwide. Through its premium specifications, the device offers high quality and clear ultrasound images and allows the user to take both images and videos of the measurement. The device can be selected between any combination of A/B/P/UBM Scan and additional scanning modes can be added later on.

Full Scale UBM		
Frequency	50 MHz	
Scanning Mode	Wide Range Sector, Scanning Mode,	
	Undistorted, Sulcus-to-Sulcus	
Scanning Range	16mm*9mm; 10mm*6.5mm	
Vertical Precision	≤40μm	
Lateral Precision	≤40μm	
Scanning Lines	1024 Lines, 15µm between each line	
Geometry Location Precision	Vertical	
	Lateral	
Non-Data Interpolation		
No Distortion Imaging		
Display Mode	UBM, UBM+A	
System Performance	It has a special independent 50µm ultrasonic	
	amplification system that makes the anterior	
	segment image clearer	
Working Platform	Windows System	
Pachymeter		
Probe	20MHz, angle of 45° makes easier operation	
Resolution	5um	
Measuring Range	150um~1500um	
Display	SINGLE mode and MAP mode	
Can Display ultrasound waveform when measuring		
Each group is the average of 20 measurements		
Switch between IOP measured value and actual value		
Can input name, ID and Operator's name		







SW-50 NCT NEW

Fully Automatic Non-Contact Tonometer

SUOER SW-50 NCT using the air puff technology with the optical non-contact method, to measure intraocular pressure. Its advantages include auto-focusing, fast measurement speed, comfortable measurement process, and no cross-infection. Offers the choice of air puff speed.

Technical Data	
Measurement	Automatic Binocular
Measuring Range	1mmHg~60mmHg
Measuring Scale	30mmHg, 60mmHg
Measuring Accuracy	1mmHg
Measuring Distance	11mm
Focus Method	focus points + focus notification
Focus Mode	three-dimensional auto-focus/manual focus/touch
	screen focus
Interior Light Fixation Green LED	
Stroke of Moving Track Left-Right	80mm Forward-Backward: 40mm Up-Down: 20mm
Display: large colored LCD screen	
Output: high speed thermal printer	
Unique Features	
Unique collection of waveform confidence interva	al data by weight average of three readings, and
indicate low confidence interval results	
Manually focus by touching screen	
Non-contact measurements to avoid cross infect	ion
Integrated 24 hours IOP trend analysis system	



SW-6000

Corneal Topographer

The SW-6000 Corneal Topographer by SUOER, uses a small PLACIDO cone with 31 rings and a total of 7936 points; ideal for measuring and obtaining the analysis of the corneal shape and essential for the corneal refraction data. The device includes readings such as: Axial Curnvature, Tangential Curvature, Altitude Map, Simulated Keratoscopy and Corneal 3D Map. The SW-6000 is a fast, accurate and precise corneal topographer which focuses on user friendly ness and in patient comfort.

Technical Data	
Technical Data	
Measuring Mode	PLACIDO Cone
Coverage of Measurement	10.91 (Diameter)
Measuring Range of Curvature Radius	5.5mm – 10mm (33.75D – 61.63D)
Precision	±0.02mm
Placido Rings	31 Rings
Measurement Points	7936 Points
Display	Axial Curvature Map, Tangential Curvature Map,
	Elevation Map, Imitated Keratoscope Map and 3D
	Cornea Map
Image Output	High-Quality Color Inkjet Printer
Adjust moving Range	
Left-Right	0mm to 86mm
Forward-Backward	0mm to 40mm
Up-Down	0mm to 30mm
Chinrest	0mm to 50mm
Cornea Contact Lenses Fitting Function	
Keratoconus Detecting Function	





SUOEP

SW-7000

Specular Microscope

The SW-7000 Specular Microscope by SUOER, is a precision optical instrument that integrates autofocus shooting system, illumination imaging system, image processing system and auxiliary system. Non-contact, fully automatic focusing during measurement and automatically capture corneal endothelial cells and measures the thickness of the cornea. At the same time, the instrument posses a highly efficient and rapid corneal endothelial cell image analysis software, which analyzes the captured images for detailed examination of the corneal condition.

Tashnical Data	
Technical Data Optical Magnification	165X+10%
Photography Slit Width	0.25mm±0.025mm
Cornea Thickness Measurement Accuracy	±0.025mm (>0.6mm)
Corried Mickiess Measurement Accuracy	±0.015mm (≤0.6mm)
Capture Mode	Auto/Semi-Auto/Manual
Capturing Positions	The center and 12 peripheral points
Working Voltage	AC 220V
Power	100 VA
Dimensions	360mm*380mm*450mm
Weight	25Kg
The Function of Software	
Analysis Values	Number of Cells, CD, SD, CV, AVG/Max/Min
Auto/Manual Repair the Cell Edge, Coloring, M	Magnifying, Automatic Analysis functions, etc.
Classification Statistic	According to the cell area and cell edges number
Features	
Focus by Double CCD, it can observe the eyeba	all and endothelial at the same time
Non-Contact, Fast measuring system, more se	ecurity and convenient
The corneal thickness value display	
Integrated multiple analysis and measuremen	t tools
Capture Mode	Auto/ Semi-Auto/Manual
3D Auto Focus	
Color LCD Touch Screen	
13 Capturing positions	The center and 1 and 6 and 6 peripheral points
	(2, 4, 6, 8, 10, 12- o'clock positions)
Video Printer is Optional	
Workstation is Optional	
USB Data Output	



NEOCAM 8000

Ophthalmic Wide Field Imaging System

The NeoCam 8000 Ophthalmic Wide Field Imaging System by SUOER, is the world's first portable Retinopathy of Prematurity Screener with a built-in Fluorescein Angiography module. The device is compact and ideal for capturing high resolution images as well as HD video recordings. The NeoCam 8000 is light and easy to handle device, which when combined with its user-friendly software and portable nature, creates an ideal solution for any professional. The device can connect to any laptop and computer via USB 3.0 making it suitable for various screening scenarios.

Technical Data	
Probe Diameter	8.1mm (the smallest probe in the market)
Probe Weight	527.3gr (the lightest probe in the market)
Probe Connectivity	USB 3.0 / Plug @ Play
Wide Field of View	135° to 144°
Light Source	Color Light Source, Fluorescence Angiography
Center Field of View	≥30 lp/mm
Middle Field of View	(±22.5°) ≥ 20 lp/mm
Edge Field of View	(±45°) ≥ 15 lp/mm
Illumination Source	White LED



SW-8800

Fundus Camera

The SW-8800 Fundus Camera by SUOER, is a compact device with a high-quality image and a stereoscopic depth perception viewing that allows the user to capture a 46.5° angle of single fundus photography without eye dilation. The intelligent software of the SW-8800 offers to the user the ability to create a Mosaic image of 128°, for a complete and detailed viewing of the eye.

Technical Data	
Type of Photography	Color / Red-Free (Digital)
IR (Digital) / Cobalt (Digital)	3
Angle of View	46.5°
Minimal Pupil Size	3.5mm
Focus Adjustment Range	-25 to +25D
(Without Compensation Lens)	
Mosaic Image (optional)	128°
Light Source	
Observation Light Source	Infrared LED
Flash Light Source	White LED
Eye Fixation Lamp	
Internal	LED Point, Orange
External	LED Point, Red
Working Distance	15mm
Camera Resolution	10 Megapixels
Built-in Monitor	7.0-inch Color LCD Monitor
Mount Movement	
Front and Back	85mm
Side to Side	110mm
Up and Down	30mm
Chin Rest Movement	60mm
Electrical and Environmental	40011 2101146 5016011 4.2 1.0 64
Power Suply	100V to 240V AC, 50/60Hz, 1.3 to 0.6A
Operating Environment	F9C+- / O9C
Temperature	5°C to 40°C
Humidity	≤80%
Atmospheric Pressure	700 hPa to 1060hPa
Physical Characteristics Dimensions (W x D x H)	430mm x 450mm x 570mm
Weigh	
weign	~10Kg

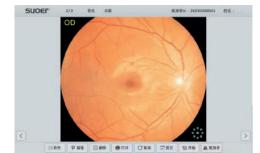


SW-88FC NEW

Fully Robotic 3D Retinal Camera

The SW-88FC is fully automatic and will make early detection and diagnosis of vision-threatening eye conditions quick, efficient and affordable for all patients, according to the company. A compact device, with automatic shooting, high quality image, stereoscopic depth perception viewing, and the ability to capture a 45 angle of a single fundus photography without eye dilation assisted by AI.

echnical Data	
ype of Photography	Color / Red-Free (Digital)
R (Digital) / Cobalt (Digital)	
Angle of View	45°
Inimal Pupil Size	3.5mm
Focus Adjustment Range	-25 to +25D
Without Compensation Lens)	
losaic Image (optional)	128°
ight Source	
bservation Light Source	Infrared LED
lash Light Source	White LED
ye Fixation Lamp	
nternal	LED Point, Orange
xternal	LED Point, Red
Vorking Distance	15mm
Camera Resolution	10 Megapixels
Built-in Monitor	7.0-inch Color LCD Monitor
Nount Movement	
Front and Back	85mm
Side to Side	110mm
Jp and Down	30mm
Chin Rest Movement	60mm
lectrical and Environmental	
Power Suply	100V to 240V AC, 50/60Hz, 1.3 to 0.6A
perating Environment	
emperature	5°C to 40°C
lumidity	≤80%
Atmospheric Pressure	700 hPa to 1060hPa
Physical Characteristics	
Dimensions (W x D x H)	430mm x 450mm x 570mm
Veigh	~10Kg





SW-9000plus NEW Optical Biometer

The SW-9000plus Optical Biometer by SUOER, is a fully automatic/robotic optical biometric instrument that is used for measuring the optic axis and for calculating the correct IOL readings accurately and precisely. The fast measuring speed, the non-contact measurements and the auto-alignment, auto-focus and auto-shot functions, are designed to enhance patient comfortability and user-friendliness. The device can capture 8 measurements in under 2 seconds, of which are: Corneal Thickness, Anterior Chamber Depth, Lens Thickness, Axial Length, Corneal Curvature, Axial Angle, White-to-White Distance and Pupil Diameter.

Technical Data

Measurement Functions	
Automatic/Robotic	Auto-Alignment,
	Auto-Focus, Auto-Shot
Semi-Automatic	Auto-Focus, Auto-Shot
Manual	
Measurement Range	
Axial Length	12mm -34 mm
Central Corneal Thickness	300μm – 800 μm
Corneal Radii	4.8mm -11.1mm
Axis Angle	0° - 180°
Anterior Chamber Depth	1.5mm - 6.0mm
Lens Thickness	0.5mm – 7.0mm
White-to-White	6.5mm – 16.6mm
Pupil Diameter	1.9mm – 13.5mm
Resolution	
Axial Length	0.01mm
Central Corneal Thickness	1µm
Corneal Radii	0.01mm
Axis Angle	1°
Anterior Chamber Depth	0.01mm
Lens Thickness	0.01mm

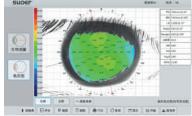
White-to-White	0.01mm
Pupil Diameter	0.01mm
SD of Repeatability	
Axial Length	±25µm
Central Corneal Thickness	±2µm
Corneal Radii	±10µm
Axis Angle	±9°
Anterior Chamber Depth	±20µm
Lens Thickness	±50µm
White-to-White	±0.3µm
Pupil Diameter	±0.3µm
IOL Calculation Formulas	
Formulas	BinkHorst-II, Holladay, Hoffer-Q, Haigis, SRK-T, SRK-II
Data Export	
Methods	DICOM 3.0, USB, ETHERNET
Electrical and Environmen	tal
Voltage/Frequency	AC 220V/50Hz
Power Consumption	50VA
Laser Class	1



Integrated Prof. Jack Kane Formula

	Non-toric	Toric Keratoconus	OS	Non-toric Toric Keratocon
	A-Constant	or IOL Type +		A-Constant or IOL Type
RIGHT	Target refraction	0 D	LEFT	Target refraction 0
	AL	mm (18.0 - 35.0 mm)		AL (18.0 - 35.0 mm)
	К1	D (30.0 - 65.0 D)		K1 D (30.0-65.0 D)
	K2	D (30.0 - 65.0 D)		K2 D (30.0 - 65.0 D)
	ACD	mm (1.50 - 5.00 mm)		ACD mm (1.50 - 5.00 mm)
Optional			Optional	
	LT	mm (2.50 - 8.00 mm)		LT mm (2.50 - 8.00 mm)
	ССТ	μm (350 - 650 μm)		CCT (µm) (350 - 650 µm)





SUOEP

SW-9000CTS NEW

Optical Biometry + Corneal Topographer

The SW-9000plus Optical Biometer by SUOER, is a fully automatic/robotic optical biometric instrument that is used for measuring the optic axis and for calculating the correct IOL readings accurately and precisely. The fast measuring speed, the non-contact measurements and the auto-alignment, auto-focus and auto-shot functions, are designed to enhance patient comfortability and user-friendliness. The device can capture 8 measurements in under 2 seconds, of which are: Corneal Thickness, Anterior Chamber Depth, Lens Thickness, Axial Length, Corneal Curvature, Axial Angle, White-to-White Distance and Pupil Diameter. As for the corneal topography results includes readings such as: Axial Curnvature, Tangential Curvature, Altitude Map, Simulated Keratoscopy and Corneal 3D Map.

Technical Data

Measurement Functions	
Automatic/Robotic	Auto-Alignment,
	Auto-Focus, Auto-Shot
Semi-Automatic	Auto-Focus, Auto-Shot
Manual	
Measurement Range	
Axial Length	12mm -34 mm
Central Corneal Thickness	
Corneal Radii	4.8mm -11.1mm
Axis Angle	0° - 180°
Anterior Chamber Depth	1.5mm - 6.0mm
Lens Thickness	0.5mm – 7.0mm
White-to-White	6.5mm – 16.6mm
Pupil Diameter	1.9mm – 13.5mm
Resolution	
Axial Length	0.01mm
Central Corneal Thickness	1µm
Corneal Radii	0.01mm
Axis Angle	1°
Anterior Chamber Depth	0.01mm
Lens Thickness	0.01mm
White-to-White	0.01mm
Pupil Diameter	0.01mm

SD of Repeatability	
Axial Length	±25µm
Central Corneal Thickness	±2µm
Corneal Radii	±10μm
Axis Angle	±9°
Anterior Chamber Depth	±20µm
Lens Thickness	±50µm
White-to-White	±0.3µm
Pupil Diameter	±0.3µm
IOL Calculation Formulas	
Formulas	BinkHorst-II, Holladay, Hoffer-Q, Haigis, SRK-T, SRK-II
Data Export	
Methods	DICOM 3.0, USB, ETHERNET
Electrical and Environmen	tal
Voltage/Frequency	AC 220V/50Hz
Power Consumption	50VA
Laser Class	1
Laser Class Corneal	1
Corneal Radius of Curvature Measu 5.5mm~10.0mm (61.36D~3	rement Range: 33.75D)
Corneal Radius of Curvature Measu 5.5mm~10.0mm (61.36D~3 Radial Measuring Diameter	rement Range: 33.75D)
Corneal Radius of Curvature Measu 5.5mm~10.0mm (61.36D~3 Radial Measuring Diameter PLACIDO cone: 24 rings	rement Range: 33.75D) -: 9.7mm (center is 43D)
Corneal Radius of Curvature Measu 5.5mm~10.0mm (61.36D~3 Radial Measuring Diameter	rement Range: 33.75D) -: 9.7mm (center is 43D)



SW-90 NEW

Fully Automatic 3D Optical Biometry

The SW-9000plus Optical Biometer by SUOER, is a fully automatic/robotic optical biometric instrument with the newest design and faster, that is used for measuring the optic axis and for calculating the correct IOL readings accurately and precisely. The fast measuring speed, the non-contact measurements and the auto-alignment, auto-focus and auto-shot functions, are designed to enhance patient comfortability and user-friendliness.

The device can capture 8 measurements in under 2 seconds, of which are: Corneal Thickness, Anterior Chamber Depth, Lens Thickness, Axial Length, Corneal Curvature, Axial Angle, White-to-White Distance and Pupil Diameter. As for the corneal topography results includes readings such as: Axial Curnvature, Tangential Curvature, Altitude Map, Simulated Keratoscopy and Corneal 3D Map.

Technical Data

Measurement Functions	
Automatic/Robotic	Auto-Alignment,
	Auto-Focus, Auto-Shot
Semi-Automatic	Auto-Focus, Auto-Shot
Manual	
Measurement Range	
Axial Length	12mm -34 mm
Central Corneal Thickness	300μm – 800 μm
Corneal Radii	4.8mm -11.1mm
Axis Angle	0° - 180°
Anterior Chamber Depth	1.5mm - 6.0mm
Lens Thickness	0.5mm – 7.0mm
White-to-White	6.5mm – 16.6mm
Pupil Diameter	1.9mm – 13.5mm
Resolution	
Axial Length	0.01mm
Central Corneal Thickness	1µm
Corneal Radii	0.01mm
Axis Angle	1°
Anterior Chamber Depth	0.01mm
Lens Thickness	0.01mm

White-to-White	U.U1mm
Pupil Diameter	0.01mm
SD of Repeatability	
Axial Length	±25µm
Central Corneal Thickness	±2μm
Corneal Radii	±10µm
Axis Angle	±9°
Anterior Chamber Depth	±20µm
Lens Thickness	±50µm
White-to-White	±0.3µm
Pupil Diameter	±0.3µm
IOL Calculation Formulas	
Formulas	BinkHorst-II, Holladay, Hoffer-Q, Haigis, SRK-T, SRK-II
Data Export	
Methods	DICOM 3.0, USB, ETHERNET
Electrical and Environmen	tal
Voltage/Frequency	AC 220V/50Hz
Power Consumption	50VA
Laser Class	1



SUOEP	of a car a c	4 2	(i) K2 41.59 K2 42.51
	-0		
	ALATTI (II TAFF		47 MD 6 EL
E TOWN	41,470 (# 34F) 40,465 <u>@</u> 4F		41 MP (I EF
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Introduction

Main MediTech Co., Ltd is an advanced and highly innovative manufacturer that understands the needs of the market and delivers exceptional and progressive medical instruments for medical professionals world wide. The company was established in the year 2015, with its headquarters located in ChongQing, China.

The manufacturer is known for producing technologically advanced instruments that answer to the needs of a demanding, everchanging - new age market. With an R&D department that has more than 20 years of experience in the creation of medical devices, they have managed to create and deliver safe and effective high-tech, high-quality and high-efficiency solutions to customer around the world-wide.

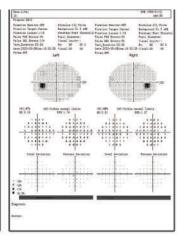
Main Meditech produces the RetiCam-3100Pro which is the world's first Non-Mydriatic, fully robotic FA \otimes AF Fundus Camera, the Kestrel 3100M, and in collaboration with Opto Hellas, the manufacturer produces the SVF-7000 Static Perimeter and the SVF-9000 Static \otimes Kinetic Perimeter.







| The content |



SVF-7000

Static Perimeter

The SVF-7000 Static Perimeter by Main Meditech in collaboration with Opto Hellas, is technologically advance, premium quality with premium specifications visual field analyzer, which is here to set new standards for perimetry, world-wide.

The device is fully compliant to the Goldmann Standards offering a White-on-White test with a premium LED light source that prolongs the life of the illumination.

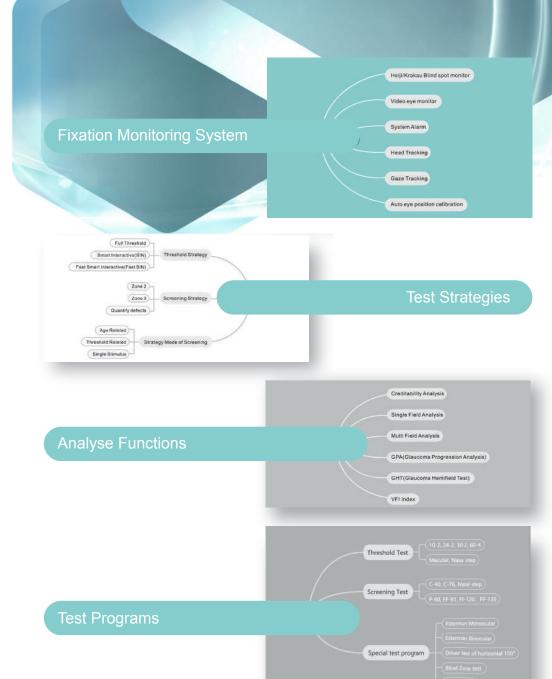
The advanced Eye-Tracking system of the device allows the auto-correction of the positioning of the patient during measurements via the assistance of the robotic headrest and chinrest. The device detects when the patient is not looking into the fixation point and automatically adjusts his/her position to realign to that of the fixation point. It also offers the option to be operated and guided via voice commands by the user.

The new **Blind Zone Test** has been developed to analyze the optic disk inflammation and edema.

The SVF-7000 has a classic report format which is familiar and easy to read by all ophthal-mologists world-wide.

Classic Test report

Test report in Classic format, can be easily read and understand by doctors world widely.





Technical Data	
DB Value Range	0 ~ 40 dB
Stimulus Intensity Range	1 asb ~ 10,000 asb
Stimulus Size	Goldman III
Stimulus Color	White
Stimulus Duration Time	200ms/Adaptive
Max Measurement Range	90°
Test Distance	30cm
Test Mode	Static
Stimulus Quantity	456 Points
Stimulus Plane	Aspherical Surface
Background Illumination	White 31.5 asb (10cd/m²)
Advanced Software Operations	
Advanced Options	Customize Test Program,
	Auto Eye Recognition, Blindzone Range Test
Stimulus Source	LED
Chinrest Control	Touchscreen, Keyboard and Mouse Control, Button Control
Head Movement	Chinrest and Headrest move simultaneously
Computer Specification	,
CPU	1.6 GHz
RAM	4GB
Hard Disk	120GB
Operational System	Windows 10
Display	14" LCD Touchscreen
Network	Wi-Fi, Ethernet
Device Size	
Dimensions (L x W x H), Weight	480mm x 430mm x 528mm, 14Kg
Packaging (L x W x H), Weight	550mm x 480mm x 640mm, 19Kg
Data Export	
Methods	DICOM 3.0, USB
Electrical and Environmental	
Voltage/Frequency	AC 100V – 240V / 50 ~ 60 Hz





Professional and Precise Perimeter with Pure Optical Controlling System

Stimulus brightness controlled through changing progressive lens position. High-performance mechanical projection system, can project stimulus points with high precision, there are no restrictions on projection points

Standard Goldmann Perimeter with Complete Functions

Full compliance with the Goldmann standards.

Classical test with white stimulus on white background light test.

Professional test with blue stimulus on yellow background light test(SWAP).

Kinetic and Static Test All-In-One. Cursor size are changeable among Goldmann I, II, III, IV \otimes V.

Auto Eye Recognition and Pupil Diameter Measurement

System recognize OD/OS automatically and alarm to indicate operator, which is helpful to avoid mistake during test.

 $\label{pupil} \mbox{Auto pupil diameter measured during test for correcting visual error.}$



SVF 9000Pro NEW

Static & Kinetic Perimeter

Technical Data	SVF-9000 Basic		SVF-9000 Pro	
DB Value Range displayed		0~51db		
Stimulus Intensity Range	0.08asb~10000asb			
Stimulus Duration Time	200ms/ Adaptive			
Max Measurement range	90°			
Test Distance		30cm		
Stimulus Plane	As	pherical surf	ace	
Stimulus Size	Goldmann III	I	Goldmann I,II,III,IV \otimes V	
Stimulus Color	White	I	White,Blue,Red	
Background Illumination	White (31.5 asb)	I	White (31.5 asb)	
		I	Yellow (315 asb)	
Test Mode	S	tatic ${\mathbin{f @}}$ Kinet	tic	
Stimulus Source		Halogen		
Voice Guidance function	•	I	•	
SWAP	/	I	•	
Static Customize program	•	I	•	
Kinetic Customize program	/	I	•	
Chinrest Control	Touch Screen, Keybox	ard and mous	se control,Button control	
Head Movement	Chinrest and for	ehead-rest r	move simultaneously	
PC Configuration	CPU:1.6 GHz	; RAM: 4 GB;	Hard disk: 120 GB;	
	Operation	n system: Wi	ndows 10;	
	LCD:14 " C	apacitive To	uch screen;	
	Network	ing: Etherne	t & WIFI;	
Dimension	480mm(L)*4	30mm(W)*56	0mm(H), 24 kgs	
Packaging	560mm(L)*5	00mm(W)*70	00mm(H), 28 kgs	
Others	Input Voltag	e: AC 100 - 2	40V,50 ~ 60Hz	





Non-mydriatic Automatic / Robotic Fundus Camera

Technical Data	
	Non-mydriatic/mydriatic
	Anterior photography
Acuisition modes	Red-free (optional)
	FFA (optional)
	FAF (optional)
Field of view	50°
Working distance	35mm
Minimum pupil size	≥3.3mm
Focus modes	Auto /manual
Exposure modes	Auto /manual
Operation	Auto /manual
Photography	SLR camera
Image resolution	10 megapixels
Diopter compensation	±25D
Fixation	External fixation/internal fixation
Autofocus assist light	Infrared LEDED
DICOM3.0	YES
Customization Al port	YES
Others	
Dimensions	380mm (L) x 550mm (W) x 475mm (H)
Weight	26.5kg
Power supply	100-240V 50/60Hz
Note Specifications and design are subje	act to change without notice

Note: Specifications and design are subject to change without notice.





RETICAM-3100Pro

Non-Mydriatic fully automatic/robotic FA and AF Fundus Camera

The Reticam-3100Pro Non-Mydriatic fully automatic/robotic FA and AF Fundus Camera by Main Meditech, is an innovative and highly advanced medical instrument and also is the world's first fundus camera which performs fully automatic/robotic FA and AF measurements.

Through its auto-alignment, auto-focus and auto-capturing functions, each of the instrument's measurements, offers a 50° Field of View image to the user. The user can also choose to generate a Mosaic image of 135° by compiling 9 images from the 9 internal fixation points of the system. The device delivers ultra-clear HD images through its 24 Megapixel camera.

The RetiCam-3100Pro is capable of capturing fundus images from pupils which size is as small as 3.3mm by using Small Pupil Mode. To auto-focus and auto-align in such situations the system relies on its dual camera setup that imitates that of real eyes positioning.

The device offers a true Red-Free filter and not a software processed image. It supports DICOM 3.0 and it offers a unique experience to its user through its multifunctional software systems.

Technical Data	
Acquisition modes	Non-mydriatic/mydriatic
	Anterior photography
	Red-free [optional]
	FFA [optional]
	FAF [optional]
Field of view	50°C
Working distance	35mm
Minimum pupil size	≥3.3mm
Focus modes	Auto/manual
Exposure modes	Auto/manual
Operation	Auto/manual
Photography	SLR camera

Technical Data	
Image resolution	24 megapixels
Diopter compensation	±25D
Fixation	External fixation/
	Internal fixation
Autofocus assist light	Infrared LEDED
DICOM3.0	YES
Customization Al port	YES
Dimensions	
Total dimensions	380MM[l] x 550mm [w] x 475mm [H]
Weight	26.5 KG
Electrical and Environ	mental
Power supply	00-240V 50/60Hz





SL-3S (Type C) Digital **Imaging System**

NEW

Dry Eye Module

O-VISION SL-1NEW



Digital Slit Lamp Imaging System

Parallel type, Galilean systemSuperior optic quality, provides stereoscopic and comfortable view with broad beam, wild field and high depth of field.

Warm LED Illumination, better conformity, longer life time Work 50 thousand hours and suitable for human tissue.

Precision machining makes smooth and flexible movement

Brightness control continuously

Interface for laser and applanation tonometer reserved

Technical Data	SL-1S		SL-2S		SL-3S Type D	I SL-3S Type C
Optical Part						
Microscope Type		(Galilean Typ	e Syst	em	
Magnification Changer			Revolvin	g Drum	1	
Magnification	10X,16X,2	25X I		6X,	10X,16X,25X,4	40X
Eyepiece Magnification			12.5	X		
Visual Angle of Eyepiece			13	0		
PD Range			50mm-8	5mm		
Diopter			±7D			
Visual Field Diameter					nm), 25X(8.5mm	
② SL-3	3S: 6X(33m	m), 10	0X(22mm),1	6X(14r	nm), 25X(8.5m	m), 40X(5.5mm)
Illumination Part						
Illumination Type			Tower			
Light Source			Warm			
Brightless control		roD	ntinuously a	idjusta	ble	
Illumination tilting			5°,10°,1			
Slit Width			nm continuo			
Slit Height			nm continuo			
Slit Angle			°continuous			
Slit Aperture Size	Ф0.2				Ф14 (mm)	
	Heat Aborp	tion,	Grey, Redfr	ee(Gre	en), Cobalt Blu	е
lmaging system						
Image collector	/		/		DSLR	Medical Grade CCD
lmage diaphragm	/		/		•	•
Eyepiece Splitting Ratio	/		/		50%	50%
Camera Splitting Ratio	/		/		50%	50%
Coaxial Background illumi	nation /		/		•	•
Synchronous flash						
compensation system	/		/		•	•
DICOM Connectable	/		/		•	•

^{*} Voltage: 100~240V 48~62Hz Compatible



Introduction

Shanghai Supore instruments Co Ltd aims to become the world-class supplier of ophthalmological, optical instruments and integrated solutions. The company is the biggest optical instrument manufacturing company in China, while they own three subsidiaries including Danyang Haitong Optical (Shanghai) Co., Ltd, Shanghai Optical Instruments Co., Ltd and Shanghai Yanke Instruments Co., Ltd. wholly as well as Shanghai Huvitz Instruments Co., Ltd under the joint venture with Korea.

- Corporate Mission: Serve visual health and improve the quality of life.
- Corporate Vision: Determined becoming a provider of ophthalmology,
 optometry equipment and integrated solutions.
- Core Values: Self-confidence, Integrity, Intention, Innovation, Competition, Harmony.

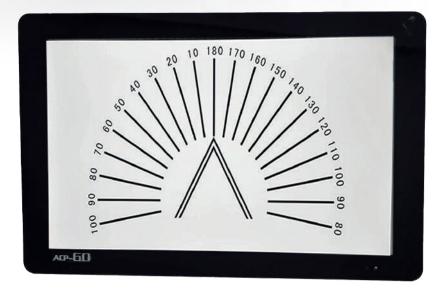




ACP-60 NEW

Chart Monitor

- Providing several visual target and visual function icons
- Small volume
- Easy to operate
- More clear images
- Switching visual targets smoothly and quickly
- Space-saving wall-hanging design
- Thinner and more aesthetic design



Technical Data	
Input power	AC100- 240V/50HZ/60HZ
Screen ratio	16:9 or 16: 10 (slight difference is acceptable
	according to the actual batch)
Standard power consumption	About 45W
Screen size	21.5
Power consumption	Less than 2W
Maximum brightness	300cd/m
Maximum screen resolution	1440 x 900
Maximum contrast	2000:1
Screen dot spacing	0.248mm
Signal response time	5ms
Screen type	TFT
Boundary dimension	515mm*320mm*50mm





Tabletop Refraction System

Most space-saving refraction unit for convenient use compact appearance, sophisticated design. Filter function

- We believe every sqm of your room is valuable
- Space-saving is important
- ACP-1000 focus on improving professional eye testing feeling and value

Technical Data	
Functions \otimes corresponding parameter Chart	33 Selections
Fixing distance	0.2m
Measure distance	5m
Shade	Separate, horizontal, vertical
Filter	Red/Green
Chart control	By Phablet or view tester
Dimensions for chart window	210(W) x 80(H) mm
Lamp-house	LCD or LED
Power source: Main body	AC100-240V, 50/60Hz,
Power	148VA
Sort: Temperature	10-40 Centigrade
Opposite humidity	30-75%
Atmospheric pressure	860hpa- 1060hpa
Main body dimensions	450 (W), 555 (H), 470 (D) mm, 20kg
Usage life	10 years





LM-800 NEW

Lensmeter

The simple and compact appearance design saves the installation space and the tilting display screen is convenient for customers to use. A user interface that makes observation more intuitive, simple, and clear makes operation easier.

- More accurately measurement under Hartman Shack Principle
- QR code printing without paper
- The all in one printer provides better solution for printing paper replacement
- LCD HD Liquid crystal display
- Built in focus distribution terrain function
- Simple user interface

Technical Data	
The range of measurement	
Sphere	0m-1 to ± 25m-1
Cylinder	$0m - 1 \text{ to } \pm 10.00m - 1$
Add	0m -1 to ± 10.00m-1
Astigmatism	0° to 180°
Prism basal Angle	0° to 360°
Measurement range	0° to 360°
Prism	Horizontal 10cm/ m, Vertical 15cm/ m
The Accuracy of measurement	
Dioptric	(0.01/ 0.12/ 0.25) m-1
Prism	(0.01/ 0.12/ 0.25) cm/m
Mode of measurement	
Cylinder	+, ±, -
Prism	X-Y, P-B
Speed of measurement	0.2 second
Diameter of measurable lens	18 to 110mm
Other parameters	
Display	1024*600 TFT and touch screen
Printer	Thermal printer
Size	255 (W) x 212 (L) x 473 (H) mm
Weight	About 5.1kg
Power supply	AC100~240V 50/ 60Hz
Power	25VA







VT-800 NEW

Automatic Phoropter

High quality imported motor. Well-selected materials, stable structure. Excellent coated lens, accurate measurement

- 1800 Rotatable screen make it more convenient to communicate with customer
- Single PD setting make it easy for progressive lenses
- ONE key help function makes the operator to learn the functions more easy

Technical Data	
Measuring Range	
Spherical lens	-29.00~ + 26.75D(Regular) -19.00 ~ +16.75D (Cross Cylinder, Prism Test) (Step: 0.12D / 0.25D / 0.5D / 1D / 20 / 3D)
Cylinder lens	0.00 - 8.75D (Step: 0.25D / 0.5D / 1D / 20 / 3D)
Cylinder Axis	0° - 180° (Step: 1 / 5 / 15 / 30 / 45°)
Pupil Distance	Far: 50 - 75mm Ear: 49 - 70mm (Step: 0.5/ 1.0mm)
Working Distance	35~70cm (Step: 5cm)
Rotary Prism	0 - 20 (Step: 0.1 / 0.2 / 0.5 / 1 / 2)
Cross Cylinder	Jackson Cross Cylinder ± 0.25D Jackson Cross Cylinder ±0.50D Dual Cross Cylinder
Retinoscope Lens	+ 1.5D, +2.0D (Test Distance 67cm, 50cm)
Specifications	
Body Controller	353(width) * 114(depth) * 353(height) mm, 3.5 kg 220(width) * 230 (depth)* 210(height) mm, 1.5 kg
Junction Box	250(width) * 68(depth) * 230(height) mm, 1.3 kg
Power Supply	AC 100 - 240V, 50 / 60Hz
Power Consumption	140VA



Sup@re

RMK-800 NEW

Autoref Keratometer

- Hartmann Shack Wavefront sensing tech
- Auto measuring function (both eyes automatic measurement)
- Auto testing 3D
- High accuracy of keratometry testing tech
- Rotating Touch screen





Technical Data	
Performance parameter	
Vertex Distance (VD)	0.0 mm, 12.00 mm, 13.5 mm, 15.00mm
Spherical Degree (SPH)	-30.00m-1-+25.00m-1 & (VD~12mm,
every step: 0.12 m-1/ 0.25	m-1)
Cylinderical Degree(CYL)	0.00 m-1~ 12.00 m-1 ®
(every step: 0.12m-1 / 0.25	m-1)
Axis (AX)	o• ~ 180° (every step: 1°)
Cylinder Form	-, + ,±
Minimum Pupil Diameter	2.0mm
Keratometer (only apply to	model with KER function)
Radius of Curvature	5.0-13.0mm (every step : 0.02mm)
Principal meridian axis	0- 180 ° (resolution: 1 °)

Environmental Requirement	
Operation	Temperature: + l0°C-+40°C
	Humidity: 30%RH - 75%RH
	Air pressure: 700hPa- 106
Storage	Temperature: -25°C-+40°C
	Humidity: 30%RH - 85%RH
	Air pressure: 700hPa-1060h
Transportation	Temperature: -40"C~+ 70°C
	Humidity: 10%RH ~95%RH
	Air pressure: 700hPa ~1060hP

Others	
Printer	Heat printing
Monitor	TFT LCD Color Monitor
Power supply	AC100-240V, 50/ 60Hz
Power consumption	75VA
Size	506mm x269mm x477mm
Weight	About 19Kg
Production date	At Certification
Fuses	F2AL250V



Since 1978, **Appasamy Associates** and Group of companies have been leading manufacturers and distributors of ophthalmic equipment, microscopes, lasers, IOLs, microsurgical instruments and pharmaceuticals. Our three decades of work have been widely appreciated throughout the world. Our dedication to support our products had become a bench mark among the community. We have dedicated R \otimes D team to fulfill state of the art requirements of the ophthalmic community. More than 15% expenses are spend on development of new products. We strive hard to make each and every modern technology and equipment within the easy reach of ophthalmic surgeons and visions care professionals in India.







Amogh Smart Ophthalmic Green Laser System-532Nm

Features

- Light weightand portable
- LCD touchscreen with mounting option ontableandalso ontheconsole
- LED illuminated foot switch, ON/OFF switch @ fiber connectingport
- Metal shielded laser delivery fiber optic cable
- Integrated Voice confirmationtechnology
- Parameter presets for different treatment procedures



Technical Data Diode pumped, frequency doubled, truecw, solid state TREATMENT LASER LASER MODULE CAPACITY 3Watts 635 nm, Semiconductor diodelaser, Oto 1mW (variable) AIMING BEAM POWER ADJUSTMENT Variable from 10to 1500mW 100/2 VAC, 50/60 Hz, 2A **POWERINPUT** Thermoelectric cooling (peltier)andaircooled COOLING Repeat pulse, singlepulse & continuous mode OPERATION MODE SCREEN DISPLAY LCD touch screen LIFETIME 10,000Workinghours DIMENSIONS 290 mm(H)x180mm (W)x365 mm(D) WEIGHT 8Kqs POWER CONSUMPTION 100 Watts PULSE DURATION 10 ms-10 sec PULSE INTERVAL 10 ms-10 sec TREATMENT LASER SAFETY Class IV

Standard Accessories

Dustcover, Footswitch & Safety Goggle



FootSwitch



Safety Goggle





Jericho

Ophthalmic Green Laser System-532Nm

Features

- Jericho has been made compatible for all three delivery systemsnamely integrated laser slit lamp (multispot @ single spot), laser indirect ophthalmoscope (single spot) and endo probes (single spot)
- High speed galvanometers enhancesrapid pattern delivery
- Accuracy in spacing
- Versatile in performance and compact in design
- Effective touch screeninterface and clear display of parameters
- Wide range of pulse duration from 10 ms 50ms for all available patterns results in lesscollateral damage
- Instant and easyaccessof the entire system
- Fiber optic cable connecting port, foot pedal @ ON / OFFswitch are illuminated with LED for easy location in a dark room
- Ergonomic design provides comfort to user
- True colour and permanently inbuilt safety filters enablescomfortable physician's view and eliminates colour distortion
- Compact and convenient foot switch
- Advanced optics in integrated laserslit lamp and the electronic micromanipulator in it allows user to move the illumination altogether with coaxialaiming beam
- Dedicated wheel chair accessiblemotorised table
- This multispot green laser photocoagulator systemis designed to treat retinal disorder using a single spot and alsowith different predetermined patterns
- Lesscollateral damage to surrounding tissue
- Comfortable treatment better tolerated by patients
- Extremely fast treatment
- Shorter laser sessions(compared to classictreatments)
- Integrated voice confirmation technology
- Parameterpresets for different treatment procedures





Diode pumped ,frequency doubled, true cw, solid state
3Watts
100/240 VAC,50/60Hz, 2A
Thermo electric cooling (peltier) and air cooled
635 nm, Semiconductor diodelaser,0to 1mW (variable)
LCD touch screen
10,000 Working hours
290mm(H) *180mm(W) *365mm(D)
8Kgs
100 Watts
Class IV
Variable from 10to 1500mW
50to400μ
10 ms-10 sec
10 ms-10 sec
Repeat pulse, single pulse \otimes continuous mode
Variable from 50 to 1500mW
100 to 400µ
100 to 500µ
10 - 50ms
10 - 50ms



Standard Accessories Dustcover, Footswitch & Safety Goggle





EYEOOS. Laser Suite of Excimer & Femto, manufactured by Opto Hellas, has one mission to set higher the new gold standards in Refractive Surgery and enhance quality of life by helping people see and live better. Therefore, offers the most precise medical laser technology solution and one of the newest refractive laser surgery product lines.

Opto Hellas engages in the development, manufacture, and marketing of the EYEOOS. Femto Visum Lasers and the EYEOOS. Excimer Visum Laser for the performance of various clinical and therapeutic corneal refractive surgery applications around the world.

NEW EYE ϕ OS. ϕ Femto Visum combined with Lenticule Extraction, **LENTEX** Procedure for patients with myopia and/or astigmatism – an advanced solution for treating patients with presbyopia, enable excellent visual acuity, is an option for more patients undergoing refractive surgery, due to its minimally invasive technique!





EYE**O**OS_®

NEW EYEOS. E





Excimer Laser

The Microscan Visum by Opto Hellas has the highest repletion rate excimer laser in the world, delivering at a 1100Hz rate. The innovative and advanced laser system of the Microscan Visum has lowered the treatment time to only 1s per diopter. When combined with its Super Gauss beam energy profile, it assures safe and precise operations that result in tissue saving and fast patient recovery times.

The system's Customized Ablation Profile that focus on creating specialized beam energy profiles for complicated refraction errors and its Standard Ablation Profile for Refraction, Presbyopia and Advanced PTK, allow the user to have to choose and customize for each of his patients a unique and dedicated beam profile, to ensure effective and high end results.

Through its state-of-art Eye Tracking System, the system remains ultrastable on the pupil center and limbal ring center of the patient's eye and continues to monitor its position (x,y,z axis monitoring) to assure the highest precision during each treatment.

Manufactured by optohellos





NEW EYEΦOS_® φ





Femto Laser + Lenticule Extraction

The Femto Visum by Opto Hellas is a highly advanced femtosecond laser system that has have been designed in cooperation with international KOLs in refractive surgery, making it once of the most innovative, efficient and reliable laser systems that can deliver results of the highest quality under the most demanding applications in modern corneal surgery, such as Femtolasik, Keratoplasty, Tunnel, Pocket, Incisions and Lentex Lenticule Extraction.

The system's laser creates flaps without leaving any tissue bridges, as its high repetition nanojoules at megahertz rate, low energy femto second laser source and advanced beam scanning features, deliver precise low pulses in small focal spots easily creating detachable flaps leaving behind a smooth cut surface with minimal roughness.

The atraumatic quartz patient interface ensures higher precision and better flap thickness uniformity than plastic interfaces. They come in multiple sizes and focus on securing the eye hold in position to deliver the most secure treatment results.

Manufactured by optohellos



EYE**O**OS_®

EYE OS. DIAGNOSTIC SUITE

VX120+ NEW

Diagnostic Instrument

Multimodal platform, diagnostic device for the anterior chamber, screening and analysis of the vision.

The VX 120+ Multi-Diagnostic Unit combines the functions of an autorefractor, a keratometer, a corneal topographer, a wavefront aberrometer, a pachymeter, and a non-contact tonometer combined with anterior chamber analysis into one of the most advanced and space-saving instruments in your practice.

WAVEFRONT AND TOPO-GUIDED PROCEDURES





GLAUCOMA IDENTIFICATION AND MONITORING

Anterior chamber analysis

Automatic measurement of iridocorneal angles

Measurement of anterior chamber volume

Measurement of anterior chamber depth

Measurement of IOP (intraocular pressure)

Measurement of corneal thickness

Corrected IOP as a function of corneal thickness

TECHNOLOGY

Scheimpflug imaging and non contact tonometer with soft air puff.

KERATOCONUS IDENTIFICATION AND MONITORING

Topography maps

Axial, tangential elevation and refraction maps

Keratoconus probability index (KPI)

Keratoconus monitoring

Internal astigmatism measurement

Eccentricity and meridian tables

Corneal aberrometry

TECHNOLOGY

Wavefront analysis with Shack-Hartmann technology, Placido rings, Scheimpflug imaging.

IDENTIFICATION OF A CATARACT

Visualization of crystalline opacities

Analysis of wavefront aberrations, with the ability to separate corneal and lenticular/internal aberrations

Internal astigmatism measurement

Kappa angle for IOL centering

Z.4.0 value for aspheric implant

Lens opacity classification (LOCS II and III scales)

TECHNOLOGY

Scheimpflug imaging , Retroillumination, Shack-Hartmann, Placido rings.





Opto Systems is a medical laser manufacturer based in Russia, that produces the Microscan Visum and Femto Visum, two of the most powerful and innovative ophthalmic laser systems that are setting new standards for refractive surgery, worldwide.

For the past 20 years, Opto Systems has been perfecting the precision, technology and technical capabilities of their laser systems, creating unique and powerful solutions that deliver efficient and advanced results.

The recent but important collaboration of Opto Systems with Opto Hellas, creates new and exciting paths for the company's future, as Opto Hellas' international distribution network is here to support, enhance and advance the ground breaking technologies of the Refractive Laser Systems of Opto Systems.





OptoSystems

Excimer Laser

The Microscan Visum by Opto Systems has the highest repletion rate excimer laser in the world, delivering at a 1100Hz rate. The innovative and advanced laser system of the Microscan Visum has lowered the treatment time to only 1s per diopter. When combined with its Super Gauss beam energy profile, it assures safe and precise operations that result in tissue saving and fast patient recovery times.

The system's Customized Ablation Profile that focus on creating specialized beam energy profiles for complicated refraction errors and its Standard Ablation Profile for Refraction, Presbyopia and Advanced PTK, allow the user to have to choose and customize for each of his patients a unique and dedicated beam profile, to ensure effective and high end results.

Through its state-of-art Eye Tracking System, the system remains ultrastable on the pupil center and limbal ring center of the patient's eye and continues to monitor its position (x,y,z axis monitoring) to assure the highest precision during each treatment.





CLS 5000

Technical Data	
INDICATIONS RANGE	Myopia up to 13 D, hyperopia up to 7 D, astigmatism up to 10 D
TRACKING	By pupil, limbal ring or scleral vessels
AIMING	By pupil, limbal ring or coaxial corneal light reflex
ABLATION DEPTH	From 12.5 um per D
ROUGHNESS	190 nm
TREATMENT TIME	From 1.19 sec per D
LASER REPETITION RATE	1100 Hz or 500 Hz
LASER WAVELENGTH	193 nm
LASER BEAM DIAMETER	0.9 mm
LASER BEAM PROFILE	Super Gauss
ACCESS CARD	Not required
SUPPORTED DIAGNOSTIC INSTRUMENTS	Topcon KR-1W, Visionix VW 120, Tomey TMS-5
COLD START TIME	30 min
Dimensions	
FOOTPRINT	72 x 135 cm (28 x 53 in)





OptoSystems

Femto Laser

The Femto Visum by Opto Systems is a highly advanced femtosecond laser system that has have been designed in cooperation with international KOLs in refractive surgery, making it once of the most innovative, efficient and reliable laser systems that can deliver results of the highest quality under the most demanding applications in modern corneal surgery, such as Femtolasik, Keratoplasty, Lentex, Tunnel, Pocket and Incisions.

The system's laser creates flaps without leaving any tissue bridges, as its high repetition nanojoules at megahertz rate, low energy femtosecond laser source and advanced beam scanning features, deliver precise low pulses in small focal spots easily creating detachable flaps leaving behind a smooth cut surface with minimal roughness.

The atraumatic quartz patient interface ensures higher precision and better flap thickness uniformity than plastic interfaces. They come in multiple sizes and focus on securing the eye hold in position to deliver the most secure treatment results.



Tankwinal Data	
Technical Data	
INDICATIONS RANGE	Myopia up to 13 D, hyperopia up to
	7 D, astigmatism up to 10 D
TRACKING	By pupil, limbal ring or scleral vessels
AIMING	By pupil, limbal ring or coaxial corneal light reflex
ABLATION DEPTH	From 12.5 um per D
ROUGHNESS	190 nm
TREATMENT TIME	From 1.19 sec per D
LASER REPETITION RATE	1100 Hz or 500 Hz
LASER WAVELENGTH	193 nm
LASER BEAM DIAMETER	0.9 mm
LASER BEAM PROFILE	Super Gauss
ACCESS CARD	Not required
SUPPORTED DIAGNOSTIC INSTRUMENTS	Topcon KR-1W, Visionix VW 120, Tomey TMS-5
COLD START TIME	30 min
Dimensions	
FOOTPRINT	72 x 135 cm (28 x 53 in)







TowardPi Medical Technology Ltd was founded in Oct, 2017, with core technology originated from Tsinghua University, Beijing, China. The company is headquartered in Zhongguancun Life Science Park, Changping District, Beijing. TowardPi attaches importance to self-innovation and has advanced technical strength in the field of Photoelectricity, Optics, Mechanology, Flushbonading, Software, Algorithm and AI, etc. At present, the company has exceeded 100 employees, and over 50% of employees are occupied in R&D field, over 70% of R&D employees are with above postgraduate degree. TowardPi sets up three R@D centers, which base in Beijing, Shanghai and Nantong. On the other side, TowardPi owns Beijing, Suzhou and Guan production bases of several ophthalmic equipment product lines, which include SS-OCT, Biometer, Surgical Microscopes, fundus camera, etc. Over the past few years, we believe that the concept of long-term value. As one of the leading enterprises of high-end ophthalmic equipment field in China, TowardPi has gradually developed a set of democratic corporate management mode, with scientist spirit at its core. Since its inception, TowardPi has achieved several rounds of equity funding and, at the same time, won government awards from Ministry of Science and Technology, Beijing Municip al Science and Technology Commission, Zhongguancun.

With the mission of promoting the engineering technical progress and new clinical finding in the medical field, TowardPi always adheres to the values of "Explore, Discovery, Innovation and Win-win".





TOWARD π

Technical Data	
OCT Wavelength	Swept source 1060 nm
Fundus wavelength	LS0 840nm
* A-Scan speed	400,000/sec
* Resolution Axial	3.8 microns (optical)
* Resolution Lateral	10 microns (optical)
* Dioptric Range	-30D to +30D
* Field of view	120°
Eye tracking speed = 80 Hz	
Scan pattern (retina)	Line, Cross, Grid, Radial, Raster, 3D, OCTA
Scan pattern (glaucoma)	ONH, GMA, 3D, OCTA
Scan pattern (anterior)	Line, Radial (pachymetry), HD Radial, 3D, OCTA
* Posterior line scan length	3-24mm adjustable
* Anterior line scan length	3-16mm adjustable
* Posterior scanning depth	3mm, 6mm
* Anterior scanning depth	6 mm
* OCTA pattern (retina)	3x3mm to 12x12mm adjustable, 24x20mm
* OCTA pattern (anterior)	6x6mm, 16x12mm, adjustable
* OCTA line positions	512-1280
* Maximum A-scan numbers on B-scan	1536
* Maximum OCTA scan pattern	24 X 20 mm (single capture)
* Typical OCTA acquisition time	1.8s (3-6mm), 7.2s (12mm), 15s (24mm)
Posterior analysis:	Automatic retina thickness ® volume
	(customized slabs), Automatic choroid thickness
	® volume
Anterior analysis:	CCT, ACD, ACV, ARW, SSD, ACA, SSA, AOD,
	TISA, LV, CLR, ICL Vault, etc. All indexes can be
OCTA -I-I-	measured automatically or manually.
OCTA slabs:	vitreous, superficial, deep, avascular, retina,
OCTAIvi-	choriocapillaris, choroid big vessels, customized.
OCTA analysis:	Retina flow density, FAZ indexes, flow area,
Clausema emplusia	choriocapillary density, choroid flow density
Glaucoma analysis:	Disc area, rim area, cup volume, C/D ratios, RNFL
Anterior image dewarp	thickness, ganglion cell complex thickness Support
Vitreous enhanced mode	Support
Auto repeat position for follow up	Support
OCTA projection removal	3D full thickness
OCTA disc mode	Support (Independent segmentation and analysis)
Segmentation editing	Algorithm assisted automatic calibration
Segmentation editing	Algorithm assisted automatic calibration

Support

Support auto or manual

Mouse

10X times

Online or manual

Support (DICOM or viewer)

available for OCT @ OCTA quantification scans

OCTA report instant opening

OCTA montage

Trend analysis
Operation

Software Upgrade

Network review

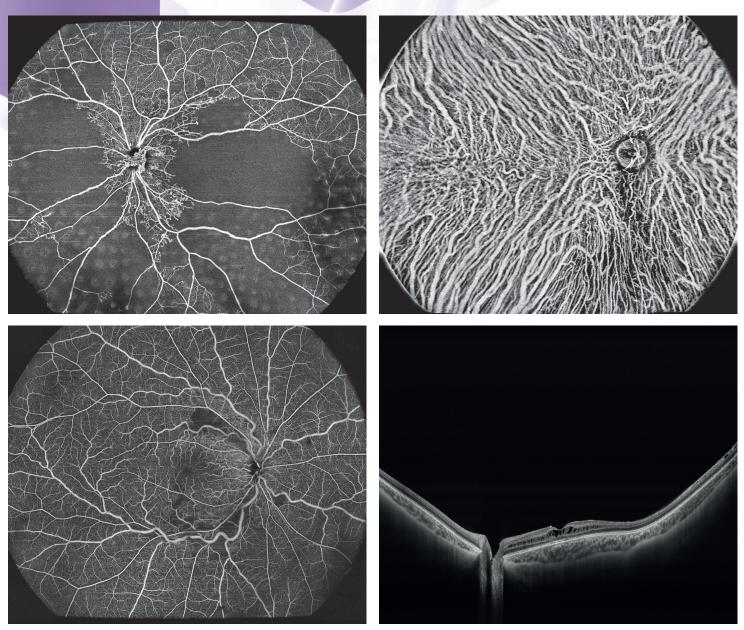
Report preview (from patient list page)

Data compression of OCTA raw data

BMIZAR

The Bmizar from Toward Π is a Swept source 1060 nm OCT wavelength with a Fundus wavelength 840 nm SLO. 400.000/ second A-Scan speed. 3.8 microns resolution Axial and 10 microns resolution Lateral.







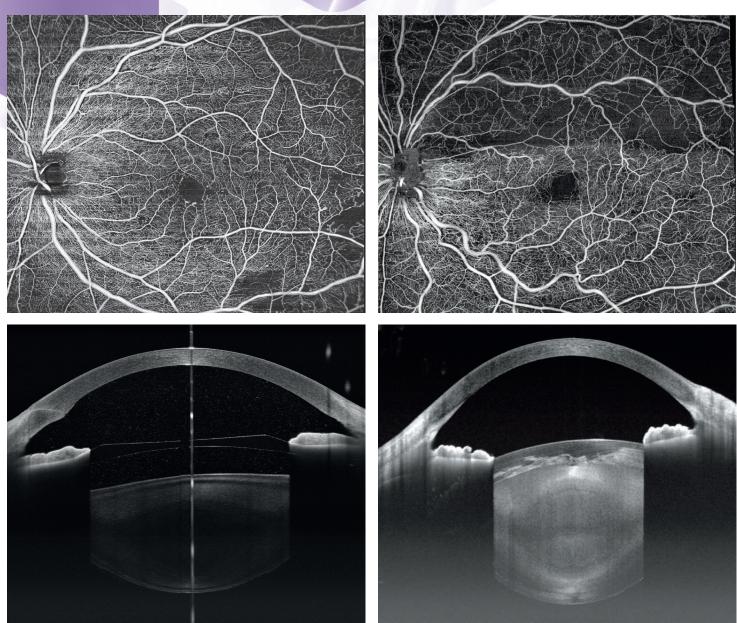


YALKAID NEW

The Yalkaid from Toward Π is a Swept source 1060 nm OCT wavelength with 100.000/second A-Scan speed. Automatic retina thickness \otimes volume, and automatic choroid thickness \otimes volume.

Technical Data	
OCT Wavelength	Swept source 1060 nm
Fundus wavelength	LSO 840nm
* A-Scan speed	100.000/sec
* Resolution Axial	3.8 microns (optical)
* Resolution Lateral	10 microns (optical)
* Dioptric Range	-20D to +15D
* Field of view	56°
Eye tracking speed = 80 Hz	30
Scan pattern (retina)	Line, Cross, Grid, Radial, Raster, 3D, OCTA
Scan pattern (jetina) Scan pattern (glaucoma)	ONH, GMA, 3D, OCTA
Scan pattern (gradconia) Scan pattern (anterior)	Line, Radial (pachymetry), HD Radial, 3D, OCTA
* Posterior line scan length	3-16mm adjustable
* Anterior line scan length	3-24mm adjustable
* Posterior scanning depth	3mm. 6mm
* Anterior scanning depth	6mm. 14mm
* OCTA pattern (retina) * OCTA pattern (anterior)	3x3mm to 12x12mm adjustable 6x6mm, 16x12mm, adjustable
	512-1024
* OCTA line positions	
* Maximum OCTA scan pattern	12 X 12 mm (single capture) Automatic retina thickness ® volume (customized
Posterior analysis:	slabs). Automatic choroid thickness & volume
Antonion analysis	
Anterior analysis:	CCT, ACD, ACV, ARW, SSD, ACA, SSA, AOD, TISA,
	LT, LV, CLR, ICL Vault, etc. All indexes can be
OCTA alaba	measured automatically or manually.
OCTA slabs:	vitreous, superficial, deep, avascular, retina,
OCTA!:-	choriocapillaris, choroid big vessels, customized.
OCTA analysis:	Retina flow density, FAZ indexes, flow area,
Clausama analysia	choriocapillary density, choroid flow density
Glaucoma analysis:	Disc area, rim area, cup volume, C/D ratios, RNFL
A t i i	thickness, ganglion cell complex thickness
Anterior image dewarp	Support
Vitreous enhanced mode	Support
Auto repeat position for follow up	Support
OCTA discussion removal	3D full thickness
OCTA disc mode	Support (Independent segmentation and analysis)
Segmentation editing	Algorithm assisted automatic calibration
OCTA report instant opening	Support
Report preview (from patient list page)	Support
OCTA montage	auto or manual
Data compression of OCTA raw data	10X times
Trend analysis	available for OCT @ OCTA quantification scans
Operation	Mouse
Software Upgrade	Online or manual
Network review	Support (DICOM or viewer)









ZALIOTH NEW

Swept Source Optical Biometer

Using swept source OCT technology. The depth of field reaches up to 44mm, visualization of whole process of measurement from cornea to fovea in real-time. Captured in 0.1 second. More technical details to be revealed after release.

Technical Data	
Axial Length	14-44mm
Central Corneal Thickness	200-1500mm
Anterior Chamber Depth	0.7-8mm
Lens Thickness	0.5 -10mm
Corneal Diameter	7-16mm







DIGITAL NAVIGATION MICROSCOPE COMING SOON

- Smooth integrated intelligent bracket design and electric non-contact fundus observation system
- High-end digital navigation microscope achieves easy switching between anterior and posterior segment surgeries.
- Intraoperative SS-OCT module with data projection system
- All-built-in binocular 4K3D HD camera, bringing unparalleled precise intraoperative OCT navigation



Appsmart covers all necessary skills for the entire life-cycle of a successful software implementation, from business analysis to UI/UX design, development and testing, deployment and post-implementation support. With a solid and stable team of senior specialists, experienced in medium and large scale project implementations, they deliver fast and high-quality software solutions. In order to choose what's best for our partners and to be able to offer them a complete solution to their needs, they invest in developing skills in a wide range of technologies, keeping up with latest tendencies and market standards.

Appsmart strive to identify the best software solutions to meet our partners' requirements. They invest our long term accumulated experience in developing software products for various industries, products meant to improve, simplify and streamline the business processes in our partners organizations. Extremely focused on customer satisfaction, they constantly implement feedback received from users, in order to optimize their experience with Appsmart products. Having skilled professionals being able to internally handle entire software development processes, they offer complete services to our customers, becoming a "one stop shop" for their software solutions needs.









Medical appointments module:

- Scheduling and calendar (patients / doctors / offices)
- Aggregated medical history in the patient file
- Import investigations results automatically in the medical report
- Investigations result files sorted by equipment type available in in the patient medical record
- Intraocular pressure evolution graph
- Anterior and posterior pole lesions drawings
- Treatment plans according to diagnosis
- Printing medical reports, glasses prescriptions, drug prescriptions, etc.
- Financial management and integration with fiscal devices

Operating room module:

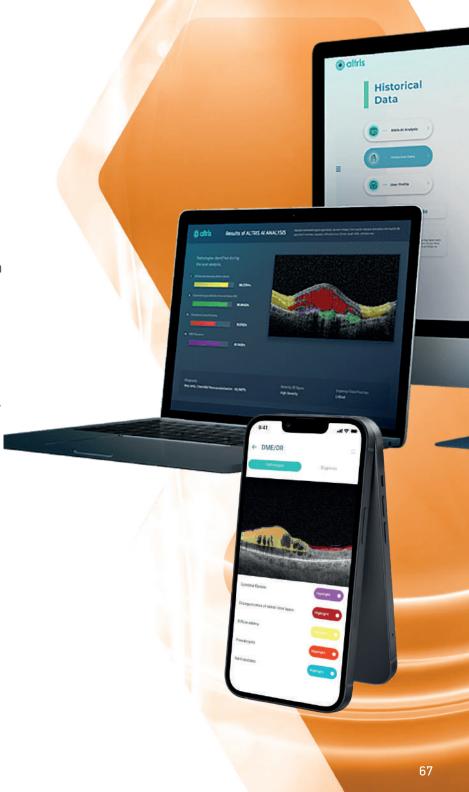
- Scheduling and calendar (patients / doctors / operating room)
- Import data from the pre op consultation directly in the surgery medical report
- Specific medical report for refractive surgery
- Specific medical report for crystalline implant surgery
- Specific medical report for retinal surgery
- Specific medical report for strabismus surgery
- Specific medical report for other surgeries
- $\bullet \ {\sf Printing \ surgery \ medical \ reports, \ discharge \ notes, \ post-operative \ recommendations \ etc.}$
- Management of receipts and payment balances

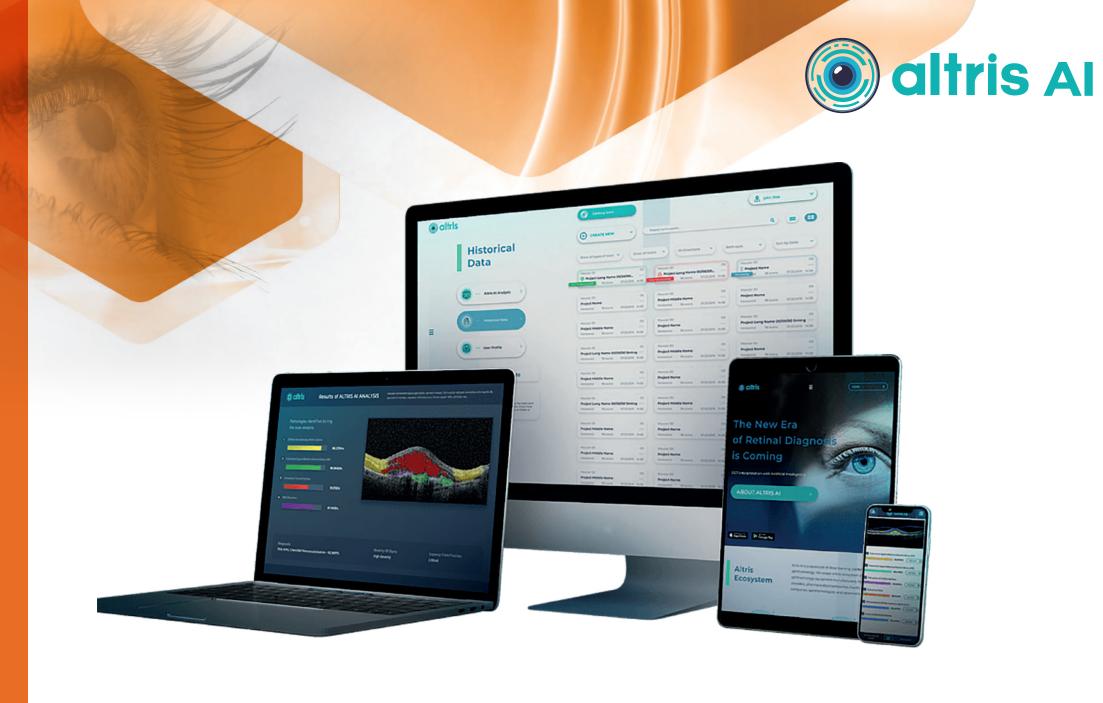


Altris AI is a unique ophthalmic image management system powered by AI and has the vision to digitalize the world of eye care practice and make one of the most common diagnostic methods, Optical Coherence Tomography (OCT), more efficient \otimes accurate with the help of AI. The first prototype for the detection of two pathological conditions and a normal retina was developed in November 2017.

The company which applies computer vision and deep learning trained algorithms to build innovative ophthalmology diagnosis real-time support platform for the automatic, structural and quantitative analysis and detection of glaucoma, age-related macular degeneration, diabetic retinopathy and other retinal diseases on Optical Coherence Tomography (OCT) scans and OCT Angiography by learning from a large dataset of clinical cases.

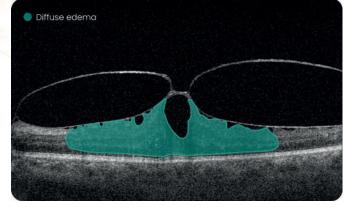
The company accumulated and legally owns one of the most massive anonymized databases of the retina, optic nerve scans as well as clinical data. We continue increasing our dataset daily in our ophthalmology center with OCT scans and OCT Angiography.







altris AI

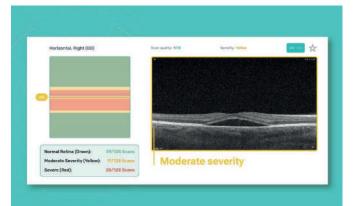


Altris AI ophthalmic image medical system works with all popular OCT equipment and all data storage formats (DICOM of different lengths, png, jpg). It can be easily integrated into an EHR system or work separately as a web application.

ALTRIS NEW

Al Oct Diagnosis

- AI-powered, standalone, browser-based software for OCT scan interpretation. Unique ophthalmic image management system powered by AI.
- 3 core modules: Screening, Analysis, and Reporting.
- Works with all popular OCT equipment and all data storage formats
- Automating the selection of pathological OCT scans and the detection of 54 pathological signs and 49 pathologies.
- Faster examinations \otimes detect minor, early, rare pathologies when analyzing complex OCT scans
- 91% of cumulative AI accuracy,
- Fully GDPR compliant



Altris AI allows storing all patients' data in 1 place and assigning access to it only to authorized team members.



With 91% of cumulative AI accuracy, Altris AI sets a higher standard of diagnostics for every single hospital or optometry business which inevitably results in better patient outcome. AI for Ophthalmology and Optometry is the empowerment of eye care specialists in their practice.



The company consists of Chongqing Bio New Vision Medical Equipment Co., Ltd., which integrates R@D, manufacturing, sales and service. Obtained the national high-tech enterprise, "specialized and special new enterprise", "and intellectual property advantage enterprise". Passed the CE13485 system certification, with more than 80 patents and software copyrights.

We have been committed to independent research and development, constantly launching professional ophthalmic medical devices that meet the needs of different customers, carefully improving product quality, and promoting the intelligent advancement of products with technological innovation. New Vision's product series is suitable for in-hospital diagnosis to digital grading diagnosis, artificial intelligence eye health diagnosis, vision screening, etc., and provides the best ophthalmic diagnostic hardware solutions for hospitals, optometry clinics, physical examinations and other institutions.

At present, our users have covered thousands of medical institutions across the country and more than 40 overseas countries or regions. In 2020, the China Medical Equipment Association released the results of the selection of excellent domestic medical equipment products. New Vision's RetiCam3100 ranked first in the fundus camera group in terms of technical parameters, company conditions, and clinical research.









KESTREL 300 NEW

Portable Al Robotic Fundus Camera

Kestrel 300 is a brand new, fully automatic, portable fundus camera with compact design, easy to carry features, fully automatic design, and user friendly operation. It comes equipped with a high definition image acquisition system that allows for easy uploading of images to the cloud. With the help of AI Technology, it enables artificial intelligence film reading and allows you to have access to an eye health expert anytime and anywhere.

- Portability: Applies to any medical and health scene
- Al Intelligence: Self-service operation, artificial intelligence film reading.
- Fast: Complete a binocular examination in 30 seconds and provide immediate results.
- **High Definition:** Provides high definition images with 20 million pixels.

Image Acquisition System	
Acquisition modes	Non-mydriatic / mydriatic
Field of view	50°
Working distance	15mm
Minimum pupil size	≥ 3.00mm
Focus modes	Auto / Manual
Exposure modes	Auto / Manual
Operation	Auto / Manual
Photography	CMOS
Resolution	20 megapixels
Diopter compensation	±15D
Fixation	Internal Fixation
Autofocus Assistance	Dual Camera
DICOM 3.0	Yes
Customization Al port	Yes
Others	
Dimensions	284mm (L) x 306mm (W) x 145mm (H)
Weight	3.6 Kg
Power Supply	100-240V 50/60Hz





Portable SD Optical Coherence Tomography (OCT)

Hand-held RetiView X09 SD OCT is cost-effective and compact, which will allow more patients to benefit from this technology through point-of-care diagnostics and tele-oph-thalmology. It is a low-cost, portable and easy to use OCT system while it will be essential to facilitates widespread use at point of care settings while ensuring that it offers the necessary imaging performances needed for clinical detection of retinal pathology.

Hand-held SD OCT makes it easier to examine children and infants. It can be used everywhere, including in the operating theater. This makes it very easy to perform a scan, on both adults and children. Hand-held SD OCT can be used with lenses to acquire images of the anterior and posterior segment. Furthermore, it is a prognostic tool, which can help predict future visual acuity, as well as a tool for surgical planning.

Technical Data	
Methodology	Spectral domain OCT
Axial resolution	≤6µm(in tissue
Transverse resolution	≤20µm(in tissue
Scan depth	≥2.5mm(in air
Scan range	≥6mm
Scan speed	≥24,000A-scan/second up to 40,000A-scan/second
Scan modes	3D,HD,Raster,Circle,Radial
Fundus image	OCT en face
Focus adjustment	15D 15D
Pupil diameter	≥3mm
OCT light source	840nm SLD)
Optical power	750μW(at cornea
Operation	Display by PC
Power supply	100-240V,50/60 Hz
Dimension	280mm 80mm 215mm
Weight	1.5kg
Dimension(with box)	578mm 394mm 268mm
Weight (with box)	12.5kg



OUR FACILITIES

Our facilities consist of product showrooms, education rooms, media rooms (greenrooms), our staff's offices and of course our conference and meeting rooms.

Headquarters - Katerini





Branch - Athens











optohellas*

