Inverted trinocular LED fluorescence microscope, IOS U-PLAN F objectives, 6MP camera with 15.6" 4K monitor

Observation Method - Transmitted Light	Brightfield	Yes
	Phase contrast (Positive type)	As optional
Observation Method - Incident Light	Fluorescence	Yes
Main Body	Type	Inverted
	Construction material	Aluminum die-cast
Head	Type	Trinocular (Siedentopf)
	Split ratio	100/0 - 0/100
	Inclination	45°
	Interpupillary distance (mm)	50-75
	Diopter adjustment	On left tube
	Tube inner diameter (mm)	30
Eyepieces	Field number (mm)	22
	Magnification	10x
	Planar type	Yes
	Micrometric scale	As optional
	Diameter of micrometer glass (mm)	26
	High eyepoint (for glass wearers)	Yes
	Rubber cup	Yes
	Retractable protections	Yes
Nosepiece	Positions	Quintuple
	Reversed	Yes
	Bi-directional	Yes
	Rotation on ball bearings	Yes
	Objective thread	RMS
Objectives	Optical system	∞
	Anti-fungus treatment	Yes
	Parfocal distance (mm)	45
	Standard magnifications	100x-400x
	Type	IOS LWD U-PLAN F
		IOS LWD U-PLAN F 10x/0.30, W.D. 7.11 mm

		IOS LWD U-PLAN F 20x/0.45, W.D. 5.91 mm
		IOS LWD U-PLAN F 40x/0.65, W.D. 1.61 mm

Stage	Type	Fixed + Attachable mechanical stage
	Dimensions (mm)	250x160 (fixed stage) 250x290 (with mechanical stage mounted)
	Moving mechanism	Rack and pinion
	Moving range (mm)	120x80
	Material	Anti-scratch painting
	Glass round insert	Yes
	Metal round insert	Yes
	Holder for Petri dish (mm)	54 (Included), 38, 65 (As optional)
	Holder for Terasaki plate	96 well
	Holder for 1 slide	Yes
	Holder for 2 slides	As optional
	Holder for Utermöhl chamber	As optional

Condenser - Single Position	Type	Abbe
	Removable	Yes
	Numerical aperture (N.A.)	0.30
	Diaphragm	Iris
	Slider for phase contrast	BF, 4x/10x, 20x/40x positions
	Slider for color filters	Yes
	Long working distance	Yes
	Working distance (for LWD) (mm)	72
	Extendable working distance (for LWD) (mm)	up to 150

Focusing System	Type	Coaxial coarse & fine
	Focus modes	Coarse & fine
	Fine graduations	100
	Fine total travel (per single rotation) (mm)	0.2
	Fine resolution (µm)	2
	Adjustable tension	Yes

Transmitted Illumination	Type	X-LED
	X-LED type	X-LED8
	Light source power (W)	8
	Brightness control	Manual
	Lifetime (hours)	> 65,000
	Temperature (K)	6,300
	Max. required power (W)	13

Power Supply for Transmitted Illumination	Type	External
	Microscope connector	Jack, 2.1 mm
	Power plug type	Multi-plug (EU, UK, US)
	Input voltage	100/240 Vac, 50/60 Hz
	Output voltage	12 Vdc 7 A

Accessories Included	Dust cover	Yes
	Allen wrench	Yes
	LBD filter	Yes
	User Manual	Digital version (downloadable)

Additional Information		Metallic interchangeable inserts for slides, Petri dishes, Terasaki, multi-Well plates (as optional).

Product Dimensions	Height (mm)	495
	Width (mm)	365
	Depth (mm)	540

Product Weight	(kg)	12

Fluorescence Attachment	Filter dimensions	Excitation: 25 mm diam.; Dichroic: 36 mm x 25 mm; Emission: 25 mm diam.
	Number of LED Cubes	Up to 4
	BLUE LED Cube (Optional)	LED Emission: 460 nm. Excitation: 455 - 495 nm; Dichroic: 500 nm; Emission: 510LP nm
	BLUE BANDPASS LED Cube (Optional)	LED Emission: 460 nm. Excitation: 455 - 495 nm; Dichroic: 500 nm; Emission: 518-542 nm
	GREEN LED Cube (Optional)	LED Emission: 523 nm. Excitation: 510 - 550 nm; Dichroic: 570 nm; Emission: 575LP nm
	GREEN BANDPASS LED Cube (Optional)	LED Emission: 523 nm. Excitation: 510 - 550 nm; Dichroic: 570 nm; Emission: 585-625 nm
	UV LED Cube (Optional)	LED Emission: 365 nm. Excitation: 325 - 375 nm; Dichroic: 415 nm; Emission: 435LP nm
	UV BANDPASS LED Cube (Optional)	LED Emission: 365 nm. Excitation: 340 - 390 nm; Dichroic: 405 nm; Emission: 420-470 nm
	V LED Cube (Optional)	LED Emission: 405 nm. Excitation: 390 - 420 nm; Dichroic: 440 nm; Emission: 450LP nm
	RED1 LED Cube (Optional) **	LED Emission: 623 nm. Excitation: 590 - 650 nm; Dichroic: 660 nm; Emission: 665LP nm
	RED2 LED Cube (Optional) **	LED Emission: 623 nm. Excitation: 595 - 645 nm; Dichroic: 655 nm; Emission: 665-715 nm
	DEEP RED LED Cube (Optional) **	LED Emission: 660 nm. Excitation: 623 - 678 nm; Dichroic: 685 nm; Emission: 690-750 nm
	FAR RED LED Cube (Optional) **	LED Emission: 740 nm. Excitation: 720 - 760 nm; Dichroic: 770 nm; Emission: 780LP nm

	AMBER LED Cube (Optional) **	LED Emission: 590 nm. Excitation: 582 - 603 nm; Dichroic: 610 nm; Emission: 615-645 nm
	Filter set selection	Manual
	LED source insertion	Manual

**** If the use of a camera is needed, please order it by specifying with "AR GLASS" in order to observe above 650nm**

Fluorescence Light Source		LED Fluorescence Cube
	Light source power (W)	3.5
	LED wavelength	*see LED Fluorescence Cube specs*
	Lifetime (hours)	> 65,000
	Brightness control	Yes

Camera General specifications	USB output	Yes
	C-Mount	Yes
	Dimensions (mm)	68 x 68 x 46
	Weight (kg)	0.265

Sensor	Camera resolution (n° of pixels: W x H)	3072x2048
	Color / Monochrome	Color
	Sensor Size	1/1.8"
	Sensor Technology	CMOS
	Sensor Type	SONY EXMOR
	Image Format	3/2
	Pixel Size (mm)	2.4x2.4
	Acquisition technology	Rolling shutter
	Signal/Noise Ratio (DB)	41.74
	Dynamic range (DB)	66.8
	G sensitivity	425mV at 1/30s
	Dark Signal	0.15mV at 1/30s
	ADC conversion	8 Bit - 12Bit
	Color Depth	1, 4, 8, 24 Bit
	Exposure time	0.1 msec - 15 sec
	Binning	1x1; 2x2
	IR filter	Yes
	IR filter range (nm)	380-1050 (AR GLASS)

USB	Camera resolution (MP)	6.3
	USB standard	USB3.0
	Frame rate full resolution (fps)	30@3072x2048
	Frame rate other resolution (fps)	38@1536x1024

Camera Power Supply	Connector	USB
	Output voltage	PC USB

Camera accessories	Calibration slide	Yes
	USB cable (1.8m)	Yes

Environment	Working Temperature	-10°C up to +50°C
	Storage Temperature	-20°C up to +60°C
	Relative Humidity	30% to 80%
	Storage Humidity	10% to 60%

Available Software	PC SW	PROVIEW

HDMI Monitor	Touch Screen	Yes
	Display size	15.6"
	Display resolution	3840x2160
	Contrast ratio	1000:1
	Luminous flux (lumen)	350
	Power plug type	European
	Input voltage	110/240 Vac, 50/60 Hz
	Output voltage	5 Vdc 4 A
	Dimensions (mm)	356 x 225 x 12
	Weight (Kg)	0.8

PC	Operating system	Windows 11
	CPU	IntelCore or AMD Ryzen
	Graphic card	Embedded, max resolution 4K
	RAM	Min 8GB
	Power plug type	Schuko
	Storage	SSD min 256GB
	Ports	USB3.0, USB2.0, USB-C, Ethernet