SAGLO
Research Equipments

DIGITAL MICROSCOPES
INDIA

DIGITAL MICROSCOPY CATALOG

SAGLO Research Milestones

2014 First Bright field Microscope Patented

2015 First Digital Microscope Adaptor Patented

2016 First time real time vedio microscopy developed

2017 First digital microscope with integrated Windows tablet PC

2018 First software for microscopy introdused

2019 First Patented Dark Field Filter

2020 First Patented Compact Inverted Microscope

Complete Icon List

	Field number
	Incident light
	Transmitted light
	LED illuminator
	X-LED illuminator
	Automatic light control
	Multi-Plug low voltage power supply
	Rechargeable battery
	Li-Ion rechargeable battery
	Infinity corrected optics
	High contrast objectives
	N-Plan objectives (up to 20mm f.o.v)
	W-Plan objectives (up to 22mm f.o.v)

	U-Plan objectives (up to 24mm f.o.v)
	Oil/Water 100x objective
	Fluorescence
	Metallography
	Polarized light
	Darkfield
	Phase contrast
	Differential interference contrast
	Fixed objective
	Zoom objective
	USB 2.0 input (mouse)
	USB 2.0 output
	USB 3.0 output

	Tablet screen size
	Camera resolution
	CCD sensor
	CMOS sensor
	Software included
	HDMI output
	SD/MicroSD slot
	Wi-Fi
	BlueTooth
	Cooling system
	Mouse included

LABORATORY Digital Microscopes

Icons

Field number	W-Plan objectives (up to 22mm f.o.v)	Tablet screen size
Incident light	U-Plan objectives (up to 24mm f.o.v)	Camera resolution
Transmitted light	Oil/Water 100x objective	Software included
LED illuminator	Fluorescence	HDMI output
X-LED illuminator	Metallography	MicroSD slot
Automatic light control	Polarized light	Wi-Fi
Multi-Plug low voltage power supply	Darkfield	BlueTooth
Infinity corrected optics	Phase contrast	
N-Plan objectives (up to 20mm f.o.v)	USB connection	

S GLO ®
Research Equipments

D I G I T A L   M I C R O S C O P E S
I N D I A

SGL-11 Series

Patented Digital Microscopes

Best Value-for-Money Solutions & Versatile Use

SUITABLE FOR UNIVERSITIES, EXPERTS & ROUTINE LABS
» The ideal choice for common lab requirements
» Simply engineered for life-science
» Ready for Dark Filed, Bright Field and phase contrast

EXCELLENT PRICE/PERFORMANCE RATIO
» N-PLAN objectives (160 mm or IOS) for flat images on 20 mm FN
» Fixed Koehler illumination for crisp and contrasted images
» Rounded edge, rackless stage to prevent scratches

B-290TB - BREAK NEW gROUND WITH WINDOWS TABLET
» Large touch-screen of 10.8" with fast, responsive and smooth control
» 360° rotatable, tiltable and easily detachable
» Simultaneous camera & power connection for long-term operation

B-290LD SERIES - ON-FIELD TBC & MALARIA DIAgNOSIS
» Ultra-convenient LED fluorescence, blue filter
» No waiting time, immediate operation
» Cost-effective, money-saving technology
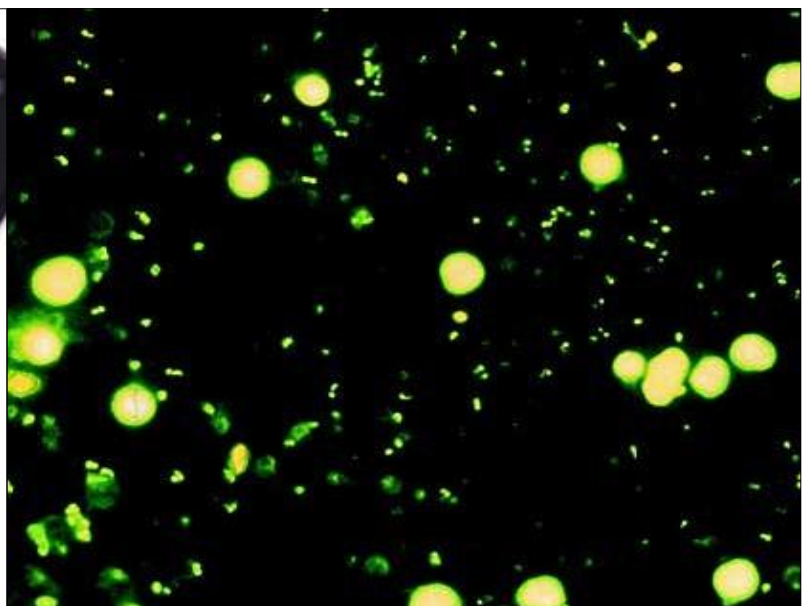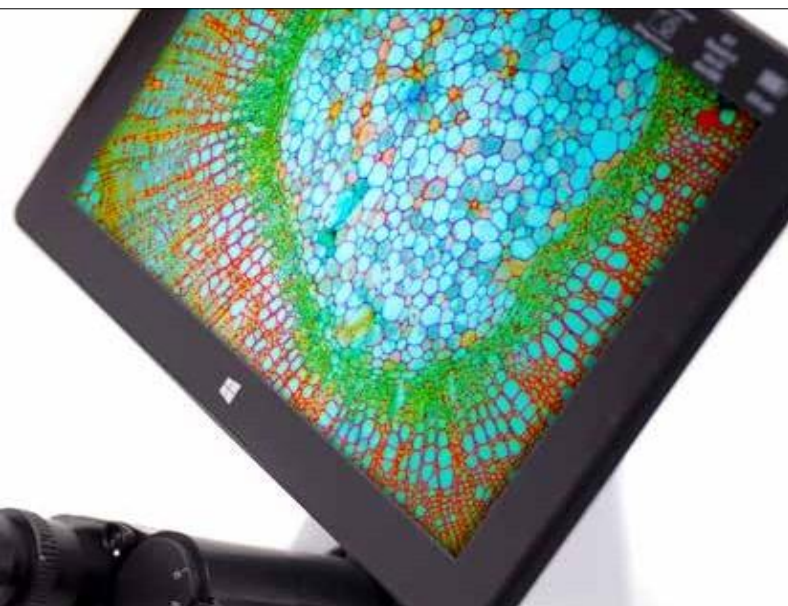
Patented Technology – Only at SAGLO
LED LLUMININATION TECHLONOGY

STATE-OF-THE-ART ILLUMINATION SYSTEM
» Uncomparable light intensity, exclusive lens & collector design
» Constant pure-white colour temperature at all intensity levels
» Unmatched color fidelity, uniformity and brightness

CUT ELECTRICITY BILLS By 98%
» Money & energy saving, only 3.6 W
» More efficient brightness than a 50 W halogen lamp
» LED long lifetime (65,000 hours = 22 years at 8 hours/dayusage)

Halogen Lamp

LED Lamp
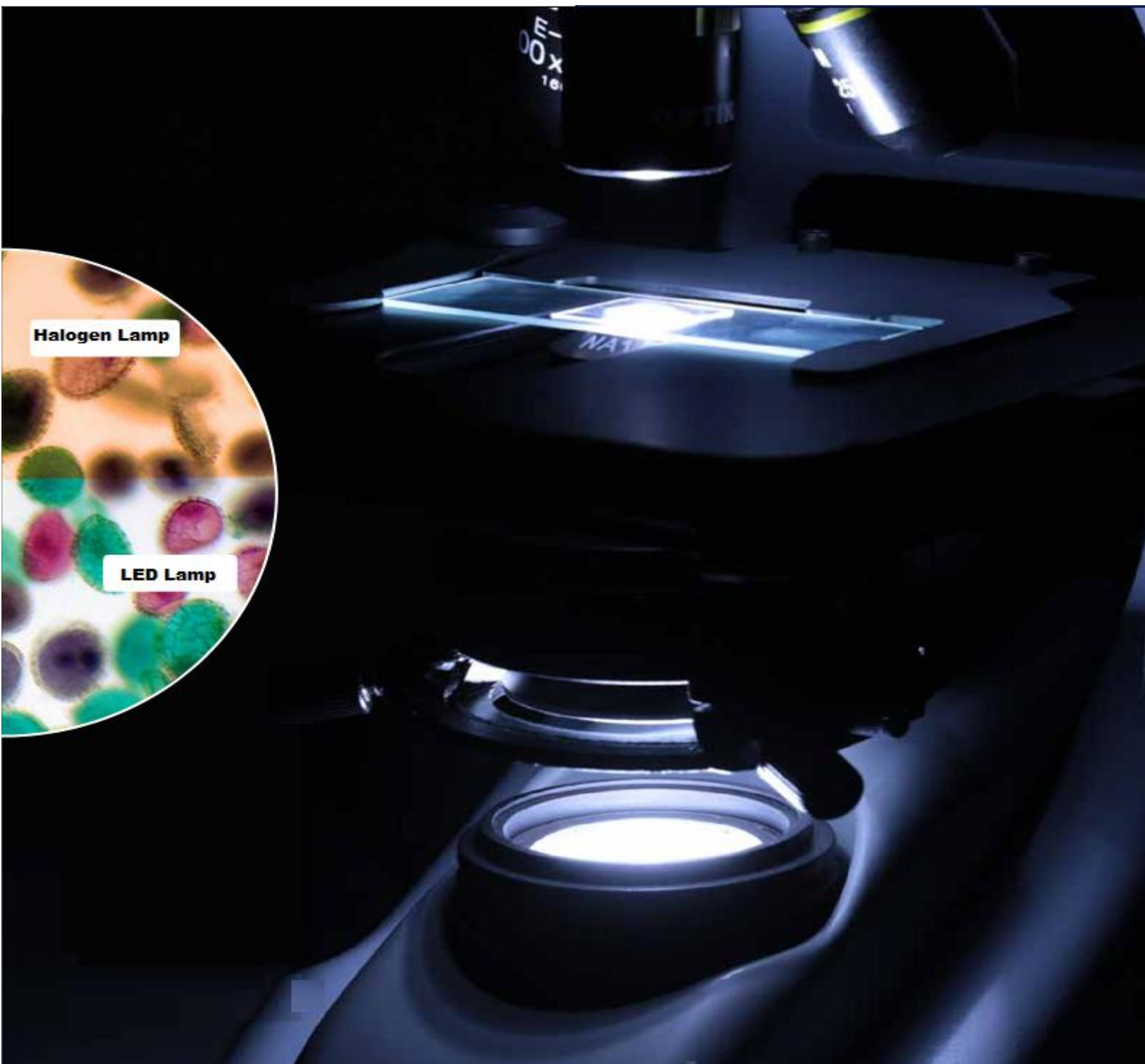
SGL-11 A – Trinocular Brightfield Microscope

SGL-11 A

Trinocular head with N-PLAN objectives, rackless stage and exclusive *LED Illumination* for unmatchable performance, powerful and uniform illumination.

Observation mode: Brightfield.

Head: Trinocular (fixed, 50/50), 360° rotating and 30° inclined. Interpupillary distance 48-75 mm.

Dioptric adjustement: On the left eyepiece tube.

Eyepieces: WF10x/20 mm, high eye-point and secured by screw.

Nosepiece: Quadruple revolving nosepiece, rotation on ball bearings.

Objectives:
N-PLAN 4x/0.10
N-PLAN 40x/0.65 N-PLAN 100x/1.25 (Oil/)
All with anti-fungus treatment.

Specimen stage: Double layer rackless mechanical sliding stage, 150x139 mm, 75x33 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

Focusing: Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.

Condenser: Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and centerable.

Illumination (Fixed Koehler type): X-LED[3] type with white 3.6 W LED (6,300 K) and light intensity control. Multi-plug 100-240Vac/6Vdc external power supply.

Legend
1. SGL -11 A with 360° rotating tablet PC for discussion.
2. Pine, one year stem, with SGL -11 A and 10x objective, 20x objective and 40x objective.
3. SGL -11 A Series exclusive LED illumination system.
4. SGL -11 A used by a Researcher.

SGL-11 B - Digital Microscope with Camera & Tablet

SGL-11 B

20 **10.8"**

3.1 MP

X-LED³

HDMI

N-PLAN **MICRO SD**
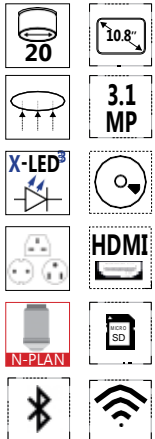
3.1 MP Built-in camera and 10.8" Windows tablet PC with N-PLAN objectives, rackless stage and exclusive *LED Illumination* for unmatchable performance in illumination. Ideal for discussion group with 360° rotating tablet.

Observation mode: Brightfield.

Head: Binocular, 360° rotating and 30° inclined. Interpupillary distance from 48 to 75 mm; dioptric adjuctment on left eyepiece. Built-in 3.1 MP camera.

Dioptric adjustement: On the left eyepiece tube.

Eyepieces: WF10x/20 mm, high eye-point and secured by screw.

Nosepiece: Quadruple revolving nosepiece, rotation on ball bearings.

Objectives:
N-PLAN 4x/0.10
N-PLAN 40x/0.65
All with anti-fungus treatment.

Specimen stage: Double layer rackless mechanical sliding stage, 150x139 mm, 75x33 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

Focusing: Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.

Condenser: Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and centerable.

Illumination (Fixed Koehler type): X-LED³ type with white 3.6 W LED (6,300 K) and light intensity control. Multi-plug 100-240Vac/6Vdc external power supply.

INTELLECTUAL PATENTED PROPERTY

UNIQUE FEATURES
» Simultaneous camera & power connection
» Equipped with the latest Windows OS & Intel processor
» Easily detachable, can be used as a laptop (keyboard included)

SGL-11 B - Digital Microscope with Camera & Tablet

The latest SAGLO digital microscopes with Windows tablet PC open new microscopy horizons, combining high-end optics with innovative digital technology for microscopic imaging. SGL-11 B includes a 3MP camera with a 10.1" Windows tablet. View, capture, analyze and share your images with simplicity and reliability.

TABLET TECHNICAL SPECIFICATIONS

Model	Tablet
Operating System	Windows 10 32-bit
Language	Multilanguages already installed
Image capturing software	SAGLO Micro-imaging
CPU	Intel® Atom™ Z3735F, Quad core
CPU speed	1.44 GHz
Graphics Card	Intel® HD Graphics 3D Accelerator
LCD display	**LED 10.1" IPS Multi Touch Screen**
Memory	Ram 2,048 GB DDR3L
LCD resolution	1920 x 1280, 16/10 (WXGA)
Storage	HDD 64GB
Input/output ports	Micro USB-B - USB - Microphone - MicroSD card reader Mini HDMI - Head-phone
Network	Wireless, Bluetooth 4.0
Control Buttons	Auto rotate off, volume control
Battery Technology	Lithium-ion battery, 2x cell
Battery capacity	8400 mAh
Max load	15 W
Weight	720 g
Dimensions	Thickness 10,5 mm, Height 17,4 cm, Width 25,7 cm
Cables included	USB-B to USB-A / OTG cable (Micro USB-B to USB-A)
Also included	Instruction manual, Keyboard with touchpad, touch pen.

CAMERA TECHNICAL SPECIFICATIONS

Digital camera resolution	3MP
Signal output	USB 2.0
Sensor Size	1/2.5"
Sensor technology	CMOS
Image format	4\3
Pixel size	2.2 x 2.2 micron
Full Image size	2048 x 1536
Frame rate full resolution	5 frames\sec
Frame rate other resolutions	8 fps (1280x1024) - 30 fps (640x480)
Automatic Gain Control	Auto - Man
Automatic White Balance	Auto - Man
Automatic Back light control	Auto - Man
Exposure control	Auto - Man
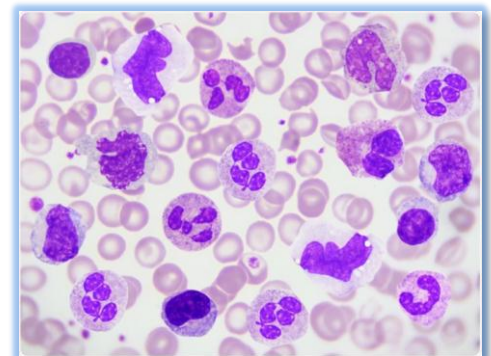
SGL-11 C - Brightfield Inverted Microscope

SGL-11 C looks at the challenge of the future with confidence, offering first-class optical quality and mechanical versatility, to extend its use with several accessories. Ensuring top-level brightfield and inverted observation, as it comes with a set of 3 IOS LWD W-PLAN PH objectives (10x, 20x and 40x). The high-efficiency **LED Iilumination** makes it reliable for all transmitted light observations. For a more complete solution, choose among the several accessories available (objectives, translating stage, side extensions, holders and stage inserts).

22

3.1 MP

HDMI

N-PLAN

Part	Description
Observation mode:	Brightfield, phase contrast.
Head:	Trinocular (2-position 100/0, 50/50), 45° inclined.
Interpupillary distance:	Adjustable between 50 and 75 mm.
Dioptric adjustment:	On the left eyepiece tube.
Eyepieces:	WF10x/22 mm, high eye-point and with rubber cups.
Nosepiece:	Quintuple revolving nosepiece, rotation on ball bearings.
Objectives:	IOS LWD W-PLAN PH 10x/0.25
	IOS LWD W-PLAN PH 20x/0.40
	IOS LWD W-PLAN PH 40x/0.65
	All with anti-fungus treatment.

Part	Description
Specimen stage:	Fixed stage, 250x160 mm, with glass and metal stage inserts.
Focusing:	Coaxial coarse (adjustable tension) and fine focusing mechanism with limit stop to prevent the contact between objective and specimen.
Condenser:	LWD pre-centered condenser, N.A. 0.30, W.D. 72 mm. With 4x/10x, 20x/40x phase contrast slider and brightfield. Removable to extend the working distance up to 150 mm.
Transmitted illumination:	X-LED[8] with white 8 W LED (6,300K) with brightness control. With aperture diaphragm. Multi-plug 100-240Vac/6Vdc external power supply.
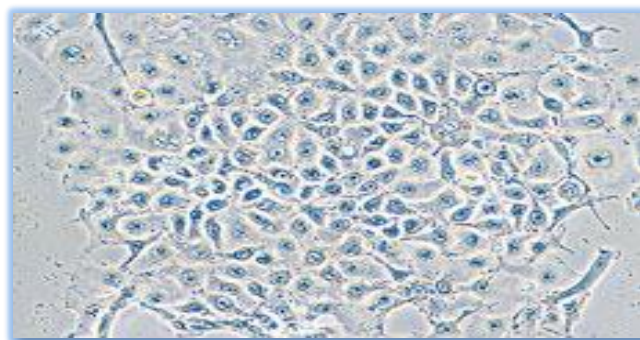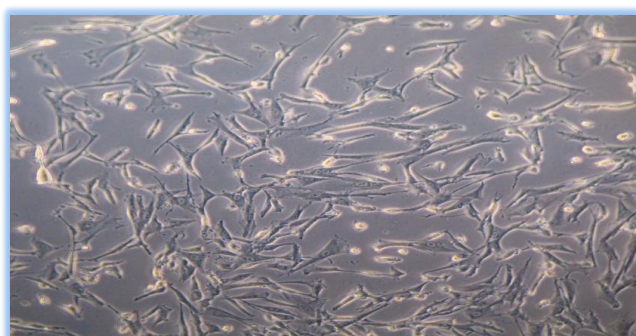
Microscope Cameras

MICROSCOPE CAMERAS

Cameras & Digital Solutions

Cameras for Microscopy & Digital Scanner

USB CAMERAS - A Series

C-B1	C-B3	C-B5	C-B10
1.3 MP	3.1 MP	5.1 MP	10 MP

CMOS · (C-mount) · USB-OUT

USB 2.0 C-mount and Eyepiece Microscope Cameras

Cameras have become indispensable nowadays and SAGLO is offering a line of remarkable solutions for digital imaging. SAGLO A Series represents a cost-effective solution equipped with the latest technology sensors with more vivid colors and great contrast for stunning images.

This series features Aptina CMOS sensor with excellent color reproduction, significantly high frame rates and several resolutions available to match any customer need.

Thanks to the convenience and simplicity, being extremely intuitive to install and operate, the SAGLO A Series is recommended for educational and routinary microscopes, also as eyepiece cameras (no need for additional adapters/rings in case of monocular and binocular microscopes).

All the main operating systems like Windows, IOS, Linux are supported. Software included: SAGLO Soft Micro-imaging Software.

USB CAMERAS – A Series - Specifications

	C-A1	C-A3
Digital camera resolution	1.3 MP (1280 x 1024)	3.1 MP (2048 x 1536)
Signal output	USB 2.0	USB 2.0
Sensor Size	1/3″	1/2″
Sensor technology	CMOS	CMOS
Sensor type	Aptina CMOS	Aptina CMOS
Image format	5/4	4/3
Pixel size	3.6 x 3.6 µm	3.2 x 3.2 µm
Frame rate full resolution	15 fps (1280 x 1024)	12 fps (2048 x 1536)
Frame rate other resolutions	50 fps (320 x 256)	45 fps (680 x 510)
Sensitivity	1 V/lux-second	1 V/lux-second
Signal / noise ratio	44 dB	43 dB
Dynamic range	71 dB	61 dB
ADC conversion	8 Bit	8 Bit
Color Depth	1 Bit; 4 Bit; 8 Bit; 24 Bit	1 Bit ; 4 Bit; 8 Bit; 24 Bit
Exposure Time	0.14 msec - 2 sec	0.244 msec - 2 sec
Binning	1x1; 2x2; 4x4	1x1; 2x2; 3x3
IR filter	380-650 nm (IR-cut filter)	380-650 nm (IR-cut filter)
Camera power	PC USB	PC USB
C-mount	YES	YES

Accessories included: 0.37x (for 23 mm eyepiece tube), 30 mm & 30.5 mm diameter (except 4083.F33), calibration slide, 1.8 m USB cable

SAGLO
Research Equipments

D I G I T A L   M I C R O S C O P E S
I N D I A

SAGLO SOFT SOFTWARE
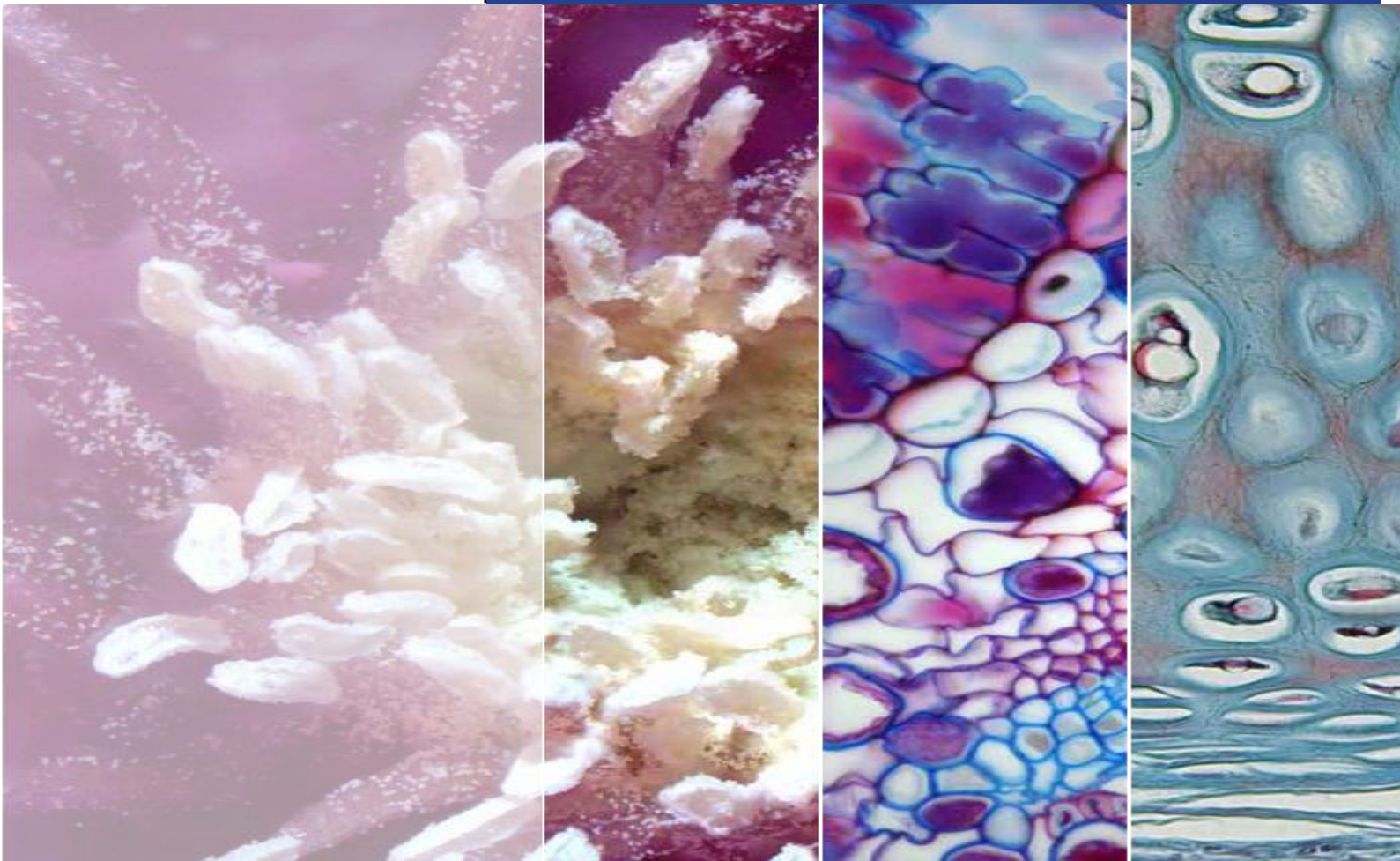
SAGLO SOFTWARE SUITES

SAGLO SOFTWARE – Function chart

> **Software**
> • Before proceeding with the installation, please check the table below "Software Function list" to identify the most suitable software.

Software Function List

FUNCTION		SAGLO SOFT VIEW
GENERAL	Simultaneous management of several cameras	√
	GUI (Graphical User Interface)	√
	Report generator	√
	Archiving	√
	Language — Catalan	X
	Chinese (simpl.)	X
	Chinese (trad.)	X
	Korean	X
	English	√
	French	X
	German	X
	Indonesian	X
	Italian	X
	Japanese	X
	Polish	X
	Russian	X
	Spanish	X
	Swedish	X
	Thai	X
	Turkish	X

FUNCTION		SAGLO SOFT VIEW
MEASUREMENTS	Measurements on "live"	√
	Measurements on "captured"	√
	2D Measurements — Line	√
	Angle	√
	Parallel lines	√
	Rectangle	√
	Ellipse	√
	Circle	√
	Annulus	√
	Arc	√
	Curve	√
	Polygon	√
	Particle count	√
	Export to Excel	√

Software Function List

FUNCTION		SAGLO SOFT VIEW
Simultaneous management of several cameras		√
IMAGE acquisition		√
Image formats	tiff	√
	jpg	√
	bmp	√
	png	√
	pcx	√
	jp2	√
	dcm	√
IMAGE acquisition		√
VIDEO formats	avi	√
	wmv	√
	mp4	√
	asf	√
	3gp	√
	mov	√
	h264	√
	h265	√
Continuous automatic exposure		√
Manual Exposure		√
Mobile spot for exposure		√
Resizable spot for exposure		√
Colour acquisition		√
Grey-scale acquisition		√
Manual Time-Lapse		√
Automatic Time-Lapse		√
Fast Image Acquisition		√
Focus Indicator		√
White Balance		√
Black balance		√
Background correction		√
Dark Field Correction		√
Image Enhancement		√
Live Histogram		√
Flip	Horizontal	√
	Vertical	√
Rotate		√

(vertical label: IMAGE ACqUISITION)

FUNCTION	SAGLO SOFT VIEW
Several function of image processing (filters)	√
Multiple image combining	√
EDF (Extended Depth of Focus)	√
Colour Combine (Multi-Fluorescence Imaging)	√
Shift Correction	√
HDR (High Dynamic Range)	√
Layer Management	√
Text Overlay	√
Ruler Overlay	√
Measurement Overlay	√
Grids	√

(vertical label: PrOceSSIng)

Cameras with HDMI connection only, do not require any software.

SAGLO Soft Micro Imaging - Professional Image Analysis

SAGLO Soft Micro Imaging has been designed and developed to be incredibly intuitive, simple and easy to use for customers needing a convenient solution to be combined with SAGLO cameras.

» Friendly interface, multilanguage
» Capture still images & stream live videos
» Perform linear measurements
» Export comprehensive reports
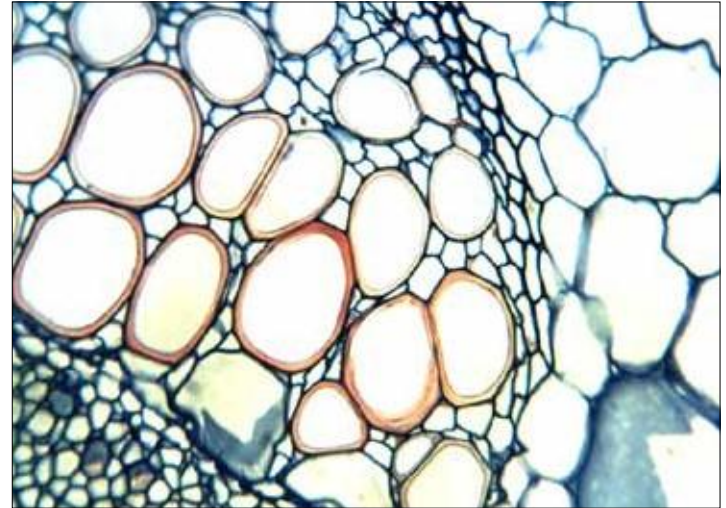
Friendly interface, multilanguage
Engineered for easy user interaction and optimized image acquisition, the main purpose of SAGLO Vision is ensure clear communication.

• An efficient means to efficiently completing your jobs
• Pleasant, easy-to-navigate menus
• Eight languages pre-installed, others upgreadable

Capture still images & stream live videos
Use the live preview to accurately focus your image and change parameters to obtain the perfect final result you are looking for. Images can be saved in different formats and even as test reports, including personal comments.

Additional features:
• Image stack acquisition
• Grid addition for rapid considerations
• Image flipping option available
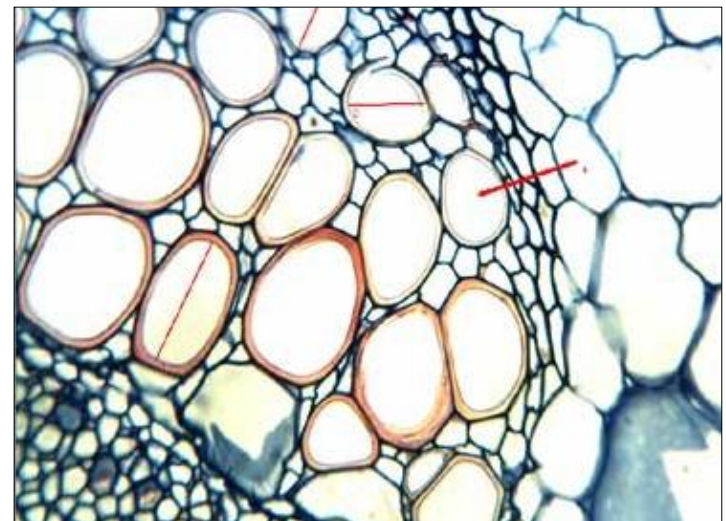
Perform linear measurements
Perform linear measurements in an extremely way just by drawing a line after creating your preferred calibration based on the magnification.

• Accurate measurements through simple calibration
• Comprehensive data export (notes & measures included)
• Indicate particular objects in the image to add persona comments

Export comprehensive reports
Detailed test reports can be generated, printed and saved. Reports can be also customized with company logos.

SAGLO Soft Micro Imaging is a basic image acquisition software. The user who simply wants acquire a still image or a video, with no no need to perform measurements, has, with this powerful and intuitive software, the perfect solution.

- Simple management of «live» image
- Acquisition of still images or video
- Basic imaging functions
- Background correction

Simple management of «live» image

Image preview is freely customizable by the user. A simple White Balance function with a mobile spot allows to perform the balance even on very small areas, once the specimen has been framed and focused.

Basic functions:
- Automatic or manual acquisition
- Possibility to have «live» and «capture» at different resolutions
- White Balance with mobile spot
- Background correction for the acquisition of perfectly illuminated images.

Capturing still images or video

Just select the option and the software performs: acquiring still images or videos is simply and intuitive.

Basic imaging functions

Image parameters can be modified according user's needs. Color, Contrast and Gamma can be chaned in real time.
More, it is possible to use a color camera in «SGrey Scales» modo in order to increase the camera sensitivity.

Background Correction

Any inhomogeneity of illumination of the microscope can be corrected by using the background correction function.
This allows to obtain a faithful reproduction of the image without annoying inhomogeneity due to a not perfect illumination.
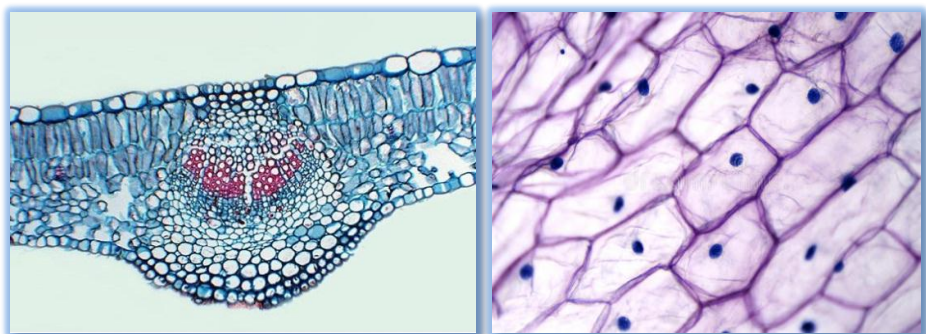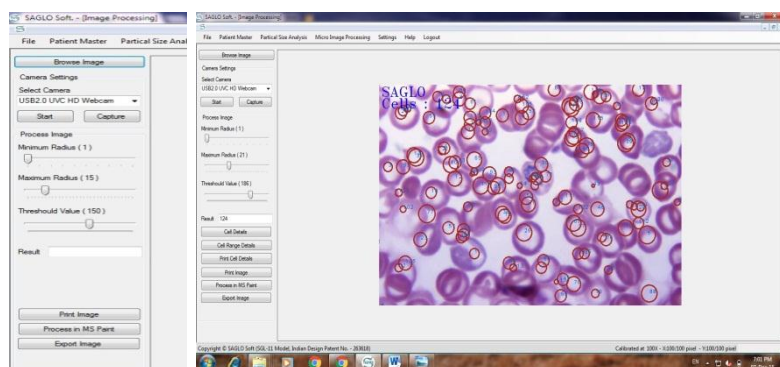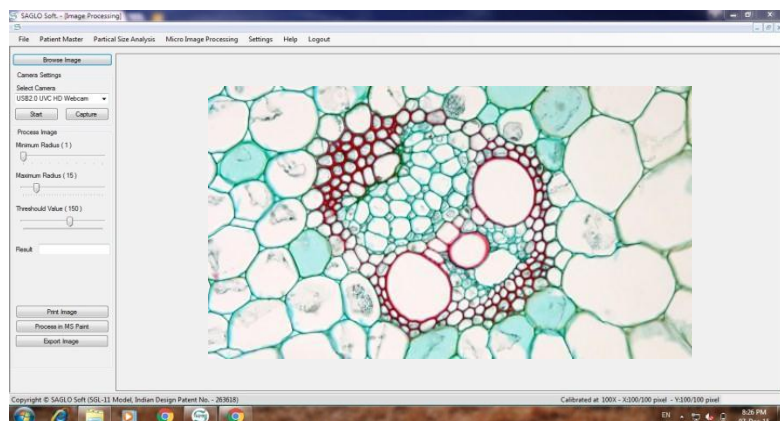
Extended Depth of Focus (EDF)

Single Focal Plane Images   EDF Image

Stitching & Tiling

Get an image with high resolution but, at the same time, have a wide view of the specimen under observation.

Impossible? No. The multiple image alignment function allows to get a singe image starting from adjacent images of the specimen.

Separate Images   Stitched image

Measurements

User can perform measurements on the «live» image (no need to capture an image) and on captured images.
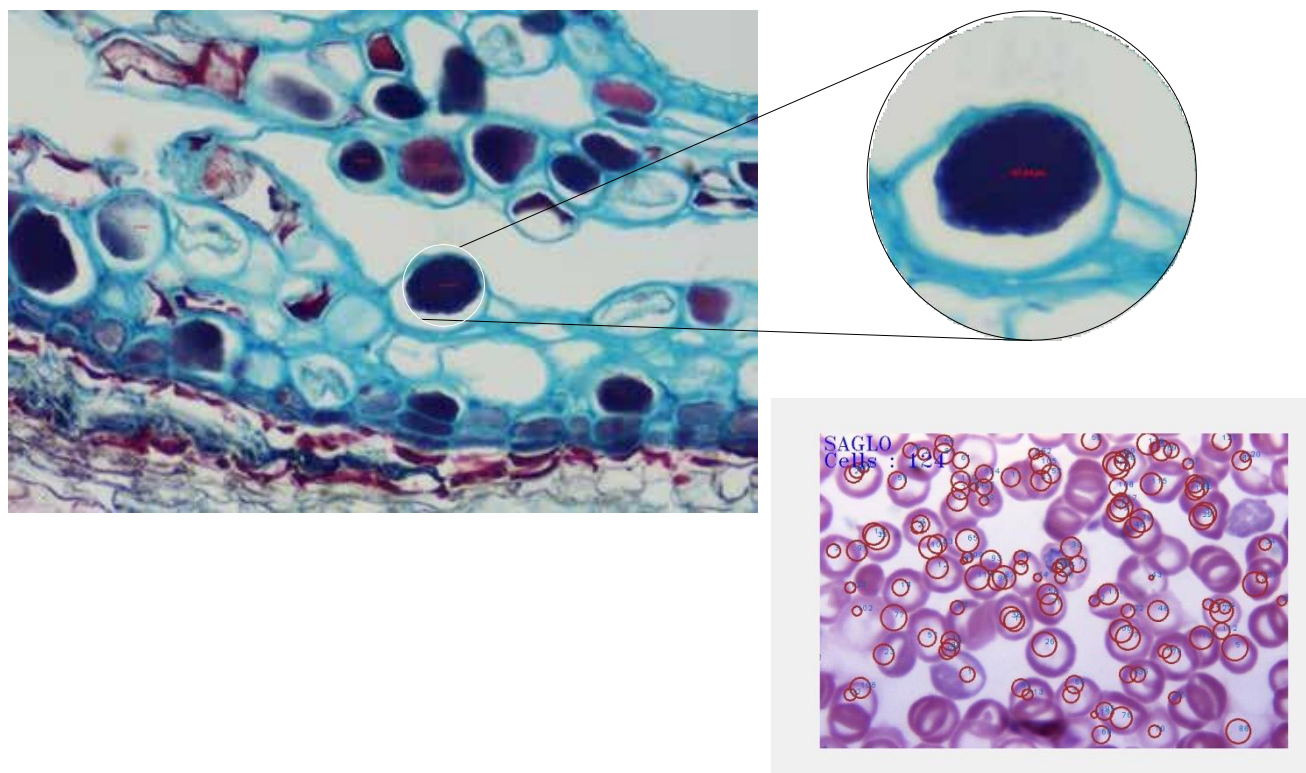
Report generator
At the end of the analysis it is possible to export images and measurement results either on a Excel sheet and on a Report Generator in MS Word format.
The template is freely configurable and can be modified according to laboratory standards.

From Beginners To Experts
Measurements available:
• linear measurements
• angles
• circles
• annuli
• poligons
• touch count

1/15/2021 9:43:45 PM

Cell details

Cell No	Area (µm²)	Radius (µm)
1	644.026533515828	14.3178215026855
2	282.743317257569	9.48683261871338
3	229.336249824965	8.5440034866333
4	920.486652286386	17.1172428131104
5	644.026533515828	14.3178215026855
6	267.035372856417	9.21954441070557
7	731.991089935965	15.2643375396729
8	383.274272369014	11.0453605651855
9	364.424738419067	10.7703294754028
10	766.548632904446	15.6204996109009
11	267.035372856417	9.21954441070557

Cell Count/ Size

Size (µm)	Cell Count (No.)
0 - 10	4
10 - 20	7
20 - 30	0
30 - 40	0
40 - 50	0
50 - 60	0
60 - 70	0
70 - 80	0
80 - 90	0
90 - 100	0
100 - 110	0

Prepared By

Analysed By

Our Company Recognized By

Ministry of Micro, Small and Medium Enterprises, Government of India

MAKE IN INDIA

GOVERNMENT OF INDIA THE PATENT OFFICE PATENT CERTIFICATE (Rule 74 Of The Patents Rules)

Address: Factory & Office- Plot No. 41, Serve No. 104, MIDC Shah Lulla Mahanagar Trituya 3rd, Savali, Miraj, Sangli, Maharashtra 416410.

SAGLO Microscopes is committed to pursuing the full realization and continuous evolution of the Quality Management System in order to consolidate and improve the Company image, also through the commitment and professionalism of all Company staff.

v 1.0.0 - SAGLO reserves the right to make corrections, modifications, enhancements, improvements and other changes to its products at any time without notice.