GEN-BOX

Bio-Imaging and Documentation Systems



- DNA Gels
- RNA Gels
- Protein Gels
- Chemiluminescent Blots
- Colony Plates
- TLC Plates

- 1D Gels
- 2D Gels
- Multiplex Imaging







New Generation Bio-Imaging and Documentation Systems

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To meet with a wide range of UV and molecular imaging applications, we offer you a high-precision scientific CCD cameras with our systems. These cameras supports not only kinetic fluorescence measurement methods but also quantitative experiments. Our Cx/CFx series has high quality scientific cameras, can expose up to 24 hours, has a powerfull peltier system for sensor cooling (capacity up to – 60 °C) which reduces electronic background noise, then target radiation is easily collected with the cameras with a high Quantum efficiency. It provides higher performance and high precision results in your applications



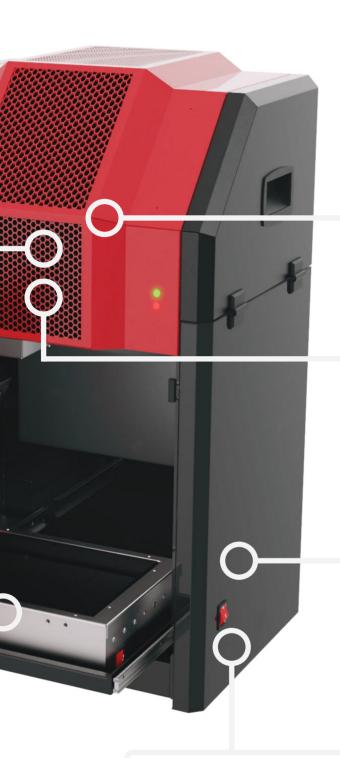
Fast and easy visualization is provided with a few touches with the 'Image Capture' program, our software is compatible with the touch screen monitors/screens. Our software can be used English and optional languages, to optimize the fast, integrated, manual or automatic image capture performance. Only select your dye name then get your image automatically. imagER Eyes[™]



Trans-UV, Trans-Dual-UV, Epi UV and Epi-Dual-UV options are available for Qdots and Stain Free imaging, you can use "Classic Dyes" and "Safe Dyes" with the same transilluminator with different converters, Trans Blue and Epi-Blue options are avaliable. System has a Smart Dark Room (SDR) microprocessor controlled technology, when you open the door then magnetic door security system automatically close the UV light to protect the user, then open the Epi-WL Automatically make the sample loading easier. UV protec tion system can be temporarily disabled for gel cutting or similar applications if it needs.









All our scientific cameras are optimized for both manual and motorized zoom lenses to be able to get your ideal image. Three main control parameters (Zoom, Iris and Focus) can be adjusted easily. We offer you classical manual lenses, software controlled fully motorized zoom lenses and high sensitive fixed focus lenses. You can upgrade your Non-cooled CCD cameras and manual zoom lenses (Fx Series) to Peltier-cooled Scientific CCD cameras and software controlled motorized zoom lenses (Cx or CFx Series) without buying a new instrument.



Motorized zoom lens series has a filter wheel with the capacity of 7 filters (optional 10), filters can replaced by the end user easily. We have both manual and motorized filter wheel options.



Epi-WL (white light on both sides) is a standard in all our dark rooms, this lighting system is used for sample positioning, viewing of visible markes. Standart UV Transilluminator has 6x8Watt 302nm (254nm, 312nm and 365nm are avaliable) for basic DNA imaging dyes. While the standart UV filter size is 20x20cm, 'mini models' has 20x24cm and 21x26cm options as well, all other models has 21x26cm and 25x30cm options. Agarose gels, western blotting membranes, colony petri dishes and similar samples can be used for imaging and documentation. Optional Blue-LED Transilluminators (470nm) can be used for safe dues, alternatively Blue-Light-Converter can be placed and used on the UV Transilluminators. Besides Trans-UV, Trans-Dual-UV, Epi-UV, Epi-Dual-UV; Epi-LED (RGB), Epi-IR, Epi-NIR and Epi-FIR lightining modules are avaliable for high end imaging studies







Password Protected User Security



Auto Capture and Auto Hardware Control



Image Editing Options

Analysis Software (Optional)

- DNA/RNA molecular weight calculations, counting objects in the colonies, Western Blot and Dot Blot analysis, 2D Gel Analysis
- Area density calculation, gel scoring, band matching, qualitative or quantitative PCR
- Dendrogram (similarity maps) and Matc hing matrix (similarity matrix) drawing

Image Capture Software

- · Real Time Display
- Auto or Manual Capture
- Select Your Dye, Get Your Image
- Manual or Automatic Exposure Time (milliseconds, seconds, minutes, hours for blots)
- Grid and Saturation Functions
- · Gain, Contrast and Gama Adjustment



- Band position, distance, area, volume, peak width, calibration standards and quality monitoring, export tools of data tables to office programs.
- Create a new record, edit or adjustment of the old data, automatic or user-defined lane (lane) and the band (band) detection, optical density and fluorescence graphics

- Working with the Basic Image Formats (BMP, JPG, PNG, GIF, TIFF)
- Password Protected User Identification
- Save Options For Papers (150dpi / 300dpi / 600dpi)
- Image Processing Filters (AVG, GAU, MED, MAX, MIN, LOG, NEG)
- Pseudo Color Image Processing Brightness and Contrast Adjustment
- 3D Image Display

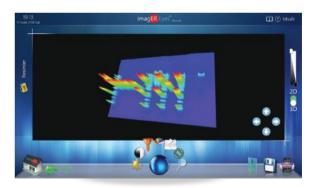


Image Filtering Options





Pseudo/False Color and RGB Transformation



3D Image View

- Automatic or manual calibration by using library to calculate the molecular weights, quantity calibration curves
- Modules for Gel, Blot and Colony Counting
- Multiplex analysis, automatic or user-defined work with DNA and RNA markers

- Molecular weight calculation; Rf, quantity determination and assessment of 'bp'
- GLP reporting (Saving all parameters, process, reporting, photos and tables together)
- Export to MS Office files, Reporting & Printing Options
- Capture Software Operation System: Windows 10 (64Bit)



COMPATIBLE DYES FOR GEN-BOX SYSTEMS

				in	nag <mark>ER</mark> _{Fx/CFx}						
Gel Imaging Blot Imaging					Jel/Blot/IR Imaging						
	(UV, WL or Blue)		Chemiluminescence	Flourescence							
U1	Bodipy FL	C1	ECL	F1	AlexaFluor 647	F22	mNeon (green)	F43	Dylight 549		
U2	Oregon Green	C2	ECL Plus	F2	AlexaFluor 680	F23	RFP	F44	Dylight 649		
U3	Pacific Green	C3	CDP-Star	F3	AlexaFluor 700	F24	DyLight 350	F45	SYPRO Orange		
U4	Pacific Orange	C4	ChemiFast	F4	AlexaFluor 532	F25	Dylight 405	F46	SYPRO Red		
U5	SYPRO Orange	C5	Clarity Western ECL	F5	AlexaFluor 488	F26	Dylight 550	F47	SYPRO Ruby		
U6	SYPRO Ruby	C6	CSPD	F6	AlexaFluor 555	F27	Dylight 594	F48	Methoxycoumarin		
U7	AMCyan	C7	ECL RevelBlot Intense	F7	AlexaFluor 594	F28	Dylight 680	F49	Brilliant Violet 421		
U8	Chromeo 488	C8	ECL RevelBlot Plus	F8	AlexaFluor 647	F29	Dylight 755	F50	HiLyte Fluor 405		
U9	Chromeo 505	C9	EZ-ECL	F9	AlexaFluor 546	F30	Dylight 800	F51	Aminocoumarin		
U10	Alexa Fluor 430	C10	Immobion Chemi	F10	AlexaFluor 350	F31	Dylight 633	F52	AMCyan		
U11	DAPI	C11	LumiGlo	F11	AlexaFluor 405	F32	Dylight 650	F53	Chromeo 488		
U12	SYTOX Green	C12	Super Signal	F12	AlexaFluor 568	F33	Dylight 488	F54	Chromeo 505		
U13	Ethidium Bromide	C13	West Dura	F13	AlexaFluor 750	F34	Bodipy FL	F55	TruRed		
U14	Hoechst 33258	C14	West Femto	F14	Krypton	F35	Coumarin	F56	HiLyte Fluor 680		
U15	Hoechst 33342	C15	WestPico	F15	CY2	F36	Cy 5	F57	APC-Cy7		
U16	SYTOX-Blue	C16	Western Breeze	F16	CY3	F37	FITC	F58	Cy7		
			Western Breeze	F17	CY5.5	F38	Oregon Green	F59	HiLyte Fluor 750		
U17	Commasie Blue			F18	IR Dye800	F39	Pacific Blue	F60	AlexaFluor 790		
U18	Propidium iodide (PI)			F19	IR Dye 680	F40	Pacific Green	F61	IRDye800CW		
U19 U20	Acridine Orange SYBR Gold			F20	Tetramethylrhodamine (TRITC)	F41	Pacific Orange	F62	PE-Cy7		
U21	SYBR Green			F21	mGFP5	F42	Texas Red				
U22	SYBR Safe						DNA Dyes				
U23	SYTO 11			F63	DAPI	F69	Hoechst 33342	F75	Propidium iodide (PI)		
U24	SYTO 13			F64	SYTO 9	F70	SYTOX-Blue	F76	DRAQ5		
U25	SYTO 21			F65	SYTOX Green	F71	YOYO-1	F77	DRAQ7		
U26	FITCH	i (F66	TO-PRO-3	F72	TOTO-1, TO-PRO-1	F78	Acridine Orange		
U27	Silver Stain	i \		F67	Ethidium Bromide	F73	SYTOX Orange	F79	Thiazole Orange		
U28	Copper Stain			F68	Hoechst 33258	F74	CyTRAK Orange				
U29	Midori Green						Safe Dyes				
U30	GelRed		MAC	F98	SYBR Gold	F102	SYTO 12	F106	Midori Green		
U31	GelGreen			F99	SYBR Green	F103	SYTO 13	F107	GelRed		
U32	R-Phycoerythrin		1 1 -	F100	SYBR Safe	F103	SYTO 16	F107	GelGreen		
U33	Pro-Q Diamond		*	F101	SYTO 11	F104	SYTO 21	F100	GetGreen		
U34	ProQ-Emerald 300	2.3	74 7-	FIUI	311011			0.0			
JJ7	. Tog Emerald 500		J. 16	Flourescence Labelled Proteins							
		F109 Allophycocyanin (APC)									
			Continued	F110	F110 R-Phycoerythrin Qdot Probes						
				E 111	Pro-Q Diamond	E11./		C117	Odet 705		
				F111		F114	Qdot 655	F117	Qdot 900		
				F112	ProQ-Emerald 300	F115	Qdot 525	F118	Qdot 800		
		1,70		F113	Qdot 605	F116	Qdot 565				

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	imagER Fx Series				imagER CX Serie	?s	imagER CFX Series				
	ER-FX1-A5	ER-FX1-A5M	ER-FX1-A5MX	ER-CX1-A4	ER-CX1-A6	ER-CX1-A9	ER-CFX1-A4MX	ER-CFX1-A6X	ER-CFX1-A9X		
Optical Resolution (*)	lution(*) 5 MP		2,8 MP	6,0 MP 9,2 MP		2,8 MP	6,0 MP	9,2 MP			
Pixel Resolution	el Resolution 2592x1944 pixels			1931x1451	2750x2200 3388x2712		1931x1451	2750x2200	3388x2712		
Image Resolution	nage Resolution > 20 MP			> 17 MP	> 24 MP	> 36 MP	>17 MP	> 24 MP	> 36 MP		
Pixel Size	2,2 x 2,2 μm				4,54x4,54 μm	3,69x3,69 µm	4,54x4,54 μm	4,54x4,54 µm	3,69x3,69 µm		
Sensor size		1/2,5 inch		2/3 inch	1/1 inch	1/1 inch	2/3 inch	1/1 inch	1/1 inch		
Quantum Efficiency		>%62		> %77-82	>%77-82	> %77-82	> %77-82	> %77-82	> %77-82		
Grey Scale		65536		65536	65536	65536	65536	65536	65536		
Analog/Dijital		8/16 Bit		16 Bit	16 bit	16 bit	16 Bit	16 bit	16 bit		
Color Depth	epth 24/32 Bit 24/32 Bit 24/32 B		24/32 Bit	24/32 Bit	24/32 Bit	24/32 Bit	24/32 Bit				
Exposure Time	(0,05 - 30 second	S	Up to 24h	Up to 24h	Up to 24h	Up to 24h	Up to 24h	Up to 24h		
	8-48mm, 8-48mm,		8-48mm,	25mm, 35mm			12,5-75mm F1.2	25mm, 35mm			
Zoom Lens	F1.2 F1.2 12,5-75mm, 6-60mm, F1.2 F1.2	F1.2 6-60mm, F1.2	F0.80, F0.85, F1.40			F0.80, F0.85, F1.40					
Lens Control	Manuel	Motorized	Motorized		Manuel		Motorized	Manuel	Manuel		
Filter Wheel Control	Manuel	Manuel	Motorized		No			Motorized	Motorized		
				YES (Peltier)							
Camera Sensor Cooling	ensor No				Single Stage : -30°C						
				Double Stage : -60°C							
Main Specifications			light but also ma	DR), Magnetic door that closes the UV light (if any) and turns on the white lights when turned on (not only lake the sample loading easier), visual warning lights, software controlled motorized zoom lenses and little wheel (optional), camera connections, powercable, user manual							
Filter Wheel Capacity (*)	1 Position	1 Position	7 Position	1 Position	1 Position	1 Position	7 Position	7 Position	7 Position		
UV Transilluminator		Yes			No		Yes	Opti	onal		
UV Filter (Max Sample Size)	20x20	cm, 21x26 cm, 25	5x30 cm	No			20x20 c	cm, 21x26 cm, 25x30 cm			
Emission Filter for UV	Standart	Standart	Standart		Optional		Standard	Optional			
Wavelength Options	254nm, 3	02nm (Std), 312n	m, 365nm	Epi-UV (Optional) 254nm, 302nm (Std), 312nm, 365nm					n, 365nm		
Options		i-White, Trans-Du hite, Epi-UV, Epi- Free etc.		Trans-UV, Epi-White, Chemiluminescence (No Light), Trans-Dual-UV, Trans-Blue, Trans-White, Epi-Uv, Epi-Dual-UV, Epi-Red, Epi-Green, Epi-Blue, Epi-IR, Epi-NIR, Epi-FIR, Stain-Free etc.							
Dimension and Weight		Mini Model : 500x 403x740mm (~ 32 kg) & Standart Model : 500x523x920mm (~ 42 kg)									
Operating Voltage	100-240V 50/60Hz (±%10)										
(*) We have different camera, filter wheel, emission filter and zoom lens options (Auto Focus, with Feed Back etc.)											



UV-BOX UV/LED Transilluminators



UV-BOX Transilluminators are mainly used for display and analysis of nucleic acid bands, gels are used for DNA, RNA and Protein electrophoresis.

UV (Ultraviolet) light sources and emission filters are used for working with emission dyes such as EtBr, SYBR Safe [™], SYBR Gold [™], SYBR Green I & II [™], SYPRO Ruby [™], SYPRO Orange [™], Coomassie Fluor [™] Orange, GelGreen [™], Lumitein [™], GelRed [™] etc. In addition, by using optional WL or Blue light converters you can work with; SYTO Dyes, YOYO-1, mGFP5, mNeon (green), FITC, Alexa [™] 488, Cy2, HiLyte Fluor 488 and similar universal dyes. Transilluminator has fixed or portable UV protective cover option.

UV-BOX Transilluminators are compatible with GEN-BOX imagER Fx/CFx bio imaging systems that automatically detect and operate the exitation sources & emission filters by checking the hardware table inside the software, dyes are listed on the screen as active or passive (no hardware avaliable) icons, that means if you know your dye name that you use, then you can easily get your images by using one-click image acquisition.

Catalog No	UV-6L1-2024	UV-6L1-2126	UV-10L-2126	UV-10L-2530			
Wavelength (*)	302nm	302nm	302nm	302nm			
Filter Size	20x20cm	21x26cm	21x26cm	25x30cm			
Light Sources (**)	6x8W	6x8W	10x8W	6x8W			
UV Filter Features	Long life, high efficiency, with reflector						
Electronic Ballast	Does not flicker or flash when it's turned on						
UV Protection Shield	Fixed / Portable						
Security	User replaceable fuse, grounding						
Voltage (***)	220V/240V (50Hz)						
Dimensions (w x d x y)	311x237	x80 mm	331x311x80 mm				
Weight(kg)	3,5kg 4kg						
Options							
Control Switch	Light intensity adjuster, Wavelength selector						
LED Module Option	470nm Blue LED module						
White Light	White light converter						
Blue Light	Blue light converter						

^{(*) 254, 312} and 365 nm UV lamp optionas are avaliable.

^(**) Dual (two different UV wavelength), Triple (three different UV wavelength), Gel cutting table,

UV filter protector, light intensity adjuster (dimer) etc.

^{(***) 110}V and 60 Hz options are avaliable.

GEL-BOX Electrophoreses





Electrophoresis are used for the applications of SSR, Rapd, ISSR, Microsatellite, AFLP etc.

Gel electrophoresis, is a molecular investigation method used to determine the molecular weight, amount and genotyping of purified nucleic acid and proteins. It is based on the principle that negative molecules dissolved in an electric field migrate to negative electrode according to their electrical charges. Particles that have small molecular weights moves faster and travel more than the particals that has bigger molecular weights. Electrophoresis is widely used in; purity control, molecular weight calculation, molecular weight detection, quantification, hereditary or non-hereditary disease detection, IVD applications, forensic medicine applications, immunological experiments, genetic and molecular studies.

Technical Specisification	GEL-MN-1010	GEL-MD-1515	GEL-MX-2020	GEL-MX2530	
Gel Size	10X7 cm 10x10 cm	15X7 cm 15x10 cm 15x15 cm	15X20 cm 20x20 cm	25x30 cm	
Sample Capacity (Max.)	80	120	160	624	
Standard Combs	2x16 wells	2x16 wells	4x16 wells	6x26 wells	
Comb Thickness	1mm 1,5mm 2 mm	1mm 1,5mm 2 mm	1mm 1,5mm 2 mm	1mm 1,5mm 2 mm	
Comb Slots (Casting Tray)	4 pcs	4 pcs	4 pcs	4 pcs	
Optional Combs (*)	1,2,4,8,10 (MC) 12,16,20 (MC)	1,2,4,8,10 (MC) 12,16,20 (MC) 28(MC) 30(MC)	1,2,4,10,16,20 (MC) 25, 30, 36, 40 (MC)	25(MC) 52(MC)	
Buffer Volume	300-450ml	500-950ml	1-2L	2-3L	
Running Voltage (**)	75V – 125V	100V - 125V	150-175V	150-200V	
Maximum Power Settings	300V 200mA 60W	300V 200mA 60W	1000V 500mA 500W	1000V 500mA 500W	
Indoor Use	Temperature between 4-40°C, max 95% humidity				
Includes	Buffer chamber (tank), Safety Lid, High Voltage Leads, Platinum Electrodes, Jel Casting Unit, Standard Combs				
Options	Color label, Cooling ports (x2), 96 or 384 wells (MC) combs that are suitable for PCR instruments, Silicone Accessories, Fluorescent ruler etc.				

^(*) Custom design options are avaliable.

^(**) Recommended settings/conditions to obtain a smooth, sharp, regularly aligned and high-quality gel bands.

