

MF-ChemiBIS

A new standard for you,
a new challenge for everyone else

The MF-ChemiBIS advantages

- **Breakthrough, robotic camera:** specifically designed for scientific use
- **Novel Deep Liquid Cooling System:** minimum dark noise
- **Illumination versatility:** 10 types of illumination sources
- **Unrivalled sensitivity:** super bright lens, eight binning options and micro lens technology
- **Fast and easy:** fully automated and motorized operation
- **Precise quantitation:** no data manipulation





The MF-ChemiBIS advantages

- **Breakthrough, robotic camera:** specifically designed for scientific use
- **Novel Deep Liquid Cooling System:** minimum dark noise
- **Illumination versatility:** 10 types of illumination sources
- **Unrivalled sensitivity:** super bright lens, eight binning options and micro lens technology
- **Fast and easy:** fully automated and motorized operation
- **Precise quantitation:** no data manipulation

The new generation of image analysis for a new standard of results

A leader in imaging innovations, DNR leads the way once again with a new generation of high-quality imaging systems that set the industry standard for quality, ease of use, and unrivalled performance. DNR's breakthrough MF-ChemiBIS family is simply the most advanced image analysis system in the market for 1D and 2D fluorescent, chemiluminescent, and colorimetric applications. A perfect blend of technology and performance, the MF-ChemiBIS lifts results—and discoveries—to new levels.

Innovation in technology

DNR is the first to develop a **vibration-free technology** based on a proprietary **Deep Liquid Cooling System** that cools the camera to a minimum temperature of -70°C. It outperforms all other systems currently on the market for better accuracy, longer exposure time (up to 24 hours), minimal dark noise, and complete stability.

Innovation in operation

DNR is the first to use an advanced **motorized robotic camera**, controlled by the software and moves up and down automatically. The camera outperforms the standard zoom lens and offers a wider field of view, easier and faster operation, and greater sensitivity, providing benefits that directly impact the results, especially in faint samples.

Innovation in design

DNR is the first to introduce a **Smart Dark Chamber**, designed to make processing more efficient and safer. The MF-ChemiBIS Smart Dark Chamber is fully automated (camera, iris, focus, filter wheel) and includes DNR's unique **Automatic Drawer Detection technology** that makes the optimal match between the light source and a specified application. For maximum safety, the chamber includes special sensors that turn off the UV light automatically when the door is opened, providing protection from harmful UV radiation.

Superior technology, innovative configuration



■ Camera

The MF-ChemiBIS family offers a range of models with different camera resolution options—1.6 Mpixel, 3.2 Mpixel, or 6 Mpixel—to suit all applications. The cameras have been specifically designed to meet scientific requirements. With 16-bit images, high-quality sensors, and micro lens technology, the cameras offer excellent results with high quantum efficiency and dynamic range.

The cameras' robotic mechanism allows placement very close to the sample, so the sensors detect more light, resulting in very high sensitivity and superior image quality under a wide range of conditions.

■ Optics

The MF-ChemiBIS family is equipped with a high-speed, super bright lens that collects maximum light from a sample, while maintaining crisp, clear images with minimal geometric and light distortion. The cameras' super bright lens is computer controlled to eliminate distortion.

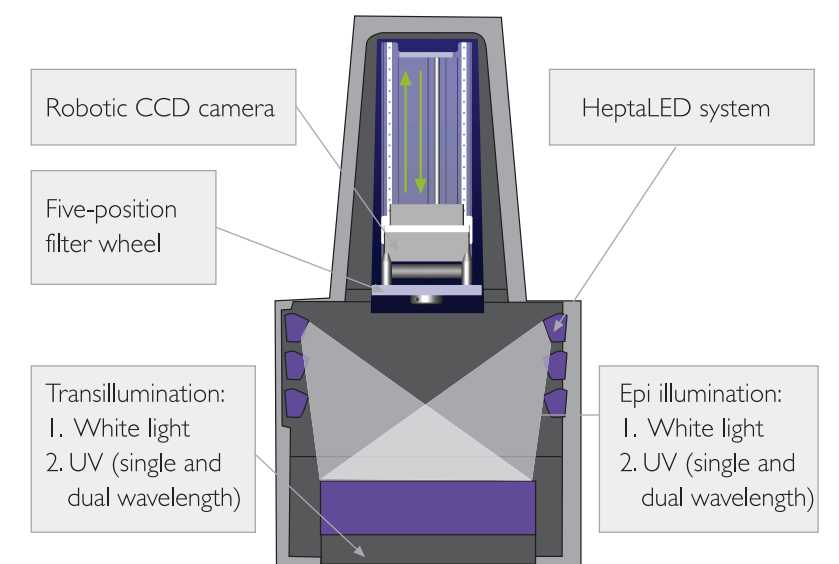
■ Illumination

The MF-ChemiBIS family has extensive lighting options allowing documentation of a wide range of samples. The 10 lighting source options include UV illumination, white light illumination, and the unique HeptaLED system for any fluorescent application. A motorized 5-position filter wheel allows convenient filter selection and easy exchange in just seconds. The filter wheel is hermetically sealed to prevent contamination from dust, dirt, or moisture.

■ Software

GelCapture is DNR's advanced image acquisition software that permits acquisition of the best image in the minimum amount of time. GelCapture is standard in all DNR gel documentation systems for complete, automatic control of configuring, capturing, and saving sample images for analysis.

The GelCapture package includes GelCapture Xpress, a rapid version for perfect results instantly.



MF-ChemiBIS Specifications

	MF-ChemiBIS 1.6	MF-ChemiBIS 3.2	MF-ChemiBIS 6
Cooling System			
■ Type	DNR's Deep Liquid Cooling System		
■ Cooling temperature	to a minimum temperature of -70°C		
Camera			
■ Type	CCD		
■ Resolution	1,536(H) x1,024(V); 1.6 Mpixel	2,184(H) x1,510(V); 3.2 Mpixel	3,072(H) x2,048(V); 6 Mpixel
■ Operation mode	Full frame		
■ Gradation	16 bit (65,536 gray levels)		
■ Dynamic range	4.6 orders of magnitude		
■ Exposure time	0.03 sec to 24 hours		
■ Binning	1 x 1, 2 x 2, 3 x 3, 4 x 4, 5 x 5, 6 x 6, 7 x 7, 8 x 8		
Lens			
■ Super bright lens	F/0.95	F/0.95	F/1.2
Illumination and Darkroom			
■ Dark chamber	DNR's Smart Dark Chamber		
■ Drawers	3 interchangeable drawers: UV, ECL, optional: WL		
■ Emission filters	5-position filter wheel with 3 standard filters (included) Low UV 520 nm High UV 580 nm Red 600 nm		
■ Illumination modes	Trans-UV, Trans-WL, Epi-WL, optional: Epi-UV		
■ Excitation sources	White light UV: 312 nm, optional: 254 nm or 365 nm (dual or single wavelength)		
■ HeptaLED system(optional)	470 nm, 500 nm, 525 nm, 568 nm, 588 nm, 621 nm		
Software			
■ Image capture	GelCapture, lifetime free upgrade		
■ Image analysis	TL-100 for 1D analysis (Nonlinear Dynamics) Optional: 1D analysis software: TL-120, TL-120 DM (Nonlinear Dynamics) Optional: 2D analysis software: Phoretix 2D, PG-200 (Nonlinear Dynamics)		
System Requirements			
■ PC	Pentium IV, 256 MB RAM, 2.4 GHz		
■ Operating system	Windows XP Pro		
■ Interface	USB 2.0		
■ Dimensions (W x D x H)	System: 43 cm x 47 cm x 87 cm Cooling device: 18.9 cm x 37.7 cm x 25 cm		
■ Power	100 – 230 V AC / 50-60 Hz		
Accessories			
■ Selectable thermal and dye sublimation printers			
■ Wide range of LEDs and filters			
■ Band cutting illuminator; designed specifically to cut bands			
Applications			
■ Fluorescence	Ethidium Bromide, SYPRO™ Orange, SYPRO™ Red, Cy™ 2, Cy™ 3, Pro-Q™ Diamond, Deep Purple™, Rhodamine Red, SYPRO™ Ruby, SYBR™ Green, GelStar™, SYBR™ Gold, Fluorescein, Texas Red™, GFP, and more.		
■ Colorimetric	Silver Stain, Coomassie Brilliant Blue, film, and more.		
■ Chemiluminescence	ECL™, ECL-Plus™, Lumi-Light™ PLUS, Super Signal™, CDP Star™, CSPD™, and more.		
■ Other	TLC plates, spot and slot blots, autoradiographs, microplates, macroarrays, membranes, and more.		